Appendix A
SWMU Status Table

Corrective/ Remedial Action Release Unit #	Corrective/Remedial Action Unit Description	RRS Closure	Closure Date	ICM/ Remedial Action Conducted	Institutional Control Required	LTM Groundwater Required?	Inspection/ Maintenance Required?	2013 Maintenance?	Maintenance Type
AOC 4	Asbestos Installation (Plant-wide)	Admin Closure	2003	N	N	N	N		
AOC 9	Site-Wide, Underground Storage Tanks	Admin Closure	2003	N	N	N	N		
SWMU 100	Waste Accumulation Area, (Bldg 12-42)	Admin Closure	2003	N	N	N	N		
SWMU 101	Waste Accumulation Area, Bldg 12-59	Admin Closure	2003	D&D	N	N	N		
SWMU 102	Bldg 12-68 Batch Master, Northeast Corner	Admin Closure	1997, 2003	N	N	N	N		
SWMU 104	Waste Accumulation Area, (Bldg 12-82)	Admin Closure	2003	N	N	N	N		
SWMU 105	Waste Accumulation Area, (Bldg 12-84)	Admin Closure	2003	N	N	N	N		
SWMU 107	Bldg 16-5, Flammable Liquid Storage	Admin Closure	2003	N	N	N	N		
SWMU 111	Bldg 11-36 Solvent Tanks	Admin Closure	2001	N	N	N	N		
SWMU 112	Bldg 11-36 Solvent Tanks	Admin Closure	2001	N	N	N	N		
SWMU 114	Bldg 11-36 Scrubber System	Admin Closure	2001	D&D	N	N	N		
SWMU 115	Bldg 11-36 Carbon Filter	Admin Closure	2001	D&D	N	N	N		
SWMU 116	Bldg 11-36 Sludge Filters	Admin Closure	2001	D&D	N	N	N		
SWMU 124	Bldg 11-50 Waste water Treatment System	Admin Closure	2001	N	N	N	N		
SWMU 125	Bldg 12-43 HE Contaminated Charcoal Boxes	Admin Closure	2001	N	N	N	N		
SWMU 126	Miscellaneous HE Contaminated Waste Dumpsters	Admin Closure	2001	N	N	N	N		

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SWMU 127	Miscellaneous Non-hazardous Waste Dumpsters	Admin Closure	2001	N	N	N	N		
SWMU 128	Portable HE Waste water Tanks	Admin Closure	2001	N	N	N	N		
SWMU 129a	HE Contaminated Sludge Containers, Bldg 11-44	Admin Closure	2001	N	N	N	N		
SWMU 129b	HE Contaminated Sludge Containers Bldg 12-43	Admin Closure	2001	N	N	N	N		
SWMU 131	Portable Waste Oil Storage Tanks (Bldg 12-35)	Admin Closure	2001	N	N	N	N		
SWMU 132	Vacuum Guzzlers	Admin Closure	2001	N	N	N	N		
SWMU 134	Bldg 11-29 Silver Recovery	Admin Closure	2001	N	N	N	N		
SWMU 137	Bldg 12-41, Paint Shop Waste water Tank	Admin Closure	2003	N	N	N	N		
SWMU 138	Zone 12 Paint Shop Sandblaster Collection Cone	Admin Closure	2001	N	N	N	N		
SWMU 141	Classified Waste Incinerator	Admin Closure	2001	N	N	N	N		
SWMU 142	Miscellaneous Hood and Filter Systems, 24 Bldgs	Admin Closure	2001	N	N	N	N		
SWMU 59	Landfill East of Pad 11-13 (Duplicate of SVS 5)	Admin Closure	2003	N	N	N	N		
SWMU 62	Landfill 11	Admin Closure	2004	N	N	N	N		
SWMU 65	Landfill 14 (Duplicate of SVS 6)	Admin Closure	2003	N	N	N	N		
SWMU 76	Firing Site 18	Admin Closure	2001	N	N	N	N		

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SWMU 77	Firing Site 23, Filter/Exhaust System	Admin Closure	9/19/2001	N	N	N	N		
SWMU 83	Bldg 4-8, Container Storage Bldg, Asbestos Staging Area	Admin Closure	2001	N	N	N	N		
SWMU 85	MOCA Waste Accumulation Area, Bldg 12-16	Admin Closure	2001	N	N	N	N		
SWMU 88	11-41 Compressor Bldg Waste Accumulation	Admin Closure	2003	N	N	N	N		
SWMU 89	Waste Accumulation Area, Bldg 12-2 North Hall	Admin Closure	2003	N	N	N	N		
SWMU 90	Waste Accumulation Area, Bldg 12-9	Admin Closure	2003	N	N	N	N		
SWMU 91	Waste Accumulation Area, Bldg 12-9 Solvent Storage Shed	Admin Closure	2003	N	N	N	N		
SWMU 92	Waste Accumulation Area, Bldg 12-9 (outside)	Admin Closure	2003	N	N	N	N		
SWMU 93	Waste Accumulation Area, Bldg 12-111 Paint Shop	Admin Closure	2003	N	N	N	N		
SWMU 94	Waste Accumulation Area, Bldg 12-R-13 (outside)	Admin Closure	2003	N	N	N	N		
SWMU 95	Waste Accumulation Area, Bldg 12-18 (outside)	Admin Closure	2003	N	N	N	N		
SWMU 96	Waste Accumulation Area, Bldg 12-21	Admin Closure	2001	N	N	N	N		
SWMU 98	Bldg 12-38 Solvent Storage	Admin Closure	2003	N	N	N	N		

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SWMU 99	Waste Accumulation Area, Bldg 12-41	Admin Closure	2003	N	N	N	N		
Unassigned	Unlined Landfill/Landfill 10 North of Firing Site 1	Admin Closure	2004	N	N	N	N		
Pemitted Unit 53	Igloo 4-72 Storage	Active		N	N	N	N		
SVS 4	Old Pistol Range	Active		N	N	N	N		
SWMU 28	Active Burn Tray	Active		NA	N	N	N		
SWMU 29	Active Burn Tray	Active		NA	N	N	N		
SWMU 30	Active Burn Tray	Active		NA	N	N	N		
SWMU 31	Active Burn Tray	Active		NA	N	N	N		
SWMU 32	Active Burn Tray	Active		NA	N	N	N		
SWMU 33	Active Burn Tray	Active		NA	N	N	N		
SWMU 34	Active Burn Tray	Active		NA	N	N	N		
SWMU 35	Active Burn Tray	Active		NA	N	N	N		
SWMU 36	Active Burn Tray	Active		NA	N	N	N		
SWMU 69	Firing Site 4	Active		N	N	N	N		
SWMU 72	Firing Site 10	Active		N	N	N	N		
SWMU 74	Firing Site 21	Active		N	N	N	N		
SWMU 75	Firing Site 22	Active		N	N	N	N		
SWMU 78	Firing Site 24, Concrete Sump	Active		N	N	N	N		
AOC 1	Transformer Leak (Bldg 11-14A)	3		Excavation	Y	Y	N		
AOC 10a	Bldg 12-43A Pesticide Rinse Area	3		Excavation	Y	Y	N		
AOC 10b	Bldg 12-51 Pesticide Rinse Area	3		N	Y	Y	N		
AOC 11	Fire Training Area Burn Pits	3		Excavation	Y	Y	N		
AOC 12	Paint Shop/ Solvent Pit (Bldg 12-5D)	3		N	Y	Y	N		
AOC 13a	Former Cooling Tower in Zone 12 (Pad)	3		Excavation	Y	Y	N		

Corrective/ Remedial Action Release Unit #	Corrective/Remedial Action Unit Description	RRS Closure	Closure Date	ICM/ Remedial Action Conducted	Institutional Control Required	LTM Groundwater Required?	Inspection/ Maintenance Required?	2013 Maintenance?	Maintenance Type
AOC 13b	Former Cooling Tower in Zone 12 (Piping/Soil)	3		Excavation	Y	Y	N		
AOC 14	Battery Storage Area (Bldg 12-18)	3		N	Y	Y	N		
AOC 15	DDT Release (Bldg 12-35)	3		Excavation	Y	Y	N		
AOC 3a	Former Boiler House Areas	3		N	Y	Y	N		
AOC 3b	Zone 11 Former Boiler House Areas	3		N	Y	Y	N		
AOC 5	Electrical Equipment Bone Yard Near Bldg 12-5	3		N	Y	Y	N		
AOC 7a	Bldg 11-36 Sulfuric Acid Spills	3		N	Y	Y	N		
AOC 7c	Bldg 12-64 Sulfuric Acid Spills	3		Excavation	Y	Y	N		
AOC 8a	Pad 11-12 Solvent Leaks	3		N	Y	Y	N		
AOC 8b	Pad 11-13 Solvent Leaks	3		N	Y	Y	N		
AOC 8c	Bldg 11-17 Solvent Leaks	3		N	Y	Y	N		
AOC 8d	Pad 11-22 Solvent Leaks	3		N	Y	Y	N		
AOC 8e	Bldg 11-36 Solvent Leaks	3		N	Y	Y	N		
SVS 2	Parallel Depressions Bldg 11-26	3		N	Y	Y	N		
SVS 3 (SWMU 67)	Carbon Black Burial Area near Bldg 10-7	3		N	Y	Y	N		
SVS 5	Landfill East of Pad 11-13	3		N	Y	Y	Y	Depression/low spots	Pantex filled holes/ depressions
SVS 6	Unnumbered Zone 7 Landfills	3		N	Y	Y	Y	Erosion control	Reseeded

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SVS 7a&b	Magazine Demolition Debris Landfills (Zones 4 & 5)	3		N	Y	Y	Y		
SVS 8	Abandoned Zone 10 Landfill	3		Excavation	Y	Y	Y		
SWMU 1	Drainage Ditch (Bldg 12-17)	3		Excavation	Y	Y	N		
SWMU 10	Pantex Lake	3		N	Y	Y	N		
SWMU 103	Former Battery Storage Area, (Bldg 12-81)	3		N	Y	Y	N		
SWMU 113	Overflows from Bldg 11-36 Collection System/Sump	3		D&D /	Y	Y	N		
SWMU 117	High Explosives Settling Tank	3		D&D / Excavation	Y	Y	N		
SWMU 118	Equalization Basin	3		D&D / Excavation	Y	Y	N		
SWMU 119a	High Explosives Filters	3		D&D	Y	Y	N		
SWMU 119b	High Explosives Filters	3		D&D	Y	Y	N		
SWMU 12	Drainage Ditch Near Former 11-14 Pond	3		Excavation	Y	Y	N		
SWMU 120a	Carbon Filters	3		D&D	Y	Y	N		
SWMU 120b	Carbon Filters	3		D&D	Y	Y	N		
SWMU 121	High Explosives Settling Tank	3		D&D / Excavation	Y	Y	N		
SWMU 122a	Equalization Basin	3		D&D / Excavation	Y	Y	N		
SWMU 122b	Bldg 12-24N & Bldg 12-43 Upland Soil	3		Excavation / In Situ Treatment	Y	Y	N		
SWMU 123	Concrete Sump & Waste water Treatment Unit	3		D&D	Y	Y	N		
SWMU 13	Former Solar Evaporation Pond (Bldg 11-51)	3		N	Y	Y	N		

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SWMU 135	Leaching Bed (Bldg 12-44E)	3		N	Y	Y	N		
SWMU 136	Subsurface Leaching Bed (Bldg 12-59)	3		D&D	Y	Y	N		
SWMU 14*	Explosive Burn Pad 1 (including ash disposal trench)	3		Soil Cover	Y	Y	Y		
SWMU 143a	Former Waste Drum Storage Areas (Bldg 10-9)	3		N	Y	Y	N		
SWMU 143b	Former Waste Drum Storage Areas (Bldg 10-7)	3		N	Y	Y	N		
SWMU 144	Zone 10 TNT Settling Pit (Bldg 10-13)	3		Excavation	Y	Y	N		
SWMU 145	Zone 10 TNT Settling Pit (Bldg 10-17)	3		Excavation	Y	Y	N		
SWMU 146	Zone 10 TNT Settling Pit (Bldg 10-26)	3		Excavation	Y	Y	N		
SWMU 147	Bldg 11-13 TNT Settling Pit	3		Excavation	Y	Y	N		
SWMU 148	Bldg 11-17 TNT Settling Pits	3		Excavation	Y	Y	N		
SWMU 149	Bldg 11-26 TNT Settling Pit	3		N	Y	Y	N		
SWMU 15*	Explosive Burn Pad 2 (including ash disposal trench)	3		Soil Cover	Y	Y	Y		
SWMU 150	Bldg 11-12 TNT Settling Pit	3		Excavation	Y	Y	N		
SWMU 16*	Explosive Burn Pad 3 (including ash disposal trench)	3		Soil Cover	Y	Y	Y		
SWMU 17*	Explosive Burn Pad 4 (including ash disposal trench)	3		Soil Cover	Y	Y	Y		

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SWMU 18*	Explosive Burn Pad 5 (including ash disposal trench)	3		Soil Cover	Y	Y	Y		
SWMU 19*	Explosive Burn Pad 6 (including ash disposal trench)	3		Soil Cover	Y	Y	Y		
SWMU 2	Drainage Ditch (Bldg 12-43)	3		Ditch Lining	Y	Y	Y		Developed plan for semi-annual maintenance of liner - Planned to start in 2014
SWMU 20*	Explosive Burn Pad 7 (including ash disposal trench)	3		Soil Cover	Y	Y	Y		
SWMU 21*	Explosive Burn Pad 7A (including ash disposal trench)	3		Soil Cover	Y	Y	Y		
SWMU 22*	Explosive Burn Pad 8 (including ash disposal trench)	3		Soil Cover	Y	Y	Y		
SWMU 23*	Explosive Burn Pad 9 (including ash disposal trench)	3		Soil Cover	Y	Y	Y		
SWMU 24*	Explosive Burn Pad 10 (including ash disposal trench)	3		Soil Cover	Y	Y	Y		
SWMU 25*	Explosive Burn Pad 11 (Including Wash Rack)	3		Soil Cover	Y	Y	N		
SWMU 26*	Explosive Burn Pad 12	3		Soil Cover	Y	Y	N		
SWMU 27*	Explosive Burn Pad 13	3		Excavation	Y	Y	N		
SWMU 3	Drainage Ditch (Bldg 11-44)	3		Excavation	Y	Y	N		

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SWMU 37	Burning Ground Landfill 1	3		Engineered Cover	Y	Y	Y	Erosion control	Reseeded
SWMU 38	Burning Ground Landfill 2	3		Engineered Cover	Y	Y	Y	Erosion control	Reseeded
SWMU 39	Burning Ground Landfill 3	3		Engineered Cover	Y	Y	Y	Erosion control	Reseeded
SWMU 4	Drainage Ditch (Bldg 11-50)	3		N	Y	Y	N		
SWMU 40	Burning Ground Landfill 4	3		Engineered Cover	Y	Y	Y	Erosion control	Reseeded
SWMU 41	Burning Ground Landfill 5	3		Engineered Cover	Y	Y	Y	Erosion control	Reseeded
SWMU 42	Burning Ground Landfill 6	3		Engineered Cover	Y	Y	Y	Erosion control	Reseeded
SWMU 43	Burning Ground Landfill 7	3		Engineered Cover	Y	Y	Y	Erosion control	Reseeded
SWMU 44	Burning Ground Landfill 8	3		Engineered Cover	Y	Y	Y	Erosion control	Reseeded
SWMU 45	Explosive Burn Cage	3		D&D / Excavation	Y	Y	N		
SWMU 46	Explosive Burn Cage	3		D&D	Y	Y	N		
SWMU 47	Chemical Burn / Evaporation Pits	3		SVE System	Y	Y	N		
SWMU 48	Burning Ground Solvent Evap. Pans	3		D&D	Y	Y	N		
SWMU 49	Burning Ground Solvent Evap. Pans	3		D&D	Y	Y	N		
SWMU 50	Burning Ground Solvent Evap. Pans	3		D&D	Y	Y	N		
SWMU 5-01a	Drainage Ditch(es) (Bldg 12-5)	3		Excavation	Y	Y	N		
SWMU 5-01b	Drainage Ditch(es) (Bldg 12-5B)	3		Excavation	Y	Y	N		
SWMU 5-02a	Drainage Ditch (Bldg 12-51)	3		N	Y	Y	N		
SWMU 5-02b	Drainage Ditch (Bldg 12-67)	3		Excavation	Y	Y	N		
SWMU 5-02c	Drainage Ditch (Bldg 12-110)	3		N	Y	Y	N		

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SWMU 5-04a	Bldg 12-19 Drainage Ditches	3		Excavation	Y	Y	N		
SWMU 5-04b	Bldg 12-73 Drainage Ditches	3		Excavation	Y	Y	N		
SWMU 5-05	Drainage Ditch (Bldgs 12-21 & 12-24)	3		Ditch Lining	Y	Y	Y		Developed plan for semi-annual maintenance of liner - Planned to start in 2014
SWMU 5-06a	Drainage Ditch (Bldg 12-44E)	3		Excavation	Y	Y	N		
SWMU 5-06b	Drainage Ditch (Bldg 12-81)	3		Excavation	Y	Y	N		
SWMU 5-07	Bldg 12-41 Drainage Ditch	3		Excavation	Y	Y	N		
SWMU 5-08	Drainage Ditch (Bldg 11-36)	3		Excavation	Y	Y	N		
SWMU 5-09a	Drainage Ditch (Bldg 11-17)	3		N	Y	Y	N		
SWMU 5-09b	Drainage Ditch (Bldg 11-20)	3		N	Y	Y	N		
SWMU 51	Burning Ground Solvent Evap. Pans	3		D&D	Y	Y	N		
SWMU 5-11	Main Perimeter Ditch	3		N	Y	Y	N		
SWMU 5-12a	Main Perimeter Ditch	3		Excavation	Y	Y	N		
SWMU 5-12b	Perimeter Drainage Ditch from Zone 12 to SWMU 5-15	3		N	Y	Y	N		
SWMU 5-13a,b,c	Drainage Ditches to Playa 1	3		Excavation	Y	Y	N		
SWMU 5-15 a&b	Drainage Ditch to Playa 4	3		N	Y	Y	N		
SWMU 52	Burn Racks and Flashing Pits	3		D&D / Excavation	Y	Y	N		

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SWMU 54	Landfill 3	3		Excavation/ Engineered Cover	Y	Y	Y	Erosion control	Reseeded
SWMU 55	Landfill 4	3		N	Y	Y	Y		
SWMU 56	Landfill 5	3		N	Y	Y	Y		
SWMU 57	Landfill 6	3		Excavation	Y	Y	Y		
SWMU 58	Landfill 7	3		N	Y	Y	Y		
SWMU 6	Playa 1	3		N	Y	Y	N		
SWMU 60	Landfill 9	3		N	Y	Y	Y		
SWMU 61	Landfill 10	3		N	Y	Y	Y		
SWMU 64	Landfill 13	3		Administrative Soil Cover	Y	Y	Y	Erosion control	Reseeded
SWMU 66	Landfill 15	3		N	Y	Y	Y		
SWMU 68a	Original Landfill	3		N	Y	Y	Y		
SWMU 68b	Landfill 1	3		Administrative Soil Cover	Y	Y	Y	Erosion control	Closure Turf Installed
SWMU 68c	Landfill 2	3		Administrative Soil Cover	Y	Y	Y	Erosion control	Reseeded
SWMU 68d	Sanitary Landfill	3		N	Y	Y	Y		
SWMU 7	Playa 2	3		N	Y	Y	N		
SWMU 8	Playa 3	3		N	Y	Y	N		
SWMU 82	Nuclear Weapon Accident Residue Storage	3		Excavation	Y	Y	N		
SWMU 84	Scrap, Salvage, and Storage Yard (Bldg 10-9)	3		Excavation	Y	Y	N		
SWMU 86	11-14 Solvent Storage Shed	3		N	Y	Y	N		
SWMU 87	Bldg 11-20 Solvent Storage Shed	3		N	Y	Y	N		
SWMU 9	Playa 4	3		N	Y	Y	N		
Unassigned	Demonstration Facilities	3		Excavation	Y	Y	N		
Unassigned	Former 11-15 Pond	3		N	Y	Y	N		

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Unassigned	Former Leaching Bed North of Bldg 11-50 and West of Bldg 11-36	3		Excavation	Y	Y	N		
Unassigned	Concrete Sump (near Bldg 12-5B)	3		N	Y	Y	N		
Unassigned AOC	Zone 10 Landfills West and Southwest of SWMU 84 Scrap and Salvage Yard	3		N	Y	Y	Y		
Unassigned SWMU	Zone 10 Berms	3		N	Y	Y	N		
Unassigned SWMU	Evaporation Pit East of Bay 3 (Bldg 11-20)	3		Excavation	Y	Y	N		
Unassigned SWMU	Evaporation Pit South of Bay 11/West of Bay 6 (Bldg 11-20)	3		Backfill/Cover	Y	Y	N		
Unassigned SWMU	SWMU Capacitor Bank Rupture	3		N	Y	Y	N		
AOC 7b	Bldg 12-4 Sulfuric Acid Spill	2	2004	N	Y	N	N		
Permitted Unit 1	Container Storage 11-7N Pad	2	2005	N	Y	N	N		
SVS 1	Denuded Area near Playa 1	2	2005	N	Y	N	N		
SWMU 106	Waste Accumulation Site at Bldg 16-1	2	2005	Excavation	Y	N	N		
SWMU 109	Concrete Sump (Bldg 12-68)	2	2004	Sump removal/Excavation	Y	N	N		
SWMU 11	Surface Impoundment in Zone 5 (Bldg FS-16)	2	2005	D&D	Y	N	N		
SWMU 110	Bldg 12-68 Electroplating Waste Retention Basin (Moat)	2	1997	N	Y	N	N		

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SWMU 139	Photo Processing Leaching Bed (Bldg FS-10)	2	2005	N	Y	N	N		
SWMU 140	Old Sewage Treatment Plant/Sludge Beds	2	2005	D&D / Excavation	Y	N	N		
SWMU 5-03a	Drainage Ditches (Bldg12-68)	2	2004	Excavation	Y	N	N		
SWMU 5-03b	Drainage Ditches (Bldg 12-18)	2	2004	N	Y	N	N		
SWMU 5-03c	Drainage Ditches (Bldg 12-9)	2	2004	N	Y	N	N		
SWMU 5-03d	Drainage Ditch (Bldg 12-10)	2	2004	N	Y	N	N		
SWMU 5-10	Drainage Ditches near the Old Sewage Treatment Plant	2	2005	Excavation	Y	N	N		
SWMU 5-14	Drainage Ditch from Zone 11 to Playa 2	2	2005	N	Y	N	N		
SWMU 53	Temporary High Explosives Burning Ground	2	2005	Excavation	Y	N	N		
SWMU 63	Landfill 12	2	2005	Administrative Soil Cover	Y	N	Y		
SWMU 70	Firing Site 5	2	1999	D&D / Excavation, Fence	Y	N	Y		
SWMU 71	Firing Site 6	2	2000	N	Y	N	N		
SWMU 73	Firing Site 15	2	2000	N	Y	N	N		
SWMU 97	Waste Accumulation Area, Bldg 12-34	2	1999	N	Y	N	N		
Unassigned	Dumpster Area near FS-11	2	2005	N	Y	N	N		
Unassigned AOC	Bldg 12-1 Laundry Sump	2	2004	Decontamination	Y	N	N		
Unassigned SWMU	FS-22 Container Gun Barrel	2	1999	D&D	Y	N	N		
Unassigned SWMU	11-14 Hypalon Pond and Waste water Line	2	1995	Backfill/Cover	Y	N	N		

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AOC 2	Main Electrical Substation (4-28)	1	1993	N	N	N	N		
AOC 6a	Gasoline Leaks at Bldgs 12-35	1	1999	Tank Removal / Excavation	N	N	N		
AOC 6b	Gasoline Leak at Bldg 16-1	1	1999	N	N	N	N		
Permitted Unit 10	Container Storage Area (Conex WM7)	1	2001	N	N	N	N		
Permitted Unit 11	Container Storage Area (Conex WM8)	1	2001	N	N	N	N		
Permitted Unit 36	Bldgs 11-9 Tank	1	1999	N	N	N	N		
Permitted Unit 37	Bldg 11-9 Tank	1	1999	N	N	N	N		
Permitted Unit 38	Bldg 11-15a Tank	1	1999	N	N	N	N		
Permitted Unit 39	Bldg 11-15a Tank	1	1999	N	N	N	N		
Permitted Unit 40	Bldg 11-9 Container Storage Area	1	2002	D&D	N	N	N		
Permitted Unit 46	Container Storage Area (Conex WM1-A)	1	1998	N	N	N	N		
Permitted Unit 47	Container Storage Area (Conex WM1-B)	1	1998	N	N	N	N		
Permitted Unit 48	Container Storage Area (Conex WM3-A)	1	1998	N	N	N	N		
Permitted Unit 49	Container Storage Area (Conex WM5-A)	1	1998	N	N	N	N		
Permitted Unit 50	Container Storage Area (Conex WM5-B)	1	1998	N	N	N	N		
Permitted Unit 52	Igloo 4-46 Storage	1	1998	N	N	N	N		
Permitted Unit 54	Igloo 4-74 Storage	1	1998	N	N	N	N		
Permitted Unit 8	Container Storage Area (Conex WM5)	1	2001	N	N	N	N		
Permitted Unit 9	Container Storage Area (Conex WM6)	1	2001	N	N	N	N		

Corrective/ Remedial Action Release Unit #	Corrective/Remedial Action Unit Description	RRS Closure	Closure Date	ICM/ Remedial Action Conducted	Institutional Control Required	LTM Groundwater Required?	Inspection/ Maintenance Required?	2013 Maintenance?	Maintenance Type
SWMU 108	Bldg 12-68 Batch Master	1	1997	D&D	N	N	N		
SWMU 130	Portable Waste Solvent Tanks	1	2001	Excavation	N	N	N		
SWMU 133	UST #30, Waste Oil Tank at Bldg 16-1	1	1999	N	N	N	N		
SWMU 79a	11-7A (Unit 41) Container	1	2005	N	N	N	N		
SWMU 79b	11-7B Pad (Unit 42) Container	1	2005	N	N	N	N		
SWMU 80	Container Storage Area Conex 1 (Permitted Unit 4) in Zone 4	1	2000	N	N	N	N		
SWMU 80	Container Storage Area Conex 2 (Permitted Unit 5) in Zone 4	1	2000	N	N	N	N		
SWMU 80	Container Storage Area Conex 3 (Permitted Unit 6) in Zone 4	1	2000	N	N	N	N		
SWMU 80	Container Storage Area Conex 4 (Permitted Unit 7) in Zone 4	1	2000	N	N	N	N		
SWMU 81	Mixed Waste Storage, Magazine 4-19	1	1993	N	N	N	N		
Unassigned	UST #9 Bldg 12-17E	1	2004	Tank Removal / Excavation	N	N	N		
Unassigned	UST #7 Bldg 12-5B	1	1999	Tank Removal / Excavation	N	N	N		
Unassigned	UST #38 Bldg 12-98	1	1999	Tank Removal / Excavation	N	N	N		
Unassigned	UST #39 North of Bldg 12-84A	1	1999	Tank Removal / Excavation	N	N	N		

*SWMUs 14-27 at the Burning Ground consist of old burn pads that were carried through investigation and cleanup. Also included with those burn pads is an ash disposal trench that resulted from the disposal of ash from the burn pads. The final remedy for SWMUs 14-27 was a soil cover over the trench that must be inspected and maintained as necessary.

Administrative Closure – These sites were identified as potential release sites as part of the RCRA Facility Assessment. No evidence of release could be found upon further investigation, so these sites were not considered as a solid waste management unit and were closed.

RRS 1 – The sites were investigated and determined that all wastes and media were within background concentrations or below the PQL. These sites were closed with no further controls required.

RRS 2 – All wastes and contaminated media were remediated to health-based cleanup levels. Additionally, an ecological risk evaluation determined these sites posed no risk to the environment. These sites do not require post-closure care; however, deed recordation of the contaminated area was completed and the sites were restricted to industrial use.

RRS 3 - These sites required a human health and ecological risk assessment to determine the areas that required remedial action. All sites required deed recordation of the contamination, restriction of property use to industrial, and appropriate institutional controls to prevent contaminated groundwater usage and cross-contamination from perched groundwater to the drinking water aquifer. Some of these sites also require post-closure care such as maintenance of soil covers, fencing, and ditch liners.

Active – These sites are still in use for their intended purpose. These sites will undergo a full investigation and cleanup process once the site is no longer used by Pantex.

Appendix B
Extraction Well Flow Data

B. Extraction Well Flow Calculations

The flows included here have been calculated from information obtained from each pump and treat system at Pantex.

The P1PTS data acquisition system recorded hourly flow rates and well operation time. This was used to calculate the total flow from each well by month. The system also records total influent flow rates and total volume each day. 2012 SEPTS flow data was recorded in the I-Historian software and average hourly flow rates were downloaded from the I-Historian database. The total flow discussed in Chapter 2 is based on the influent flow volume which is easily calibrated and closely tracked. Because flow rates and operational status of the well is recorded hourly rather than each minute, there will be some inconsistencies between the total calculated flow from the wells vs. the influent flow into the system. These well flow calculations provide a basis for understanding the flow rate for each well, the amount of downtime, and allows for tracking of pumping rates for the wells. Changes in these rates can trigger maintenance at the wells.

B.1. P1PTS Flow Volumes

The P1PTS system was in its fourth full year of operation. Several wells had intermittent or prolonged wireless communication problems so were not pumping at various times of the year. Pumping was also affected by system downtime due to the WWTF and irrigation system being unable to receive water during maintenance and repairs or due to upgrades.

Table 1 presents a summary of well operation downtime by month. This shows the number of days a well pumped all or part of the day. All wells except EW-71, EW-74 and EW-79 pumped more than 70% of the time. Well downtime was due primarily to wireless communication failures, pump failures, transducer failures, and VFD issues. Table 2 presents the downtime contributors. The operation time for the system and the wells should continue to improve as the system continues to be optimized.

Table 1. Days Operated per Month for P1PTS Wells

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	2013 Well % Operation
PTX06-EW-69	31	28	31	30	31	27	26	29	30	31	30	24	348	95.3
PTX06-EW-70	31	28	31	30	31	27	26	29	30	31	30	24	348	95.3
PTX06-EW-71	21	21	0	0	0	25	18	29	30	31	30	31	236	64.7
PTX06-EW-72	31	28	31	30	31	16	19	0	0	24	30	31	271	74.2
PTX06-EW-73	31	28	16	0	12	16	26	29	16	24	30	31	259	71.0
PTX06-EW-74	0	0	6	7	17	15	26	29	30	27	30	31	218	59.7
PTX06-EW-75	31	28	31	30	31	29	26	29	30	31	30	24	350	95.9
PTX06-EW-78A	31	28	31	30	29	0	25	29	29	23	30	31	316	86.6
PTX06-EW-79	26	0	0	0	17	29	26	29	30	31	30	31	249	68.2
PTX06-EW-80	31	28	41	30	29	6	19	29	30	14	30	31	318	87.1

Table 2. P1PTS Well Downtime Contributors

Month	Operational Contributor	Well Contributions	# Wells Affected
January	WWTF	VFD programming	2
February	WWTF	VFD programming	3
March	WWTF	VFD programming, load reactor	4
April	WWTF, maintenance	Bad pump/motors, transducer	4
May		Power issue, Bad pump/motors	4
June		Bad pump/motors	3
July	Sump alarm	Bad pump/motor	1
August	GAC exchange	Bad pump/motor	1
September		Bad pump/motor, breaker tripping	2
October		Bad pump/motor, breaker tripping , check valve	3
November	GAC exchange		0
December			0

B.2. SEPTS Flow Volumes

The SEPTS has been operating since 1995 when it started as a treatability study. It has been expanded to become a corrective action for the southeastern portion of the perched groundwater plumes. Table 3 presents a summary of well operation time by month and the pumping priority for the well. Over 85% of the wells (54 of 62) pumped more than 50% of the time. Well operation time has been impacted by various electrical and control problems, but the primary impact for the operation of many wells is due to the prioritization of pumping from the well field. As discussed in Chapter 2, the SEPTS, as designed, can treat up to 300 gpm, although

the system slightly exceeded 300 gpm at times. Since the system well field capacity exceeds 300 gpm, pumping priorities were established for extraction well operation (see Figure 2-13 in Chapter 2).

Table 4 provides a summary of well downtime contributions by month. Review of system logs indicates that the largest contributors to well downtime were various operational issues with individual wells, controls, and well prioritization. Although repairs are needed at some wells, the well field is still capable of reaching the 90% gpm/gpd goal.

Table 3. Days Operated per Month for SEPTS Wells

Well	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	2013 Well % Operation	Priority
PTX06-EW-01	23	27	19	30	31	20	30	31	25	31	30	12	309	84.7	7
PTX06-EW-02	24	27	19	30	31	20	30	31	25	31	30	30	328	89.9	7
PTX06-EW-03	24	11	0	30	31	20	25	27	25	31	30	30	284	77.8	7
PTX06-EW-04	24	28	22	30	31	28	31	31	30	31	30	30	346	94.8	1
PTX06-EW-06	16	0	13	30	31	30	7	26	30	31	30	30	274	75.1	7
PTX06-EW-07	21	0	19	30	31	28	31	0	0	0	0	24	184	50.4	1
PTX06-EW-09	11	22	31	30	31	30	31	31	30	31	30	24	332	91.0	4
PTX06-EW-10	0	22	31	30	31	30	30	31	30	31	30	30	326	89.3	2
PTX06-EW-12	24	28	31	30	31	30	31	0	0	0	0	0	205	56.2	1
PTX06-EW-15	24	28	19	30	31	20	30	31	30	31	30	12	316	86.6	6
PTX06-EW-16	24	28	31	30	31	18	31	31	5	0	0	27	256	70.1	1
PTX06-EW-17	0	0	0	29	0	0	31	13	25	31	17	27	173	47.4	1
PTX06-EW-18	24	28	25	30	19	18	31	0	0	0	0	27	202	55.3	1
PTX06-EW-19	24	28	25	30	17	30	30	31	25	31	17	14	302	82.7	1
PTX06-EW-20	0	0	0	15	29	20	31	20	30	31	30	30	236	64.7	7
PTX06-EW-21	0	0	0	15	0	30	31	0	0	0	0	0	76	20.8	7
PTX06-EW-22	24	19	21	30	0	30	31	31	30	31	30	30	307	84.1	7
PTX06-EW-23	23	28	19	30	31	20	31	31	30	31	30	13	317	86.8	5
PTX06-EW-24	0	0	0	30	0	20	28	30	30	31	6	16	191	52.3	7
PTX06-EW-25	24	19	21	30	31	20	10	30	30	31	1	4	251	68.8	7
PTX06-EW-26	23	28	19	30	31	30	31	31	30	31	30	12	326	89.3	5
PTX06-EW-27	24	28	31	30	31	30	31	31	5	8	30	30	309	84.7	1
PTX06-EW-28	23	28	19	30	26	30	31	30	30	31	30	12	320	87.7	6
PTX06-EW-29	0	0	0	30	26	30	31	30	30	31	30	30	268	73.4	7

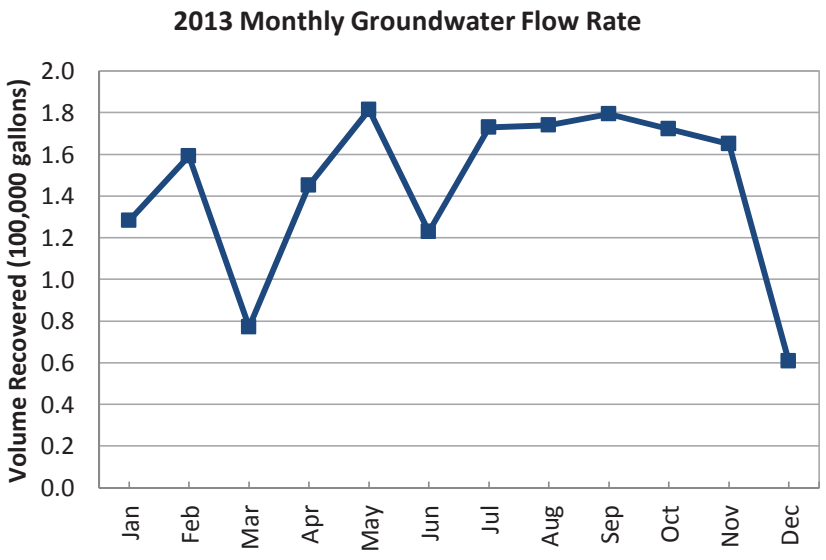
Well	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	2013 Well % Operation	Priority
PTX06-EW-30	24	28	19	30	31	30	31	31	30	31	30	12	327	89.6	5
PTX06-EW-31	22	28	19	30	31	30	30	31	30	31	30	12	324	88.8	5
PTX06-EW-32	24	28	31	11	31	30	30	31	30	31	30	30	337	92.3	3
PTX06-EW-33	24	28	31	30	31	30	31	31	30	31	30	30	357	97.8	3
PTX06-EW-34	24	28	31	30	31	30	31	31	30	31	30	30	357	97.8	3
PTX06-EW-35	24	28	31	30	31	30	8	0	0	8	30	30	250	68.5	1
PTX06-EW-36	21	28	31	30	31	18	31	31	30	31	30	30	342	93.7	3
PTX06-EW-37	24	28	31	30	31	18	31	31	30	31	30	30	345	94.5	4
PTX06-EW-38	22	21	31	30	31	30	28	31	30	31	30	30	345	94.5	4
PTX06-EW-39	24	28	31	30	31	30	4	31	30	31	30	30	330	90.4	4
PTX06-EW-40	0	0	18	30	31	30	28	26	30	31	30	30	284	77.8	4
PTX06-EW-41	10	0	13	30	31	18	28	26	30	31	30	30	277	75.9	5
PTX06-EW-42	24	28	31	30	31	0	6	26	30	7	0	0	213	58.4	3
PTX06-EW-43	22	28	11	30	0	28	27	12	30	31	11	29	259	71.0	3
PTX06-EW-44	24	28	31	30	31	30	30	26	30	31	17	9	317	86.8	3
PTX06-EW-45	0	21	3	30	0	0	30	0	0	0	0	9	93	25.5	3
PTX06-EW-46	24	28	31	30	31	30	24	12	0	0	0	0	210	57.5	3
PTX06-EW-47	0	0	0	22	31	30	7	5	0	0	0	0	95	26.0	3
PTX06-EW-48	21	5	0	23	31	30	7	31	30	31	30	23	262	71.8	3
PTX06-EW-49	24	28	31	25	31	30	31	26	30	31	17	9	313	85.8	7
PTX06-EW-50	24	28	31	30	31	20	27	31	25	31	17	27	322	88.2	1
PTX06-EW-51	24	28	31	23	31	0	10	31	30	31	30	30	299	81.9	2
PTX06-EW-53	24	28	31	23	0	20	31	31	30	0	0	0	218	59.7	1
PTX06-EW-54	24	28	31	30	31	14	0	31	30	0	0	0	219	60.0	1
PTX06-EW-55	24	28	31	30	31	20	0	0	22	31	30	30	277	75.9	1
PTX06-EW-56	24	28	31	30	31	20	31	31	30	31	30	10	327	89.6	1
PTX06-EW-57	24	28	31	15	31	20	30	31	30	31	30	30	331	90.7	1
PTX06-EW-58	16	3	19	28	17	12	0	0	0	10	30	30	165	45.2	7
PTX06-EW-59	16	3	12	3	6	30	23	9	5	24	30	17	178	48.8	7
PTX06-EW-60	23	8	19	15	12	5	30	6	0	24	30	12	184	50.4	7
PTX06-EW-61	15	28	12	15	31	0	0	26	30	31	30	12	230	63.0	7
PTX06-EW-62	23	28	19	28	31	11	0	20	30	31	30	12	263	72.1	7
PTX06-EW-63	0	25	12	0	31	0	21	26	30	3	30	12	190	52.1	7
PTX06-EW-64	0	25	9	28	31	0	31	26	30	31	30	12	253	69.3	7
PTX06-EW-65	0	0	0	0	29	11	9	29	30	31	30	12	181	49.6	7
PTX06-EW-66	0	0	0	0	0	0	21	29	30	21	25	12	138	37.8	7
PTX06-EW-67	24	28	31	28	31	0	30	7	0	24	30	30	263	72.1	2
PTX06-EW-68	24	28	31	0	31	11	1	0	0	9	30	30	195	53.4	2

Table 4. SEPTS Well Downtime Contributors

Month	Operational Contributor	Well Contributions	# Wells Affected
Jan	SCADA failure	LLSD, SCADA problems, rodent damage, O/L trip	11
Feb	Comm failure, WWTF	LLSD, SCADA problems, rodent damage, O/L trip, flow meter issues, comm failure, check valve	8
Mar	WWTF	LLSD, SCADA problems, trip, magmeter issue	7
Apr	PLC problems, carbon changeout,	LLSD, SCADA problems, O/L trip, flow meter issues, pump & motor replacement	8
May	GAC IX resin change out, system alarms	LLSD, motor saver problems, SCADA problems, O/L trip, flow meter issues, LOTO	7
Jun	WWTF	Communication problems, motor O/L trips, pump and motor problems	6
Jul	WWTF, Power outage	Communication problems, motor O/L trips, pump and motor problems, blown fuses, LLSD, transducer problems	10
Aug	Power outage, system alarms	Communication problems, motor O/L trips, pump and motor problems, blown fuses, LLSD, transducer problems, LOTO	13
Sep	System alarms	motor O/L trips, pump and motor problems, blown fuses, LLSD, LOTO	17
Oct	Planned shutdown	Communication problems, motor O/L trips, pump and motor problems, LLSD	7
Nov	Plantwide power outage, carbon changeout	Communication problem, pump and motor problems, LLSD	12
Dec	WWTF, LOTO for east gate	LOTO, LLSD, communication problems, bad relay or fuses, communication problem	8

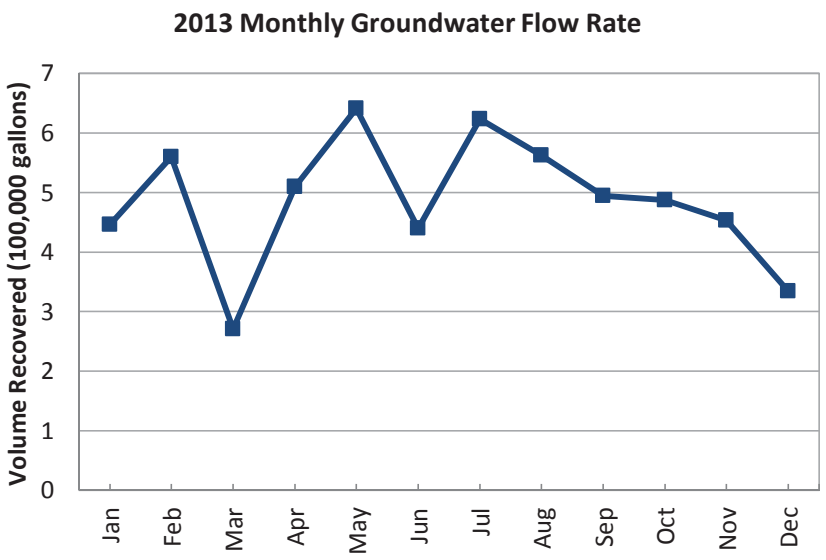
Southeast Pump and Treat System

PTX06-EW-1



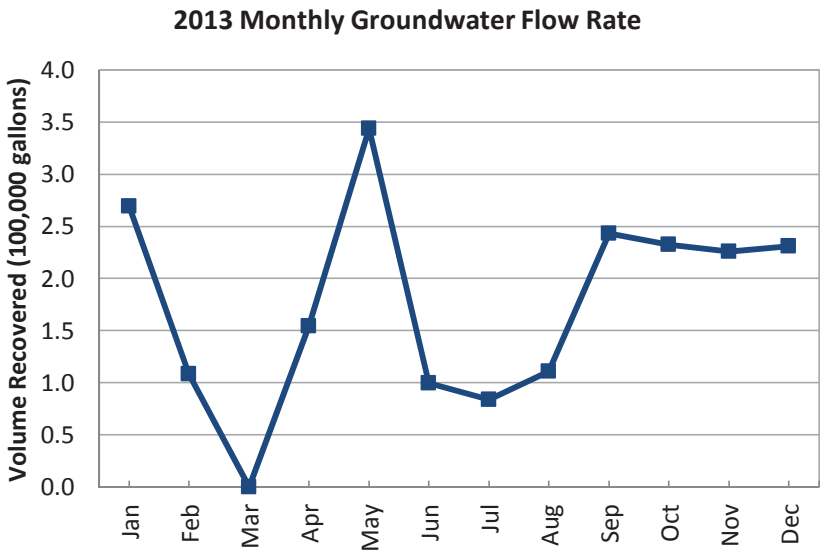
Month	Volume Recovered (gallons)
Jan	128,120
Feb	159,041
Mar	77,024
Apr	145,115
May	181,477
Jun	122,920
Jul	172,889
Aug	173,965
Sep	179,369
Oct	172,229
Nov	164,950
Dec	60,629
Total	**1,737,728**

PTX06-EW-2



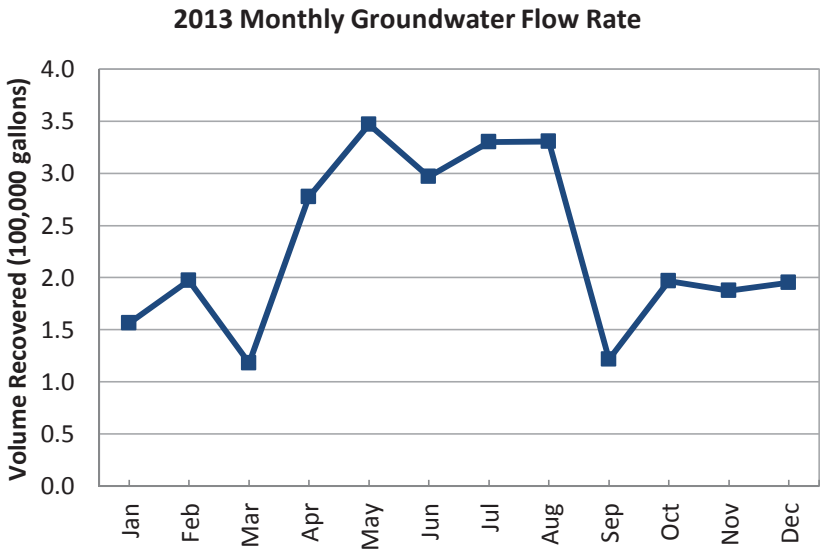
Month	Volume Recovered (gallons)
Jan	445,822
Feb	559,732
Mar	271,127
Apr	509,757
May	640,691
Jun	439,768
Jul	623,532
Aug	562,732
Sep	494,437
Oct	486,887
Nov	453,105
Dec	333,988
Total	**5,821,578**

PTX06-EW-3



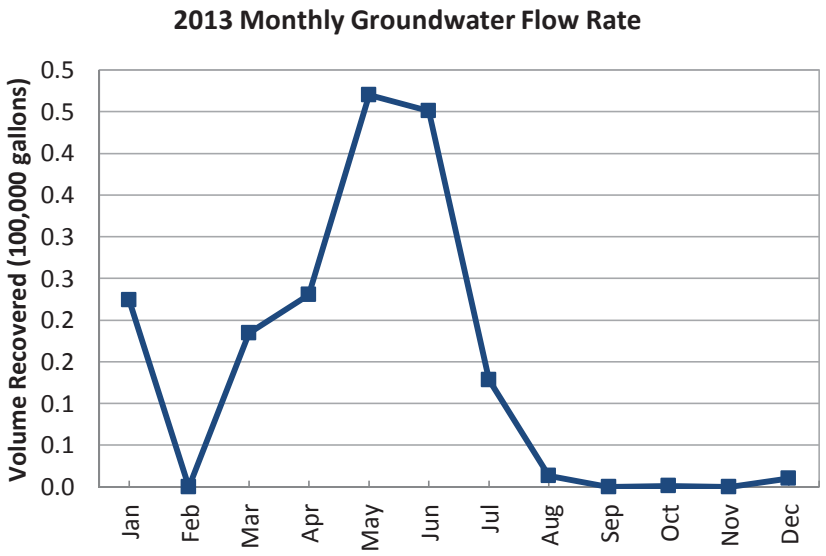
Month	Volume Recovered (gallons)
Jan	269,243
Feb	108,237
Mar	0
Apr	154,389
May	343,806
Jun	99,605
Jul	83,914
Aug	110,861
Sep	243,114
Oct	232,594
Nov	225,725
Dec	230,883
Total	**2,102,371**

PTX06-EW-4



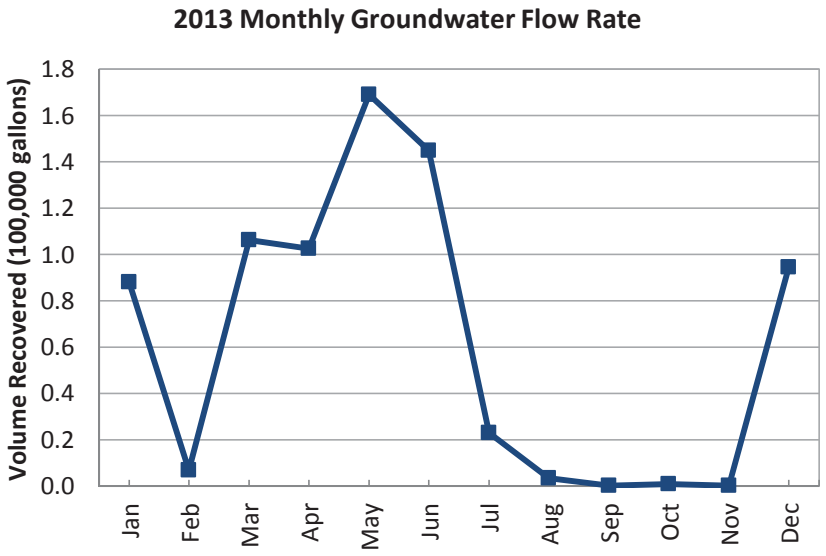
Month	Volume Recovered (gallons)
Jan	156,106
Feb	197,386
Mar	117,835
Apr	277,382
May	347,117
Jun	296,909
Jul	330,041
Aug	330,745
Sep	121,254
Oct	196,492
Nov	187,389
Dec	195,228
Total	**2,753,884**

PTX06-EW-6



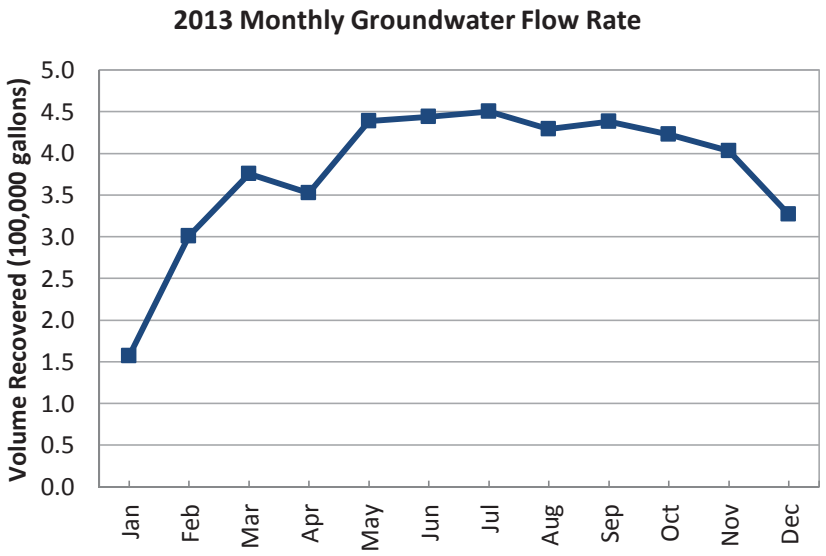
Month	Volume Recovered (gallons)
Jan	22,439
Feb	0
Mar	18,434
Apr	23,026
May	46,979
Jun	45,102
Jul	12,845
Aug	1,317
Sep	0
Oct	125
Nov	0
Dec	981
Total	**171,248**

PTX06-EW-7



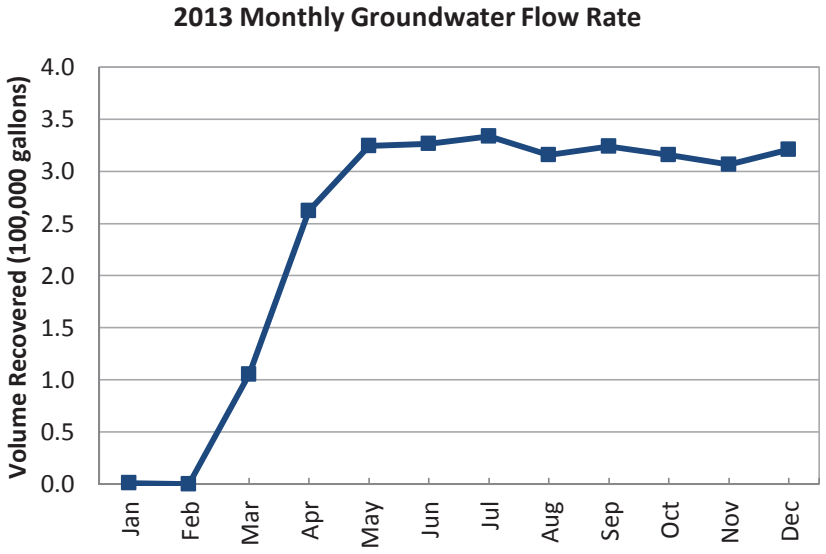
Month	Volume Recovered (gallons)
Jan	88,030
Feb	6,898
Mar	106,186
Apr	102,578
May	169,098
Jun	144,750
Jul	22,991
Aug	3,415
Sep	213
Oct	953
Nov	80
Dec	94,528
Total	**739,720**

PTX06-EW-9



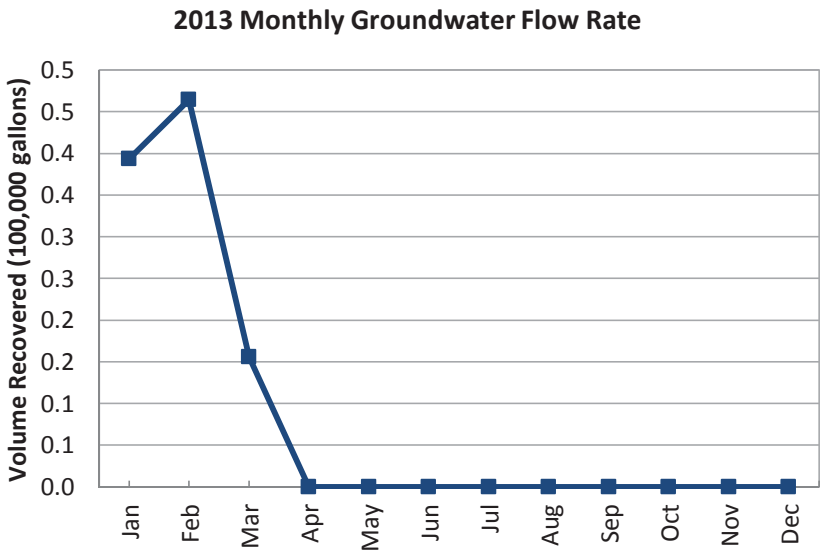
Month	Volume Recovered (gallons)
Jan	157,088
Feb	300,465
Mar	375,808
Apr	352,737
May	438,649
Jun	444,179
Jul	450,373
Aug	428,958
Sep	438,401
Oct	422,706
Nov	403,085
Dec	327,021
Total	**4,539,470**

PTX06-EW-10



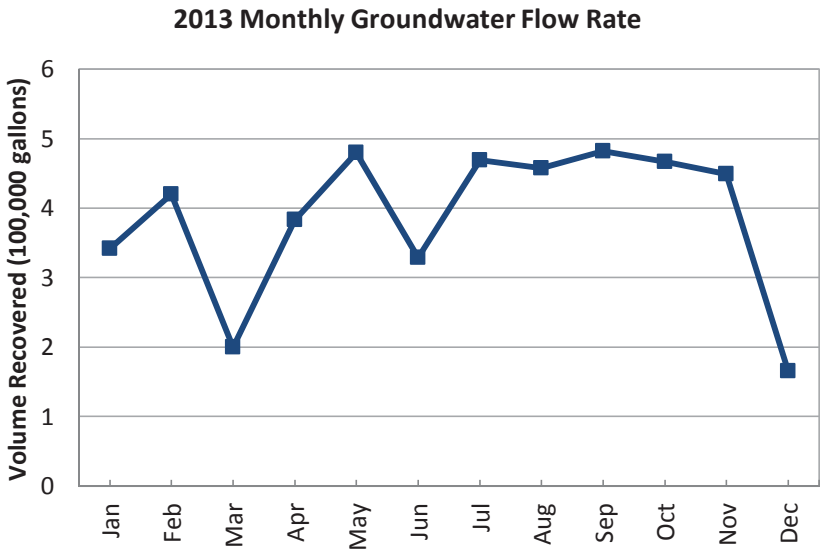
Month	Volume Recovered (gallons)
Jan	1,042
Feb	0
Mar	104,913
Apr	262,067
May	324,639
Jun	326,266
Jul	333,760
Aug	315,717
Sep	324,066
Oct	315,585
Nov	306,356
Dec	321,058
Total	**2,935,469**

PTX06-EW-12



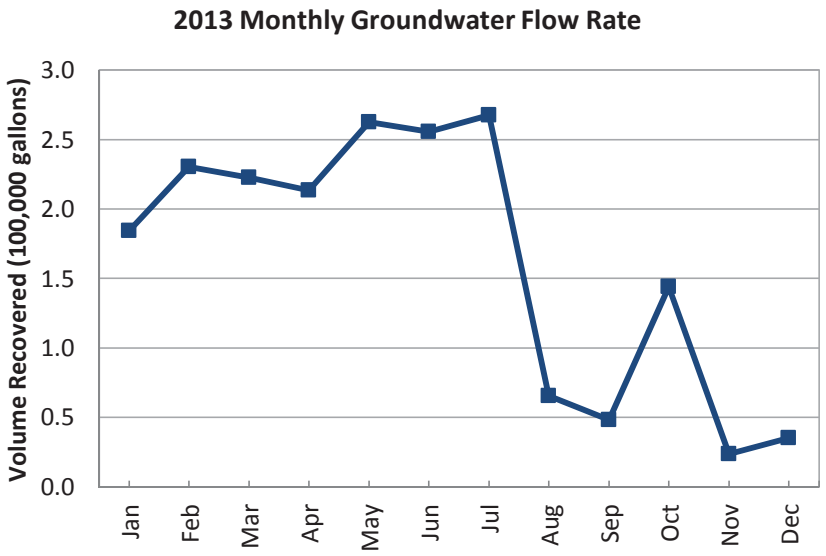
Month	Volume Recovered (gallons)
Jan	39,351
Feb	46,431
Mar	15,582
Apr	0
May	0
Jun	0
Jul	0
Aug	0
Sep	0
Oct	0
Nov	0
Dec	0
Total	**101,364**

PTX06-EW-15



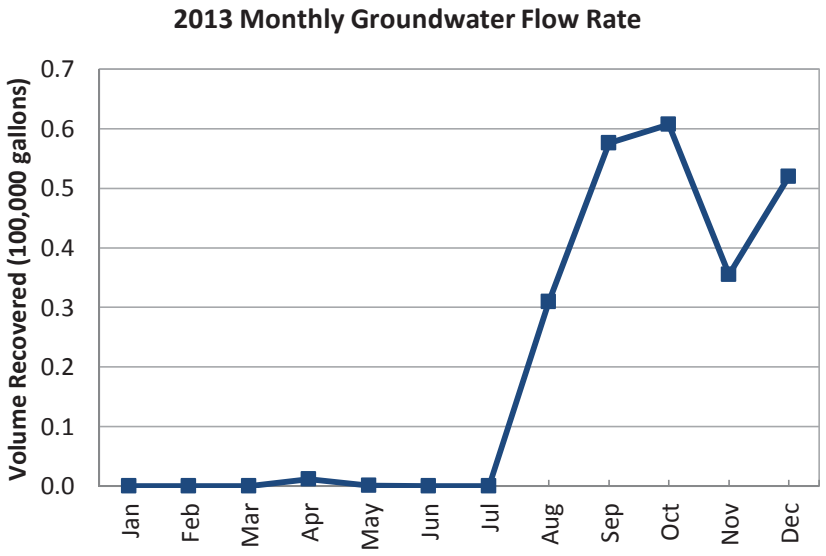
Month	Volume Recovered (gallons)
Jan	342,110
Feb	419,892
Mar	199,800
Apr	382,980
May	479,656
Jun	328,492
Jul	468,712
Aug	457,554
Sep	481,800
Oct	466,601
Nov	449,243
Dec	165,367
Total	**4,642,207**

PTX06-EW-16



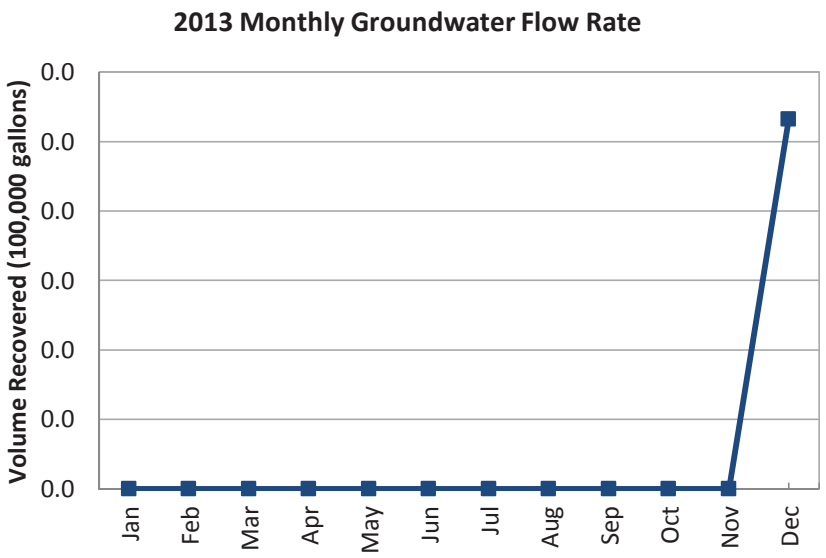
Month	Volume Recovered (gallons)
Jan	184,204
Feb	230,414
Mar	222,436
Apr	213,294
May	262,680
Jun	255,533
Jul	267,423
Aug	65,548
Sep	48,077
Oct	144,021
Nov	23,567
Dec	35,130
Total	**1,952,327**

PTX06-EW-17



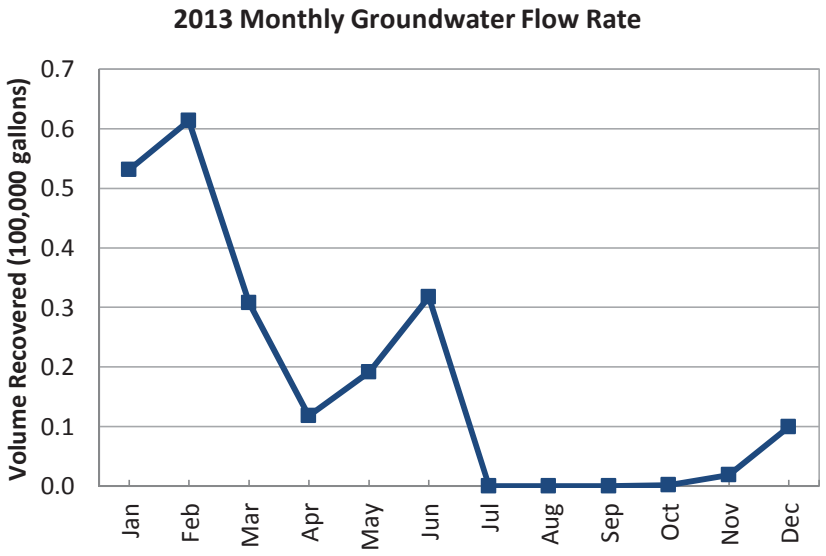
Month	Volume Recovered (gallons)
Jan	0
Feb	0
Mar	0
Apr	1,152
May	105
Jun	0
Jul	0
Aug	30,938
Sep	57,577
Oct	60,749
Nov	35,461
Dec	51,973
Total	**237,955**

PTX06-EW-18



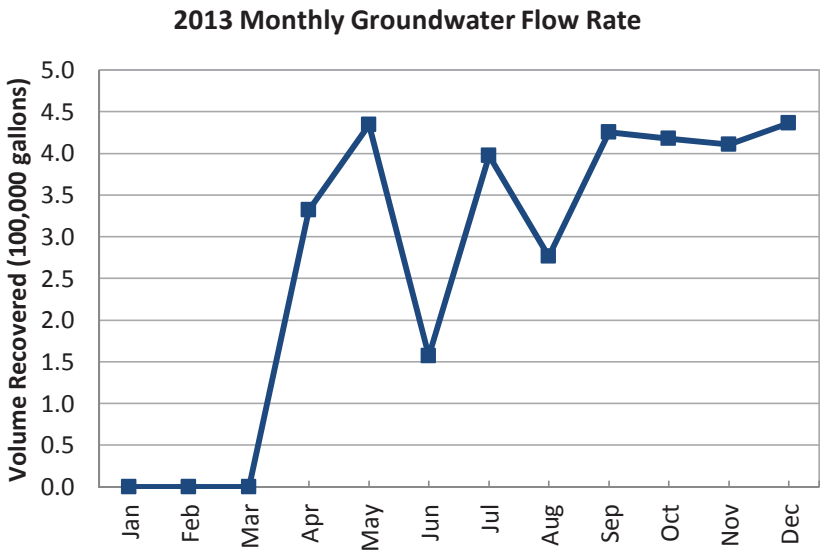
Month	Volume Recovered (gallons)
Jan	0
Feb	0
Mar	0
Apr	0
May	0
Jun	0
Jul	0
Aug	0
Sep	0
Oct	0
Nov	0
Dec	2,661
Total	**2,661**

PTX06-EW-19



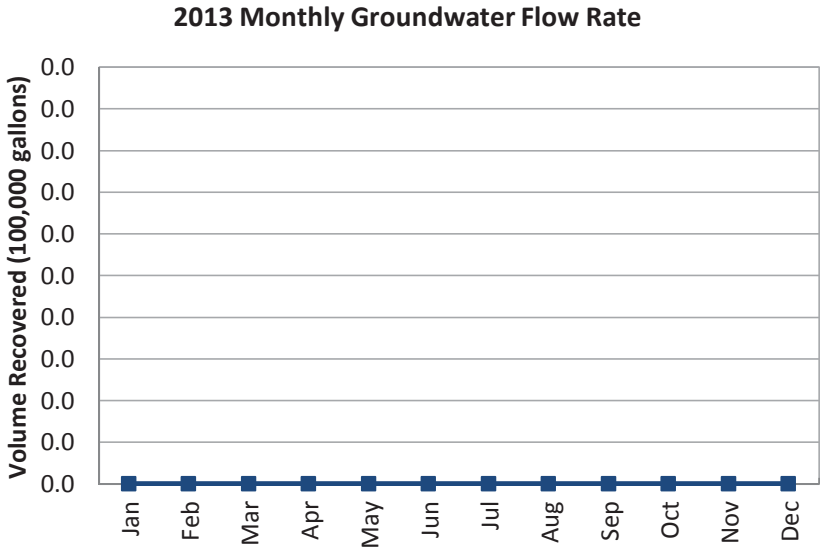
Month	Volume Recovered (gallons)
Jan	53,116
Feb	61,305
Mar	30,770
Apr	11,820
May	19,121
Jun	31,771
Jul	0
Aug	0
Sep	0
Oct	183
Nov	1,820
Dec	9,921
Total	**219,827**

PTX06-EW-20



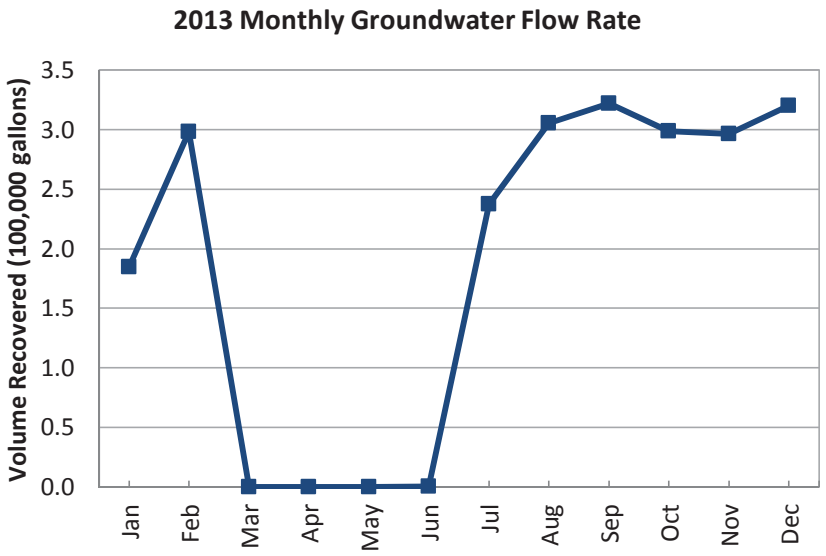
Month	Volume Recovered (gallons)
Jan	0
Feb	0
Mar	0
Apr	331,748
May	434,304
Jun	157,086
Jul	397,351
Aug	276,765
Sep	425,047
Oct	417,873
Nov	410,728
Dec	436,240
Total	**3,287,142**

PTX06-EW-21



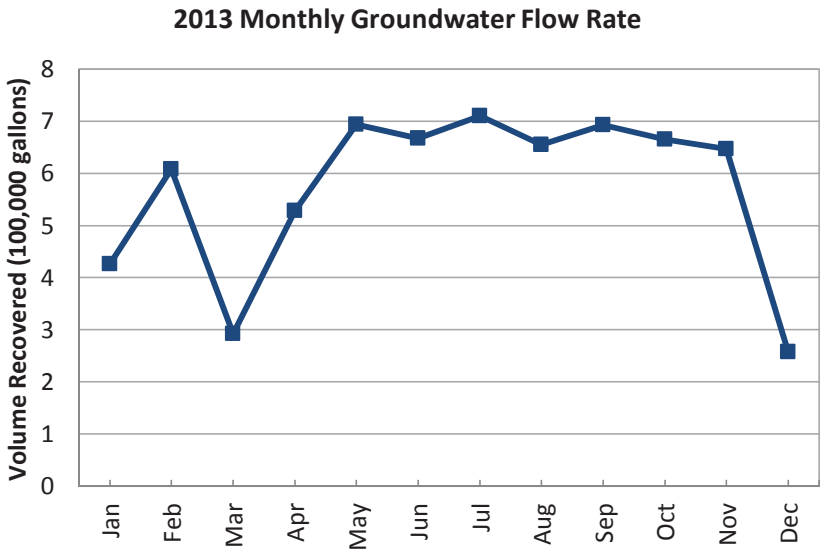
Month	Volume Recovered (gallons)
Jan	0
Feb	0
Mar	0
Apr	0
May	0
Jun	0
Jul	0
Aug	0
Sep	0
Oct	0
Nov	0
Dec	0
Total	**0**

PTX06-EW-22



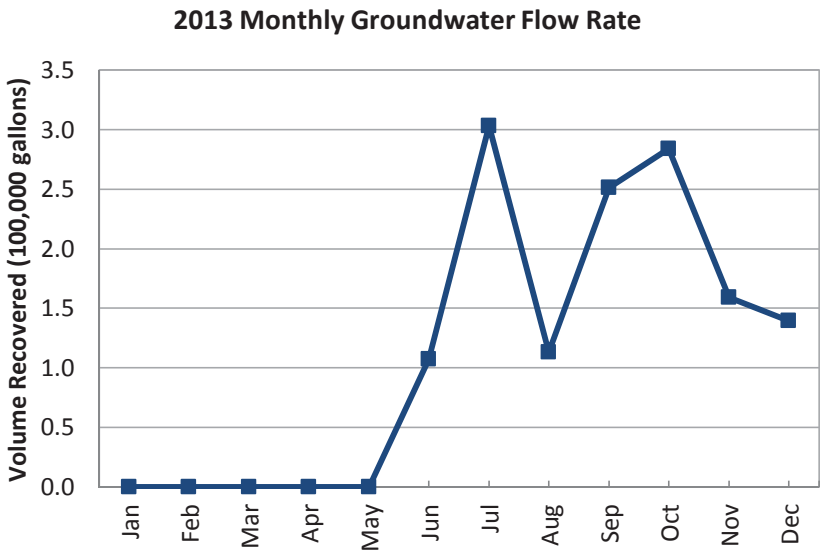
Month	Volume Recovered (gallons)
Jan	184,634
Feb	298,255
Mar	0
Apr	0
May	0
Jun	110
Jul	237,456
Aug	305,318
Sep	321,788
Oct	298,684
Nov	296,554
Dec	319,908
Total	**2,262,707**

PTX06-EW-23



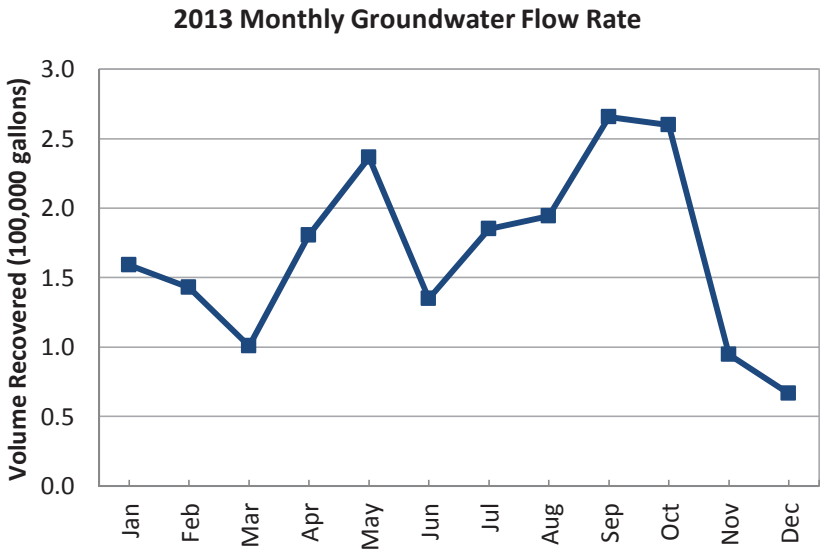
Month	Volume Recovered (gallons)
Jan	426,441
Feb	607,988
Mar	292,356
Apr	527,845
May	694,274
Jun	667,233
Jul	710,097
Aug	654,584
Sep	692,457
Oct	664,843
Nov	647,107
Dec	257,094
Total	**6,842,319**

PTX06-EW-24



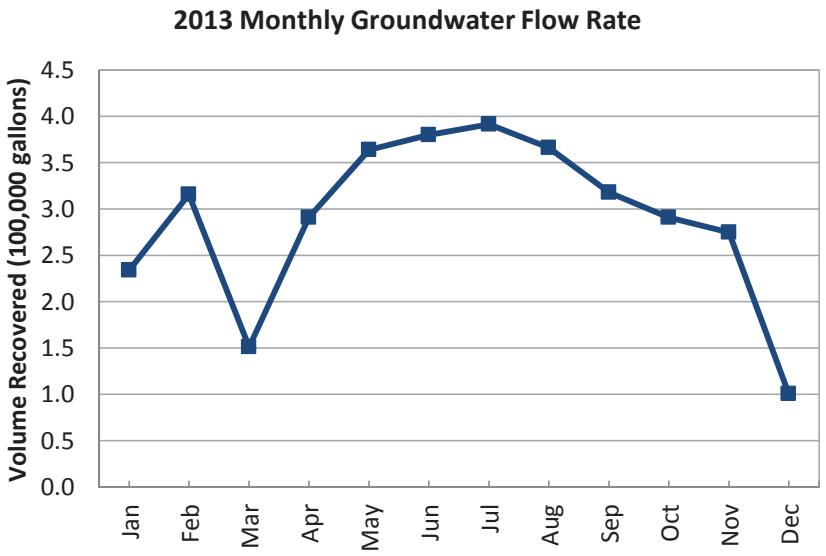
Month	Volume Recovered (gallons)
Jan	0
Feb	0
Mar	0
Apr	0
May	0
Jun	107,112
Jul	303,300
Aug	112,914
Sep	251,225
Oct	283,659
Nov	159,115
Dec	139,368
Total	**1,356,693**

PTX06-EW-25



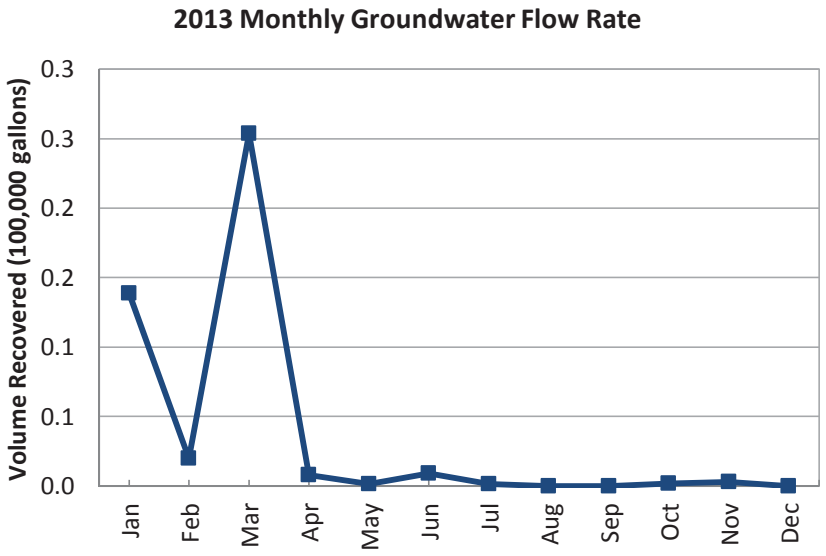
Month	Volume Recovered (gallons)
Jan	159,132
Feb	142,996
Mar	100,848
Apr	180,440
May	236,498
Jun	134,946
Jul	184,983
Aug	194,143
Sep	265,398
Oct	259,843
Nov	94,437
Dec	66,751
Total	**2,020,415**

PTX06-EW-26



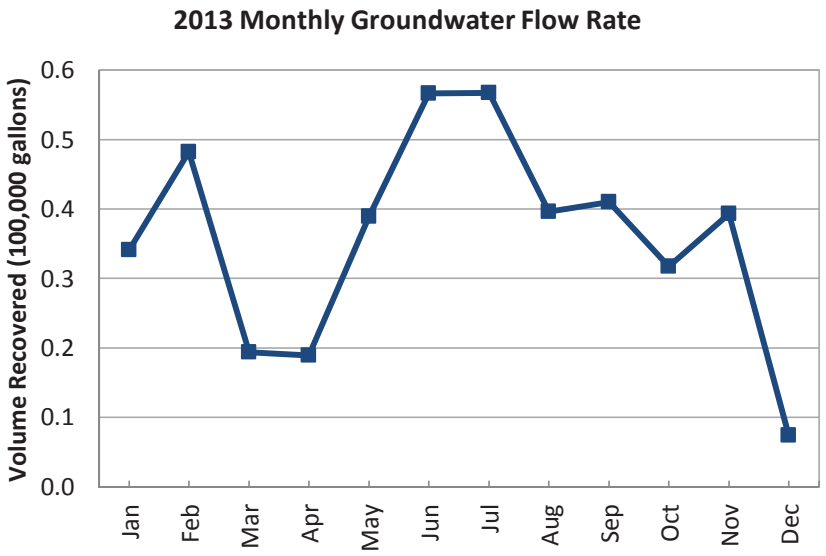
Month	Volume Recovered (gallons)
Jan	233,892
Feb	315,311
Mar	150,922
Apr	290,940
May	363,871
Jun	380,086
Jul	391,335
Aug	366,107
Sep	317,643
Oct	290,805
Nov	274,819
Dec	100,605
Total	**3,476,336**

PTX06-EW-27



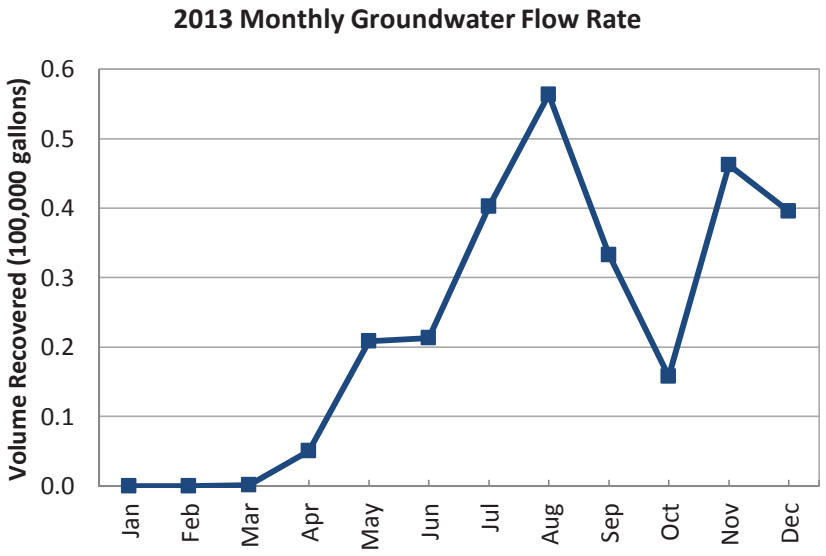
Month	Volume Recovered (gallons)
Jan	13,885
Feb	1,998
Mar	25,356
Apr	787
May	125
Jun	899
Jul	150
Aug	0
Sep	0
Oct	164
Nov	293
Dec	0
Total	**43,657**

PTX06-EW-28



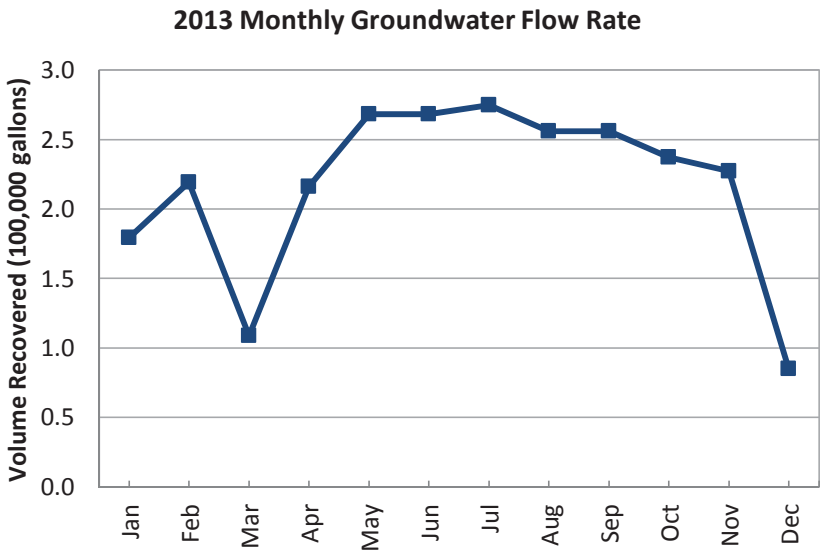
Month	Volume Recovered (gallons)
Jan	34,098
Feb	48,184
Mar	19,355
Apr	18,922
May	38,894
Jun	56,634
Jul	56,729
Aug	39,629
Sep	41,019
Oct	31,711
Nov	39,301
Dec	7,412
Total	**431,888**

PTX06-EW-29



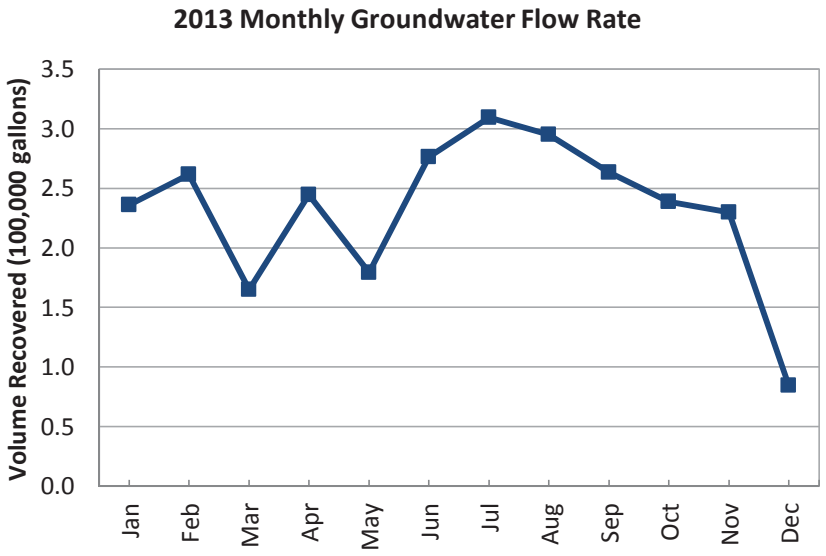
Month	Volume Recovered (gallons)
Jan	0
Feb	0
Mar	134
Apr	5,054
May	20,827
Jun	21,286
Jul	40,262
Aug	56,331
Sep	33,282
Oct	15,790
Nov	46,188
Dec	39,512
Total	**278,666**

PTX06-EW-30



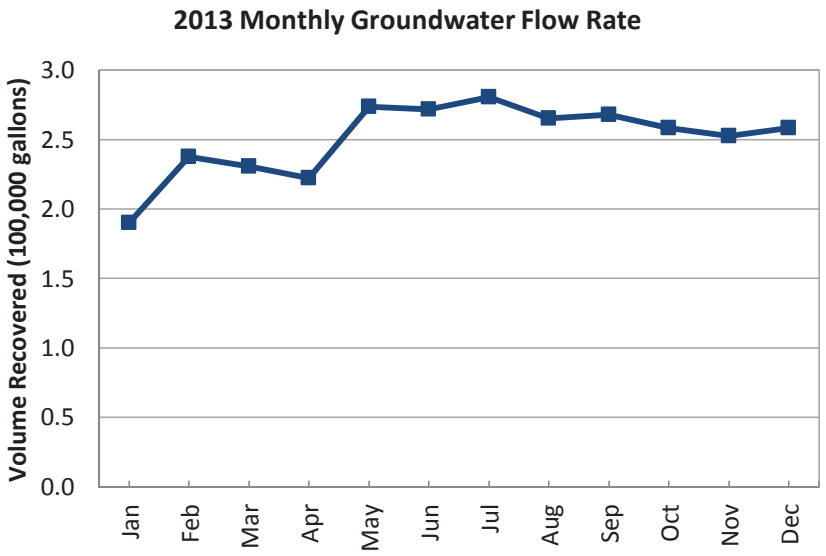
Month	Volume Recovered (gallons)
Jan	179,119
Feb	219,255
Mar	108,844
Apr	215,946
May	268,262
Jun	268,097
Jul	274,835
Aug	255,998
Sep	255,920
Oct	237,347
Nov	227,195
Dec	85,017
Total	**2,595,835**

PTX06-EW-31



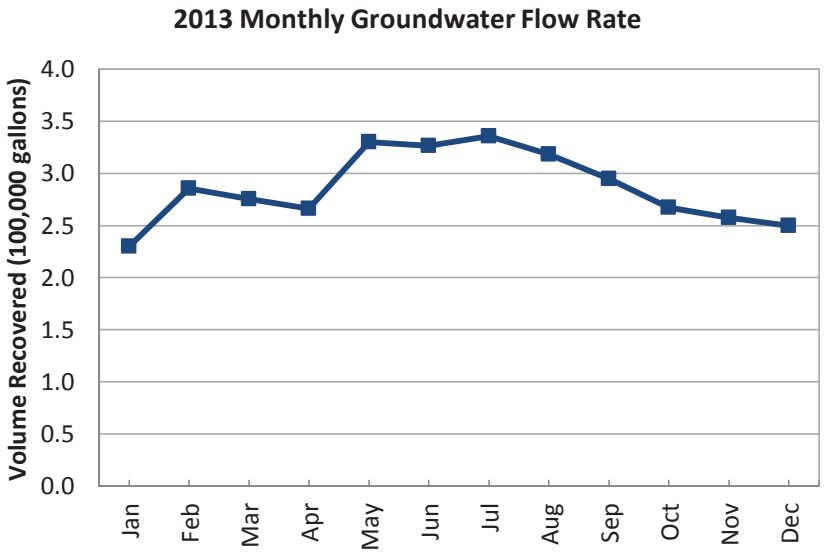
Month	Volume Recovered (gallons)
Jan	235,825
Feb	261,571
Mar	164,783
Apr	244,427
May	179,097
Jun	276,299
Jul	309,411
Aug	295,123
Sep	263,388
Oct	238,848
Nov	229,841
Dec	84,220
Total	**2,782,833**

PTX06-EW-32



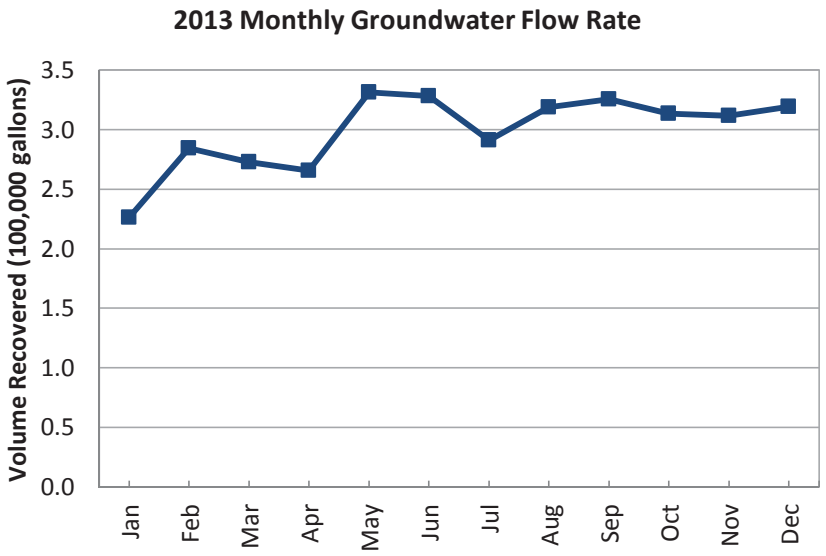
Month	Volume Recovered (gallons)
Jan	190,144
Feb	237,620
Mar	230,532
Apr	222,258
May	273,649
Jun	271,781
Jul	280,406
Aug	264,997
Sep	267,702
Oct	258,407
Nov	252,485
Dec	258,240
Total	**3,008,221**

PTX06-EW-33



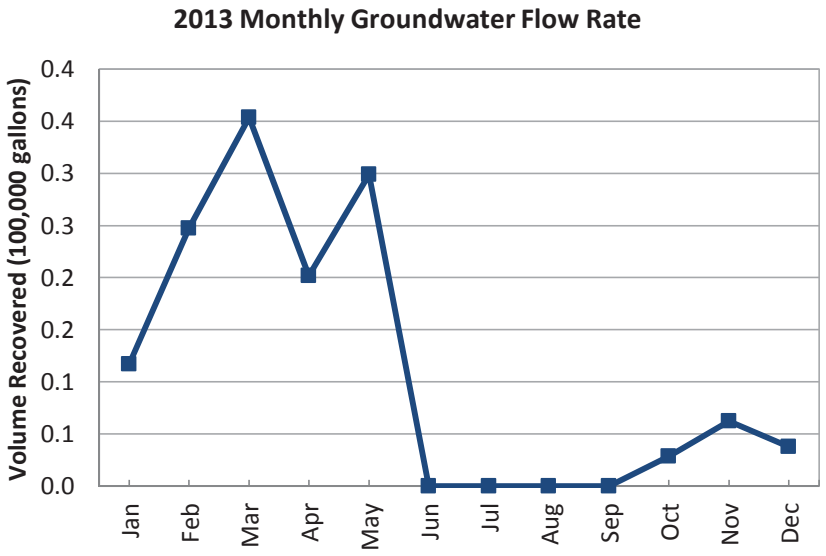
Month	Volume Recovered (gallons)
Jan	229,665
Feb	285,723
Mar	275,161
Apr	265,978
May	330,093
Jun	326,474
Jul	335,846
Aug	318,389
Sep	294,812
Oct	267,120
Nov	257,260
Dec	249,624
Total	**3,436,145**

PTX06-EW-34



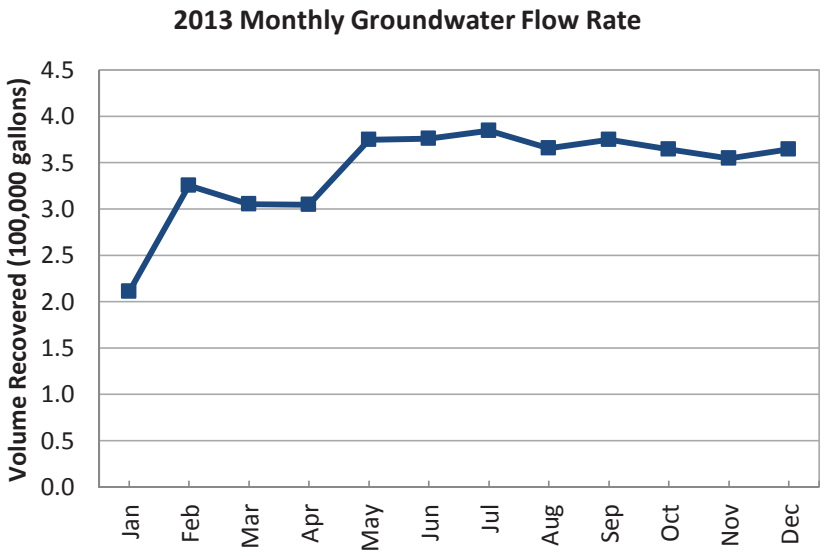
Month	Volume Recovered (gallons)
Jan	226,234
Feb	284,360
Mar	272,586
Apr	265,579
May	331,373
Jun	327,940
Jul	290,952
Aug	318,878
Sep	325,586
Oct	313,310
Nov	311,594
Dec	319,129
Total	**3,587,521**

PTX06-EW-35



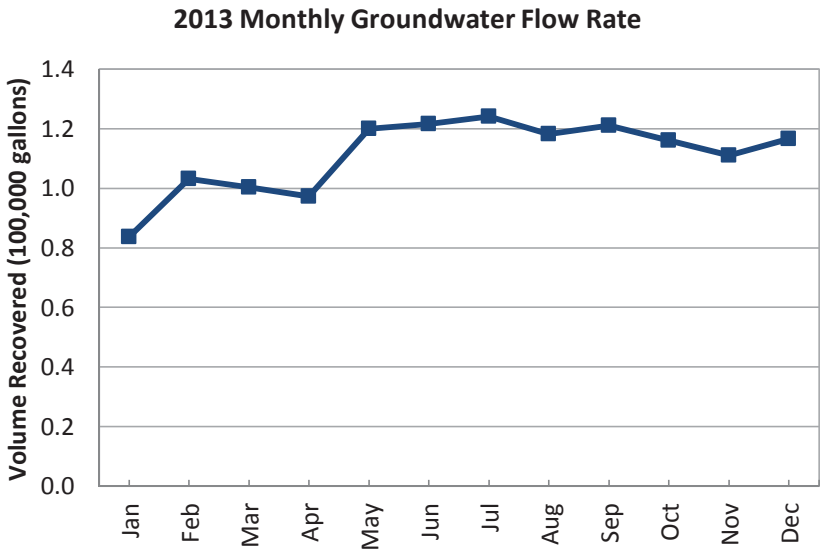
Month	Volume Recovered (gallons)
Jan	11,700
Feb	24,721
Mar	35,370
Apr	20,151
May	29,867
Jun	0
Jul	0
Aug	0
Sep	0
Oct	2,825
Nov	6,235
Dec	3,744
Total	**134,613**

PTX06-EW-36



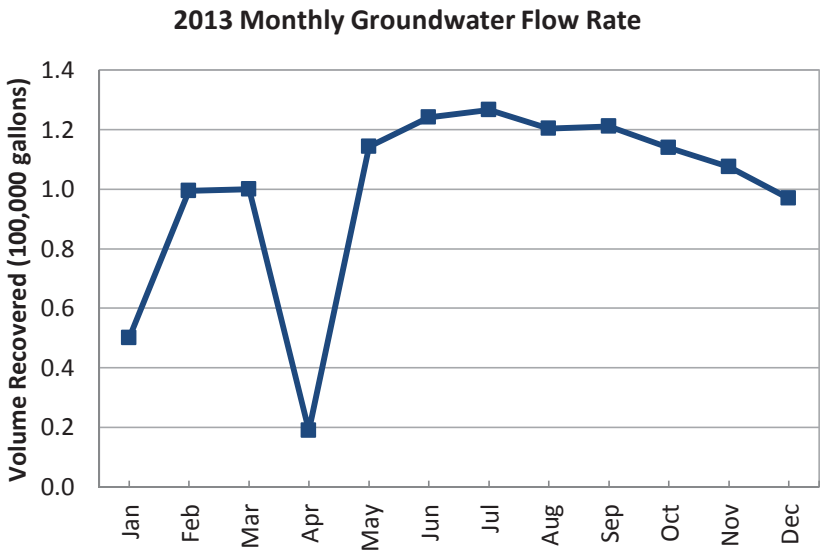
Month	Volume Recovered (gallons)
Jan	211,066
Feb	325,317
Mar	305,021
Apr	304,806
May	374,647
Jun	375,695
Jul	384,662
Aug	365,694
Sep	374,761
Oct	364,288
Nov	354,457
Dec	364,132
Total	**4,104,546**

PTX06-EW-37



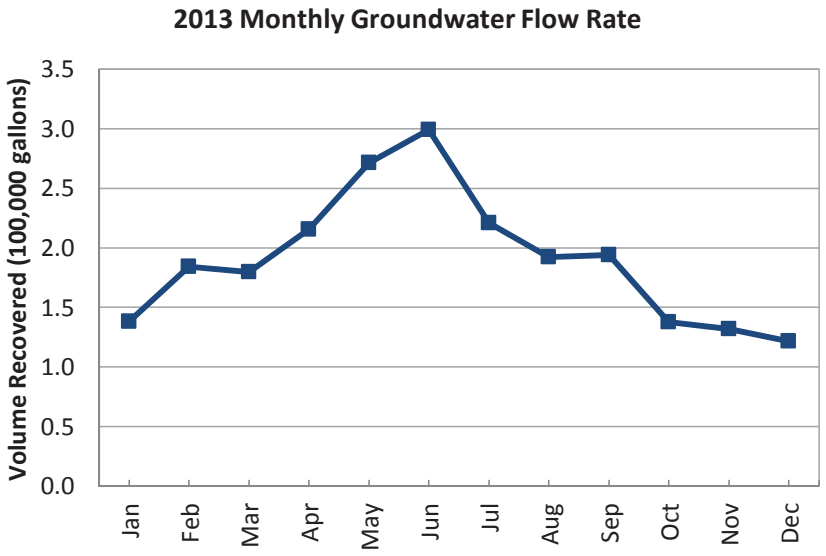
Month	Volume Recovered (gallons)
Jan	83,650
Feb	103,239
Mar	100,349
Apr	97,221
May	120,064
Jun	121,661
Jul	124,136
Aug	118,286
Sep	120,980
Oct	116,005
Nov	110,962
Dec	116,652
Total	**1,333,205**

PTX06-EW-38



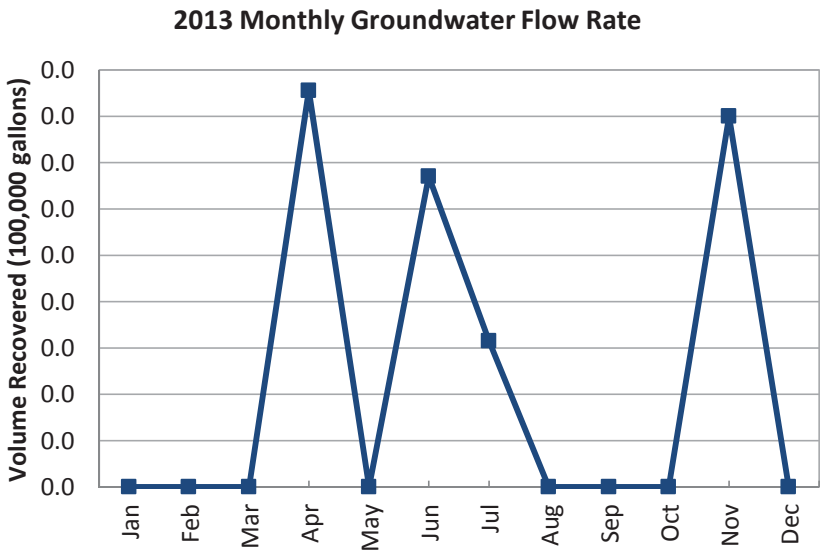
Month	Volume Recovered (gallons)
Jan	50,112
Feb	99,356
Mar	100,001
Apr	18,960
May	114,295
Jun	124,101
Jul	126,685
Aug	120,401
Sep	121,052
Oct	113,950
Nov	107,552
Dec	96,826
Total	**1,193,291**

PTX06-EW-39



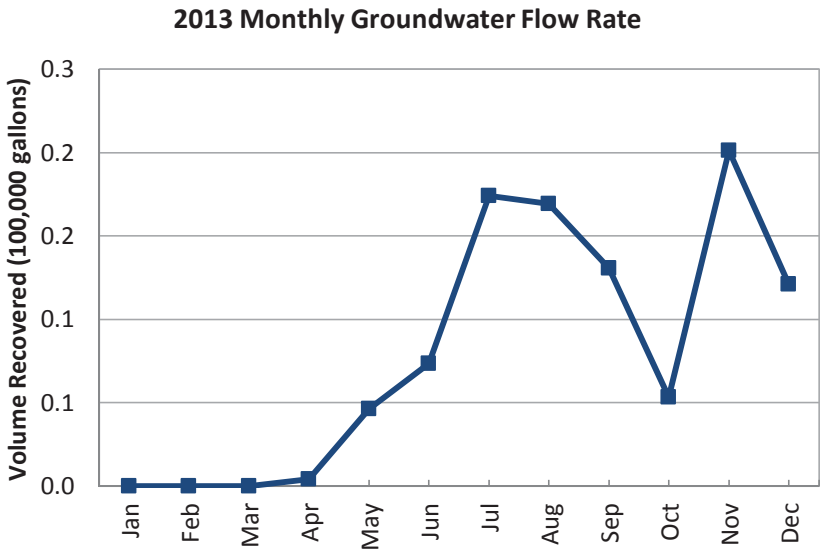
Month	Volume Recovered (gallons)
Jan	137,862
Feb	184,309
Mar	179,525
Apr	215,620
May	271,506
Jun	299,091
Jul	220,701
Aug	192,285
Sep	193,950
Oct	137,398
Nov	131,643
Dec	121,603
Total	**2,285,493**

PTX06-EW-40



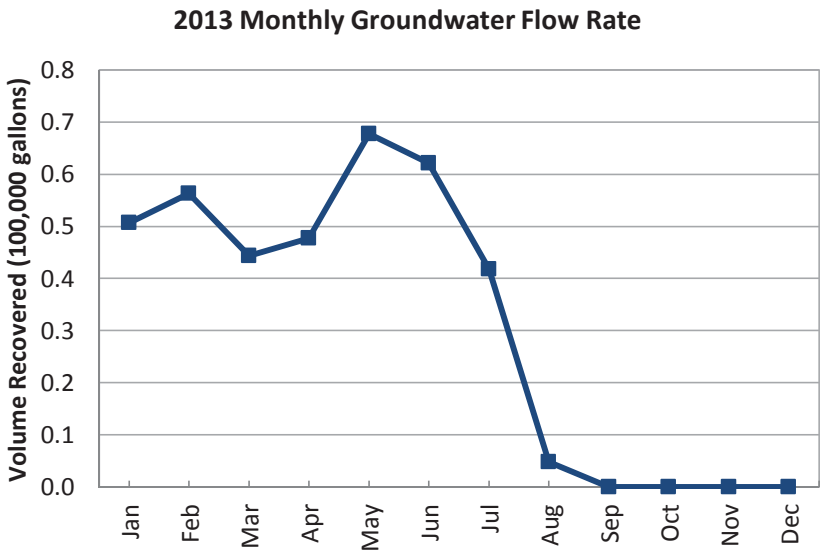
Month	Volume Recovered (gallons)
Jan	0
Feb	0
Mar	0
Apr	171
May	0
Jun	134
Jul	63
Aug	0
Sep	0
Oct	0
Nov	160
Dec	0
Total	**528**

PTX06-EW-41



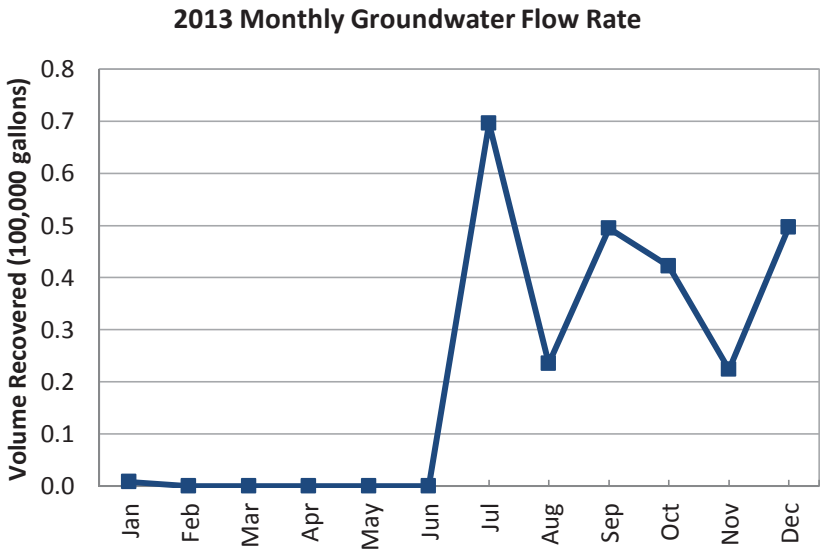
Month	Volume Recovered (gallons)
Jan	0
Feb	0
Mar	0
Apr	410
May	4,615
Jun	7,345
Jul	17,391
Aug	16,907
Sep	13,050
Oct	5,325
Nov	20,132
Dec	12,084
Total	**97,259**

PTX06-EW-42



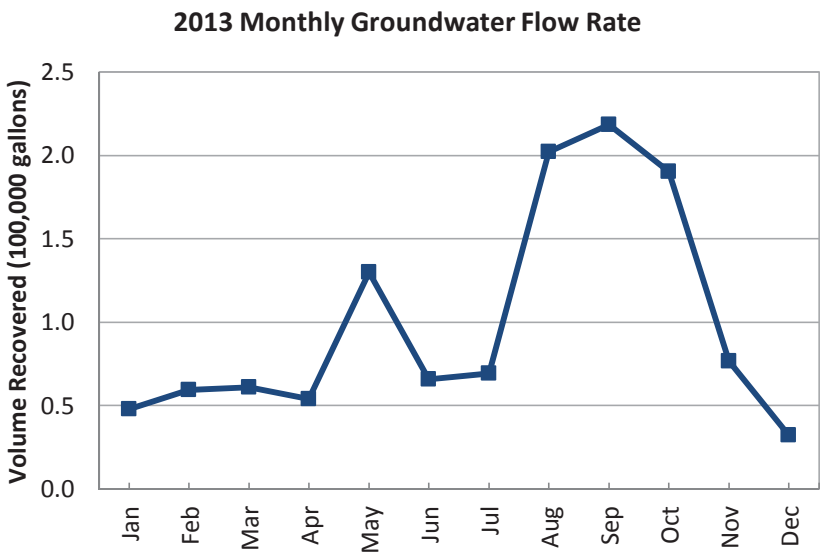
Month	Volume Recovered (gallons)
Jan	50,713
Feb	56,251
Mar	44,361
Apr	47,733
May	67,699
Jun	62,100
Jul	41,832
Aug	4,775
Sep	0
Oct	0
Nov	0
Dec	0
Total	**375,464**

PTX06-EW-43



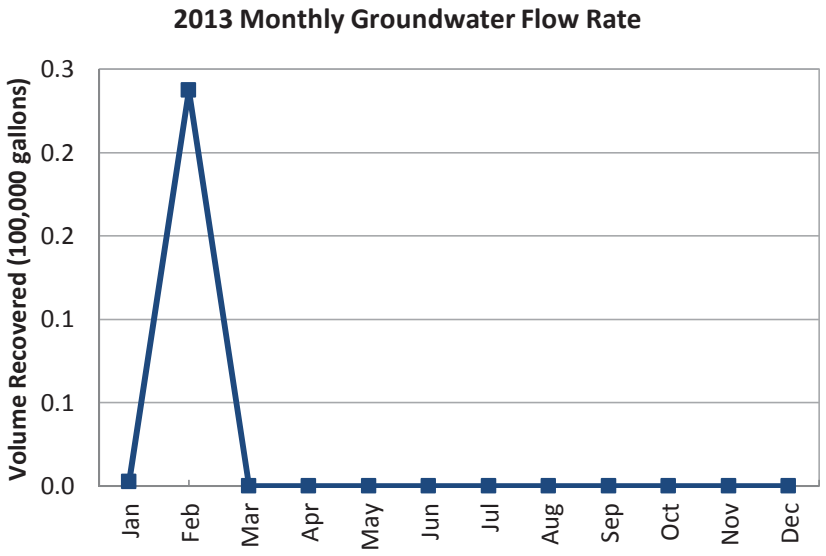
Month	Volume Recovered (gallons)
Jan	784
Feb	0
Mar	0
Apr	0
May	0
Jun	0
Jul	69,606
Aug	23,486
Sep	49,471
Oct	42,199
Nov	22,330
Dec	49,646
Total	**257,522**

PTX06-EW-44



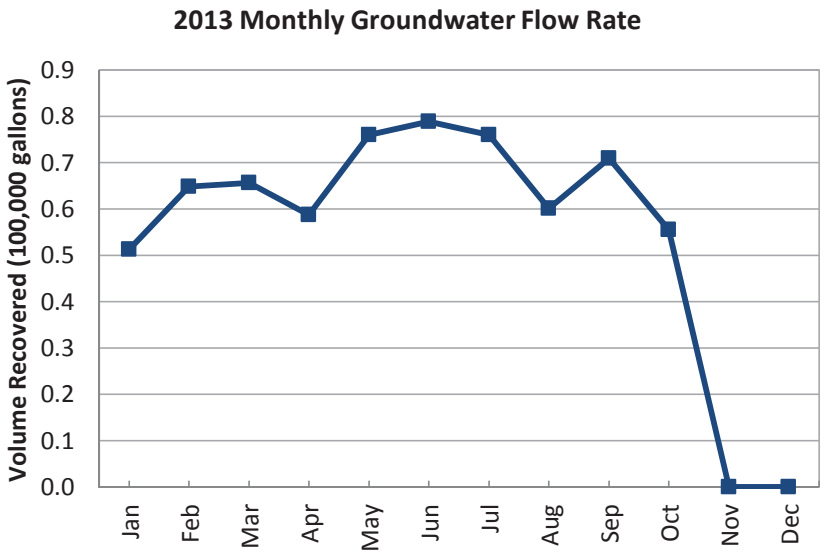
Month	Volume Recovered (gallons)
Jan	47,708
Feb	59,476
Mar	60,924
Apr	53,759
May	130,039
Jun	65,831
Jul	69,147
Aug	202,154
Sep	218,266
Oct	190,281
Nov	76,459
Dec	32,033
Total	**1,206,077**

PTX06-EW-45



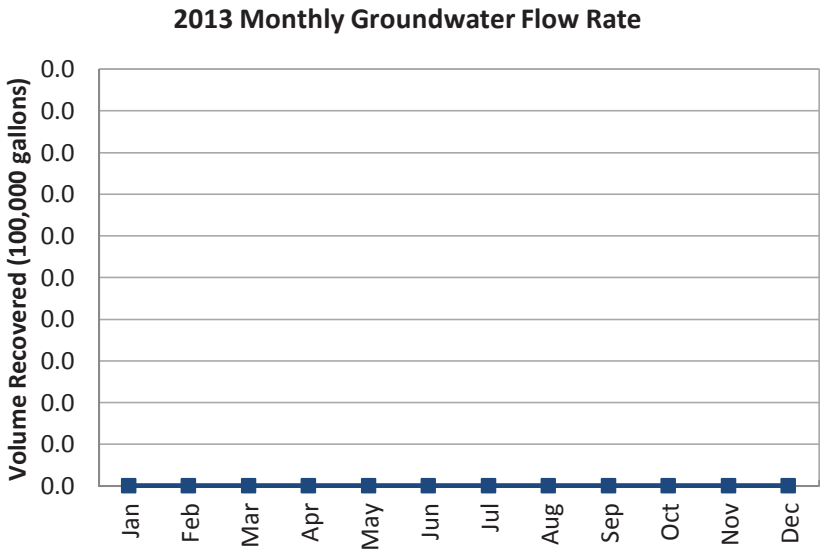
Month	Volume Recovered (gallons)
Jan	255
Feb	23,734
Mar	0
Apr	0
May	0
Jun	0
Jul	0
Aug	0
Sep	0
Oct	0
Nov	0
Dec	0
Total	**23,989**

PTX06-EW-46



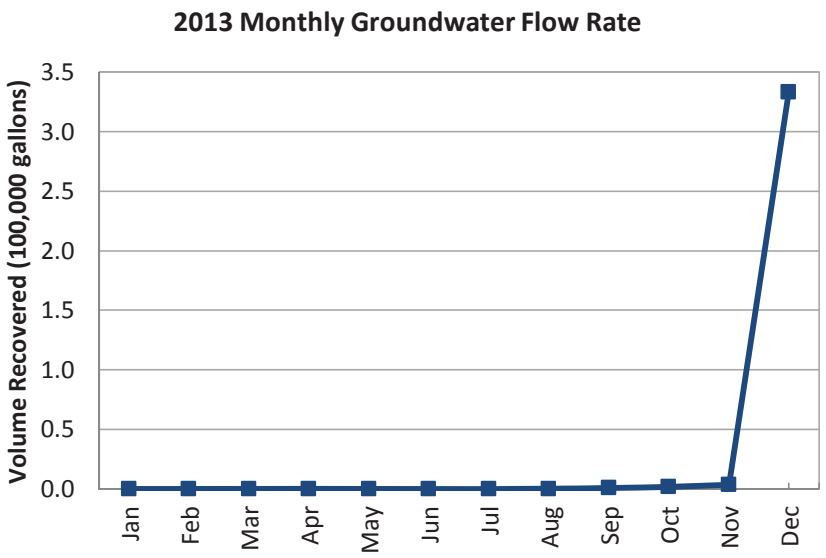
Month	Volume Recovered (gallons)
Jan	51,231
Feb	64,806
Mar	65,634
Apr	58,790
May	75,931
Jun	78,813
Jul	76,020
Aug	60,143
Sep	70,911
Oct	55,477
Nov	0
Dec	0
Total	**657,756**

PTX06-EW-47



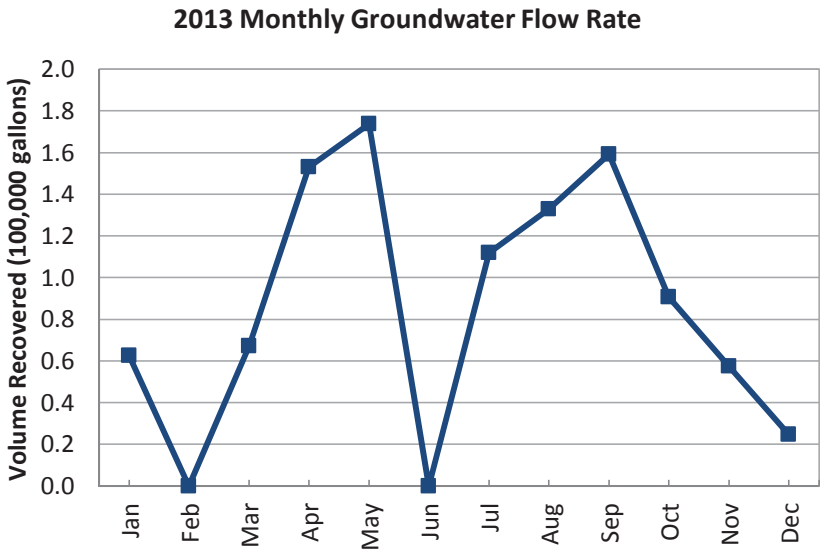
Month	Volume Recovered (gallons)
Jan	0
Feb	0
Mar	0
Apr	0
May	0
Jun	0
Jul	0
Aug	0
Sep	0
Oct	0
Nov	0
Dec	0
Total	**0**

PTX06-EW-48



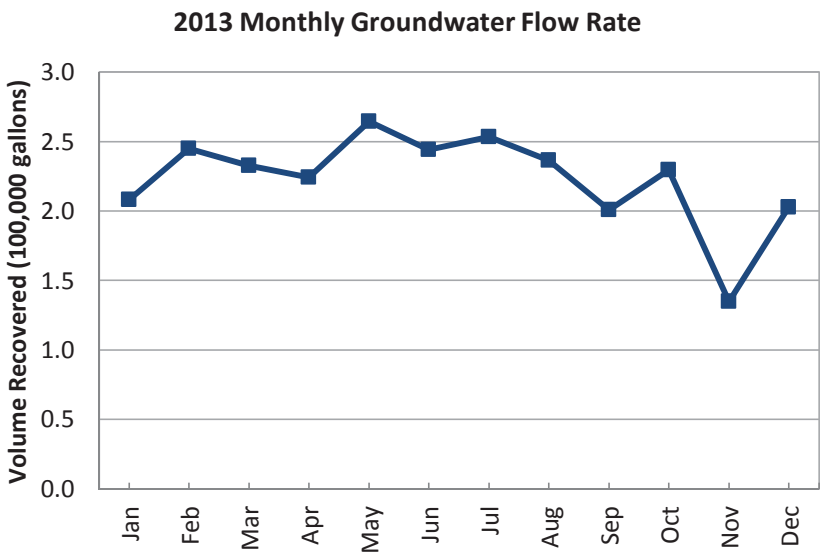
Month	Volume Recovered (gallons)
Jan	0
Feb	0
Mar	0
Apr	0
May	0
Jun	0
Jul	0
Aug	0
Sep	539
Oct	1,604
Nov	3,443
Dec	333,288
Total	**338,874**

PTX06-EW-49



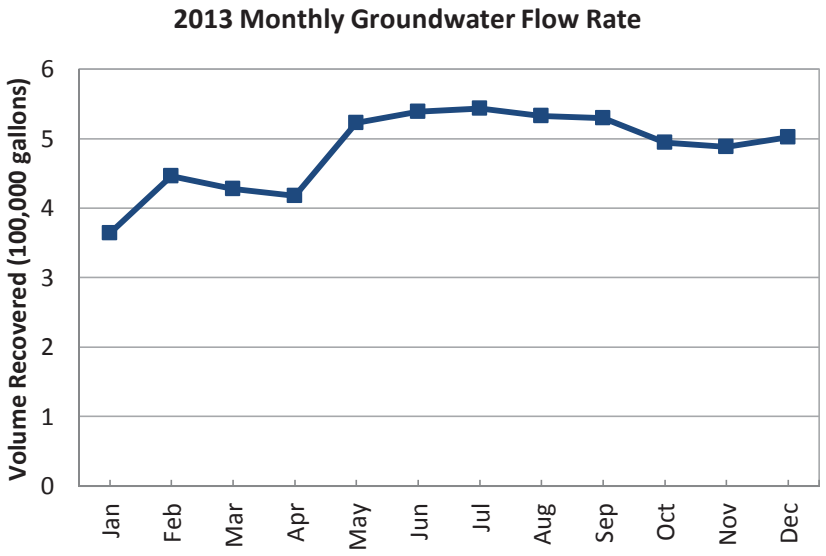
Month	Volume Recovered (gallons)
Jan	62,656
Feb	0
Mar	67,235
Apr	152,928
May	173,766
Jun	0
Jul	111,812
Aug	132,697
Sep	159,234
Oct	90,689
Nov	57,412
Dec	24,651
Total	**1,033,080**

PTX06-EW-50



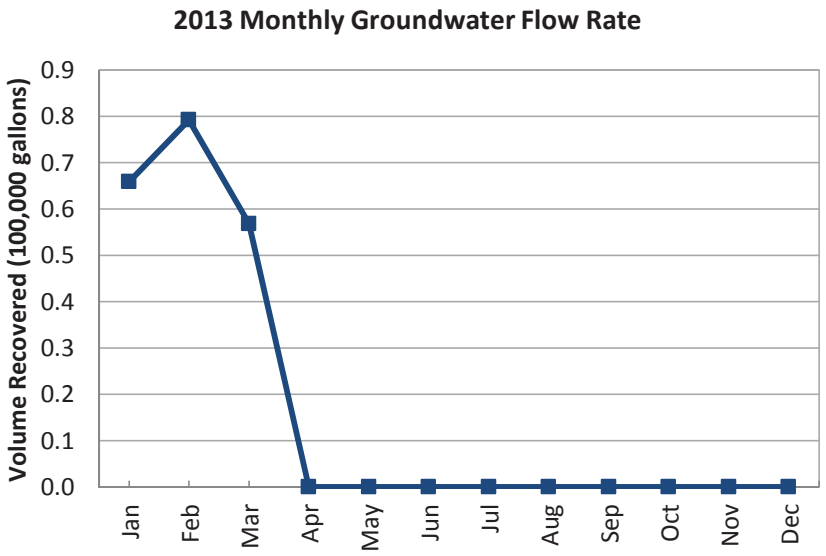
Month	Volume Recovered (gallons)
Jan	207,971
Feb	244,914
Mar	232,471
Apr	224,048
May	264,407
Jun	244,031
Jul	253,165
Aug	236,291
Sep	200,693
Oct	229,398
Nov	134,826
Dec	202,562
Total	**2,674,777**

PTX06-EW-51



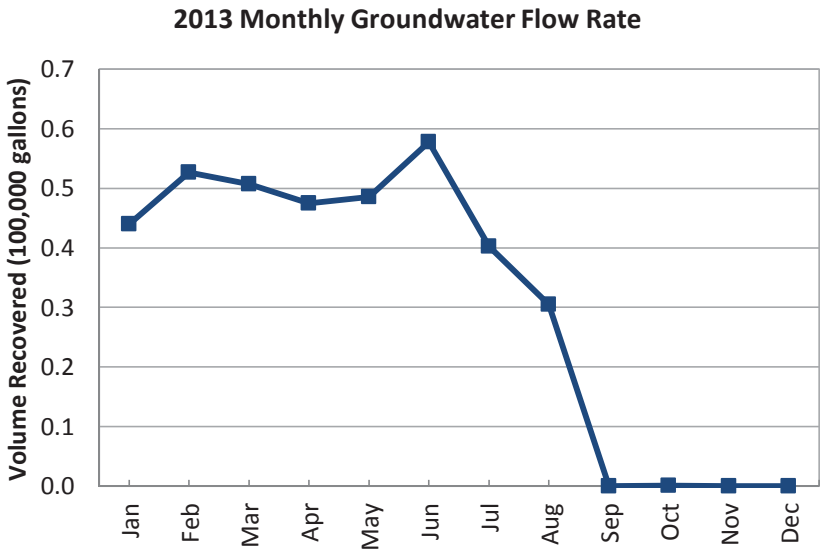
Month	Volume Recovered (gallons)
Jan	364,081
Feb	445,626
Mar	427,287
Apr	417,510
May	522,908
Jun	538,870
Jul	543,196
Aug	532,992
Sep	529,456
Oct	494,339
Nov	488,133
Dec	502,314
Total	**5,806,712**

PTX06-EW-53



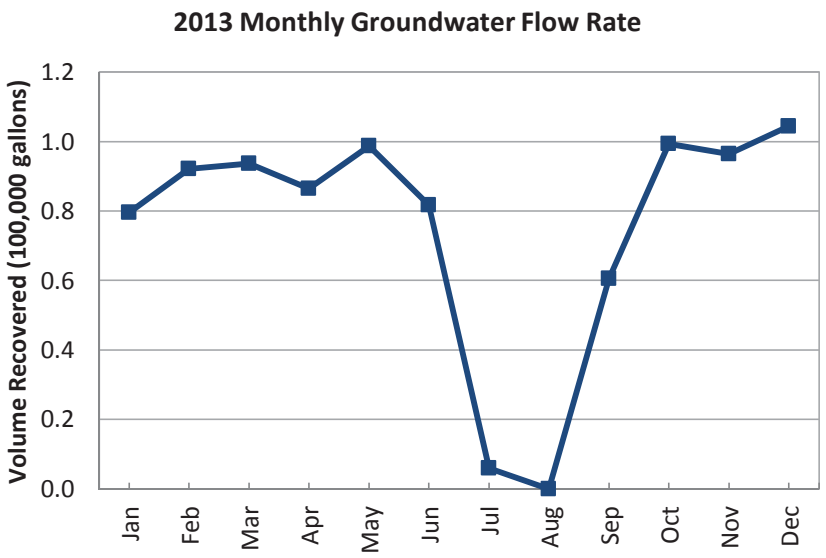
Month	Volume Recovered (gallons)
Jan	65,839
Feb	79,187
Mar	56,784
Apr	0
May	0
Jun	0
Jul	0
Aug	0
Sep	0
Oct	0
Nov	0
Dec	0
Total	**201,810**

PTX06-EW-54



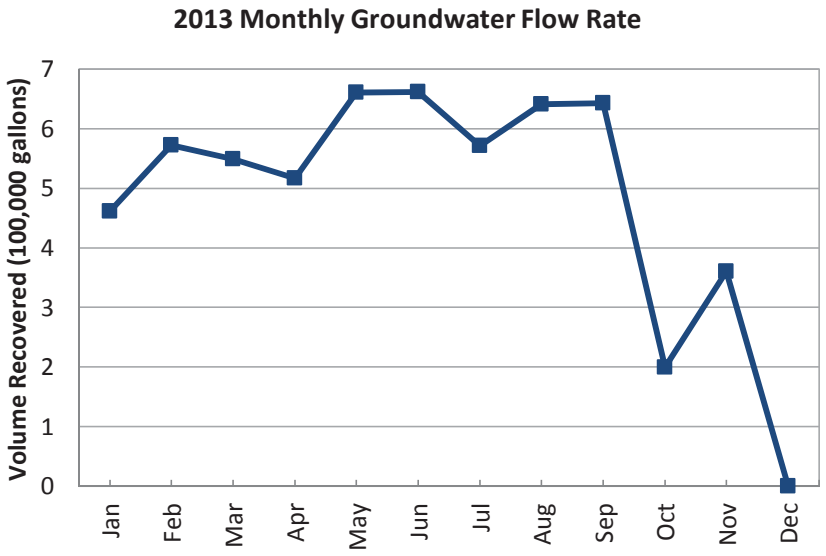
Month	Volume Recovered (gallons)
Jan	43,967
Feb	52,691
Mar	50,696
Apr	47,461
May	48,589
Jun	57,723
Jul	40,195
Aug	30,471
Sep	0
Oct	60
Nov	0
Dec	0
Total	**371,853**

PTX06-EW-55



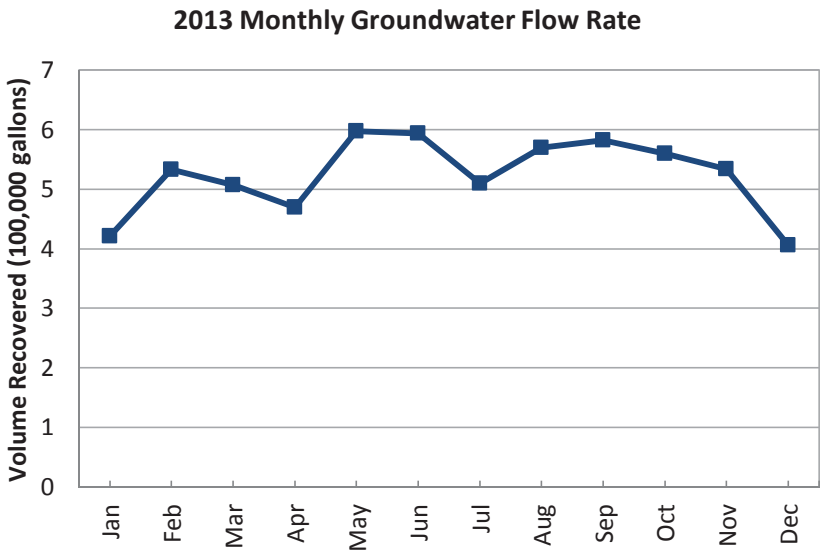
Month	Volume Recovered (gallons)
Jan	79,604
Feb	92,073
Mar	93,612
Apr	86,486
May	98,655
Jun	81,710
Jul	5,992
Aug	0
Sep	60,565
Oct	99,307
Nov	96,419
Dec	104,384
Total	**898,807**

PTX06-EW-56



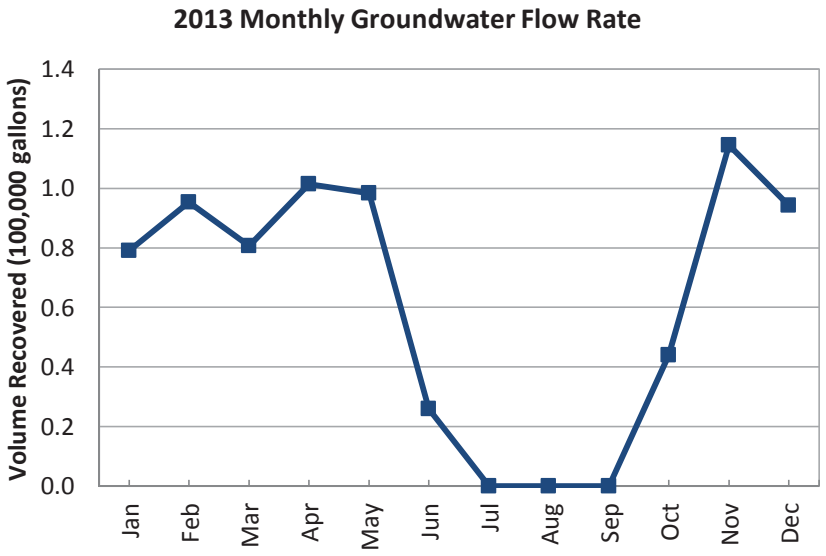
Month	Volume Recovered (gallons)
Jan	461,487
Feb	572,487
Mar	549,232
Apr	517,076
May	660,397
Jun	661,721
Jul	571,703
Aug	641,144
Sep	642,847
Oct	199,250
Nov	360,157
Dec	0
Total	**5,837,501**

PTX06-EW-57



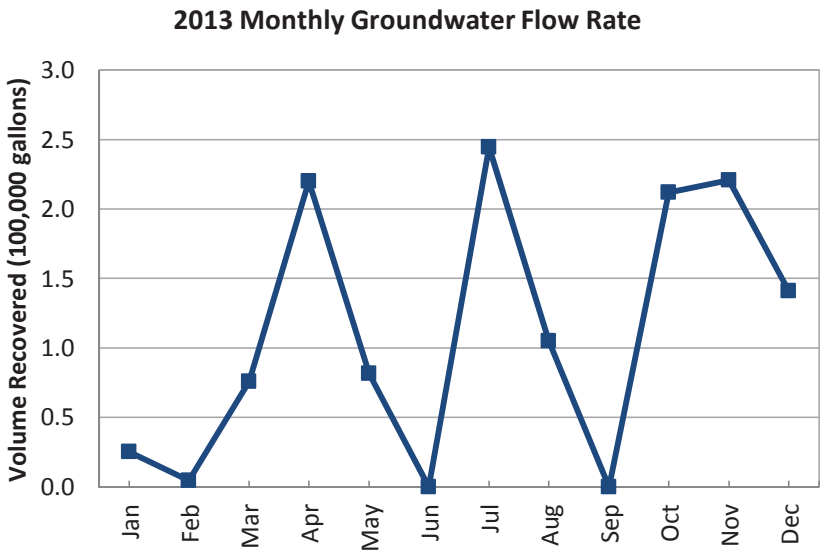
Month	Volume Recovered (gallons)
Jan	420,973
Feb	532,583
Mar	507,270
Apr	469,036
May	597,355
Jun	593,599
Jul	509,352
Aug	569,818
Sep	582,309
Oct	559,284
Nov	534,046
Dec	405,788
Total	**6,281,413**

PTX06-EW-58



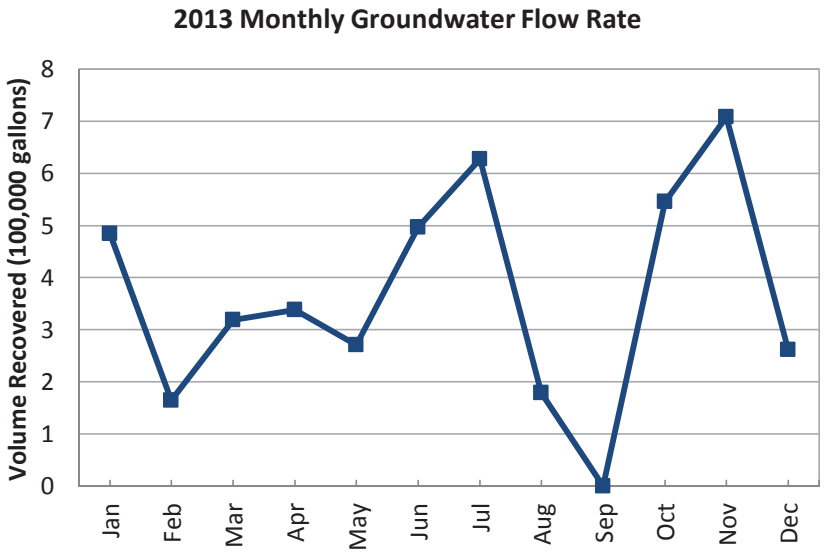
Month	Volume Recovered (gallons)
Jan	79,104
Feb	95,337
Mar	80,590
Apr	101,388
May	98,382
Jun	25,927
Jul	0
Aug	0
Sep	0
Oct	43,930
Nov	114,381
Dec	94,301
Total	**733,340**

PTX06-EW-59



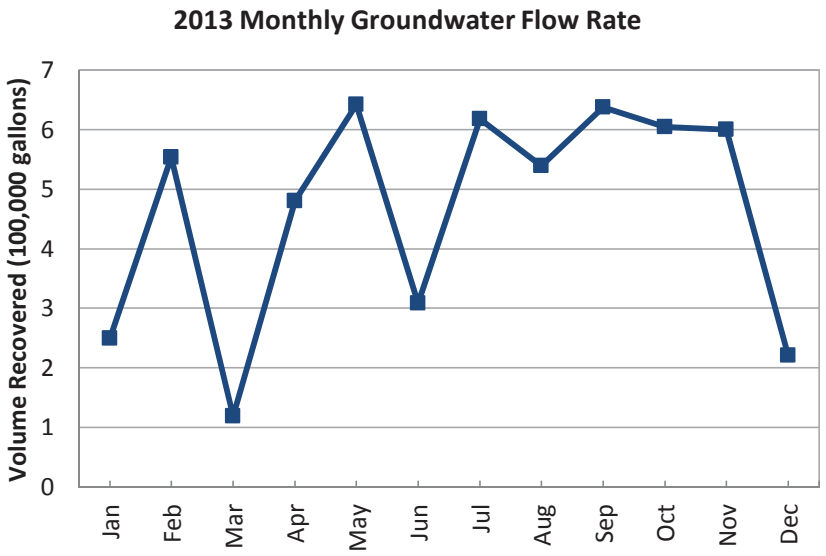
Month	Volume Recovered (gallons)
Jan	25,208
Feb	4,512
Mar	75,923
Apr	219,872
May	81,598
Jun	0
Jul	244,293
Aug	104,910
Sep	0
Oct	212,034
Nov	220,738
Dec	140,872
Total	**1,329,960**

PTX06-EW-60



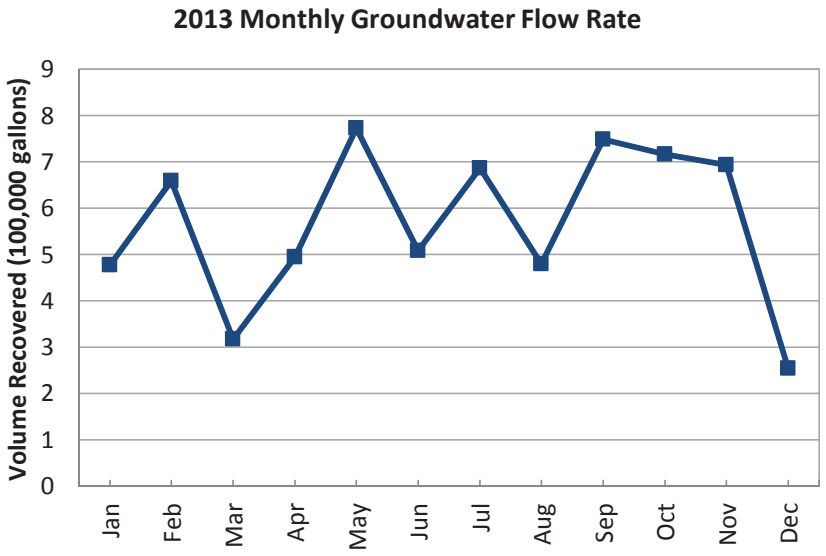
Month	Volume Recovered (gallons)
Jan	484,541
Feb	164,323
Mar	318,745
Apr	338,466
May	270,449
Jun	496,949
Jul	627,065
Aug	178,362
Sep	0
Oct	545,801
Nov	708,609
Dec	261,232
Total	**4,394,542**

PTX06-EW-61



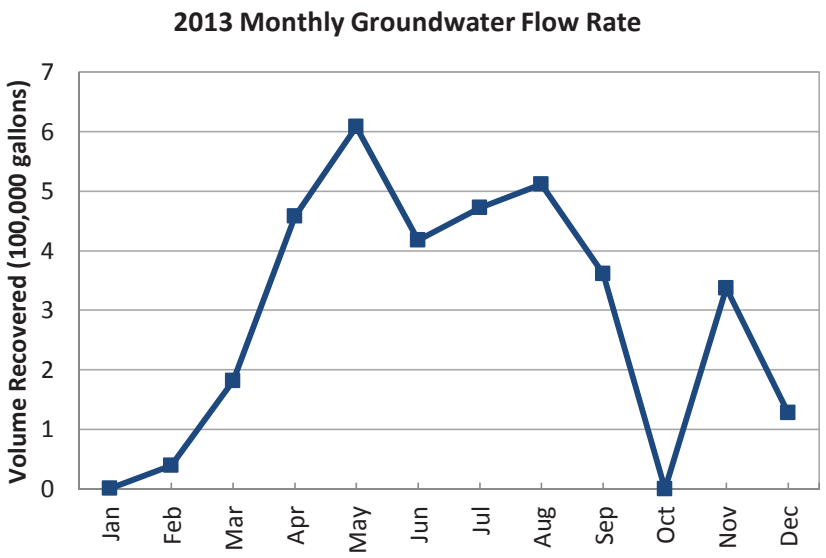
Month	Volume Recovered (gallons)
Jan	249,453
Feb	553,499
Mar	119,090
Apr	480,502
May	641,922
Jun	308,664
Jul	618,261
Aug	538,890
Sep	637,607
Oct	604,596
Nov	600,100
Dec	221,043
Total	**5,573,627**

PTX06-EW-62



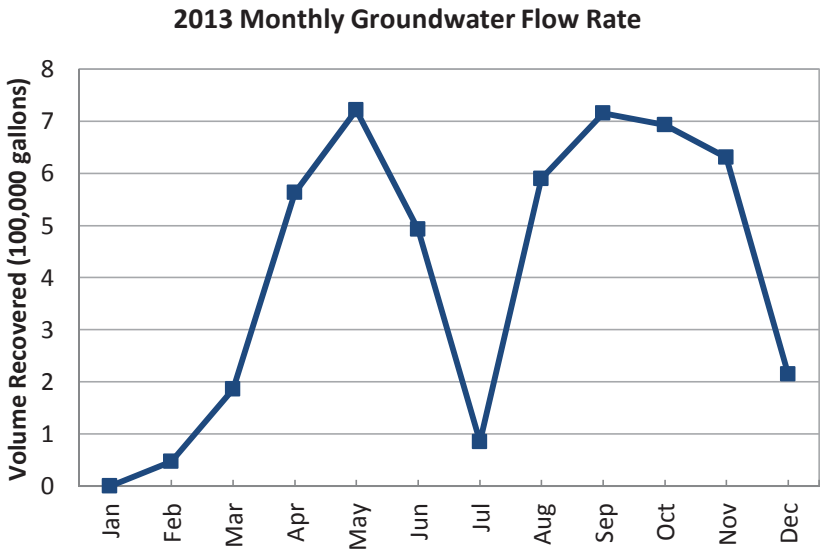
Month	Volume Recovered (gallons)
Jan	477,282
Feb	658,831
Mar	317,164
Apr	493,985
May	771,951
Jun	508,468
Jul	686,281
Aug	479,304
Sep	748,528
Oct	716,051
Nov	693,583
Dec	253,890
Total	**6,805,318**

PTX06-EW-63



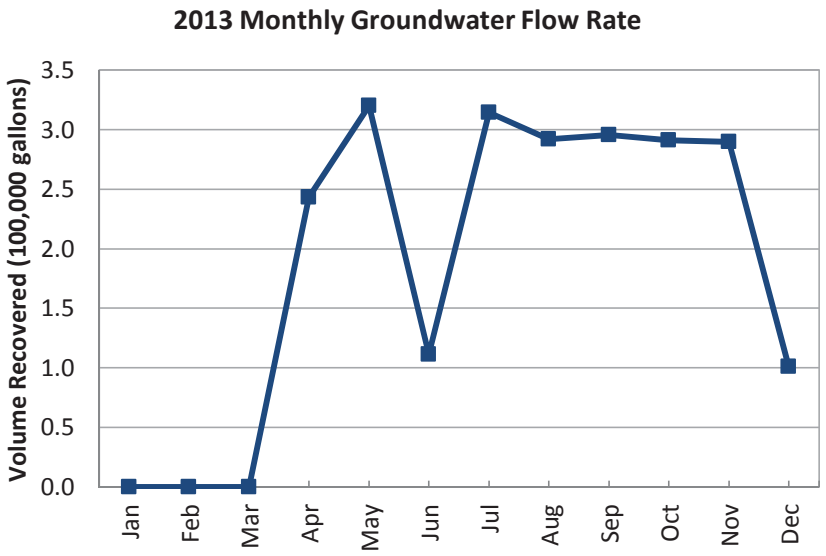
Month	Volume Recovered (gallons)
Jan	779
Feb	39,157
Mar	180,874
Apr	458,091
May	608,369
Jun	417,163
Jul	471,842
Aug	511,763
Sep	361,172
Oct	0
Nov	337,214
Dec	127,337
Total	**3,513,761**

PTX06-EW-64



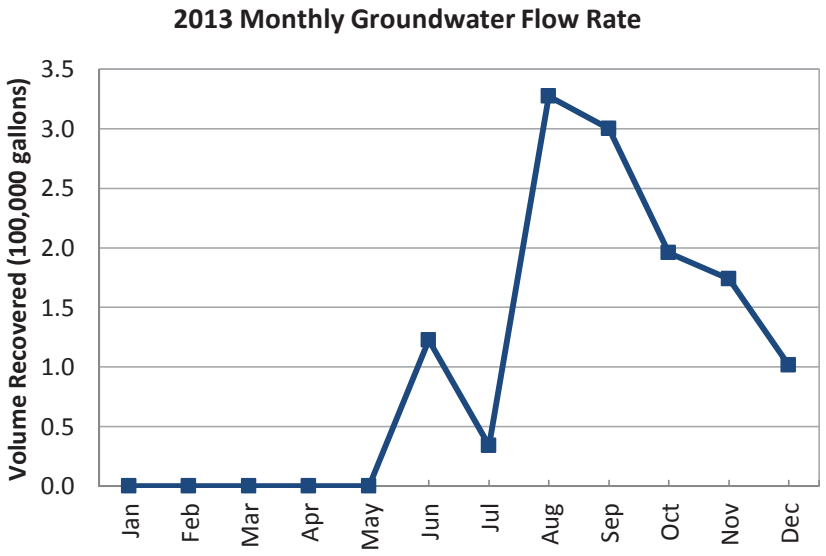
Month	Volume Recovered (gallons)
Jan	180
Feb	46,285
Mar	185,405
Apr	563,015
May	721,728
Jun	492,806
Jul	84,040
Aug	590,030
Sep	715,744
Oct	692,499
Nov	630,309
Dec	213,901
Total	**4,935,942**

PTX06-EW-65



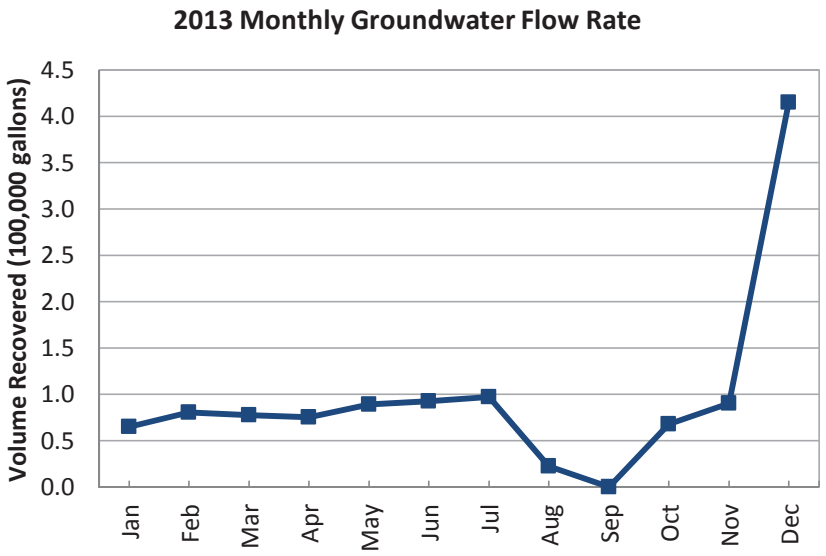
Month	Volume Recovered (gallons)
Jan	0
Feb	0
Mar	0
Apr	243,390
May	320,234
Jun	111,080
Jul	314,469
Aug	291,822
Sep	295,603
Oct	290,954
Nov	289,816
Dec	100,959
Total	**2,258,327**

PTX06-EW-66



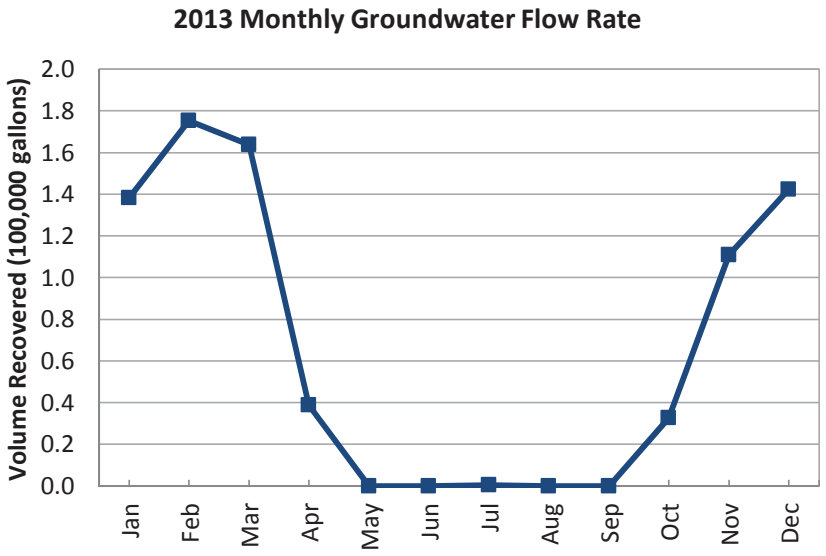
Month	Volume Recovered (gallons)
Jan	0
Feb	0
Mar	0
Apr	0
May	0
Jun	122,519
Jul	33,786
Aug	327,062
Sep	299,987
Oct	195,662
Nov	173,781
Dec	101,170
Total	**1,253,967**

PTX06-EW-67



Month	Volume Recovered (gallons)
Jan	64,954
Feb	80,571
Mar	77,403
Apr	75,231
May	89,222
Jun	92,337
Jul	97,101
Aug	22,332
Sep	0
Oct	67,568
Nov	89,932
Dec	414,789
Total	**1,171,440**

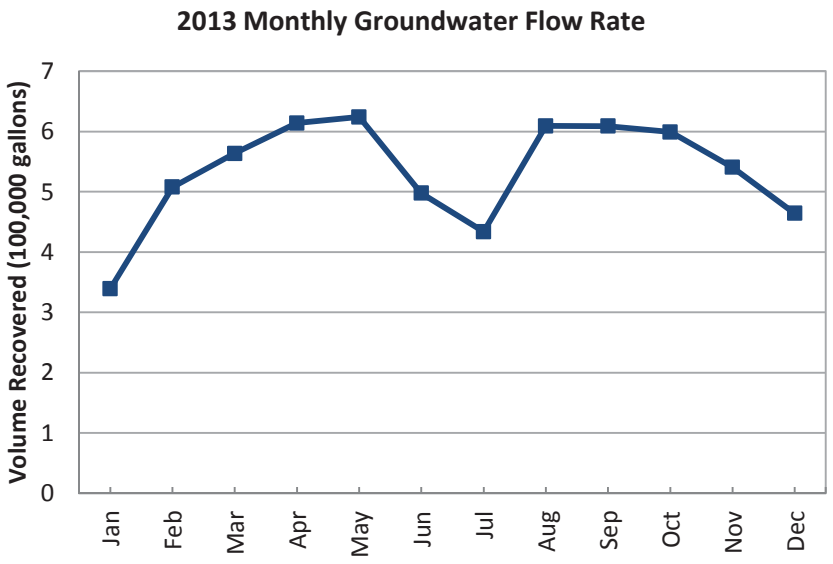
PTX06-EW-68



Month	Volume Recovered (gallons)
Jan	138,238
Feb	175,342
Mar	163,641
Apr	38,807
May	0
Jun	0
Jul	499
Aug	0
Sep	0
Oct	32,738
Nov	110,910
Dec	142,159
Total	**802,334**

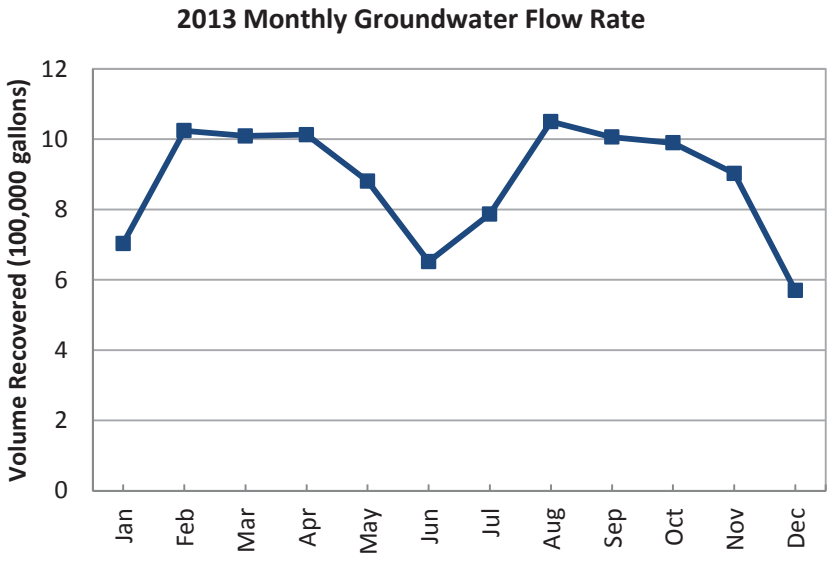
Playa 1 Pump and Treat System

PTX06-EW-69



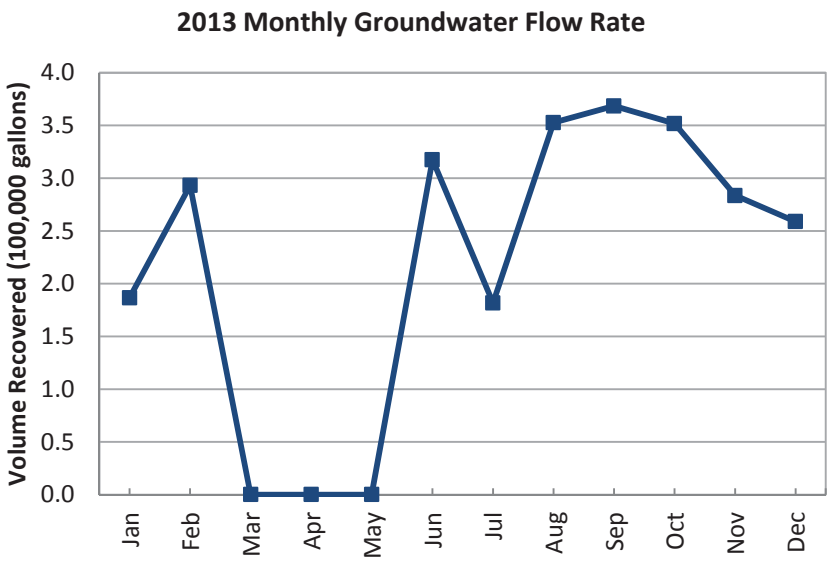
Month	Volume Recovered (gallons)
Jan	339,271
Feb	507,812
Mar	563,836
Apr	614,175
May	624,213
Jun	497,663
Jul	433,684
Aug	609,309
Sep	609,004
Oct	599,348
Nov	540,696
Dec	464,189
Total	**6,403,200**

PTX06-EW-70



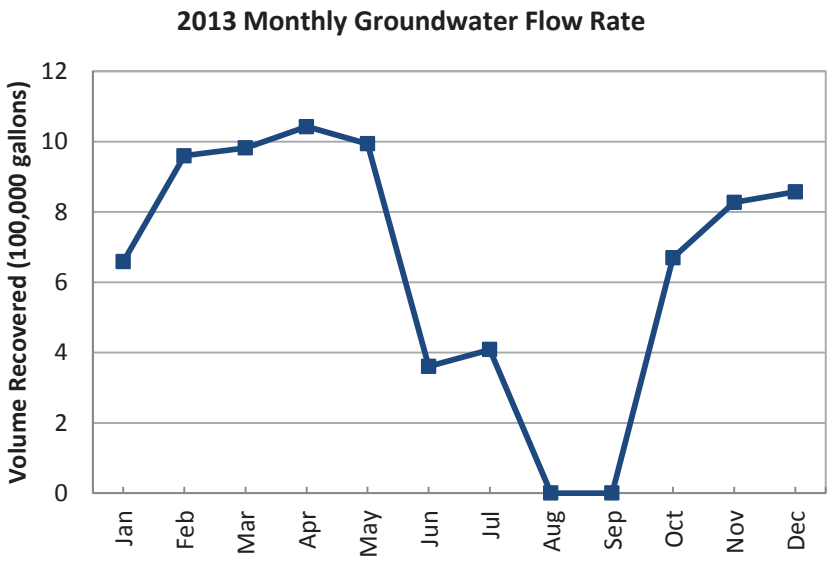
Month	Volume Recovered (gallons)
Jan	703,498
Feb	1,024,252
Mar	1,009,104
Apr	1,012,694
May	881,184
Jun	651,760
Jul	787,157
Aug	1,049,913
Sep	1,006,195
Oct	989,474
Nov	902,712
Dec	569,662
Total	**10,587,605**

PTX06-EW-71



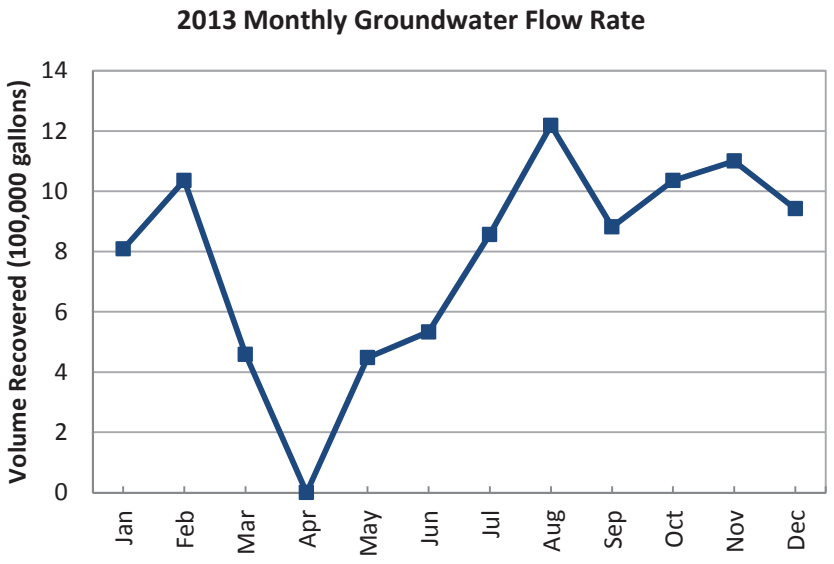
Month	Volume Recovered (gallons)
Jan	186,707
Feb	293,214
Mar	0
Apr	0
May	0
Jun	317,593
Jul	181,819
Aug	352,767
Sep	368,575
Oct	351,870
Nov	283,625
Dec	258,969
Total	**2,595,139**

PTX06-EW-72



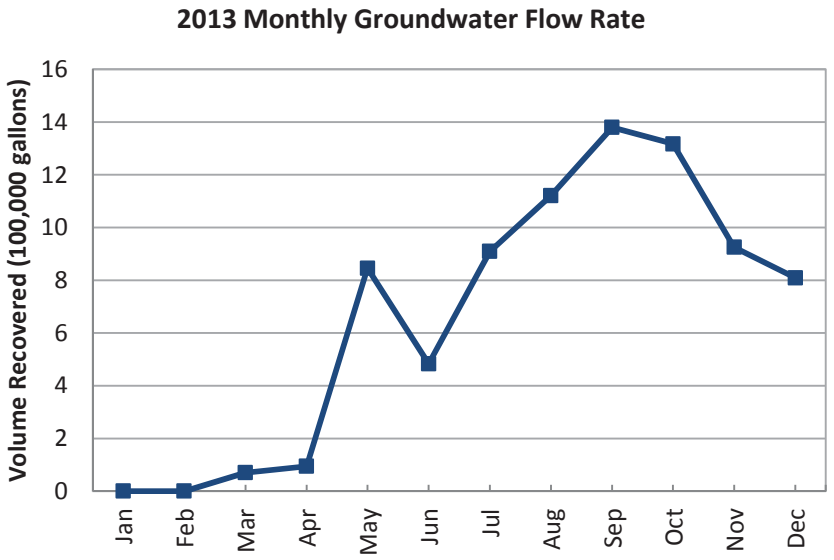
Month	Volume Recovered (gallons)
Jan	658,841
Feb	959,936
Mar	982,243
Apr	1,042,830
May	994,241
Jun	360,904
Jul	408,463
Aug	0
Sep	0
Oct	669,836
Nov	827,395
Dec	857,376
Total	**7,762,065**

PTX06-EW-73



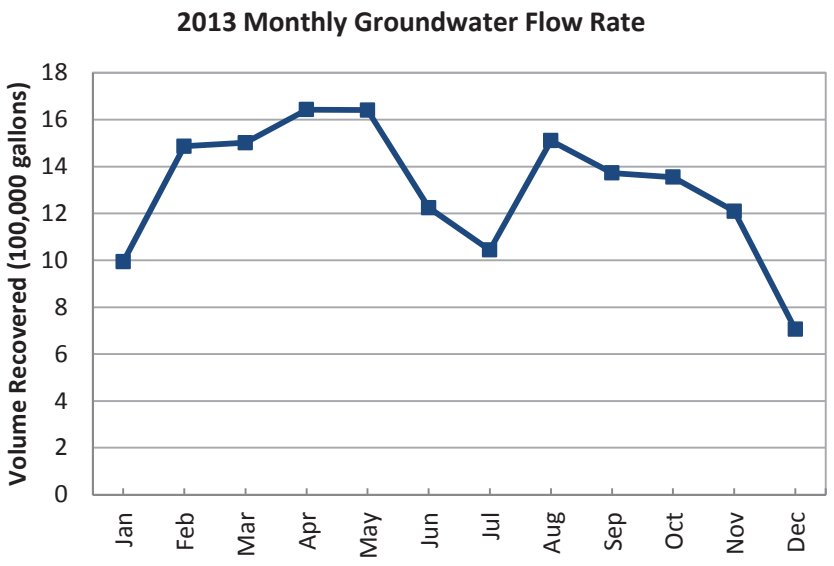
Month	Volume Recovered (gallons)
Jan	808,539
Feb	1,036,129
Mar	459,043
Apr	0
May	448,173
Jun	533,341
Jul	857,143
Aug	1,218,590
Sep	881,825
Oct	1,035,550
Nov	1,100,483
Dec	942,346
Total	**9,321,162**

PTX06-EW-74



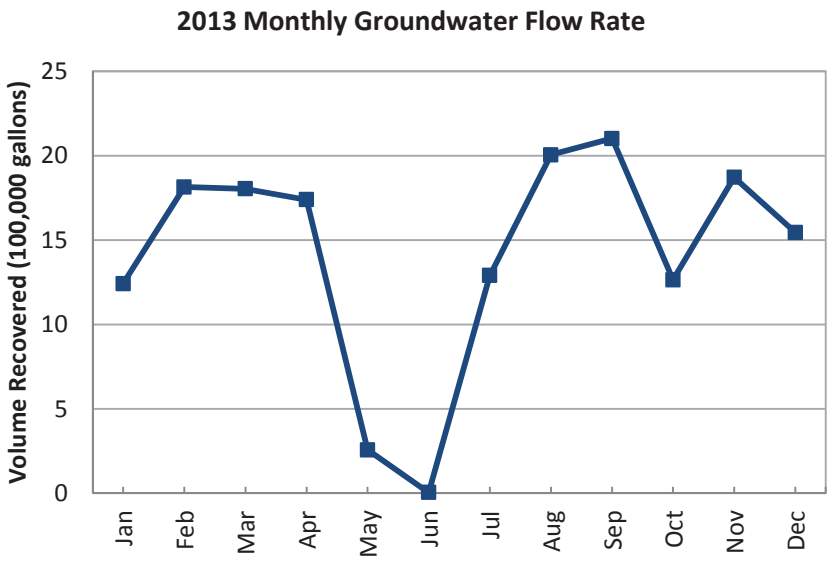
Month	Volume Recovered (gallons)
Jan	0
Feb	0
Mar	70,833
Apr	94,738
May	846,290
Jun	483,712
Jul	909,760
Aug	1,121,507
Sep	1,379,932
Oct	1,317,455
Nov	925,724
Dec	809,671
Total	**7,959,622**

PTX06-EW-75



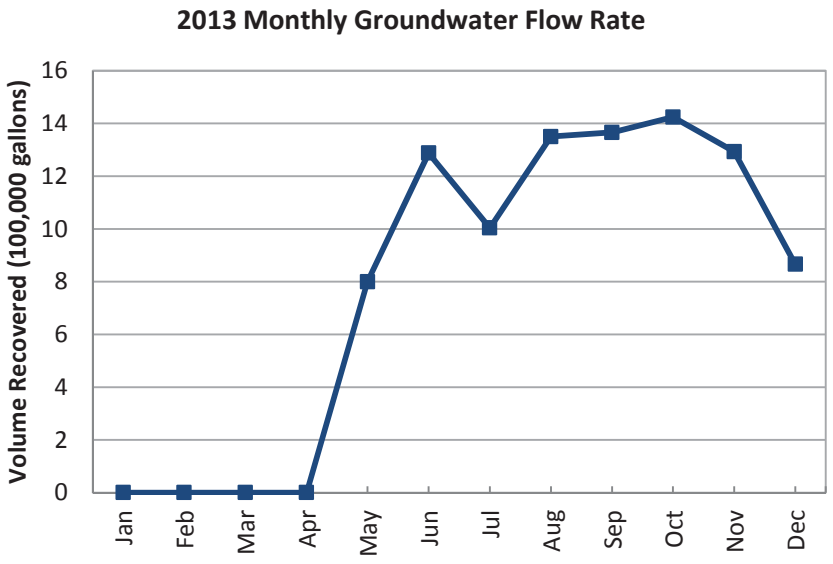
Month	Volume Recovered (gallons)
Jan	993,369
Feb	1,486,453
Mar	1,501,362
Apr	1,642,427
May	1,640,781
Jun	1,224,288
Jul	1,043,899
Aug	1,510,614
Sep	1,372,490
Oct	1,354,832
Nov	1,209,596
Dec	705,243
Total	**15,685,354**

PTX06-EW-78A



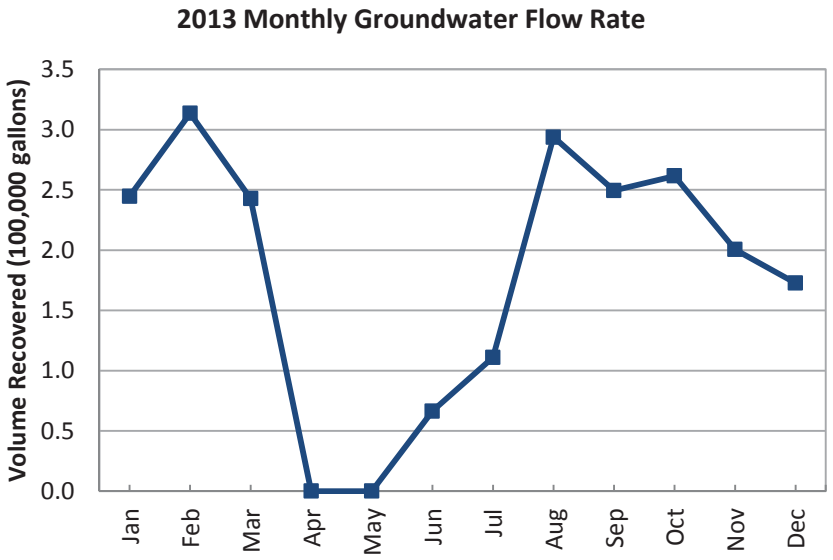
Month	Volume Recovered (gallons)
Jan	1,242,485
Feb	1,814,068
Mar	1,804,006
Apr	1,739,699
May	257,520
Jun	3,978
Jul	1,290,922
Aug	2,006,269
Sep	2,102,900
Oct	1,264,899
Nov	1,871,951
Dec	1,545,597
Total	**16,944,294**

PTX06-EW-79



Month	Volume Recovered (gallons)
Jan	0
Feb	0
Mar	0
Apr	0
May	800,222
Jun	1,287,772
Jul	1,004,109
Aug	1,350,665
Sep	1,366,471
Oct	1,424,686
Nov	1,293,715
Dec	865,882
Total	**9,393,522**

PTX06-EW-80



Month	Volume Recovered (gallons)
Jan	244,731
Feb	313,608
Mar	242,952
Apr	0
May	0
Jun	66,516
Jul	111,120
Aug	293,821
Sep	249,584
Oct	261,589
Nov	200,554
Dec	172,801
Total	**2,157,276**

Appendix C
Data Evaluation Table and Electronic Data

Table C-1. Data Exceeding GWPS

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
PTX06-1002A		2/18/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	37.8	1.28		J	2.12	2	Y
PTX06-1002A		8/26/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	15.5	0.651		J	1.1	2	Y
PTX06-1005		2/6/2013	2-Amino-4,6-Dinitrotoluene	6.75	0.272		J	0.33	1.2	Y
PTX06-1005		2/6/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	430	27.2		J	0.33	2	Y
PTX06-1005		2/6/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	31.5	2.72		J	0.33	2	Y
PTX06-1010		5/20/2013	Chromium, Total	2550	500		J	9.5	100	Y
PTX06-1010		11/5/2013	Chromium, Total	2180	500		J	9.9	100	Y
PTX06-1011		5/20/2013	Chromium, Total	391	10		J	22	100	Y
PTX06-1014		7/24/2013	2-Amino-4,6-Dinitrotoluene	1.78	0.26		J	3.3	1.2	Y
PTX06-1015		8/12/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	1140	52.1		J	1.2	2	Y
PTX06-1015		8/12/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	62	6.51		J	1.2	2	Y
PTX06-1030		11/14/2013	2-Amino-4,6-Dinitrotoluene	5.91	0.272		J	9.2	1.2	Y
PTX06-1030		11/14/2013	4-Amino-2,6-Dinitrotoluene	12.8	2.72		J	9.2	1.2	Y
PTX06-1030		11/14/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	1170	67.9		J	9.2	2	Y
PTX06-1030		11/14/2013	TNX (Hexahydro-1,3,5-	18.4	2.72		J	9.2	2	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
			Trinitroso-1,3,5-Triazine)							
PTX06-1031	Compliance	11/14/2013	4-Amino-2,6-Dinitrotoluene	2.12	0.279		J	5.4	1.2	Y
PTX06-1031	Compliance	11/14/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	485	14		J	5.4	2	Y
PTX06-1031	Compliance	11/14/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	5.53	0.279		J	5.4	2	Y
PTX06-1034	Compliance	2/19/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	734	32.4		J	0.1	2	Y
PTX06-1034	Compliance	2/19/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	80.1	3.24		J	0.1	2	Y
PTX06-1035		2/18/2013	Perchlorate	40.6	12		J	2.12	26	Y
PTX06-1038		8/27/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	205	13.4		J	0.4	2	Y
PTX06-1039A		2/18/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	922	31.9		J	39.8	2	Y
PTX06-1039A		8/27/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	622	66.1		J	1.9	2	Y
PTX06-1040		2/7/2013	4-Amino-2,6-Dinitrotoluene	23	2.6		J	1.28	1.2	Y
PTX06-1040		2/7/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	1130	65.1		J	1.28	2	Y
PTX06-1040		2/7/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	44	2.6		J	1.28	2	Y
PTX06-1041		2/7/2013	4-Amino-2,6-Dinitrotoluene	17.9	2.56		J	1.76	1.2	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
PTX06-1041		2/7/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	1120	64.1		J	1.76	2	Y
PTX06-1041		2/7/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	44.6	2.56		J	1.76	2	Y
PTX06-1046	Compliance	1/28/2013	4-Amino-2,6-Dinitrotoluene	7.56	0.255		J	0.18	1.2	Y
PTX06-1046	Compliance	1/28/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	1280	63.8		J	0.18	2	Y
PTX06-1046	Compliance	8/12/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	1650	65.1		J	0.2	2	Y
PTX06-1046	Compliance	8/12/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	116	13		J	0.2	2	Y
PTX06-1047A		1/28/2013	4-Amino-2,6-Dinitrotoluene	6.42	0.255		J	1.36	1.2	Y
PTX06-1047A		1/28/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	401	12.8		J	1.36	2	Y
PTX06-1047A		8/12/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	282	12.8		J	1.3	2	Y
PTX06-1047A		8/12/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	13.9	0.641		J	1.3	2	Y
PTX06-1049		11/21/2013	4-Amino-2,6-Dinitrotoluene	3.47	0.269		J	0.65	1.2	Y
PTX06-1049		11/21/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	3.02	0.269		J	0.65	2	Y
PTX06-1050	Compliance	4/22/2013	4-Amino-2,6-Dinitrotoluene	8.78	0.526		J	0.55	1.2	Y
PTX06-1050	Compliance	4/22/2013	RDX (Hexahydro-1,3,5-	224	13.2		J	0.55	2	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
			Trinitro-1,3,5-Triazine)							
PTX06-1050	Compliance	4/22/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	10.9	0.526		J	0.55	2	Y
PTX06-1050	Compliance	11/21/2013	4-Amino-2,6-Dinitrotoluene	8.72	0.273		J	0.6	1.2	Y
PTX06-1050	Compliance	11/21/2013	4-Amino-2,6-Dinitrotoluene	9.05	0.272		J		1.2	Y
PTX06-1050	Compliance	11/21/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	243	13.7		J	0.6	2	Y
PTX06-1050	Compliance	11/21/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	291	13.6		J		2	Y
PTX06-1050	Compliance	11/21/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	14.5	0.683		J	0.6	2	Y
PTX06-1050	Compliance	11/21/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	14.5	0.679		J		2	Y
PTX06-1052	Compliance	2/5/2013	Chromium, Total	3260	500		J	2.69	100	Y
PTX06-1095A		8/26/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	431	26.3		J	5.8	2	Y
PTX06-1098		10/10/2013	Barium	6400	10		J	45	2000	Y
PTX06-1120		11/20/2013	4-Amino-2,6-Dinitrotoluene	10.1	6.54		J	2.2	1.2	Y
PTX06-1120		11/20/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	2480	65.4		J	2.2	2	Y
PTX06-1120		11/20/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	191	6.54		J	2.2	2	Y
PTX06-1123		4/29/2013	TNX (Hexahydro-1,3,5-	6.4	2.5		J	2.68	2	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
			Trinitroso-1,3,5-Triazine)							
PTX06-1123		10/24/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	10	2.5		J	5.7	2	Y
PTX06-1126	Compliance	5/23/2013	Perchlorate	221	60		J	3.3	26	Y
PTX06-1130	Compliance	2/19/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	108	6.51		J	1.39	2	Y
PTX06-1130	Compliance	2/19/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	5.46	0.26		J	1.39	2	Y
PTX06-1135		11/19/2013	Chromium, Total	126	10		J	5.6	100	Y
PTX06-1146	Compliance	2/4/2013	4-Amino-2,6-Dinitrotoluene	31.2	1.32		J	9.24	1.2	Y
PTX06-1146	Compliance	2/4/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	1020	66.1		J	9.24	2	Y
PTX06-1147		11/14/2013	4-Amino-2,6-Dinitrotoluene	4.51	0.266		J	8.3	1.2	Y
PTX06-1147		11/14/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	1230	66.5		J	8.3	2	Y
PTX06-1147		11/14/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	59.3	6.65		J	8.3	2	Y
PTX06-1151		8/20/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	14.3	2.75		J	0.15	2	Y
PTX06-1153	Compliance	2/5/2013	4-Amino-2,6-Dinitrotoluene	2.8	2		J	21.2	1.2	Y
PTX06-1153	Compliance	4/23/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	240	40		J	3.25	2	Y
PTX06-1153	Compliance	7/23/2013	RDX (Hexahydro-1,3,5-	210	10		J	1.91	2	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
			Trinitro-1,3,5-Triazine)							
PTX06-1153	Compliance	10/24/2013	2-Amino-4,6-Dinitrotoluene	1.5	0.2		J	2.6	1.2	Y
PTX06-1153	Compliance	10/24/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	3.1	0.5		J	2.6	2	Y
PTX06-1154	Compliance	2/5/2013	Barium	11000	10		J	6.5	2000	Y
PTX06-1154	Compliance	2/5/2013	Propionic Acid	69000	500		J	6.5	18250	Y
PTX06-1154	Compliance	7/23/2013	Barium	9800	20		J	4.07	2000	Y
PTX06-1154	Compliance	10/24/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	15	2.5		J	4.9	2	Y
PTX06-1155	Compliance	1/29/2013	1,4-Dioxane	11	5	B	J	2.24	7.7	Y
PTX06-1155	Compliance	4/22/2013	cis-1,2-Dichloroethene	220	10		J	0.99	70	Y
PTX06-1155	Compliance	7/22/2013	Trichloroethene	18	3		J	2.58	5	Y
PTX06-1159		1/29/2013	Perchlorate	88.7	12		J	2.79	26	Y
PTX06-1166		1/28/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	19.9	1.28		J	12.1	2	Y
PTX06-EW-12		11/4/2013	2,4-Dinitrotoluene	1.3	4	J	J		1	Y
PTX06-EW-12		11/4/2013	4-Amino-2,6-Dinitrotoluene	15	4		J		1.2	Y
PTX06-EW-12		11/4/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	900	100	D	J		2	Y
PTX06-EW-12		11/4/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	21	10		J		2	Y
PTX06-EW-15		8/6/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	19	2		J		2	Y
PTX06-EW-16		7/10/2013	2-Amino-4,6-	4.5	4		J		1.2	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
			Dinitrotoluene							
PTX06-EW-16		7/10/2013	4-Amino-2,6-Dinitrotoluene	13	4		J		1.2	Y
PTX06-EW-16		7/10/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	530	40		J		2	Y
PTX06-EW-16		7/10/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	20	9.9		J		2	Y
PTX06-EW-17		8/20/2013	2-Amino-4,6-Dinitrotoluene	15	2		J		1.2	Y
PTX06-EW-17		8/20/2013	4-Amino-2,6-Dinitrotoluene	19	2		J		1.2	Y
PTX06-EW-17		8/20/2013	DNX (Hexahydro-1,3-Dinitroso-5-Nitro-1,3,5-Triazine)	4.4	5	J	J		2	Y
PTX06-EW-17		8/20/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	700	40		J		2	Y
PTX06-EW-17		8/20/2013	TNT (2,4,6-Trinitrotoluene)	21	1		J		3.6	Y
PTX06-EW-17		8/20/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	28	5		J		2	Y
PTX06-EW-19		7/10/2013	2-Amino-4,6-Dinitrotoluene	8.6	2		J		1.2	Y
PTX06-EW-19		7/10/2013	4-Amino-2,6-Dinitrotoluene	9.2	2		J		1.2	Y
PTX06-EW-19		7/10/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	140	10	D	J		2	Y
PTX06-EW-19		7/10/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-	6.8	5		J		2	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
			Triazine)							
PTX06-EW-22A		7/31/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	44	20		J		2	Y
PTX06-EW-22A		7/31/2013	TNT (2,4,6-Trinitrotoluene)	5.6	0.1		J		3.6	Y
PTX06-EW-23A		8/20/2013	2-Amino-4,6-Dinitrotoluene	2.2	2		J		1.2	Y
PTX06-EW-23A		8/20/2013	4-Amino-2,6-Dinitrotoluene	2.6	2		J		1.2	Y
PTX06-EW-23A		8/20/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	270	99		J		2	Y
PTX06-EW-23A		8/20/2013	TNT (2,4,6-Trinitrotoluene)	16	0.99		J		3.6	Y
PTX06-EW-23A		8/20/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	17	5		J		2	Y
PTX06-EW-24		7/31/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	580	100		J		2	Y
PTX06-EW-24		7/31/2013	1,3,5-Trinitrobenzene	1300	100		J		220	Y
PTX06-EW-24		7/31/2013	TNT (2,4,6-Trinitrotoluene)	6.5	2		J		3.6	Y
PTX06-EW-25		7/31/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	50	10		J		2	Y
PTX06-EW-26		8/20/2013	2-Amino-4,6-Dinitrotoluene	1.6	2	J	J		1.2	Y
PTX06-EW-26		8/20/2013	4-Amino-2,6-Dinitrotoluene	2	2		J		1.2	Y
PTX06-EW-26		8/20/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	250	99		J		2	Y
PTX06-EW-26		8/20/2013	TNT (2,4,6-	9.9	0.99		J		3.6	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
			Trinitrotoluene)							
PTX06-EW-26		8/20/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	10	5		J		2	Y
PTX06-EW-27		7/15/2013	4-Amino-2,6-Dinitrotoluene	9.8	4		J		1.2	Y
PTX06-EW-27		7/15/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	820	40		J		2	Y
PTX06-EW-27		7/15/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	18	10		J		2	Y
PTX06-EW-28		8/6/2013	2,4-Dinitrotoluene	8.6	5		J		1	Y
PTX06-EW-28		8/6/2013	2-Amino-4,6-Dinitrotoluene	2.3	0.2		J		1.2	Y
PTX06-EW-28		8/6/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	56	5		J		2	Y
PTX06-EW-28		8/6/2013	TNT (2,4,6-Trinitrotoluene)	4.6	0.1		J		3.6	Y
PTX06-EW-29		8/20/2013	2-Amino-4,6-Dinitrotoluene	1.8	2	J	J		1.2	Y
PTX06-EW-29		8/20/2013	4-Amino-2,6-Dinitrotoluene	3.1	2		J		1.2	Y
PTX06-EW-29		8/20/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	230	40		J		2	Y
PTX06-EW-29		8/20/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	7.7	5		J		2	Y
PTX06-EW-30		7/29/2013	2,4-Dinitrotoluene	5.8	2		J		1	Y
PTX06-EW-30		7/29/2013	2,4-Dinitrotoluene	6.5	2		J		1	Y
PTX06-EW-30		7/29/2013	RDX (Hexahydro-1,3,5-	300	40		J		2	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
			Trinitro-1,3,5-Triazine)							
PTX06-EW-30		7/29/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	350	40		J		2	Y
PTX06-EW-30		7/29/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	19	5		J		2	Y
PTX06-EW-30		7/29/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	18	5		J		2	Y
PTX06-EW-31		7/30/2013	2,4-Dinitrotoluene	4.1	2		J		1	Y
PTX06-EW-31		7/30/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	180	20		J		2	Y
PTX06-EW-31		7/30/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	9.7	5		J		2	Y
PTX06-EW-32		7/30/2013	2,4-Dinitrotoluene	2.2	2		J		1	Y
PTX06-EW-32		7/30/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	210	20		J		2	Y
PTX06-EW-32		7/30/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	15	5		J		2	Y
PTX06-EW-33		7/30/2013	2,4-Dinitrotoluene	5.8	2		J		1	Y
PTX06-EW-33		7/30/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	400	40		J		2	Y
PTX06-EW-33		7/30/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	13	5		J		2	Y
PTX06-EW-34		7/30/2013	2,4-Dinitrotoluene	7.1	4		J		1	Y
PTX06-EW-34		7/30/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	980	100		J		2	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
PTX06-EW-34		7/30/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	43	10		J		2	Y
PTX06-EW-35		11/4/2013	2,4-Dinitrotoluene	6.8	3.9		J		1	Y
PTX06-EW-35		11/4/2013	4-Amino-2,6-Dinitrotoluene	20	3.9		J		1.2	Y
PTX06-EW-35		11/4/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	1000	98		J		2	Y
PTX06-EW-35		11/4/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	18	9.8		J		2	Y
PTX06-EW-36		8/21/2013	2,4-Dinitrotoluene	9.5	4		J		1	Y
PTX06-EW-36		8/21/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	1000	100		J		2	Y
PTX06-EW-36		8/21/2013	1,3,5-Trinitrobenzene	290	100		J		220	Y
PTX06-EW-36		8/21/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	19	10		J		2	Y
PTX06-EW-37		8/21/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	3.6	0.2		J		2	Y
PTX06-EW-38C		8/21/2013	2,4-Dinitrotoluene	1.3	1		J		1	Y
PTX06-EW-38C		8/21/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	30	20		J		2	Y
PTX06-EW-39		8/21/2013	2,4-Dinitrotoluene	6.4	1		J		1	Y
PTX06-EW-39		8/21/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	100	20		J		2	Y
PTX06-EW-4		7/15/2013	4-Amino-2,6-Dinitrotoluene	11	4		J		1.2	Y
PTX06-EW-4		7/15/2013	4-Amino-2,6-	13	4		J		1.2	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
			Dinitrotoluene							
PTX06-EW-4		7/15/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	1000	40		J		2	Y
PTX06-EW-4		7/15/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	840	40		J		2	Y
PTX06-EW-4		7/15/2013	TNT (2,4,6-Trinitrotoluene)	5	2		J		3.6	Y
PTX06-EW-4		7/15/2013	TNT (2,4,6-Trinitrotoluene)	6.4	2		J		3.6	Y
PTX06-EW-4		7/15/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	17	10		J		2	Y
PTX06-EW-4		7/15/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	15	10		J		2	Y
PTX06-EW-40		8/21/2013	2,4-Dinitrotoluene	8.2	0.99		J		1	Y
PTX06-EW-40		8/21/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	250	20		J		2	Y
PTX06-EW-41		8/22/2013	2,4-Dinitrotoluene	3.9	1		J		1	Y
PTX06-EW-41		8/22/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	220	40		J		2	Y
PTX06-EW-43		8/22/2013	2,4-Dinitrotoluene	18	4		J		1	Y
PTX06-EW-43		8/22/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	590	40		J		2	Y
PTX06-EW-43		8/22/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	15	9.9		J		2	Y
PTX06-EW-44		8/22/2013	2,4-Dinitrotoluene	16	10		J		1	Y
PTX06-EW-44		8/22/2013	HMX (Octahydro-1,3,5,7-Tetranitro-	530	40		J		360	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
			1,3,5,7-Tetrazocine)							
PTX06-EW-44		8/22/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	2000	100		J		2	Y
PTX06-EW-44		8/22/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	58	25		J		2	Y
PTX06-EW-45		8/22/2013	2,4-Dinitrotoluene	1.2	2	J	J		1	Y
PTX06-EW-45		8/22/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	550	20		J		2	Y
PTX06-EW-45		8/22/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	23	5		J		2	Y
PTX06-EW-46		8/22/2013	2,4-Dinitrotoluene	4	4		J		1	Y
PTX06-EW-46		8/22/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	1100	40		J		2	Y
PTX06-EW-46		8/22/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	55	9.9		J		2	Y
PTX06-EW-47		7/29/2013	2,4-Dinitrotoluene	4.7	2		J		1	Y
PTX06-EW-47		7/29/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	340	40		J		2	Y
PTX06-EW-47		7/29/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	16	5		J		2	Y
PTX06-EW-48		7/30/2013	2,4-Dinitrotoluene	7.2	4		J		1	Y
PTX06-EW-48		7/30/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	1000	100		J		2	Y
PTX06-EW-48		7/30/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	51	10		J		2	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
PTX06-EW-49		8/26/2013	2,4-Dinitrotoluene	1.1	4	J	J		1	Y
PTX06-EW-49		8/26/2013	2-Amino-4,6-Dinitrotoluene	7.3	4		J		1.2	Y
PTX06-EW-49		8/26/2013	4-Amino-2,6-Dinitrotoluene	3.5	4	J	J		1.2	Y
PTX06-EW-49		8/26/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	540	100		J		2	Y
PTX06-EW-49		8/26/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	21	10		J		2	Y
PTX06-EW-50		7/10/2013	2-Amino-4,6-Dinitrotoluene	11	4		J		1.2	Y
PTX06-EW-50		7/10/2013	4-Amino-2,6-Dinitrotoluene	13	4		J		1.2	Y
PTX06-EW-50		7/10/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	1200	100		J		2	Y
PTX06-EW-50		7/10/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	57	10		J		2	Y
PTX06-EW-53		7/29/2013	2,4-Dinitrotoluene	10	2		J		1	Y
PTX06-EW-53		7/29/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	290	20		J		2	Y
PTX06-EW-53		7/29/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	17	50	J	J		2	Y
PTX06-EW-54		7/10/2013	2-Amino-4,6-Dinitrotoluene	12	4		J		1.2	Y
PTX06-EW-54		7/10/2013	4-Amino-2,6-Dinitrotoluene	15	4		J		1.2	Y
PTX06-EW-54		7/10/2013	RDX (Hexahydro-1,3,5-	810	100		J		2	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
			Trinitro-1,3,5-Triazine)							
PTX06-EW-54		7/10/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	32	10		J		2	Y
PTX06-EW-55		7/10/2013	2-Amino-4,6-Dinitrotoluene	9.6	4		J		1.2	Y
PTX06-EW-55		7/10/2013	4-Amino-2,6-Dinitrotoluene	21	4		J		1.2	Y
PTX06-EW-55		7/10/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	910	100		J		2	Y
PTX06-EW-55		7/10/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	32	10		J		2	Y
PTX06-EW-56		7/15/2013	4-Amino-2,6-Dinitrotoluene	22	4		J		1.2	Y
PTX06-EW-56		7/15/2013	DNX (Hexahydro-1,3-Dinitroso-5-Nitro-1,3,5-Triazine)	5	10	J	J		2	Y
PTX06-EW-56		7/15/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	1100	100		J		2	Y
PTX06-EW-56		7/15/2013	TNT (2,4,6-Trinitrotoluene)	20	2		J		3.6	Y
PTX06-EW-56		7/15/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	40	10		J		2	Y
PTX06-EW-57		7/15/2013	4-Amino-2,6-Dinitrotoluene	18	4		J		1.2	Y
PTX06-EW-57		7/15/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	1100	100		J		2	Y
PTX06-EW-57		7/15/2013	TNT (2,4,6-	23	2		J		3.6	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
			Trinitrotoluene)							
PTX06-EW-57		7/15/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	23	10		J		2	Y
PTX06-EW-58		11/4/2013	2,4-Dinitrotoluene	2.6	4	J	J		1	Y
PTX06-EW-58		11/4/2013	4-Amino-2,6-Dinitrotoluene	17	4		J		1.2	Y
PTX06-EW-58		11/4/2013	DNX (Hexahydro-1,3-Dinitroso-5-Nitro-1,3,5-Triazine)	6.2	9.9	J	J		2	Y
PTX06-EW-58		11/4/2013	MNX (Hexahydro-1-Nitroso-3,5-Dinitro-1,3,5-Triazine)	2.5	9.9	J	J		2	Y
PTX06-EW-58		11/4/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	550	20		J		2	Y
PTX06-EW-58		11/4/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	28	9.9		J		2	Y
PTX06-EW-59		7/24/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	420	20		J		2	Y
PTX06-EW-6		8/26/2013	2,4-Dinitrotoluene	10	10		J		1	Y
PTX06-EW-6		8/26/2013	2-Amino-4,6-Dinitrotoluene	4.7	10	J	J		1.2	Y
PTX06-EW-6		8/26/2013	4-Amino-2,6-Dinitrotoluene	9.3	10	J	J		1.2	Y
PTX06-EW-6		8/26/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	1000	100		J		2	Y
PTX06-EW-6		8/26/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	17	25	J	J		2	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
PTX06-EW-60		7/24/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	170	20		J		2	Y
PTX06-EW-61		7/24/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	78	10		J		2	Y
PTX06-EW-62		7/24/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	14	1		J		2	Y
PTX06-EW-63		7/24/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	100	10		J		2	Y
PTX06-EW-64		7/24/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	43	4		J		2	Y
PTX06-EW-64		7/31/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	94	10		J		2	Y
PTX06-EW-64		7/31/2013	TNT (2,4,6-Trinitrotoluene)	12	0.5		J		3.6	Y
PTX06-EW-65		7/31/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	350	100		J		2	Y
PTX06-EW-65		7/31/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	240	100		J		2	Y
PTX06-EW-65		7/31/2013	1,3,5-Trinitrobenzene	790	100		J		220	Y
PTX06-EW-65		7/31/2013	1,3,5-Trinitrobenzene	680	100		J		220	Y
PTX06-EW-65		7/31/2013	TNT (2,4,6-Trinitrotoluene)	7.3	5		J		3.6	Y
PTX06-EW-65		7/31/2013	TNT (2,4,6-Trinitrotoluene)	7.2	5		J		3.6	Y
PTX06-EW-66		8/20/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	9.8	2		J		2	Y
PTX06-EW-67		12/2/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	2.1	0.2		J		2	Y
PTX06-EW-68		12/2/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	2.9	0.2		J		2	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
PTX06-EW-69		8/27/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	14	2		J		2	Y
PTX06-EW-7		7/15/2013	4-Amino-2,6-Dinitrotoluene	13	4		J		1.2	Y
PTX06-EW-7		7/15/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	1000	100		J		2	Y
PTX06-EW-7		7/15/2013	TNT (2,4,6-Trinitrotoluene)	6.6	2		J		3.6	Y
PTX06-EW-7		7/15/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	19	10		J		2	Y
PTX06-EW-70		8/27/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	76	4		J		2	Y
PTX06-EW-71		8/27/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	84	10		J		2	Y
PTX06-EW-73		8/12/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	5.4	0.4		J		2	Y
PTX06-EW-74		8/12/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	14	1		J		2	Y
PTX06-EW-74		8/12/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	2.1	0.5		J		2	Y
PTX06-EW-75		8/12/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	68	4		J		2	Y
PTX06-EW-75		8/12/2013	TNT (2,4,6-Trinitrotoluene)	4.2	0.2		J		3.6	Y
PTX06-EW-75		8/12/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	5	0.99		J		2	Y
PTX06-EW-		8/12/2013	RDX (Hexahydro-1,3,5-	4.8	0.2		J		2	Y

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78A			Trinitro-1,3,5-Triazine)							
PTX06-EW-79		8/12/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	320	20		J		2	Y
PTX06-EW-79		8/12/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	33	5		J		2	Y
PTX06-EW-80		8/12/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	140	9.9		J		2	Y
PTX06-EW-80		8/12/2013	TNT (2,4,6-Trinitrotoluene)	14	0.5		J		3.6	Y
PTX06-EW-80		8/12/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	9.7	2.5		J		2	Y
PTX06-EW-9		8/26/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	2.4	0.2		J		2	Y
PTX06-ISB012		4/9/2013	Propionic Acid	150000	5000		J	29	18250	Y
PTX06-ISB014		11/19/2013	Butyric Acid	150000	5000		J	280	18250	Y
PTX06-ISB014		11/19/2013	Hexanoic Acid	18000	5000		J	280	2336	Y
PTX06-ISB014		11/19/2013	Propionic Acid	930000	50000		J	280	18250	Y
PTX06-ISB014		11/19/2013	Pentanoic Acid	210000	7000		J	280	18250	Y
PTX06-ISB019		3/12/2013	Arsenic	65	5		J	12.7	12	Y
PTX06-ISB024		3/12/2013	Arsenic	36	5		J	23	12	Y
PTX06-ISB024		12/3/2013	Propionic Acid	220000	5000		J	140	18250	Y
PTX06-ISB030B		6/4/2013	Butyric Acid	42000	5000		J	60.2	18250	Y
PTX06-ISB030B		6/4/2013	Hexanoic Acid	140000	50000		J	60.2	2336	Y
PTX06-ISB030B		6/4/2013	Propionic Acid	98000	5000		J	60.2	18250	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
PTX06-ISB030B		6/4/2013	Pentanoic Acid	39000	700		J	60.2	18250	Y
PTX06-ISB030B		12/4/2013	Propionic Acid	200000	5000		J		18250	Y
PTX06-ISB038		12/10/2013	Propionic Acid	290000	5000		J	330	18250	Y
PTX06-ISB038		12/10/2013	Propionic Acid	290000	5000		J		18250	Y
PTX06-ISB046		12/16/2013	Propionic Acid	43000	500		J	45	18250	Y
PTX06-ISB055		7/29/2013	Butyric Acid	440000	5000		J		18250	Y
PTX06-ISB055		7/29/2013	Hexanoic Acid	11000	5000		J		2336	Y
PTX06-ISB055		7/29/2013	Propionic Acid	1400000	50000		J		18250	Y
PTX06-ISB055		7/29/2013	Pentanoic Acid	300000	7000		J		18250	Y
PTX06-ISB059		7/30/2013	Butyric Acid	300000	5000		J	419	18250	Y
PTX06-ISB059		7/30/2013	Hexanoic Acid	12000	5000		J	419	2336	Y
PTX06-ISB059		7/30/2013	Propionic Acid	390000	5000		J	419	18250	Y
PTX06-ISB059		7/30/2013	Pentanoic Acid	58000	7000		J	419	18250	Y
PTX06-ISB063		7/31/2013	Butyric Acid	170000	5000		J	182	18250	Y
PTX06-ISB063		7/31/2013	Hexanoic Acid	6000	5000		J	182	2336	Y
PTX06-ISB063		7/31/2013	Propionic Acid	600000	5000		J	182	18250	Y
PTX06-ISB063		7/31/2013	Pentanoic Acid	98000	7000		J	182	18250	Y
PTX06-ISB071		8/5/2013	Butyric Acid	250000	5000		J		18250	Y
PTX06-ISB071		8/5/2013	Hexanoic Acid	11000	5000		J		2336	Y
PTX06-ISB071		8/5/2013	Propionic Acid	590000	50000		J		18250	Y
PTX06-ISB071		8/5/2013	Pentanoic Acid	130000	7000		J		18250	Y
PTX06-ISB073		8/6/2013	Propionic Acid	150000	5000		J	340	18250	Y
PTX06-ISB075		8/7/2013	Propionic Acid	97000	5000		J	12	18250	Y
PTX06-ISB075		11/11/2013	cis-1,2-Dichloroethene	270	10		J	5.2	70	Y
PTX06-ISB077		8/8/2013	Hexanoic Acid	7100	500		J	170	2336	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
PTX06-ISB077		8/8/2013	Propionic Acid	380000	5000		J	170	18250	Y
PTX06-ISB077		8/8/2013	Pentanoic Acid	34000	7000		J	170	18250	Y
PTX06-ISB081		8/14/2013	Manganese	4300	20		J	500	1715.5	Y
PTX06-ISB081		8/14/2013	Manganese	6300	20		J		1715.5	Y
PTX06-ISB081		8/14/2013	Propionic Acid	170000	5000		J	500	18250	Y
PTX06-ISB081		8/14/2013	Propionic Acid	170000	5000		J		18250	Y
PTX06-ISB085A		3/11/2013	Arsenic	46	5		J	80.5	12	Y
PTX06-ISB085A		8/12/2013	Propionic Acid	470000	5000		J	70	18250	Y
PTX07-1O01		2/6/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	16.3	1.32		J	2.96	2	Y
PTX08-1008		5/15/2013	Chromium, Total	430	10		J	1.2	100	Y
PTX08-1008		11/6/2013	Chromium, Total	317	10		J	1.4	100	Y
PTX06-1008		5/16/2013	1,2-Dichloroethane	50.8	1		J-	0	5	Y
PTX06-1012		7/22/2013	1,4-Dioxane	11	5		J-	1.63	7.7	Y
PTX06-1012		7/22/2013	Trichloroethene	200	6	H	J-	1.63	5	Y
PTX06-1038		8/27/2013	TNT (2,4,6-Trinitrotoluene)	18.4	0.672		J-	0.4	3.6	Y
PTX06-1039A		8/27/2013	TNT (2,4,6-Trinitrotoluene)	55.8	6.61		J-	1.9	3.6	Y
PTX06-1126	Compliance	11/6/2013	1,4-Dioxane	31.3	5		J-	2.4	7.7	Y
PTX06-1127	Compliance	11/6/2013	1,4-Dioxane	35.4	5		J-	0.6	7.7	Y
PTX06-1146	Compliance	2/4/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	12.1	1.32		J-	9.24	2	Y
PTX06-1153	Compliance	2/5/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	290	40		J-	21.2	2	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
PTX06-1155	Compliance	7/22/2013	cis-1,2-Dichloroethene	310	25	H	J-	2.58	70	Y
PTX06-1155	Compliance	7/22/2013	1,4-Dioxane	13	5		J-	2.58	7.7	Y
PTX06-1159		8/22/2013	Trichloroethene	312	5	H	J-	2.1	5	Y
PTX06-EW-18		8/19/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	57	4		J-		2	Y
PTX06-EW-22A		7/31/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	2.4	0.5		J-		2	Y
PTX06-EW-24		7/31/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	28	10		J-		2	Y
PTX06-EW-25		7/31/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	4.1	2.5		J-		2	Y
PTX06-EW-64		7/31/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	4.7	2.5		J-		2	Y
PTX06-EW-65		7/31/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	22	25	J	J-		2	Y
PTX06-EW-65		7/31/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	22	25	J	J-		2	Y
PTX06-ISB014		3/20/2013	Arsenic	60	5		J-	212	12	Y
PTX06-ISB046		3/20/2013	Arsenic	40	5		J-	49	12	Y
PTX06-ISB046		3/20/2013	Arsenic	39	5		J-		12	Y
PTX06-ISB055		2/6/2013	1,4-Dioxane	8.5	5		J-		7.7	Y
PTX06-ISB071		2/19/2013	1,4-Dioxane	8	5		J-	598	7.7	Y
PTX06-ISB075		3/6/2013	1,4-Dioxane	27	5		J-	3.75	7.7	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
PTX06-ISB081		3/7/2013	1,4-Dioxane	9.2	5		J-	123	7.7	Y
PTX07-1O01		8/19/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	16.5	1.3		J-	1.1	2	Y
PTX07-1O03		8/19/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	42	2.67		J-	9.1	2	Y
PTX08-1006		1/21/2013	1,4-Dioxane	44	1		J-	0.22	7.7	Y
PTX06-1014		7/24/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	35.3	3.26	Q	J+	3.3	2	Y
PTX06-1034	Compliance	8/7/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	69.4	25.9		J+	0.4	2	Y
PTX06-1077A		7/30/2013	Trichloroethene	6.58	1		J+	3.7	5	Y
PTX06-1126	Compliance	11/11/2013	Trichloroethene	340	4		J+	0.8	5	Y
PTX06-1127	Compliance	5/14/2013	1,4-Dioxane	77	2.2	D	J+	0.5	7.7	Y
PTX06-1162		3/26/2013	4-Amino-2,6-Dinitrotoluene	4.43	0.259		J+	7.42	1.2	Y
PTX06-EW-46		8/22/2013	DNX (Hexahydro-1,3-Dinitroso-5-Nitro-1,3,5-Triazine)	2.3	9.9	J	J+		2	Y
PTX06-ISB042		12/16/2013	Arsenic	67	50		J+	26	12	Y
PTX06-ISB046		12/16/2013	Arsenic	23	50	J	J+	45	12	Y
PTX06-ISB063		2/11/2013	Arsenic	21	25	J	J+	165	12	Y
PTX08-1006		7/30/2013	Trichloroethene	18.5	1		J+	0.2	5	Y
PTX06-ISB059		2/11/2013	1,4-Dioxane	11	5		UJ	194	7.7	Y
PTX06-ISB063		2/11/2013	1,4-Dioxane	8.9	5		UJ	165	7.7	Y
1114-MW4		5/14/2013	Perchlorate	95.9	12			0.95	26	Y
1114-MW4		5/14/2013	Trichloroethene	9.72	1			0.95	5	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
1114-MW4		11/5/2013	Perchlorate	103	24			0.7	26	Y
1114-MW4		11/5/2013	Trichloroethene	11.1	1			0.7	5	Y
OW-WR-38		5/13/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	2.17	0.253			1.5	2	Y
PTX06-1002A		2/18/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	8.19	0.256			2.12	2	Y
PTX06-1002A		8/26/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	4.88	0.26			1.1	2	Y
PTX06-1005		2/6/2013	4-Amino-2,6-Dinitrotoluene	5.49	0.272			0.33	1.2	Y
PTX06-1005		2/6/2013	1,3,5-Trinitrobenzene	275	27.2			0.33	220	Y
PTX06-1005		2/6/2013	Chromium, Total	850	10			0.33	100	Y
PTX06-1005		2/6/2013	Chromium, Hexavalent	949	75	I		0.33	100	Y
PTX06-1005		2/6/2013	Trichloroethene	47.5	1			0.33	5	Y
PTX06-1005		9/3/2013	2-Amino-4,6-Dinitrotoluene	4.87	0.258			0	1.2	Y
PTX06-1005		9/3/2013	4-Amino-2,6-Dinitrotoluene	2.25	0.258			0	1.2	Y
PTX06-1005		9/3/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	263	64.4			0	2	Y
PTX06-1005		9/3/2013	1,3,5-Trinitrobenzene	271	64.4			0	220	Y
PTX06-1005		9/3/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	7.79	0.258			0	2	Y
PTX06-1005		9/3/2013	Chromium, Total	340	10			0	100	Y
PTX06-1005		9/3/2013	Chromium, Hexavalent	345	50			0	100	Y
PTX06-1005		9/3/2013	Tetrachloroethene	5.19	1			0	5	Y

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PTX06-1005		9/3/2013	Trichloroethene	40.7	1			0	5	Y
PTX06-1006		9/3/2013	4-Amino-2,6-Dinitrotoluene	4.93	0.258			2.1	1.2	Y
PTX06-1006		9/3/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	5.21	0.258			2.1	2	Y
PTX06-1006		9/3/2013	Perchlorate	69.8	12			2.1	26	Y
PTX06-1007		5/16/2013	4-Amino-2,6-Dinitrotoluene	37.3	1.3			190	1.2	Y
PTX06-1007		5/16/2013	Perchlorate	470	120			190	26	Y
PTX06-1010		5/20/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	2.32	0.266			9.5	2	Y
PTX06-1010		5/20/2013	Chromium, Hexavalent	1886	150	I		9.5	100	Y
PTX06-1010		11/5/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	2.22	0.27			9.9	2	Y
PTX06-1010		11/5/2013	Chromium, Hexavalent	1970	250			9.9	100	Y
PTX06-1011		5/20/2013	Trichloroethene	7.05	1			22	5	Y
PTX06-1012		1/29/2013	1,2-Dichloroethane	29	3			0.9	5	Y
PTX06-1012		1/29/2013	Trichloroethene	250	7.5			0.9	5	Y
PTX06-1012		4/22/2013	1,2-Dichloroethane	30	3			0.03	5	Y
PTX06-1012		4/22/2013	1,4-Dioxane	10	5			0.03	7.7	Y
PTX06-1012		4/22/2013	Trichloroethene	210	6			0.03	5	Y
PTX06-1012		7/22/2013	1,2-Dichloroethane	25	3			1.63	5	Y
PTX06-1012		10/28/2013	1,2-Dichloroethane	21	3			2.5	5	Y
PTX06-1012		10/28/2013	1,4-Dioxane	12	5			2.5	7.7	Y
PTX06-1012		10/28/2013	Trichloroethene	170	3			2.5	5	Y
PTX06-1013		5/13/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	5.84	0.254			0.6	2	Y
PTX06-1013		10/30/2013	RDX (Hexahydro-1,3,5-	6.64	0.266			3.2	2	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
			Trinitro-1,3,5-Triazine)							
PTX06-1014		7/24/2013	2,6-Dinitrotoluene	1.56	0.26			3.3	1	Y
PTX06-1014		7/24/2013	4-Amino-2,6-Dinitrotoluene	3.61	0.26			3.3	1.2	Y
PTX06-1014		7/24/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	606	26			3.3	2	Y
PTX06-1015		2/5/2013	4-Amino-2,6-Dinitrotoluene	6.01	0.258			1.04	1.2	Y
PTX06-1015		2/5/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	1040	64.4			1.04	2	Y
PTX06-1015		2/5/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	59	2.58			1.04	2	Y
PTX06-1015		8/12/2013	4-Amino-2,6-Dinitrotoluene	7.02	0.26			1.2	1.2	Y
PTX06-1030		4/29/2013	2-Amino-4,6-Dinitrotoluene	3.85	0.259			2.6	1.2	Y
PTX06-1030		4/29/2013	4-Amino-2,6-Dinitrotoluene	10.9	2.59			2.6	1.2	Y
PTX06-1030		4/29/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	915	64.8			2.6	2	Y
PTX06-1030		4/29/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	25.6	2.59			2.6	2	Y
PTX06-1031	Compliance	4/29/2013	4-Amino-2,6-Dinitrotoluene	2.35	0.259			13	1.2	Y
PTX06-1031	Compliance	4/29/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	453	13			13	2	Y
PTX06-1031	Compliance	4/29/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-	4.7	0.259			13	2	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
			Triazine)							
PTX06-1034	Compliance	2/19/2013	4-Amino-2,6-Dinitrotoluene	12.3	3.24			0.1	1.2	Y
PTX06-1034	Compliance	8/7/2013	4-Amino-2,6-Dinitrotoluene	11.9	0.518			0.4	1.2	Y
PTX06-1034	Compliance	8/7/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	647	25.9			0.4	2	Y
PTX06-1035		8/14/2013	Perchlorate	44.4	12			1.1	26	Y
PTX06-1038		1/31/2013	2-Amino-4,6-Dinitrotoluene	13	2.58			1.62	1.2	Y
PTX06-1038		1/31/2013	4-Amino-2,6-Dinitrotoluene	17.2	2.58			1.62	1.2	Y
PTX06-1038		1/31/2013	DNX (Hexahydro-1,3-Dinitroso-5-Nitro-1,3,5-Triazine)	2.3	0.258			1.62	2	Y
PTX06-1038		1/31/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	284	12.9			1.62	2	Y
PTX06-1038		1/31/2013	TNT (2,4,6-Trinitrotoluene)	24.5	2.58			1.62	3.6	Y
PTX06-1038		1/31/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	15.3	2.58			1.62	2	Y
PTX06-1038		8/27/2013	2-Amino-4,6-Dinitrotoluene	11.5	0.672			0.4	1.2	Y
PTX06-1038		8/27/2013	4-Amino-2,6-Dinitrotoluene	15.2	0.672			0.4	1.2	Y
PTX06-1038		8/27/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	13.3	0.672			0.4	2	Y
PTX06-1039A		2/18/2013	2-Amino-4,6-	14	3.19			39.8	1.2	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
			Dinitrotoluene							
PTX06-1039A		2/18/2013	4-Amino-2,6-Dinitrotoluene	8.67	0.255			39.8	1.2	Y
PTX06-1039A		2/18/2013	DNX (Hexahydro-1,3-Dinitroso-5-Nitro-1,3,5-Triazine)	7.86	0.255			39.8	2	Y
PTX06-1039A		2/18/2013	MNX (Hexahydro-1-Nitroso-3,5-Dinitro-1,3,5-Triazine)	3.41	0.255			39.8	2	Y
PTX06-1039A		2/18/2013	TNT (2,4,6-Trinitrotoluene)	70.3	3.19			39.8	3.6	Y
PTX06-1039A		2/18/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	61.1	3.19			39.8	2	Y
PTX06-1039A		8/27/2013	2-Amino-4,6-Dinitrotoluene	15.6	0.661			1.9	1.2	Y
PTX06-1039A		8/27/2013	4-Amino-2,6-Dinitrotoluene	9.87	0.661			1.9	1.2	Y
PTX06-1039A		8/27/2013	DNX (Hexahydro-1,3-Dinitroso-5-Nitro-1,3,5-Triazine)	7.56	0.265			1.9	2	Y
PTX06-1039A		8/27/2013	MNX (Hexahydro-1-Nitroso-3,5-Dinitro-1,3,5-Triazine)	3.37	0.265			1.9	2	Y
PTX06-1039A		8/27/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	43.7	6.61			1.9	2	Y
PTX06-1040		2/7/2013	2-Amino-4,6-Dinitrotoluene	5.5	0.26			1.28	1.2	Y
PTX06-1040		2/7/2013	DNX (Hexahydro-1,3-	3.58	0.26			1.28	2	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
			Dinitroso-5-Nitro-1,3,5-Triazine)							
PTX06-1040		8/21/2013	2-Amino-4,6-Dinitrotoluene	7.09	0.256			4.7	1.2	Y
PTX06-1040		8/21/2013	4-Amino-2,6-Dinitrotoluene	24.9	3.21			4.7	1.2	Y
PTX06-1040		8/21/2013	DNX (Hexahydro-1,3-Dinitroso-5-Nitro-1,3,5-Triazine)	4.4	0.256			4.7	2	Y
PTX06-1040		8/21/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	1230	64.1			4.7	2	Y
PTX06-1040		8/21/2013	TNT (2,4,6-Trinitrotoluene)	3.72	0.256			4.7	3.6	Y
PTX06-1040		8/21/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	44	3.21			4.7	2	Y
PTX06-1041		2/7/2013	2-Amino-4,6-Dinitrotoluene	3.53	0.256			1.76	1.2	Y
PTX06-1041		2/7/2013	DNX (Hexahydro-1,3-Dinitroso-5-Nitro-1,3,5-Triazine)	3.73	0.256			1.76	2	Y
PTX06-1041		2/7/2013	TNT (2,4,6-Trinitrotoluene)	22.3	2.56			1.76	3.6	Y
PTX06-1041		8/21/2013	2-Amino-4,6-Dinitrotoluene	5.14	0.259			13	1.2	Y
PTX06-1041		8/21/2013	4-Amino-2,6-Dinitrotoluene	20.3	3.24			13	1.2	Y
PTX06-1041		8/21/2013	DNX (Hexahydro-1,3-Dinitroso-5-Nitro-1,3,5-Triazine)	3.67	0.259			13	2	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
PTX06-1041		8/21/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	1120	64.8			13	2	Y
PTX06-1041		8/21/2013	TNT (2,4,6-Trinitrotoluene)	18	3.24			13	3.6	Y
PTX06-1041		8/21/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	43.5	3.24			13	2	Y
PTX06-1042	Compliance	1/31/2013	2-Amino-4,6-Dinitrotoluene	1.54	0.259			0.16	1.2	Y
PTX06-1042	Compliance	1/31/2013	2-Amino-4,6-Dinitrotoluene	1.64	0.256				1.2	Y
PTX06-1042	Compliance	1/31/2013	4-Amino-2,6-Dinitrotoluene	15.6	1.3			0.16	1.2	Y
PTX06-1042	Compliance	1/31/2013	4-Amino-2,6-Dinitrotoluene	15.4	1.28				1.2	Y
PTX06-1042	Compliance	1/31/2013	DNX (Hexahydro-1,3-Dinitroso-5-Nitro-1,3,5-Triazine)	2.48	0.259			0.16	2	Y
PTX06-1042	Compliance	1/31/2013	DNX (Hexahydro-1,3-Dinitroso-5-Nitro-1,3,5-Triazine)	2.36	0.256				2	Y
PTX06-1042	Compliance	1/31/2013	MNX (Hexahydro-1-Nitroso-3,5-Dinitro-1,3,5-Triazine)	5.04	0.259			0.16	2	Y
PTX06-1042	Compliance	1/31/2013	MNX (Hexahydro-1-Nitroso-3,5-Dinitro-1,3,5-Triazine)	4.86	0.256				2	Y
PTX06-1042	Compliance	1/31/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	793	64.8			0.16	2	Y
PTX06-1042	Compliance	1/31/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	726	64.1				2	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
PTX06-1042	Compliance	1/31/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	16.5	1.3			0.16	2	Y
PTX06-1042	Compliance	1/31/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	16.4	1.28				2	Y
PTX06-1042	Compliance	8/21/2013	4-Amino-2,6-Dinitrotoluene	13.3	1.32			1.7	1.2	Y
PTX06-1042	Compliance	8/21/2013	DNX (Hexahydro-1,3-Dinitroso-5-Nitro-1,3,5-Triazine)	2.88	0.263			1.7	2	Y
PTX06-1042	Compliance	8/21/2013	MNX (Hexahydro-1-Nitroso-3,5-Dinitro-1,3,5-Triazine)	5.69	0.263			1.7	2	Y
PTX06-1042	Compliance	8/21/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	850	65.8			1.7	2	Y
PTX06-1042	Compliance	8/21/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	15.9	1.32			1.7	2	Y
PTX06-1046	Compliance	1/28/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	101	6.38			0.18	2	Y
PTX06-1046	Compliance	8/12/2013	2-Amino-4,6-Dinitrotoluene	1.65	0.26			0.2	1.2	Y
PTX06-1046	Compliance	8/12/2013	4-Amino-2,6-Dinitrotoluene	7.67	0.26			0.2	1.2	Y
PTX06-1047A		1/28/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	25	1.28			1.36	2	Y
PTX06-1047A		8/12/2013	4-Amino-2,6-Dinitrotoluene	4.47	0.256			1.3	1.2	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
PTX06-1049		5/15/2013	4-Amino-2,6-Dinitrotoluene	3.34	0.258			1.7	1.2	Y
PTX06-1049		5/15/2013	4-Amino-2,6-Dinitrotoluene	3.48	0.258				1.2	Y
PTX06-1049		5/15/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	2.53	0.258			1.7	2	Y
PTX06-1049		5/15/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	2.49	0.258				2	Y
PTX06-1052	Compliance	2/5/2013	Chromium, Hexavalent	3015	300	I		2.69	100	Y
PTX06-1052	Compliance	8/8/2013	Chromium, Total	3100	1000			5.7	100	Y
PTX06-1052	Compliance	8/8/2013	Chromium, Hexavalent	2980	500			5.7	100	Y
PTX06-1088		5/20/2013	2,4-Dinitrotoluene	2.25	0.269			1.1	1	Y
PTX06-1088		5/20/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	35.9	2.69			1.1	2	Y
PTX06-1088		5/20/2013	1,3,5-Trinitrobenzene	284	13.4			1.1	220	Y
PTX06-1088		5/20/2013	Tetrachloroethene	6.37	1			1.1	5	Y
PTX06-1088		5/20/2013	Trichloroethene	14.2	1			1.1	5	Y
PTX06-1088		11/5/2013	2,4-Dinitrotoluene	1.36	0.266			1.1	1	Y
PTX06-1088		11/5/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	34.8	6.65			1.1	2	Y
PTX06-1088		11/5/2013	1,3,5-Trinitrobenzene	277	13.3			1.1	220	Y
PTX06-1088		11/5/2013	Tetrachloroethene	8.42	1			1.1	5	Y
PTX06-1088		11/5/2013	Trichloroethene	9.94	1			1.1	5	Y
PTX06-1095A		2/5/2013	4-Amino-2,6-Dinitrotoluene	4.06	0.262			8.11	1.2	Y
PTX06-1095A		2/5/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	589	65.4			8.11	2	Y
PTX06-1095A		2/5/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-	13.9	2.62			8.11	2	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
			Triazine)							
PTX06-1095A		8/26/2013	2-Amino-4,6-Dinitrotoluene	1.43	0.263			5.8	1.2	Y
PTX06-1095A		8/26/2013	4-Amino-2,6-Dinitrotoluene	4.14	0.263			5.8	1.2	Y
PTX06-1095A		8/26/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	10.5	0.658			5.8	2	Y
PTX06-1095A		8/26/2013	Trichloroethene	5.88	1			5.8	5	Y
PTX06-1098		4/29/2013	Barium	6900	10			76.4	2000	Y
PTX06-1098		10/10/2013	Arsenic	32	5			45	12	Y
PTX06-1100		5/15/2013	Arsenic	22	5			0.89	12	Y
PTX06-1100		5/15/2013	Barium	13000	10			0.89	2000	Y
PTX06-1120		5/22/2013	2-Amino-4,6-Dinitrotoluene	6.12	0.266			2.4	1.2	Y
PTX06-1120		5/22/2013	4-Amino-2,6-Dinitrotoluene	11.1	0.532			2.4	1.2	Y
PTX06-1120		5/22/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	2600	66.5			2.4	2	Y
PTX06-1120		5/22/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	198	66.5			2.4	2	Y
PTX06-1120		11/20/2013	2-Amino-4,6-Dinitrotoluene	5.7	0.262			2.2	1.2	Y
PTX06-1123		2/5/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	14	5			3.74	2	Y
PTX06-1123		7/23/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	3.8	2.5			3.98	2	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
PTX06-1123		7/23/2013	Arsenic	13	5			3.98	12	Y
PTX06-1123		10/24/2013	Barium	2600	10			5.7	2000	Y
PTX06-1123		10/24/2013	Manganese	1800	10			5.7	1715.5	Y
PTX06-1126	Compliance	5/23/2013	4-Amino-2,6-Dinitrotoluene	6.97	0.255			3.3	1.2	Y
PTX06-1126	Compliance	5/23/2013	1,2-Dichloroethane	8.21	1			3.3	5	Y
PTX06-1126	Compliance	5/23/2013	1,4-Dioxane	39	1			3.3	7.7	Y
PTX06-1126	Compliance	5/23/2013	Trichloroethene	187	5			3.3	5	Y
PTX06-1126	Compliance	11/6/2013	4-Amino-2,6-Dinitrotoluene	9.75	0.521			2.4	1.2	Y
PTX06-1126	Compliance	11/6/2013	Perchlorate	226	60			2.4	26	Y
PTX06-1126	Compliance	11/6/2013	1,2-Dichloroethane	8.69	1			2.4	5	Y
PTX06-1126	Compliance	11/6/2013	1,4-Dioxane	33	1			2.4	7.7	Y
PTX06-1126	Compliance	11/6/2013	Trichloroethene	231	5			2.4	5	Y
PTX06-1126	Compliance	11/11/2013	4-Amino-2,6-Dinitrotoluene	9.99	0.518			0.8	1.2	Y
PTX06-1126	Compliance	11/11/2013	Perchlorate	250	60			0.8	26	Y
PTX06-1126	Compliance	11/11/2013	1,2-Dichloroethane	10.7	1			0.8	5	Y
PTX06-1126	Compliance	11/11/2013	1,4-Dioxane	43	1			0.8	7.7	Y
PTX06-1127	Compliance	5/14/2013	4-Amino-2,6-Dinitrotoluene	21.3	1.28			0.5	1.2	Y
PTX06-1127	Compliance	5/14/2013	Perchlorate	419	120			0.5	26	Y
PTX06-1127	Compliance	5/14/2013	1,2-Dichloroethane	5.32	1			0.5	5	Y
PTX06-1127	Compliance	5/14/2013	Trichloroethene	9.72	1			0.5	5	Y
PTX06-1127	Compliance	11/6/2013	4-Amino-2,6-Dinitrotoluene	18.2	1.32			0.6	1.2	Y
PTX06-1127	Compliance	11/6/2013	4-Amino-2,6-Dinitrotoluene	18.2	1.32				1.2	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
PTX06-1127	Compliance	11/6/2013	Perchlorate	462	120			0.6	26	Y
PTX06-1127	Compliance	11/6/2013	Perchlorate	455	120				26	Y
PTX06-1127	Compliance	11/6/2013	1,4-Dioxane	35	1			0.6	7.7	Y
PTX06-1127	Compliance	11/6/2013	1,4-Dioxane	42	1				7.7	Y
PTX06-1127	Compliance	11/6/2013	Trichloroethene	6.64	1			0.6	5	Y
PTX06-1127	Compliance	11/6/2013	Trichloroethene	6.6	1				5	Y
PTX06-1130	Compliance	2/19/2013	2-Amino-4,6-Dinitrotoluene	9.1	0.26			1.39	1.2	Y
PTX06-1130	Compliance	2/19/2013	4-Amino-2,6-Dinitrotoluene	8.59	0.26			1.39	1.2	Y
PTX06-1130	Compliance	8/22/2013	2-Amino-4,6-Dinitrotoluene	9.1	0.267			40	1.2	Y
PTX06-1130	Compliance	8/22/2013	4-Amino-2,6-Dinitrotoluene	8.76	0.267			40	1.2	Y
PTX06-1130	Compliance	8/22/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	125	6.68			40	2	Y
PTX06-1130	Compliance	8/22/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	5.55	0.267			40	2	Y
PTX06-1133A		5/22/2013	Chromium, Total	272	10			5.7	100	Y
PTX06-1134		4/30/2013	4-Amino-2,6-Dinitrotoluene	2.91	0.269			80	1.2	Y
PTX06-1134		11/18/2013	4-Amino-2,6-Dinitrotoluene	3.59	0.26			180	1.2	Y
PTX06-1146	Compliance	2/4/2013	Chromium, Total	250	50			9.24	100	Y
PTX06-1146	Compliance	8/22/2013	4-Amino-2,6-Dinitrotoluene	24.1	1.34			0.6	1.2	Y
PTX06-1146	Compliance	8/22/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	1190	67.2			0.6	2	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
PTX06-1146	Compliance	8/22/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	21.1	1.34			0.6	2	Y
PTX06-1147		4/29/2013	4-Amino-2,6-Dinitrotoluene	5.03	0.255			7.8	1.2	Y
PTX06-1147		4/29/2013	MNX (Hexahydro-1-Nitroso-3,5-Dinitro-1,3,5-Triazine)	2.1	0.255			7.8	2	Y
PTX06-1147		4/29/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	1110	63.8			7.8	2	Y
PTX06-1147		4/29/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	63.5	6.38			7.8	2	Y
PTX06-1148		5/1/2013	Perchlorate	831	240			60	26	Y
PTX06-1148		11/19/2013	Perchlorate	941	240			70	26	Y
PTX06-1149		5/1/2013	Perchlorate	79.2	12			29	26	Y
PTX06-1150		5/1/2013	Perchlorate	187	120			15	26	Y
PTX06-1150		11/19/2013	Perchlorate	192	60			11	26	Y
PTX06-1151		1/21/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	15.1	1.29			0.01	2	Y
PTX06-1151		1/21/2013	Perchlorate	151	24			0.01	26	Y
PTX06-1151		1/21/2013	1,2-Dichloroethane	9.5	1			0.01	5	Y
PTX06-1151		1/21/2013	Trichloroethene	143	2			0.01	5	Y
PTX06-1151		8/20/2013	Perchlorate	94.4	12			0.15	26	Y
PTX06-1151		8/20/2013	1,2-Dichloroethane	8.47	1			0.15	5	Y
PTX06-1151		8/20/2013	Trichloroethene	147	2			0.15	5	Y
PTX06-1153	Compliance	2/5/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	3.3	5	J		21.2	2	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
PTX06-1153	Compliance	4/23/2013	4-Amino-2,6-Dinitrotoluene	3	1			3.25	1.2	Y
PTX06-1153	Compliance	4/23/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	2.3	2.5	J		3.25	2	Y
PTX06-1153	Compliance	4/23/2013	Chromium, Total	140	10			3.25	100	Y
PTX06-1153	Compliance	4/23/2013	Chromium, Hexavalent	118	15			3.25	100	Y
PTX06-1153	Compliance	7/23/2013	2-Amino-4,6-Dinitrotoluene	1.5	1			1.91	1.2	Y
PTX06-1153	Compliance	7/23/2013	4-Amino-2,6-Dinitrotoluene	2.7	1			1.91	1.2	Y
PTX06-1153	Compliance	7/23/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	2.1	2.5	J		1.91	2	Y
PTX06-1153	Compliance	7/23/2013	Chromium, Total	180	10			1.91	100	Y
PTX06-1153	Compliance	7/23/2013	Chromium, Hexavalent	150	20			1.91	100	Y
PTX06-1153	Compliance	10/24/2013	4-Amino-2,6-Dinitrotoluene	3.1	0.2			2.6	1.2	Y
PTX06-1153	Compliance	10/24/2013	MNX (Hexahydro-1-Nitroso-3,5-Dinitro-1,3,5-Triazine)	2.8	5	J		2.6	2	Y
PTX06-1153	Compliance	10/24/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	250	20			2.6	2	Y
PTX06-1153	Compliance	10/24/2013	Chromium, Total	190	50			2.6	100	Y
PTX06-1153	Compliance	10/24/2013	Chromium, Hexavalent	133	20			2.6	100	Y
PTX06-1154	Compliance	2/5/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	37	9.9			6.5	2	Y
PTX06-1154	Compliance	2/5/2013	Arsenic	51	5			6.5	12	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
PTX06-1154	Compliance	4/23/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	15	2.5			5.44	2	Y
PTX06-1154	Compliance	4/23/2013	Arsenic	51	5			5.44	12	Y
PTX06-1154	Compliance	4/23/2013	Barium	10000	10			5.44	2000	Y
PTX06-1154	Compliance	7/23/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	11	2.5			4.07	2	Y
PTX06-1154	Compliance	7/23/2013	Arsenic	55	5			4.07	12	Y
PTX06-1154	Compliance	10/24/2013	Arsenic	71	25			4.9	12	Y
PTX06-1154	Compliance	10/24/2013	Barium	9200	10			4.9	2000	Y
PTX06-1154	Compliance	10/24/2013	Manganese	2000	10			4.9	1715.5	Y
PTX06-1155	Compliance	1/29/2013	Arsenic	31	5			2.24	12	Y
PTX06-1155	Compliance	1/29/2013	1,2-Dichloroethane	6.9	3			2.24	5	Y
PTX06-1155	Compliance	1/29/2013	cis-1,2-Dichloroethene	100	5			2.24	70	Y
PTX06-1155	Compliance	1/29/2013	Trichloroethene	170	3			2.24	5	Y
PTX06-1155	Compliance	4/22/2013	Arsenic	29	5			0.99	12	Y
PTX06-1155	Compliance	4/22/2013	1,2-Dichloroethane	8.4	3			0.99	5	Y
PTX06-1155	Compliance	4/22/2013	1,4-Dioxane	10	5			0.99	7.7	Y
PTX06-1155	Compliance	4/22/2013	Trichloroethene	27	3			0.99	5	Y
PTX06-1155	Compliance	7/22/2013	Arsenic	31	5			2.58	12	Y
PTX06-1155	Compliance	7/22/2013	1,2-Dichloroethane	11	3			2.58	5	Y
PTX06-1155	Compliance	7/22/2013	Vinyl Chloride	2.5	1			2.58	2	Y
PTX06-1155	Compliance	10/28/2013	Arsenic	57	25			3.3	12	Y
PTX06-1155	Compliance	10/28/2013	1,2-Dichloroethane	11	3			3.3	5	Y
PTX06-1155	Compliance	10/28/2013	cis-1,2-Dichloroethene	390	13			3.3	70	Y
PTX06-1155	Compliance	10/28/2013	1,4-Dioxane	8.6	5			3.3	7.7	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
PTX06-1155	Compliance	10/28/2013	Vinyl Chloride	3.3	1			3.3	2	Y
PTX06-1156	Compliance	1/29/2013	Arsenic	31	5			3.17	12	Y
PTX06-1156	Compliance	1/29/2013	Barium	2100	2			3.17	2000	Y
PTX06-1156	Compliance	4/22/2013	Arsenic	32	5			3.07	12	Y
PTX06-1156	Compliance	7/22/2013	Arsenic	42	5			8.35	12	Y
PTX06-1156	Compliance	10/28/2013	Arsenic	52	25			3.6	12	Y
PTX06-1156	Compliance	10/28/2013	Barium	2300	10			3.6	2000	Y
PTX06-1159		1/29/2013	4-Amino-2,6-Dinitrotoluene	1.76	0.266			2.79	1.2	Y
PTX06-1159		1/29/2013	1,2-Dichloroethane	7.59	1			2.79	5	Y
PTX06-1159		1/29/2013	Trichloroethene	121	2			2.79	5	Y
PTX06-1159		8/22/2013	4-Amino-2,6-Dinitrotoluene	2.38	0.273			2.1	1.2	Y
PTX06-1159		8/22/2013	Perchlorate	125	24			2.1	26	Y
PTX06-1159		8/22/2013	1,2-Dichloroethane	14.1	1			2.1	5	Y
PTX06-1162		3/26/2013	1,2-Dichloroethane	5.12	1			7.42	5	Y
PTX06-1162		3/26/2013	1,4-Dioxane	9.2	1			7.42	7.7	Y
PTX06-1162		3/26/2013	Trichloroethene	142	5			7.42	5	Y
PTX06-1166		1/28/2013	Trichloroethene	9.34	1			12.1	5	Y
PTX06-1166		8/8/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	21.1	0.672			2.3	2	Y
PTX06-1166		8/8/2013	Trichloroethene	12.3	1			2.3	5	Y
PTX06-EW-1		8/19/2013	2,4-Dinitrotoluene	5.2	20	J			1	Y
PTX06-EW-1		8/19/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	410	20				2	Y
PTX06-EW-1		8/19/2013	1,3,5-Trinitrobenzene	1200	100				220	Y
PTX06-EW-1		8/19/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-	23	50	J			2	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
			Triazine)							
PTX06-EW-10		8/6/2013	Chromium, Total	730	100				100	Y
PTX06-EW-10		8/6/2013	Chromium, Hexavalent	746	100				100	Y
PTX06-EW-12		11/4/2013	2-Amino-4,6-Dinitrotoluene	3.4	4	J			1.2	Y
PTX06-EW-16		7/10/2013	2,4-Dinitrotoluene	4.2	4				1	Y
PTX06-EW-16		7/10/2013	DNX (Hexahydro-1,3-Dinitroso-5-Nitro-1,3,5-Triazine)	4.3	9.9	J			2	Y
PTX06-EW-16		7/10/2013	TNT (2,4,6-Trinitrotoluene)	46	2				3.6	Y
PTX06-EW-17		8/20/2013	2,4-Dinitrotoluene	3.4	2				1	Y
PTX06-EW-18		8/19/2013	DNX (Hexahydro-1,3-Dinitroso-5-Nitro-1,3,5-Triazine)	4.4	1				2	Y
PTX06-EW-18		8/19/2013	MNX (Hexahydro-1-Nitroso-3,5-Dinitro-1,3,5-Triazine)	7.1	1				2	Y
PTX06-EW-18		8/19/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	18	10				2	Y
PTX06-EW-19		7/10/2013	2,4-Dinitrotoluene	1.6	2	J			1	Y
PTX06-EW-2		8/19/2013	2,4-Dinitrotoluene	7.1	10	J			1	Y
PTX06-EW-2		8/19/2013	2-Amino-4,6-Dinitrotoluene	4.4	10	J			1.2	Y
PTX06-EW-2		8/19/2013	4-Amino-2,6-Dinitrotoluene	3.9	10	J			1.2	Y
PTX06-EW-2		8/19/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	590	100				2	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
PTX06-EW-2		8/19/2013	1,3,5-Trinitrobenzene	500	100				220	Y
PTX06-EW-2		8/19/2013	TNT (2,4,6-Trinitrotoluene)	14	5				3.6	Y
PTX06-EW-2		8/19/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	36	25				2	Y
PTX06-EW-20		8/19/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	33	4				2	Y
PTX06-EW-20		8/19/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	2.9	1				2	Y
PTX06-EW-23A		8/20/2013	2,4-Dinitrotoluene	6.9	2				1	Y
PTX06-EW-23A		8/20/2013	1,3,5-Trinitrobenzene	250	99				220	Y
PTX06-EW-24		7/31/2013	2,4-Dinitrotoluene	8	4				1	Y
PTX06-EW-24		7/31/2013	2-Amino-4,6-Dinitrotoluene	5	4				1.2	Y
PTX06-EW-24		7/31/2013	4-Amino-2,6-Dinitrotoluene	4.7	4				1.2	Y
PTX06-EW-24		7/31/2013	DNX (Hexahydro-1,3-Dinitroso-5-Nitro-1,3,5-Triazine)	3.3	10	J			2	Y
PTX06-EW-26		8/20/2013	2,4-Dinitrotoluene	5.3	2				1	Y
PTX06-EW-27		7/15/2013	2,4-Dinitrotoluene	11	4				1	Y
PTX06-EW-27		7/15/2013	2-Amino-4,6-Dinitrotoluene	3	4	J			1.2	Y
PTX06-EW-29		8/20/2013	2,4-Dinitrotoluene	1.6	2	J			1	Y
PTX06-EW-29		8/20/2013	Chromium, Total	230	100				100	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
PTX06-EW-29		8/20/2013	Chromium, Hexavalent	195	20				100	Y
PTX06-EW-3		8/19/2013	2,4-Dinitrotoluene	3.4	10	J			1	Y
PTX06-EW-3		8/19/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	190	10				2	Y
PTX06-EW-3		8/19/2013	1,3,5-Trinitrobenzene	810	100				220	Y
PTX06-EW-3		8/19/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	11	25	J			2	Y
PTX06-EW-30		7/29/2013	2-Amino-4,6-Dinitrotoluene	2.8	2				1.2	Y
PTX06-EW-30		7/29/2013	2-Amino-4,6-Dinitrotoluene	2.6	2				1.2	Y
PTX06-EW-30		7/29/2013	4-Amino-2,6-Dinitrotoluene	2.3	2				1.2	Y
PTX06-EW-30		7/29/2013	4-Amino-2,6-Dinitrotoluene	2.1	2				1.2	Y
PTX06-EW-31		7/30/2013	2-Amino-4,6-Dinitrotoluene	1.9	2	J			1.2	Y
PTX06-EW-31		7/30/2013	TNT (2,4,6-Trinitrotoluene)	9.4	1				3.6	Y
PTX06-EW-32		7/30/2013	2-Amino-4,6-Dinitrotoluene	9.6	2				1.2	Y
PTX06-EW-32		7/30/2013	4-Amino-2,6-Dinitrotoluene	2	2				1.2	Y
PTX06-EW-33		7/30/2013	2-Amino-4,6-Dinitrotoluene	1.9	2	J			1.2	Y
PTX06-EW-33		7/30/2013	4-Amino-2,6-Dinitrotoluene	2	2				1.2	Y
PTX06-EW-33		7/30/2013	TNT (2,4,6-Trinitrotoluene)	6	0.99				3.6	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
PTX06-EW-34		7/30/2013	2-Amino-4,6-Dinitrotoluene	6.7	4				1.2	Y
PTX06-EW-34		7/30/2013	4-Amino-2,6-Dinitrotoluene	4.9	0.2				1.2	Y
PTX06-EW-34		7/30/2013	TNT (2,4,6-Trinitrotoluene)	6.6	2				3.6	Y
PTX06-EW-35		11/4/2013	2-Amino-4,6-Dinitrotoluene	4	3.9				1.2	Y
PTX06-EW-36		8/21/2013	2-Amino-4,6-Dinitrotoluene	6.8	4				1.2	Y
PTX06-EW-36		8/21/2013	4-Amino-2,6-Dinitrotoluene	7.9	4				1.2	Y
PTX06-EW-36		8/21/2013	TNT (2,4,6-Trinitrotoluene)	6.7	2				3.6	Y
PTX06-EW-36		8/21/2013	Chromium, Total	270	100				100	Y
PTX06-EW-36		8/21/2013	Chromium, Hexavalent	276	50				100	Y
PTX06-EW-37		8/21/2013	Chromium, Total	160	100				100	Y
PTX06-EW-37		8/21/2013	Chromium, Hexavalent	149	20				100	Y
PTX06-EW-38C		8/21/2013	Chromium, Total	110	100				100	Y
PTX06-EW-38C		8/21/2013	Chromium, Hexavalent	105	20				100	Y
PTX06-EW-39		8/21/2013	2-Amino-4,6-Dinitrotoluene	2.1	1				1.2	Y
PTX06-EW-39		8/21/2013	TNT (2,4,6-Trinitrotoluene)	8.3	0.5				3.6	Y
PTX06-EW-4		7/15/2013	2,4-Dinitrotoluene	8.3	4				1	Y
PTX06-EW-4		7/15/2013	2,4-Dinitrotoluene	9.5	4				1	Y
PTX06-EW-4		7/15/2013	2-Amino-4,6-	3.3	4	J			1.2	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
			Dinitrotoluene							
PTX06-EW-4		7/15/2013	2-Amino-4,6-Dinitrotoluene	3.7	4	J			1.2	Y
PTX06-EW-40		8/21/2013	2-Amino-4,6-Dinitrotoluene	2.6	0.99				1.2	Y
PTX06-EW-40		8/21/2013	4-Amino-2,6-Dinitrotoluene	2.3	0.99				1.2	Y
PTX06-EW-40		8/21/2013	TNT (2,4,6-Trinitrotoluene)	11	0.5				3.6	Y
PTX06-EW-41		8/22/2013	2-Amino-4,6-Dinitrotoluene	1.7	1				1.2	Y
PTX06-EW-41		8/22/2013	4-Amino-2,6-Dinitrotoluene	3.7	1				1.2	Y
PTX06-EW-41		8/22/2013	TNT (2,4,6-Trinitrotoluene)	24	0.5				3.6	Y
PTX06-EW-43		8/22/2013	2-Amino-4,6-Dinitrotoluene	3.7	4	J			1.2	Y
PTX06-EW-43		8/22/2013	4-Amino-2,6-Dinitrotoluene	4.4	4				1.2	Y
PTX06-EW-43		8/22/2013	TNT (2,4,6-Trinitrotoluene)	28	2				3.6	Y
PTX06-EW-43		8/22/2013	Chromium, Total	110	100				100	Y
PTX06-EW-43		8/22/2013	Chromium, Hexavalent	107	20				100	Y
PTX06-EW-44		8/22/2013	2-Amino-4,6-Dinitrotoluene	9.3	10	J			1.2	Y
PTX06-EW-44		8/22/2013	4-Amino-2,6-Dinitrotoluene	11	10				1.2	Y
PTX06-EW-44		8/22/2013	TNT (2,4,6-Trinitrotoluene)	37	5				3.6	Y
PTX06-EW-45		8/22/2013	2-Amino-4,6-	7.2	2				1.2	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
			Dinitrotoluene							
PTX06-EW-45		8/22/2013	4-Amino-2,6-Dinitrotoluene	3.3	2				1.2	Y
PTX06-EW-46		8/22/2013	2-Amino-4,6-Dinitrotoluene	7.1	4				1.2	Y
PTX06-EW-46		8/22/2013	4-Amino-2,6-Dinitrotoluene	4.3	4				1.2	Y
PTX06-EW-47		7/29/2013	2-Amino-4,6-Dinitrotoluene	6.1	2				1.2	Y
PTX06-EW-47		7/29/2013	4-Amino-2,6-Dinitrotoluene	2.1	2				1.2	Y
PTX06-EW-48		7/30/2013	2-Amino-4,6-Dinitrotoluene	7.2	4				1.2	Y
PTX06-EW-48		7/30/2013	4-Amino-2,6-Dinitrotoluene	5.5	4				1.2	Y
PTX06-EW-48		7/30/2013	TNT (2,4,6-Trinitrotoluene)	7	2				3.6	Y
PTX06-EW-50		7/10/2013	2,4-Dinitrotoluene	4.5	4				1	Y
PTX06-EW-50		7/10/2013	DNX (Hexahydro-1,3-Dinitroso-5-Nitro-1,3,5-Triazine)	16	10				2	Y
PTX06-EW-50		7/10/2013	MNX (Hexahydro-1-Nitroso-3,5-Dinitro-1,3,5-Triazine)	7.1	10	J			2	Y
PTX06-EW-50		7/10/2013	TNT (2,4,6-Trinitrotoluene)	58	2				3.6	Y
PTX06-EW-51		8/26/2013	Chromium, Total	1400	100				100	Y
PTX06-EW-51		8/26/2013	Chromium, Hexavalent	1340	250				100	Y
PTX06-EW-53		7/29/2013	2-Amino-4,6-Dinitrotoluene	2.8	2				1.2	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
PTX06-EW-53		7/29/2013	4-Amino-2,6-Dinitrotoluene	6.5	2				1.2	Y
PTX06-EW-54		7/10/2013	2,4-Dinitrotoluene	3.9	0.2				1	Y
PTX06-EW-54		7/10/2013	DNX (Hexahydro-1,3-Dinitroso-5-Nitro-1,3,5-Triazine)	6.2	10	J			2	Y
PTX06-EW-54		7/10/2013	TNT (2,4,6-Trinitrotoluene)	75	2				3.6	Y
PTX06-EW-55		7/10/2013	2,4-Dinitrotoluene	4.6	0.2				1	Y
PTX06-EW-55		7/10/2013	DNX (Hexahydro-1,3-Dinitroso-5-Nitro-1,3,5-Triazine)	5.3	10	J			2	Y
PTX06-EW-55		7/10/2013	TNT (2,4,6-Trinitrotoluene)	42	2				3.6	Y
PTX06-EW-56		7/15/2013	2,4-Dinitrotoluene	5.8	4				1	Y
PTX06-EW-56		7/15/2013	2-Amino-4,6-Dinitrotoluene	7.4	4				1.2	Y
PTX06-EW-57		7/15/2013	2,4-Dinitrotoluene	9	4				1	Y
PTX06-EW-57		7/15/2013	2-Amino-4,6-Dinitrotoluene	3.4	4	J			1.2	Y
PTX06-EW-58		11/4/2013	2-Amino-4,6-Dinitrotoluene	11	4				1.2	Y
PTX06-EW-58		11/4/2013	TNT (2,4,6-Trinitrotoluene)	30	2				3.6	Y
PTX06-EW-59		7/24/2013	2,4-Dinitrotoluene	5.2	2				1	Y
PTX06-EW-59		7/24/2013	2-Amino-4,6-Dinitrotoluene	4.5	2				1.2	Y
PTX06-EW-59		7/24/2013	4-Amino-2,6-Dinitrotoluene	12	2				1.2	Y
PTX06-EW-59		7/24/2013	DNX (Hexahydro-1,3-	2.6	5	J			2	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
			Dinitroso-5-Nitro-1,3,5-Triazine)							
PTX06-EW-59		7/24/2013	TNT (2,4,6-Trinitrotoluene)	38	1				3.6	Y
PTX06-EW-59		7/24/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	16	5				2	Y
PTX06-EW-6		8/26/2013	Chromium, Total	110	100				100	Y
PTX06-EW-60		7/24/2013	2,4-Dinitrotoluene	3.3	1				1	Y
PTX06-EW-60		7/24/2013	2-Amino-4,6-Dinitrotoluene	1.3	1				1.2	Y
PTX06-EW-60		7/24/2013	4-Amino-2,6-Dinitrotoluene	2.7	1				1.2	Y
PTX06-EW-60		7/24/2013	TNT (2,4,6-Trinitrotoluene)	28	0.5				3.6	Y
PTX06-EW-60		7/24/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	11	2.5				2	Y
PTX06-EW-61		7/24/2013	2,4-Dinitrotoluene	1.5	1				1	Y
PTX06-EW-61		7/24/2013	TNT (2,4,6-Trinitrotoluene)	4	0.5				3.6	Y
PTX06-EW-61		7/24/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	5.2	2.5				2	Y
PTX06-EW-62		7/24/2013	TNT (2,4,6-Trinitrotoluene)	10	0.5				3.6	Y
PTX06-EW-63		7/24/2013	2,4-Dinitrotoluene	2.6	0.2				1	Y
PTX06-EW-63		7/24/2013	2-Amino-4,6-Dinitrotoluene	1.3	0.2				1.2	Y
PTX06-EW-63		7/24/2013	TNT (2,4,6-	26	5				3.6	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
			Trinitrotoluene)							
PTX06-EW-63		7/24/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	5.4	25	J			2	Y
PTX06-EW-64		7/24/2013	2,4-Dinitrotoluene	1.3	0.2				1	Y
PTX06-EW-64		7/24/2013	TNT (2,4,6-Trinitrotoluene)	9.9	2				3.6	Y
PTX06-EW-64		7/24/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	2.3	0.5				2	Y
PTX06-EW-64		7/31/2013	2,4-Dinitrotoluene	2.8	1				1	Y
PTX06-EW-65		7/31/2013	2,4-Dinitrotoluene	4.9	10	J			1	Y
PTX06-EW-65		7/31/2013	2,4-Dinitrotoluene	5.1	10	J			1	Y
PTX06-EW-65		7/31/2013	2-Amino-4,6-Dinitrotoluene	3.3	10	J			1.2	Y
PTX06-EW-65		7/31/2013	2-Amino-4,6-Dinitrotoluene	3.6	10	J			1.2	Y
PTX06-EW-65		7/31/2013	4-Amino-2,6-Dinitrotoluene	3.2	10	J			1.2	Y
PTX06-EW-65		7/31/2013	4-Amino-2,6-Dinitrotoluene	2.8	10	J			1.2	Y
PTX06-EW-66		8/20/2013	2,4-Dinitrotoluene	1.2	2	J			1	Y
PTX06-EW-66		8/20/2013	1,3,5-Trinitrobenzene	280	20				220	Y
PTX06-EW-66		8/20/2013	Chromium, Total	170	100				100	Y
PTX06-EW-66		8/20/2013	Chromium, Hexavalent	141	20				100	Y
PTX06-EW-67		12/2/2013	Chromium, Total	190	10				100	Y
PTX06-EW-67		12/2/2013	Chromium, Hexavalent	173	50				100	Y
PTX06-EW-68		12/2/2013	Chromium, Total	210	10				100	Y
PTX06-EW-68		12/2/2013	Chromium, Hexavalent	204	50				100	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
PTX06-EW-68		12/2/2013	Trichloroethene	6	3				5	Y
PTX06-EW-7		7/15/2013	2,4-Dinitrotoluene	4.6	4				1	Y
PTX06-EW-7		7/15/2013	2-Amino-4,6-Dinitrotoluene	3.8	4	J			1.2	Y
PTX06-EW-70		8/27/2013	2-Amino-4,6-Dinitrotoluene	1.7	0.4				1.2	Y
PTX06-EW-70		8/27/2013	4-Amino-2,6-Dinitrotoluene	1.3	0.4				1.2	Y
PTX06-EW-70		8/27/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	2.5	1				2	Y
PTX06-EW-71		8/27/2013	DNX (Hexahydro-1,3-Dinitroso-5-Nitro-1,3,5-Triazine)	2.5	2.5				2	Y
PTX06-EW-71		8/27/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	4.9	2.5				2	Y
PTX06-EW-75		8/12/2013	2-Amino-4,6-Dinitrotoluene	1.9	0.4				1.2	Y
PTX06-EW-75		8/12/2013	4-Amino-2,6-Dinitrotoluene	2.8	0.4				1.2	Y
PTX06-EW-75		8/12/2013	DNX (Hexahydro-1,3-Dinitroso-5-Nitro-1,3,5-Triazine)	3	0.99				2	Y
PTX06-EW-75		8/12/2013	MNX (Hexahydro-1-Nitroso-3,5-Dinitro-1,3,5-Triazine)	2.7	0.99				2	Y
PTX06-EW-79		8/12/2013	2-Amino-4,6-Dinitrotoluene	7.1	2				1.2	Y
PTX06-EW-79		8/12/2013	4-Amino-2,6-	16	2				1.2	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
			Dinitrotoluene							
PTX06-EW-79		8/12/2013	DNX (Hexahydro-1,3-Dinitroso-5-Nitro-1,3,5-Triazine)	12	5				2	Y
PTX06-EW-79		8/12/2013	MNX (Hexahydro-1-Nitroso-3,5-Dinitro-1,3,5-Triazine)	9.7	5				2	Y
PTX06-EW-80		8/12/2013	2,4-Dinitrotoluene	1.3	0.99				1	Y
PTX06-EW-80		8/12/2013	2-Amino-4,6-Dinitrotoluene	4.5	0.99				1.2	Y
PTX06-EW-80		8/12/2013	4-Amino-2,6-Dinitrotoluene	6.3	0.99				1.2	Y
PTX06-EW-80		8/12/2013	DNX (Hexahydro-1,3-Dinitroso-5-Nitro-1,3,5-Triazine)	3.8	2.5				2	Y
PTX06-EW-80		8/12/2013	MNX (Hexahydro-1-Nitroso-3,5-Dinitro-1,3,5-Triazine)	2.3	2.5	J			2	Y
PTX06-ISB012		4/9/2013	Arsenic	54	5			29	12	Y
PTX06-ISB014		6/3/2013	Arsenic	49	5			46.6	12	Y
PTX06-ISB014		11/19/2013	Arsenic	62	25			280	12	Y
PTX06-ISB019		6/3/2013	Arsenic	64	5			6.6	12	Y
PTX06-ISB019		11/20/2013	Arsenic	74	25			85	12	Y
PTX06-ISB024		6/4/2013	Arsenic	32	5			10.42	12	Y
PTX06-ISB024		12/3/2013	Arsenic	51	5			140	12	Y
PTX06-ISB030B		3/13/2013	Arsenic	59	5			70.4	12	Y
PTX06-ISB030B		3/13/2013	Manganese	2300	2			70.4	1715.5	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
PTX06-ISB030B		3/13/2013	Butyric Acid	110000	5000			70.4	18250	Y
PTX06-ISB030B		3/13/2013	Hexanoic Acid	130000	10000			70.4	2336	Y
PTX06-ISB030B		3/13/2013	Propionic Acid	330000	5000			70.4	18250	Y
PTX06-ISB030B		3/13/2013	Pentanoic Acid	96000	700			70.4	18250	Y
PTX06-ISB030B		6/4/2013	Arsenic	64	5			60.2	12	Y
PTX06-ISB030B		12/4/2013	Arsenic	13	5				12	Y
PTX06-ISB038		3/13/2013	Arsenic	42	5			127	12	Y
PTX06-ISB038		6/6/2013	Arsenic	38	5			22.8	12	Y
PTX06-ISB038		12/10/2013	Arsenic	31	50	J		330	12	Y
PTX06-ISB038		12/10/2013	Arsenic	53	50				12	Y
PTX06-ISB038		12/10/2013	Manganese	2600	20			330	1715.5	Y
PTX06-ISB038		12/10/2013	Manganese	4300	20				1715.5	Y
PTX06-ISB042		3/19/2013	Arsenic	50	5			13.5	12	Y
PTX06-ISB042		6/6/2013	Arsenic	45	5			9.39	12	Y
PTX06-ISB046		6/10/2013	Arsenic	34	5			34.6	12	Y
PTX06-ISB046		6/10/2013	Arsenic	34	5				12	Y
PTX06-ISB048		3/19/2013	Arsenic	82	5			95.9	12	Y
PTX06-ISB048		3/19/2013	Propionic Acid	36000	5000			95.9	18250	Y
PTX06-ISB048		6/10/2013	Arsenic	69	5			70.7	12	Y
PTX06-ISB055		2/6/2013	Arsenic	19	5			186	12	Y
PTX06-ISB055		2/6/2013	Arsenic	21	5				12	Y
PTX06-ISB055		7/29/2013	Arsenic	29	25				12	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
PTX06-ISB055		7/29/2013	Manganese	2200	2				1715.5	Y
PTX06-ISB055		10/29/2013	Arsenic	13	25	J		650	12	Y
PTX06-ISB059		10/30/2013	Manganese	1800	10			310	1715.5	Y
PTX06-ISB063		11/4/2013	Arsenic	15	25	J		250	12	Y
PTX06-ISB069A		2/19/2013	Arsenic	24	5			128	12	Y
PTX06-ISB069A		8/1/2013	Arsenic	14	5			79.9	12	Y
PTX06-ISB069A		11/5/2013	Arsenic	20	25	J		65	12	Y
PTX06-ISB073		2/20/2013	Arsenic	19	5			142	12	Y
PTX06-ISB073		8/6/2013	Arsenic	20	50	J		340	12	Y
PTX06-ISB073		11/7/2013	Arsenic	27	25			130	12	Y
PTX06-ISB075		3/6/2013	Arsenic	88	25			3.75	12	Y
PTX06-ISB075		3/6/2013	1,2-Dichloroethane	9	3			3.75	5	Y
PTX06-ISB075		3/6/2013	cis-1,2-Dichloroethene	250	13			3.75	70	Y
PTX06-ISB075		3/6/2013	Trichloroethene	20	3			3.75	5	Y
PTX06-ISB075		8/7/2013	Arsenic	150	50			12	12	Y
PTX06-ISB075		8/7/2013	1,2-Dichloroethane	5.6	3			12	5	Y
PTX06-ISB075		8/7/2013	cis-1,2-Dichloroethene	210	10			12	70	Y
PTX06-ISB075		11/11/2013	Arsenic	100	5			5.2	12	Y
PTX06-ISB075		11/11/2013	1,2-Dichloroethane	9	3			5.2	5	Y
PTX06-ISB075		11/11/2013	Vinyl Chloride	2.2	1			5.2	2	Y
PTX06-ISB081		3/7/2013	Arsenic	24	25	J		123	12	Y
PTX06-ISB081		8/14/2013	Arsenic	13	50	J		500	12	Y
PTX06-ISB081		8/14/2013	Arsenic	16	50	J			12	Y
PTX06-ISB081		11/18/2013	Arsenic	27	25			190	12	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
PTX06-ISB081		11/18/2013	Manganese	3400	10			190	1715.5	Y
PTX06-ISB085A		8/12/2013	Arsenic	26	50	J		70	12	Y
PTX06-ISB085A		11/14/2013	Arsenic	38	25			290	12	Y
PTX07-1O03		8/19/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	2.32	0.267			9.1	2	Y
PTX07-1P05		5/13/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	7.38	0.256			0	2	Y
PTX08-1002		11/4/2013	2-Amino-4,6-Dinitrotoluene	4.31	0.26			0.75	1.2	Y
PTX08-1002		11/4/2013	4-Amino-2,6-Dinitrotoluene	6.89	0.26			0.75	1.2	Y
PTX08-1002		11/4/2013	DNX (Hexahydro-1,3-Dinitroso-5-Nitro-1,3,5-Triazine)	2.86	0.26			0.75	2	Y
PTX08-1002		11/4/2013	MNX (Hexahydro-1-Nitroso-3,5-Dinitro-1,3,5-Triazine)	2.03	0.26			0.75	2	Y
PTX08-1002		11/4/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	121	6.51			0.75	2	Y
PTX08-1002		11/4/2013	TNT (2,4,6-Trinitrotoluene)	16.6	1.3			0.75	3.6	Y
PTX08-1002		11/4/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	6.73	0.26			0.75	2	Y
PTX08-1005		1/21/2013	4-Amino-2,6-Dinitrotoluene	2.3	0.258			0.22	1.2	Y
PTX08-1005		1/21/2013	Trichloroethene	125	2			0.22	5	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
PTX08-1005		8/20/2013	4-Amino-2,6-Dinitrotoluene	2.33	0.265			1.8	1.2	Y
PTX08-1005		8/20/2013	Trichloroethene	53.4	1			1.8	5	Y
PTX08-1006		1/21/2013	4-Amino-2,6-Dinitrotoluene	34.3	1.29			0.22	1.2	Y
PTX08-1006		1/21/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	379	12.9			0.22	2	Y
PTX08-1006		1/21/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	17.9	1.29			0.22	2	Y
PTX08-1006		1/21/2013	Perchlorate	873	240			0.22	26	Y
PTX08-1006		1/21/2013	1,2-Dichloroethane	9.15	1			0.22	5	Y
PTX08-1006		1/21/2013	Tetrachloroethene	12.7	1			0.22	5	Y
PTX08-1006		1/21/2013	Trichloroethene	15.2	1			0.22	5	Y
PTX08-1006		7/30/2013	4-Amino-2,6-Dinitrotoluene	28.6	1.3			0.2	1.2	Y
PTX08-1006		7/30/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	253	13			0.2	2	Y
PTX08-1006		7/30/2013	TNX (Hexahydro-1,3,5-Trinitroso-1,3,5-Triazine)	11.5	1.3			0.2	2	Y
PTX08-1006		7/30/2013	Perchlorate	632	120			0.2	26	Y
PTX08-1006		7/30/2013	1,2-Dichloroethane	7.02	1			0.2	5	Y
PTX08-1006		7/30/2013	1,4-Dioxane	35	1			0.2	7.7	Y
PTX08-1006		7/30/2013	Tetrachloroethene	10.7	1			0.2	5	Y
PTX08-1007		5/20/2013	RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine)	6.82	0.266			0.4	2	Y
PTX08-1007		5/20/2013	Trichloroethene	20.9	1			0.4	5	Y
PTX08-1008		5/15/2013	Chromium, Hexavalent	386	150	I		1.2	100	Y

Well ID	CP-50284 Designation	Sample Date	Analyte	Measured Value (ug or pCi/L)	Detection Limit (ug/L)	Lab Qualifier	PTX Qualifier	Turbidity	GWPS (ug or pCi/L)	>GWPS?
PTX08-1008		11/6/2013	Chromium, Hexavalent	331	50			1.4	100	Y
PTX08-1008		11/11/2013	Chromium, Total	349	10			3.7	100	Y
PTX08-1008		11/11/2013	Chromium, Hexavalent	304	50			3.7	100	Y
PTX10-1014		5/16/2013	Nickel	866	2			100	730	Y
PTX10-1014		5/16/2013	Trichloroethene	14.1	1			100	5	Y

*Arsenic, barium, and manganese are elevated in the ISPM wells because there is evidence that the treatment zone is extending beyond the ISB, pilot study, and PRB treatment systems. Volatile fatty acids, DO, and ORP have been affected in these wells (please refer to the electronic data CD in this appendix for data).

Appendix D
Expected Conditions Evaluation and COC Concentration Trends

Perched Aquifer Expected Conditions Evaluation and Concentration Trends

Perched Groundwater COC Trends Vs Expected Conditions
Trends Since Start of Remedial Action (2009)

Indicator Area	Well ID	LTM Objectives	Progress Report Metrics	COC Expected Condition - LTM Design	COC>GWPS	Indicator List Monitoring Frequency	Trend Since Start of Remedial Action			
							RDX	Perc	TCE	CR-6
Zone 11	1114-MW4	UM	Trend/Compare to GWPS	Long-term decreasing trend	PERC, TCE	Semi-Annual	N/A	Increasing	Decreasing	NT
North	OW-WR-38	UM, RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	RDX	Annual	Decreasing	NT	Decreasing	NT
Burning Ground	PTX01-1001	UM	Trend/Compare to GWPS	Stable or decreasing trend below GWPS	NONE	Semi-Annual	N/A	N/A	Decreasing	NT
Burning Ground	PTX01-1002	UM	Compare to GWPS	Below background/PQL and GWPS	NONE	Annual	N/A	ND	ND	NT
Burning Ground	PTX01-1004	PS	Dry			NA	Dry	Dry	Dry	Dry
Burning Ground	PTX01-1008	UM	Compare to GWPS	Below background/PQL and GWPS	NONE	Semi-Annual	N/A	ND	ND	NT
Burning Ground	PTX01-1009	PS	Dry			NA	Dry	Dry	Dry	Dry
Miscellaneous	PTX04-1001	UM	Trend/Compare to GWPS	Stable or decreasing trend below GWPS		5 Yrs	NS	NS	NS	NS
Miscellaneous	PTX04-1002	UM	Trend/Compare to GWPS	Stable or decreasing trend below GWPS	NONE	Annual	Decreasing	NT	Decreasing	NT
Southeast	PTX06-1002A	UM, RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	RDX, TNX	Semi-Annual	Decreasing	NT	No Trend	ND
Southeast	PTX06-1003	UM, RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations		Annual	NS*	NS*	NS*	NS*
Southeast	PTX06-1005	UM, RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	DNT2A, DNT4A, RDX, TNB135, TNX, TCE, CR, CR-6, PCE	Semi-Annual	Decreasing	NT	Increasing	Increasing
Zone 11	PTX06-1006	PS	Trend/Compare to GWPS	Long-term decreasing trend	RDX, PERC, DNT4A	Annual	Decreasing	Decreasing	N/A	NT
Zone 11	PTX06-1007	UM	Trend/Compare to GWPS	Long-term decreasing trend	PERC, DNT4A	Annual	Decreasing	Increasing	N/A	NT
Southeast, Zone 11	PTX06-1008	UM	Trend/Compare to GWPS	Long-term decreasing trend	DCA12	Annual	ND	N/A	Decreasing	N/A
Southeast	PTX06-1010	UM	Trend/Compare to GWPS	Long-term decreasing trend	CR, CR6, RDX	Semi-Annual	Decreasing	NT	No Trend	Increasing
Southeast, Zone 11	PTX06-1011	UM	Trend/Compare to GWPS	Stable or decreasing trend below GWPS	CR, TCE	Annual	N/A	N/A	No Trend	N/A
Zone 11	PTX06-1012	PS, RAE	Trend/Compare to GWPS	Below GWPS in 2–5 years	DCA12, TCE, DIOXANE14	Quarterly	ND	Decreasing	Decreasing	NT
Southeast	PTX06-1013	RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	RDX	Semi-Annual	Decreasing	NT	ND	ND
Southeast	PTX06-1014	RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	RDX, TNX, DNT2A, DNT4A, DNT26	Annual	No Trend	NT	ND	ND
Southeast	PTX06-1015	RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	RDX, TNX, DNT4A	Semi-Annual	Increasing	NT	Decreasing	No Trend
Southeast	PTX06-1023	RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	NONE	Semi-Annual	Decreasing	NT	ND	ND
Southeast	PTX06-1030	RAE	Trend/Compare to GWPS	Long-term stabilization of concentrations	RDX, TNX, DNT2A, DNT4A	Semi-Annual	Decreasing	NT	N/A	No Trend
Southeast	PTX06-1031	RAE	Trend/Compare to GWPS	Long-term stabilization of concentrations	RDX, TNX, DNT4A	Semi-Annual	Decreasing	NT	N/A	Decreasing
Southeast	PTX06-1034	RAE	Trend/Compare to GWPS	Long-term stabilization of concentrations	RDX, TNX, DNT4A	Semi-Annual	Increasing	NT	Increasing	N/A
Zone 11	PTX06-1035	PS	Trend/Compare to GWPS	Stable or decreasing trend below GWPS	PERC	Semi-Annual	ND	Increasing	Stable	NT
Southeast	PTX06-1036	PS	Trend/Compare to GWPS	Stable or decreasing trend below GWPS	NONE	Annual	Decreasing	NT	ND	N/A
Southeast	PTX06-1037	RAE	Trend/Compare to GWPS	Below GWPS in 2–5 years	NONE	Quarterly	Decreasing	NT	Decreasing	ND

Perched Groundwater COC Trends Vs Expected Conditions
Trends Since Start of Remedial Action (2009)

Indicator Area	Well ID	LTM Objectives	Progress Report Metrics	COC Expected Condition - LTM Design	COC>GWPS	Indicator List Monitoring Frequency	Trend Since Start of Remedial Action			
							RDX	Perc	TCE	CR-6
Southeast	PTX06-1038	RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	TNT, RDX, DNX, TNX, DNT2A, DNT4A	Semi-Annual	Decreasing	NT	ND	N/A
Southeast	PTX06-1039A	RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	TNT, RDX, DNX, TNX, DNT2A, DNT4A, MNX	Semi-Annual	No Trend	NT	ND	ND
Southeast	PTX06-1040	RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	RDX, DNX, TNX, DNT2A, DNT4A, TNT	Semi-Annual	No Trend	NT	ND	N/A
Southeast	PTX06-1041	RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	TNT, RDX, DNX, TNX, DNT2A, DNT4A	Semi-Annual	Increasing	NT	ND	N/A
Southeast	PTX06-1042	RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	RDX, MNX, DNX, TNX, DNT2A, DNT4A	Semi-Annual	Increasing	NT	ND	ND
Southeast	PTX06-1045	RAE	Trend/Compare to GWPS	Below GWPS in 2–5 years		Quarterly	NS*	NS*	NS*	NS*
Southeast	PTX06-1046	RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	RDX, TNX, DNT2A, DNT4A	Semi-Annual	Increasing	NT	Increasing	N/A
Southeast	PTX06-1047A	RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	RDX, TNX, DNT4A	Semi-Annual	Decreasing	NT	No Trend	ND
North	PTX06-1048A	PS, RAE	Trend/Compare to GWPS	Stable or decreasing trend below GWPS	NONE	Annual	ND	NT	N/A	NT
Miscellaneous	PTX06-1049	PS, UM	Compare to GWPS	Below background/PQL and GWPS	DNT4A, RDX	Annual	Increasing	NT	Increasing	NT
North	PTX06-1050	UM, RAE	Water Level, Trend/Compare to GWPS	Decreasing water levels, Long-term stabilization of concentrations	RDX, TNX, DNT4A	Semi-Annual	No Trend	NT	ND	NT
Southeast	PTX06-1051	PS	Dry			NA	Dry	Dry	Dry	Dry
Southeast	PTX06-1052	RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	CR,CR-6	Semi-Annual	N/A	NT	N/A	Decreasing
Southeast, Zone 11	PTX06-1053	PS, UM	Trend/Compare to GWPS	Stable or decreasing trend below GWPS	NONE	Semi-Annual	N/A	ND	ND	ND
Miscellaneous	PTX06-1055	PS	Dry			NA	Dry	Dry	Dry	Dry
Southeast	PTX06-1069	PS	Trend/Compare to GWPS	Stable or decreasing trend below GWPS	NONE	Annual	N/A	NT	ND	ND
Miscellaneous	PTX06-1071	UM	Compare to GWPS	Below background/PQL and GWPS	NONE	5 Yrs	NS	NS	NS	NS
Zone 11	PTX06-1073A	PS	Dry			NA	N/A	N/A	N/A	NT
Zone 11	PTX06-1077A	UM	Trend/Compare to GWPS	Stable or decreasing trend below GWPS	TCE	Annual	Stable	No Trend	Decreasing	NT
Miscellaneous	PTX06-1080	UM	Compare to GWPS	Below background/PQL and GWPS	NONE	5 Yrs	NS	NS	NS	NS
Miscellaneous	PTX06-1081	UM	Trend/Compare to GWPS	Stable or decreasing trend below GWPS	NONE	Annual	ND	NT	Decreasing	NT
Miscellaneous	PTX06-1082	UM	Compare to GWPS	Below background/PQL and GWPS	NONE	5 Yrs	NS	NS	NS	NS
Miscellaneous	PTX06-1083	UM	Trend/Compare to GWPS	Stable or decreasing trend below GWPS	NONE	5 Yrs	NS	NS	NS	NS
Miscellaneous	PTX06-1085	UM	Compare to GWPS	Below background/PQL and GWPS	NONE	Annual	ND	NT	ND	NT
Miscellaneous	PTX06-1086	UM	Compare to GWPS	Below background/PQL and GWPS	NONE	Annual	ND	NT	ND	NT

Perched Groundwater COC Trends Vs Expected Conditions
Trends Since Start of Remedial Action (2009)

Indicator Area	Well ID	LTM Objectives	Progress Report Metrics	COC Expected Condition - LTM Design	COC>GWPS	Indicator List Monitoring Frequency	Trend Since Start of Remedial Action			
							RDX	Perc	TCE	CR-6
Southeast	PTX06-1088	UM, RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	TCE, RDX, DNT24, TNB135, PCE	Semi-Annual	Decreasing	NT	Decreasing	Decreasing
Southeast	PTX06-1089	PS	Dry			NA	Dry	Dry	Dry	Dry
Southeast	PTX06-1090	PS	Dry			NA	Dry	Dry	Dry	Dry
Southeast	PTX06-1091	PS	Dry			NA	Dry	Dry	Dry	Dry
Southeast	PTX06-1093	PS	Dry			NA	Dry	Dry	Dry	Dry
Southeast	PTX06-1094	PS	Dry			NA	Dry	Dry	Dry	Dry
Southeast	PTX06-1095A	UM, RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	RDX, TNX, DNT4A, DNT2A, TCE	Semi-Annual	Increasing	NT	Decreasing	N/A
Miscellaneous	PTX06-1096A	PS, UM	Dry	Remain dry		NA	Dry	Dry	Dry	Dry
Miscellaneous	PTX06-1097	PS, UM	Dry	Remain dry		NA	Dry	Dry	Dry	Dry
Southeast	PTX06-1098	RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	NONE	Semi-Annual	N/A	NT	ND	Stable
Southeast	PTX06-1100	RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	NONE	Annual	ND	NT	N/A	Decreasing
Southeast	PTX06-1101	RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	NONE	Annual	ND	NT	No Trend	Decreasing
Southeast	PTX06-1102	RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations		Annual	NS*	NS*	NS*	NS*
Southeast	PTX06-1103	RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations		Semi-Annual	NS*	NS*	NS*	NS*
Southeast	PTX06-1118	RAE	Trend/Compare to GWPS	Long-term stabilization of concentrations		Annual	NS*	NS*	NS*	NS*
Southeast	PTX06-1119	PS	Dry	Remain dry		NA	Dry	Dry	Dry	Dry
Southeast	PTX06-1120	PS	Water Level, Trend/Compare to GWPS	Remain dry	RDX, TNX, DNT2A, DNT4A	NA	Decreasing	NT	Decreasing	Decreasing
Southeast	PTX06-1121	PS	Water Level, Trend/Compare to GWPS	Remain dry		NA	Dry	Dry	Dry	Dry
Southeast	PTX06-1122	PS	Dry	Remain dry		NA	Dry	Dry	Dry	Dry
Southeast	PTX06-1123	RAE	Trend/Compare to GWPS	Below GWPS in 2–5 years	TNX	Quarterly	Decreasing	NT	No Trend	N/A
Southeast	PTX06-1124	PS	Dry	Remain dry		NA	Dry	Dry	Dry	Dry
Southeast	PTX06-1125	PS	Dry	Remain dry		NA	Dry	Dry	Dry	Dry
Zone 11	PTX06-1126	PS, UM	Trend/Compare to GWPS	Long-term decreasing trend	TCE, PERC, DIOXANE14, DNT4A, DCA12	Semi-Annual	Decreasing	Decreasing	Decreasing	NT
Zone 11	PTX06-1127	PS, UM	Trend/Compare to GWPS	Long-term decreasing trend	TCE, PERC, DIOXANE14, DNT4A, DCA12	Semi-Annual	Increasing	Decreasing	Decreasing	NT
Southeast	PTX06-1130	RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	RDX, TNX, DNT2A, DNT4A	Semi-Annual	Decreasing	NT	ND	N/A
Miscellaneous	PTX06-1131	UM	Compare to GWPS	Below background/PQL and GWPS	NONE	Semi-Annual	N/A	NT	ND	NT
Southeast	PTX06-1133A	PS	Dry	Remain dry	CR	NA	ND	NT	ND	N/A
Zone 11	PTX06-1134	PS	Trend/Compare to GWPS	Long-term decreasing trend	DNT4A	Semi-Annual	N/A	Decreasing	ND	NT
Southeast	PTX06-1135	PS	Trend/Compare to GWPS	Long-term decreasing trend	CR	Semi-Annual	Decreasing	NT	ND	N/A
North	PTX06-1136	PS	Trend/Compare to GWPS	Long-term decreasing trend	NONE	Semi-Annual	ND	NT	N/A	NT
Southeast	PTX06-1146	PS	Trend/Compare to GWPS	Long-term decreasing trend	RDX, TNX, DNT4A, CR	Semi-Annual	Decreasing	NT	ND	Increasing

Perched Groundwater COC Trends Vs Expected Conditions
Trends Since Start of Remedial Action (2009)

Indicator Area	Well ID	LTM Objectives	Progress Report Metrics	COC Expected Condition - LTM Design	COC>GWPS	Indicator List Monitoring Frequency	Trend Since Start of Remedial Action			
							RDX	Perc	TCE	CR-6
Southeast	PTX06-1147	PS	Trend/Compare to GWPS	Long-term decreasing trend	RDX, MNX, TNX, DNT4A	Semi-Annual	Increasing	NT	Decreasing	N/A
Zone 11	PTX06-1148	PS, RAE	Trend/Compare to GWPS	Below GWPS in 2–5 years	PERC	Semi-Annual	Decreasing	Increasing	Increasing	NT
Zone 11	PTX06-1149	PS	Trend/Compare to GWPS	Below GWPS in 2–5 years	PERC	Semi-Annual	ND	No Trend	N/A	NT
Zone 11	PTX06-1150	PS, RAE	Trend/Compare to GWPS	Below GWPS in 2–5 years	PERC	Semi-Annual	ND	Increasing	Increasing	NT
Zone 11	PTX06-1151	PS	Trend/Compare to GWPS	Long-term decreasing trend	TCE, DCA12, RDX, PERC	Semi-Annual	Decreasing	Decreasing	Increasing	NT
Southeast	PTX06-1153	RAE	Trend/Compare to GWPS	Below GWPS in 2–5 years	RDX, MNX, TNX, TCE, CR, CR-6, DNT4A, DNT2A	Quarterly	Increasing	NT	Decreasing	Increasing
Southeast	PTX06-1154	RAE	Trend/Compare to GWPS	Below GWPS in 2–5 years	TNX	Quarterly	Decreasing	NT	Decreasing	No Trend
Zone 11	PTX06-1155	RAE	Trend/Compare to GWPS	Below GWPS in 2–5 years	TCE, DCA12, DCE12C, DIOXANE14, VC	Quarterly	N/A	Decreasing	Decreasing	NT
Zone 11	PTX06-1156	RAE	Trend/Compare to GWPS	Below GWPS in 2–5 years	NONE	Quarterly	ND	Decreasing	Decreasing	NT
North	PTX07-1O01	PS, UM, RAE	Trend/Compare to GWPS	Long-term decreasing trend	RDX	Semi-Annual	Decreasing	NT	N/A	NT
North	PTX07-1O02	PS, UM, RAE	Trend/Compare to GWPS	Long-term decreasing trend	NONE	Semi-Annual	Decreasing	NT	Increasing	NT
North	PTX07-1O03	PS, UM, RAE	Trend/Compare to GWPS	Long-term decreasing trend	RDX, TNX	Annual	No Trend	NT	ND	NT
North	PTX07-1O06	PS, UM, RAE	Trend/Compare to GWPS	Stable or decreasing trend below GWPS	NONE	Annual	NS*	NS*	NS*	NS*
Zone 11	PTX07-1P02	UM	Trend/Compare to GWPS	Stable or decreasing trend below GWPS	NONE	Semi-Annual	Decreasing	N/A	ND	NT
Zone 11	PTX07-1P05	UM	Trend/Compare to GWPS	Stable or decreasing trend below GWPS	RDX	Annual	Decreasing	N/A	ND	NT
Miscellaneous	PTX07-1Q01	UM	Compare to GWPS	Below background/PQL and GWPS	NONE	Annual	ND	NT	ND	NT
Miscellaneous	PTX07-1Q02	UM	Compare to GWPS	Below background/PQL and GWPS	NONE	Annual	ND	NT	ND	NT
Miscellaneous	PTX07-1Q03	UM	Compare to GWPS	Below background/PQL and GWPS	NONE	Annual	ND	NT	ND	NT
Miscellaneous	PTX07-1R03	UM	Compare to GWPS	Below background/PQL and GWPS	NONE	5 Yrs	NS	NS	NS	NS
Zone 11	PTX08-1001	UM, RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations		Annual	NS*	NS*	NS*	NS*
Southeast	PTX08-1002	UM, RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	RDX, MNX, TNX, DNT2A, DNT4A	Semi-Annual	No Trend	NT	ND	ND
Zone 11	PTX08-1003	PS	Trend/Compare to GWPS	Stable or decreasing trend below GWPS	NONE	Annual	No Trend	No Trend	Increasing	NT
Zone 11	PTX08-1005	UM	Trend/Compare to GWPS	Long-term decreasing trend	TCE, DNT4A	Semi-Annual	Decreasing	No Trend	Decreasing	NT
Zone 11	PTX08-1006	UM	Trend/Compare to GWPS	Long-term decreasing trend	RDX, TNX, PERC, DNT4A, TCE, PCE, DIOXANE14, DCA12	Semi-Annual	Increasing	Decreasing	Increasing	NT
Southeast, Zone 11	PTX08-1007	UM	Trend/Compare to GWPS	Long-term decreasing trend	TCE, RDX	Annual	No Trend	ND	No Trend	N/A
Southeast, Zone 11	PTX08-1008	UM, RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	CR, CR-6	Semi-Annual	ND	Decreasing	ND	Decreasing
Southeast	PTX08-1009	UM, RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	NONE	Semi-Annual	No Trend	NT	N/A	ND

Perched Groundwater COC Trends Vs Expected Conditions
Trends Since Start of Remedial Action (2009)

Indicator Area	Well ID	LTM Objectives	Progress Report Metrics	COC Expected Condition - LTM Design	COC>GWPS	Indicator List Monitoring Frequency	Trend Since Start of Remedial Action			
							RDX	Perc	TCE	CR-6
Miscellaneous	PTX08-1010	UM	Trend/Compare to GWPS	Stable or decreasing trend below GWPS	NONE	5 Yrs	NS	NS	NS	NS
Southeast, Zone 11	PTX10-1014	UM	Trend/Compare to GWPS	Long-term decreasing trend	TCE	Annual	No Trend	N/A	Stable	ND

NT - Trends were not calculated for this COC in this well. Well is dry or the COC was not sampled during 2013, based on SAP.
N/A - Trending could not be performed, either due to a) <4 samples in dataset or b) <2 Detections in dataset
ND - all samples were non-detect
UM = Uncertainty management
PS = Plume stability
RAE = Response action effectiveness
NS* = well not sampled due to either dry conditions or insufficient water for sampling

Perched Groundwater COC Trends Vs Expected Conditions
Recent Trends

Indicator Area	Well ID	LTM Objectives	Progress Report Metrics	COC Expected Condition - LTM Design	COC>GWPS	Indicator List Monitoring Frequency	Recent Trend (Last 4 Samples)			
							RDX	Perc	TCE	CR-6
Zone 11	1114-MW4	UM	Trend/Compare to GWPS	Long-term decreasing trend	PERC, TCE	Semi-Annual	N/A	No Trend	Decreasing	NT
North	OW-WR-38	UM, RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	RDX	Annual	Decreasing	NT	N/A	NT
Burning Ground	PTX01-1001	UM	Trend/Compare to GWPS	Stable or decreasing trend below GWPS	NONE	Semi-Annual	ND	N/A	Decreasing	NT
Burning Ground	PTX01-1002	UM	Compare to GWPS	Below background/PQL and GWPS	NONE	Annual	N/A	ND	ND	NT
Burning Ground	PTX01-1004	PS	Dry			NA	Dry	Dry	Dry	Dry
Burning Ground	PTX01-1008	UM	Compare to GWPS	Below background/PQL and GWPS	NONE	Semi-Annual	N/A	ND	ND	NT
Burning Ground	PTX01-1009	PS	Dry			NA	Dry	Dry	Dry	Dry
Miscellaneous	PTX04-1001	UM	Trend/Compare to GWPS	Stable or decreasing trend below GWPS		5 Yrs	NS	NS	NS	NS
Miscellaneous	PTX04-1002	UM	Trend/Compare to GWPS	Stable or decreasing trend below GWPS	NONE	Annual	Decreasing	NT	Decreasing	NT
Southeast	PTX06-1002A	UM, RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	RDX, TNX	Semi-Annual	Stable	NT	Decreasing	ND
Southeast	PTX06-1003	UM, RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations		Annual	NS*	NS*	NS*	NS*
Southeast	PTX06-1005	UM, RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	DNT2A, DNT4A, RDX, TNB135, TNX, TCE, CR, CR-6, PCE	Semi-Annual	Stable	NT	No Trend	No Trend
Zone 11	PTX06-1006	PS	Trend/Compare to GWPS	Long-term decreasing trend	RDX, PERC, DNT4A	Annual	Decreasing	Decreasing	N/A	NT
Zone 11	PTX06-1007	UM	Trend/Compare to GWPS	Long-term decreasing trend	PERC, DNT4A	Annual	Decreasing	No Trend	N/A	NT
Southeast, Zone 11	PTX06-1008	UM	Trend/Compare to GWPS	Long-term decreasing trend	DCA12	Annual	ND	ND	Decreasing	N/A
Southeast	PTX06-1010	UM	Trend/Compare to GWPS	Long-term decreasing trend	CR, CR6, RDX	Semi-Annual	Stable	NT	No Trend	No Trend
Southeast, Zone 11	PTX06-1011	UM	Trend/Compare to GWPS	Stable or decreasing trend below GWPS	CR, TCE	Annual	N/A	N/A	No Trend	N/A
Zone 11	PTX06-1012	PS, RAE	Trend/Compare to GWPS	Below GWPS in 2–5 years	DCA12, TCE, DIOXANE14	Quarterly	ND	ND	Decreasing	NT
Southeast	PTX06-1013	RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	RDX	Semi-Annual	Decreasing	NT	ND	ND
Southeast	PTX06-1014	RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	RDX, TNX, DNT2A, DNT4A, DNT26	Annual	No Trend	NT	ND	ND
Southeast	PTX06-1015	RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	RDX, TNX, DNT4A	Semi-Annual	No Trend	NT	No Trend	Stable
Southeast	PTX06-1023	RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	NONE	Semi-Annual	N/A	NT	ND	ND
Southeast	PTX06-1030	RAE	Trend/Compare to GWPS	Long-term stabilization of concentrations	RDX, TNX, DNT2A, DNT4A	Semi-Annual	No Trend	NT	ND	N/A
Southeast	PTX06-1031	RAE	Trend/Compare to GWPS	Long-term stabilization of concentrations	RDX, TNX, DNT4A	Semi-Annual	Decreasing	NT	N/A	N/A
Southeast	PTX06-1034	RAE	Trend/Compare to GWPS	Long-term stabilization of concentrations	RDX, TNX, DNT4A	Semi-Annual	No Trend	NT	Decreasing	N/A
Zone 11	PTX06-1035	PS	Trend/Compare to GWPS	Stable or decreasing trend below GWPS	PERC	Semi-Annual	ND	Increasing	Stable	NT
Southeast	PTX06-1036	PS	Trend/Compare to GWPS	Stable or decreasing trend below GWPS	NONE	Annual	Decreasing	NT	ND	N/A
Southeast	PTX06-1037	RAE	Trend/Compare to GWPS	Below GWPS in 2–5 years	NONE	Quarterly	Decreasing	NT	ND	ND

Perched Groundwater COC Trends Vs Expected Conditions
Recent Trends

Indicator Area	Well ID	LTM Objectives	Progress Report Metrics	COC Expected Condition - LTM Design	COC>GWPS	Indicator List Monitoring Frequency	Recent Trend (Last 4 Samples)			
							RDX	Perc	TCE	CR-6
Southeast	PTX06-1038	RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	TNT, RDX, DNX, TNX, DNT2A, DNT4A	Semi-Annual	Decreasing	NT	ND	N/A
Southeast	PTX06-1039A	RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	TNT, RDX, DNX, TNX, DNT2A, DNT4A, MNX	Semi-Annual	Decreasing	NT	ND	ND
Southeast	PTX06-1040	RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	RDX, DNX, TNX, DNT2A, DNT4A, TNT	Semi-Annual	No Trend	NT	ND	N/A
Southeast	PTX06-1041	RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	TNT, RDX, DNX, TNX, DNT2A, DNT4A	Semi-Annual	Decreasing	NT	ND	N/A
Southeast	PTX06-1042	RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	RDX, MNX, DNX, TNX, DNT2A, DNT4A	Semi-Annual	Stable	NT	ND	ND
Southeast	PTX06-1045	RAE	Trend/Compare to GWPS	Below GWPS in 2–5 years		Quarterly	NS*	NS*	NS*	NS*
Southeast	PTX06-1046	RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	RDX, TNX, DNT2A, DNT4A	Semi-Annual	No Trend	NT	No Trend	N/A
Southeast	PTX06-1047A	RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	RDX, TNX, DNT4A	Semi-Annual	Decreasing	NT	N/A	ND
North	PTX06-1048A	PS, RAE	Trend/Compare to GWPS	Stable or decreasing trend below GWPS	NONE	Annual	ND	NT	N/A	NT
Miscellaneous	PTX06-1049	PS, UM	Compare to GWPS	Below background/PQL and GWPS	DNT4A, RDX	Annual	Increasing	NT	No Trend	NT
North	PTX06-1050	UM, RAE	Water Level, Trend/Compare to GWPS	Decreasing water levels, Long-term stabilization of concentrations	RDX, TNX, DNT4A	Semi-Annual	No Trend	NT	ND	NT
Southeast	PTX06-1051	PS	Dry			NA	Dry	Dry	Dry	Dry
Southeast	PTX06-1052	RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	CR,CR-6	Semi-Annual	N/A	NT	N/A	Decreasing
Southeast, Zone 11	PTX06-1053	PS, UM	Trend/Compare to GWPS	Stable or decreasing trend below GWPS	NONE	Semi-Annual	N/A	ND	ND	ND
Miscellaneous	PTX06-1055	PS	Dry			NA	Dry	Dry	Dry	Dry
Southeast	PTX06-1069	PS	Trend/Compare to GWPS	Stable or decreasing trend below GWPS	NONE	Annual	N/A	NT	ND	ND
Miscellaneous	PTX06-1071	UM	Compare to GWPS	Below background/PQL and GWPS	NONE	5 Yrs	NS	NS	NS	NS
Zone 11	PTX06-1073A	PS	Dry			NA	N/A	N/A	N/A	NT
Zone 11	PTX06-1077A	UM	Trend/Compare to GWPS	Stable or decreasing trend below GWPS	TCE	Annual	Decreasing	N/A	N/A	NT
Miscellaneous	PTX06-1080	UM	Compare to GWPS	Below background/PQL and GWPS	NONE	5 Yrs	NS	NS	NS	NS
Miscellaneous	PTX06-1081	UM	Trend/Compare to GWPS	Stable or decreasing trend below GWPS	NONE	Annual	ND	NT	Decreasing	NT
Miscellaneous	PTX06-1082	UM	Compare to GWPS	Below background/PQL and GWPS	NONE	5 Yrs	NS	NS	NS	NS
Miscellaneous	PTX06-1083	UM	Trend/Compare to GWPS	Stable or decreasing trend below GWPS	NONE	5 Yrs	NS	NS	NS	NS
Miscellaneous	PTX06-1085	UM	Compare to GWPS	Below background/PQL and GWPS	NONE	Annual	ND	NT	ND	NT
Miscellaneous	PTX06-1086	UM	Compare to GWPS	Below background/PQL and GWPS	NONE	Annual	ND	NT	ND	NT

Perched Groundwater COC Trends Vs Expected Conditions
Recent Trends

Indicator Area	Well ID	LTM Objectives	Progress Report Metrics	COC Expected Condition - LTM Design	COC>GWPS	Indicator List Monitoring Frequency	Recent Trend (Last 4 Samples)			
							RDX	Perc	TCE	CR-6
Southeast	PTX06-1088	UM, RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	TCE, RDX, DNT24, TNB135, PCE	Semi-Annual	Decreasing	NT	Stable	Stable
Southeast	PTX06-1089	PS	Dry			NA	Dry	Dry	Dry	Dry
Southeast	PTX06-1090	PS	Dry			NA	Dry	Dry	Dry	Dry
Southeast	PTX06-1091	PS	Dry			NA	Dry	Dry	Dry	Dry
Southeast	PTX06-1093	PS	Dry			NA	Dry	Dry	Dry	Dry
Southeast	PTX06-1094	PS	Dry			NA	Dry	Dry	Dry	Dry
Southeast	PTX06-1095A	UM, RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	RDX, TNX, DNT4A, DNT2A, TCE	Semi-Annual	Stable	NT	Increasing	N/A
Miscellaneous	PTX06-1096A	PS, UM	Dry	Remain dry		NA	Dry	Dry	Dry	Dry
Miscellaneous	PTX06-1097	PS, UM	Dry	Remain dry		NA	Dry	Dry	Dry	Dry
Southeast	PTX06-1098	RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	NONE	Semi-Annual	N/A	NT	ND	Decreasing
Southeast	PTX06-1100	RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	NONE	Annual	ND	NT	N/A	Decreasing
Southeast	PTX06-1101	RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	NONE	Annual	ND	NT	Stable	No Trend
Southeast	PTX06-1102	RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations		Annual	NS*	NS*	NS*	NS*
Southeast	PTX06-1103	RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations		Semi-Annual	NS*	NS*	NS*	NS*
Southeast	PTX06-1118	RAE	Trend/Compare to GWPS	Long-term stabilization of concentrations		Annual	NS*	NS*	NS*	NS*
Southeast	PTX06-1119	PS	Dry	Remain dry		NA	Dry	Dry	Dry	Dry
Southeast	PTX06-1120	PS	Water Level, Trend/Compare to GWPS	Remain dry	RDX, TNX, DNT2A, DNT4A	NA	Decreasing	NT	Decreasing	No Trend
Southeast	PTX06-1121	PS	Water Level, Trend/Compare to GWPS	Remain dry		NA	Dry	Dry	Dry	Dry
Southeast	PTX06-1122	PS	Dry	Remain dry		NA	Dry	Dry	Dry	Dry
Southeast	PTX06-1123	RAE	Trend/Compare to GWPS	Below GWPS in 2–5 years	TNX	Quarterly	Stable	NT	ND	ND
Southeast	PTX06-1124	PS	Dry	Remain dry		NA	Dry	Dry	Dry	Dry
Southeast	PTX06-1125	PS	Dry	Remain dry		NA	Dry	Dry	Dry	Dry
Zone 11	PTX06-1126	PS, UM	Trend/Compare to GWPS	Long-term decreasing trend	TCE, PERC, DIOXANE14, DNT4A, DCA12	Semi-Annual	Decreasing	Increasing	Increasing	NT
Zone 11	PTX06-1127	PS, UM	Trend/Compare to GWPS	Long-term decreasing trend	TCE, PERC, DIOXANE14, DNT4A, DCA12	Semi-Annual	Increasing	Decreasing	Decreasing	NT
Southeast	PTX06-1130	RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	RDX, TNX, DNT2A, DNT4A	Semi-Annual	No Trend	NT	ND	ND
Miscellaneous	PTX06-1131	UM	Compare to GWPS	Below background/PQL and GWPS	NONE	Semi-Annual	ND	NT	ND	NT
Southeast	PTX06-1133A	PS	Dry	Remain dry	CR	NA	ND	NT	ND	N/A
Zone 11	PTX06-1134	PS	Trend/Compare to GWPS	Long-term decreasing trend	DNT4A	Semi-Annual	N/A	N/A	ND	NT
Southeast	PTX06-1135	PS	Trend/Compare to GWPS	Long-term decreasing trend	CR	Semi-Annual	Decreasing	NT	ND	N/A
North	PTX06-1136	PS	Trend/Compare to GWPS	Long-term decreasing trend	NONE	Semi-Annual	ND	NT	ND	NT
Southeast	PTX06-1146	PS	Trend/Compare to GWPS	Long-term decreasing trend	RDX, TNX, DNT4A, CR	Semi-Annual	Stable	NT	ND	N/A
Southeast	PTX06-1147	PS	Trend/Compare to GWPS	Long-term decreasing trend	RDX, MNX, TNX, DNT4A	Semi-Annual	Decreasing	NT	No Trend	N/A

Perched Groundwater COC Trends Vs Expected Conditions
Recent Trends

Indicator Area	Well ID	LTM Objectives	Progress Report Metrics	COC Expected Condition - LTM Design	COC>GWPS	Indicator List Monitoring Frequency	Recent Trend (Last 4 Samples)			
							RDX	Perc	TCE	CR-6
Zone 11	PTX06-1148	PS, RAE	Trend/Compare to GWPS	Below GWPS in 2–5 years	PERC	Semi-Annual	N/A	Decreasing	Increasing	NT
Zone 11	PTX06-1149	PS	Trend/Compare to GWPS	Below GWPS in 2–5 years	PERC	Semi-Annual	ND	N/A	N/A	NT
Zone 11	PTX06-1150	PS, RAE	Trend/Compare to GWPS	Below GWPS in 2–5 years	PERC	Semi-Annual	ND	Stable	No Trend	NT
Zone 11	PTX06-1151	PS	Trend/Compare to GWPS	Long-term decreasing trend	TCE, DCA12, RDX, PERC	Semi-Annual	Decreasing	Decreasing	Decreasing	NT
Southeast	PTX06-1153	RAE	Trend/Compare to GWPS	Below GWPS in 2–5 years	RDX, MNX, TNX, TCE, CR, CR-6, DNT4A, DNT2A	Quarterly	Decreasing	NT	No Trend	No Trend
Southeast	PTX06-1154	RAE	Trend/Compare to GWPS	Below GWPS in 2–5 years	TNX	Quarterly	ND	NT	No Trend	Decreasing
Zone 11	PTX06-1155	RAE	Trend/Compare to GWPS	Below GWPS in 2–5 years	TCE, DCA12, DCE12C, DIOXANE14, VC	Quarterly	ND	ND	Decreasing	NT
Zone 11	PTX06-1156	RAE	Trend/Compare to GWPS	Below GWPS in 2–5 years	NONE	Quarterly	ND	ND	ND	NT
North	PTX07-1O01	PS, UM, RAE	Trend/Compare to GWPS	Long-term decreasing trend	RDX	Semi-Annual	Stable	NT	N/A	NT
North	PTX07-1O02	PS, UM, RAE	Trend/Compare to GWPS	Long-term decreasing trend	NONE	Semi-Annual	Decreasing	NT	Increasing	NT
North	PTX07-1O03	PS, UM, RAE	Trend/Compare to GWPS	Long-term decreasing trend	RDX, TNX	Annual	Increasing	NT	ND	NT
North	PTX07-1O06	PS, UM, RAE	Trend/Compare to GWPS	Stable or decreasing trend below GWPS	NONE	Annual	NS*	NS*	NS*	NS*
Zone 11	PTX07-1P02	UM	Trend/Compare to GWPS	Stable or decreasing trend below GWPS	NONE	Semi-Annual	N/A	ND	ND	NT
Zone 11	PTX07-1P05	UM	Trend/Compare to GWPS	Stable or decreasing trend below GWPS	RDX	Annual	Decreasing	ND	ND	NT
Miscellaneous	PTX07-1Q01	UM	Compare to GWPS	Below background/PQL and GWPS	NONE	Annual	ND	NT	ND	NT
Miscellaneous	PTX07-1Q02	UM	Compare to GWPS	Below background/PQL and GWPS	NONE	Annual	ND	NT	ND	NT
Miscellaneous	PTX07-1Q03	UM	Compare to GWPS	Below background/PQL and GWPS	NONE	Annual	ND	NT	ND	NT
Miscellaneous	PTX07-1R03	UM	Compare to GWPS	Below background/PQL and GWPS	NONE	5 Yrs	NS	NS	NS	NS
Zone 11	PTX08-1001	UM, RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations		Annual	NS*	NS*	NS*	NS*
Southeast	PTX08-1002	UM, RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	RDX, MNX, TNX, DNT2A, DNT4A	Semi-Annual	No Trend	NT	ND	ND
Zone 11	PTX08-1003	PS	Trend/Compare to GWPS	Stable or decreasing trend below GWPS	NONE	Annual	No Trend	Decreasing	No Trend	NT
Zone 11	PTX08-1005	UM	Trend/Compare to GWPS	Long-term decreasing trend	TCE, DNT4A	Semi-Annual	Decreasing	No Trend	Decreasing	NT
Zone 11	PTX08-1006	UM	Trend/Compare to GWPS	Long-term decreasing trend	RDX, TNX, PERC, DNT4A, TCE, PCE, DIOXANE14, DCA12	Semi-Annual	Decreasing	Decreasing	No Trend	NT
Southeast, Zone 11	PTX08-1007	UM	Trend/Compare to GWPS	Long-term decreasing trend	TCE, RDX	Annual	No Trend	ND	No Trend	N/A
Southeast, Zone 11	PTX08-1008	UM, RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	CR, CR-6	Semi-Annual	ND	N/A	ND	Stable
Southeast	PTX08-1009	UM, RAE	Water Level, Trend/Compare to GWPS	Long-term stabilization of concentrations	NONE	Semi-Annual	Decreasing	NT	N/A	ND
Miscellaneous	PTX08-1010	UM	Trend/Compare to GWPS	Stable or decreasing trend below GWPS	NONE	5 Yrs	NS	NS	NS	NS
Southeast, Zone 11	PTX10-1014	UM	Trend/Compare to GWPS	Long-term decreasing trend	TCE	Annual	No Trend	N/A	Stable	ND

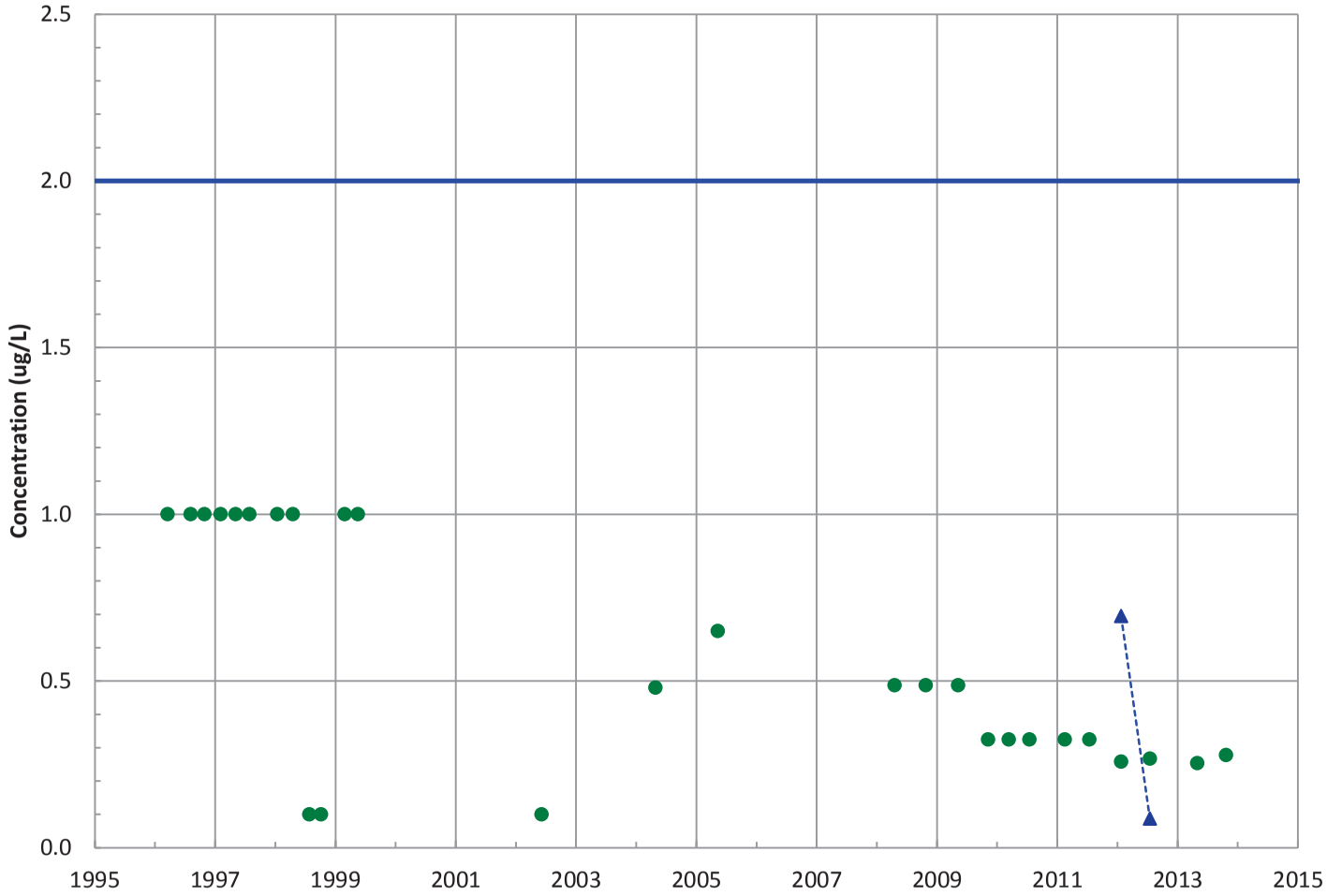
Perched Groundwater COC Trends Vs Expected Conditions

Recent Trends

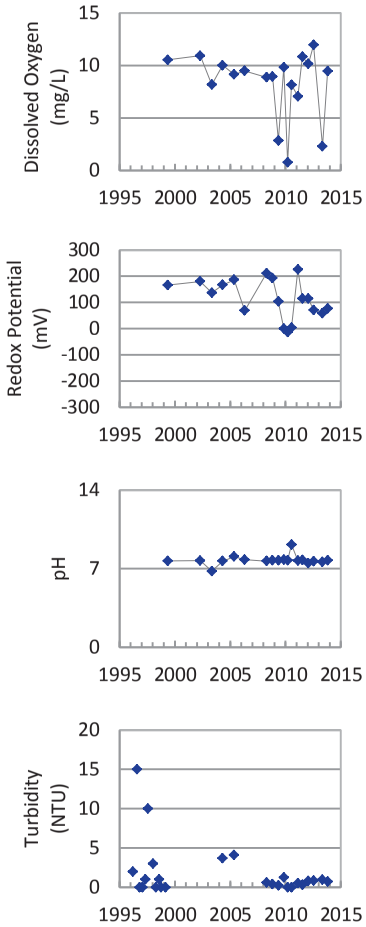
Indicator Area	Well ID	LTM Objectives	Progress Report Metrics	COC Expected Condition - LTM Design	COC>GWPS	Indicator List Monitoring Frequency	Recent Trend (Last 4 Samples)			
							RDX	Perc	TCE	CR-6

NT - Trends were not calculated for this COC in this well. Well is dry or the COC was not sampled during 2013, based on SAP.
N/A - Trending could not be performed, either due to a) <4 samples in dataset or b) <2 Detections in dataset
ND - all samples were non-detect
UM = Uncertainty management
PS = Plume stability
RAE = Response action effectiveness
NS* = well not sampled due to either dry conditions or insufficient water for sampling

1114-MW4
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



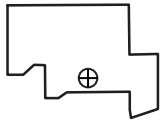
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

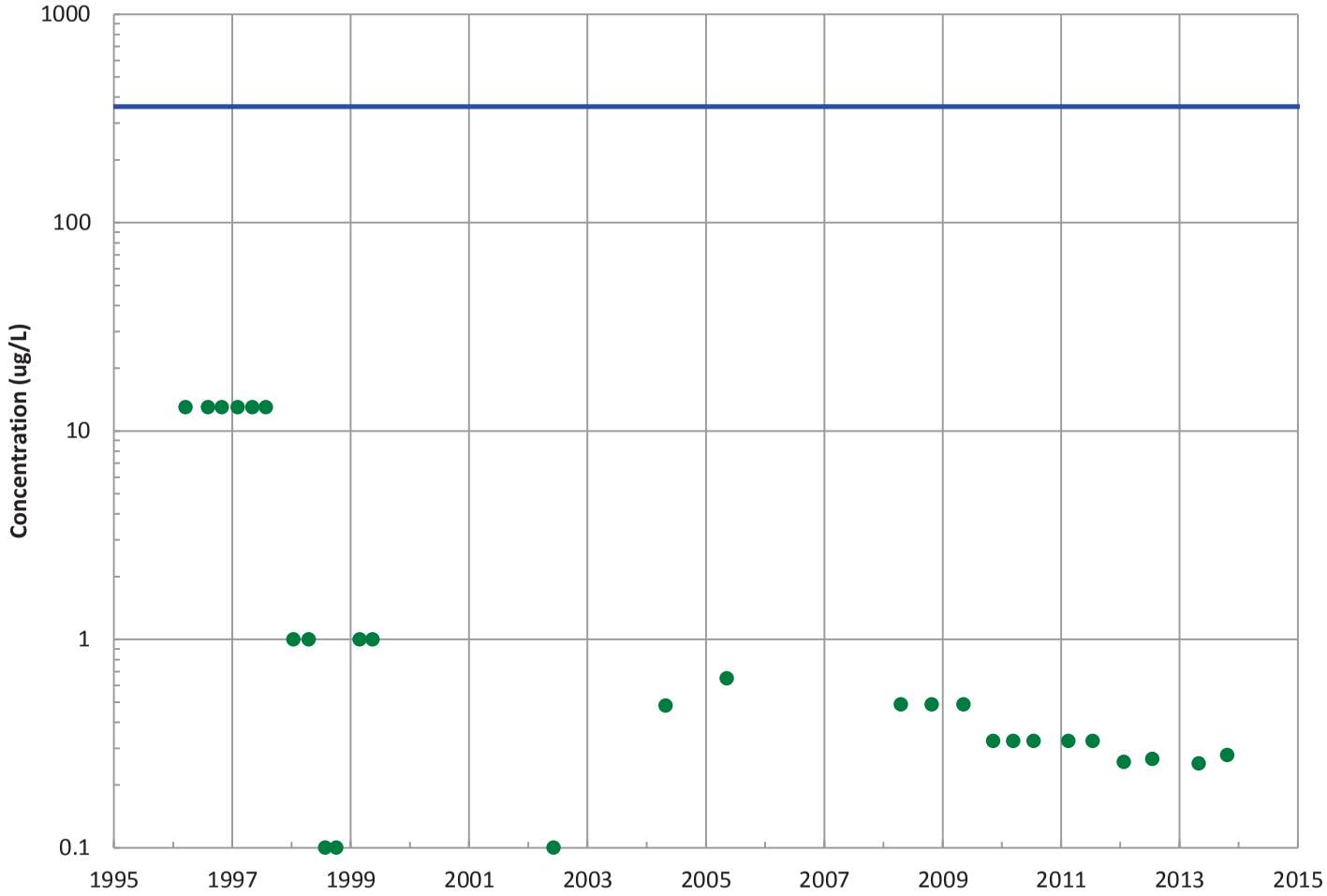
Well Location



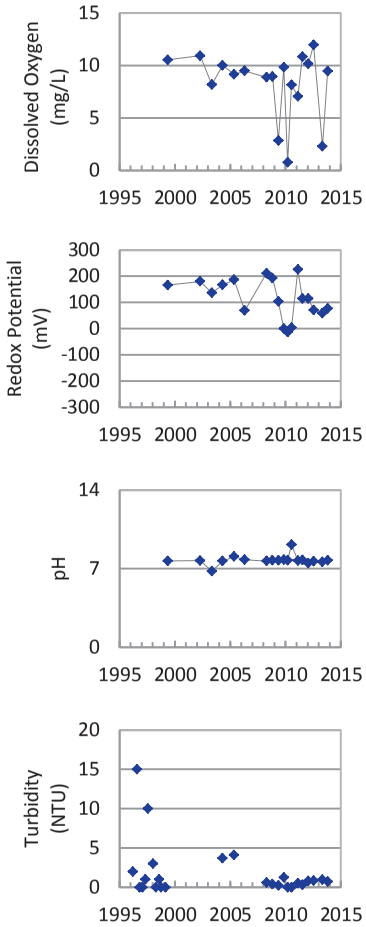
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/19/1996 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

1114-MW4
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



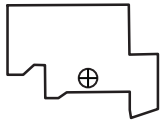
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

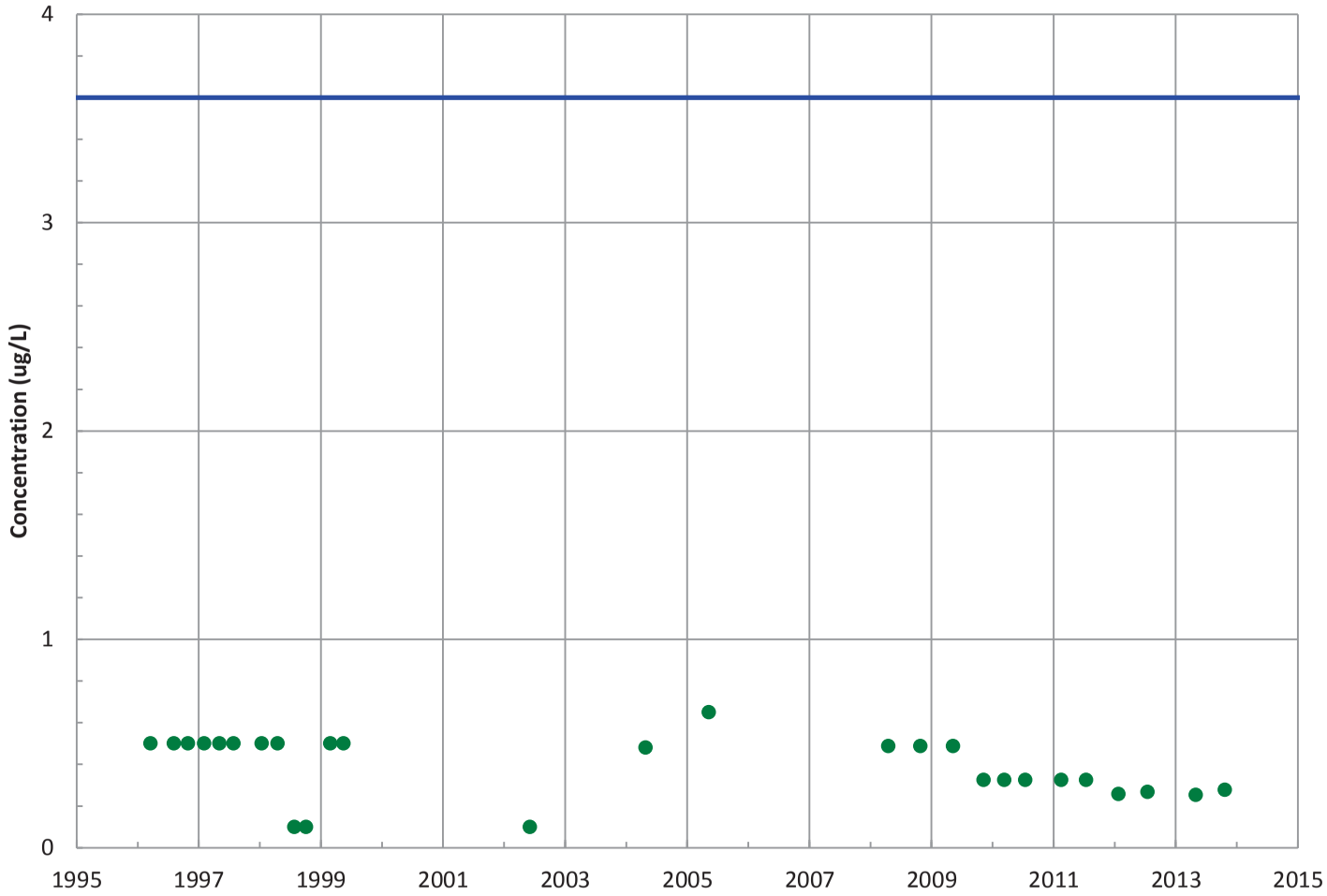
Well Location



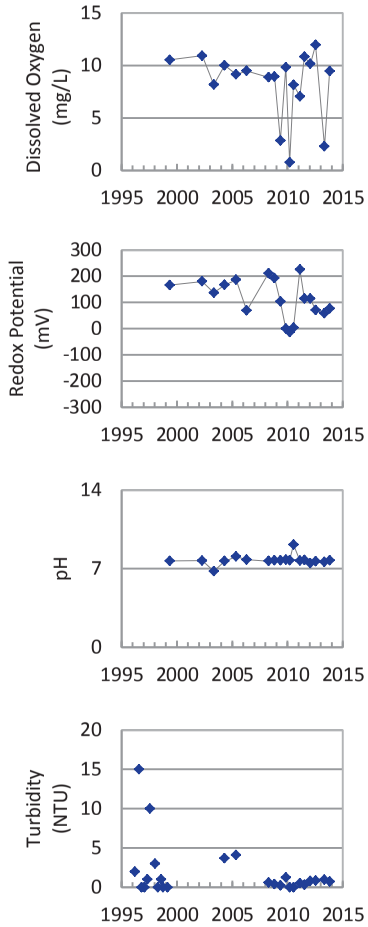
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/19/1996 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

1114-MW4
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



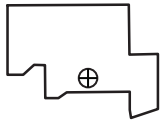
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

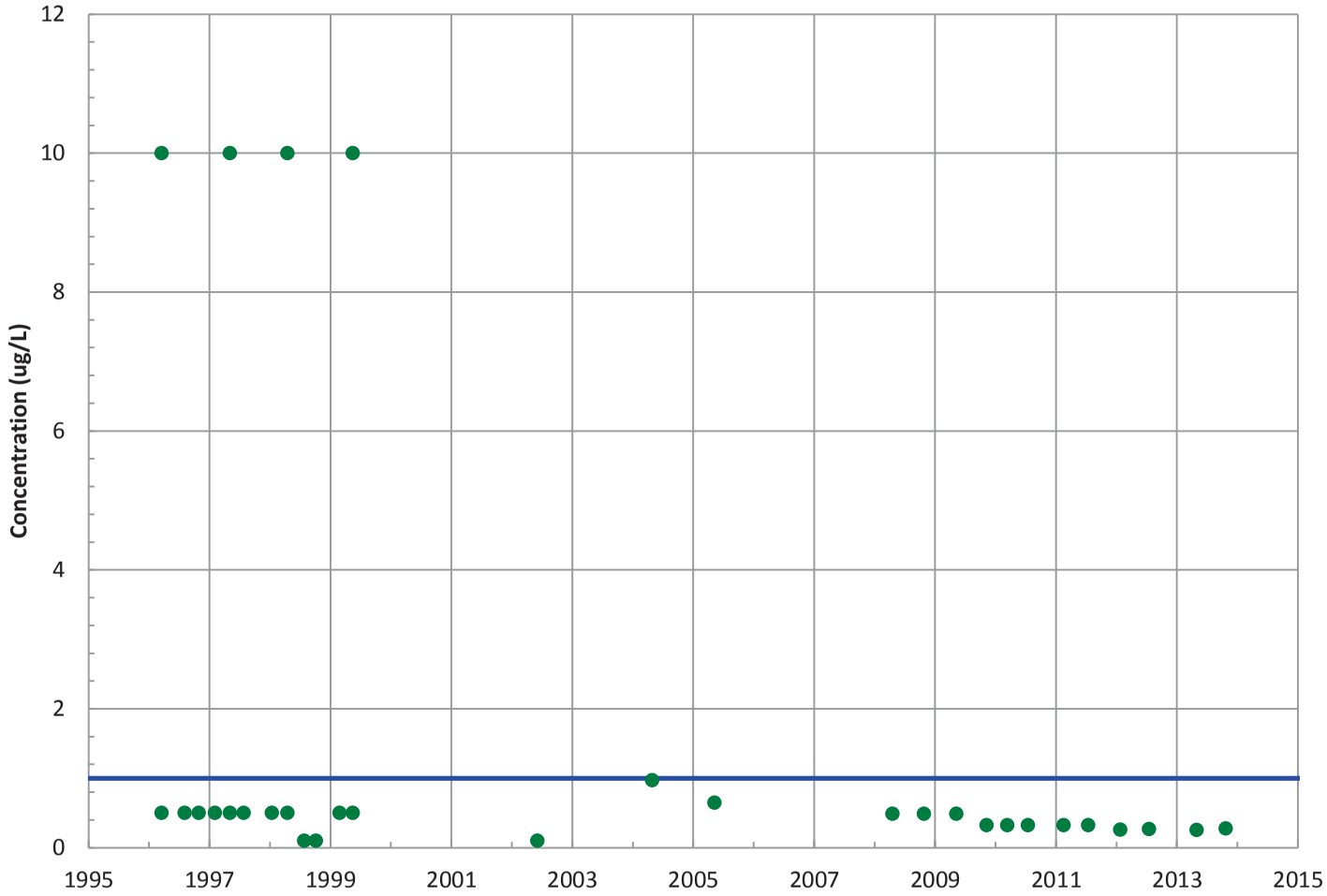
Well Location



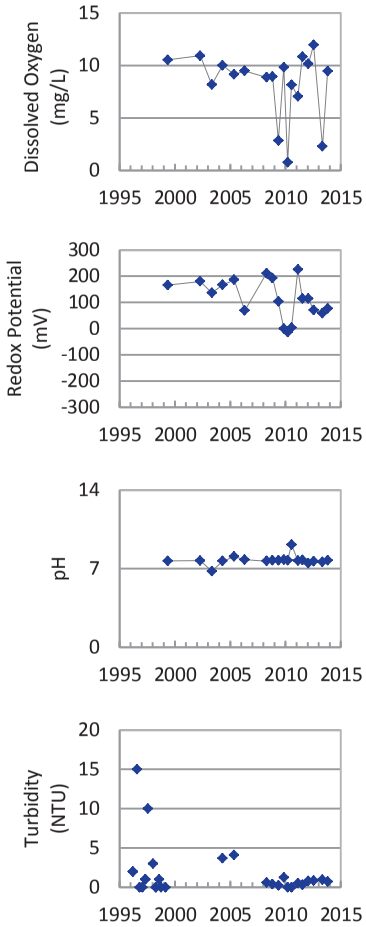
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/19/1996 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

1114-MW4
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



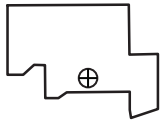
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

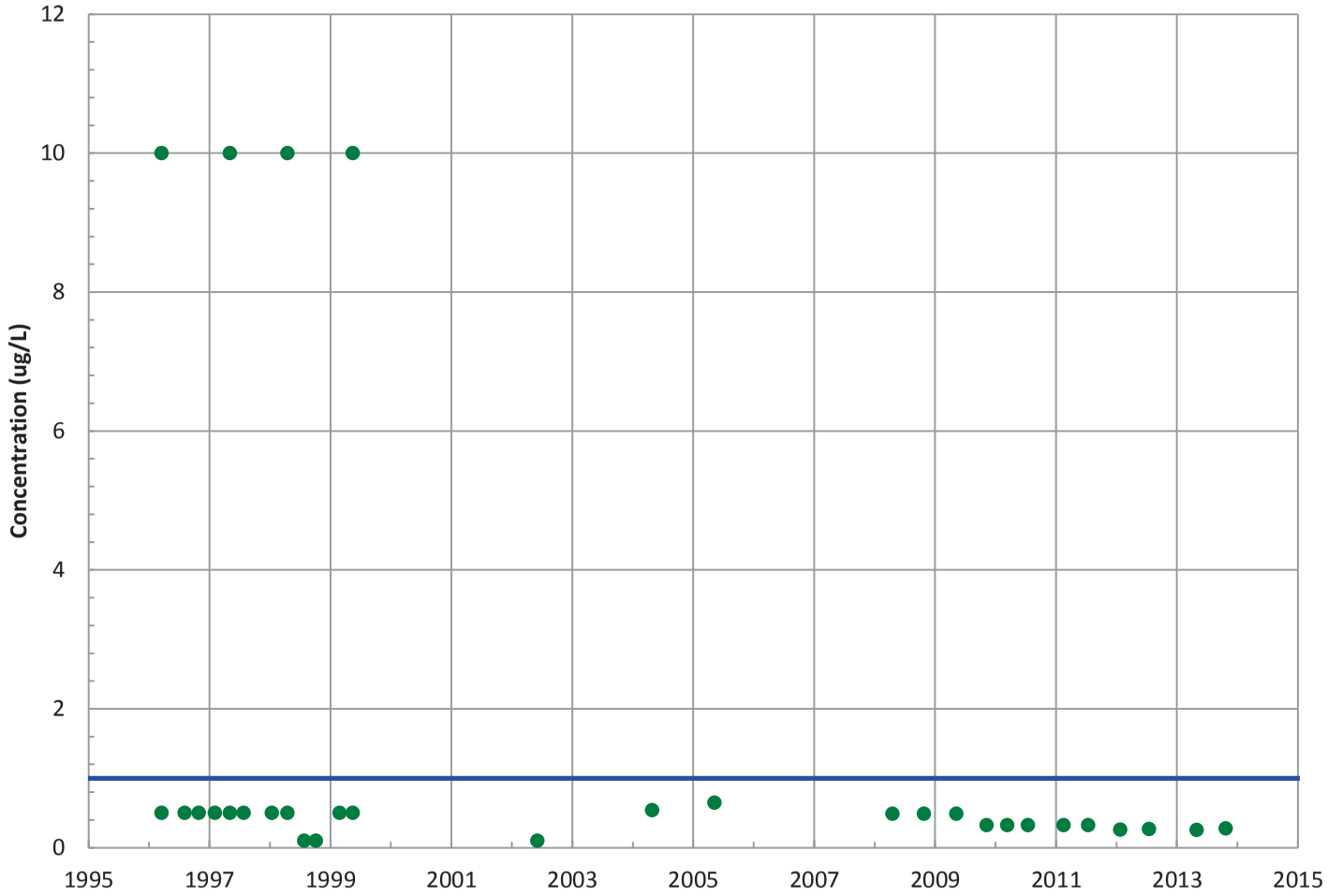
Well Location



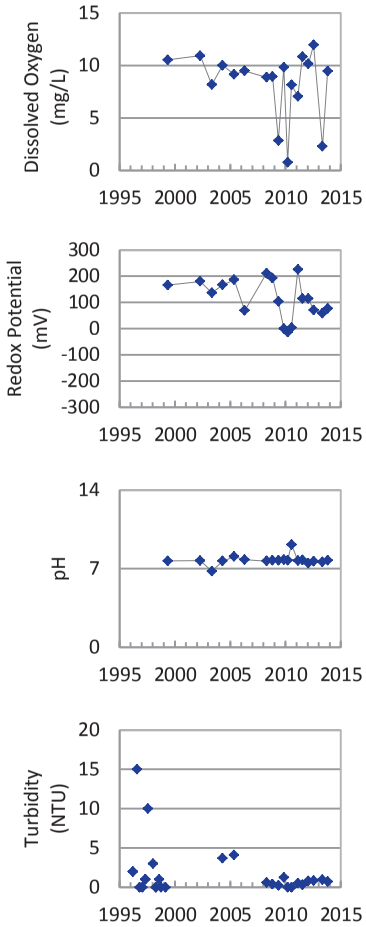
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/19/1996 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

1114-MW4
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



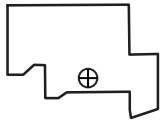
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

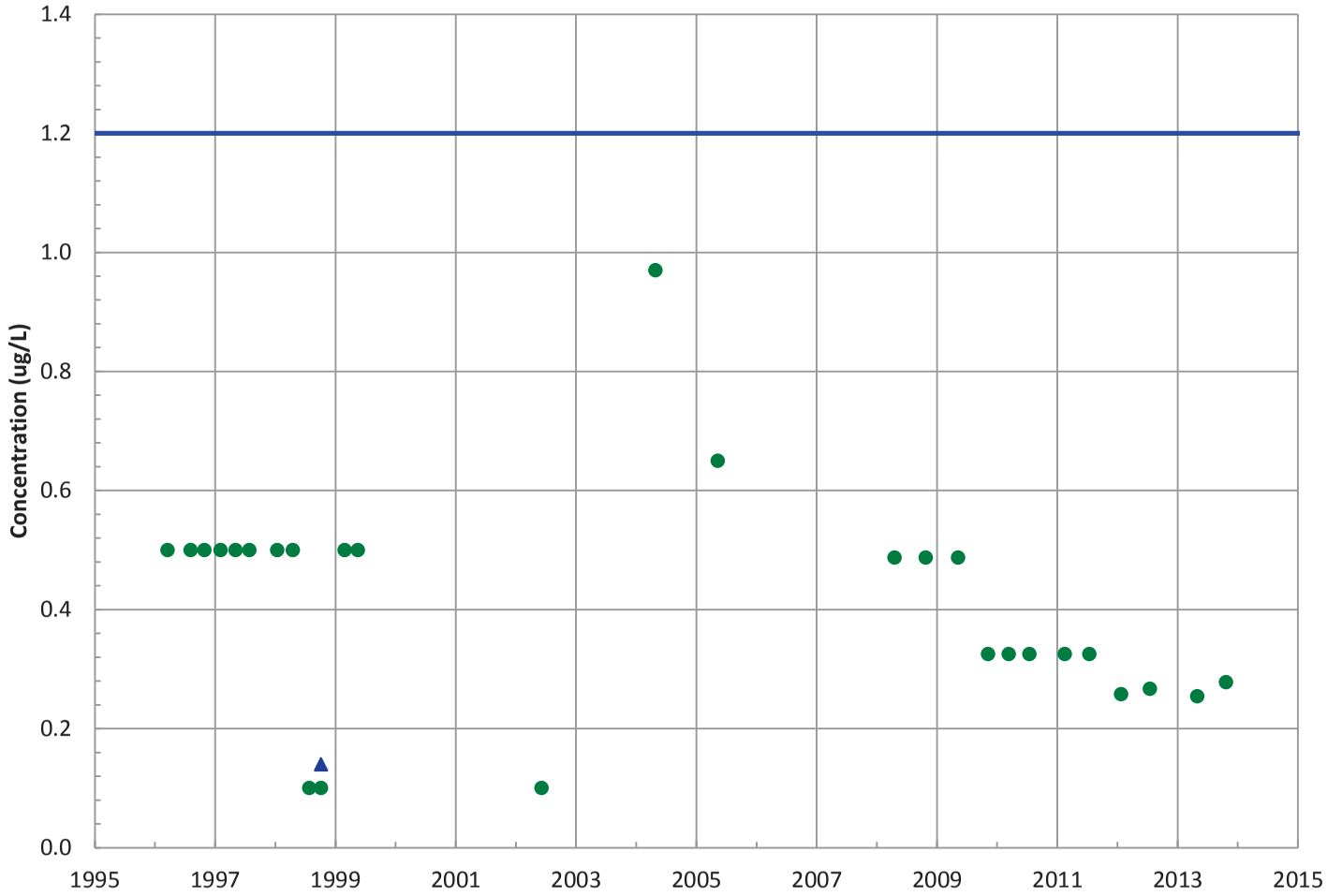
Well Location



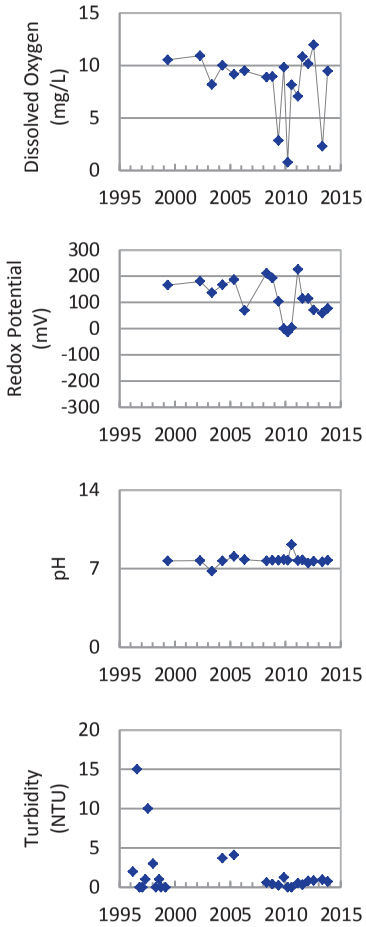
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/19/1996 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

1114-MW4
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



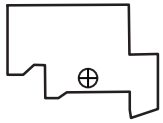
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

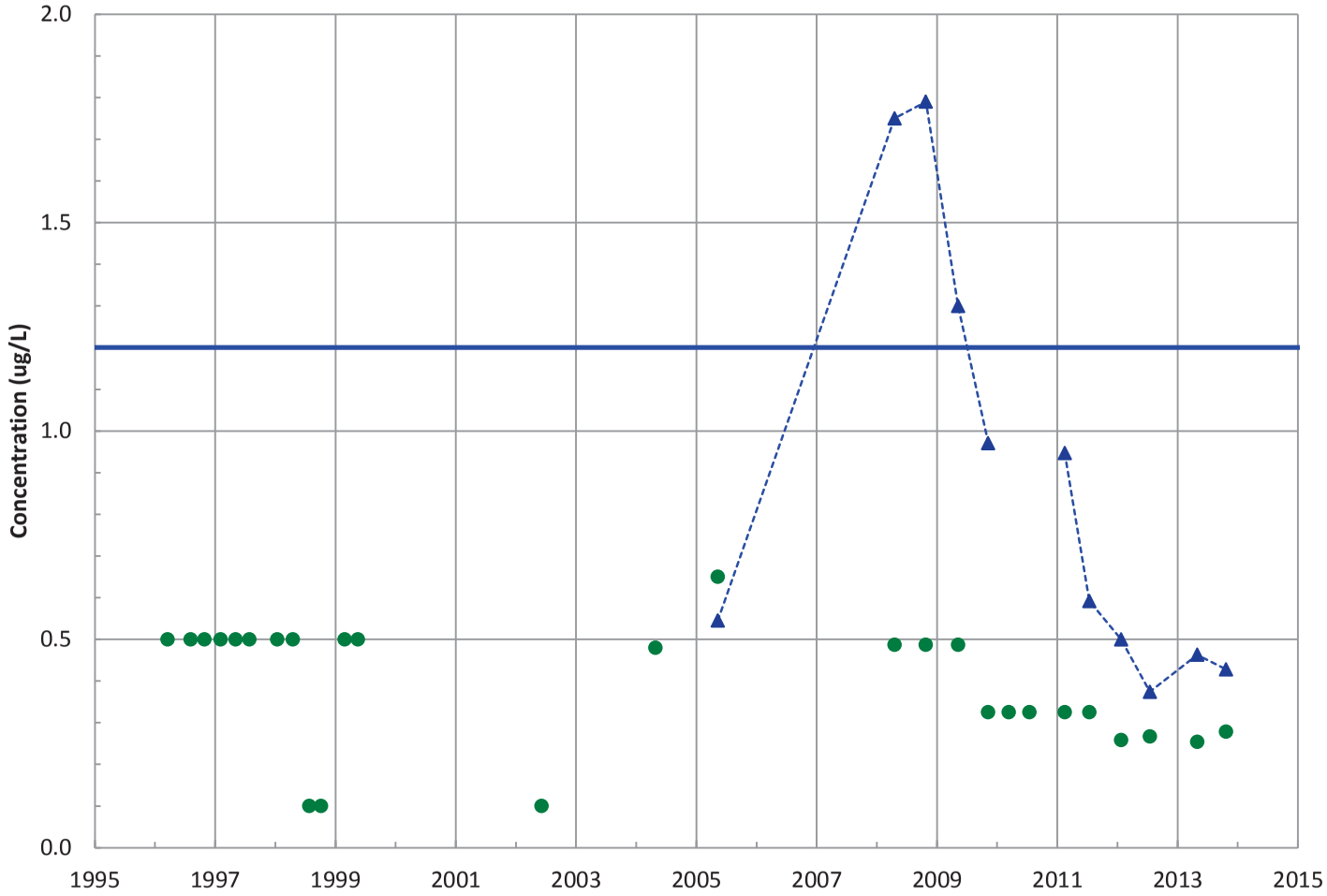
Well Location



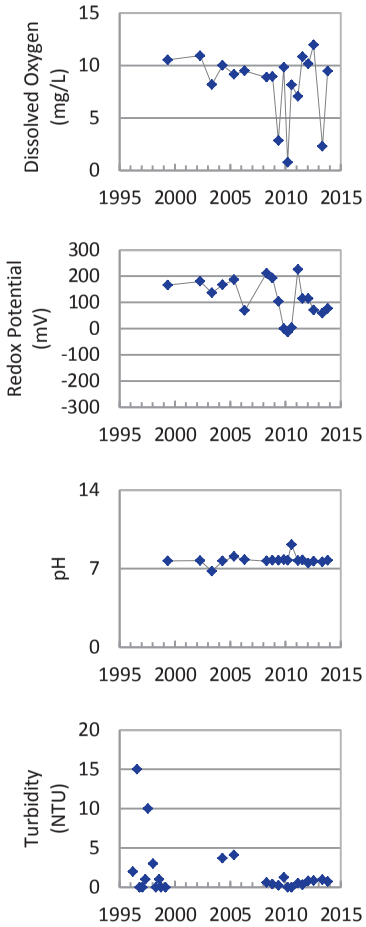
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/19/1996 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

1114-MW4
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



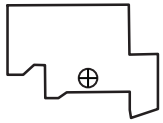
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

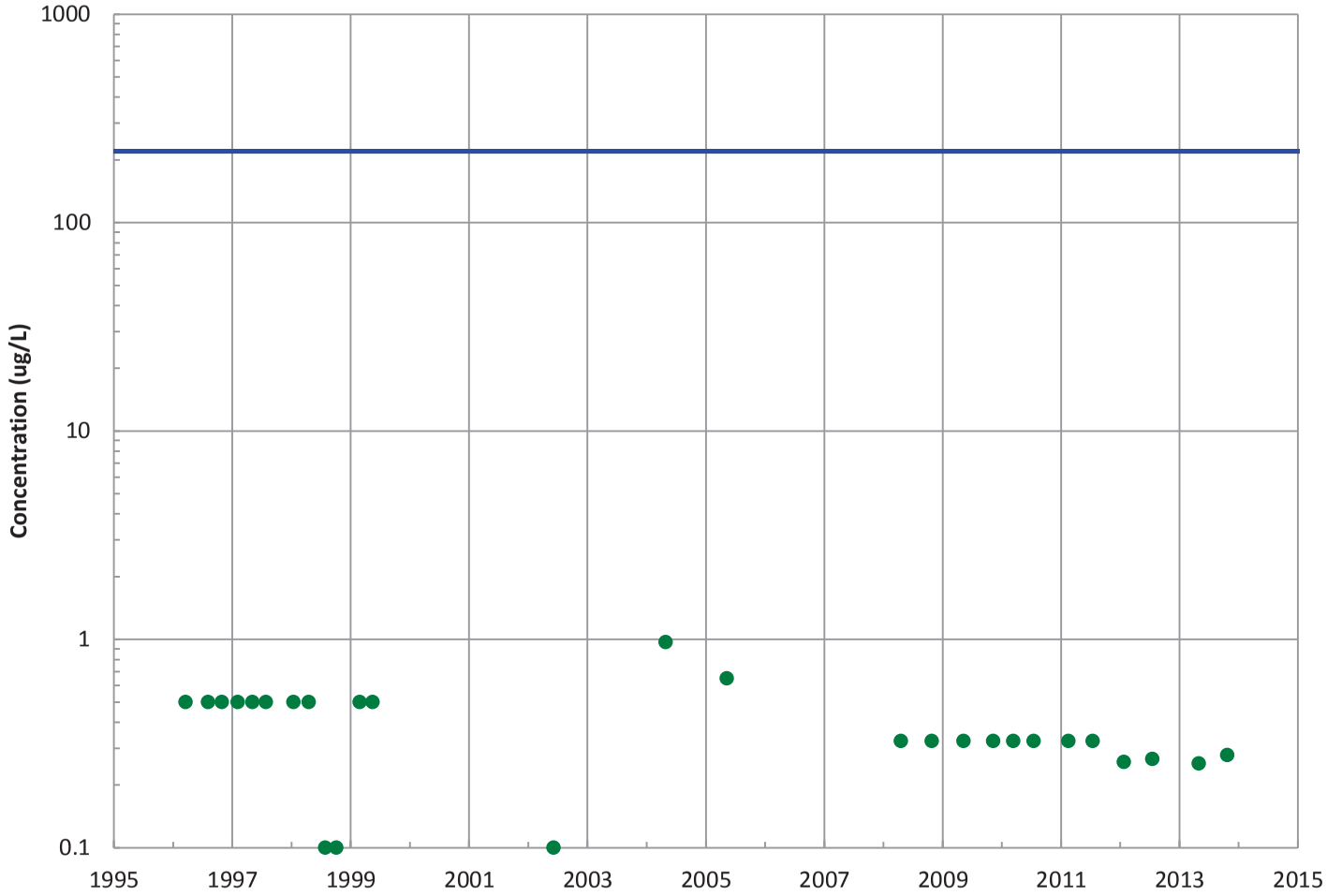
Well Location



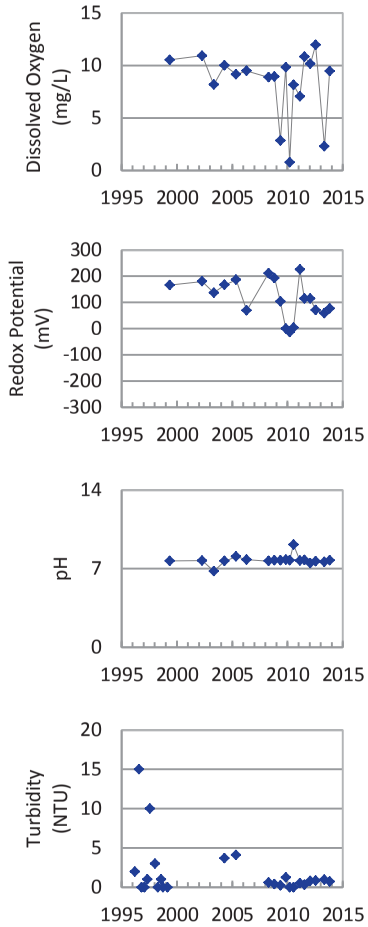
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/19/1996 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

1114-MW4
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



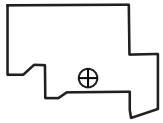
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

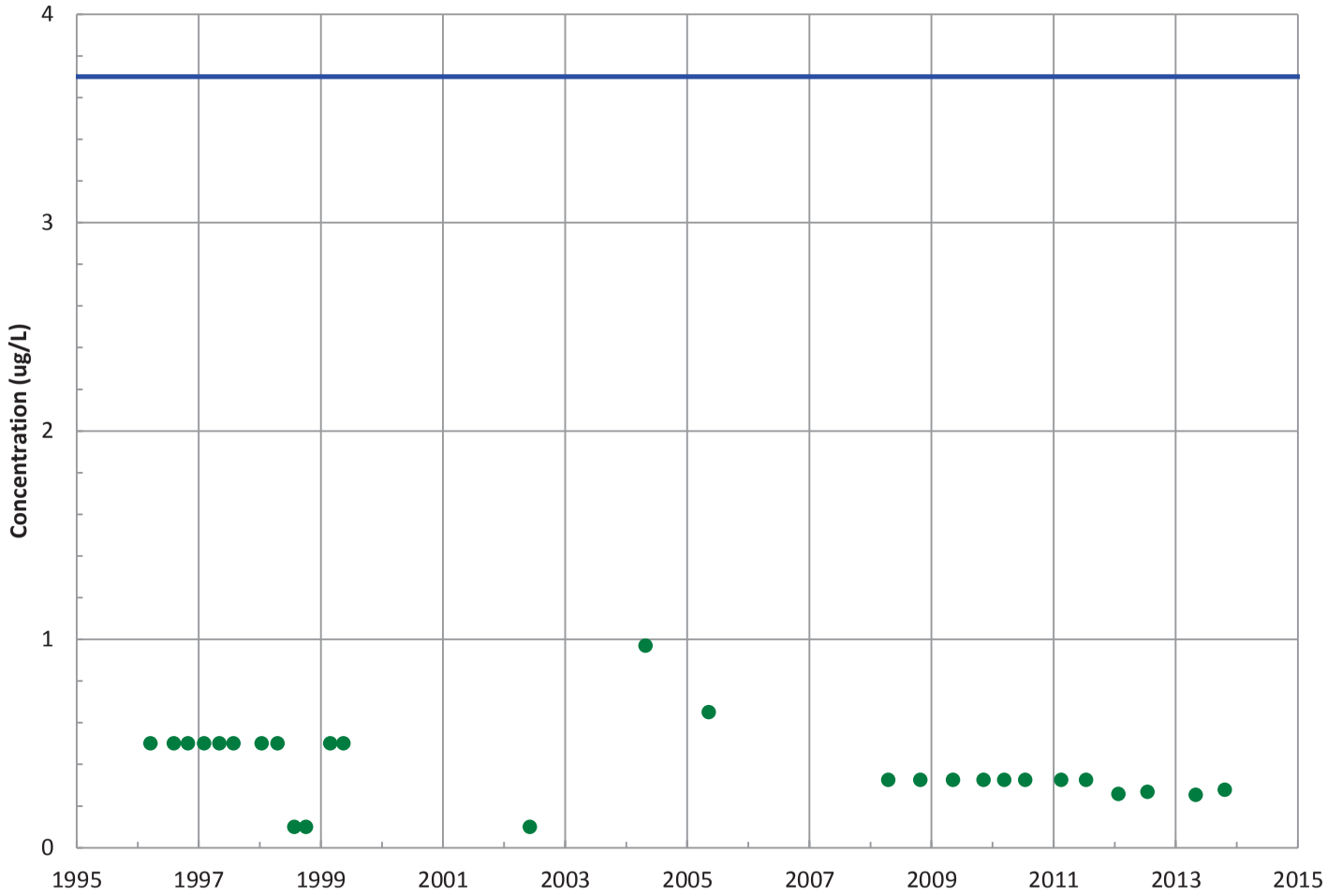
Well Location



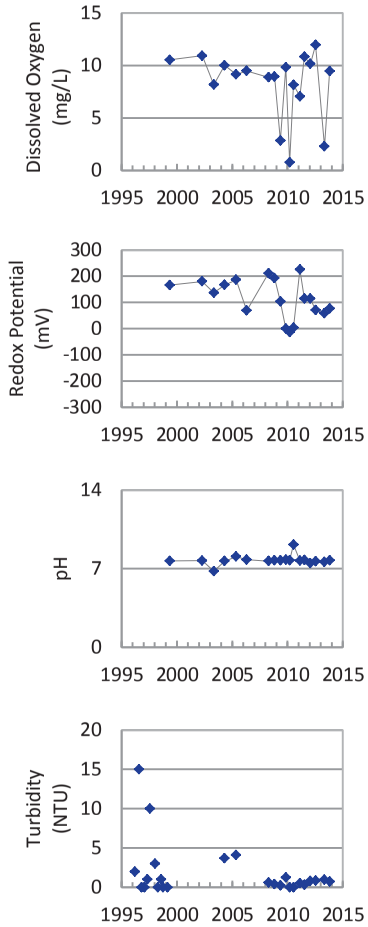
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/19/1996 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

1114-MW4
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



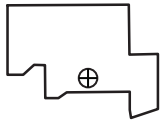
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

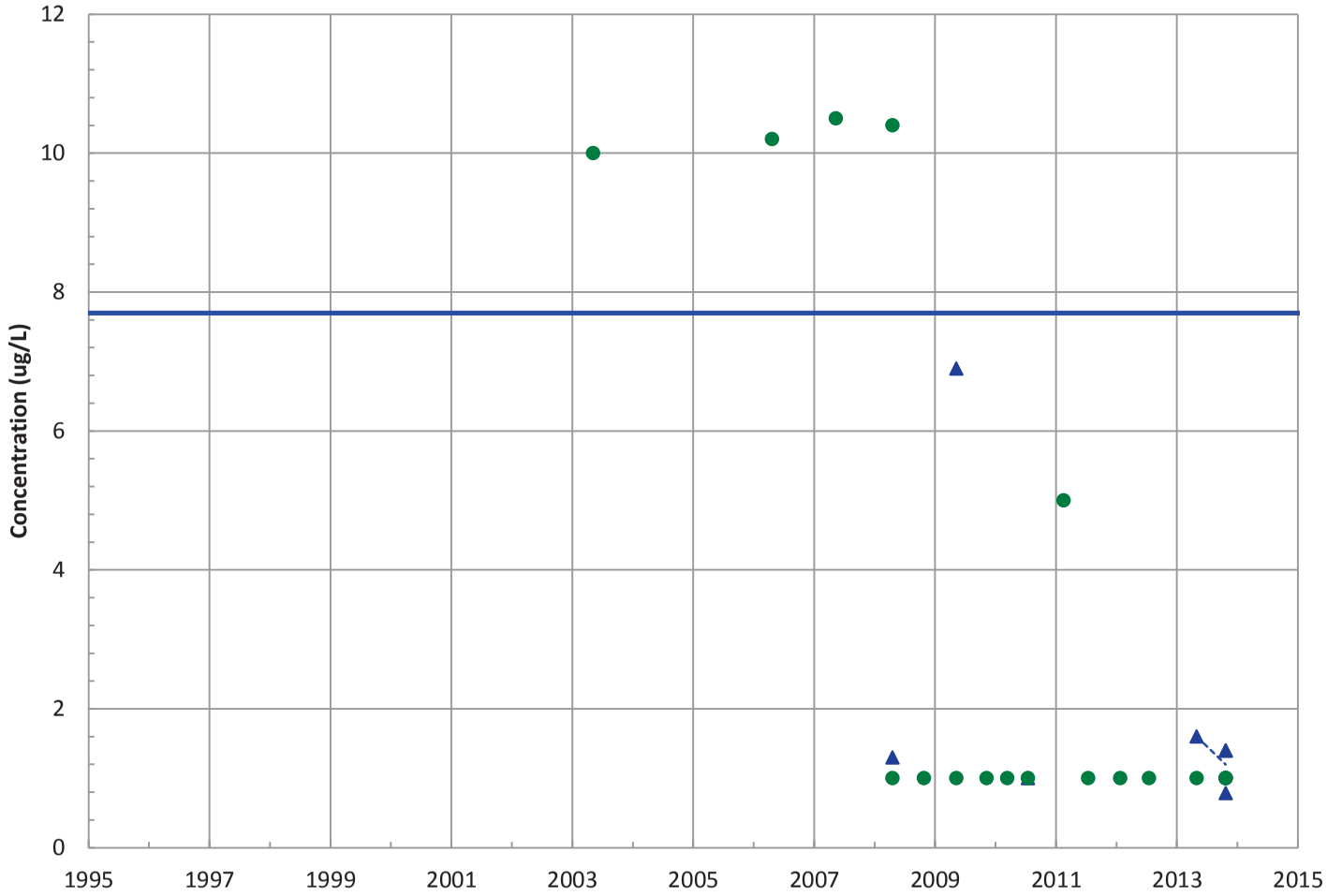
Well Location



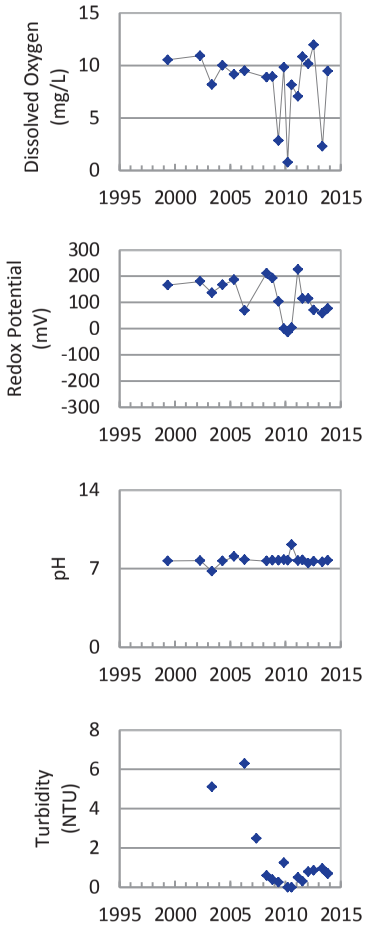
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/19/1996 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

1114-MW4
1,4-Dioxane (p-Dioxane) Trend in Perched Aquifer



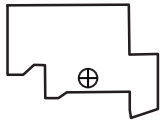
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

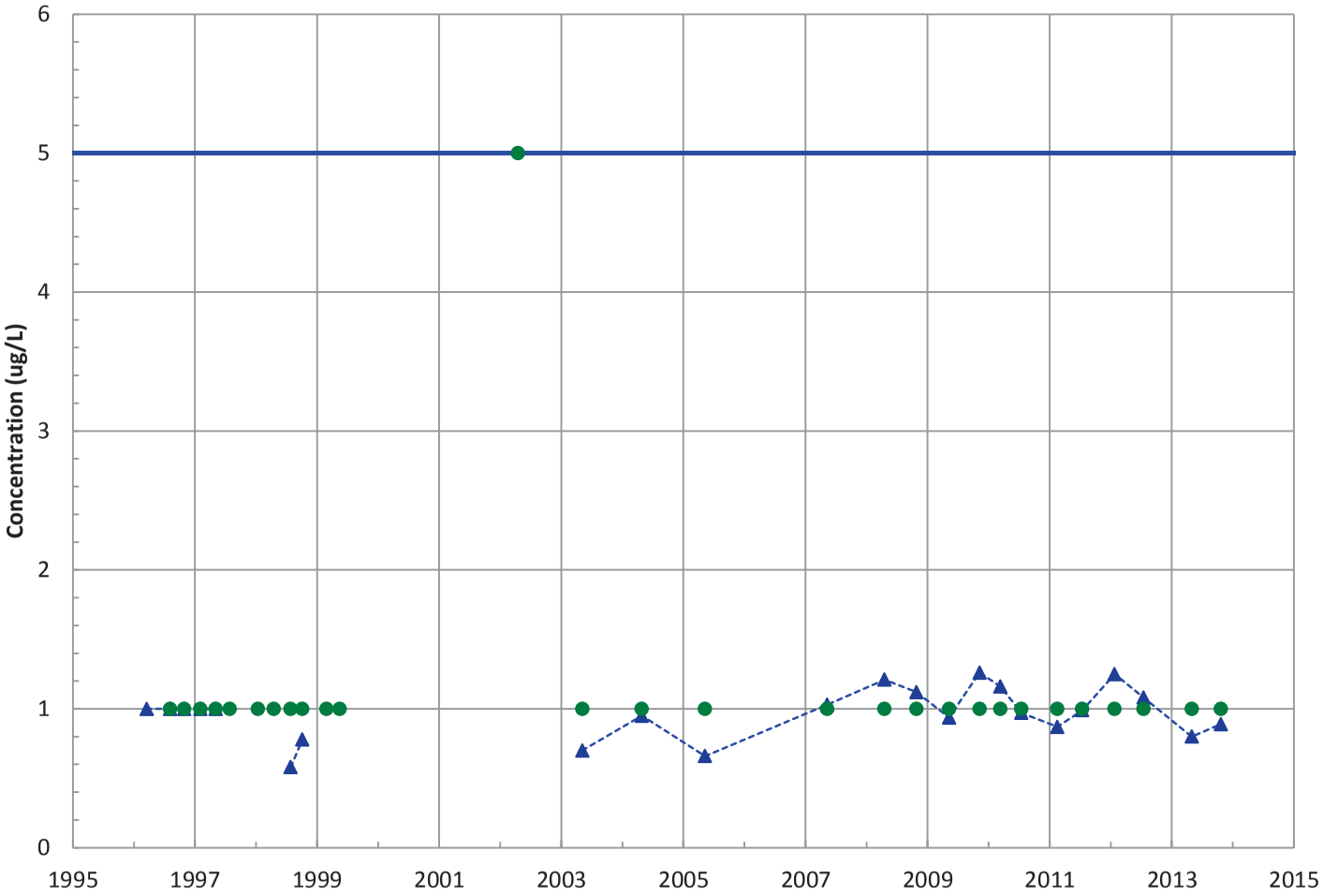
Well Location



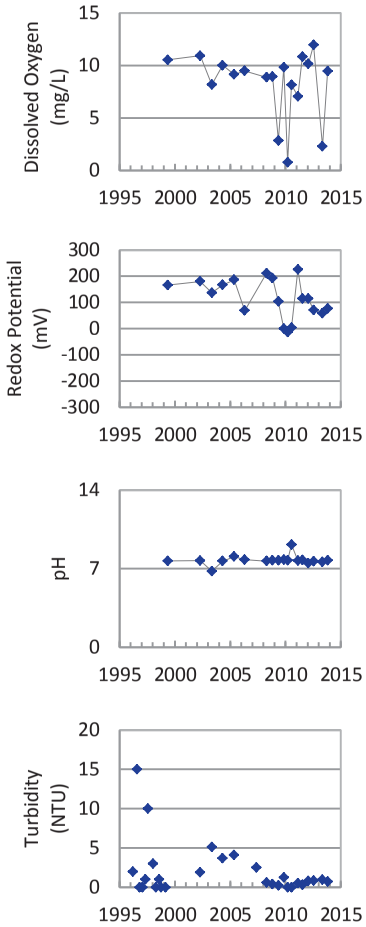
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/13/2003 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

1114-MW4
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



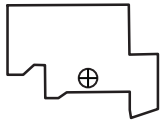
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Probably Decreasing
2011 - 2013 Data: Probably Decreasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

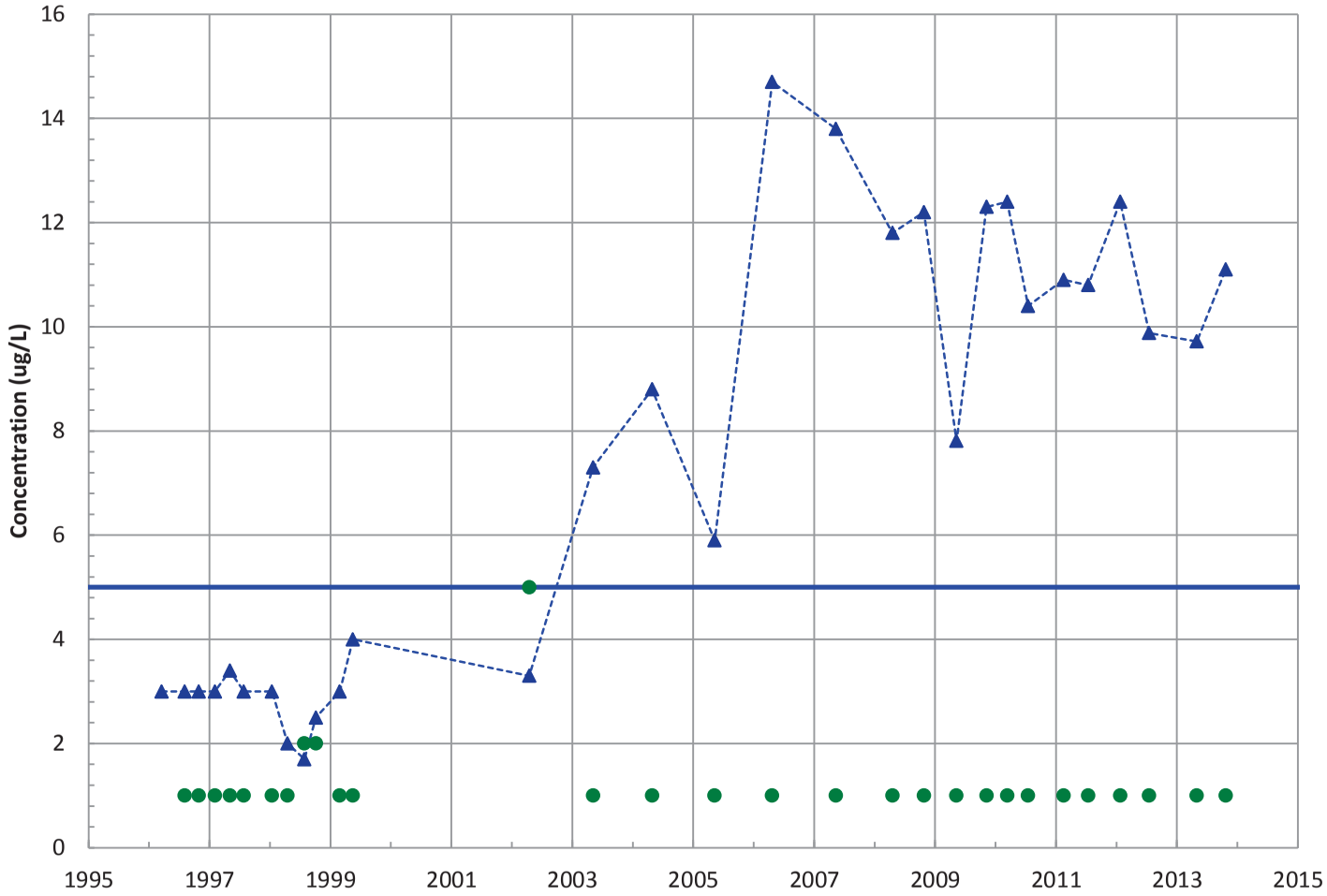
Well Location



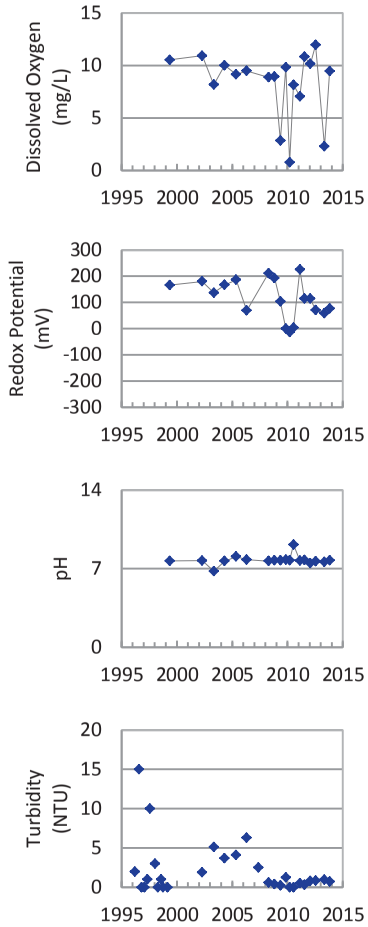
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/19/1996 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

1114-MW4
Trichloroethene Trend in Perched Aquifer



Field Parameters



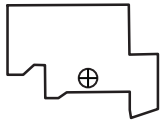
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Probably Decreasing
2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------ Concentration Trend
- ——— Groundwater Protection Standard

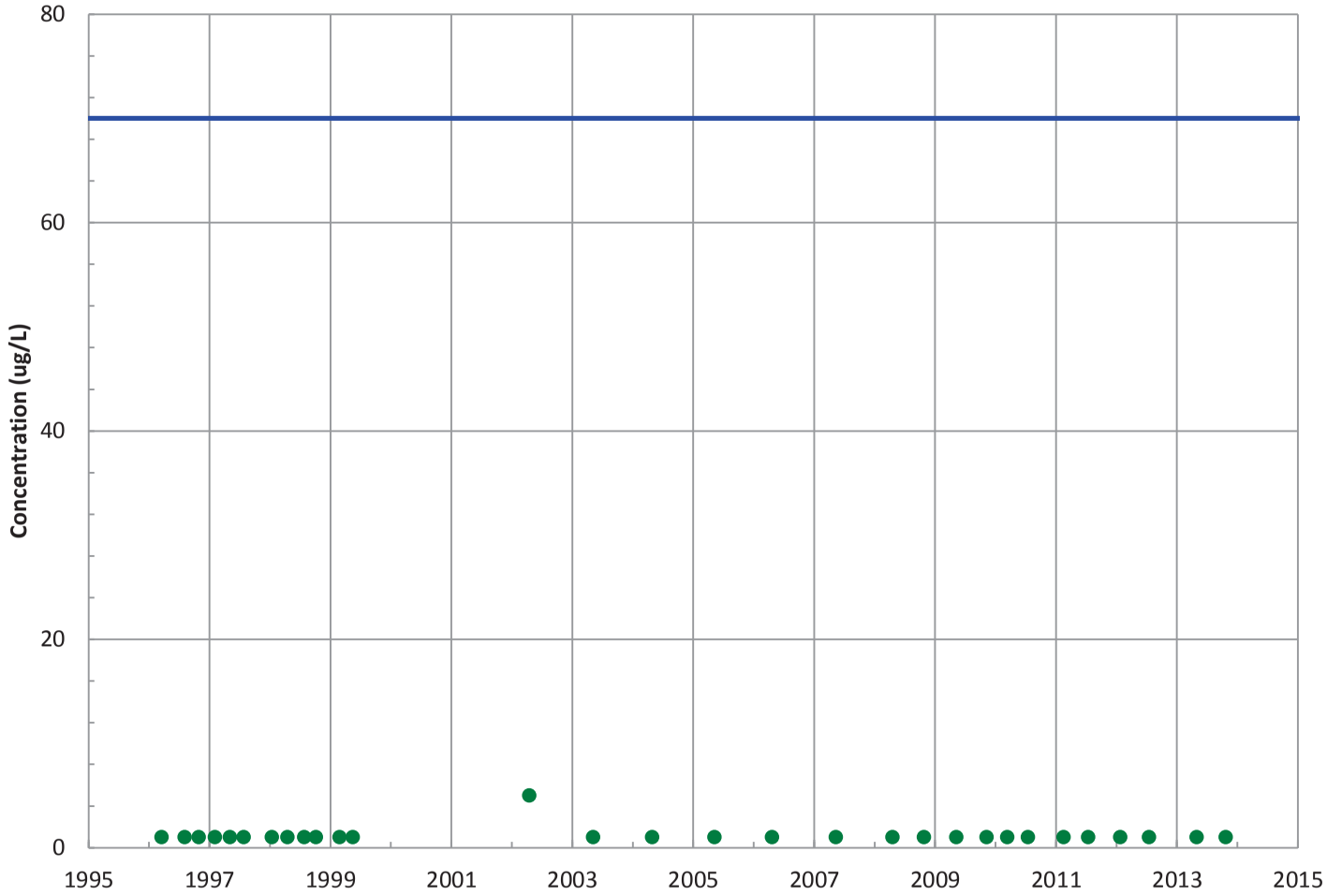
Well Location



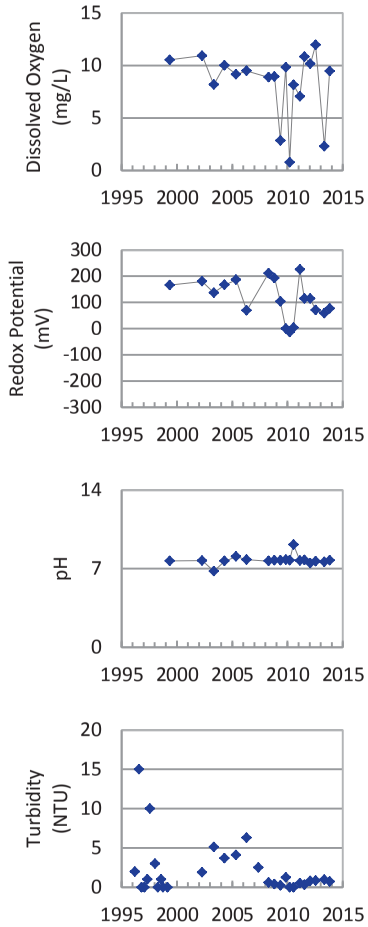
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/19/1996 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

1114-MW4
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



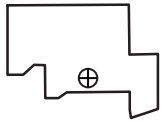
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

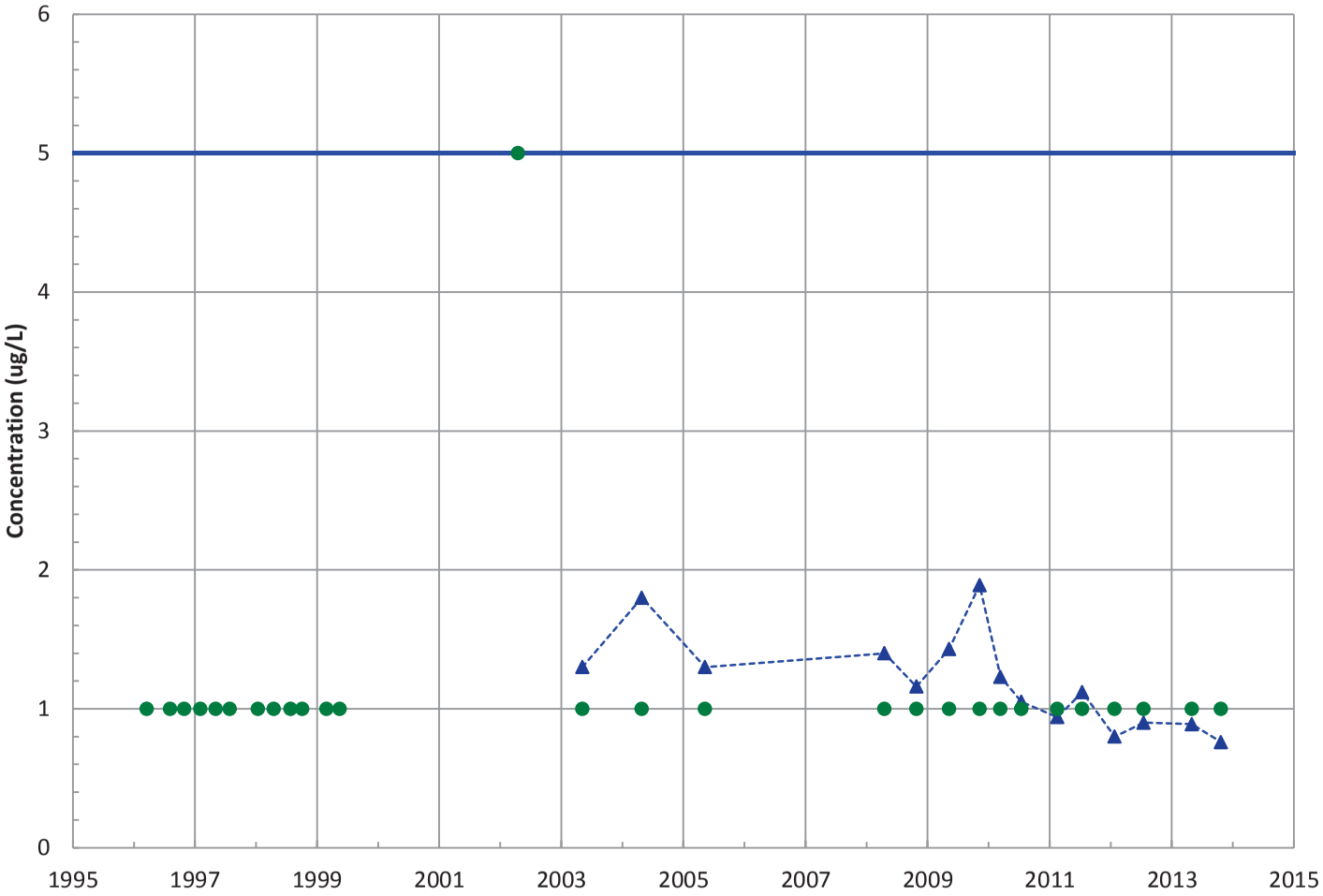
Well Location



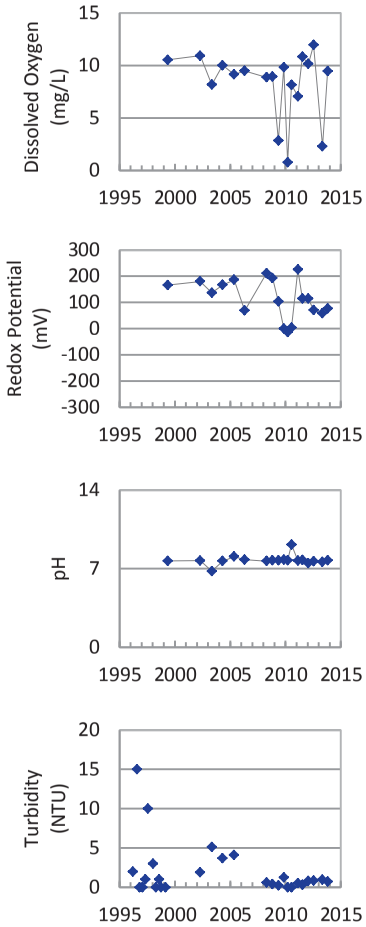
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/19/1996 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

1114-MW4
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



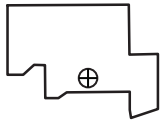
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

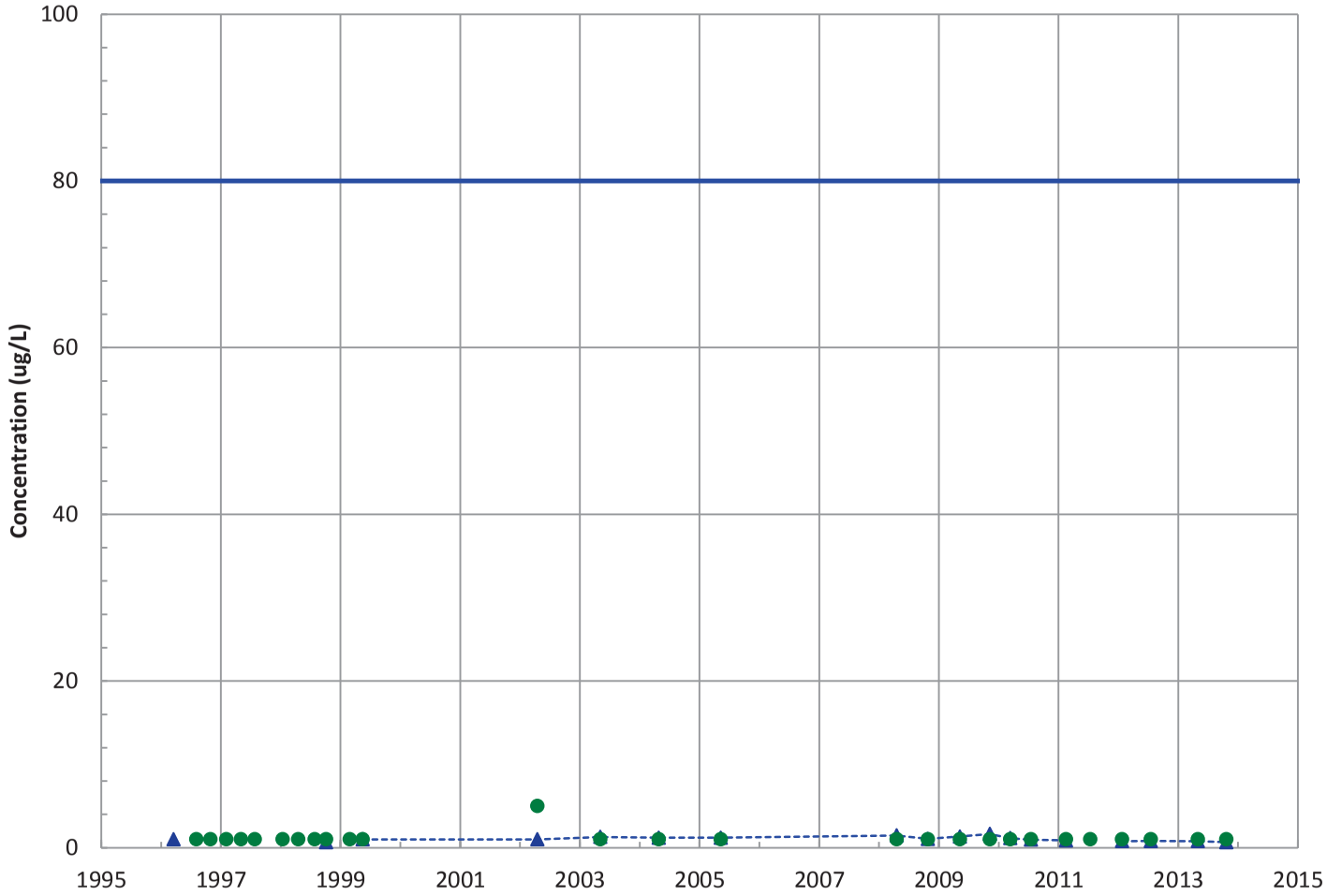
Well Location



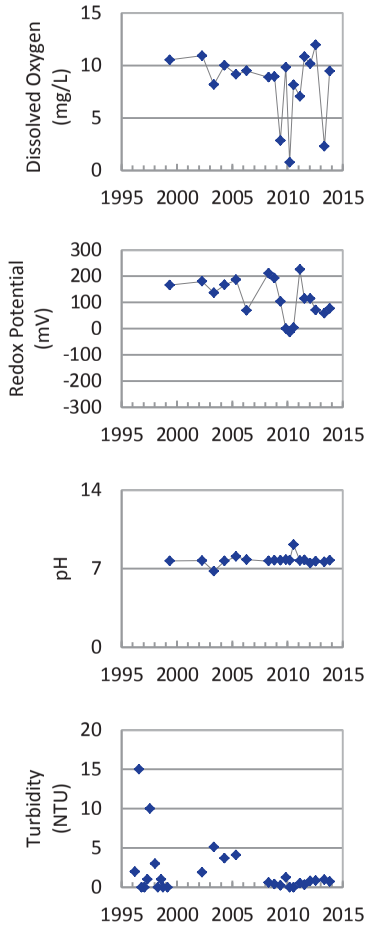
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/19/1996 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

1114-MW4
Chloroform Trend in Perched Aquifer



Field Parameters



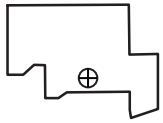
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Probably Decreasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

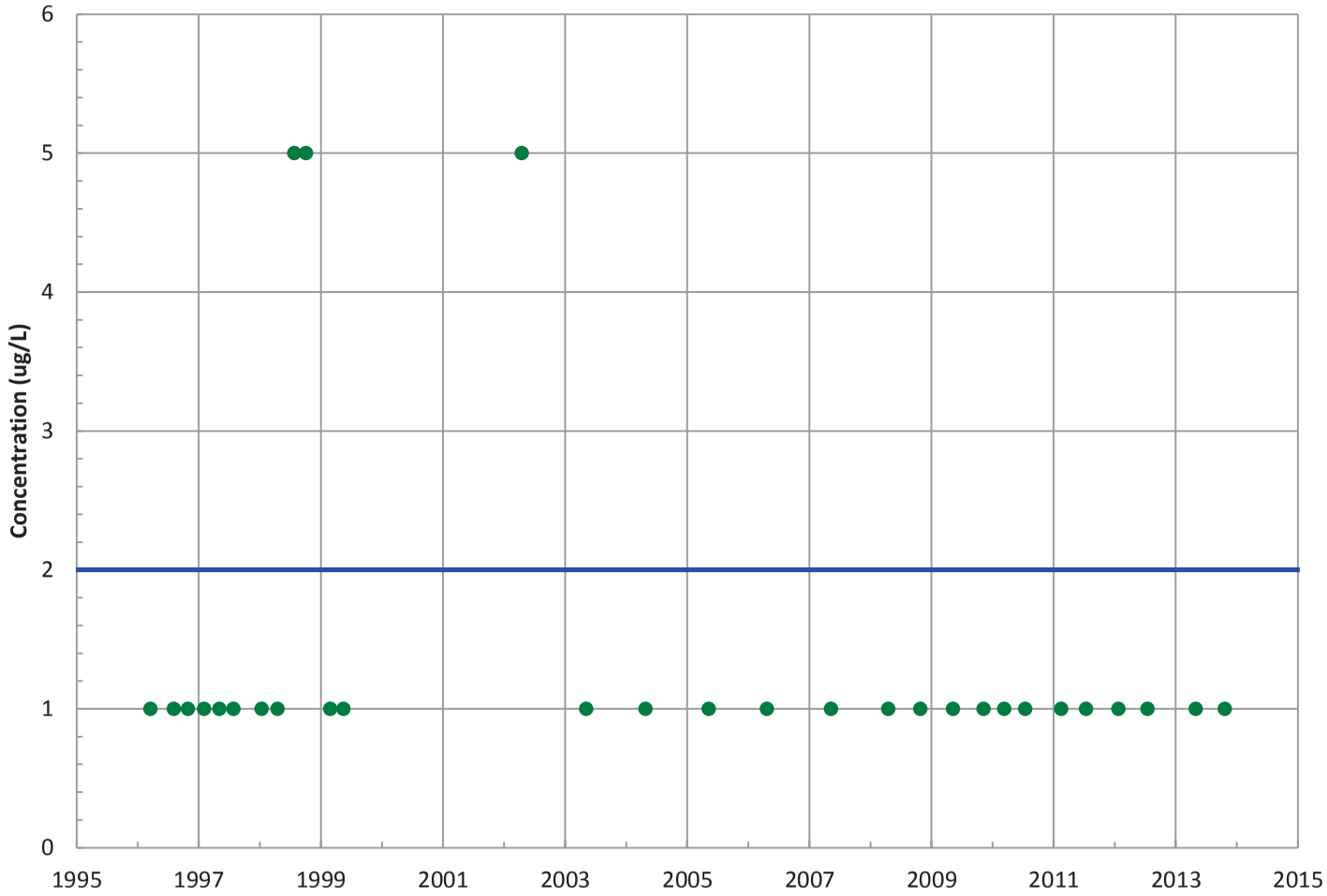
Well Location



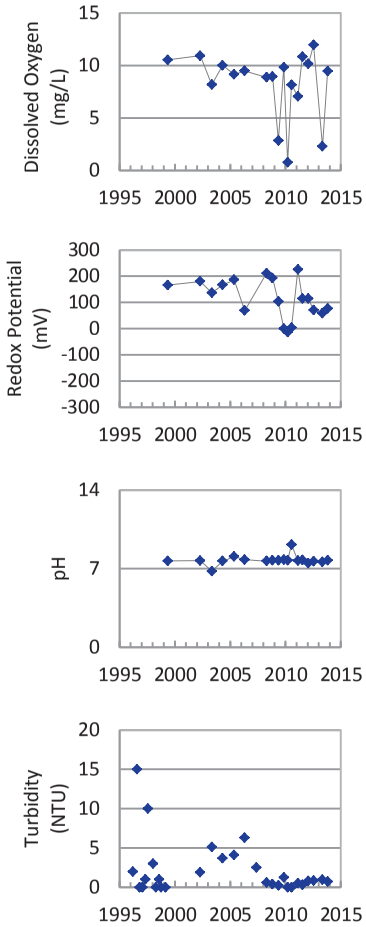
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/19/1996 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

1114-MW4
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



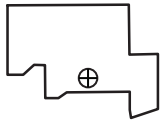
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

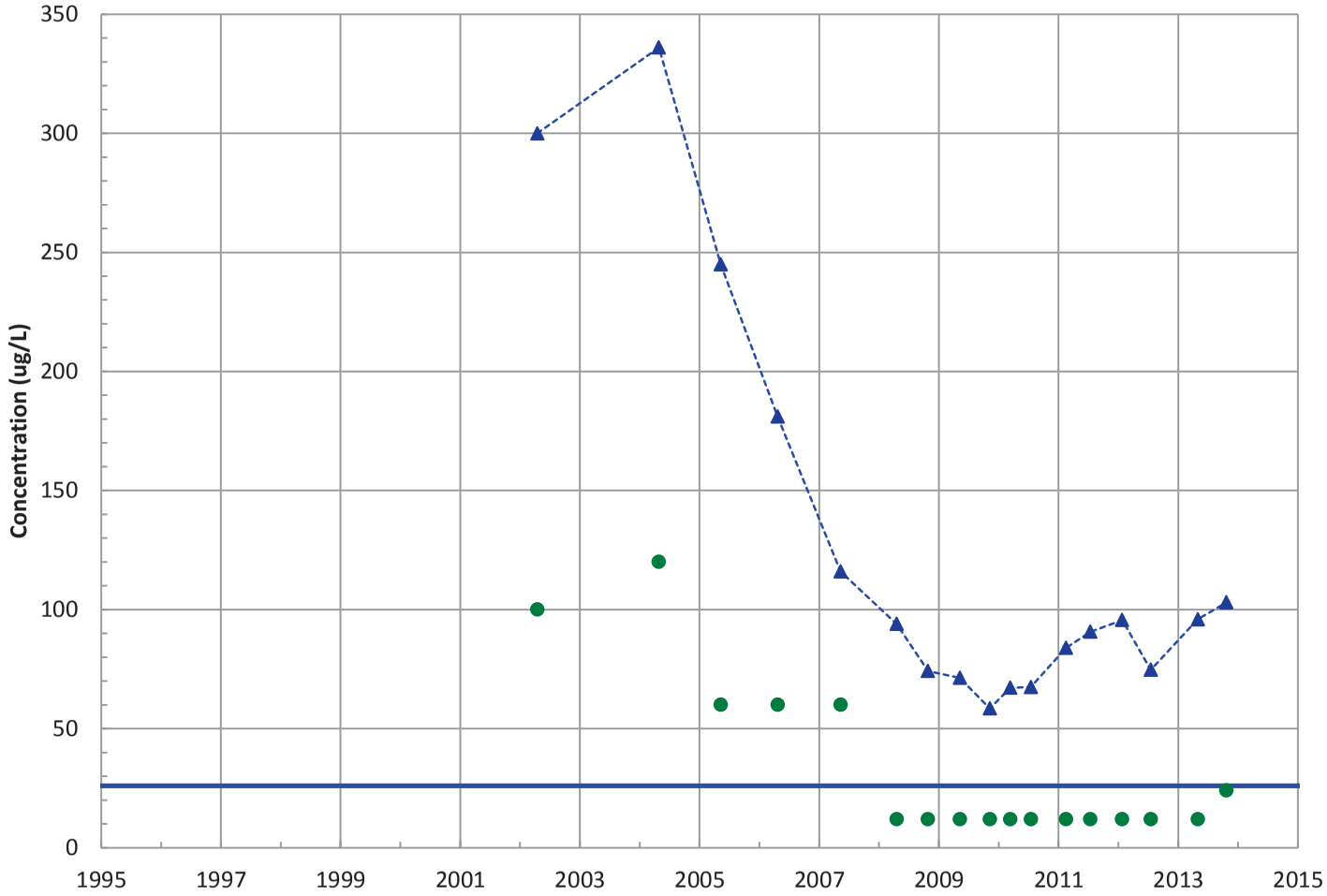
Well Location



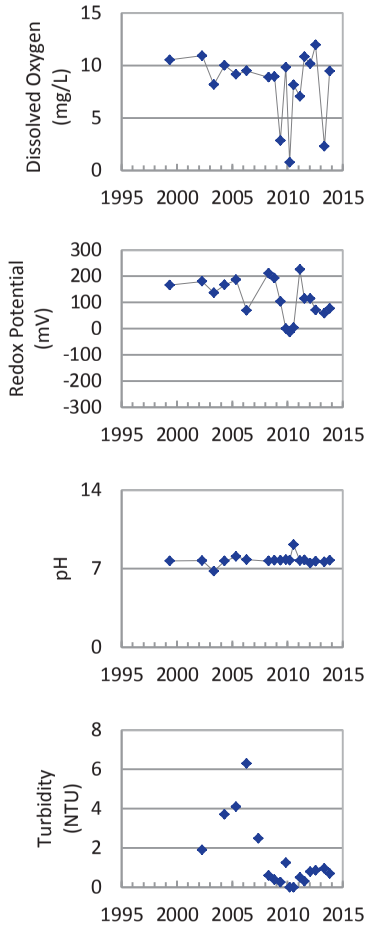
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/19/1996 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

1114-MW4
Perchlorate Trend in Perched Aquifer



Field Parameters



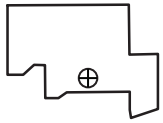
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

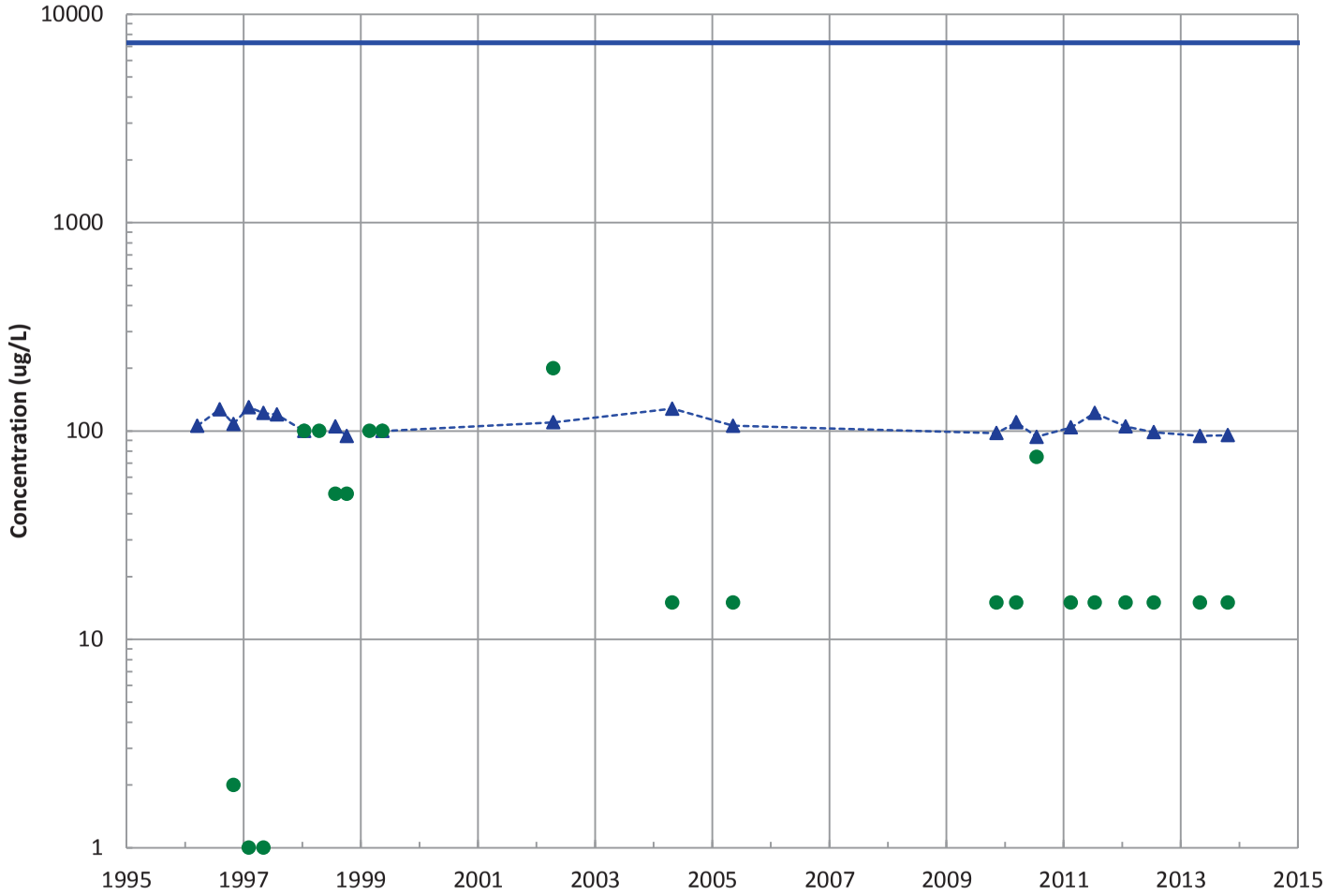
Well Location



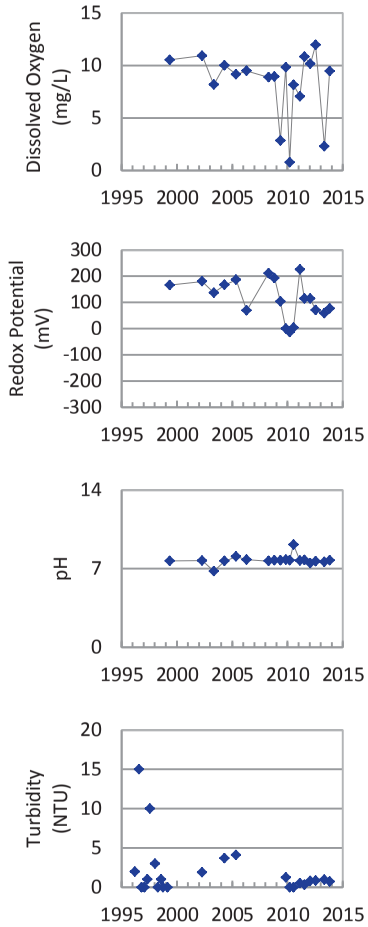
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/22/2002 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

1114-MW4
Boron Trend in Perched Aquifer



Field Parameters



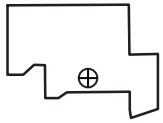
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Decreasing

- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

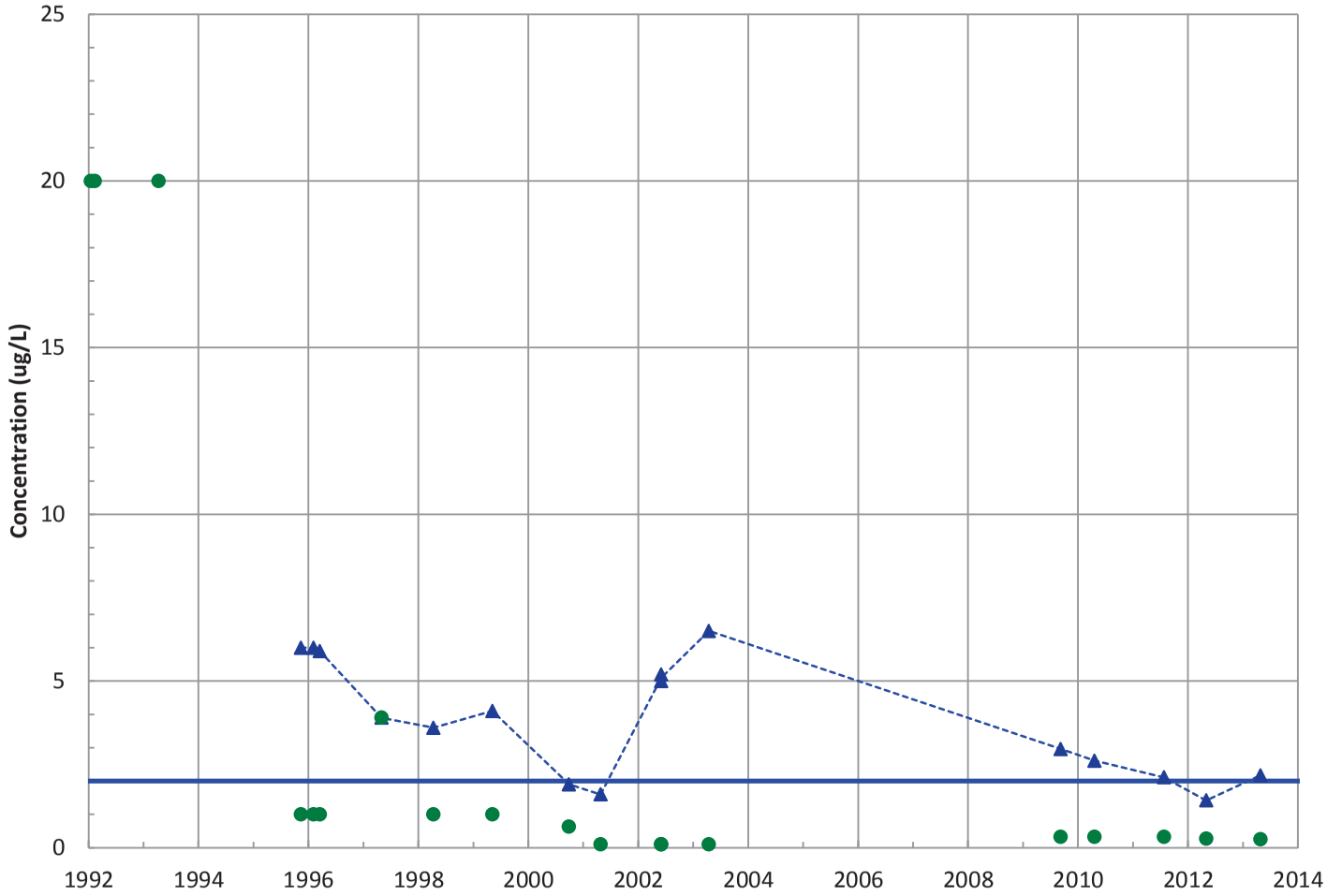
Well Location



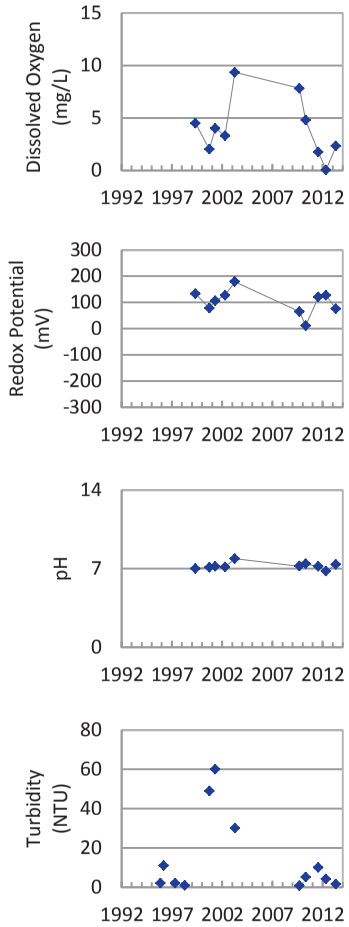
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/19/1996 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

OW-WR-38
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



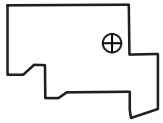
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Probably Decreasing
2011 - 2013 Data: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

Well Location

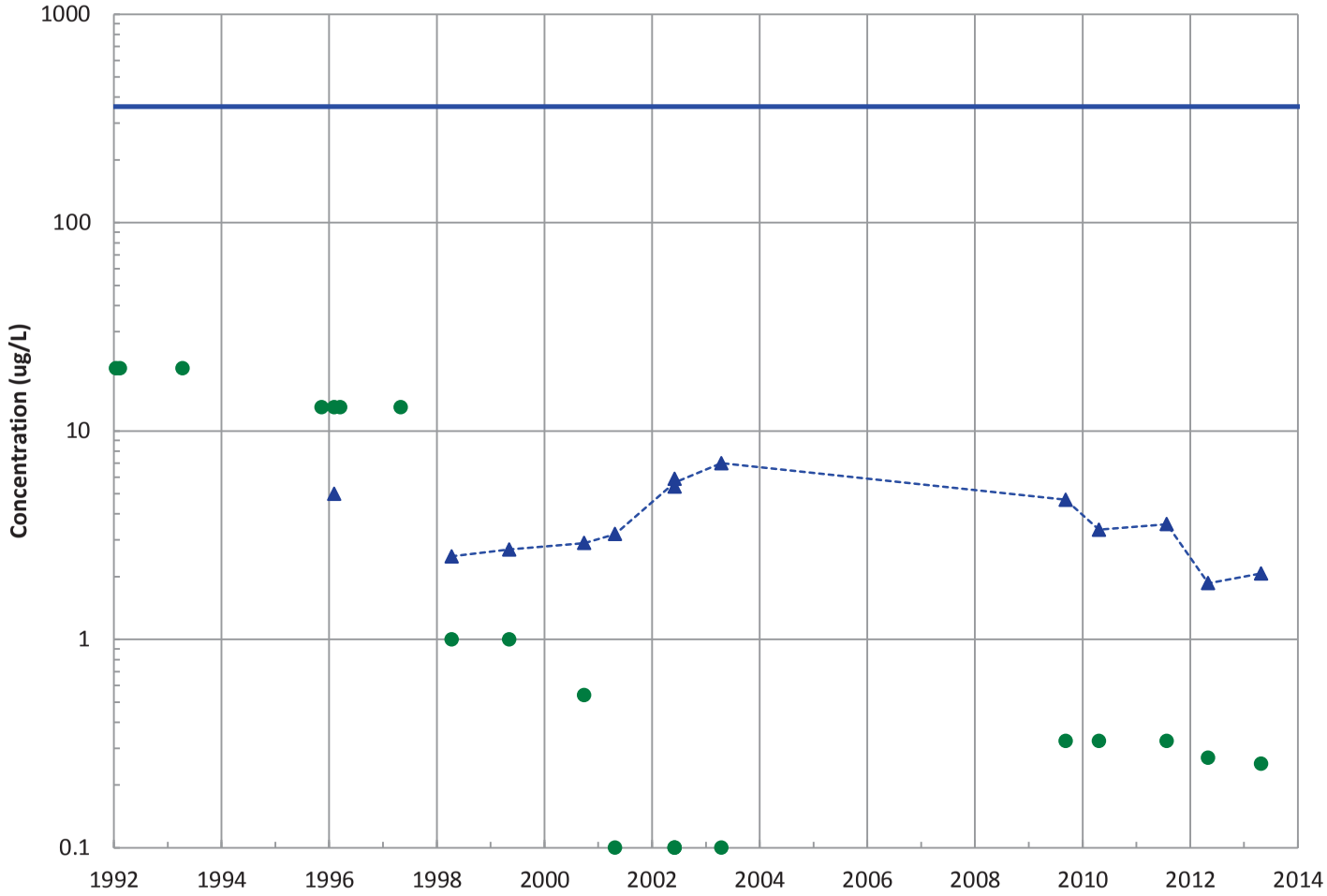


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 1/16/1992 to 5/13/2013
Analysis Date: 3/4/2014

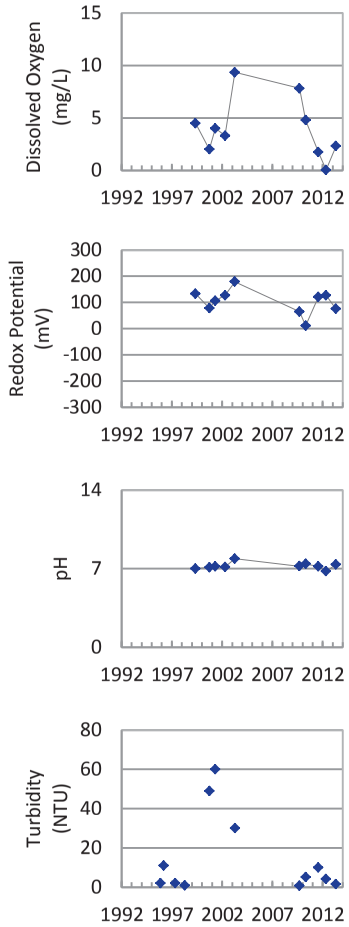
B&W Pantex

OW-WR-38

HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



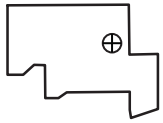
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------ Concentration Trend
- ——— Groundwater Protection Standard

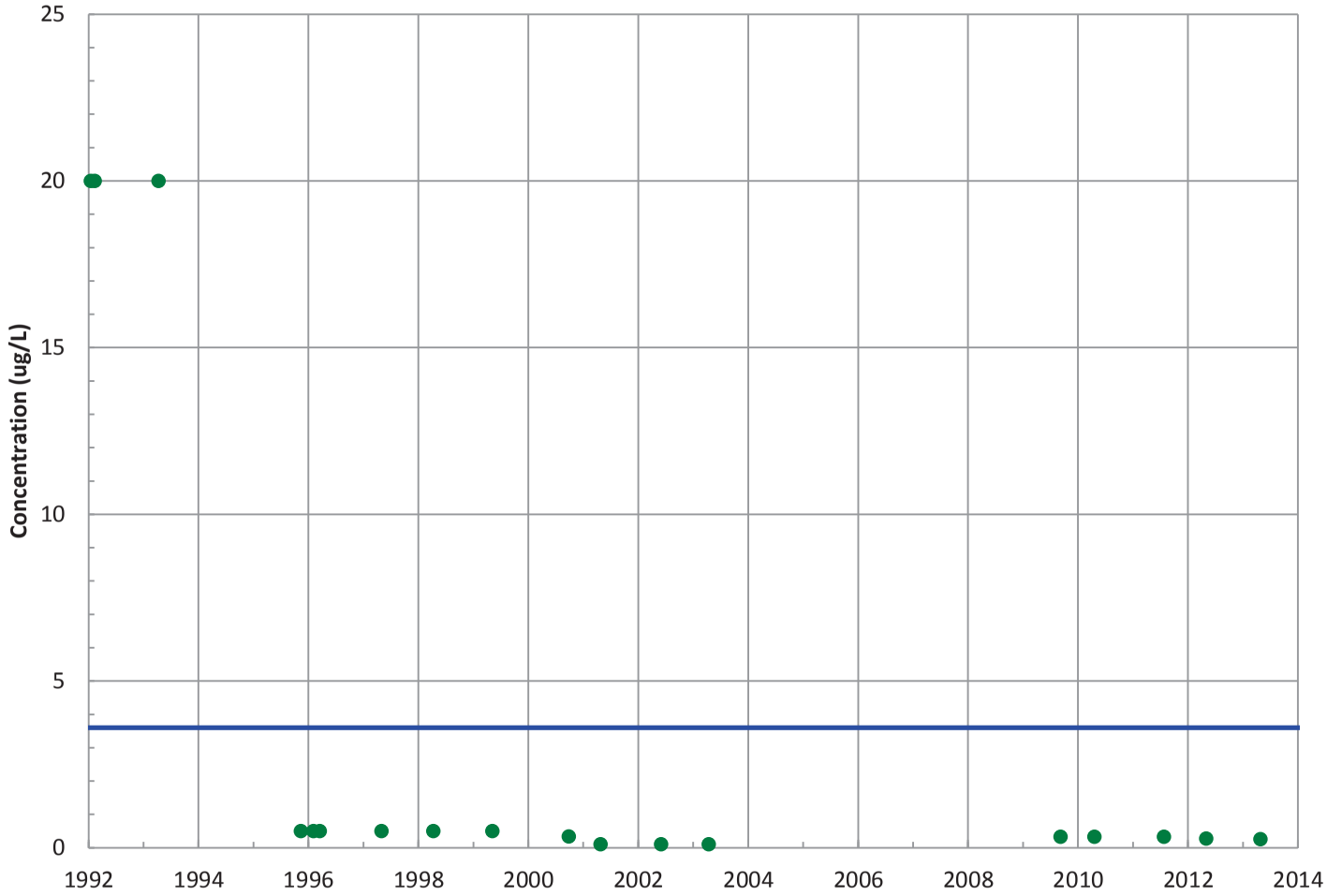
Well Location



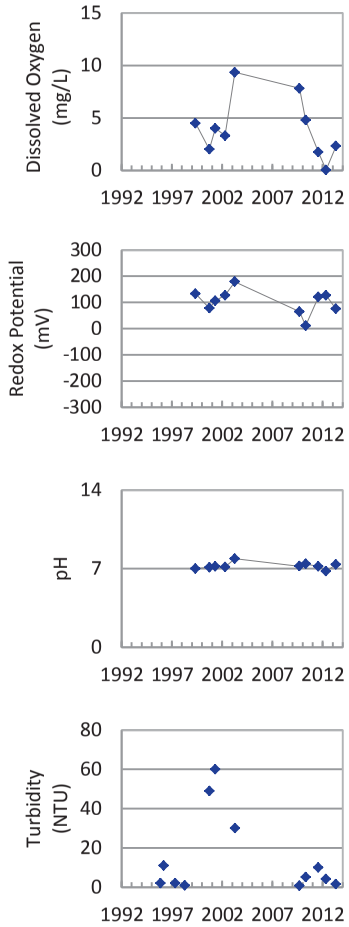
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 1/16/1992 to 5/13/2013
Analysis Date: 3/4/2014

B&W Pantex

OW-WR-38
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



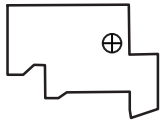
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

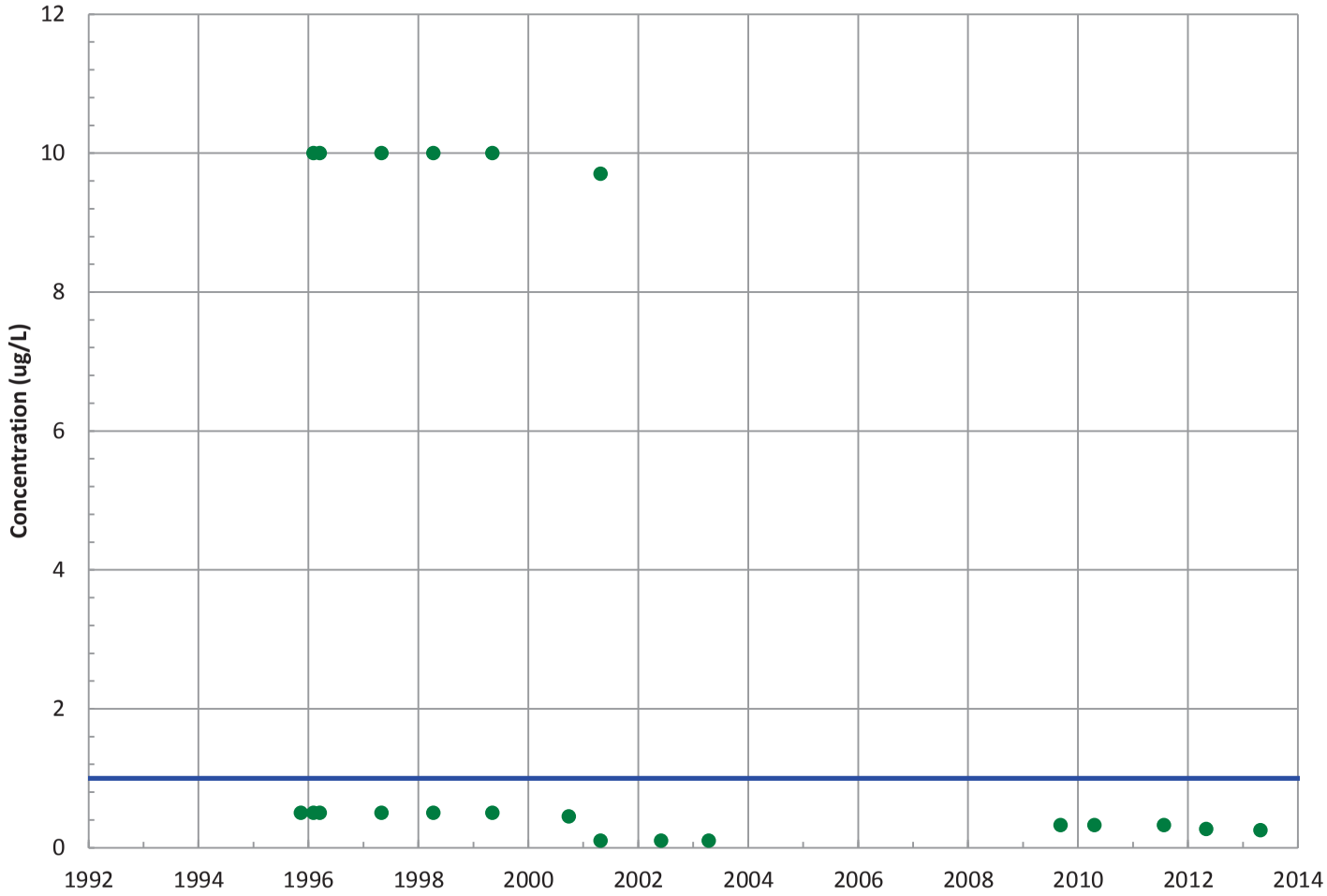
Well Location



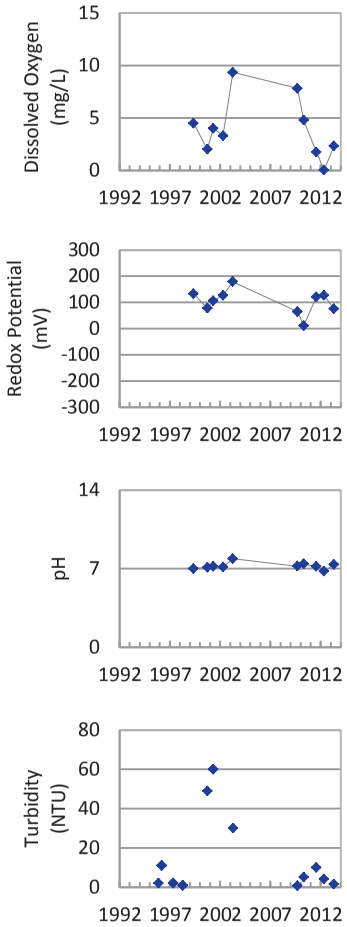
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 1/16/1992 to 5/13/2013
Analysis Date: 3/4/2014

B&W Pantex

OW-WR-38
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



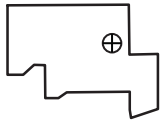
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

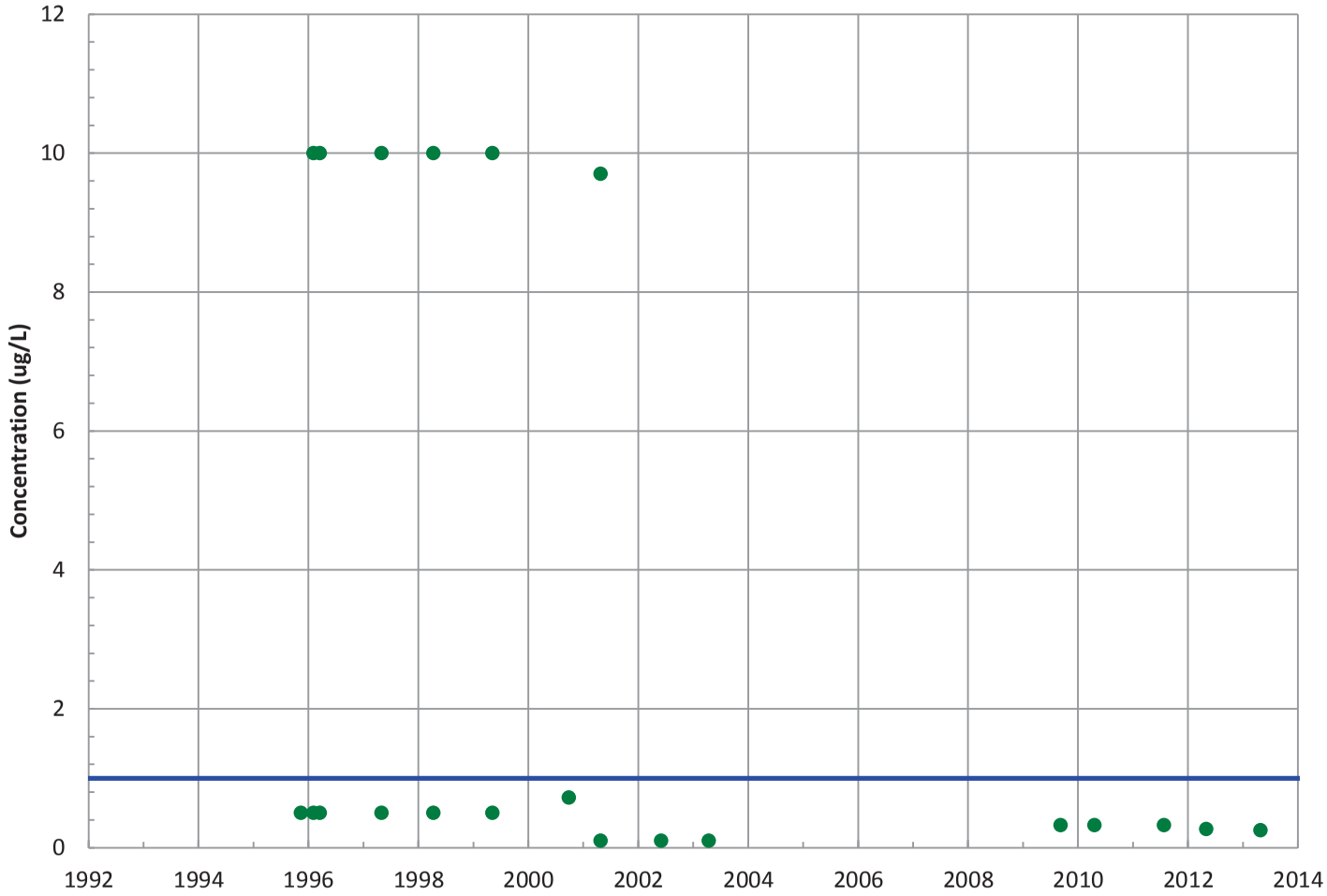
Well Location



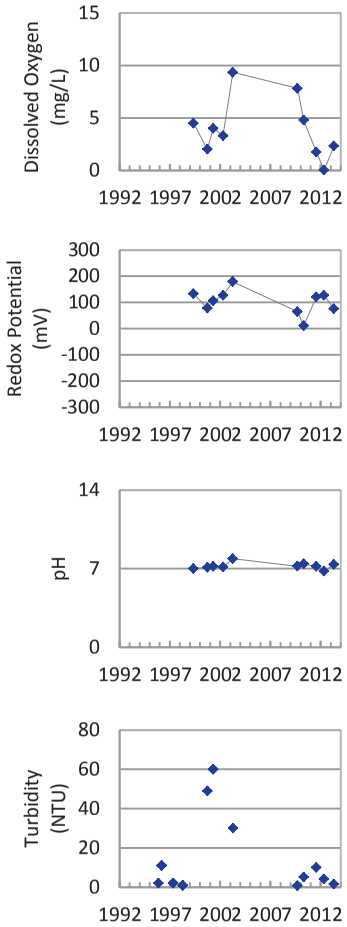
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/15/1995 to 5/13/2013
Analysis Date: 3/4/2014

B&W Pantex

OW-WR-38
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



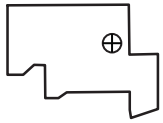
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

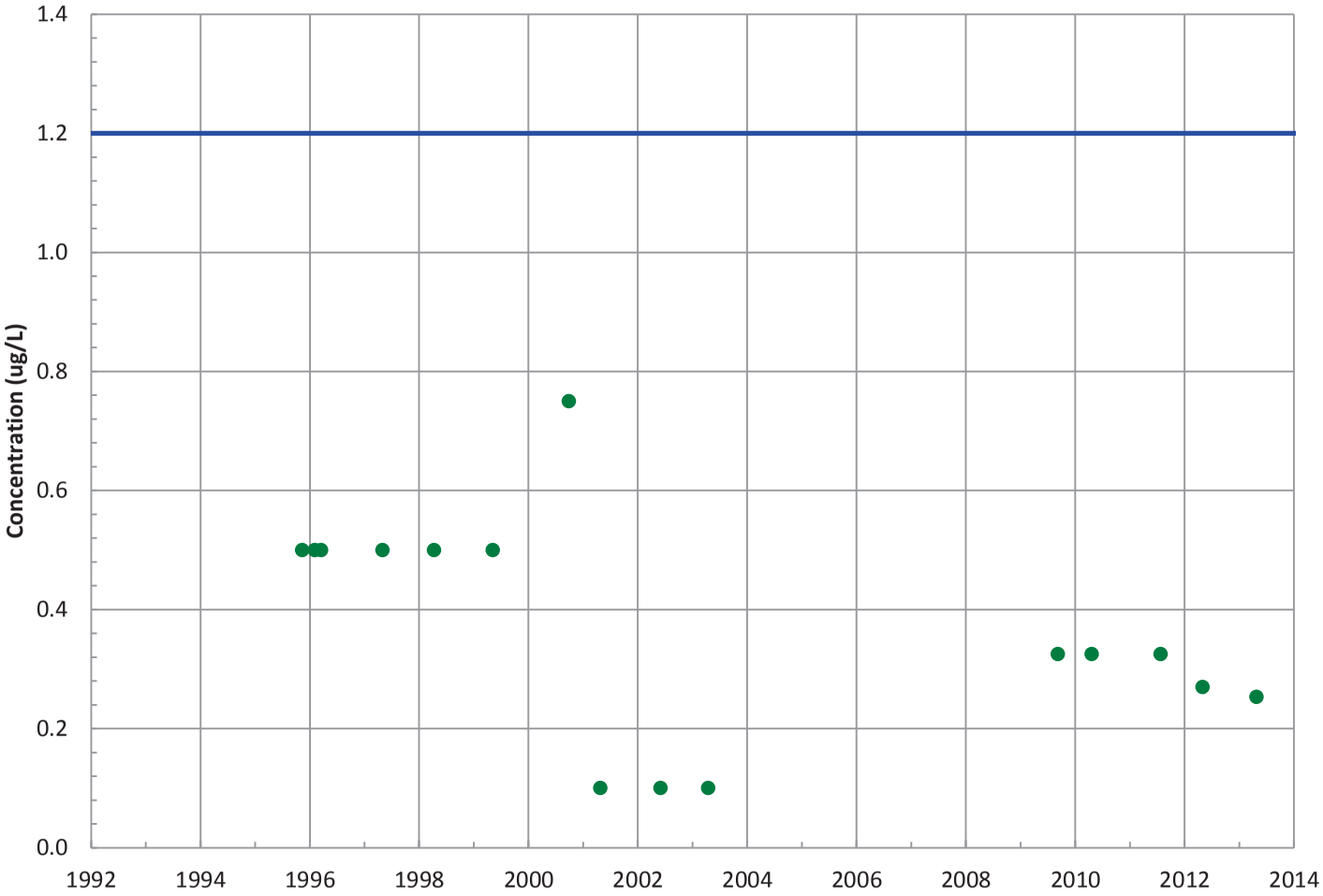
Well Location



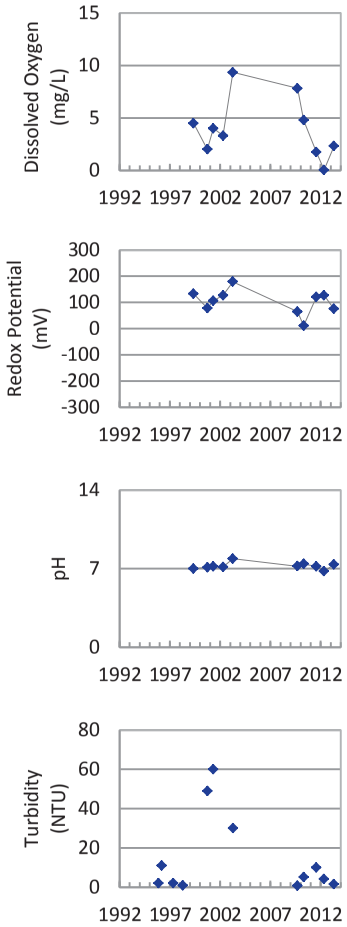
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/15/1995 to 5/13/2013
Analysis Date: 3/4/2014

B&W Pantex

OW-WR-38
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



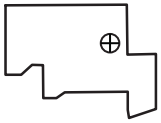
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

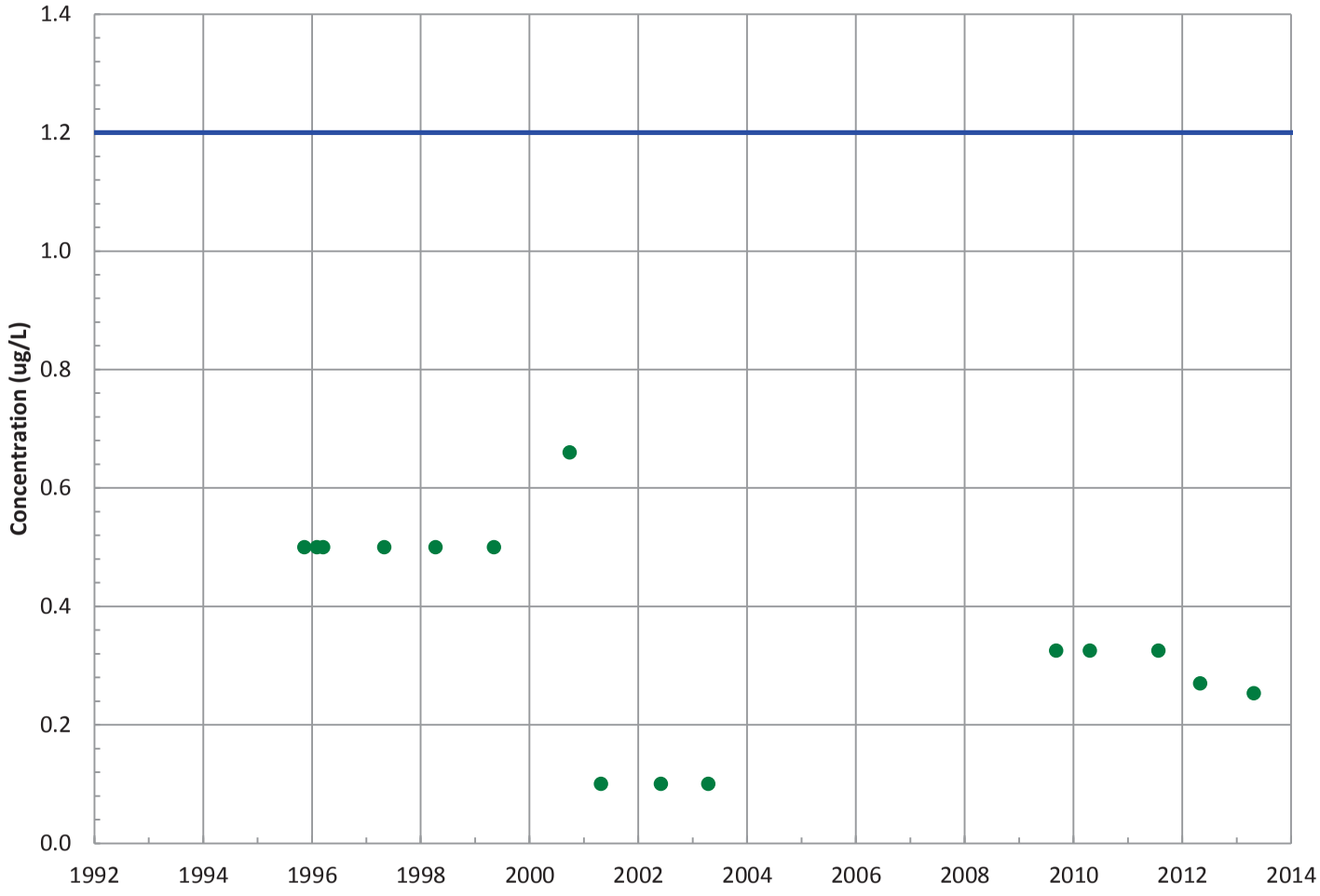
Well Location



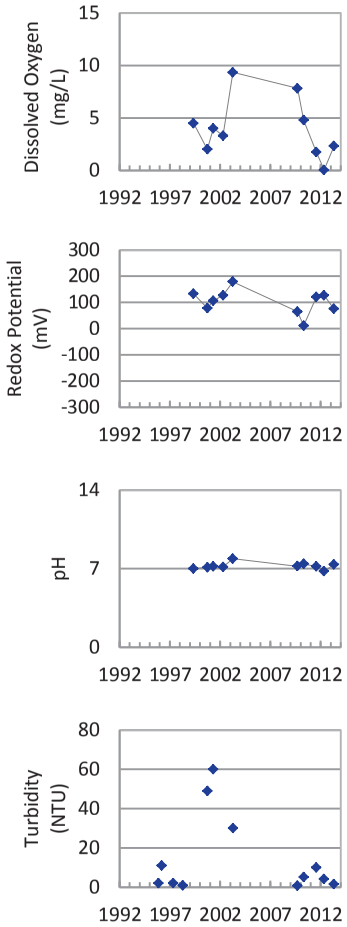
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/15/1995 to 5/13/2013
Analysis Date: 3/4/2014

B&W Pantex

OW-WR-38
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



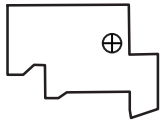
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

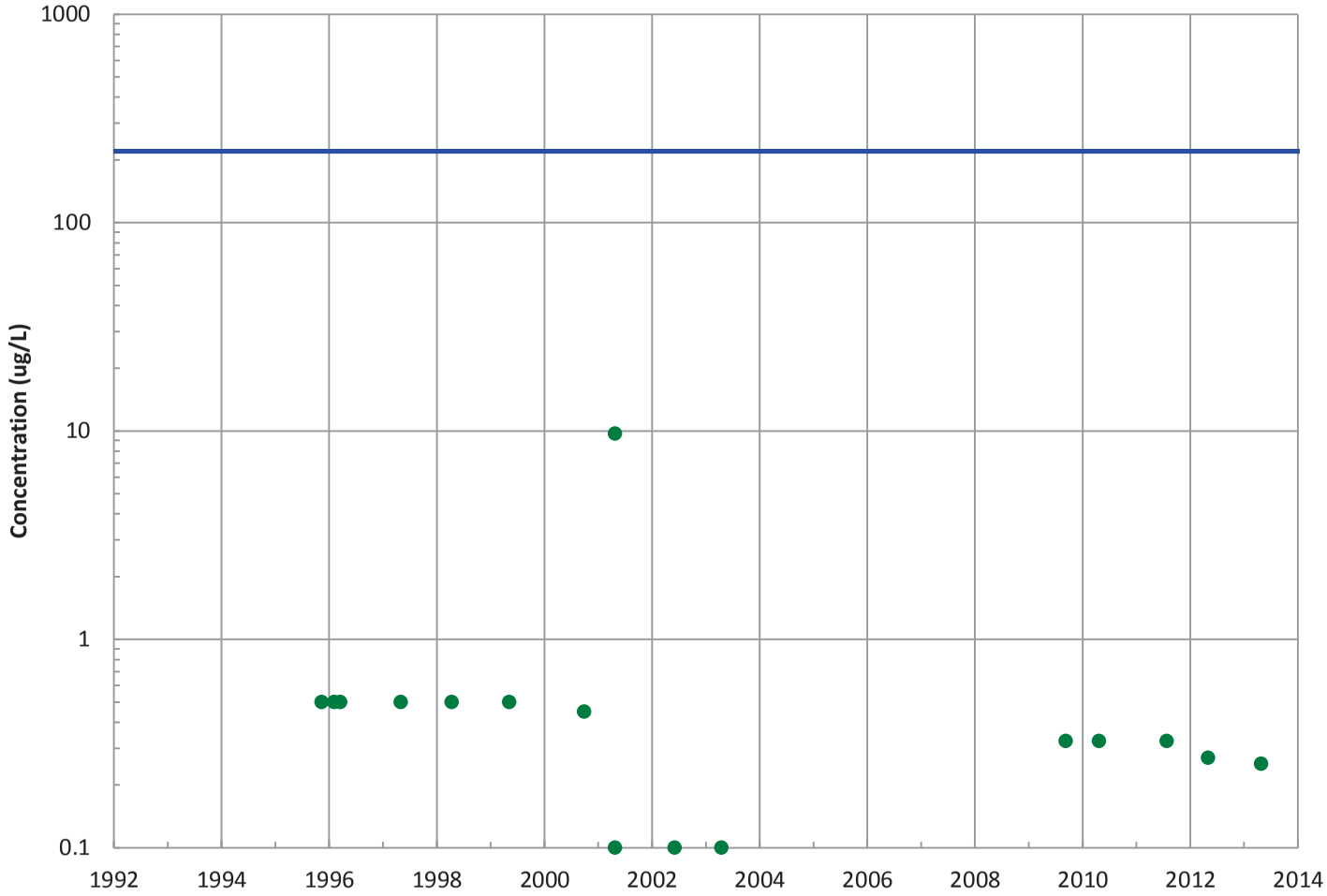
Well Location



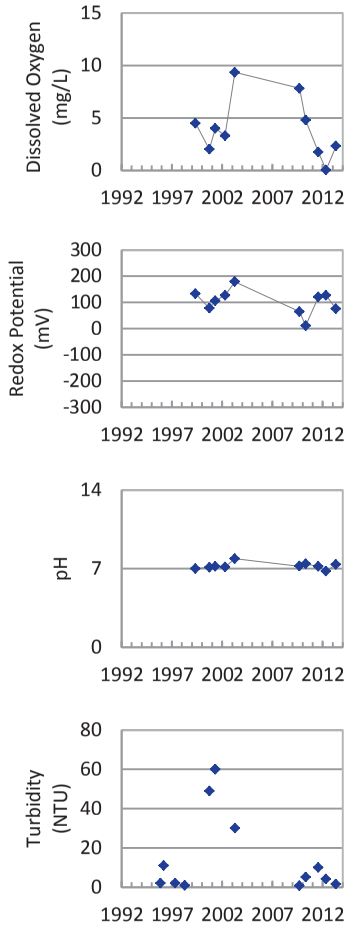
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/15/1995 to 5/13/2013
Analysis Date: 3/4/2014

B&W Pantex

OW-WR-38
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



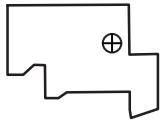
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

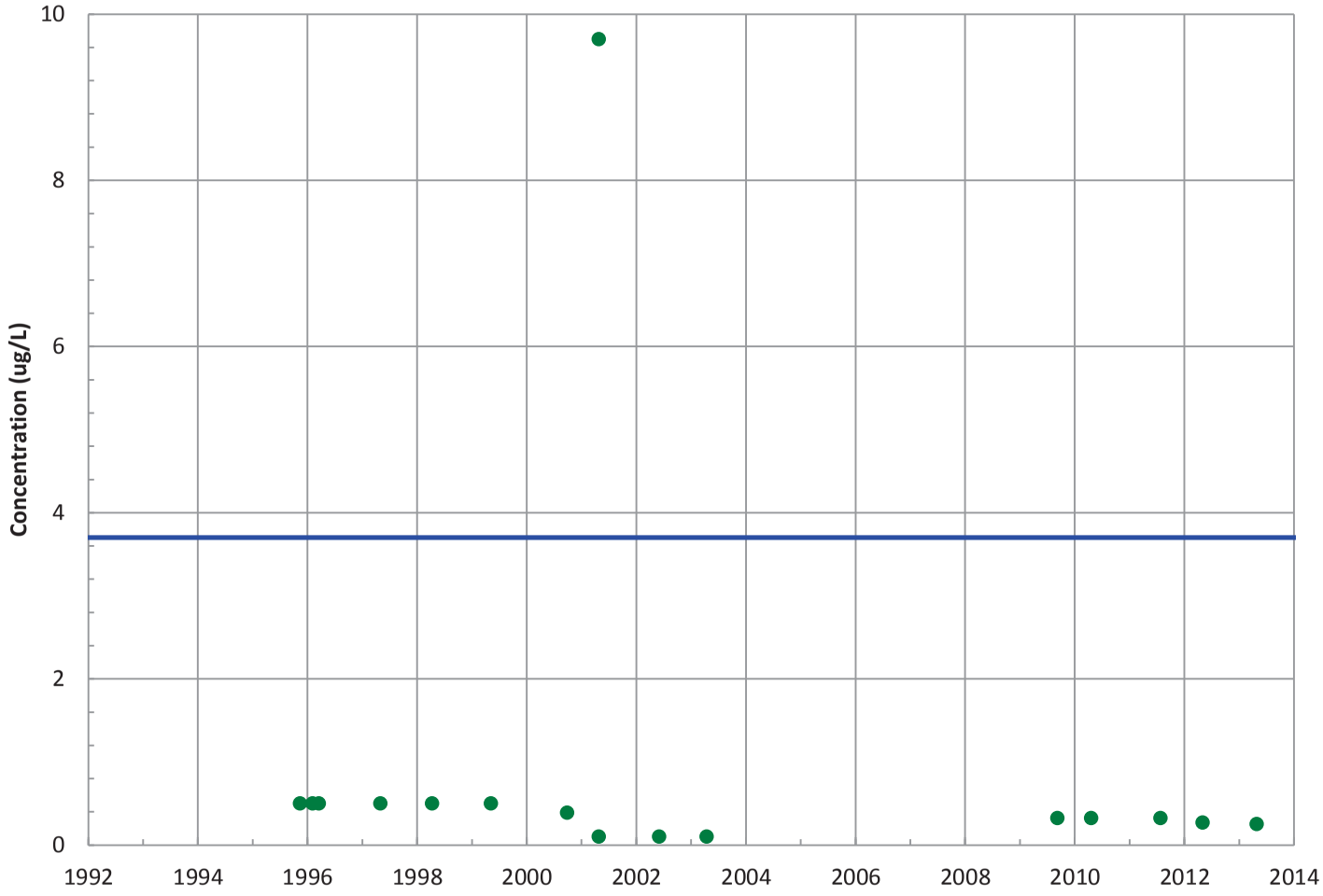
Well Location



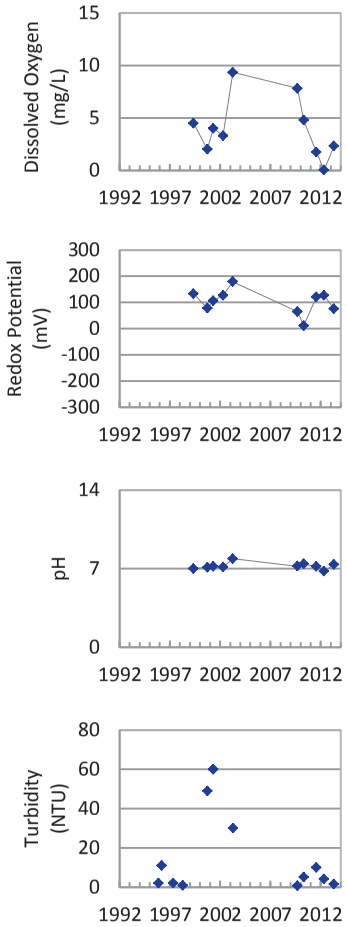
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/15/1995 to 5/13/2013
Analysis Date: 3/4/2014

B&W Pantex

OW-WR-38
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



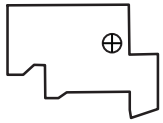
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

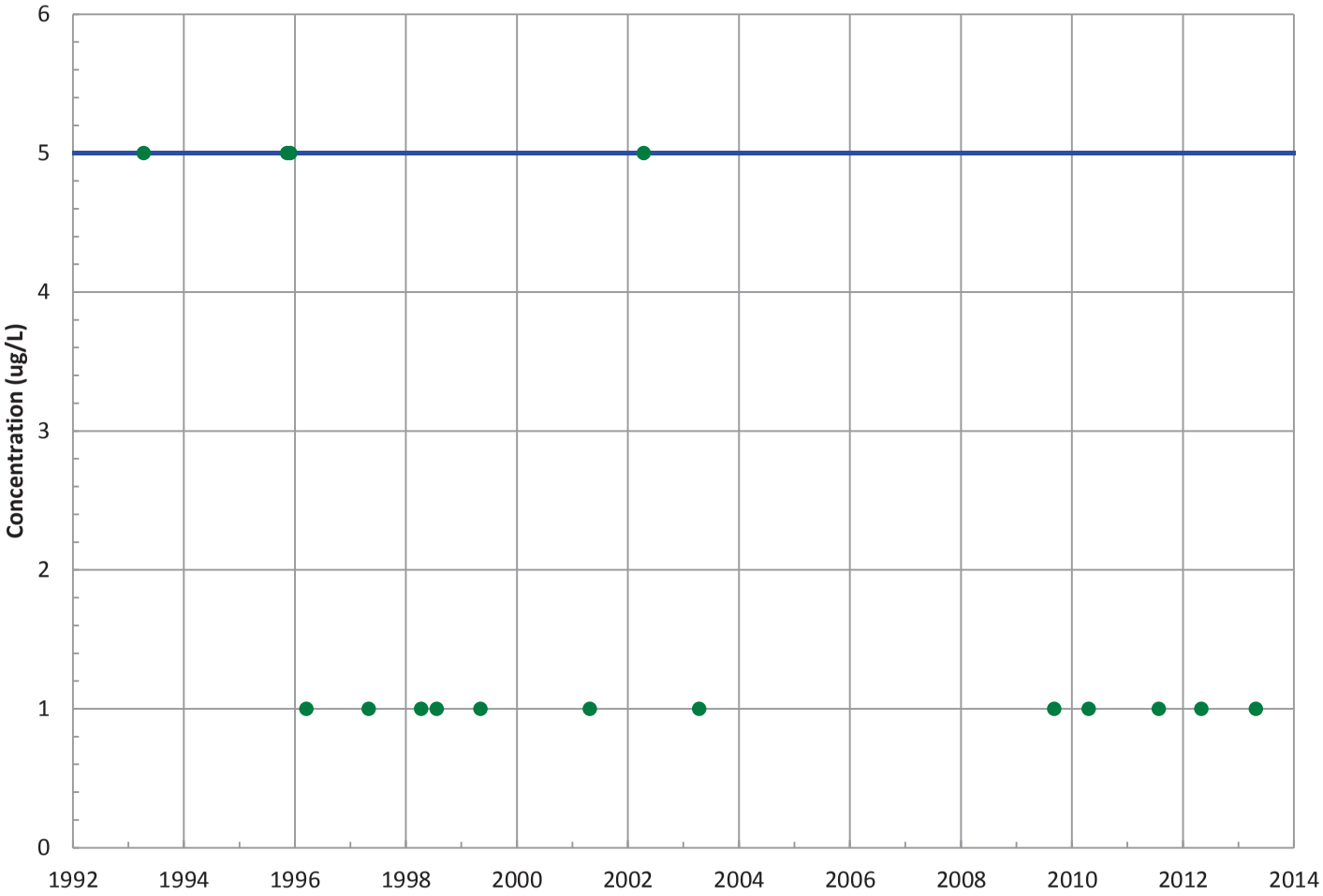
Well Location



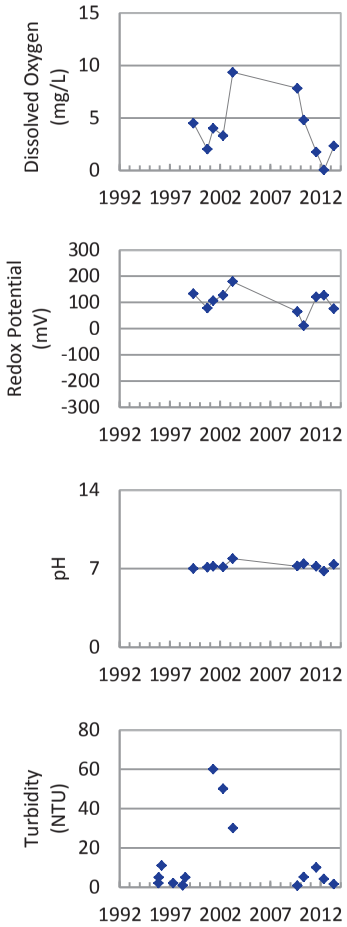
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/15/1995 to 5/13/2013
Analysis Date: 3/4/2014

B&W Pantex

OW-WR-38
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



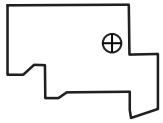
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

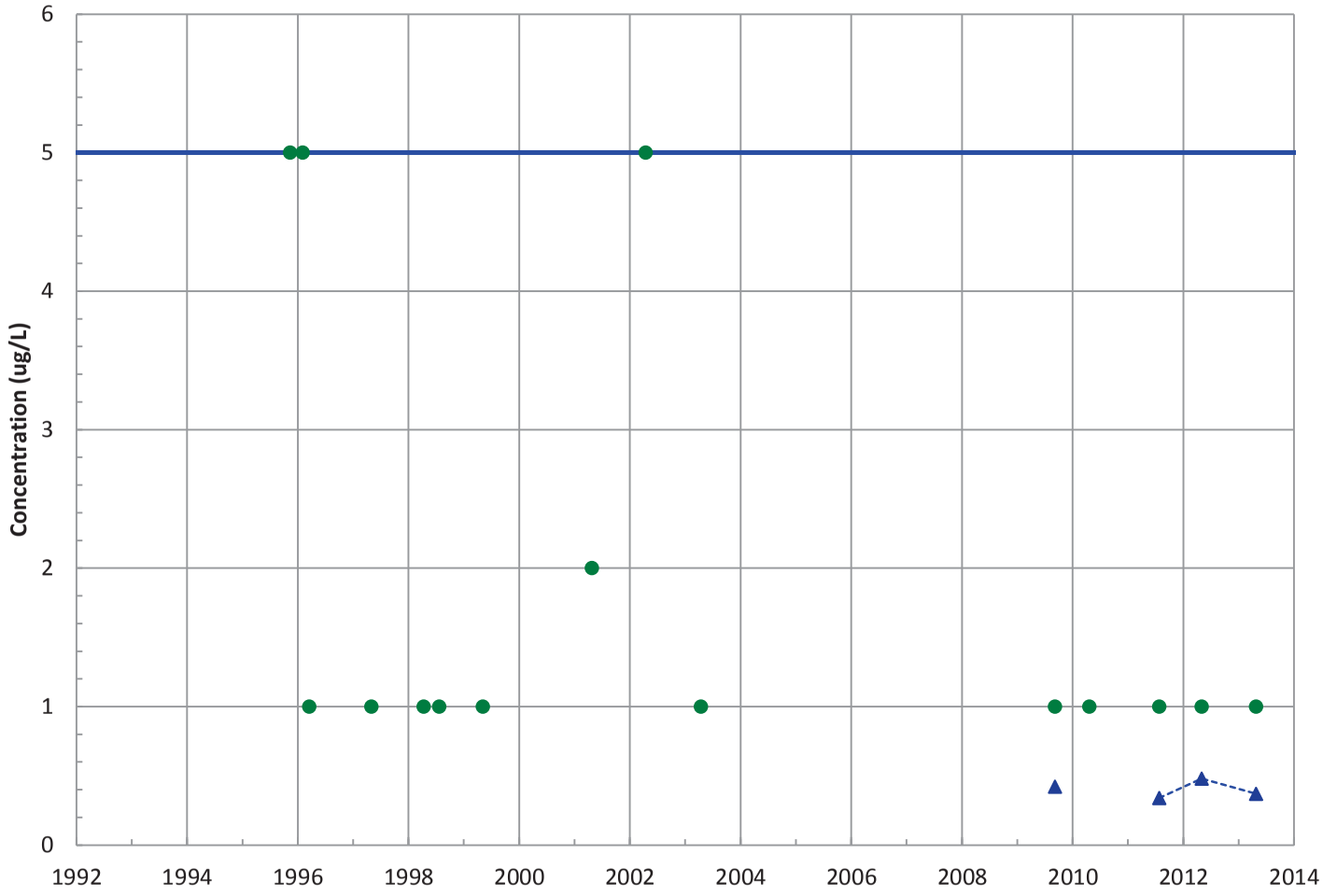
Well Location



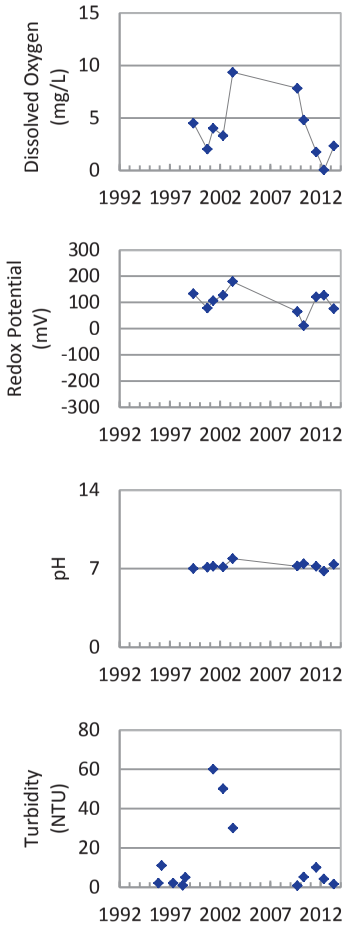
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/12/1993 to 5/13/2013
Analysis Date: 3/4/2014

B&W Pantex

OW-WR-38
Trichloroethene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Decreasing

2011 - 2013 Data: N/A (<4 Detections in Dataset)

MAROS Linear Regression Method

Data (7/2009 - 12/2013): Stable

2011 - 2013 Data: Stable

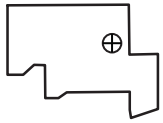
▲ Measured Value

● Sample Detection Limit

------- Concentration Trend

—— Groundwater Protection Standard

Well Location



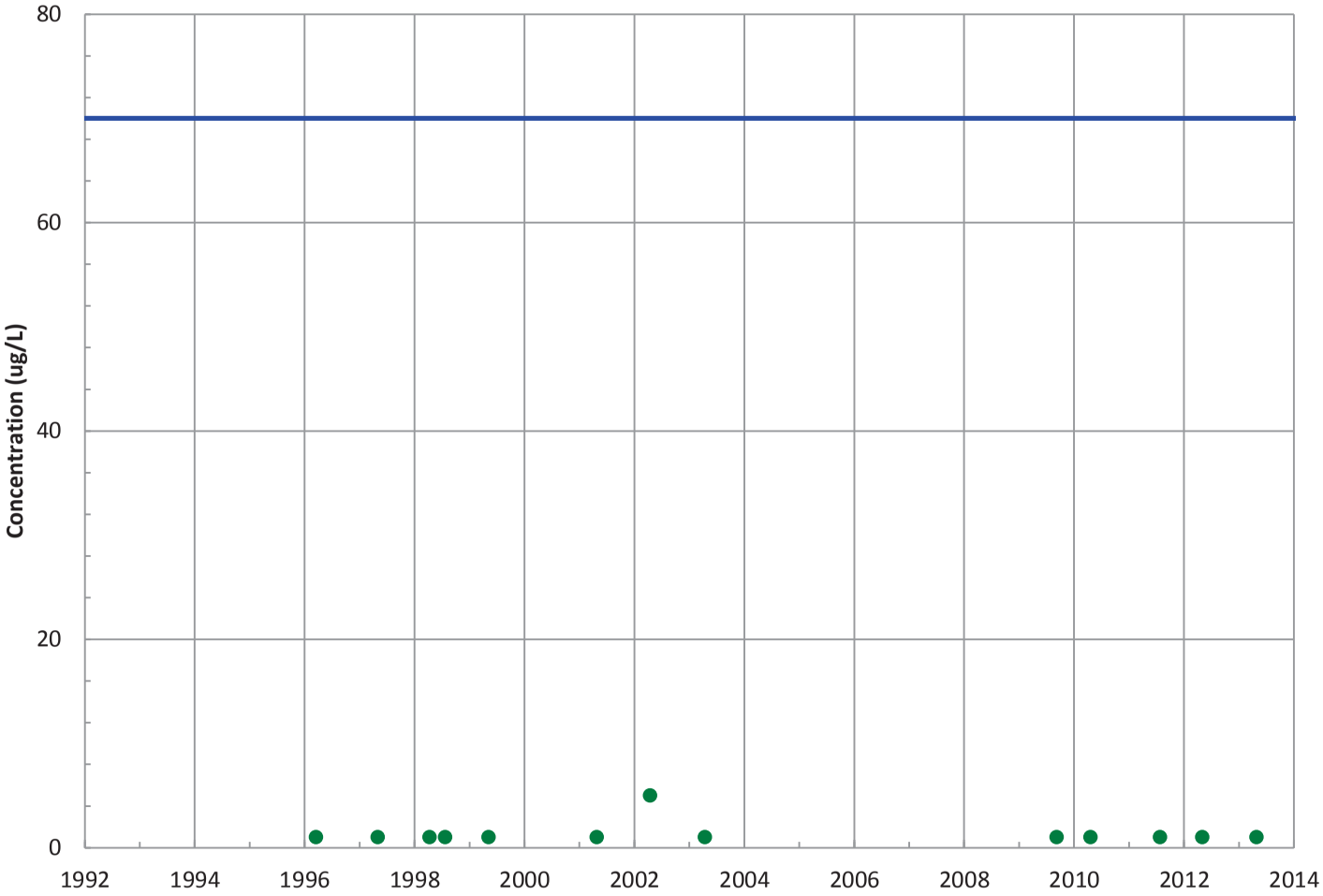
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 11/15/1995 to 5/13/2013

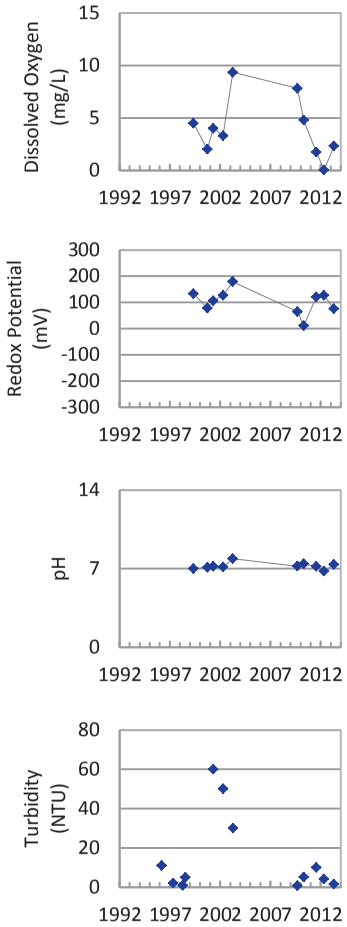
Analysis Date: 3/4/2014

B&W Pantex

OW-WR-38
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



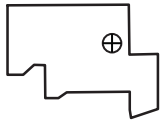
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

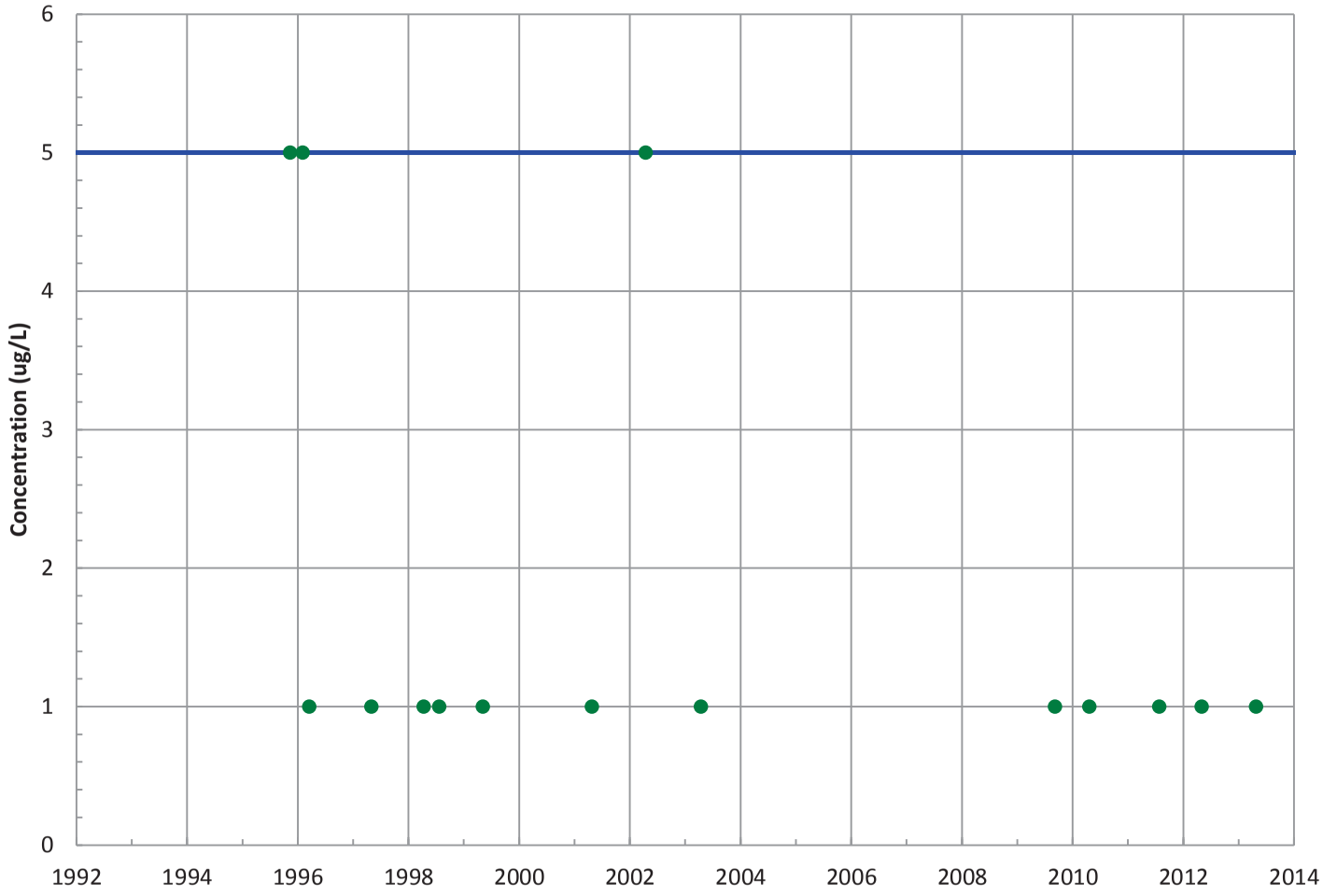
Well Location



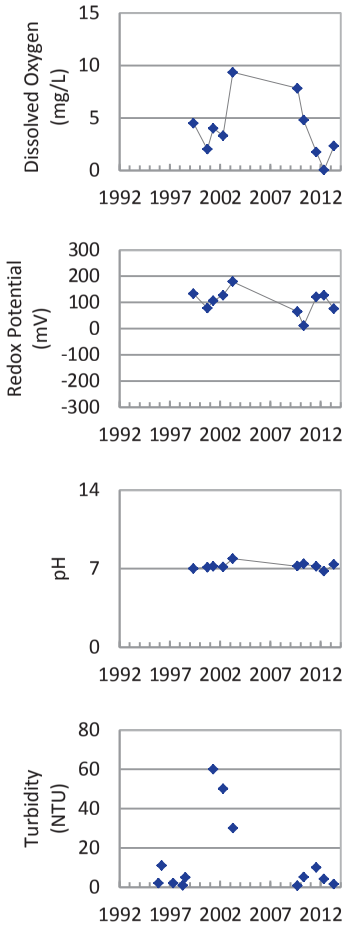
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/20/1996 to 5/13/2013
Analysis Date: 3/4/2014

B&W Pantex

OW-WR-38
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



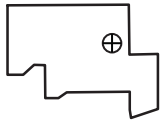
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

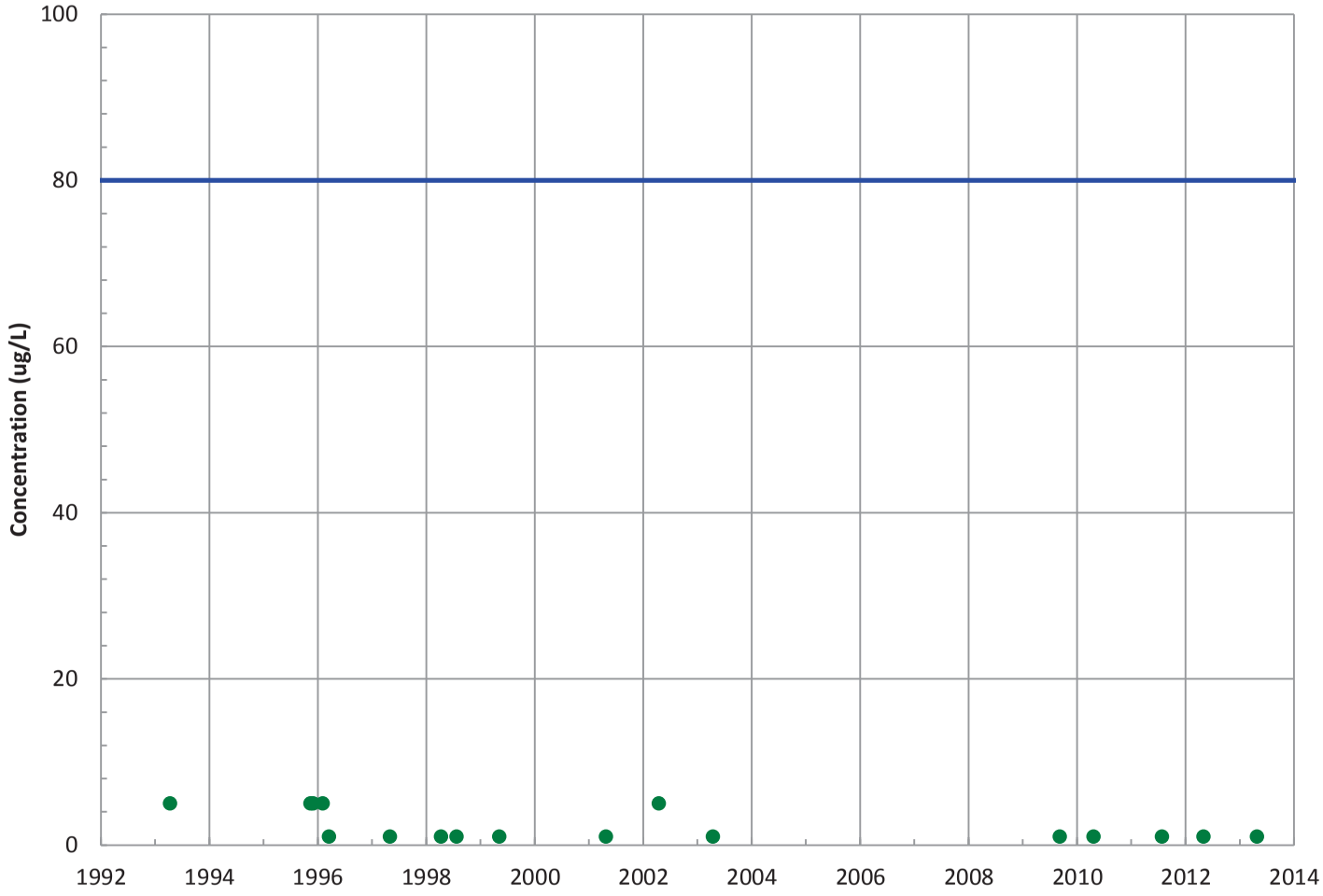
Well Location



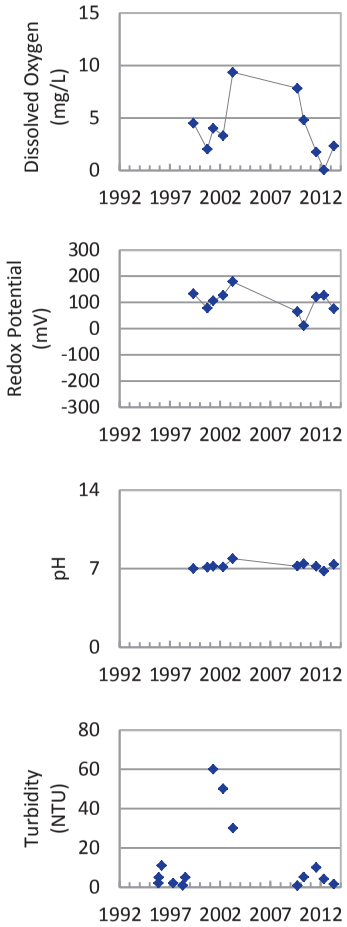
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/15/1995 to 5/13/2013
Analysis Date: 3/4/2014

B&W Pantex

OW-WR-38
Chloroform Trend in Perched Aquifer



Field Parameters



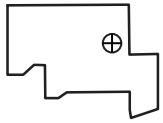
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

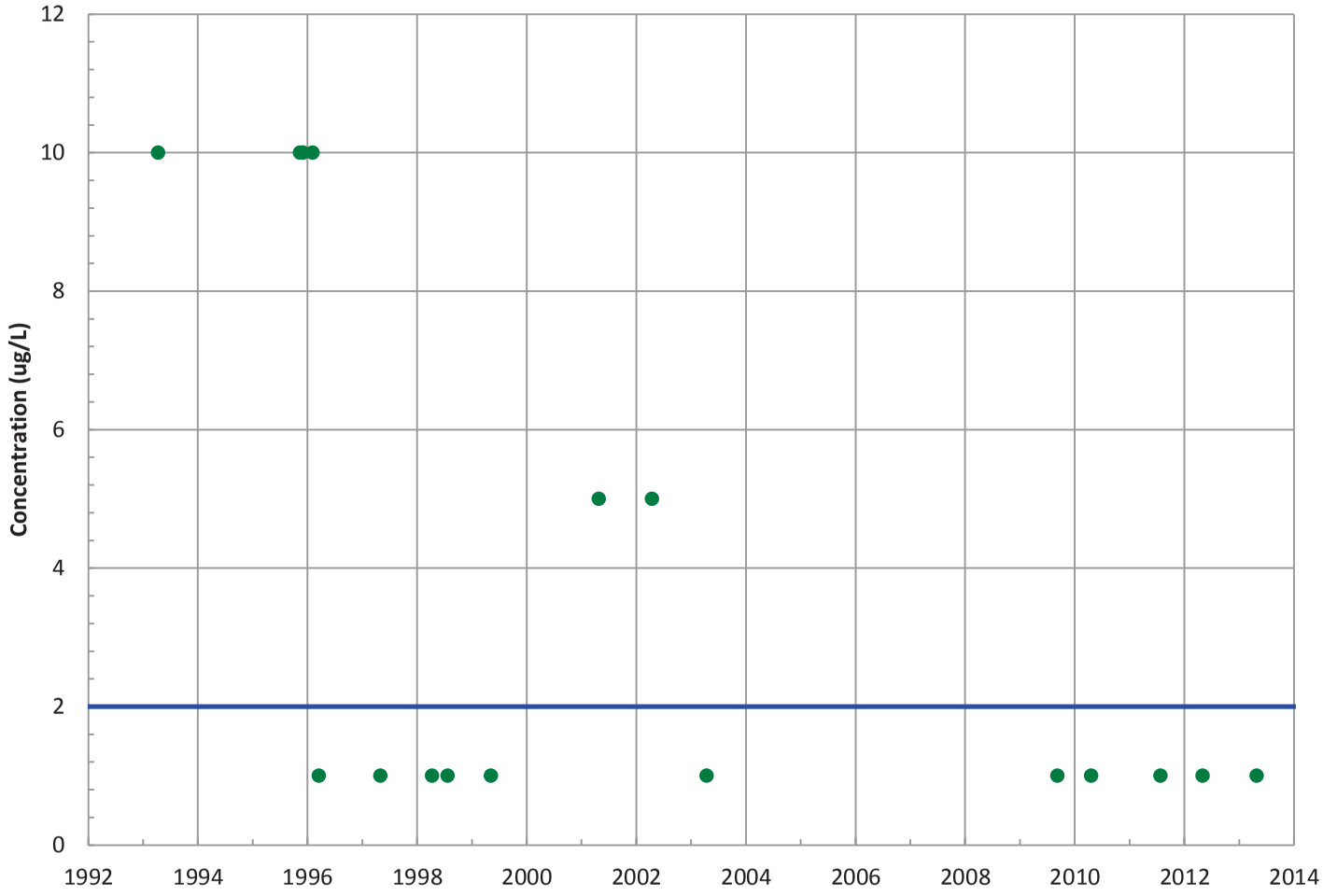
Well Location



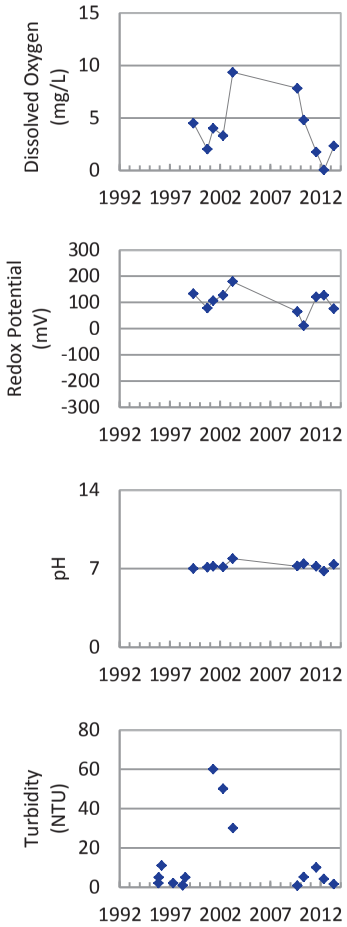
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/12/1993 to 5/13/2013
Analysis Date: 3/4/2014

B&W Pantex

OW-WR-38
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



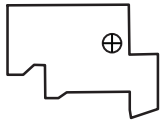
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

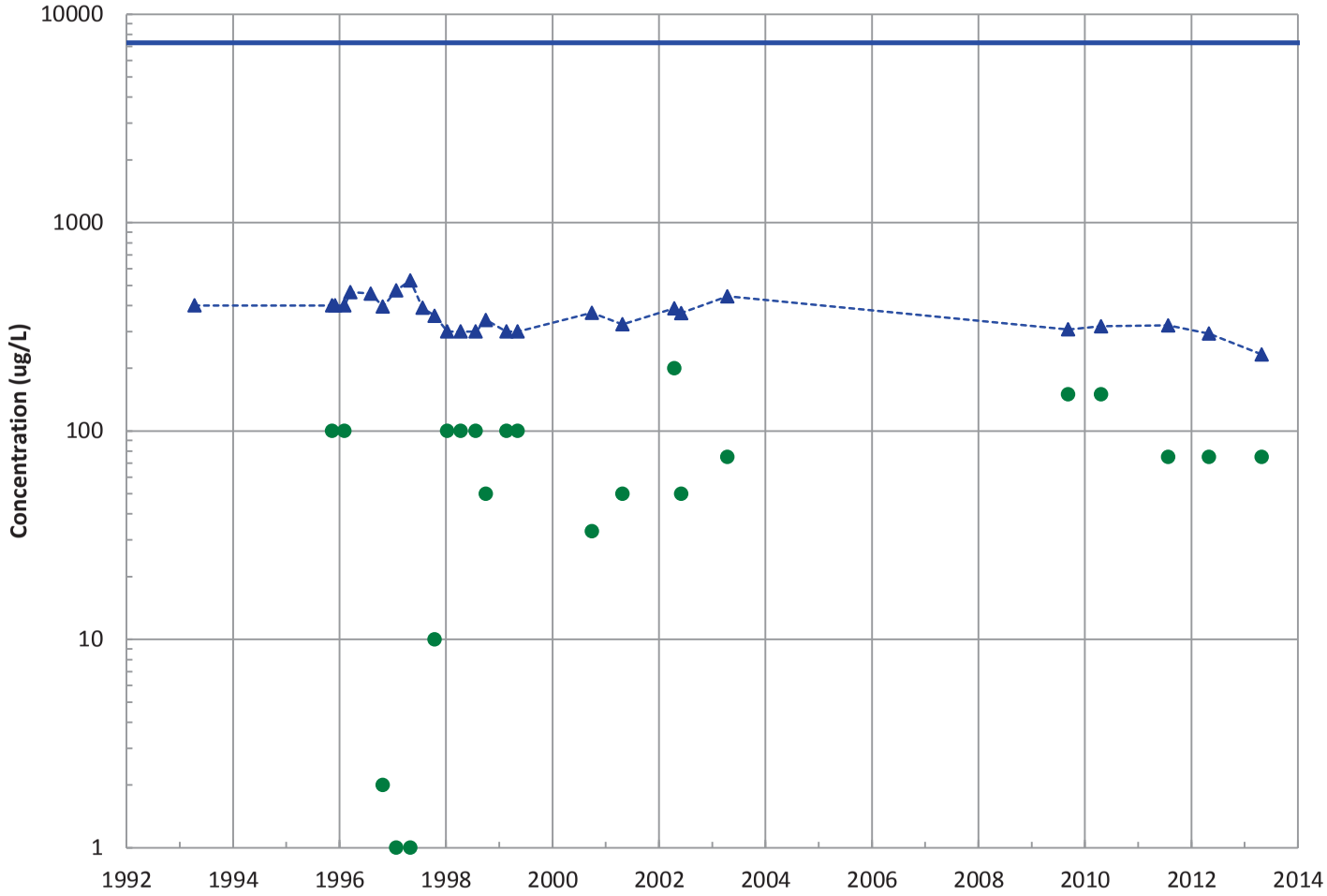
Well Location



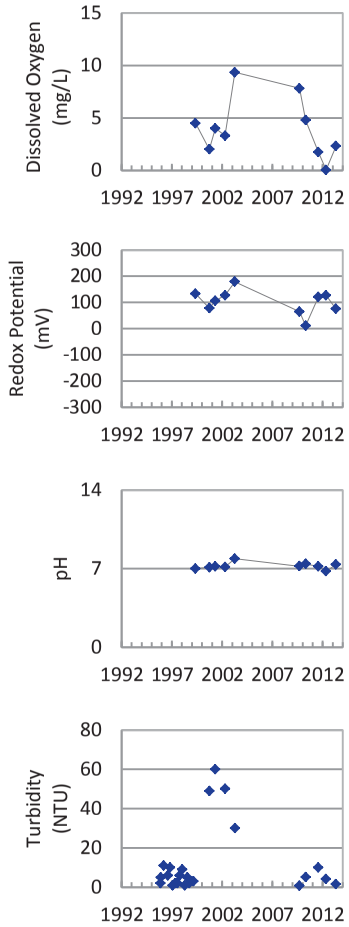
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/12/1993 to 5/13/2013
Analysis Date: 3/4/2014

B&W Pantex

OW-WR-38
Boron Trend in Perched Aquifer



Field Parameters



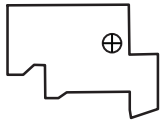
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Probably Decreasing
2011 - 2013 Data: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

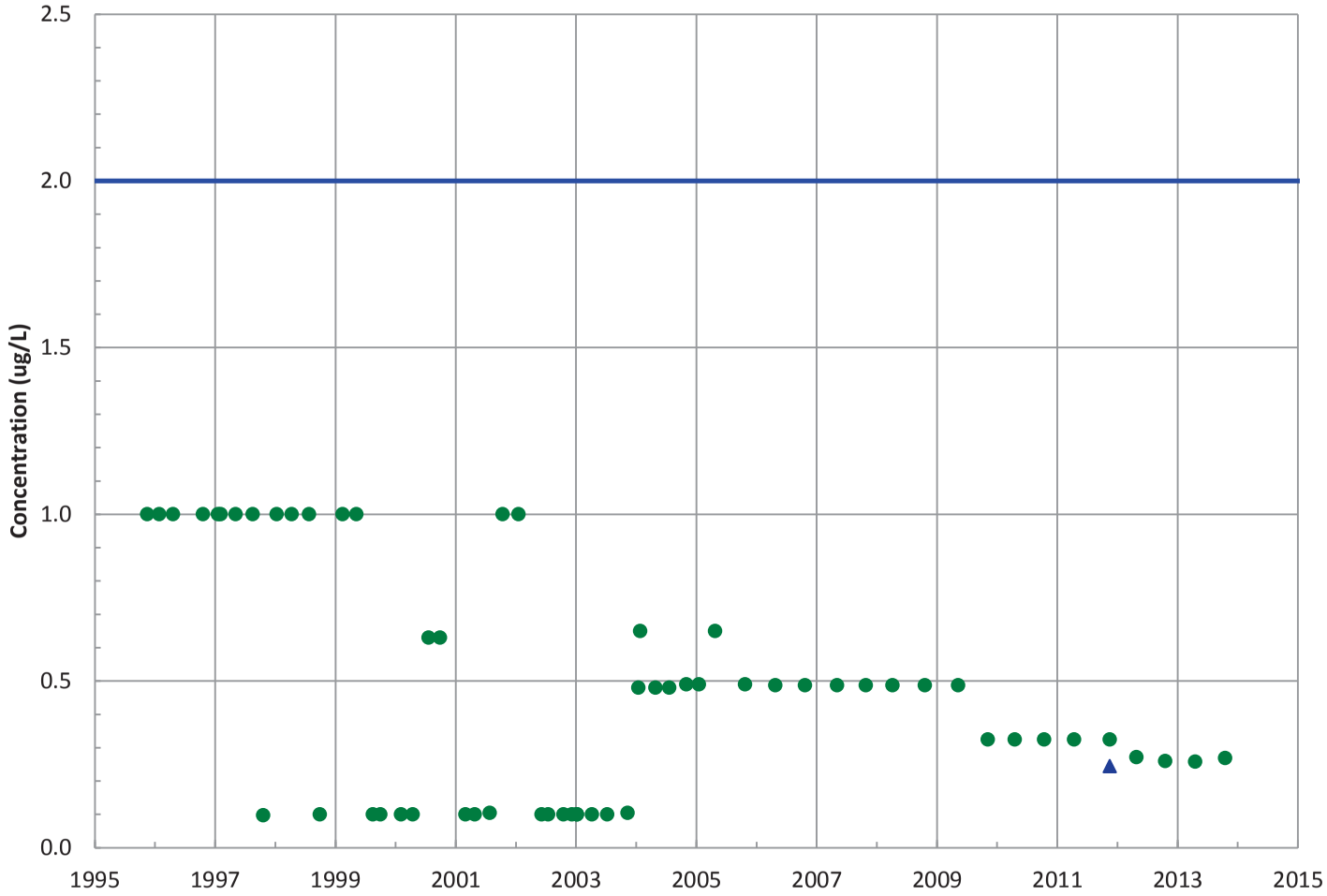
Well Location



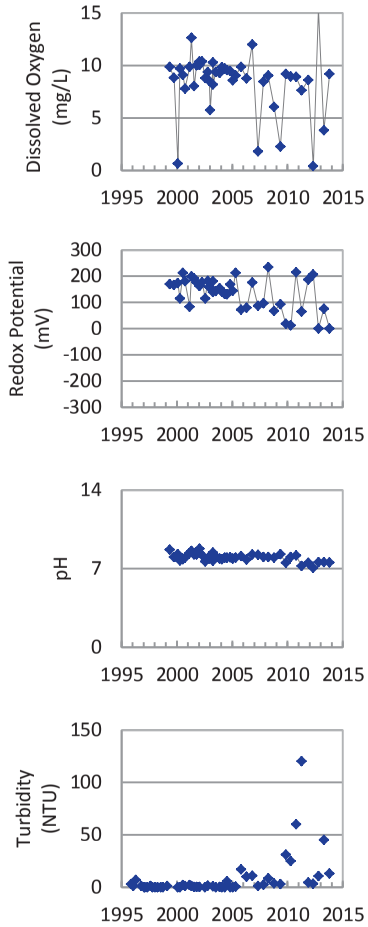
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/12/1993 to 5/13/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1001
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



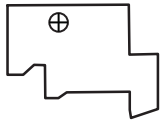
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: All Non-Detect
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

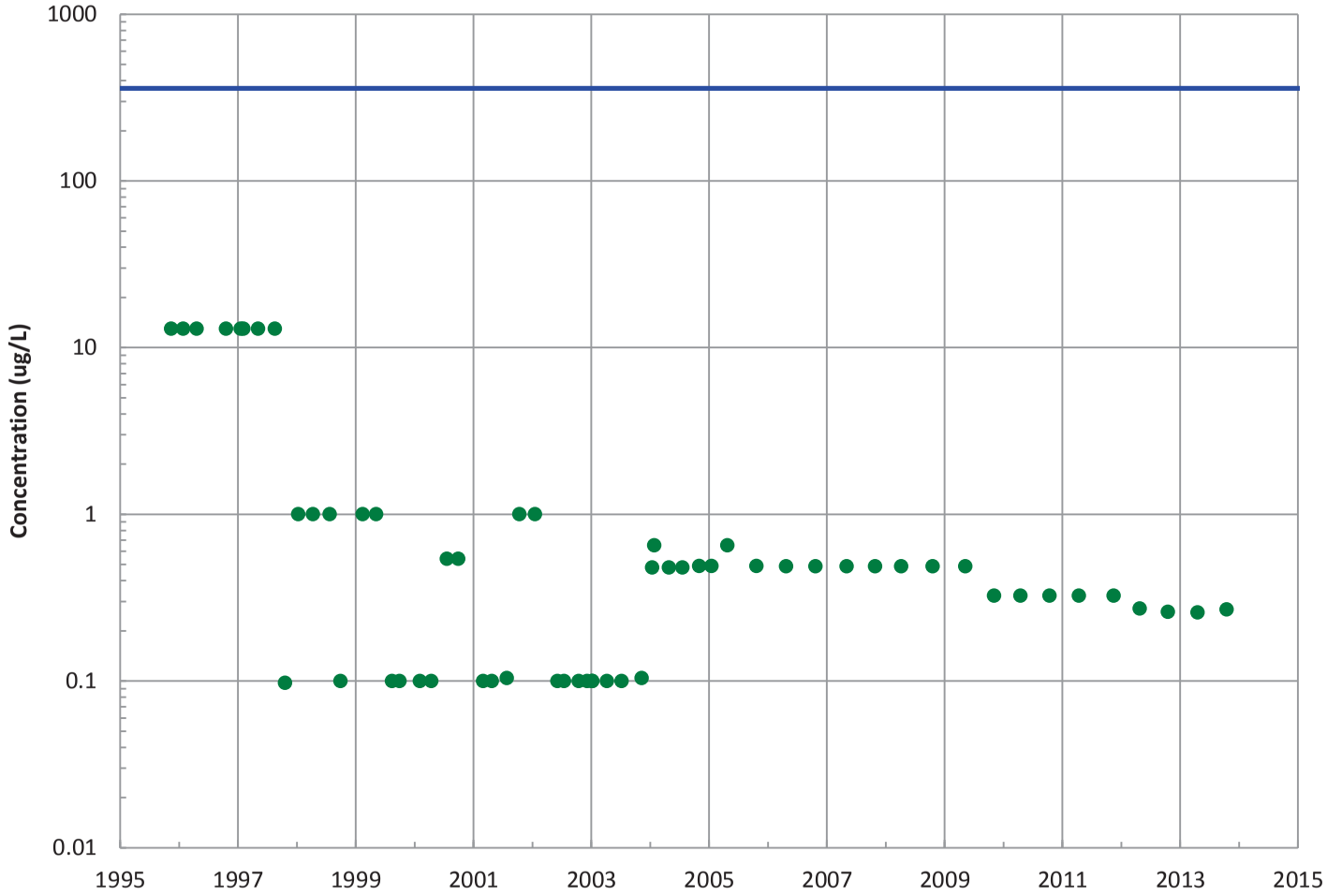
Well Location



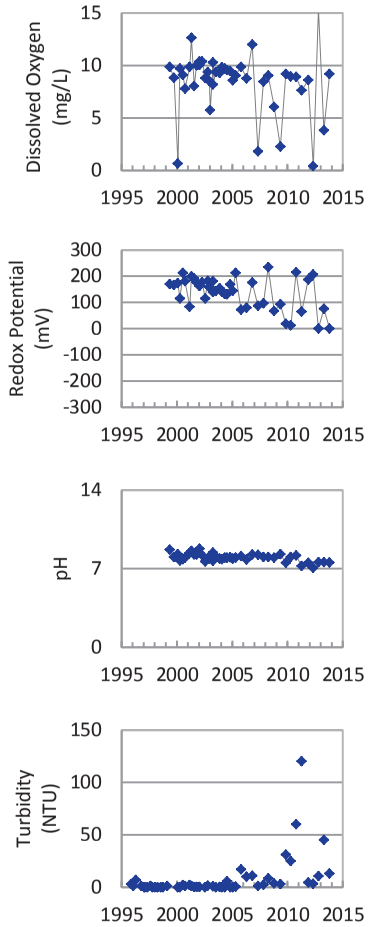
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/15/1995 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1001
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



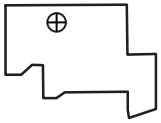
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

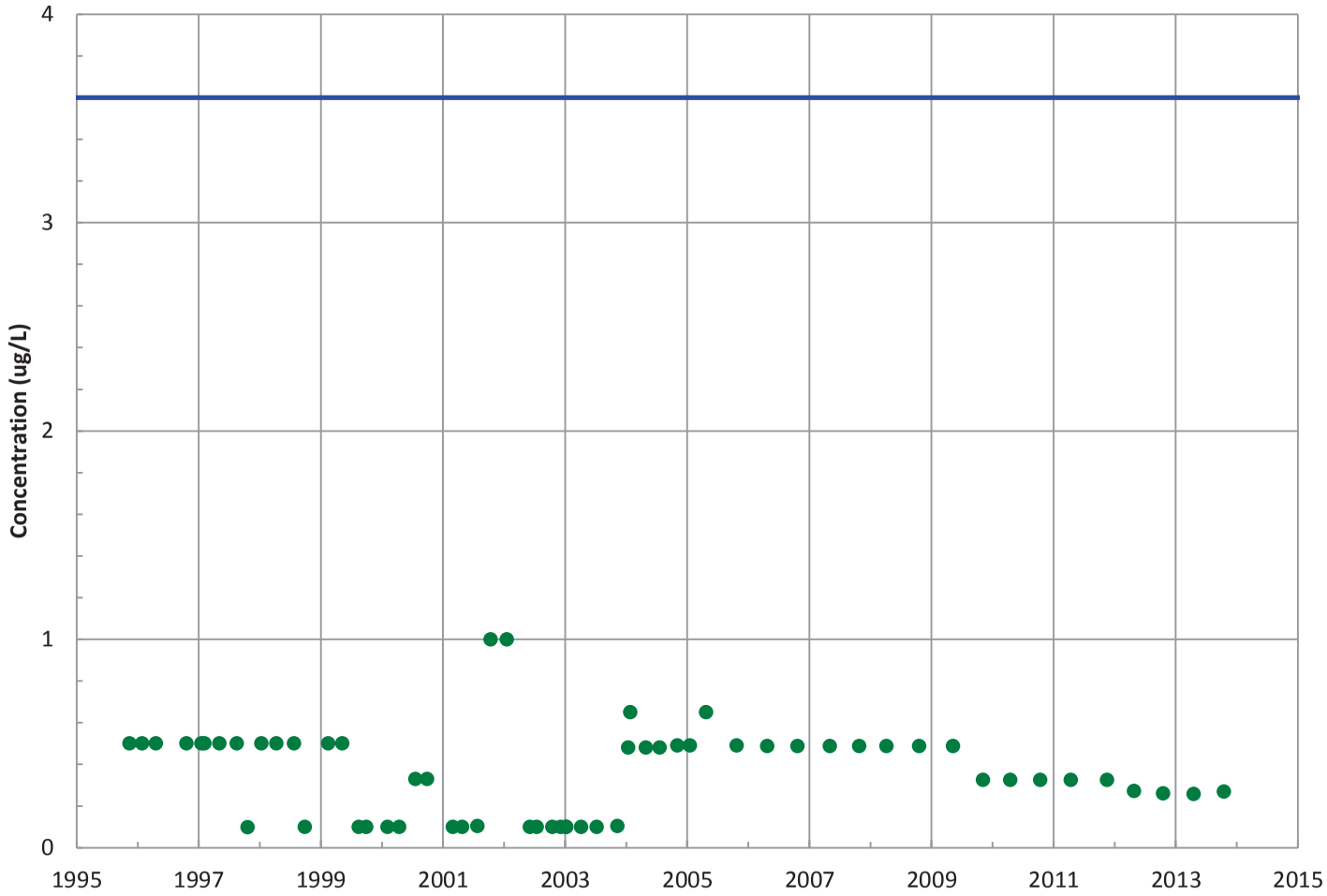
Well Location



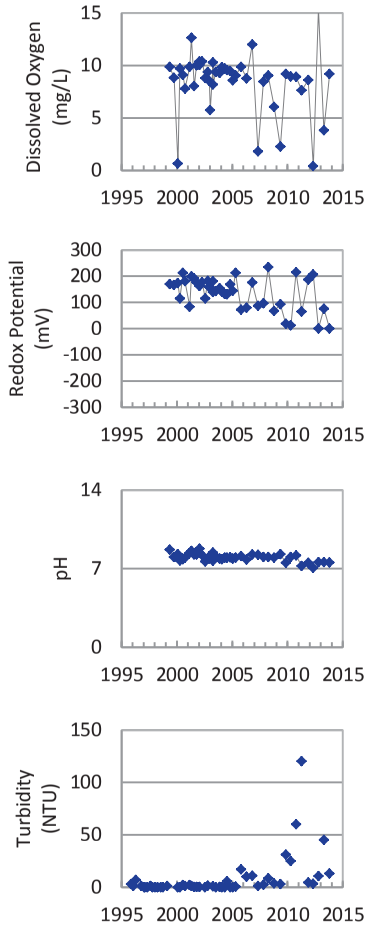
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/15/1995 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1001
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



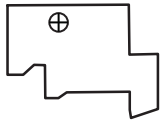
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

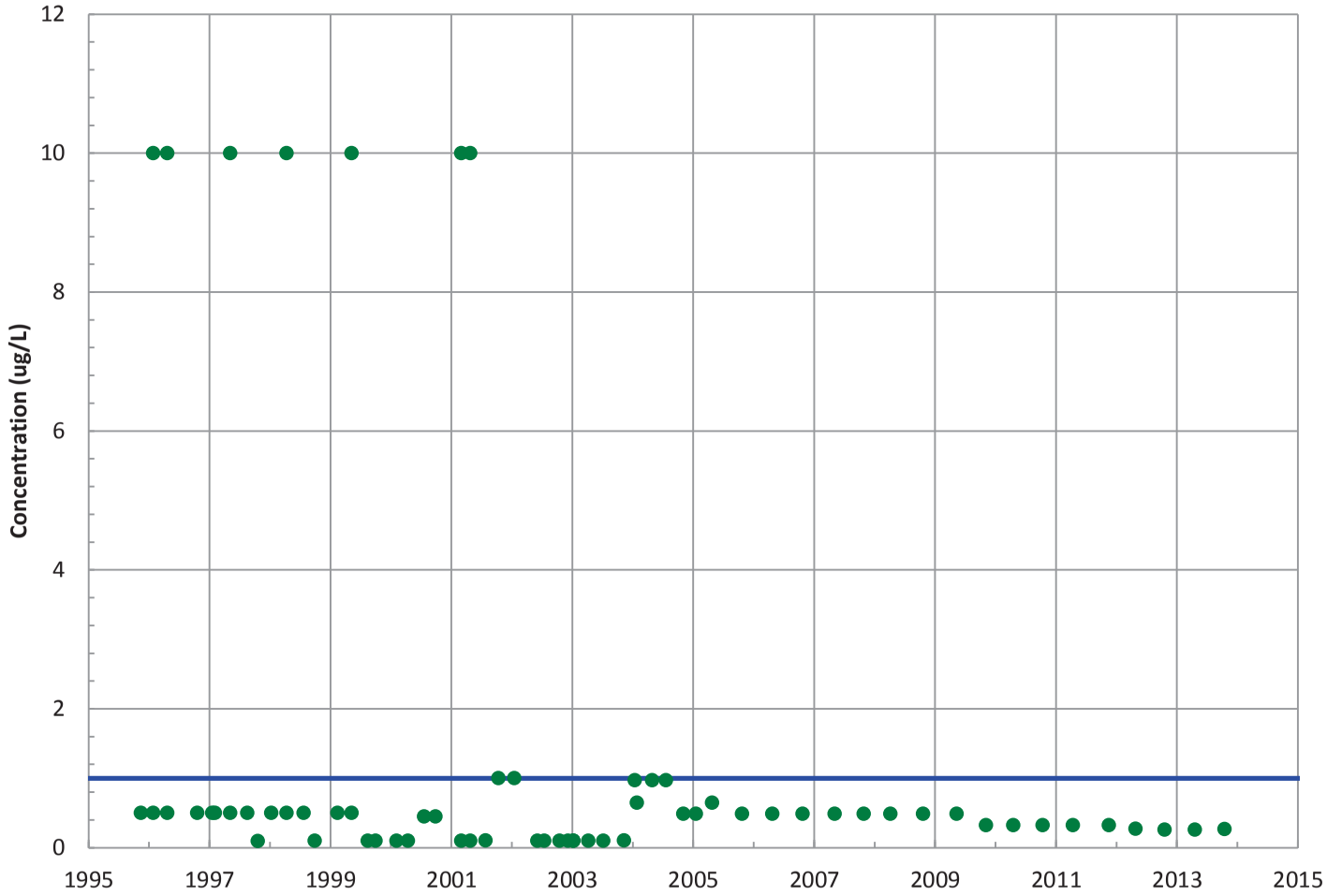
Well Location



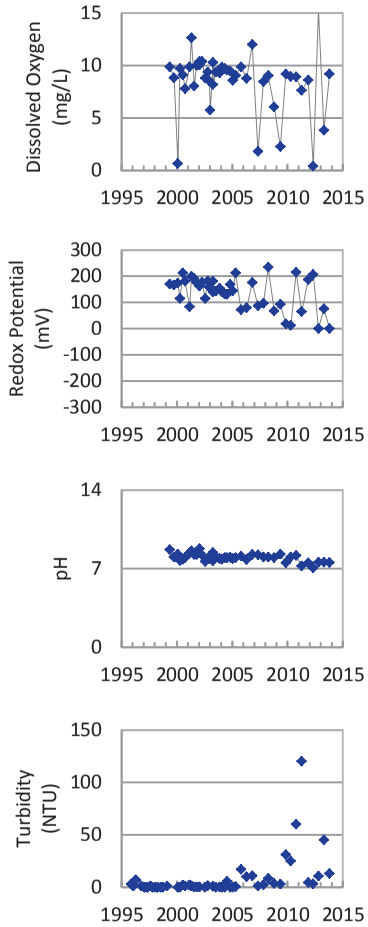
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/15/1995 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1001
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



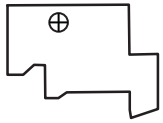
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

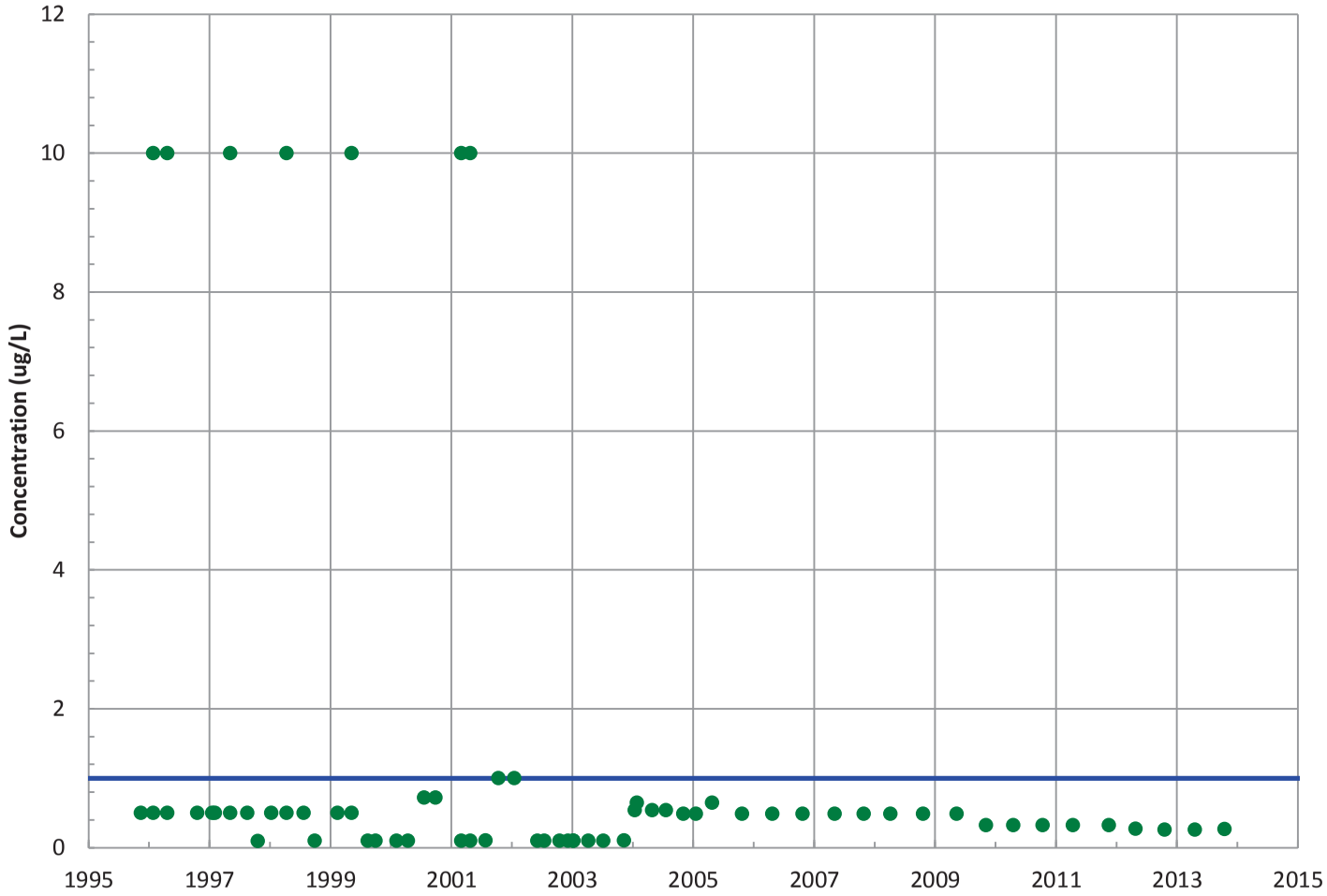
Well Location



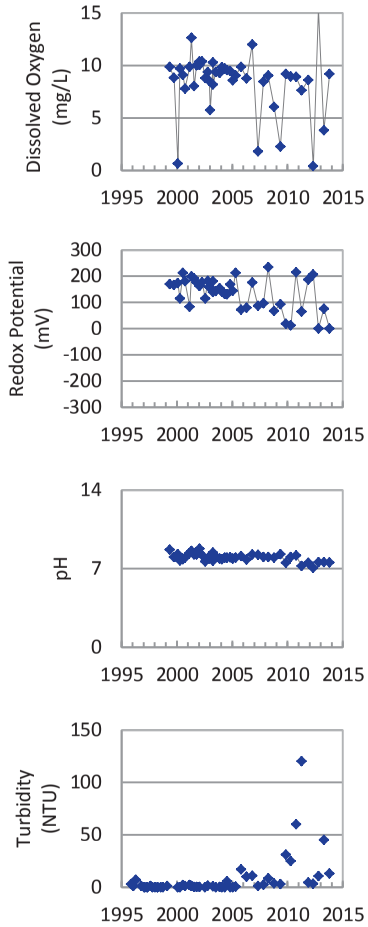
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/15/1995 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1001
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



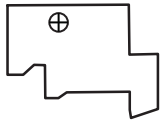
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

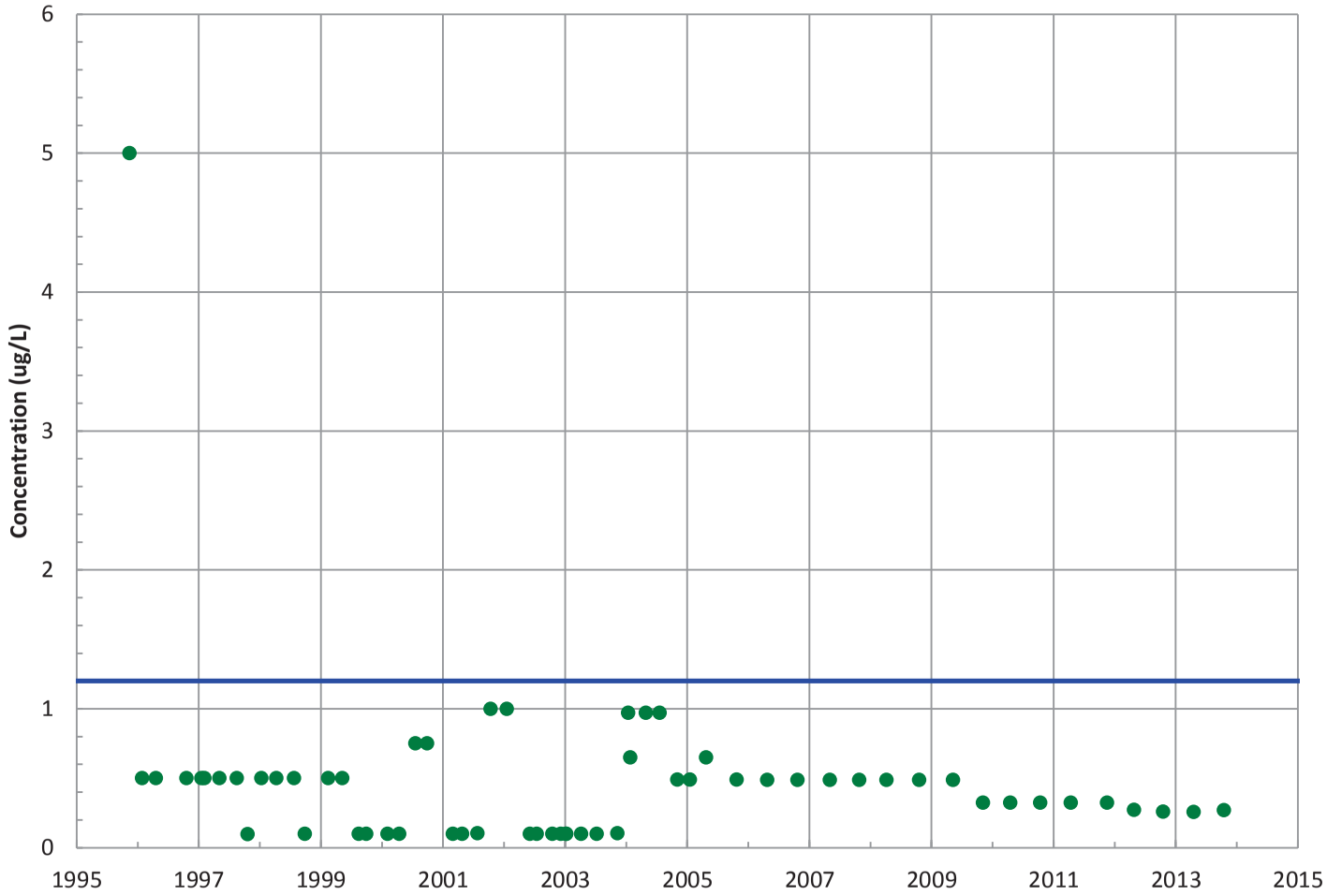
Well Location



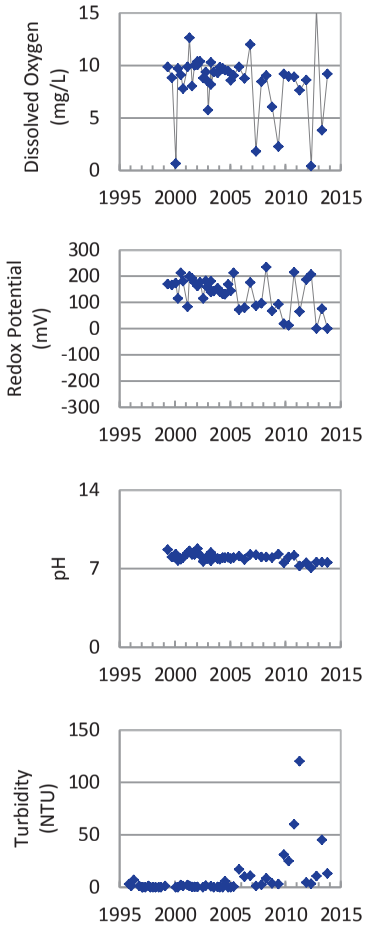
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/15/1995 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1001
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



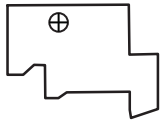
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

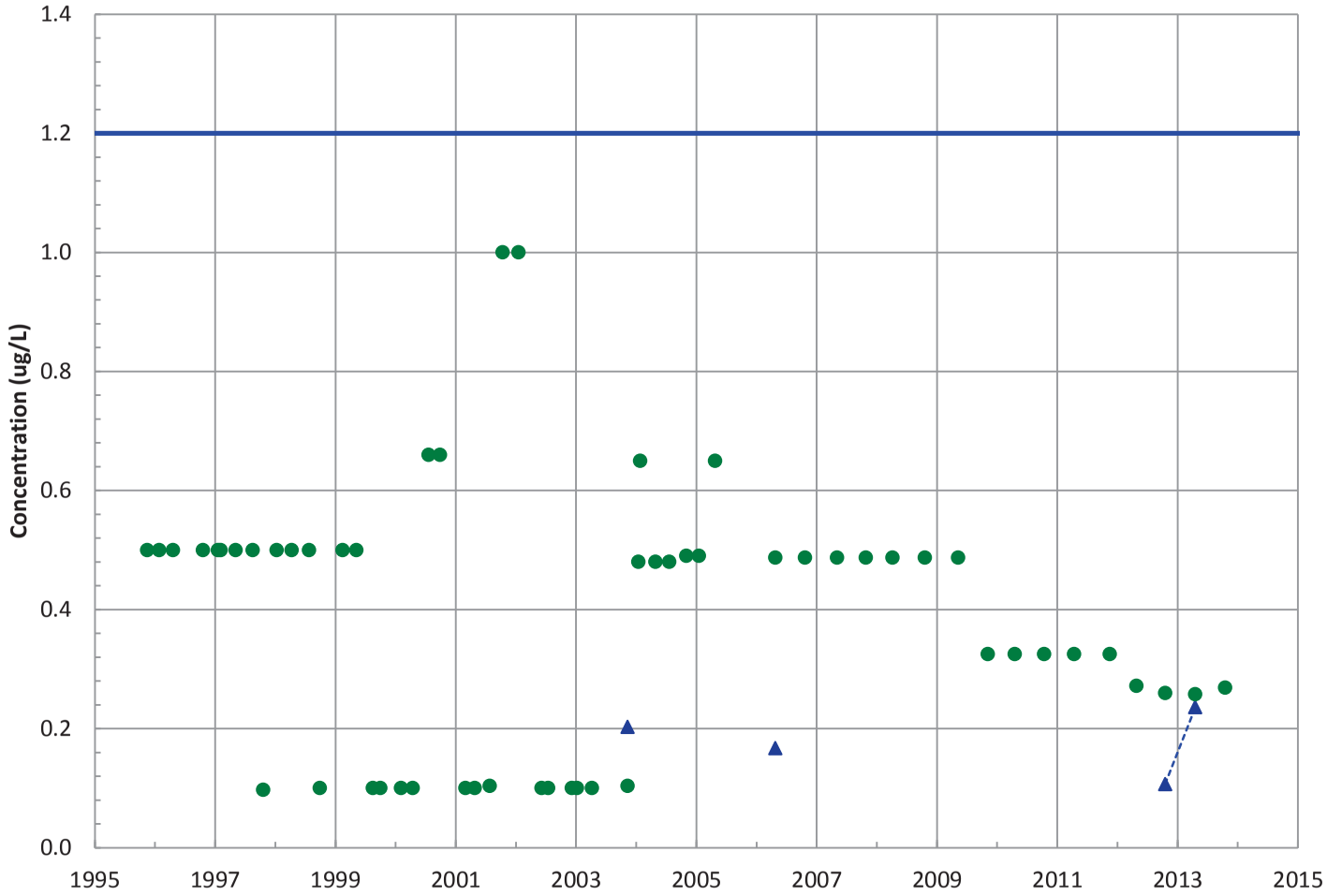
Well Location



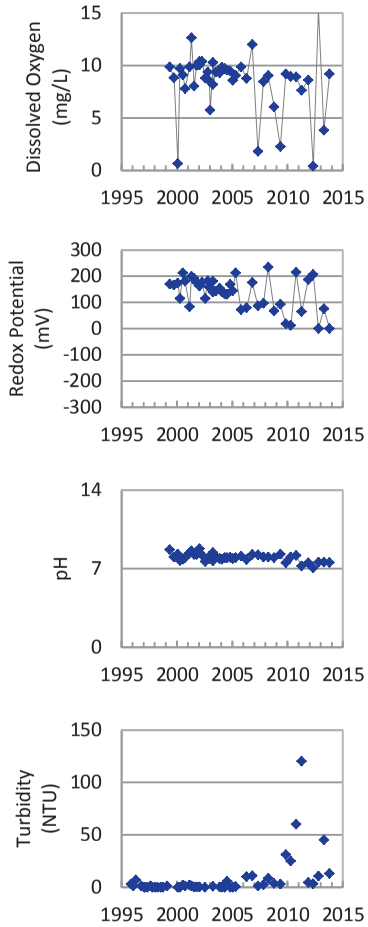
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/15/1995 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1001
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



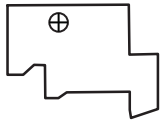
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

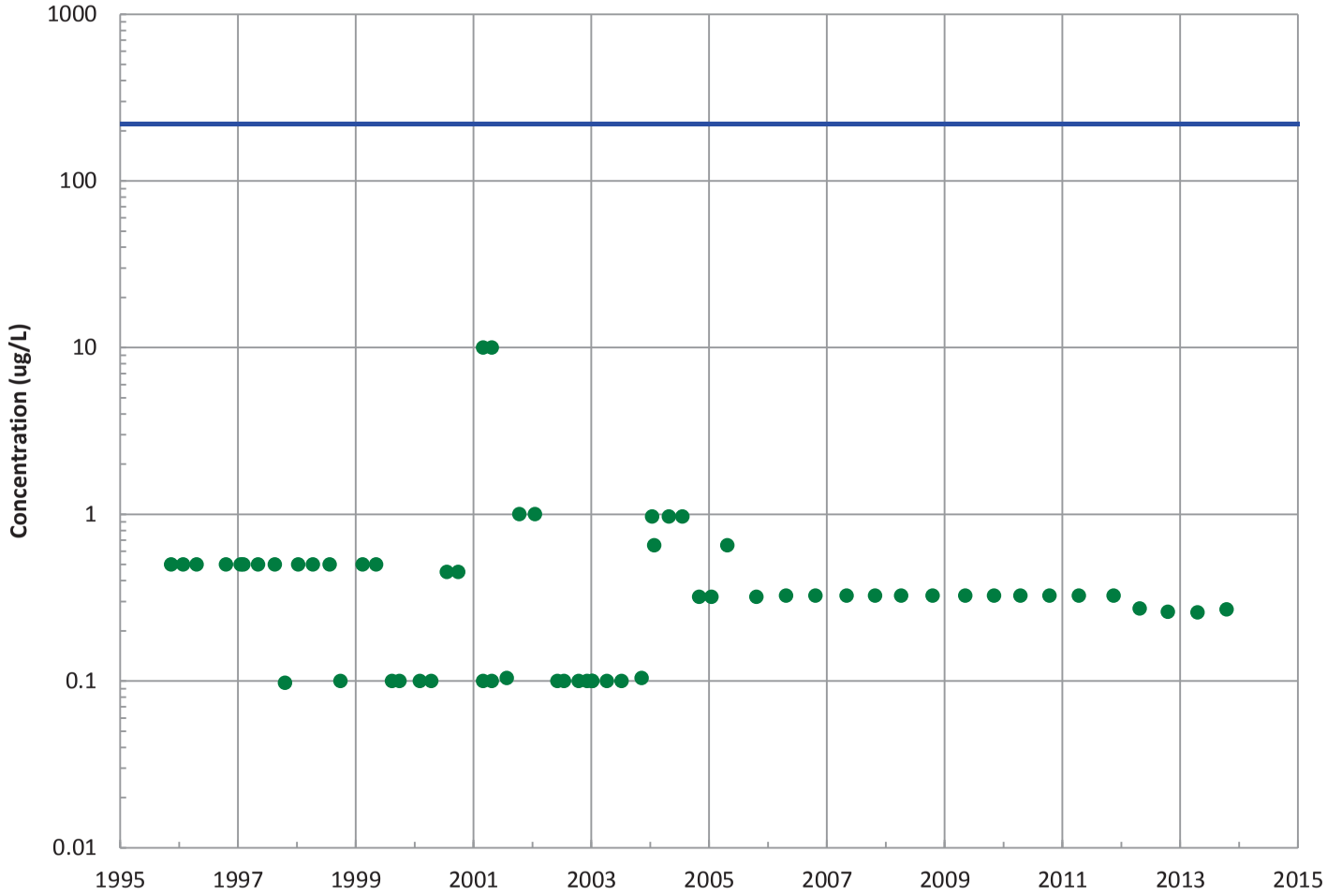
Well Location



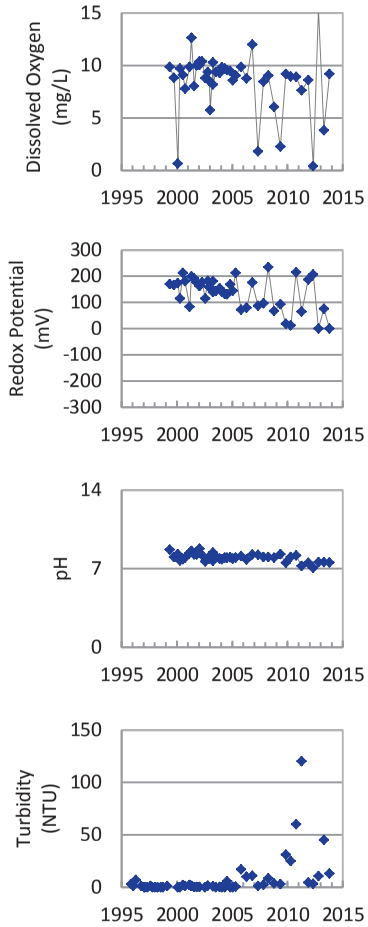
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/15/1995 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1001
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



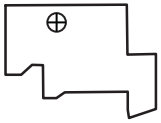
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

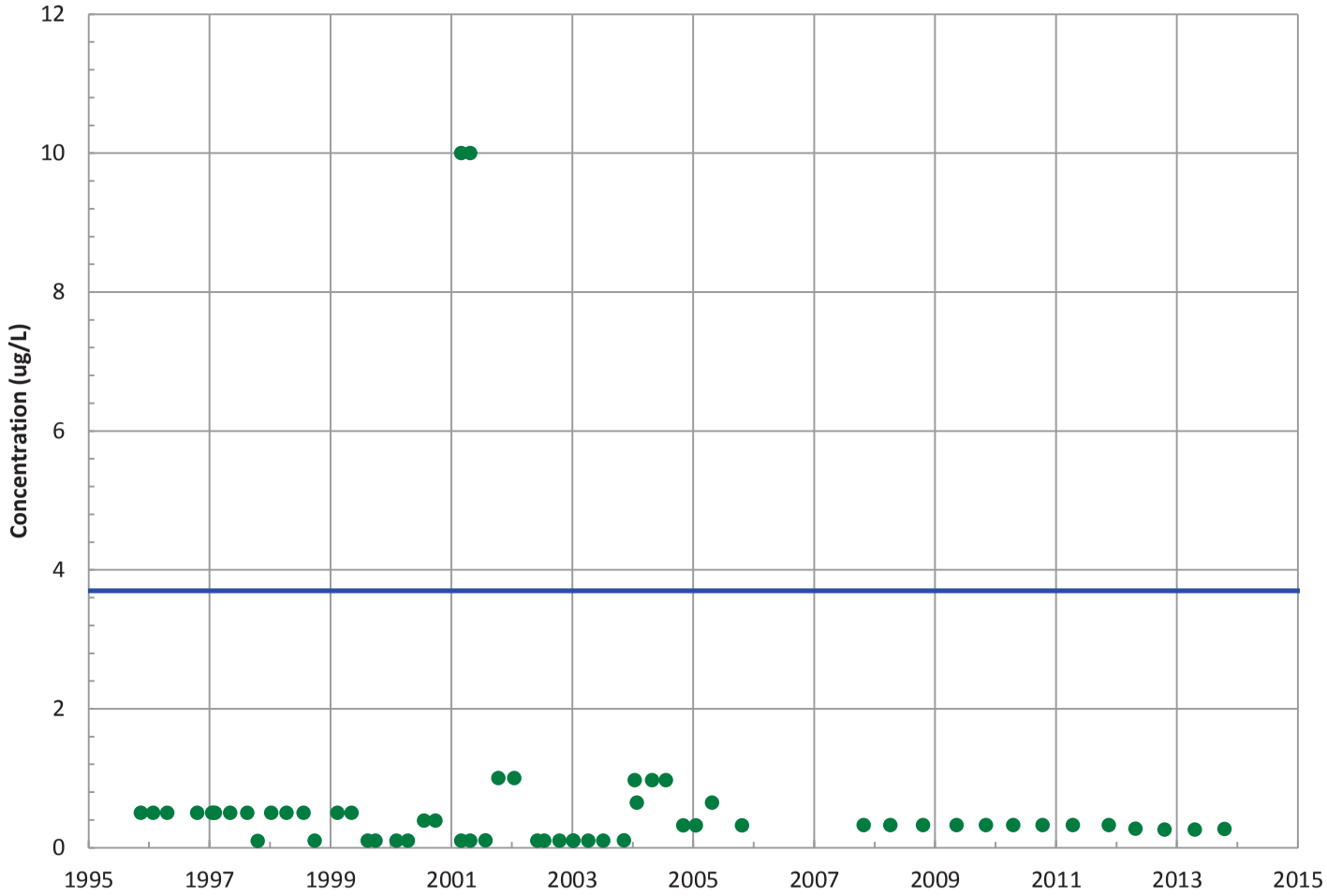
Well Location



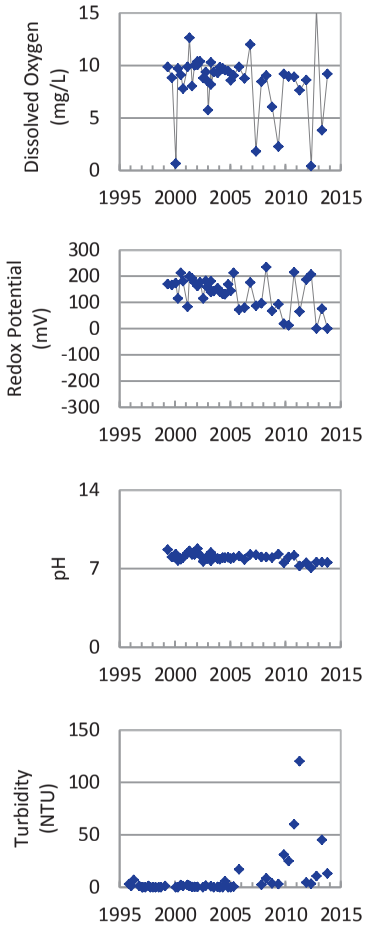
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/15/1995 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1001
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



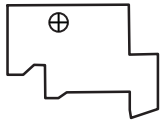
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

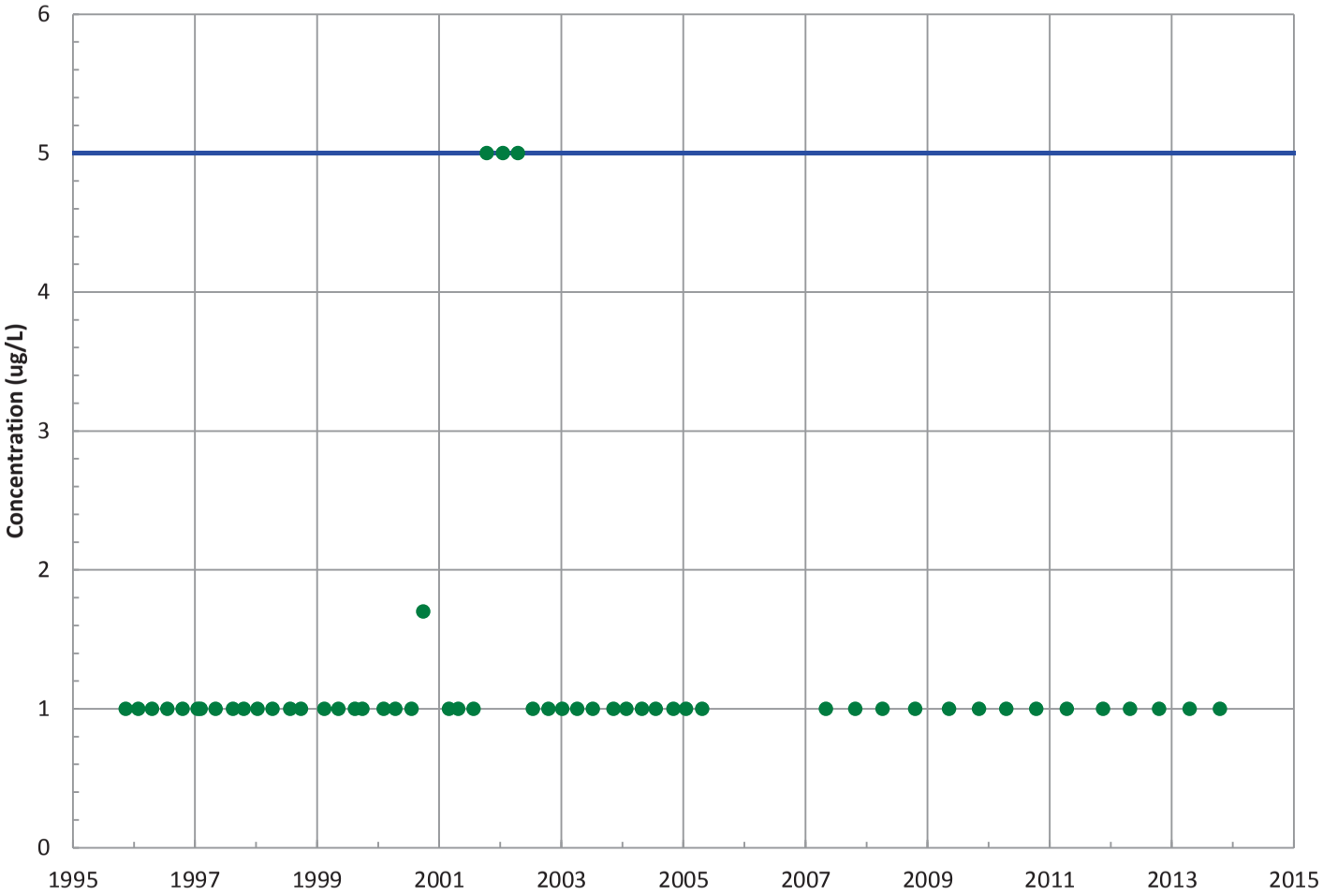
Well Location



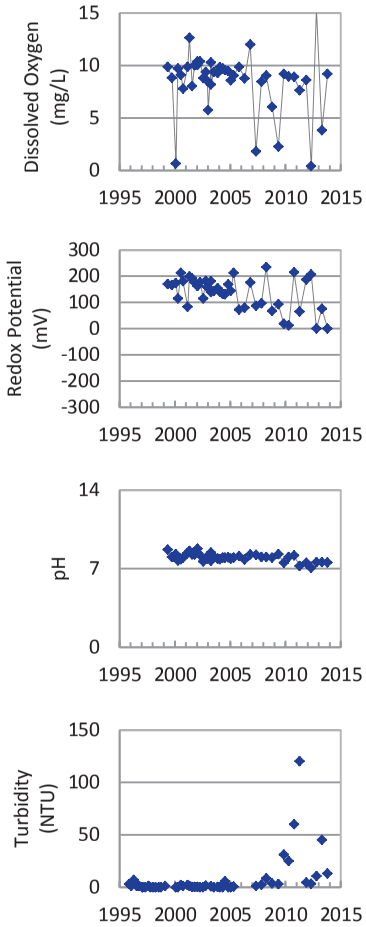
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/15/1995 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1001
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



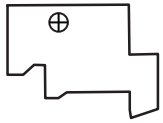
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

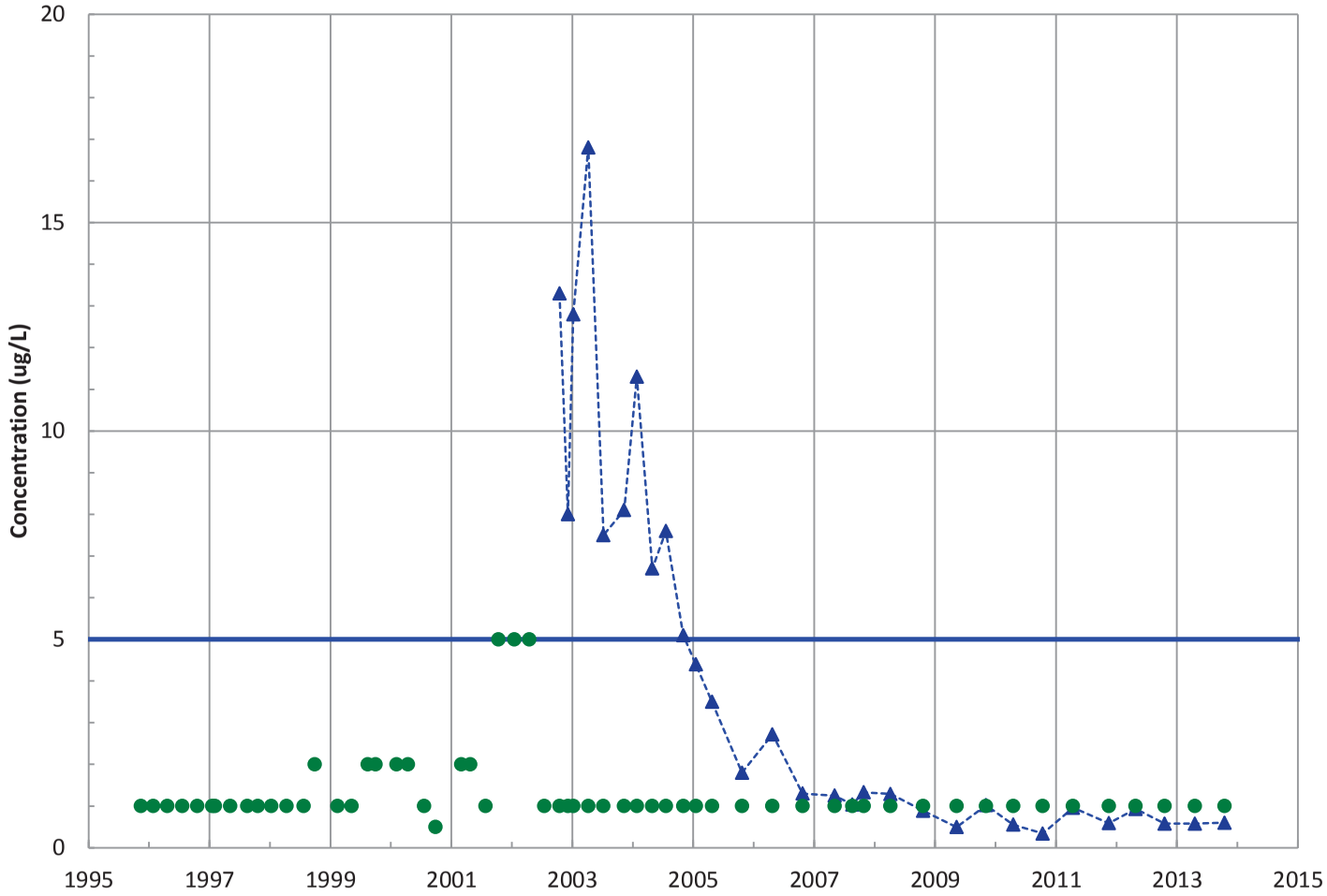
Well Location



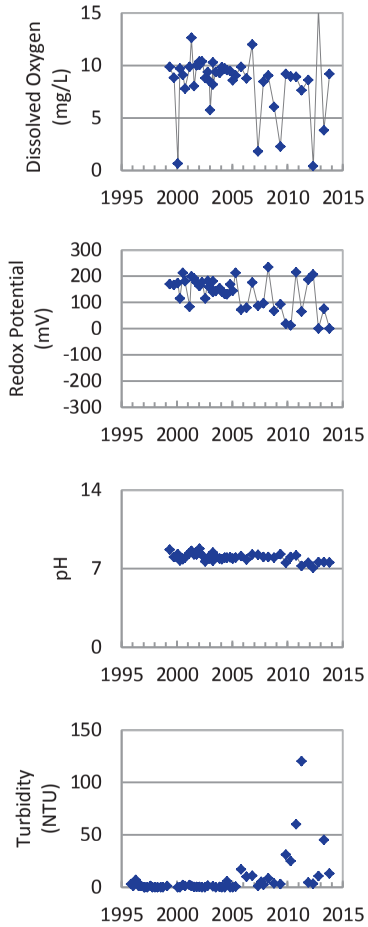
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/15/1995 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1001
Trichloroethene Trend in Perched Aquifer



Field Parameters



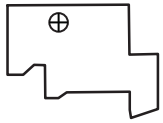
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

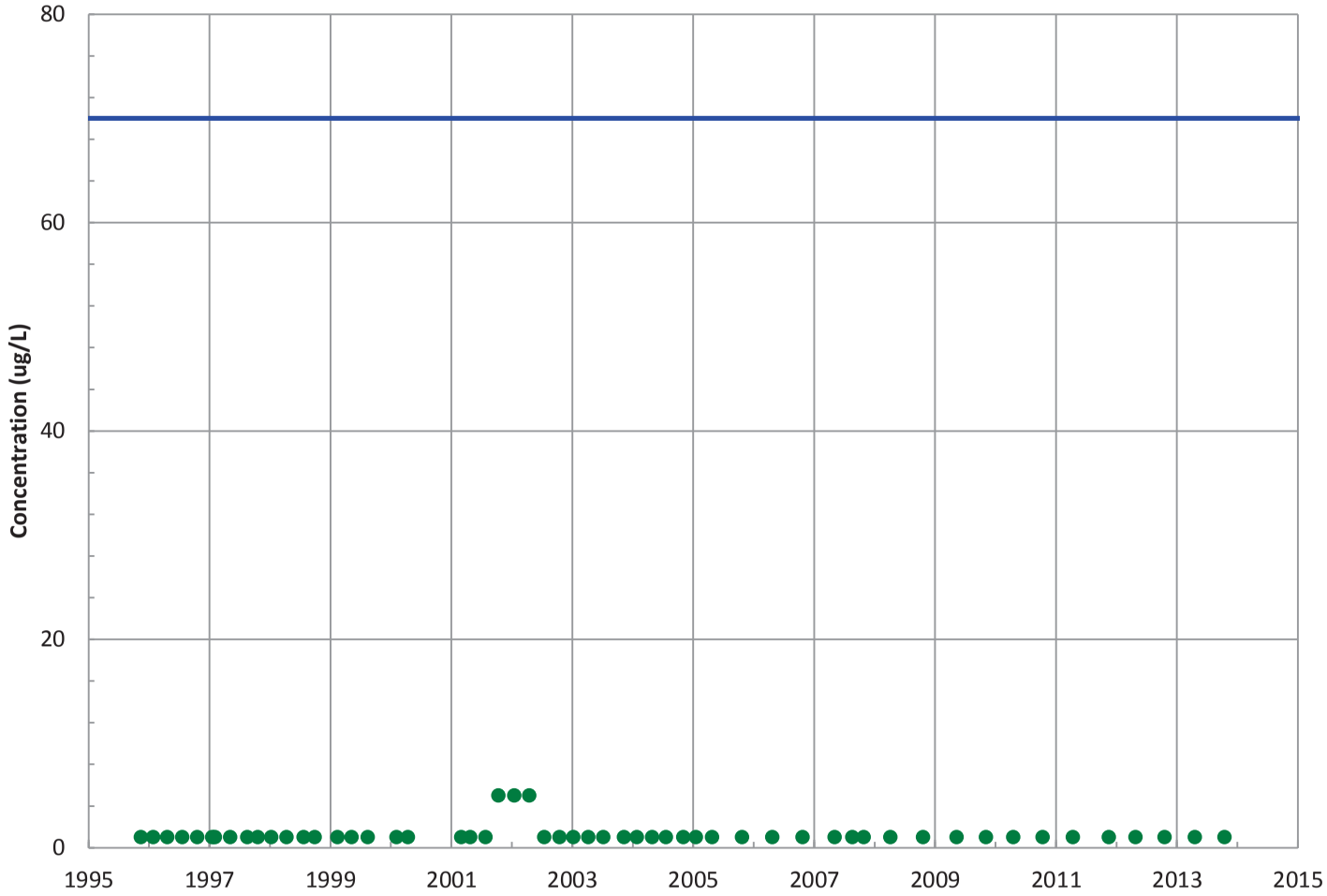
Well Location



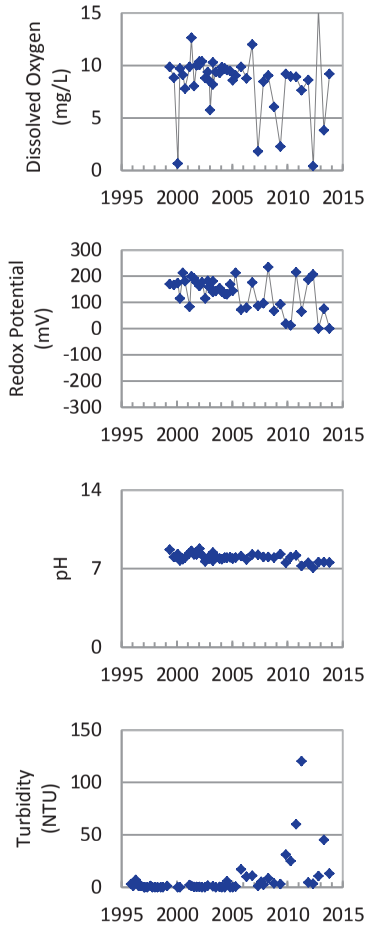
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/15/1995 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1001
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



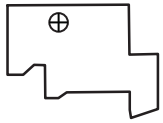
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

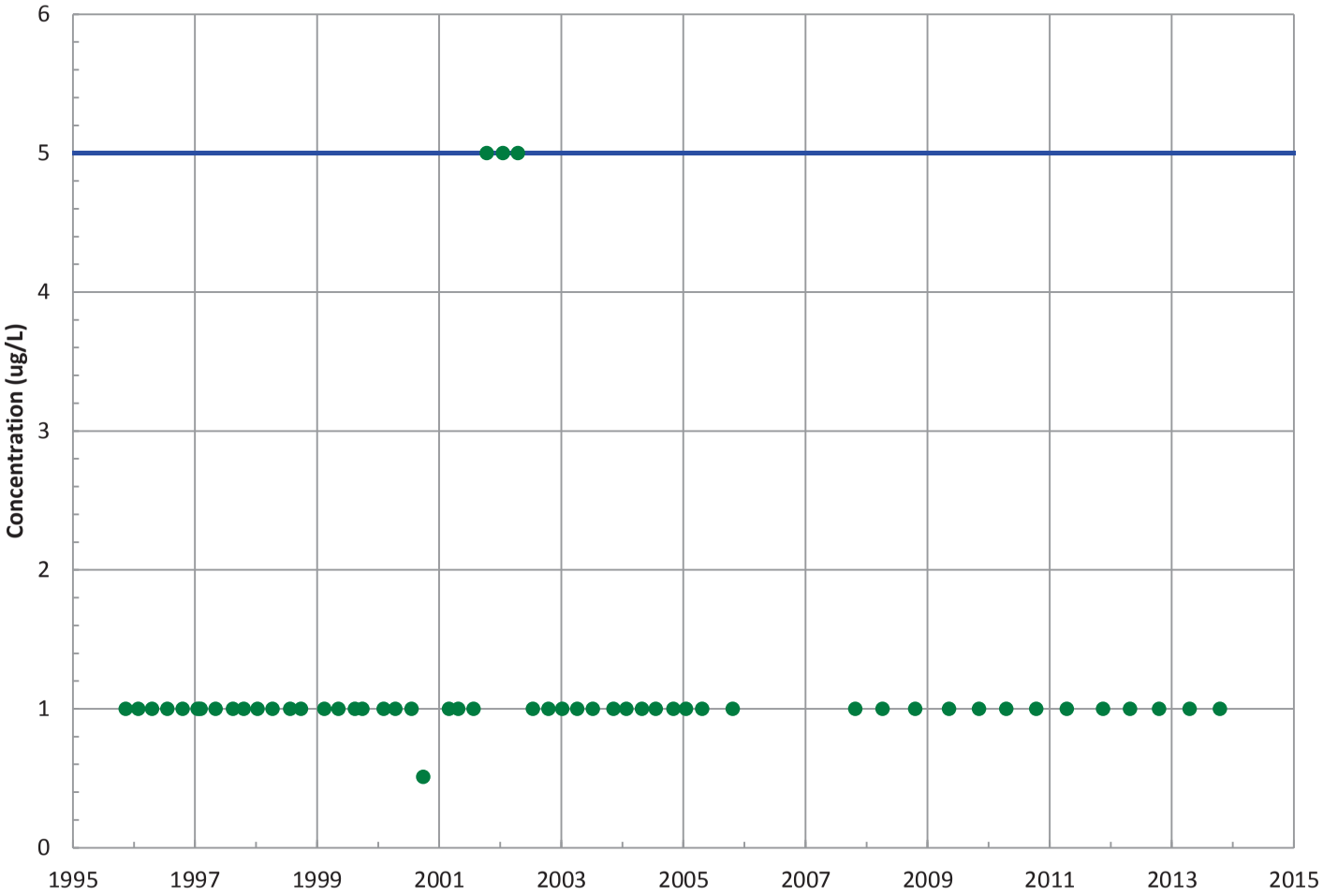
Well Location



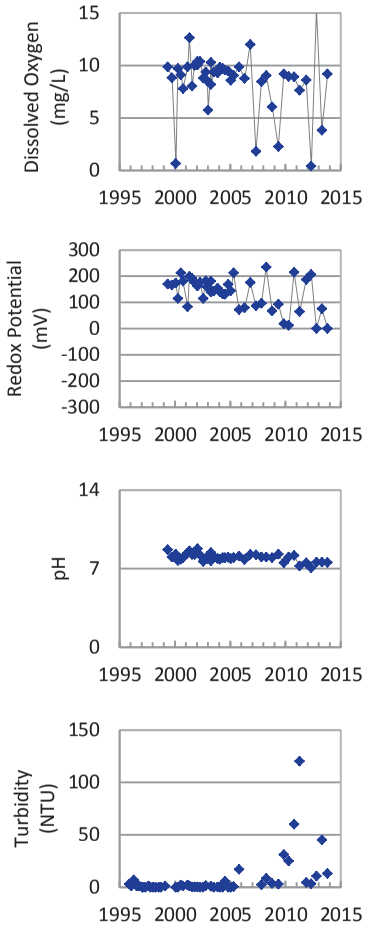
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/15/1995 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1001
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



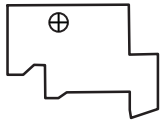
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

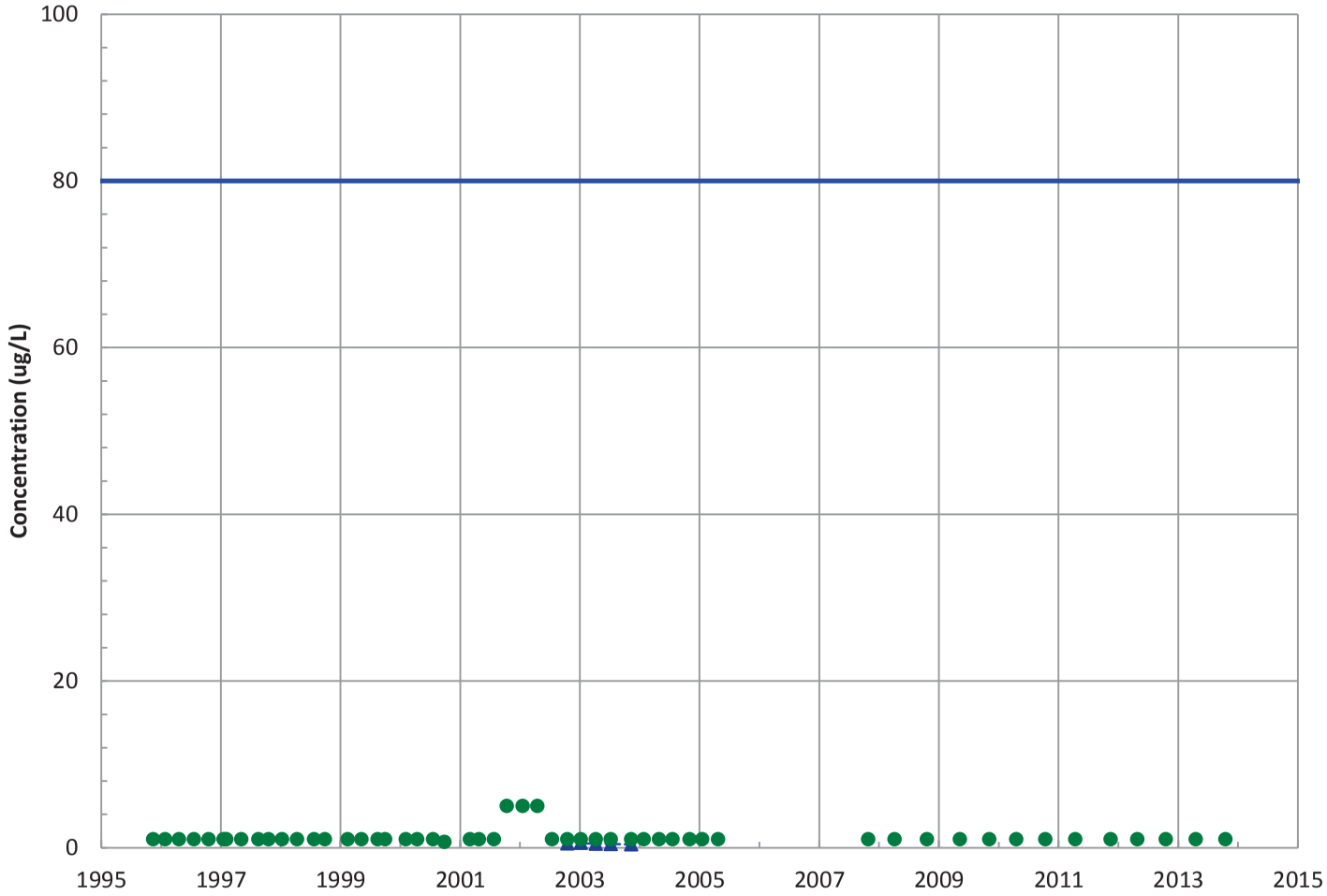
Well Location



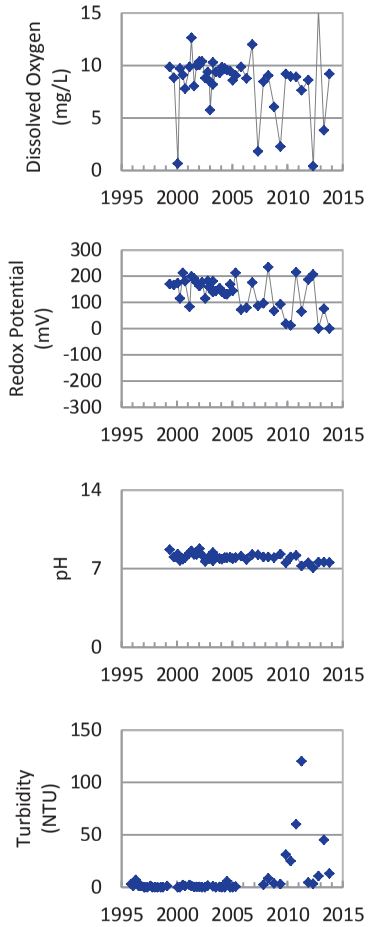
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/15/1995 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1001
Chloroform Trend in Perched Aquifer



Field Parameters



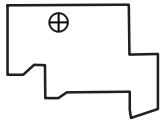
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: Decreasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

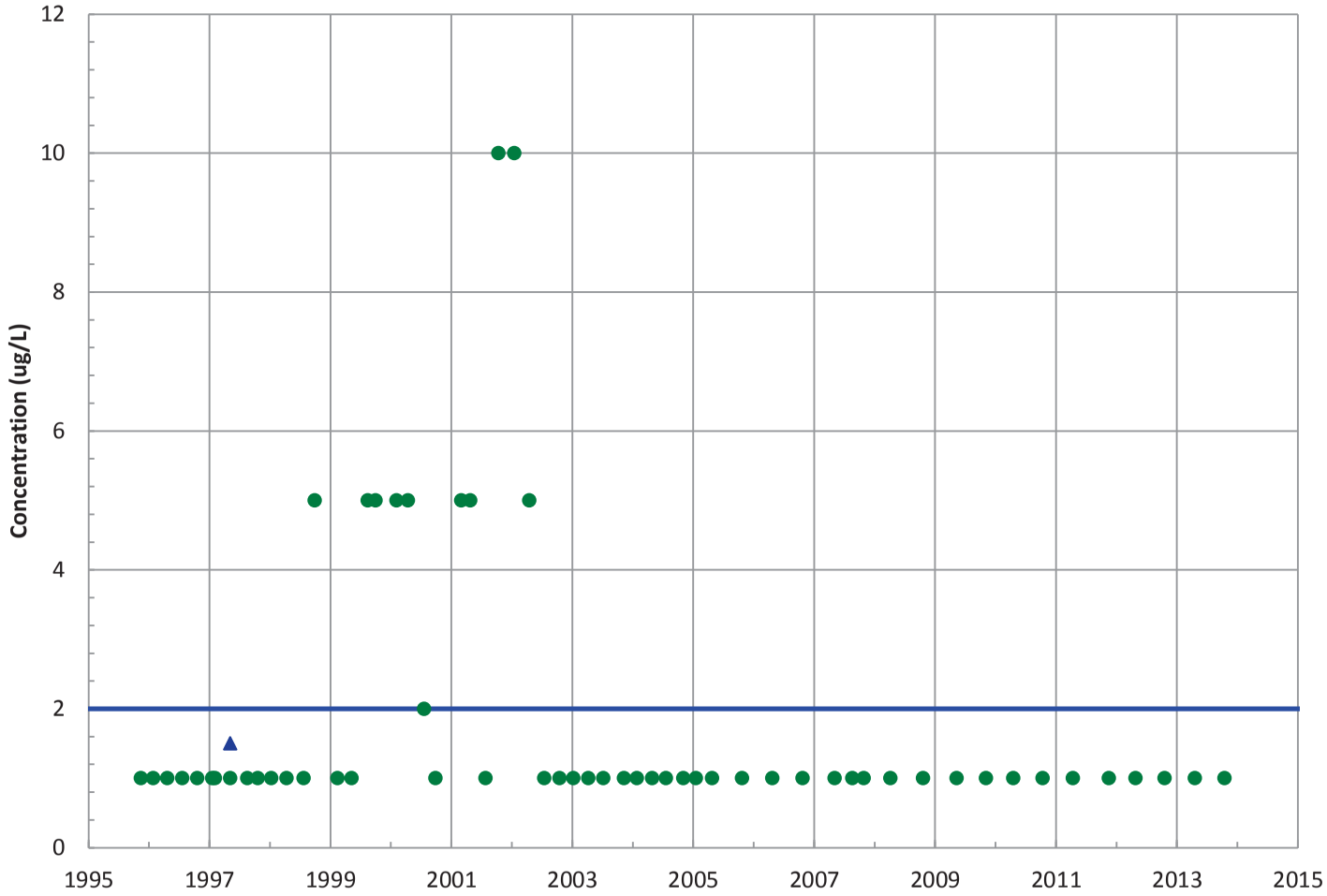
Well Location



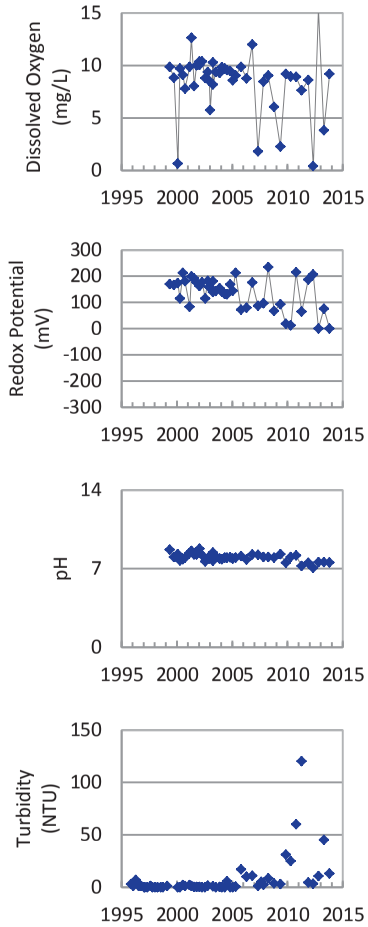
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/15/1995 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1001
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



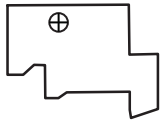
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

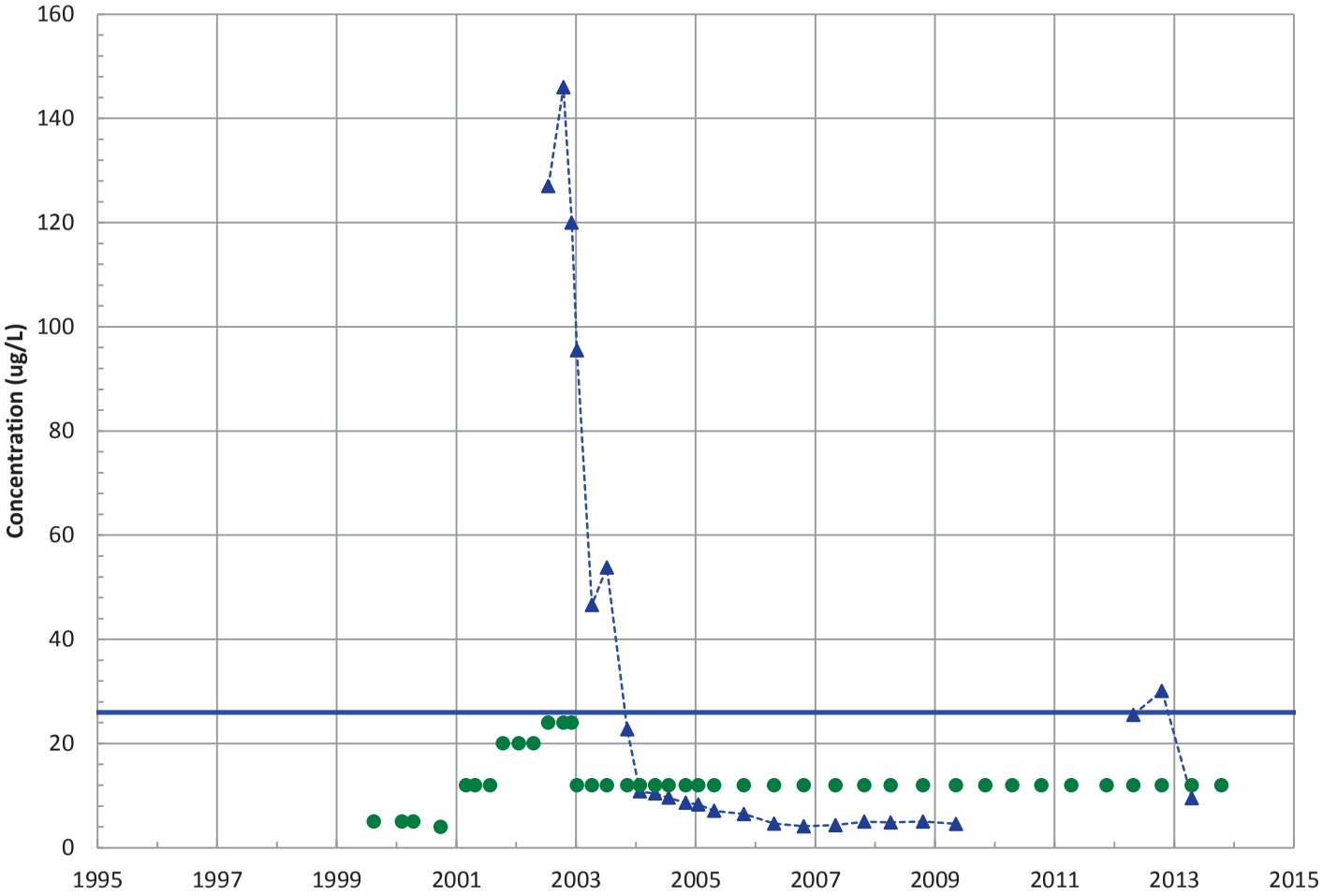
Well Location



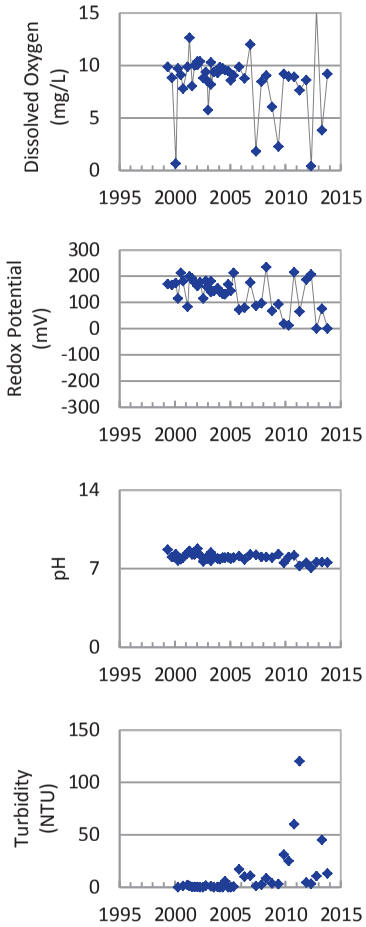
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/15/1995 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1001
Perchlorate Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: N/A (<4 Detections in

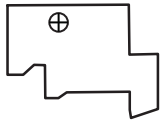
MAROS Linear Regression Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

Well Location



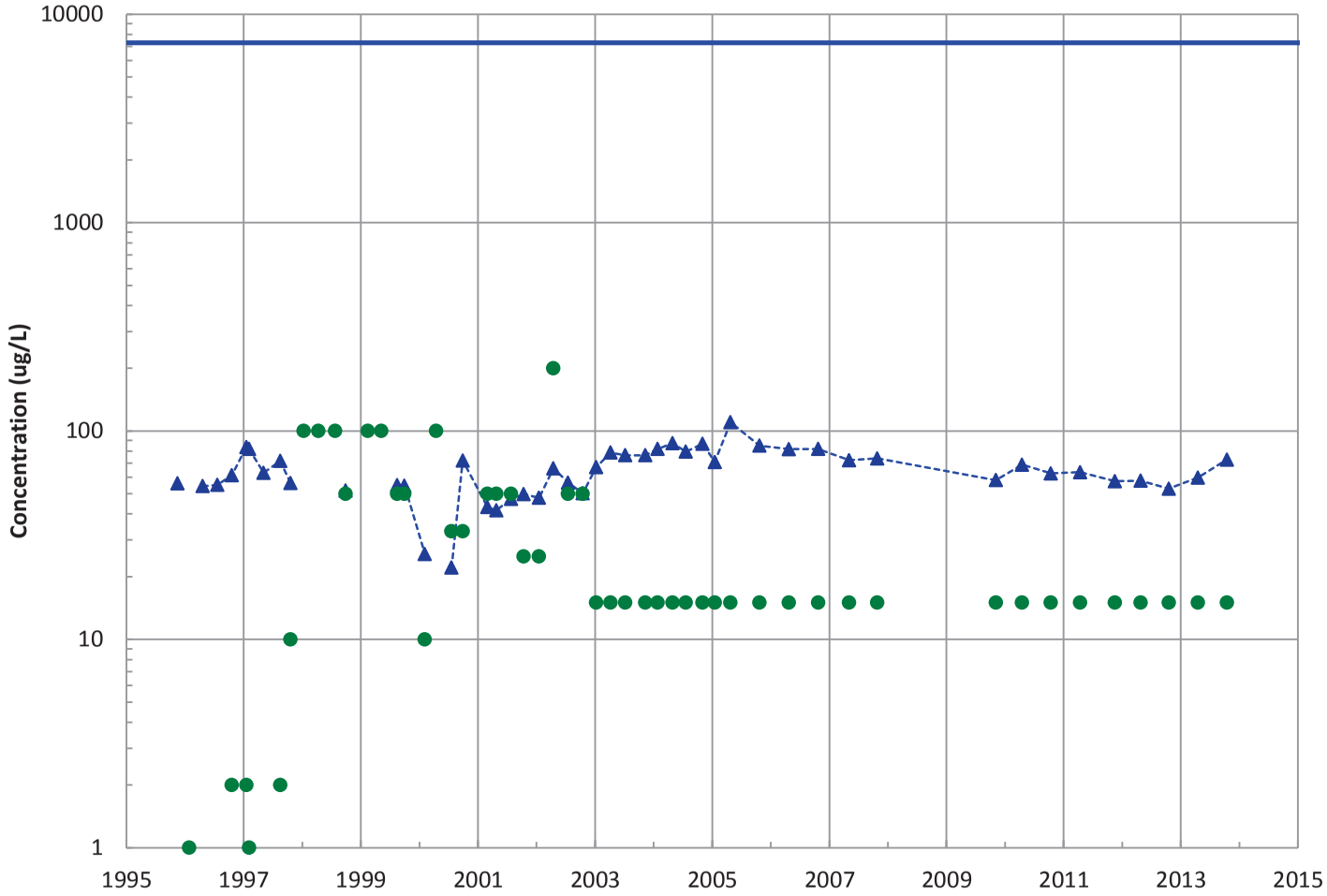
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 8/19/1999 to 10/30/2013

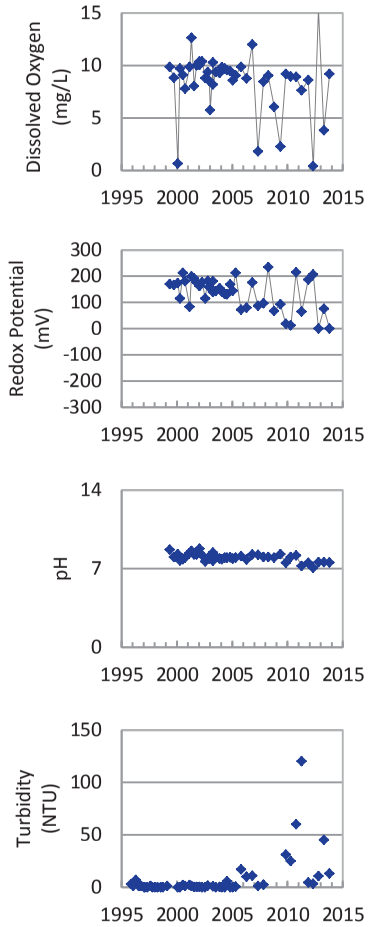
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1001
Boron Trend in Perched Aquifer



Field Parameters



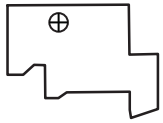
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

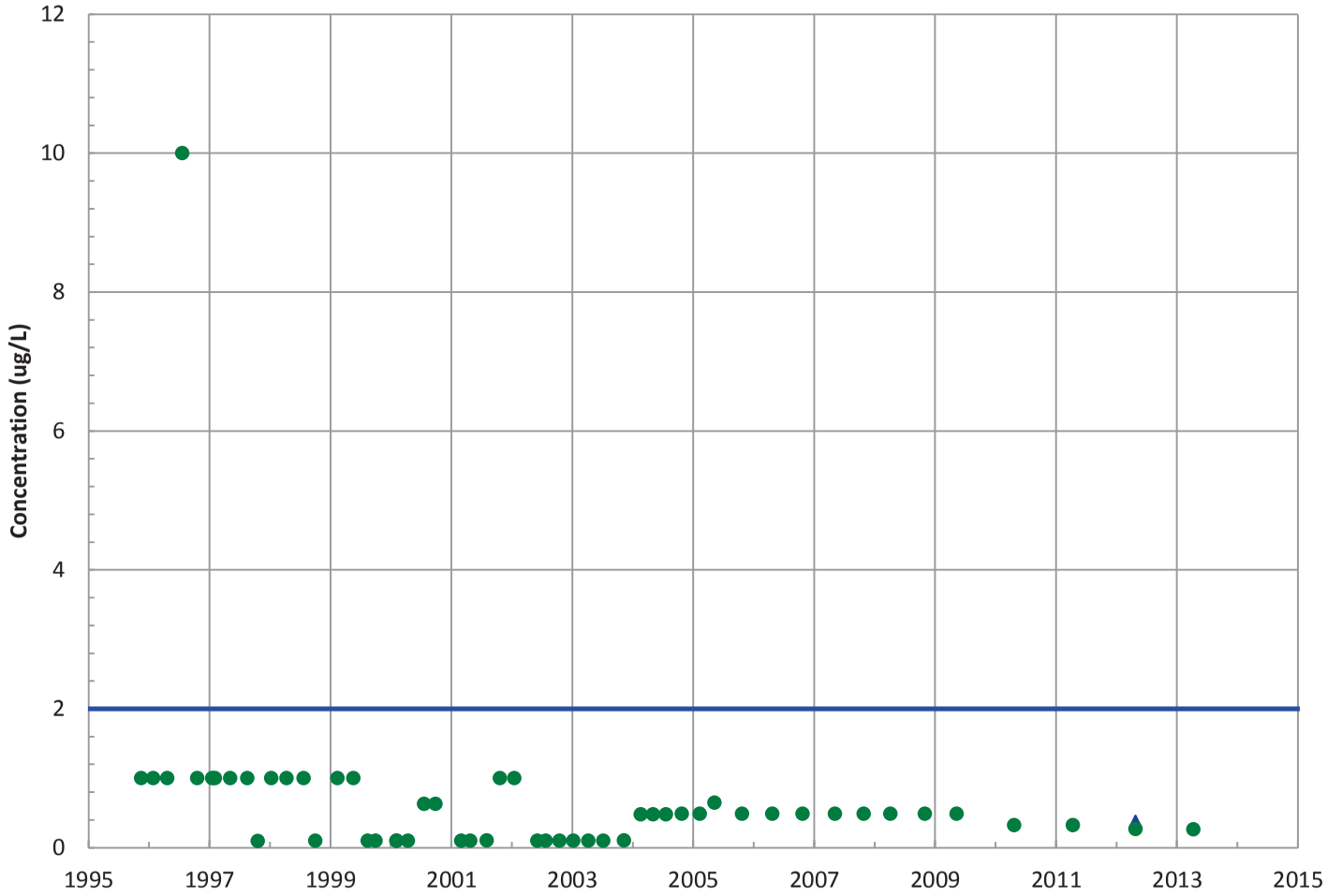
Well Location



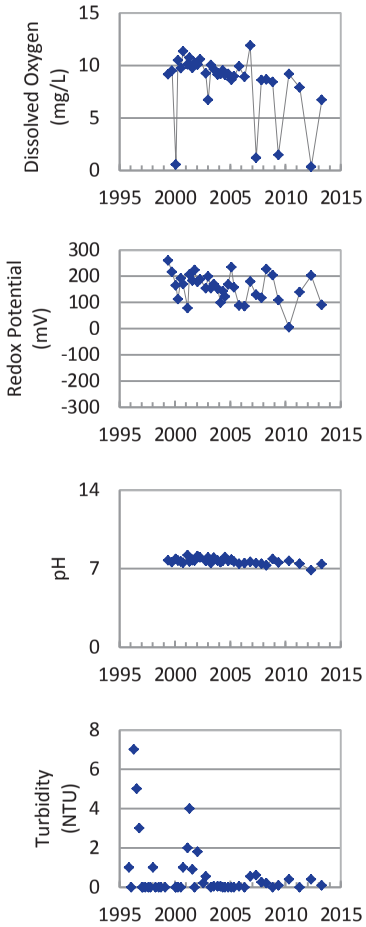
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/15/1995 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1002
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: N/A (<4 Detections in

MAROS Linear Regression Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: N/A (<4 Detections in

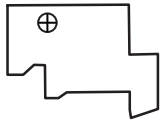
▲ Measured Value

● Sample Detection Limit

------- Concentration Trend

——— Groundwater Protection Standard

Well Location



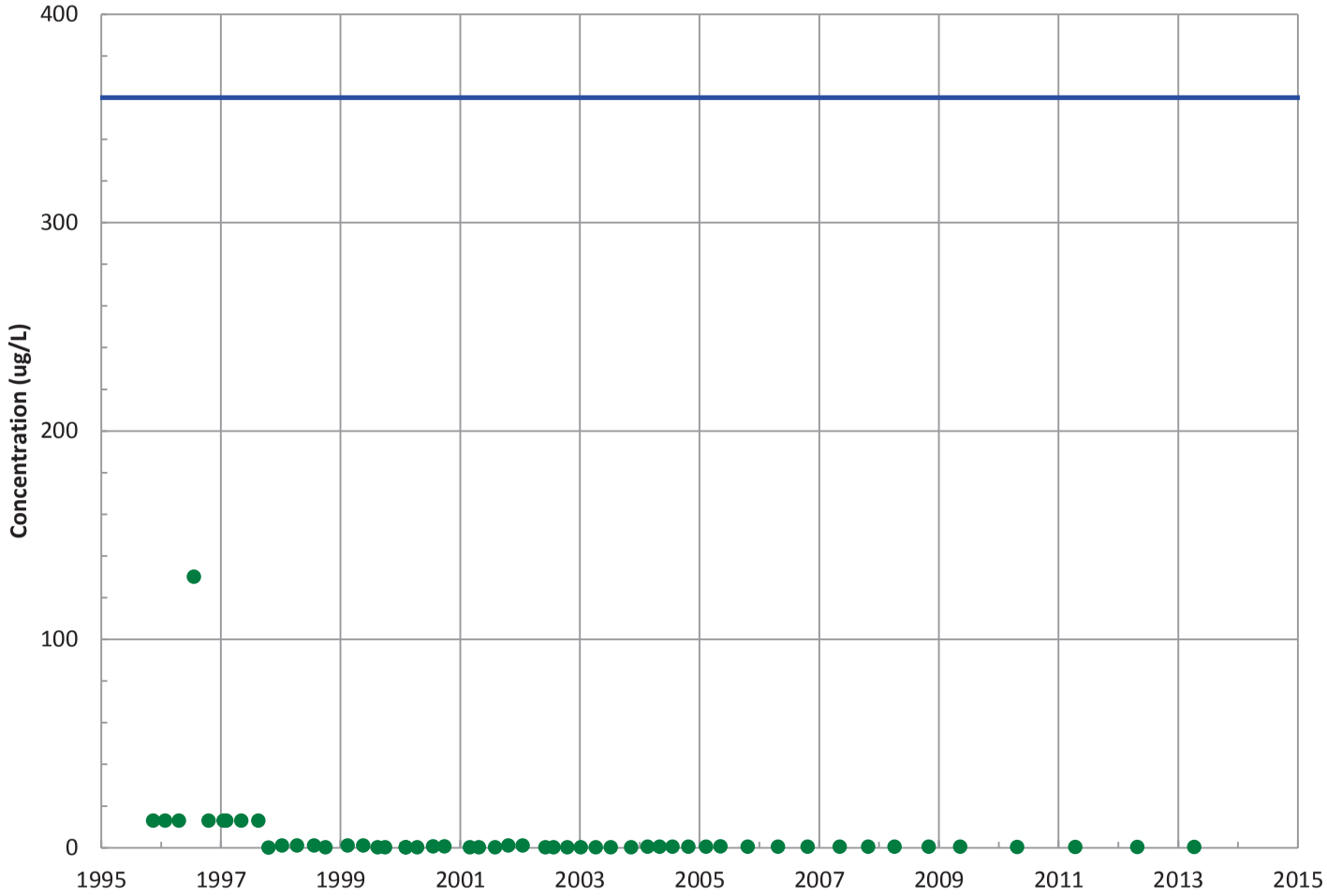
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 11/16/1995 to 4/23/2013

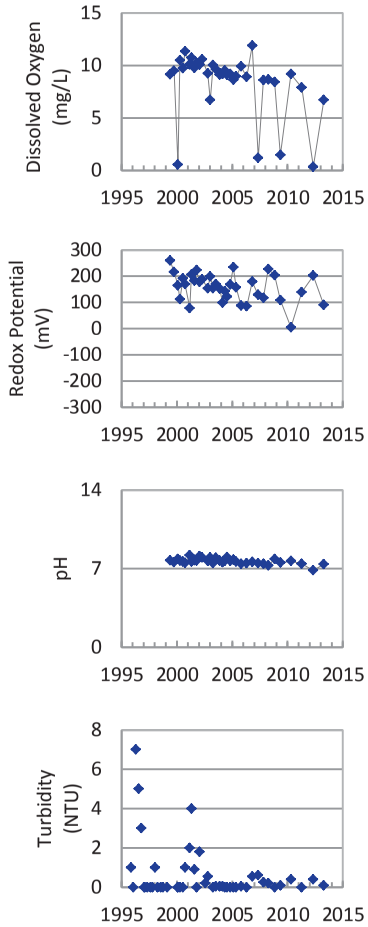
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1002
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



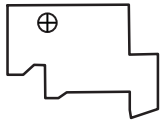
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

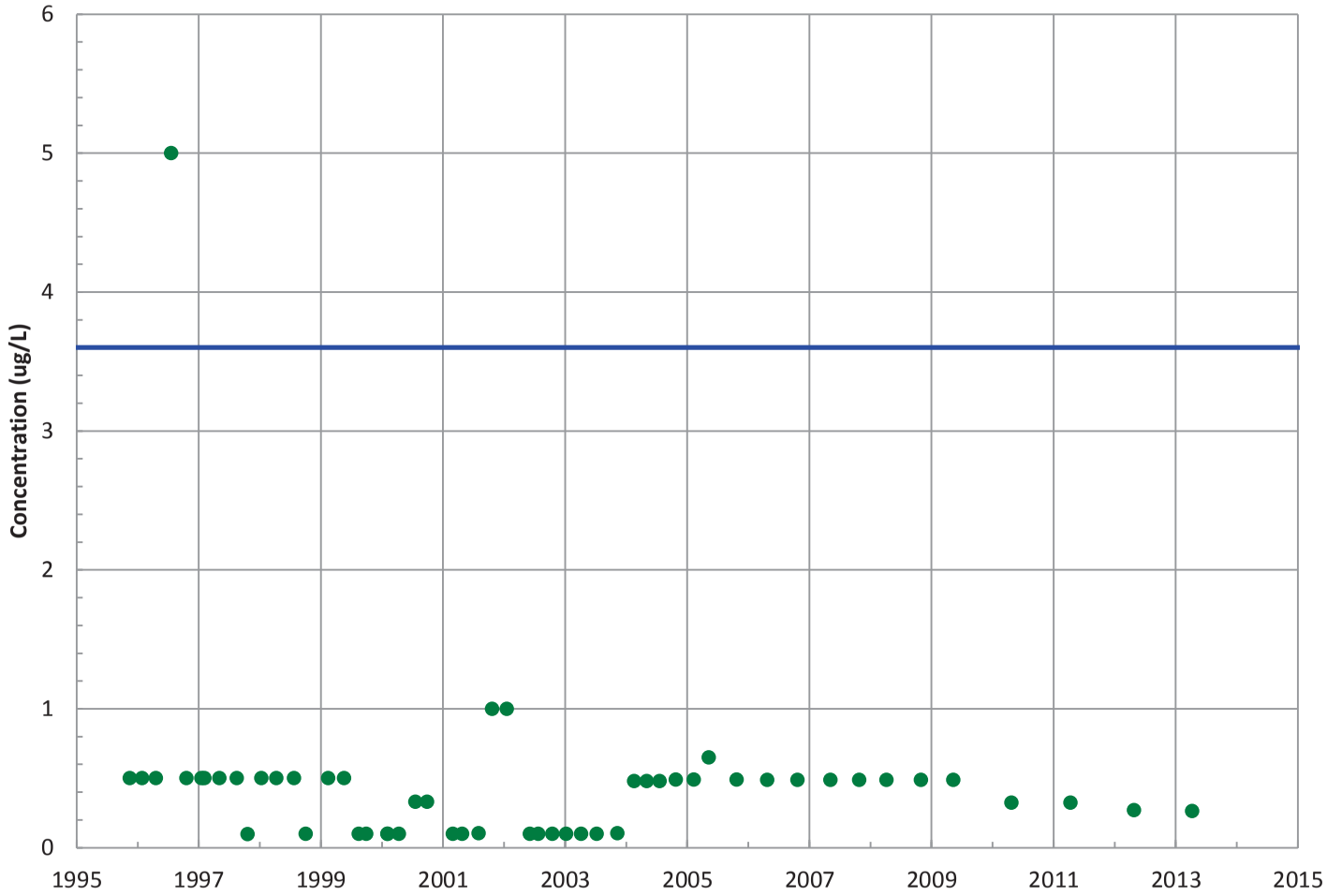
Well Location



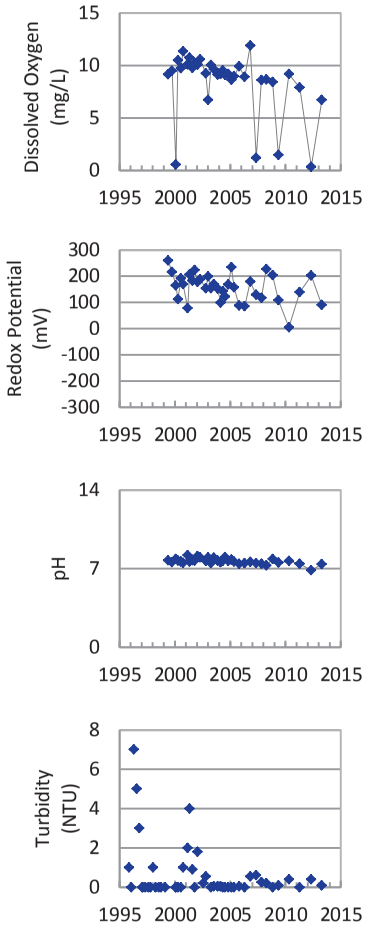
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/16/1995 to 4/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1002
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



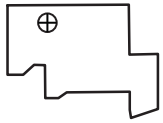
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

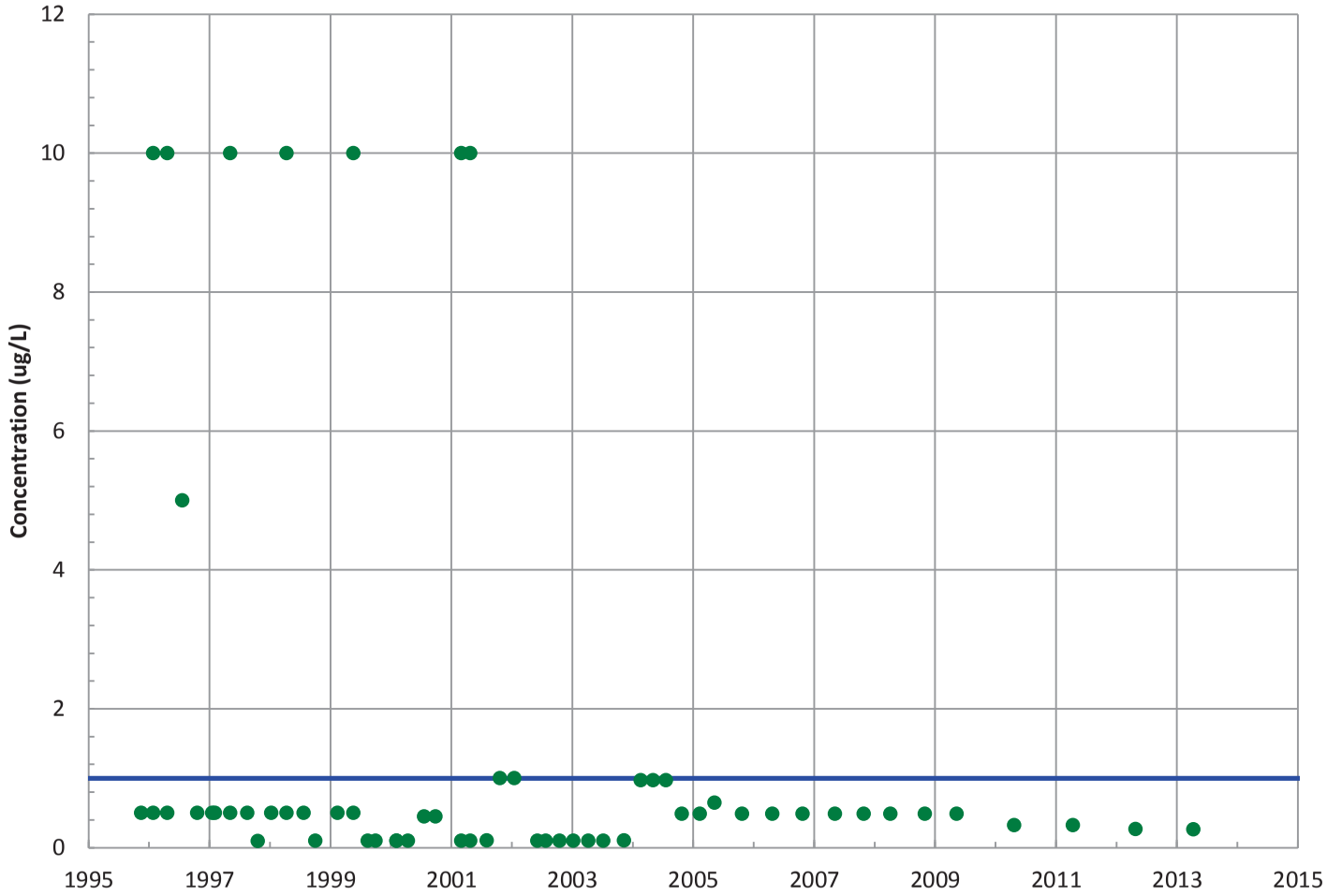
Well Location



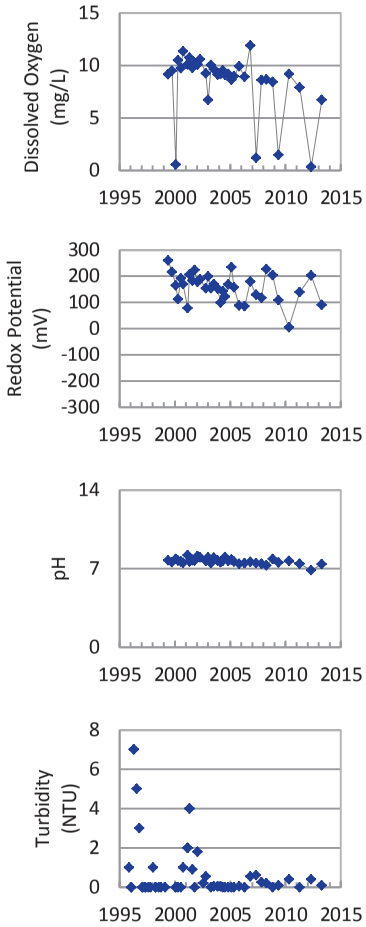
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/16/1995 to 4/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1002
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



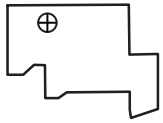
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

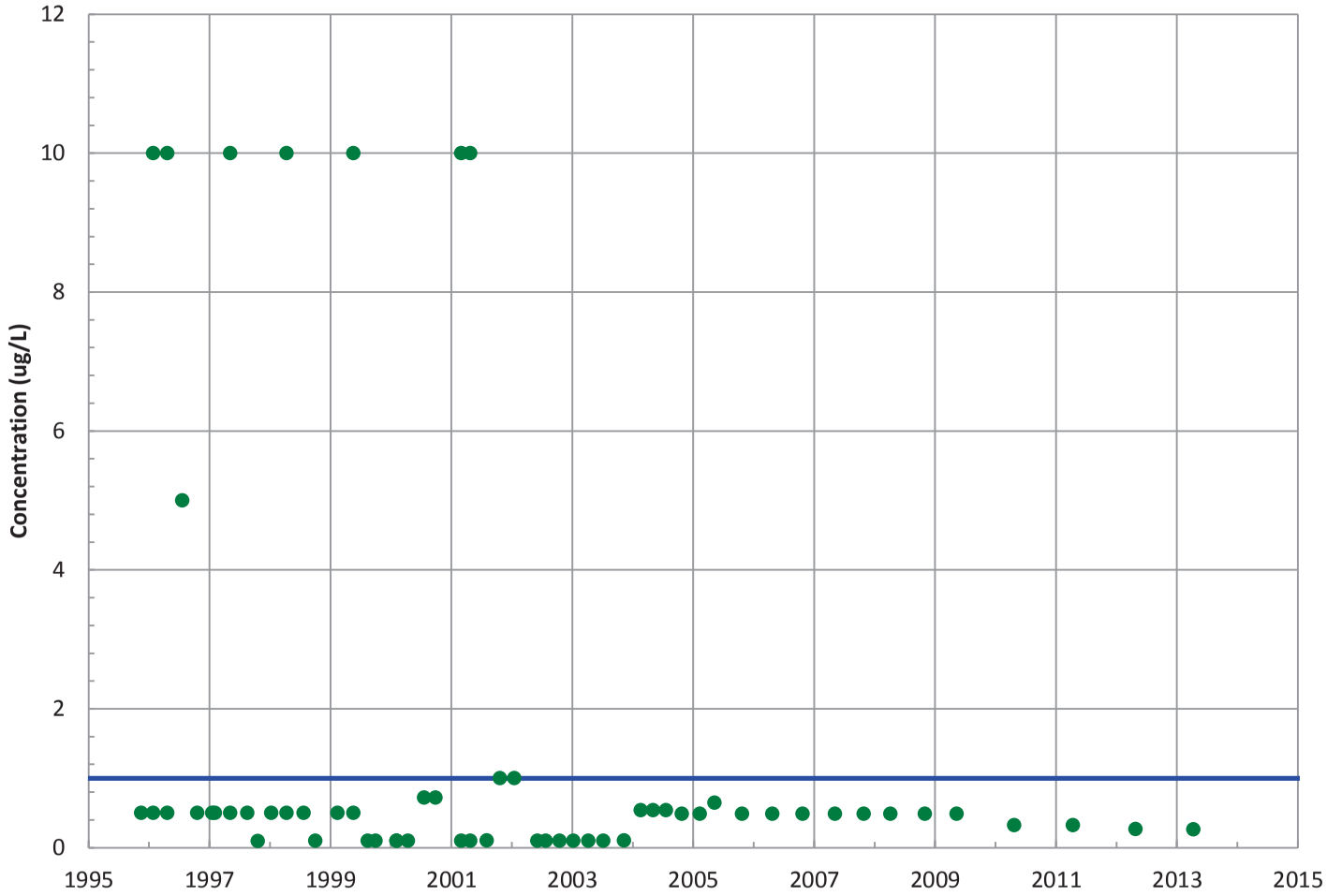
Well Location



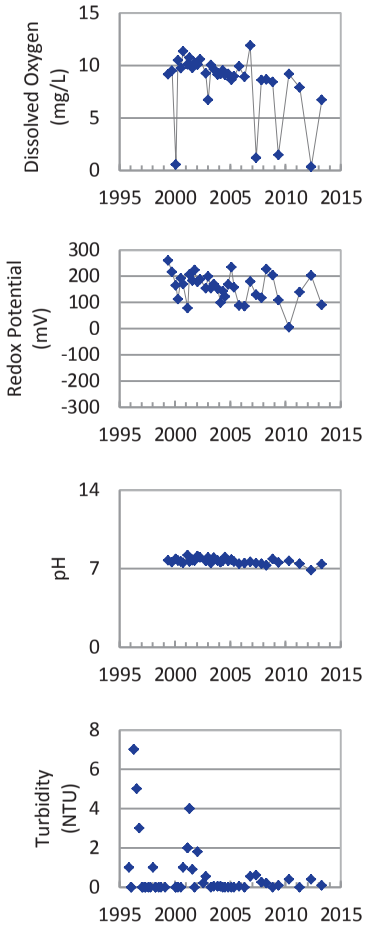
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/16/1995 to 4/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1002
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



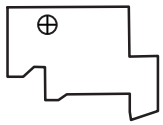
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

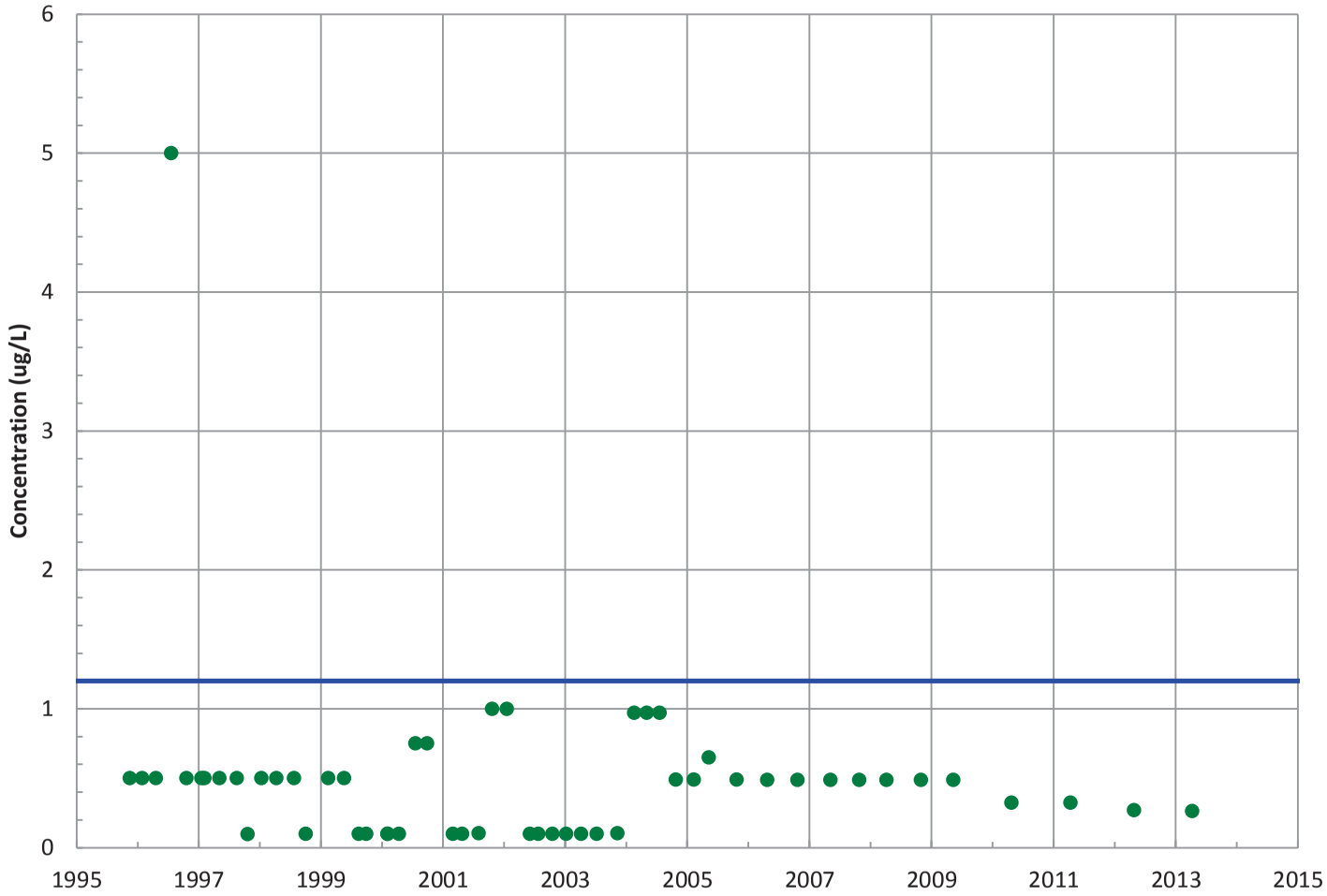
Well Location



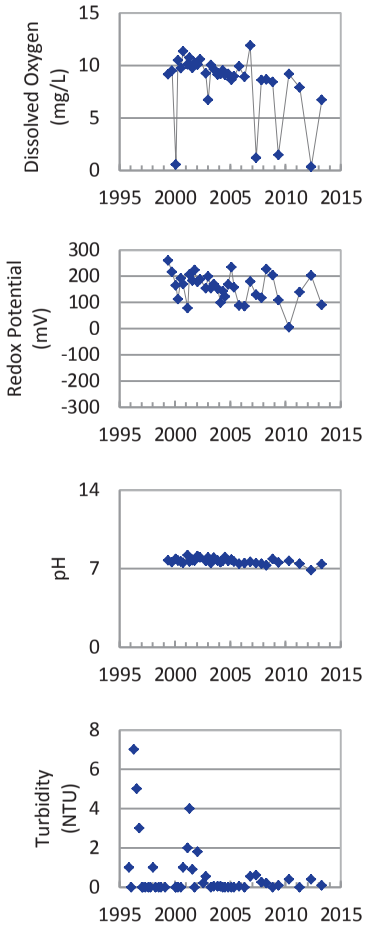
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/16/1995 to 4/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1002
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



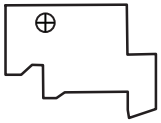
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

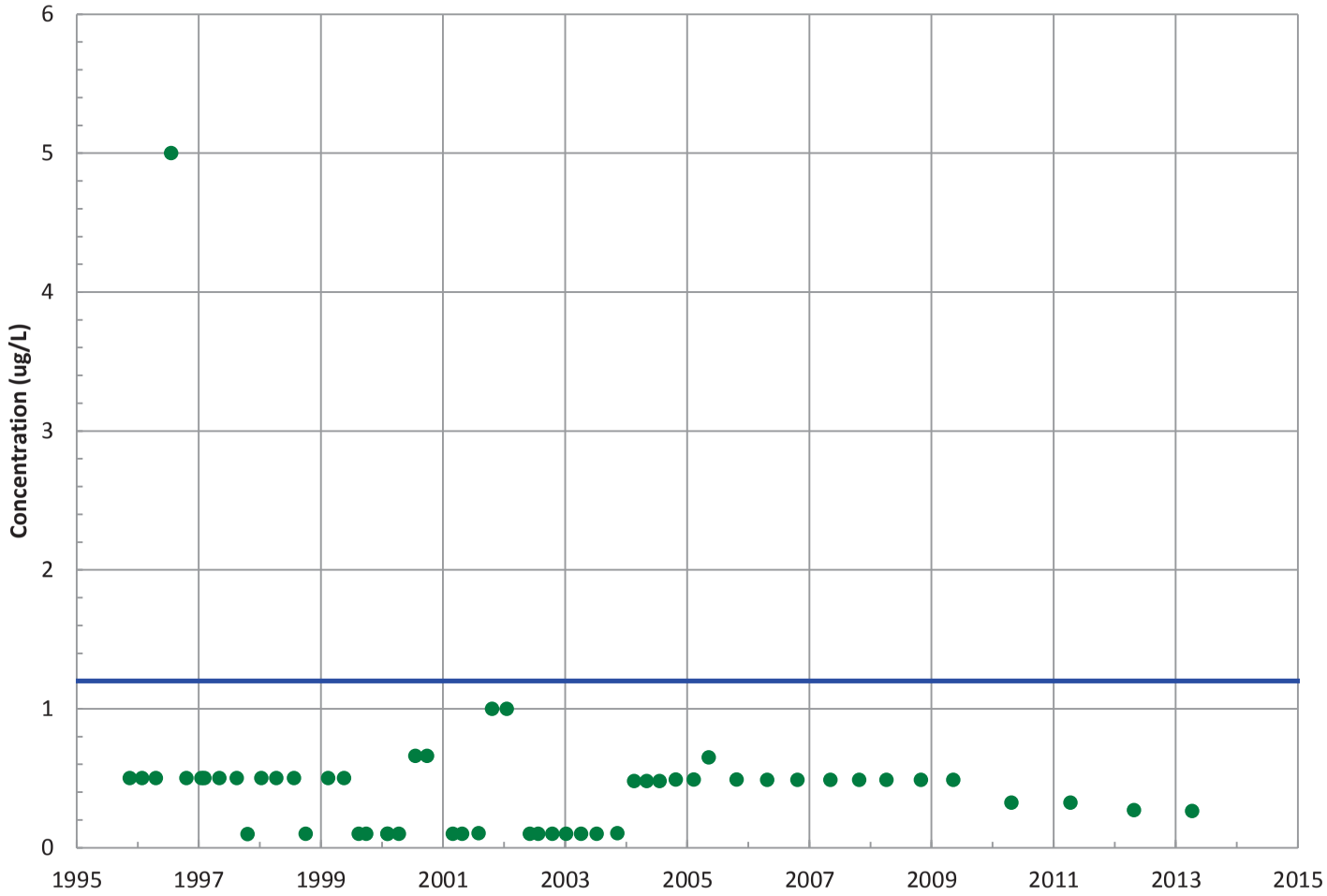
Well Location



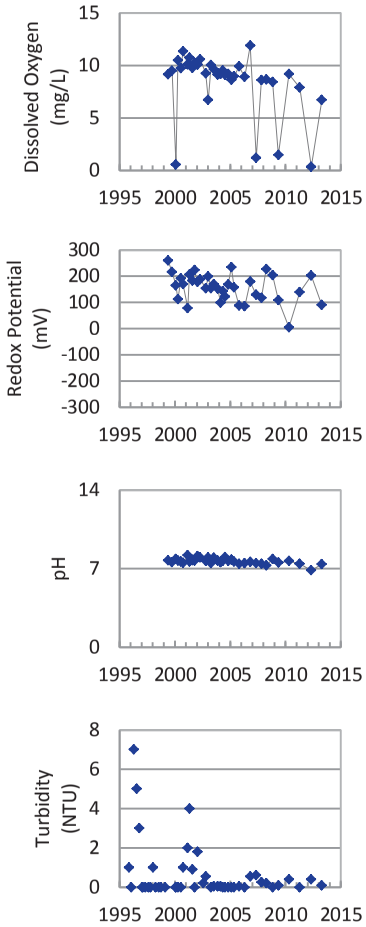
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/16/1995 to 4/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1002
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



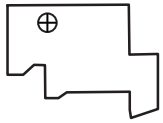
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

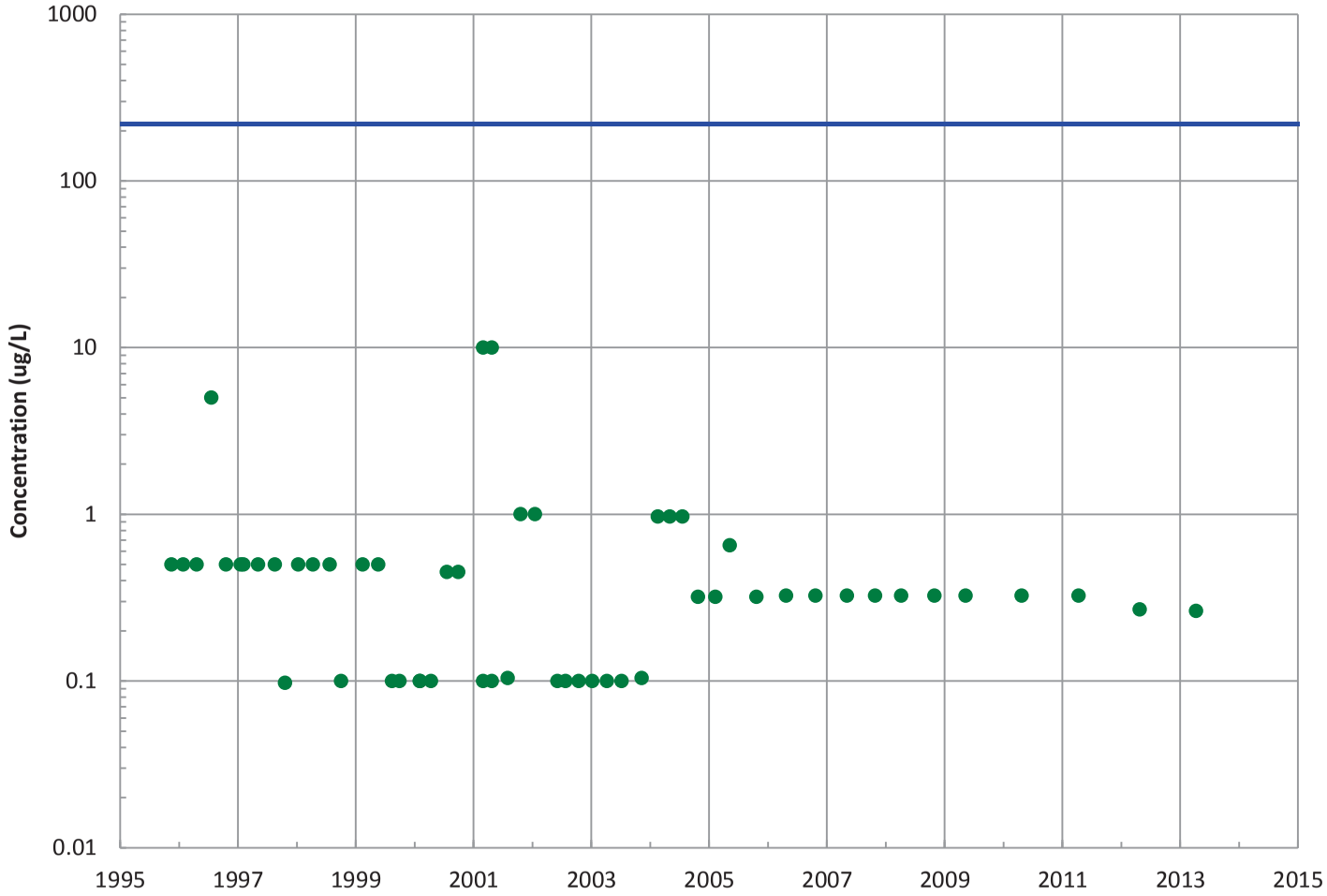
Well Location



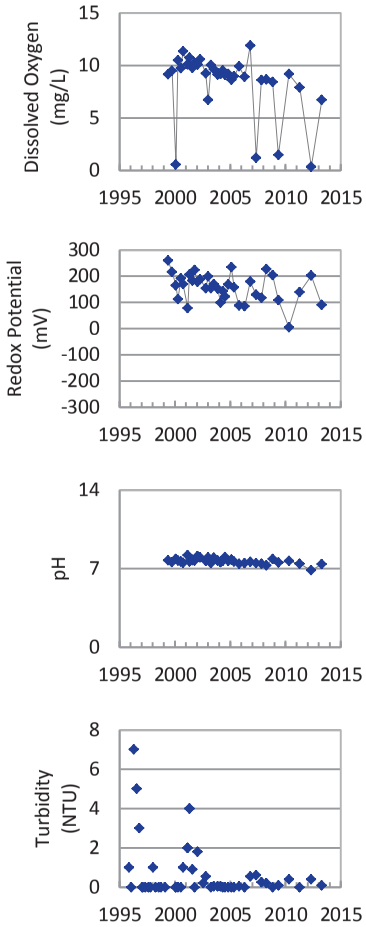
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/16/1995 to 4/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1002
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



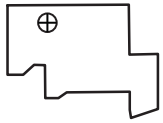
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

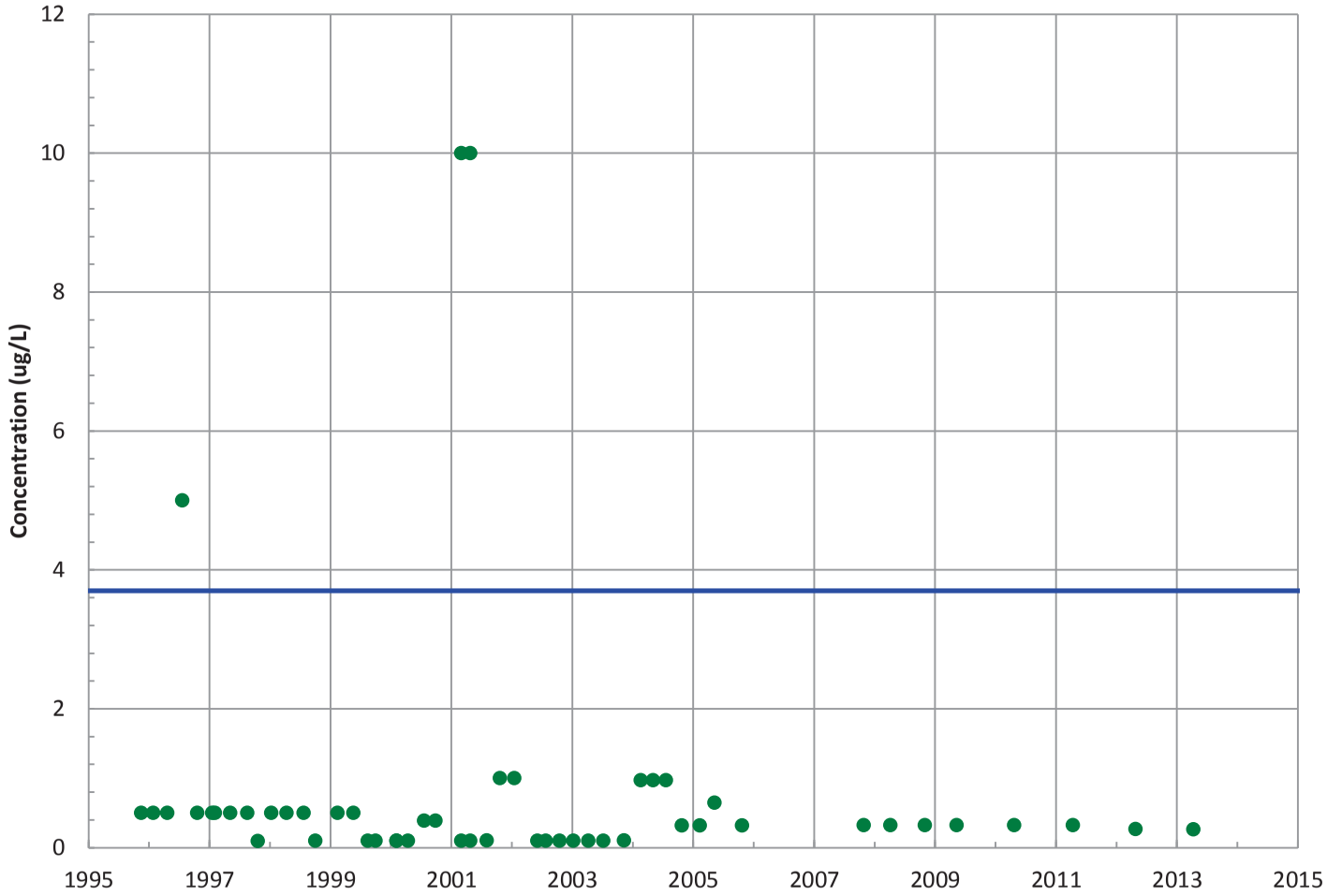
Well Location



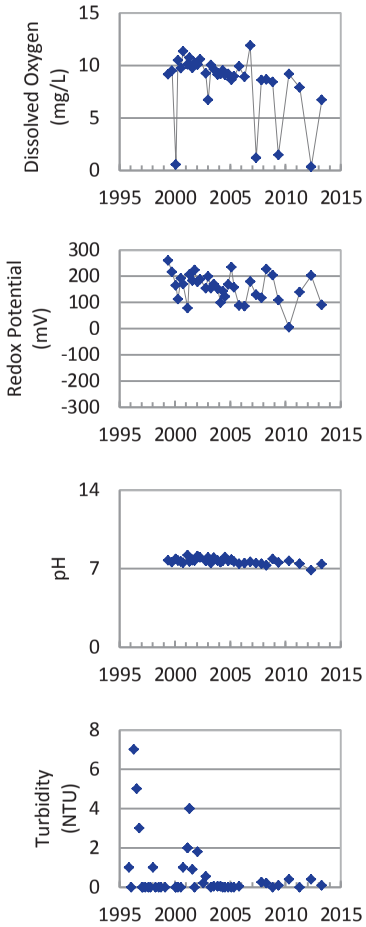
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/16/1995 to 4/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1002
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



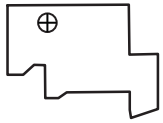
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

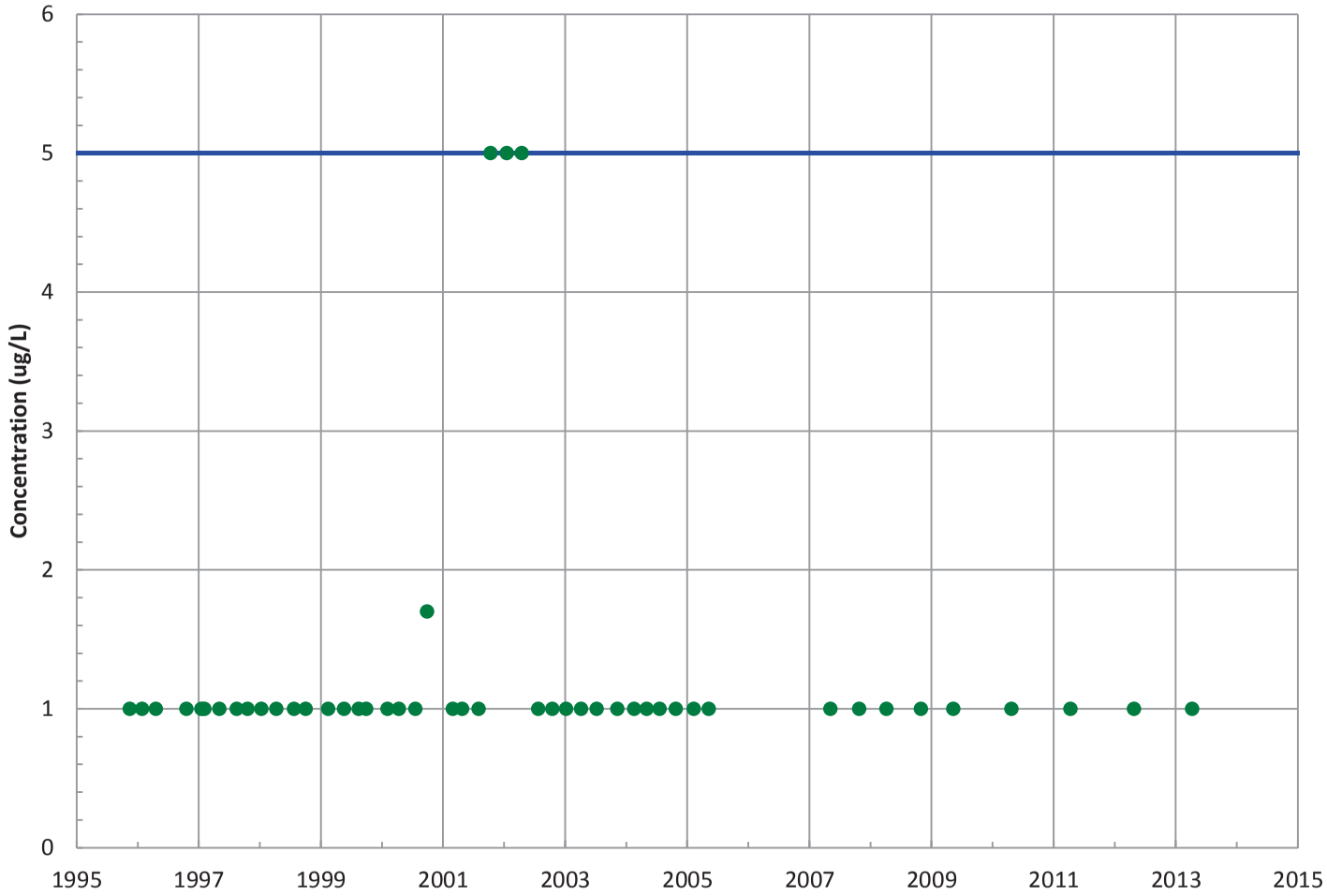
Well Location



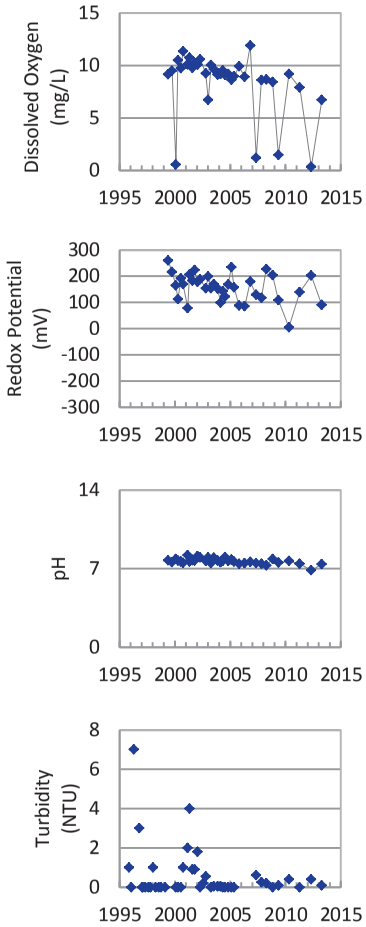
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/16/1995 to 4/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1002
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



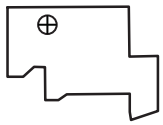
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

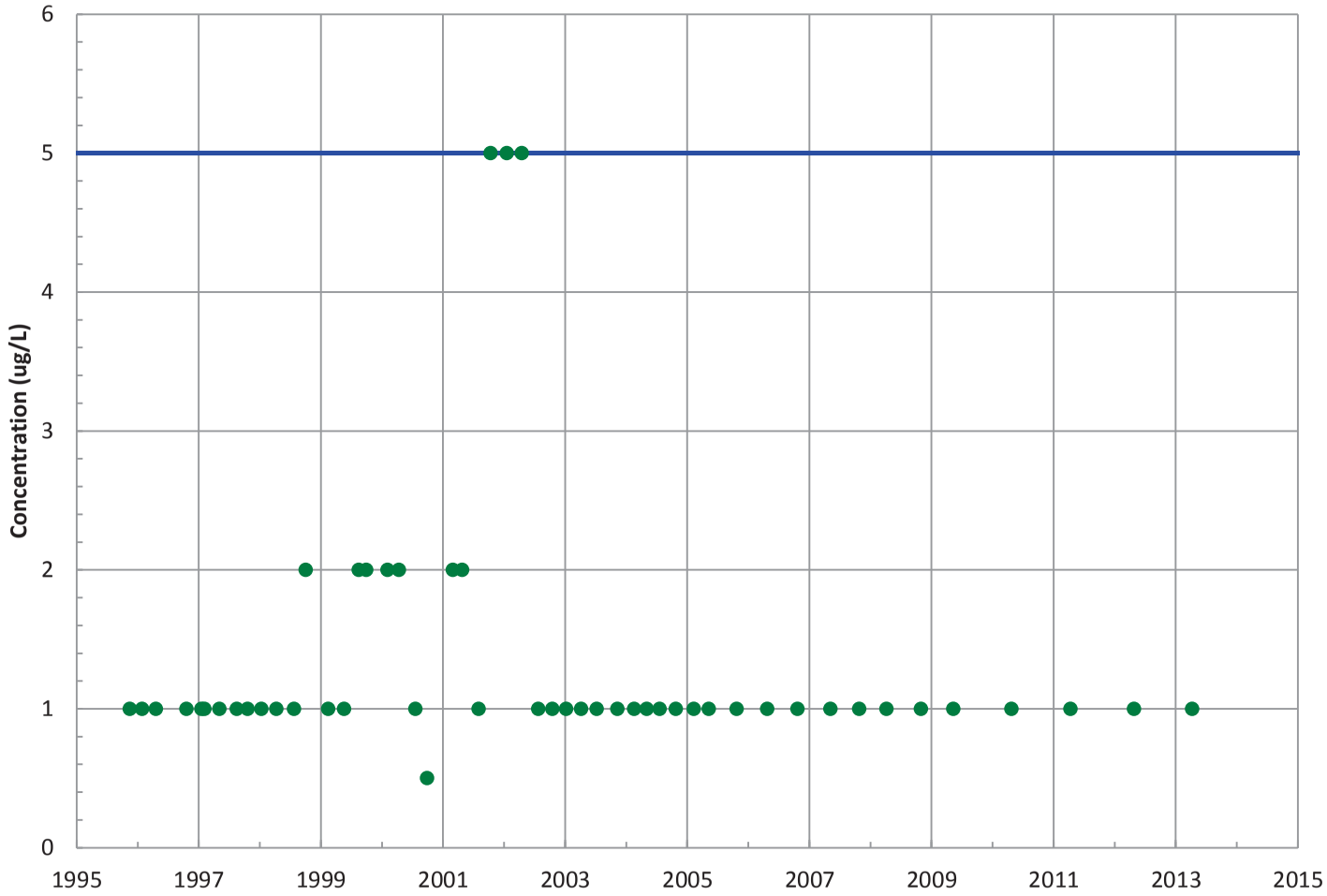
Well Location



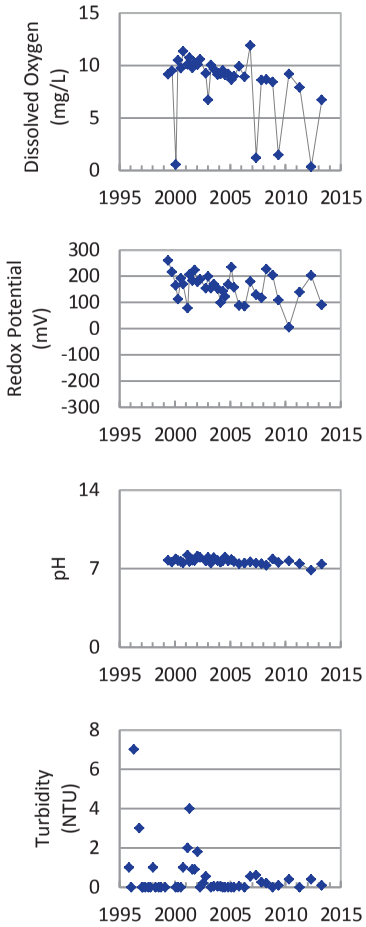
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/16/1995 to 4/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1002
Trichloroethene Trend in Perched Aquifer



Field Parameters



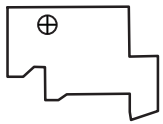
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

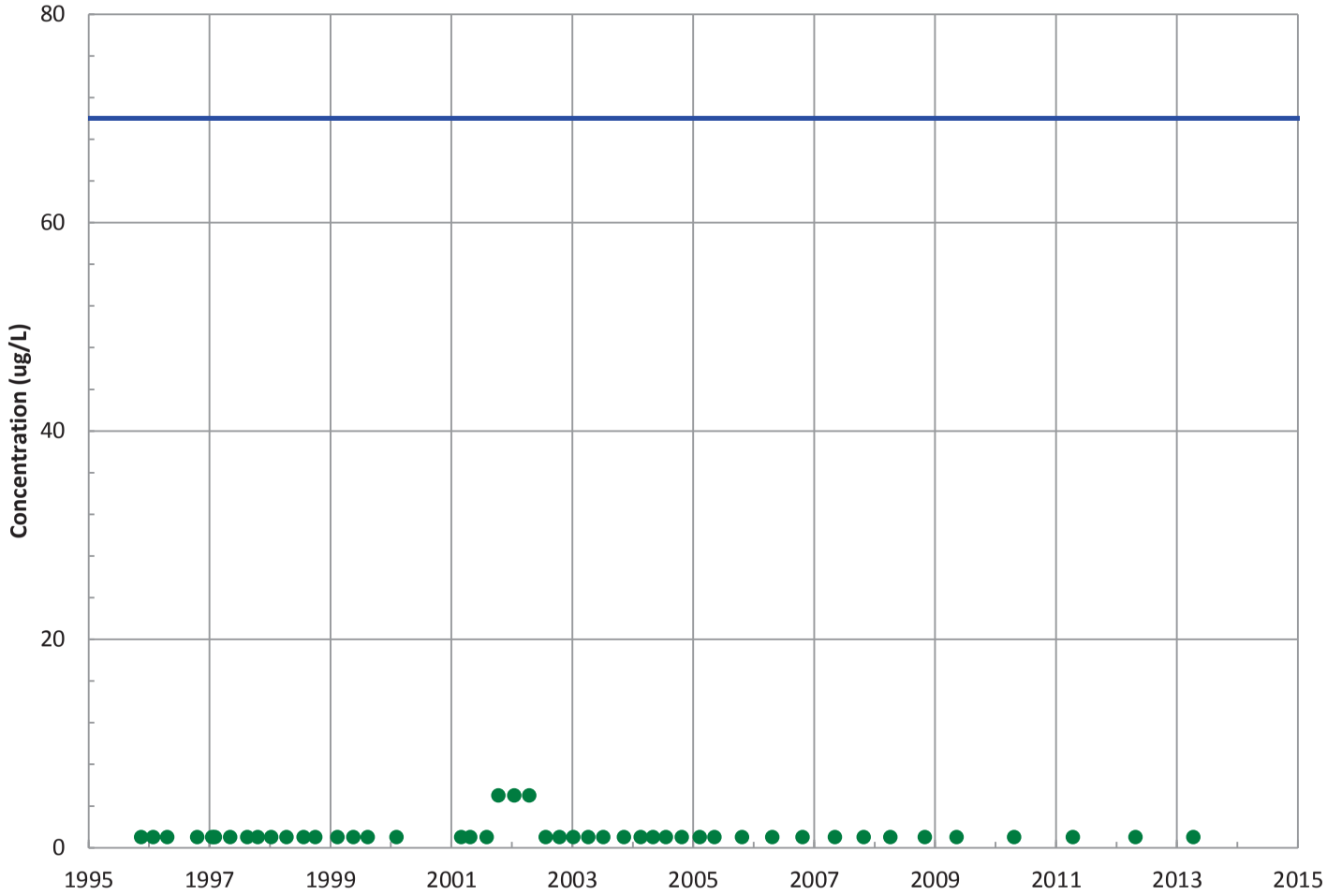
Well Location



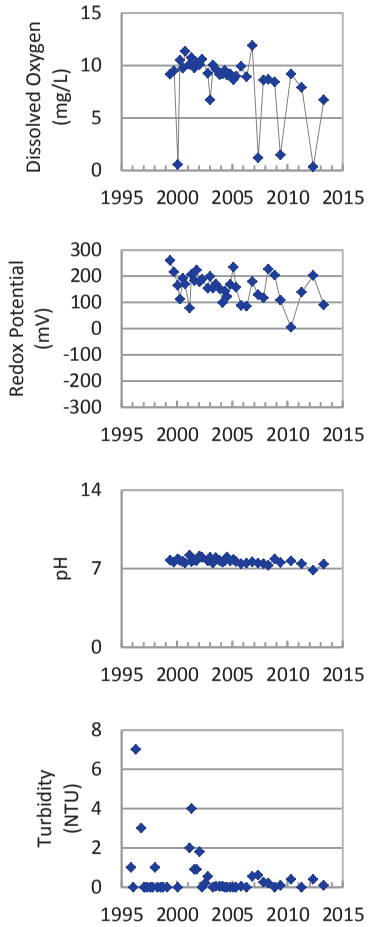
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/16/1995 to 4/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1002
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



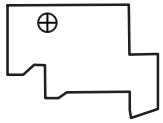
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

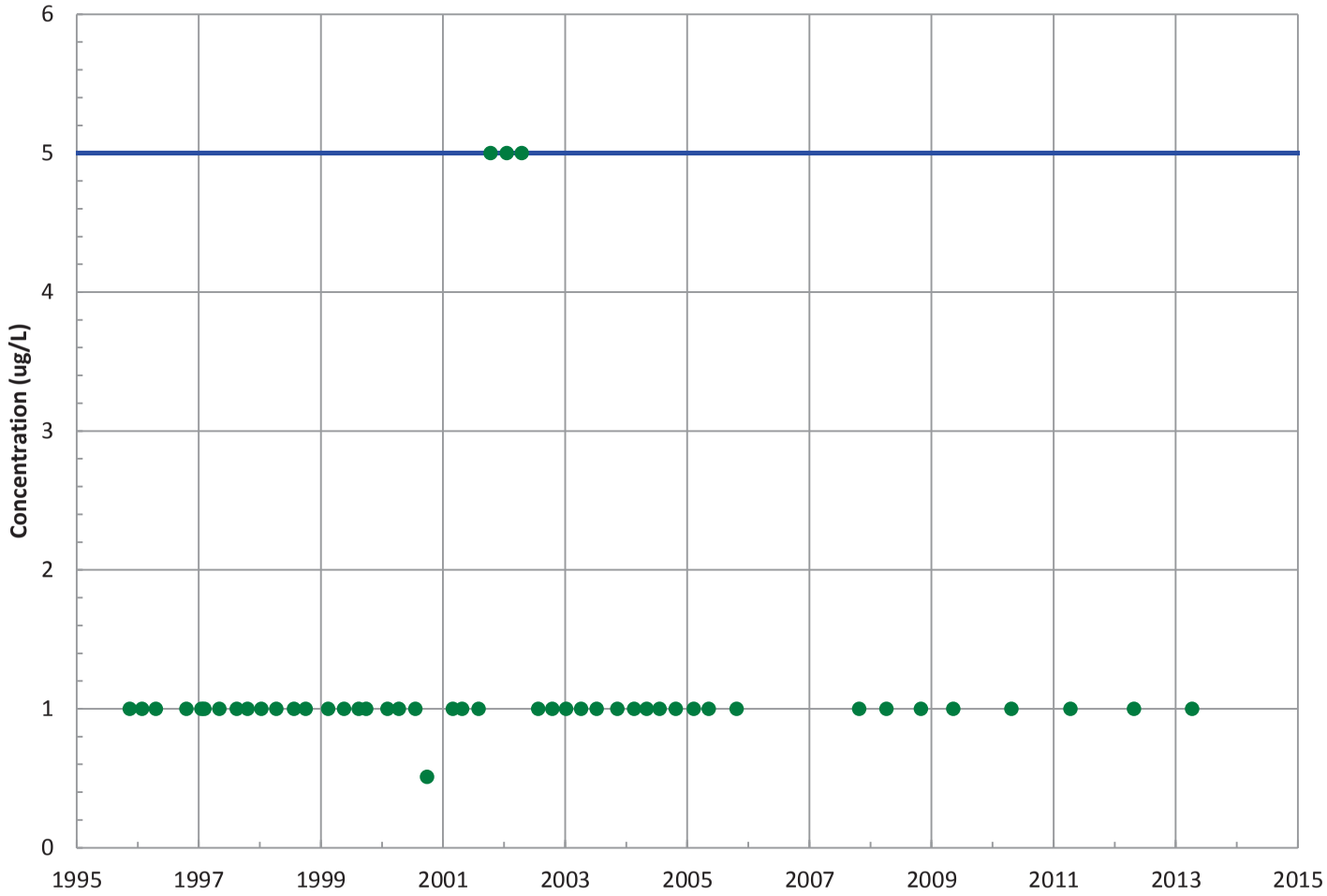
Well Location



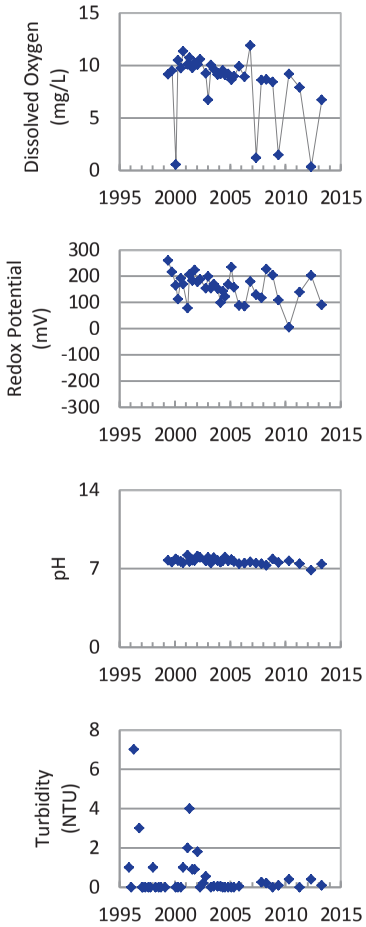
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/16/1995 to 4/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1002
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



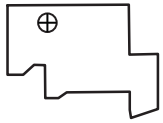
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

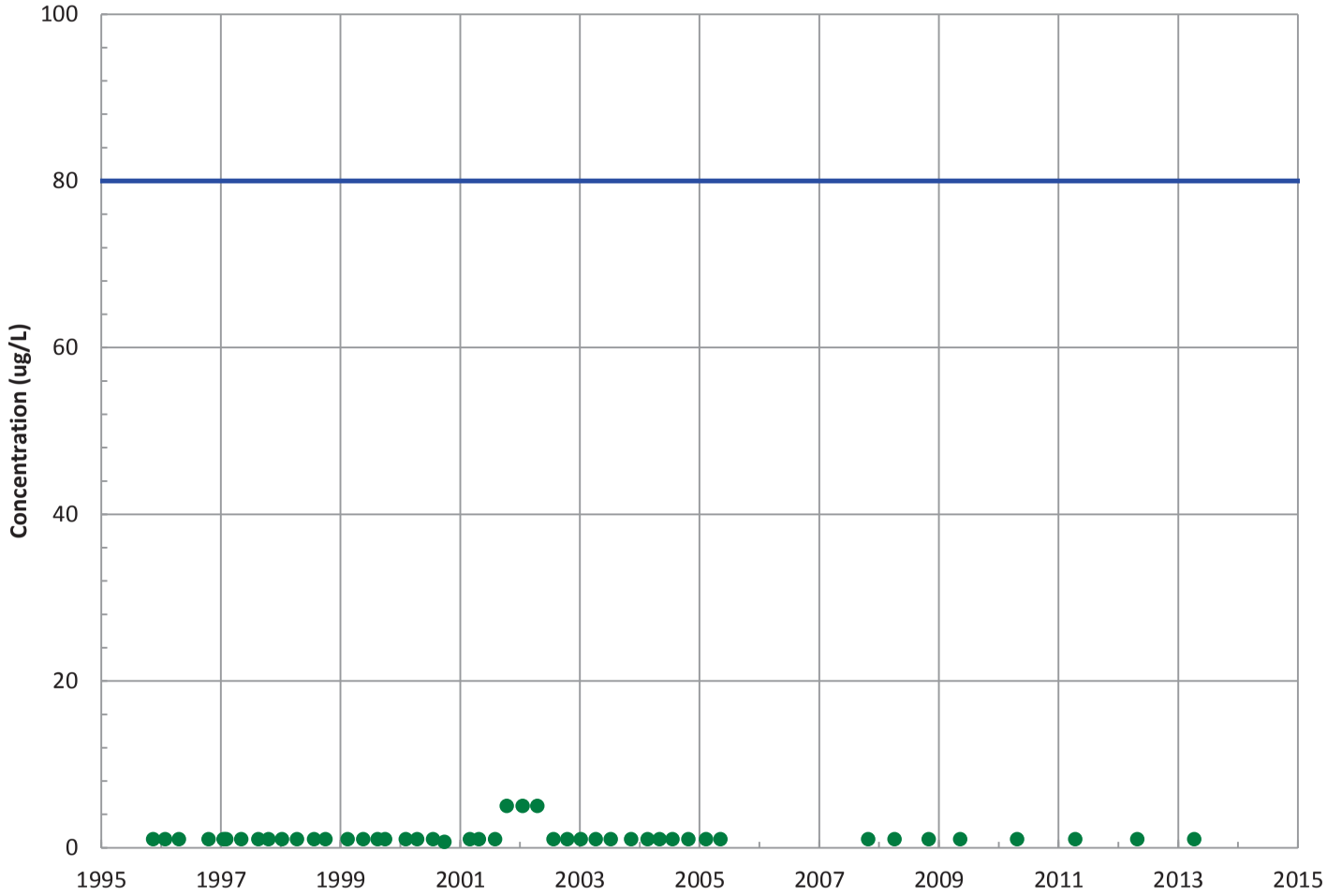
Well Location



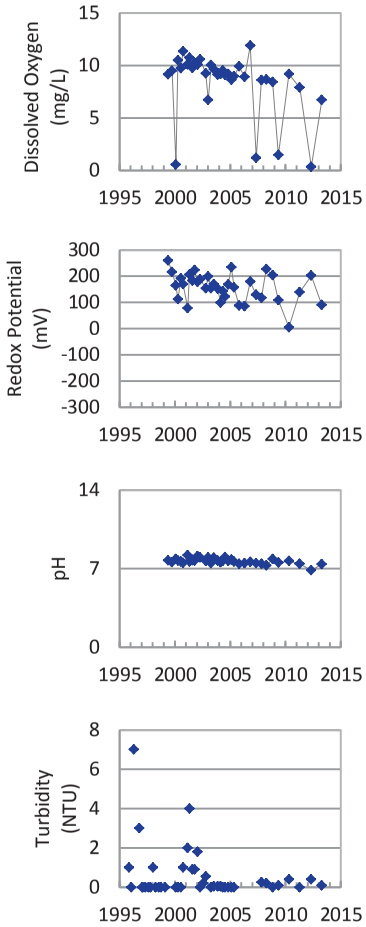
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/16/1995 to 4/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1002
Chloroform Trend in Perched Aquifer



Field Parameters



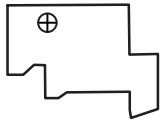
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

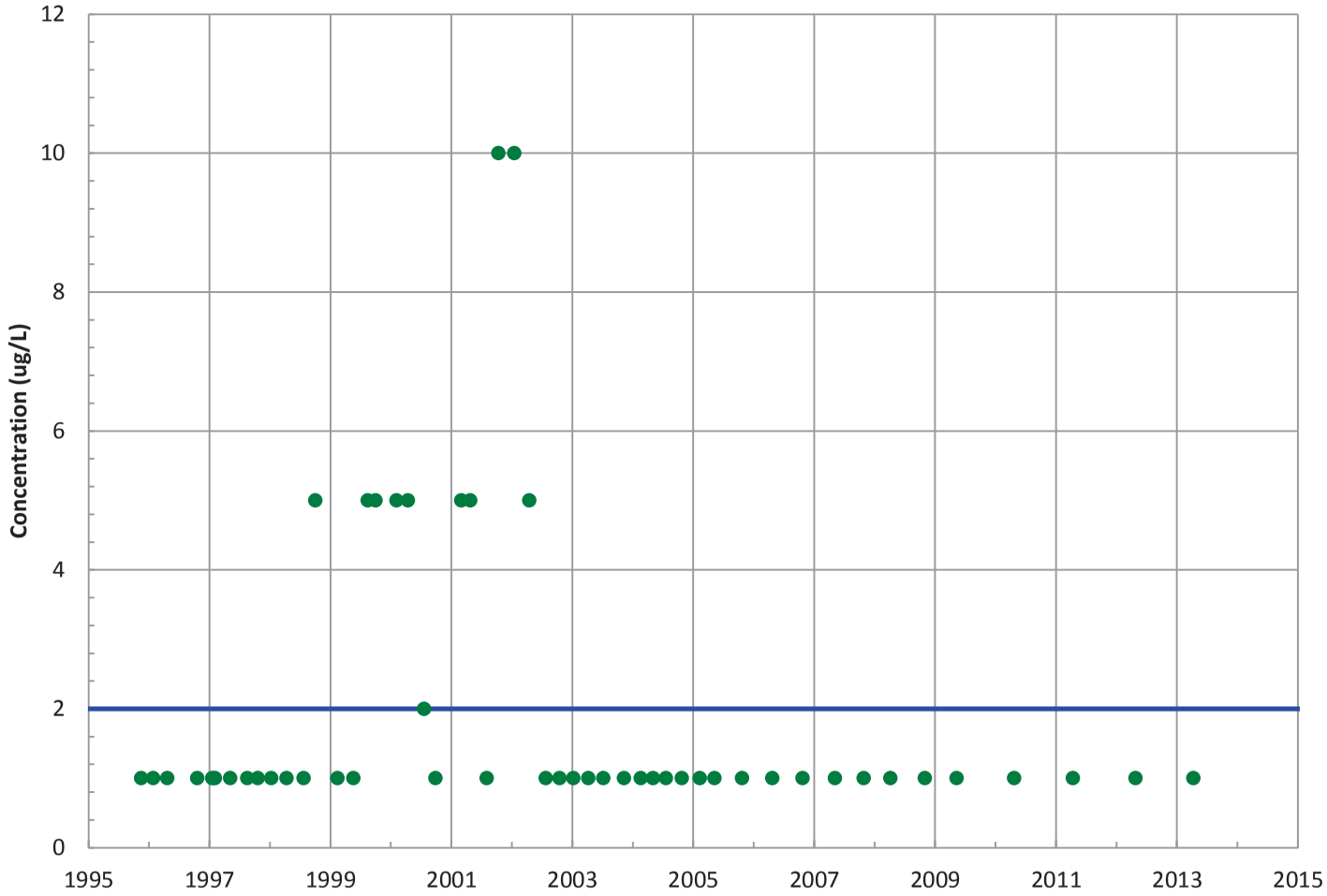
Well Location



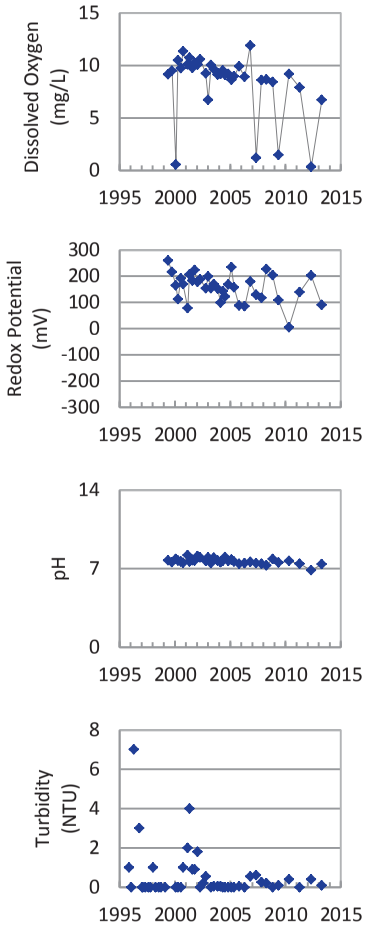
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/16/1995 to 4/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1002
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



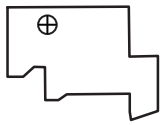
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

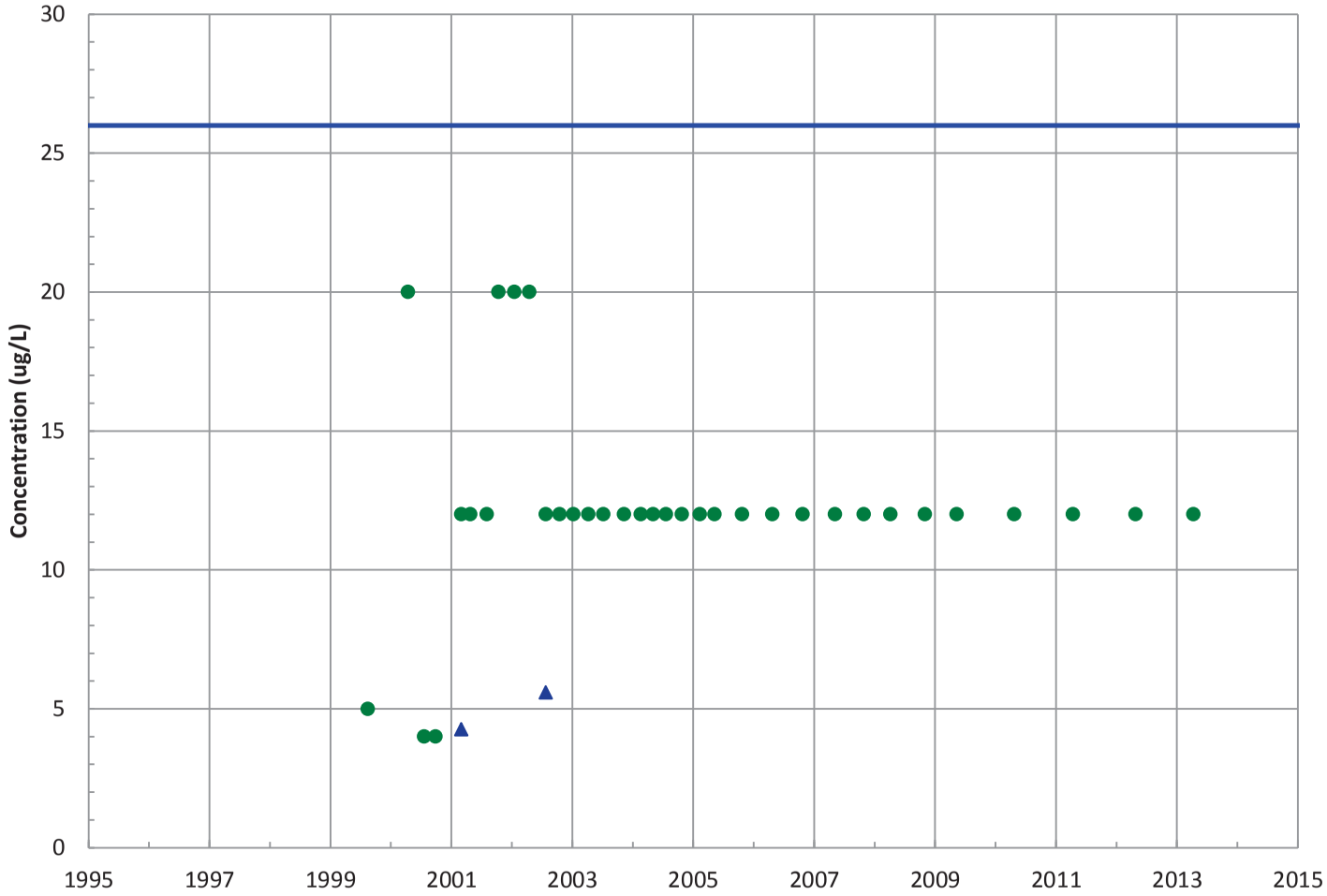
Well Location



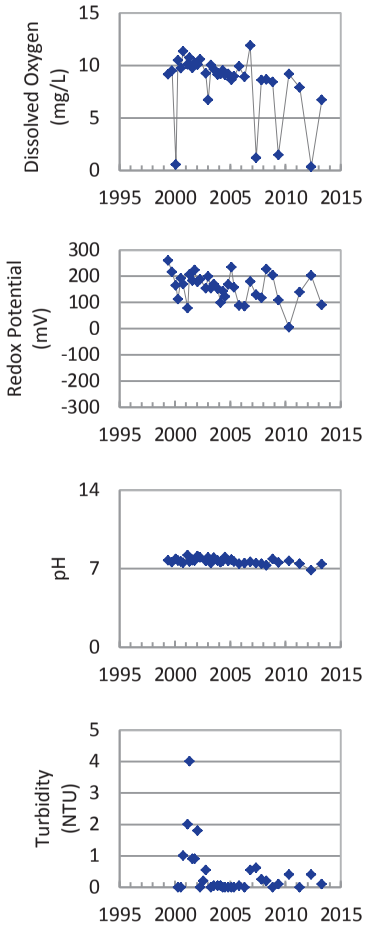
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/16/1995 to 4/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1002
Perchlorate Trend in Perched Aquifer



Field Parameters



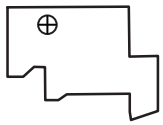
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

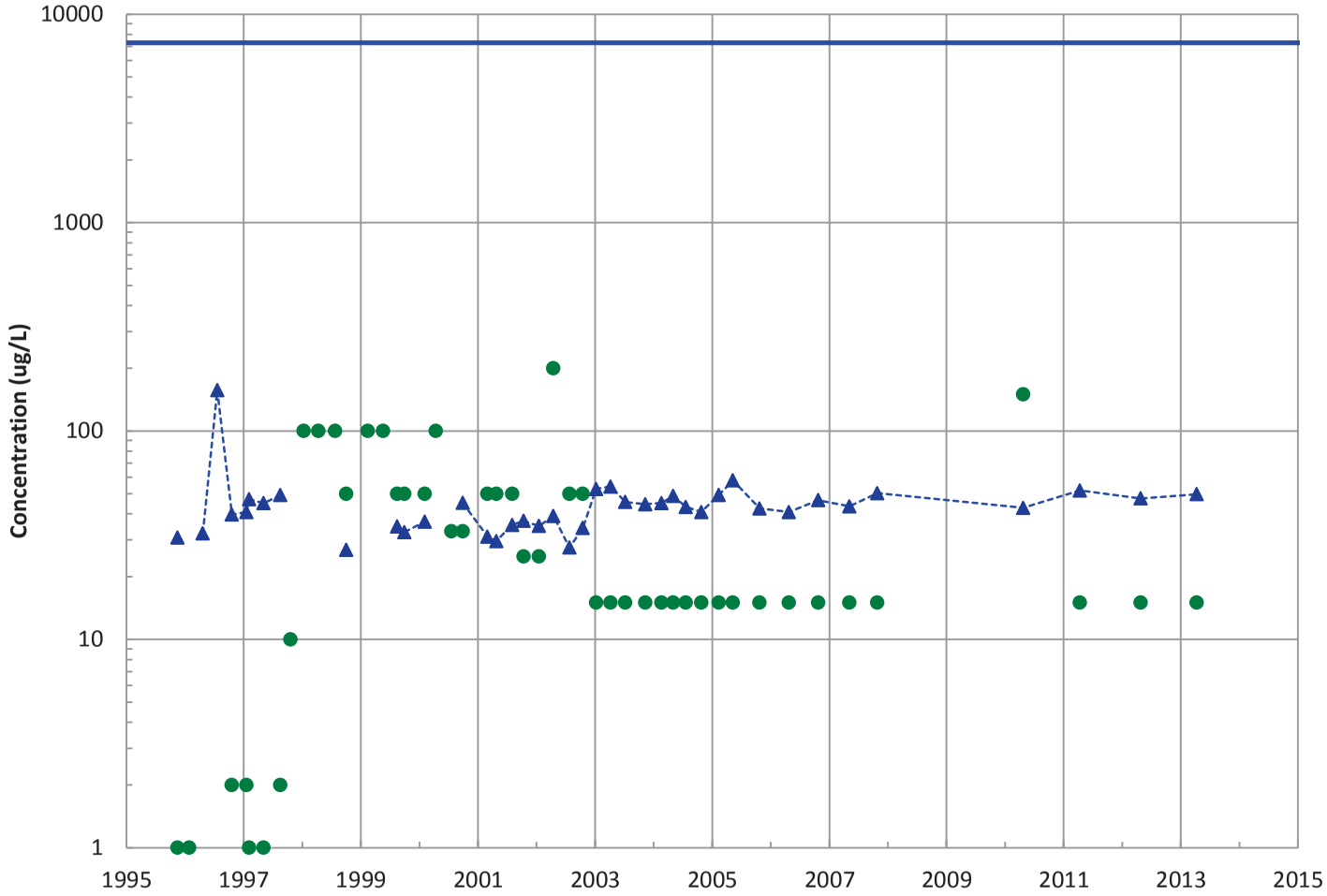
Well Location



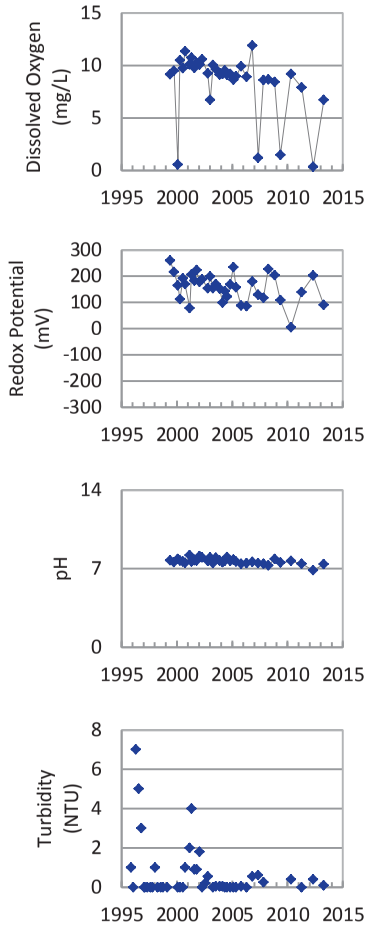
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/19/1999 to 4/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1002
Boron Trend in Perched Aquifer



Field Parameters



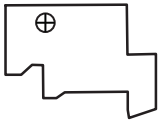
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

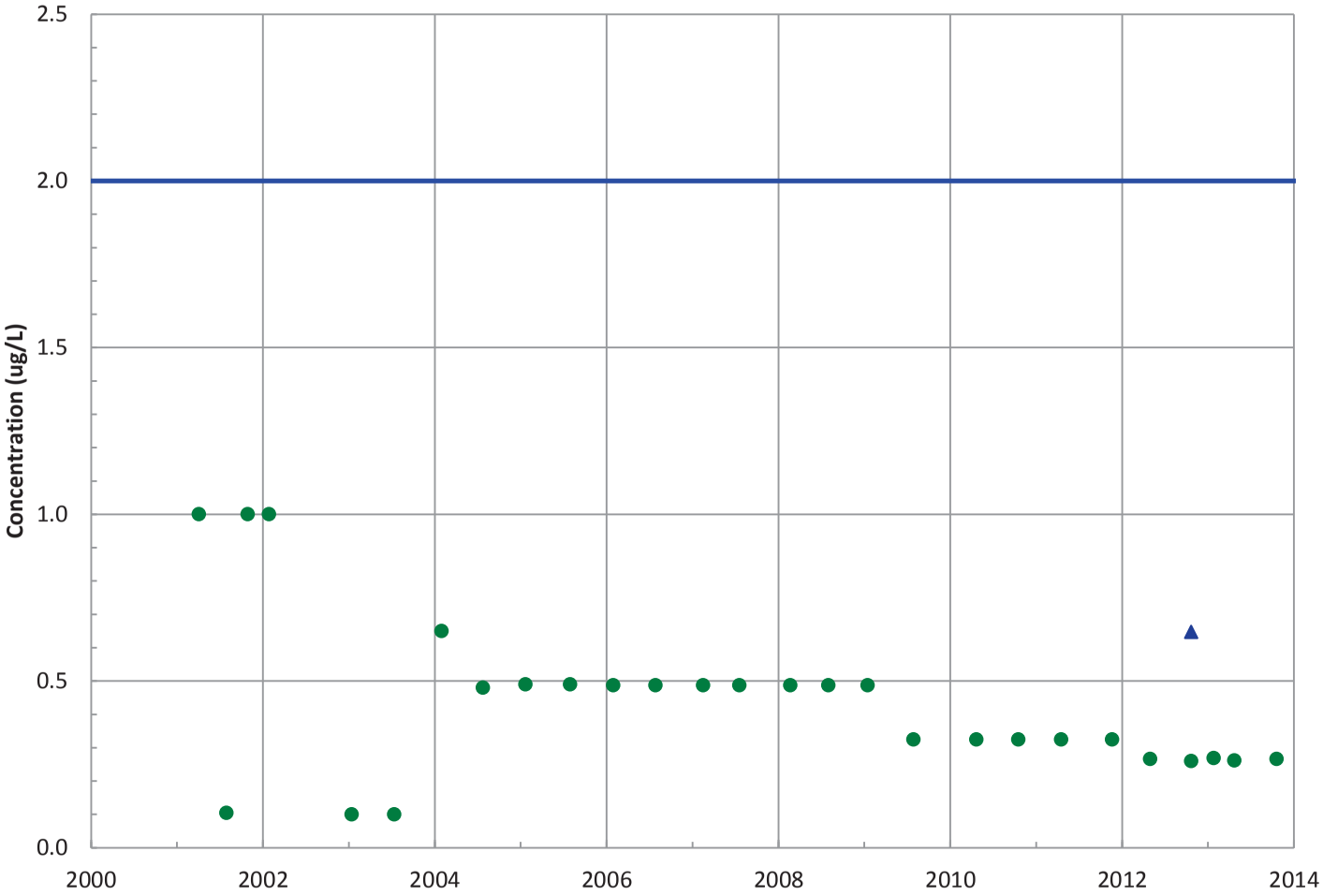
Well Location



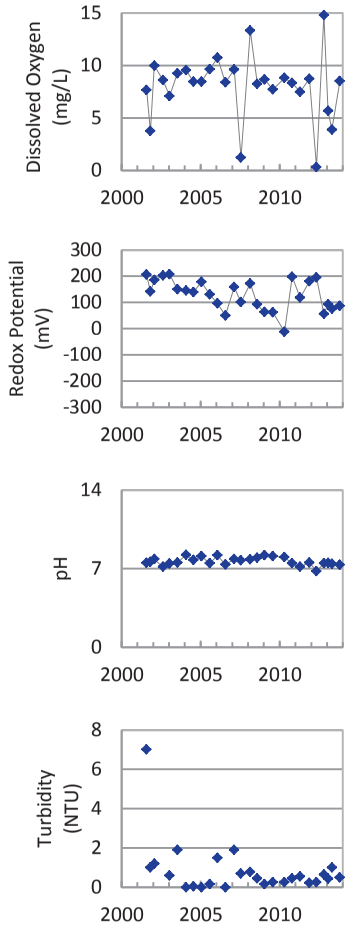
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/16/1995 to 4/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1008
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: N/A (<4 Detections in

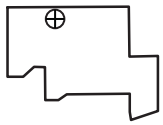
MAROS Linear Regression Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: N/A (<4 Detections in

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

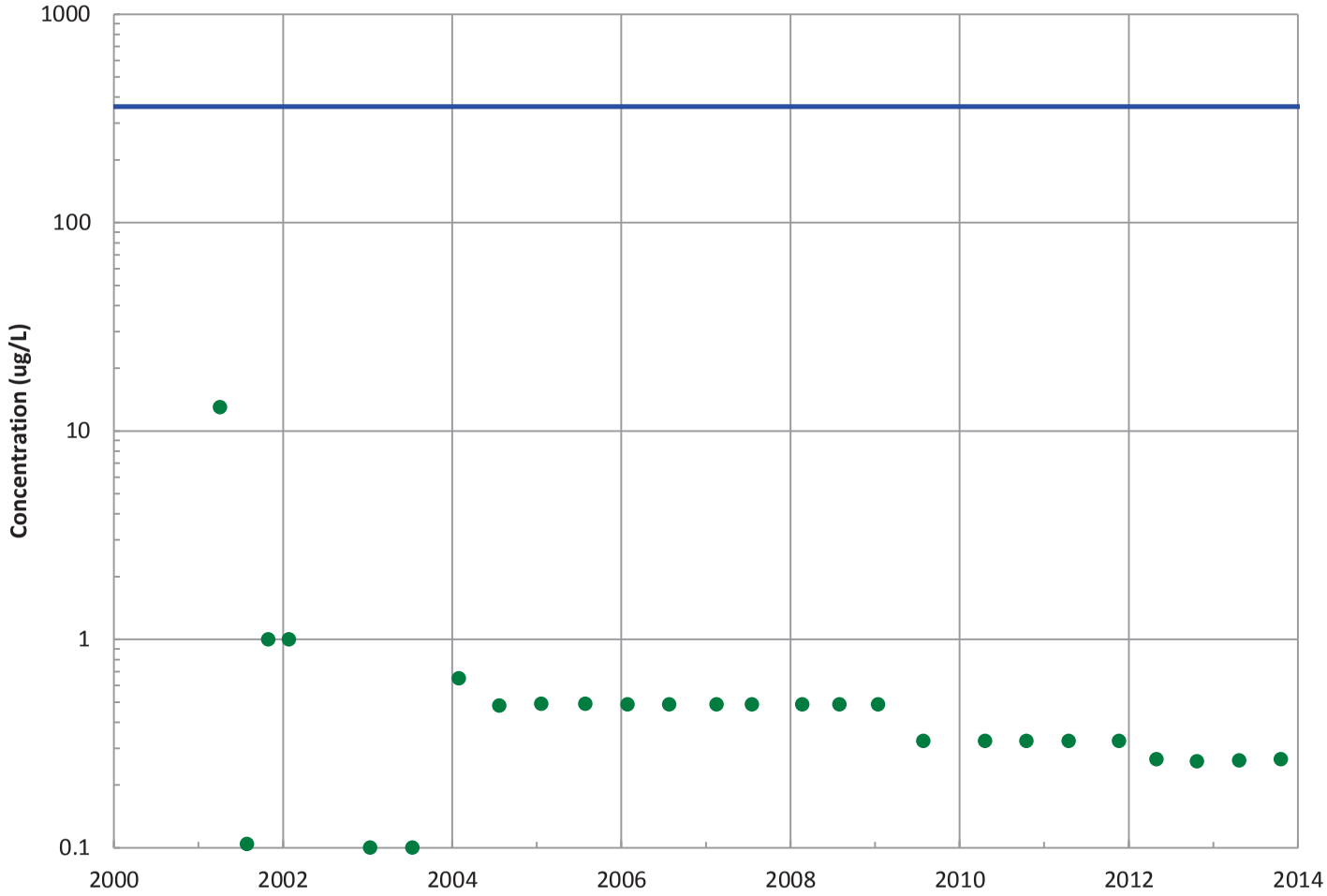
Well Location



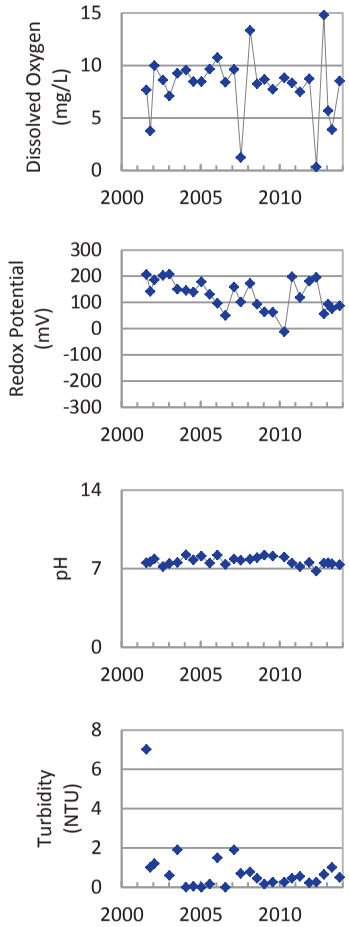
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/4/2001 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1008
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



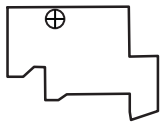
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

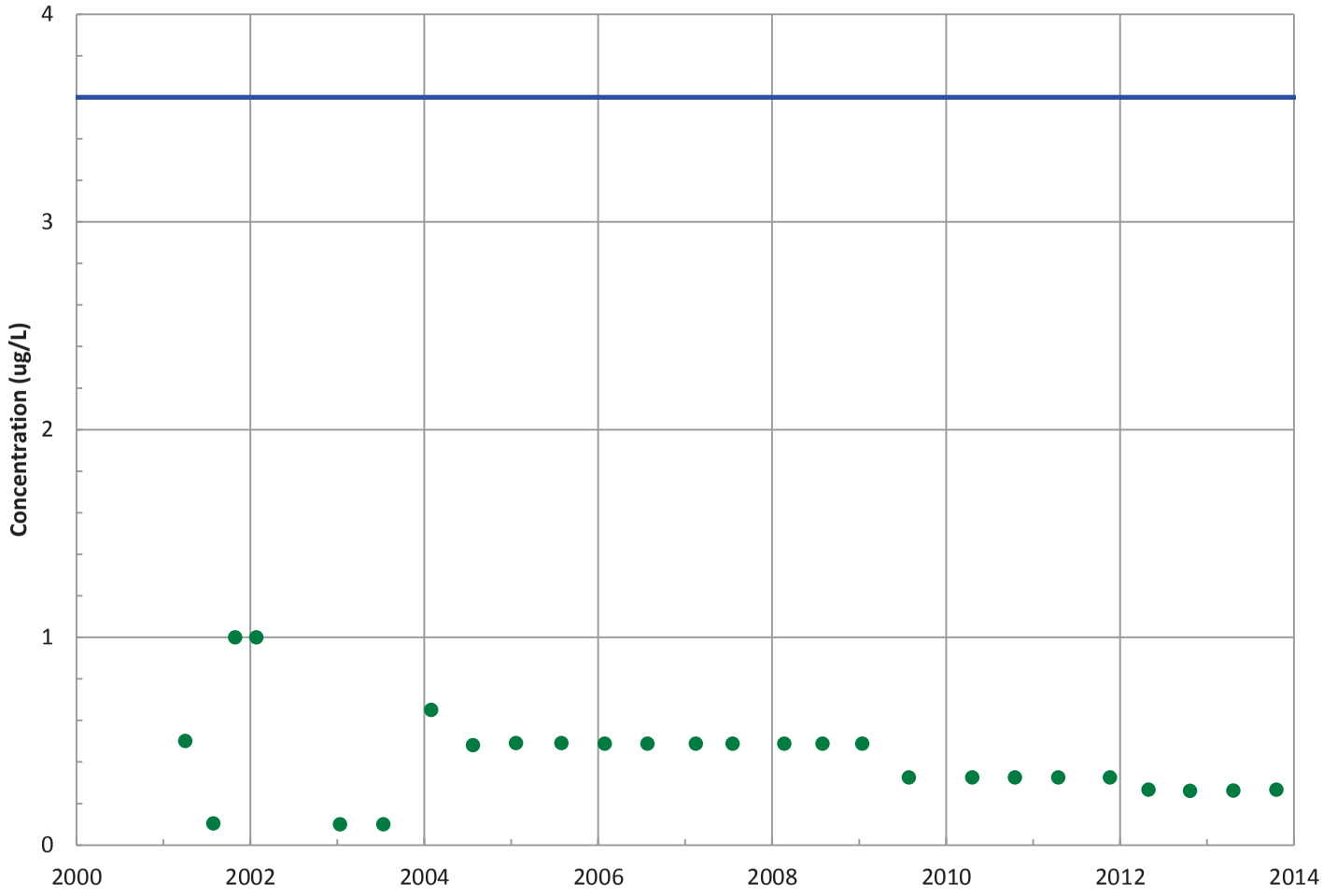
Well Location



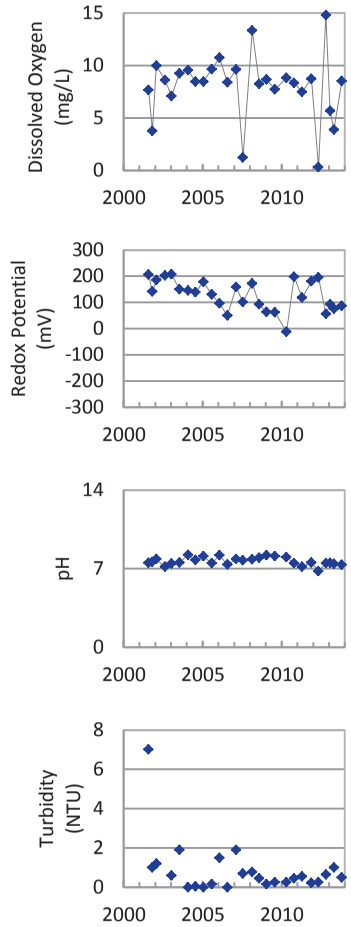
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/4/2001 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1008
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



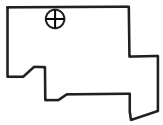
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

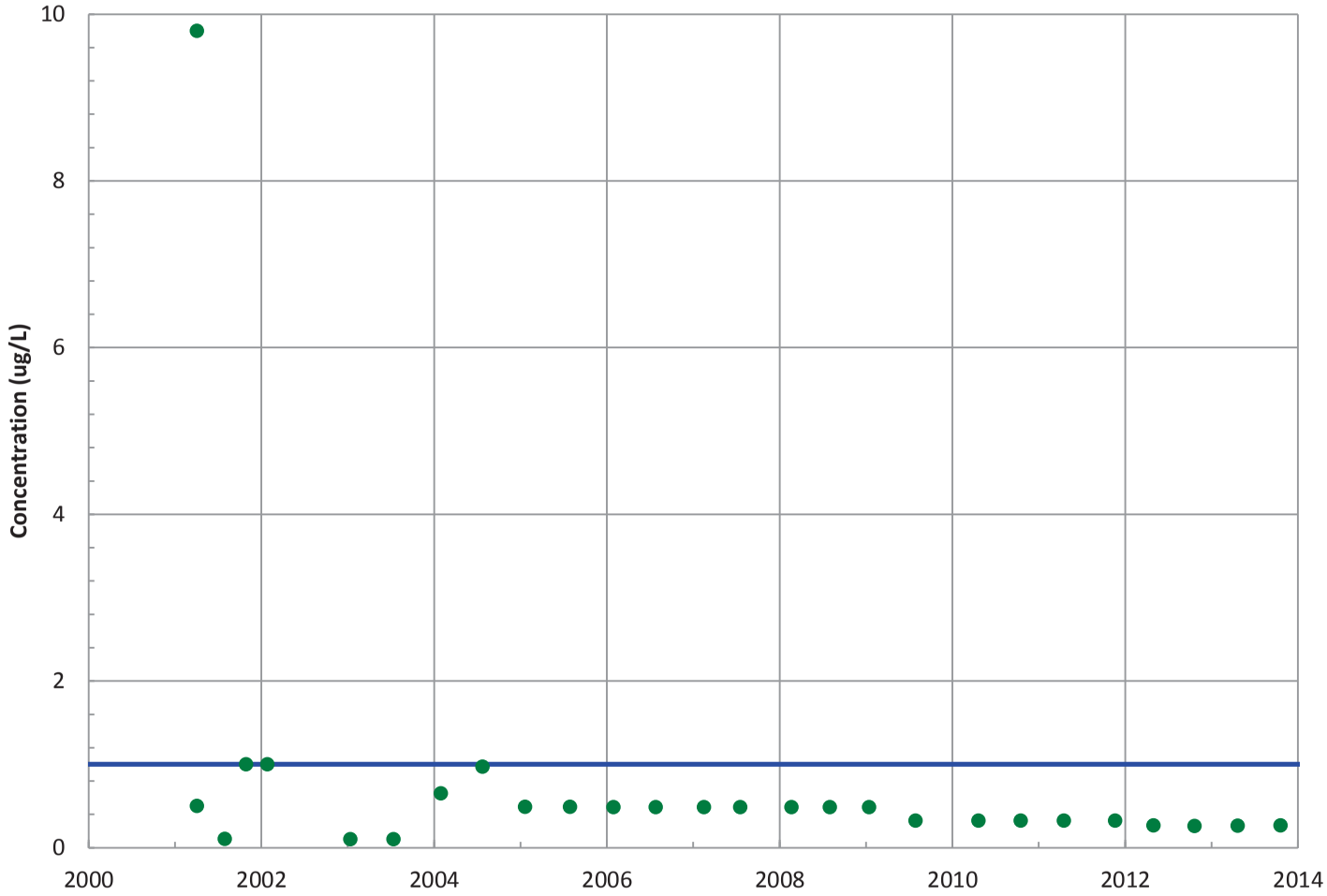
Well Location



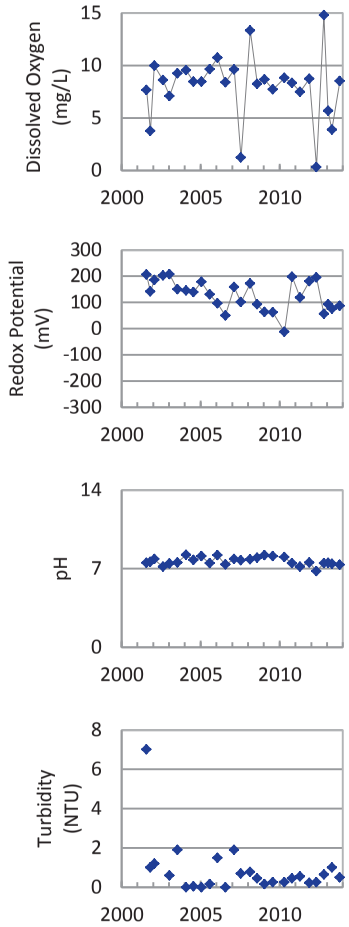
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/4/2001 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1008
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



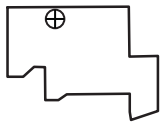
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

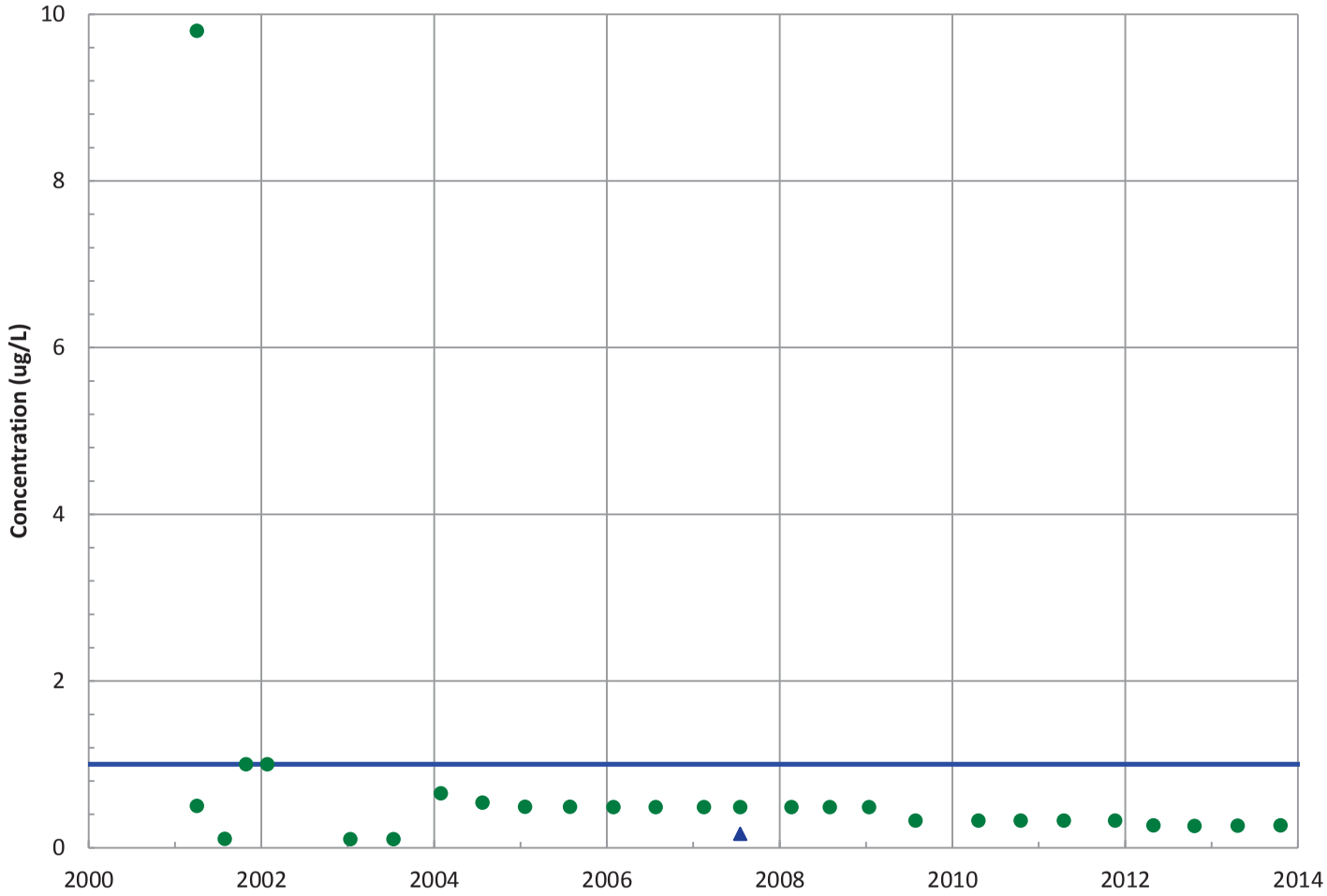
Well Location



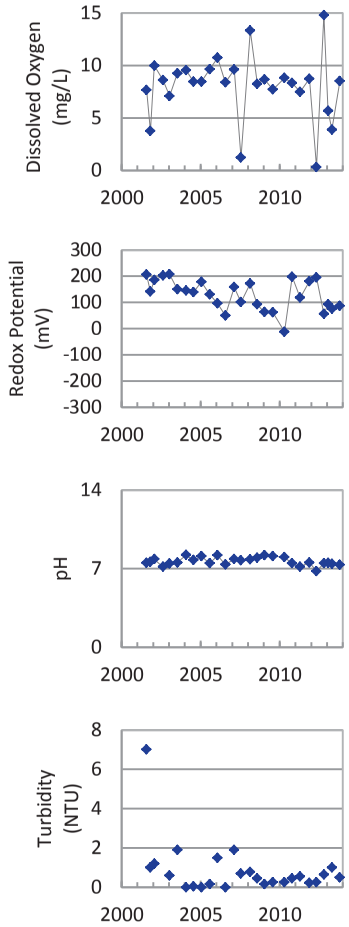
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/4/2001 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1008
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



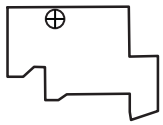
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

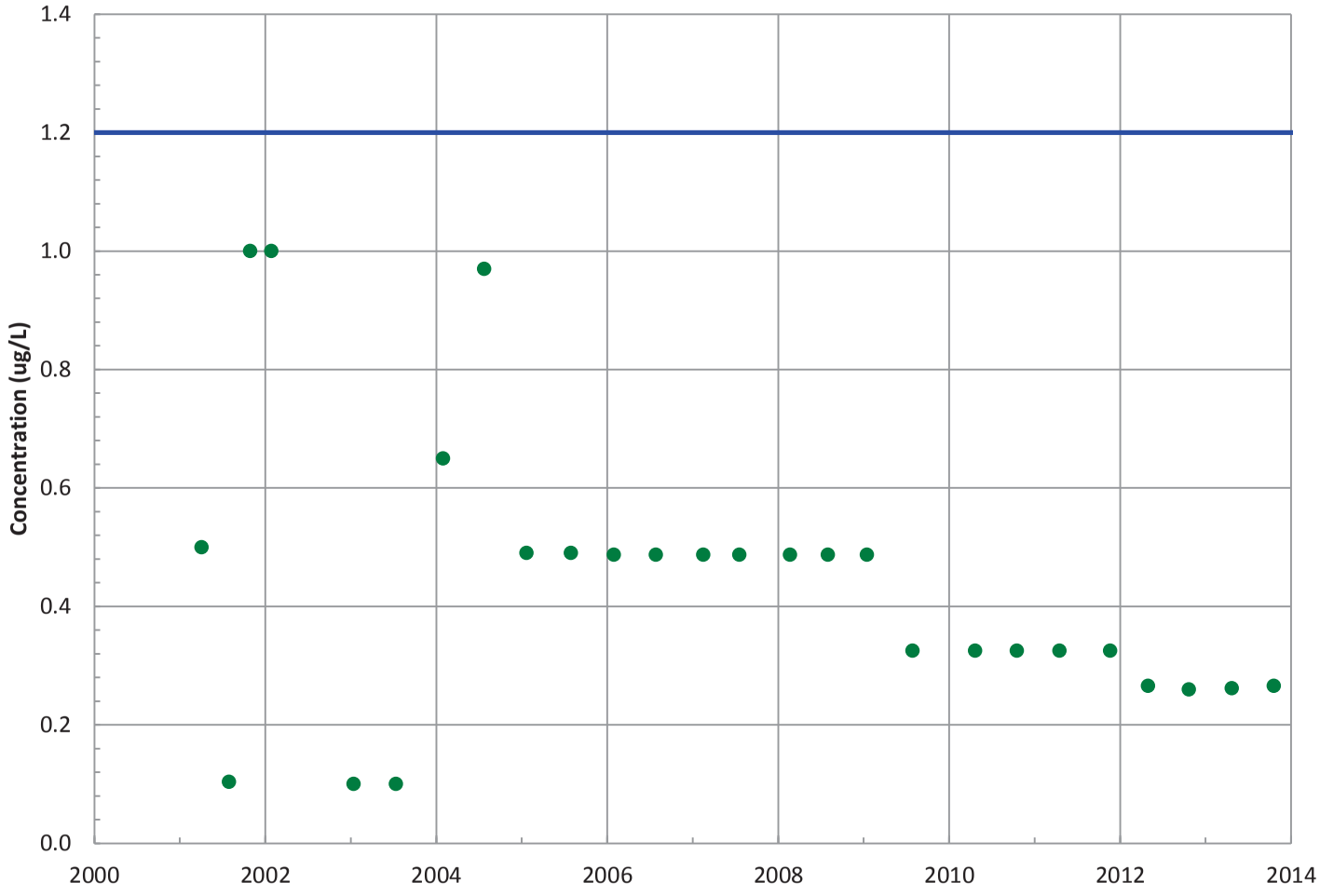
Well Location



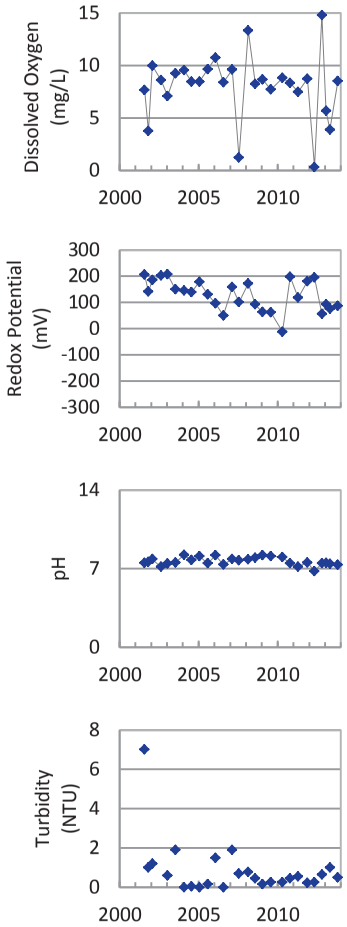
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/4/2001 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1008
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



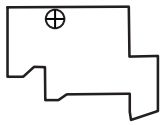
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

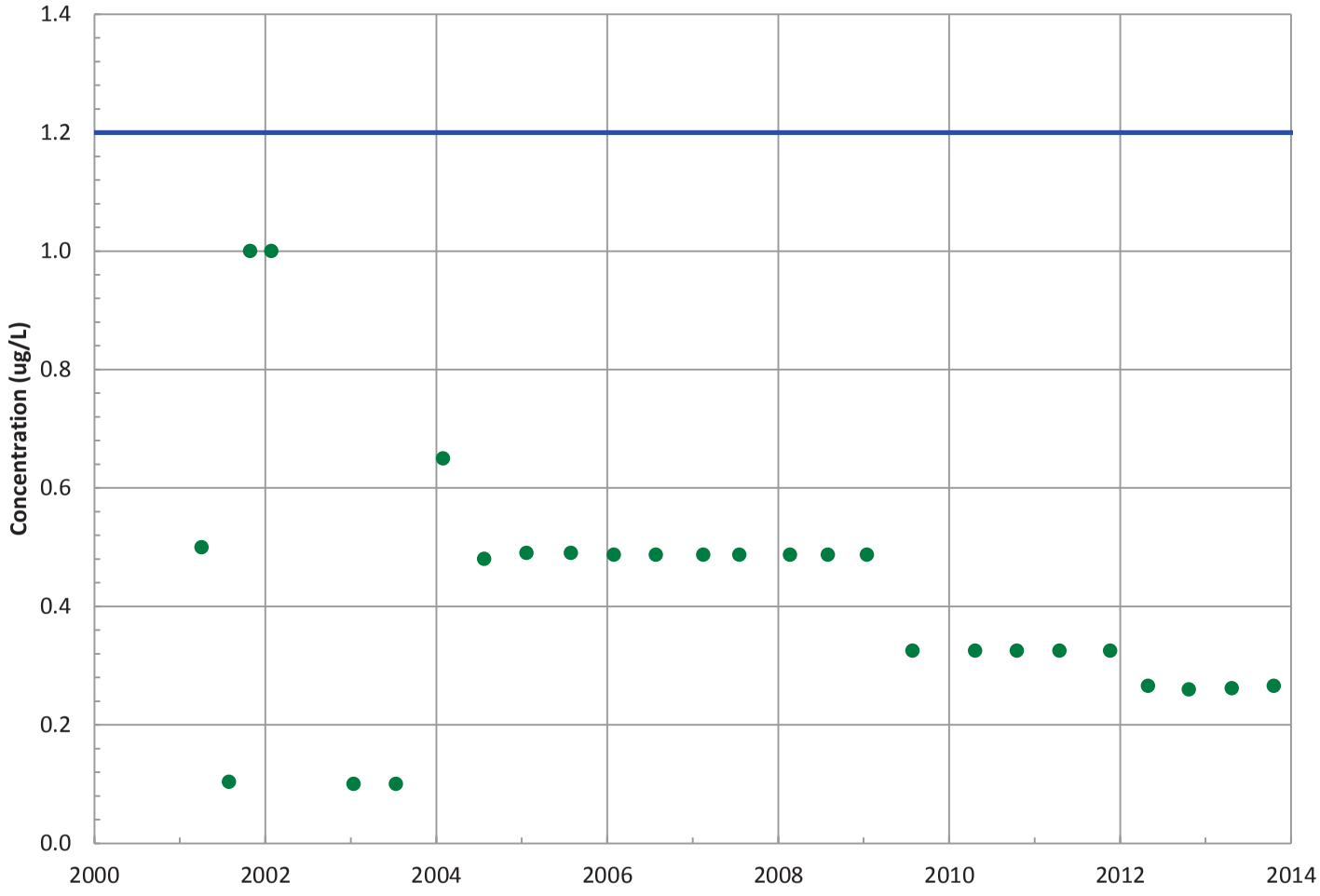
Well Location



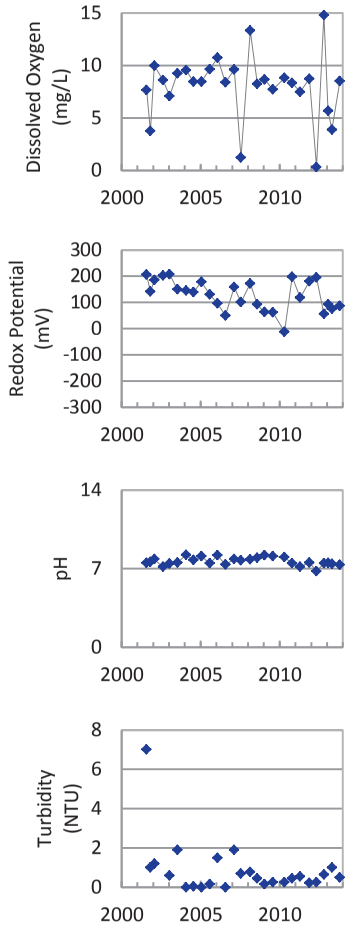
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/4/2001 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1008
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



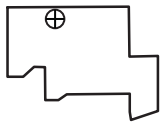
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

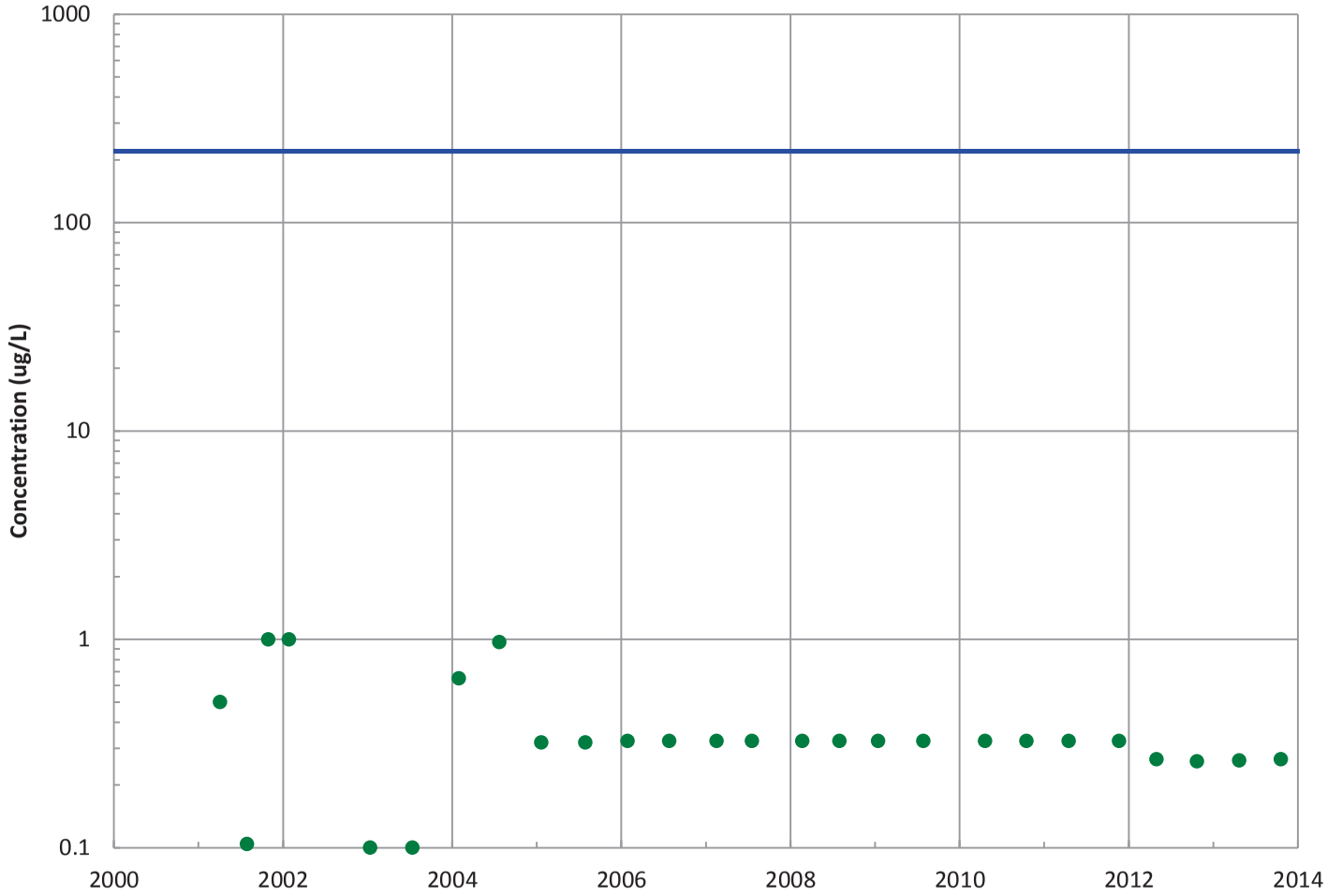
Well Location



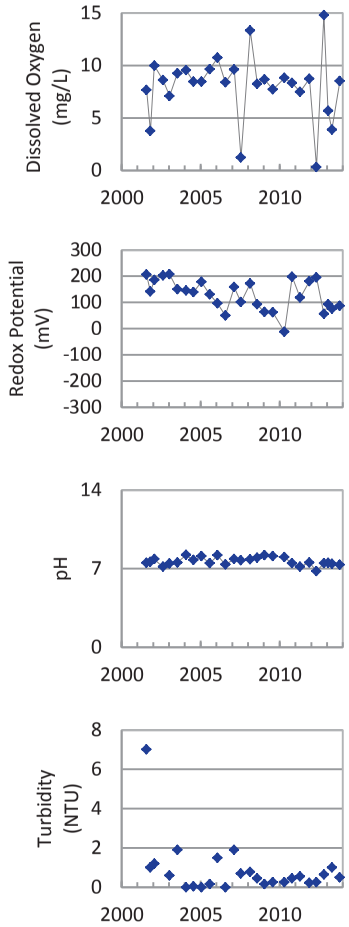
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/4/2001 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1008
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



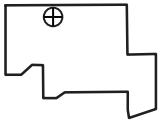
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

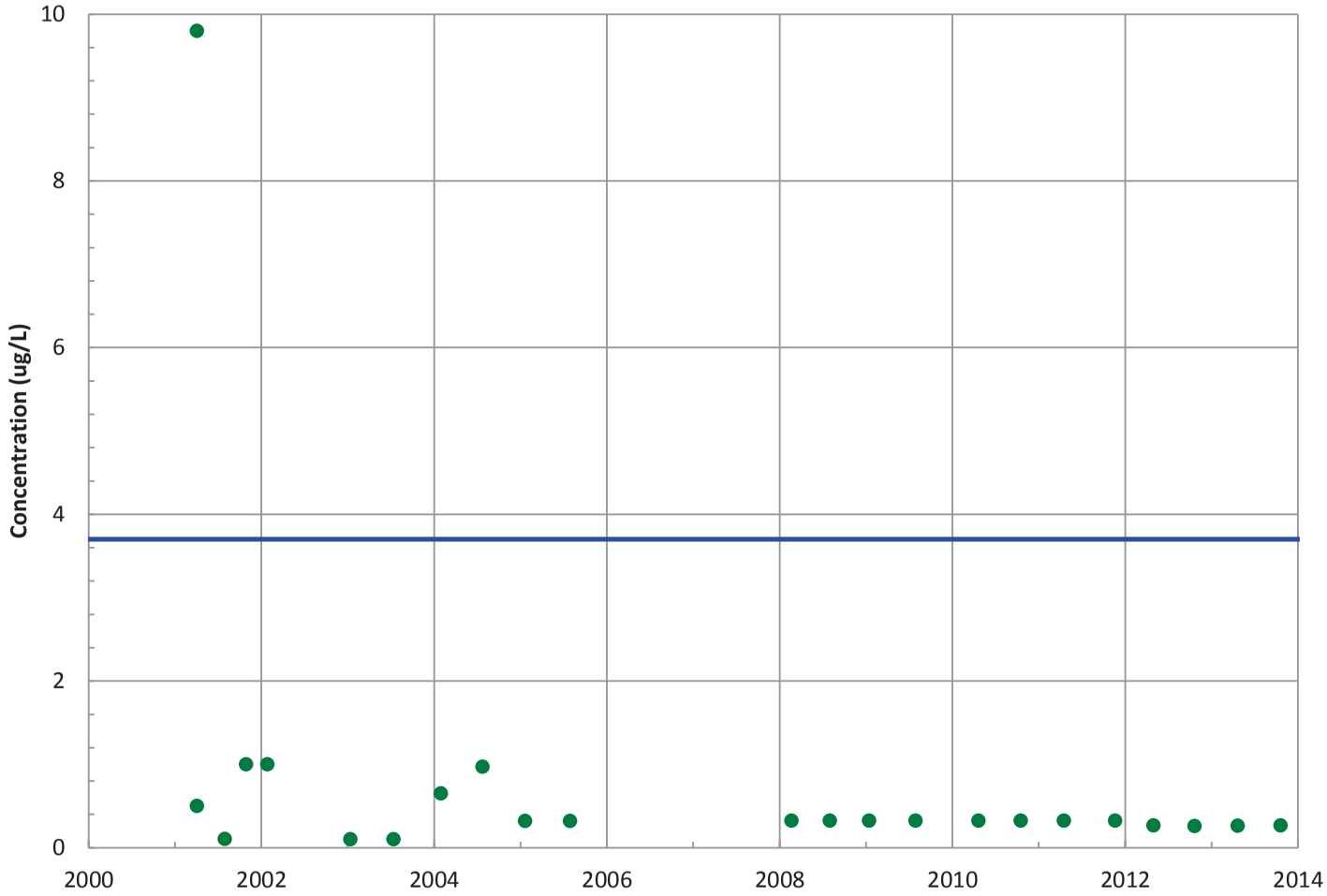
Well Location



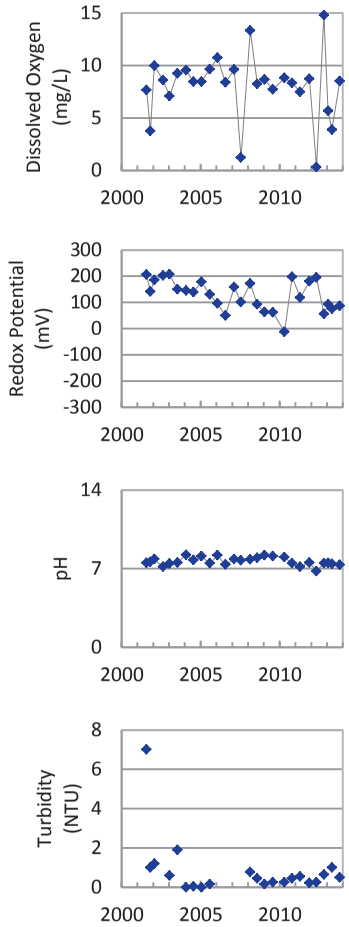
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/4/2001 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1008
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



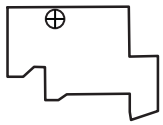
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

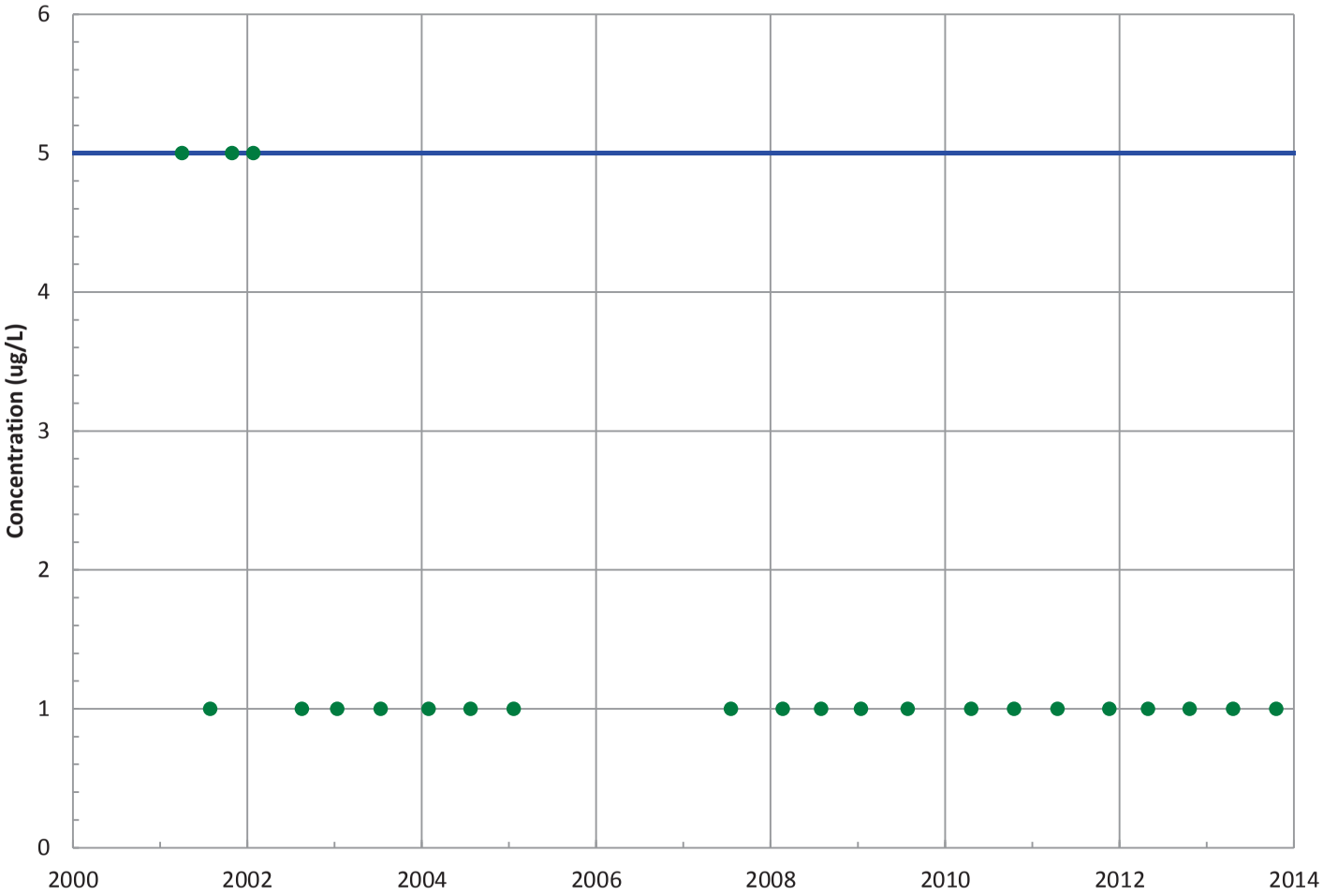
Well Location



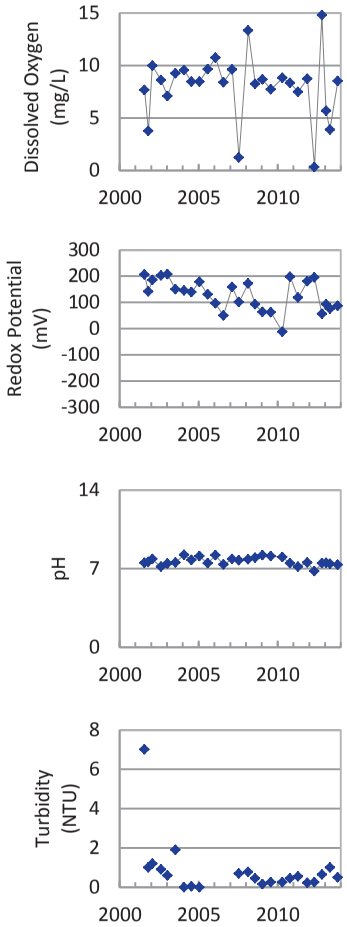
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/4/2001 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1008
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



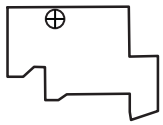
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

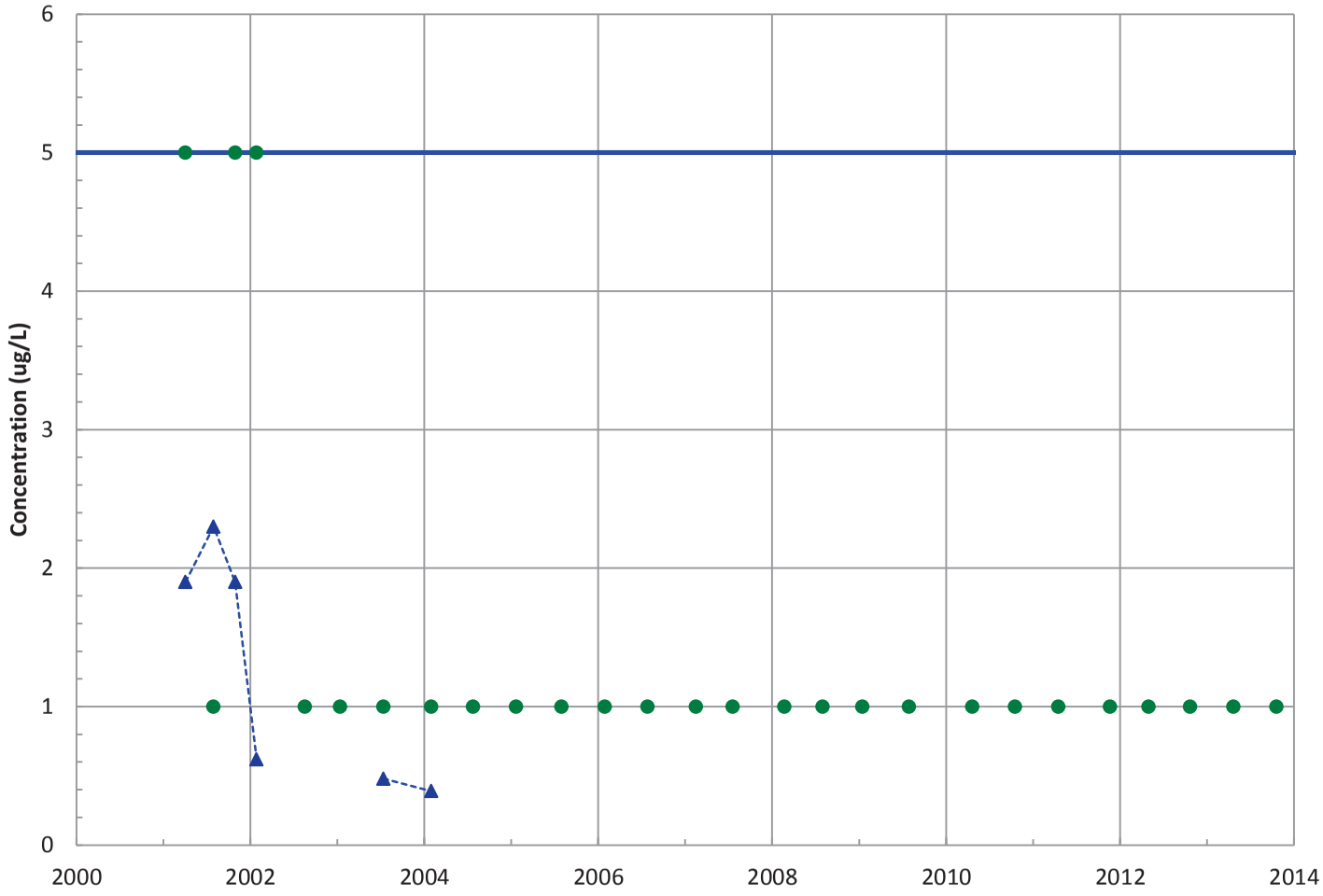
Well Location



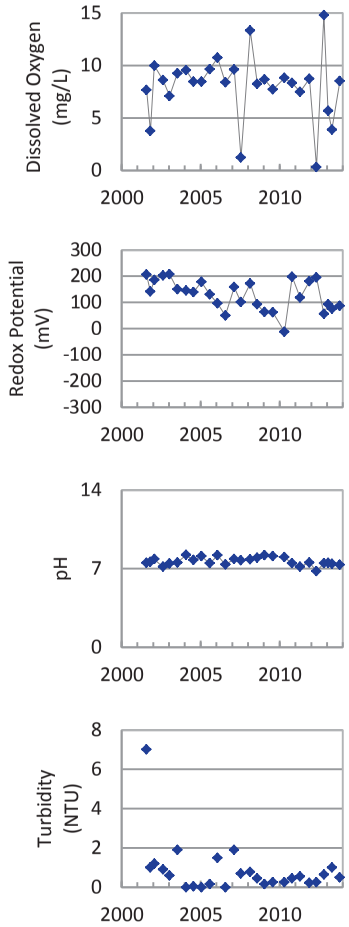
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/4/2001 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1008
Trichloroethene Trend in Perched Aquifer



Field Parameters



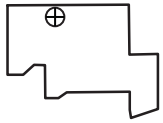
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

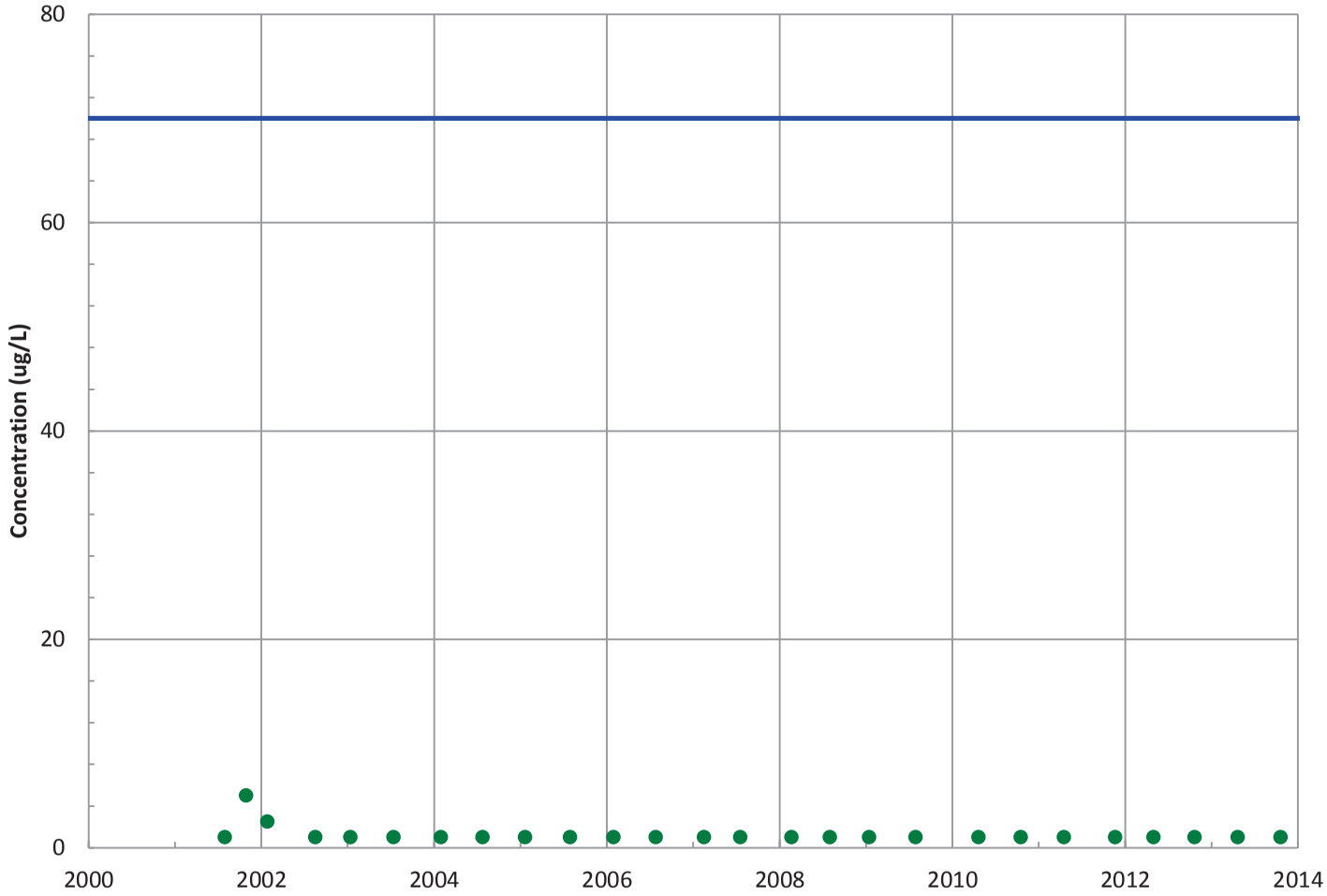
Well Location



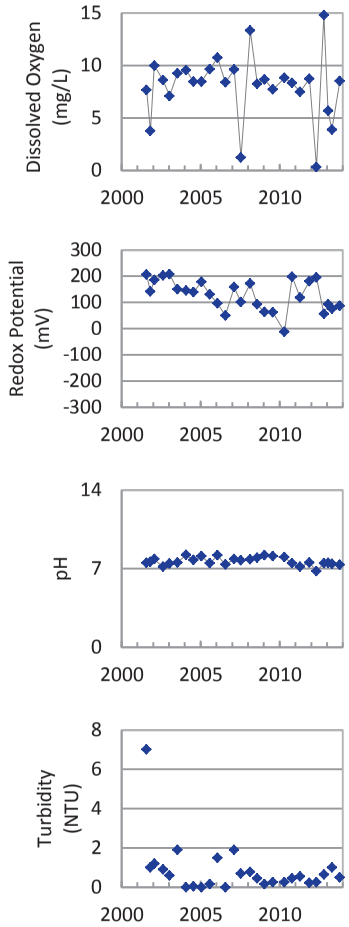
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/4/2001 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1008
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



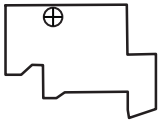
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

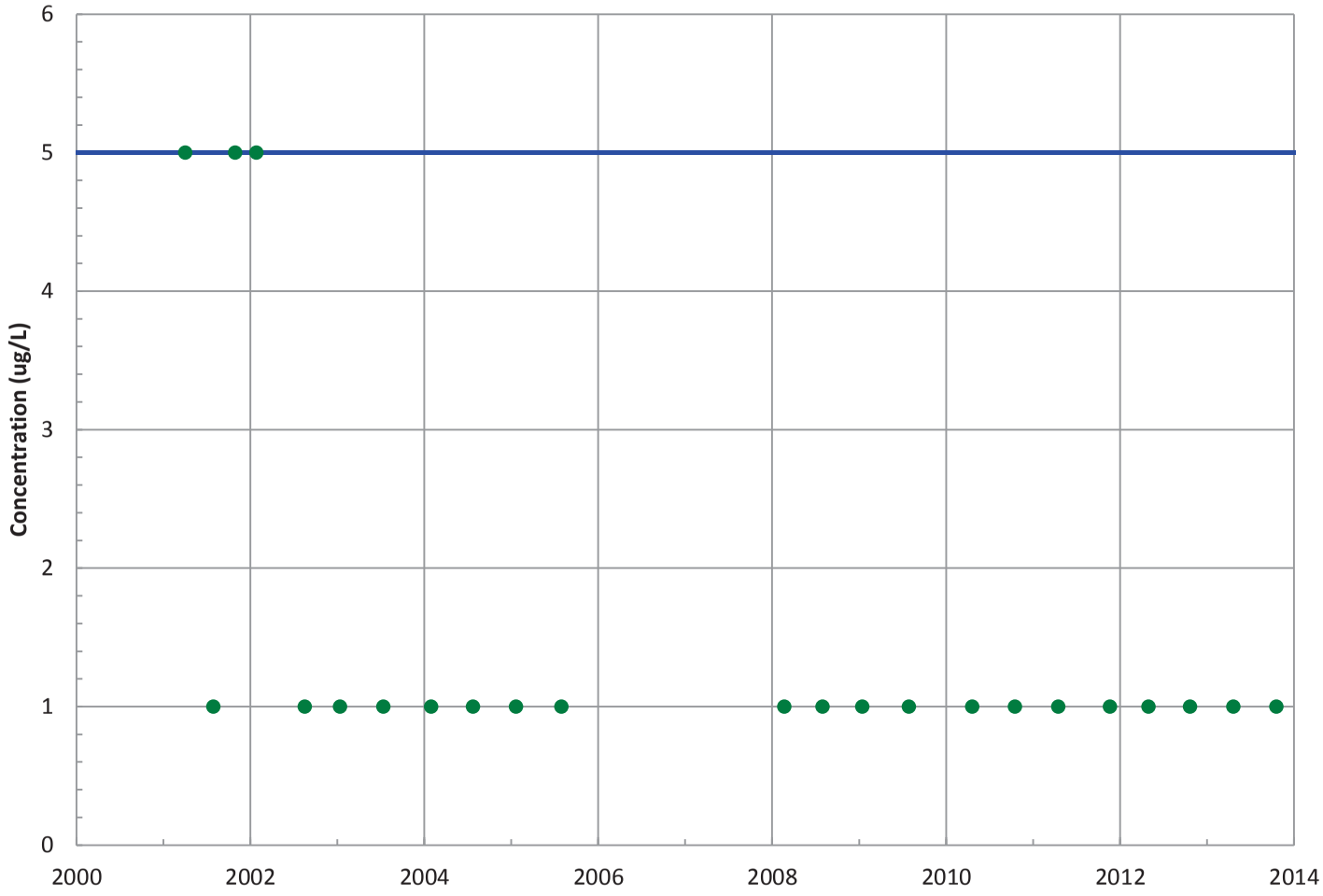
Well Location



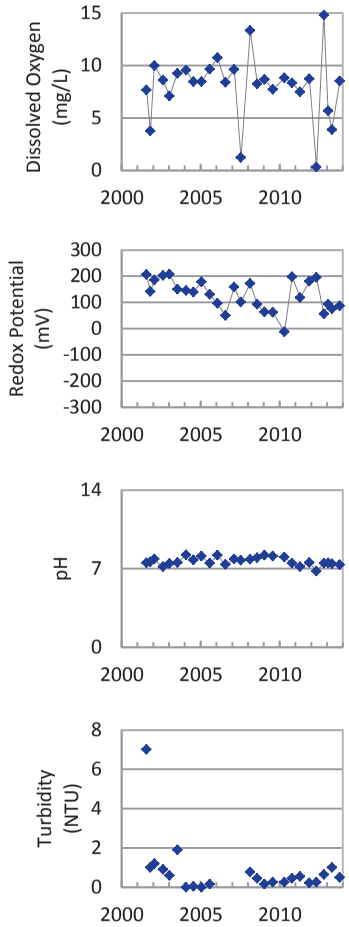
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 7/31/2001 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1008
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



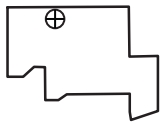
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

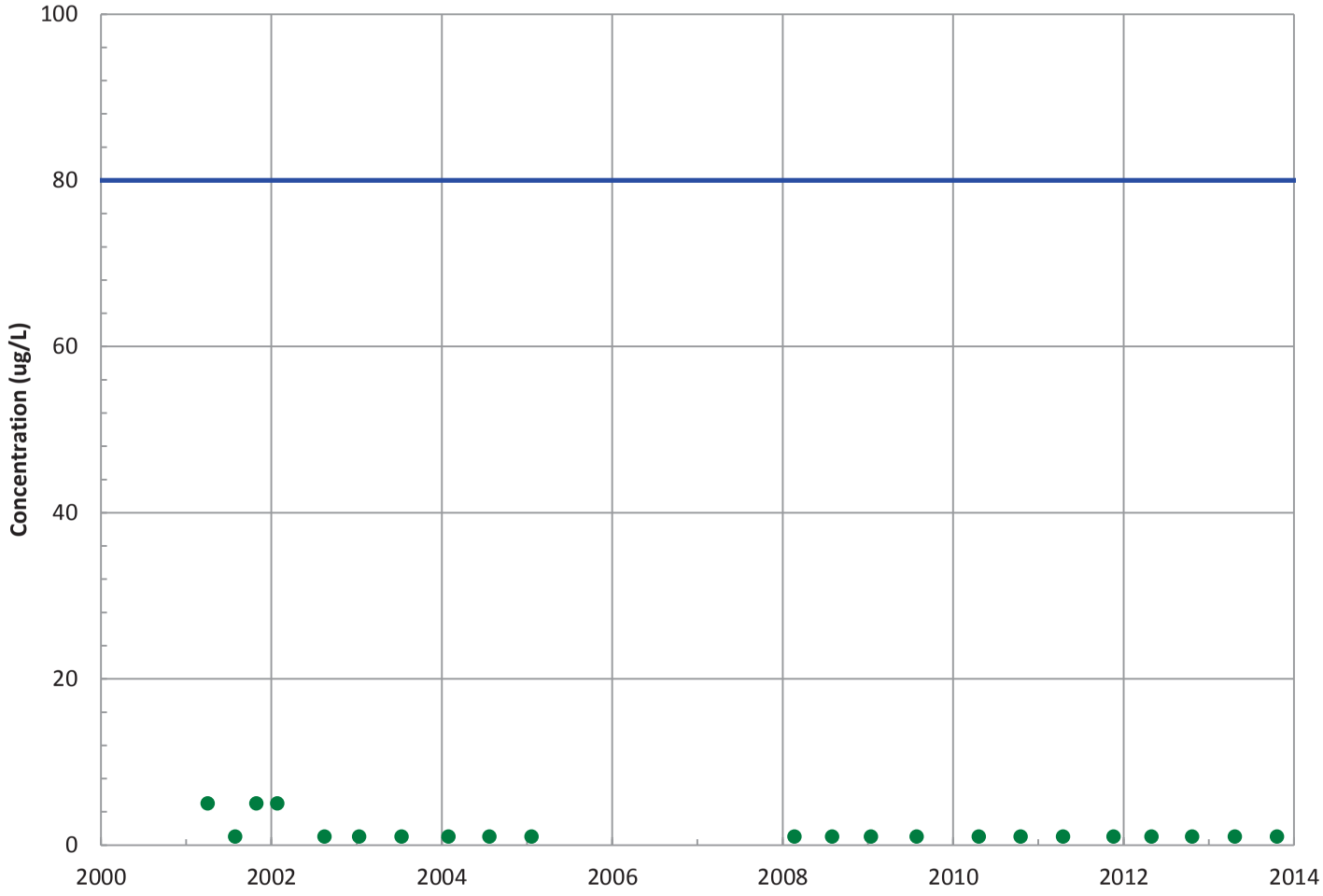
Well Location



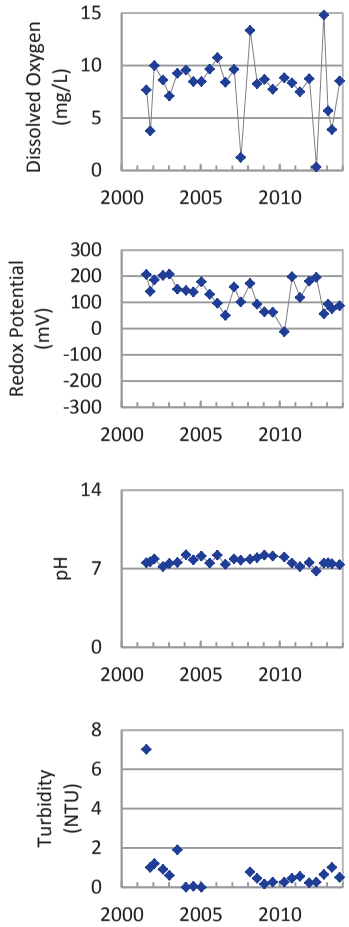
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/4/2001 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1008
Chloroform Trend in Perched Aquifer



Field Parameters



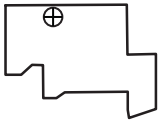
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

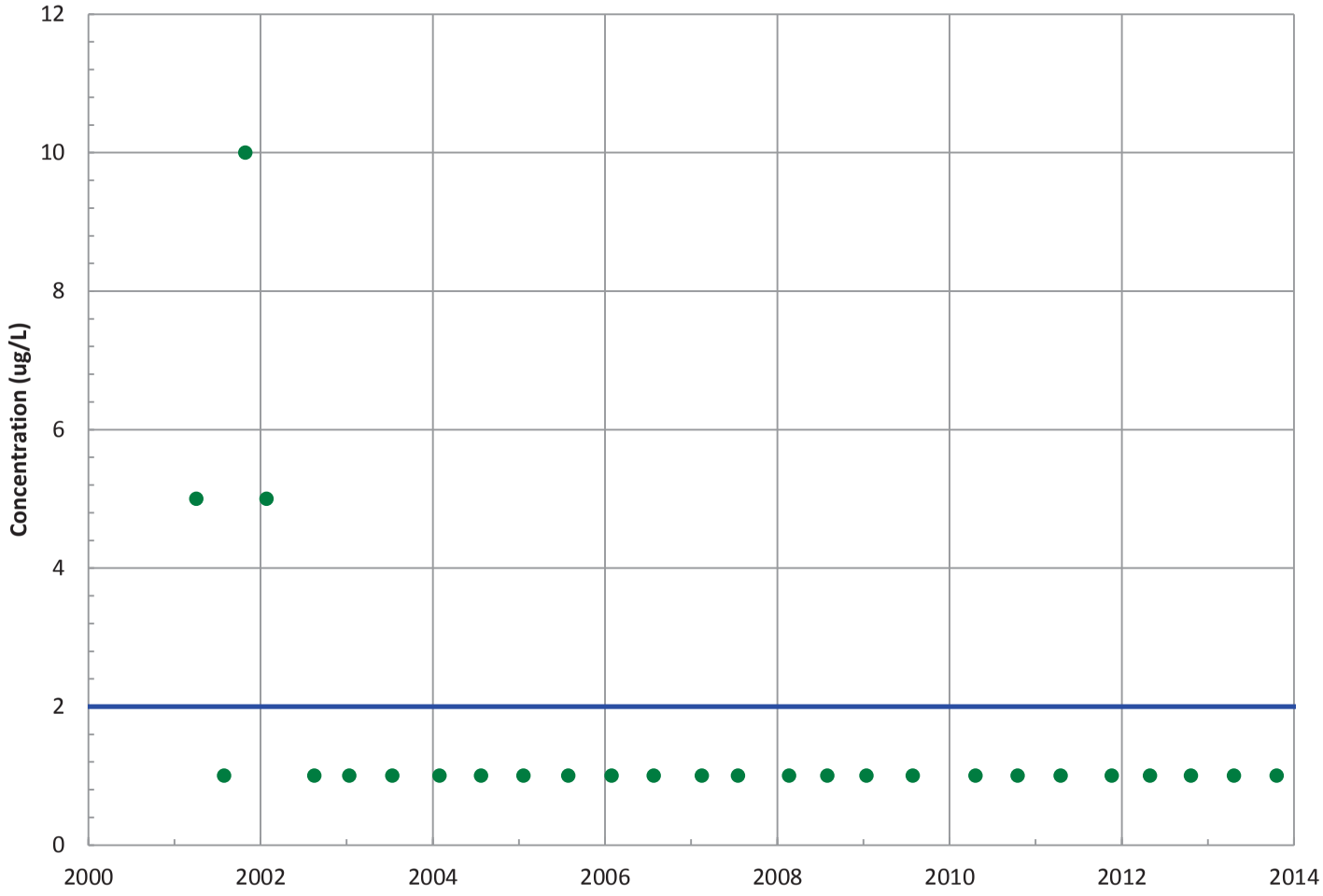
Well Location



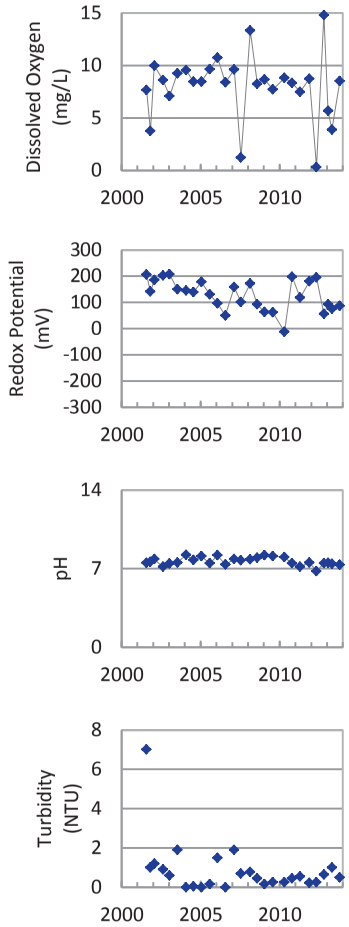
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/4/2001 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1008
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



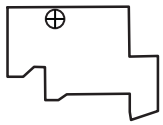
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

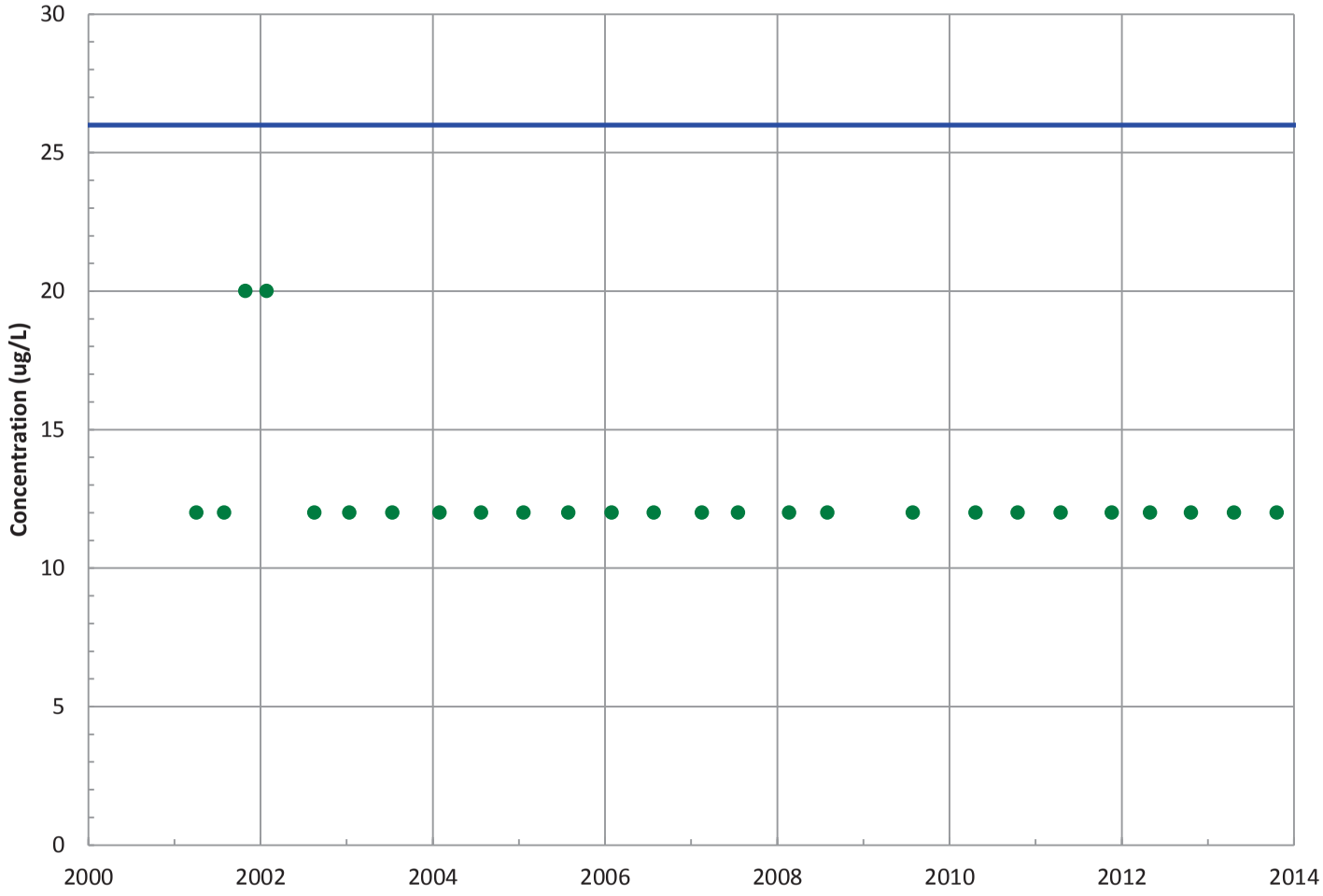
Well Location



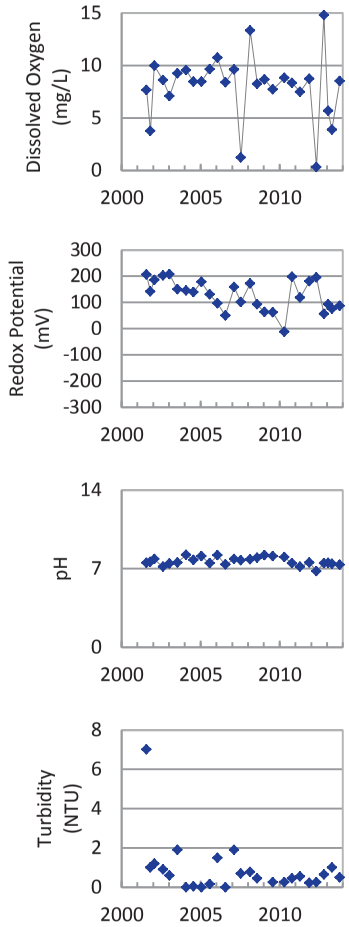
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/4/2001 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1008
Perchlorate Trend in Perched Aquifer



Field Parameters



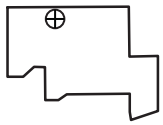
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

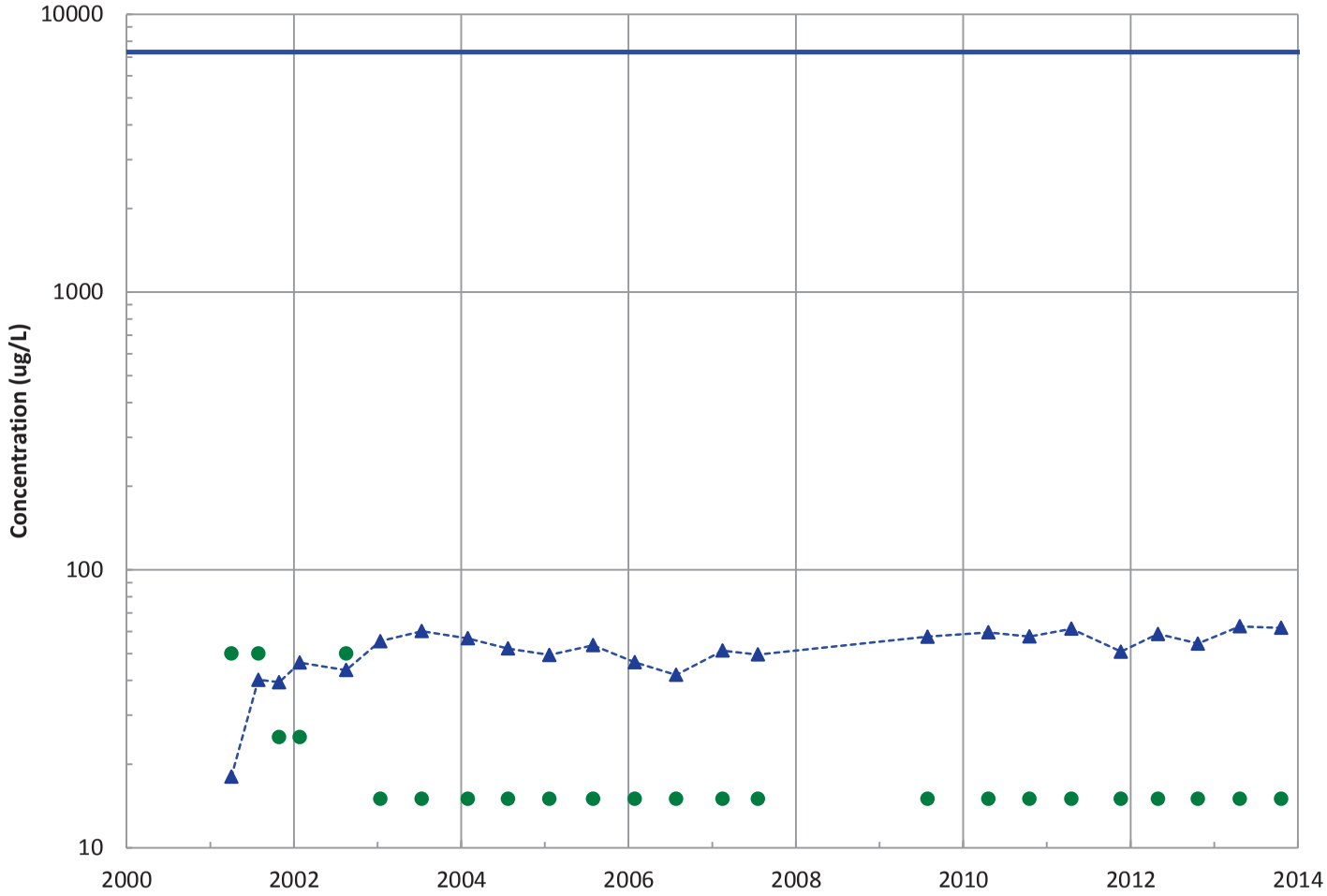
Well Location



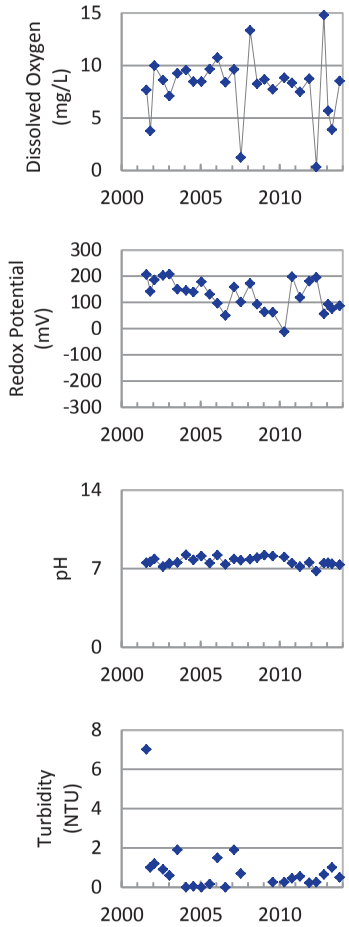
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/4/2001 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX01-1008
Boron Trend in Perched Aquifer



Field Parameters



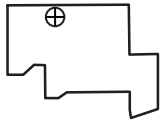
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

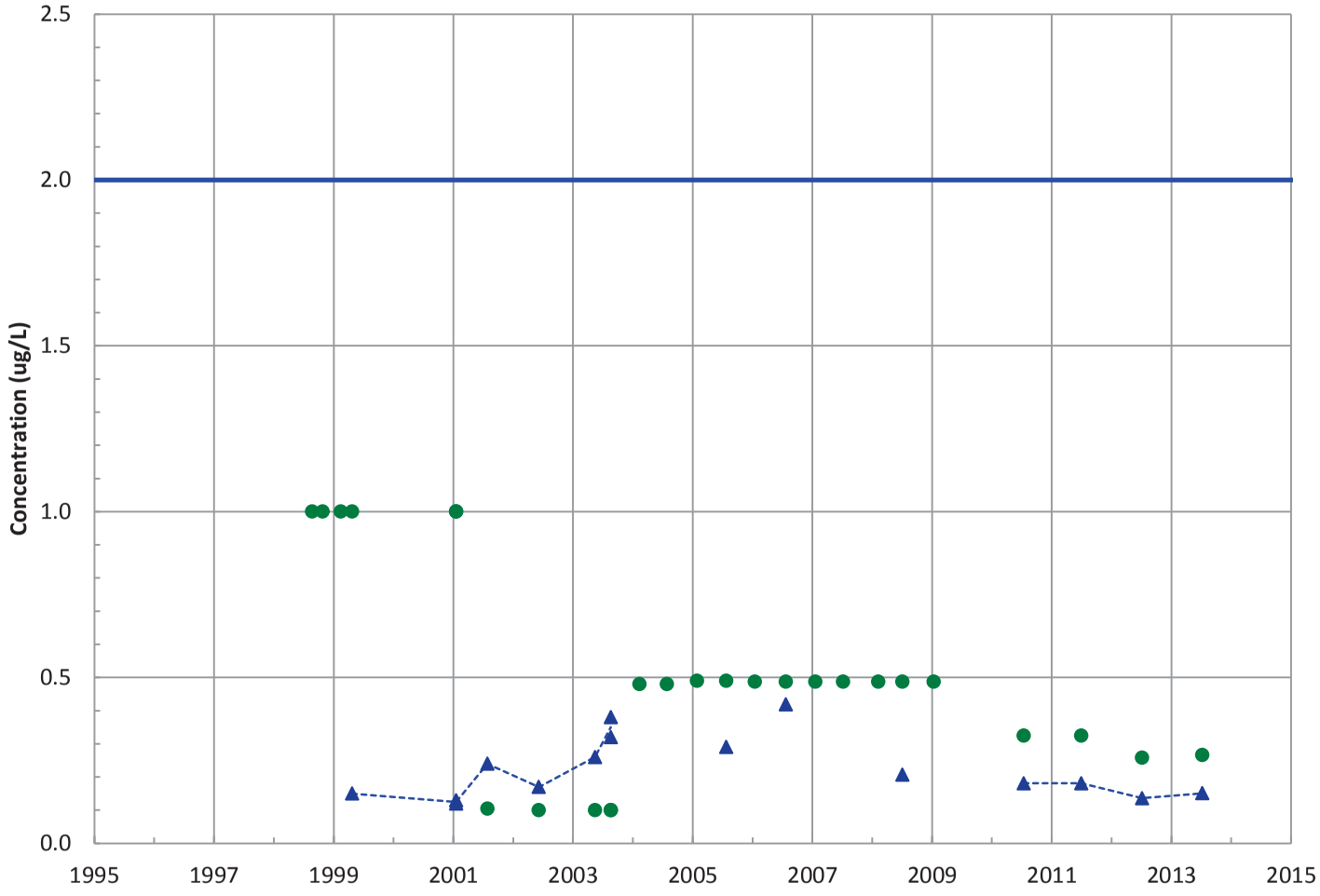
Well Location



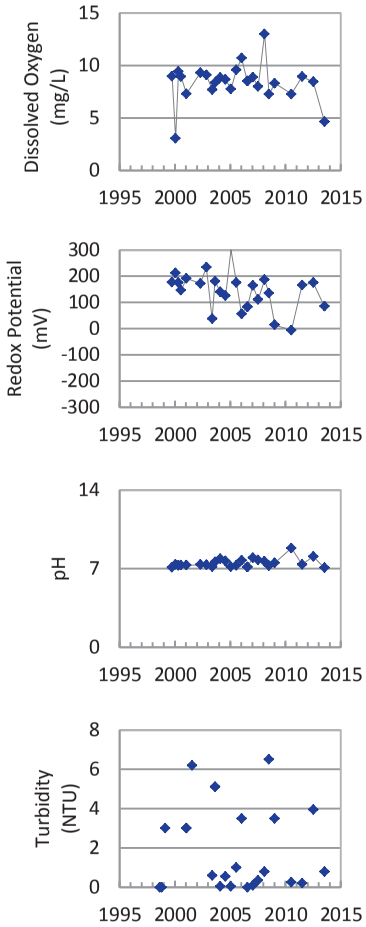
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/4/2001 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX04-1002
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



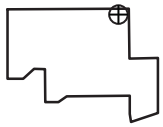
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------ Concentration Trend
- ——— Groundwater Protection Standard

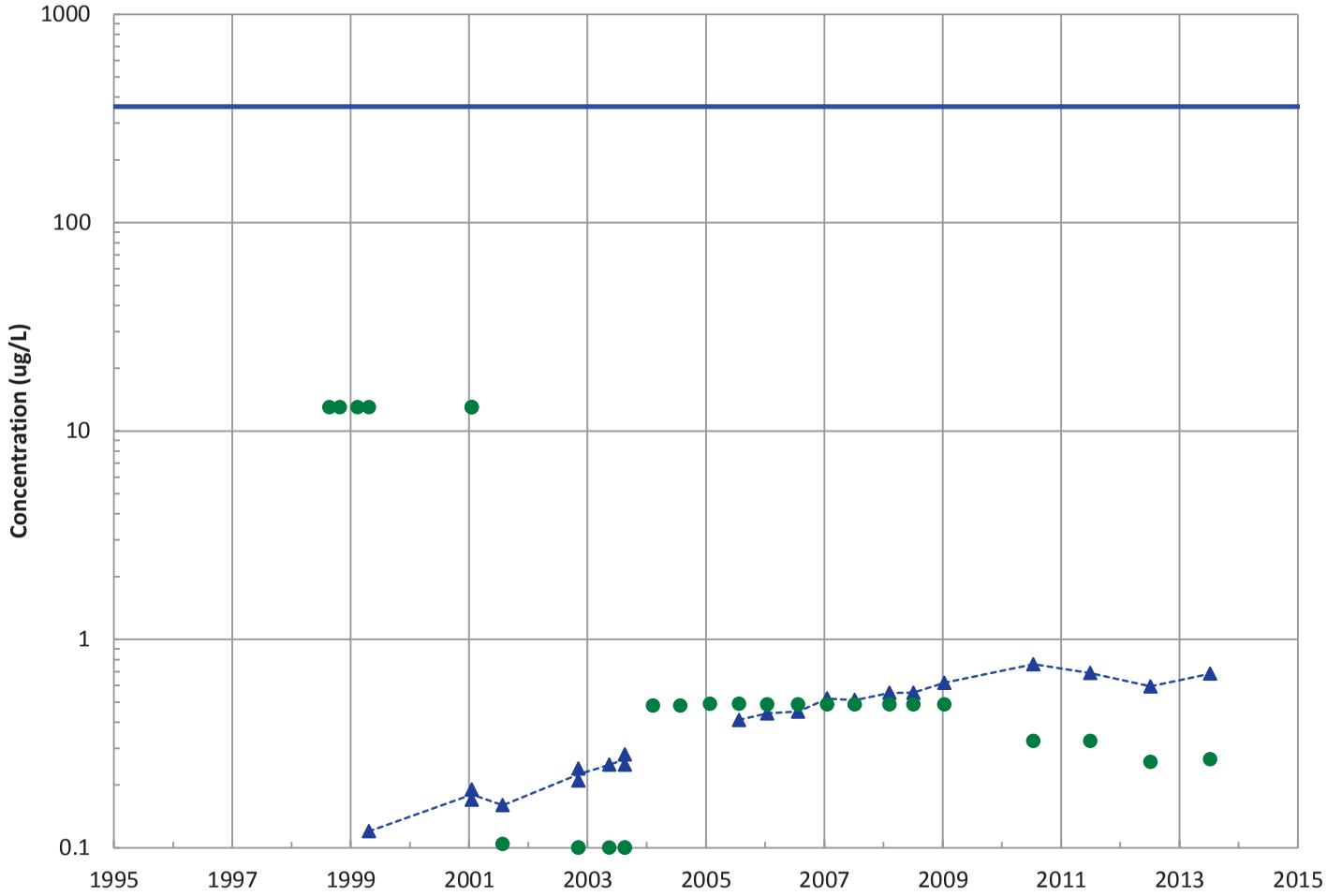
Well Location



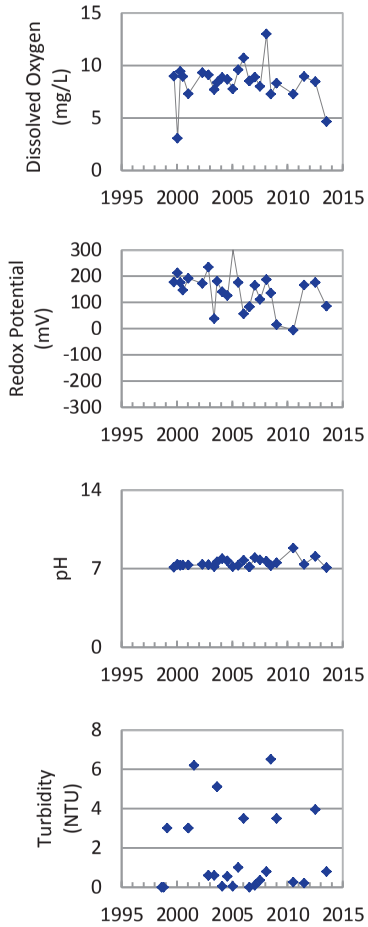
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/25/1998 to 7/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX04-1002
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



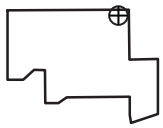
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

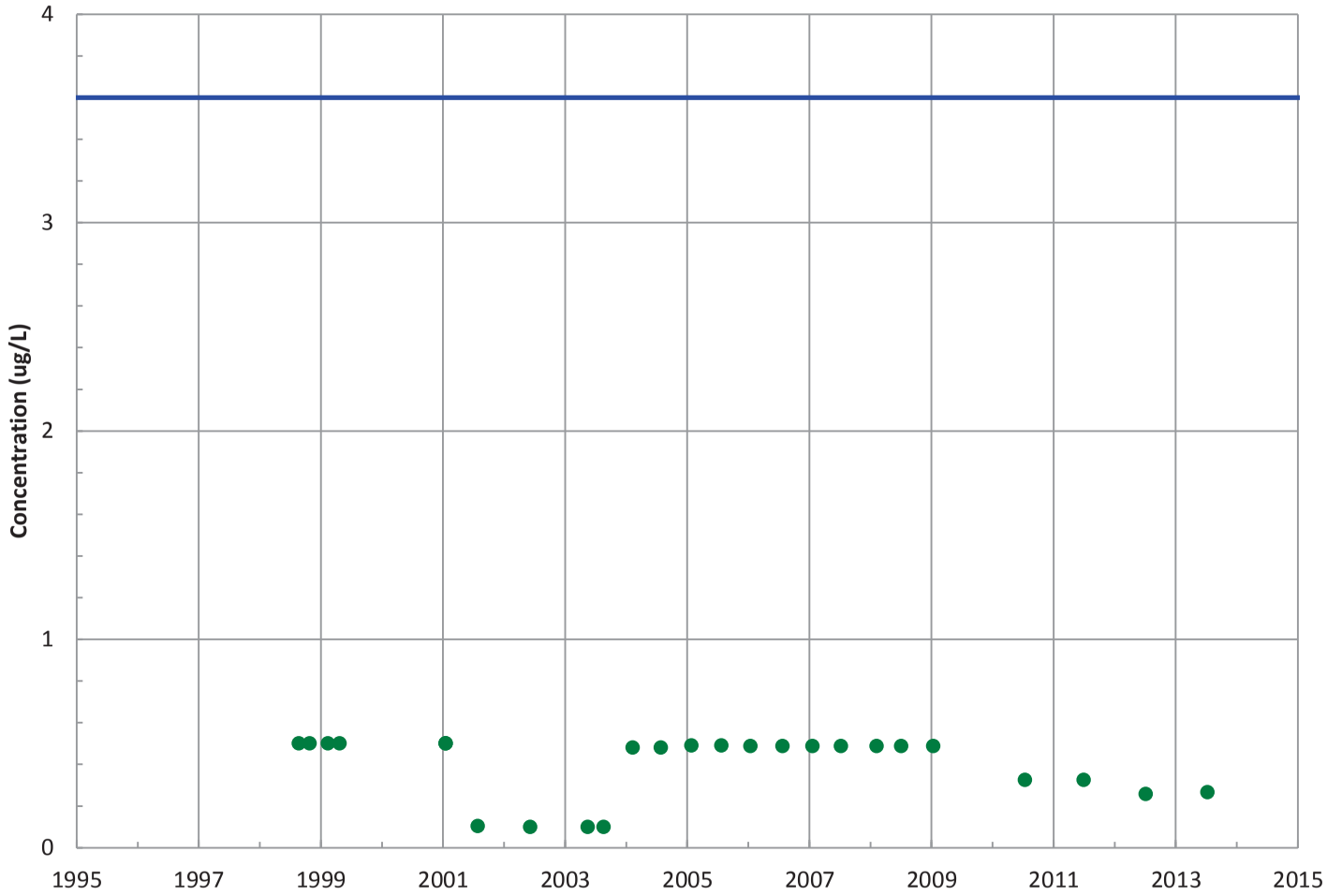
Well Location



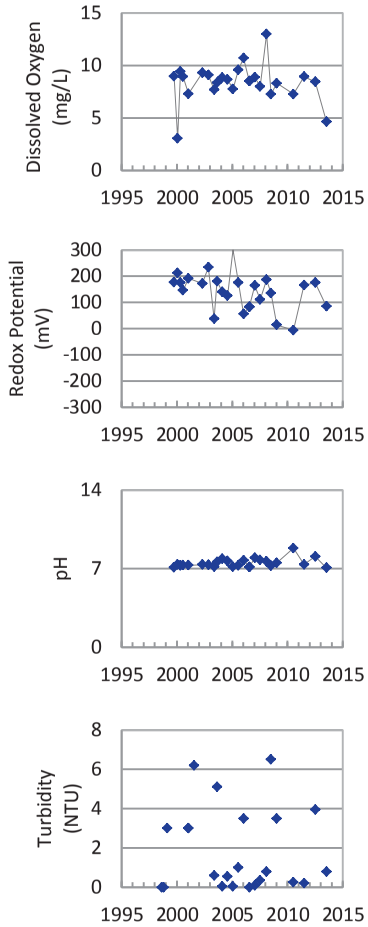
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/25/1998 to 7/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX04-1002
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



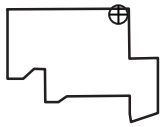
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

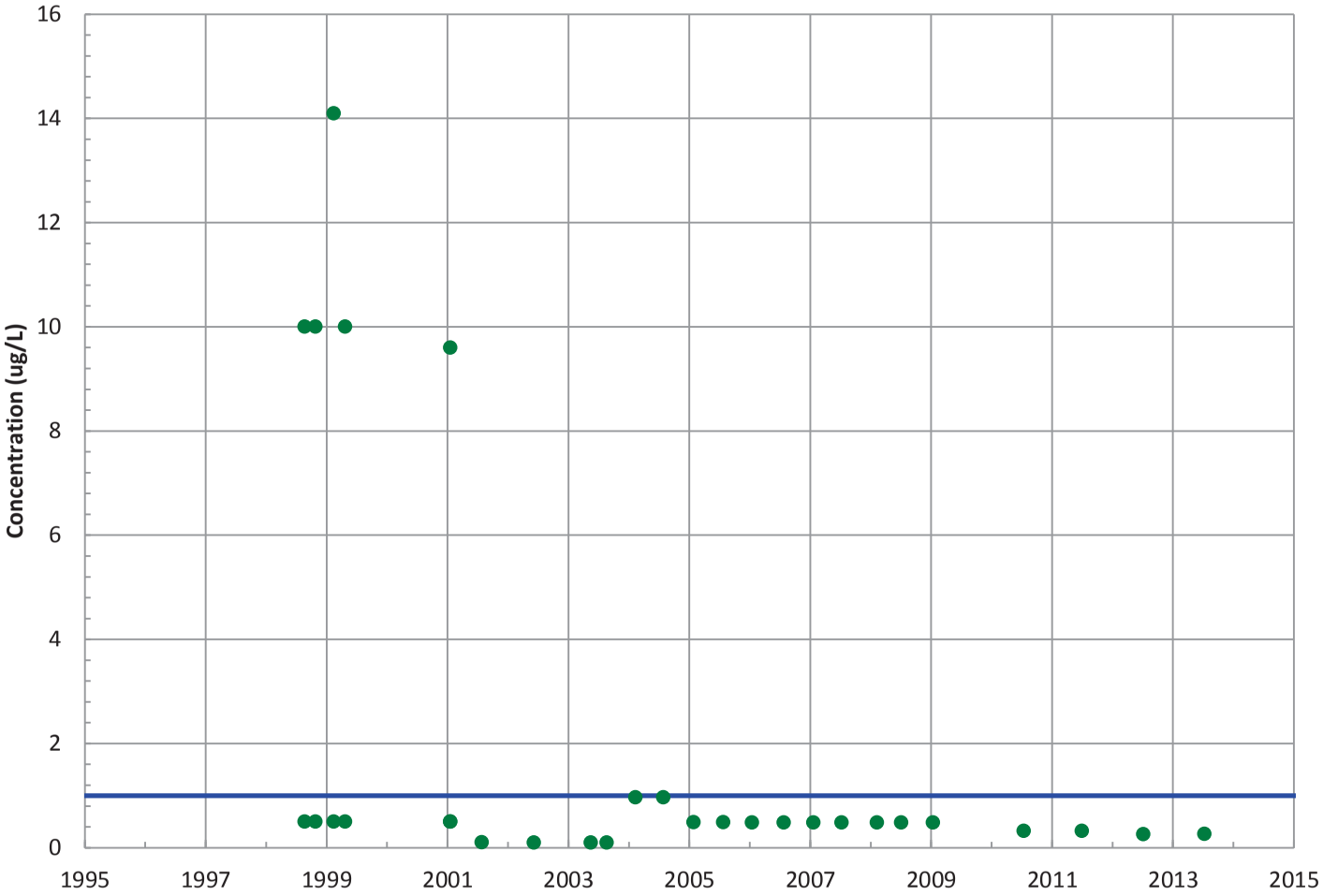
Well Location



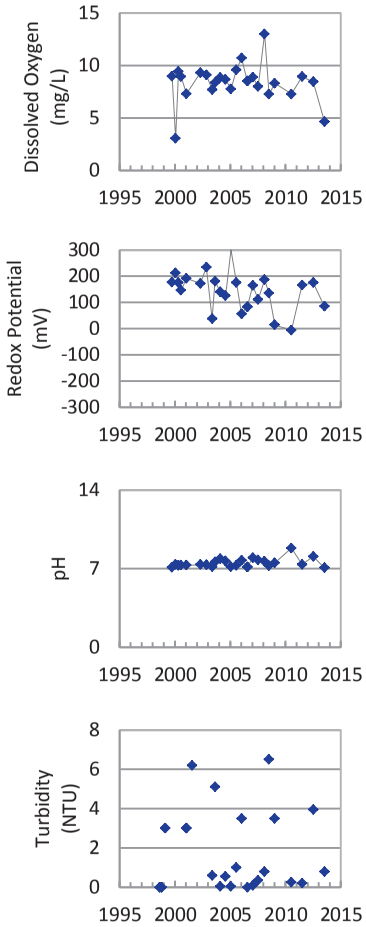
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/25/1998 to 7/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX04-1002
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



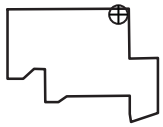
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

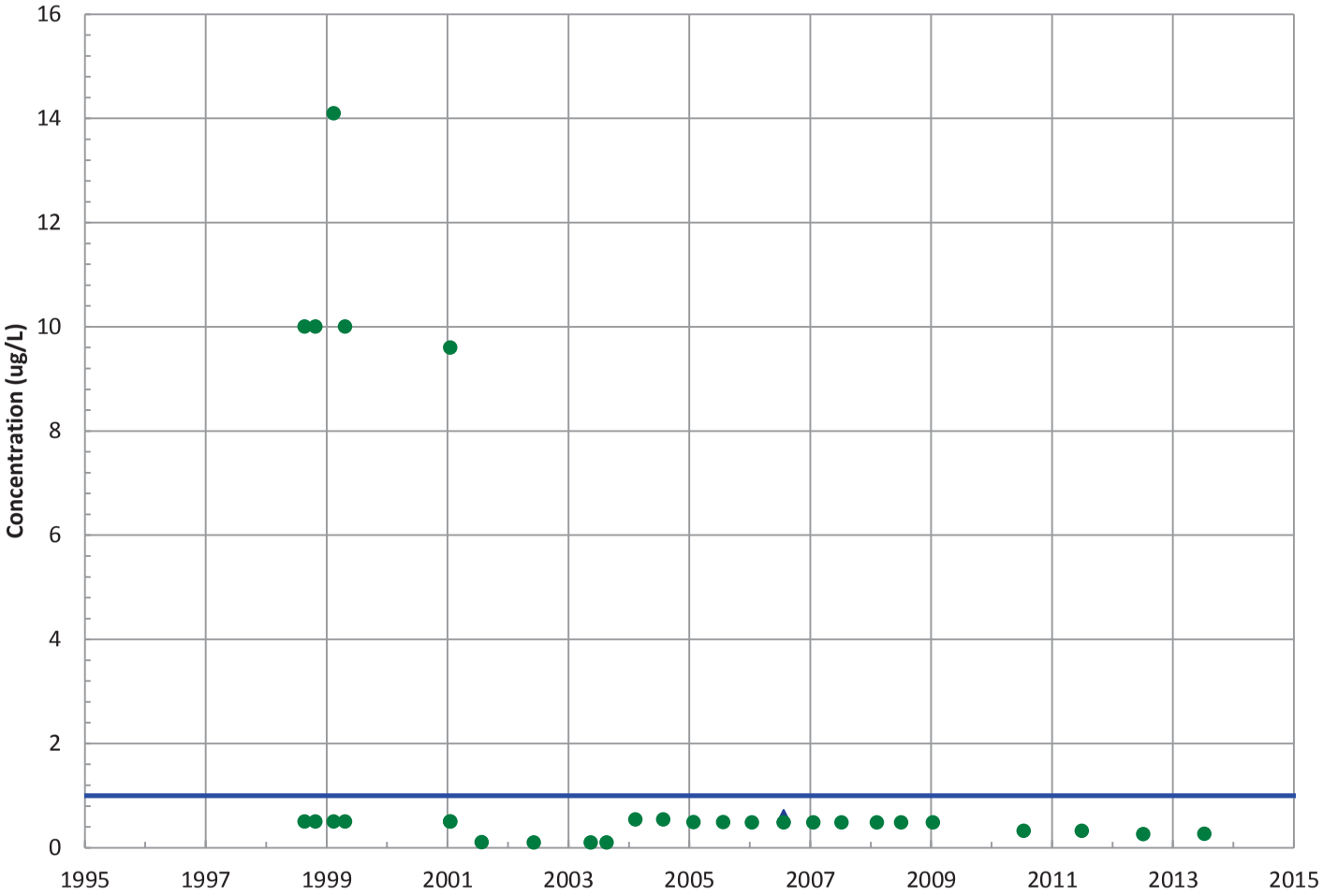
Well Location



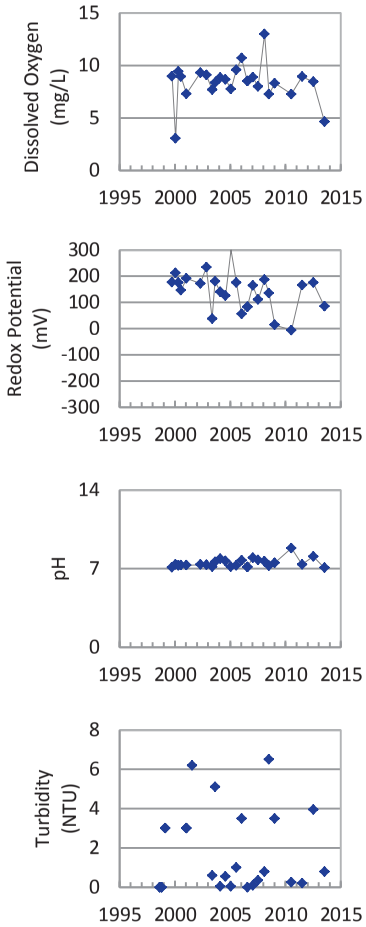
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/25/1998 to 7/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX04-1002
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



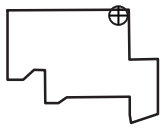
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

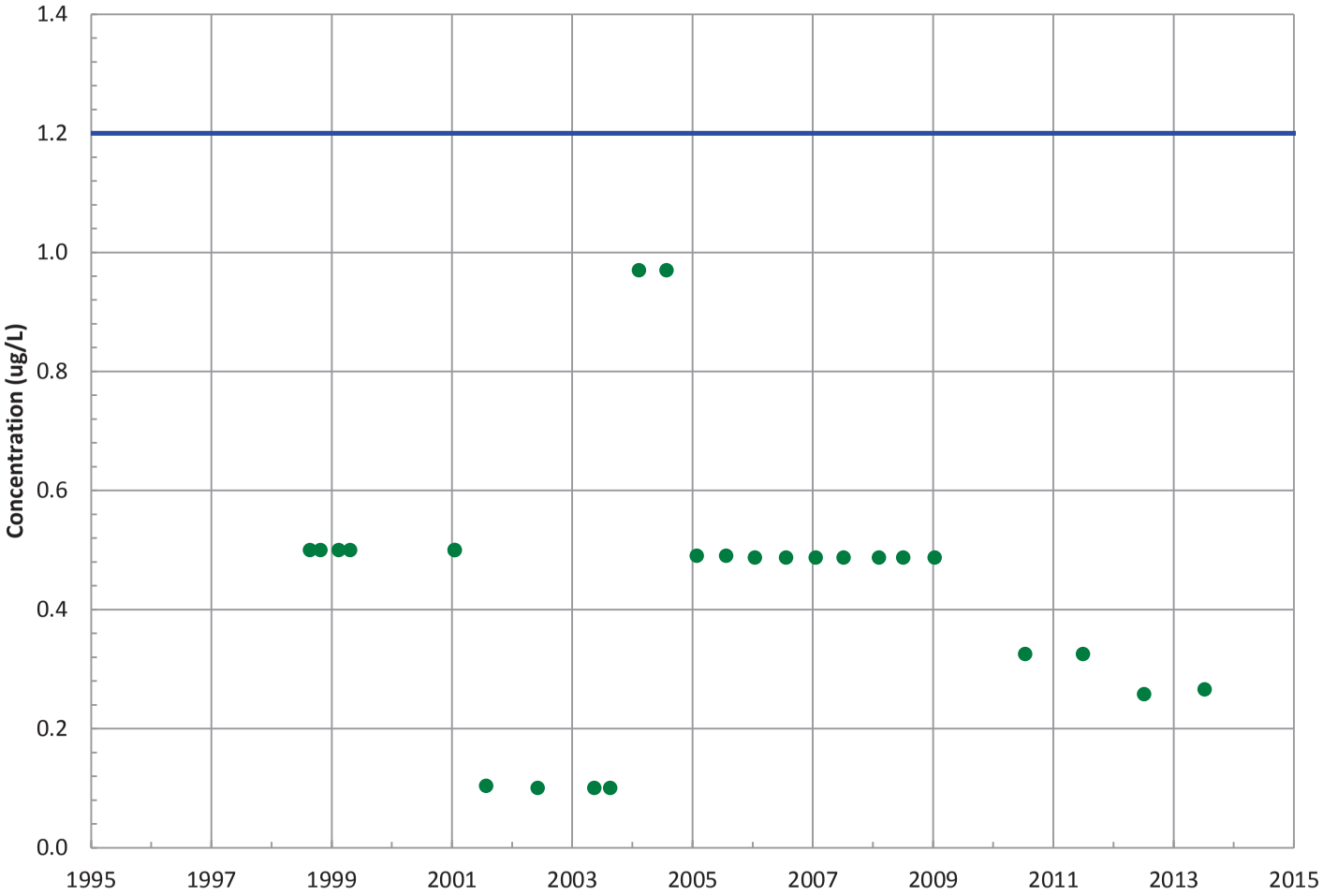
Well Location



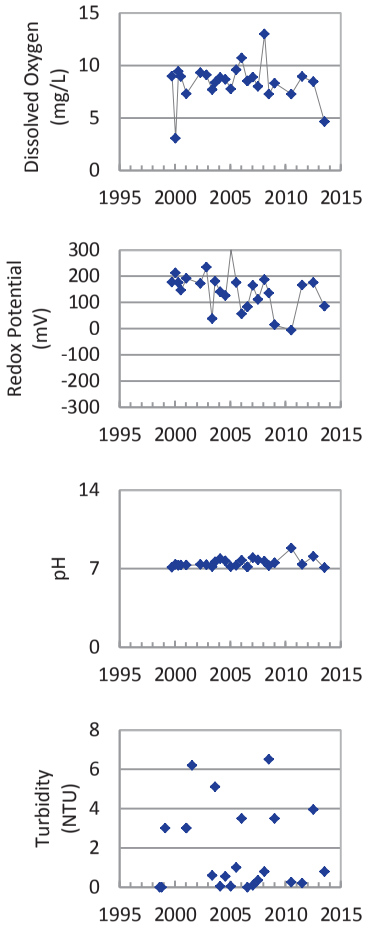
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/25/1998 to 7/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX04-1002
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



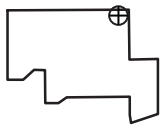
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

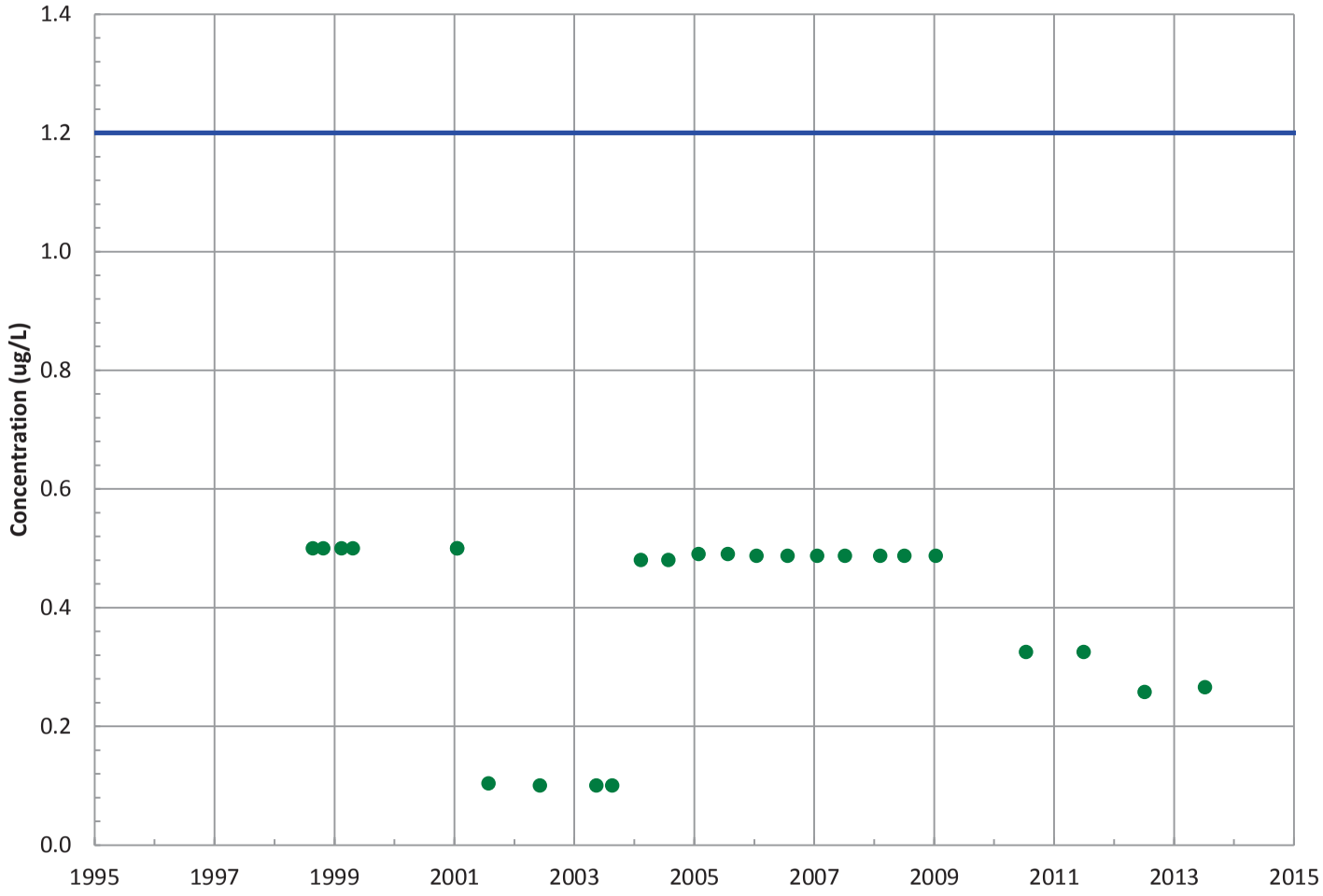
Well Location



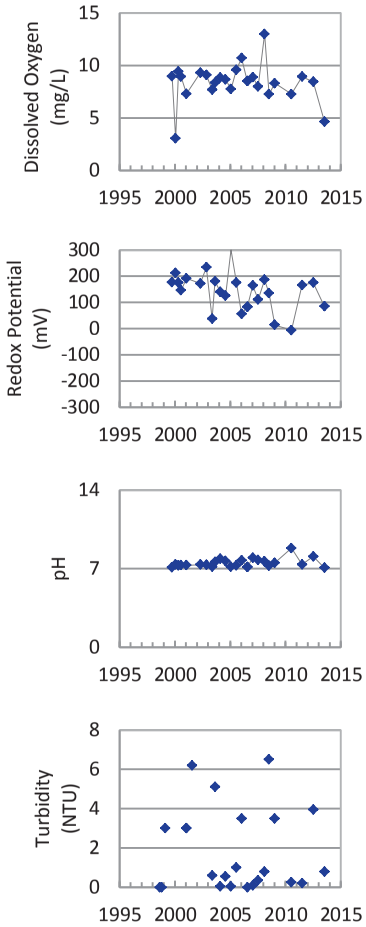
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/25/1998 to 7/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX04-1002
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



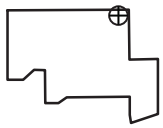
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

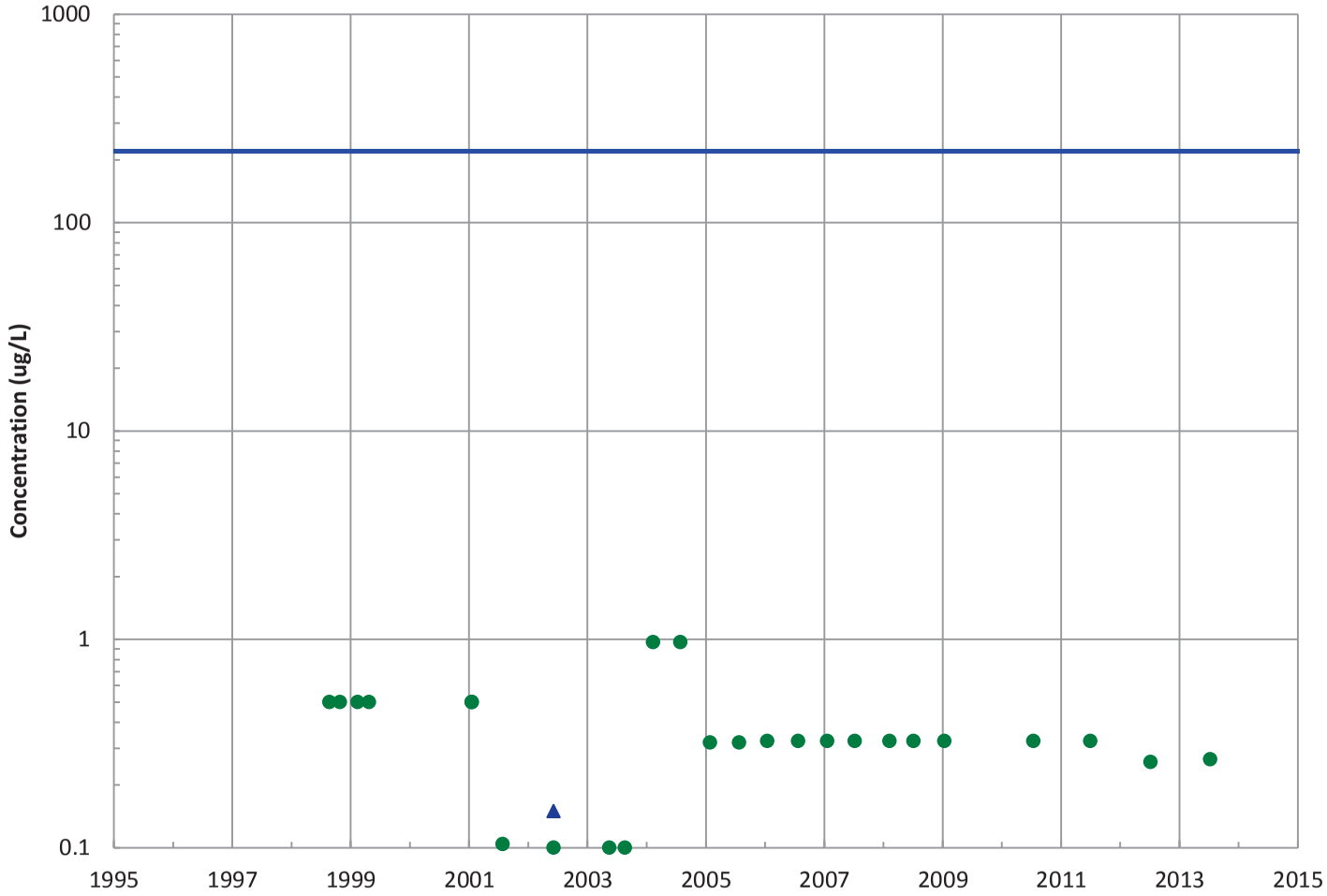
Well Location



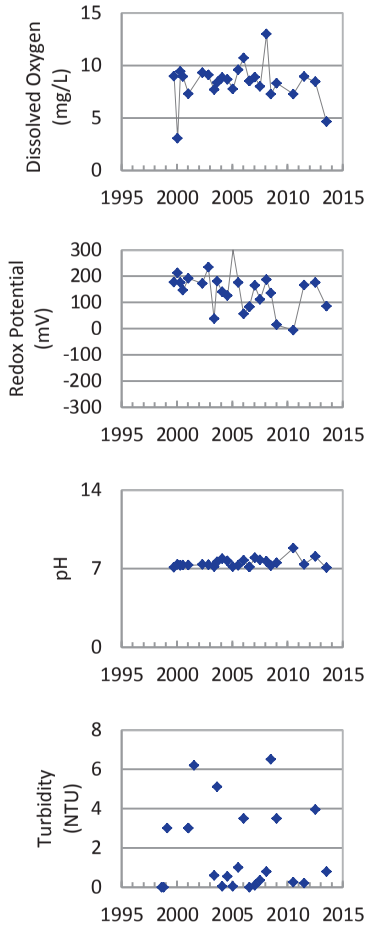
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/25/1998 to 7/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX04-1002
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



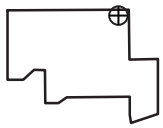
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

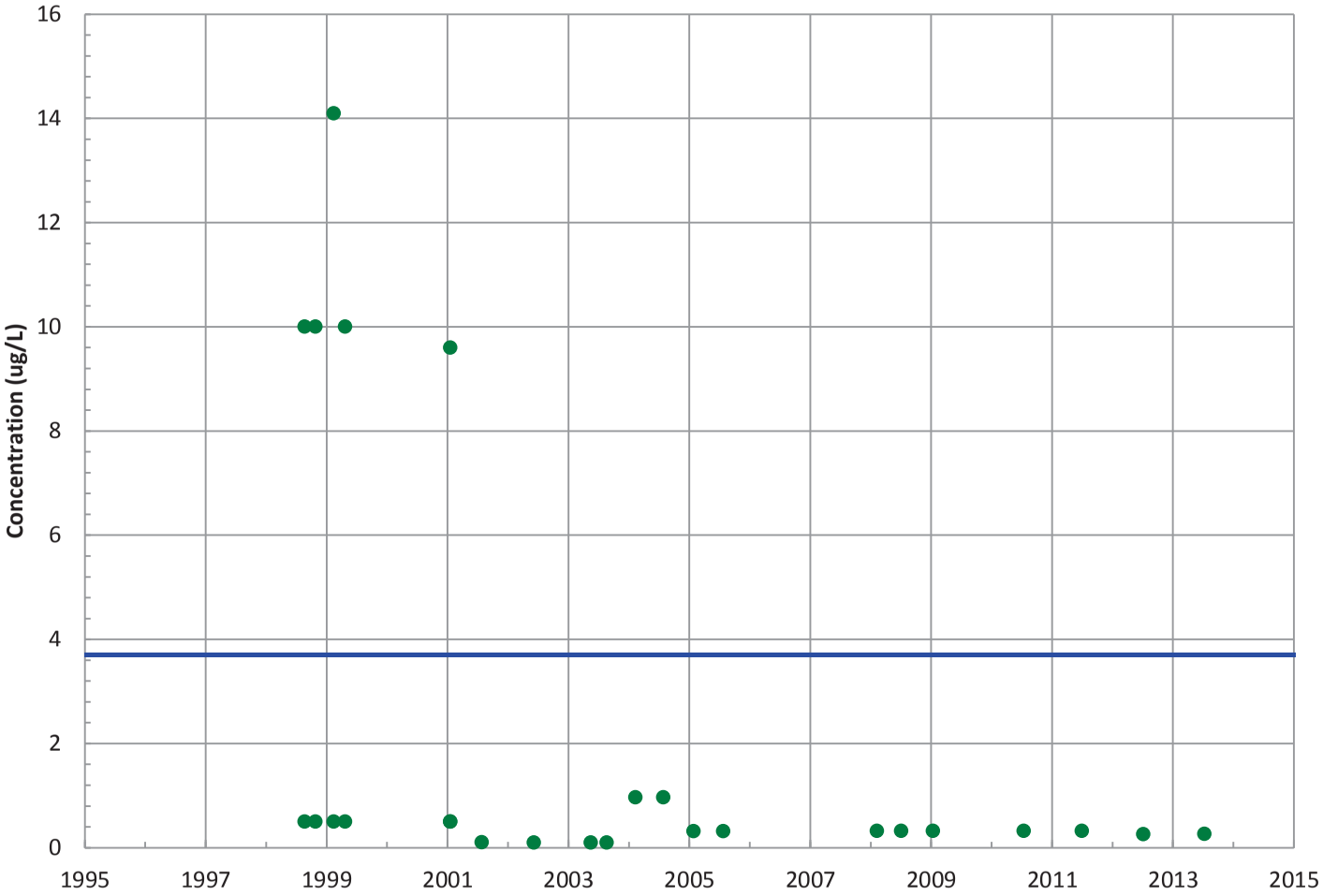
Well Location



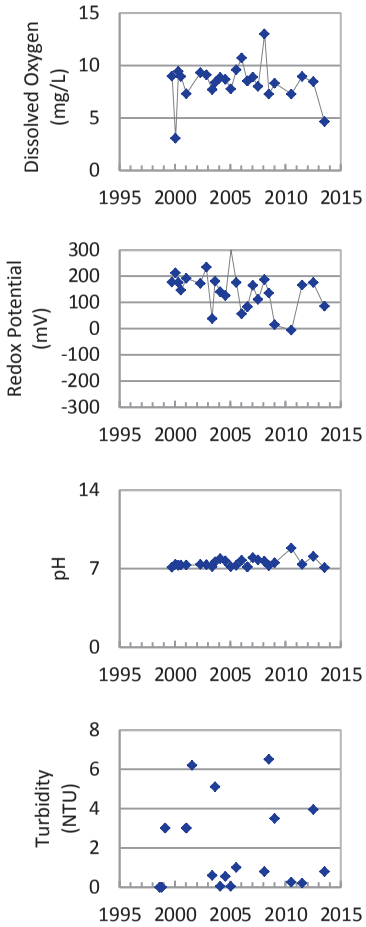
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/25/1998 to 7/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX04-1002
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



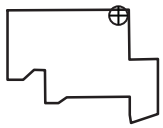
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

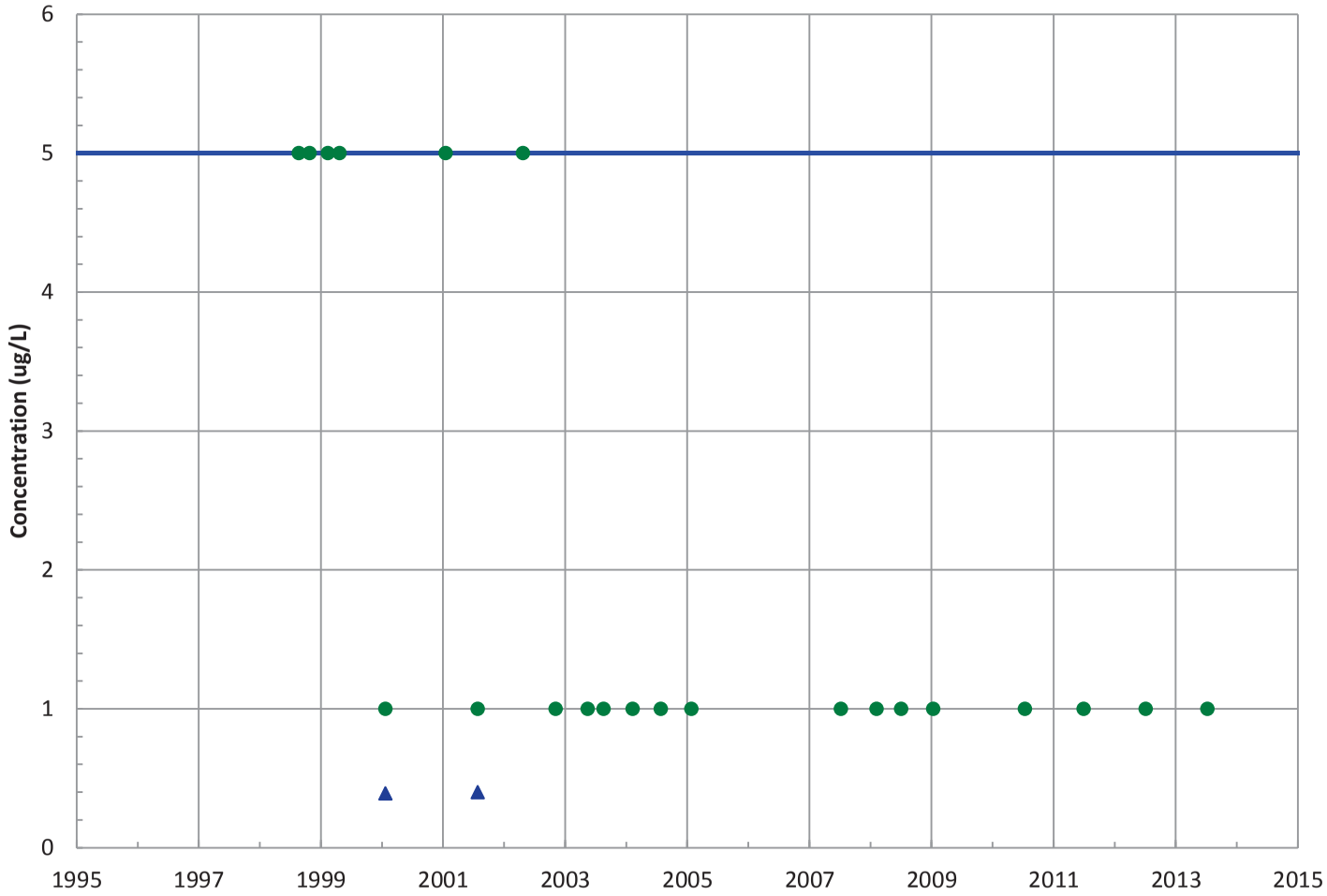
Well Location



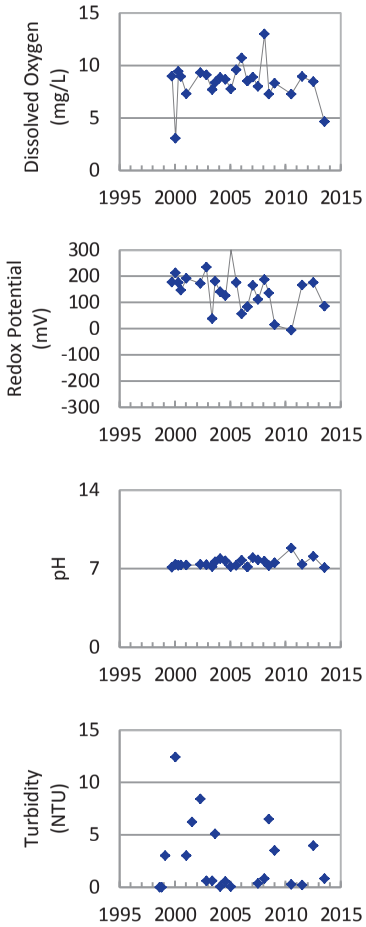
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/25/1998 to 7/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX04-1002
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): All Non-Detect

2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method

Data (7/2009 - 12/2013): All Non-Detect

2011 - 2013 Data: N/A (<4 Detections in Dataset)

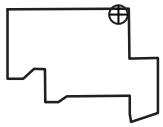
▲ Measured Value

● Sample Detection Limit

------- Concentration Trend

——— Groundwater Protection Standard

Well Location



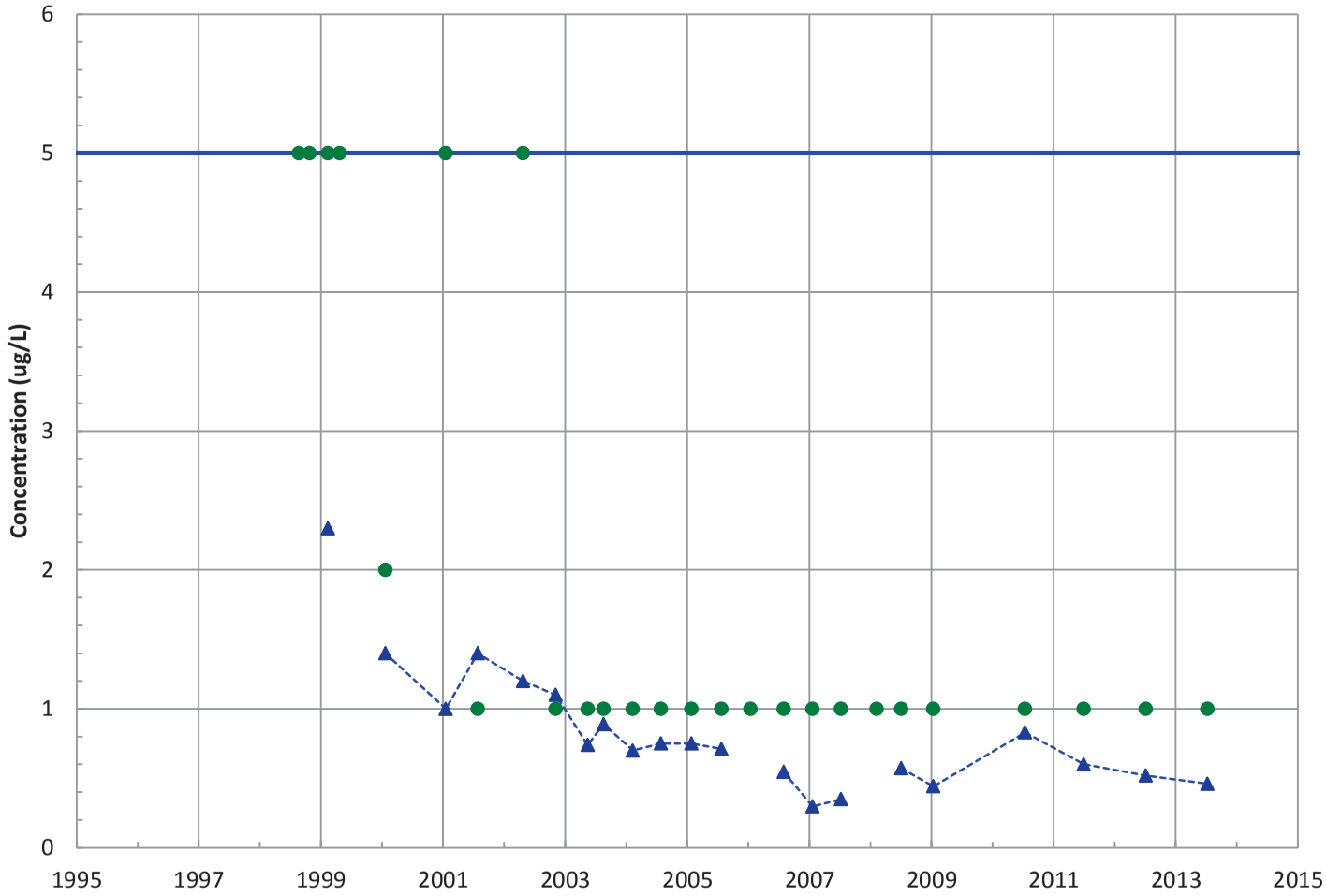
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 8/25/1998 to 7/23/2013

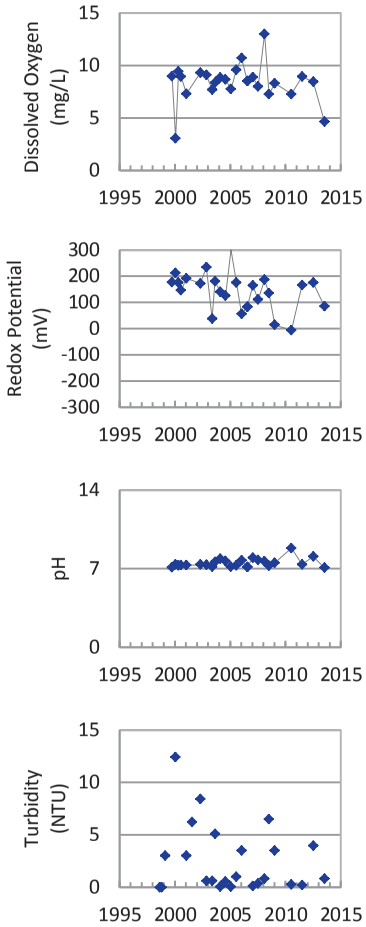
Analysis Date: 3/4/2014

B&W Pantex

PTX04-1002
Trichloroethene Trend in Perched Aquifer



Field Parameters



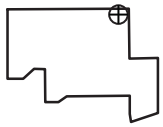
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

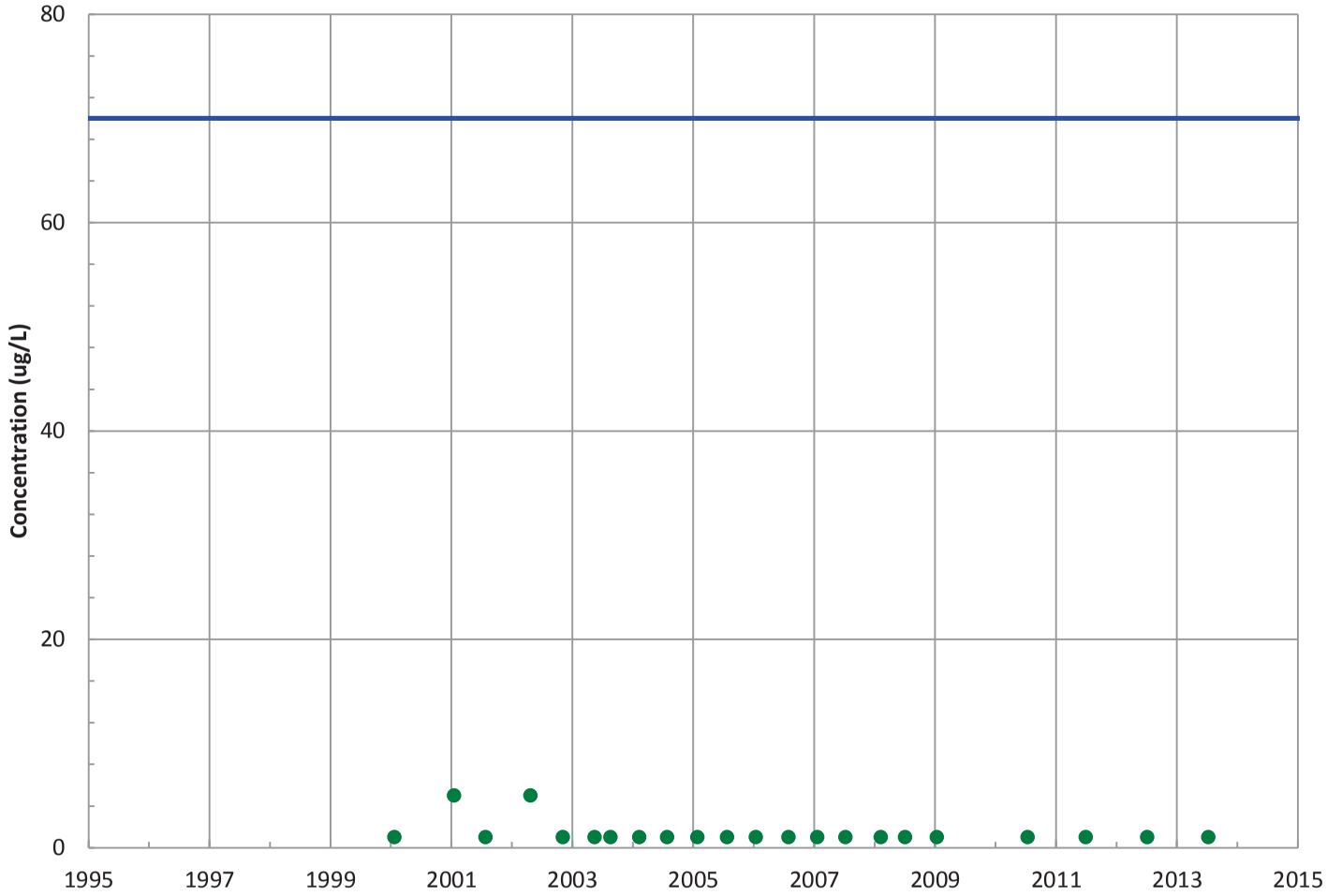
Well Location



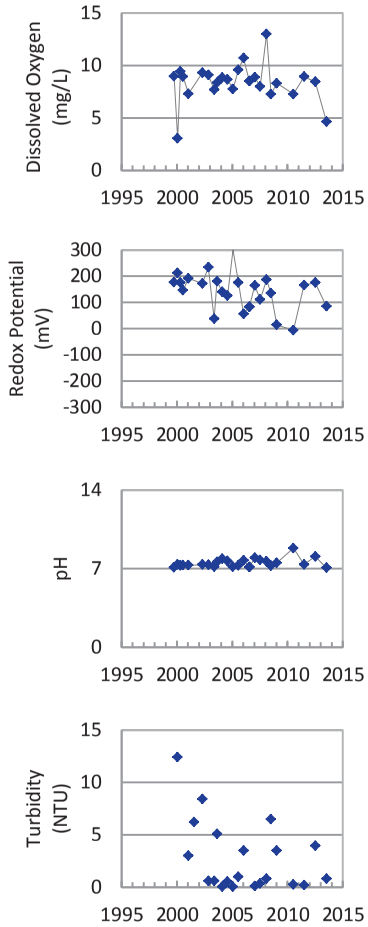
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/25/1998 to 7/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX04-1002
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



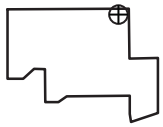
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

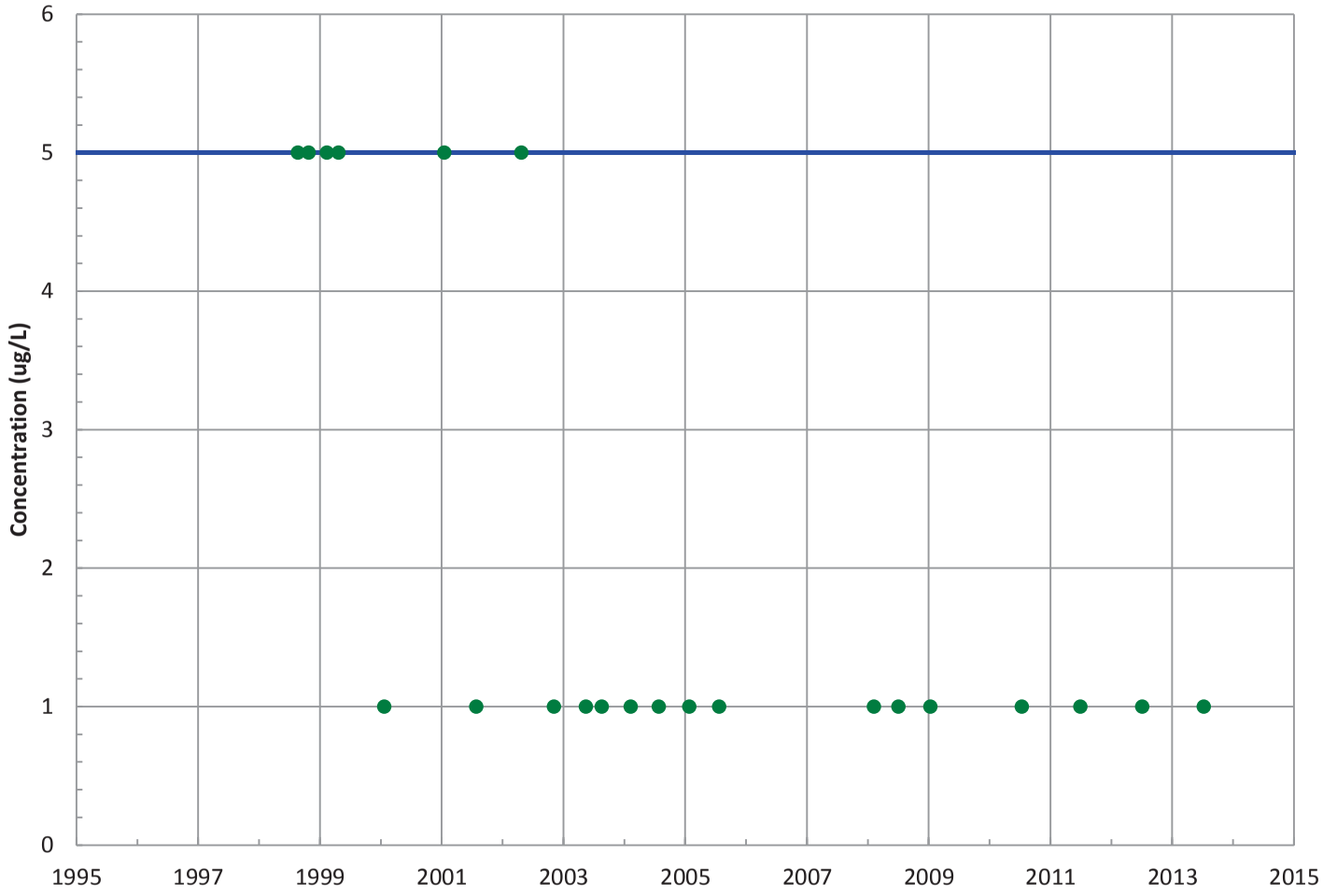
Well Location



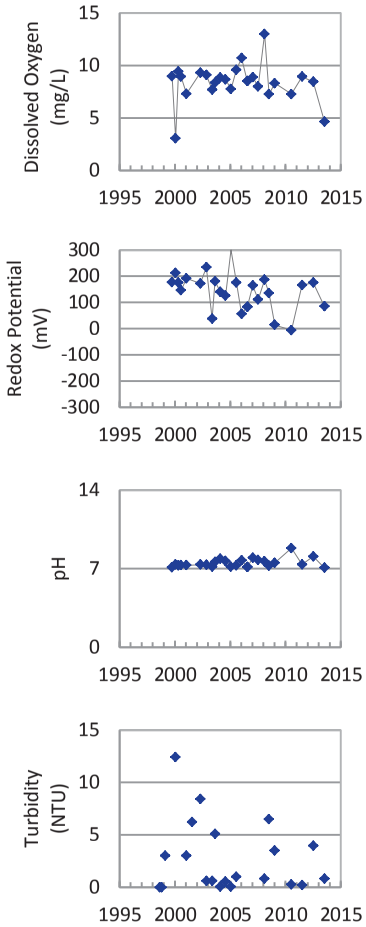
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 1/26/2000 to 7/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX04-1002
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



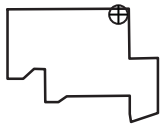
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

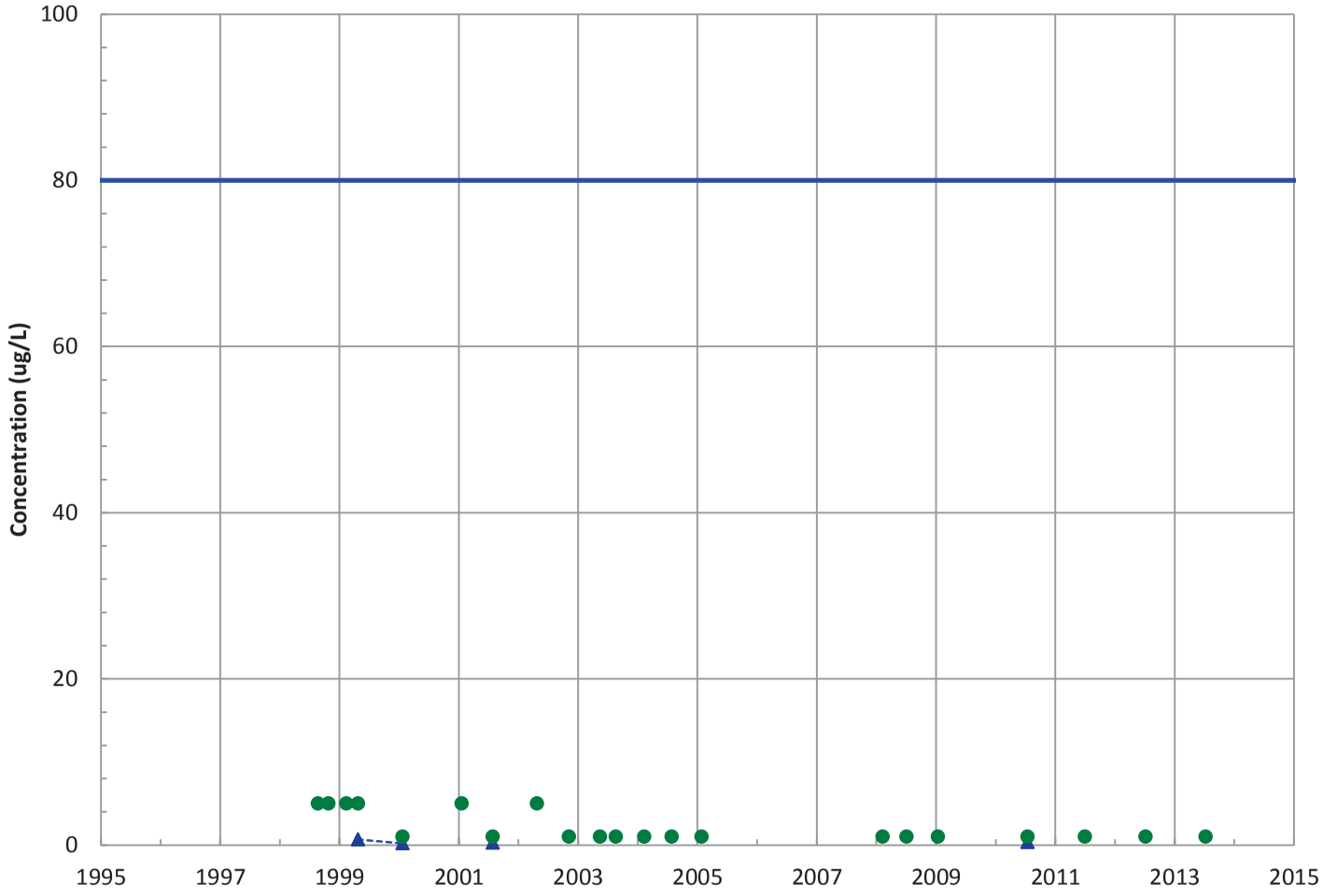
Well Location



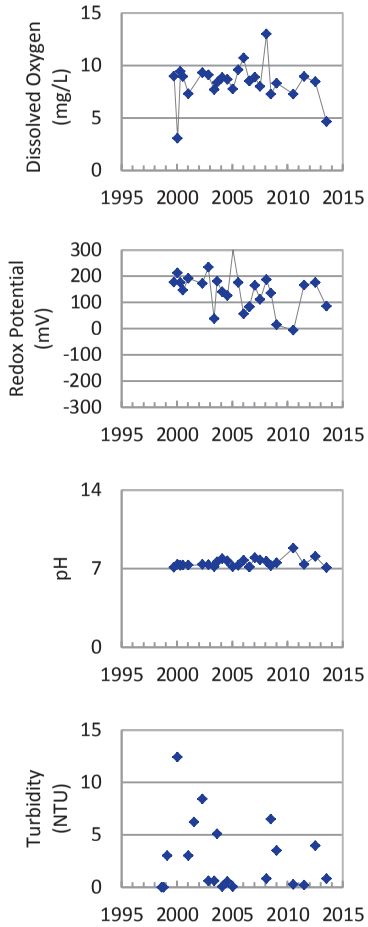
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/25/1998 to 7/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX04-1002
Chloroform Trend in Perched Aquifer



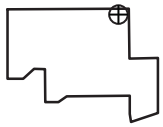
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

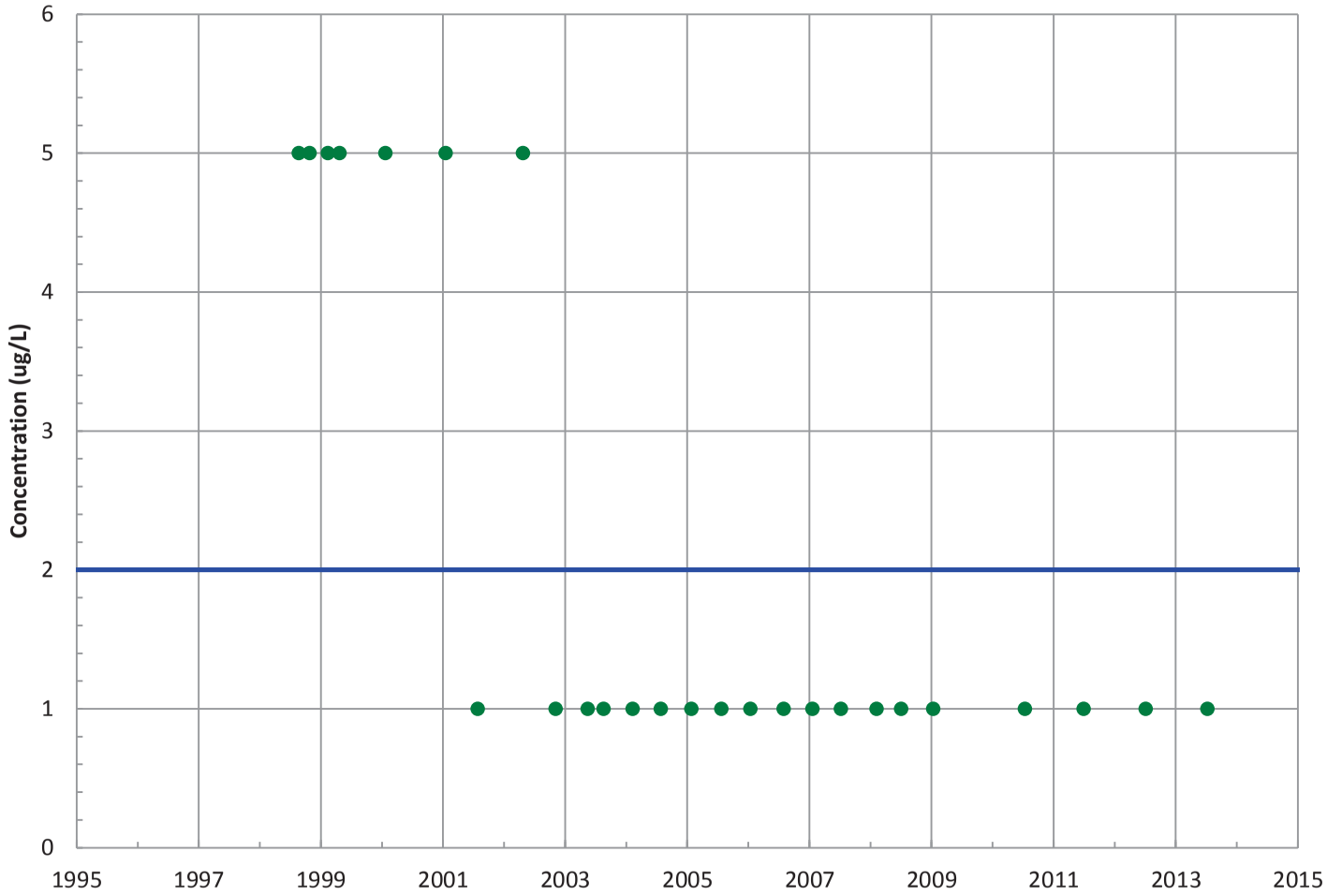
Well Location



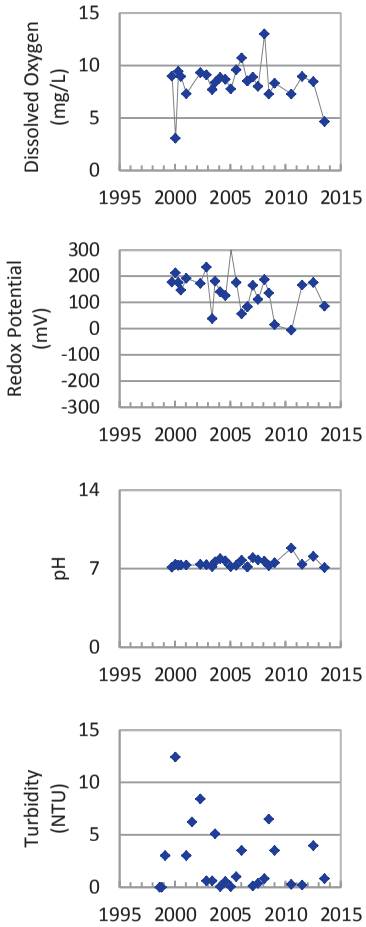
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/25/1998 to 7/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX04-1002
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



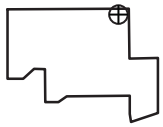
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

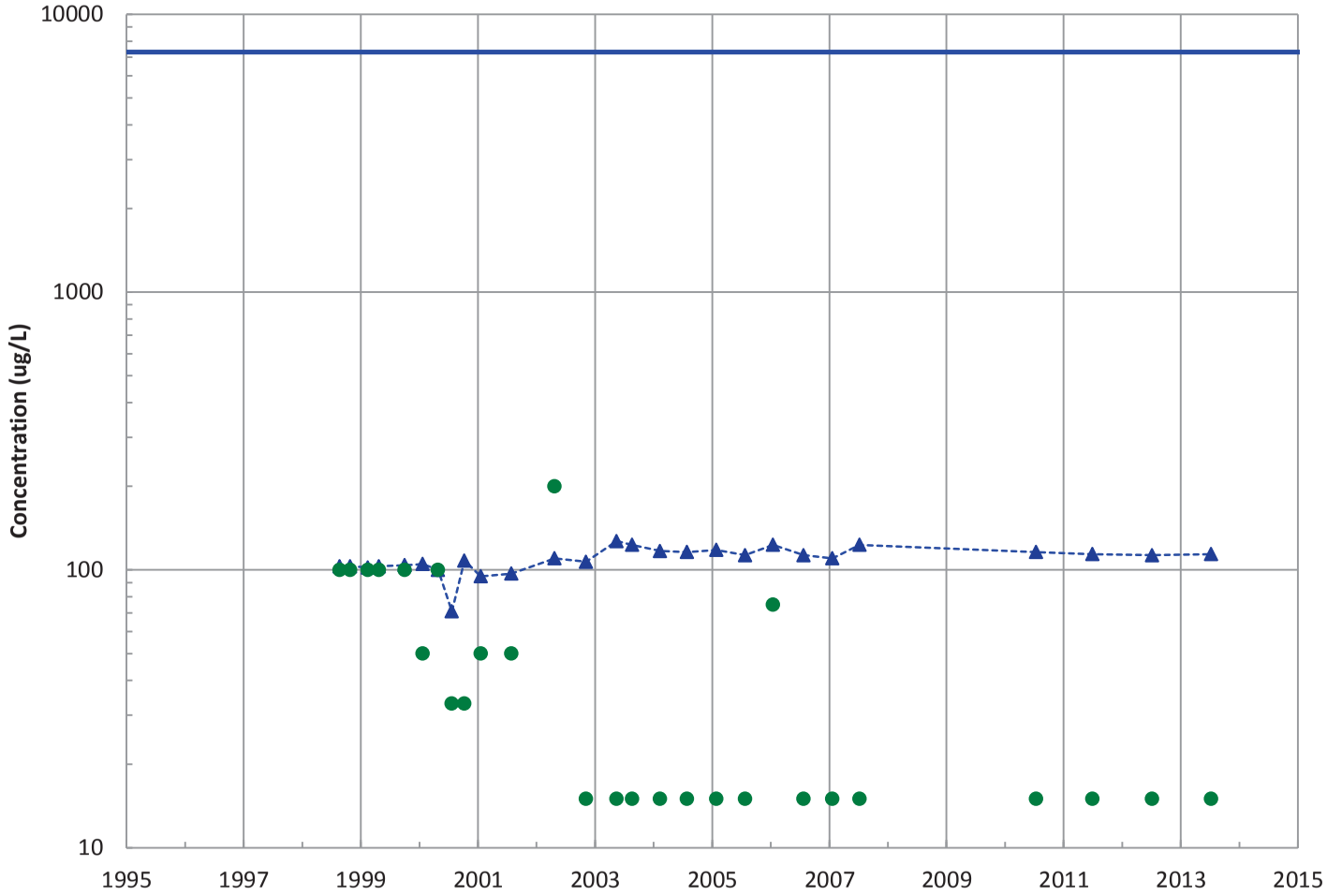
Well Location



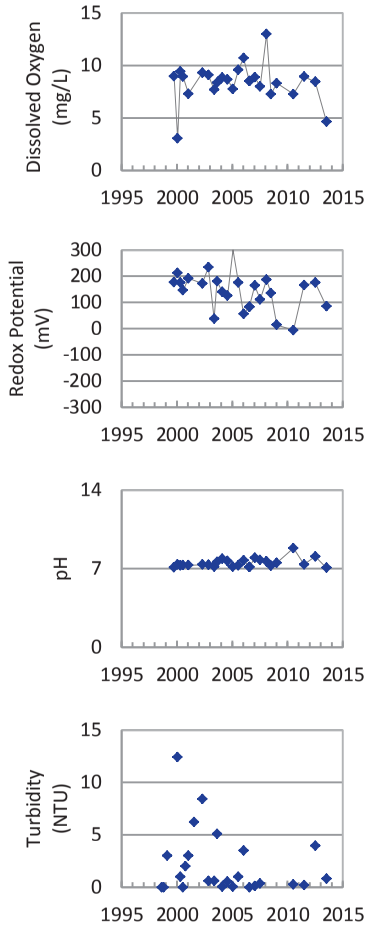
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/25/1998 to 7/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX04-1002
Boron Trend in Perched Aquifer



Field Parameters



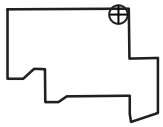
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

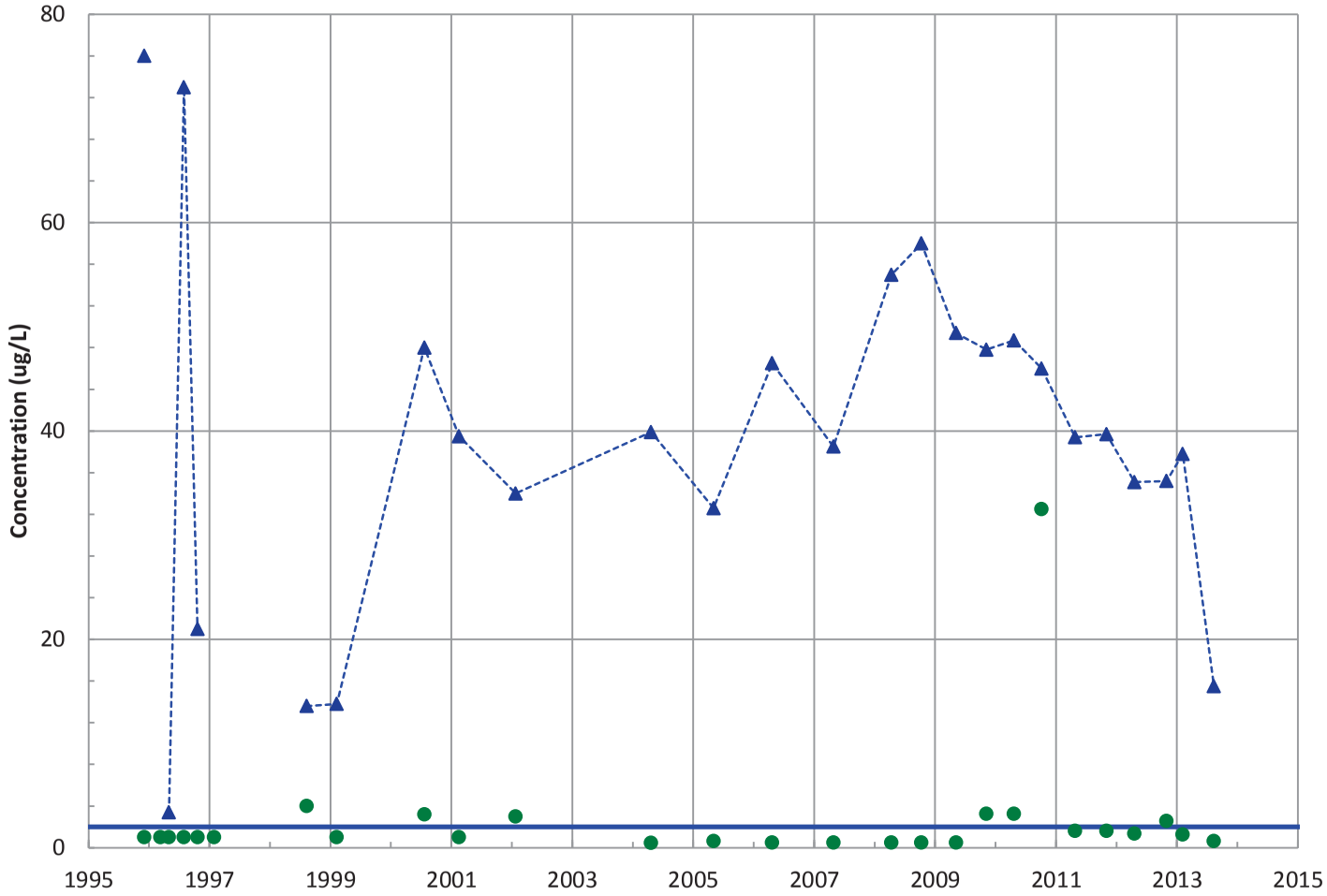
Well Location



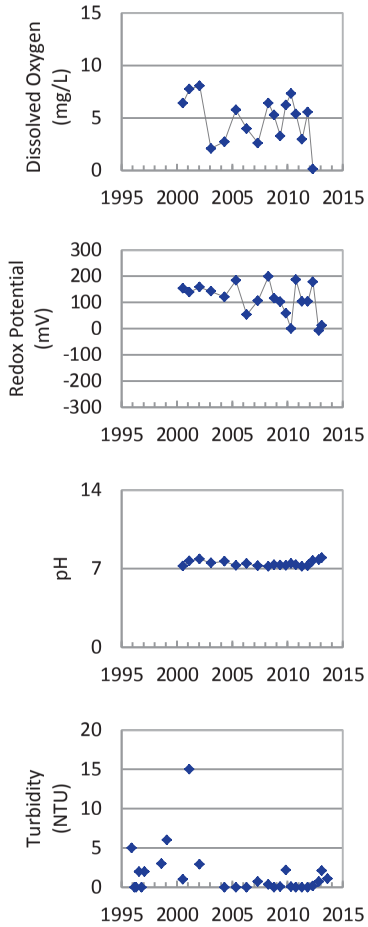
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/25/1998 to 7/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1002A
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



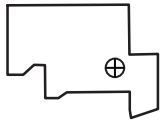
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

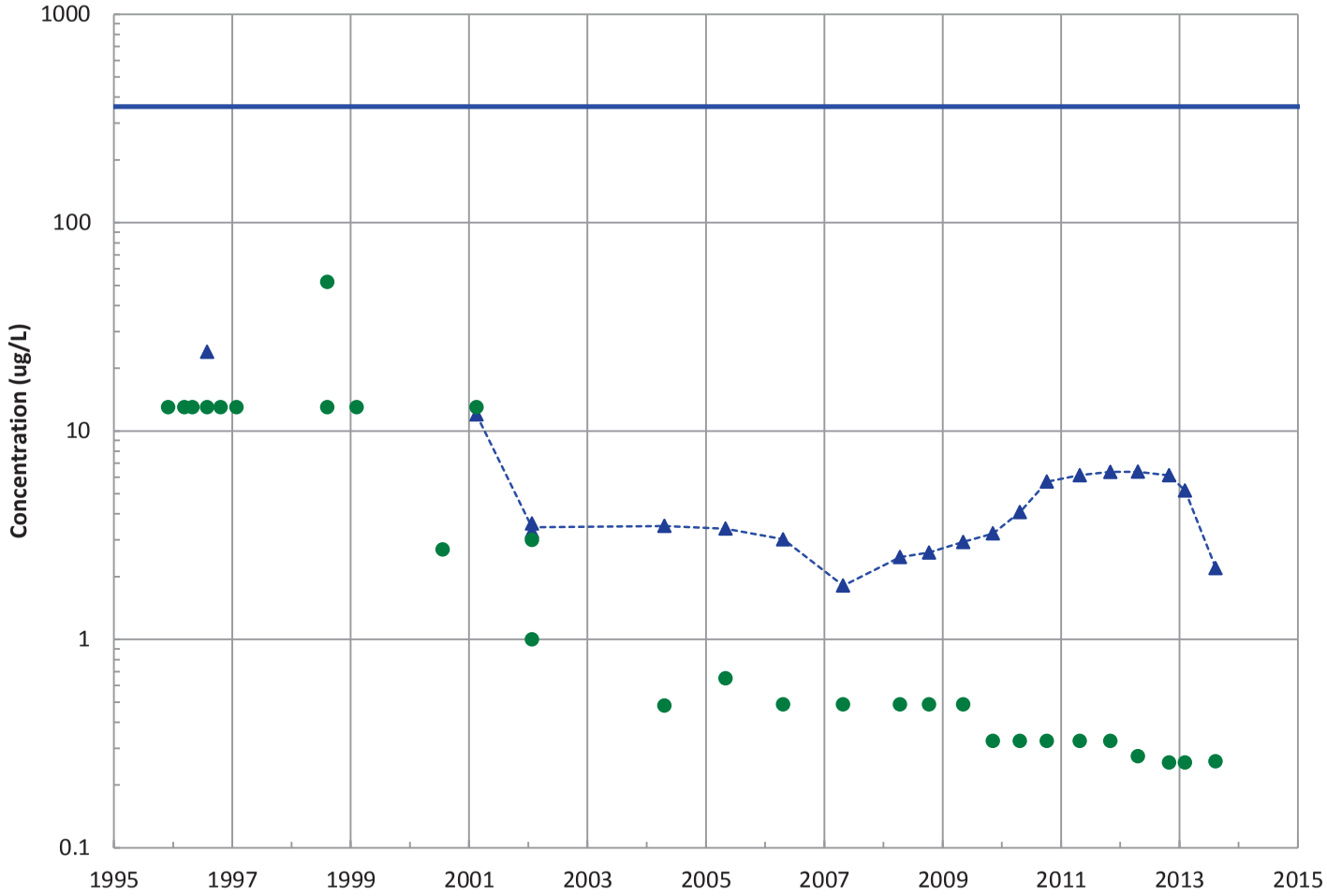
Well Location



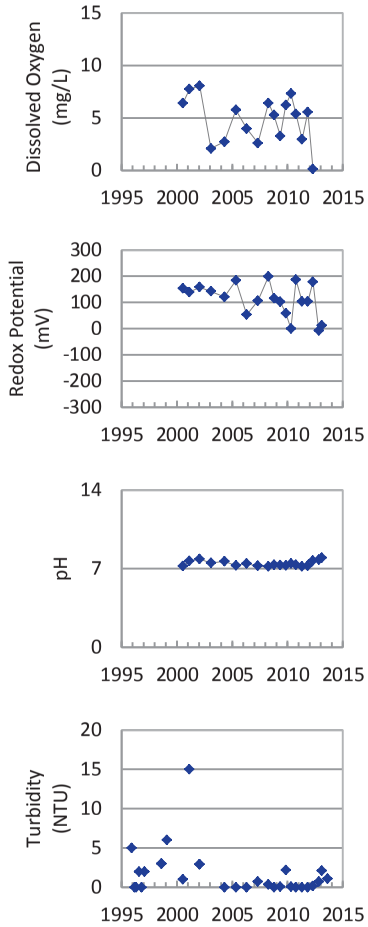
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/4/1995 to 8/26/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1002A
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



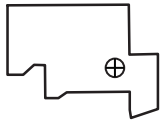
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

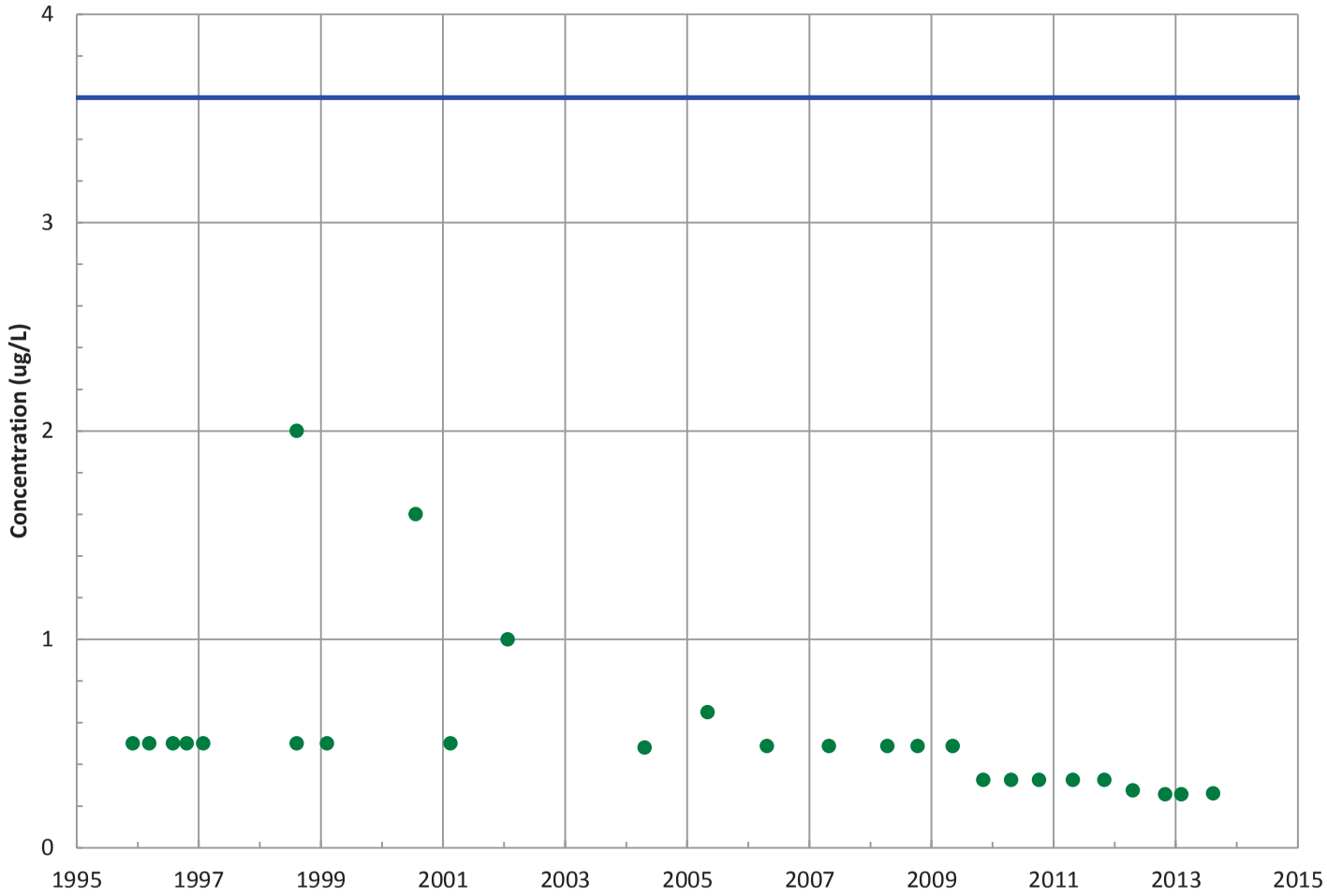
Well Location



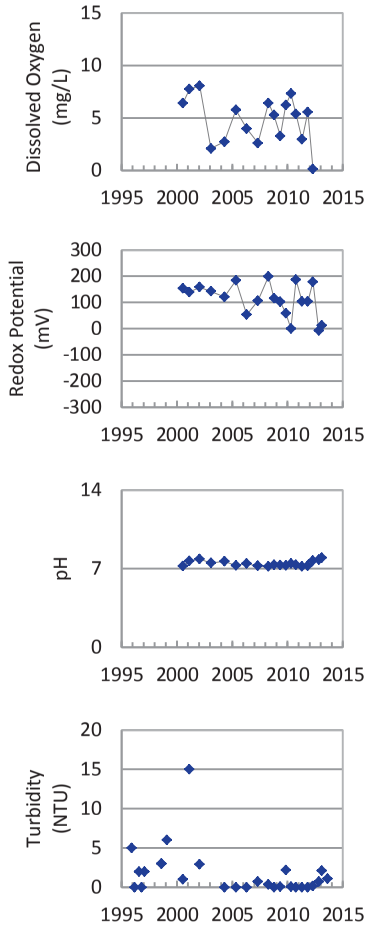
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/4/1995 to 8/26/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1002A
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



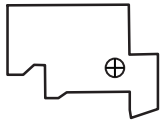
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

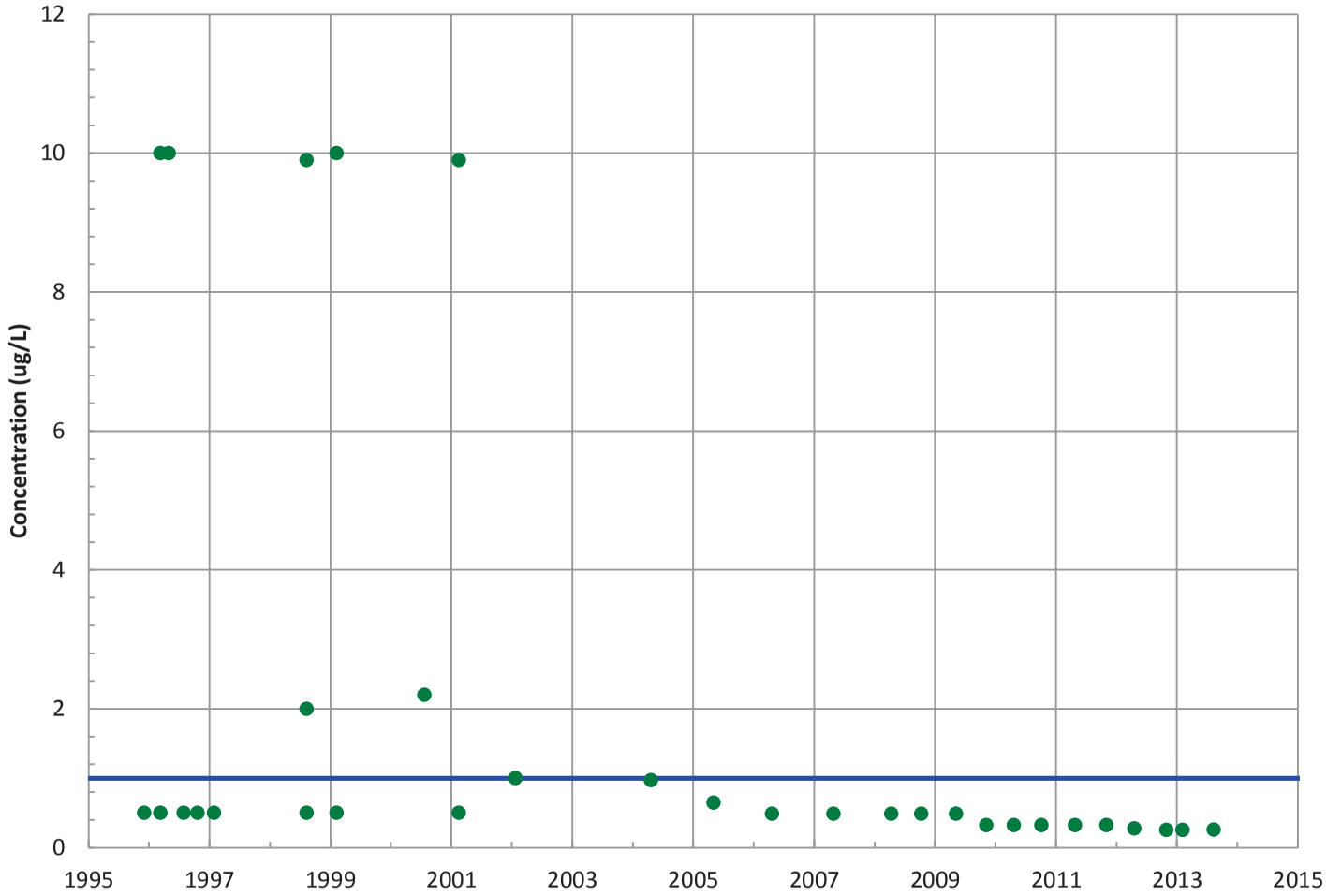
Well Location



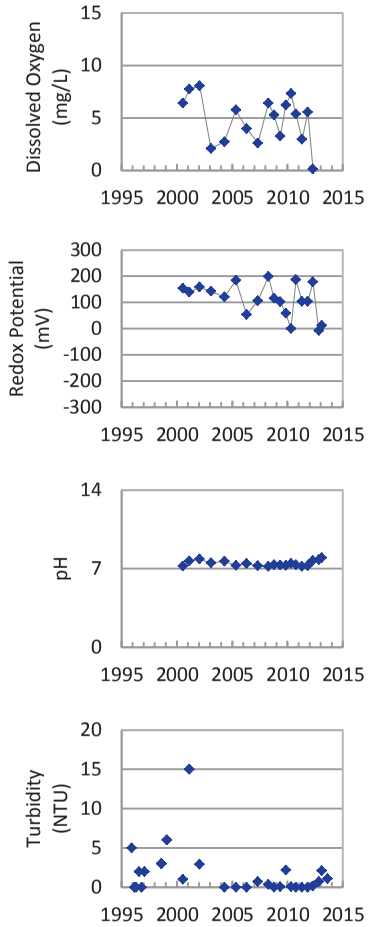
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/4/1995 to 8/26/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1002A
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



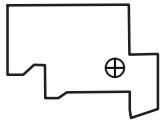
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

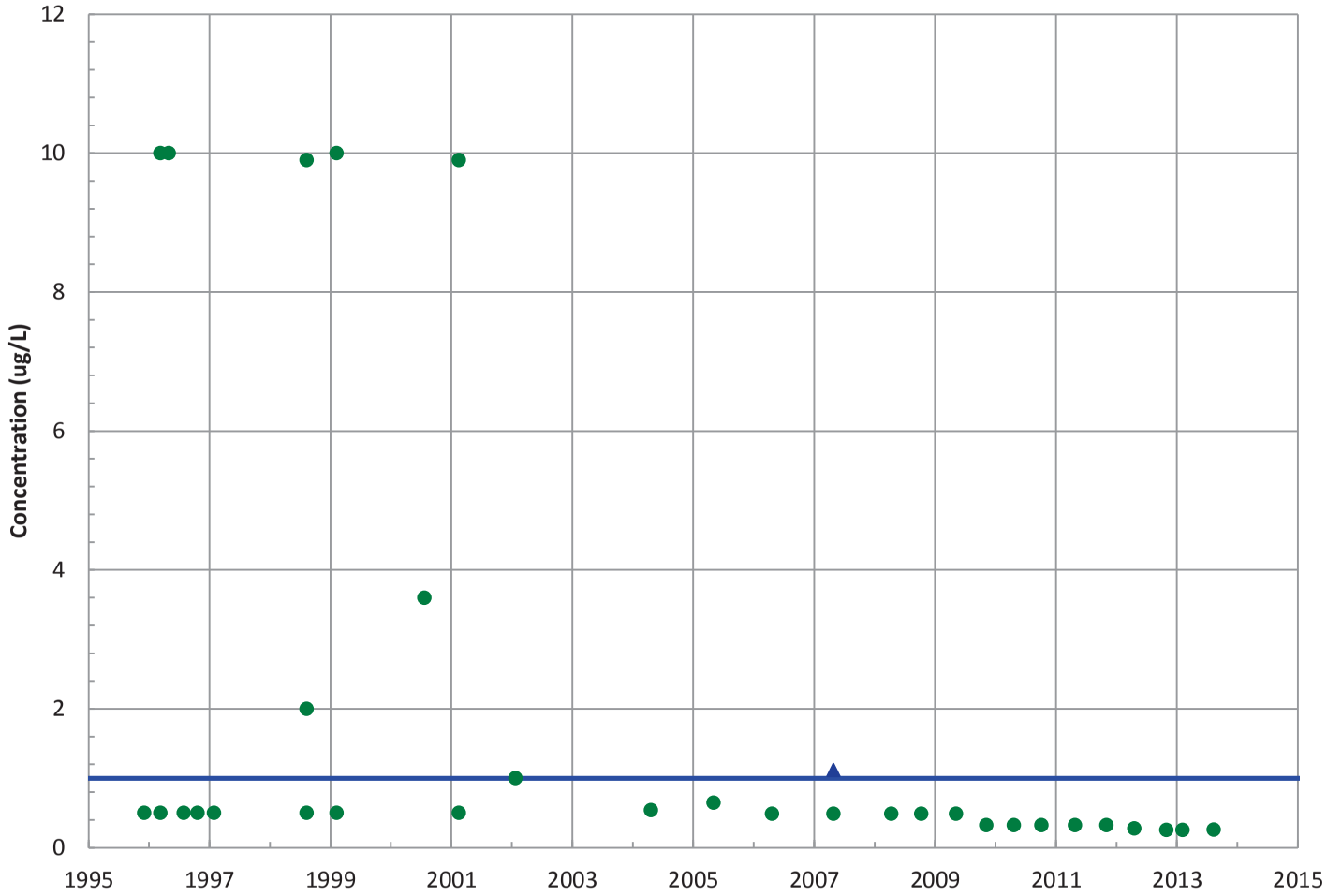
Well Location



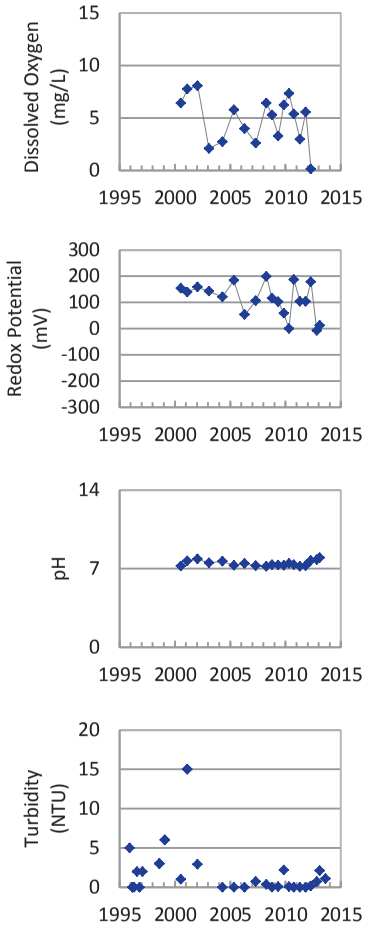
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/4/1995 to 8/26/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1002A
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



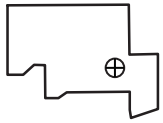
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

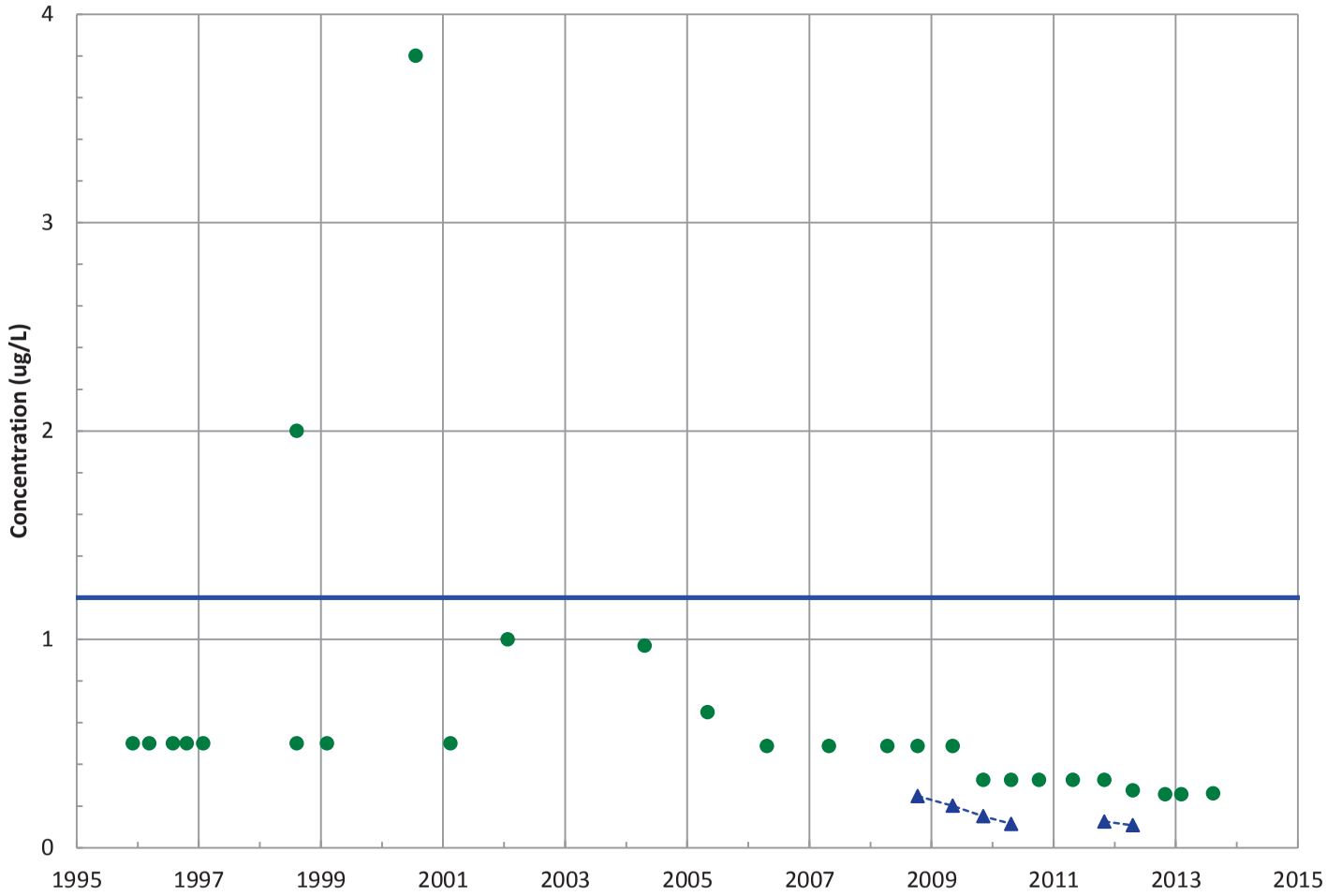
Well Location



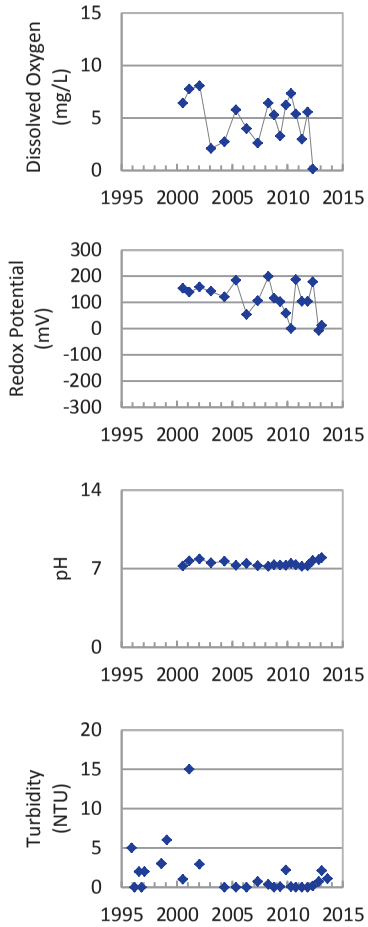
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/4/1995 to 8/26/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1002A
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Decreasing

2011 - 2013 Data: N/A (<4 Detections in Dataset)

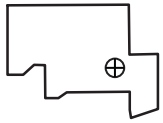
MAROS Linear Regression Method

Data (7/2009 - 12/2013): Stable

2011 - 2013 Data: Probably Decreasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location



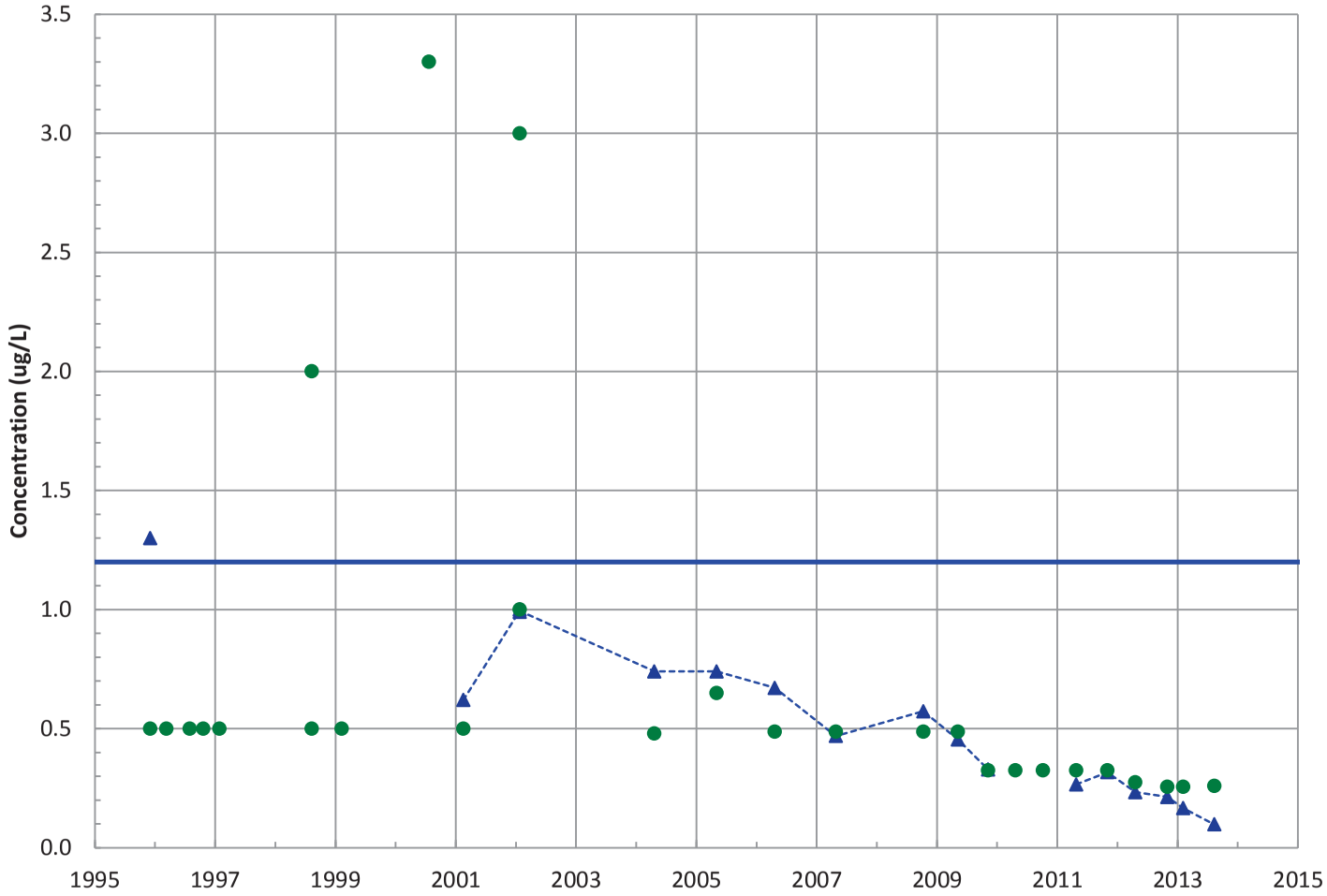
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 12/4/1995 to 8/26/2013

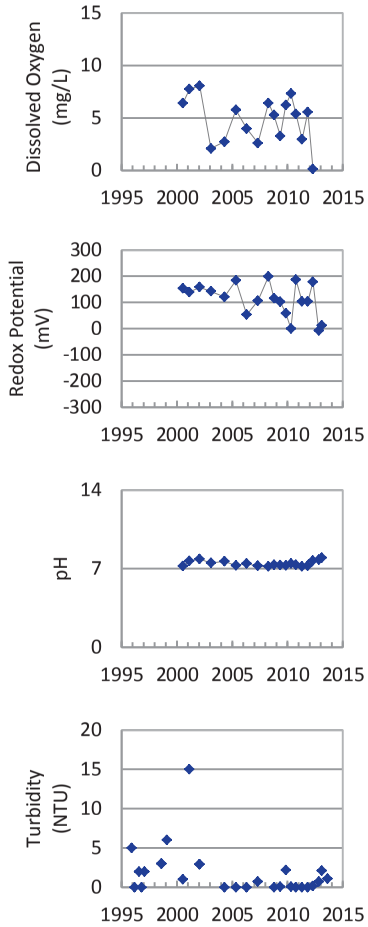
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1002A
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



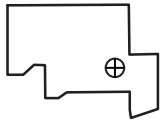
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Probably Decreasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------ Concentration Trend
- ——— Groundwater Protection Standard

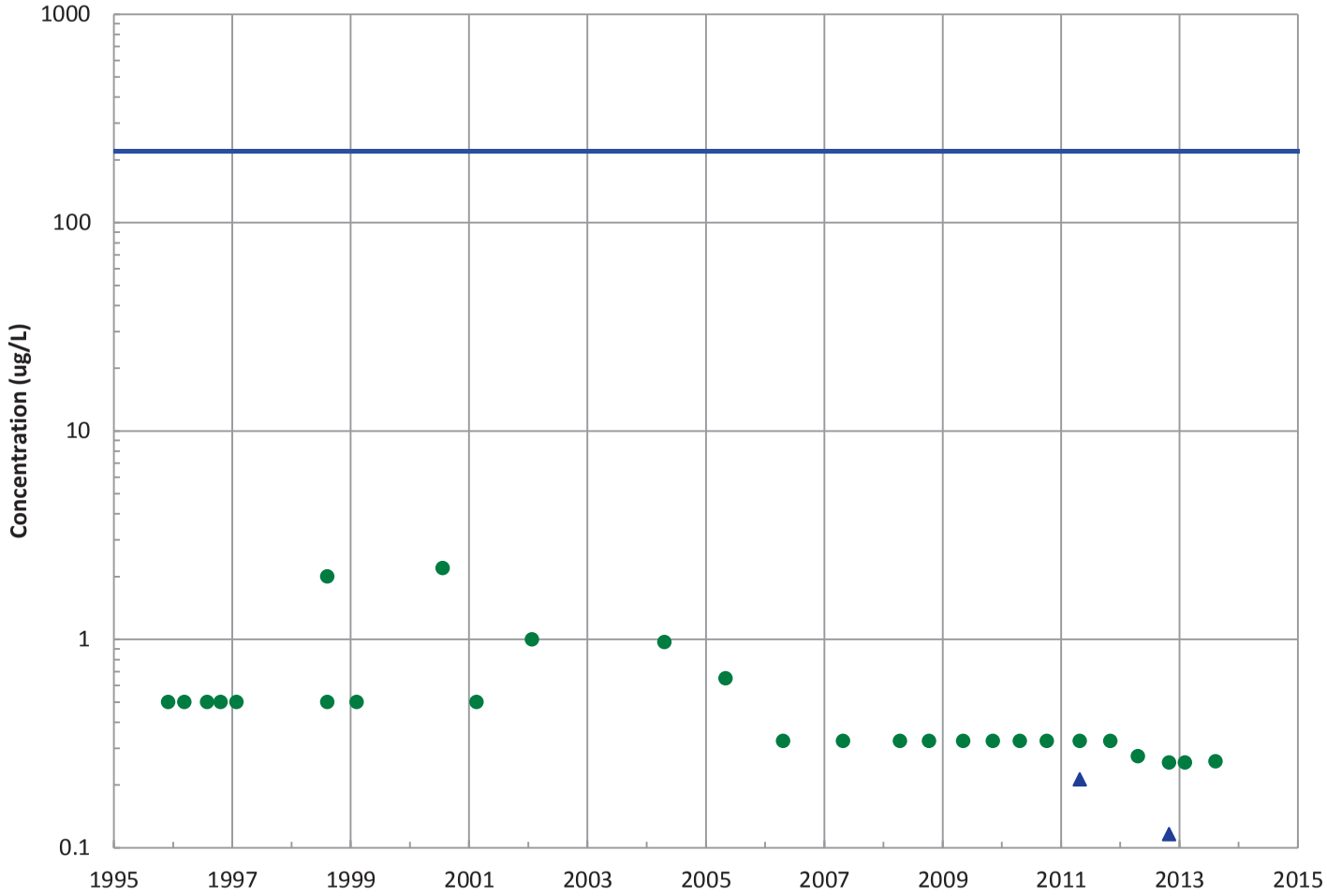
Well Location



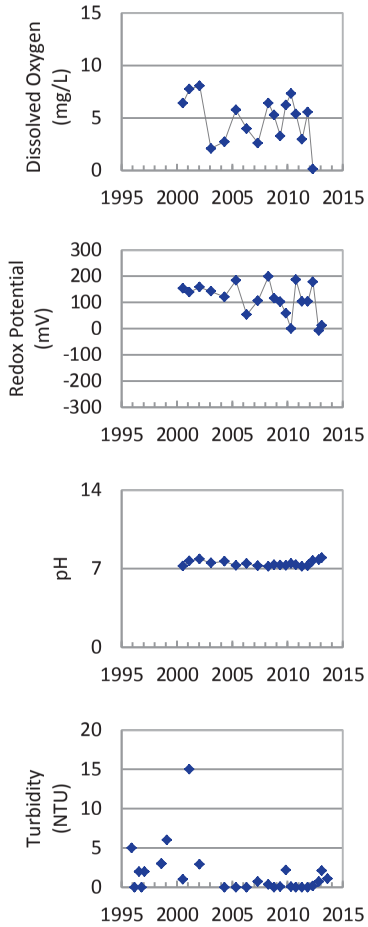
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/4/1995 to 8/26/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1002A
1,3,5-Trinitrobenzene Trend in Perched Aquifer



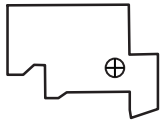
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

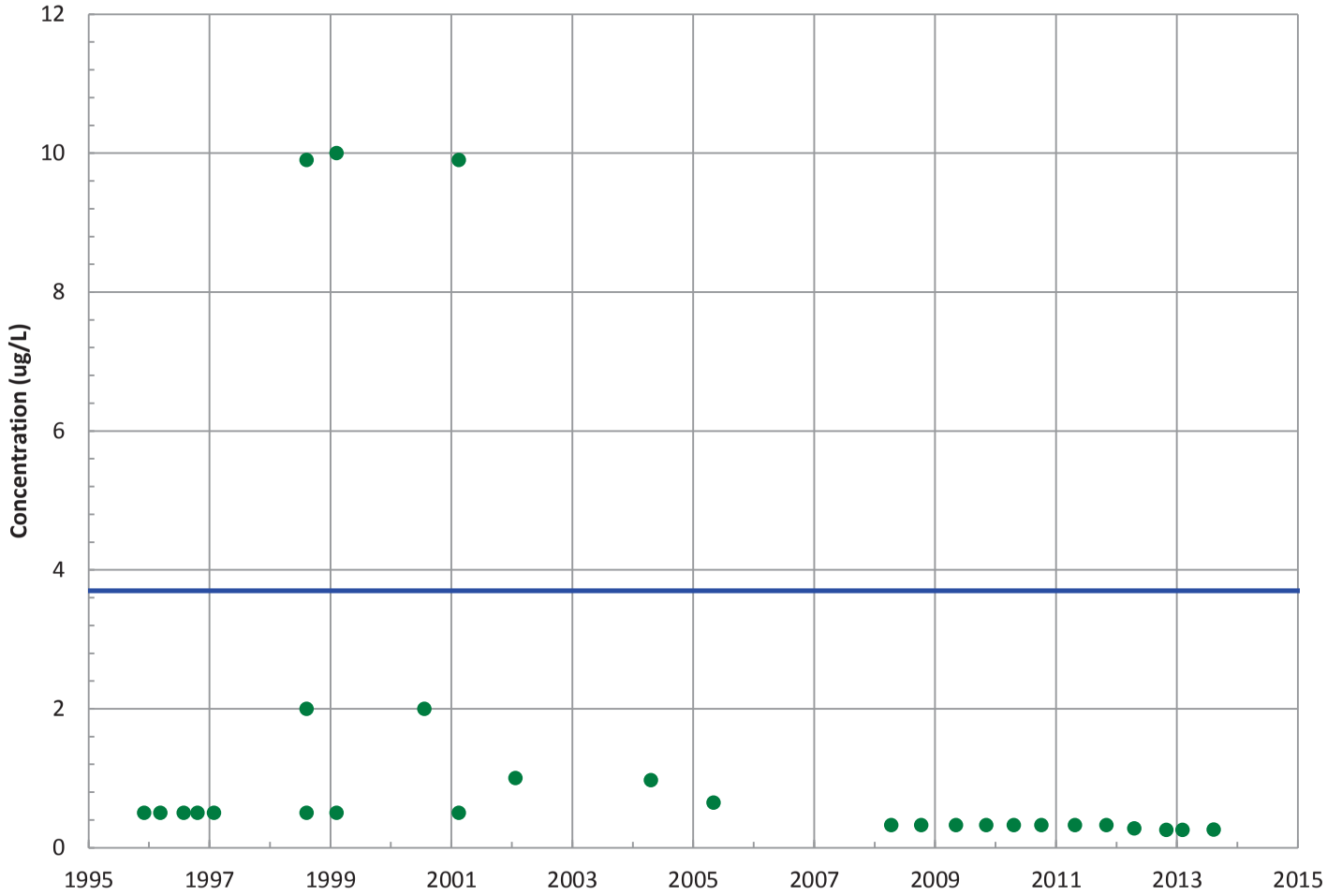
Well Location



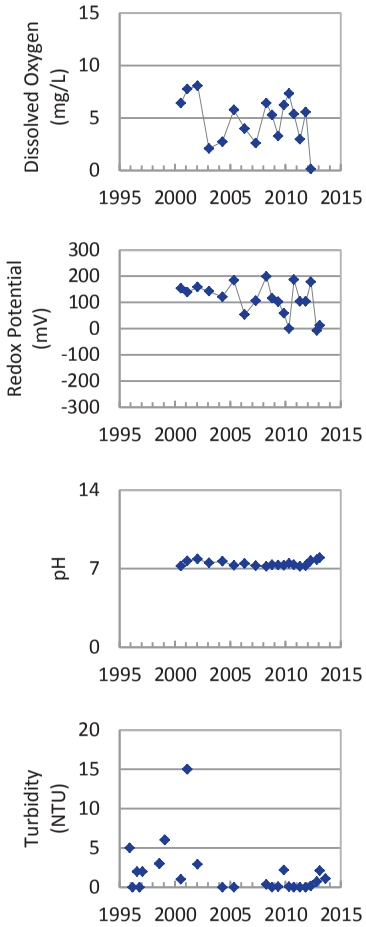
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/4/1995 to 8/26/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1002A
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



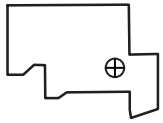
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

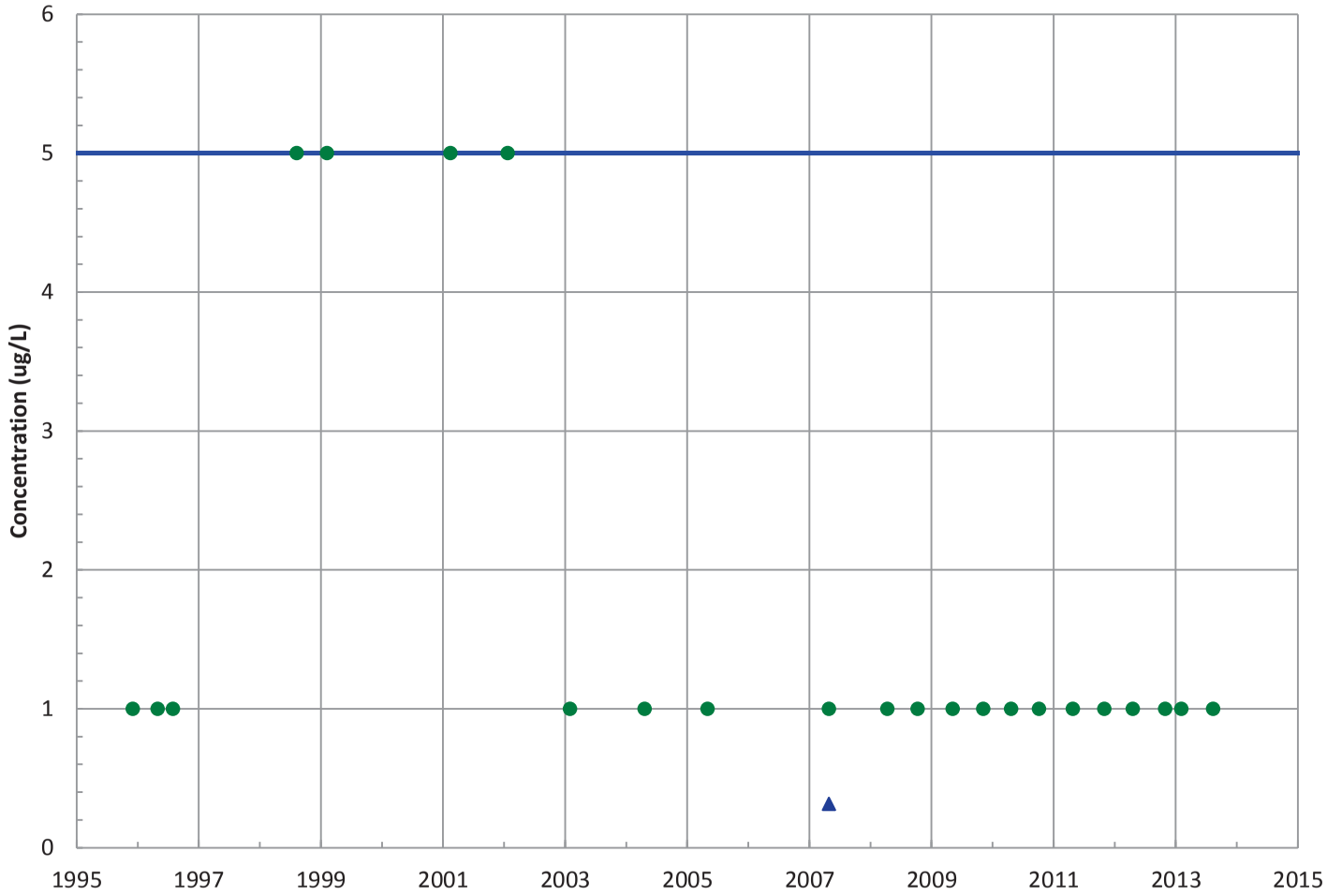
Well Location



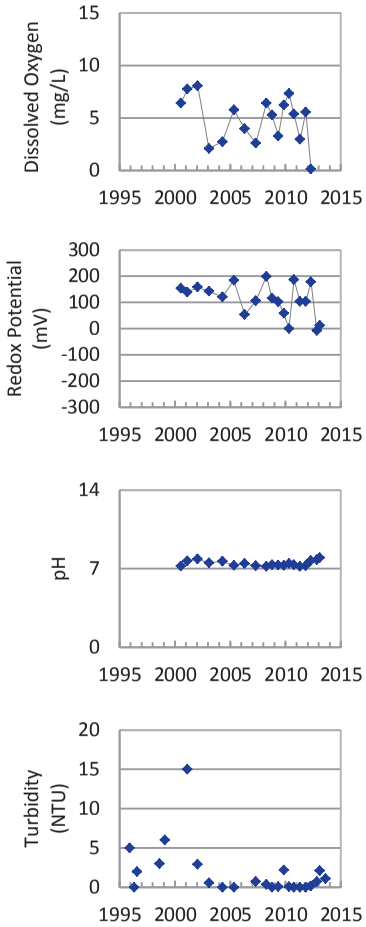
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/4/1995 to 8/26/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1002A
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): All Non-Detect

2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method

Data (7/2009 - 12/2013): All Non-Detect

2011 - 2013 Data: N/A (<4 Detections in Dataset)

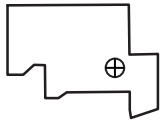
▲ Measured Value

● Sample Detection Limit

------- Concentration Trend

——— Groundwater Protection Standard

Well Location



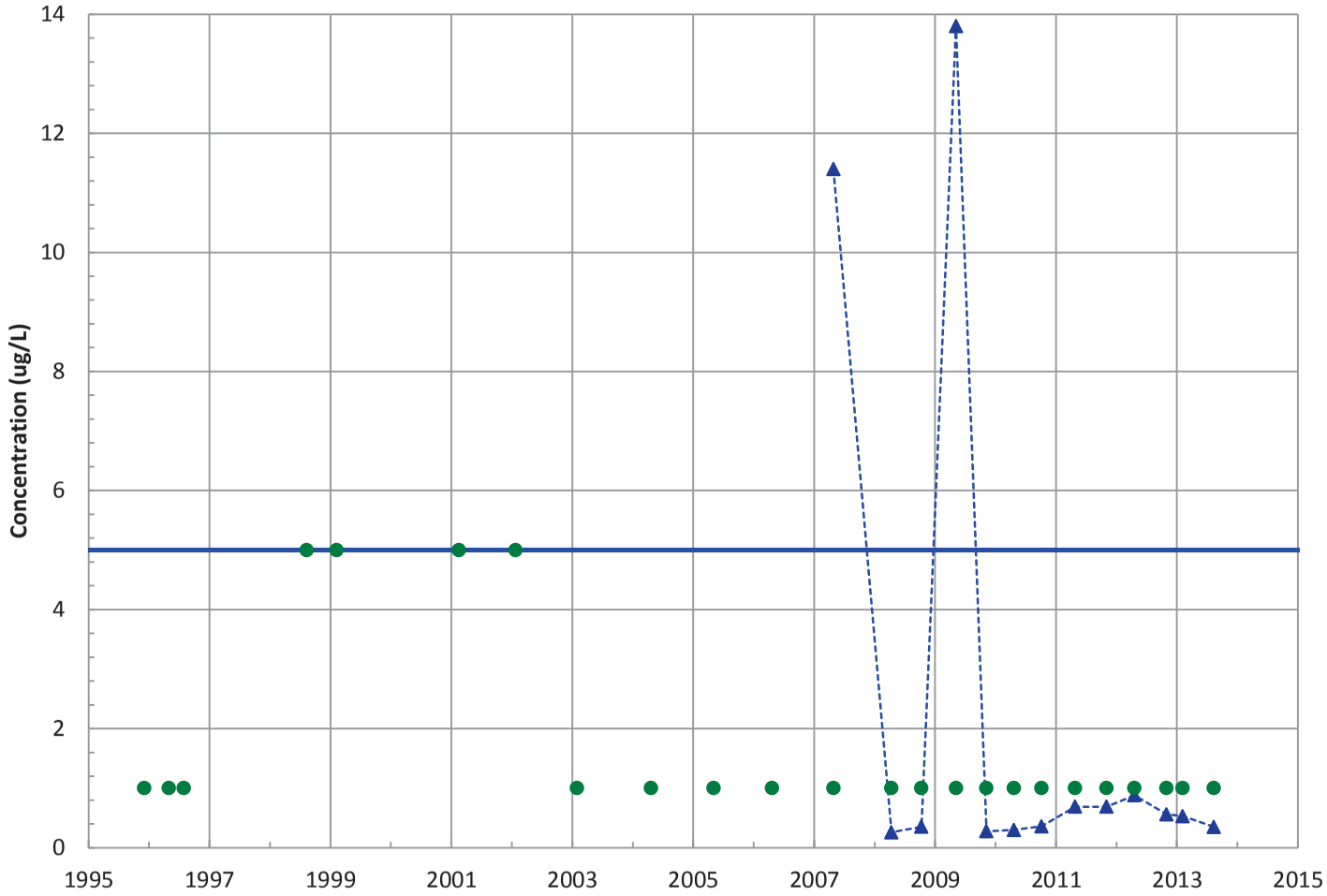
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 12/4/1995 to 8/26/2013

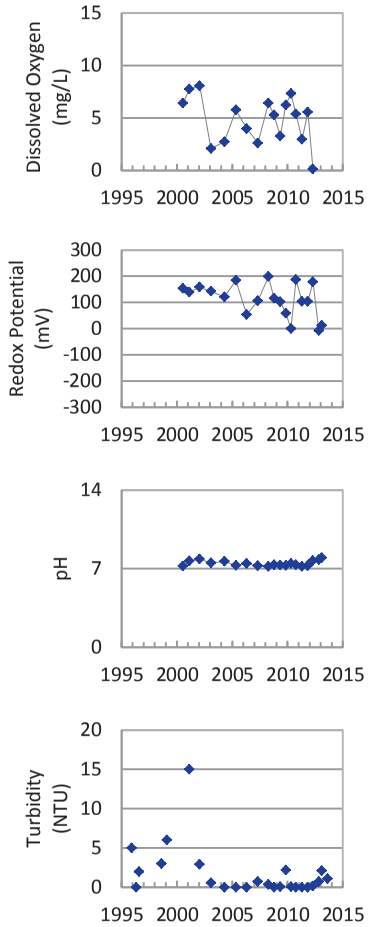
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1002A
Trichloroethene Trend in Perched Aquifer



Field Parameters



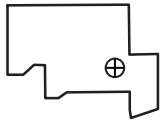
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Decreasing

- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

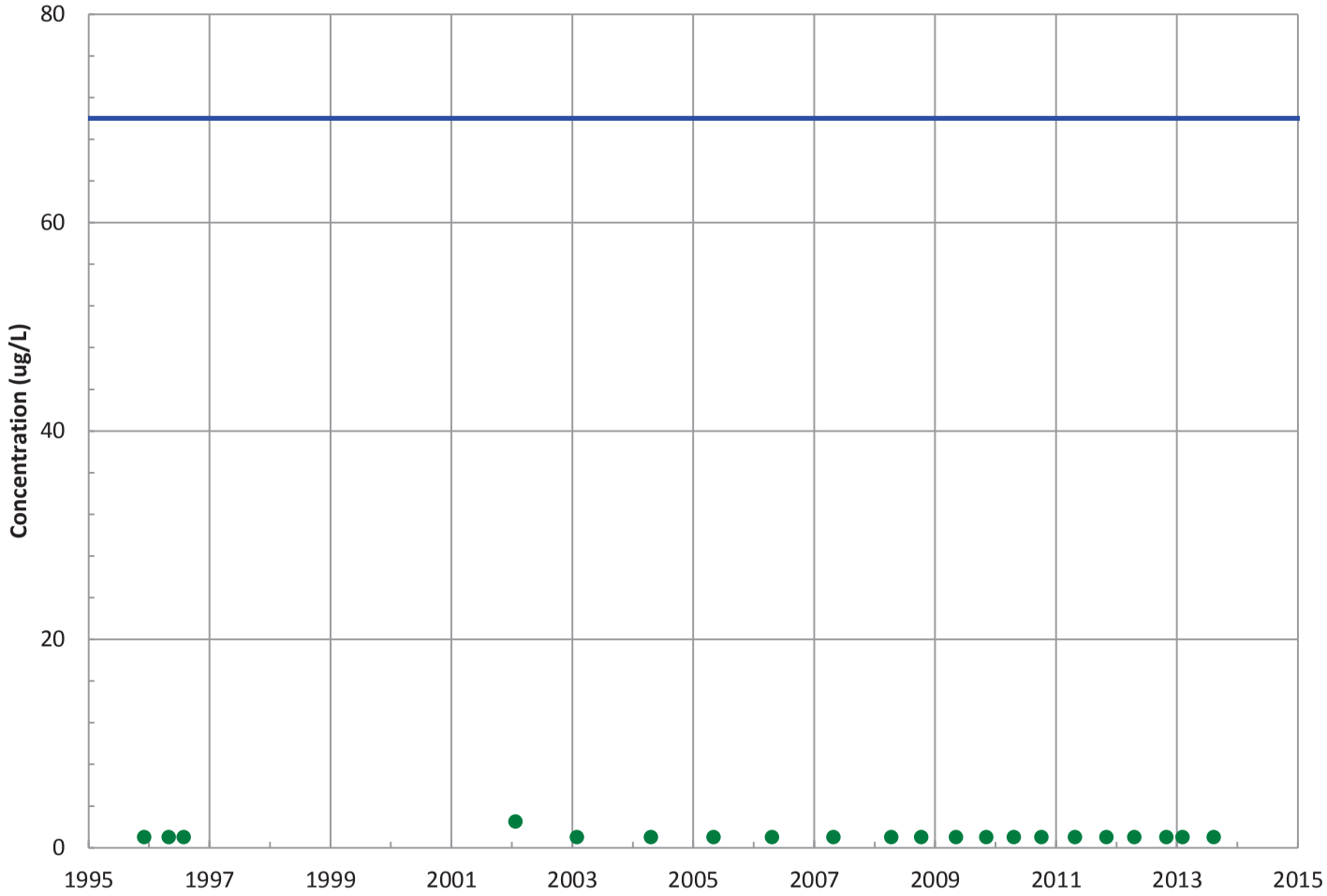
Well Location



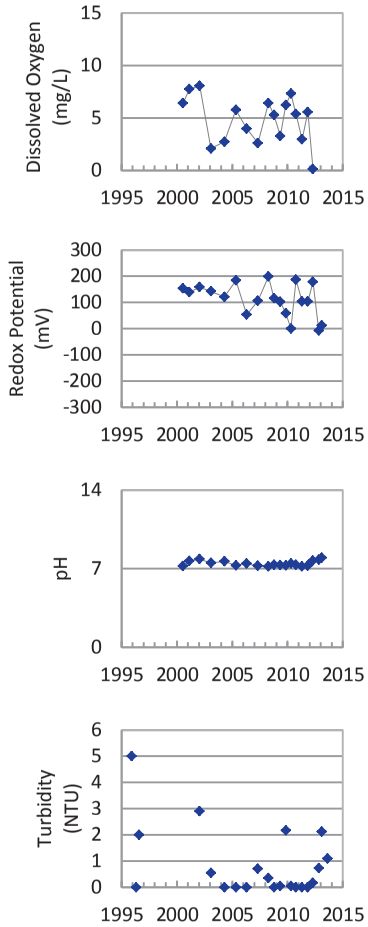
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/4/1995 to 8/26/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1002A
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



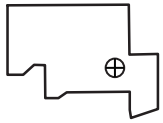
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

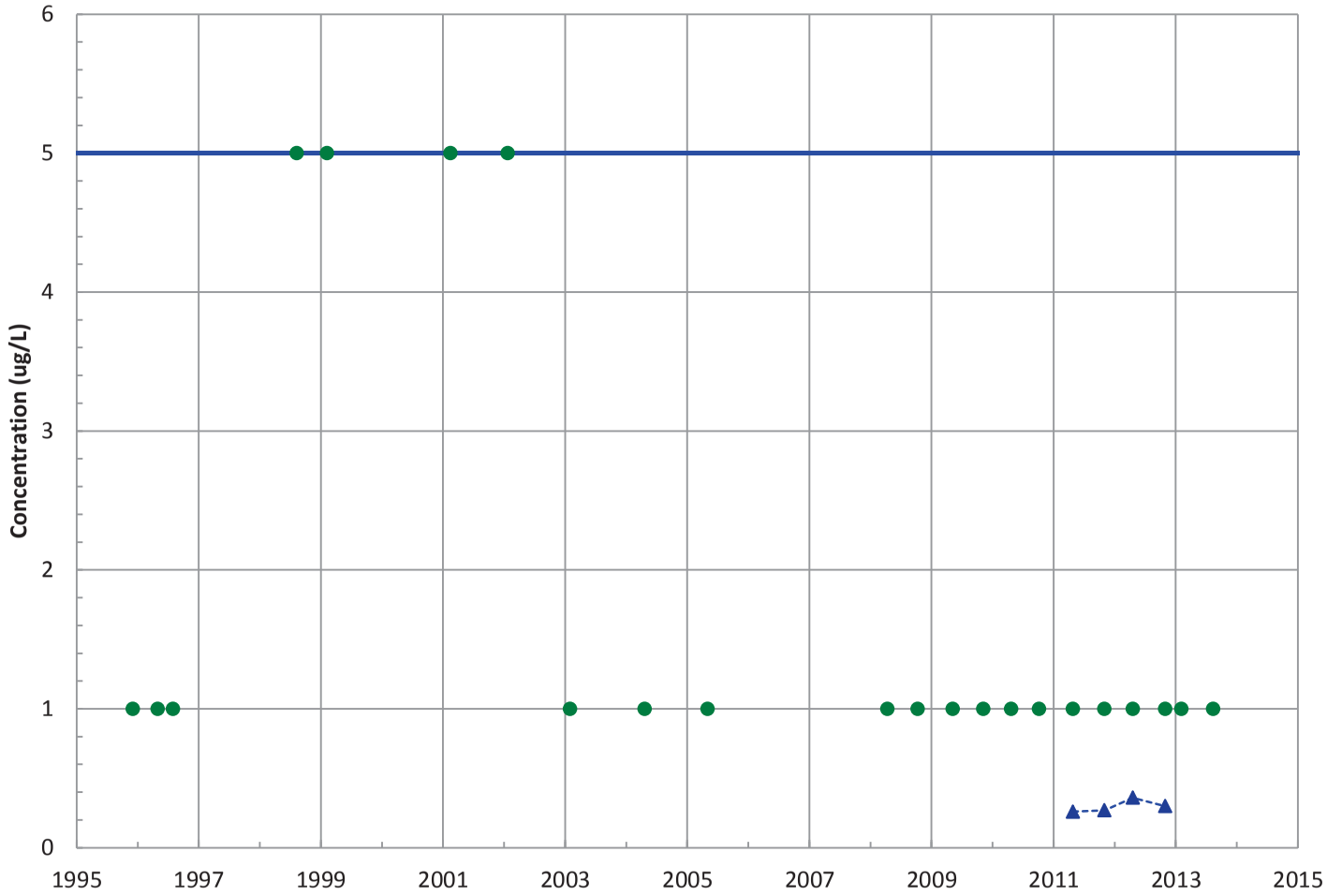
Well Location



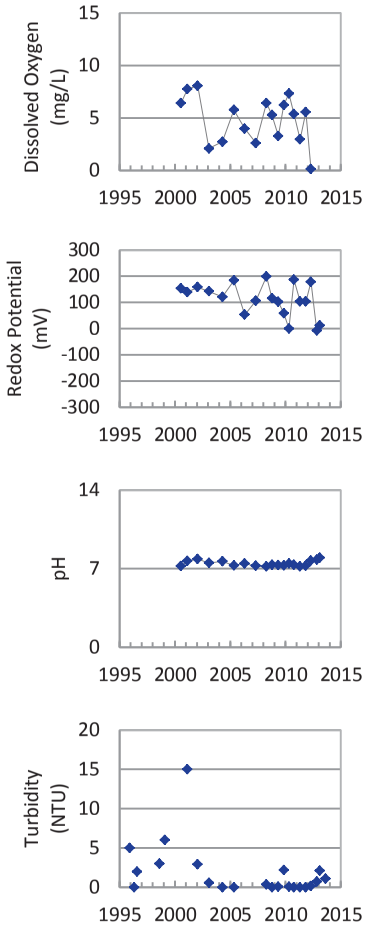
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/4/1995 to 8/26/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1002A
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Stable

2011 - 2013 Data: N/A (<4 Detections in Dataset)

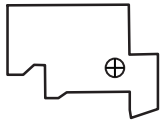
MAROS Linear Regression Method

Data (7/2009 - 12/2013): No Trend

2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location



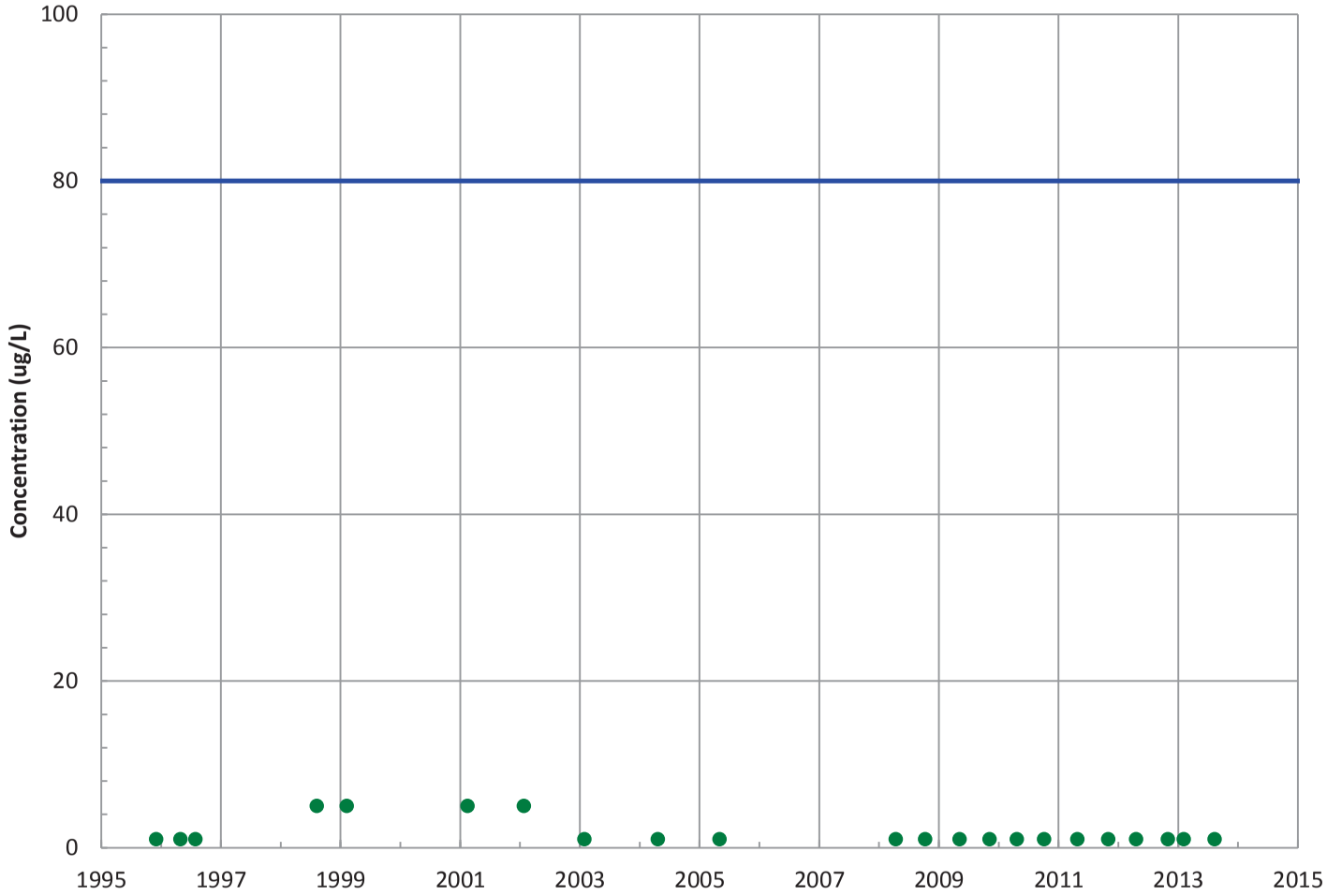
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 12/4/1995 to 8/26/2013

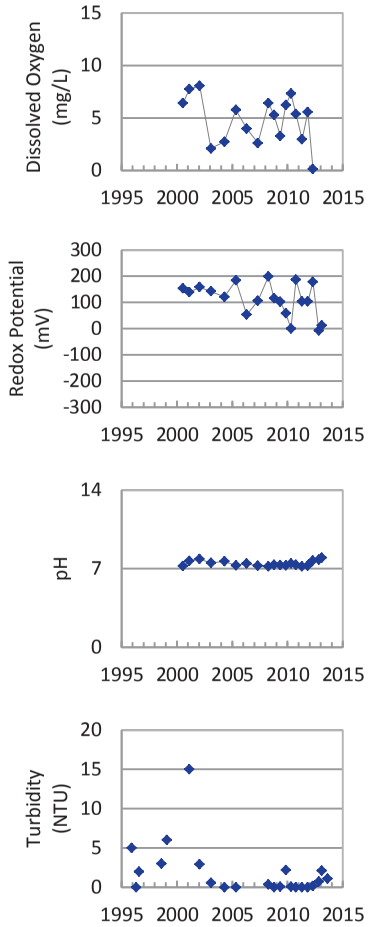
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1002A
Chloroform Trend in Perched Aquifer



Field Parameters



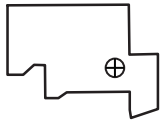
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

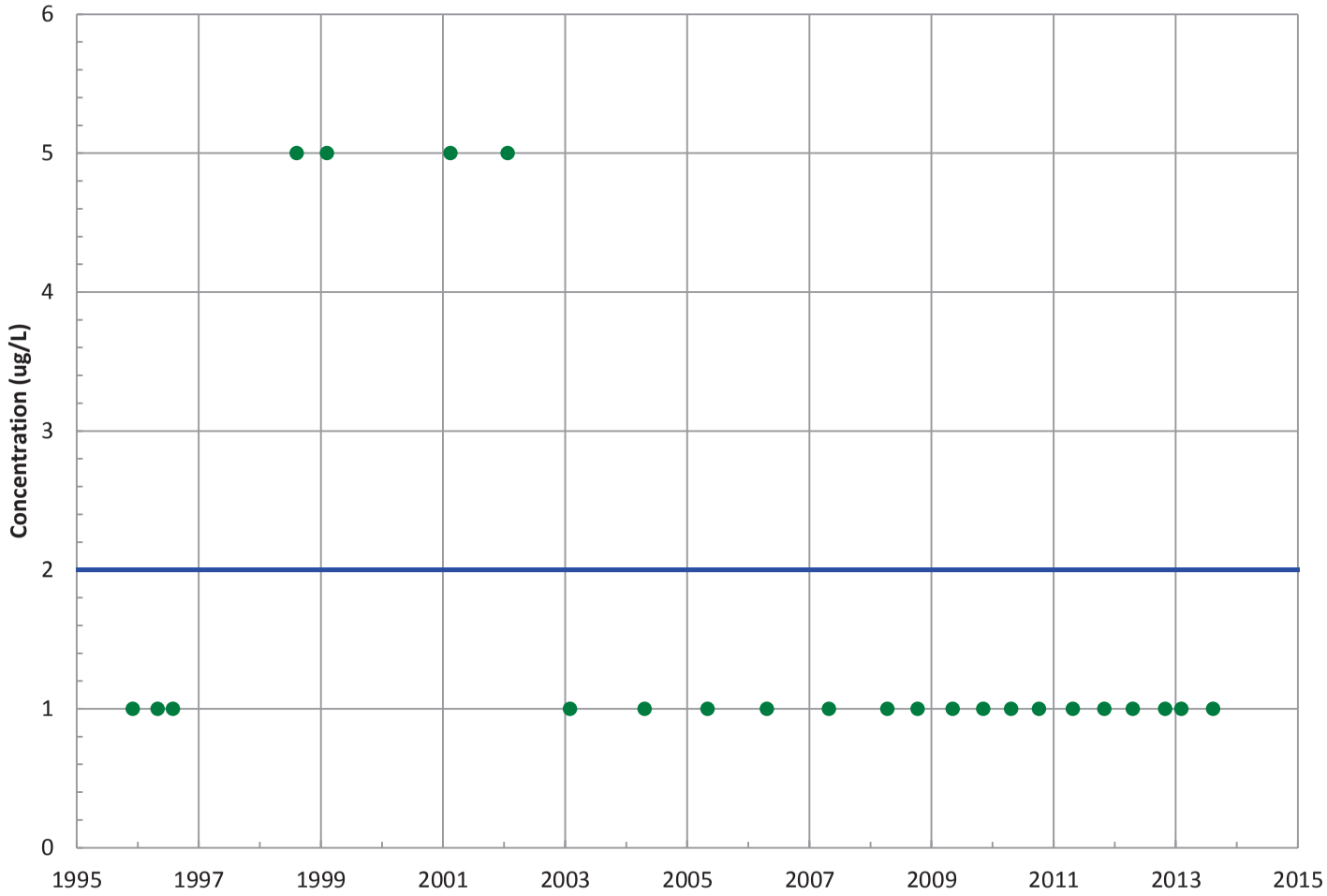
Well Location



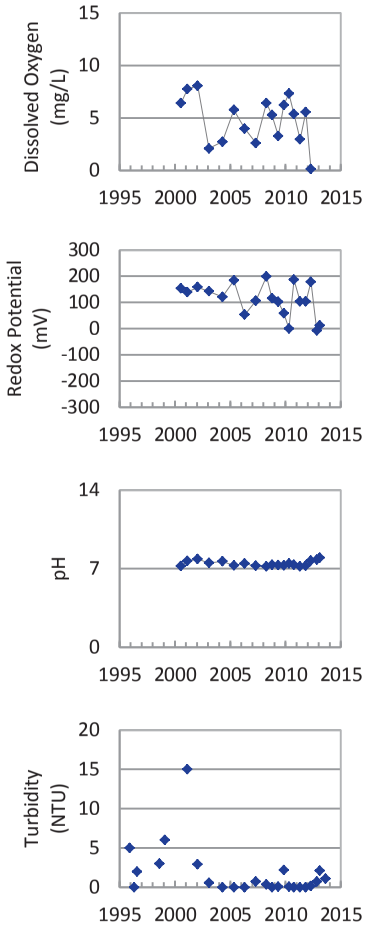
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/4/1995 to 8/26/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1002A
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



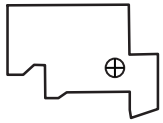
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

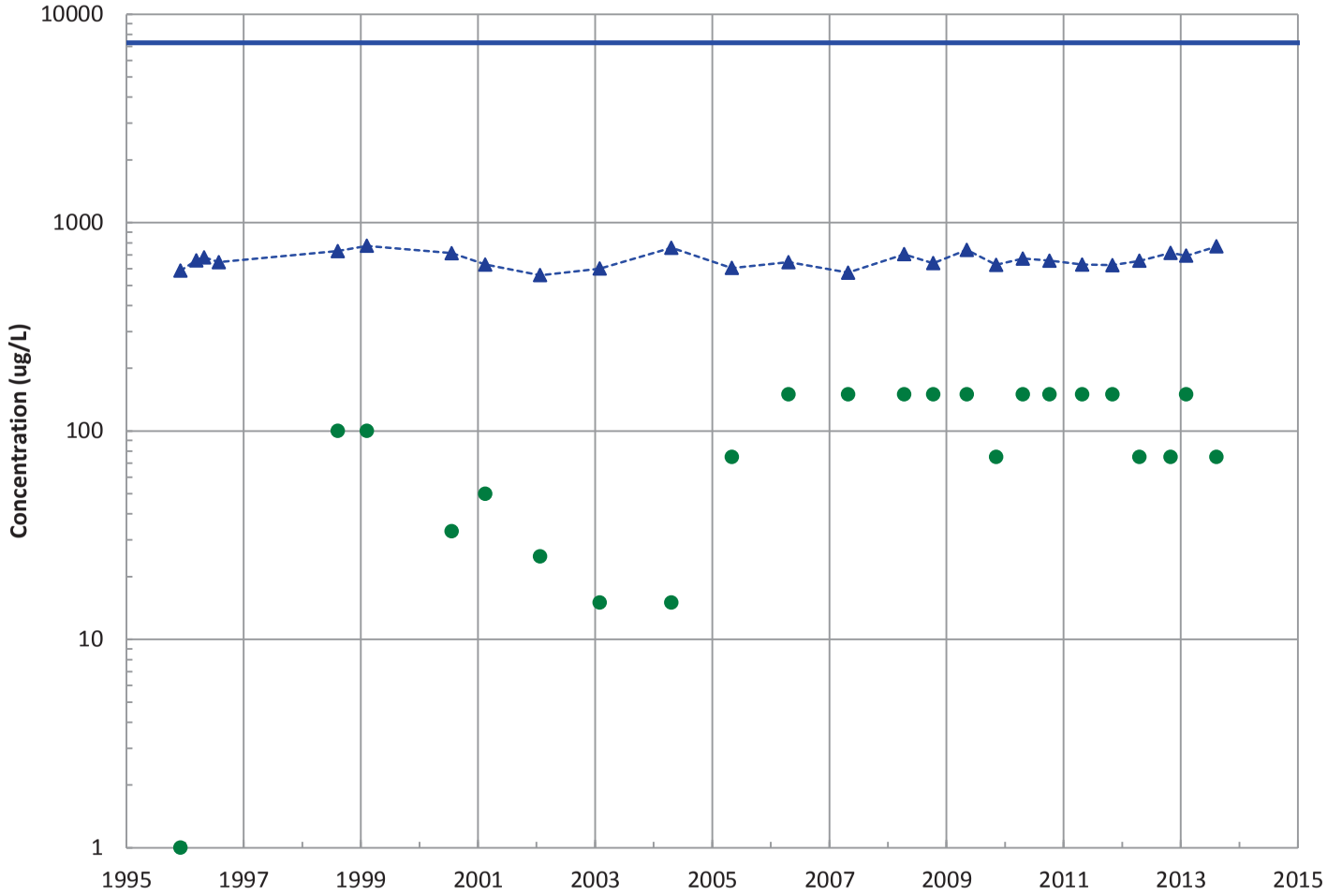
Well Location



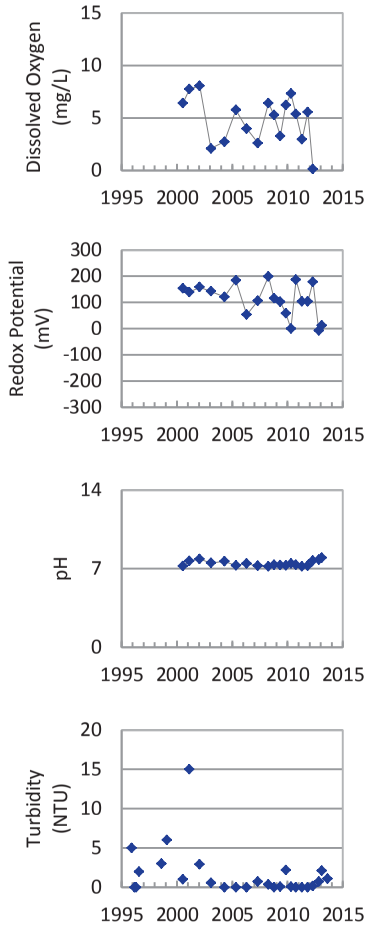
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/4/1995 to 8/26/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1002A
Boron Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Probably Increasing

2011 - 2013 Data: No Trend

MAROS Linear Regression Method

Data (7/2009 - 12/2013): Increasing

2011 - 2013 Data: Increasing

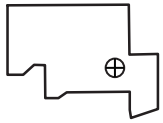
▲ Measured Value

● Sample Detection Limit

------- Concentration Trend

——— Groundwater Protection Standard

Well Location



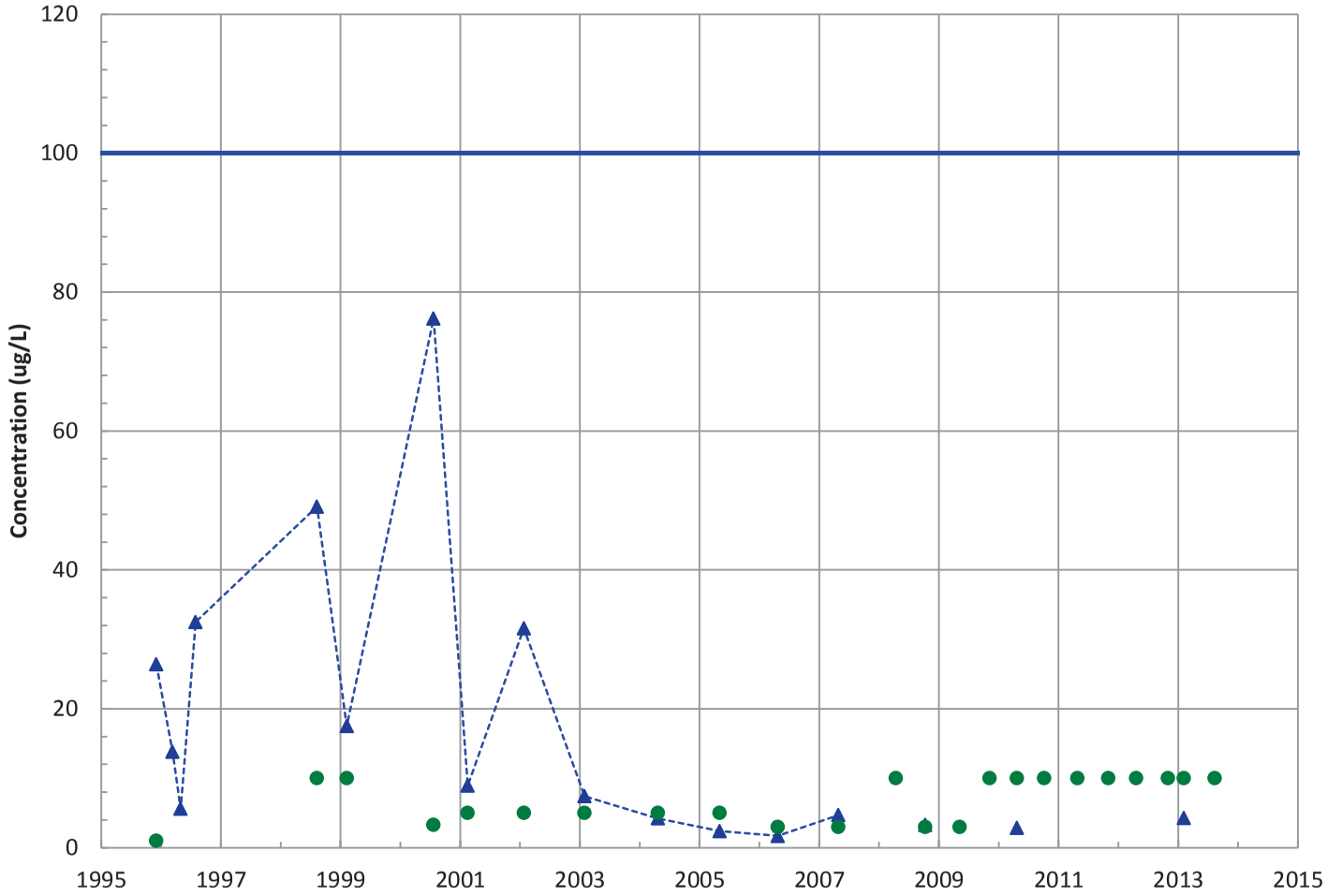
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 12/4/1995 to 8/26/2013

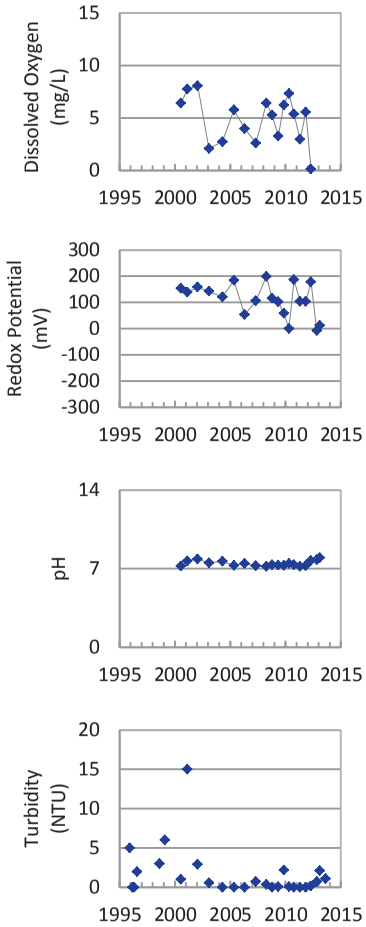
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1002A
Chromium, Total Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: N/A (<4 Detections in

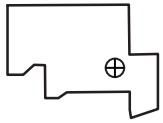
MAROS Linear Regression Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------ Concentration Trend
- ——— Groundwater Protection Standard

Well Location



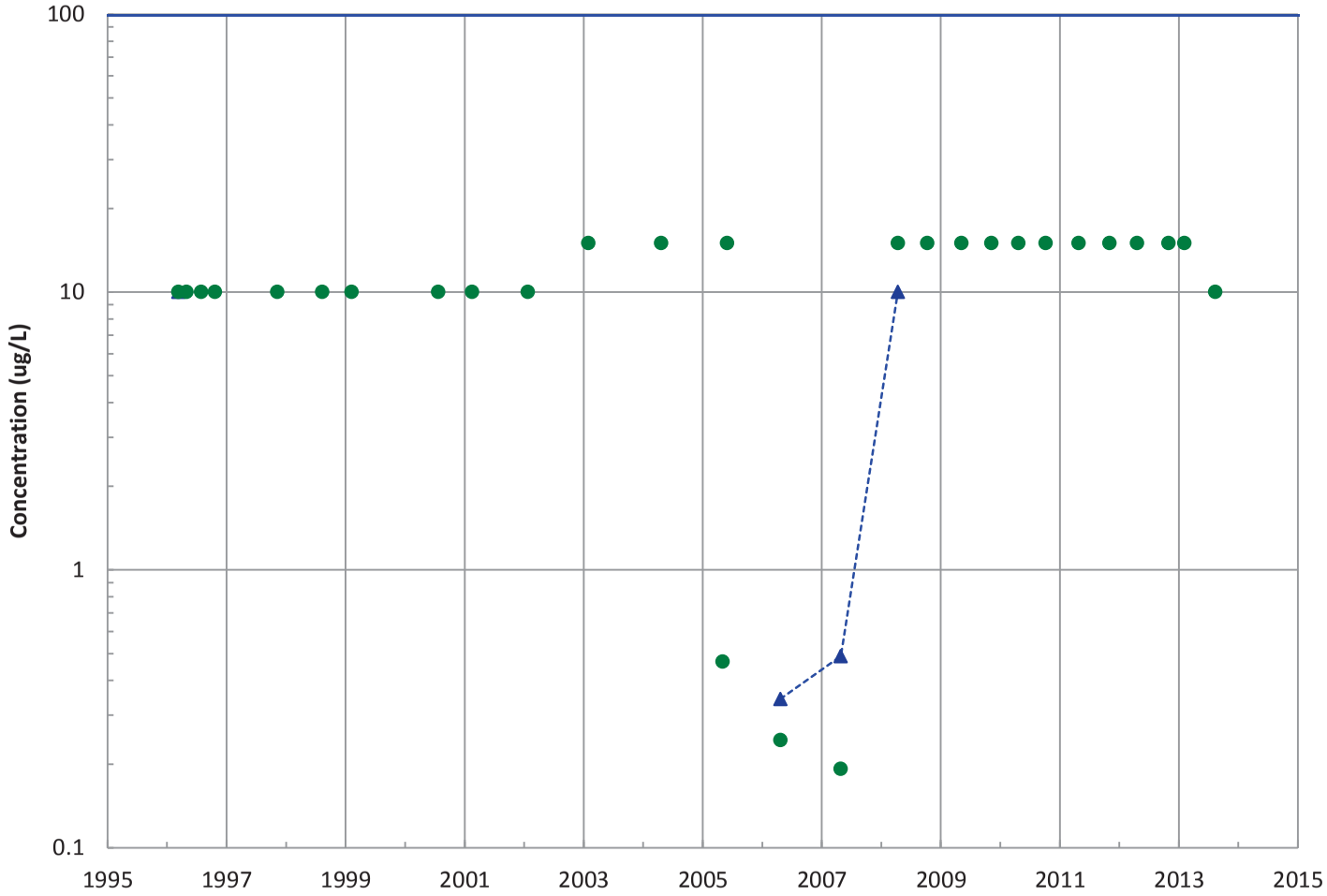
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 12/4/1995 to 8/26/2013

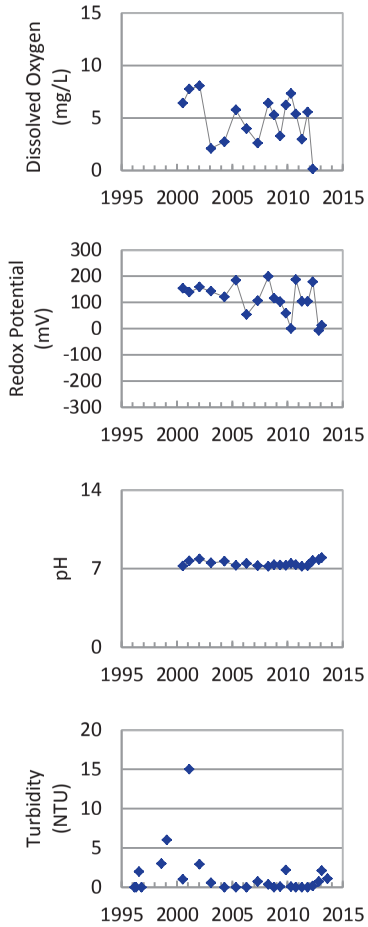
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1002A
Chromium, Hexavalent Trend in Perched Aquifer



Field Parameters



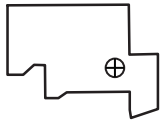
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: No Trend

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

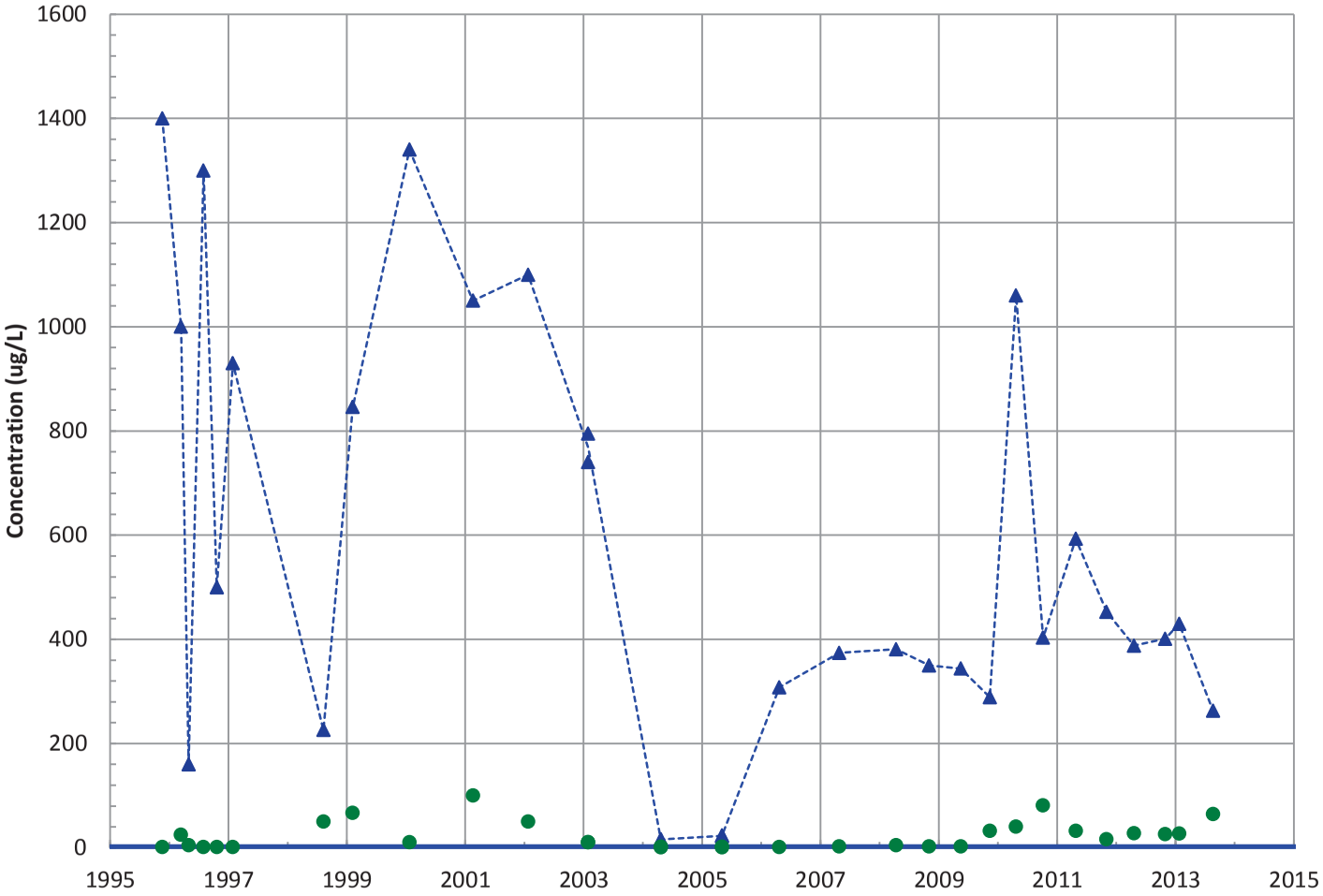
Well Location



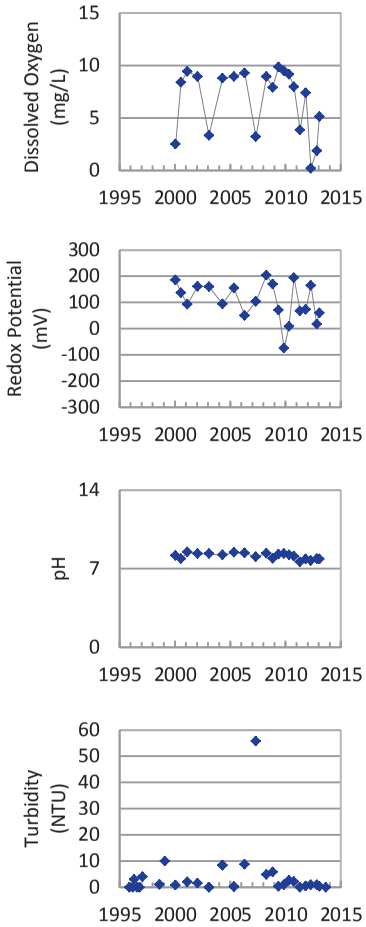
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/12/1996 to 8/26/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1005
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



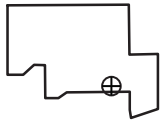
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

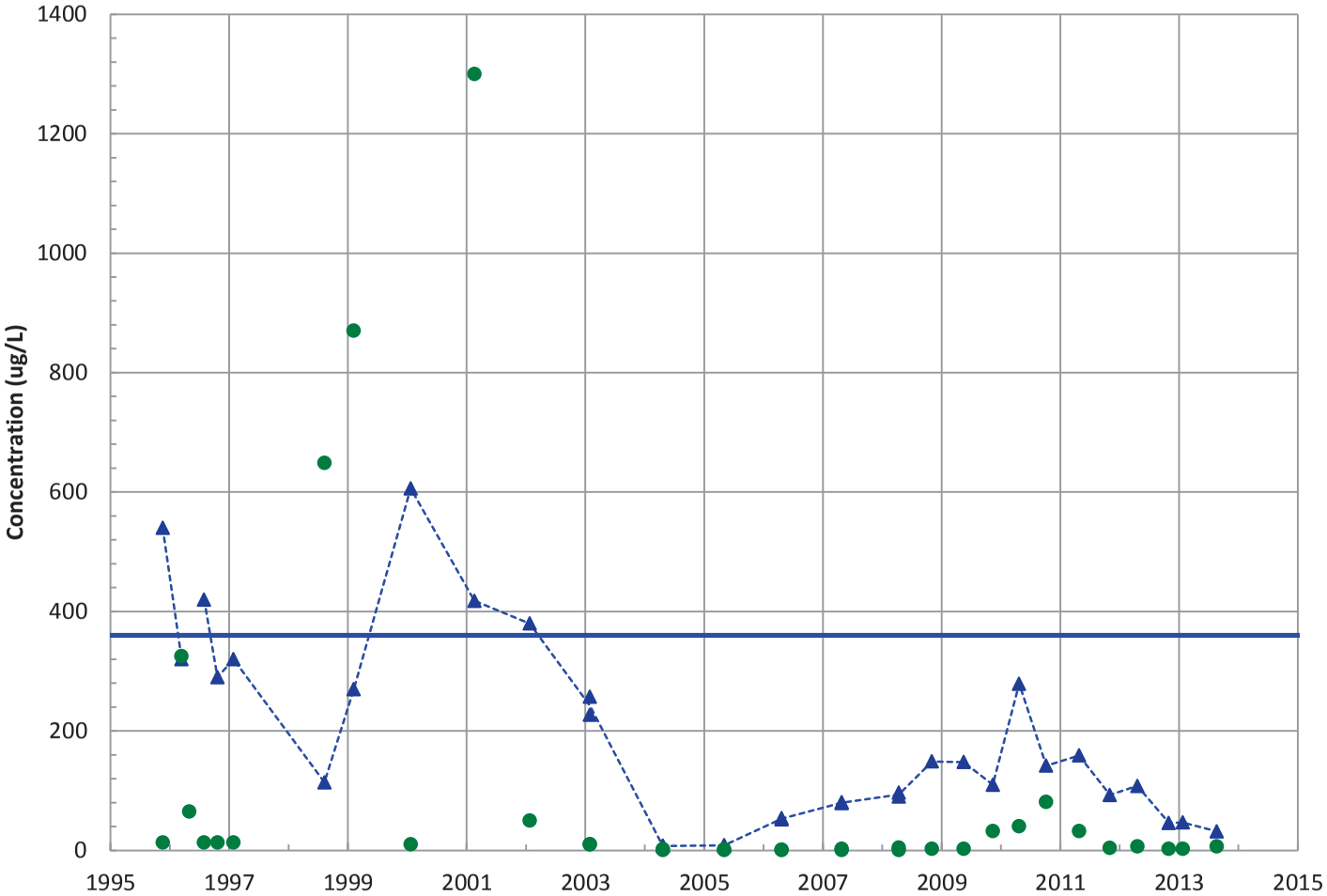
Well Location



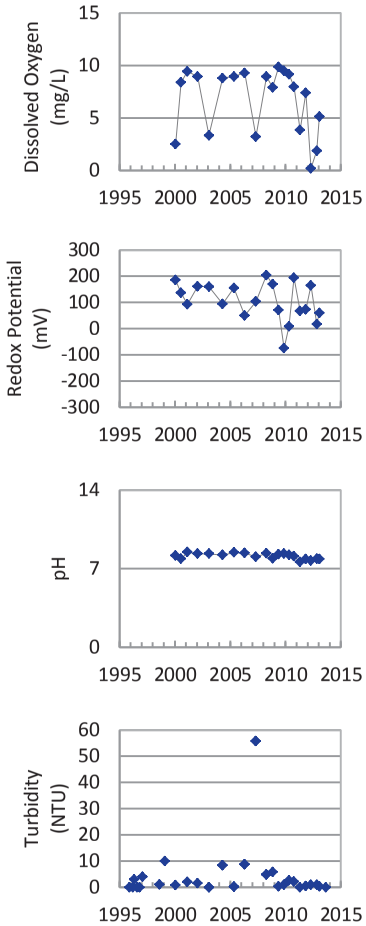
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/20/1995 to 9/3/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1005
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



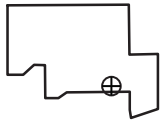
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

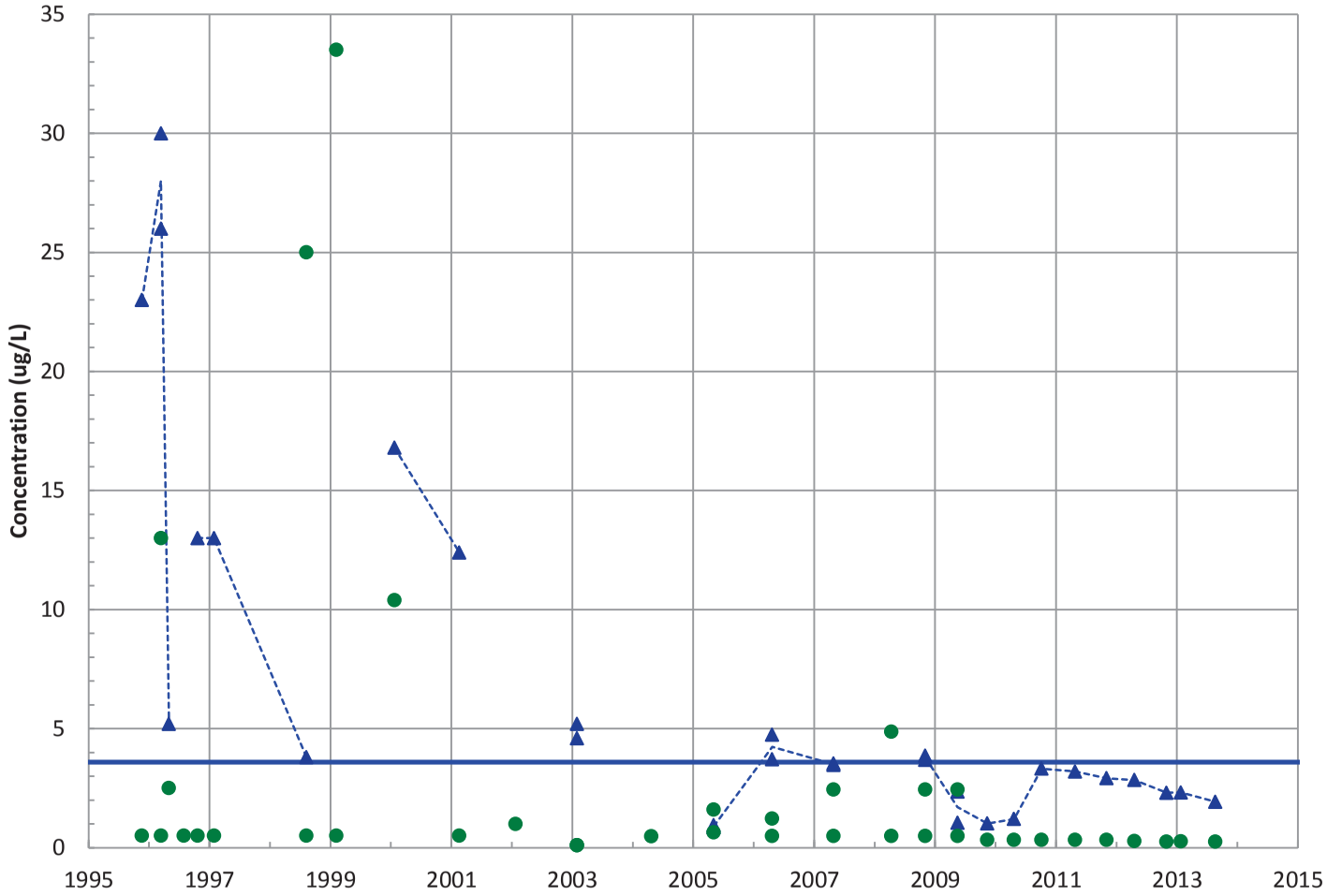
Well Location



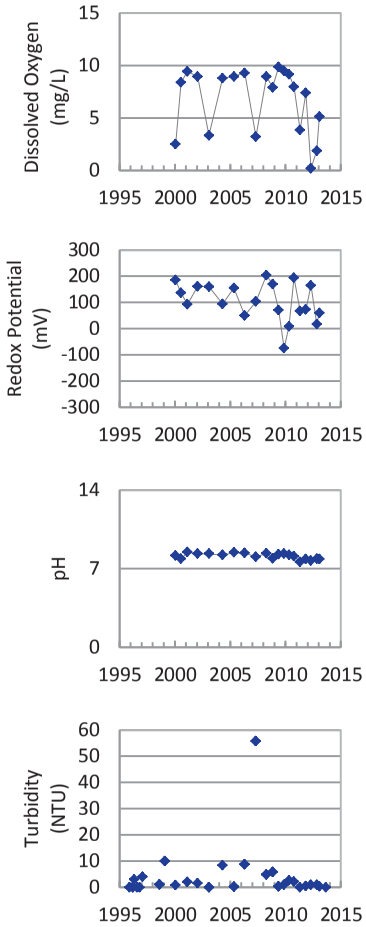
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/20/1995 to 9/3/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1005
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



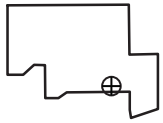
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Decreasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------ Concentration Trend
- ——— Groundwater Protection Standard

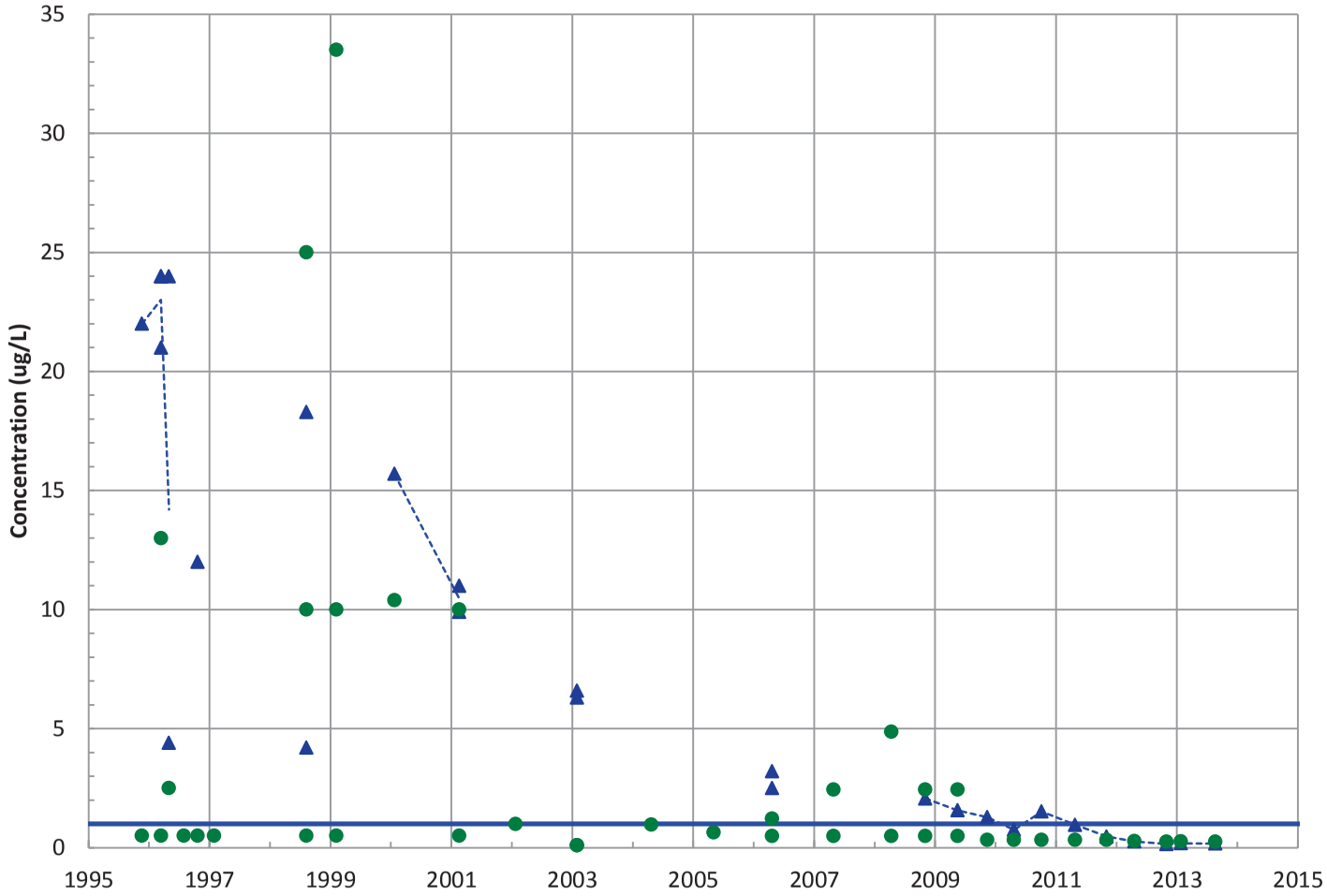
Well Location



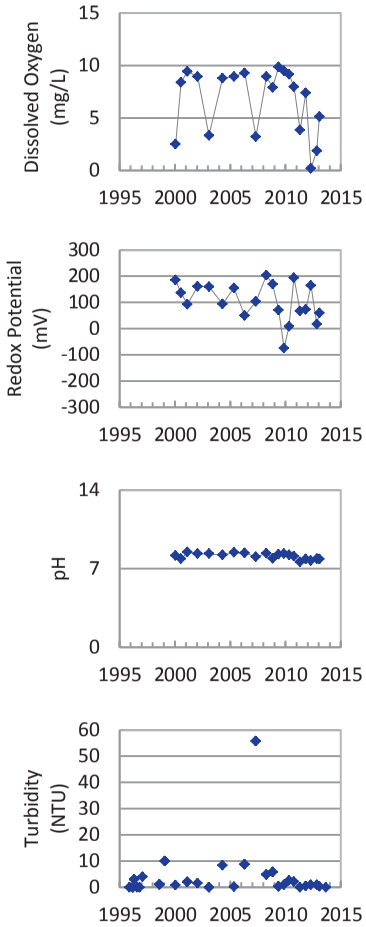
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/20/1995 to 9/3/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1005
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



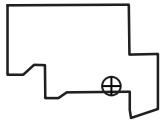
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------ Concentration Trend
- ——— Groundwater Protection Standard

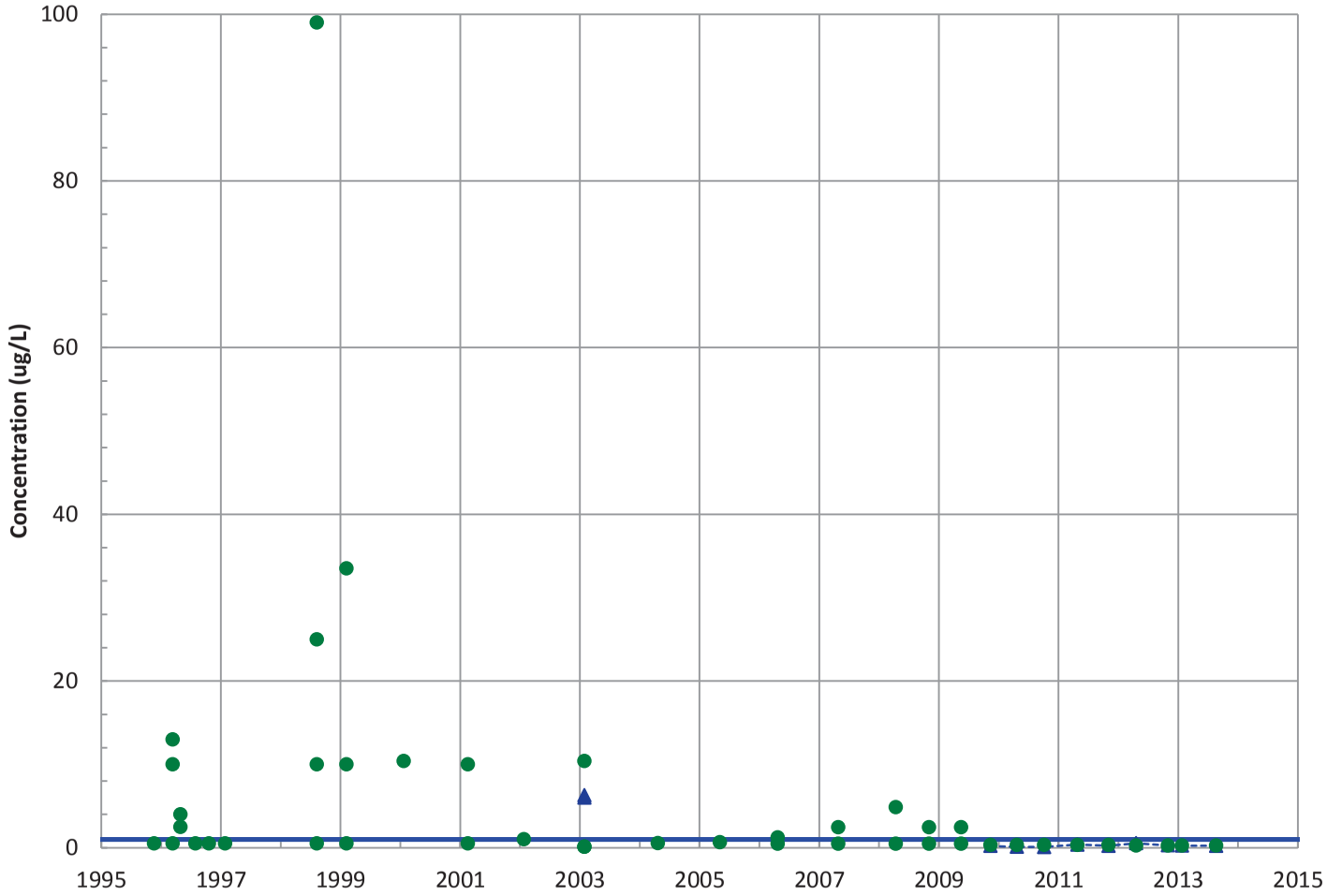
Well Location



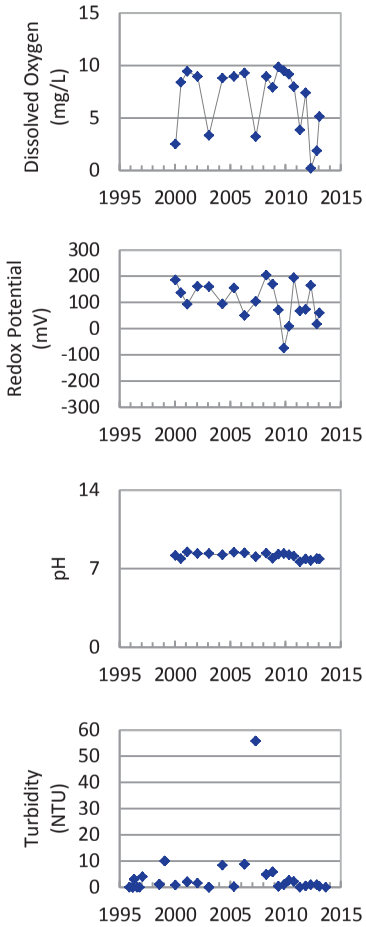
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/20/1995 to 9/3/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1005
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



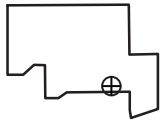
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Probably Increasing
2011 - 2013 Data: Decreasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

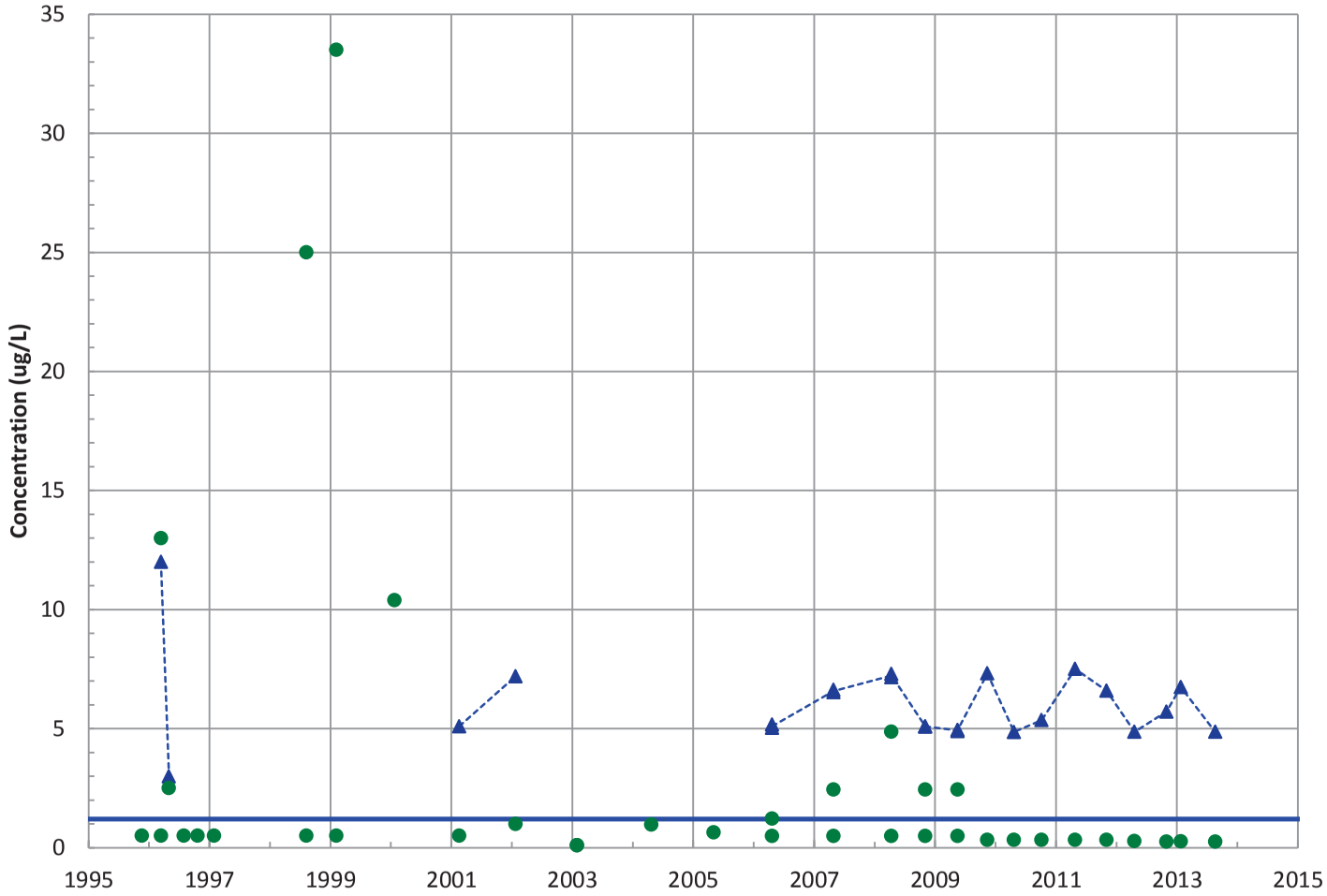
Well Location



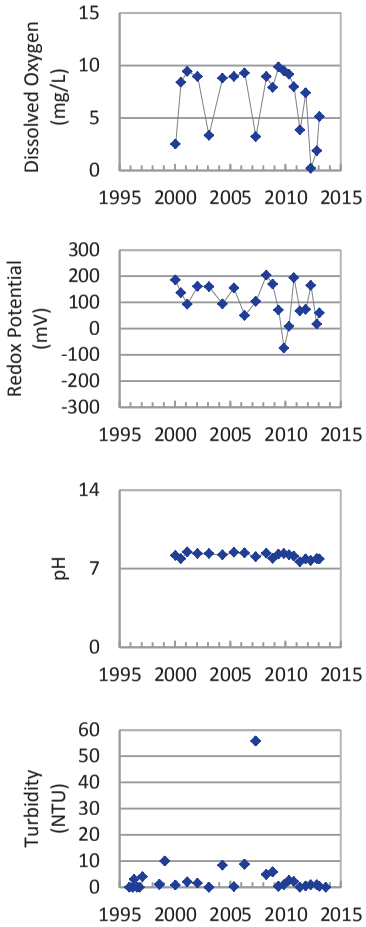
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/20/1995 to 9/3/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1005
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



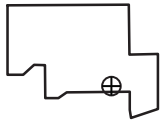
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: No Trend

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

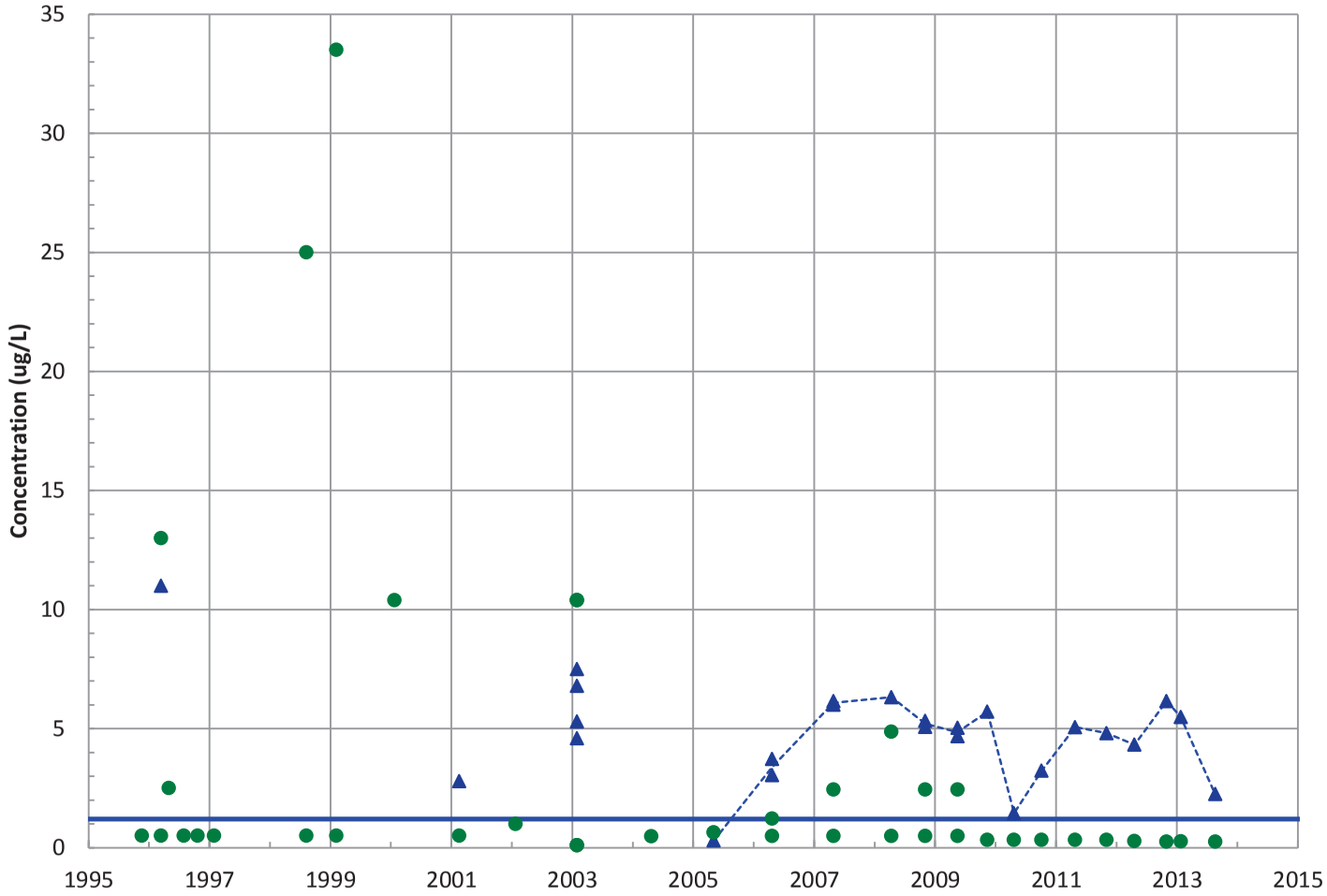
Well Location



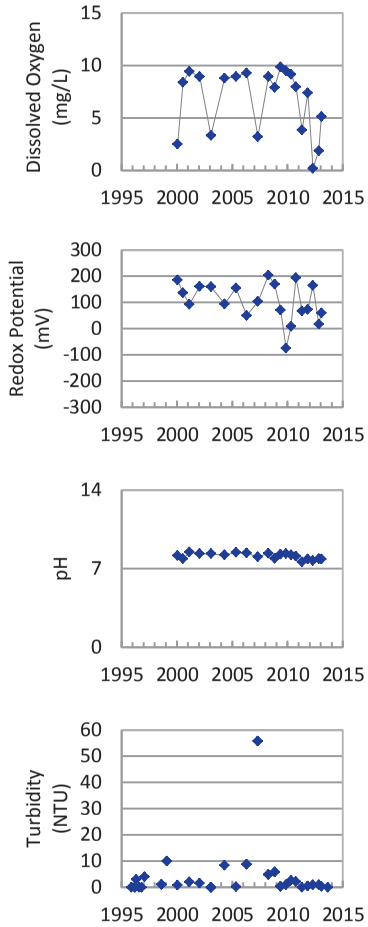
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/20/1995 to 9/3/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1005
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



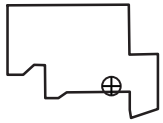
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Stable

Measured Value
Sample Detection Limit
Concentration Trend
Groundwater Protection Standard

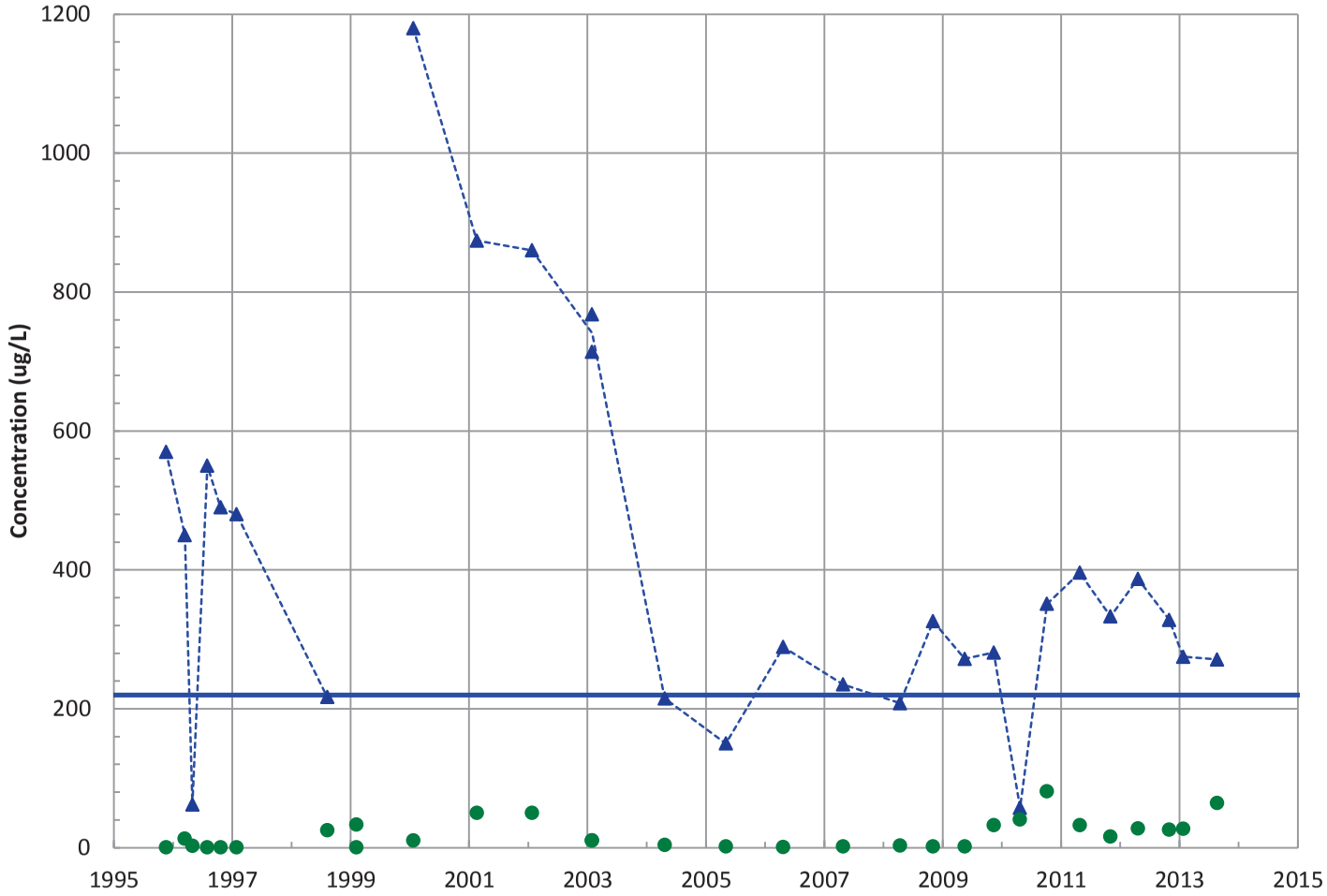
Well Location



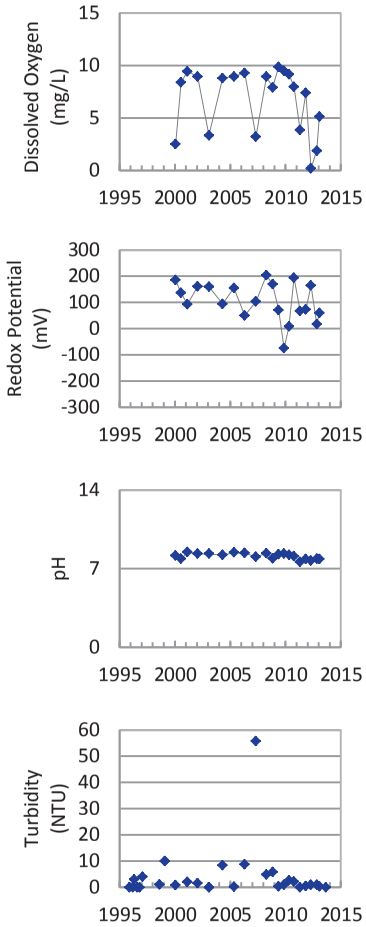
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/20/1995 to 9/3/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1005
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



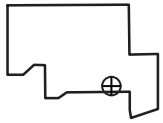
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Decreasing

- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

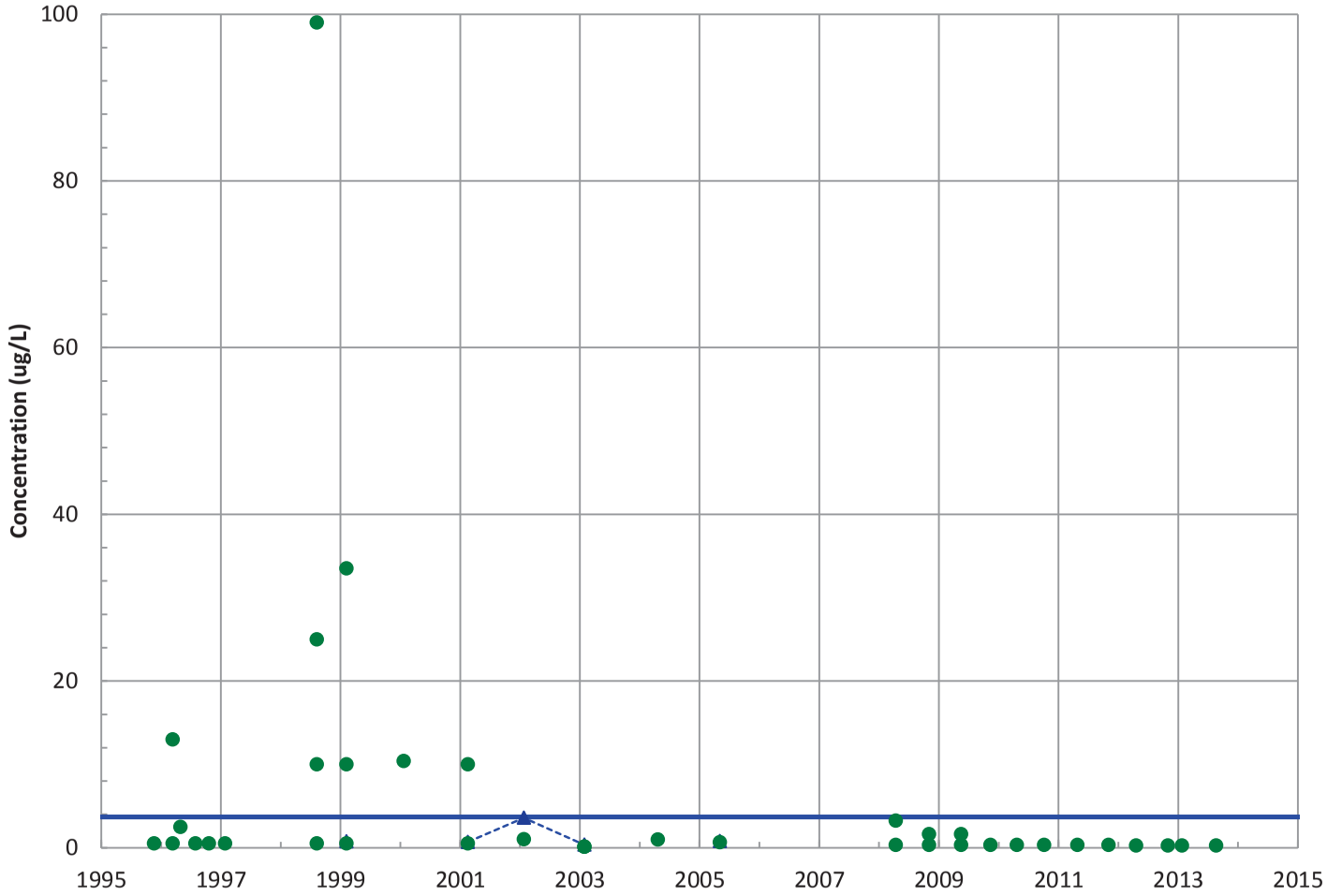
Well Location



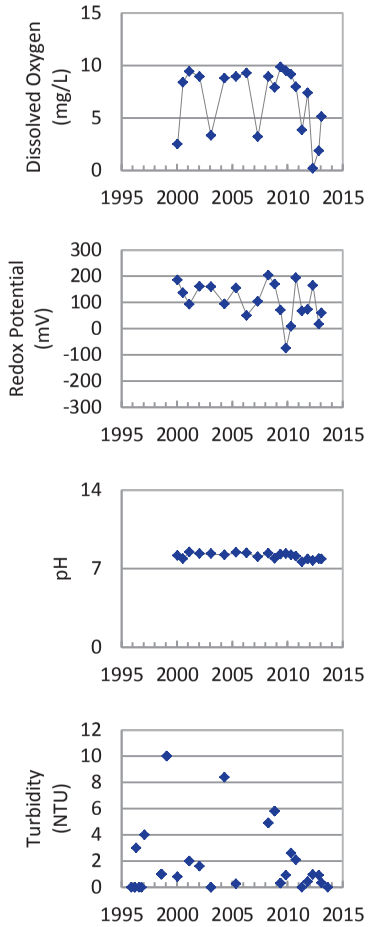
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/20/1995 to 9/3/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1005
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



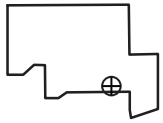
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

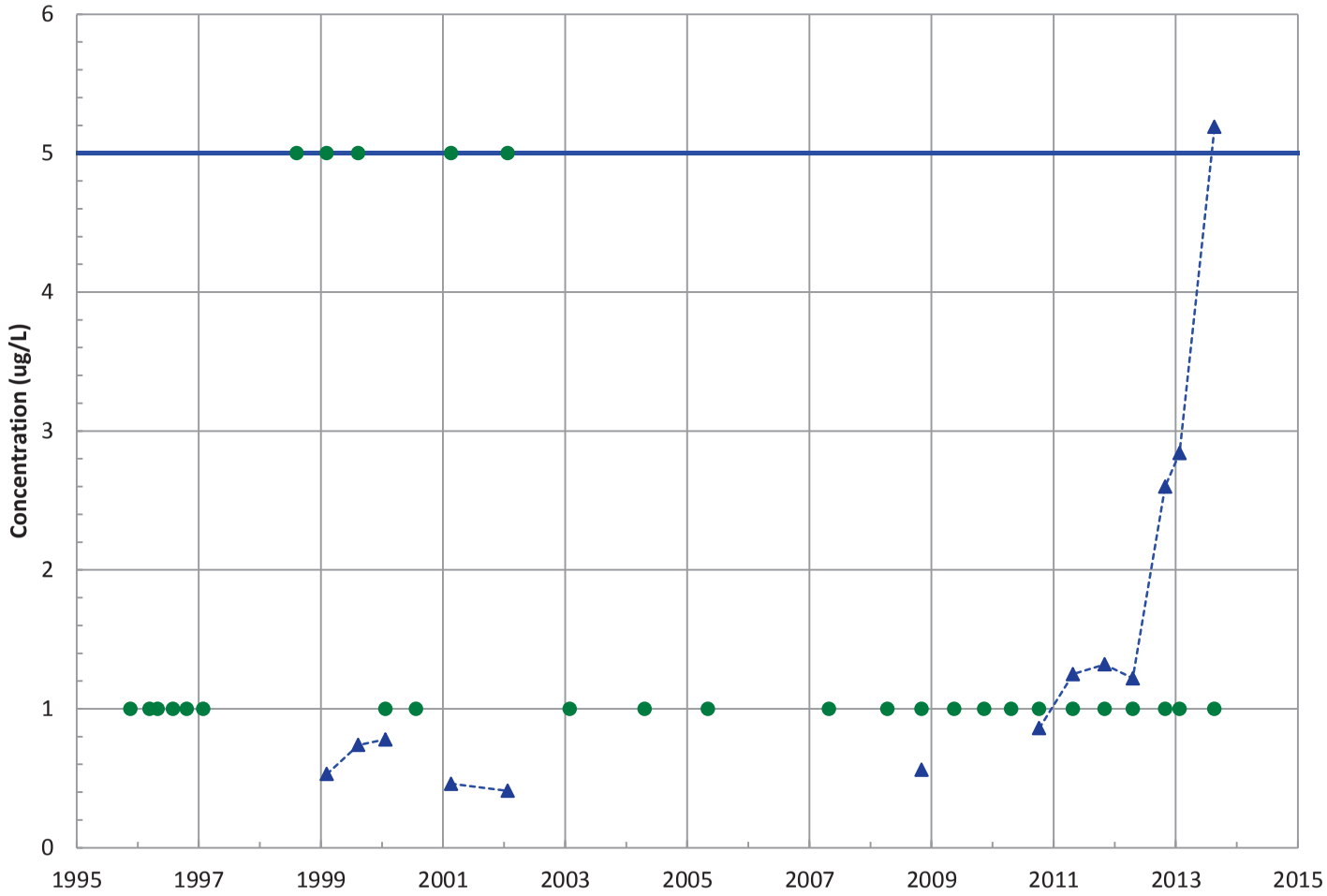
Well Location



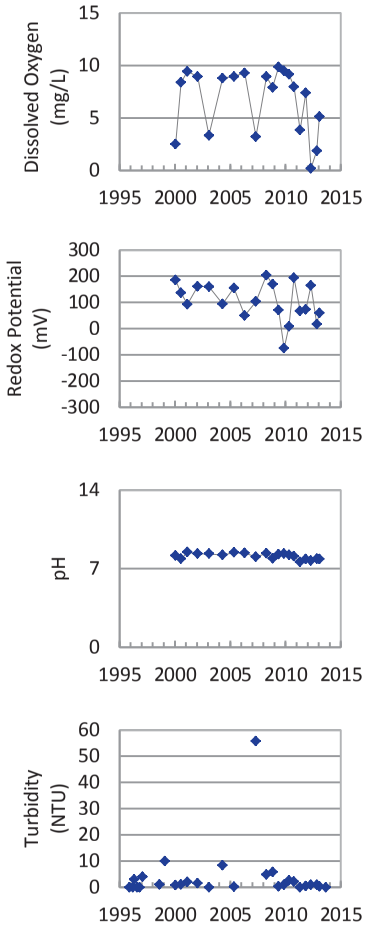
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/20/1995 to 9/3/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1005
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



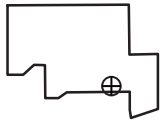
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Increasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Increasing

Measured Value
Sample Detection Limit
Concentration Trend
Groundwater Protection Standard

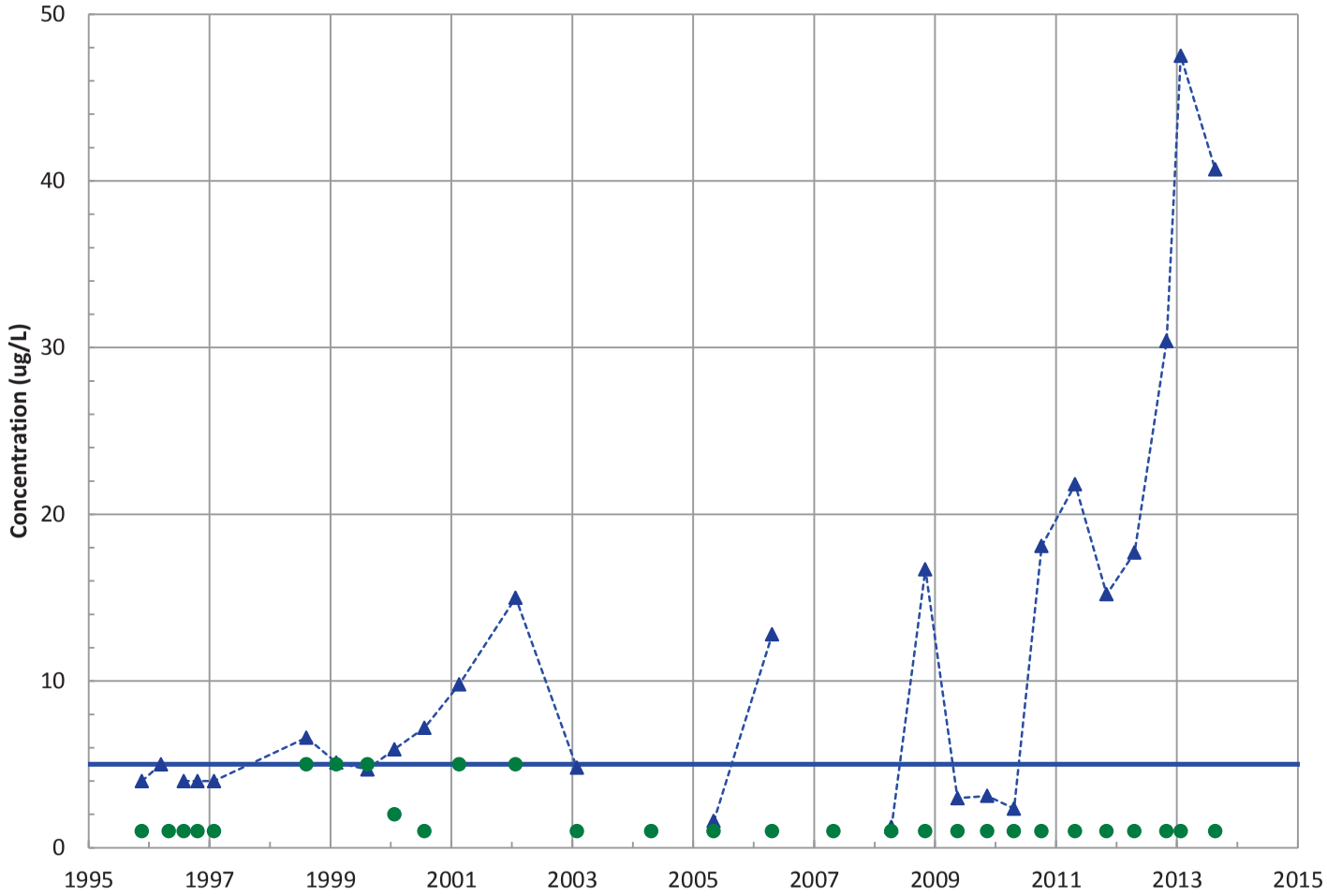
Well Location



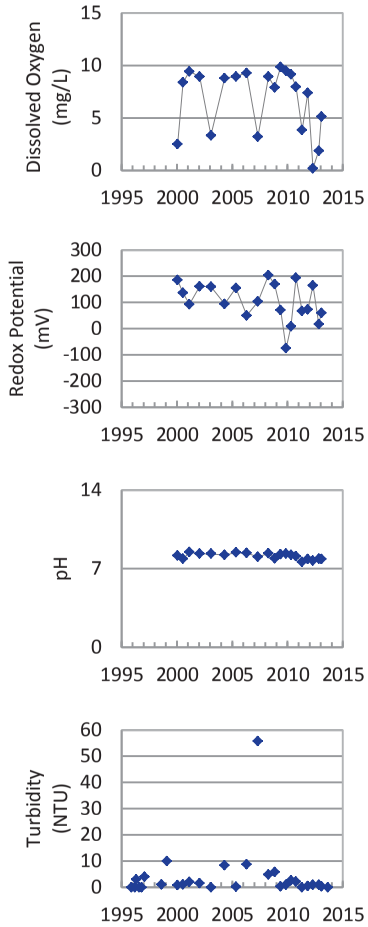
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/20/1995 to 9/3/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1005
Trichloroethene Trend in Perched Aquifer



Field Parameters



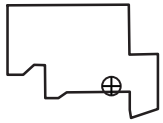
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Increasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

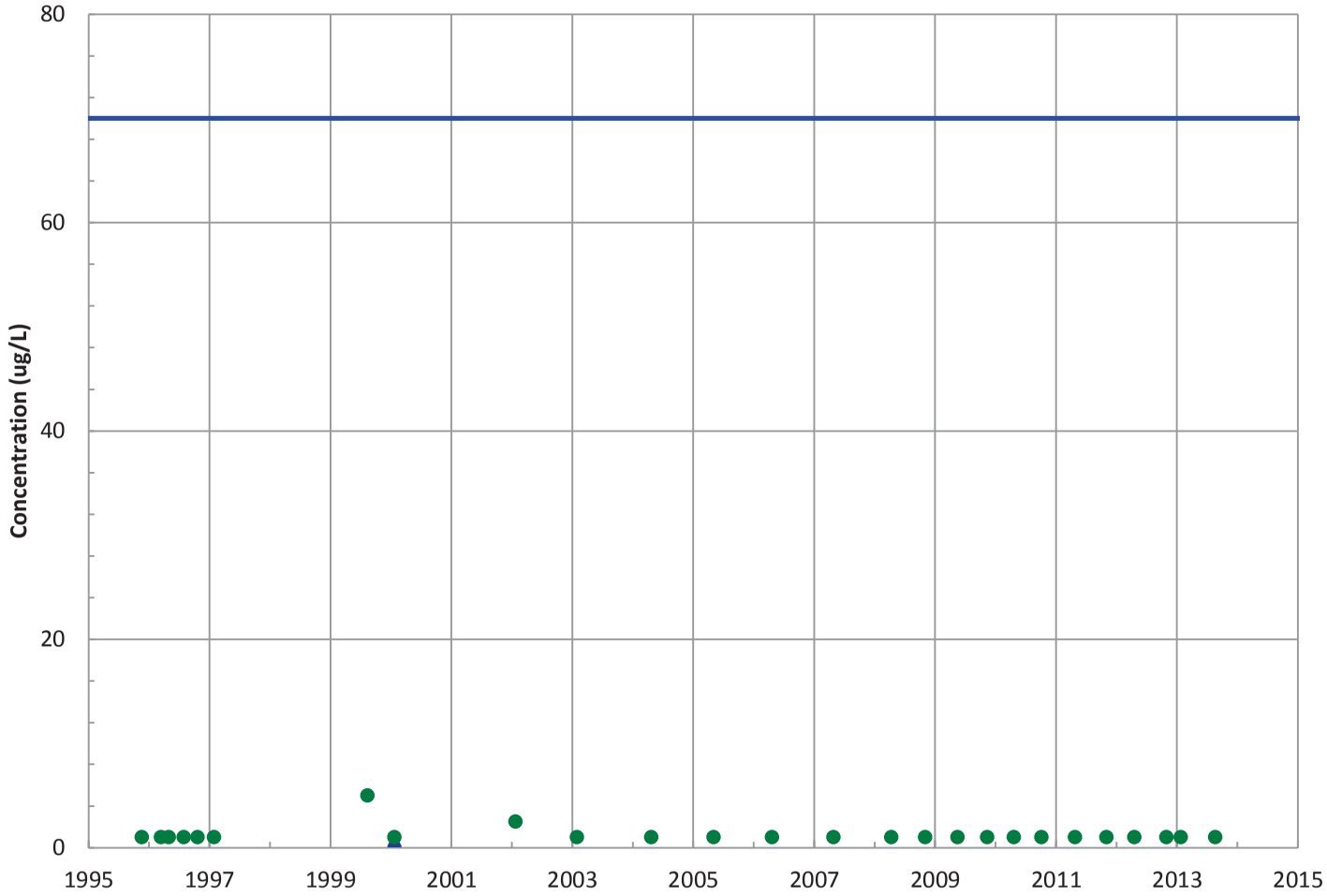
Well Location



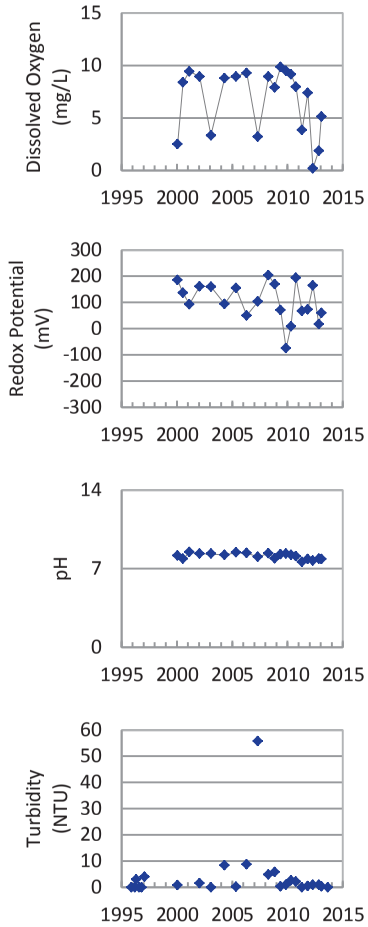
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/20/1995 to 9/3/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1005
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



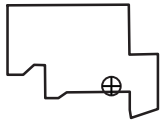
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

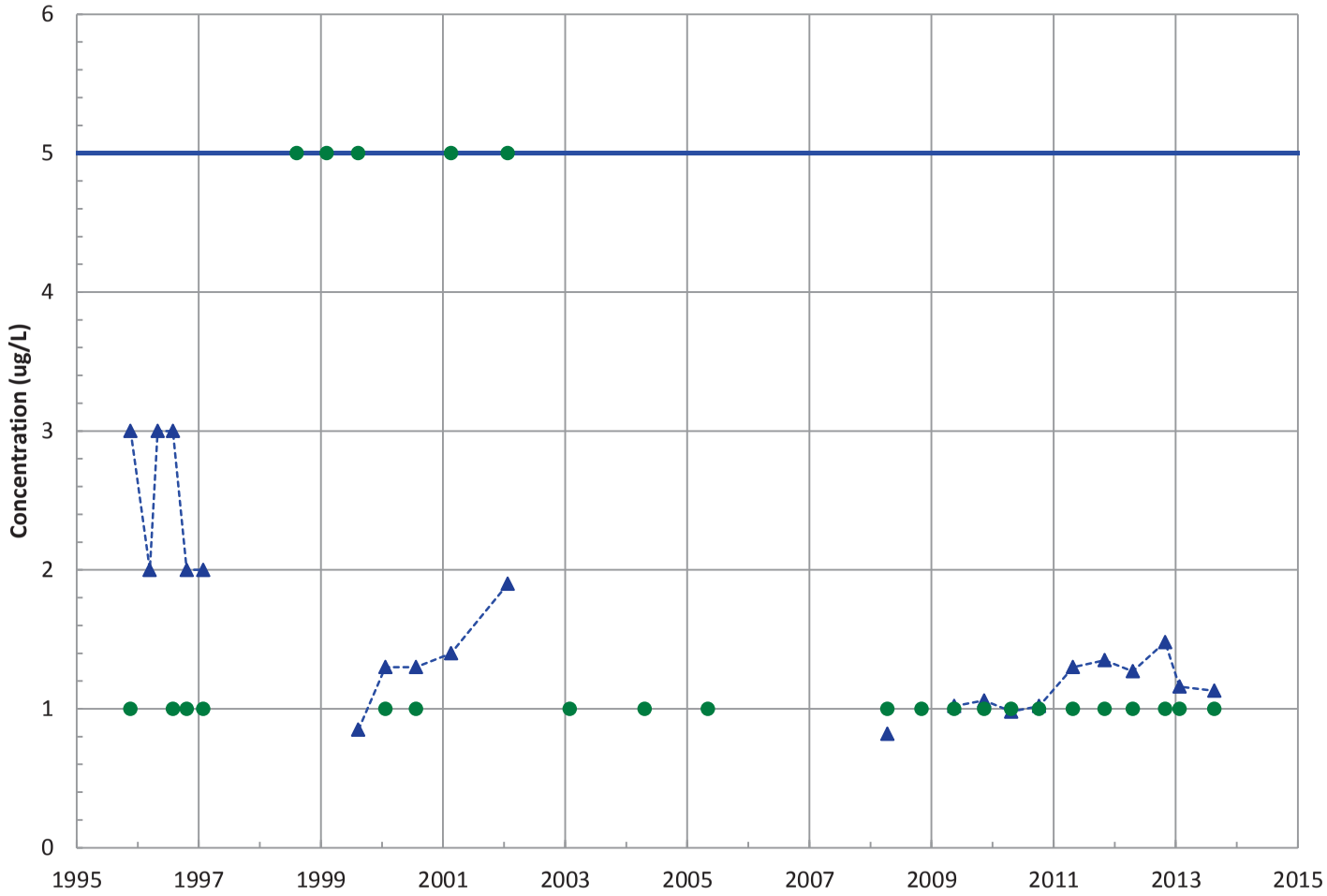
Well Location



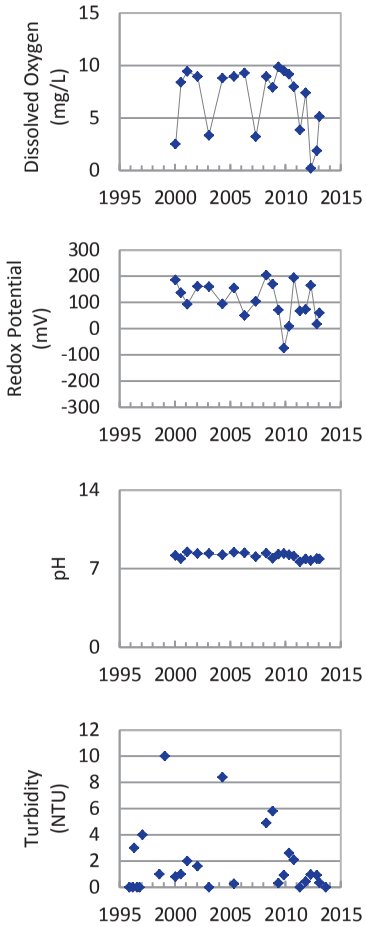
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/20/1995 to 9/3/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1005
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



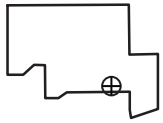
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Probably Increasing
2011 - 2013 Data: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

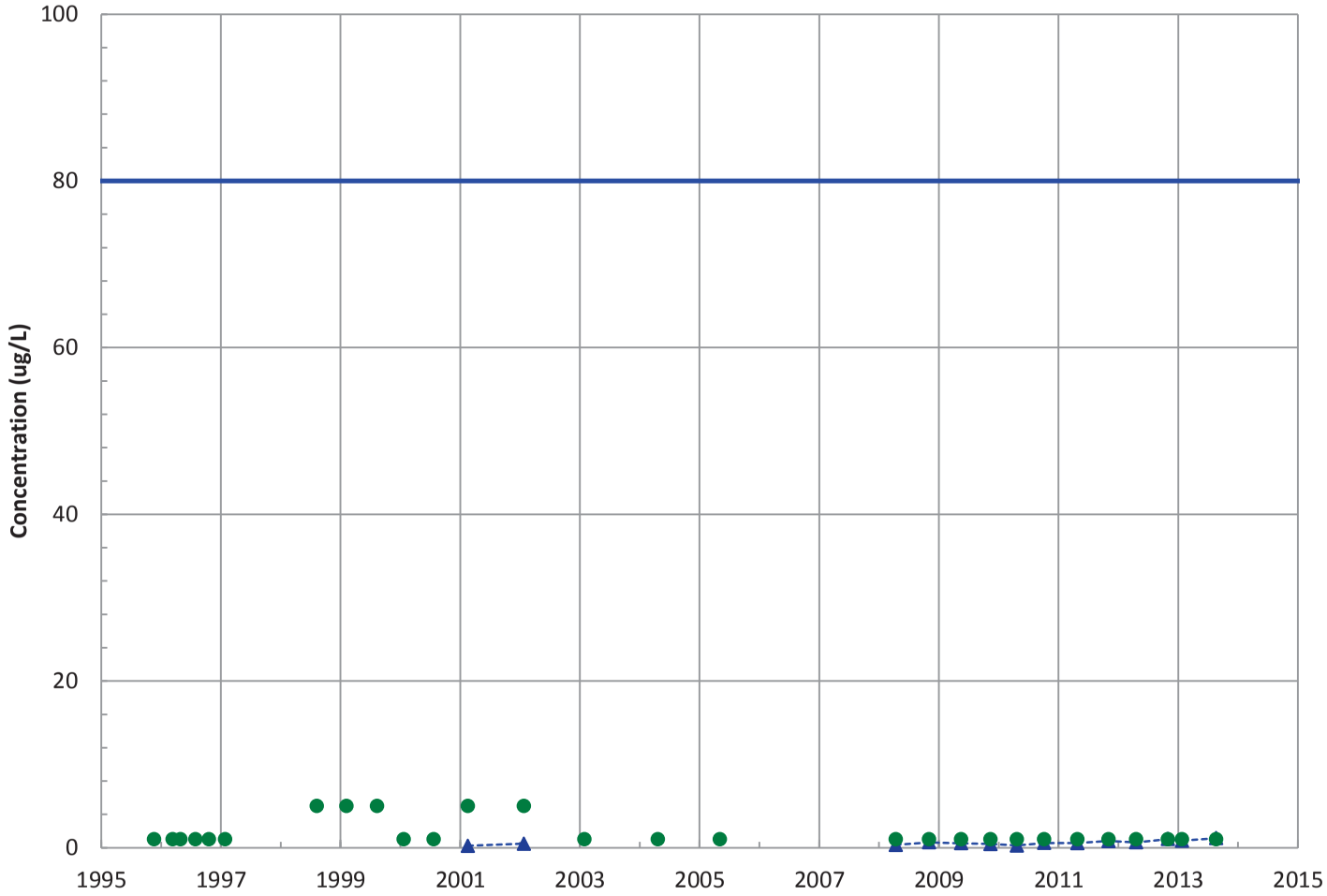
Well Location



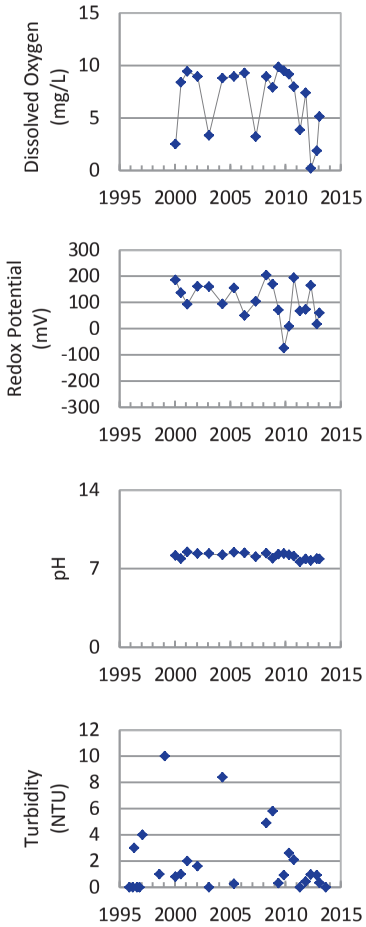
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/20/1995 to 9/3/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1005
Chloroform Trend in Perched Aquifer



Field Parameters



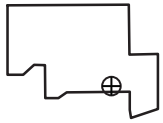
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

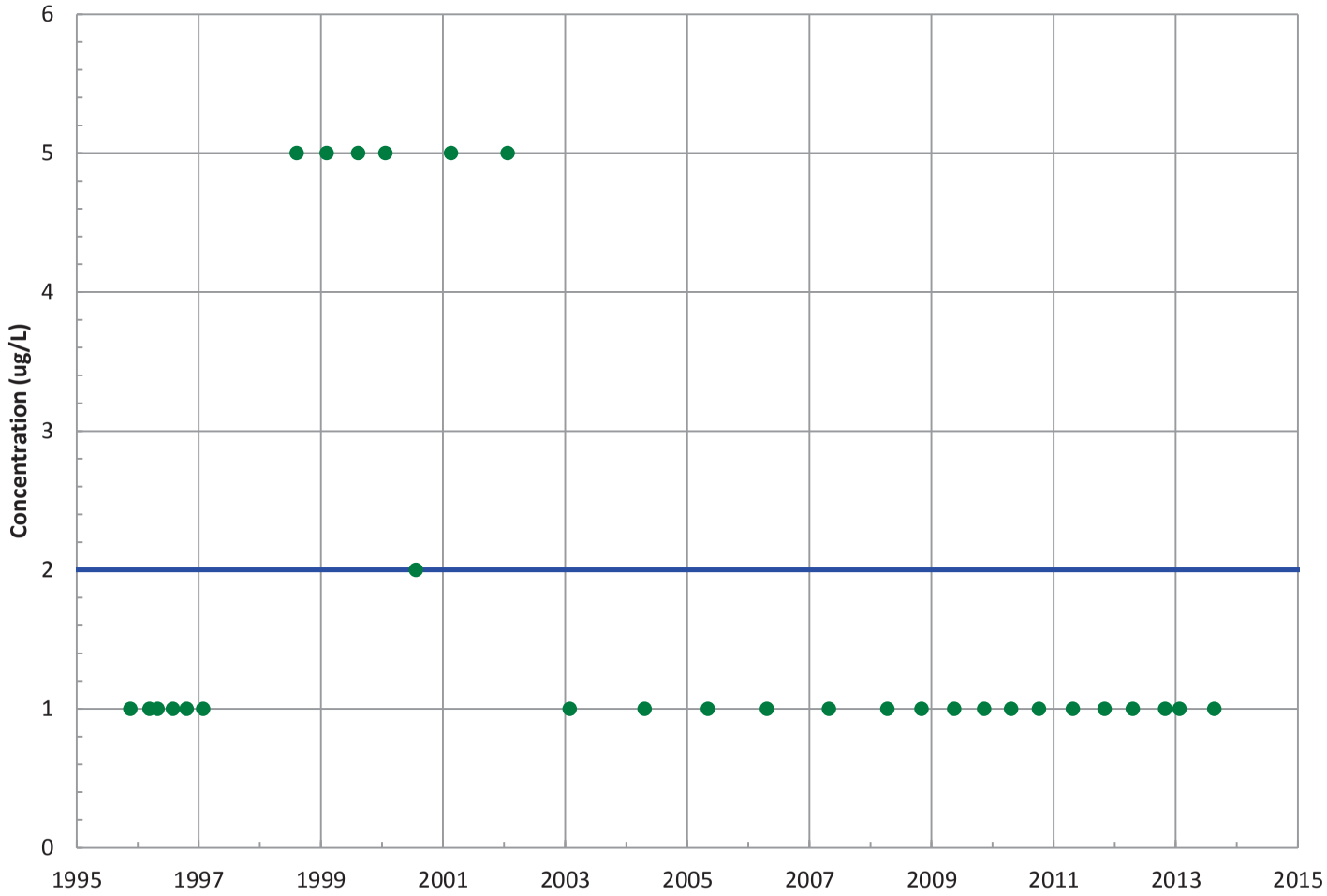
Well Location



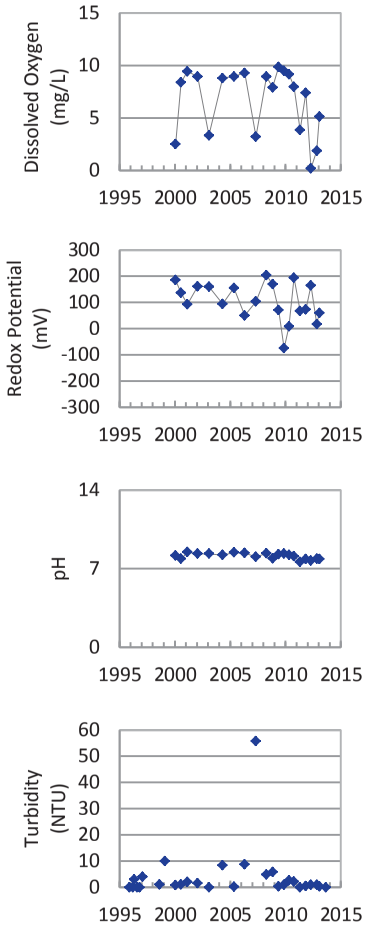
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/20/1995 to 9/3/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1005
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



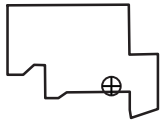
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

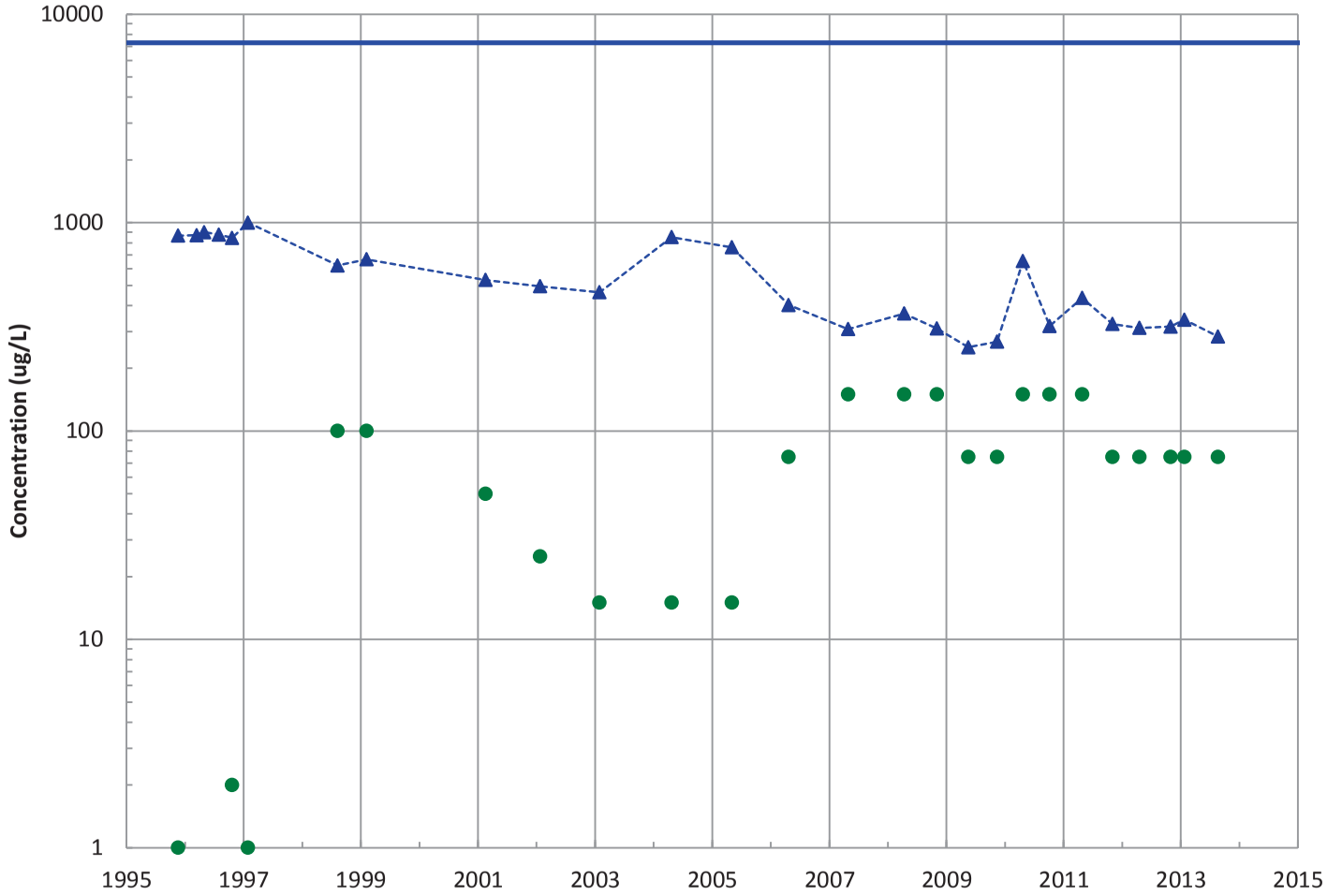
Well Location



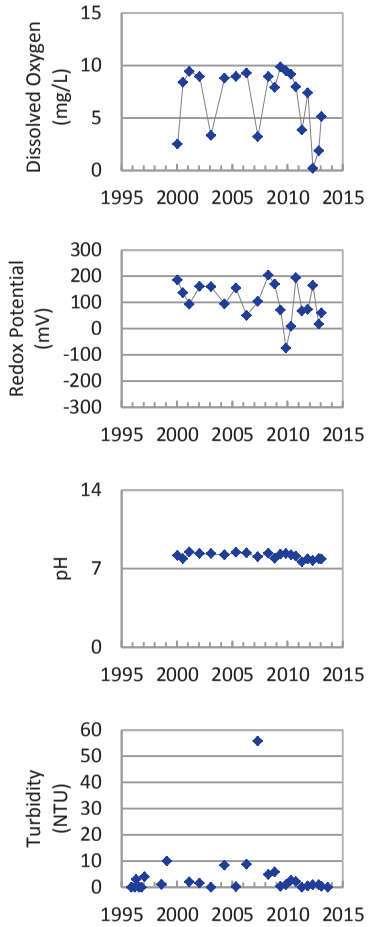
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/20/1995 to 9/3/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1005
Boron Trend in Perched Aquifer



Field Parameters



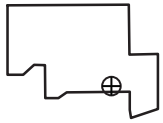
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

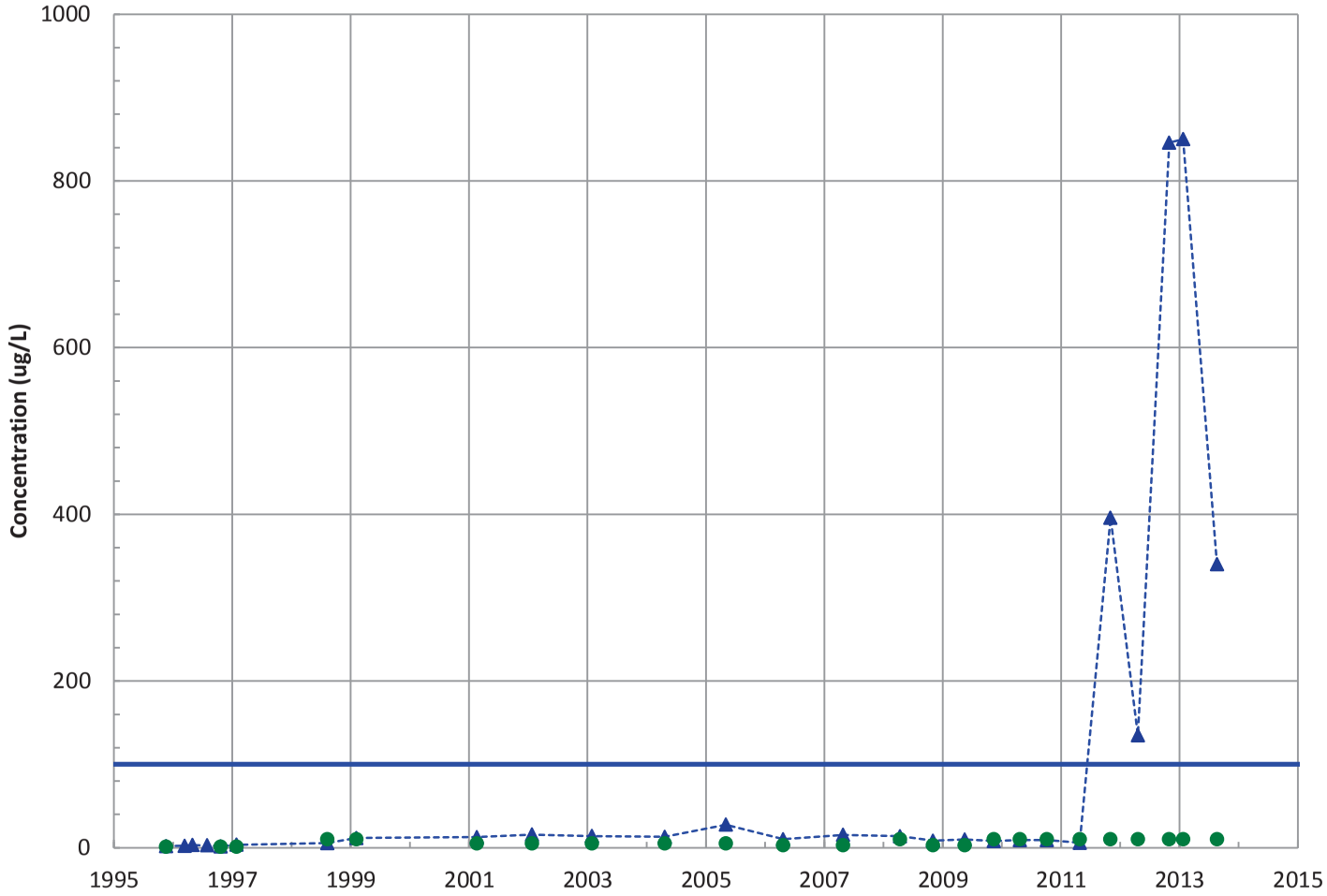
Well Location



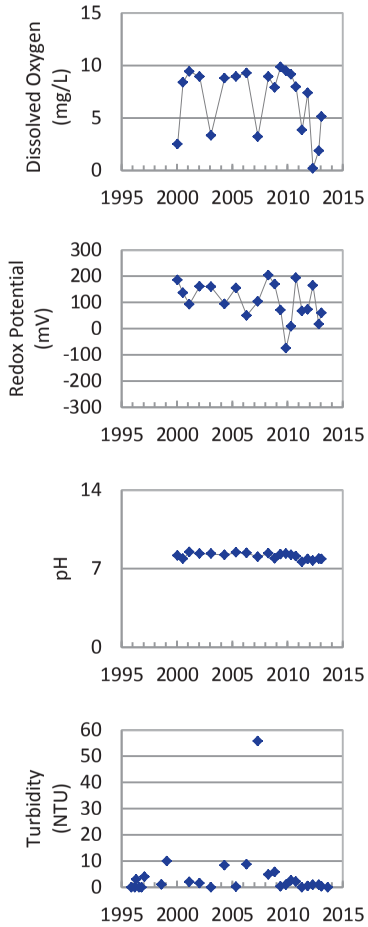
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/20/1995 to 9/3/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1005
Chromium, Total Trend in Perched Aquifer



Field Parameters



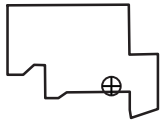
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

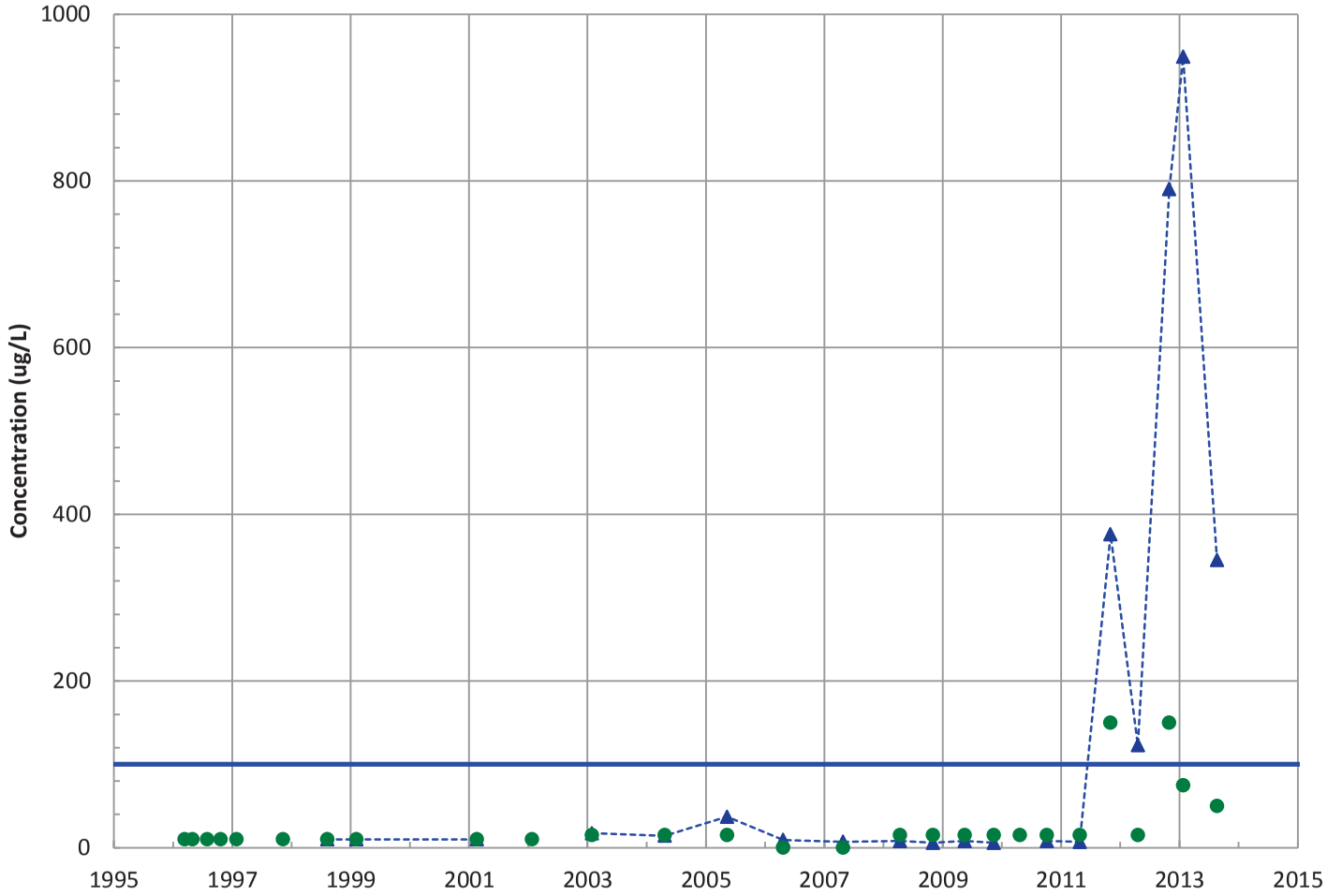
Well Location



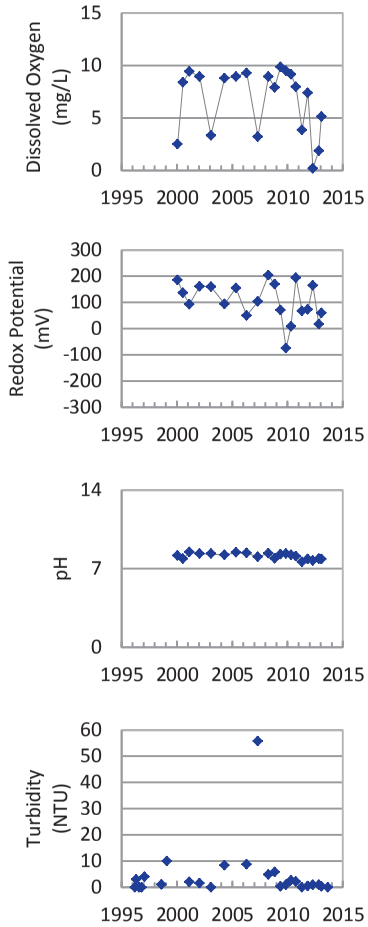
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/20/1995 to 9/3/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1005
Chromium, Hexavalent Trend in Perched Aquifer



Field Parameters



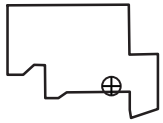
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------ Concentration Trend
- ——— Groundwater Protection Standard

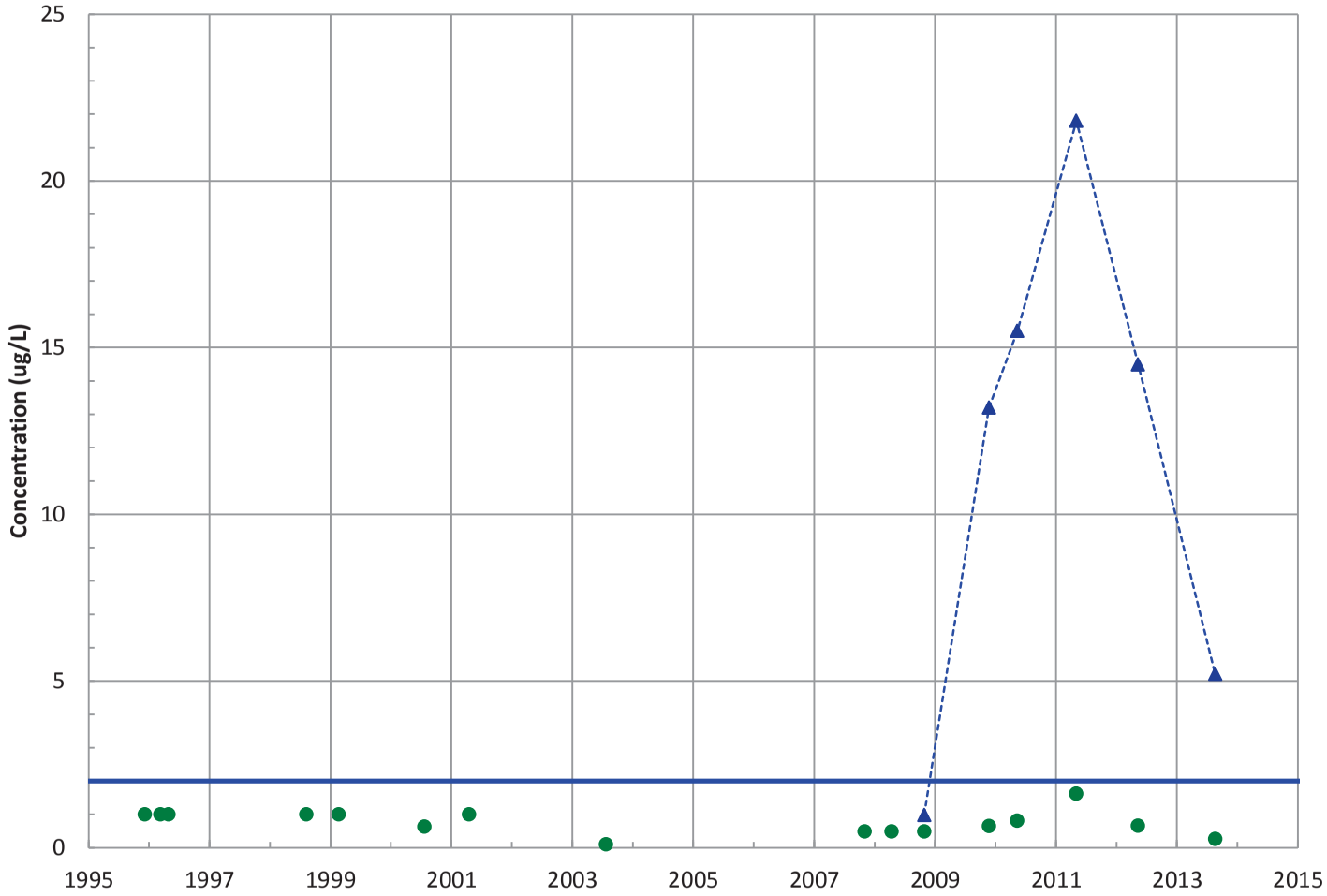
Well Location



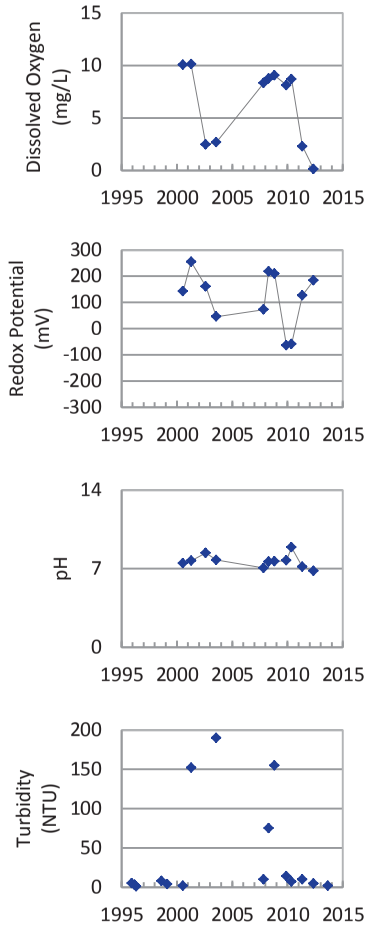
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/14/1996 to 9/3/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1006
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



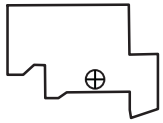
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

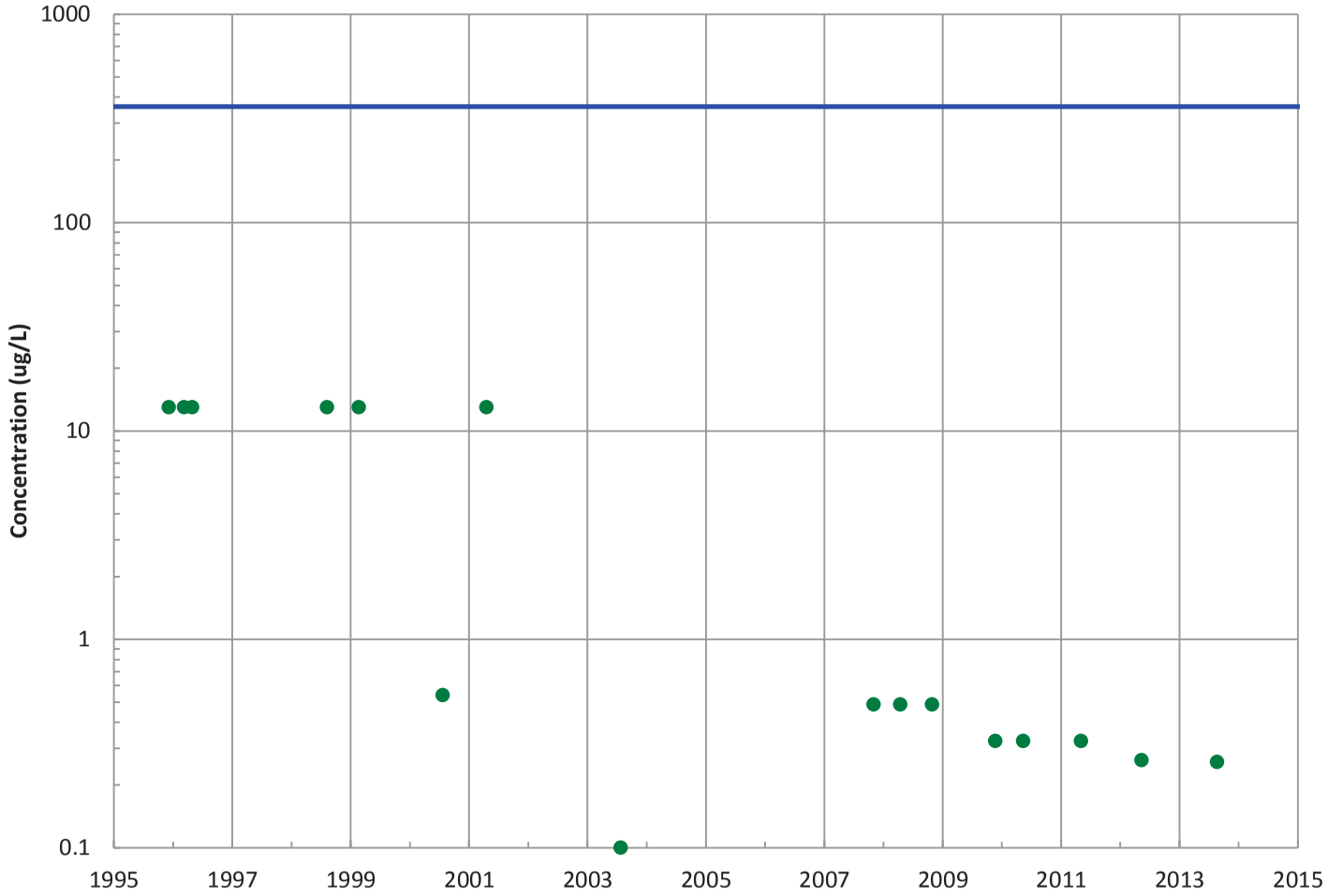
Well Location



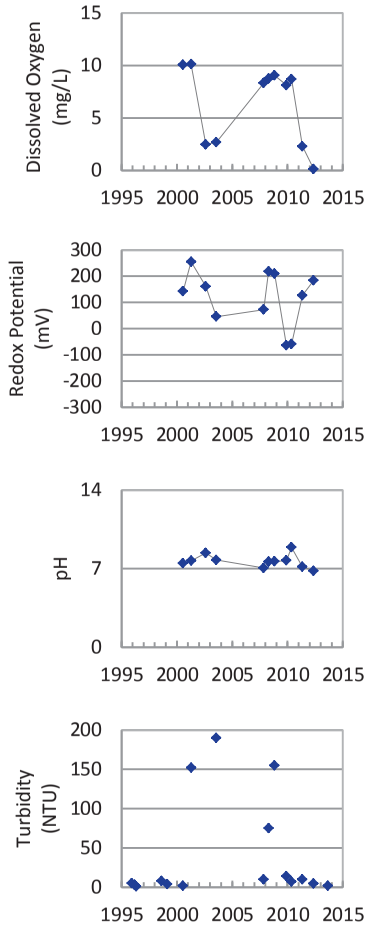
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/7/1995 to 9/3/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1006
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



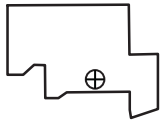
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

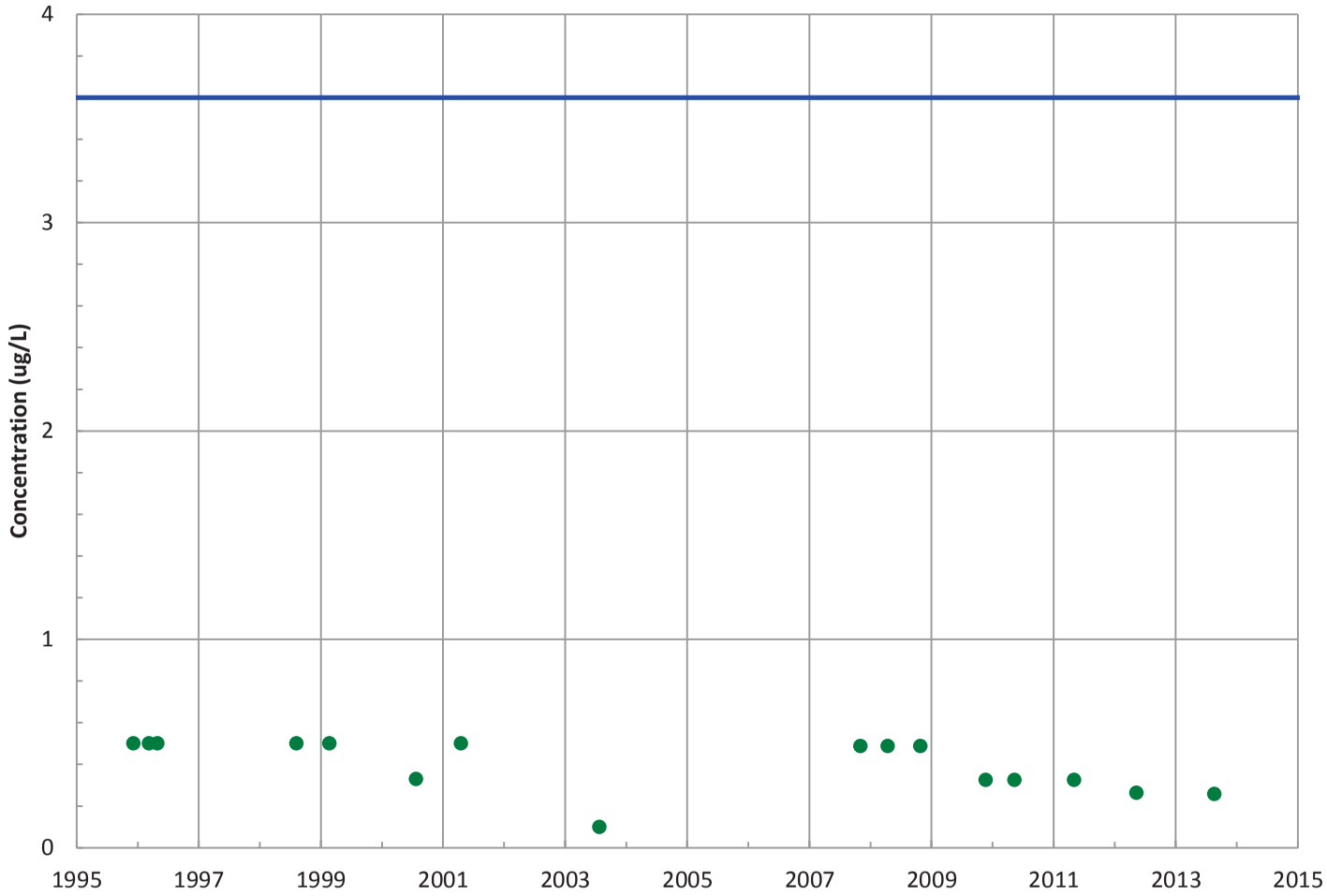
Well Location



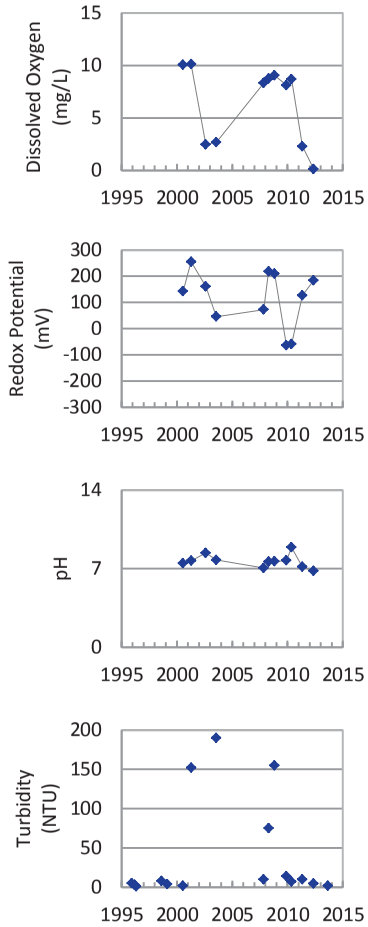
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/7/1995 to 9/3/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1006
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



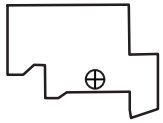
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

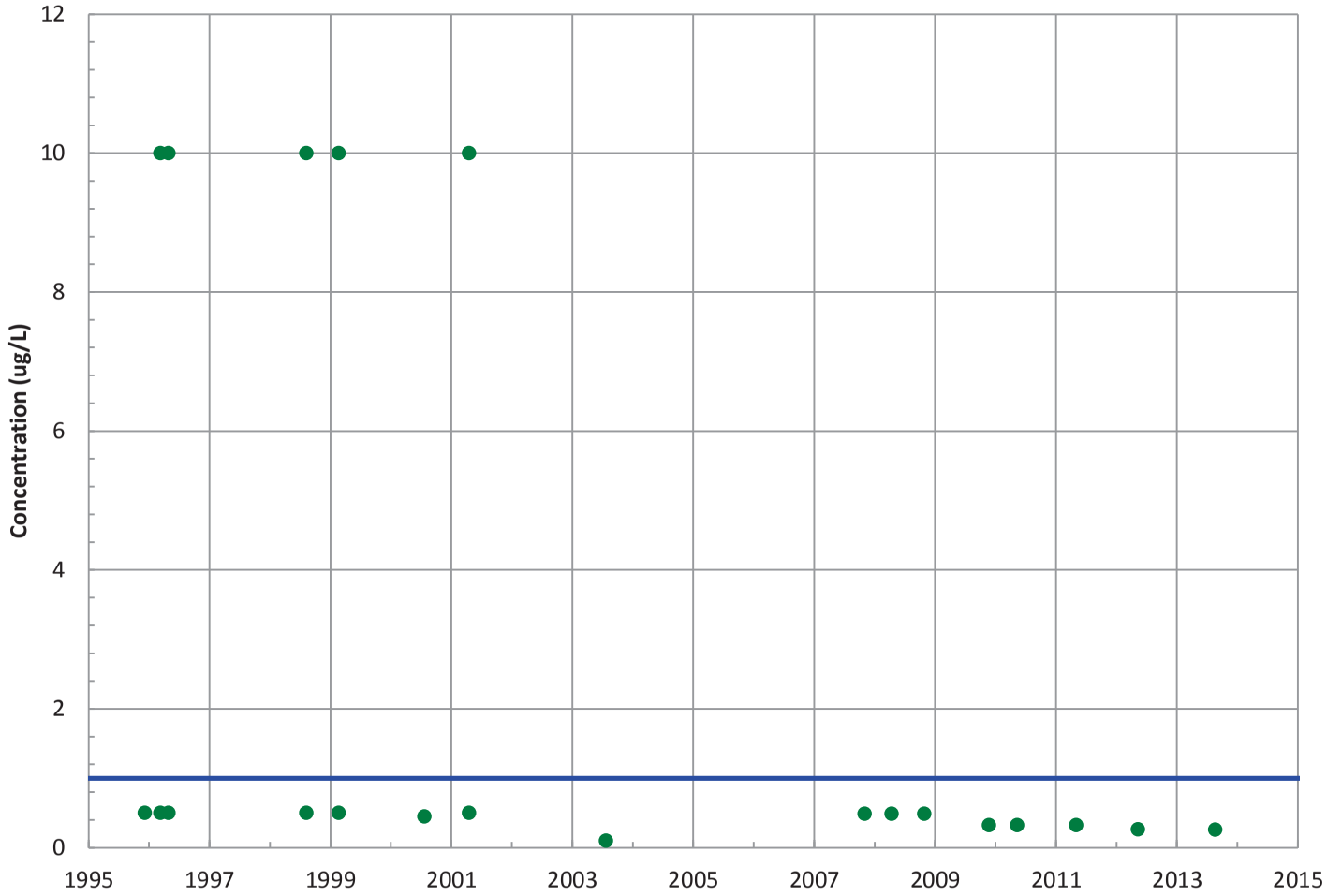
Well Location



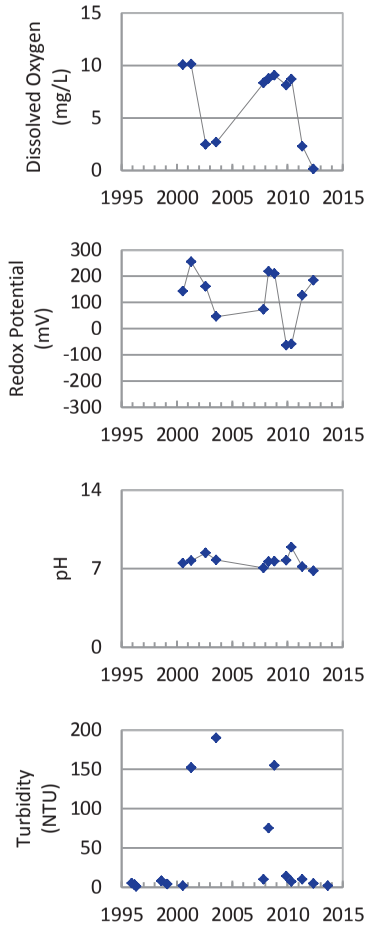
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/7/1995 to 9/3/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1006
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



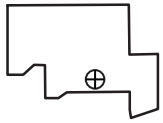
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

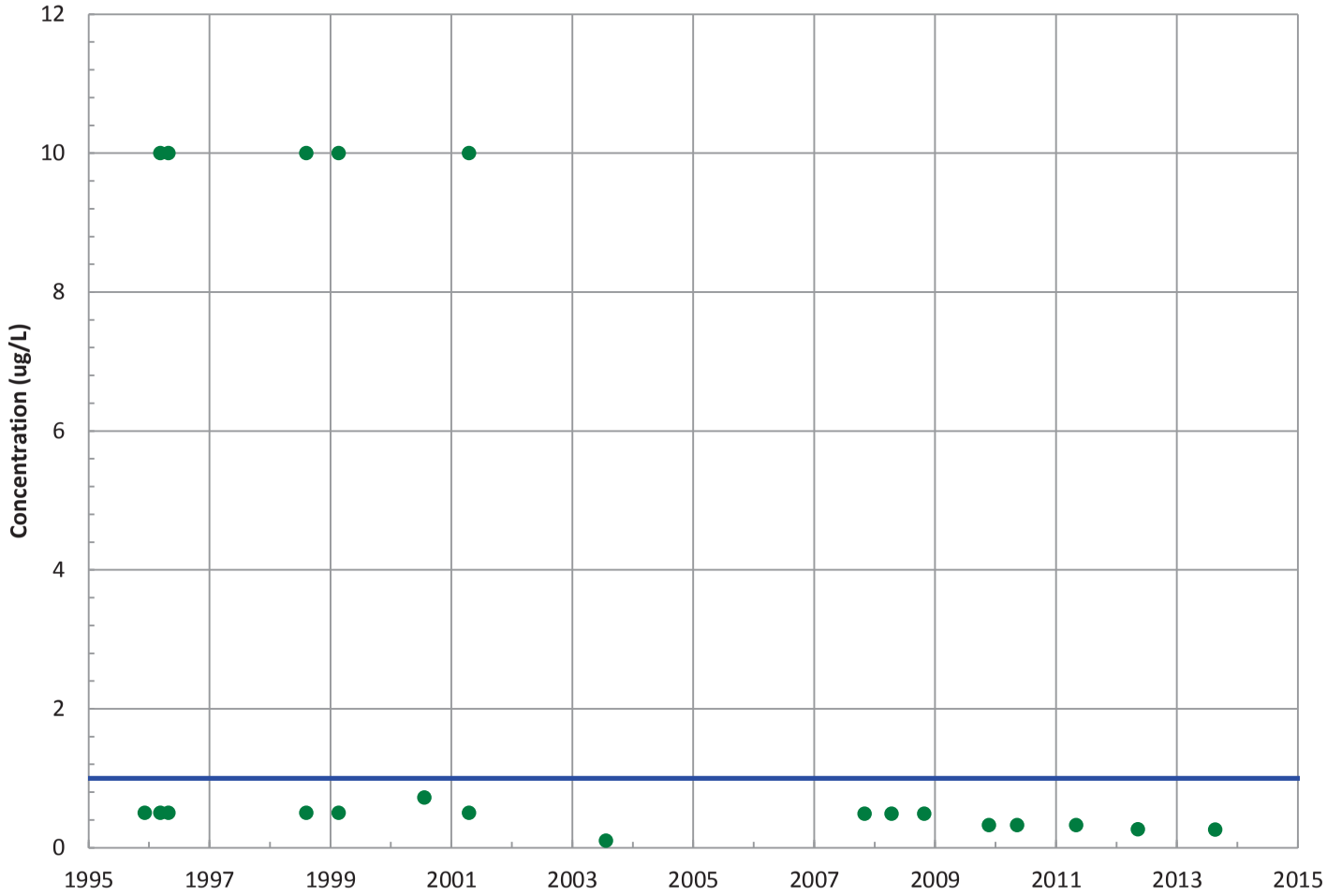
Well Location



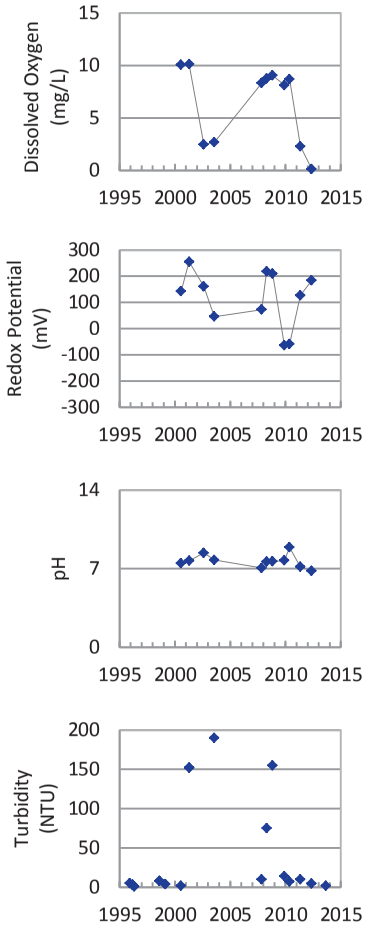
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/7/1995 to 9/3/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1006
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



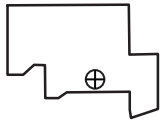
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

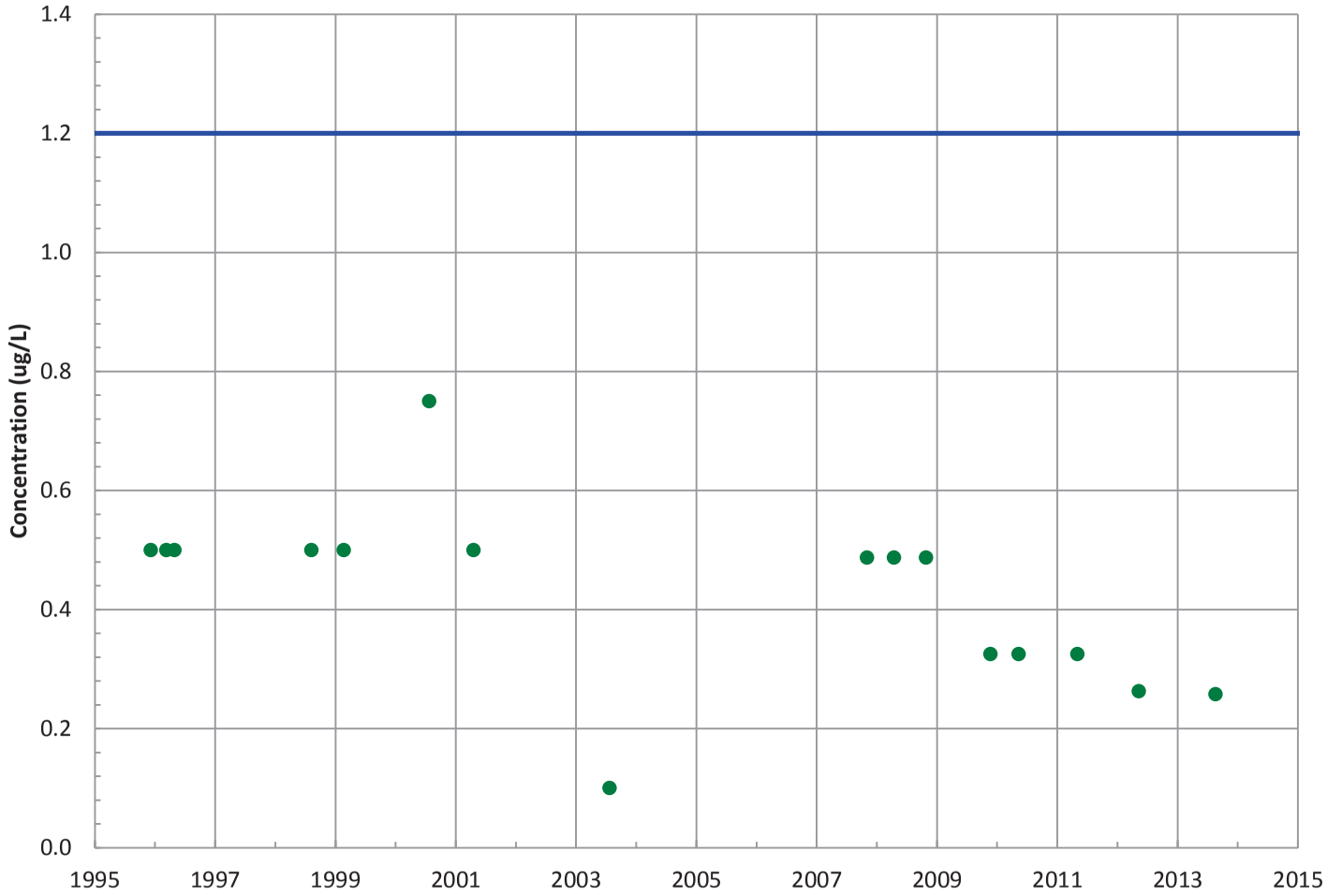
Well Location



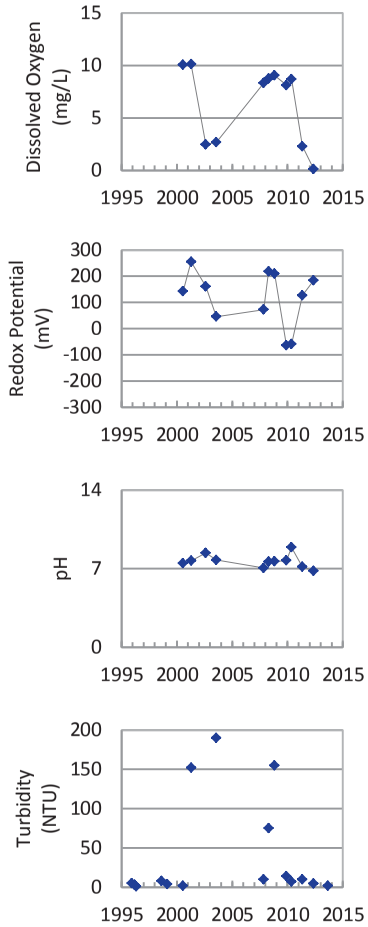
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/7/1995 to 9/3/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1006
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



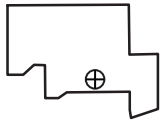
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

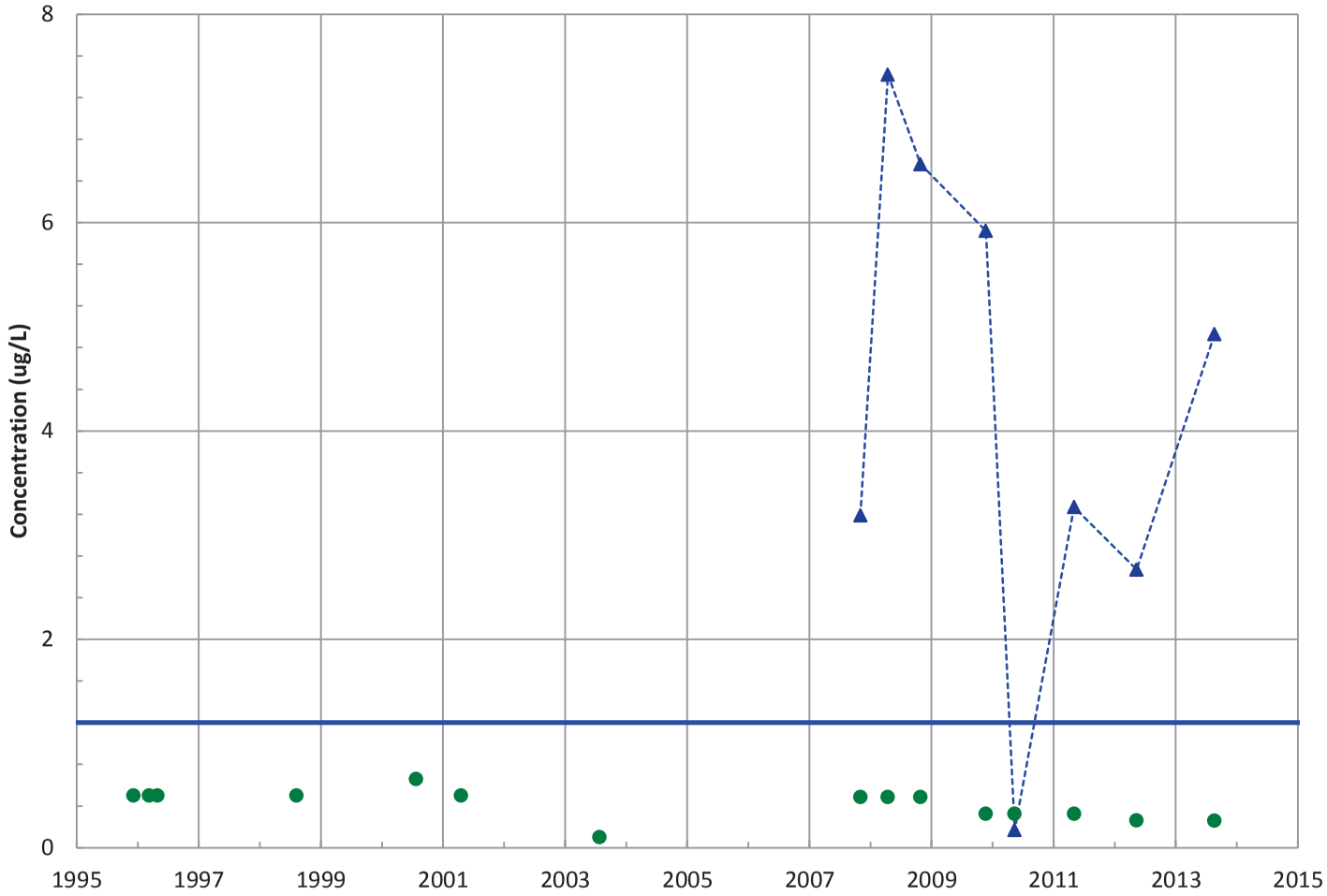
Well Location



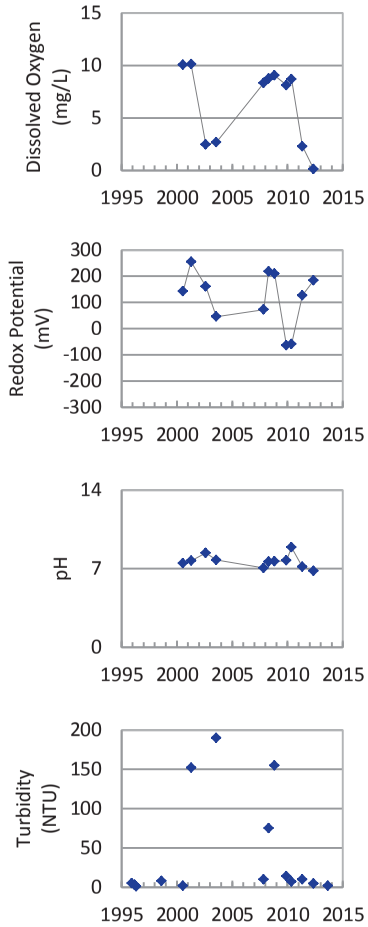
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/7/1995 to 9/3/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1006
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



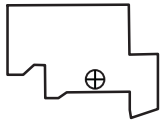
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

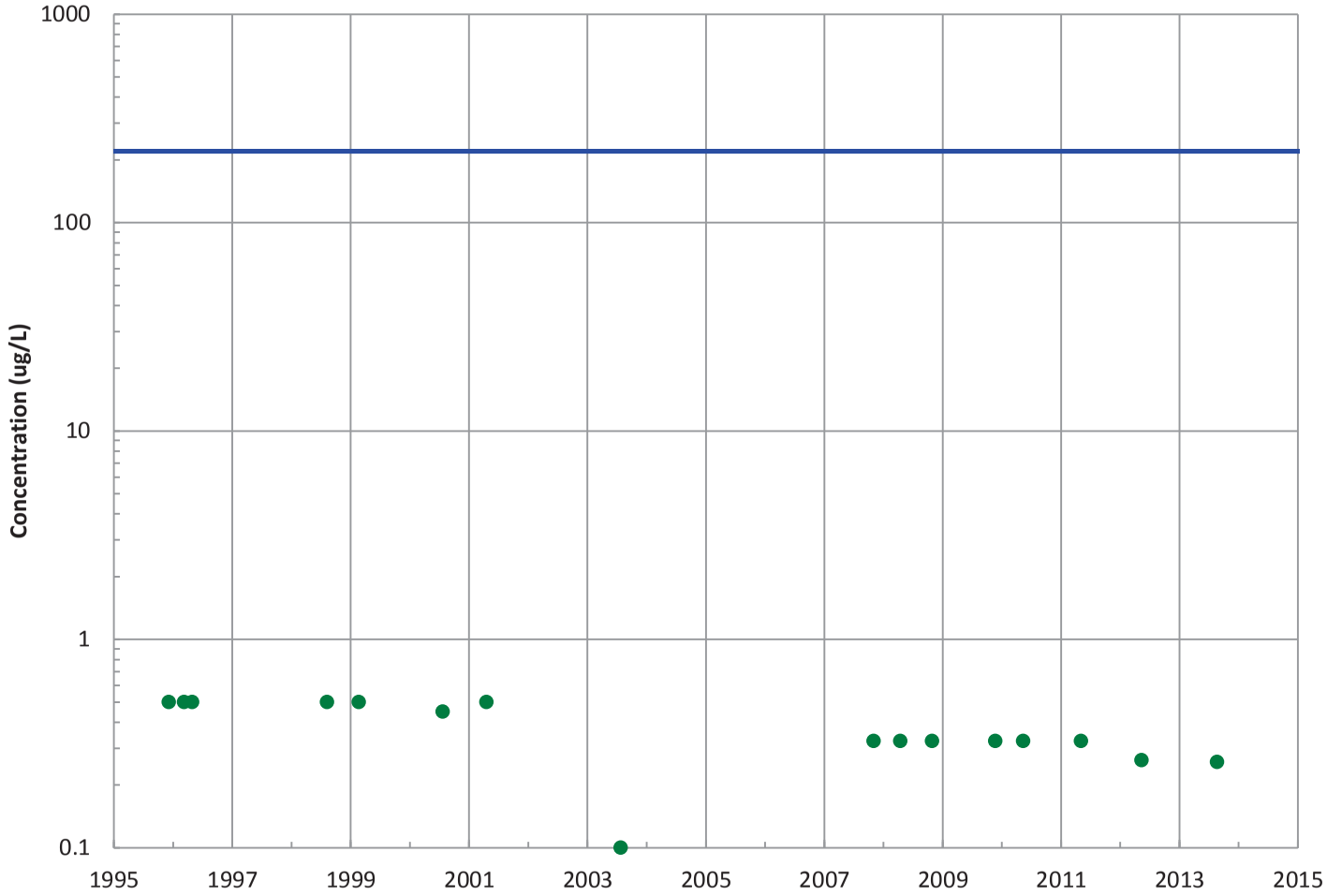
Well Location



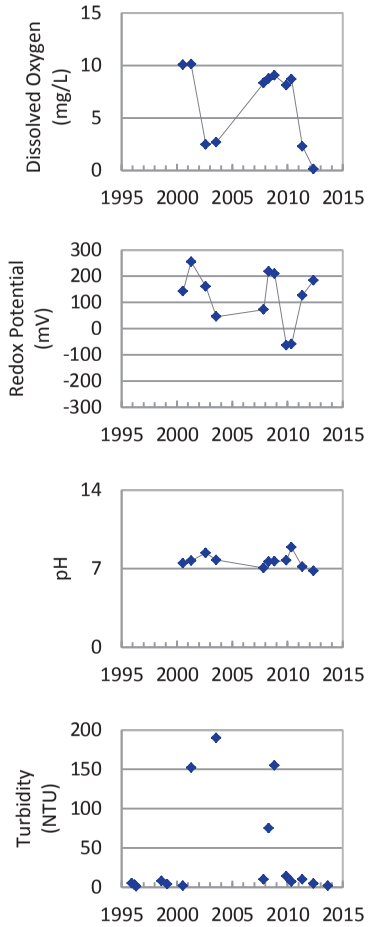
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/7/1995 to 9/3/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1006
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



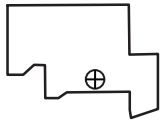
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

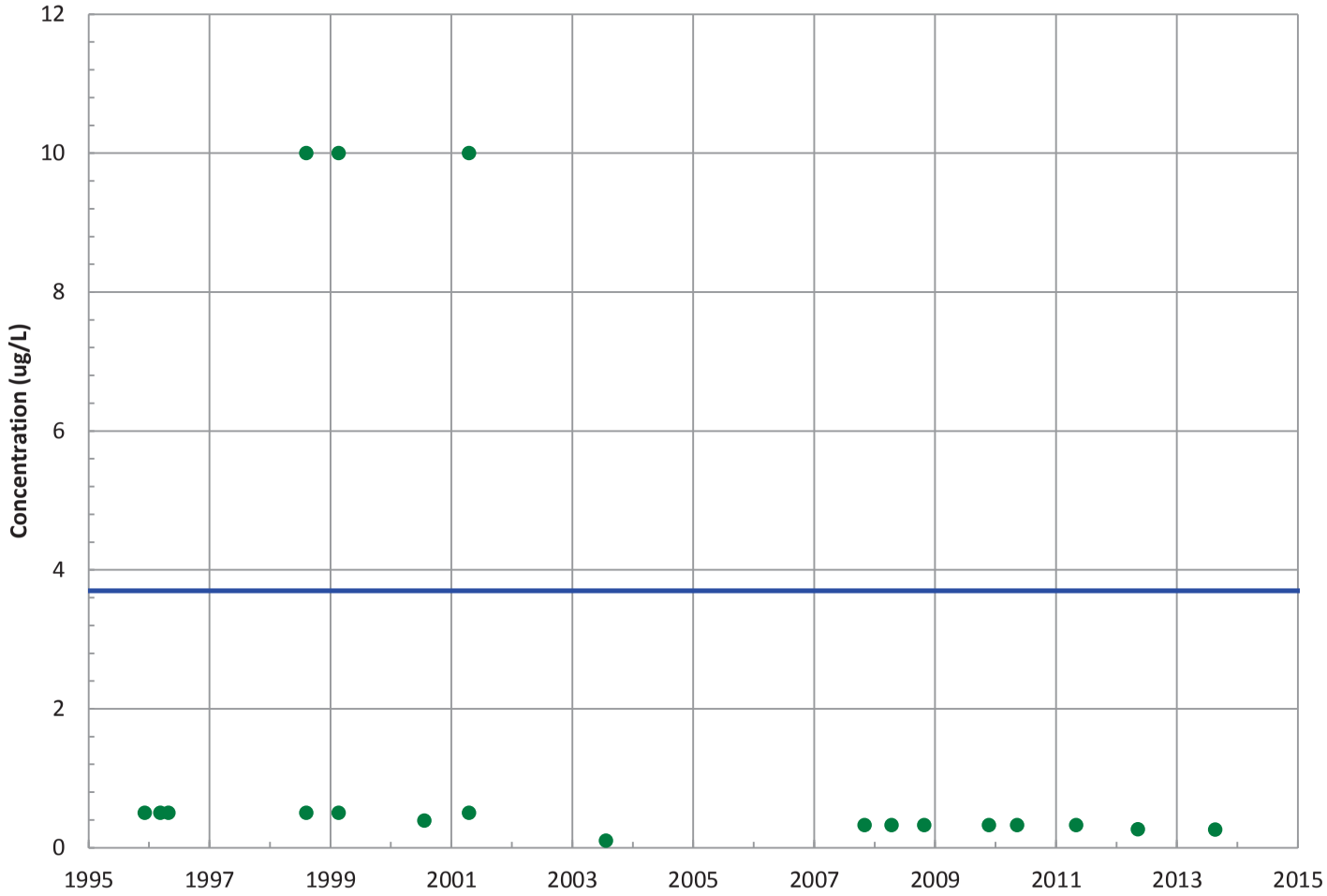
Well Location



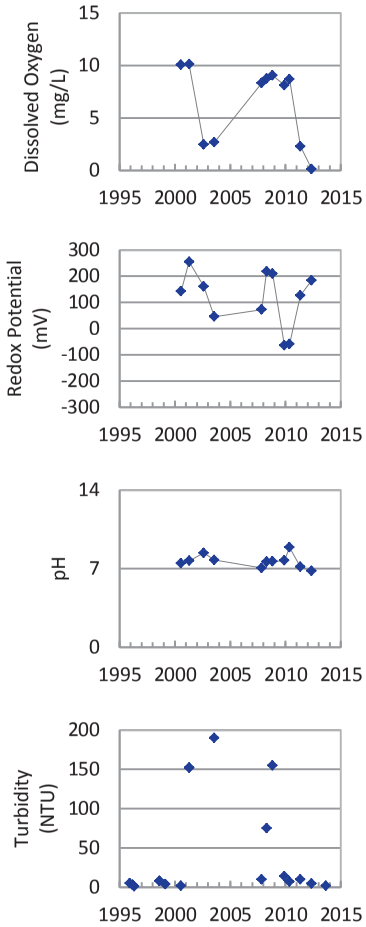
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/7/1995 to 9/3/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1006
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



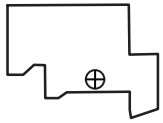
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

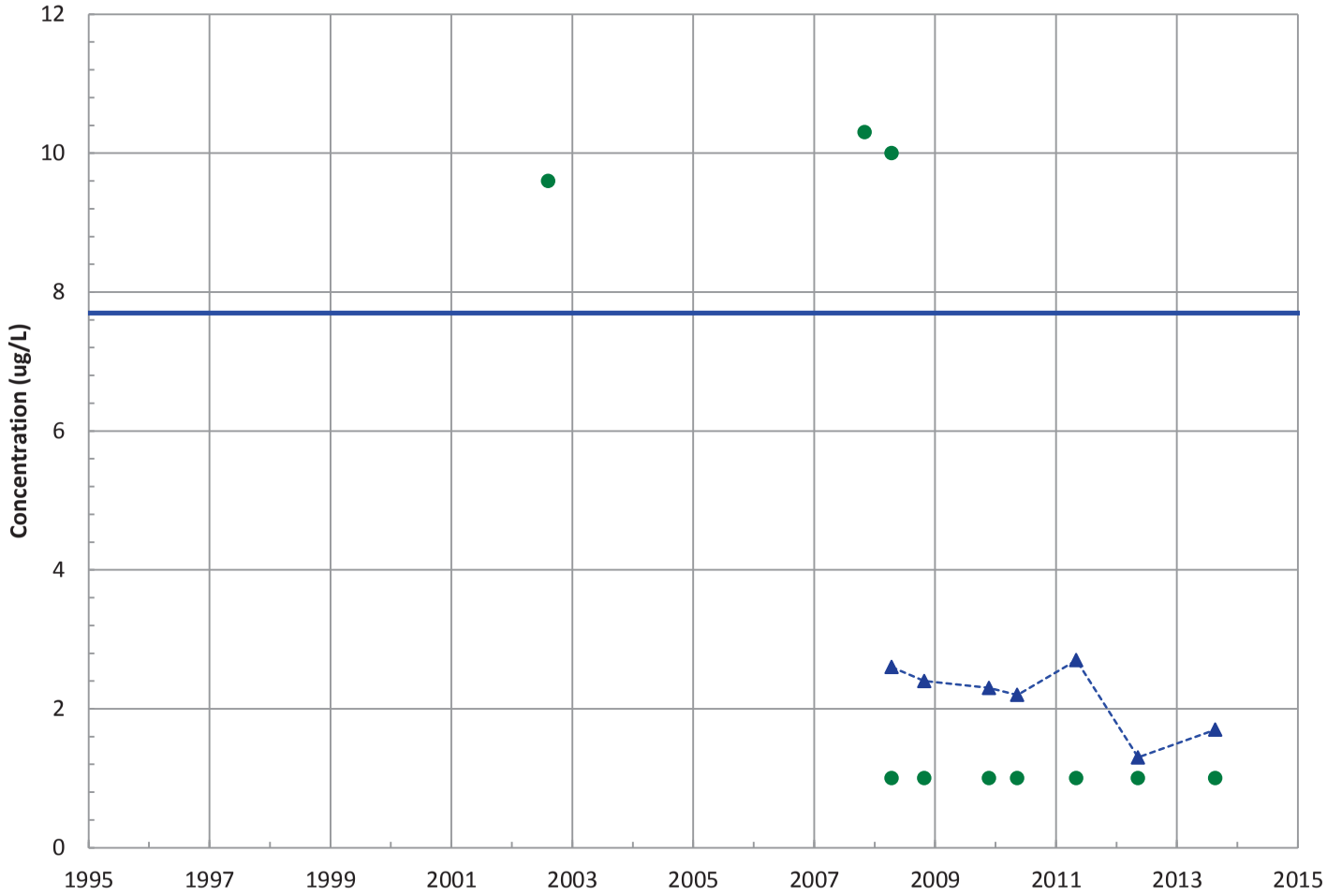
Well Location



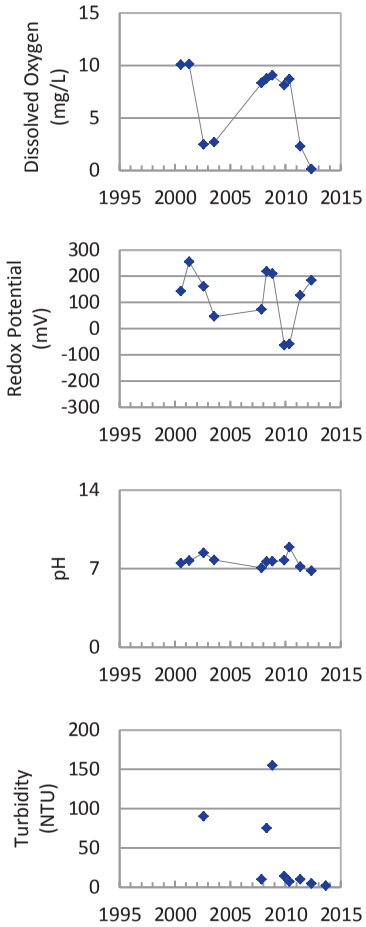
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/7/1995 to 9/3/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1006
1,4-Dioxane (p-Dioxane) Trend in Perched Aquifer



Field Parameters



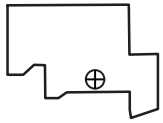
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

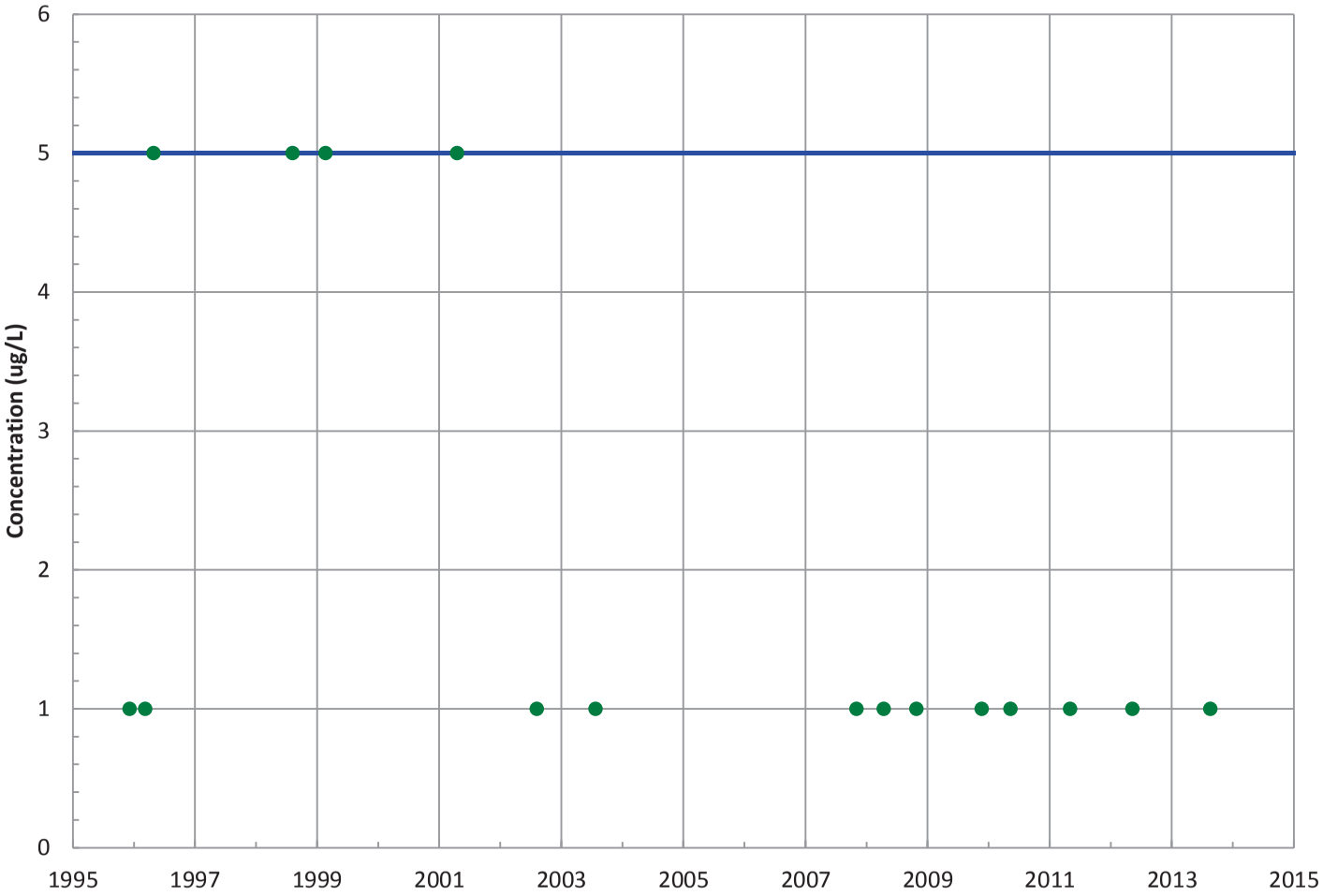
Well Location



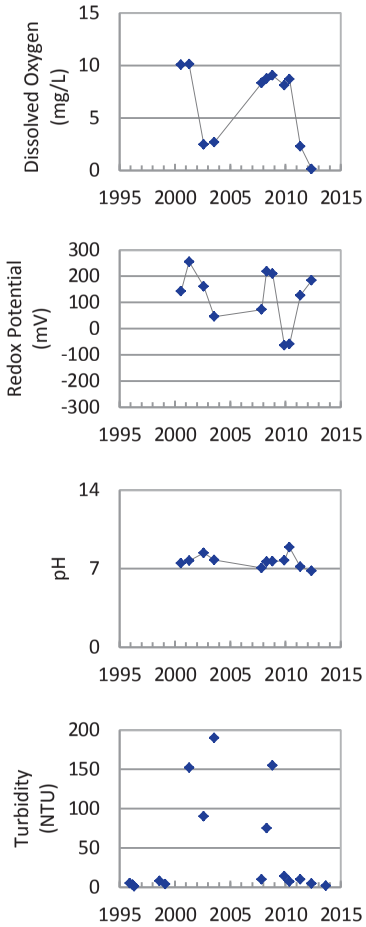
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/14/2002 to 9/3/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1006
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



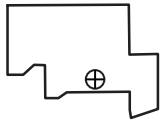
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

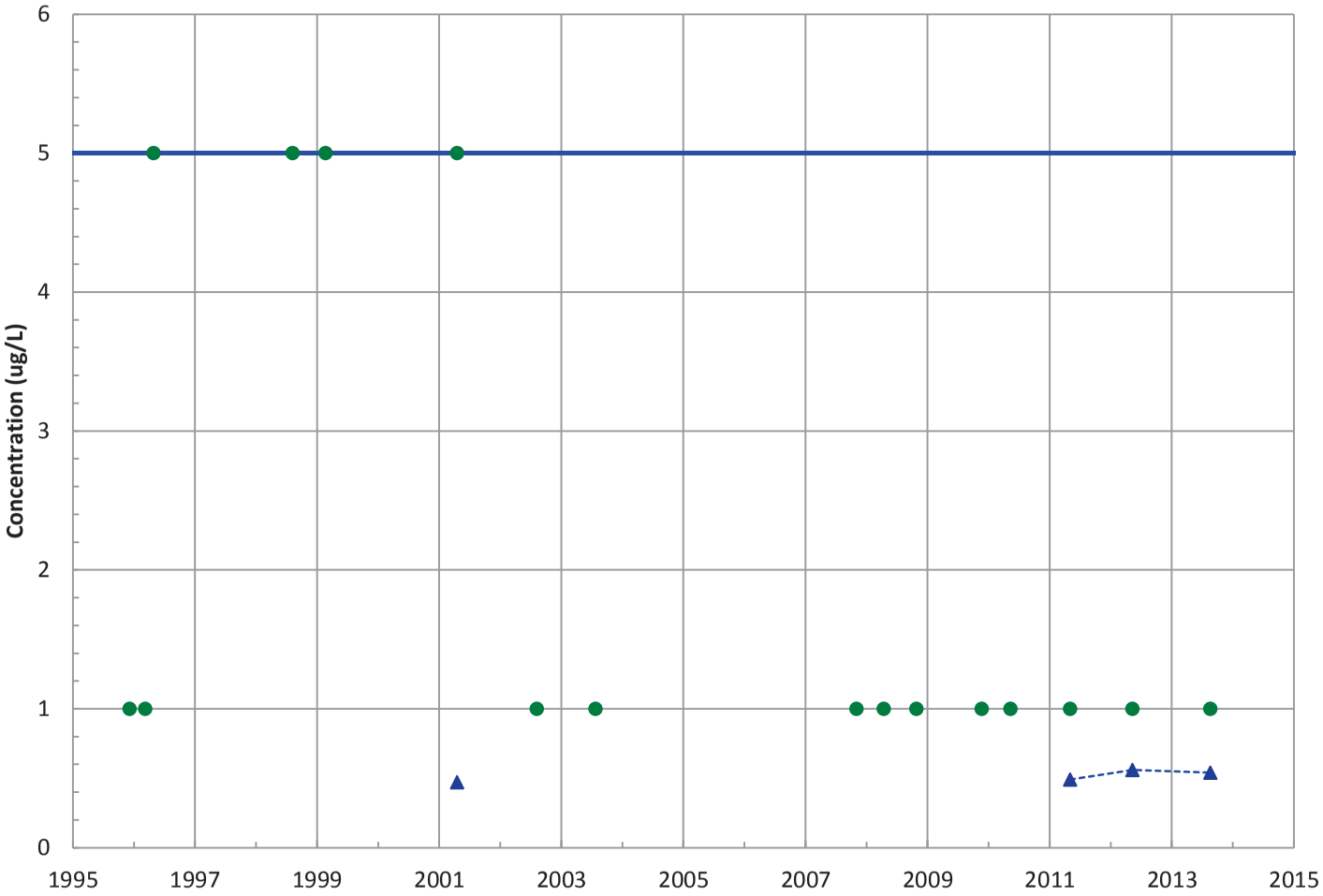
Well Location



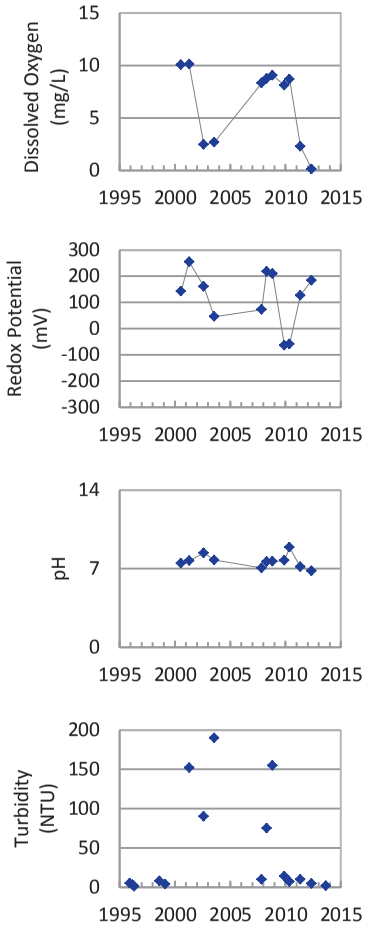
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/7/1995 to 9/3/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1006
Trichloroethene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: N/A (<4 Detections in

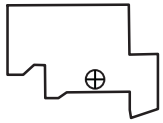
MAROS Linear Regression Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

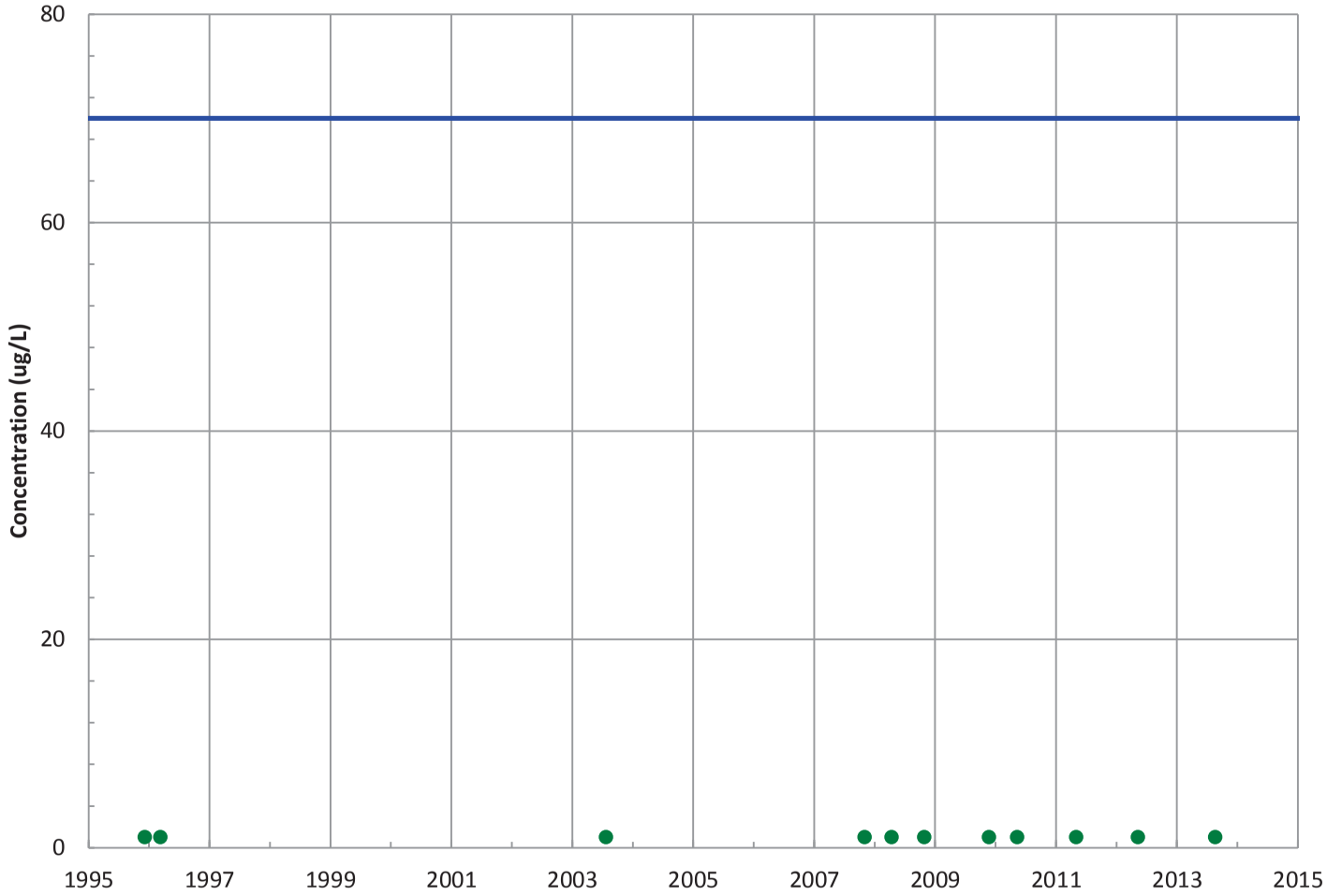
Well Location



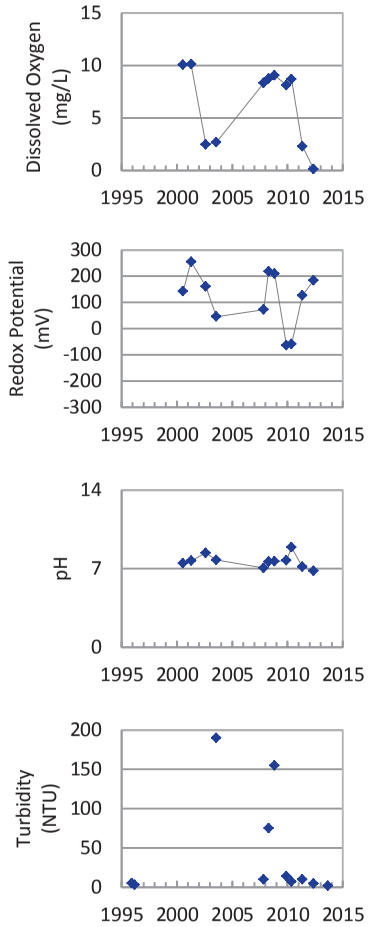
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/7/1995 to 9/3/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1006
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



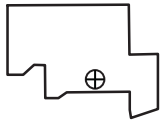
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

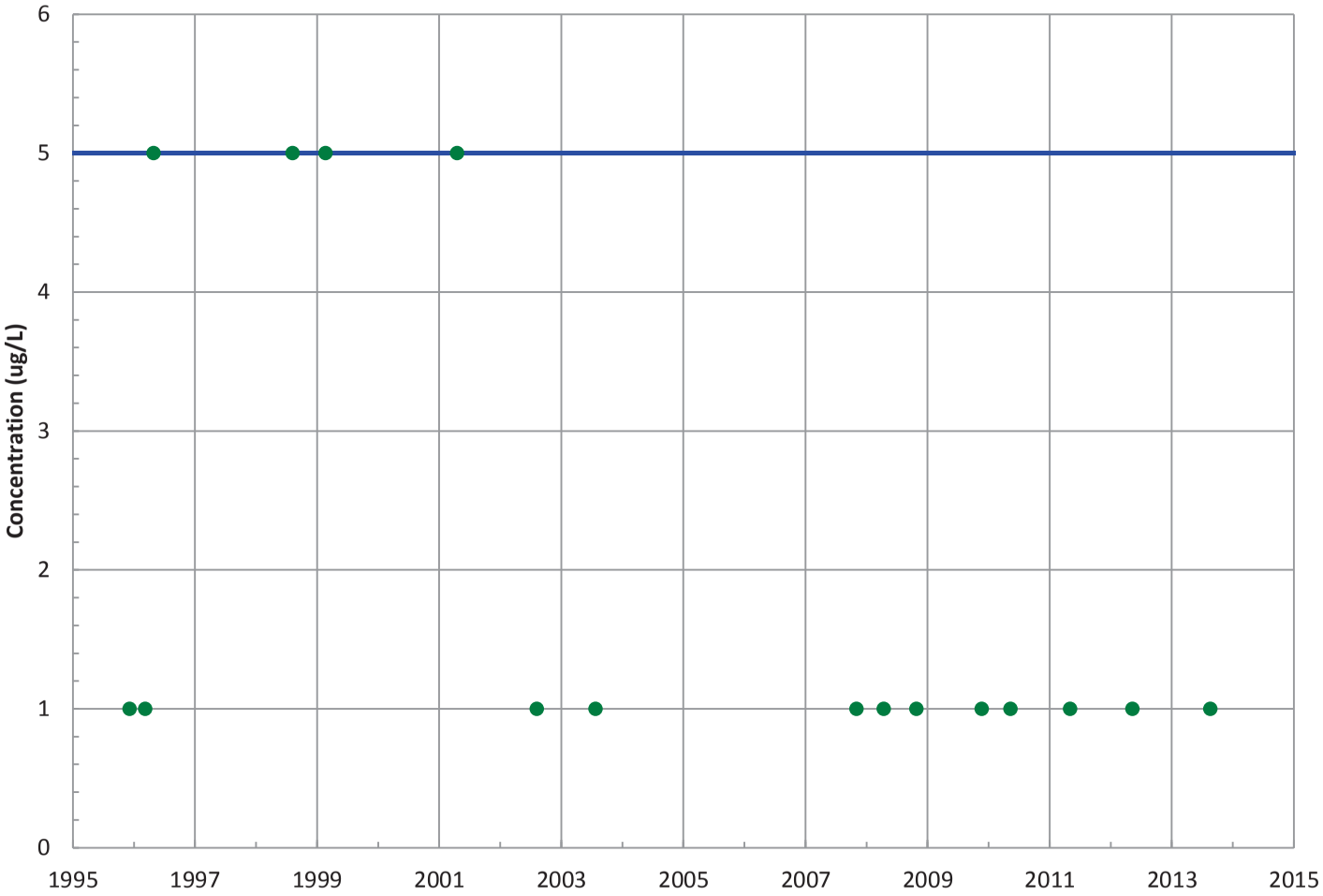
Well Location



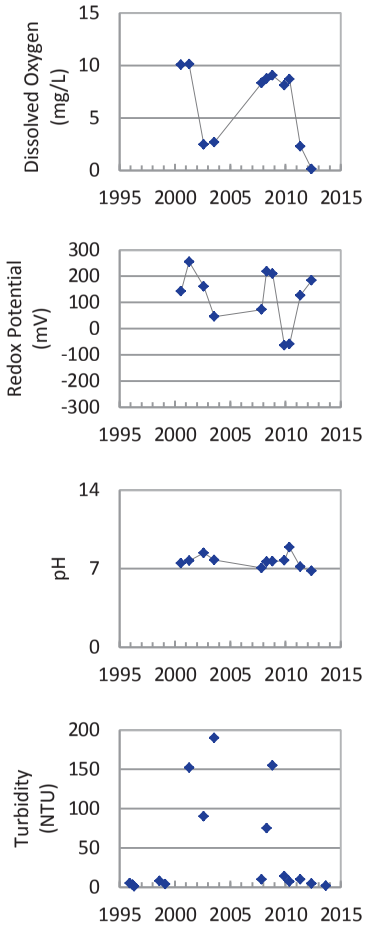
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/7/1995 to 9/3/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1006
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



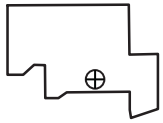
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

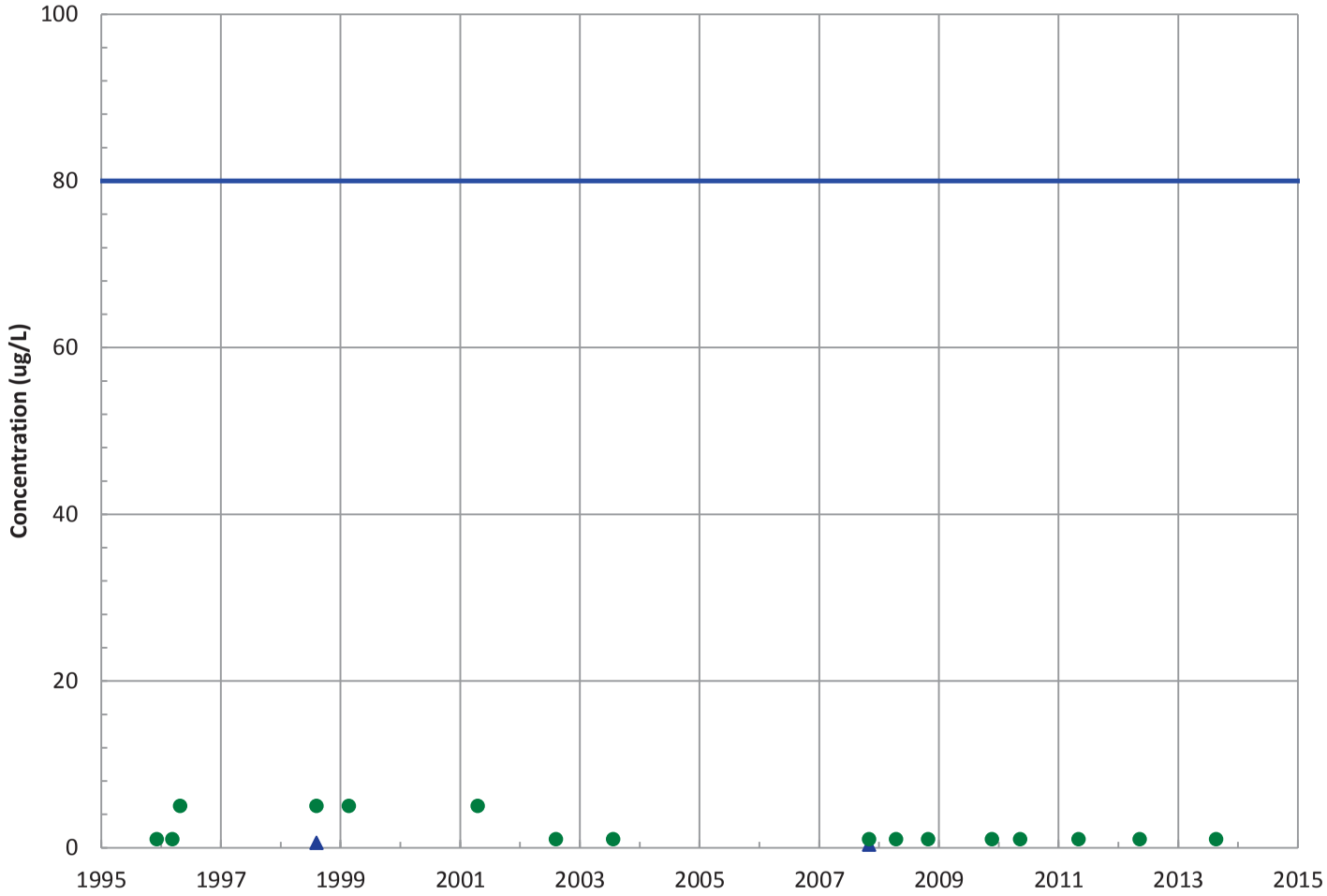
Well Location



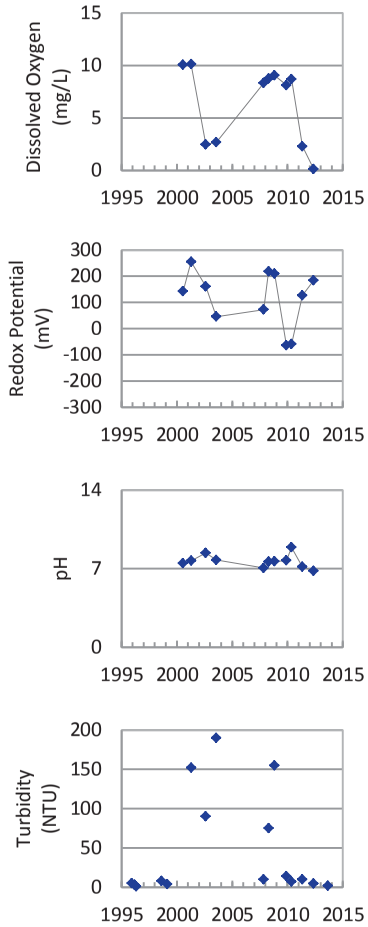
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/7/1995 to 9/3/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1006
Chloroform Trend in Perched Aquifer



Field Parameters



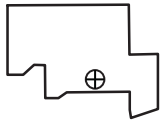
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

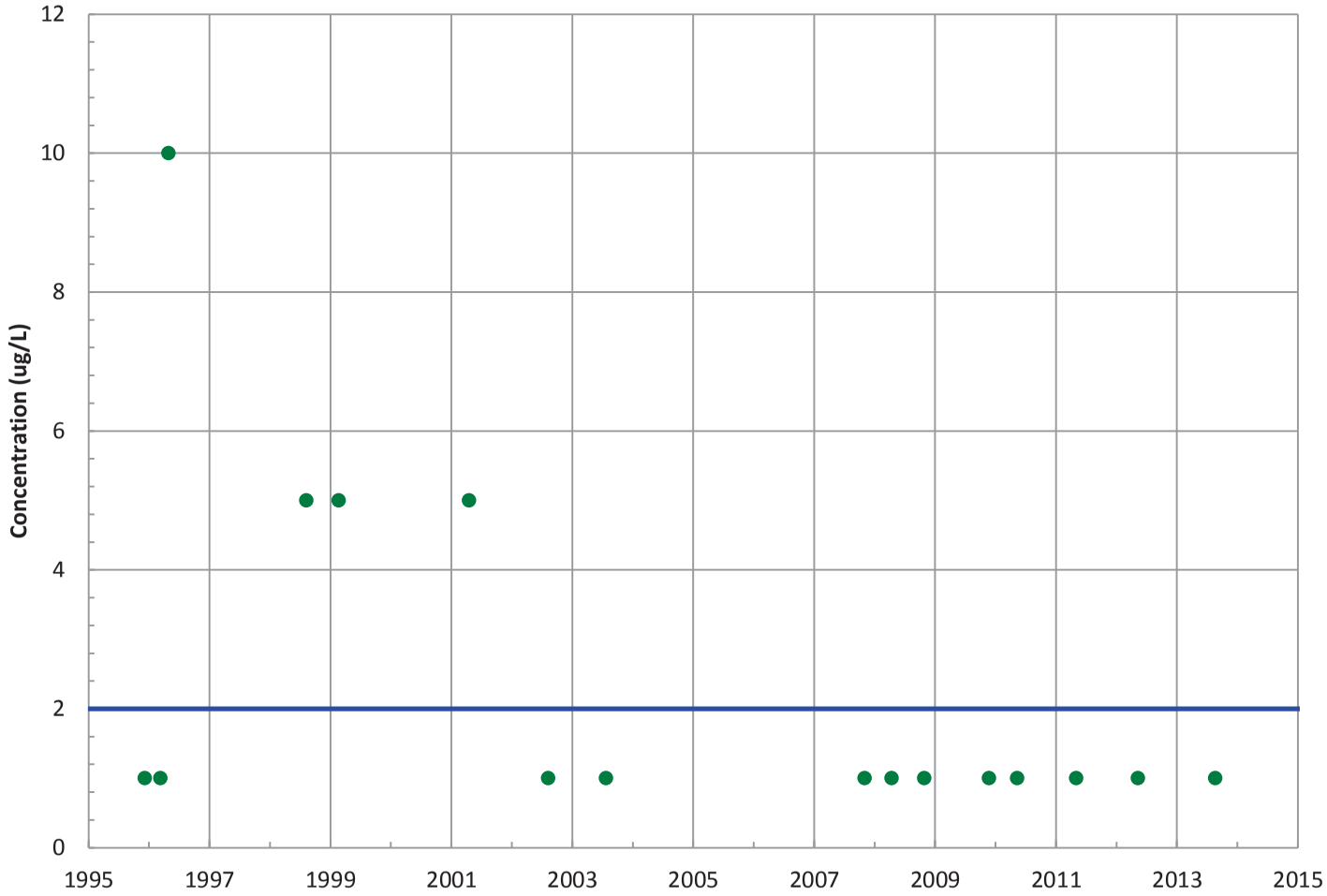
Well Location



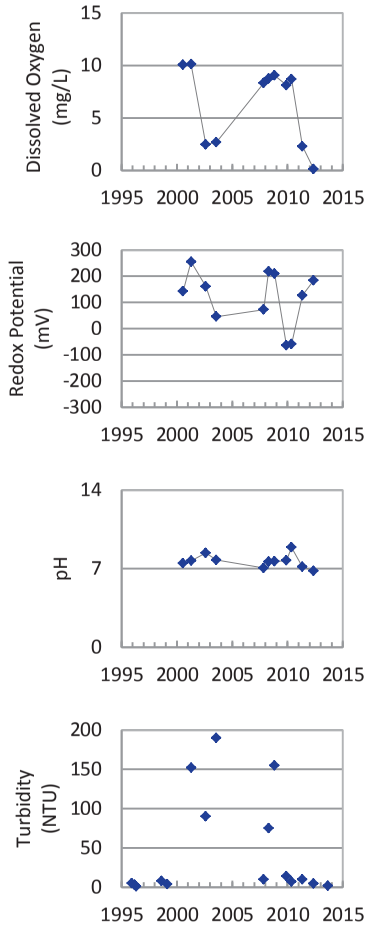
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/7/1995 to 9/3/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1006
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



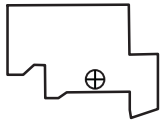
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

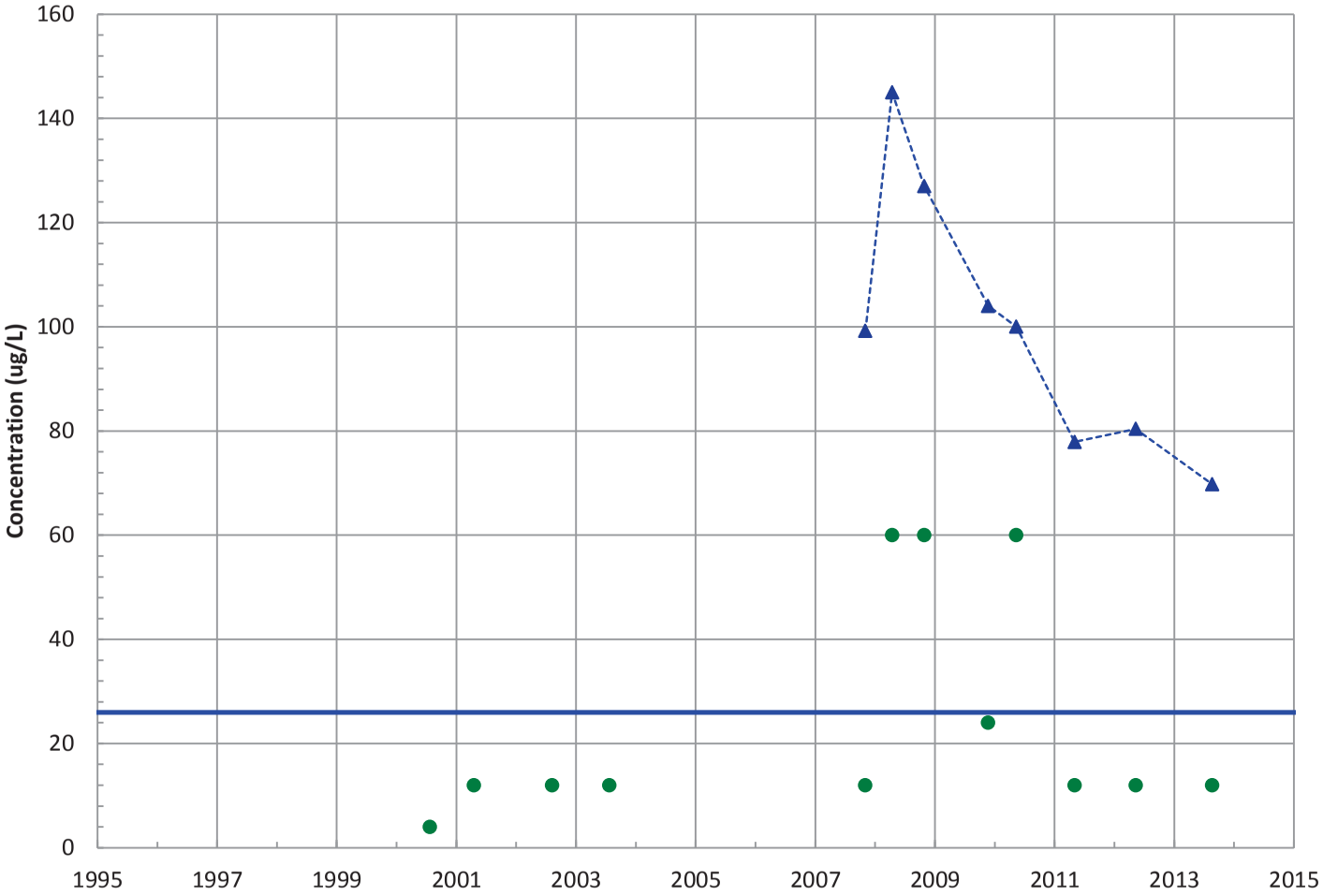
Well Location



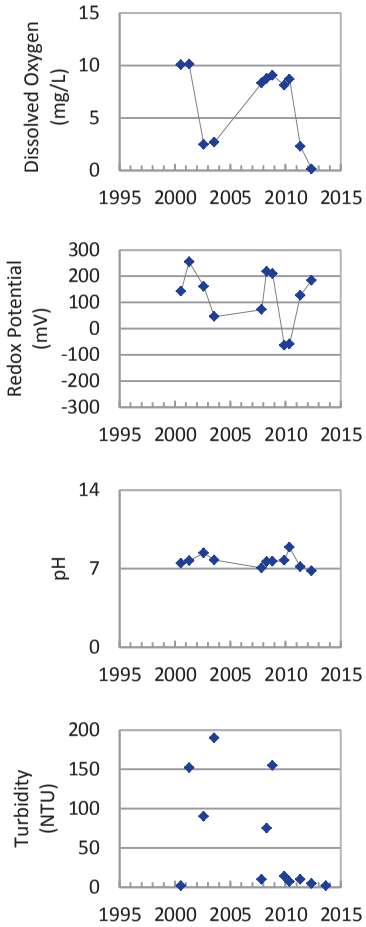
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/7/1995 to 9/3/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1006
Perchlorate Trend in Perched Aquifer



Field Parameters



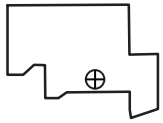
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Probably Decreasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

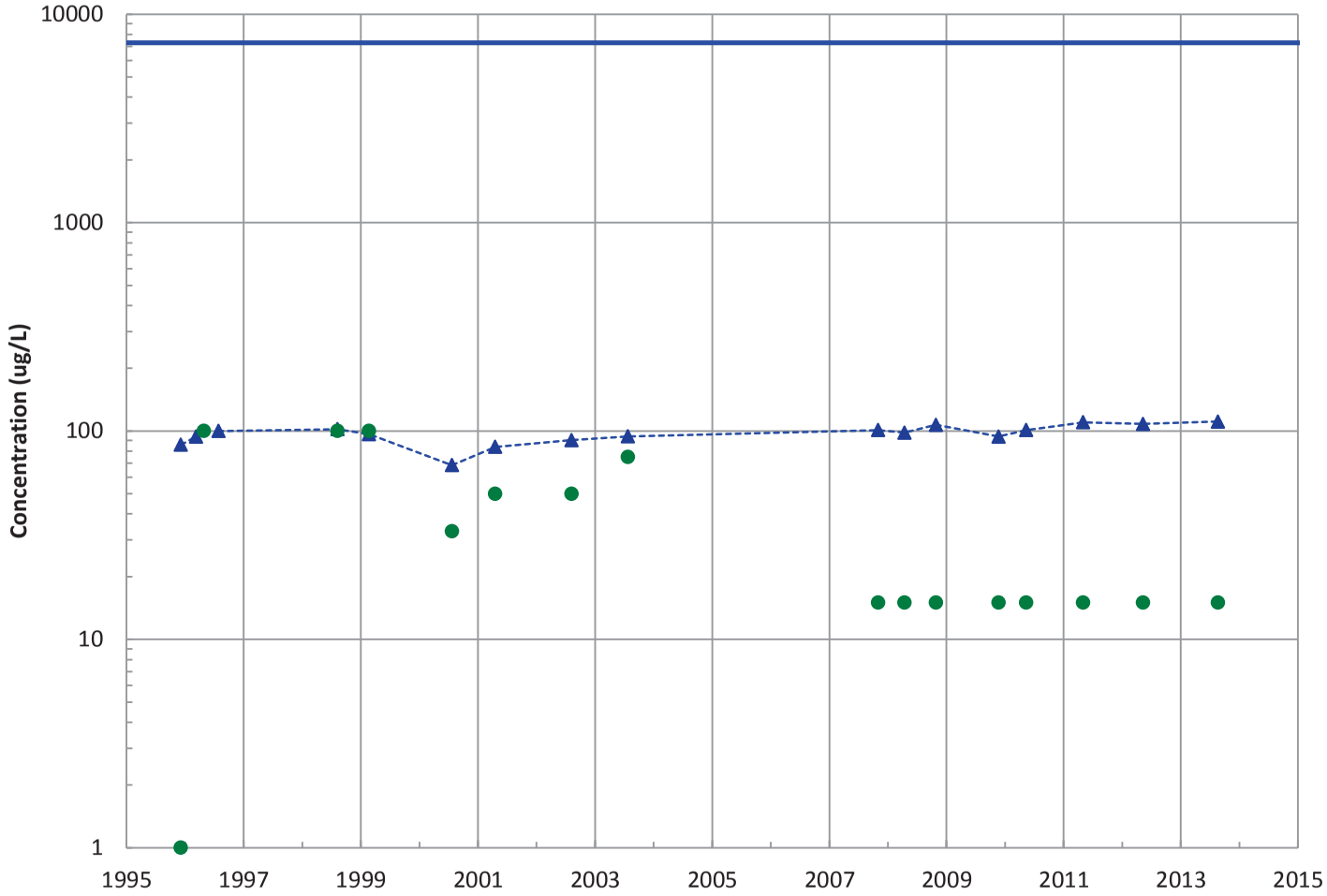
Well Location



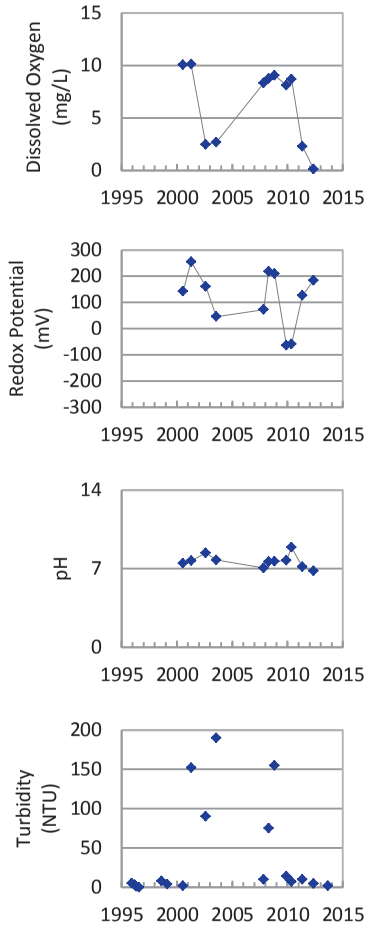
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 7/27/2000 to 9/3/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1006
Boron Trend in Perched Aquifer



Field Parameters



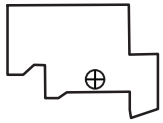
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

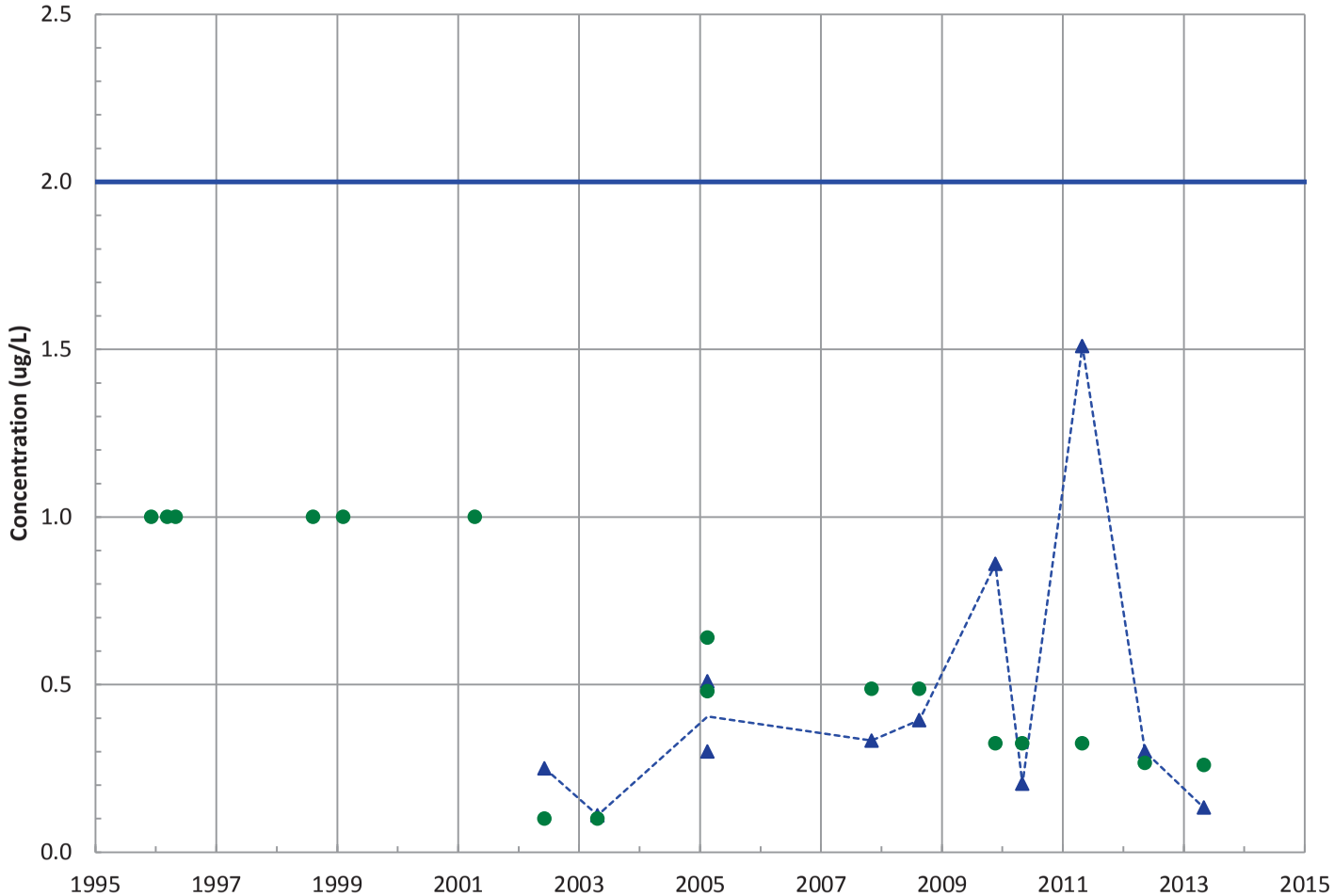
Well Location



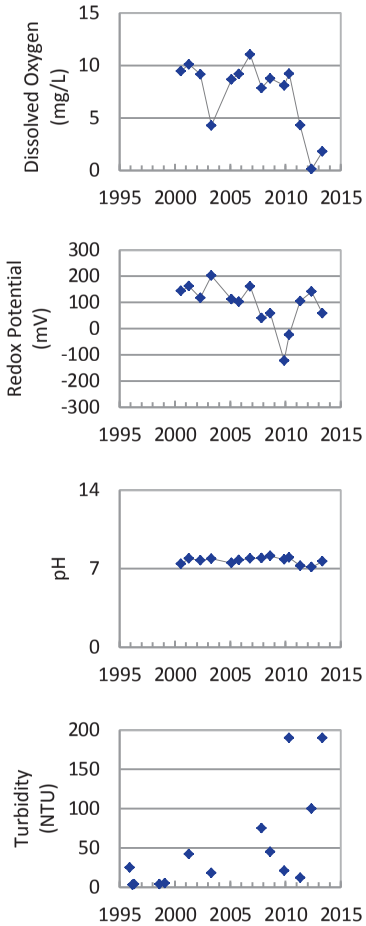
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/7/1995 to 9/3/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1007
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



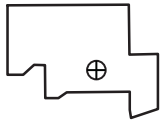
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

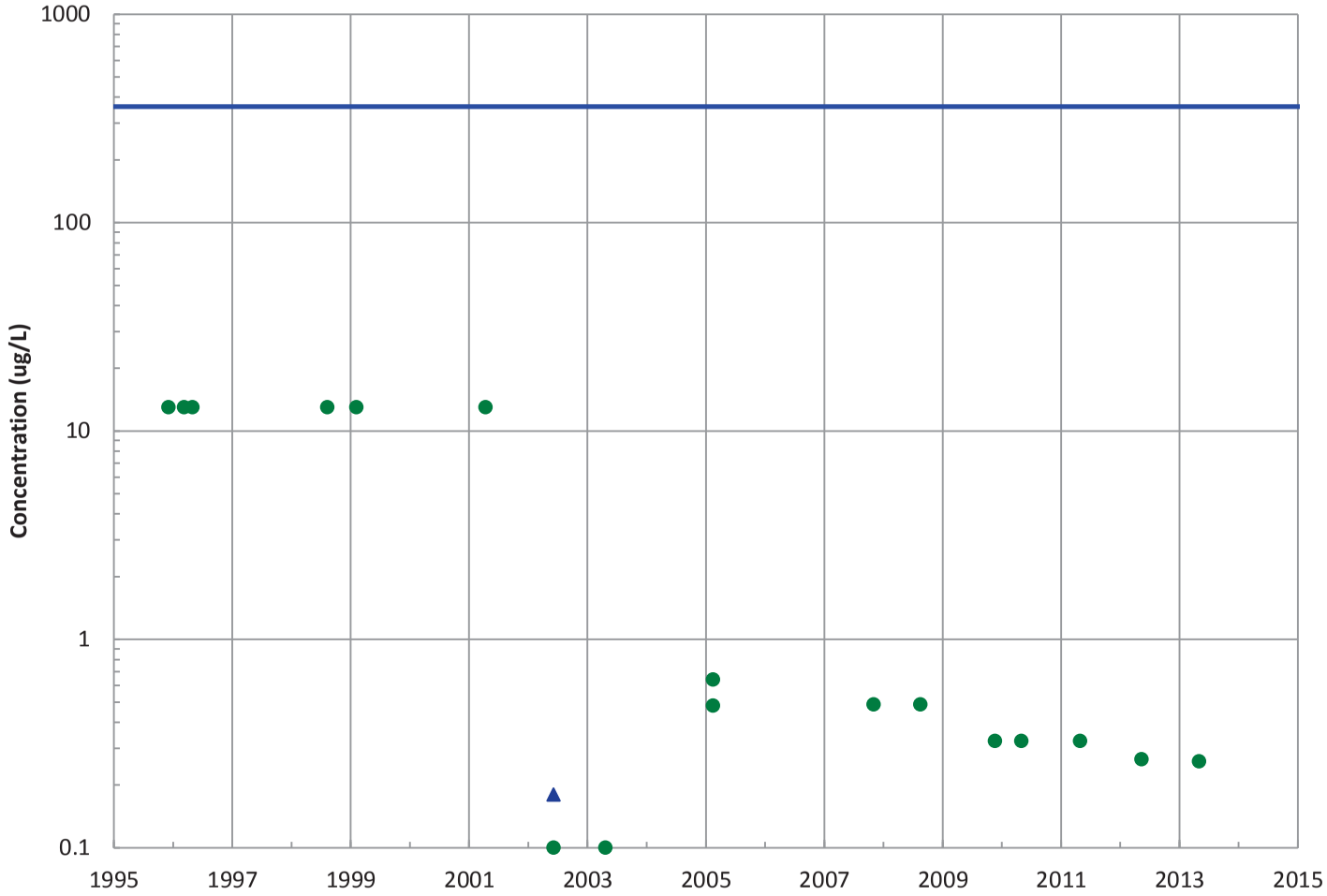
Well Location



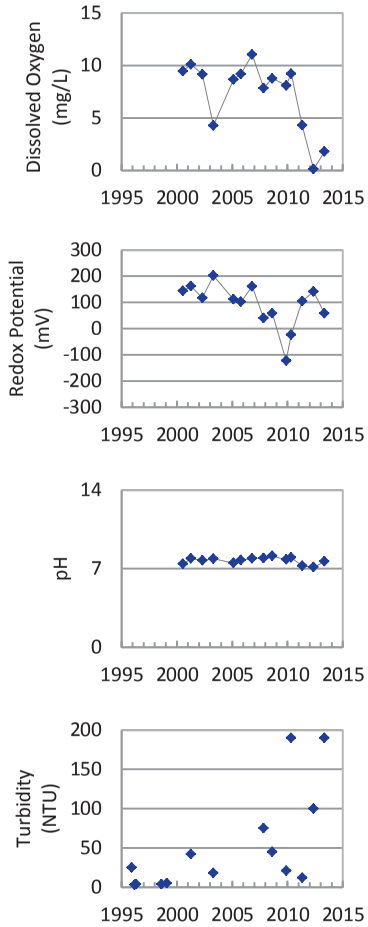
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/5/1995 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1007
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



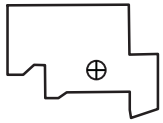
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

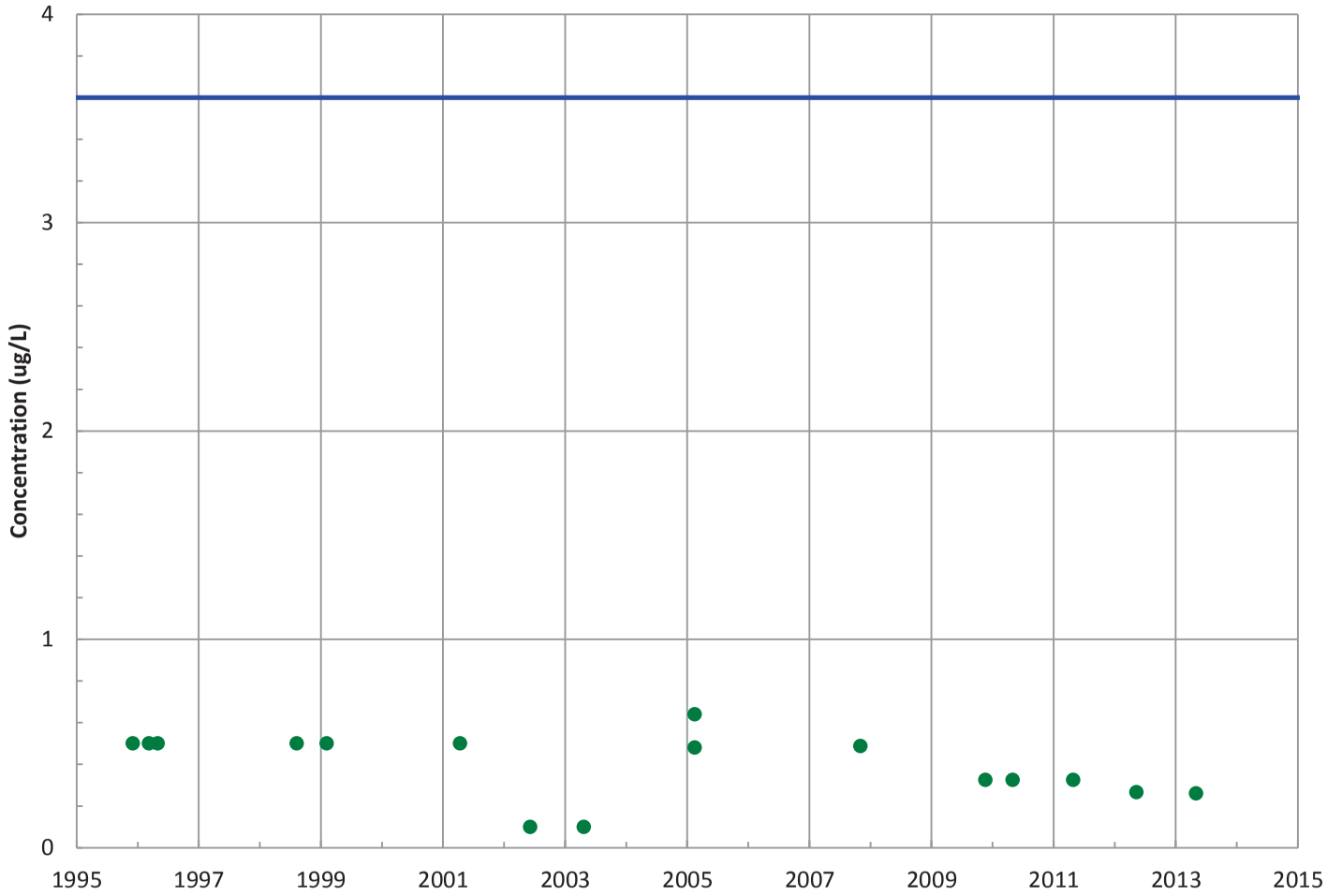
Well Location



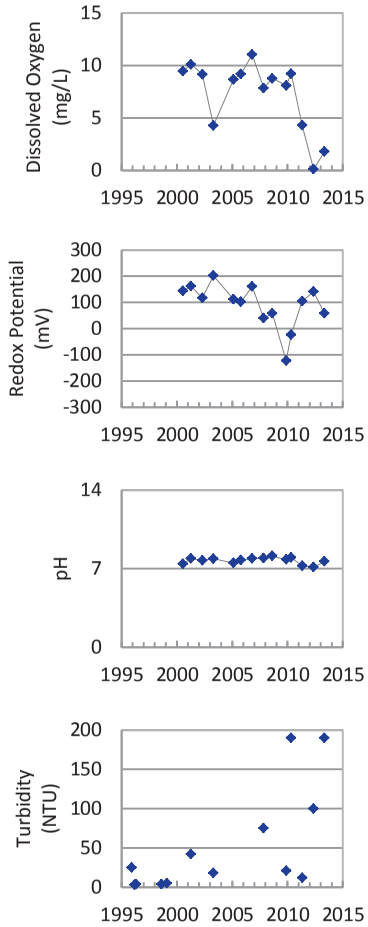
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/5/1995 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1007
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



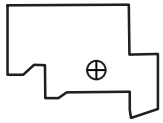
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

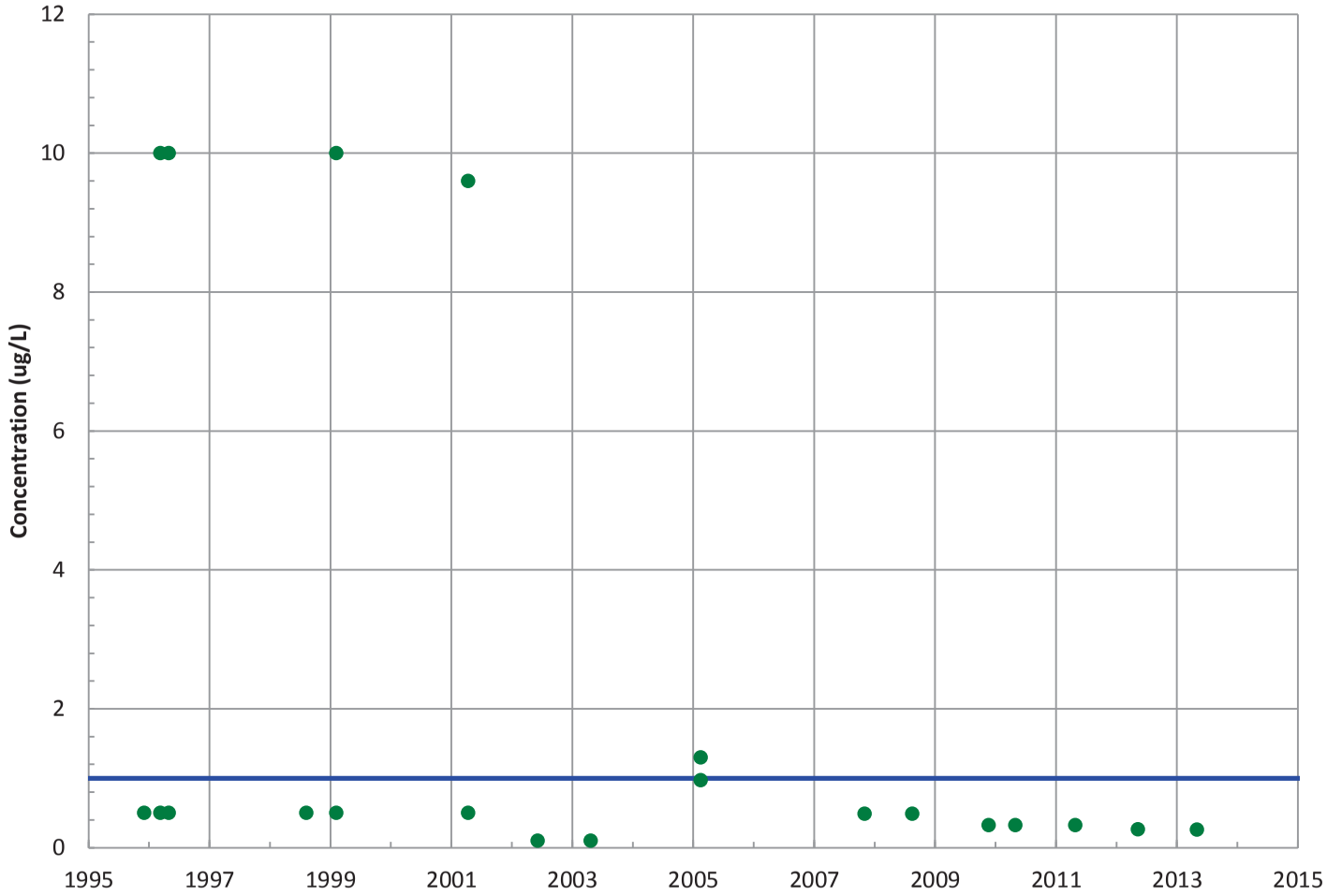
Well Location



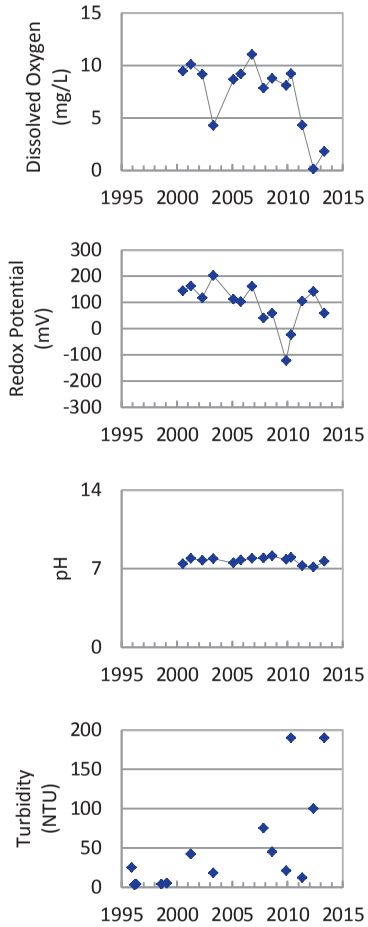
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/5/1995 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1007
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



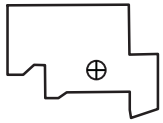
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

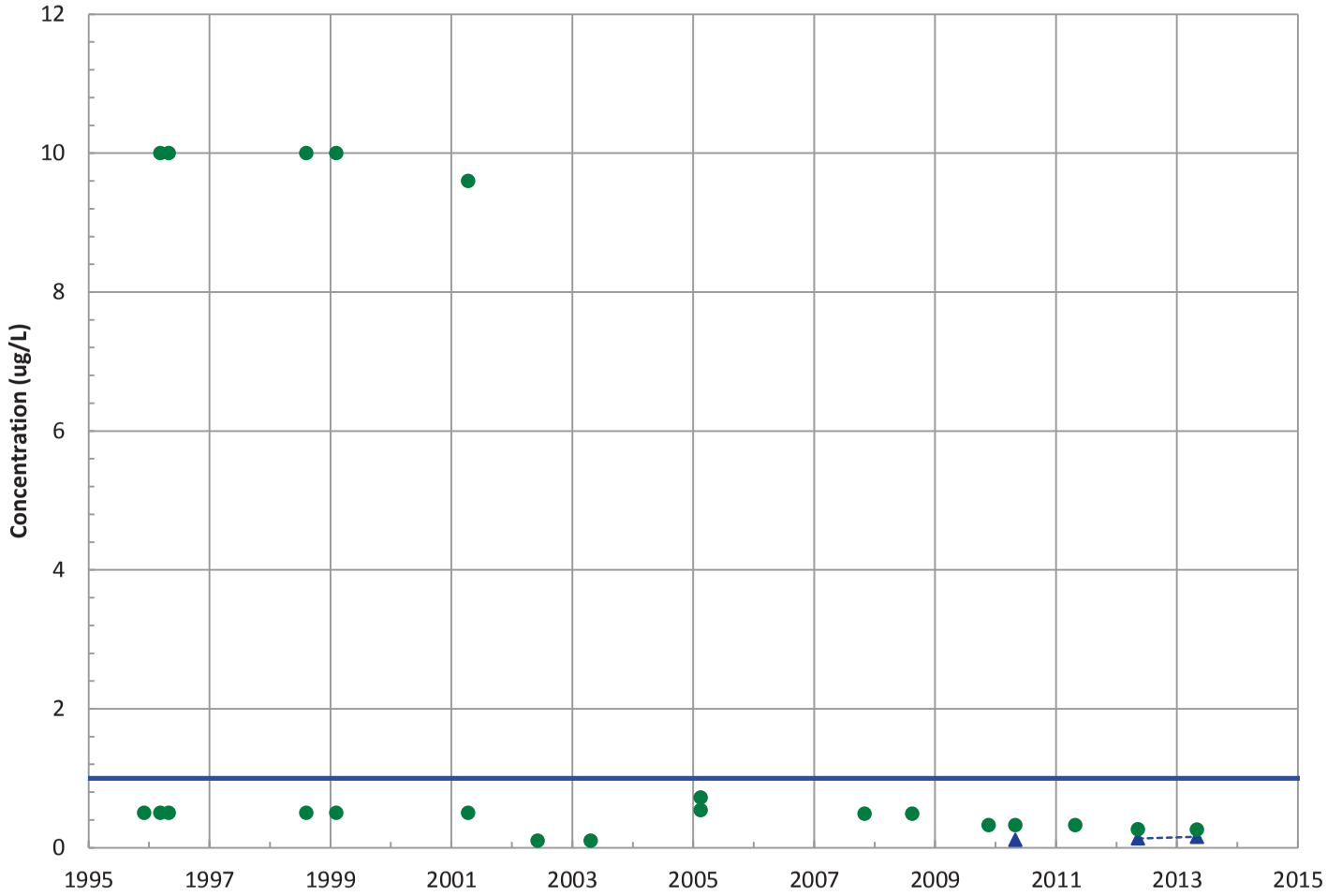
Well Location



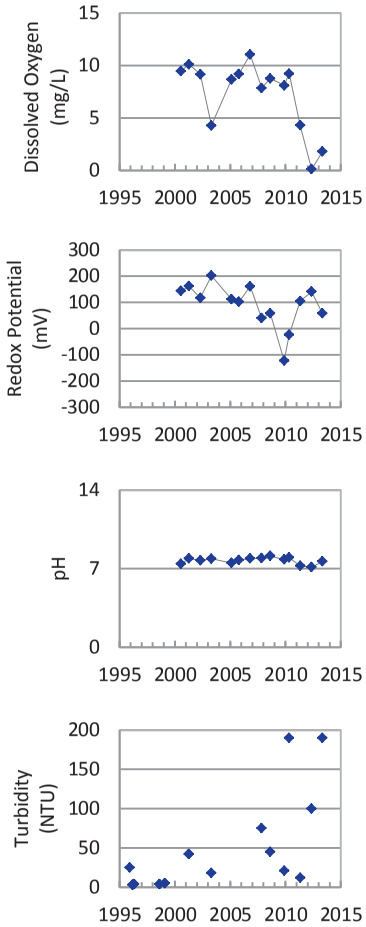
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/5/1995 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1007
2,6-Dinitrotoluene Trend in Perched Aquifer



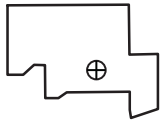
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

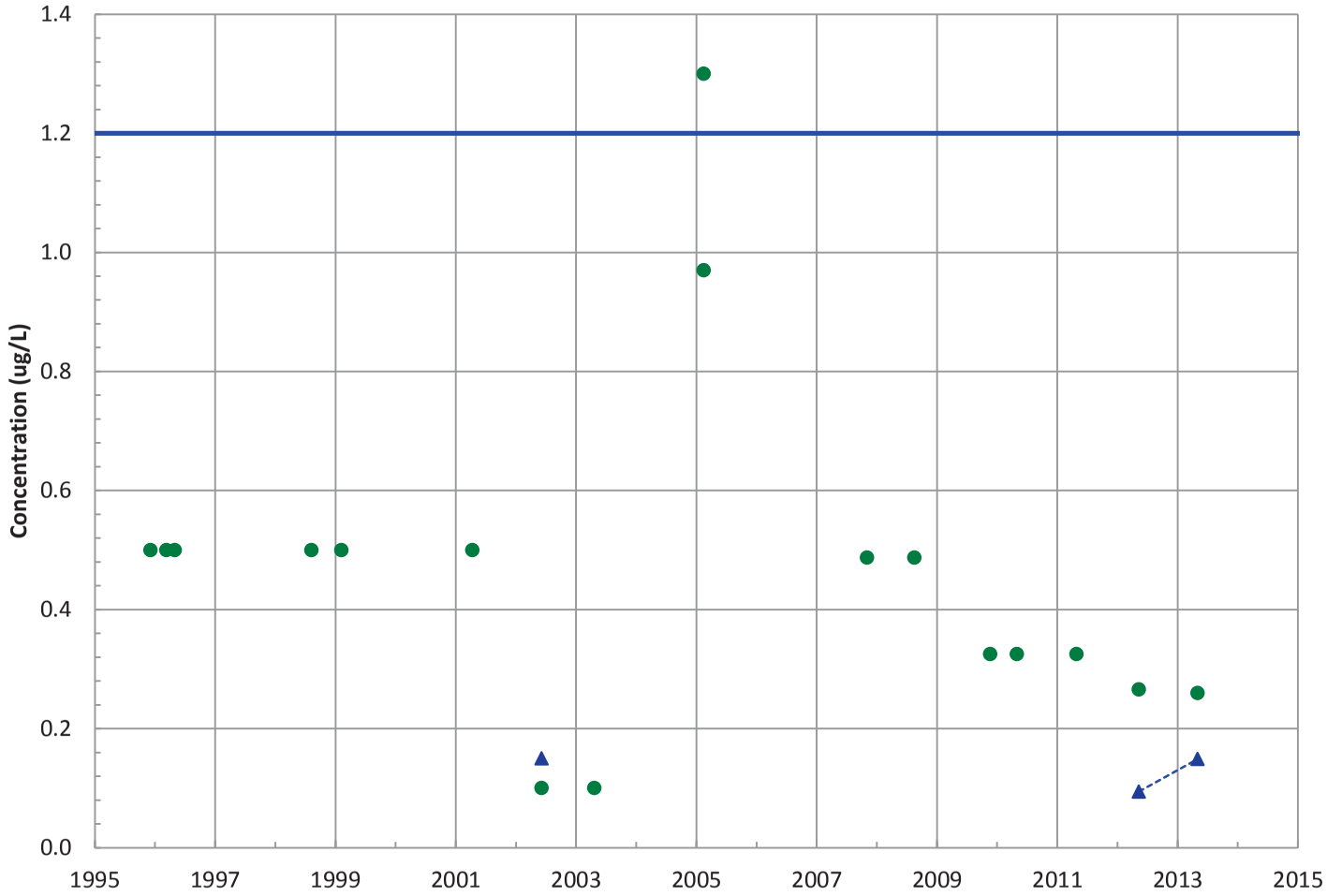
Well Location



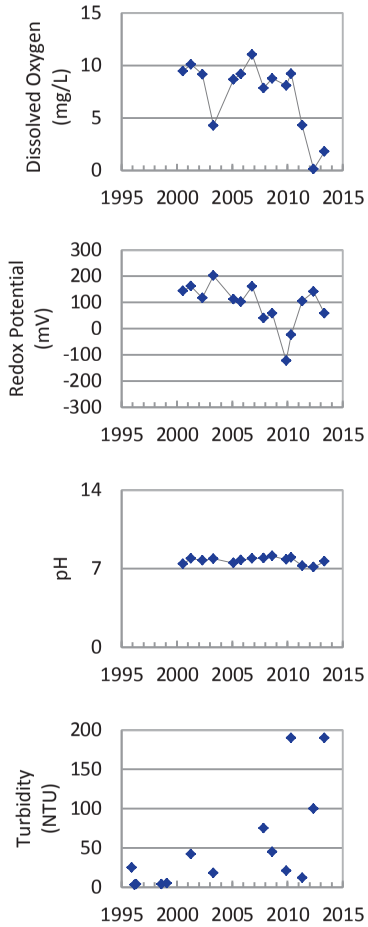
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/5/1995 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1007
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



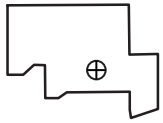
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

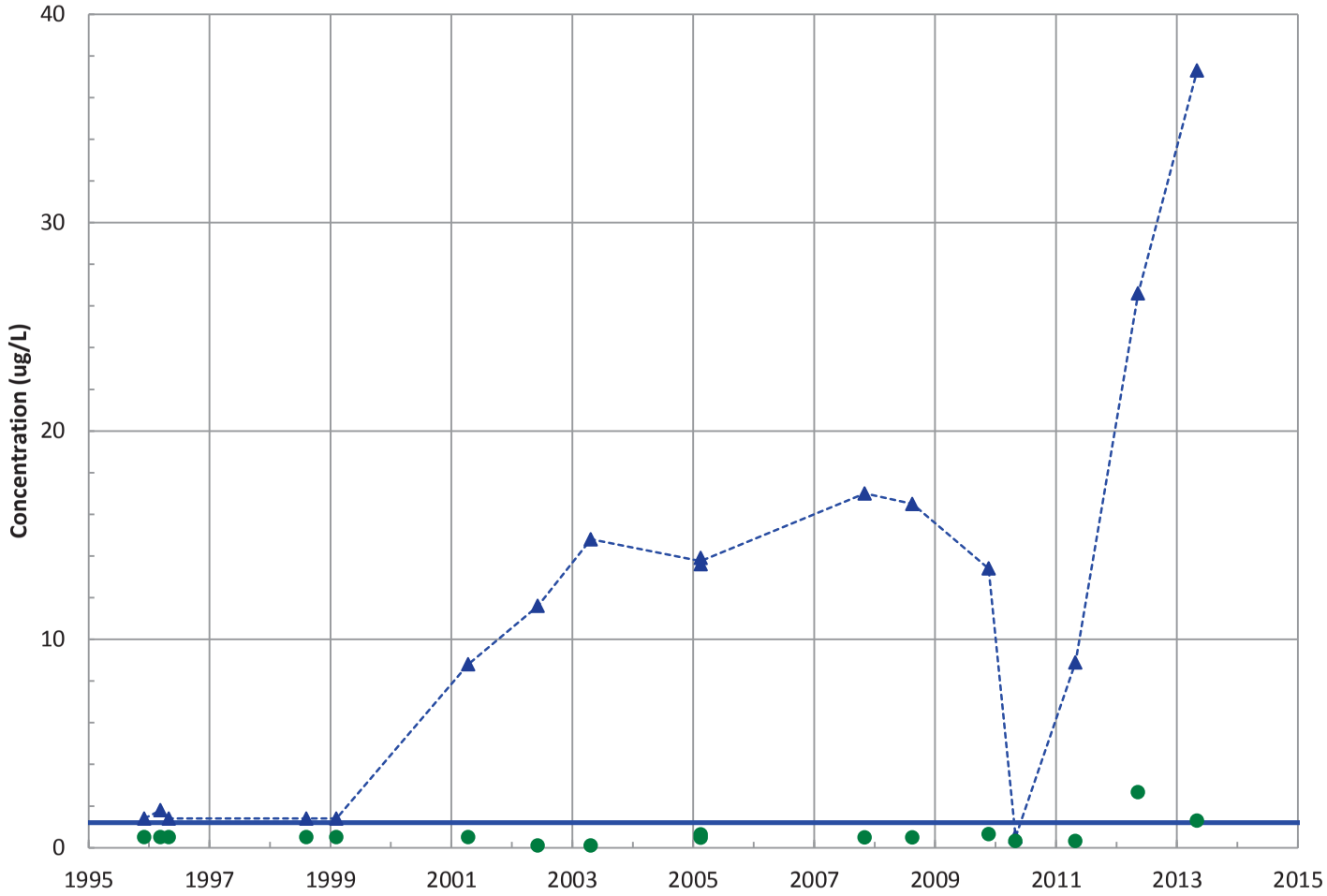
Well Location



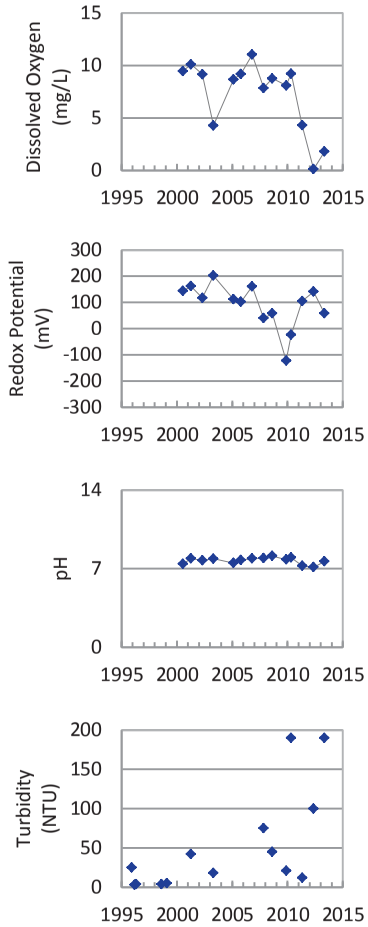
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/5/1995 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1007
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



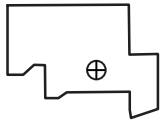
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Increasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

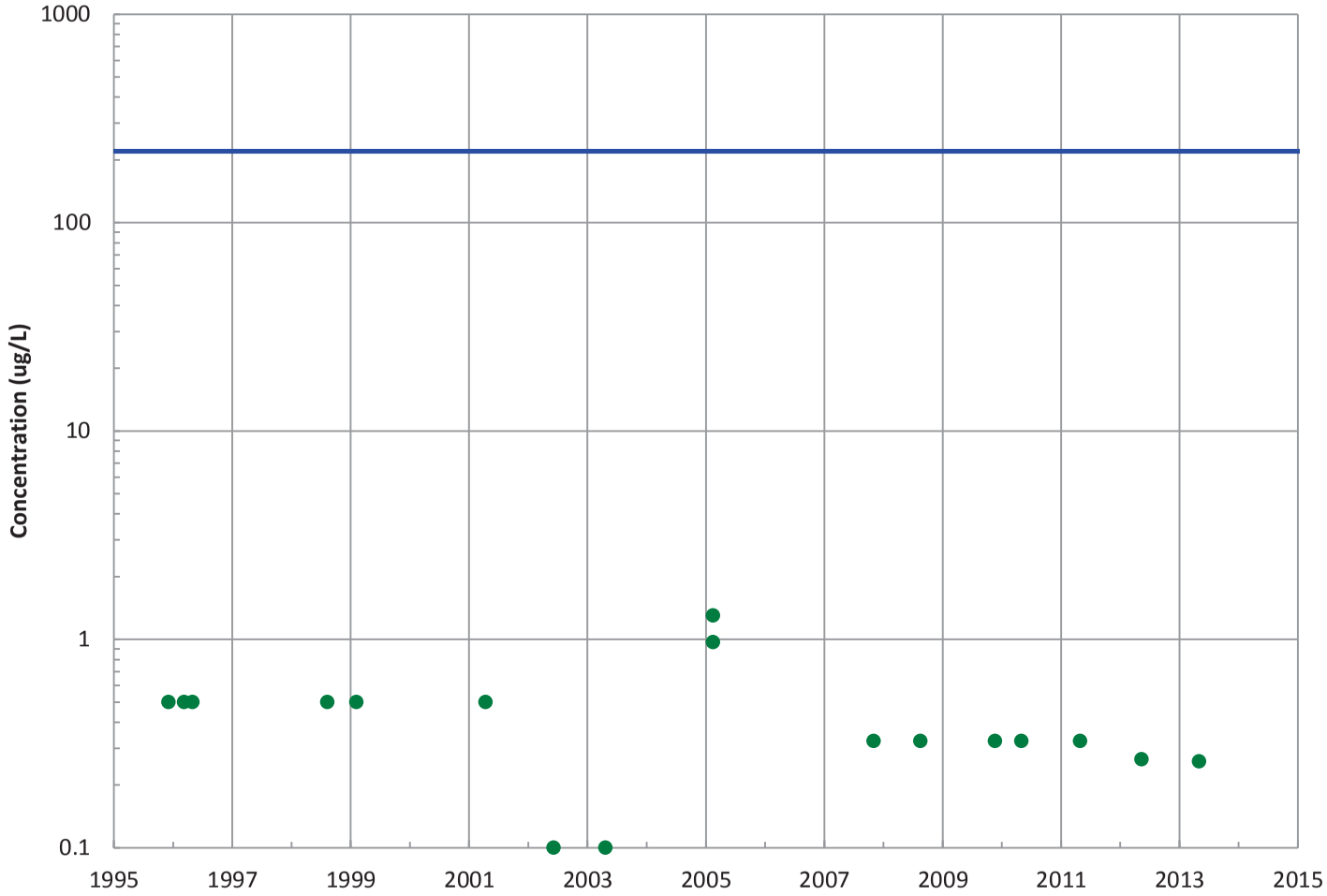
Well Location



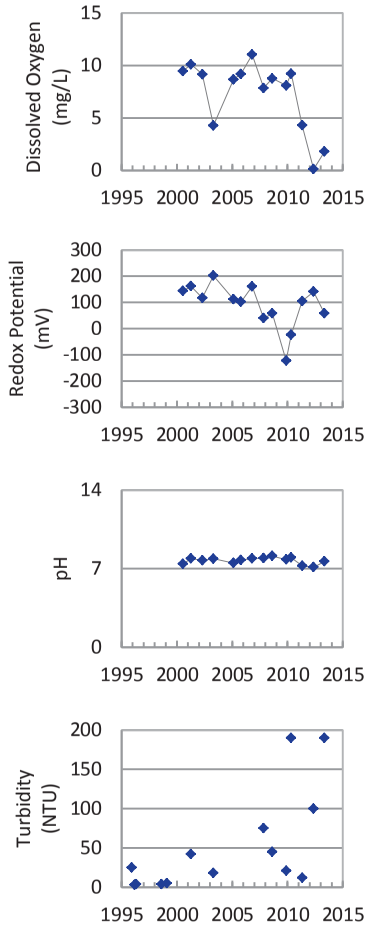
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/5/1995 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1007
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



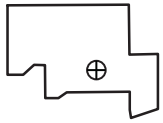
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

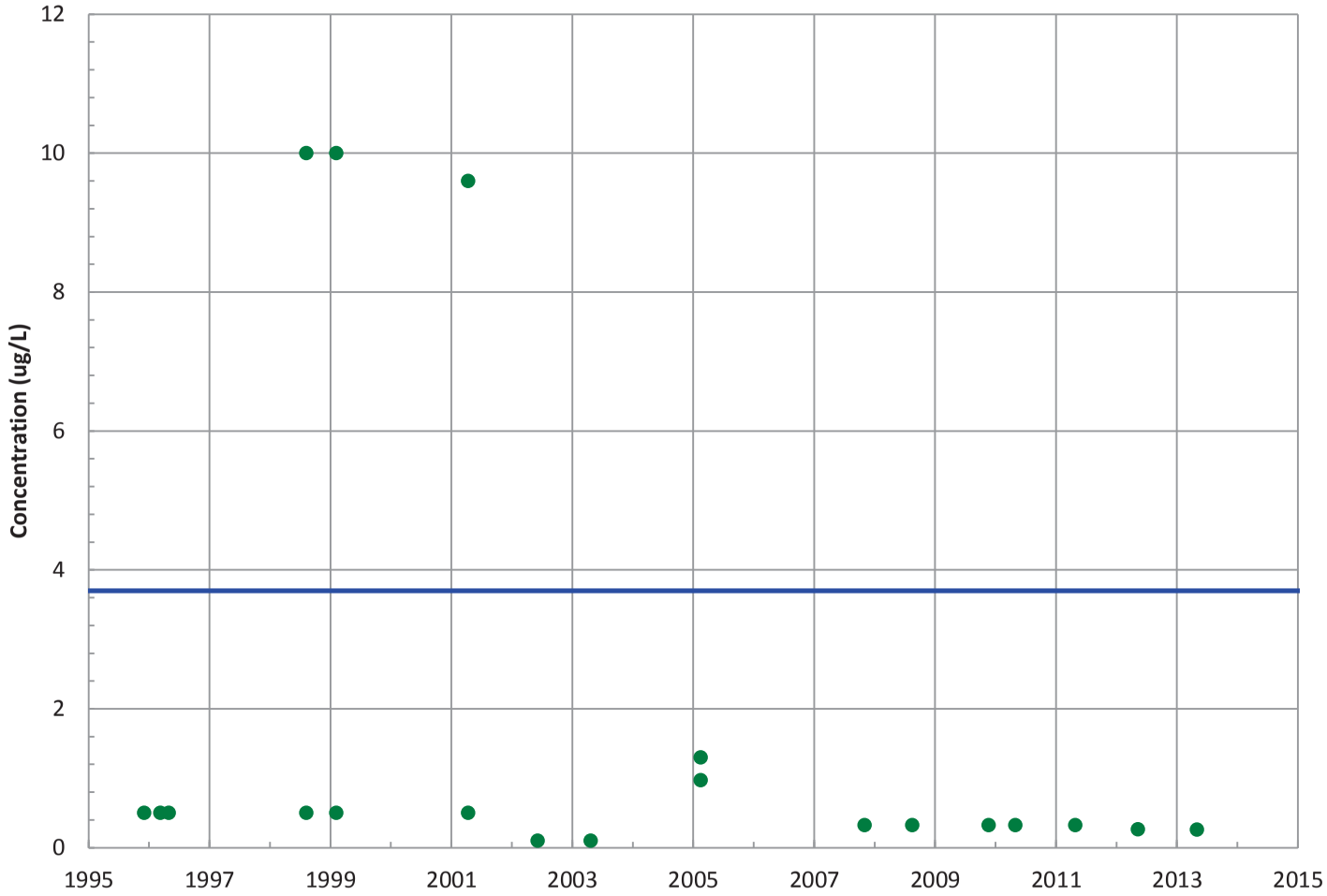
Well Location



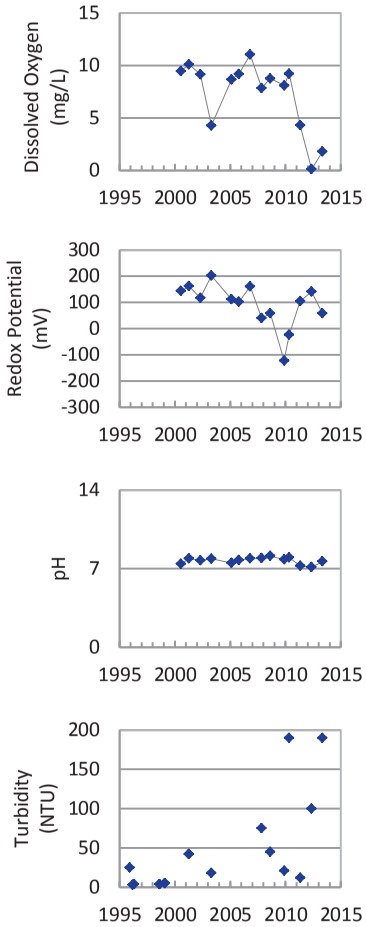
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/5/1995 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1007
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



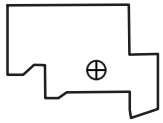
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

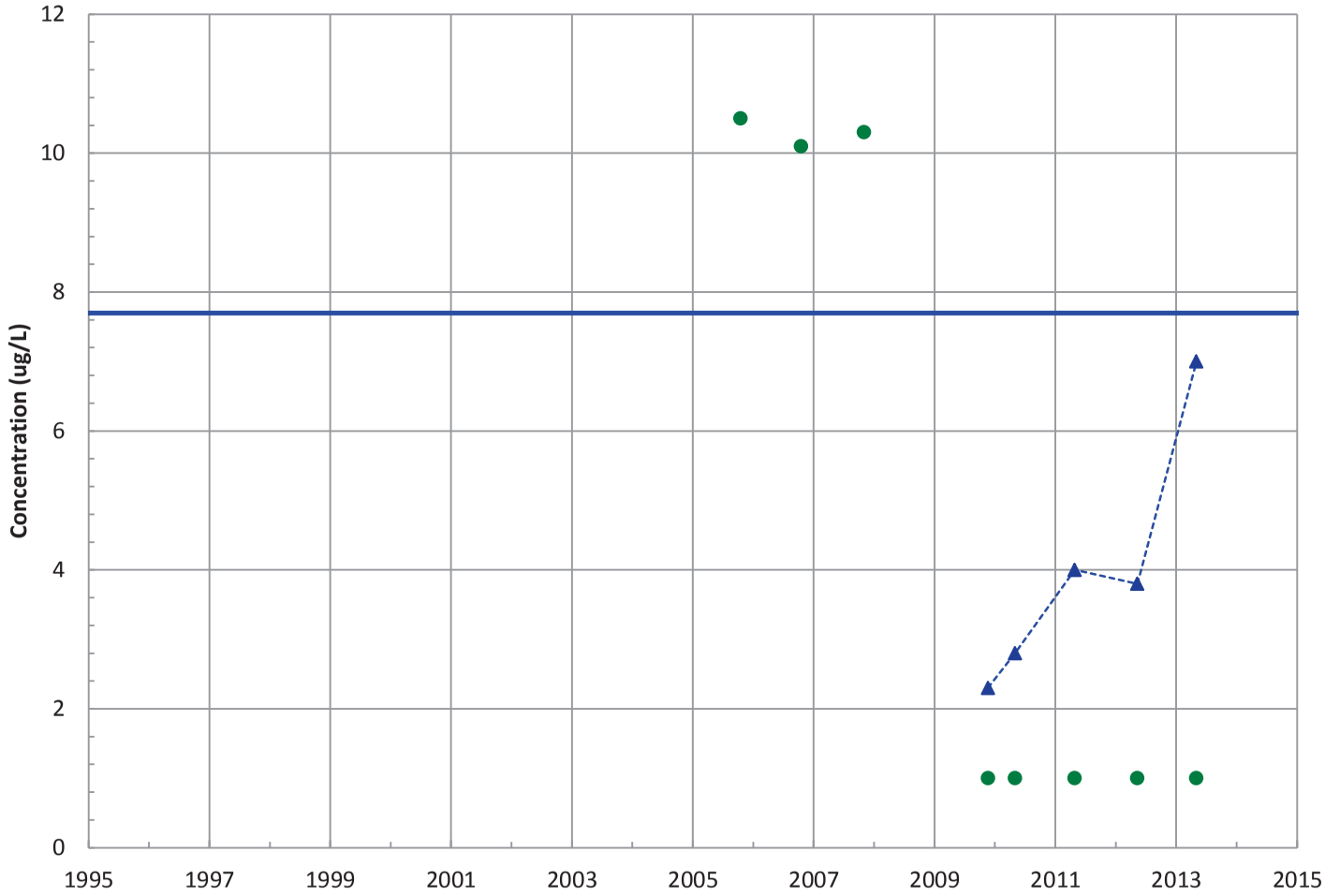
Well Location



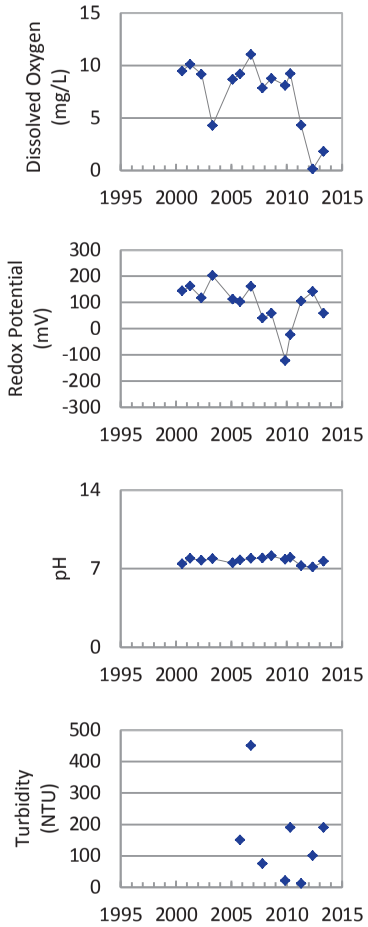
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/5/1995 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1007
1,4-Dioxane (p-Dioxane) Trend in Perched Aquifer



Field Parameters



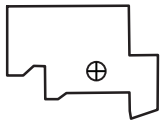
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Increasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

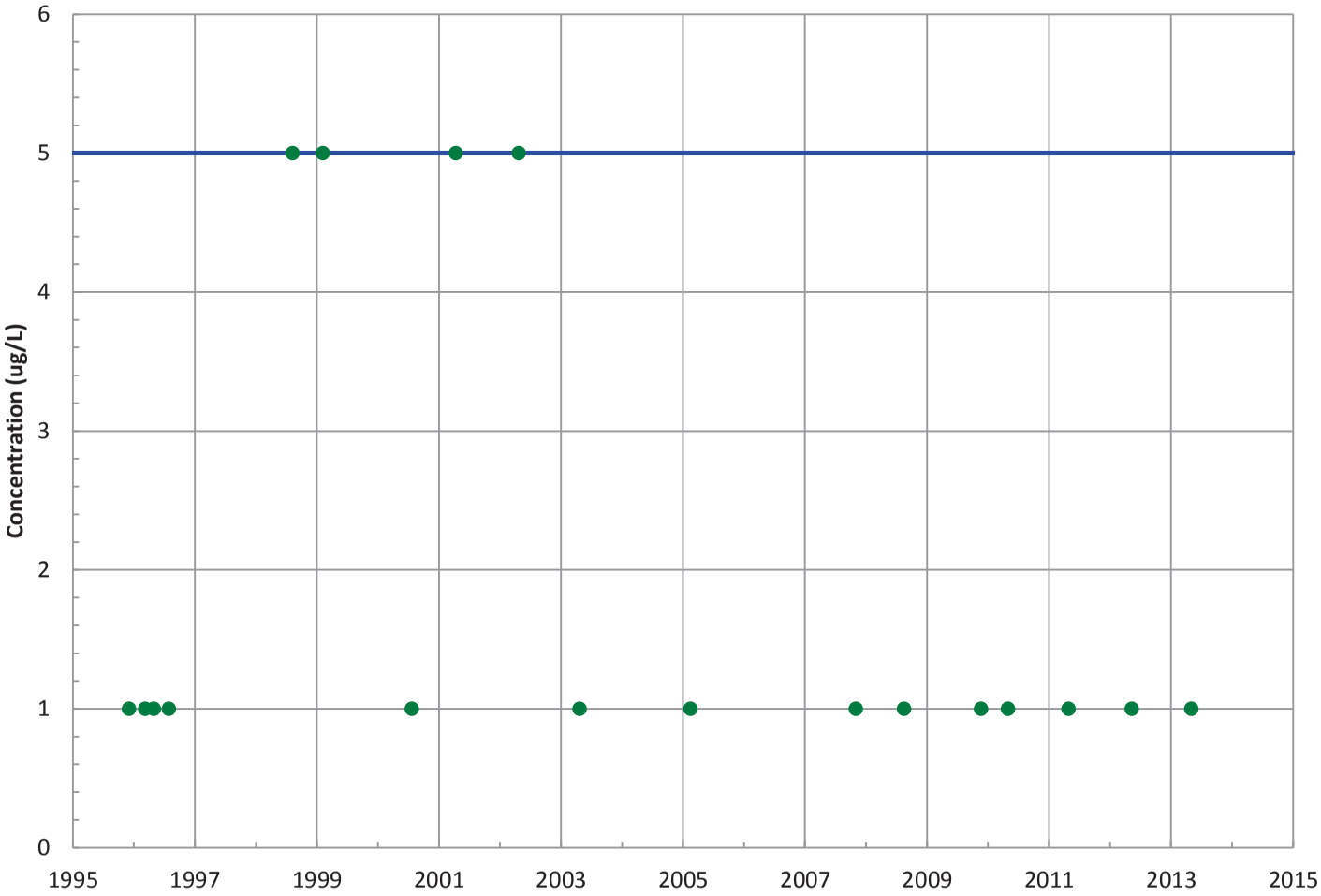
Well Location



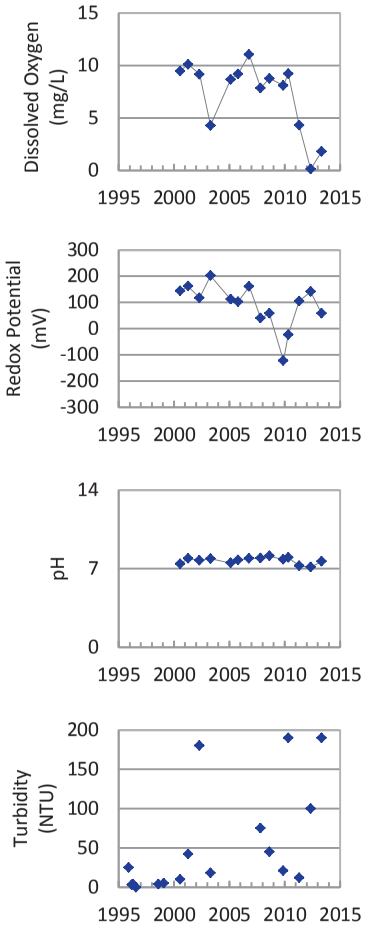
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/24/2005 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1007
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



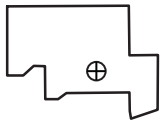
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

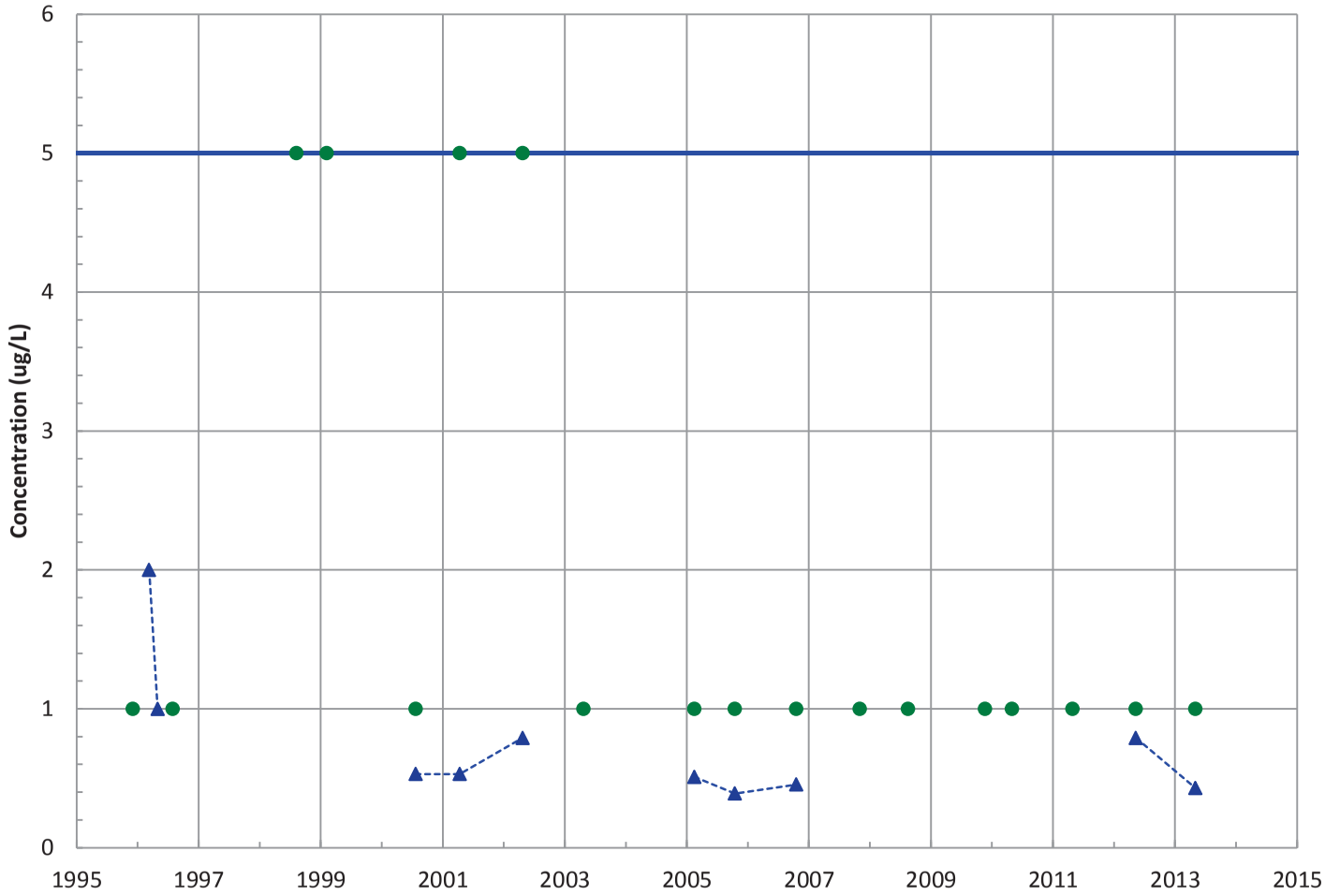
Well Location



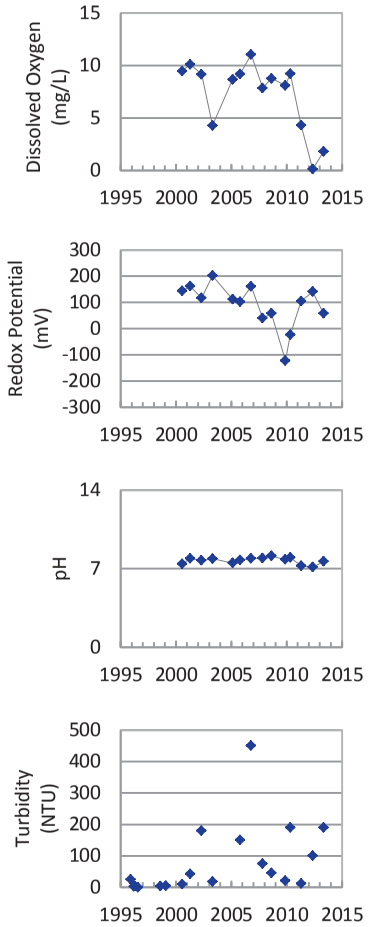
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/5/1995 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1007
Trichloroethene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: N/A (<4 Detections in

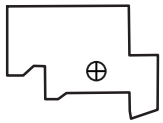
MAROS Linear Regression Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

Well Location



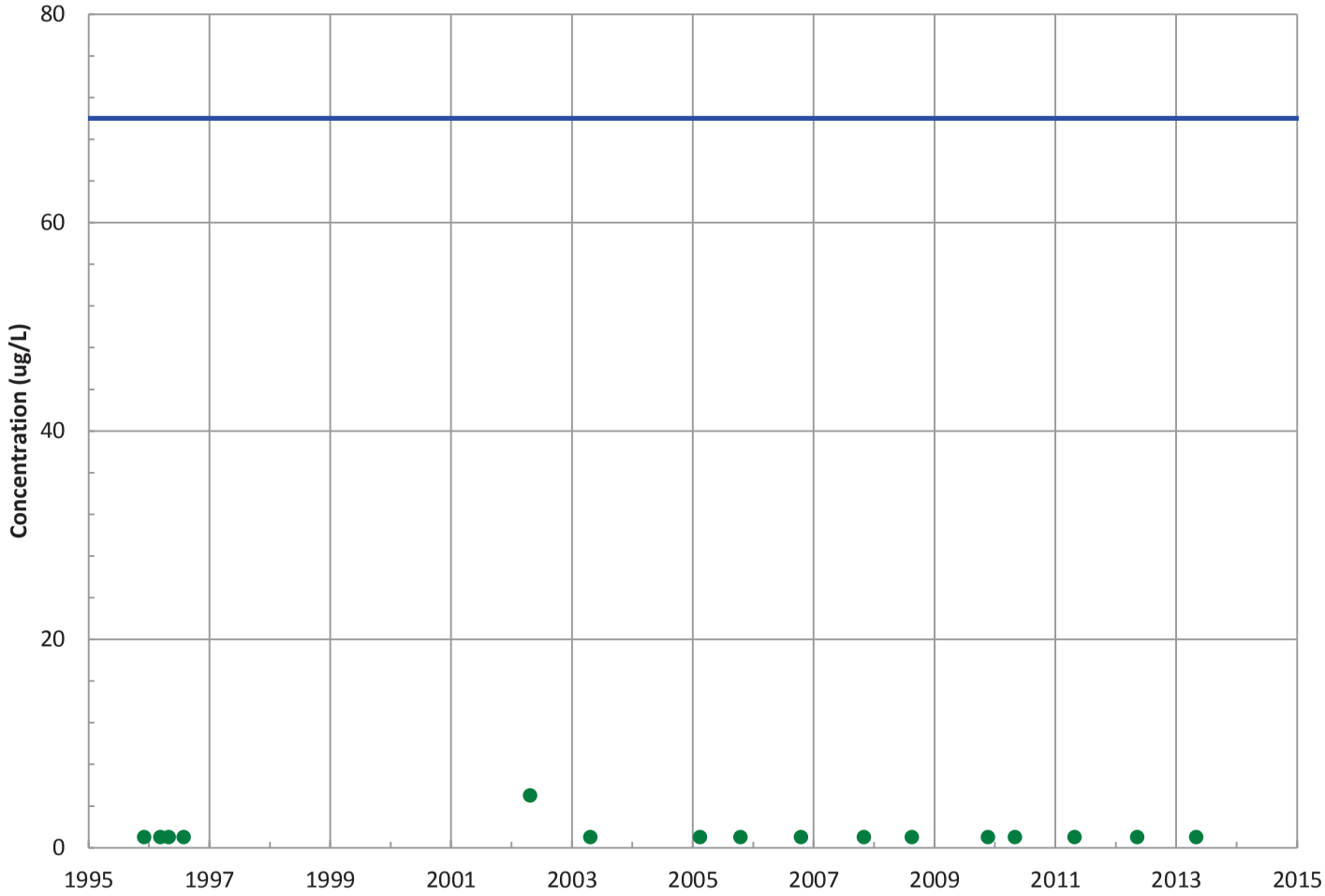
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 12/5/1995 to 5/16/2013

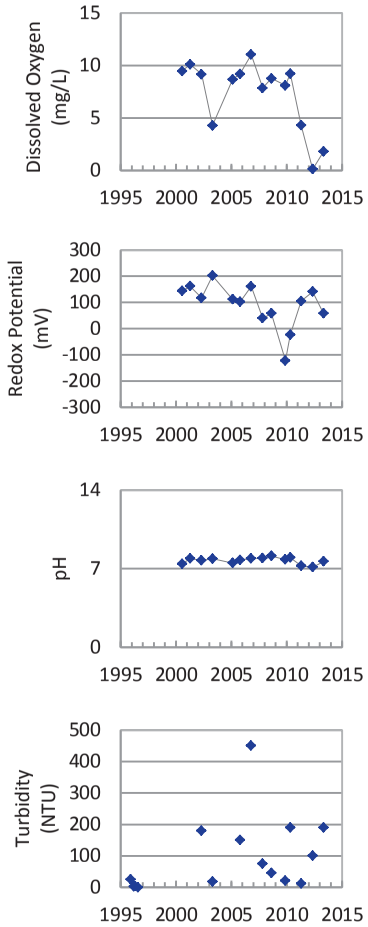
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1007
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



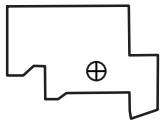
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

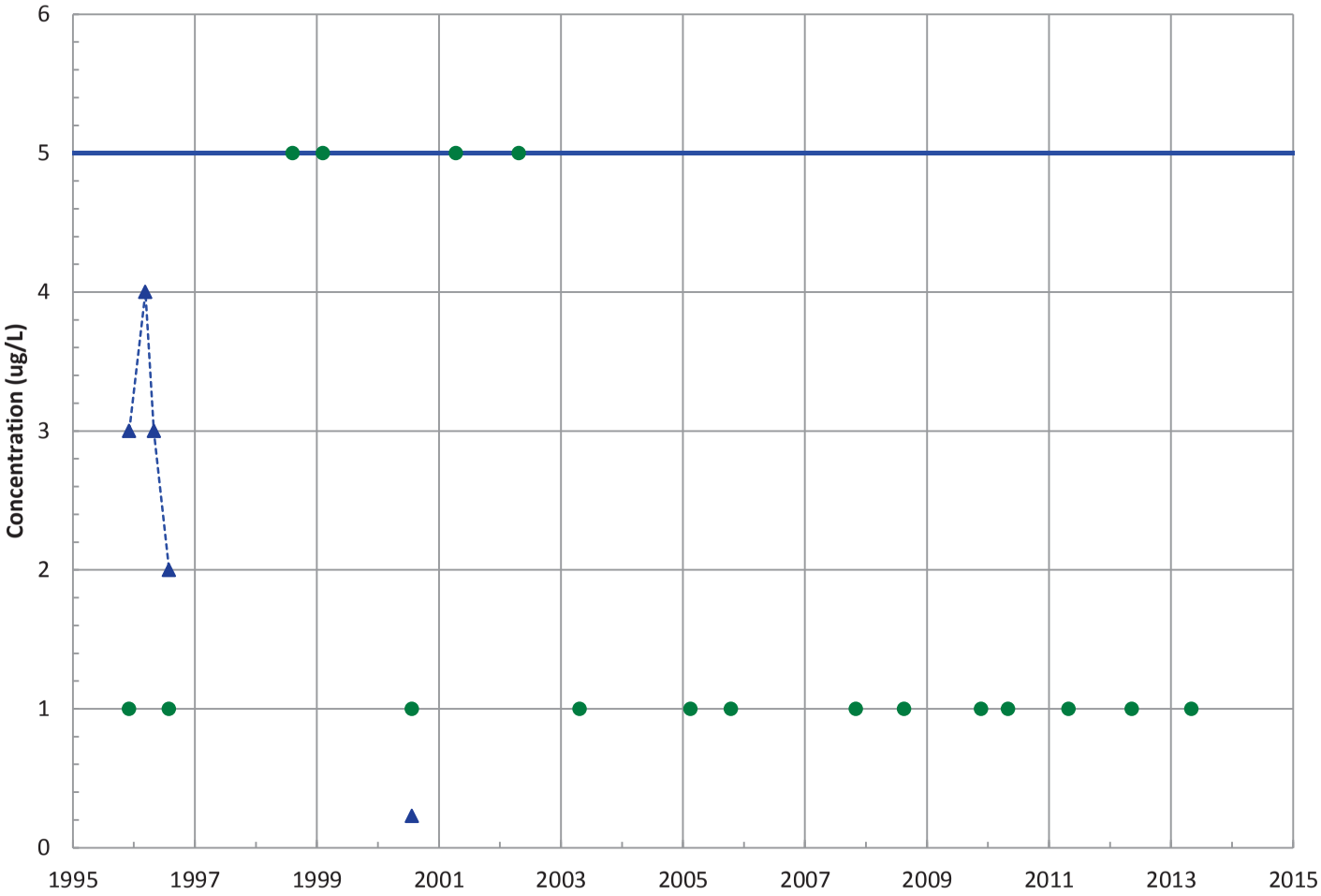
Well Location



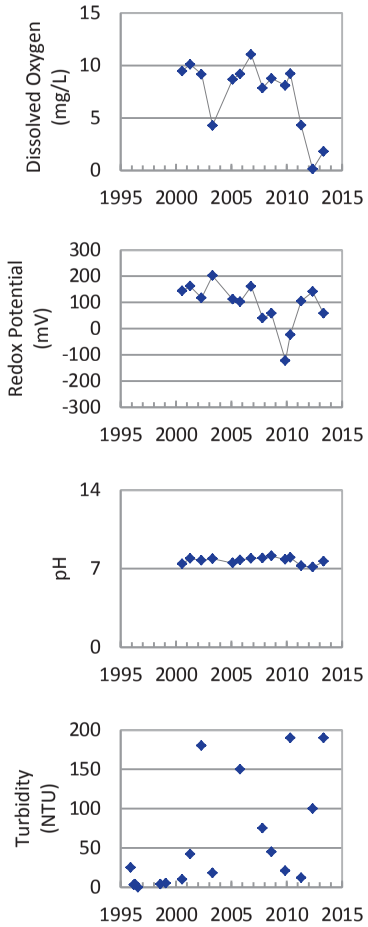
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/5/1995 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1007
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



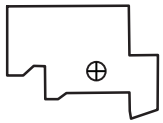
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: Probably Decreasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

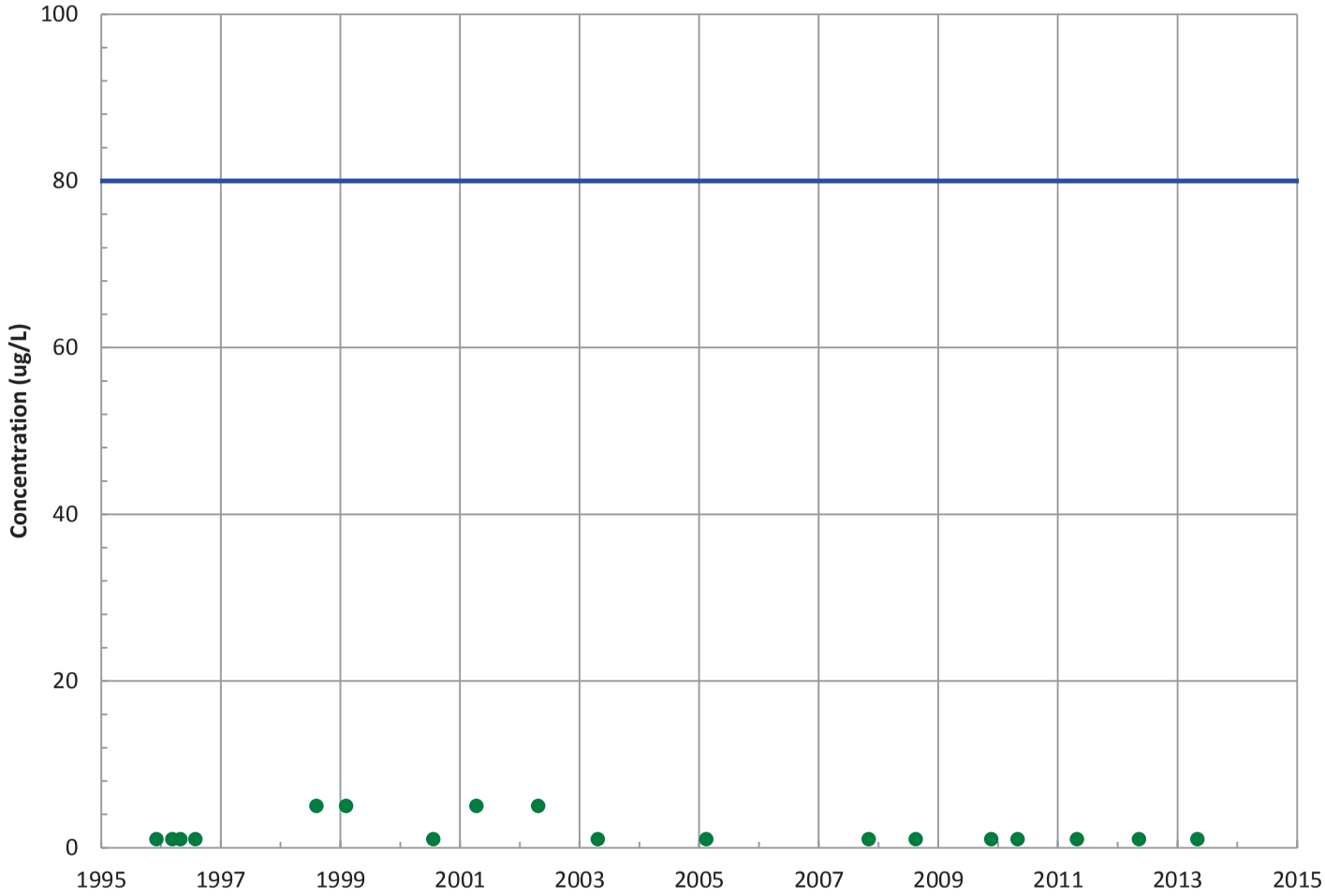
Well Location



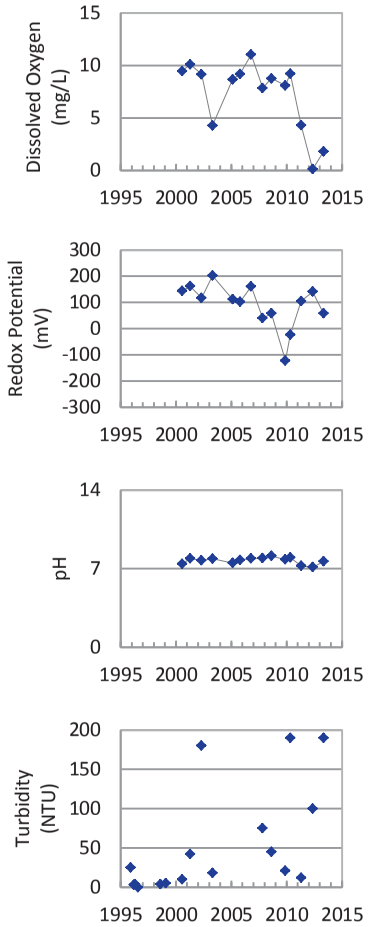
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/5/1995 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1007
Chloroform Trend in Perched Aquifer



Field Parameters



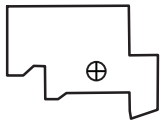
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

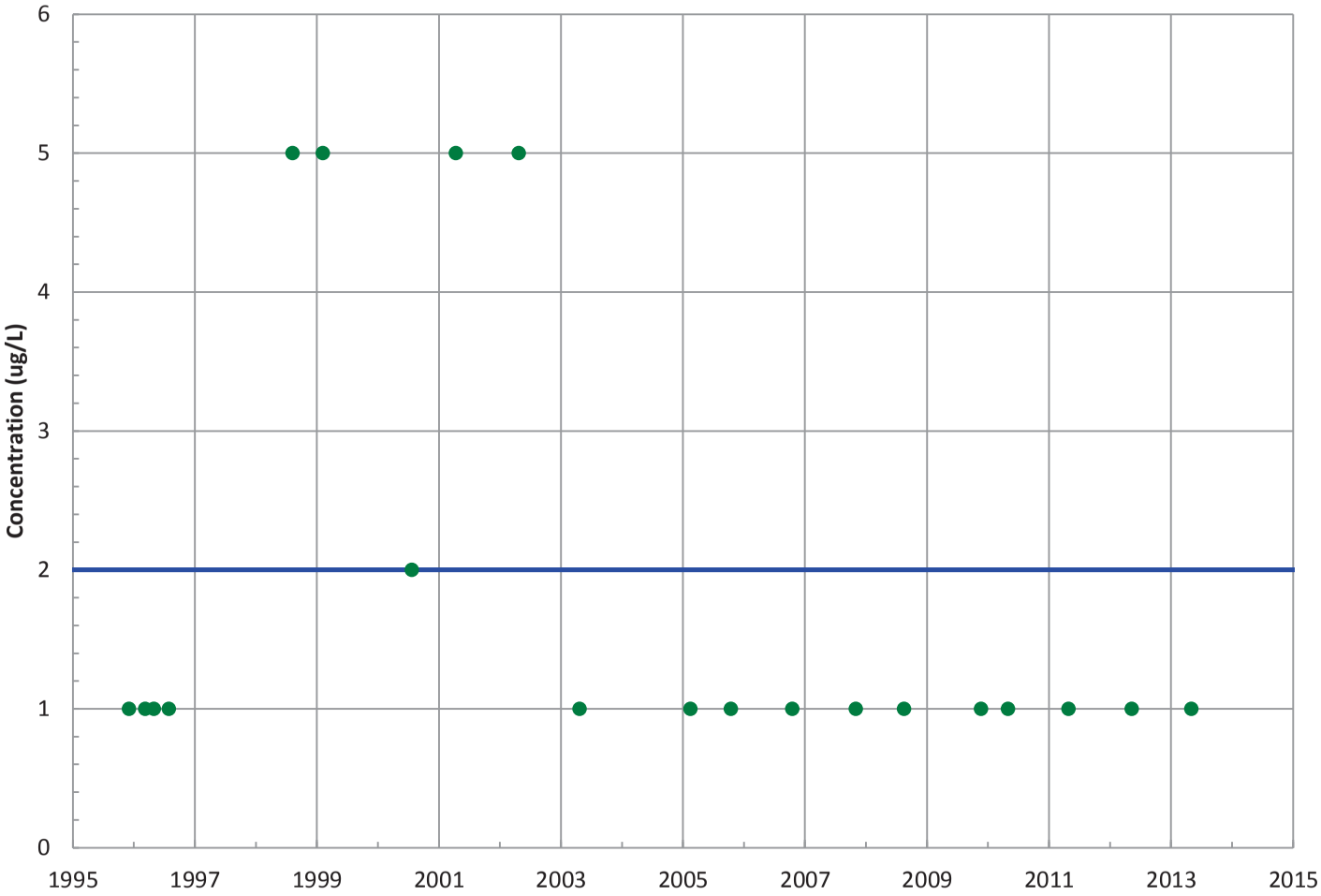
Well Location



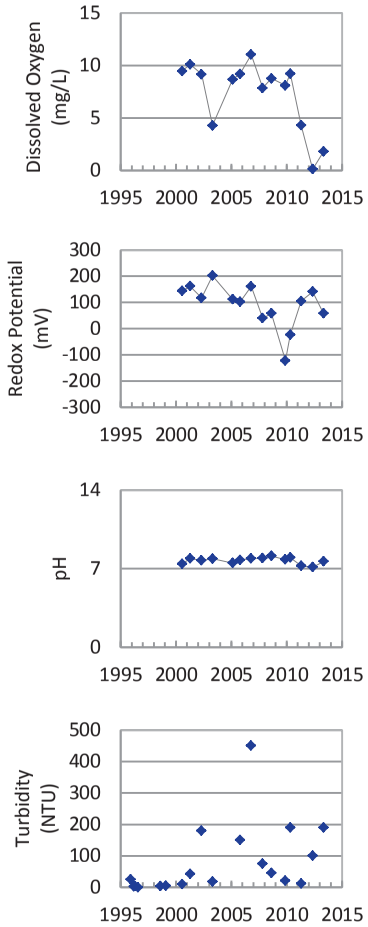
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/5/1995 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1007
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



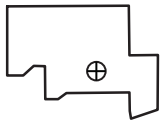
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

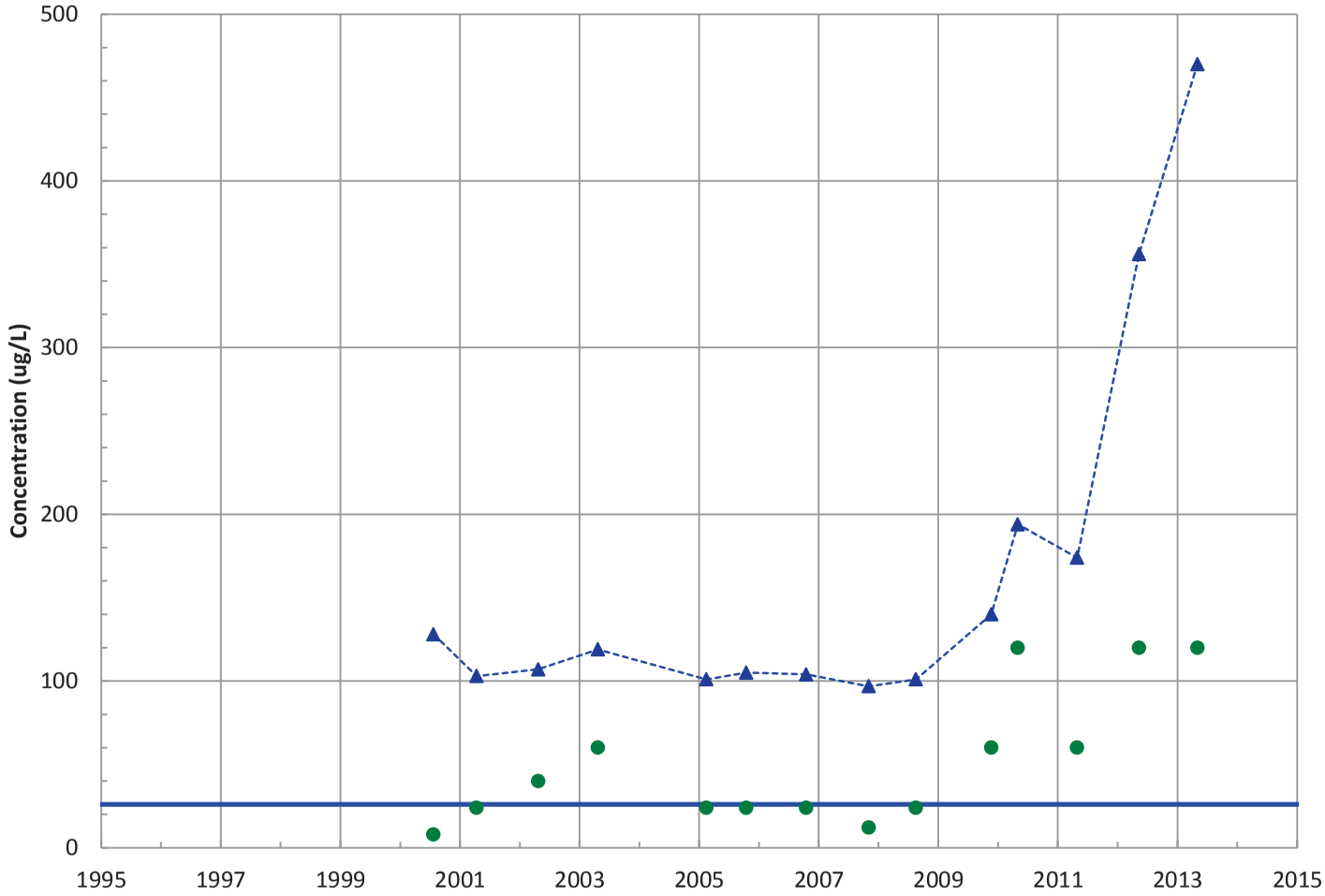
Well Location



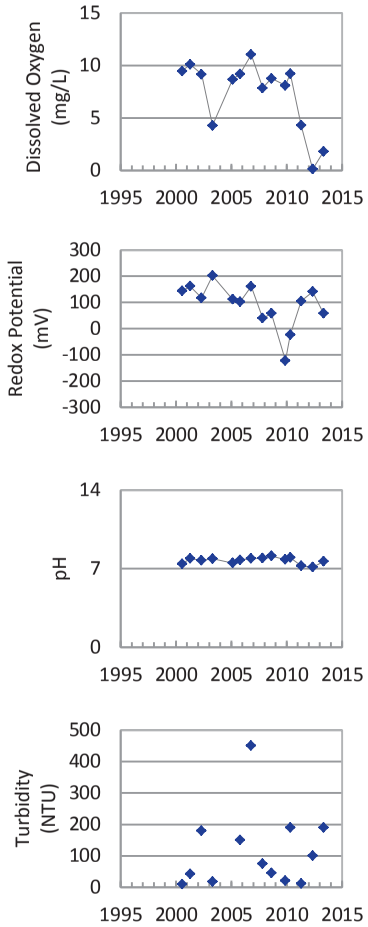
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/5/1995 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1007
Perchlorate Trend in Perched Aquifer



Field Parameters



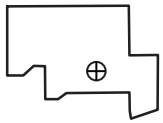
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Increasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

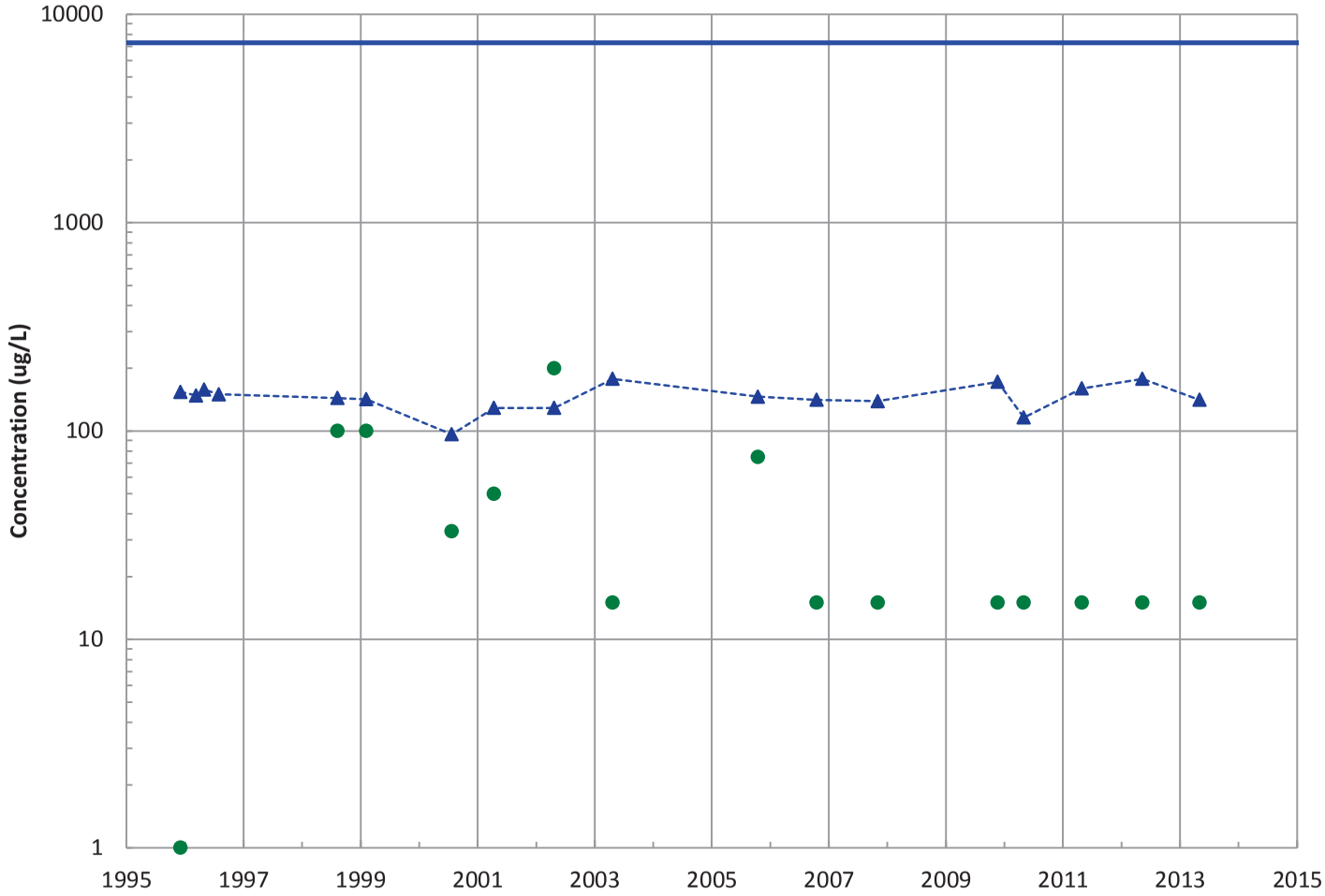
Well Location



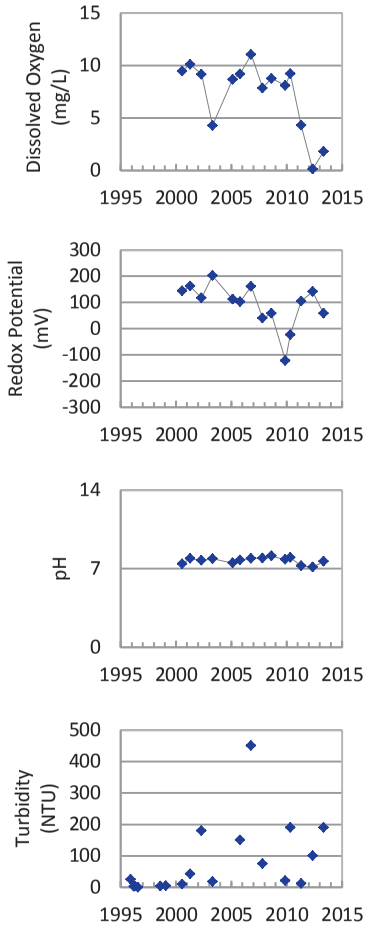
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 7/27/2000 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1007
Boron Trend in Perched Aquifer



Field Parameters



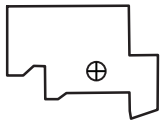
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

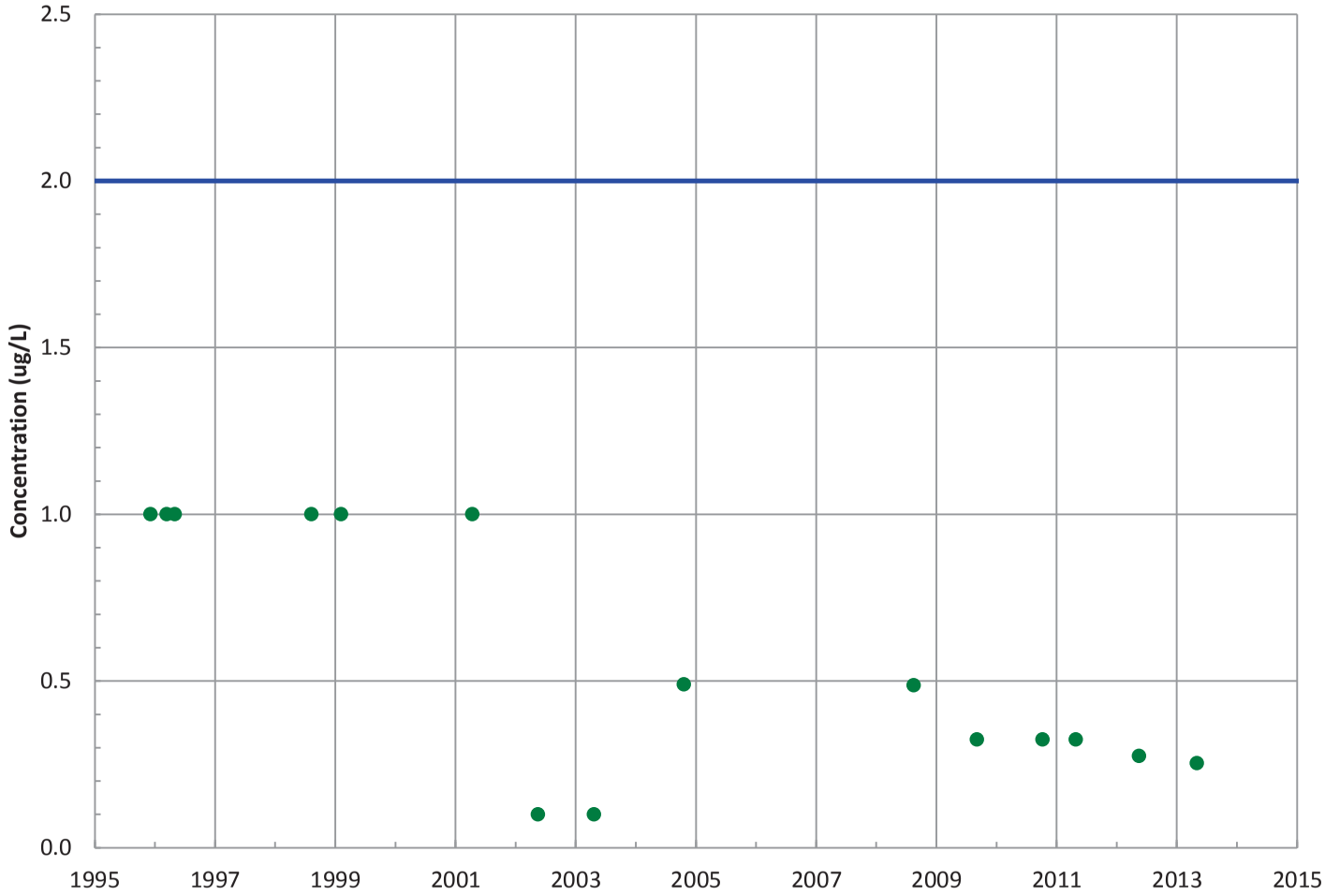
Well Location



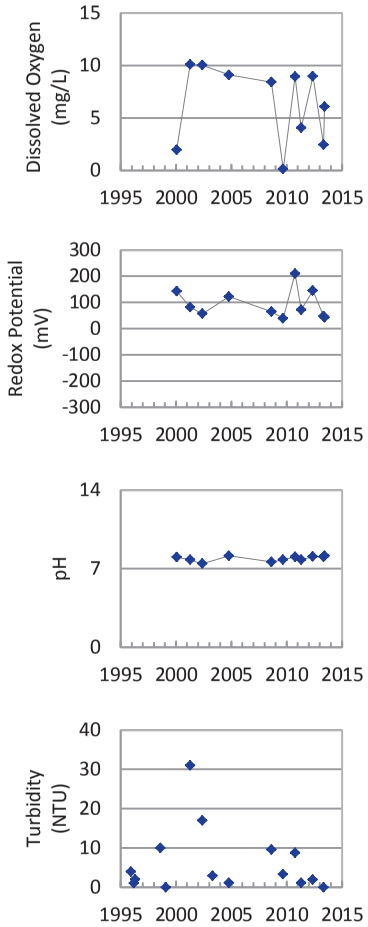
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/5/1995 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1008
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



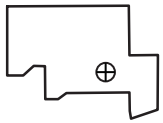
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

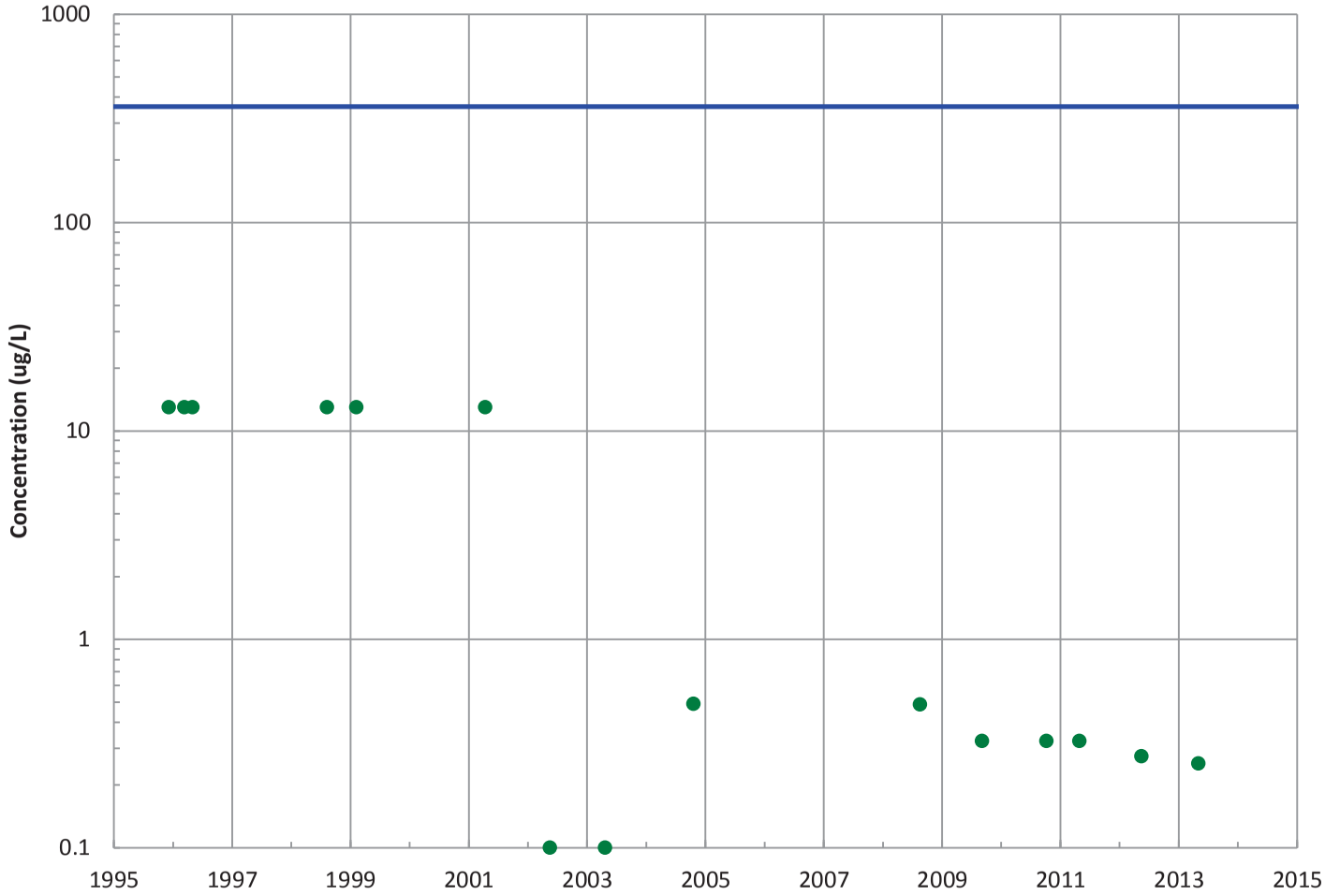
Well Location



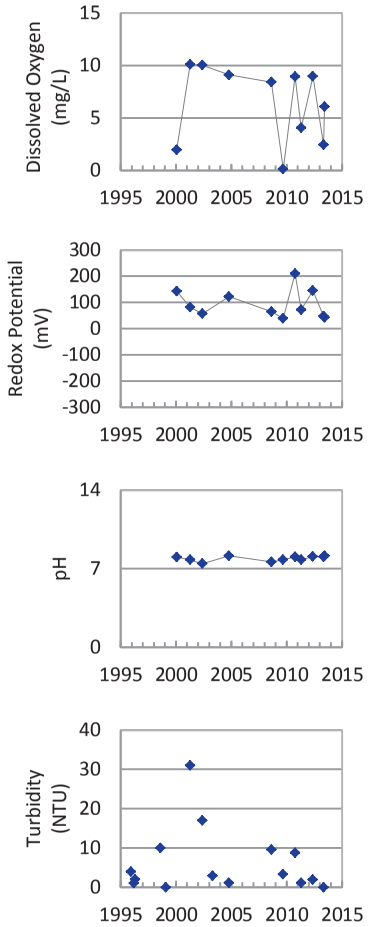
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/7/1995 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1008
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



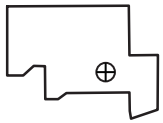
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

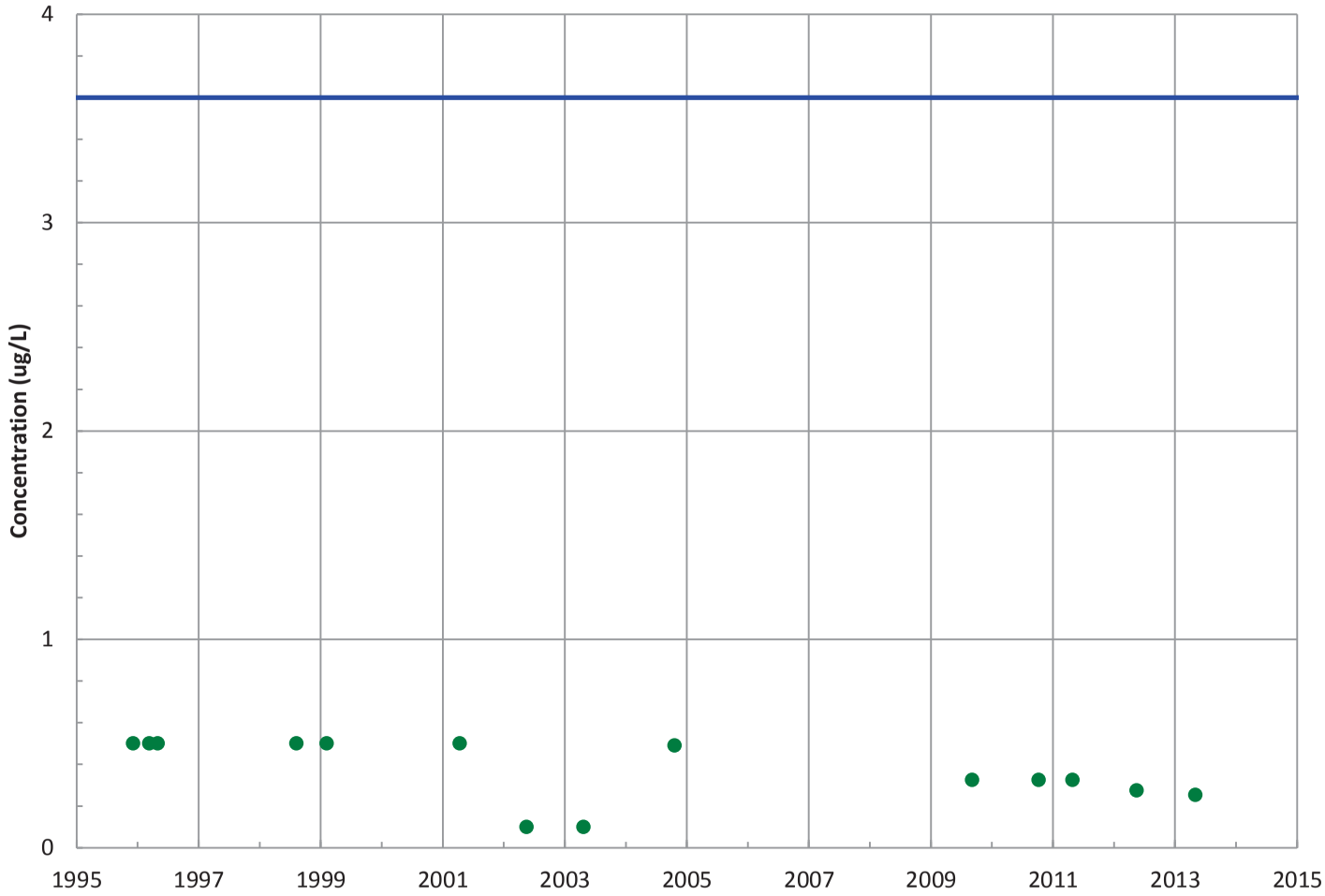
Well Location



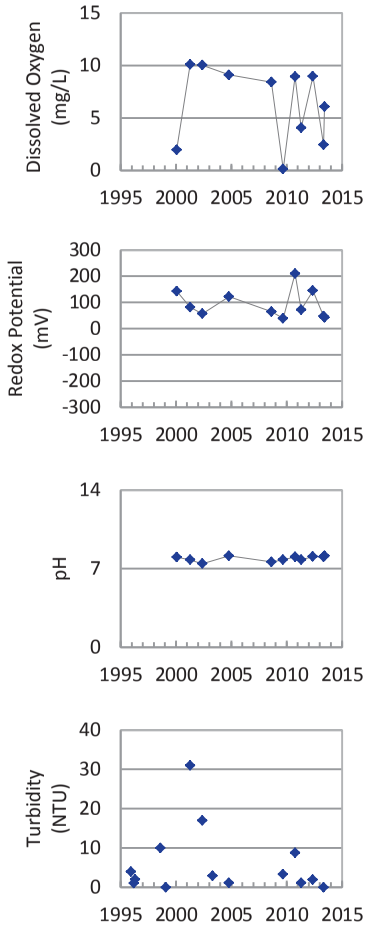
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/7/1995 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1008
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



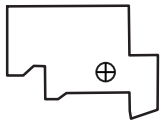
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

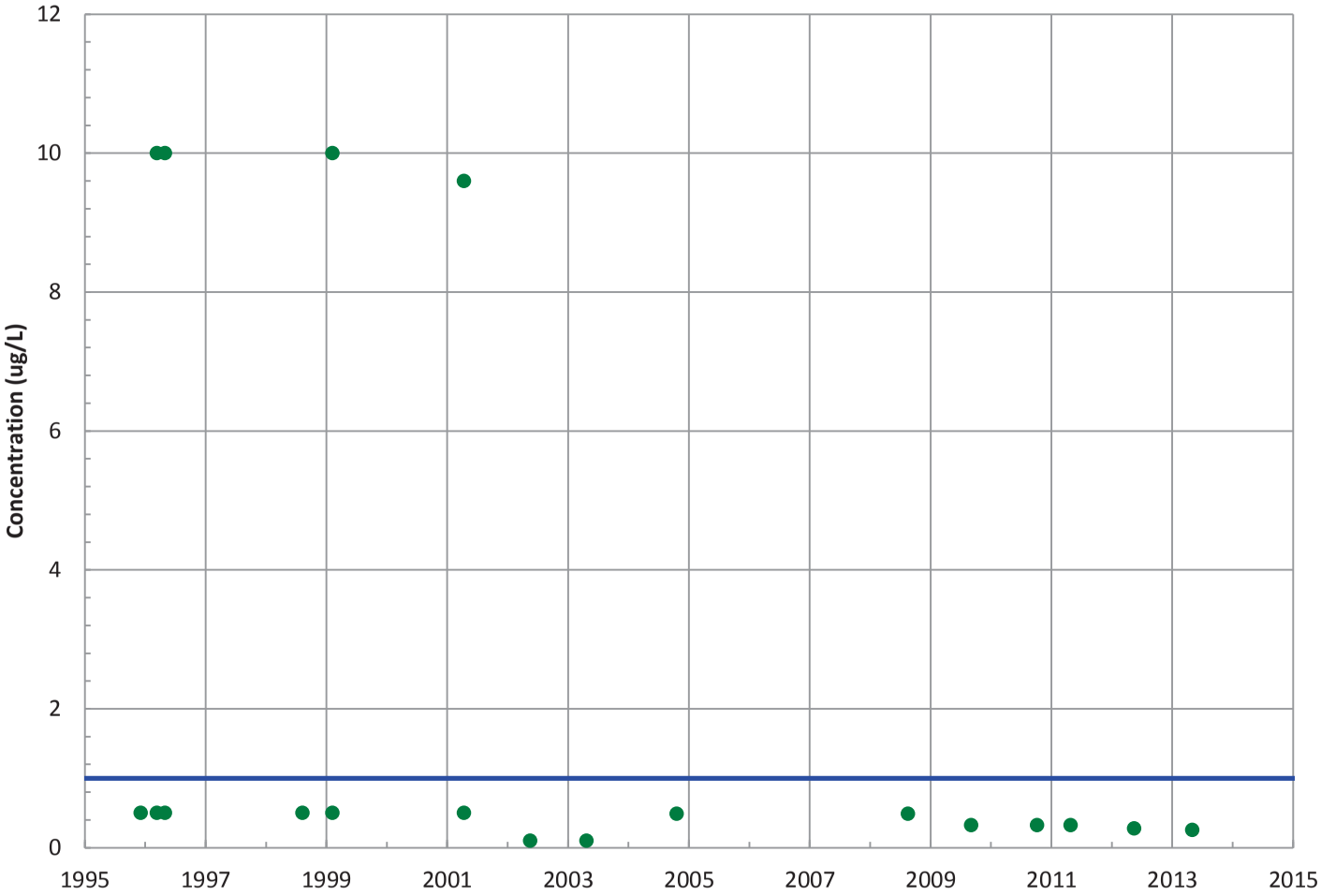
Well Location



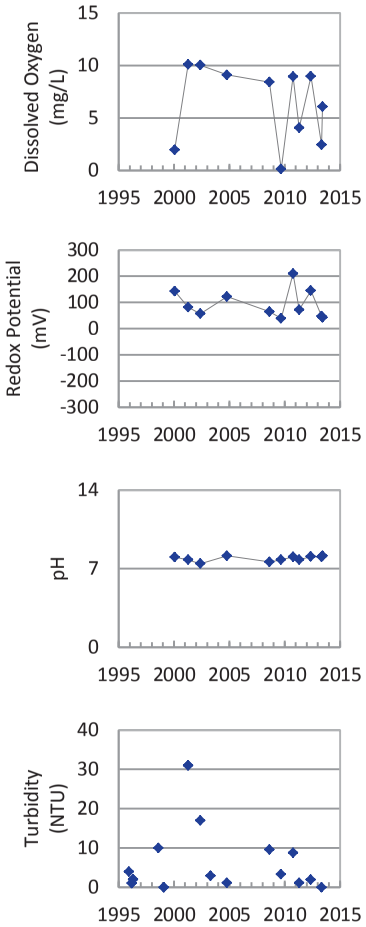
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/7/1995 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1008
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



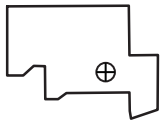
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

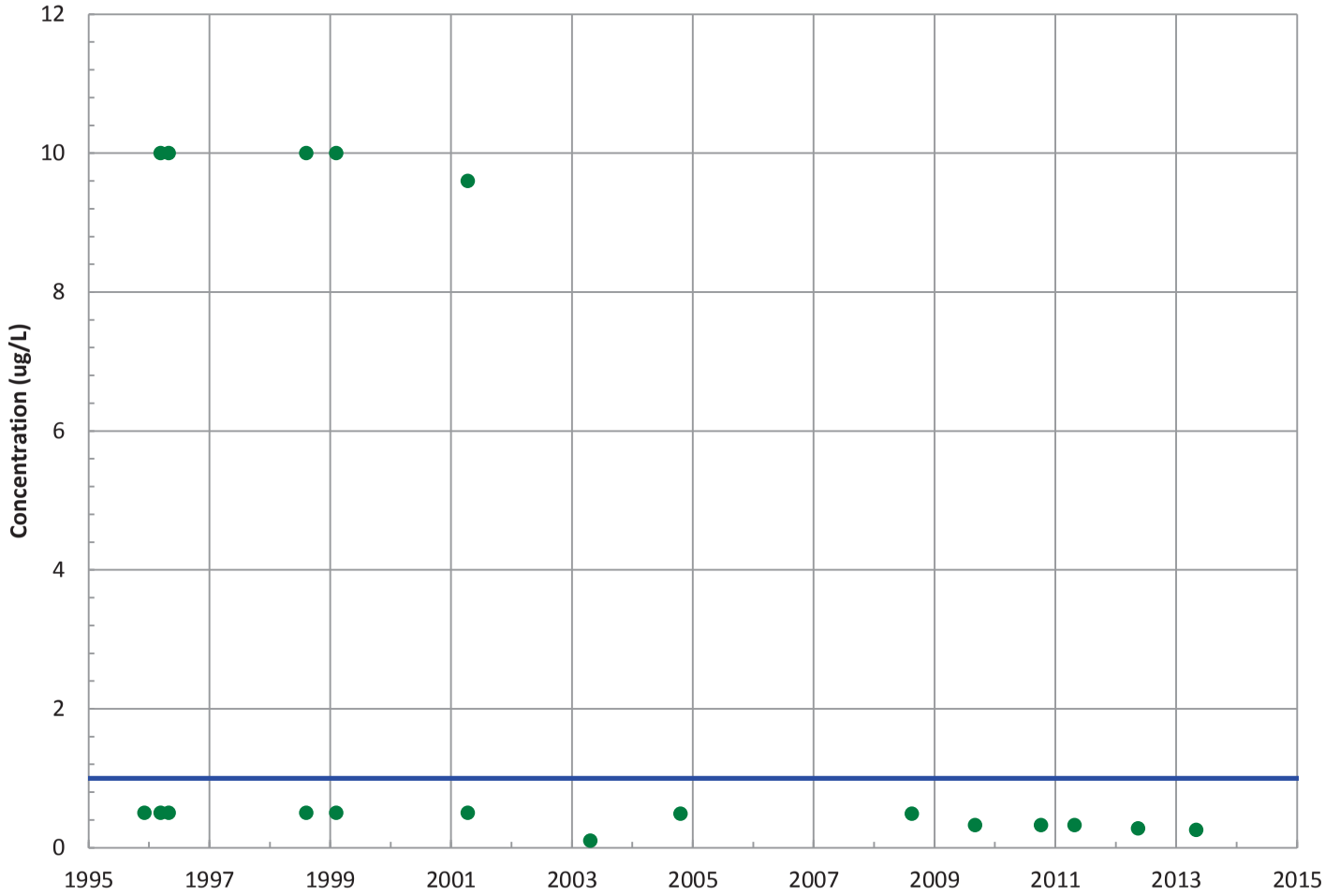
Well Location



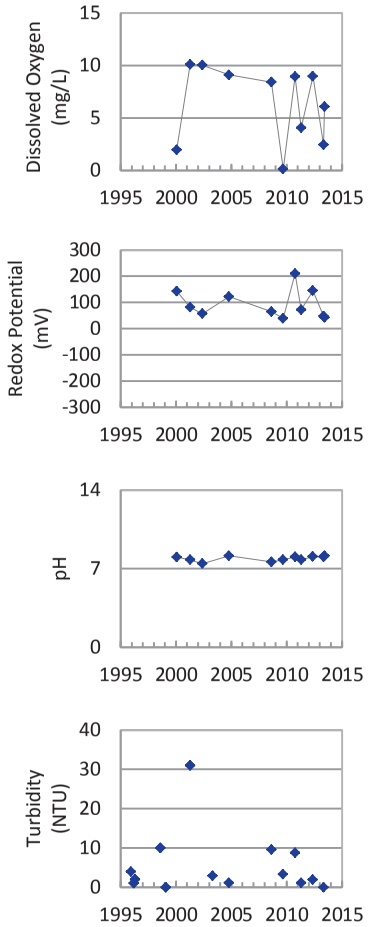
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/7/1995 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1008
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



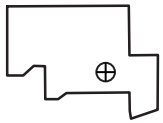
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

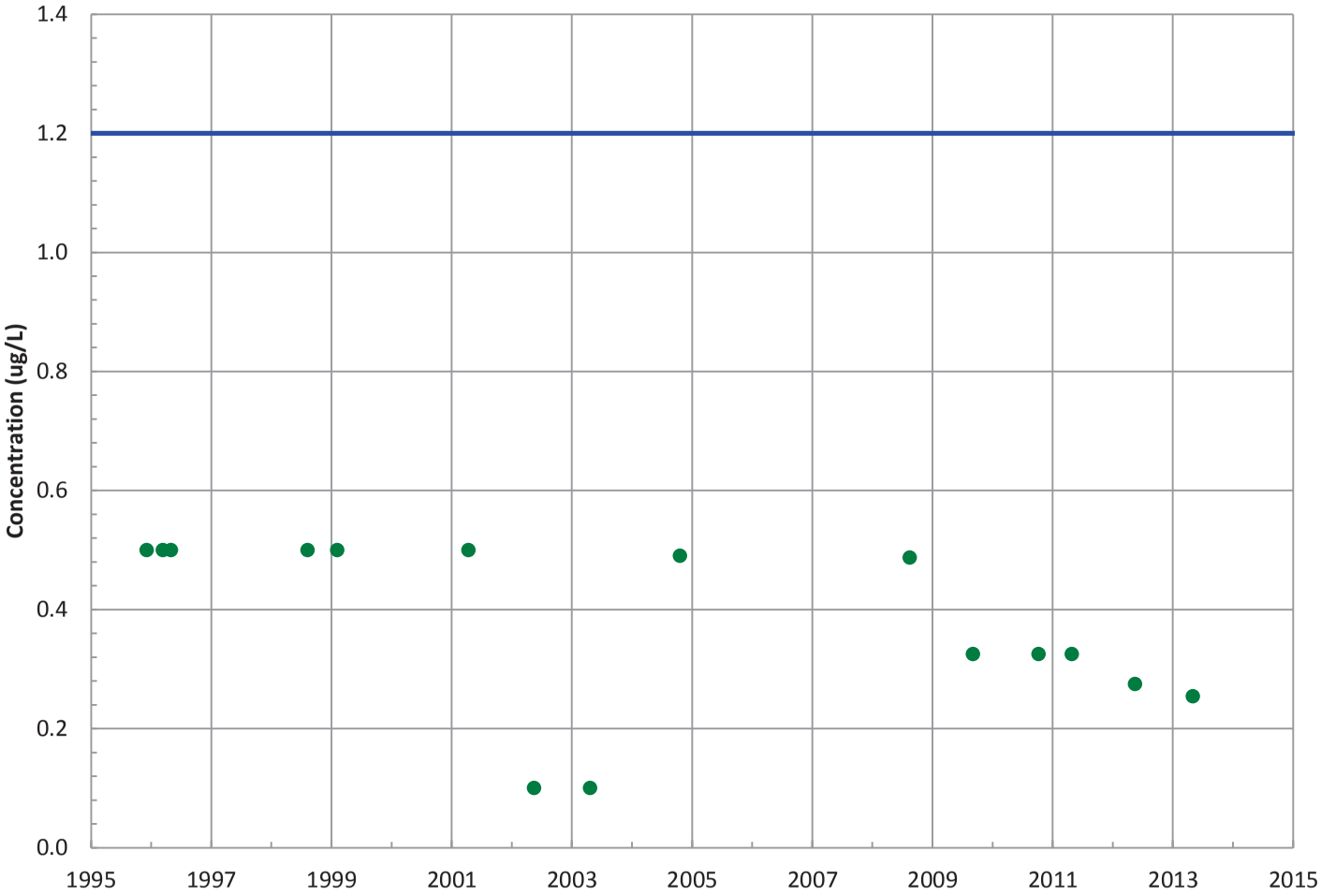
Well Location



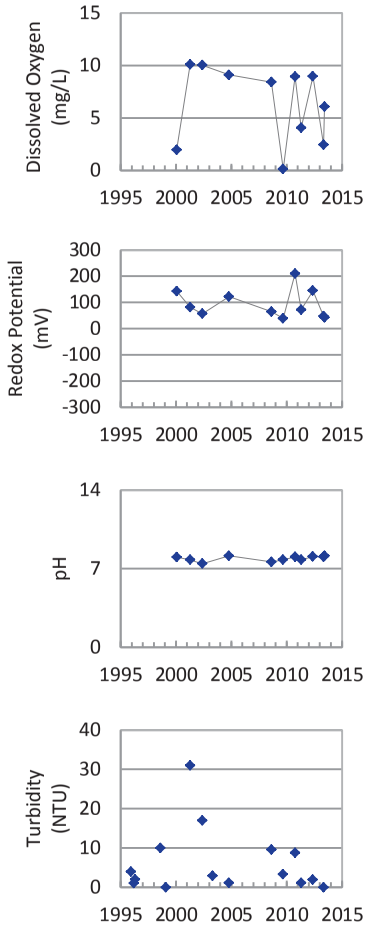
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/7/1995 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1008
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



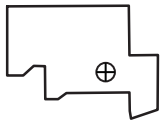
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

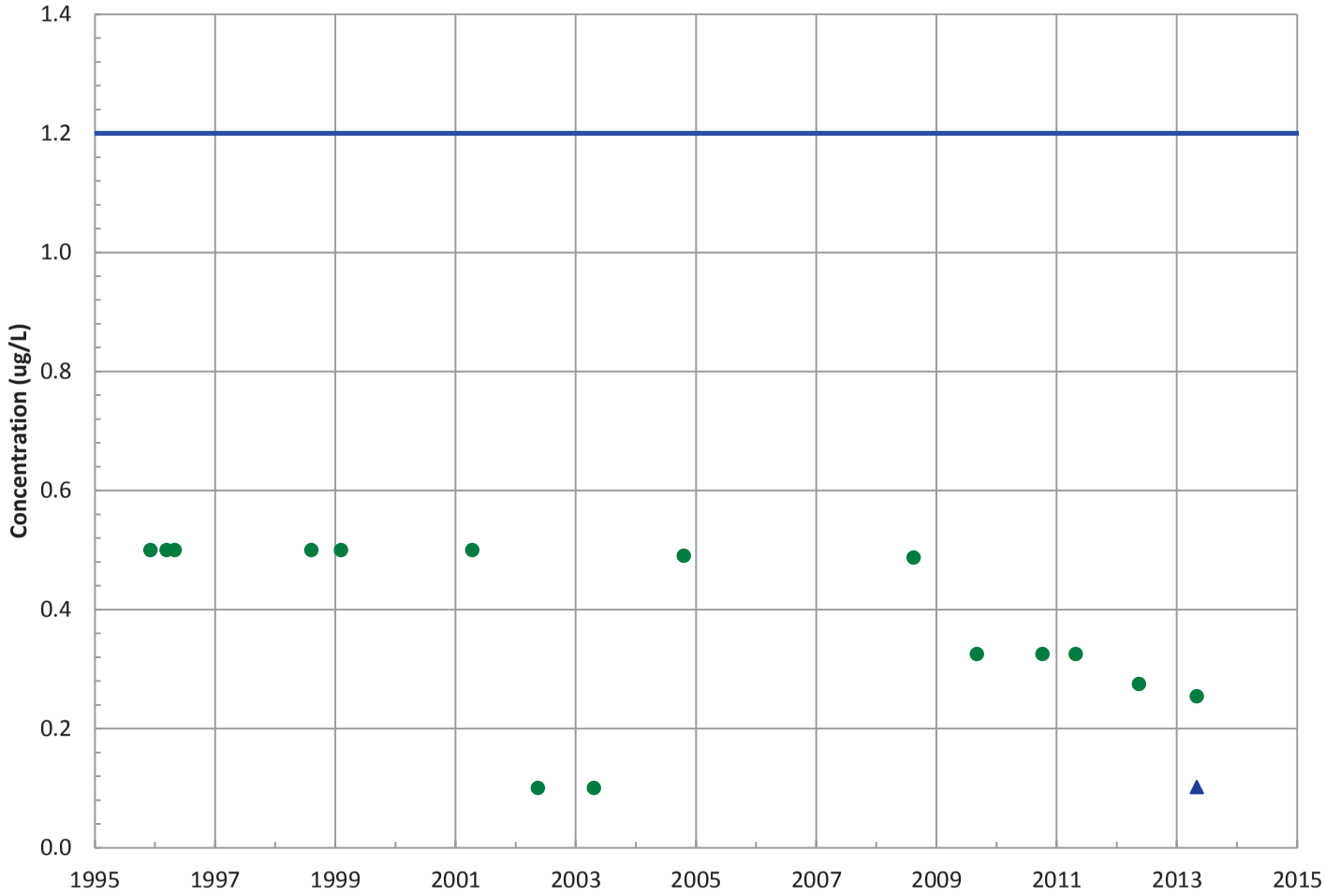
Well Location



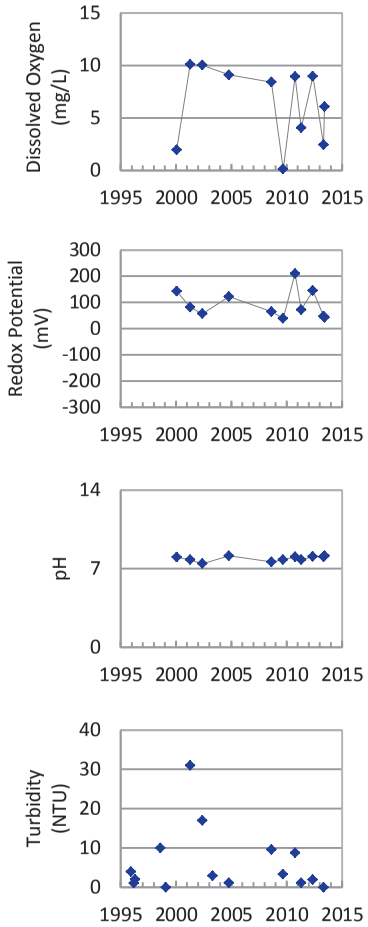
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/7/1995 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1008
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



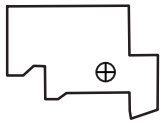
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

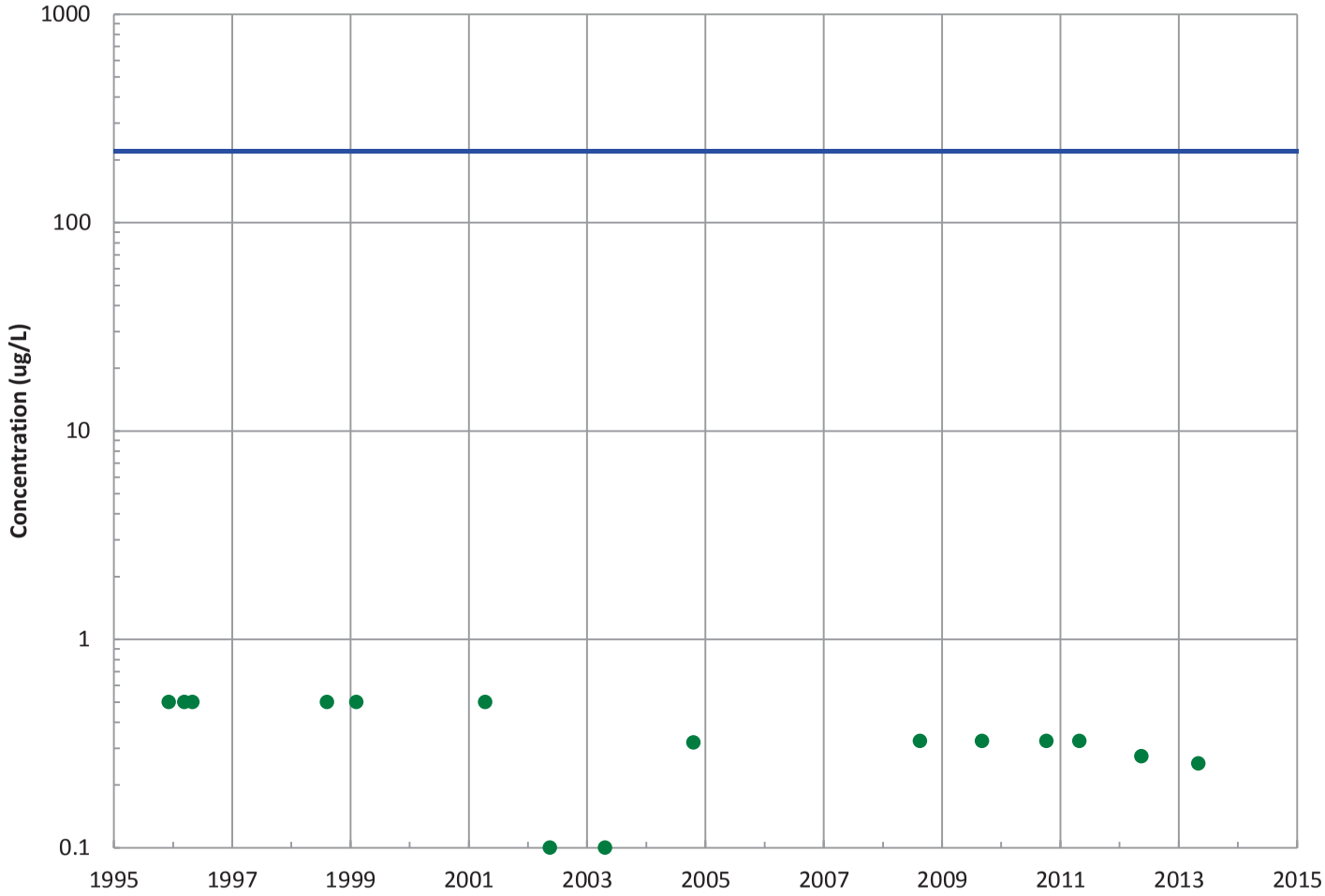
Well Location



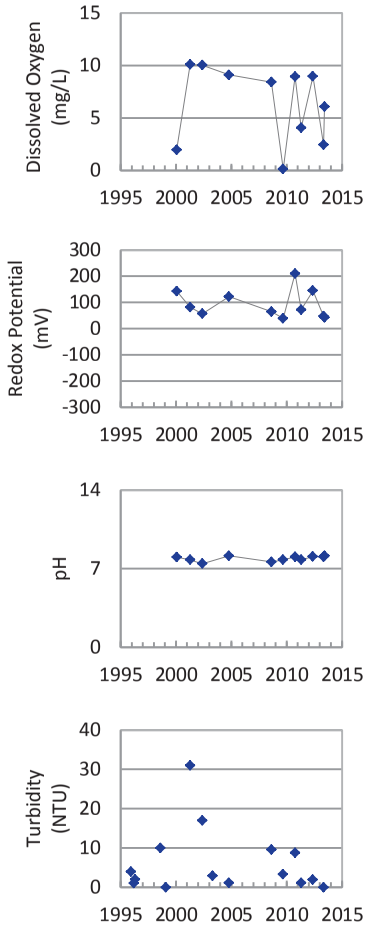
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/7/1995 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1008
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



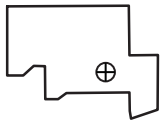
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

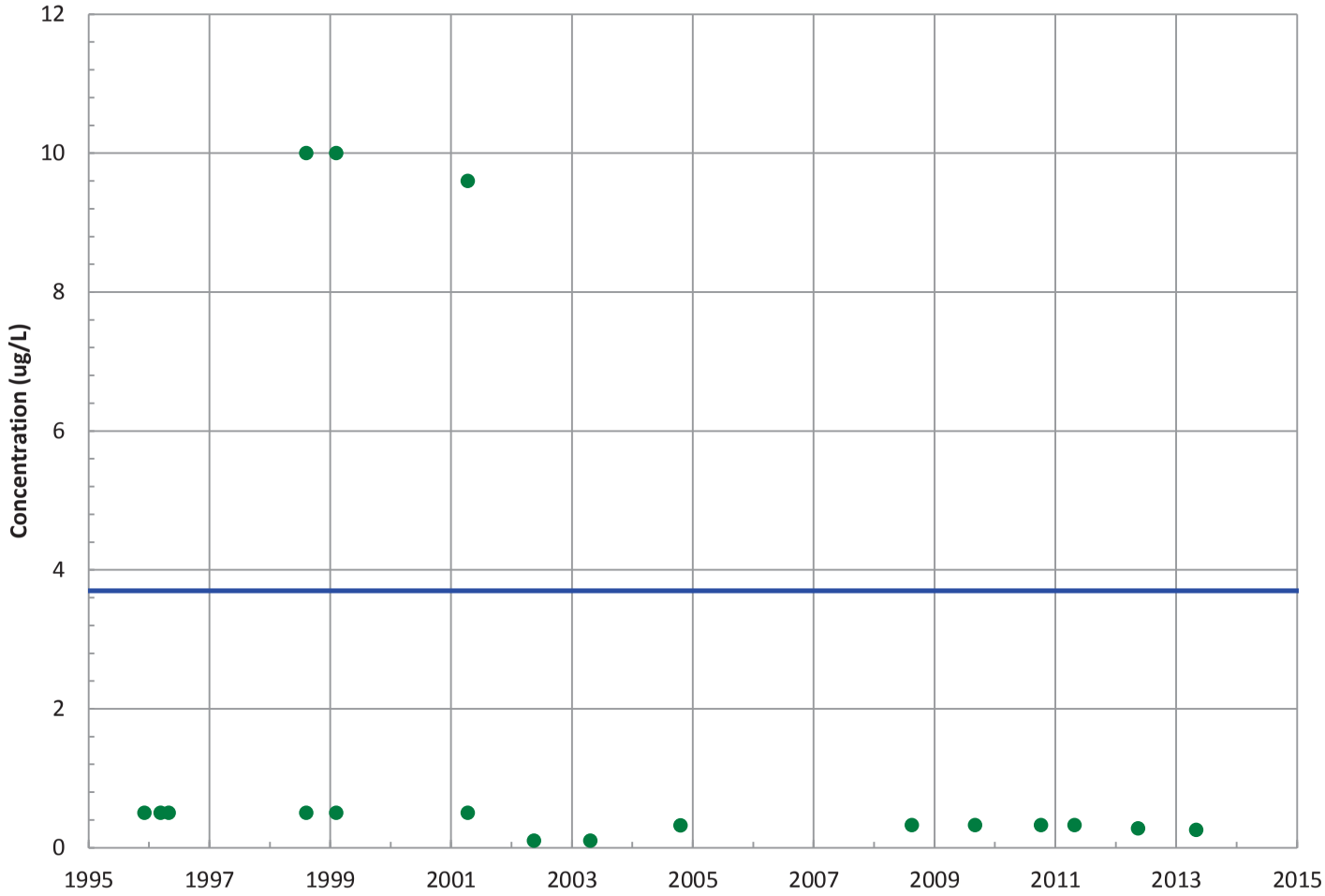
Well Location



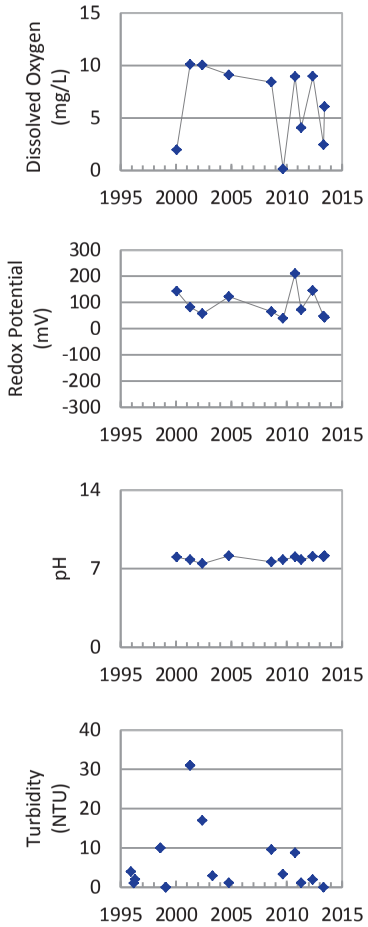
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/7/1995 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1008
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



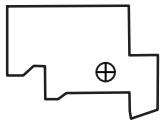
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

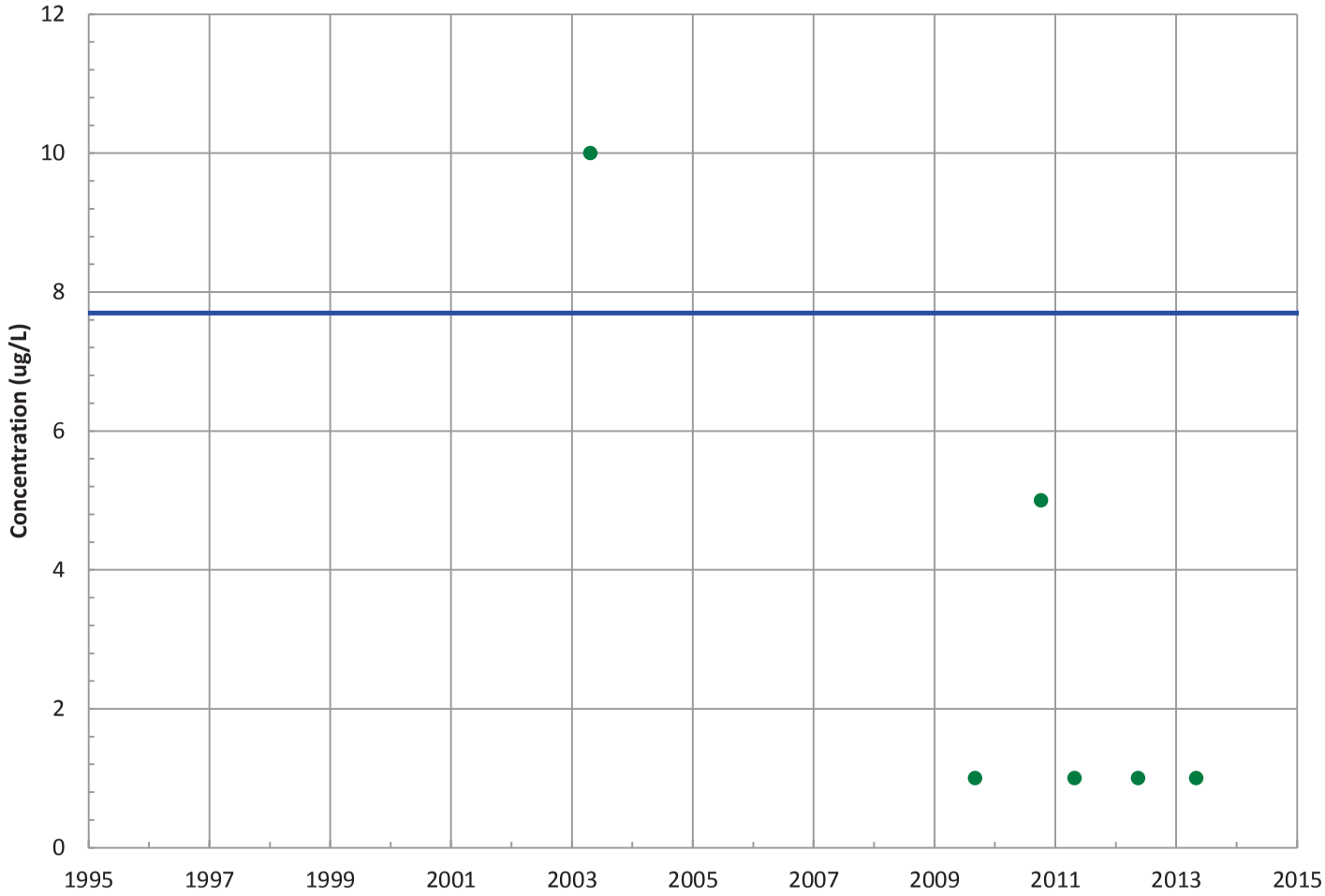
Well Location



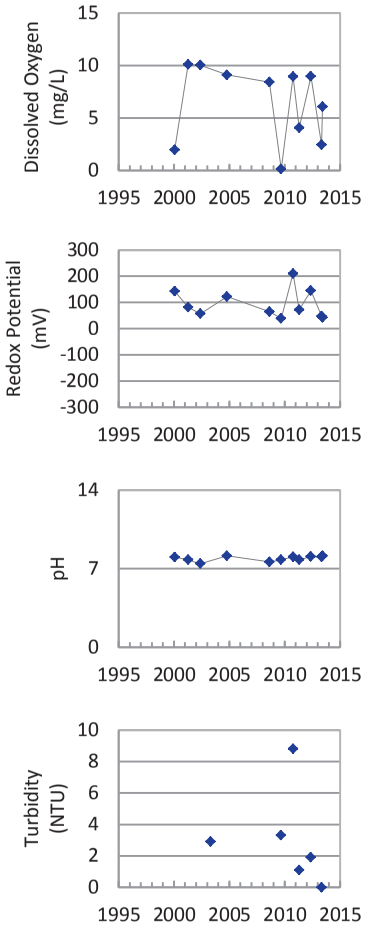
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/7/1995 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1008
1,4-Dioxane (p-Dioxane) Trend in Perched Aquifer



Field Parameters



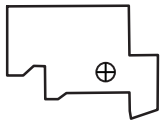
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

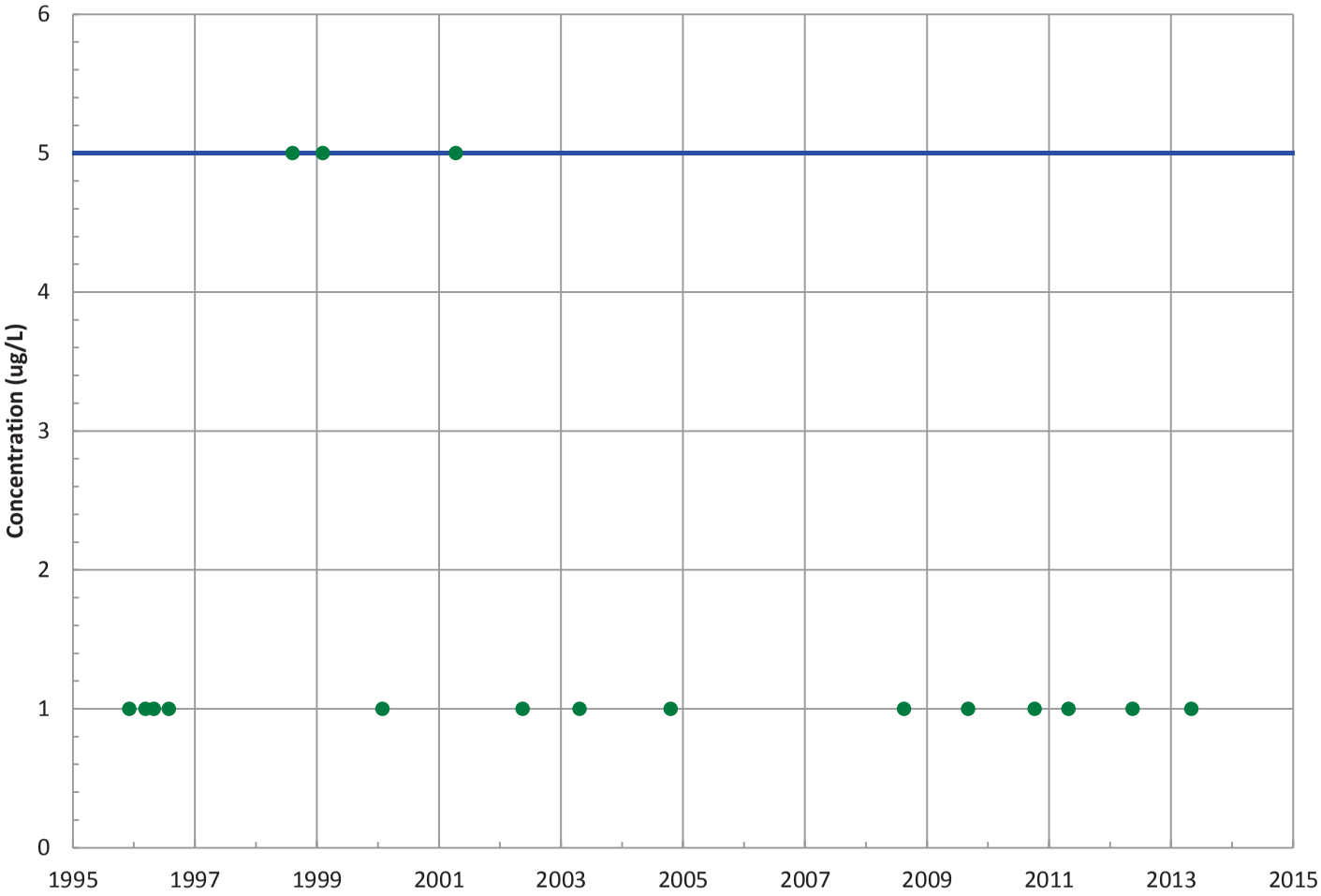
Well Location



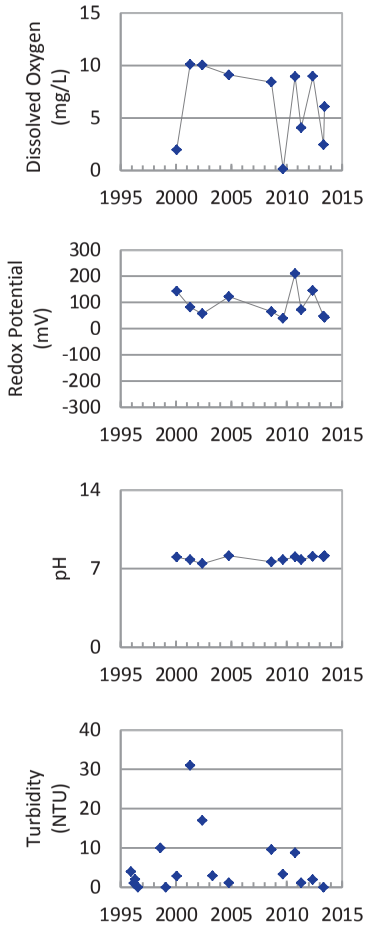
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/29/2003 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1008
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



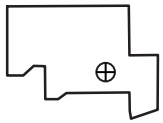
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

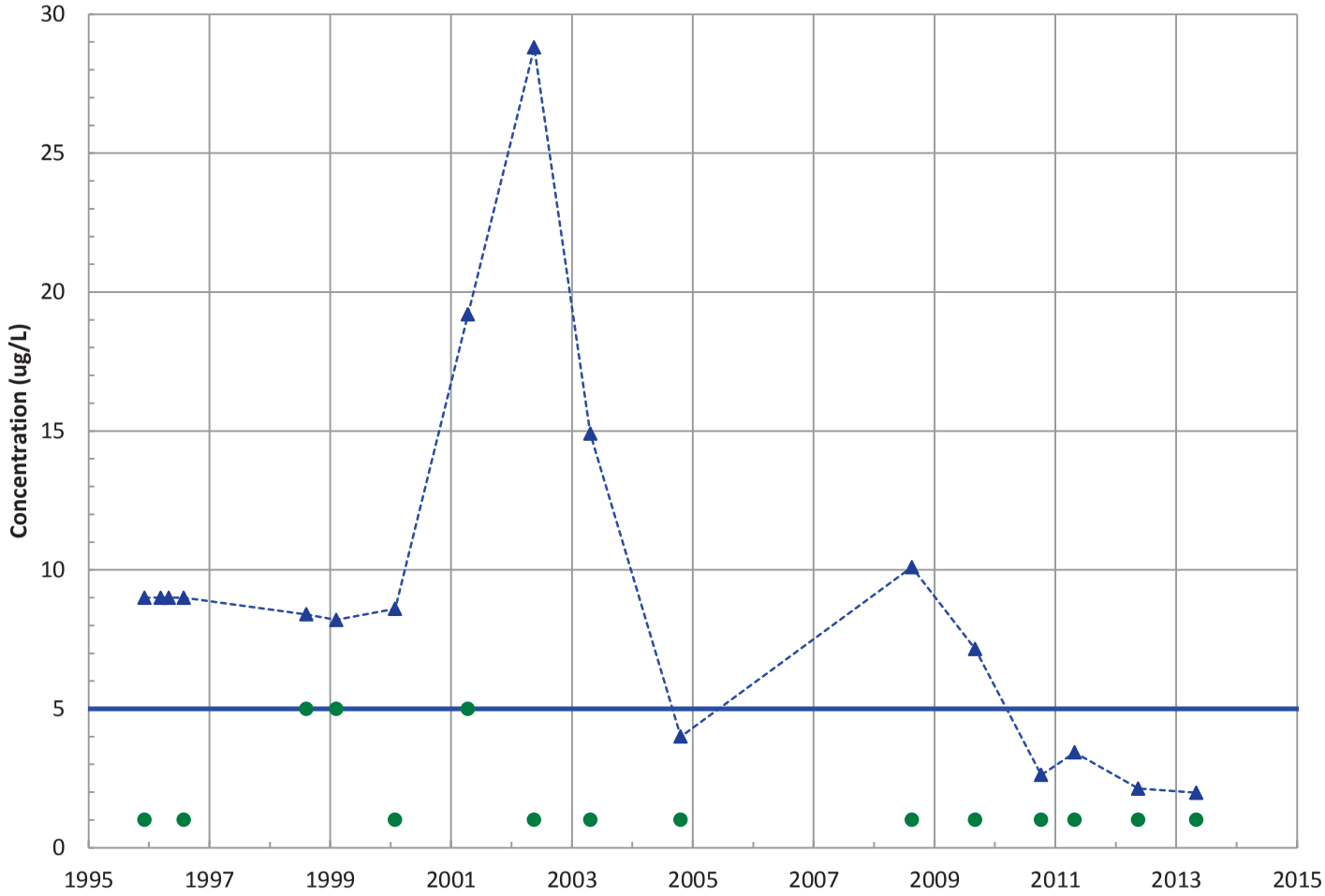
Well Location



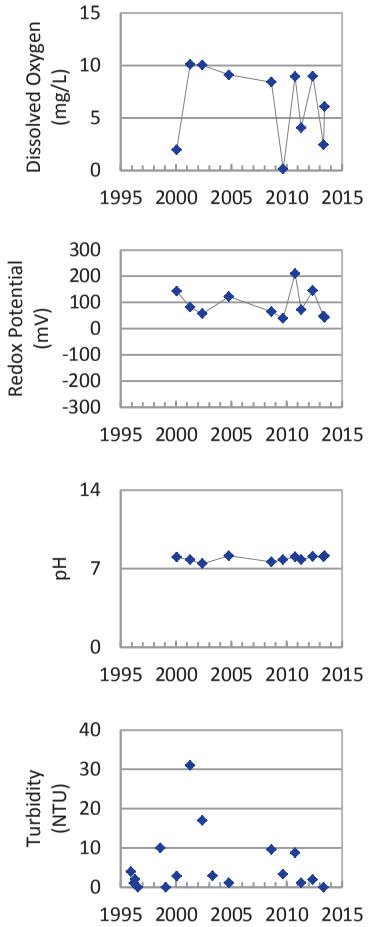
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/7/1995 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1008
Trichloroethene Trend in Perched Aquifer



Field Parameters



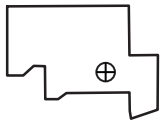
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

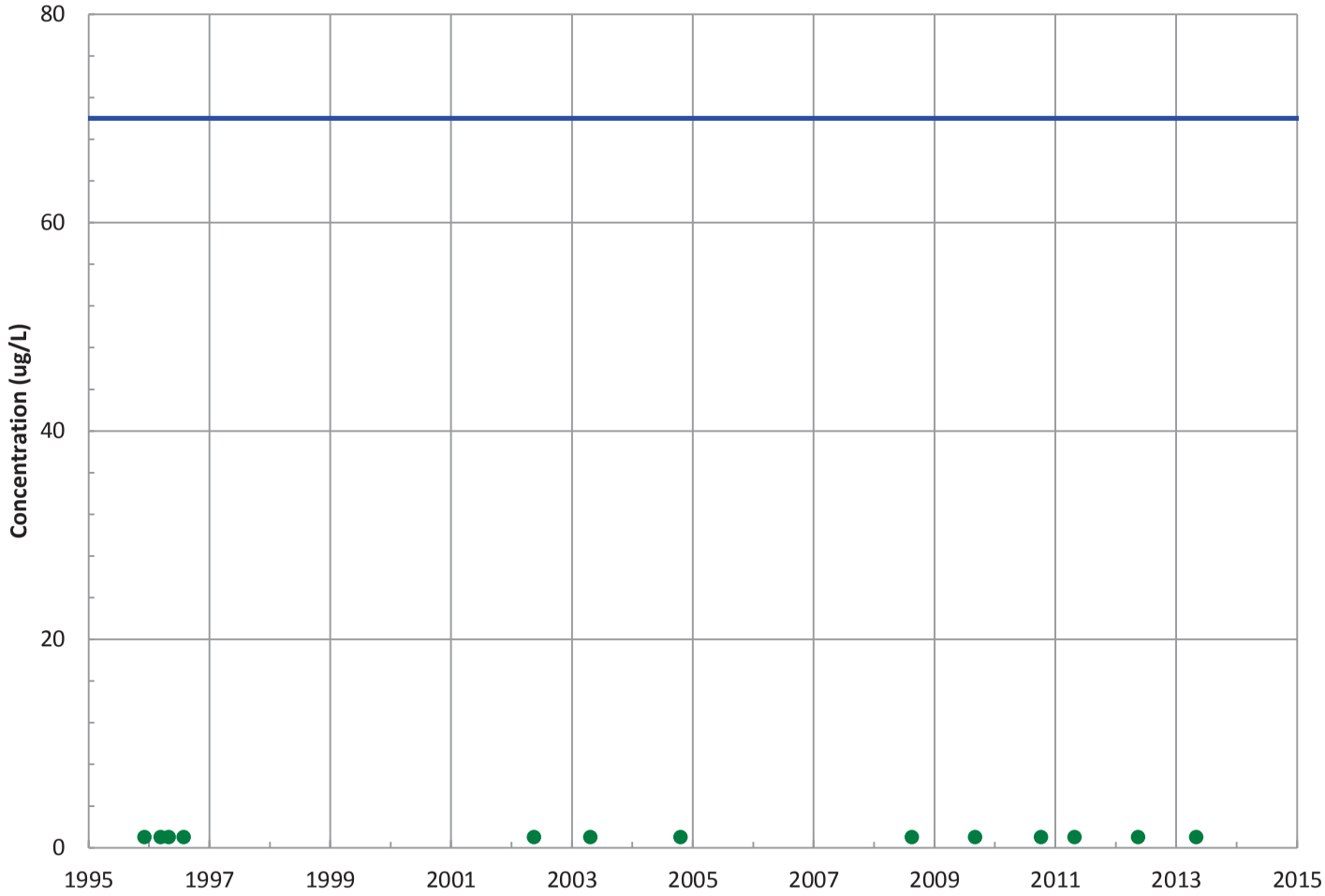
Well Location



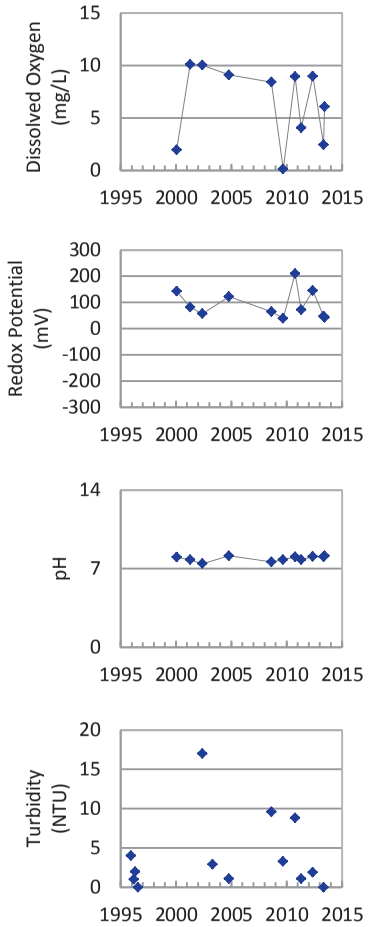
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/7/1995 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1008
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



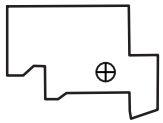
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

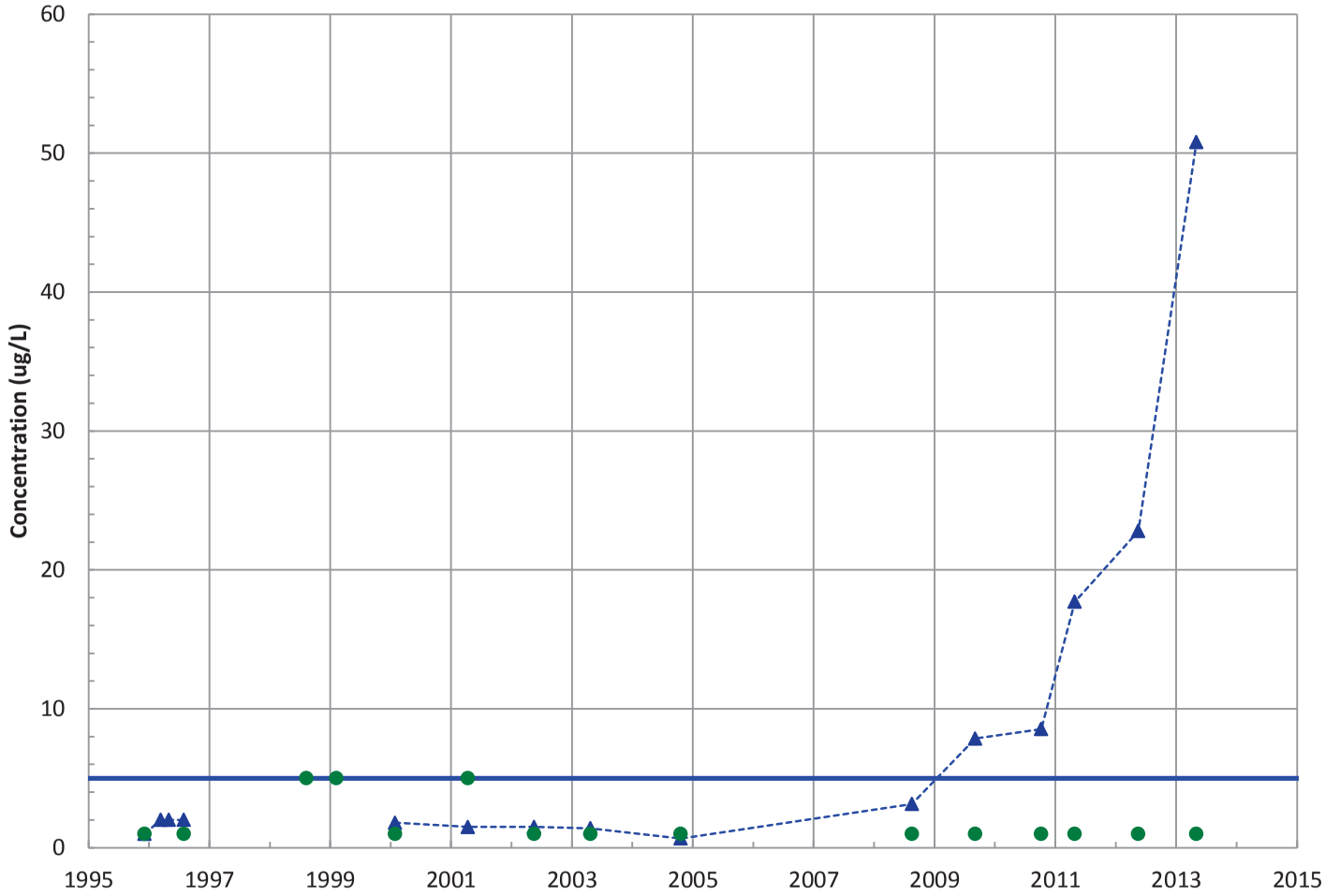
Well Location



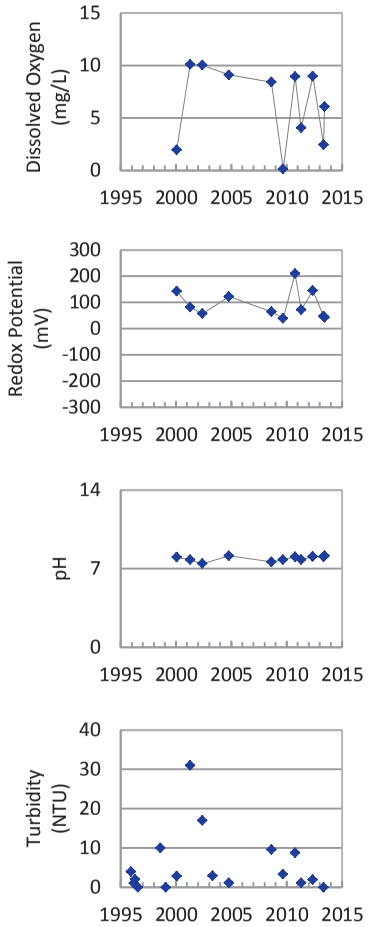
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/7/1995 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1008
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



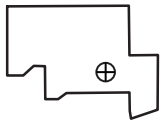
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Increasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Increasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

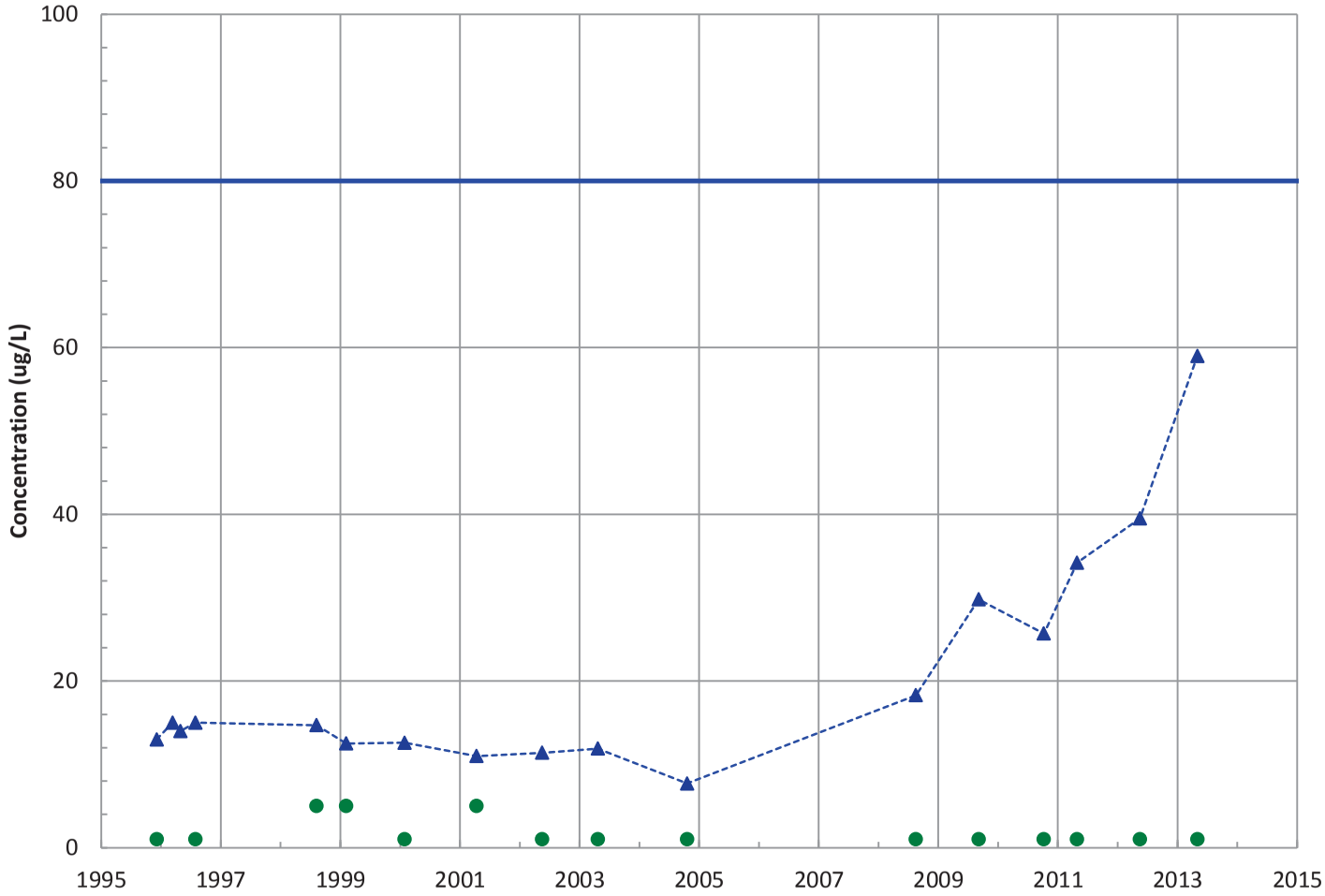
Well Location



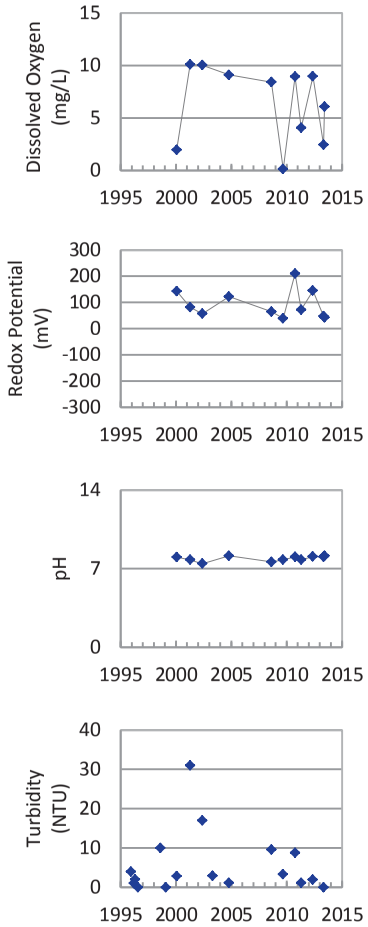
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/7/1995 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1008
Chloroform Trend in Perched Aquifer



Field Parameters



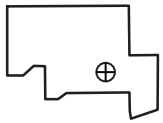
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Increasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Increasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

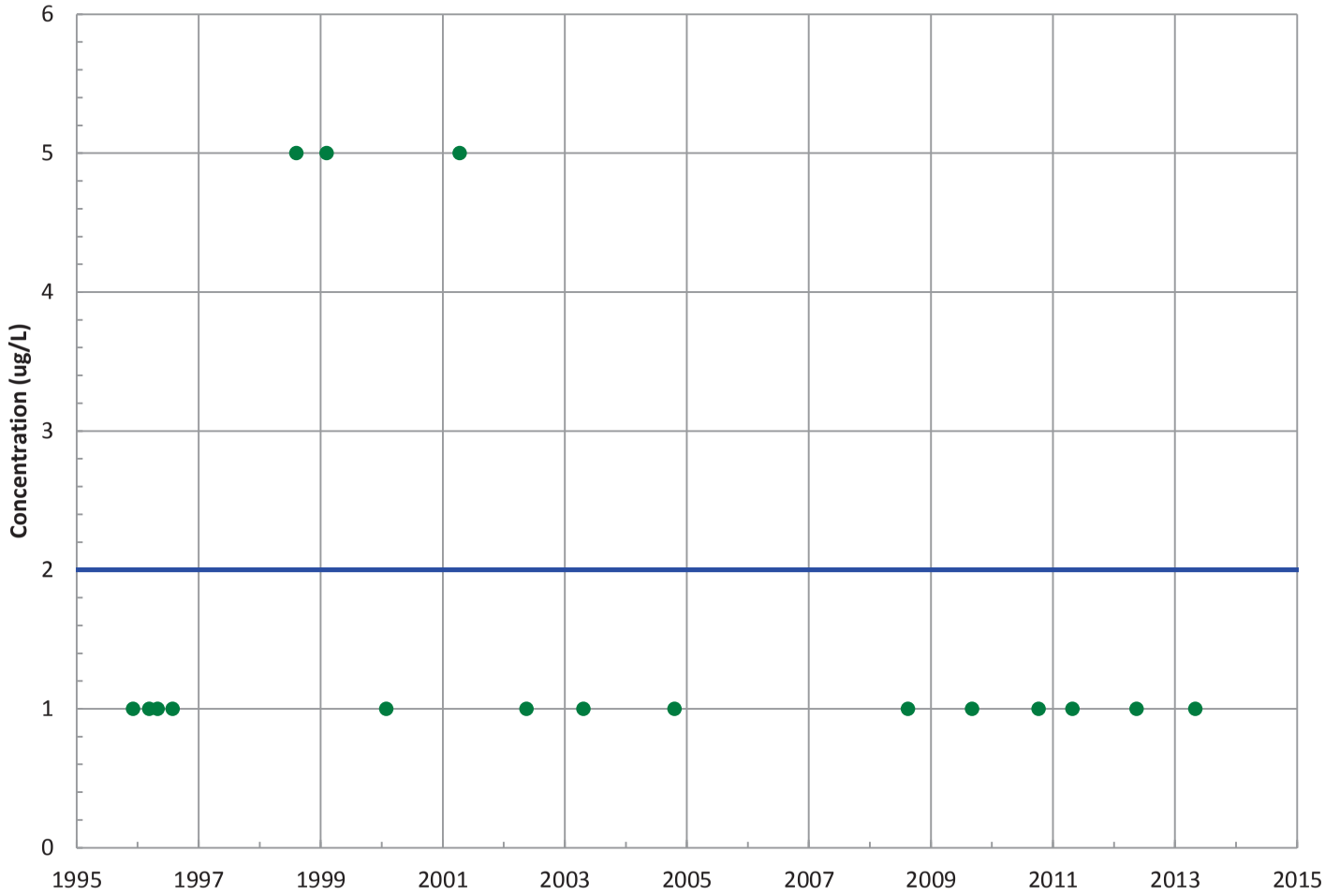
Well Location



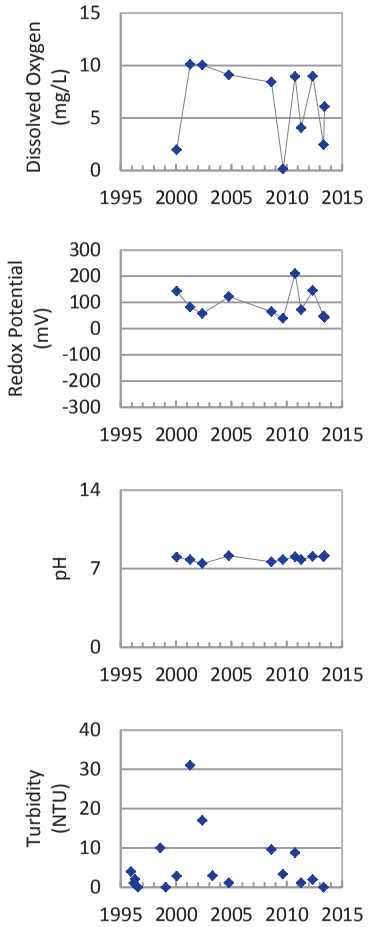
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/7/1995 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1008
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



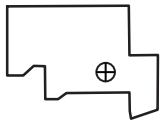
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

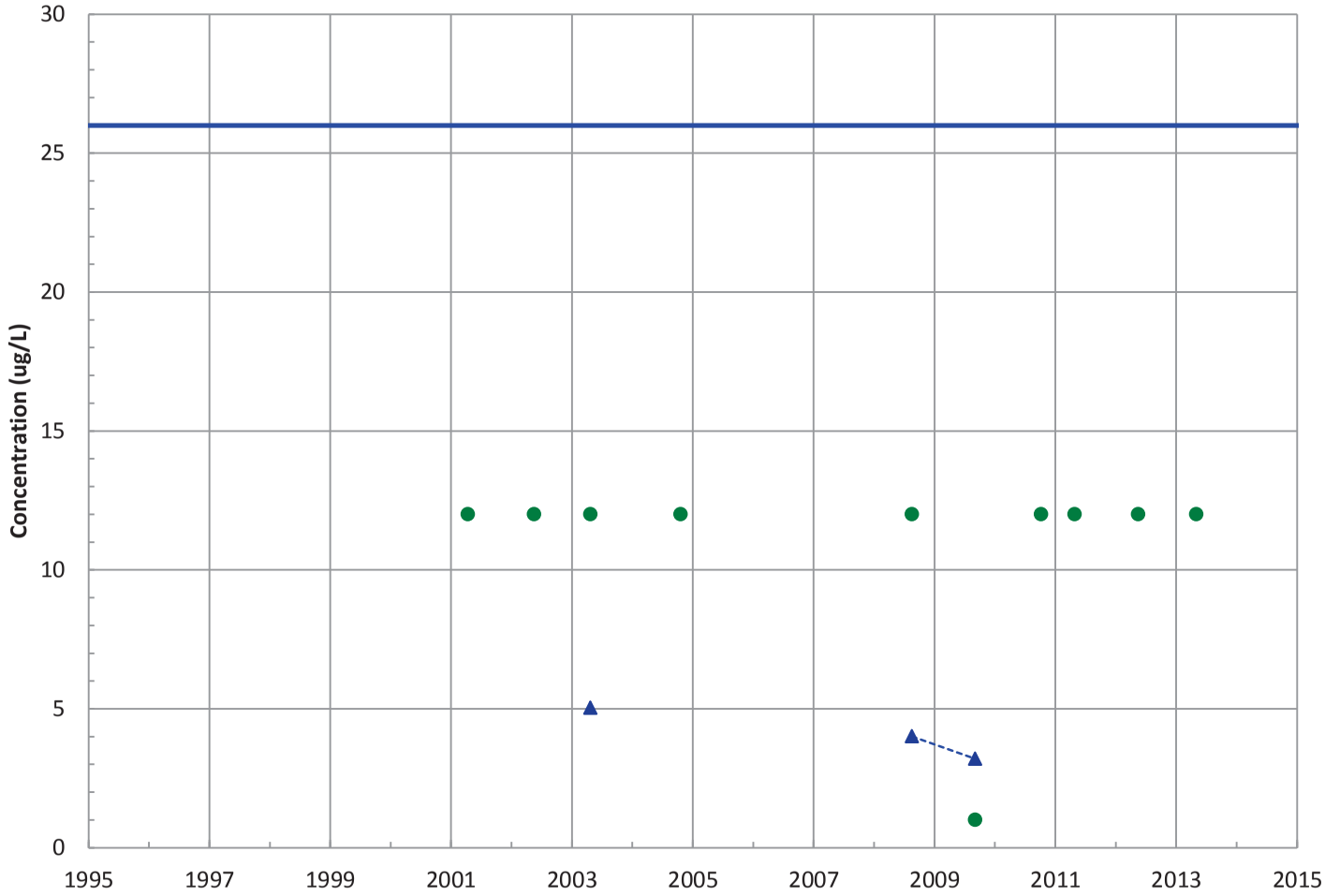
Well Location



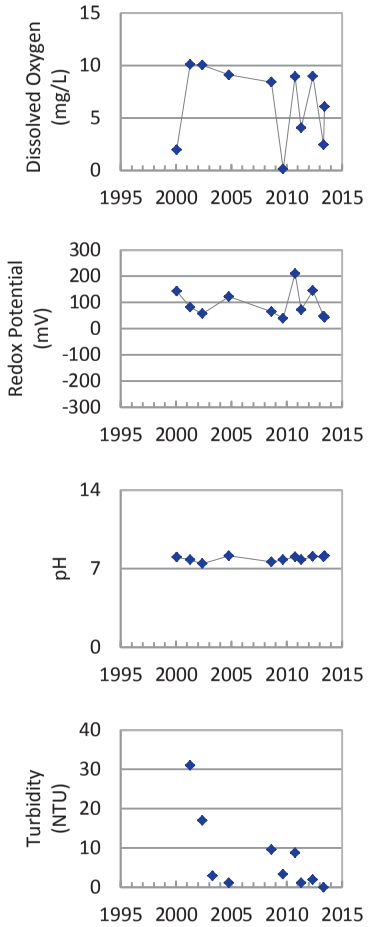
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/7/1995 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1008
Perchlorate Trend in Perched Aquifer



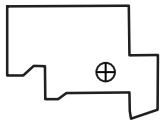
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: All Non-Detect
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

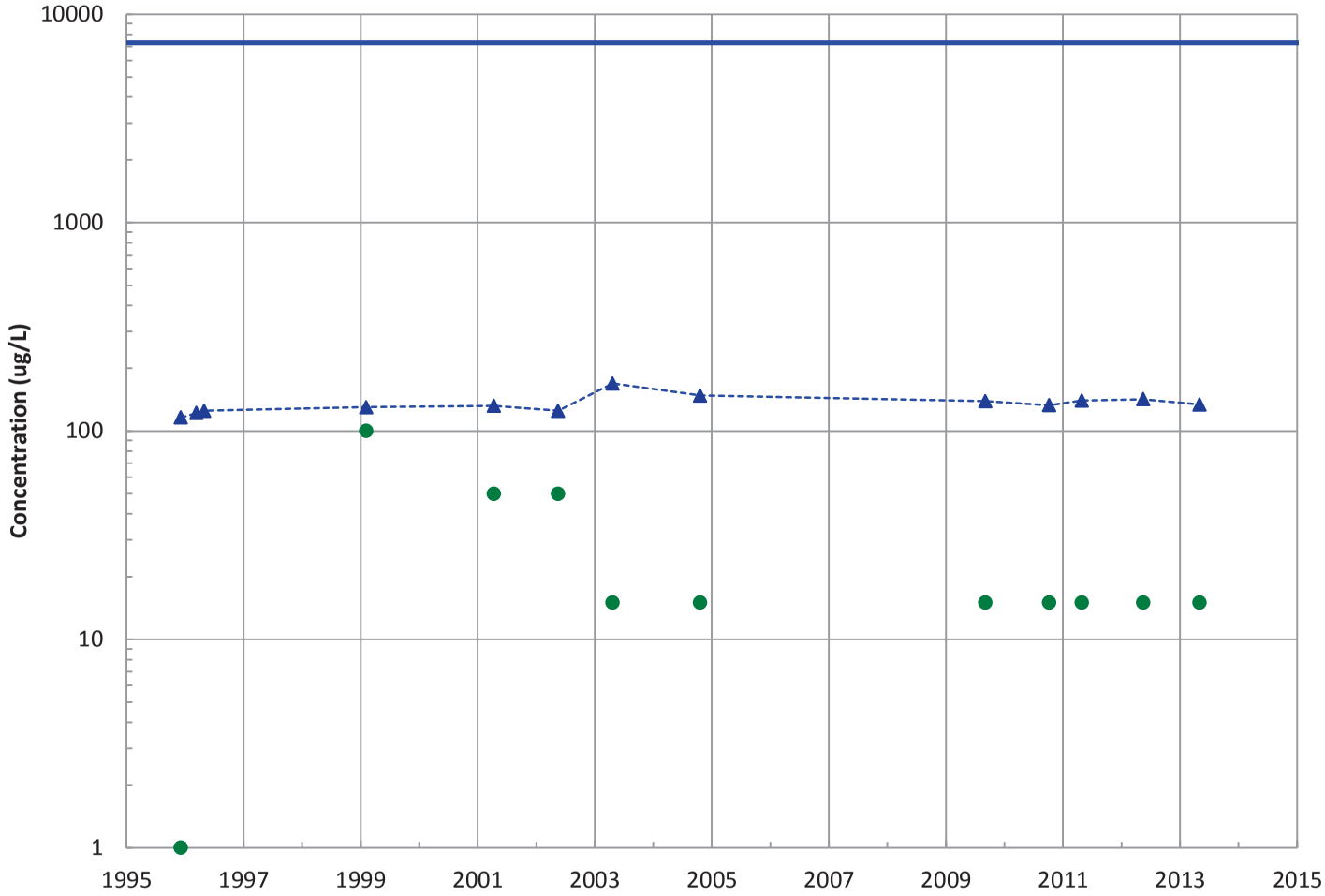
Well Location



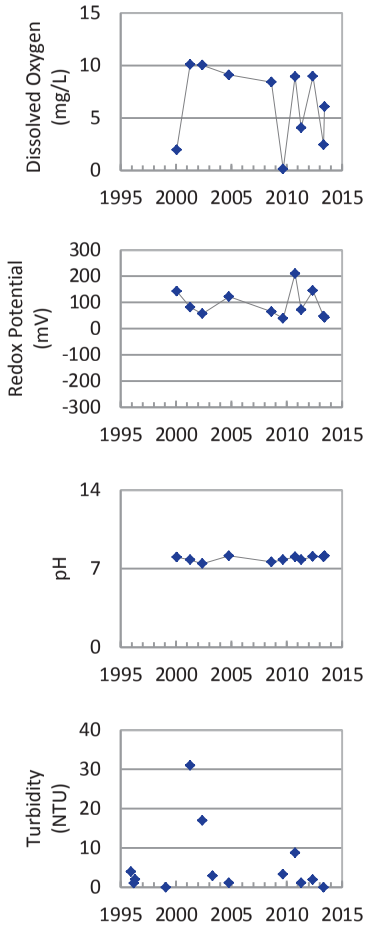
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/17/2001 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1008
Boron Trend in Perched Aquifer



Field Parameters



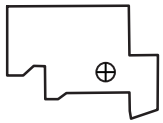
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

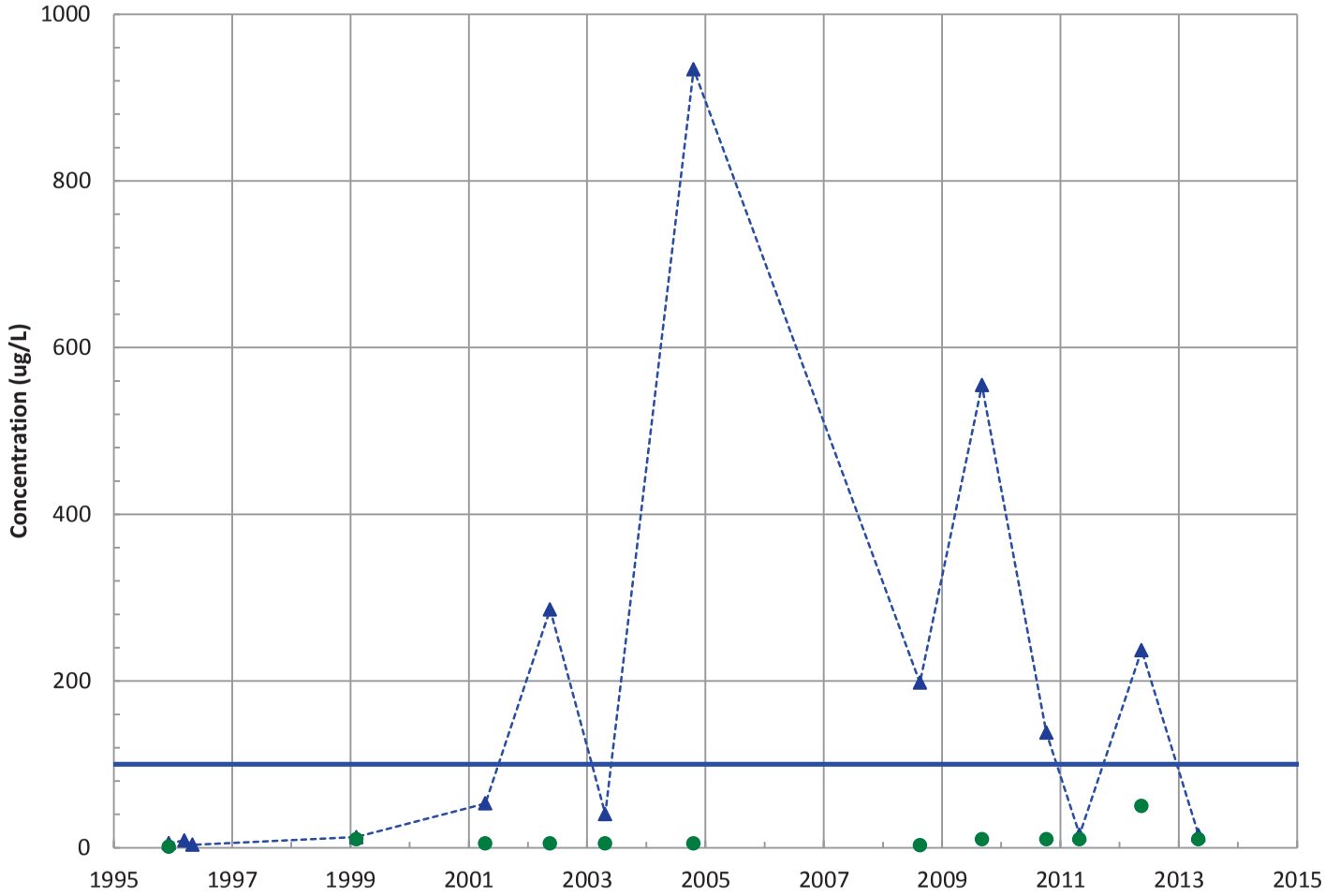
Well Location



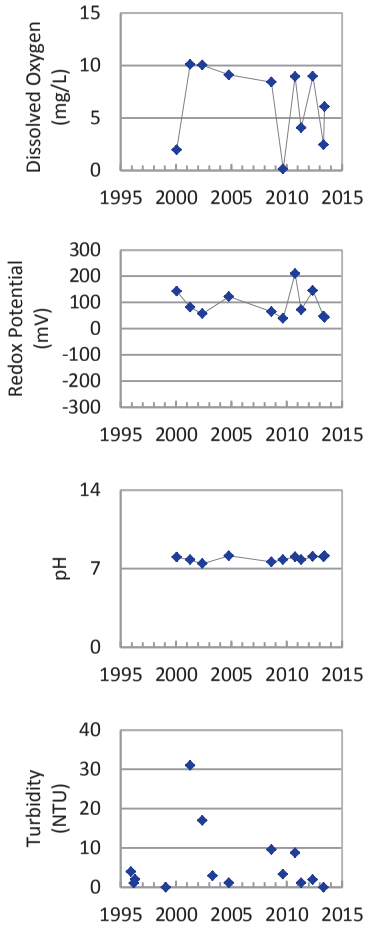
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/7/1995 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1008
Chromium, Total Trend in Perched Aquifer



Field Parameters



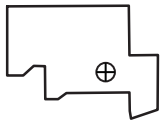
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

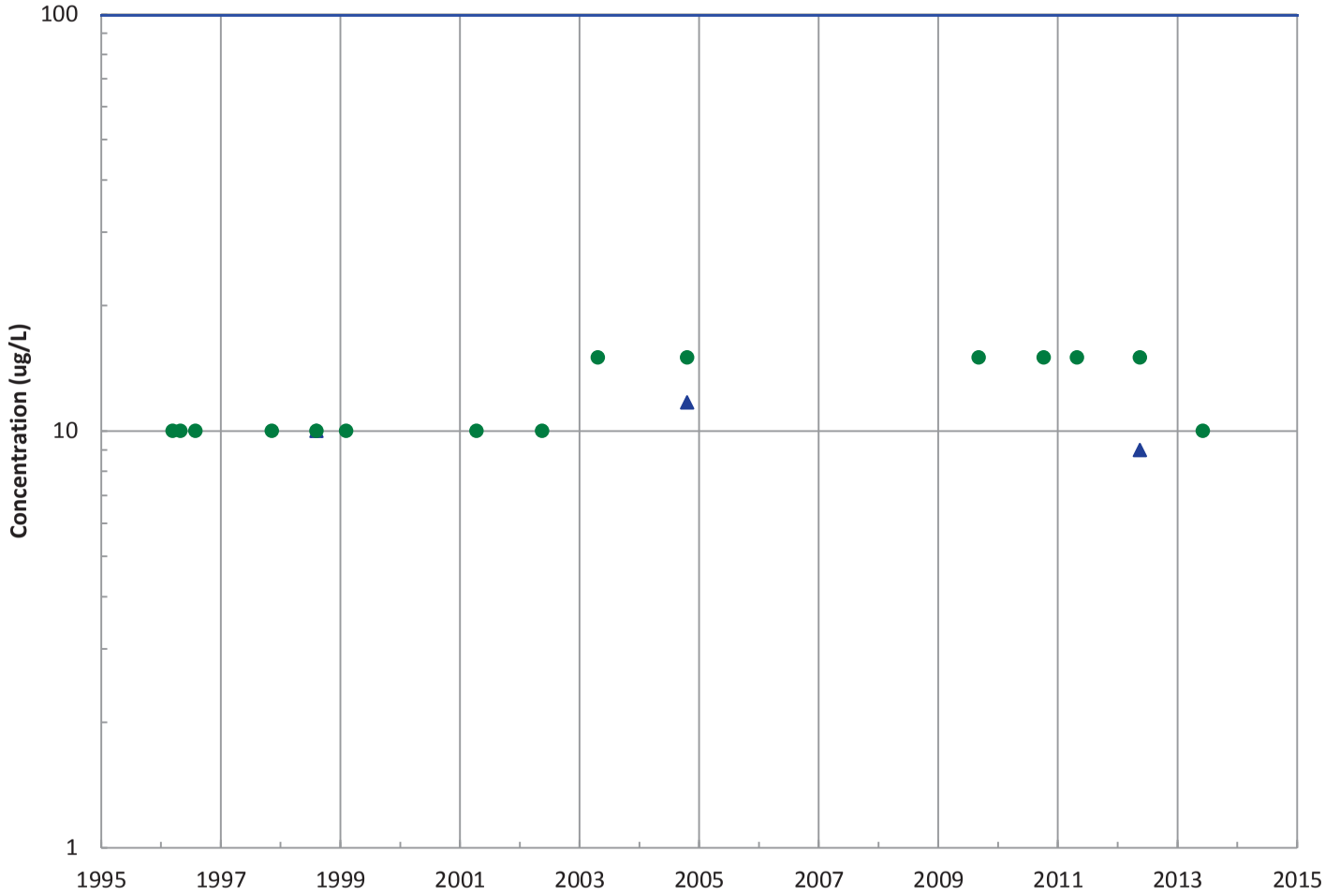
Well Location



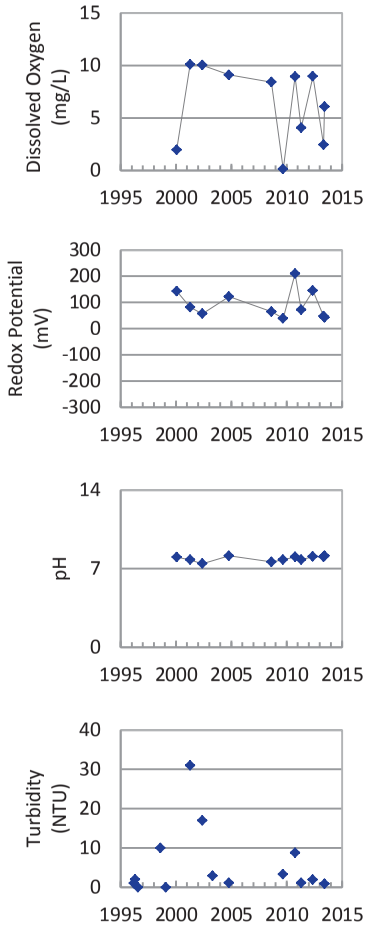
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/7/1995 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1008
Chromium, Hexavalent Trend in Perched Aquifer



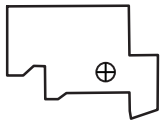
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

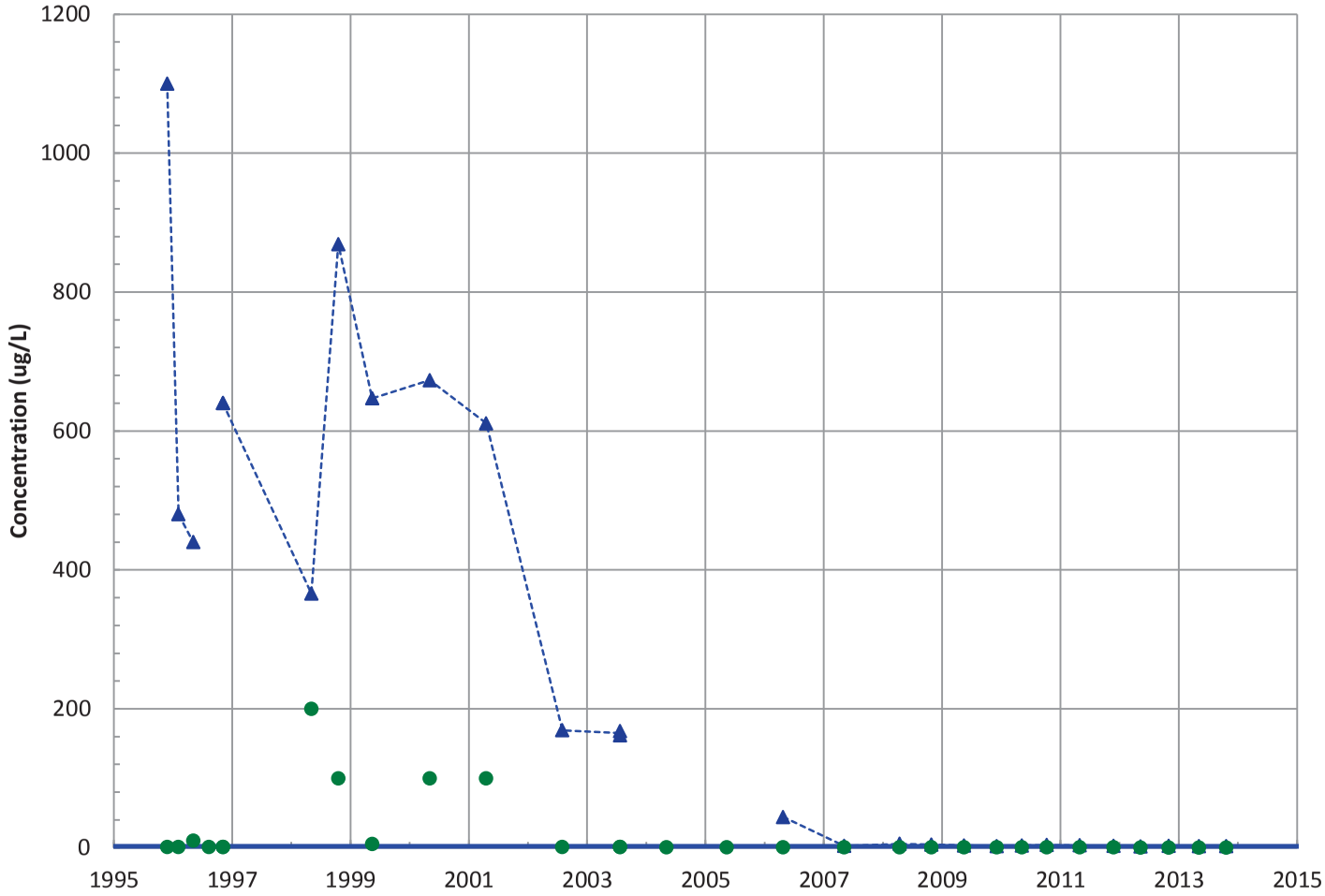
Well Location



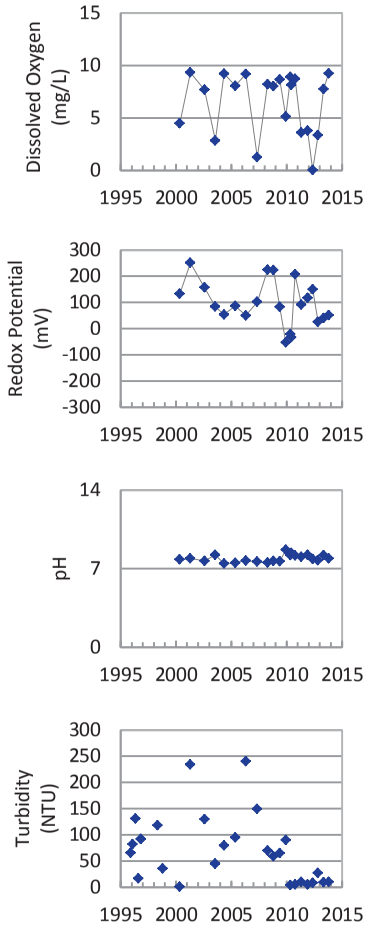
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/13/1996 to 6/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1010
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



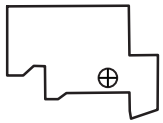
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Probably Decreasing
2011 - 2013 Data: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

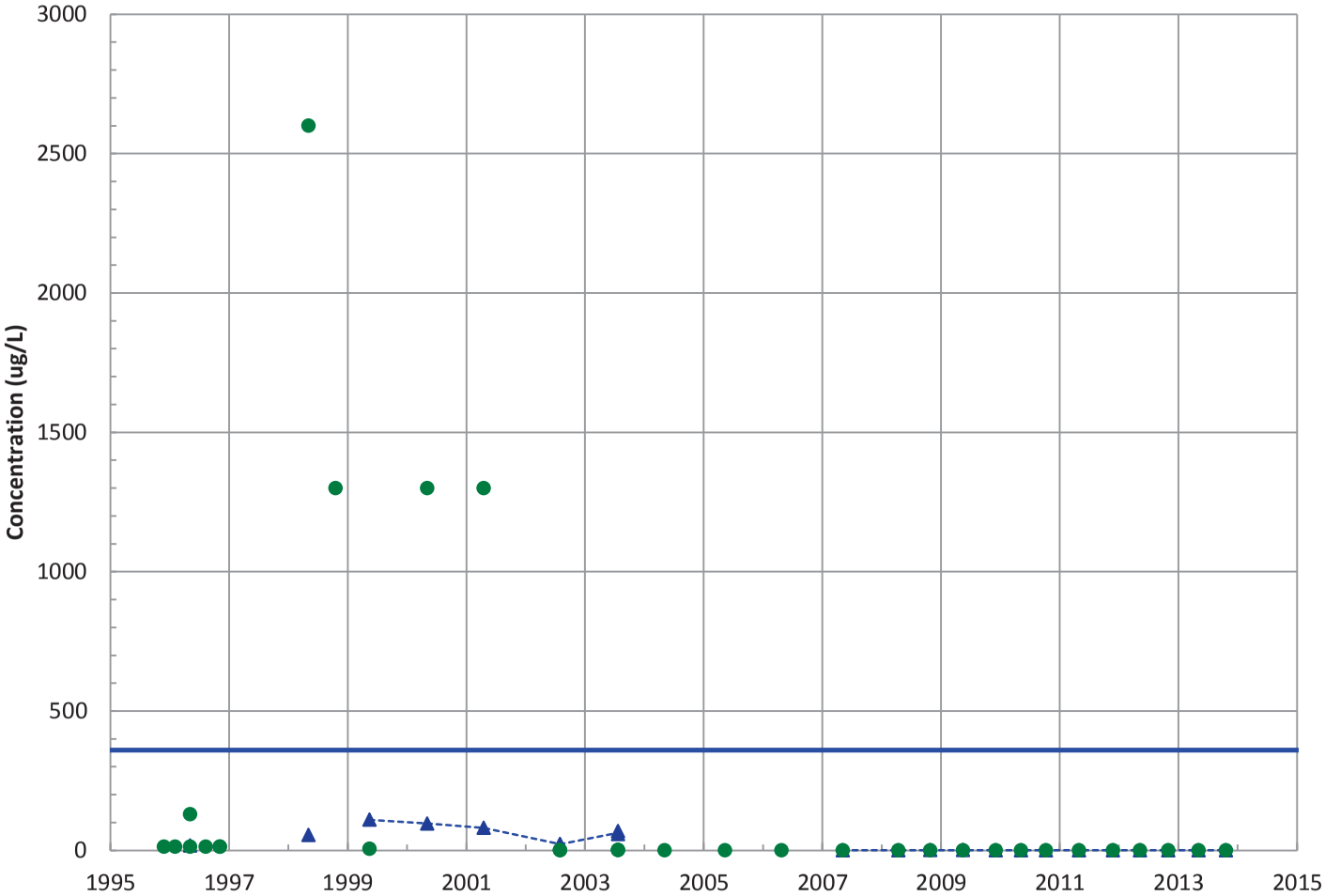
Well Location



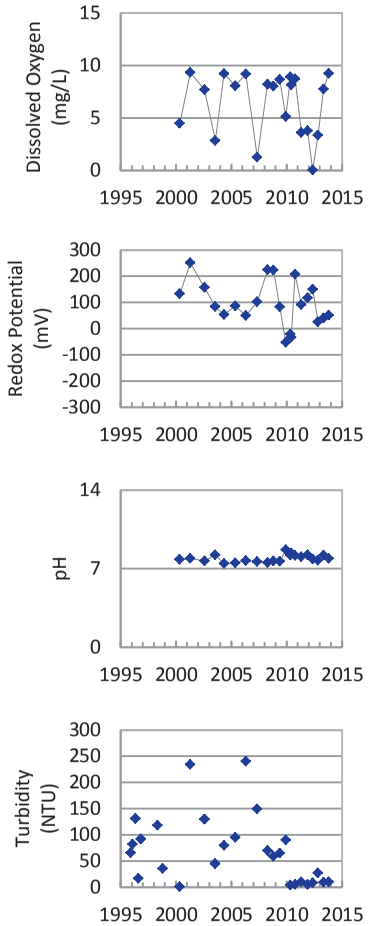
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/27/1995 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1010
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



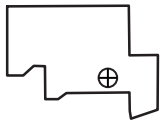
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

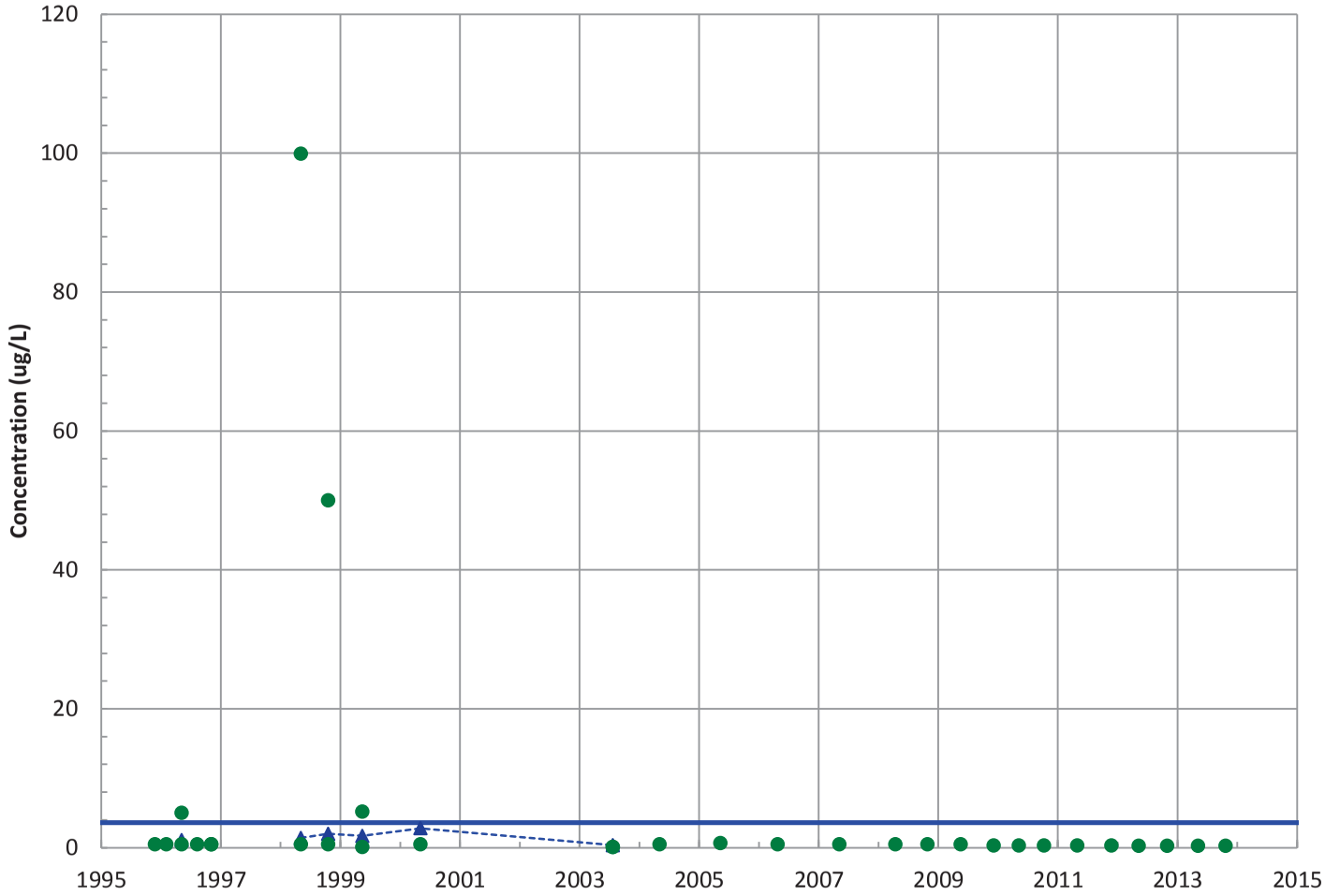
Well Location



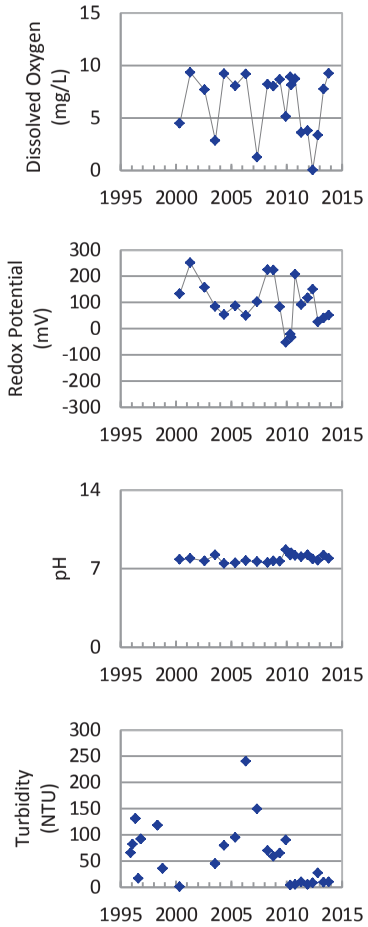
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/27/1995 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1010
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



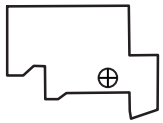
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

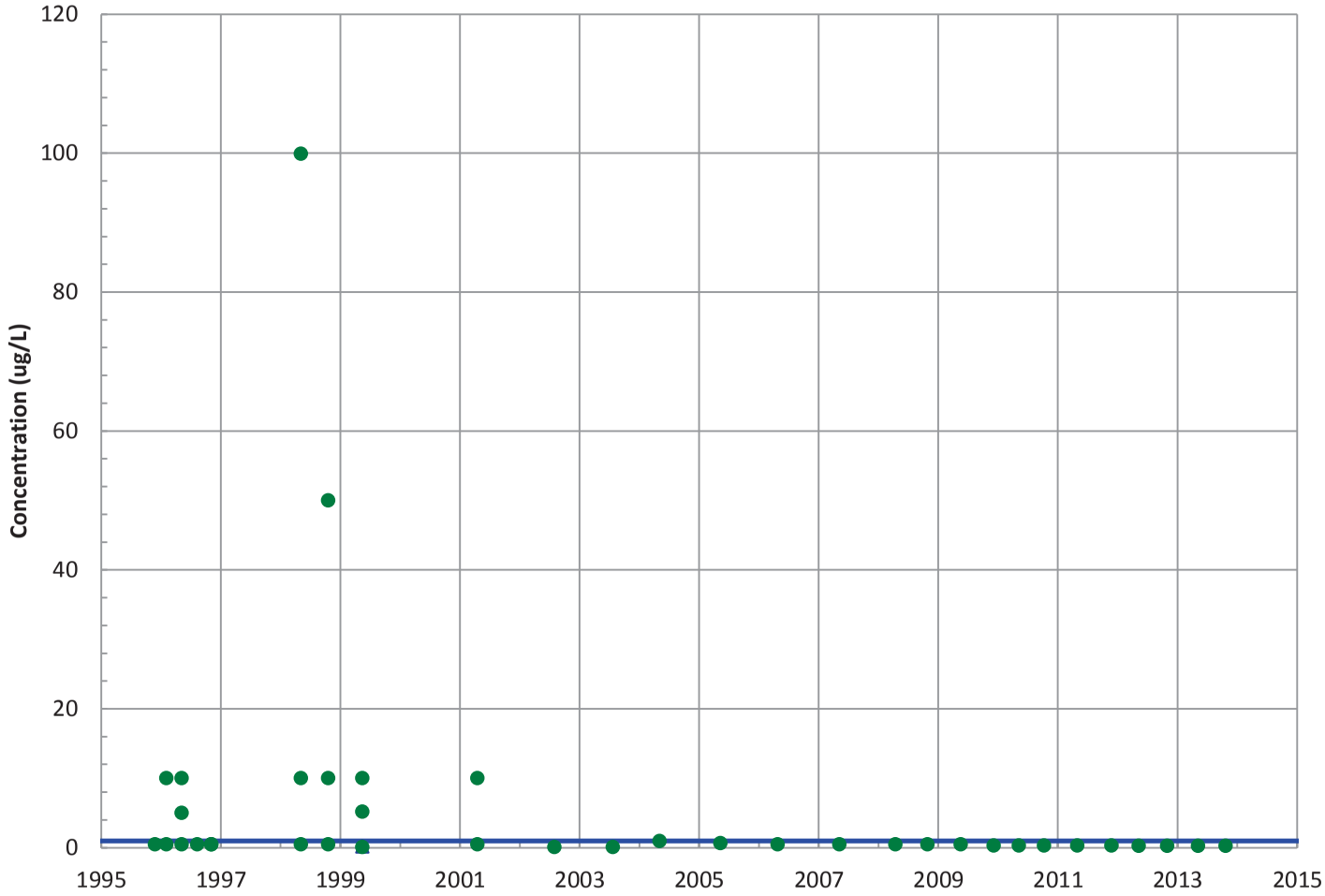
Well Location



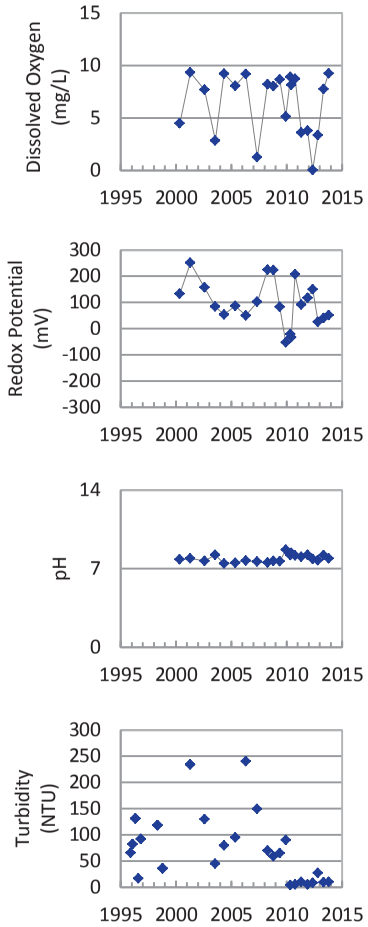
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/27/1995 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1010
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



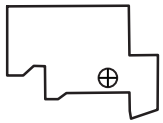
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

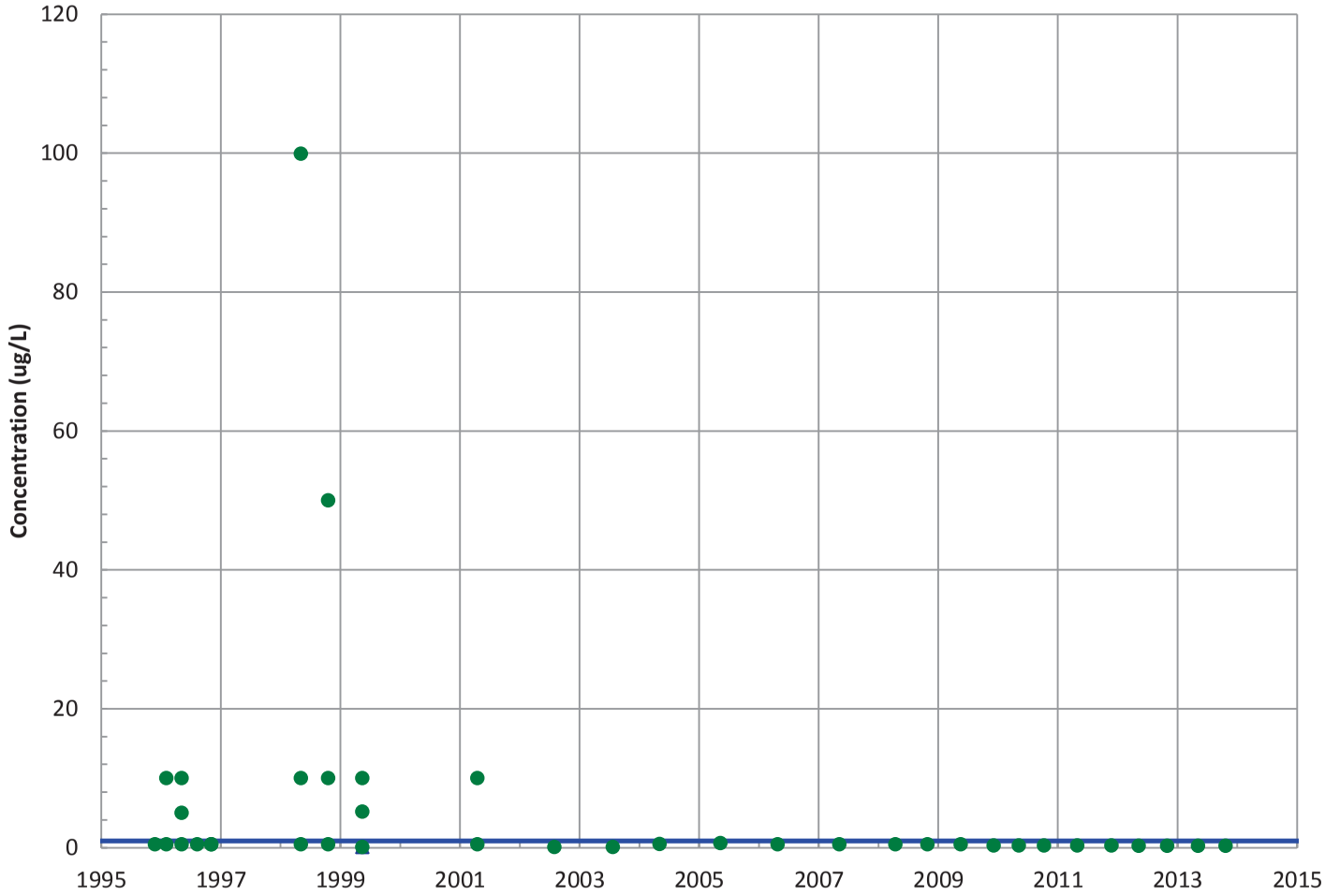
Well Location



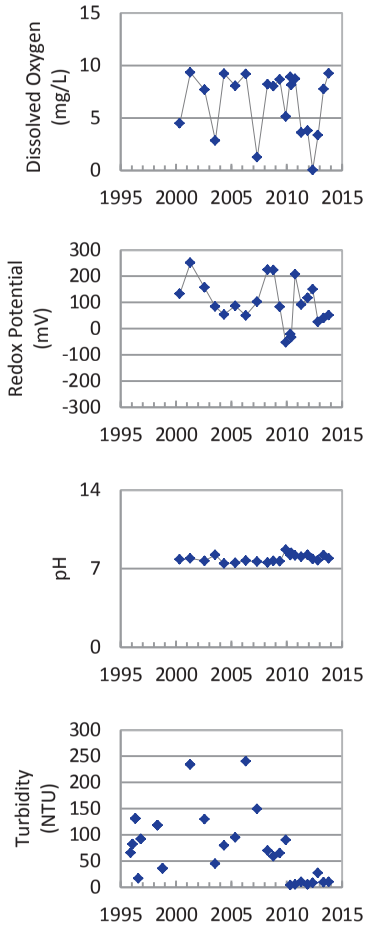
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/27/1995 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1010
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



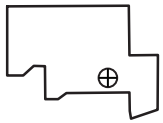
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

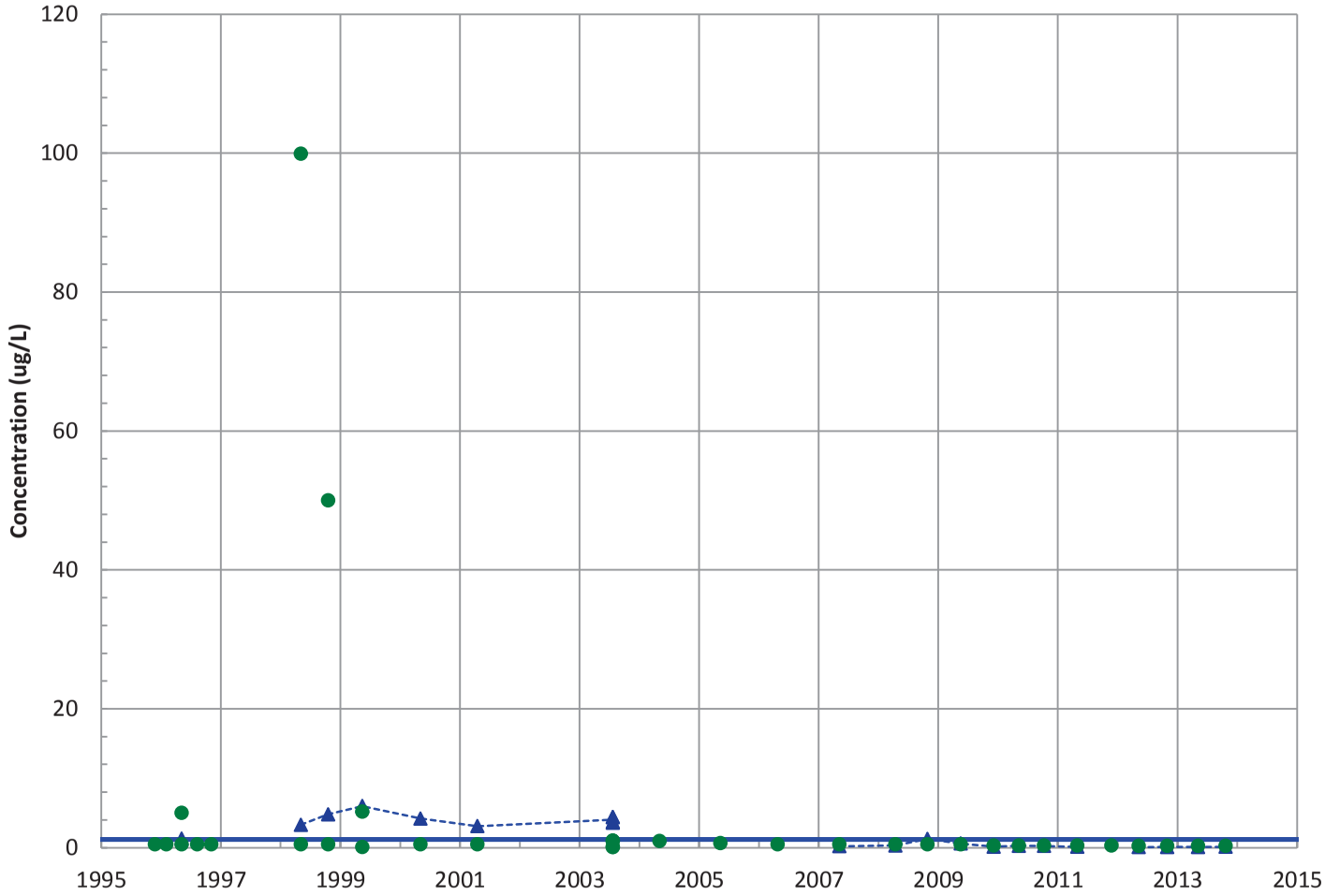
Well Location



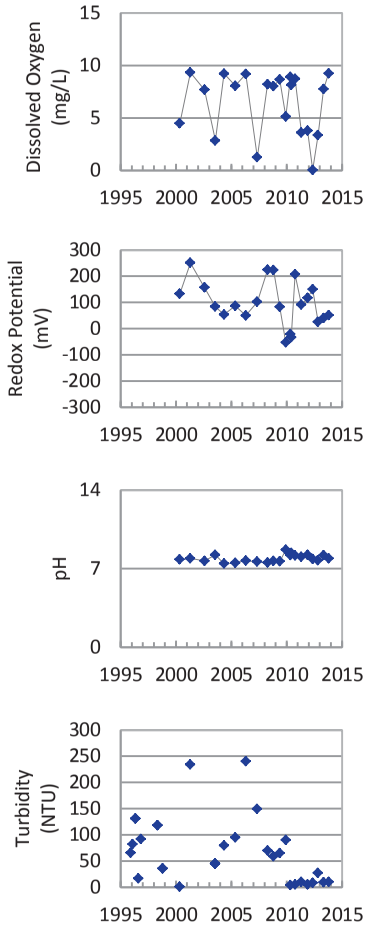
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/27/1995 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1010
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



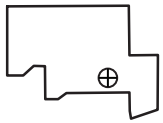
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Probably Increasing

- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

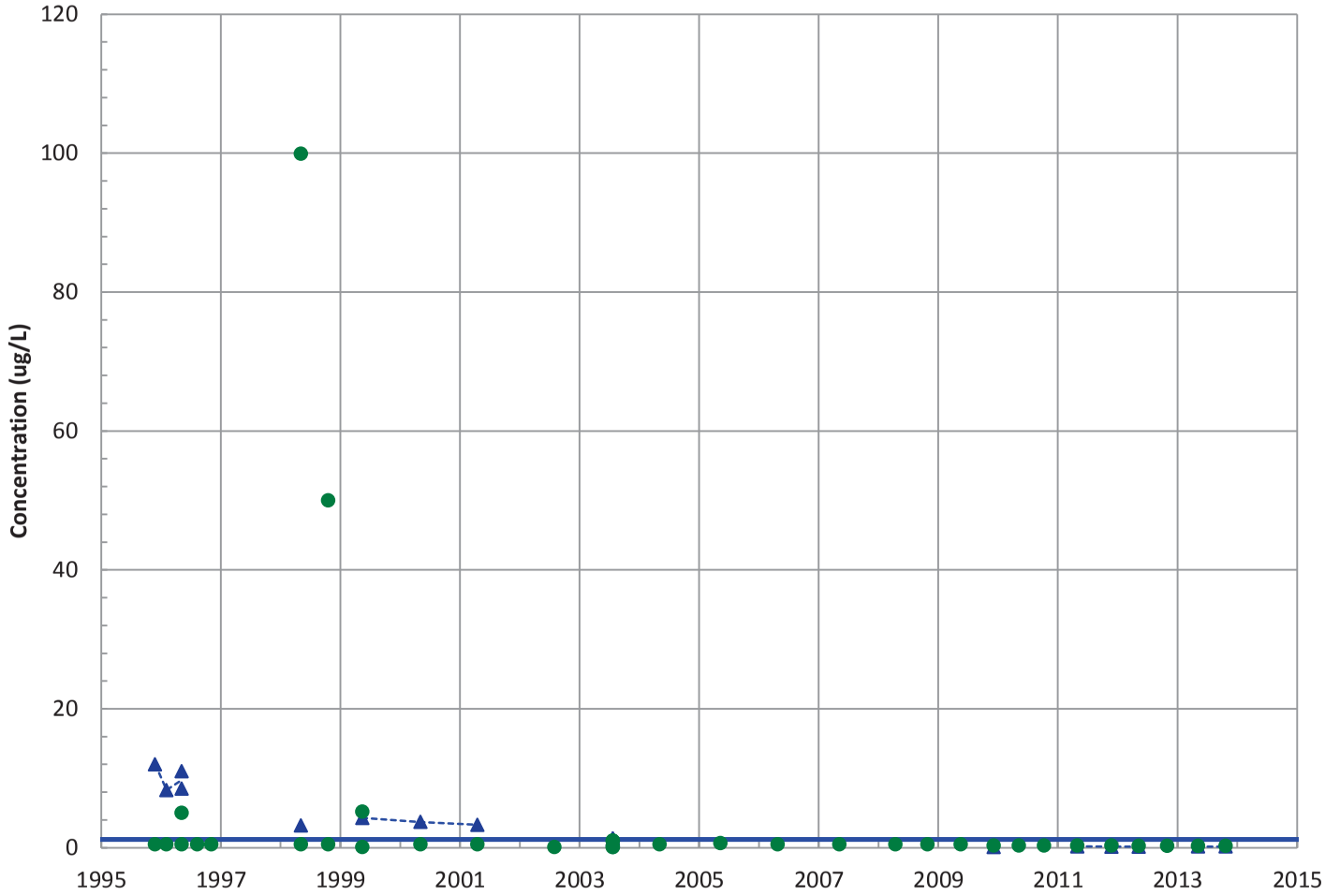
Well Location



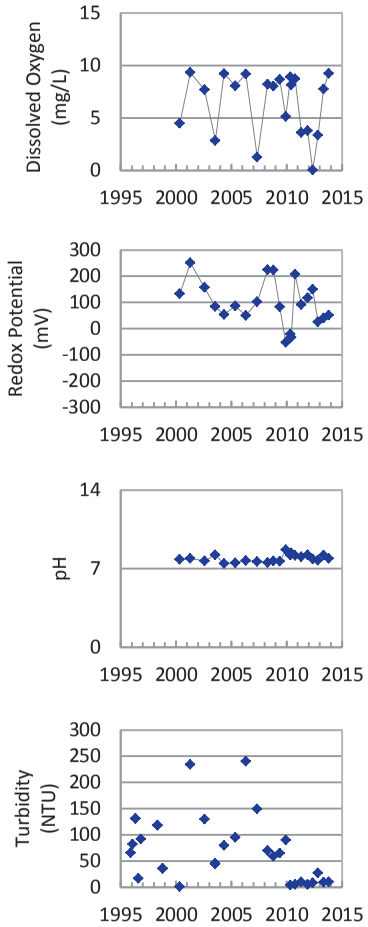
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/27/1995 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1010
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): No Trend

2011 - 2013 Data: N/A (<4 Detections in Dataset)

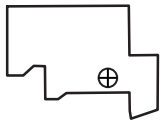
MAROS Linear Regression Method

Data (7/2009 - 12/2013): No Trend

2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

Well Location



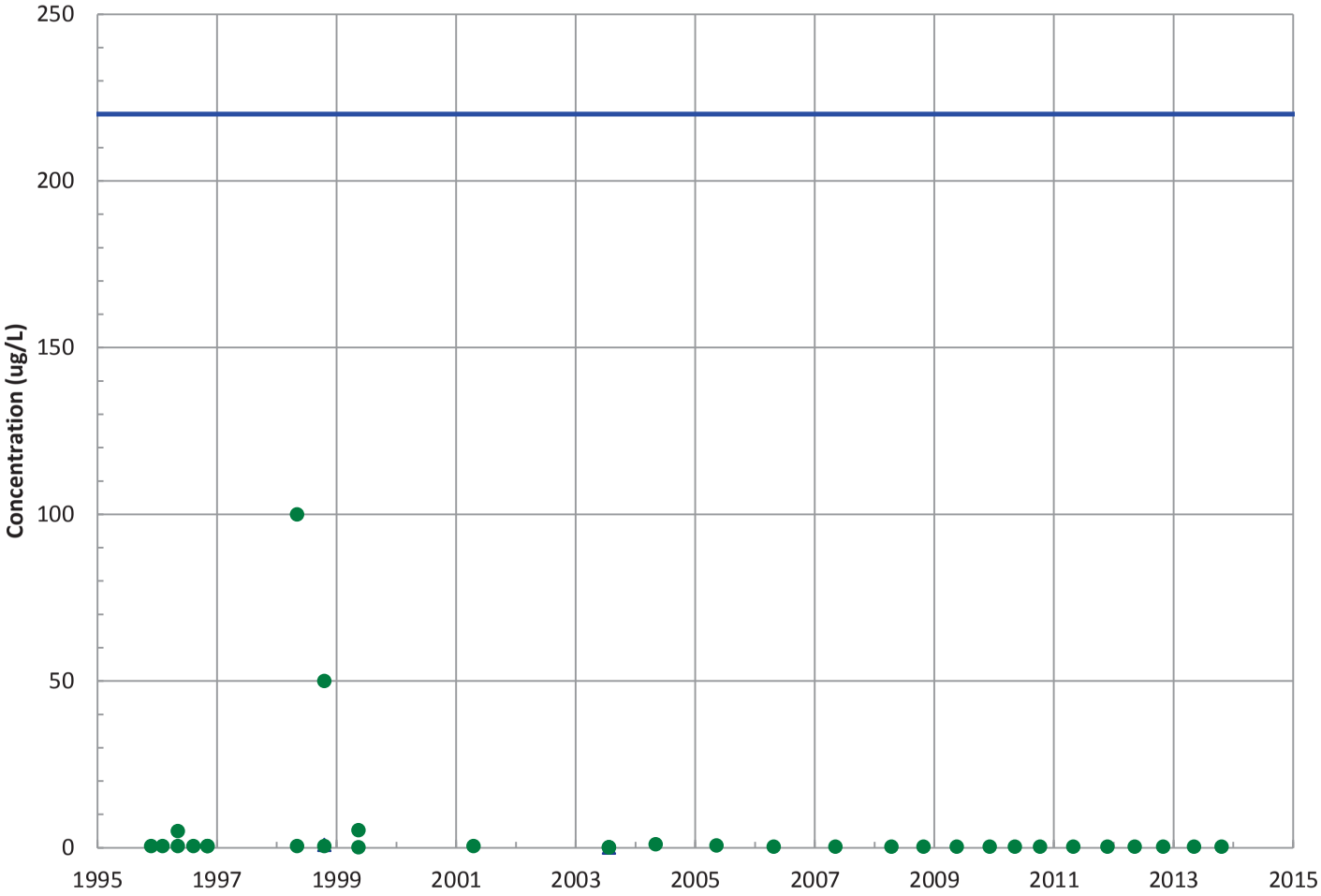
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 11/27/1995 to 11/5/2013

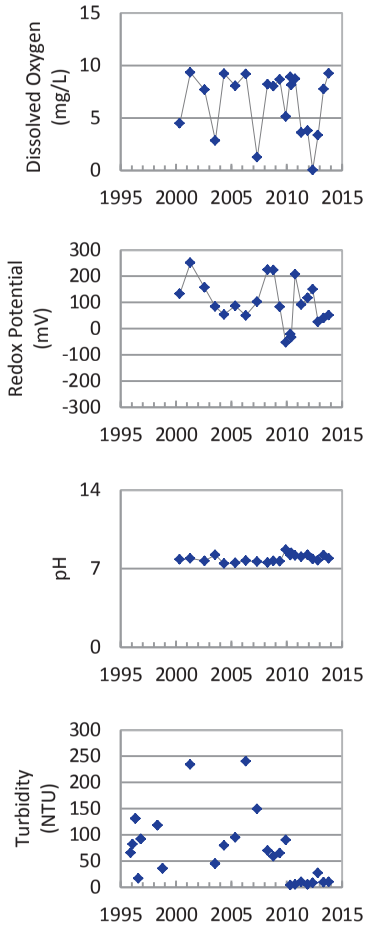
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1010
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



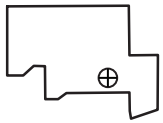
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

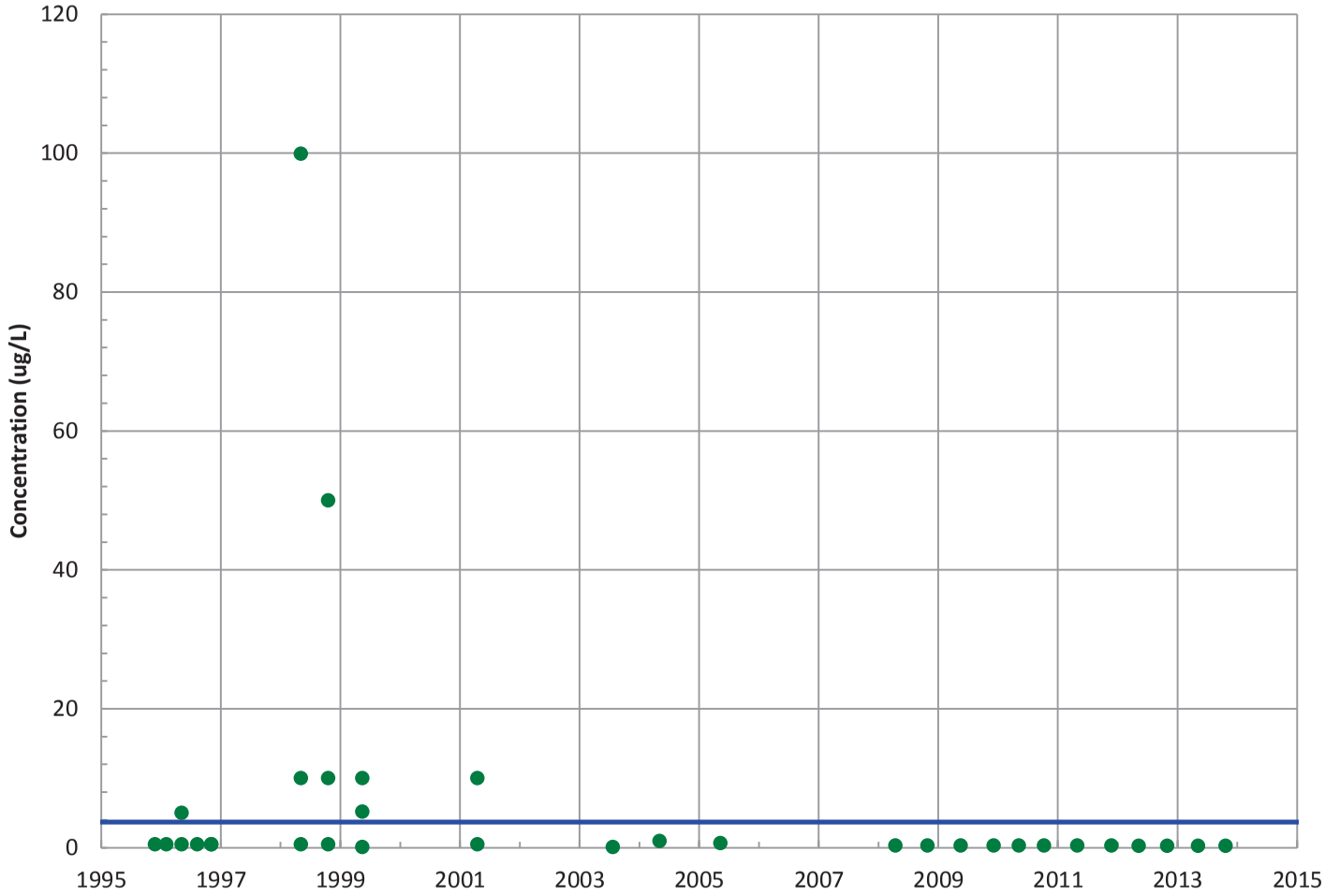
Well Location



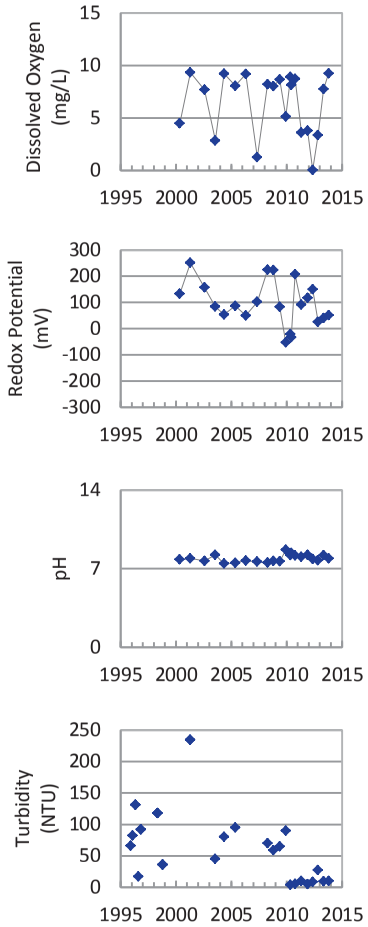
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/27/1995 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1010
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



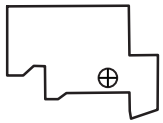
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

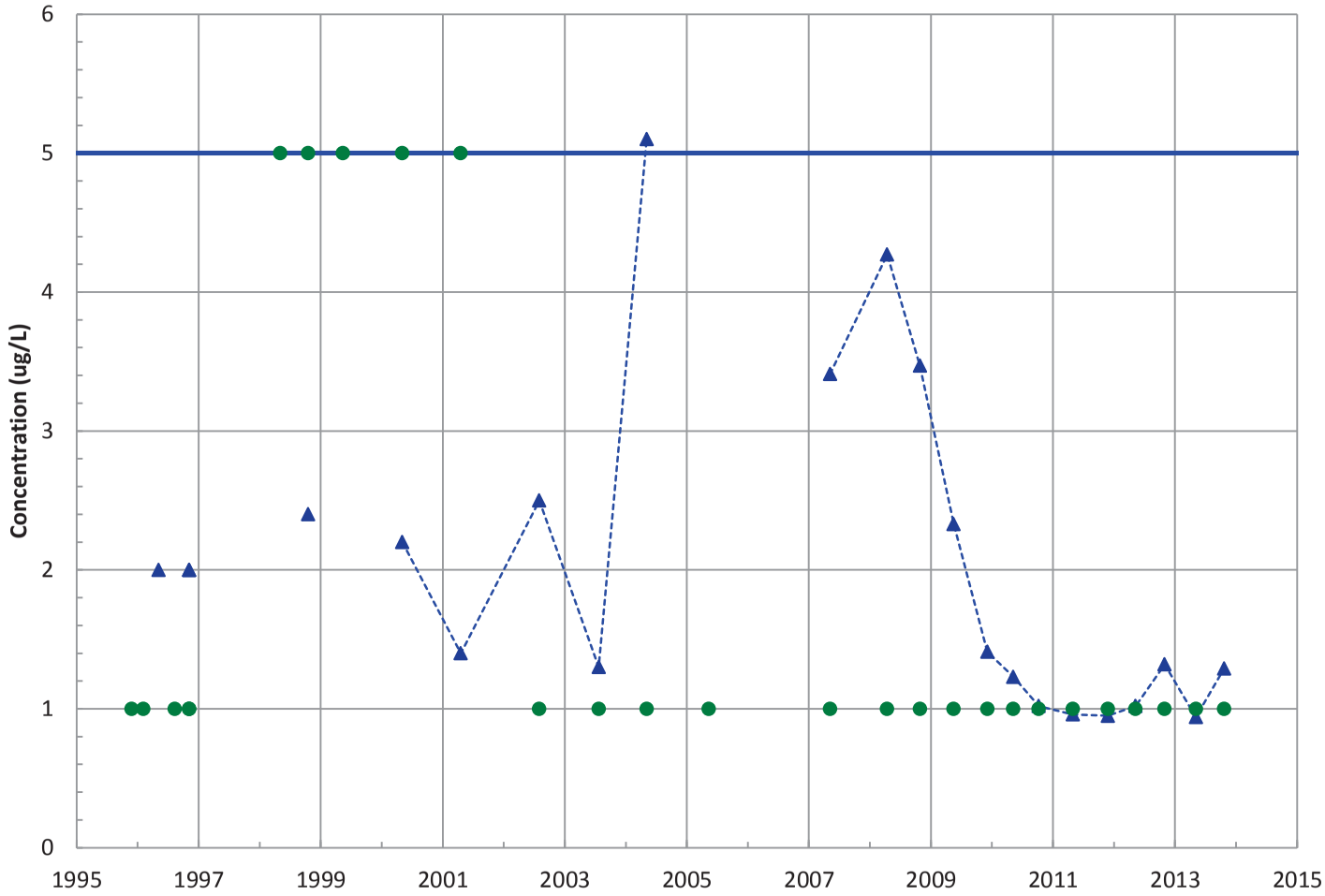
Well Location



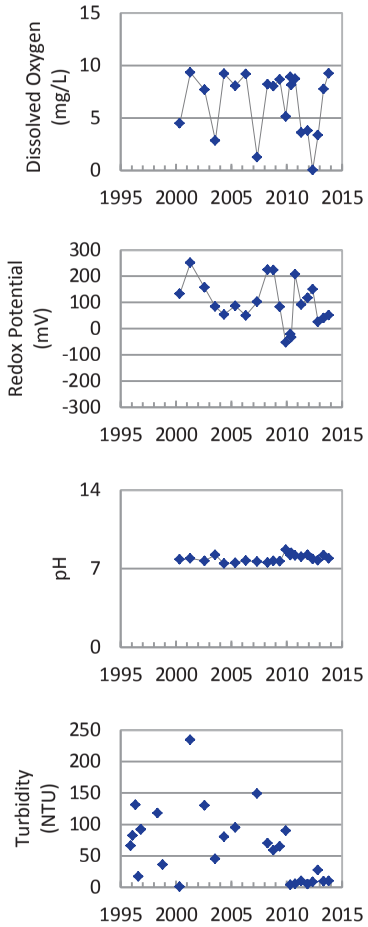
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/27/1995 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1010
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



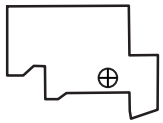
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

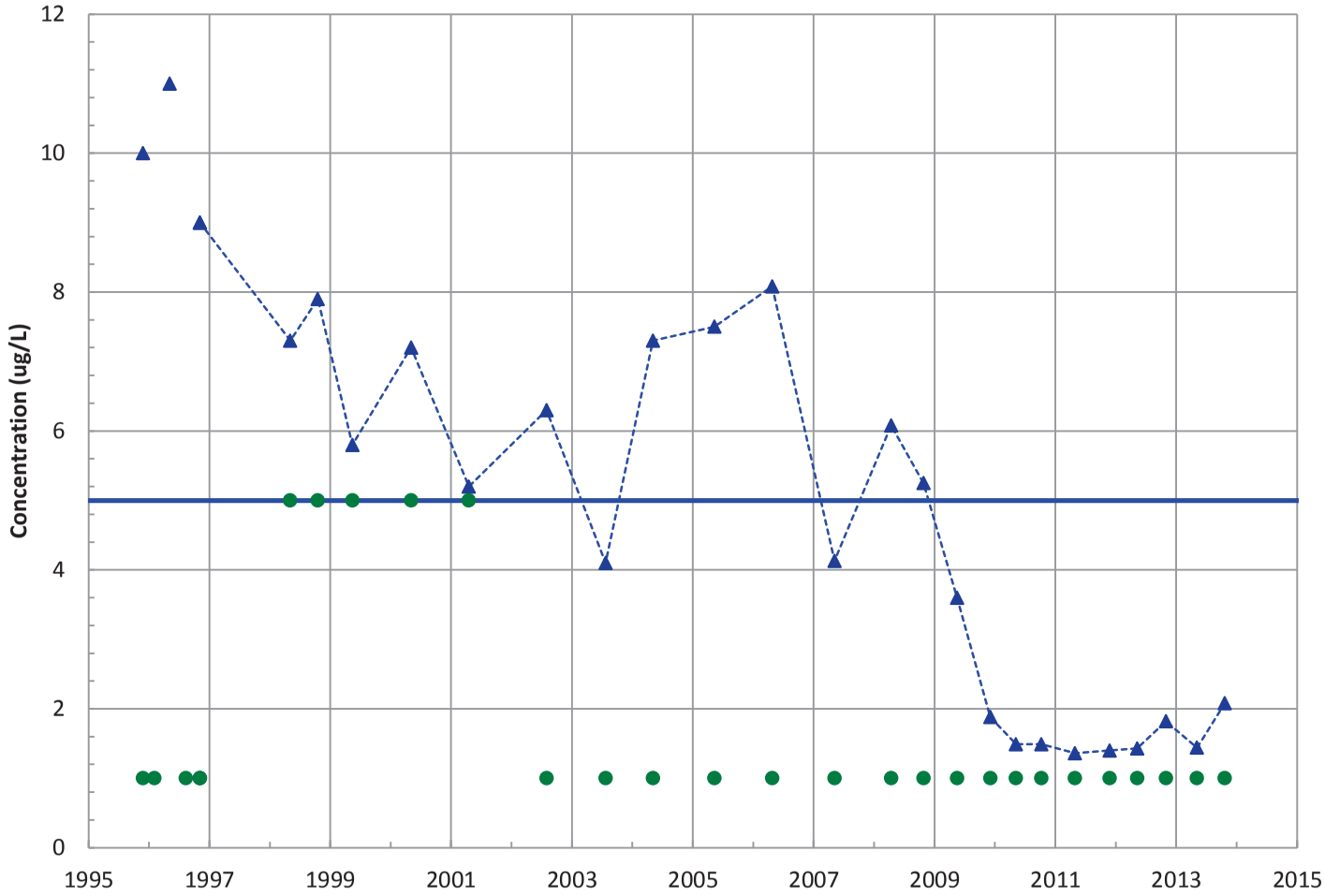
Well Location



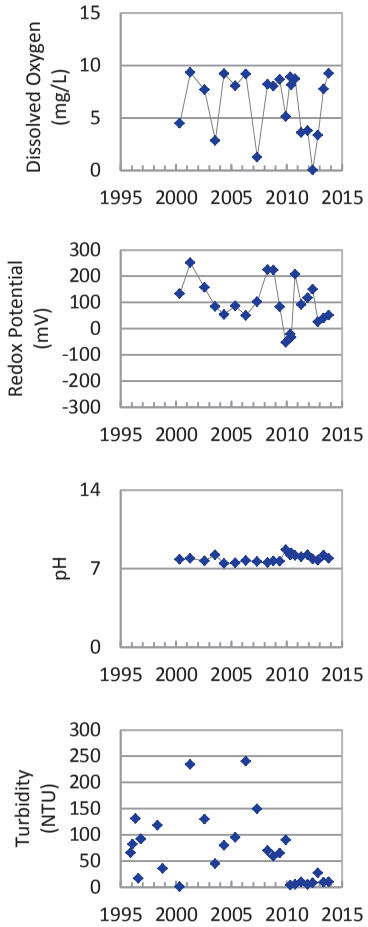
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/27/1995 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1010
Trichloroethene Trend in Perched Aquifer



Field Parameters



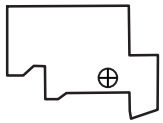
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

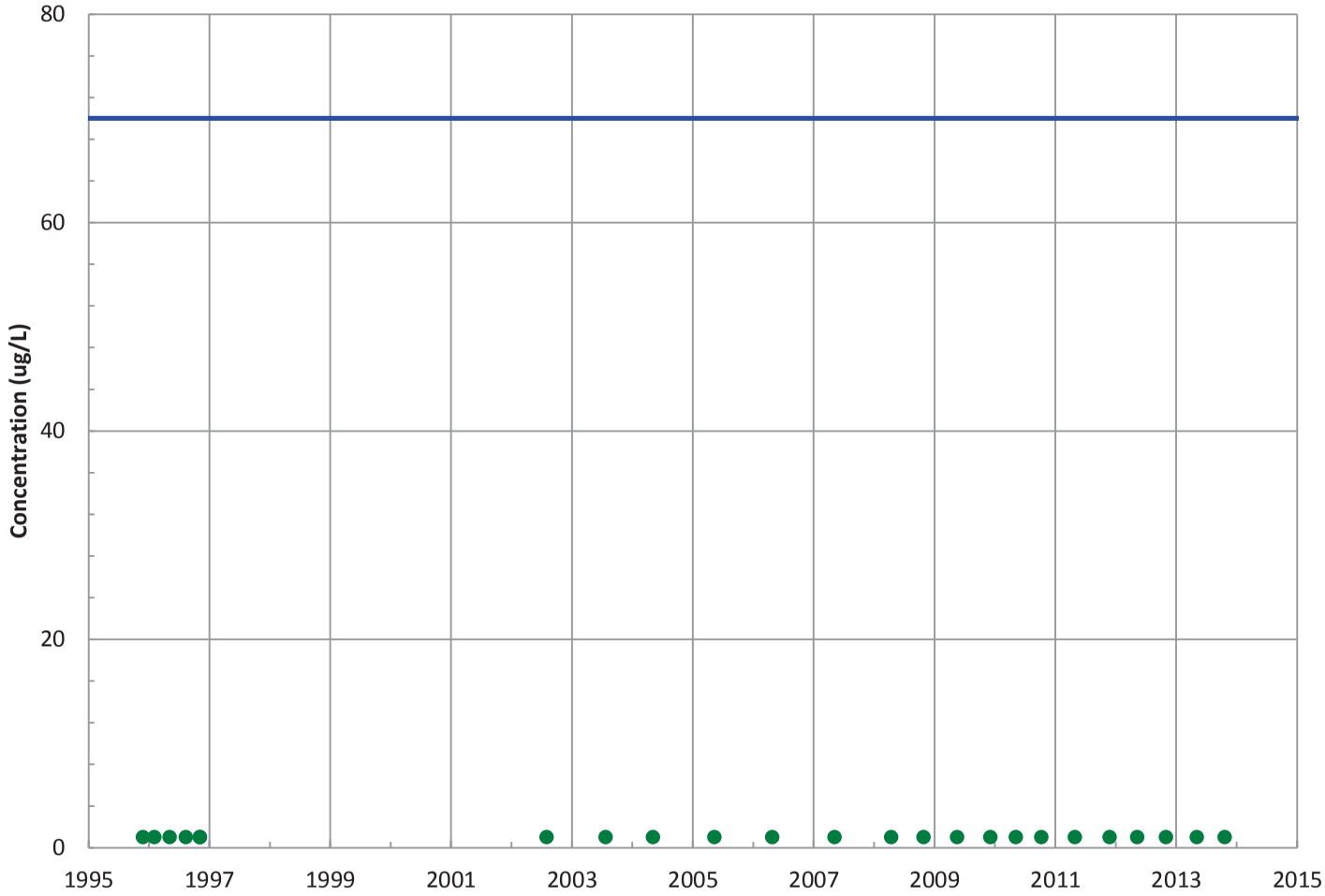
Well Location



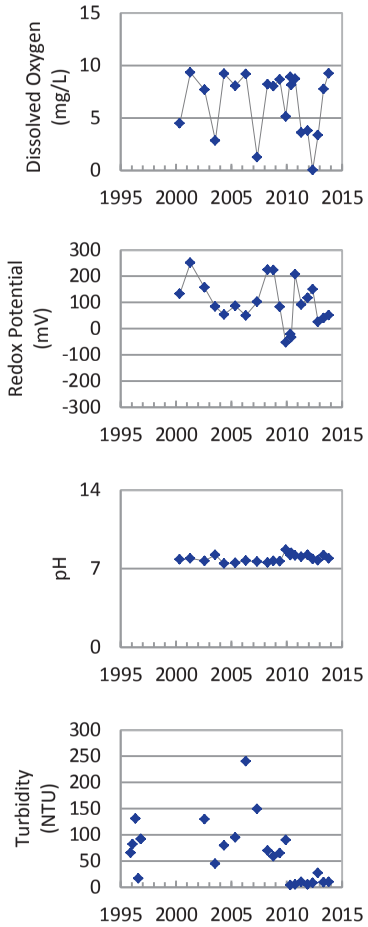
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/27/1995 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1010
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



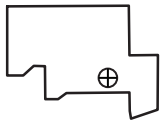
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

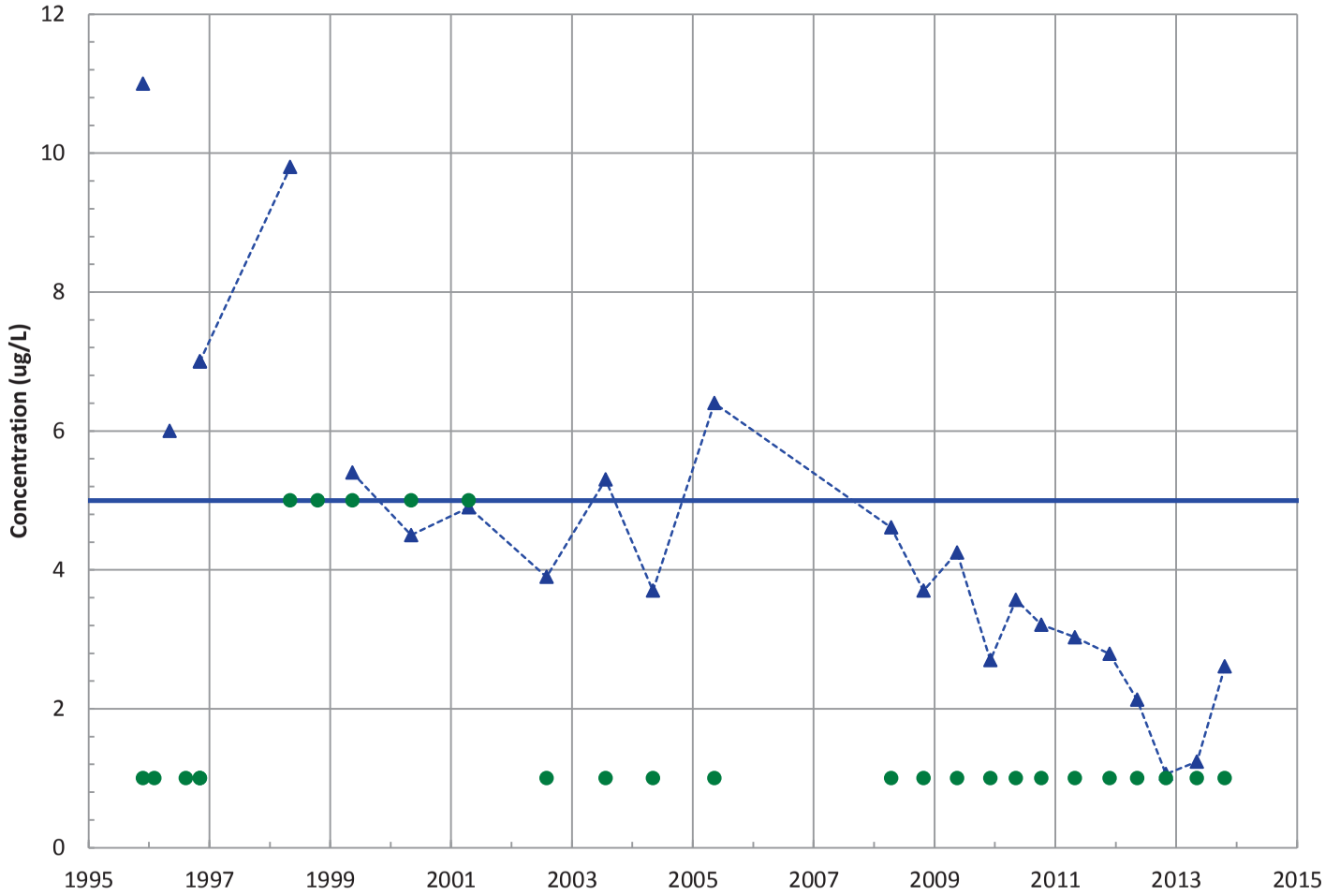
Well Location



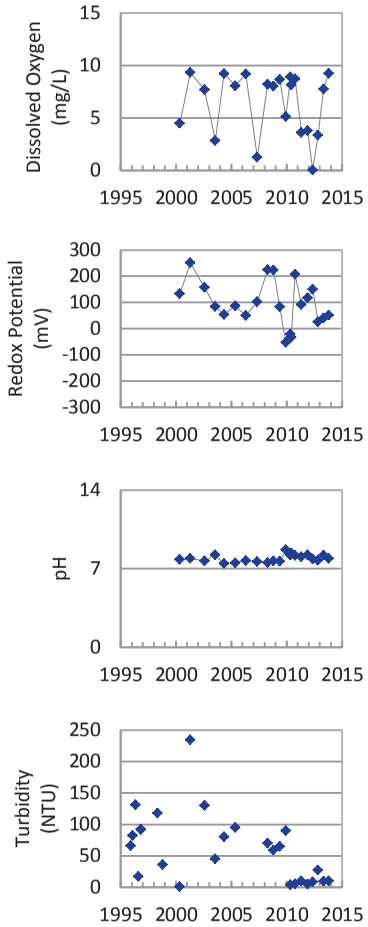
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/27/1995 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1010
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



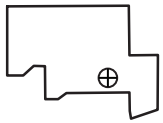
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

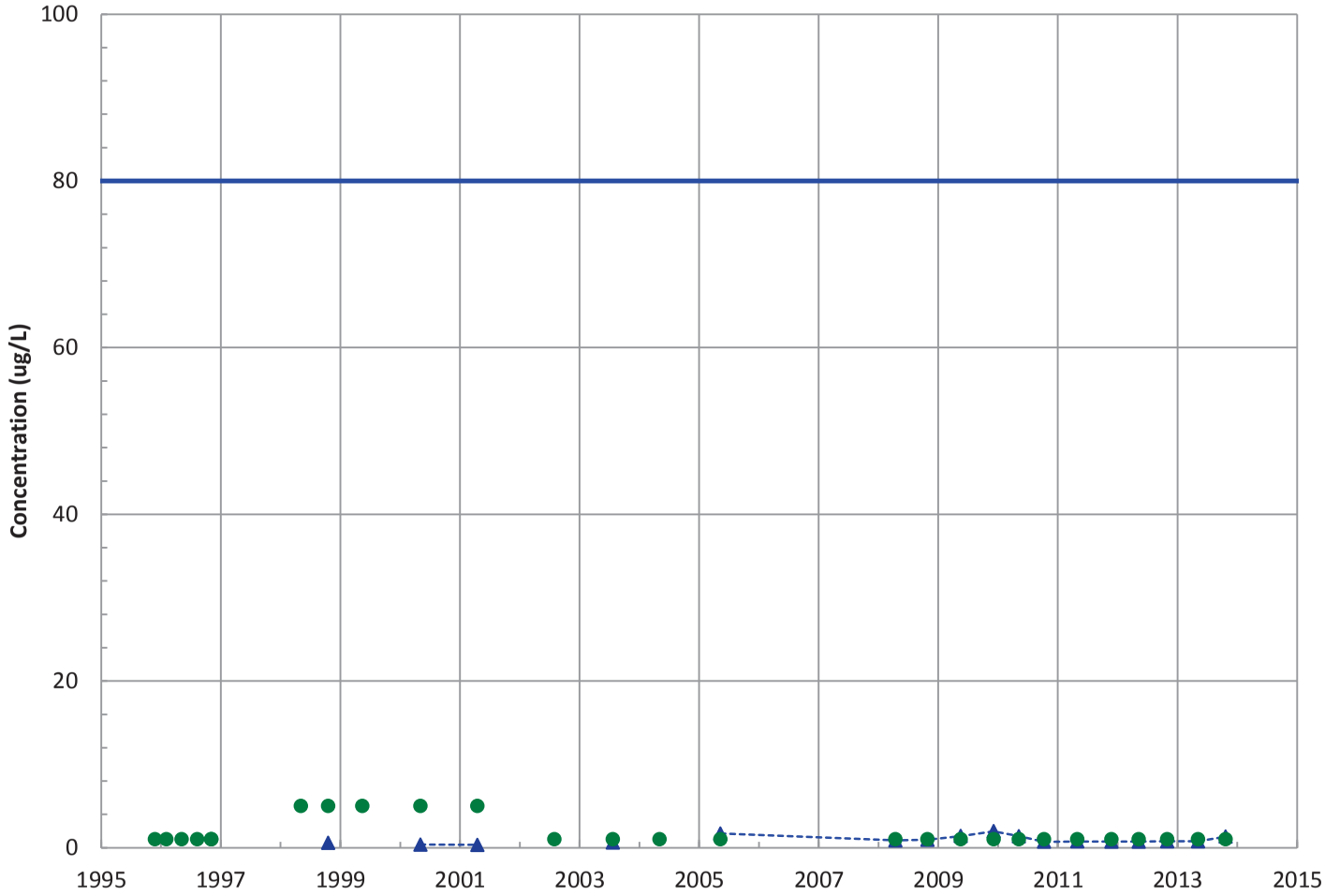
Well Location



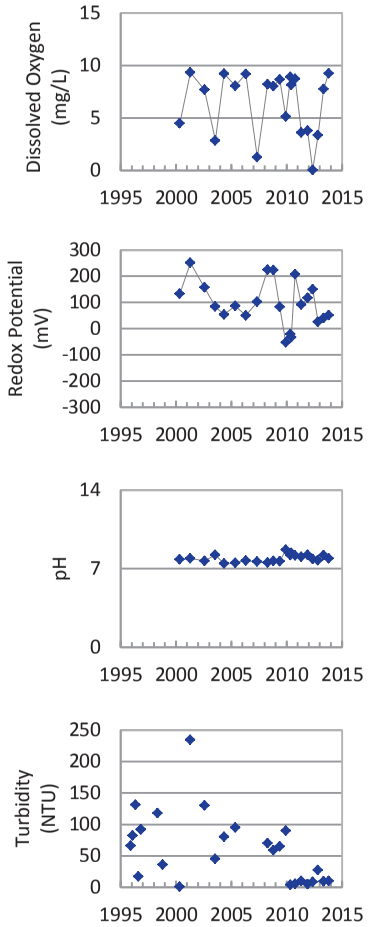
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/27/1995 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1010
Chloroform Trend in Perched Aquifer



Field Parameters



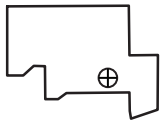
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Probably Increasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

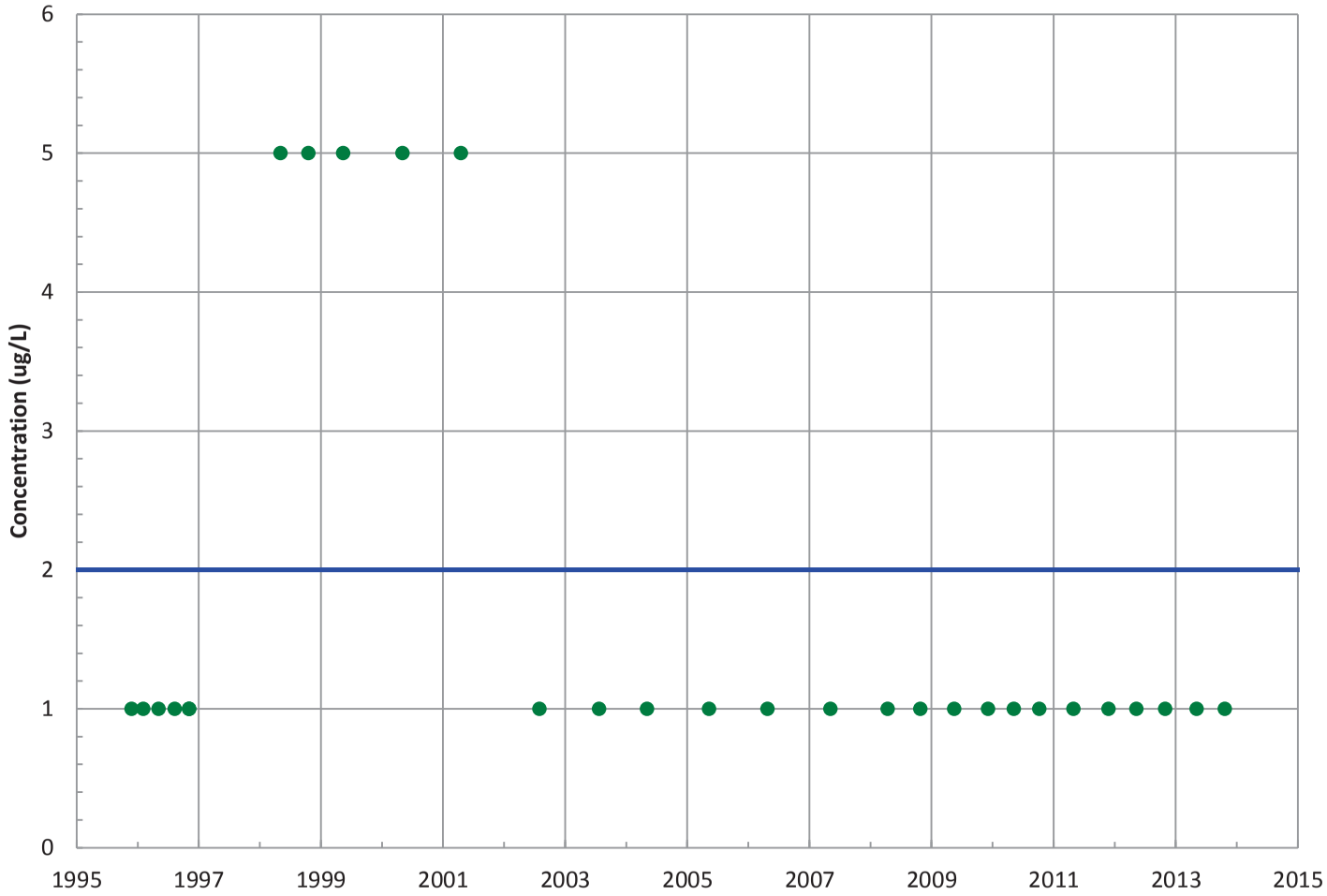
Well Location



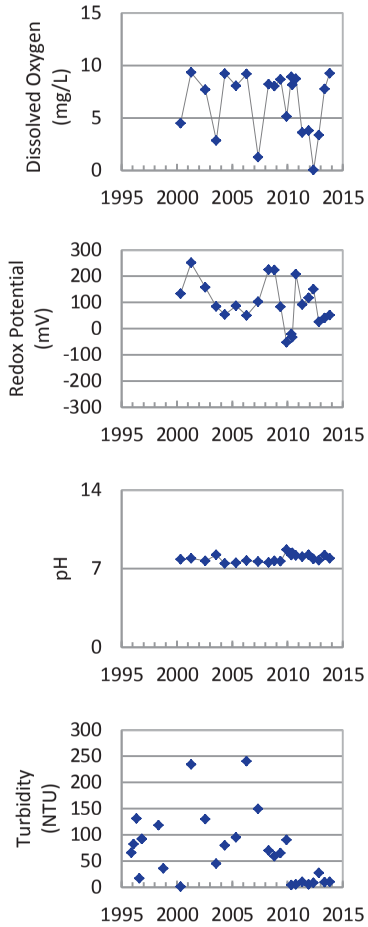
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/27/1995 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1010
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



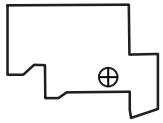
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

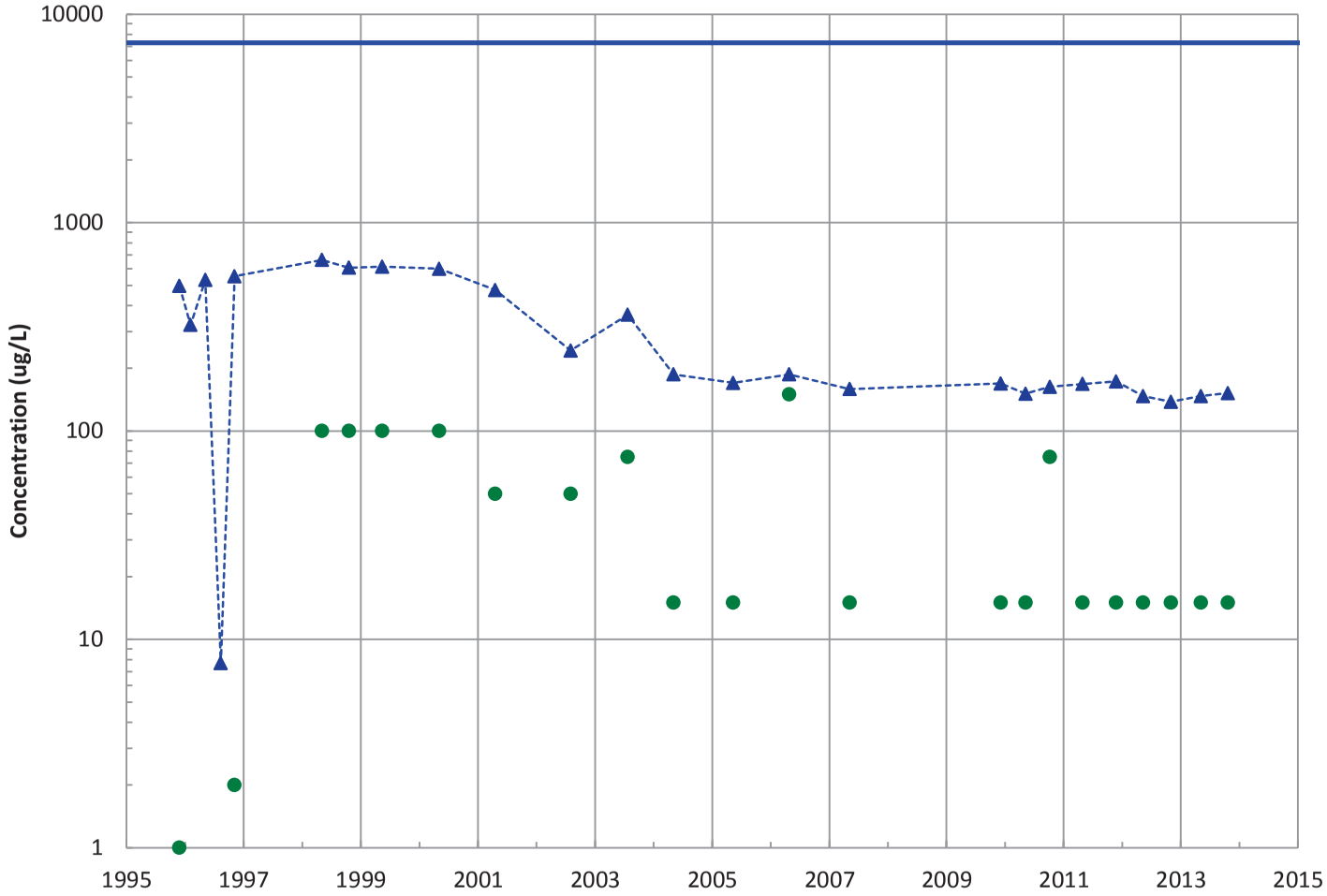
Well Location



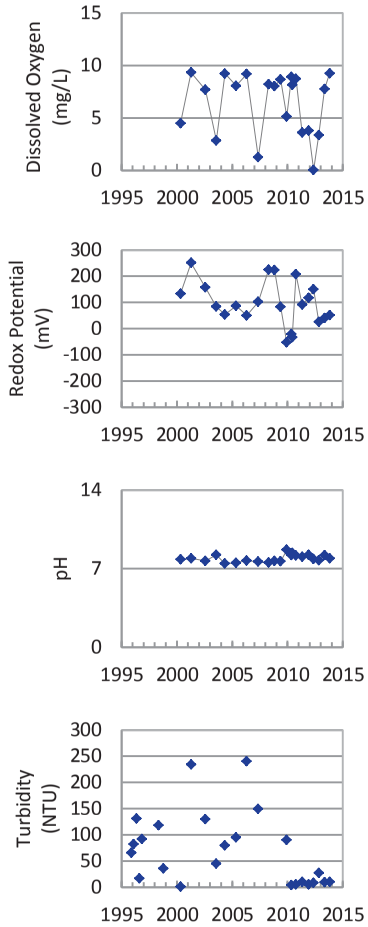
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/27/1995 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1010
Boron Trend in Perched Aquifer



Field Parameters



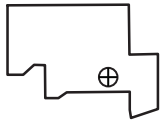
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Probably Decreasing
2011 - 2013 Data: No Trend

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

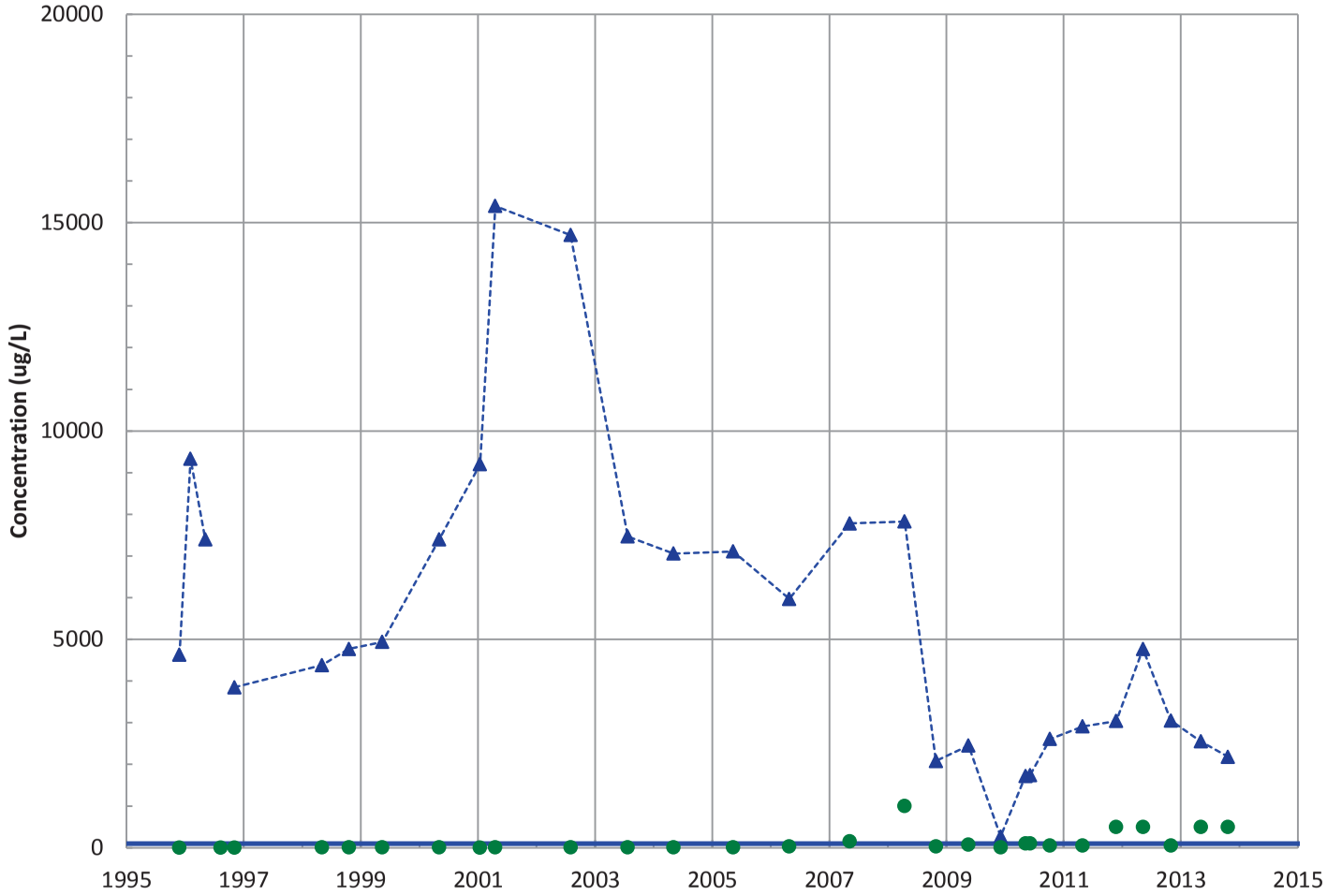
Well Location



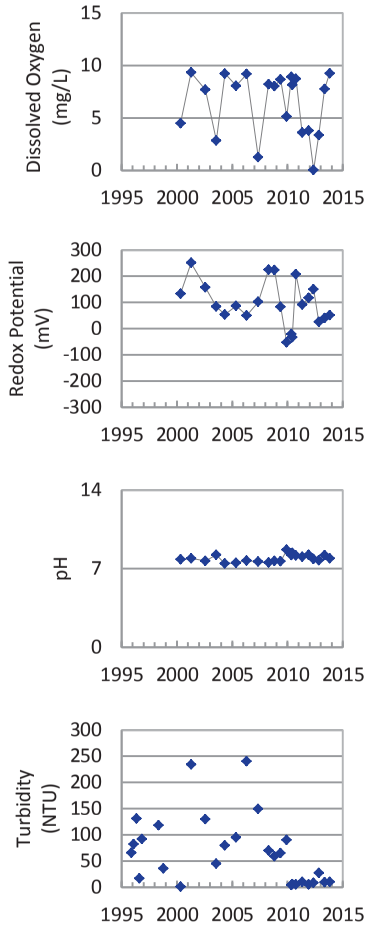
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/27/1995 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1010
Chromium, Total Trend in Perched Aquifer



Field Parameters



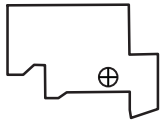
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Probably Decreasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

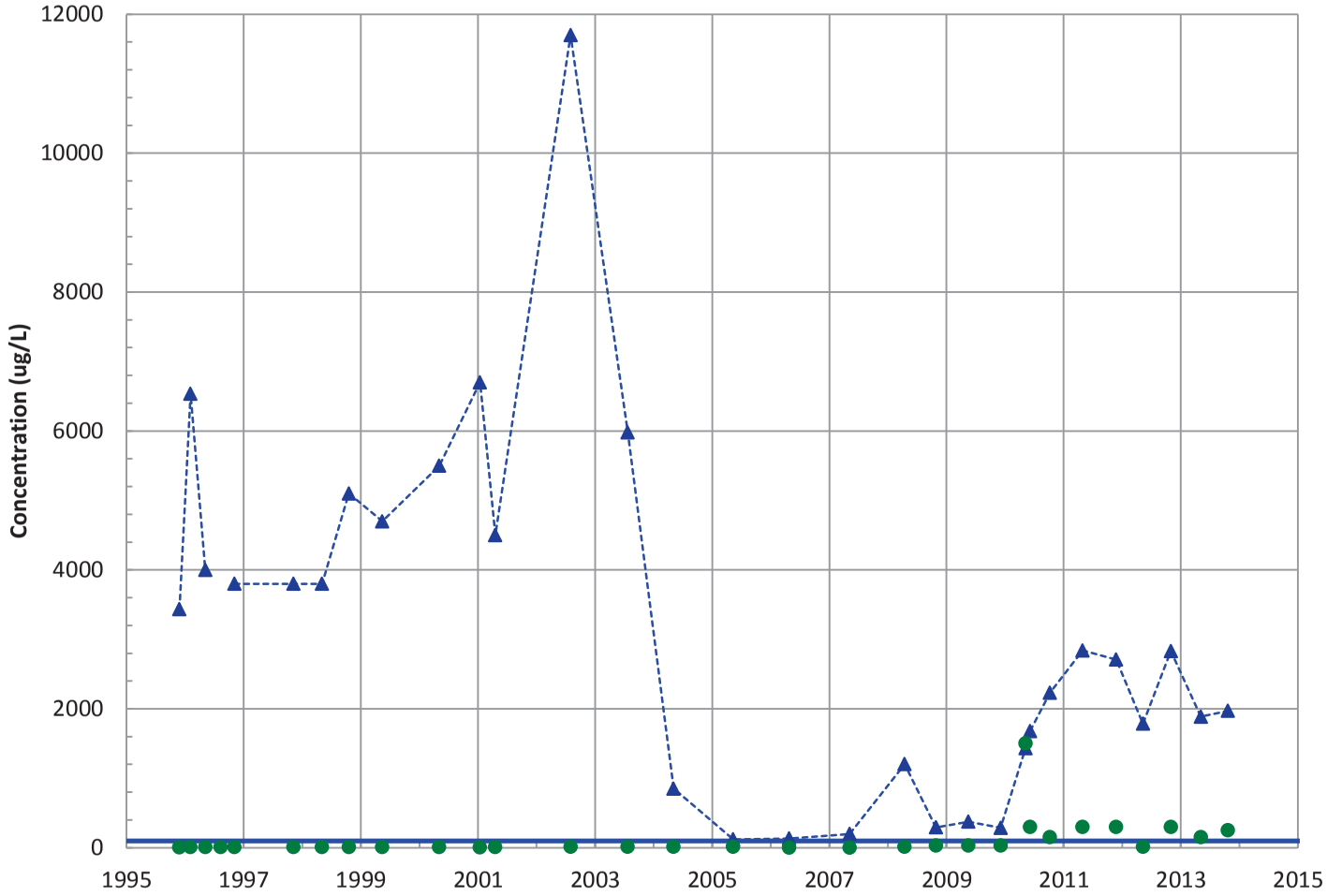
Well Location



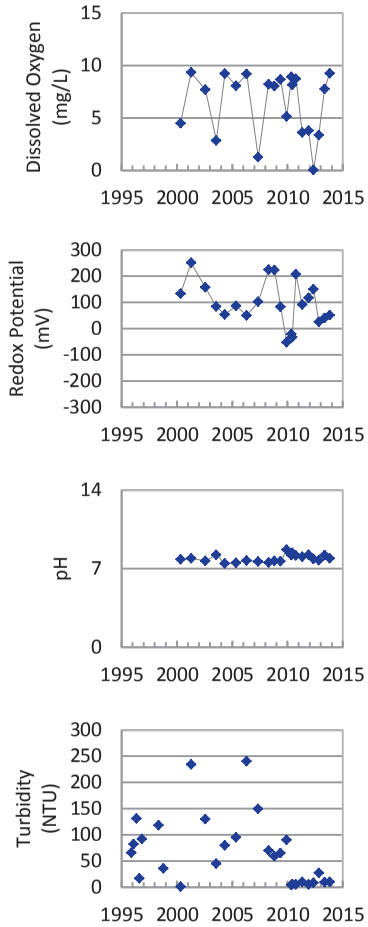
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/27/1995 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1010
Chromium, Hexavalent Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Probably Increasing

2011 - 2013 Data: No Trend

MAROS Linear Regression Method

Data (7/2009 - 12/2013): Probably Increasing

2011 - 2013 Data: Stable

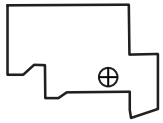
▲ Measured Value

● Sample Detection Limit

Concentration Trend

Groundwater Protection Standard

Well Location



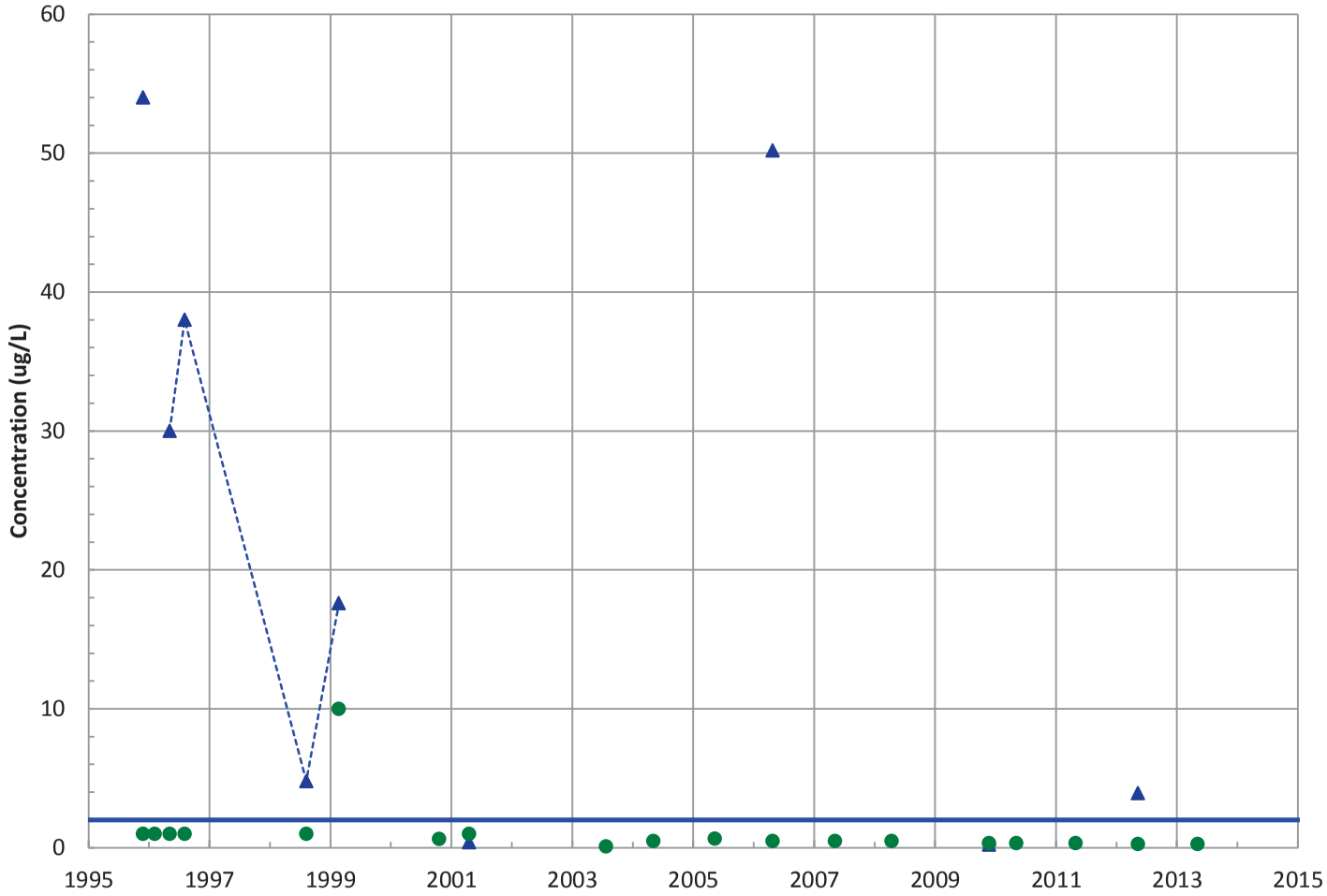
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 11/27/1995 to 11/5/2013

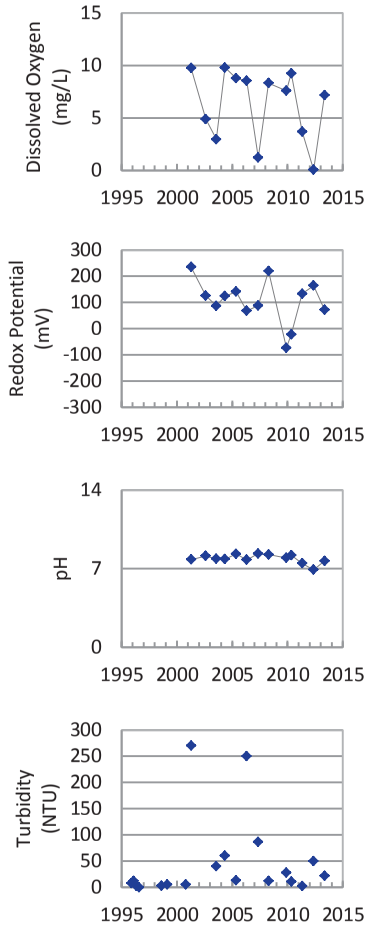
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1011
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



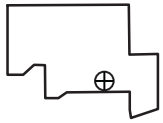
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

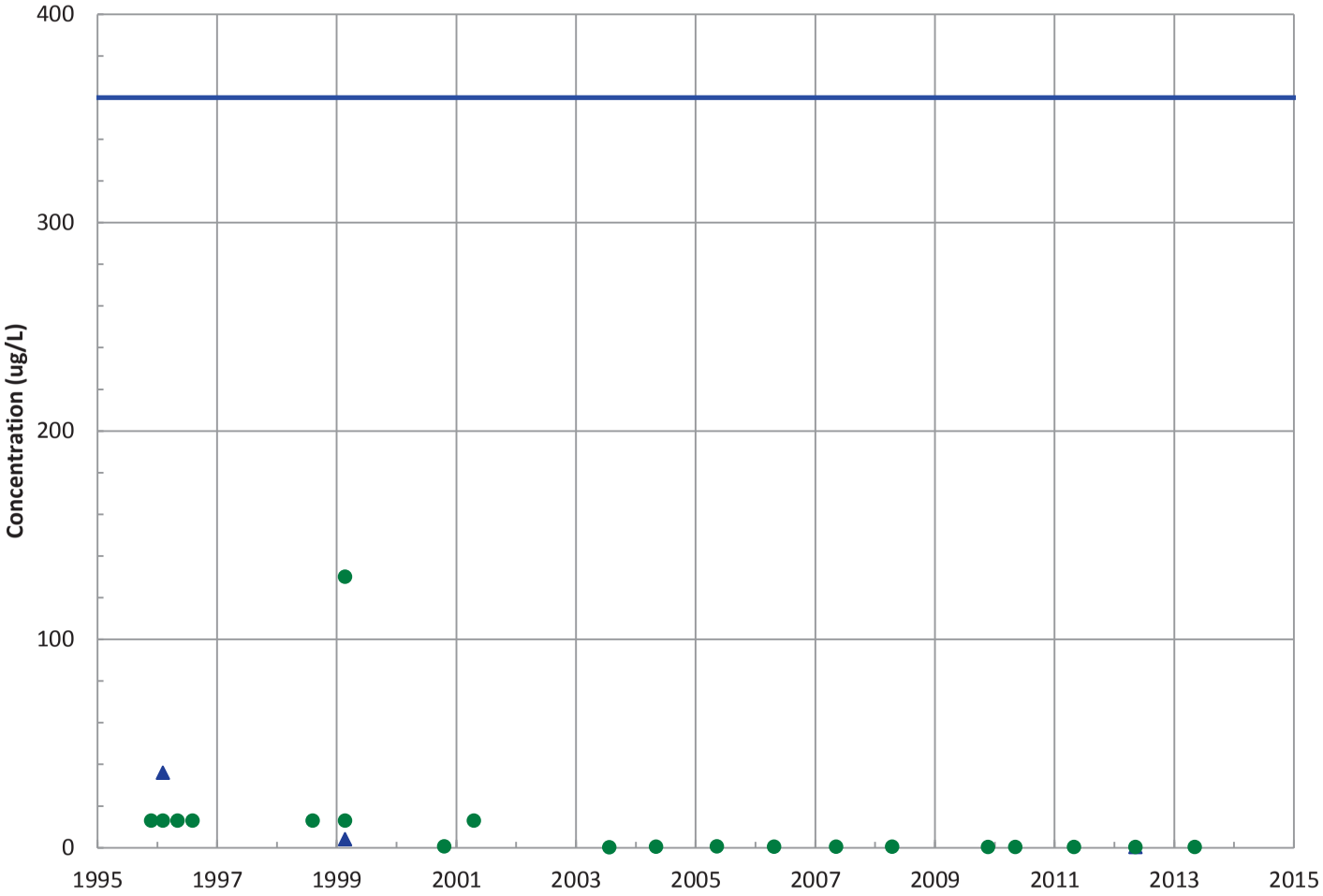
Well Location



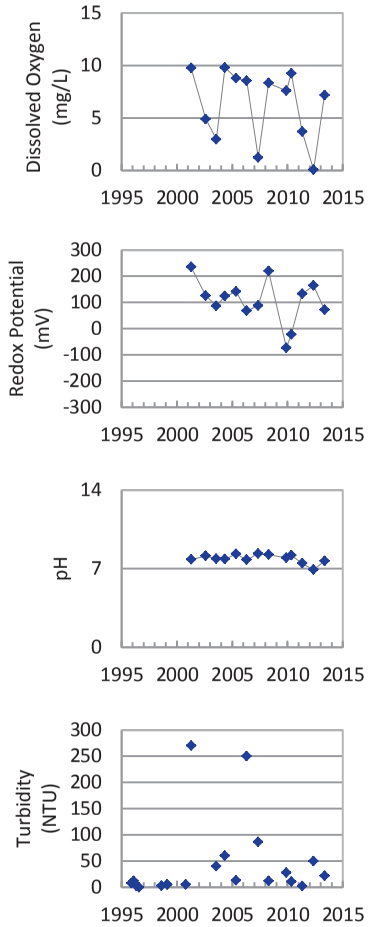
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/27/1995 to 5/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1011
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



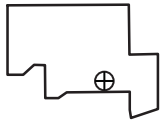
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

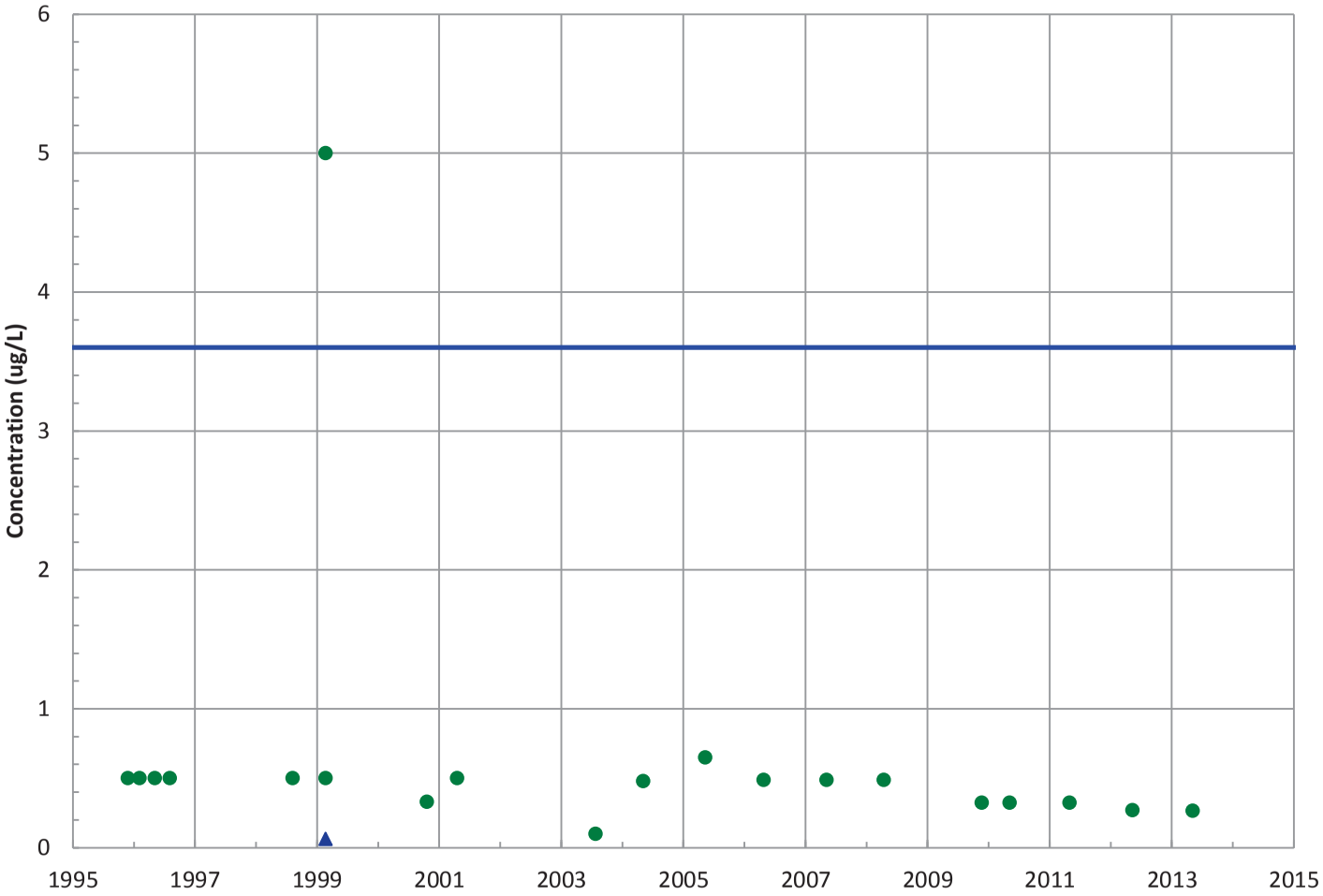
Well Location



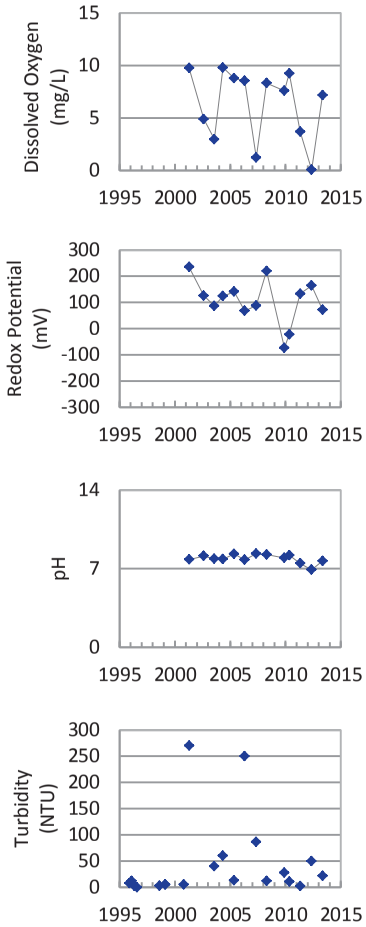
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/27/1995 to 5/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1011
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): All Non-Detect

2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method

Data (7/2009 - 12/2013): All Non-Detect

2011 - 2013 Data: N/A (<4 Detections in Dataset)

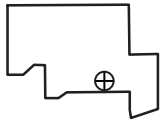
▲ Measured Value

● Sample Detection Limit

------- Concentration Trend

——— Groundwater Protection Standard

Well Location



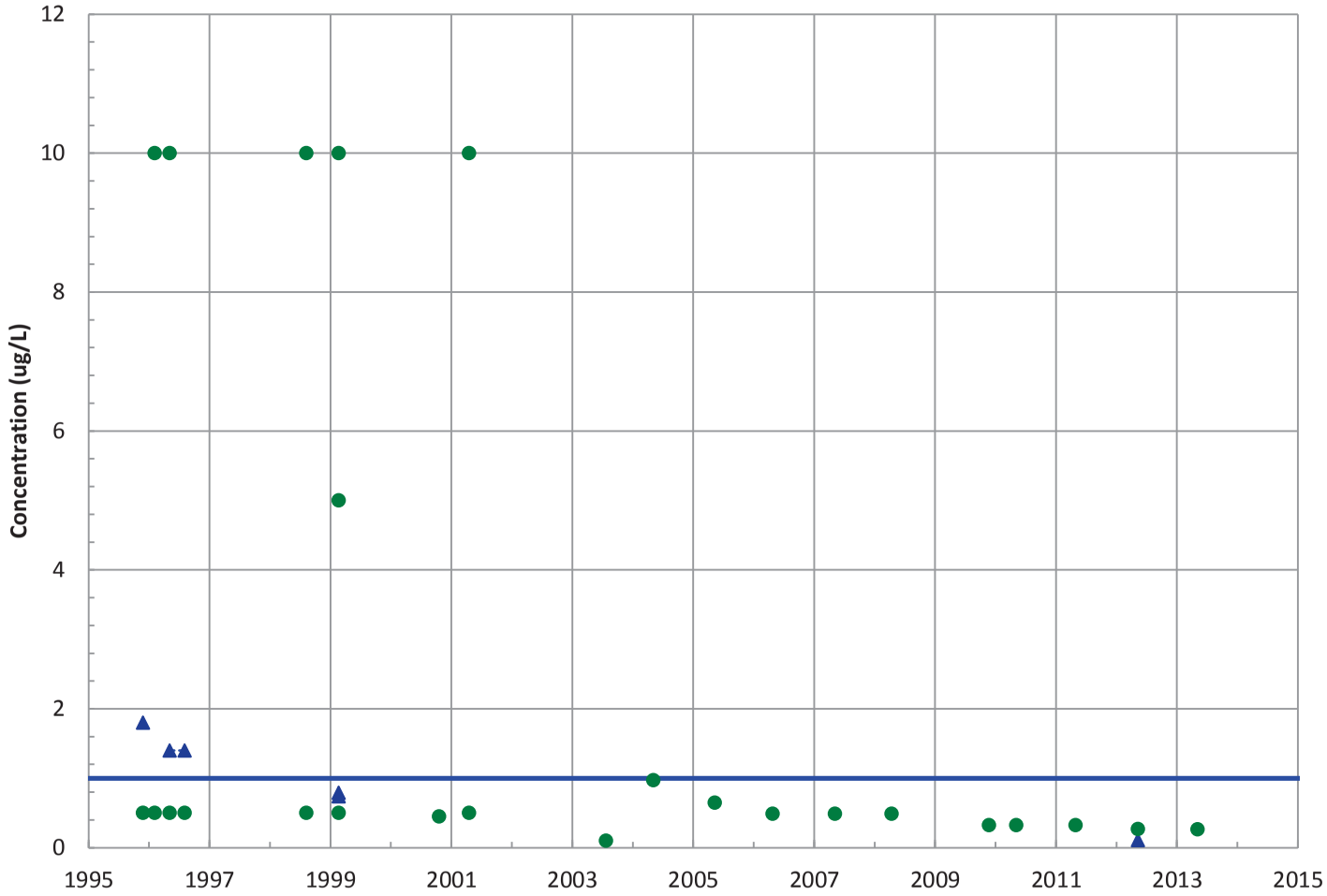
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 11/27/1995 to 5/20/2013

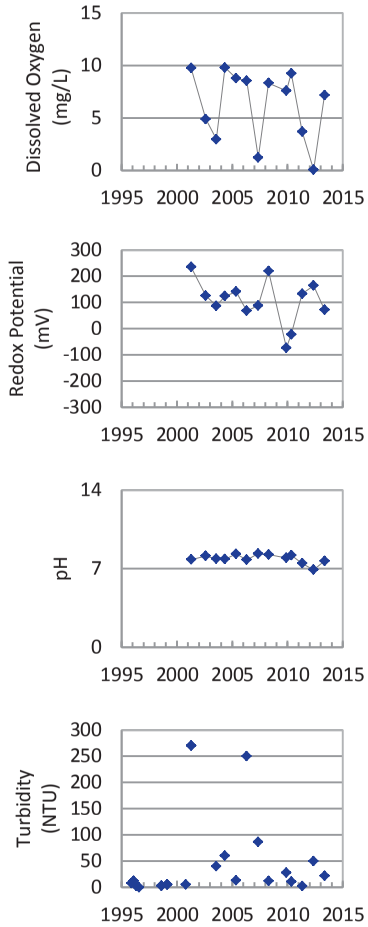
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1011
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: N/A (<4 Detections in

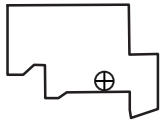
MAROS Linear Regression Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: Decreasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location



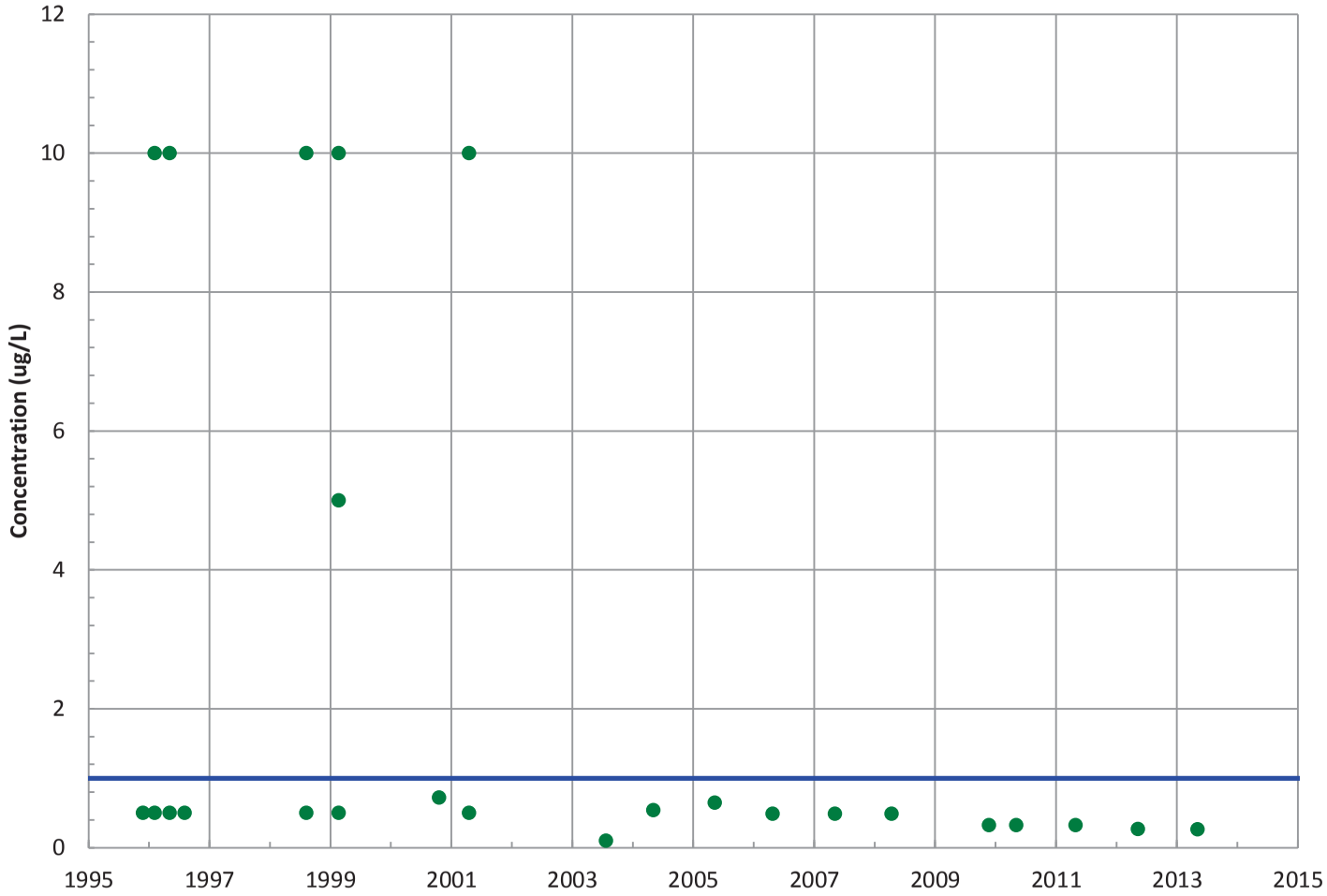
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 11/27/1995 to 5/20/2013

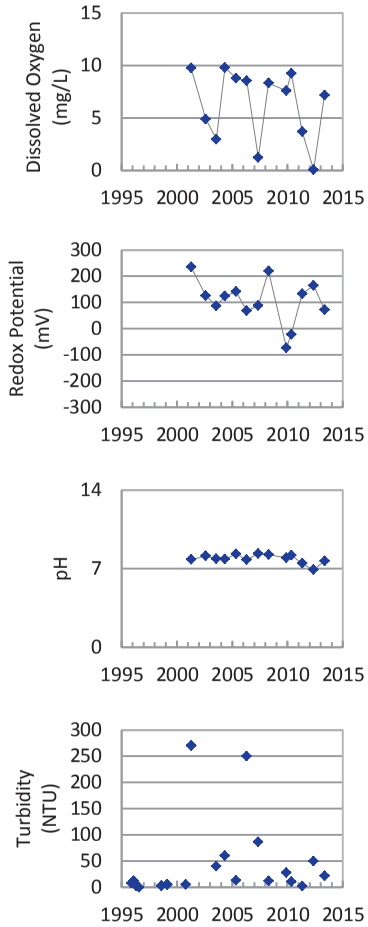
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1011
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



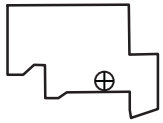
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

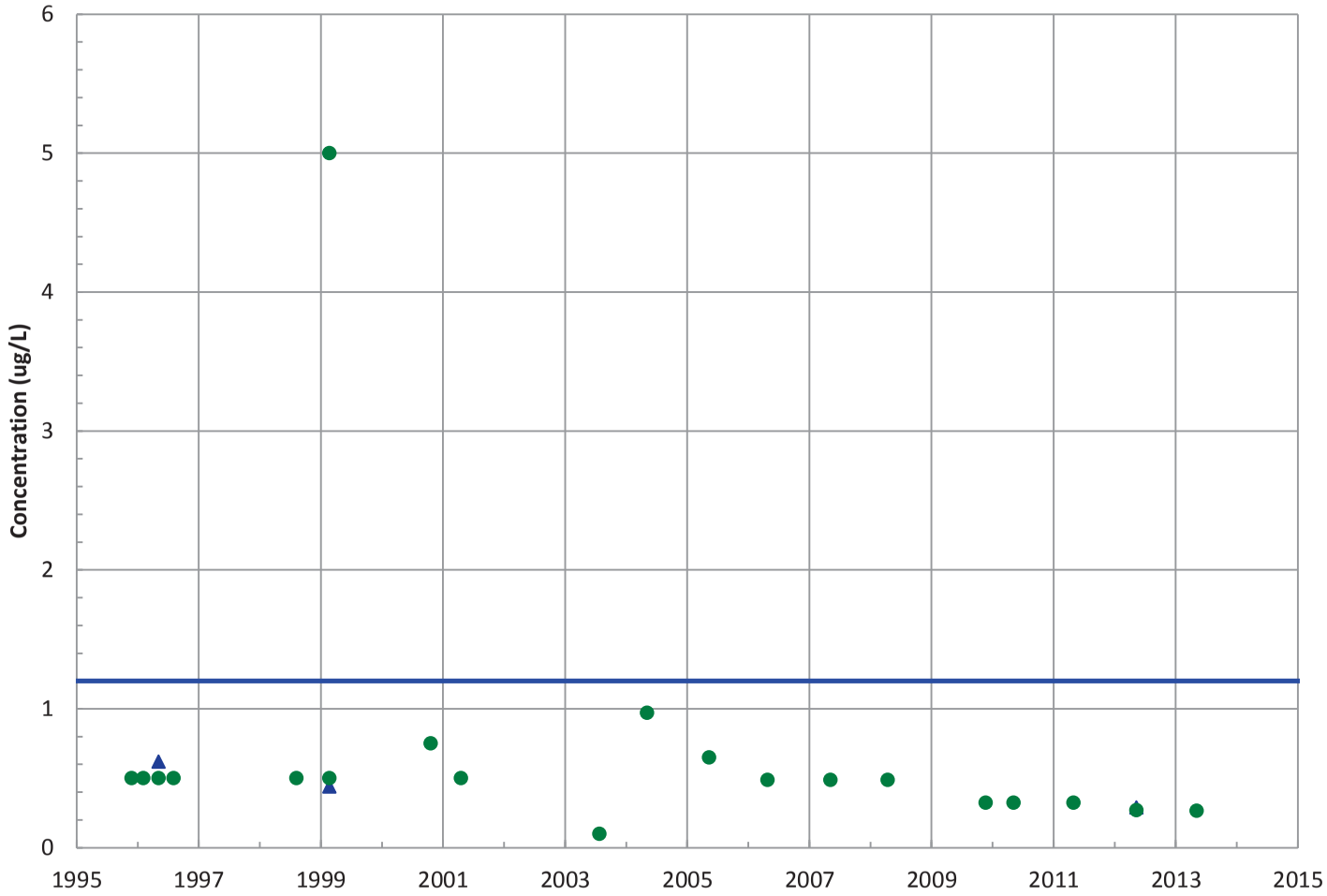
Well Location



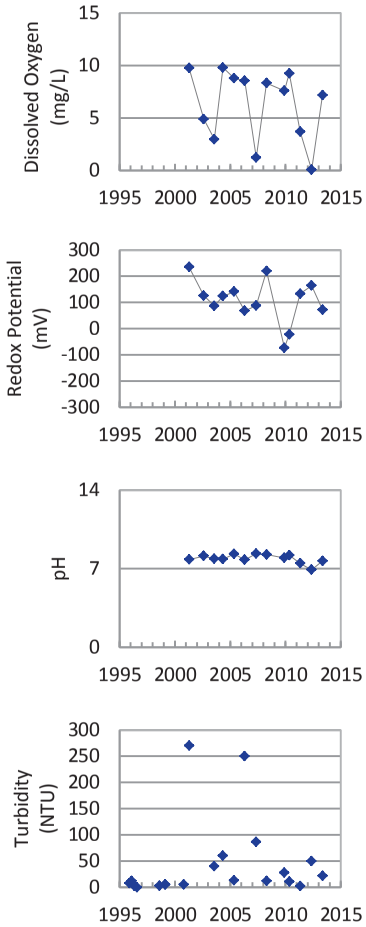
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/27/1995 to 5/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1011
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



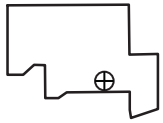
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
═══ Groundwater Protection Standard

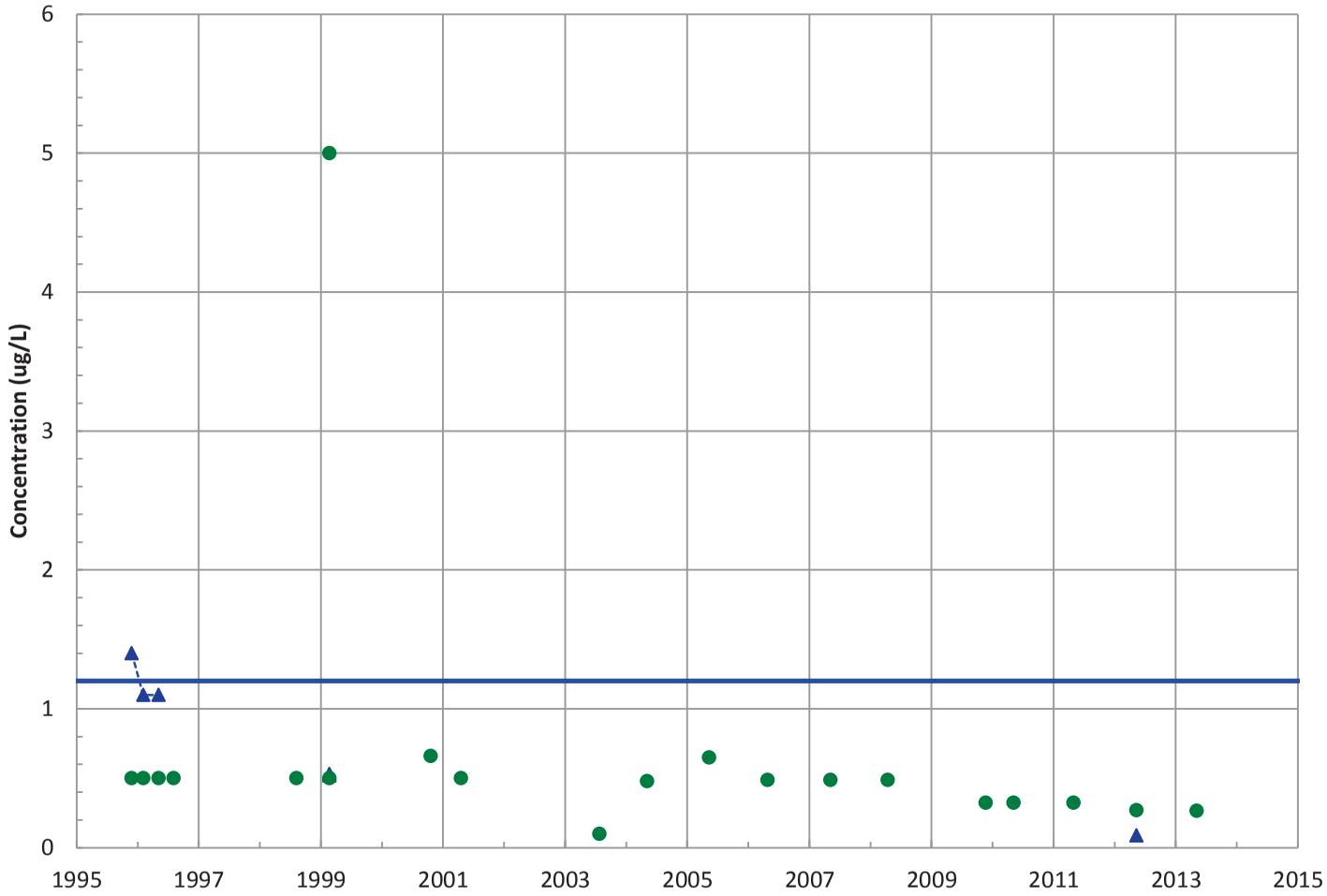
Well Location



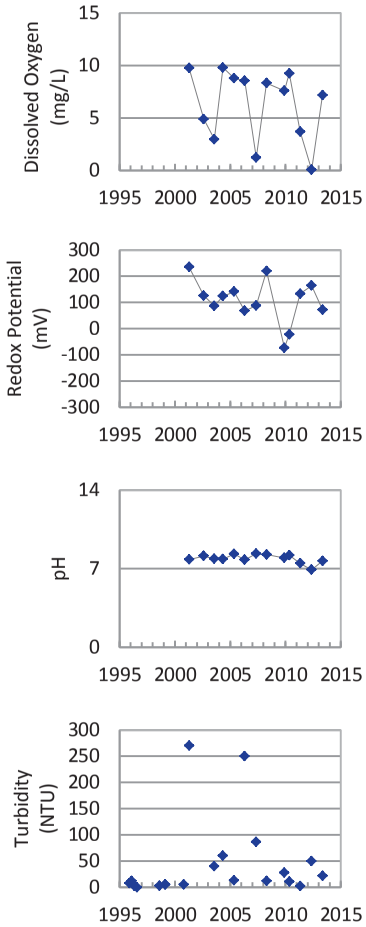
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/27/1995 to 5/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1011
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



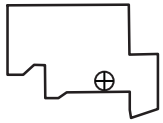
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

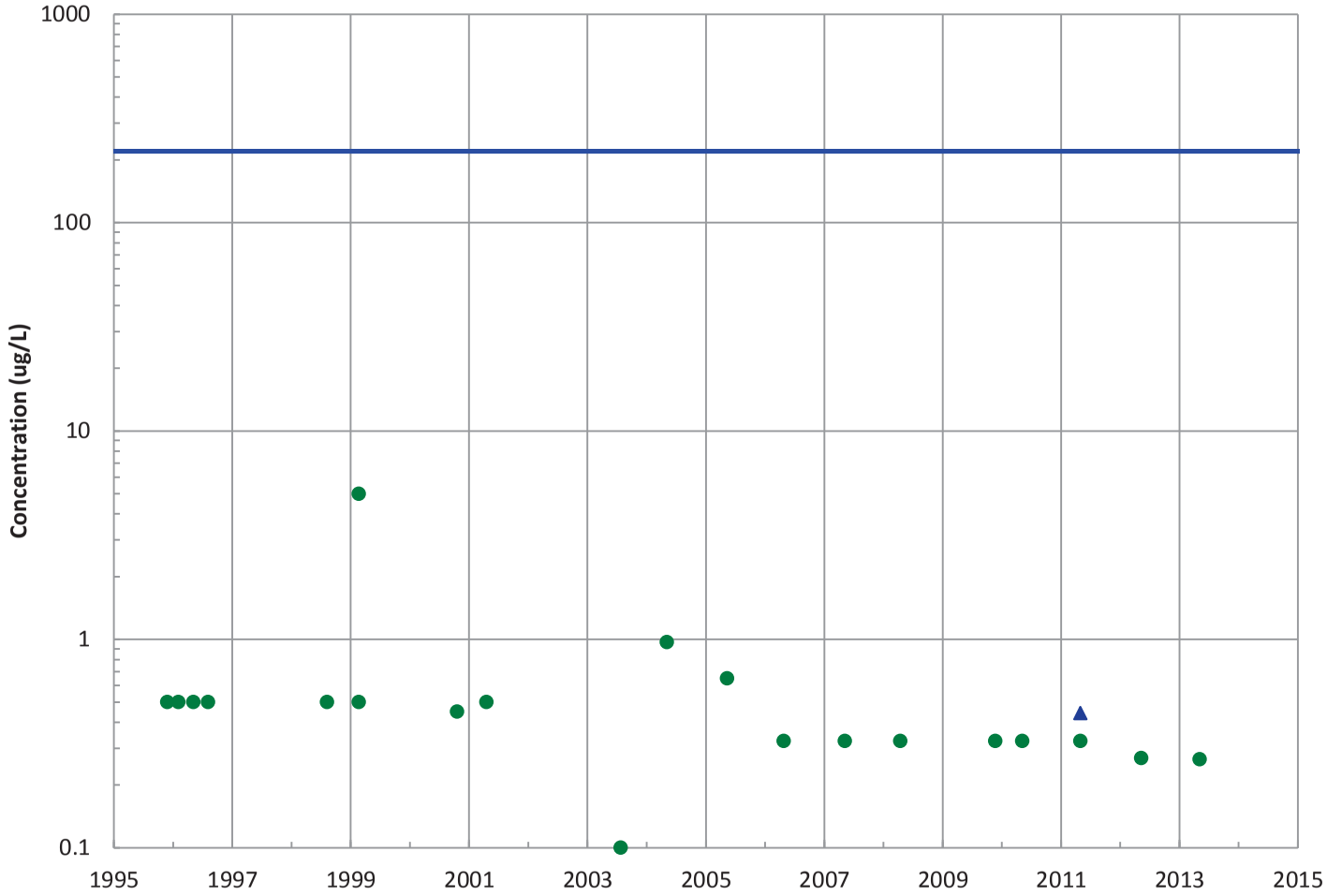
Well Location



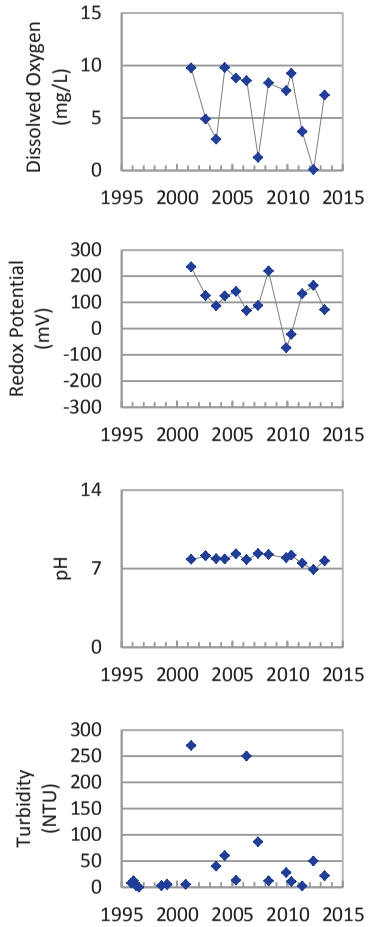
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/27/1995 to 5/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1011
1,3,5-Trinitrobenzene Trend in Perched Aquifer



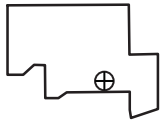
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

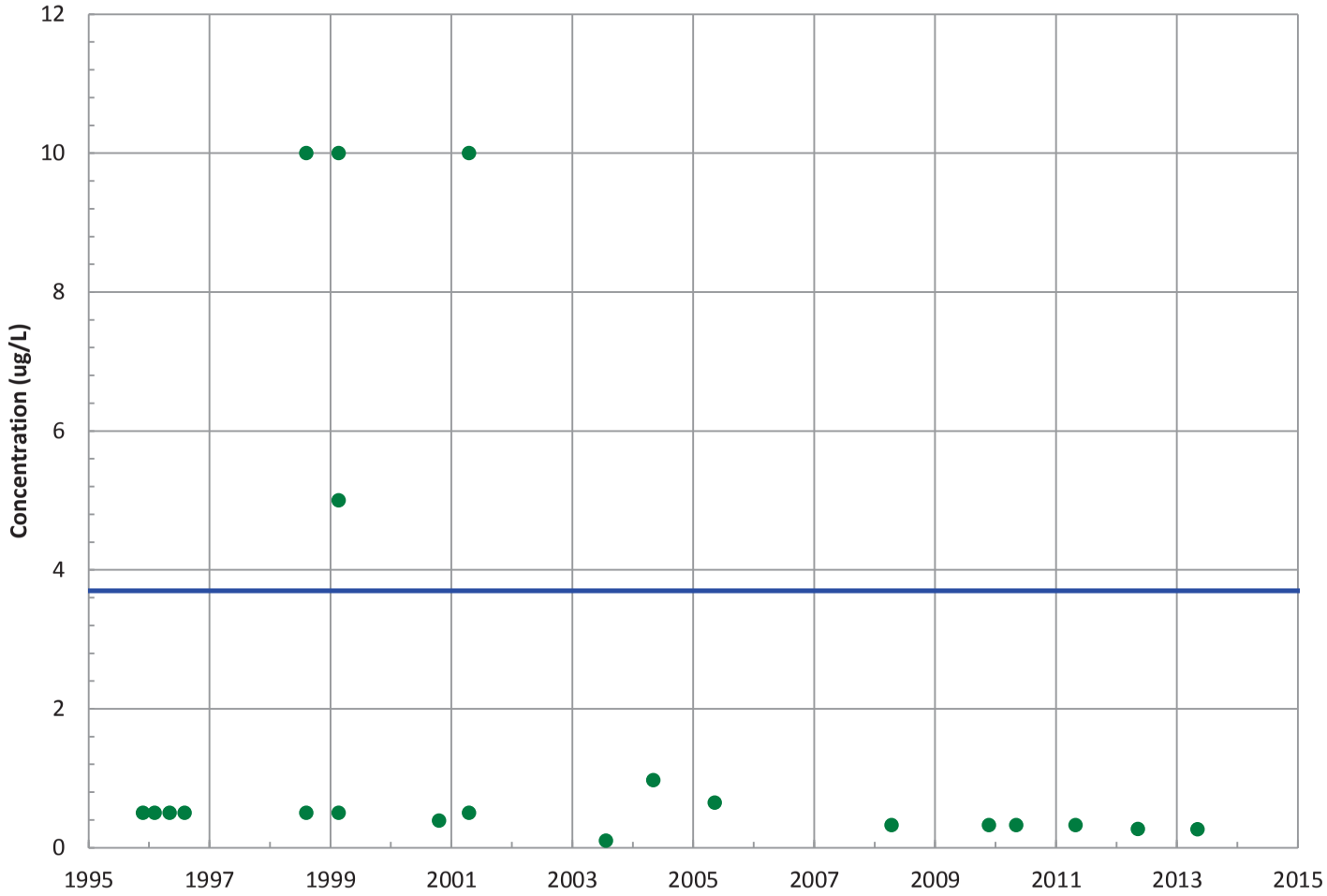
Well Location



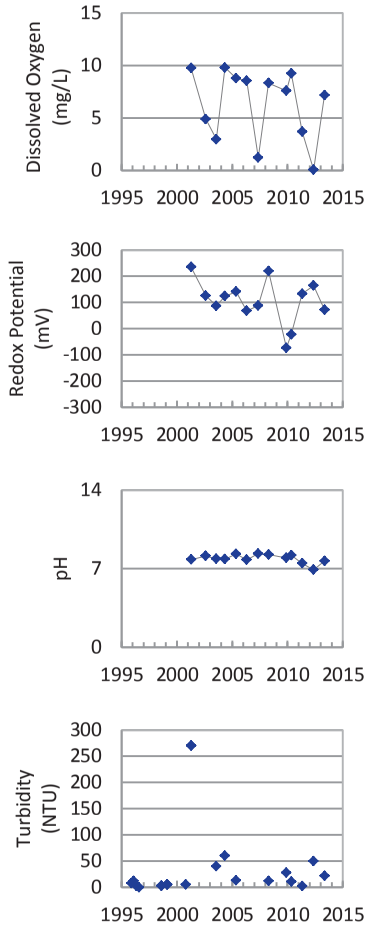
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/27/1995 to 5/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1011
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



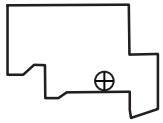
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

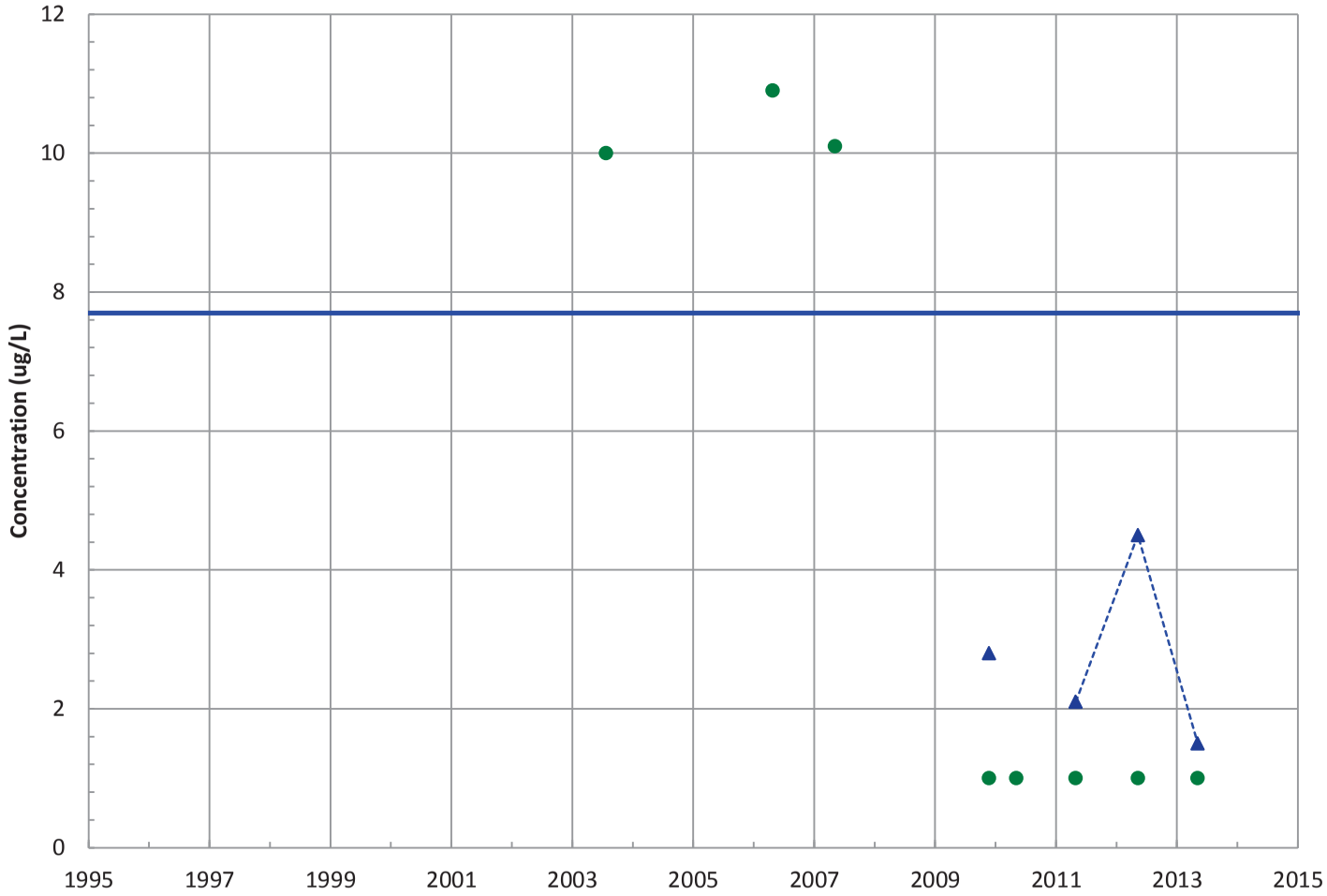
Well Location



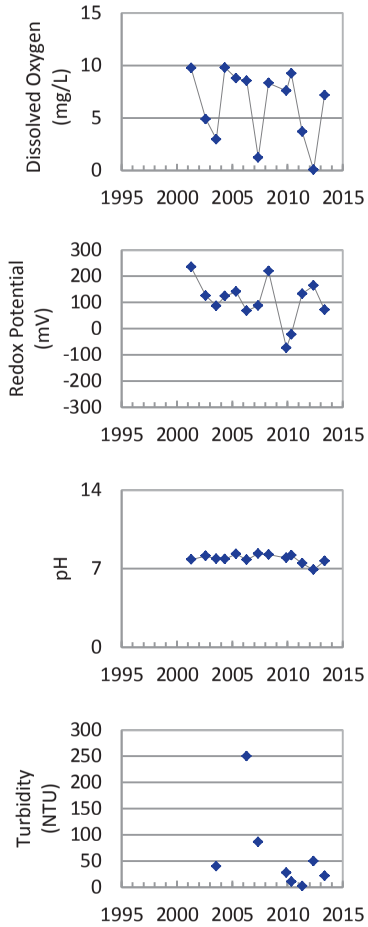
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/27/1995 to 5/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1011
1,4-Dioxane (p-Dioxane) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Stable

2011 - 2013 Data: N/A (<4 Detections in Dataset)

MAROS Linear Regression Method

Data (7/2009 - 12/2013): Stable

2011 - 2013 Data: Stable

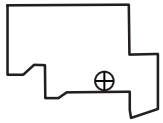
▲ Measured Value

● Sample Detection Limit

------- Concentration Trend

—— Groundwater Protection Standard

Well Location



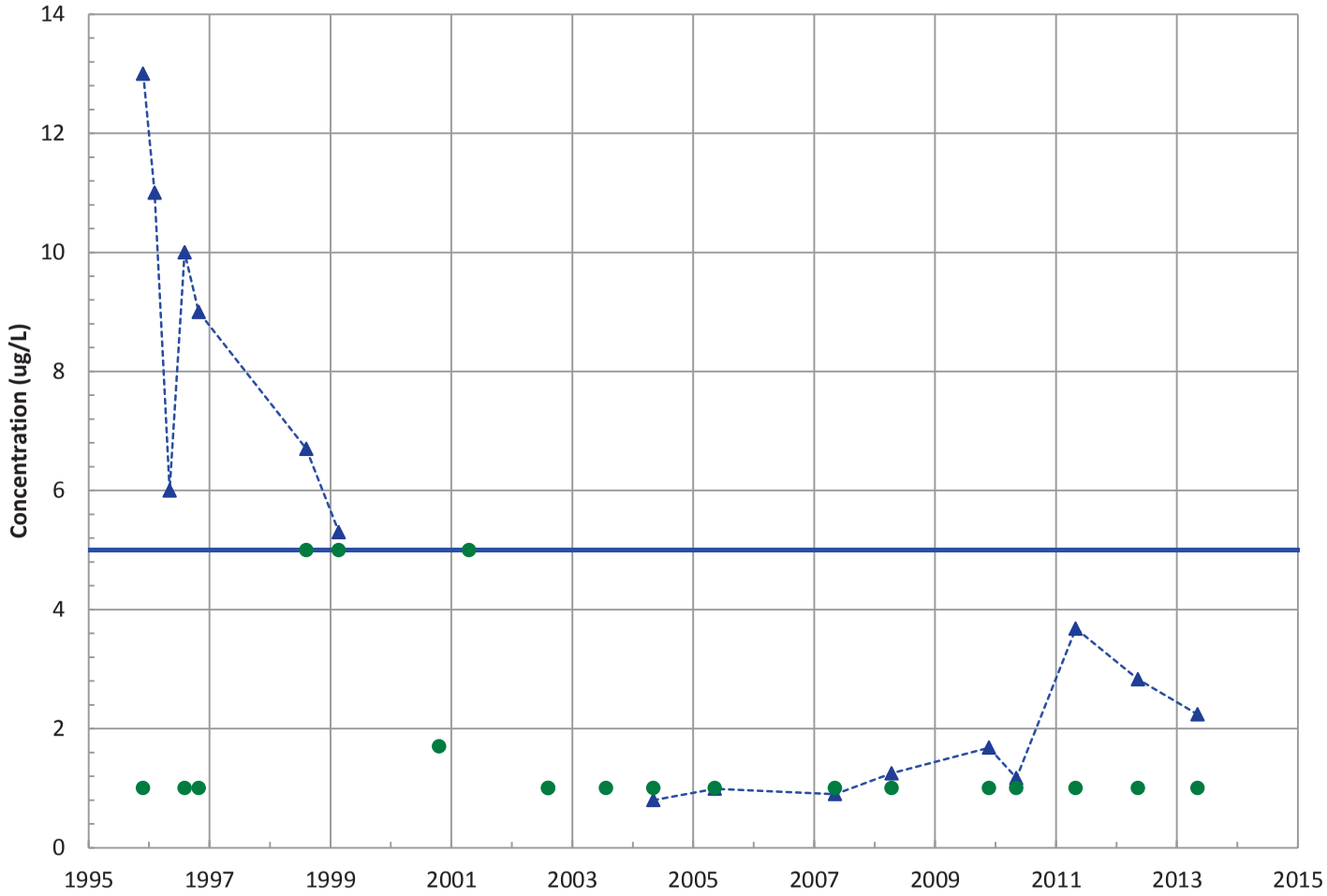
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 7/31/2003 to 5/20/2013

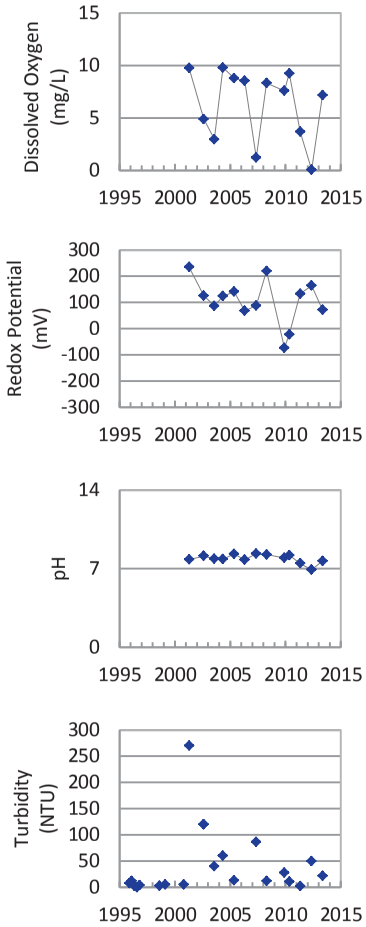
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1011
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



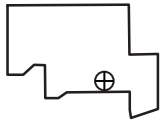
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

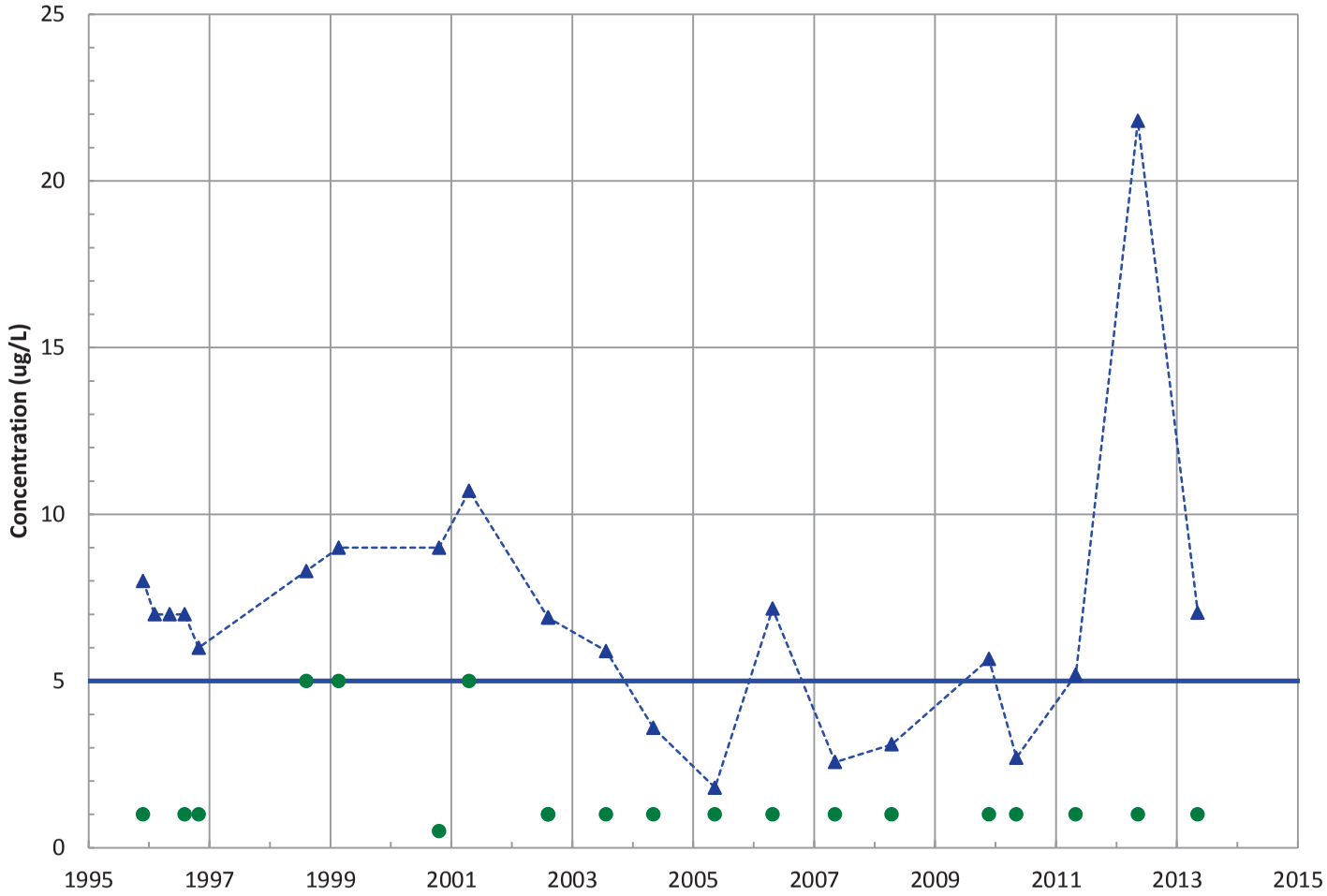
Well Location



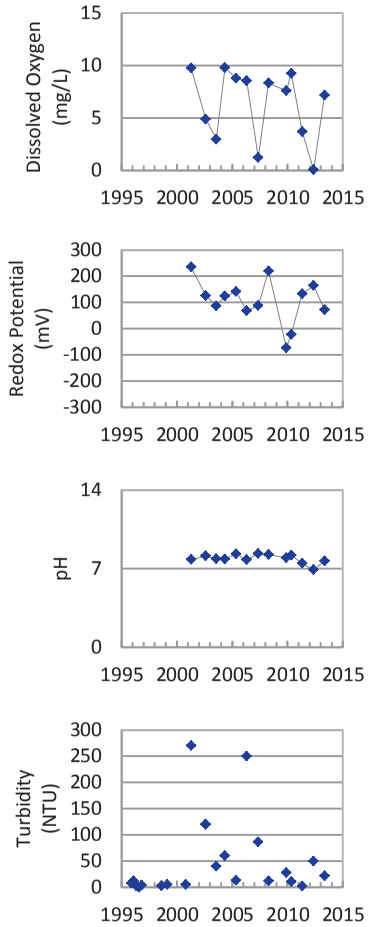
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/27/1995 to 5/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1011
Trichloroethene Trend in Perched Aquifer



Field Parameters



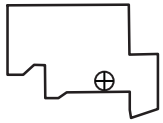
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

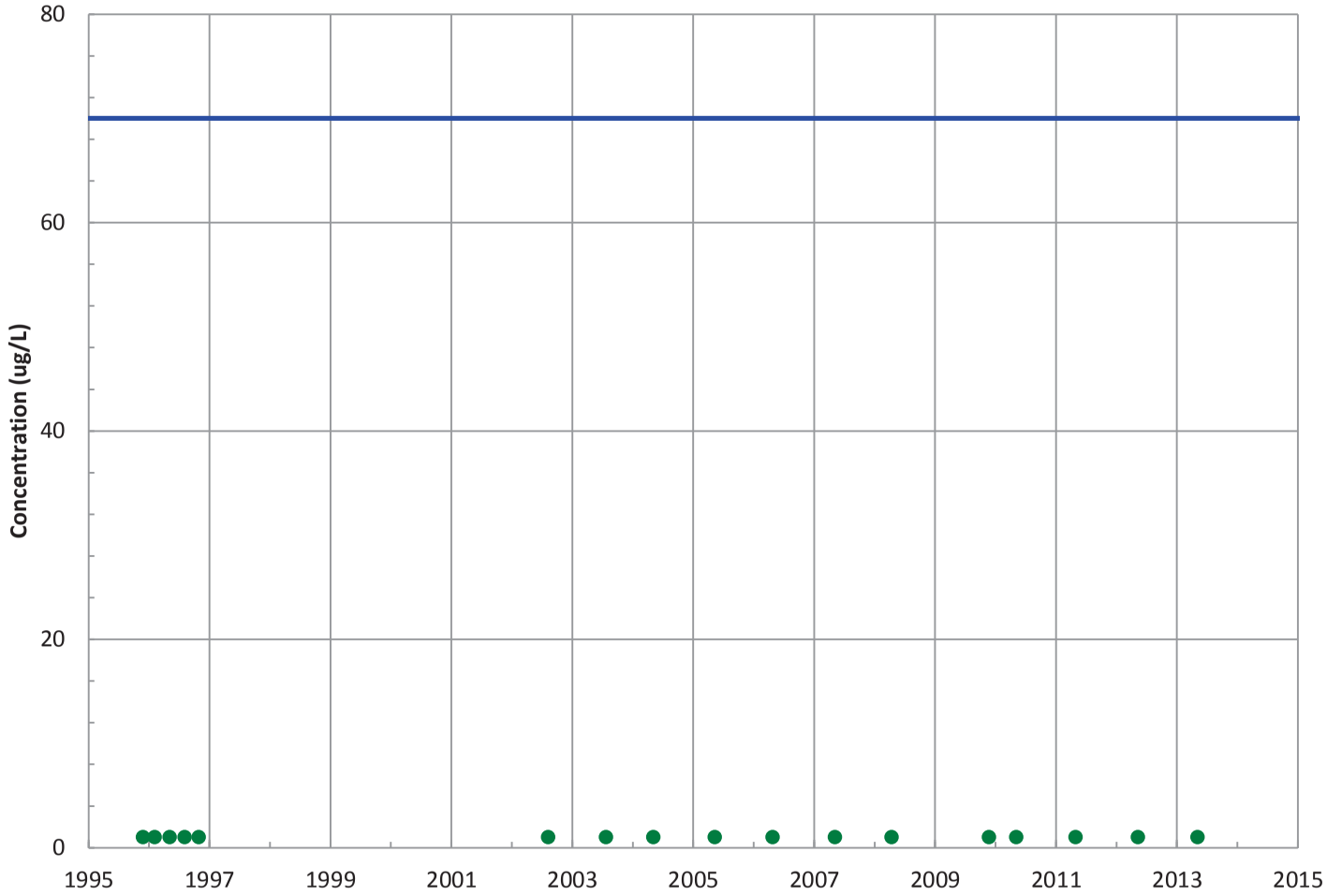
Well Location



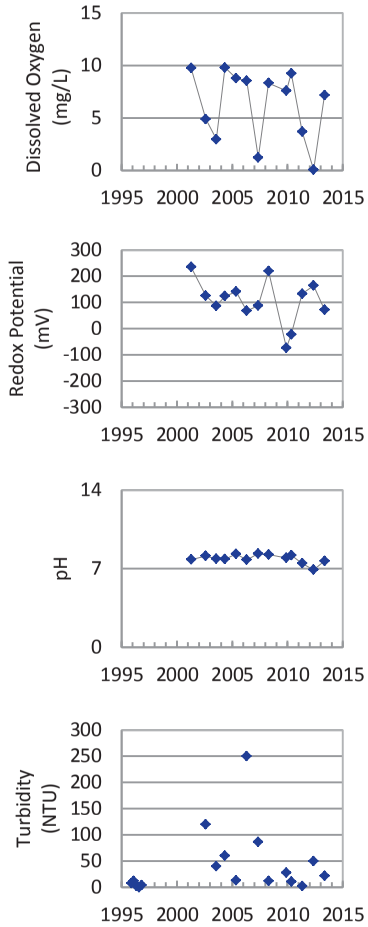
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/27/1995 to 5/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1011
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



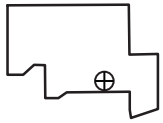
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

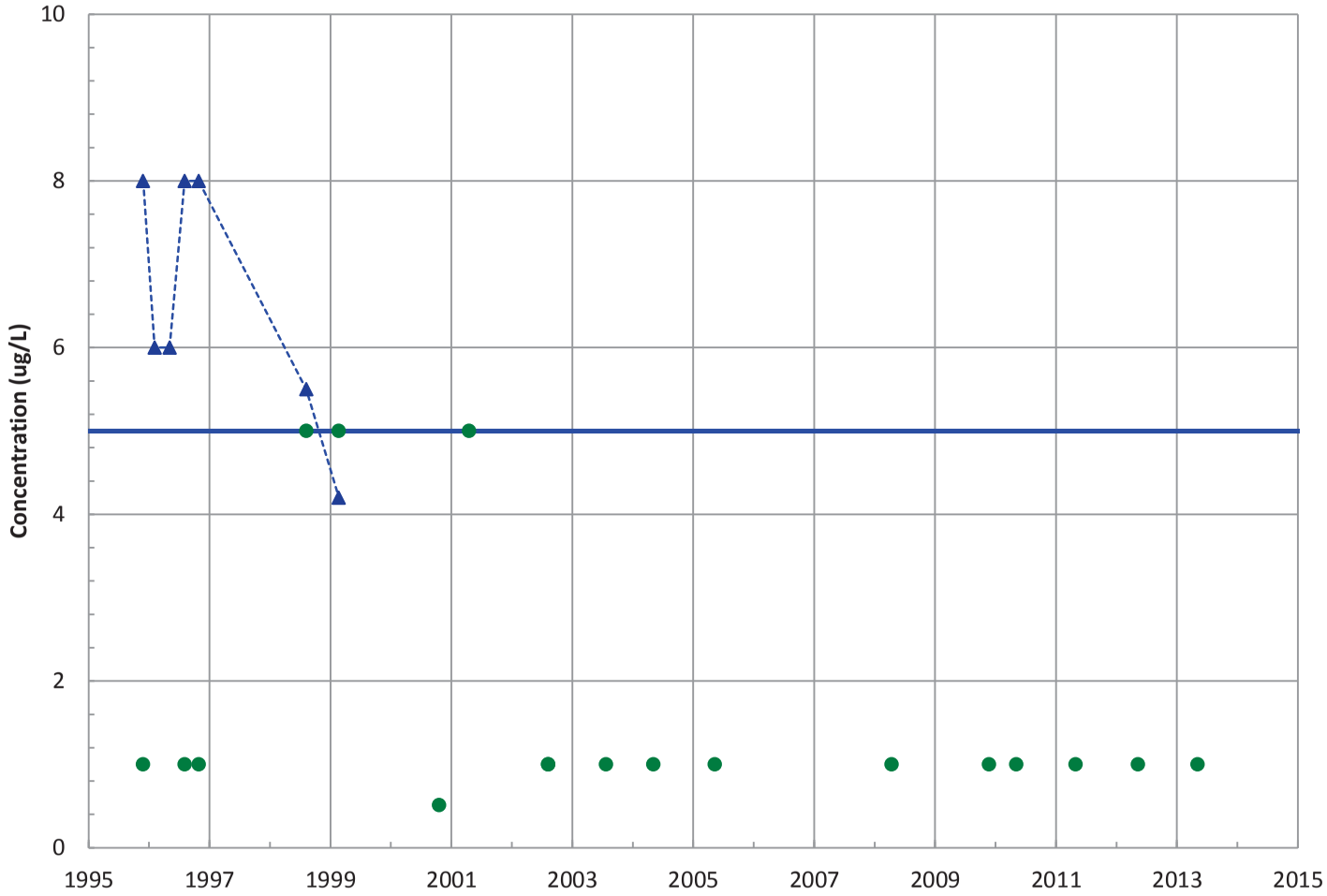
Well Location



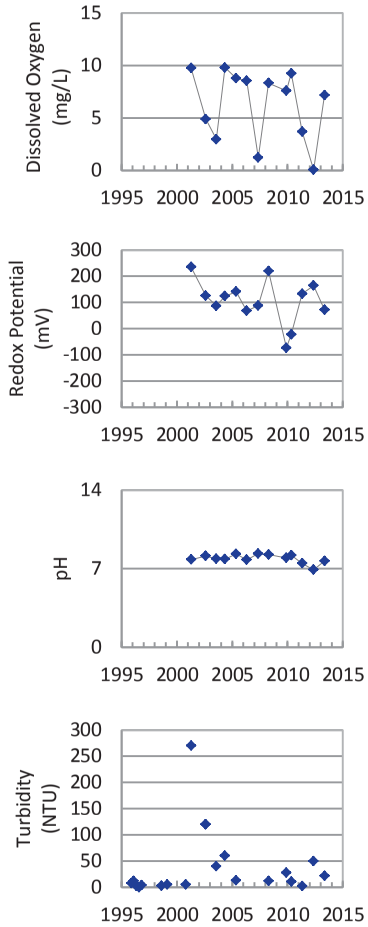
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/27/1995 to 5/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1011
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



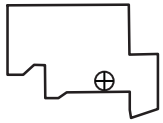
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: Decreasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

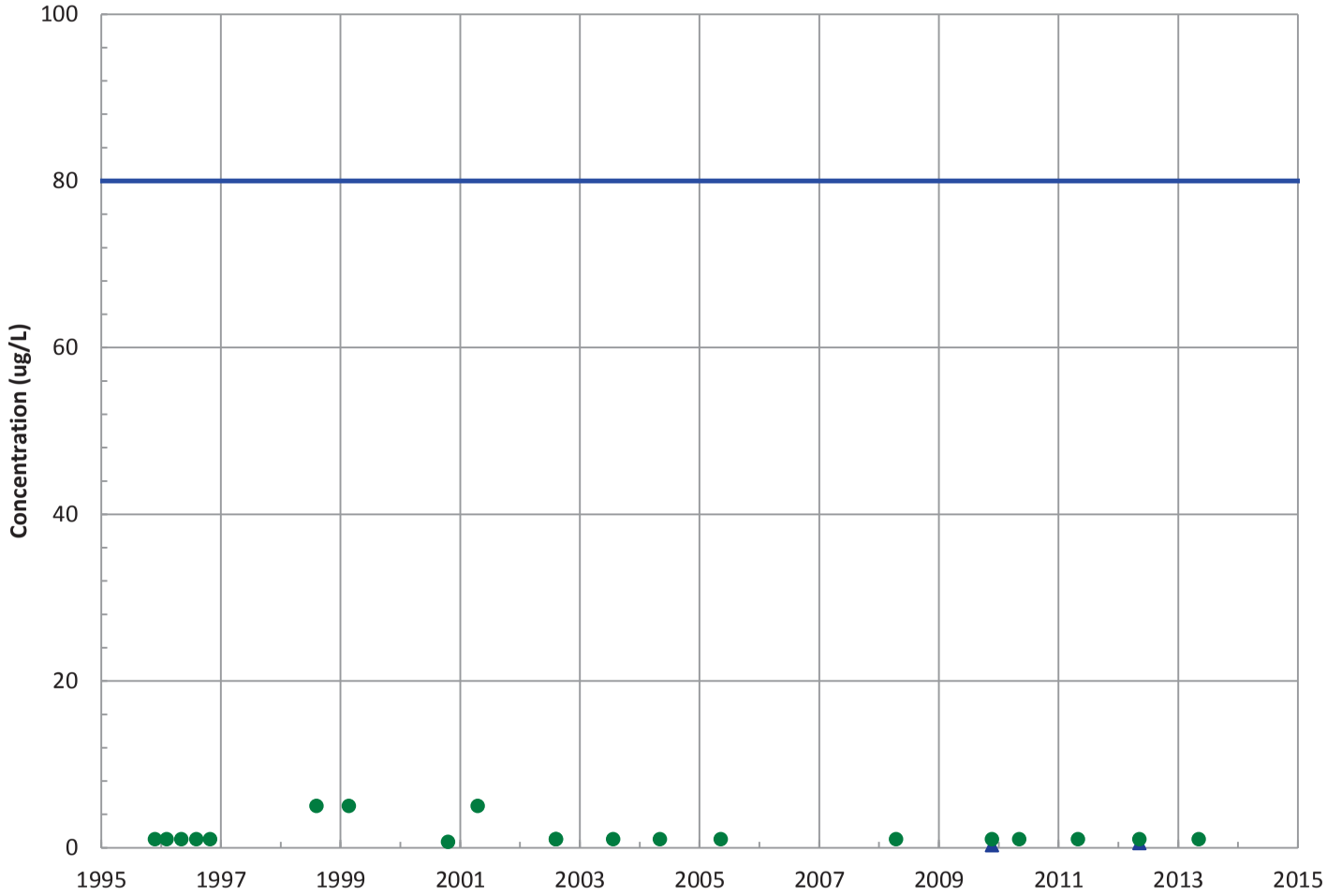
Well Location



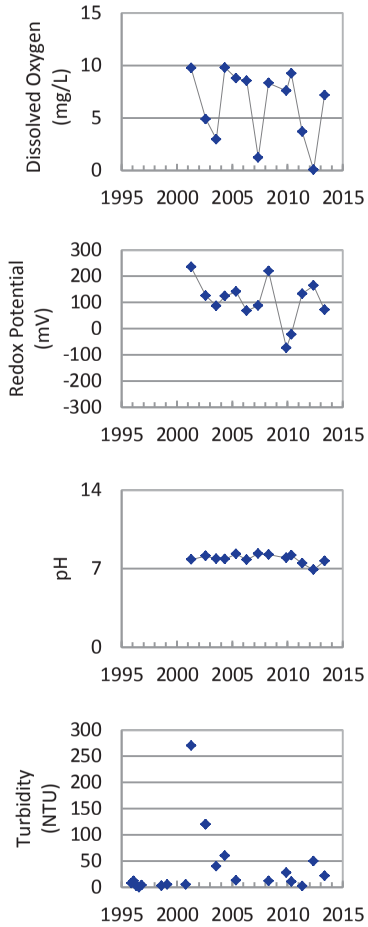
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/27/1995 to 5/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1011
Chloroform Trend in Perched Aquifer



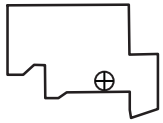
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

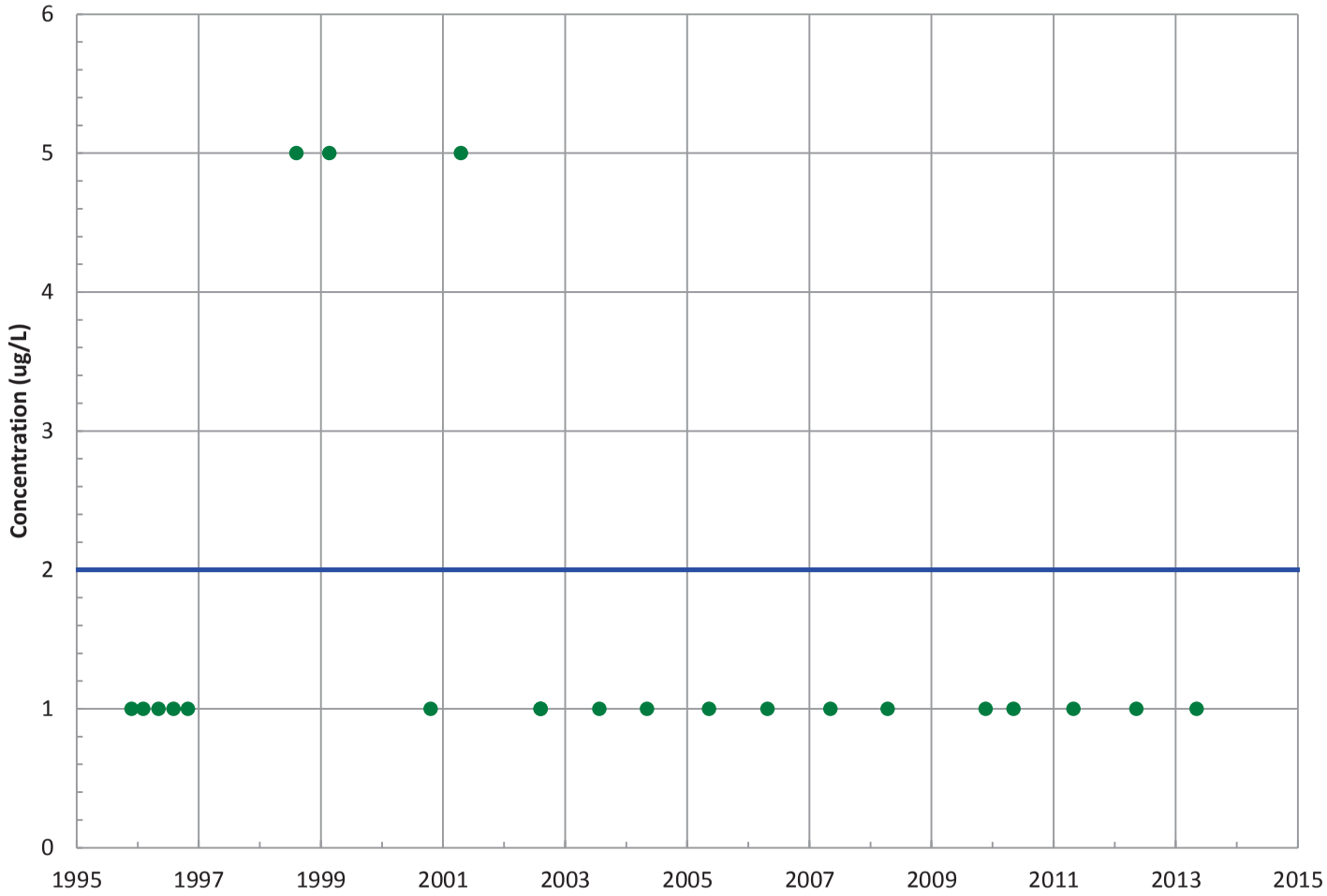
Well Location



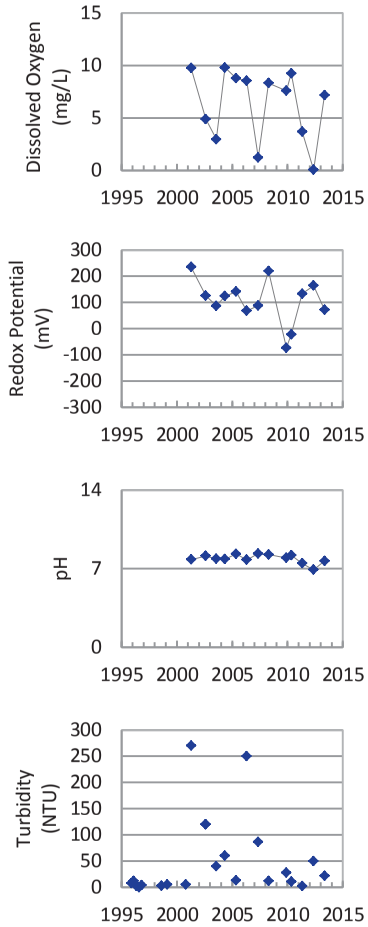
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/27/1995 to 5/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1011
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



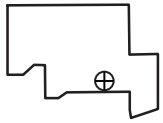
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

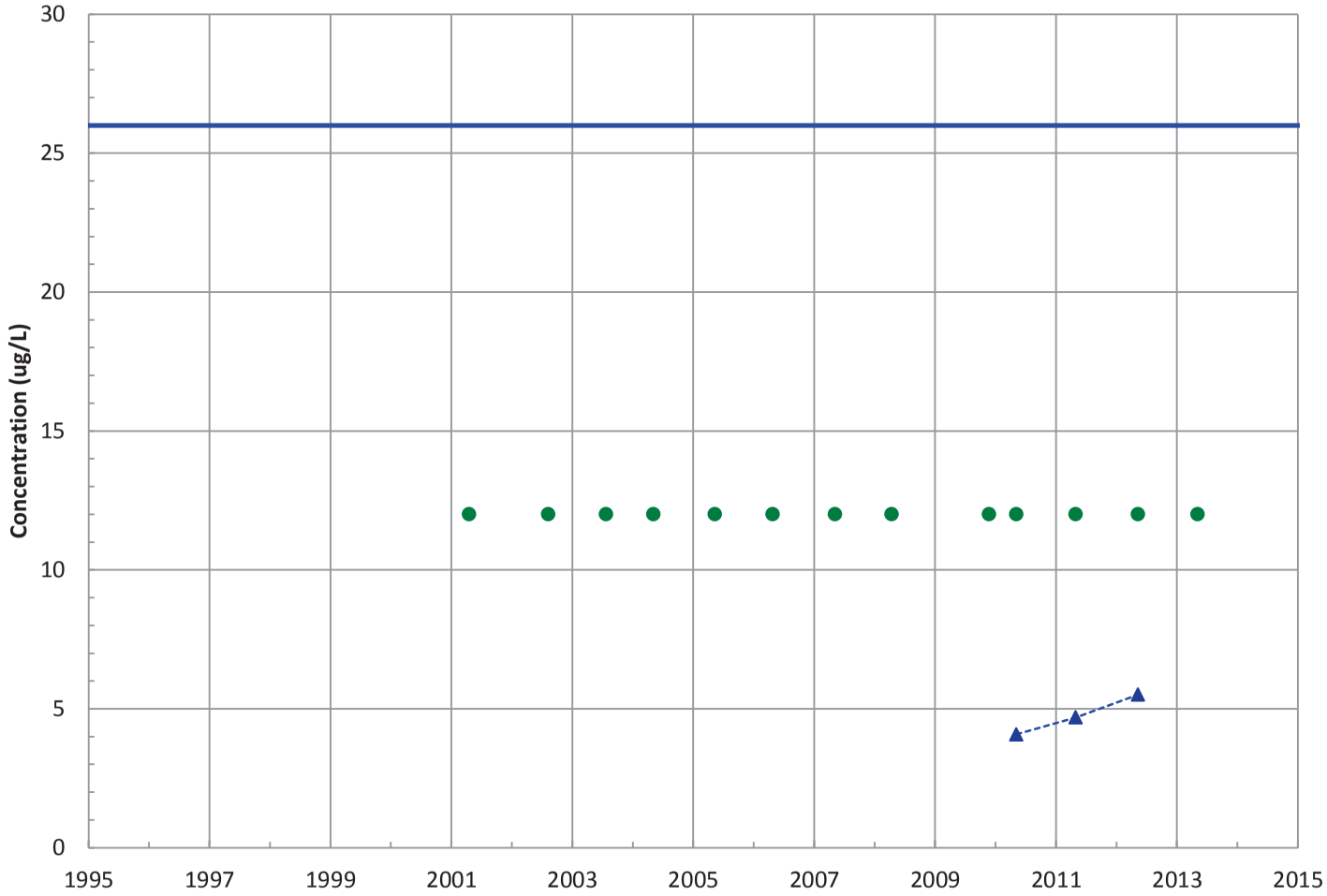
Well Location



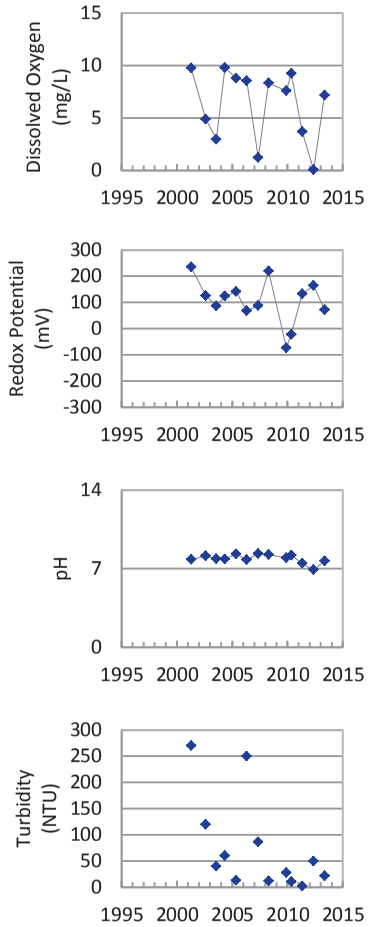
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/27/1995 to 5/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1011
Perchlorate Trend in Perched Aquifer



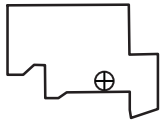
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

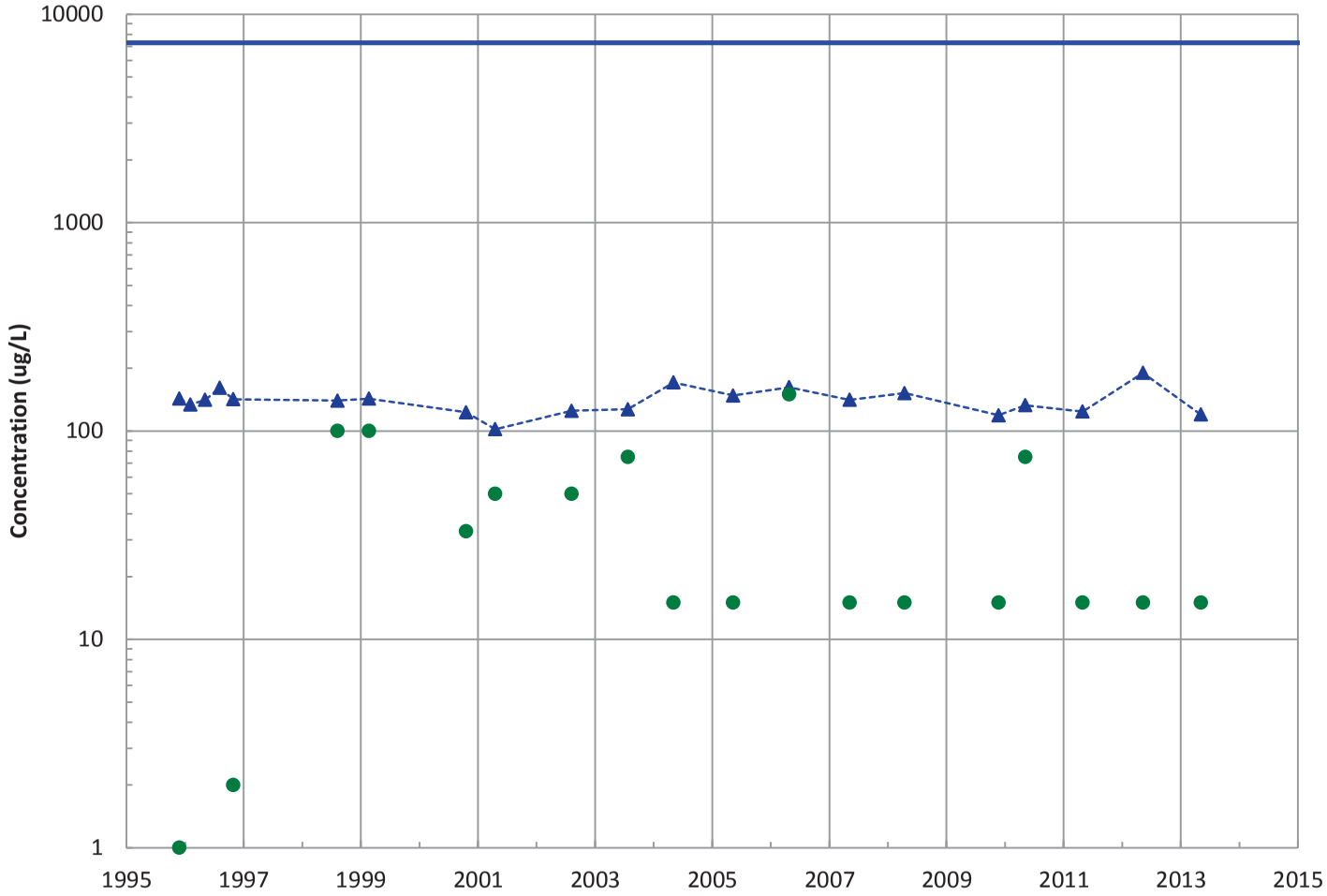
Well Location



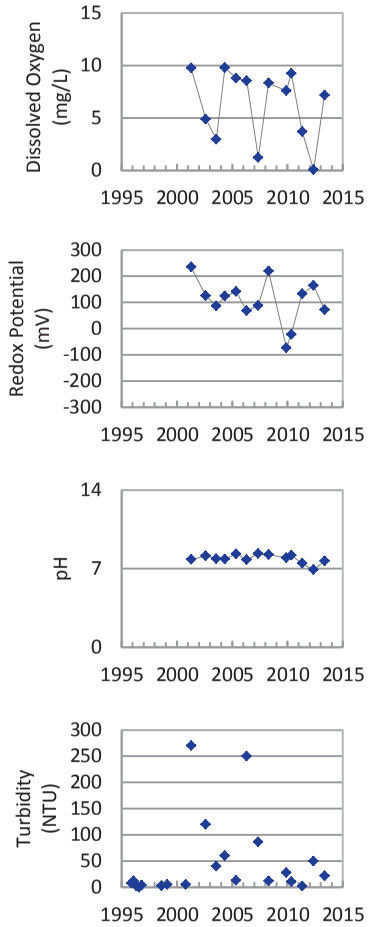
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/23/2001 to 5/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1011
Boron Trend in Perched Aquifer



Field Parameters



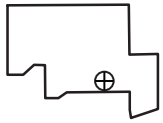
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

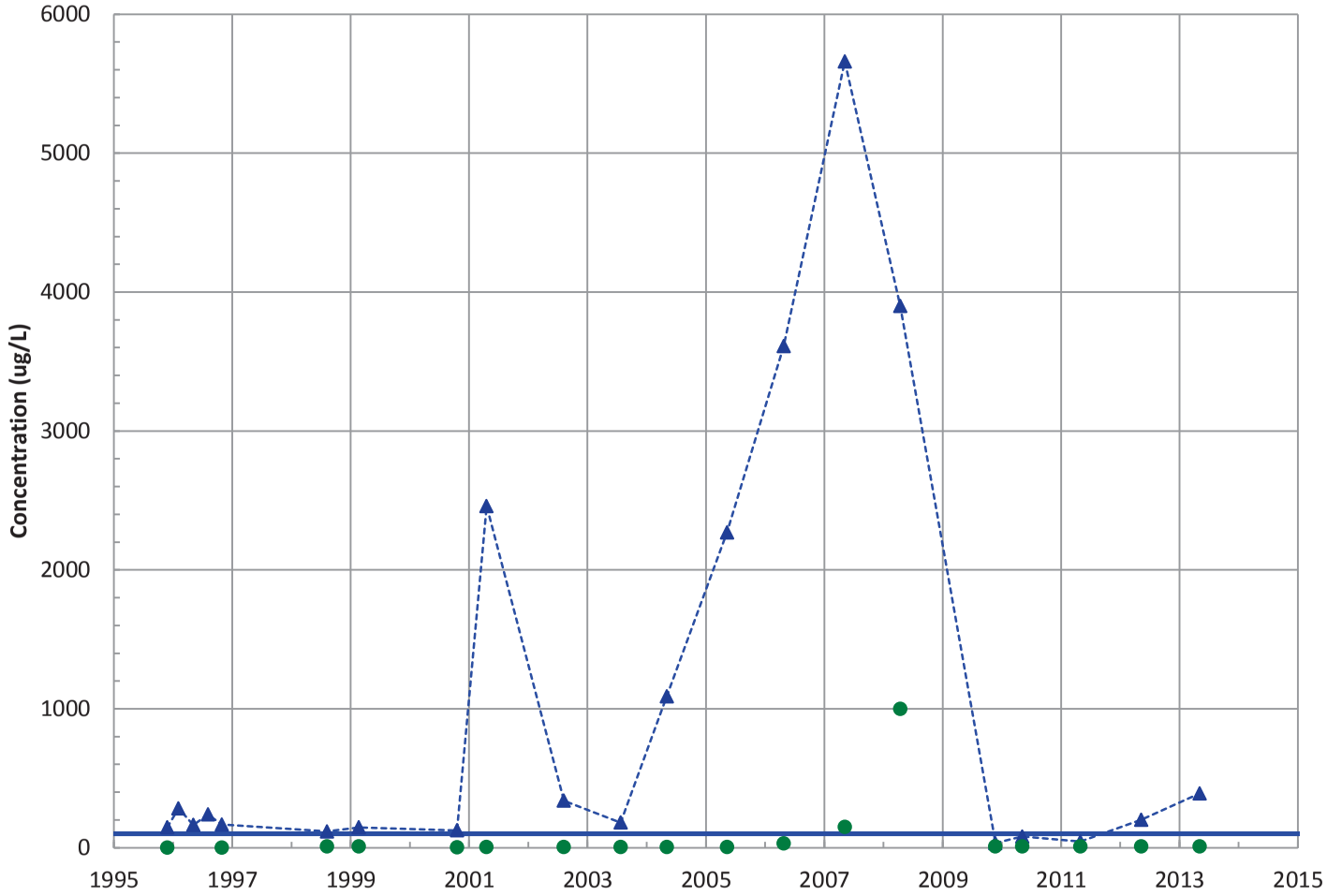
Well Location



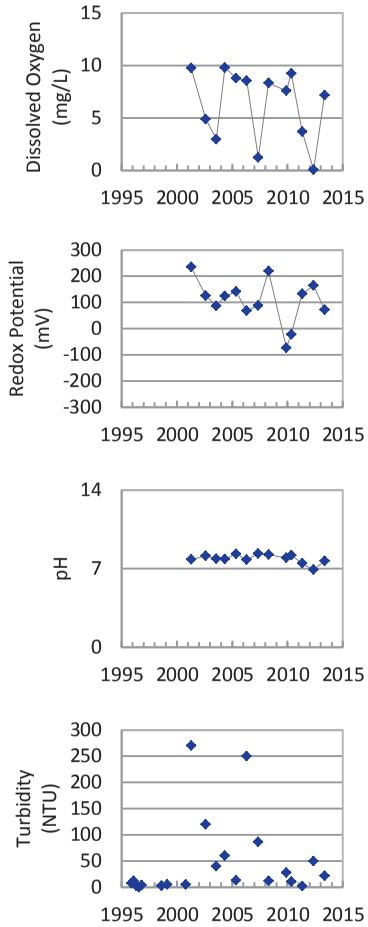
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/27/1995 to 5/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1011
Chromium, Total Trend in Perched Aquifer



Field Parameters



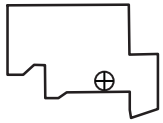
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Probably Increasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

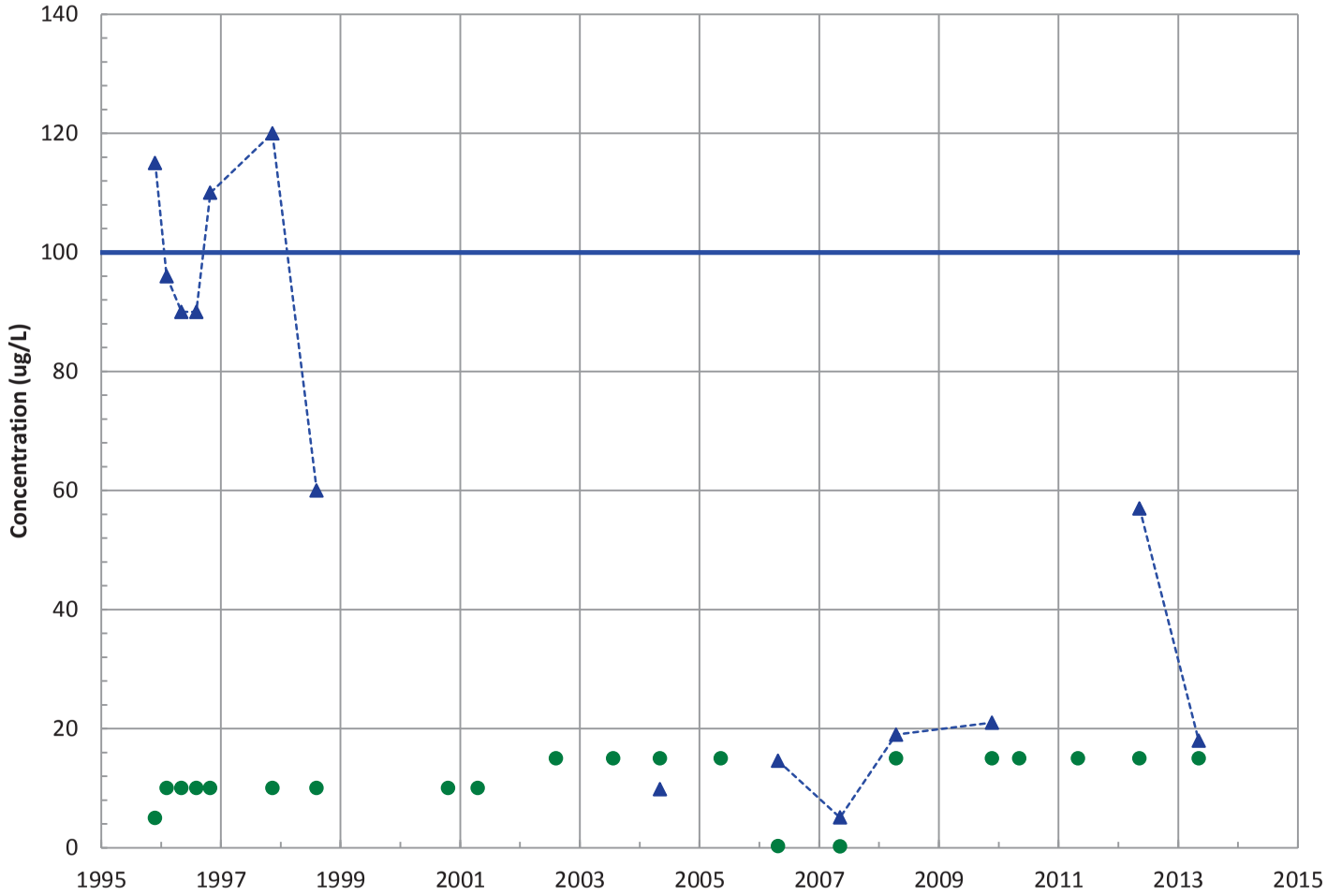
Well Location



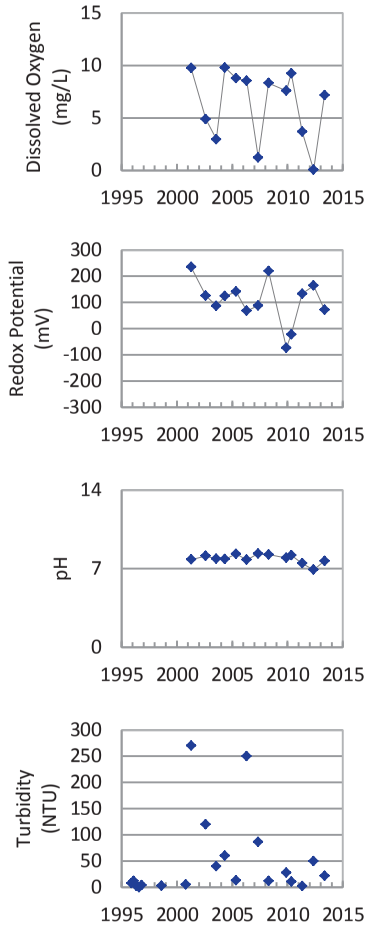
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/27/1995 to 5/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1011
Chromium, Hexavalent Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: N/A (<4 Detections in

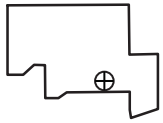
MAROS Linear Regression Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

Well Location



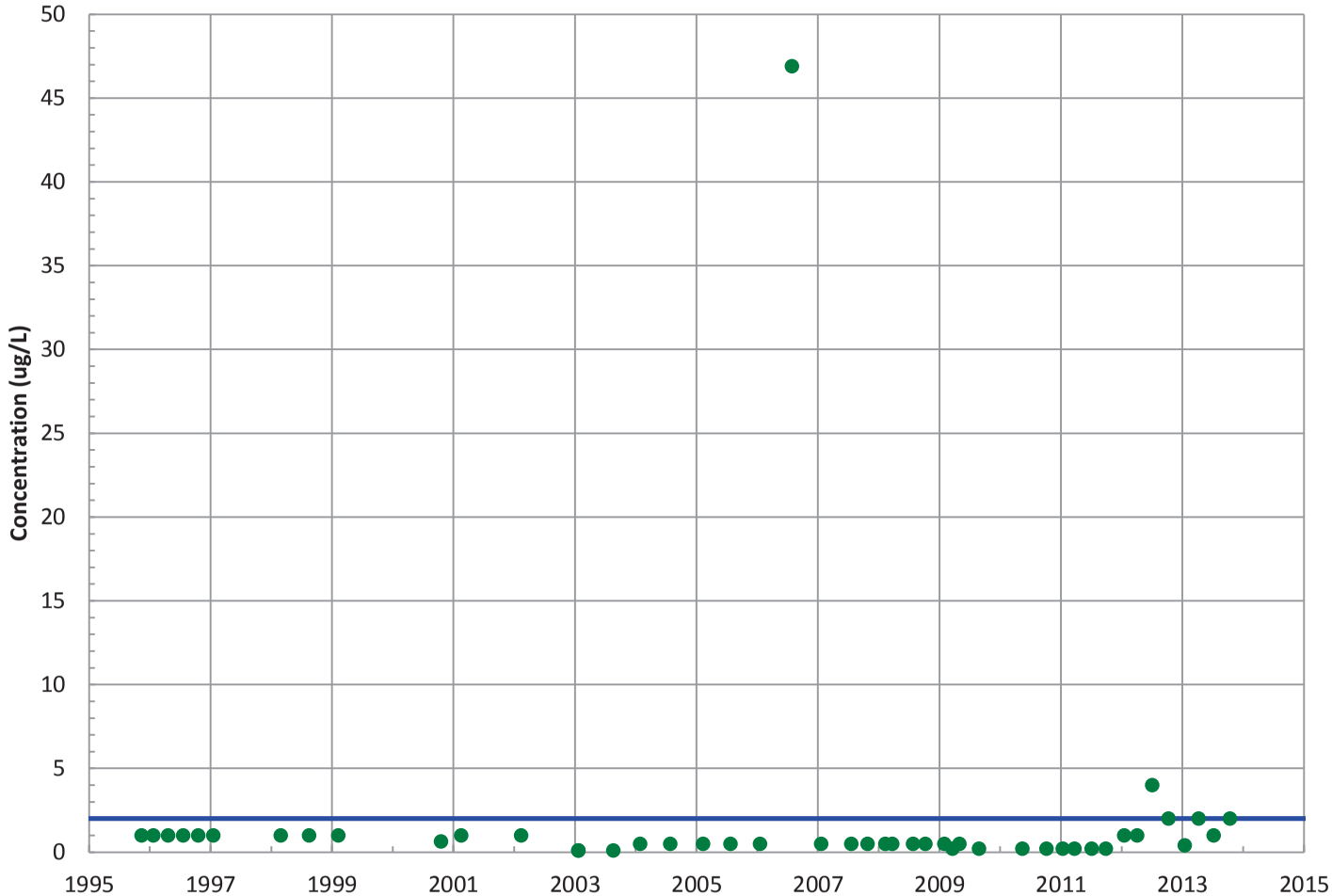
Query Date Range: 1/1/1992 to 12/31/2013

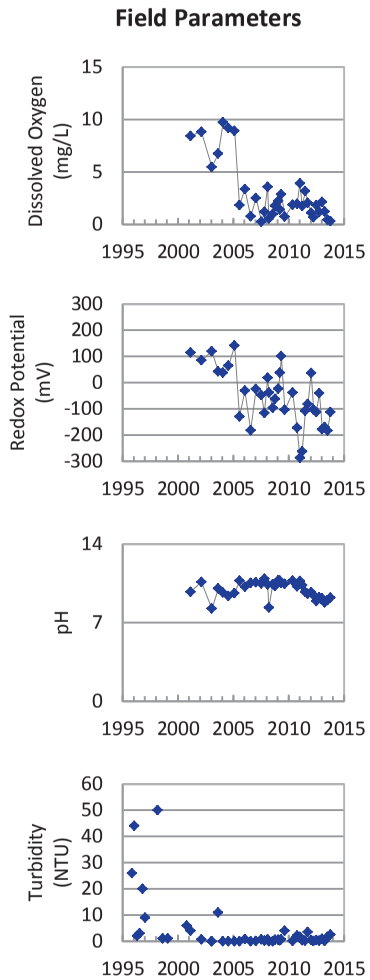
Data Date Range: 11/27/1995 to 5/20/2013

Analysis Date: 3/4/2014

B&W Pantex

PTX06-1012
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer





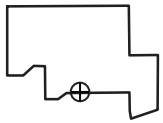
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

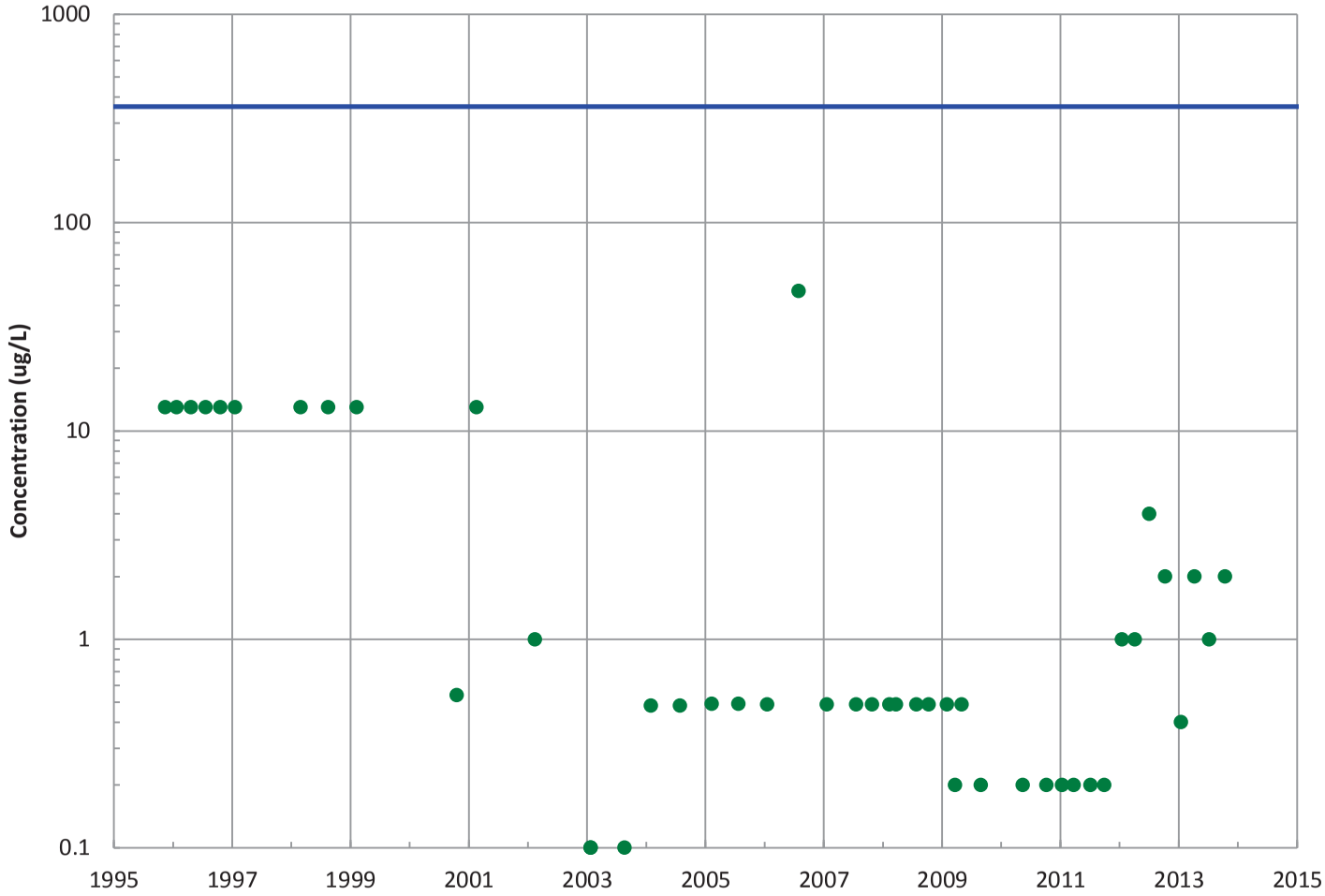
Well Location



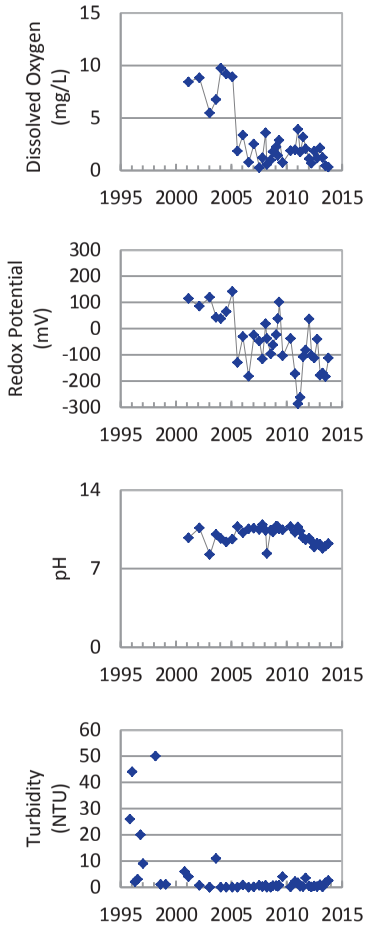
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1012
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



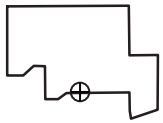
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

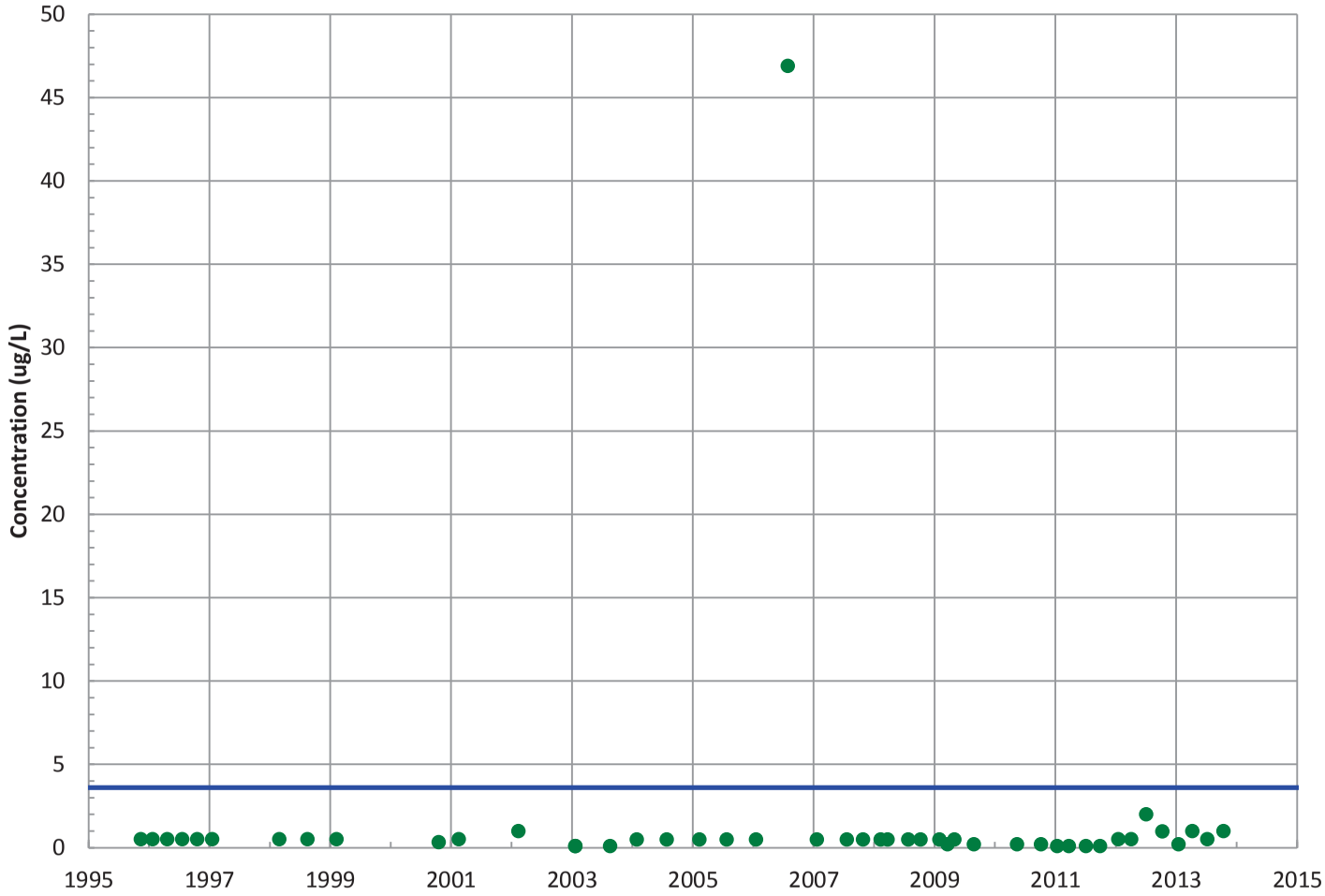
Well Location



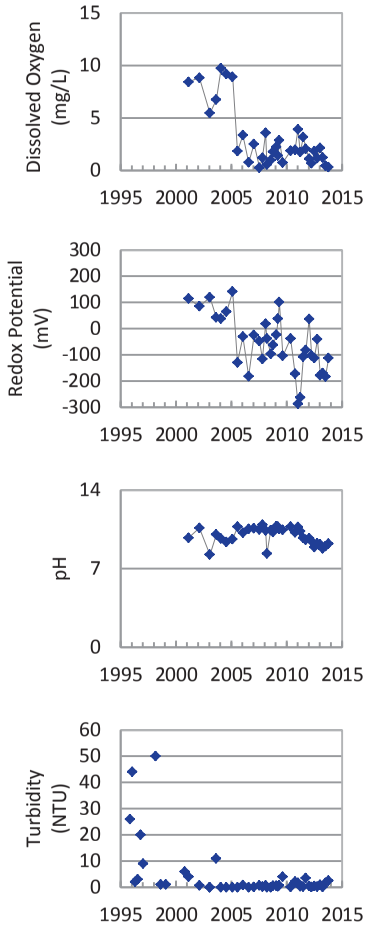
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1012
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



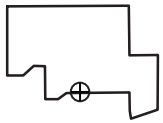
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

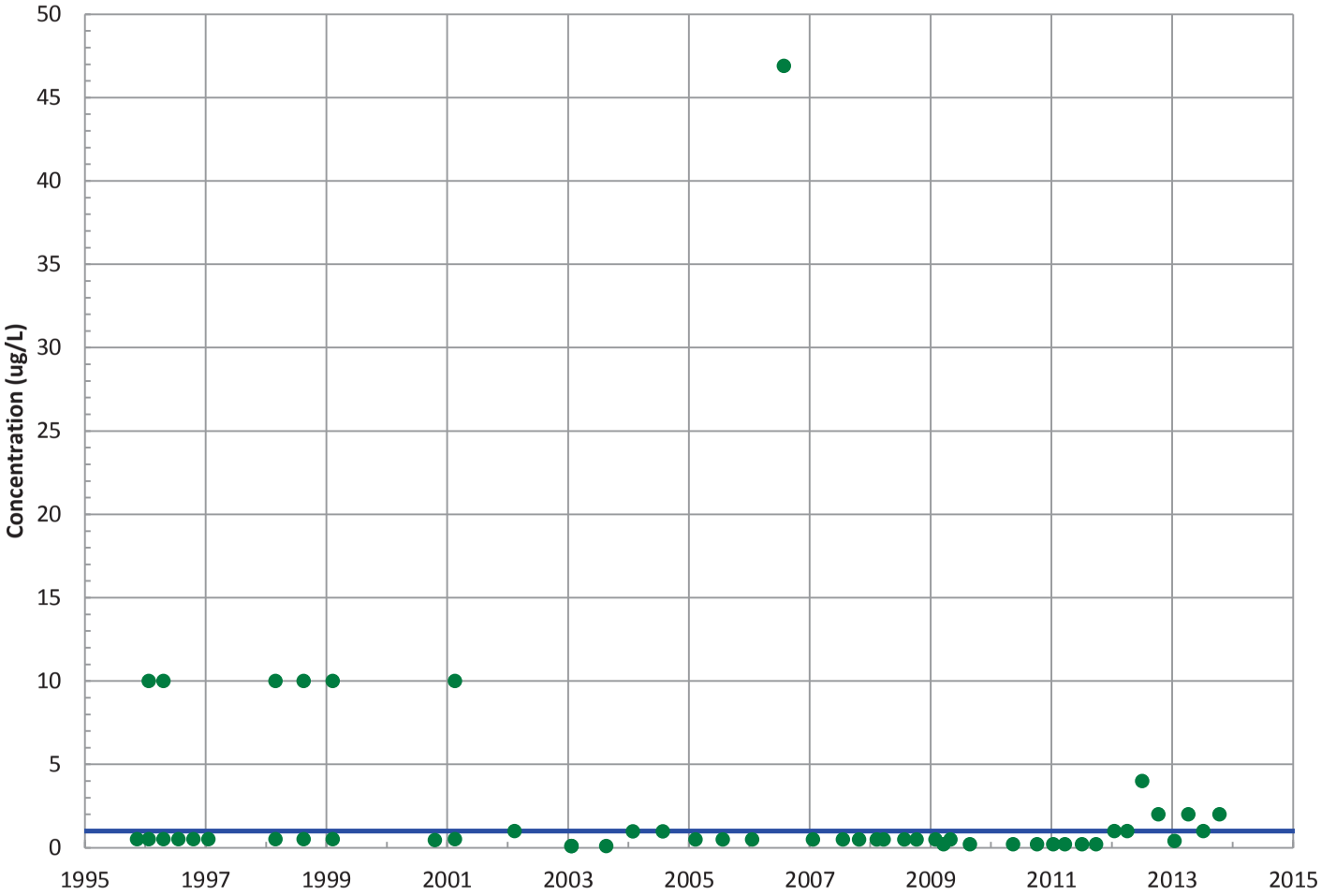
Well Location



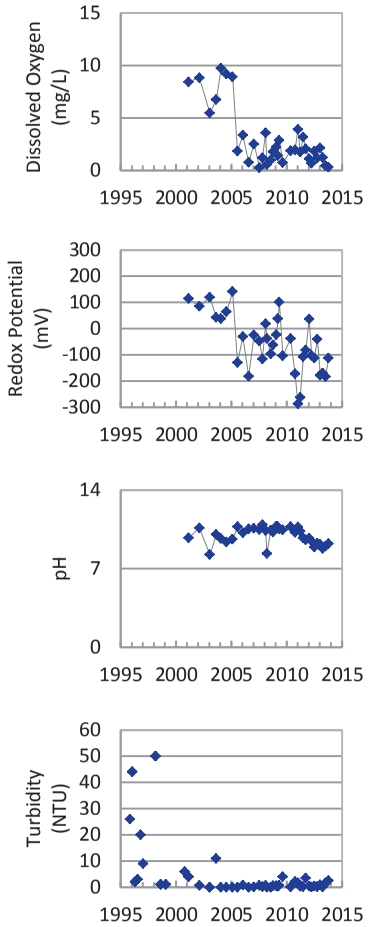
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1012
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



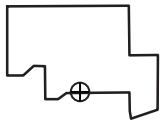
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

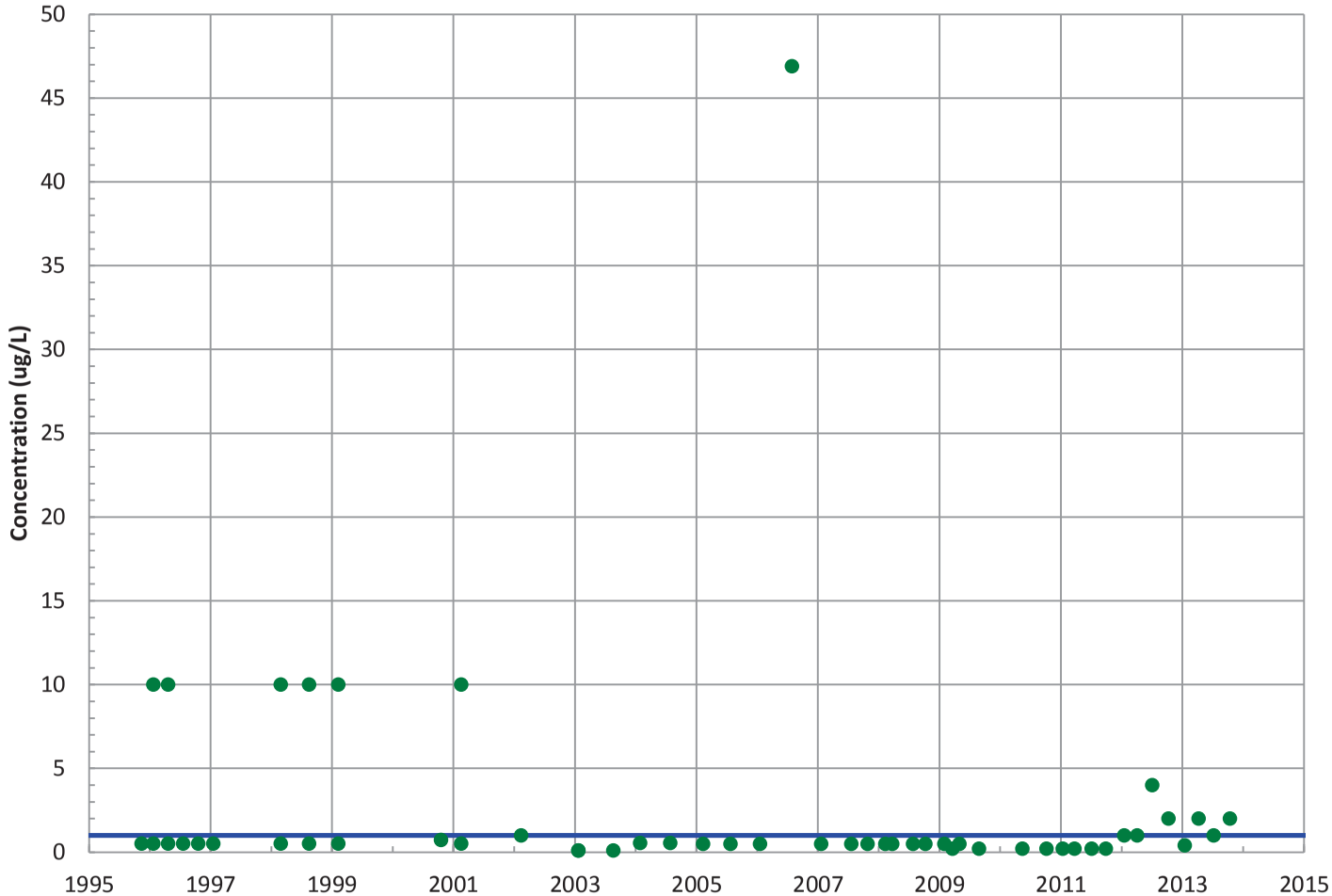
Well Location



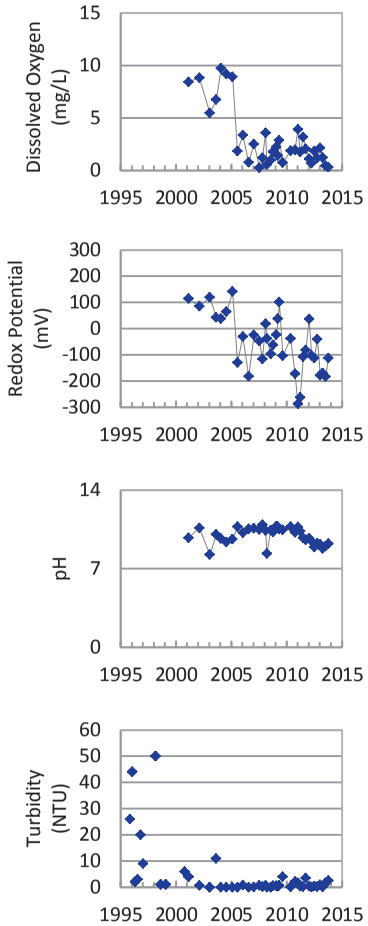
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1012
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



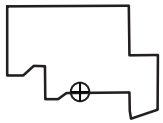
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

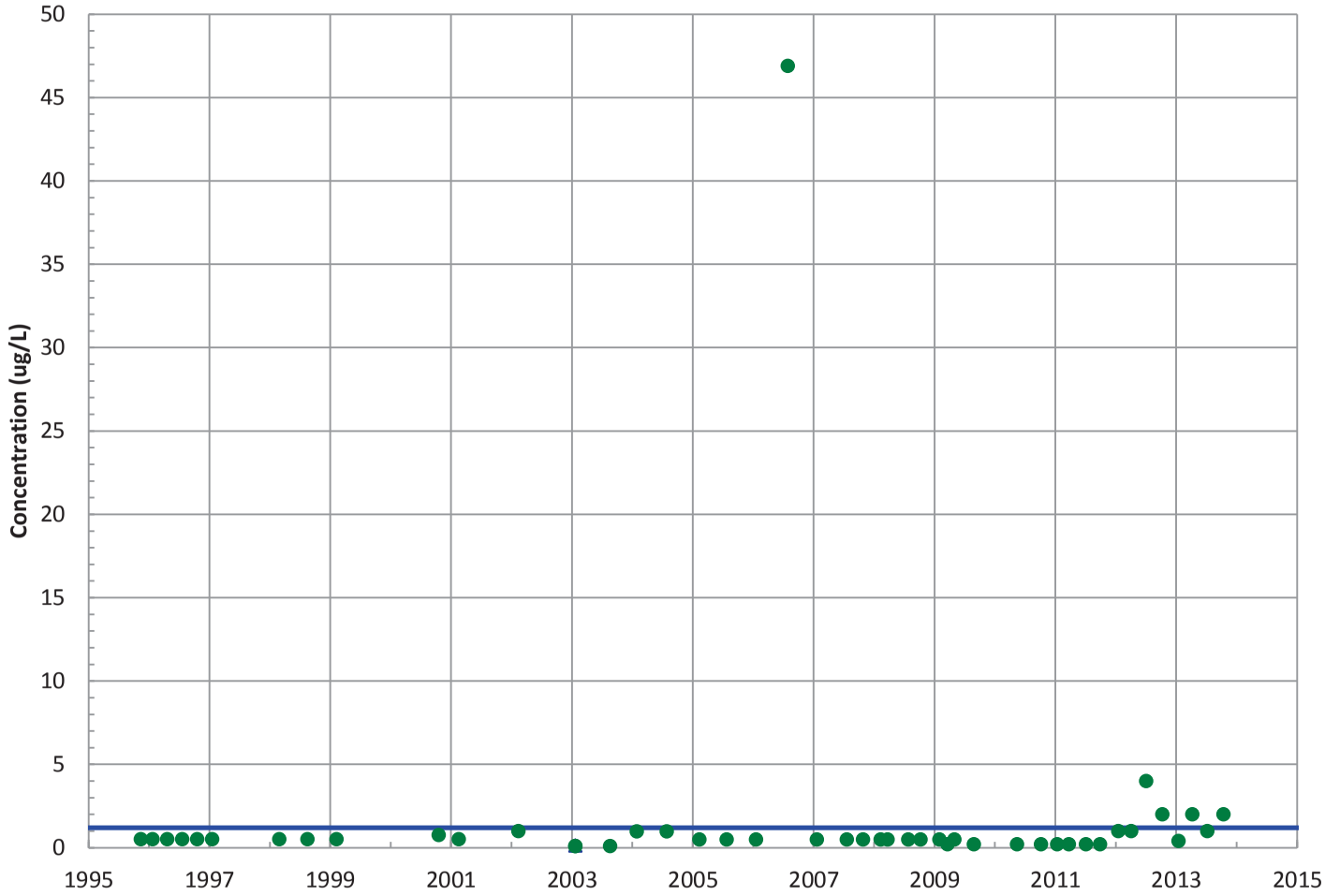
Well Location



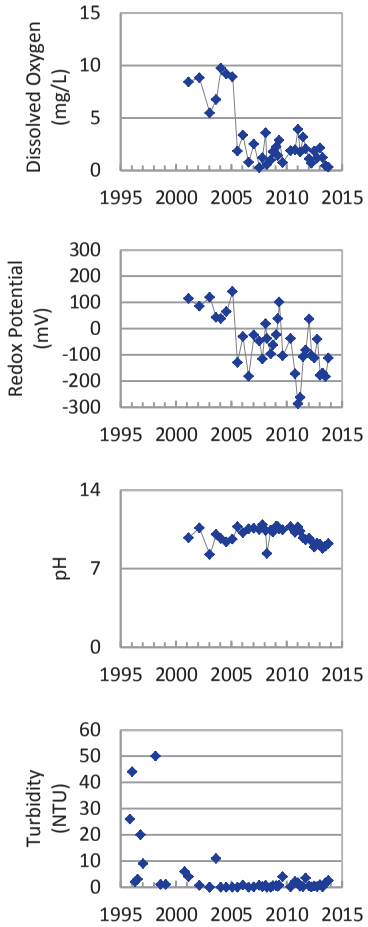
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1012
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



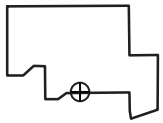
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

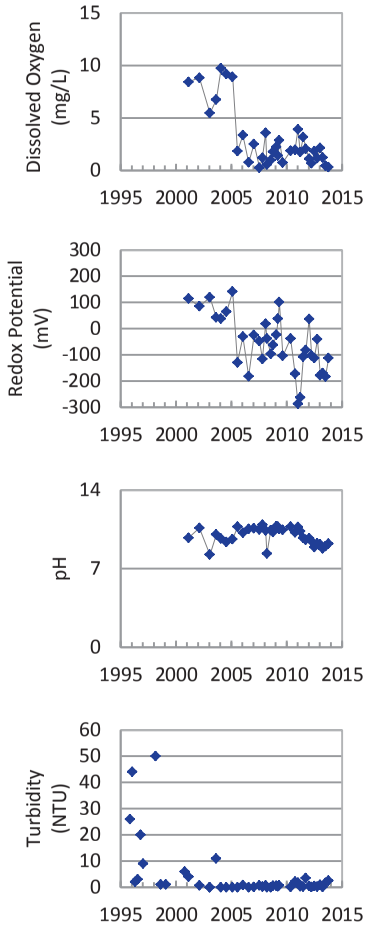


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1012
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer

Field Parameters



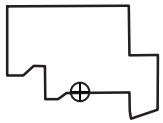
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

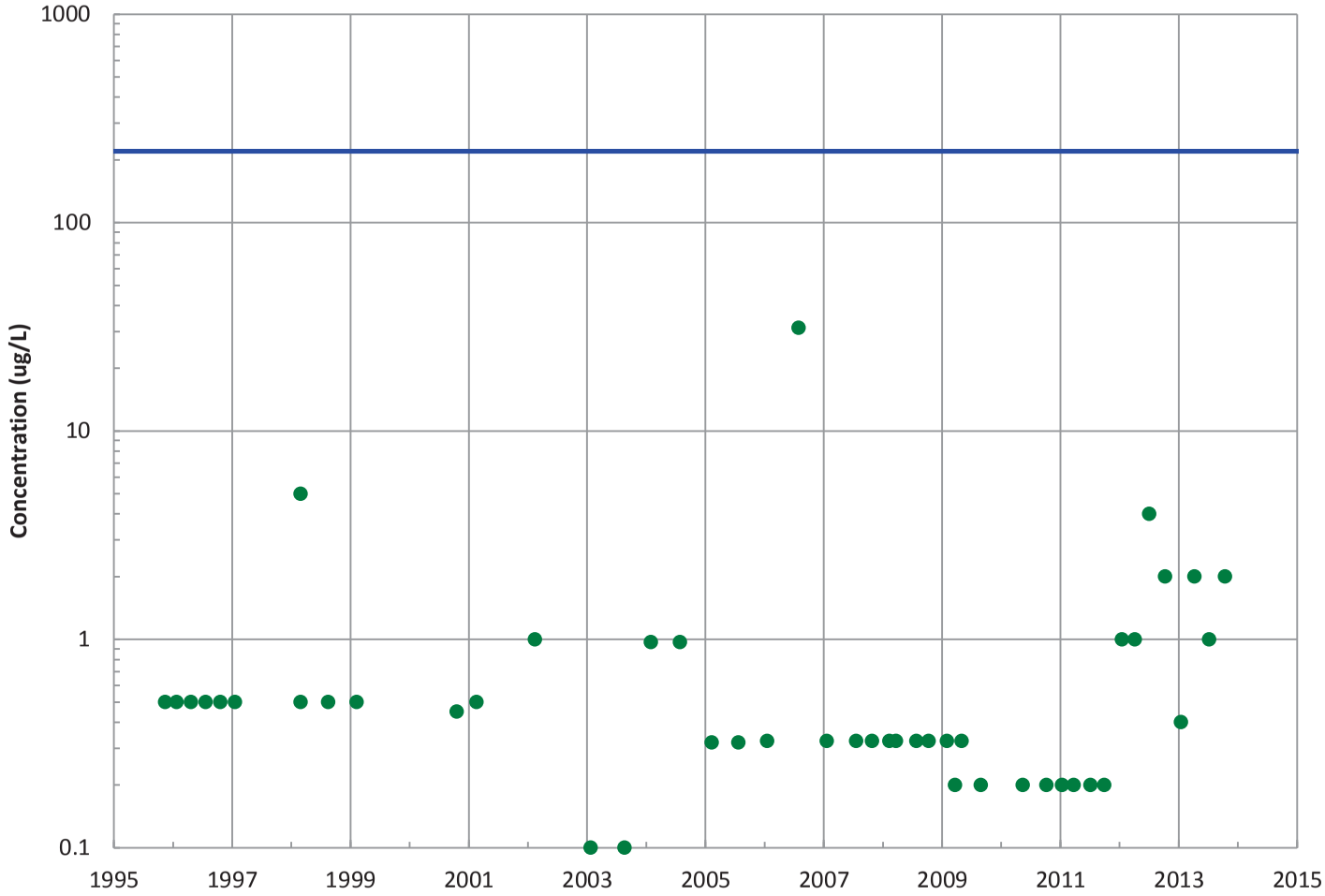
Well Location



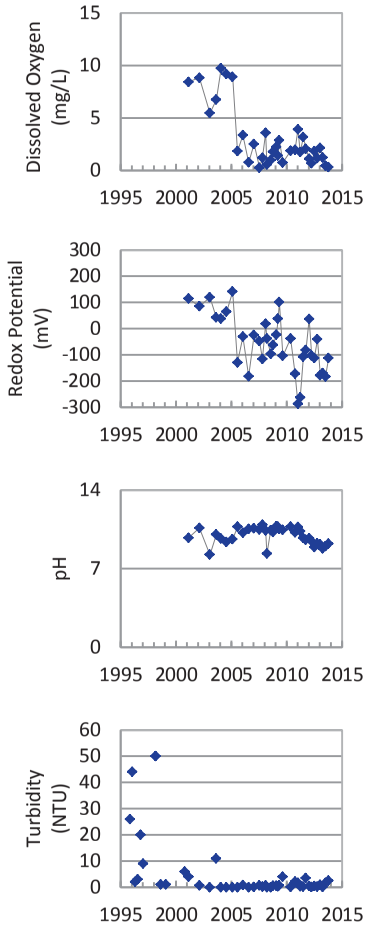
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1012
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



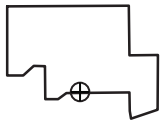
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

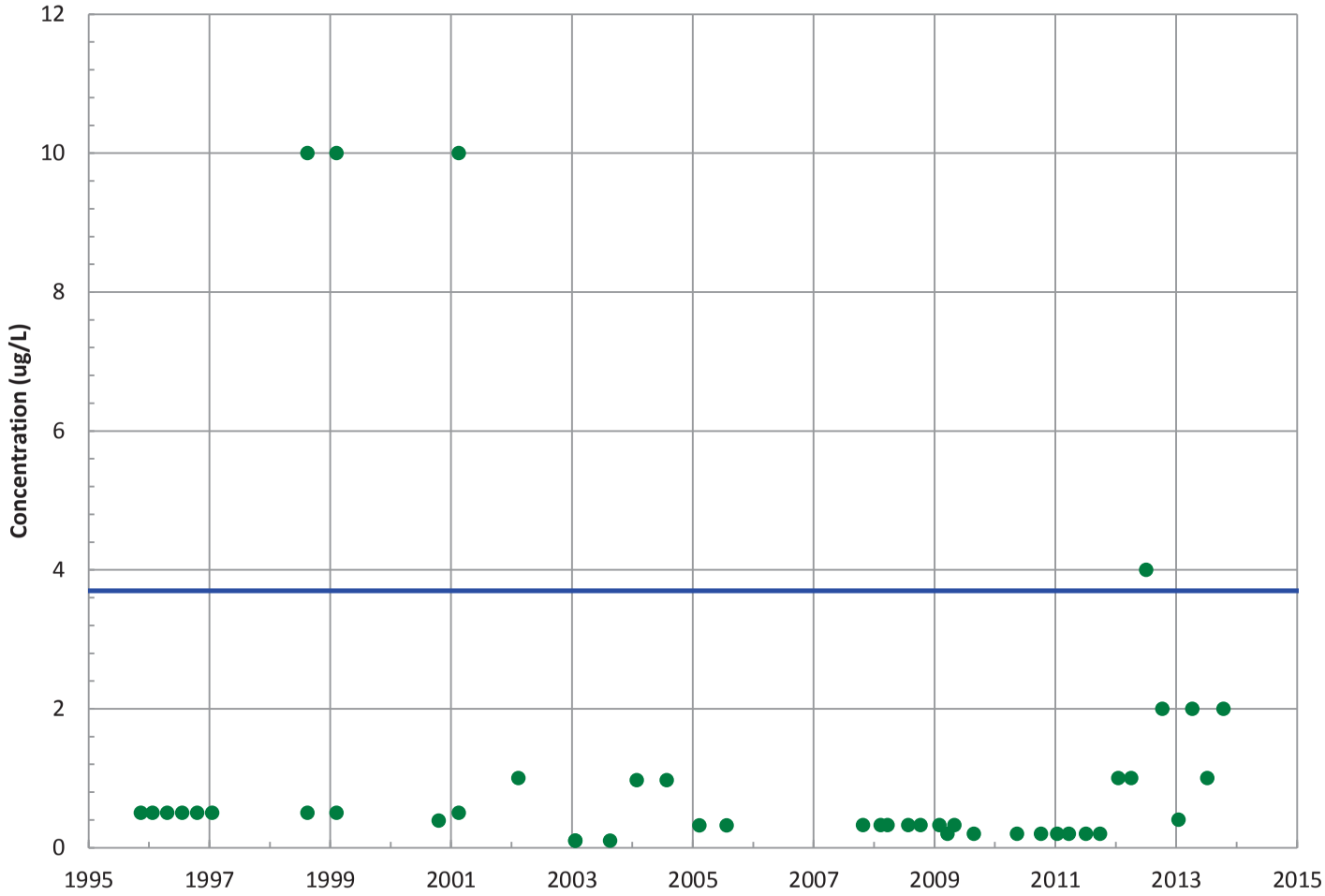
Well Location



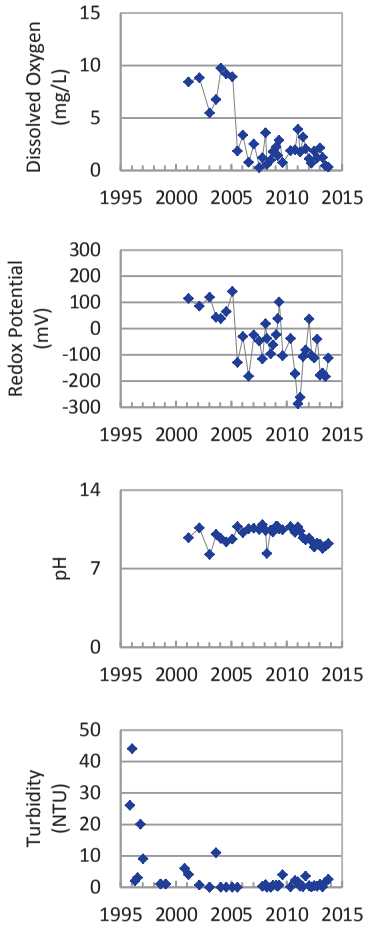
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1012
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



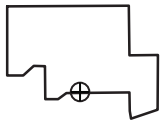
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

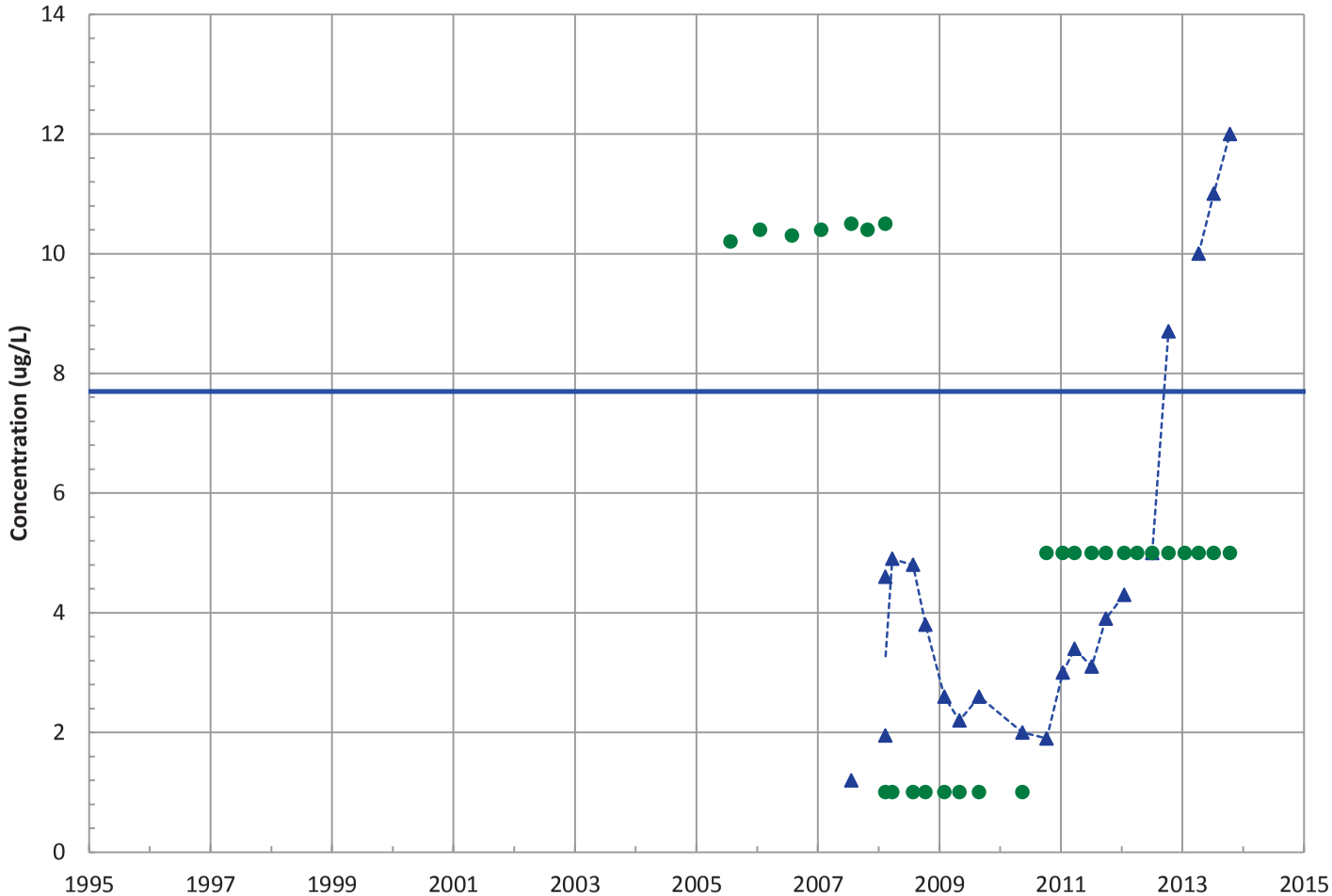
Well Location



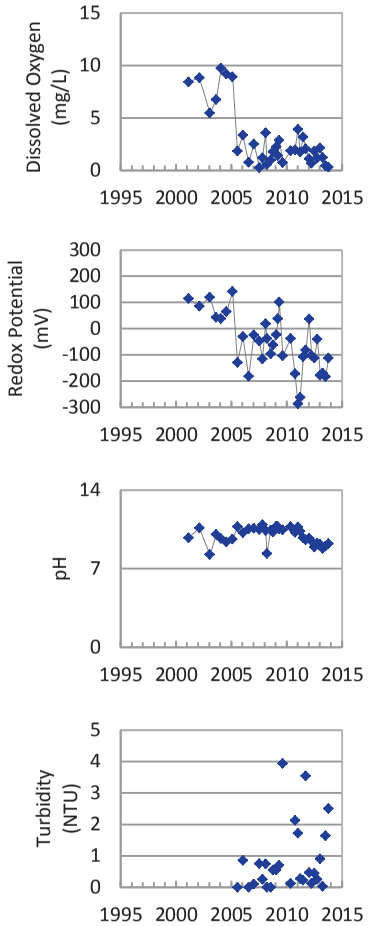
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1012
1,4-Dioxane (p-Dioxane) Trend in Perched Aquifer



Field Parameters



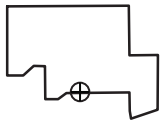
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Increasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Increasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

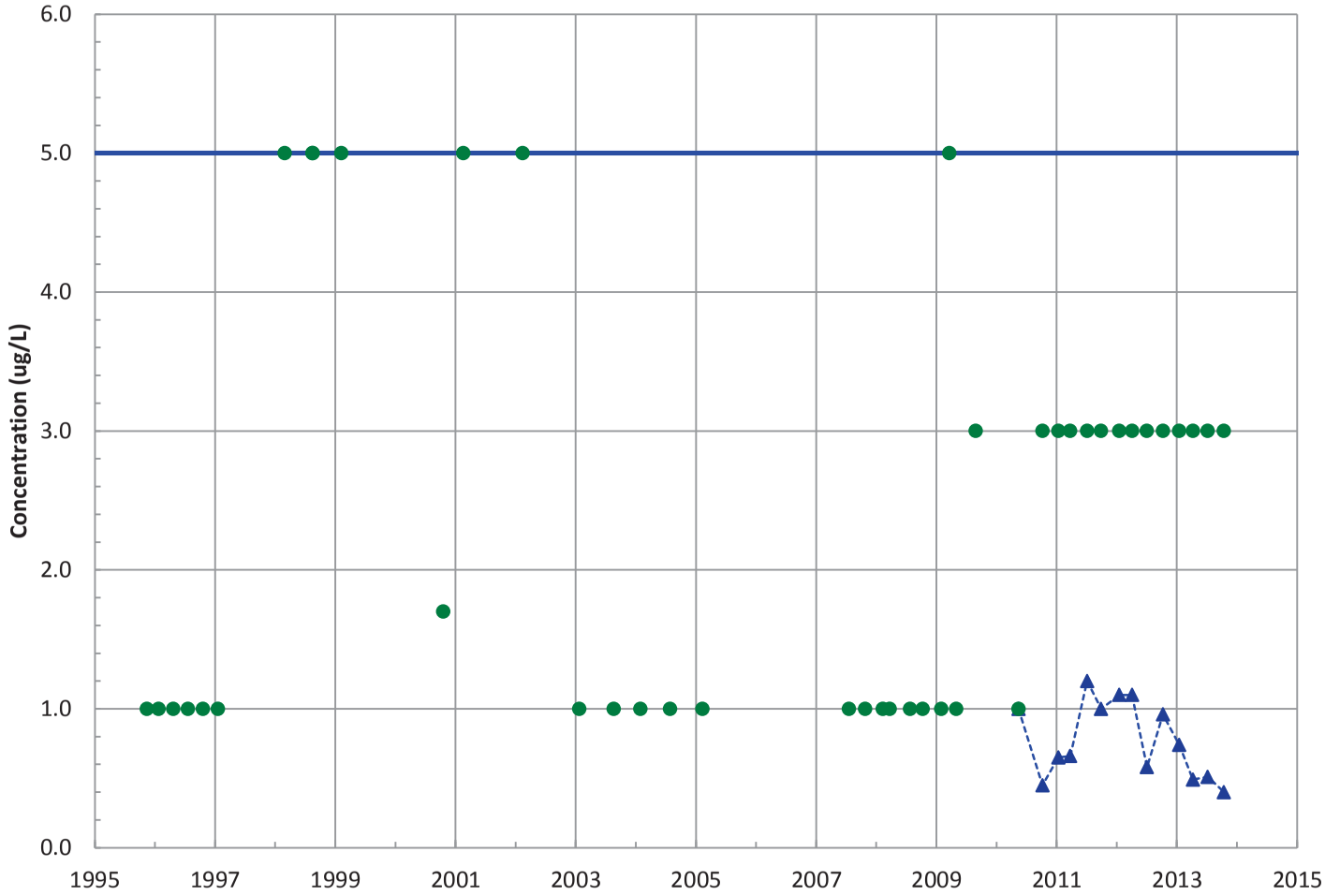
Well Location



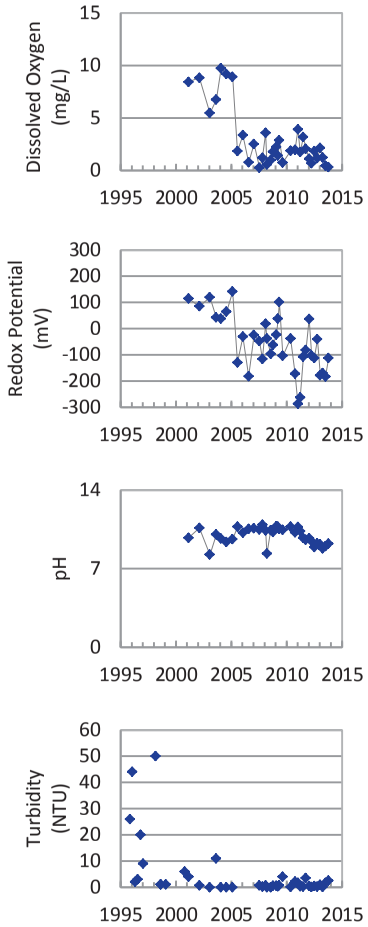
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/1/2005 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1012
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



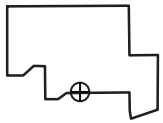
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Probably Decreasing
Last 4 Samples: Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

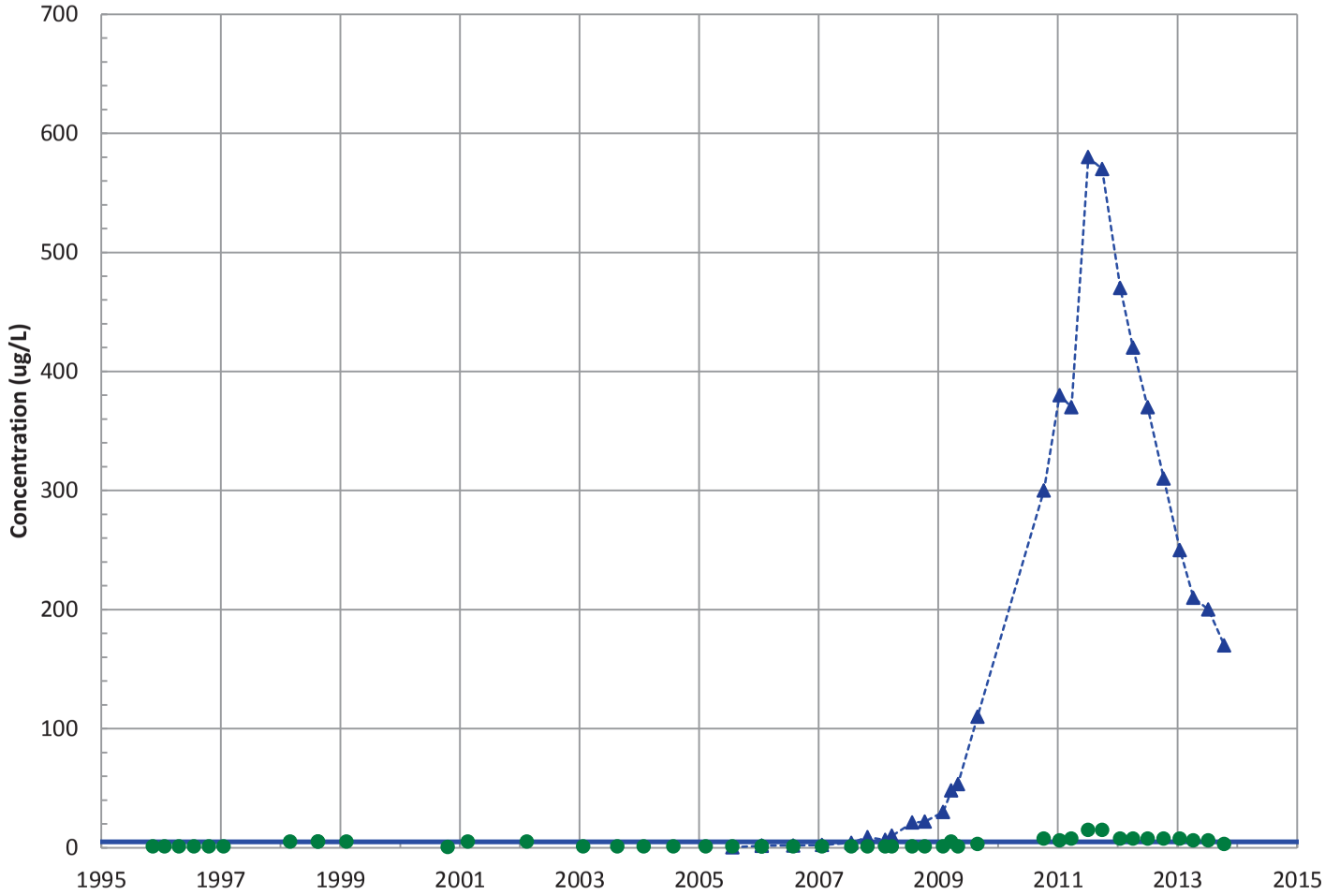
Well Location



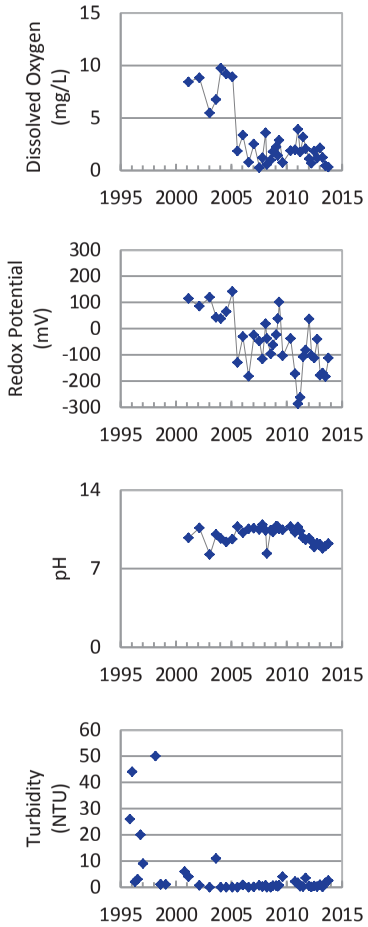
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1012
Trichloroethene Trend in Perched Aquifer



Field Parameters



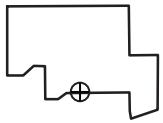
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

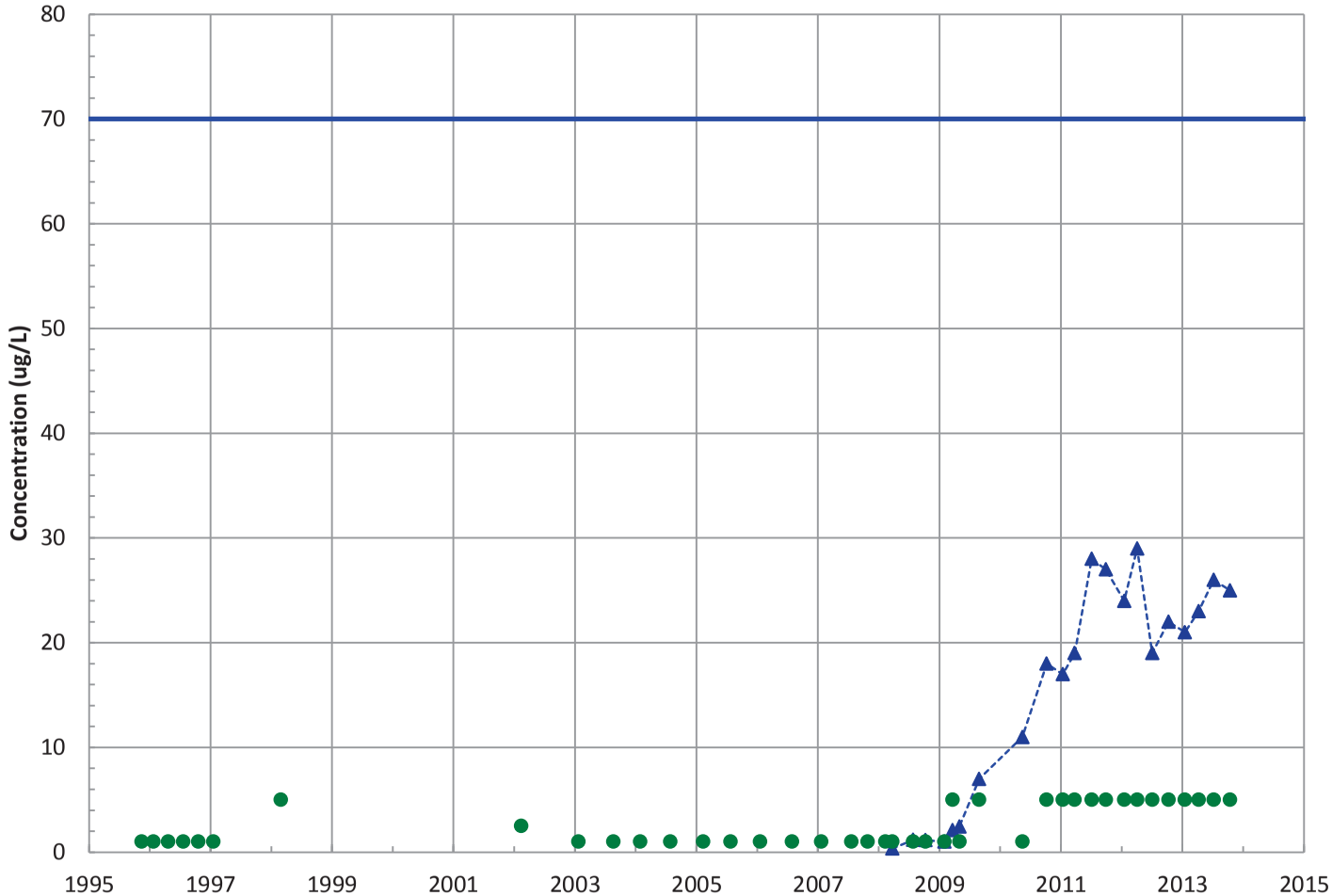
Well Location



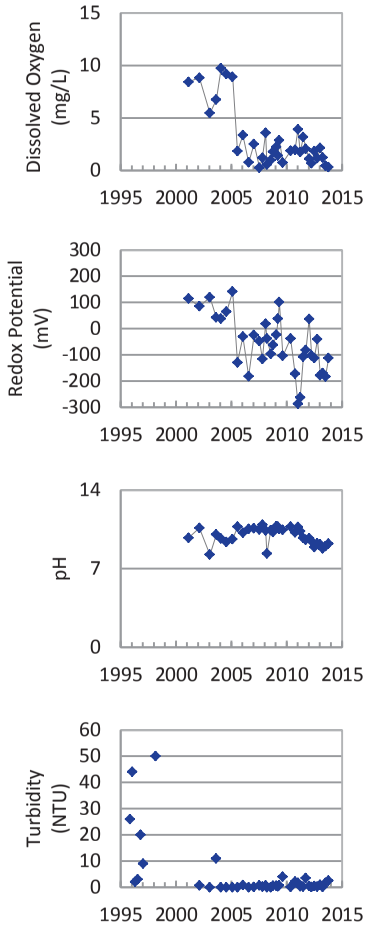
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1012
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



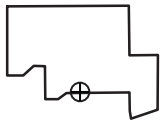
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Probably Increasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

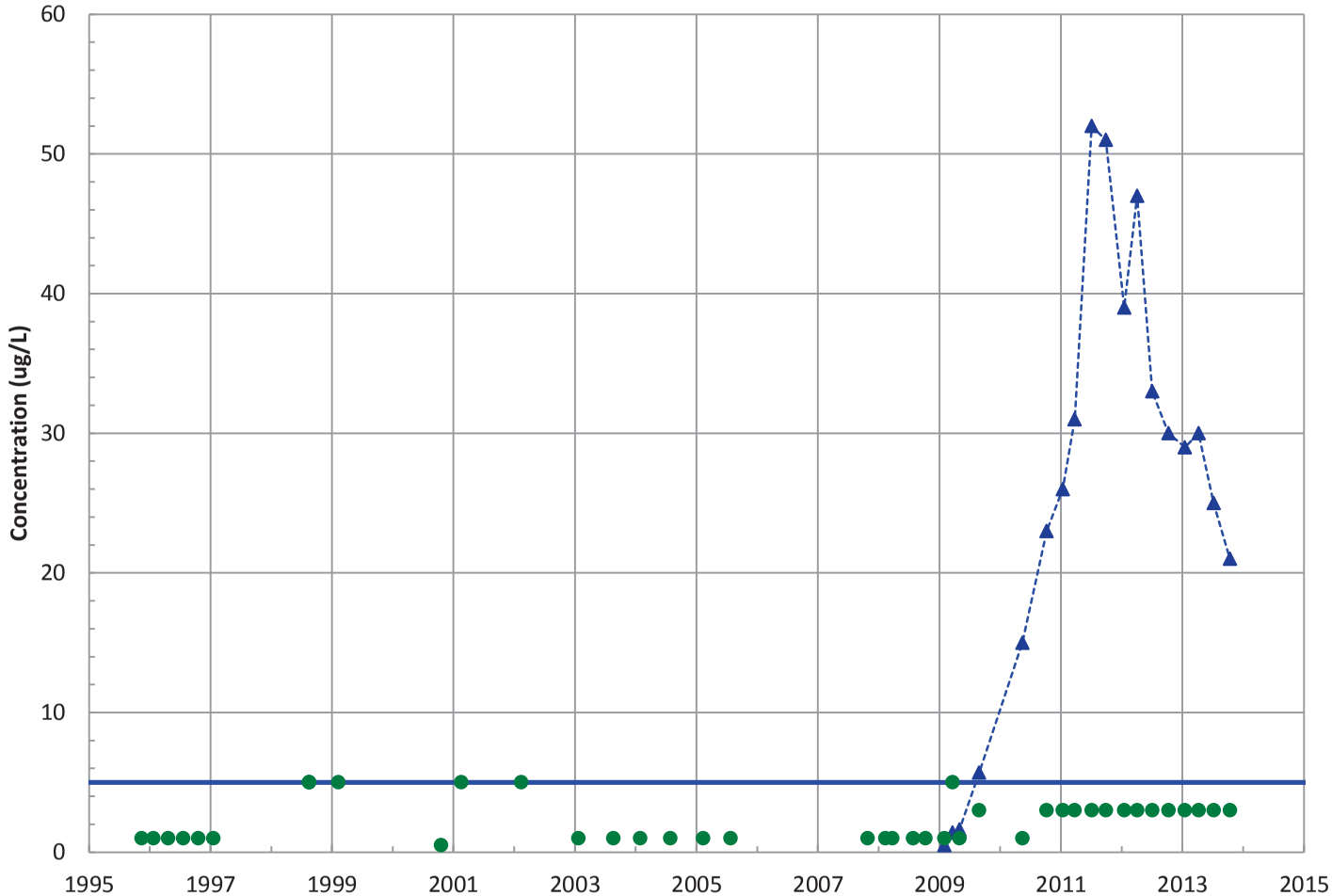
Well Location



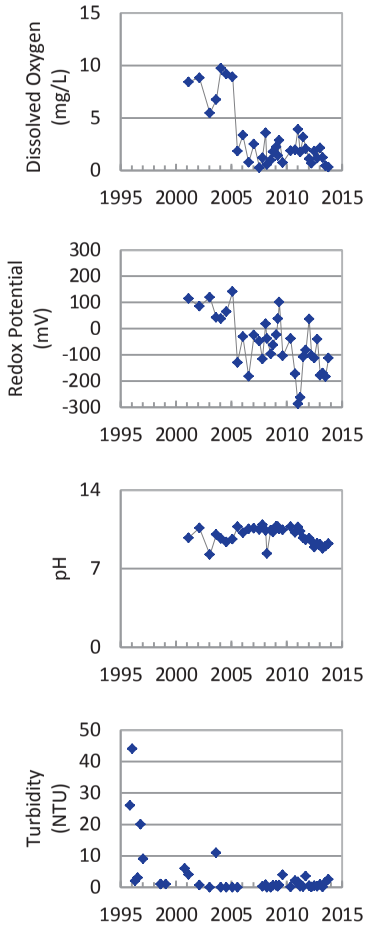
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1012
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



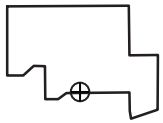
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

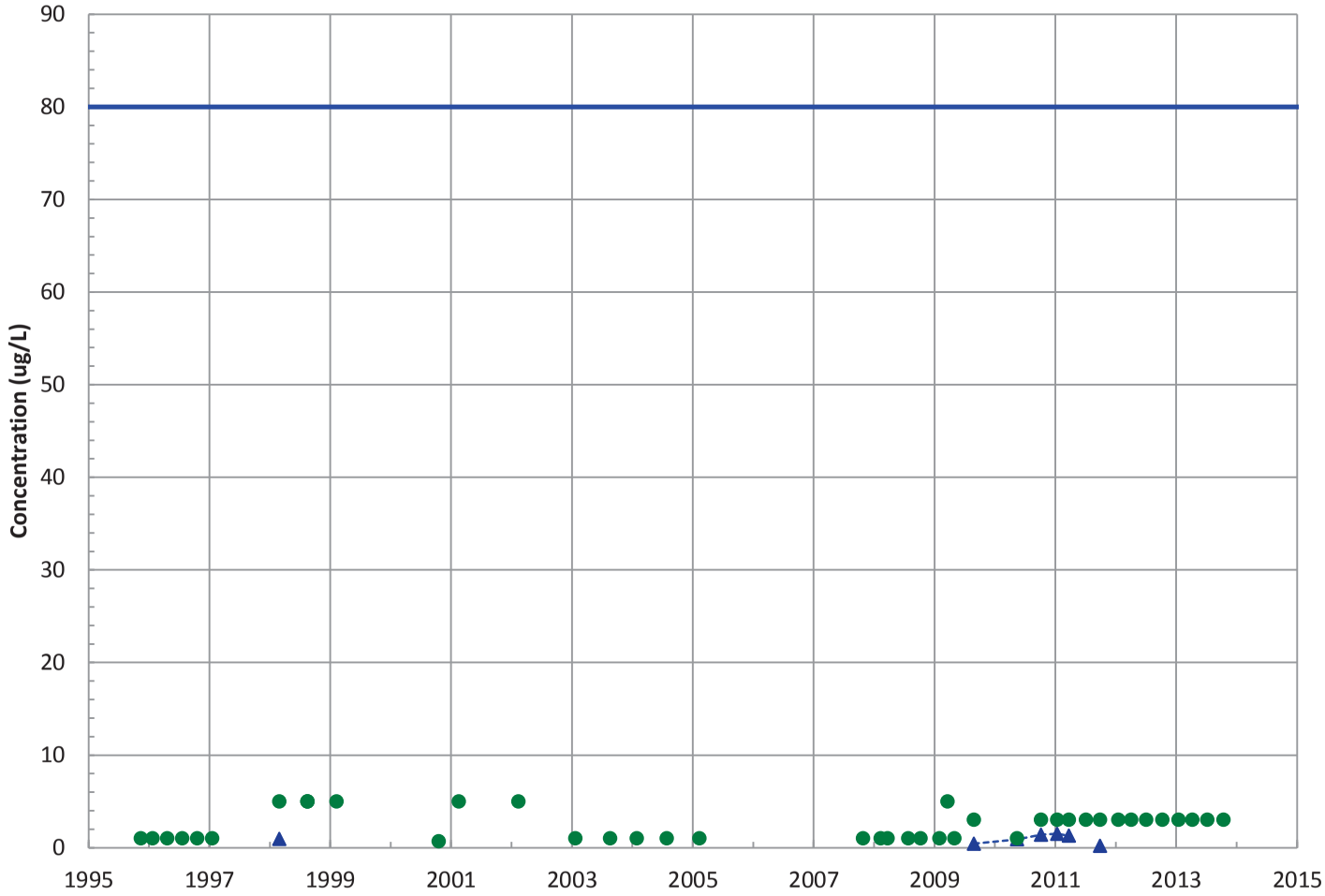
Well Location



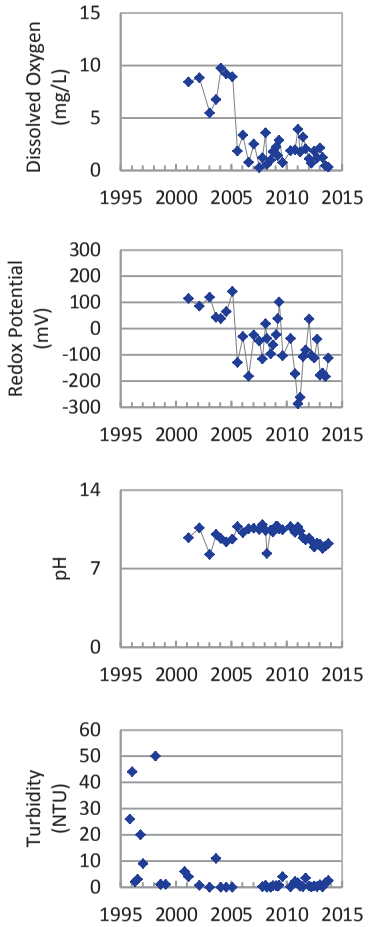
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1012
Chloroform Trend in Perched Aquifer



Field Parameters



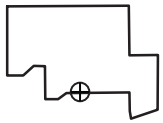
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

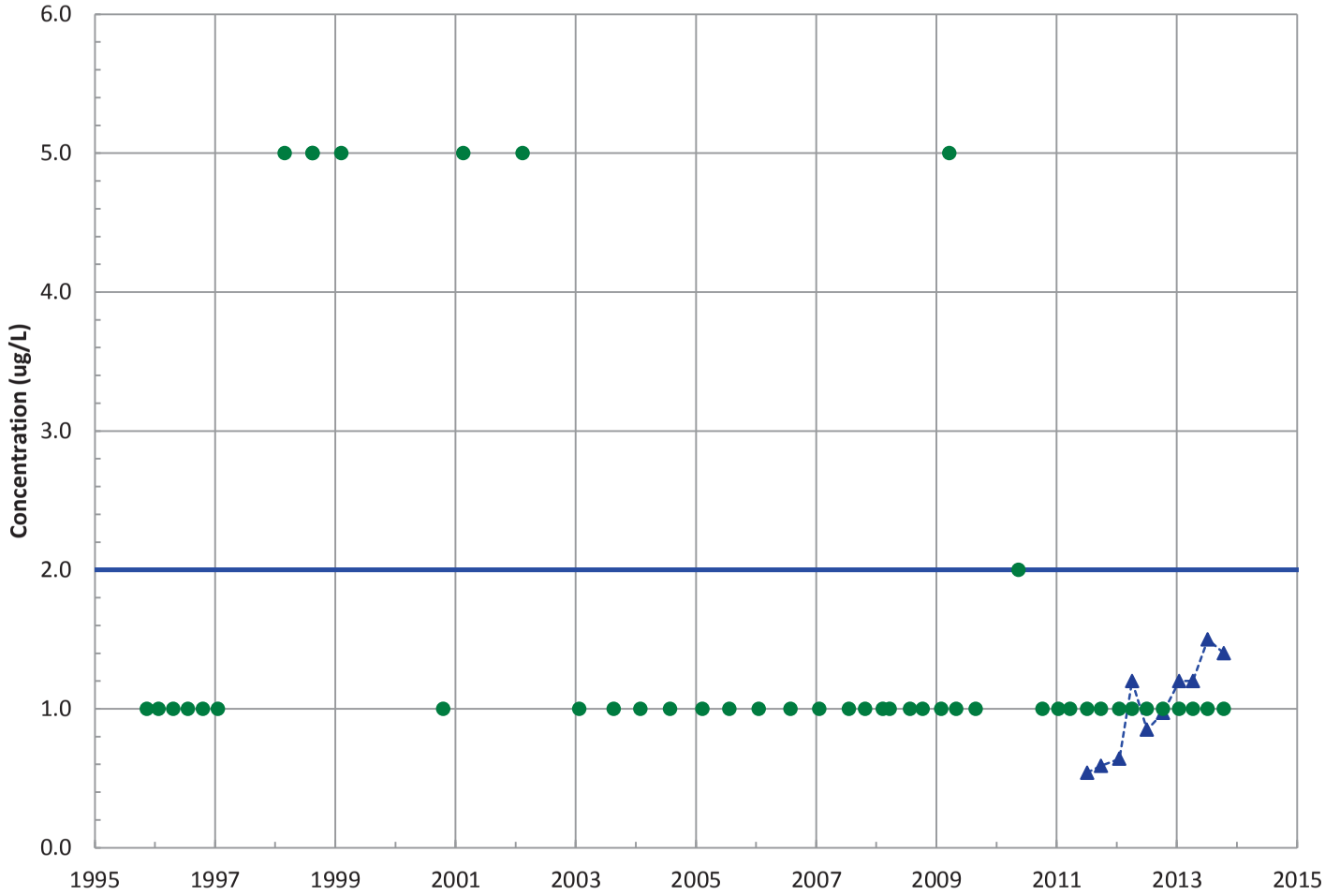
Well Location



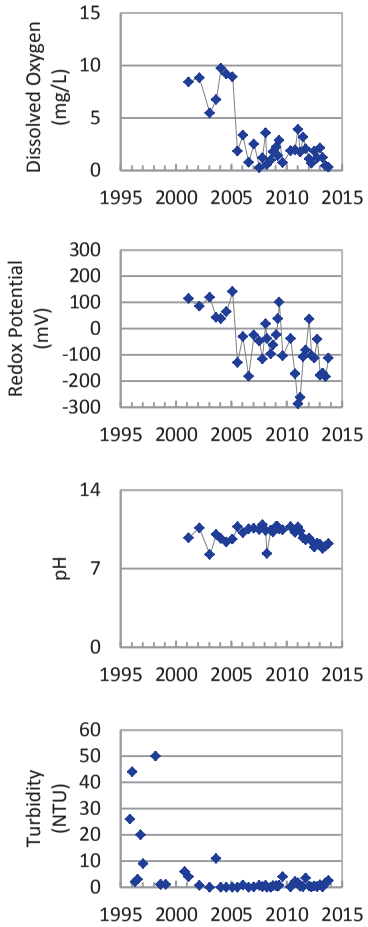
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1012
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



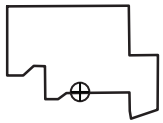
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Probably Increasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

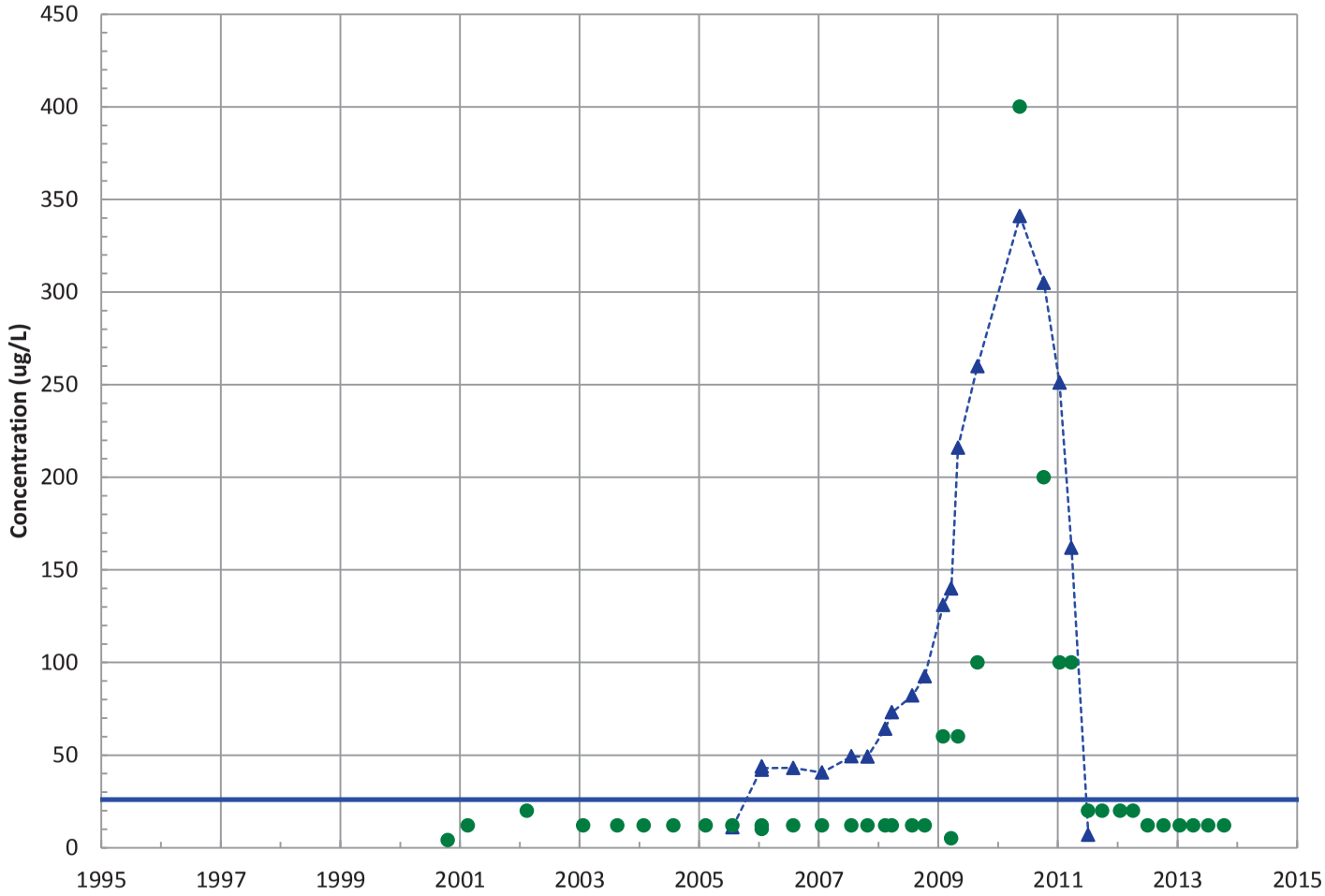
Well Location



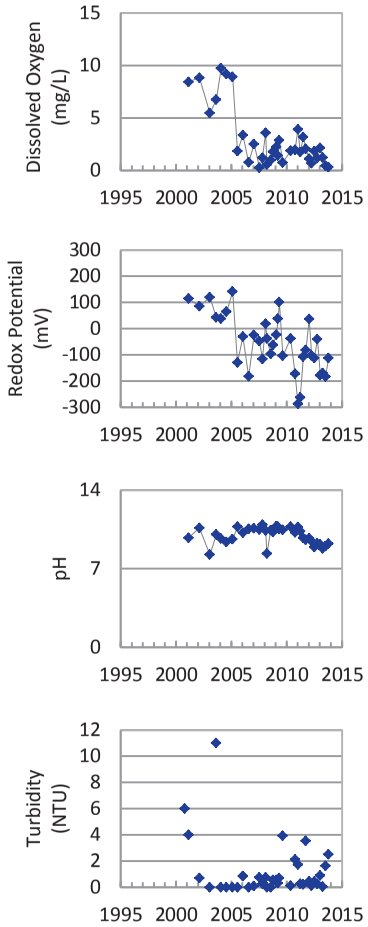
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1012
Perchlorate Trend in Perched Aquifer



Field Parameters



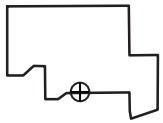
Concentration Trend

MAROS Mann-Kendall Method
All Data: Probably Increasing
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Probably Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

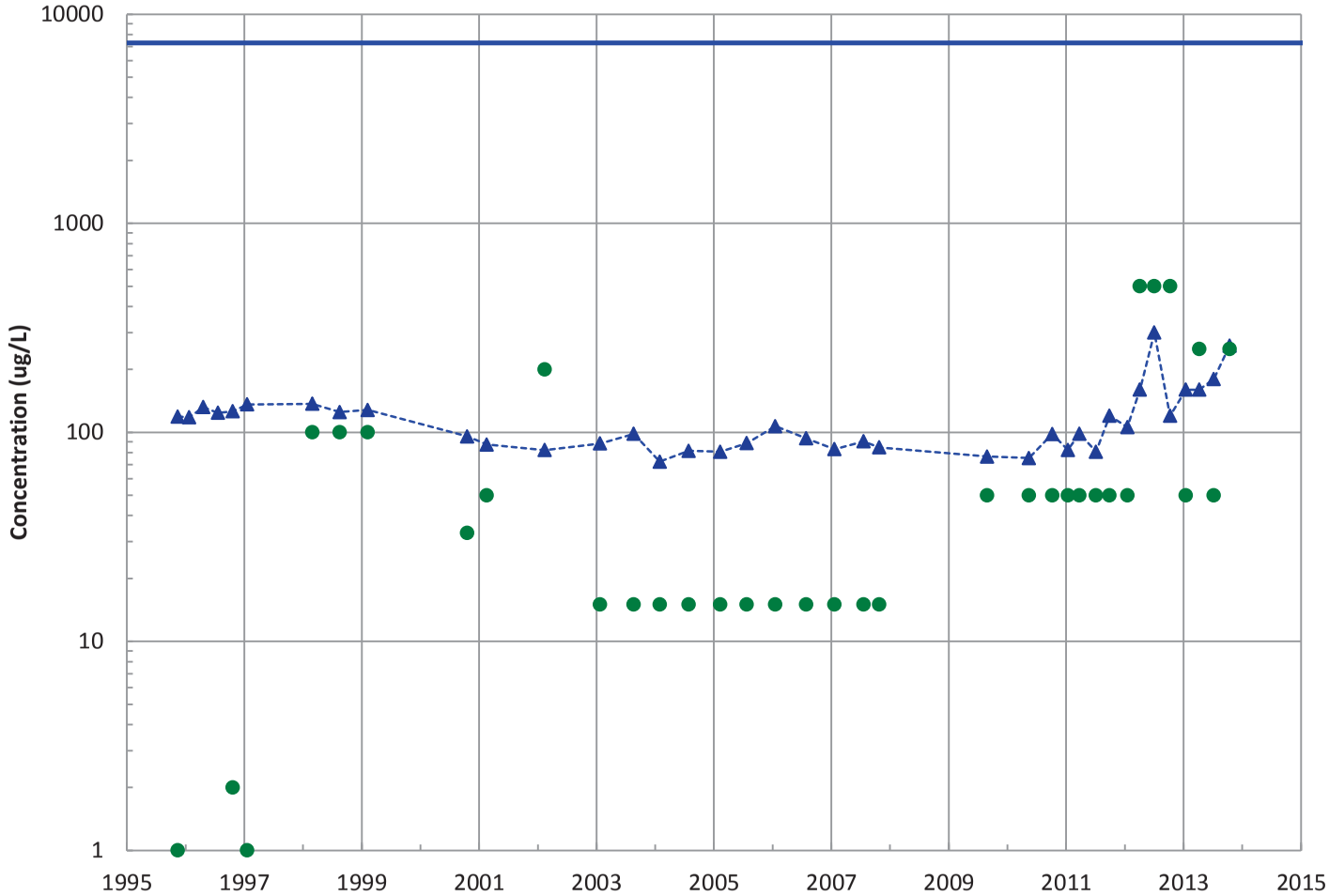
Well Location



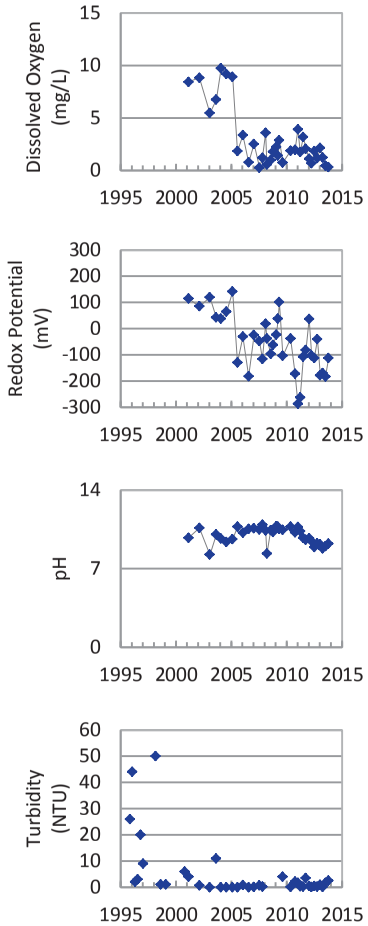
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/23/2000 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1012
Boron Trend in Perched Aquifer



Field Parameters



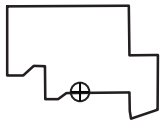
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Increasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

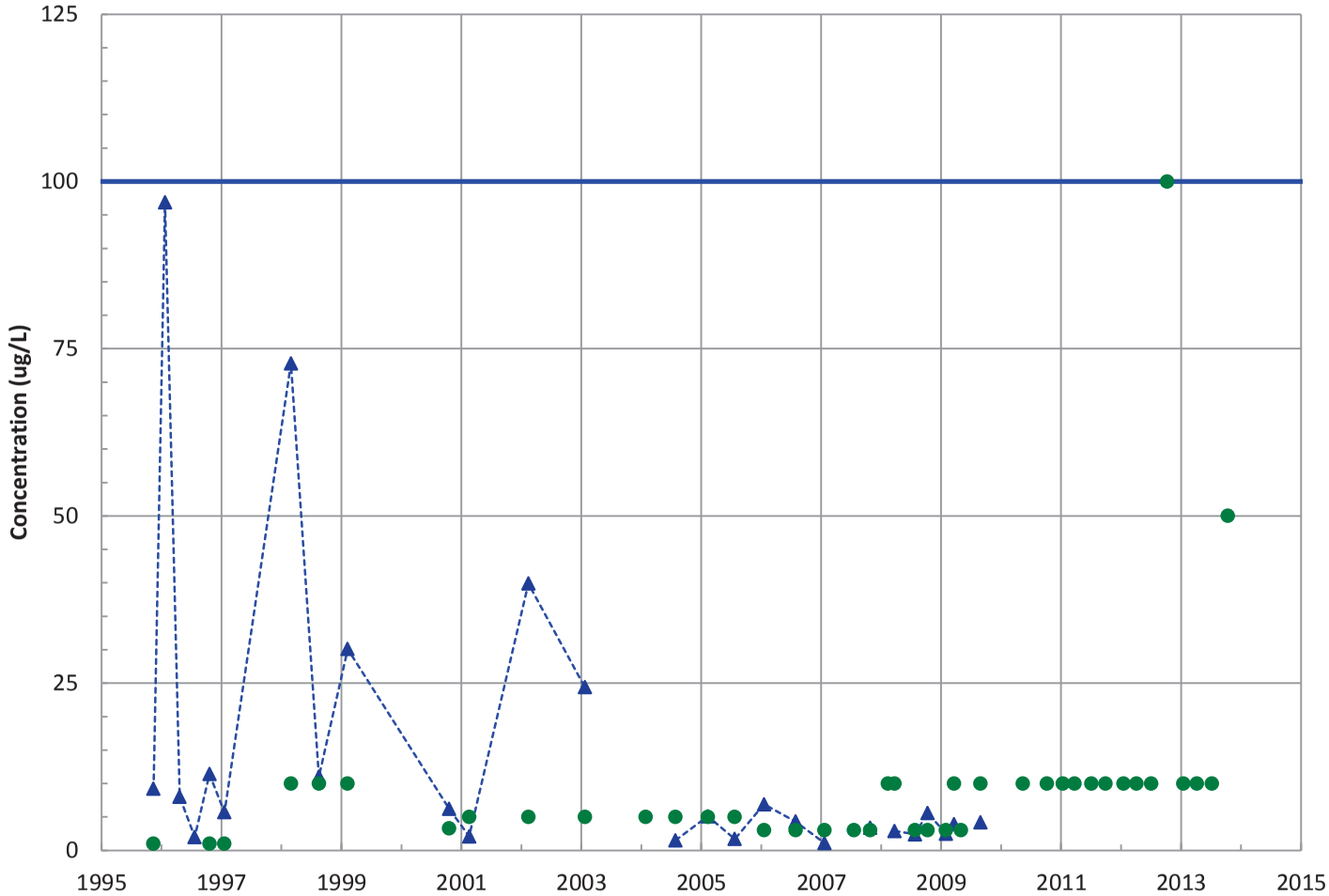
Well Location



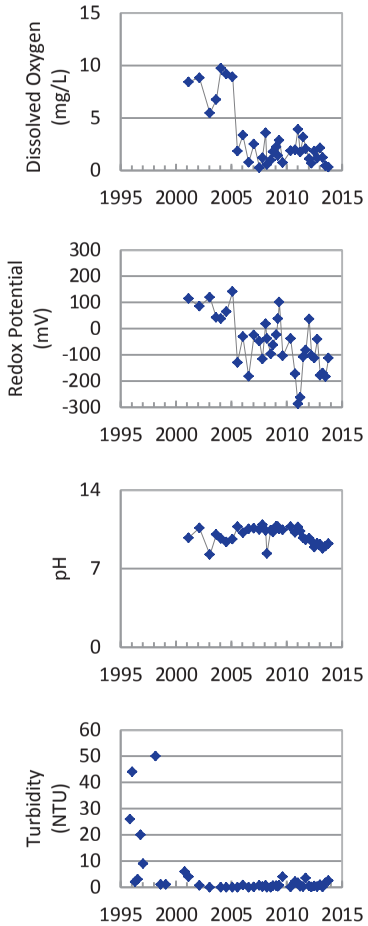
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1012
Chromium, Total Trend in Perched Aquifer



Field Parameters



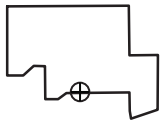
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

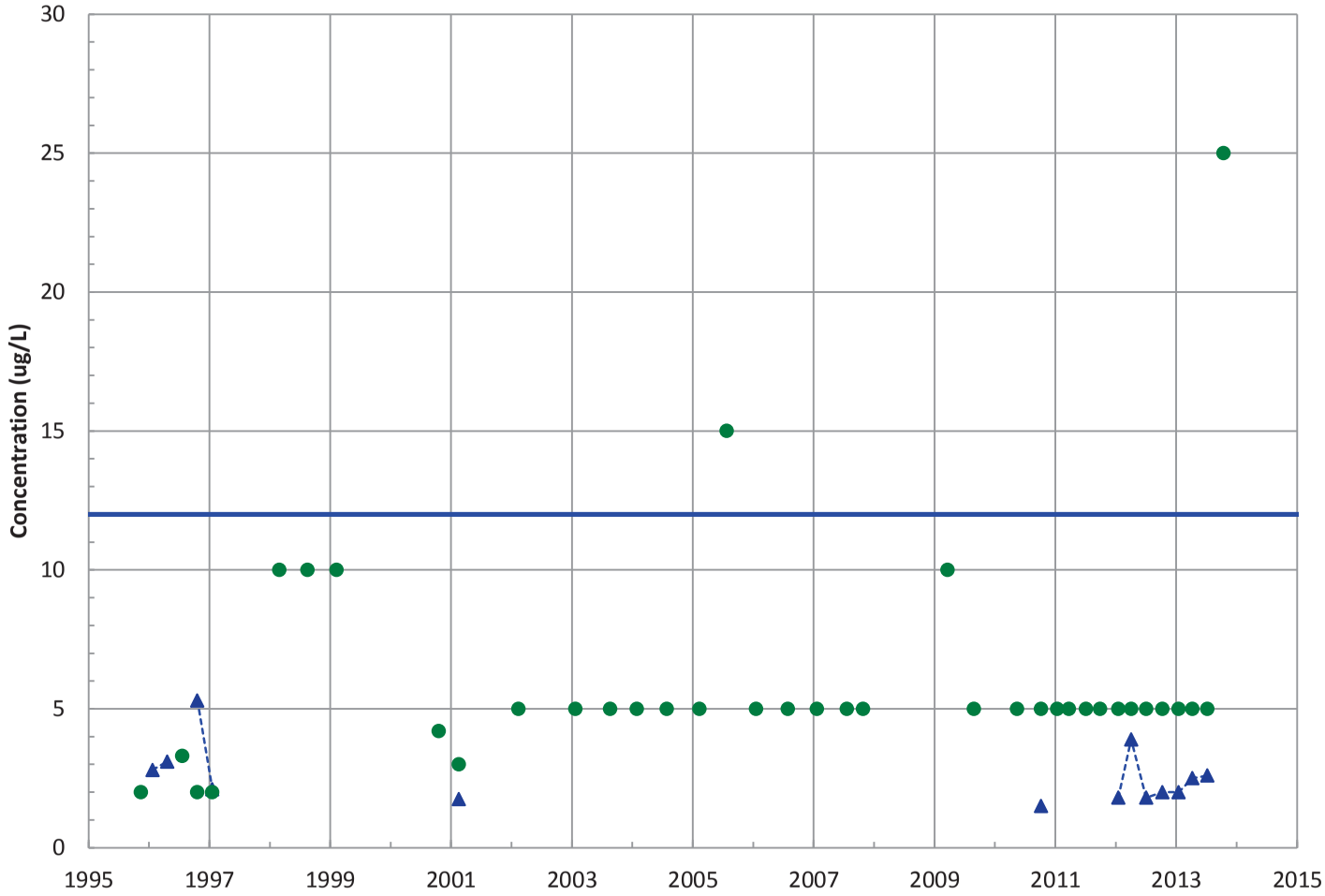
Well Location



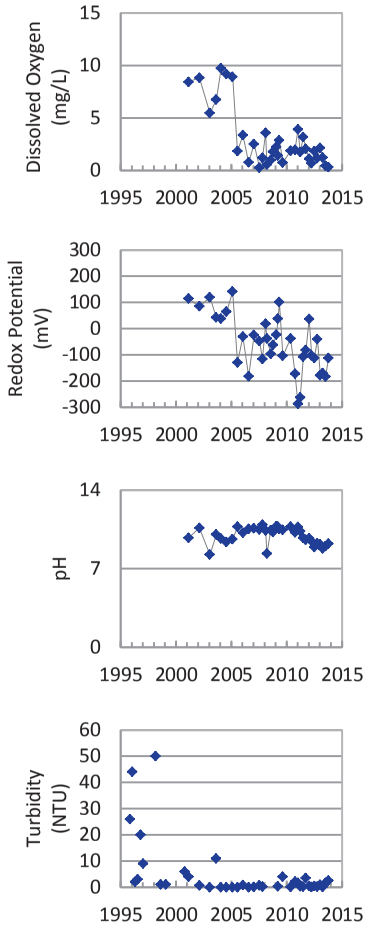
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1012
Arsenic Trend in Perched Aquifer



Field Parameters



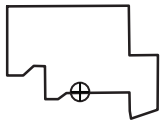
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Increasing

MAROS Linear Regression Method
All Data: Probably Decreasing
Last 4 Samples: Increasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

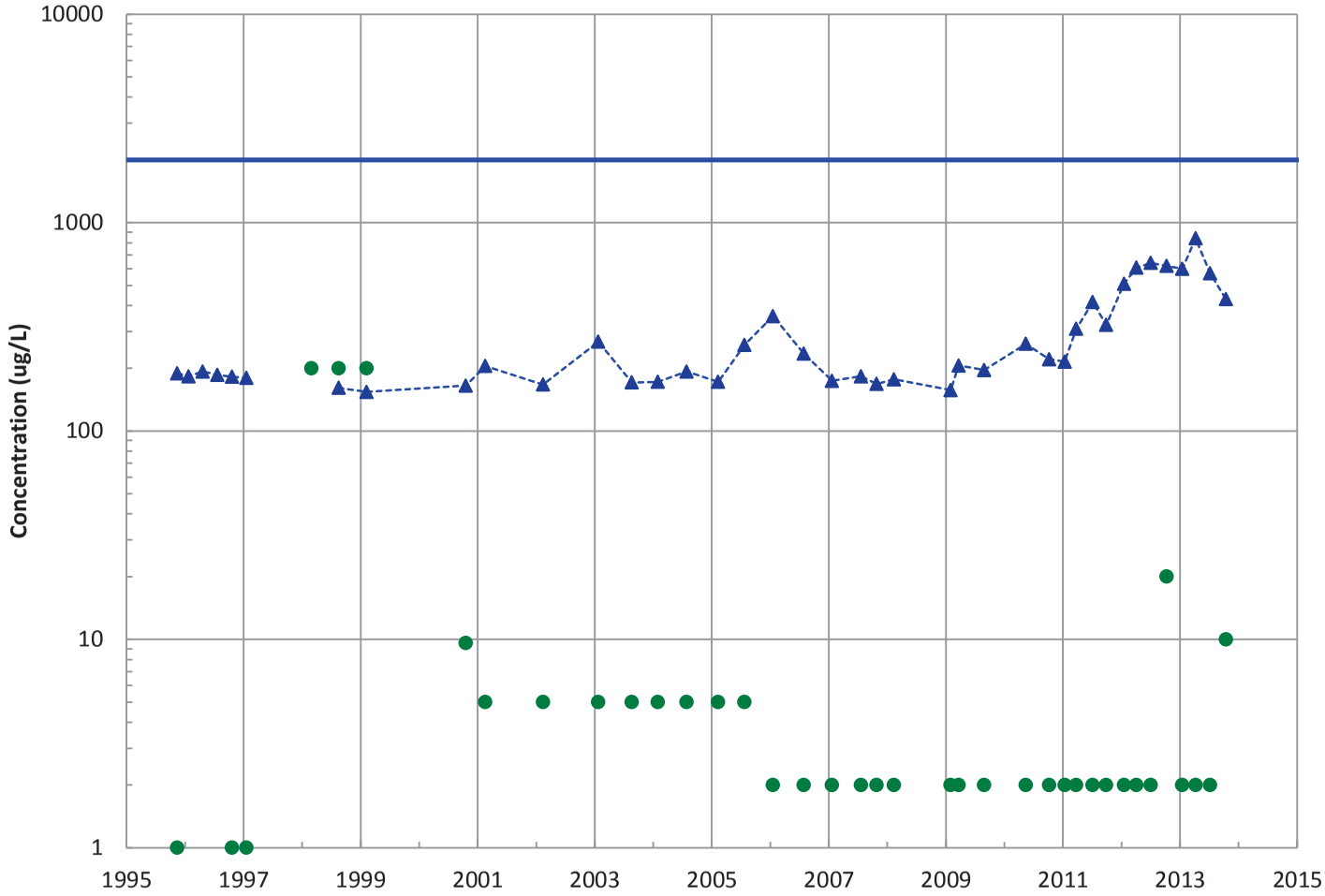
Well Location



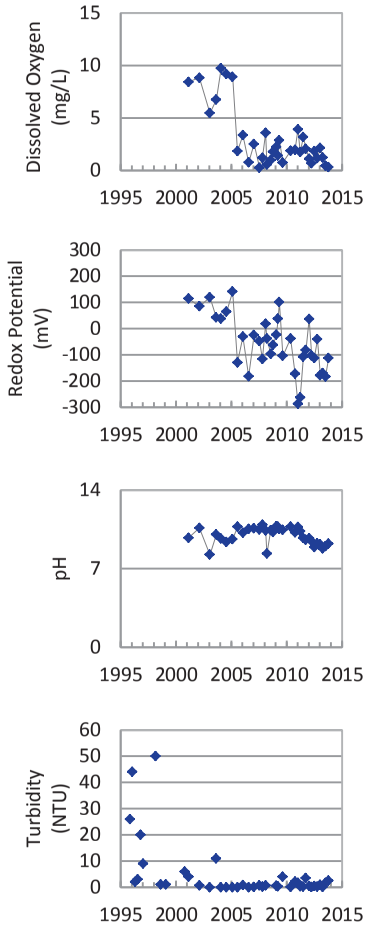
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1012
Barium Trend in Perched Aquifer



Field Parameters



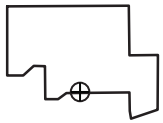
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

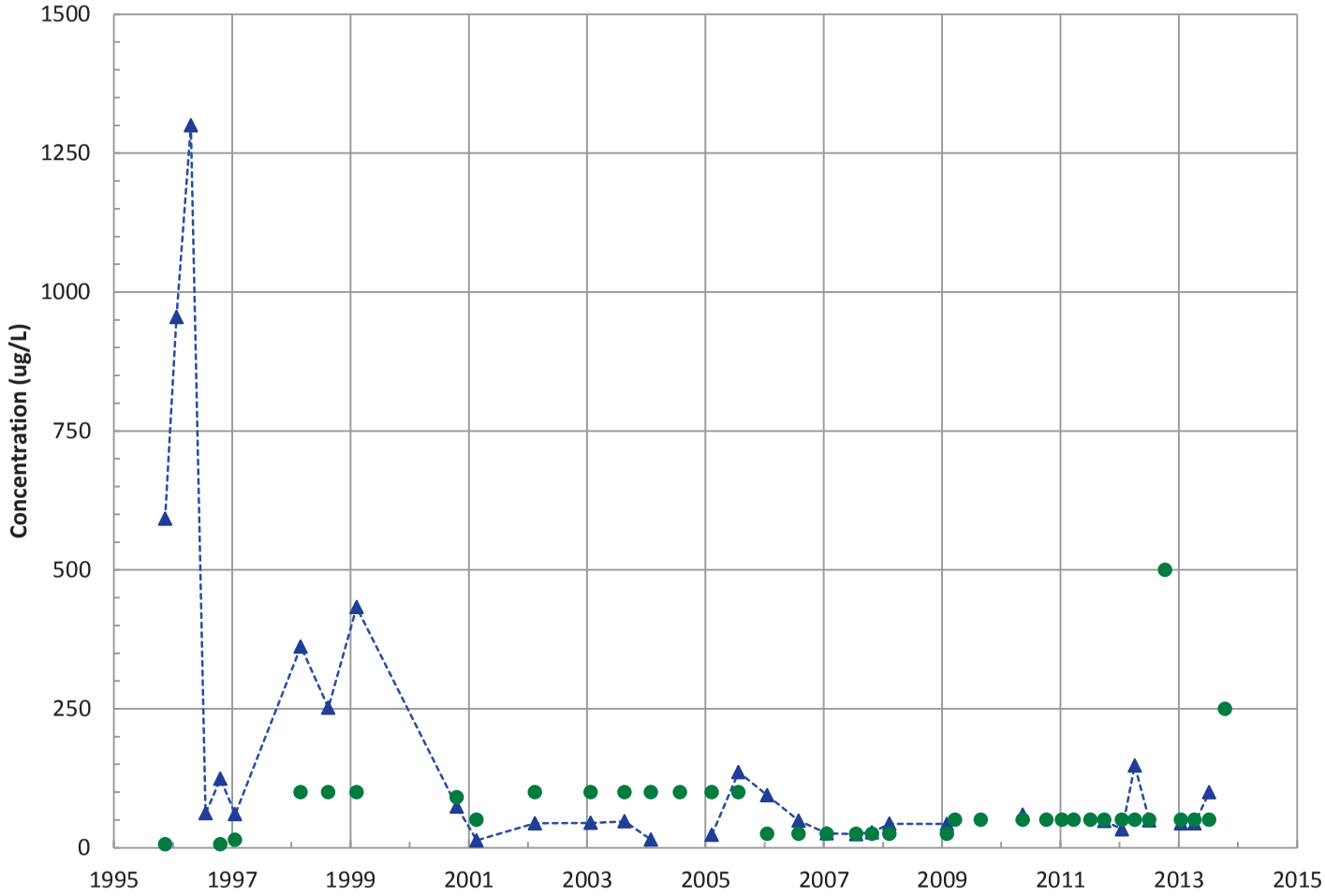
Well Location



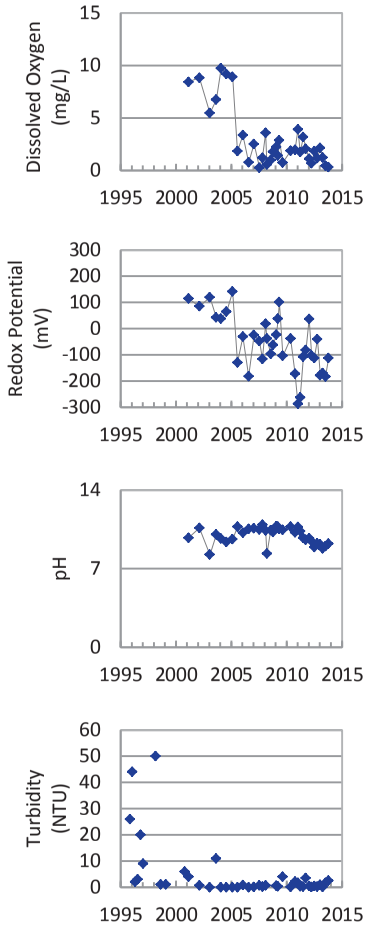
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1012
Iron Trend in Perched Aquifer



Field Parameters



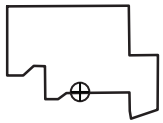
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

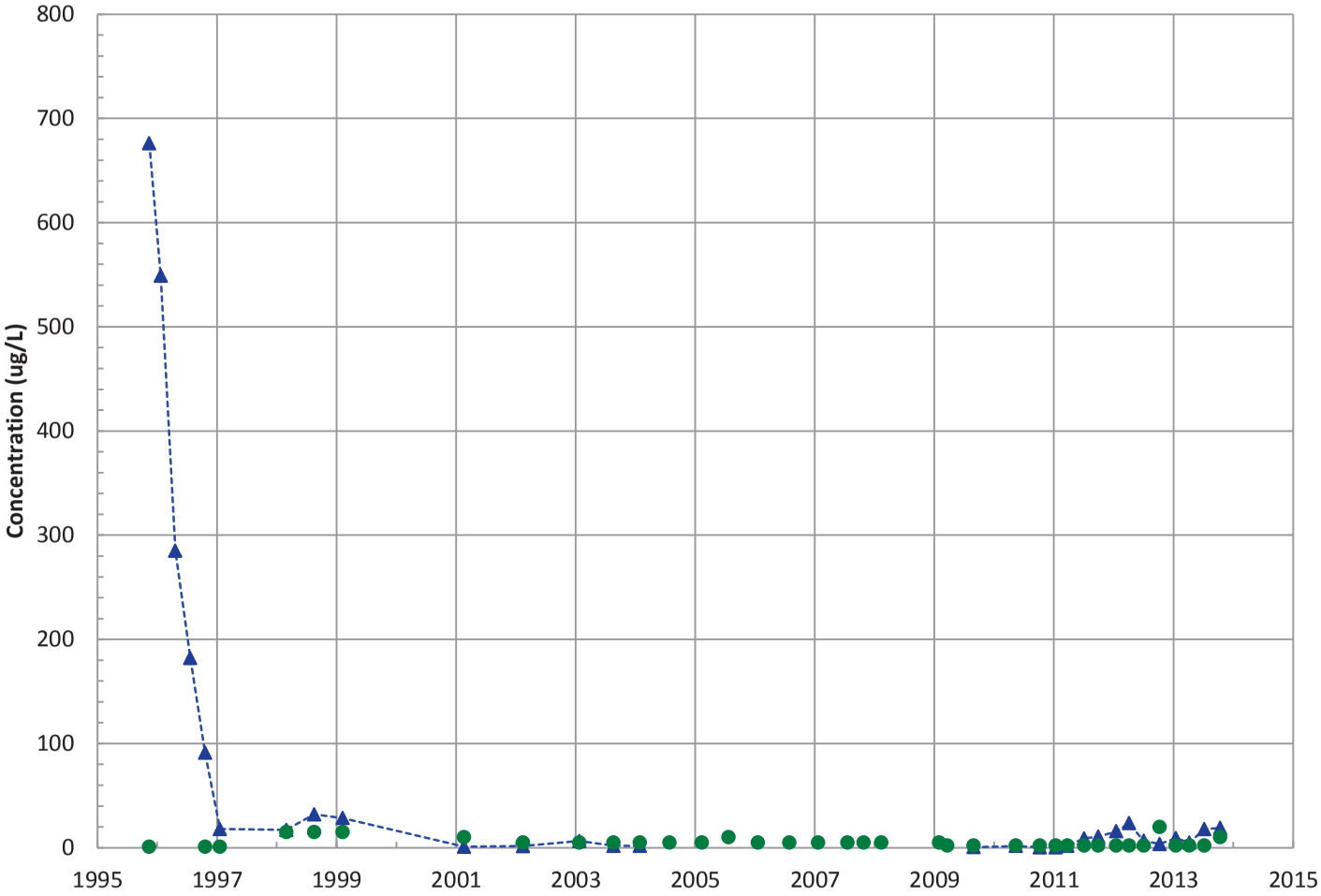
Well Location



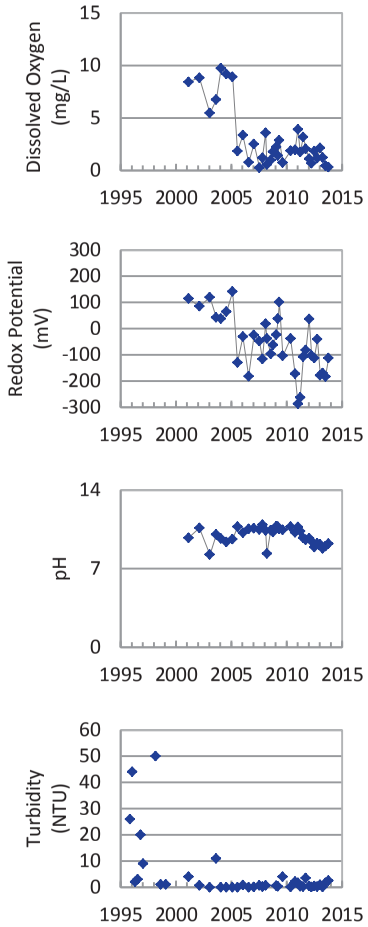
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1012
Manganese Trend in Perched Aquifer



Field Parameters



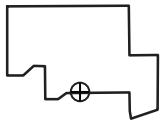
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

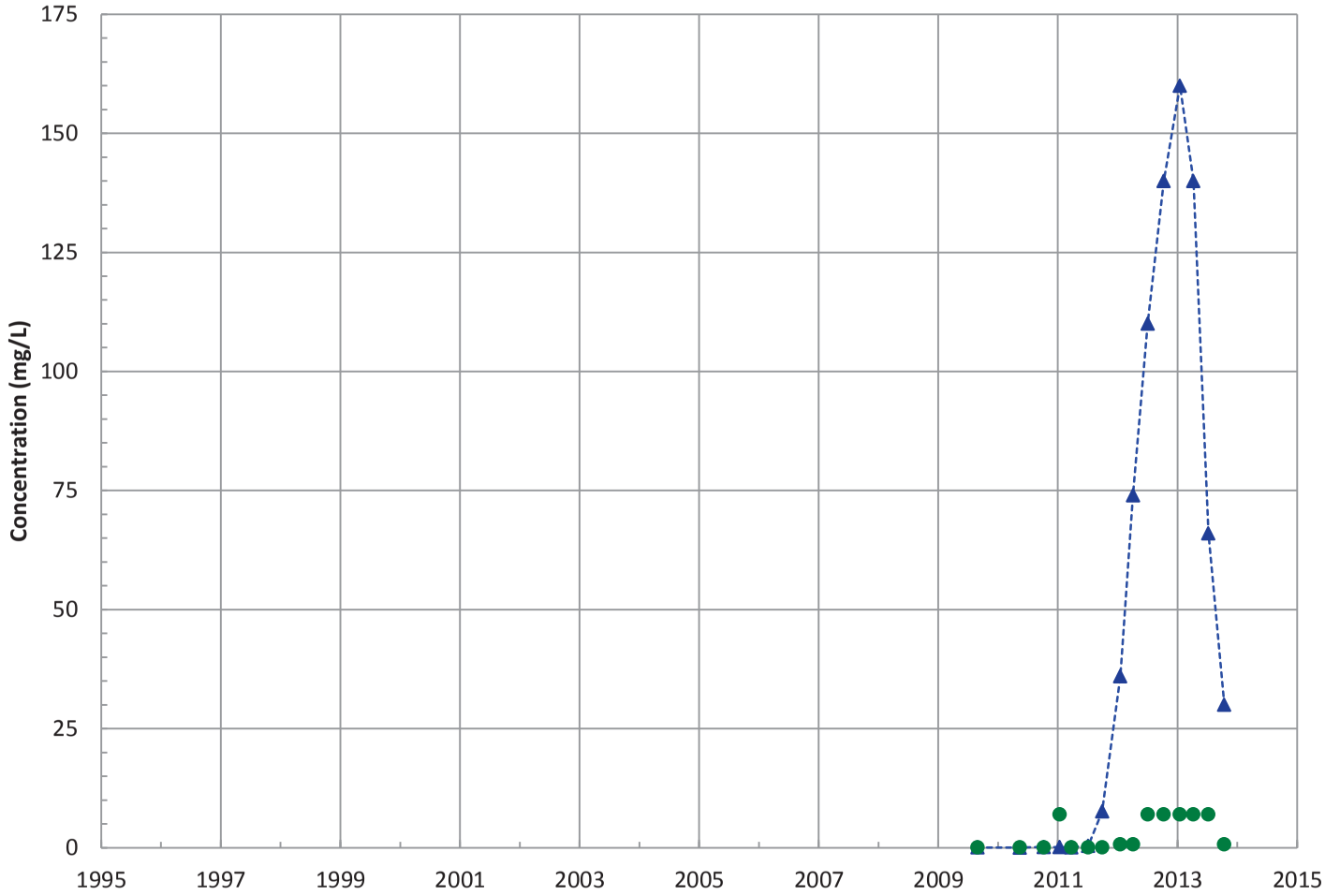
Well Location



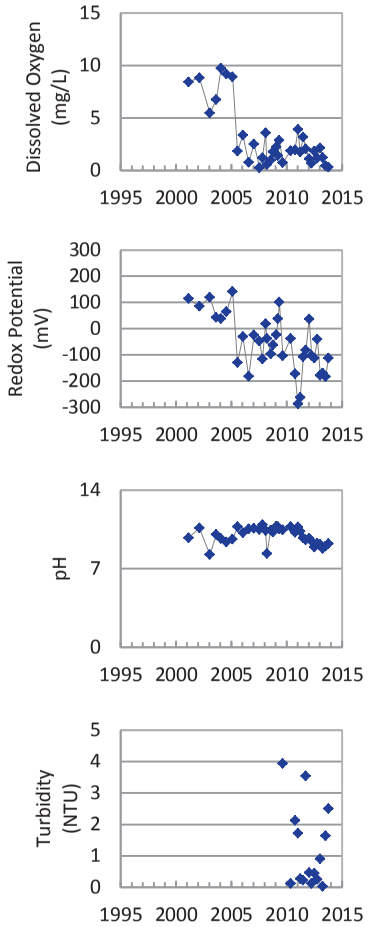
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1012
Acetic Acid Trend in Perched Aquifer



Field Parameters



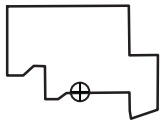
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Probably Decreasing

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

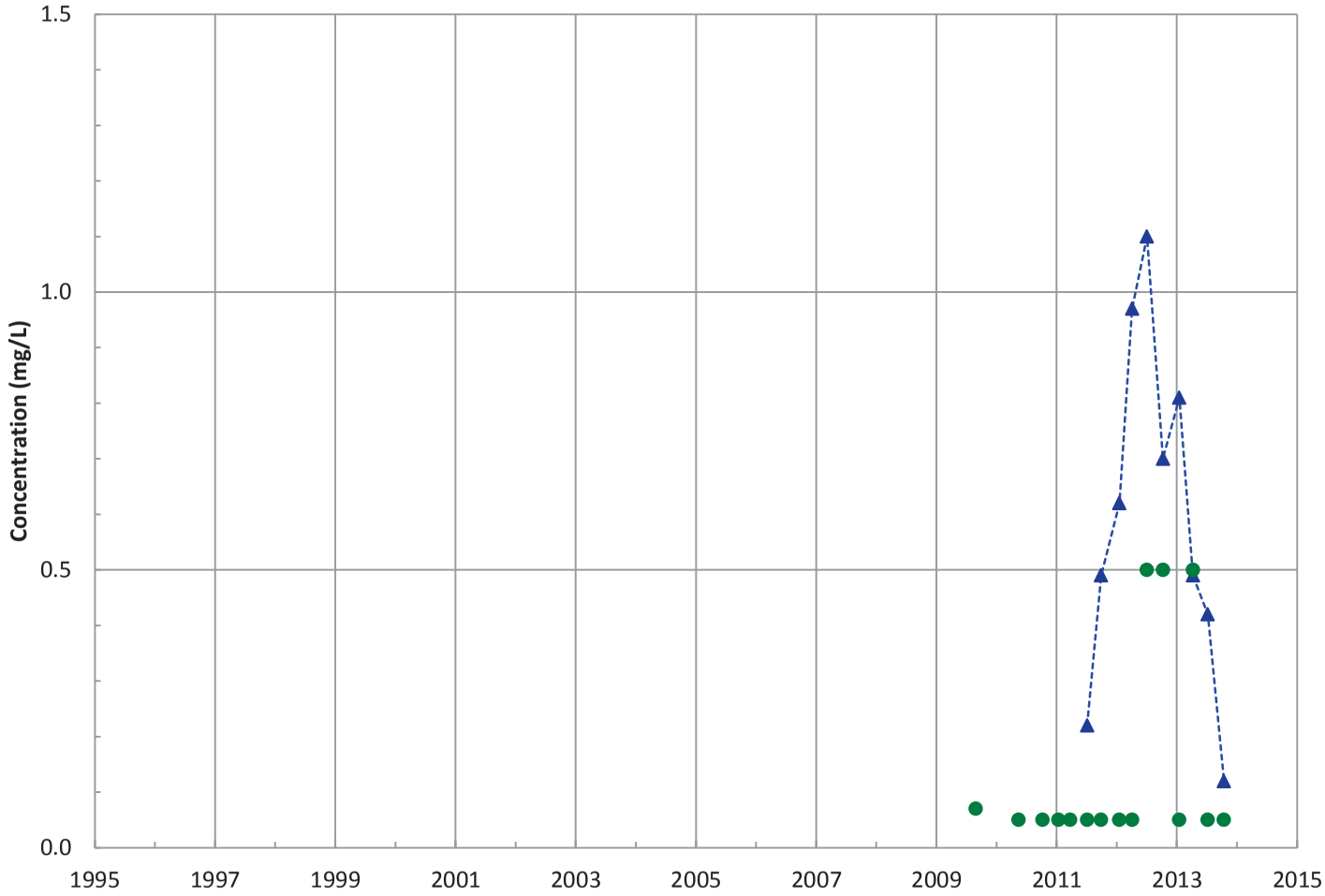
Well Location



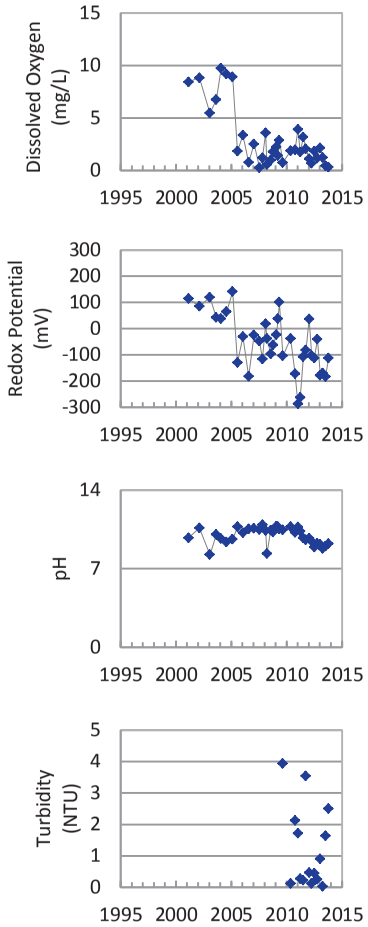
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/8/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1012
Butyric Acid Trend in Perched Aquifer



Field Parameters



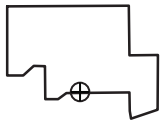
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: Decreasing

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

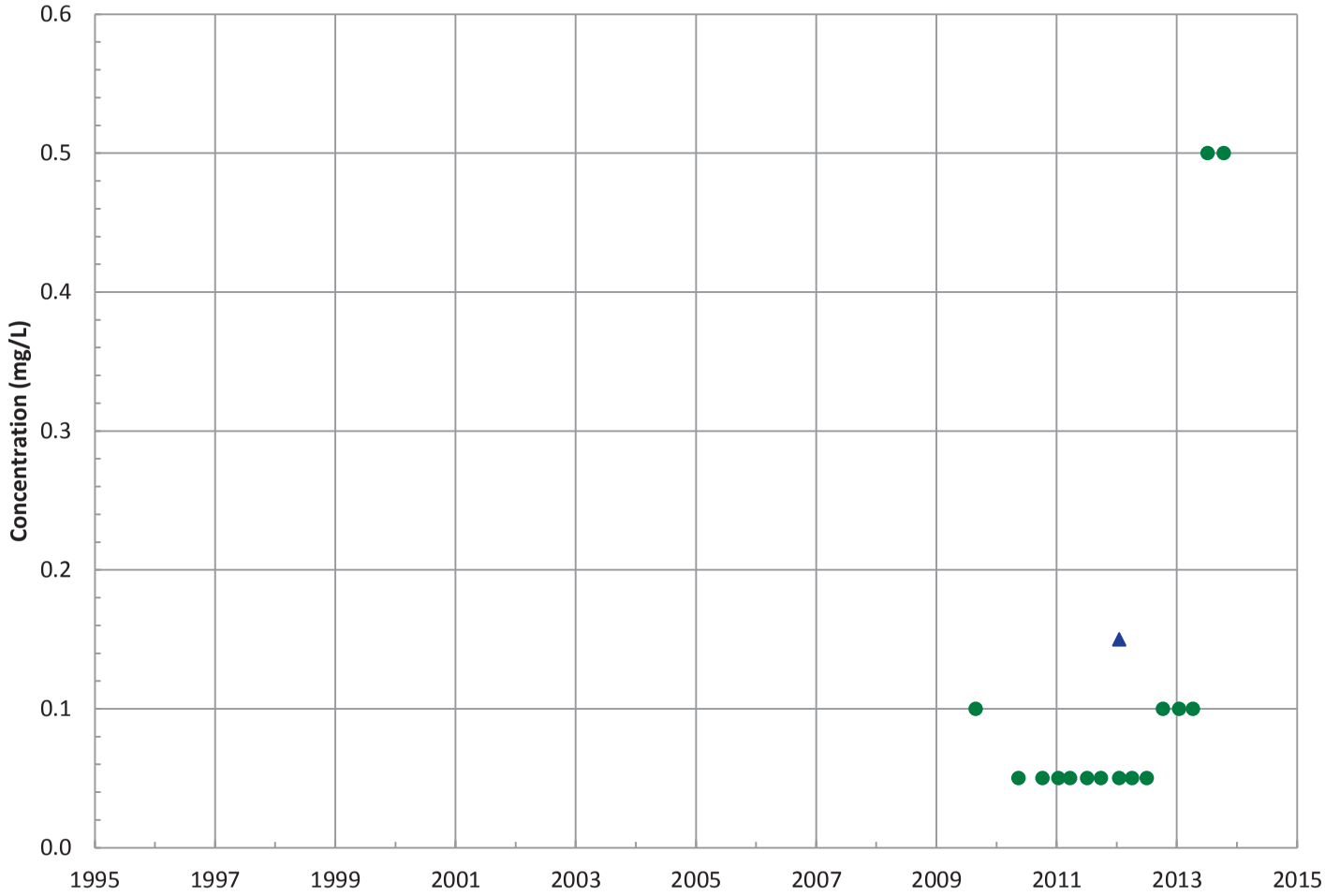
Well Location



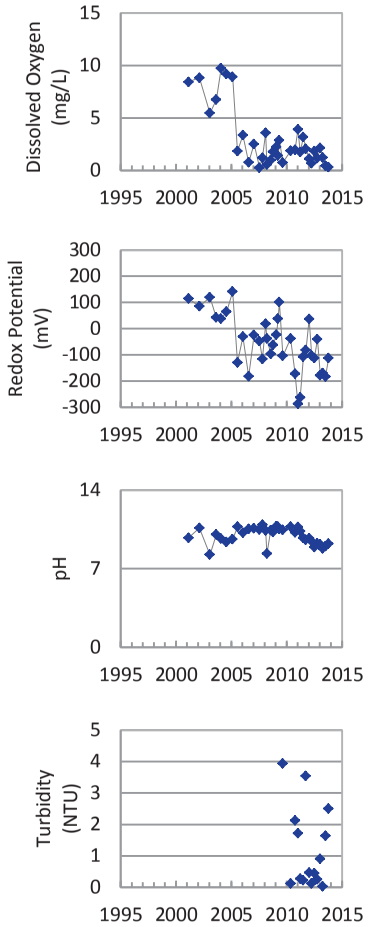
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/8/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1012
Hexanoic Acid Trend in Perched Aquifer



Field Parameters



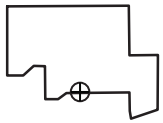
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Injection Dates

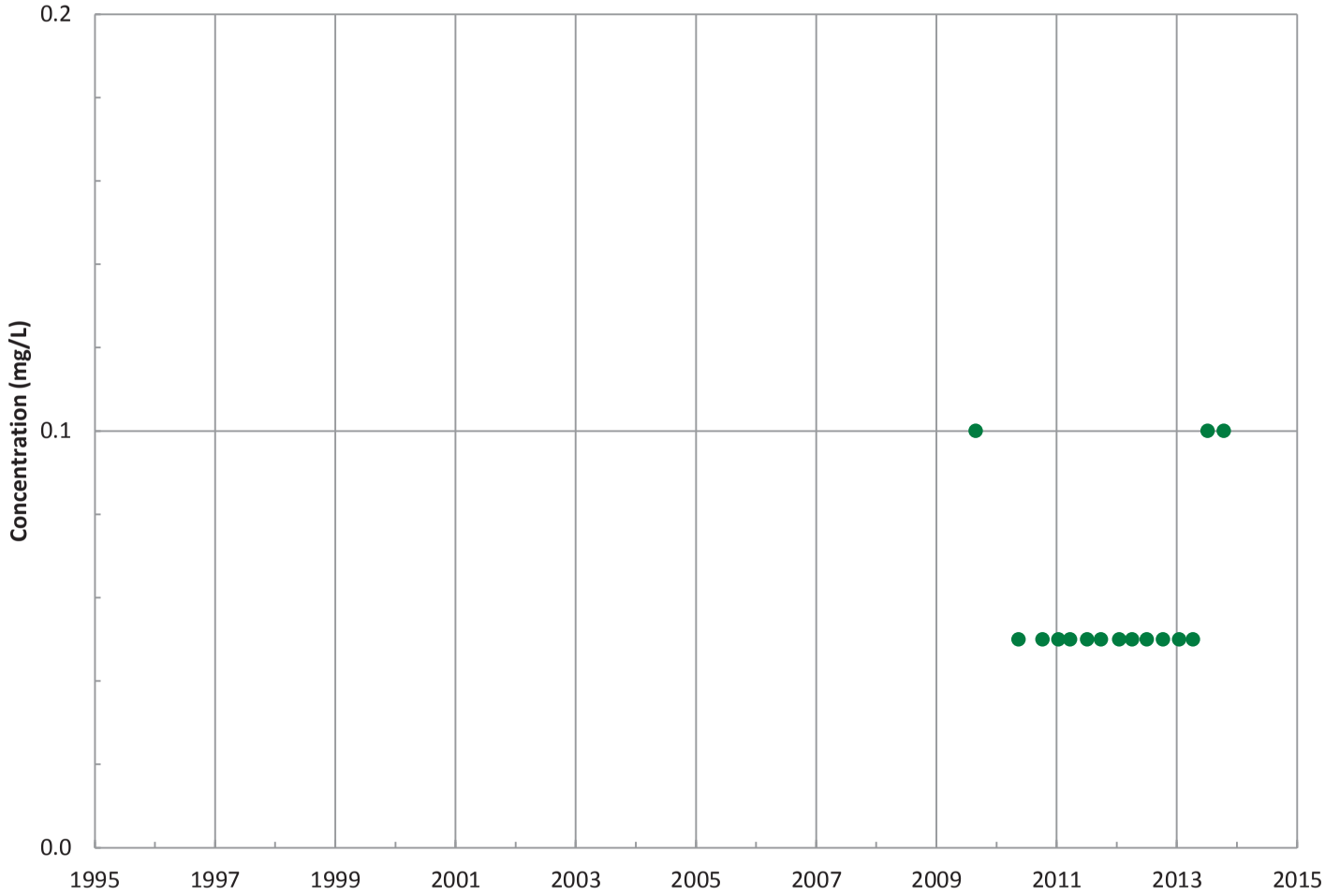
Well Location



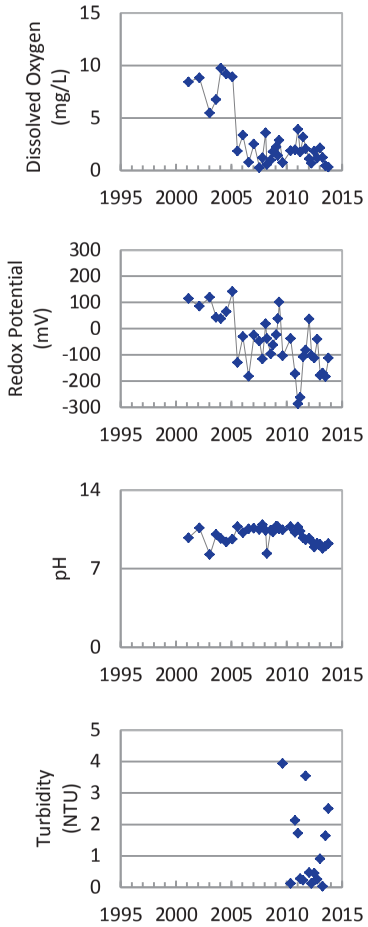
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/8/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1012
i-Hexanoic Acid Trend in Perched Aquifer



Field Parameters



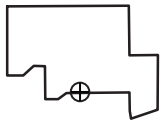
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
Injection Dates

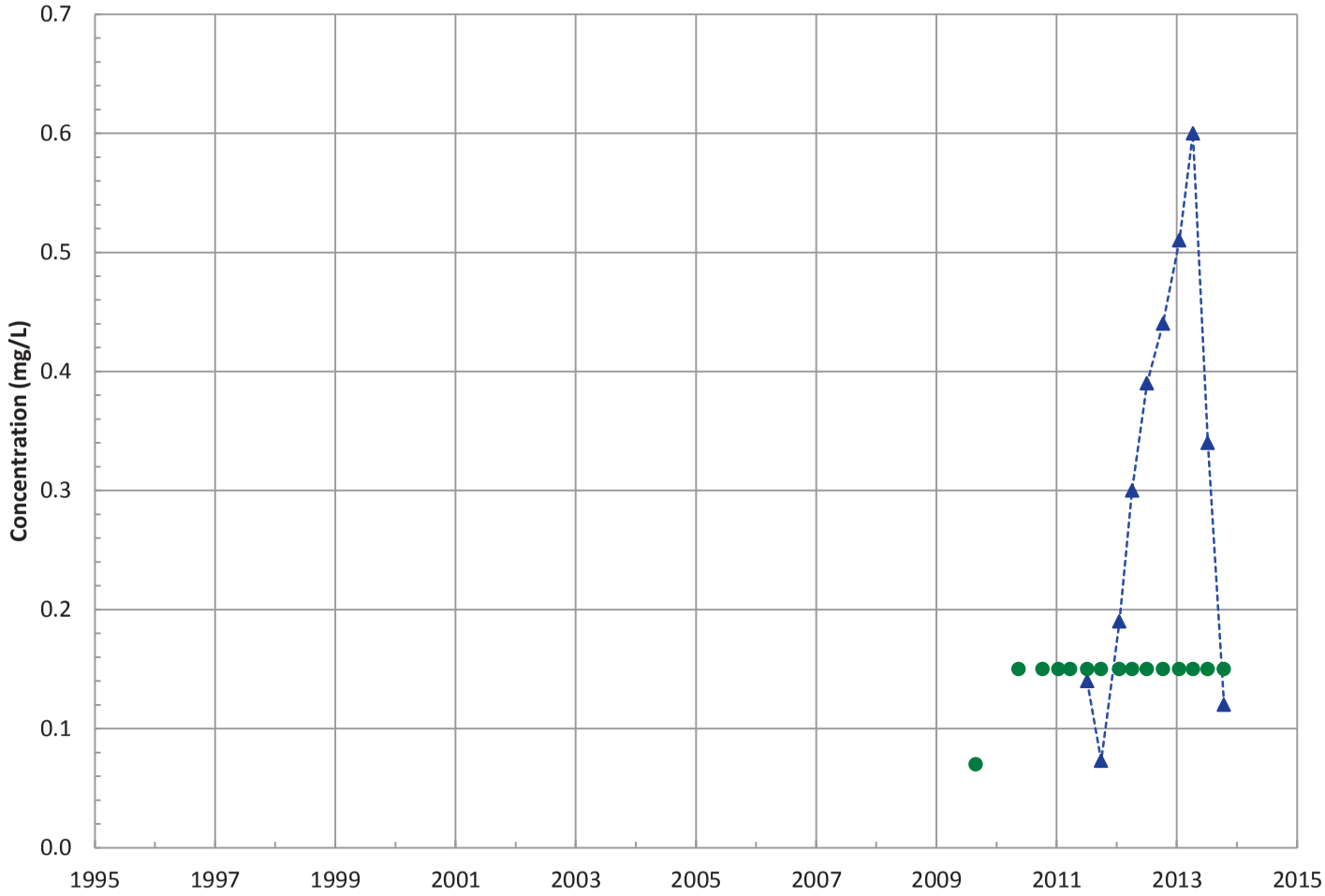
Well Location



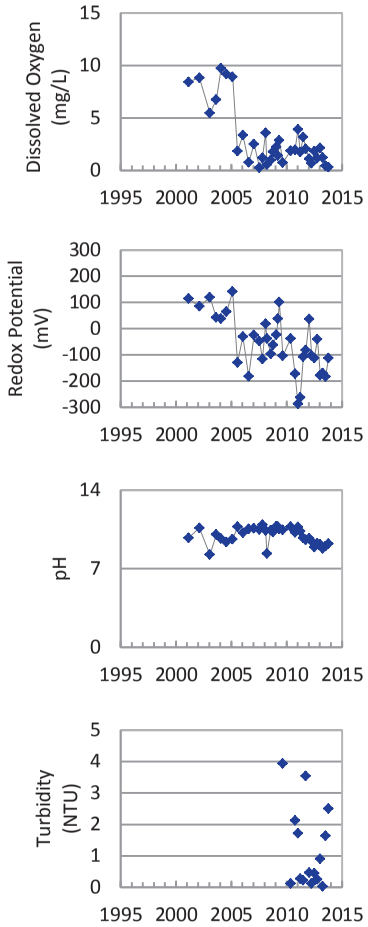
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/8/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1012
i-Pentanoic Acid Trend in Perched Aquifer



Field Parameters



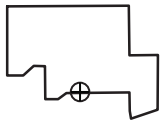
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Probably Increasing
Last 4 Samples: Probably Decreasing

▲ Measured Value
● Sample Detection Limit
Concentration Trend
Injection Dates

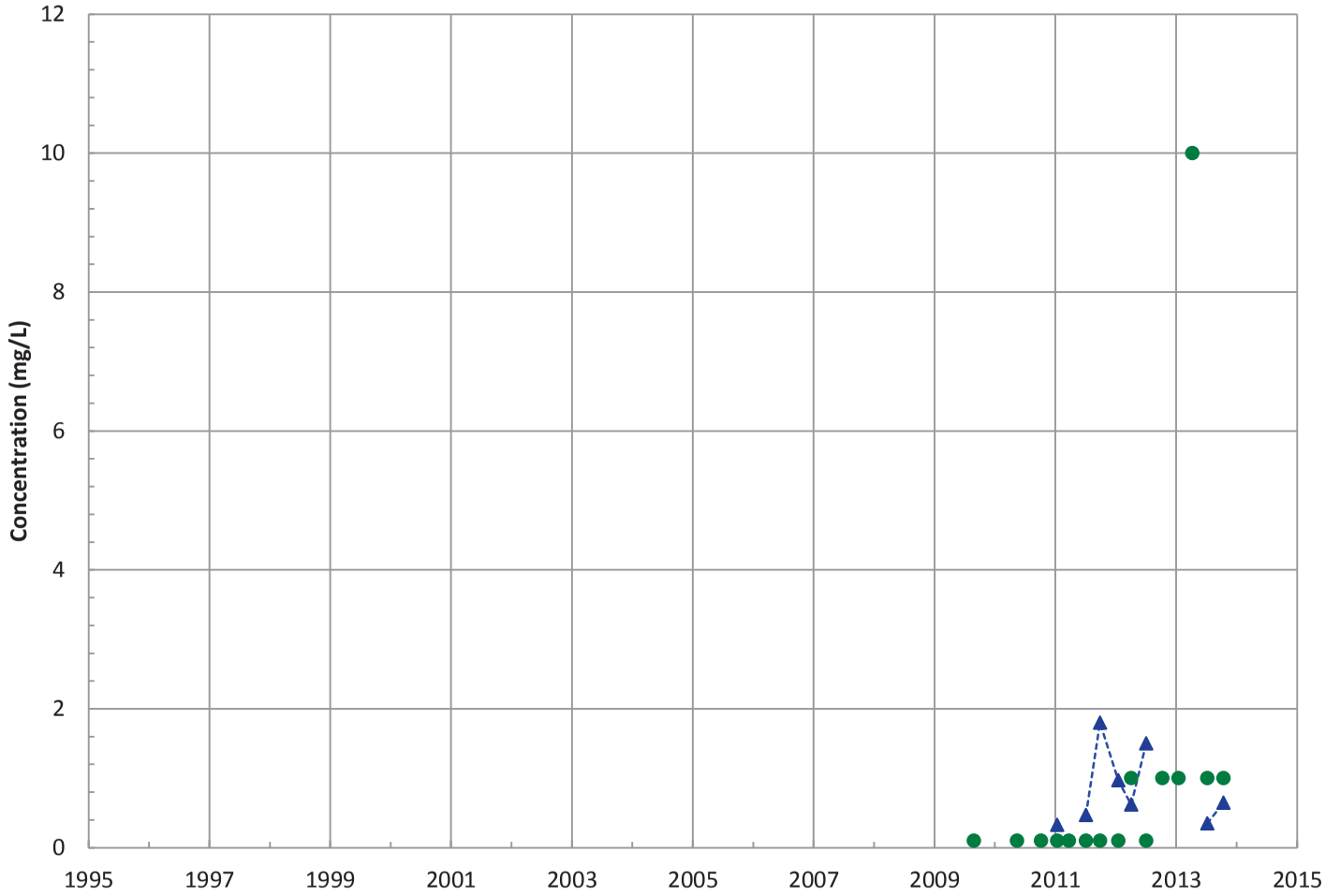
Well Location



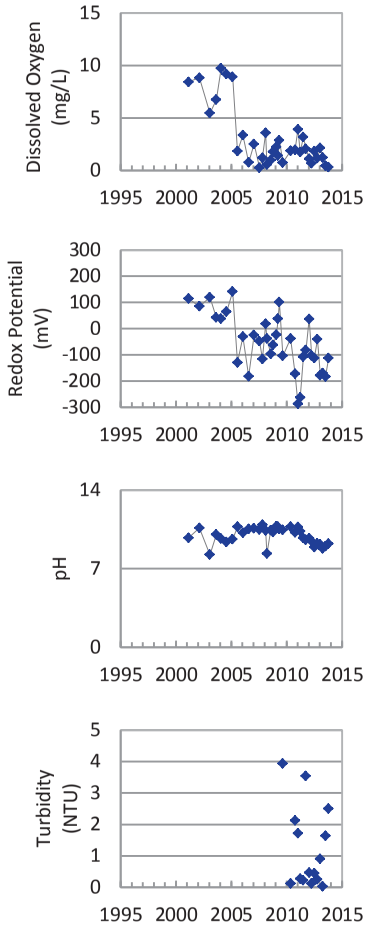
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/8/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1012
Lactic Acid and HIBA Trend in Perched Aquifer



Field Parameters



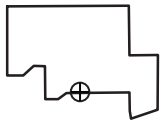
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Injection Dates

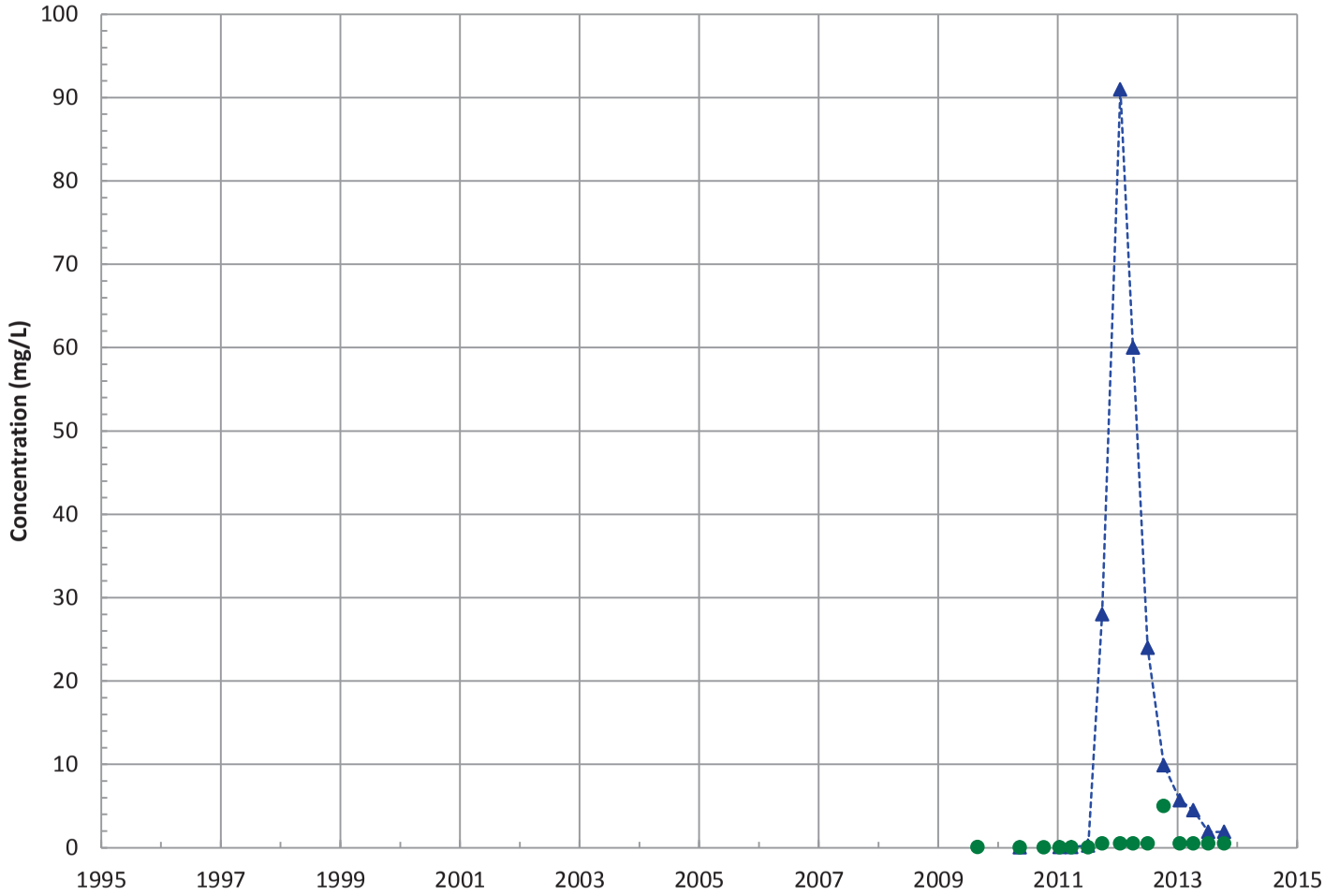
Well Location



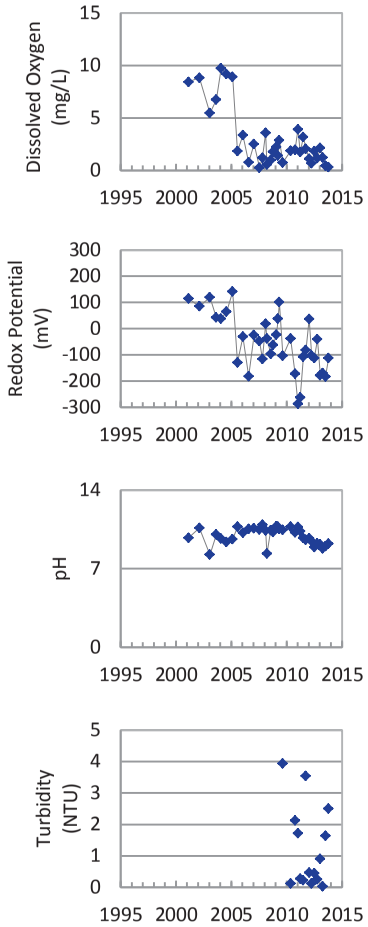
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/8/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1012
Propionic Acid Trend in Perched Aquifer



Field Parameters



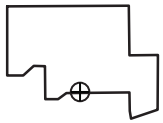
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Probably Decreasing

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

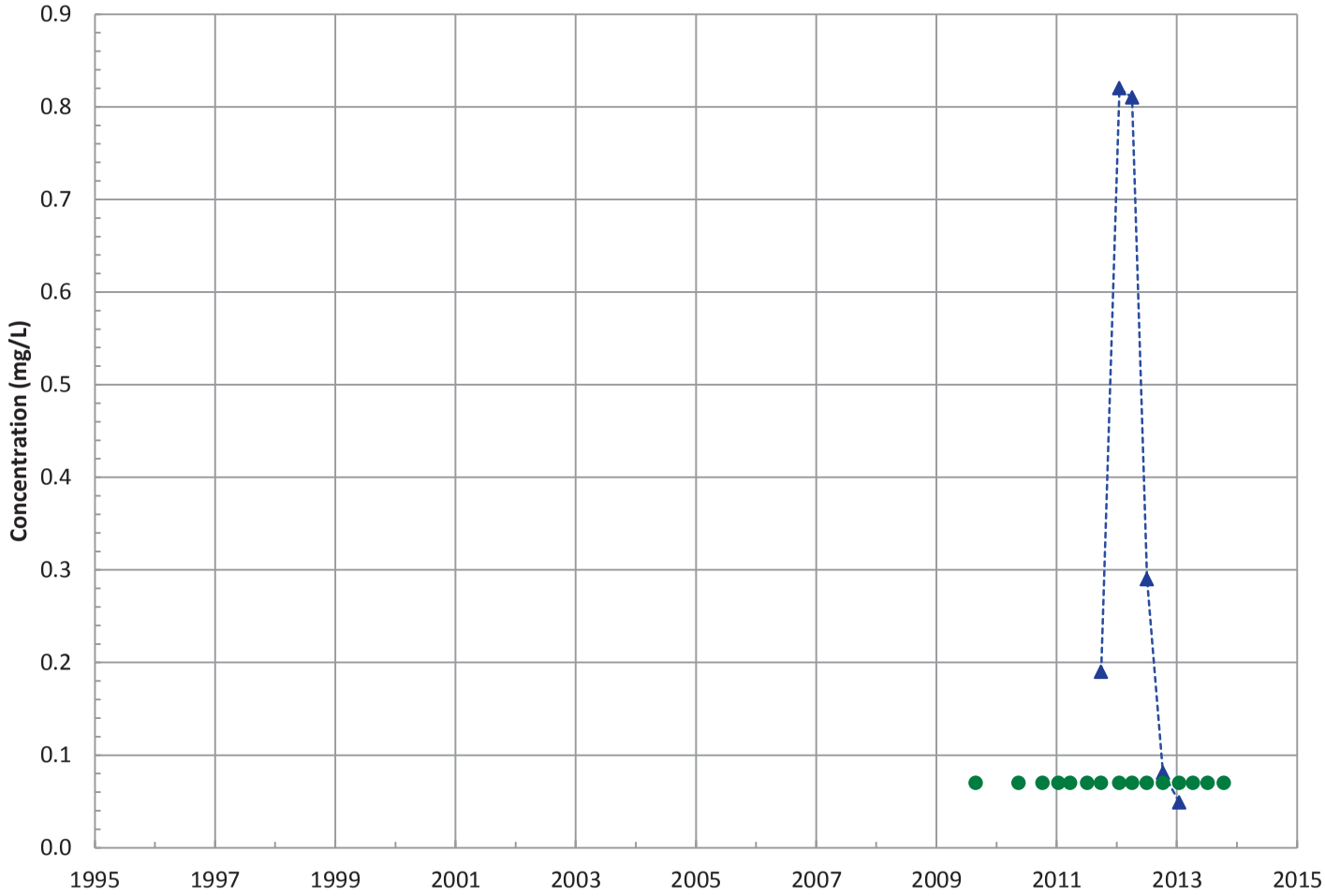
Well Location



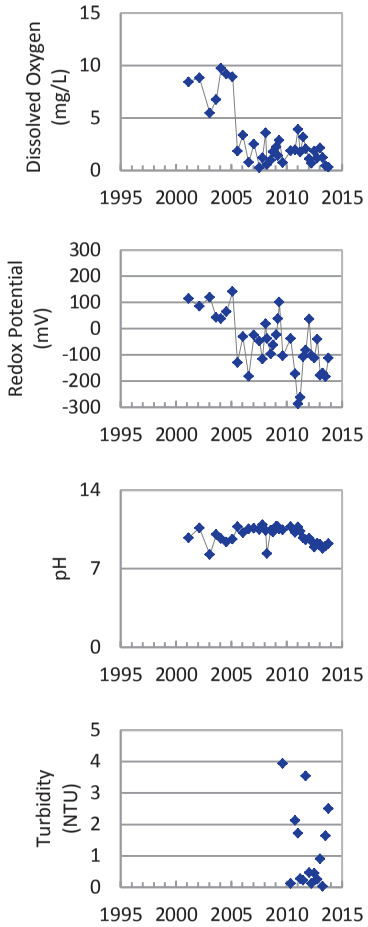
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/8/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1012
Pentanoic Acid Trend in Perched Aquifer



Field Parameters



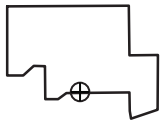
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: Probably Decreasing
Last 4 Samples: Decreasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Injection Dates

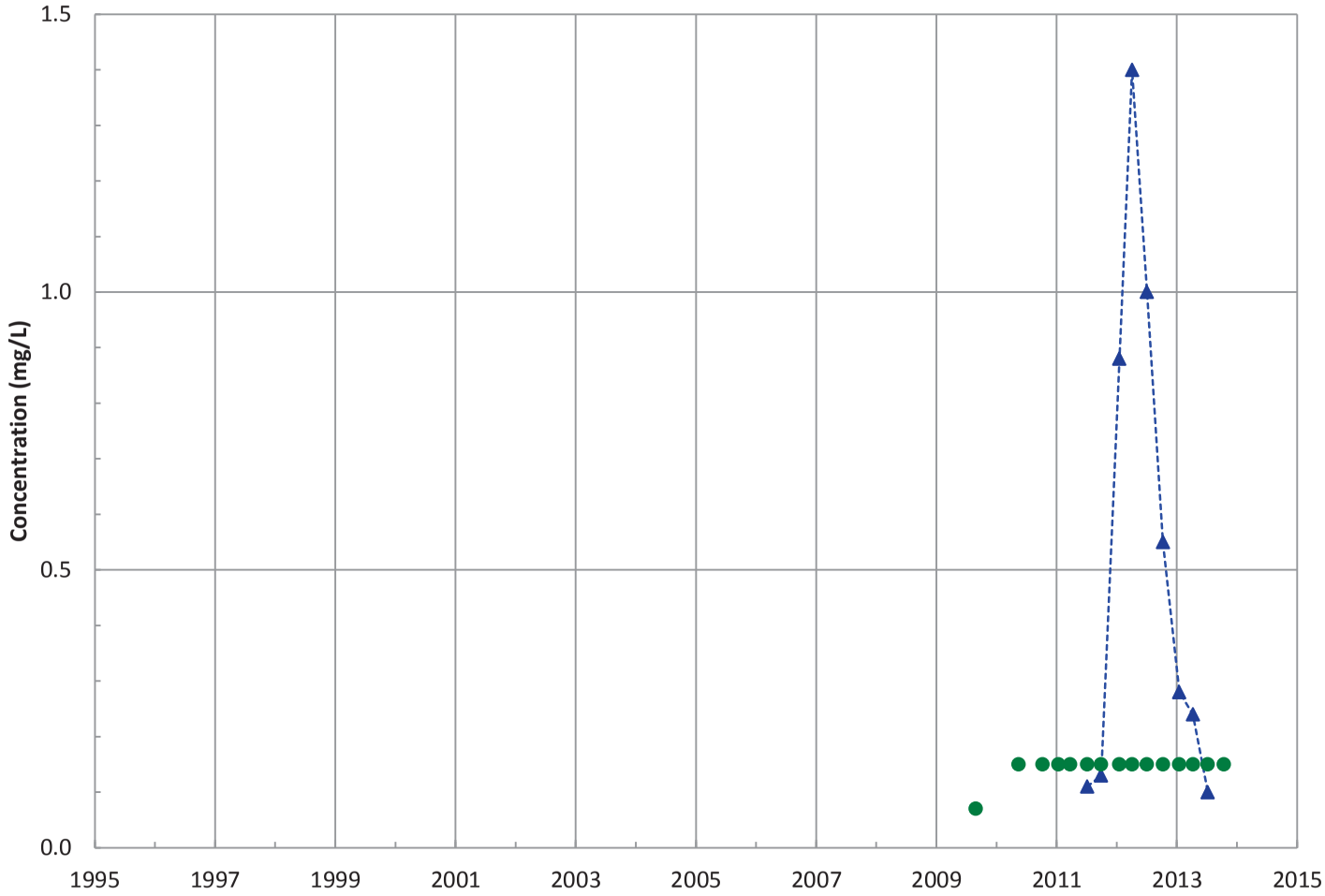
Well Location



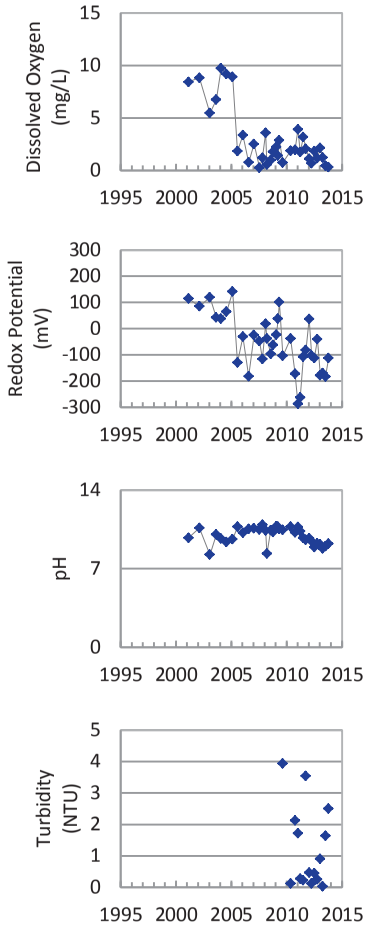
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/8/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1012
Pyruvic Acid Trend in Perched Aquifer



Field Parameters



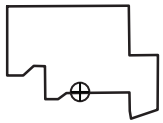
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: Decreasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Injection Dates

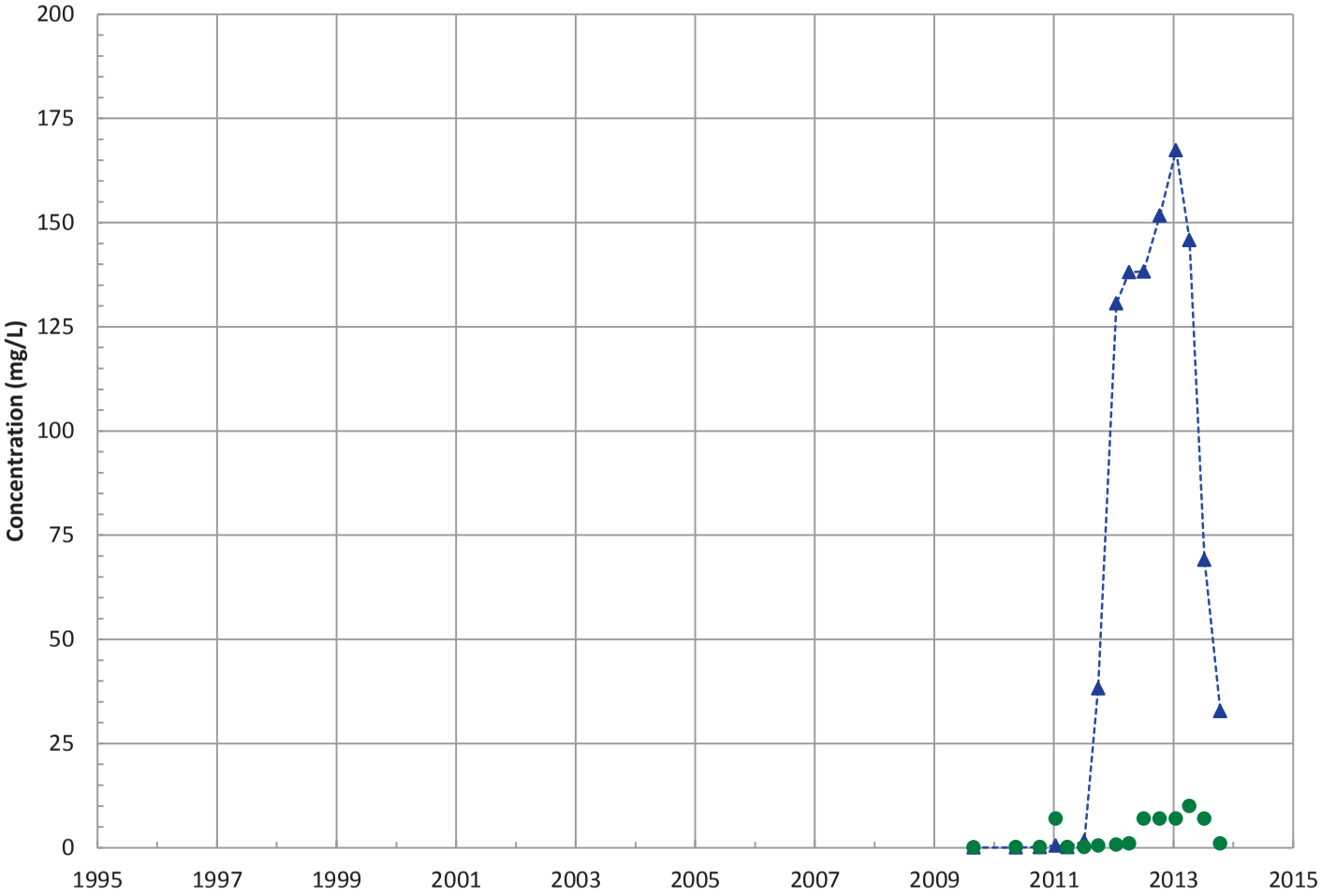
Well Location



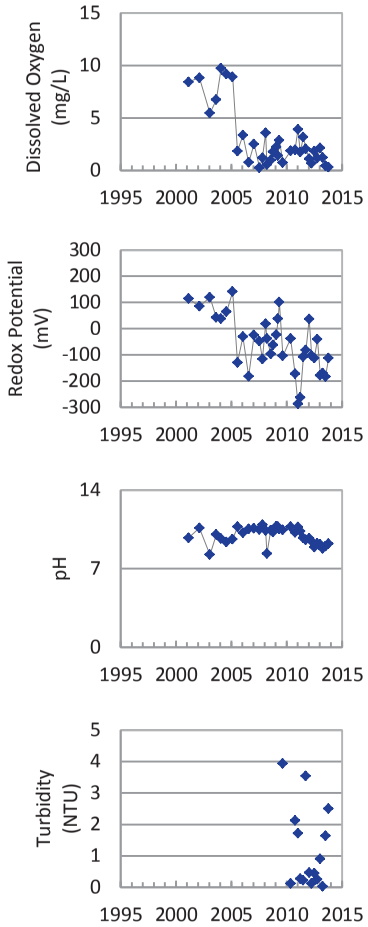
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/8/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1012
Total Volatile Fatty Acids Trend in Perched Aquifer



Field Parameters



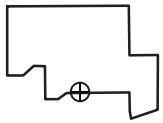
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Probably Decreasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Injection Dates

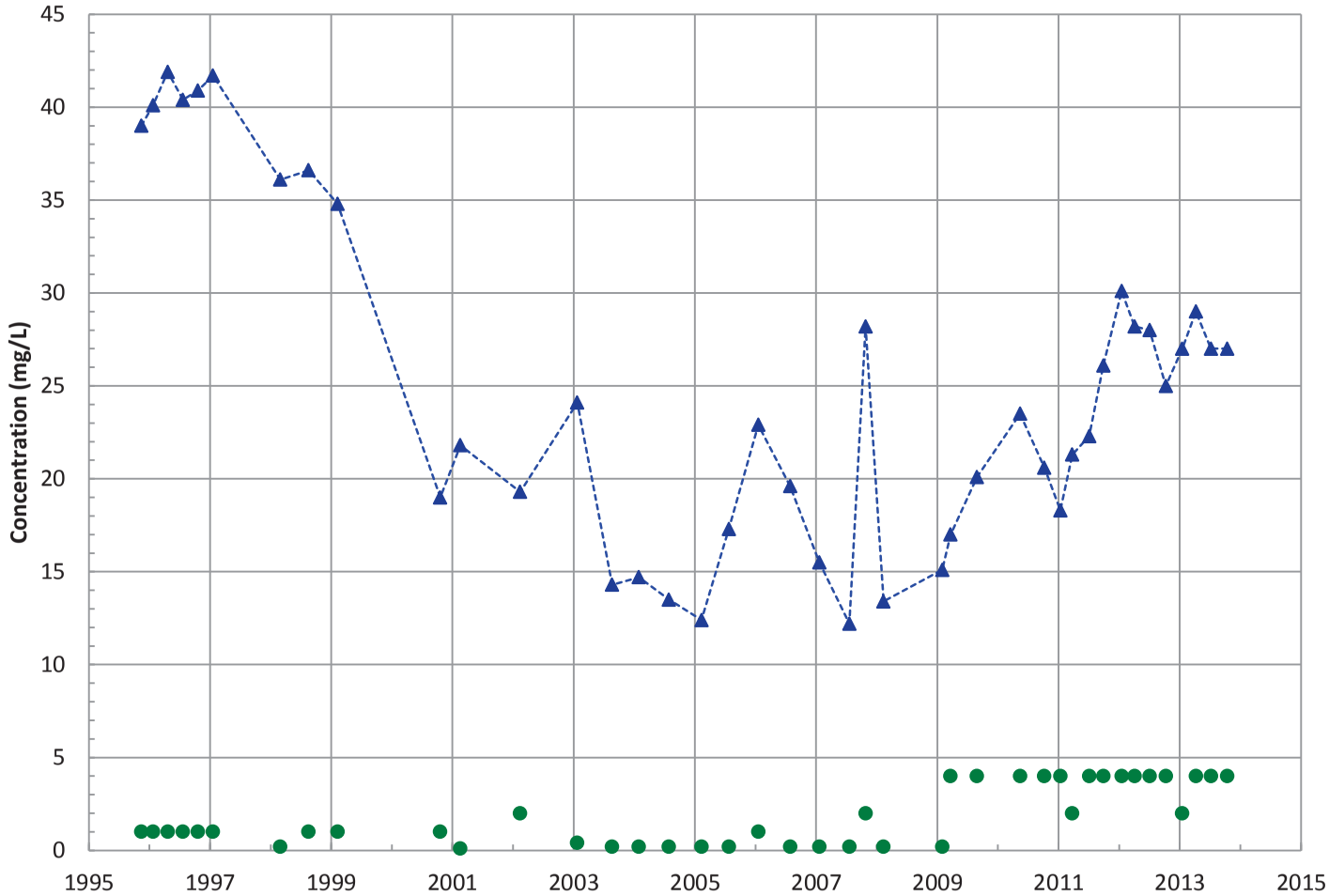
Well Location



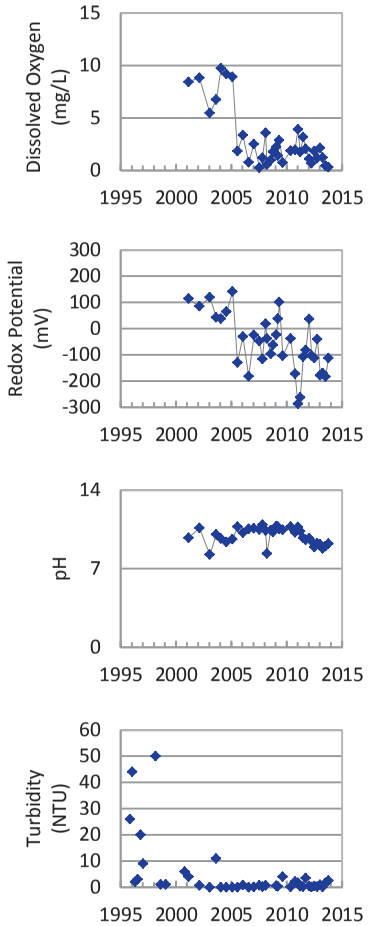
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/8/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1012
Chloride (as Cl) Trend in Perched Aquifer



Field Parameters



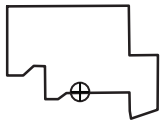
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Stable

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

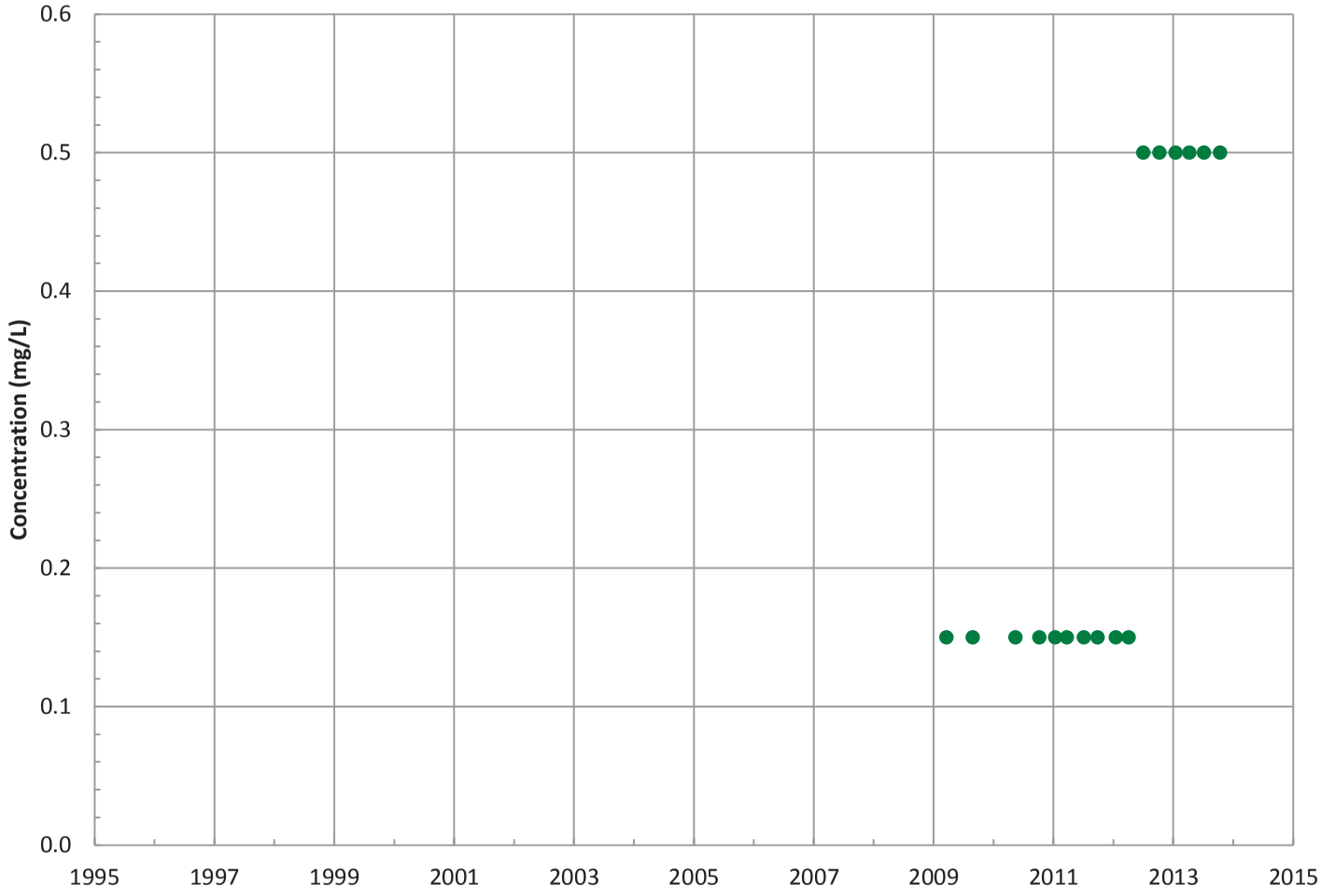
Well Location



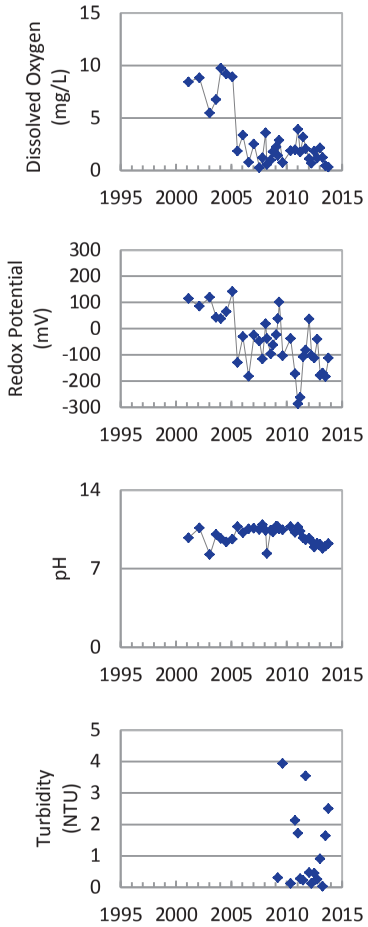
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1012
Chlorate Trend in Perched Aquifer



Field Parameters



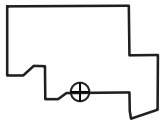
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Injection Dates

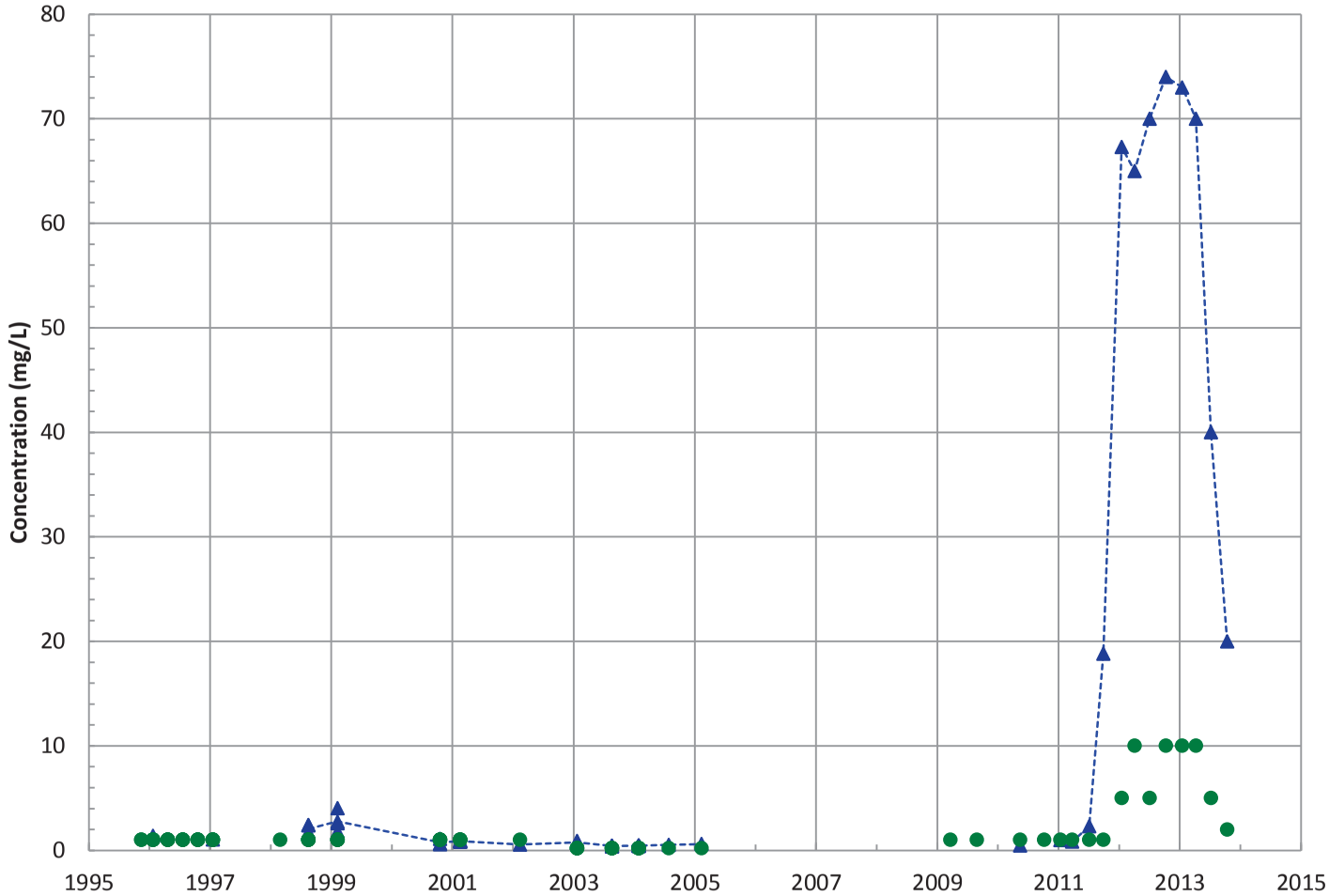
Well Location



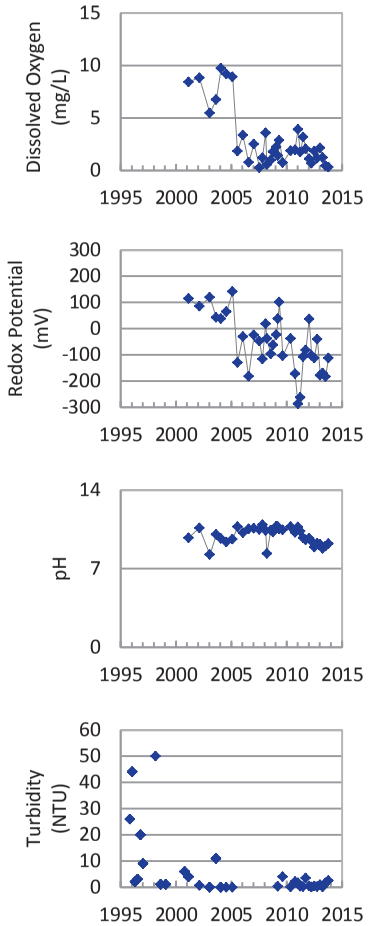
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/1/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1012
Total Organic Carbon Trend in Perched Aquifer



Field Parameters



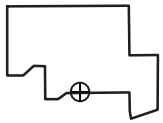
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Decreasing

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

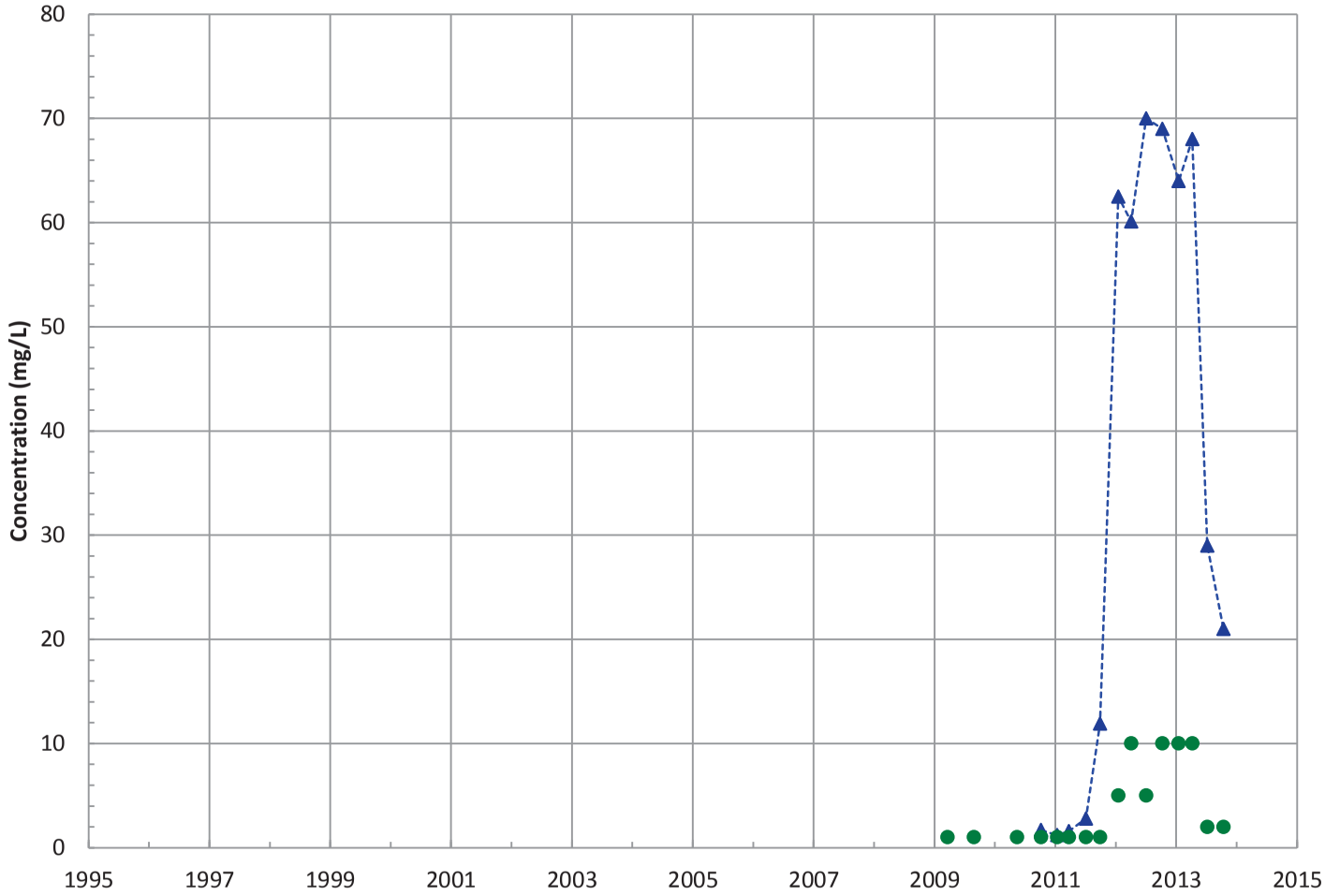
Well Location



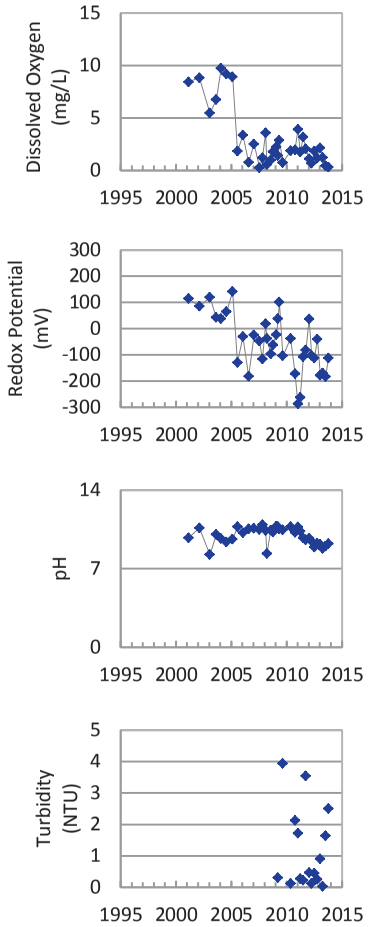
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1012
Dissolved Organic Carbon (DOC) Trend in Perched Aquifer



Field Parameters



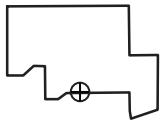
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Decreasing

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

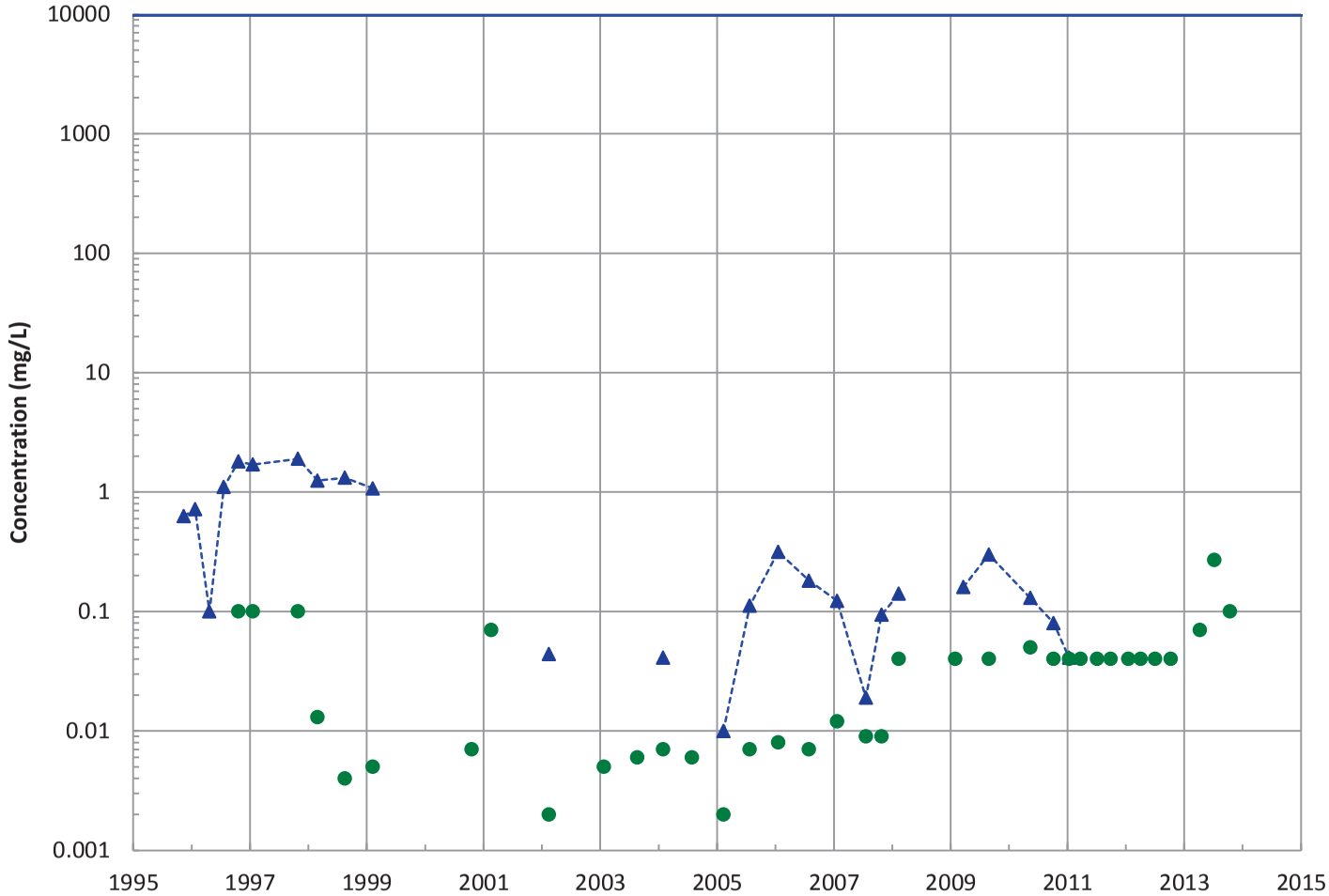
Well Location



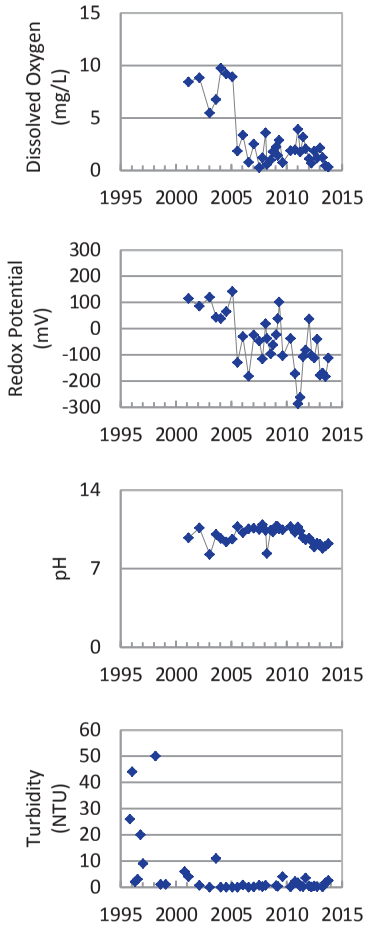
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/1/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1012
Nitrate as N Trend in Perched Aquifer



Field Parameters



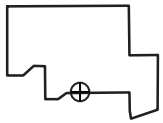
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

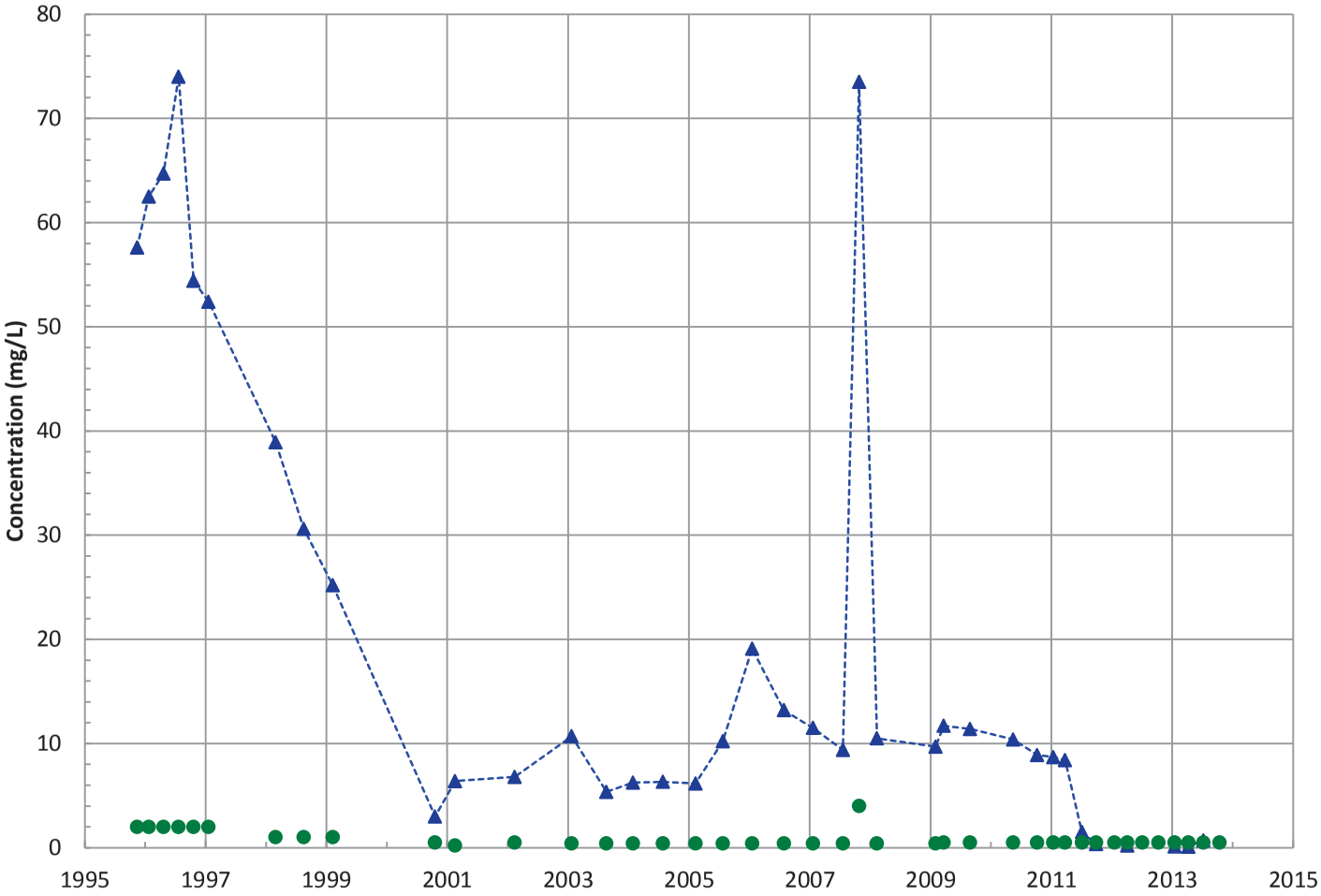
Well Location



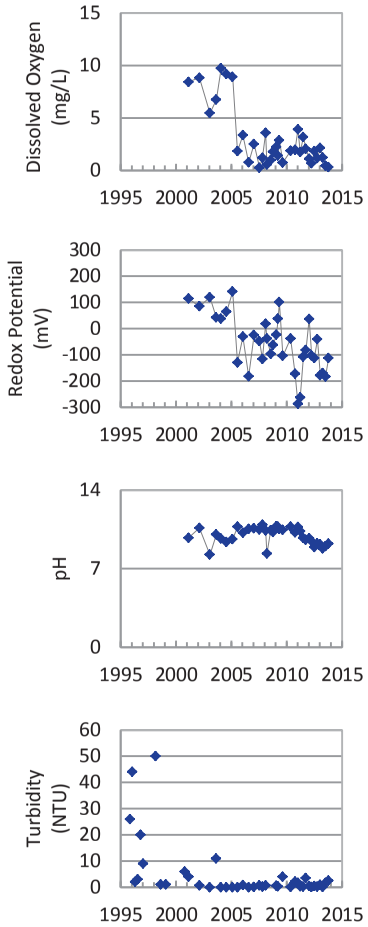
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1012
Sulfate (as SO4) Trend in Perched Aquifer



Field Parameters



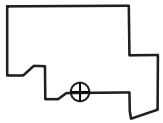
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Injection Dates

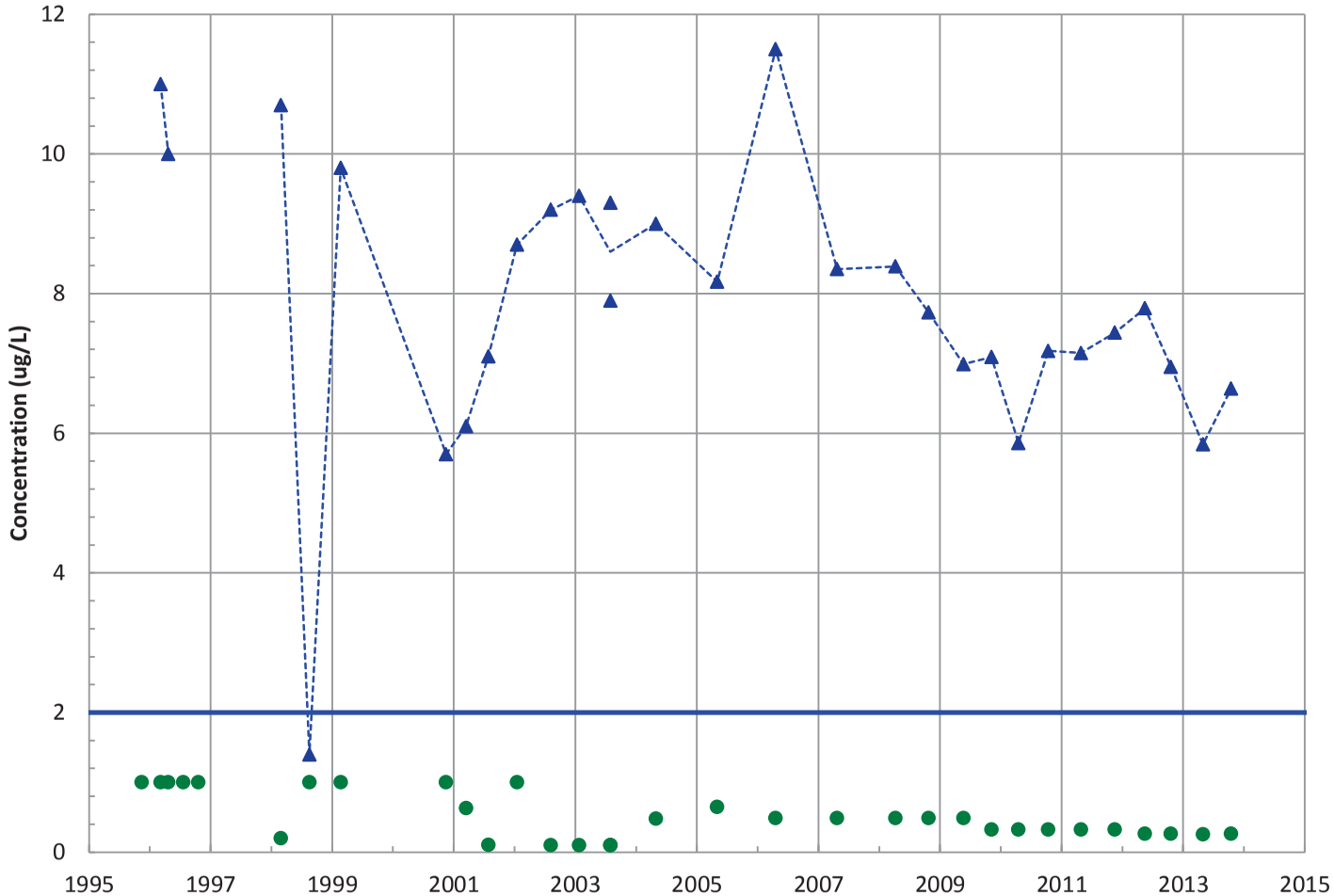
Well Location



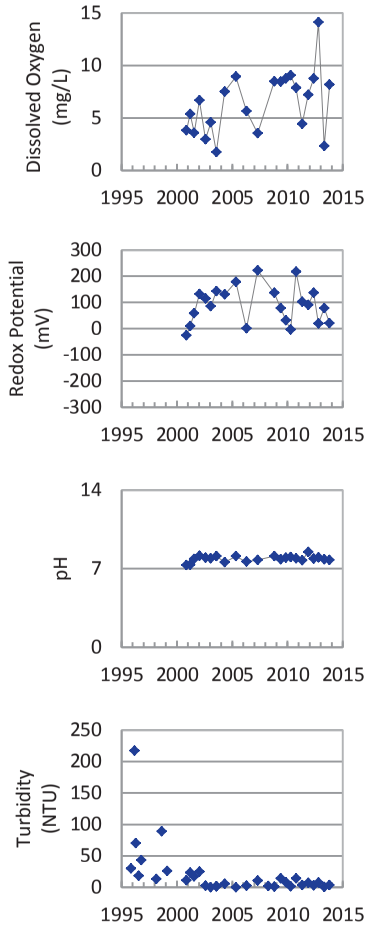
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1013
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



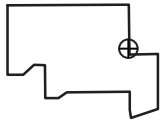
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Stable

Measured Value
Sample Detection Limit
Concentration Trend
Groundwater Protection Standard

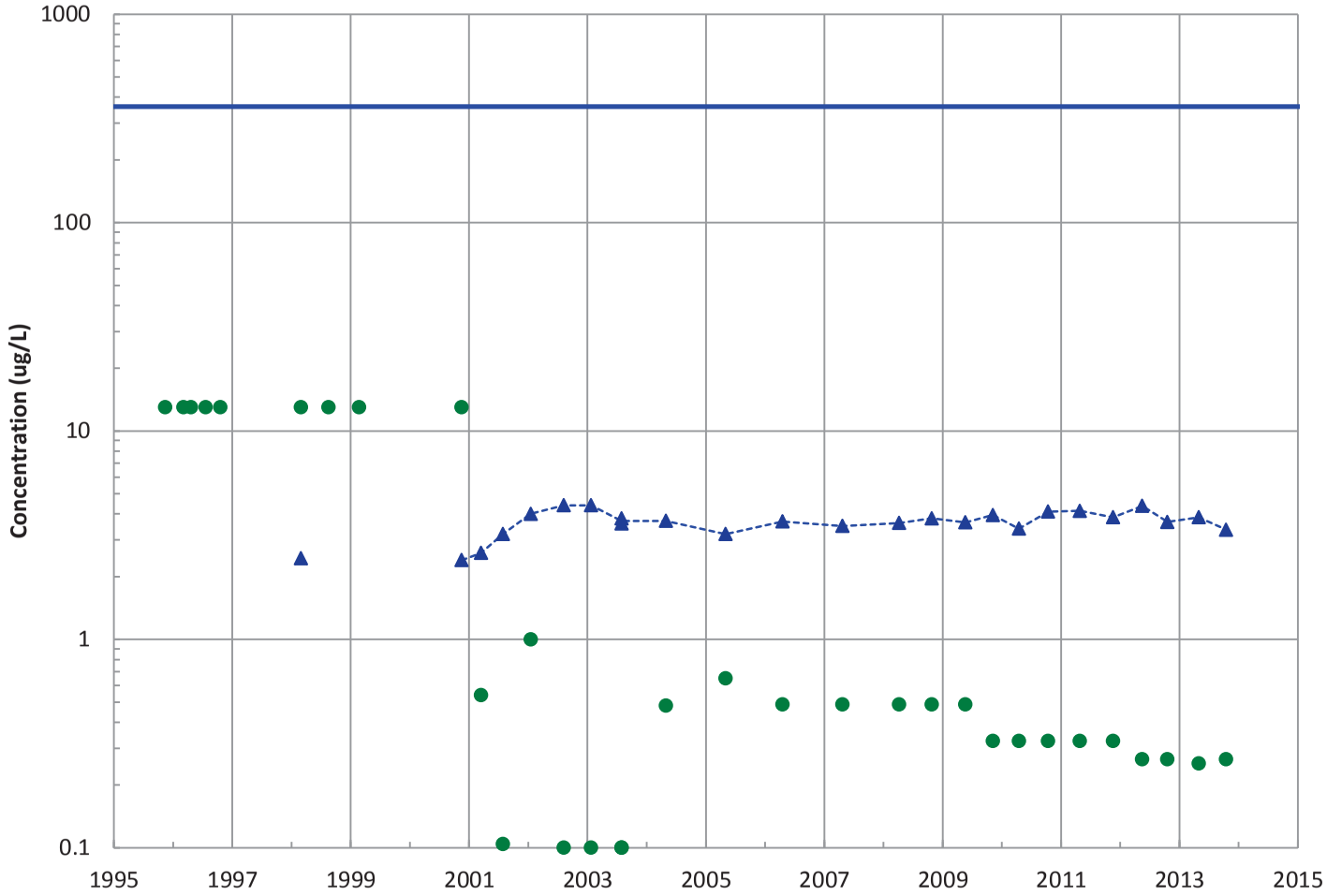
Well Location



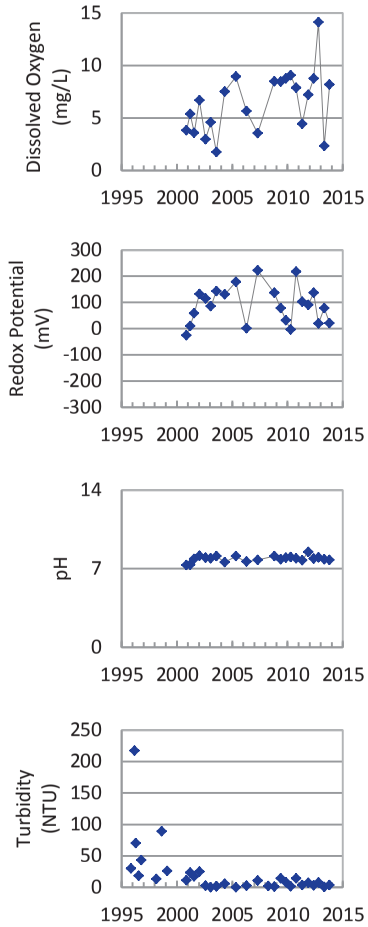
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1013
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



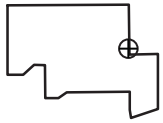
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Decreasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

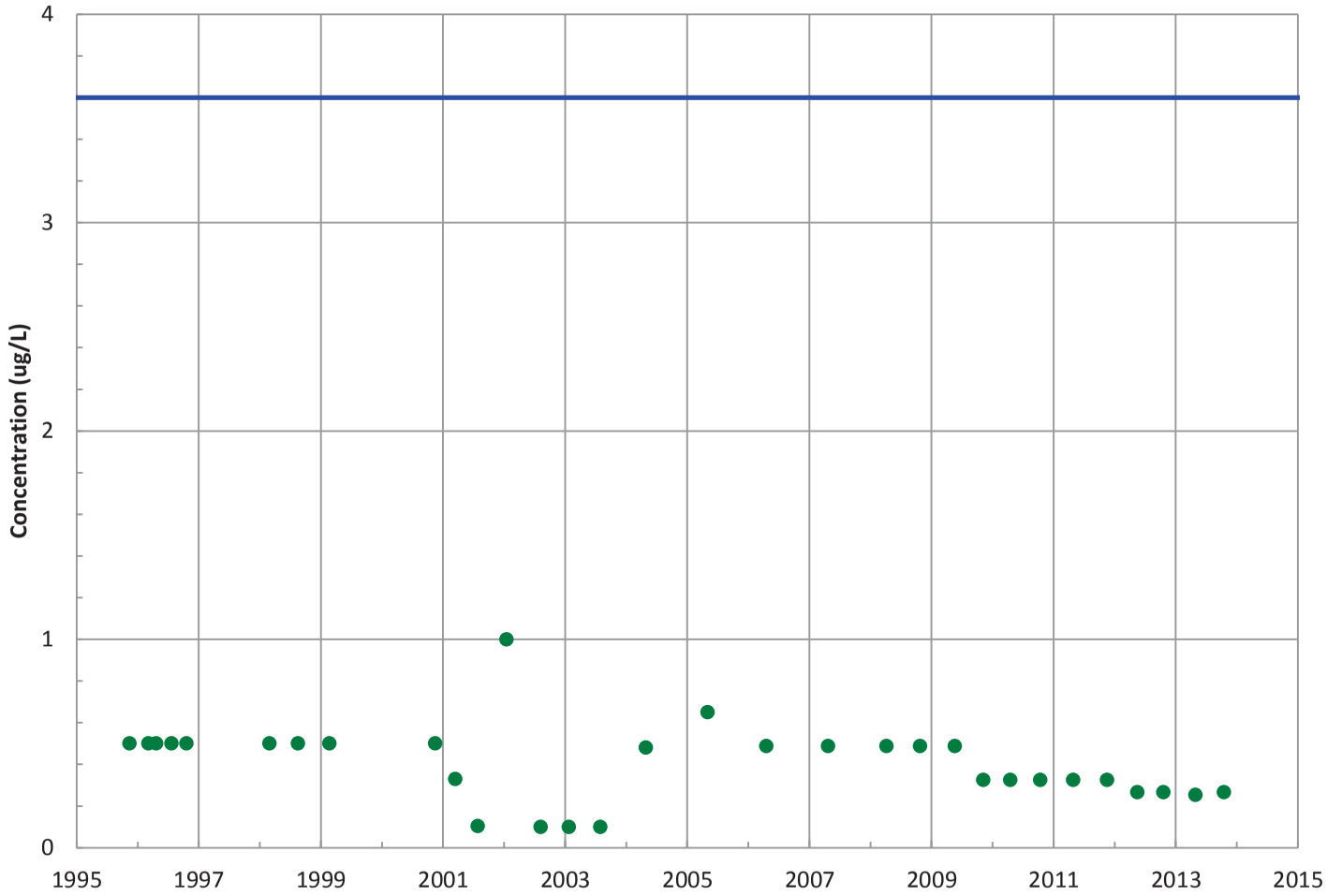
Well Location



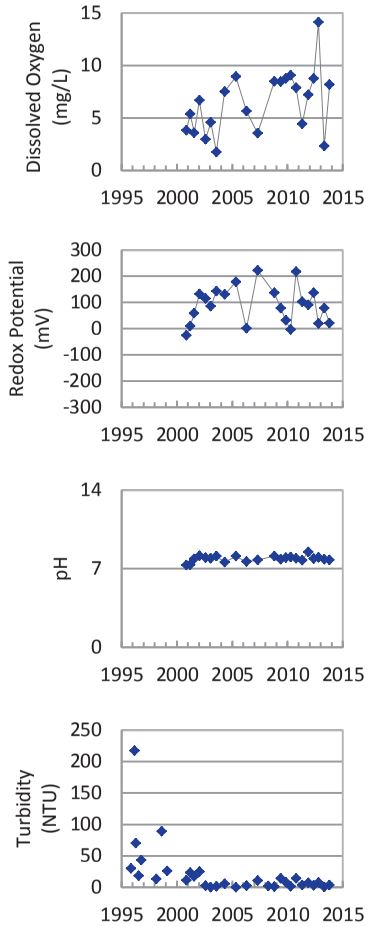
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1013
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



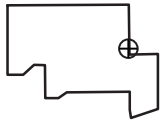
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

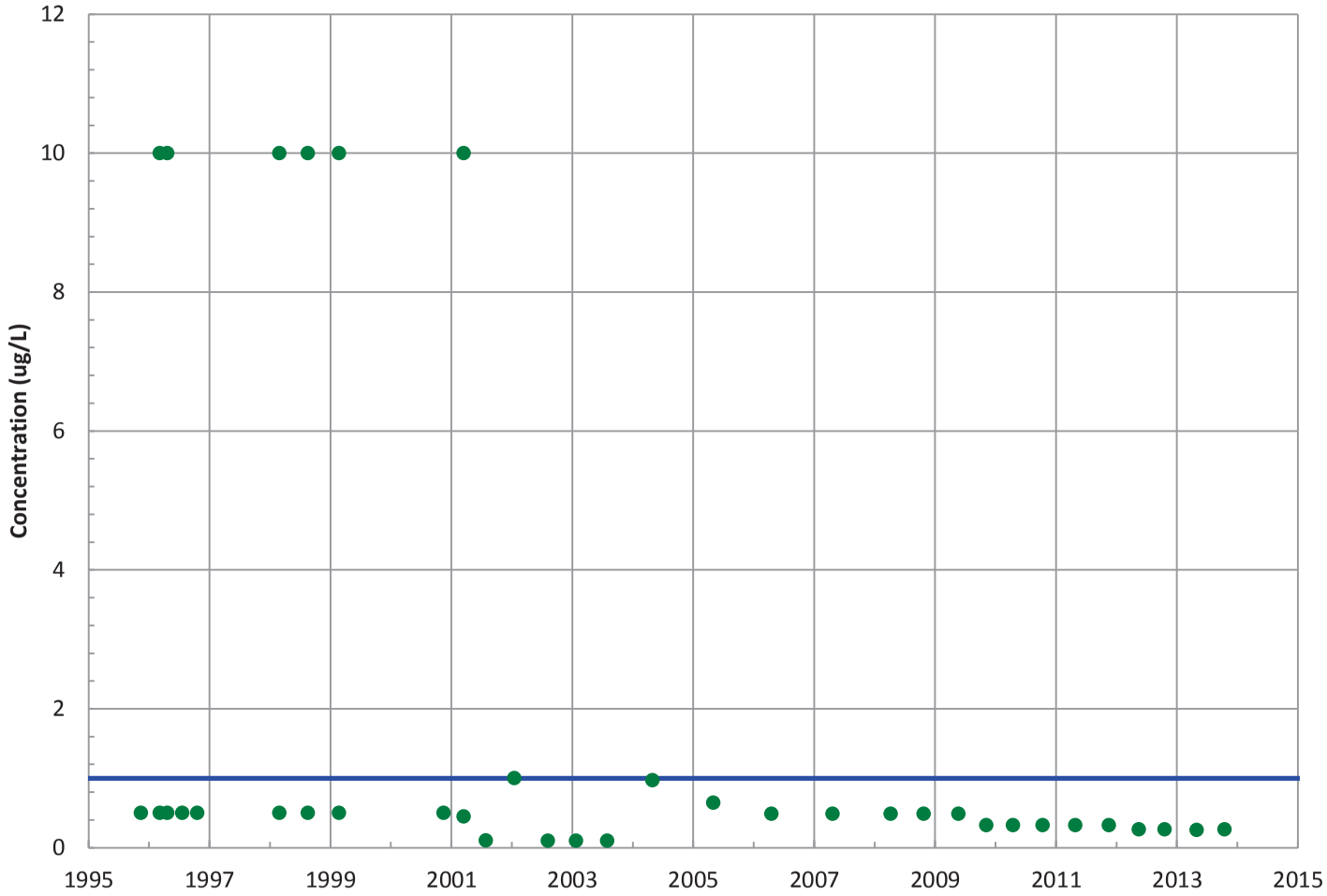
Well Location



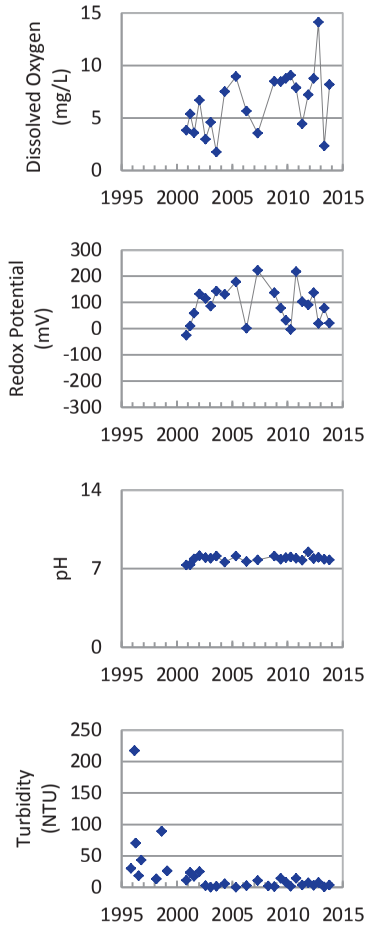
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1013
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



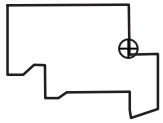
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

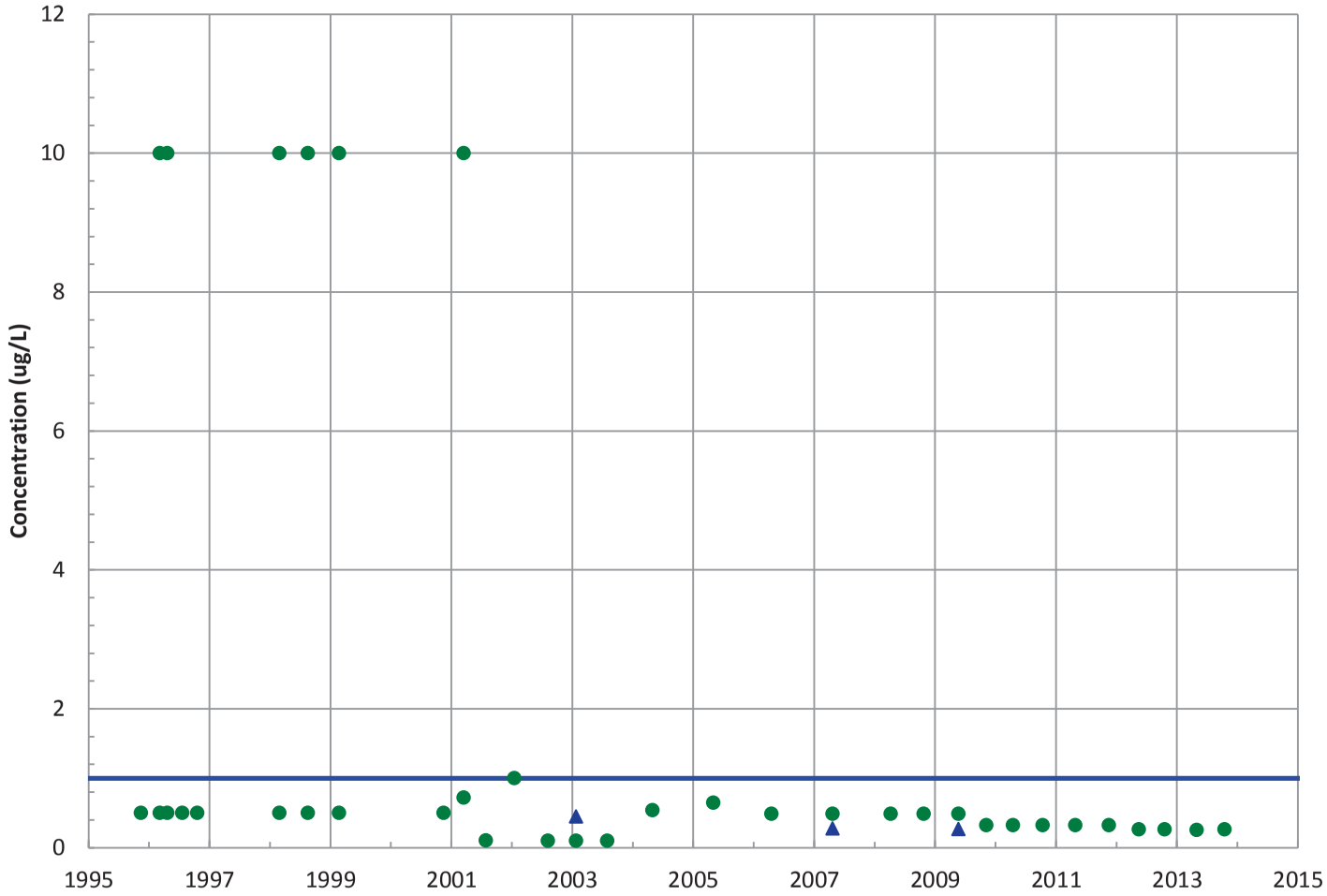
Well Location



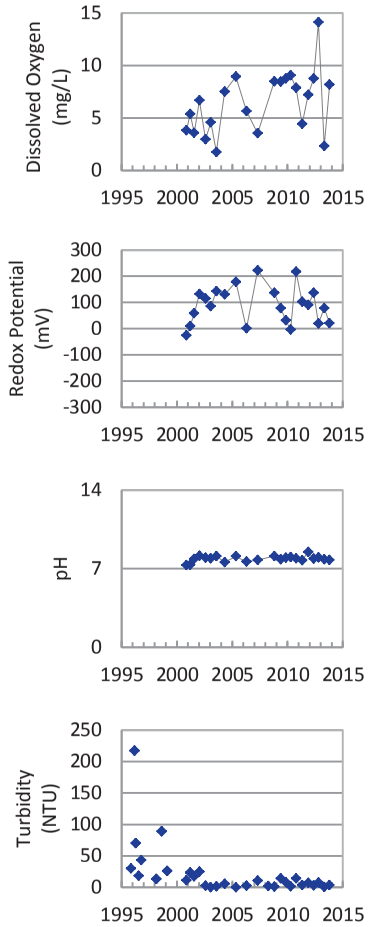
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1013
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



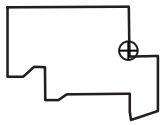
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

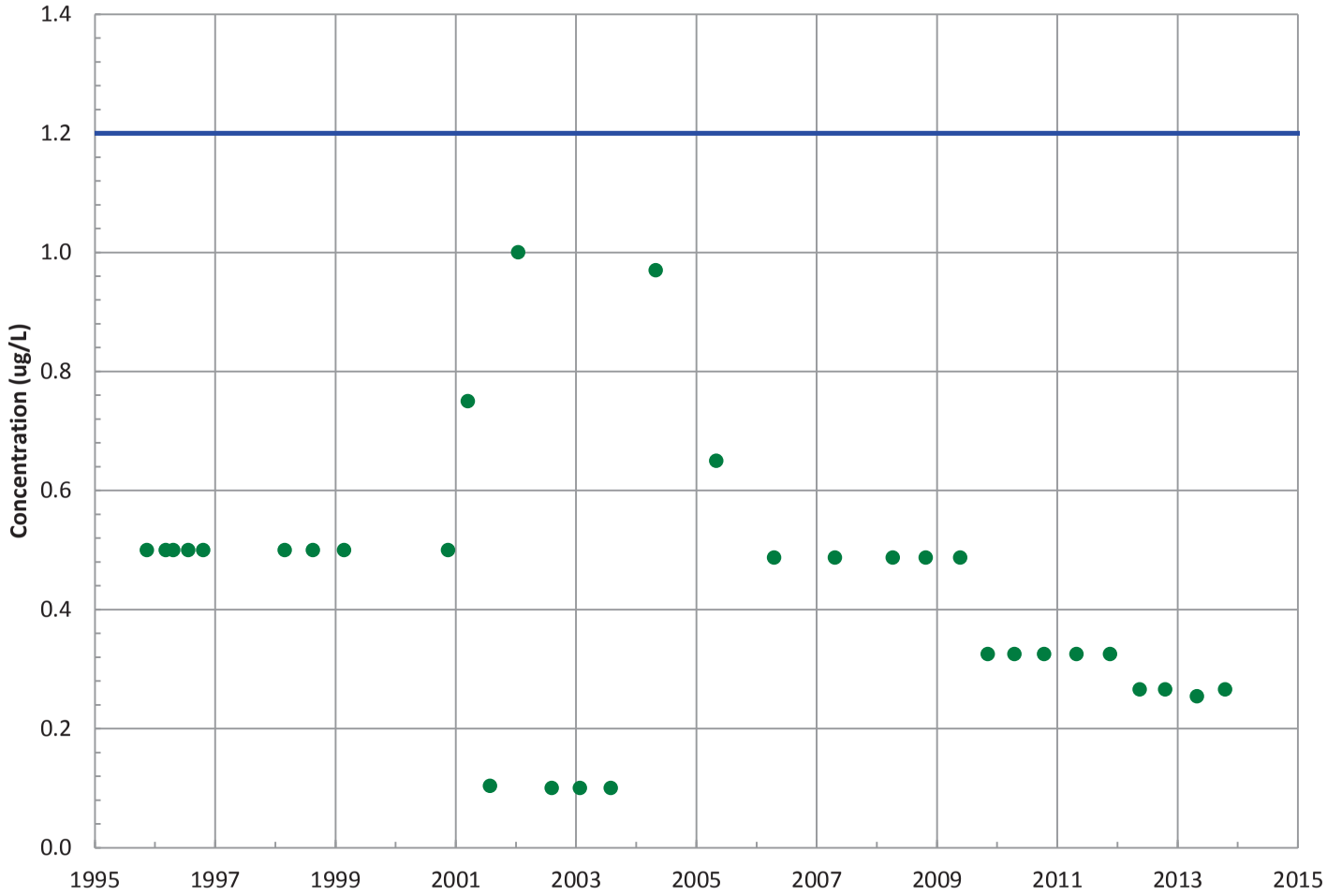
Well Location



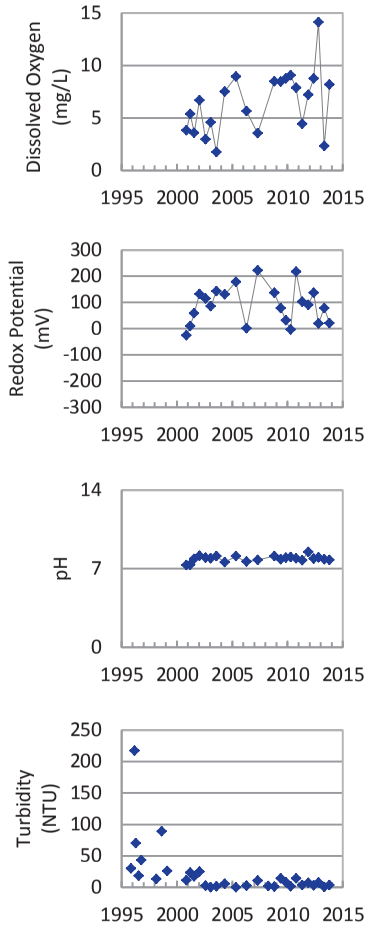
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1013
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



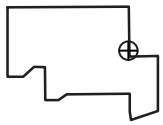
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

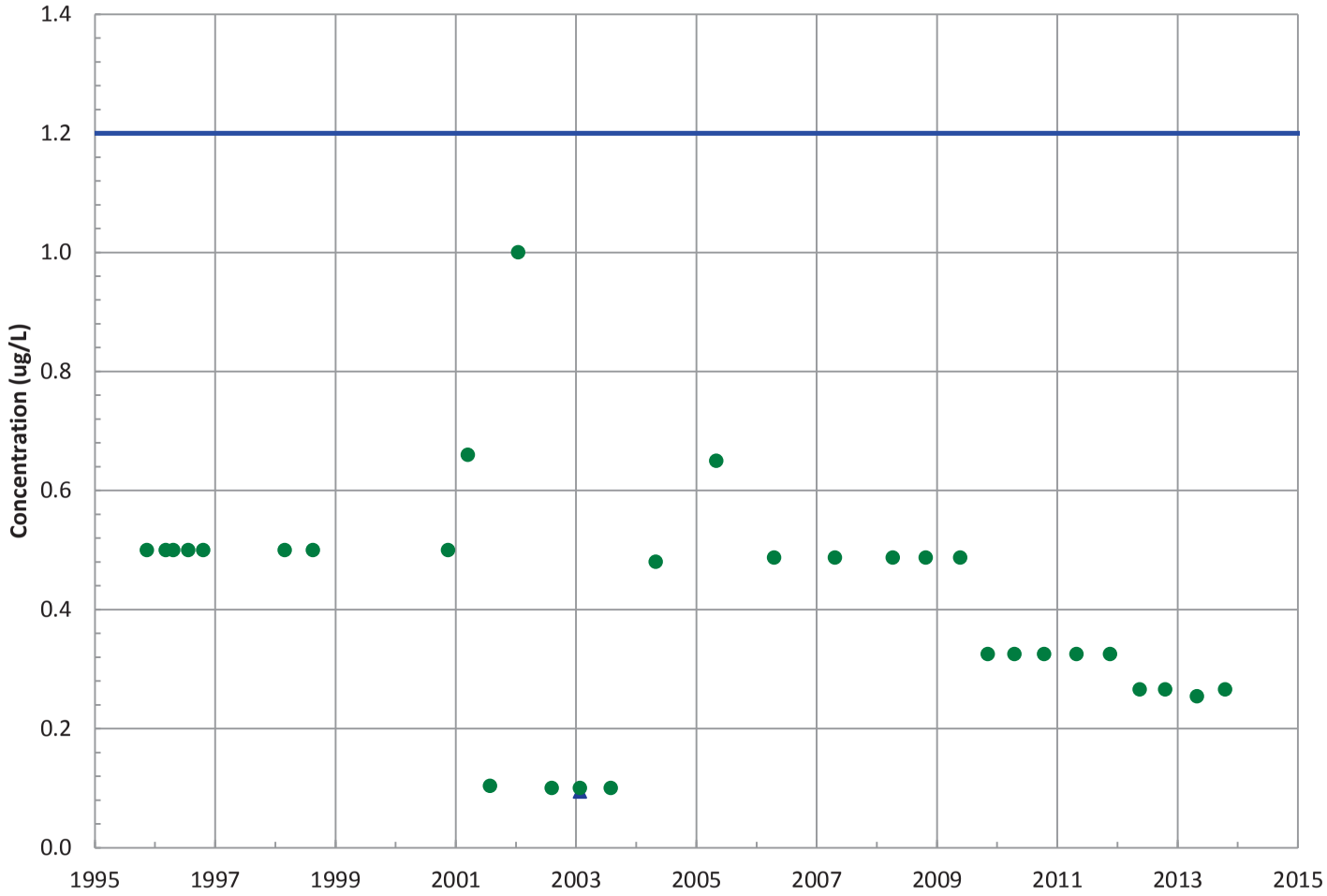
Well Location



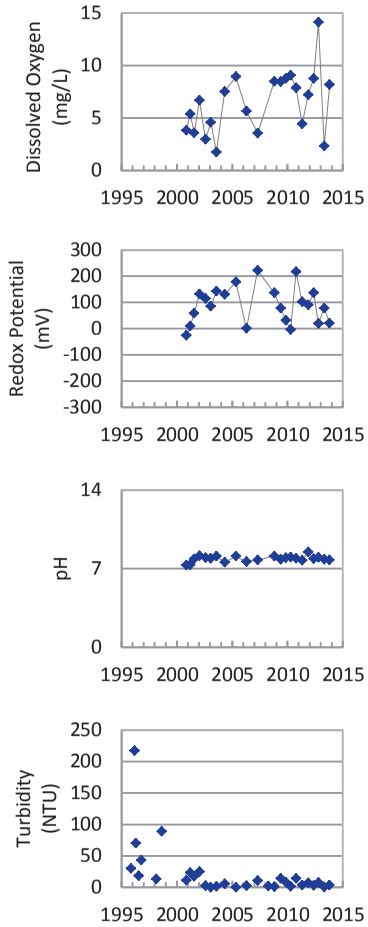
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1013
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



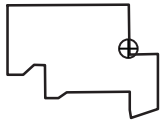
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

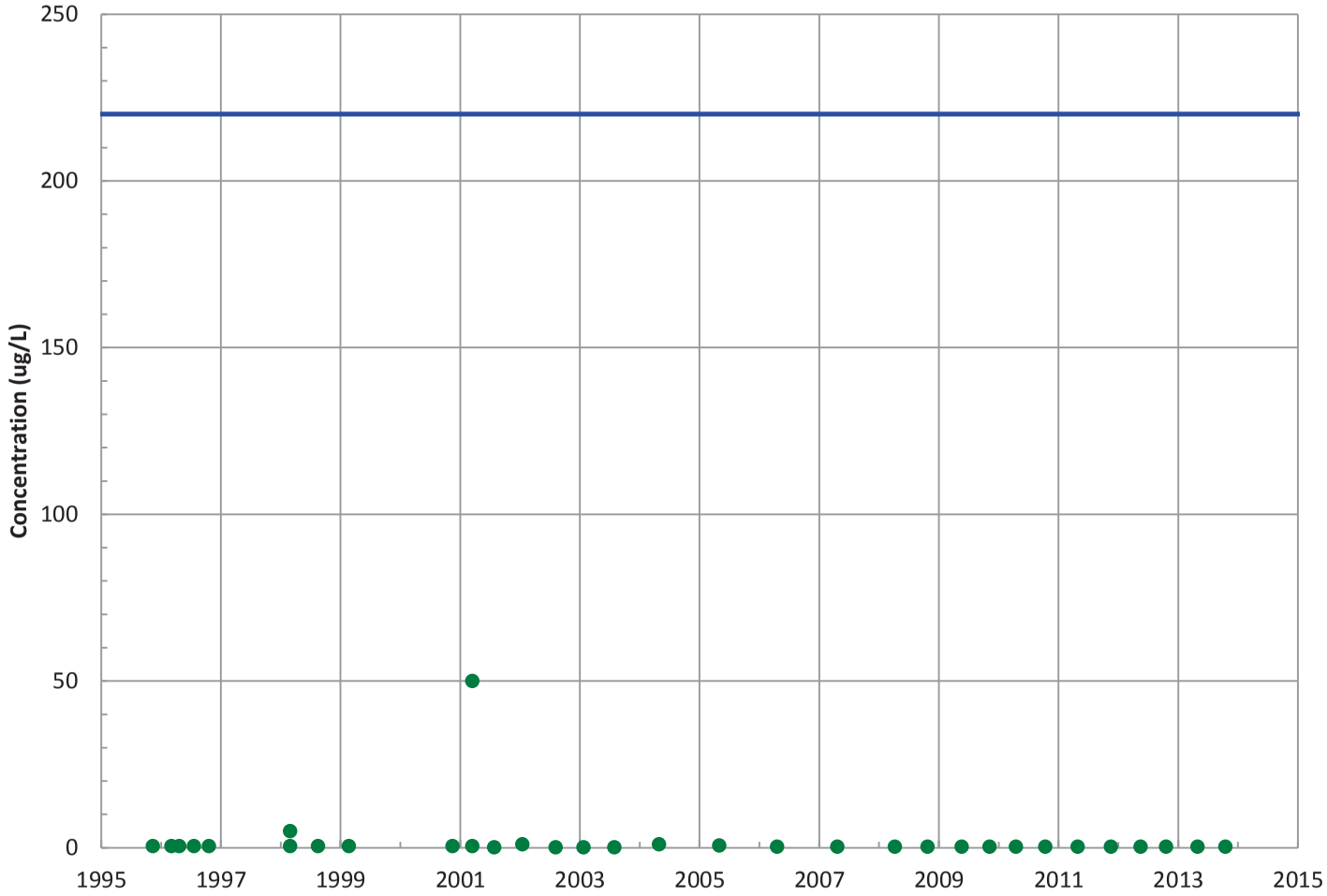
Well Location



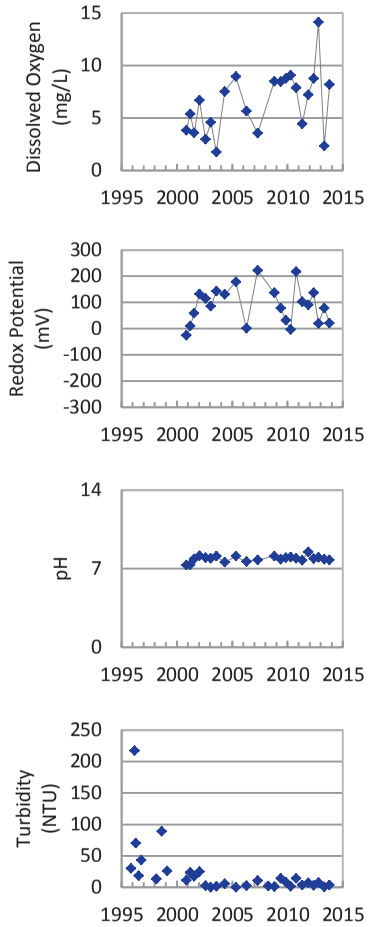
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1013
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



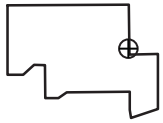
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

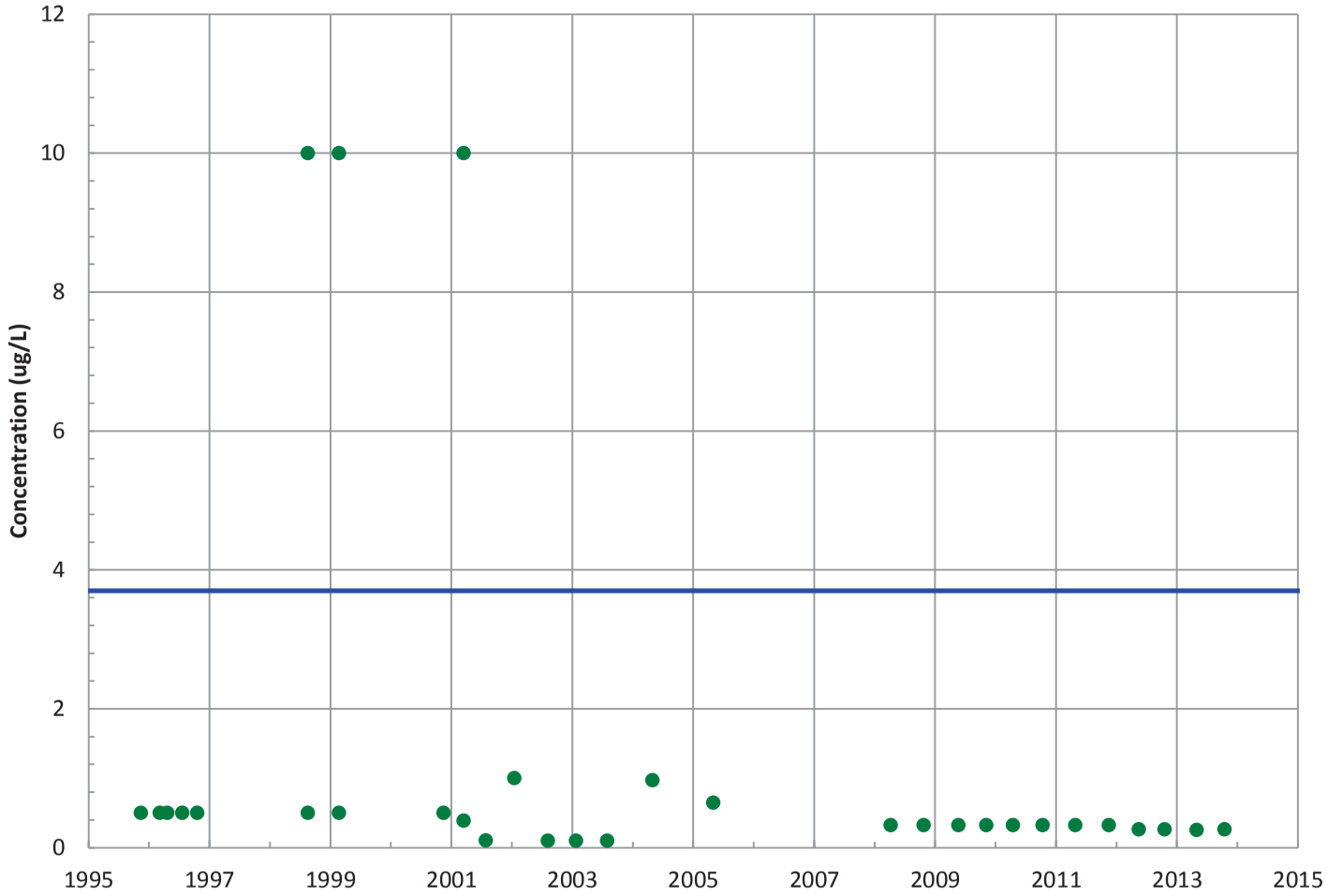
Well Location



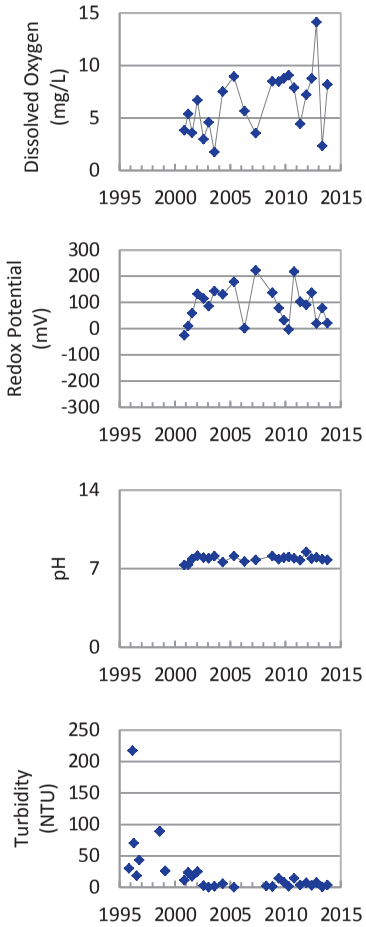
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1013
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



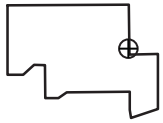
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

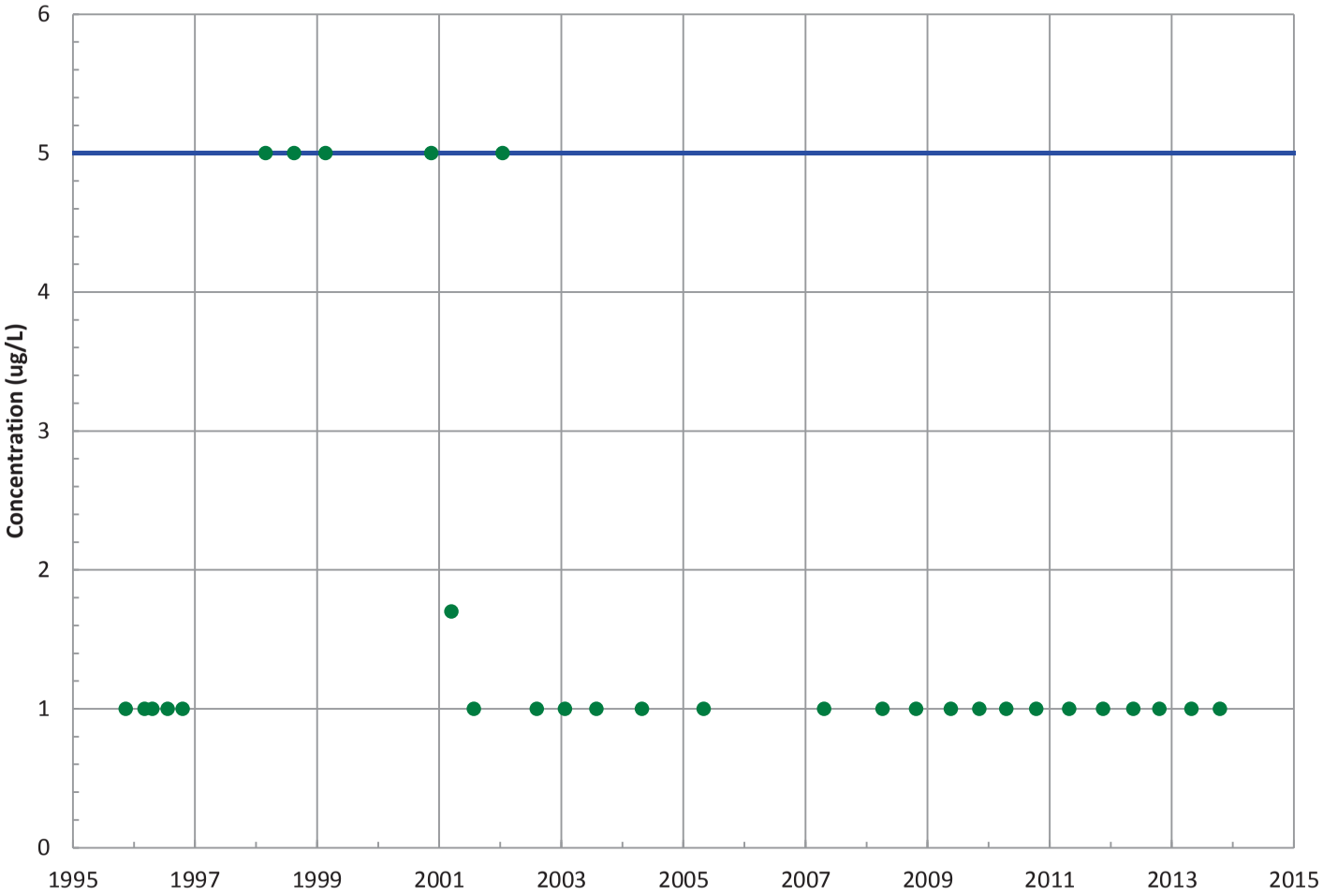
Well Location



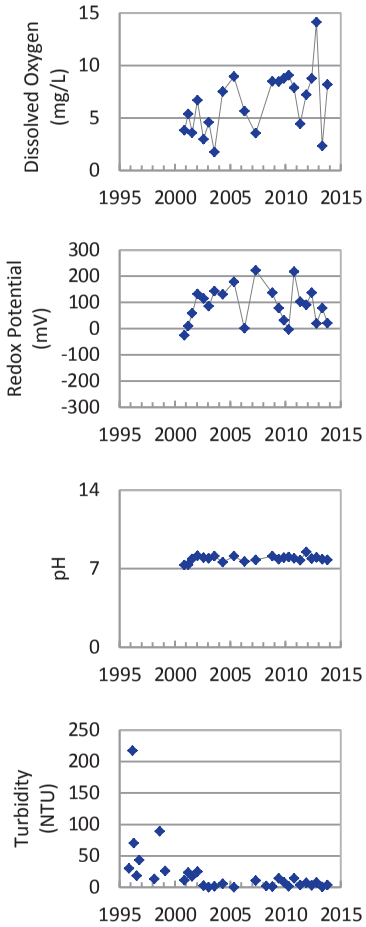
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1013
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



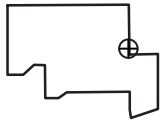
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

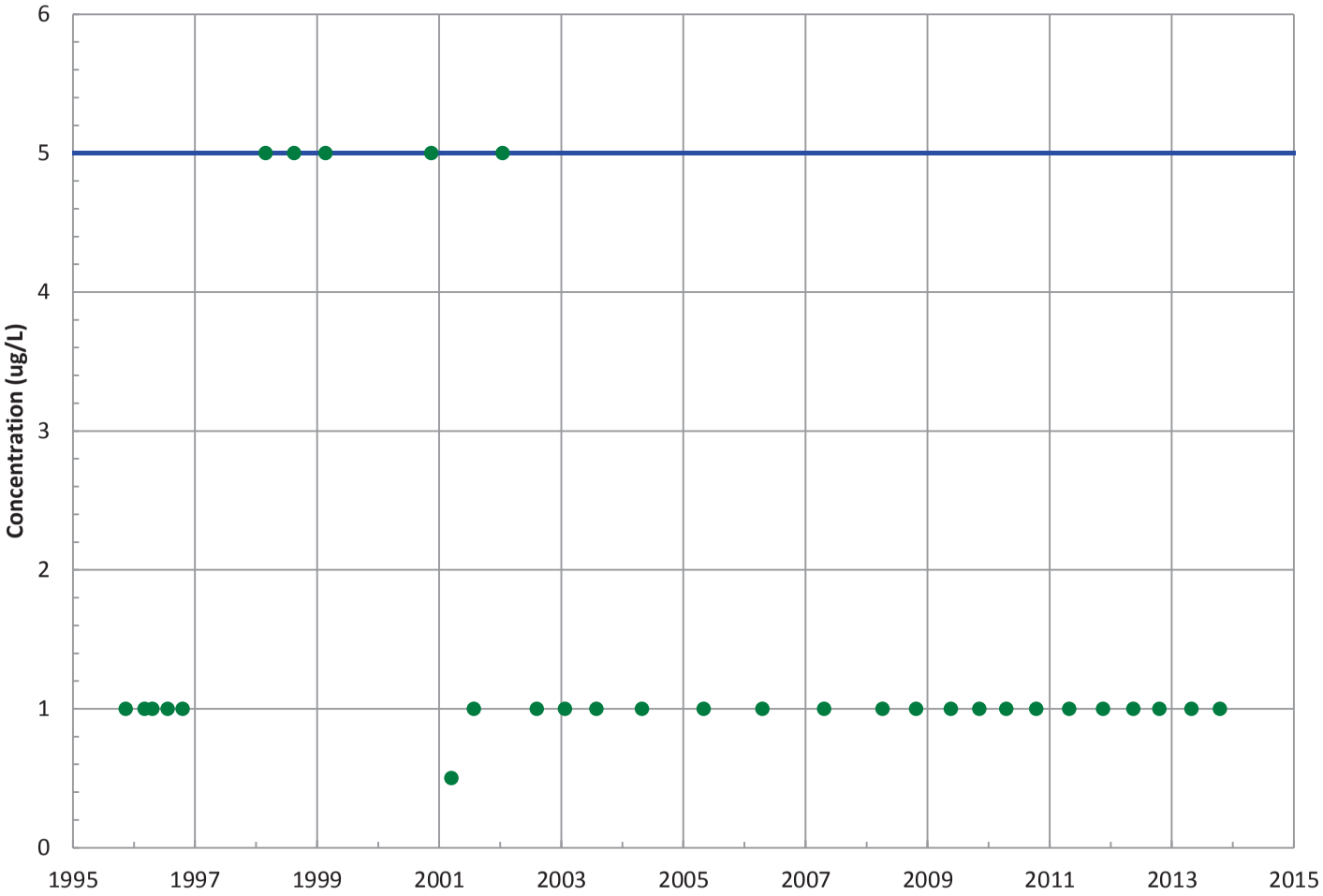
Well Location



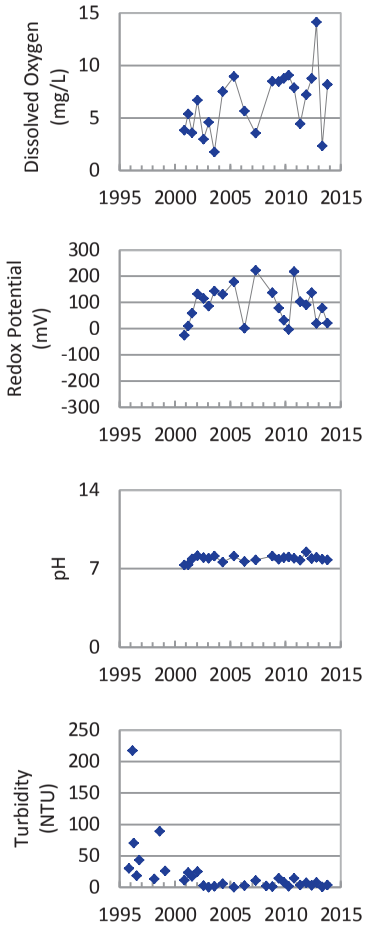
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1013
Trichloroethene Trend in Perched Aquifer



Field Parameters



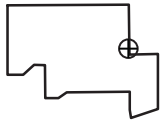
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

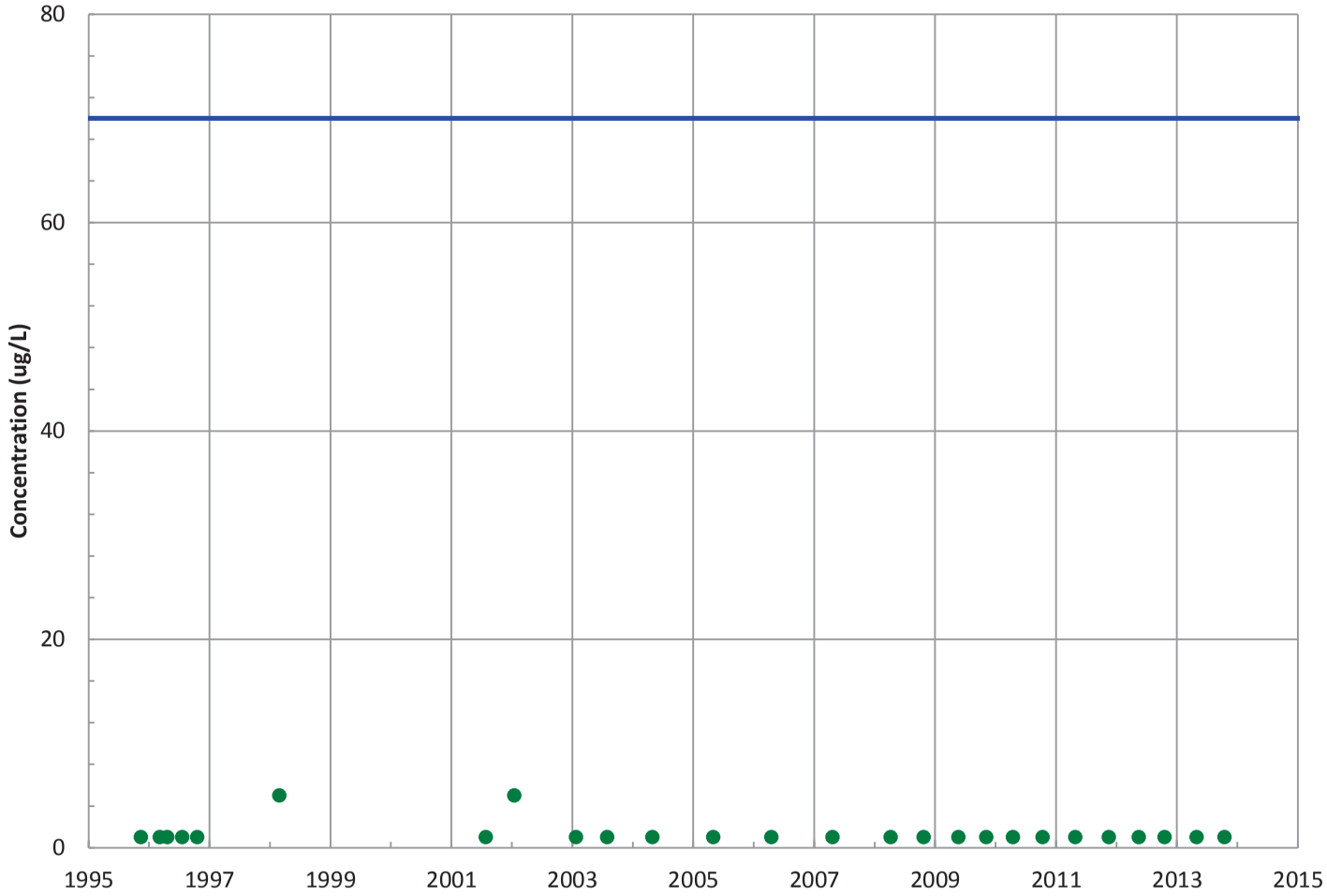
Well Location



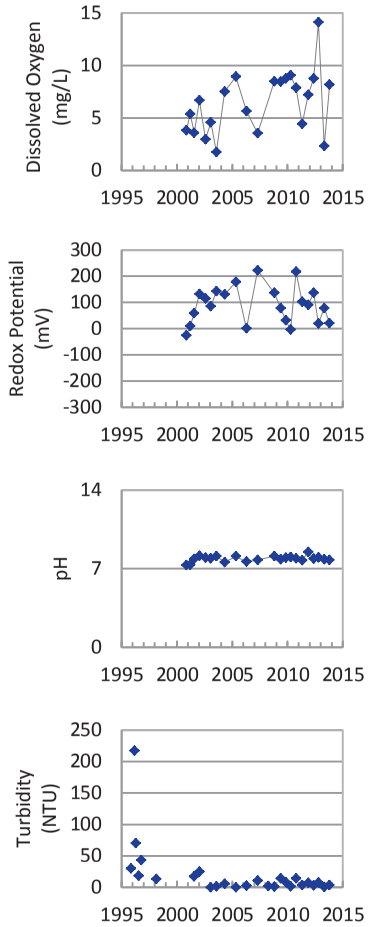
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1013
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



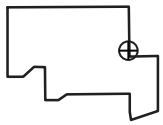
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

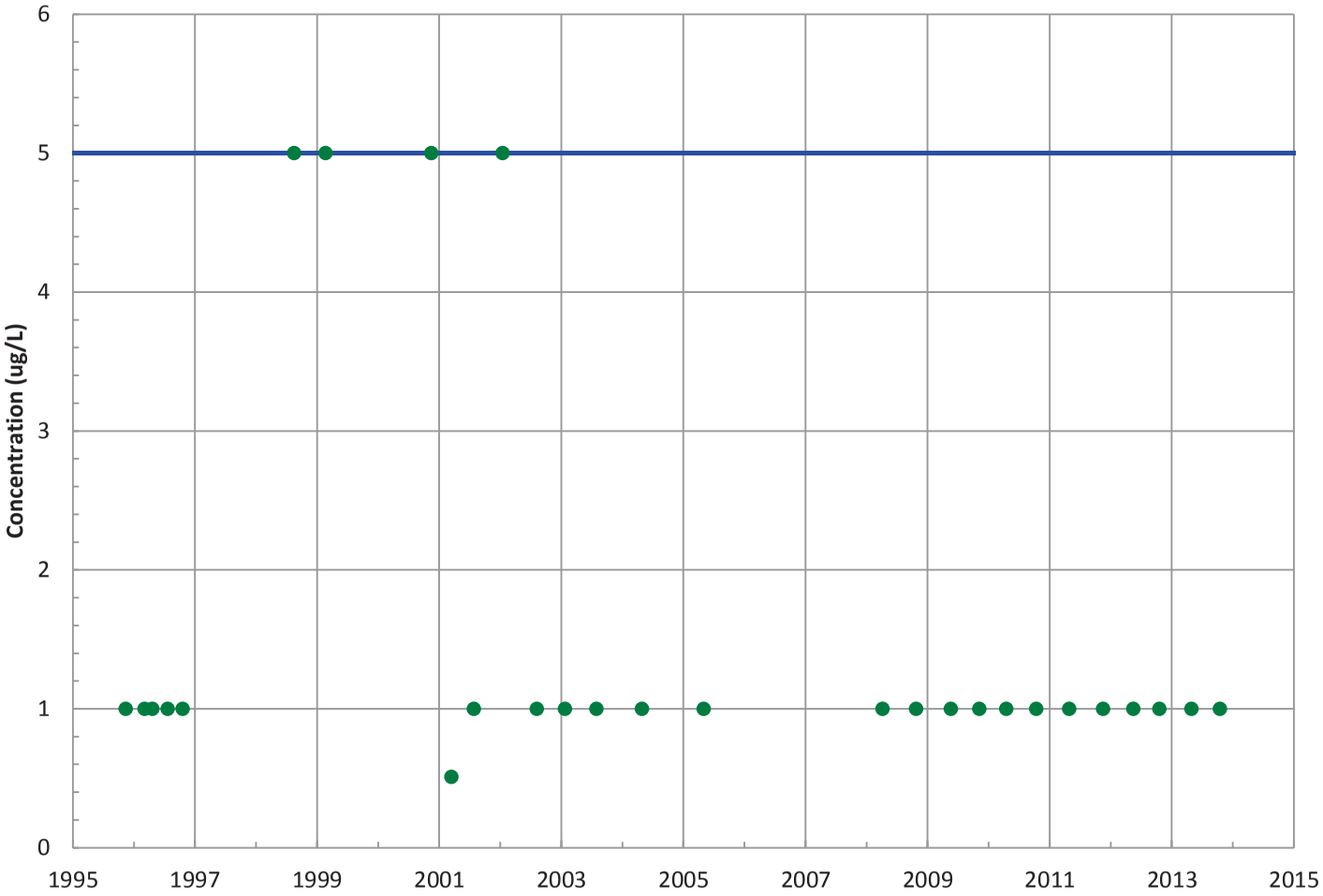
Well Location



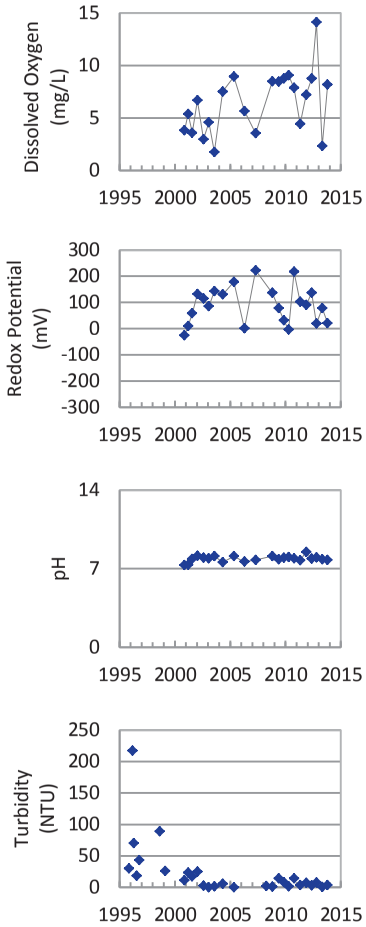
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1013
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



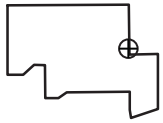
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

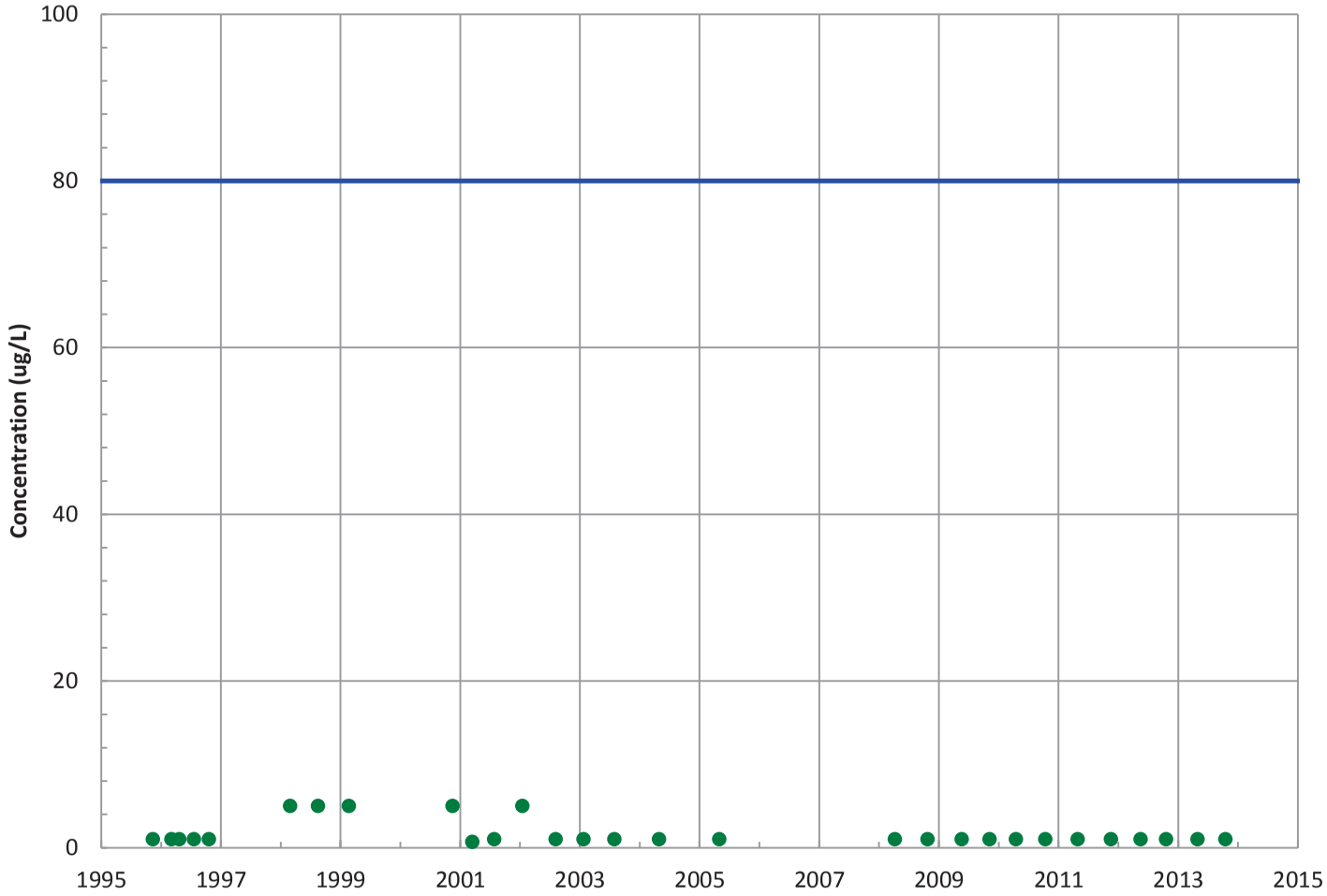
Well Location



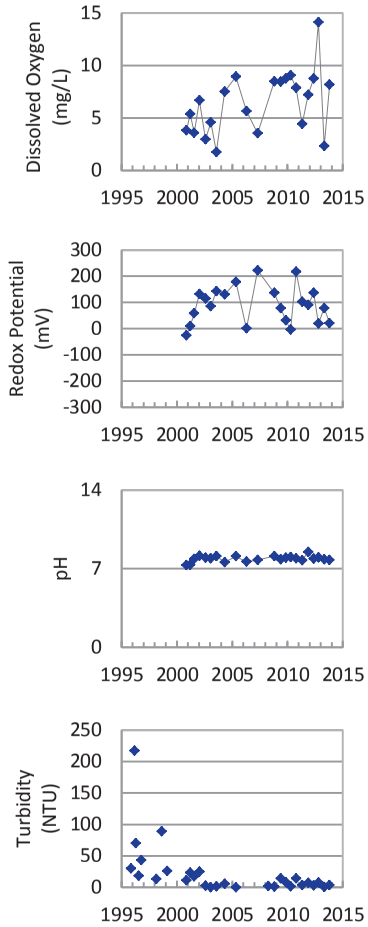
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1013
Chloroform Trend in Perched Aquifer



Field Parameters



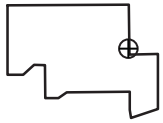
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

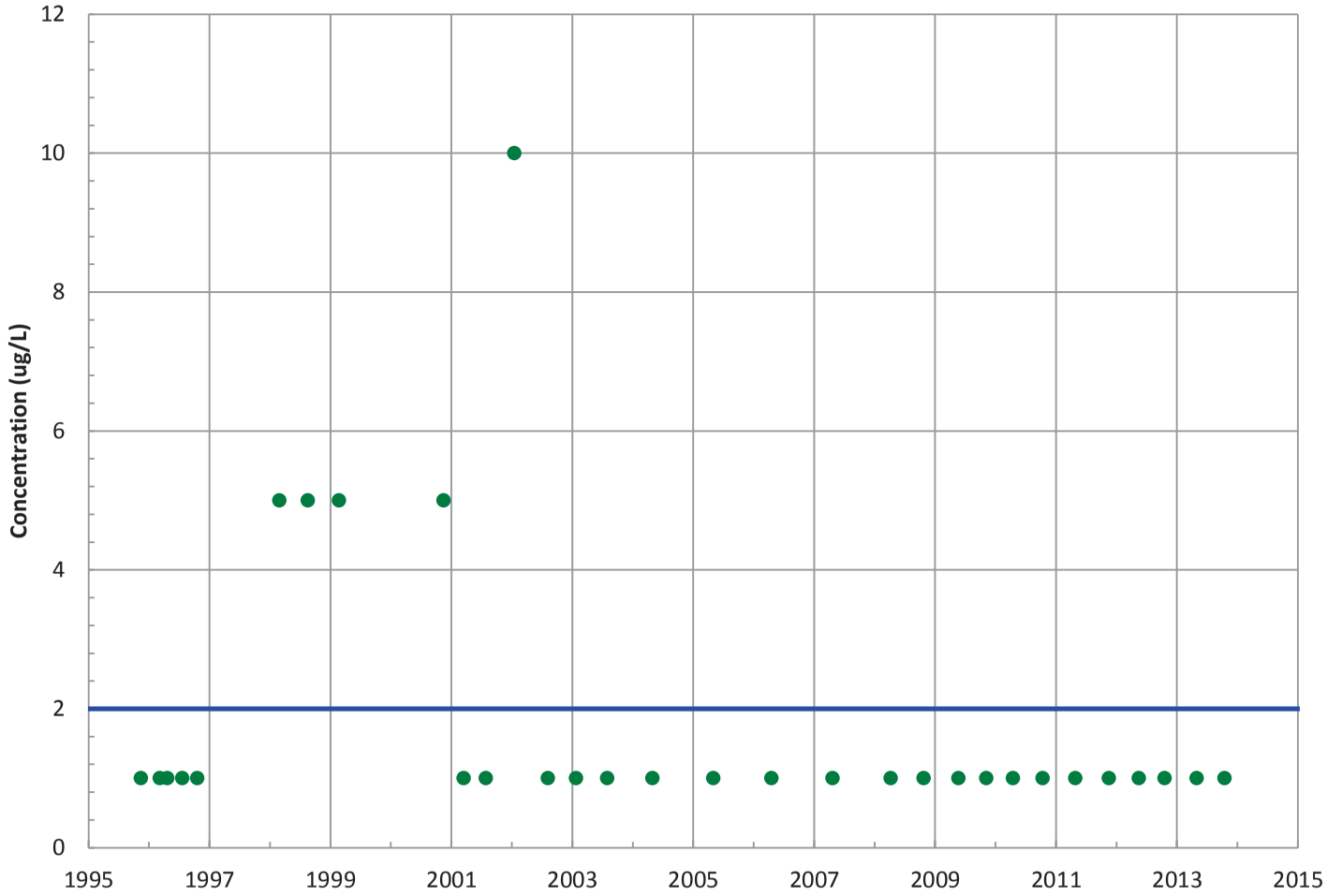
Well Location



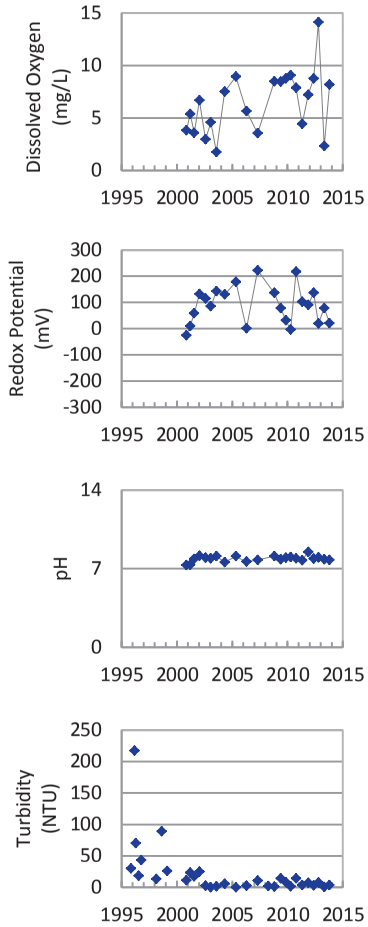
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1013
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



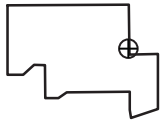
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

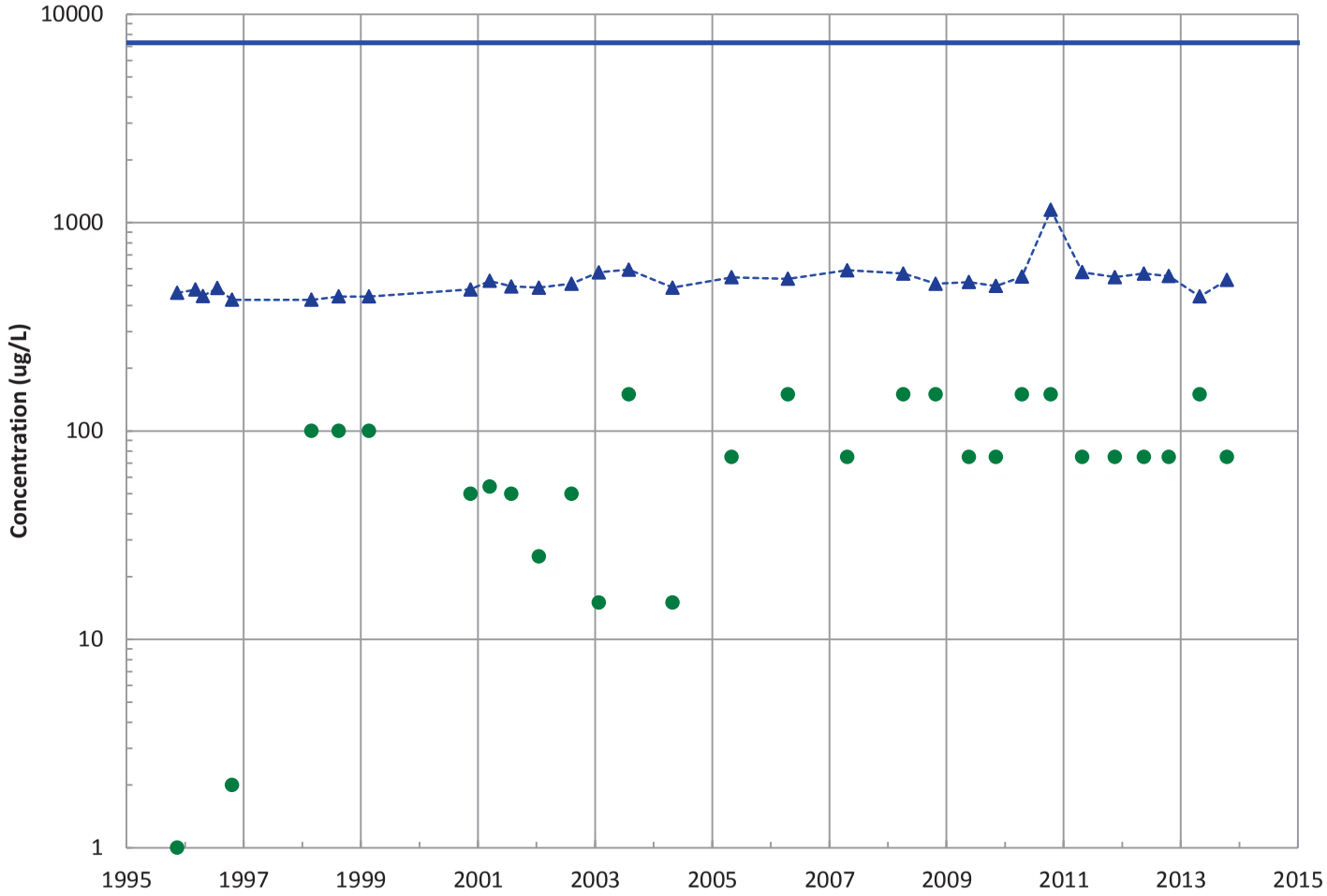
Well Location



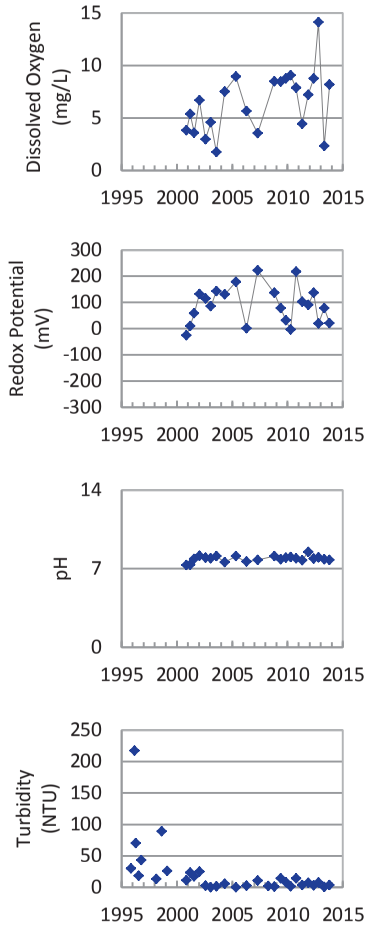
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1013
Boron Trend in Perched Aquifer



Field Parameters



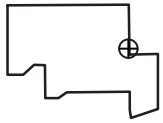
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

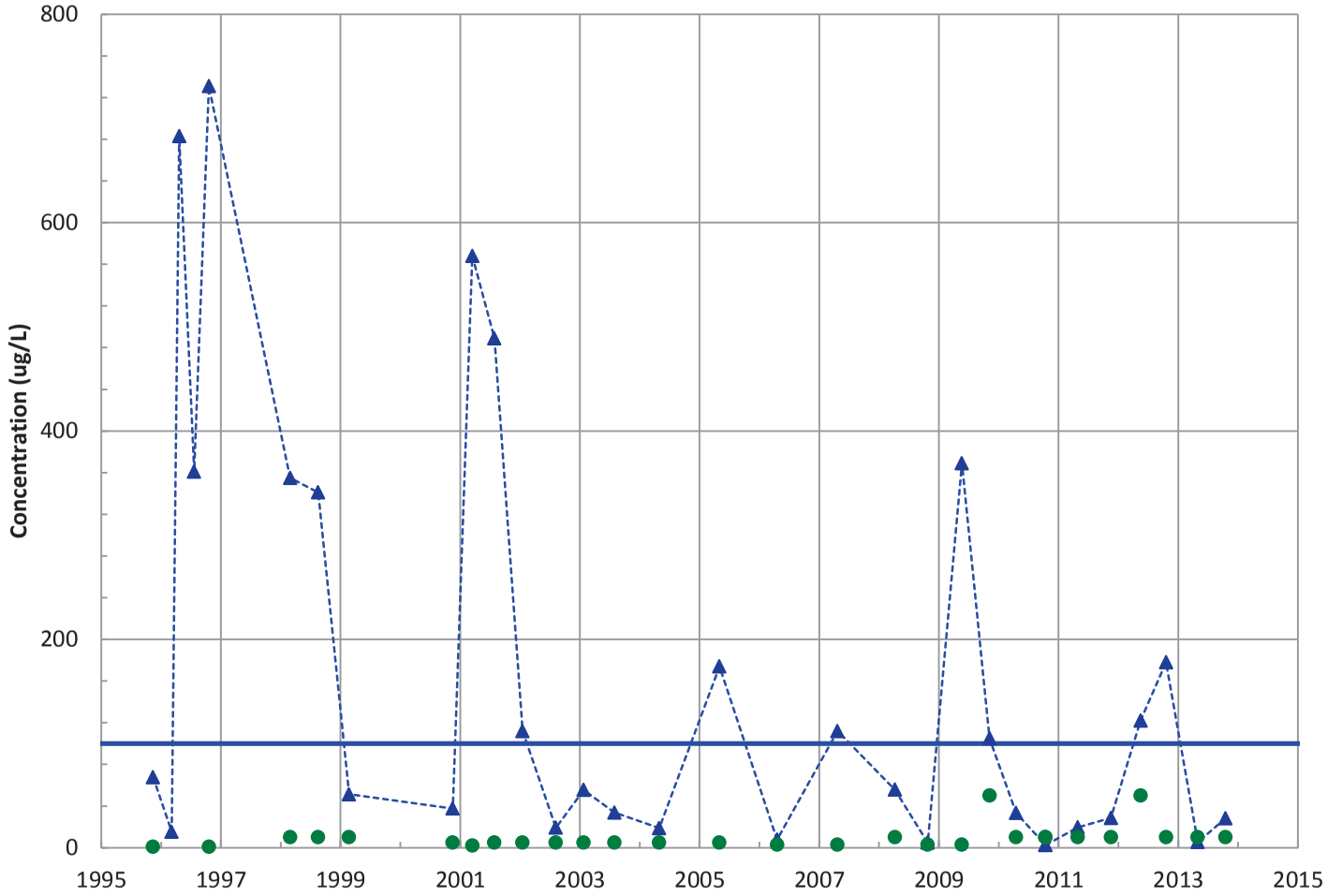
Well Location



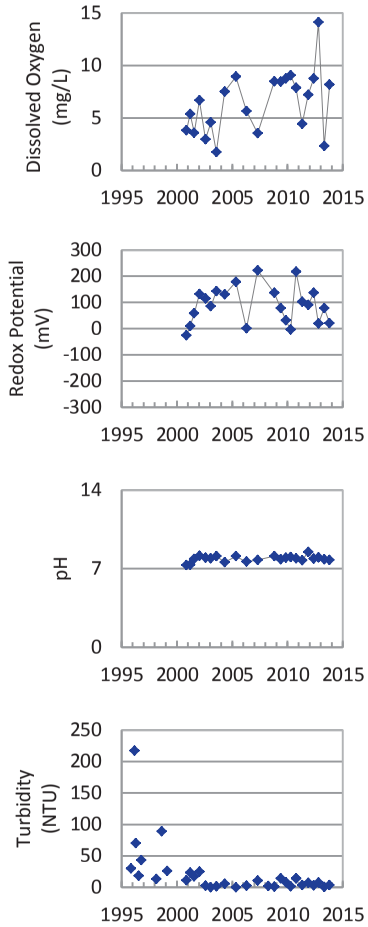
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1013
Chromium, Total Trend in Perched Aquifer



Field Parameters



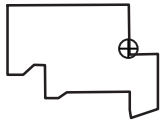
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

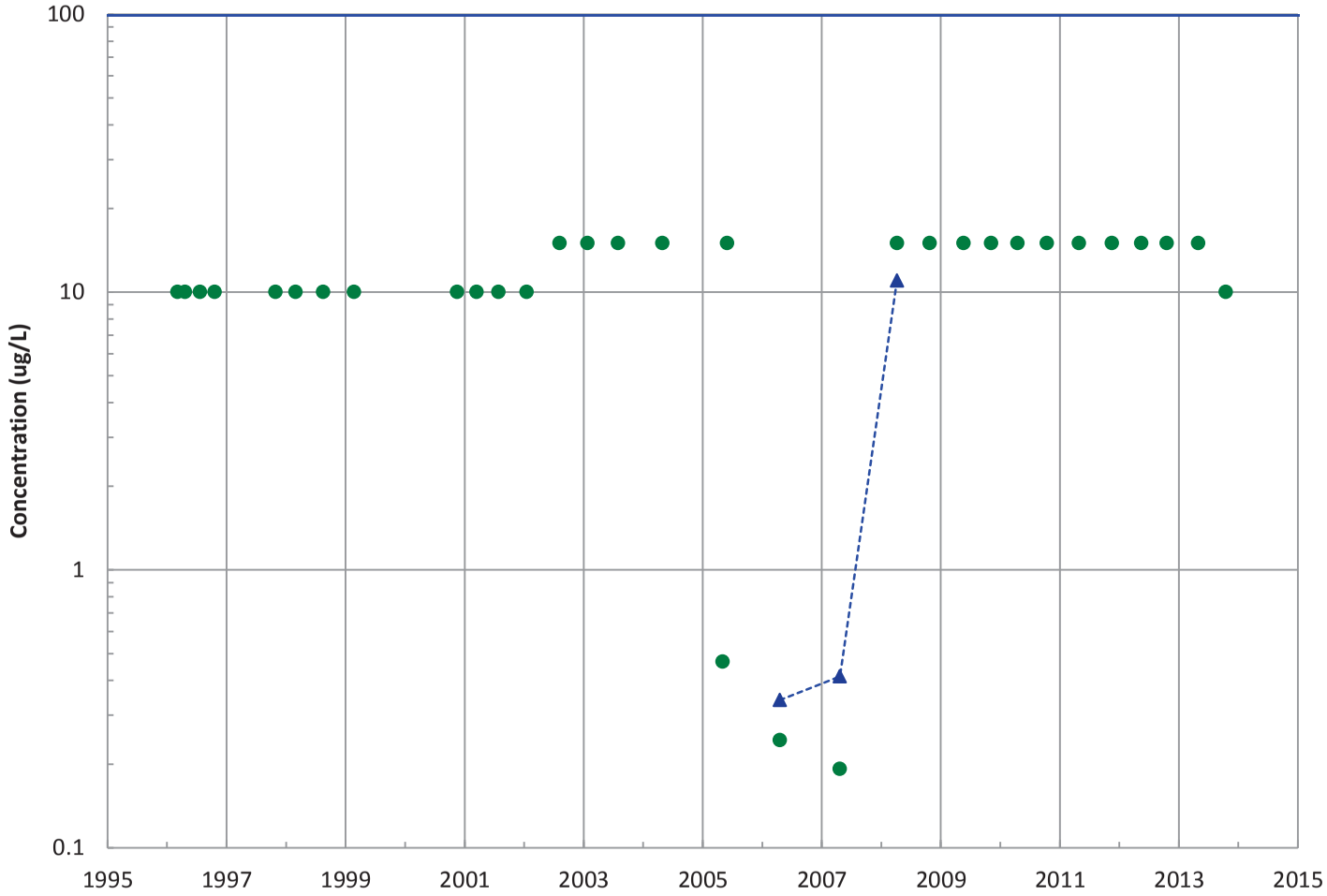
Well Location



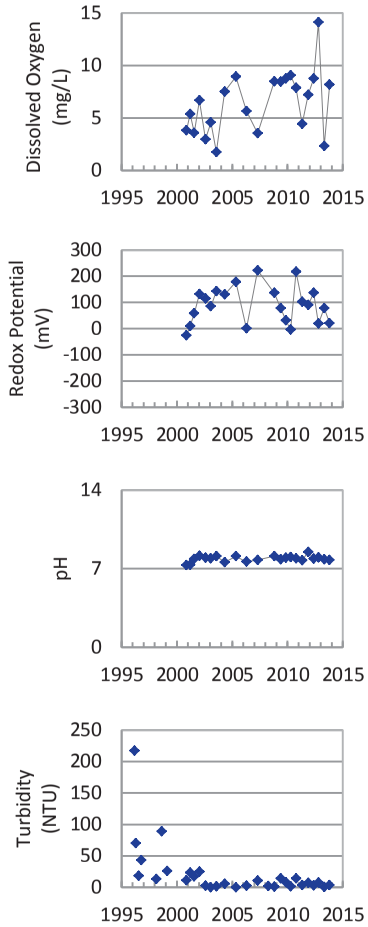
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1013
Chromium, Hexavalent Trend in Perched Aquifer



Field Parameters



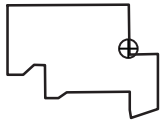
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

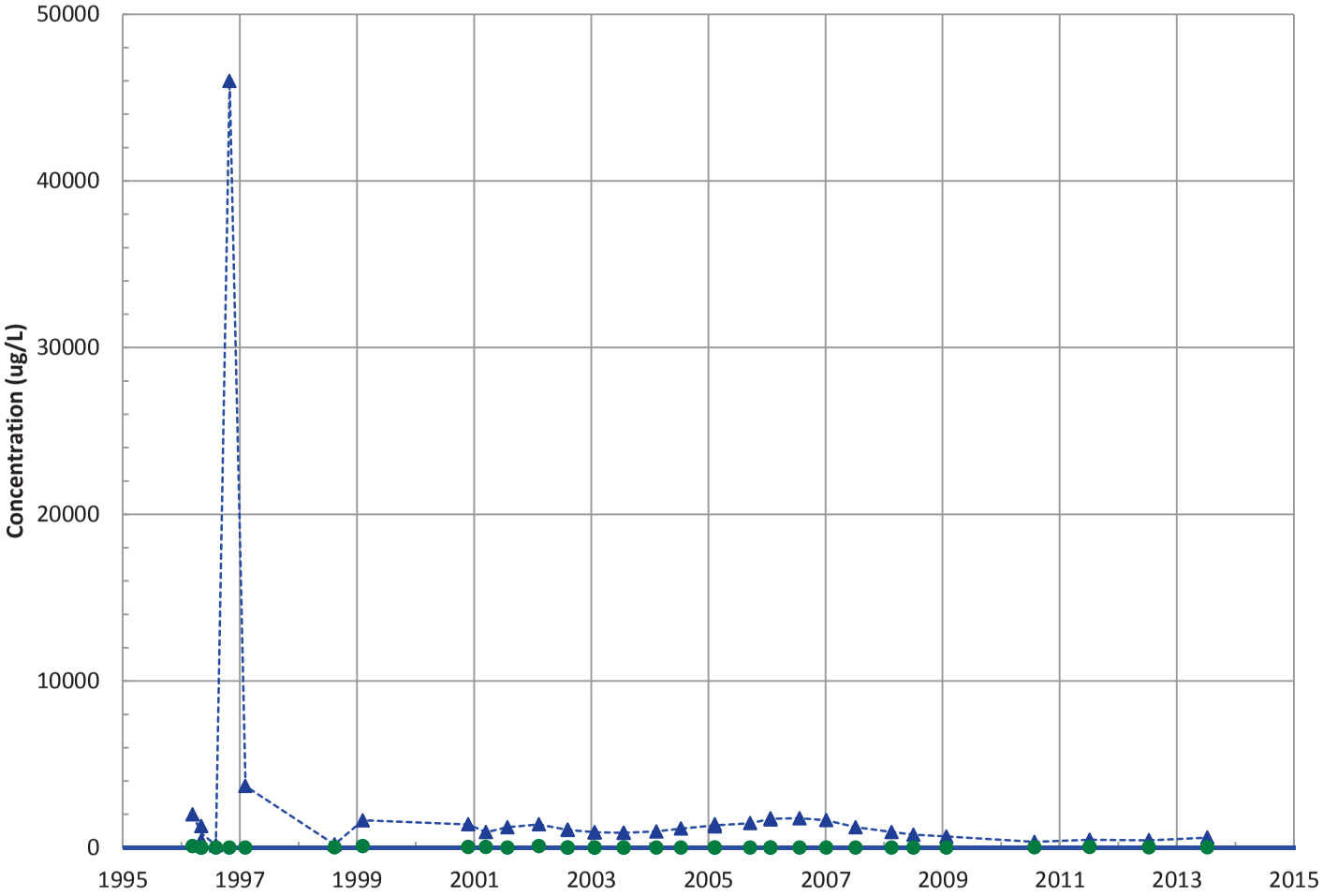
Well Location



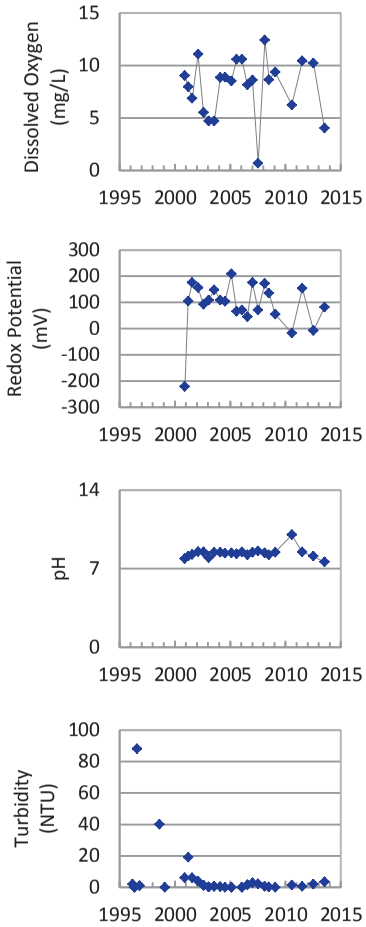
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/7/1996 to 10/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1014
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



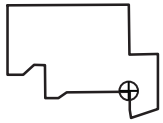
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Probably Increasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

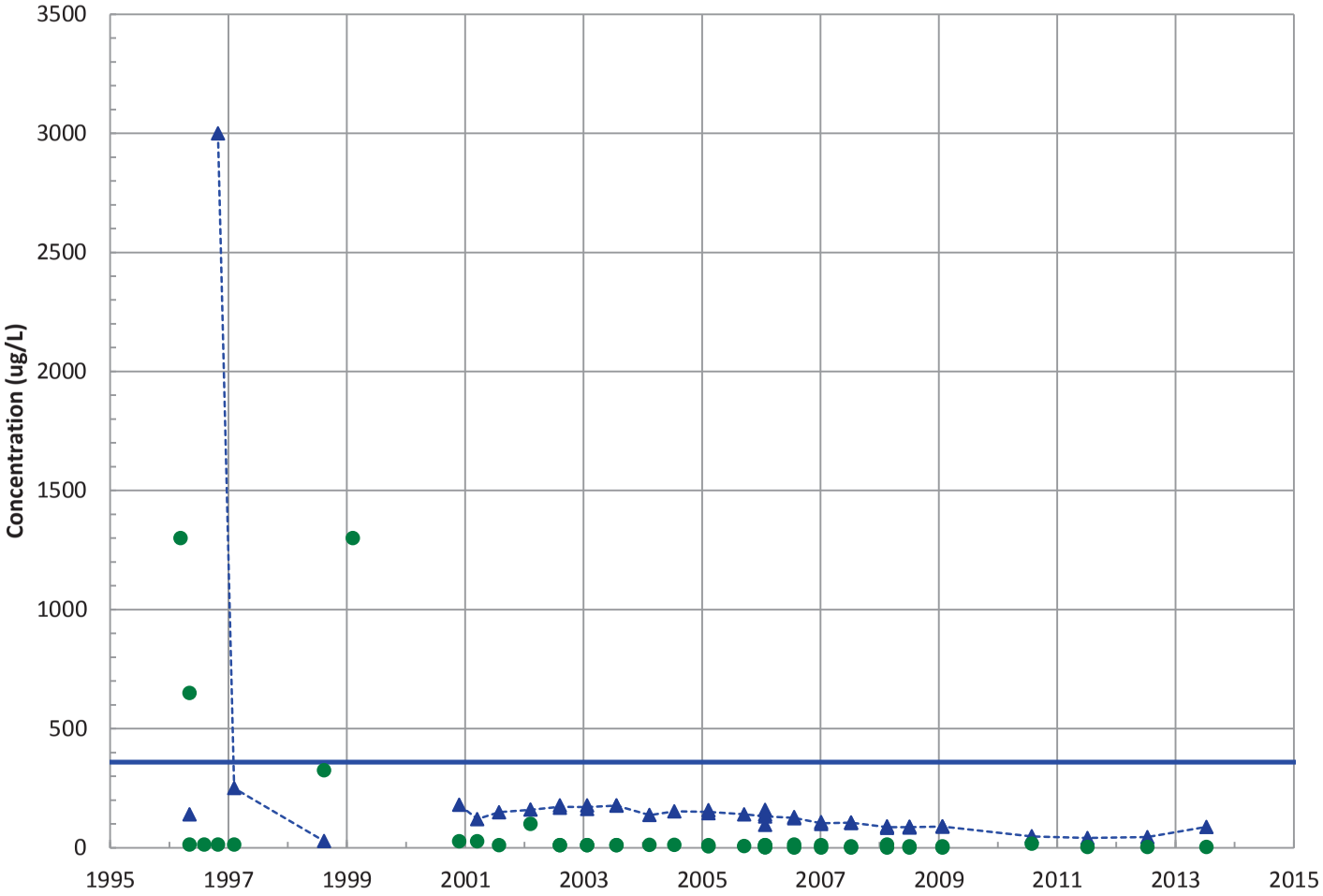
Well Location



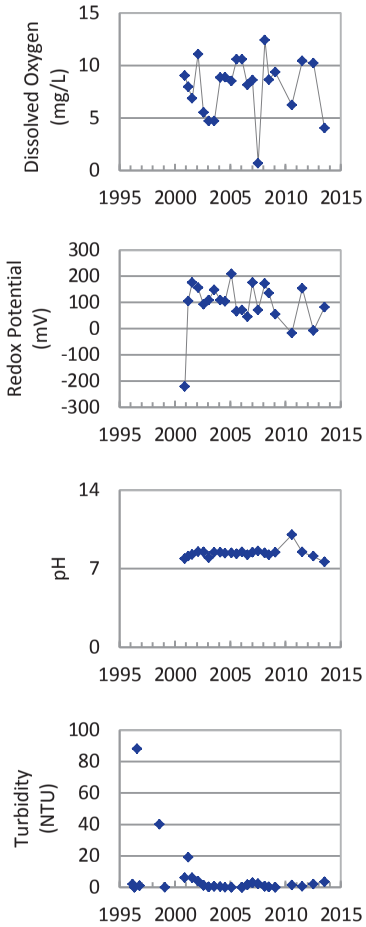
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/13/1996 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1014
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



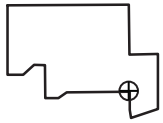
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Increasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------ Concentration Trend
- ——— Groundwater Protection Standard

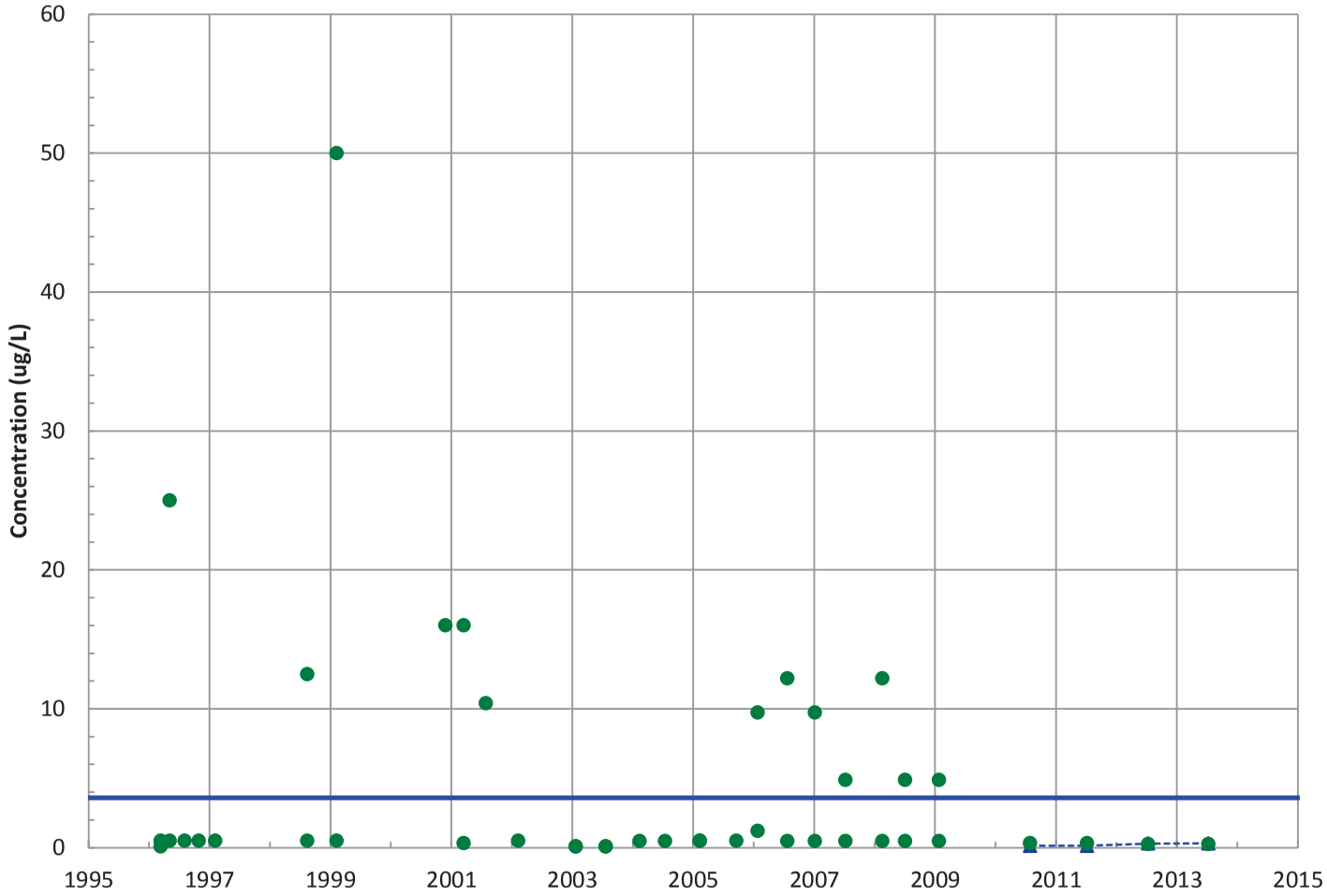
Well Location



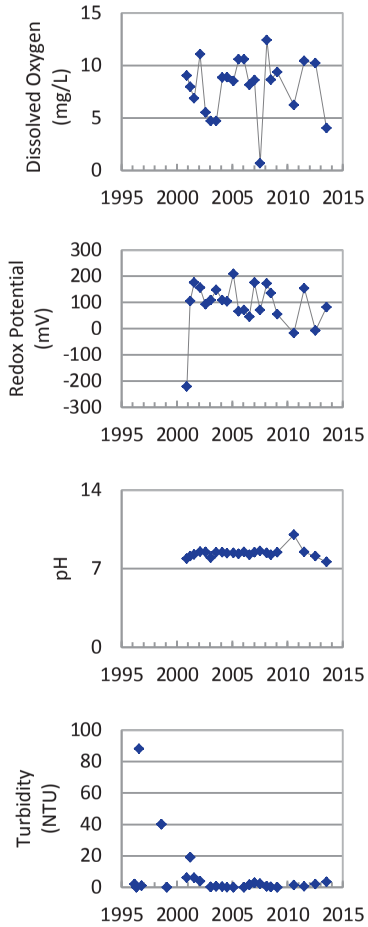
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/13/1996 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1014
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



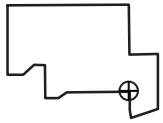
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Increasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Increasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

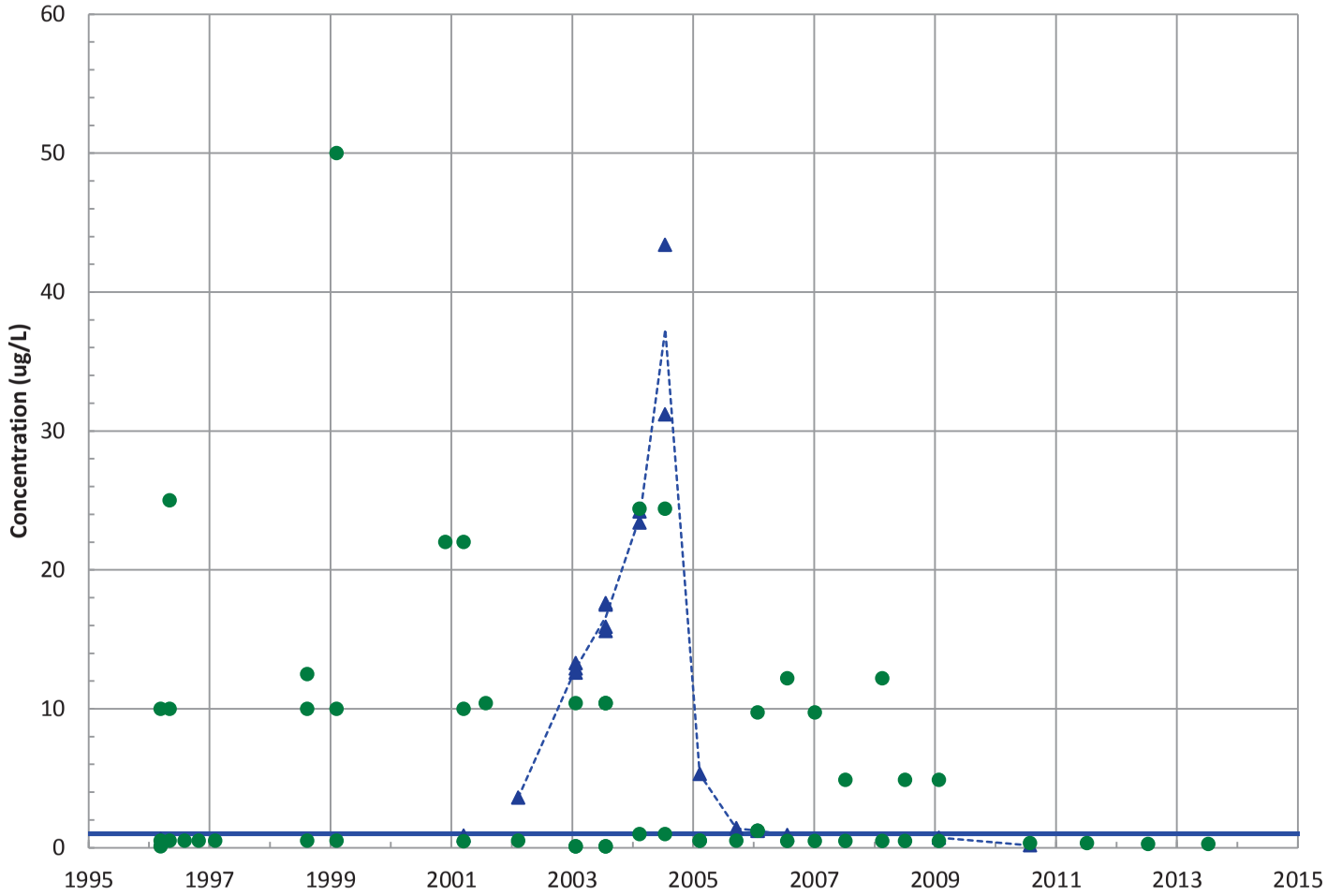
Well Location



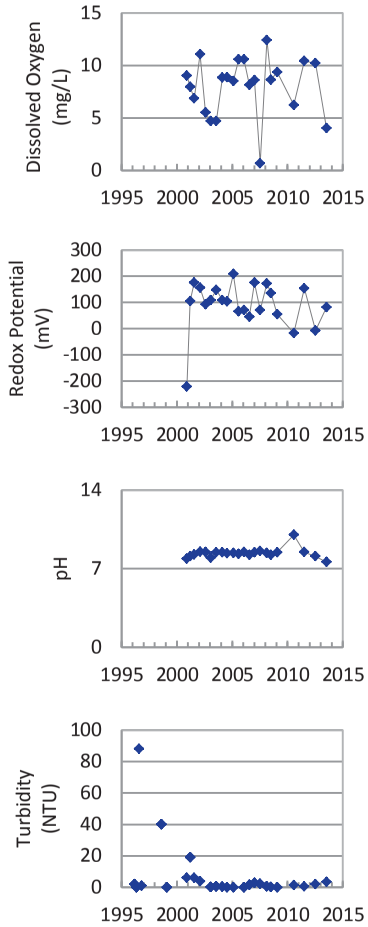
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/13/1996 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1014
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: N/A (<4 Detections in

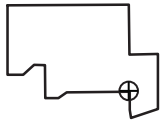
MAROS Linear Regression Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

Well Location



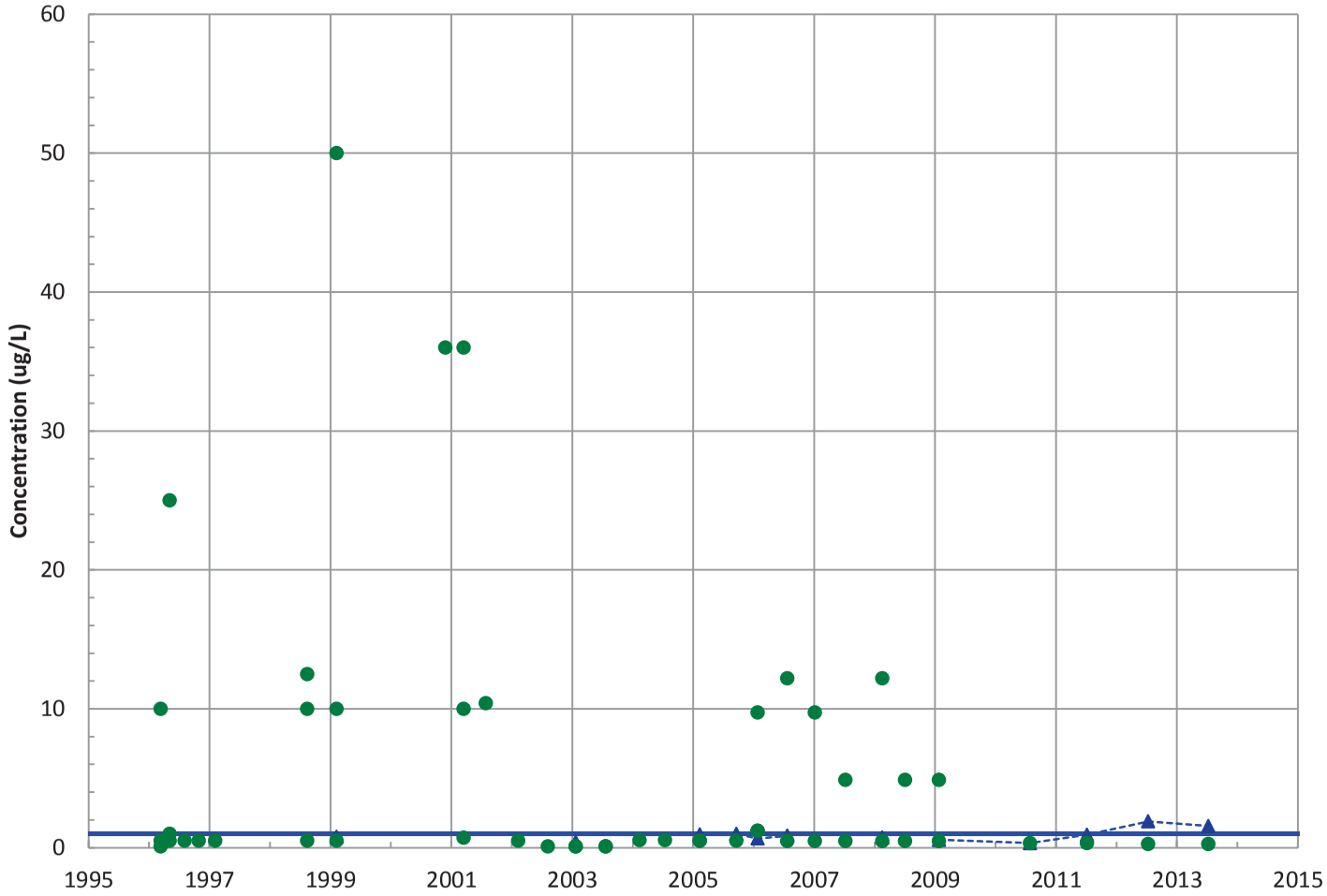
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 3/13/1996 to 7/24/2013

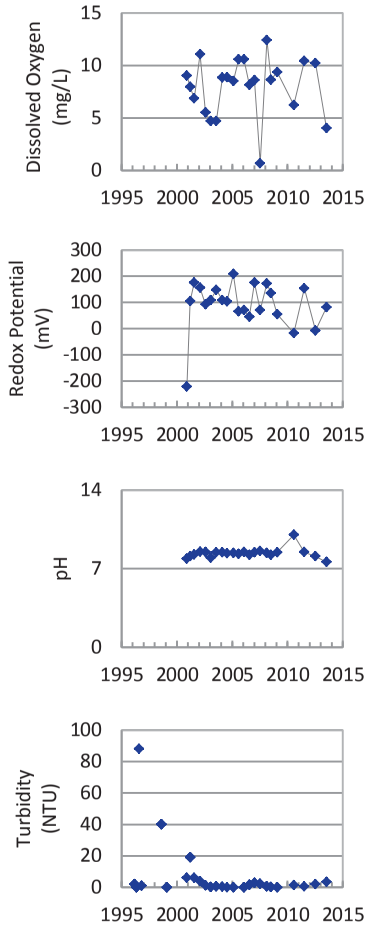
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1014
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



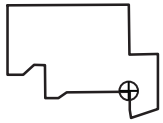
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Probably Increasing
2011 - 2013 Data: Increasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

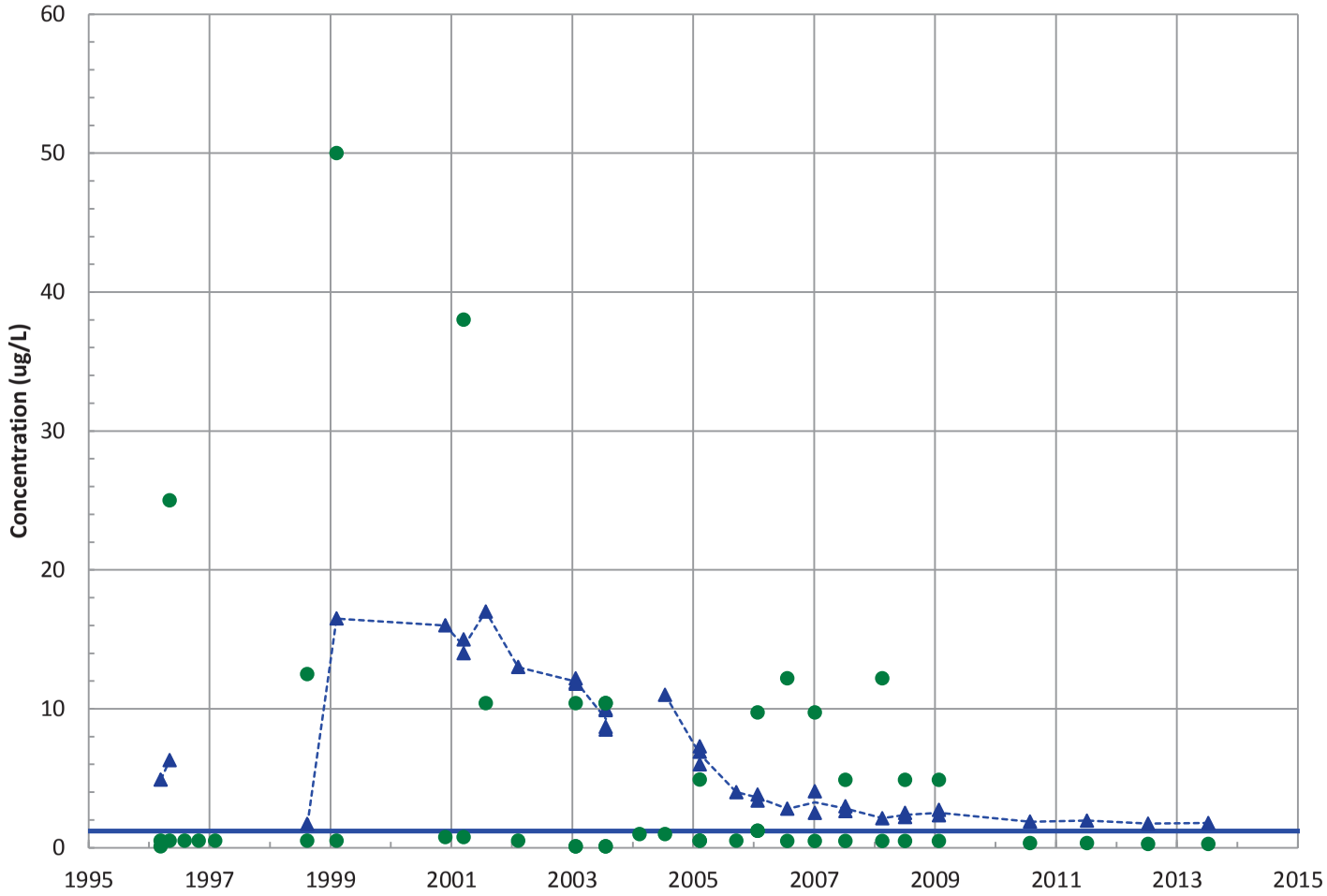
Well Location



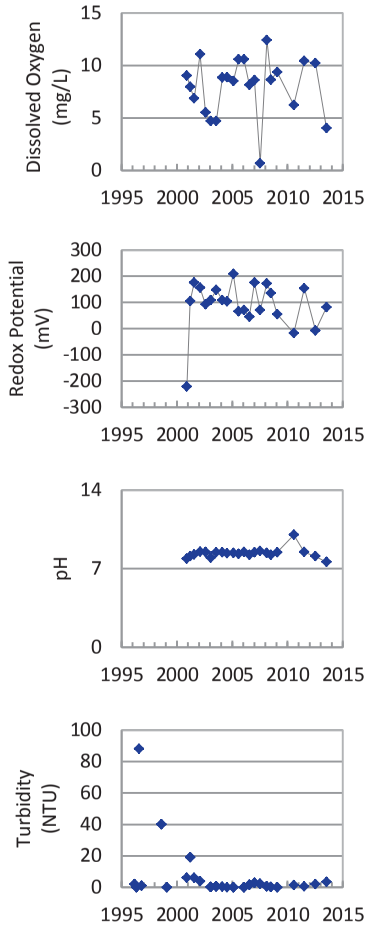
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/13/1996 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1014
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



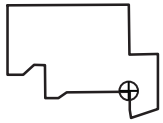
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Probably Decreasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------ Concentration Trend
- ——— Groundwater Protection Standard

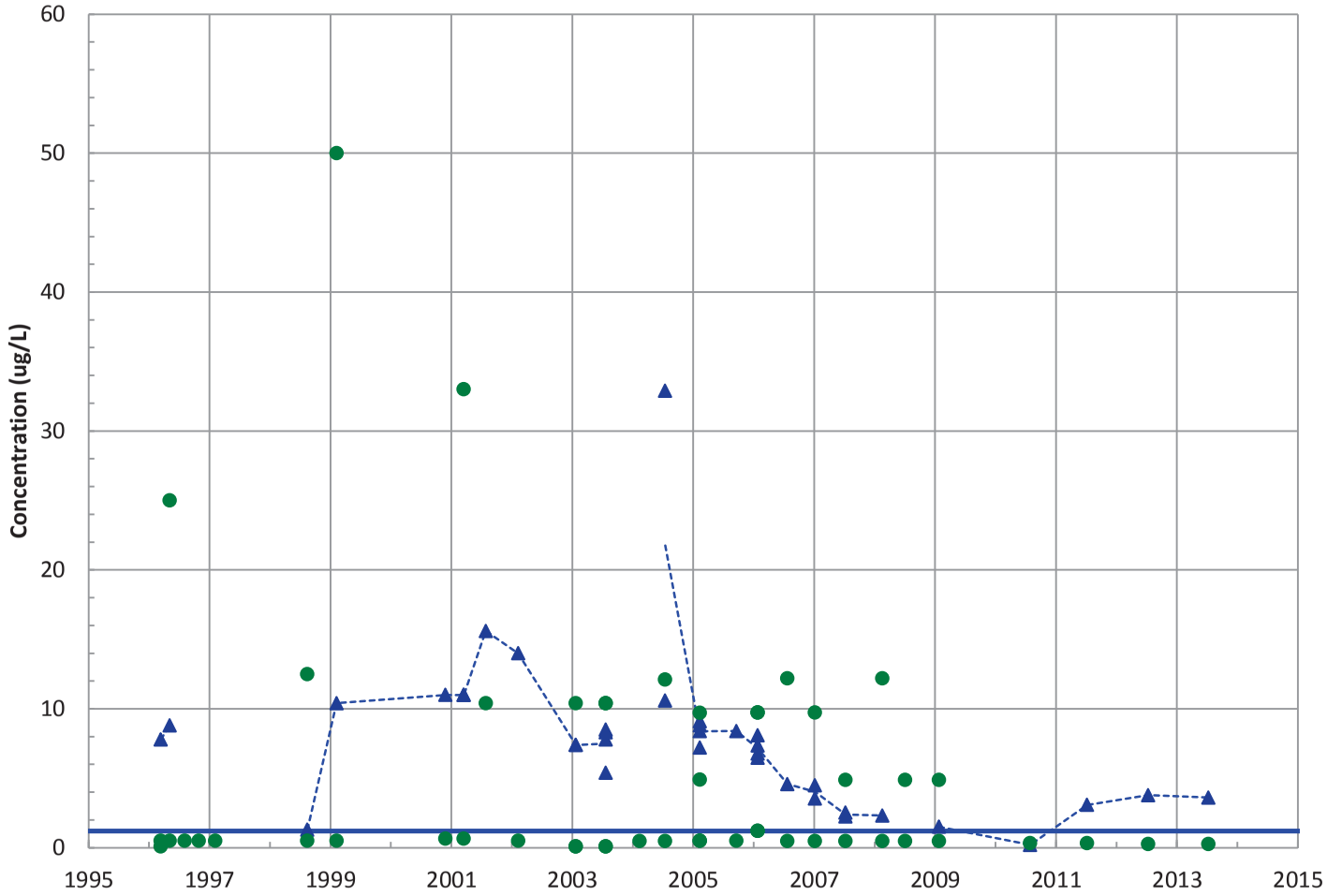
Well Location



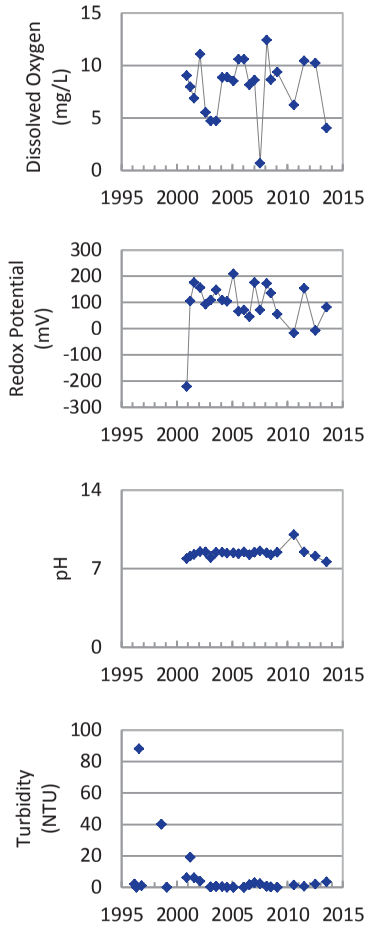
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/13/1996 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1014
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



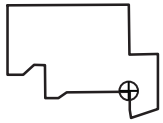
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------ Concentration Trend
- ——— Groundwater Protection Standard

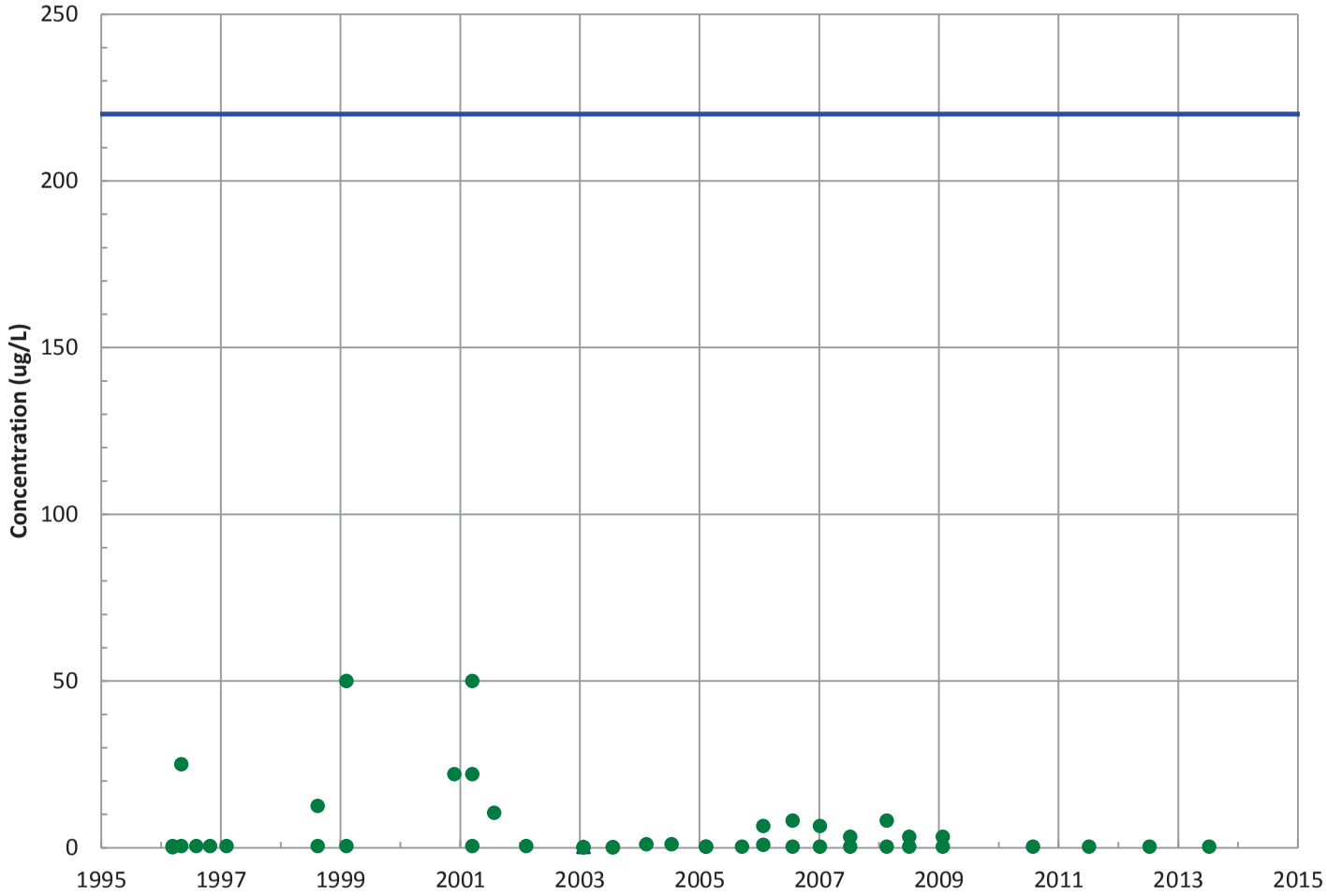
Well Location



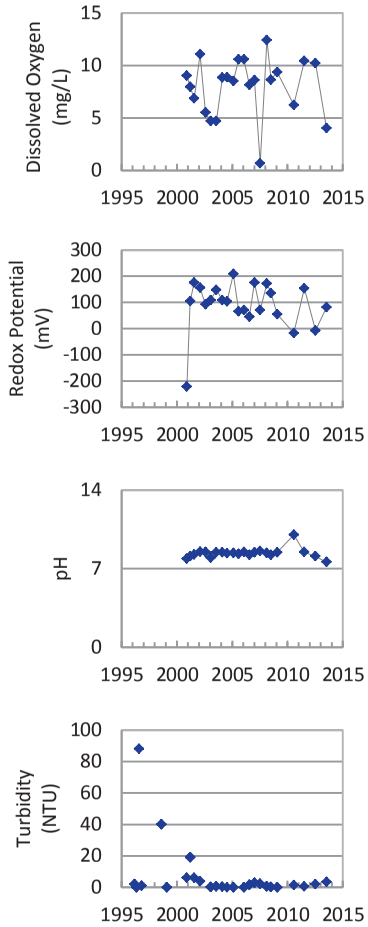
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/13/1996 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1014
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



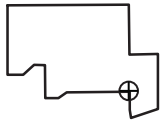
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

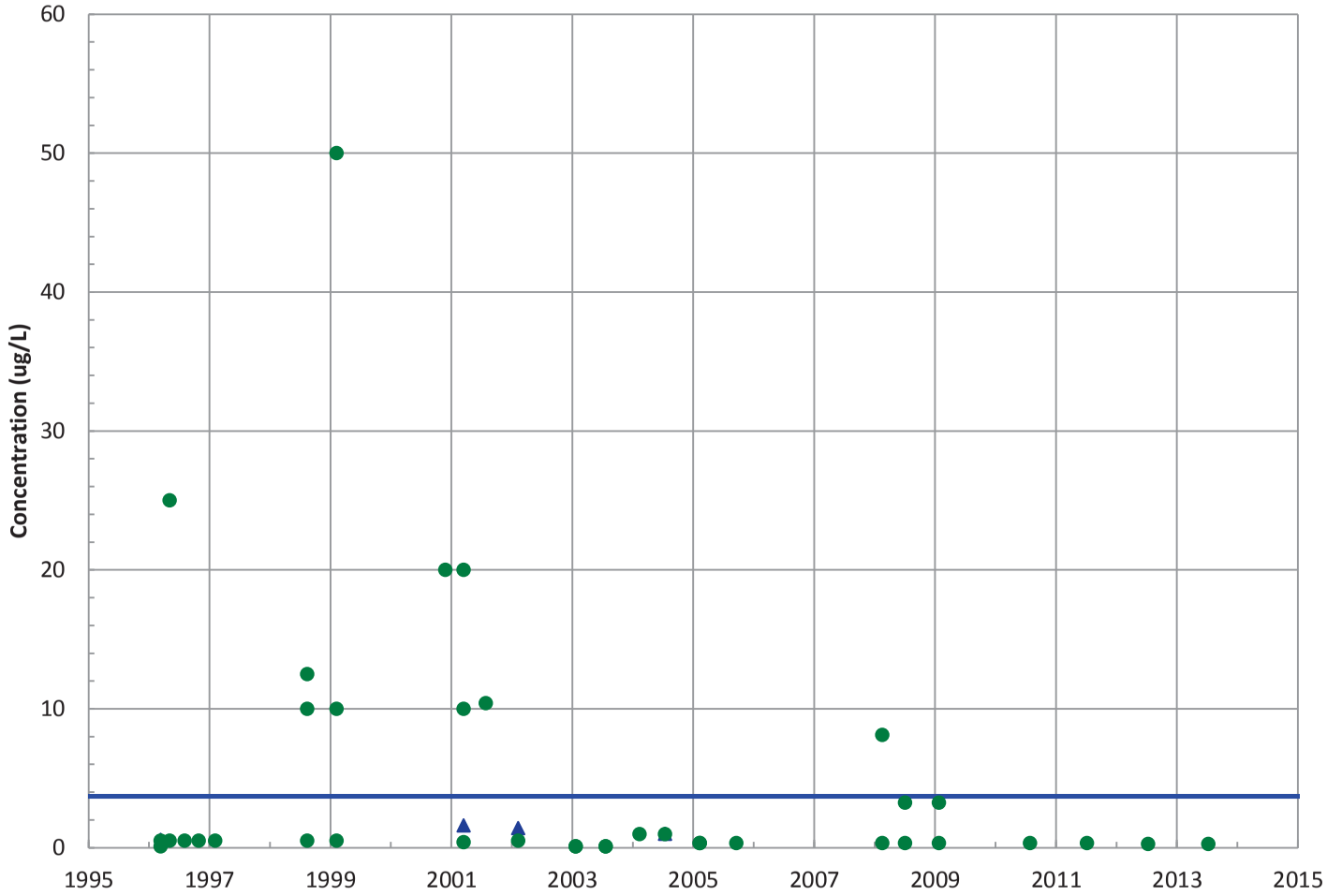
Well Location



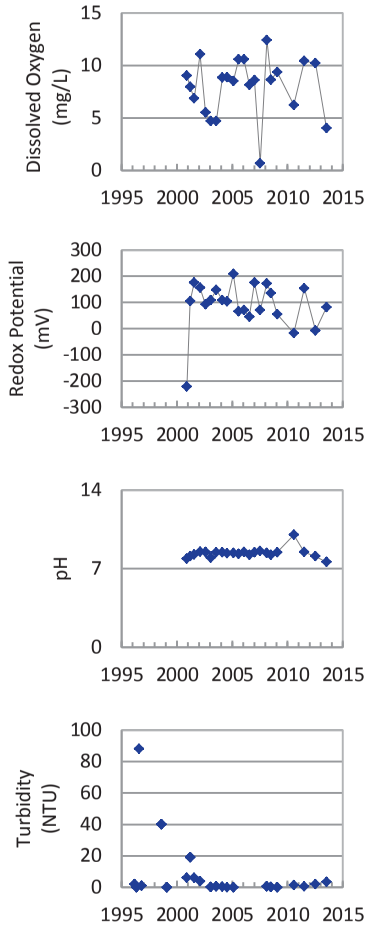
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/13/1996 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1014
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



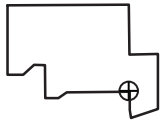
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

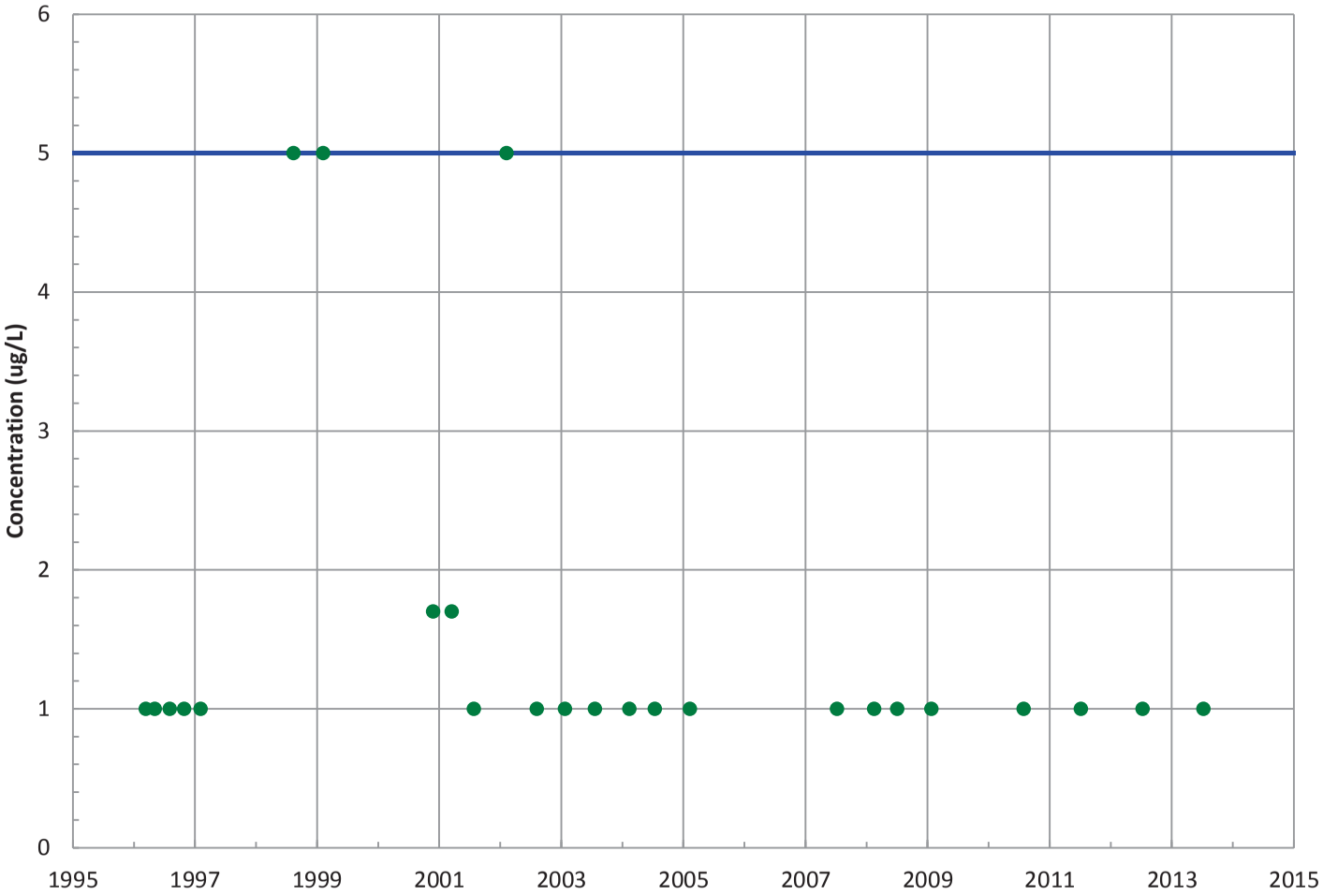
Well Location



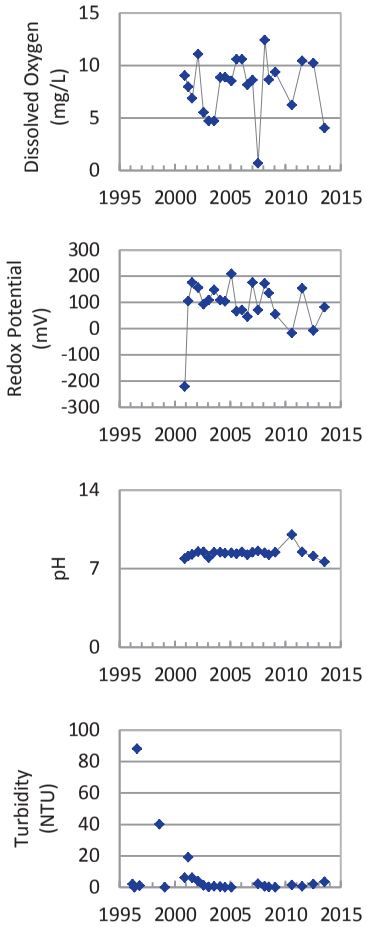
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/13/1996 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1014
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



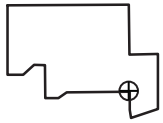
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

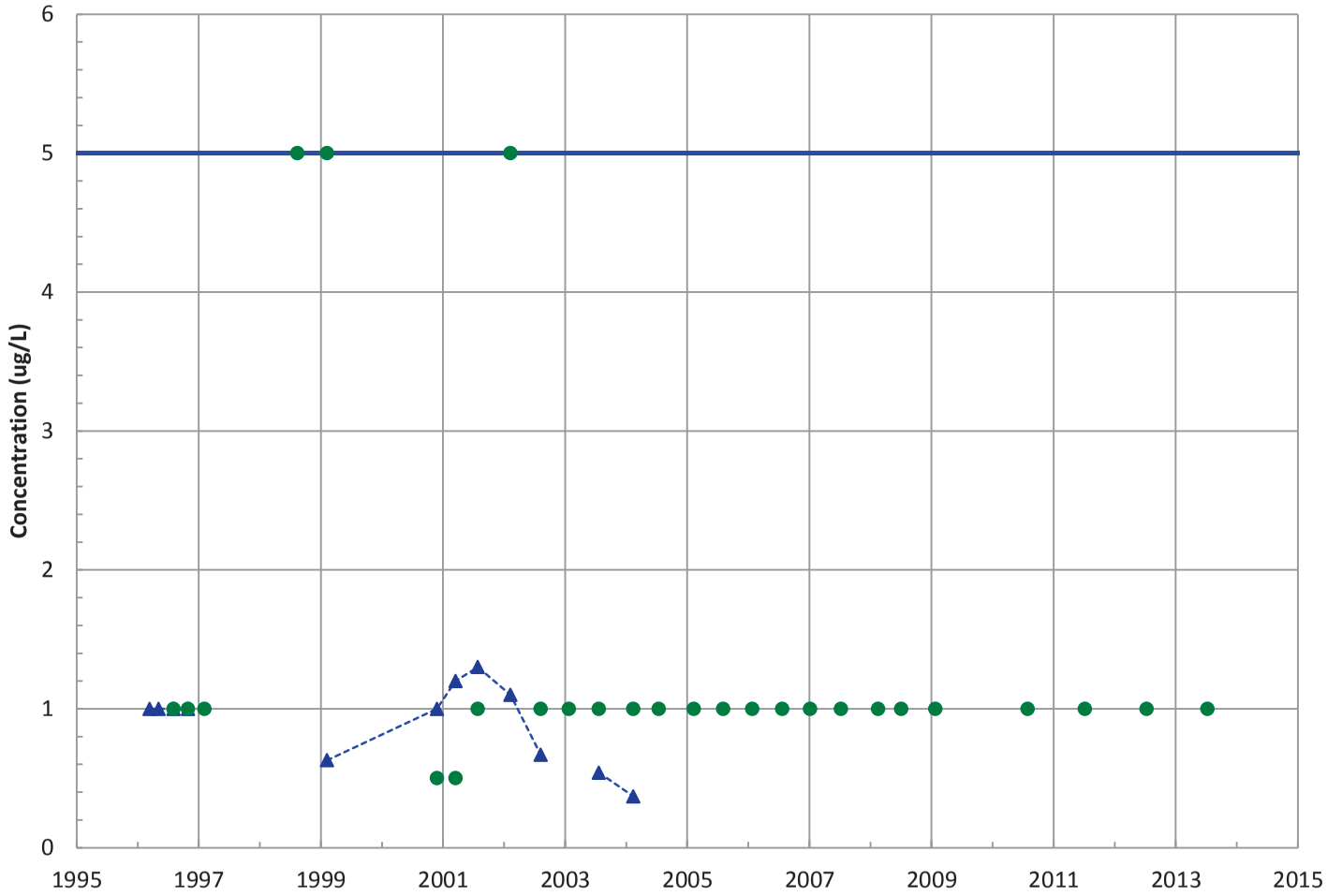
Well Location



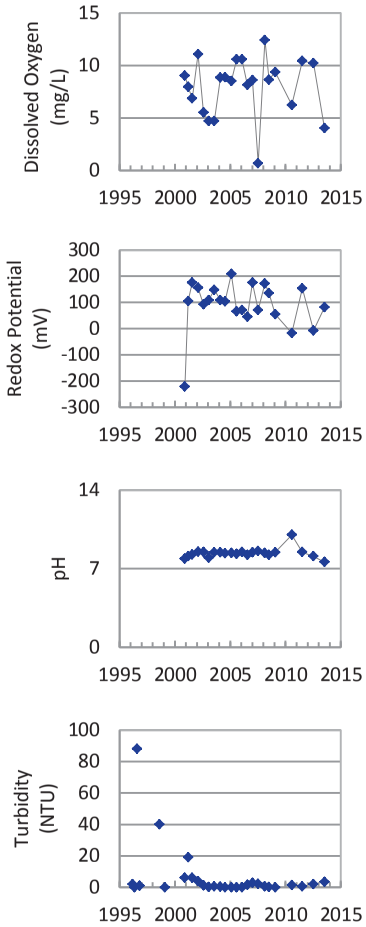
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/13/1996 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1014
Trichloroethene Trend in Perched Aquifer



Field Parameters



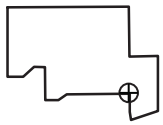
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: Decreasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

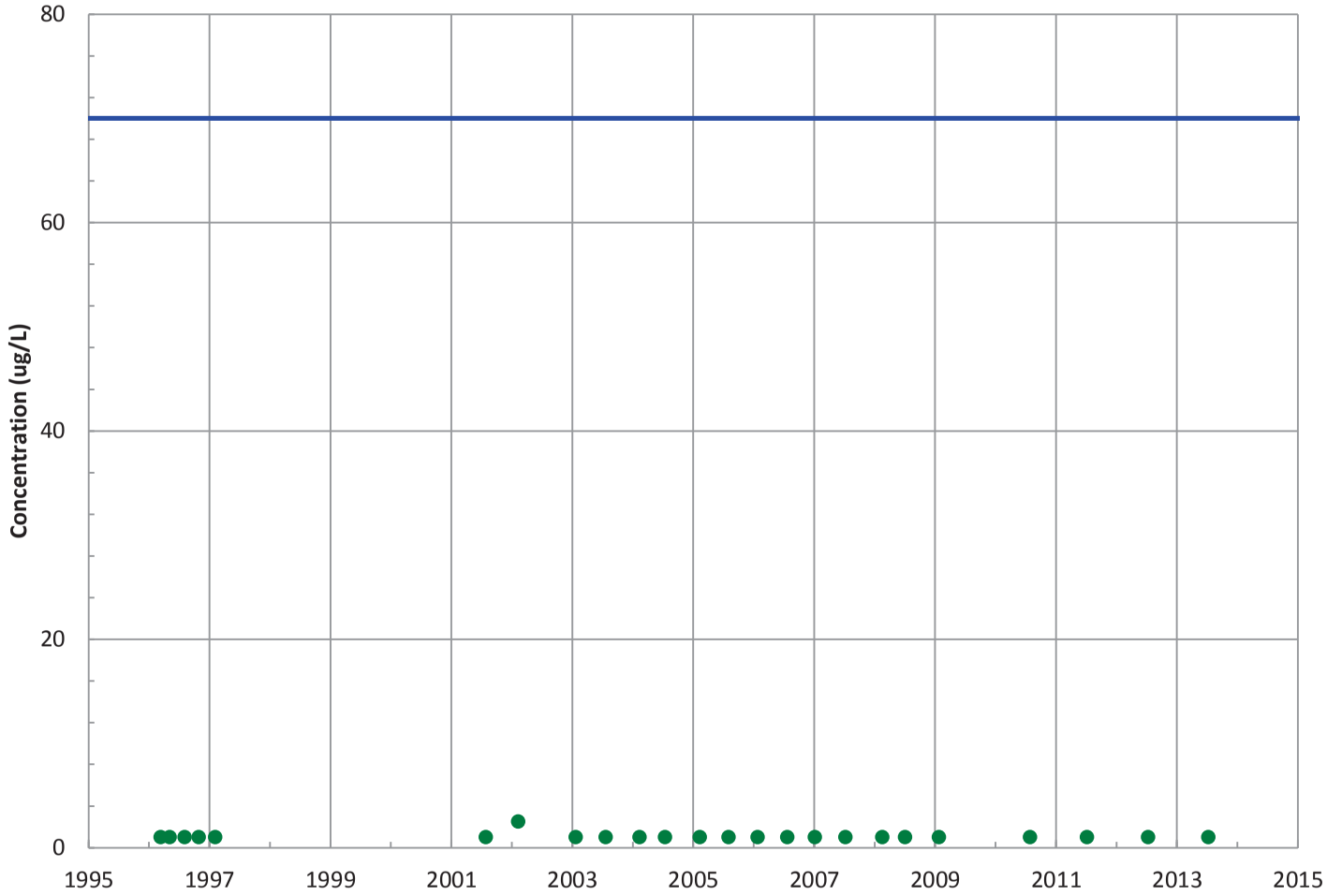
Well Location



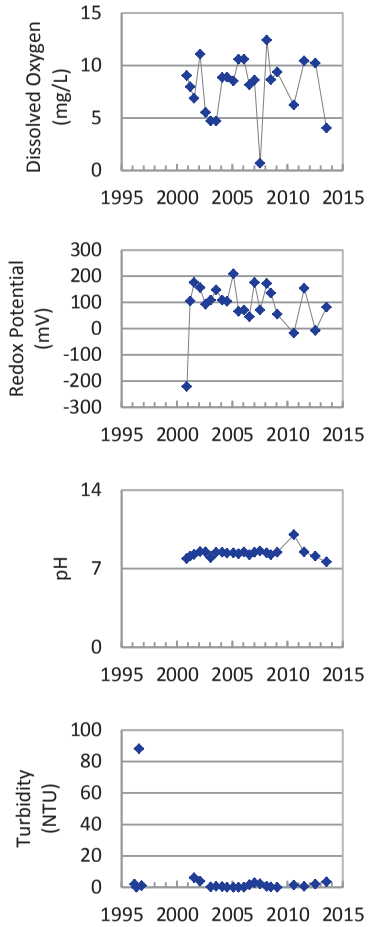
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/13/1996 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1014
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



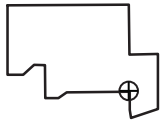
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

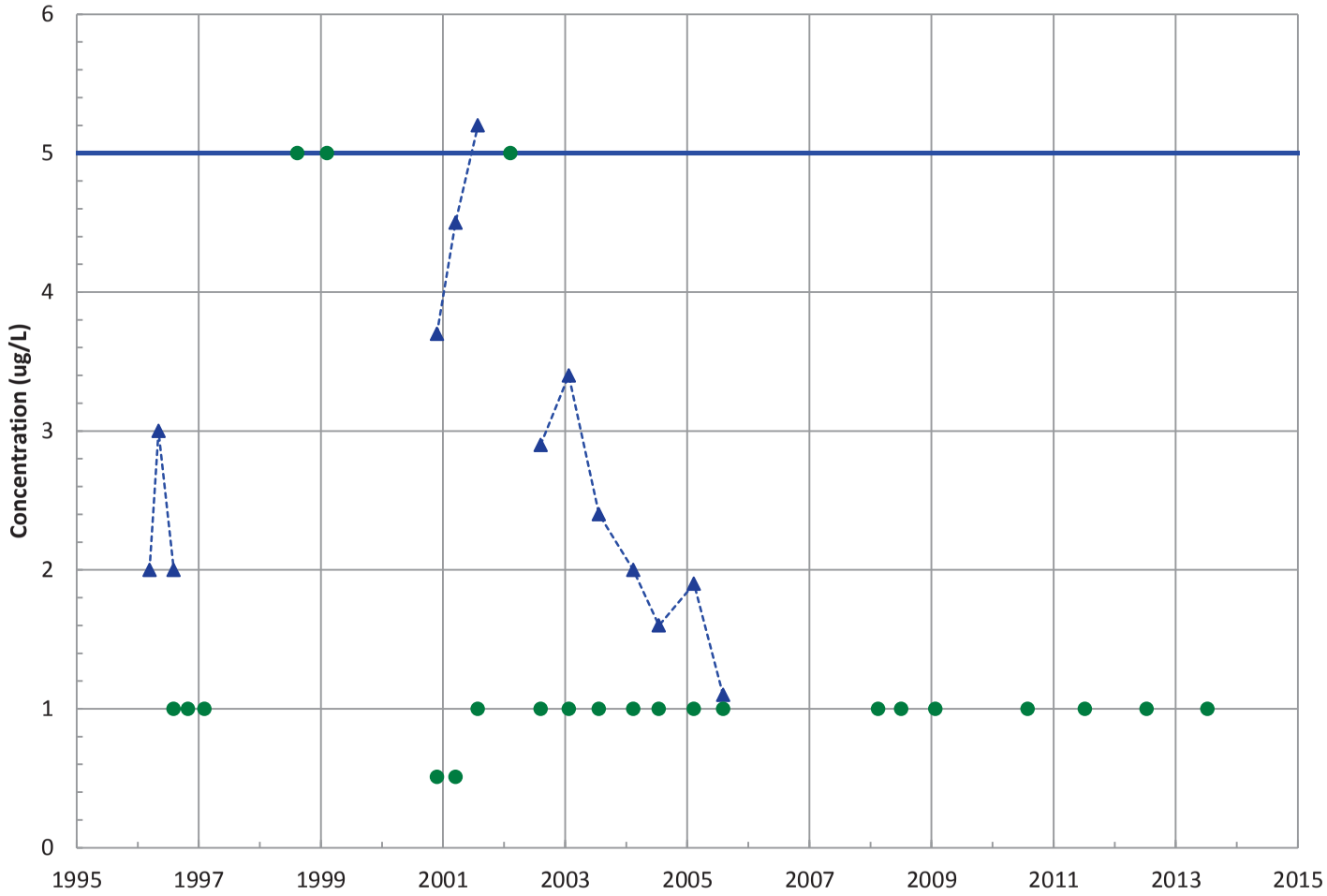
Well Location



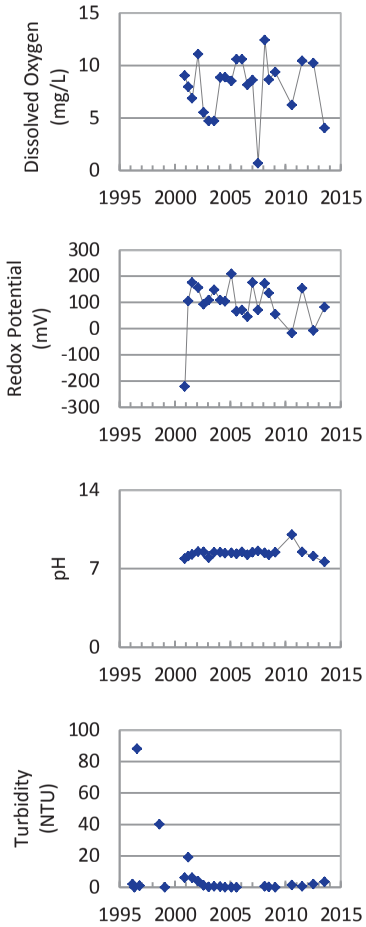
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/13/1996 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1014
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



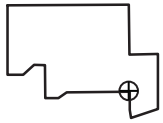
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

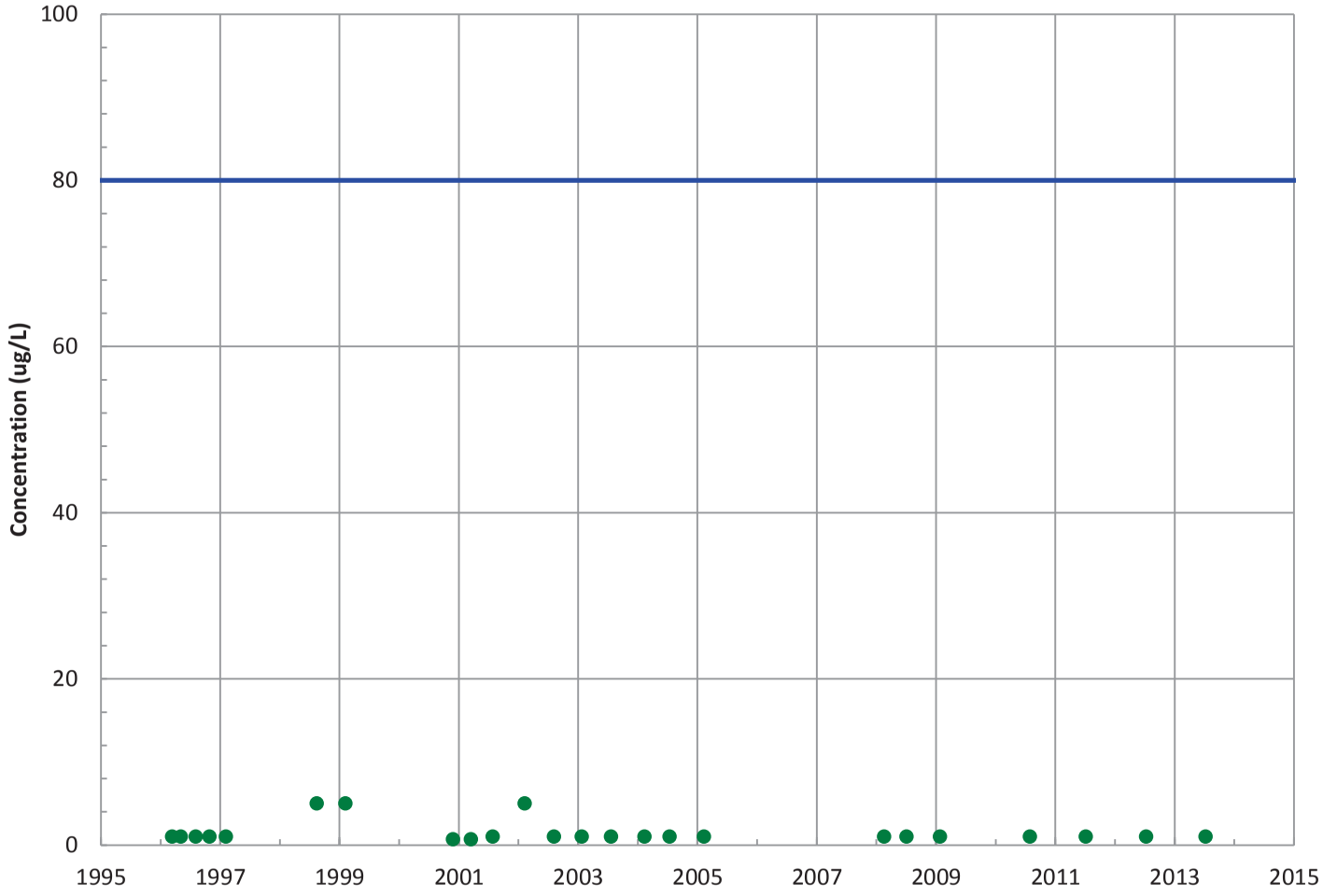
Well Location



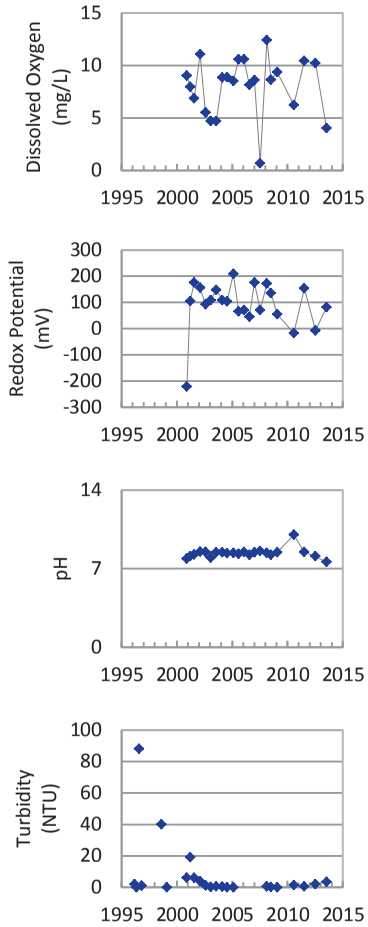
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/13/1996 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1014
Chloroform Trend in Perched Aquifer



Field Parameters



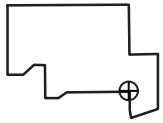
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

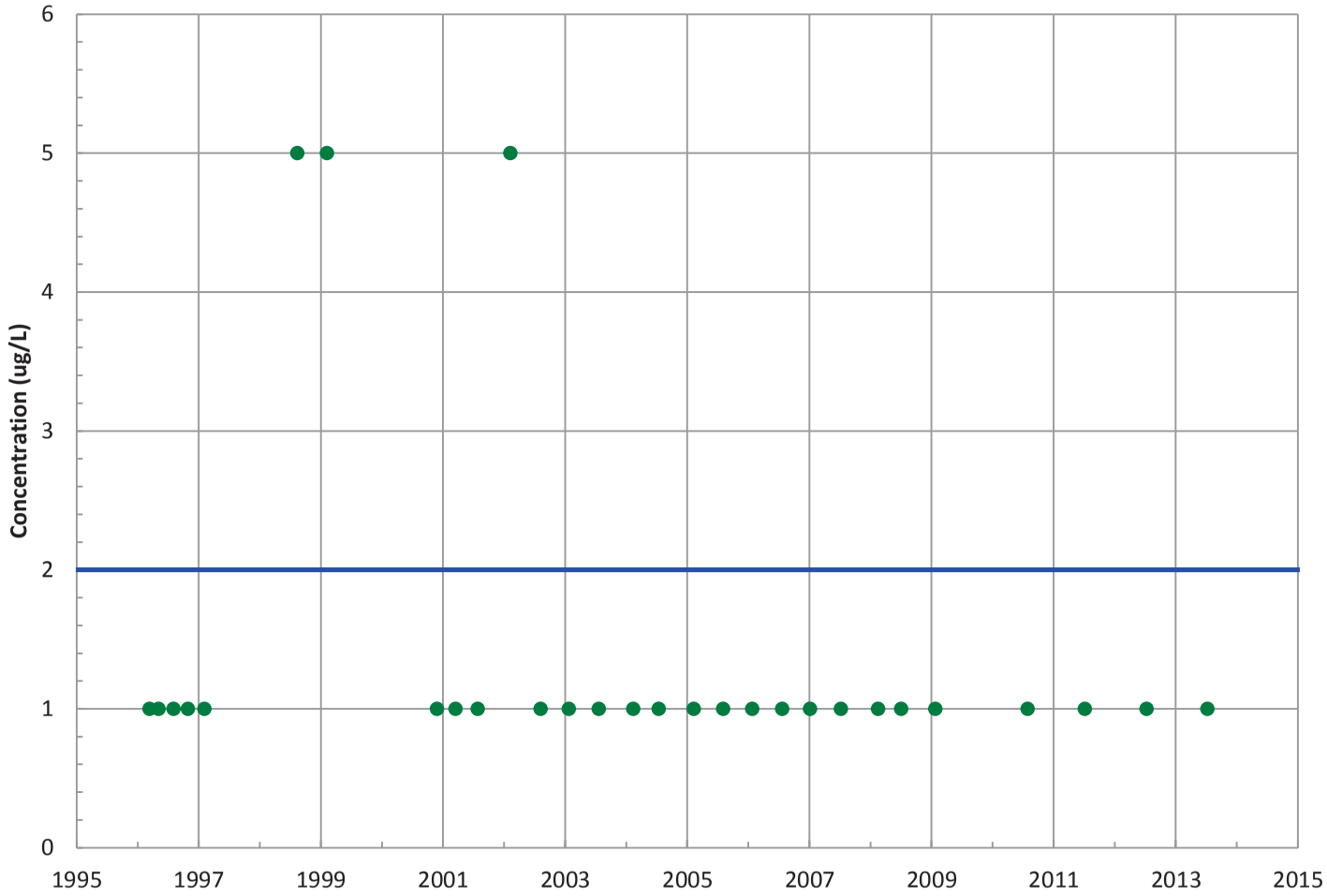
Well Location



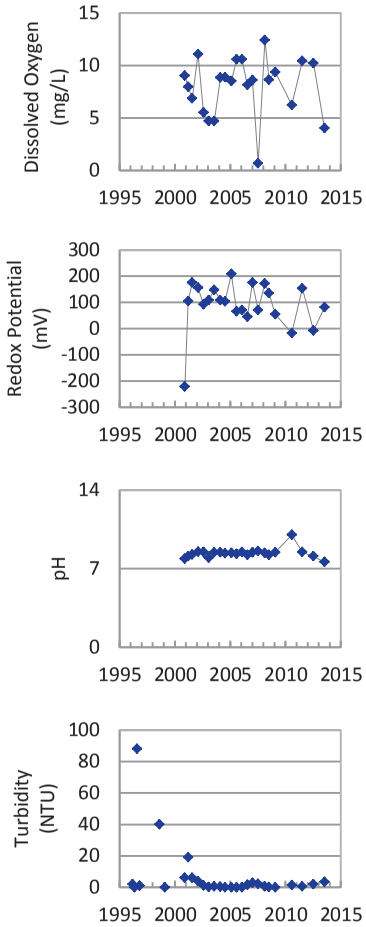
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/13/1996 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1014
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



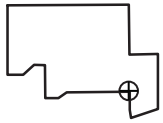
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

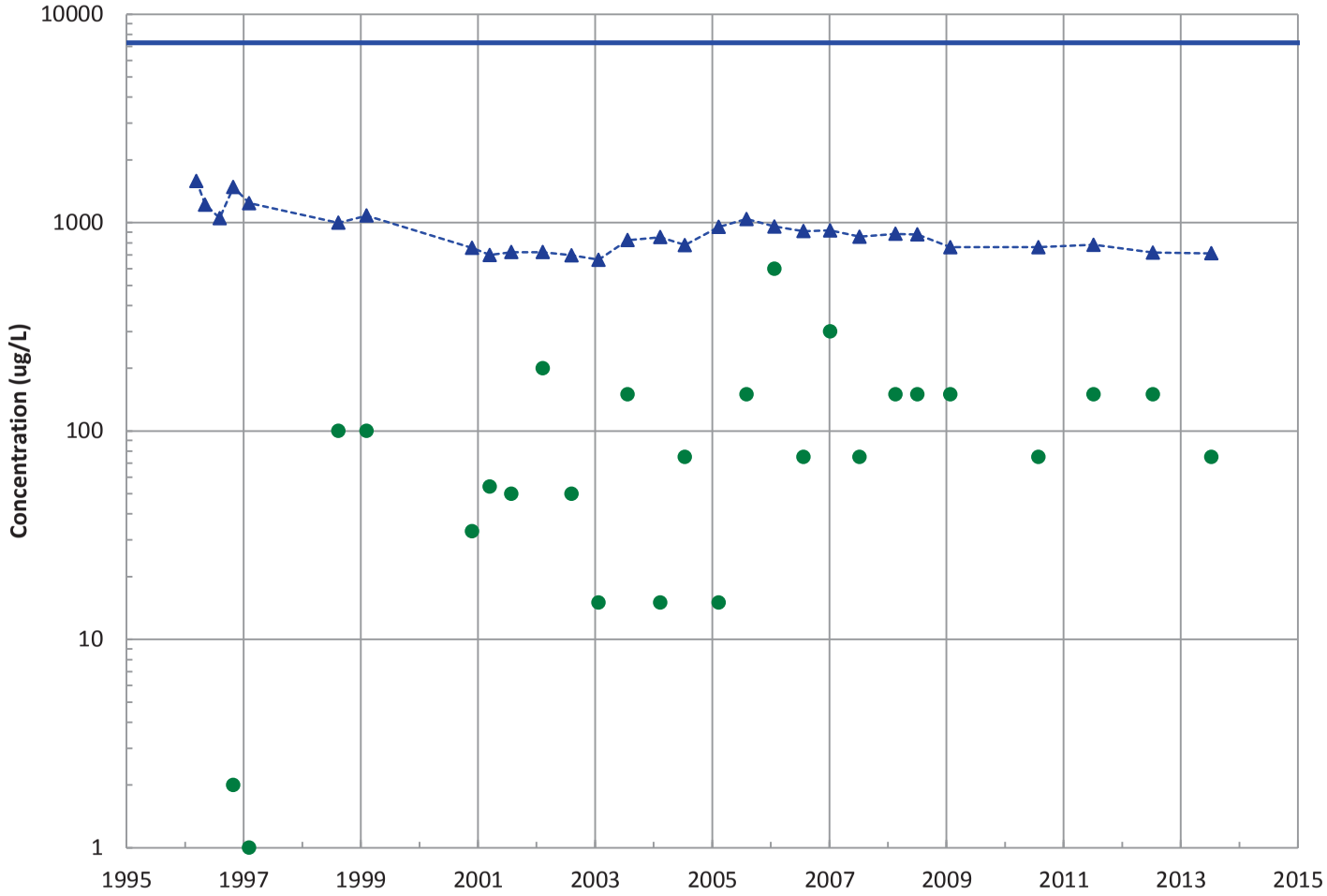
Well Location



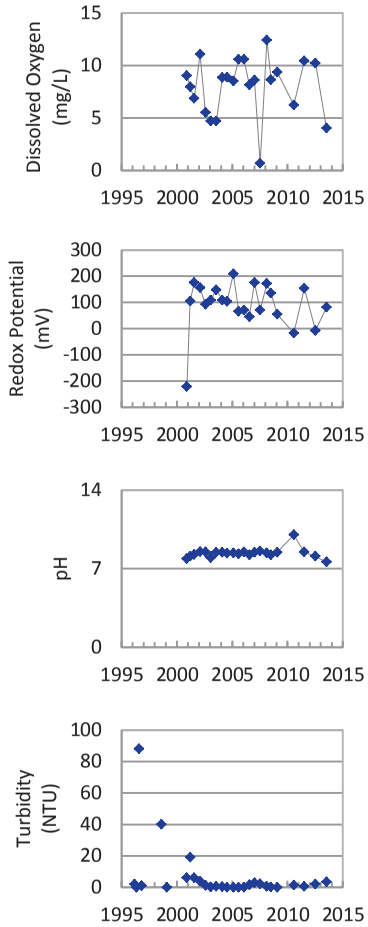
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/13/1996 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1014
Boron Trend in Perched Aquifer



Field Parameters



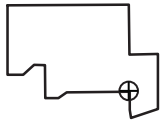
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Probably Decreasing
2011 - 2013 Data: Probably Decreasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------ Concentration Trend
- ——— Groundwater Protection Standard

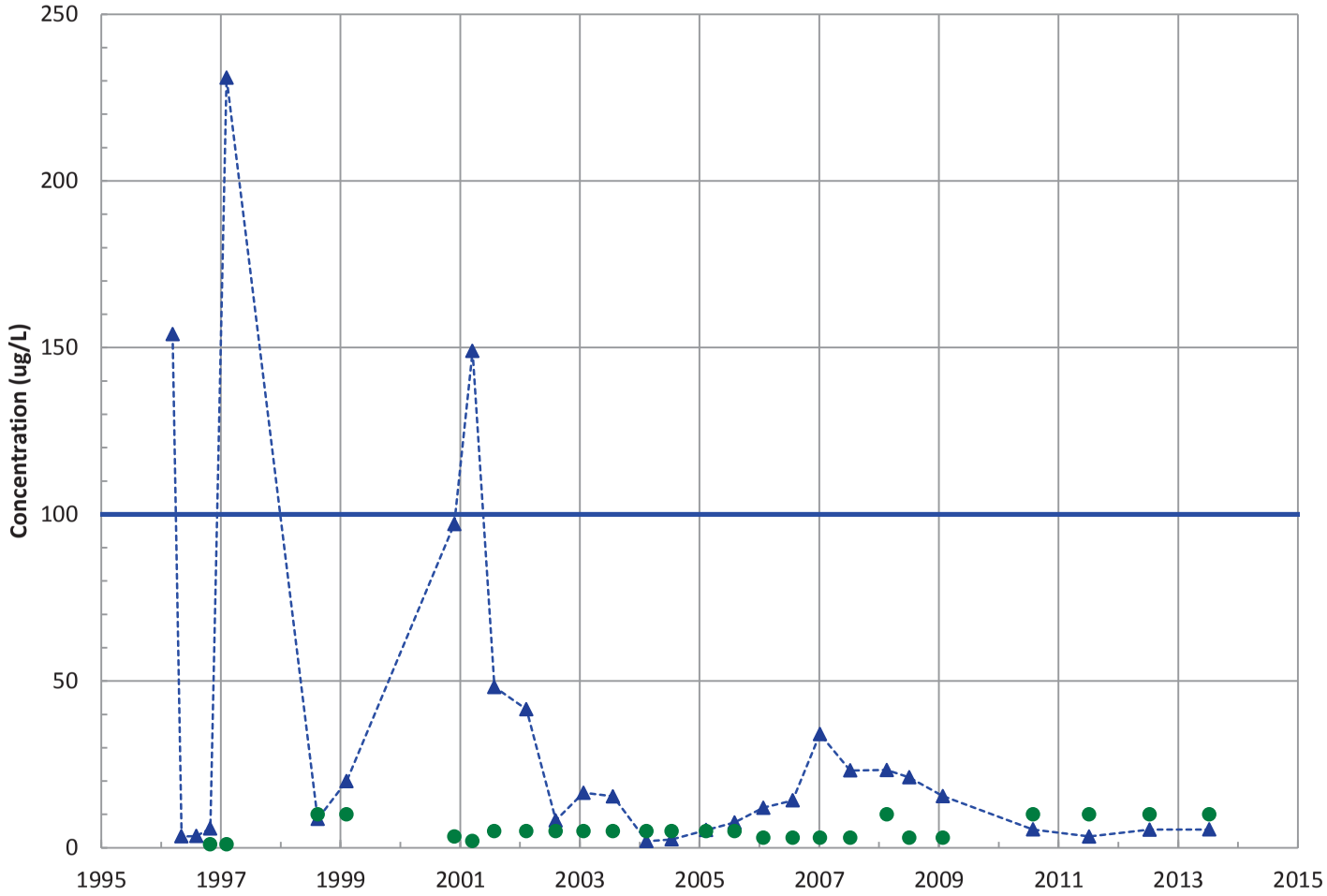
Well Location



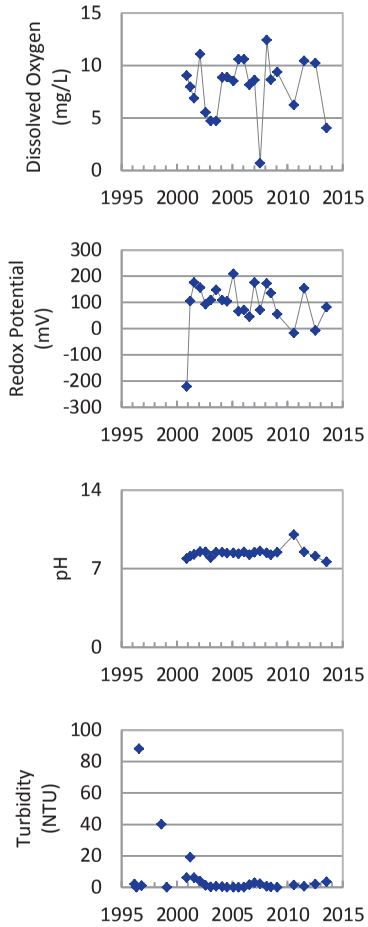
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/13/1996 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1014
Chromium, Total Trend in Perched Aquifer



Field Parameters



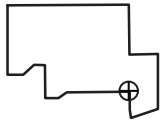
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------ Concentration Trend
- ——— Groundwater Protection Standard

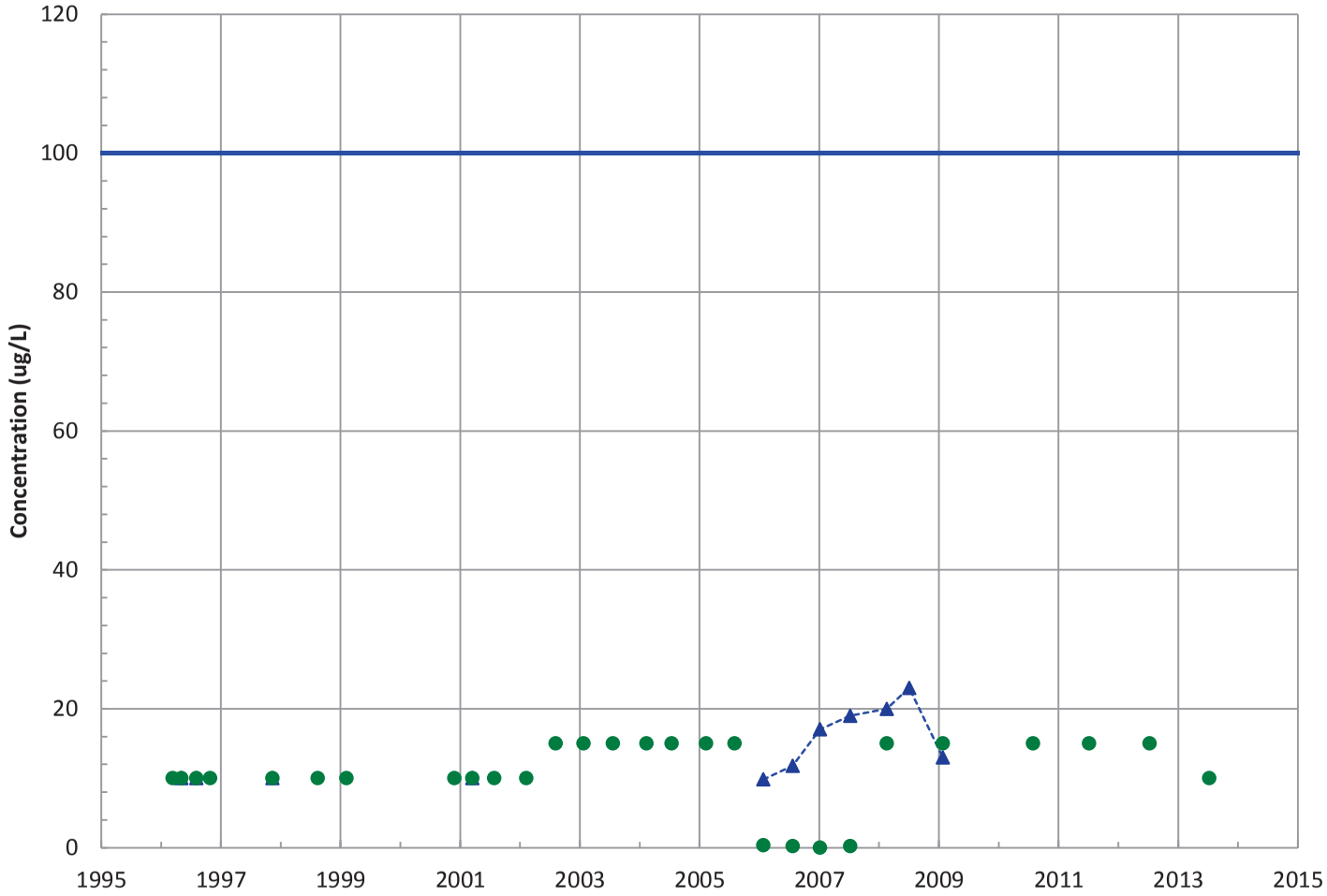
Well Location



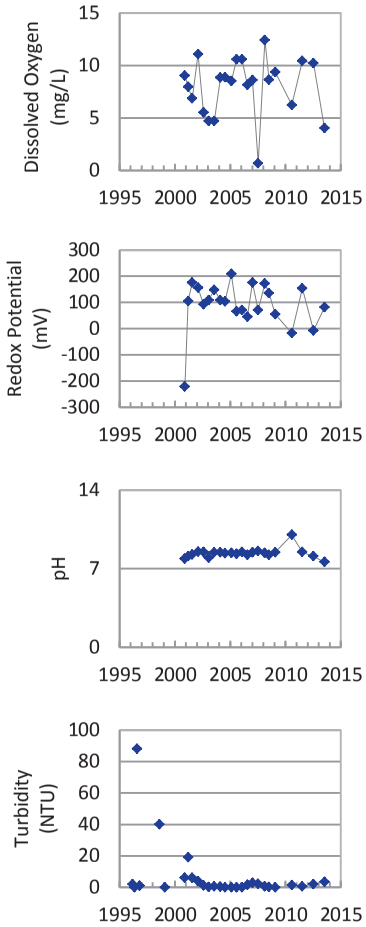
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/13/1996 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1014
Chromium, Hexavalent Trend in Perched Aquifer



Field Parameters



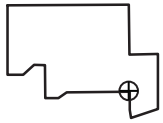
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: Probably Decreasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

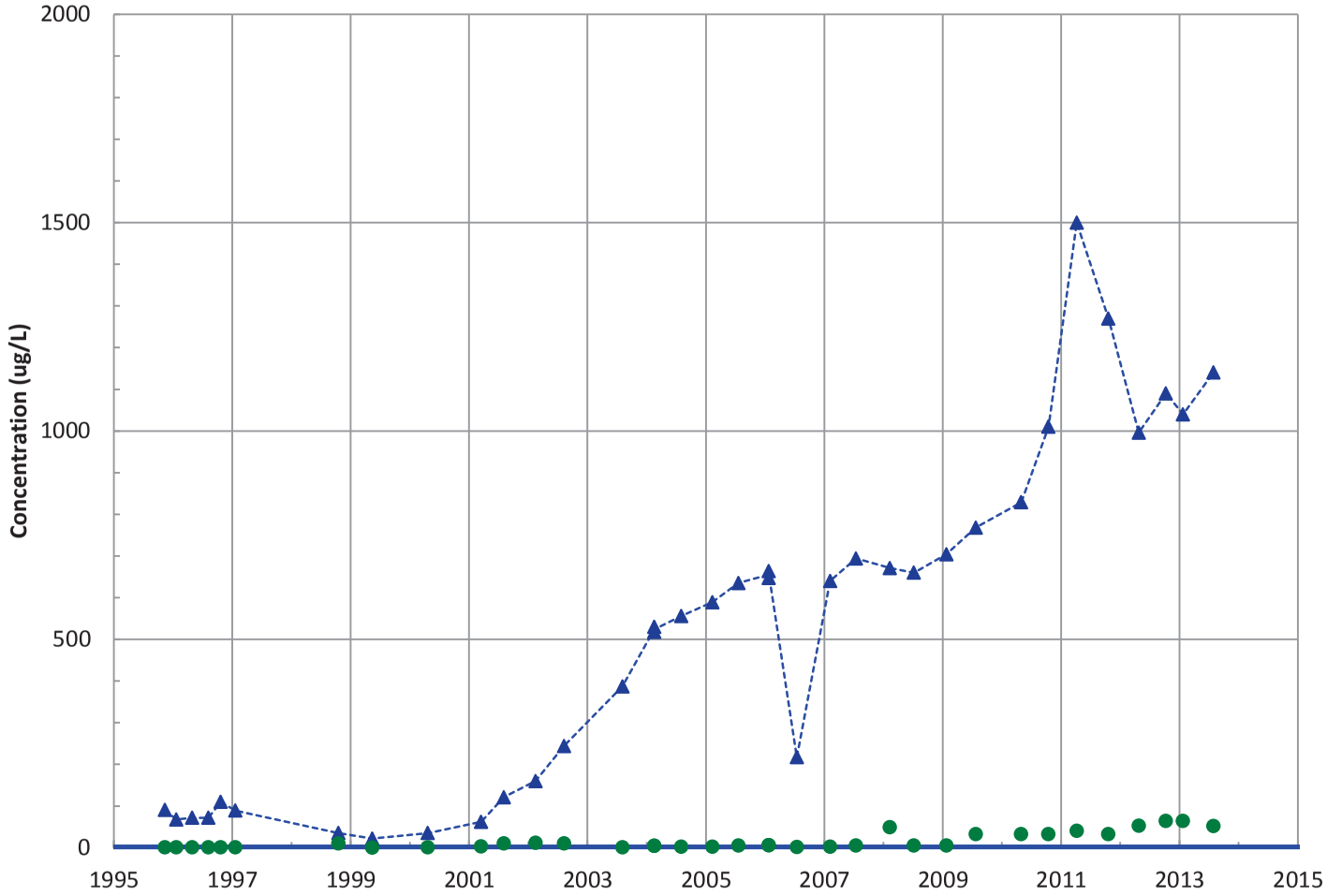
Well Location



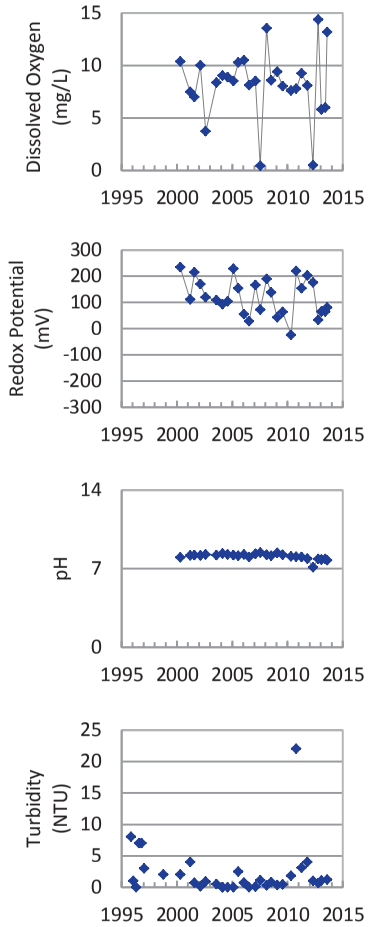
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/13/1996 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1015
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Probably Increasing

2011 - 2013 Data: No Trend

MAROS Linear Regression Method

Data (7/2009 - 12/2013): Probably Increasing

2011 - 2013 Data: No Trend

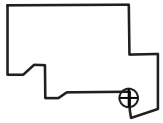
▲ Measured Value

● Sample Detection Limit

------- Concentration Trend

——— Groundwater Protection Standard

Well Location



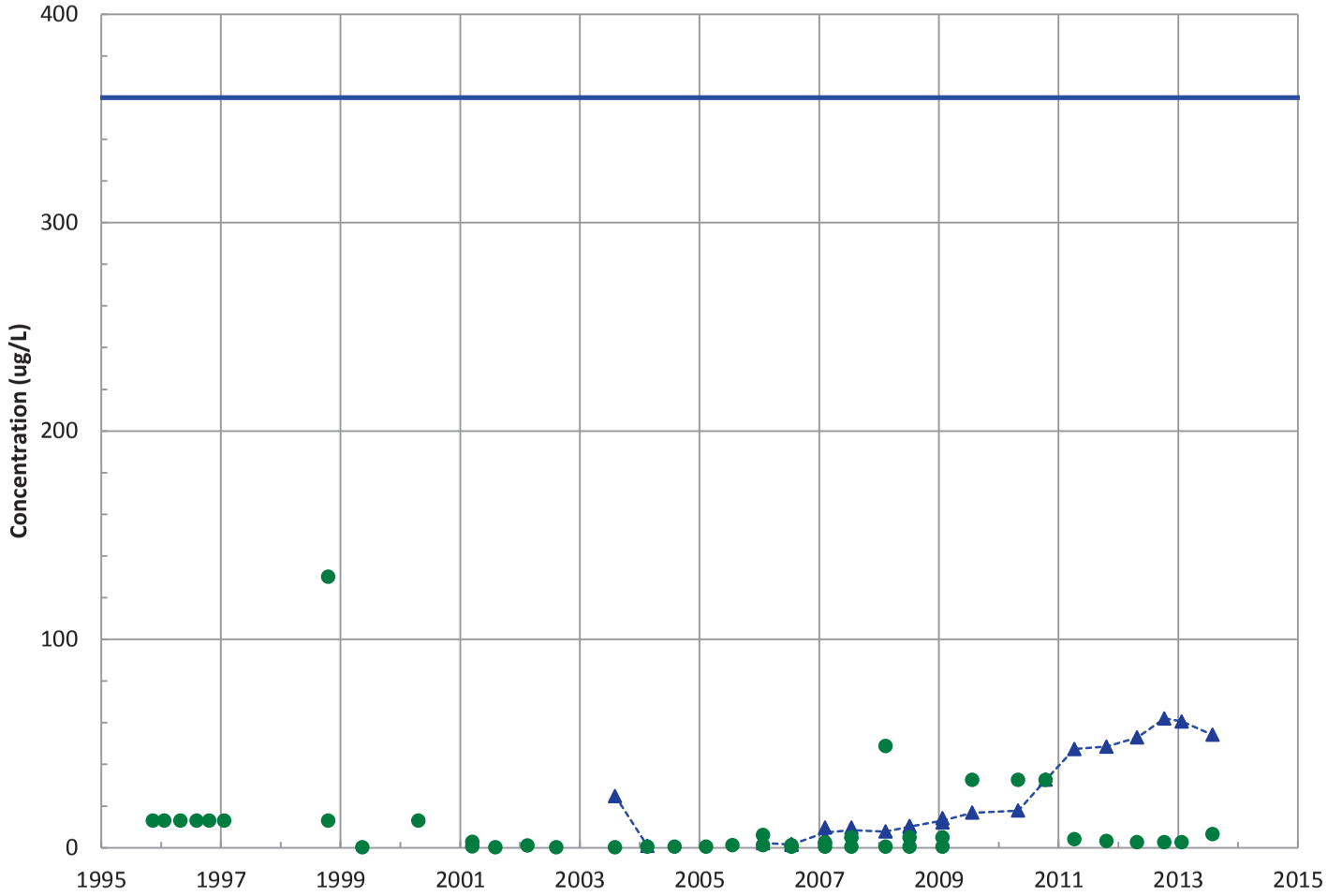
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 11/13/1995 to 8/12/2013

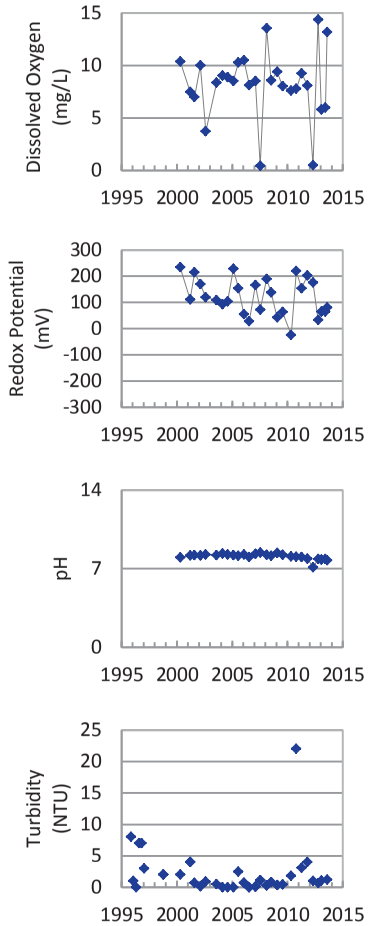
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1015
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



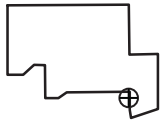
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Increasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

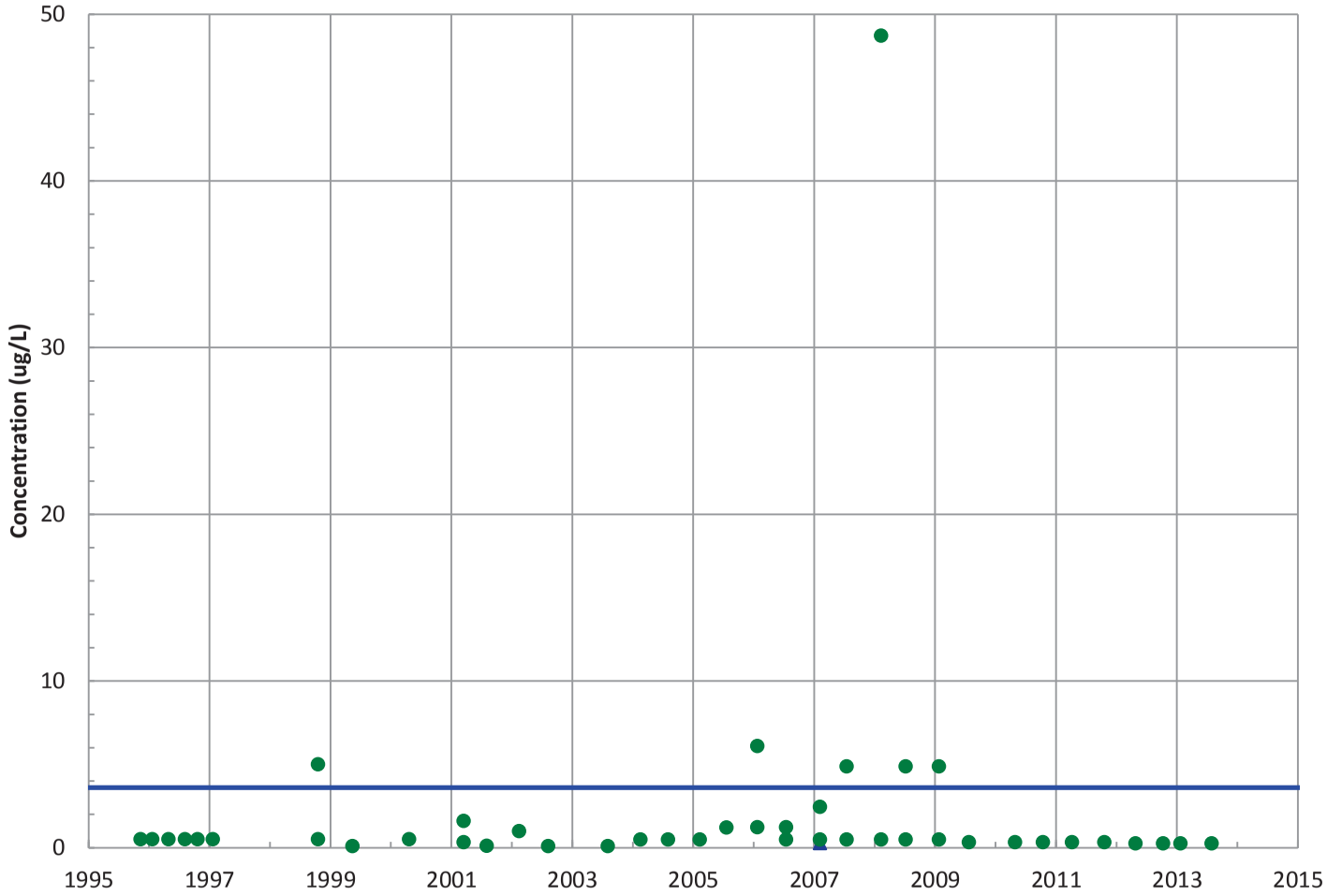
Well Location



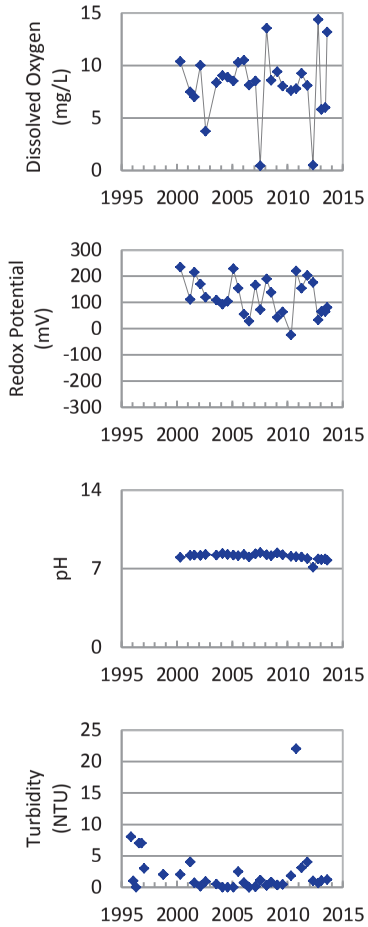
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/13/1995 to 8/12/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1015
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



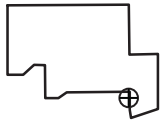
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

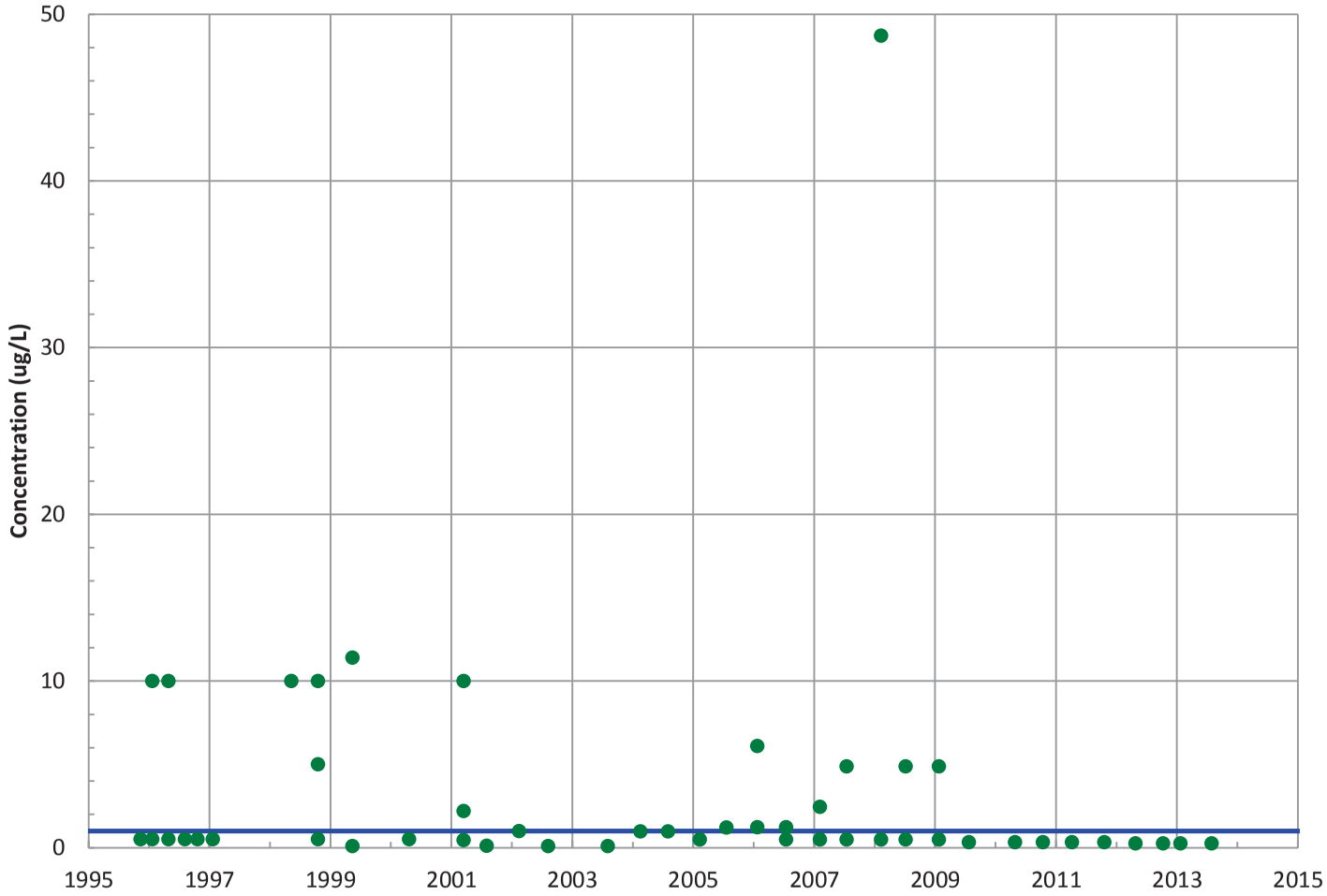
Well Location



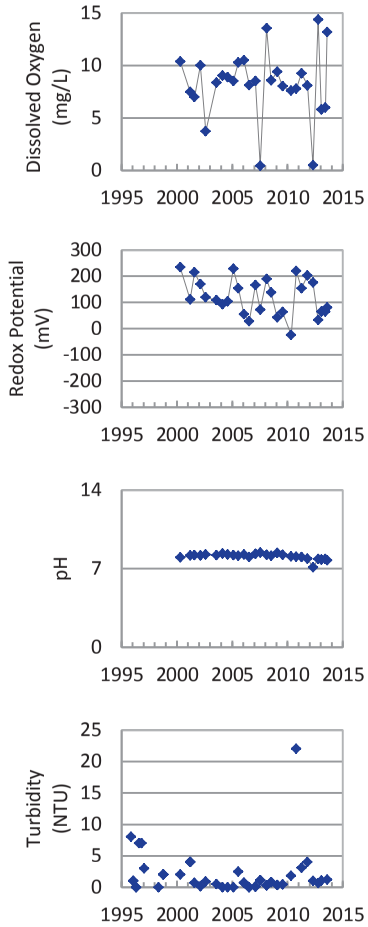
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/13/1995 to 8/12/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1015
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



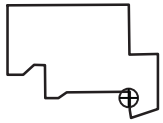
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

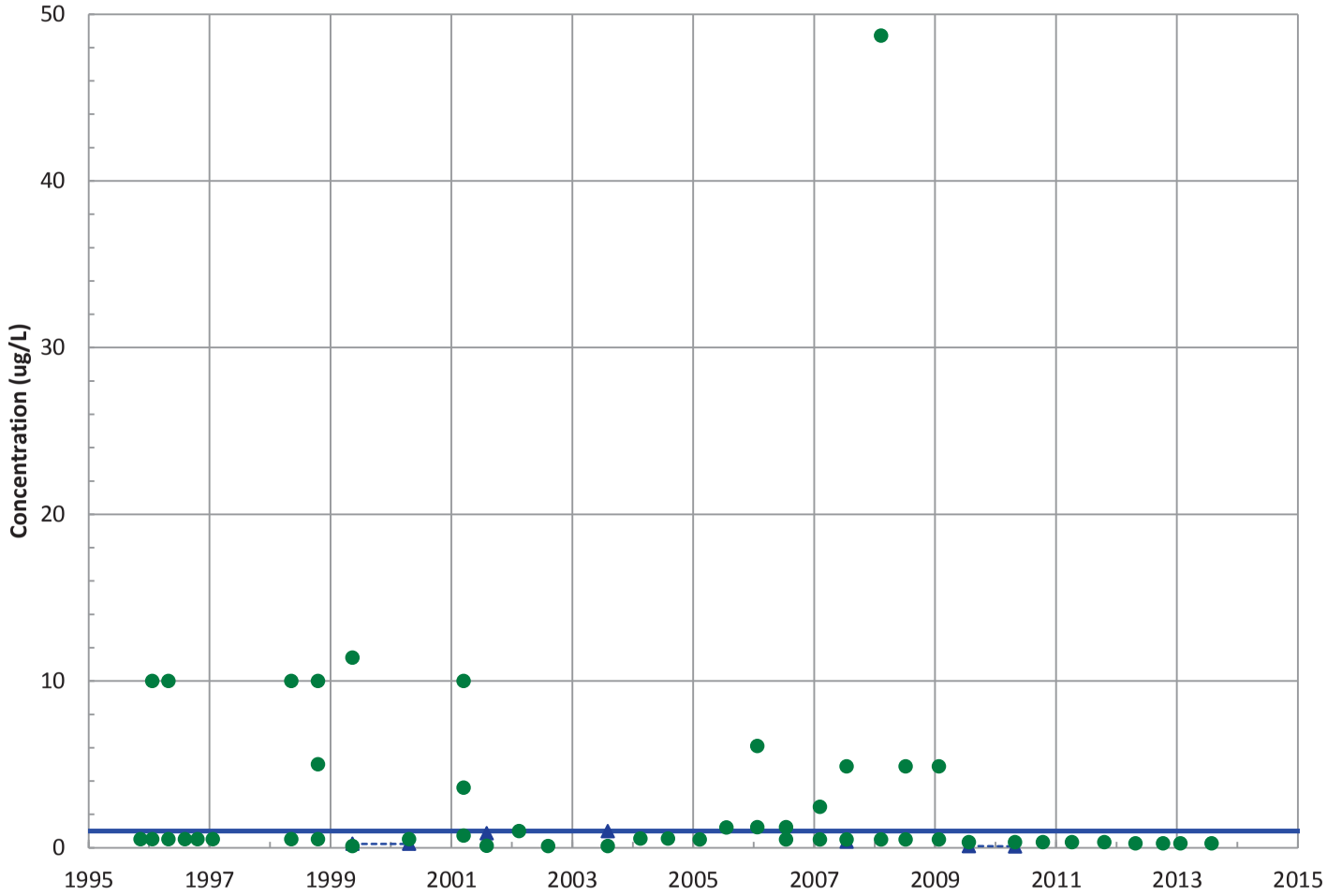
Well Location



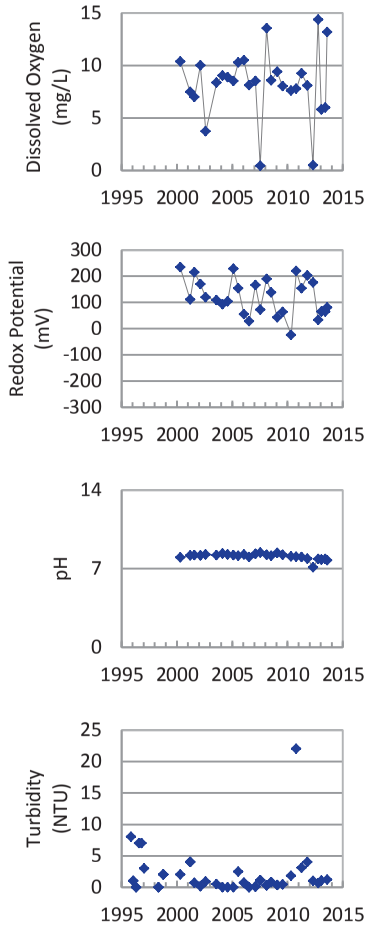
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/13/1995 to 8/12/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1015
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: All Non-Detect

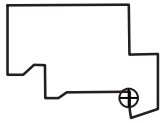
MAROS Linear Regression Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

Well Location



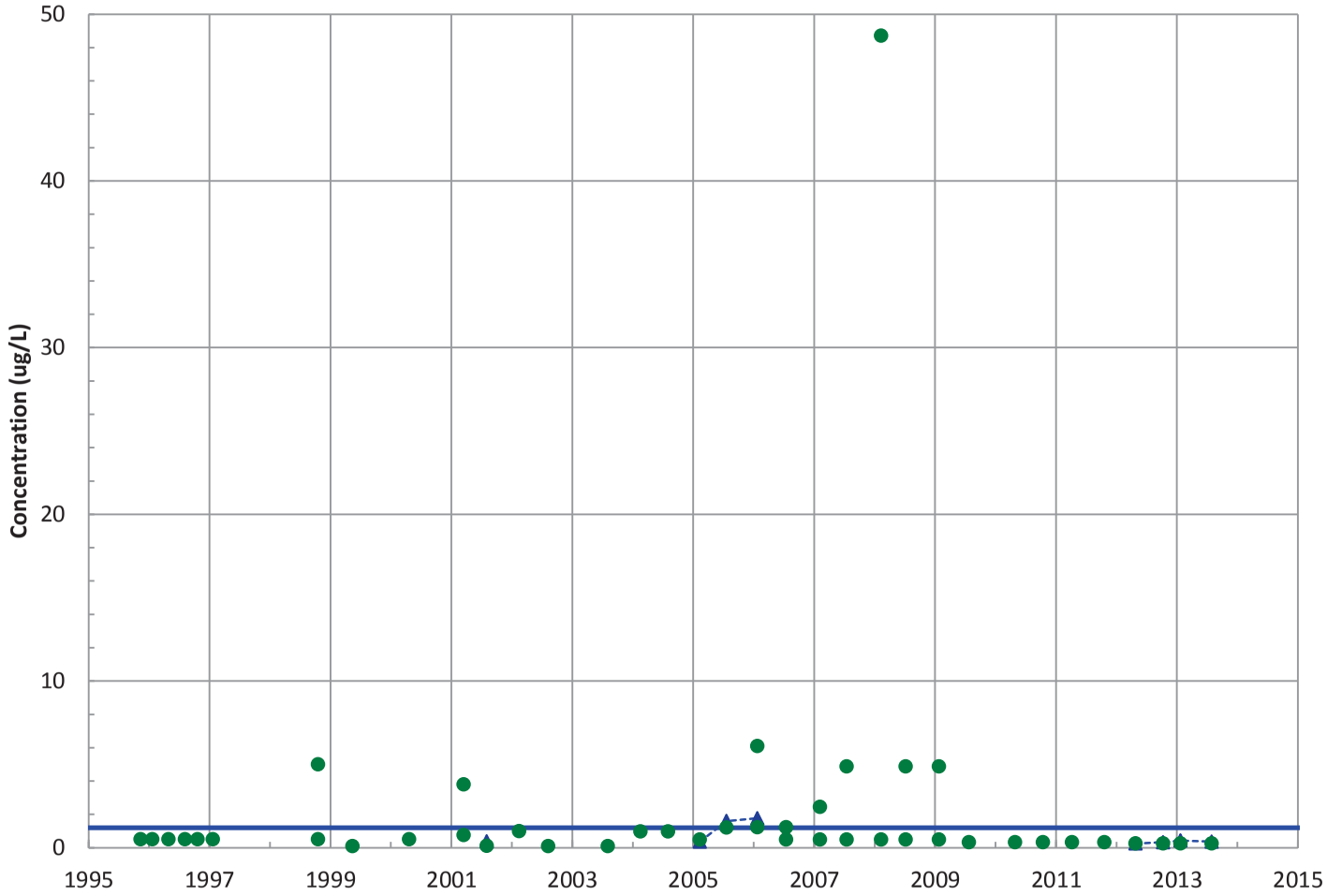
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 11/13/1995 to 8/12/2013

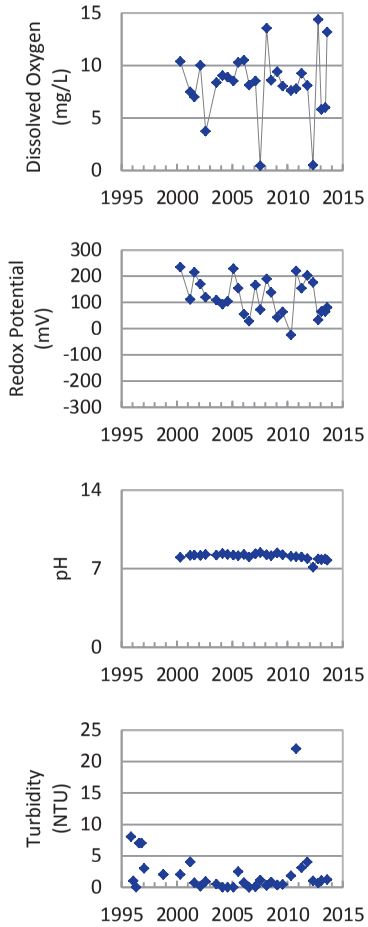
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1015
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



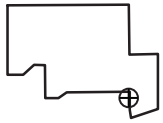
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Probably Increasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

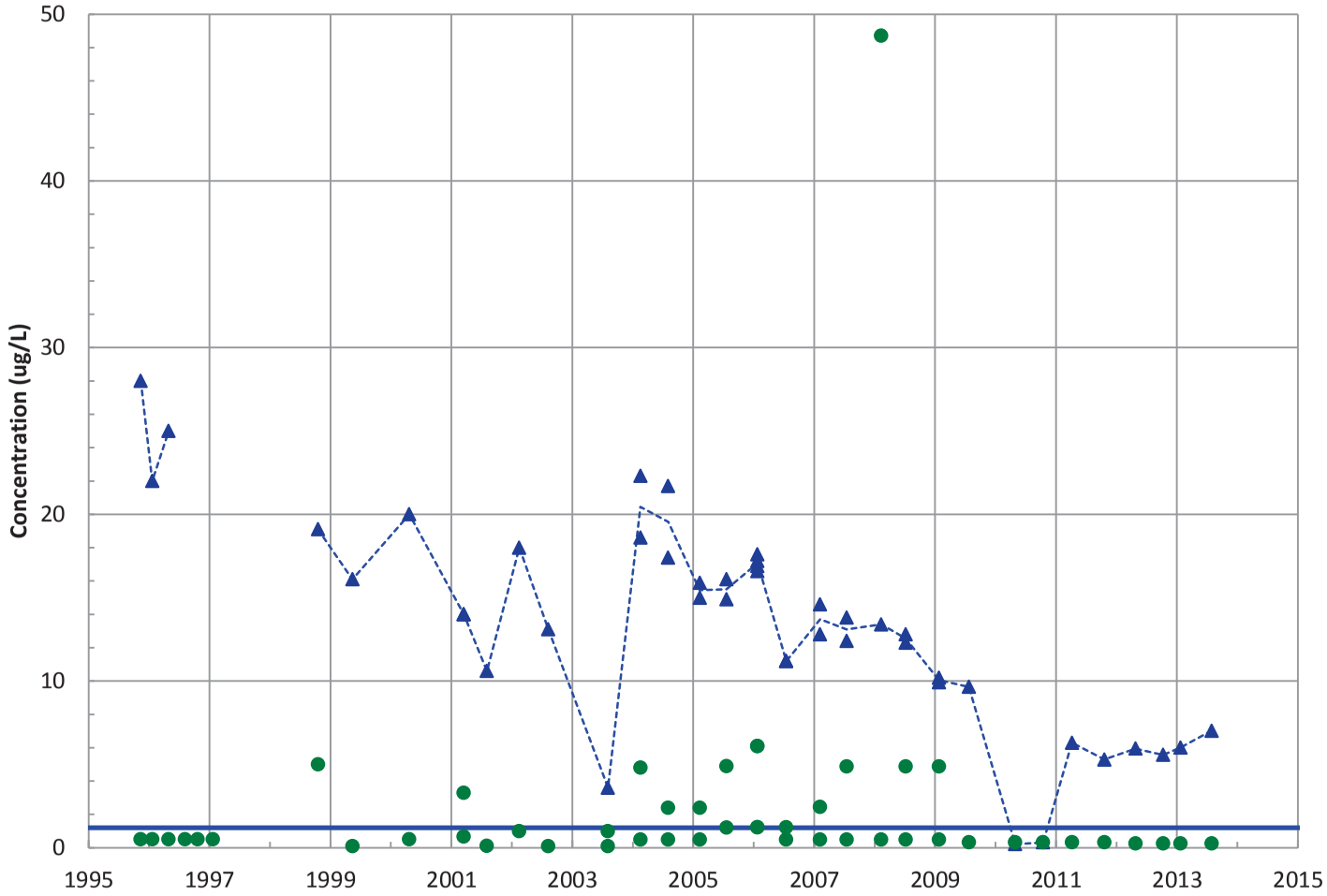
Well Location



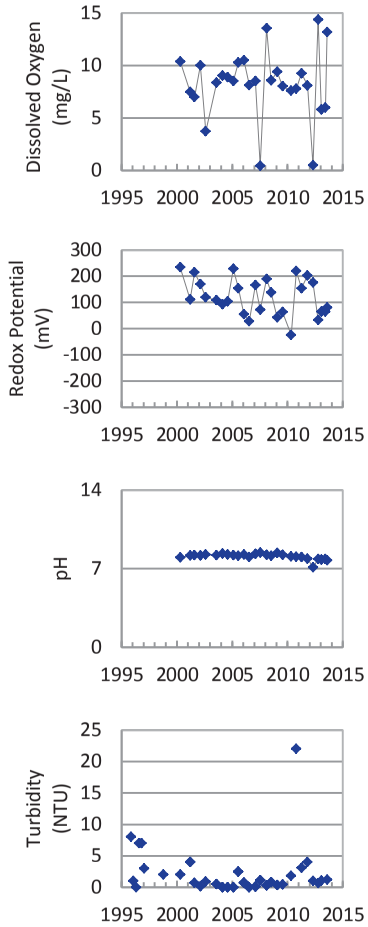
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/13/1995 to 8/12/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1015
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



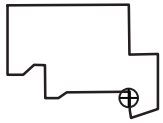
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Increasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

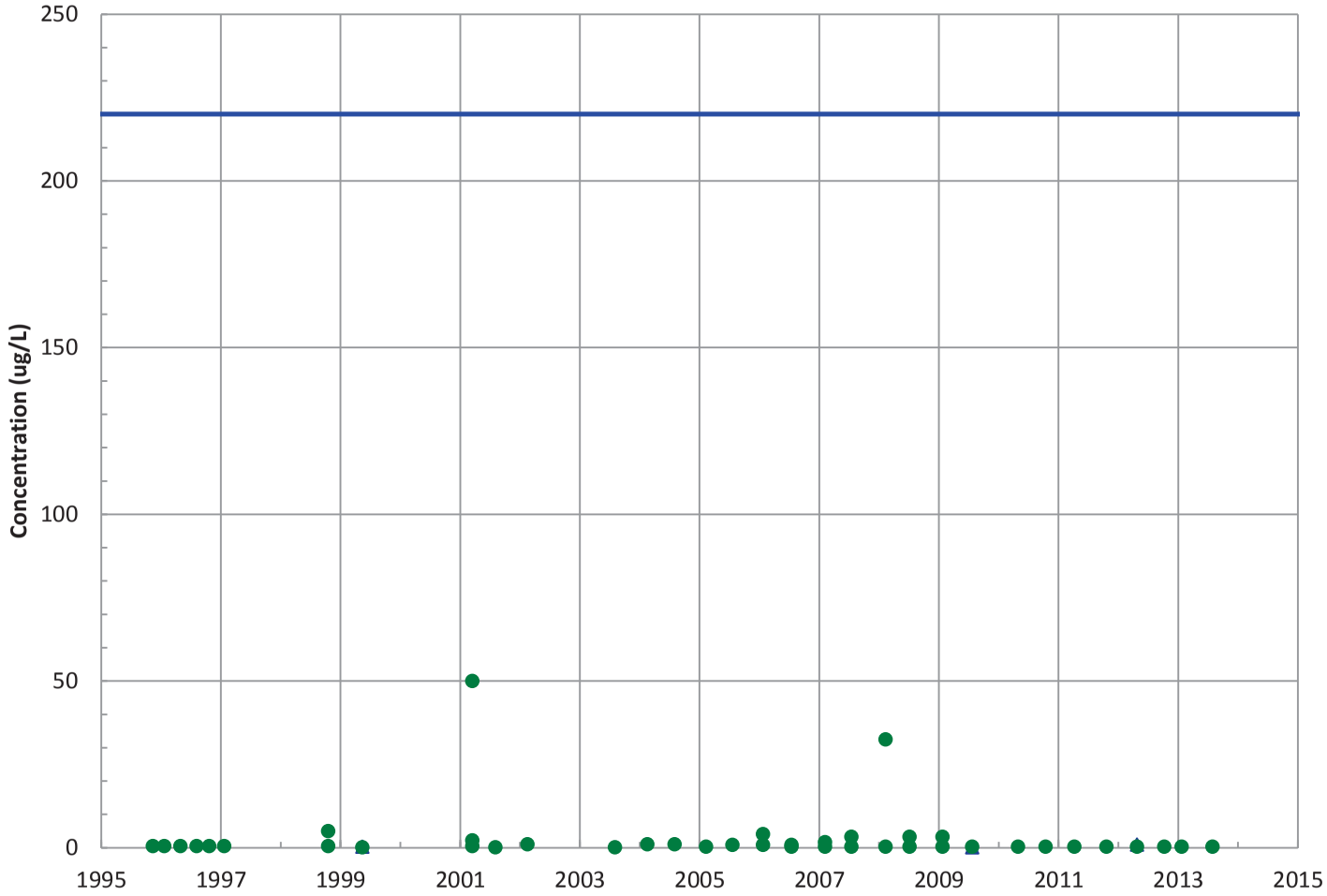
Well Location



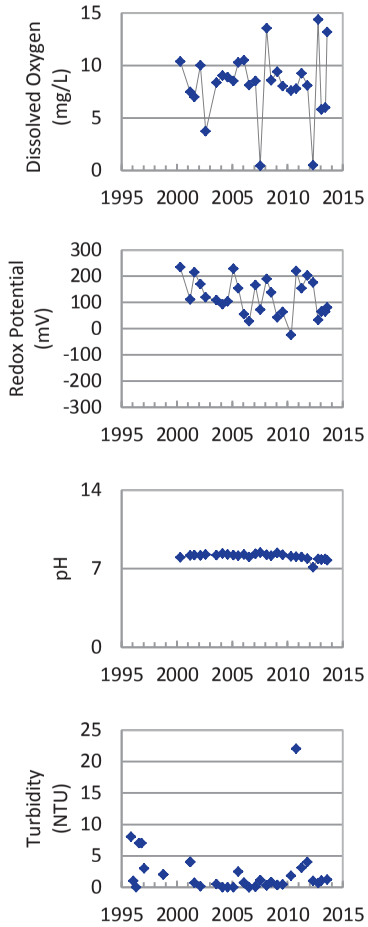
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/13/1995 to 8/12/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1015
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: N/A (<4 Detections in

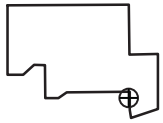
MAROS Linear Regression Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: N/A (<4 Detections in

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

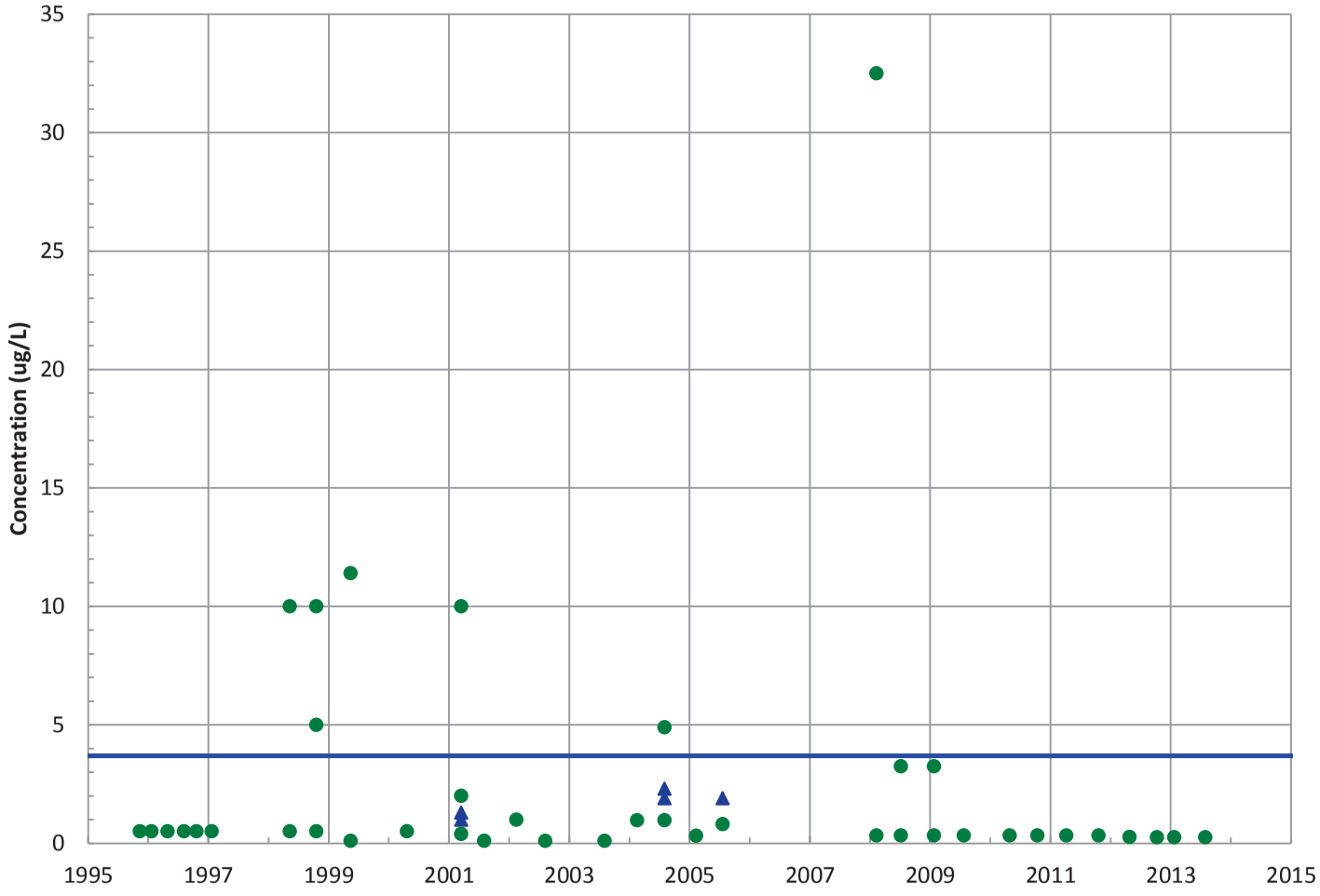
Well Location



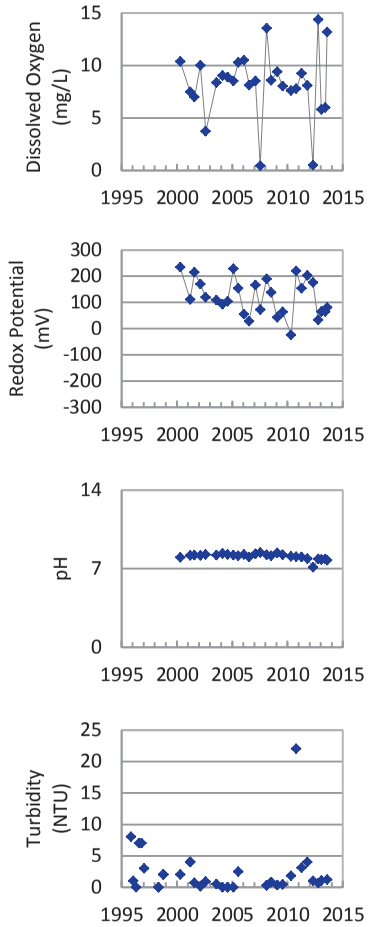
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/13/1995 to 8/12/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1015
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



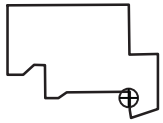
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

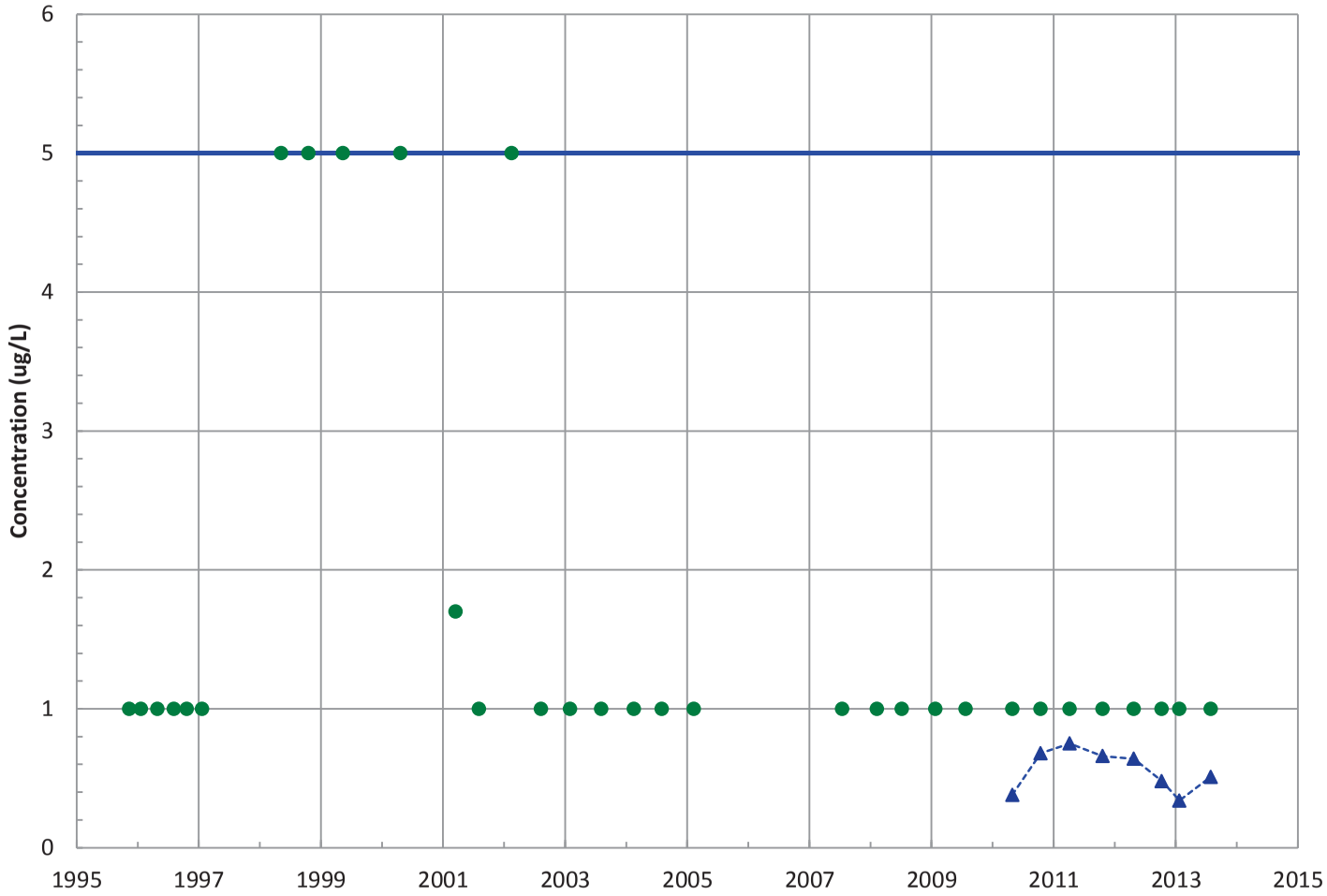
Well Location



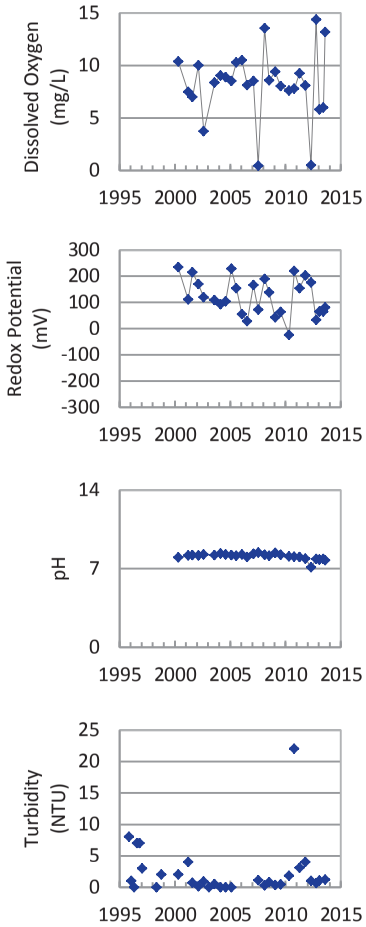
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/13/1995 to 8/12/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1015
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



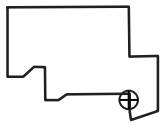
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

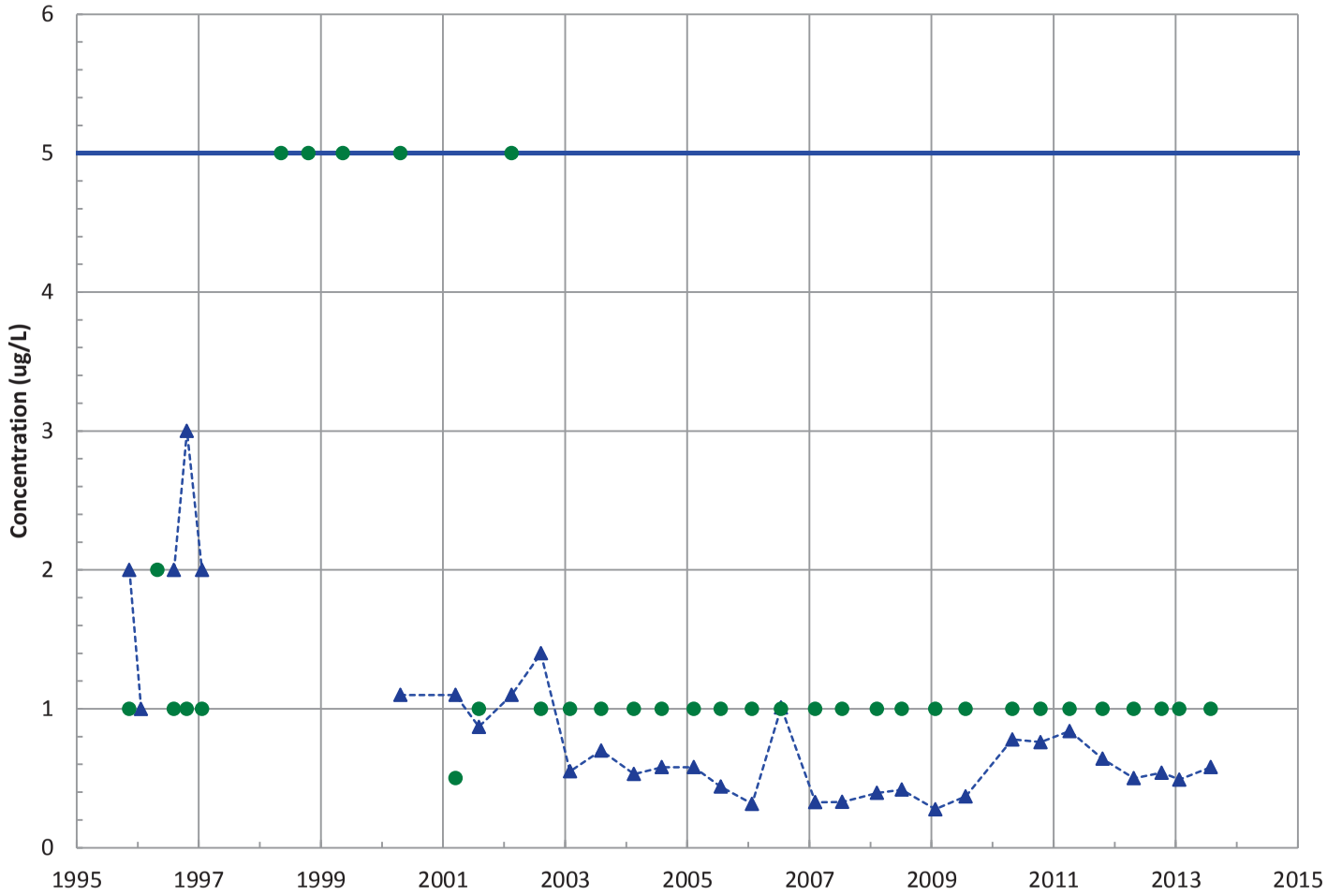
Well Location



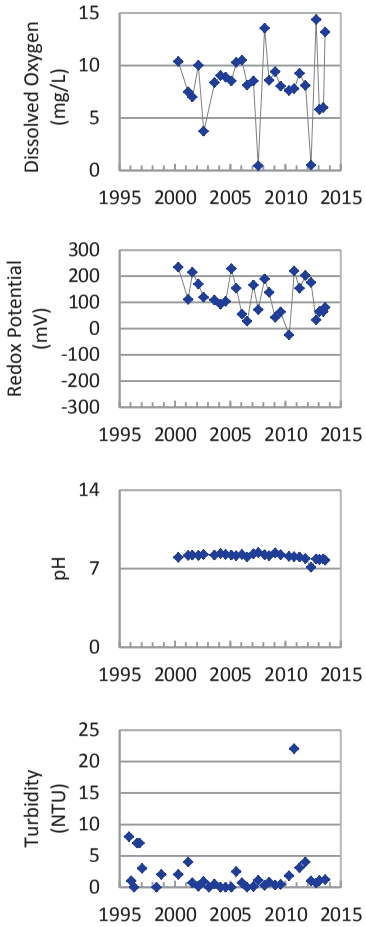
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/13/1995 to 8/12/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1015
Trichloroethene Trend in Perched Aquifer



Field Parameters



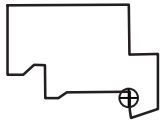
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: No Trend

Measured Value
Sample Detection Limit
Concentration Trend
Groundwater Protection Standard

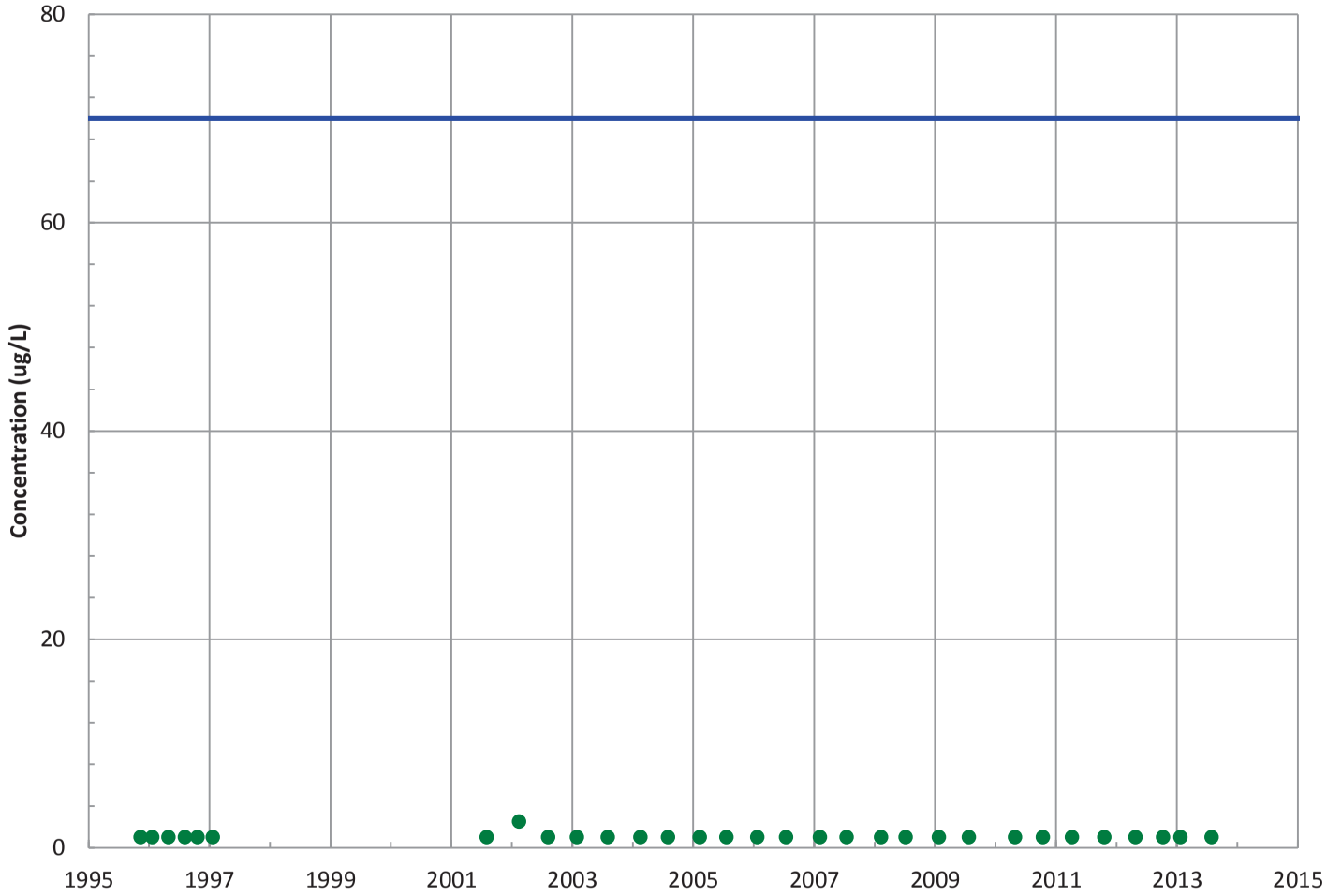
Well Location



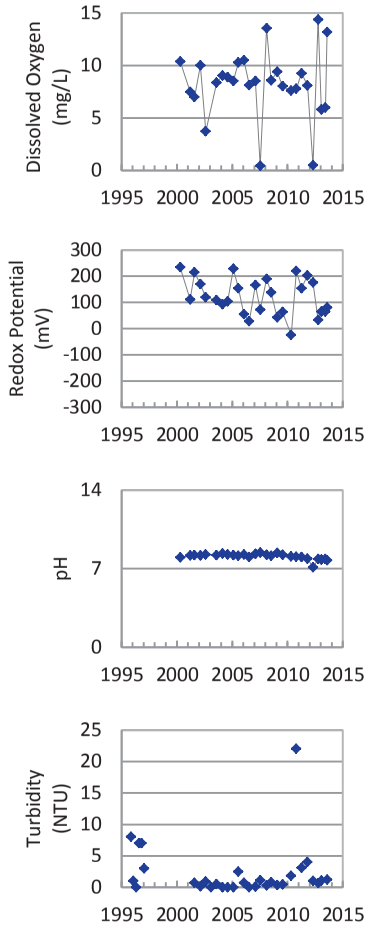
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/13/1995 to 8/12/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1015
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



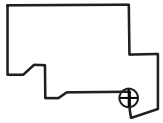
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

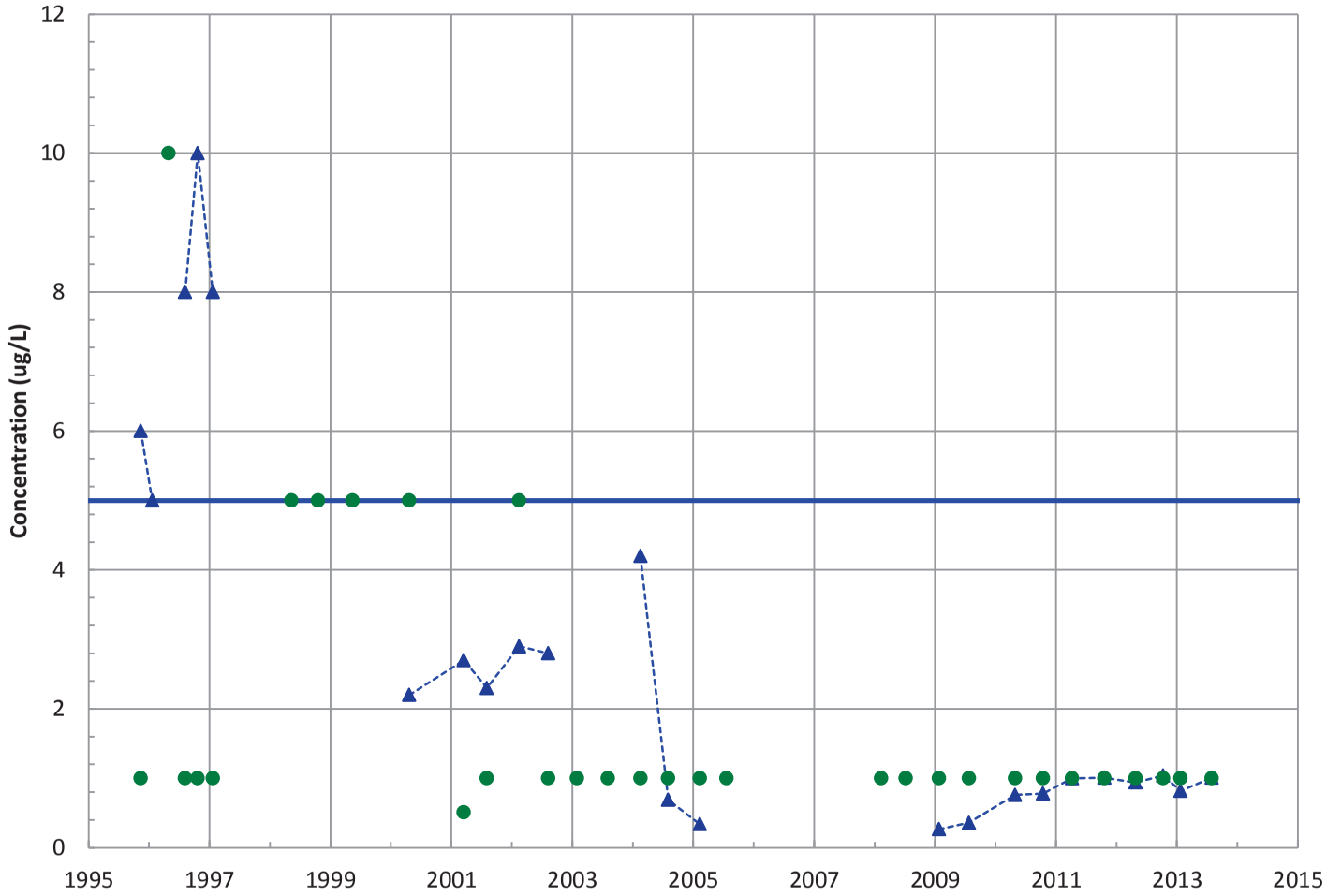
Well Location



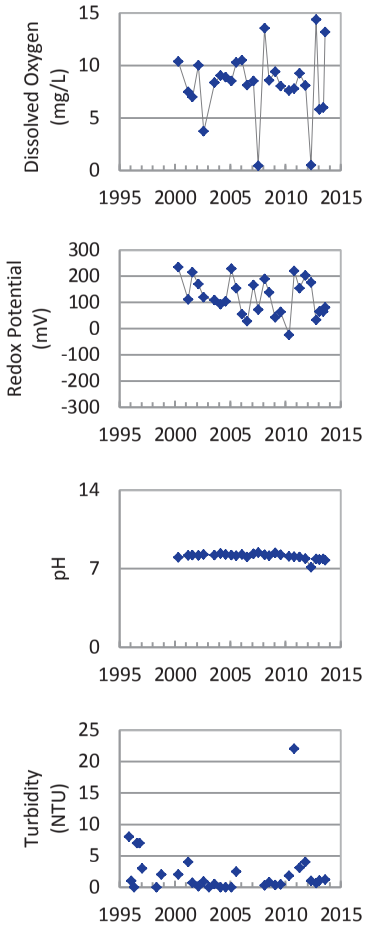
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/13/1995 to 8/12/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1015
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



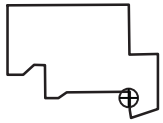
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

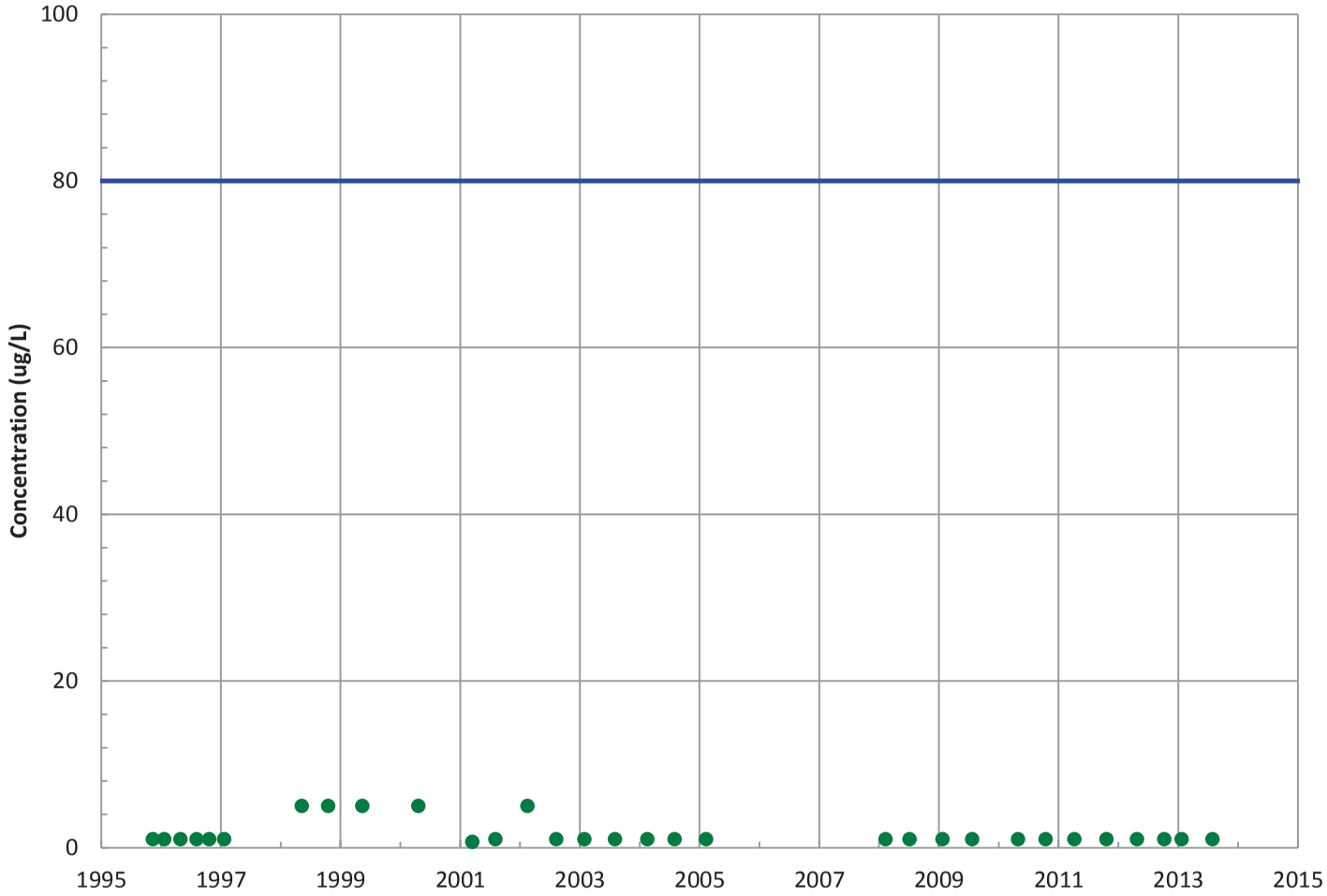
Well Location



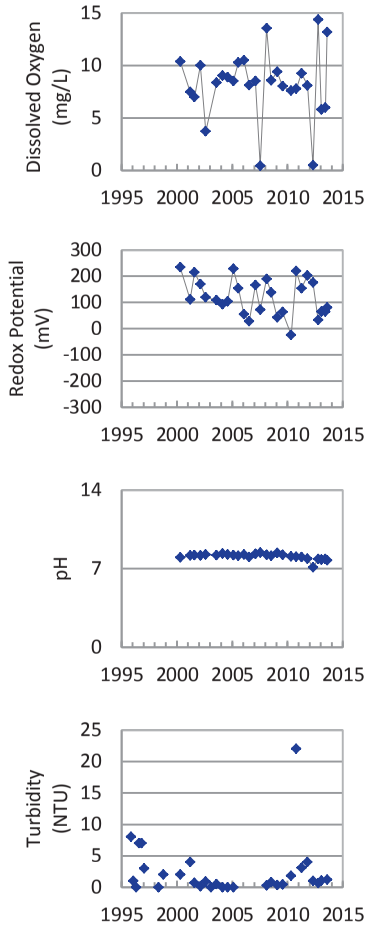
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/13/1995 to 8/12/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1015
Chloroform Trend in Perched Aquifer



Field Parameters



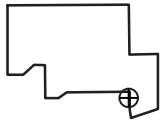
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

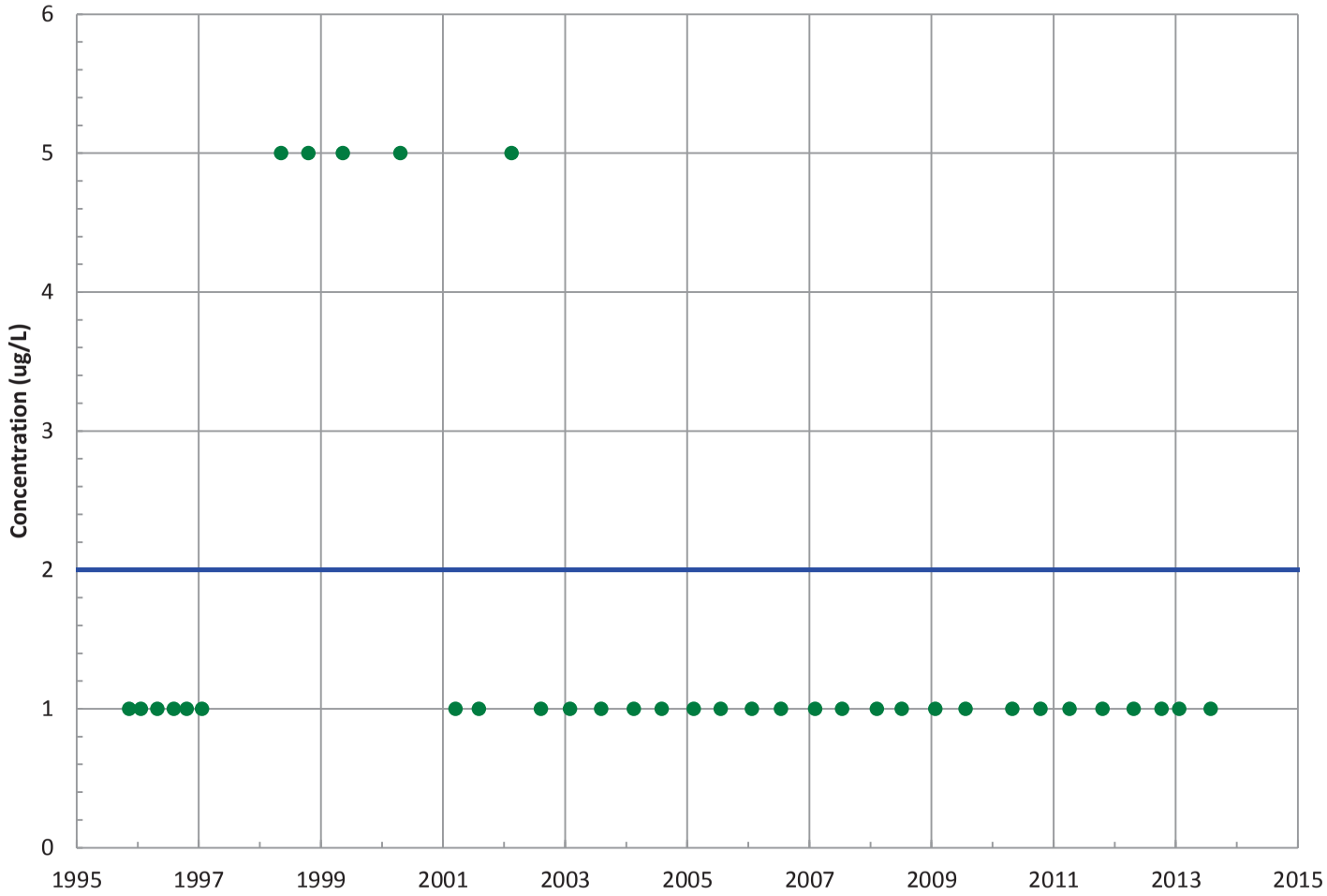
Well Location



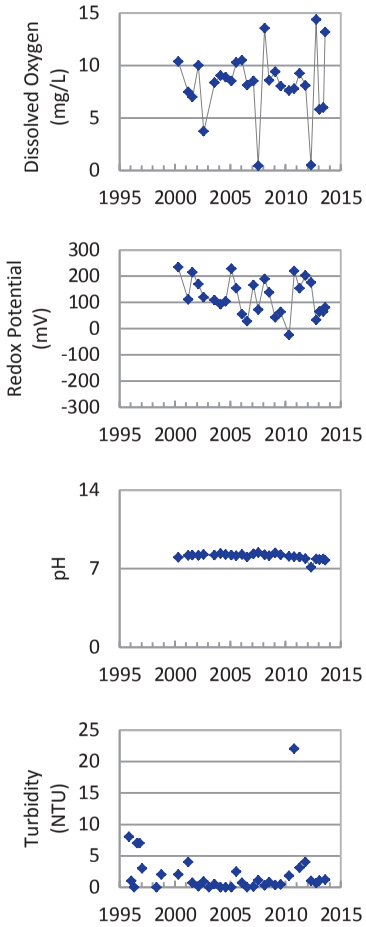
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/13/1995 to 8/12/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1015
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



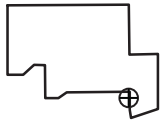
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

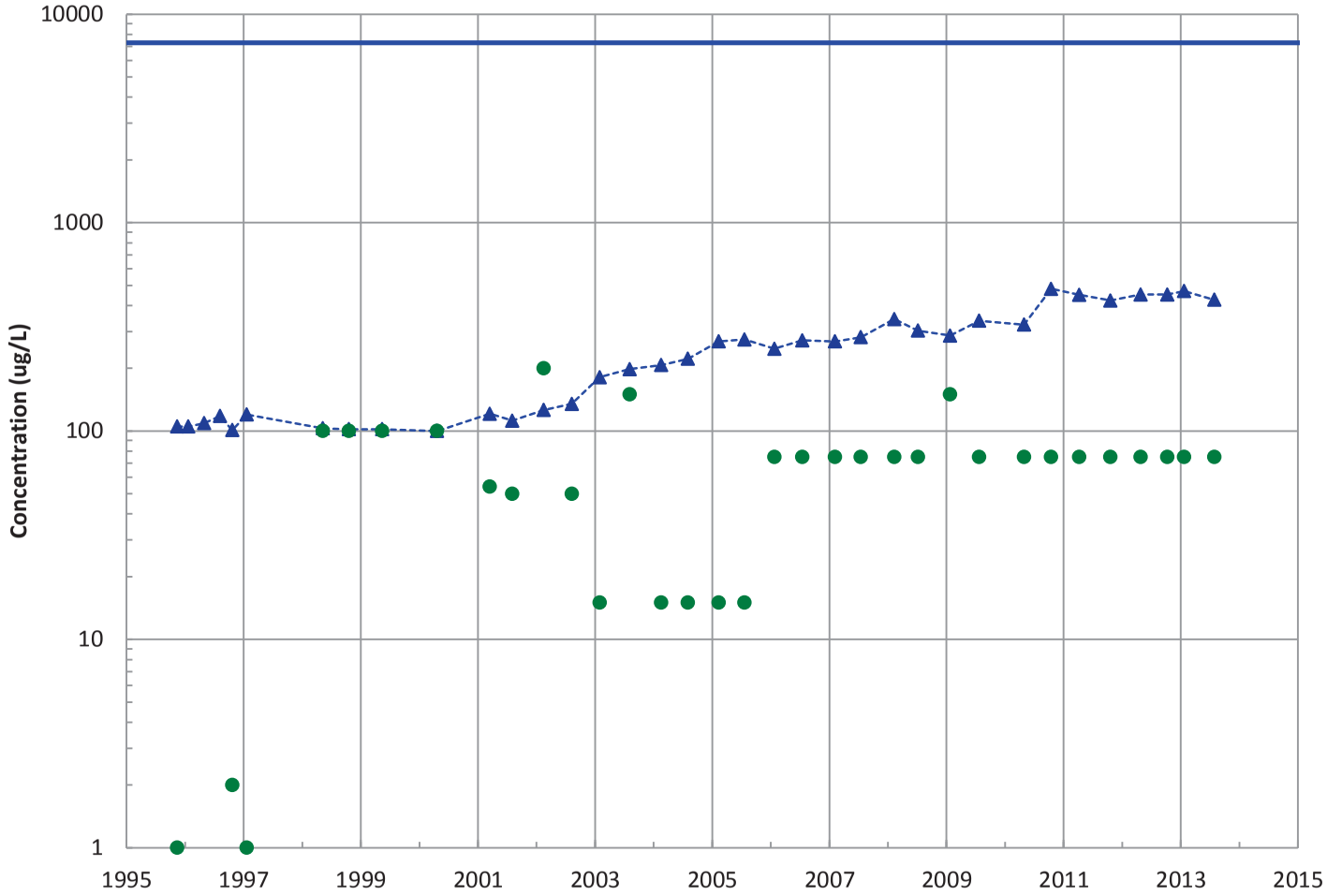
Well Location



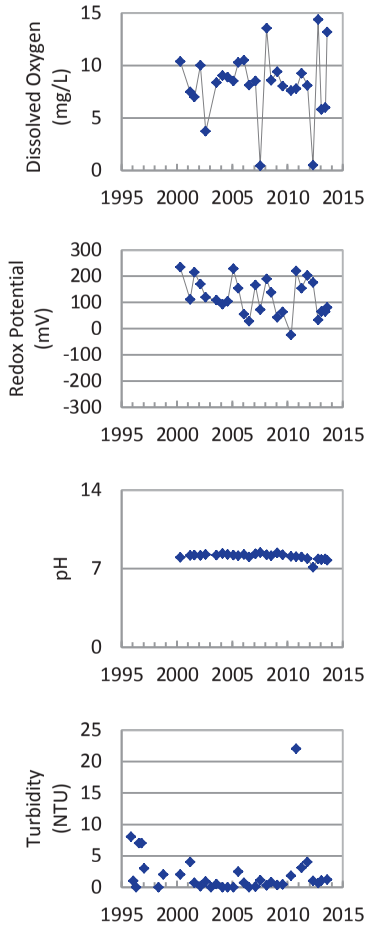
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/13/1995 to 8/12/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1015
Boron Trend in Perched Aquifer



Field Parameters



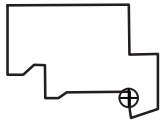
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

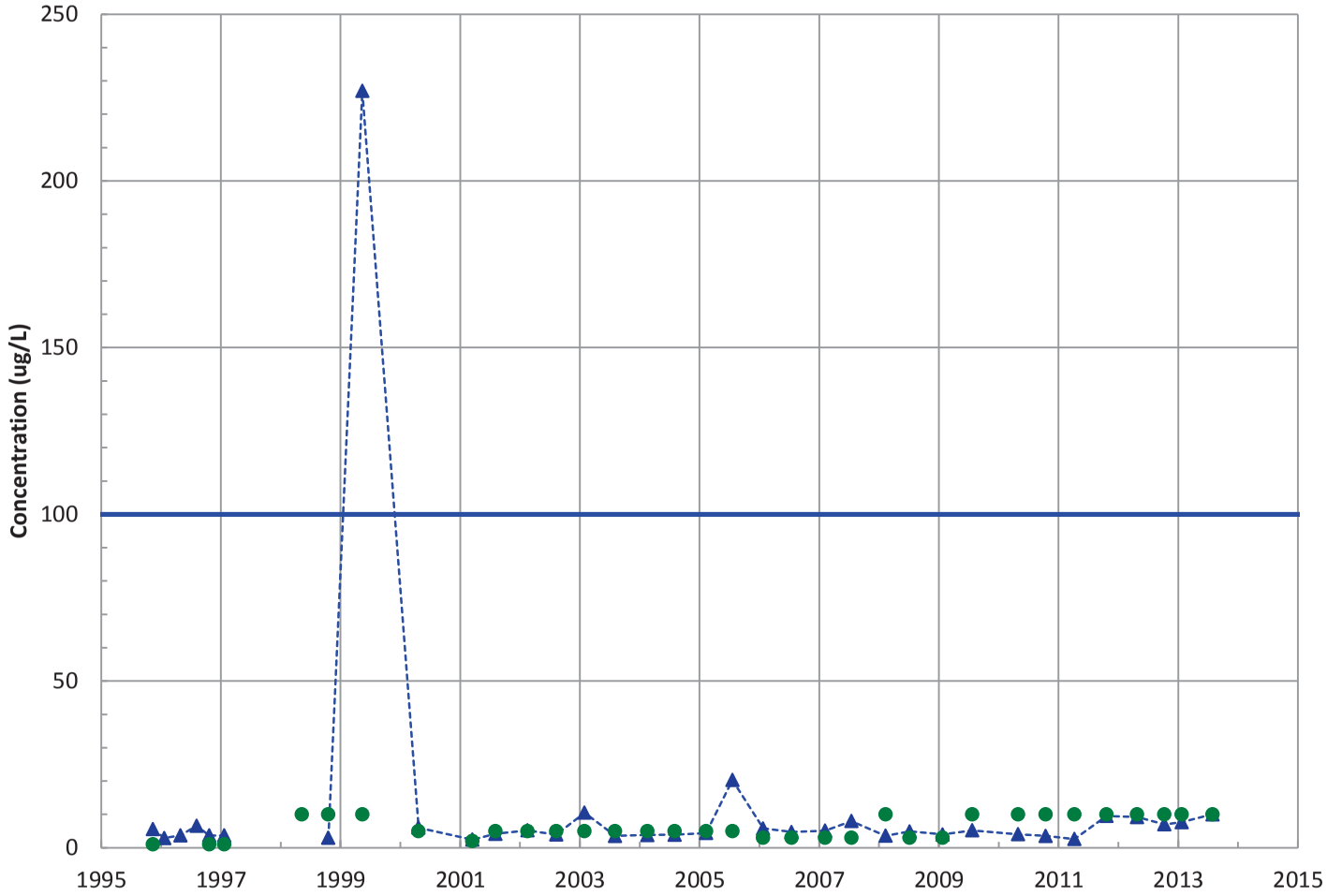
Well Location



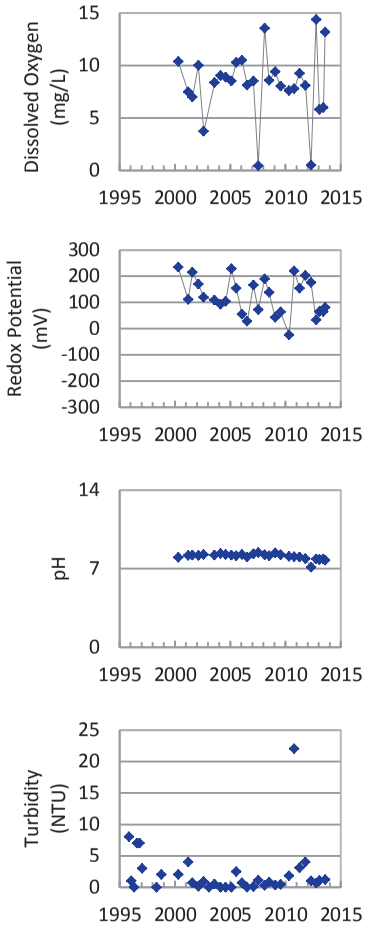
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/13/1995 to 8/12/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1015
Chromium, Total Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Probably Increasing

2011 - 2013 Data: No Trend

MAROS Linear Regression Method

Data (7/2009 - 12/2013): Increasing

2011 - 2013 Data: No Trend

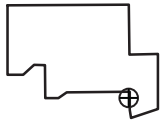
▲ Measured Value

● Sample Detection Limit

Concentration Trend

Groundwater Protection Standard

Well Location



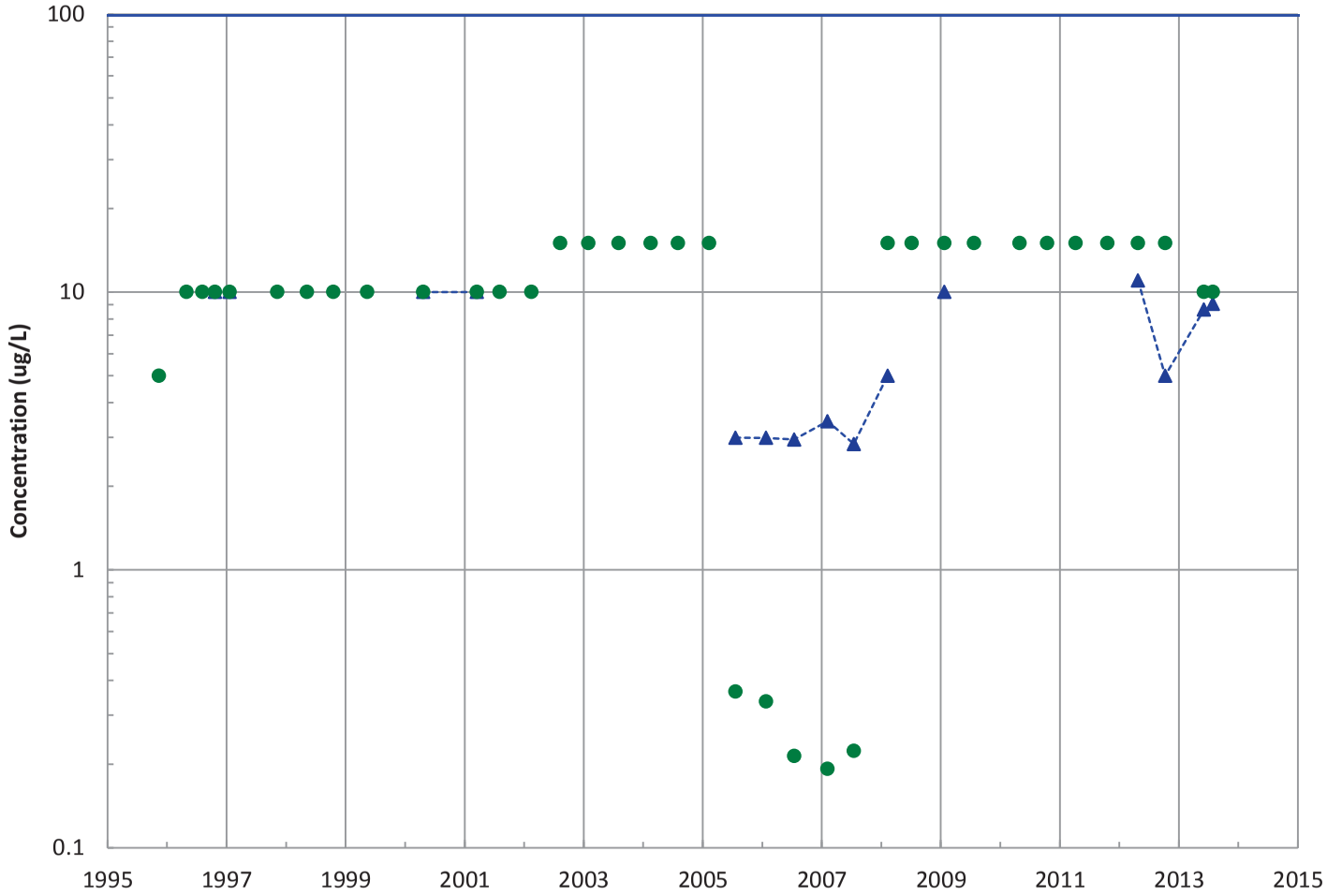
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 11/13/1995 to 8/12/2013

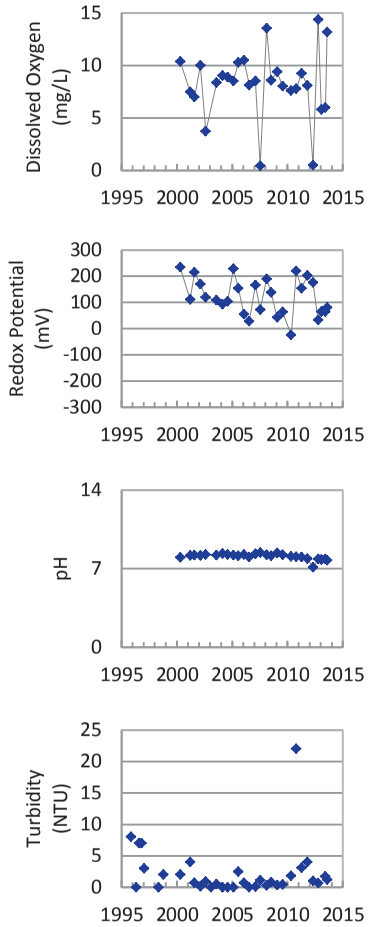
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1015
Chromium, Hexavalent Trend in Perched Aquifer



Field Parameters



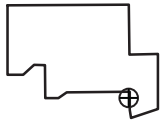
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: No Trend

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

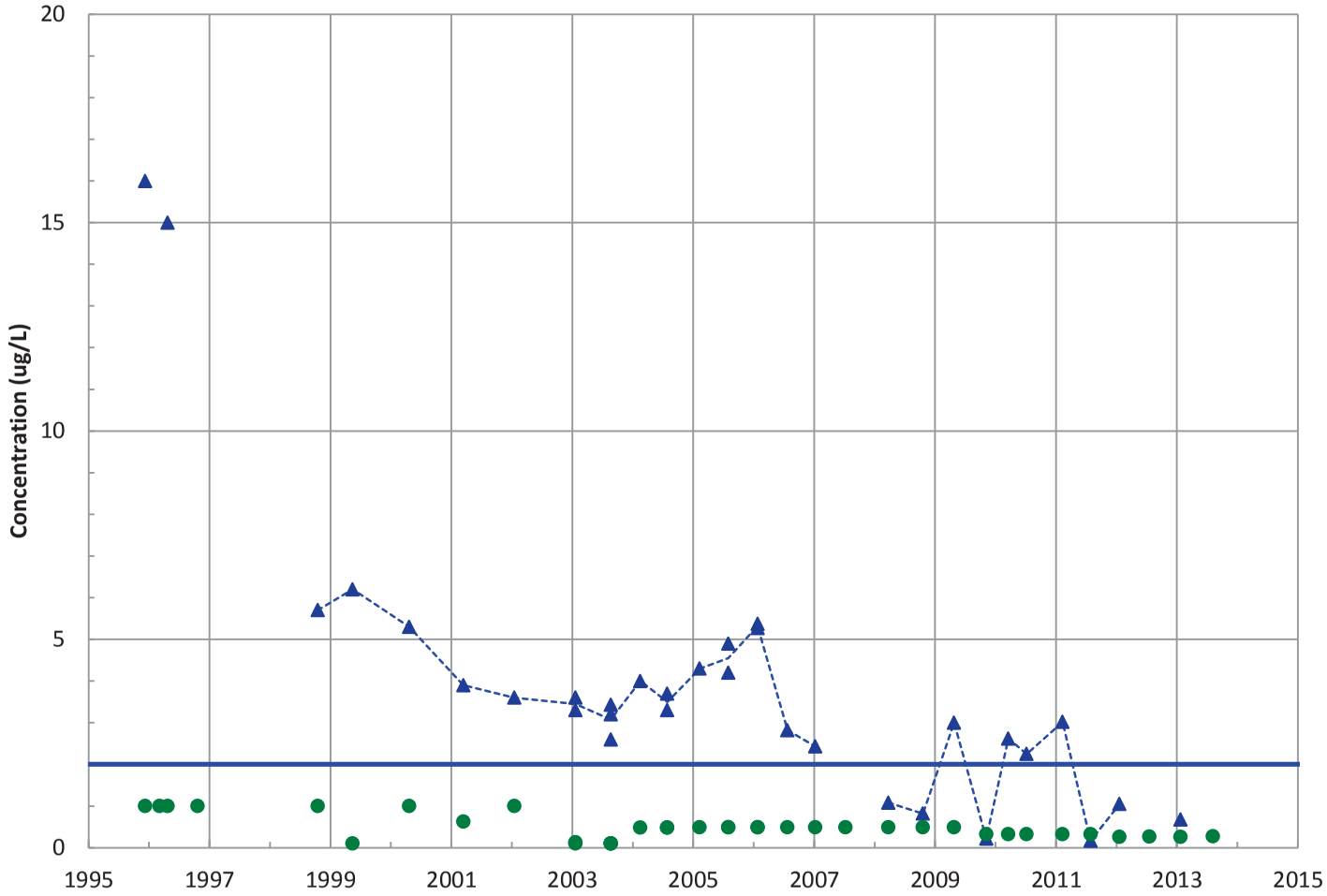
Well Location



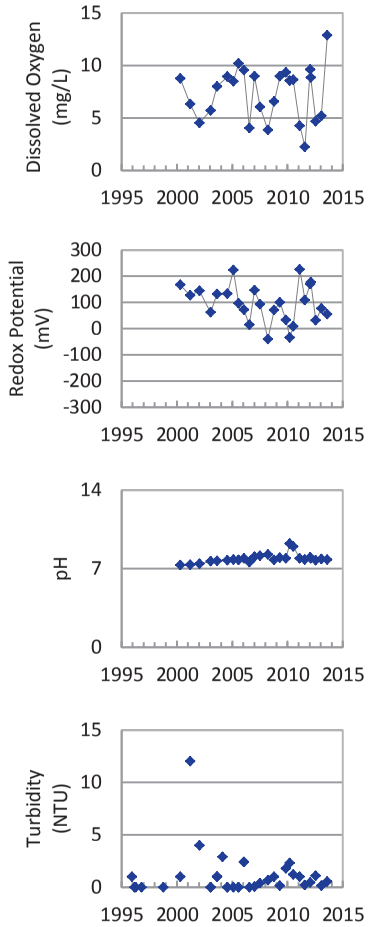
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/13/1995 to 8/12/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1023
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Decreasing

2011 - 2013 Data: N/A (<4 Detections in Dataset)

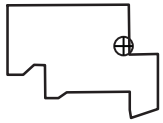
MAROS Linear Regression Method

Data (7/2009 - 12/2013): Stable

2011 - 2013 Data: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

Well Location



Query Date Range: 1/1/1992 to 12/31/2013

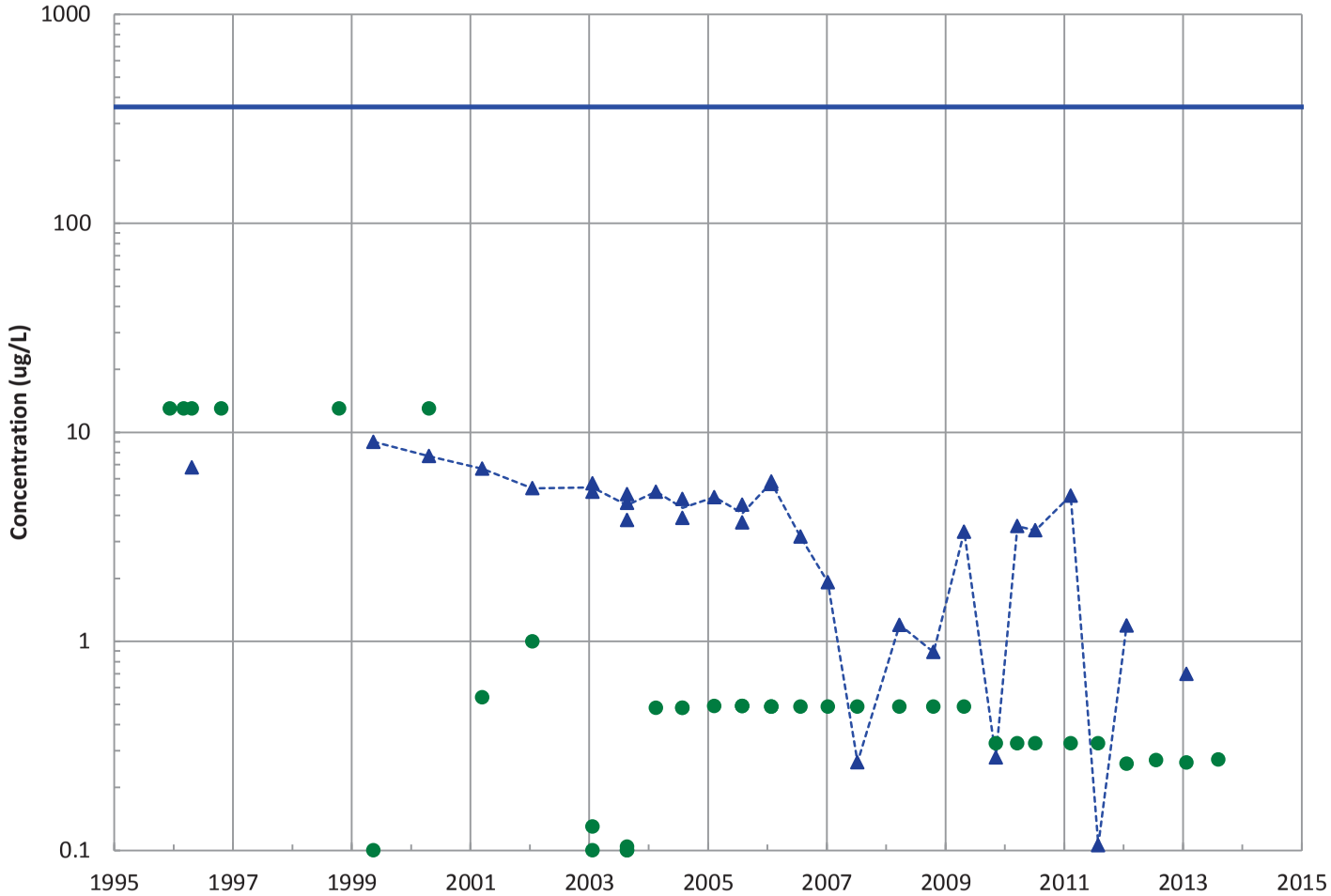
Data Date Range: 12/10/1995 to 8/20/2013

Analysis Date: 3/4/2014

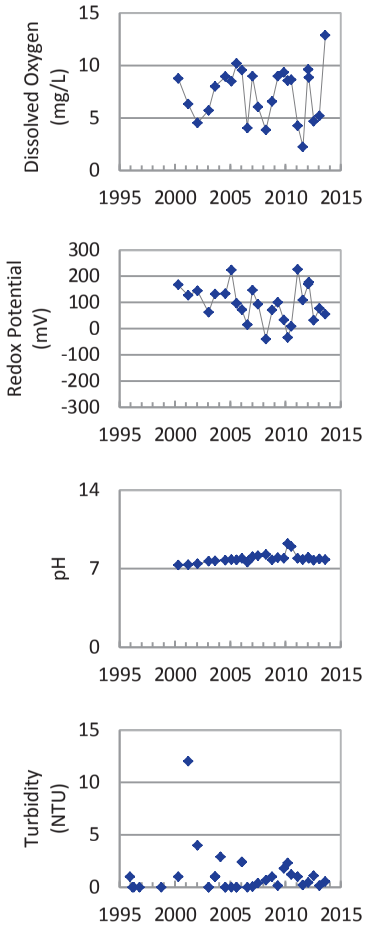
B&W Pantex

PTX06-1023

HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Decreasing

2011 - 2013 Data: N/A (<4 Detections in Dataset)

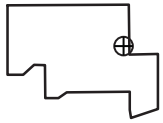
MAROS Linear Regression Method

Data (7/2009 - 12/2013): Stable

2011 - 2013 Data: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

Well Location



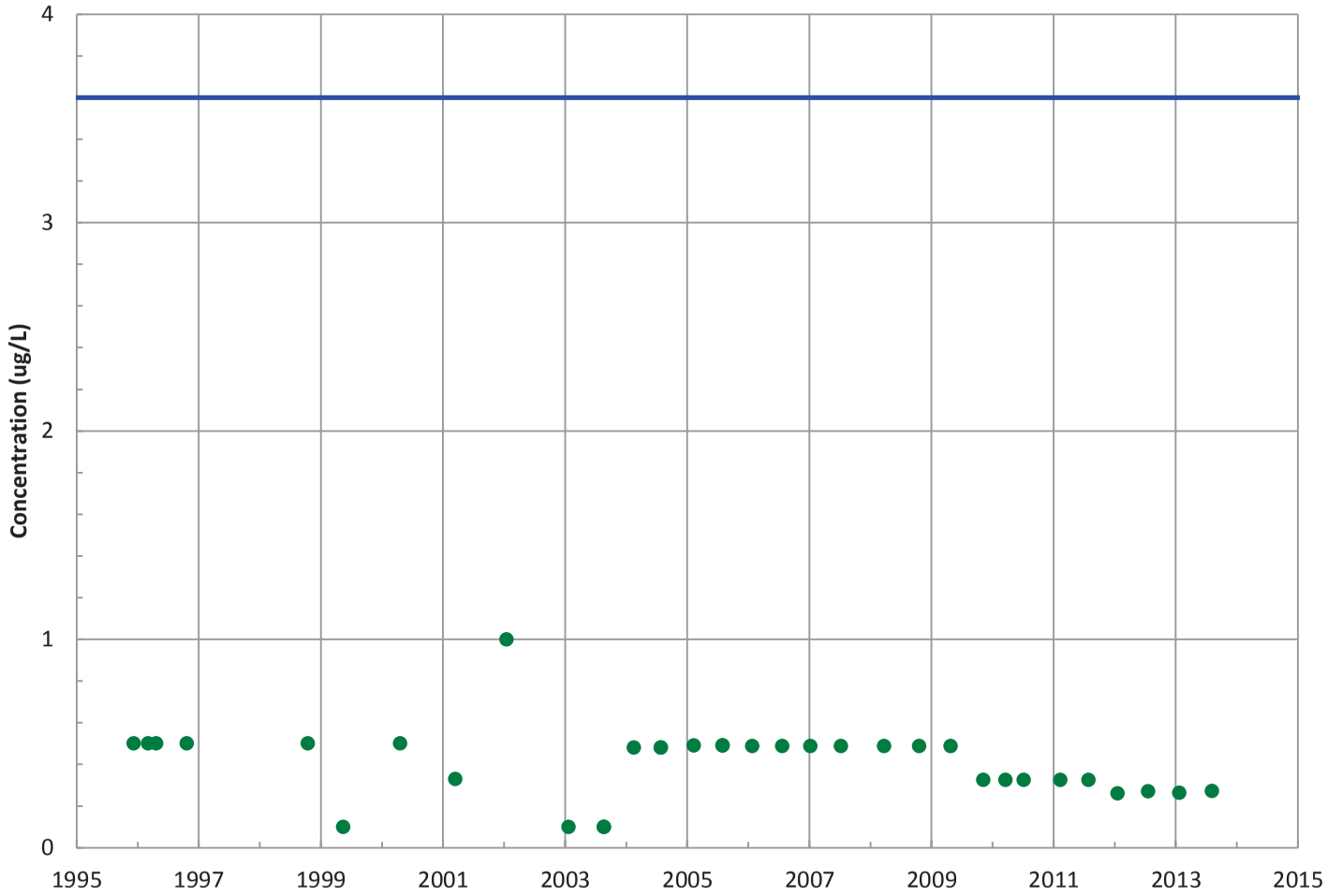
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 12/10/1995 to 8/20/2013

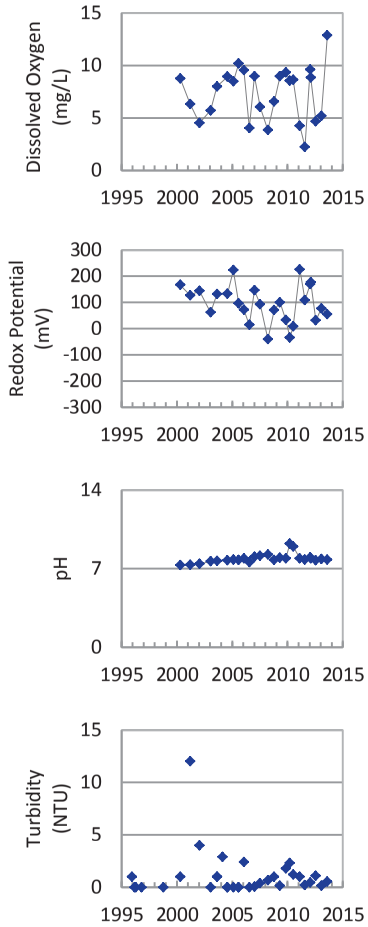
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1023
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



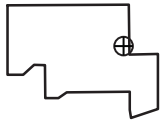
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

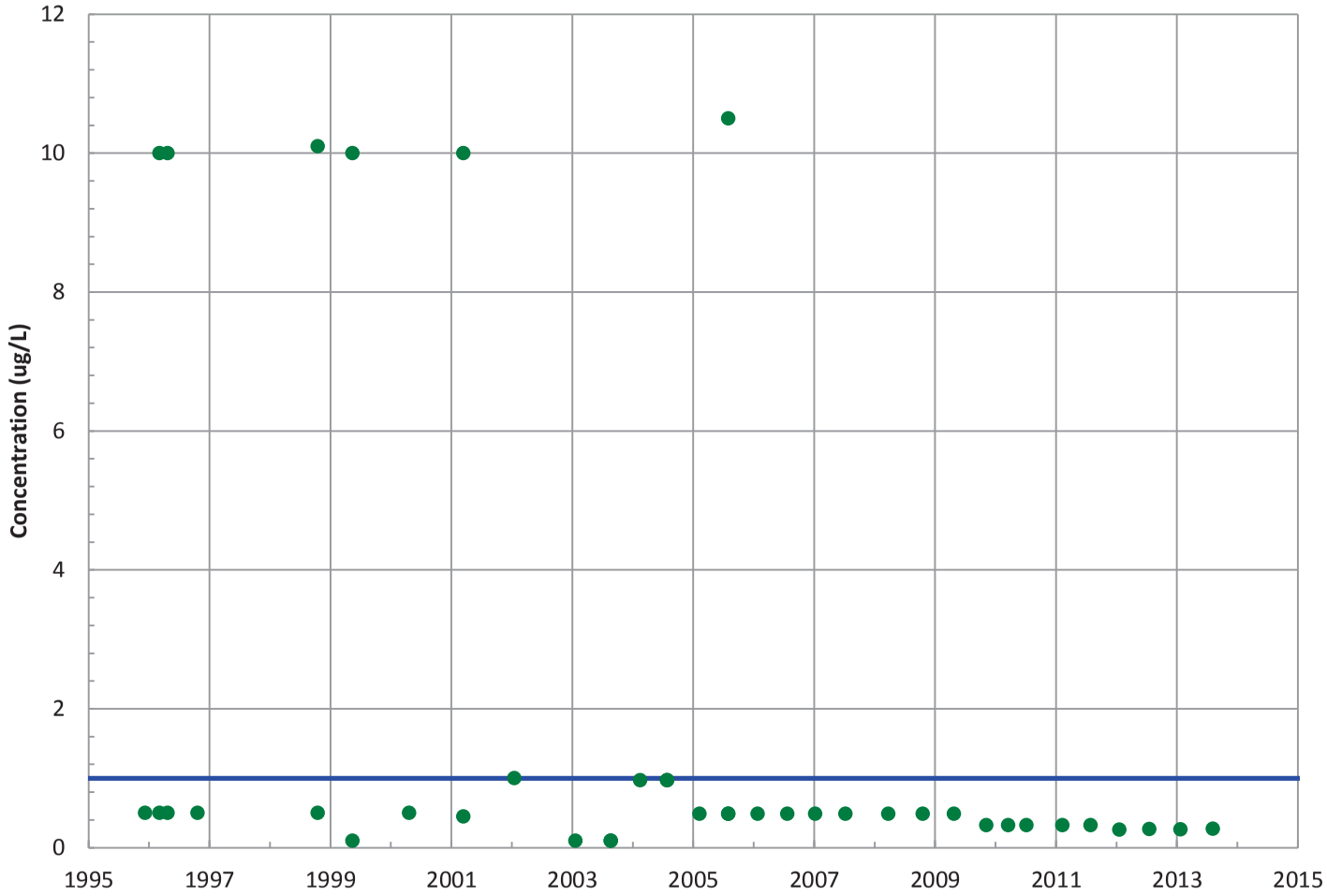
Well Location



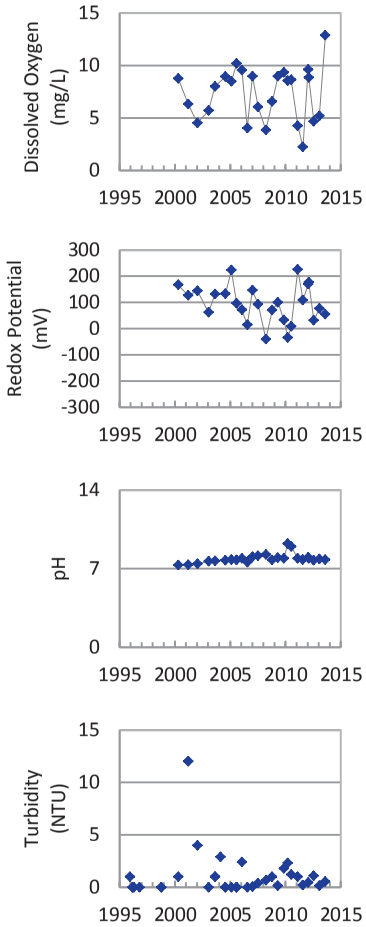
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/10/1995 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1023
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



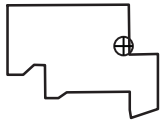
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

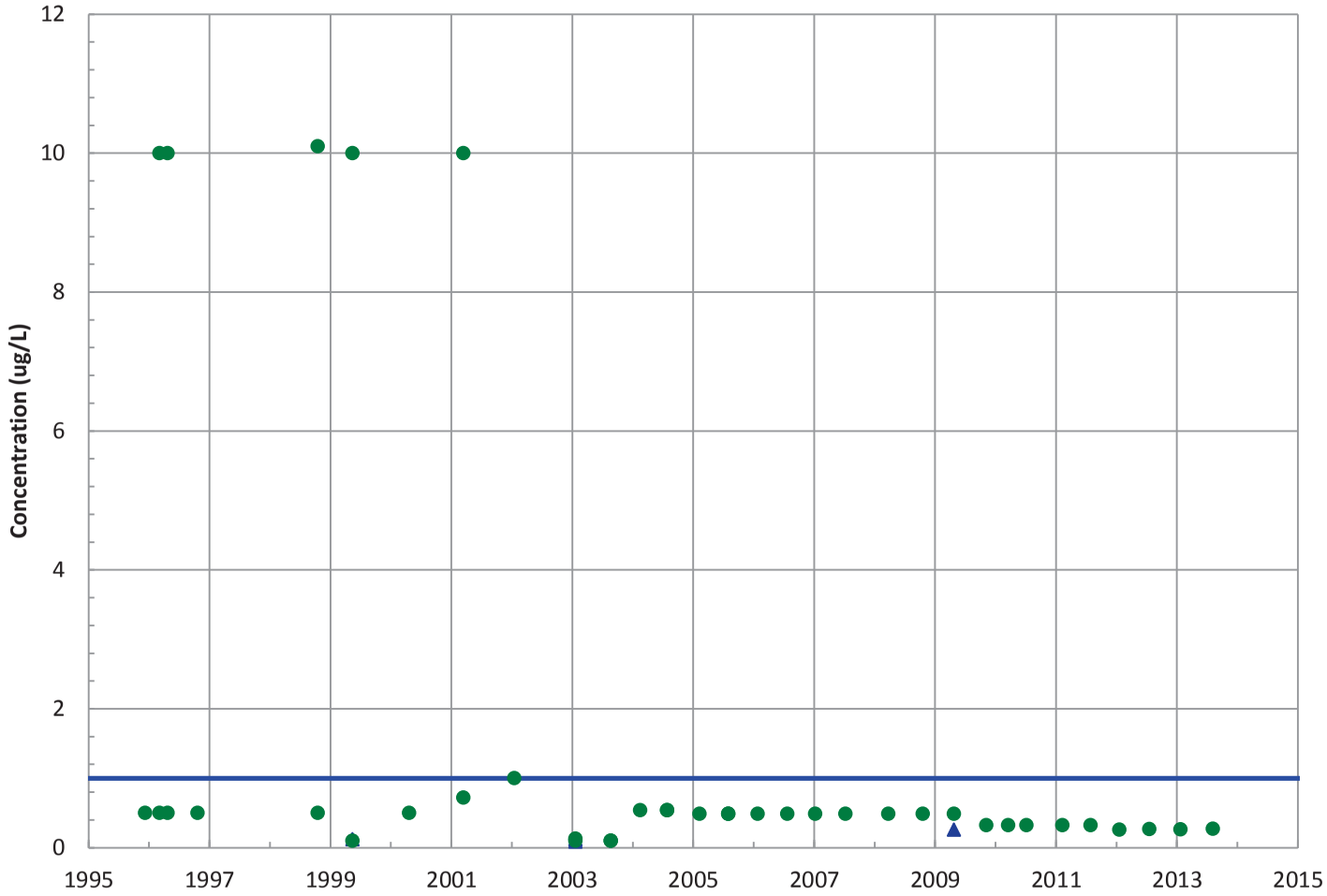
Well Location



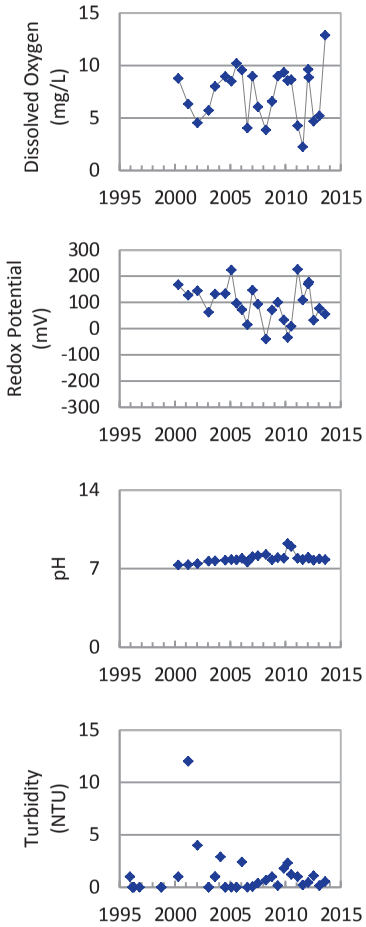
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/10/1995 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1023
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



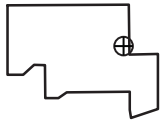
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

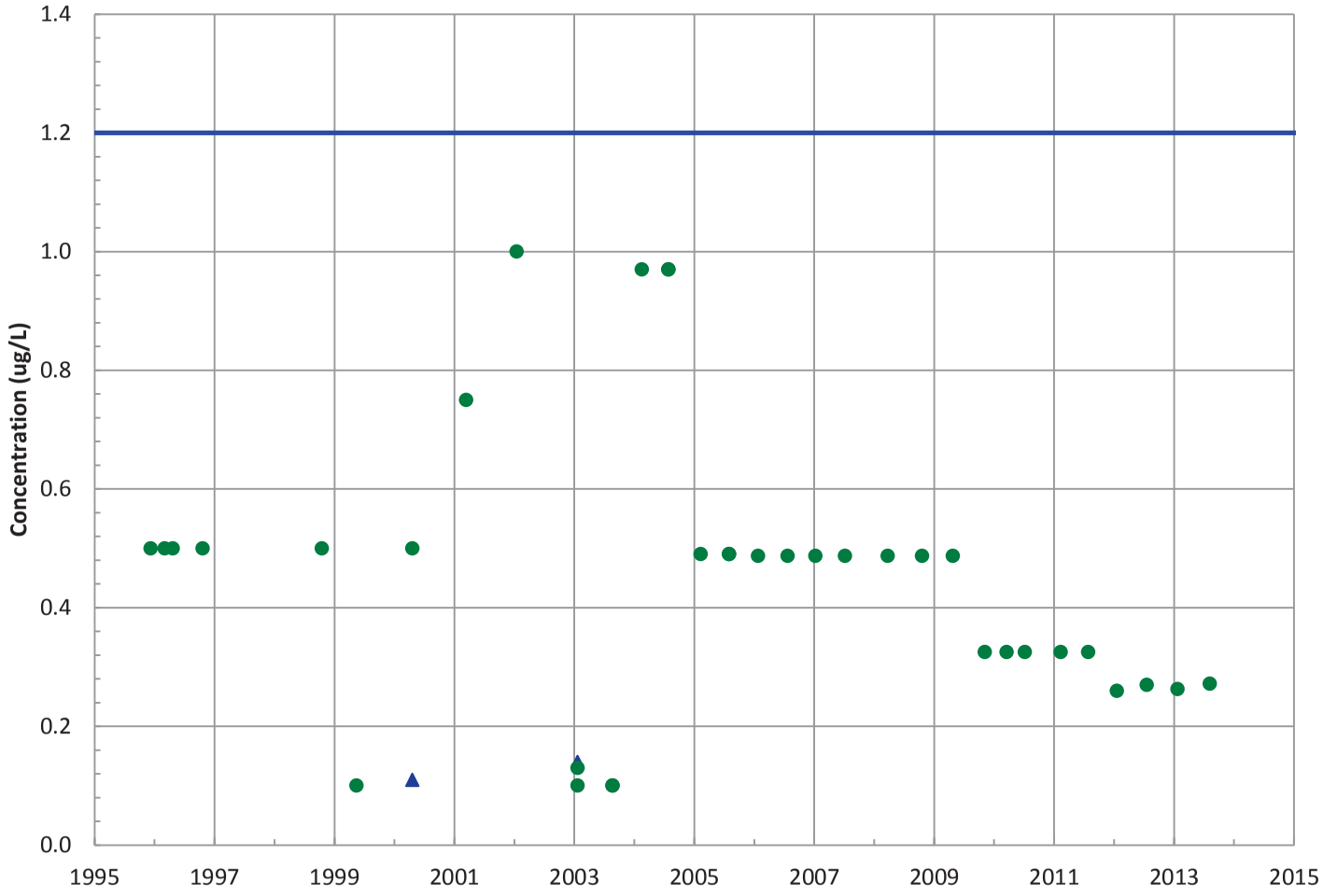
Well Location



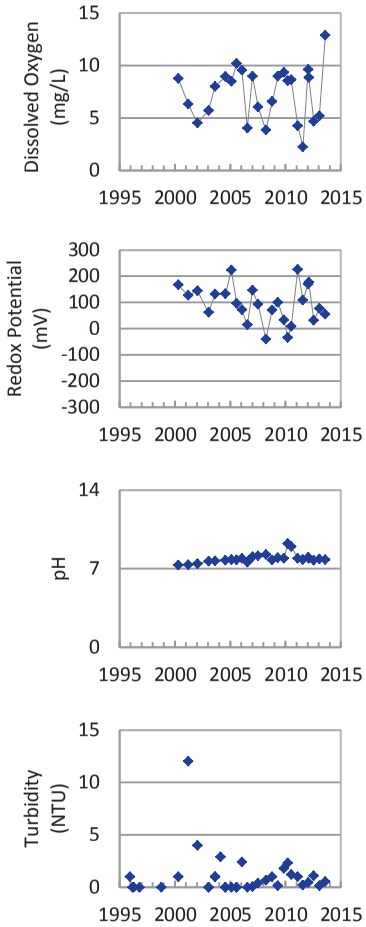
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/10/1995 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1023
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



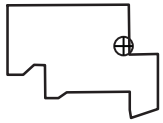
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

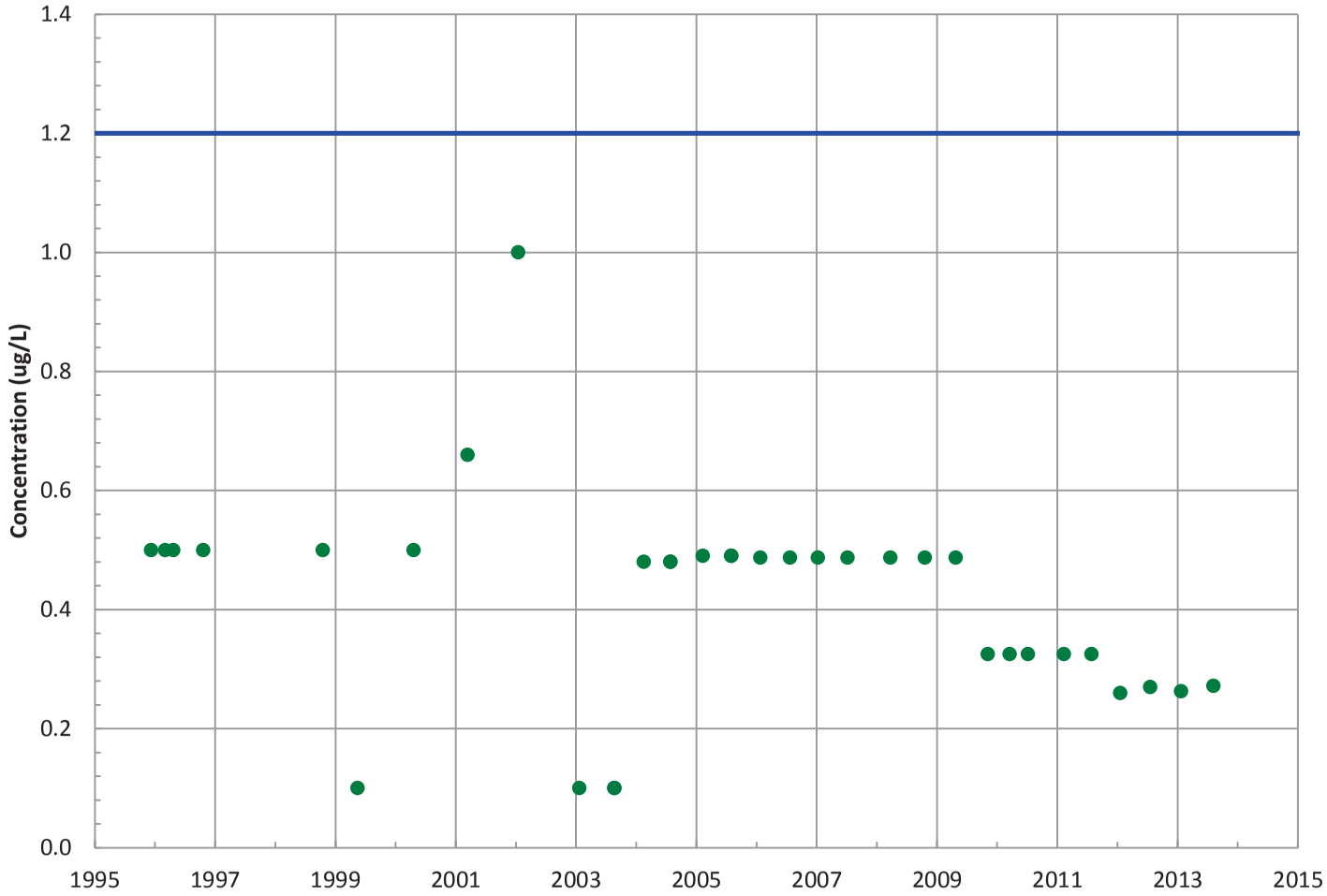
Well Location



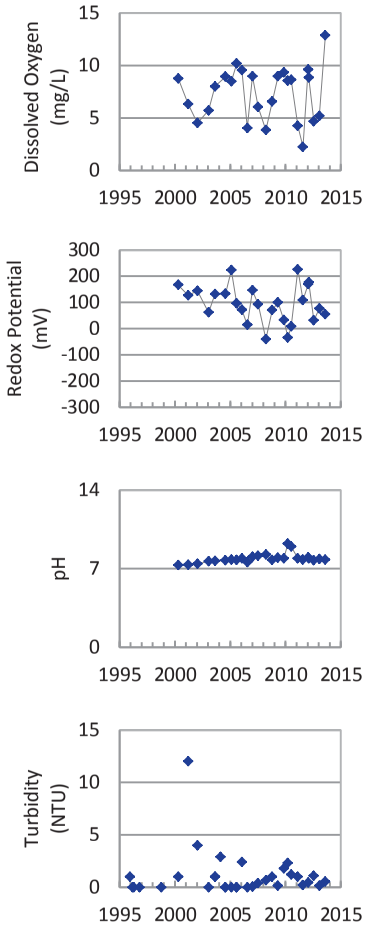
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/10/1995 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1023
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



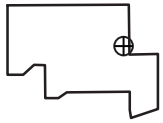
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

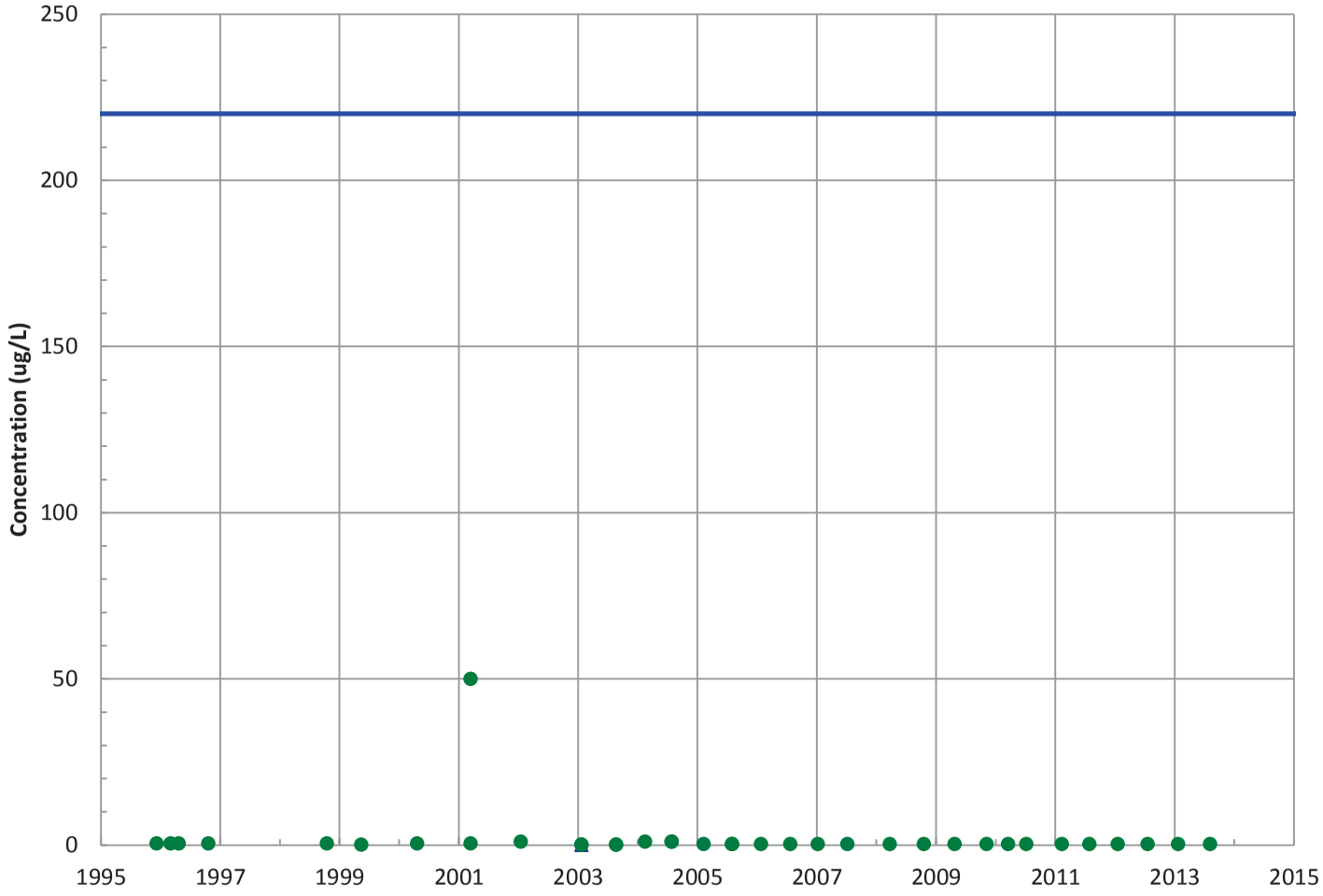
Well Location



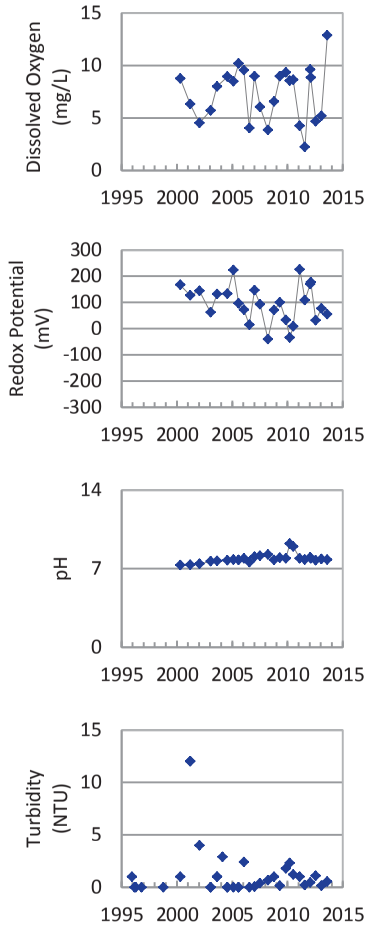
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/10/1995 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1023
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



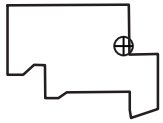
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

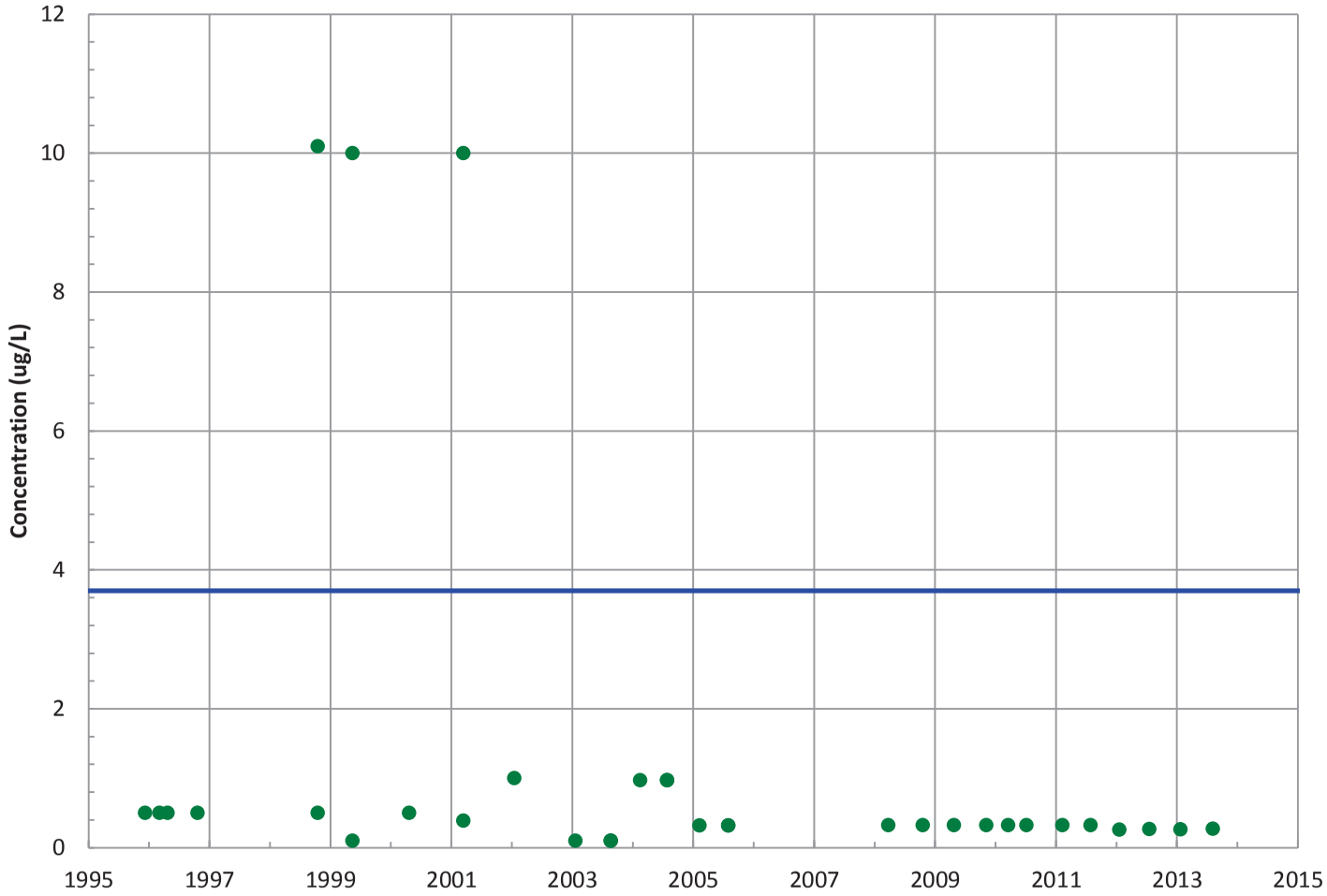
Well Location



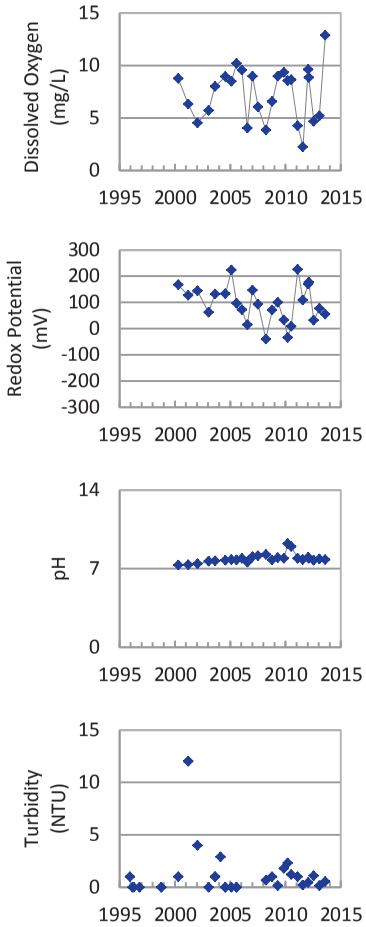
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/10/1995 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1023
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



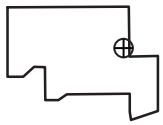
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

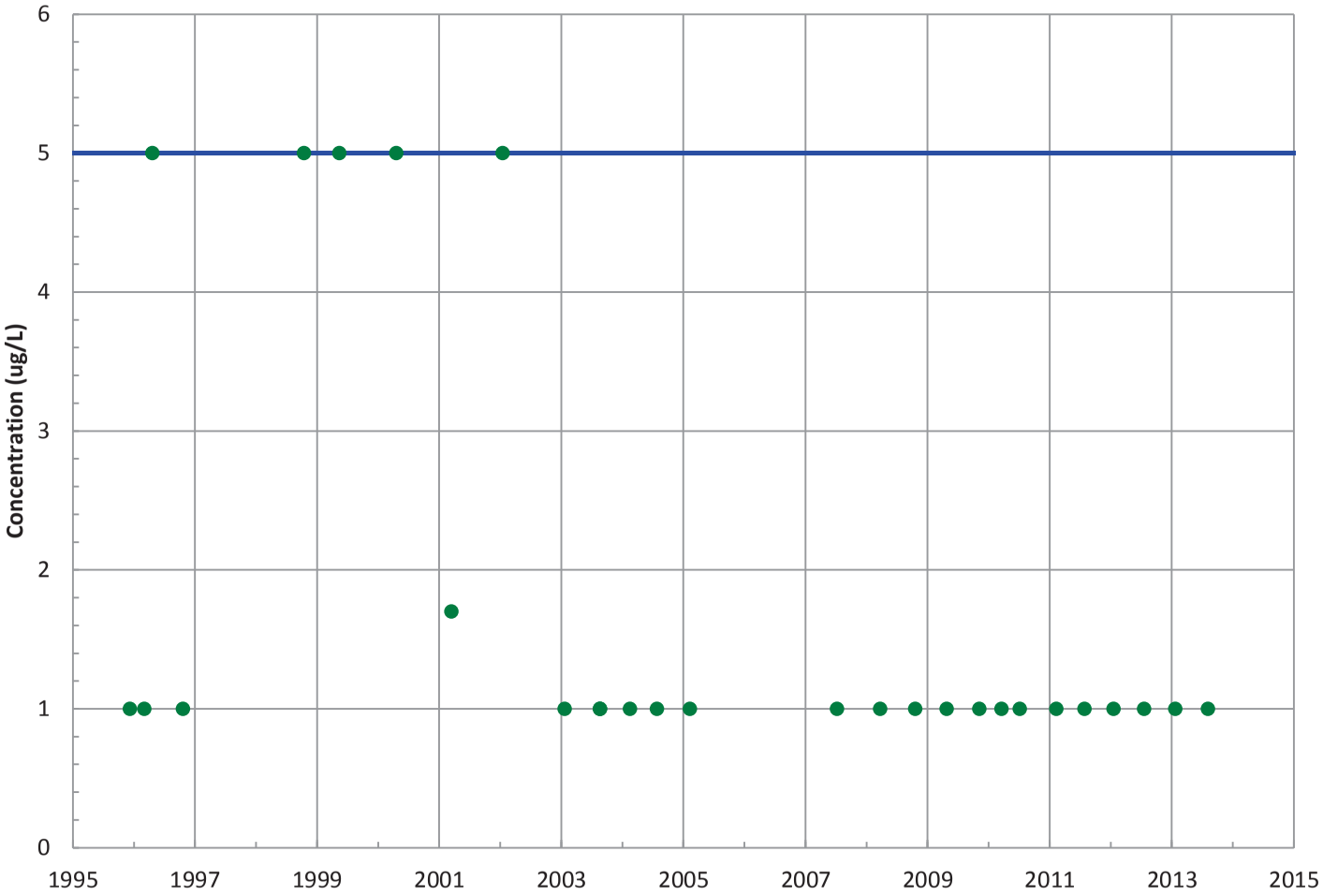
Well Location



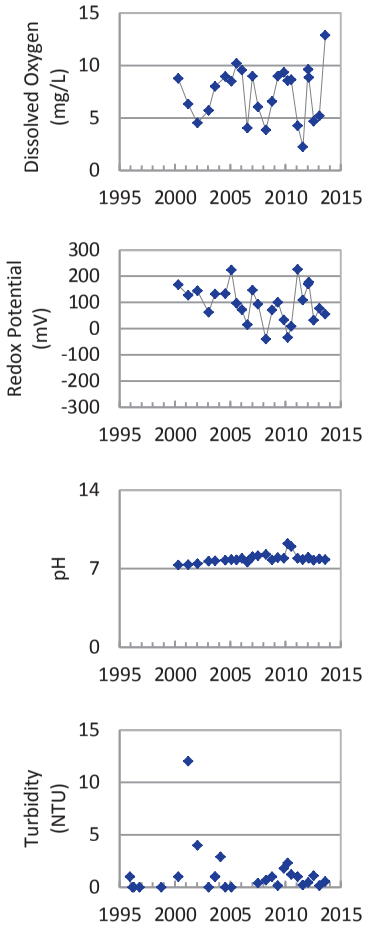
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/10/1995 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1023
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



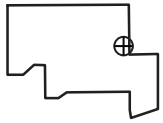
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

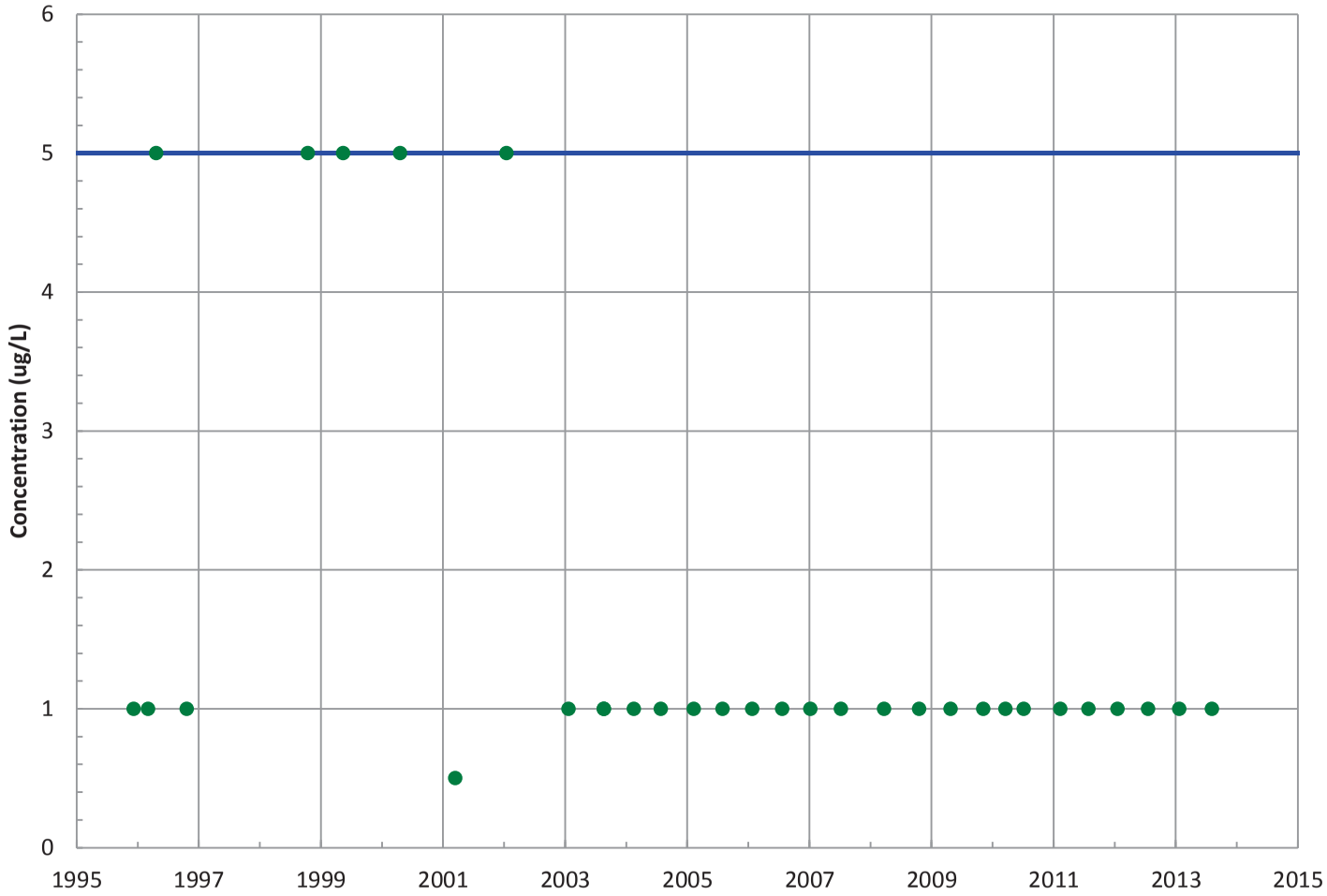
Well Location



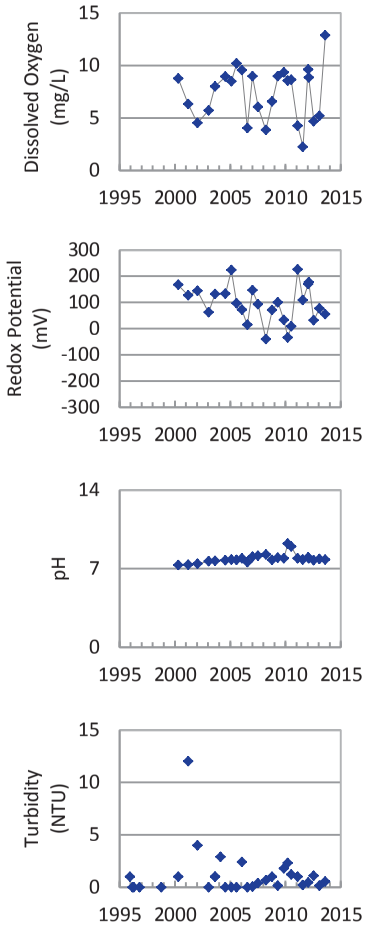
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/10/1995 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1023
Trichloroethene Trend in Perched Aquifer



Field Parameters



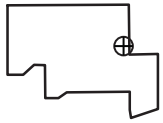
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

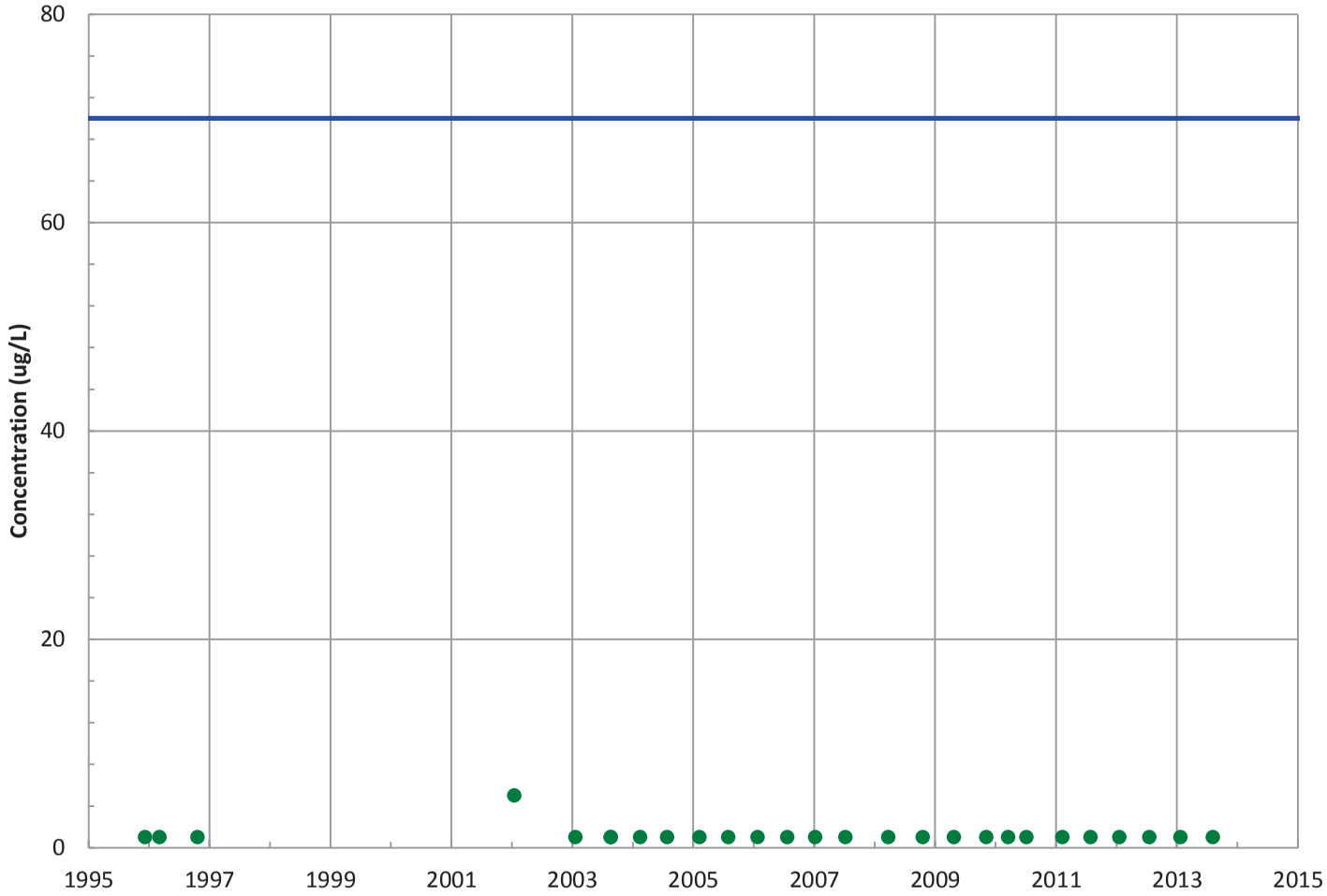
Well Location



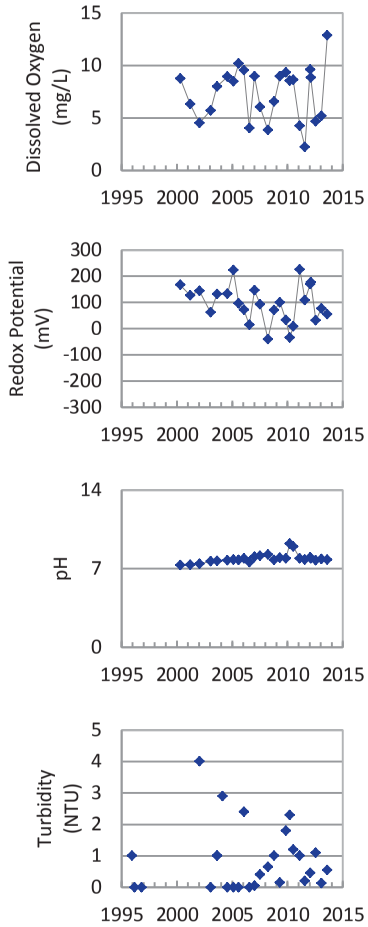
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/10/1995 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1023
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



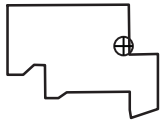
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

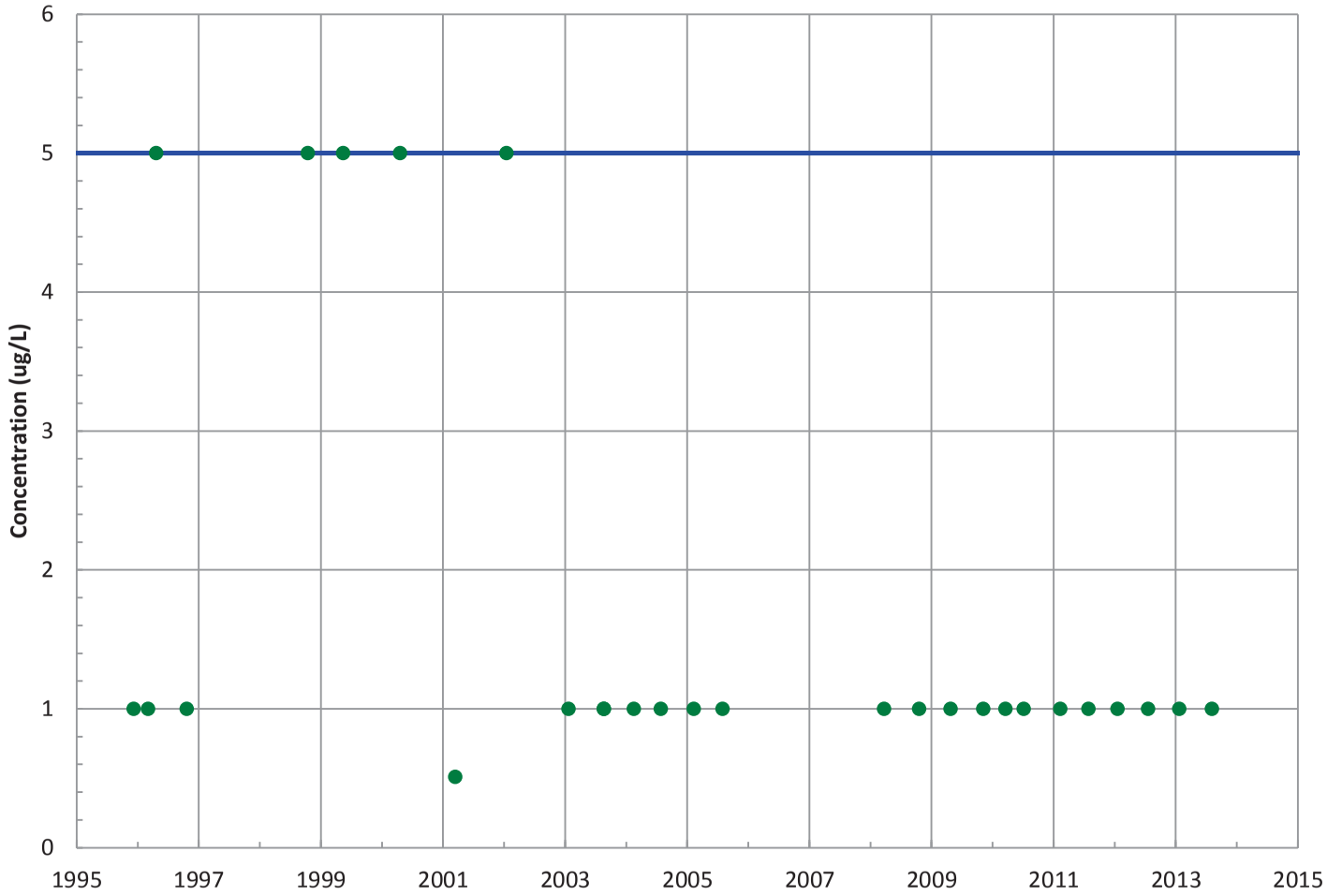
Well Location



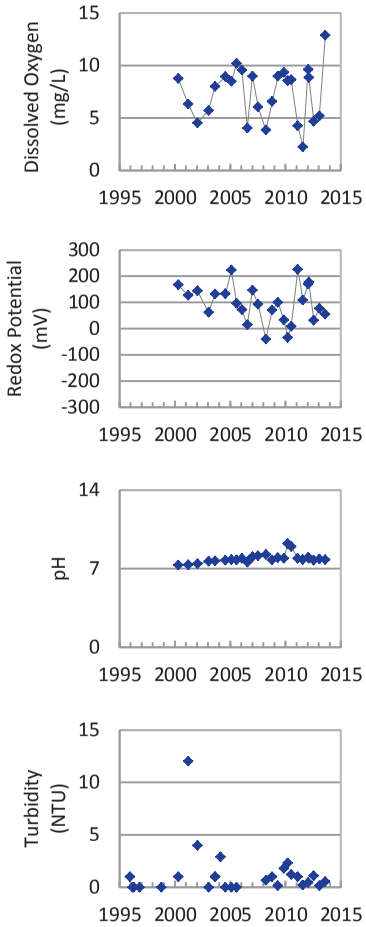
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/10/1995 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1023
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



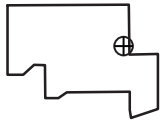
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

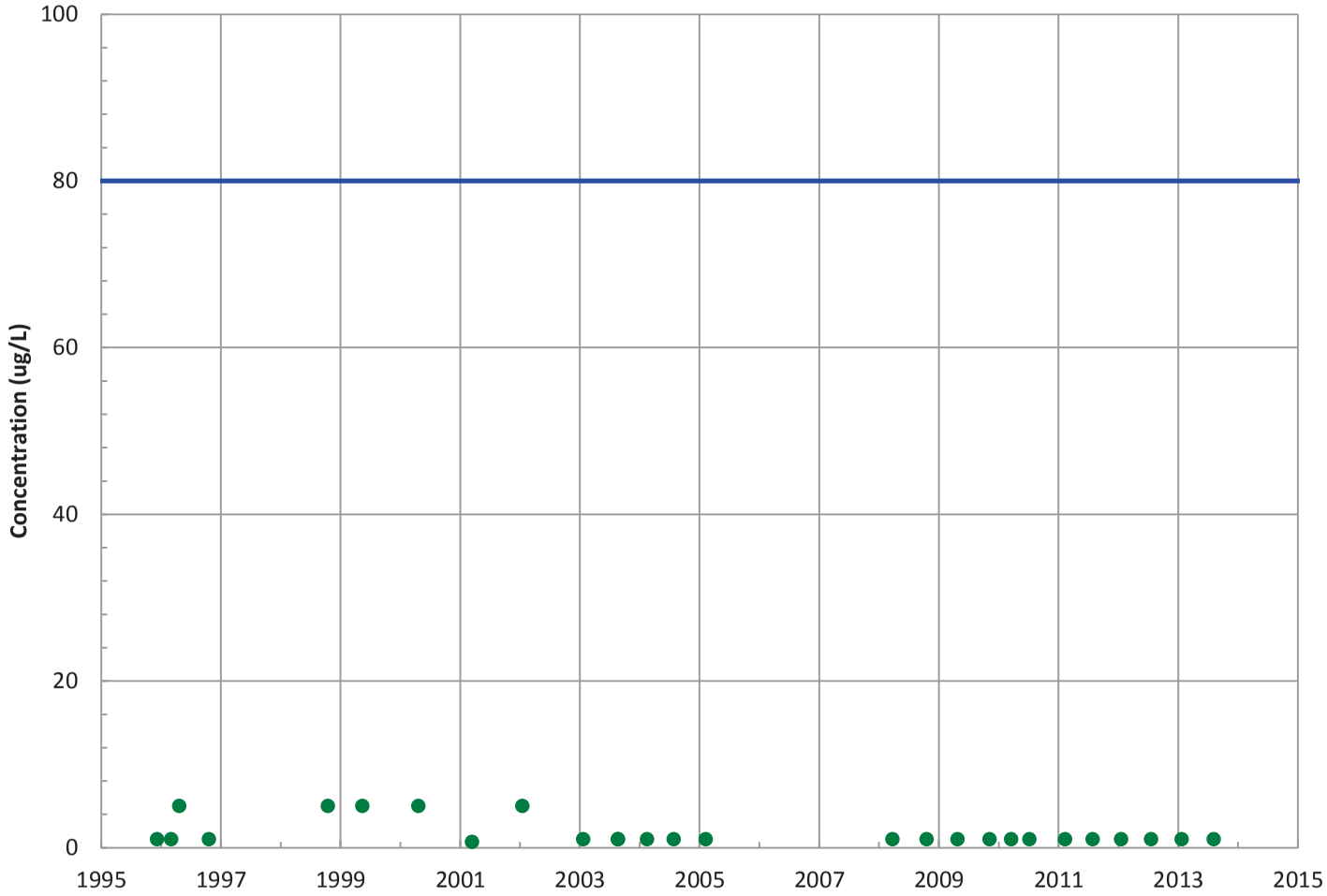
Well Location



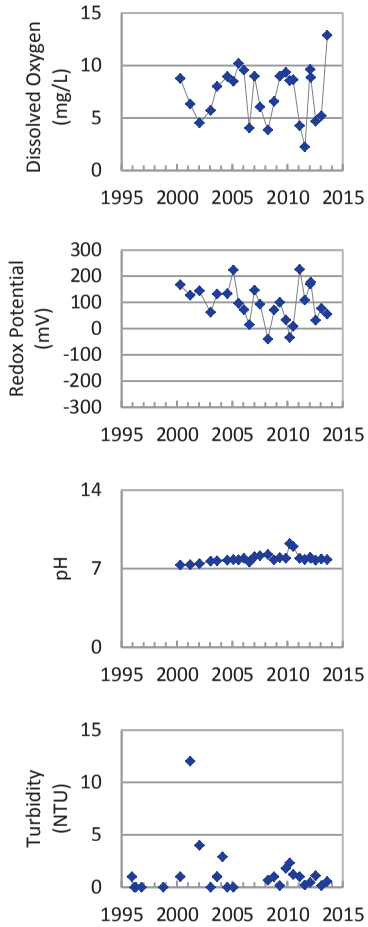
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/10/1995 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1023
Chloroform Trend in Perched Aquifer



Field Parameters



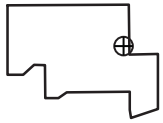
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

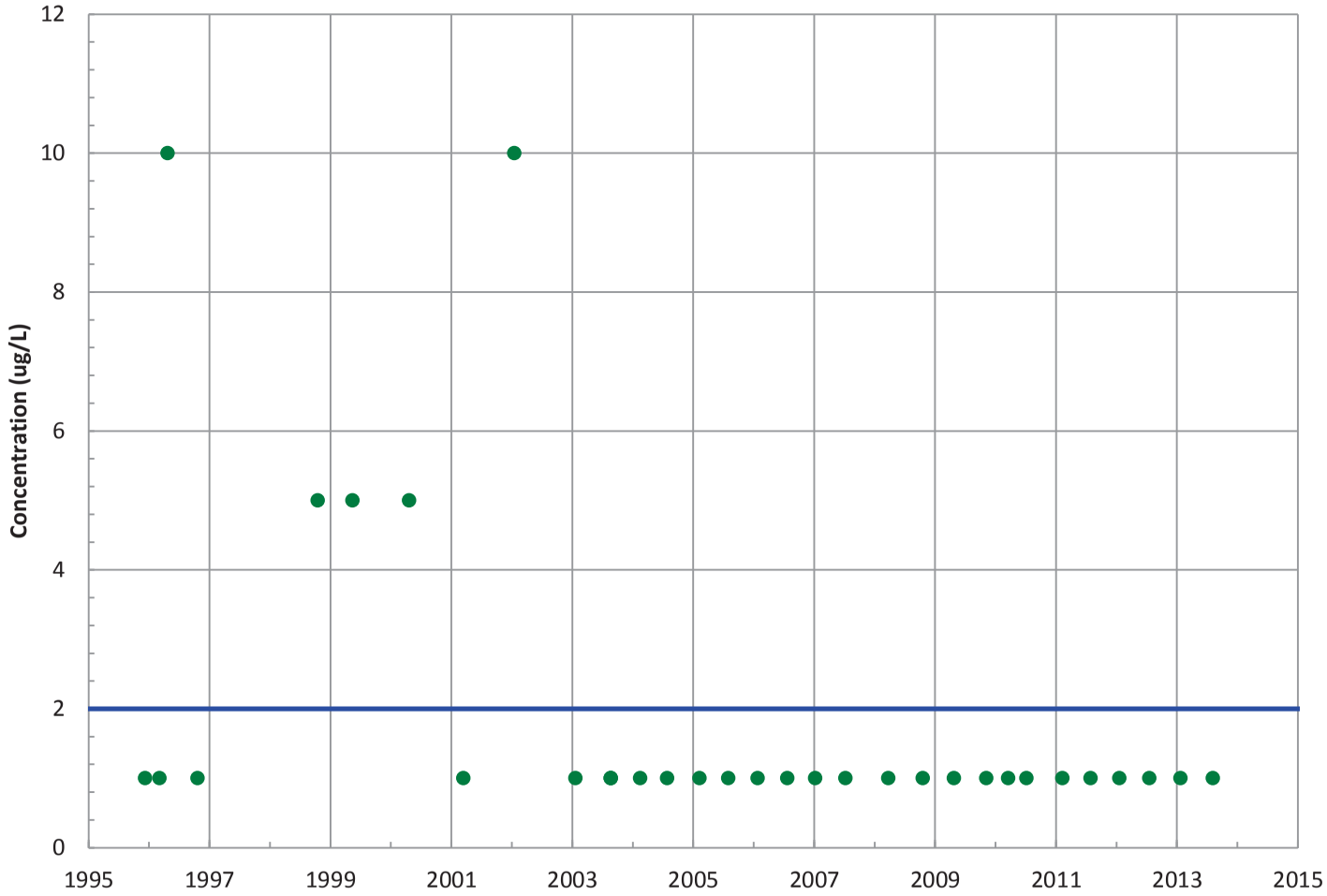
Well Location



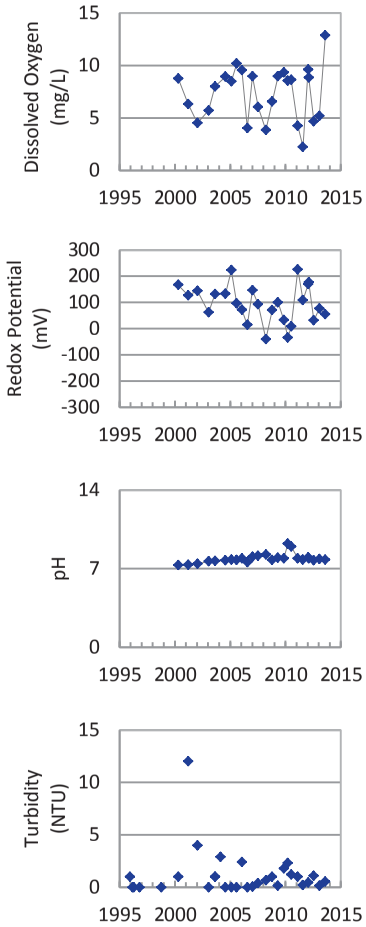
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/10/1995 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1023
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



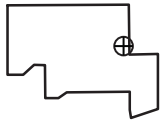
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

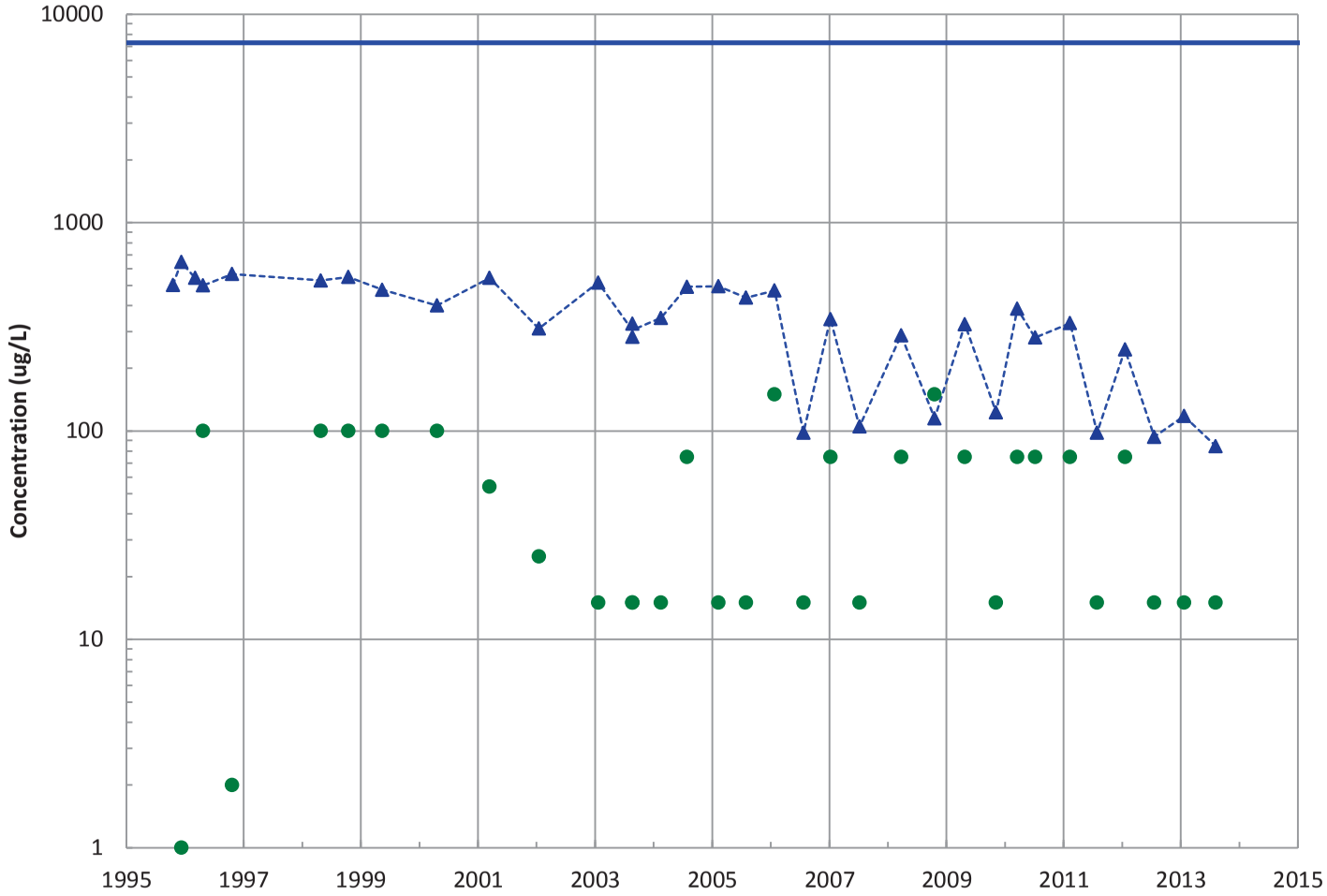
Well Location



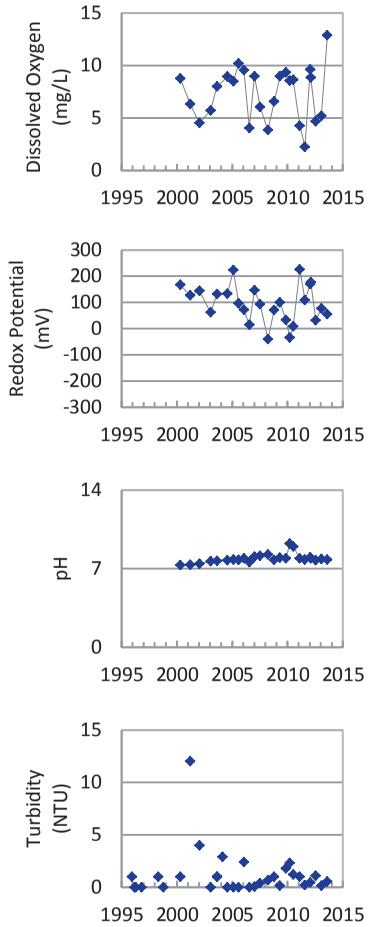
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/10/1995 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1023
Boron Trend in Perched Aquifer



Field Parameters



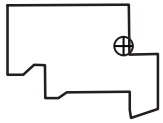
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

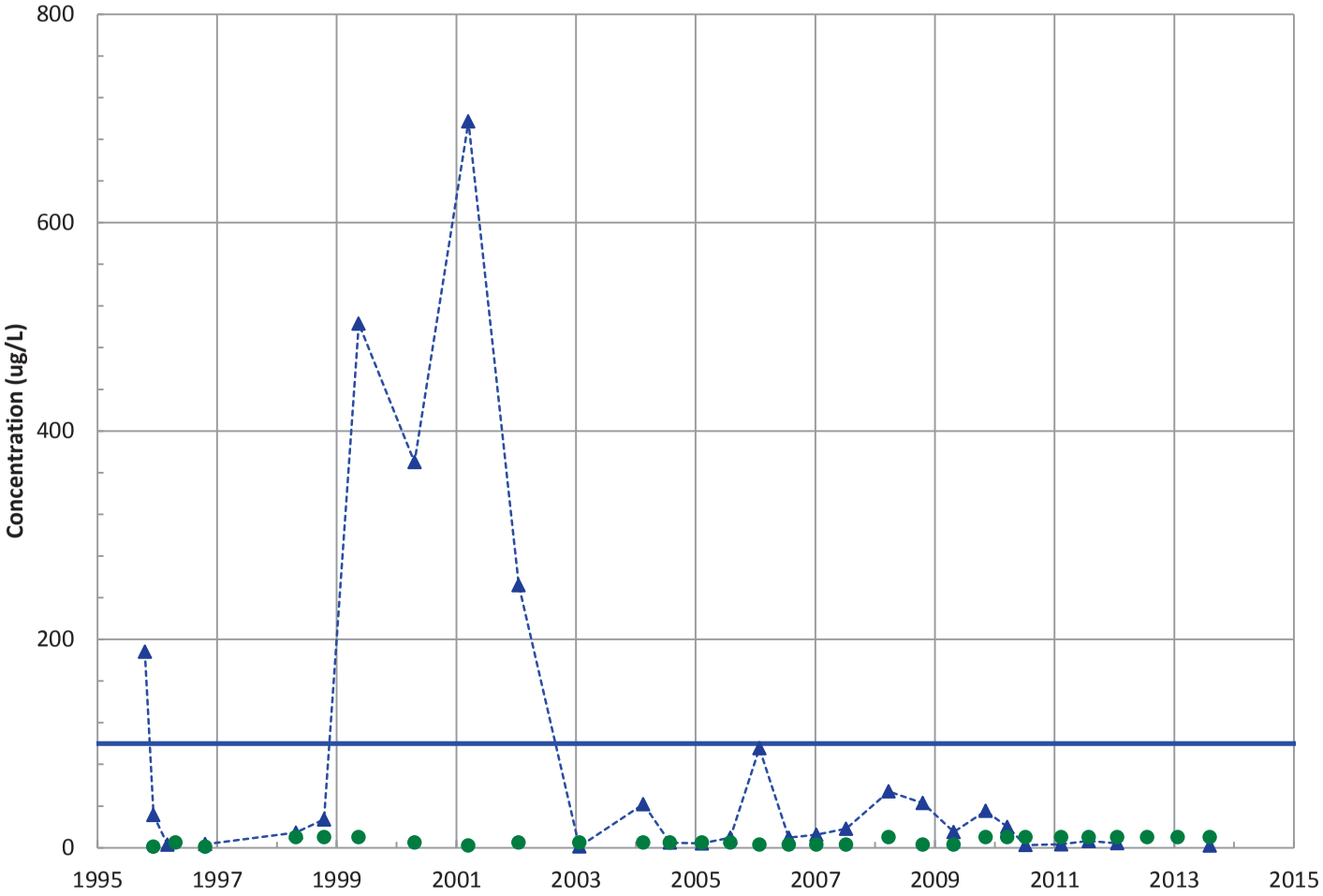
Well Location



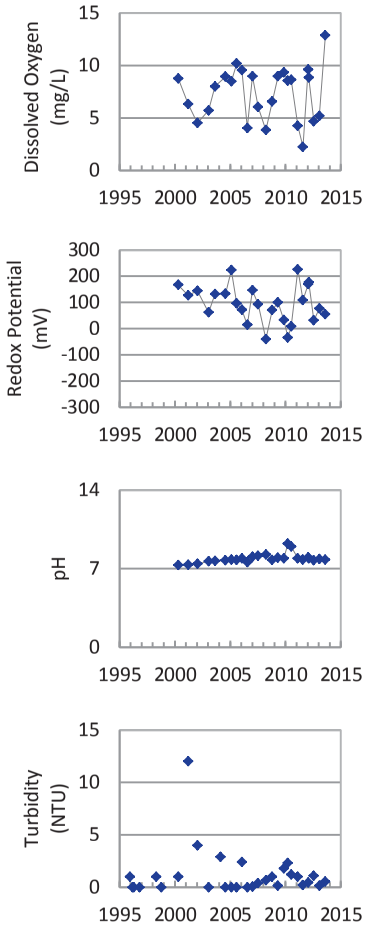
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/18/1995 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1023
Chromium, Total Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Decreasing

2011 - 2013 Data: N/A (<4 Detections in Dataset)

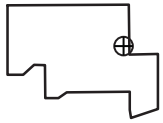
MAROS Linear Regression Method

Data (7/2009 - 12/2013): Decreasing

2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------ Concentration Trend
- ——— Groundwater Protection Standard

Well Location



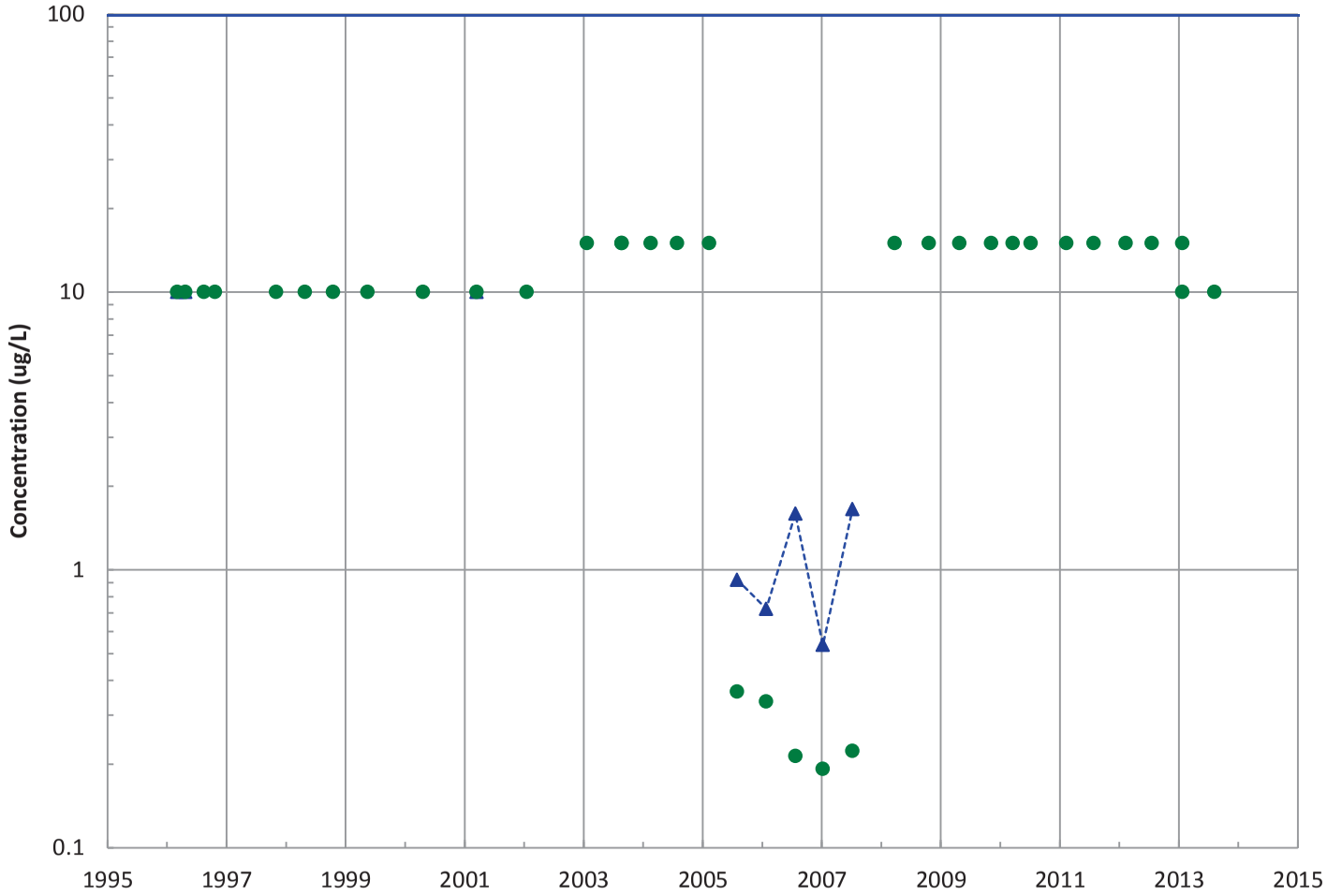
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 10/18/1995 to 8/20/2013

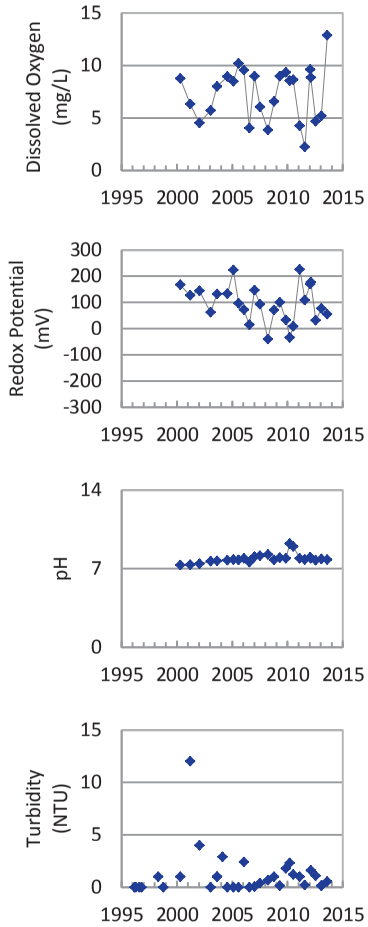
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1023
Chromium, Hexavalent Trend in Perched Aquifer



Field Parameters



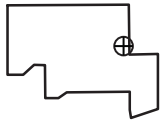
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

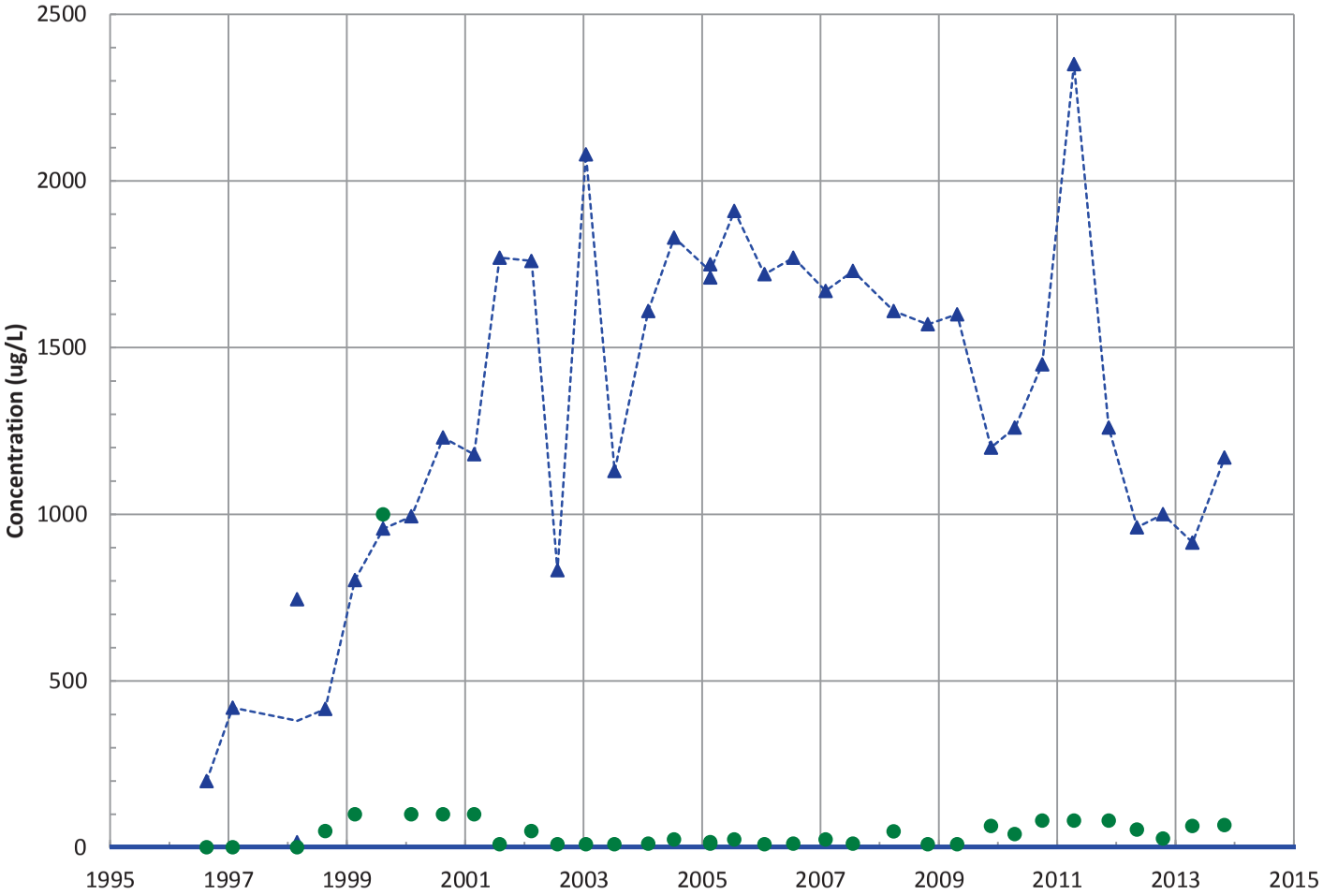
Well Location



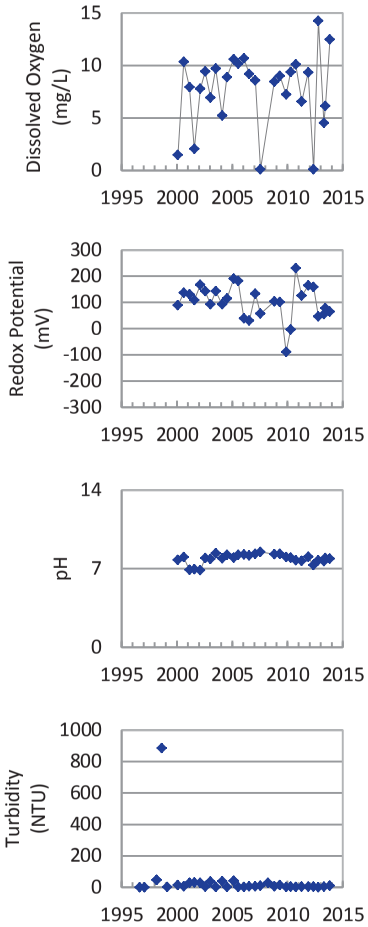
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/5/1996 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1030
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



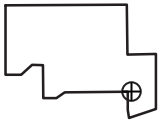
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: No Trend

Measured Value
Sample Detection Limit
Concentration Trend
Groundwater Protection Standard

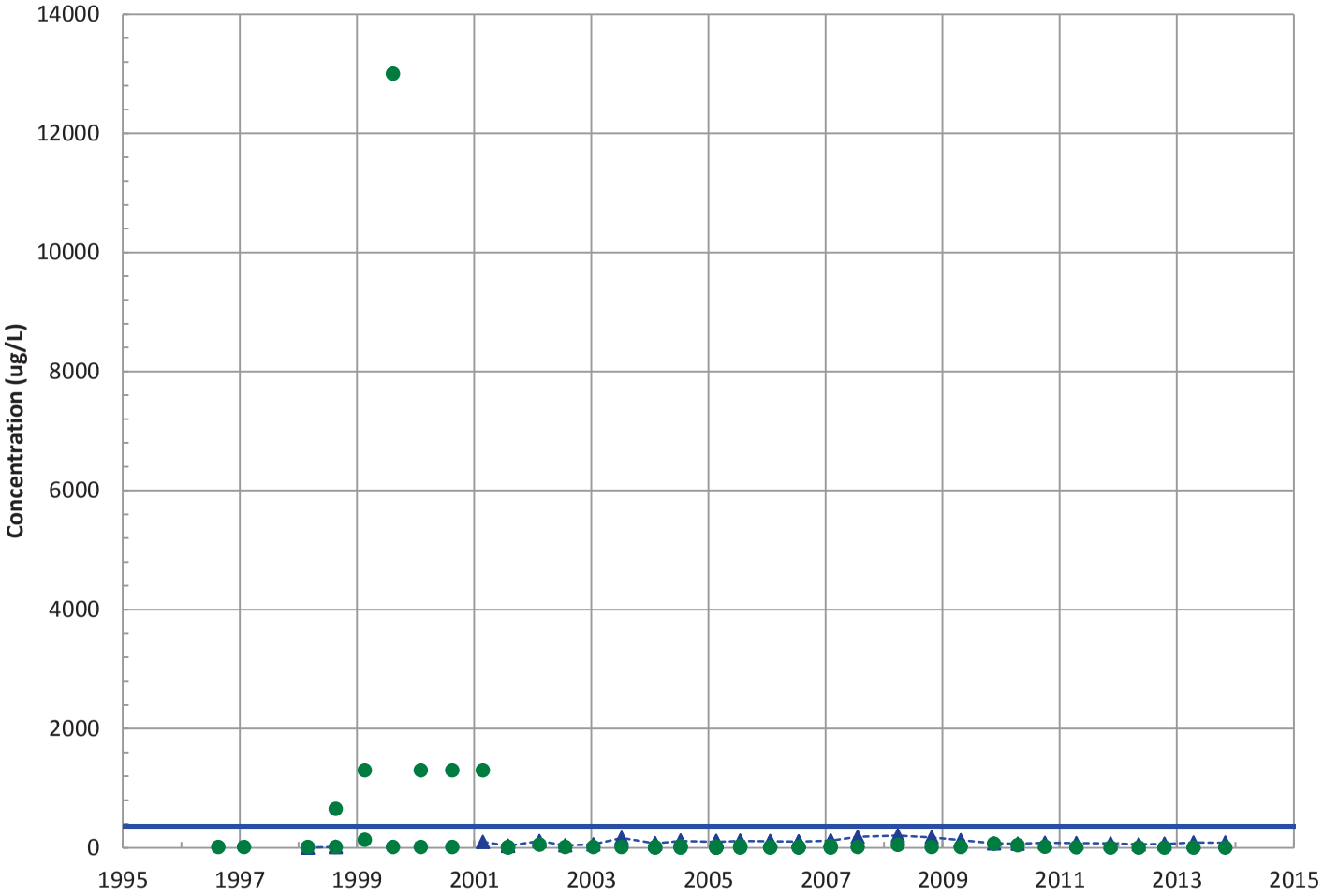
Well Location



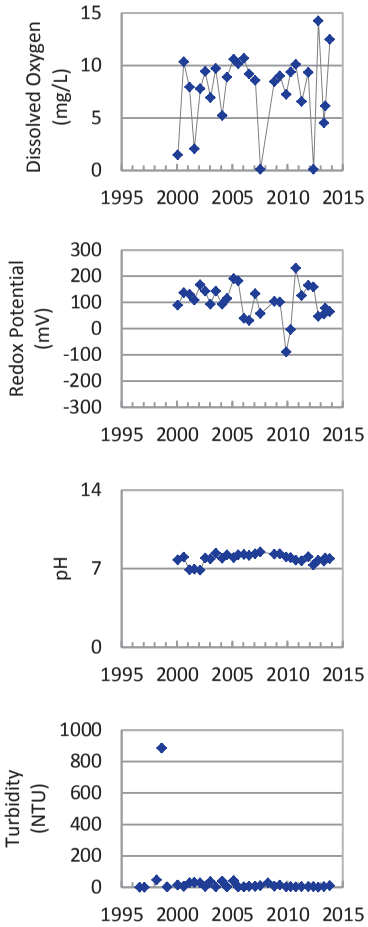
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/20/1996 to 11/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1030
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



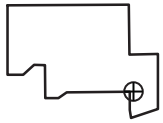
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Increasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

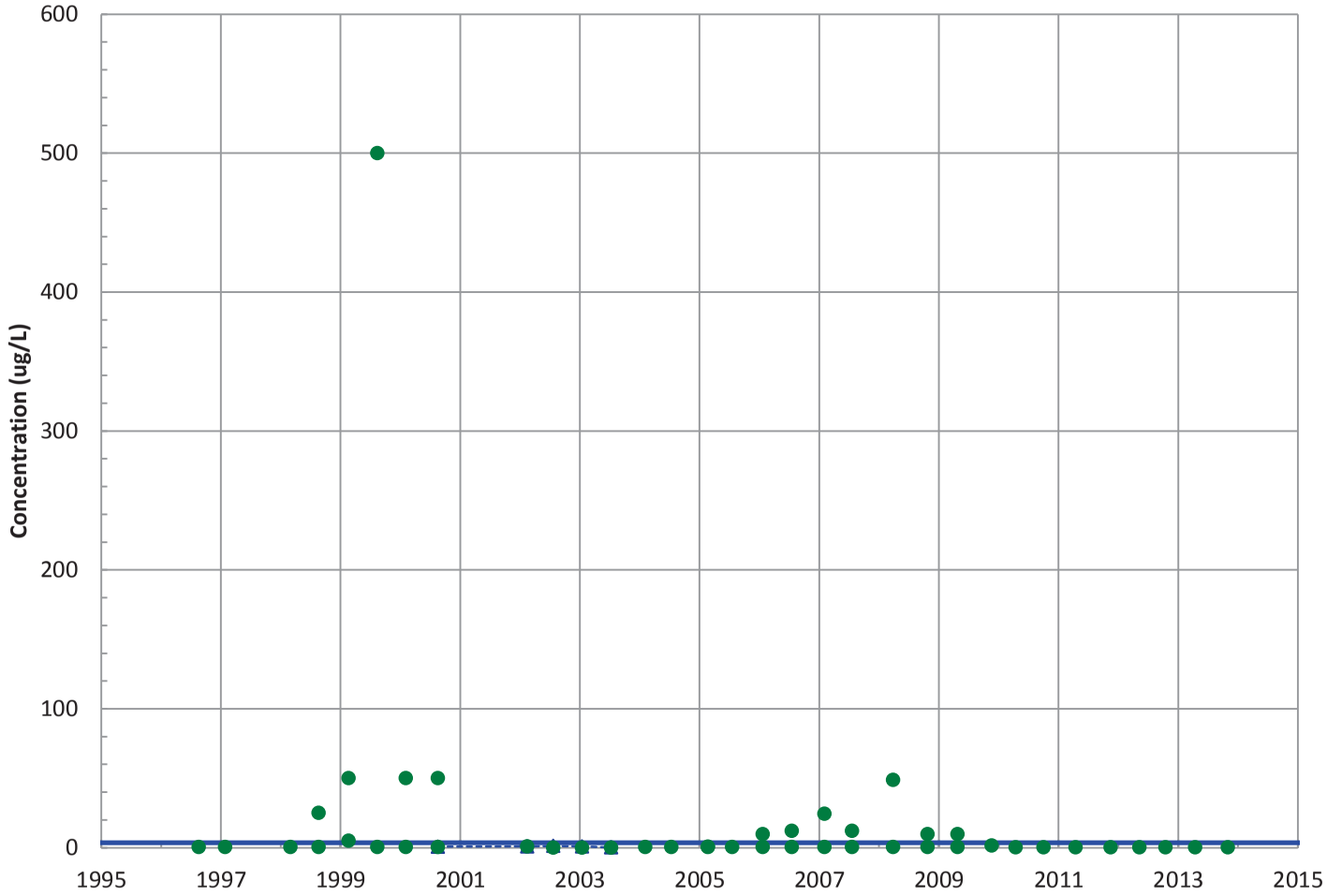
Well Location



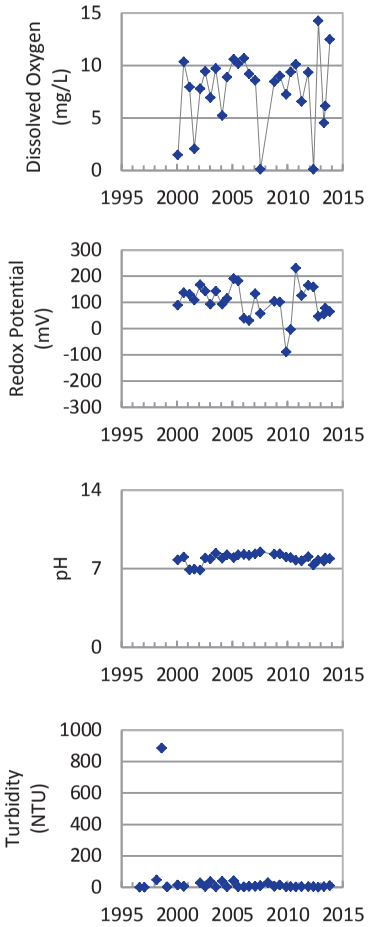
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/20/1996 to 11/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1030
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



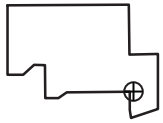
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

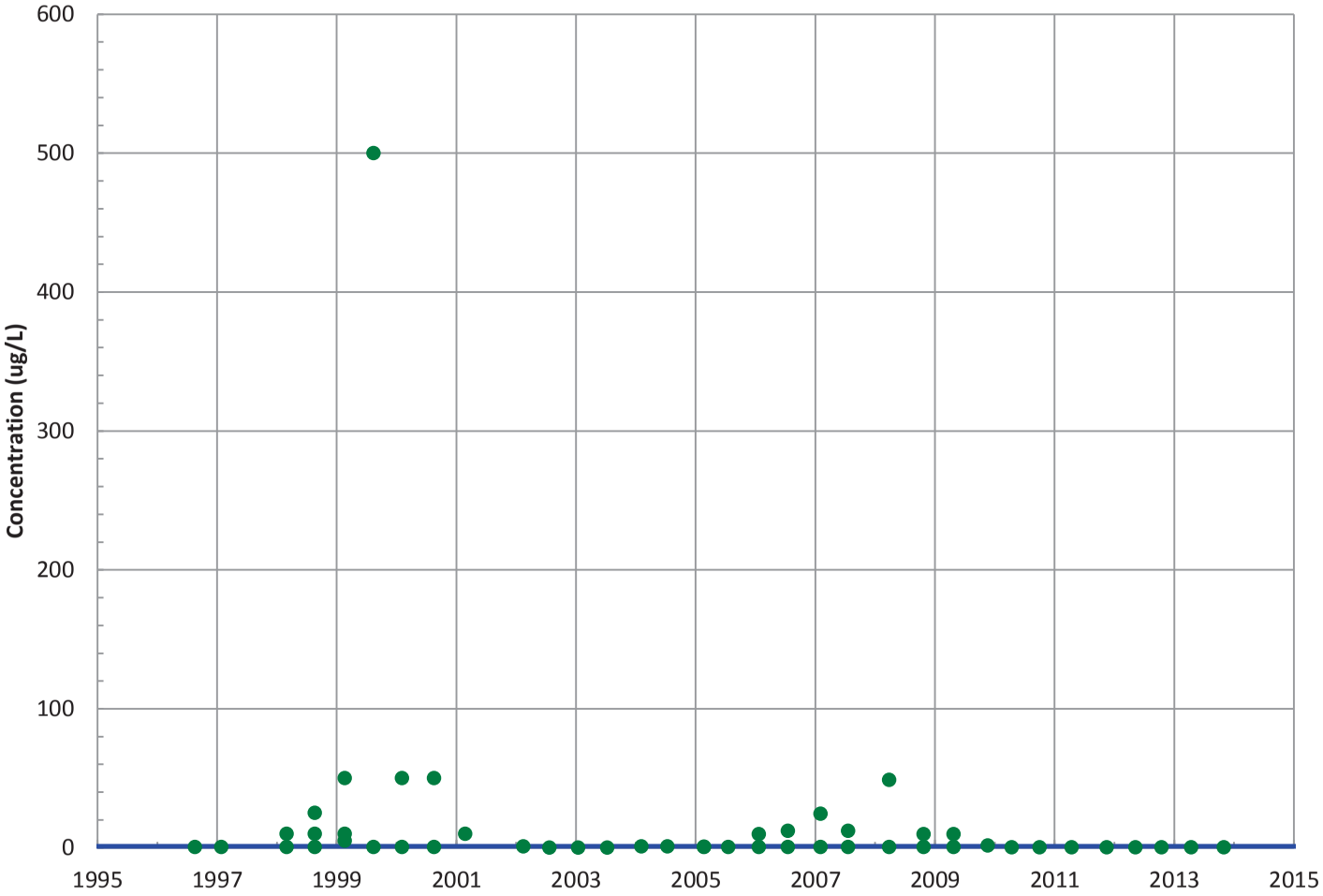
Well Location



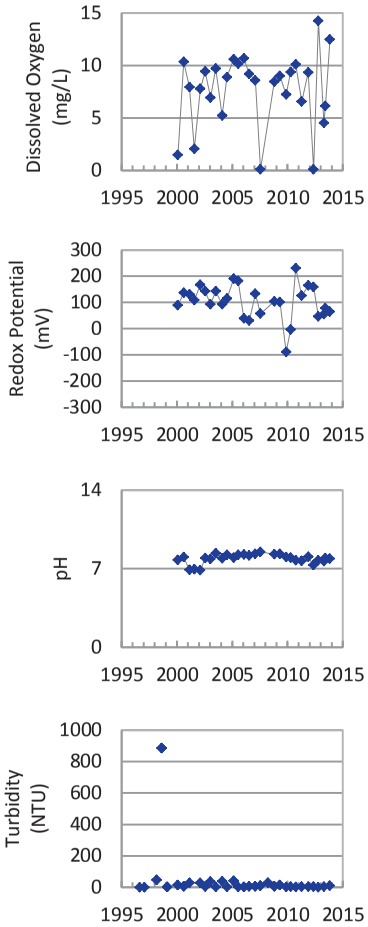
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/20/1996 to 11/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1030
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



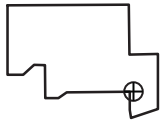
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

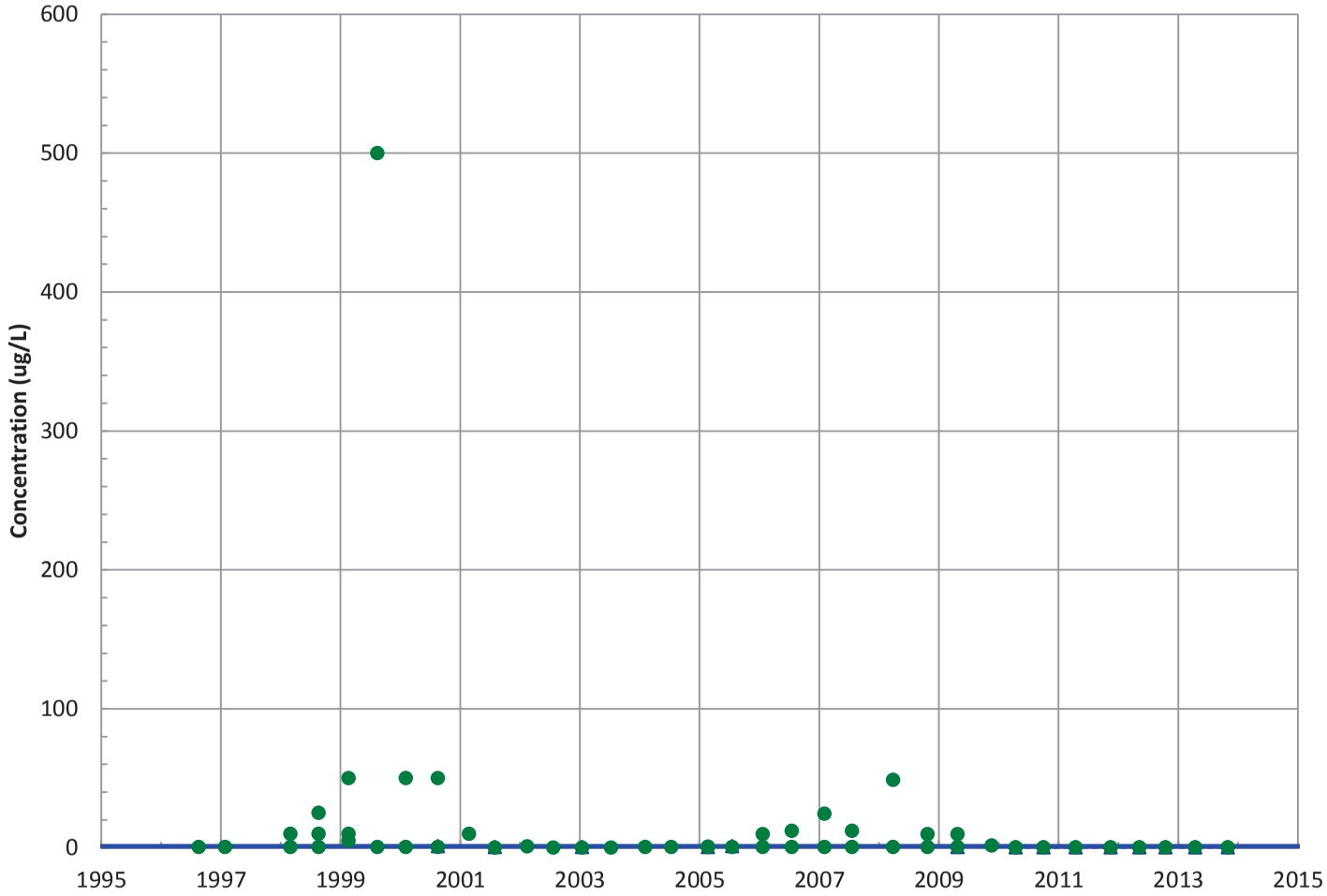
Well Location



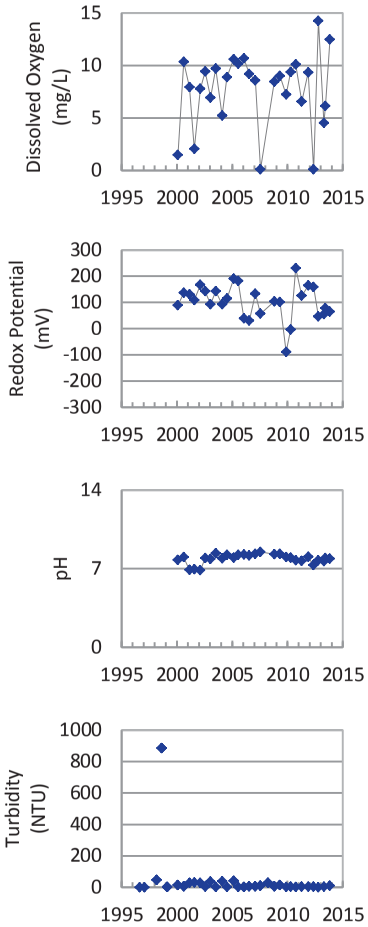
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/20/1996 to 11/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1030
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



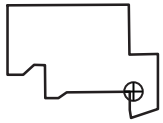
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

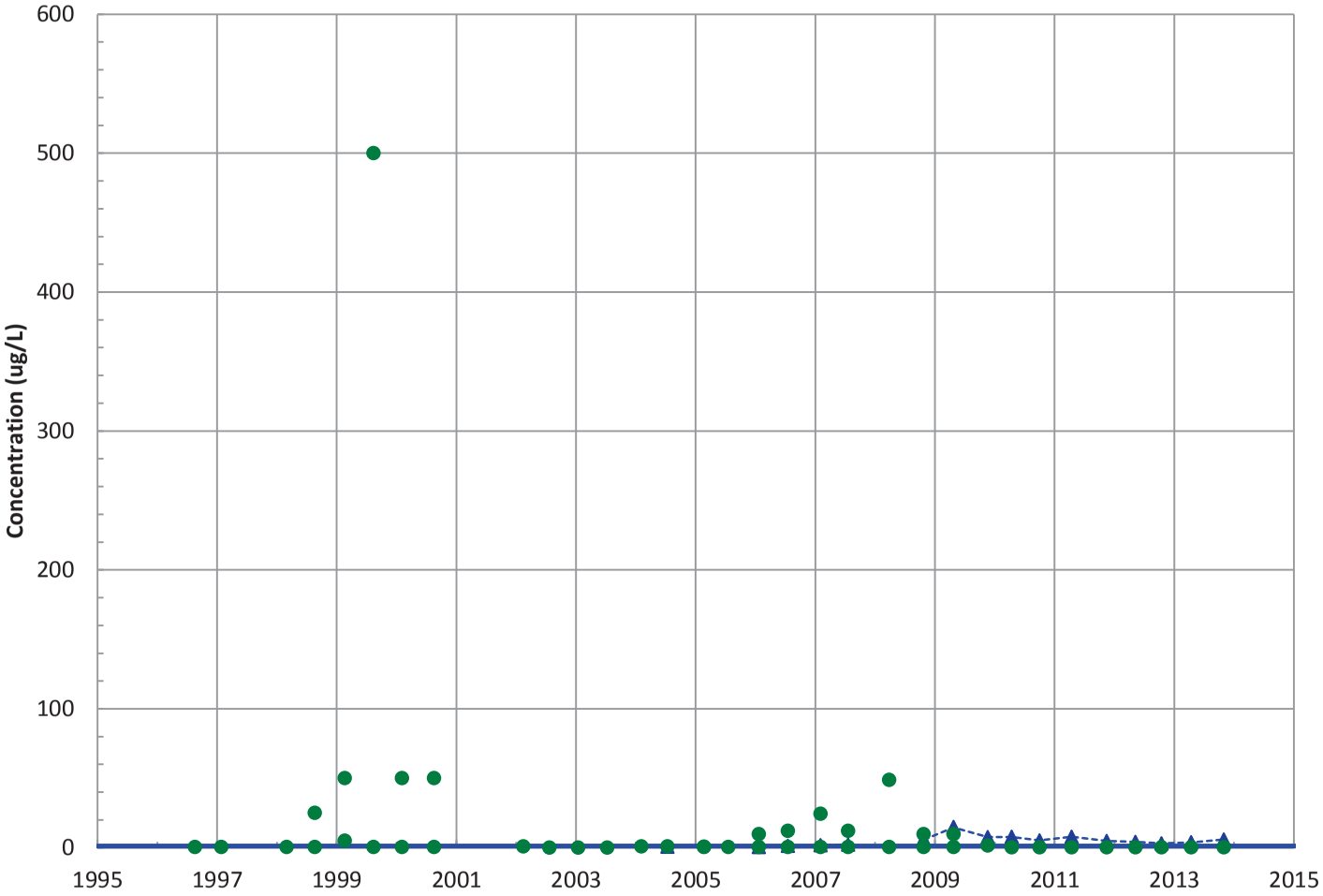
Well Location



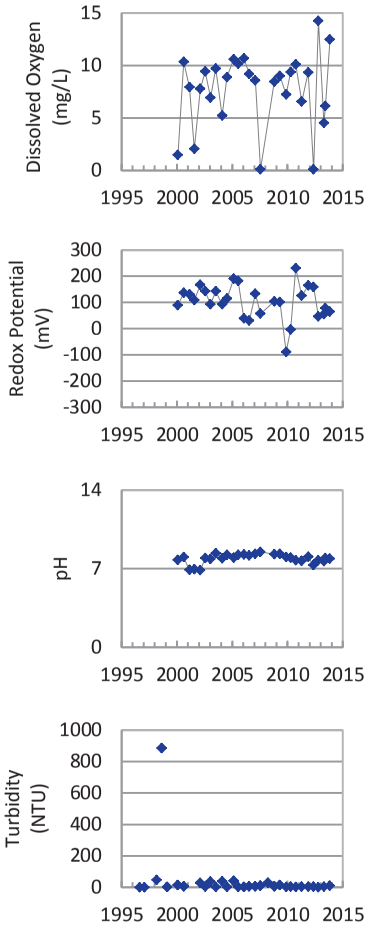
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/20/1996 to 11/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1030
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



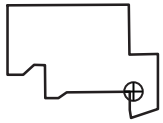
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

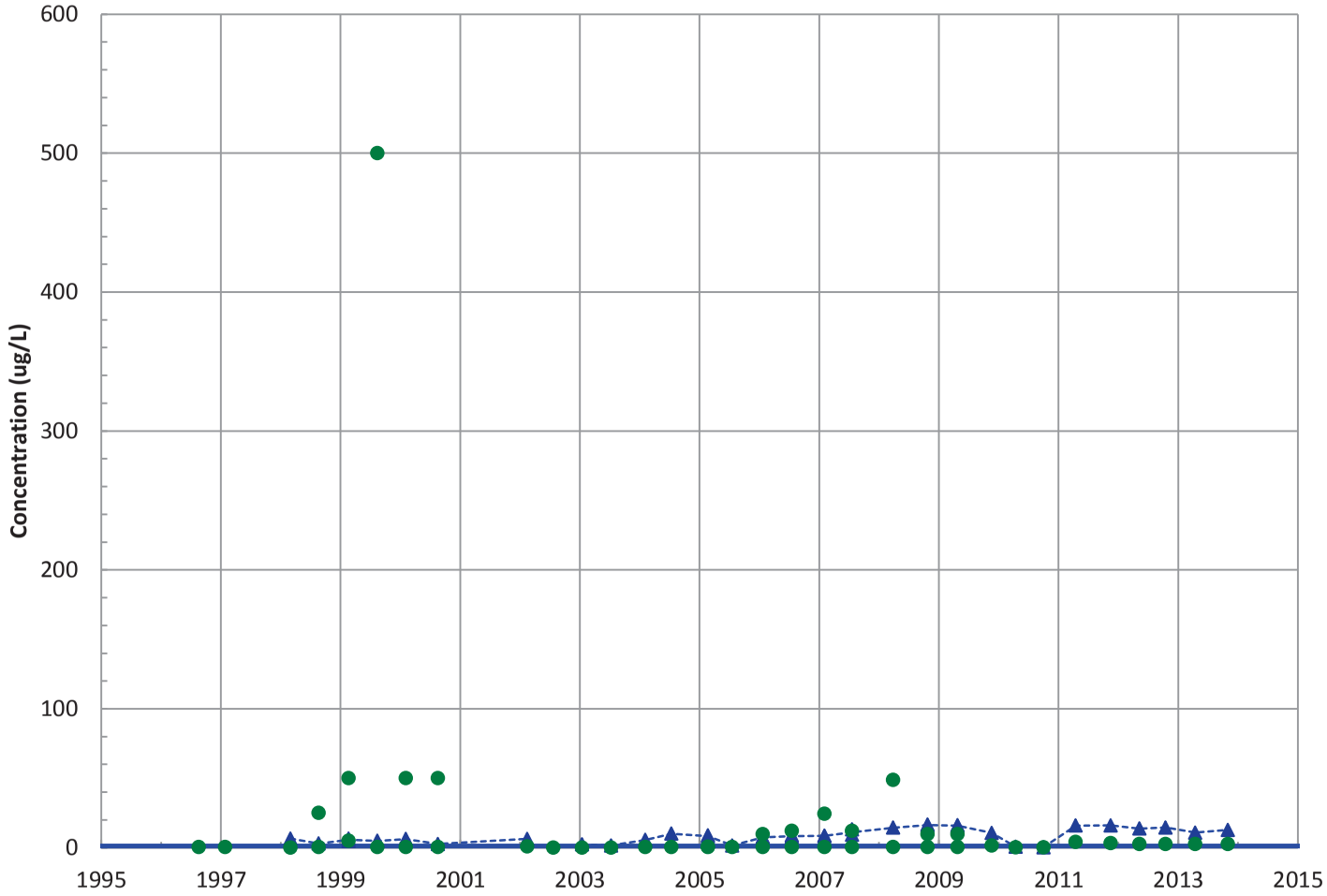
Well Location



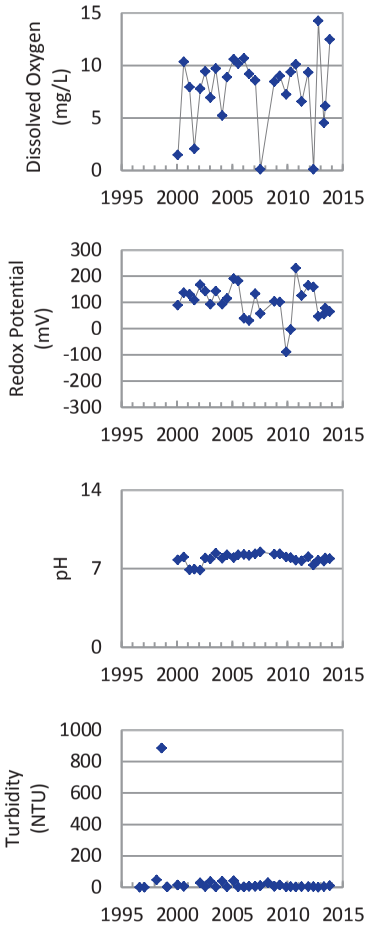
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/20/1996 to 11/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1030
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



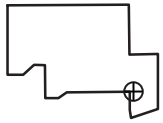
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Probably Increasing
2011 - 2013 Data: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

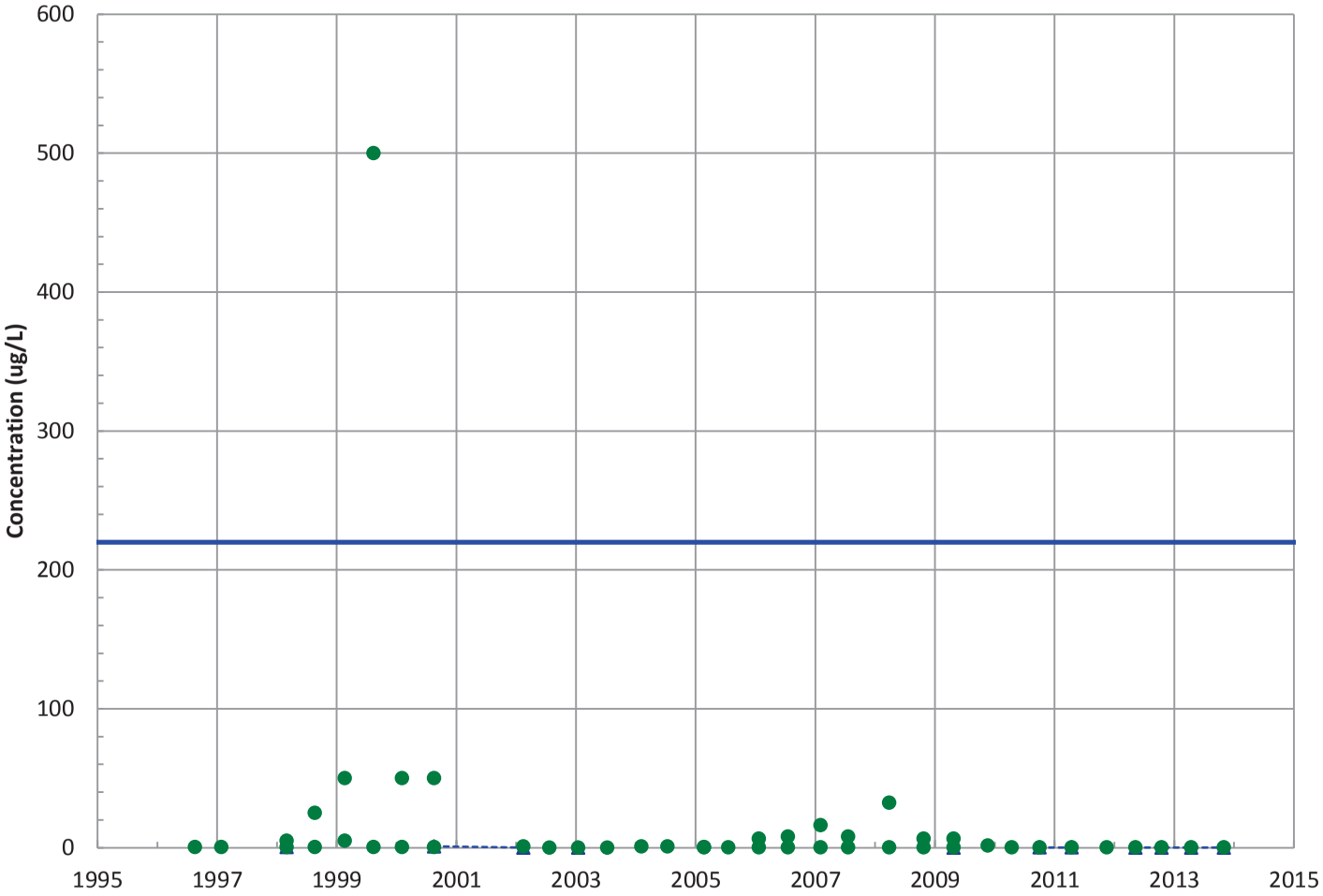
Well Location



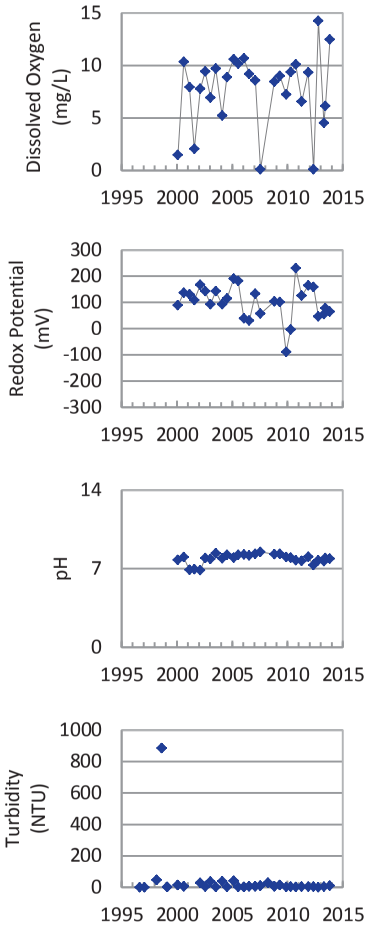
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/20/1996 to 11/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1030
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



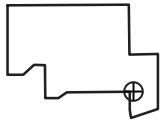
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Probably Decreasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

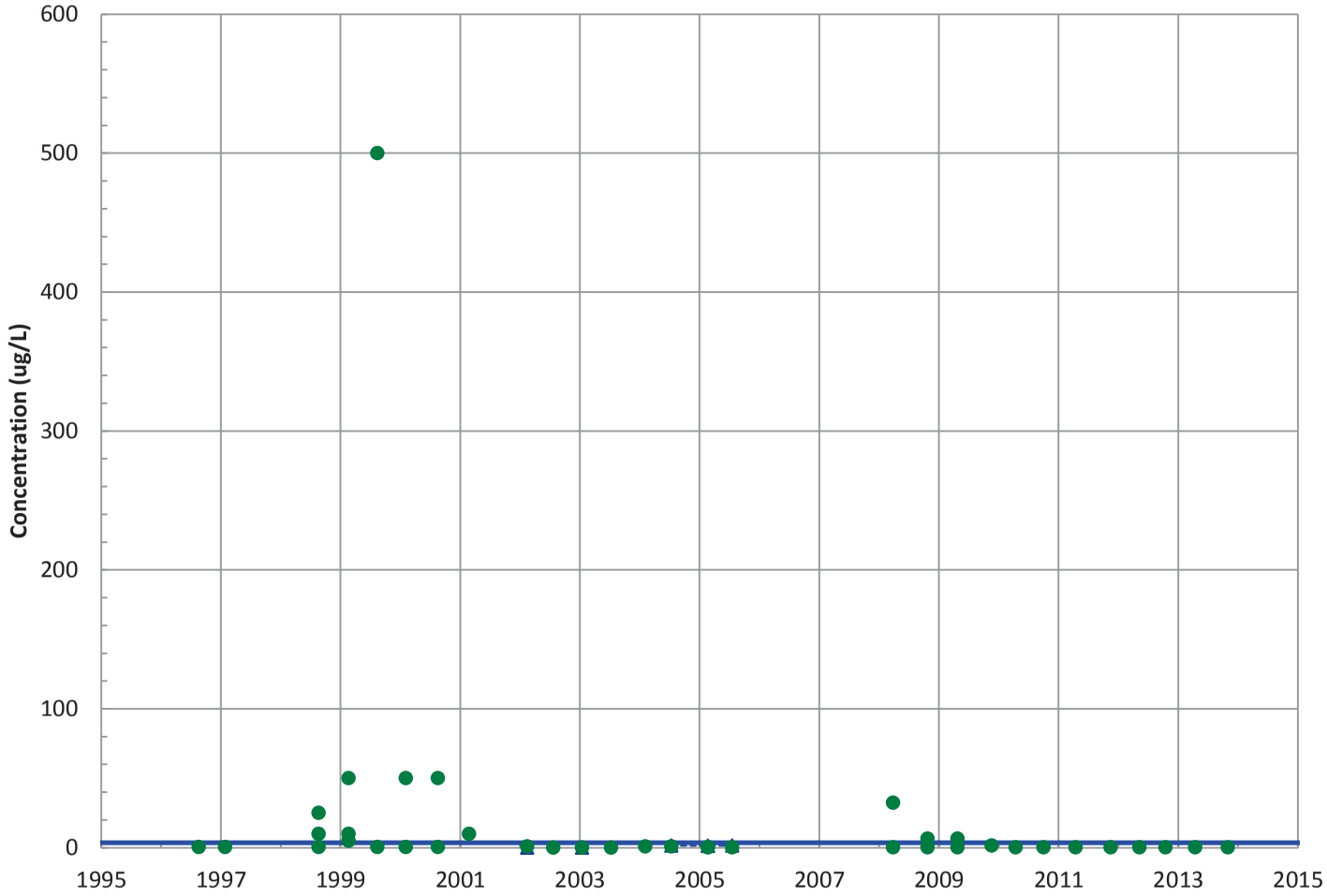
Well Location



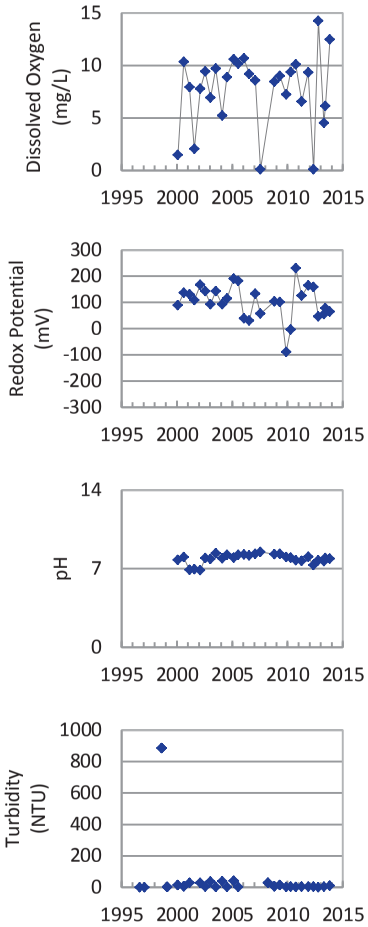
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/20/1996 to 11/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1030
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



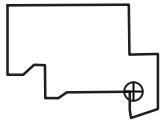
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: No Trend

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

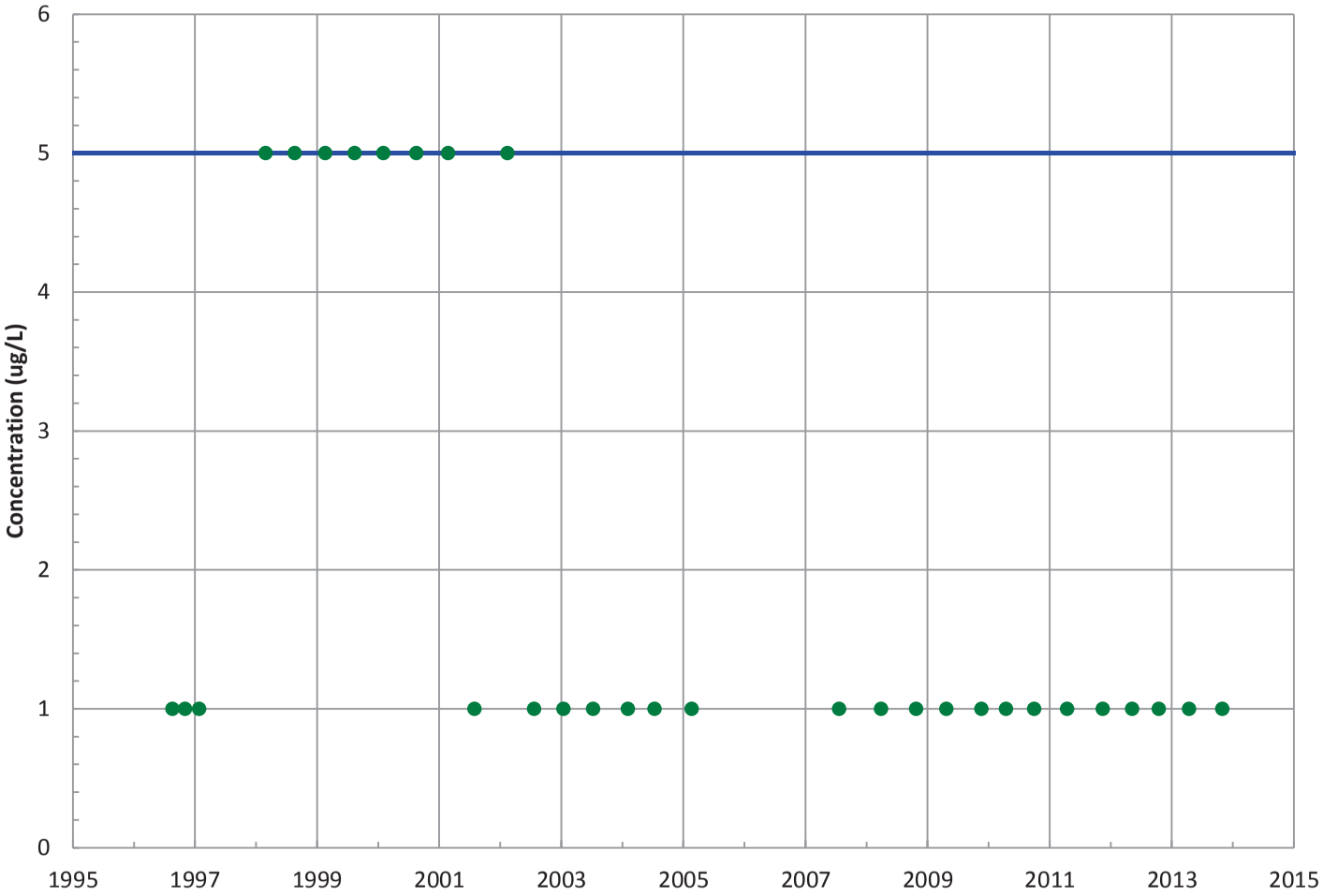
Well Location



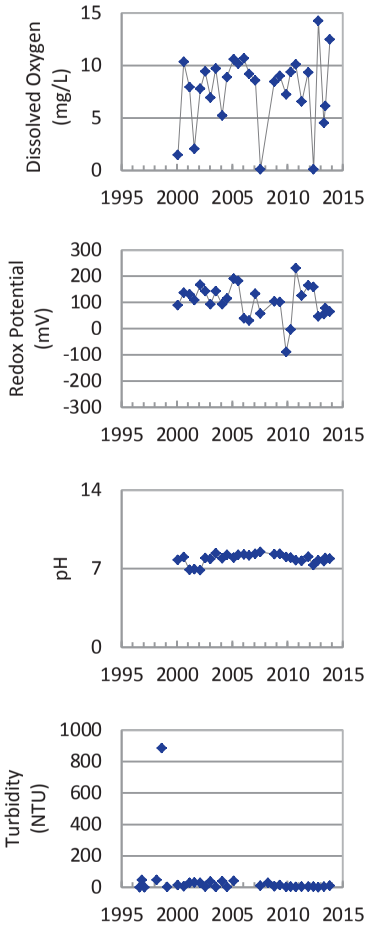
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/20/1996 to 11/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1030
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



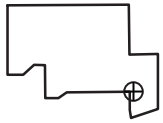
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

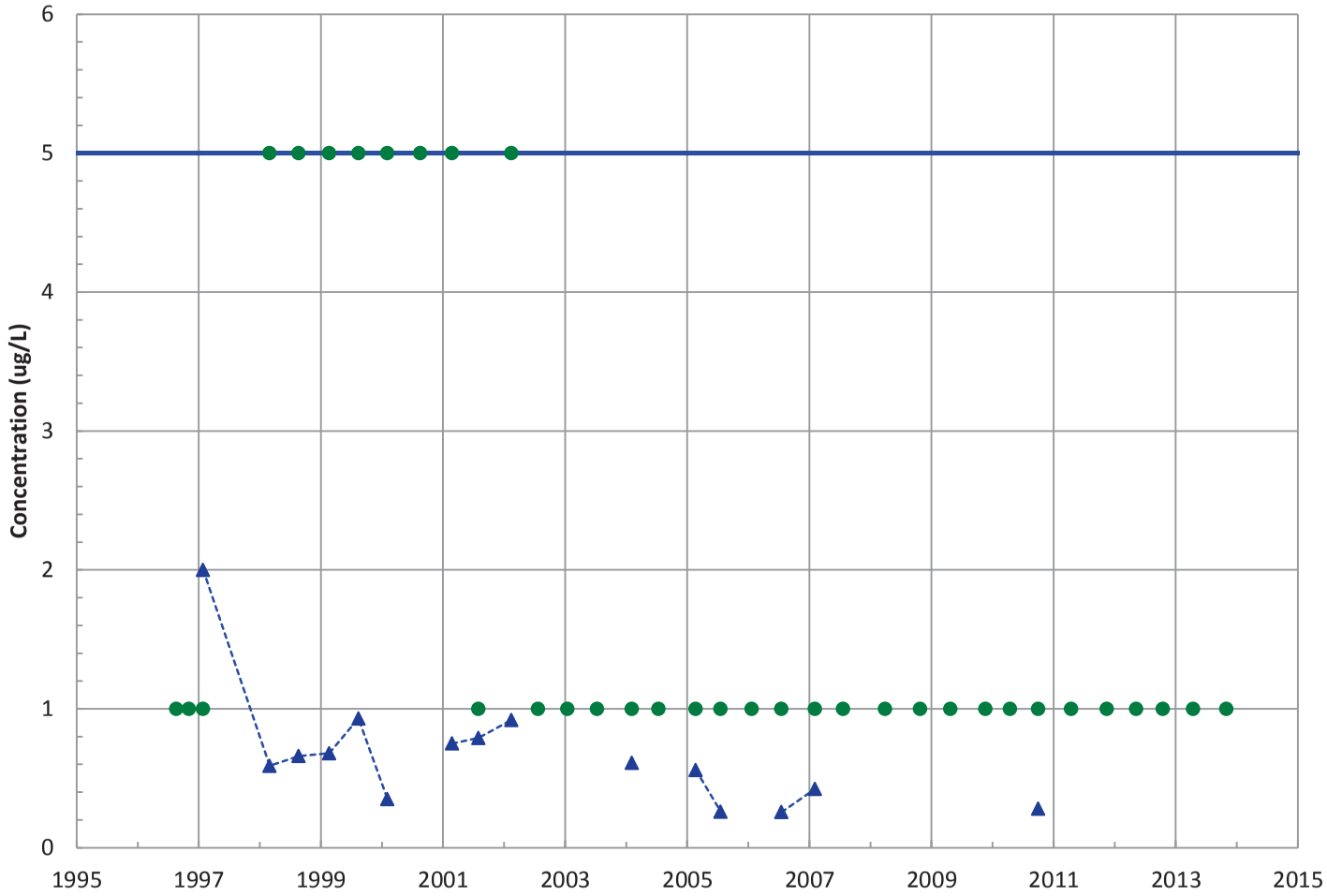
Well Location



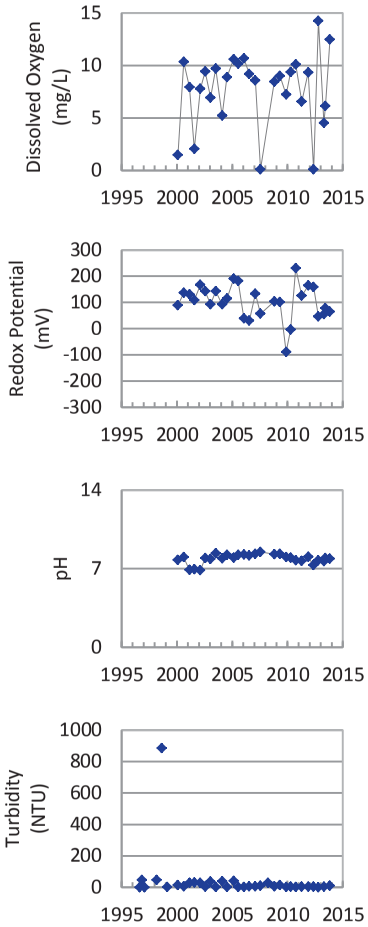
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/20/1996 to 11/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1030
Trichloroethene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: All Non-Detect

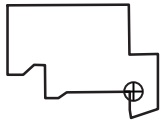
MAROS Linear Regression Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

Well Location



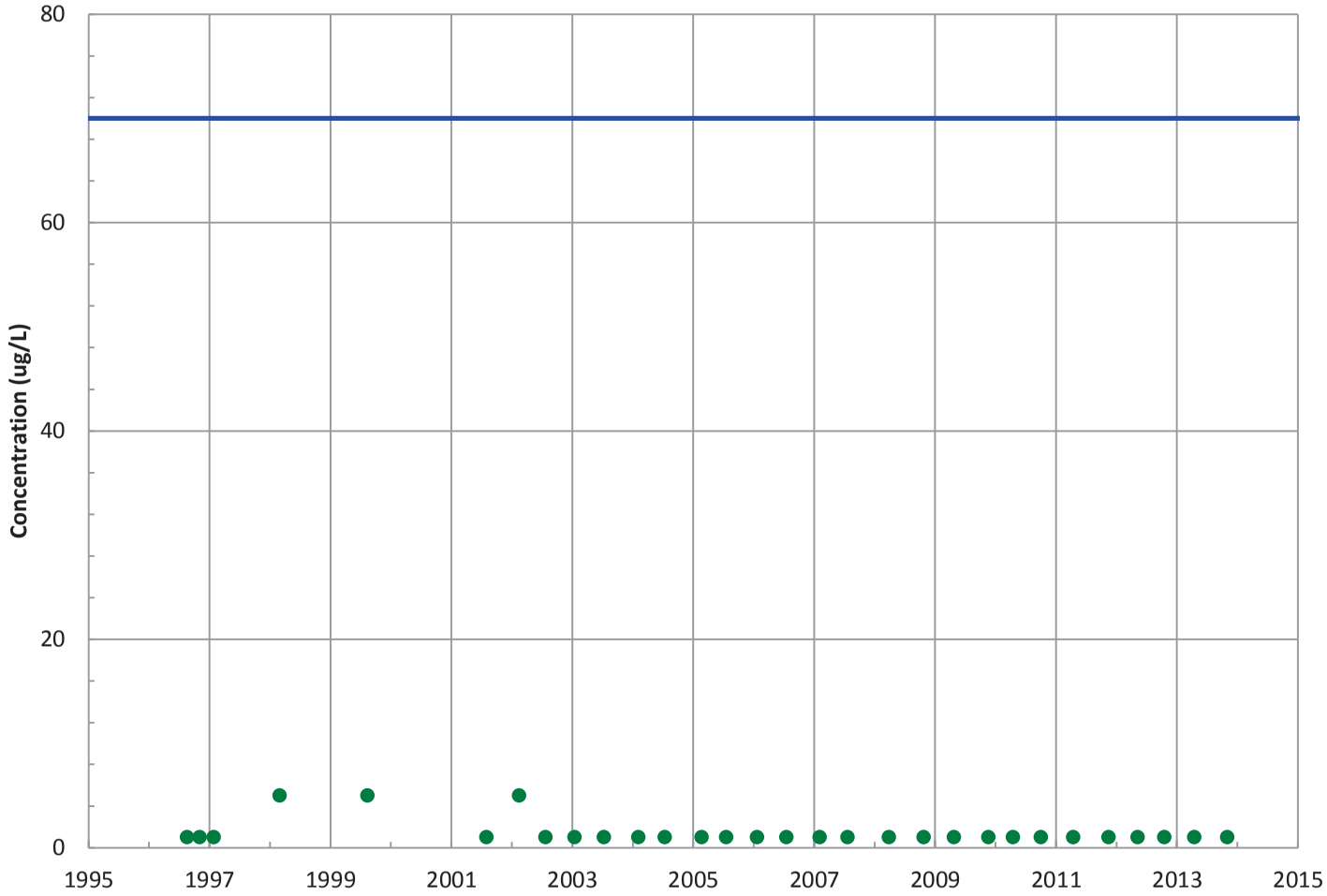
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 8/20/1996 to 11/14/2013

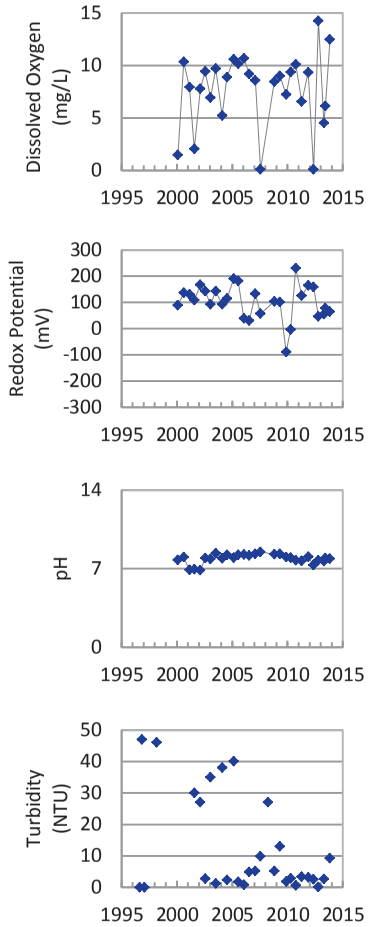
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1030
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



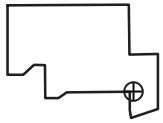
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

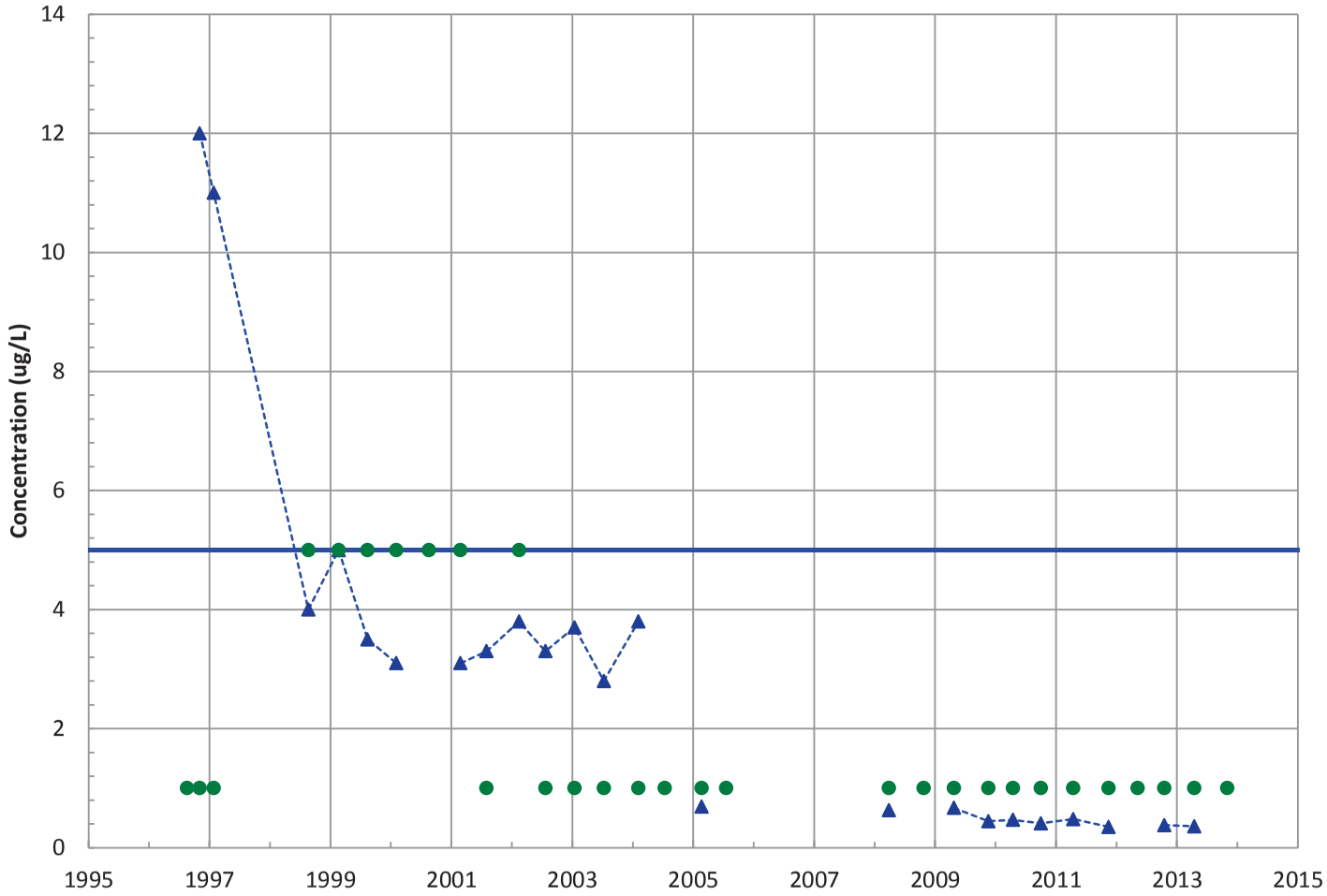
Well Location



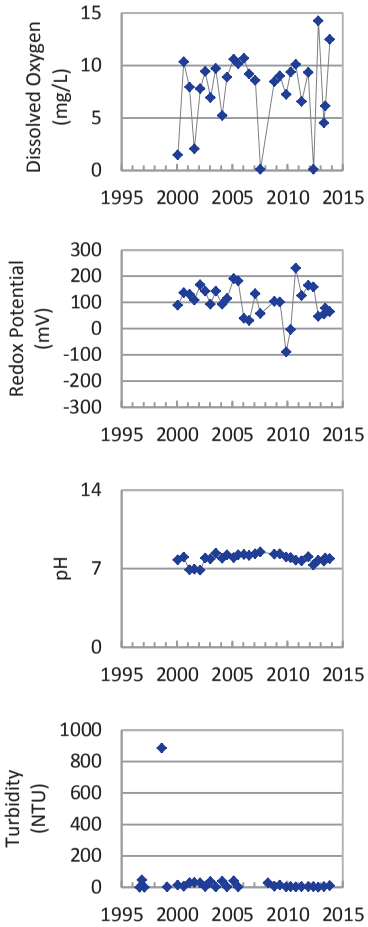
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/20/1996 to 11/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1030
1,2-Dichloroethane Trend in Perched Aquifer



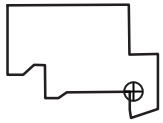
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: N/A (<4 Detections in Dataset)
MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

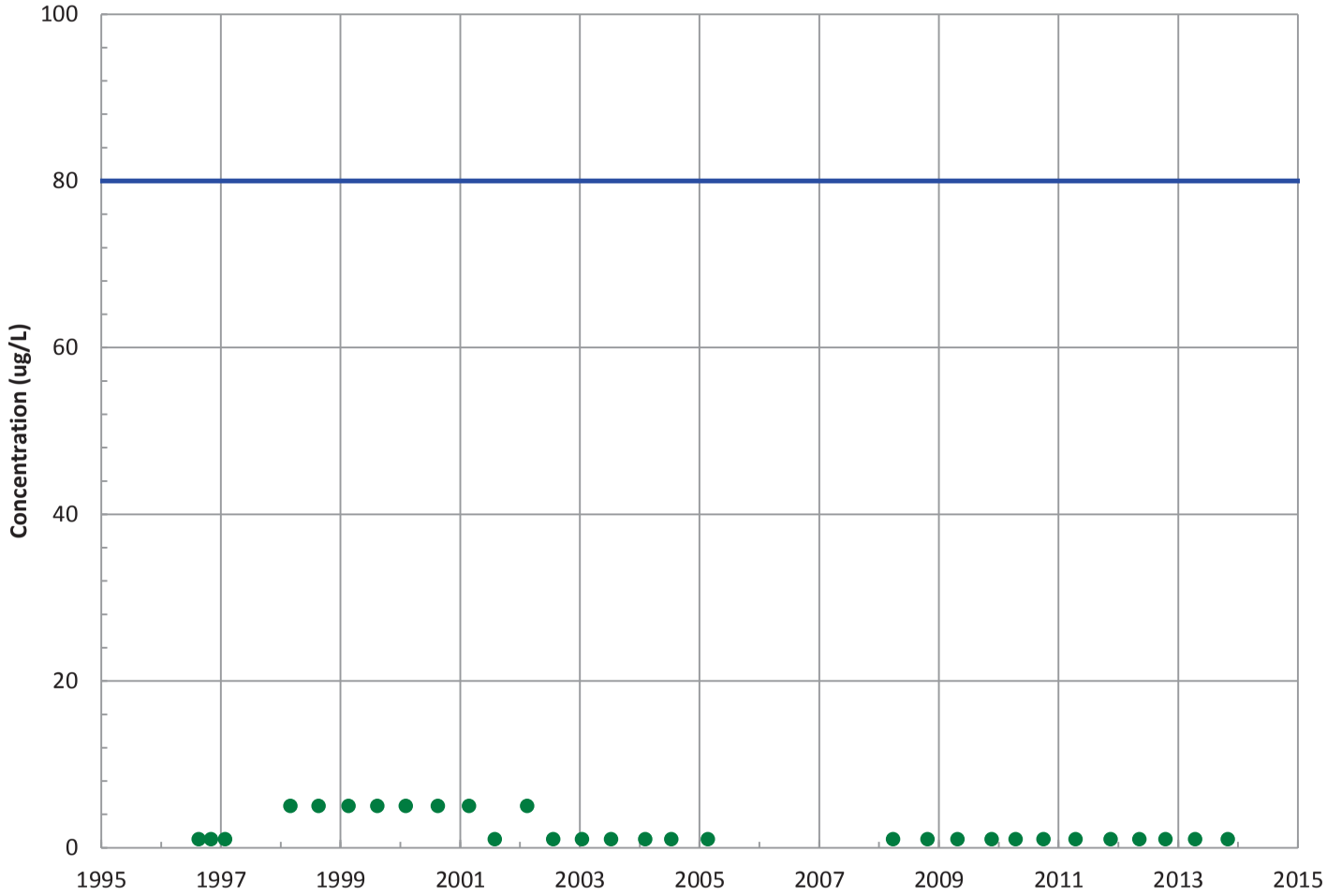
Well Location



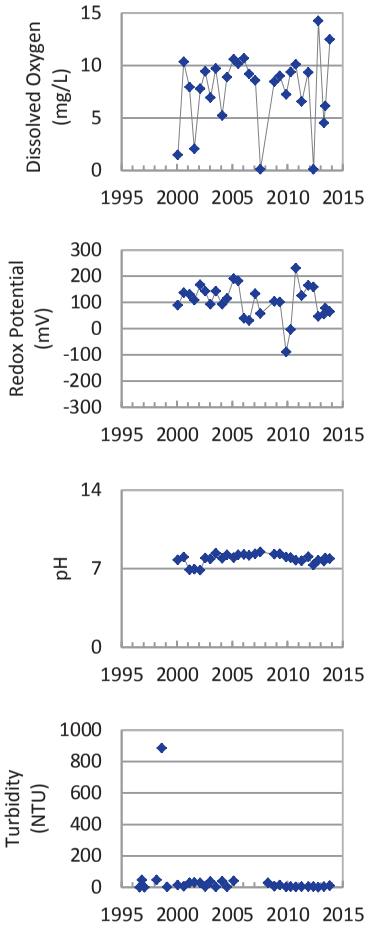
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/20/1996 to 11/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1030
Chloroform Trend in Perched Aquifer



Field Parameters



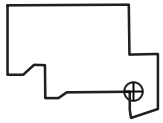
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

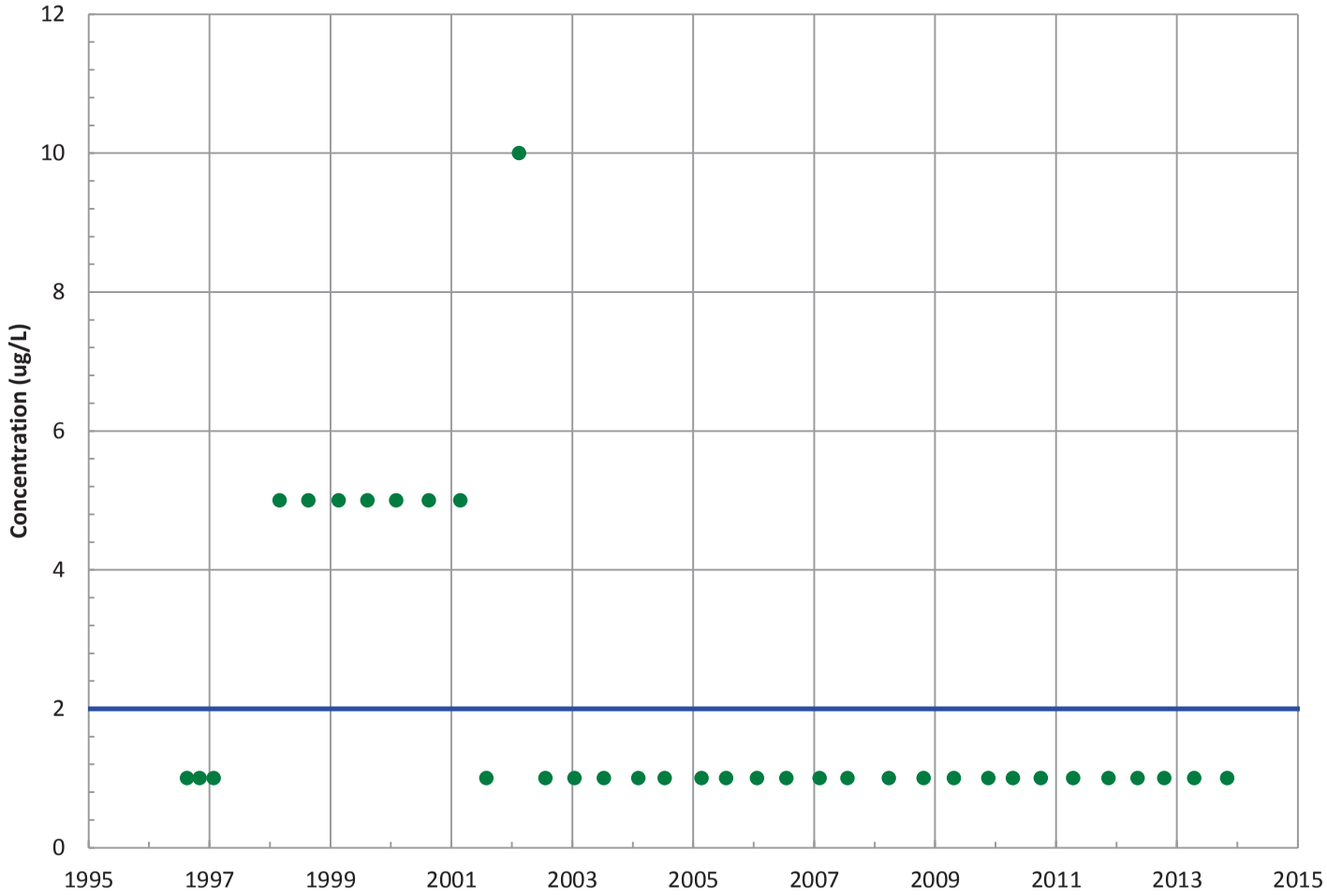
Well Location



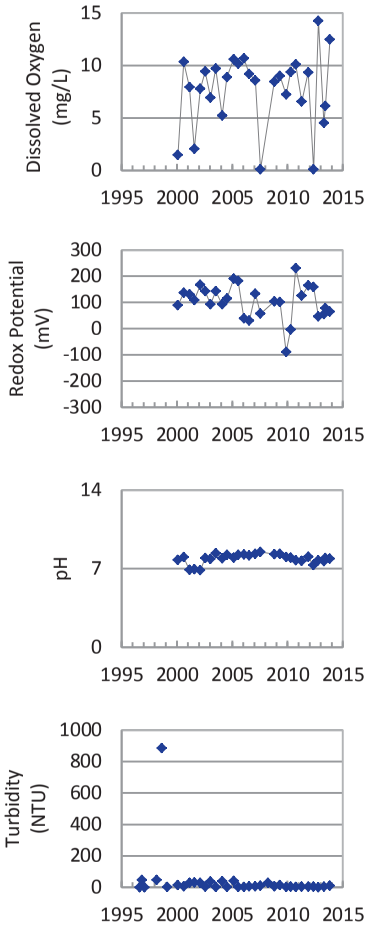
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/20/1996 to 11/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1030
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



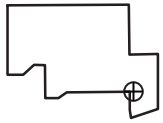
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

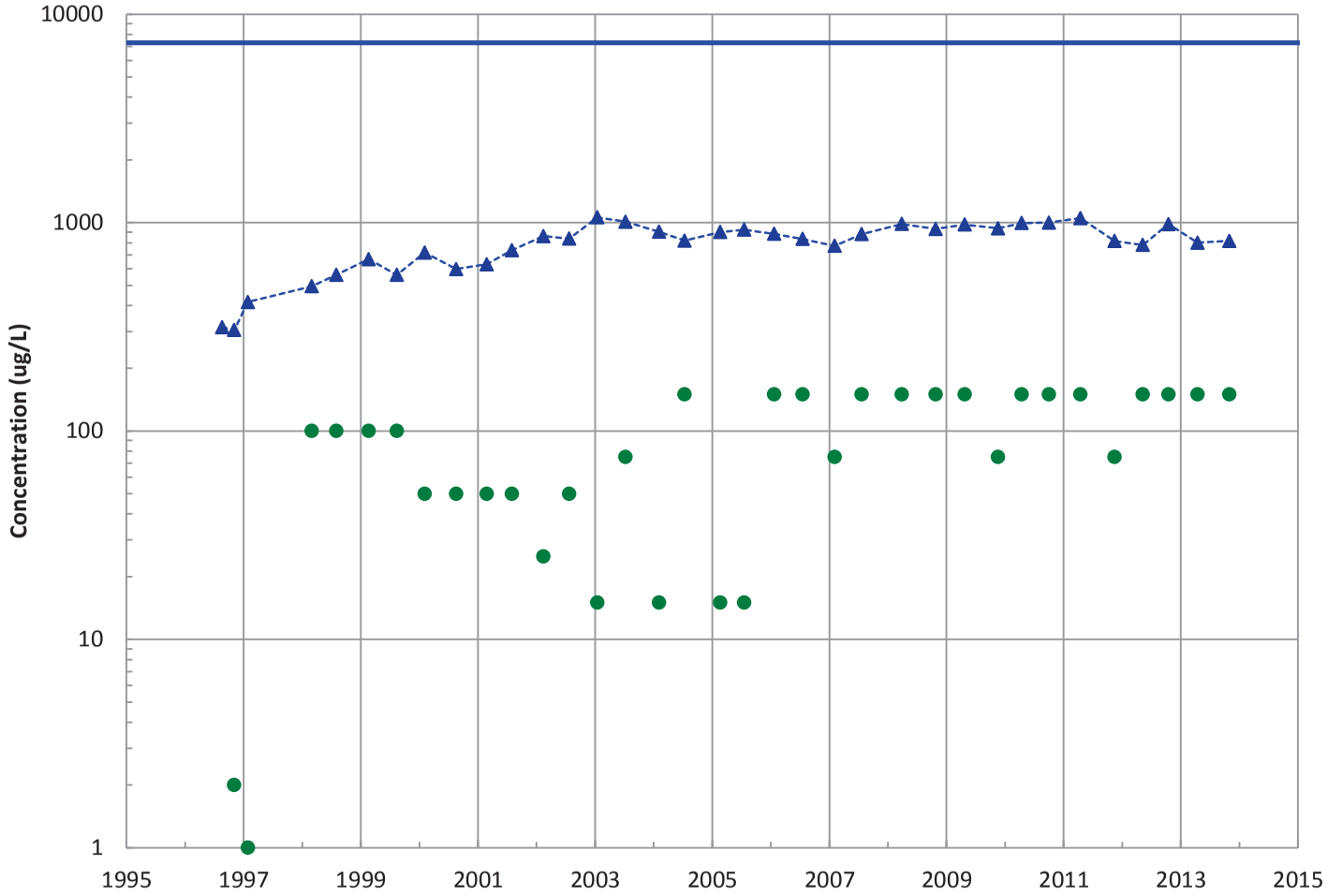
Well Location



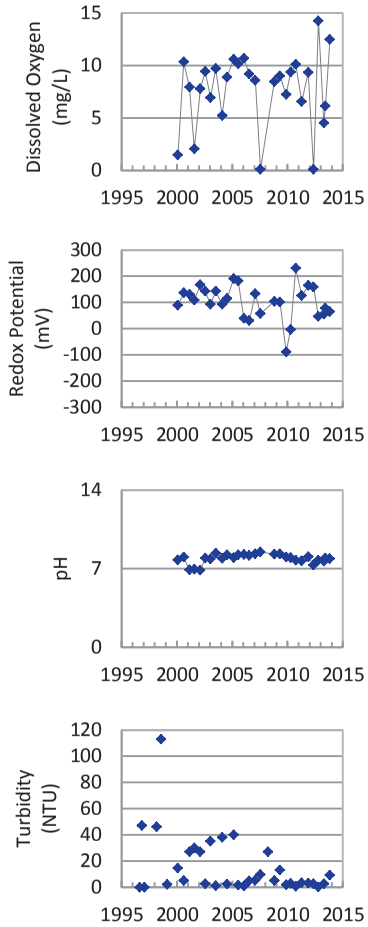
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/20/1996 to 11/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1030
Boron Trend in Perched Aquifer



Field Parameters



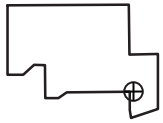
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

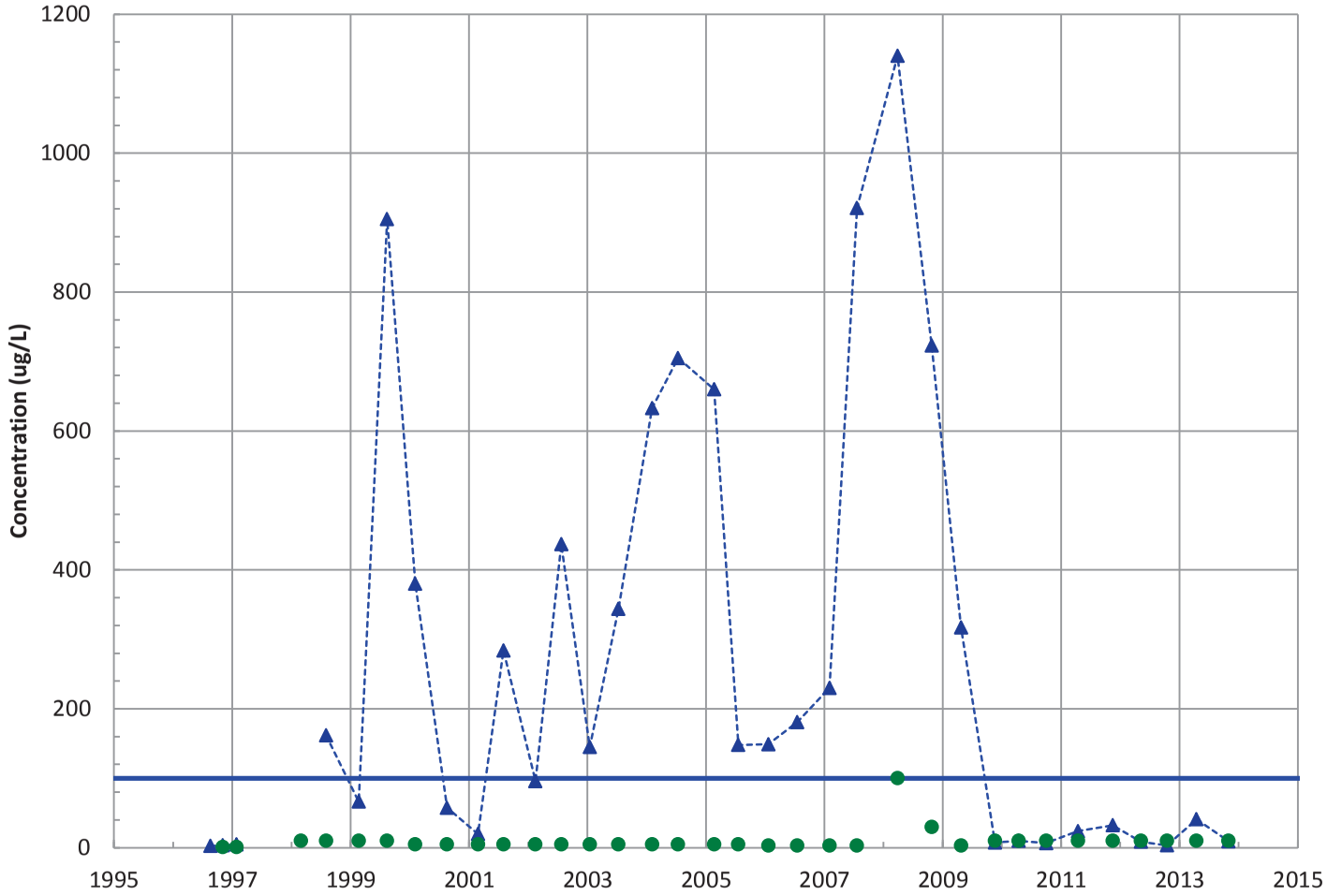
Well Location



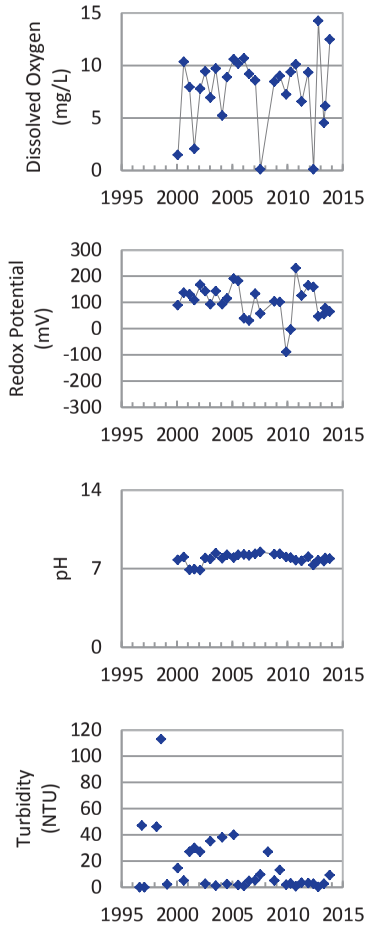
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/20/1996 to 11/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1030
Chromium, Total Trend in Perched Aquifer



Field Parameters



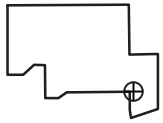
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

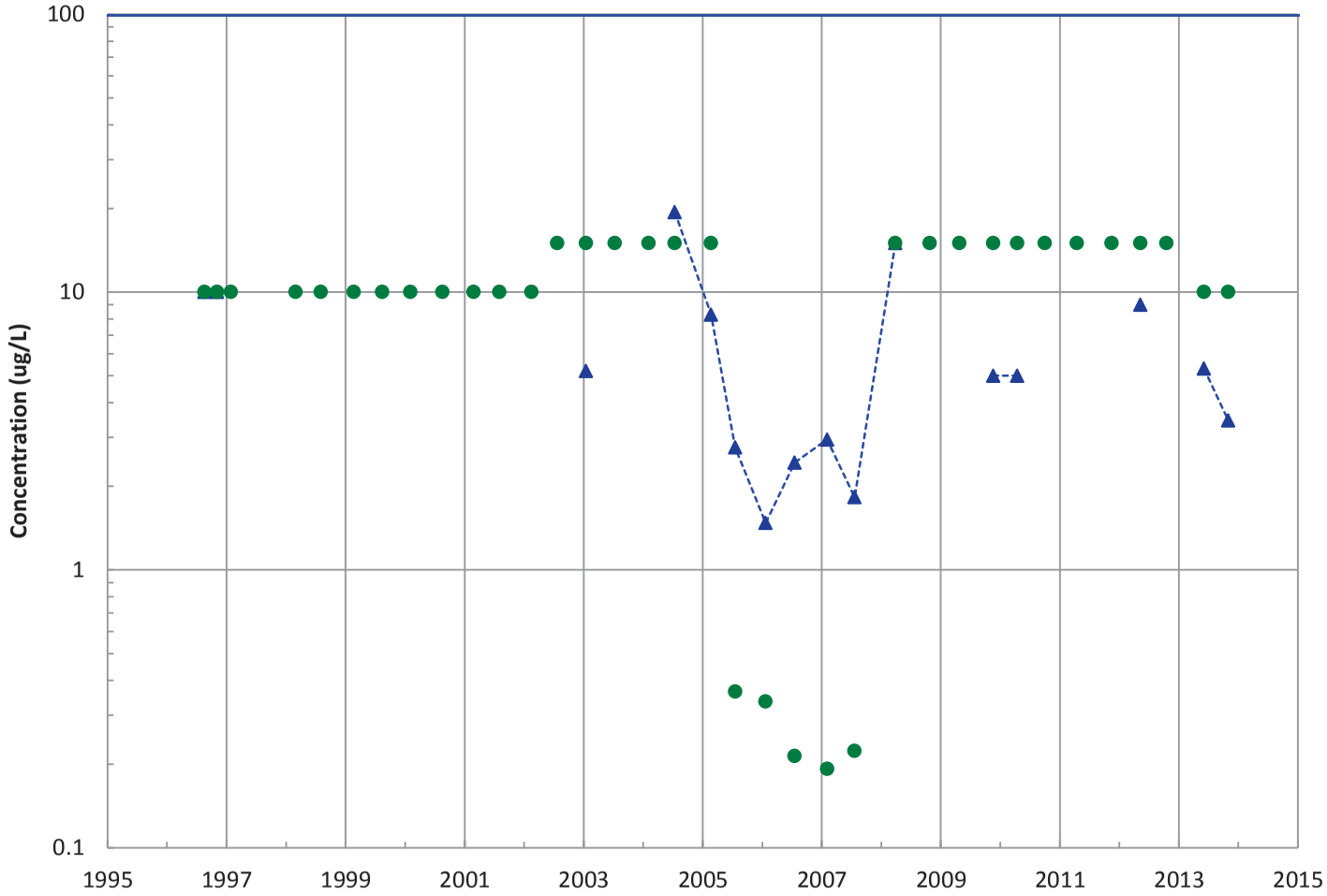
Well Location



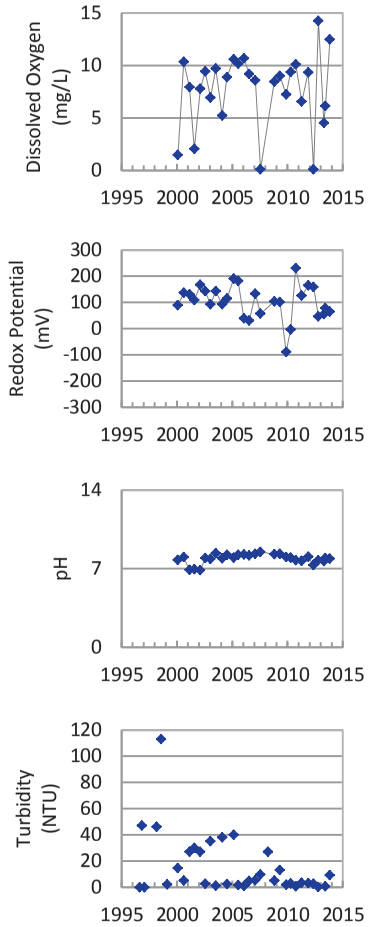
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/20/1996 to 11/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1030
Chromium, Hexavalent Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): No Trend

2011 - 2013 Data: N/A (<4 Detections in Dataset)

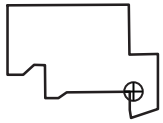
MAROS Linear Regression Method

Data (7/2009 - 12/2013): Stable

2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location



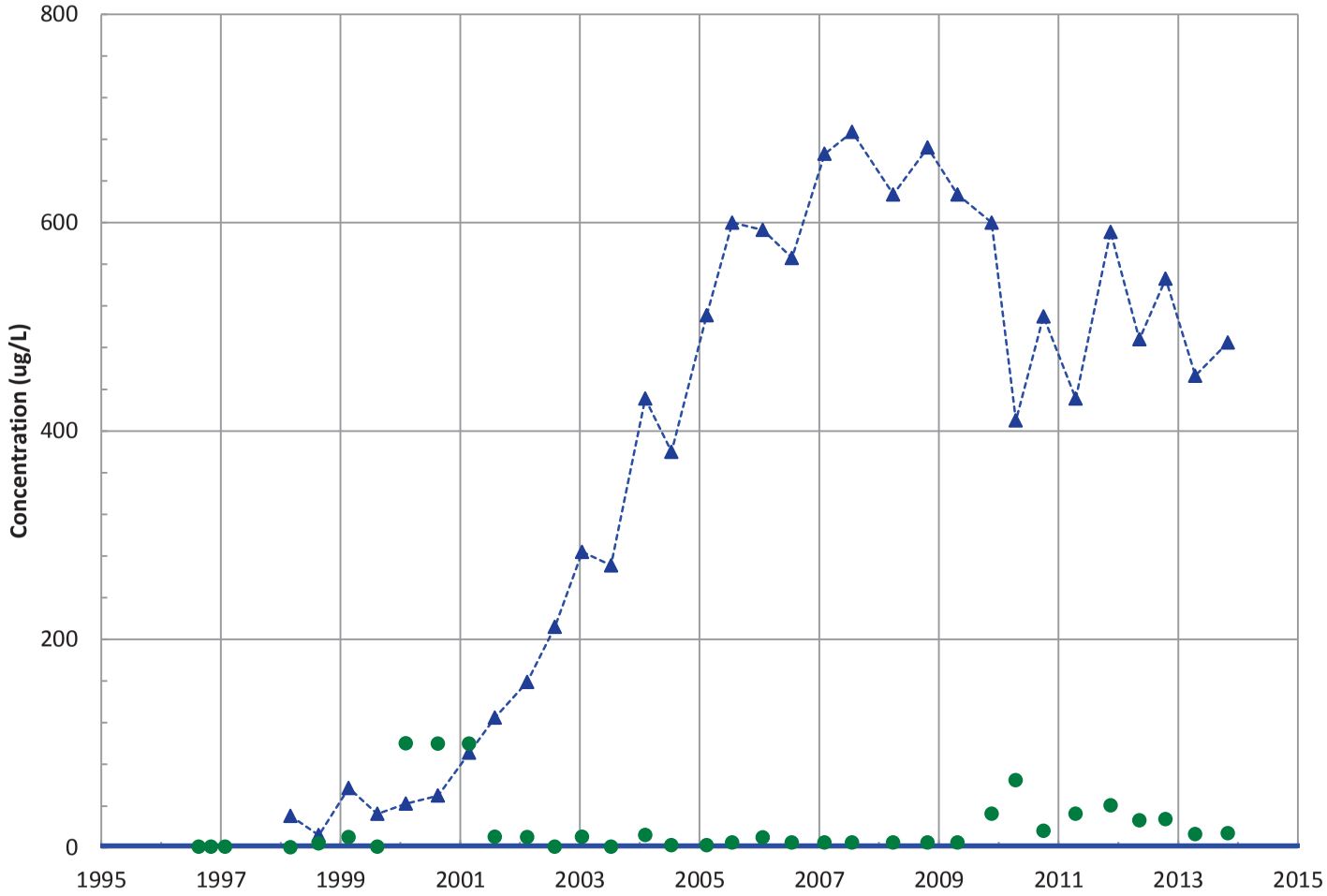
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 8/20/1996 to 11/14/2013

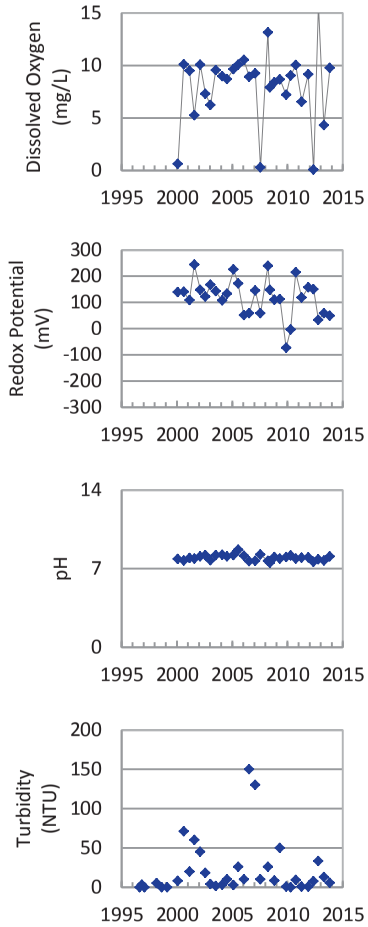
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1031
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Stable

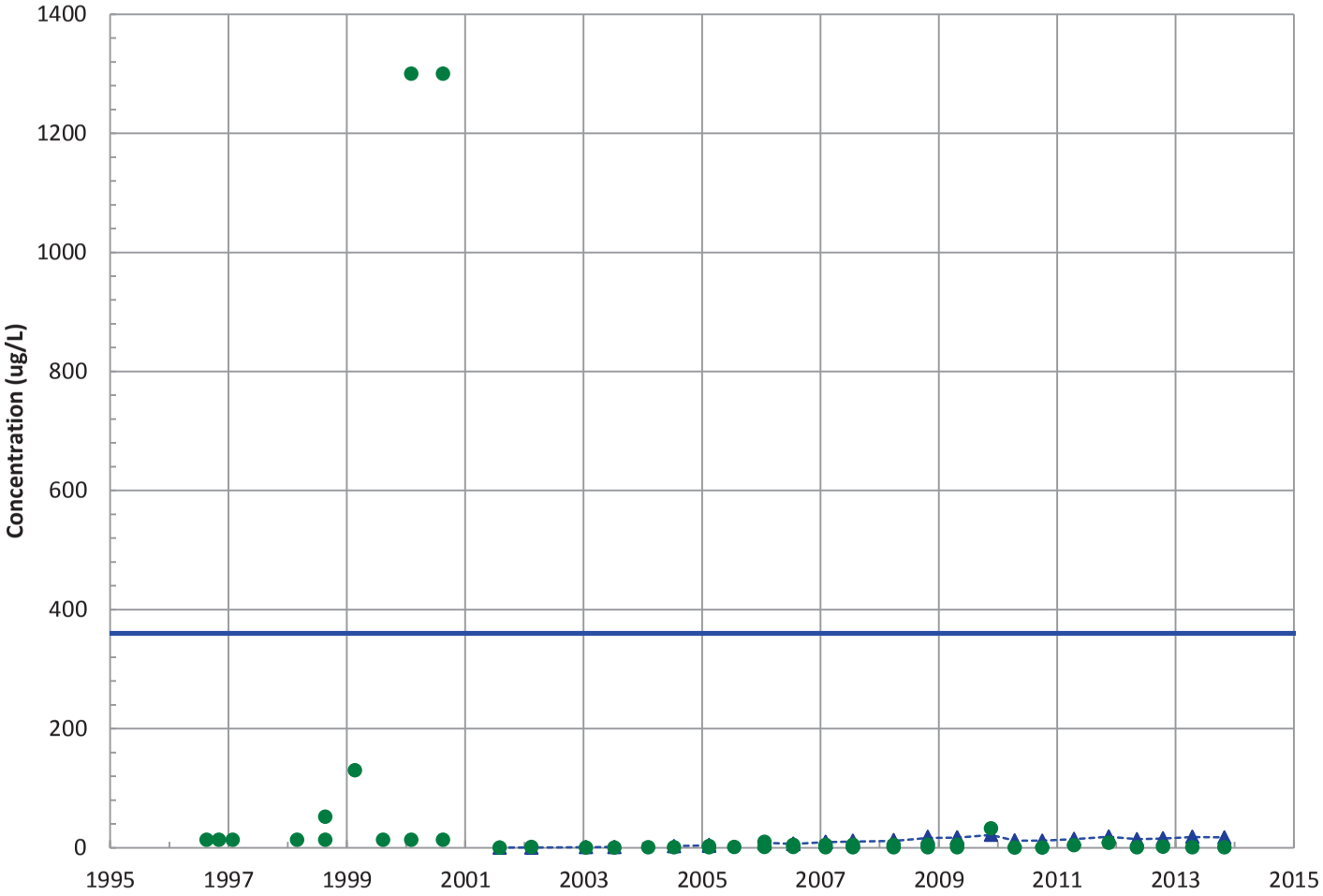
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

Well Location

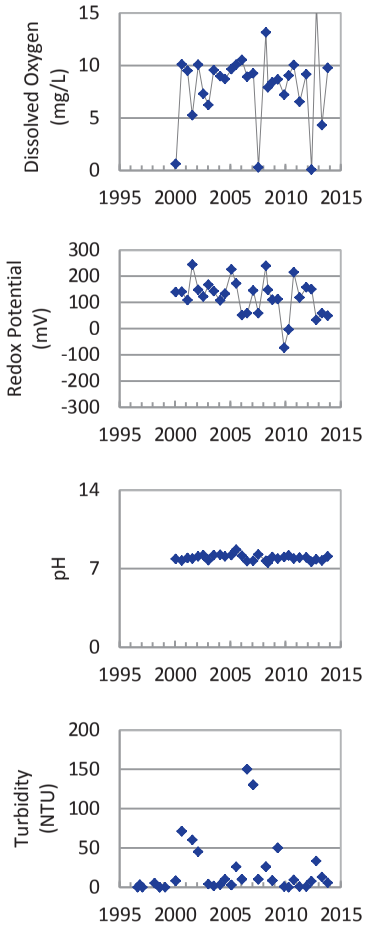
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/20/1996 to 11/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1031
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Increasing

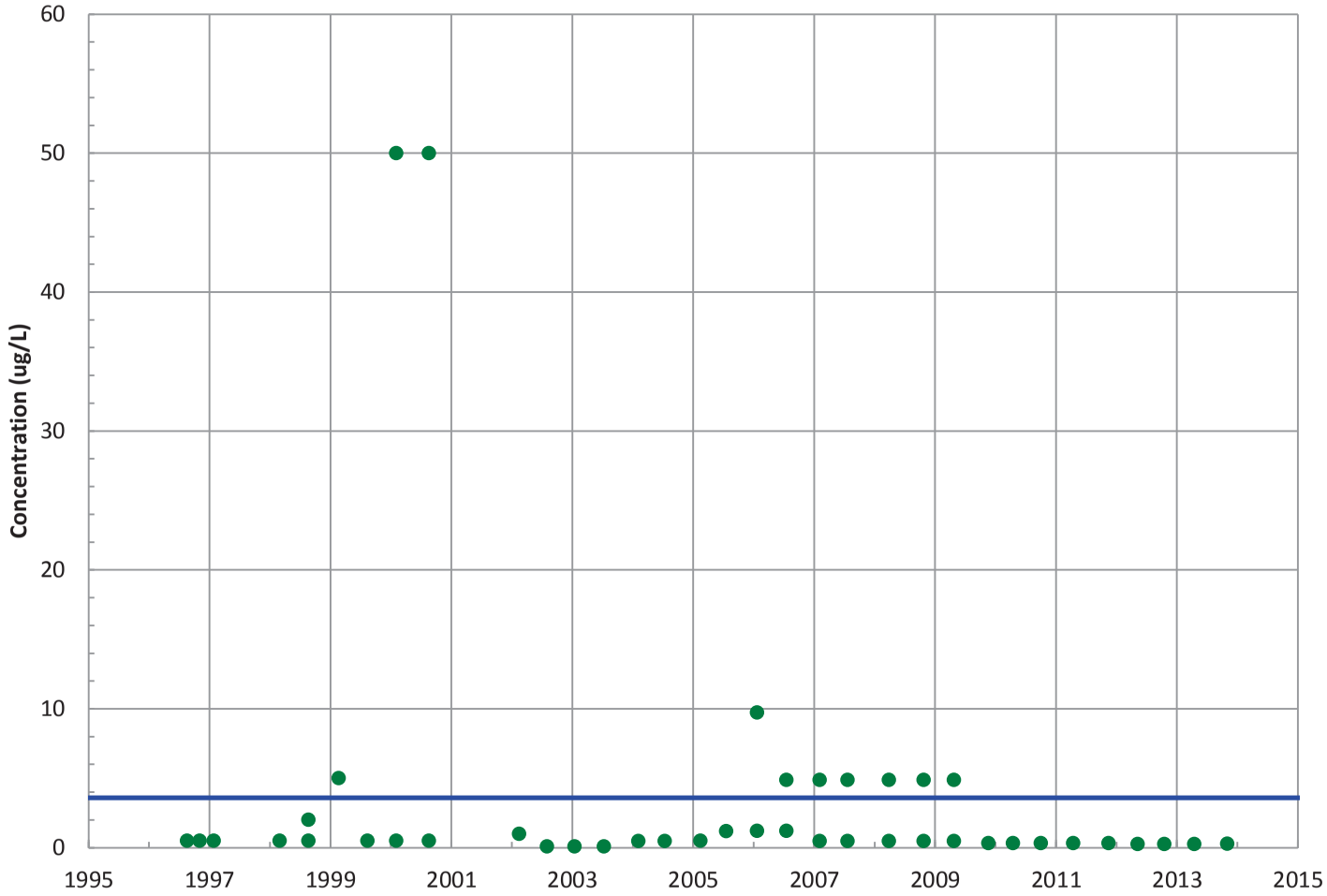
- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location

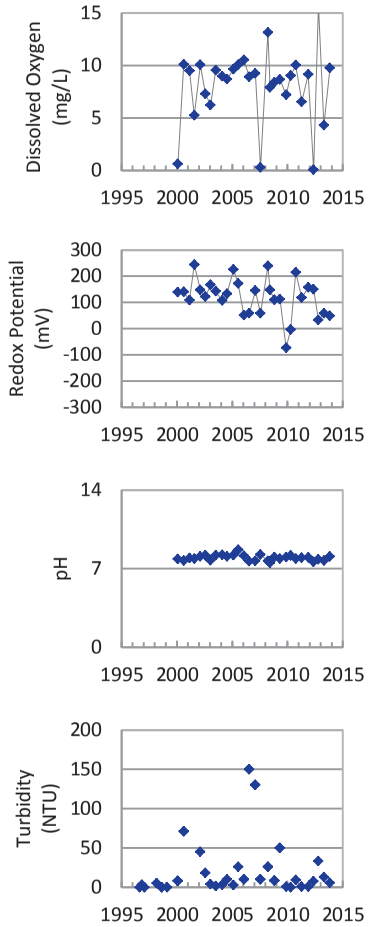
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/20/1996 to 11/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1031
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

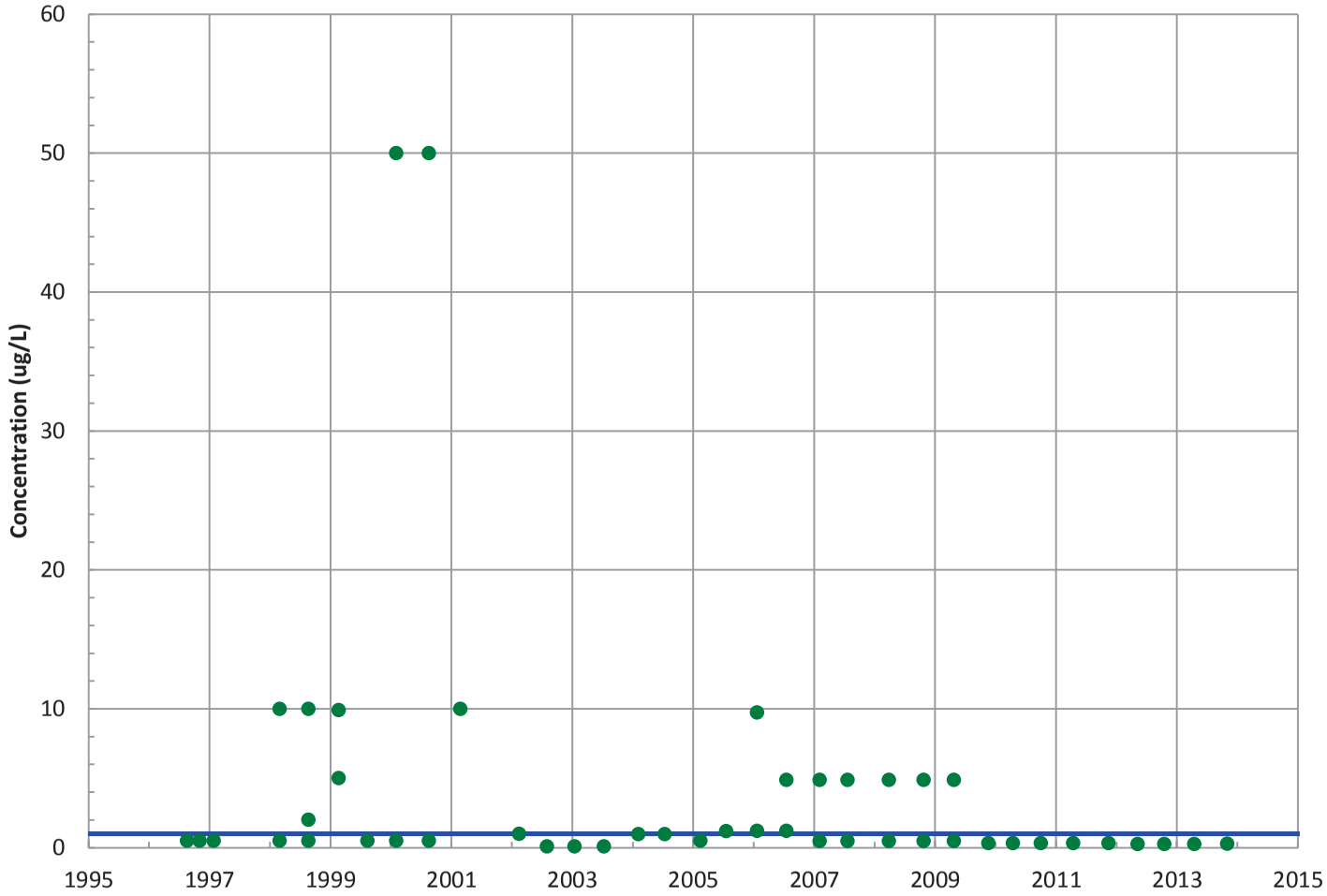
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

Well Location

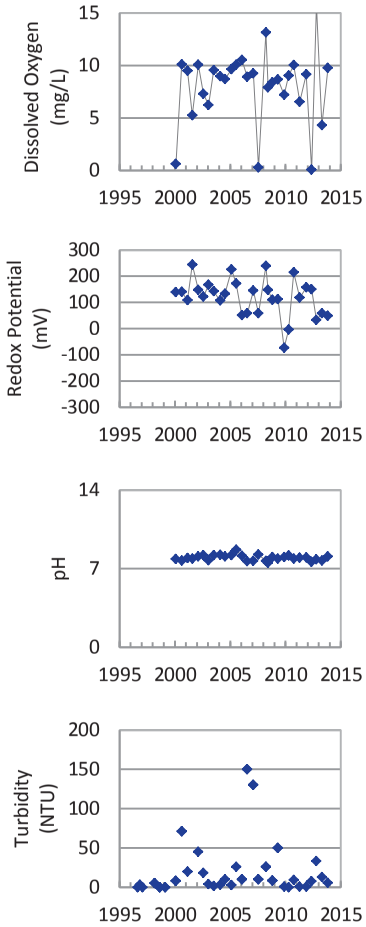
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/20/1996 to 11/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1031
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

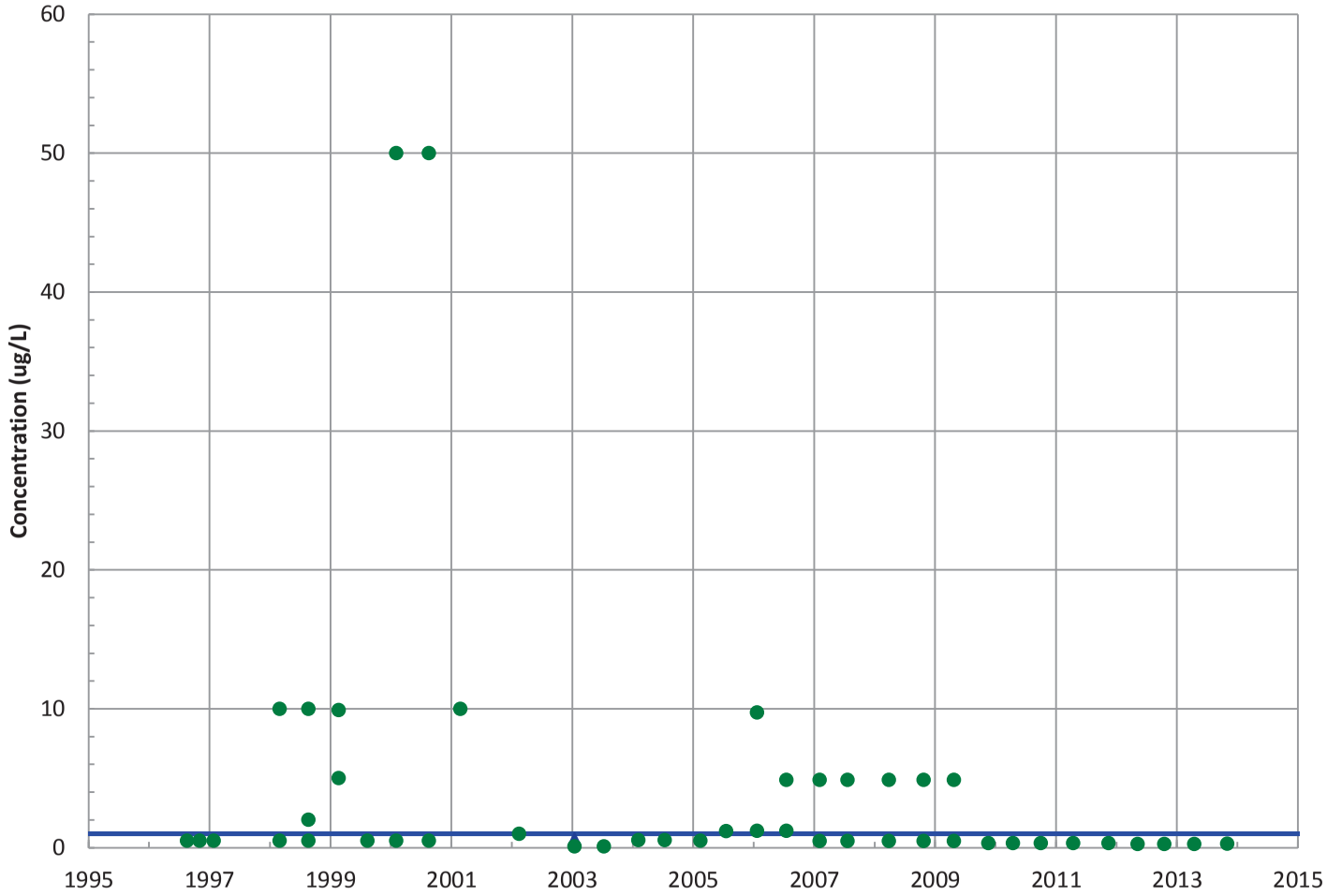
- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location

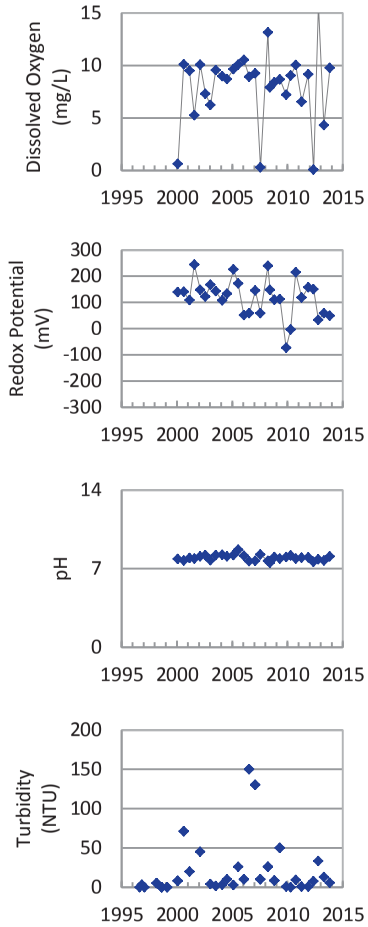
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/20/1996 to 11/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1031
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

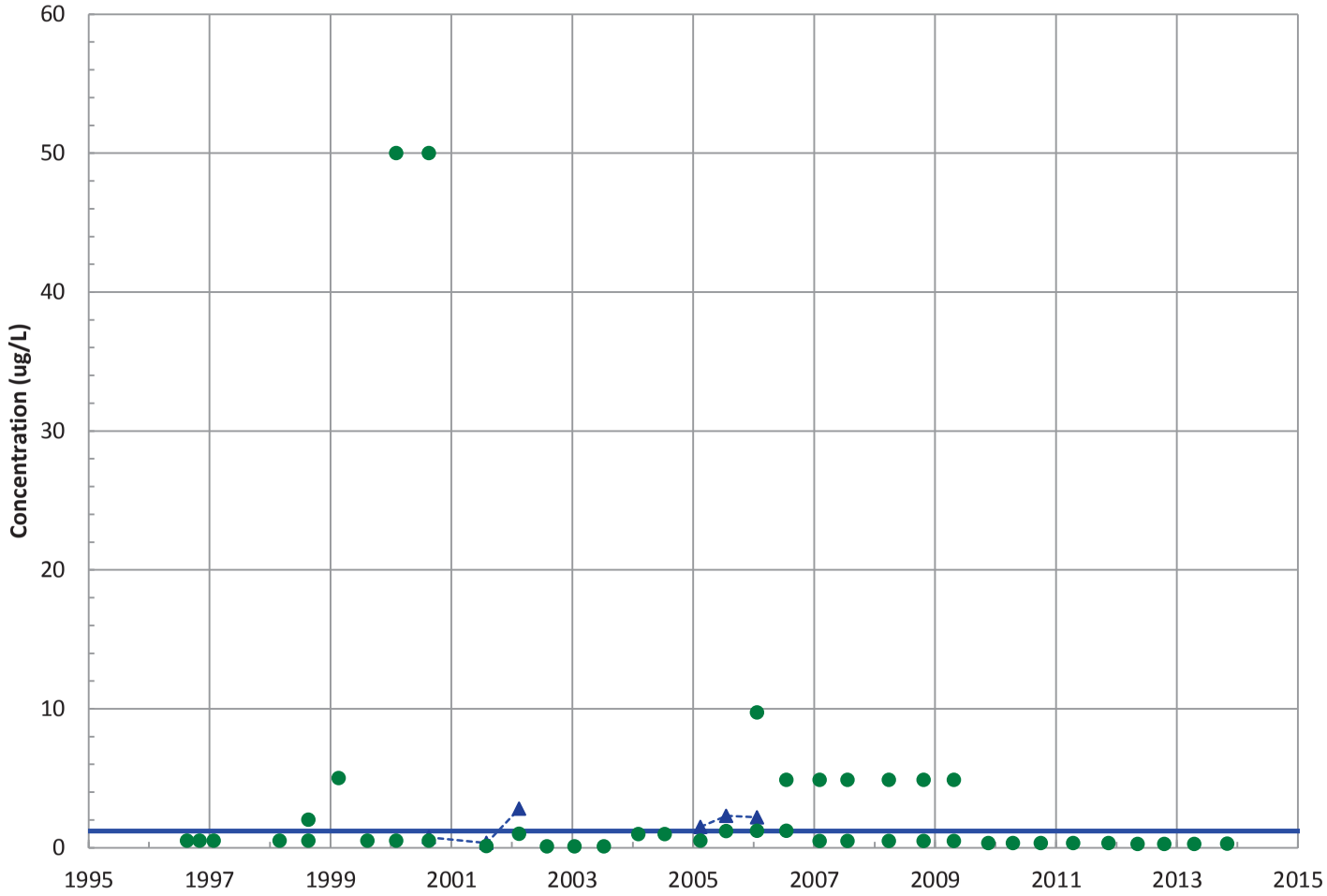
- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location

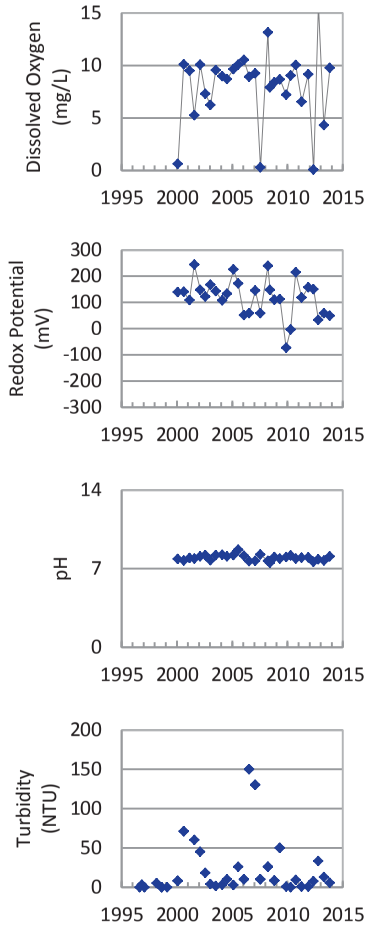
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/20/1996 to 11/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1031
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: Stable

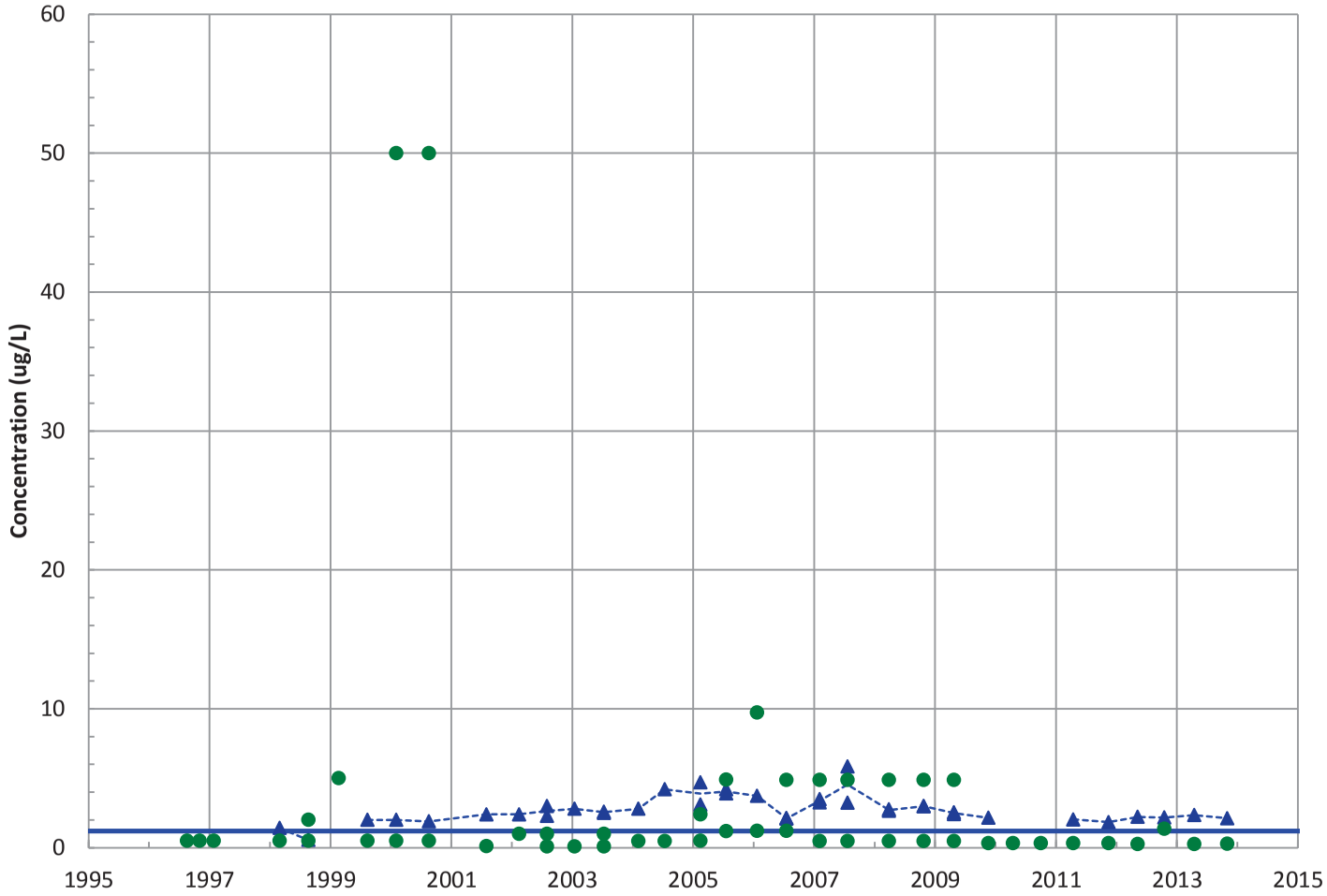
- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location

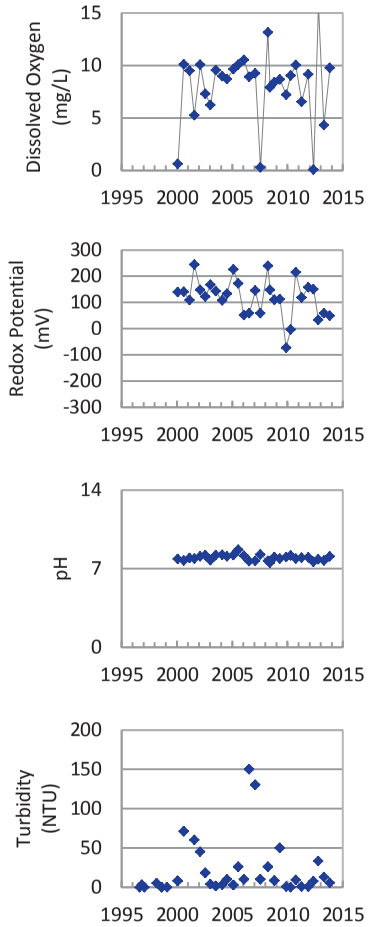
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/20/1996 to 11/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1031
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Probably Increasing

2011 - 2013 Data: Decreasing

MAROS Linear Regression Method

Data (7/2009 - 12/2013): No Trend

2011 - 2013 Data: Decreasing

▲ Measured Value

● Sample Detection Limit

------- Concentration Trend

——— Groundwater Protection Standard

Well Location

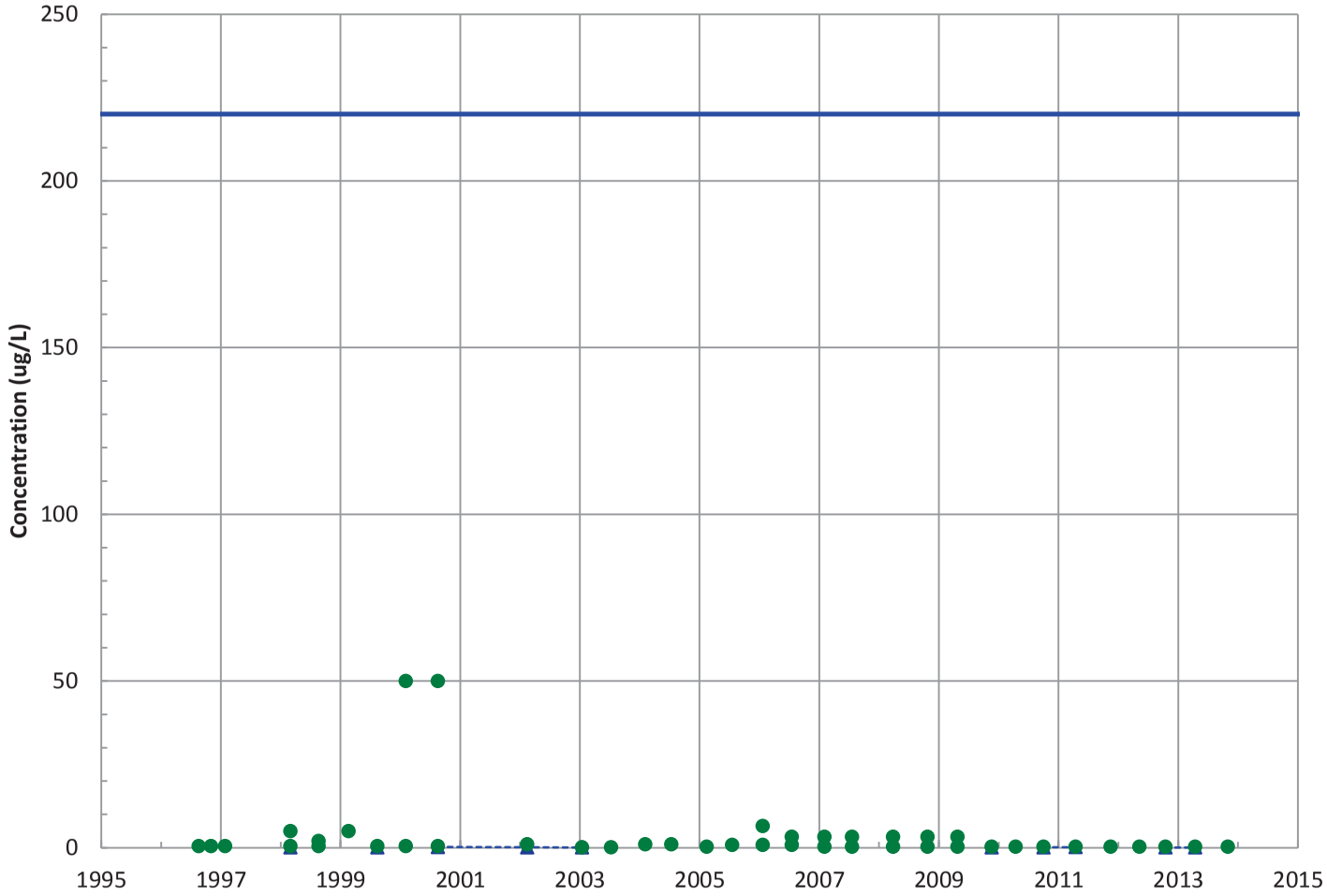
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 8/20/1996 to 11/14/2013

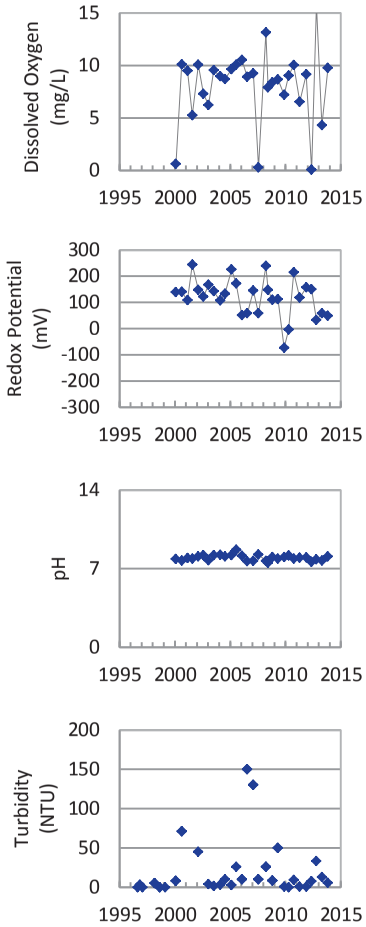
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1031
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Decreasing

2011 - 2013 Data: N/A (<4 Detections in Dataset)

MAROS Linear Regression Method

Data (7/2009 - 12/2013): Decreasing

2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location

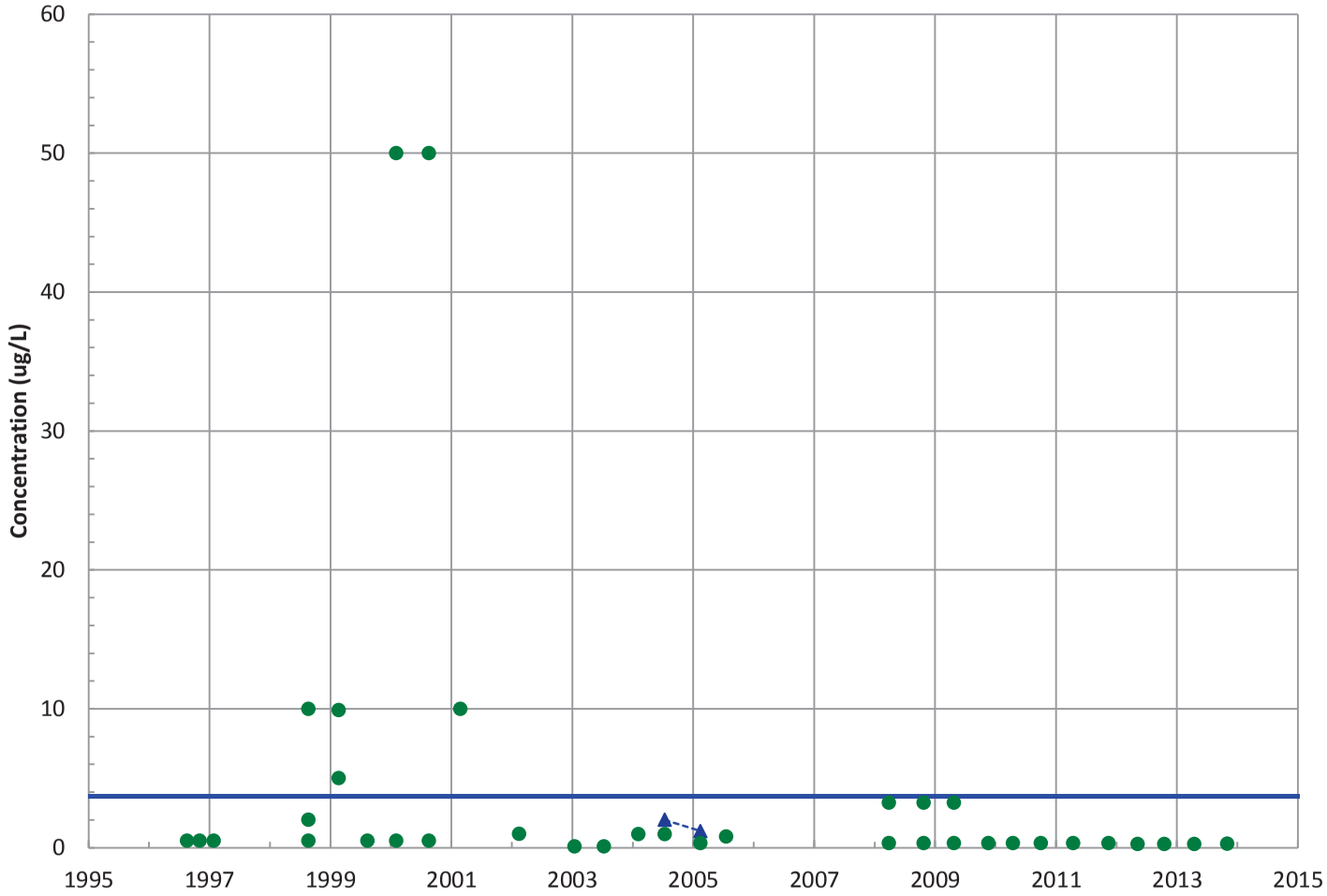
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 8/20/1996 to 11/14/2013

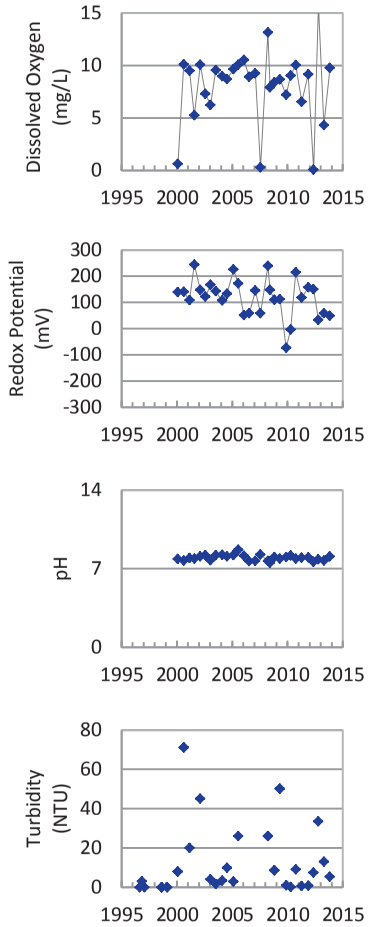
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1031
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

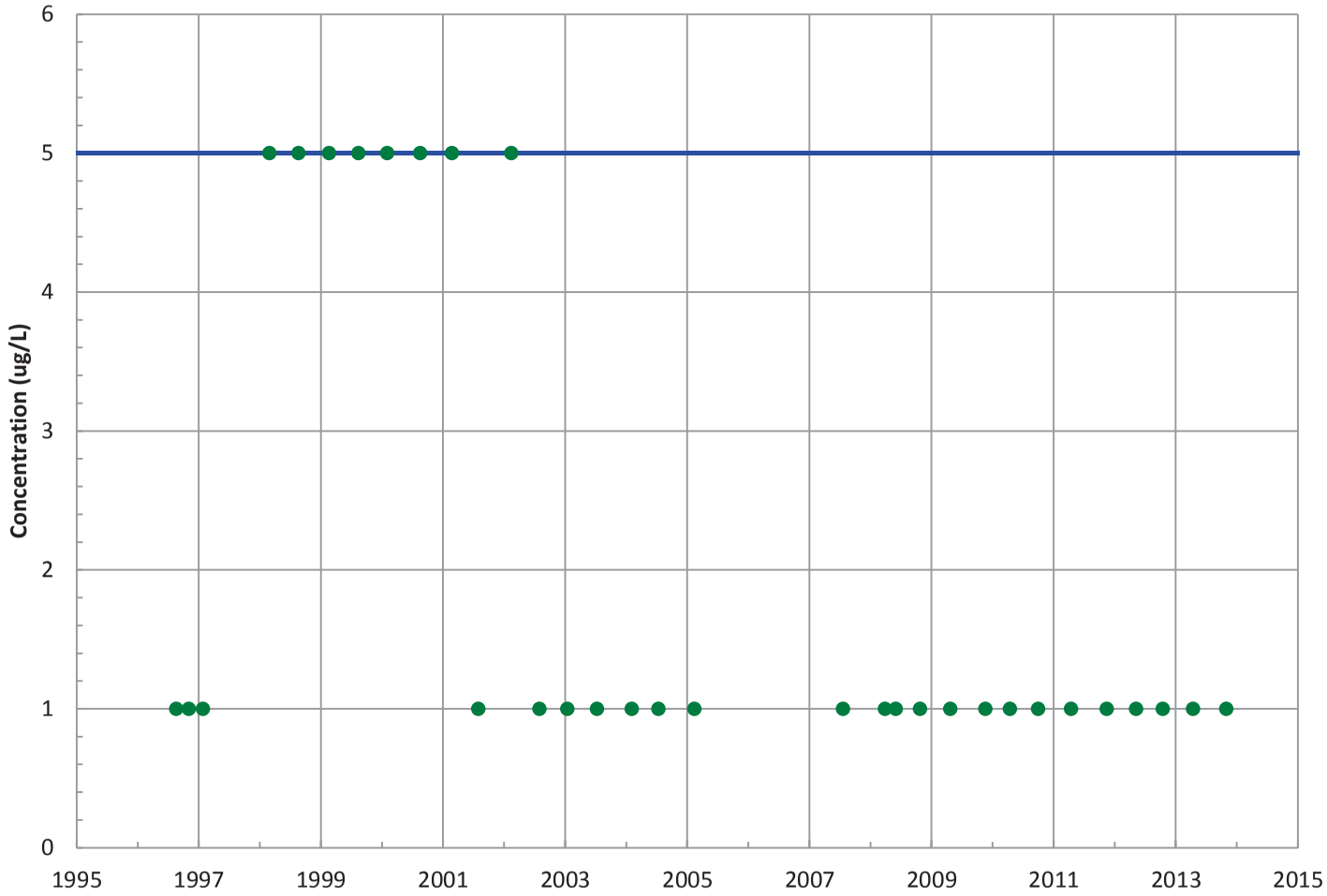
- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location

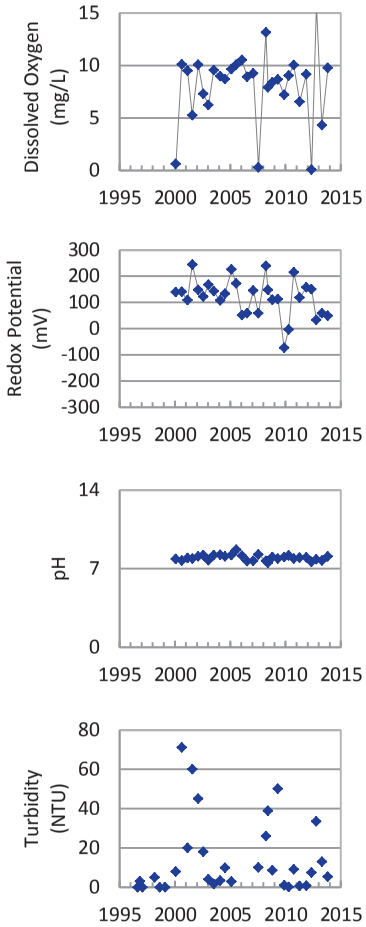
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/20/1996 to 11/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1031
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

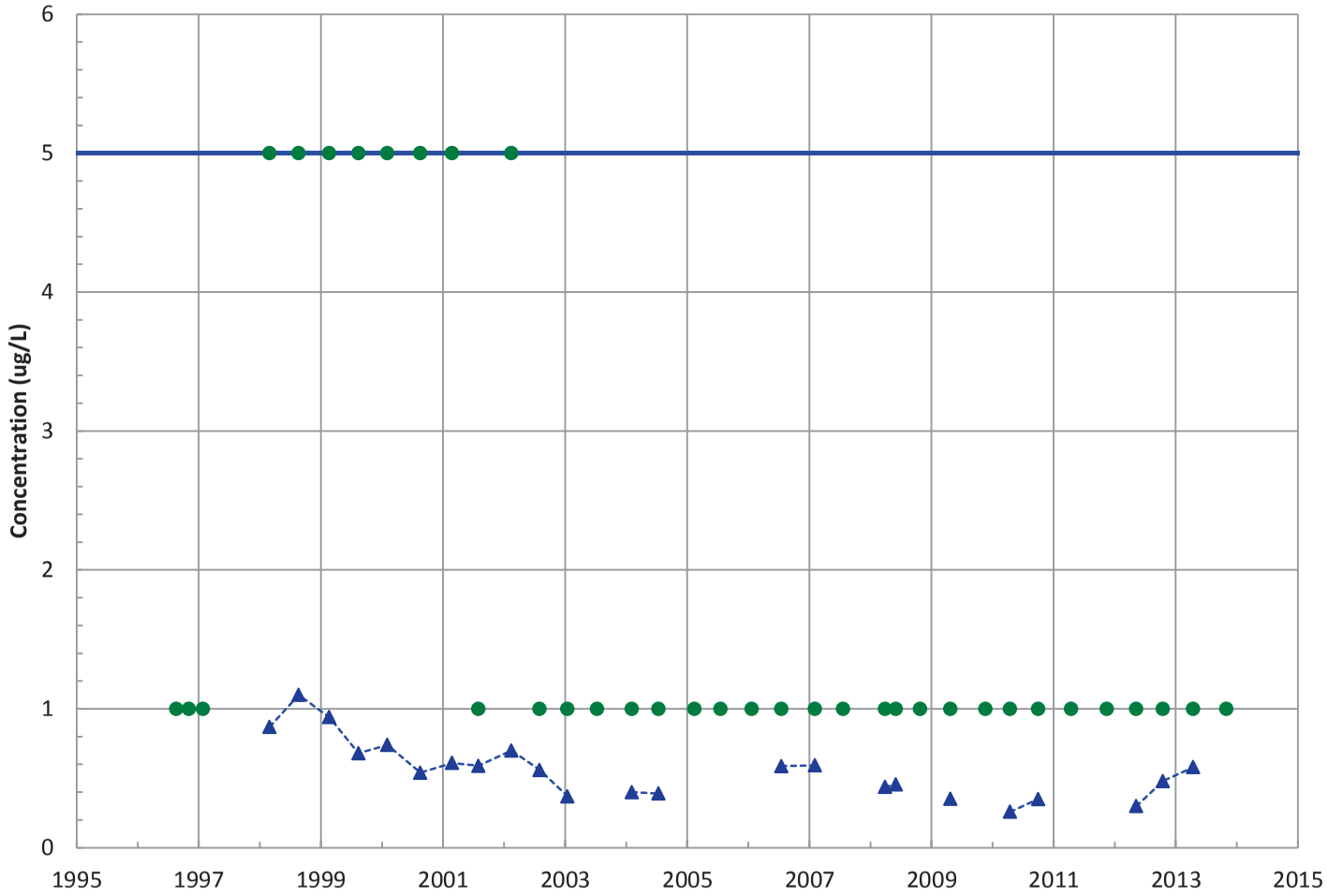
- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location

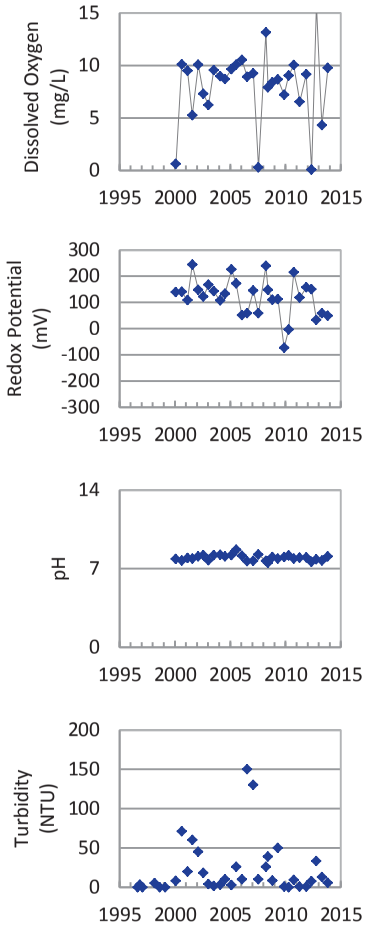
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/20/1996 to 11/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1031
Trichloroethene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): No Trend

2011 - 2013 Data: N/A (<4 Detections in Dataset)

MAROS Linear Regression Method

Data (7/2009 - 12/2013): Probably Increasing

2011 - 2013 Data: Probably Increasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location

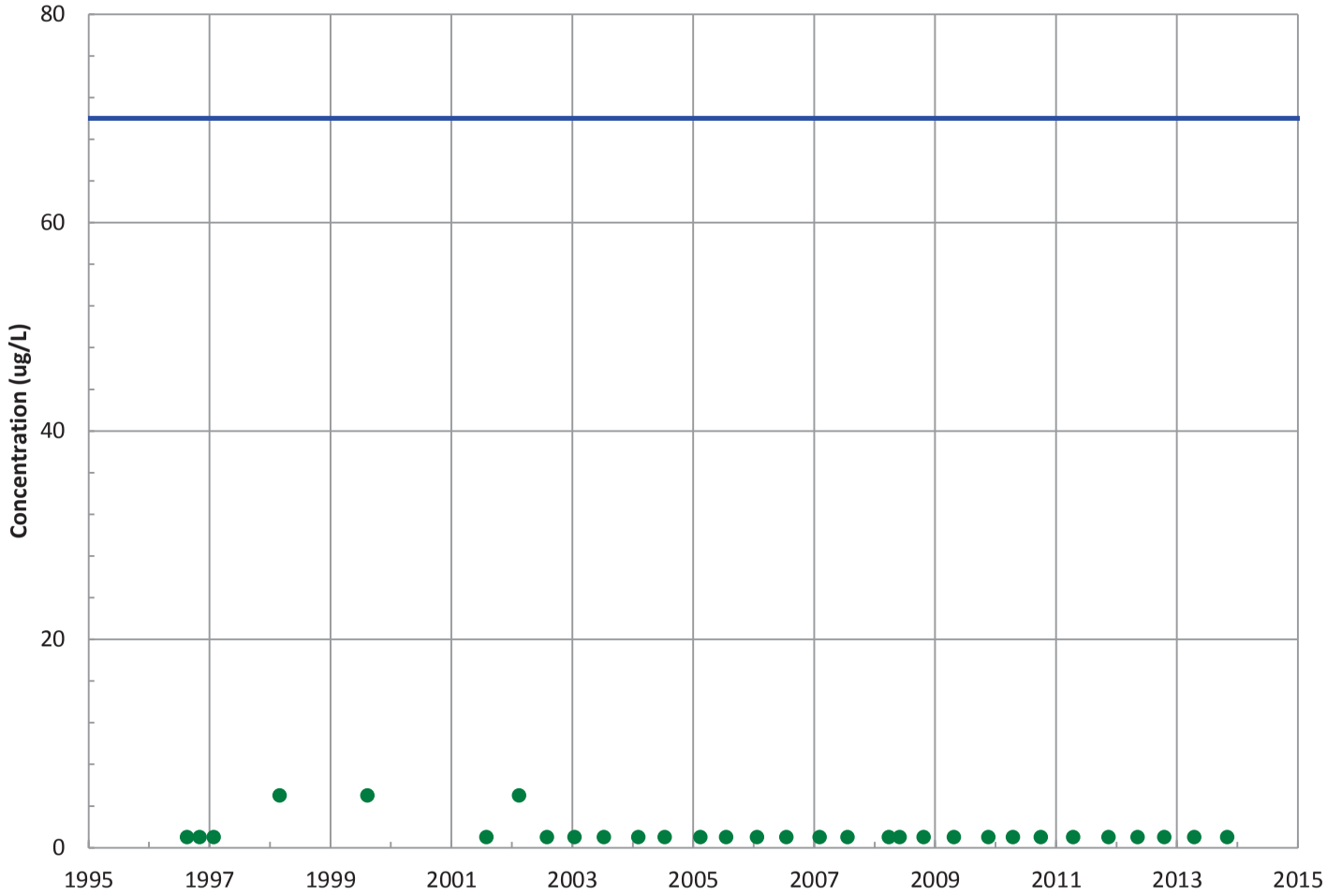
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 8/20/1996 to 11/14/2013

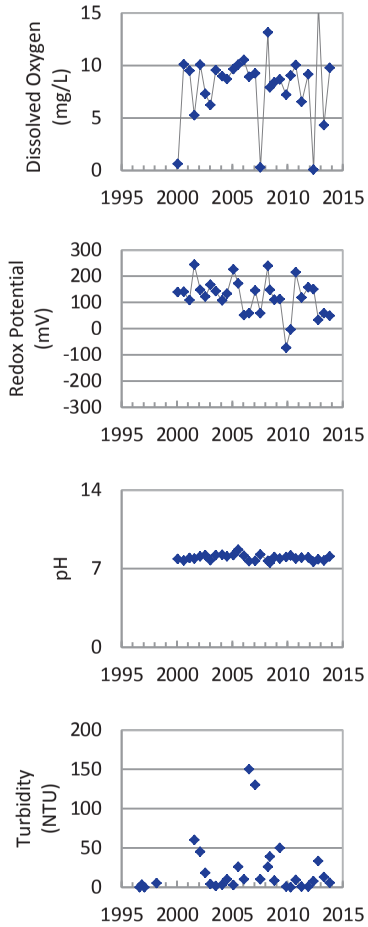
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1031
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

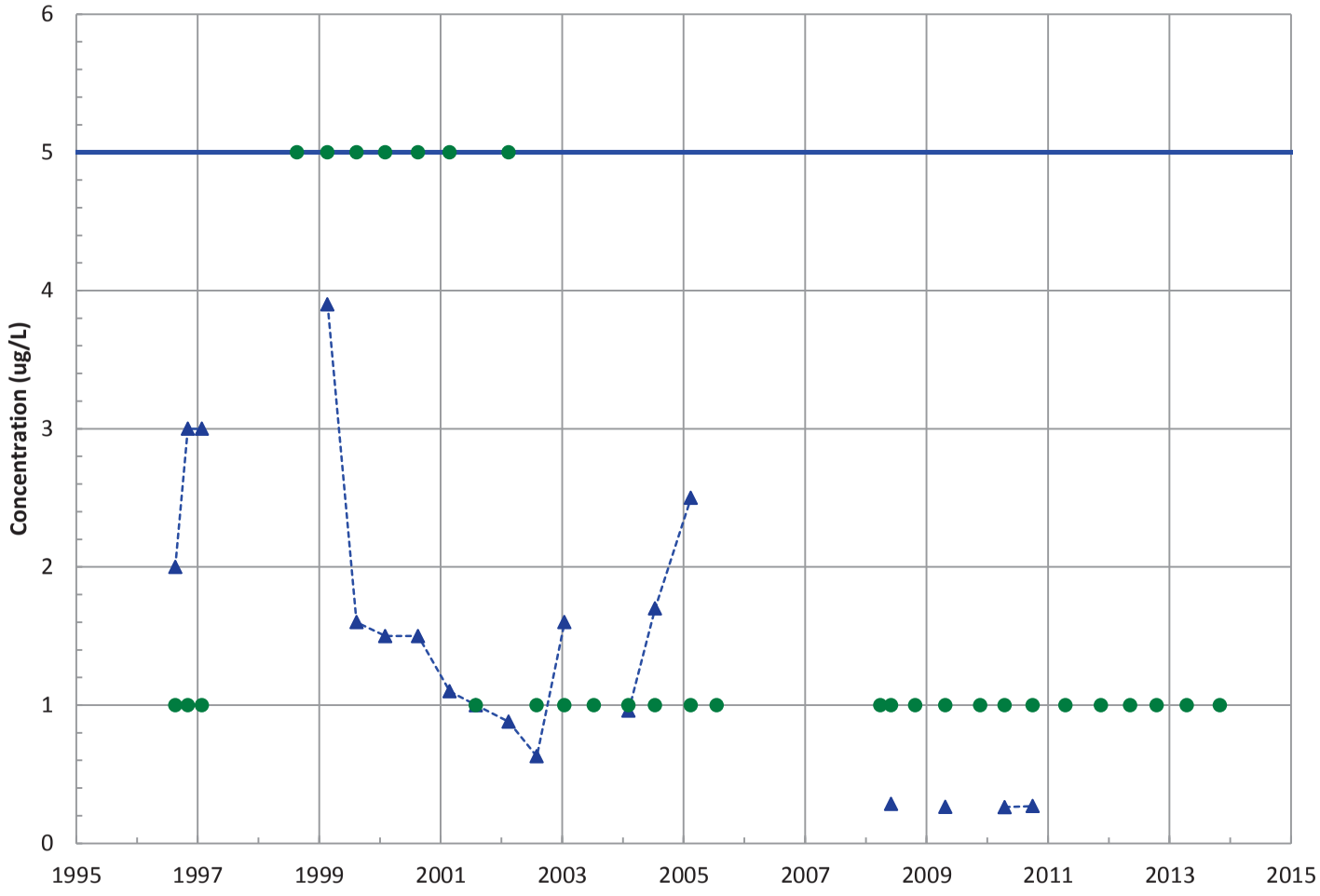
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

Well Location

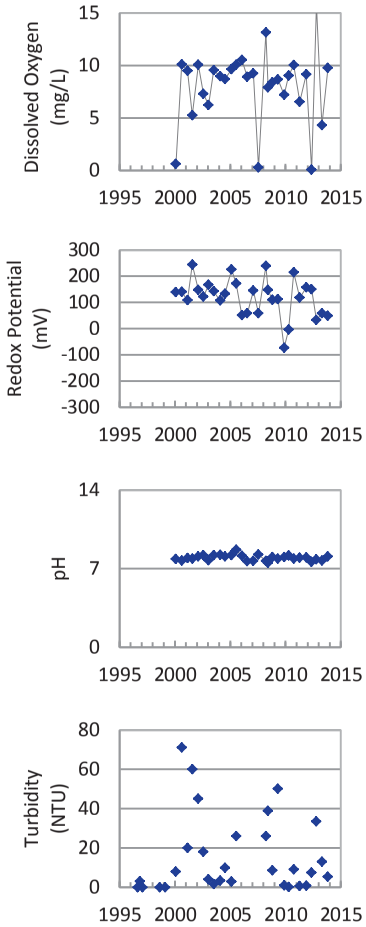
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/20/1996 to 11/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1031
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

Well Location

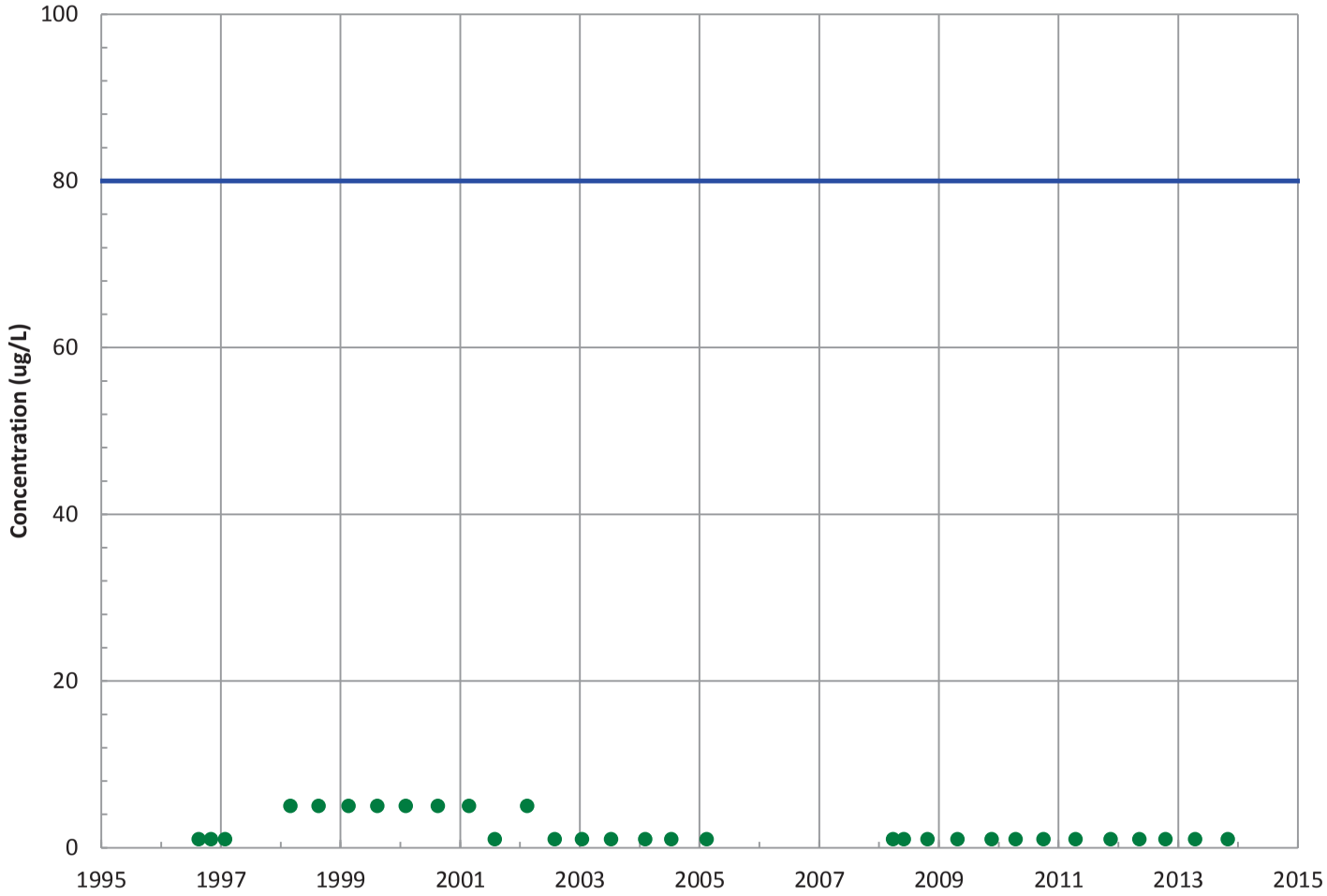
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 8/20/1996 to 11/14/2013

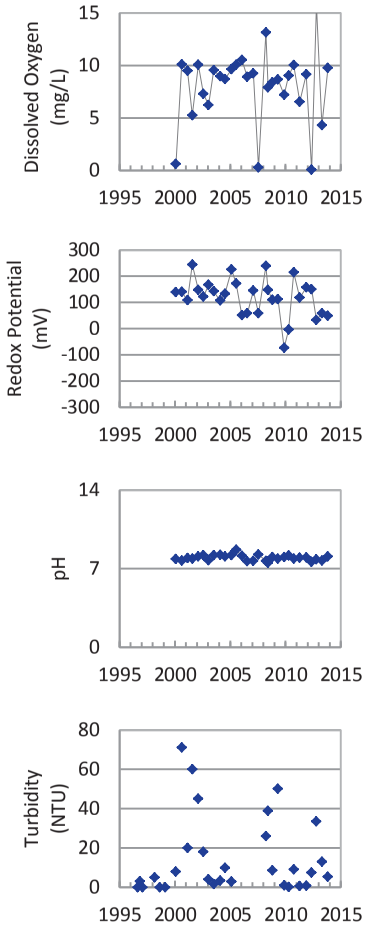
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1031
Chloroform Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

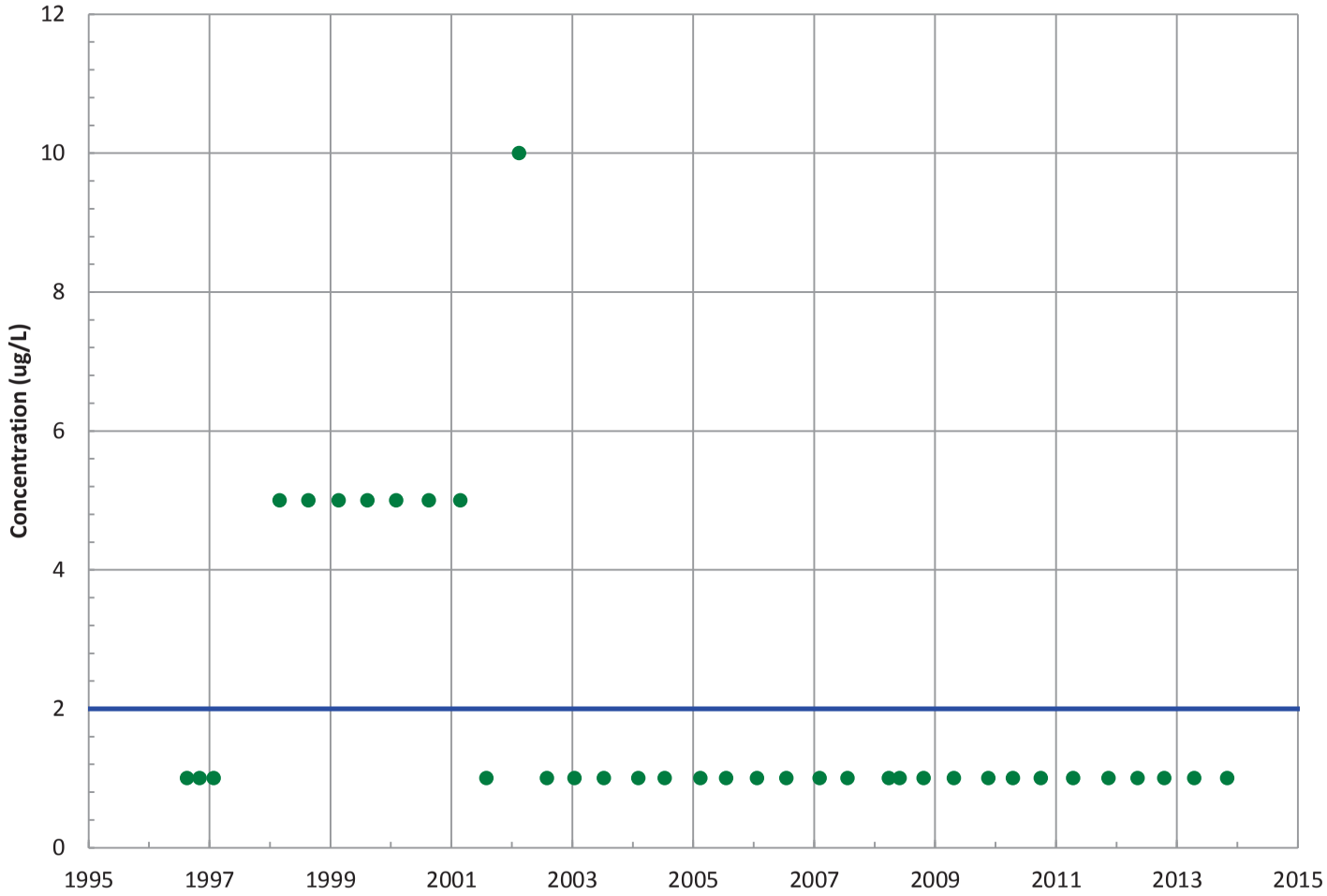
- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location

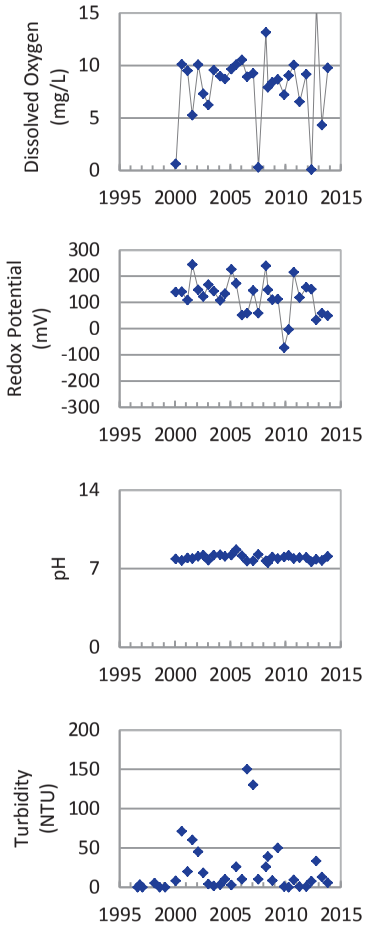
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/20/1996 to 11/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1031
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

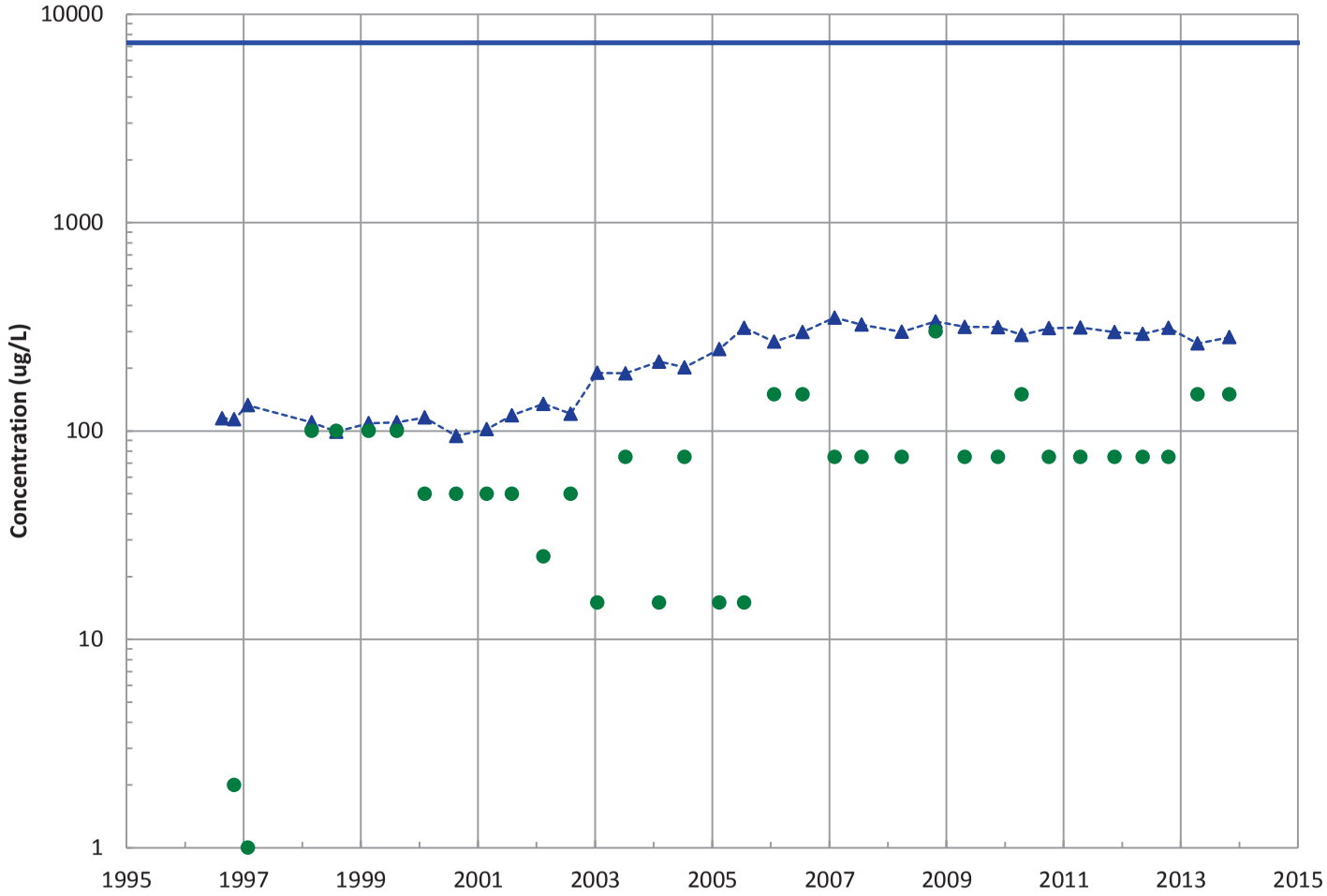
- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location

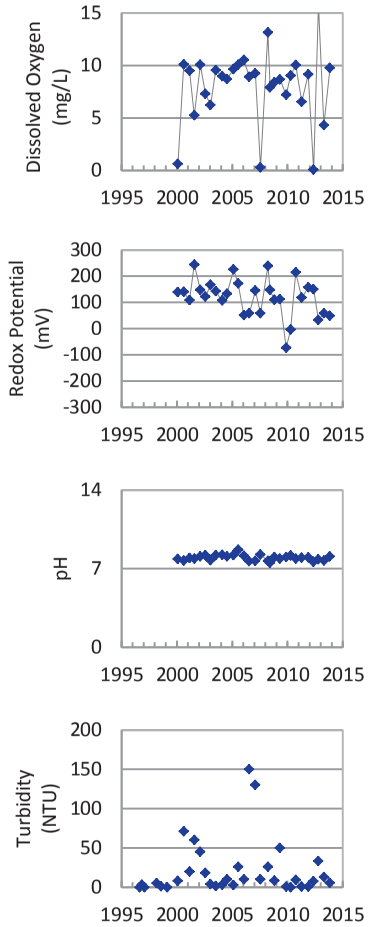
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/20/1996 to 11/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1031
Boron Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

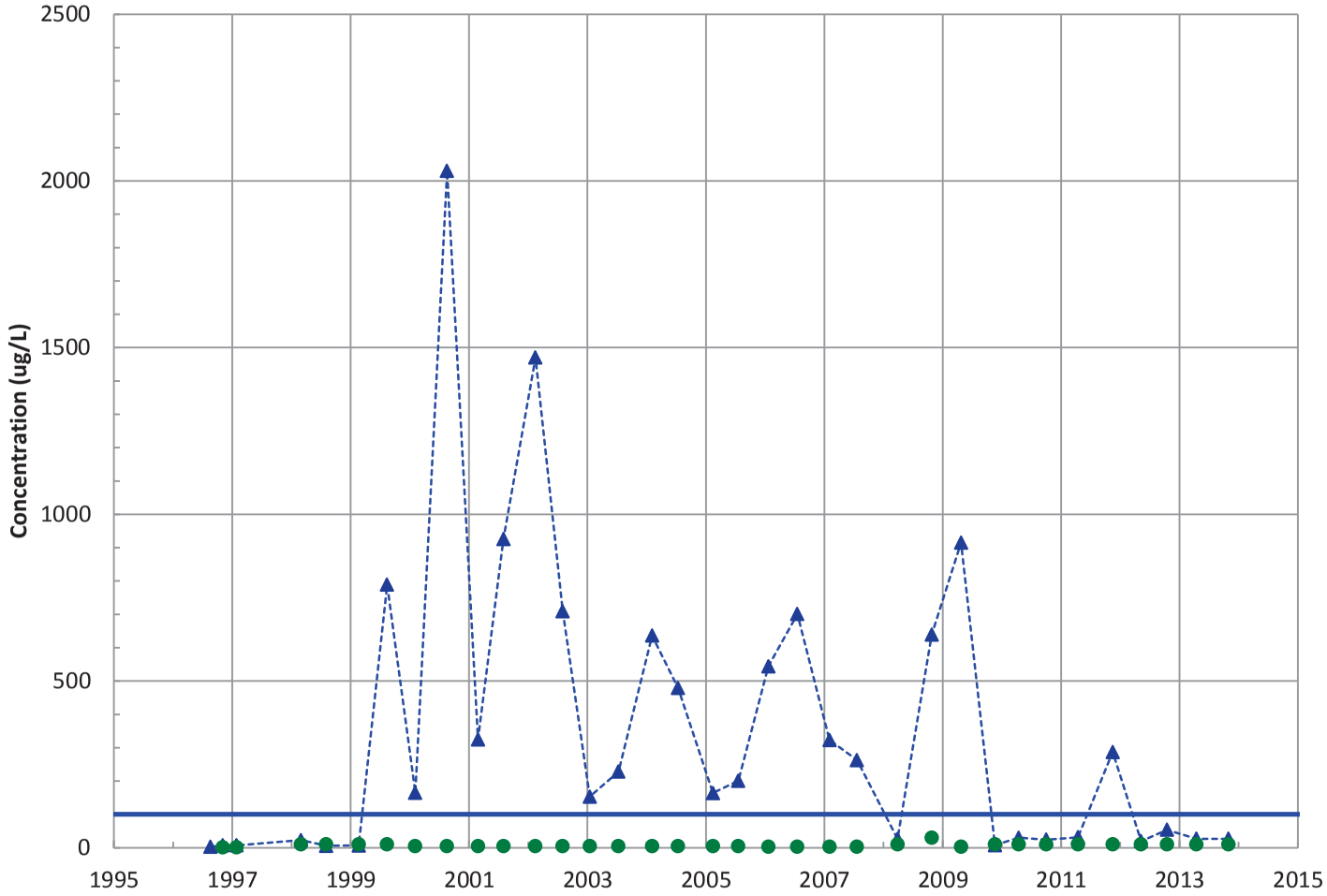
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

Well Location

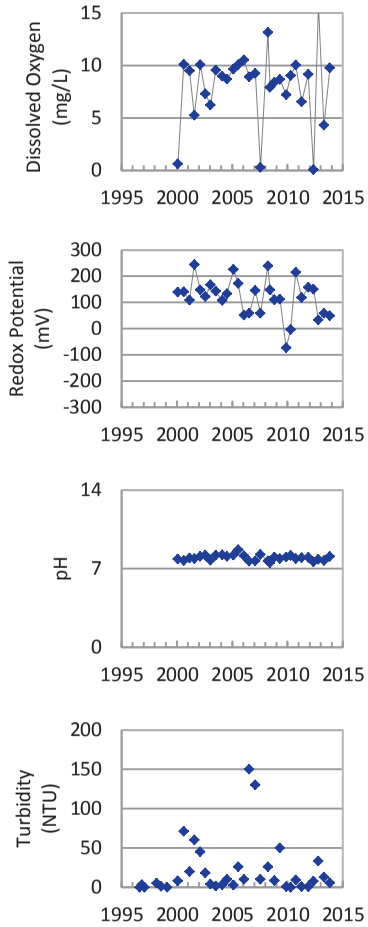
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/20/1996 to 11/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1031
Chromium, Total Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Stable

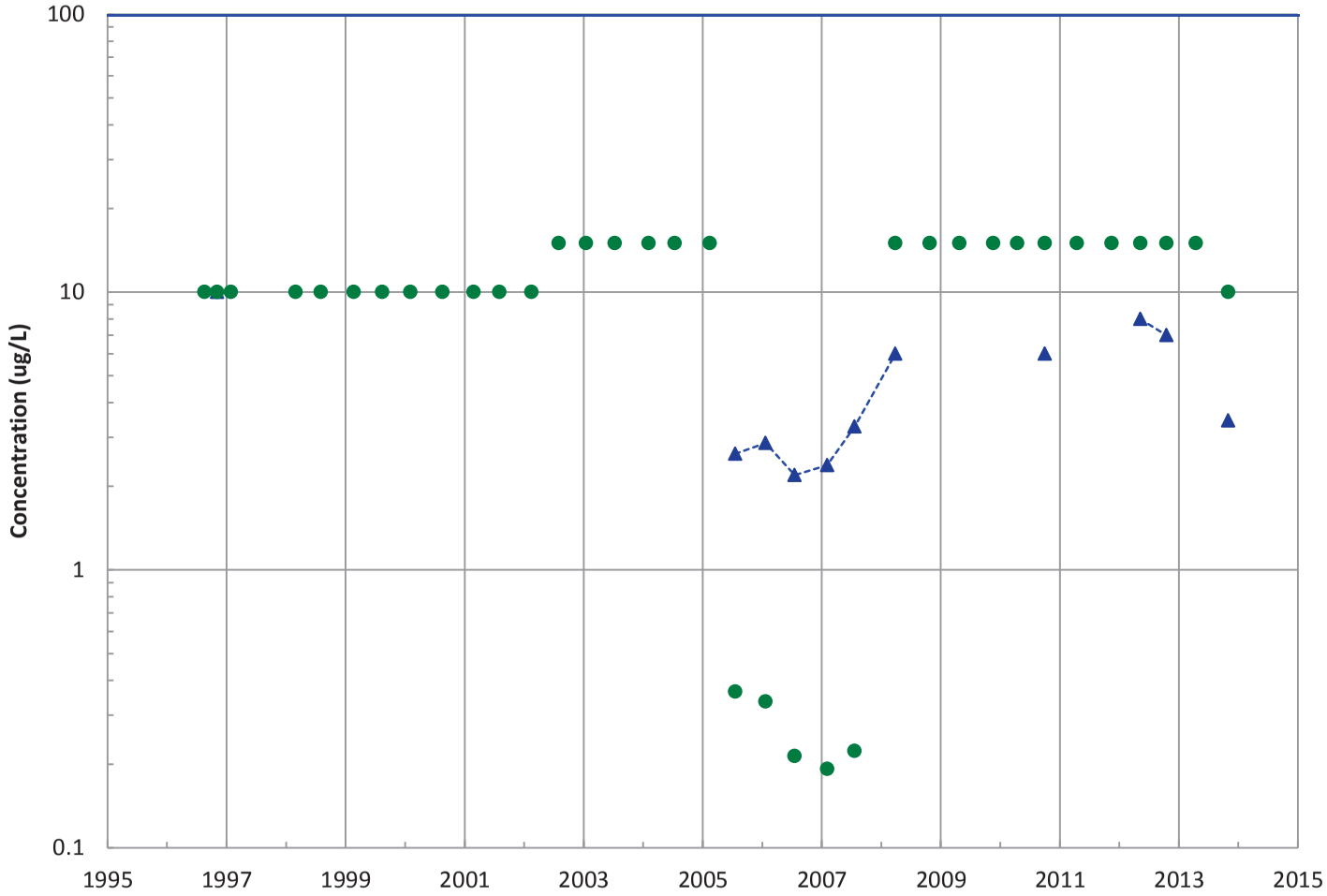
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

Well Location

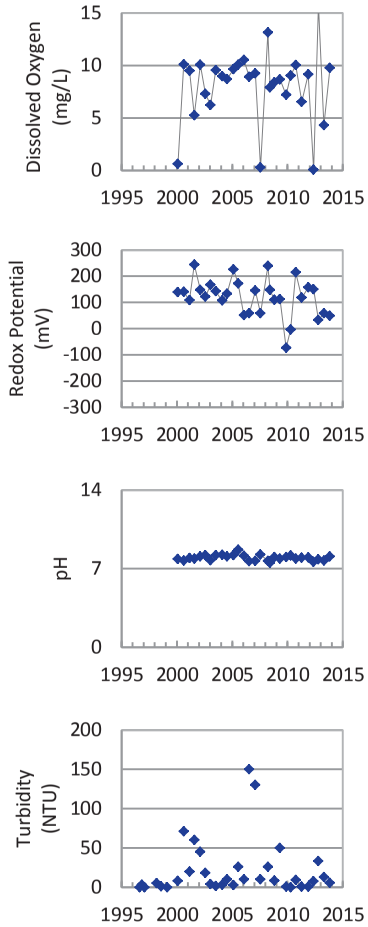
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/20/1996 to 11/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1031
Chromium, Hexavalent Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Decreasing

2011 - 2013 Data: N/A (<4 Detections in Dataset)

MAROS Linear Regression Method

Data (7/2009 - 12/2013): Stable

2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location

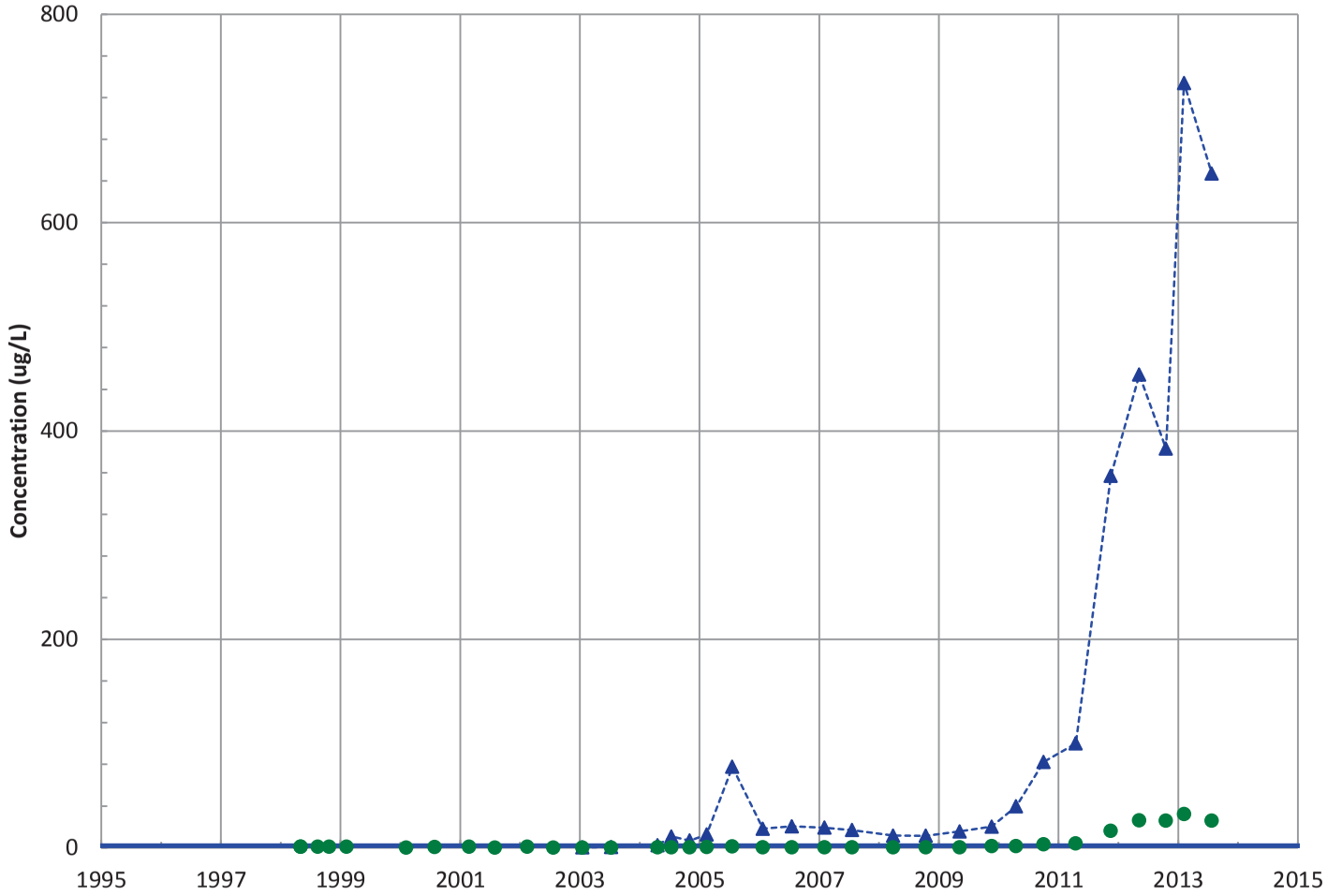
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 8/20/1996 to 11/14/2013

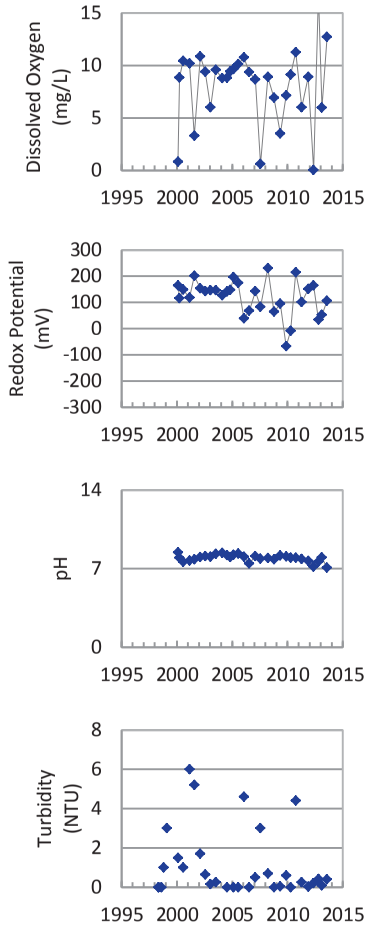
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1034
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



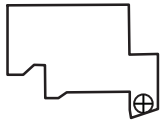
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Probably Increasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

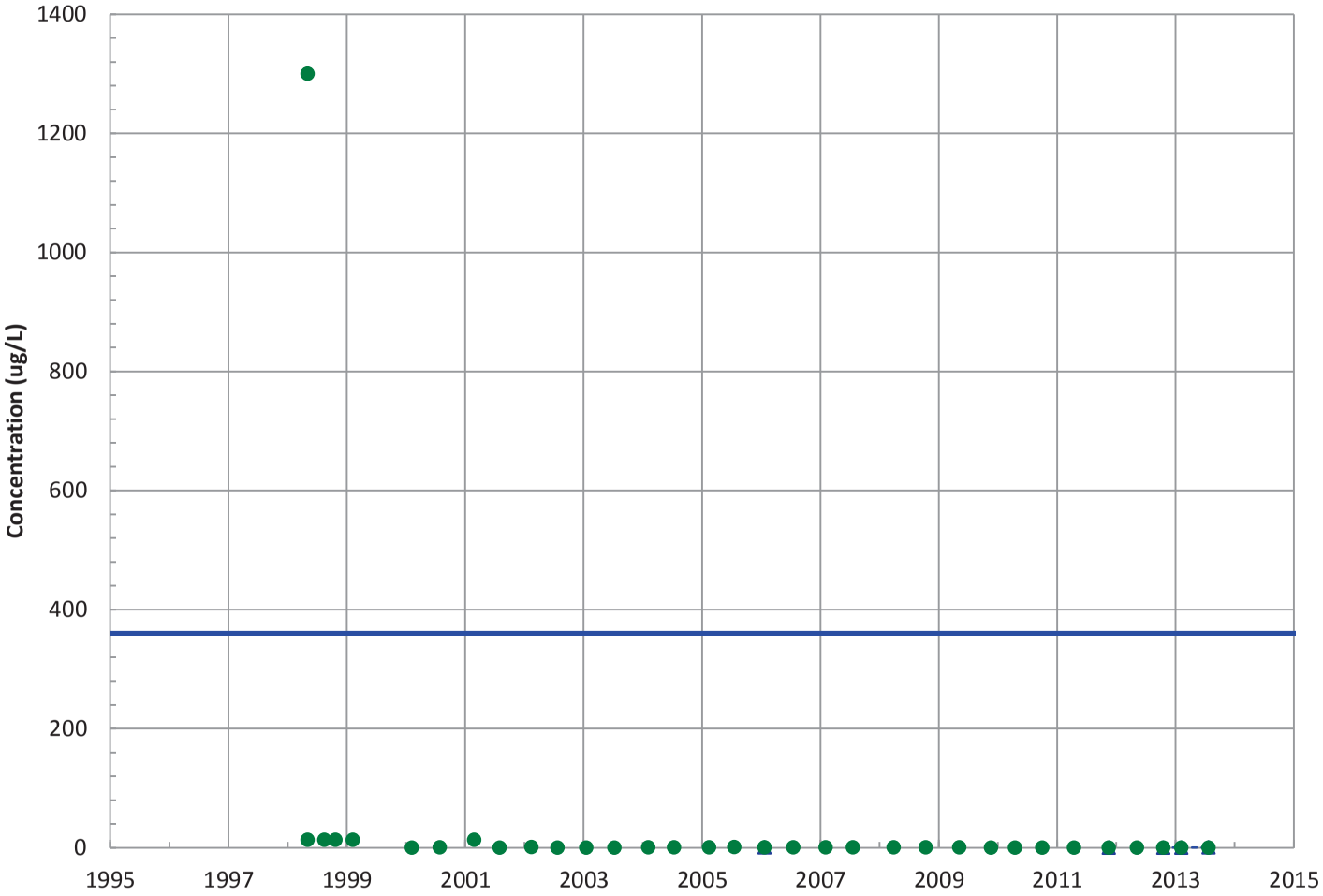
Well Location



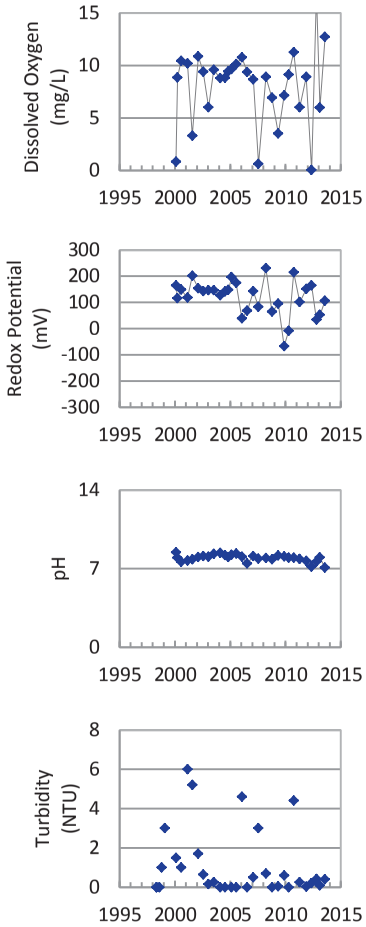
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/6/1998 to 8/7/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1034
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): No Trend

2011 - 2013 Data: N/A (<4 Detections in Dataset)

MAROS Linear Regression Method

Data (7/2009 - 12/2013): No Trend

2011 - 2013 Data: No Trend

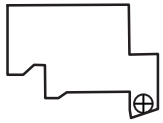
▲ Measured Value

● Sample Detection Limit

------- Concentration Trend

——— Groundwater Protection Standard

Well Location



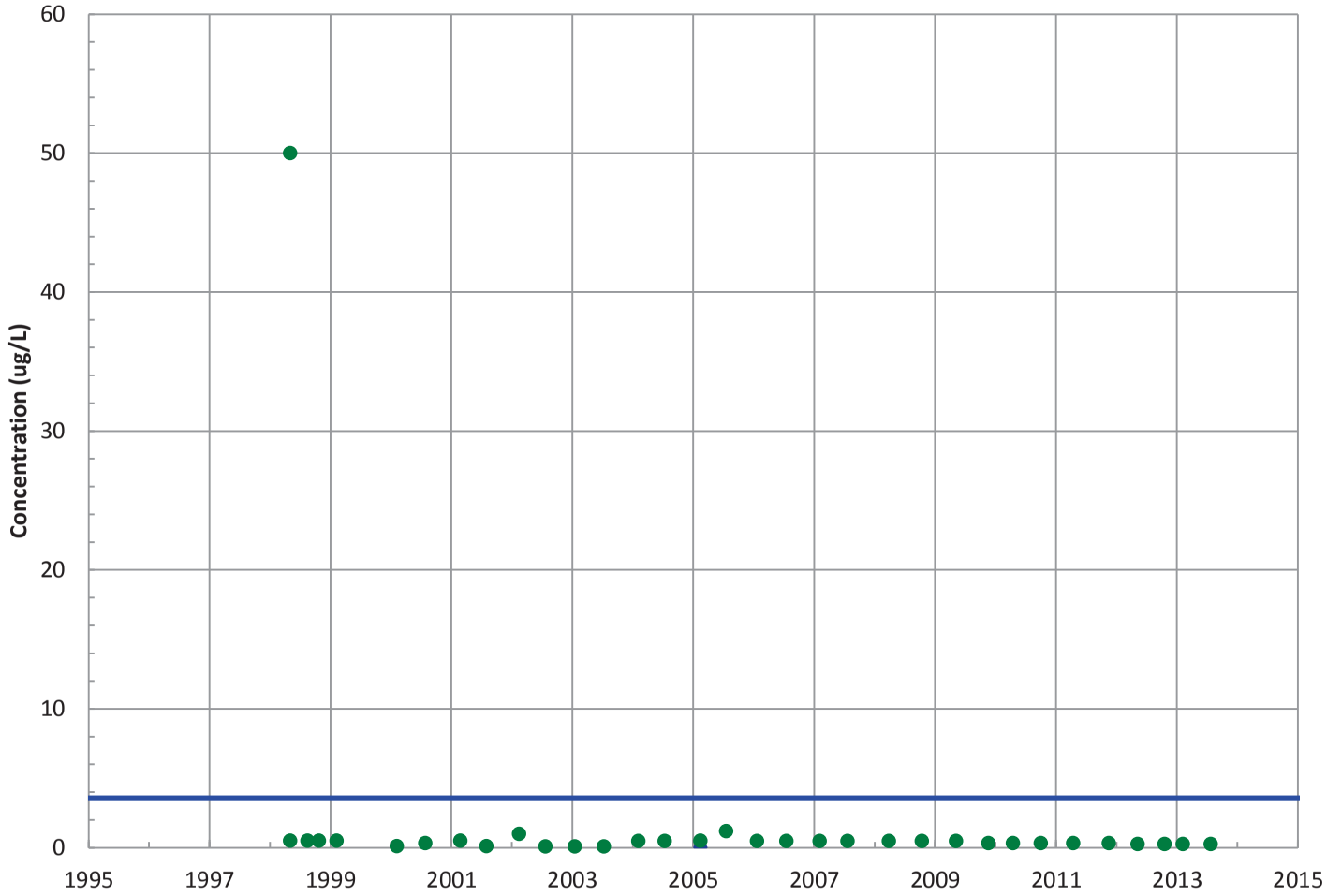
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 5/6/1998 to 8/7/2013

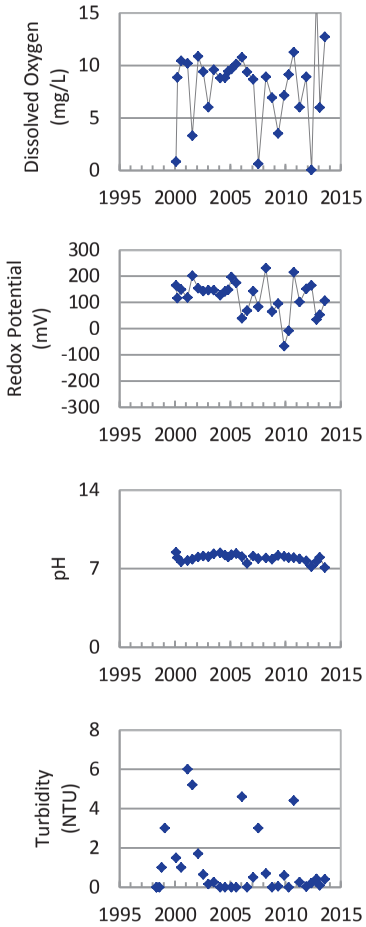
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1034
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



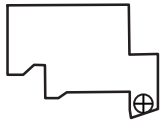
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

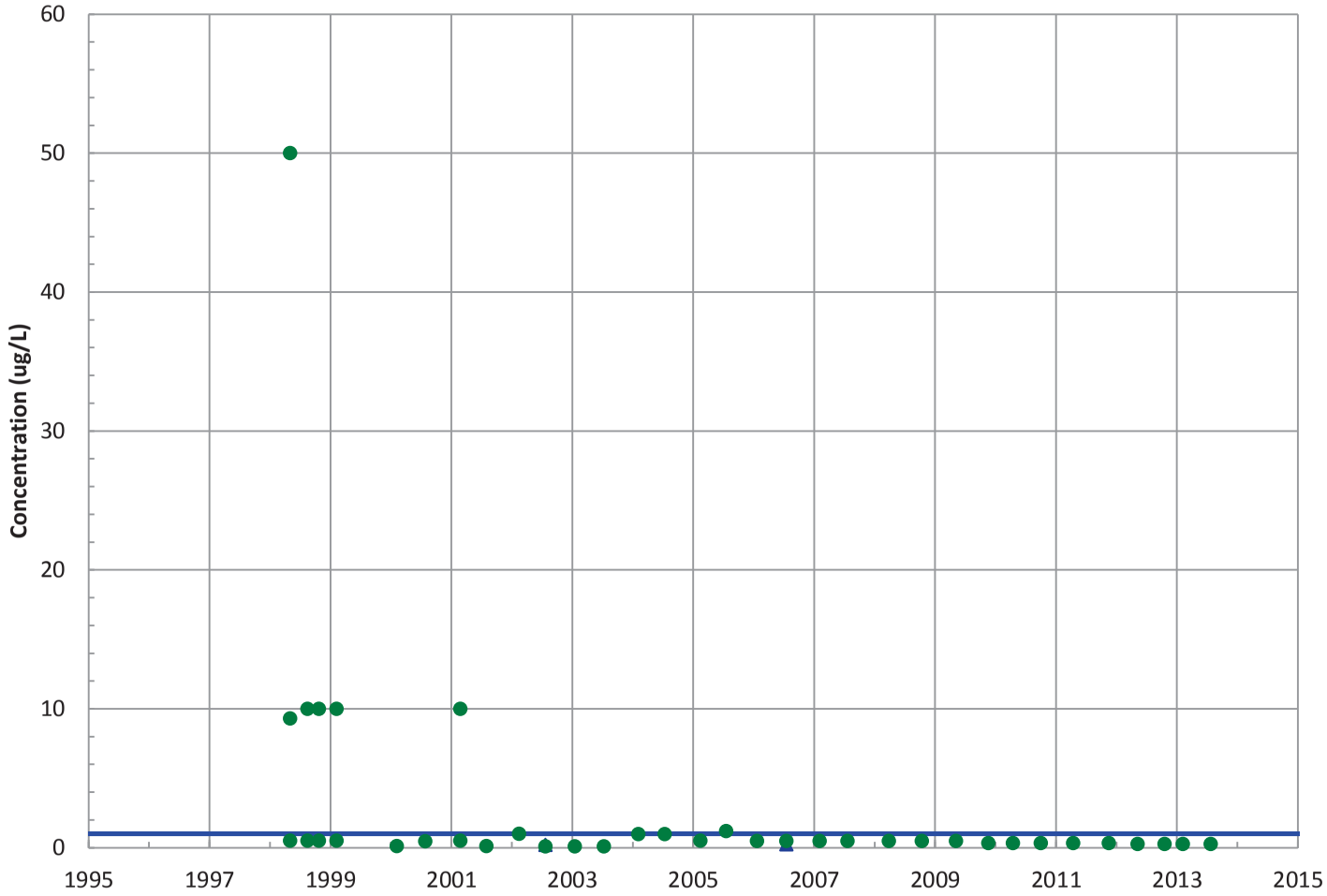
Well Location



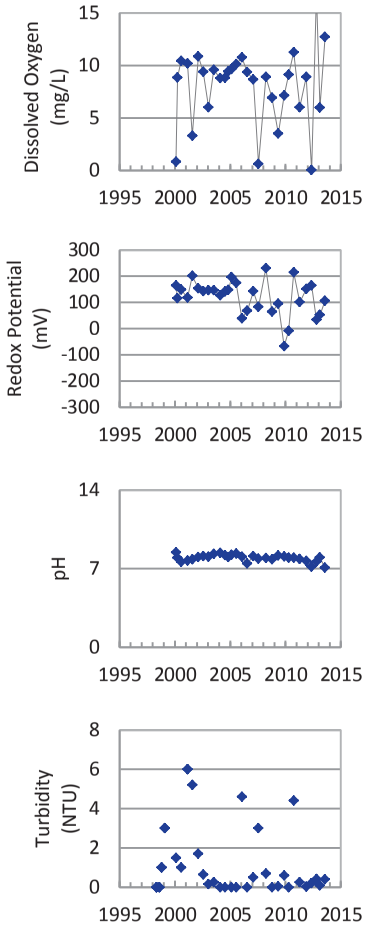
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/6/1998 to 8/7/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1034
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



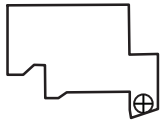
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

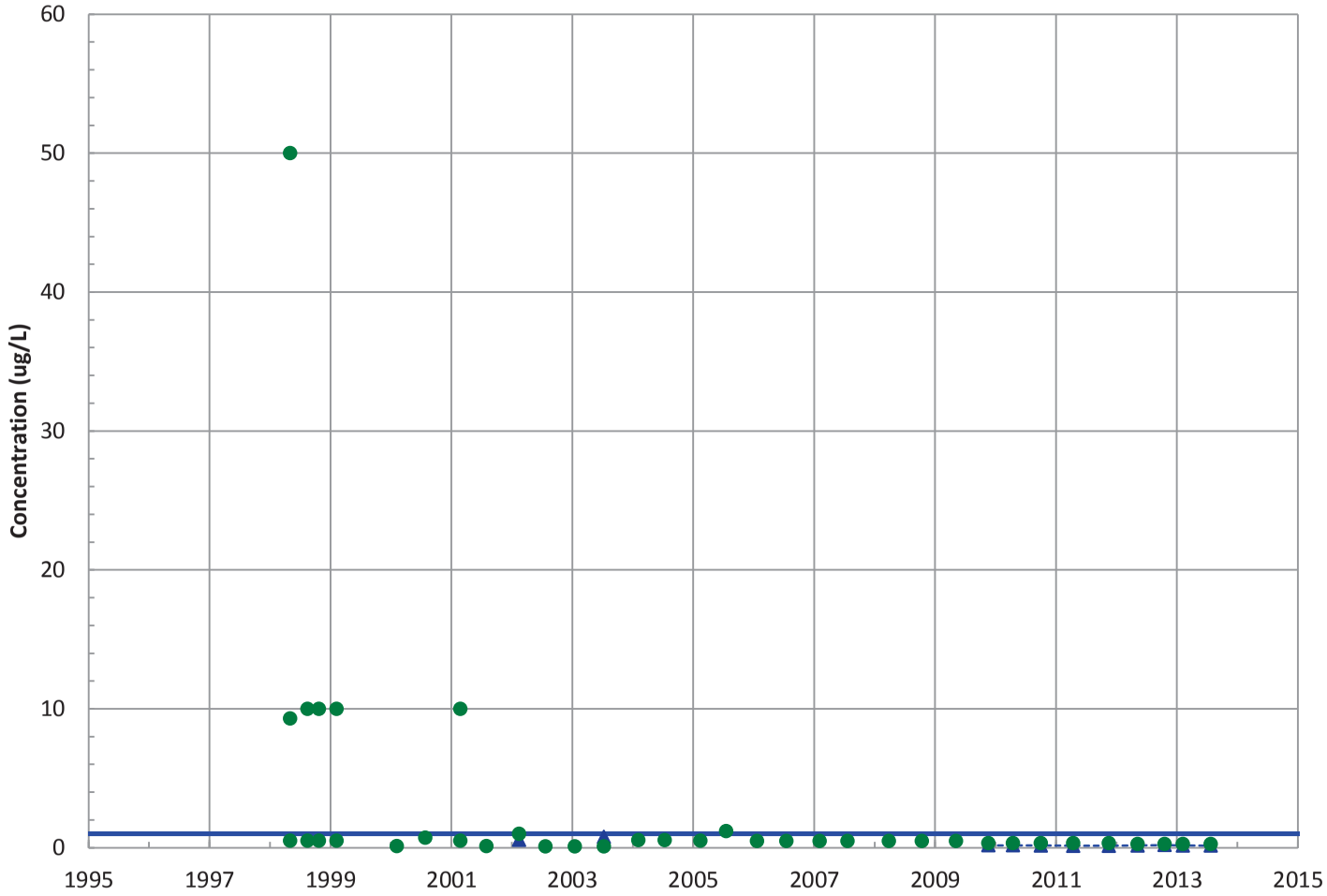
Well Location



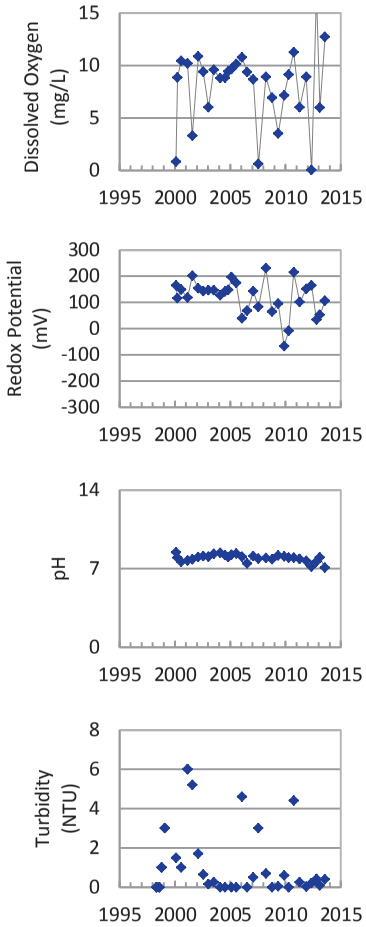
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/6/1998 to 8/7/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1034
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



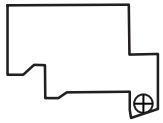
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

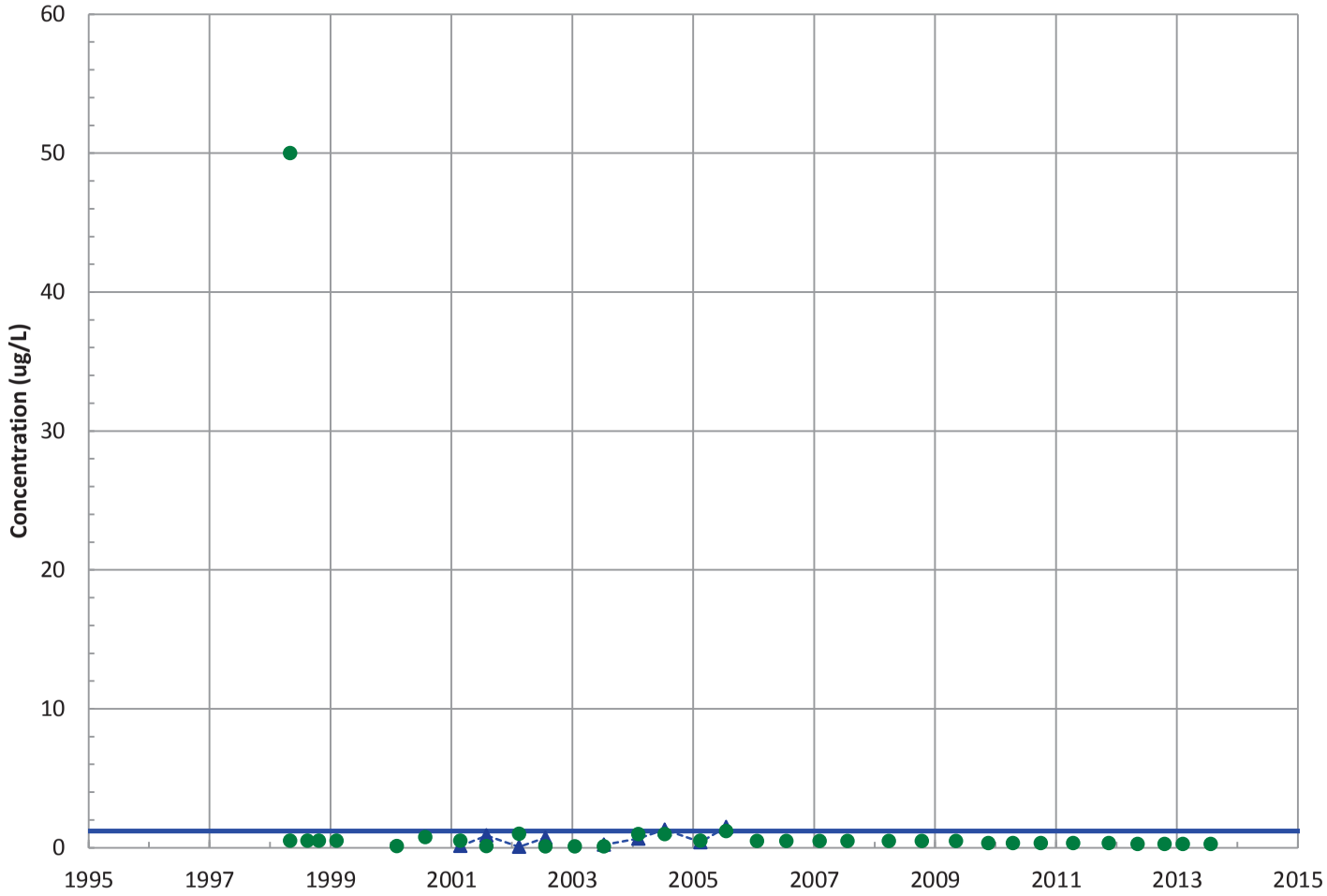
Well Location



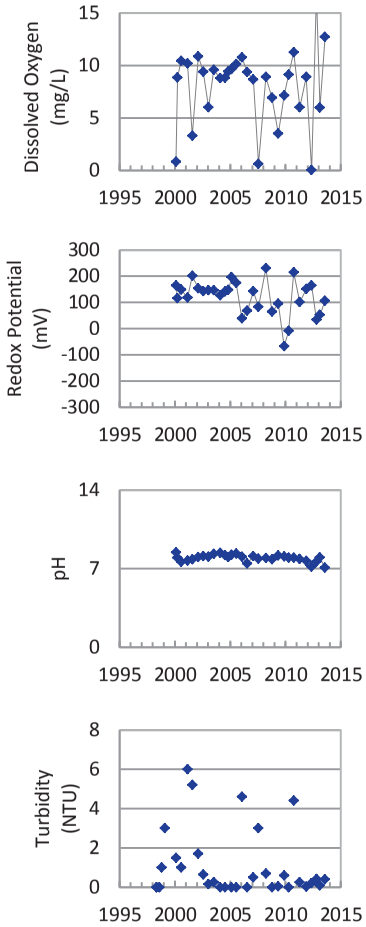
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/6/1998 to 8/7/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1034
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



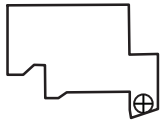
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

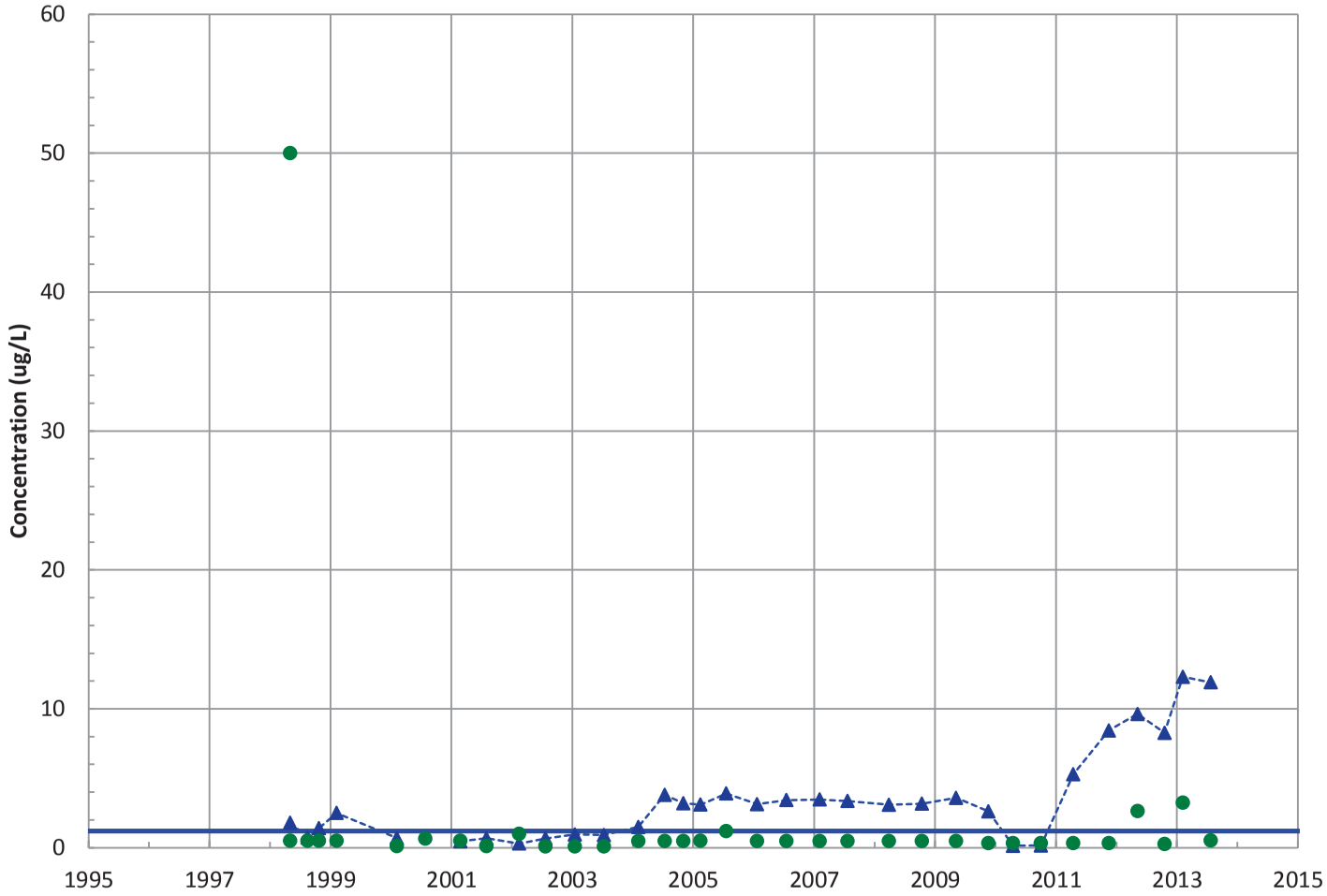
Well Location



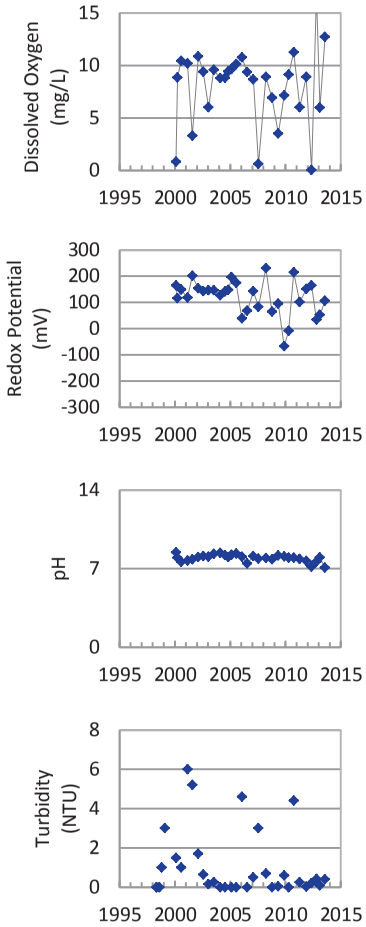
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/6/1998 to 8/7/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1034
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



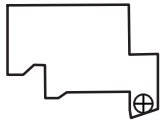
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

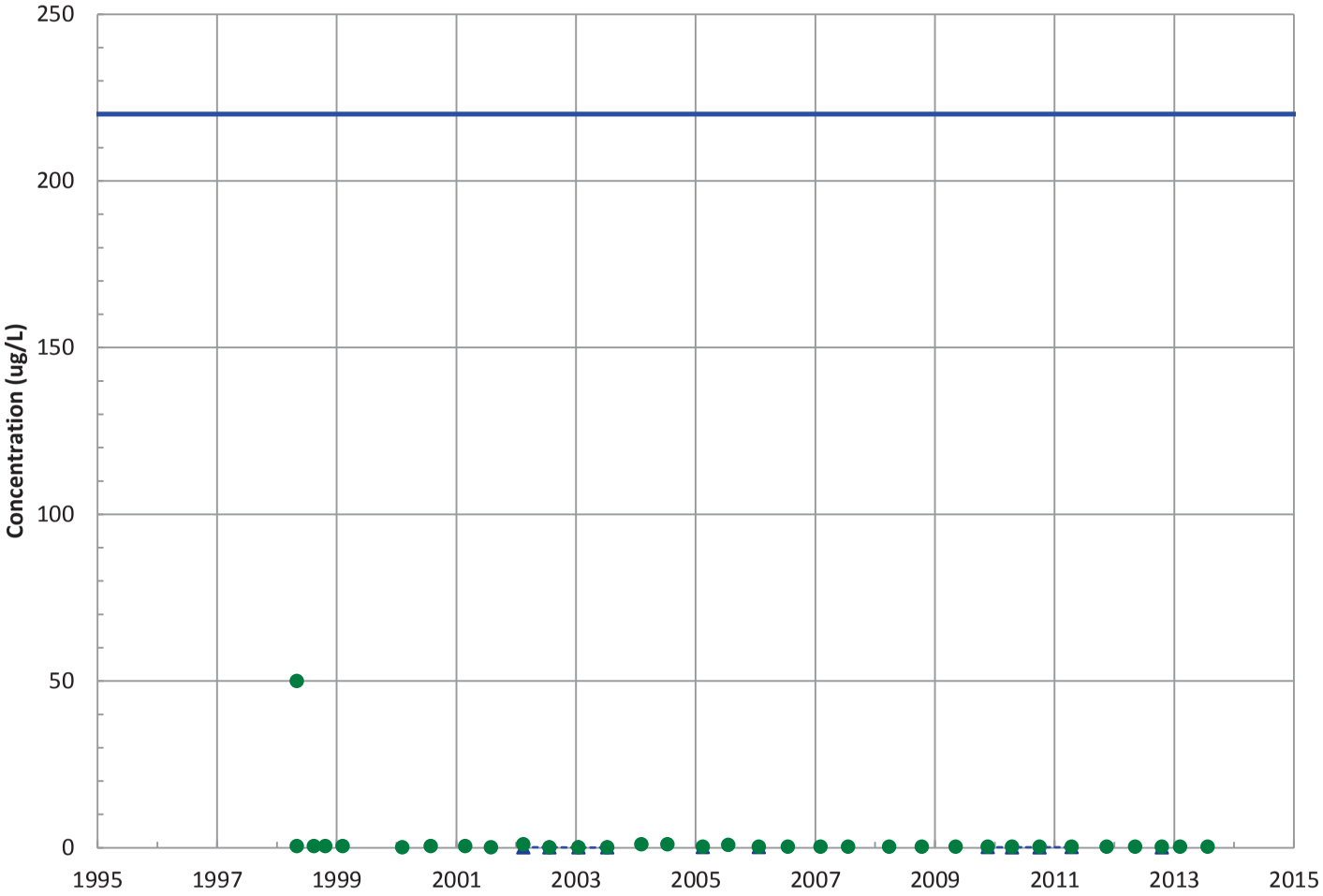
Well Location



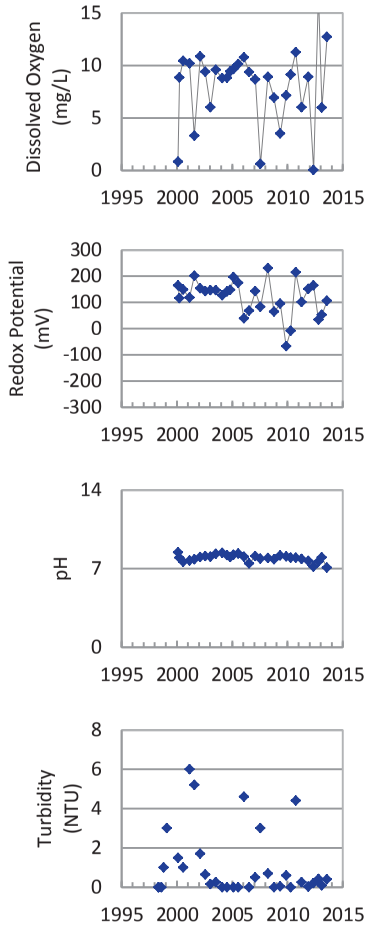
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/6/1998 to 8/7/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1034
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Decreasing

2011 - 2013 Data: N/A (<4 Detections in Dataset)

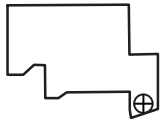
MAROS Linear Regression Method

Data (7/2009 - 12/2013): Probably Decreasing

2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location



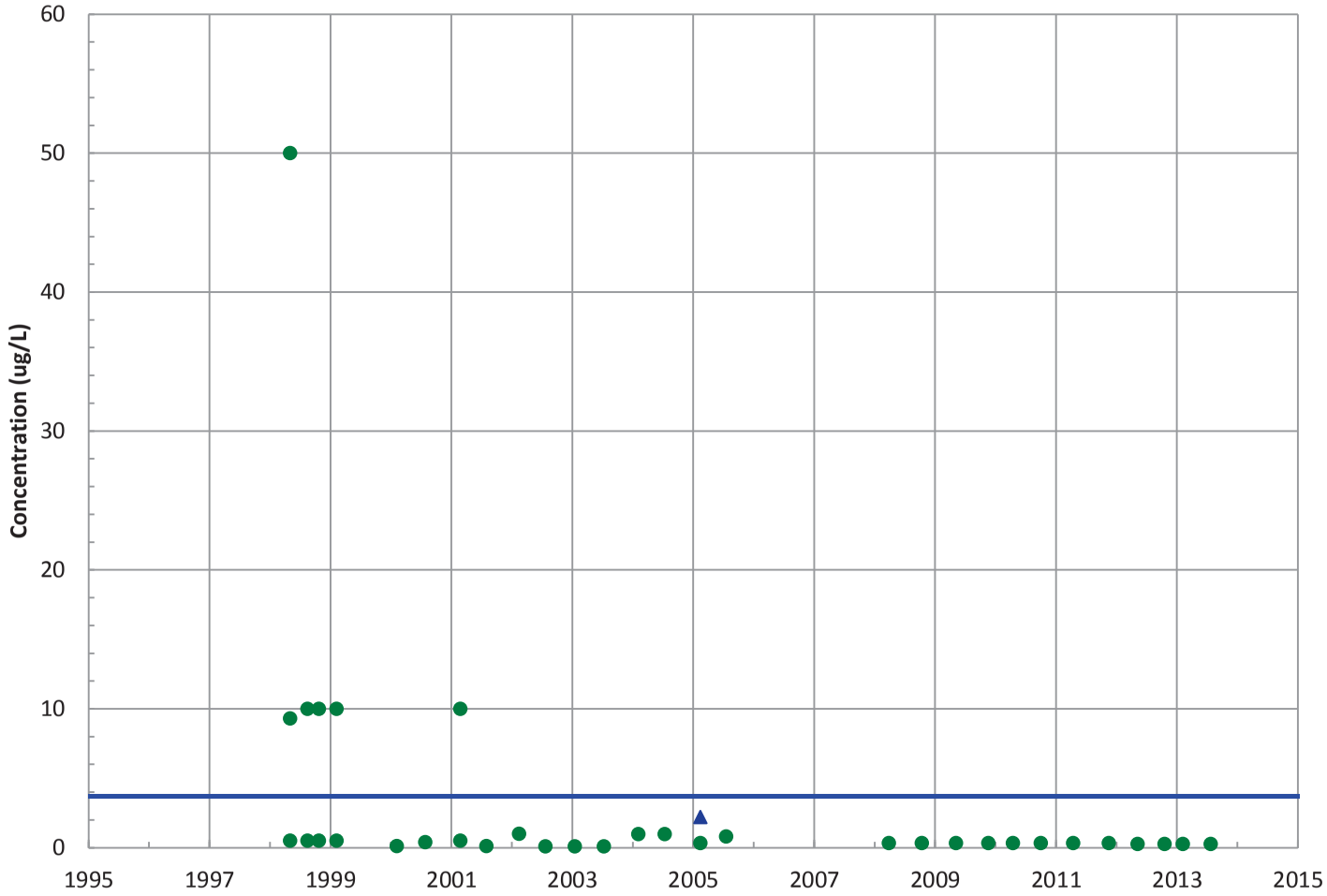
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 5/6/1998 to 8/7/2013

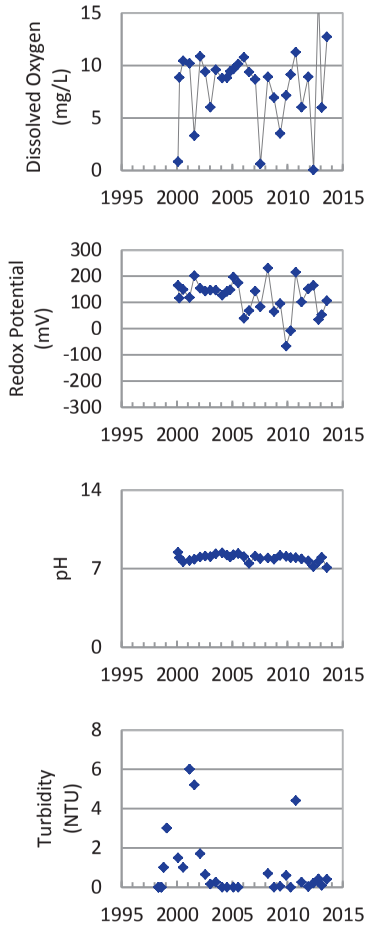
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1034
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



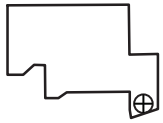
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

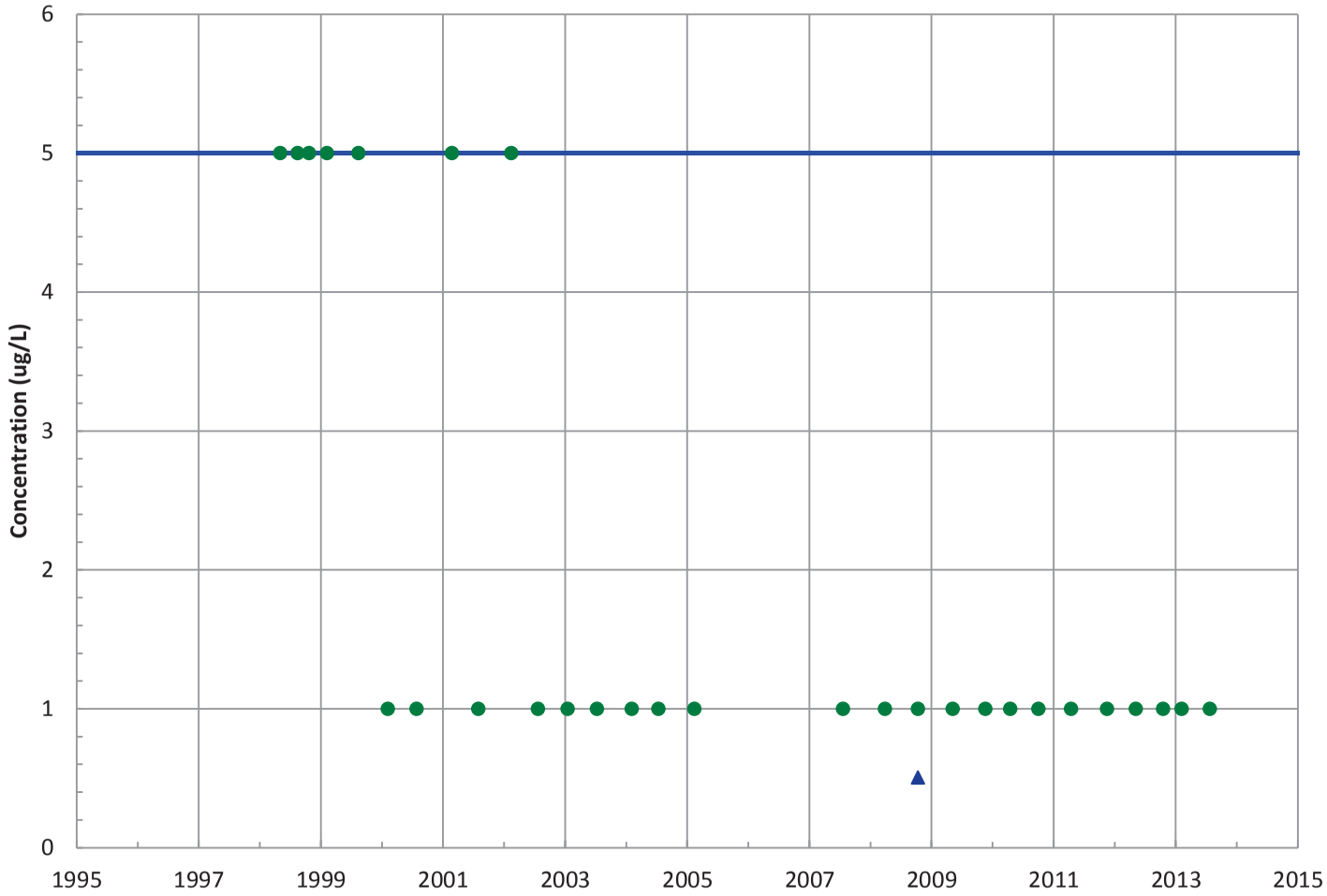
Well Location



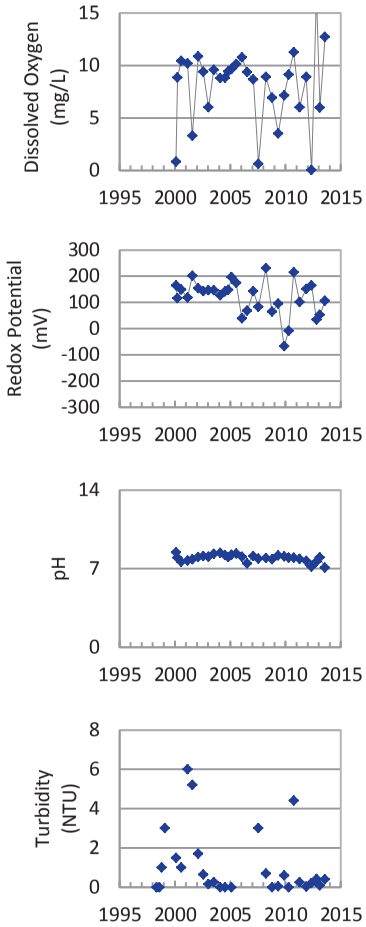
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/6/1998 to 8/7/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1034
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): All Non-Detect

2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method

Data (7/2009 - 12/2013): All Non-Detect

2011 - 2013 Data: N/A (<4 Detections in Dataset)

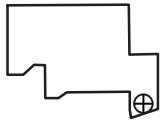
▲ Measured Value

● Sample Detection Limit

------- Concentration Trend

——— Groundwater Protection Standard

Well Location



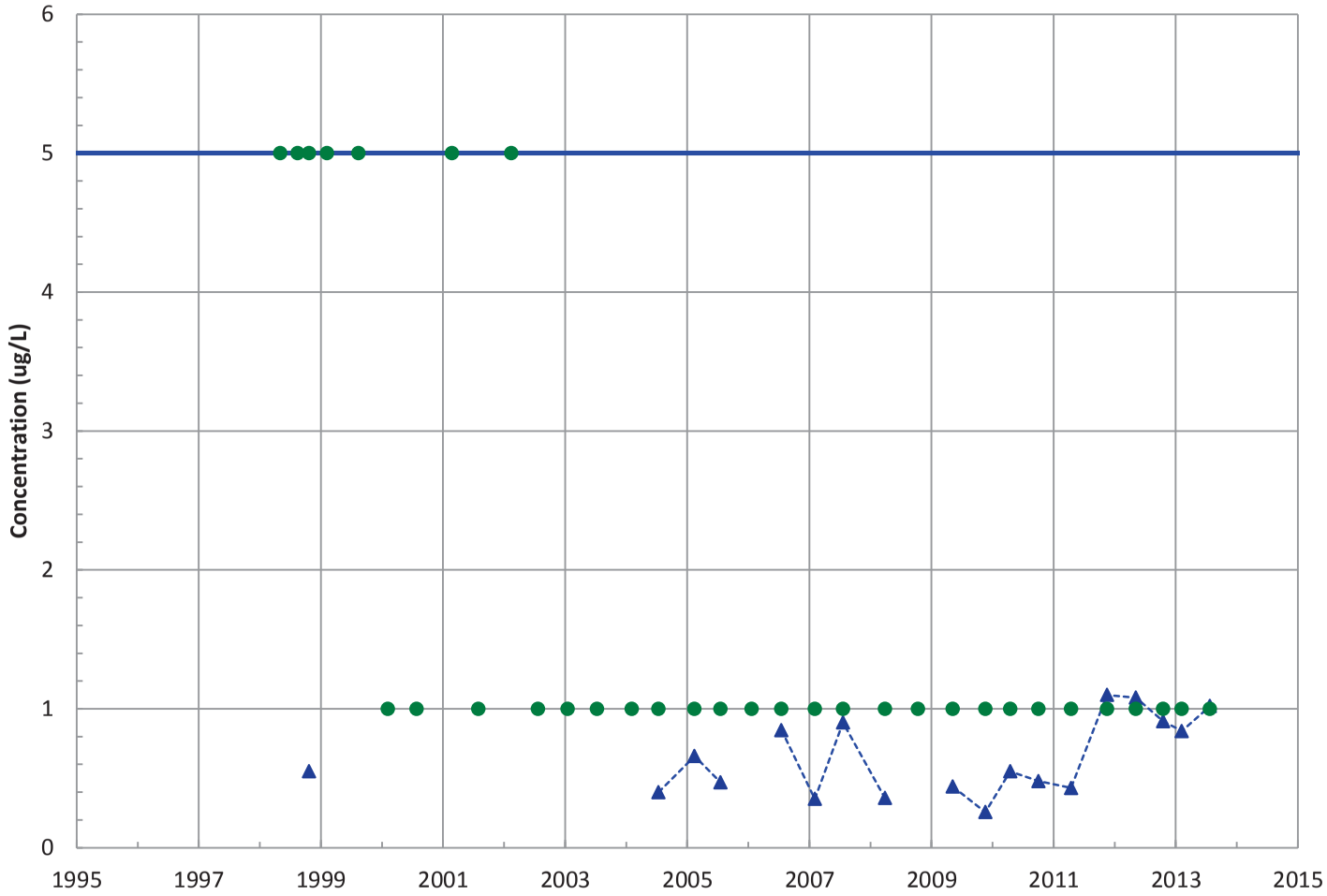
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 5/6/1998 to 8/7/2013

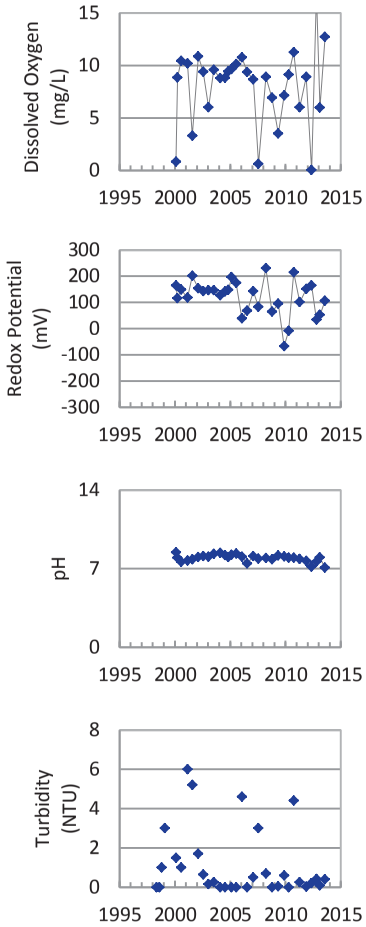
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1034
Trichloroethene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Probably Increasing

2011 - 2013 Data: Decreasing

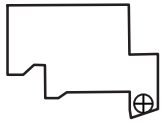
MAROS Linear Regression Method

Data (7/2009 - 12/2013): Increasing

2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location



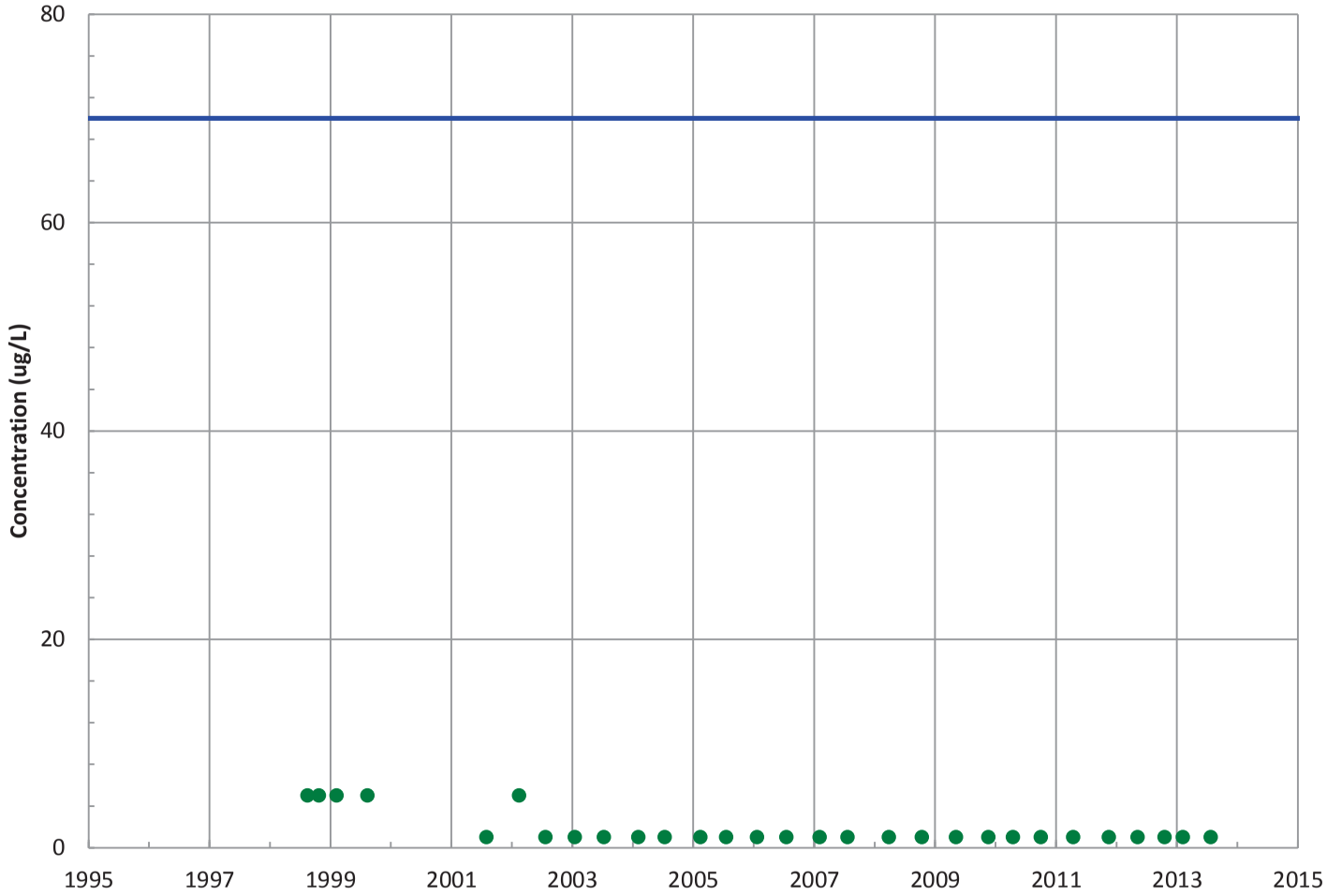
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 5/6/1998 to 8/7/2013

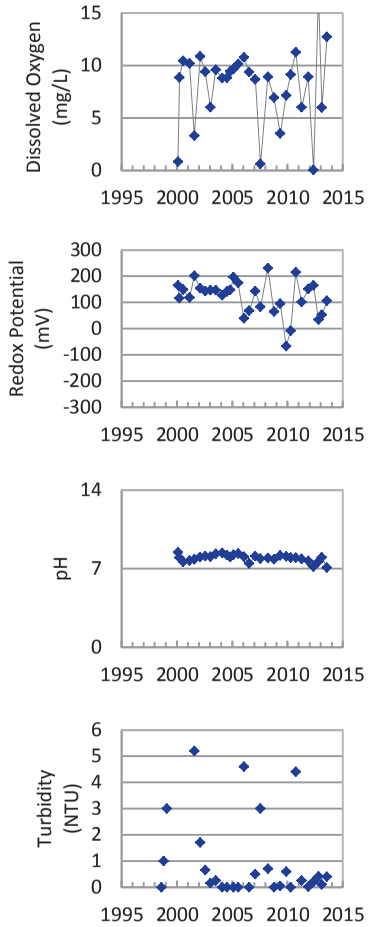
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1034
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



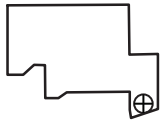
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

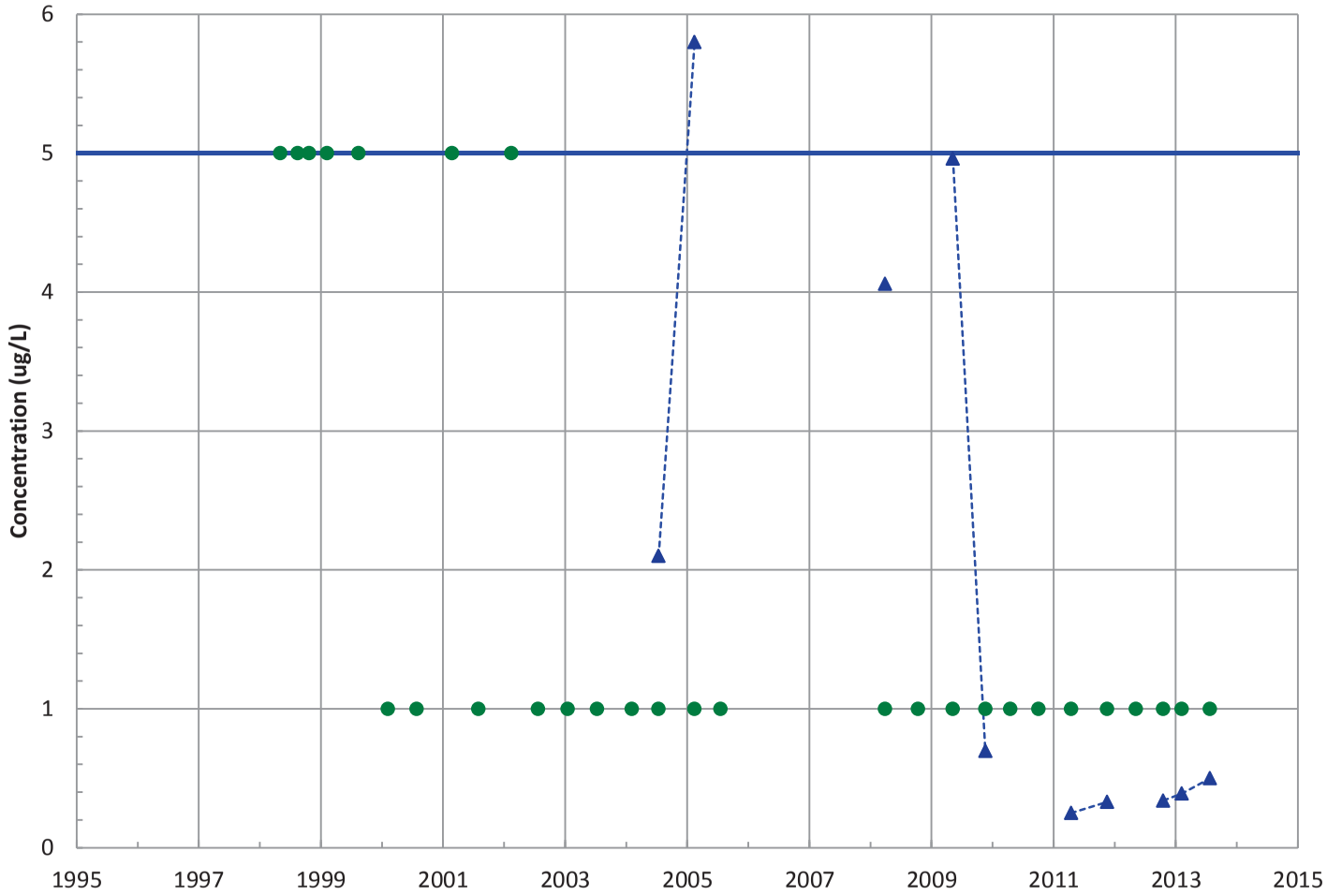
Well Location



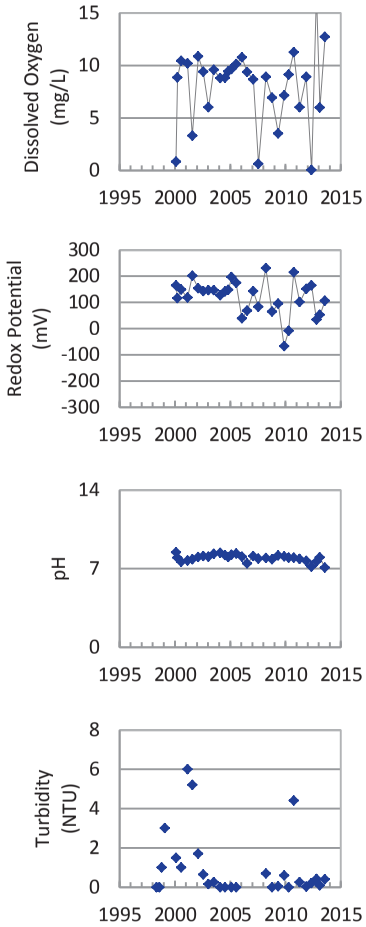
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/18/1998 to 8/7/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1034
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Decreasing

2011 - 2013 Data: N/A (<4 Detections in Dataset)

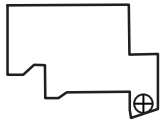
MAROS Linear Regression Method

Data (7/2009 - 12/2013): Stable

2011 - 2013 Data: Increasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

Well Location



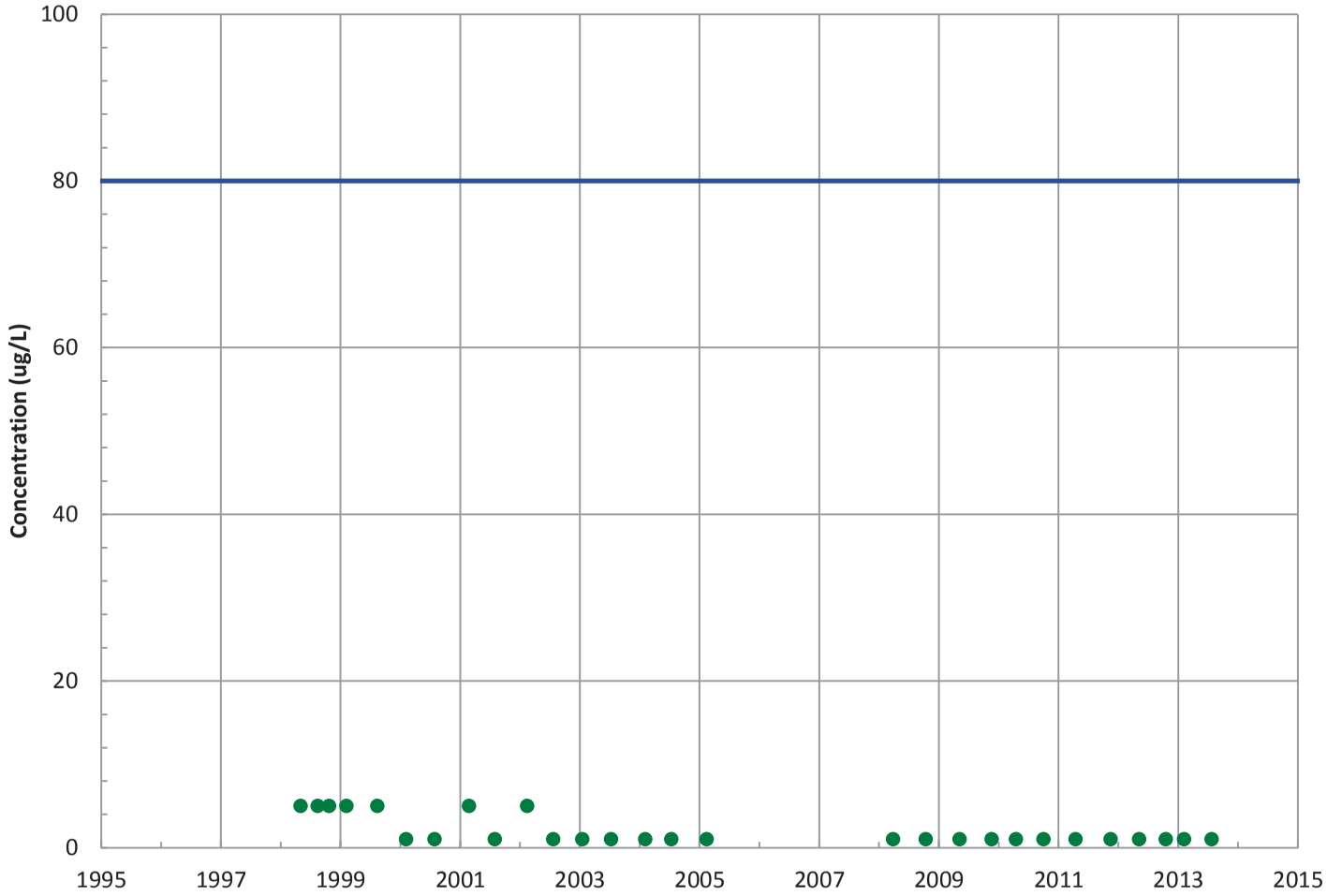
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 5/6/1998 to 8/7/2013

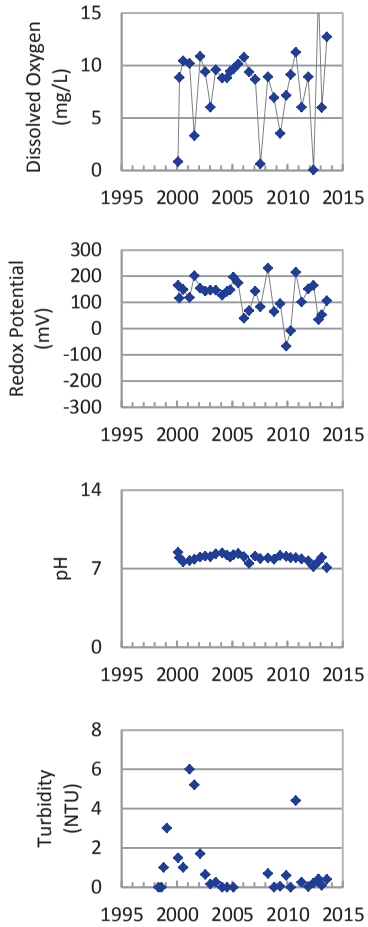
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1034
Chloroform Trend in Perched Aquifer



Field Parameters



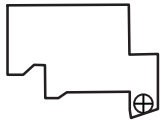
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

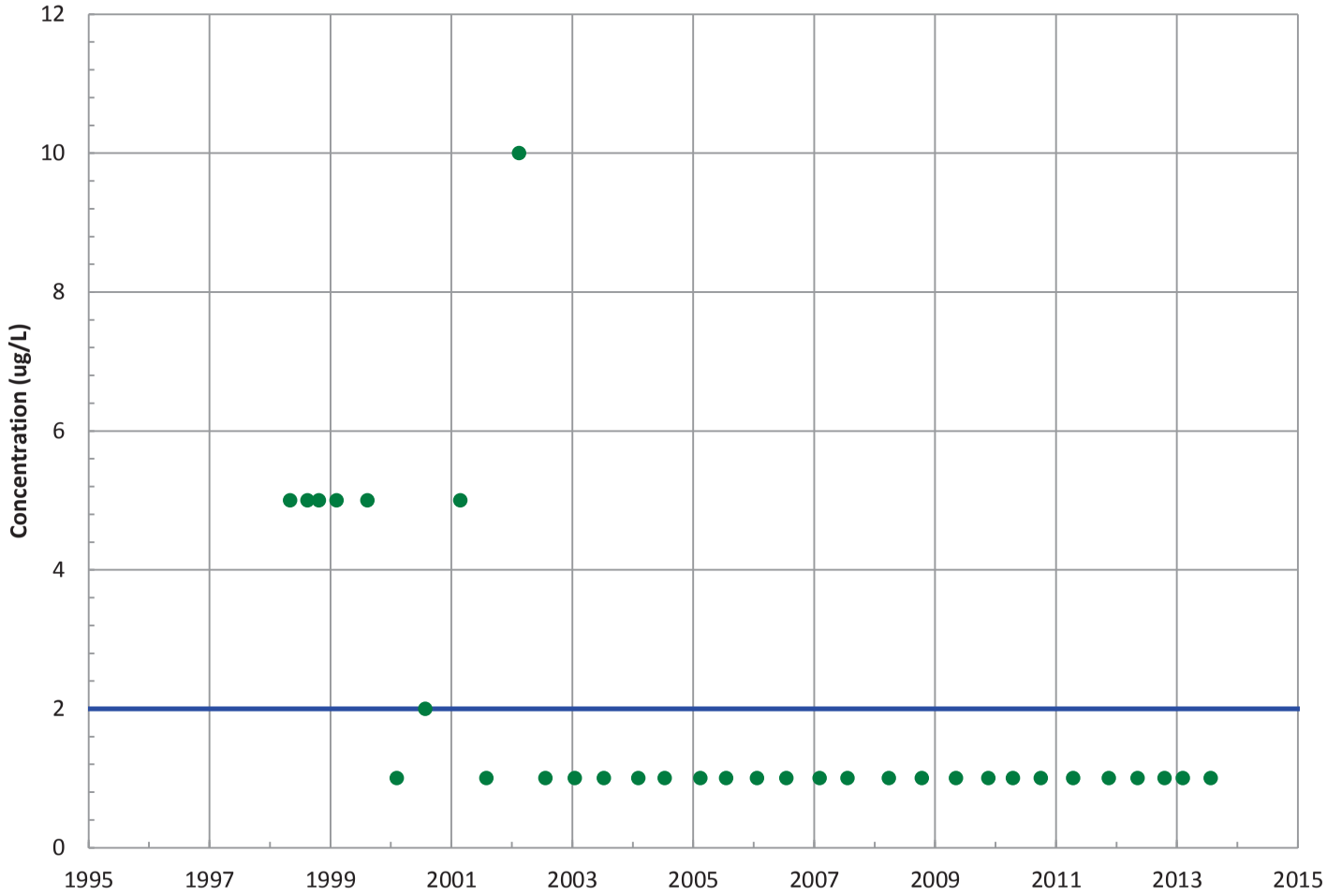
Well Location



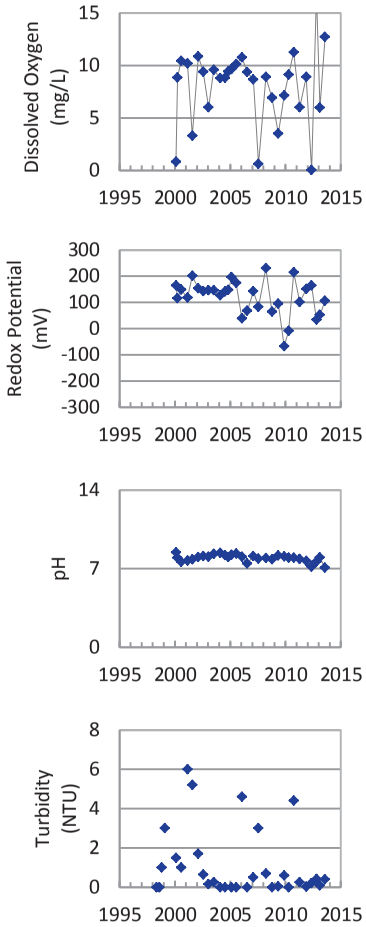
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/6/1998 to 8/7/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1034
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



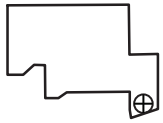
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

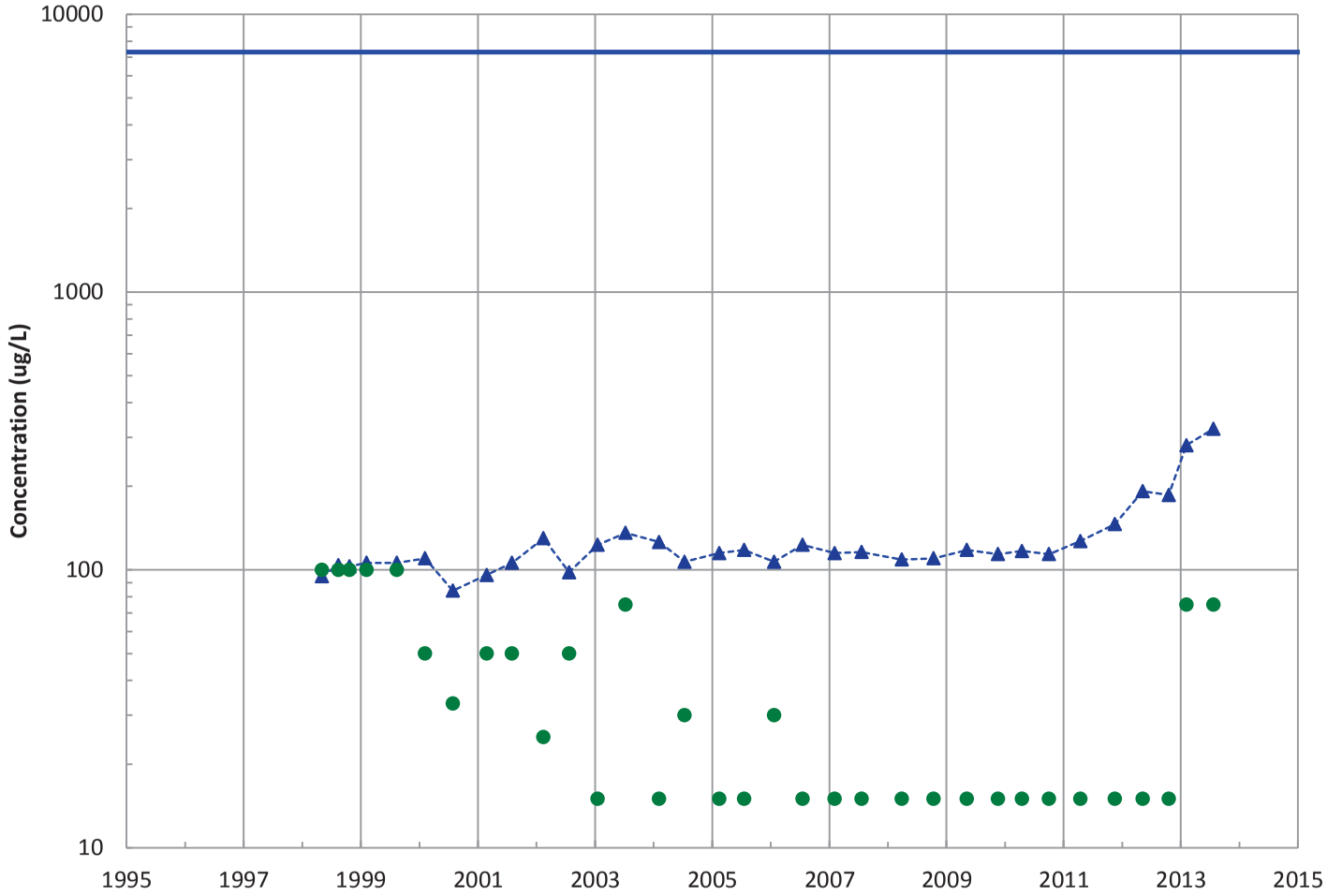
Well Location



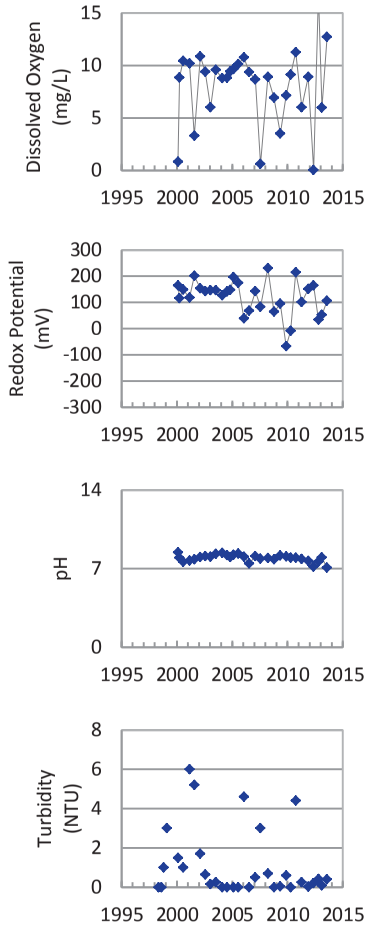
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/6/1998 to 8/7/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1034
Boron Trend in Perched Aquifer



Field Parameters



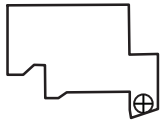
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Probably Increasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

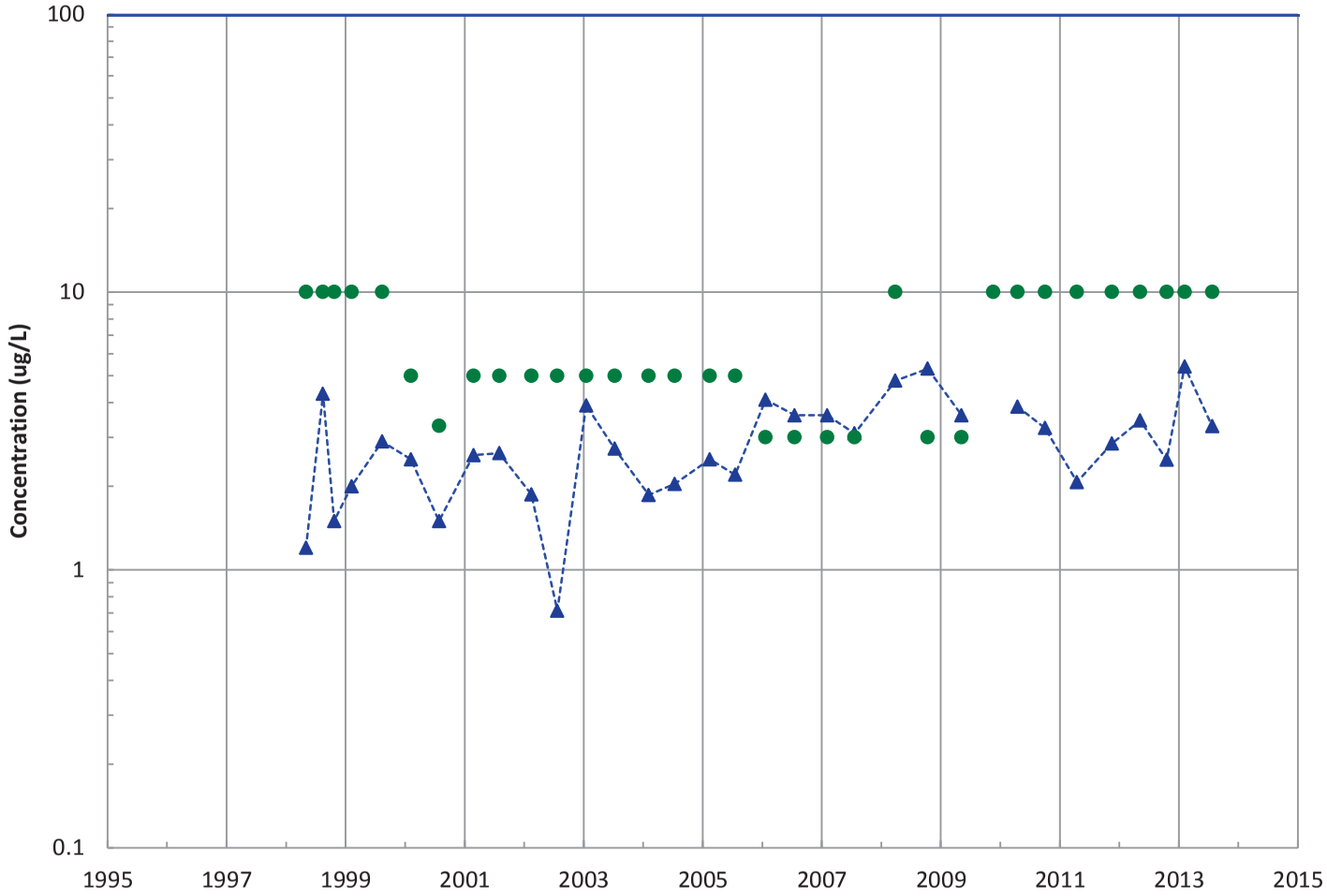
Well Location



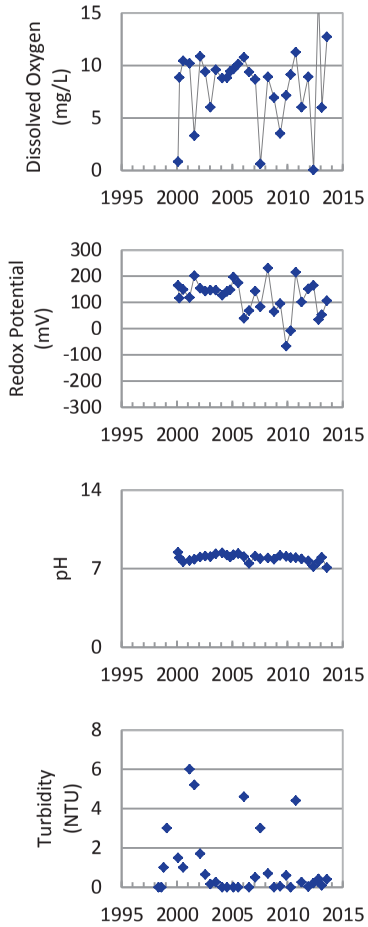
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/6/1998 to 8/7/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1034
Chromium, Total Trend in Perched Aquifer



Field Parameters



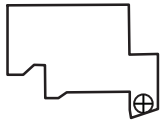
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

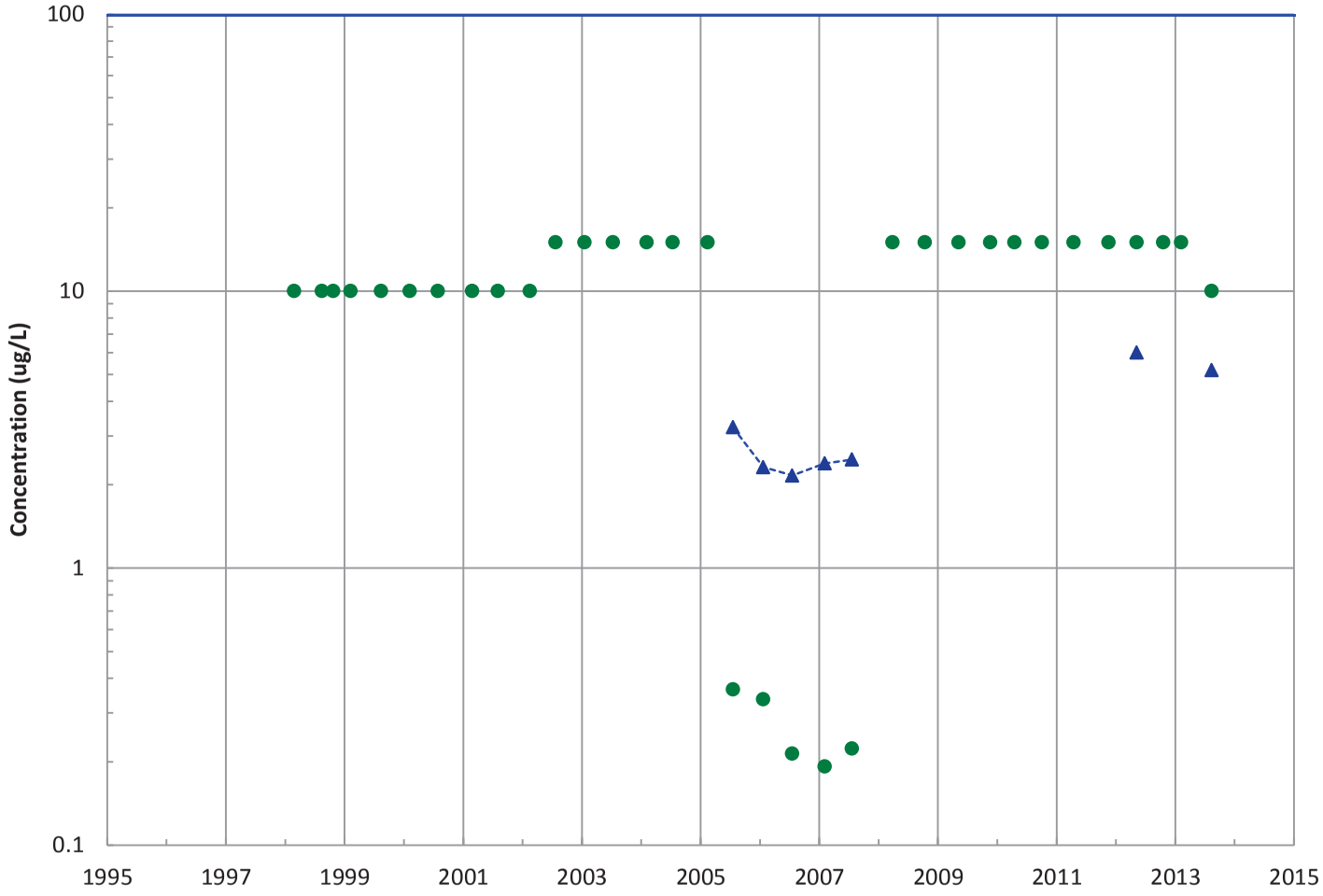
Well Location



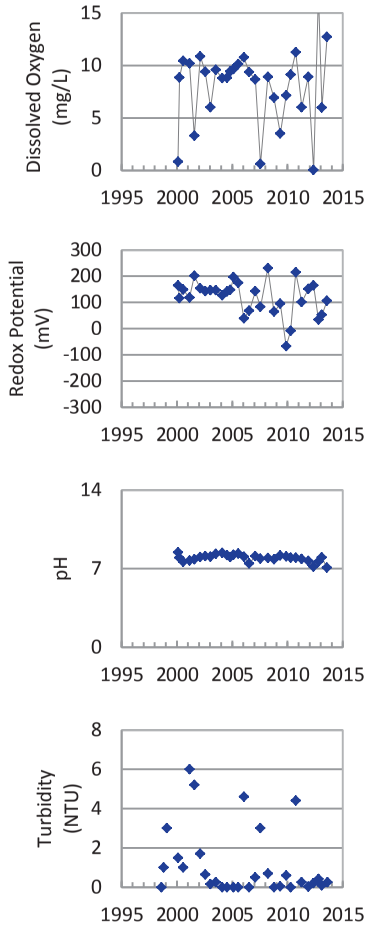
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/6/1998 to 8/7/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1034
Chromium, Hexavalent Trend in Perched Aquifer



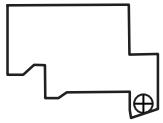
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: Probably Increasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

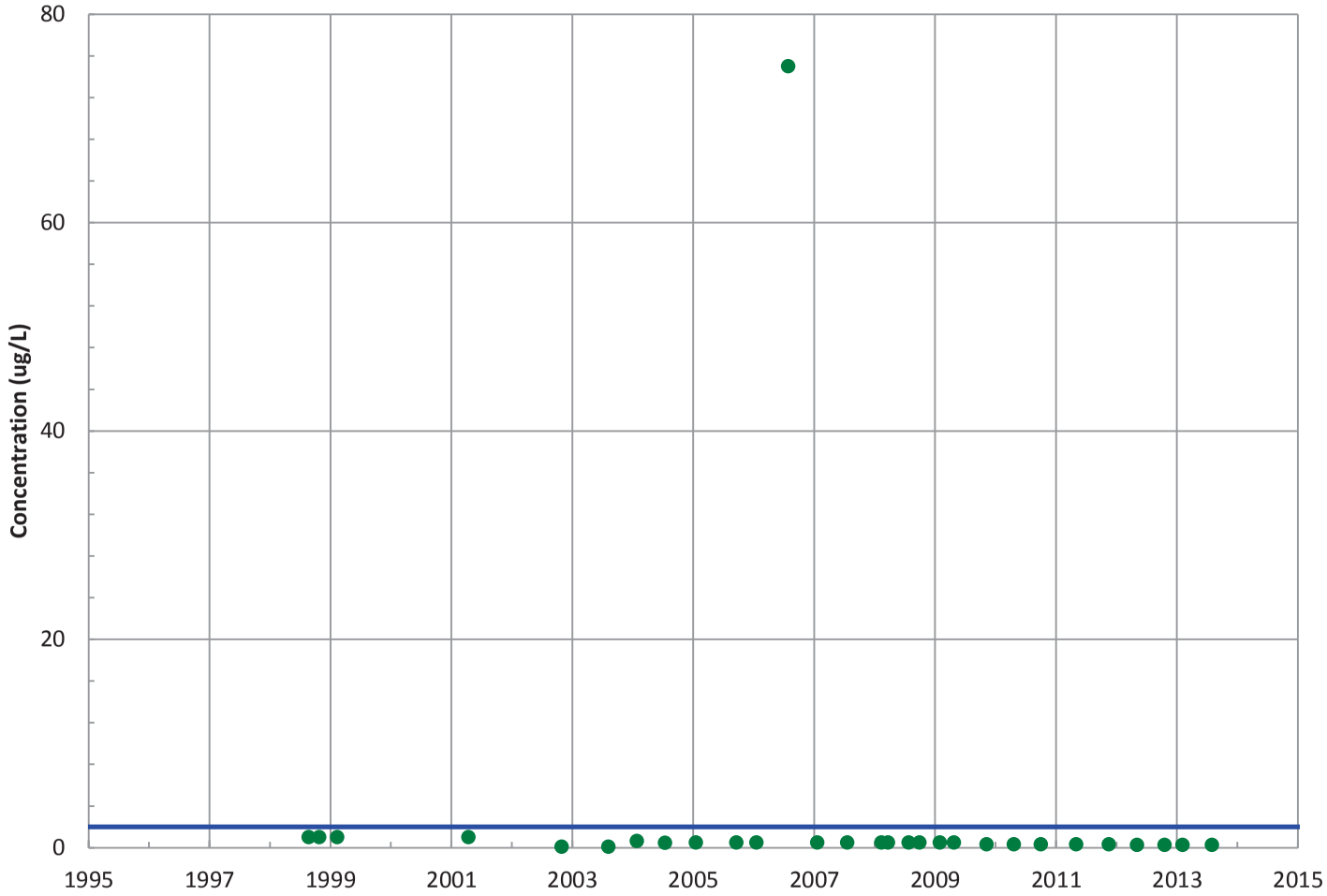
Well Location



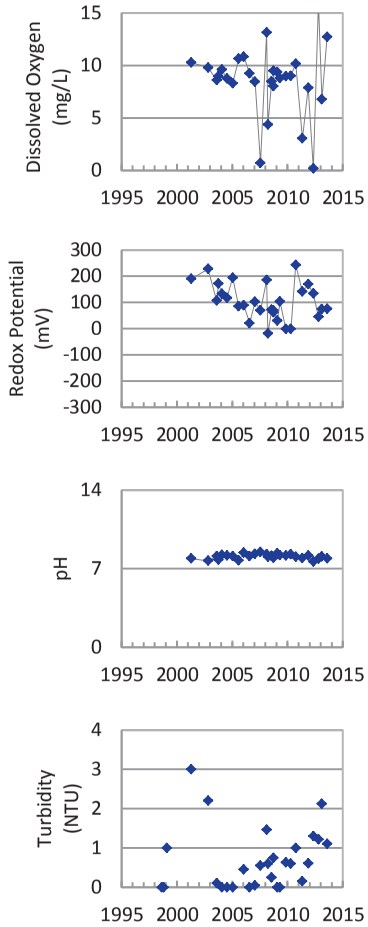
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/26/1998 to 8/27/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1035
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



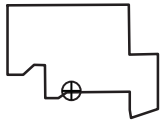
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

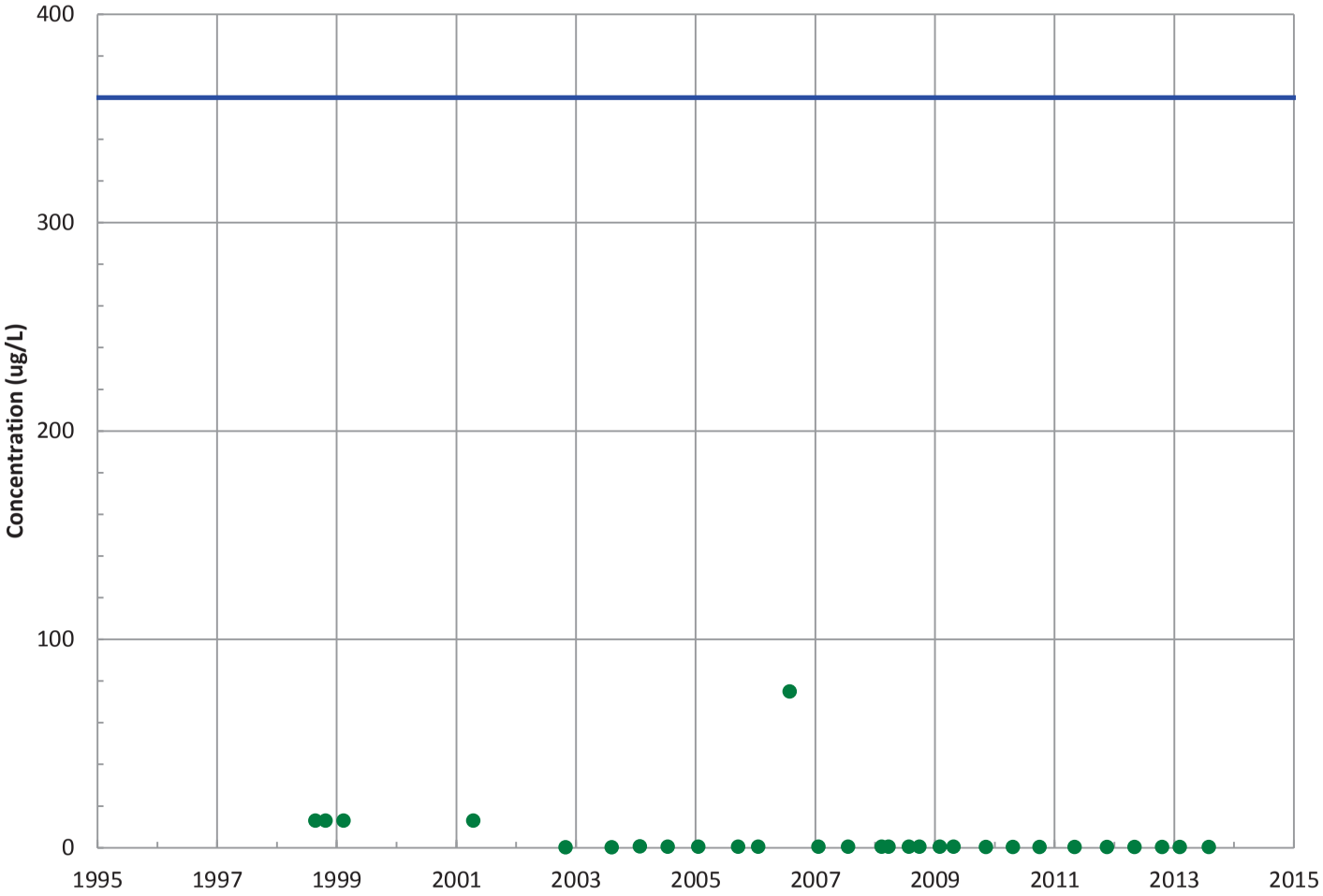
Well Location



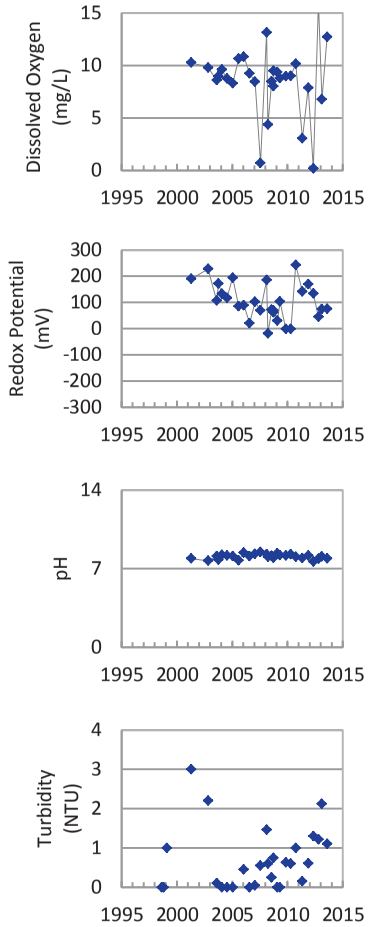
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/26/1998 to 8/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1035
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



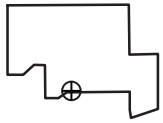
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

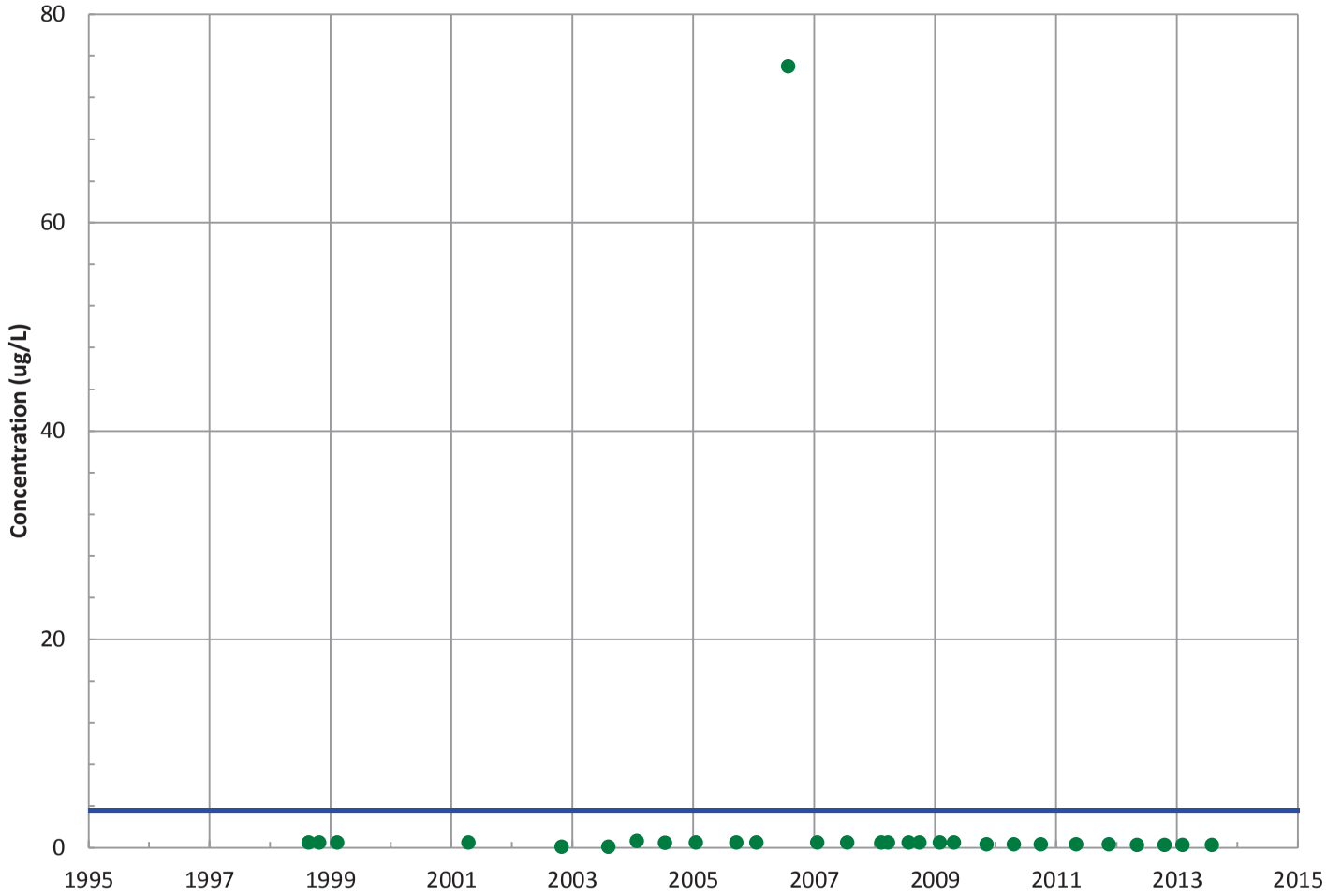
Well Location



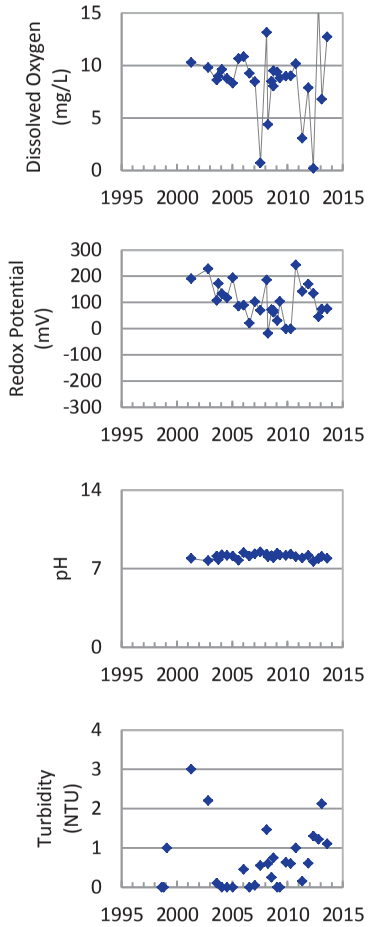
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/26/1998 to 8/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1035
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



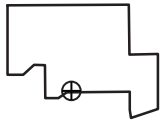
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

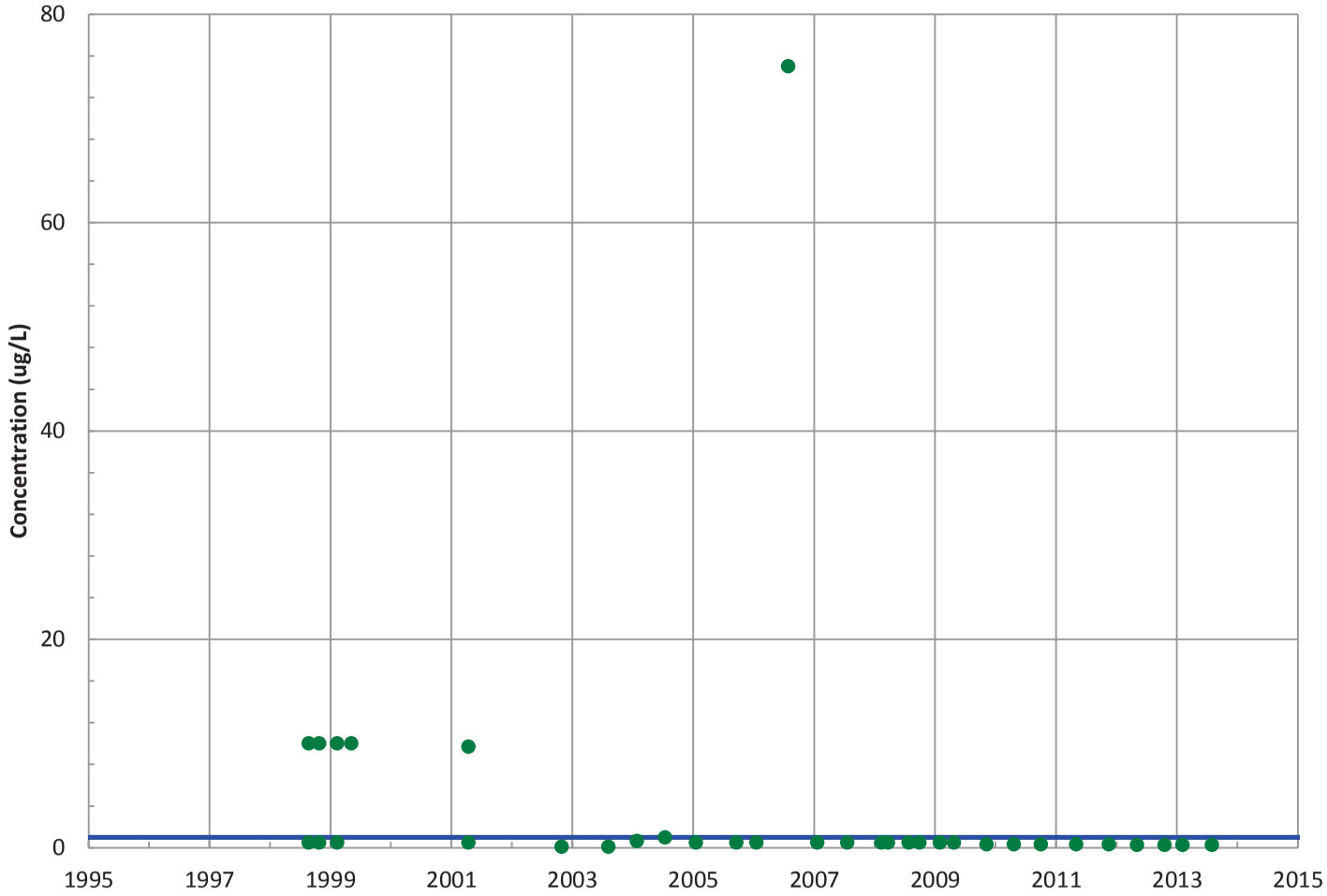
Well Location



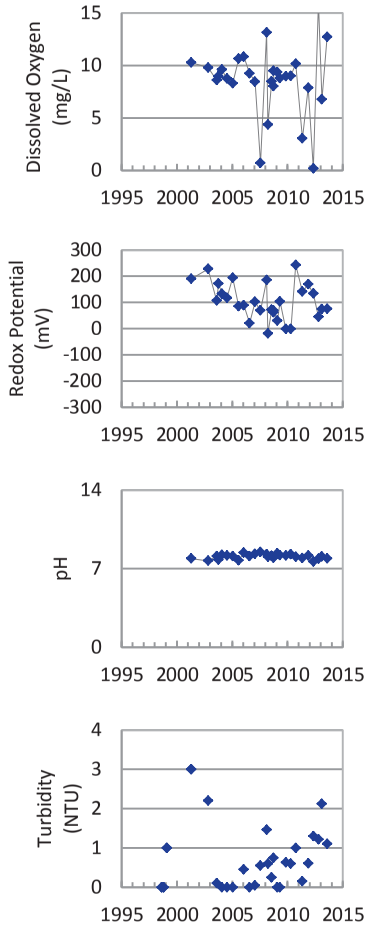
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/26/1998 to 8/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1035
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



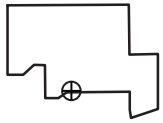
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

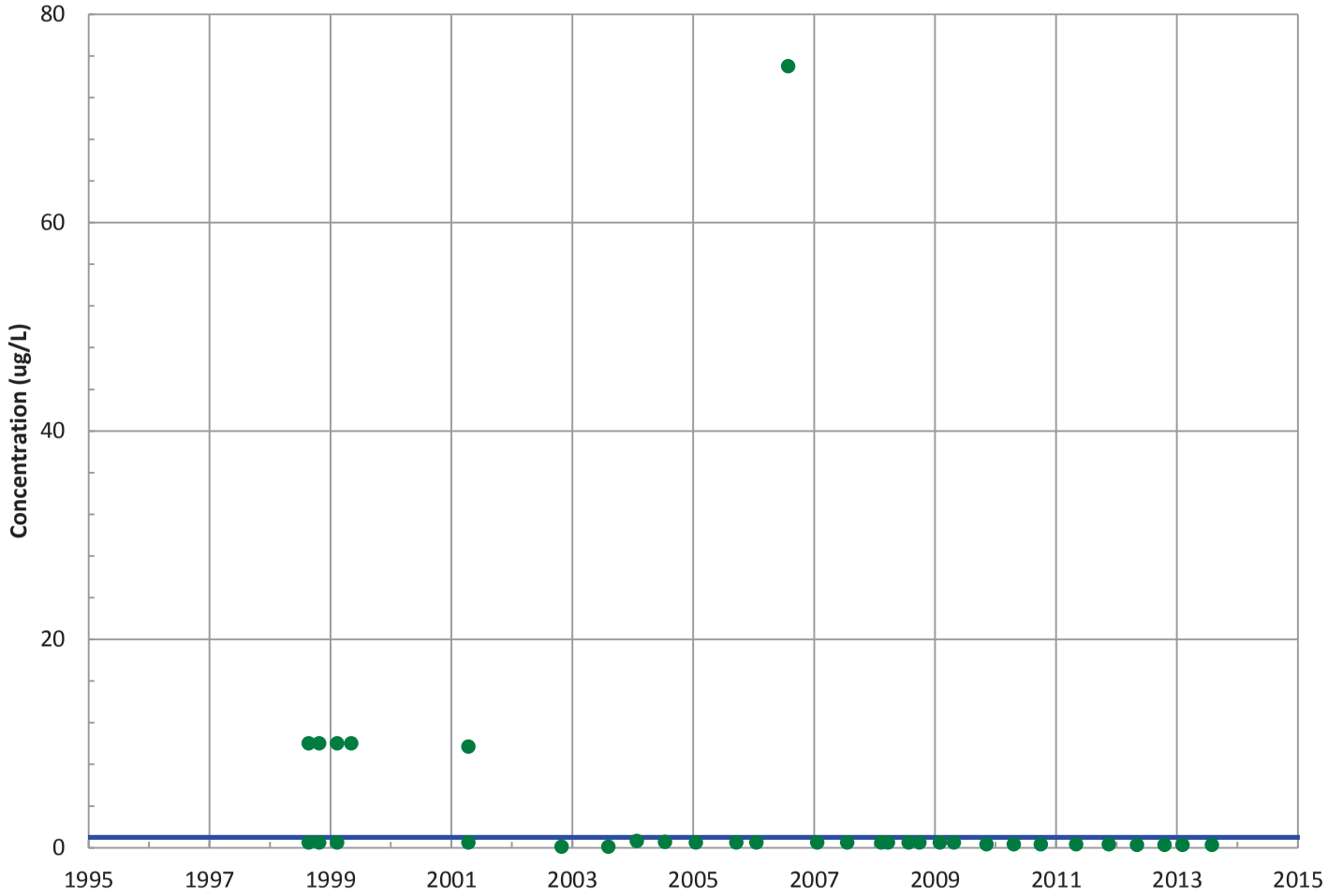
Well Location



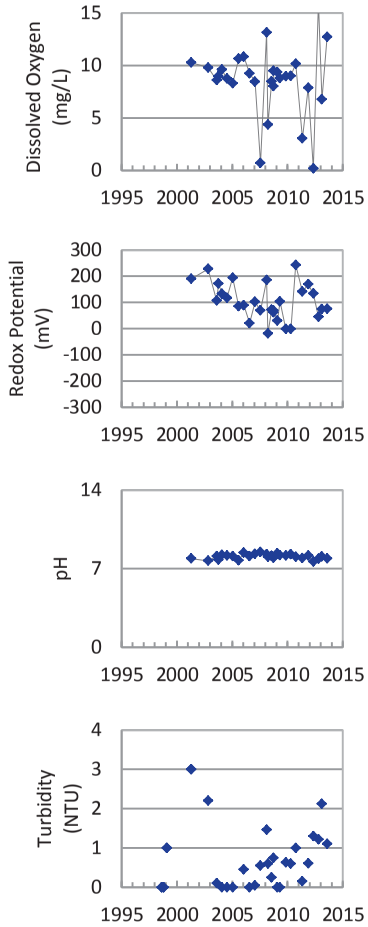
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/26/1998 to 8/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1035
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



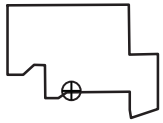
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

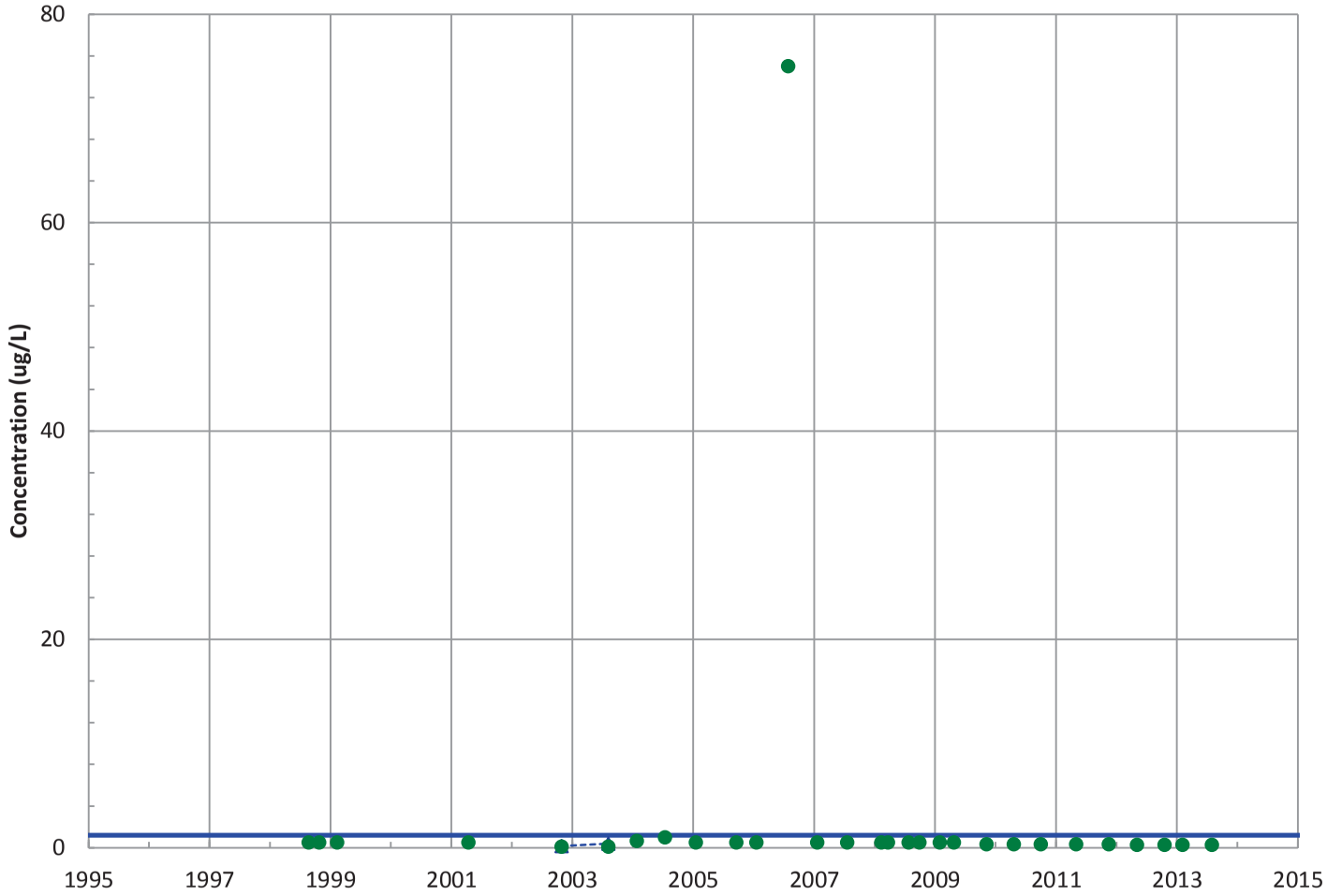
Well Location



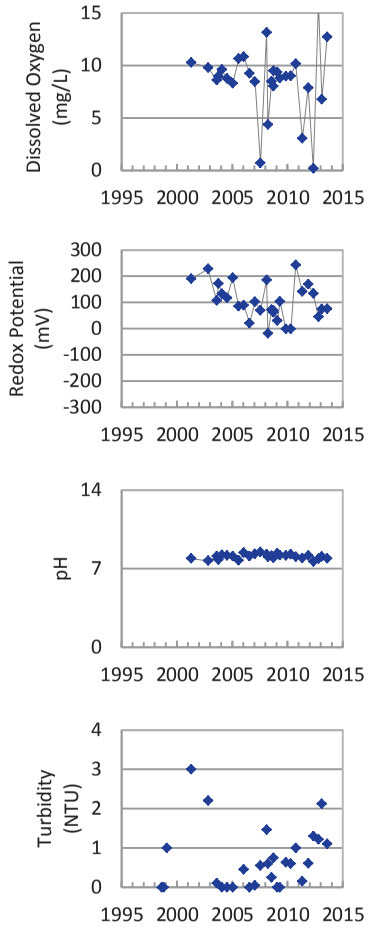
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/26/1998 to 8/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1035
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



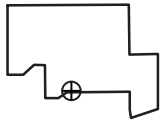
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

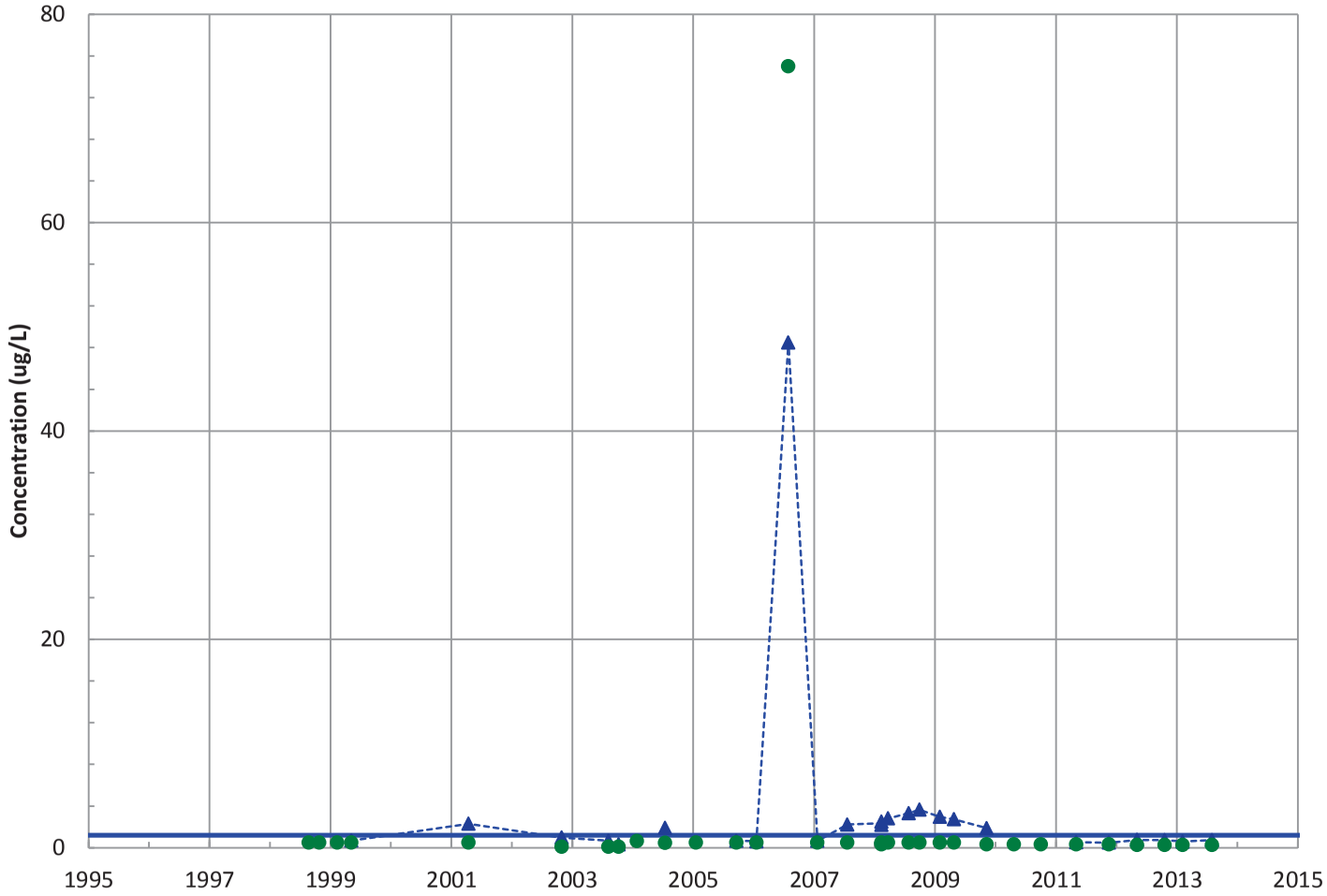
Well Location



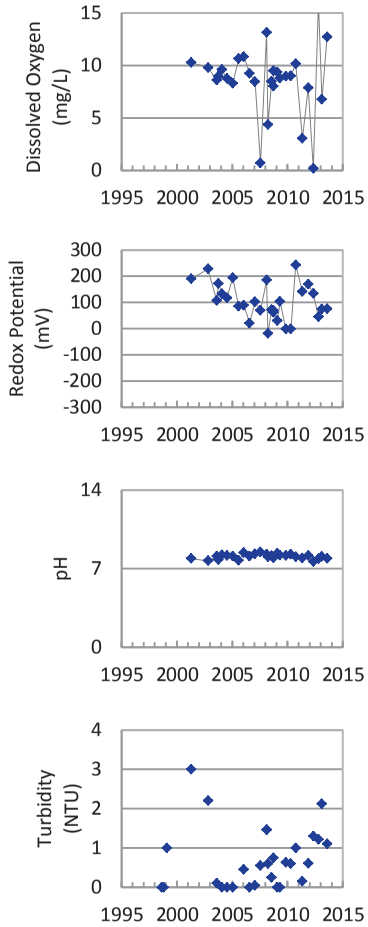
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/26/1998 to 8/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1035
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



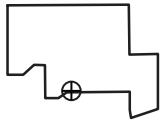
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Probably Decreasing
2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

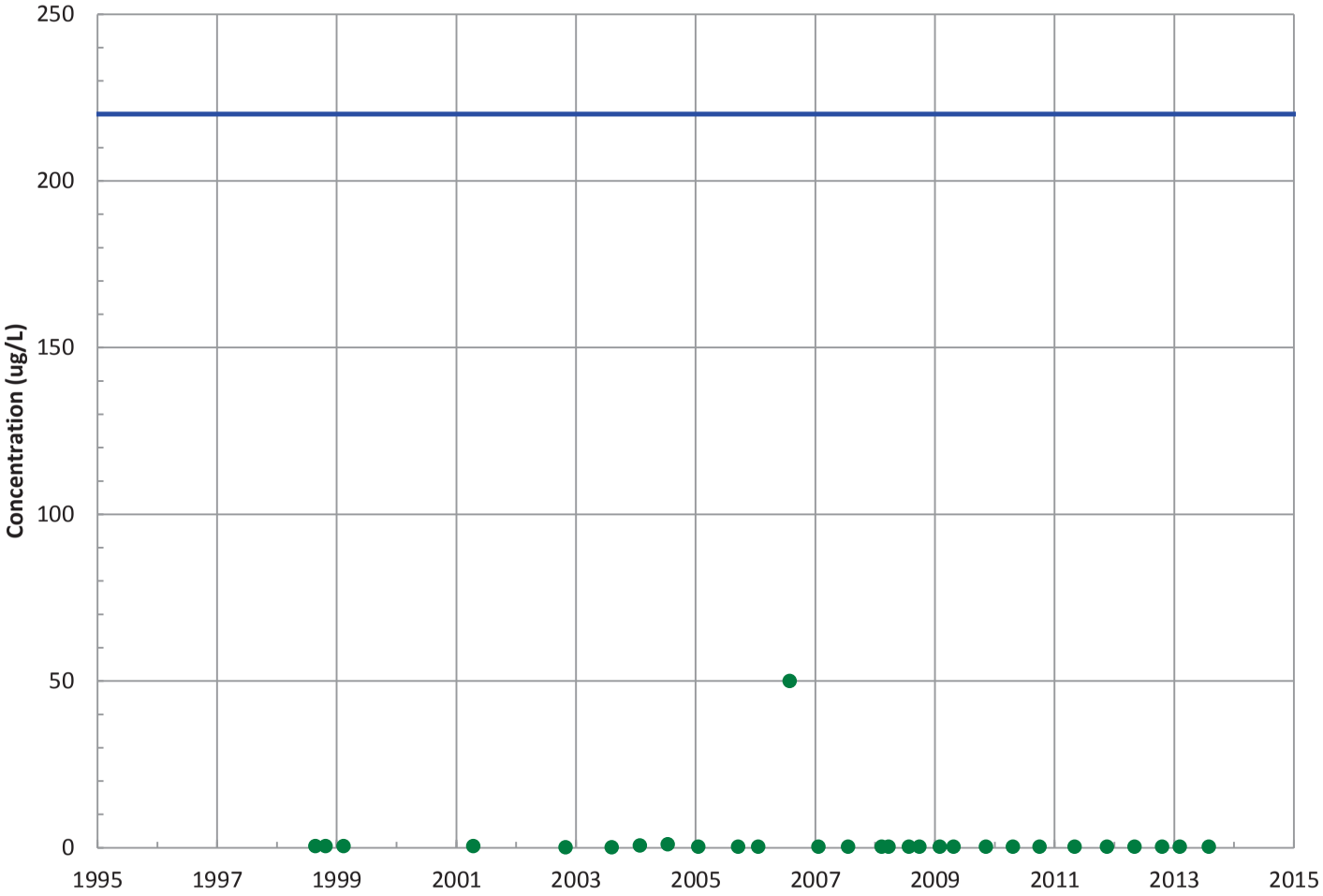
Well Location



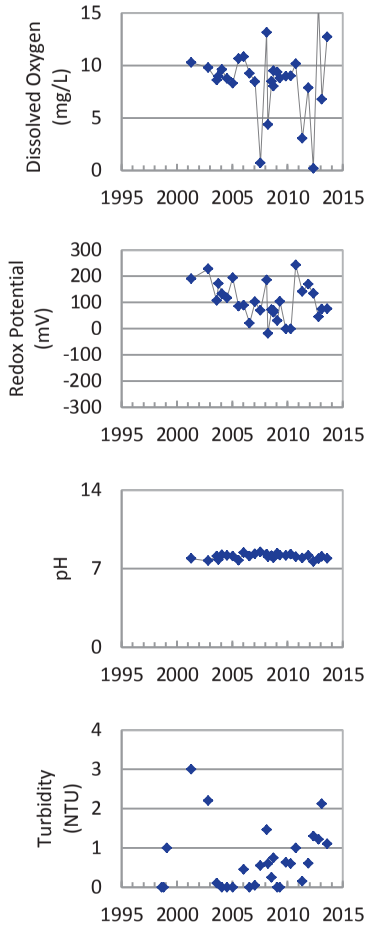
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/26/1998 to 8/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1035
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



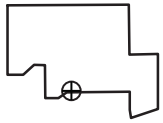
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

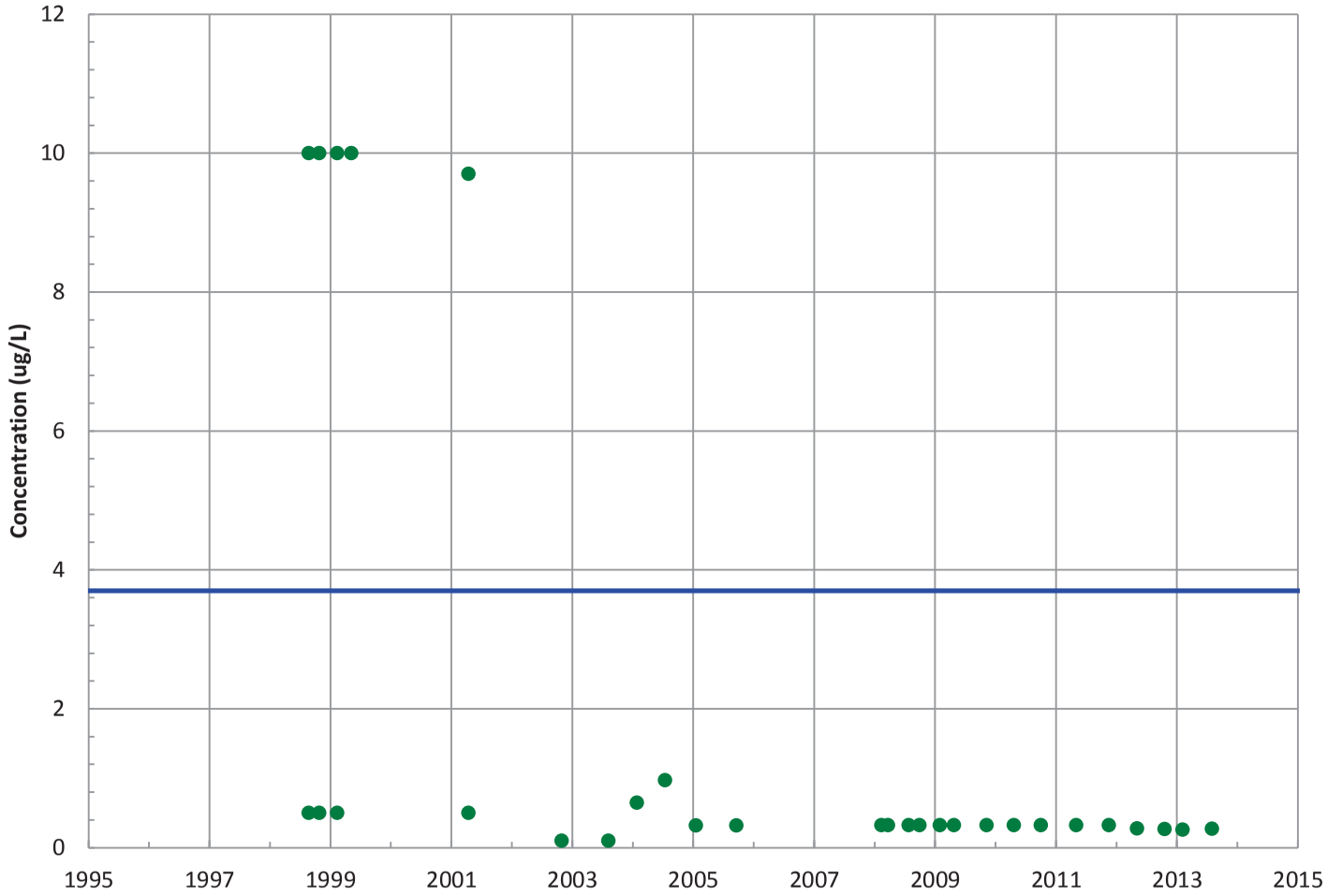
Well Location



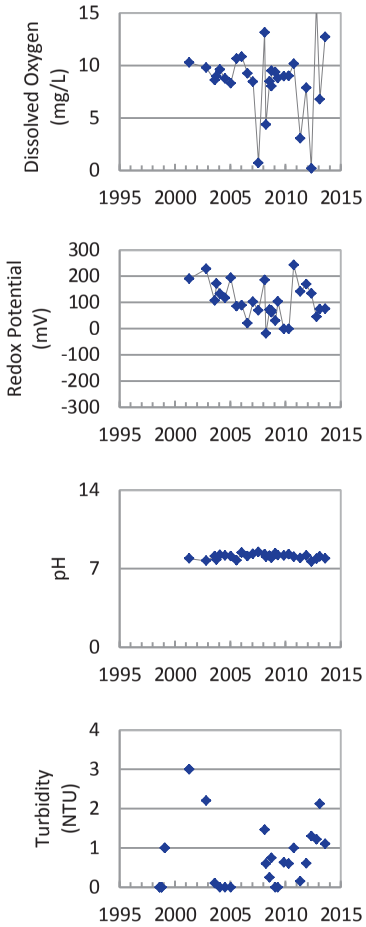
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/26/1998 to 8/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1035
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



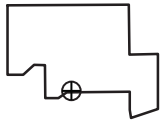
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

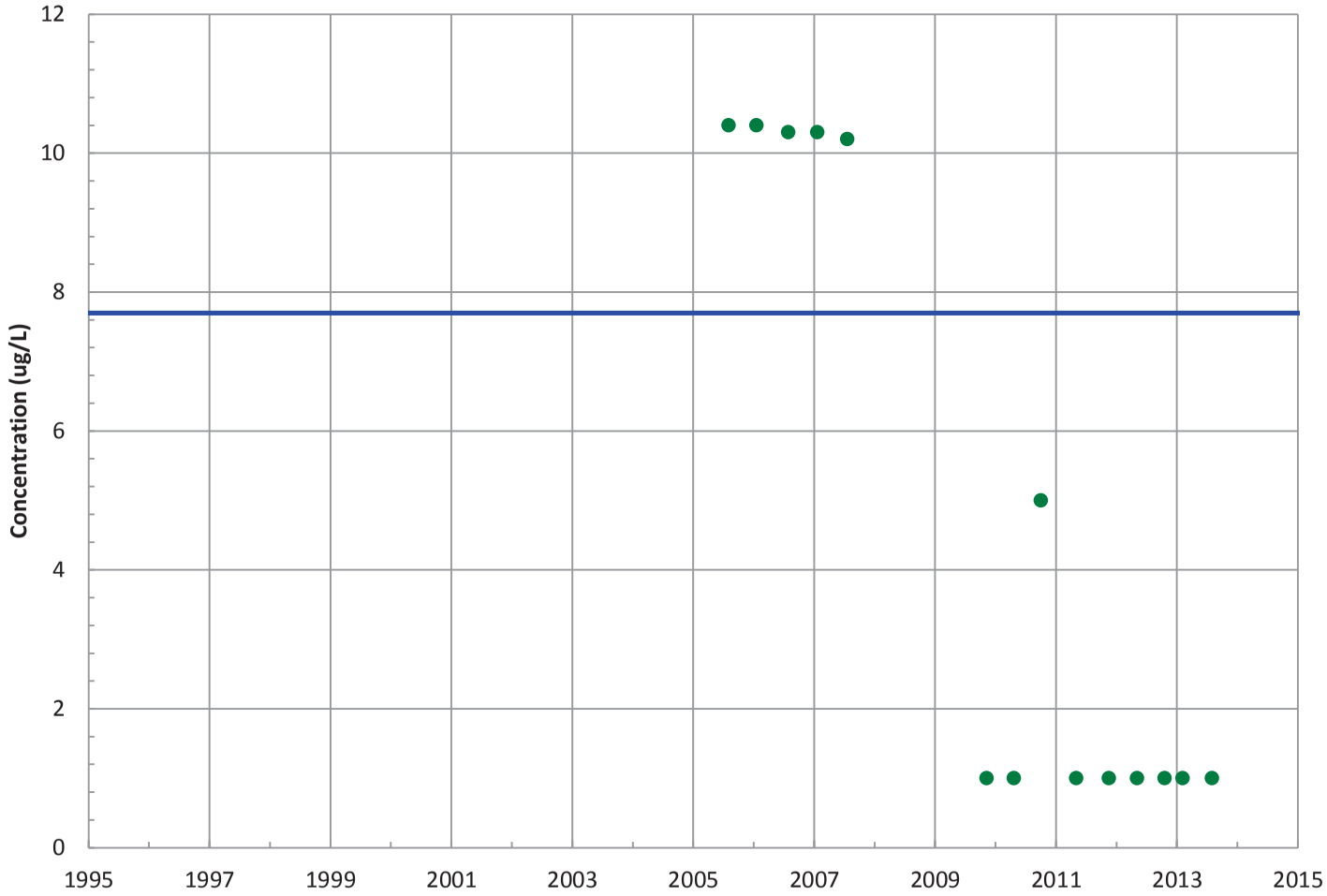
Well Location



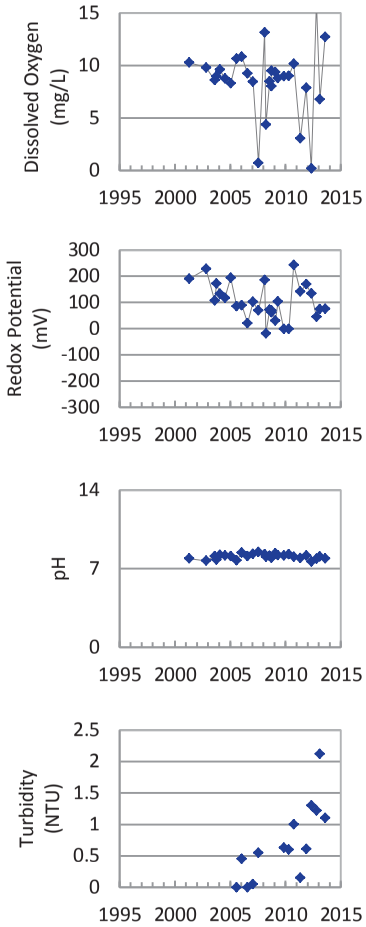
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/26/1998 to 8/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1035
1,4-Dioxane (p-Dioxane) Trend in Perched Aquifer



Field Parameters



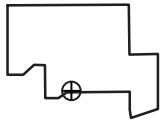
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

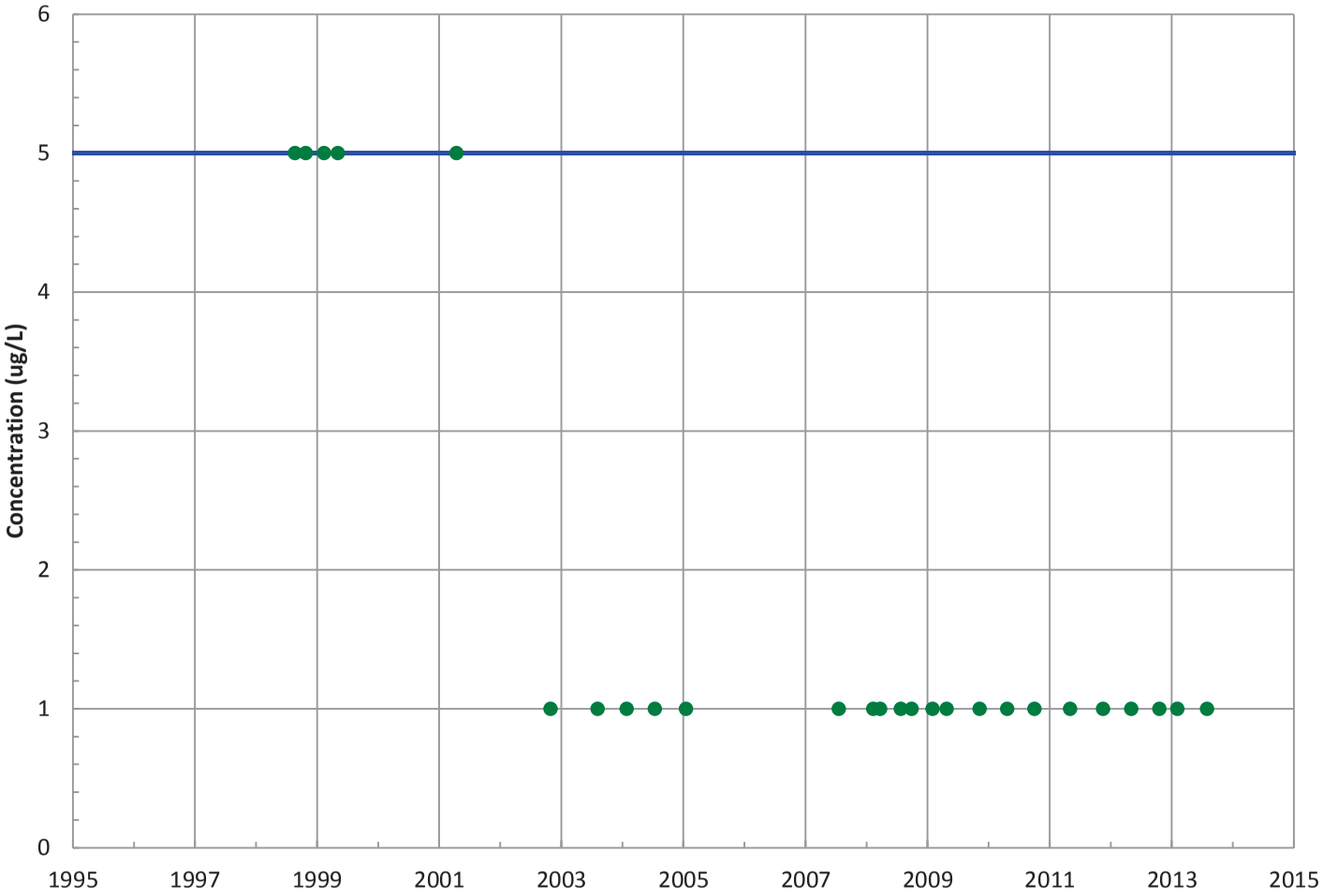
Well Location



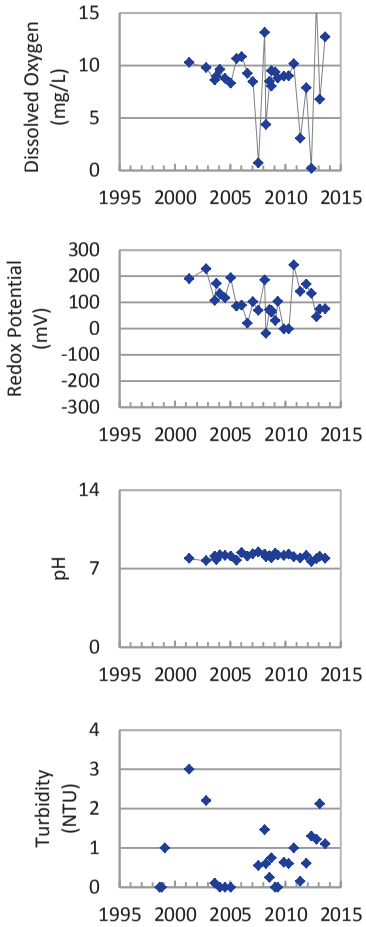
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/11/2005 to 8/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1035
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



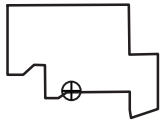
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

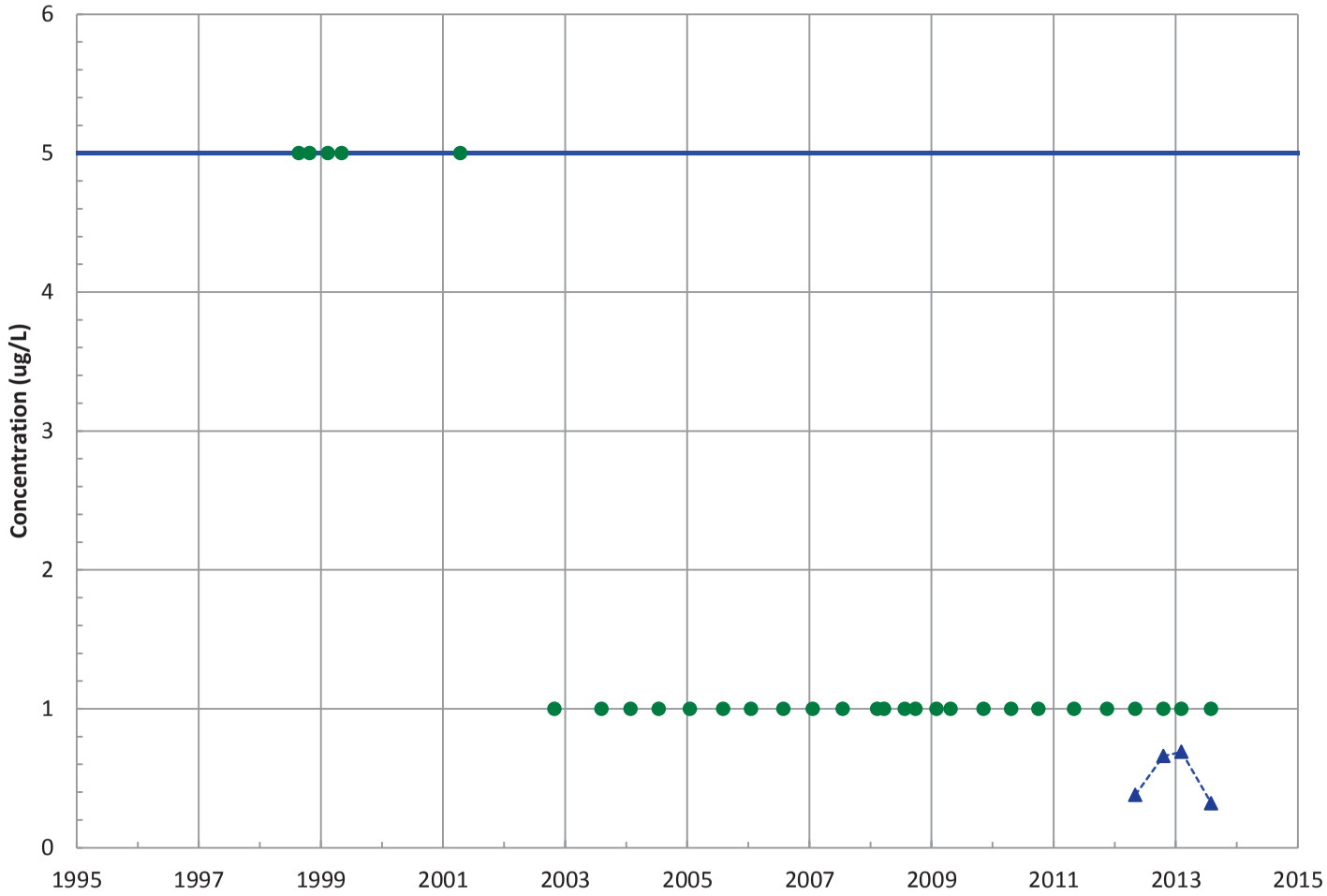
Well Location



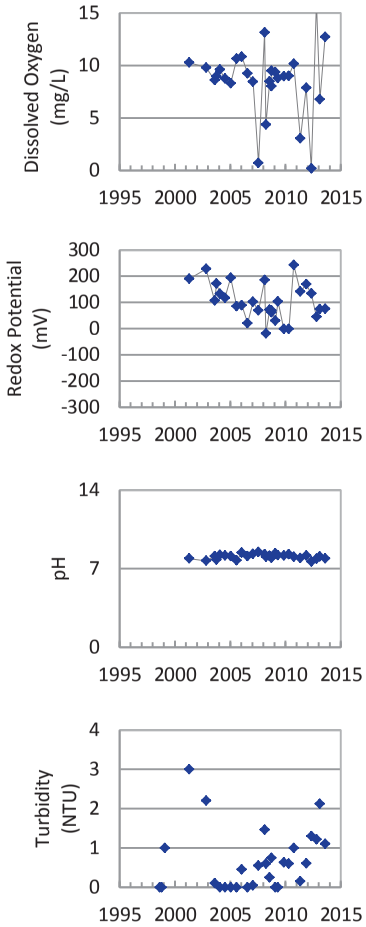
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/26/1998 to 8/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1035
Trichloroethene Trend in Perched Aquifer



Field Parameters



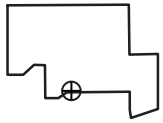
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

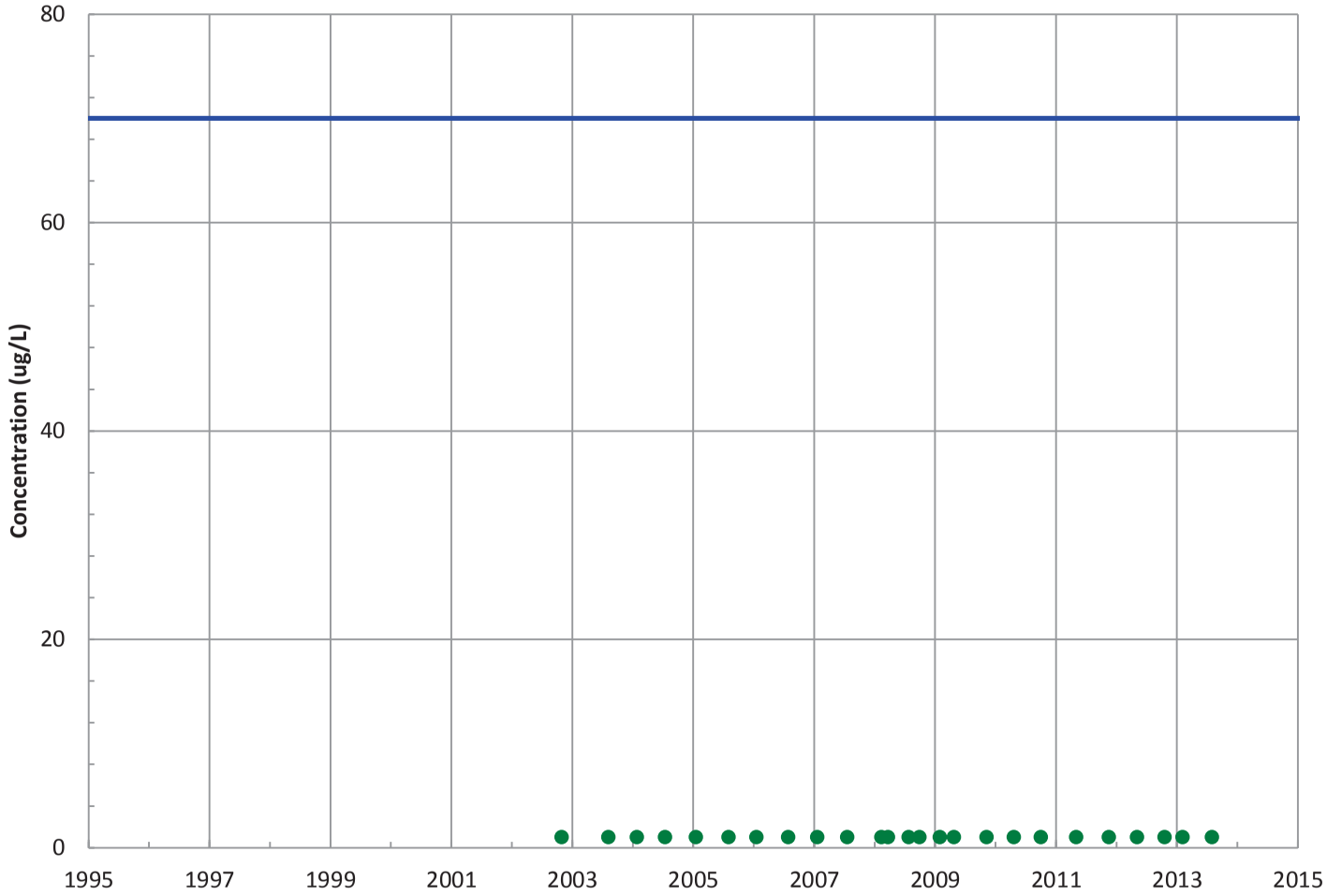
Well Location



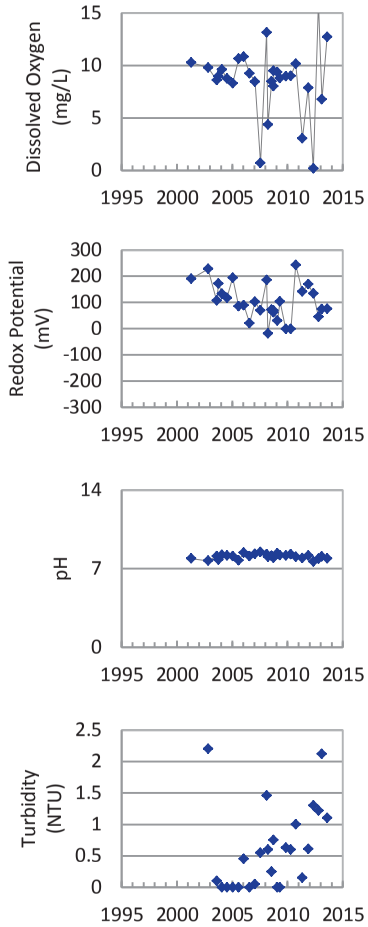
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/26/1998 to 8/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1035
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



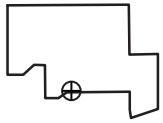
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

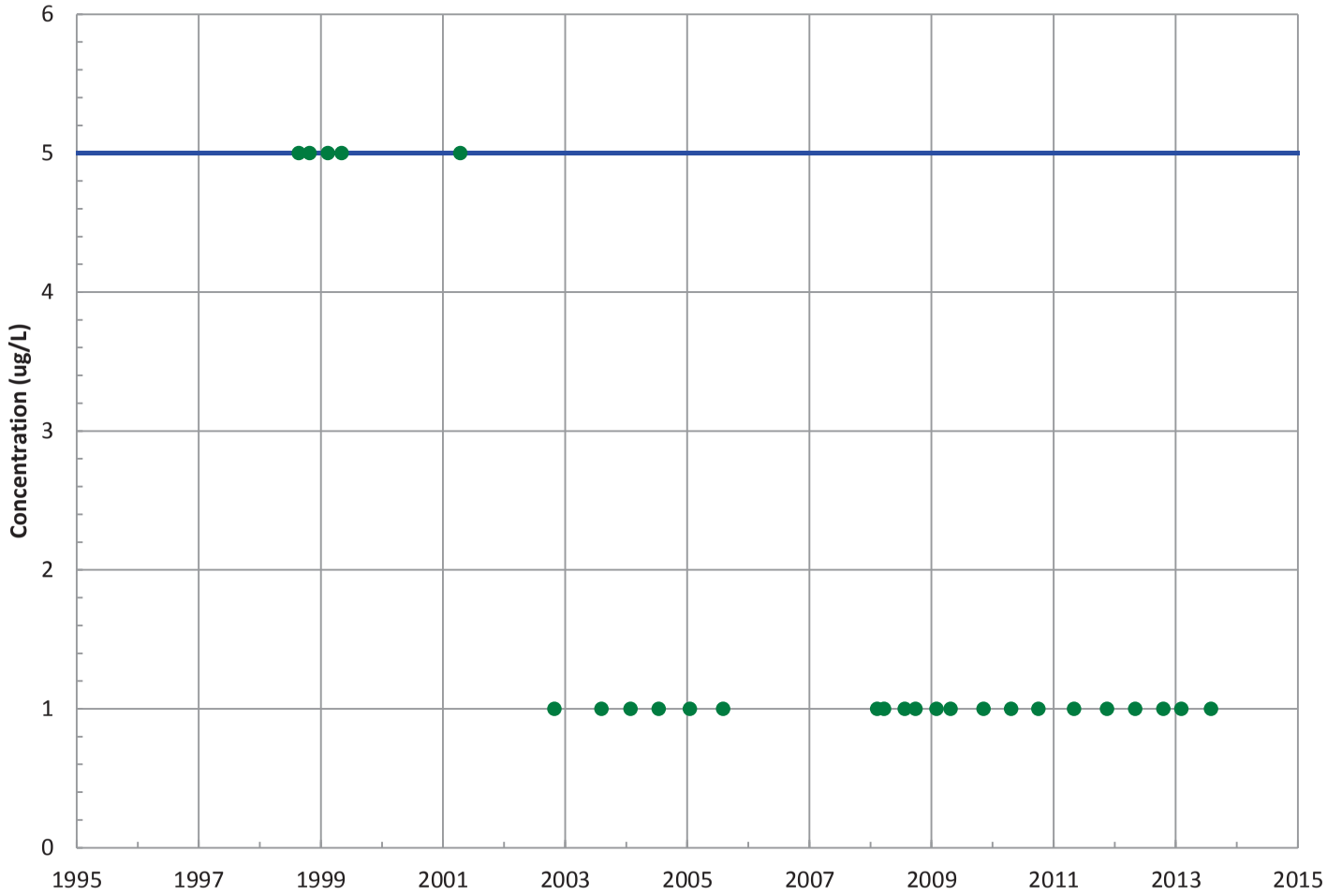
Well Location



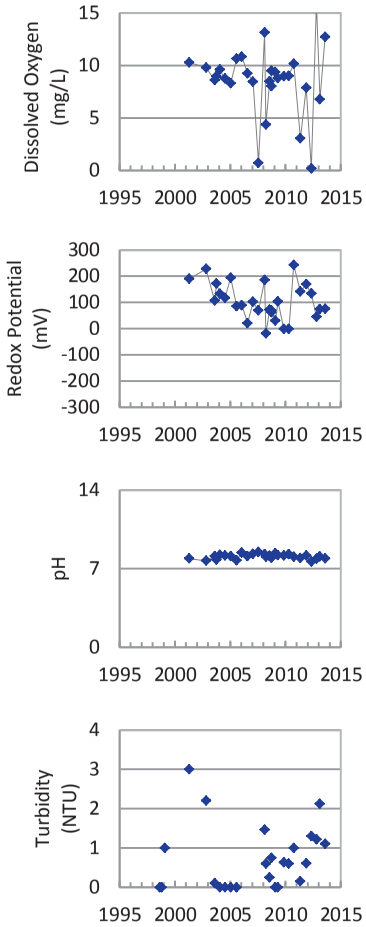
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/4/2002 to 8/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1035
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



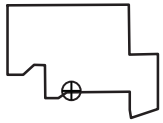
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

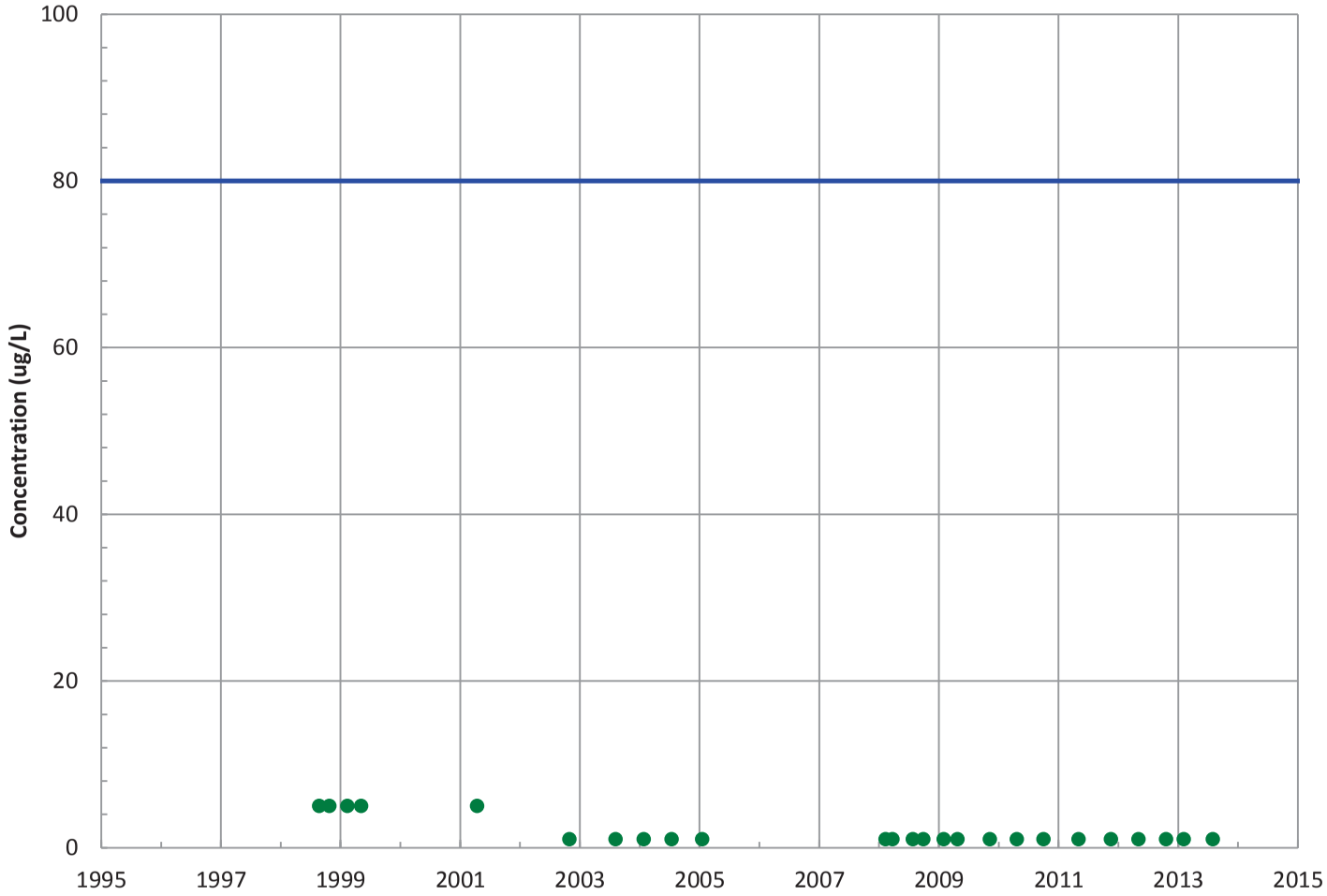
Well Location



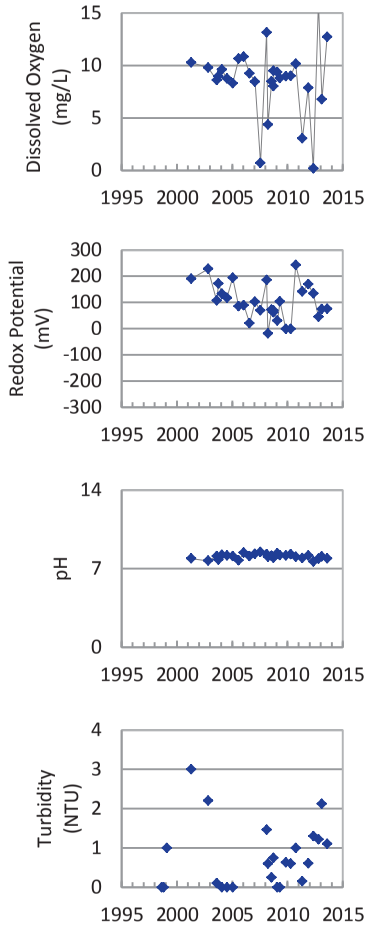
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/26/1998 to 8/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1035
Chloroform Trend in Perched Aquifer



Field Parameters



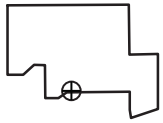
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

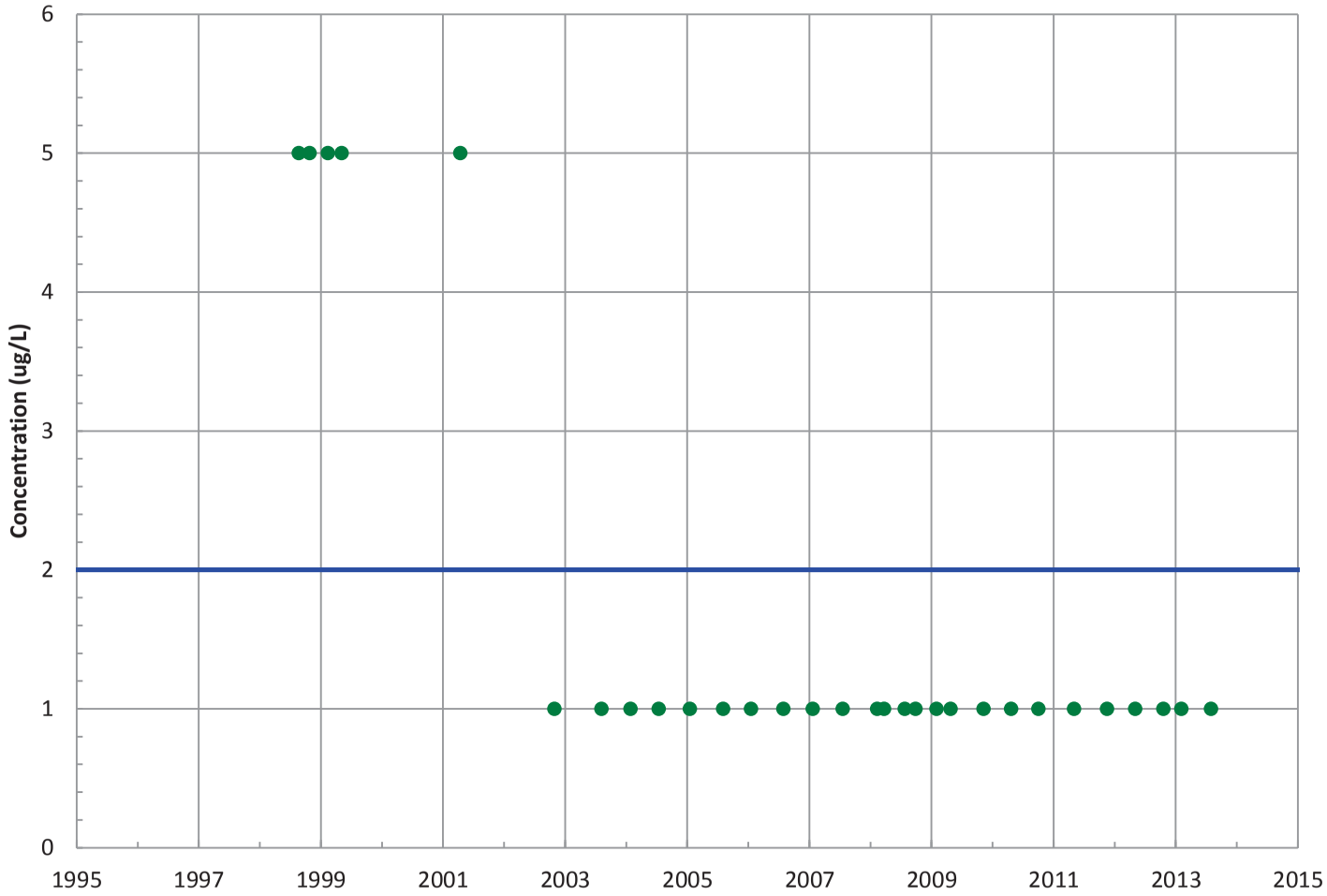
Well Location



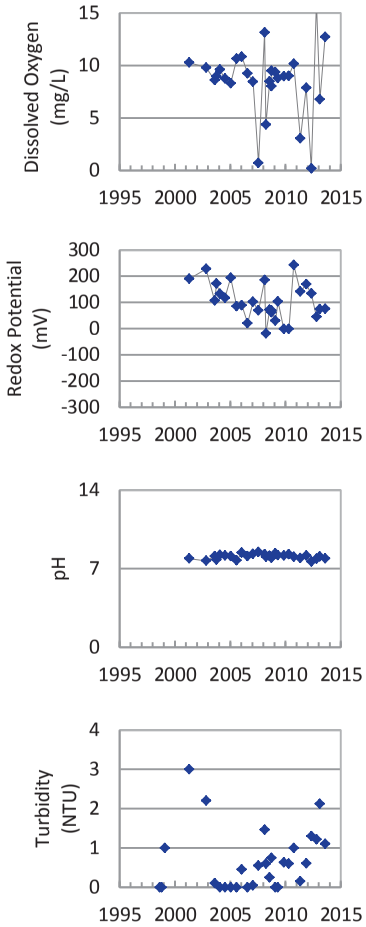
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/26/1998 to 8/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1035
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



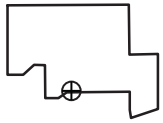
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

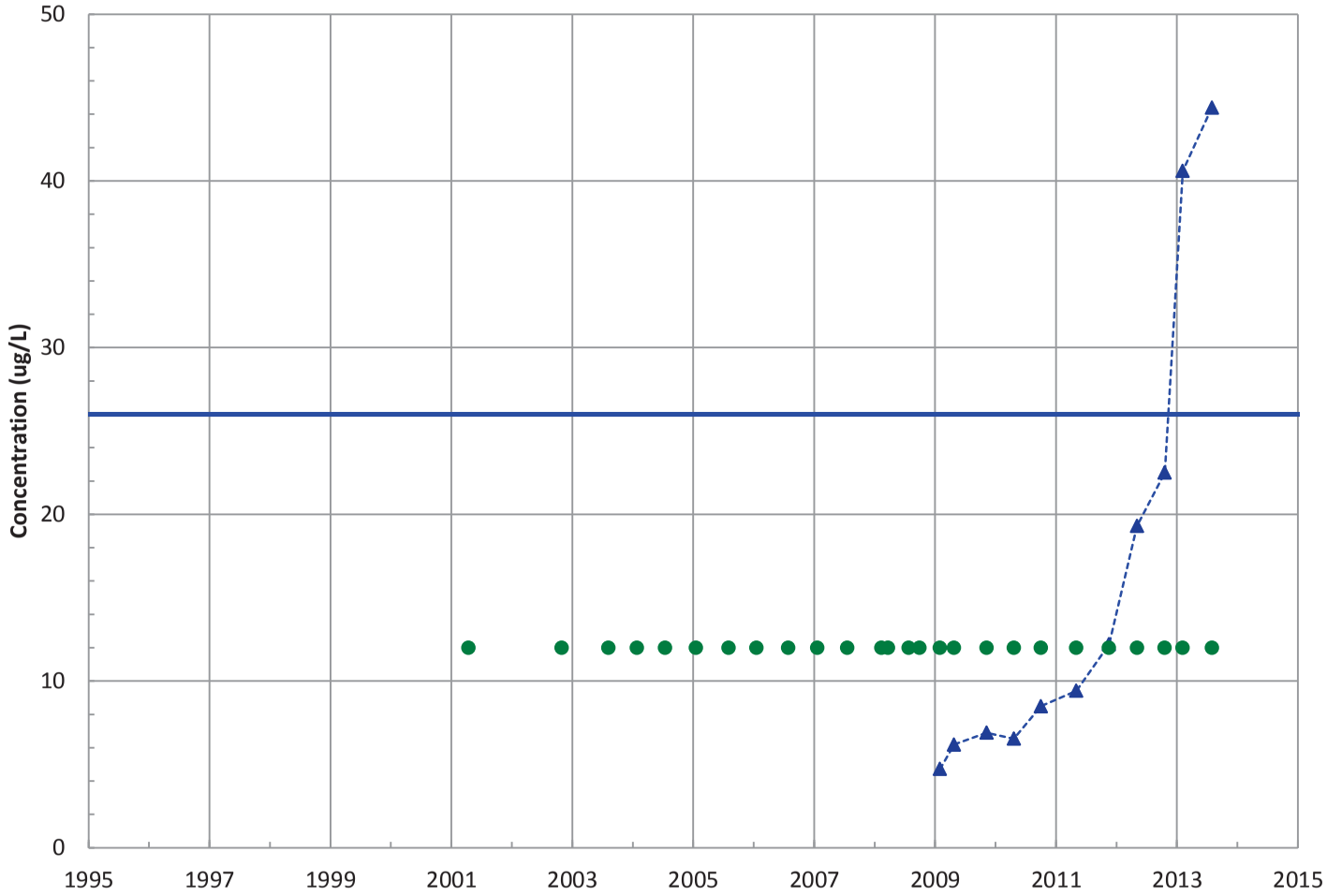
Well Location



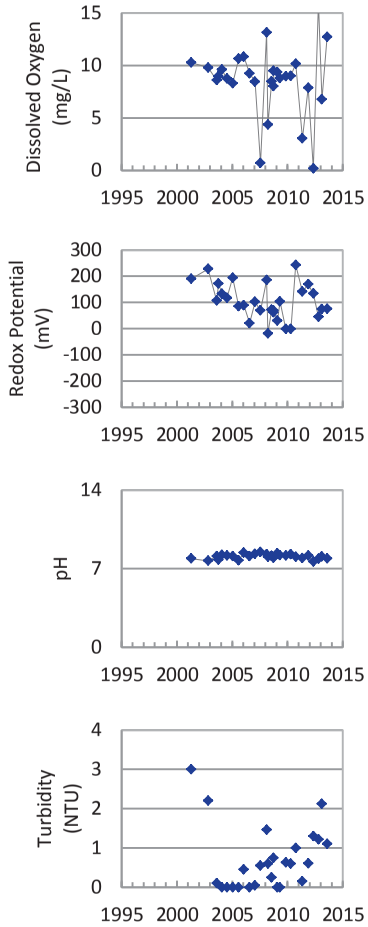
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/26/1998 to 8/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1035
Perchlorate Trend in Perched Aquifer



Field Parameters



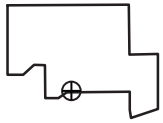
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Increasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Increasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

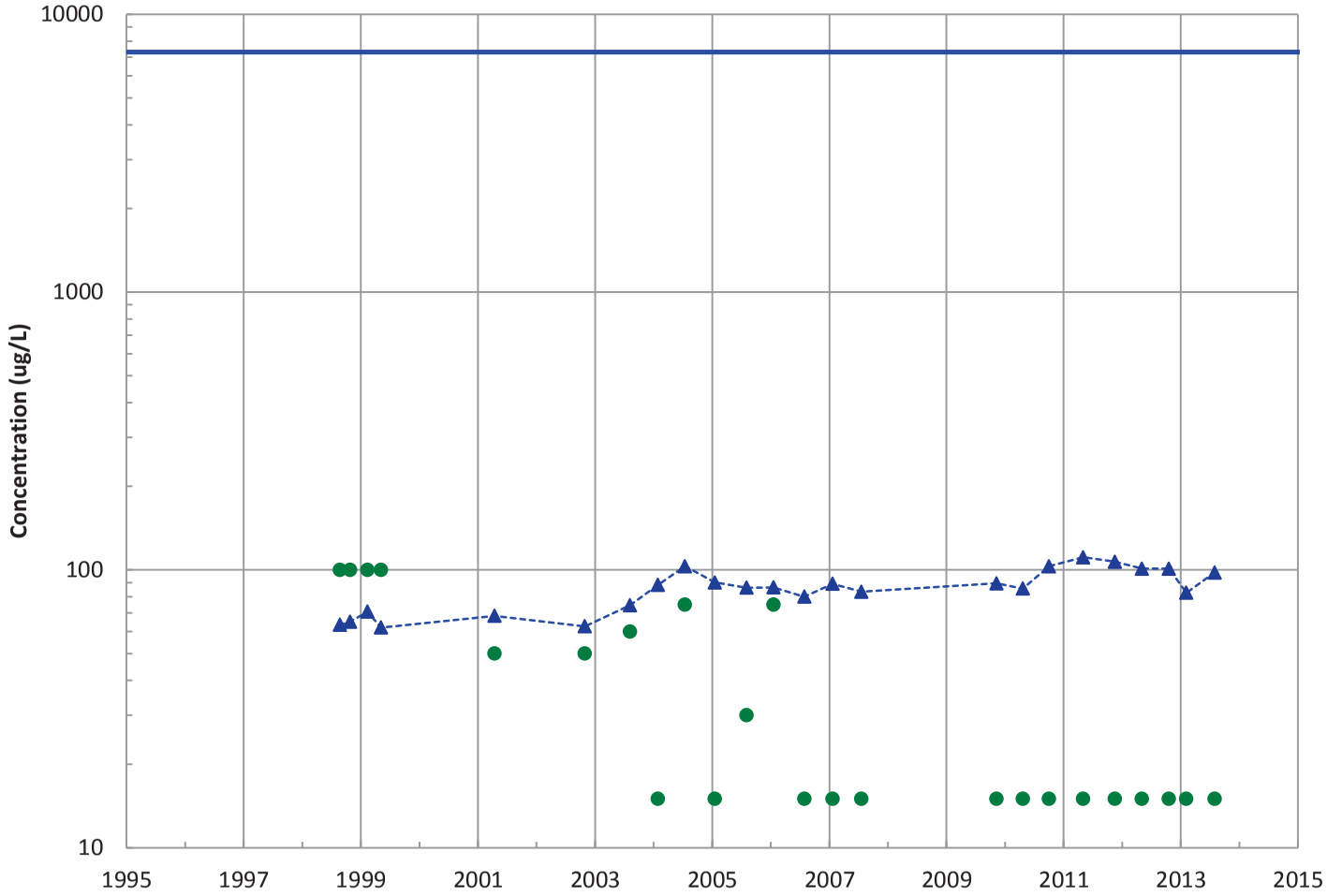
Well Location



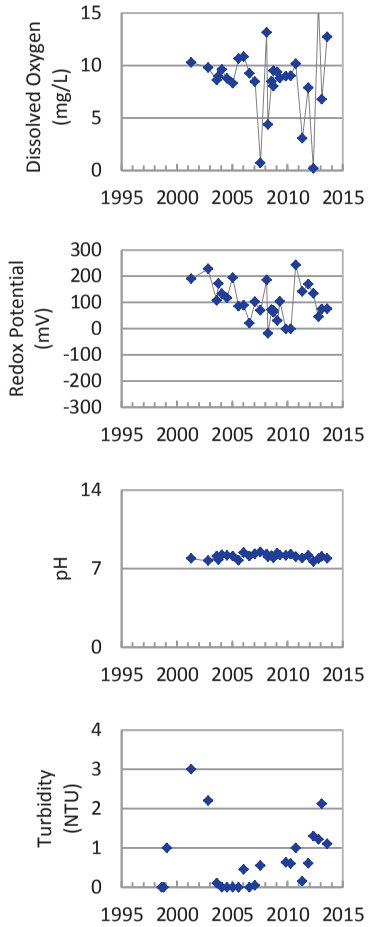
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/19/2001 to 8/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1035
Boron Trend in Perched Aquifer



Field Parameters



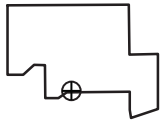
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------ Concentration Trend
- ——— Groundwater Protection Standard

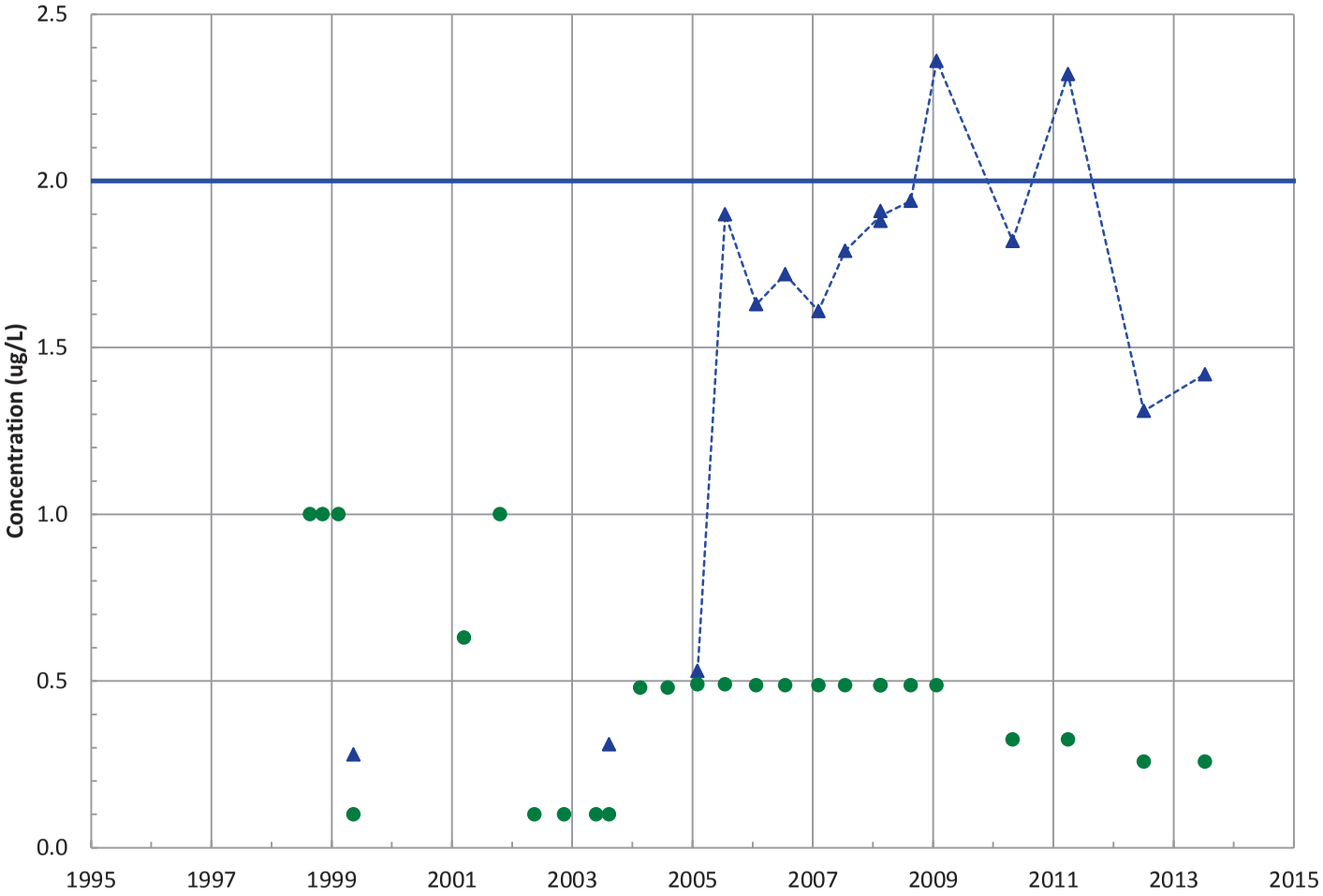
Well Location



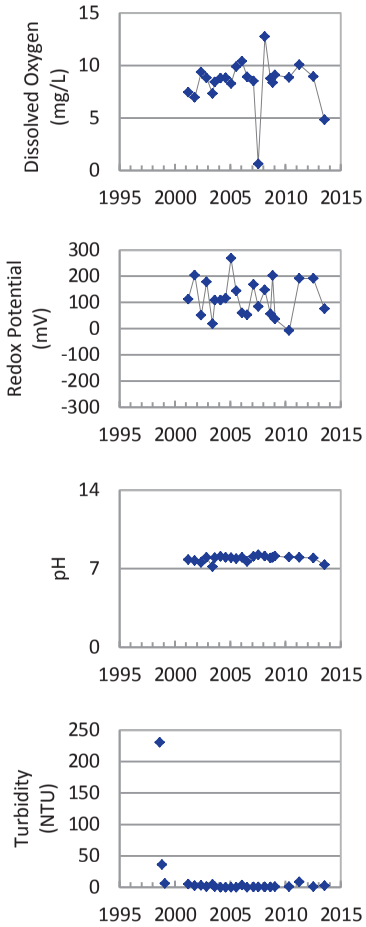
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/26/1998 to 8/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1036
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



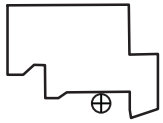
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

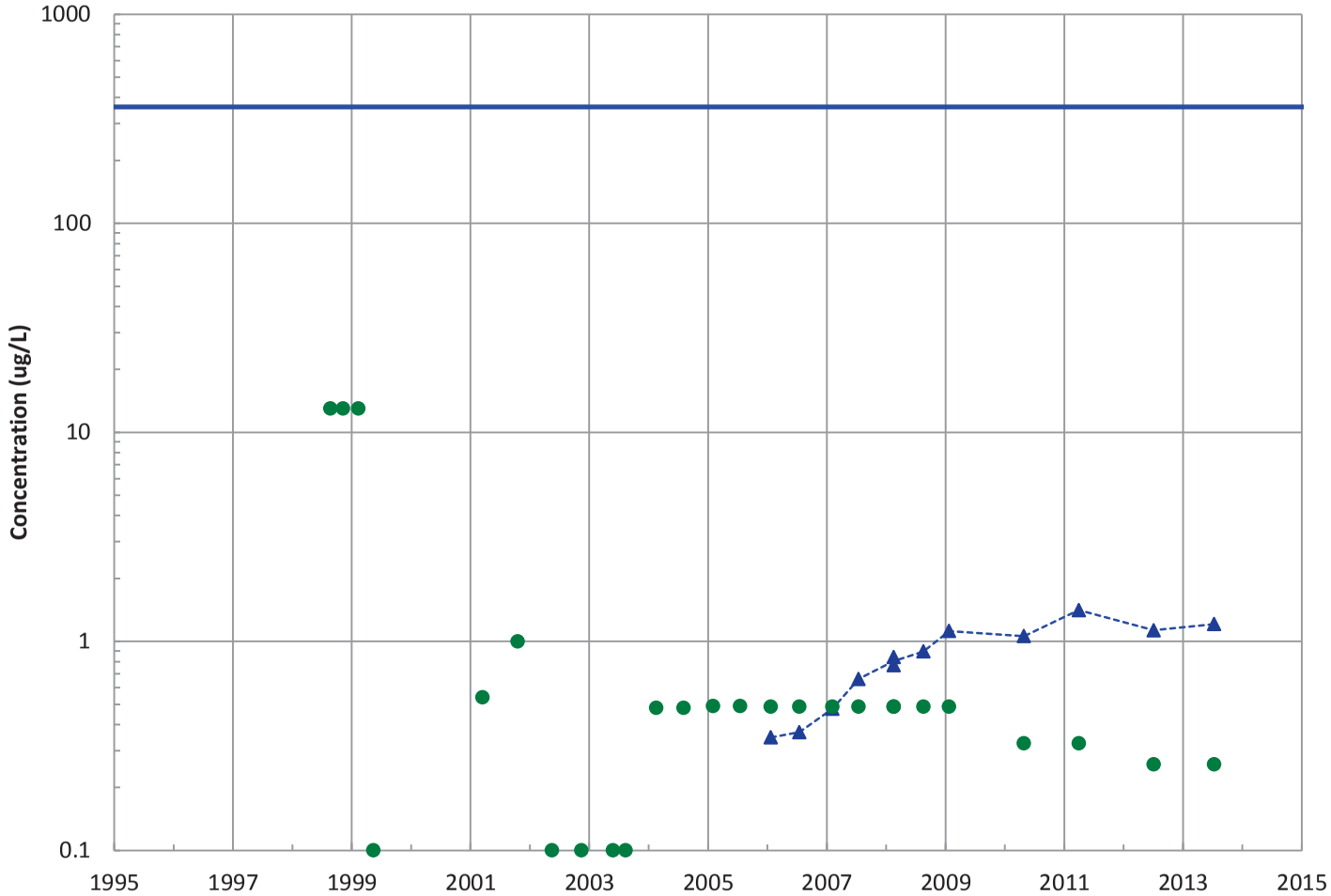
Well Location



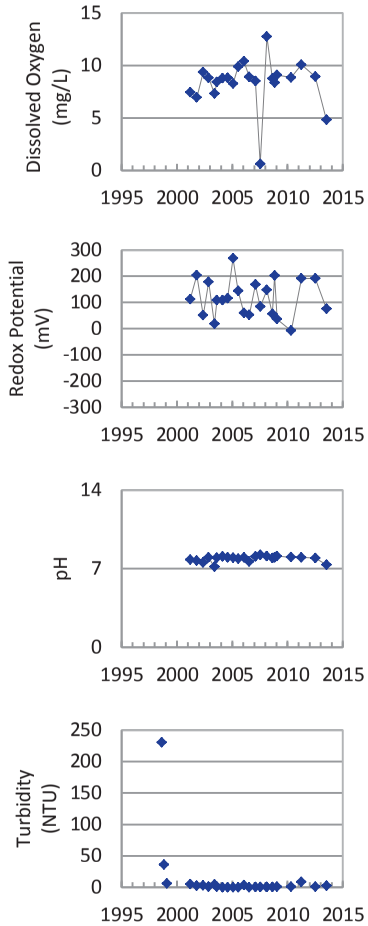
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/26/1998 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1036
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



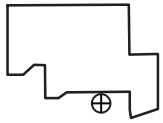
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

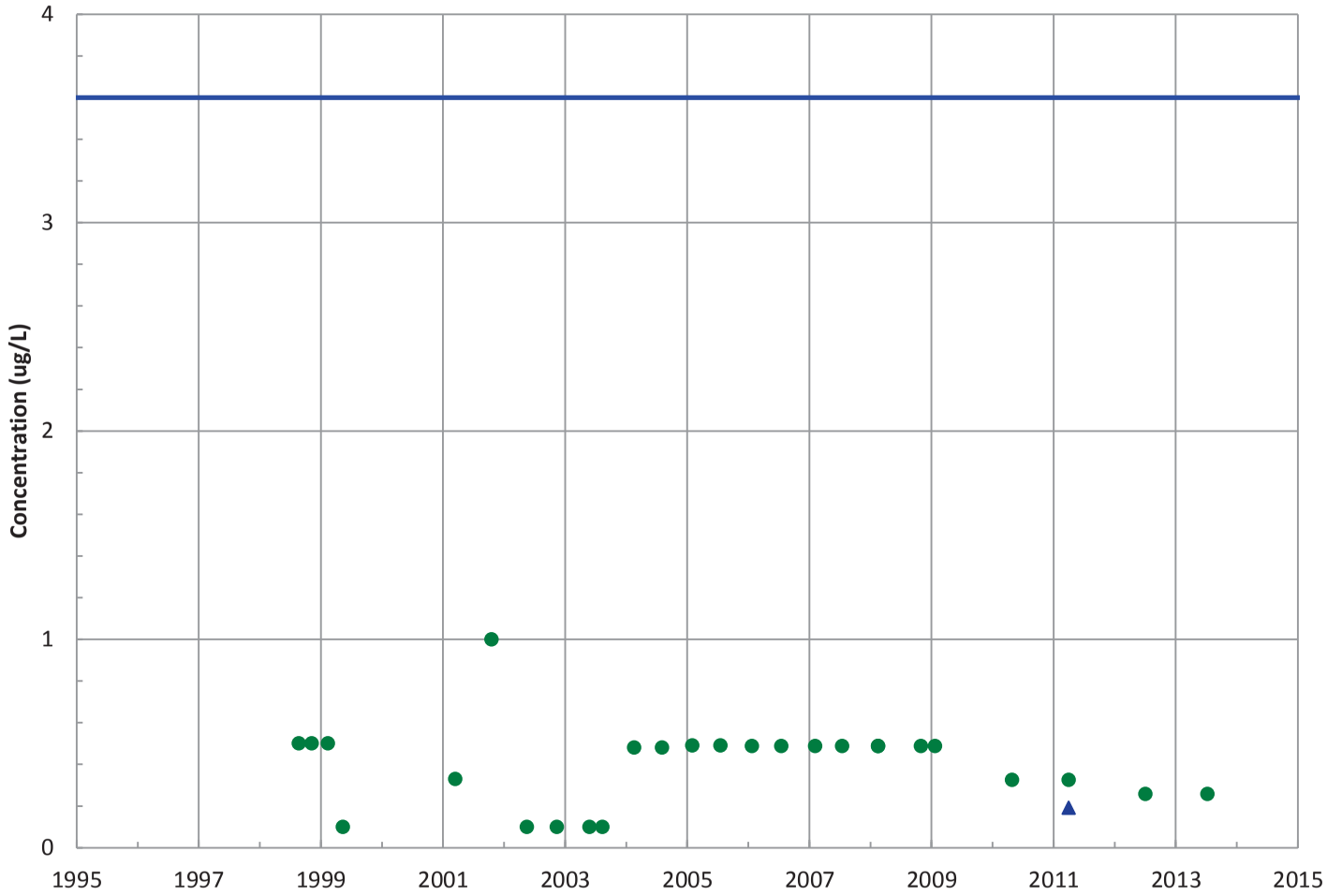
Well Location



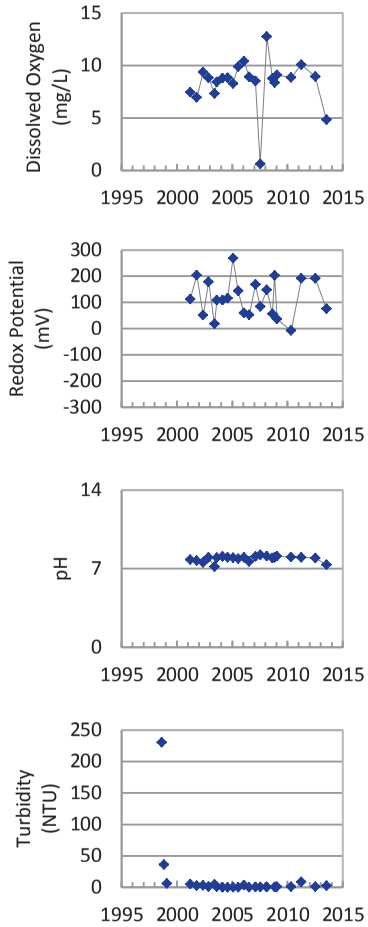
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/26/1998 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1036
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



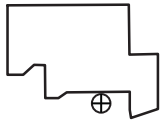
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

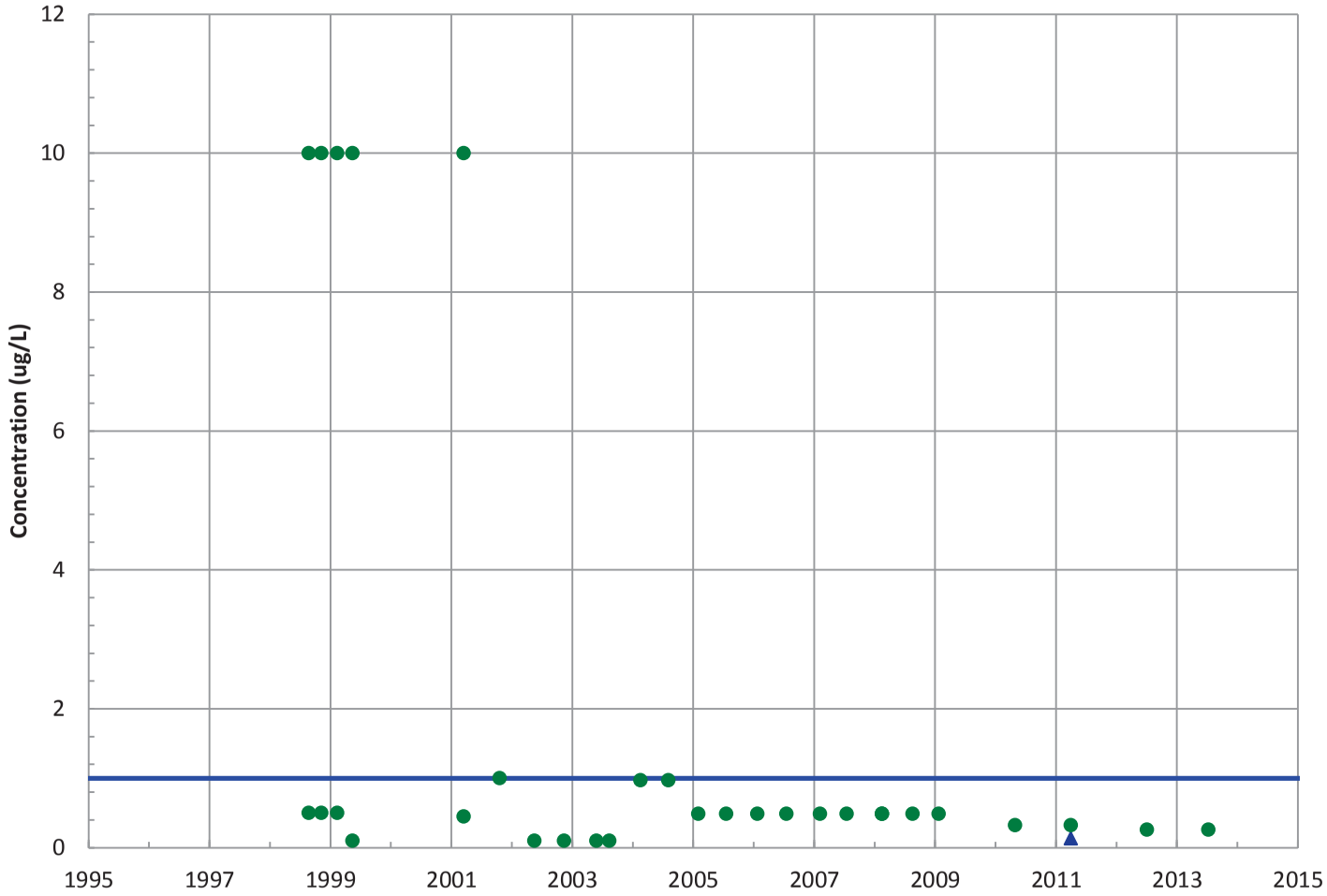
Well Location



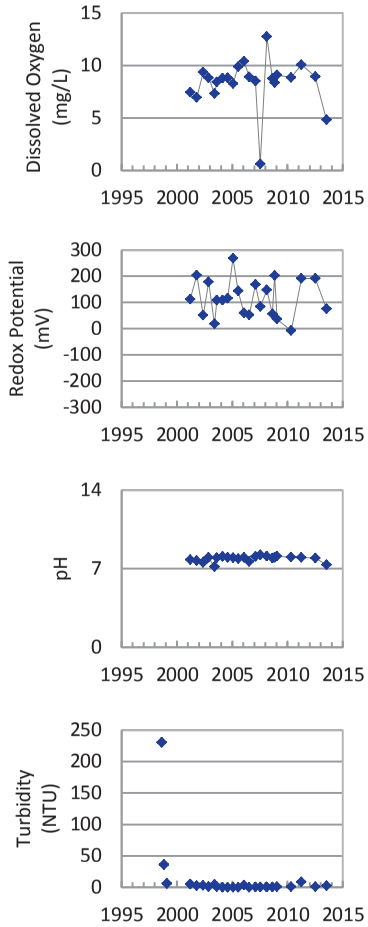
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/26/1998 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1036
2,4-Dinitrotoluene Trend in Perched Aquifer



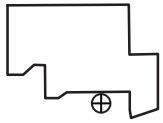
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

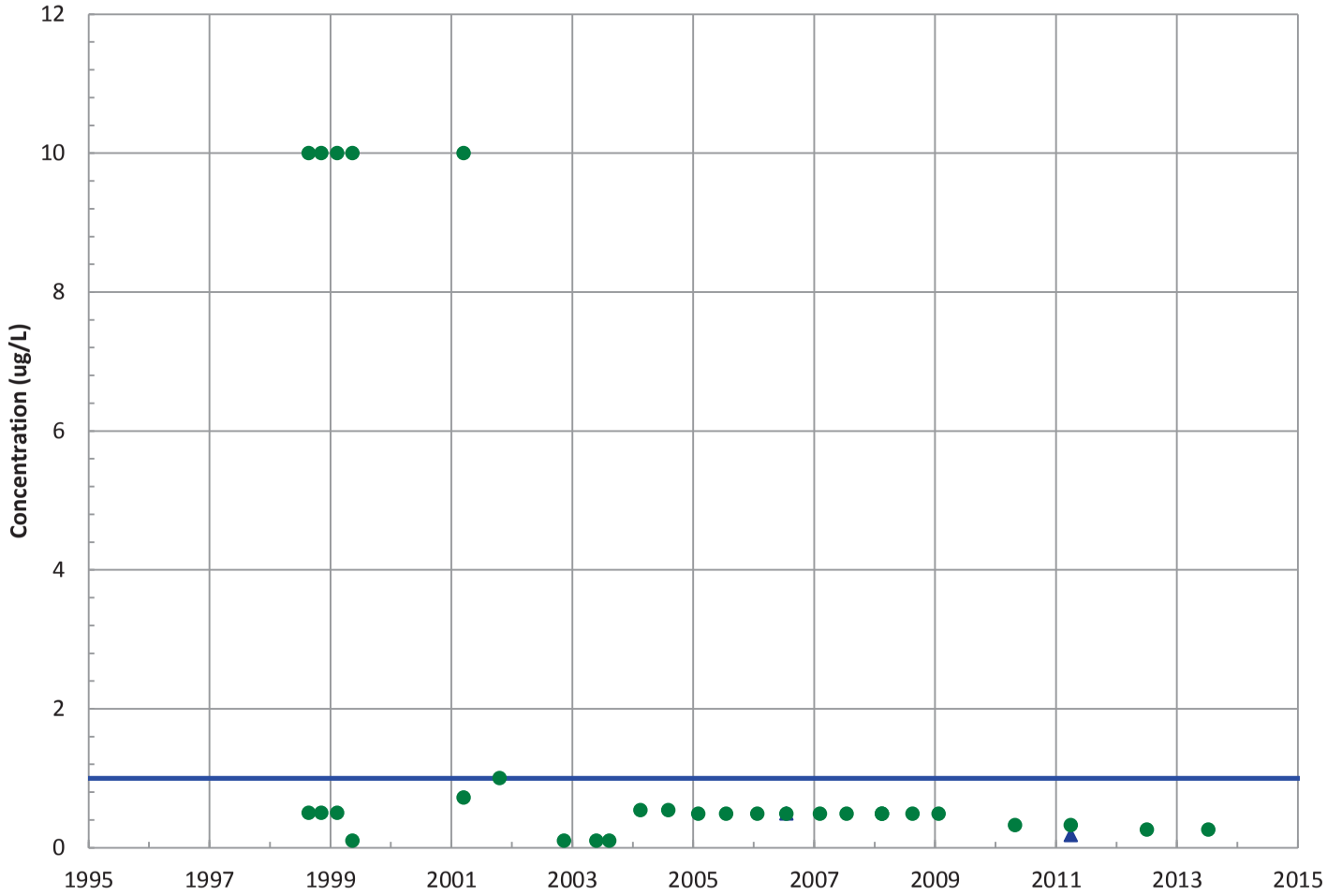
Well Location



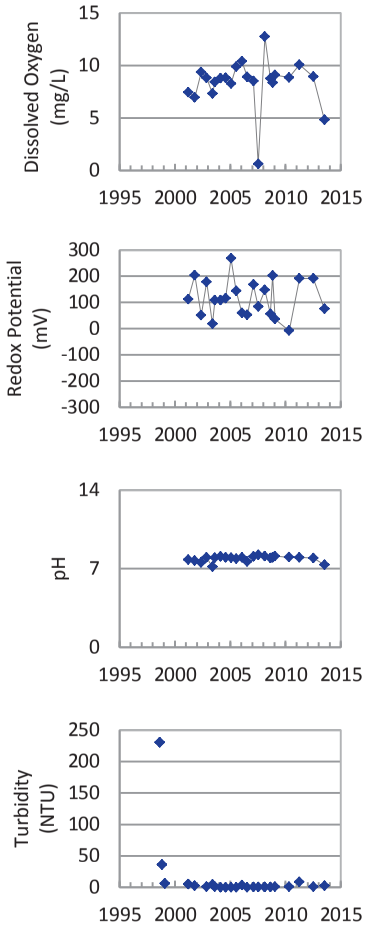
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/26/1998 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1036
2,6-Dinitrotoluene Trend in Perched Aquifer



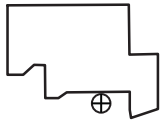
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

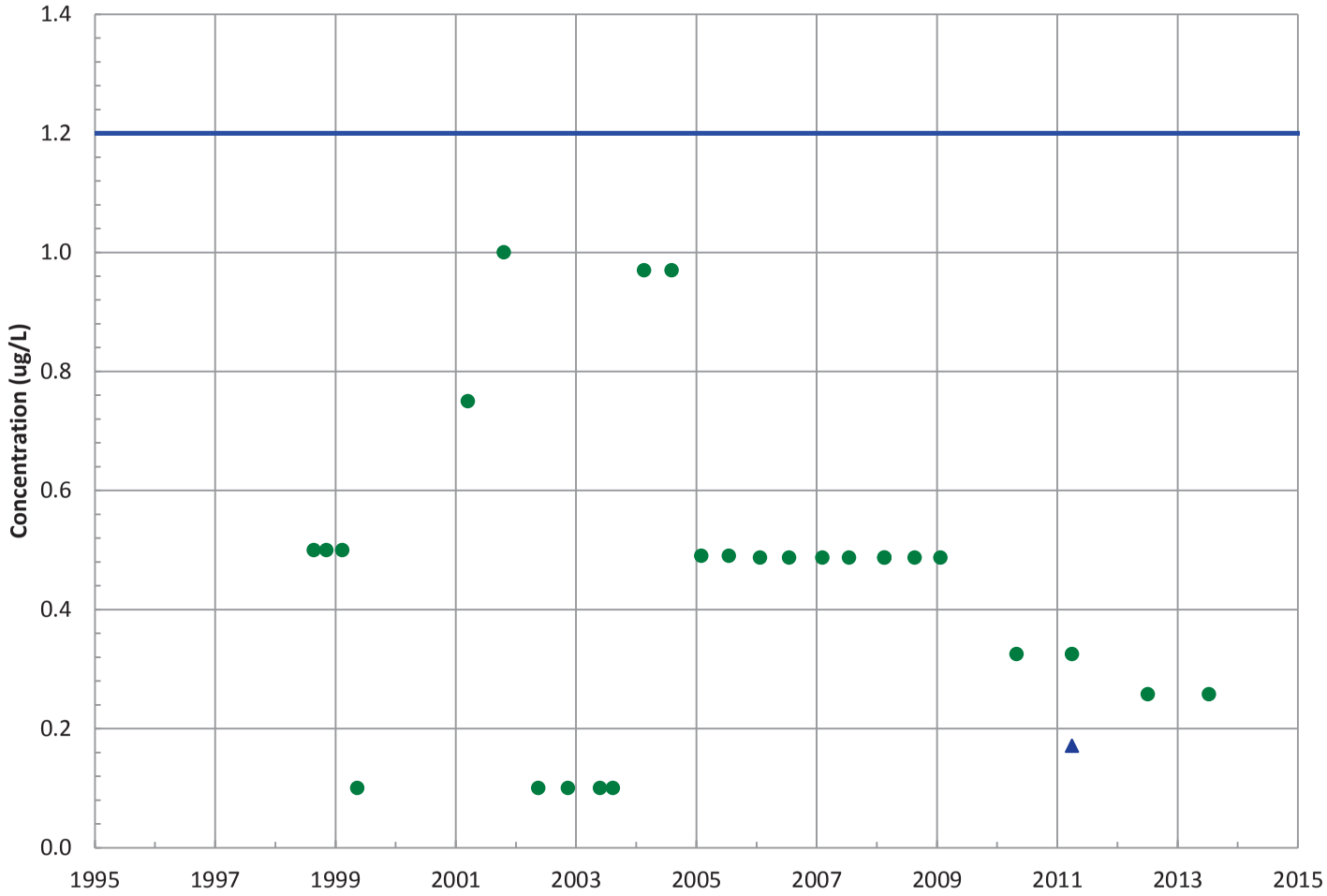
Well Location



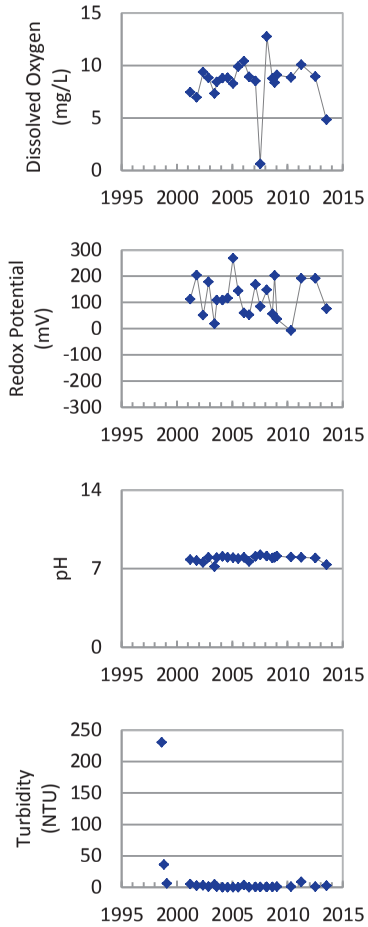
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/26/1998 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1036
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



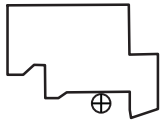
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

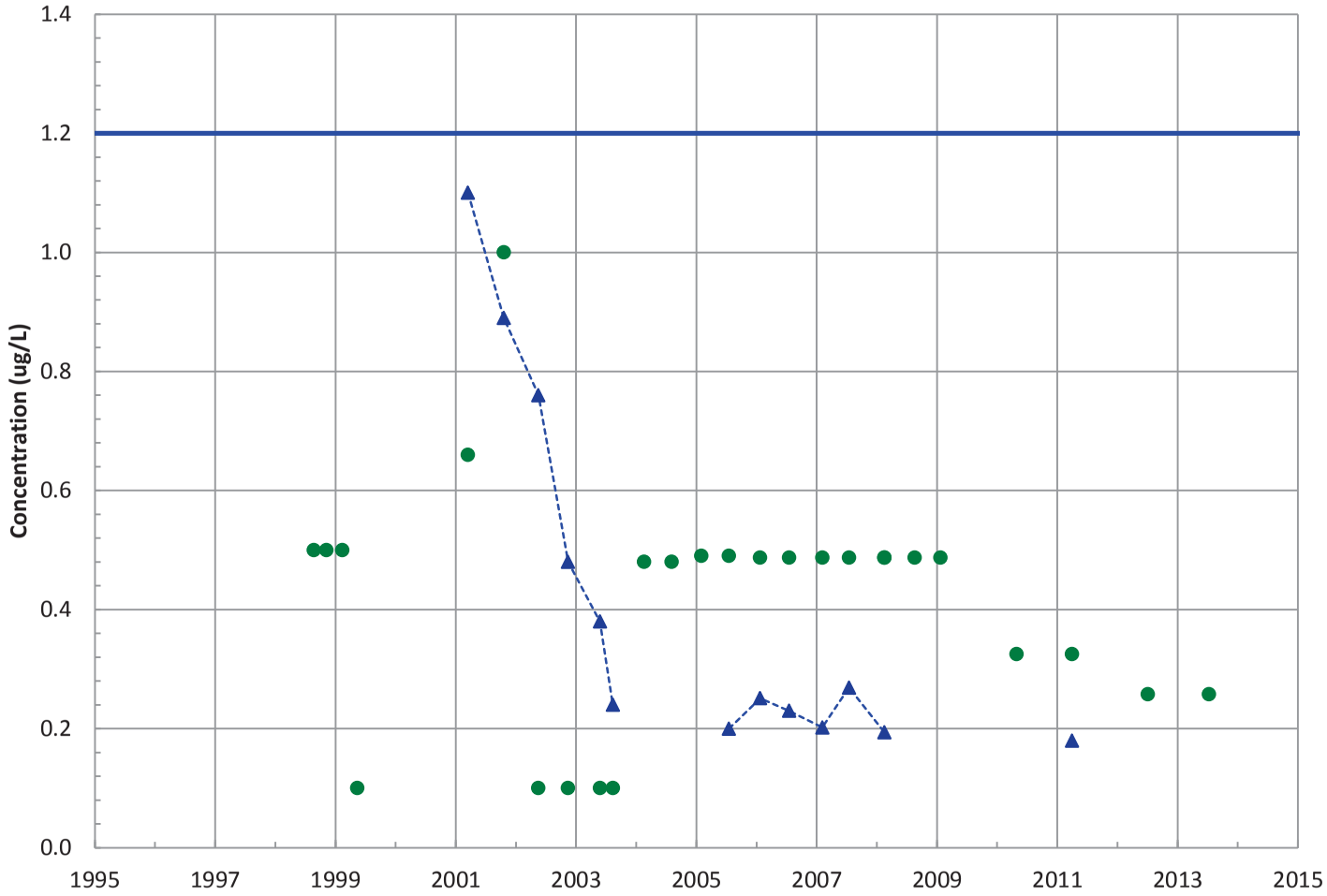
Well Location



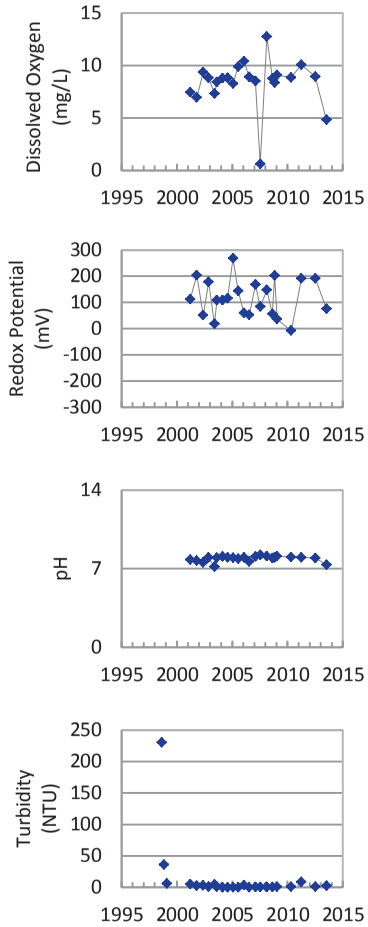
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/26/1998 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1036
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



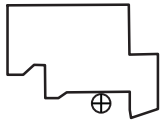
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

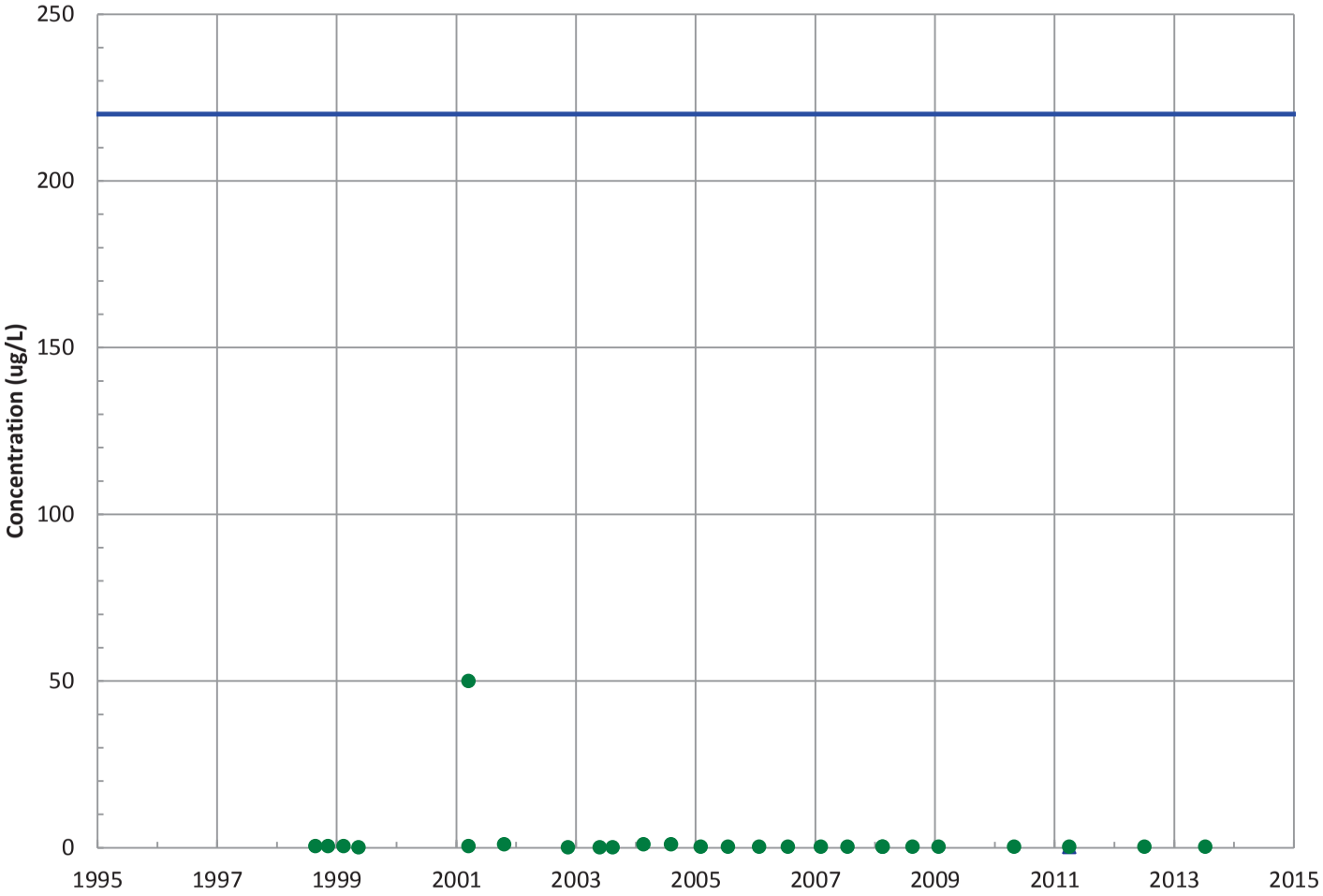
Well Location



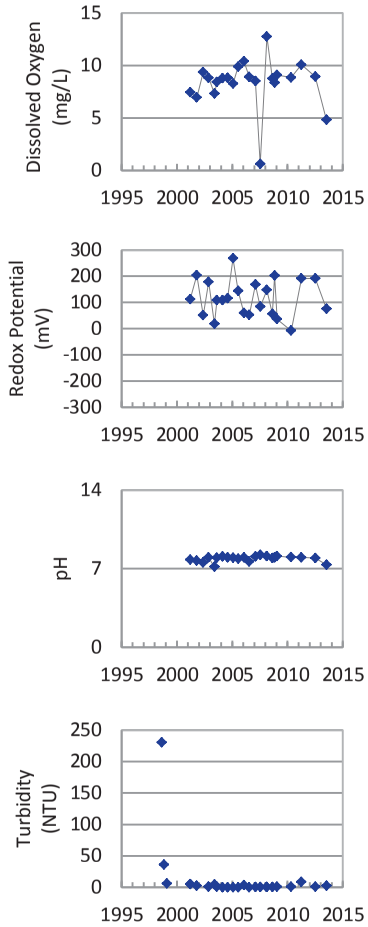
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/26/1998 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1036
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: N/A (<4 Detections in

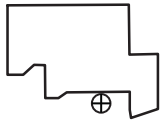
MAROS Linear Regression Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: N/A (<4 Detections in

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

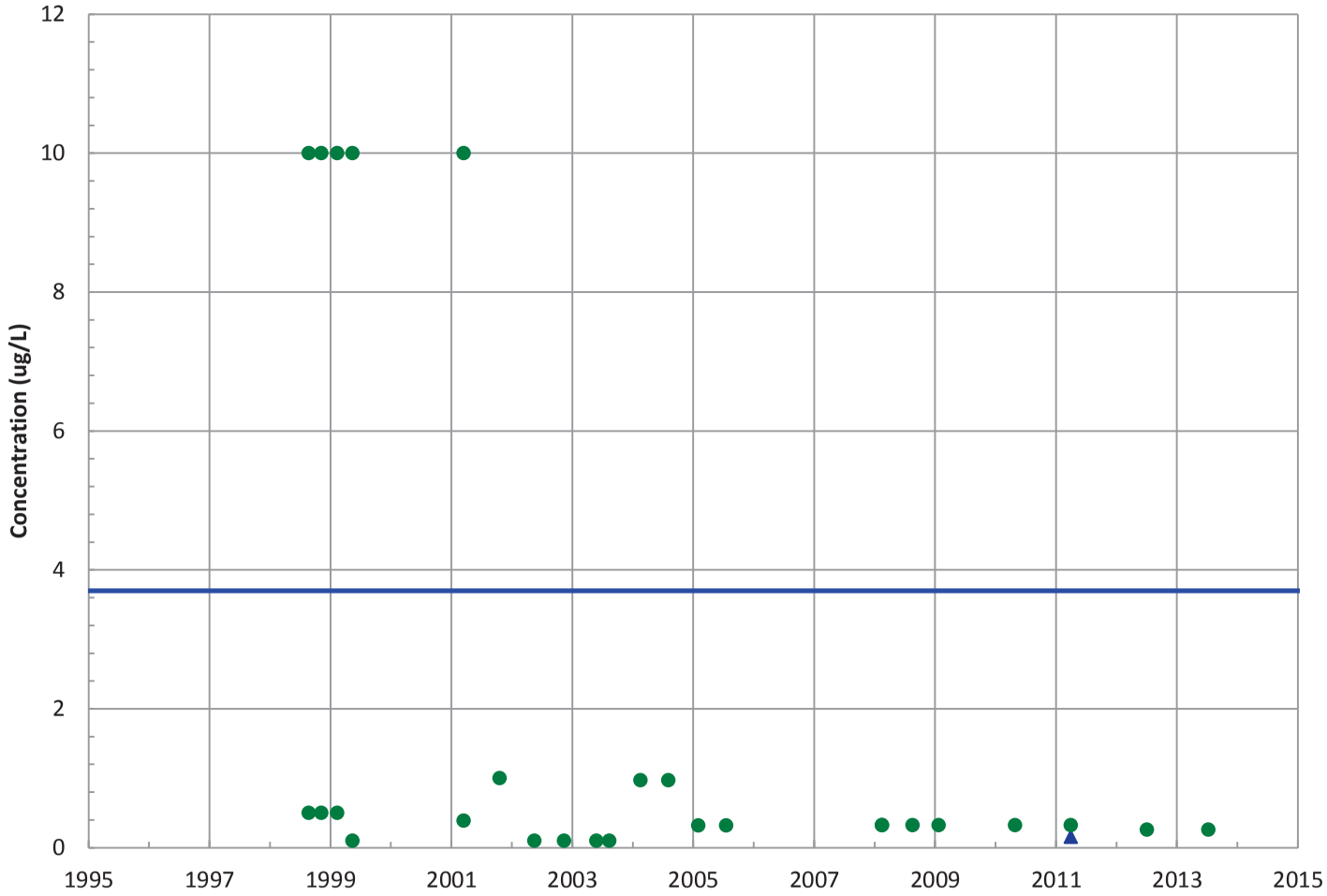
Well Location



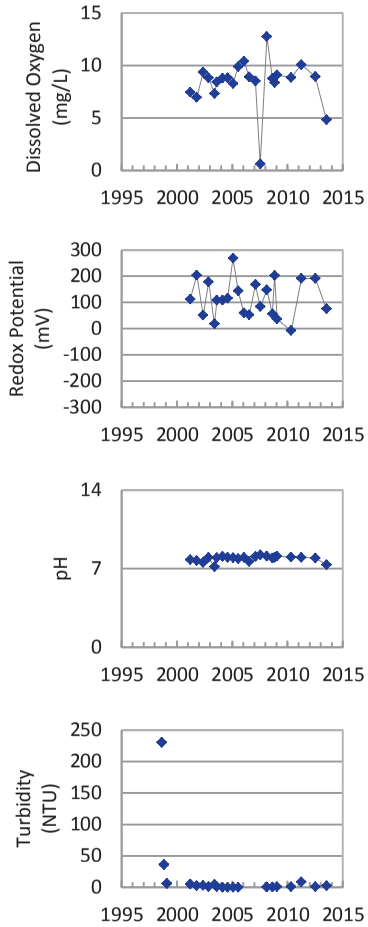
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/26/1998 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1036
1,3-Dinitrobenzene Trend in Perched Aquifer



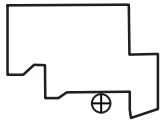
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

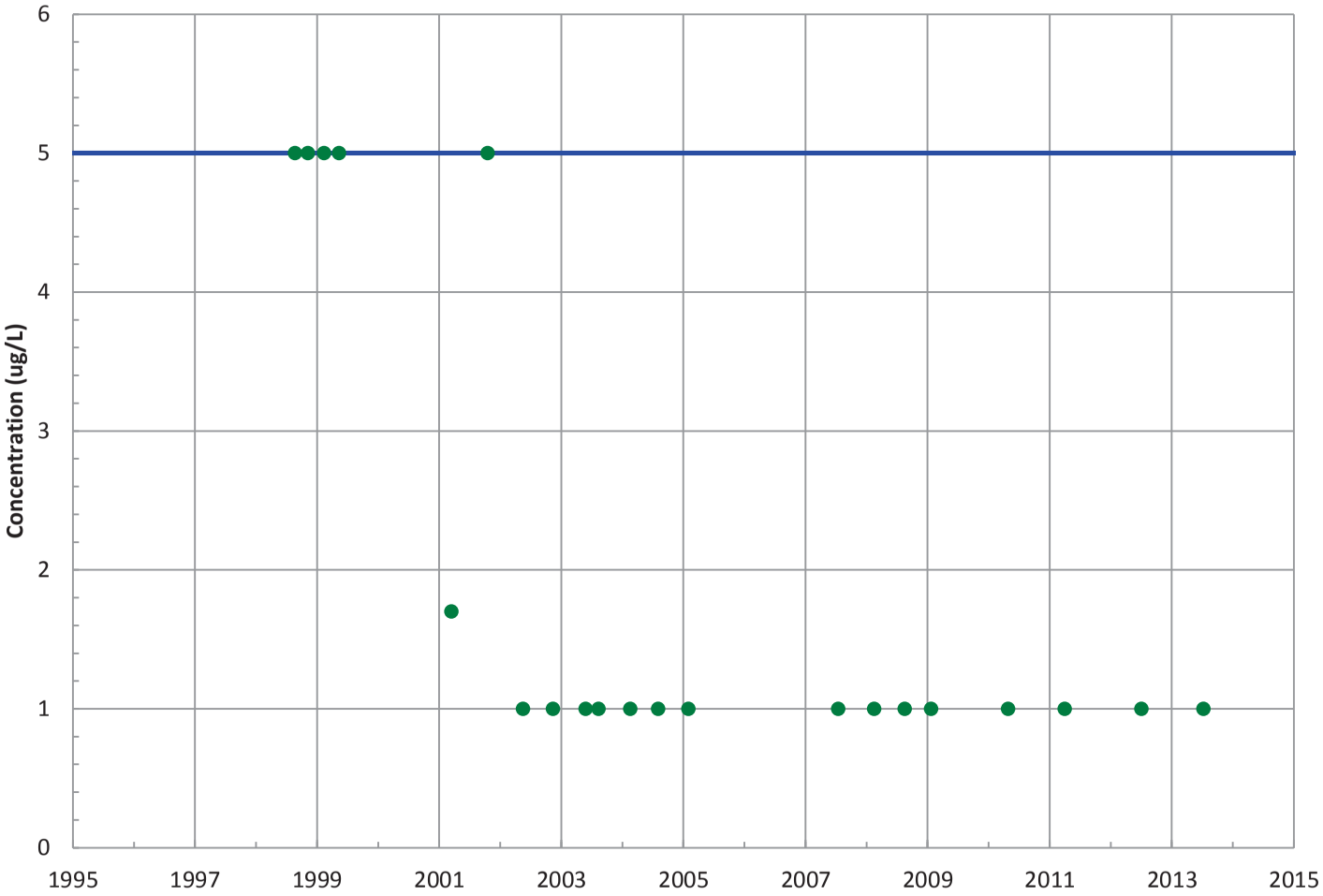
Well Location



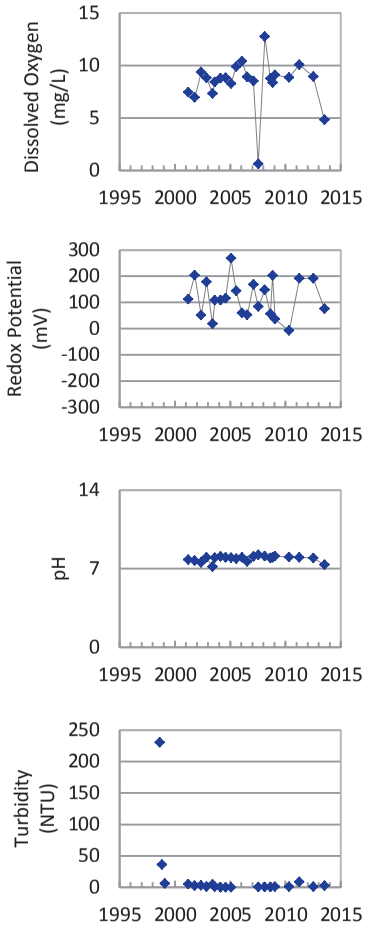
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/26/1998 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1036
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



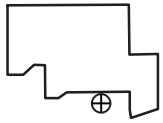
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

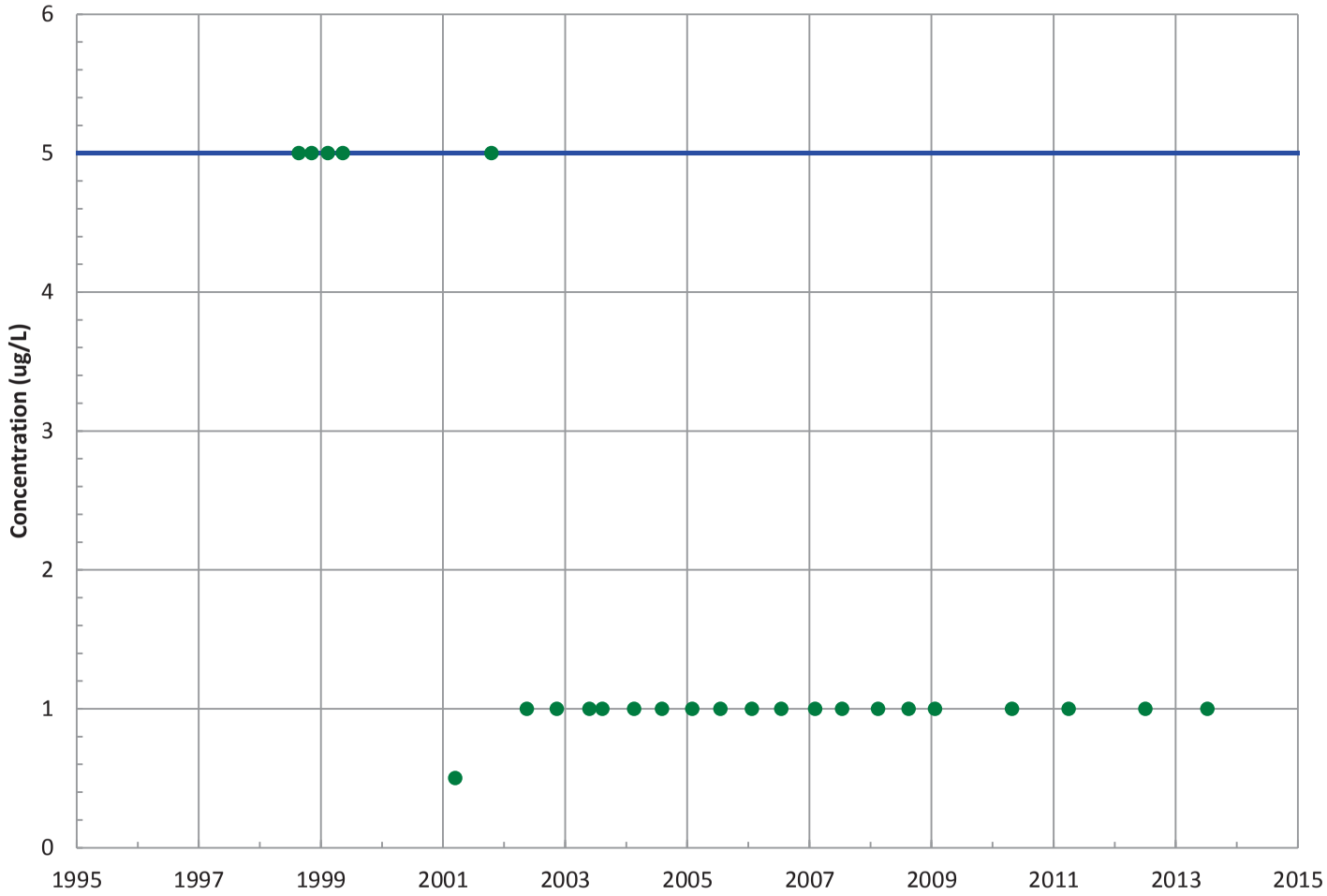
Well Location



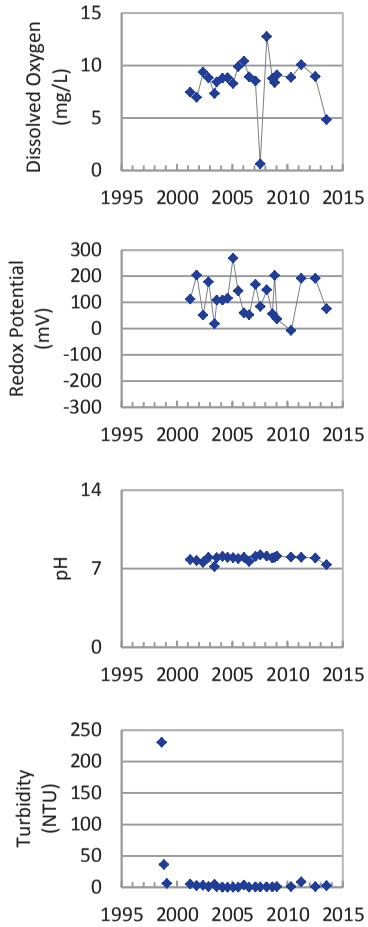
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/26/1998 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1036
Trichloroethene Trend in Perched Aquifer



Field Parameters



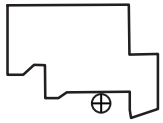
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

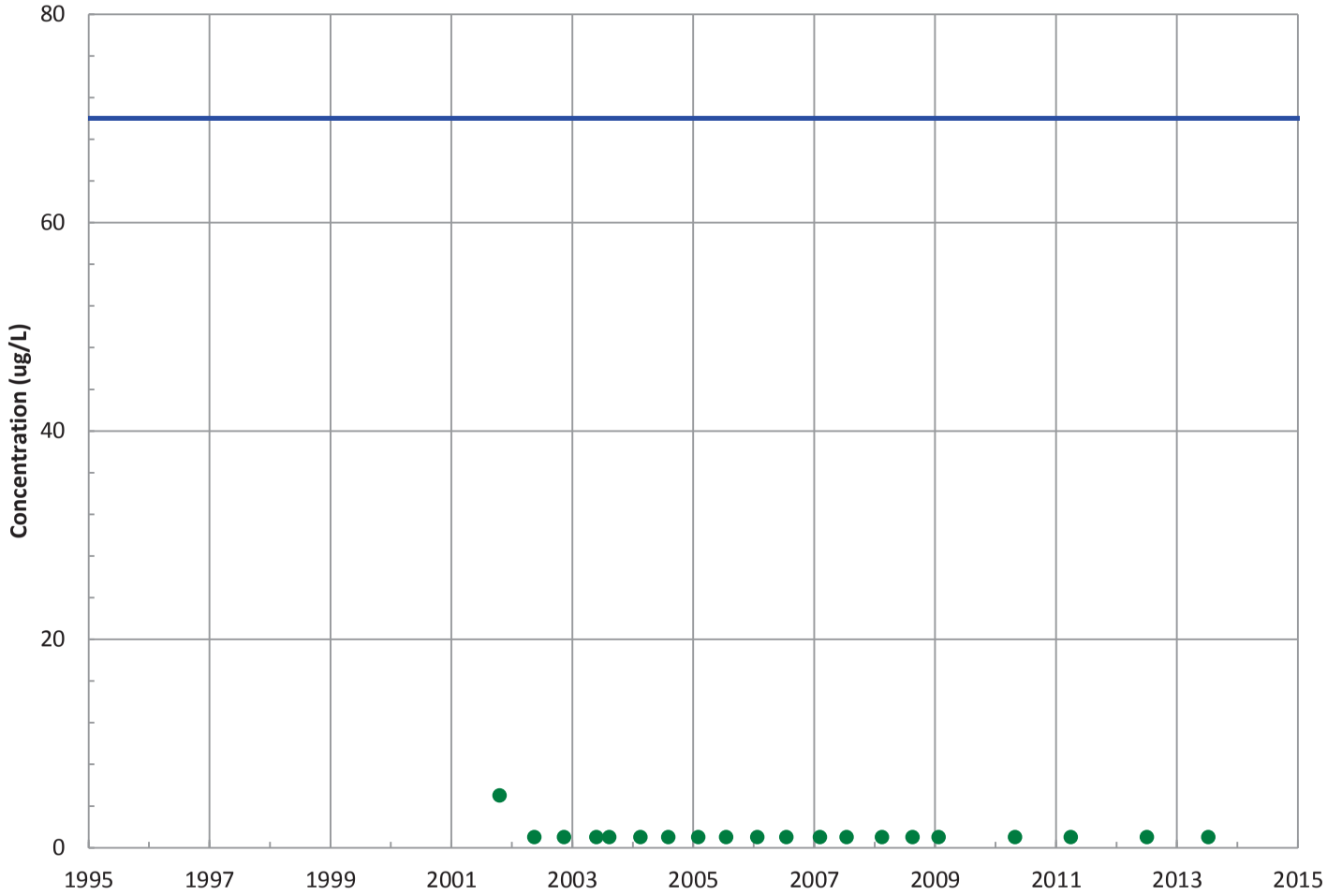
Well Location



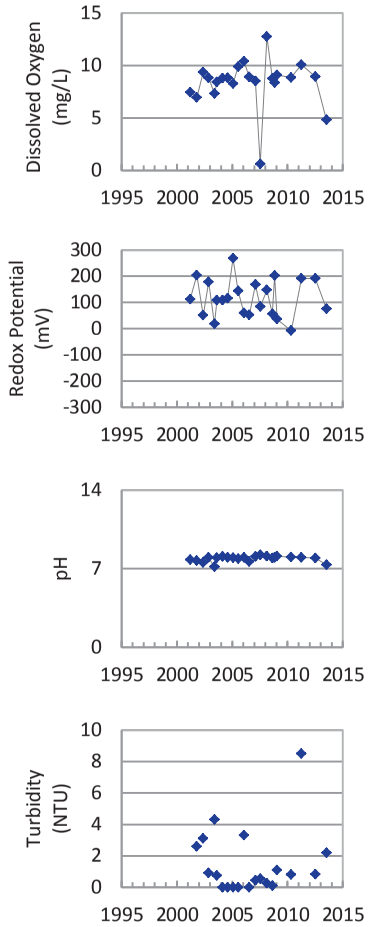
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/26/1998 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1036
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



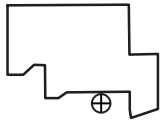
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

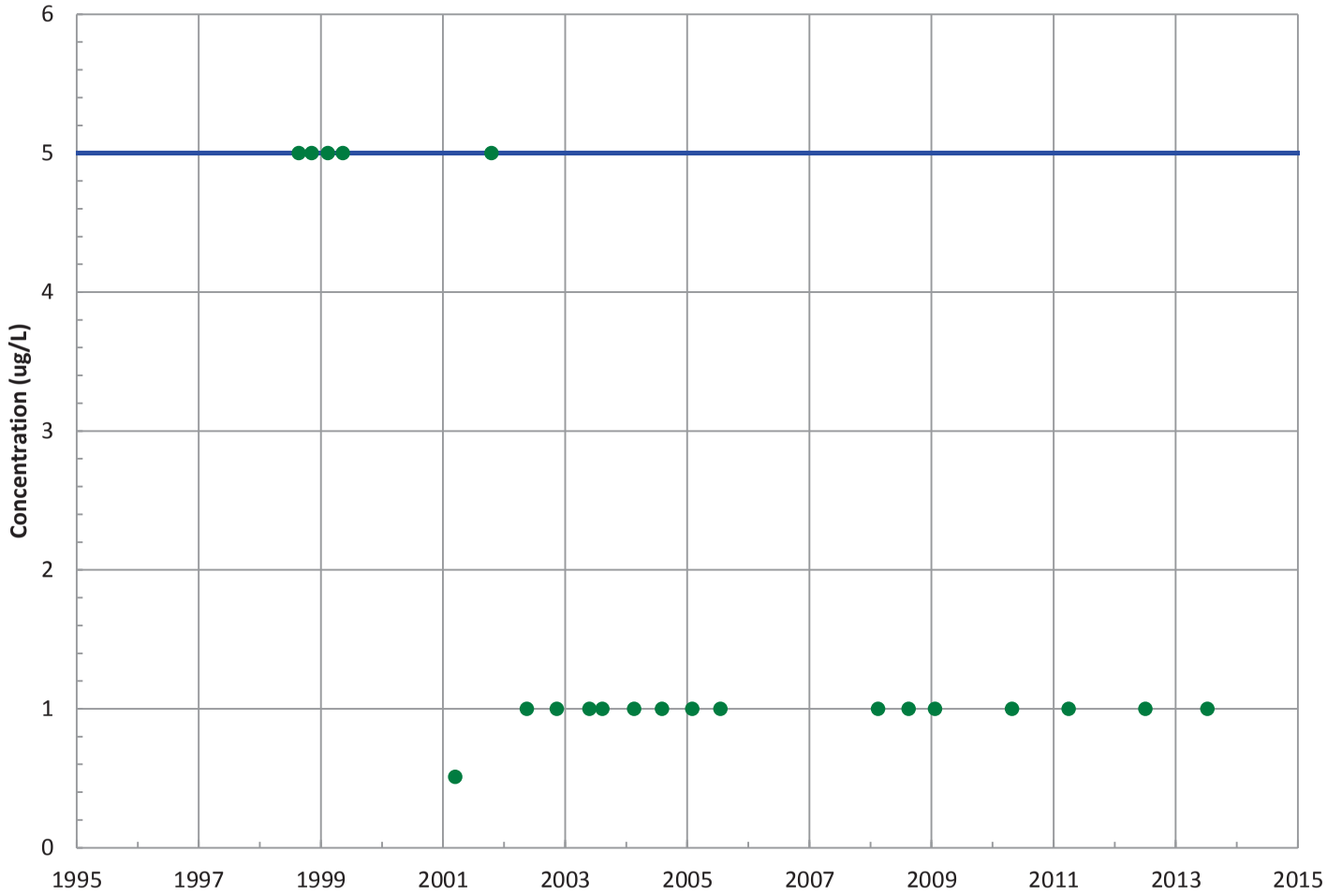
Well Location



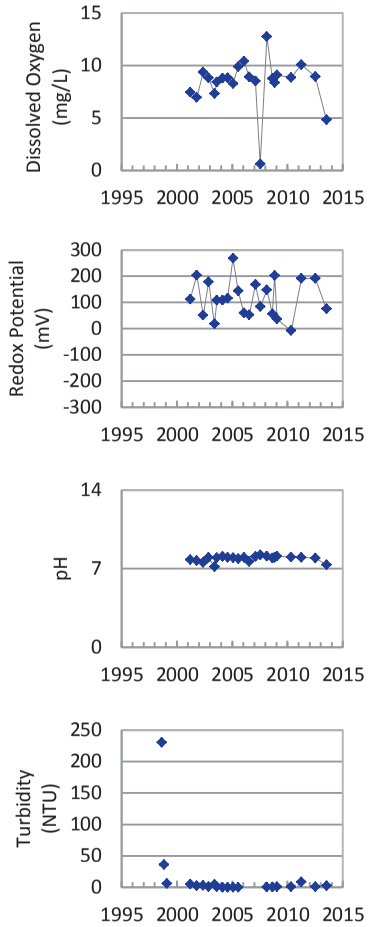
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/24/2001 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1036
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



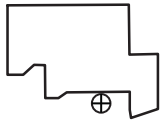
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

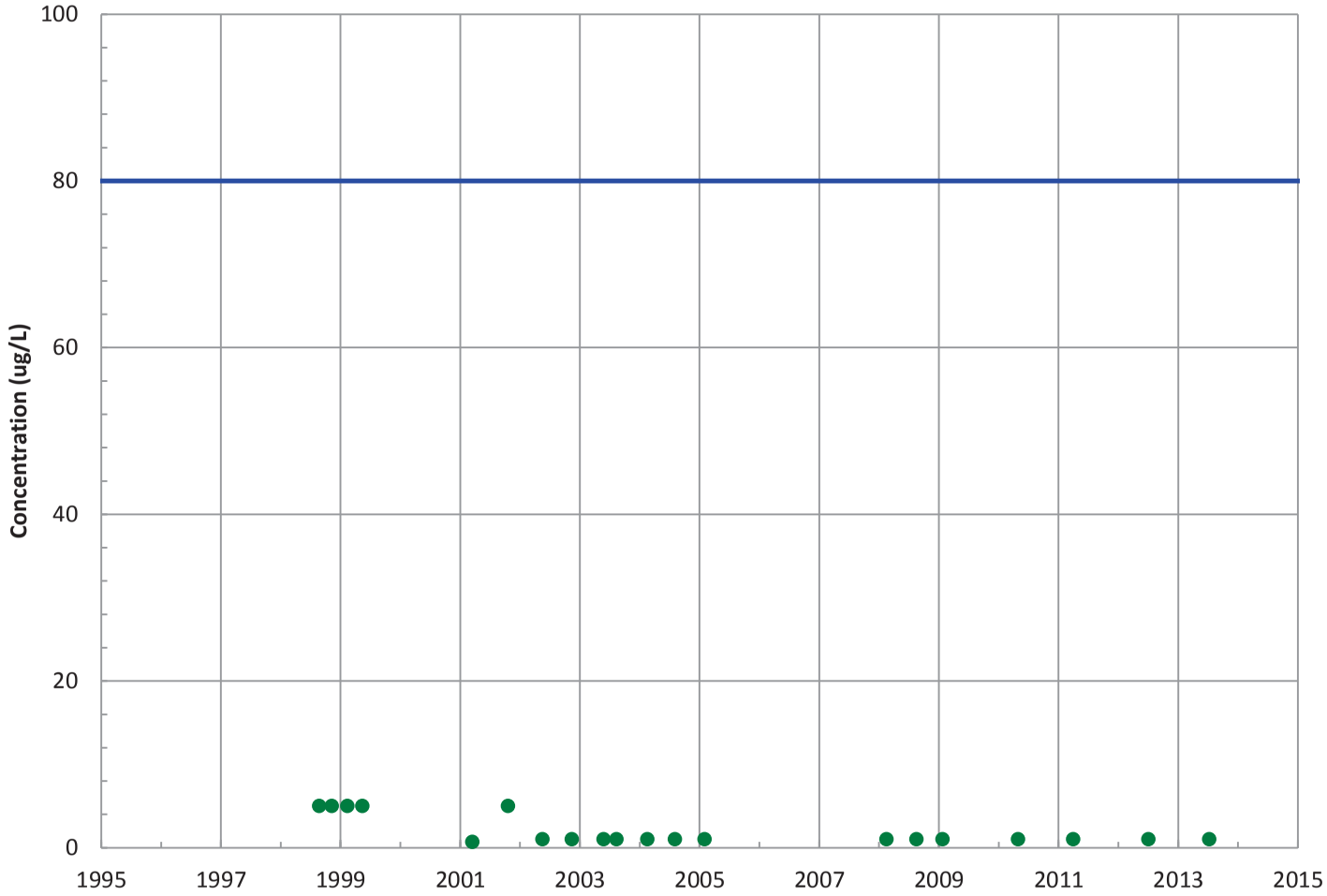
Well Location



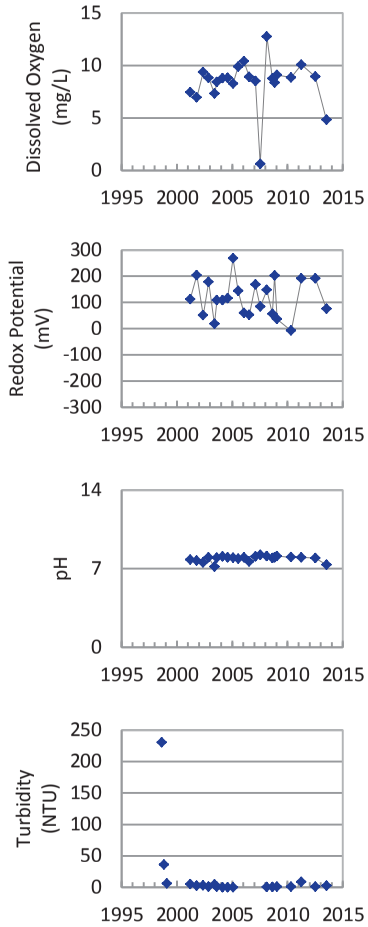
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/26/1998 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1036
Chloroform Trend in Perched Aquifer



Field Parameters



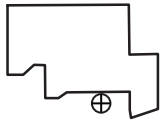
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

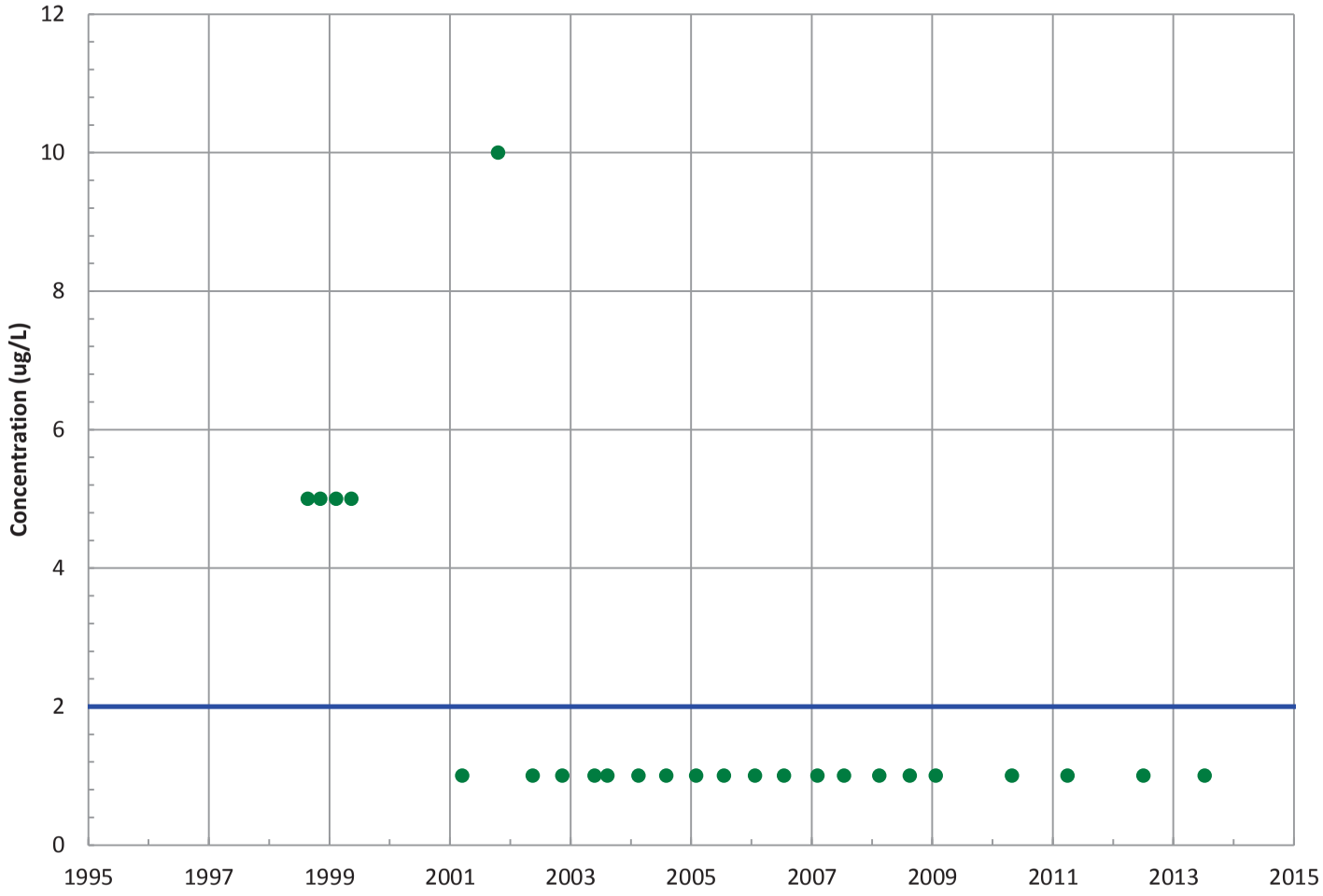
Well Location



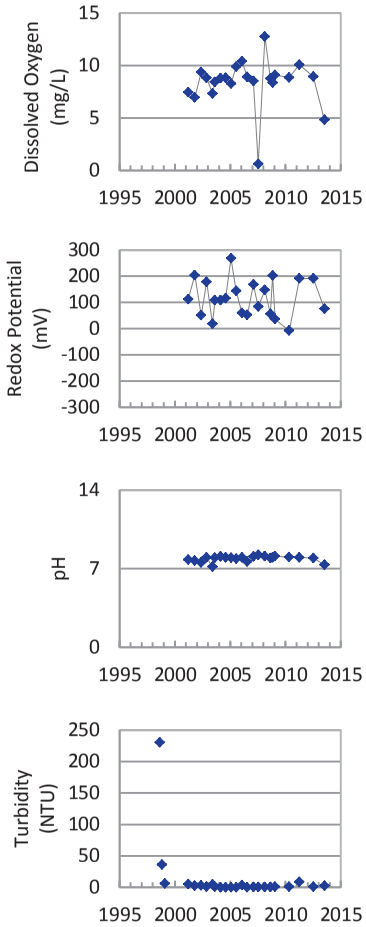
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/26/1998 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1036
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



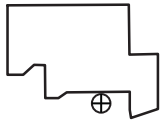
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

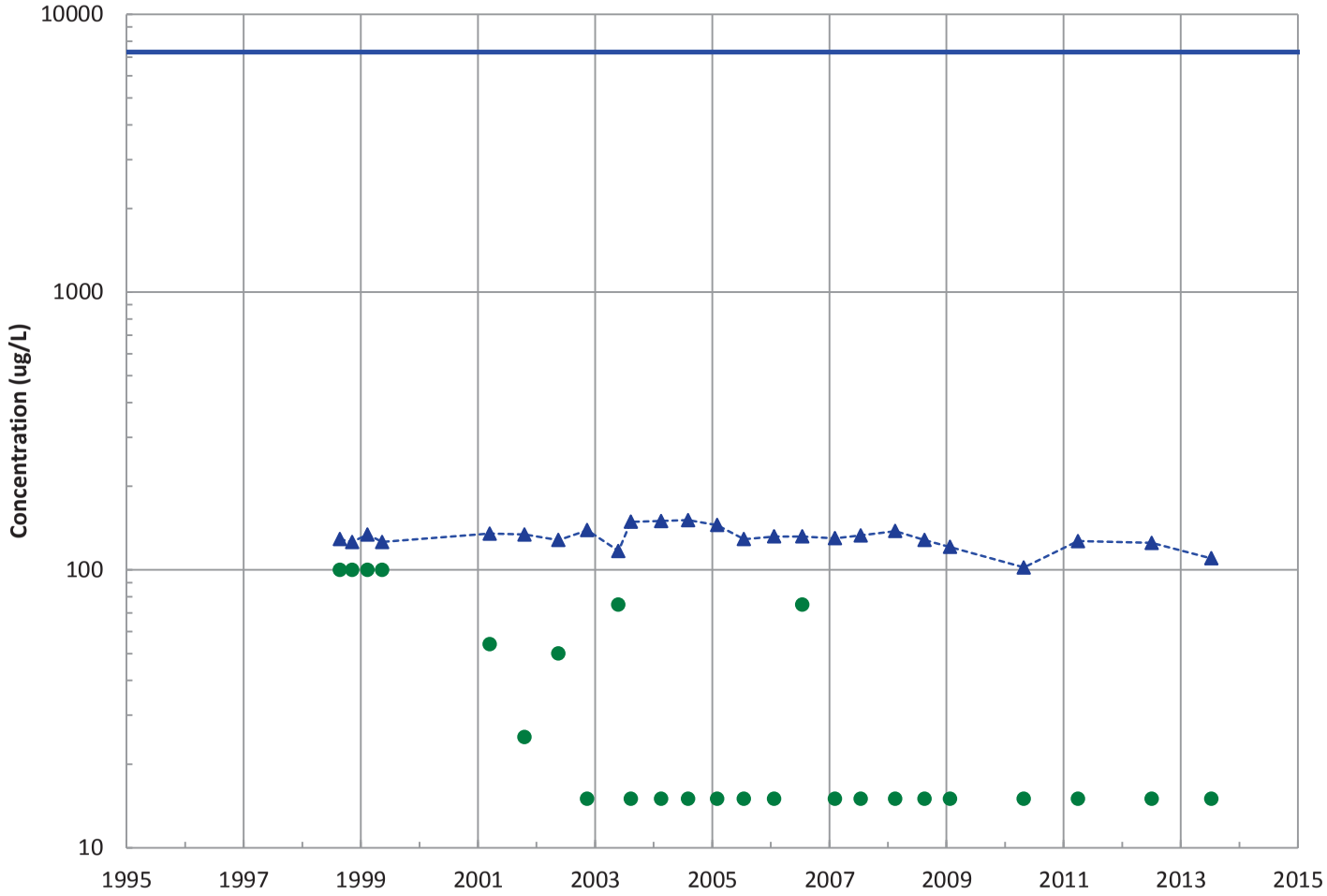
Well Location



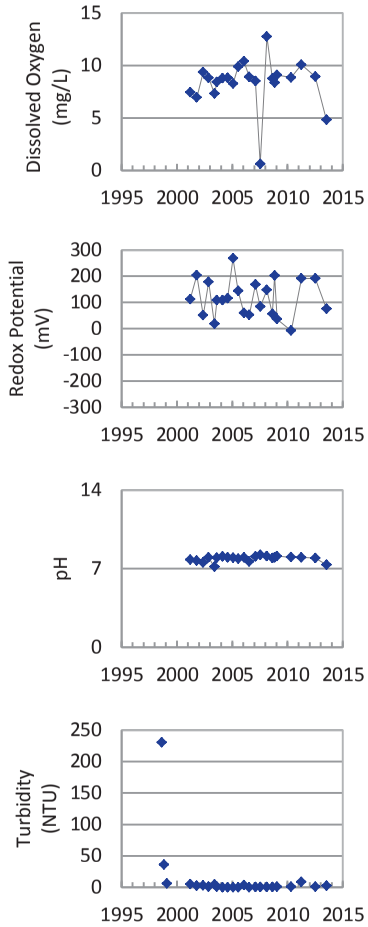
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/26/1998 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1036
Boron Trend in Perched Aquifer



Field Parameters



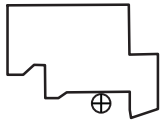
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

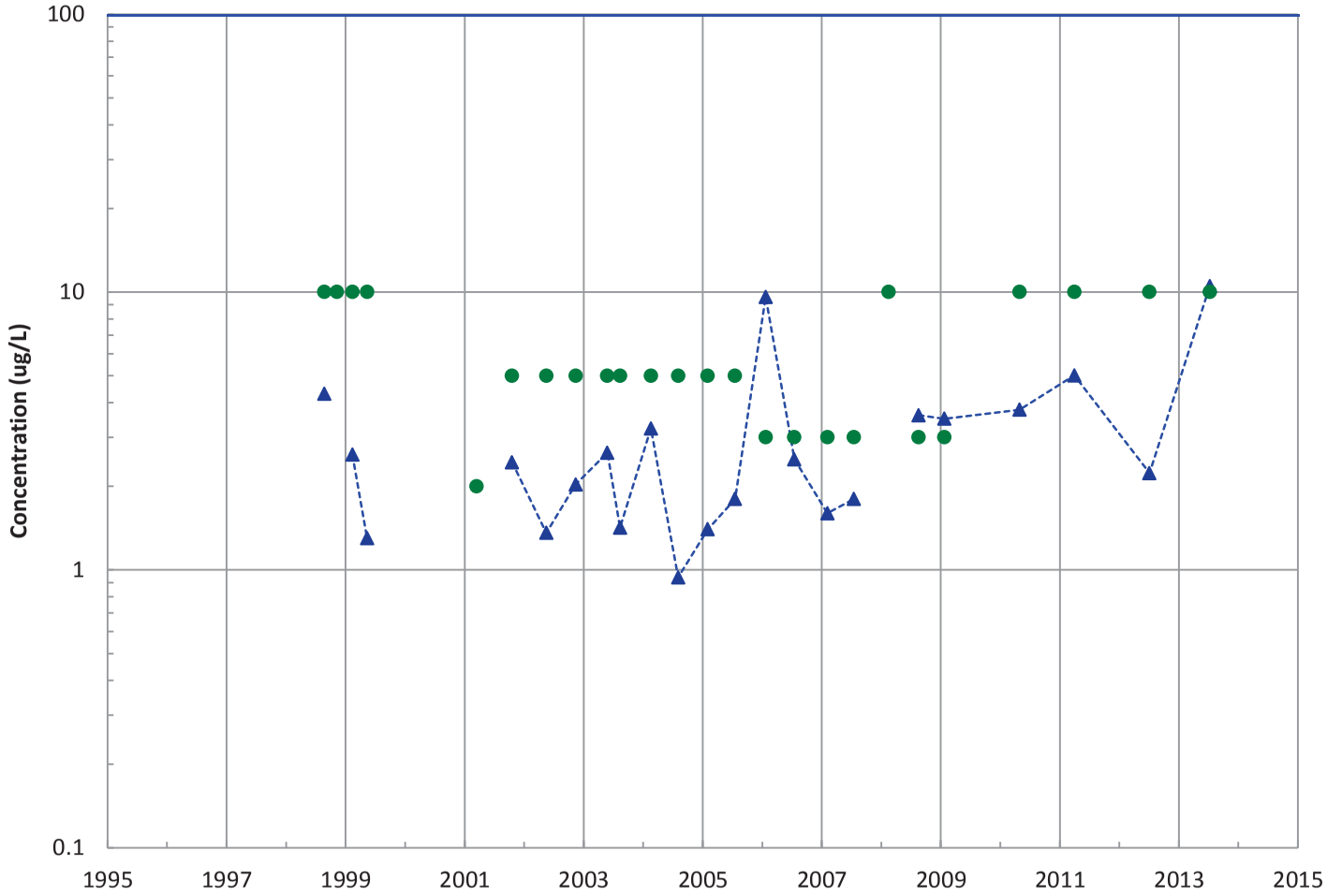
Well Location



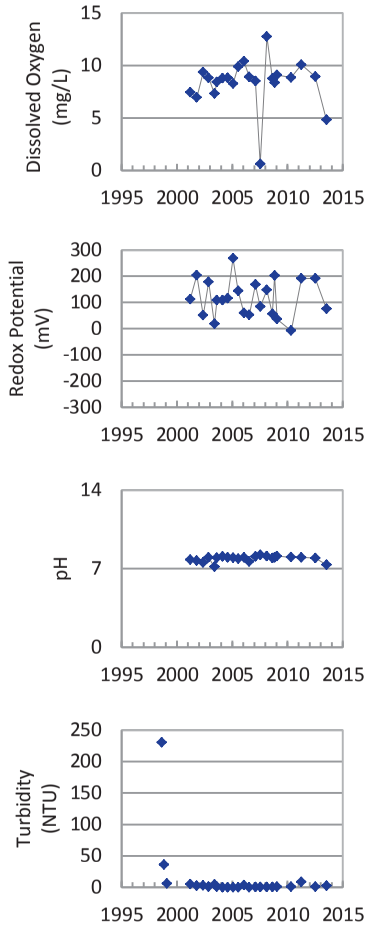
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/26/1998 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1036
Chromium, Total Trend in Perched Aquifer



Field Parameters



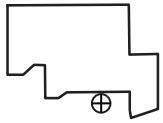
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

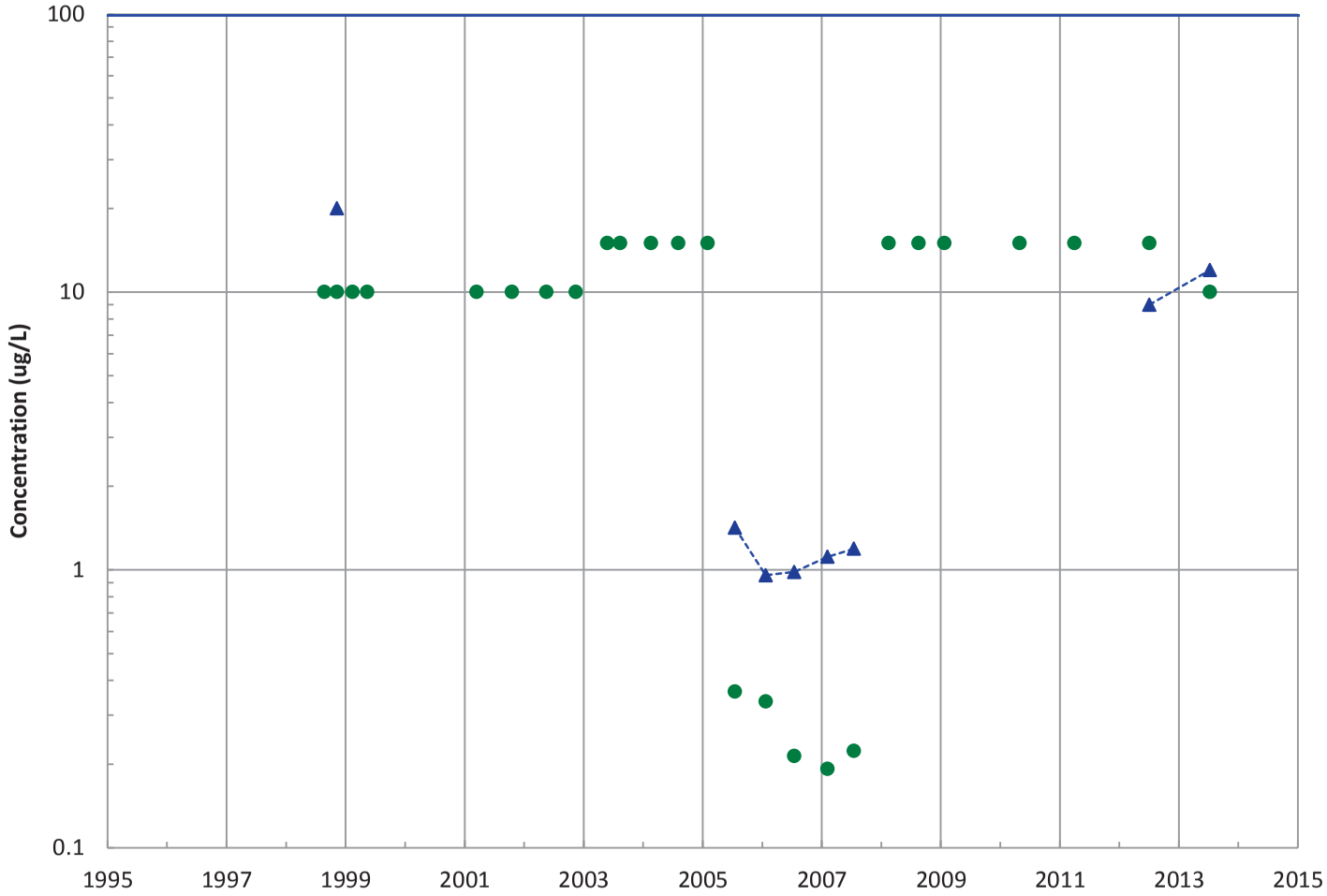
Well Location



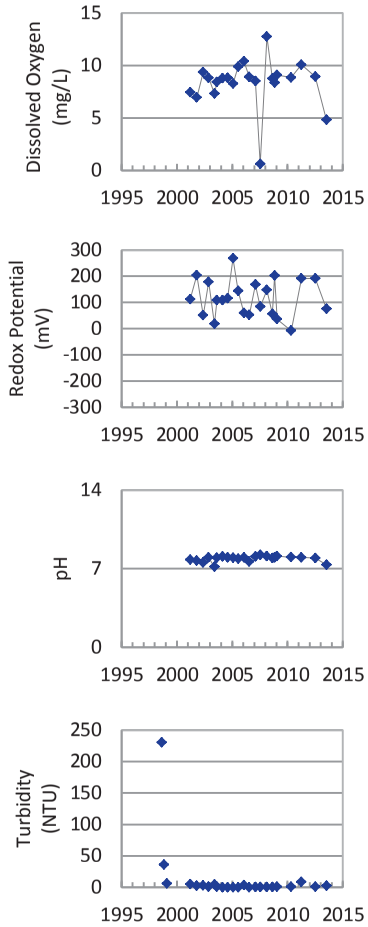
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/26/1998 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1036
Chromium, Hexavalent Trend in Perched Aquifer



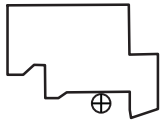
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

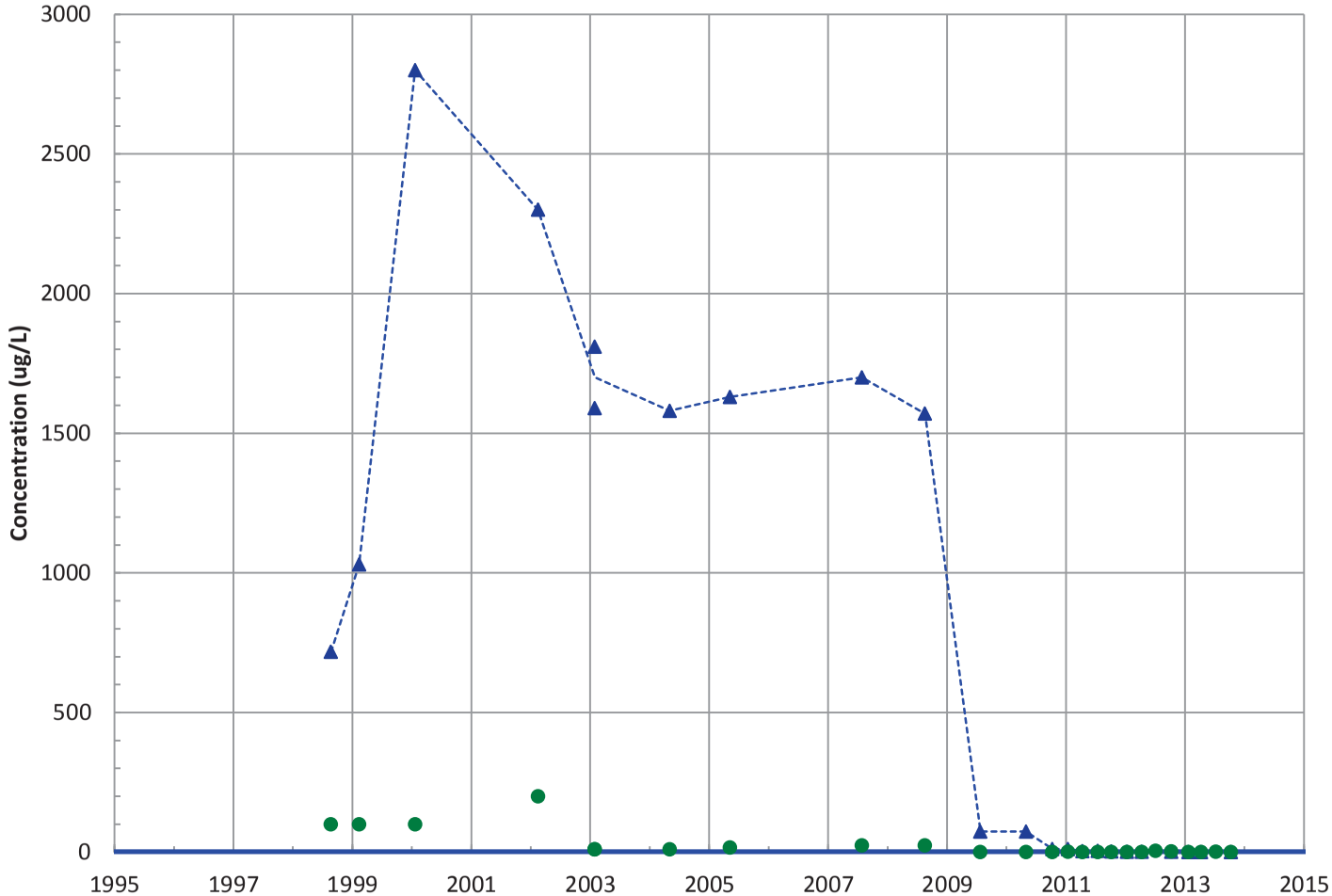
Well Location



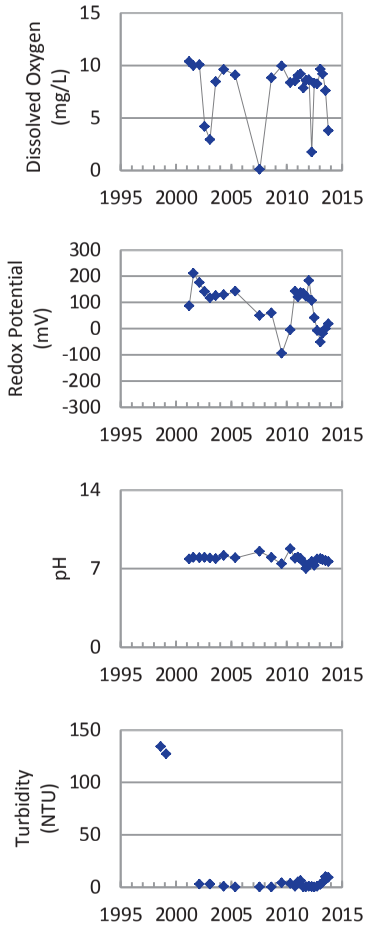
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/26/1998 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1037
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Probably Decreasing

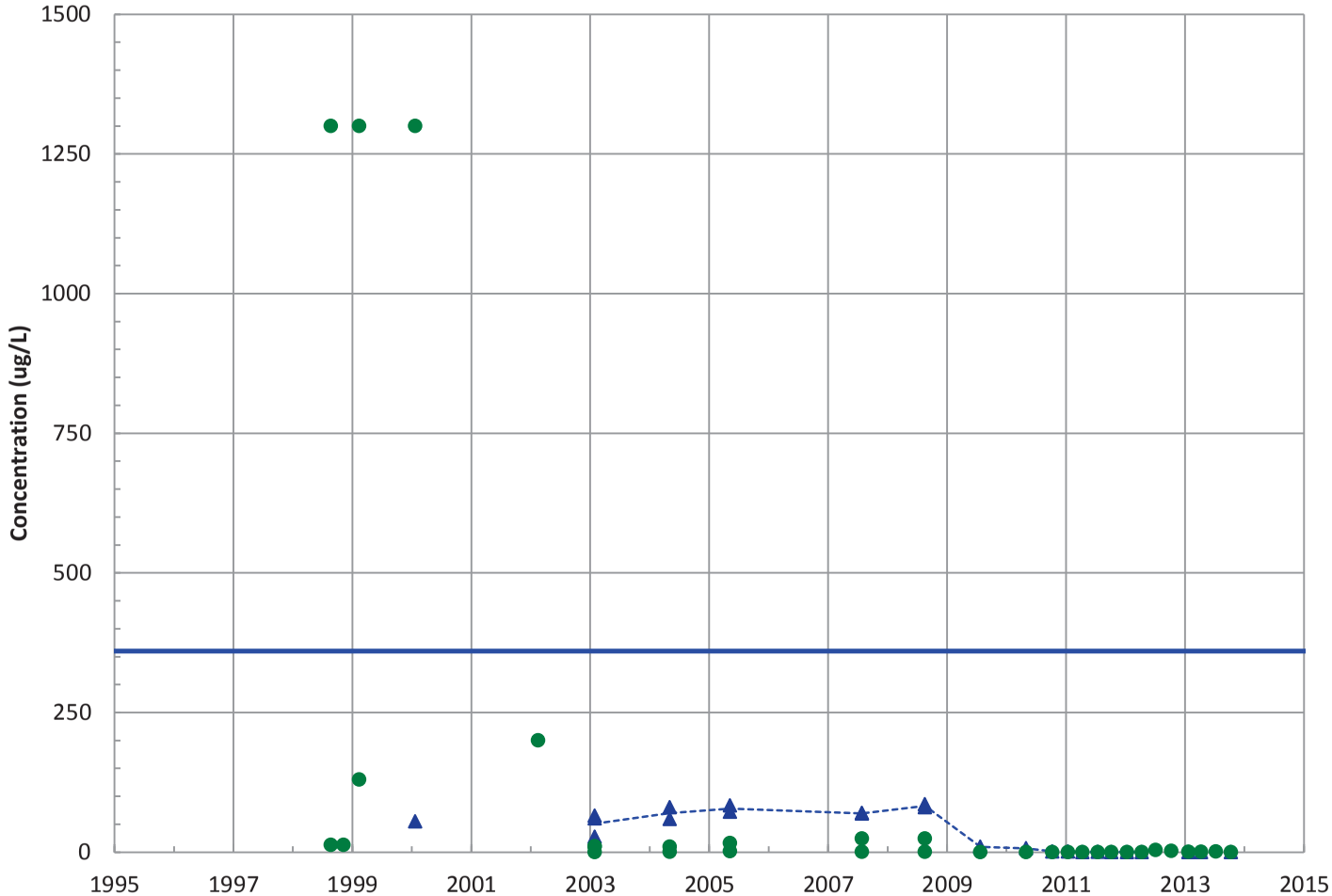
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

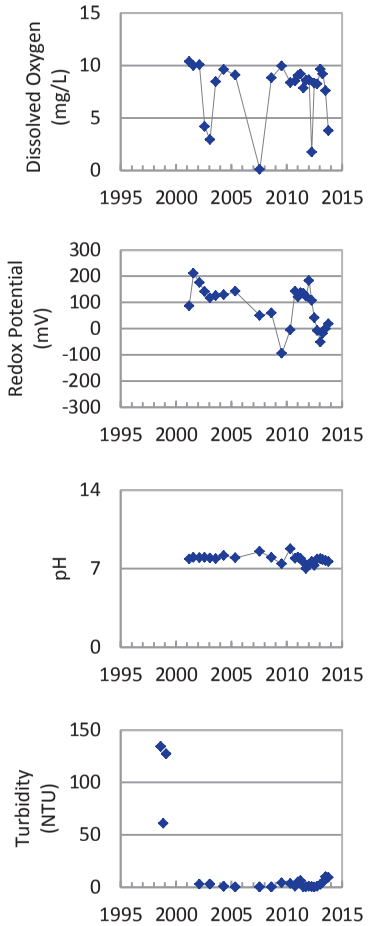
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/25/1998 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1037
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Decreasing

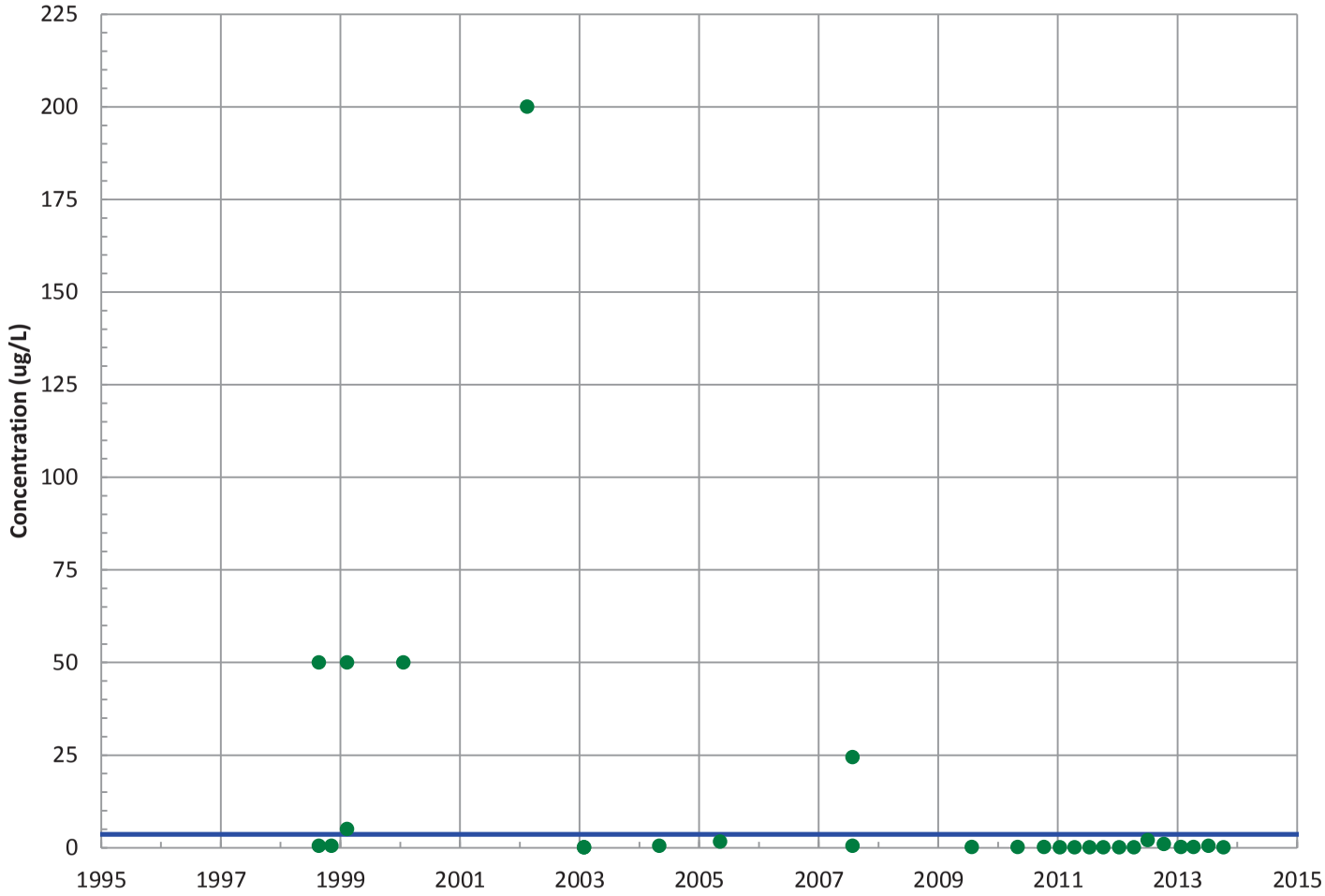
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

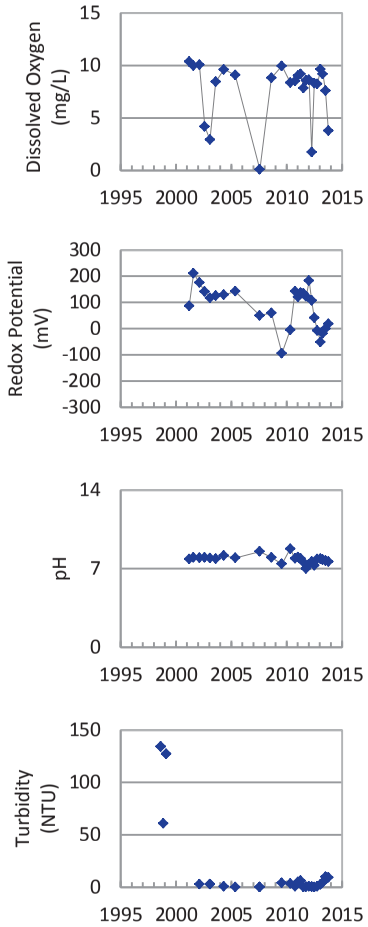
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/25/1998 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1037
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

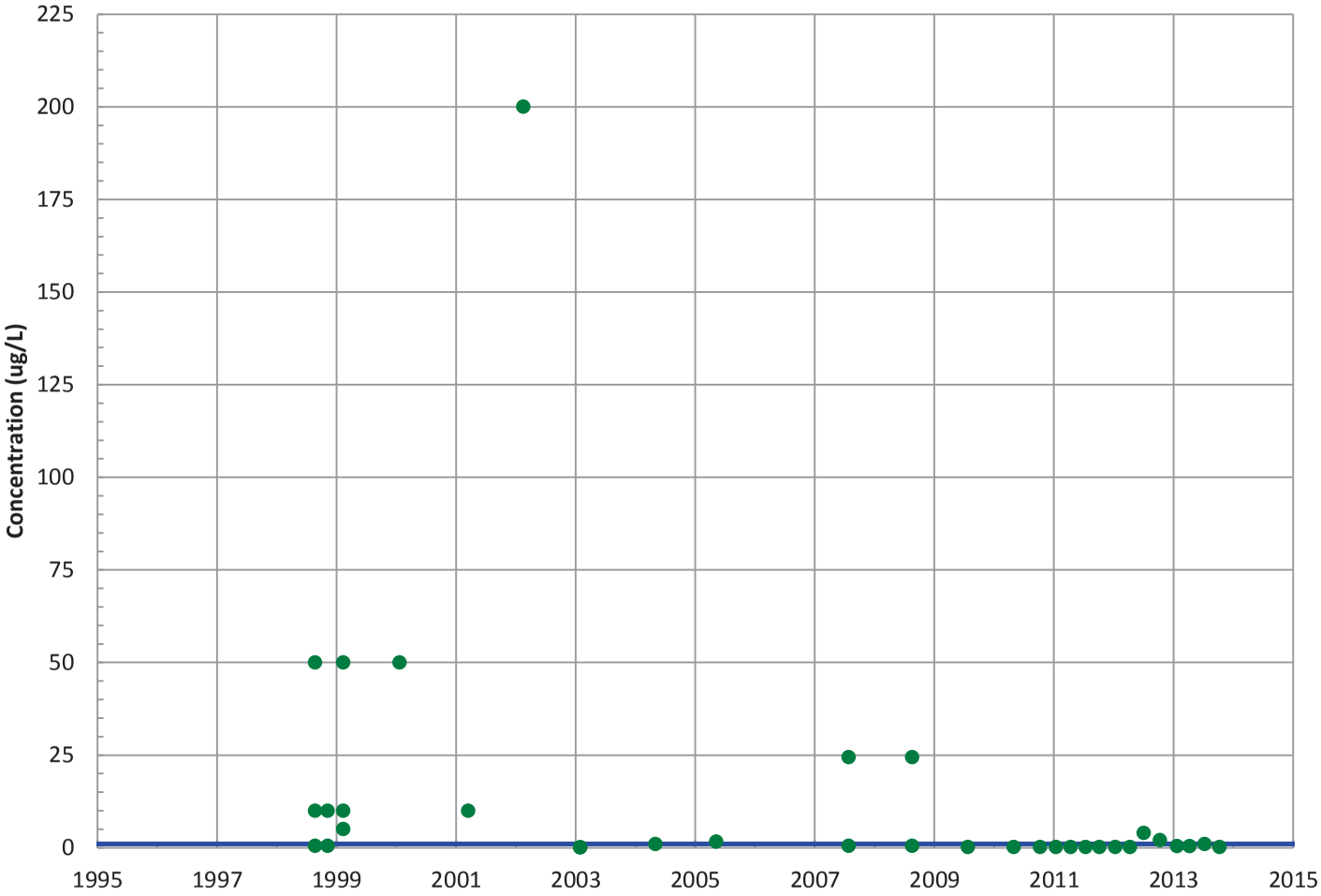
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

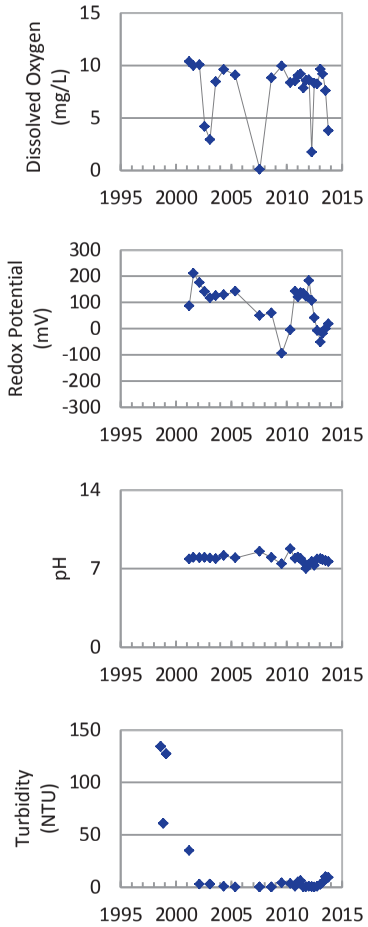
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/25/1998 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1037
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

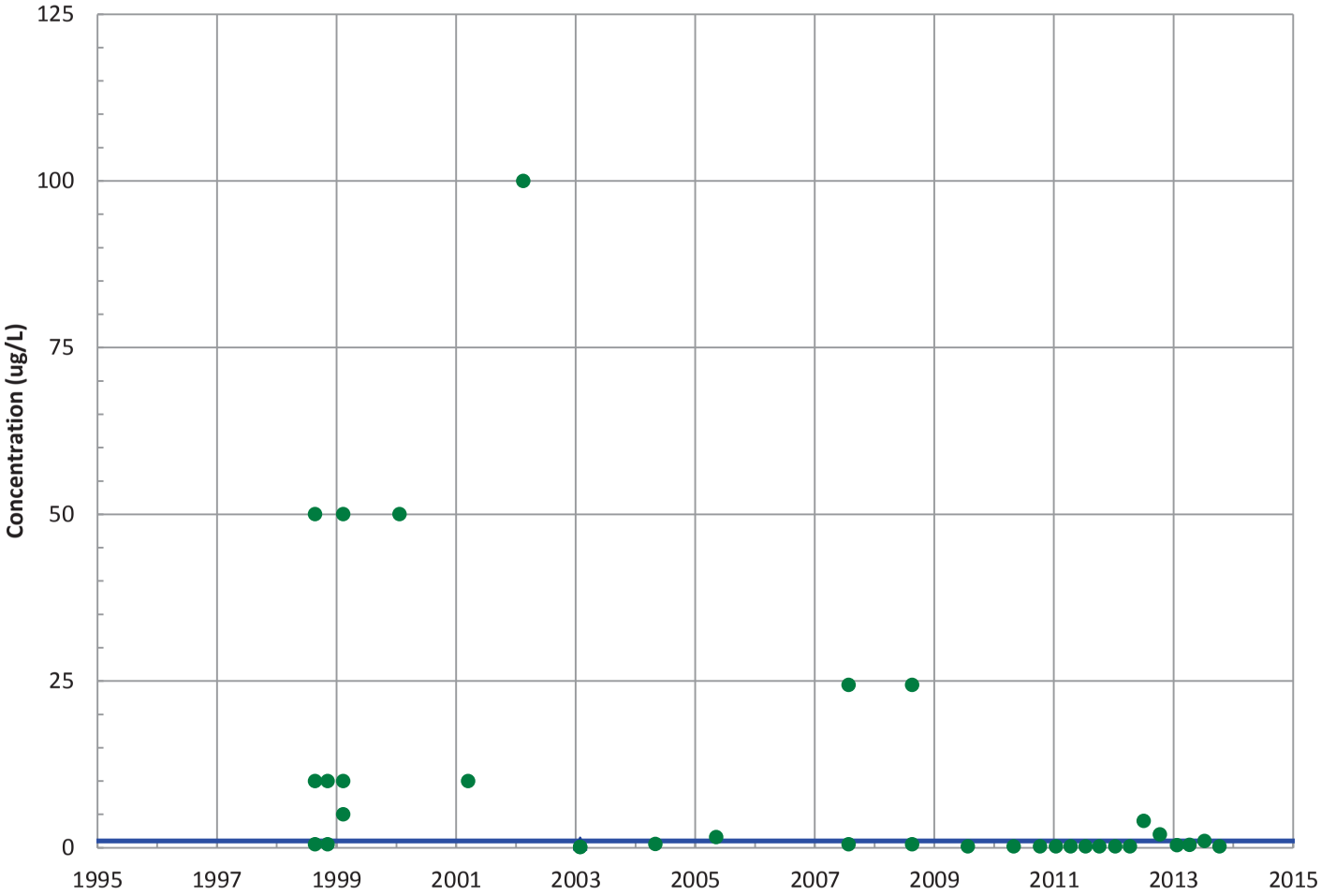
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

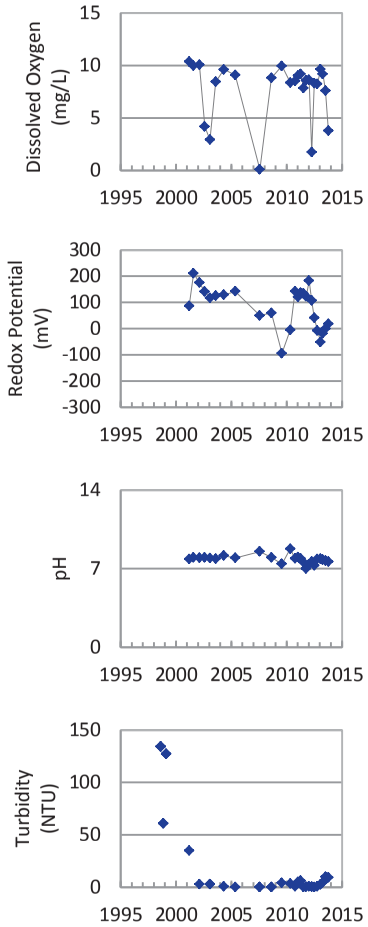
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/25/1998 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1037
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

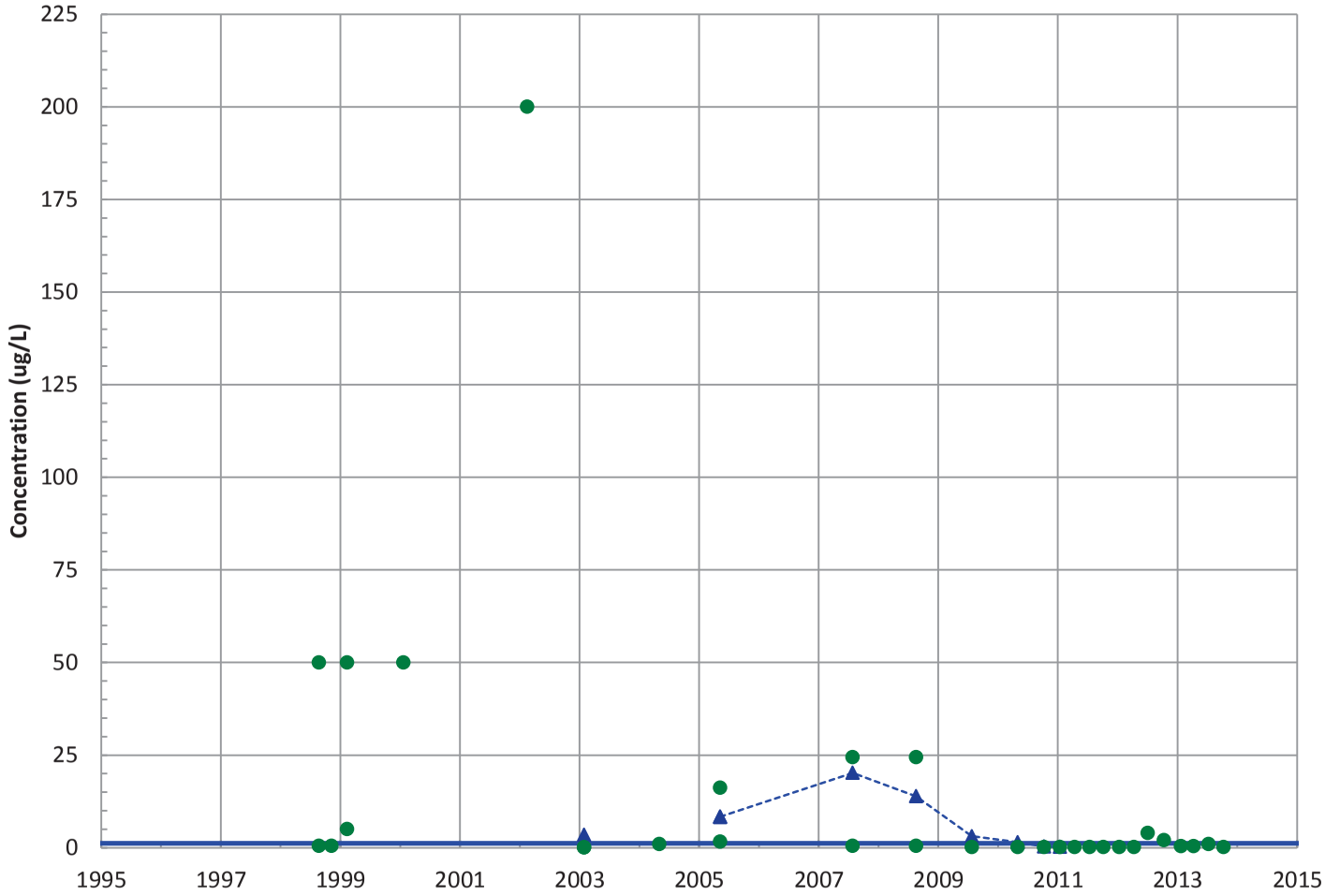
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

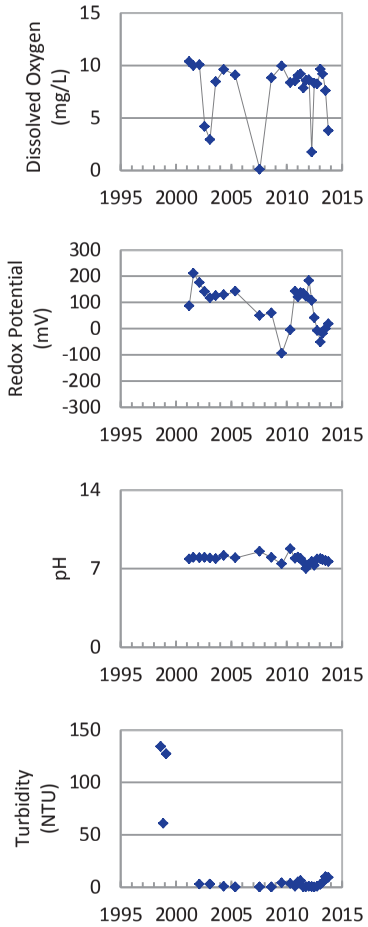
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/25/1998 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1037
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: Probably Decreasing
Last 4 Samples: Decreasing

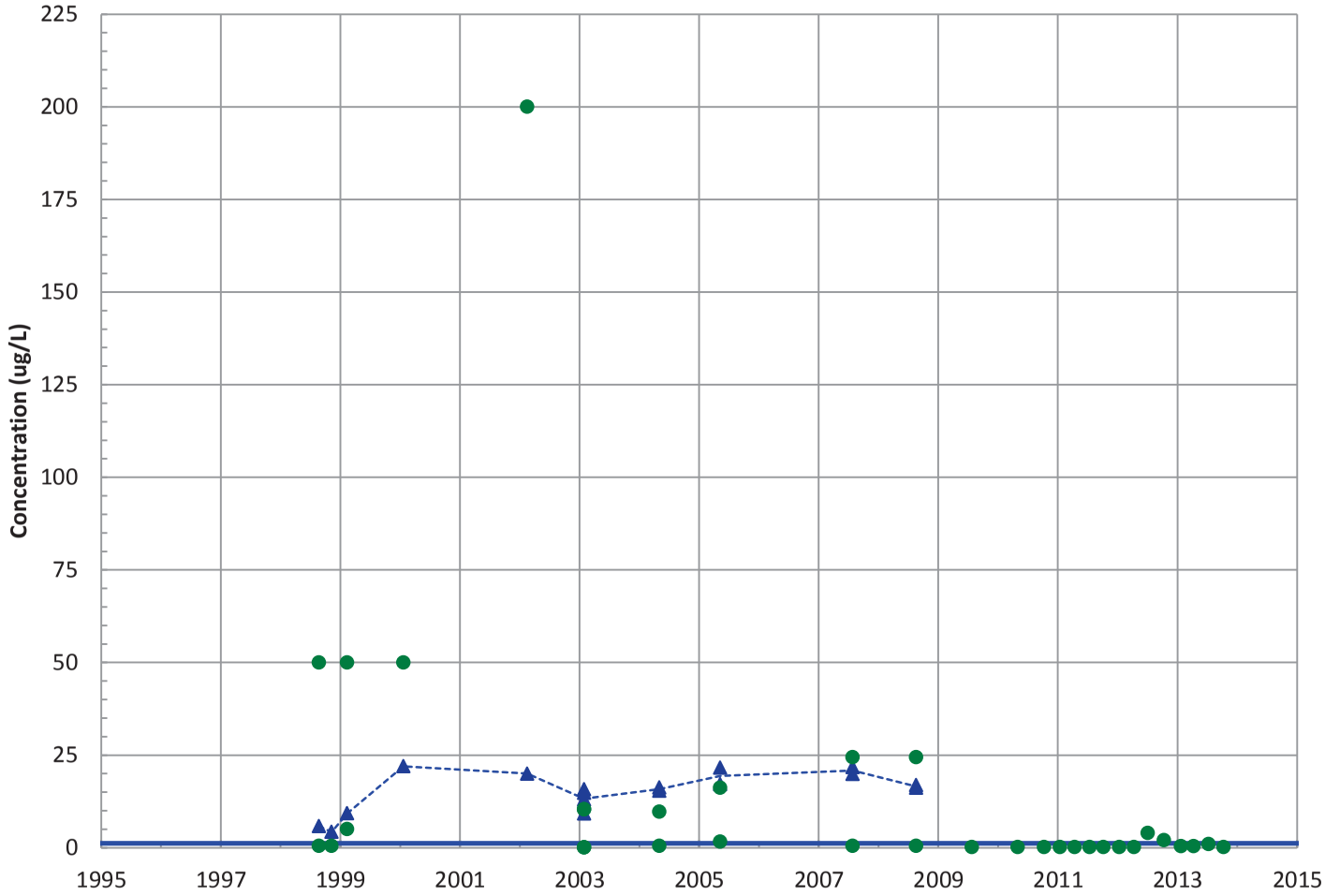
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

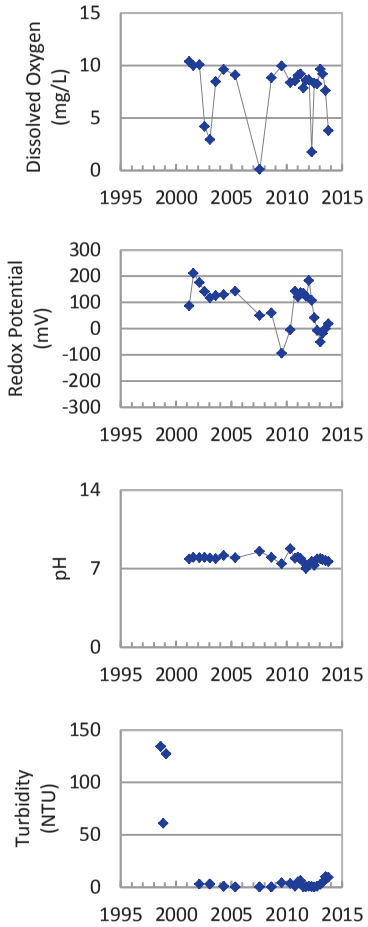
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/25/1998 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1037
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Stable

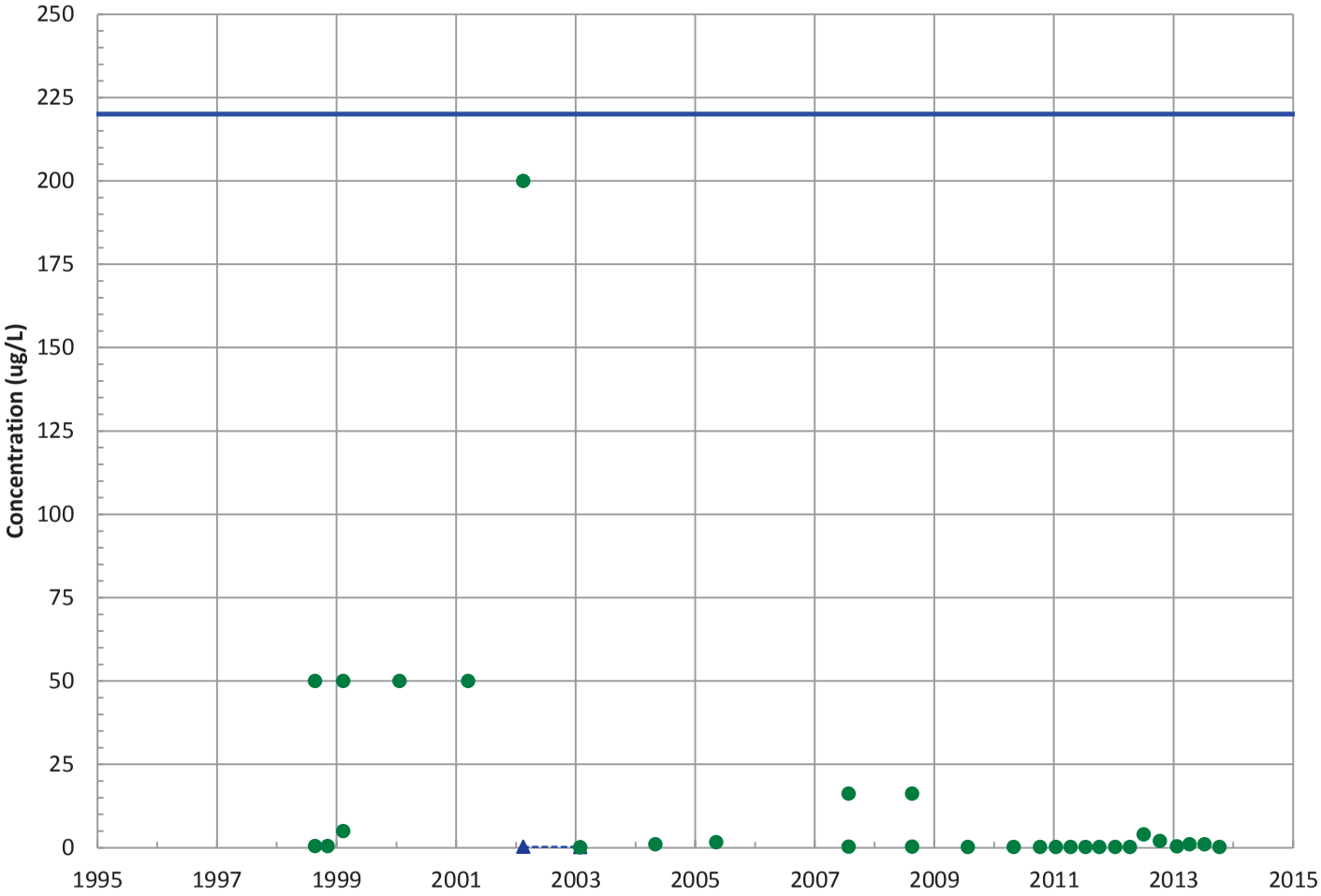
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

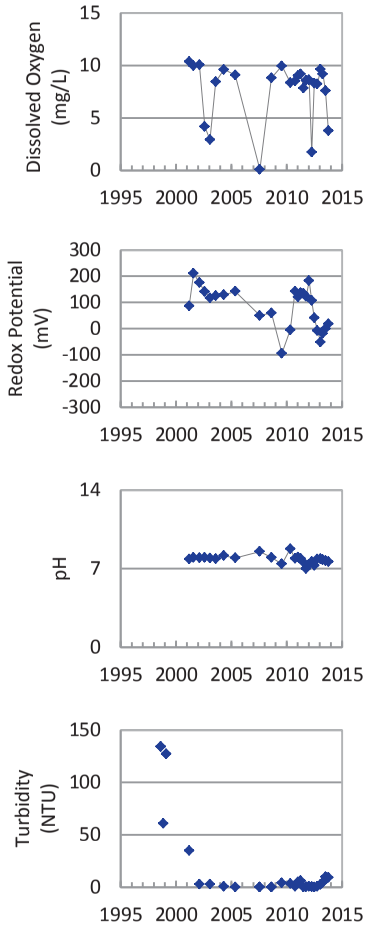
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/25/1998 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1037
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

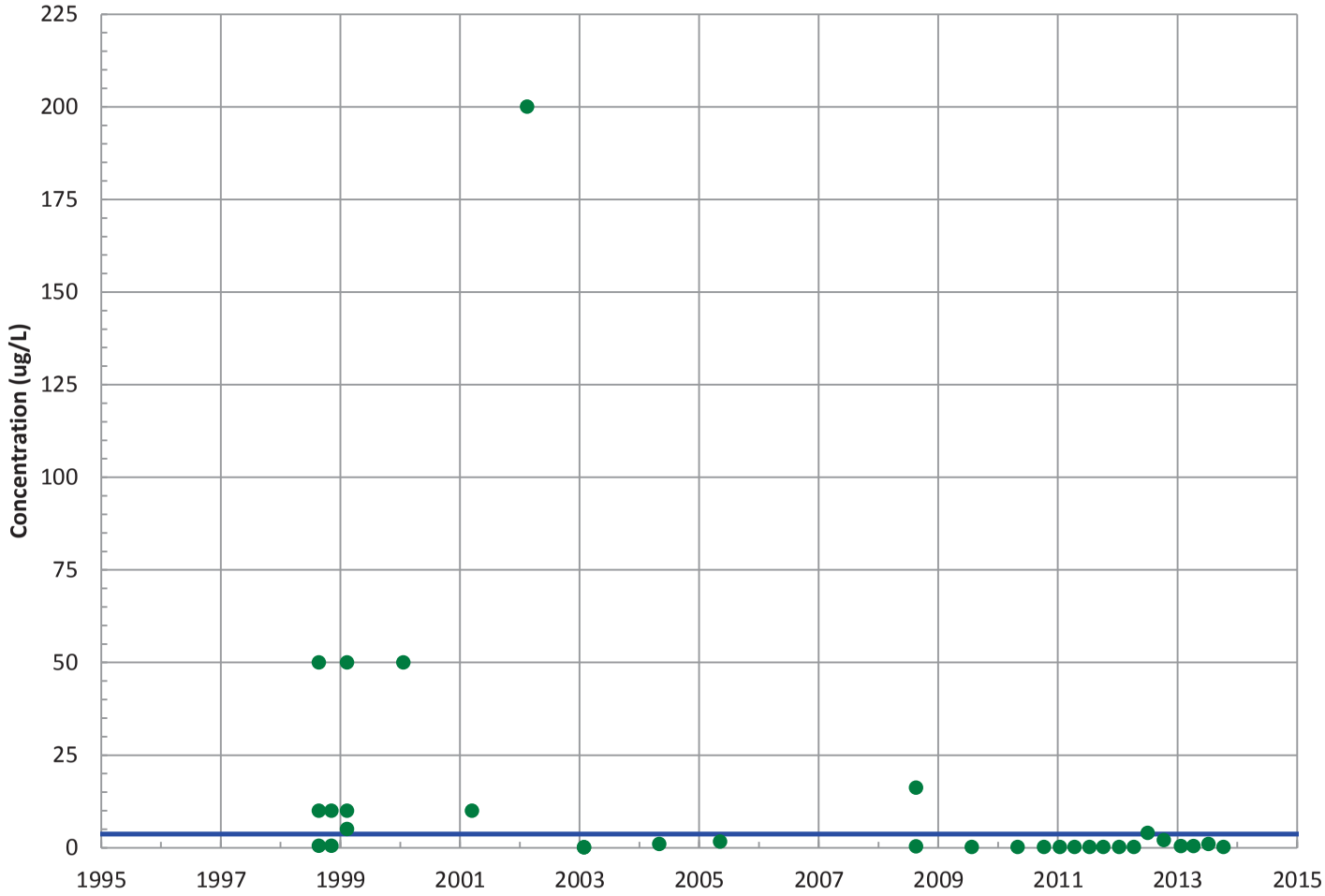
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

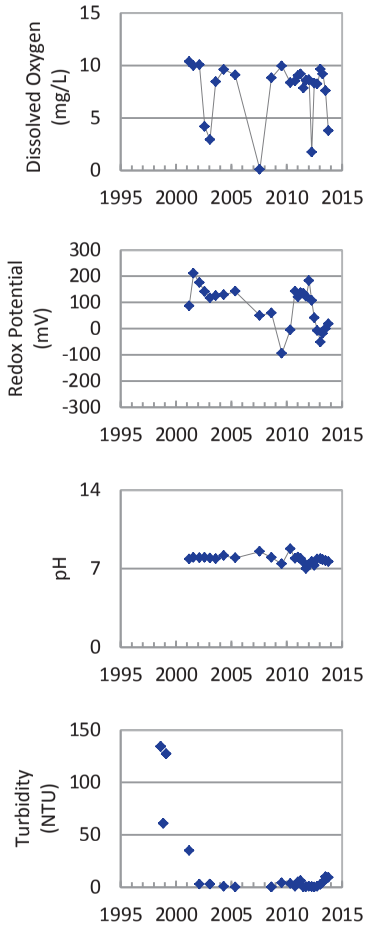
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/25/1998 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1037
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

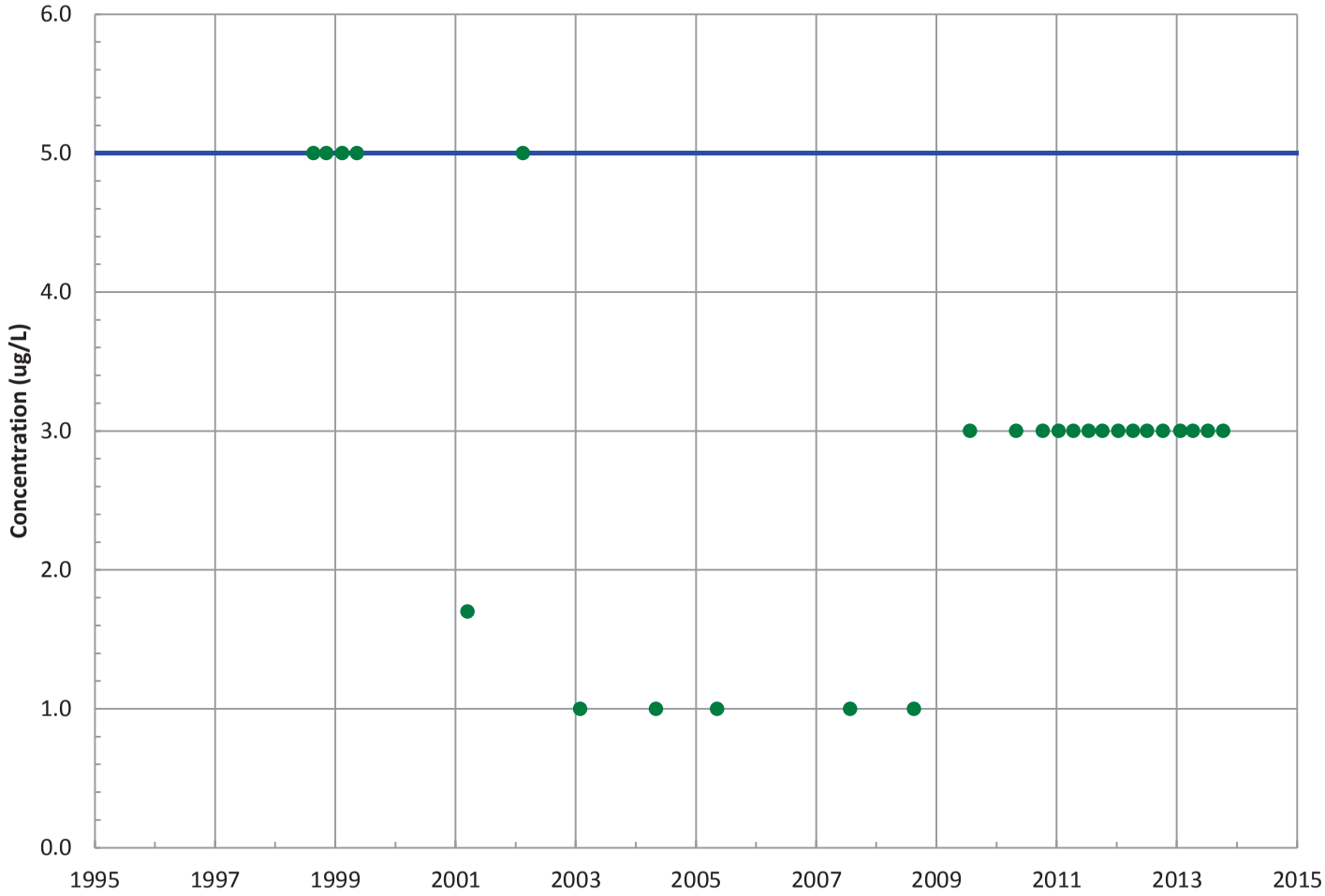
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

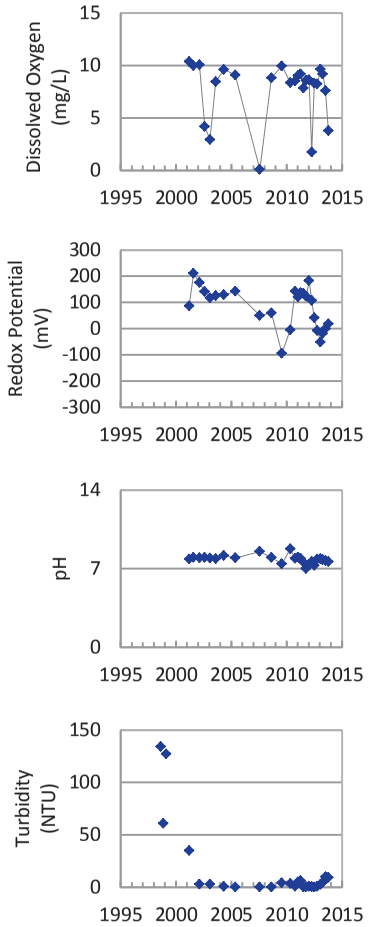
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/25/1998 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1037
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

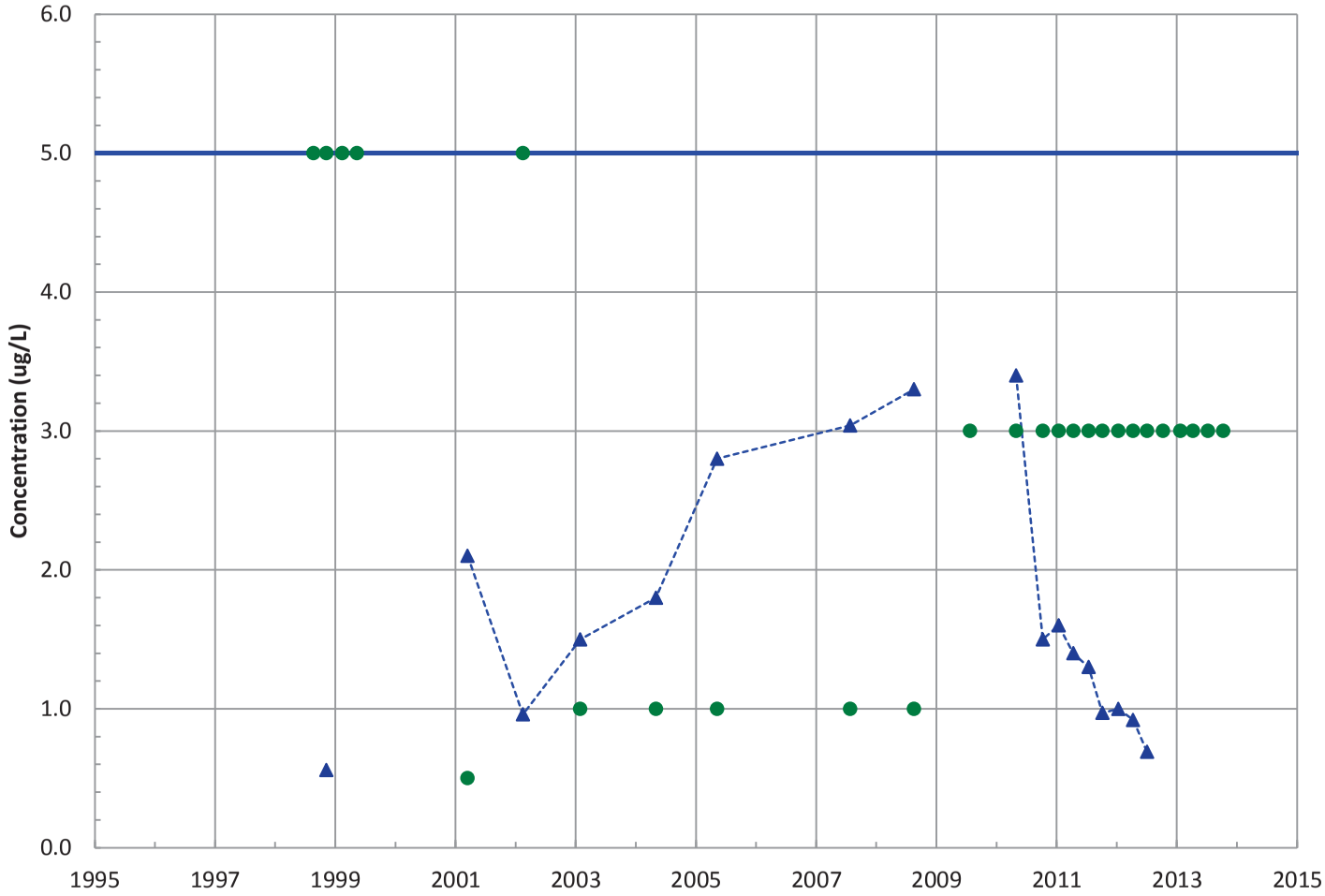
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

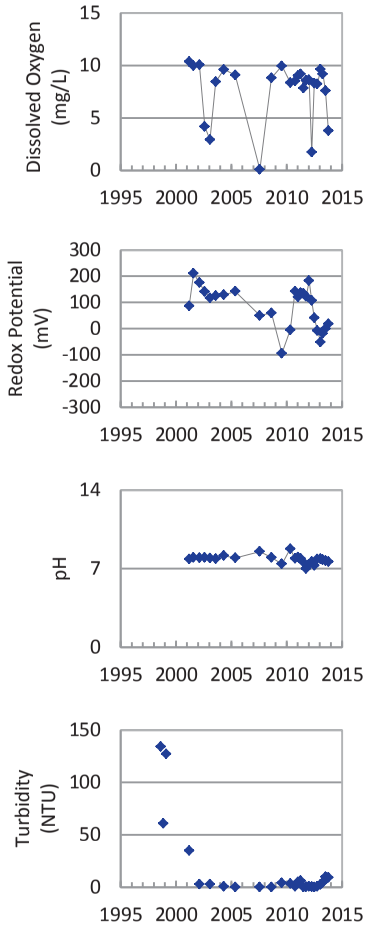
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/25/1998 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1037
Trichloroethene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Stable

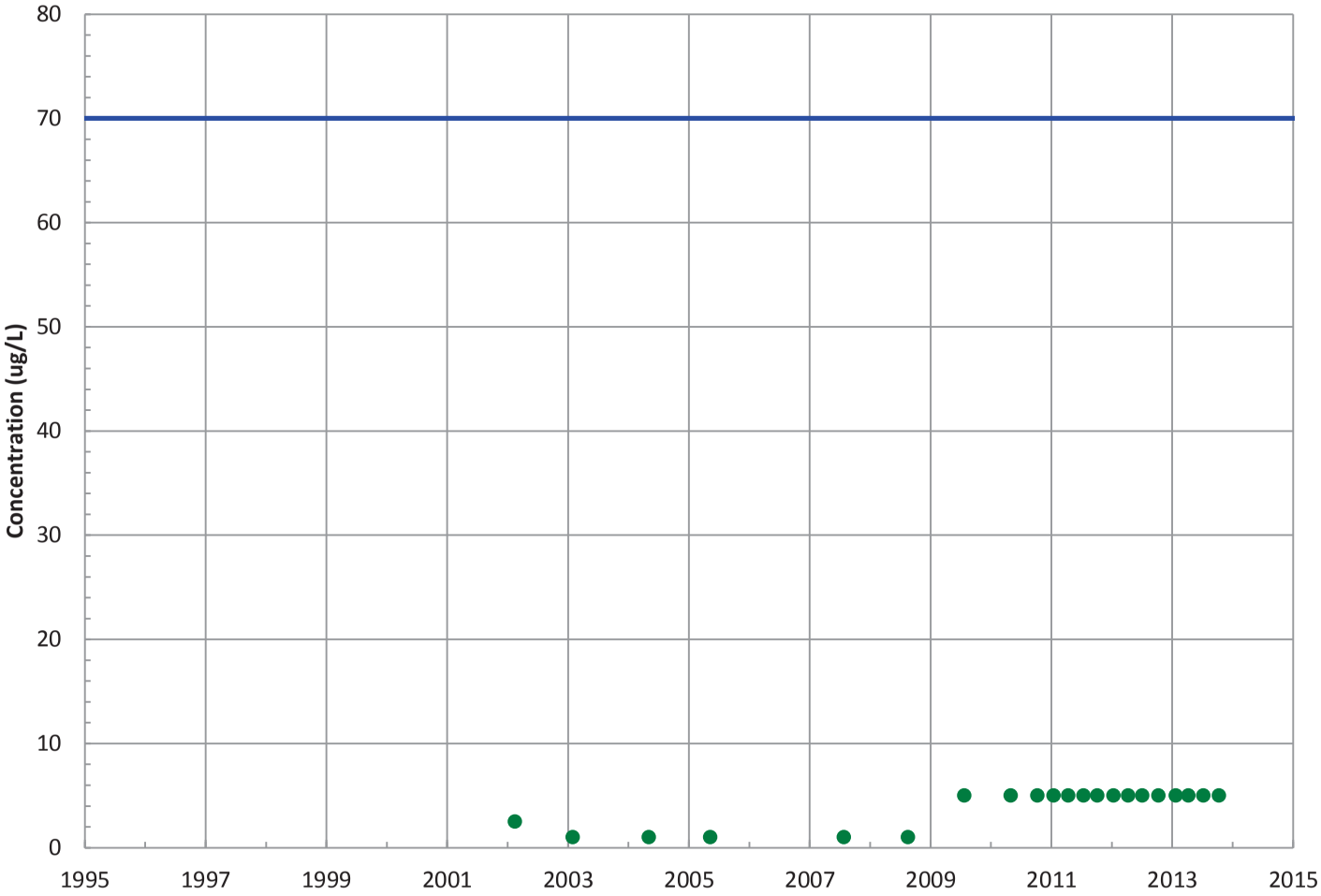
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

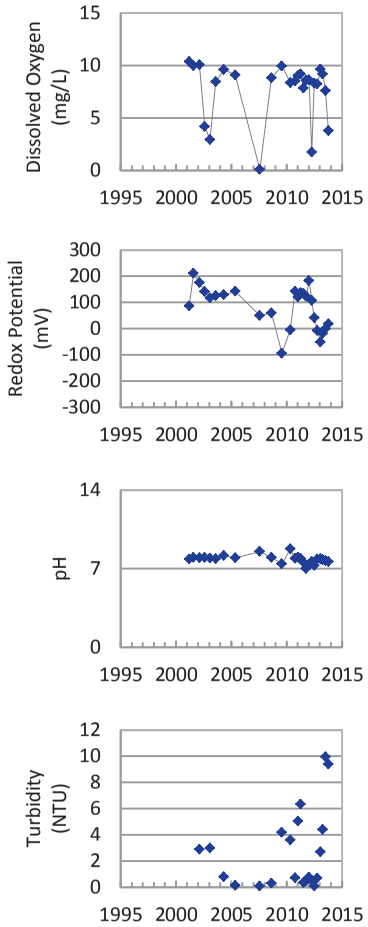
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/25/1998 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1037
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

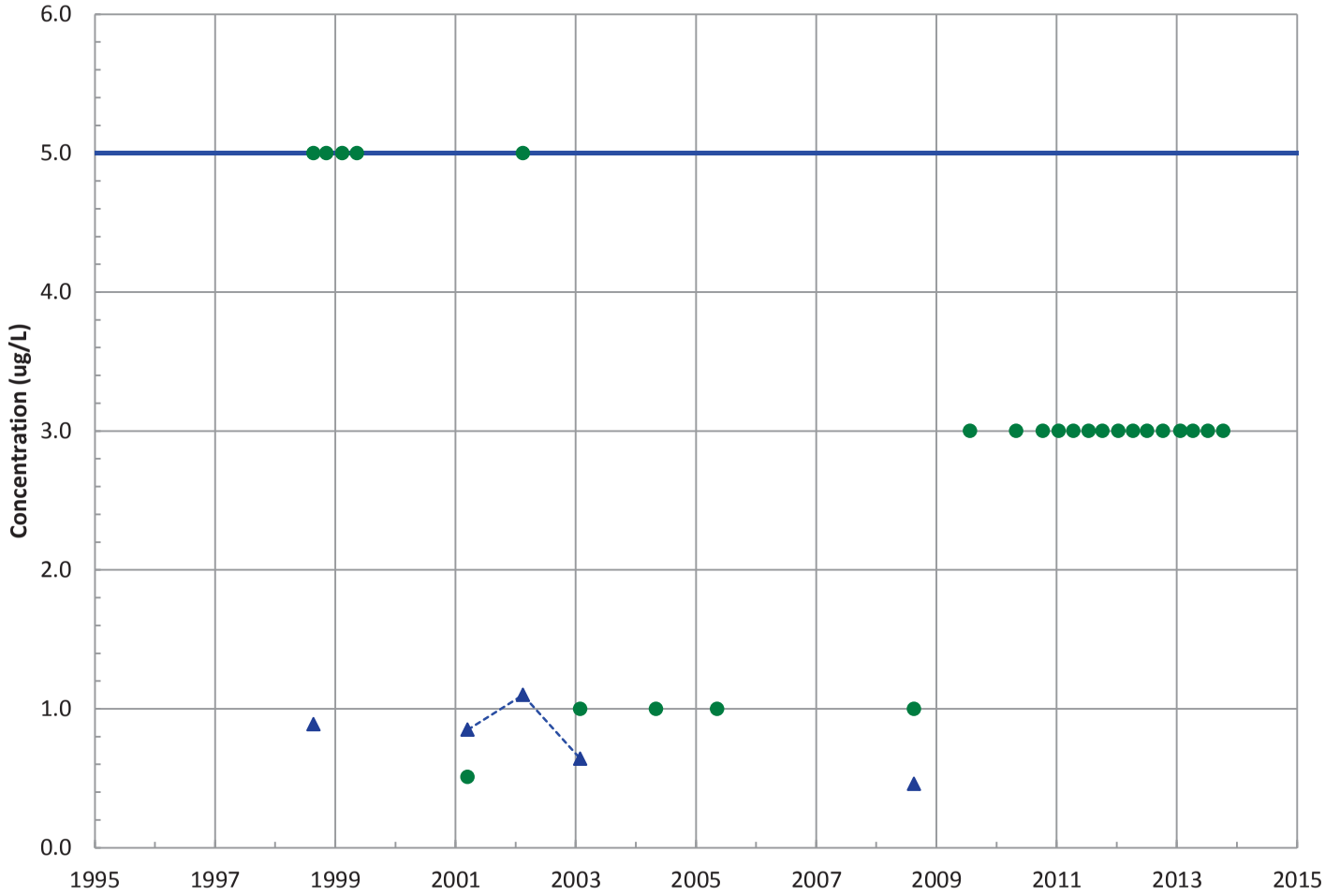
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

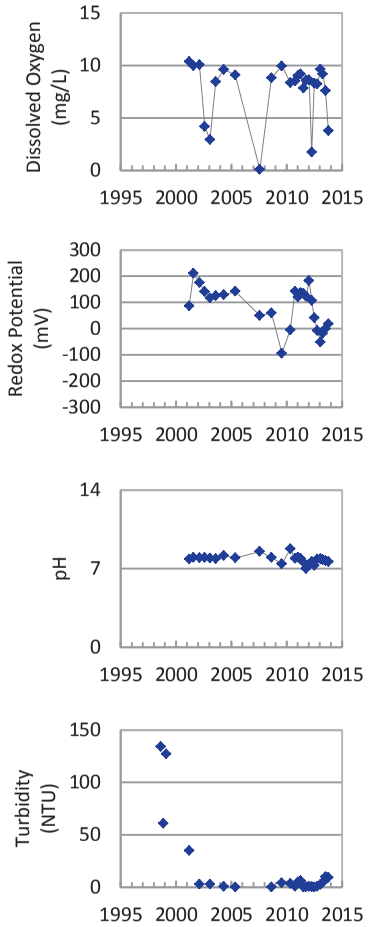
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/20/2002 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1037
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Stable

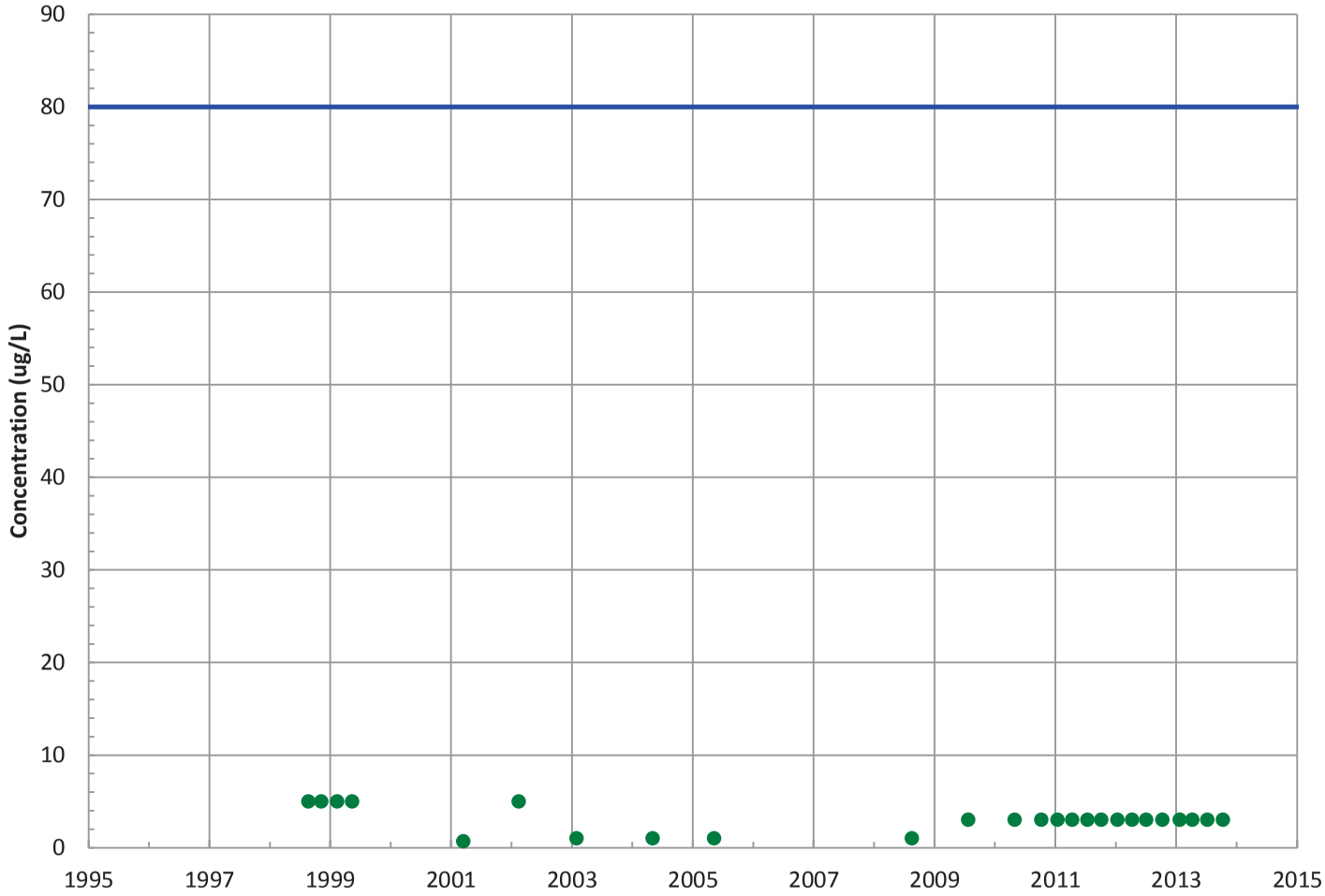
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

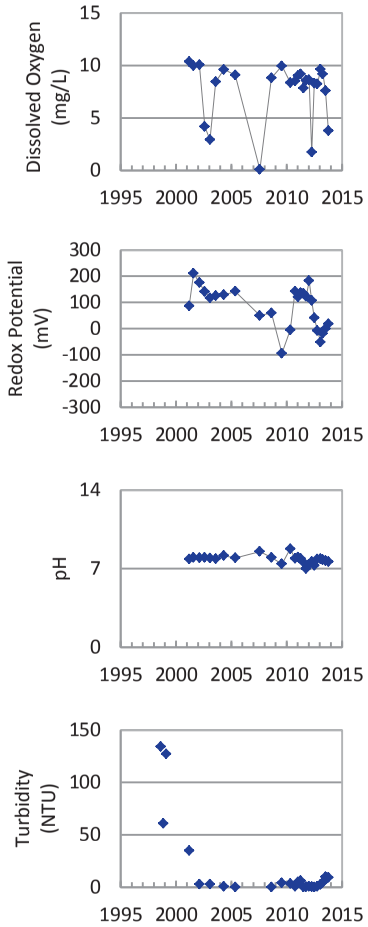
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/25/1998 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1037
Chloroform Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

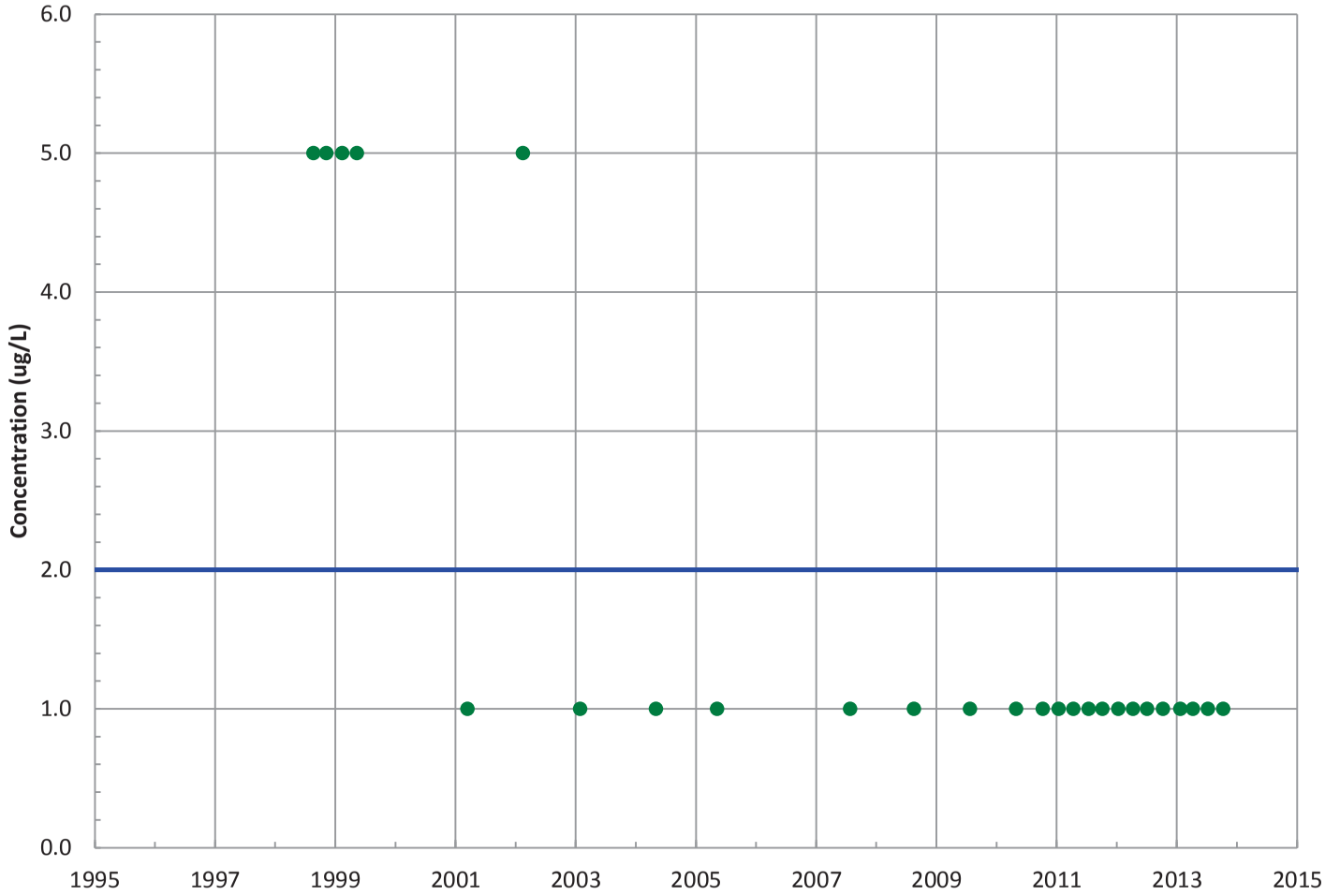
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

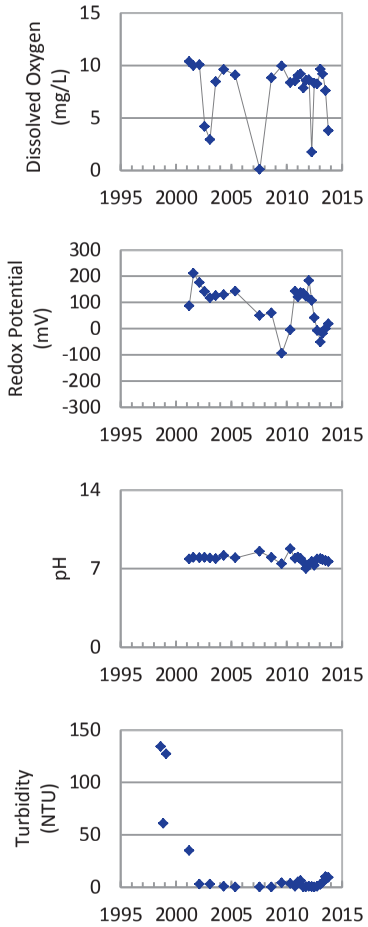
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/25/1998 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1037
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

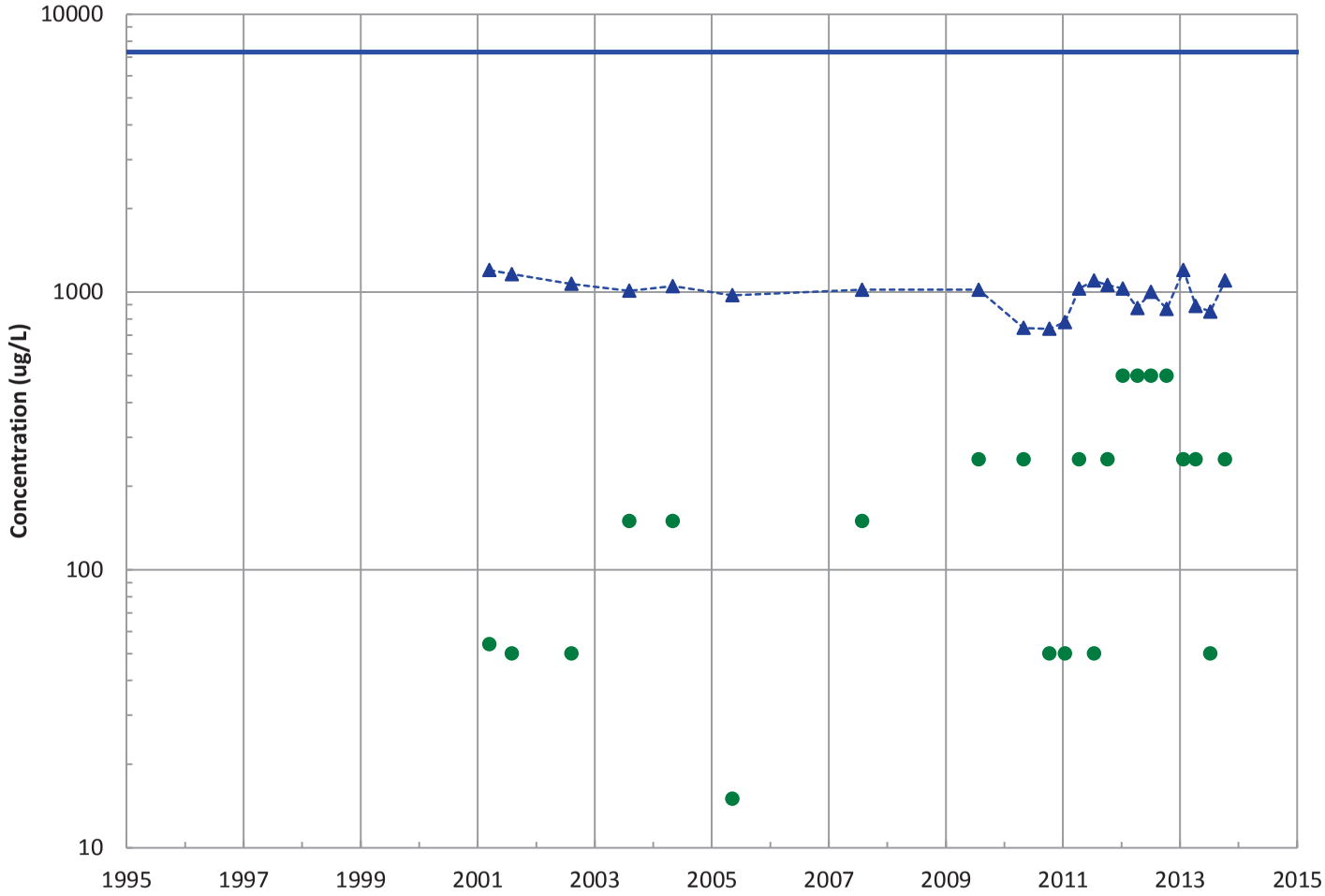
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

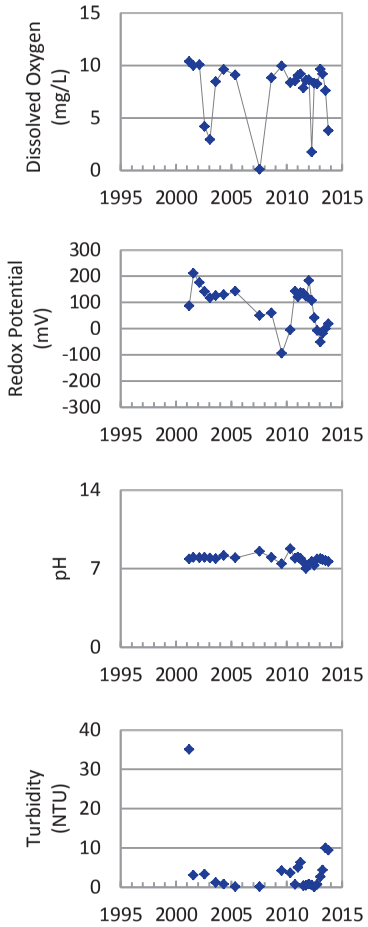
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/25/1998 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1037
Boron Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Stable

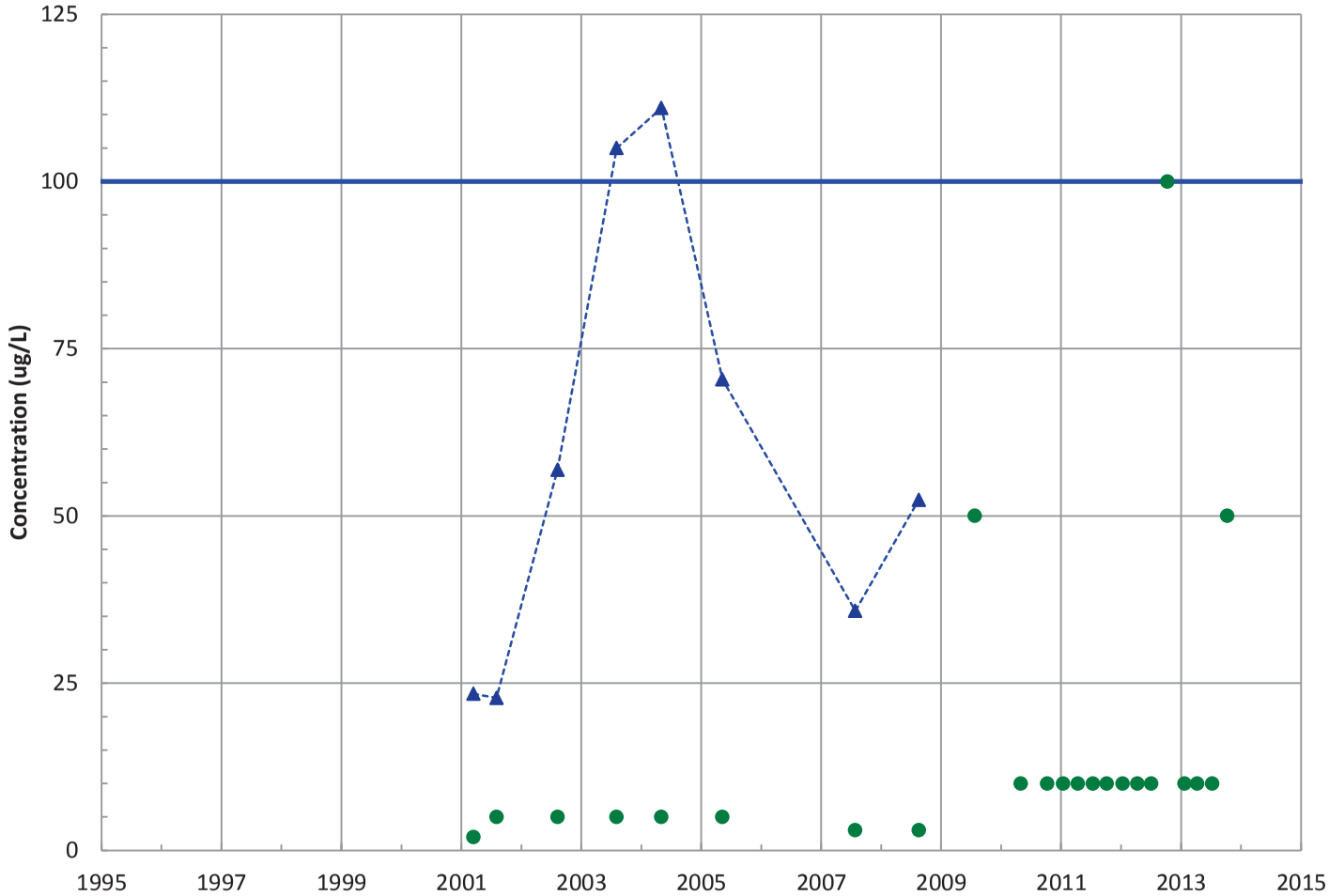
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

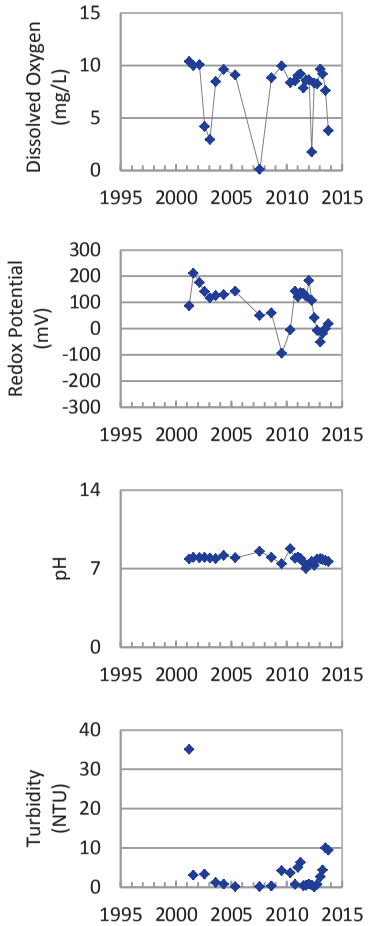
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/20/2001 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1037
Chromium, Total Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Stable

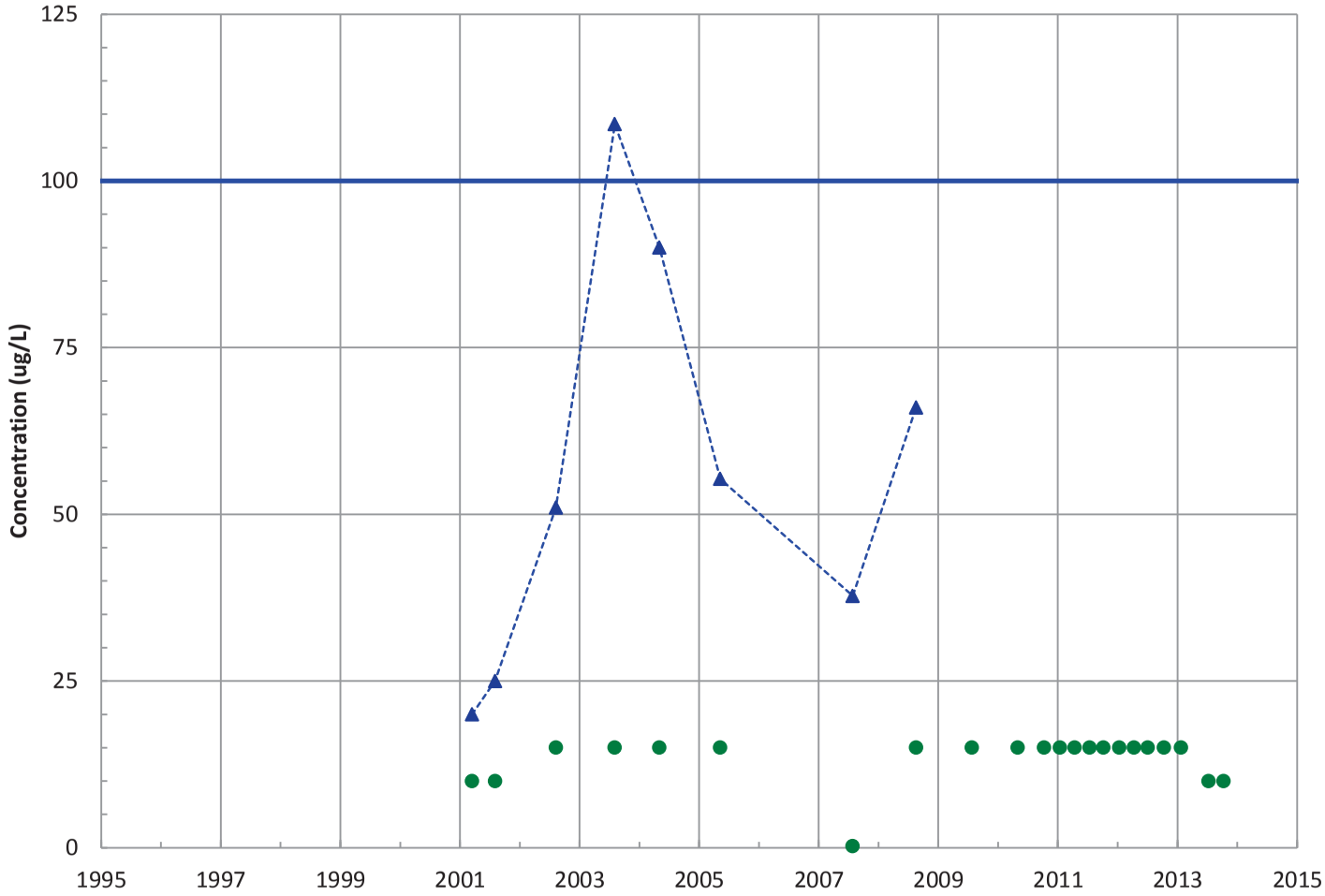
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

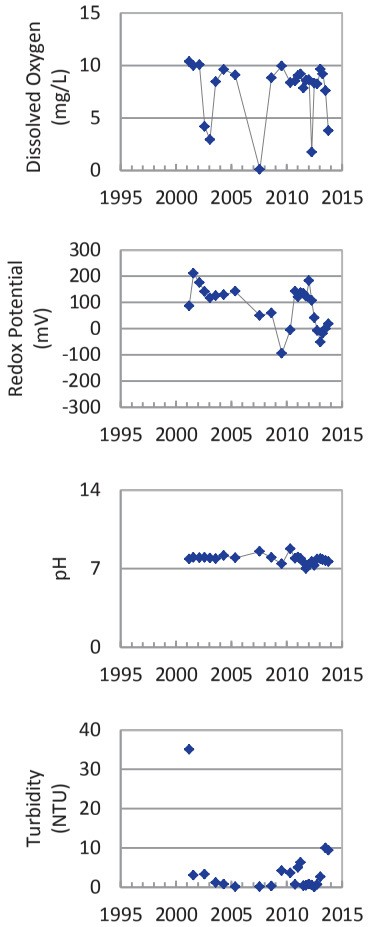
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/20/2001 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1037
Chromium, Hexavalent Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Stable

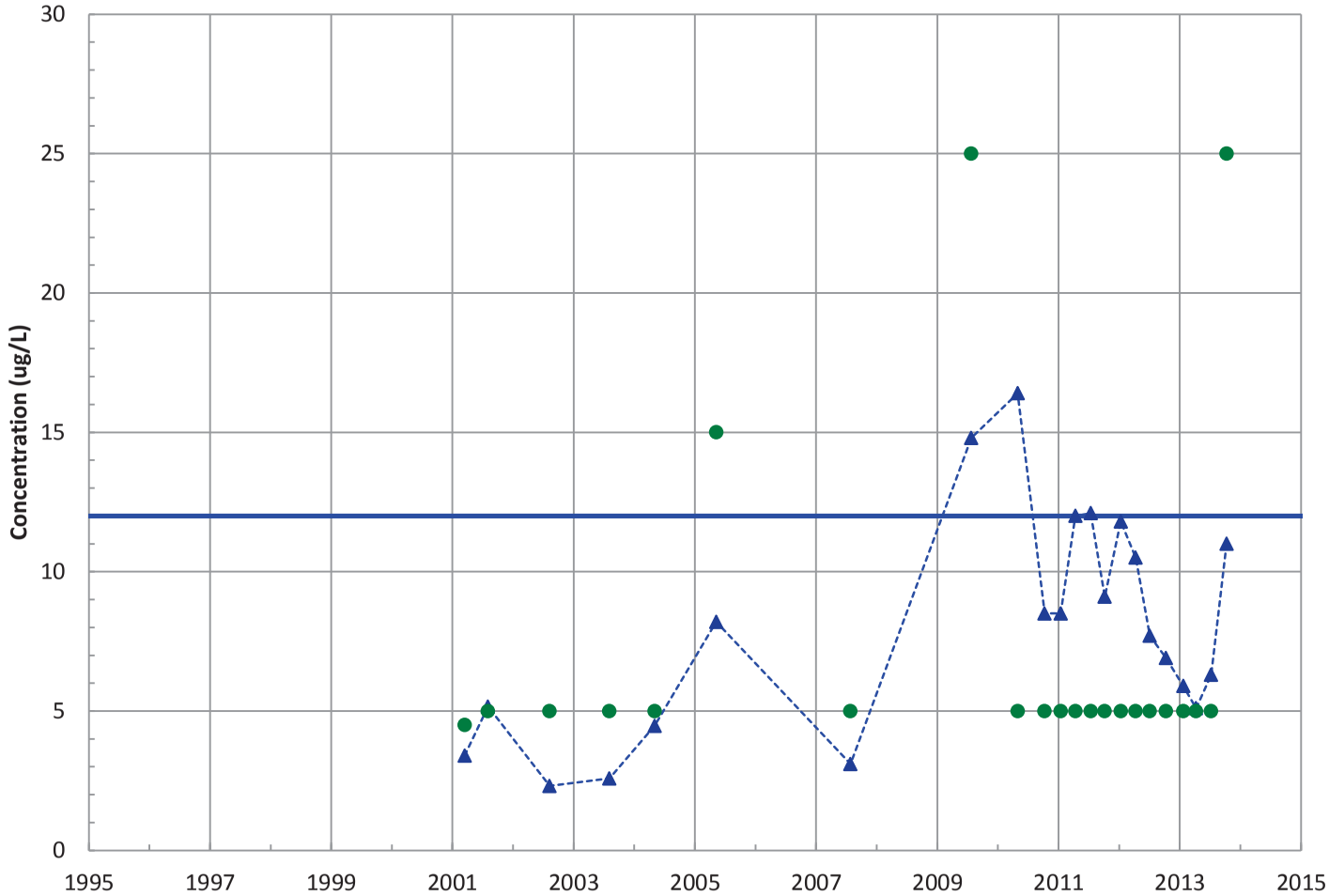
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

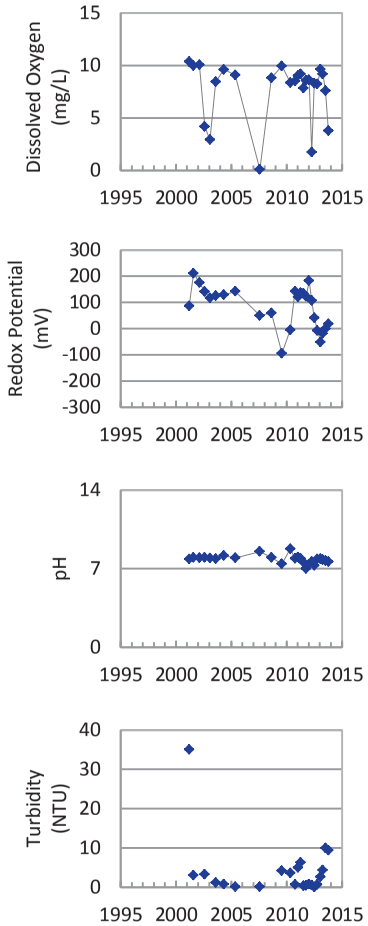
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/20/2001 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1037
Arsenic Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Probably Increasing

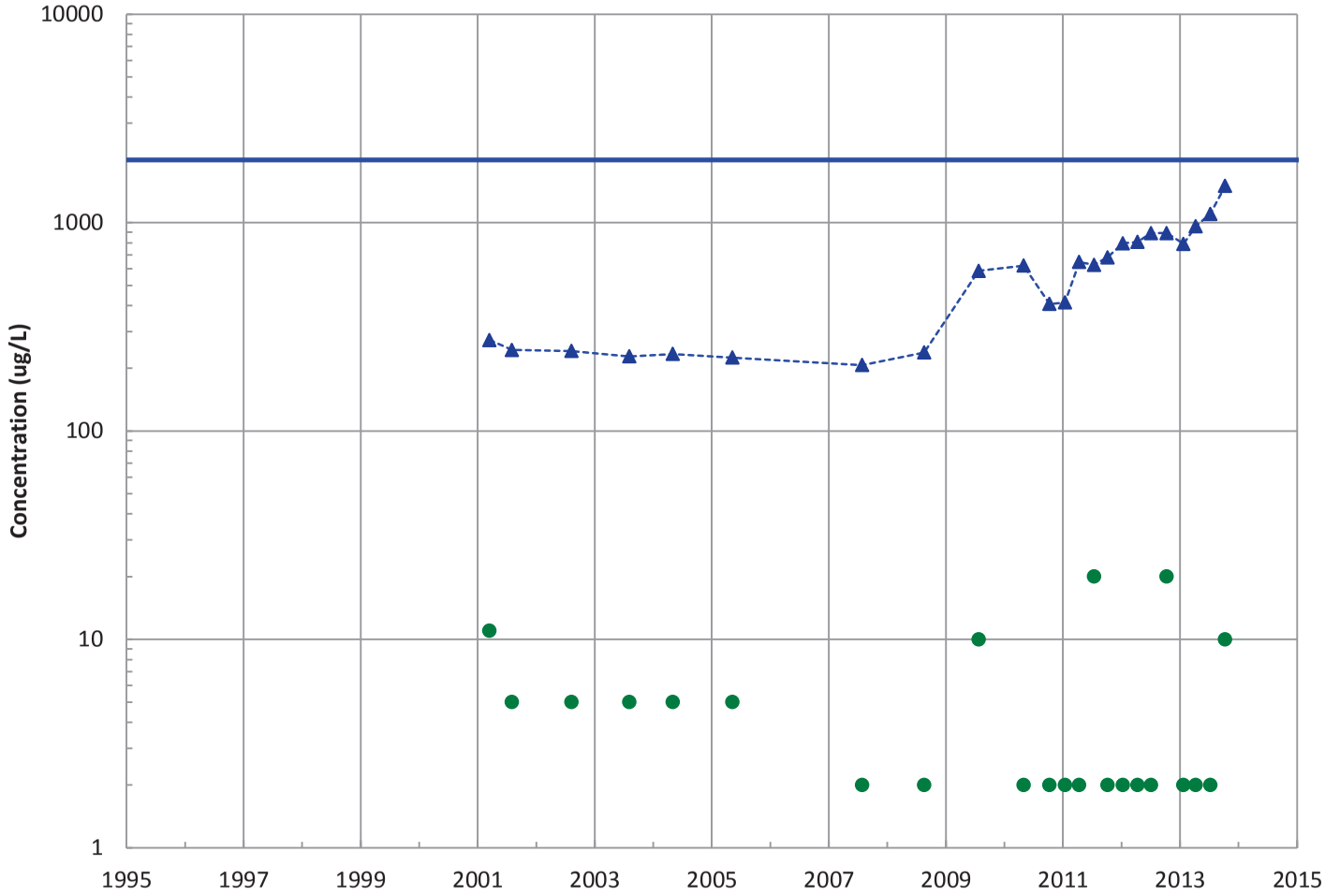
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

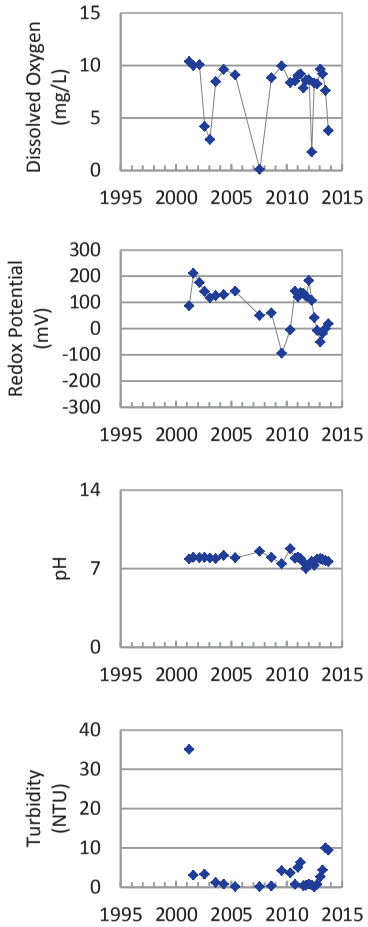
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/20/2001 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1037
Barium Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Increasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Increasing

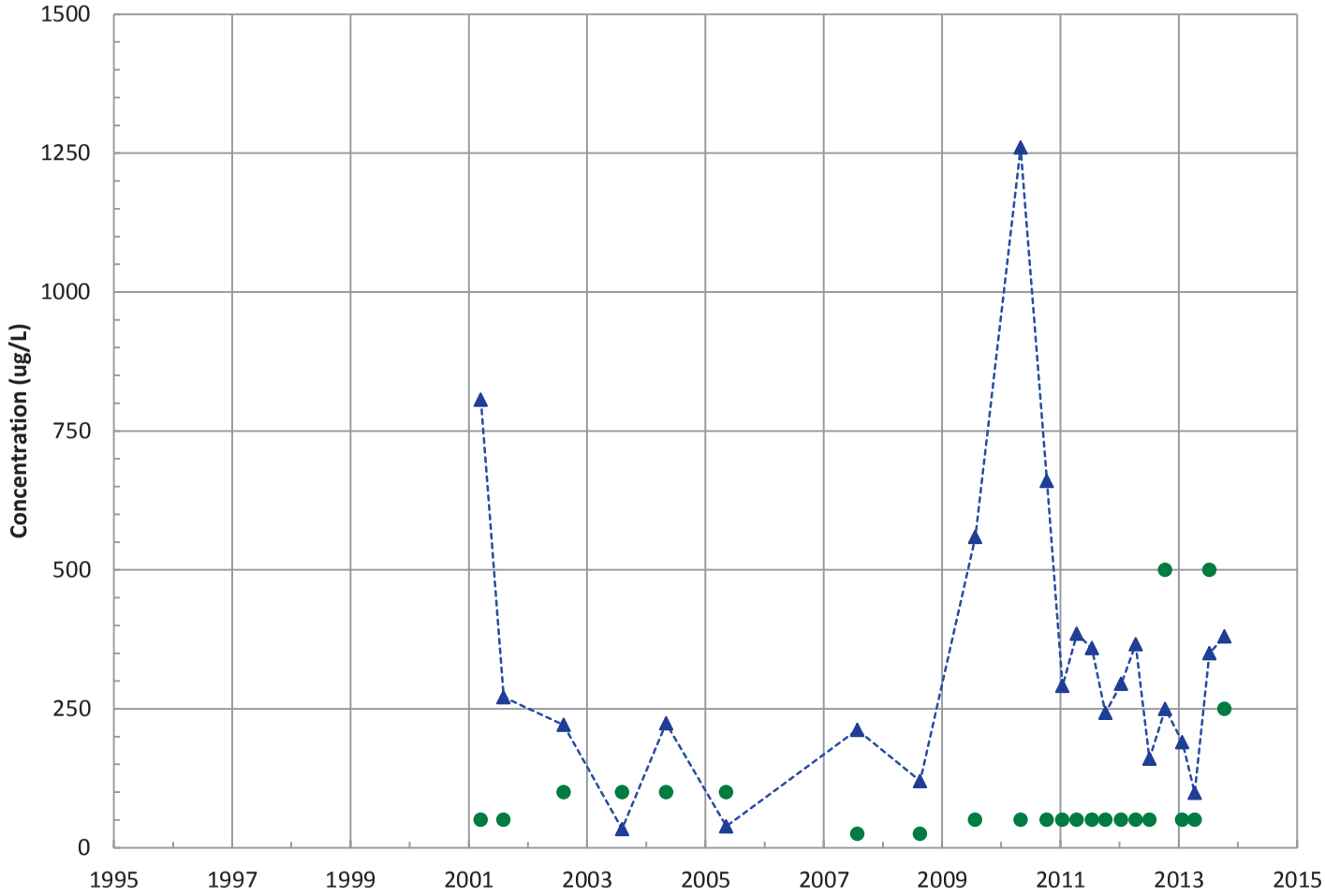
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

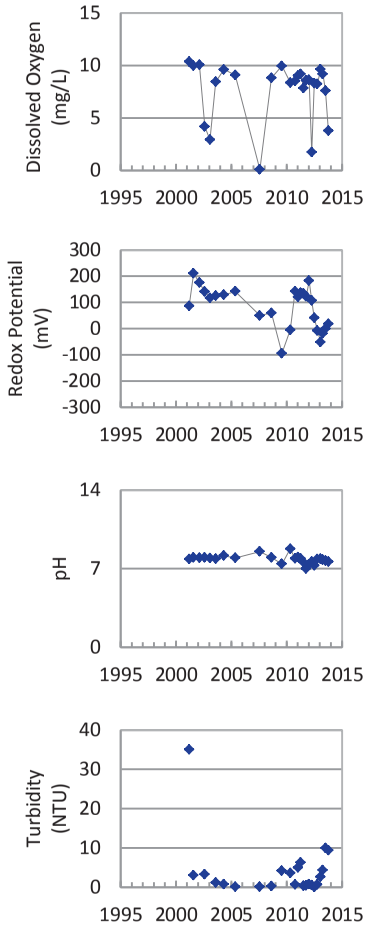
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/20/2001 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1037
Iron Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

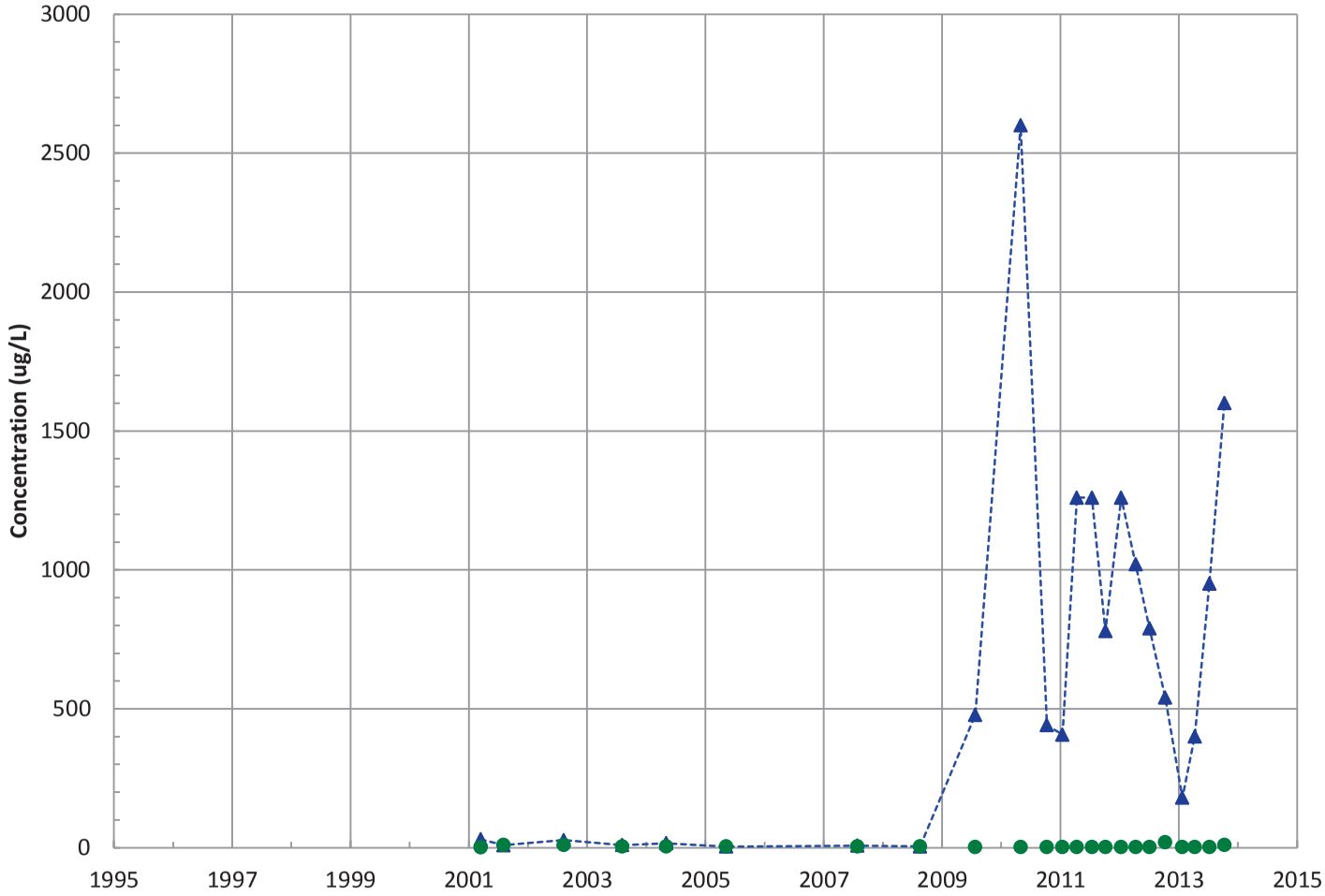
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

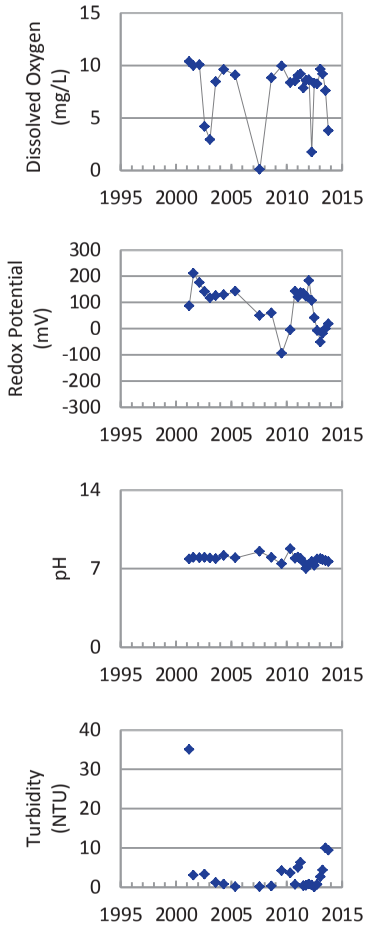
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/20/2001 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1037
Manganese Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Increasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Increasing

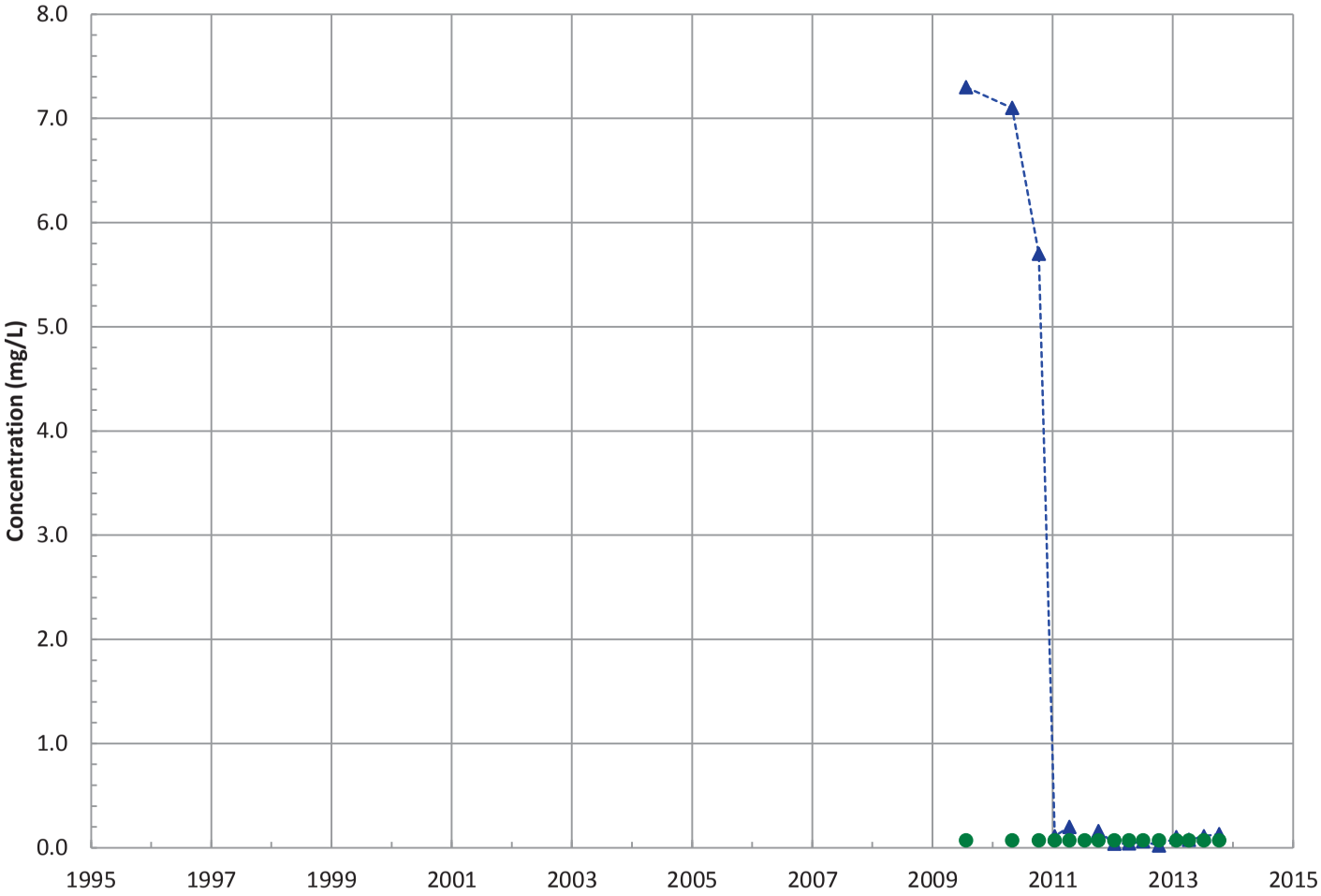
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Injection Dates

Well Location

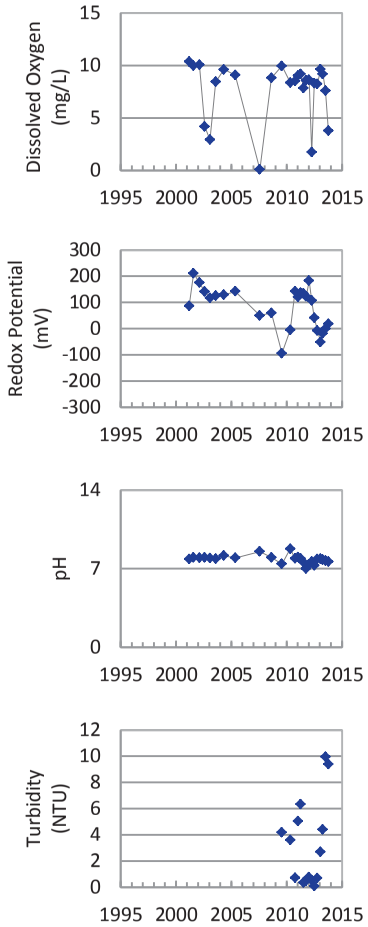
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/20/2001 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1037
Acetic Acid Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

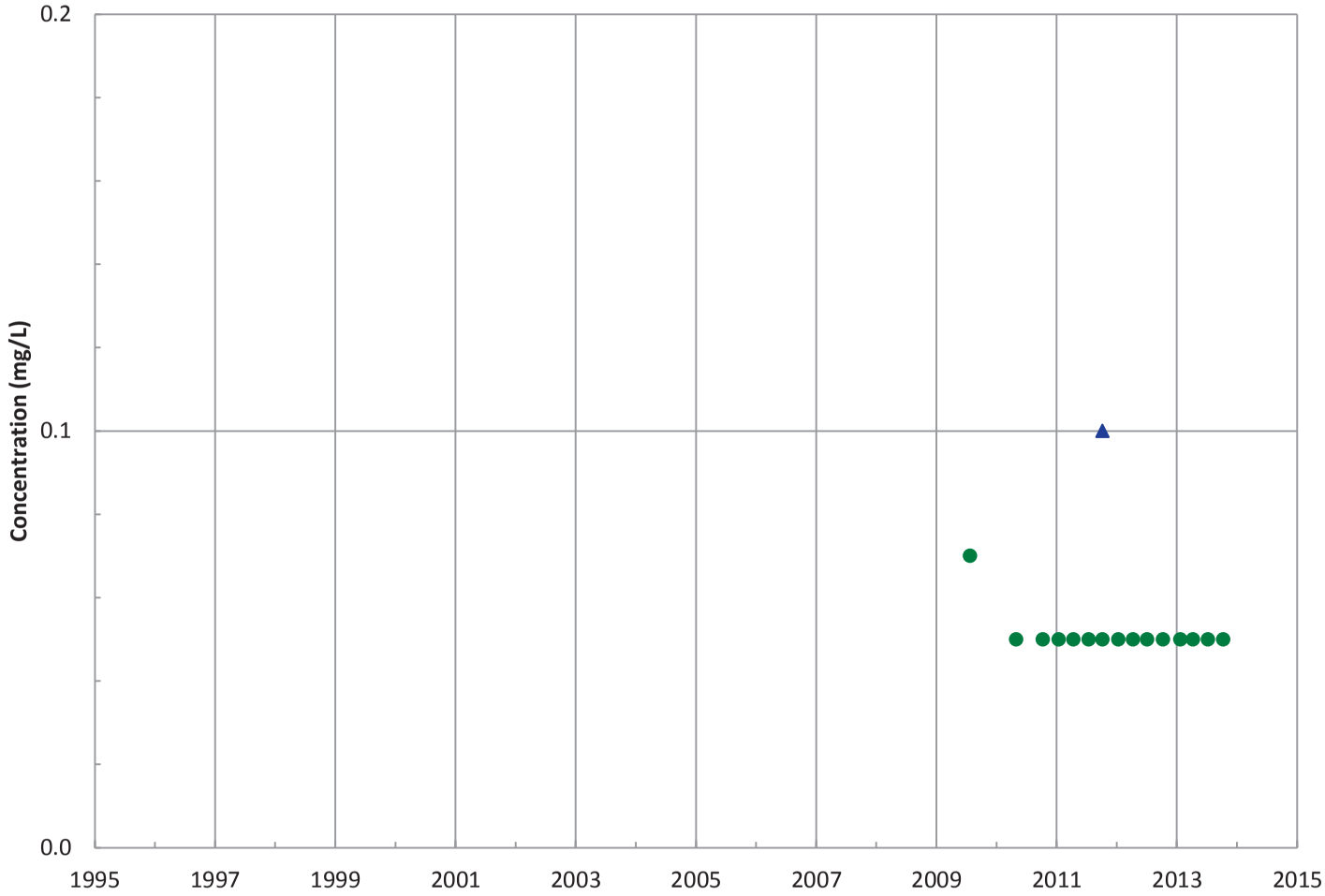
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

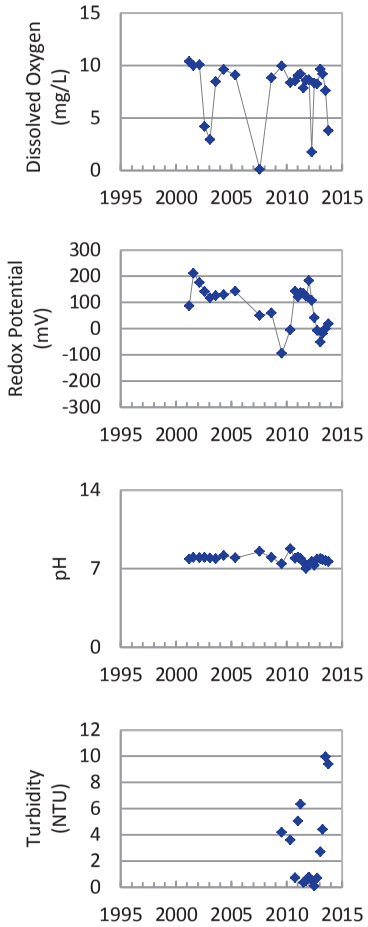
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/4/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1037
Butyric Acid Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

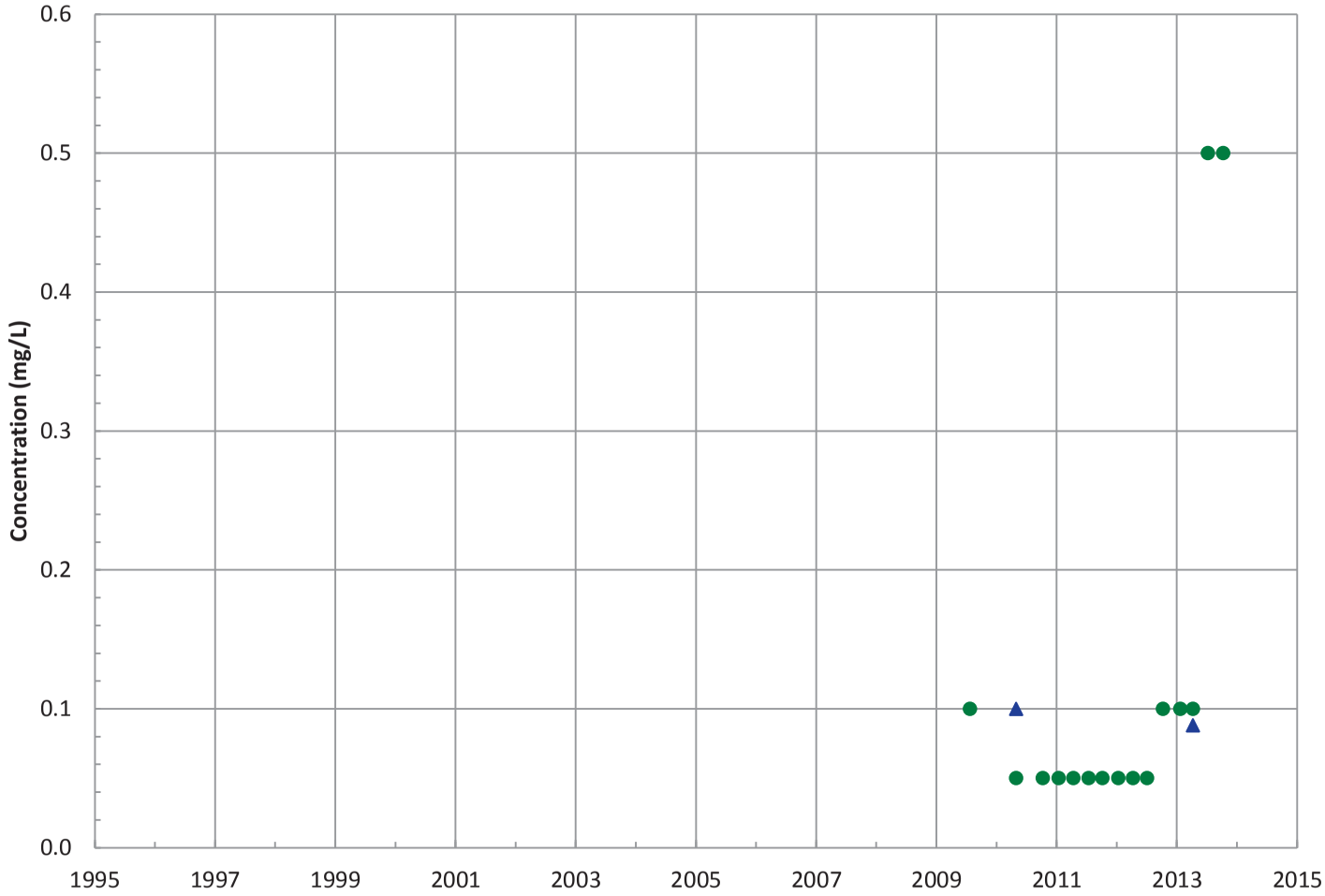
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Injection Dates

Well Location

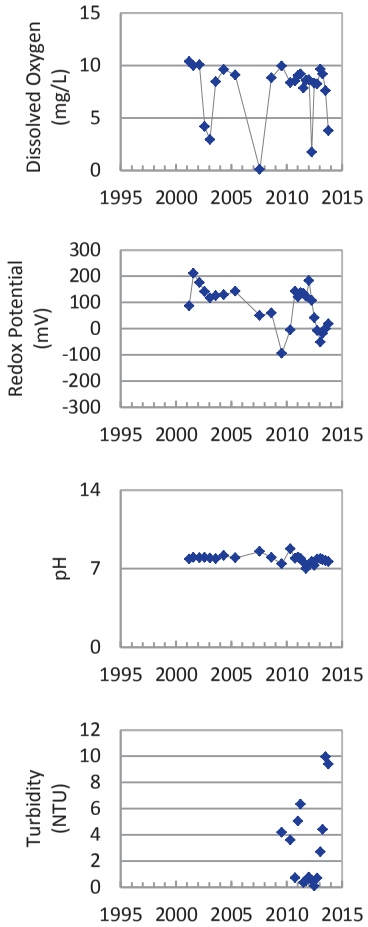
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/4/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1037
Hexanoic Acid Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

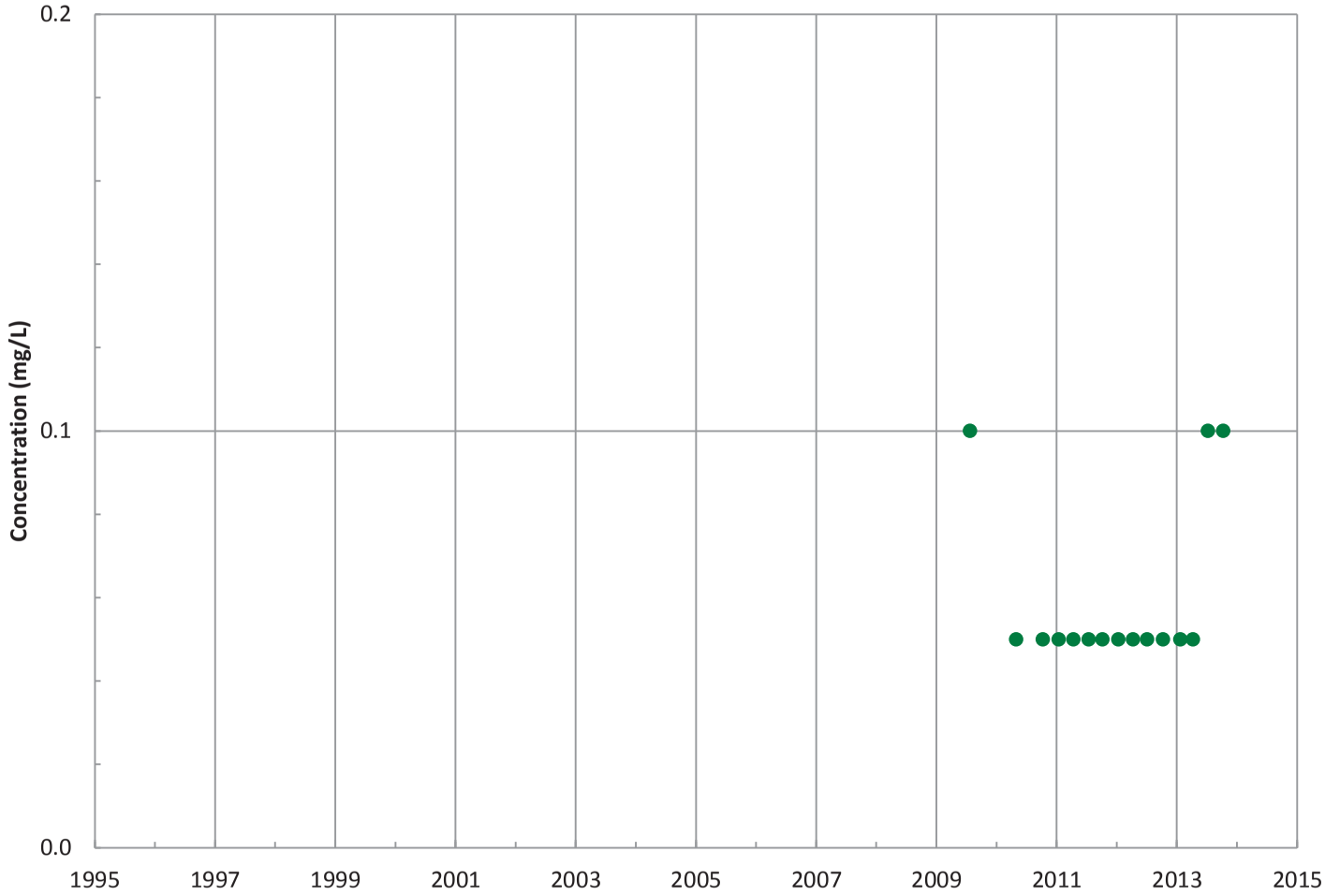
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Injection Dates

Well Location

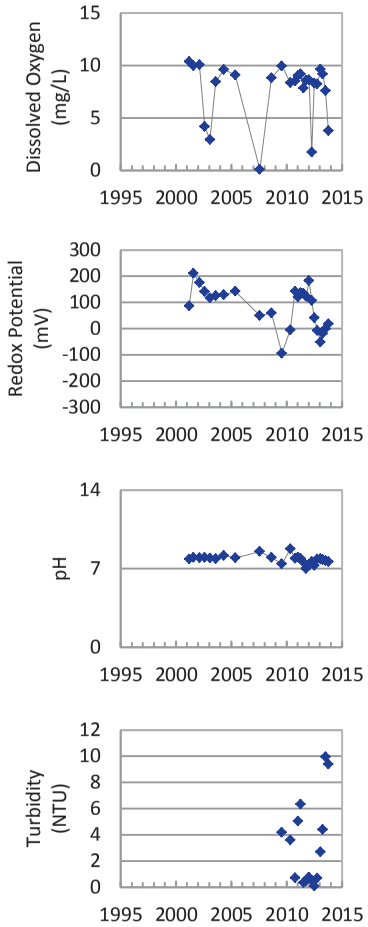
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/4/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1037
i-Hexanoic Acid Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

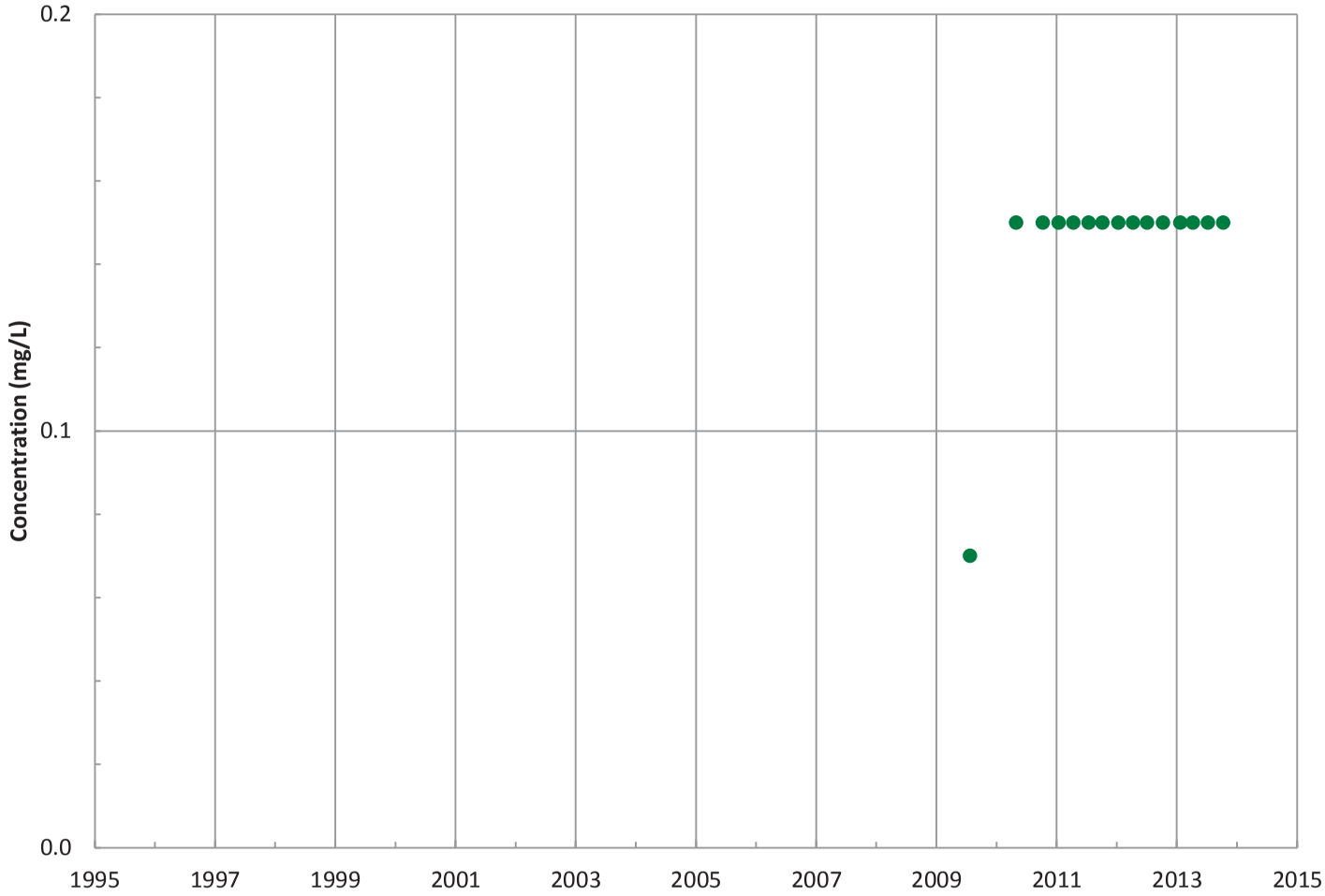
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Injection Dates

Well Location

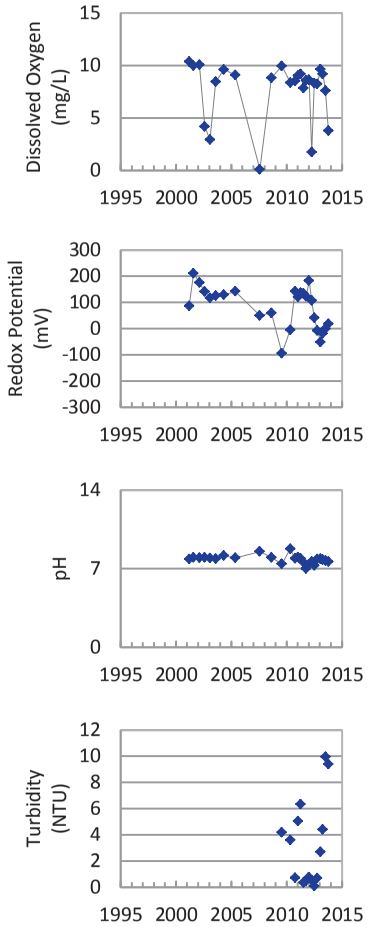
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/4/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1037
i-Pentanoic Acid Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

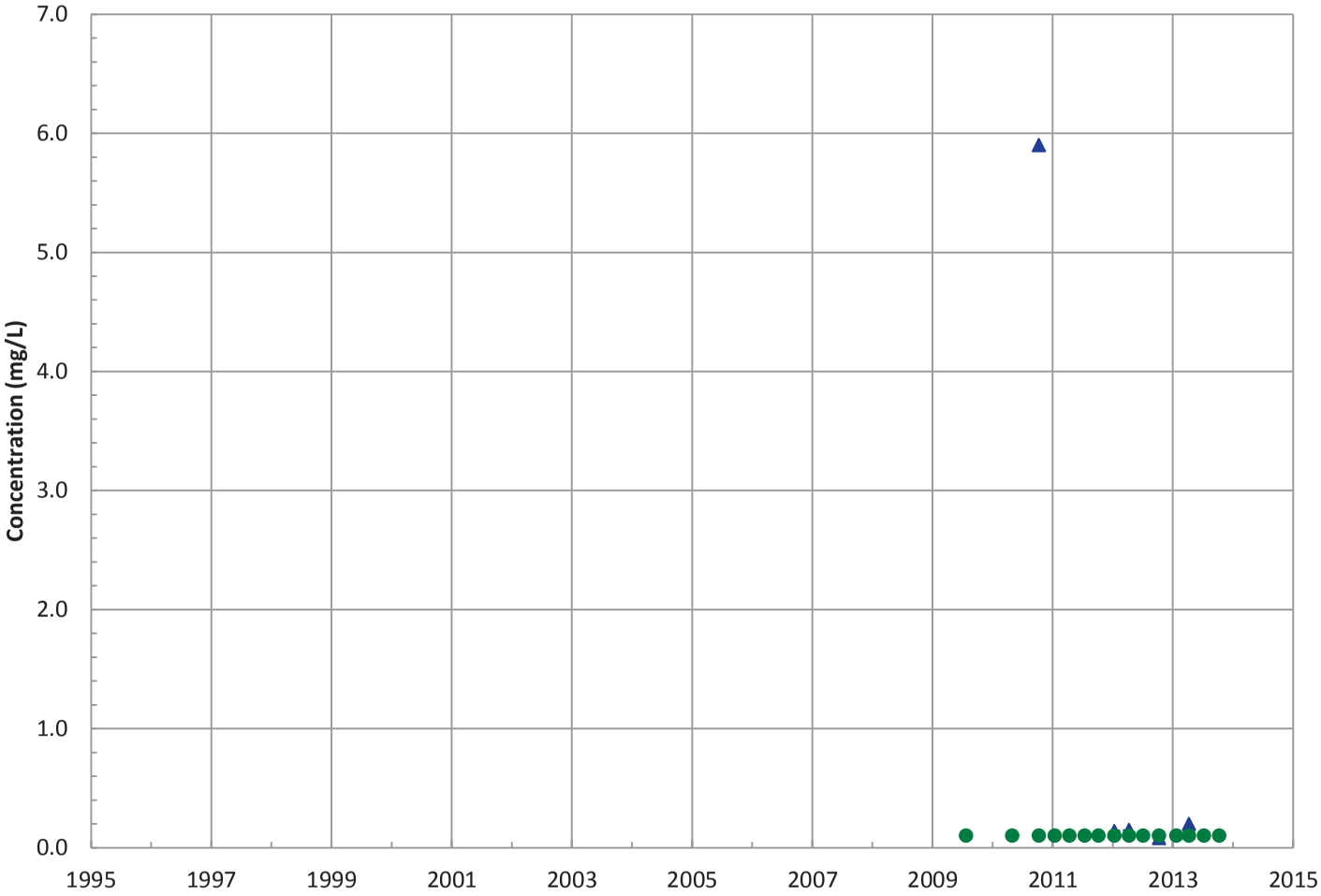
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
Injection Dates

Well Location

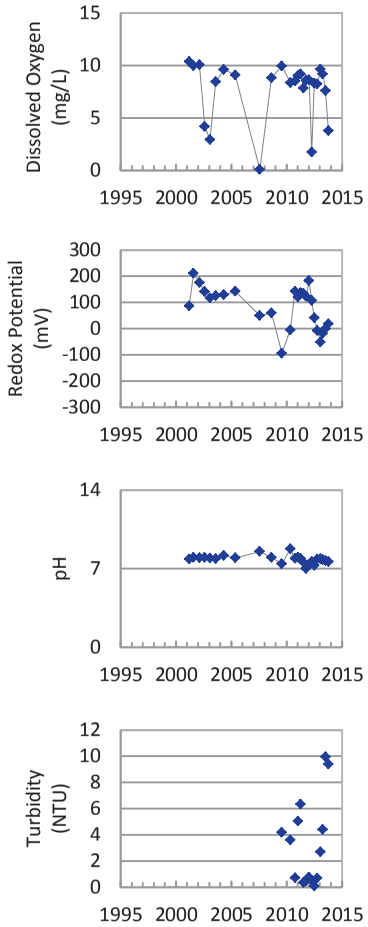
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/4/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1037
Lactic Acid and HIBA Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

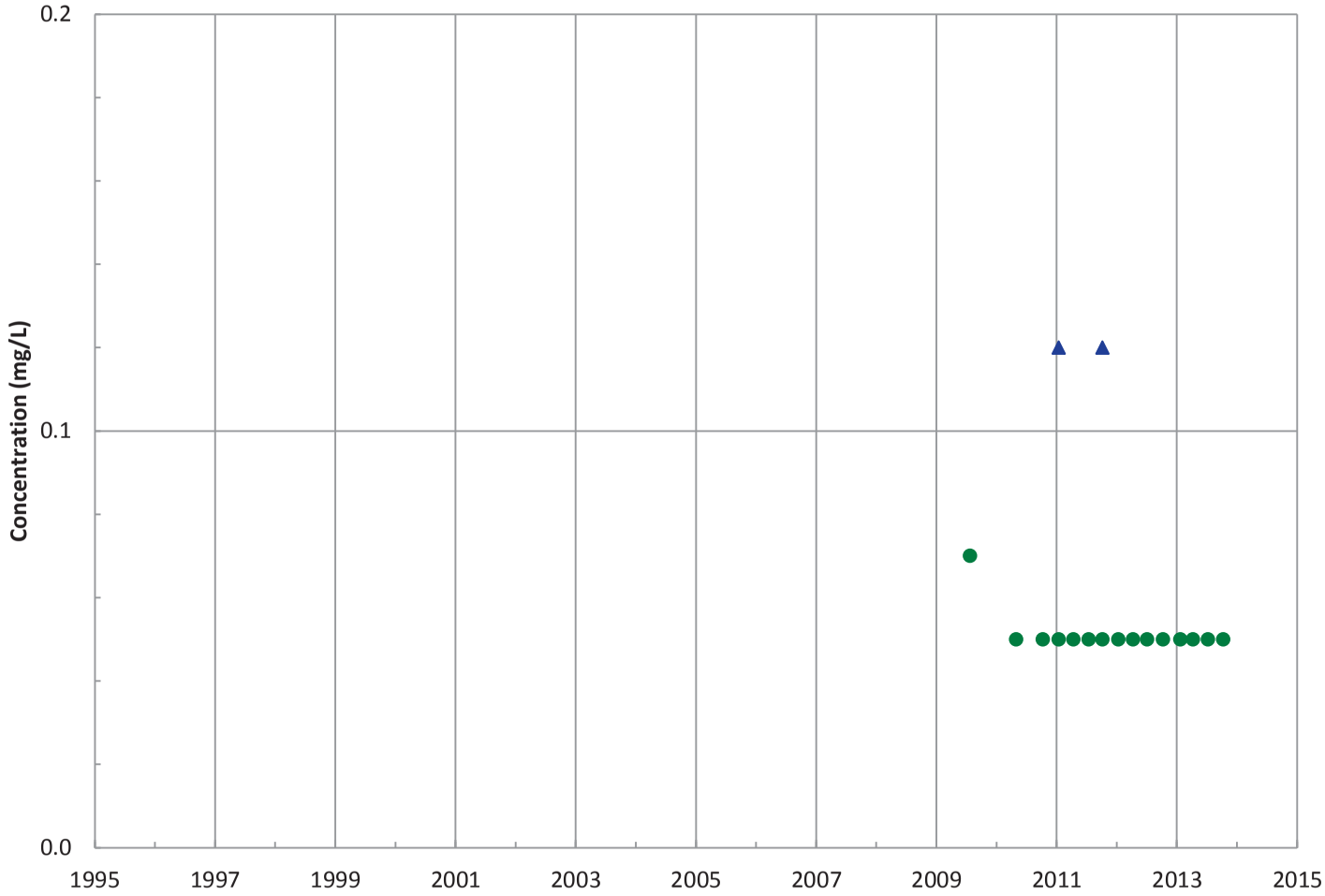
- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Injection Dates

Well Location

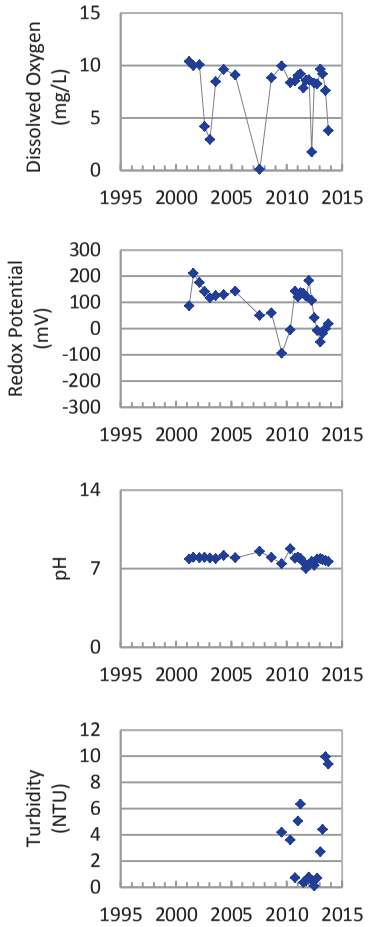
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/4/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1037
Propionic Acid Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

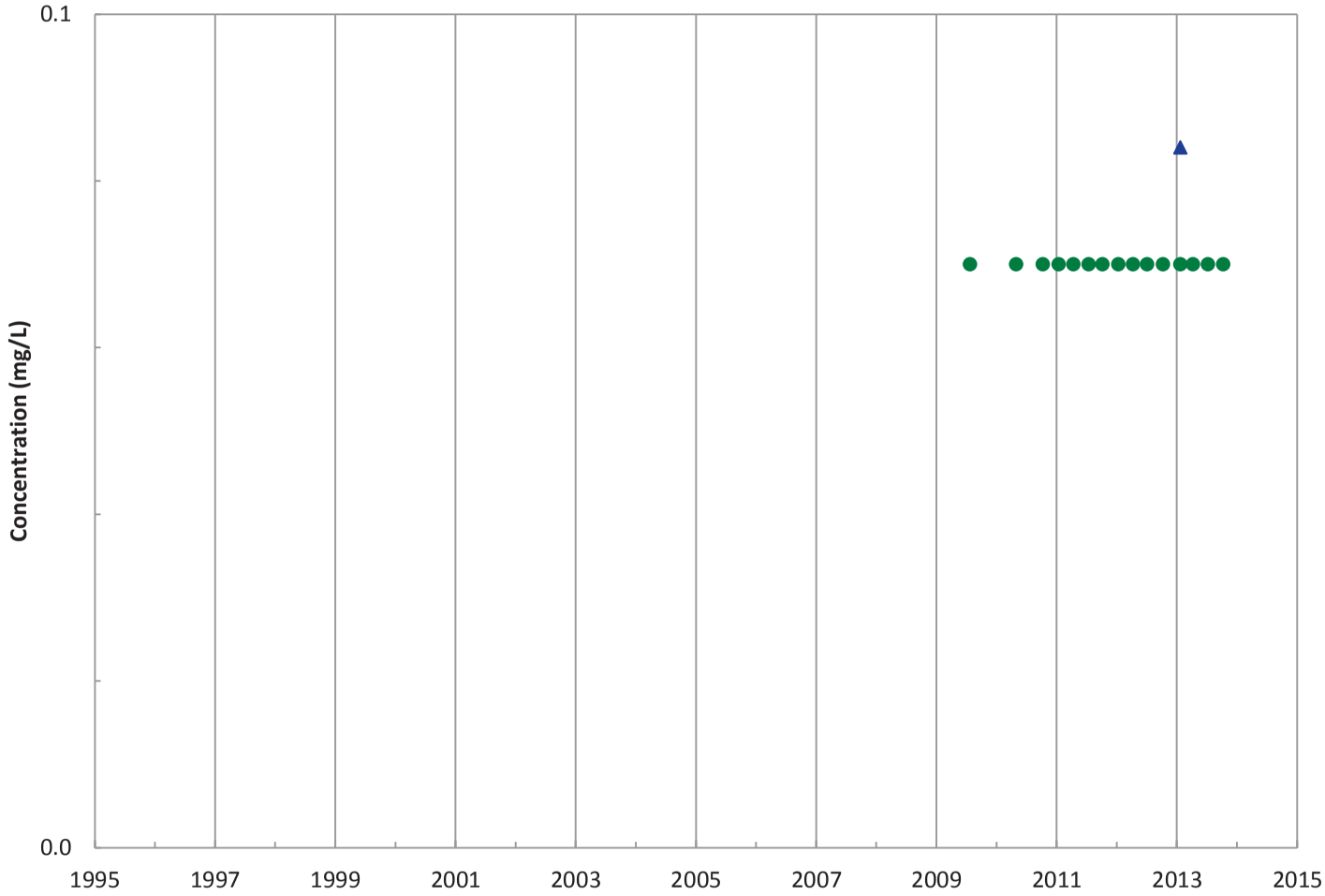
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Injection Dates

Well Location

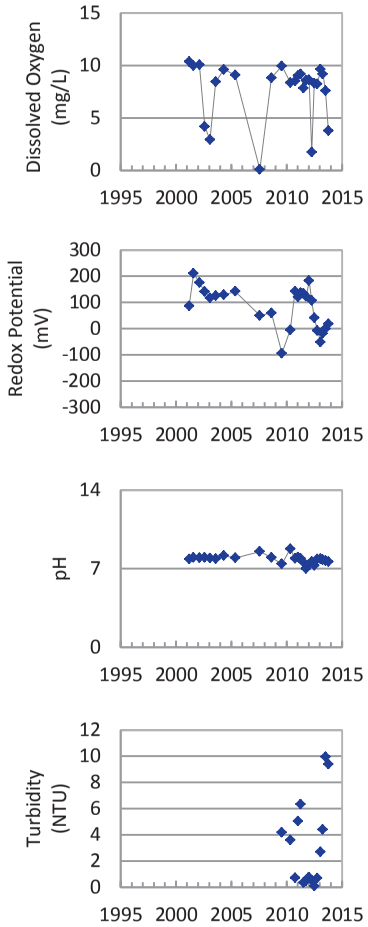
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/4/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1037
Pentanoic Acid Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

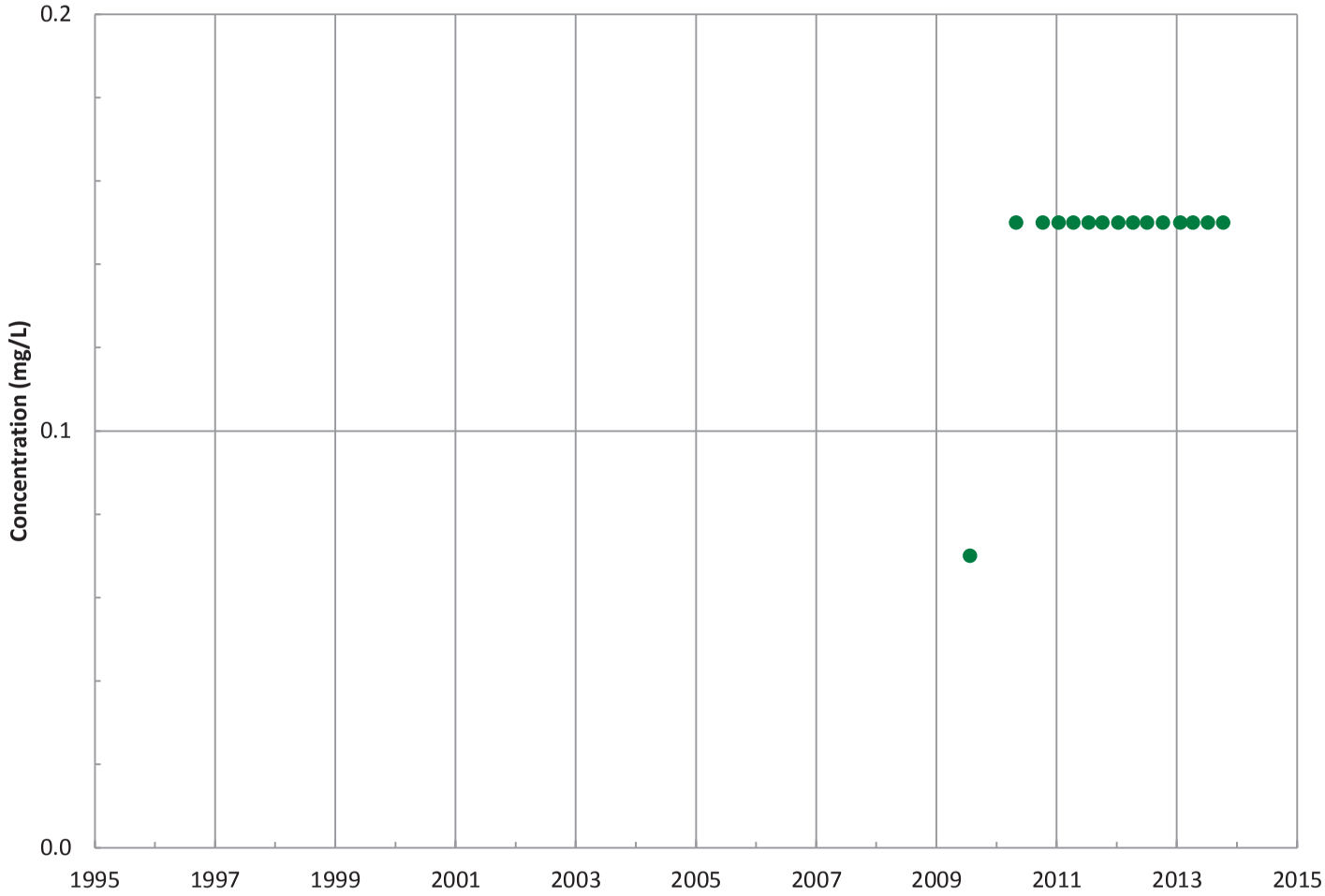
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Injection Dates

Well Location

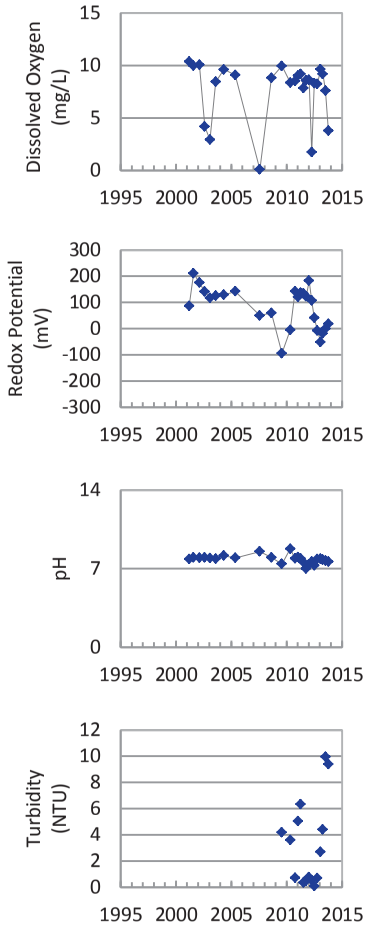
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/4/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1037
Pyruvic Acid Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

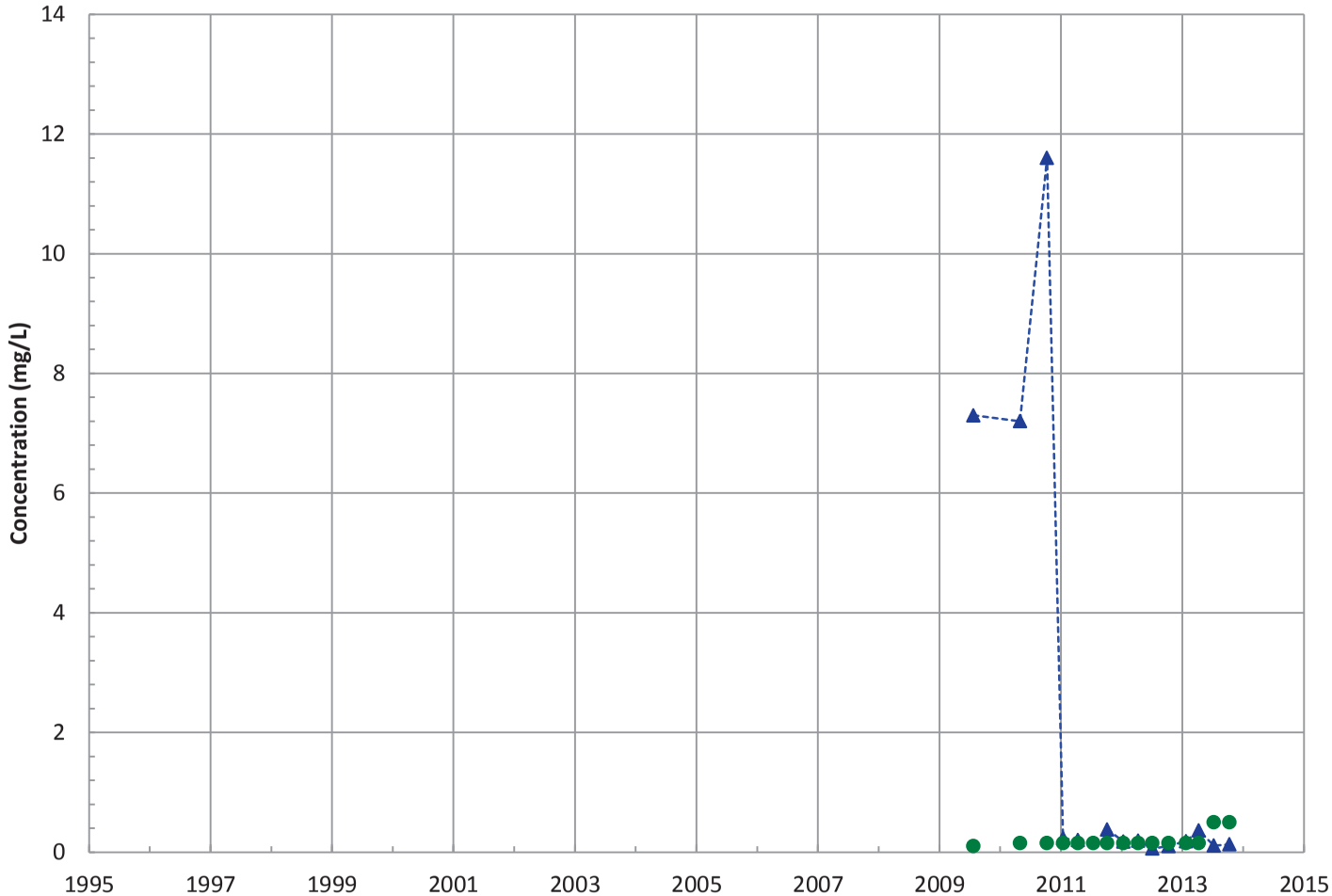
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
Injection Dates

Well Location

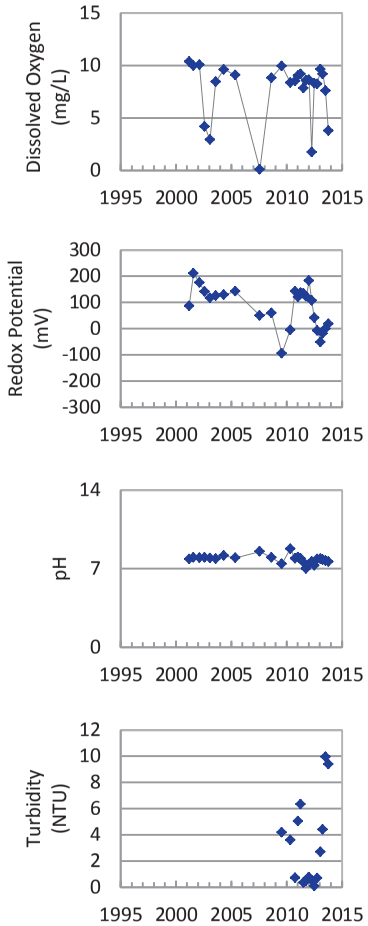
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/4/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1037
Total Volatile Fatty Acids Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Stable

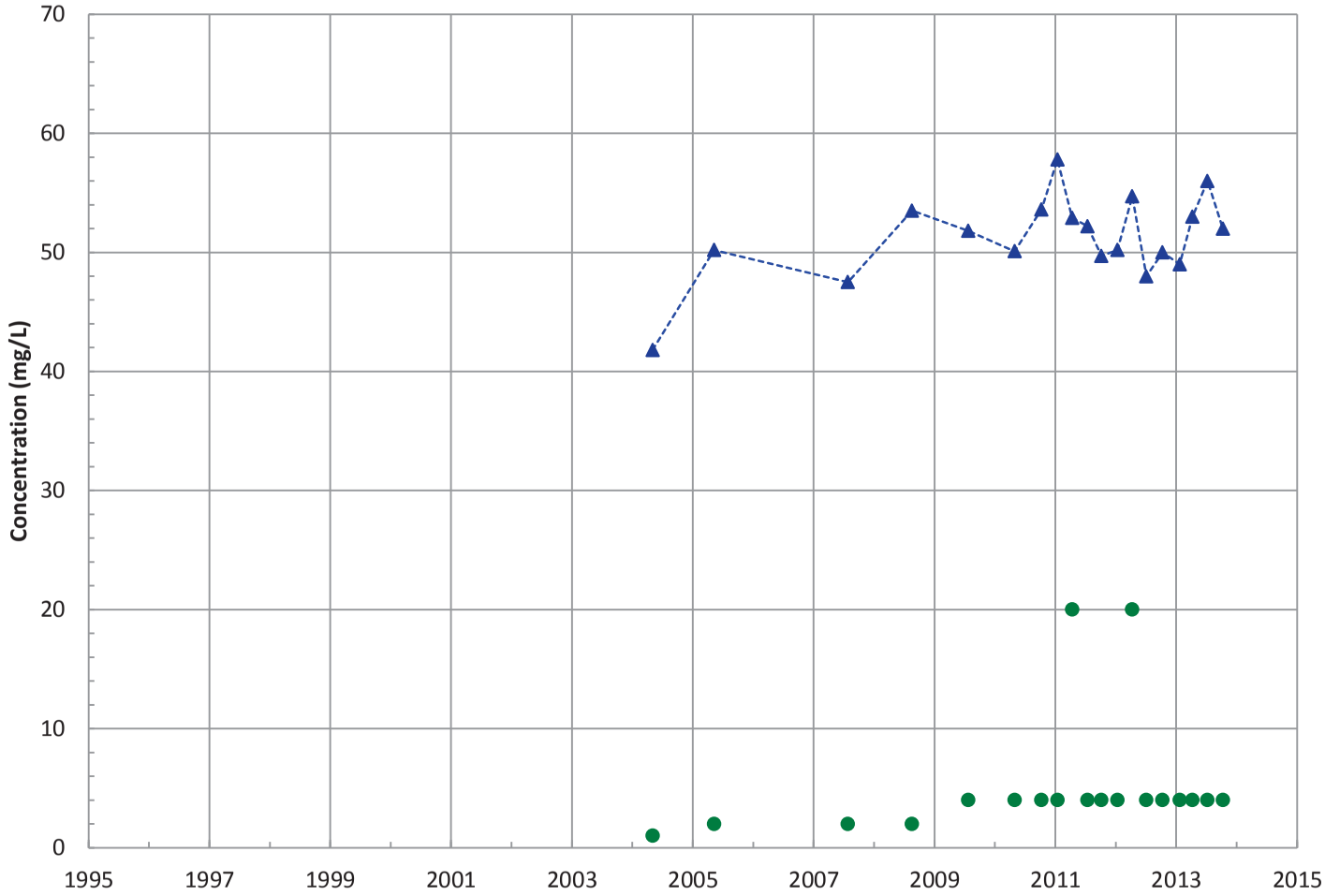
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Injection Dates

Well Location

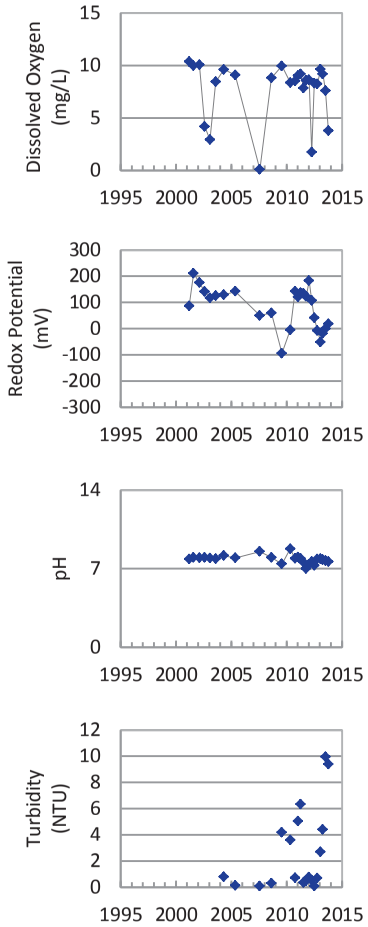
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/4/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1037
Chloride (as Cl) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: No Trend

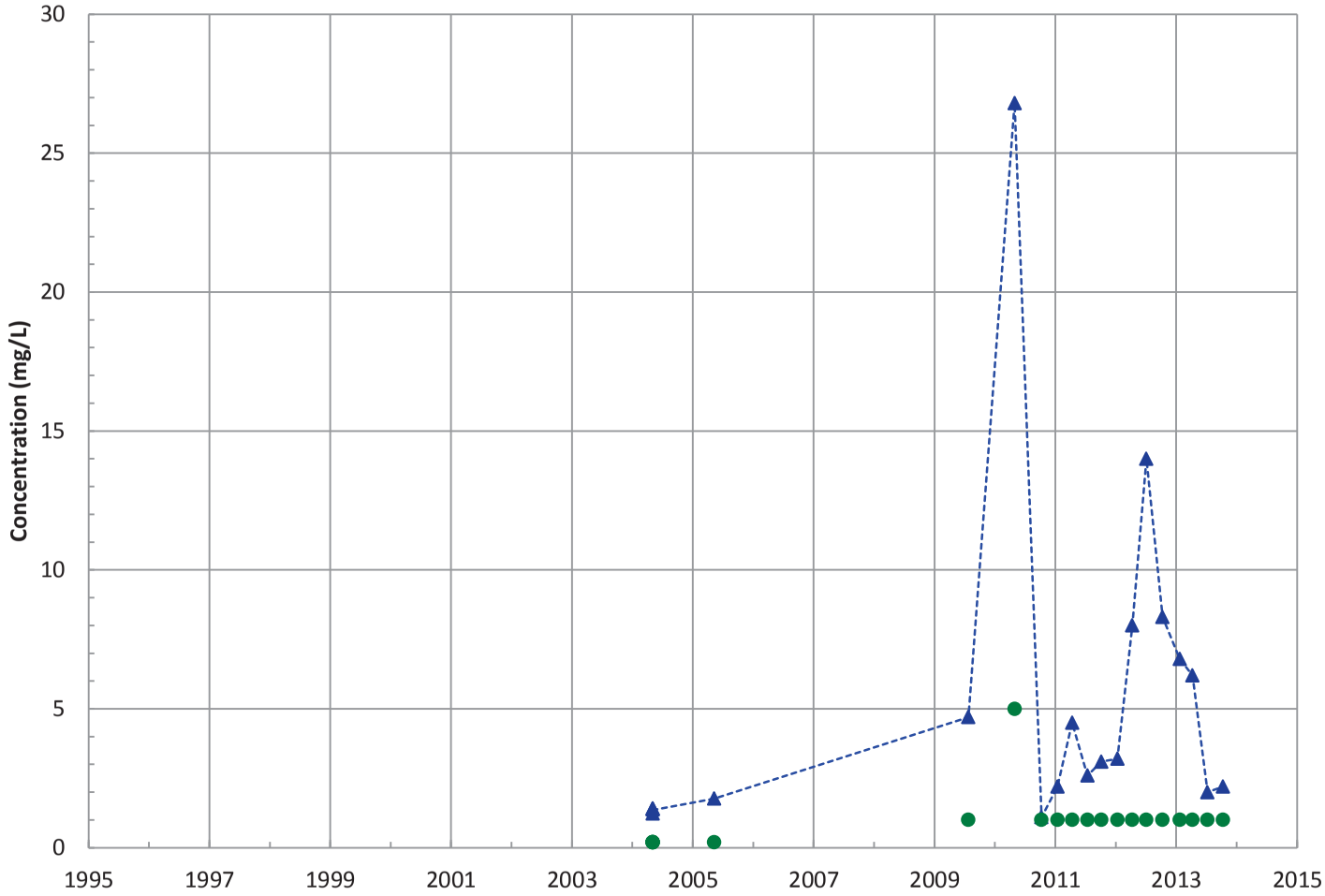
▲ Measured Value
● Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

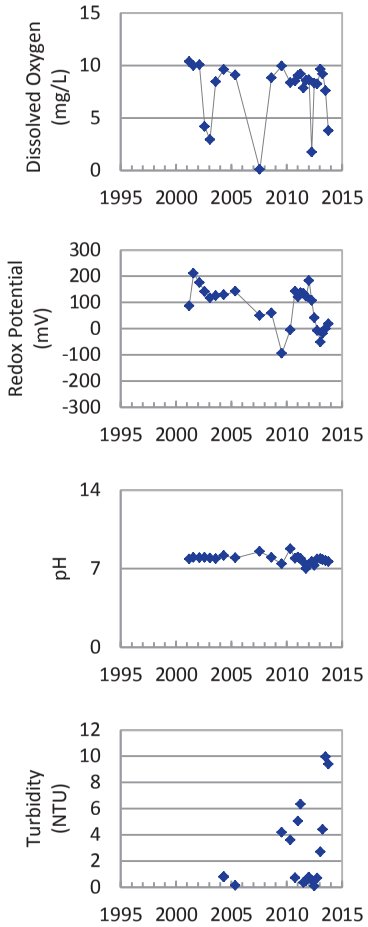
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/10/2004 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1037
Total Organic Carbon Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Probably Increasing
Last 4 Samples: Decreasing

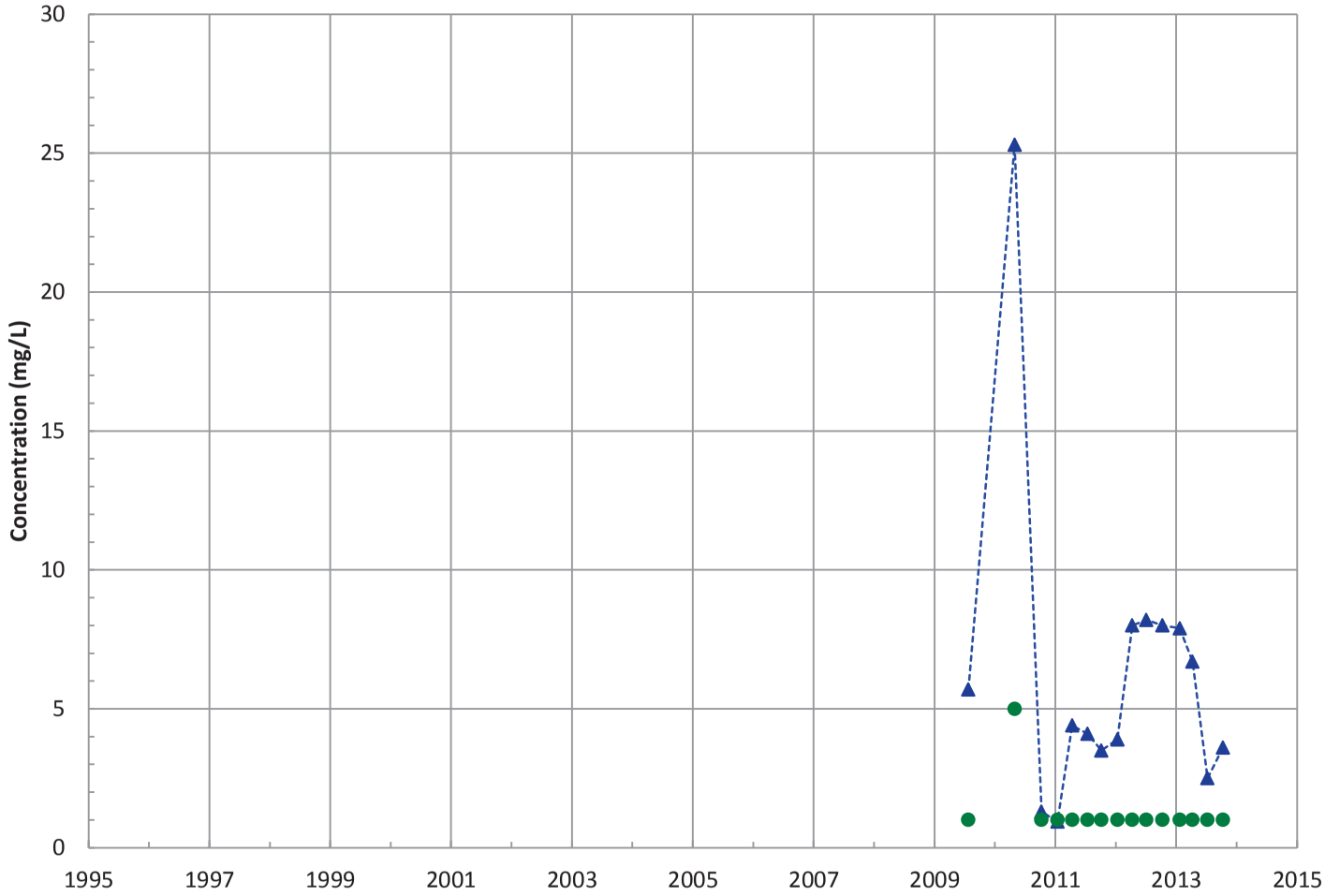
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

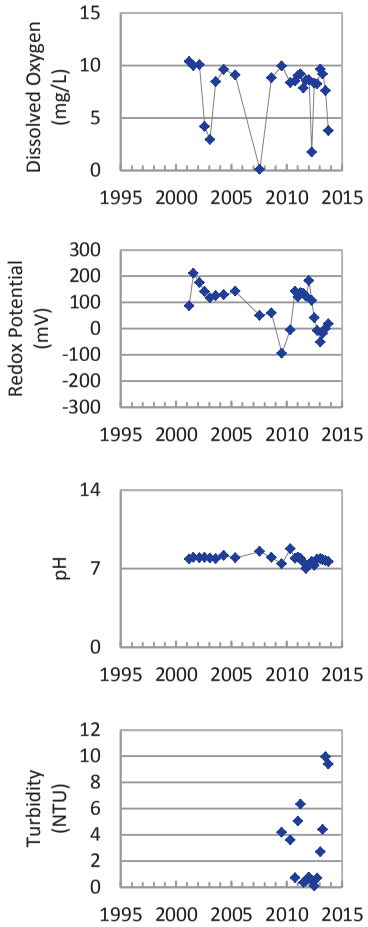
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/10/2004 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1037
Dissolved Organic Carbon (DOC) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Stable
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Probably Decreasing

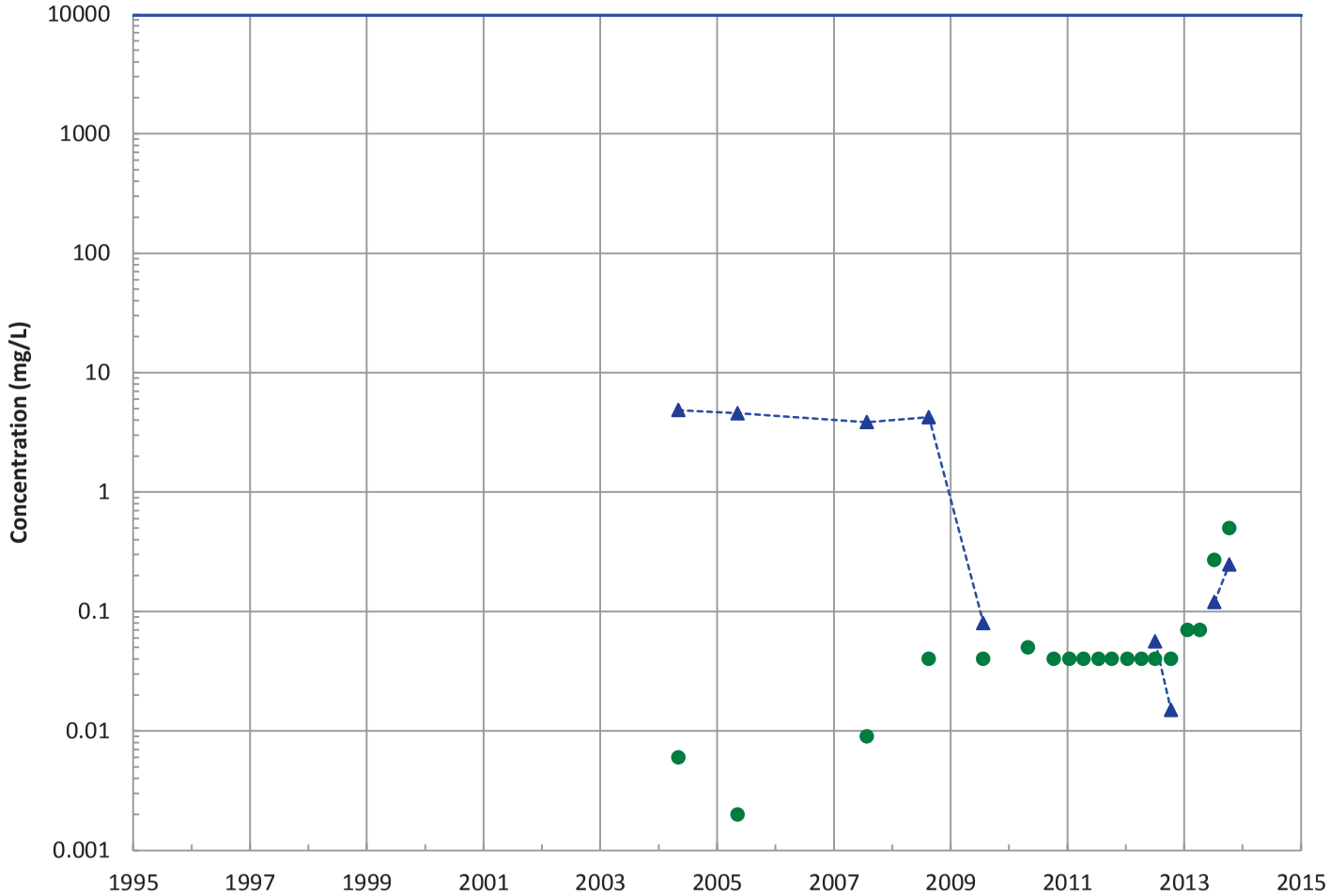
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Injection Dates

Well Location

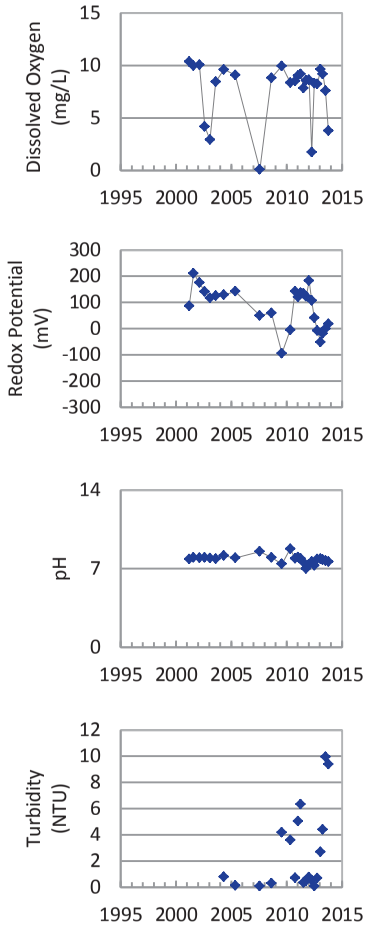
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/4/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1037
Nitrate as N Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

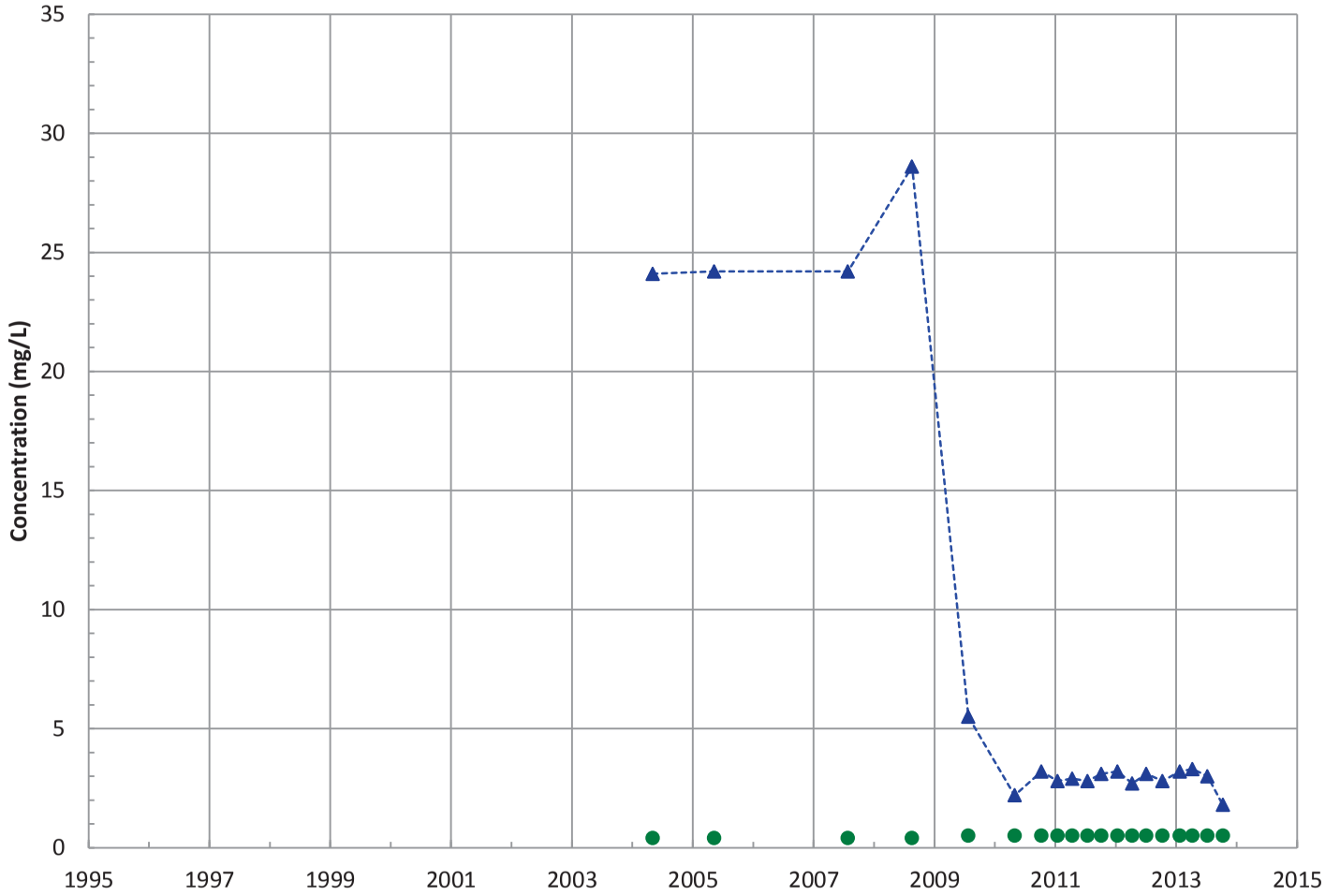
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

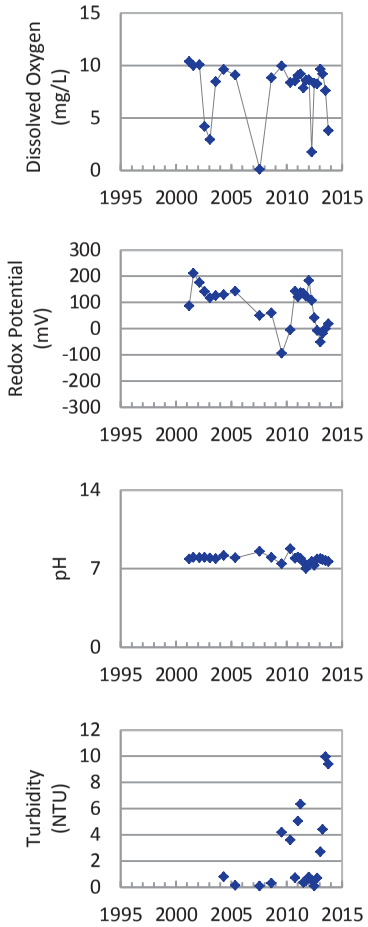
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/10/2004 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1037
Sulfate (as SO4) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Stable

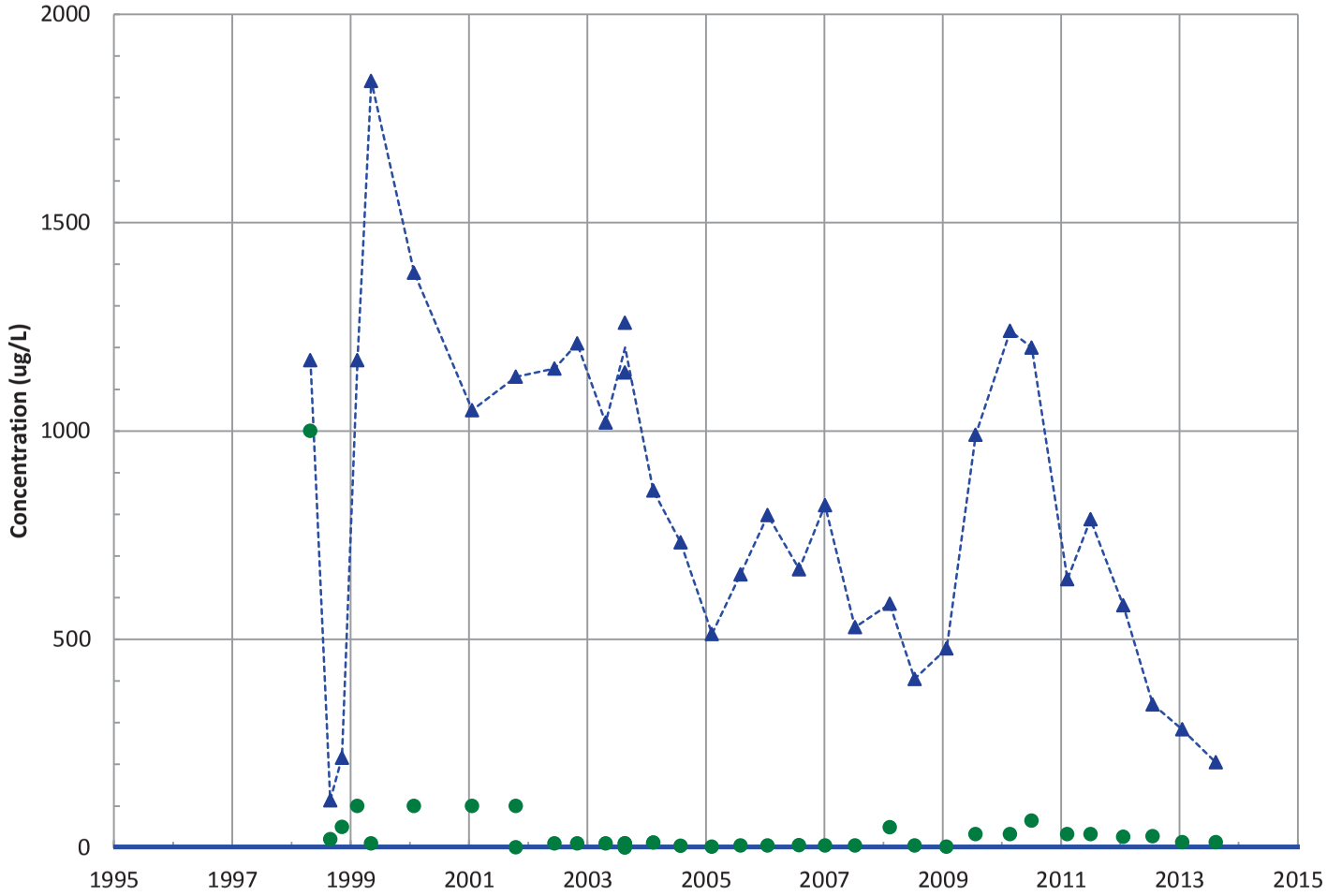
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Injection Dates

Well Location

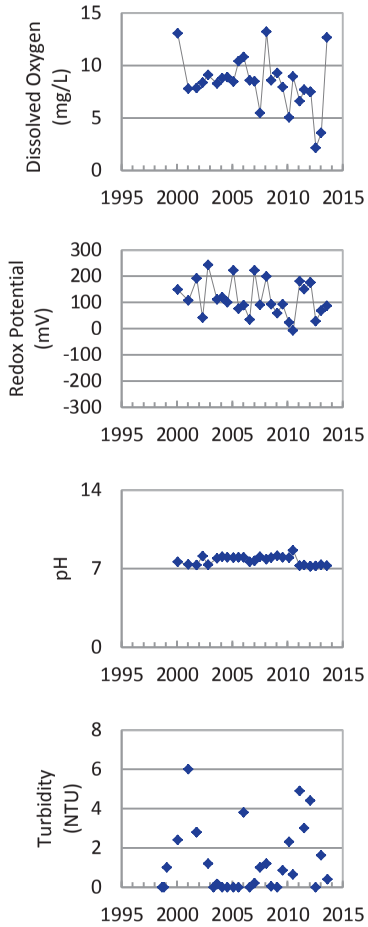
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/10/2004 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1038
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



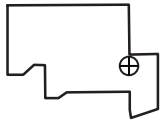
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

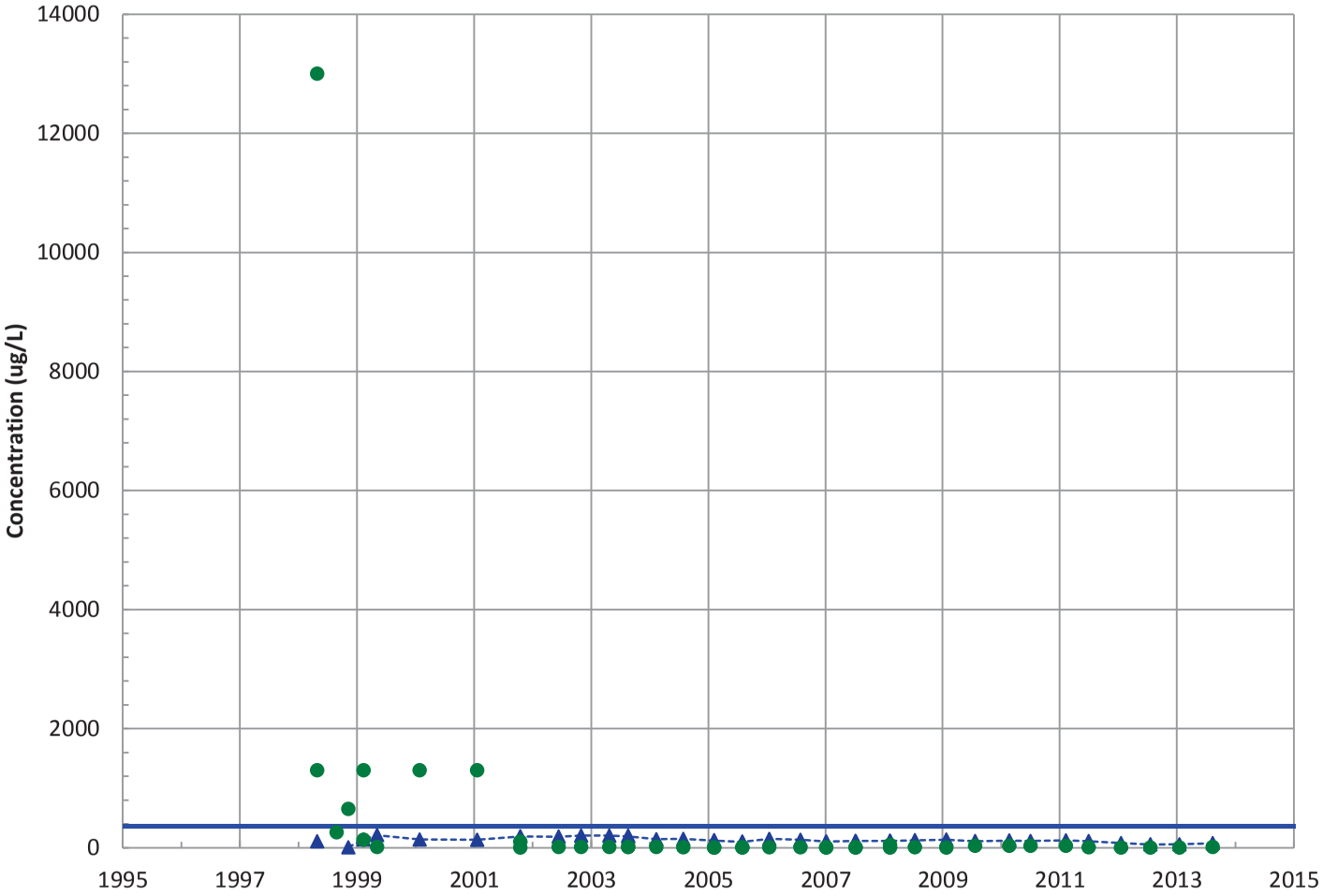
Well Location



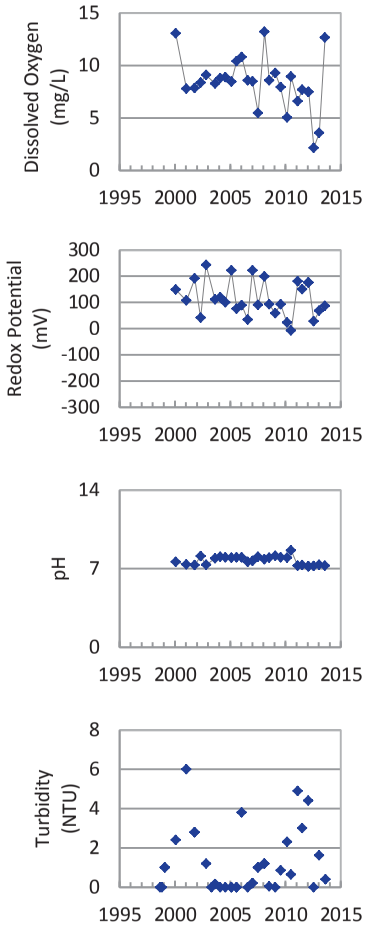
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/30/1998 to 8/27/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1038
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



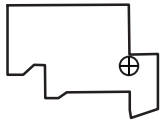
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

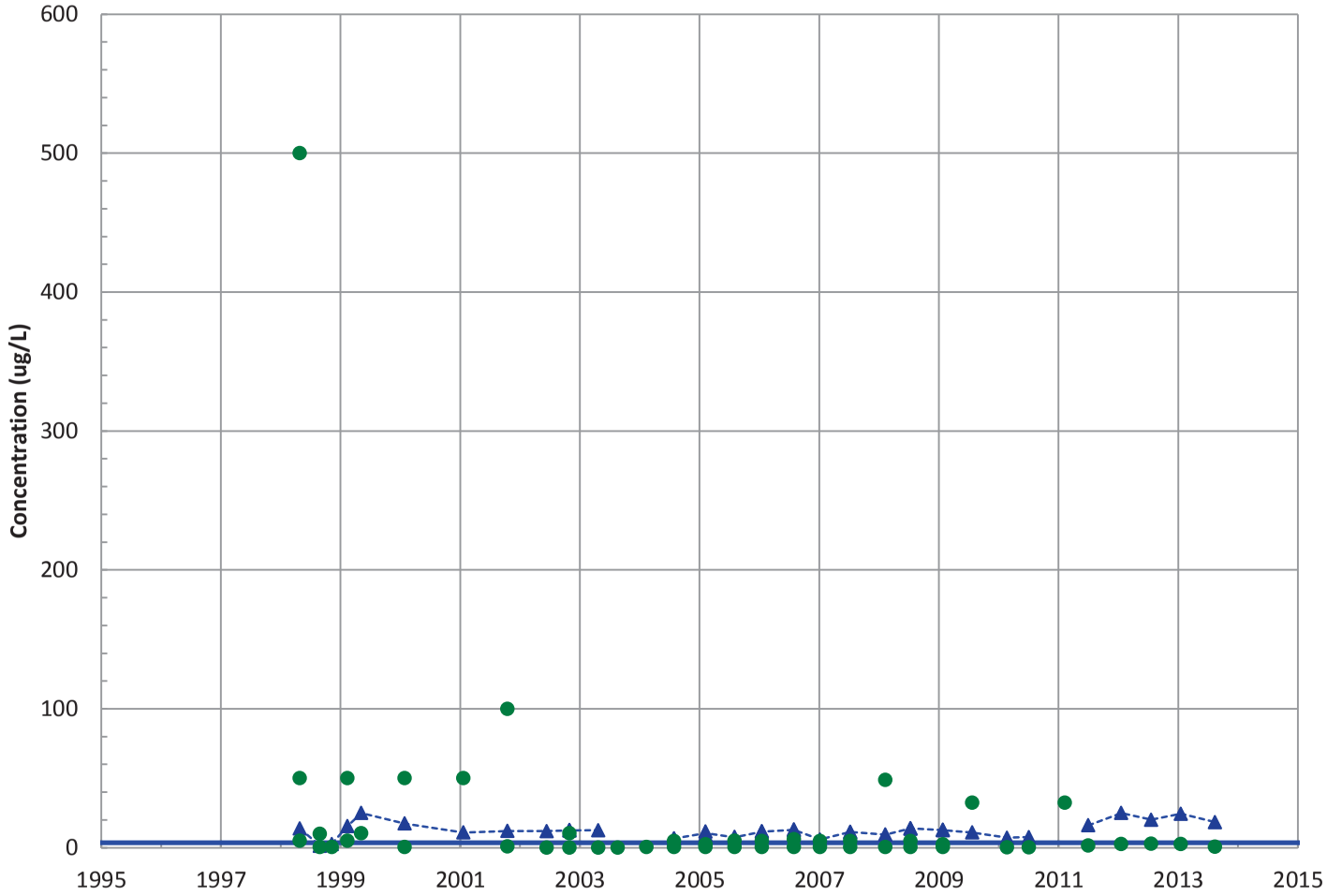
Well Location



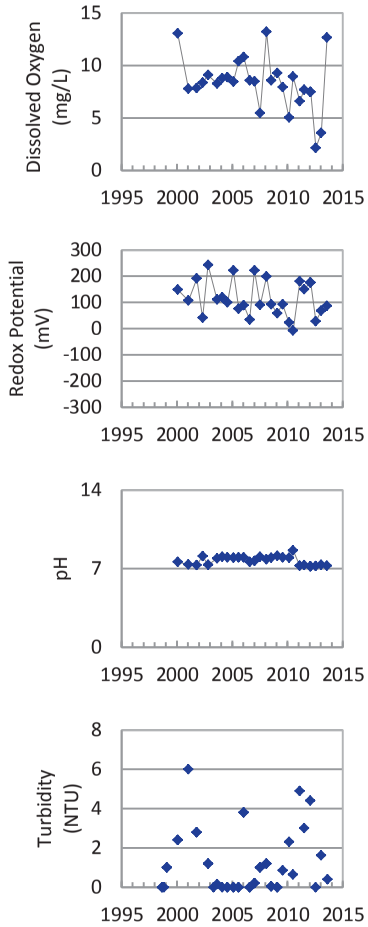
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/30/1998 to 8/27/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1038
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



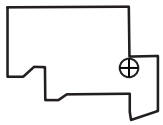
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

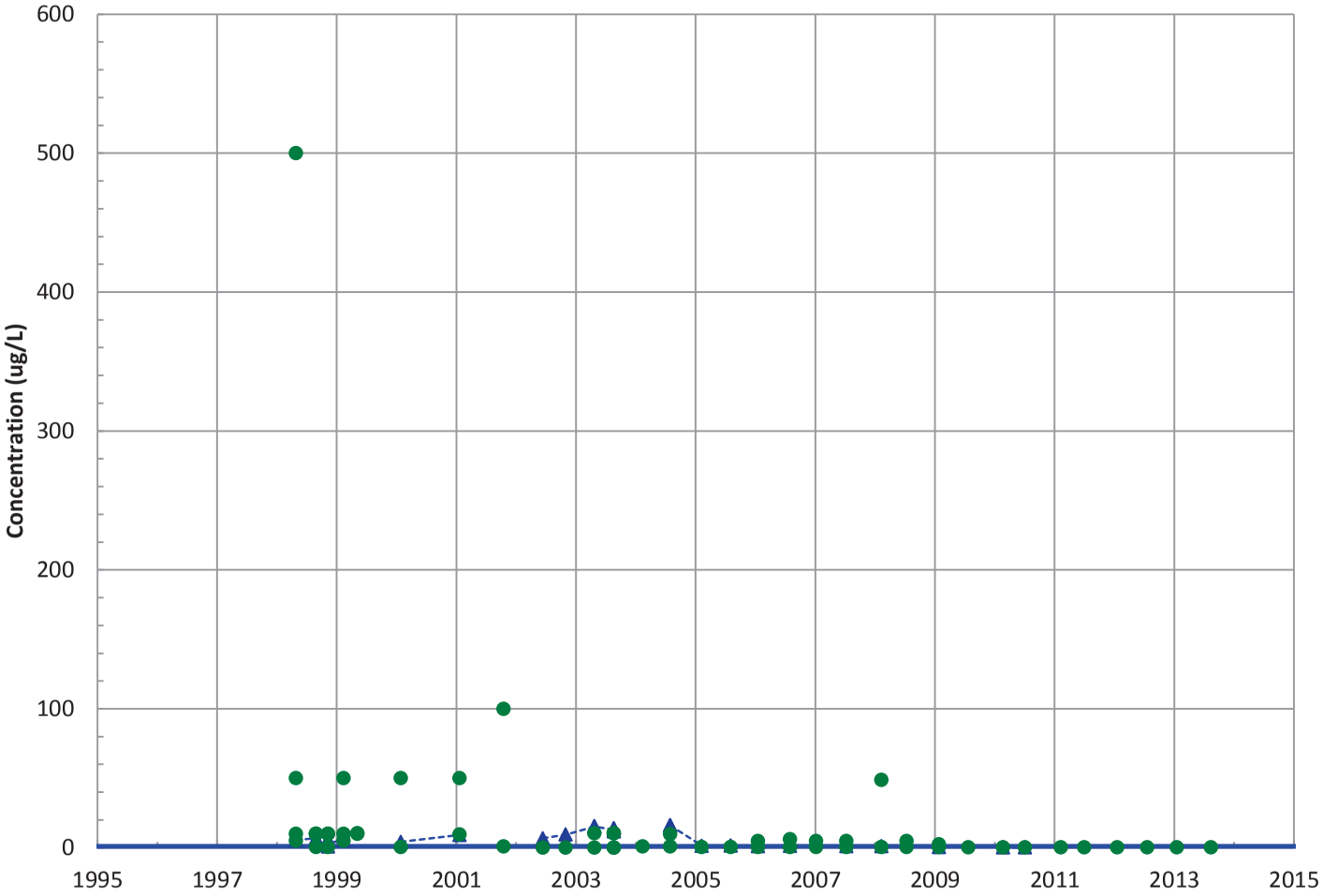
Well Location



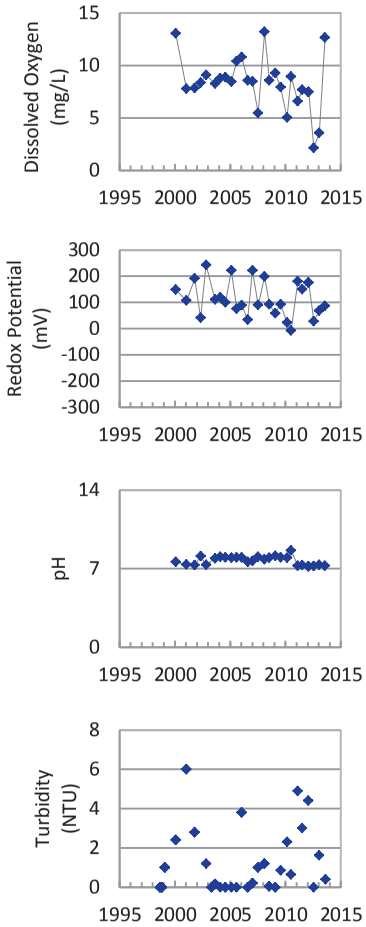
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/30/1998 to 8/27/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1038
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: All Non-Detect

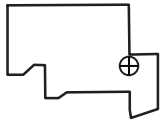
MAROS Linear Regression Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: Probably Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

Well Location



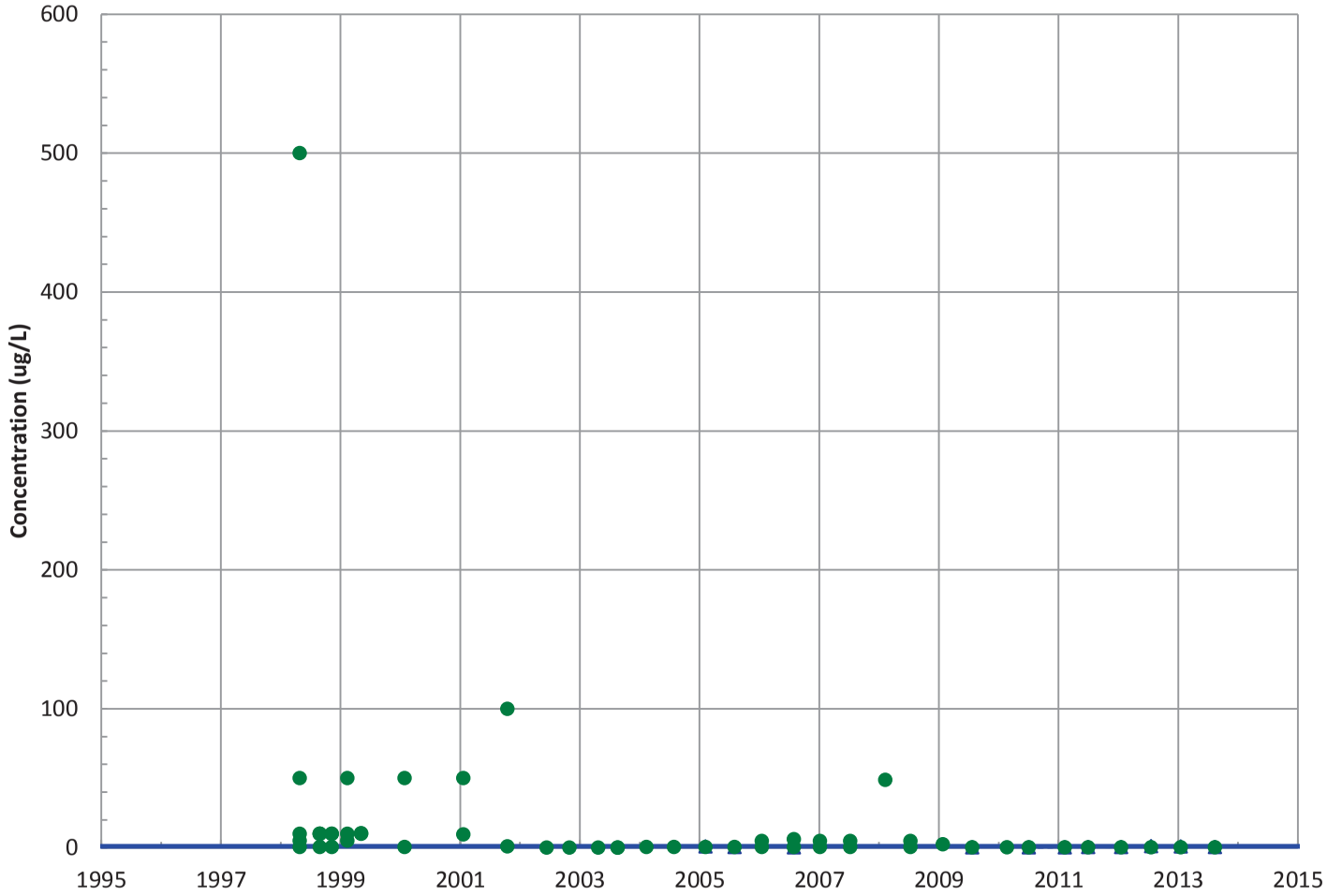
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 4/30/1998 to 8/27/2013

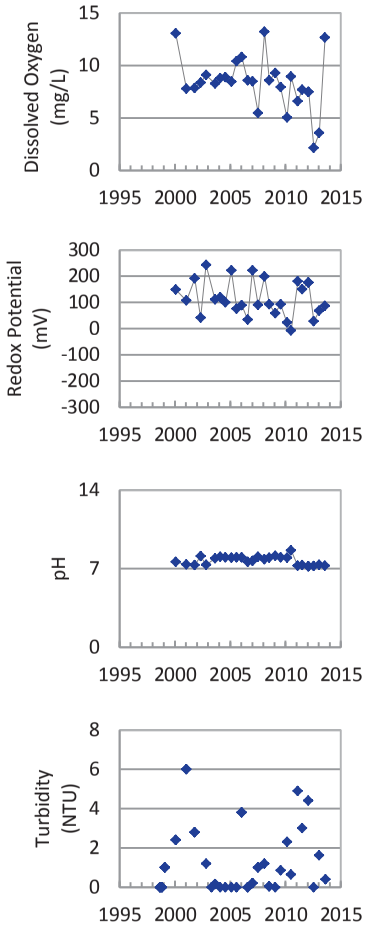
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1038
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



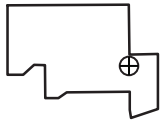
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

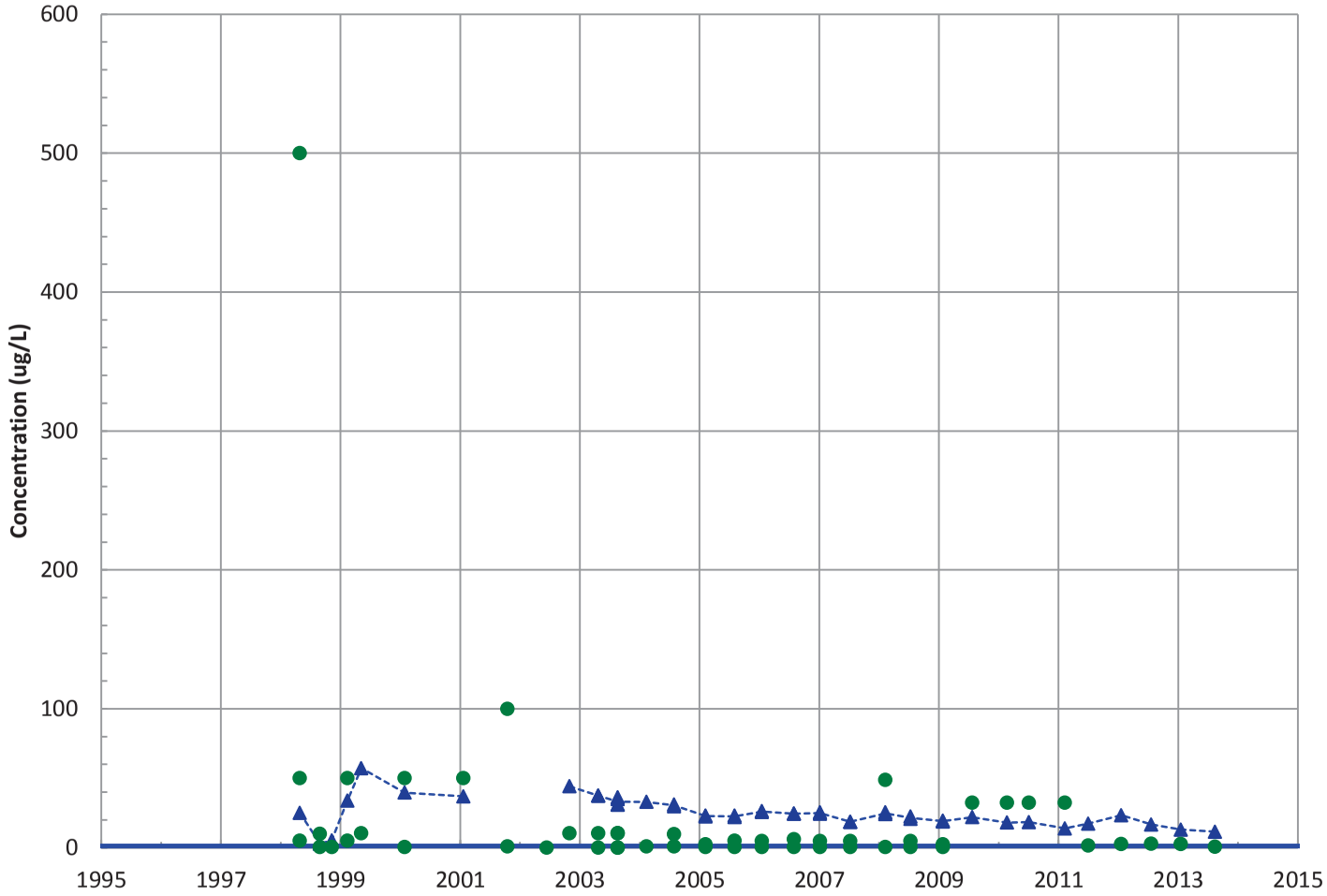
Well Location



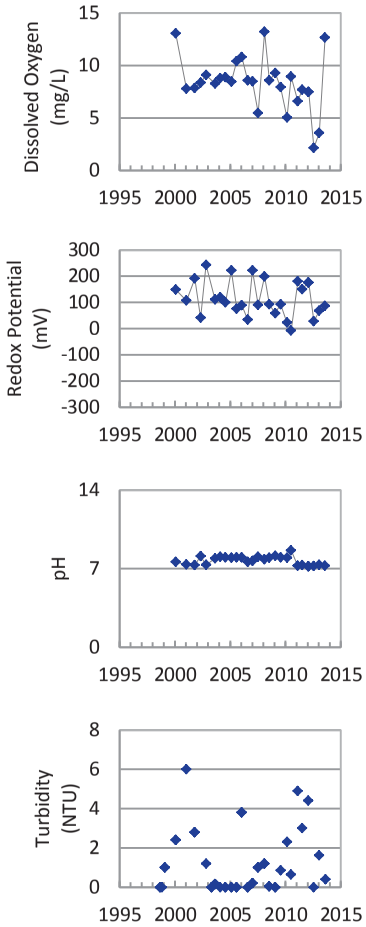
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/30/1998 to 8/27/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1038
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



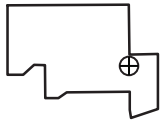
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

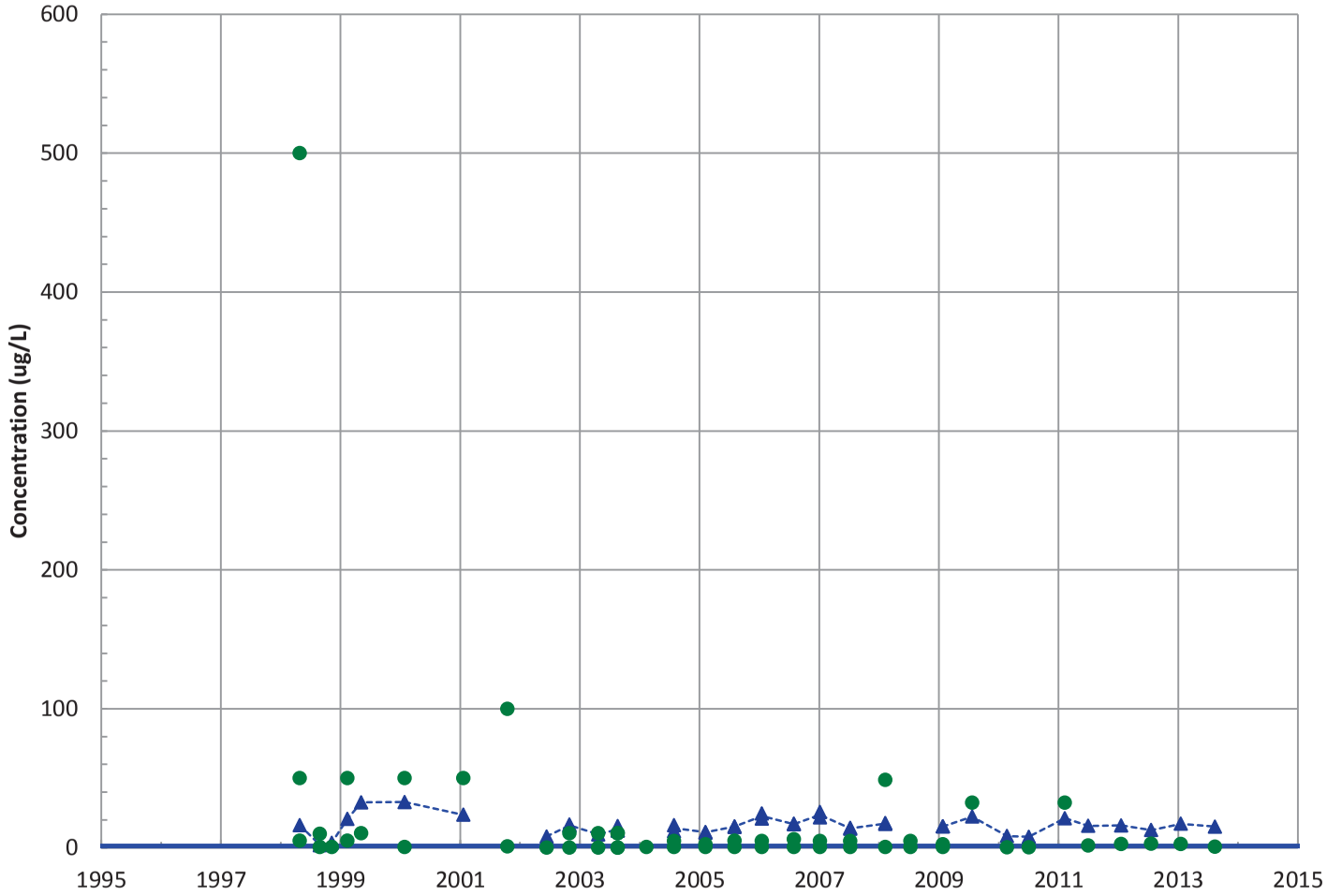
Well Location



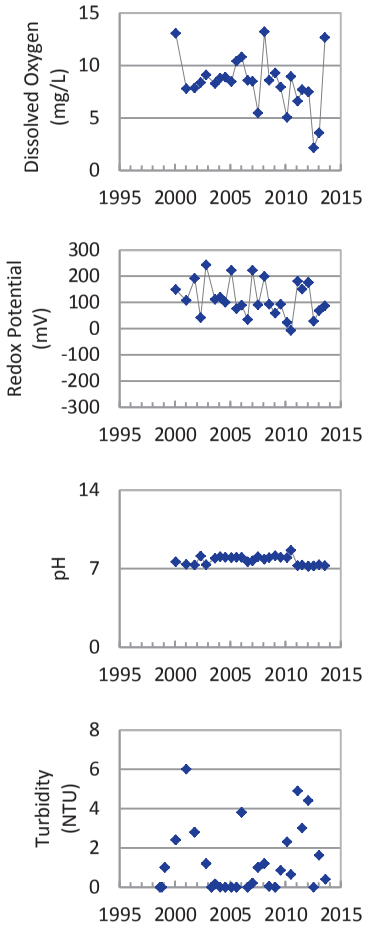
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/30/1998 to 8/27/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1038
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



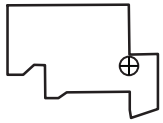
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

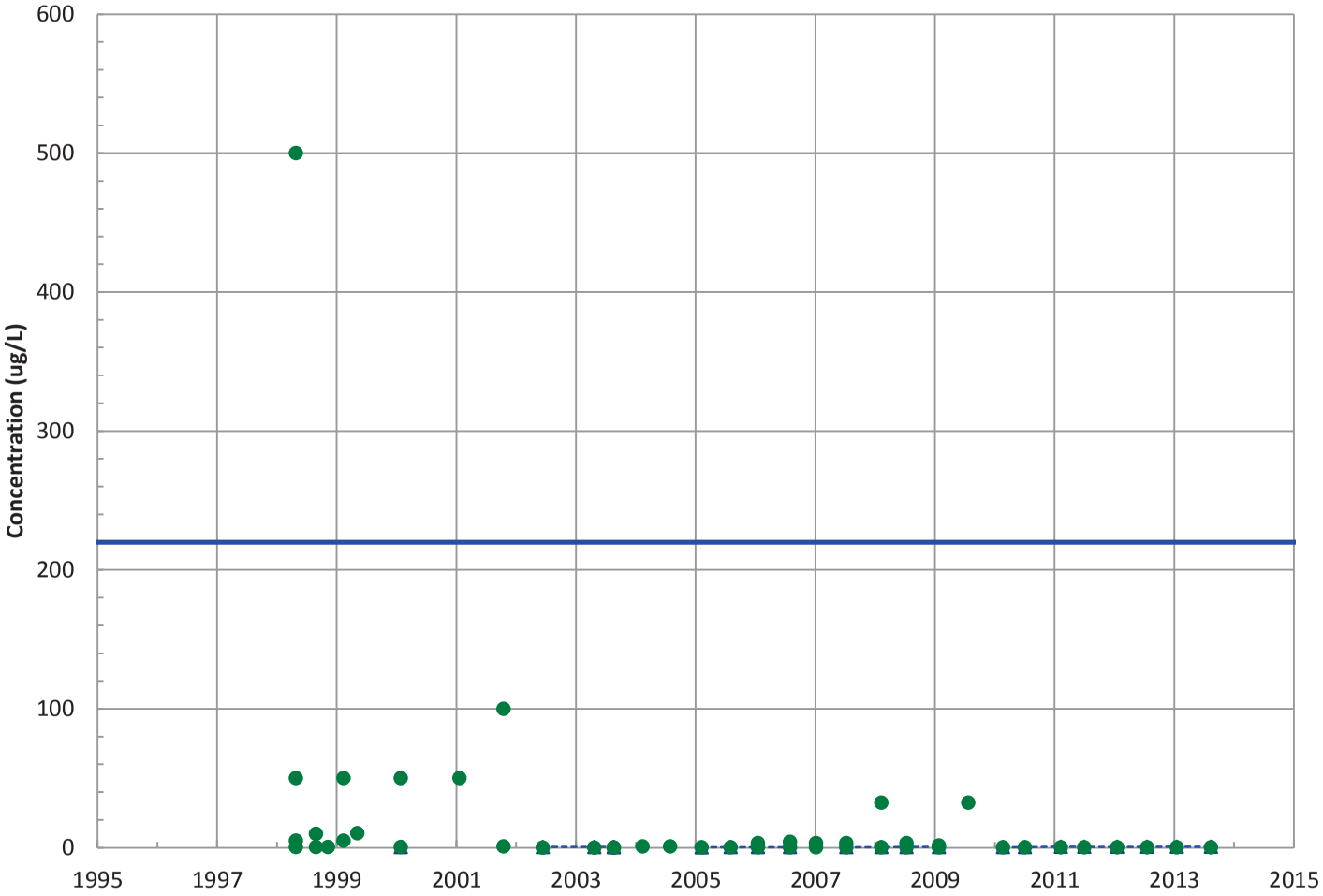
Well Location



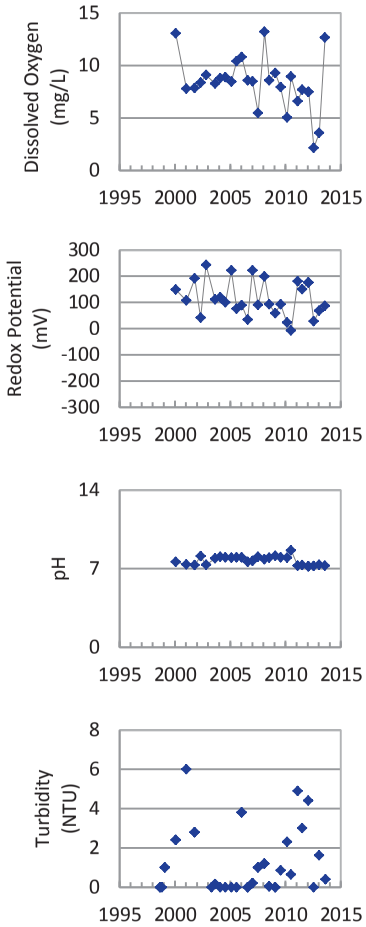
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/30/1998 to 8/27/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1038
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



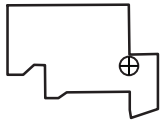
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Stable

Measured Value
Sample Detection Limit
Concentration Trend
Groundwater Protection Standard

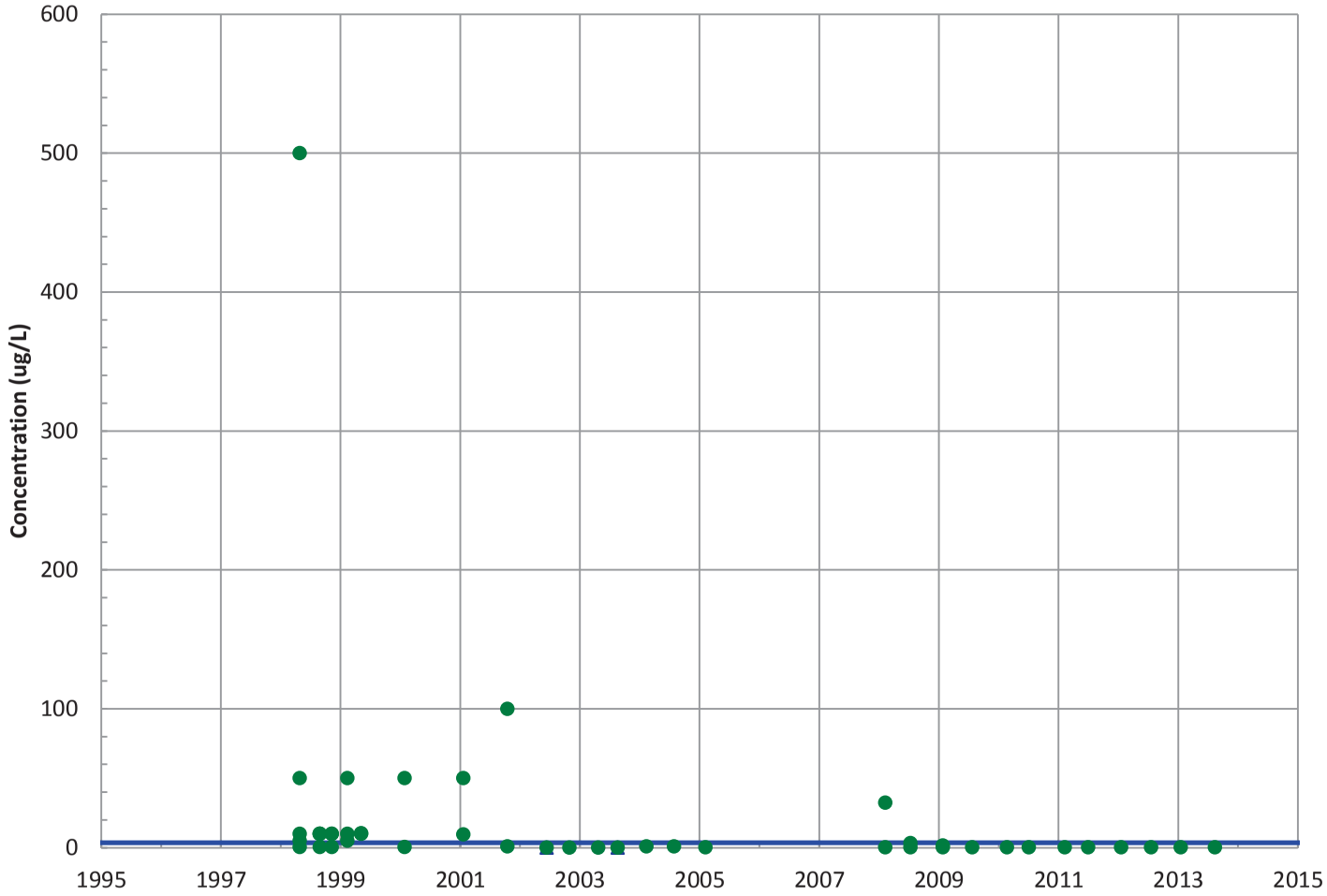
Well Location



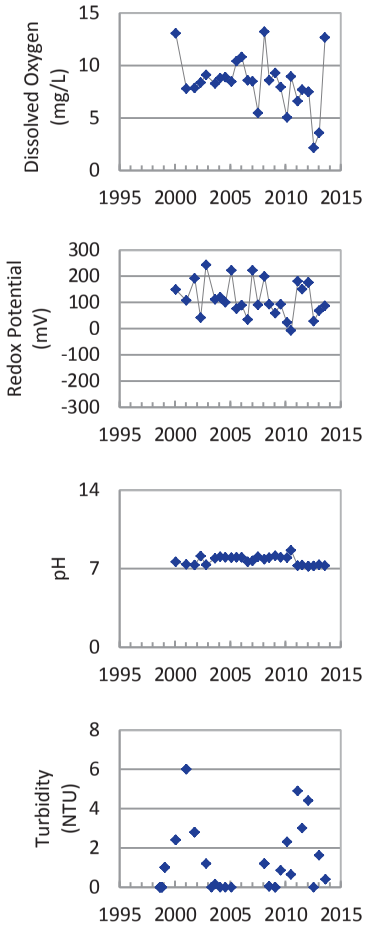
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/30/1998 to 8/27/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1038
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



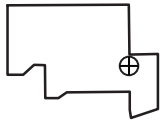
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

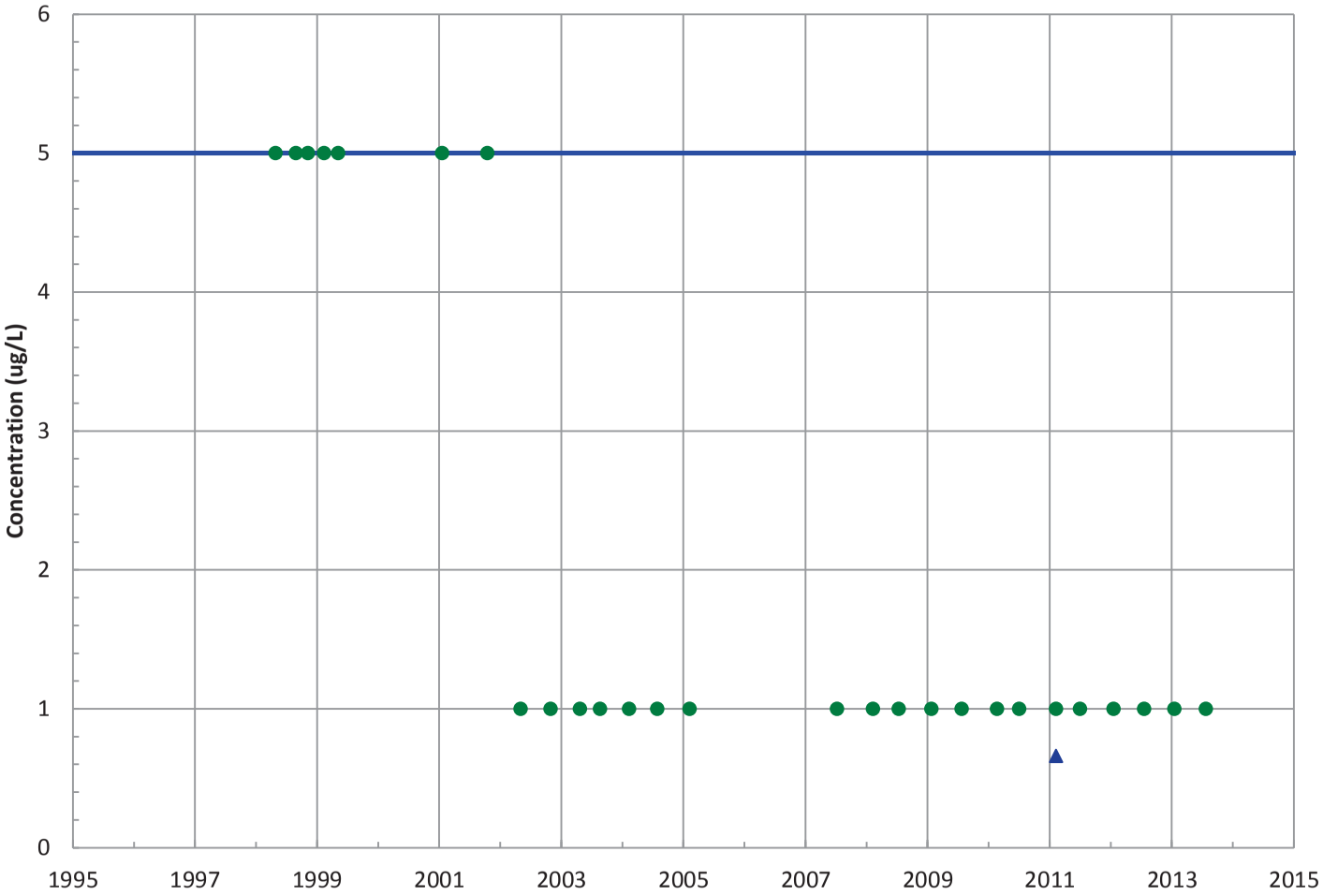
Well Location



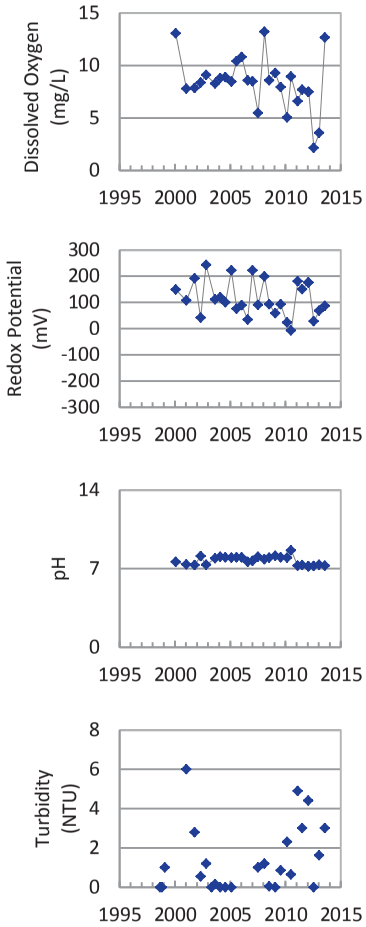
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/30/1998 to 8/27/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1038
Tetrachloroethylene (PCE) Trend in Perched Aquifer



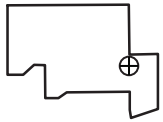
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: All Non-Detect
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

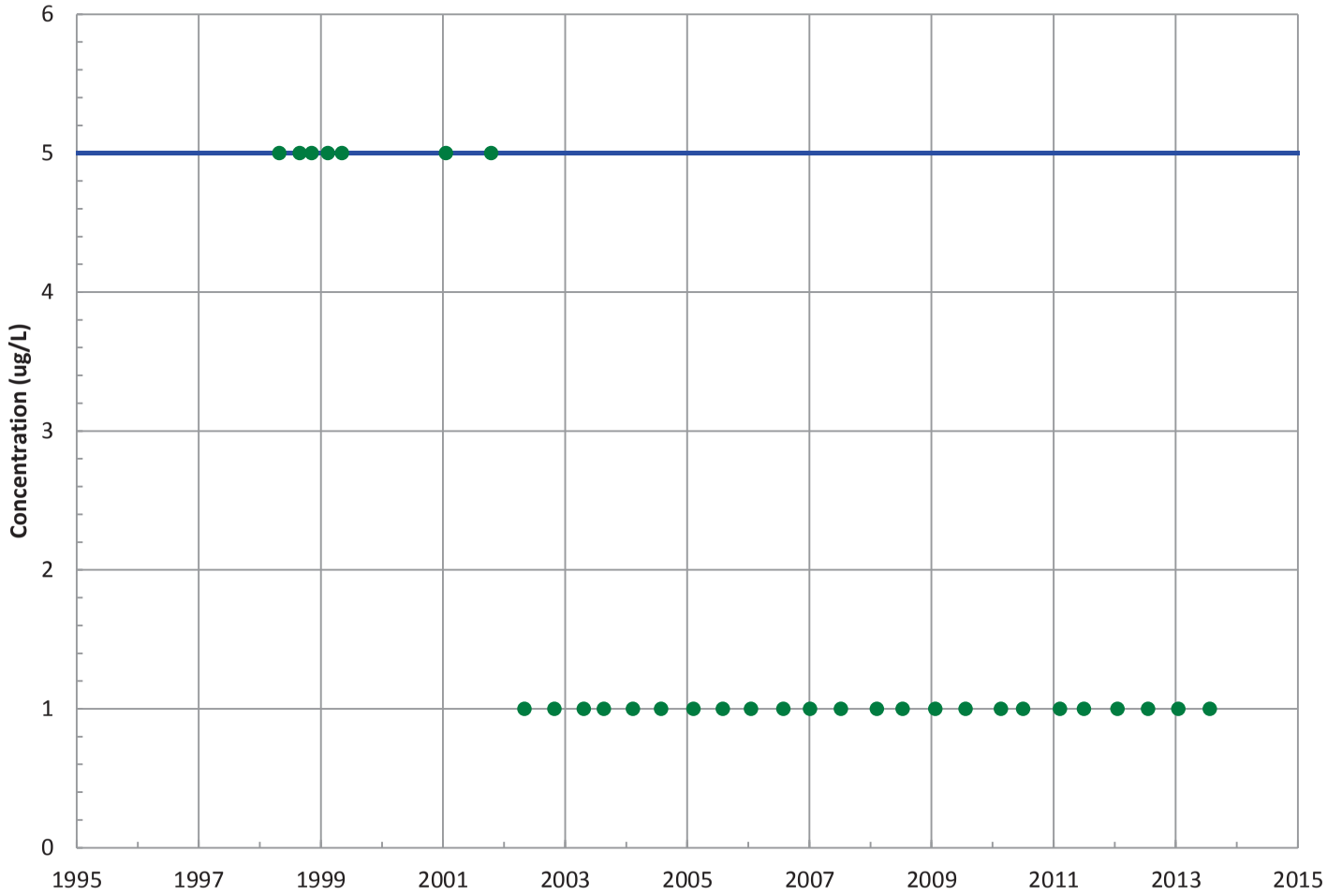
Well Location



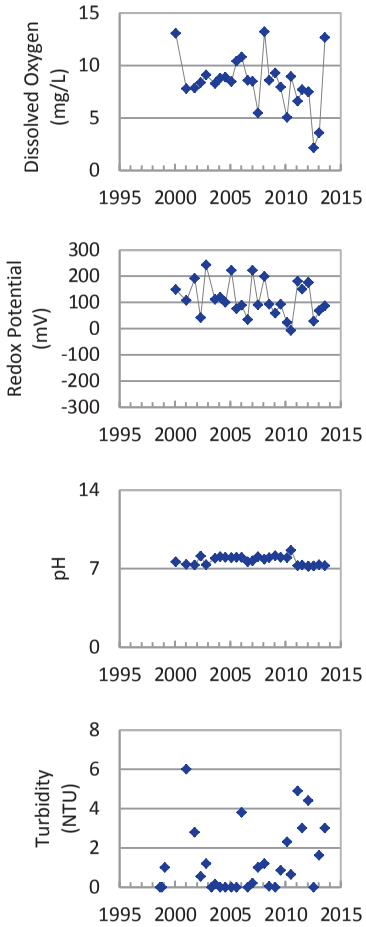
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/30/1998 to 8/7/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1038
Trichloroethene Trend in Perched Aquifer



Field Parameters



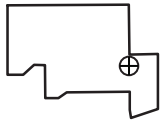
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

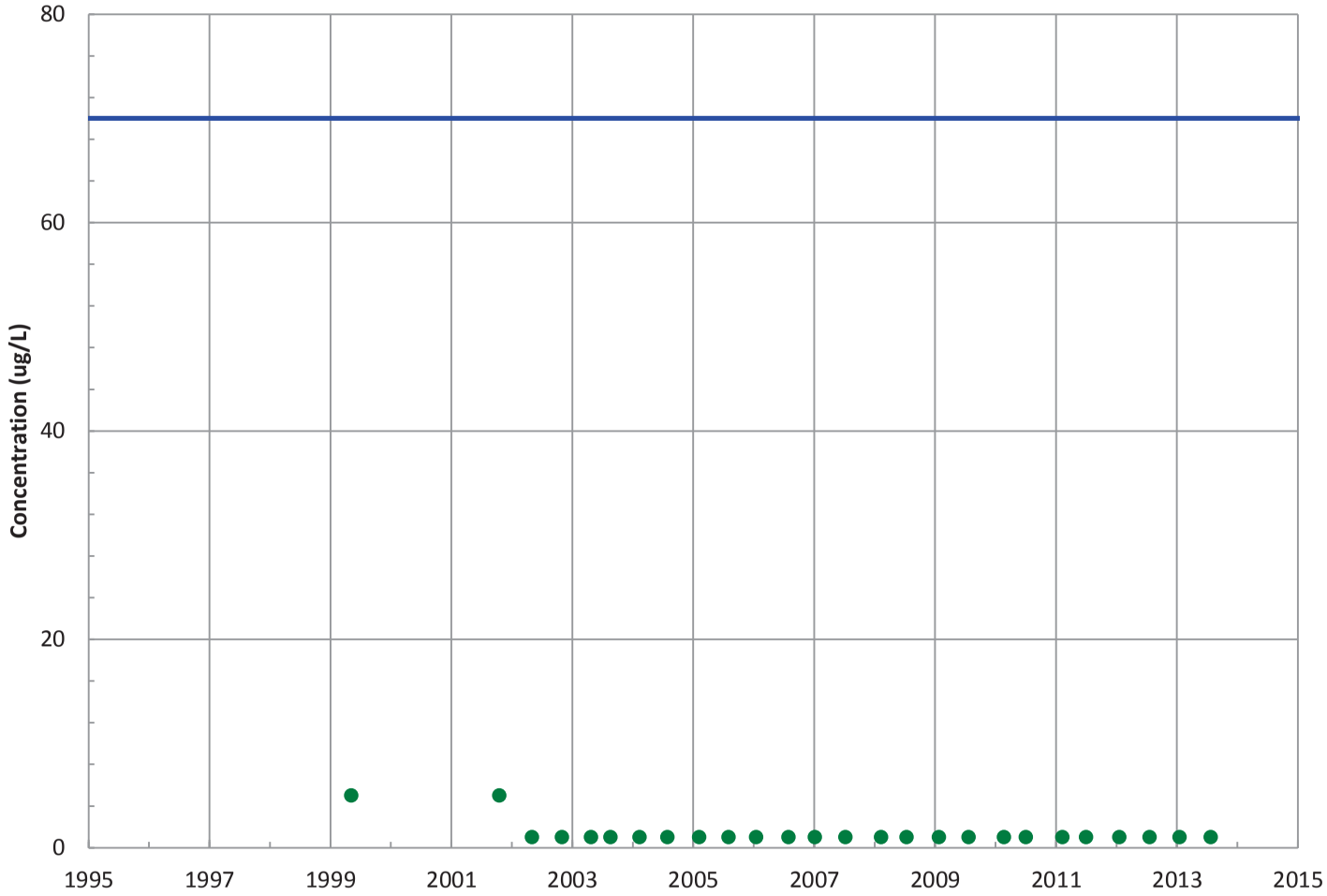
Well Location



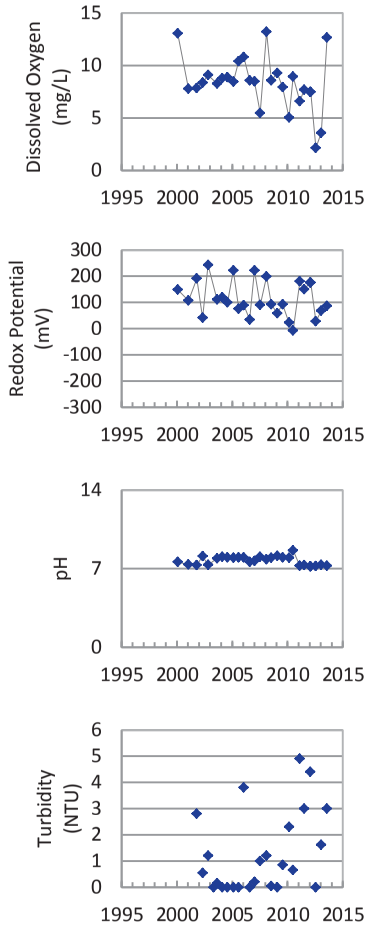
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/30/1998 to 8/7/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1038
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



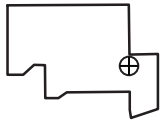
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

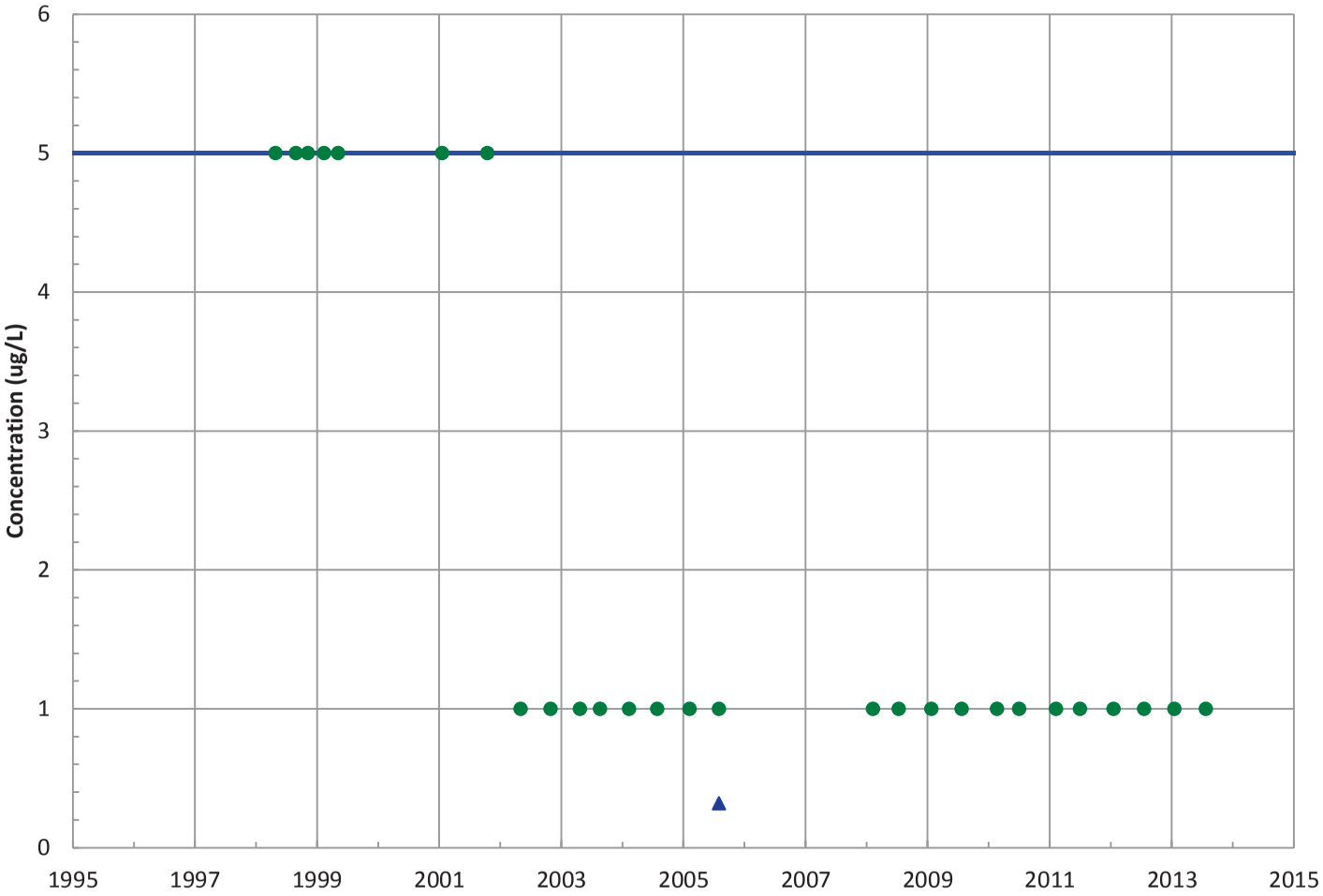
Well Location



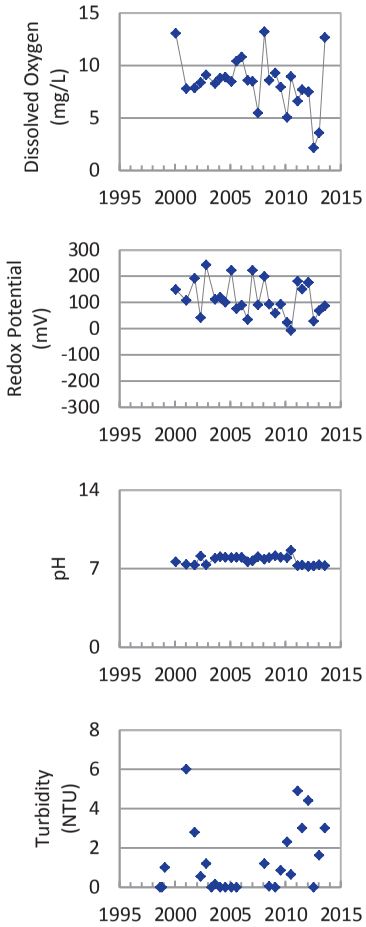
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/11/1999 to 8/7/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1038
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



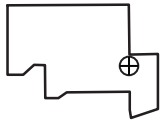
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

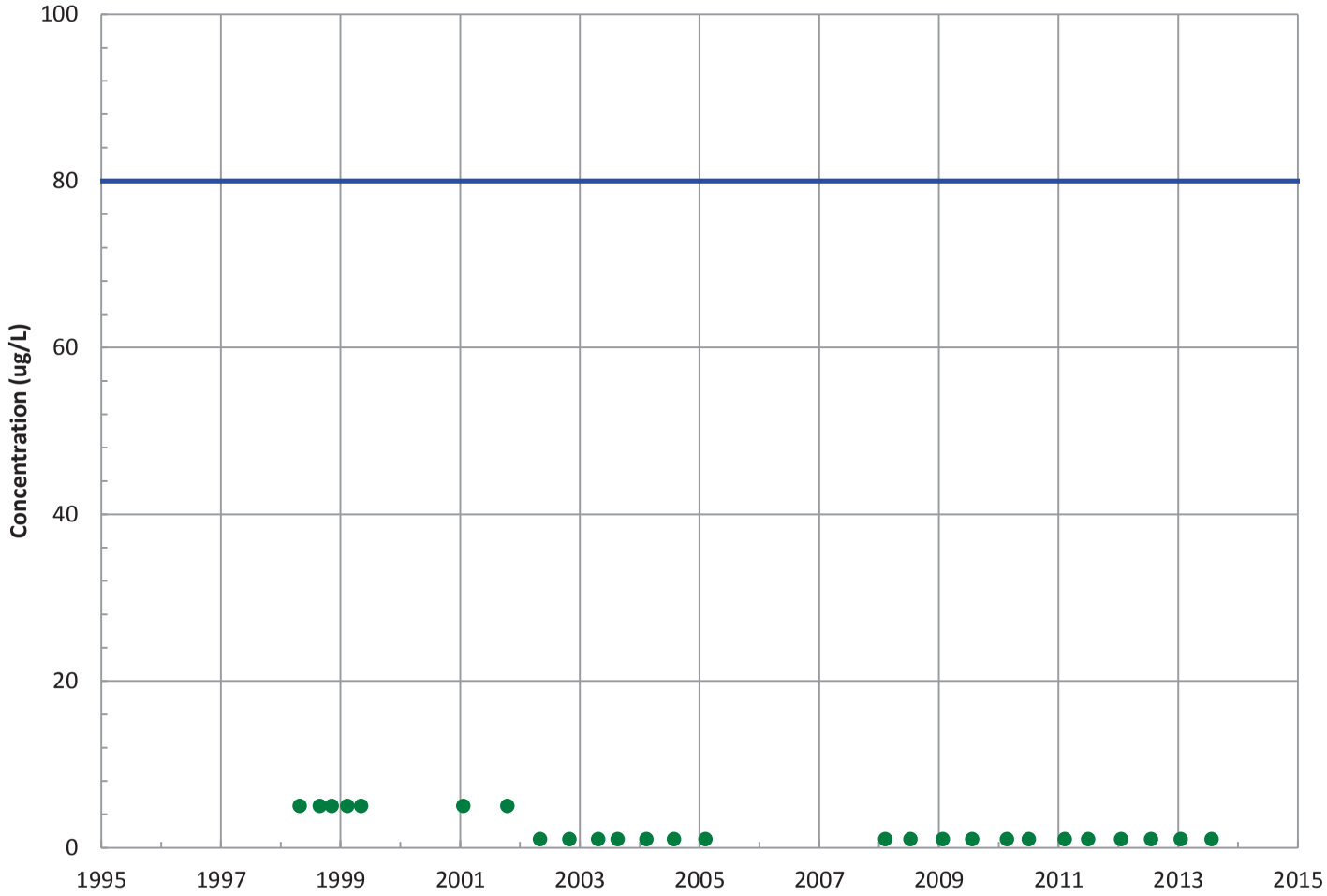
Well Location



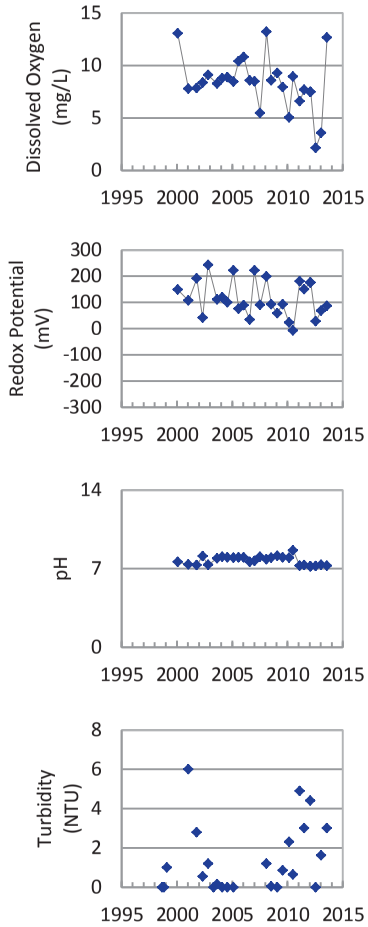
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/30/1998 to 8/7/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1038
Chloroform Trend in Perched Aquifer



Field Parameters



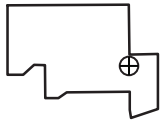
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

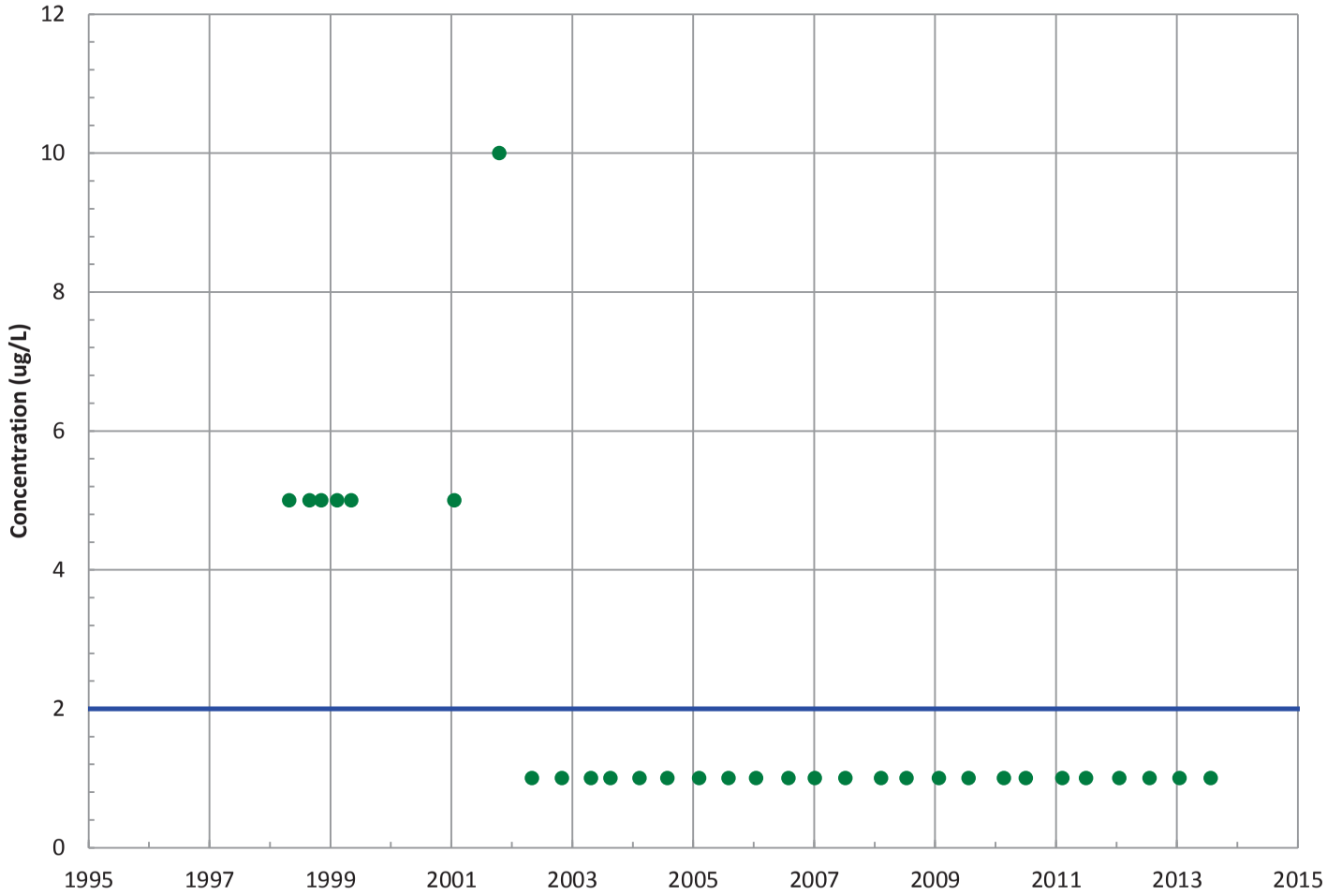
Well Location



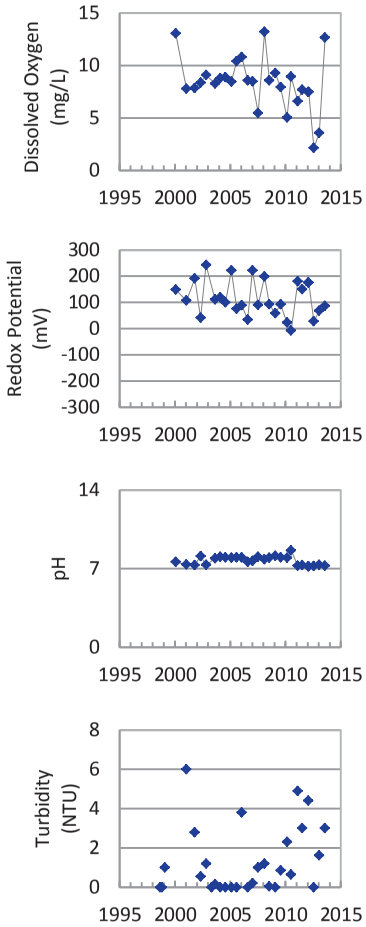
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/30/1998 to 8/7/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1038
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



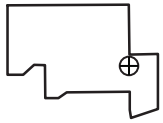
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

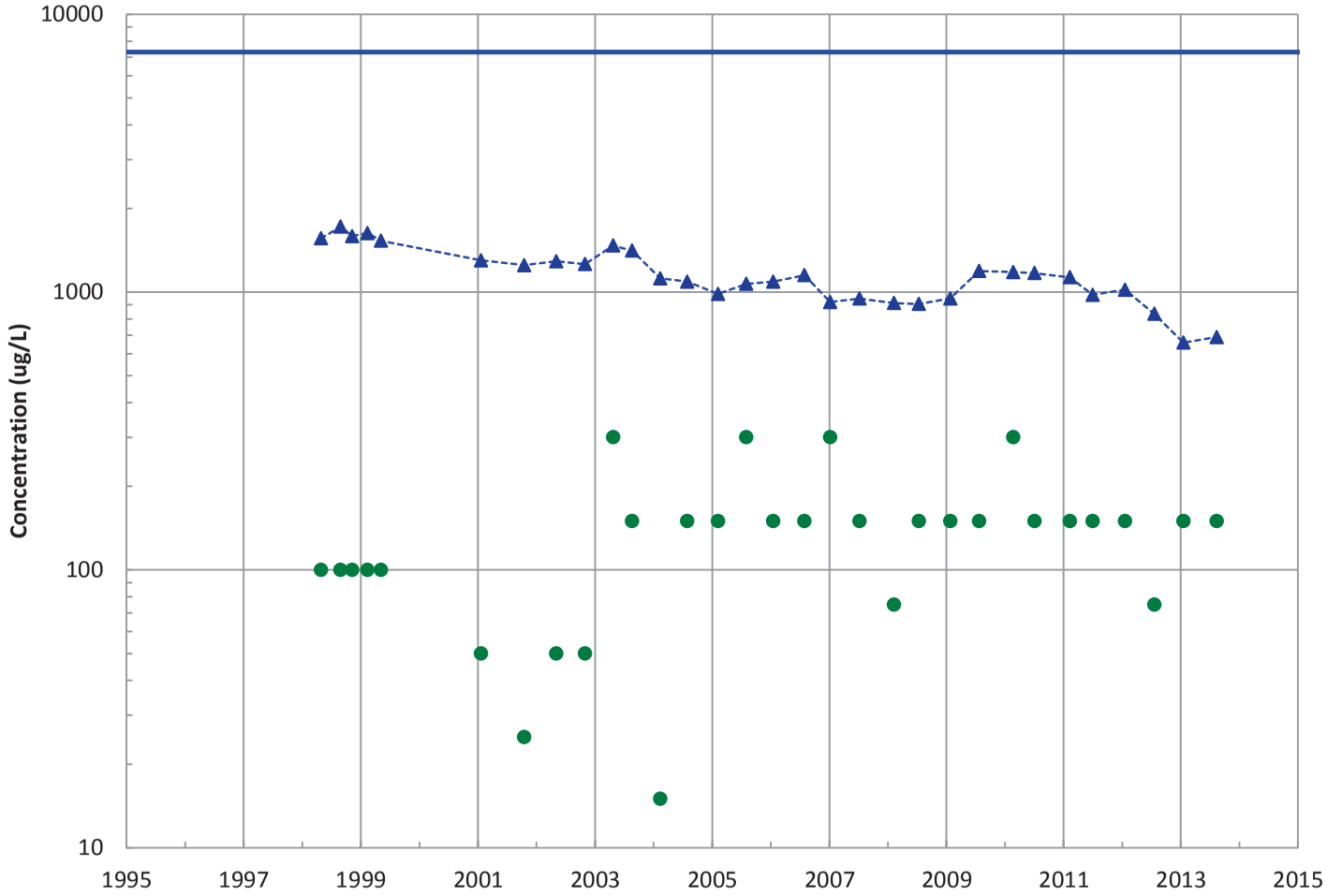
Well Location



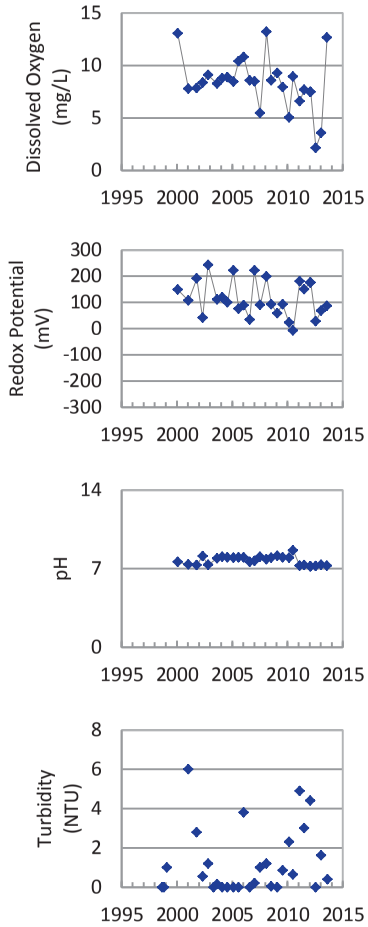
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/30/1998 to 8/7/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1038
Boron Trend in Perched Aquifer



Field Parameters



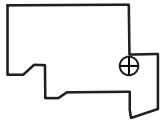
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

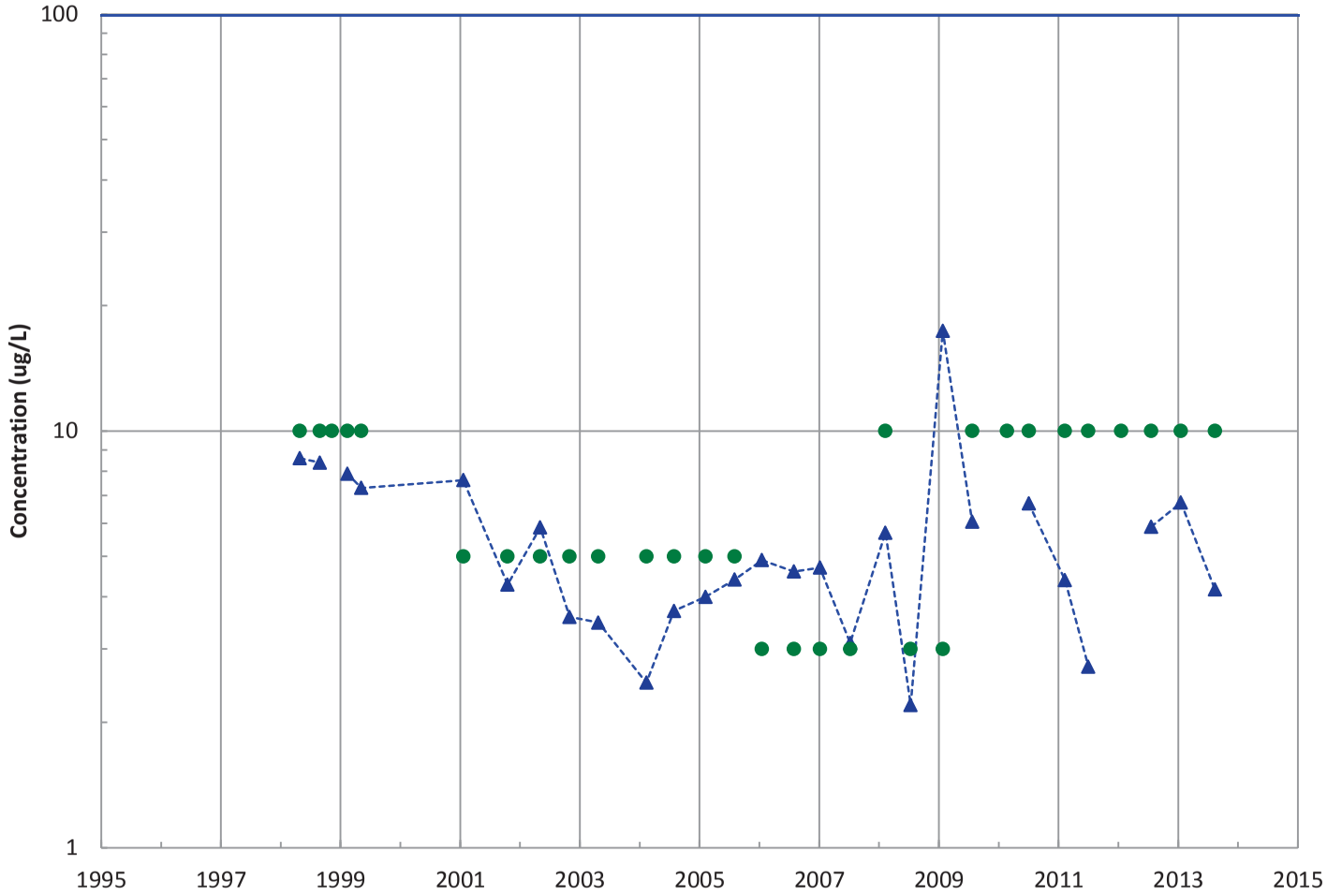
Well Location



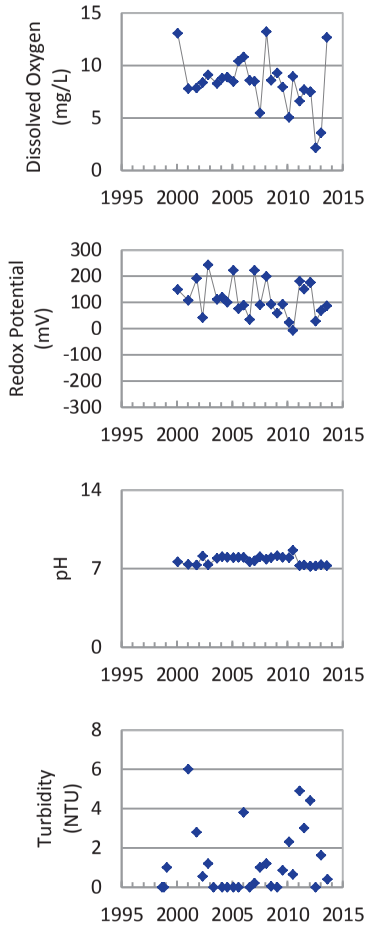
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/30/1998 to 8/27/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1038
Chromium, Total Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Decreasing

2011 - 2013 Data: N/A (<4 Detections in Dataset)

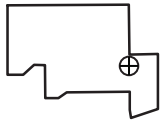
MAROS Linear Regression Method

Data (7/2009 - 12/2013): Stable

2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location



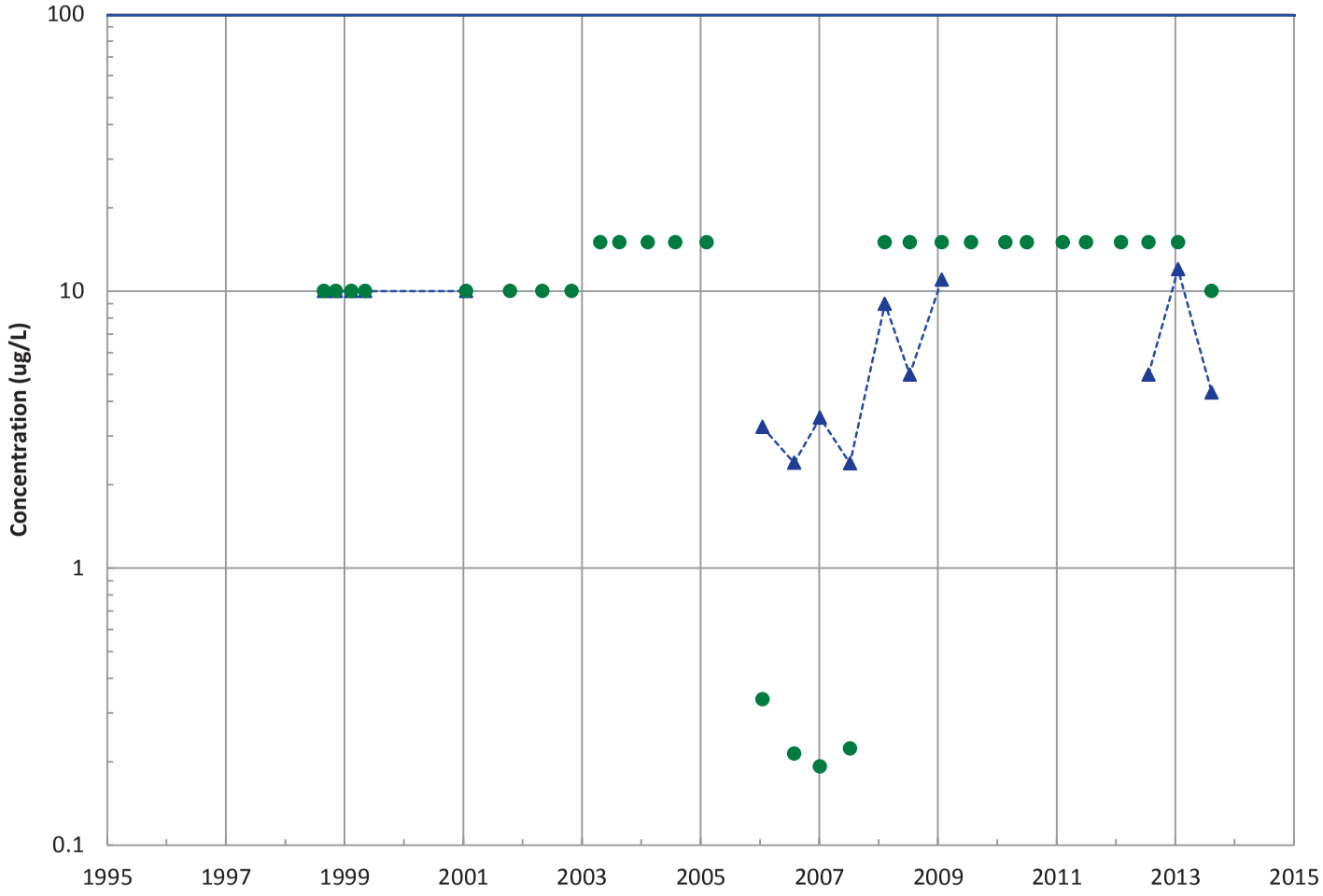
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 4/30/1998 to 8/27/2013

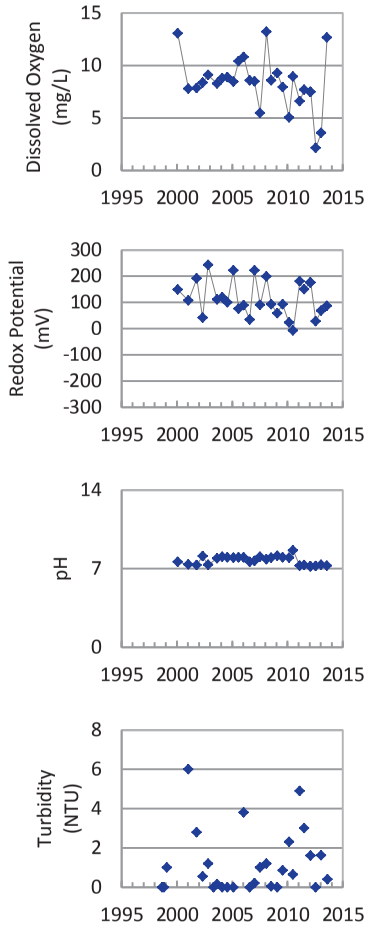
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1038
Chromium, Hexavalent Trend in Perched Aquifer



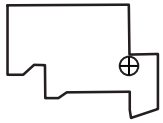
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

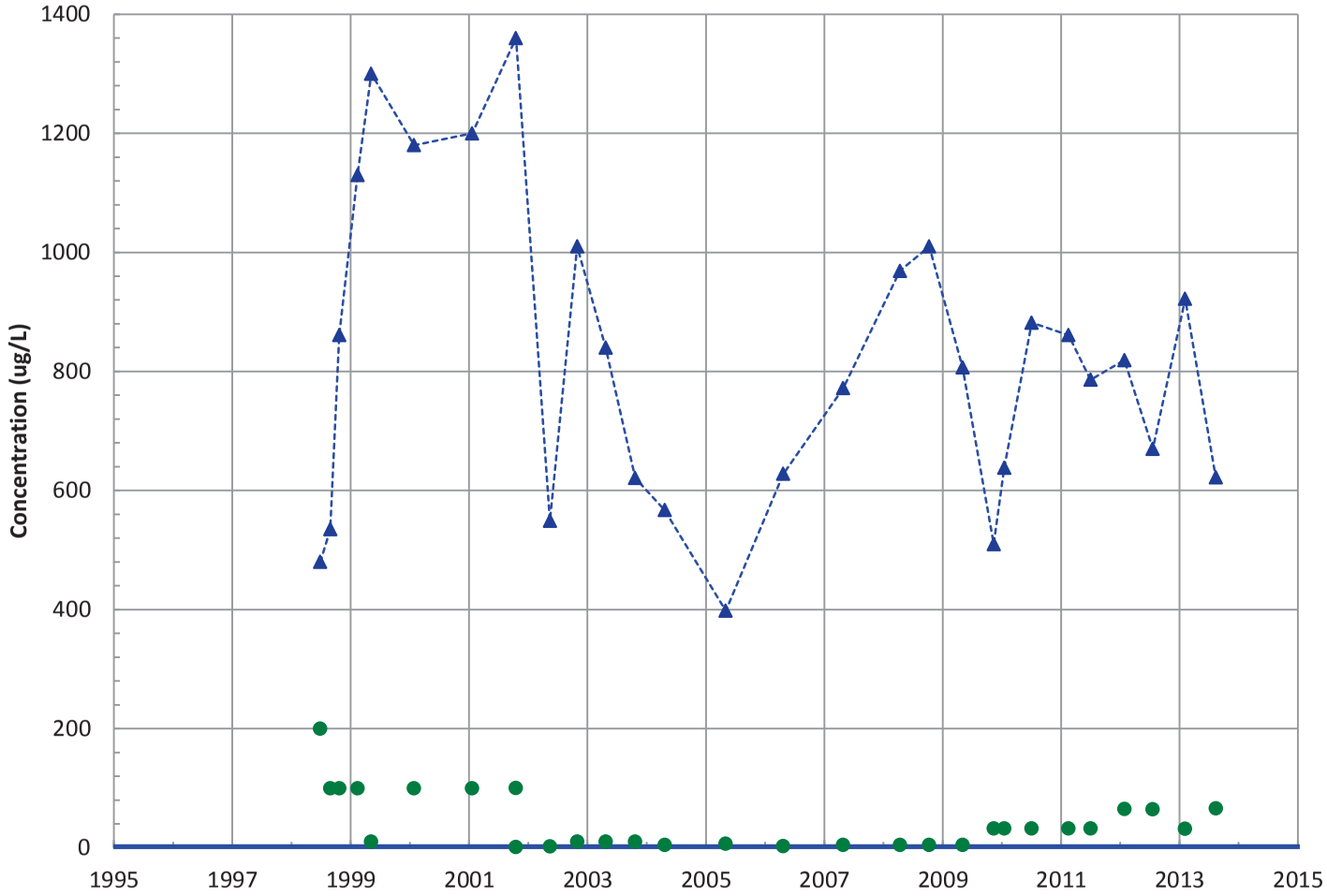
Well Location



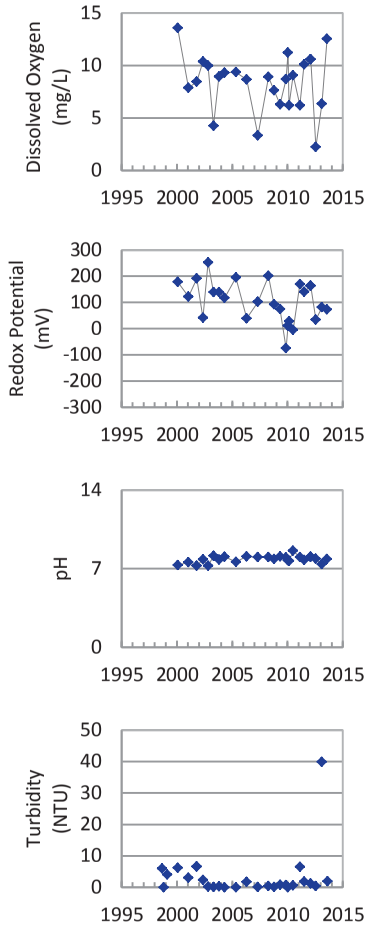
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/31/1998 to 8/27/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1039A
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



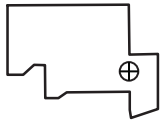
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

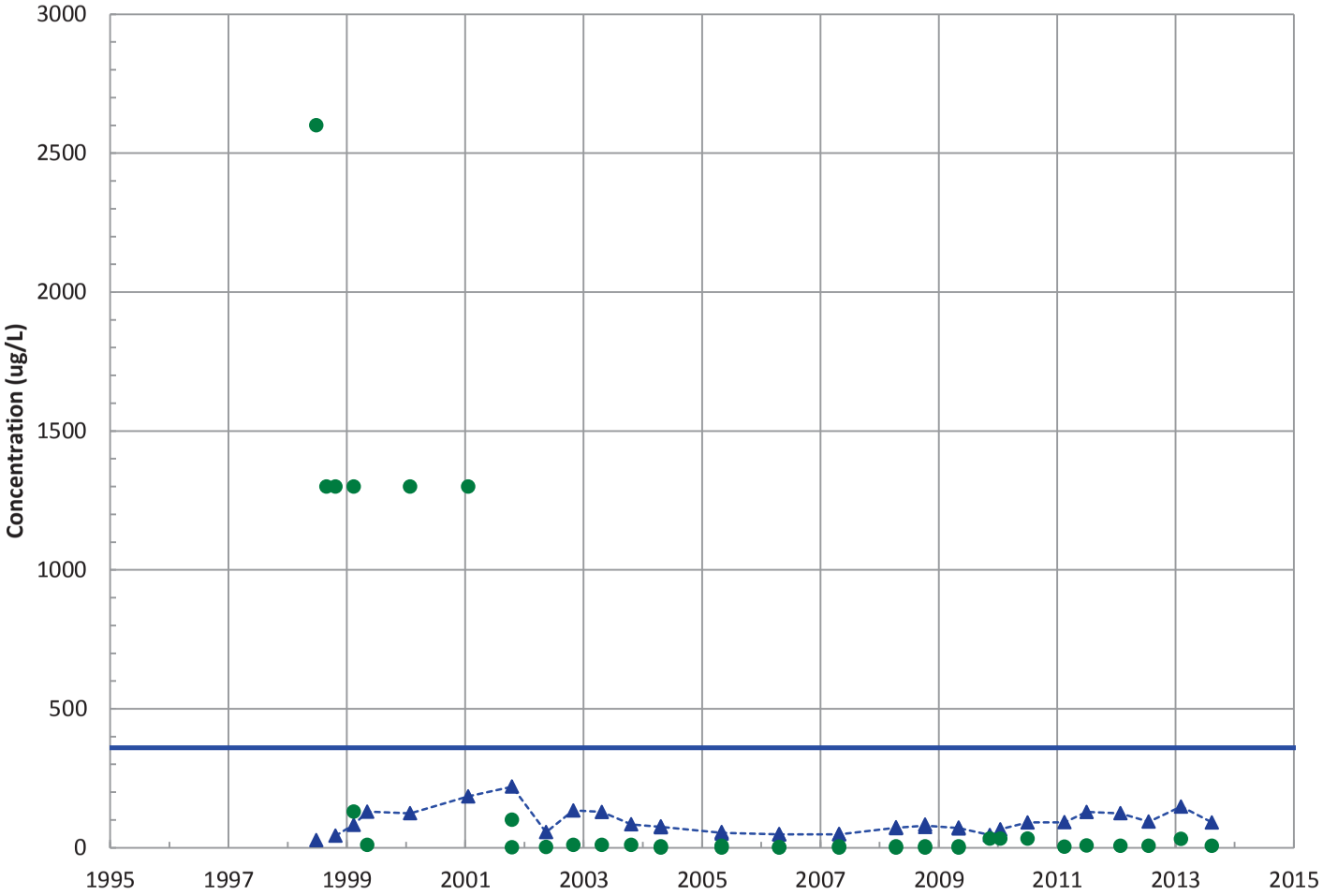
Well Location



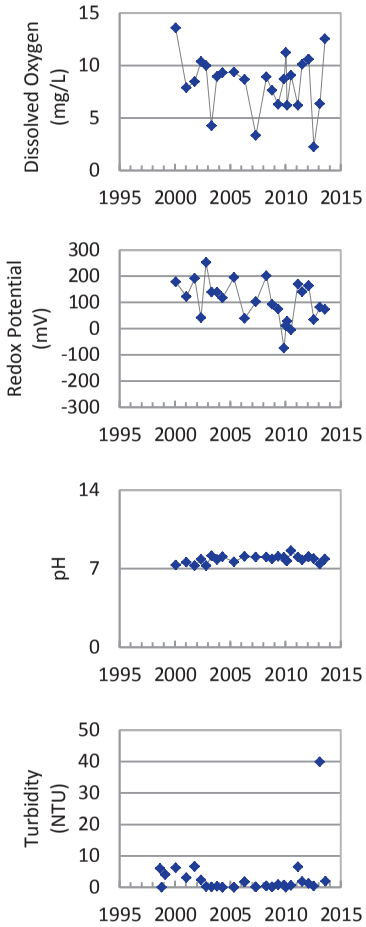
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/30/1998 to 8/27/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1039A
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



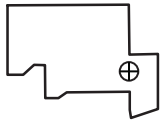
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

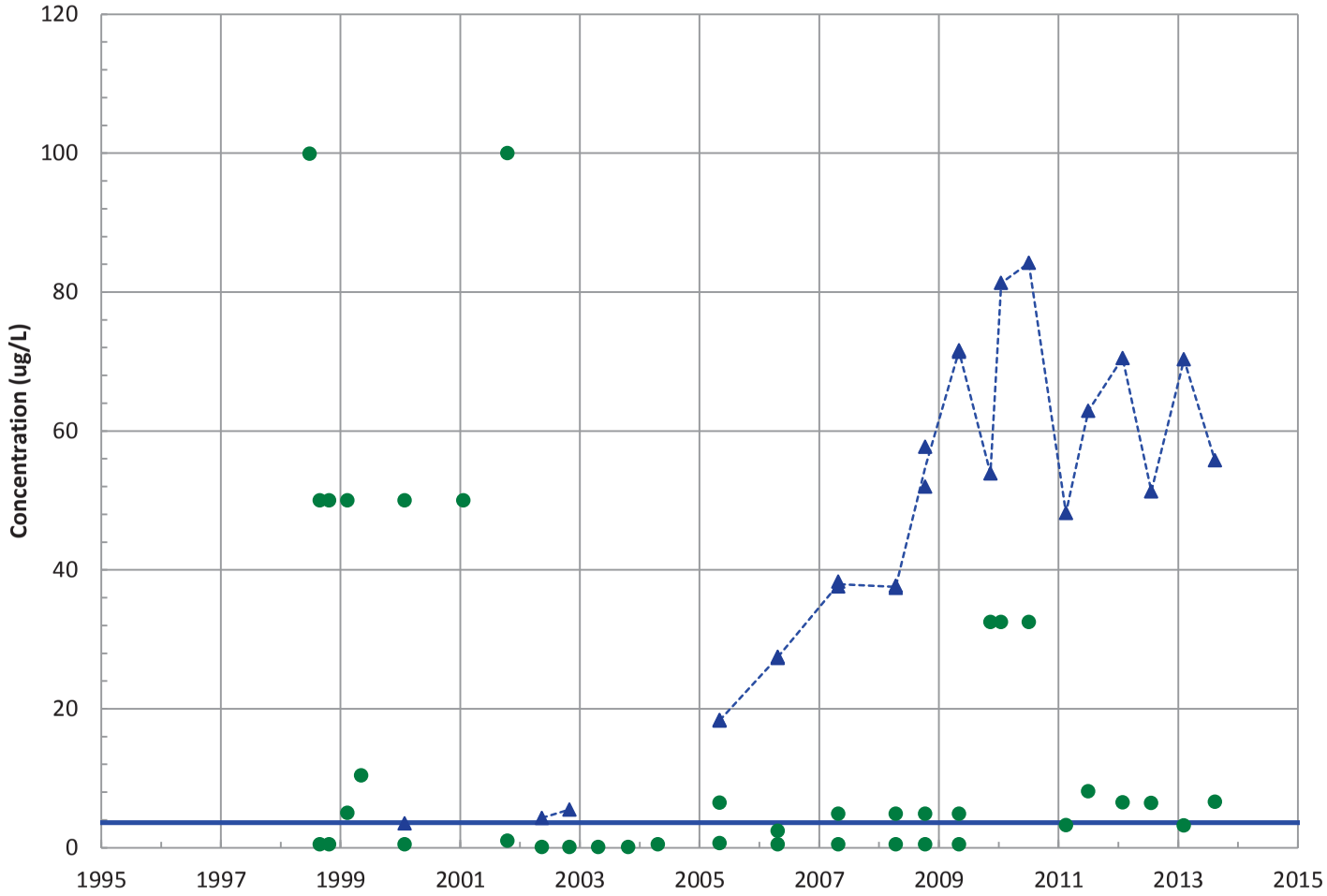
Well Location



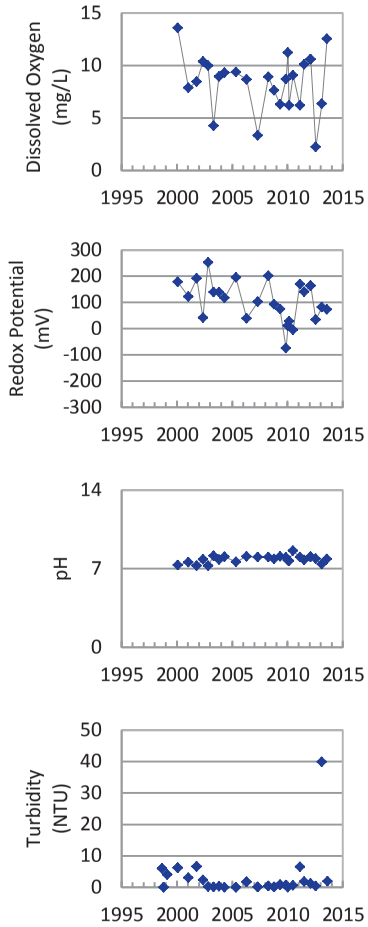
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/30/1998 to 8/27/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1039A
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



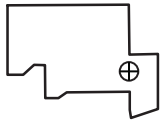
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

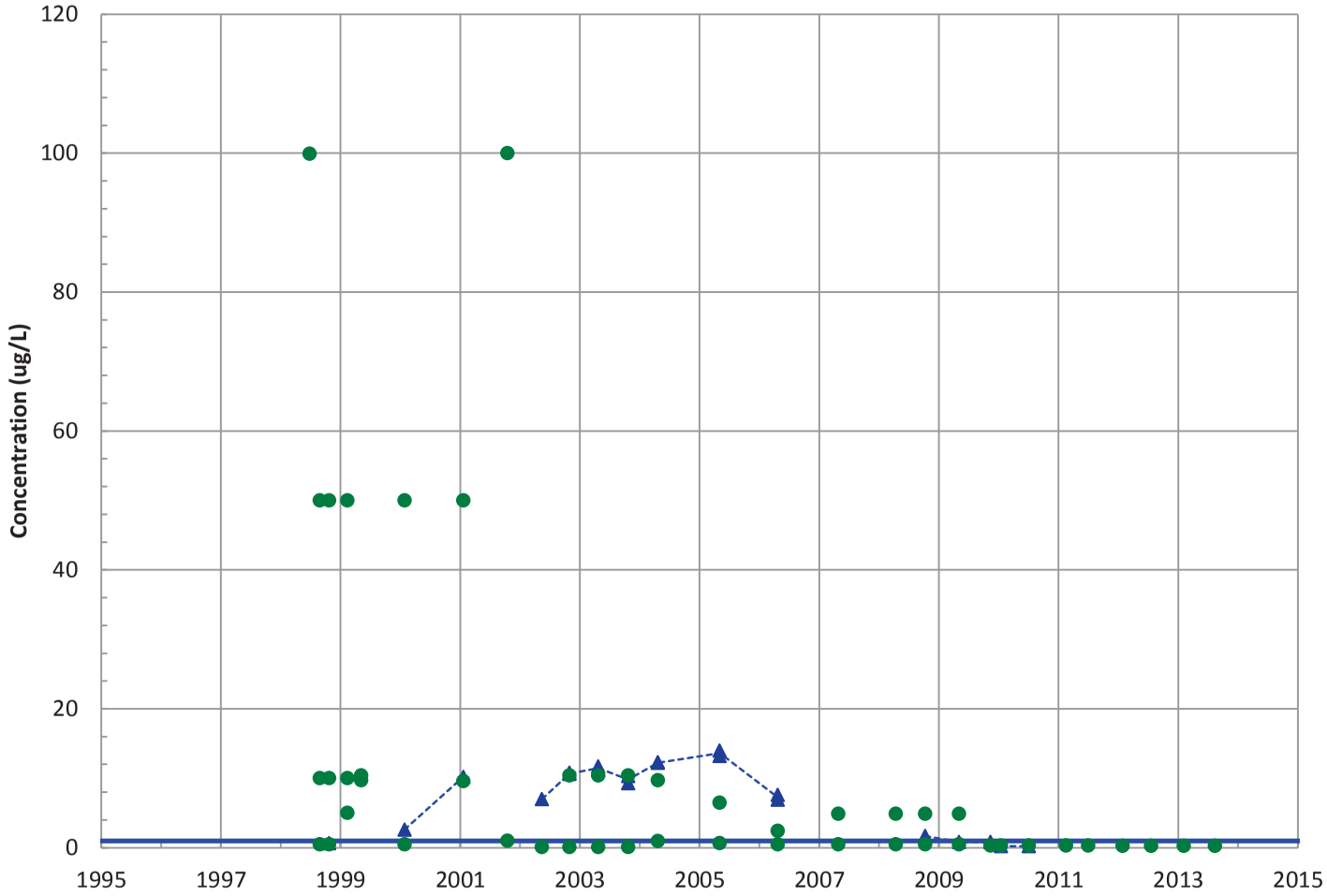
Well Location



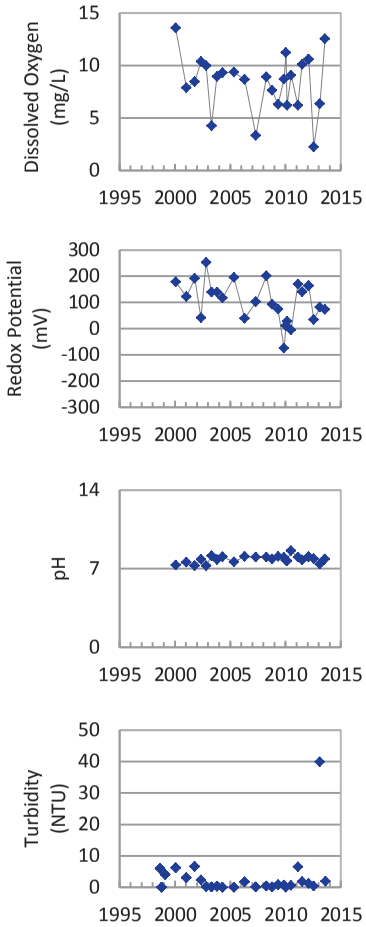
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/30/1998 to 8/27/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1039A
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: All Non-Detect

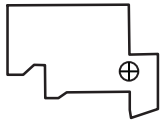
MAROS Linear Regression Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: Probably Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

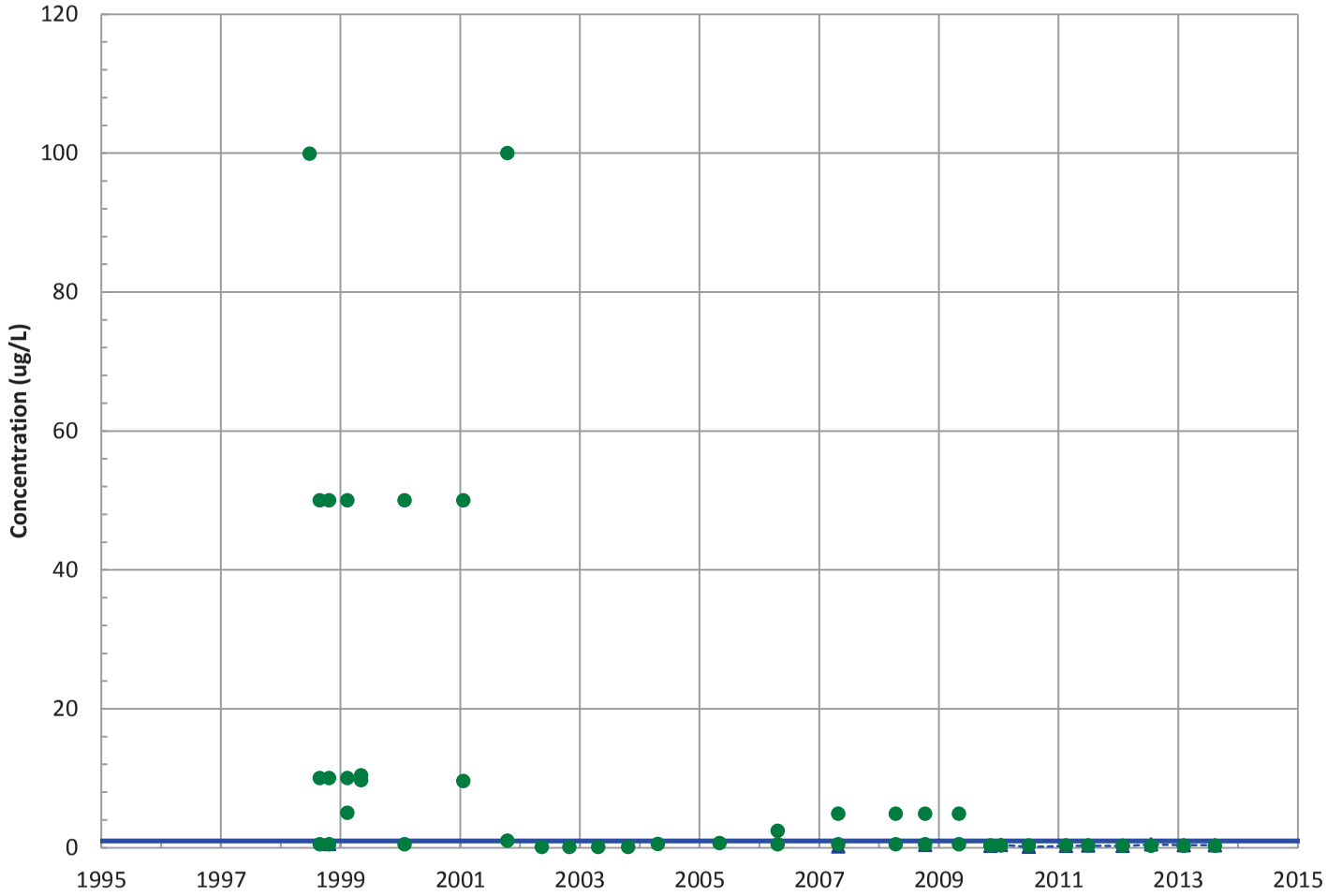
Well Location



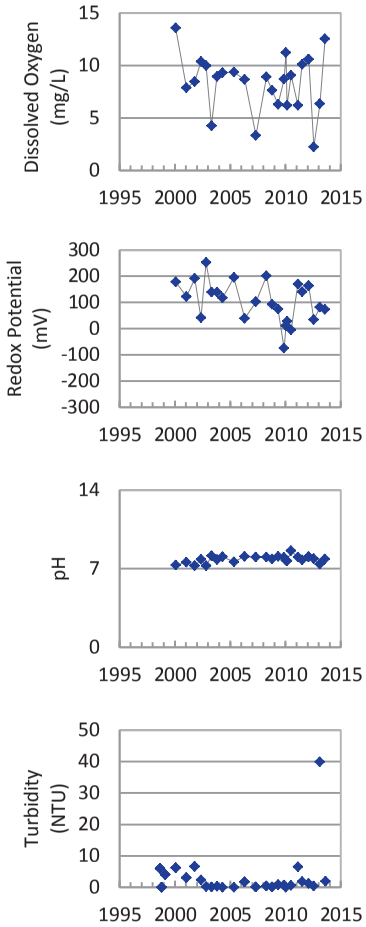
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/30/1998 to 8/27/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1039A
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



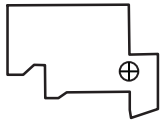
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

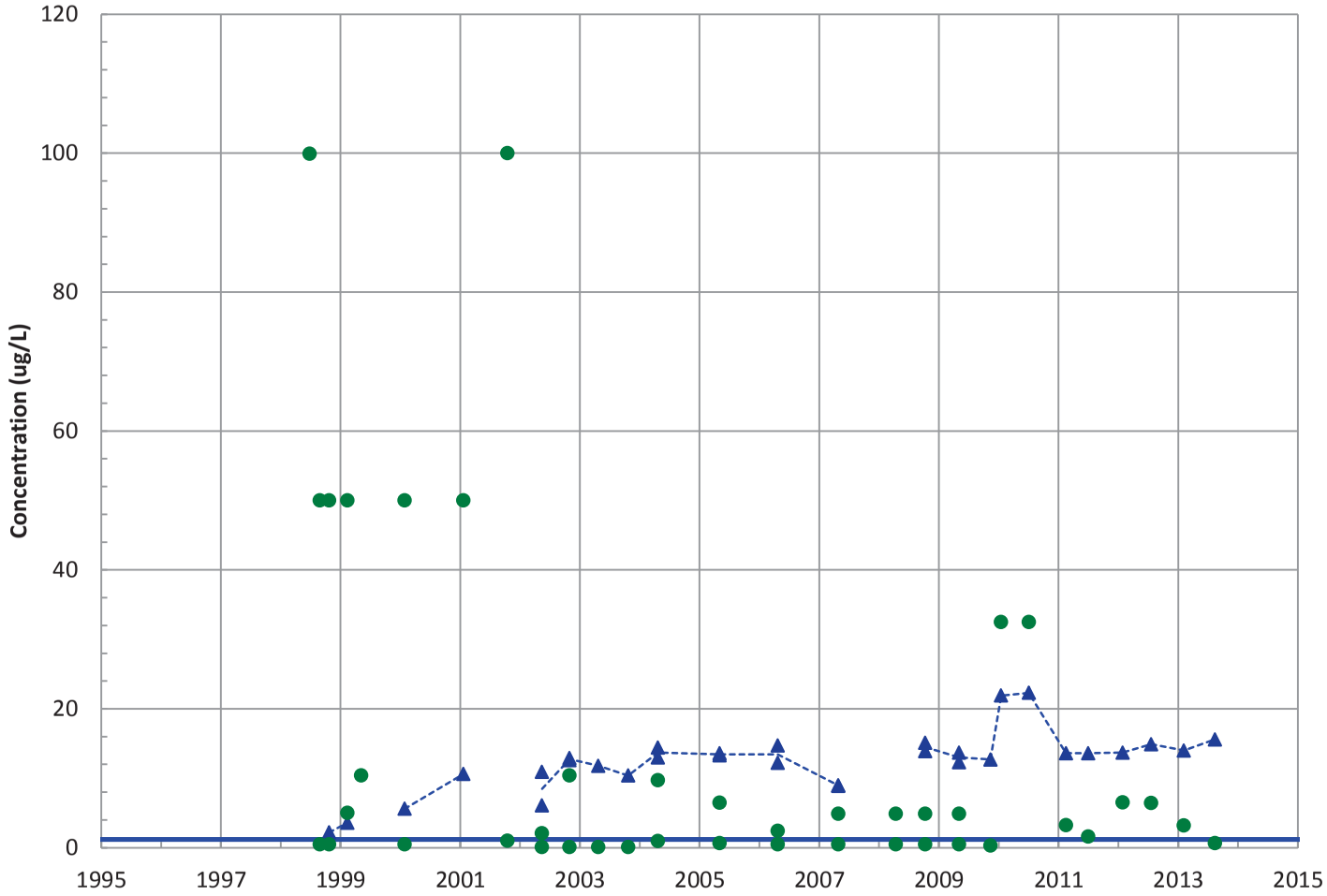
Well Location



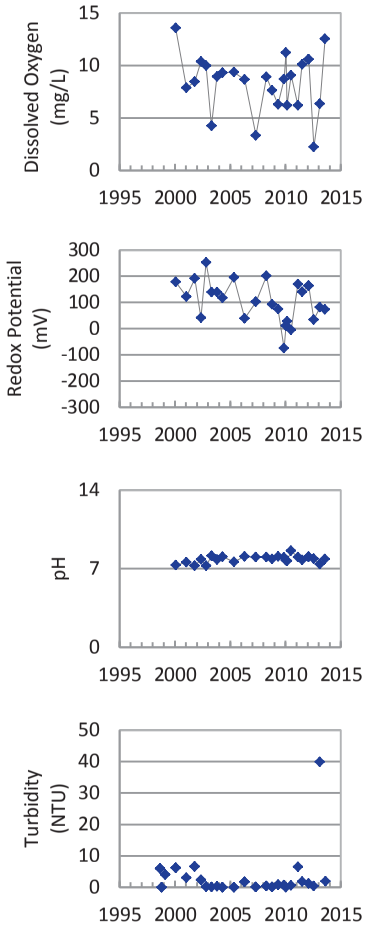
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/30/1998 to 8/27/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1039A
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



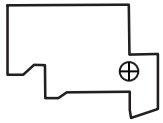
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

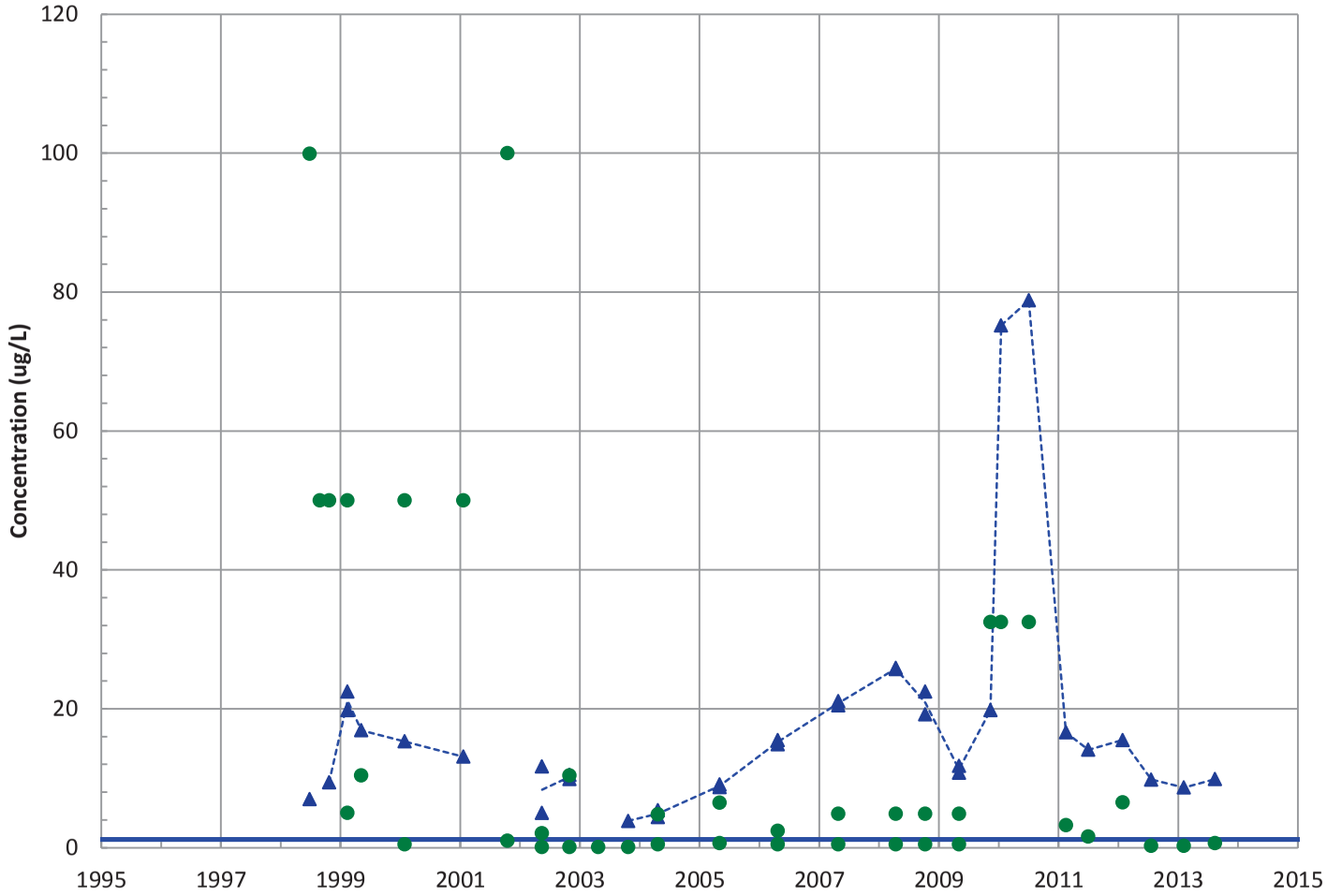
Well Location



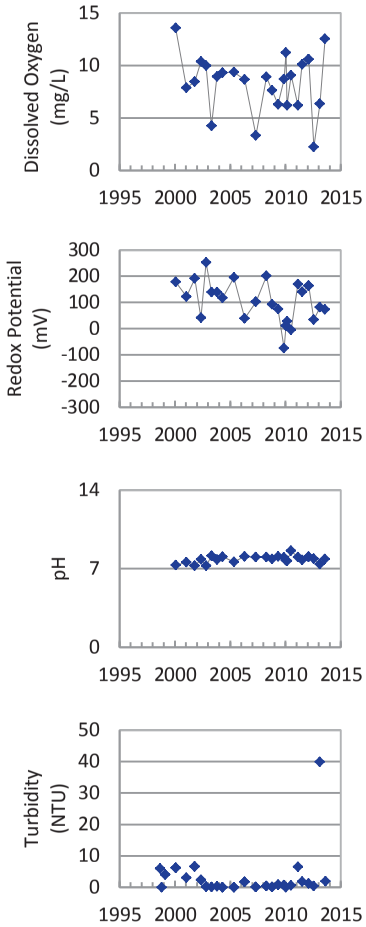
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/30/1998 to 8/27/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1039A
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



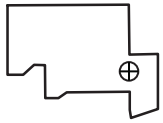
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

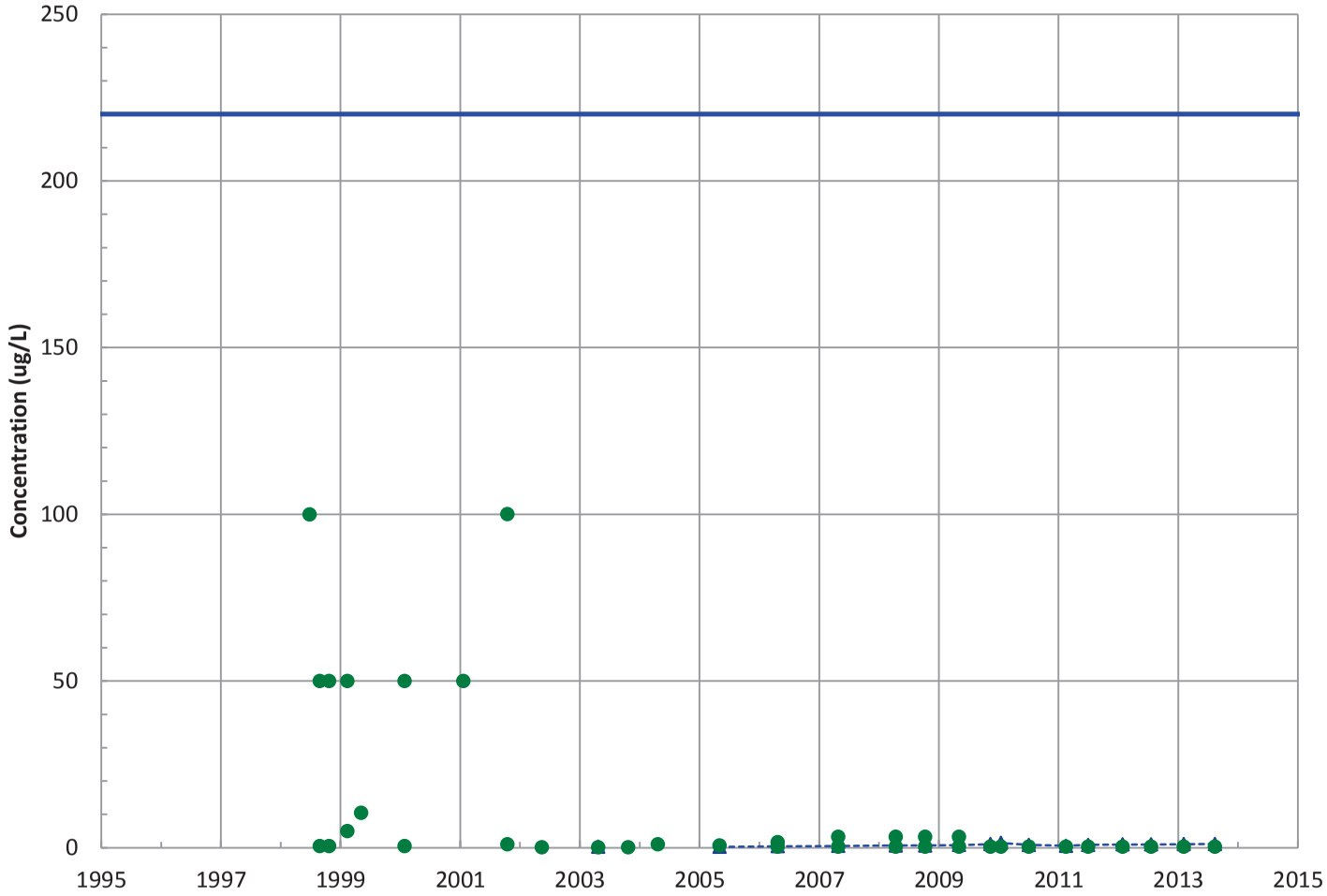
Well Location



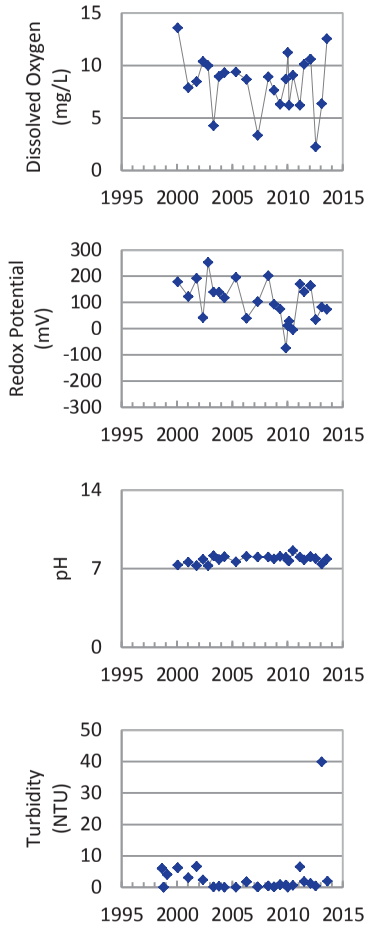
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/30/1998 to 8/27/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1039A
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



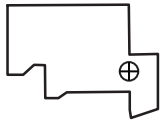
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Increasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Probably Increasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

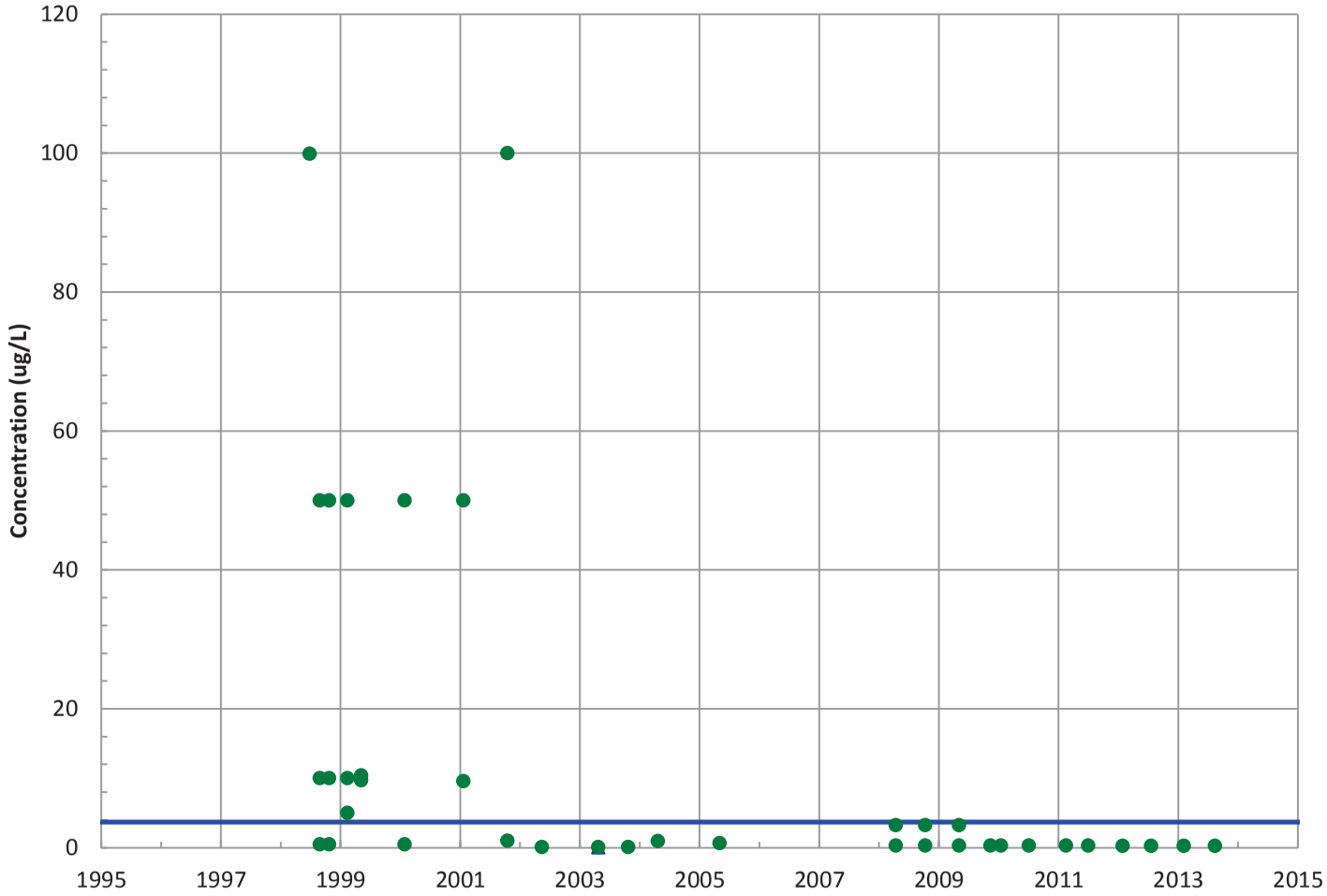
Well Location



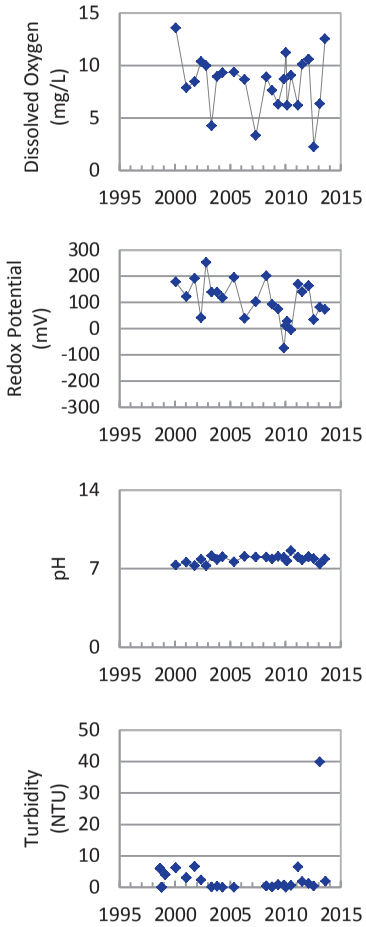
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/30/1998 to 8/27/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1039A
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



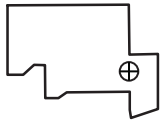
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

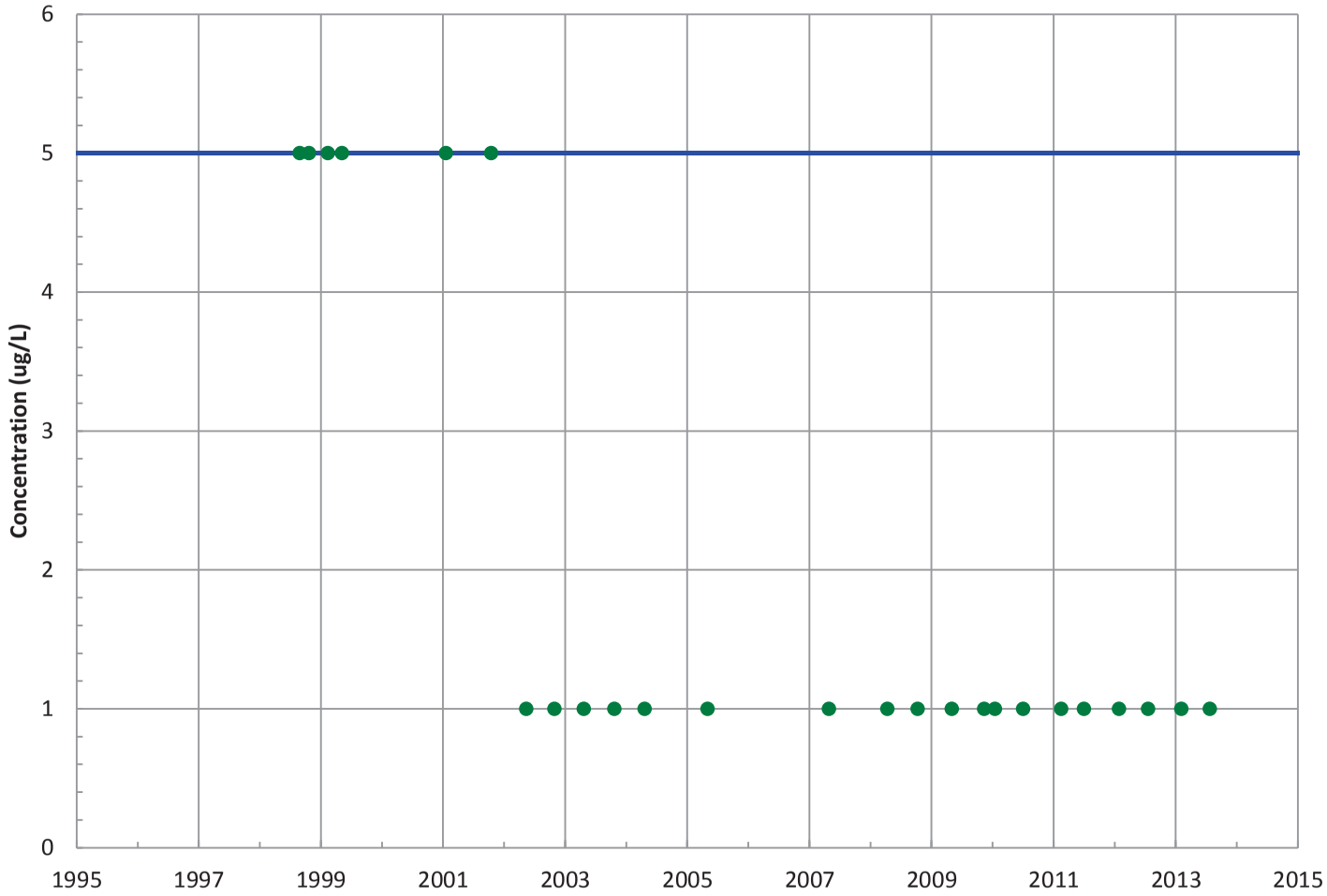
Well Location



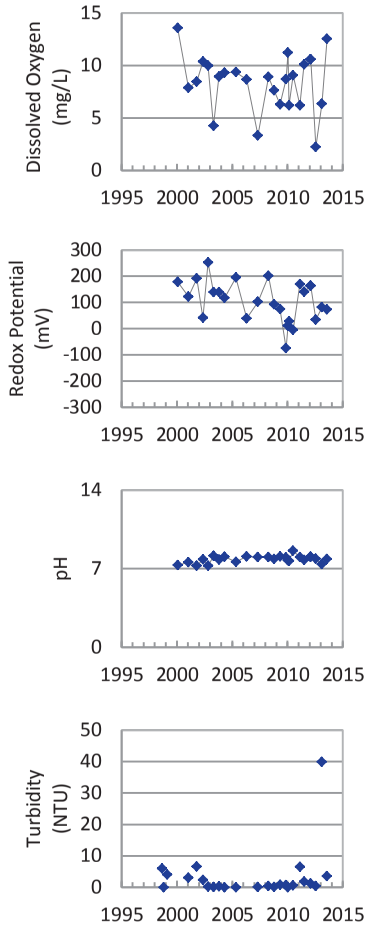
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/30/1998 to 8/27/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1039A
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



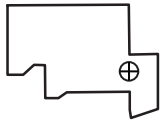
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

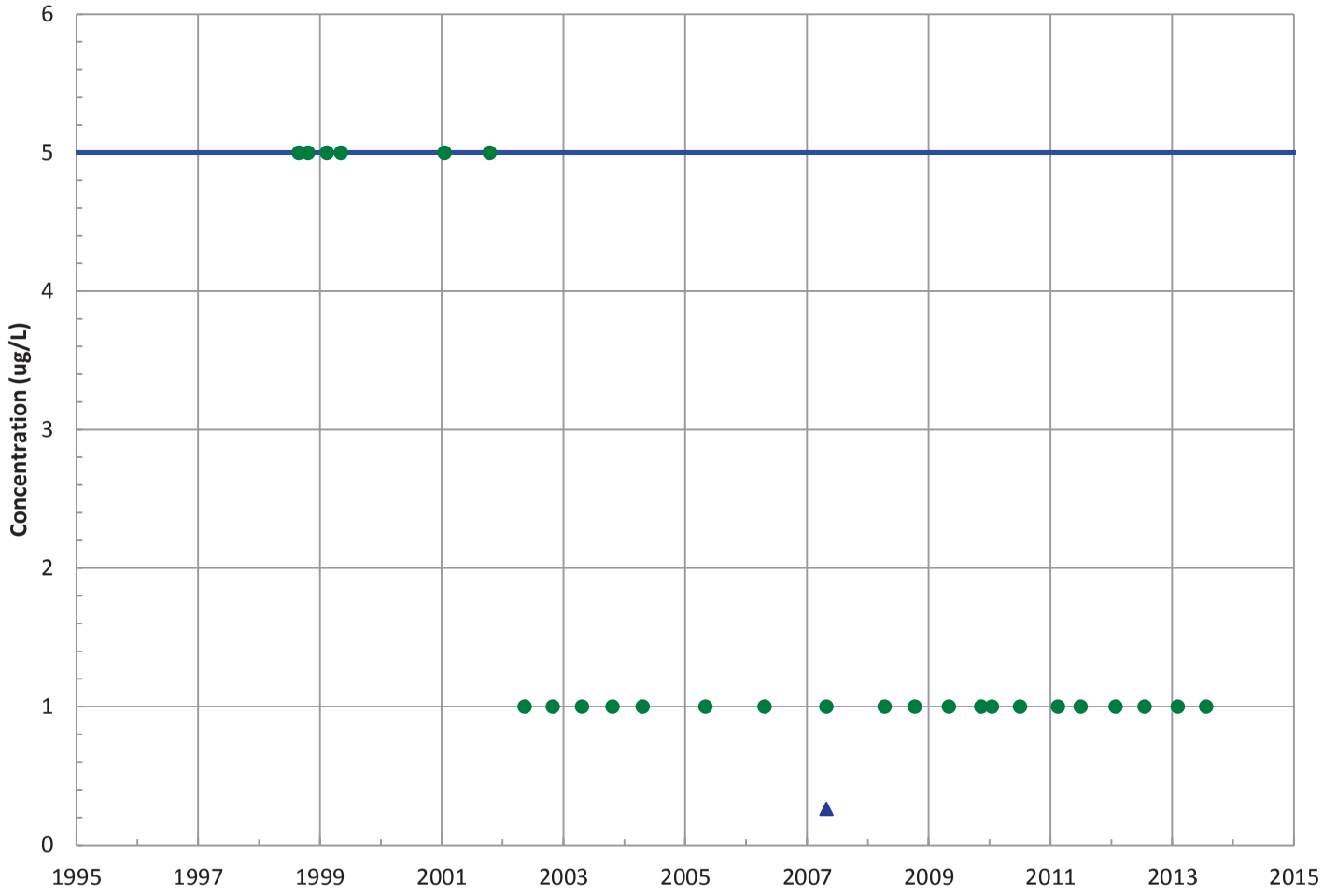
Well Location



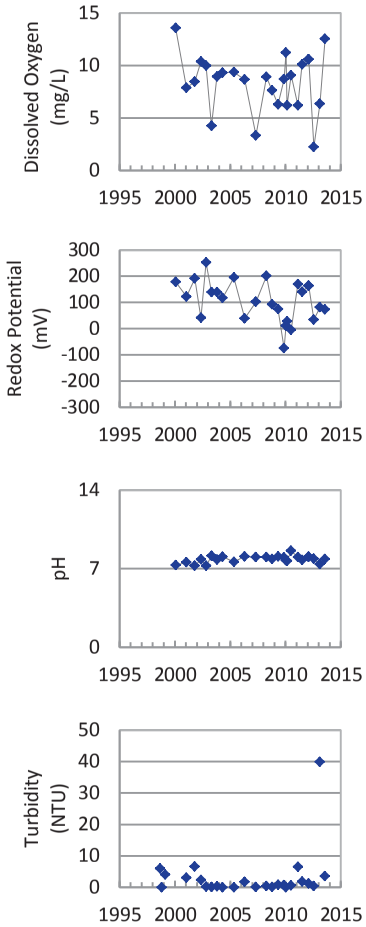
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/31/1998 to 8/7/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1039A
Trichloroethene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): All Non-Detect

2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method

Data (7/2009 - 12/2013): All Non-Detect

2011 - 2013 Data: N/A (<4 Detections in Dataset)

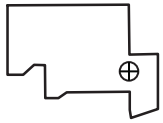
▲ Measured Value

● Sample Detection Limit

------- Concentration Trend

——— Groundwater Protection Standard

Well Location



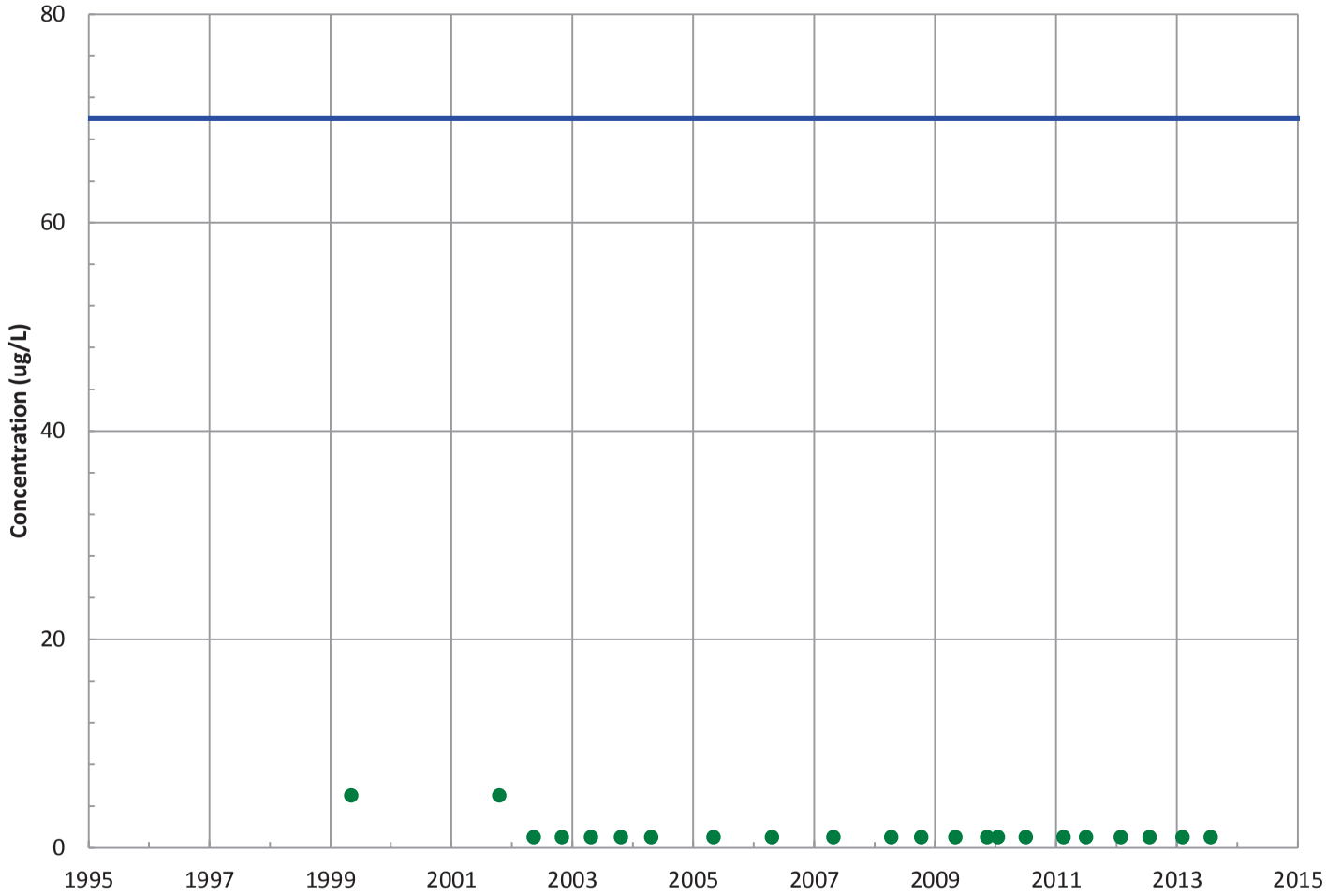
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 8/31/1998 to 8/7/2013

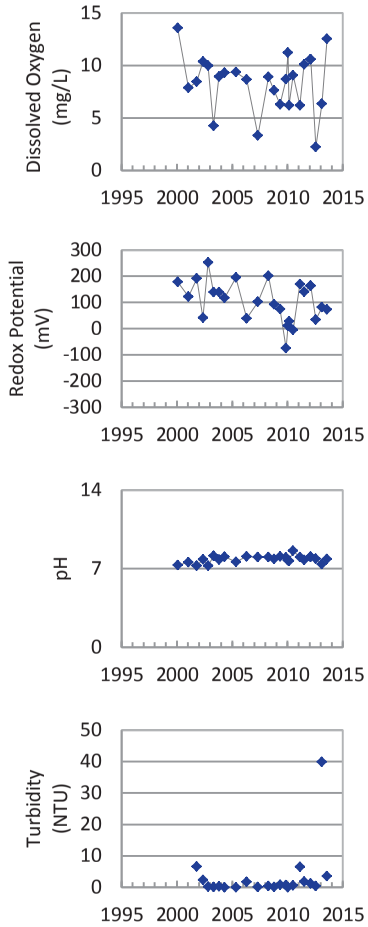
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1039A
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



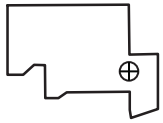
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

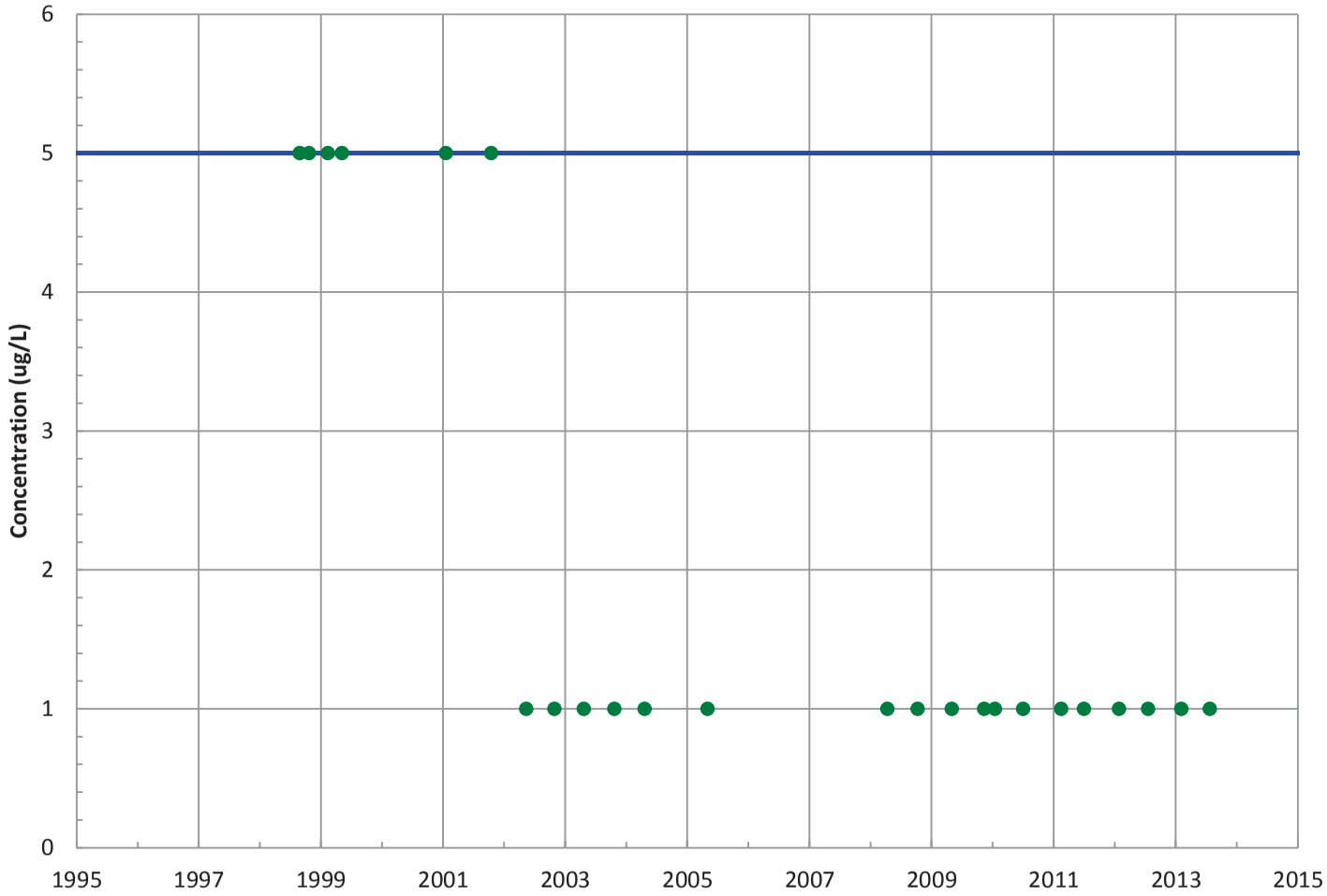
Well Location



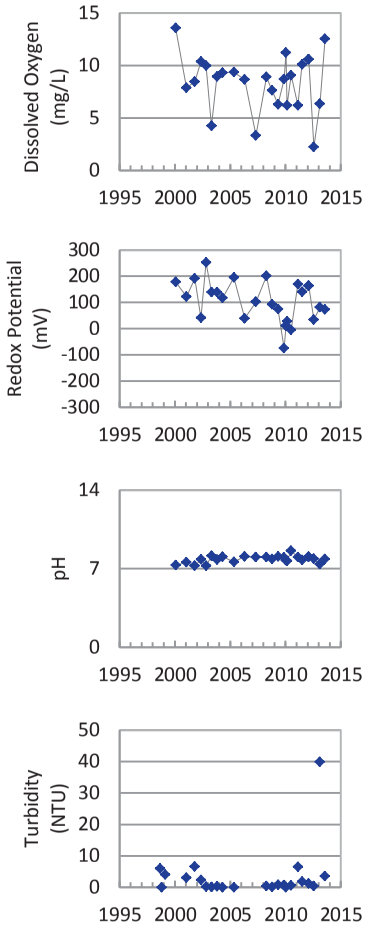
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/11/1999 to 8/7/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1039A
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



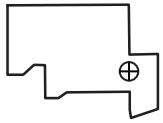
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

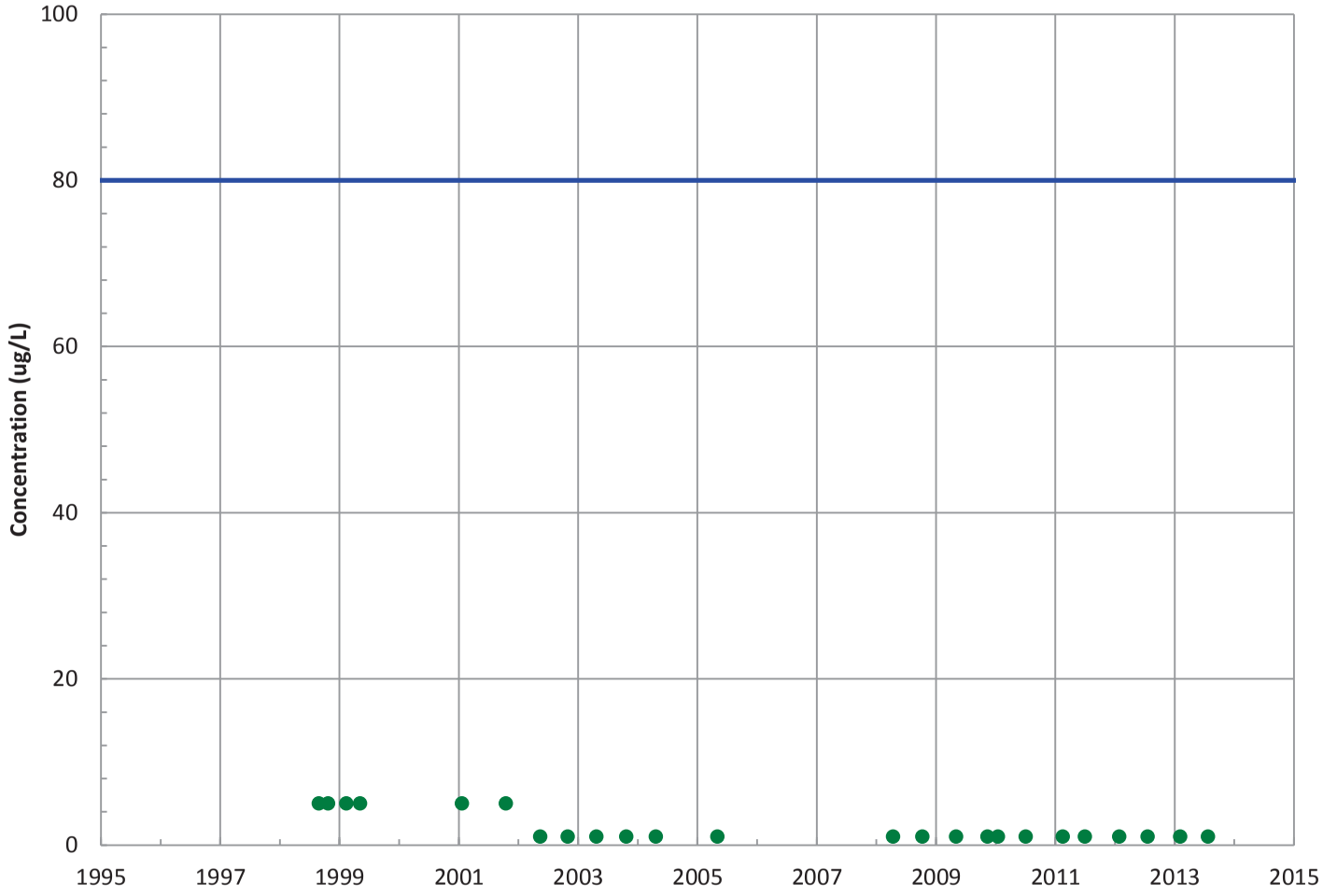
Well Location



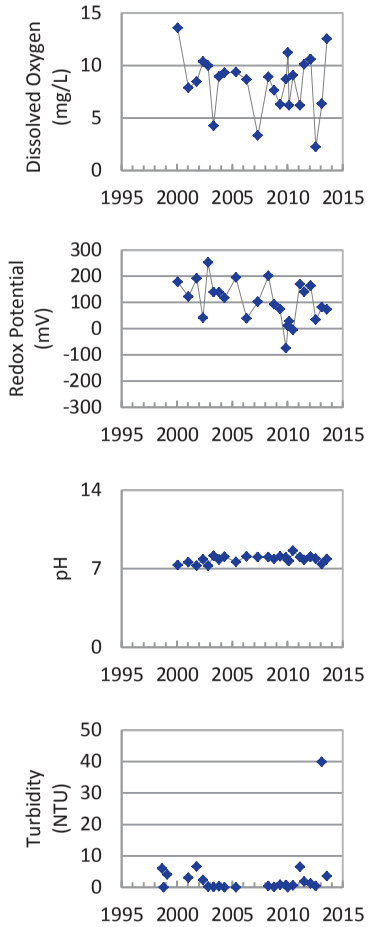
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/31/1998 to 8/7/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1039A
Chloroform Trend in Perched Aquifer



Field Parameters



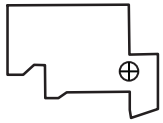
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

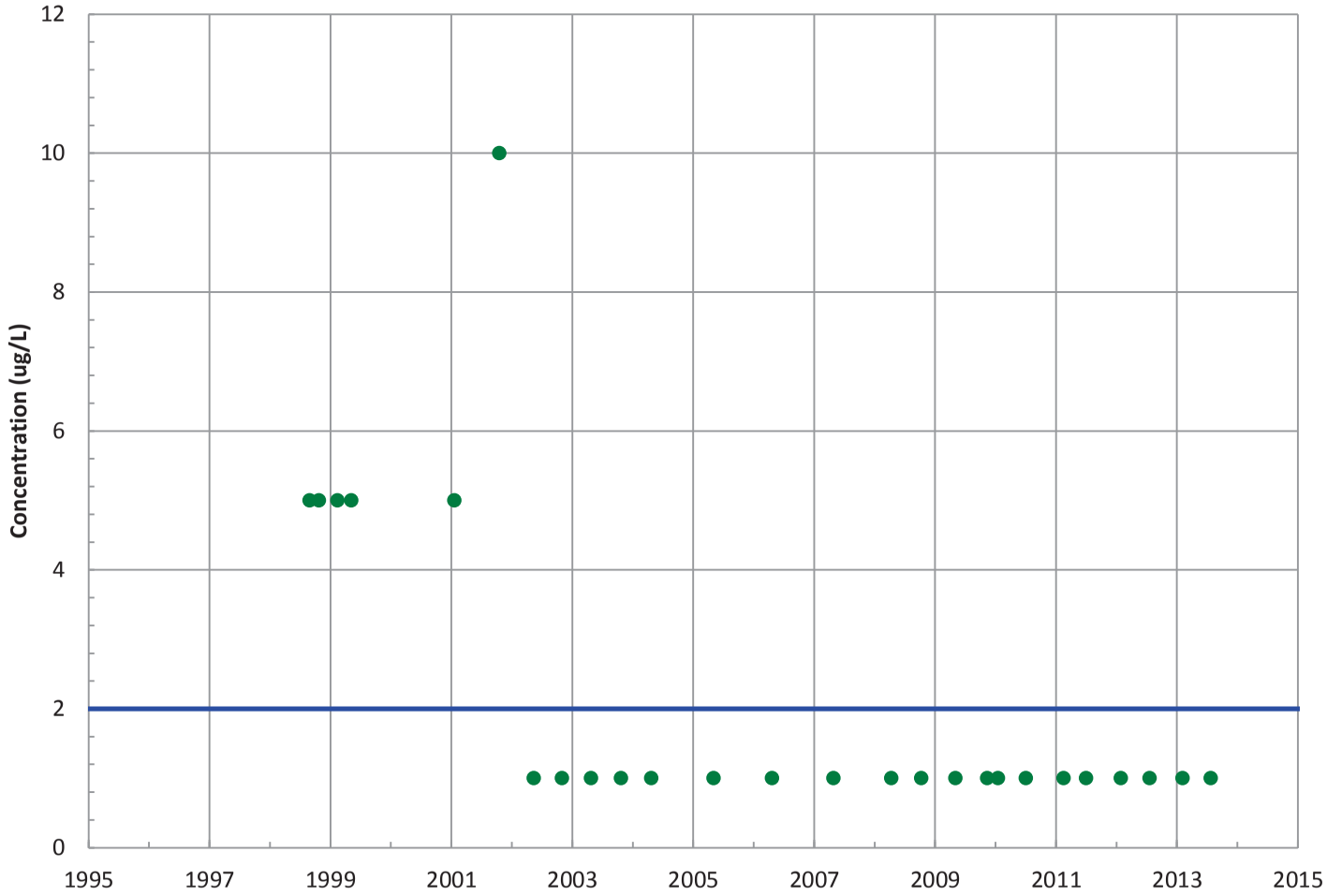
Well Location



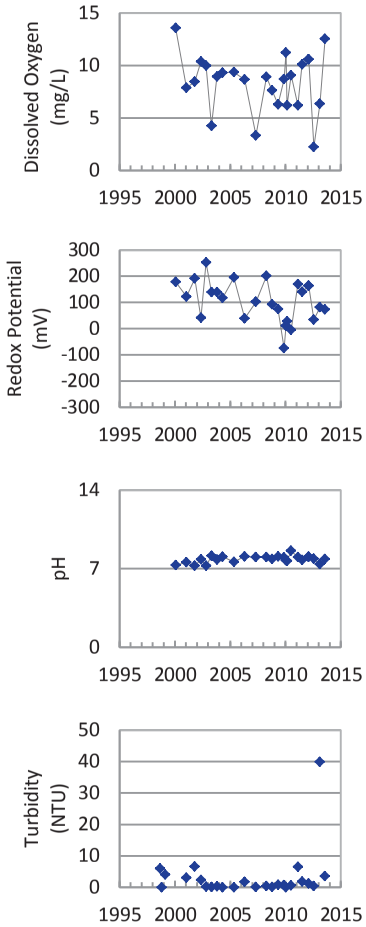
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/31/1998 to 8/7/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1039A
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



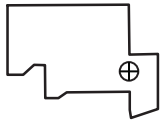
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

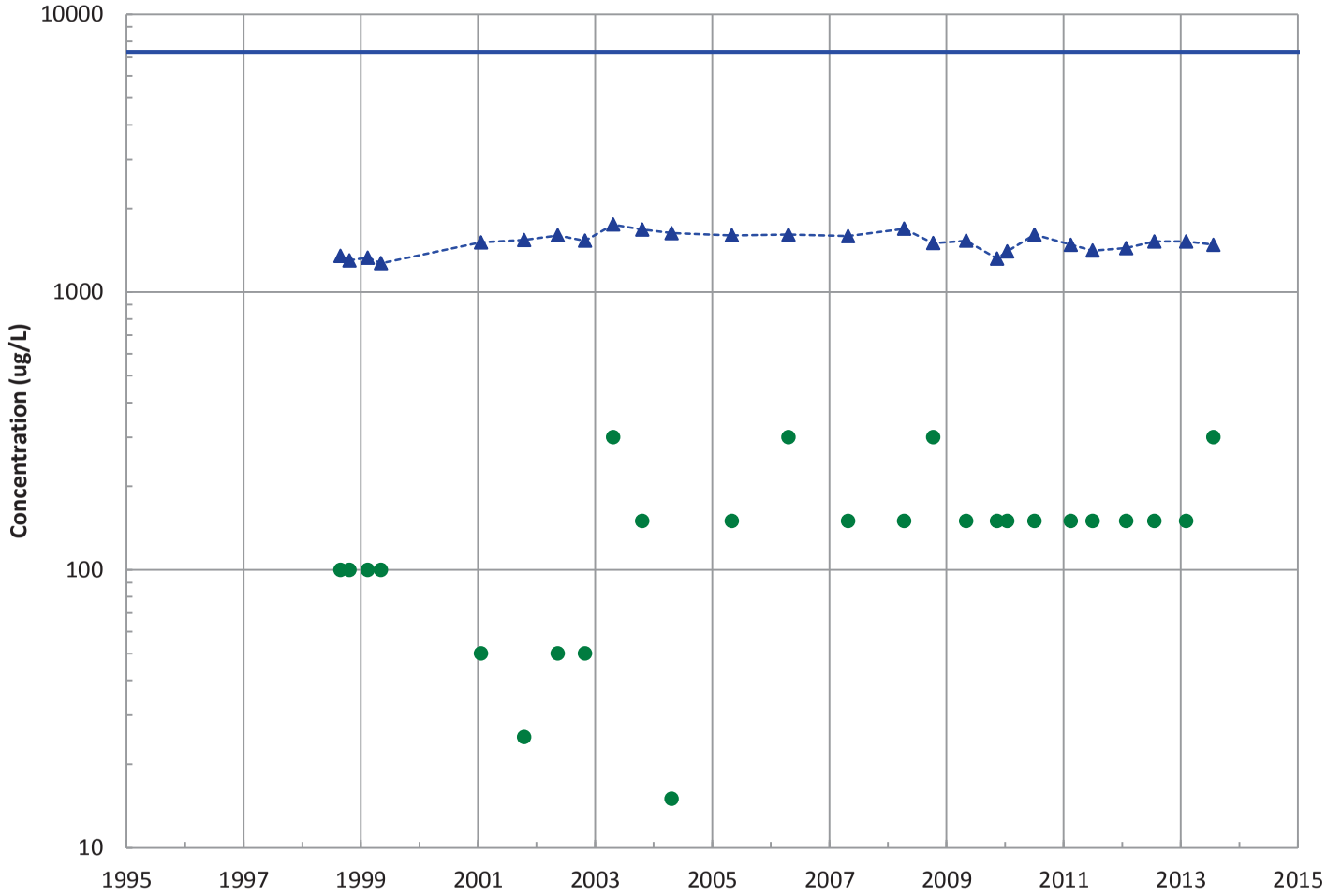
Well Location



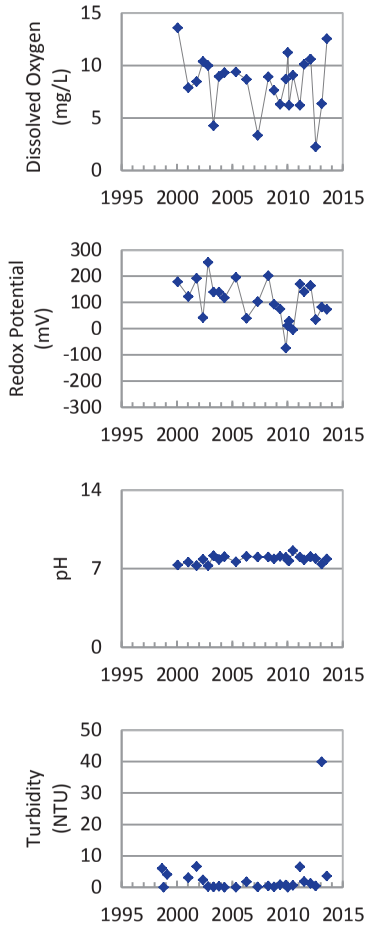
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/31/1998 to 8/7/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1039A
Boron Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Probably Increasing

2011 - 2013 Data: No Trend

MAROS Linear Regression Method

Data (7/2009 - 12/2013): No Trend

2011 - 2013 Data: No Trend

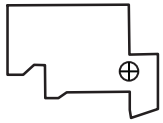
▲ Measured Value

● Sample Detection Limit

------- Concentration Trend

——— Groundwater Protection Standard

Well Location



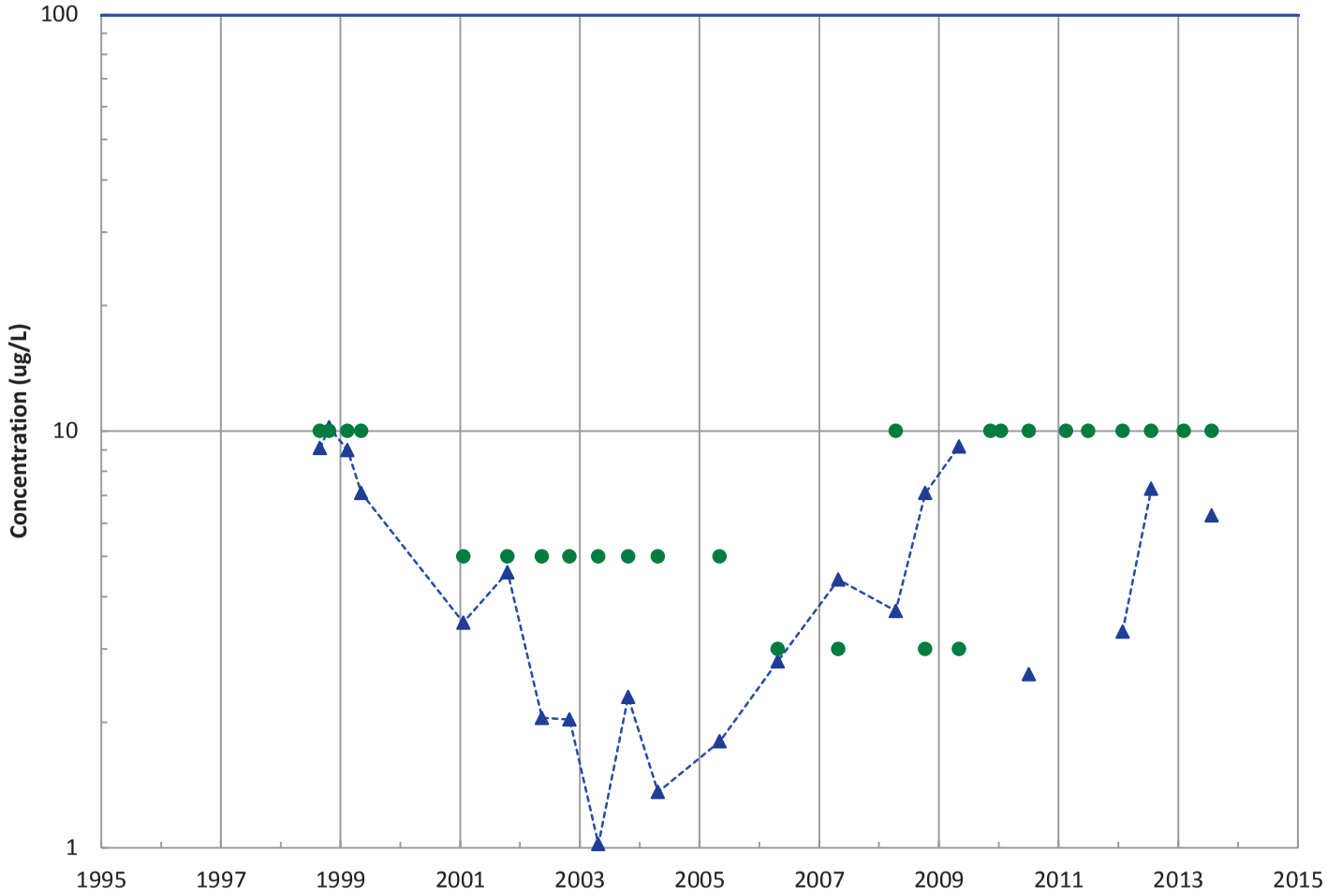
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 8/31/1998 to 8/7/2013

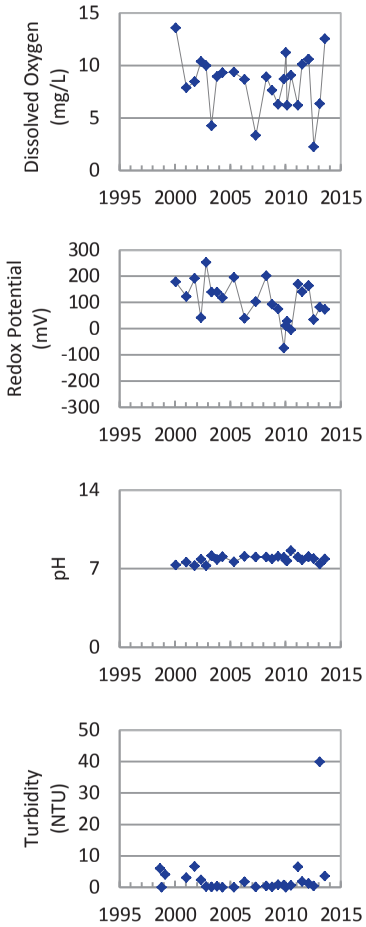
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1039A
Chromium, Total Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): No Trend

2011 - 2013 Data: N/A (<4 Detections in Dataset)

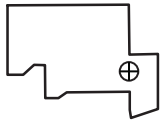
MAROS Linear Regression Method

Data (7/2009 - 12/2013): Probably Increasing

2011 - 2013 Data: Increasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

Well Location



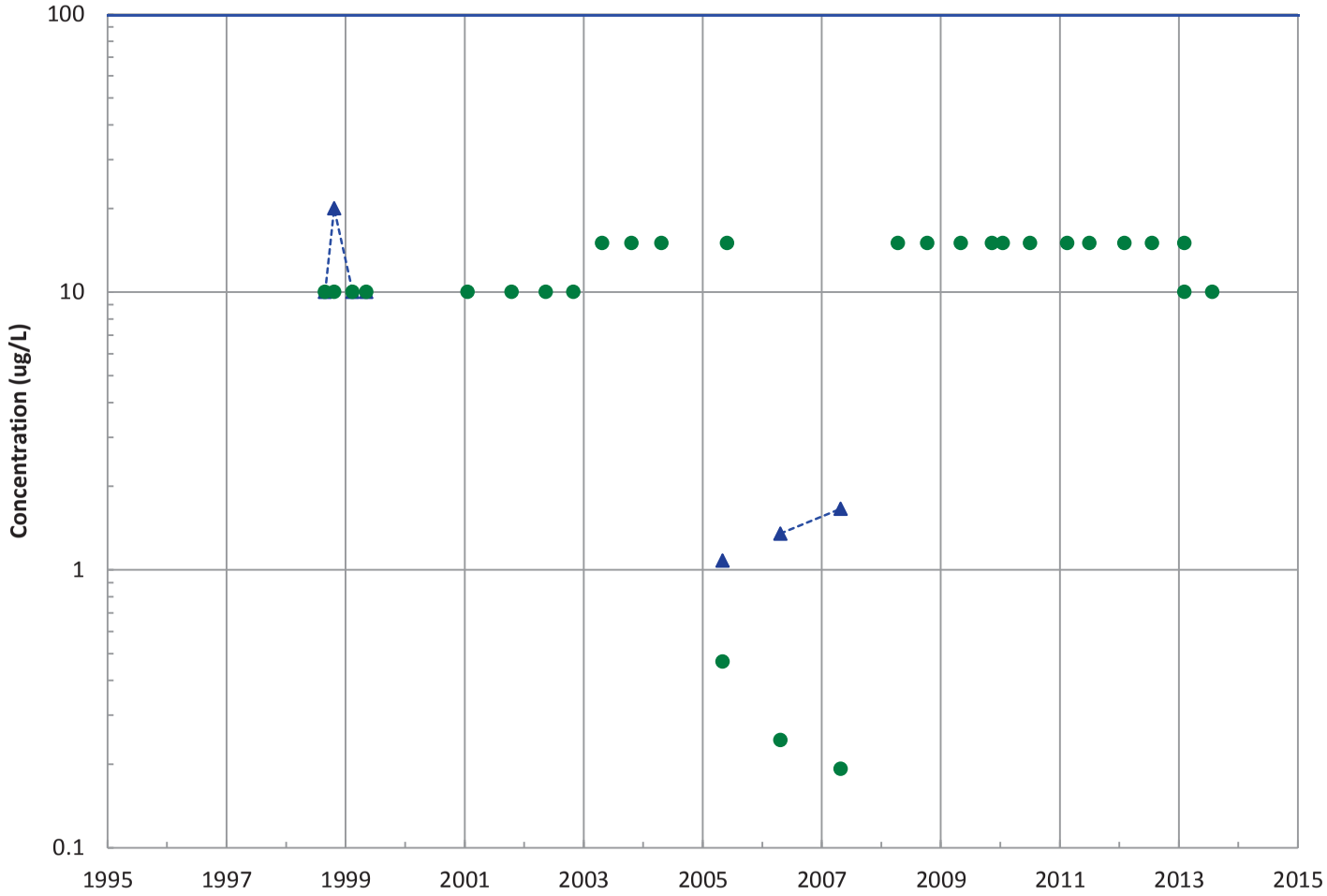
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 8/31/1998 to 8/7/2013

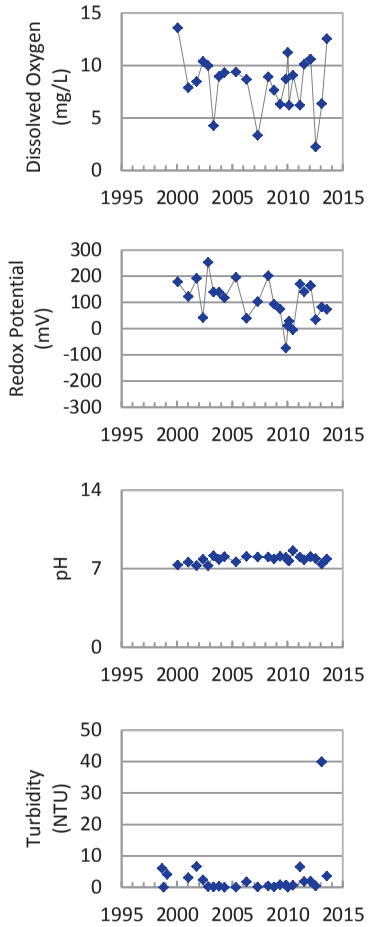
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1039A
Chromium, Hexavalent Trend in Perched Aquifer



Field Parameters



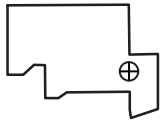
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

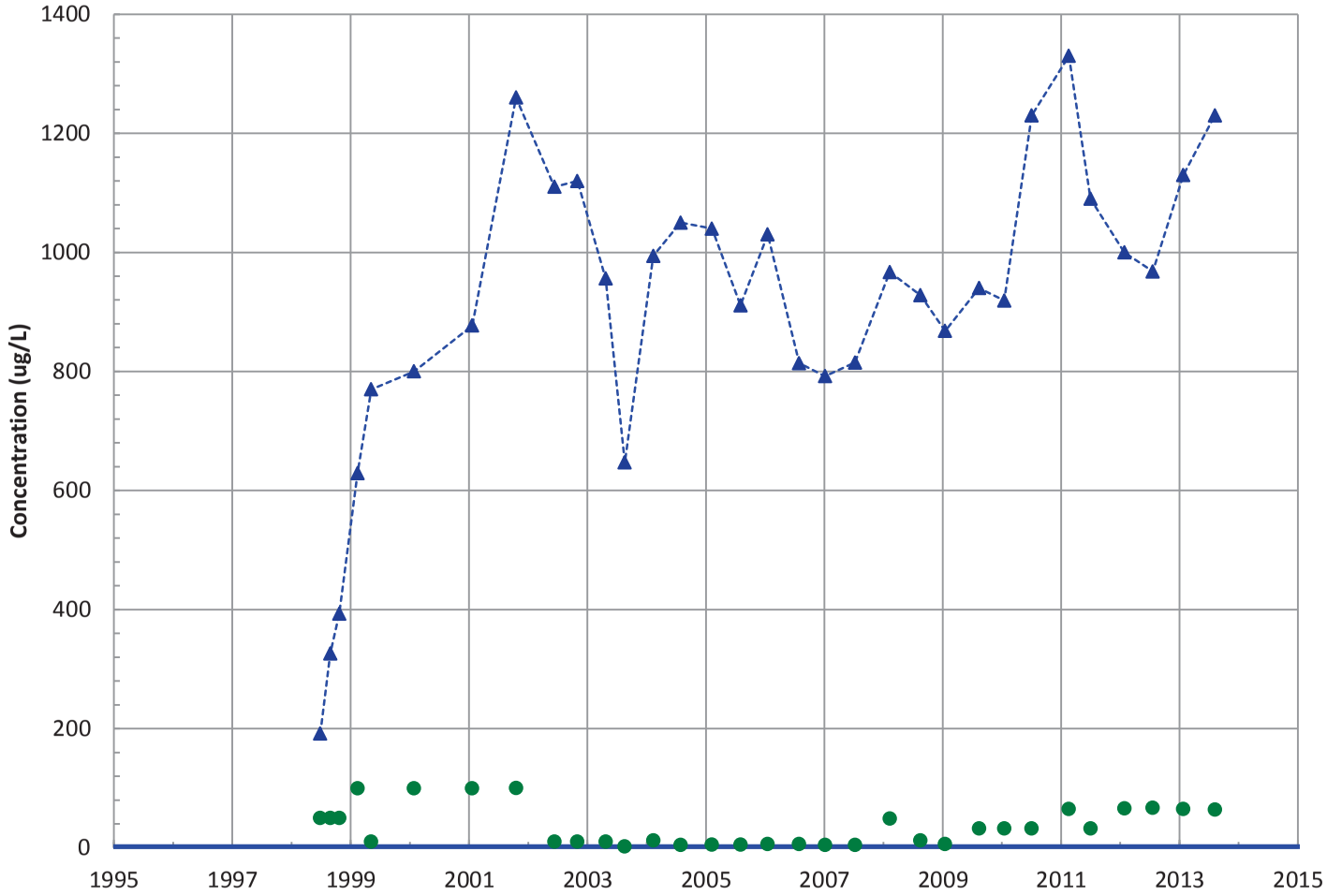
Well Location



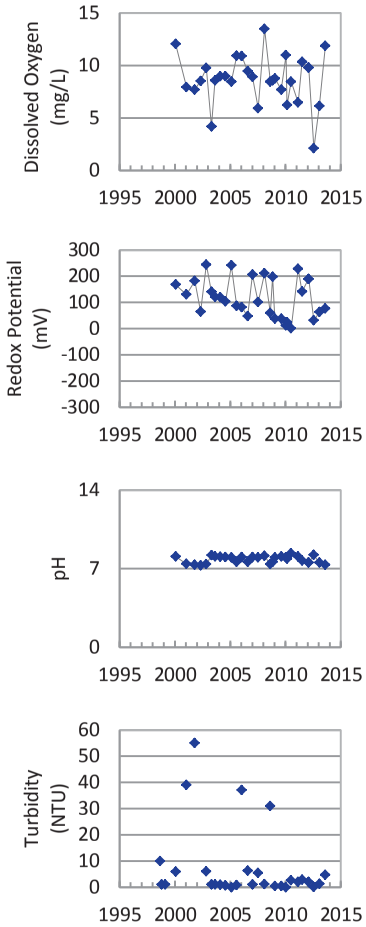
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/31/1998 to 8/7/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1040
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



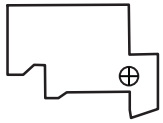
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Increasing

- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

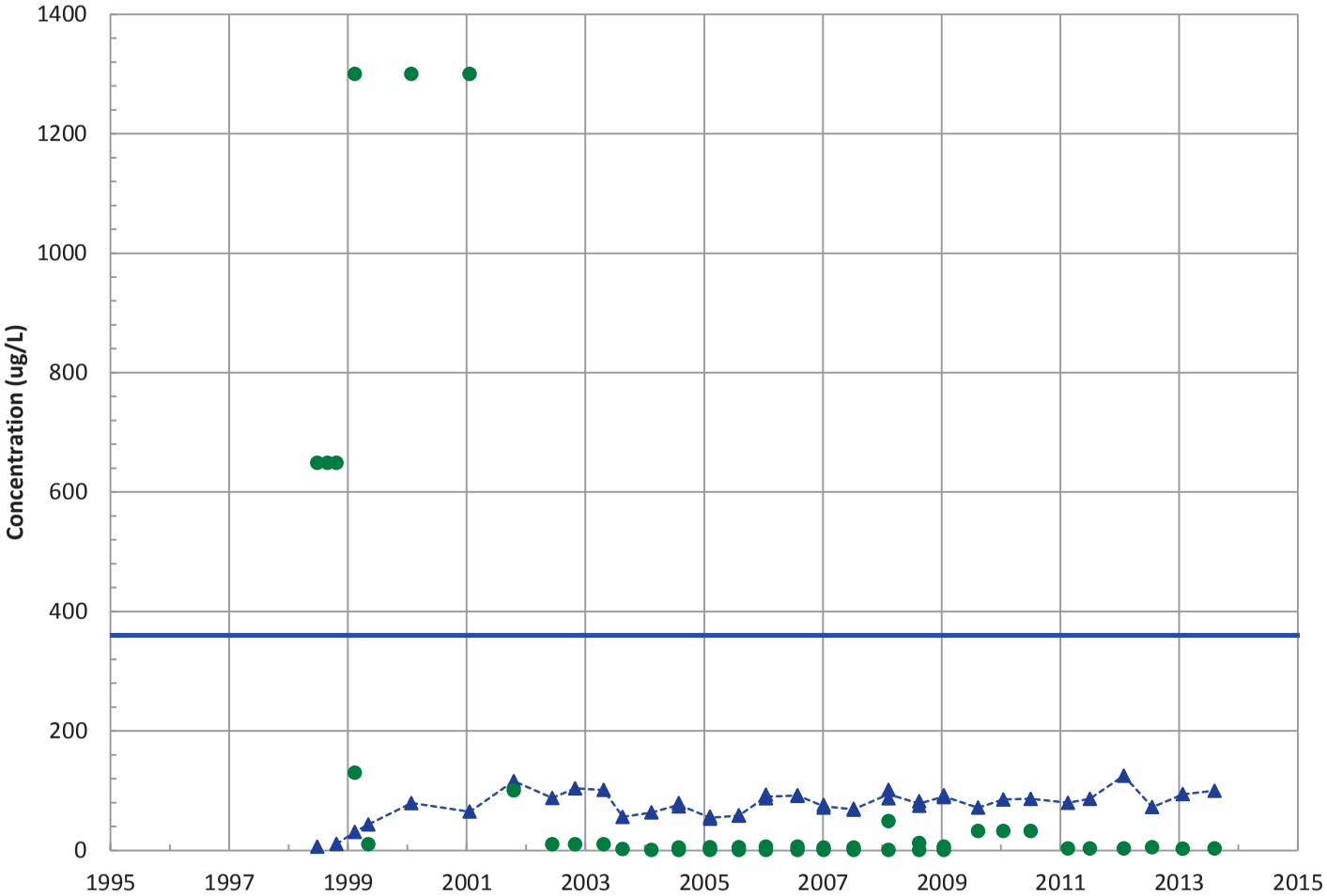
Well Location



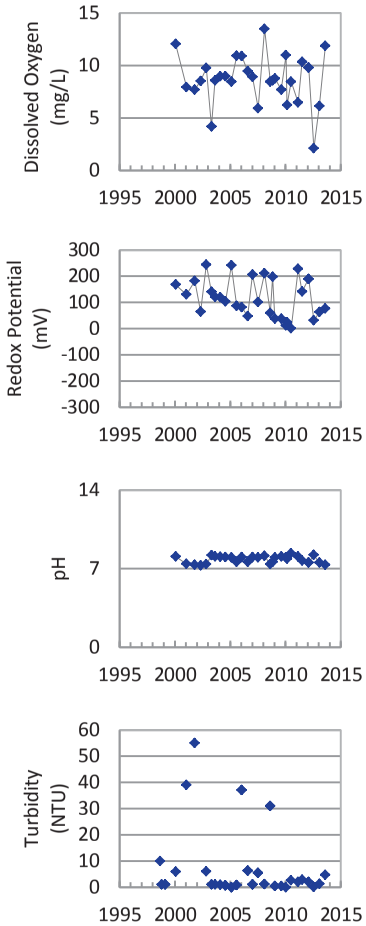
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/30/1998 to 8/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1040
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



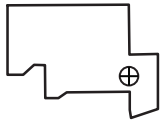
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

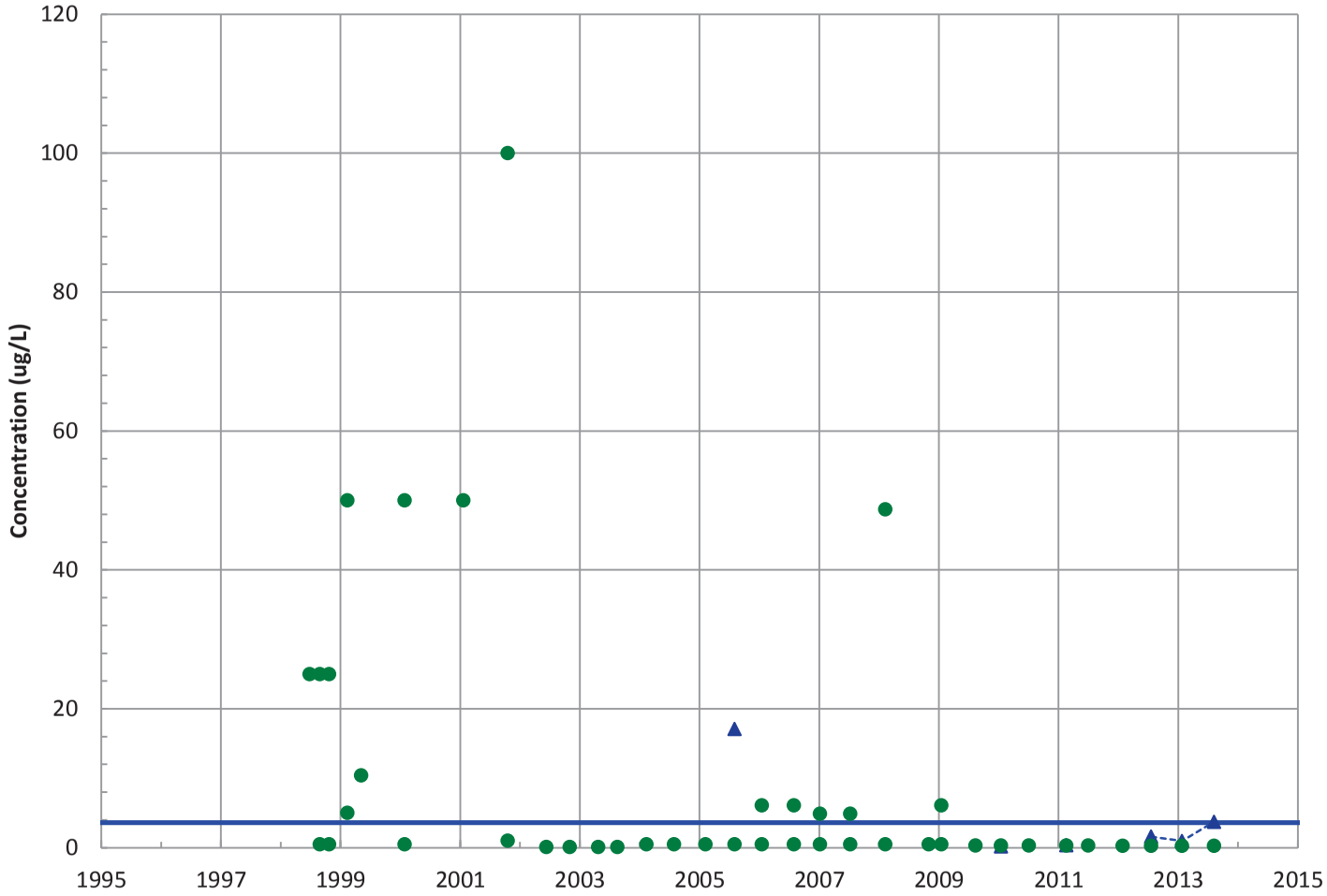
Well Location



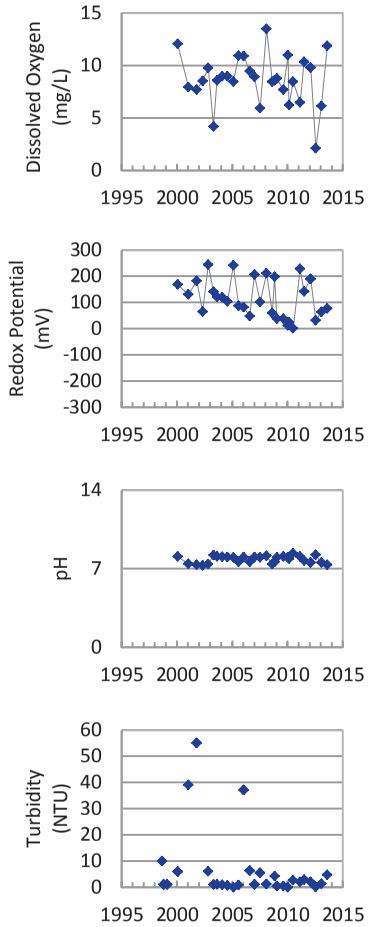
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/30/1998 to 8/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1040
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Probably Increasing

2011 - 2013 Data: N/A (<4 Detections in

MAROS Linear Regression Method

Data (7/2009 - 12/2013): Increasing

2011 - 2013 Data: Increasing

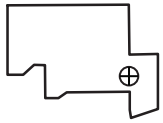
▲ Measured Value

● Sample Detection Limit

------- Concentration Trend

——— Groundwater Protection Standard

Well Location



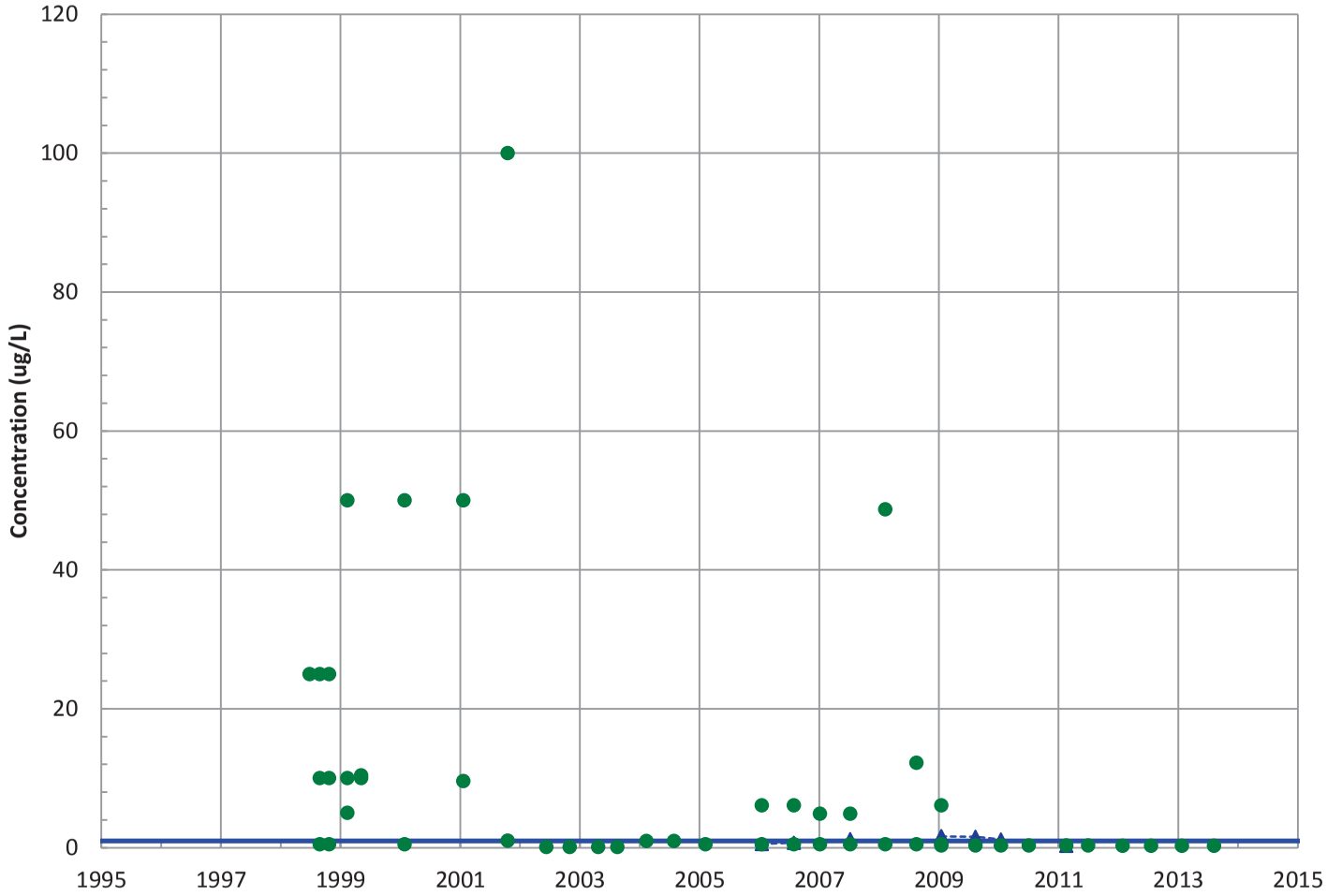
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 6/30/1998 to 8/21/2013

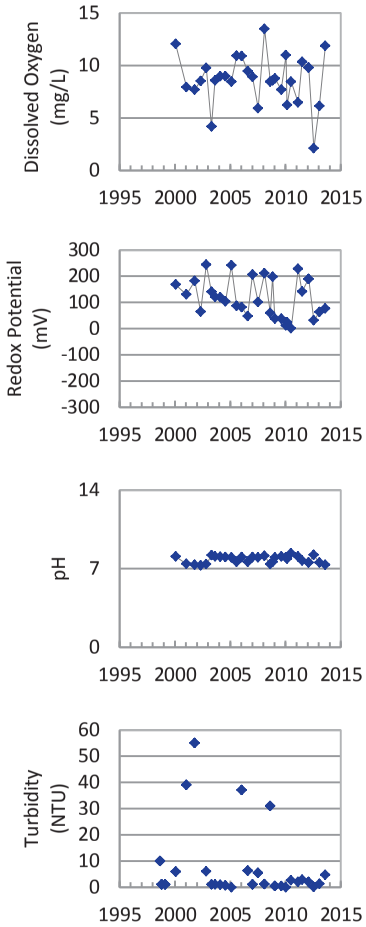
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1040
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: All Non-Detect

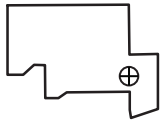
MAROS Linear Regression Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

Well Location



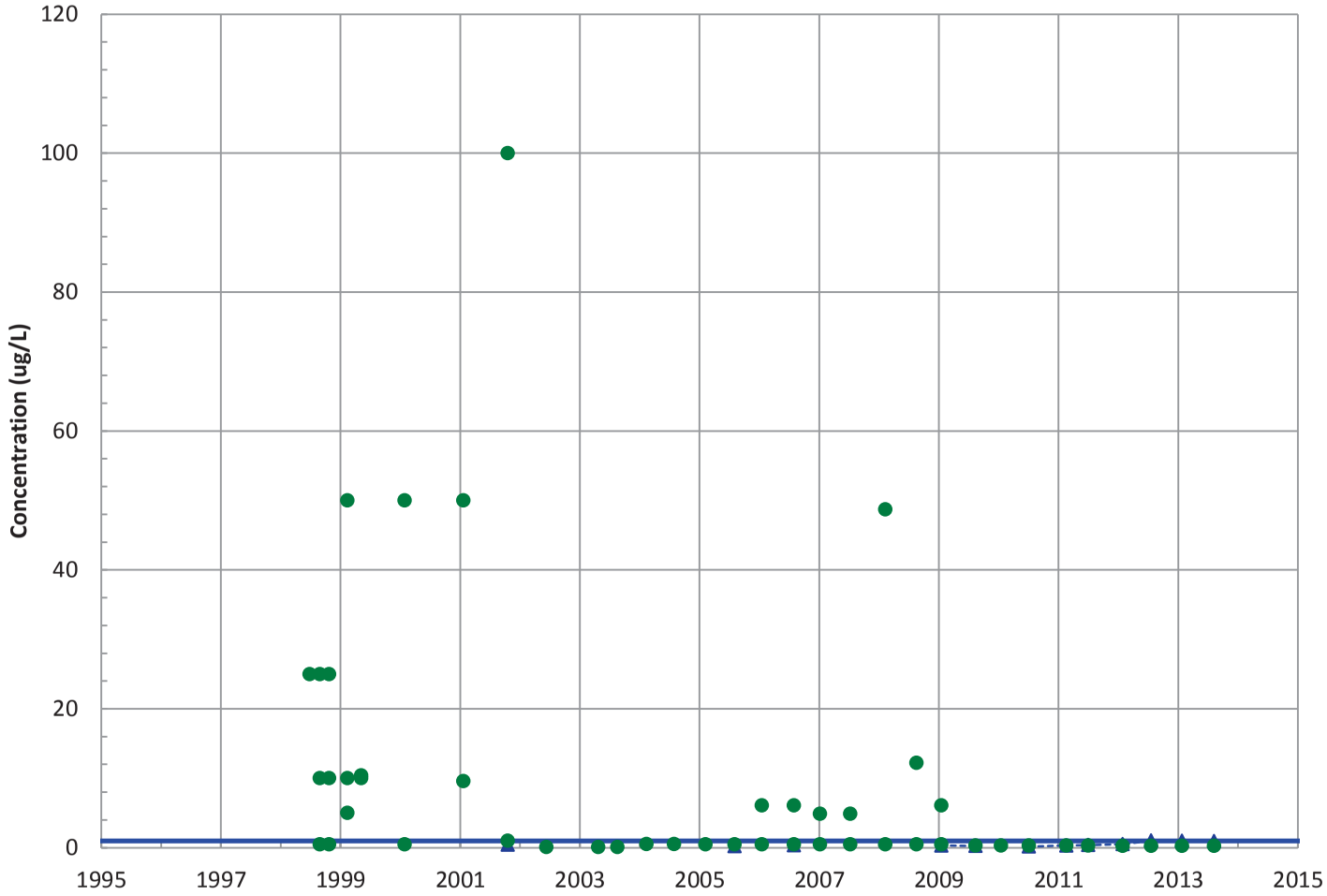
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 6/30/1998 to 8/21/2013

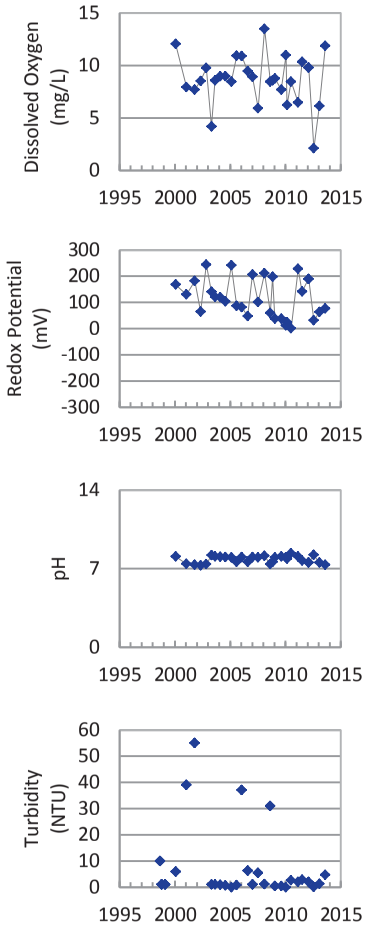
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1040
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



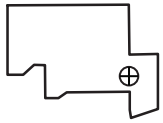
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Probably Increasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

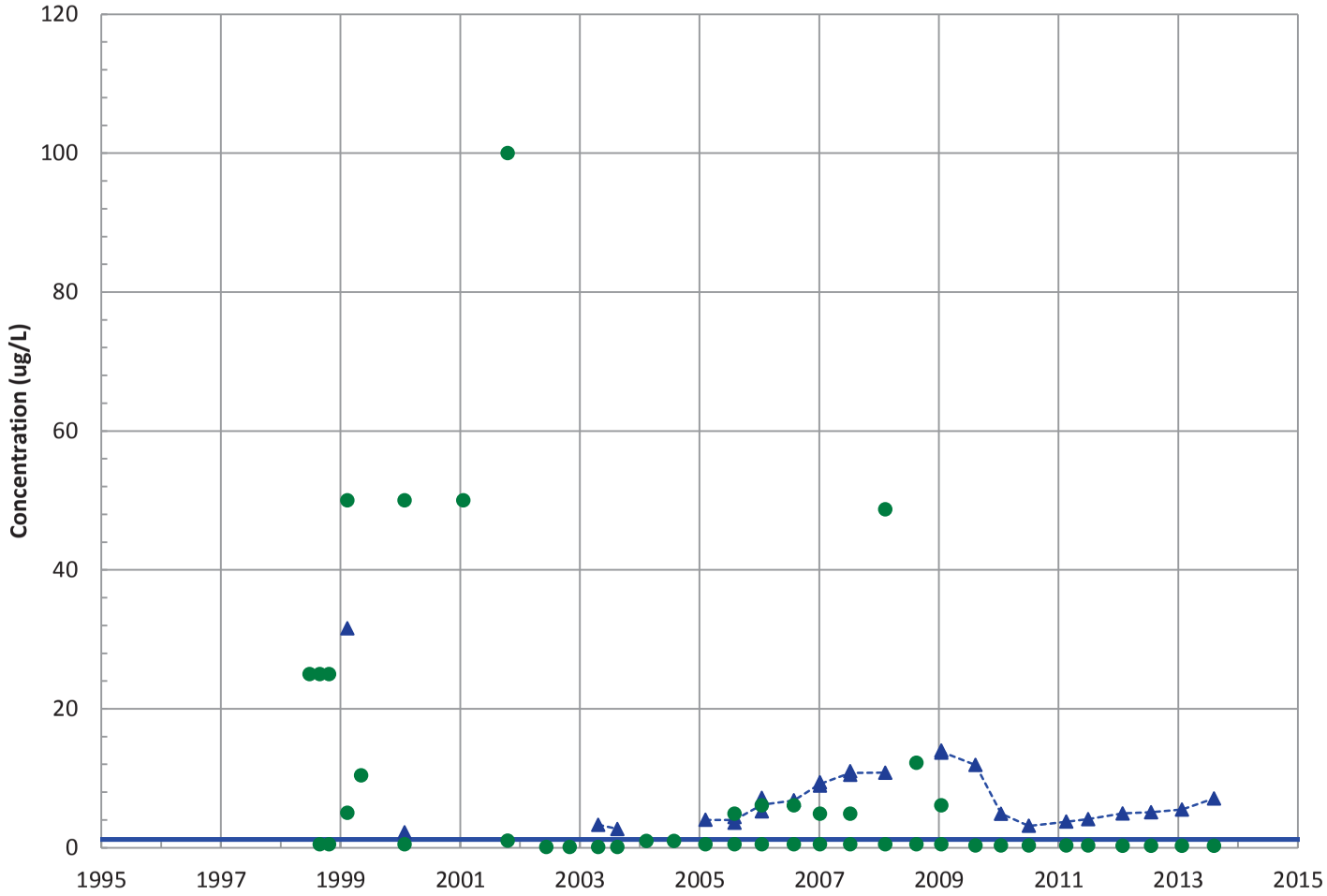
Well Location



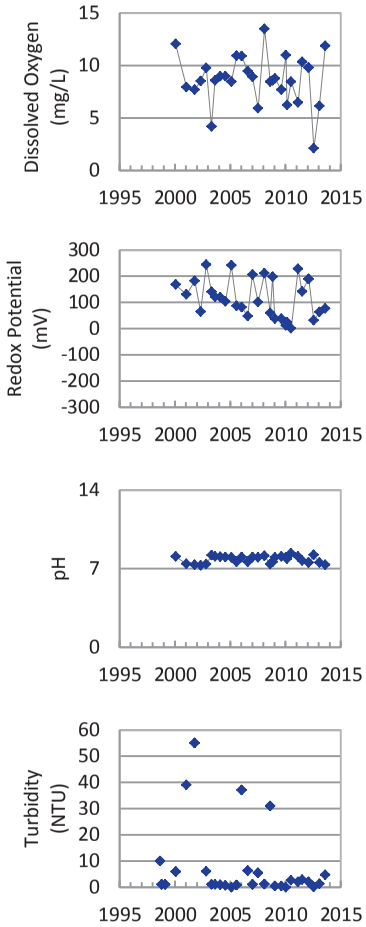
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/30/1998 to 8/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1040
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Probably Increasing

2011 - 2013 Data: Increasing

MAROS Linear Regression Method

Data (7/2009 - 12/2013): Stable

2011 - 2013 Data: Probably Increasing

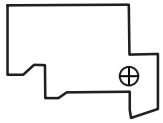
▲ Measured Value

● Sample Detection Limit

------- Concentration Trend

——— Groundwater Protection Standard

Well Location



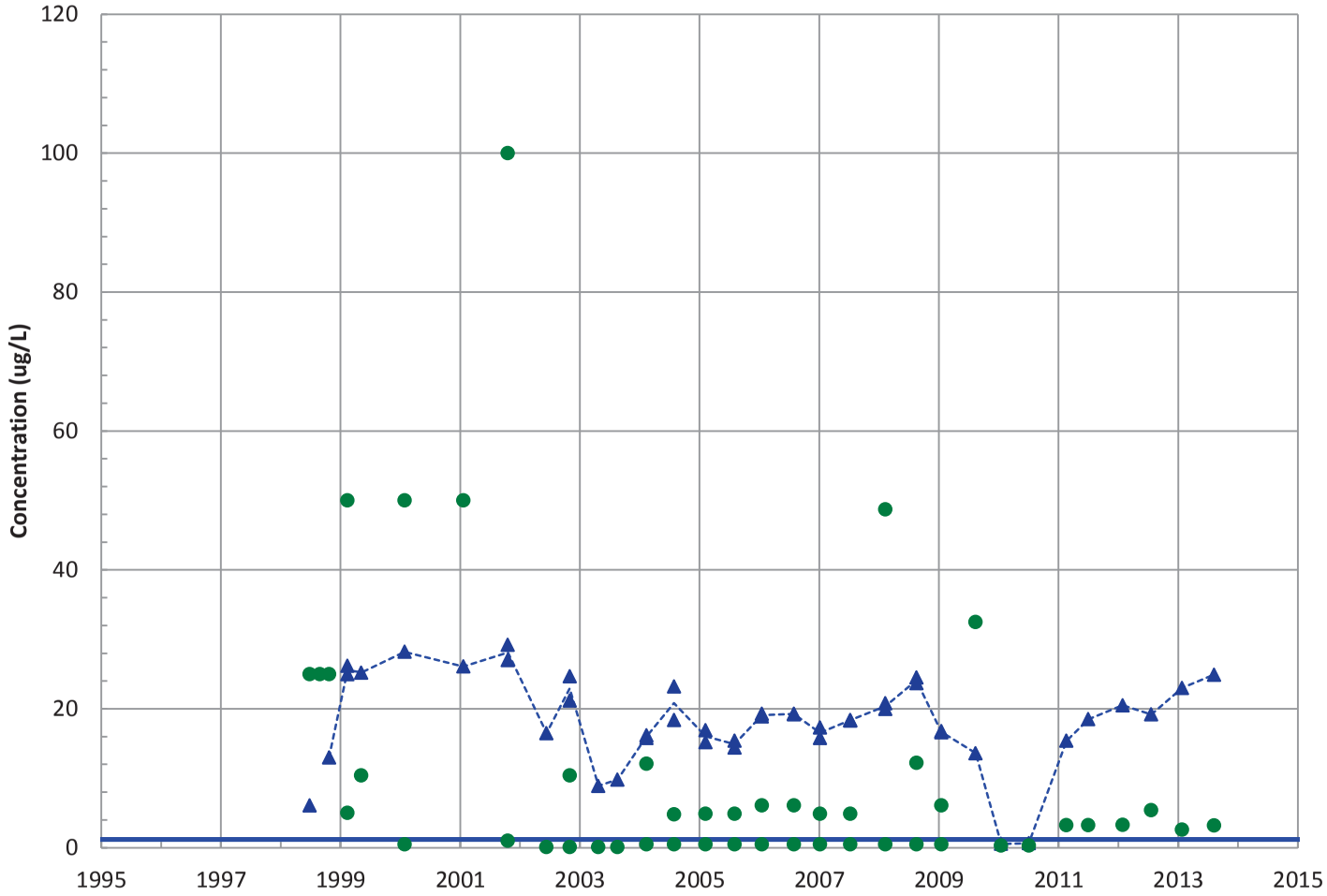
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 6/30/1998 to 8/21/2013

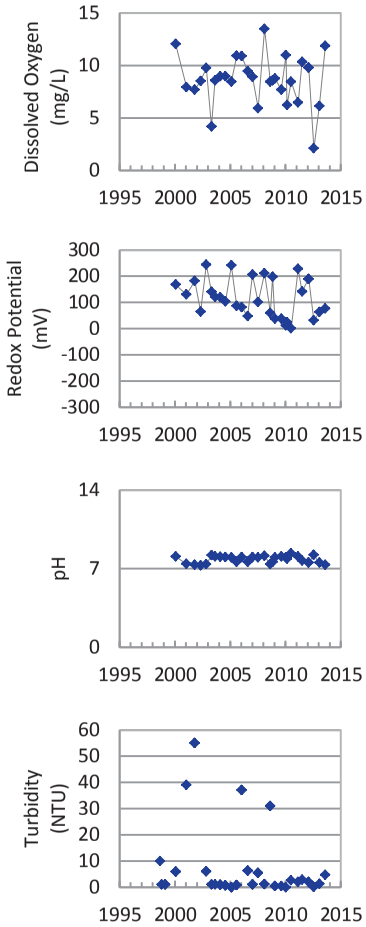
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1040
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



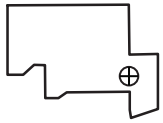
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Probably Increasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

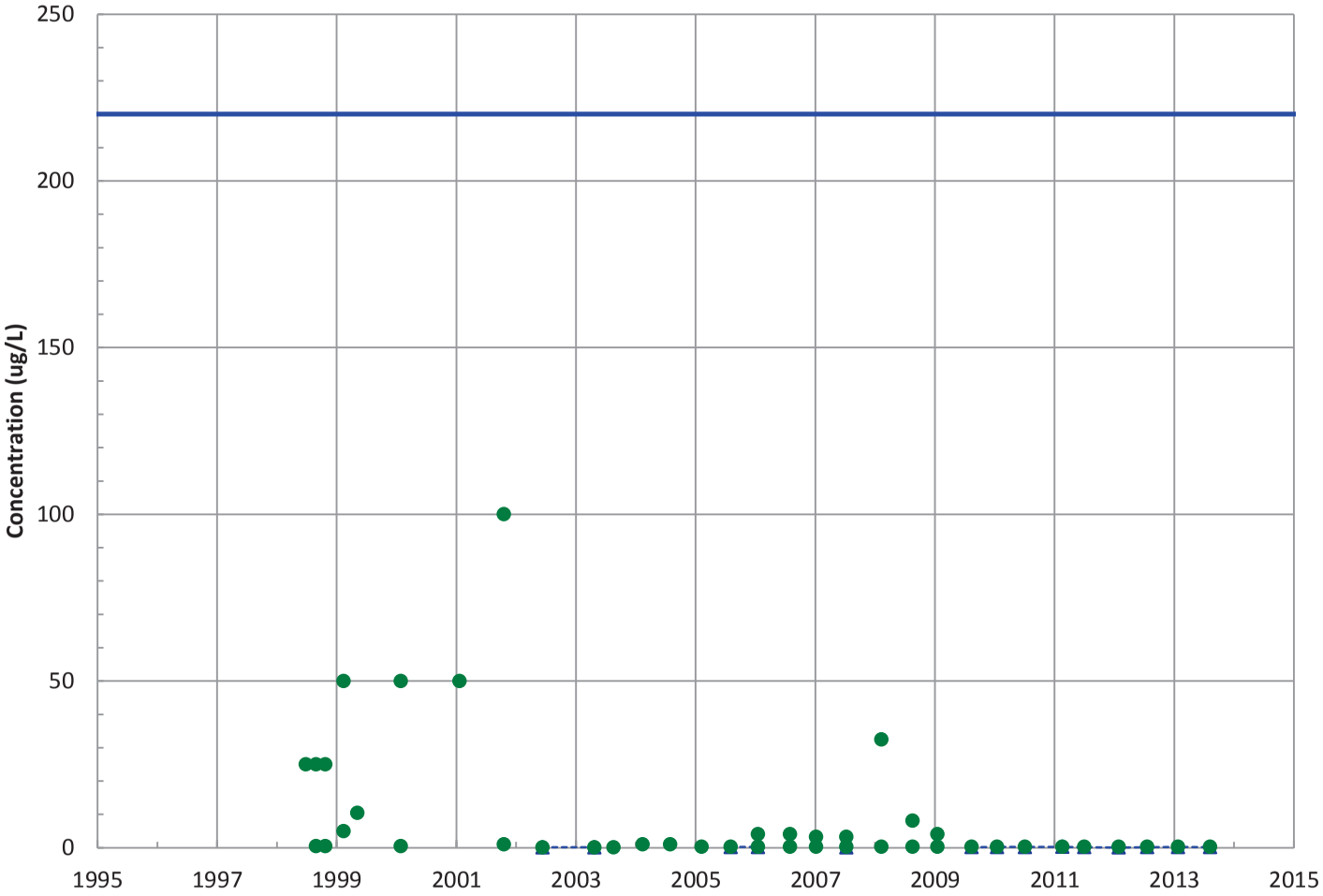
Well Location



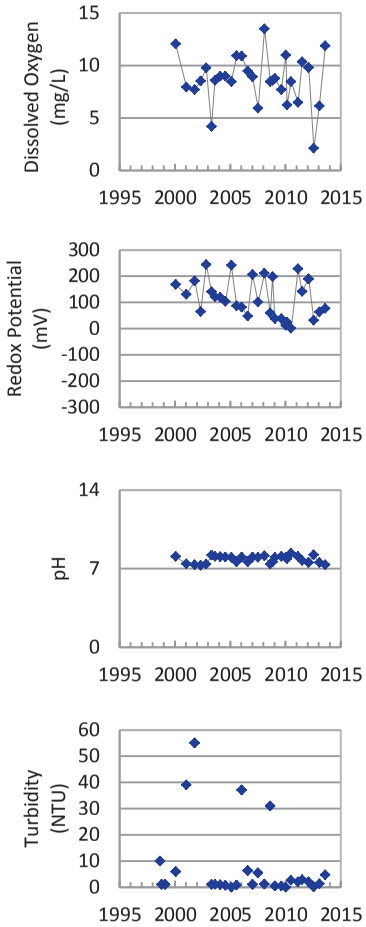
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/30/1998 to 8/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1040
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



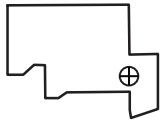
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Probably Increasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

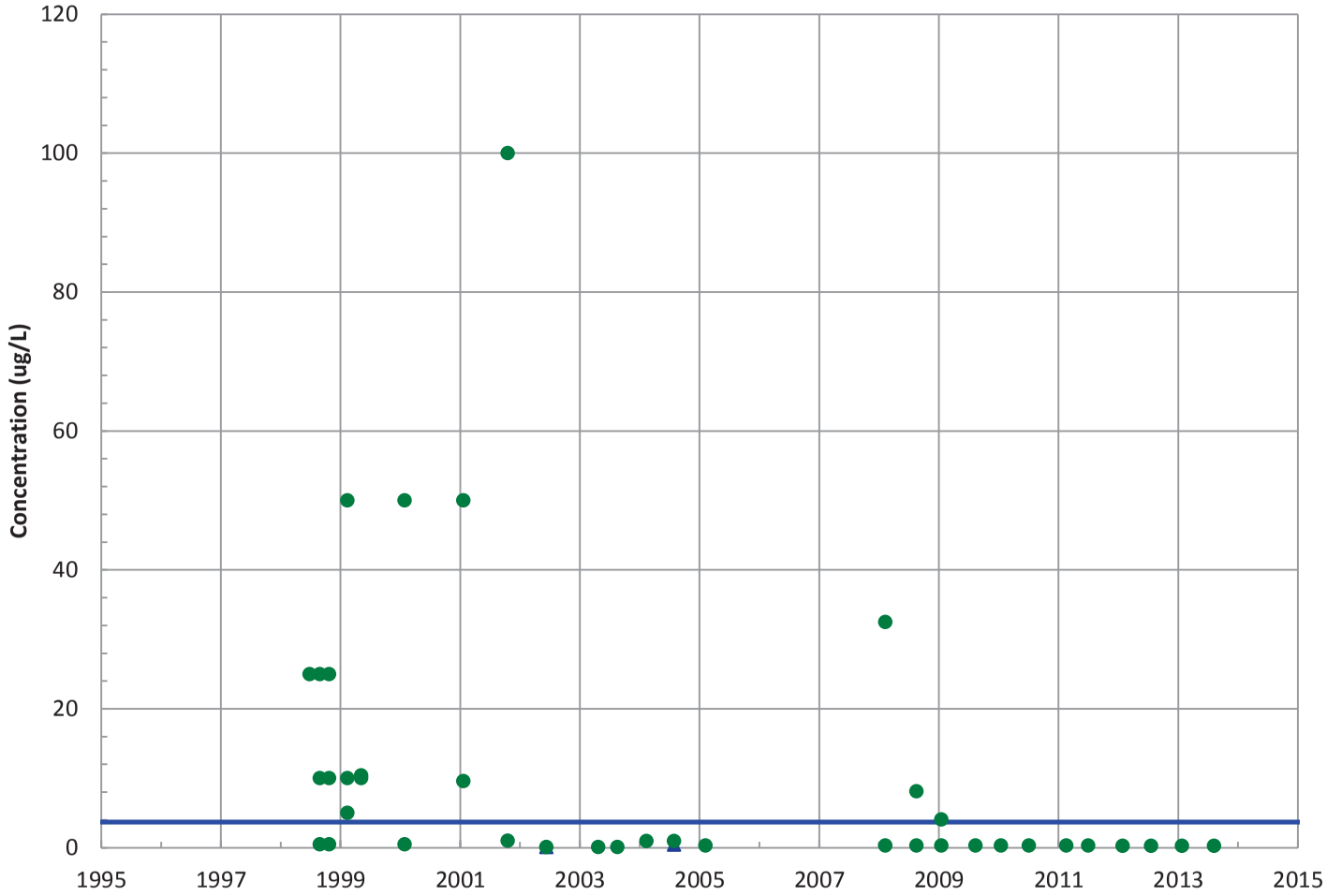
Well Location



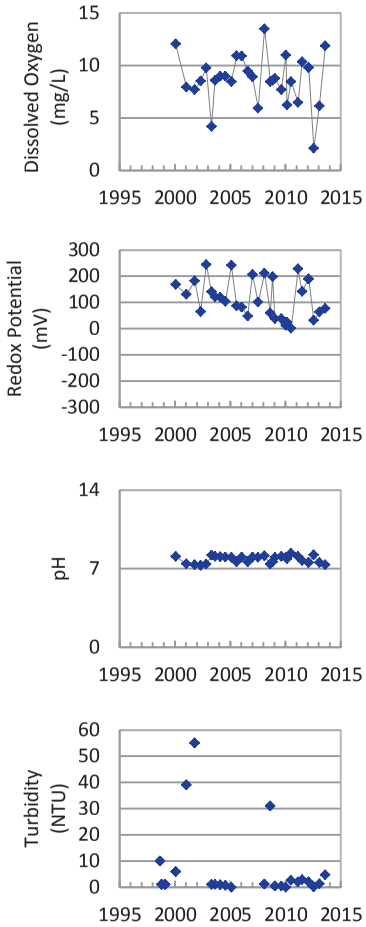
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/30/1998 to 8/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1040
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



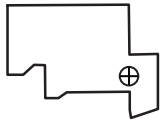
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

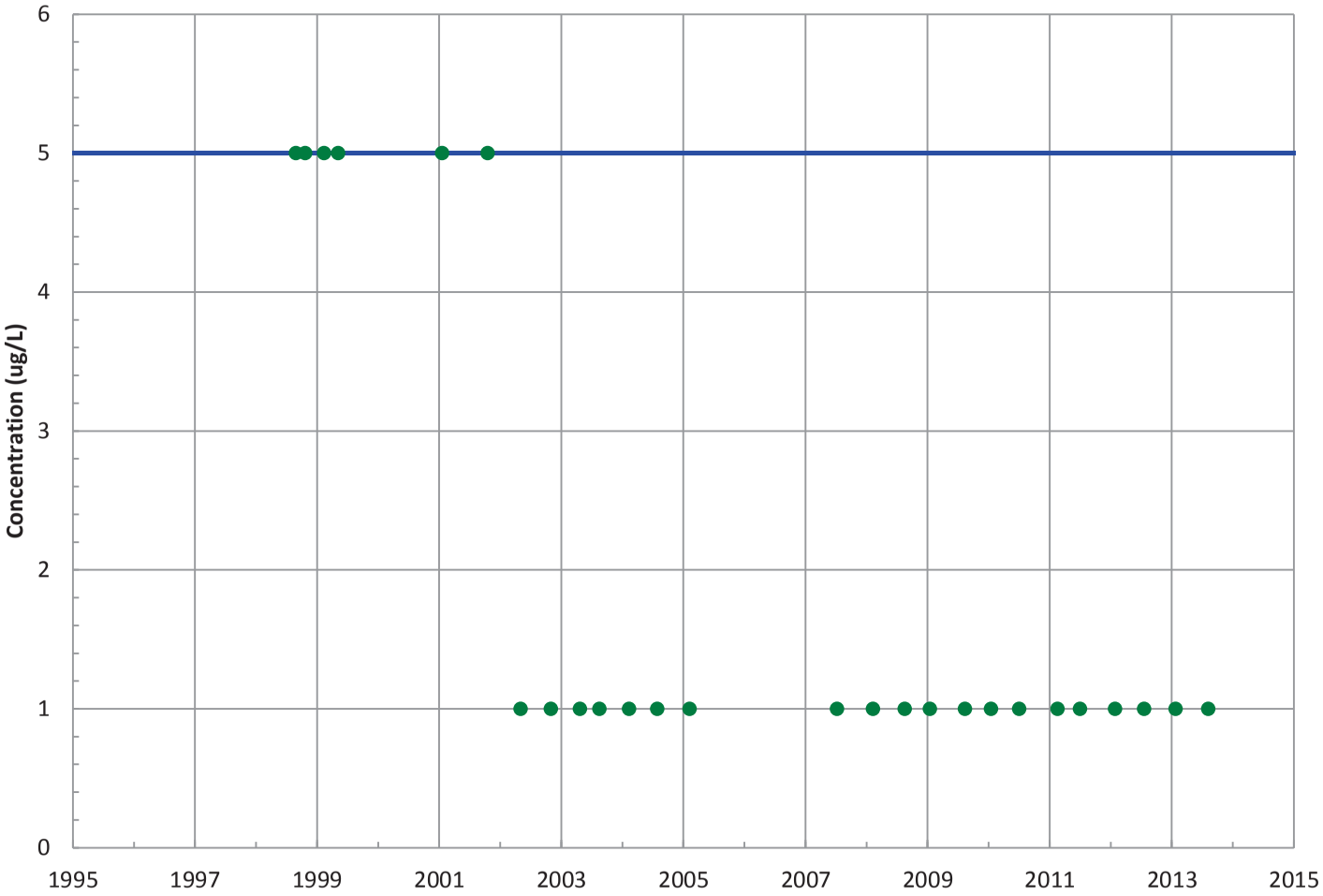
Well Location



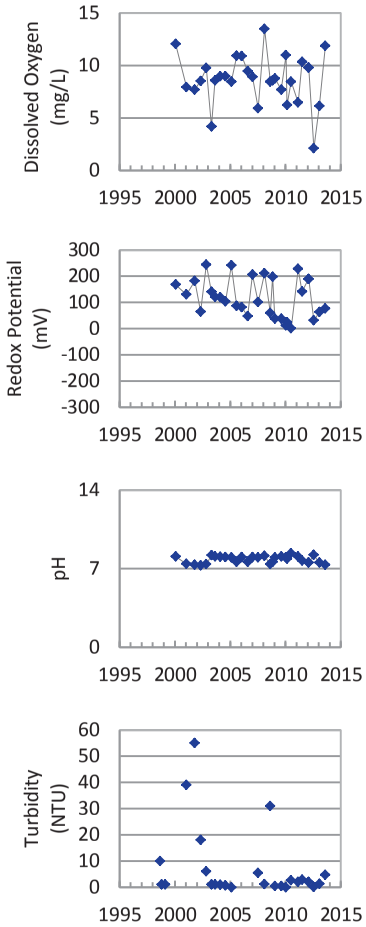
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/30/1998 to 8/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1040
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



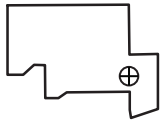
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

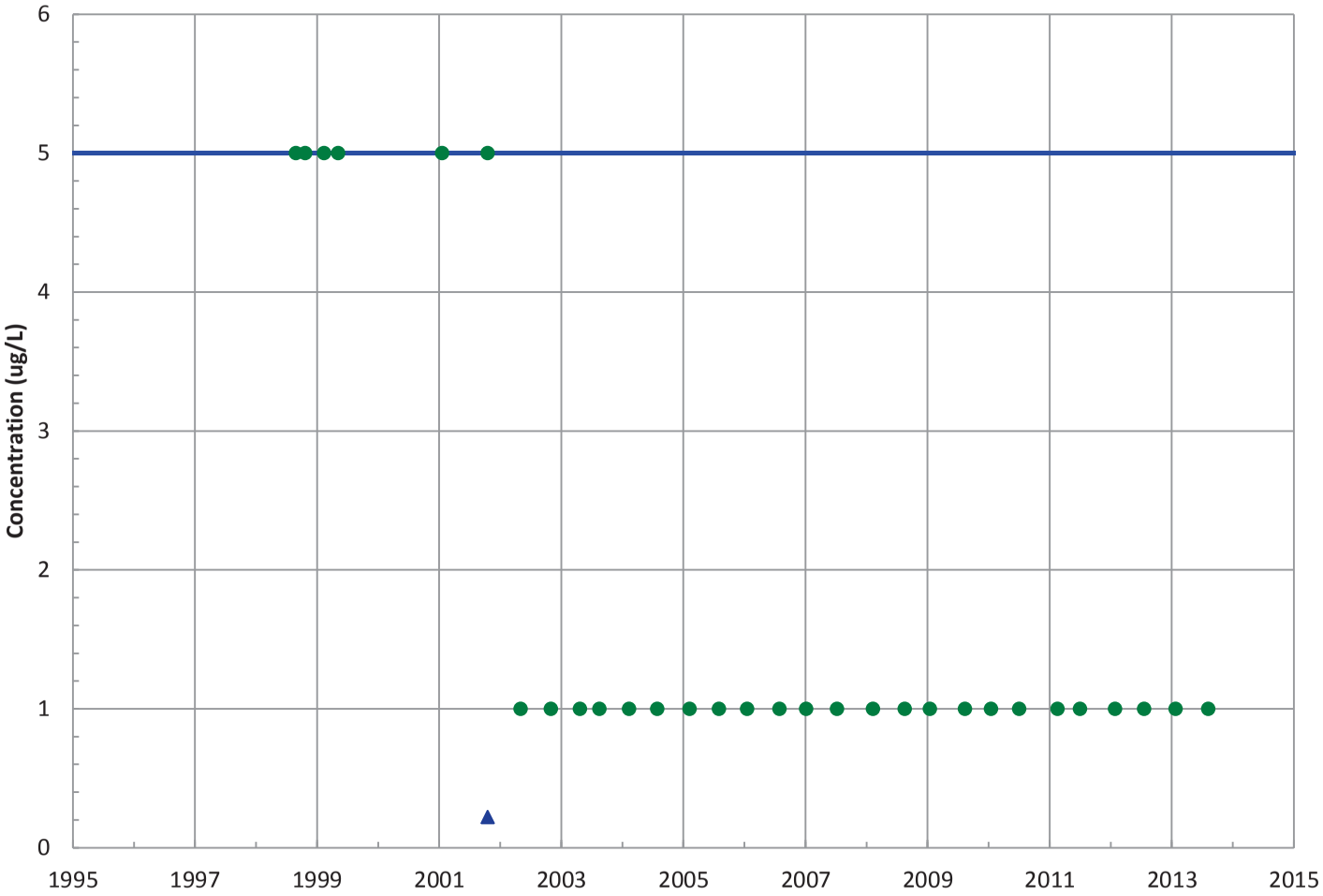
Well Location



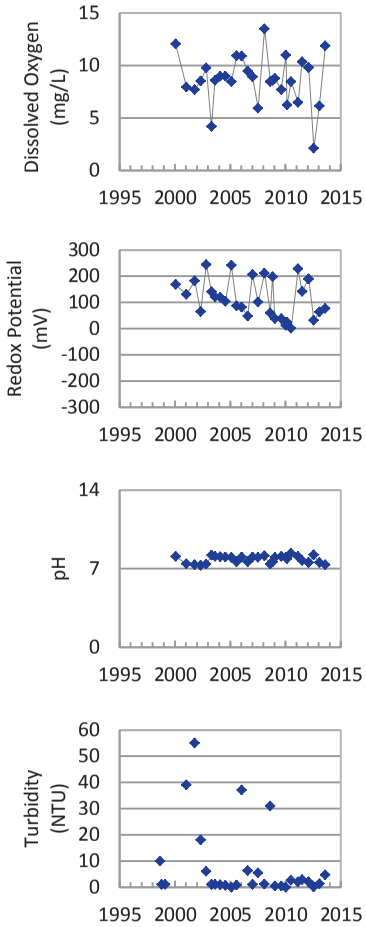
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/31/1998 to 8/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1040
Trichloroethene Trend in Perched Aquifer



Field Parameters



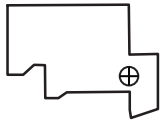
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

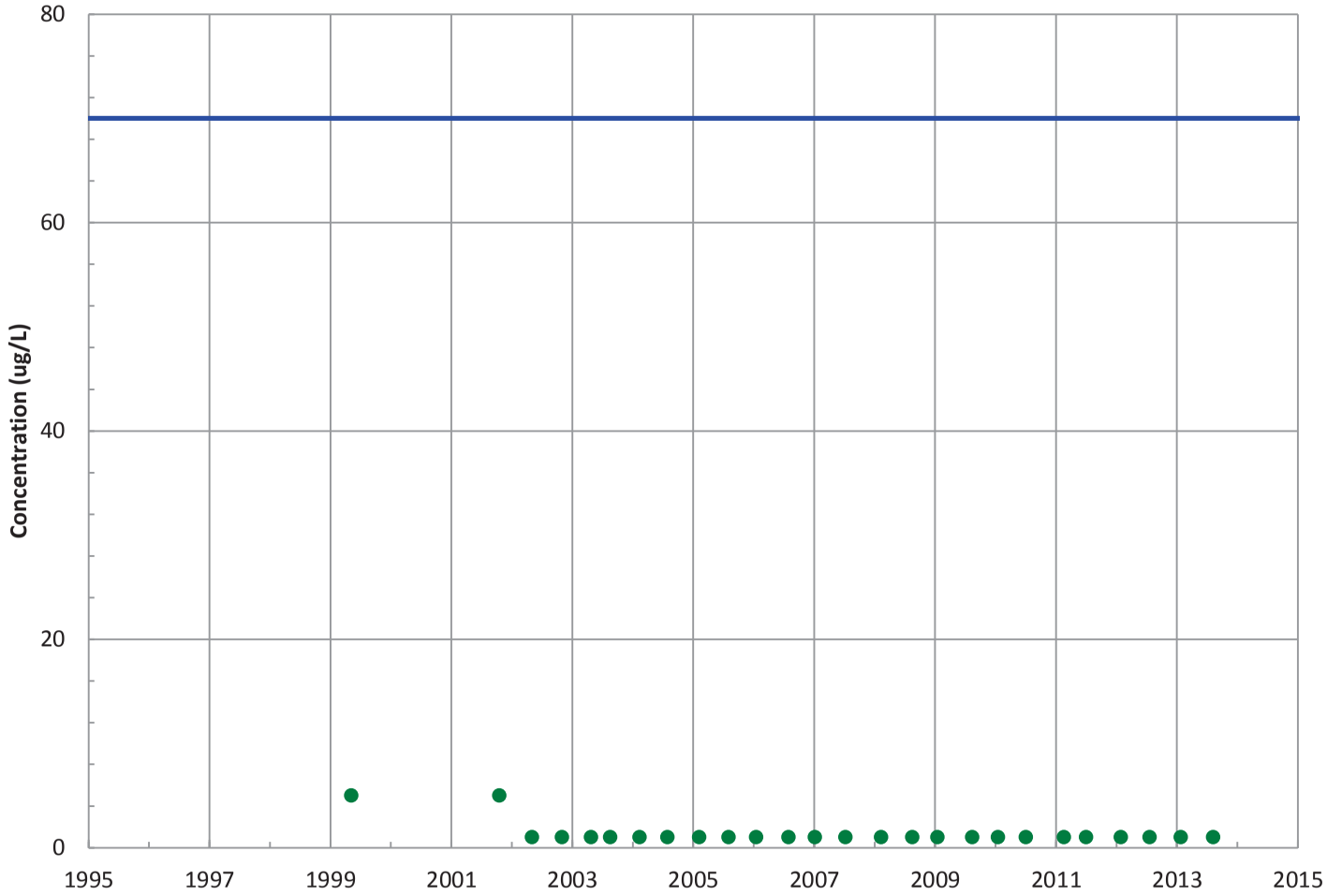
Well Location



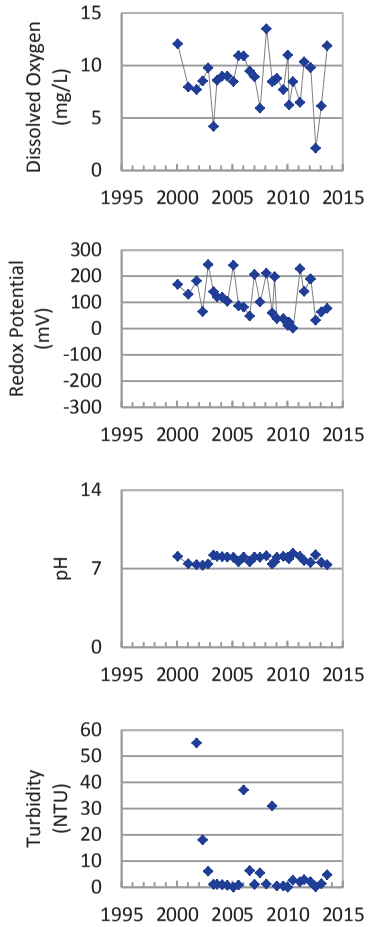
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/31/1998 to 8/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1040
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



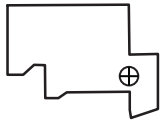
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

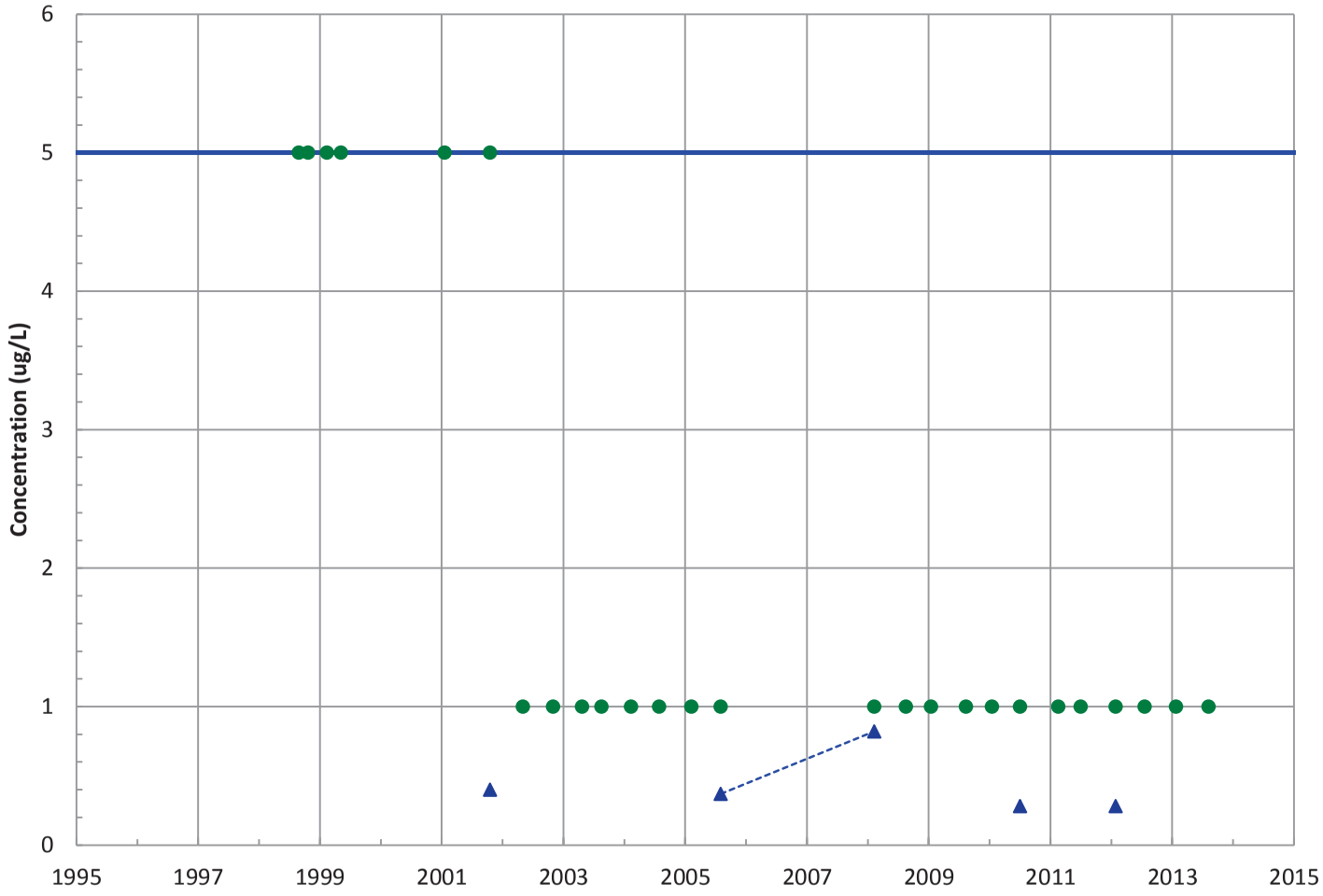
Well Location



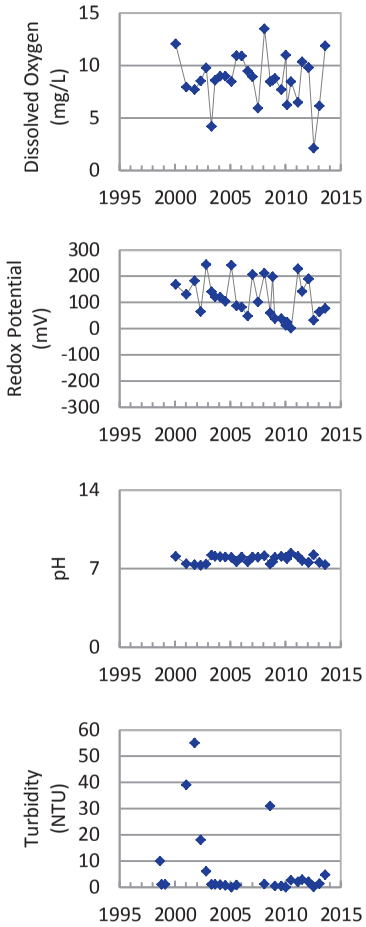
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/11/1999 to 8/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1040
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: N/A (<4 Detections in

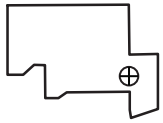
MAROS Linear Regression Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location



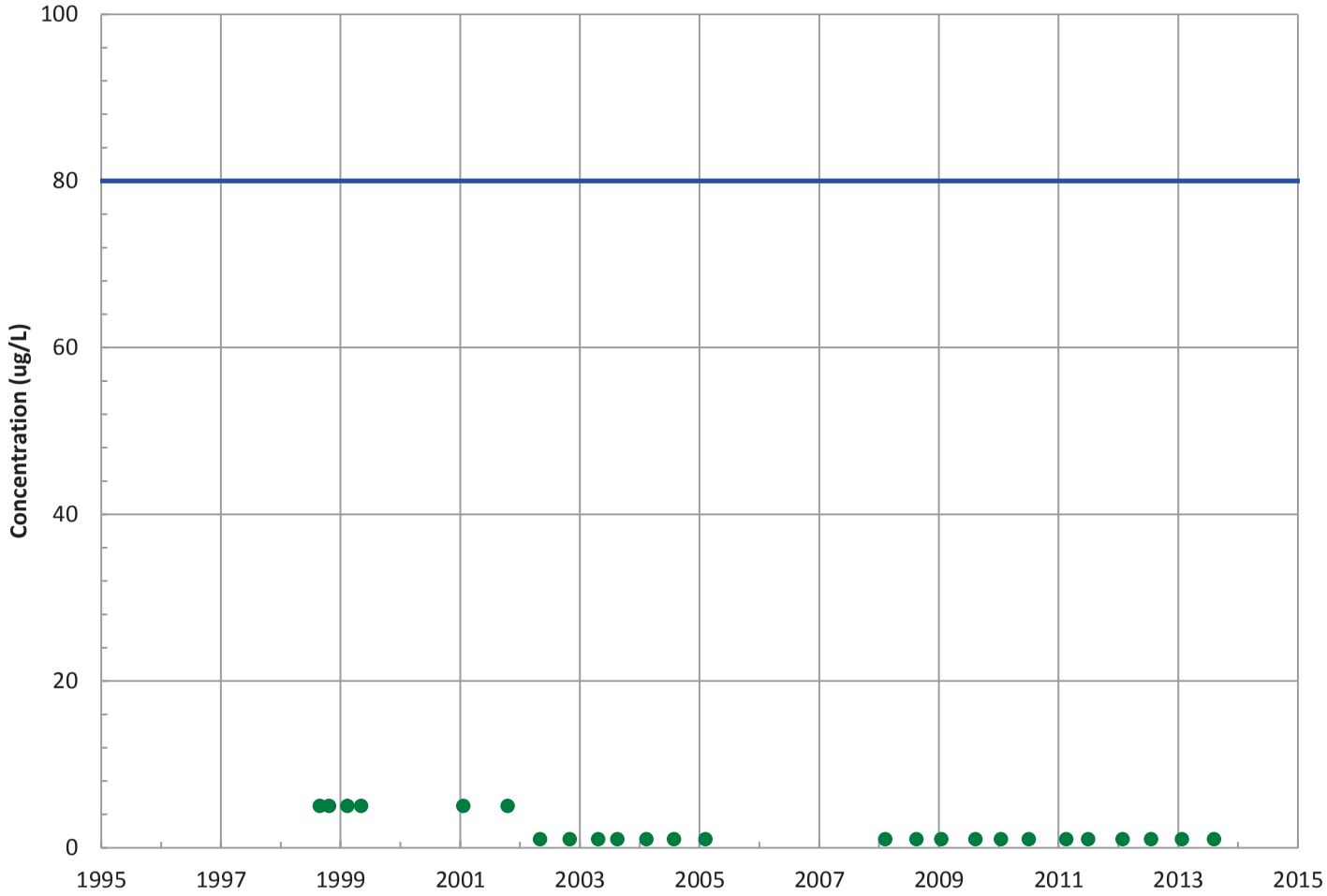
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 8/31/1998 to 8/21/2013

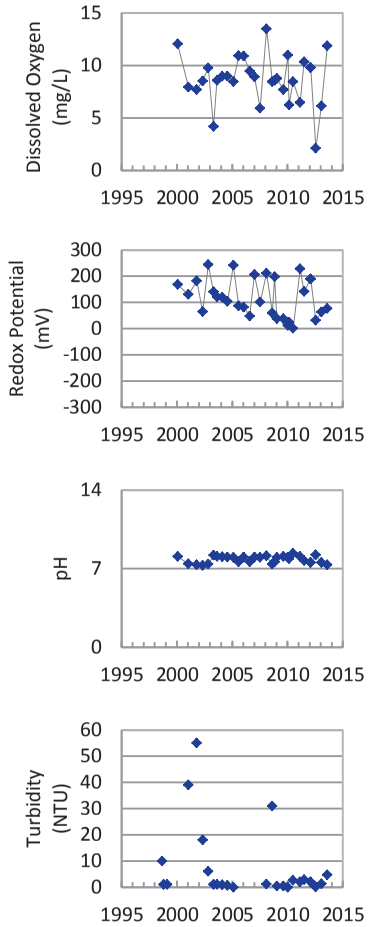
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1040
Chloroform Trend in Perched Aquifer



Field Parameters



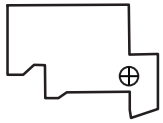
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

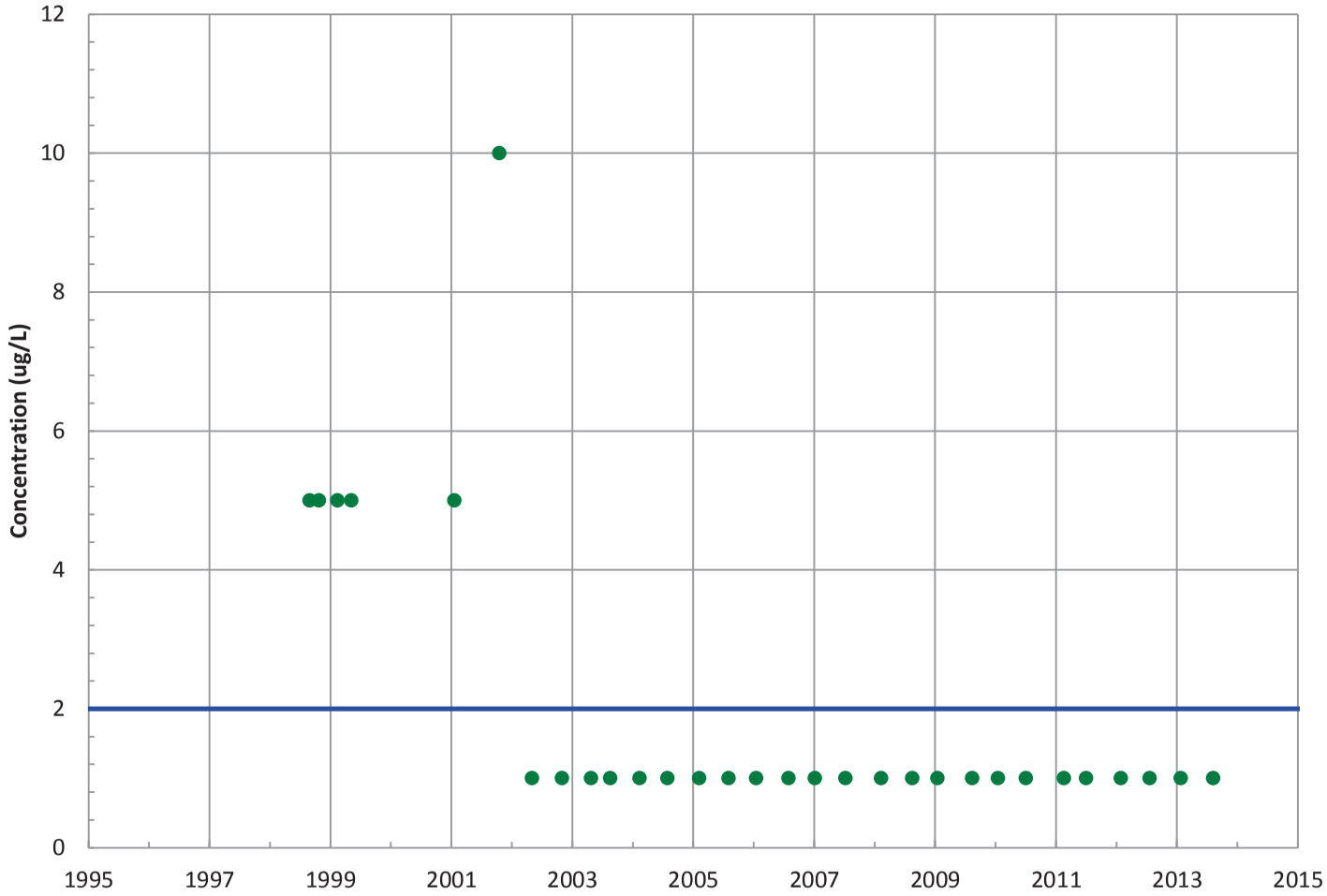
Well Location



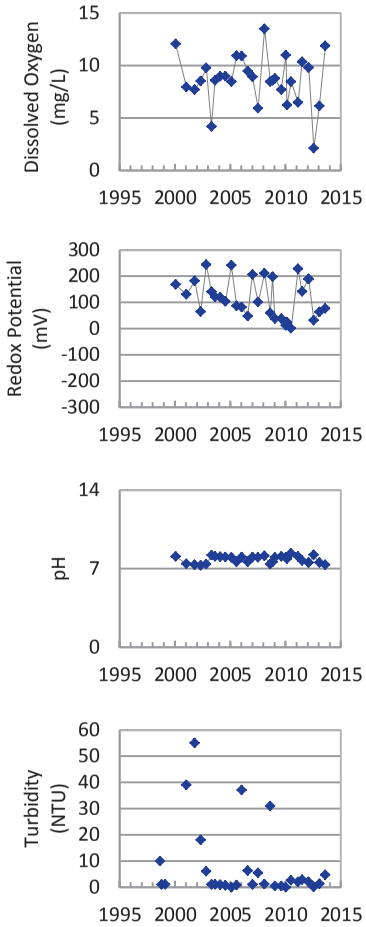
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/31/1998 to 8/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1040
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



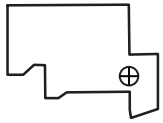
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

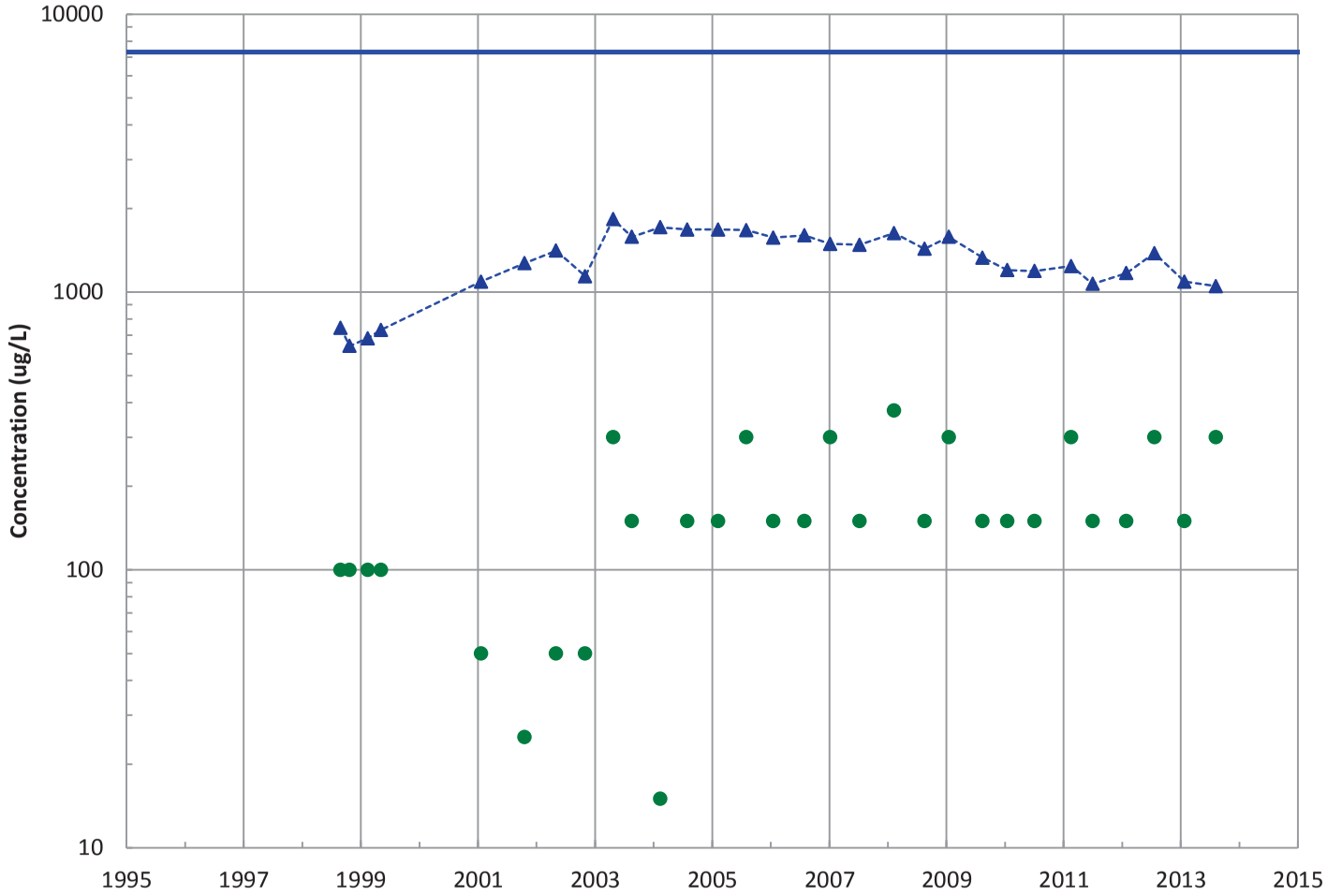
Well Location



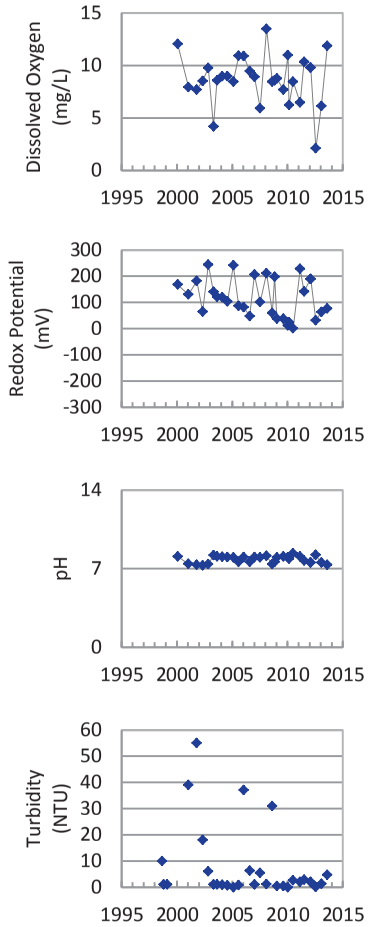
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/31/1998 to 8/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1040
Boron Trend in Perched Aquifer



Field Parameters



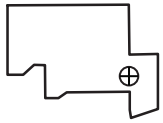
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Probably Decreasing
2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

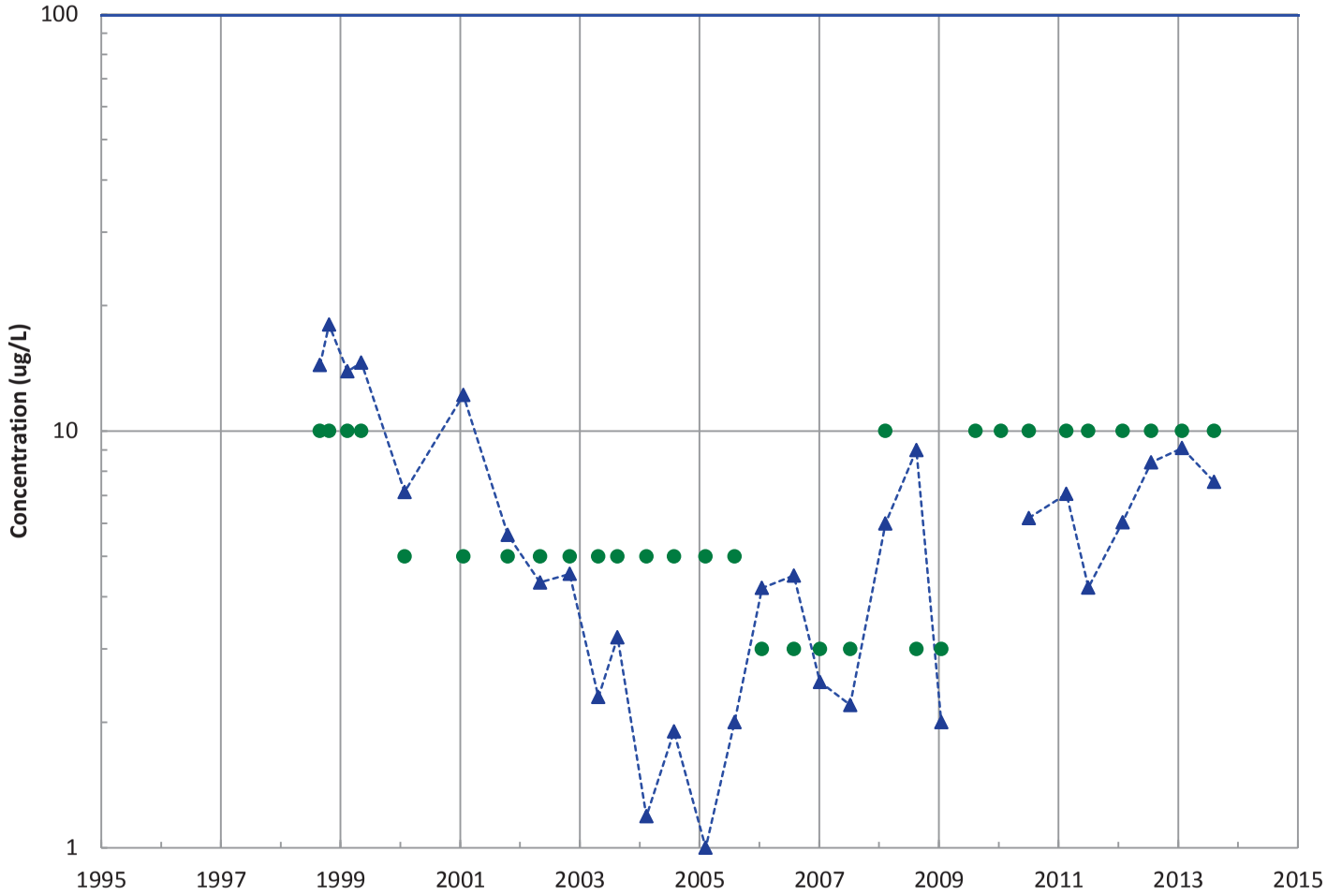
Well Location



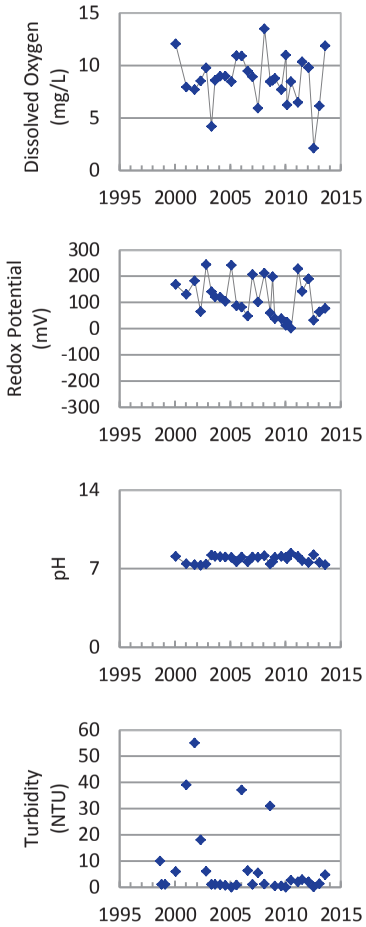
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/31/1998 to 8/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1040
Chromium, Total Trend in Perched Aquifer



Field Parameters



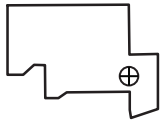
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Probably Increasing
2011 - 2013 Data: No Trend

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

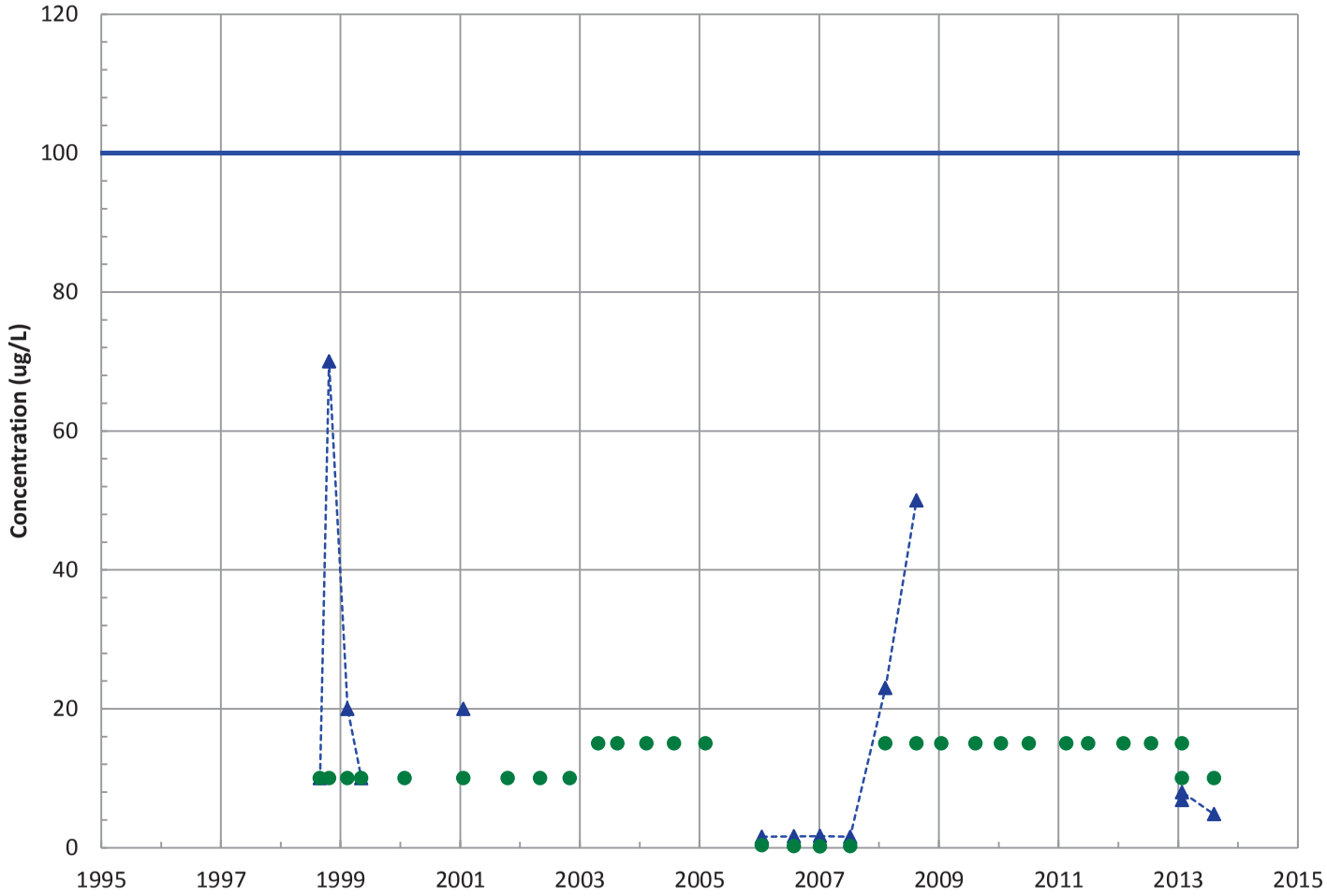
Well Location



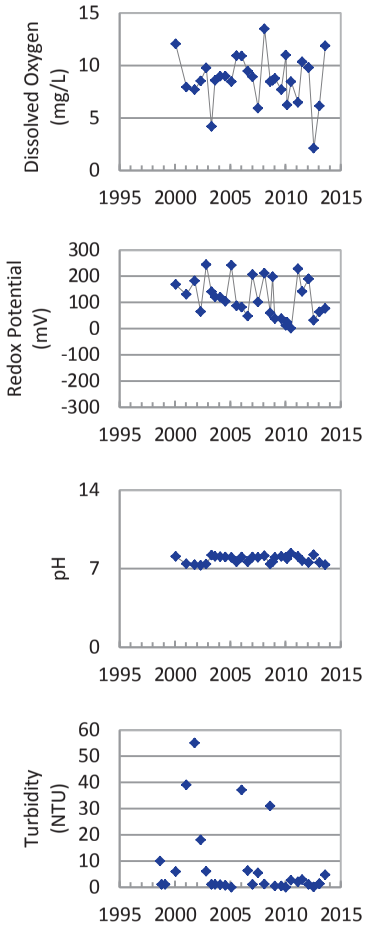
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/31/1998 to 8/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1040
Chromium, Hexavalent Trend in Perched Aquifer



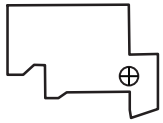
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

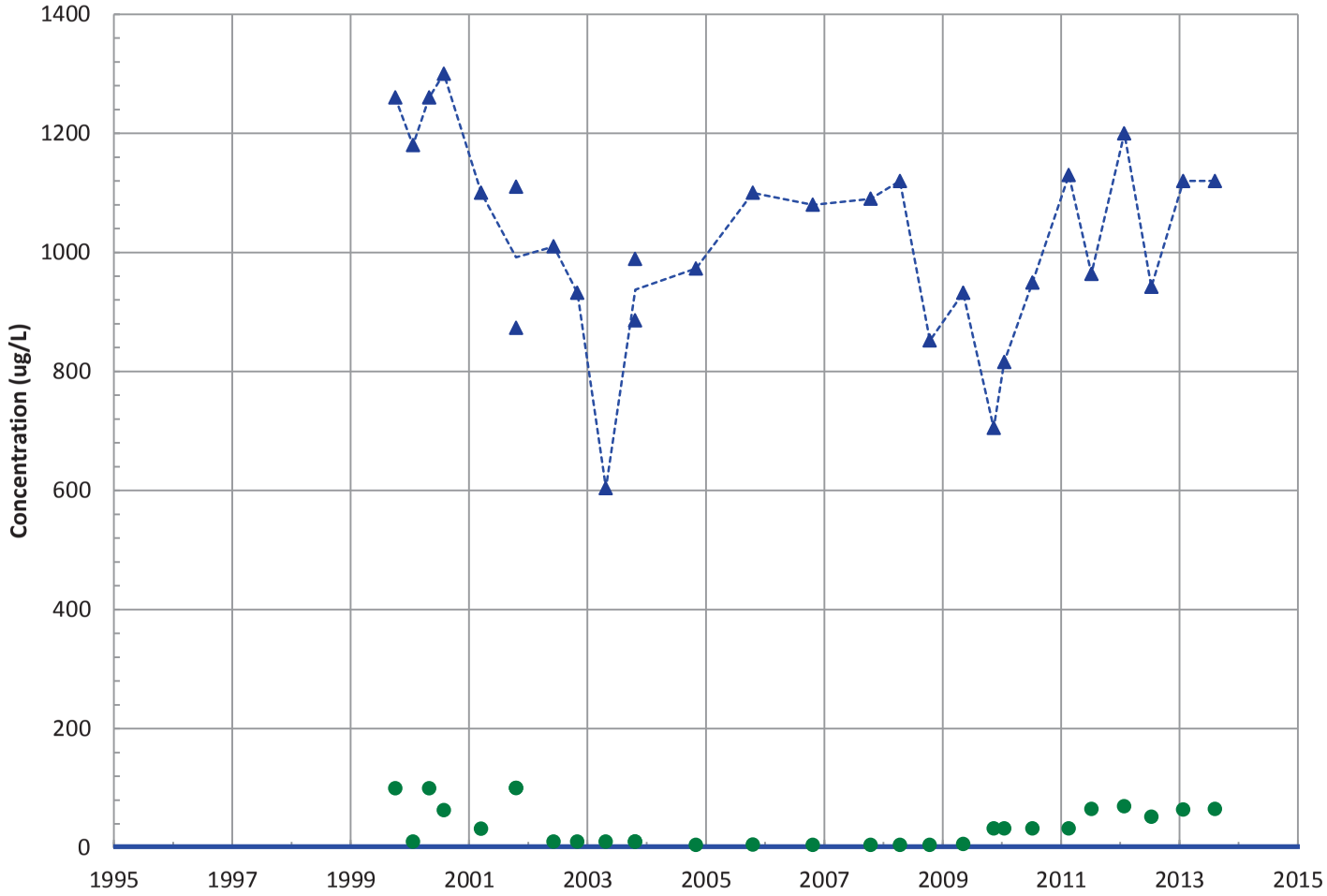
Well Location



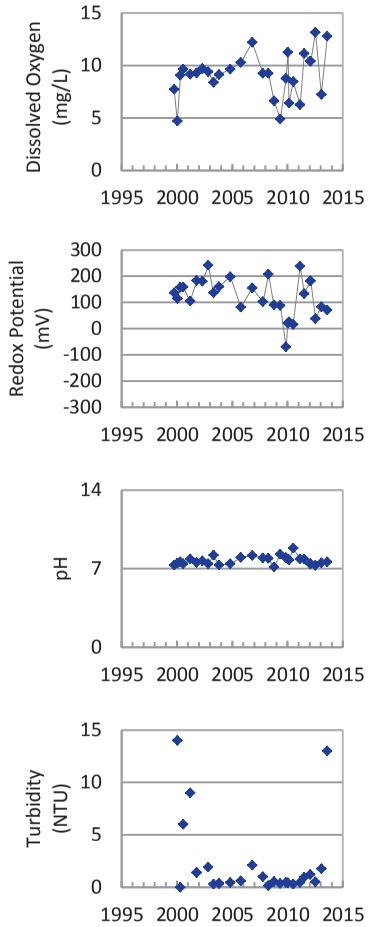
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/31/1998 to 8/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1041
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



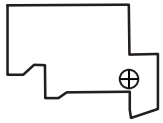
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

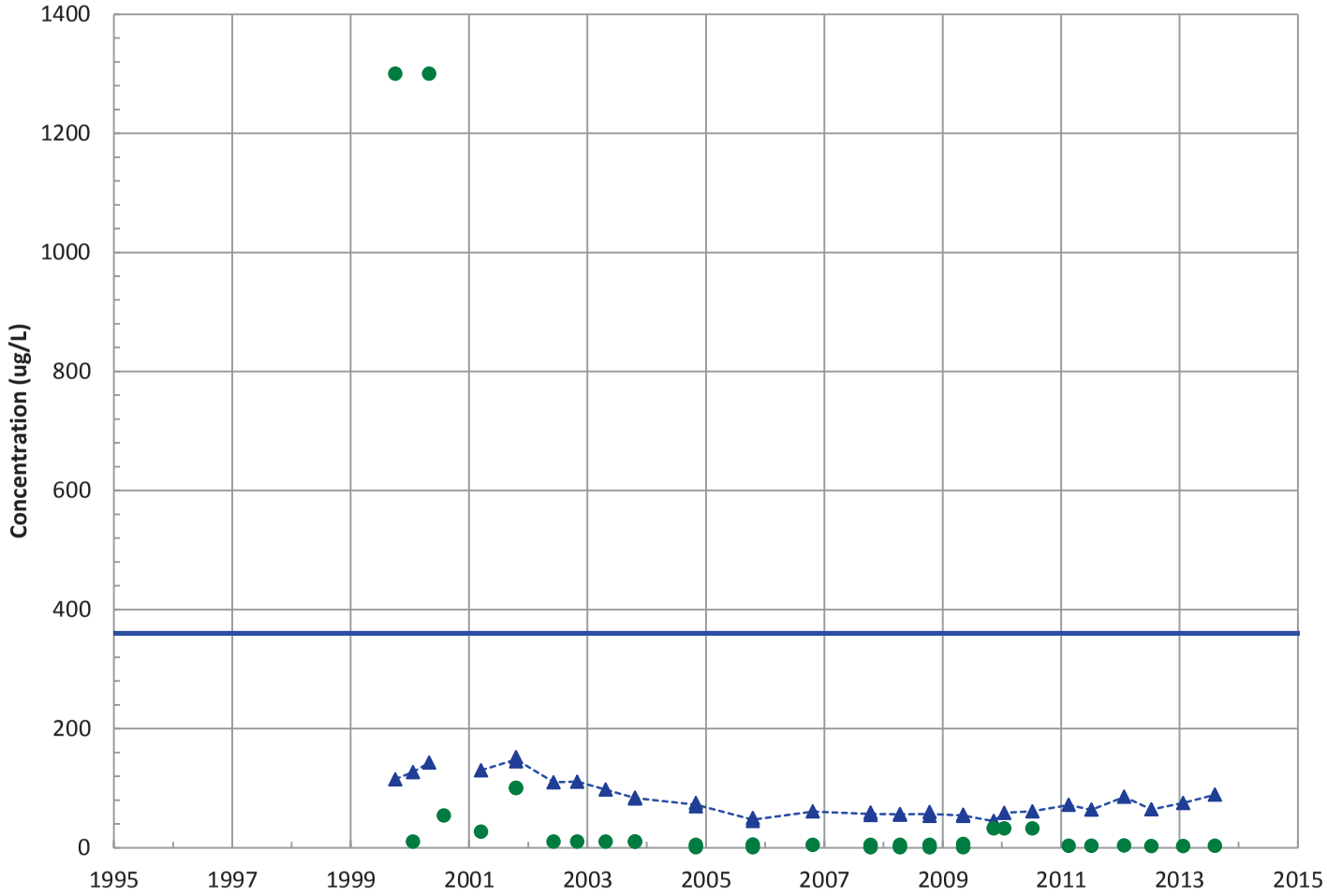
Well Location



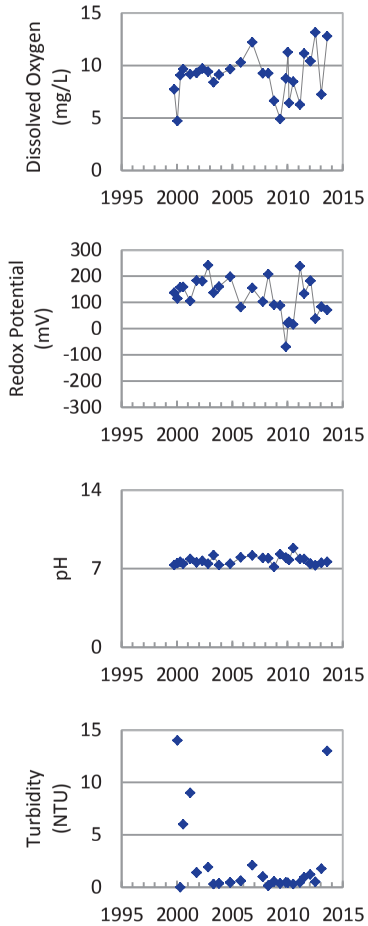
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/7/1999 to 8/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1041
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



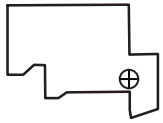
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

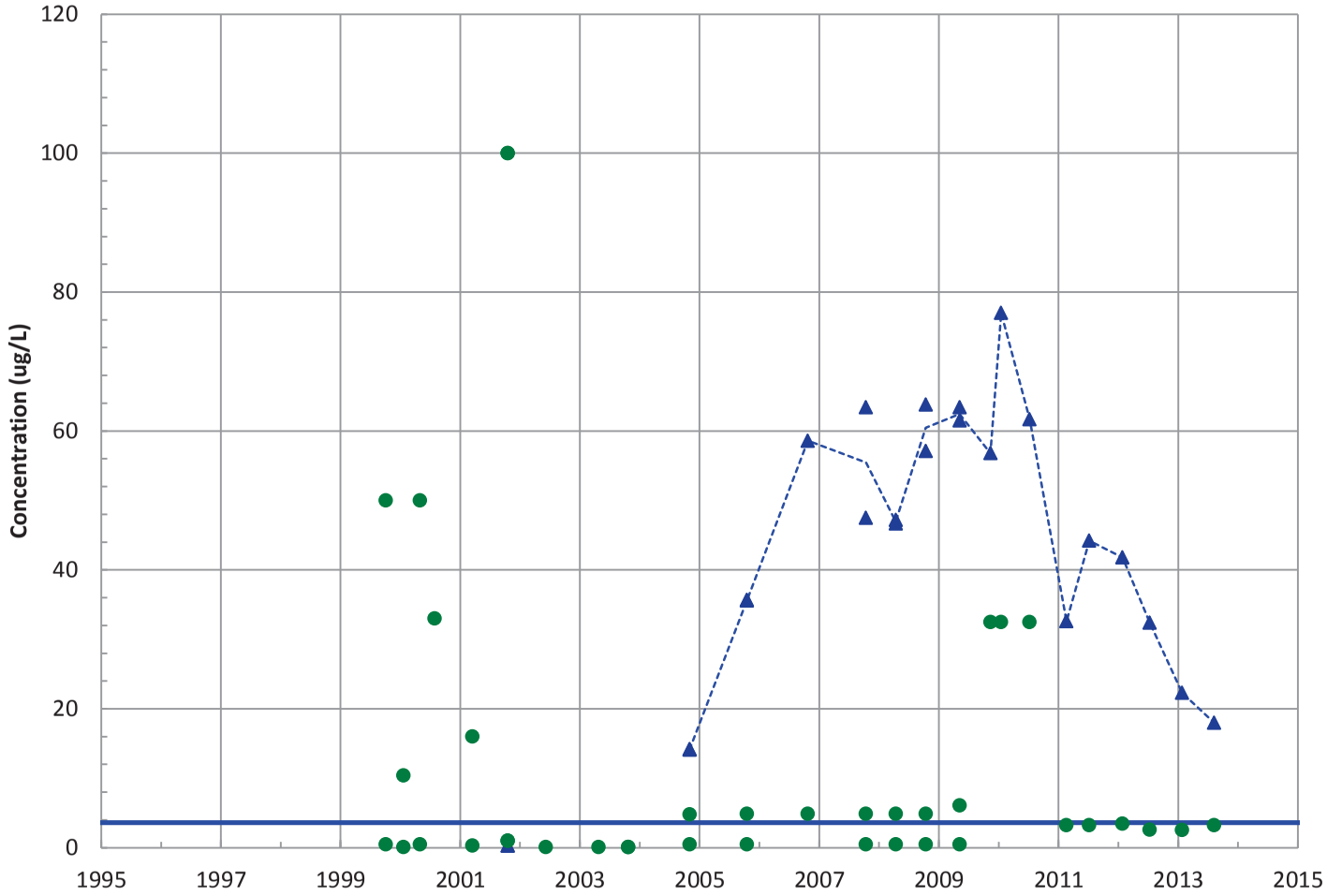
Well Location



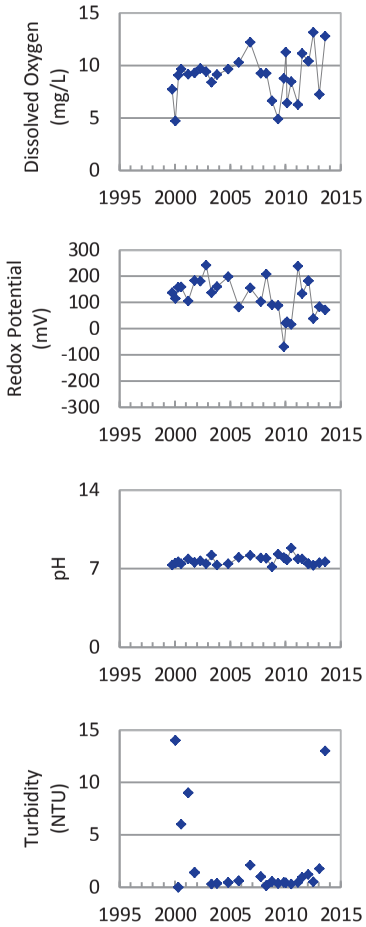
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/7/1999 to 8/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1041
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



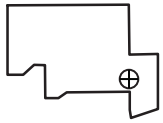
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

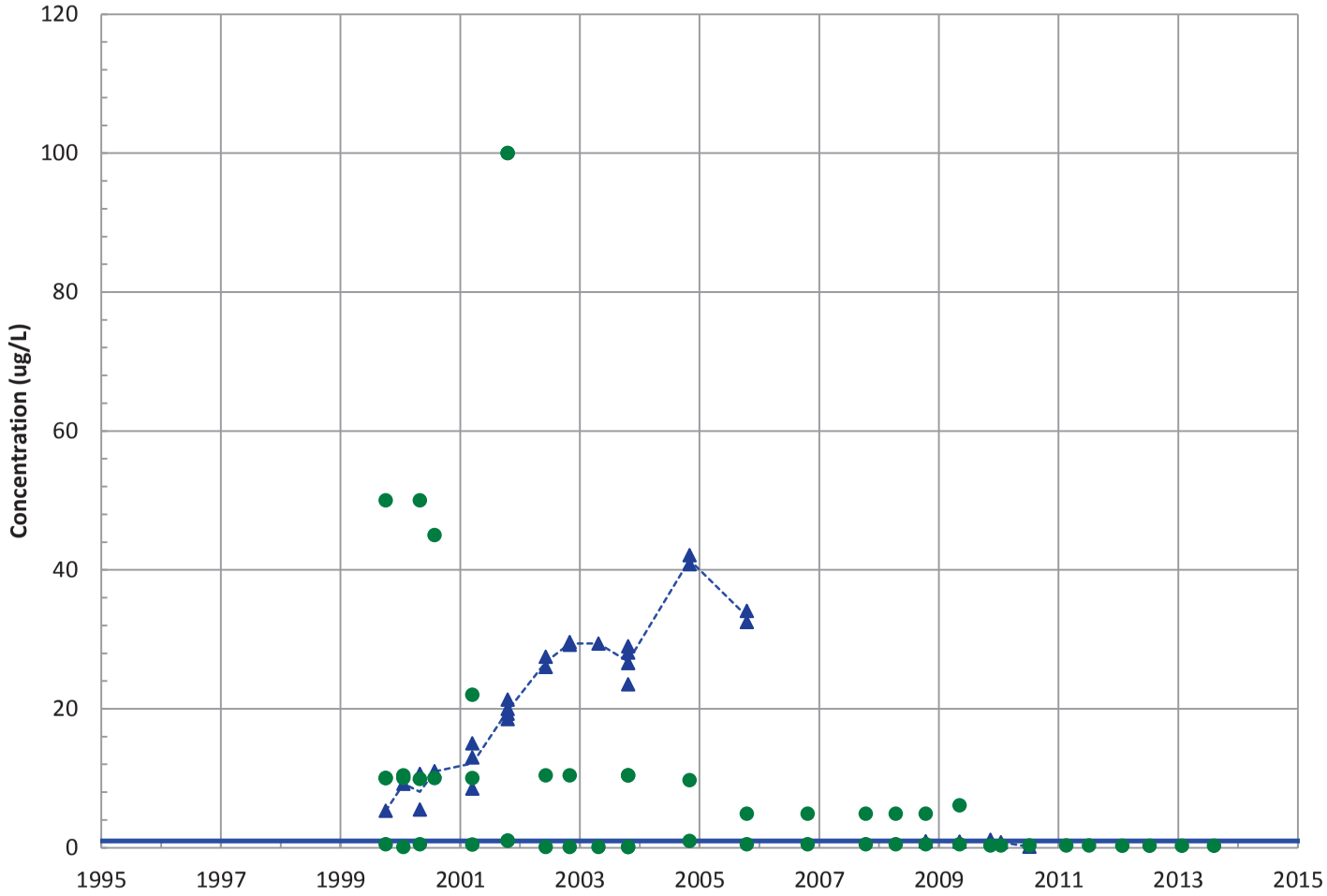
Well Location



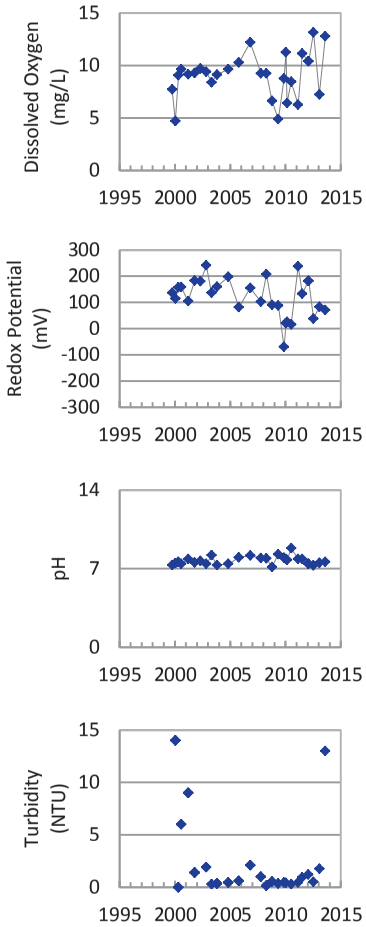
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/7/1999 to 8/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1041
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: All Non-Detect

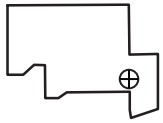
MAROS Linear Regression Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location



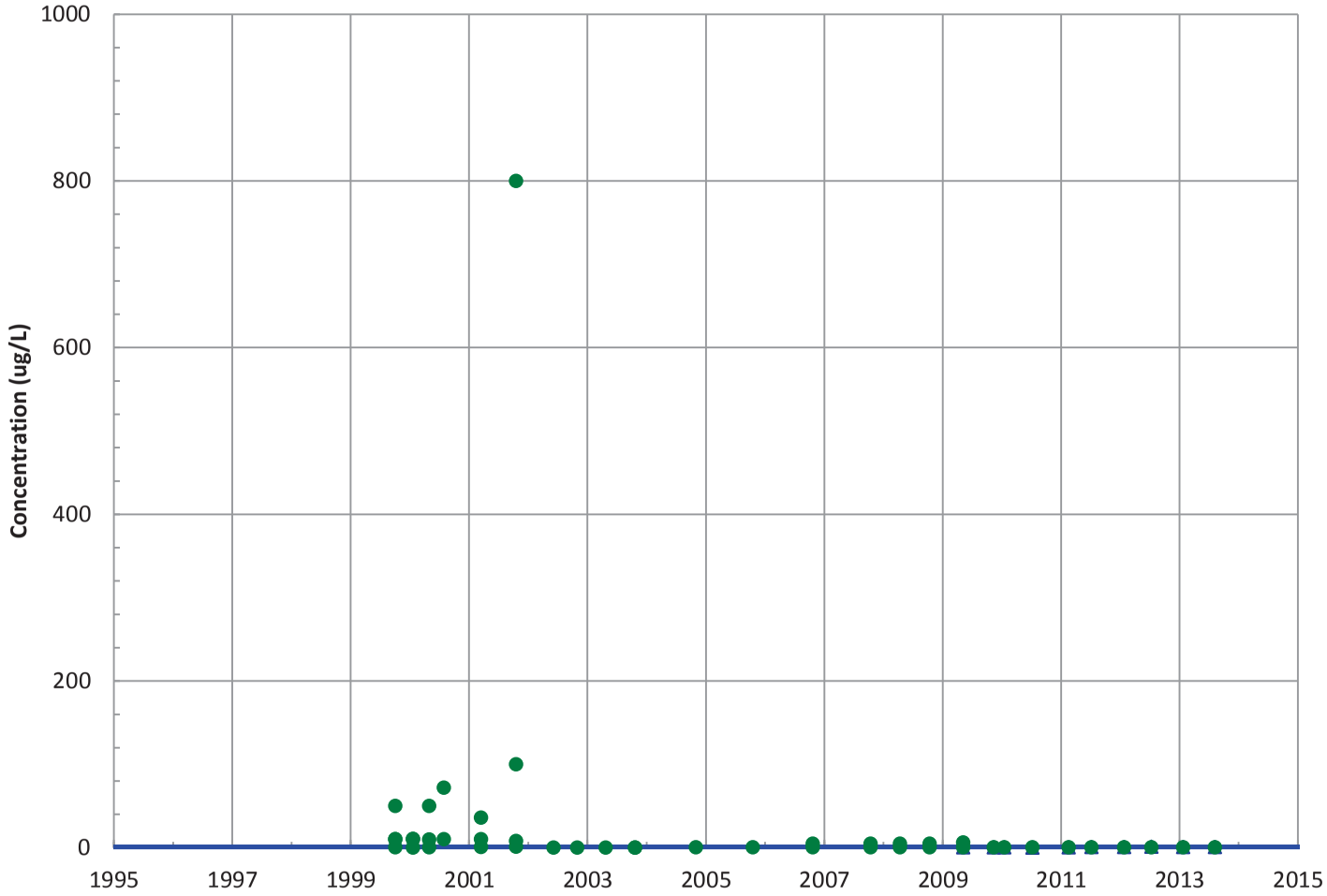
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 10/7/1999 to 8/21/2013

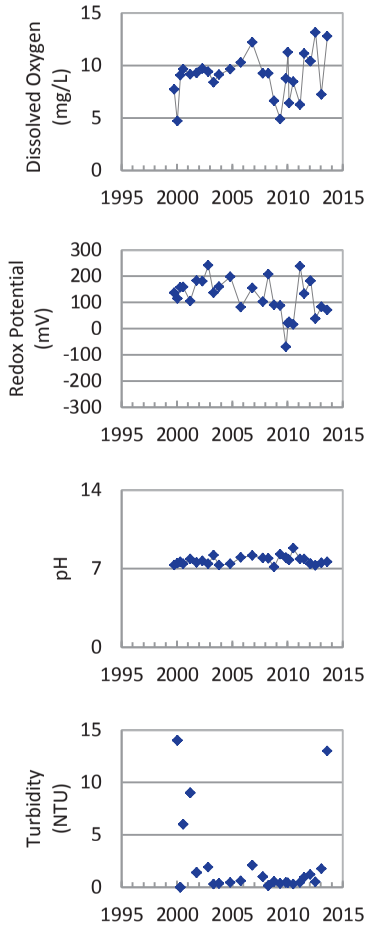
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1041
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



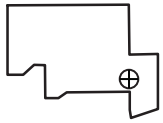
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

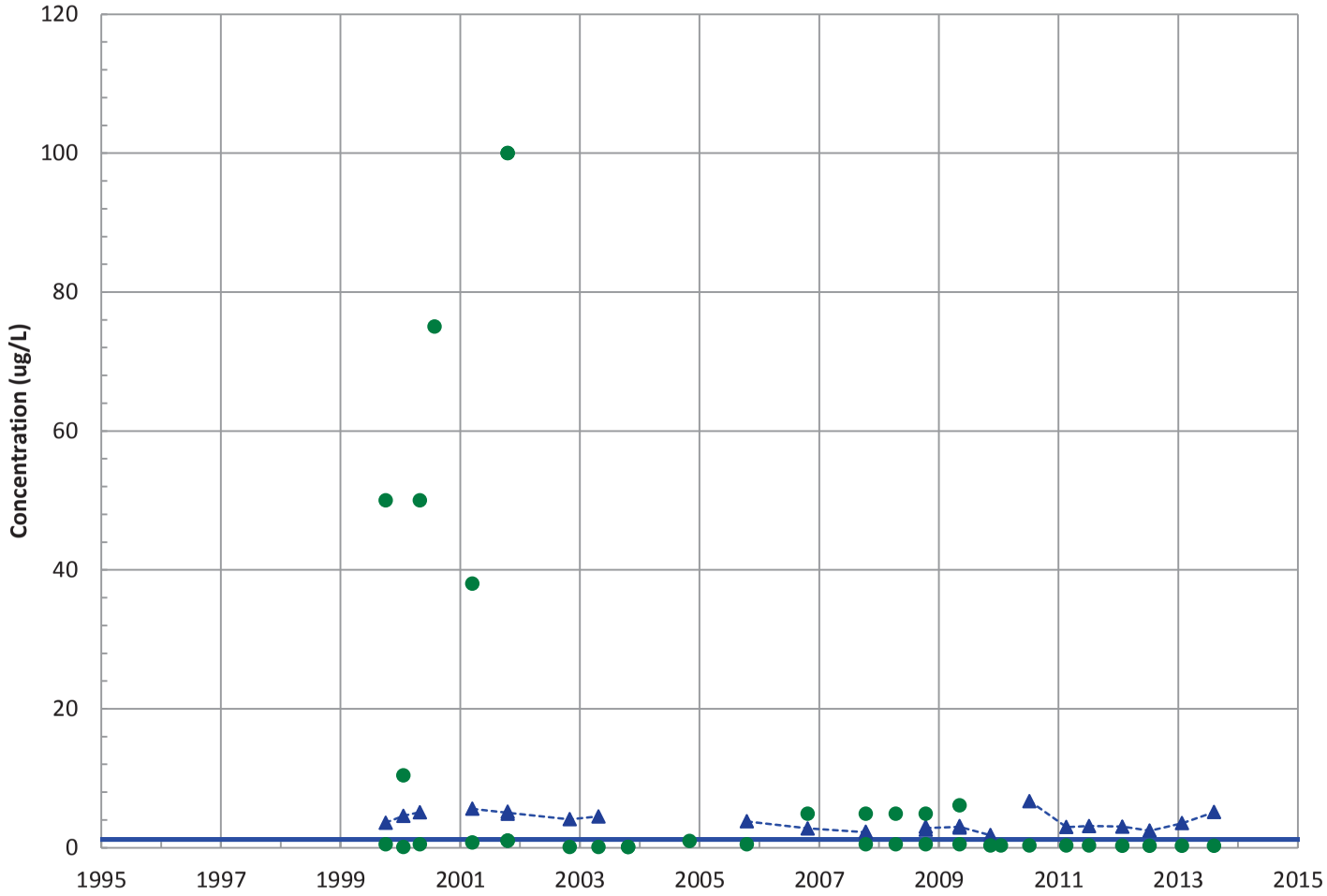
Well Location



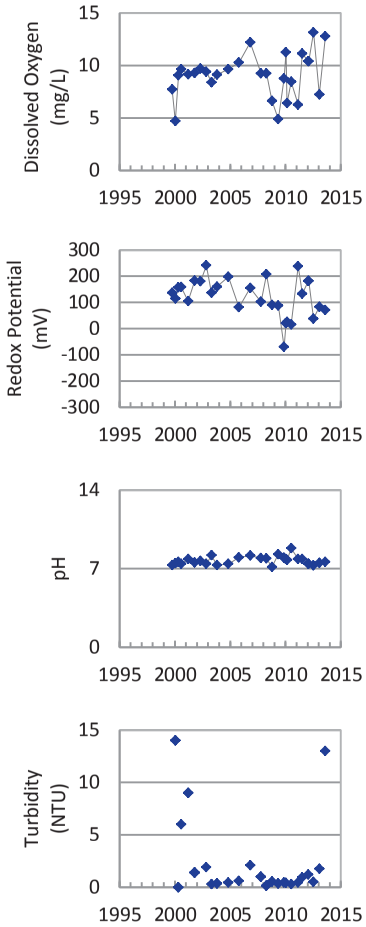
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/7/1999 to 8/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1041
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Probably Increasing

2011 - 2013 Data: No Trend

MAROS Linear Regression Method

Data (7/2009 - 12/2013): No Trend

2011 - 2013 Data: Probably Increasing

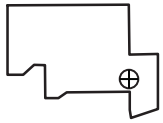
▲ Measured Value

● Sample Detection Limit

------- Concentration Trend

——— Groundwater Protection Standard

Well Location



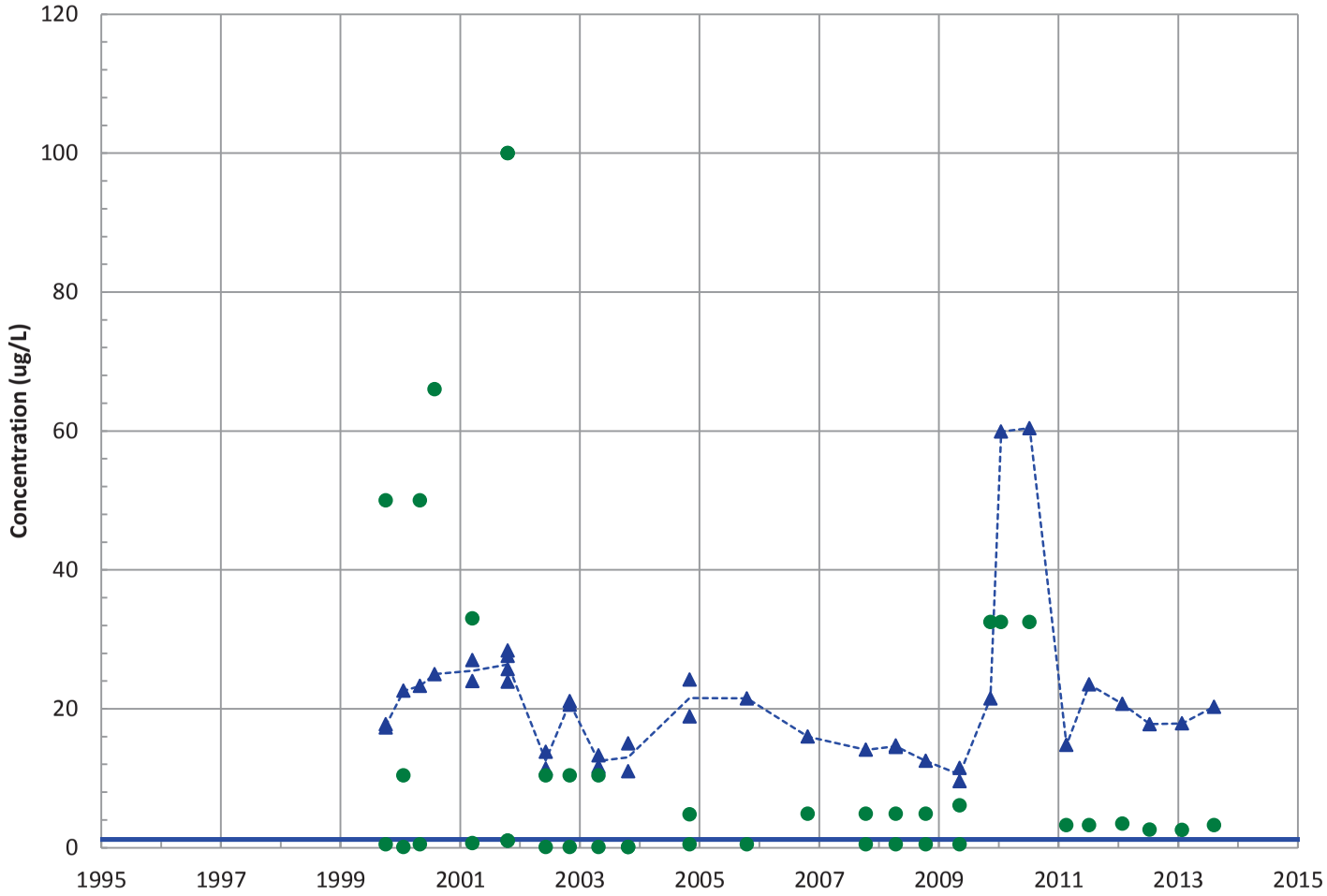
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 10/7/1999 to 8/21/2013

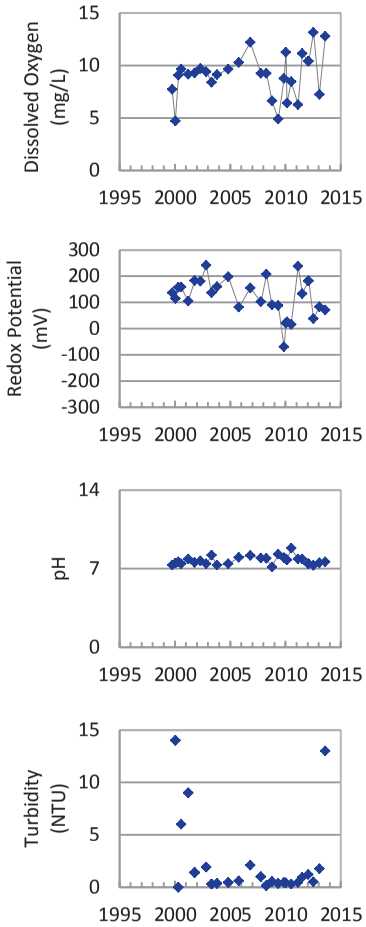
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1041
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



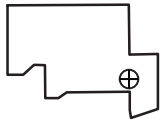
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Probably Decreasing
2011 - 2013 Data: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

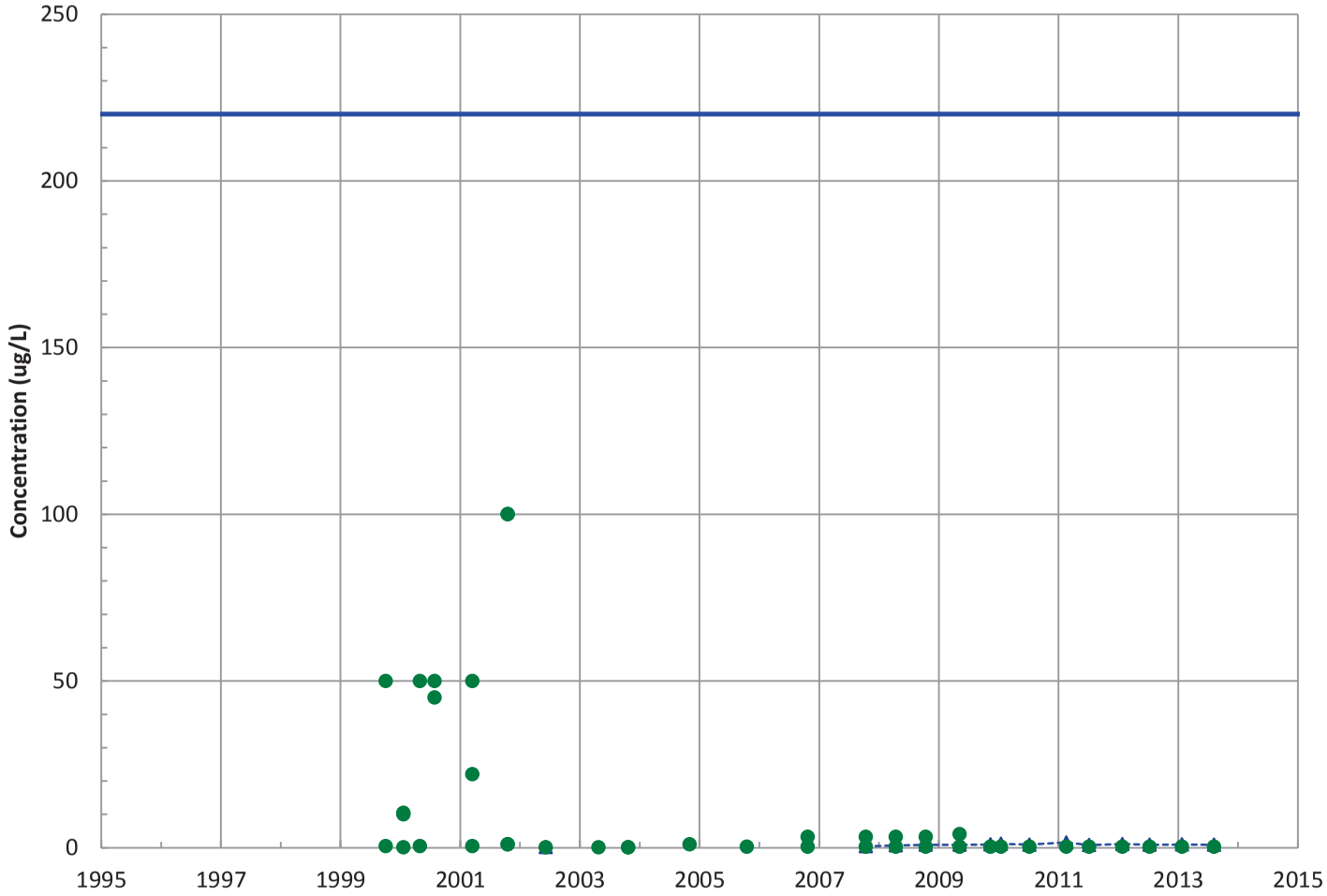
Well Location



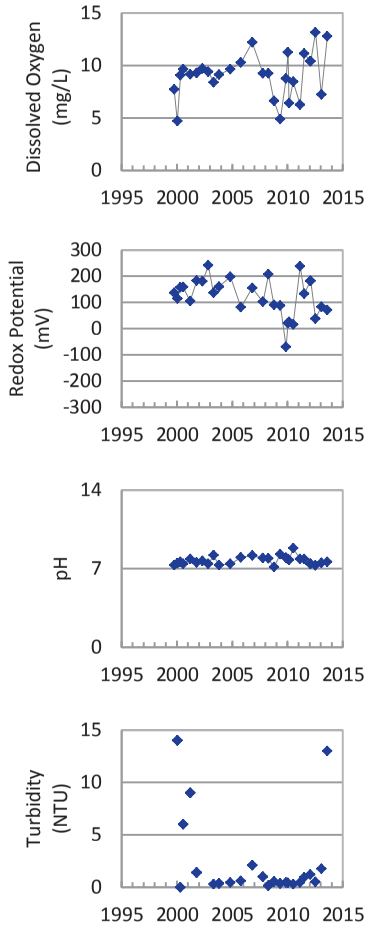
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/7/1999 to 8/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1041
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



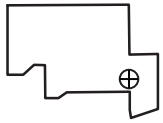
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Probably Decreasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

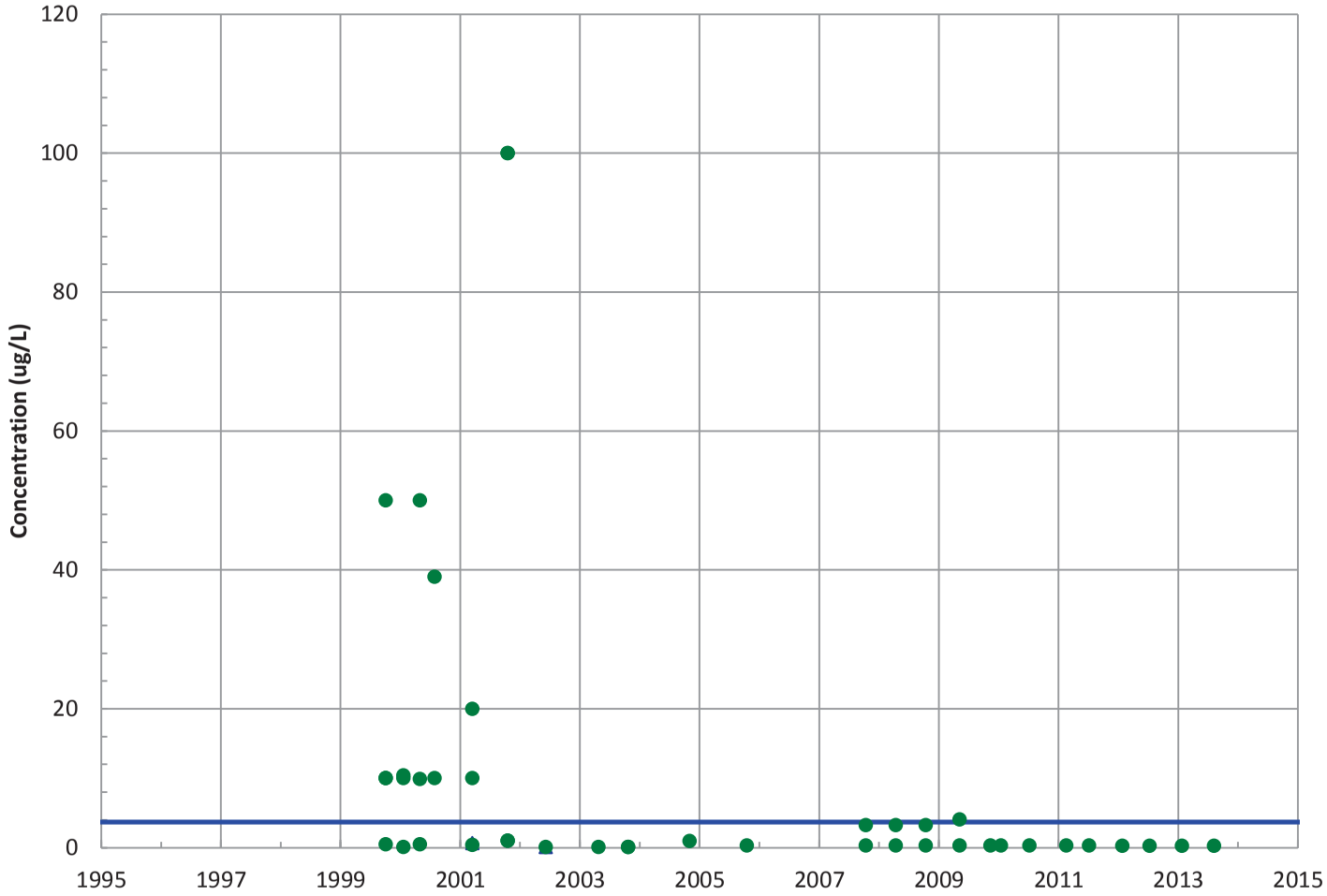
Well Location



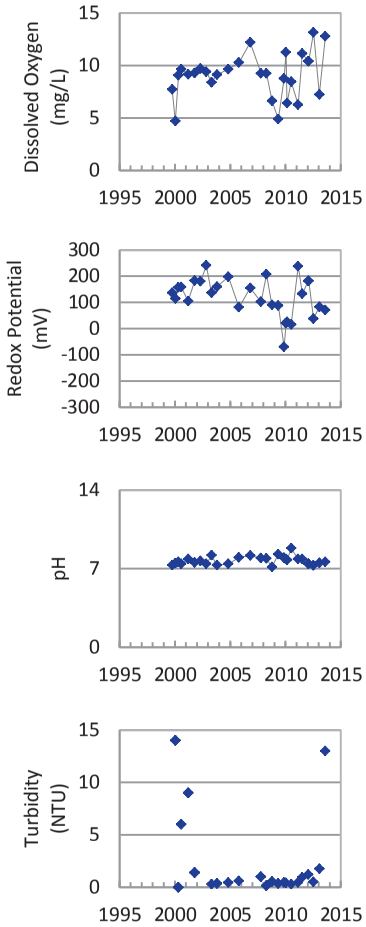
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/7/1999 to 8/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1041
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



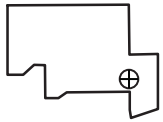
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

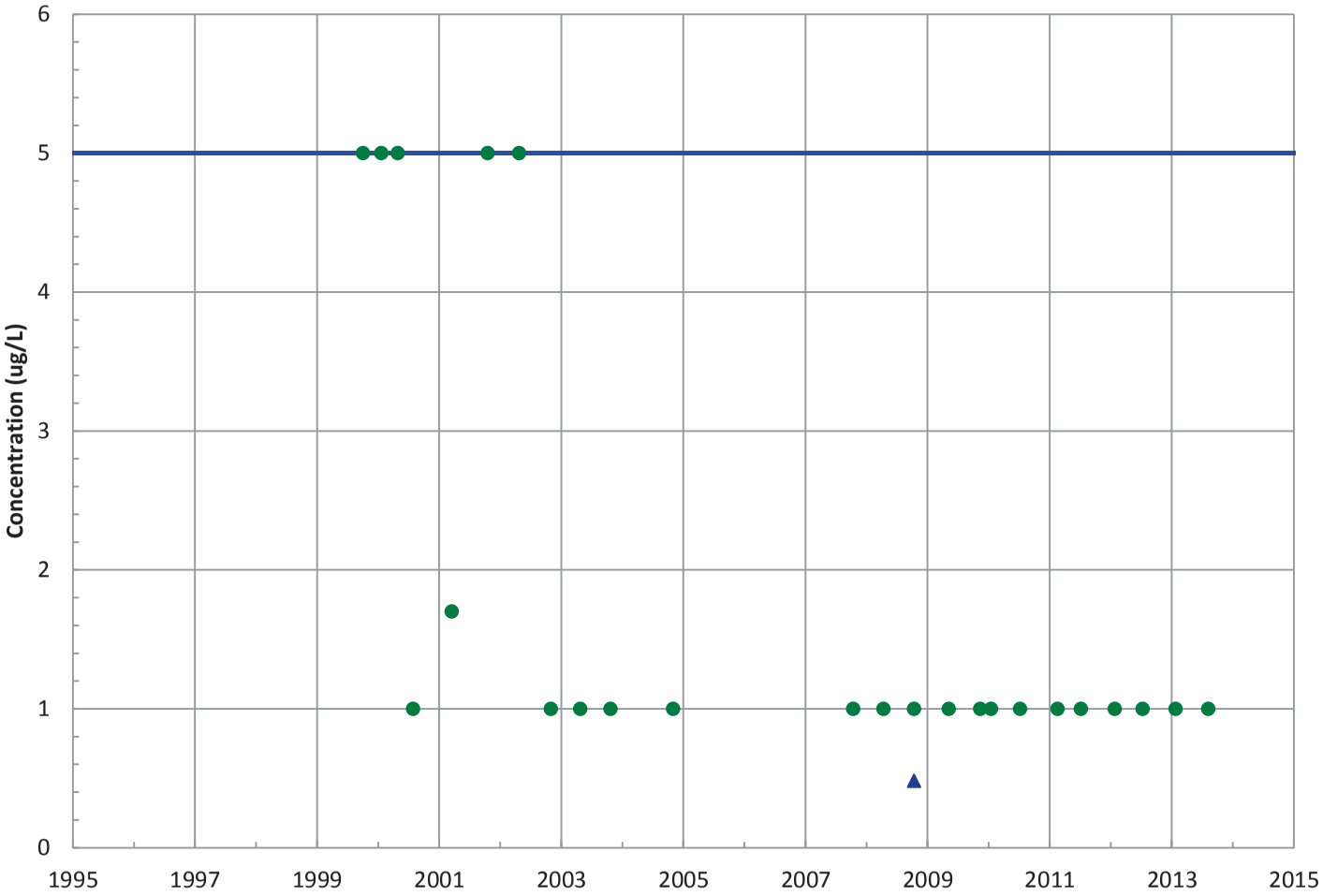
Well Location



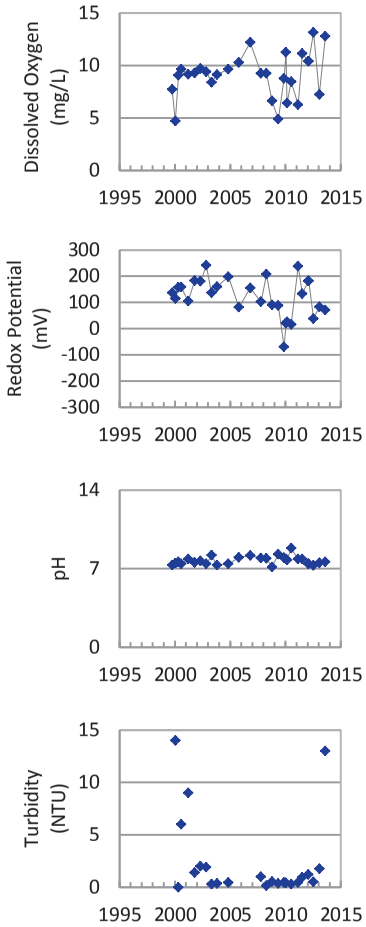
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/7/1999 to 8/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1041
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



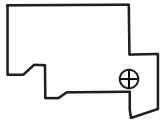
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

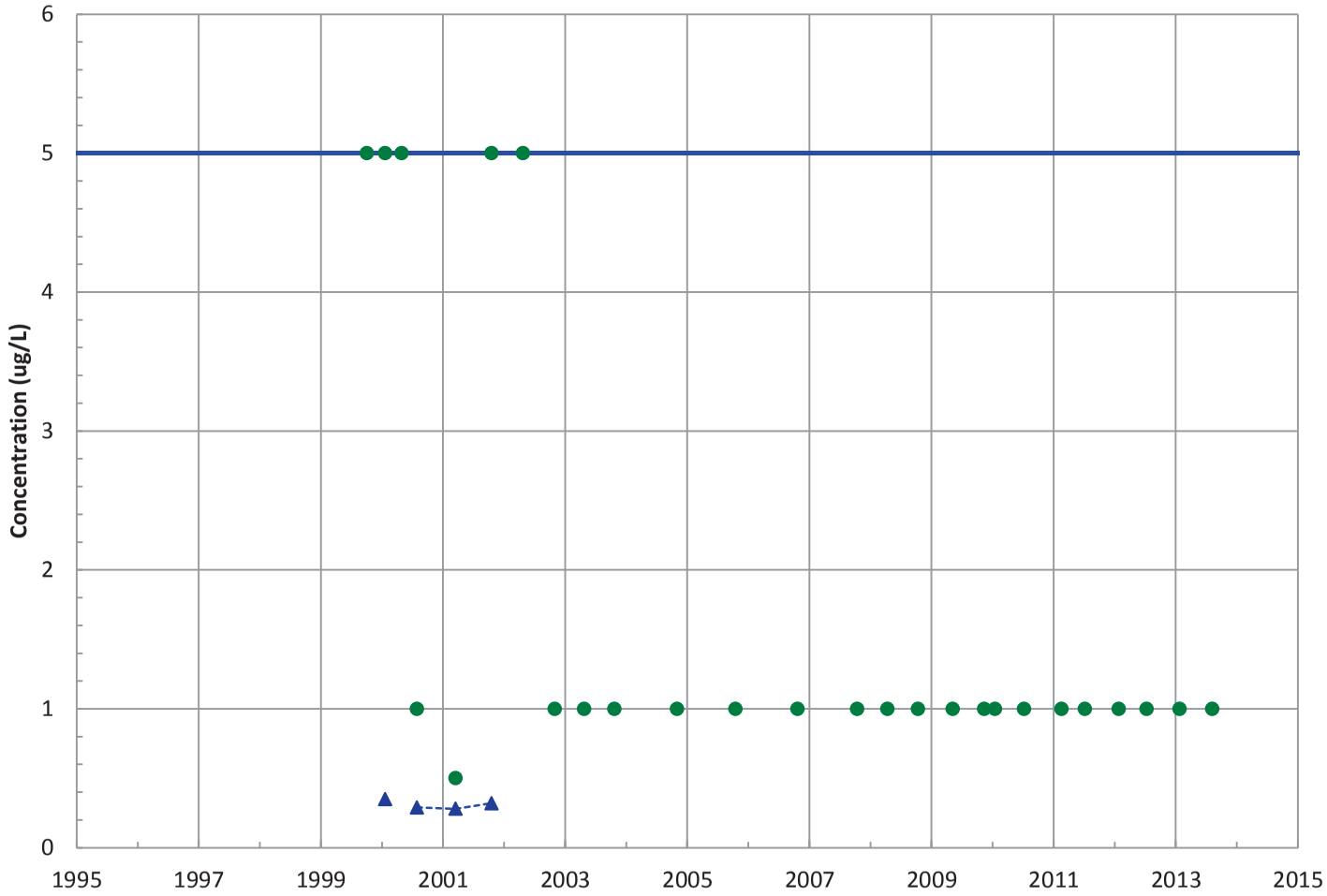
Well Location



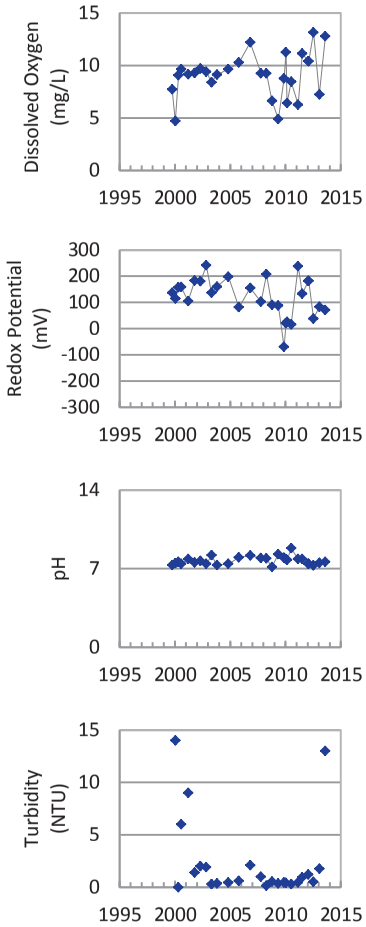
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/7/1999 to 8/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1041
Trichloroethene Trend in Perched Aquifer



Field Parameters



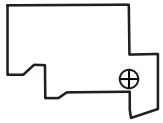
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

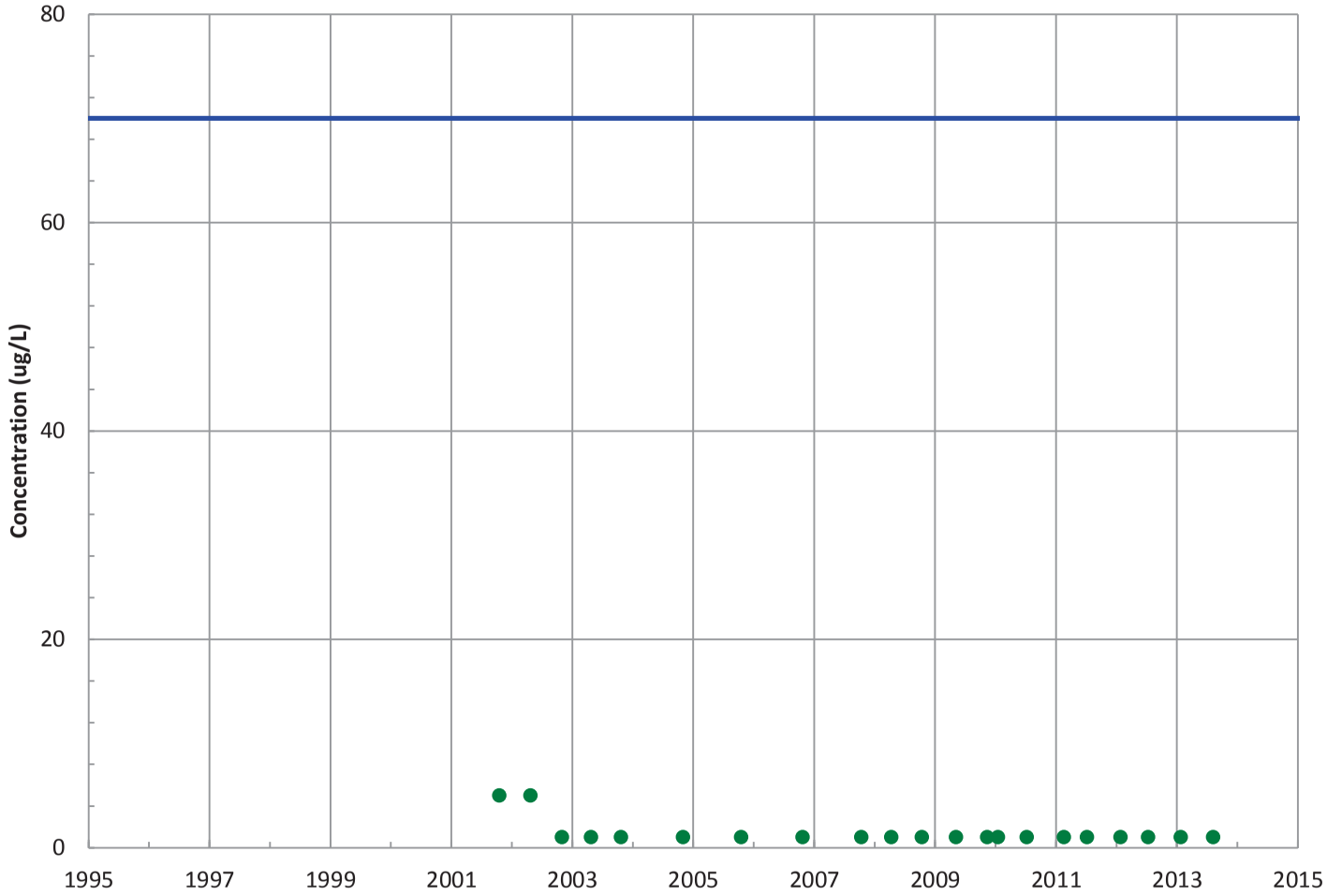
Well Location



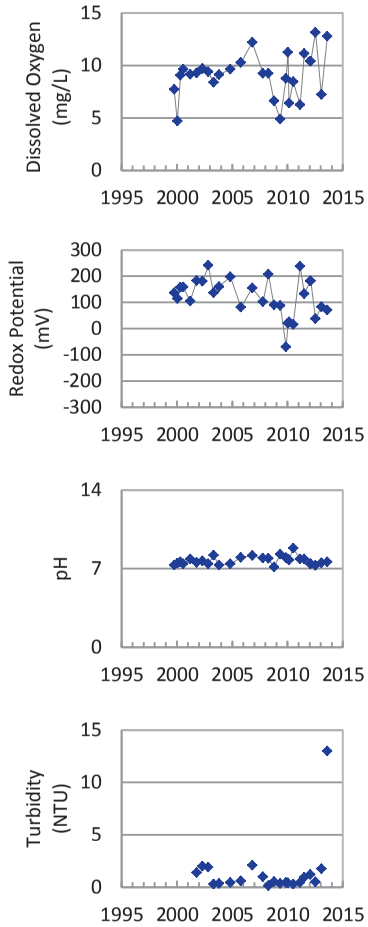
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/7/1999 to 8/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1041
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



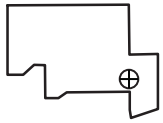
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

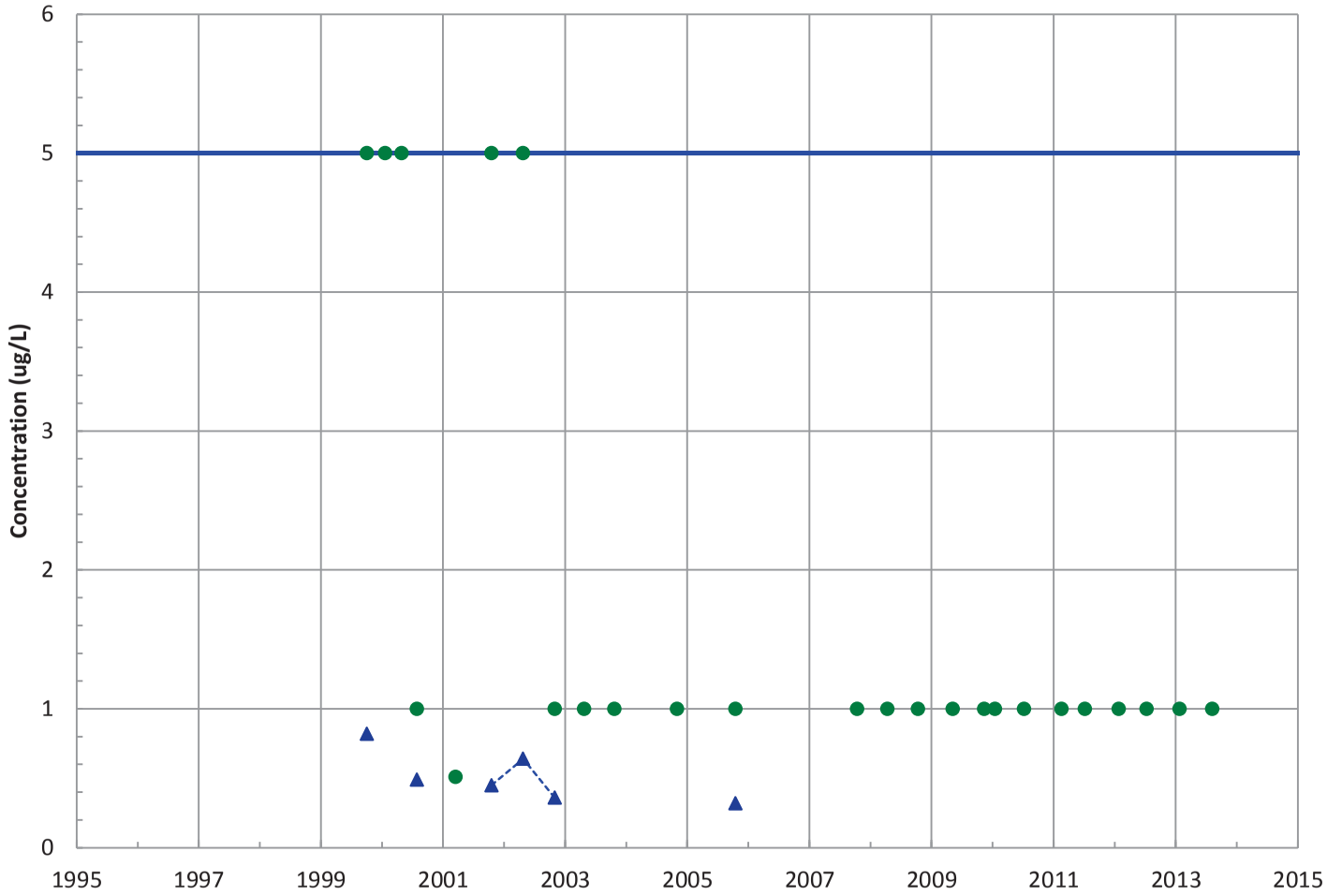
Well Location



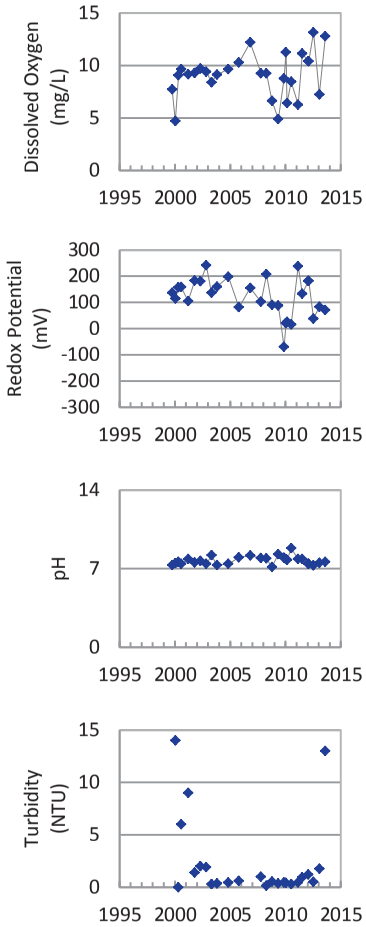
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/23/2001 to 8/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1041
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



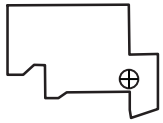
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

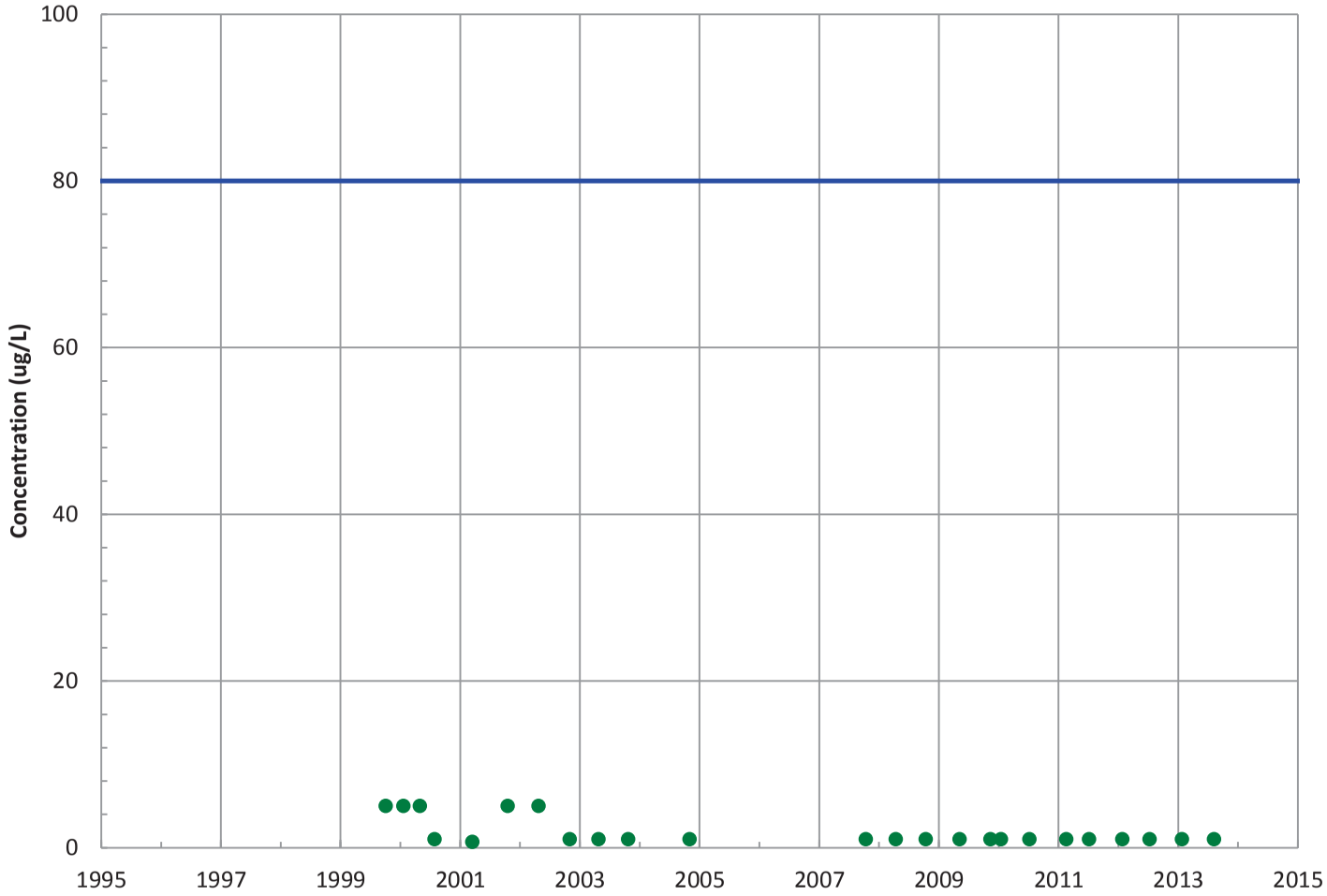
Well Location



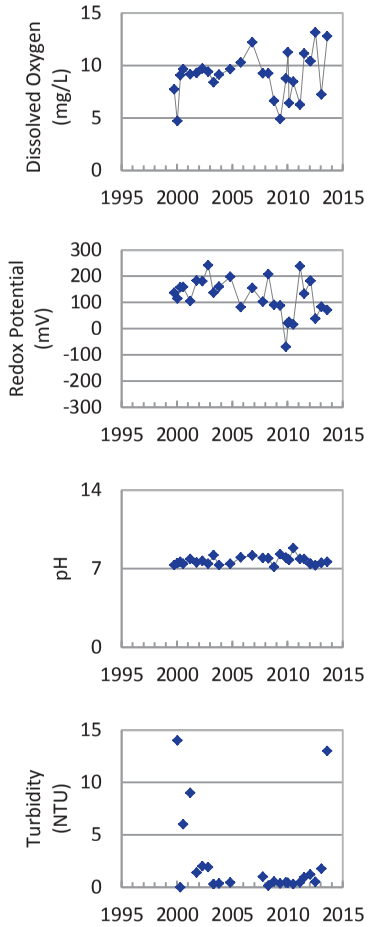
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/7/1999 to 8/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1041
Chloroform Trend in Perched Aquifer



Field Parameters



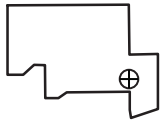
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

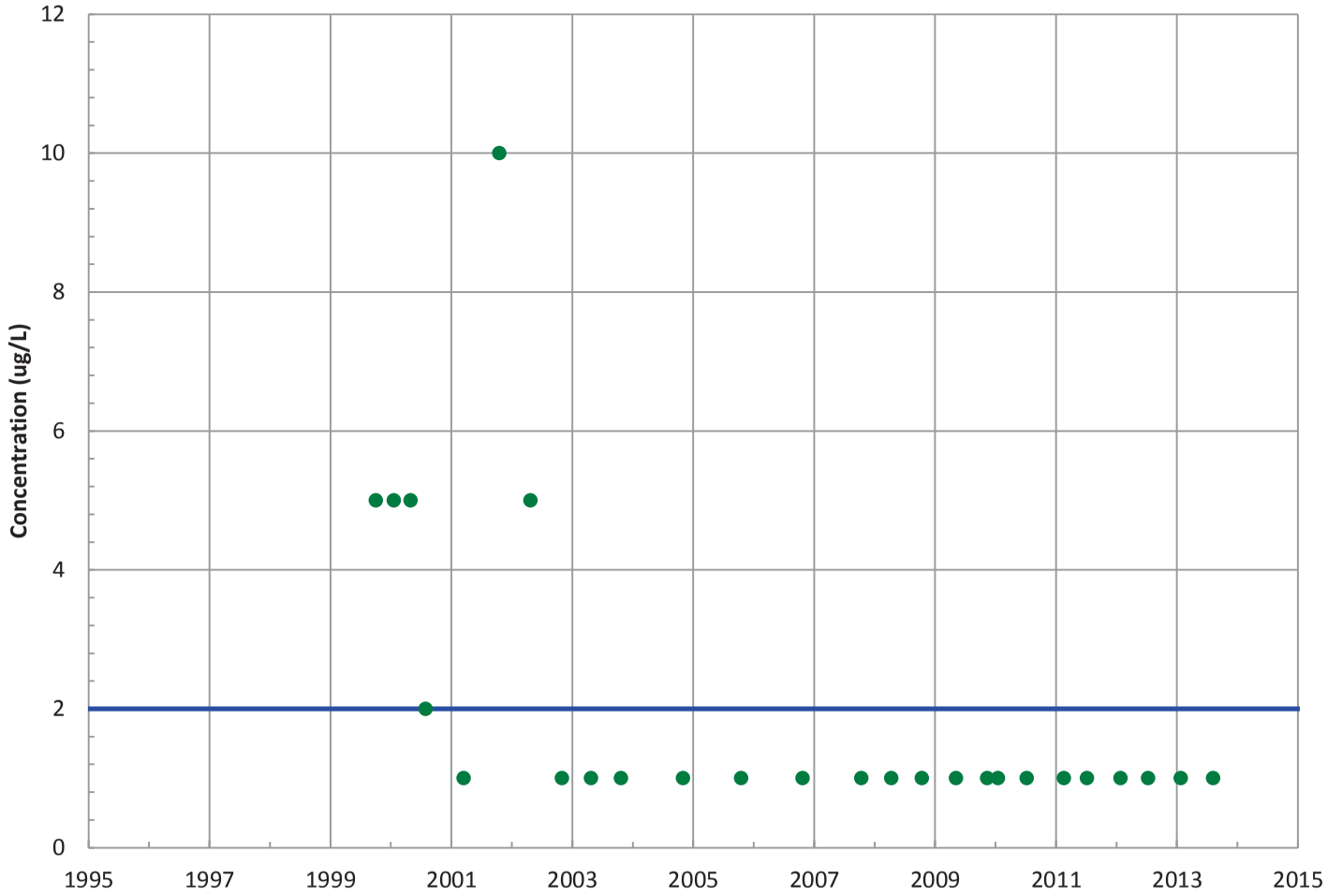
Well Location



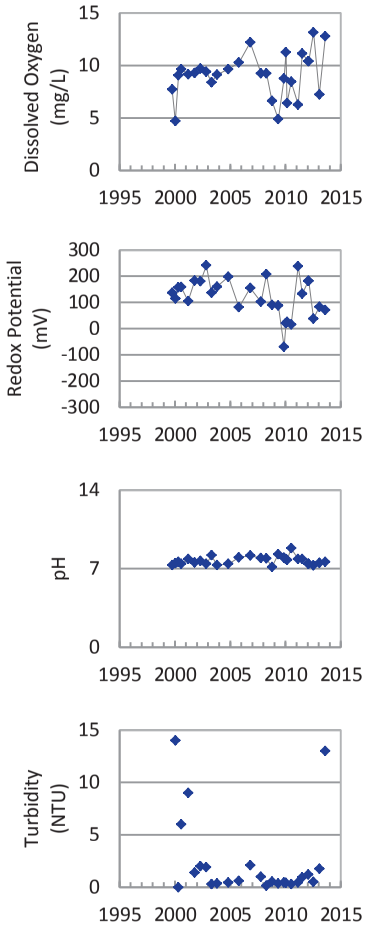
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/7/1999 to 8/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1041
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



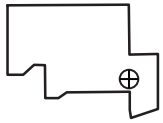
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

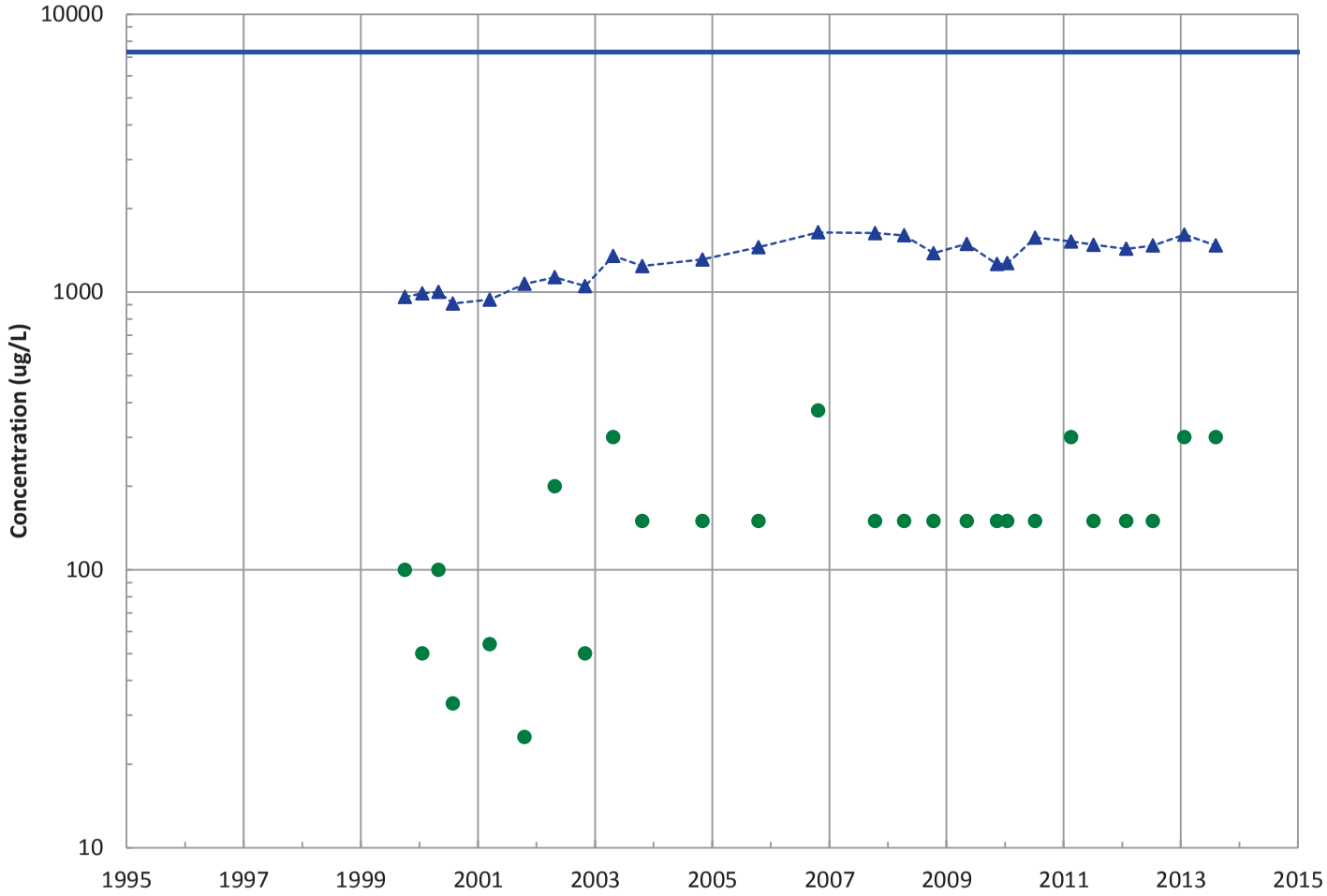
Well Location



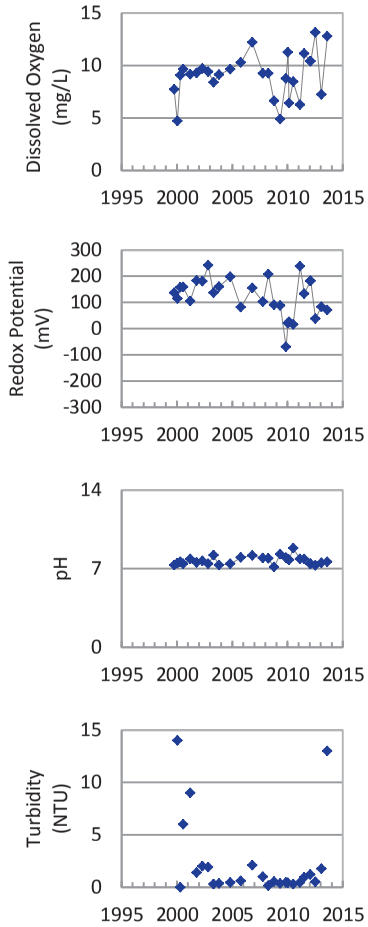
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/7/1999 to 8/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1041
Boron Trend in Perched Aquifer



Field Parameters



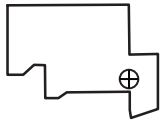
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

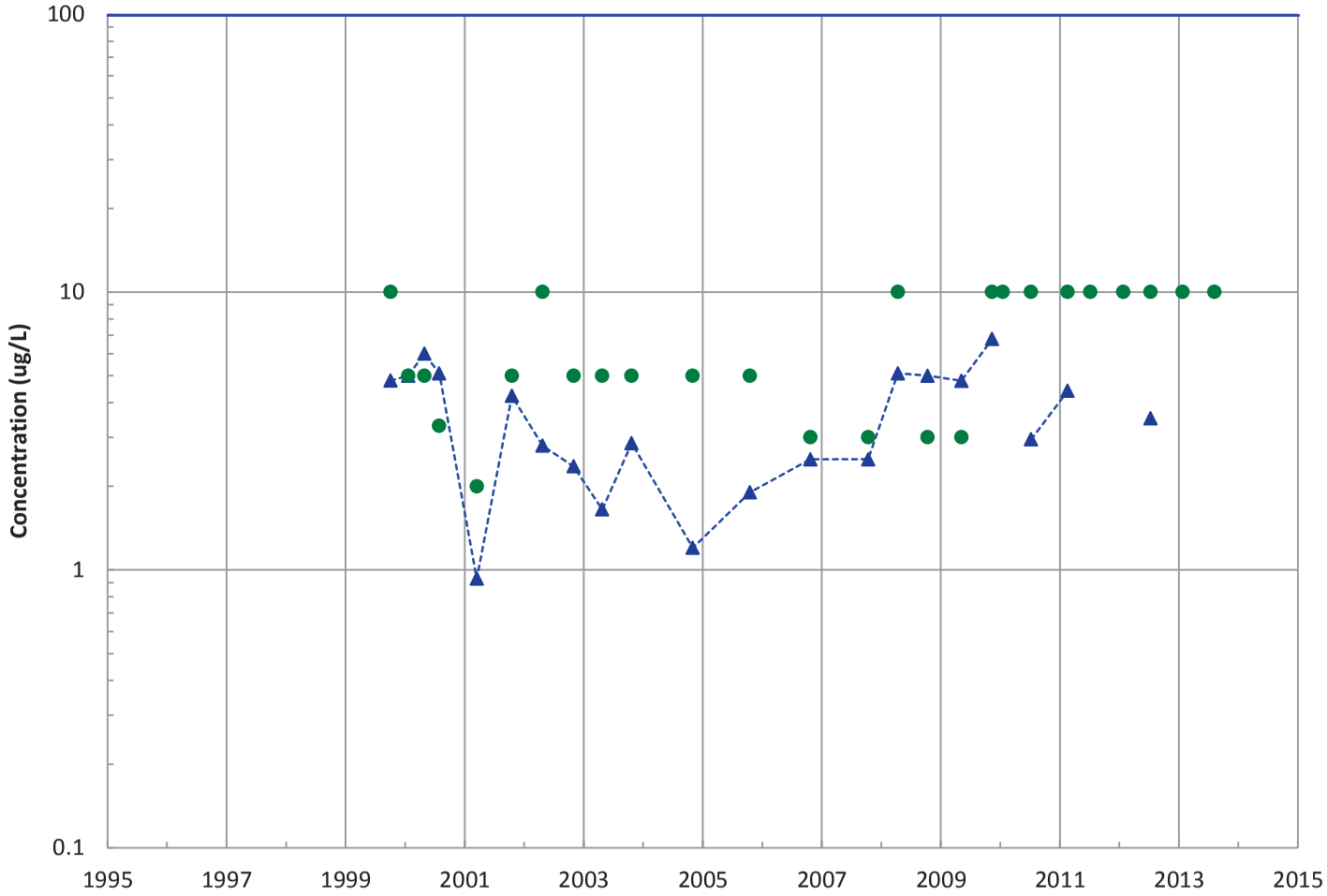
Well Location



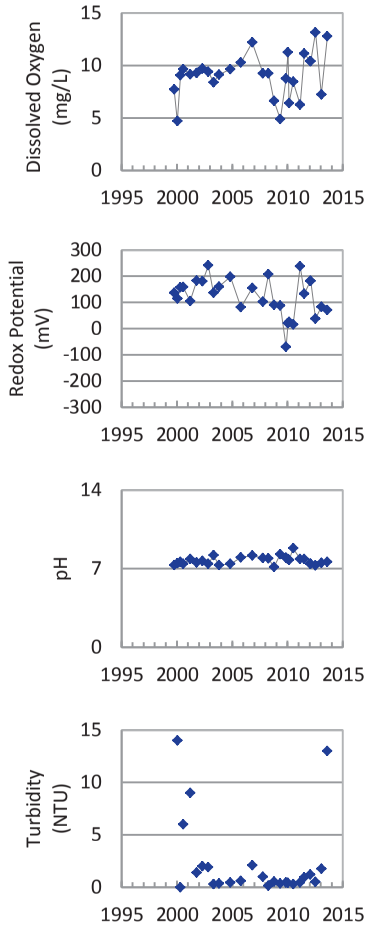
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/7/1999 to 8/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1041
Chromium, Total Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Decreasing

2011 - 2013 Data: N/A (<4 Detections in Dataset)

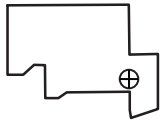
MAROS Linear Regression Method

Data (7/2009 - 12/2013): Stable

2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location



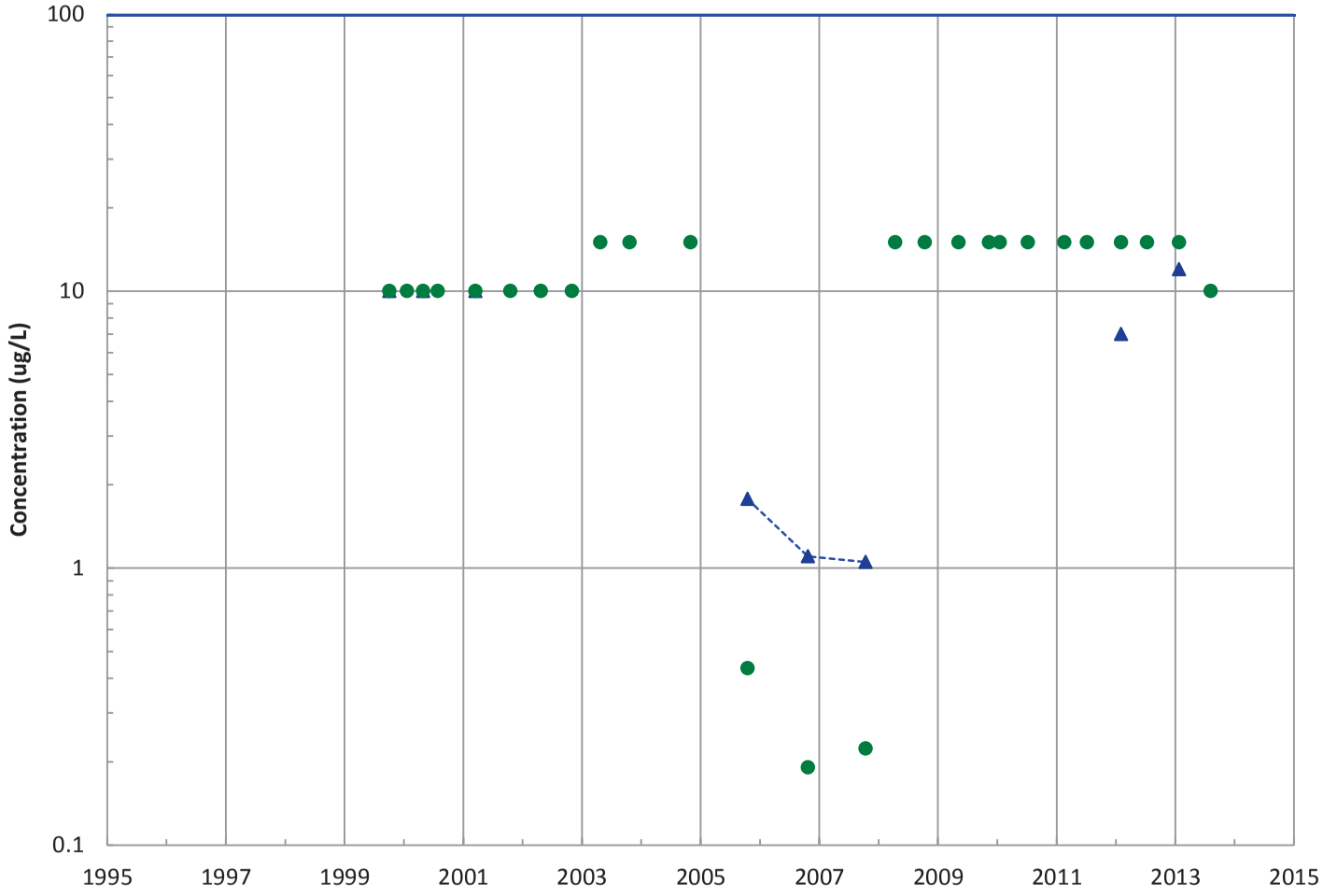
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 10/7/1999 to 8/21/2013

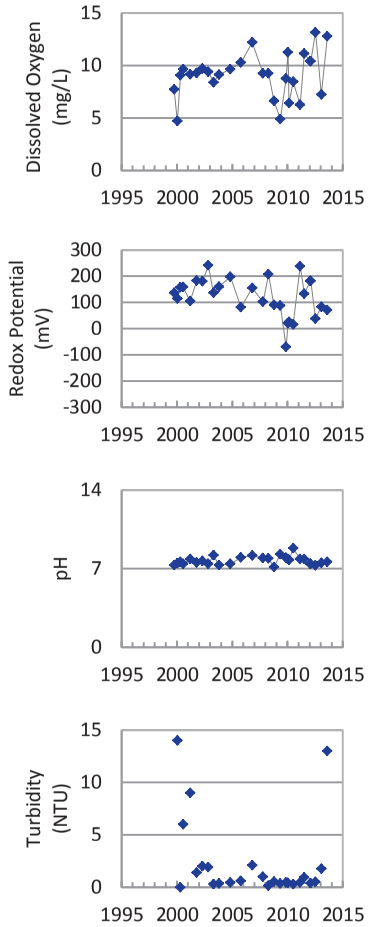
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1041
Chromium, Hexavalent Trend in Perched Aquifer



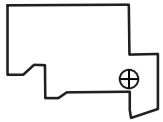
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: Probably Increasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

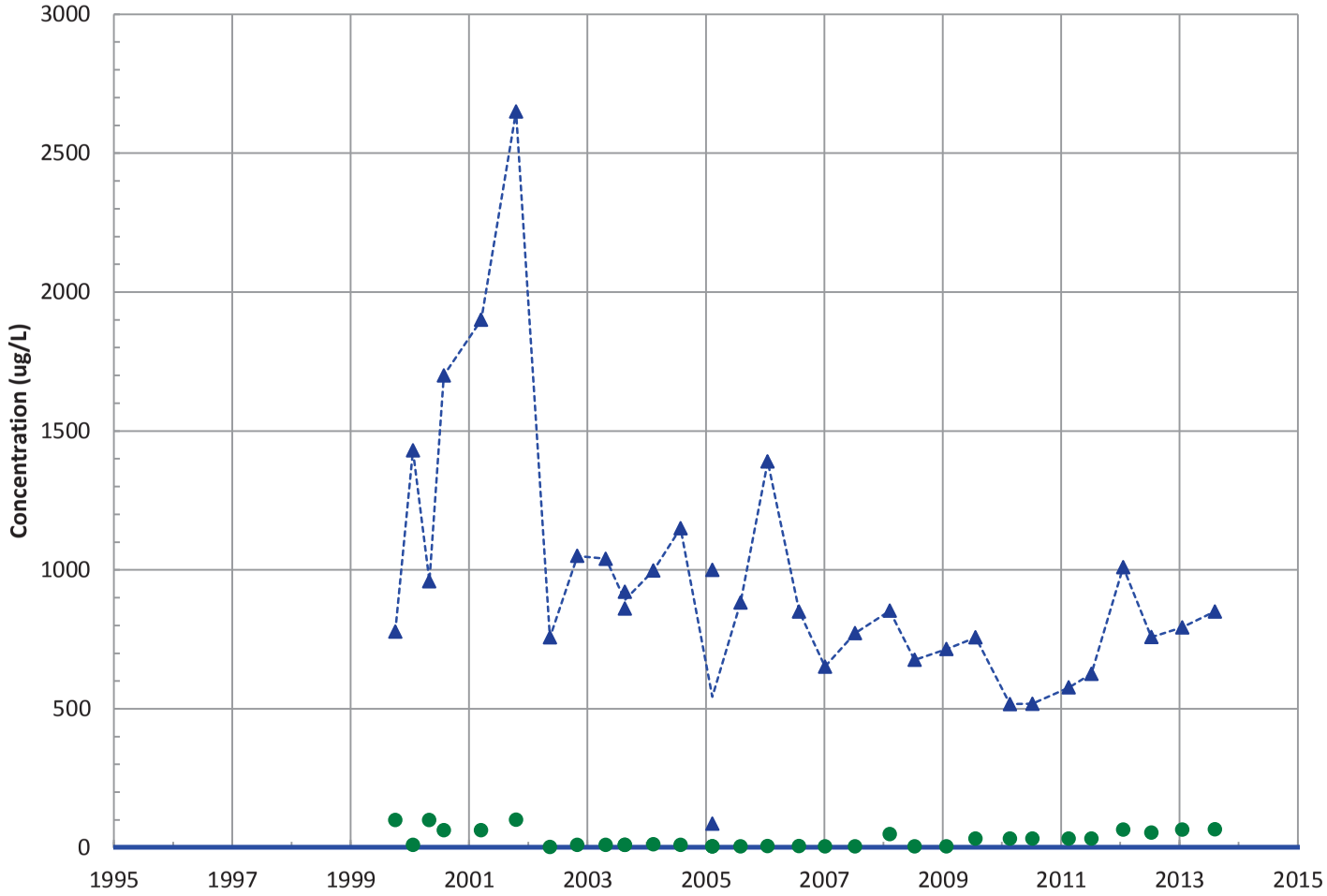
Well Location



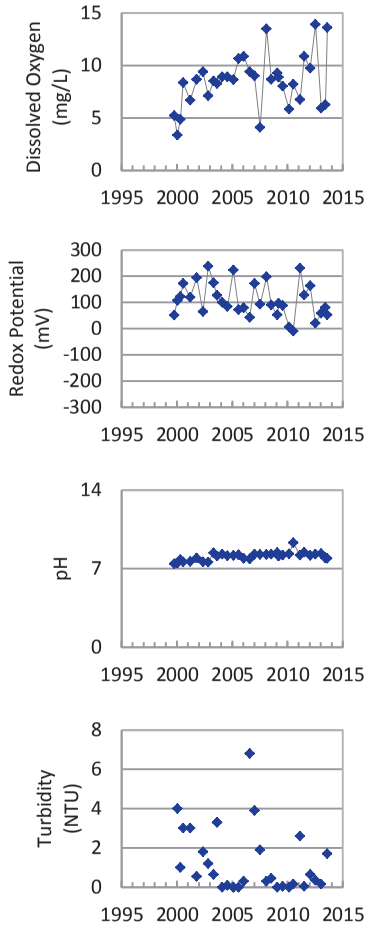
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/7/1999 to 8/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1042
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



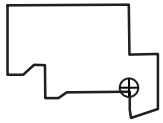
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

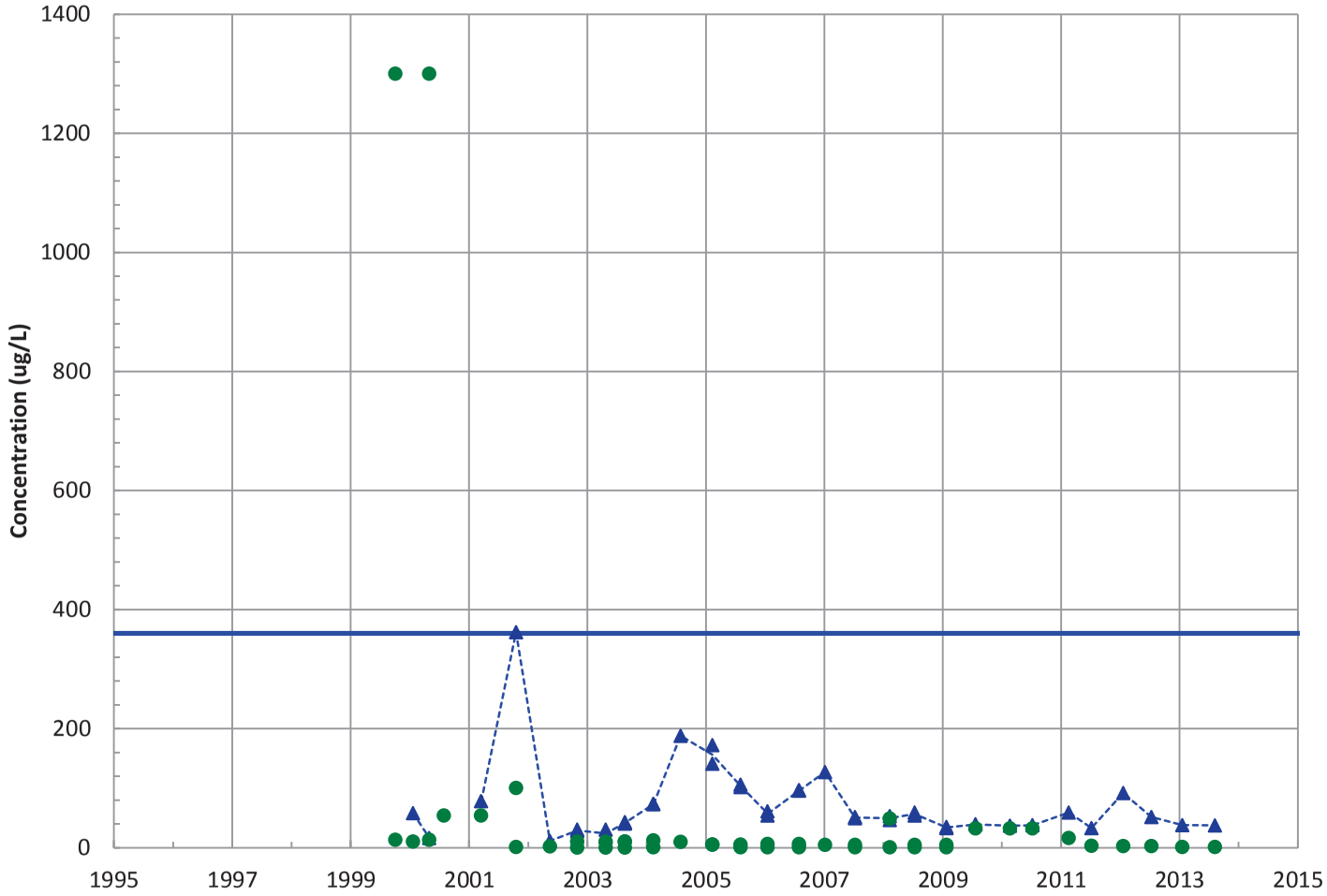
Well Location



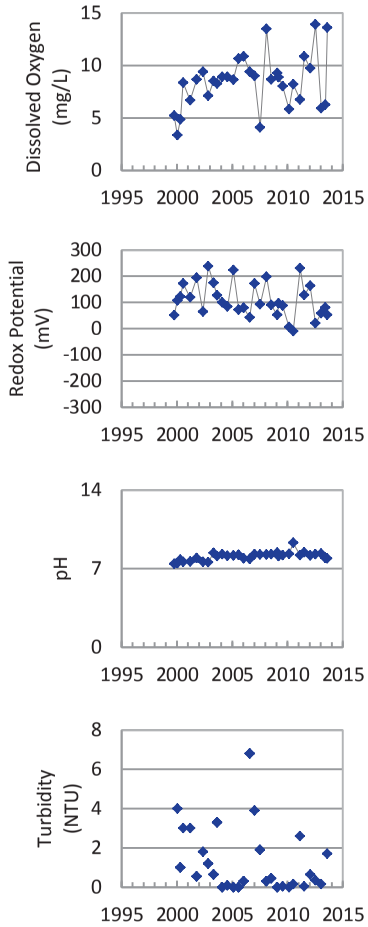
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/7/1999 to 8/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1042
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



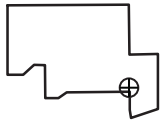
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Probably Decreasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

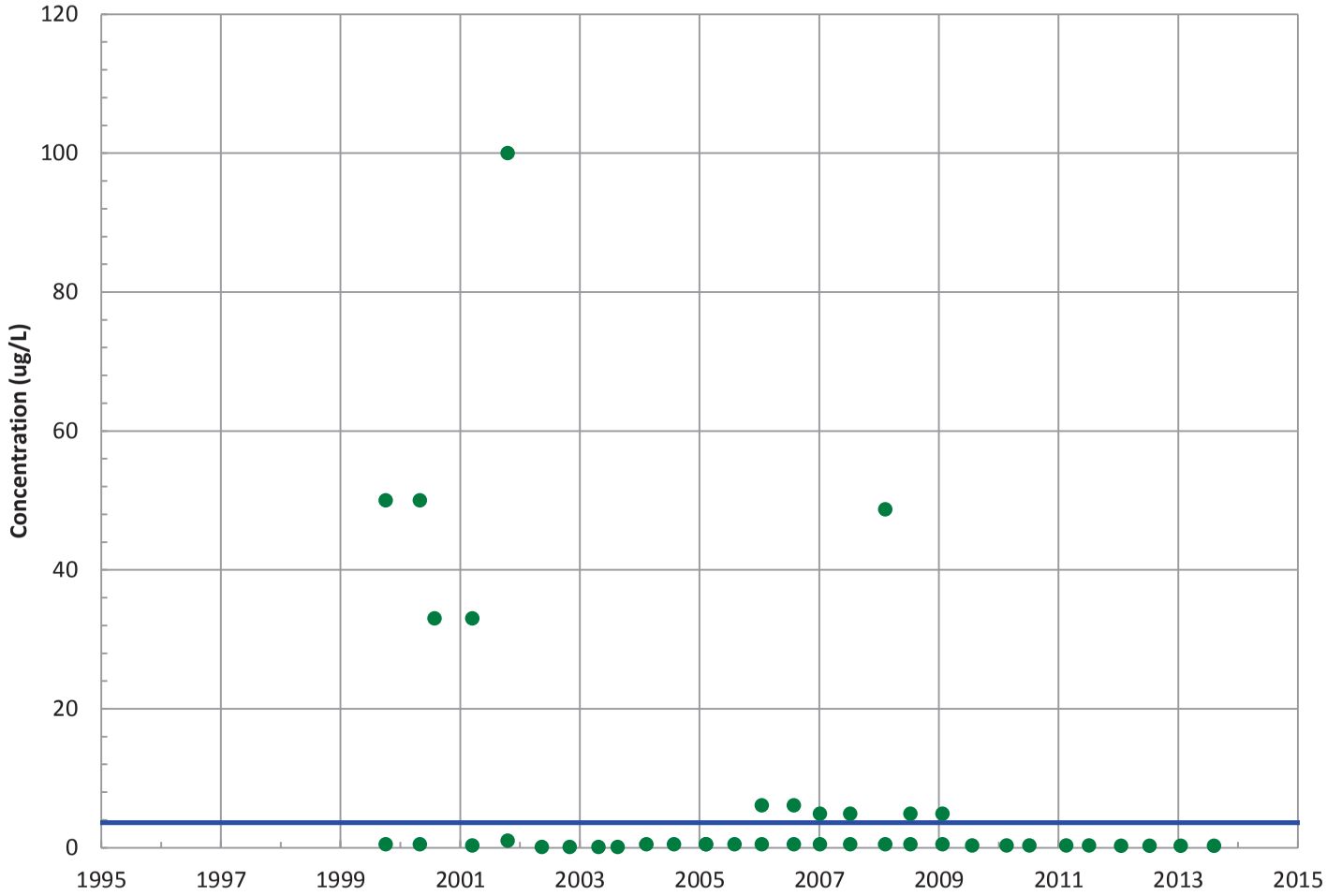
Well Location



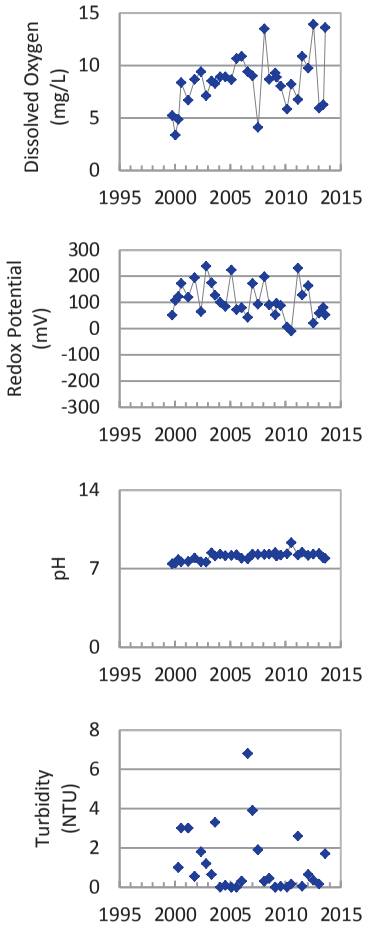
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/7/1999 to 8/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1042
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



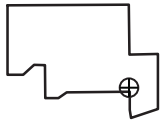
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

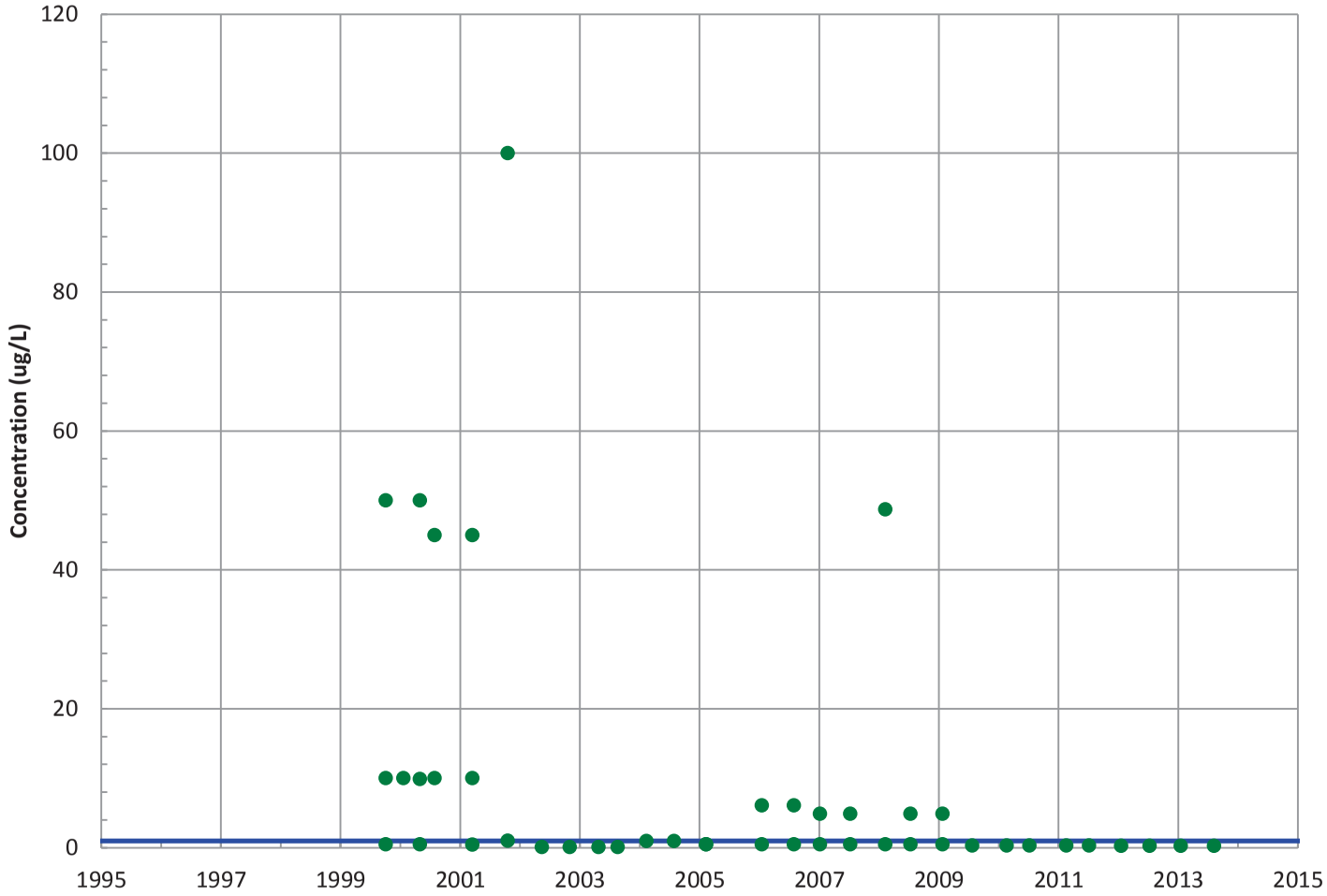
Well Location



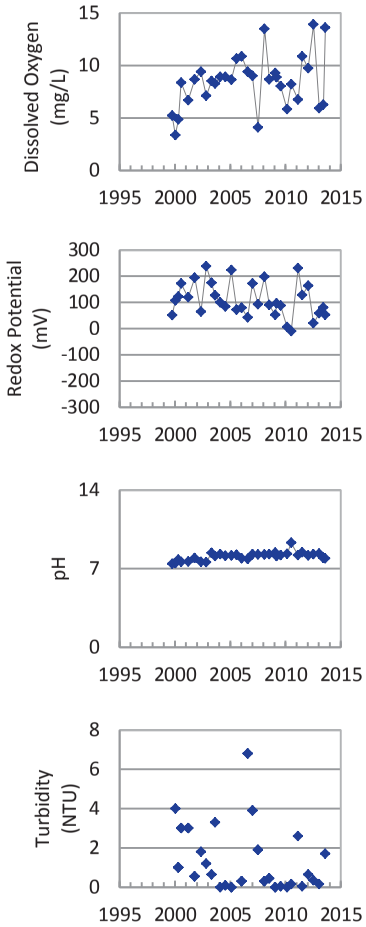
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/7/1999 to 8/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1042
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



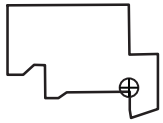
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

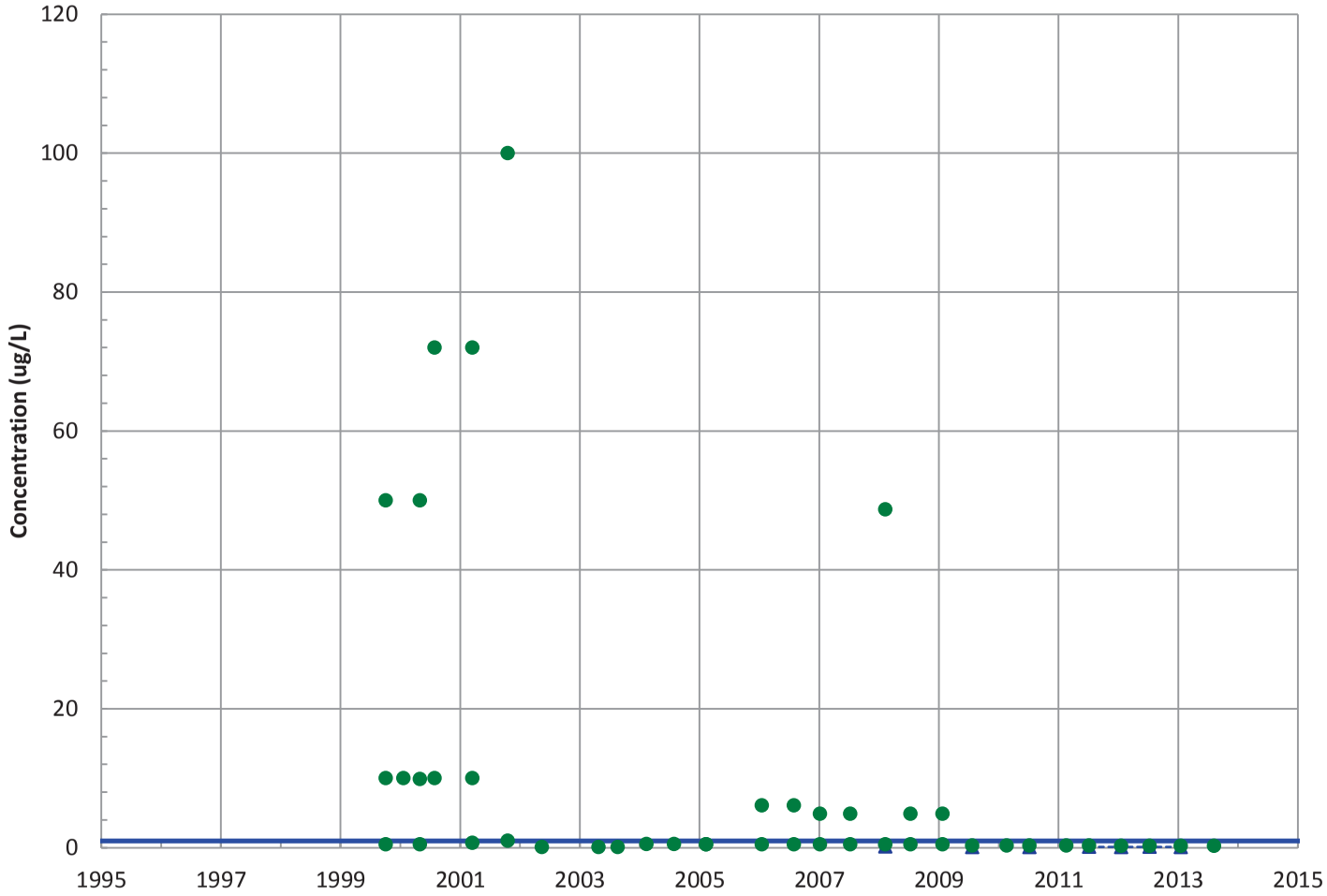
Well Location



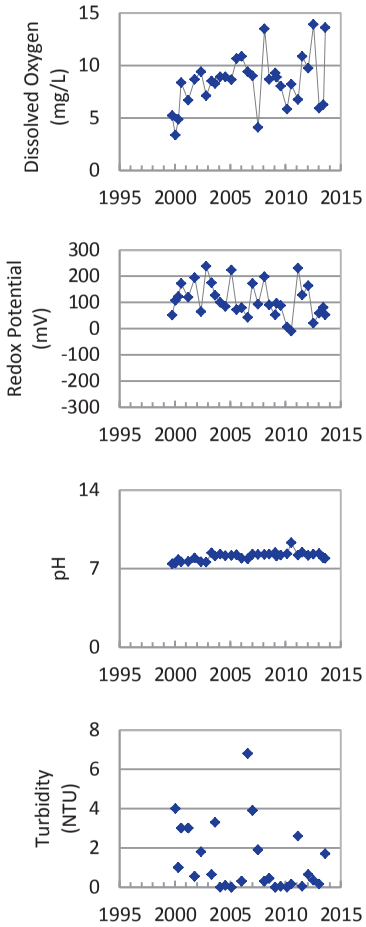
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/7/1999 to 8/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1042
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): No Trend

2011 - 2013 Data: N/A (<4 Detections in Dataset)

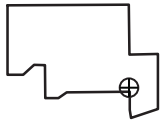
MAROS Linear Regression Method

Data (7/2009 - 12/2013): Increasing

2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location



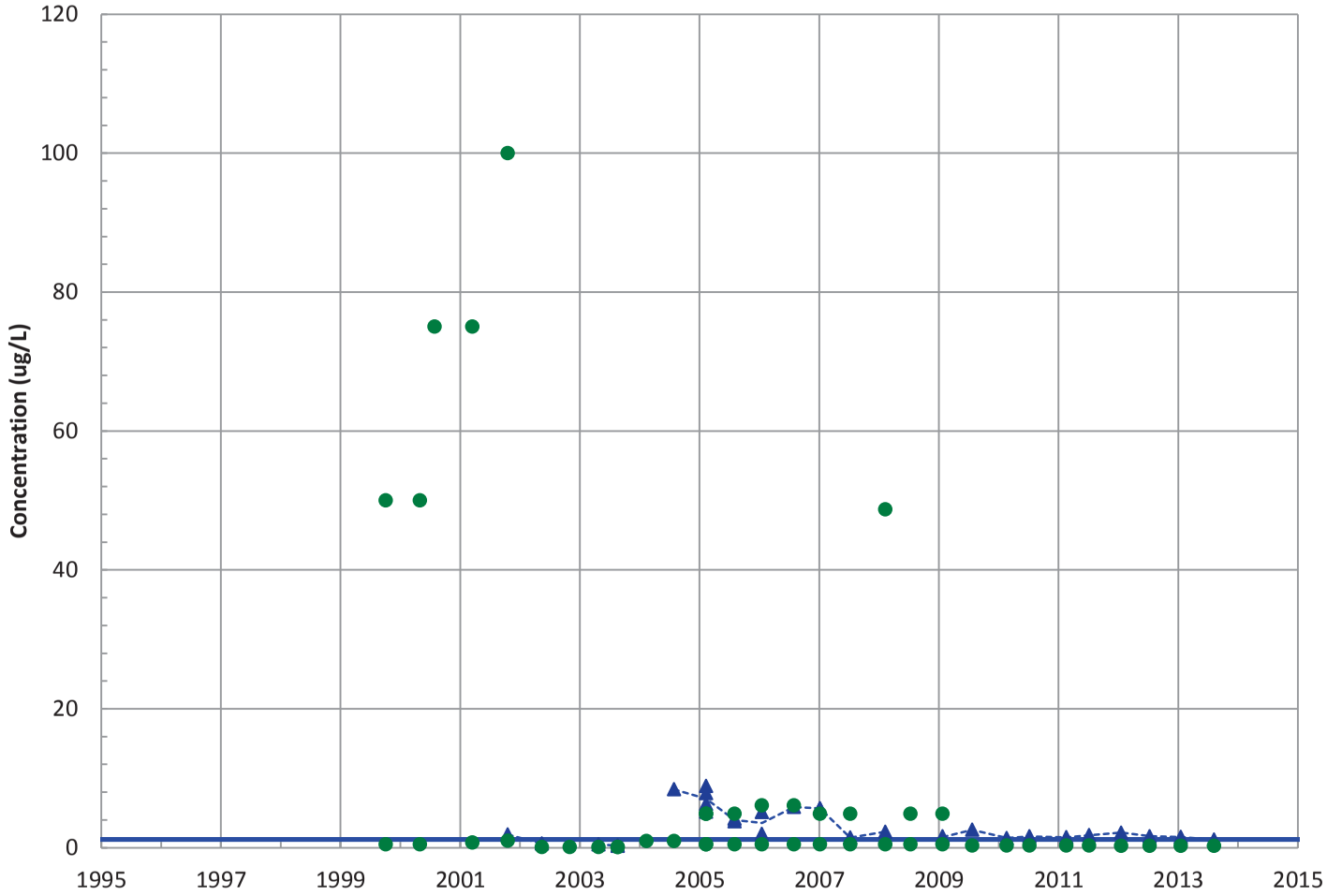
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 10/7/1999 to 8/21/2013

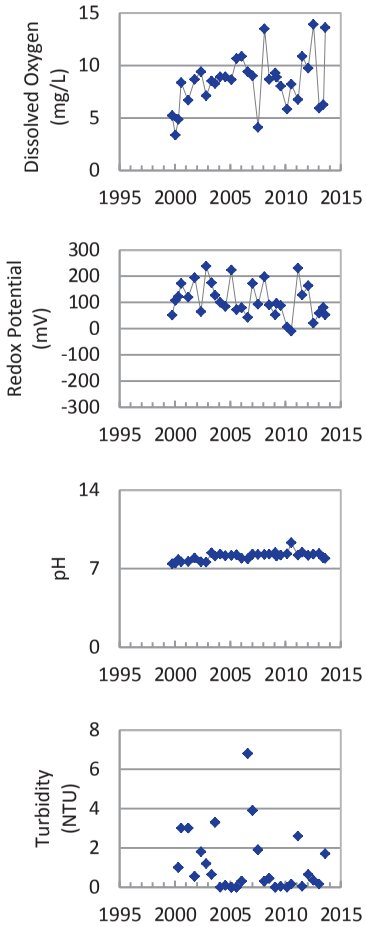
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1042
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



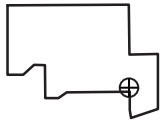
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Probably Decreasing
2011 - 2013 Data: Decreasing

- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

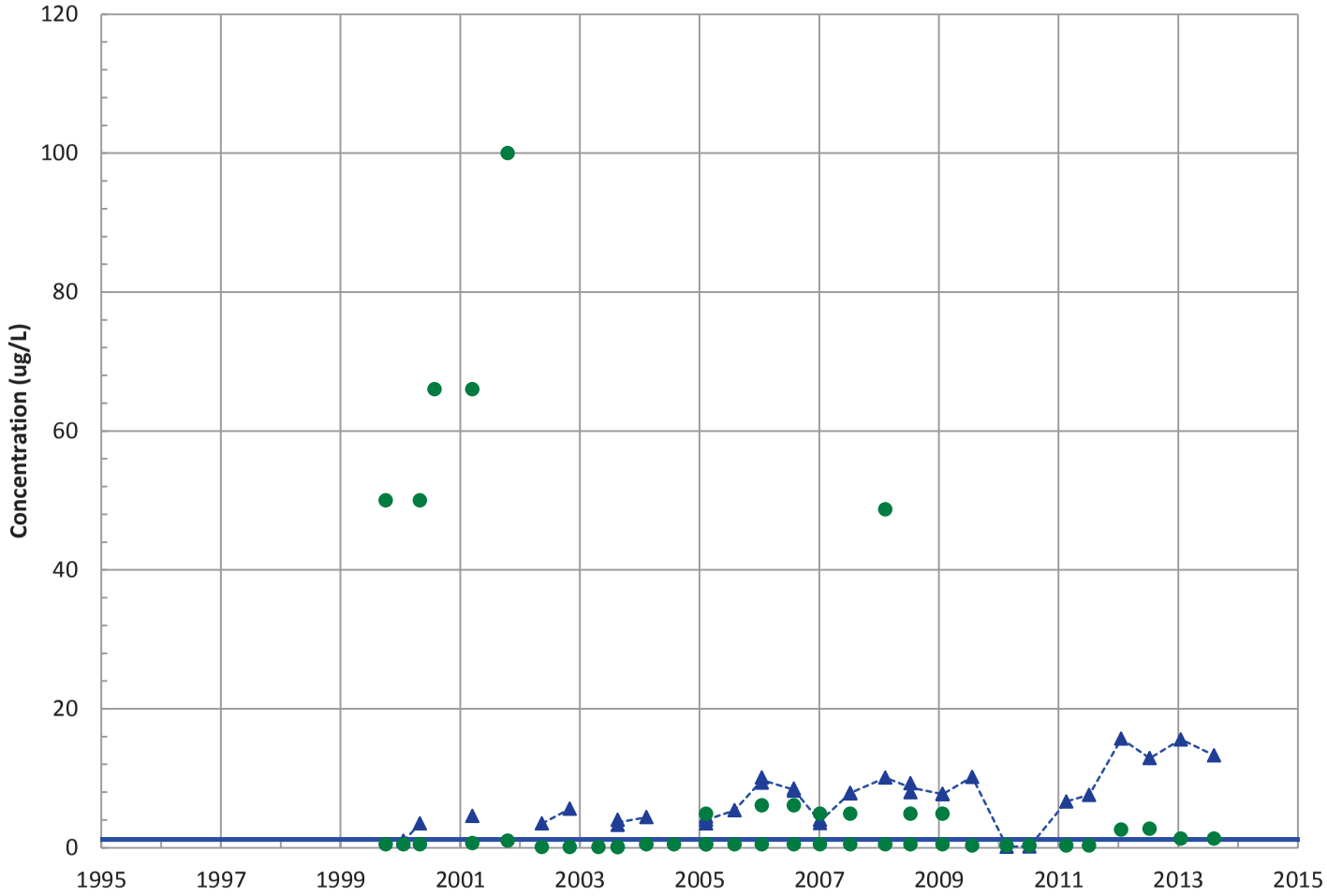
Well Location



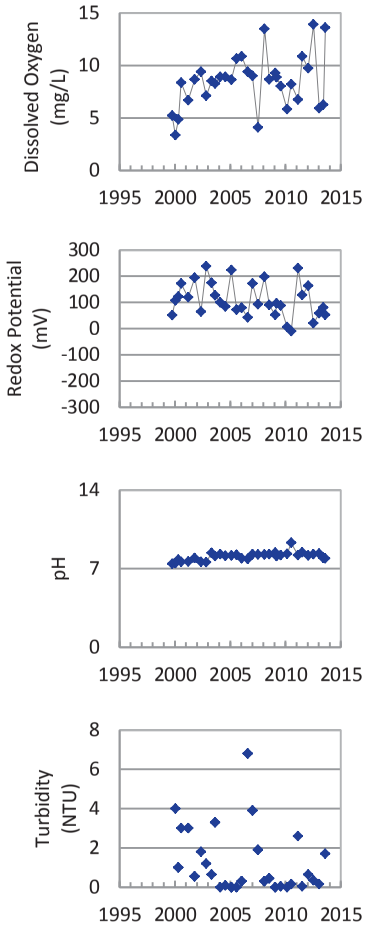
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/7/1999 to 8/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1042
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



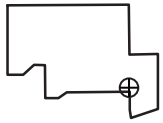
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Stable

Measured Value
Sample Detection Limit
Concentration Trend
Groundwater Protection Standard

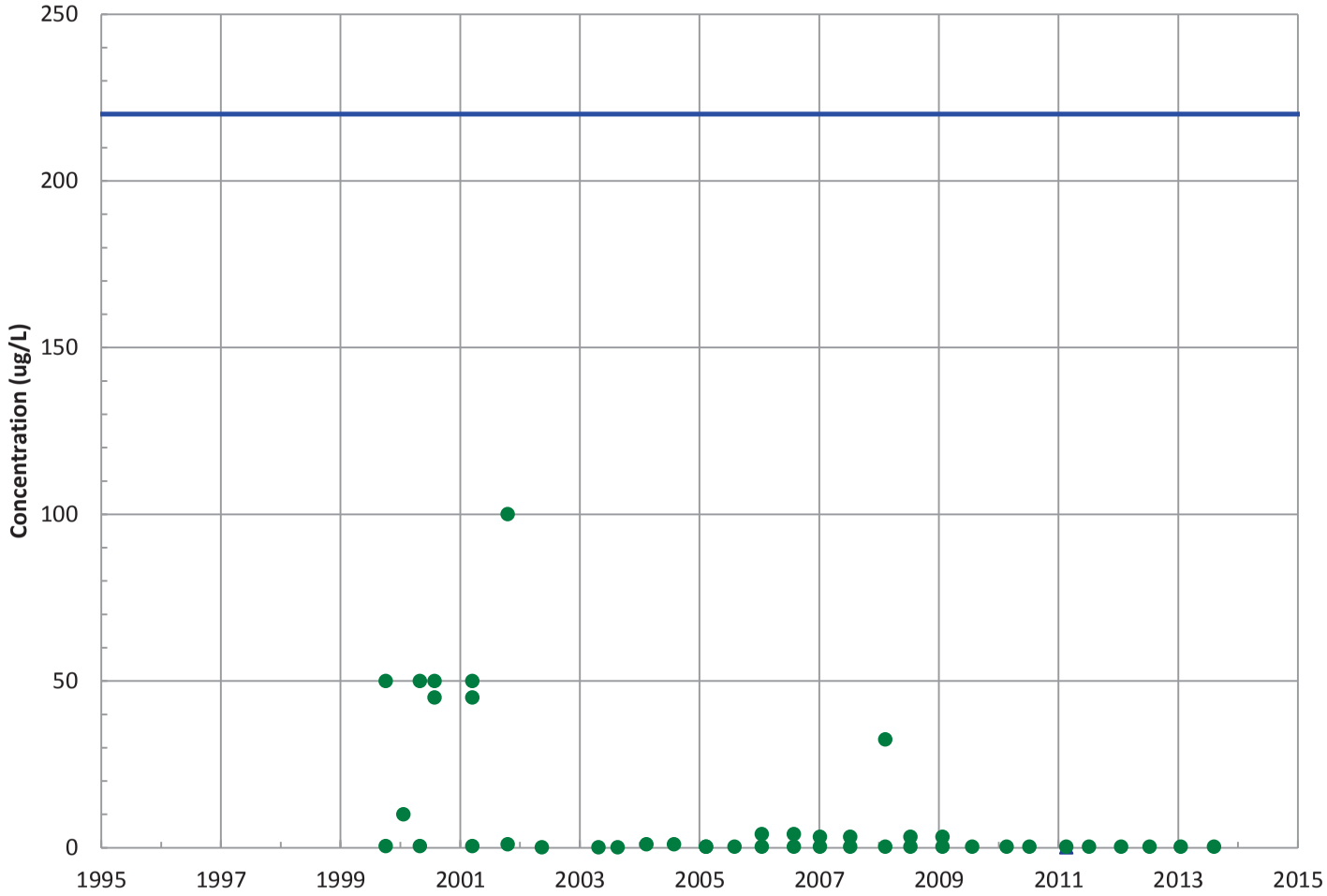
Well Location



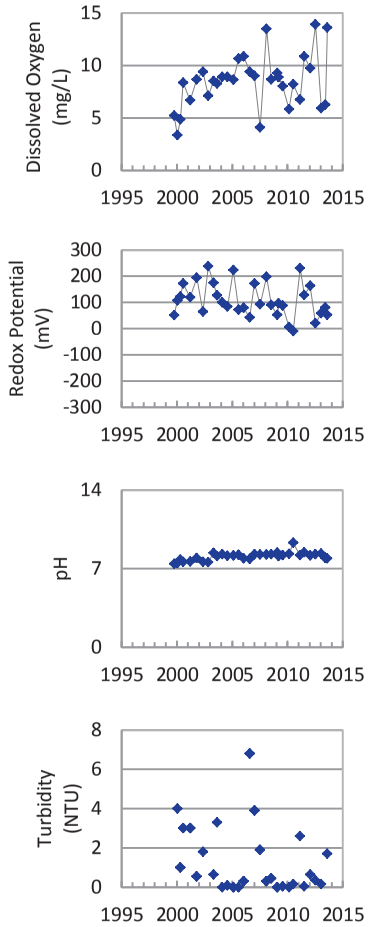
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/7/1999 to 8/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1042
1,3,5-Trinitrobenzene Trend in Perched Aquifer



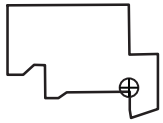
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: All Non-Detect
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

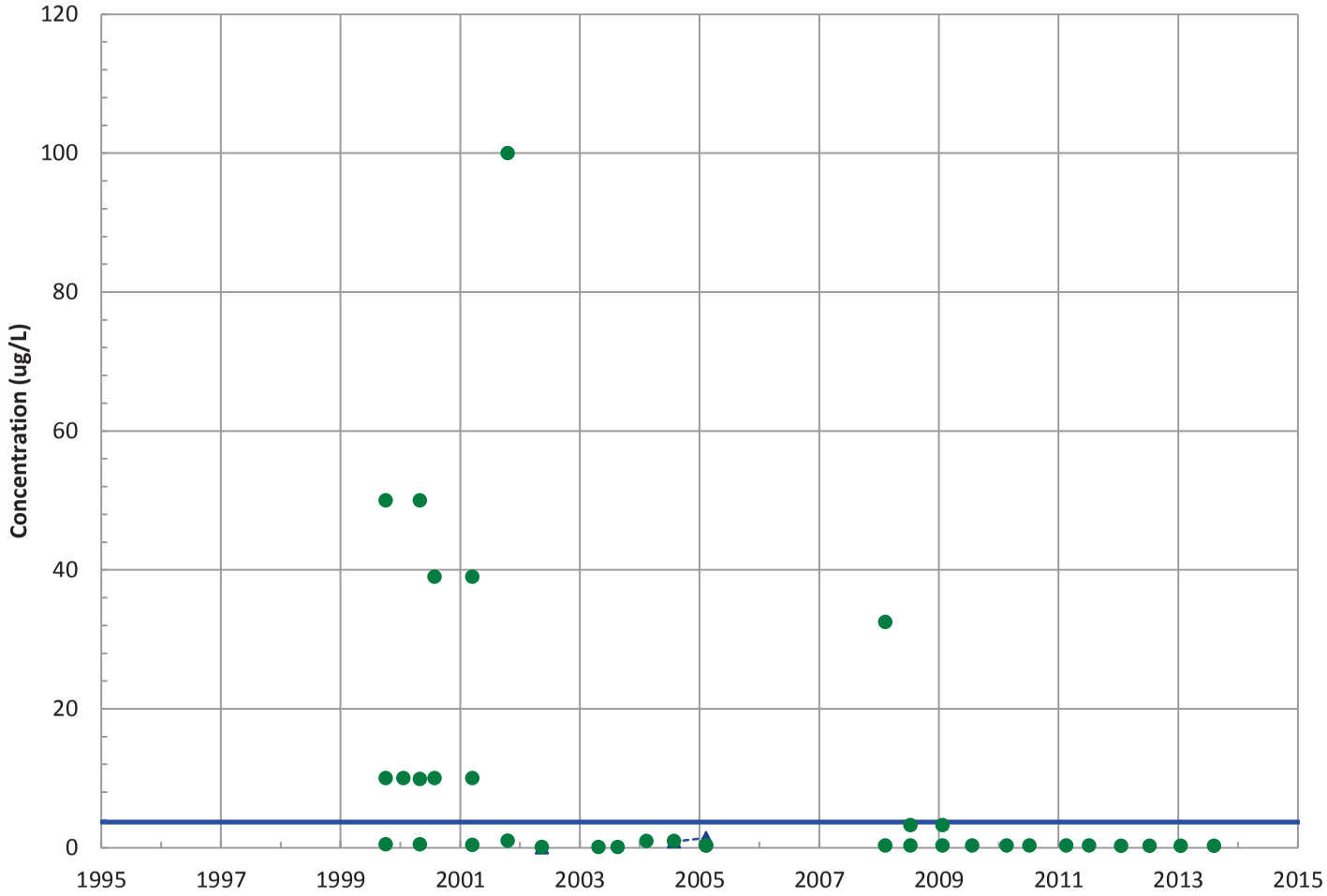
Well Location



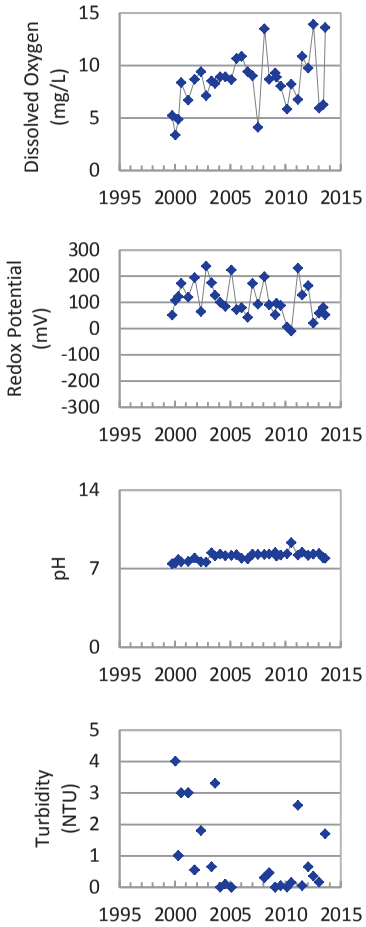
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/7/1999 to 8/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1042
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): All Non-Detect

2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method

Data (7/2009 - 12/2013): All Non-Detect

2011 - 2013 Data: N/A (<4 Detections in Dataset)

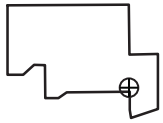
▲ Measured Value

● Sample Detection Limit

------- Concentration Trend

——— Groundwater Protection Standard

Well Location



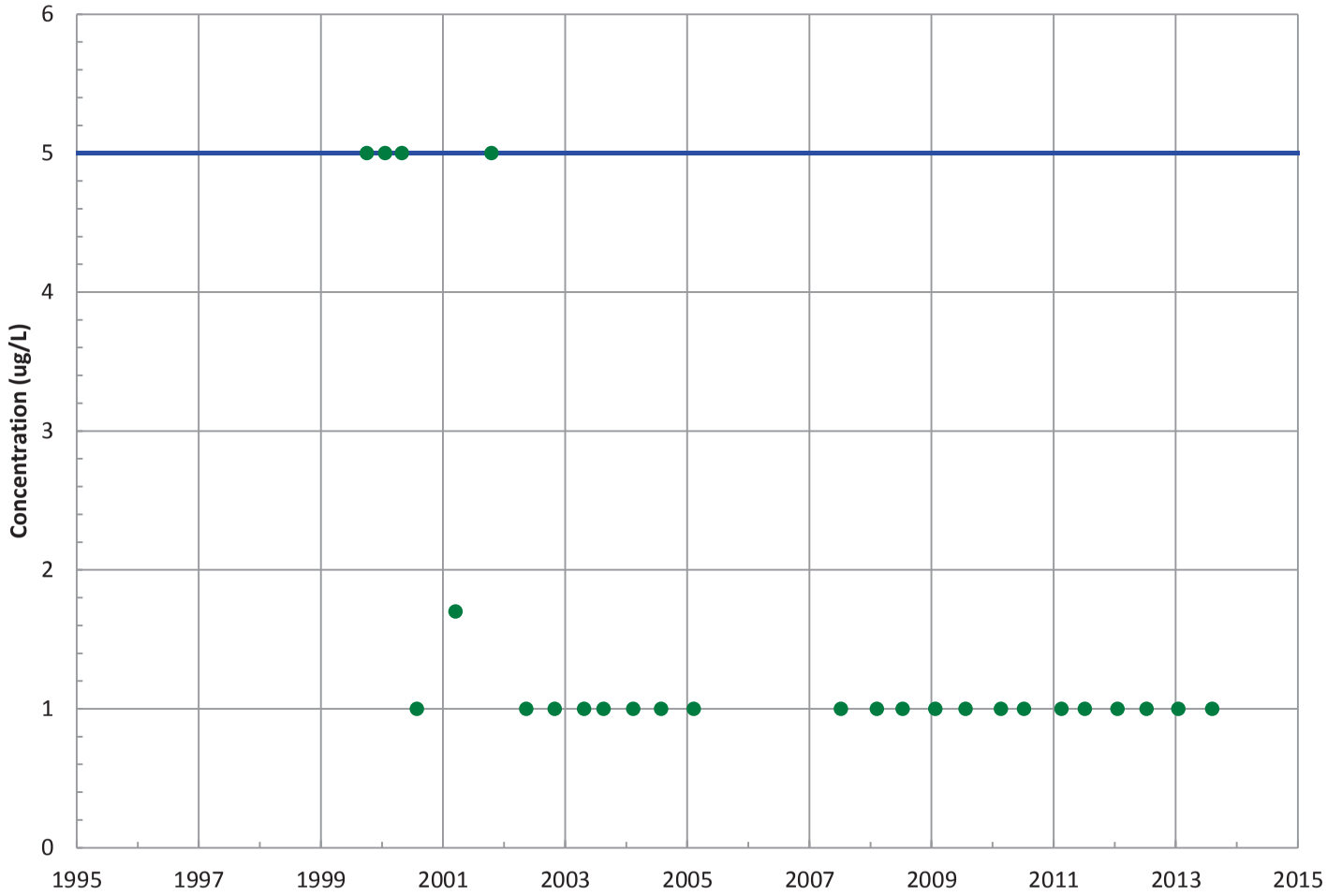
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 10/7/1999 to 8/21/2013

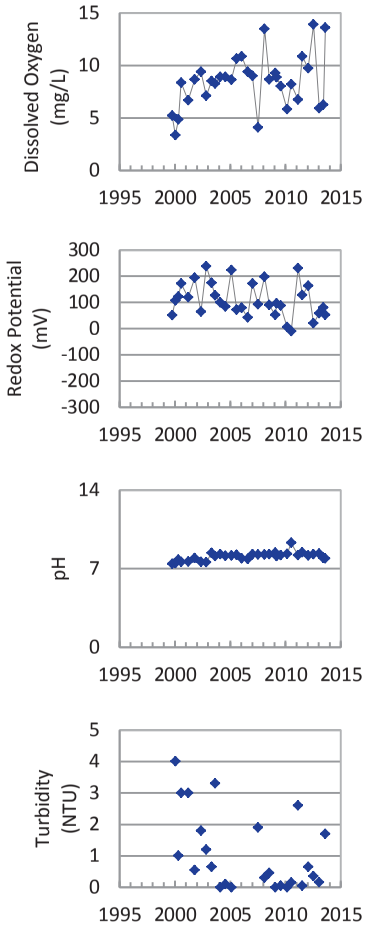
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1042
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



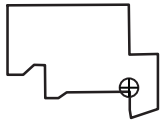
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

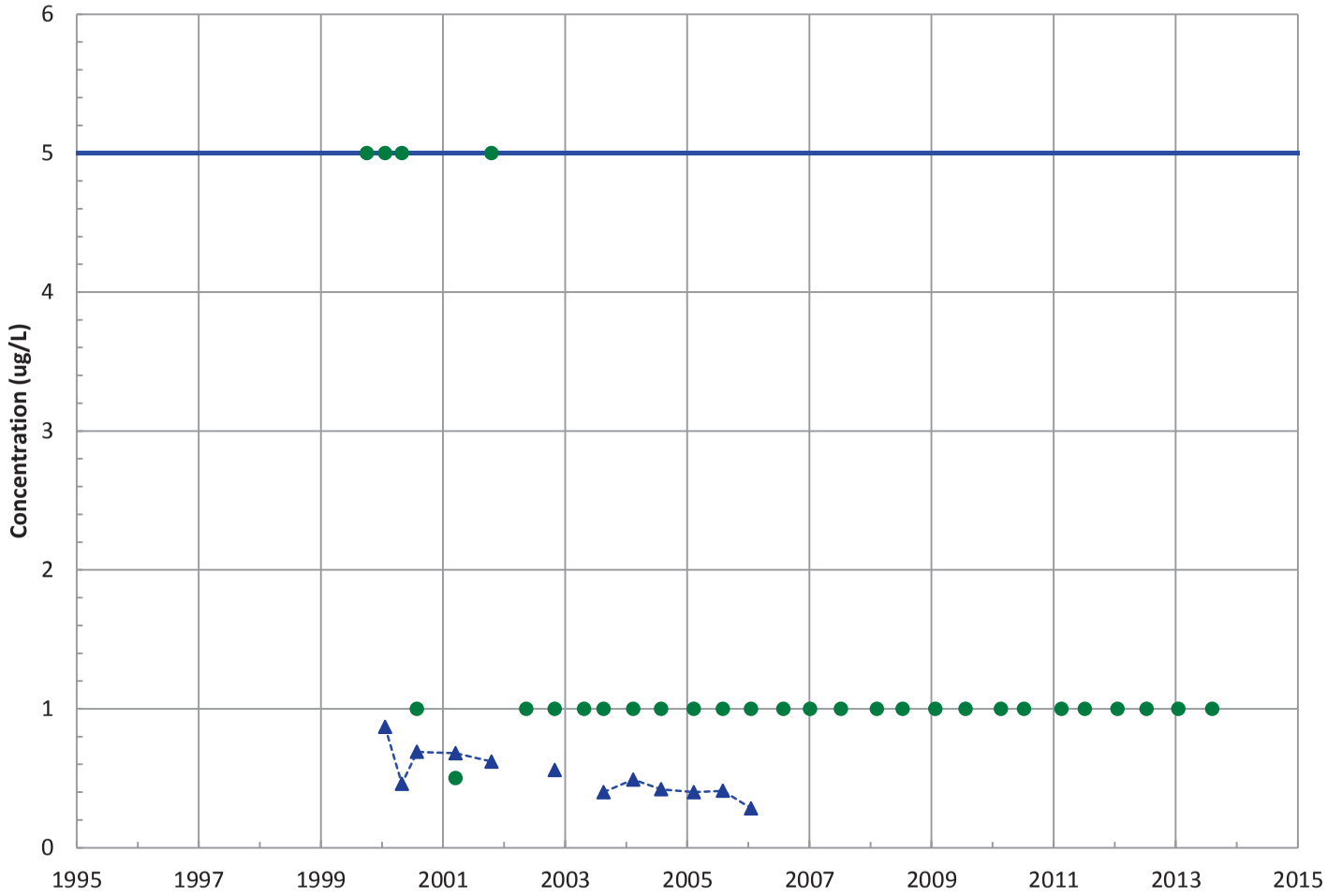
Well Location



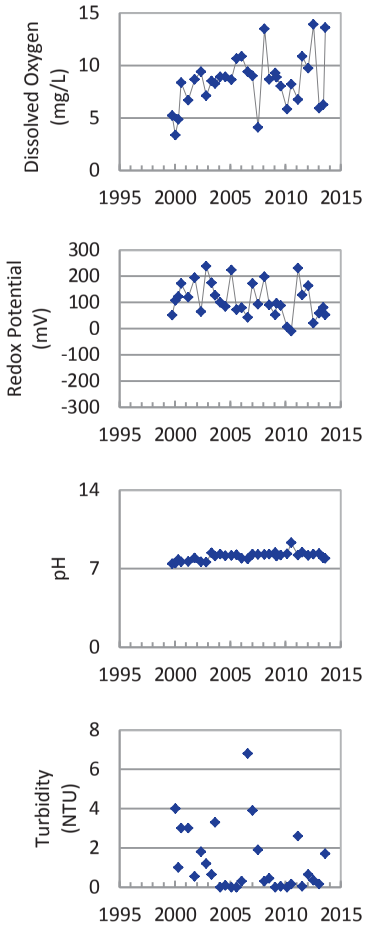
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/7/1999 to 8/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1042
Trichloroethene Trend in Perched Aquifer



Field Parameters



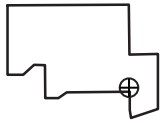
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: Decreasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

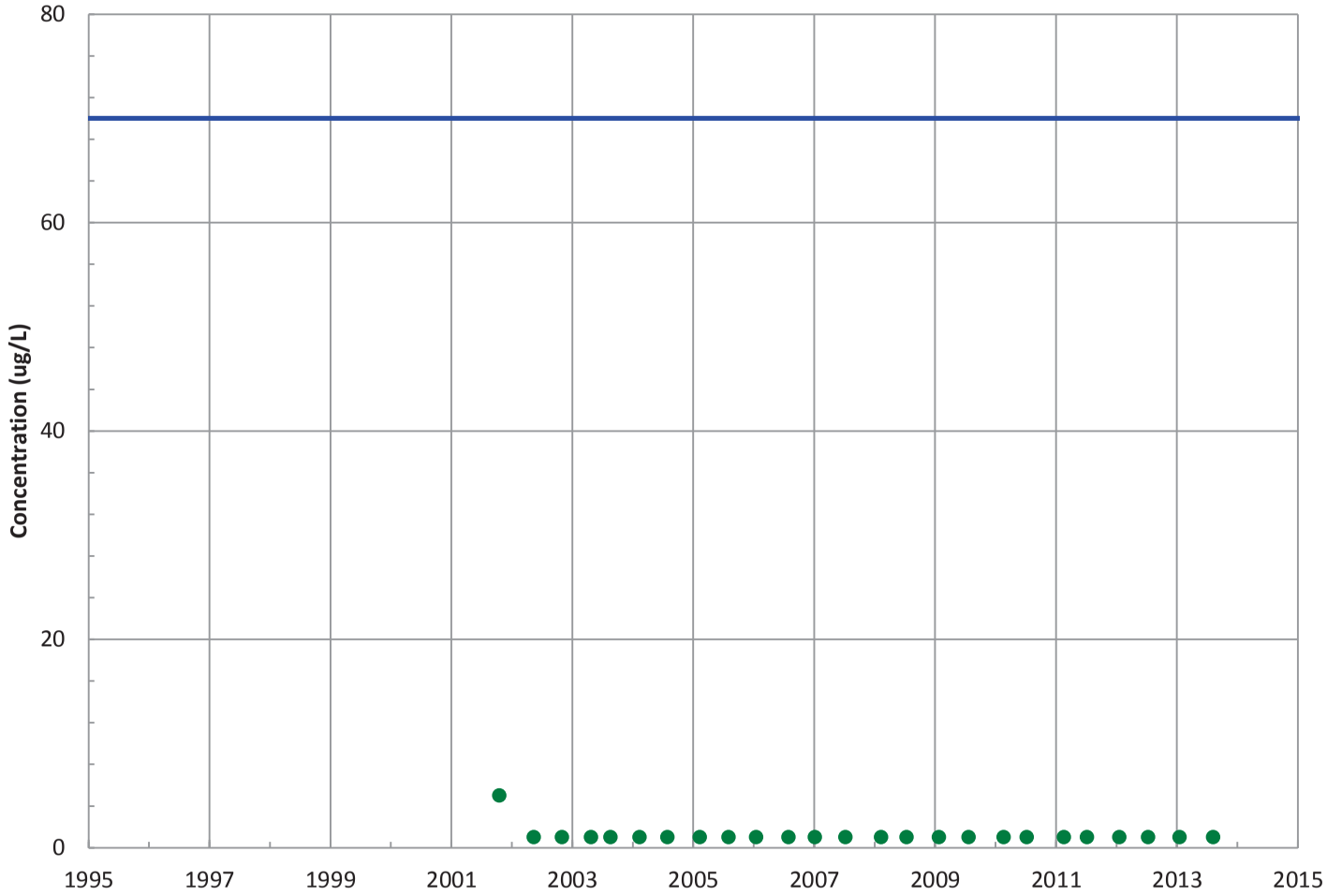
Well Location



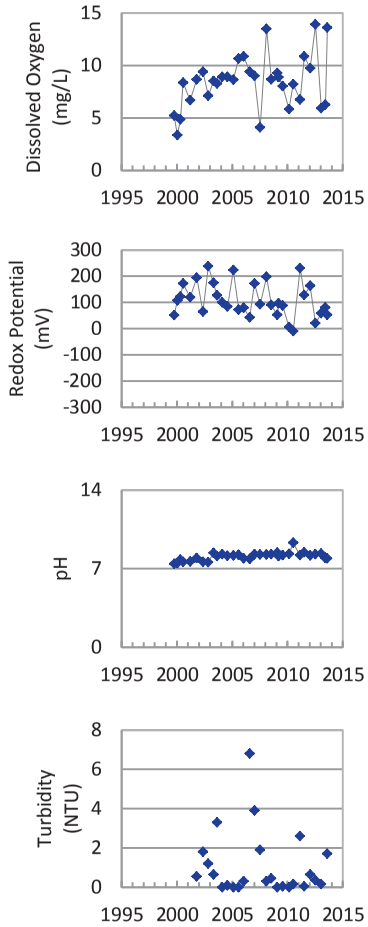
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/7/1999 to 8/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1042
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



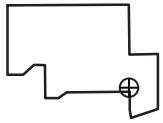
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

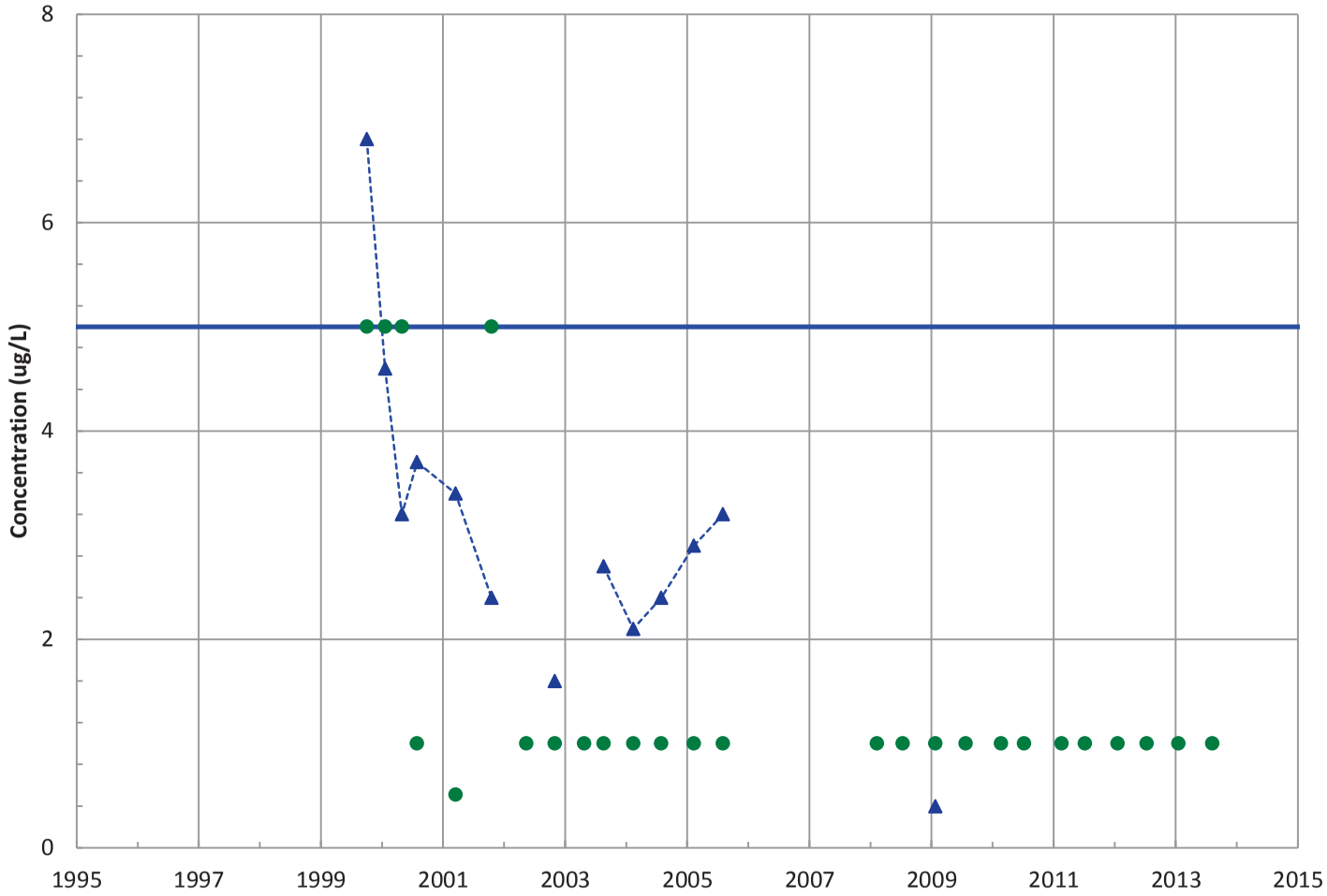
Well Location



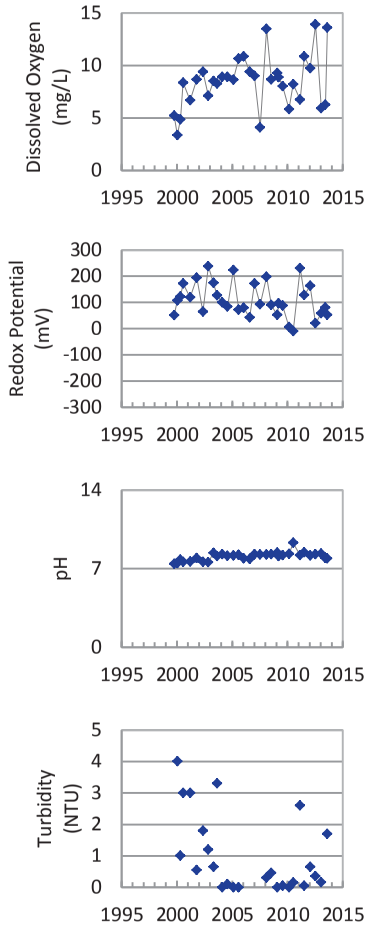
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/23/2001 to 8/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1042
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



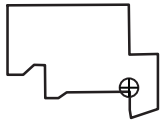
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

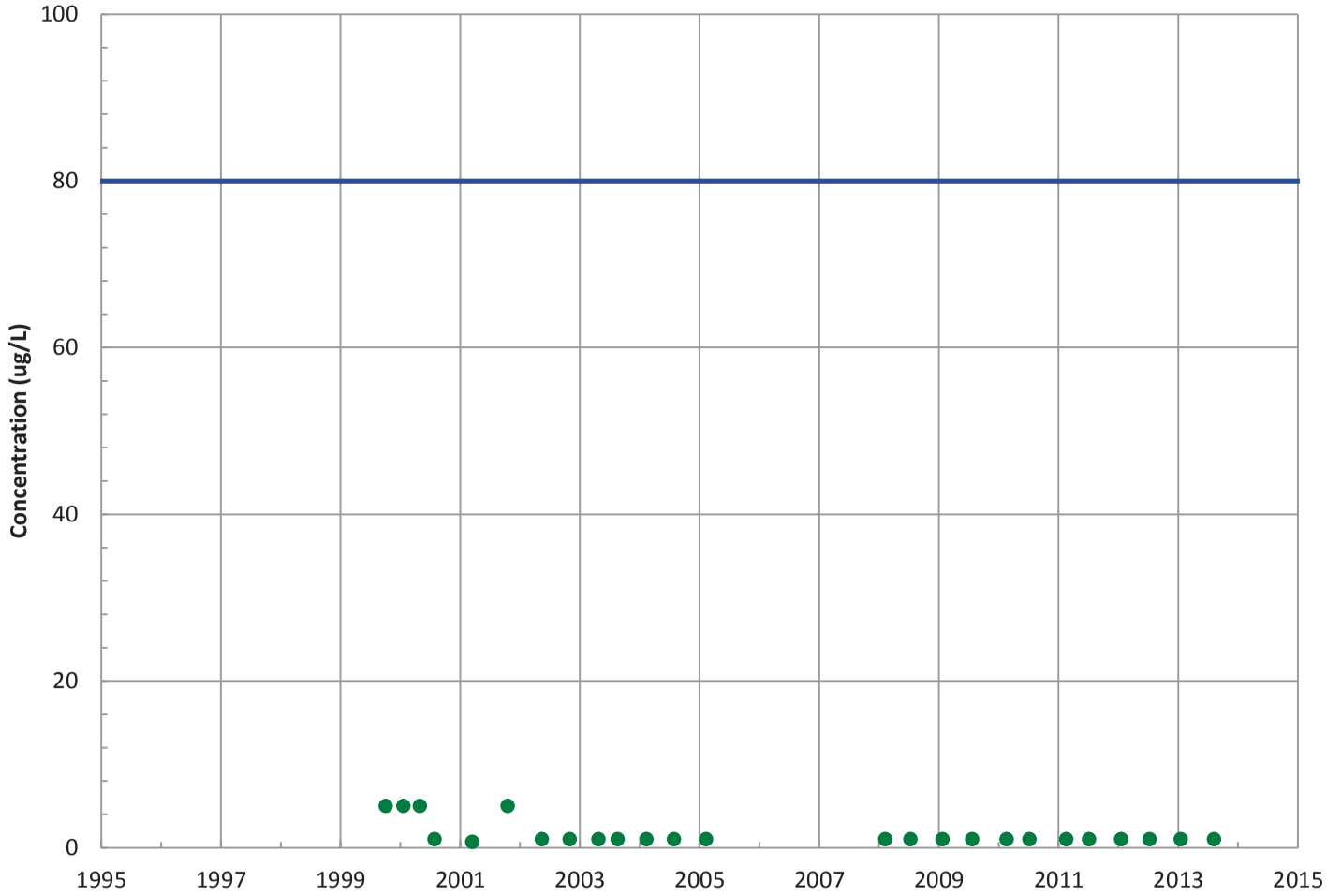
Well Location



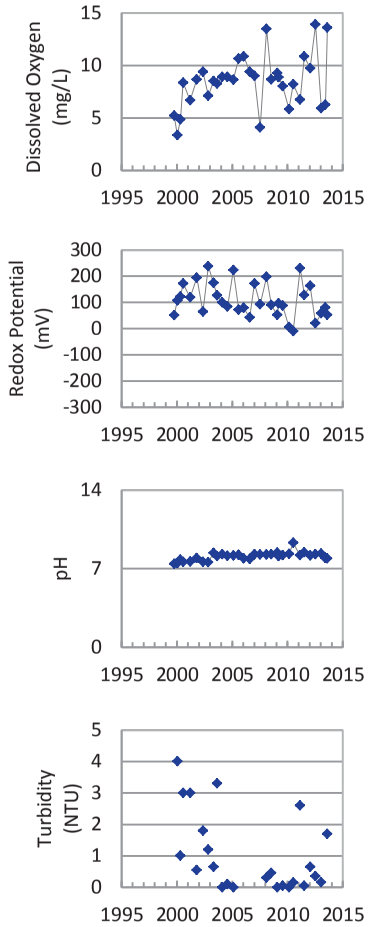
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/7/1999 to 8/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1042
Chloroform Trend in Perched Aquifer



Field Parameters



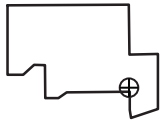
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

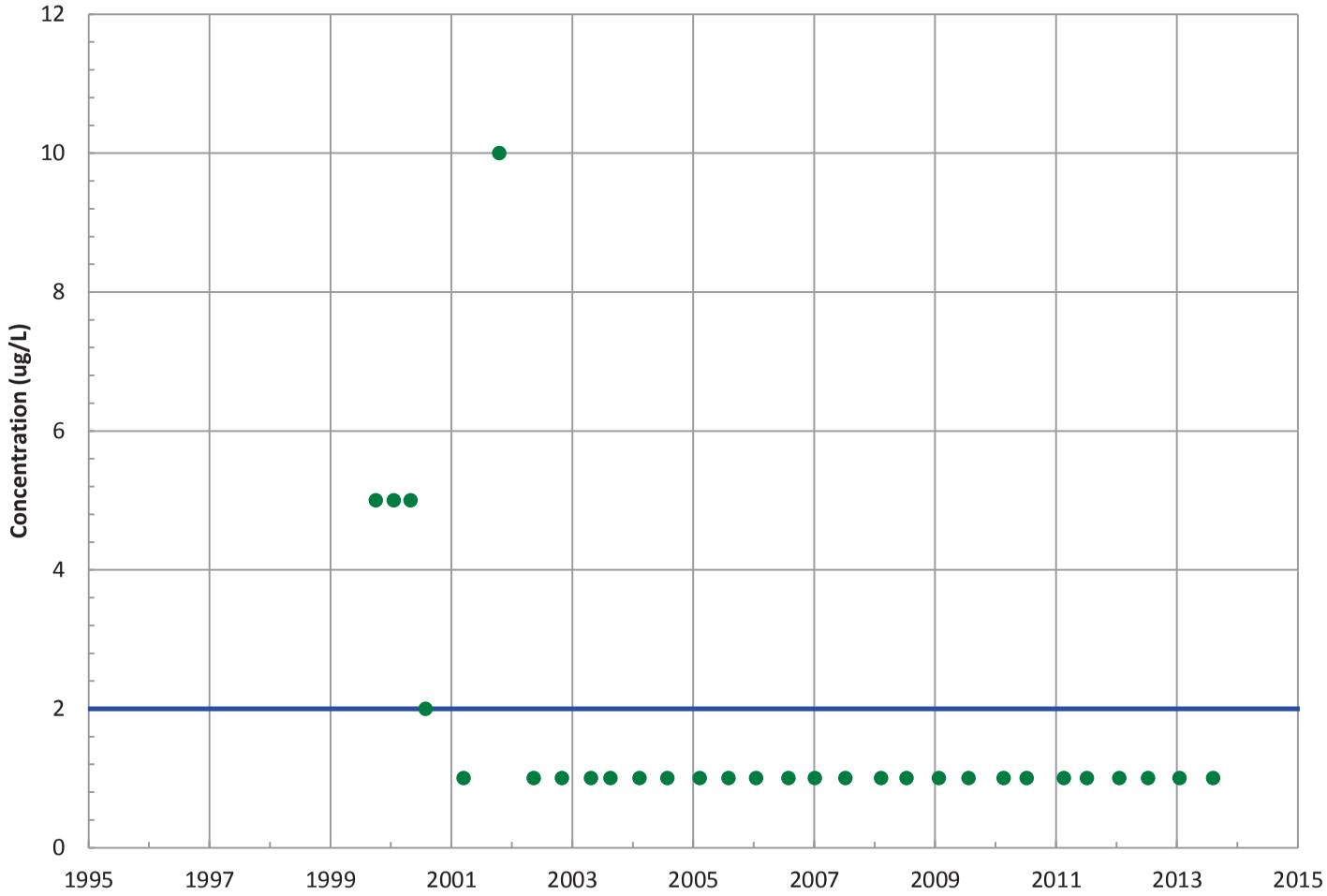
Well Location



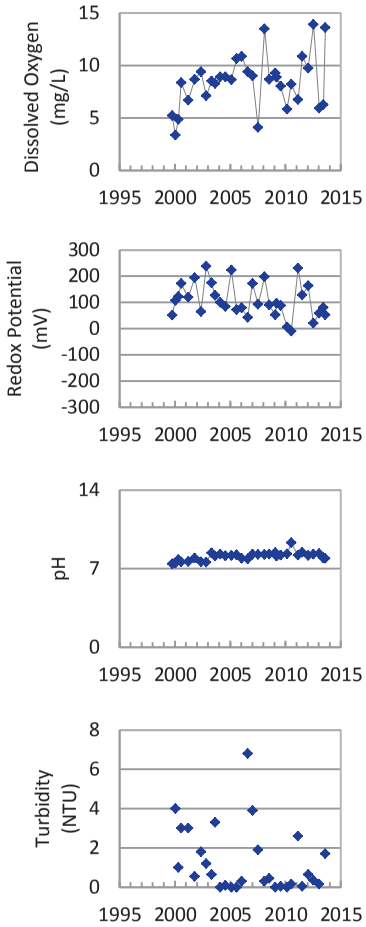
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/7/1999 to 8/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1042
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



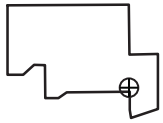
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

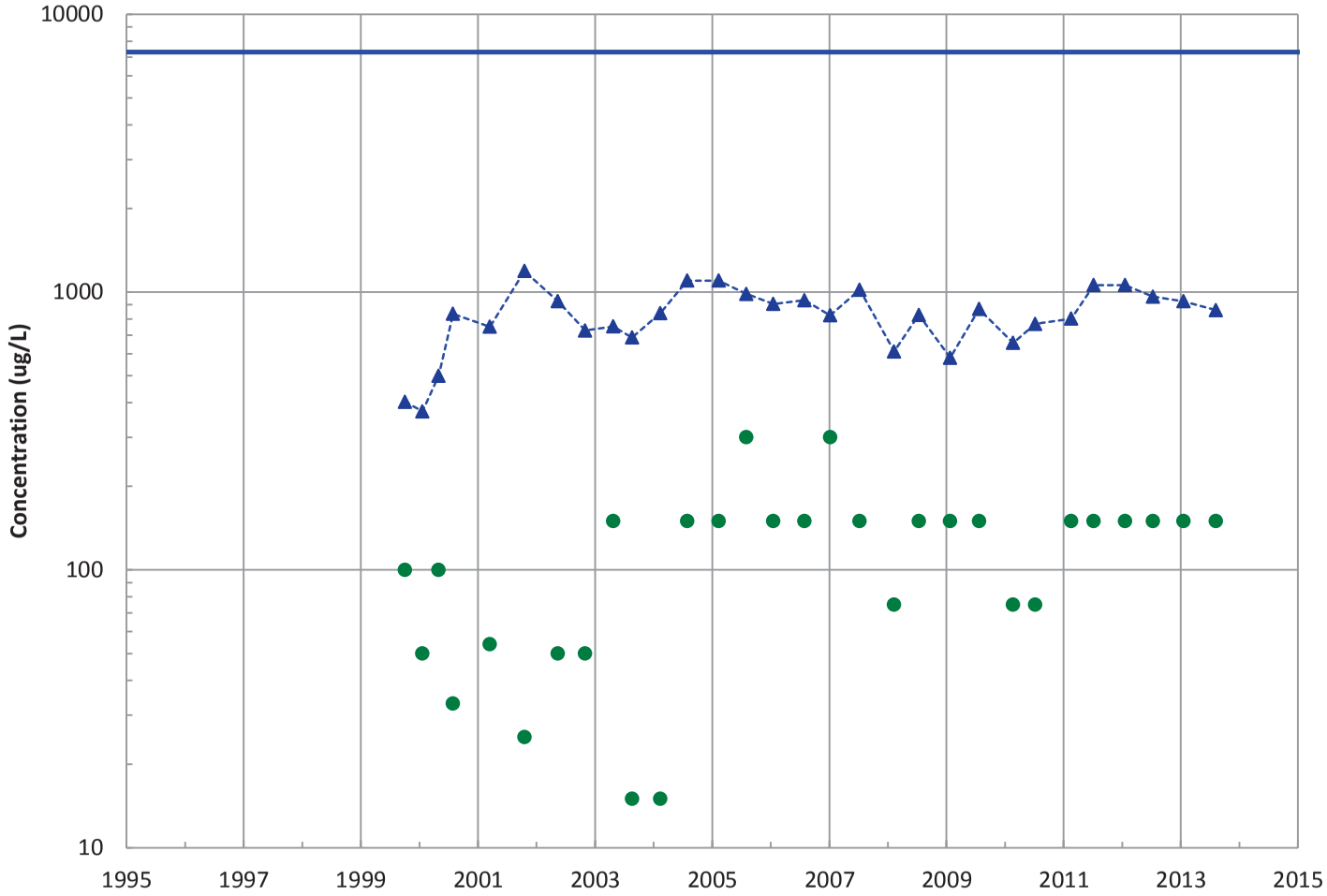
Well Location



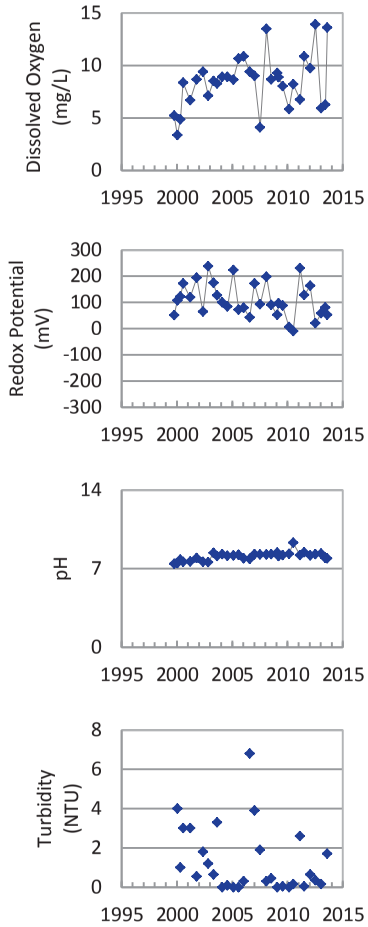
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/7/1999 to 8/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1042
Boron Trend in Perched Aquifer



Field Parameters



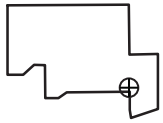
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Probably Increasing
2011 - 2013 Data: Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

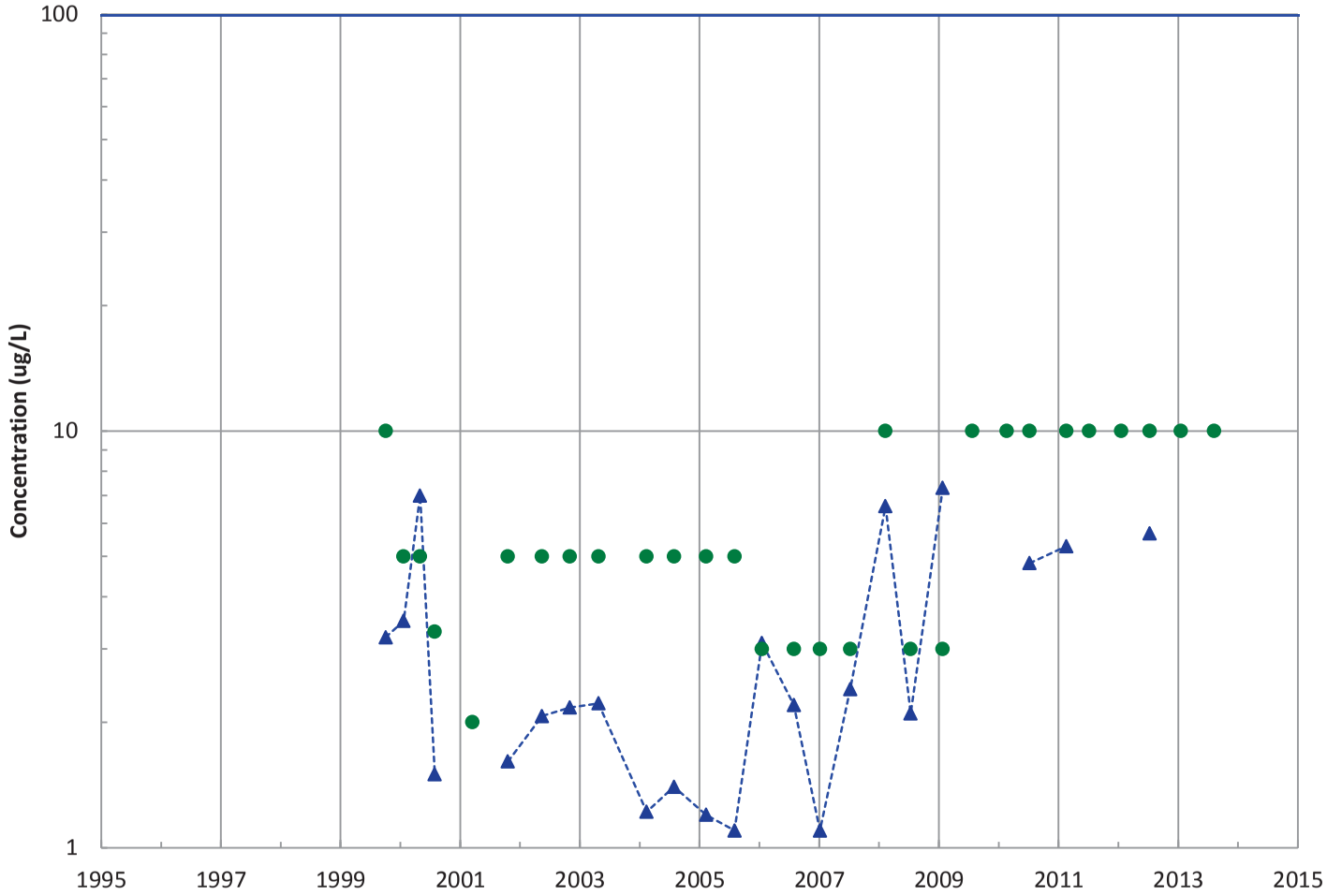
Well Location



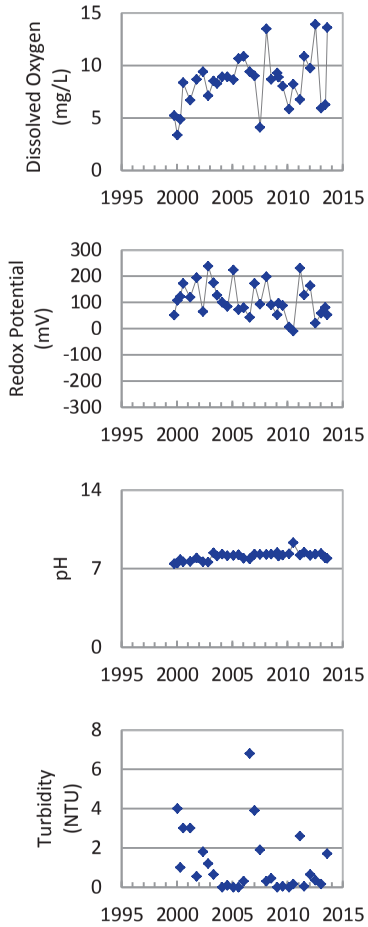
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/7/1999 to 8/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1042
Chromium, Total Trend in Perched Aquifer



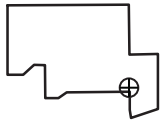
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

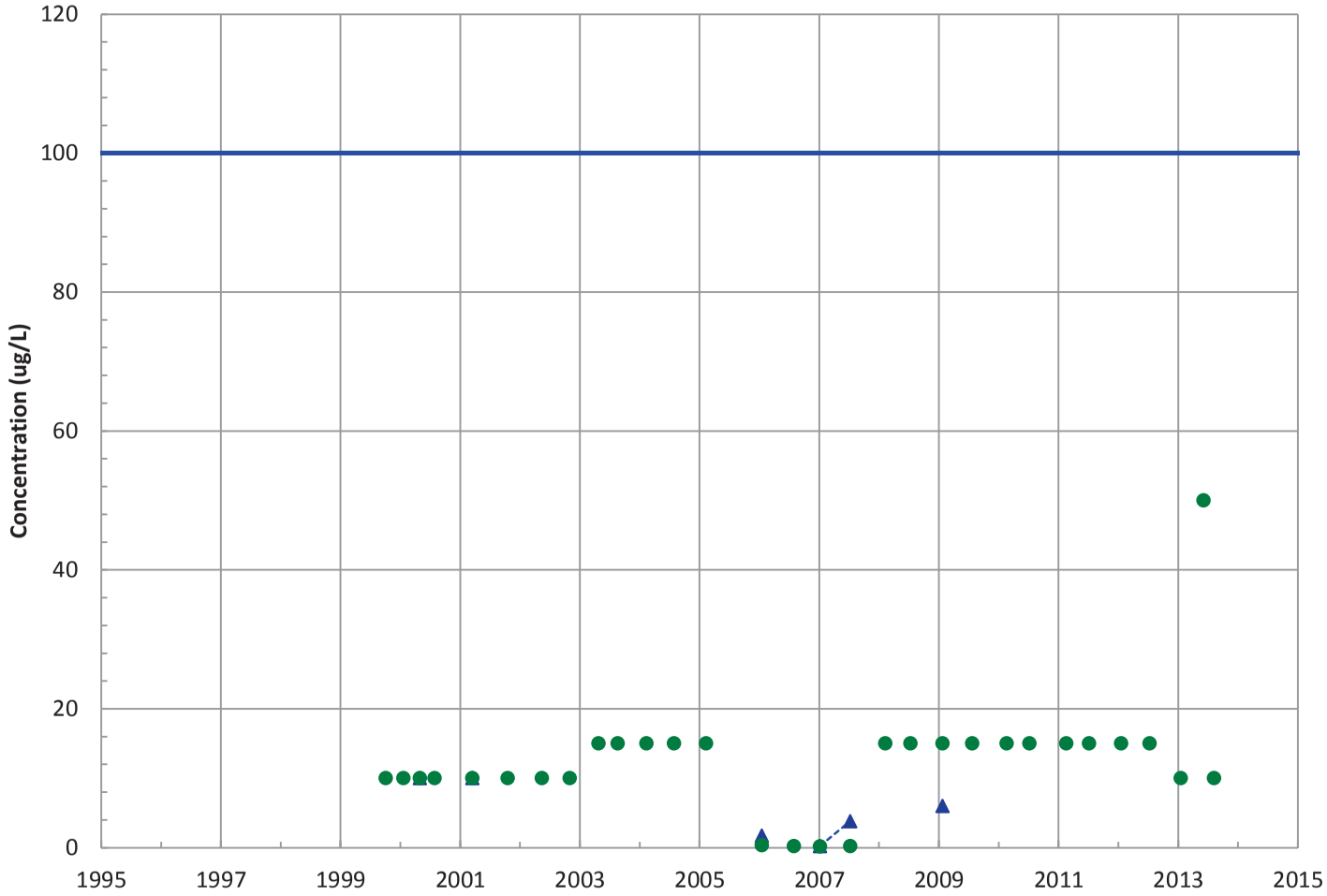
Well Location



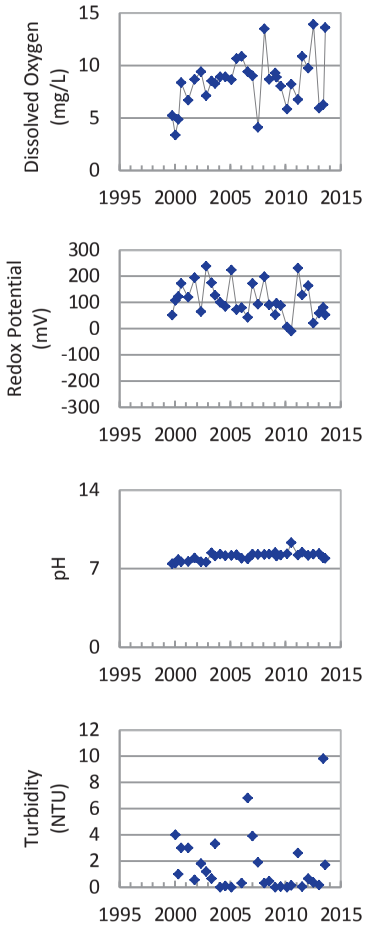
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/7/1999 to 8/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1042
Chromium, Hexavalent Trend in Perched Aquifer



Field Parameters



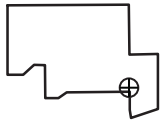
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

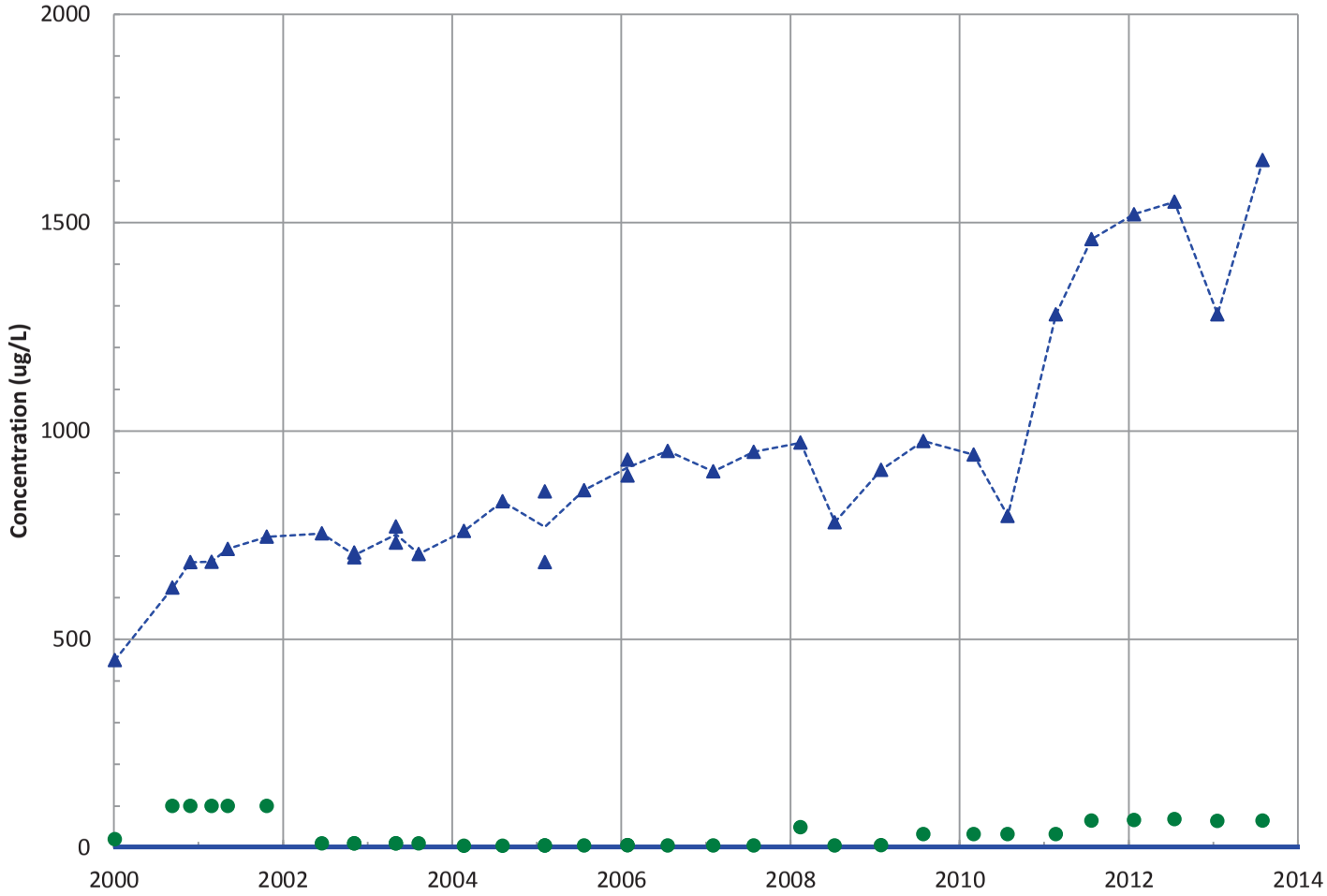
Well Location



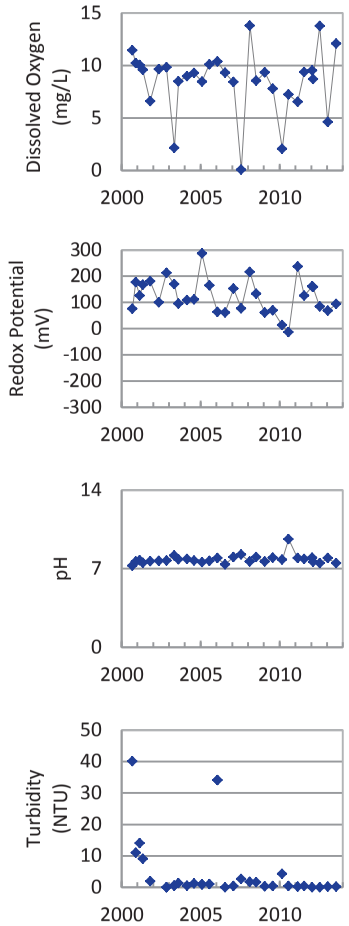
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/7/1999 to 8/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1046
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



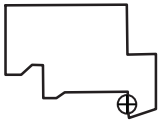
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Increasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

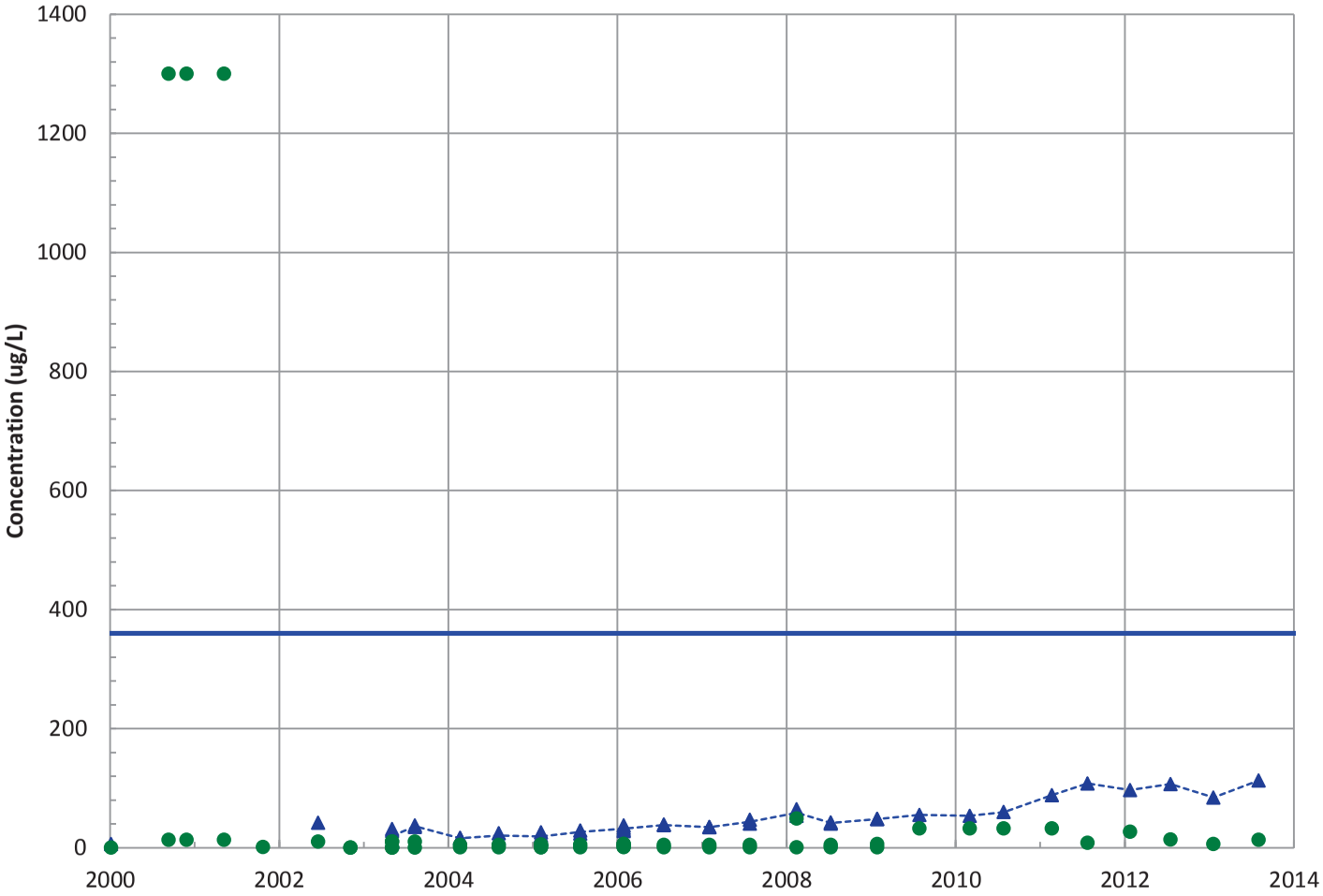
Well Location



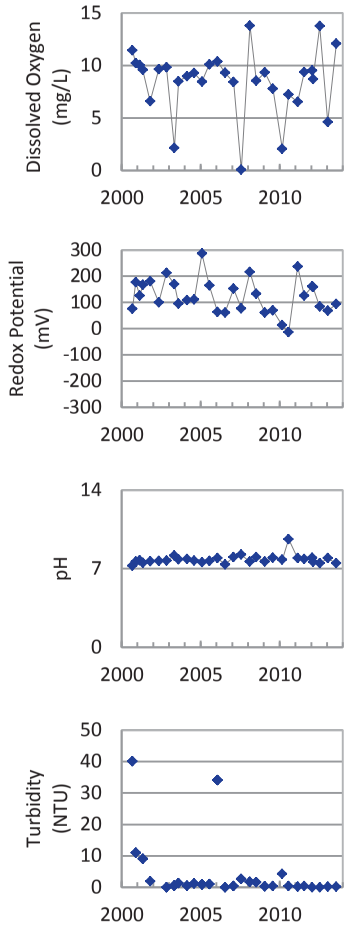
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 1/5/2000 to 8/12/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1046
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



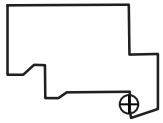
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

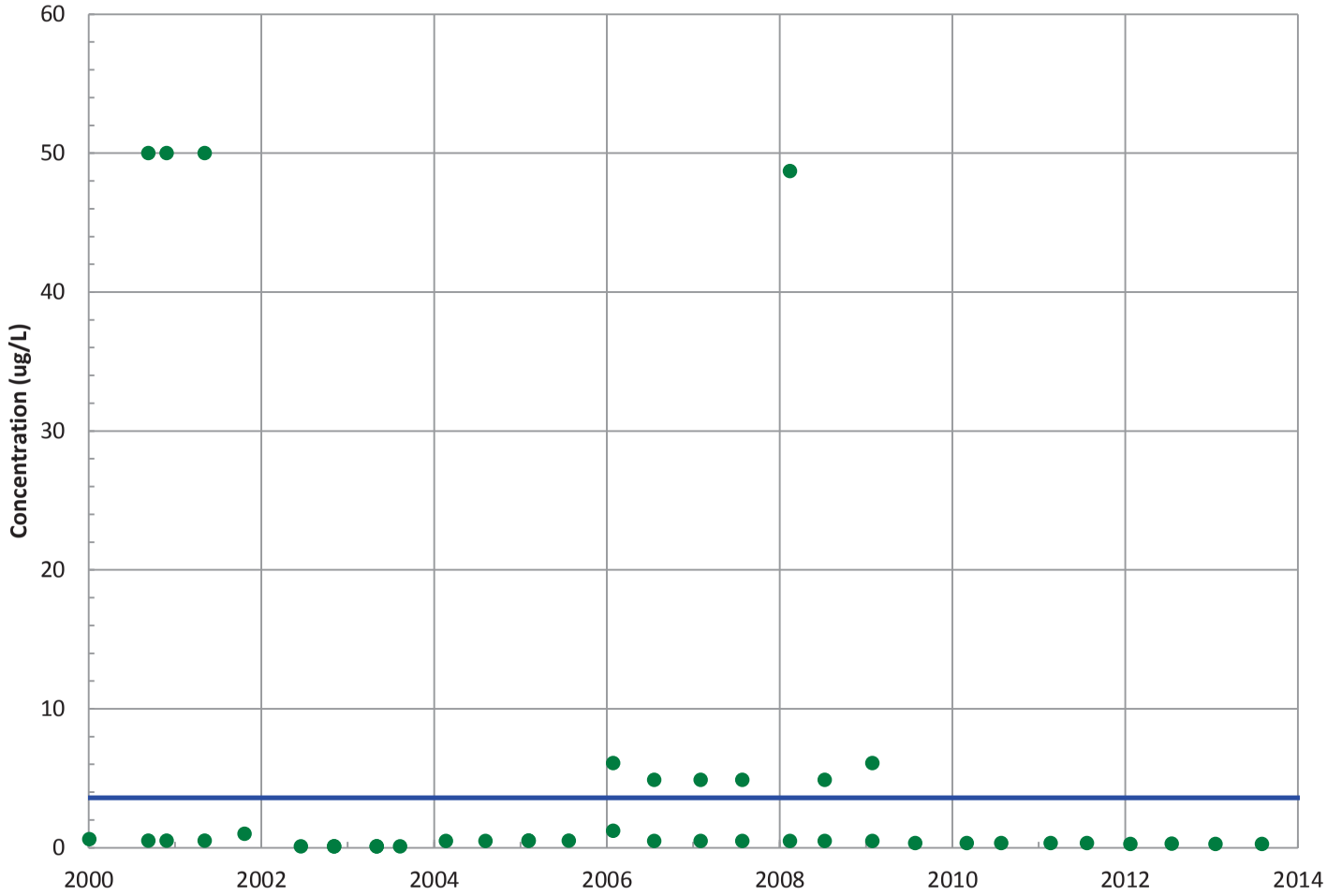
Well Location



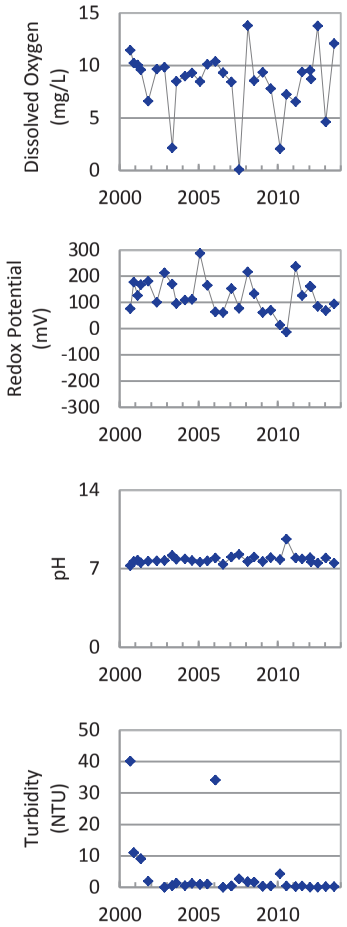
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 1/5/2000 to 8/12/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1046
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



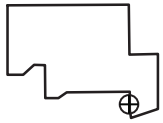
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

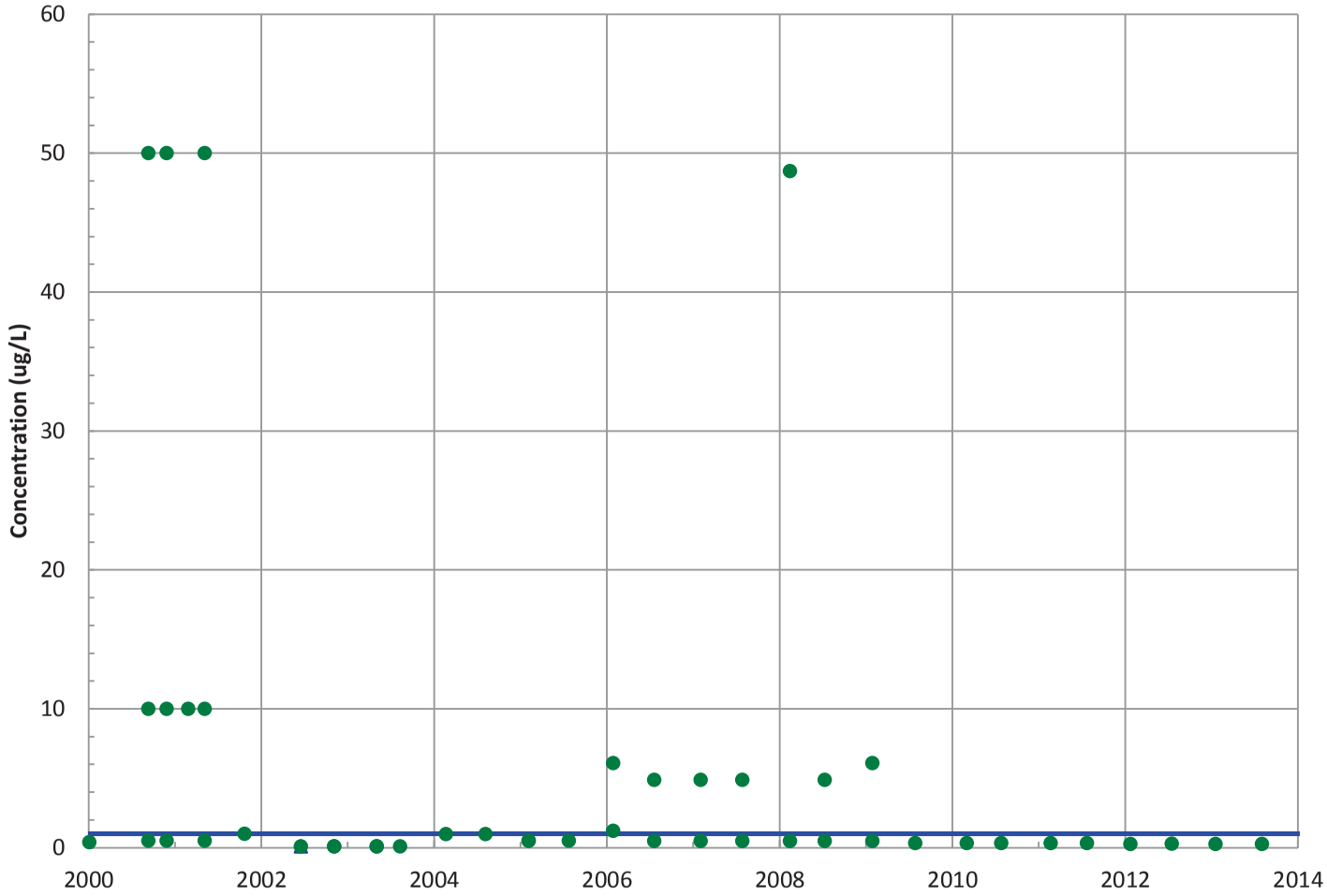
Well Location



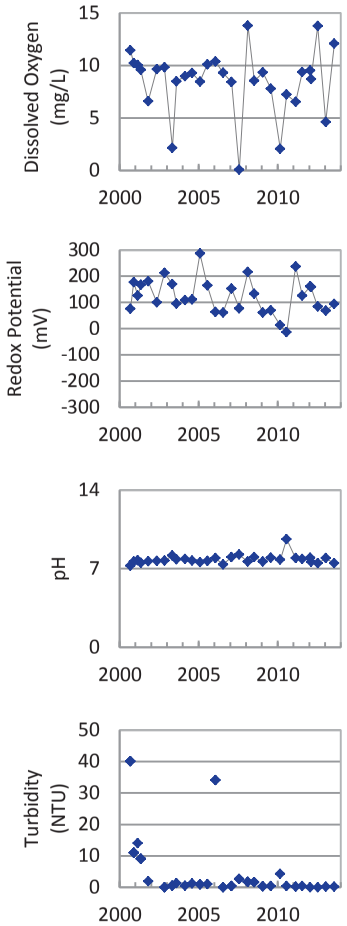
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 1/5/2000 to 8/12/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1046
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): All Non-Detect

2011 - 2013 Data: All Non-Detect

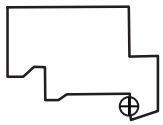
MAROS Linear Regression Method

Data (7/2009 - 12/2013): All Non-Detect

2011 - 2013 Data: N/A (<4 Detections in Dataset)

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location



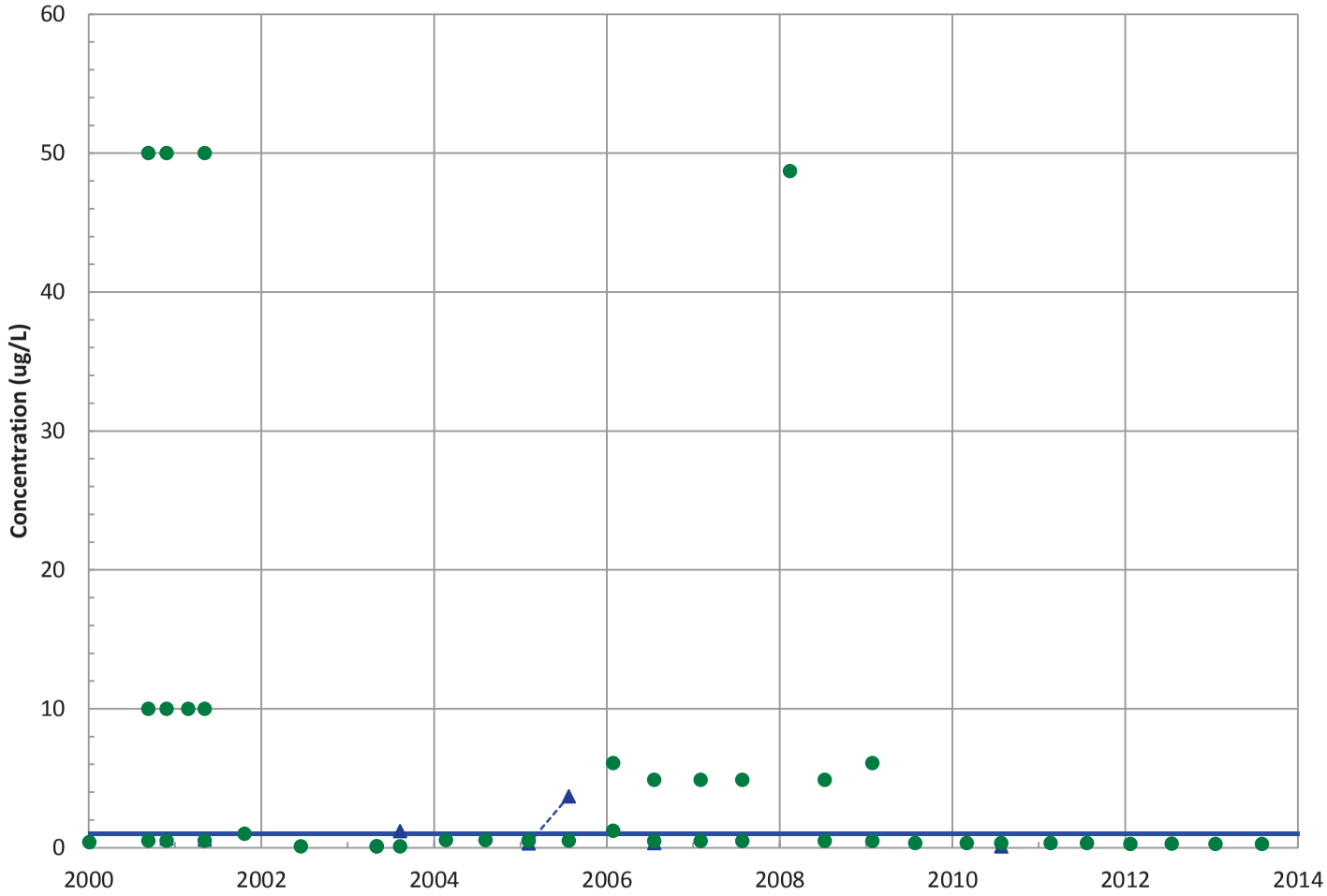
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 1/5/2000 to 8/12/2013

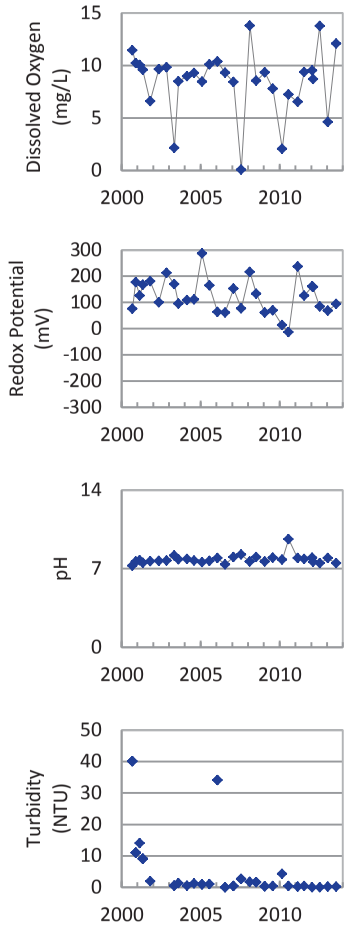
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1046
2,6-Dinitrotoluene Trend in Perched Aquifer



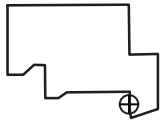
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: All Non-Detect
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

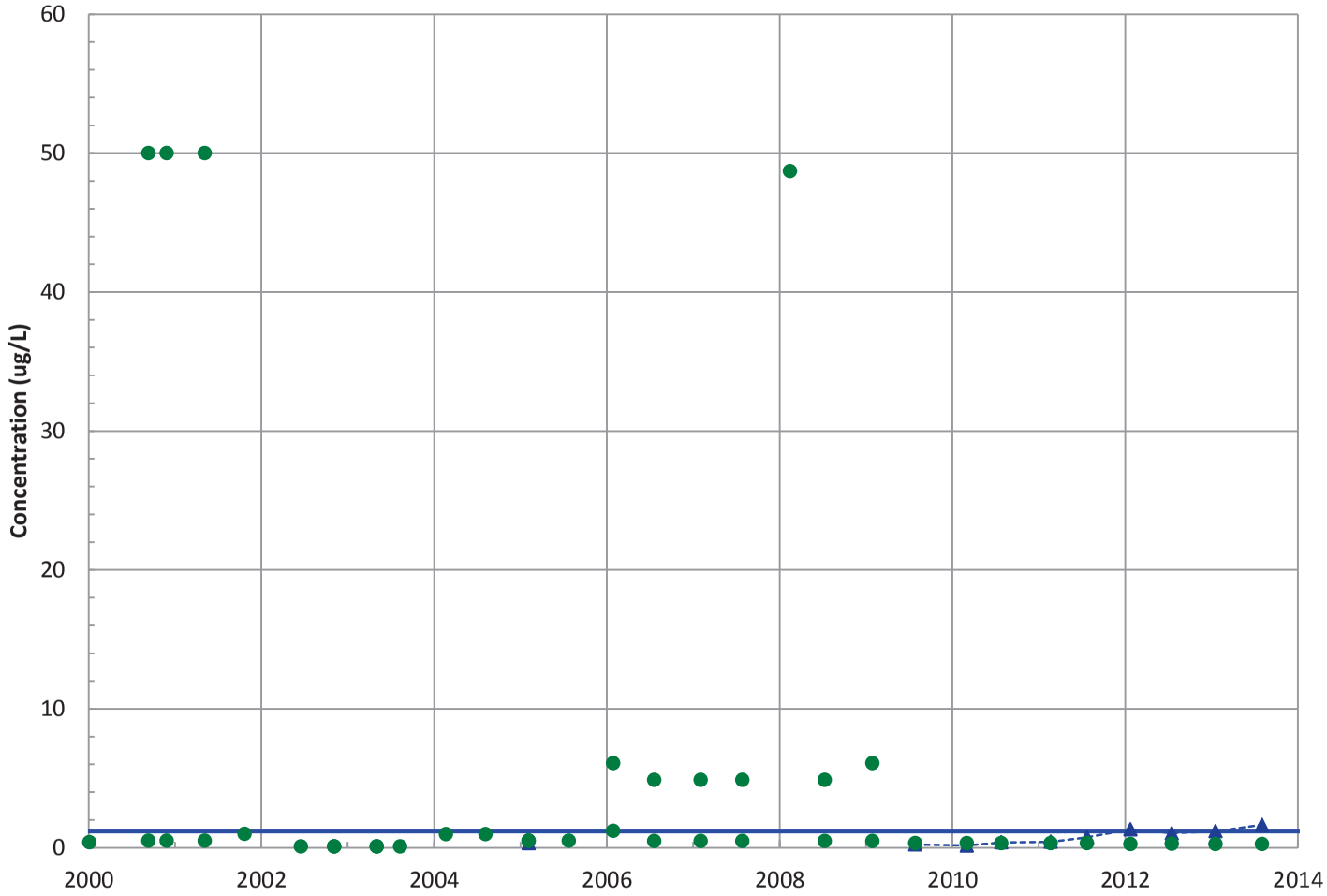
Well Location



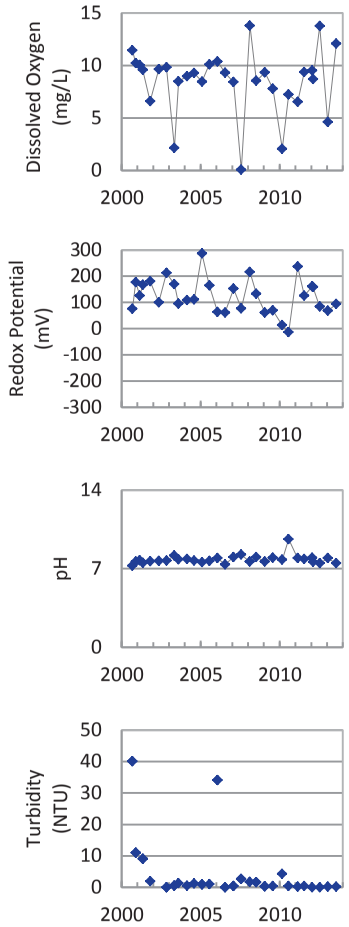
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 1/5/2000 to 8/12/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1046
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



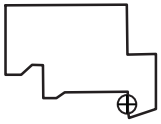
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

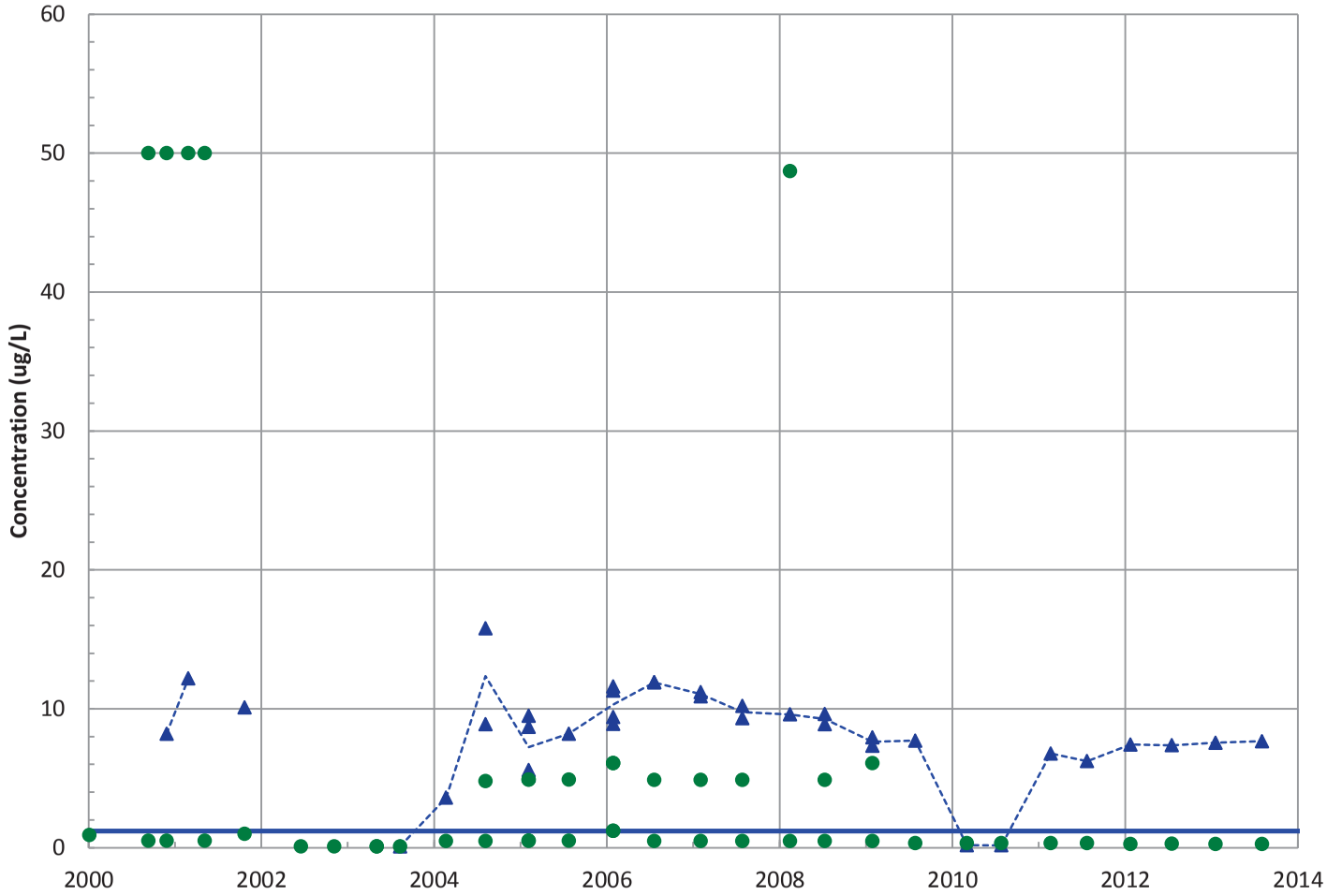
Well Location



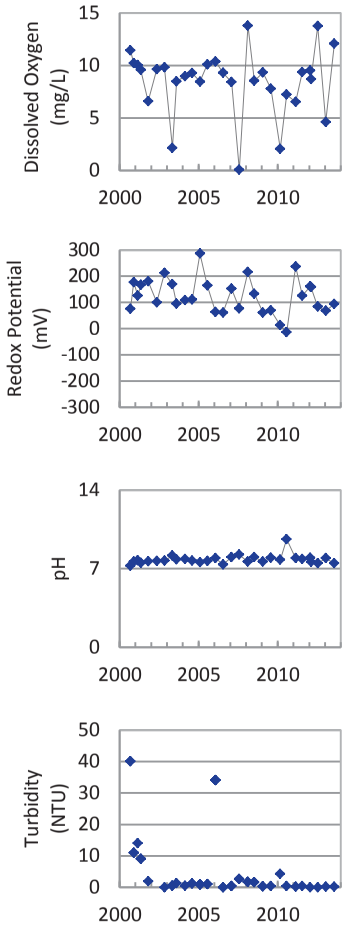
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 1/5/2000 to 8/12/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1046
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Probably Increasing

2011 - 2013 Data: No Trend

MAROS Linear Regression Method

Data (7/2009 - 12/2013): Probably Increasing

2011 - 2013 Data: Increasing

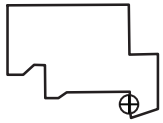
Measured Value

Sample Detection Limit

Concentration Trend

Groundwater Protection Standard

Well Location



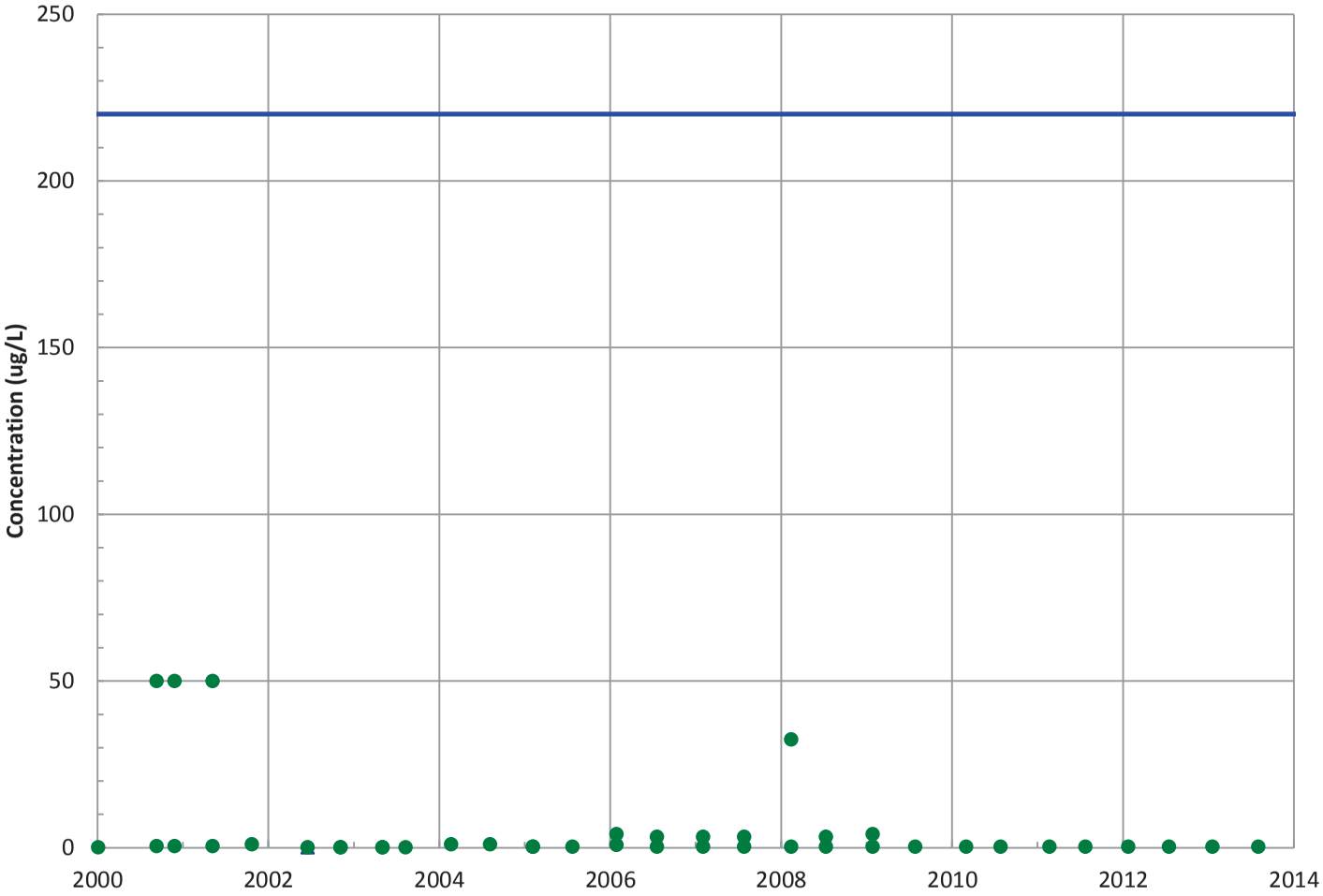
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 1/5/2000 to 8/12/2013

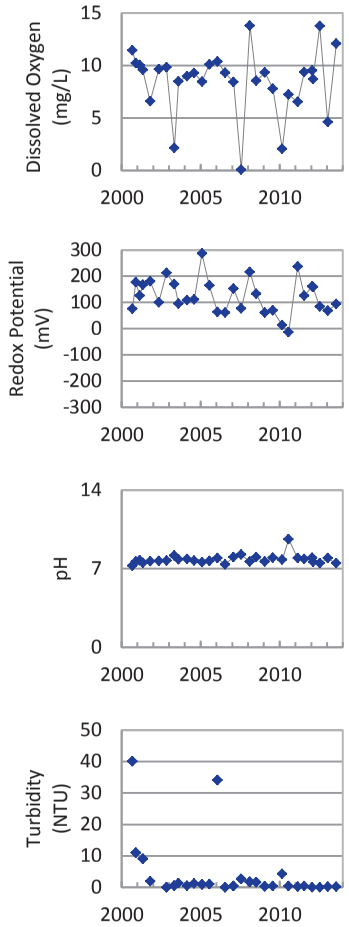
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1046
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



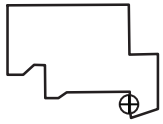
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

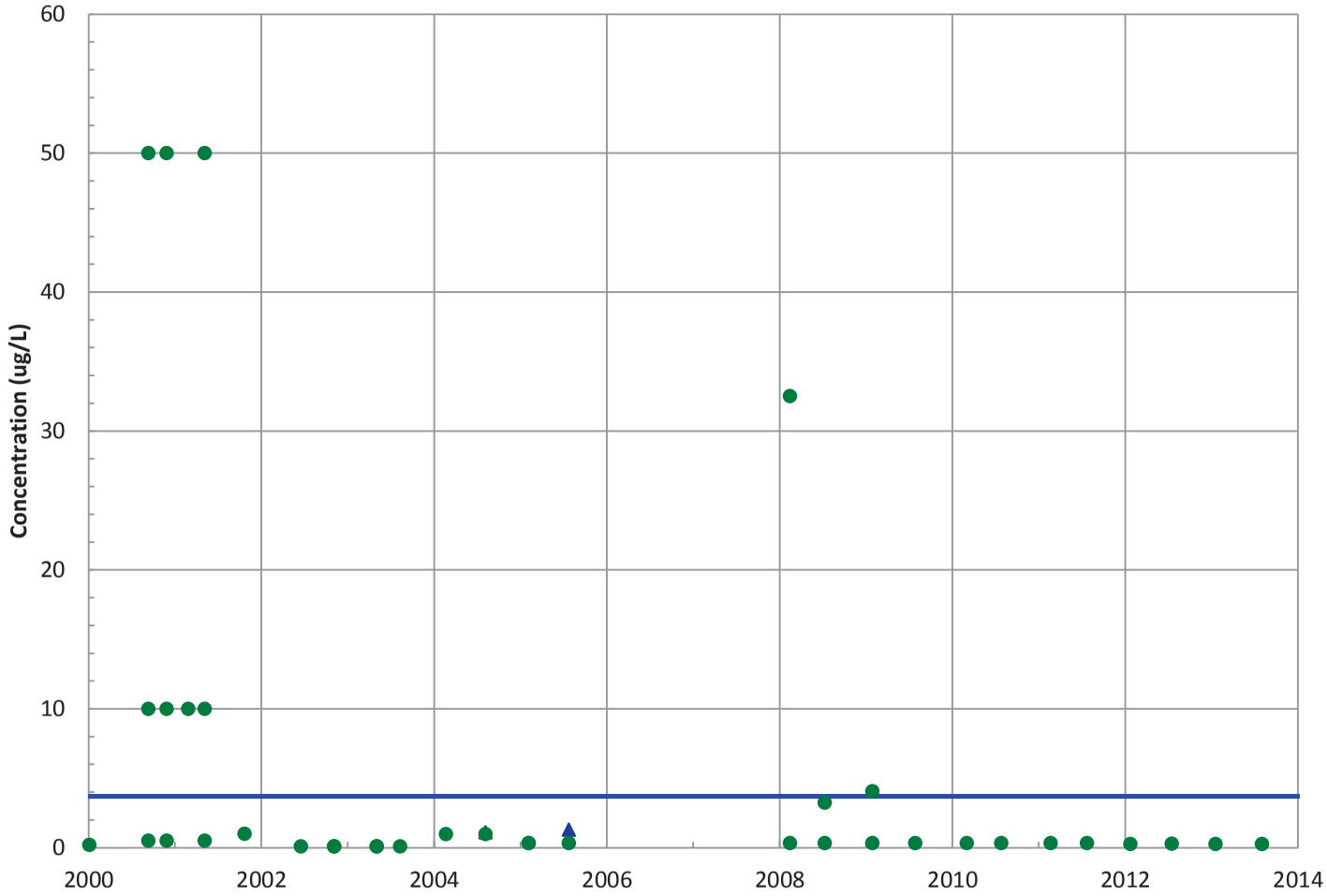
Well Location



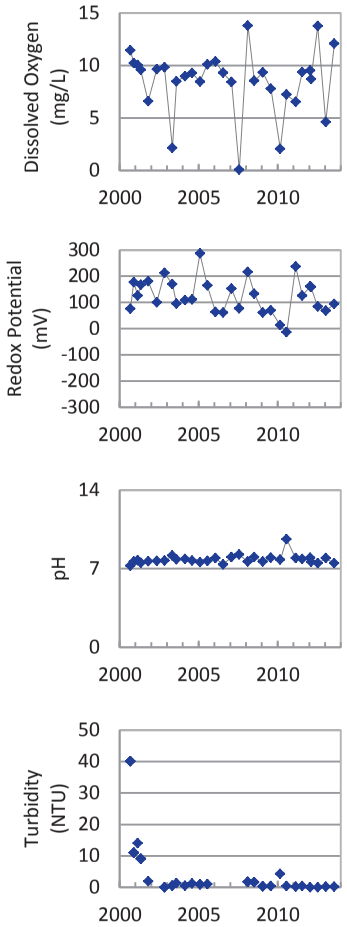
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 1/5/2000 to 8/12/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1046
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): All Non-Detect

2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method

Data (7/2009 - 12/2013): All Non-Detect

2011 - 2013 Data: N/A (<4 Detections in Dataset)

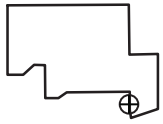
▲ Measured Value

● Sample Detection Limit

------- Concentration Trend

——— Groundwater Protection Standard

Well Location



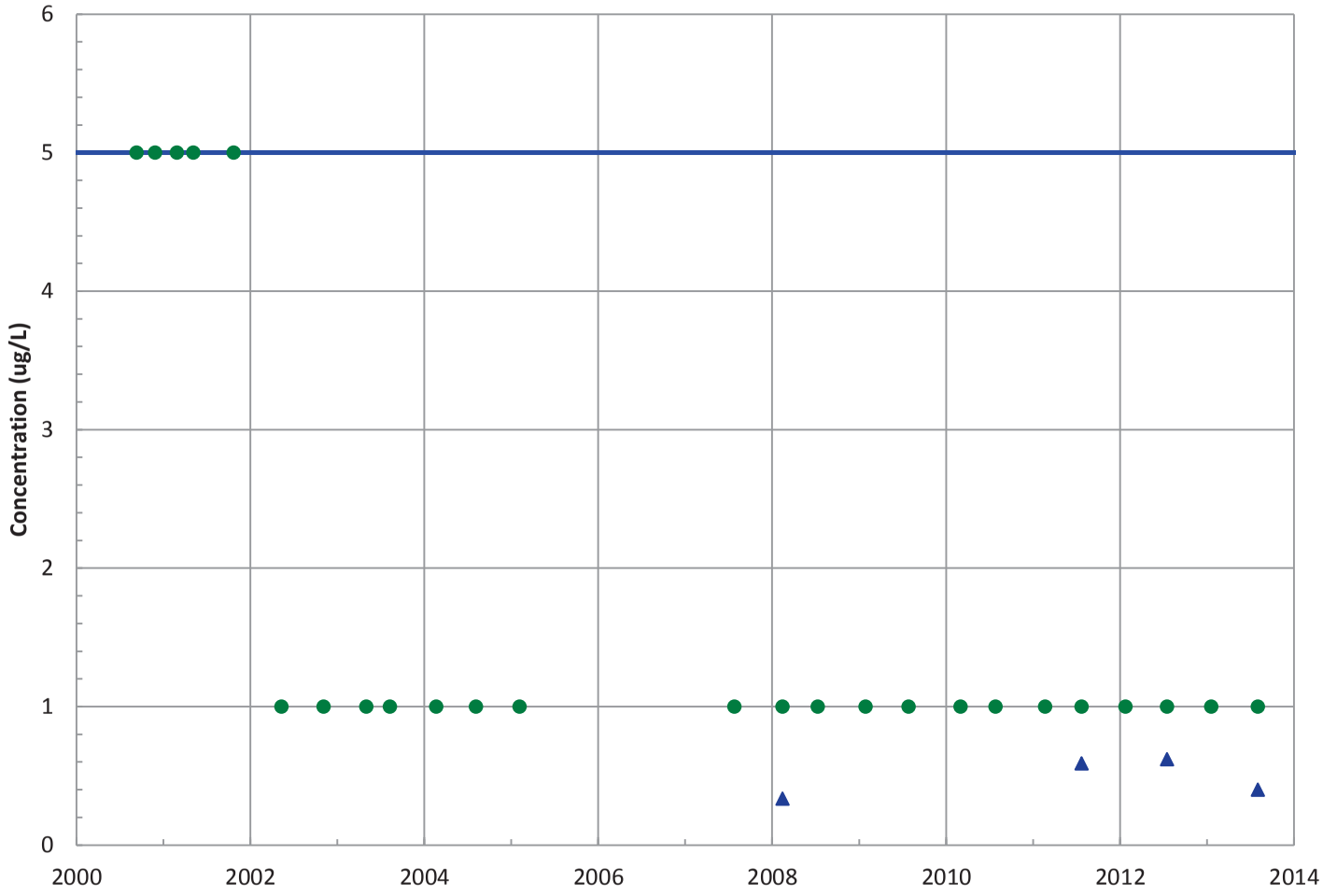
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 1/5/2000 to 8/12/2013

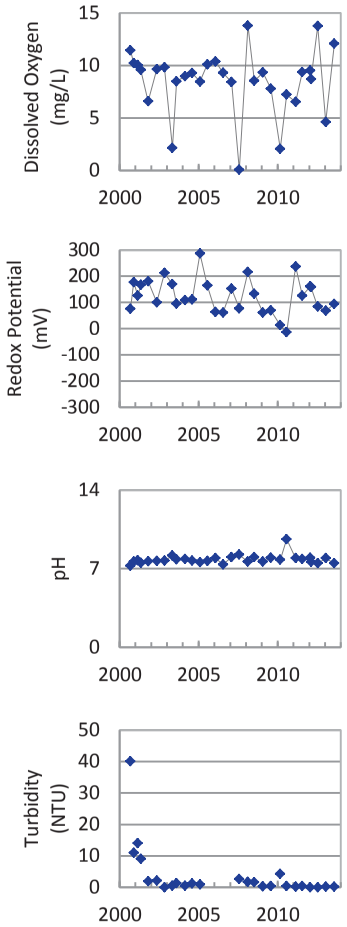
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1046
Tetrachloroethylene (PCE) Trend in Perched Aquifer



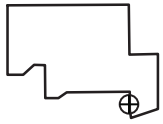
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

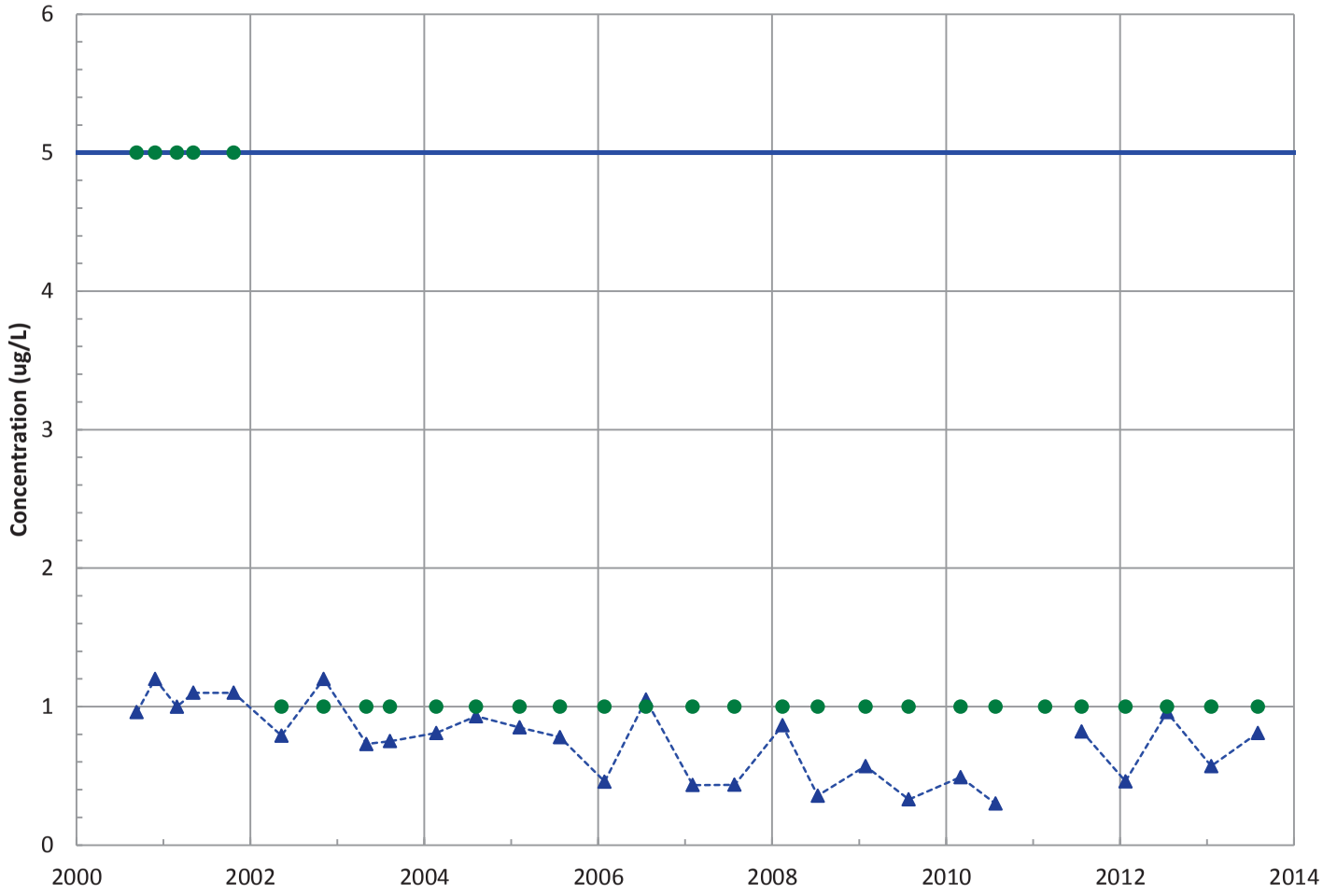
Well Location



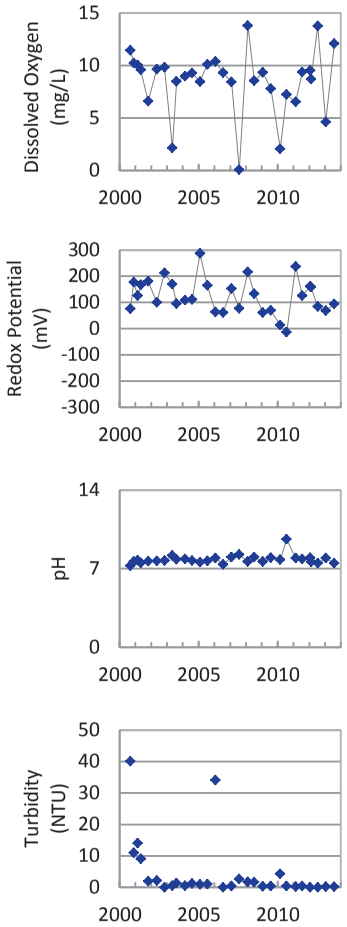
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/11/2000 to 8/12/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1046
Trichloroethene Trend in Perched Aquifer



Field Parameters



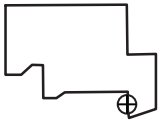
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------ Concentration Trend
- ——— Groundwater Protection Standard

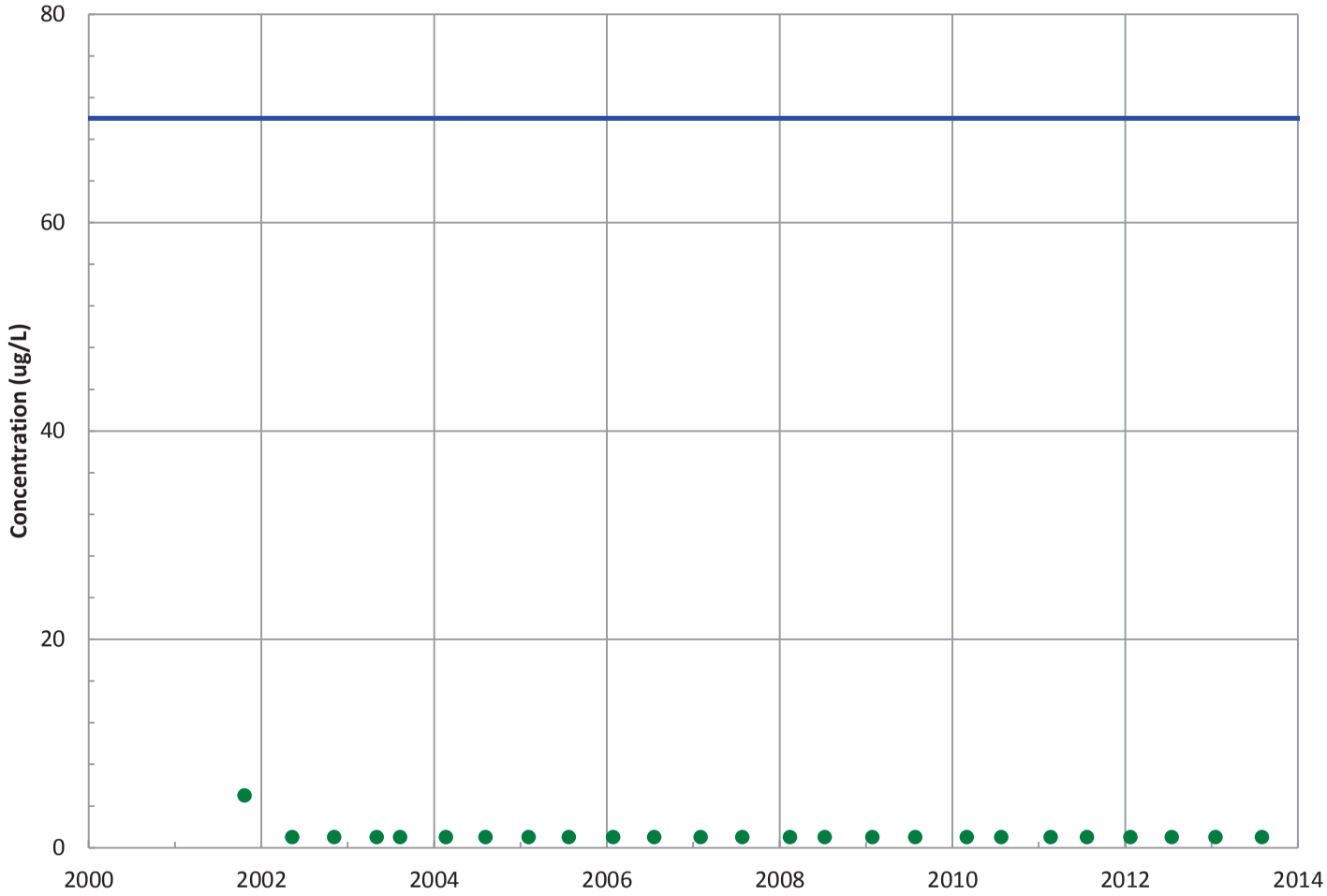
Well Location



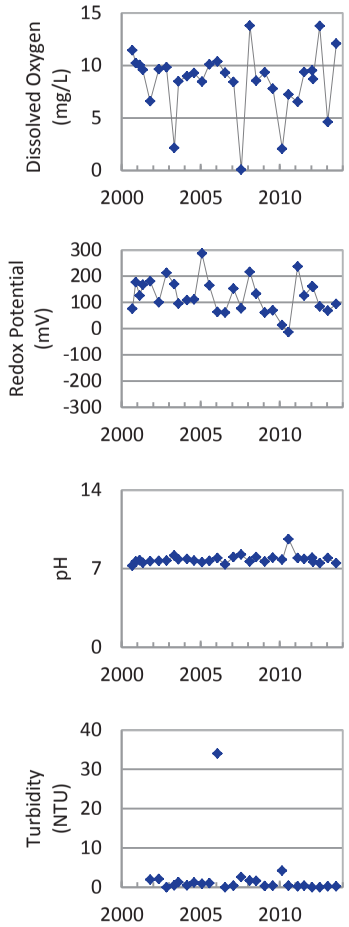
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/11/2000 to 8/12/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1046
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



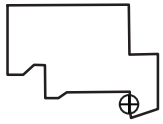
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

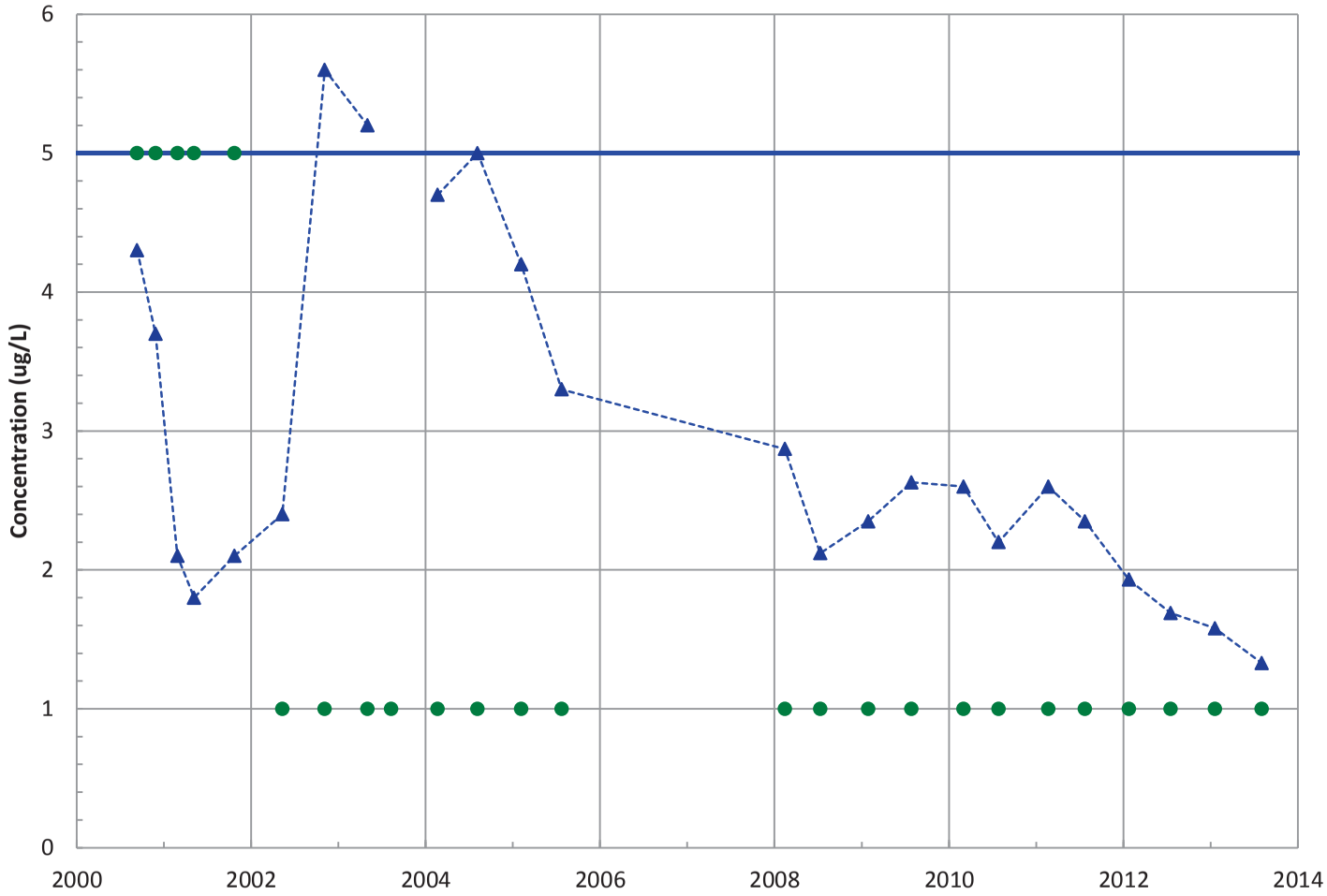
Well Location



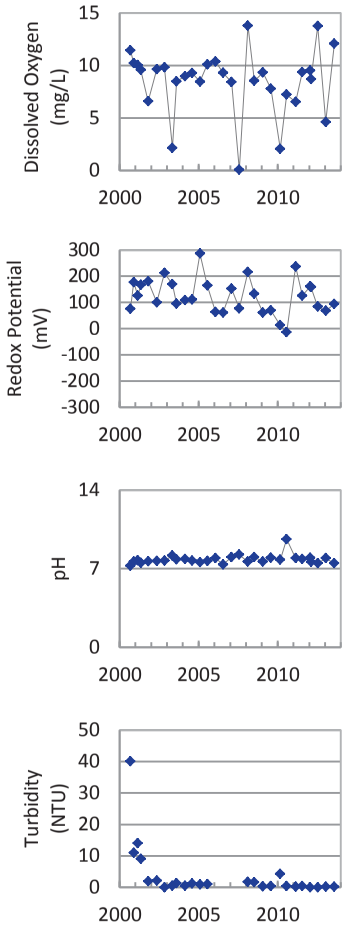
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/24/2001 to 8/12/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1046
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



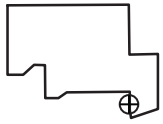
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

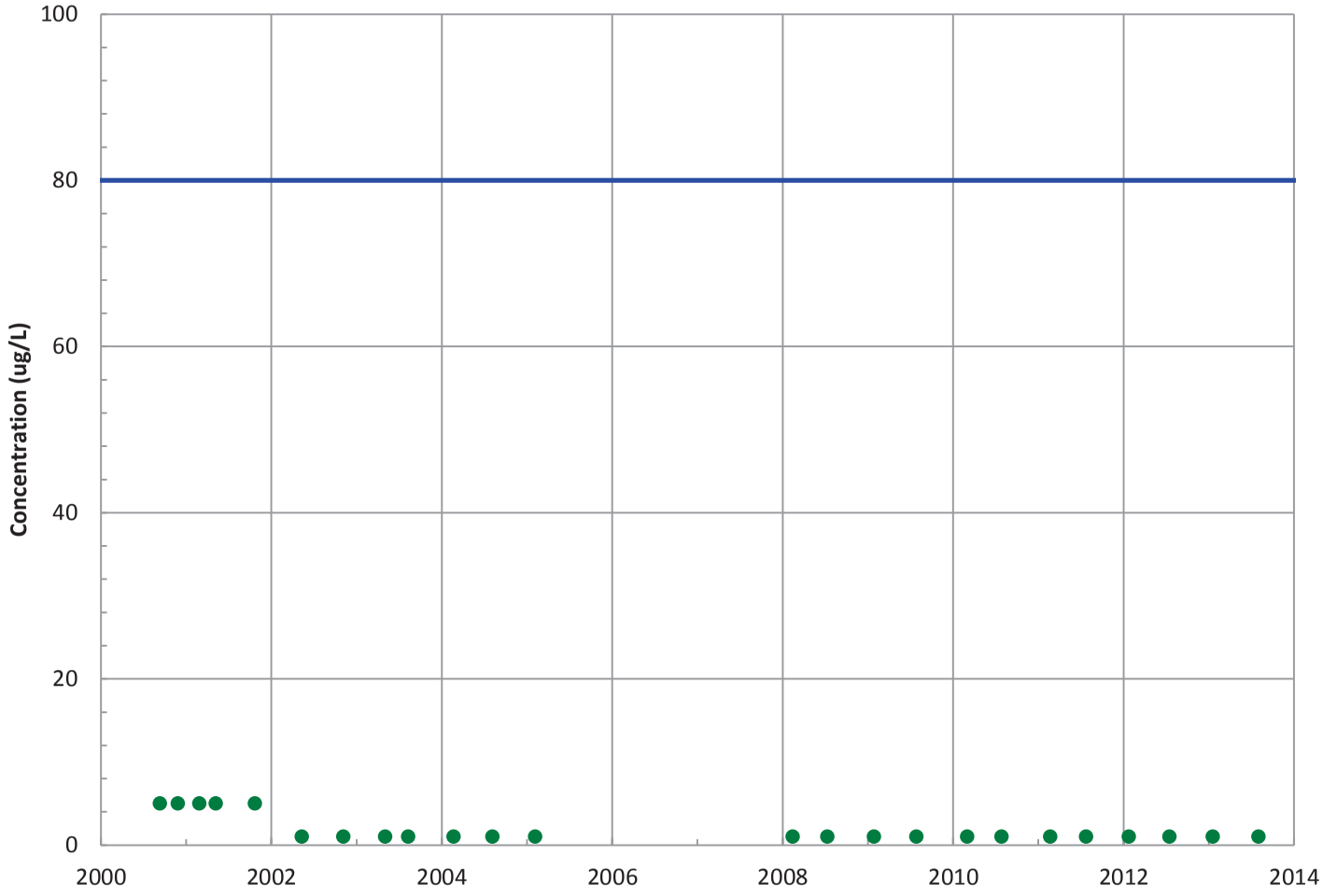
Well Location



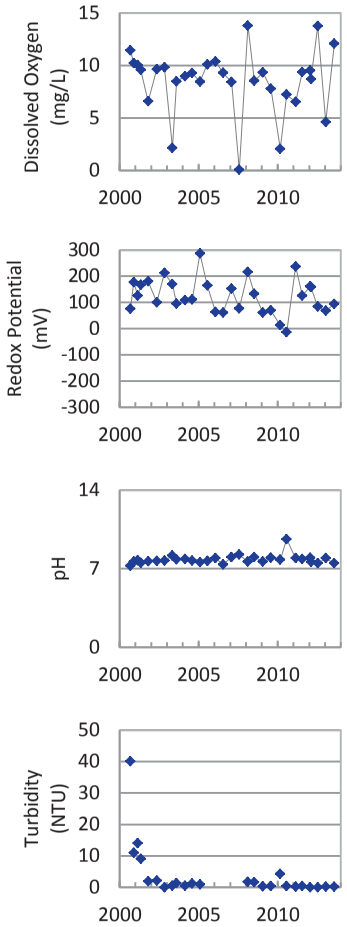
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/11/2000 to 8/12/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1046
Chloroform Trend in Perched Aquifer



Field Parameters



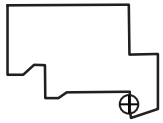
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

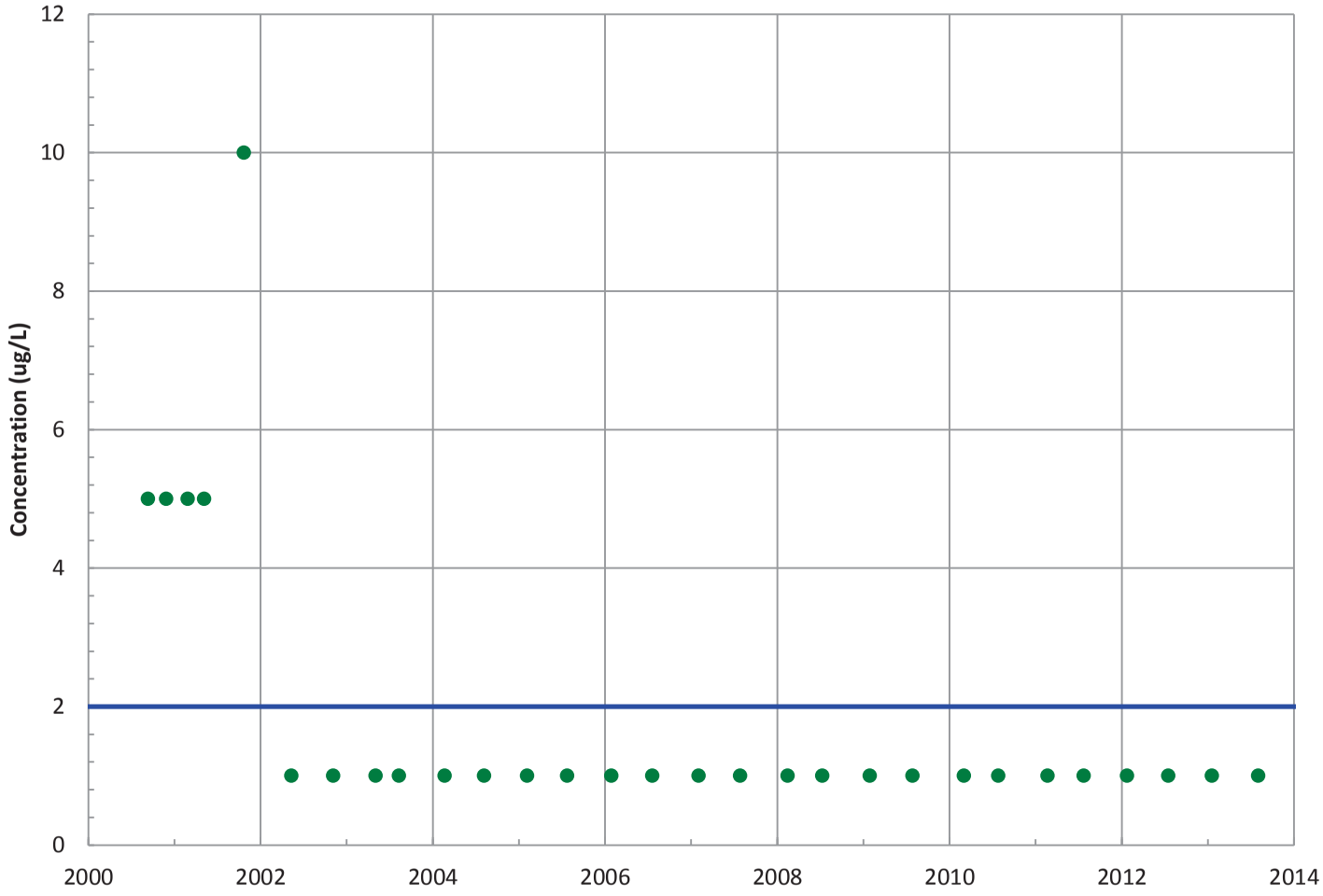
Well Location



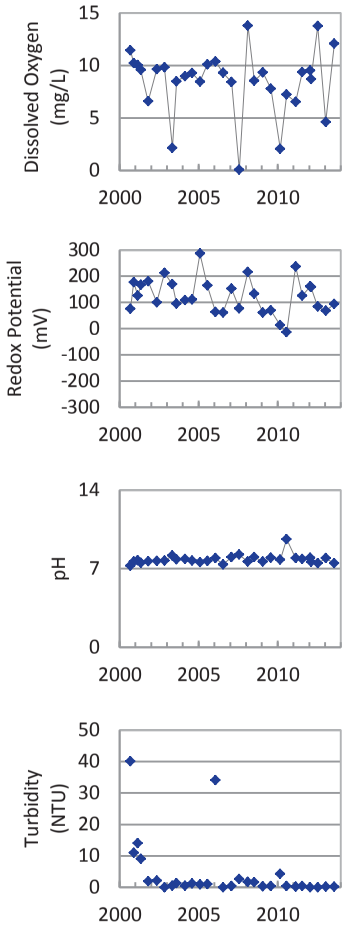
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/11/2000 to 8/12/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1046
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



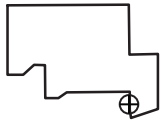
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

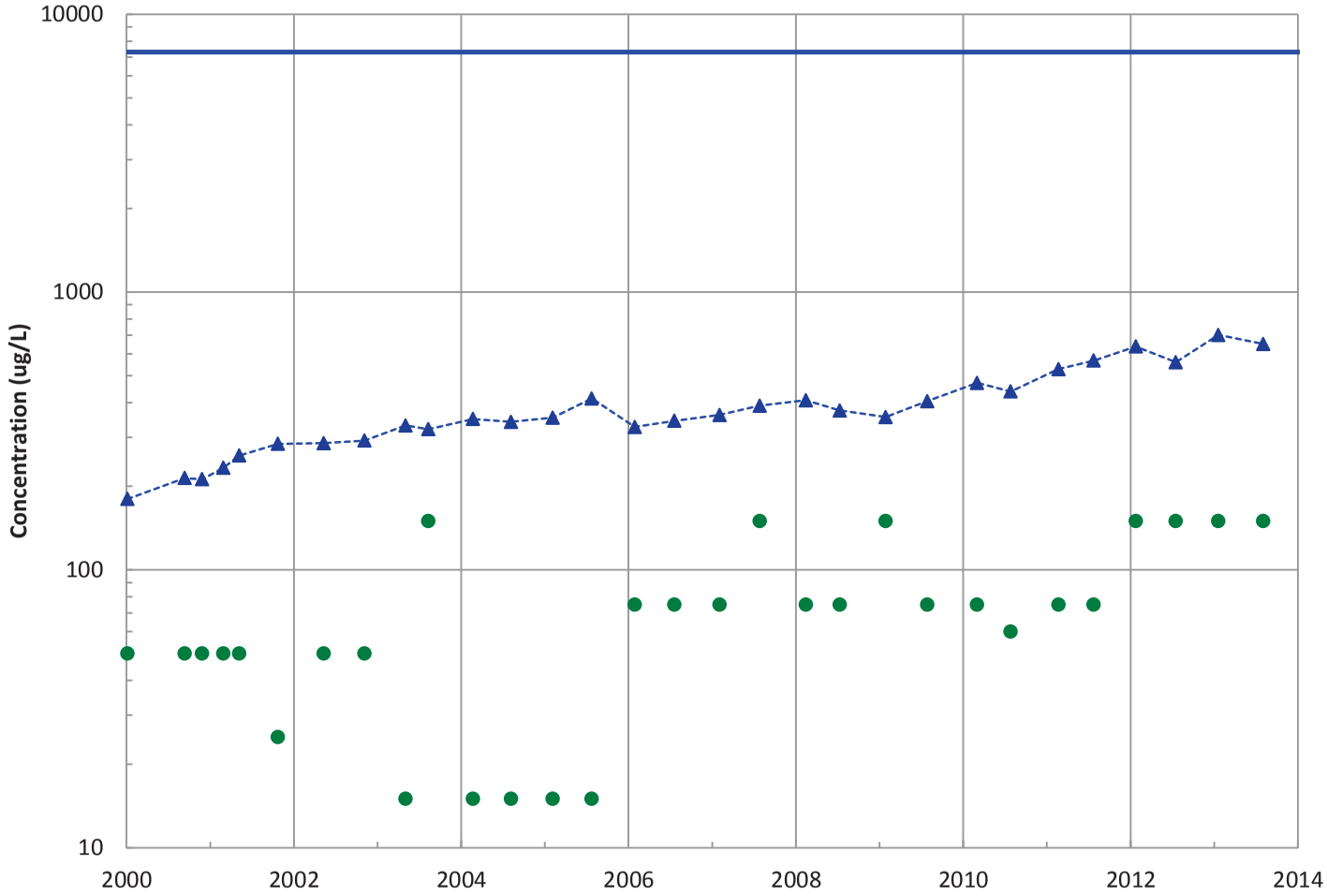
Well Location



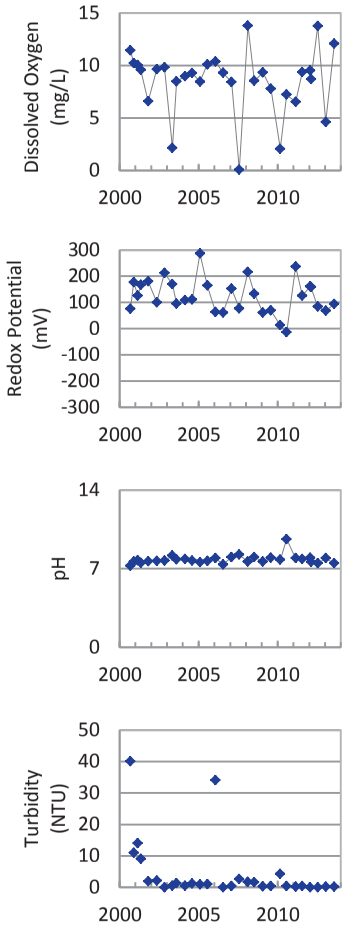
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/11/2000 to 8/12/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1046
Boron Trend in Perched Aquifer



Field Parameters



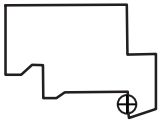
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

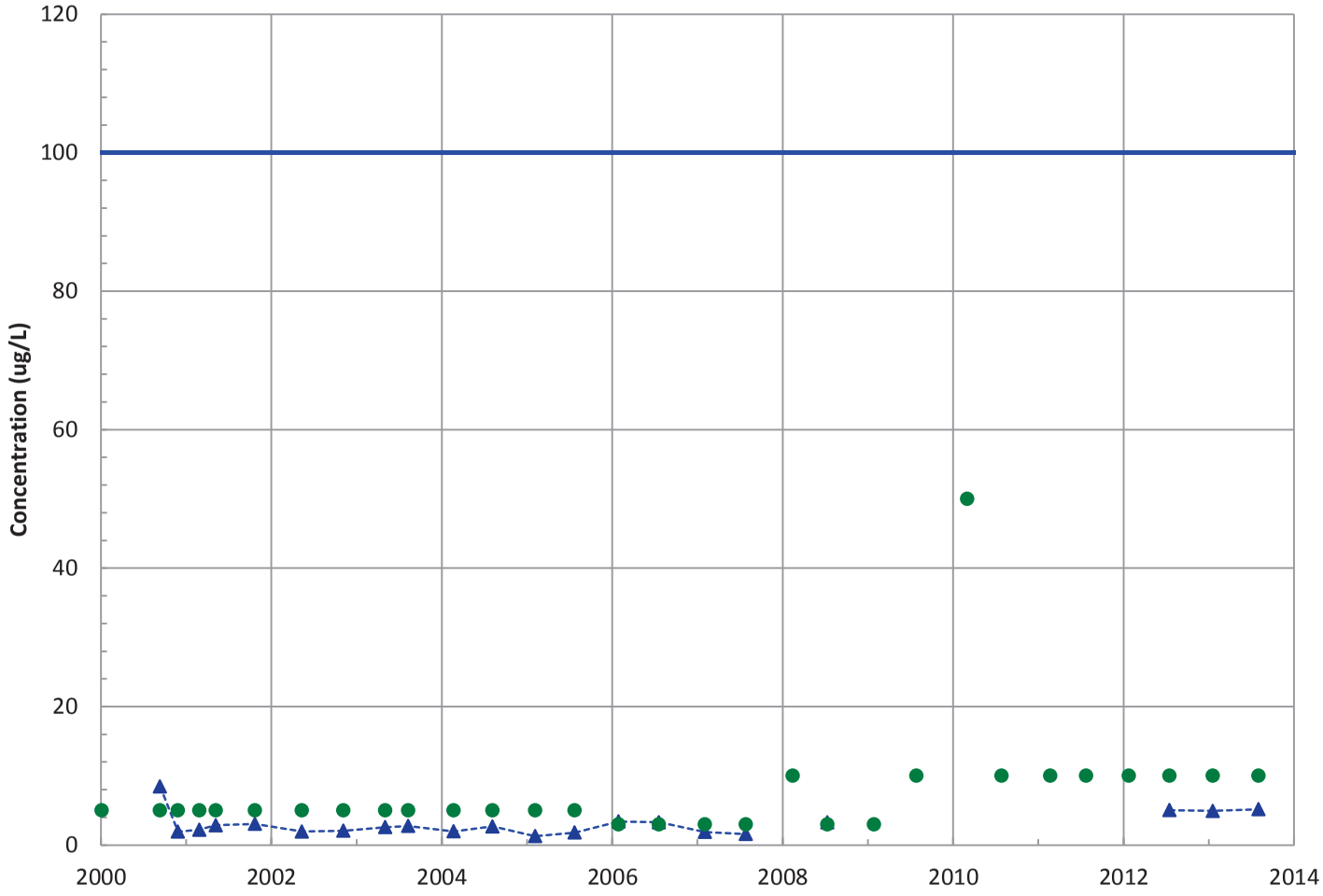
Well Location



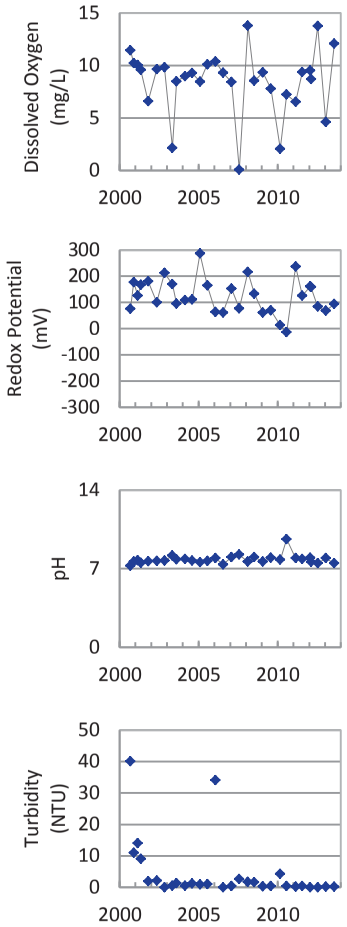
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 1/5/2000 to 8/12/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1046
Chromium, Total Trend in Perched Aquifer



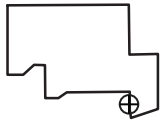
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

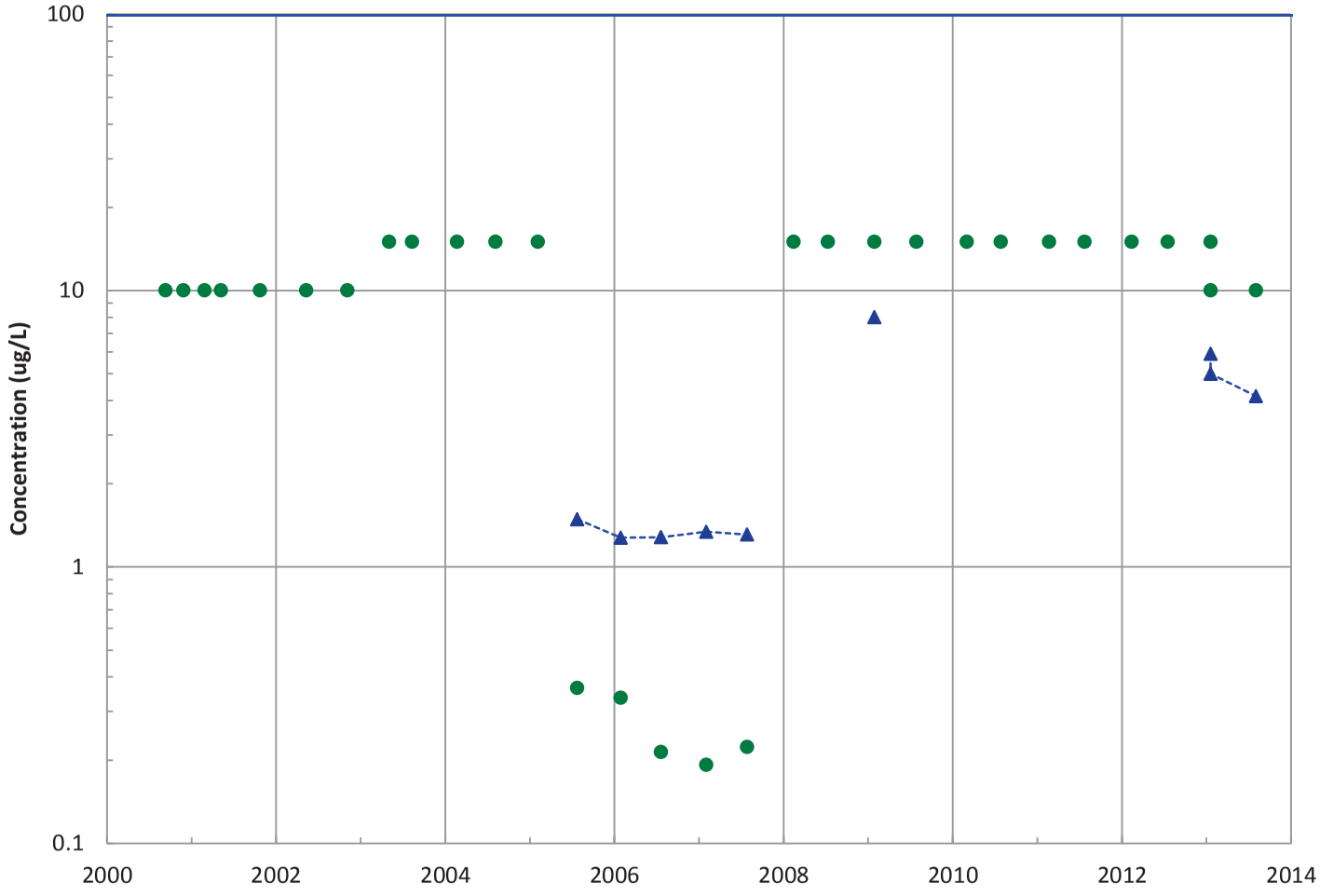
Well Location



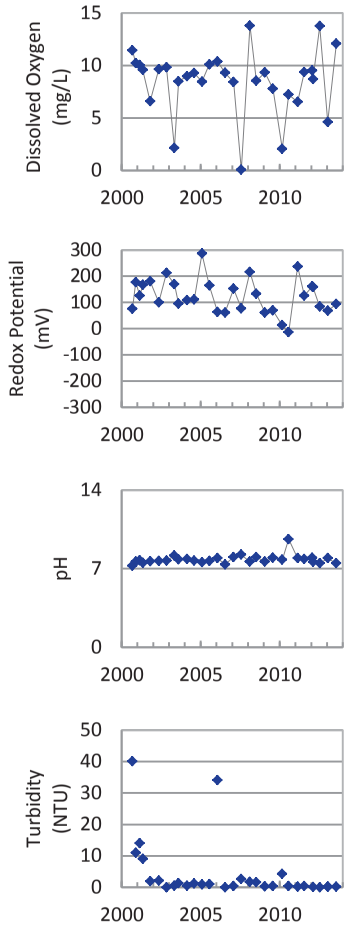
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 1/5/2000 to 8/12/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1046
Chromium, Hexavalent Trend in Perched Aquifer



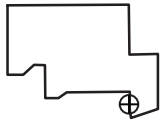
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

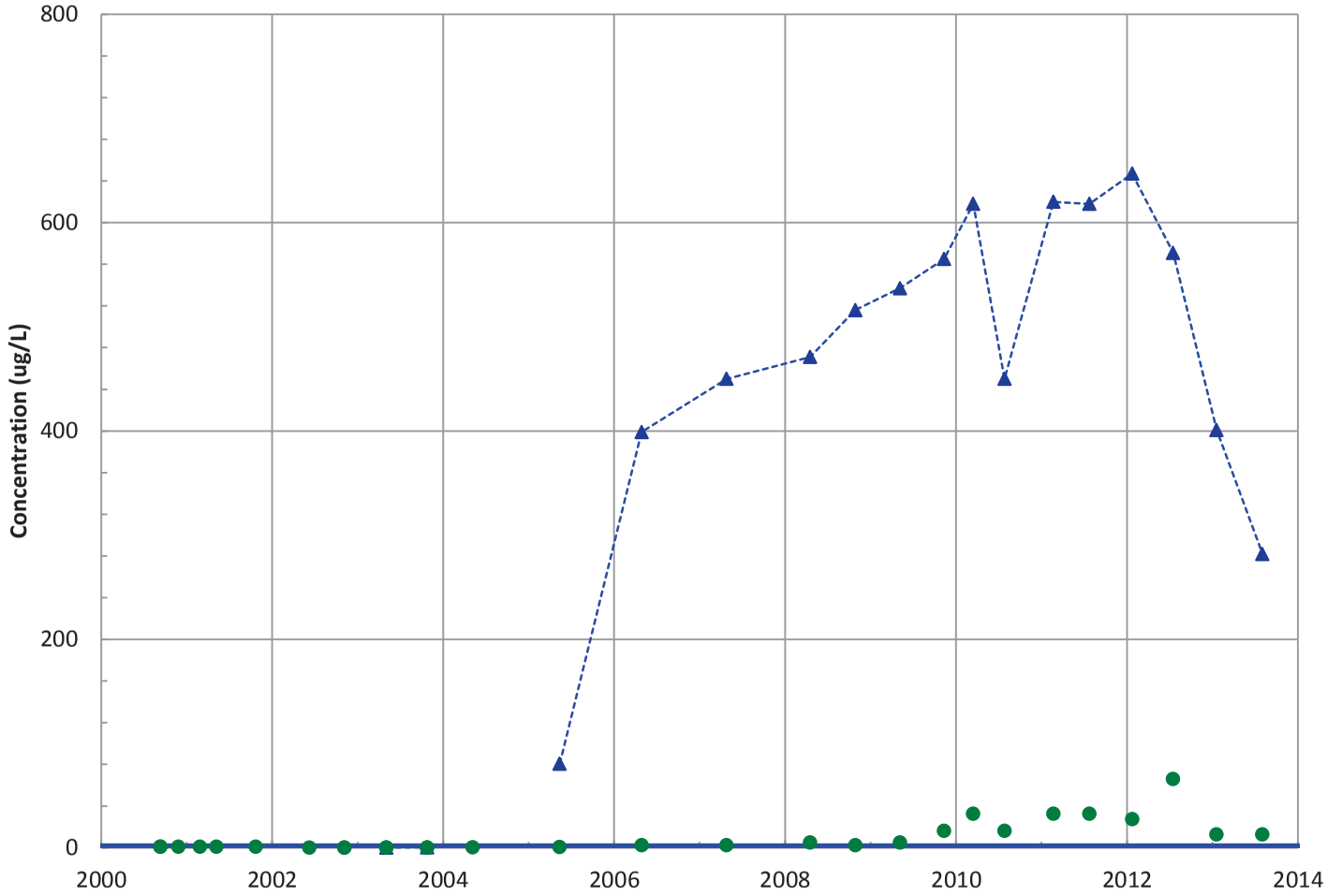
Well Location



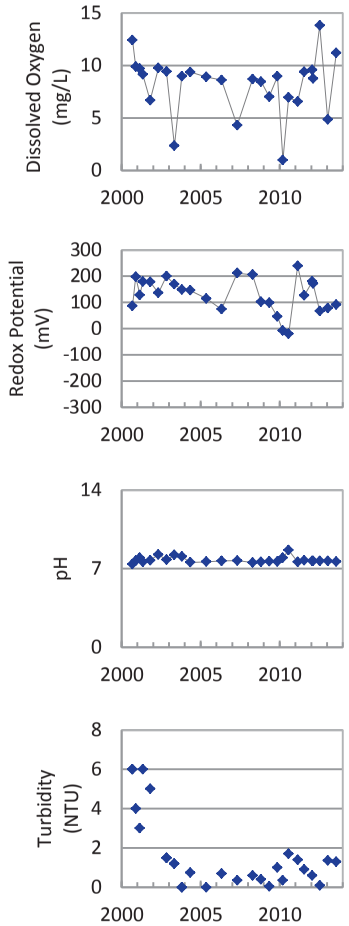
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/11/2000 to 8/12/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1047A
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



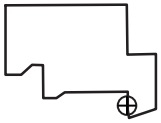
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

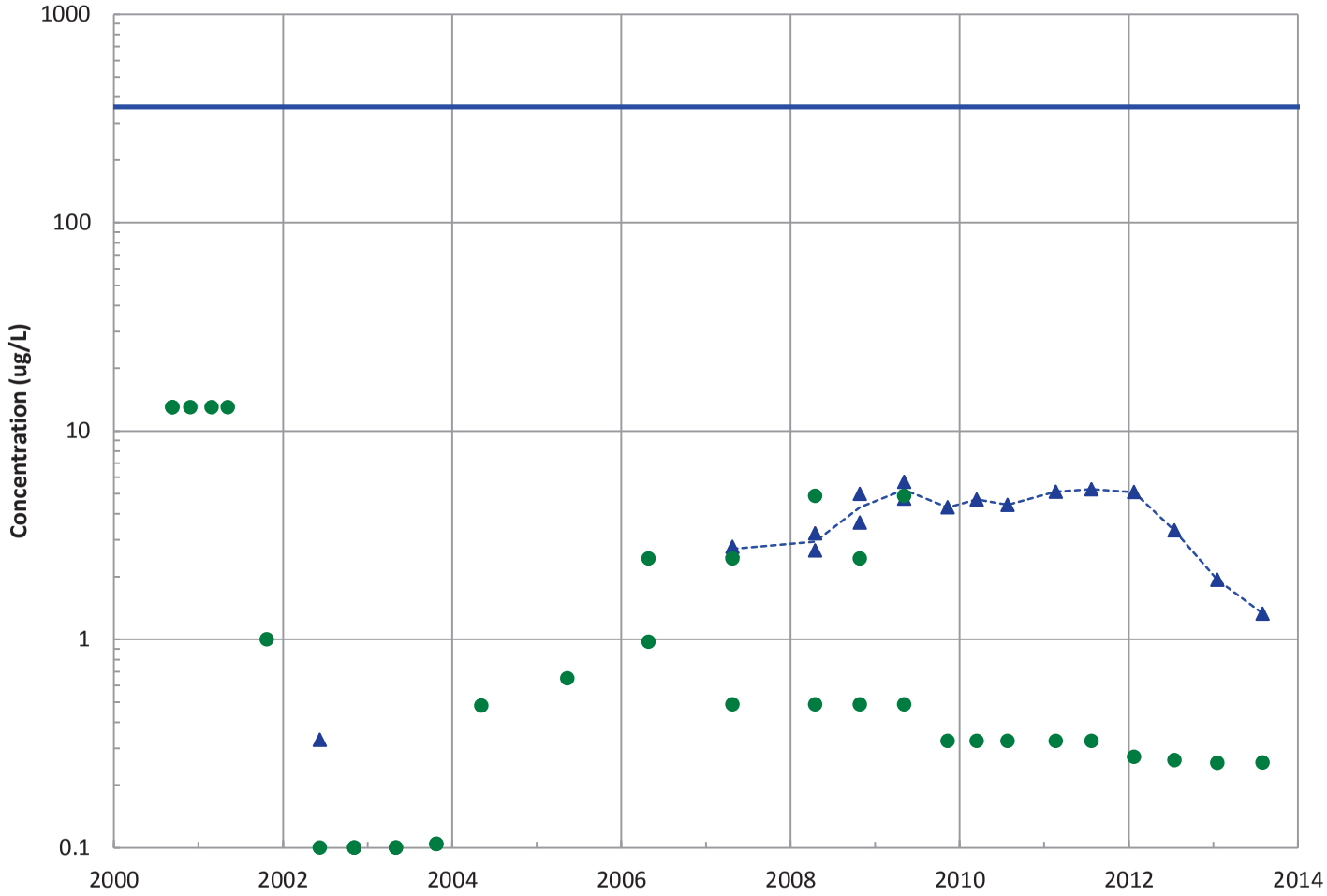
Well Location



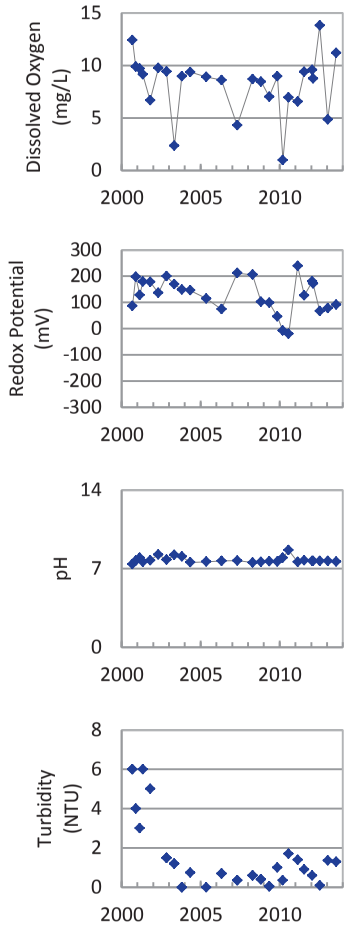
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/11/2000 to 8/12/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1047A
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



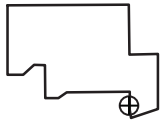
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Probably Decreasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

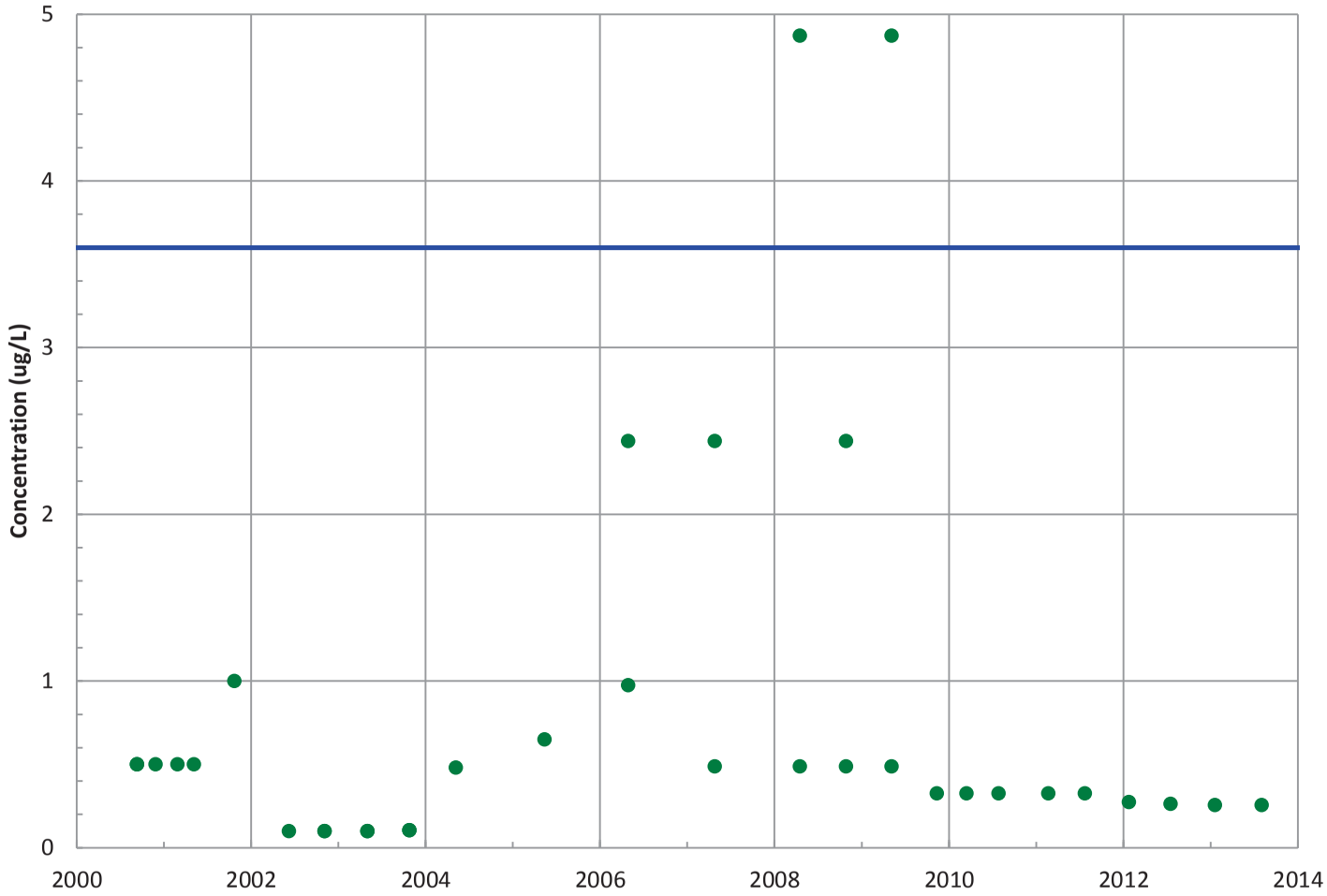
Well Location



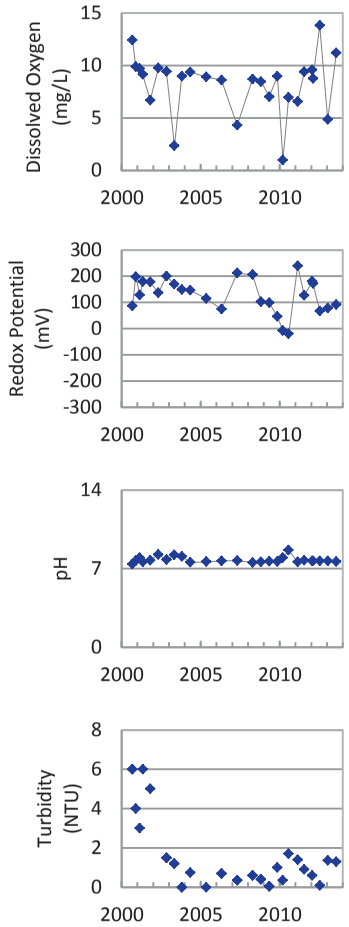
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/11/2000 to 8/12/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1047A
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



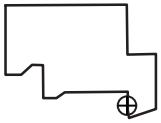
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

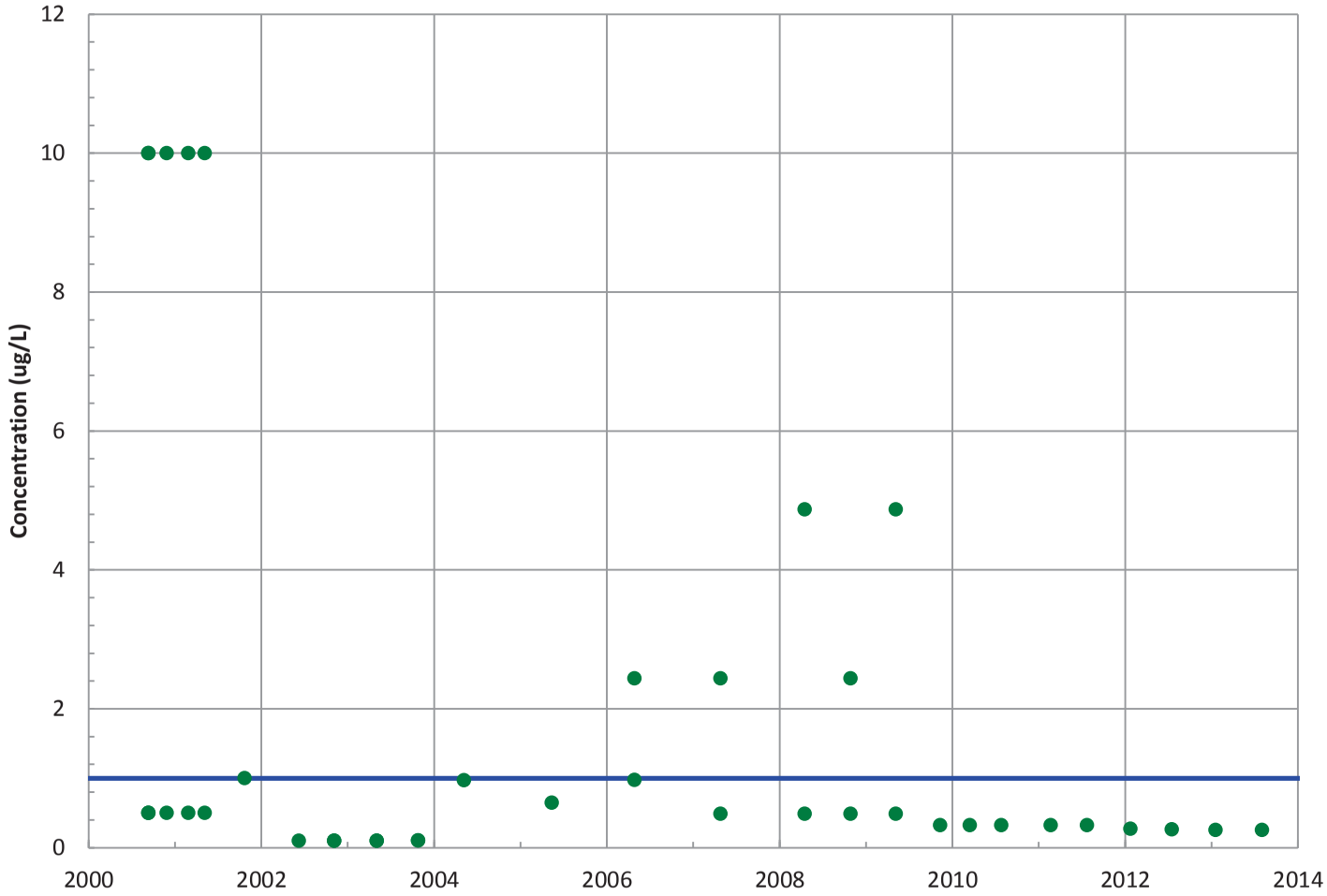
Well Location



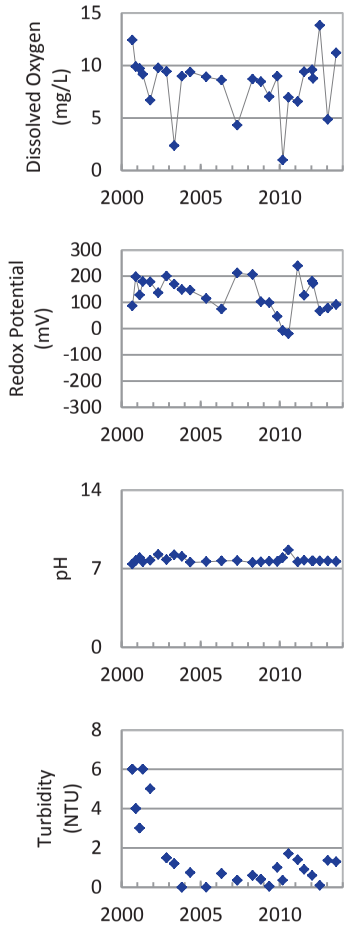
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/11/2000 to 8/12/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1047A
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



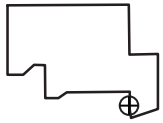
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

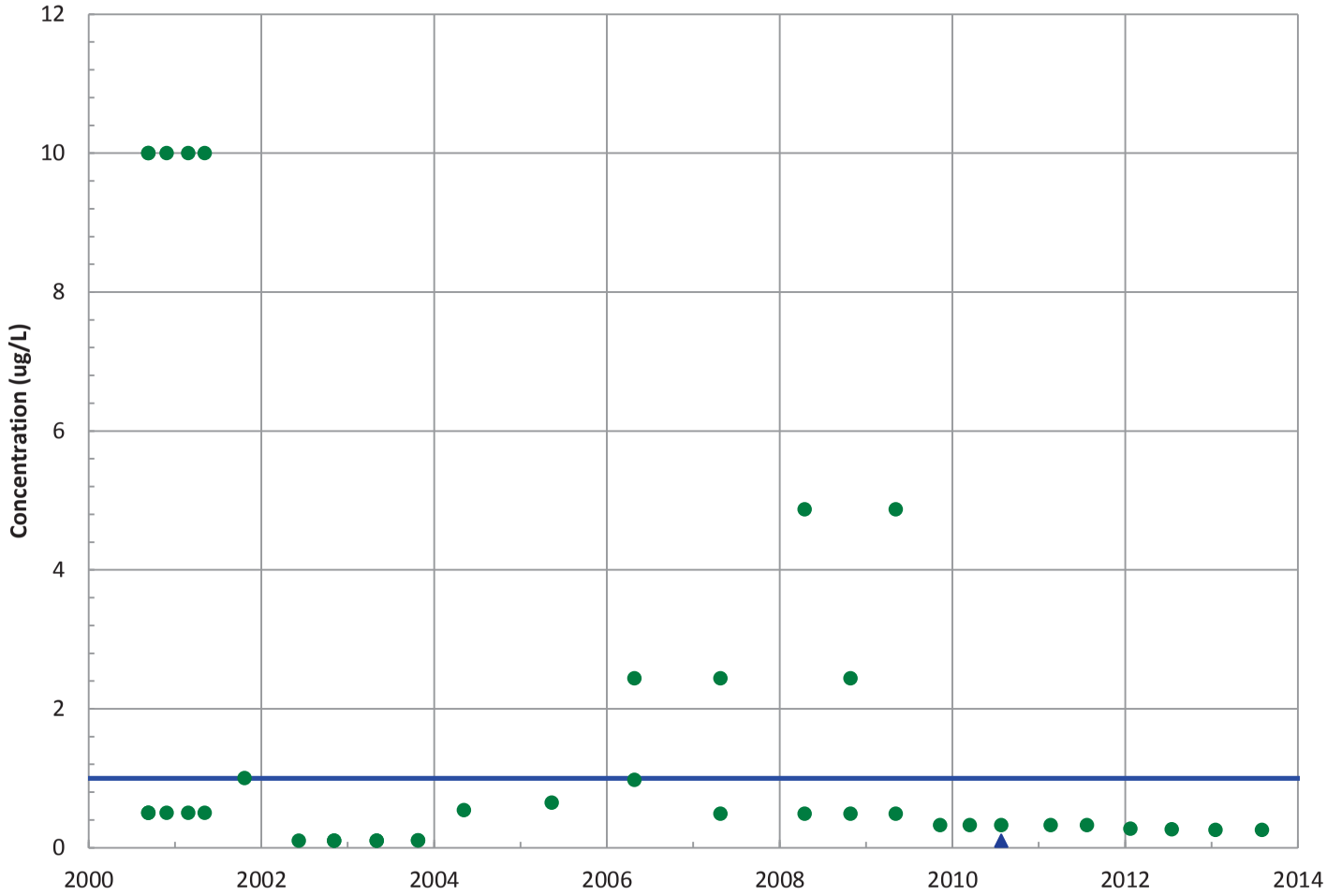
Well Location



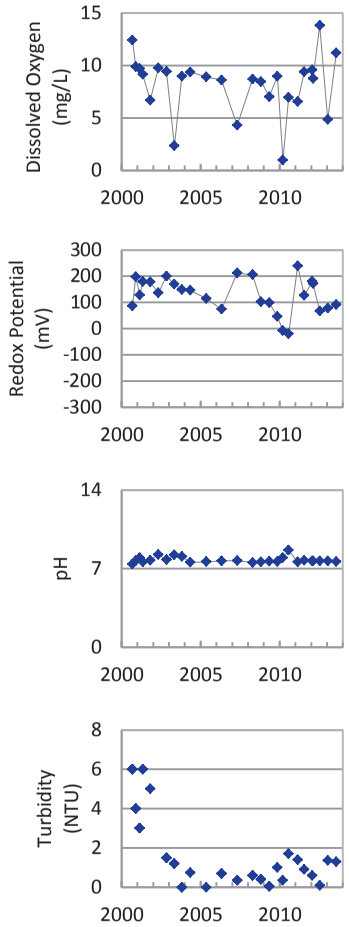
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/11/2000 to 8/12/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1047A
2,6-Dinitrotoluene Trend in Perched Aquifer



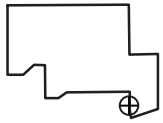
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: All Non-Detect
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

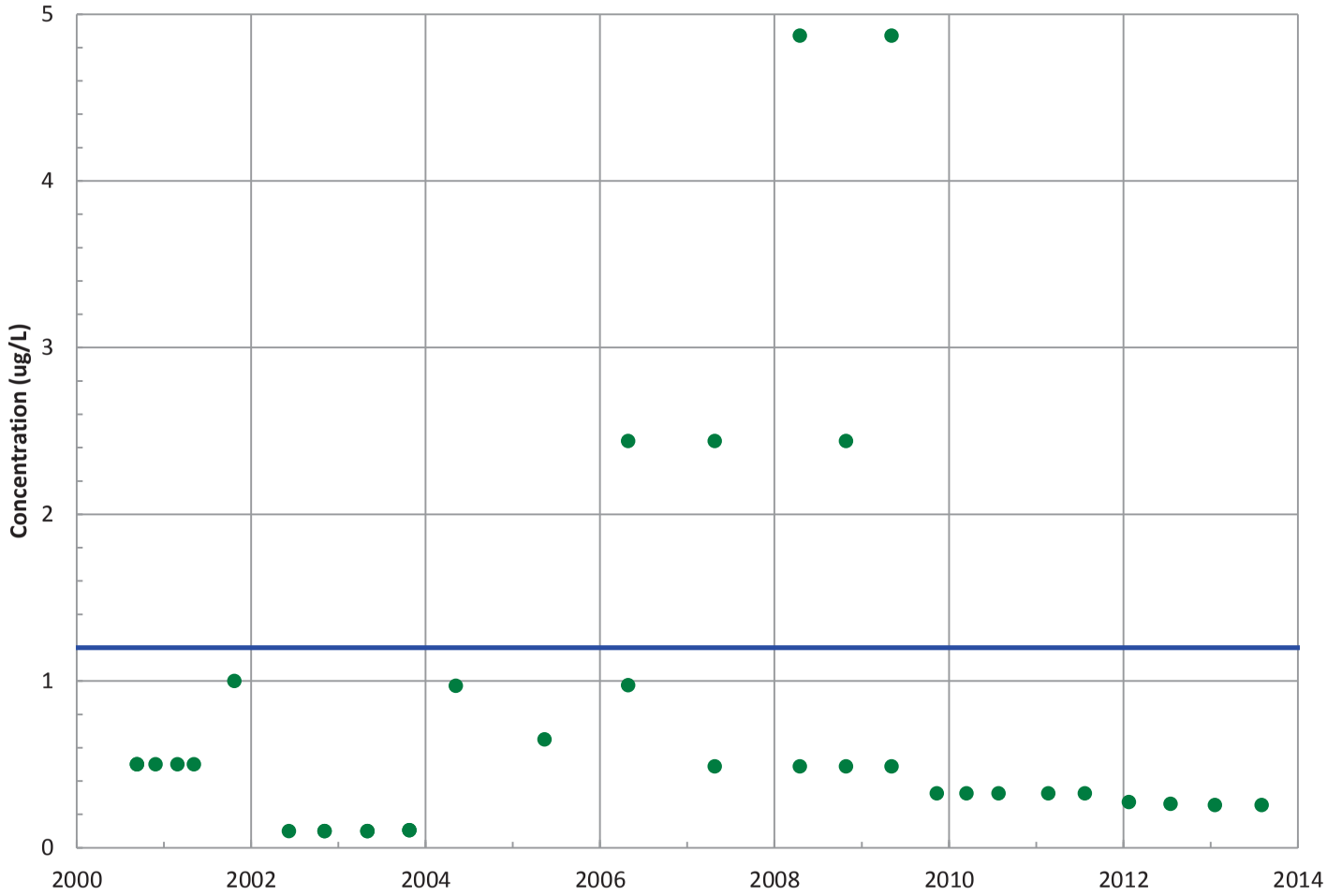
Well Location



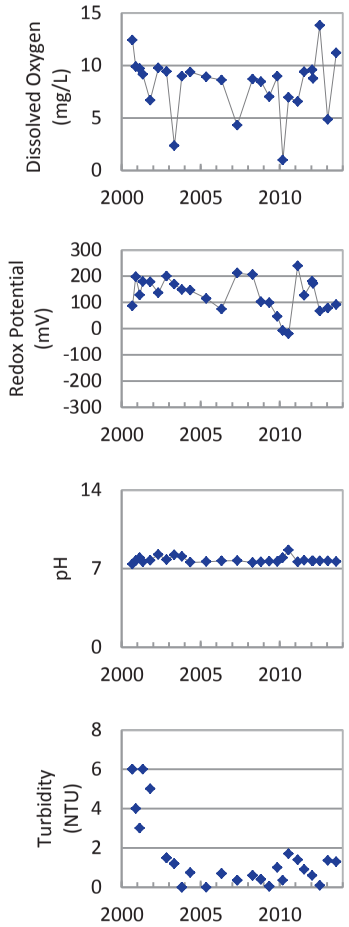
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/11/2000 to 8/12/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1047A
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



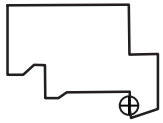
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

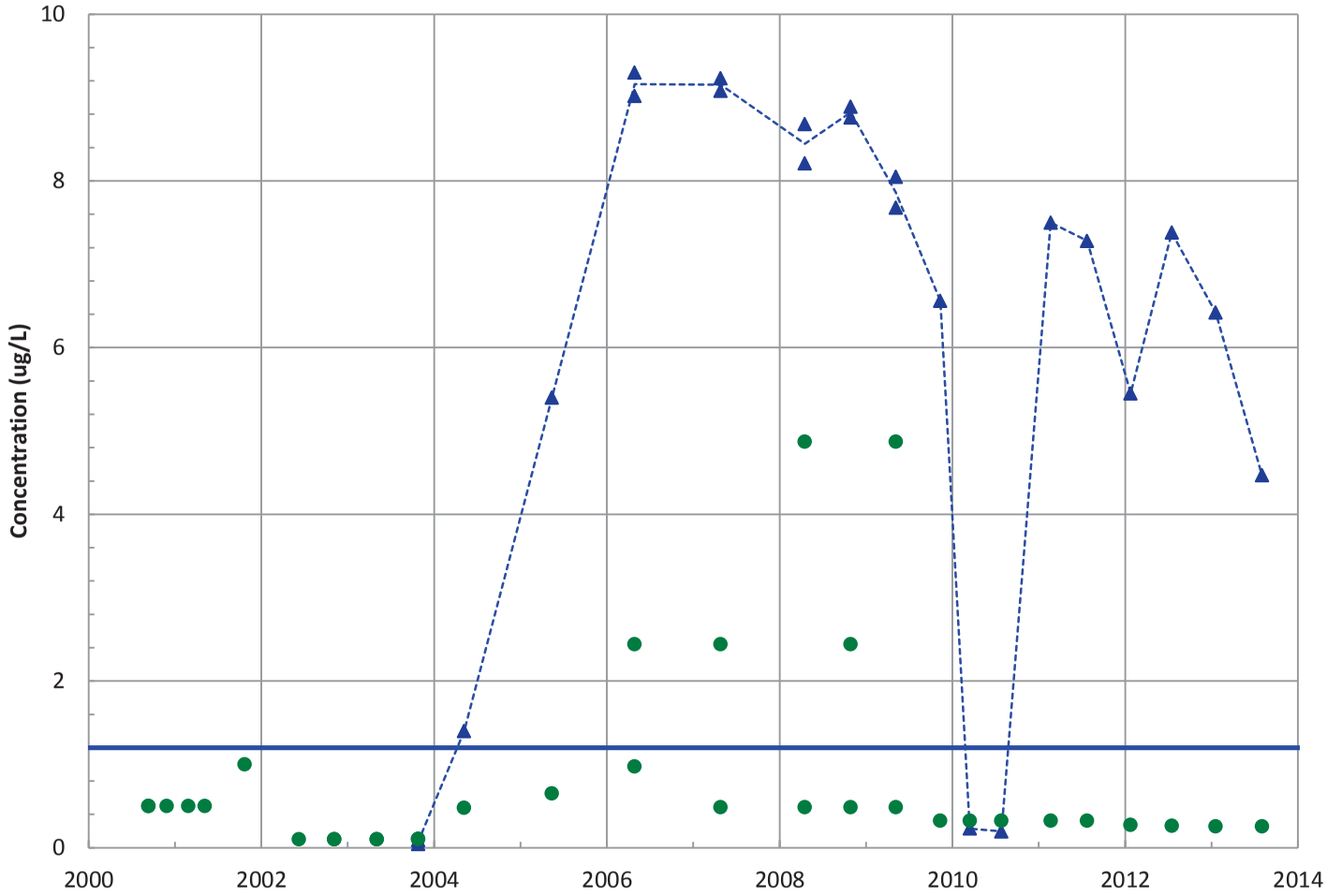
Well Location



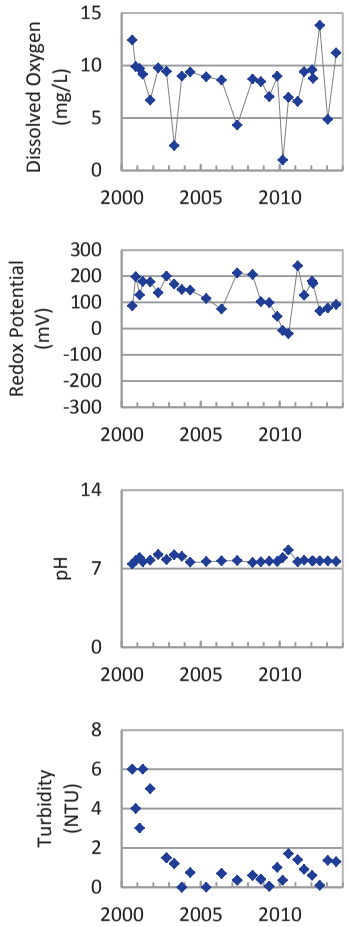
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/11/2000 to 8/12/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1047A
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



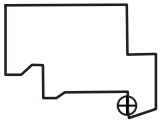
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Probably Increasing
2011 - 2013 Data: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

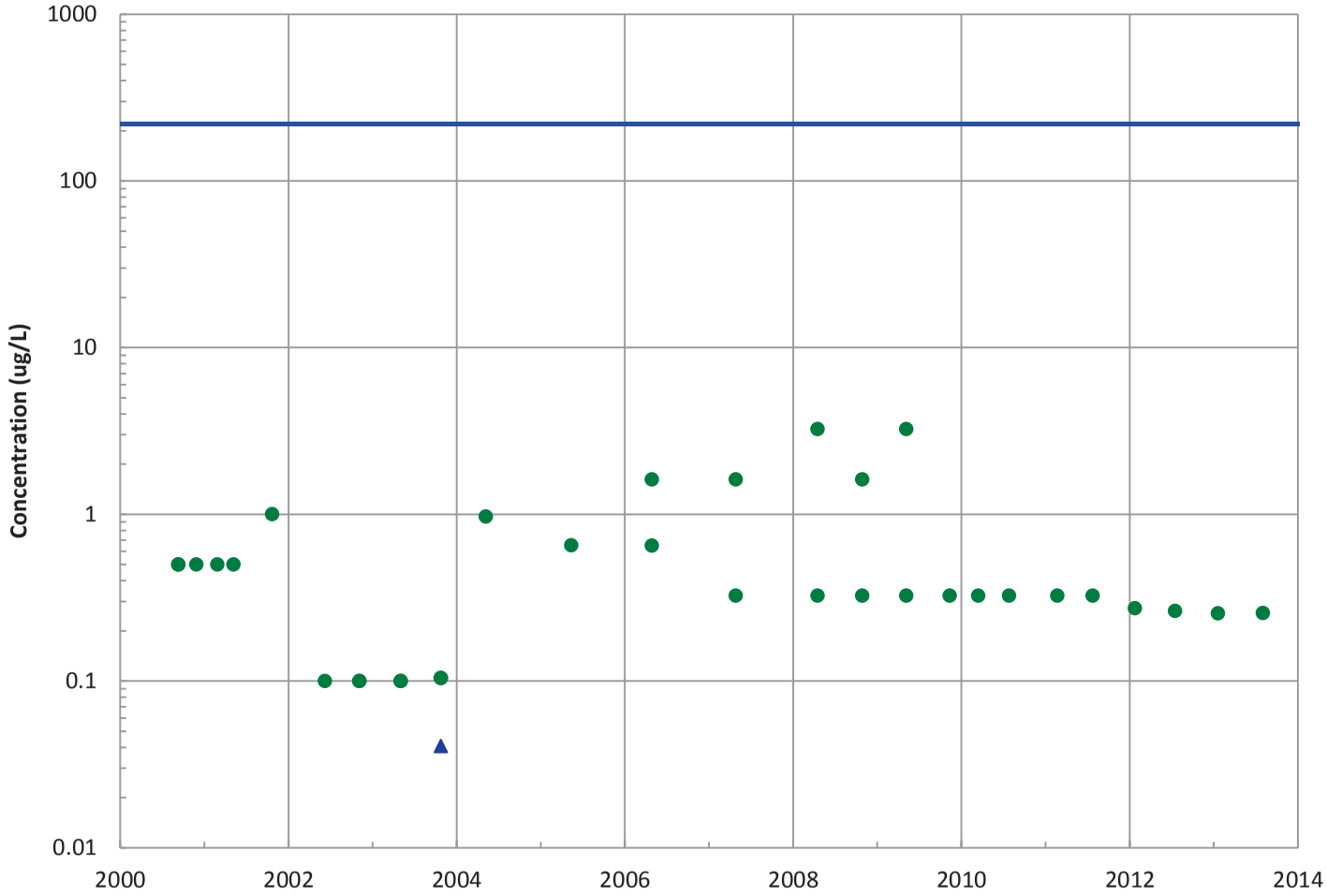
Well Location



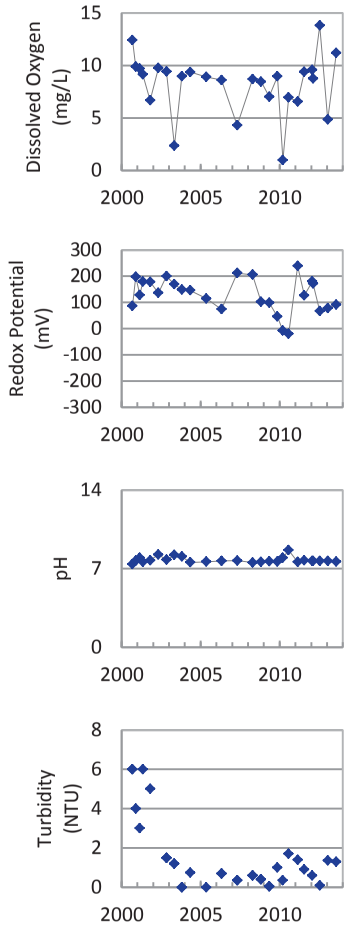
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/11/2000 to 8/12/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1047A
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



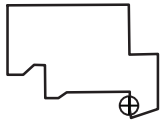
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

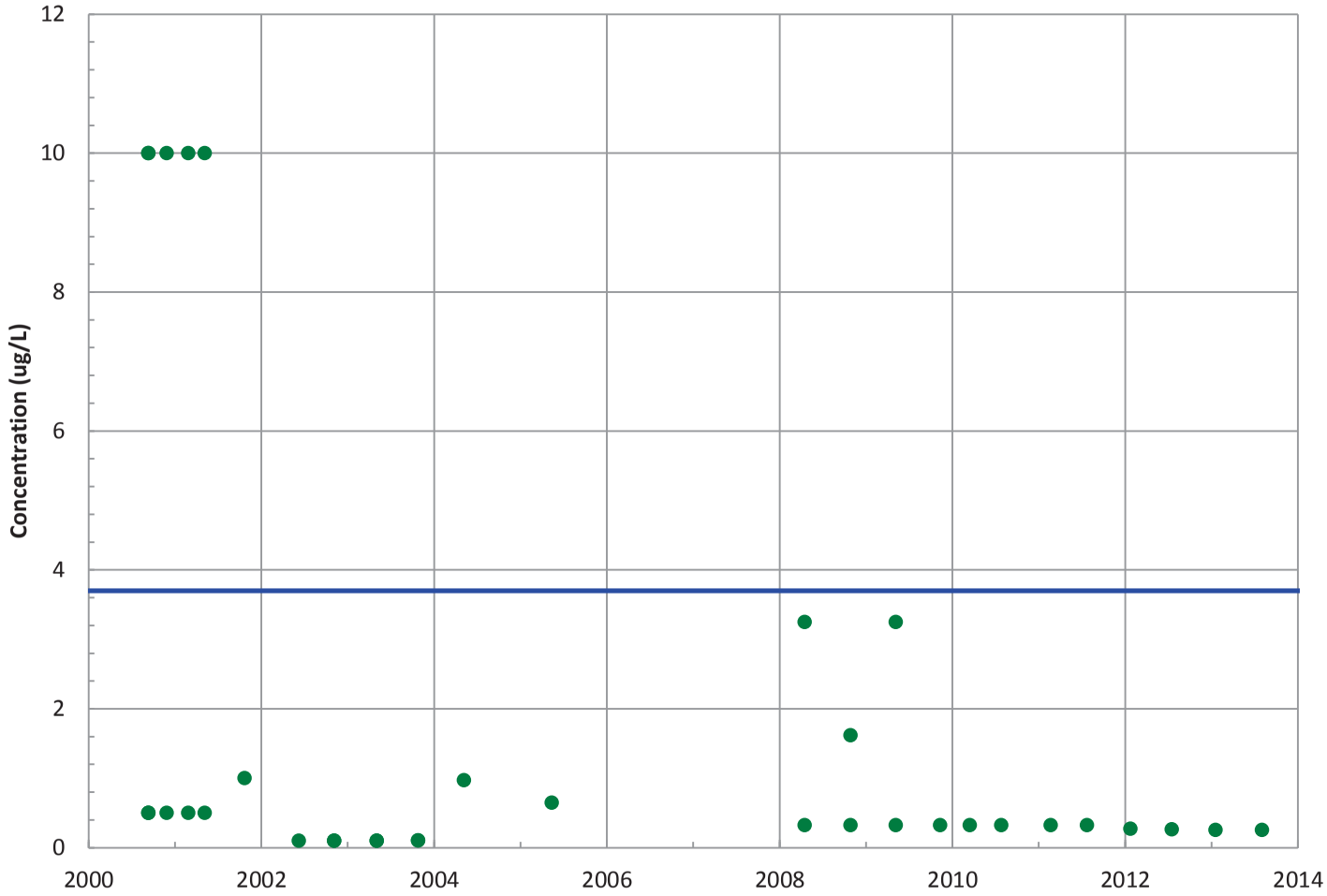
Well Location



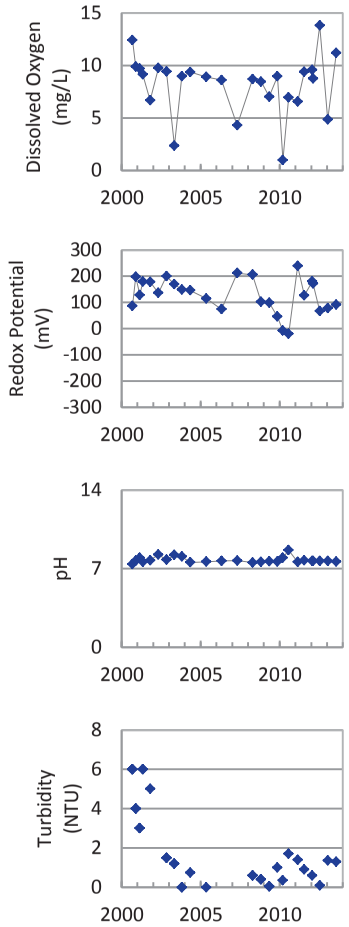
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/11/2000 to 8/12/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1047A
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



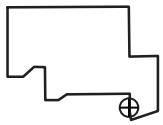
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

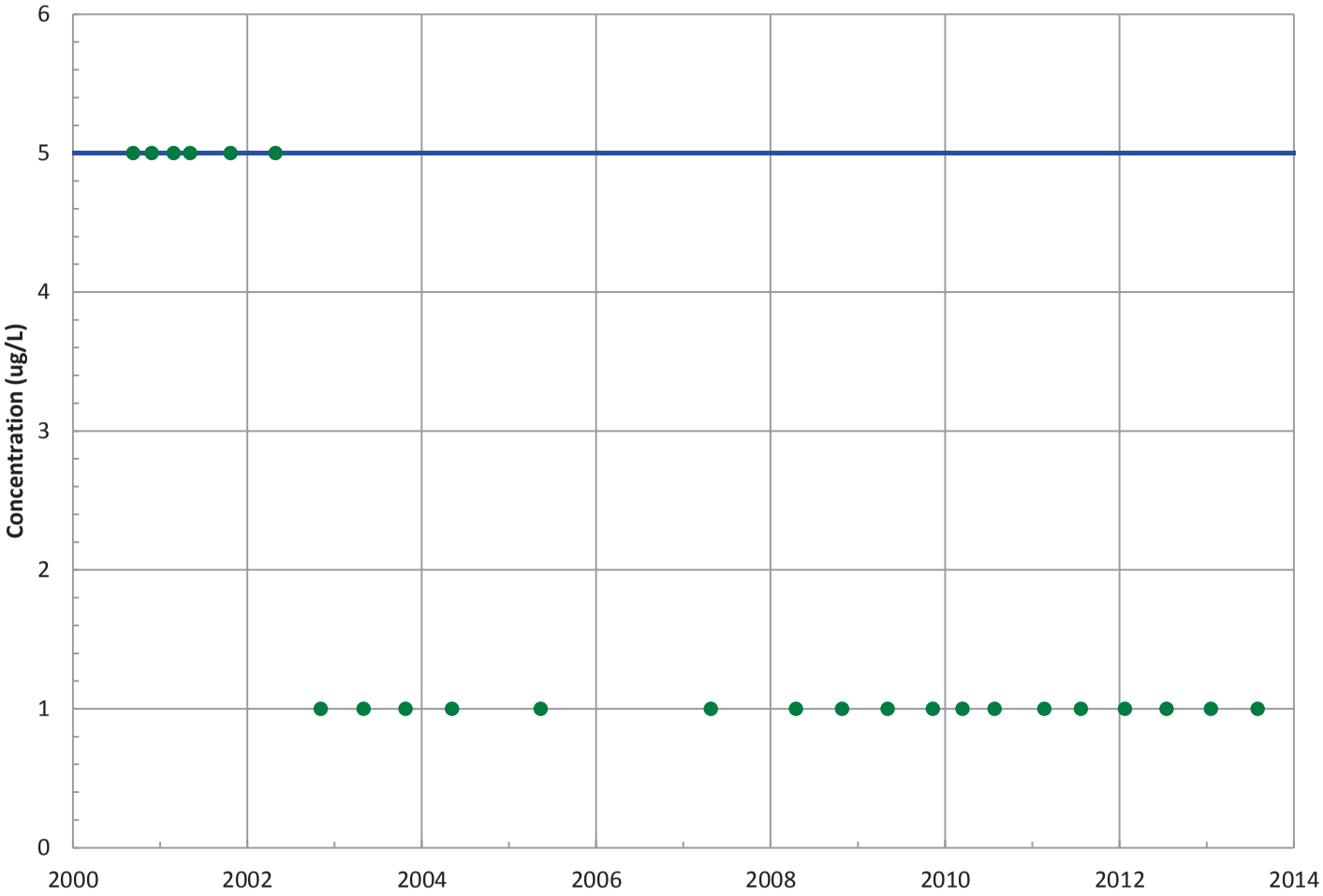
Well Location



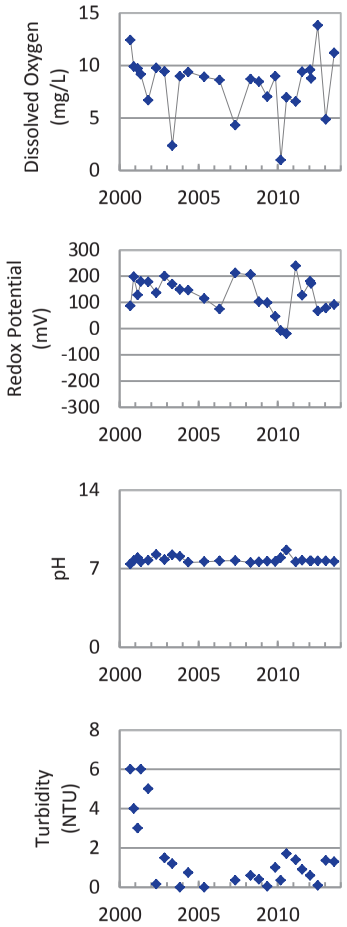
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/11/2000 to 8/12/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1047A
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



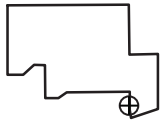
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

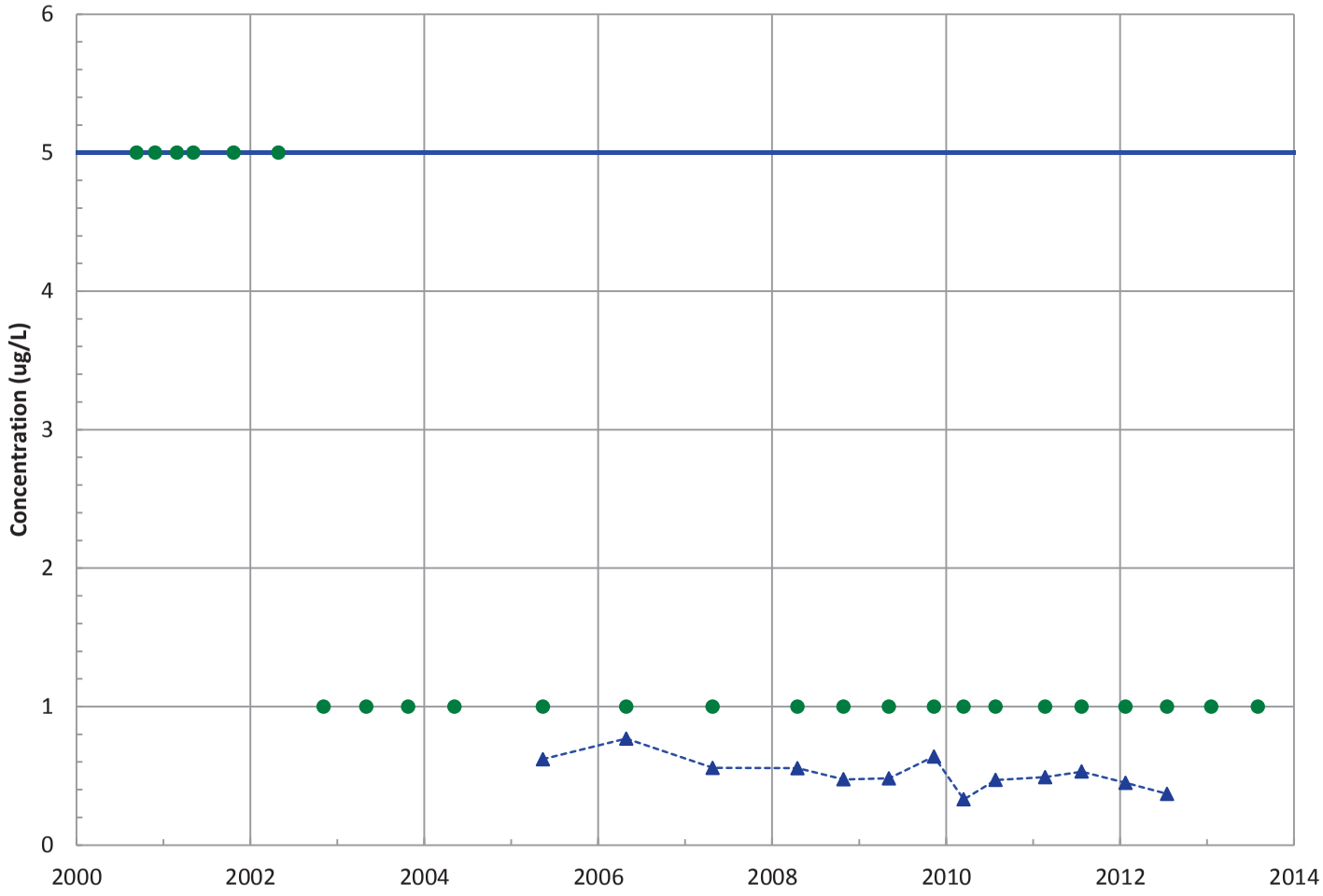
Well Location



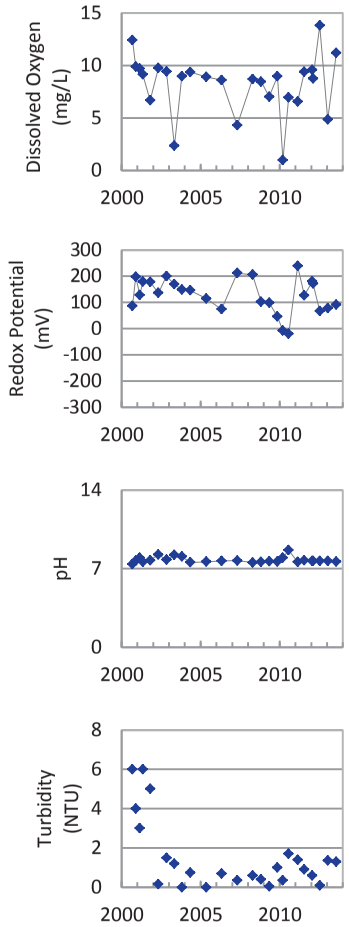
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/11/2000 to 8/12/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1047A
Trichloroethene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): No Trend

2011 - 2013 Data: N/A (<4 Detections in Dataset)

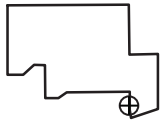
MAROS Linear Regression Method

Data (7/2009 - 12/2013): Stable

2011 - 2013 Data: Probably Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

Well Location



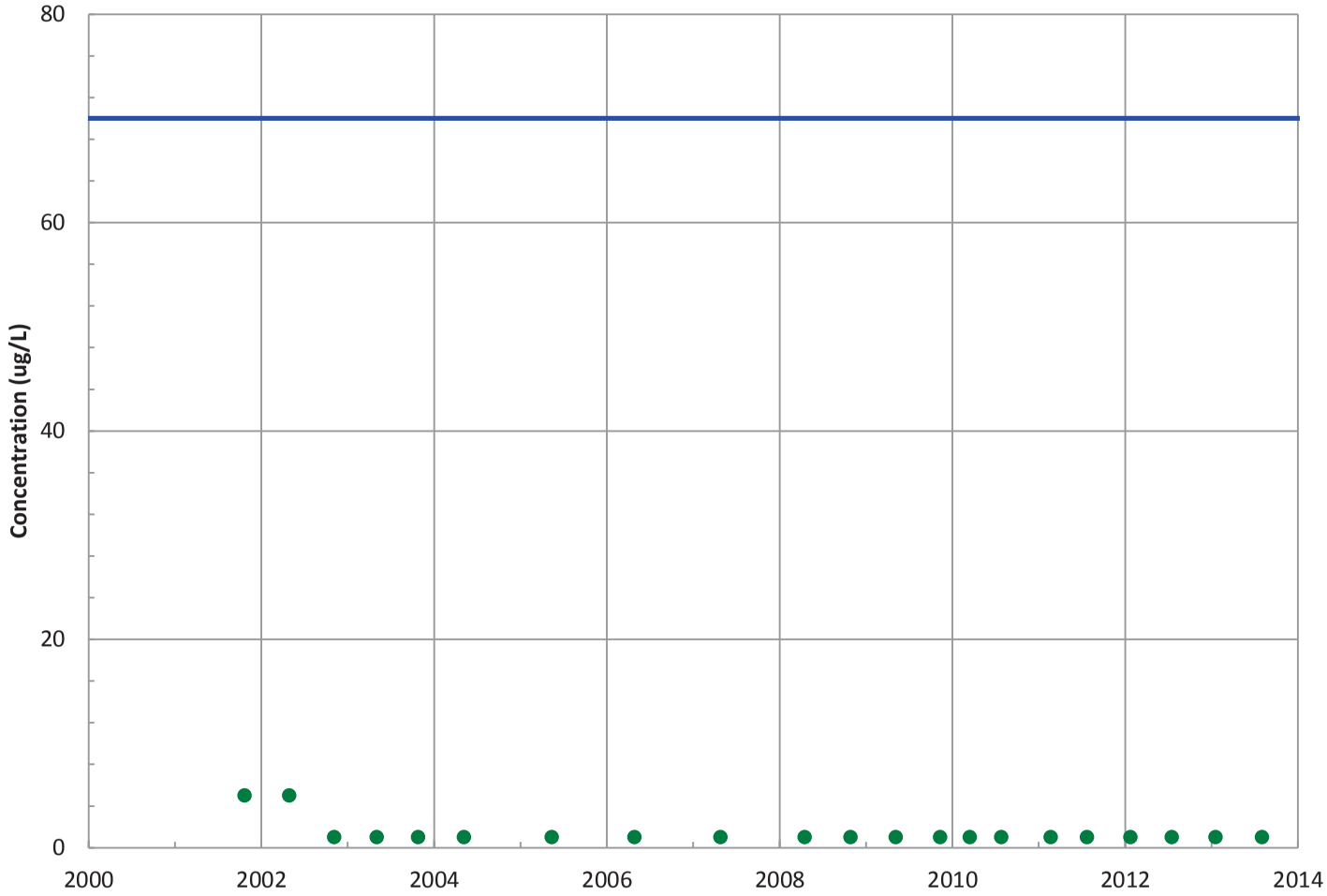
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 9/11/2000 to 8/12/2013

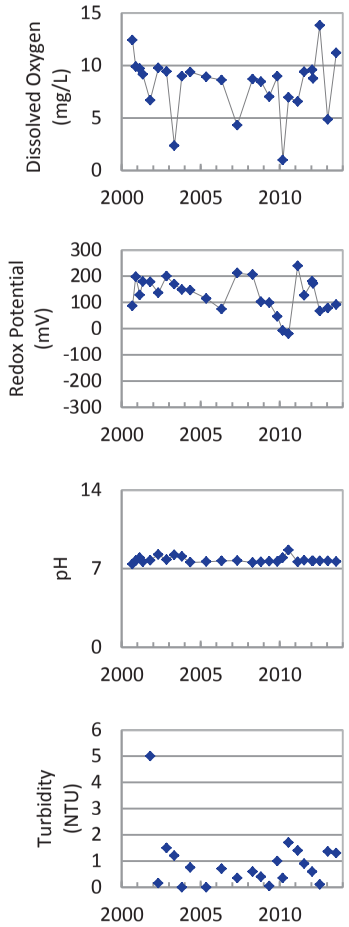
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1047A
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



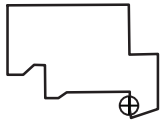
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

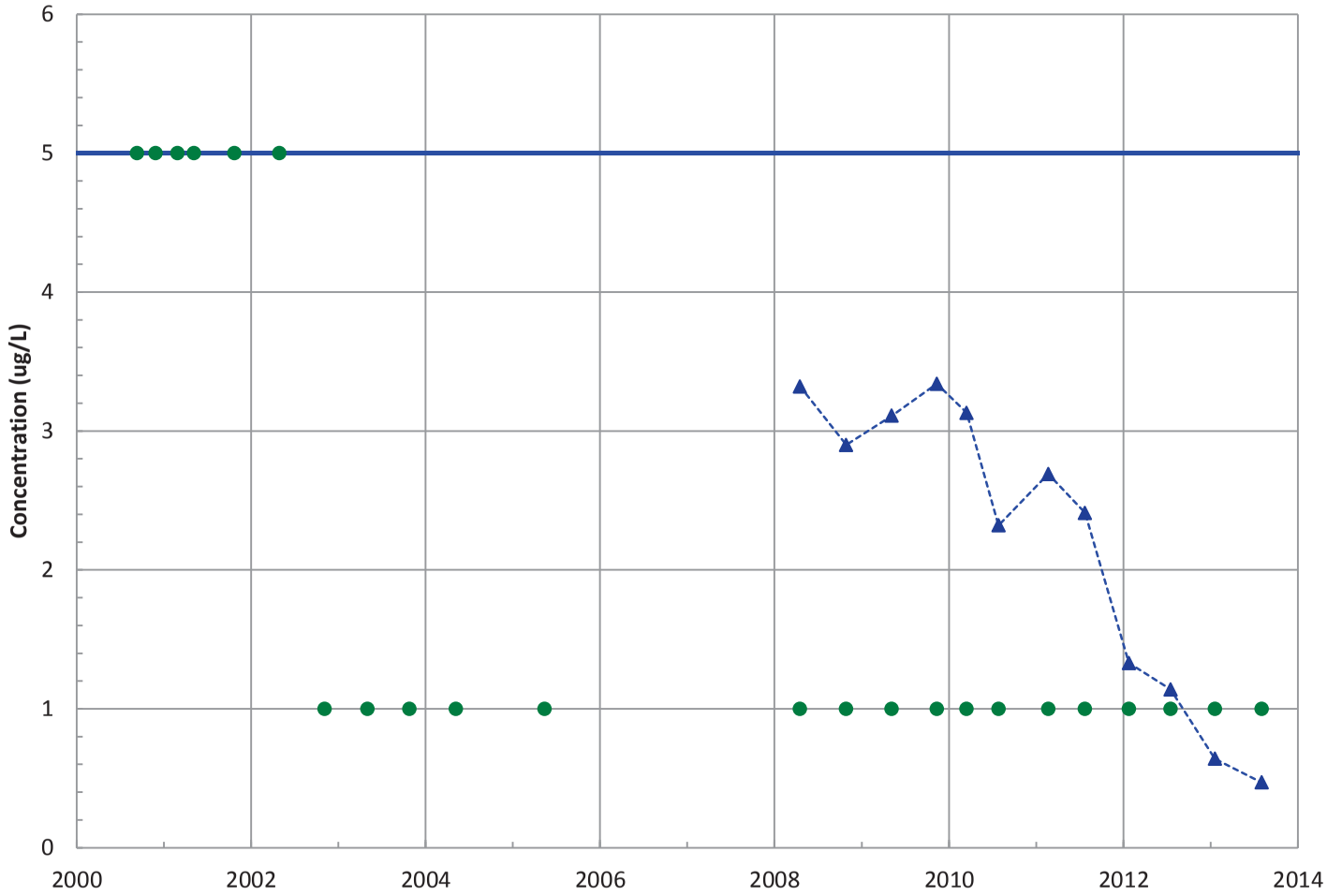
Well Location



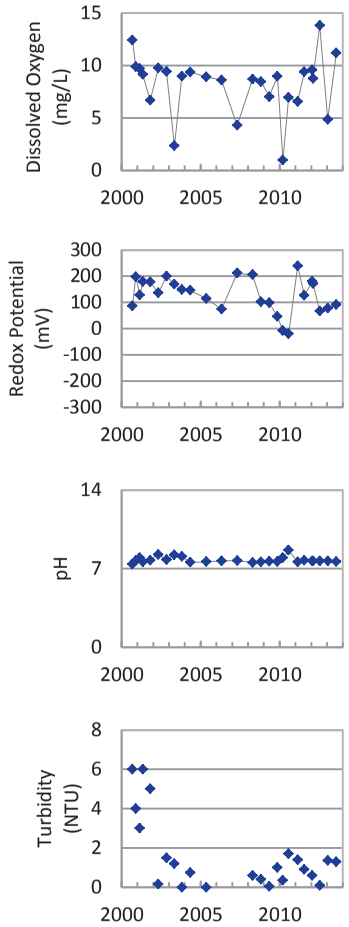
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/24/2001 to 8/12/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1047A
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



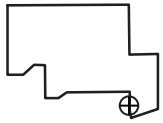
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

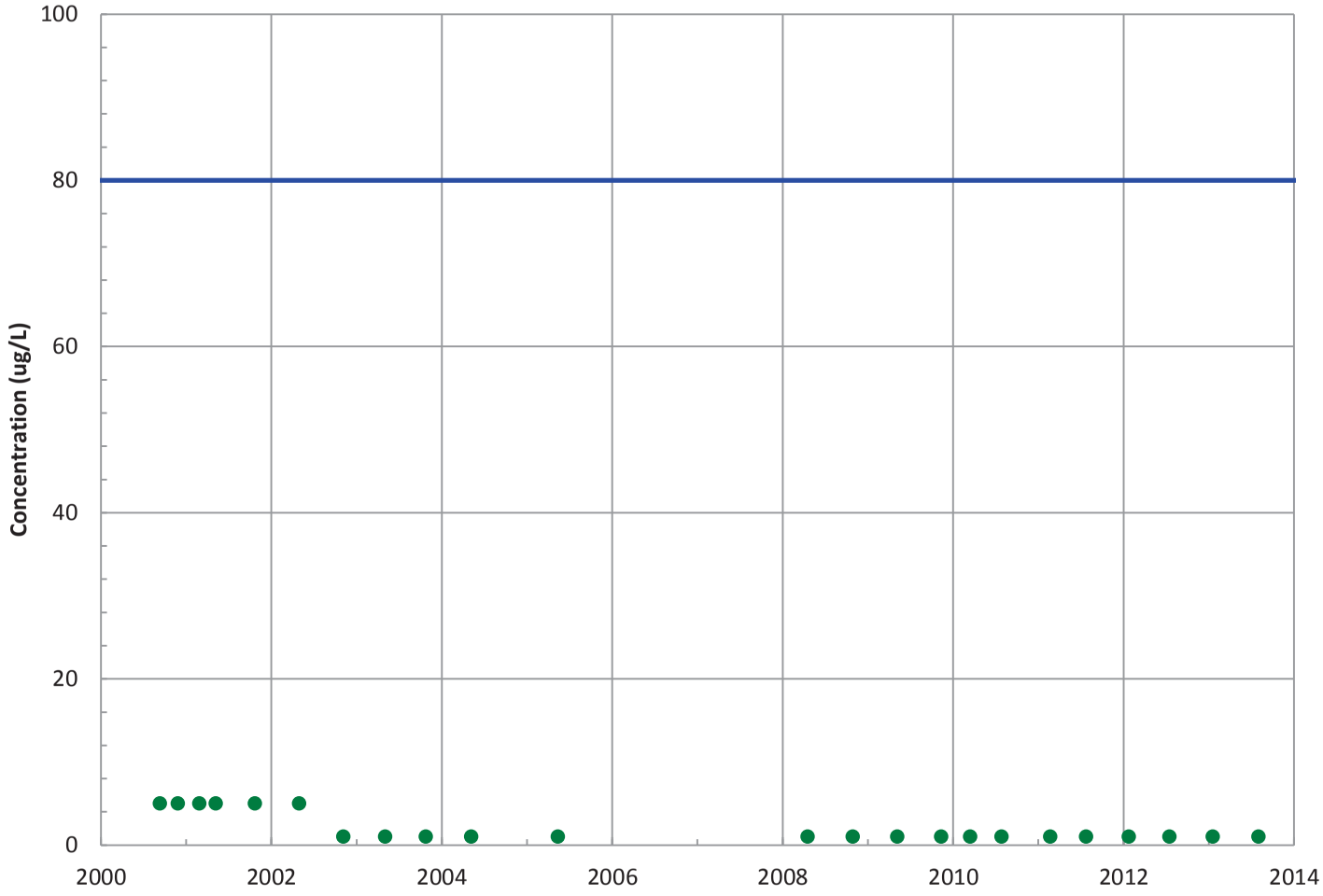
Well Location



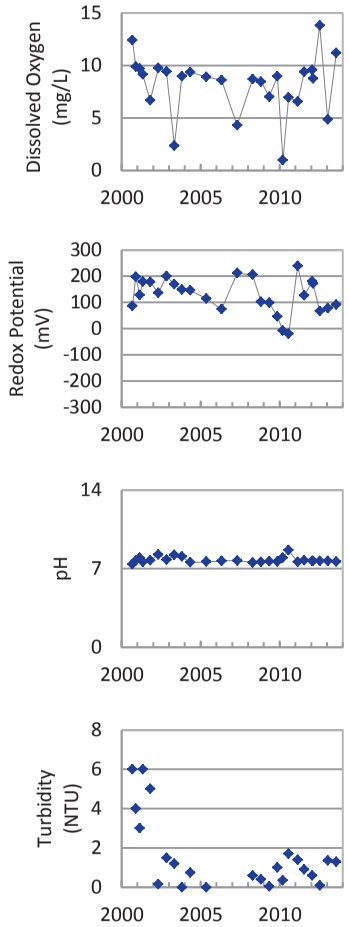
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/11/2000 to 8/12/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1047A
Chloroform Trend in Perched Aquifer



Field Parameters



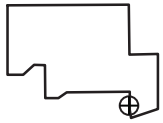
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

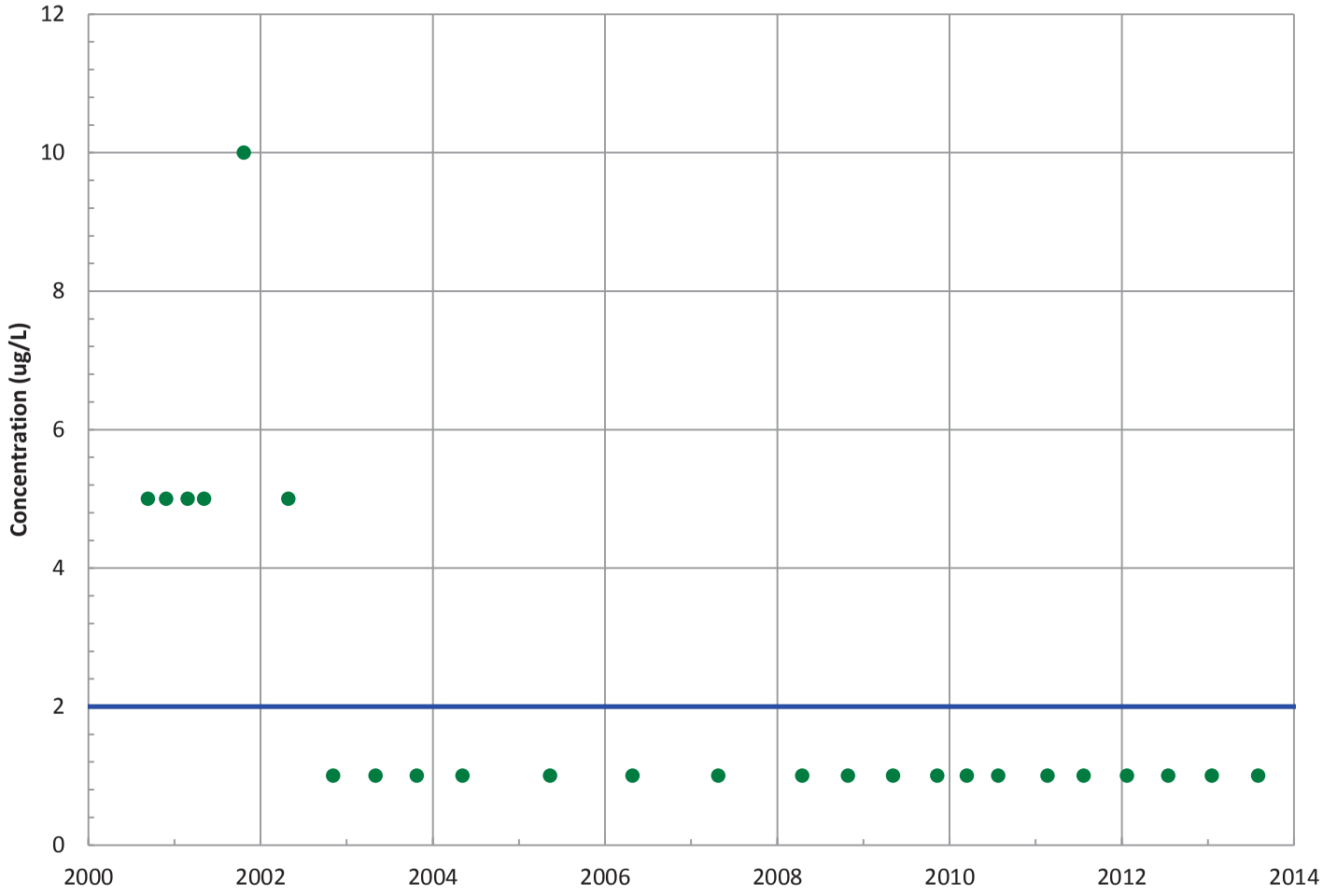
Well Location



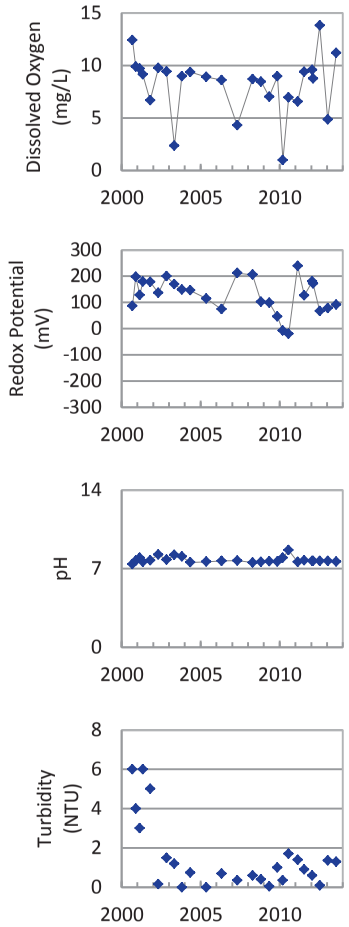
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/11/2000 to 8/12/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1047A
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



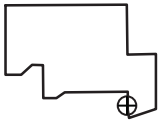
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

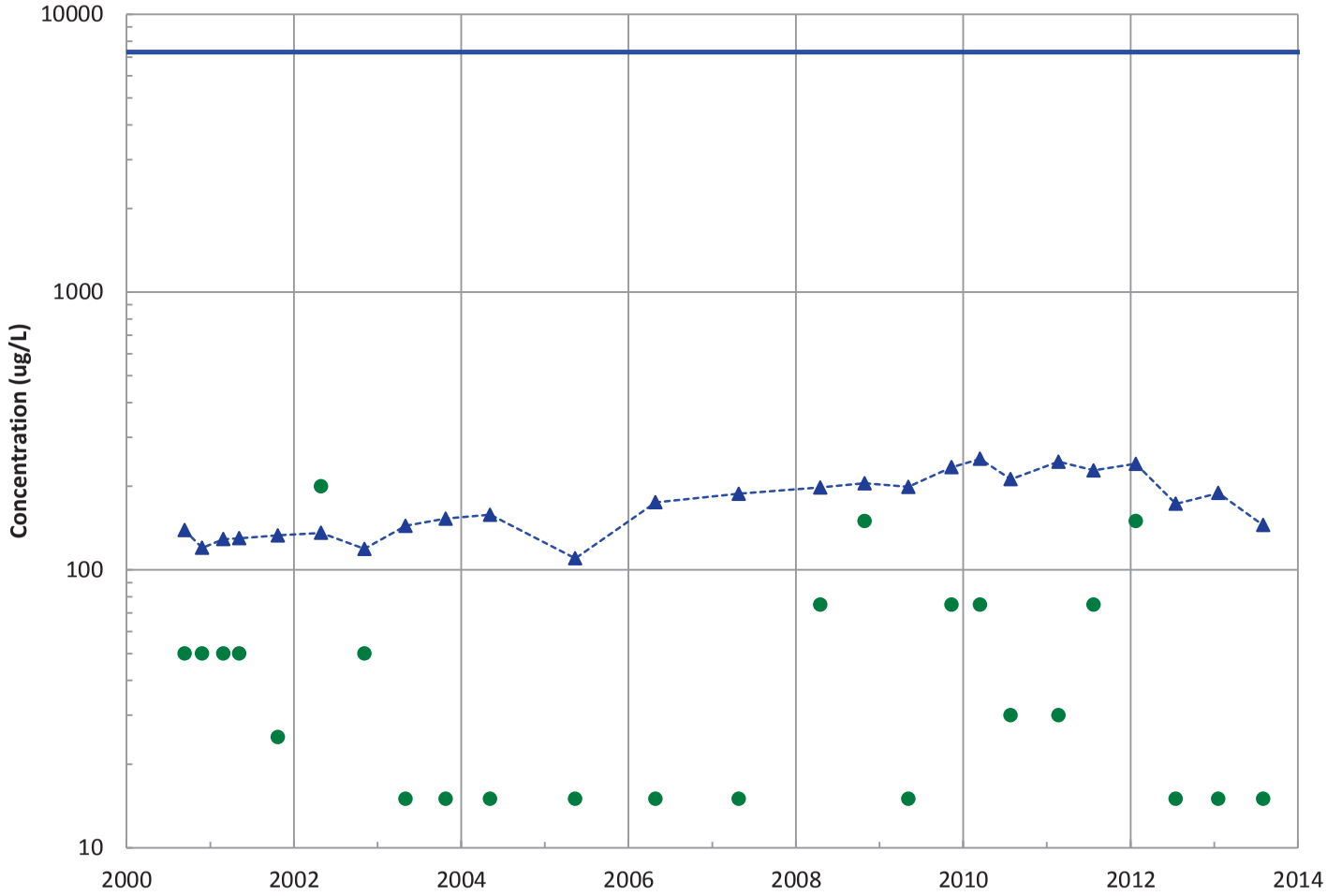
Well Location



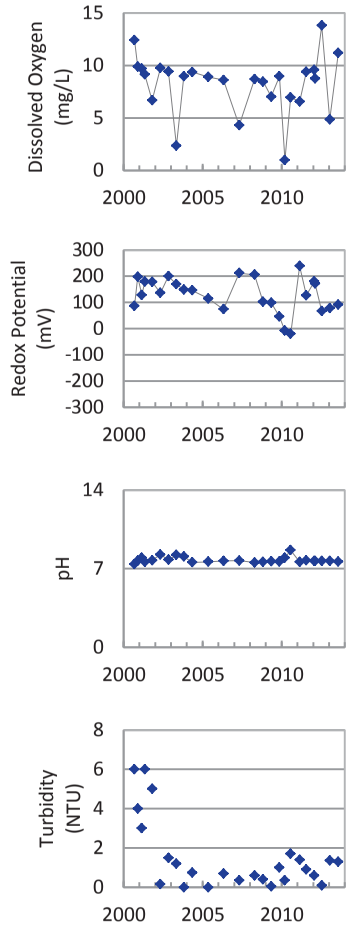
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/11/2000 to 8/12/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1047A
Boron Trend in Perched Aquifer



Field Parameters



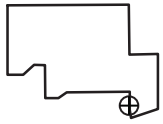
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Probably Decreasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

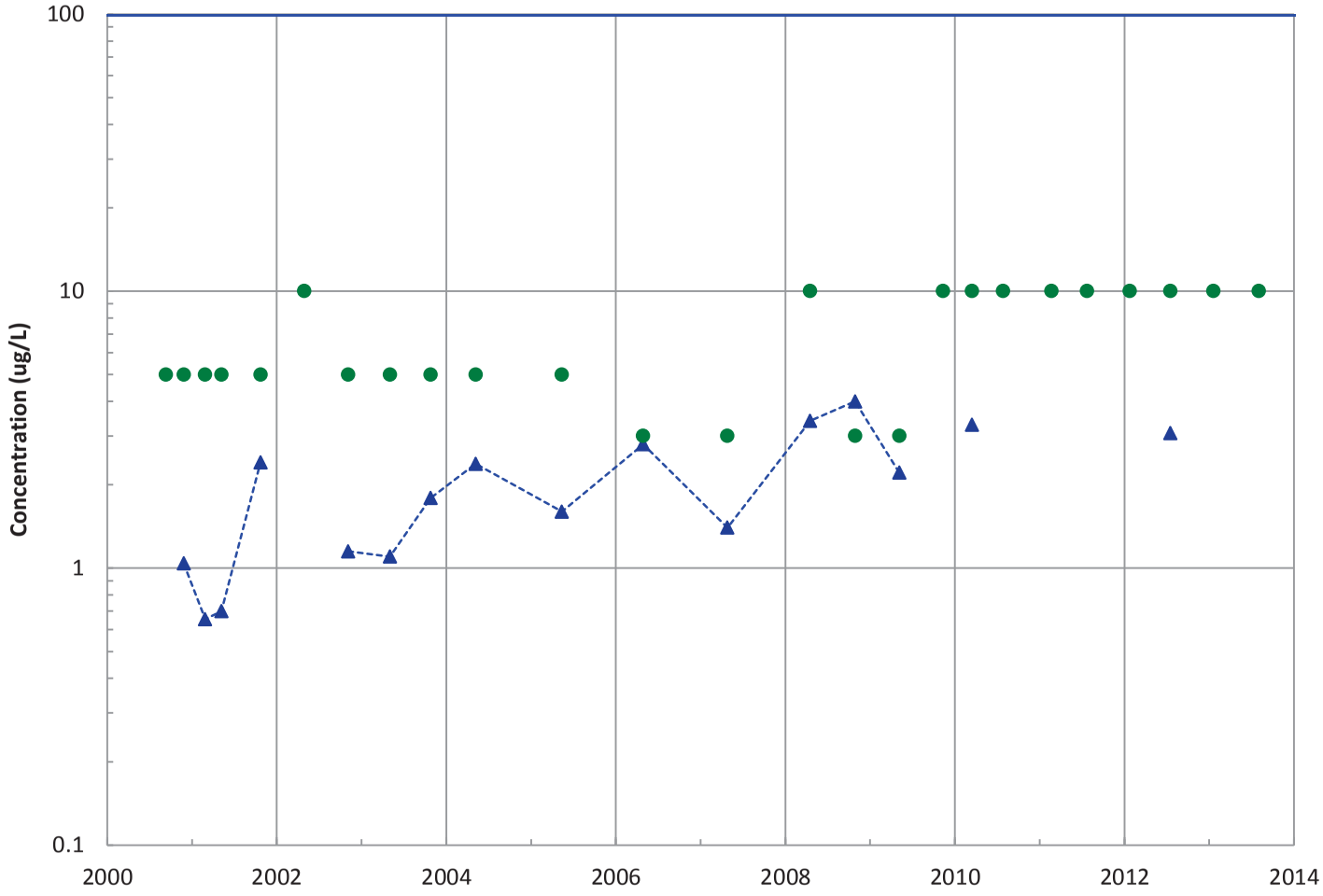
Well Location



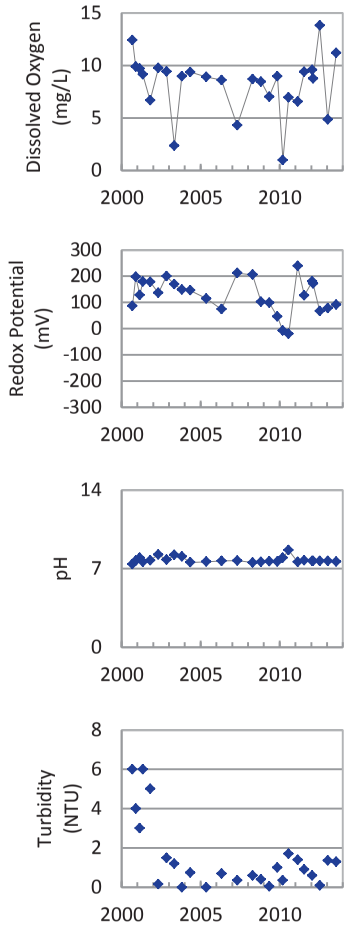
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/11/2000 to 8/12/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1047A
Chromium, Total Trend in Perched Aquifer



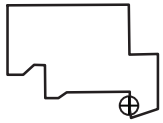
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

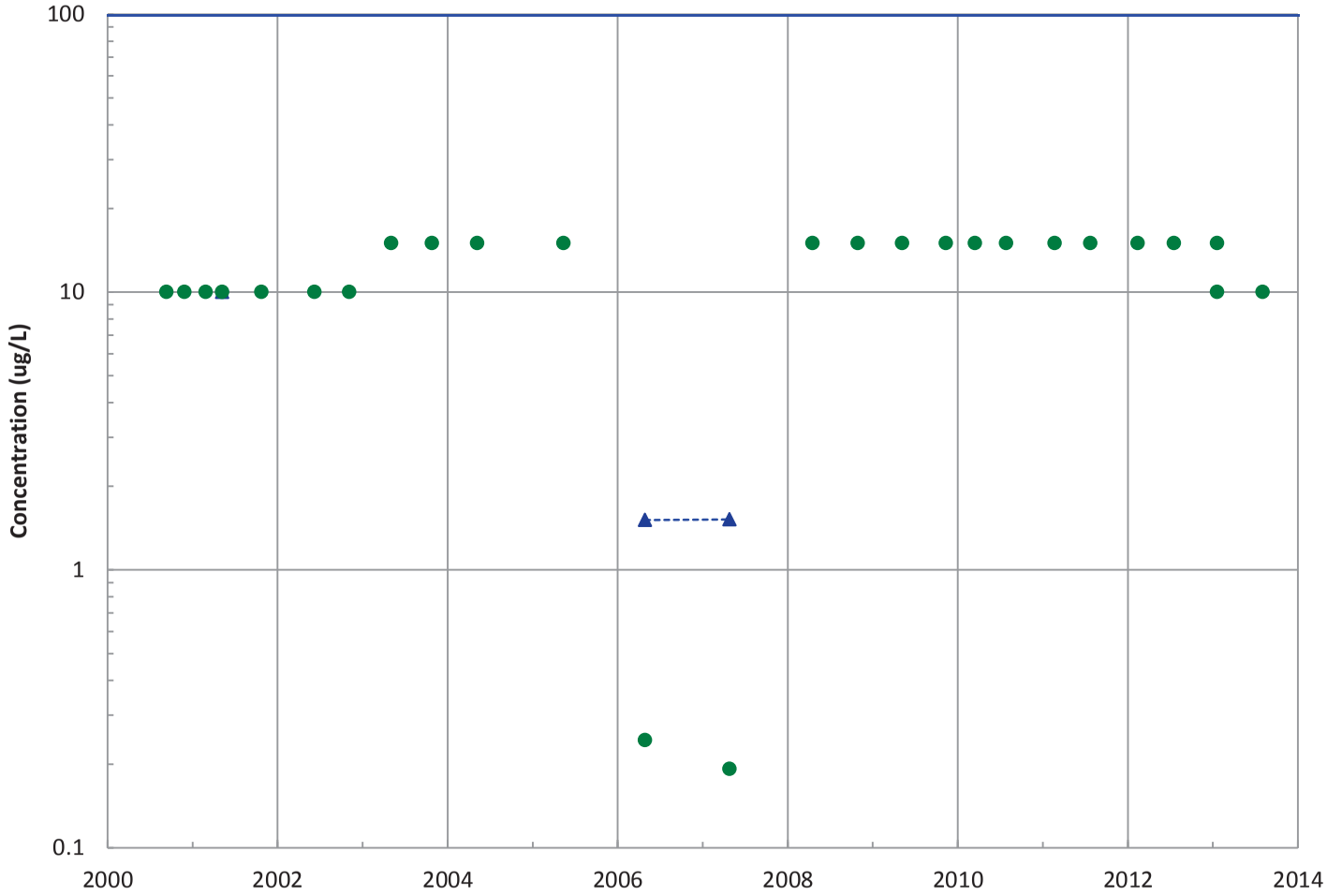
Well Location



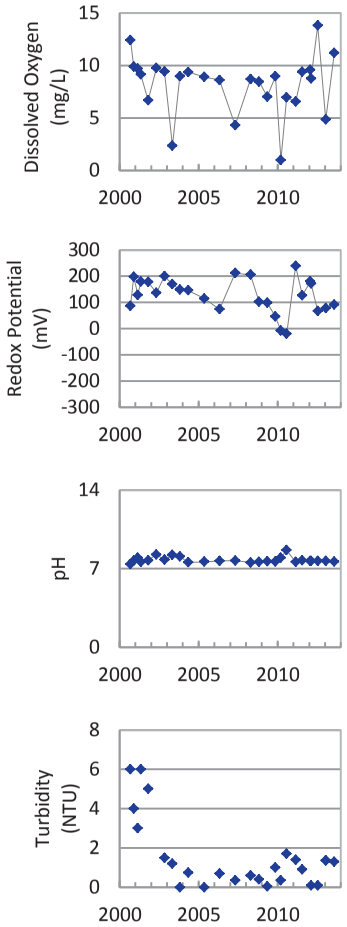
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/11/2000 to 8/12/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1047A
Chromium, Hexavalent Trend in Perched Aquifer



Field Parameters



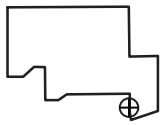
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

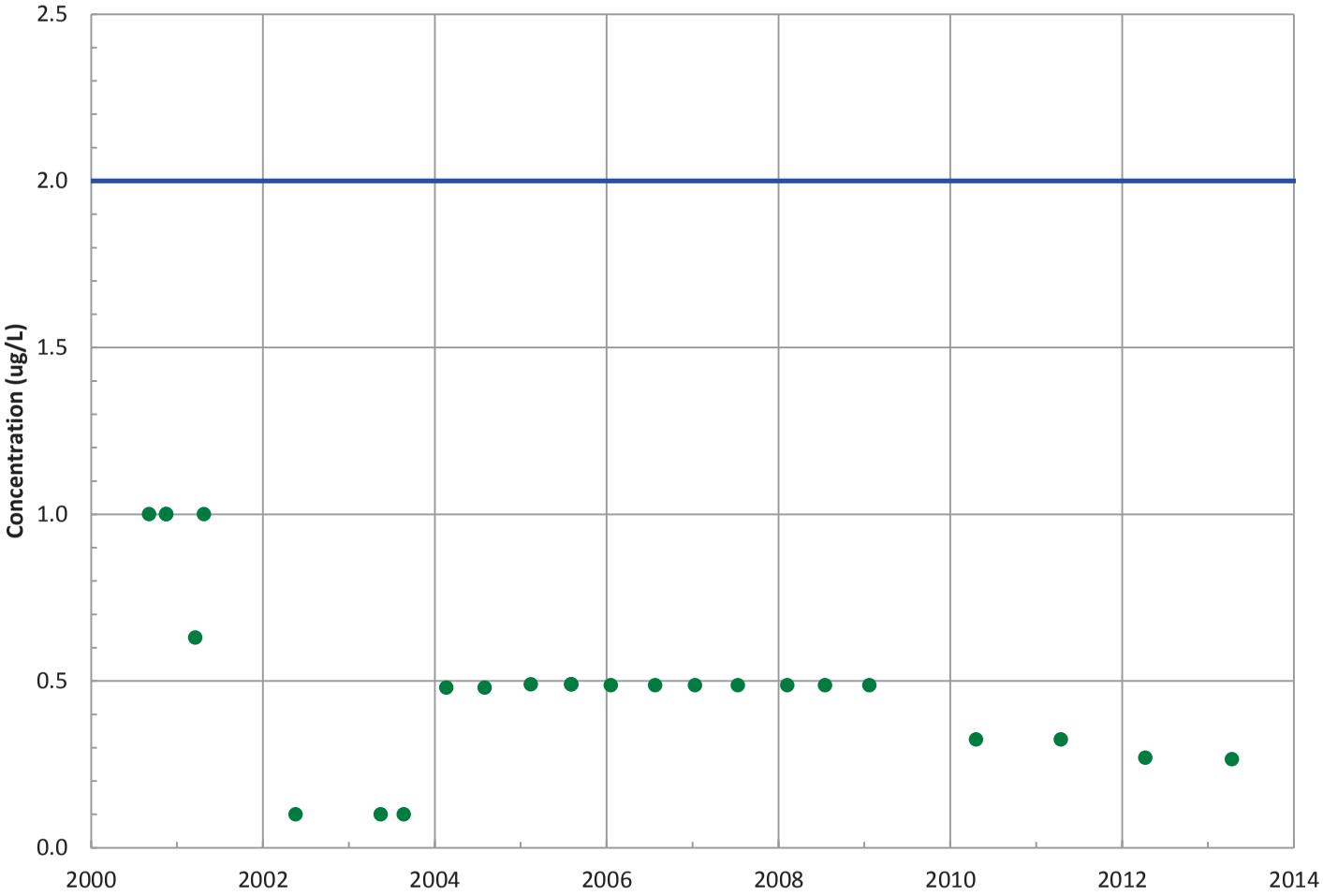
Well Location



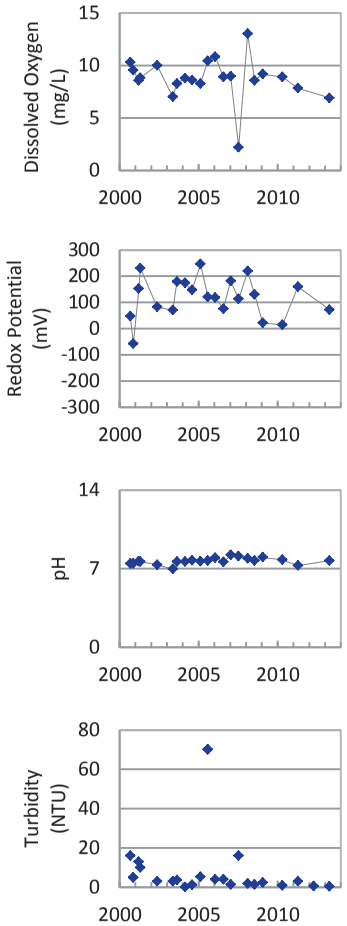
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/11/2000 to 8/12/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1048A
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



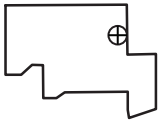
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

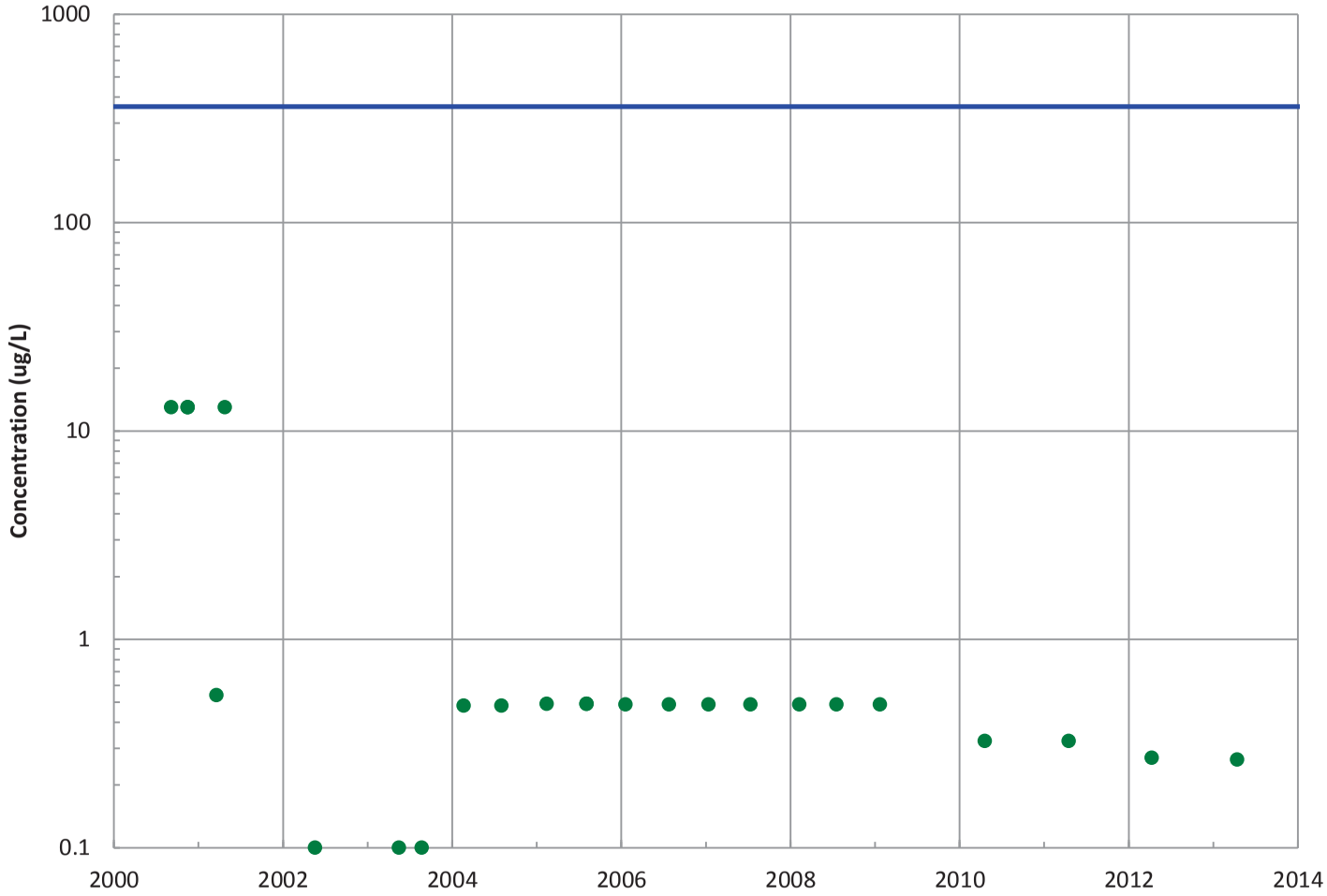
Well Location



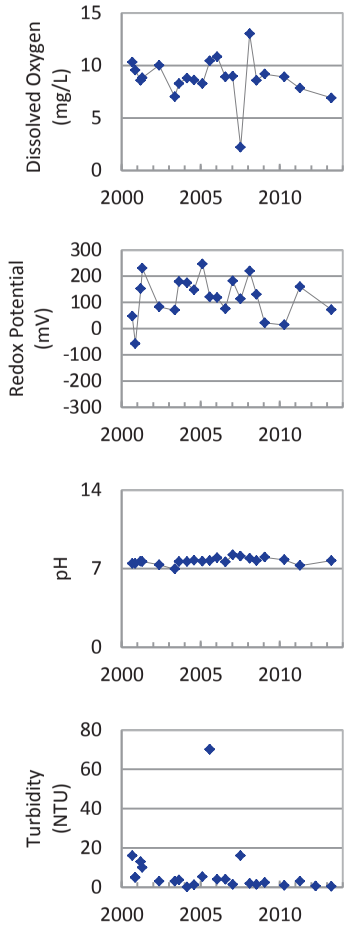
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/5/2000 to 4/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1048A
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



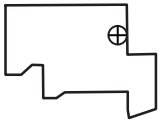
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

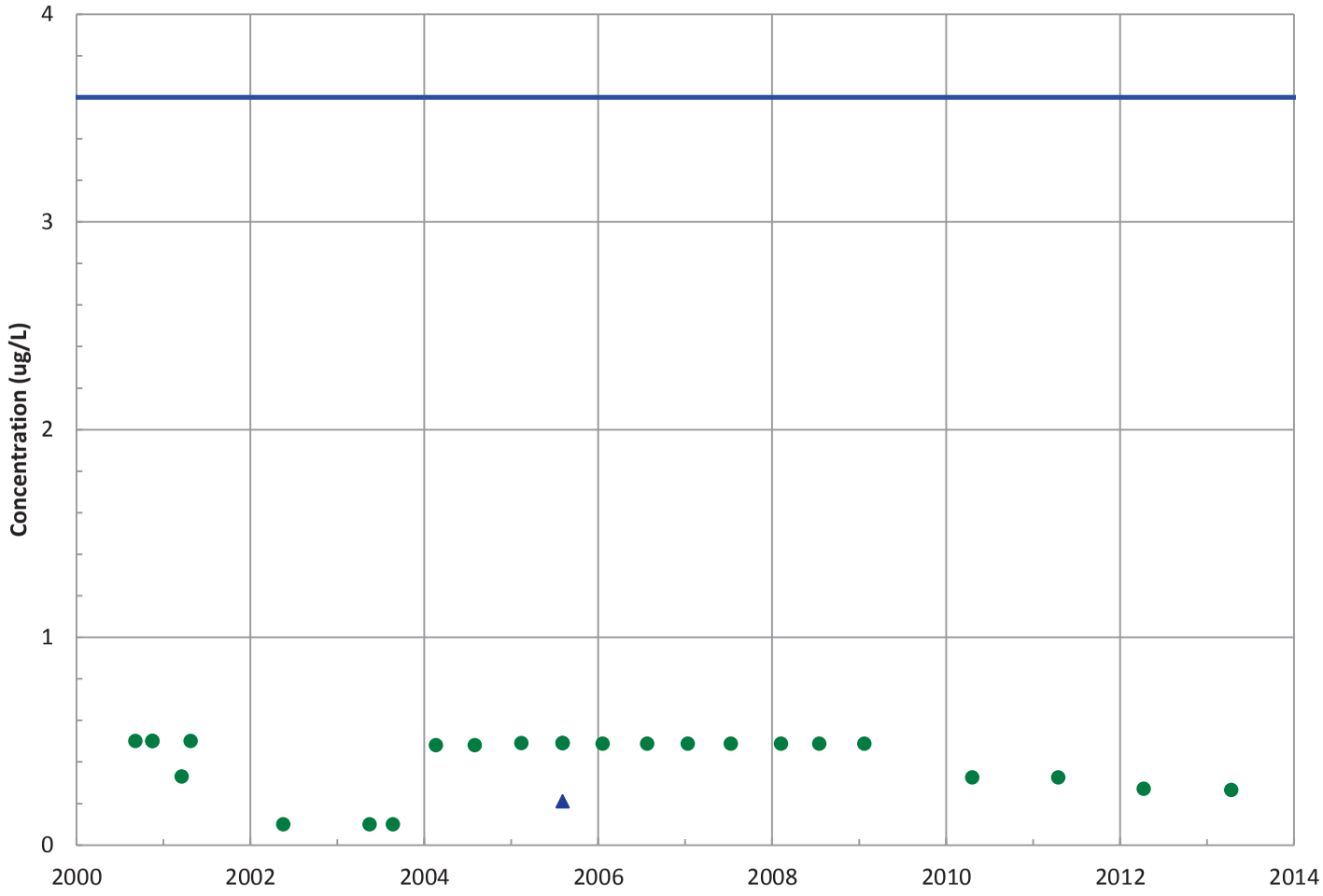
Well Location



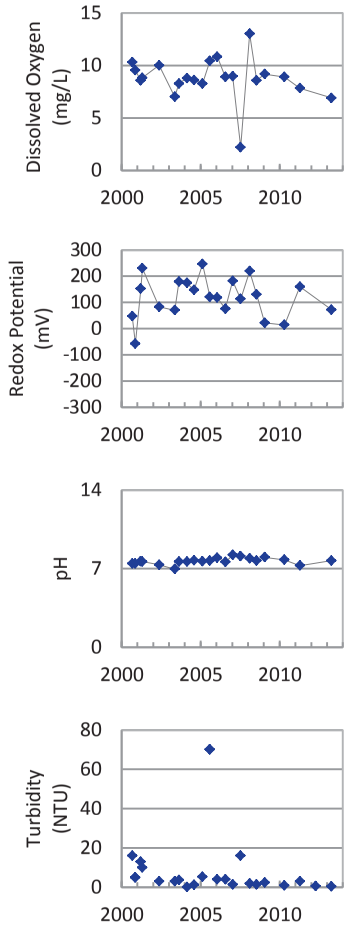
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/5/2000 to 4/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1048A
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



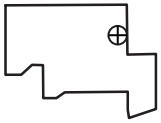
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

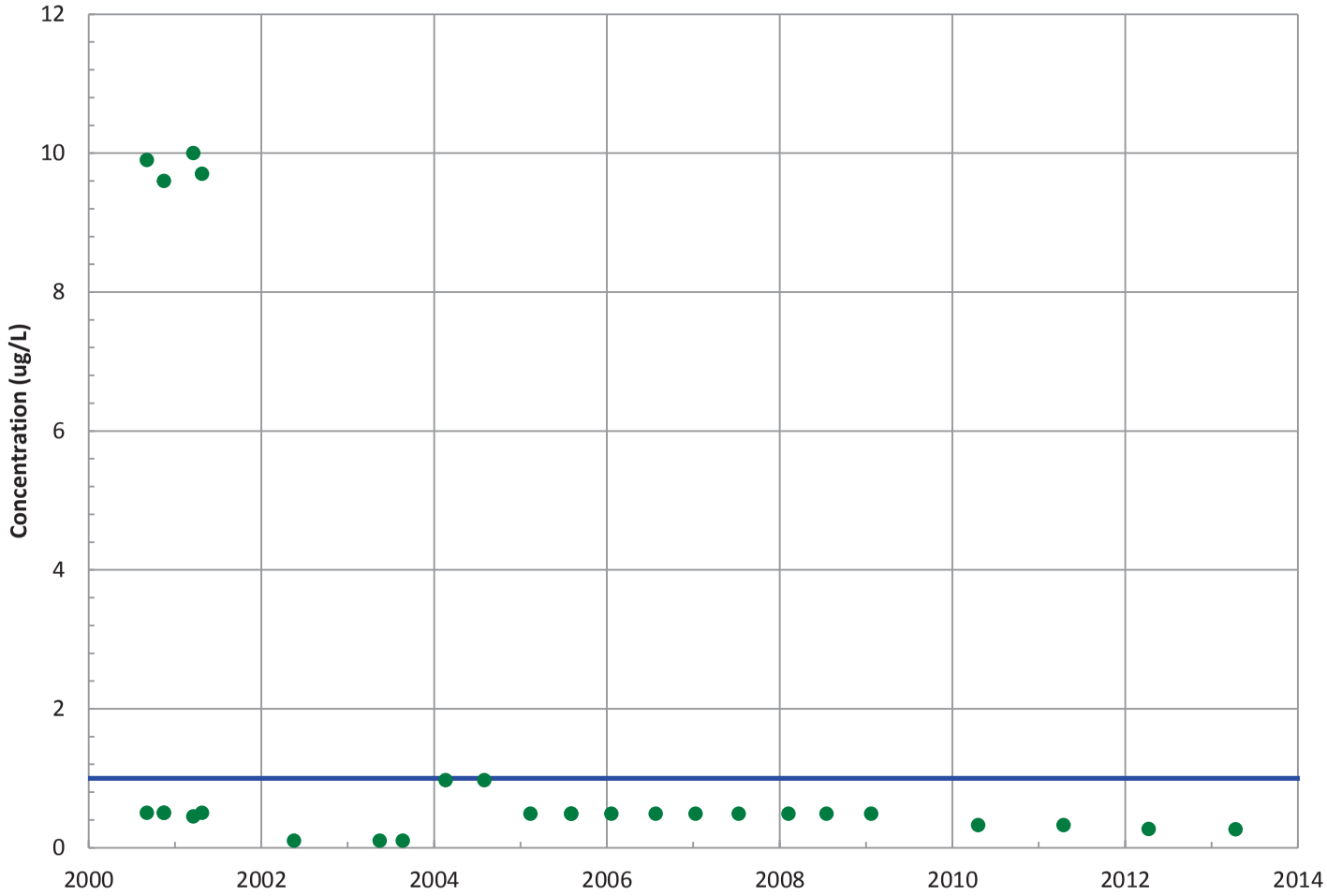
Well Location



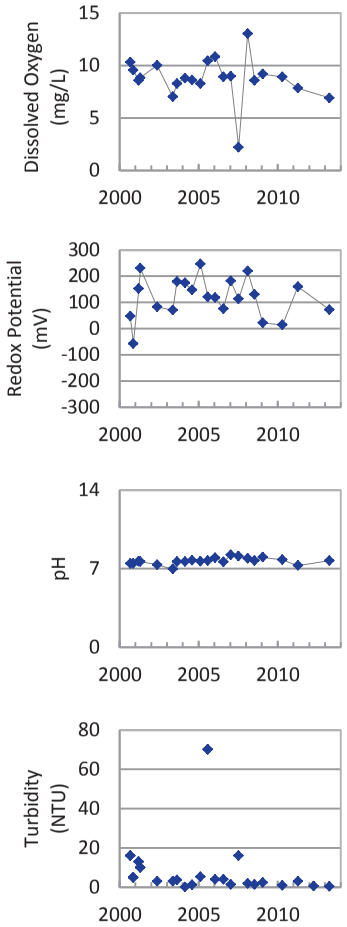
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/5/2000 to 4/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1048A
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



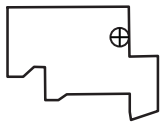
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

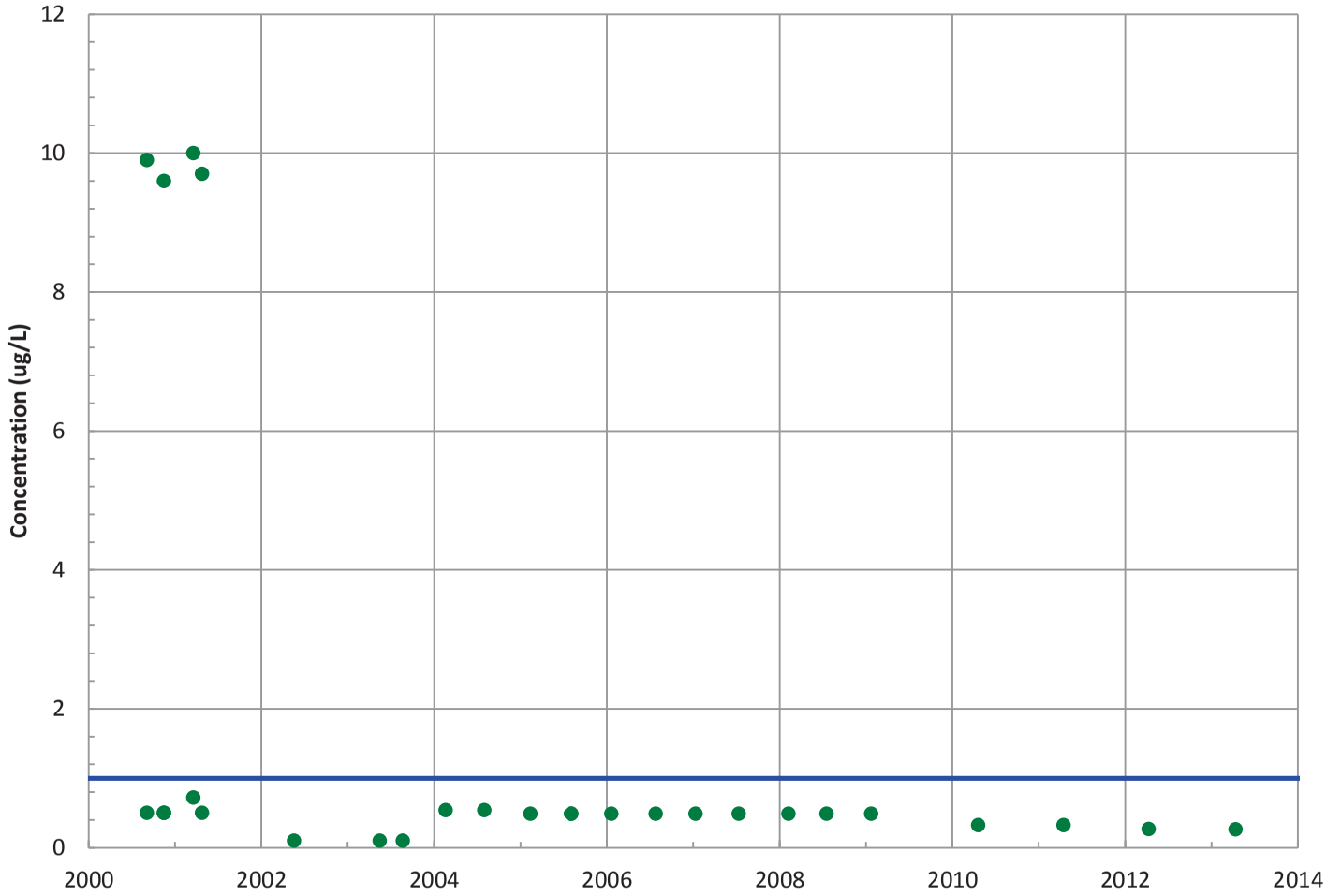
Well Location



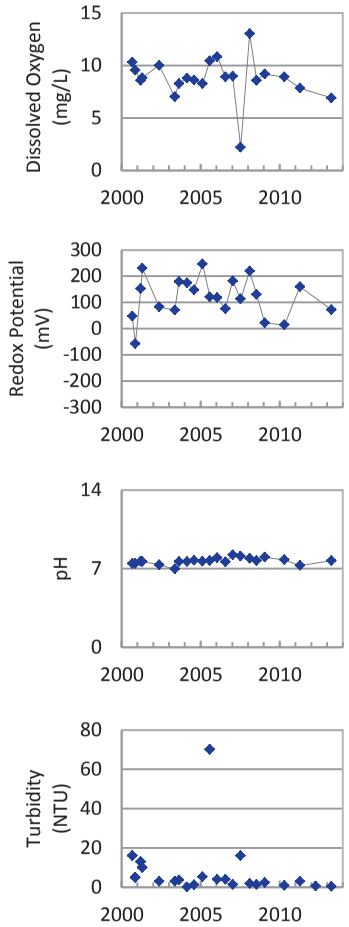
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/5/2000 to 4/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1048A
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



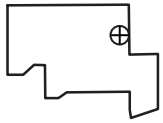
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

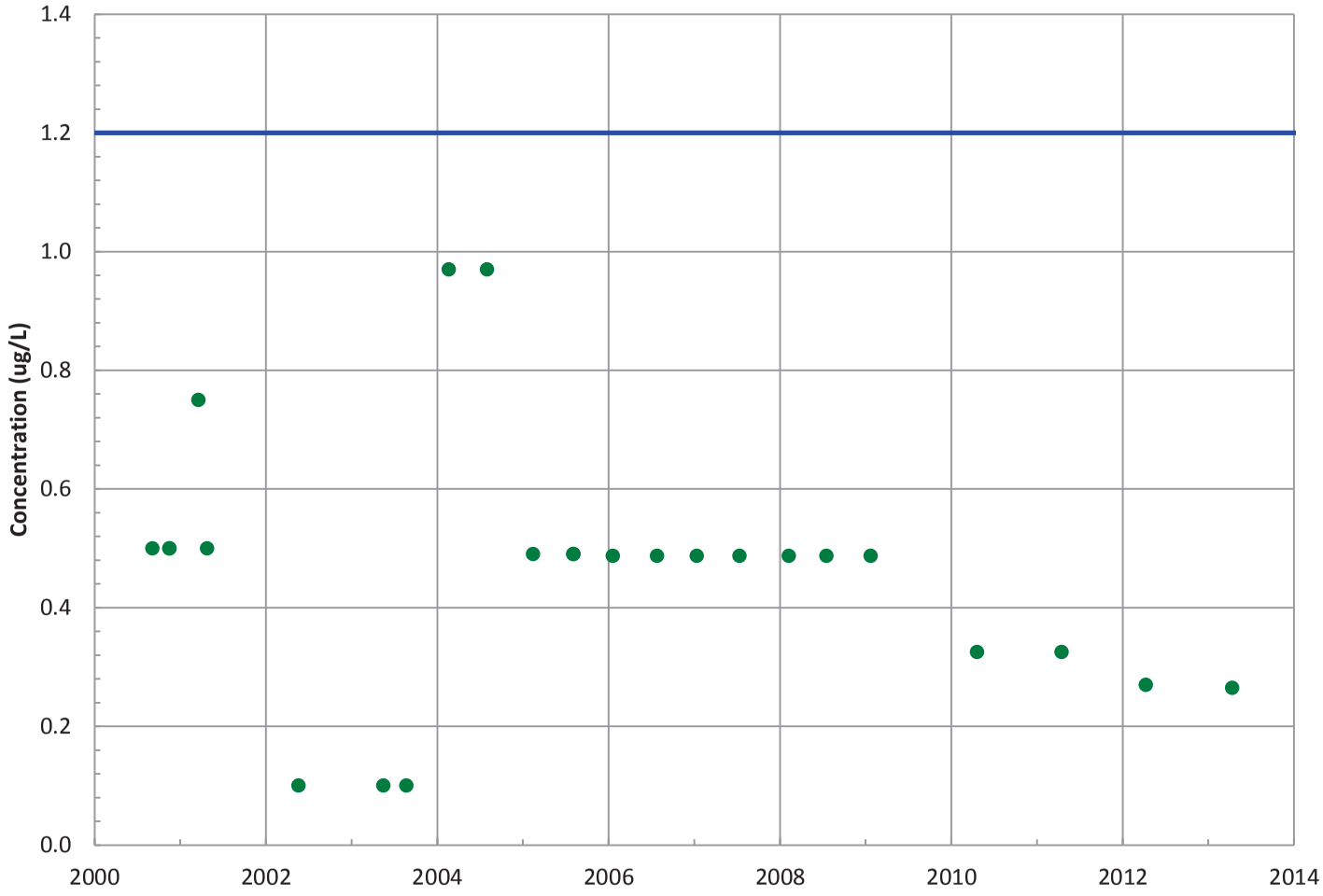
Well Location



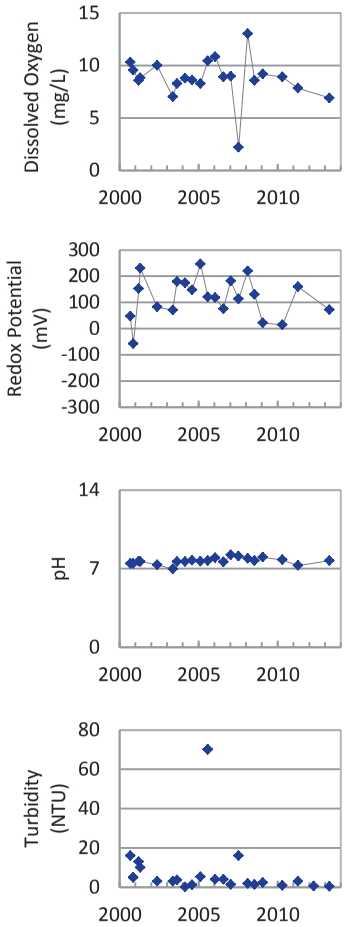
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/5/2000 to 4/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1048A
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



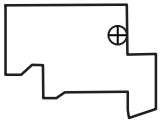
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

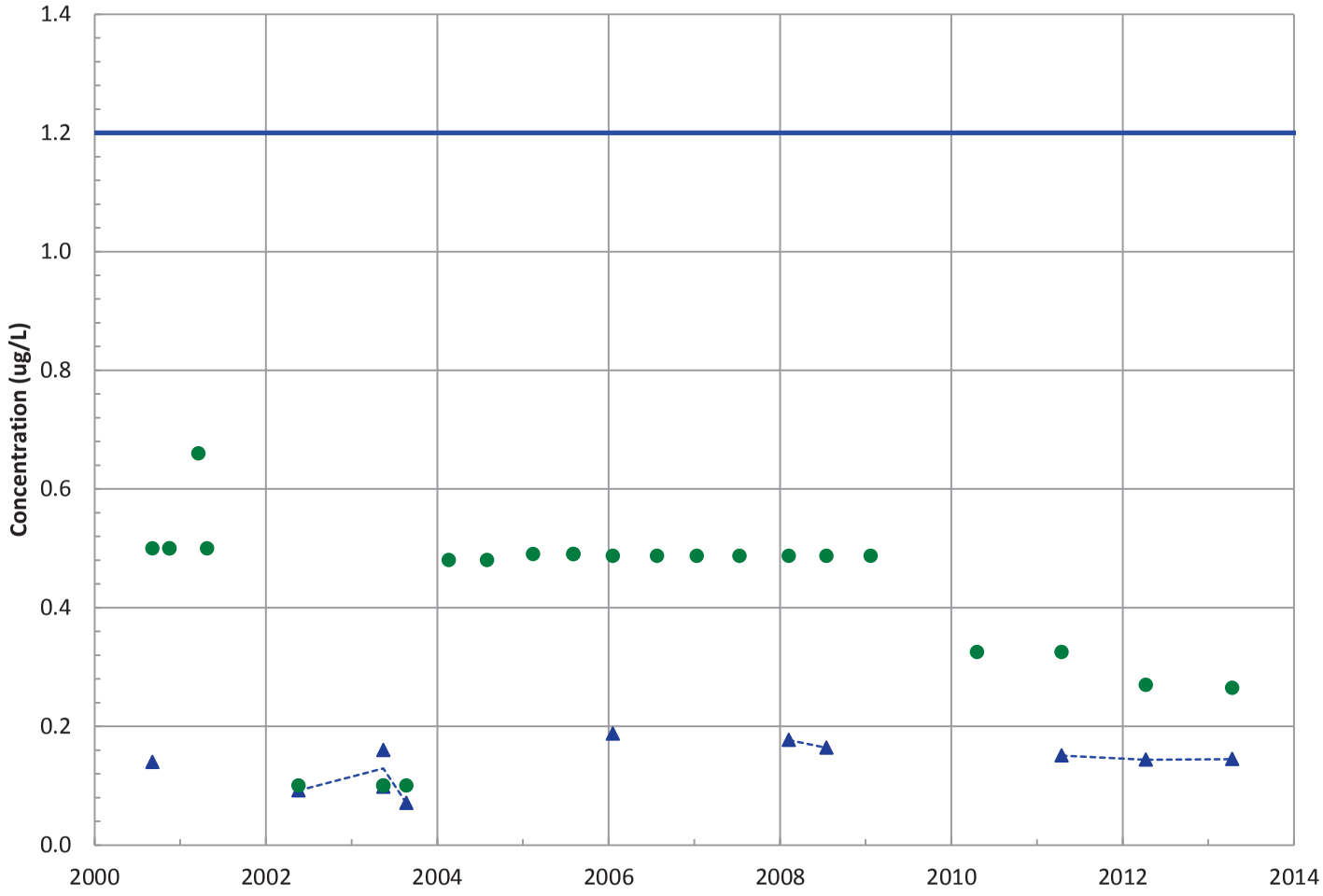
Well Location



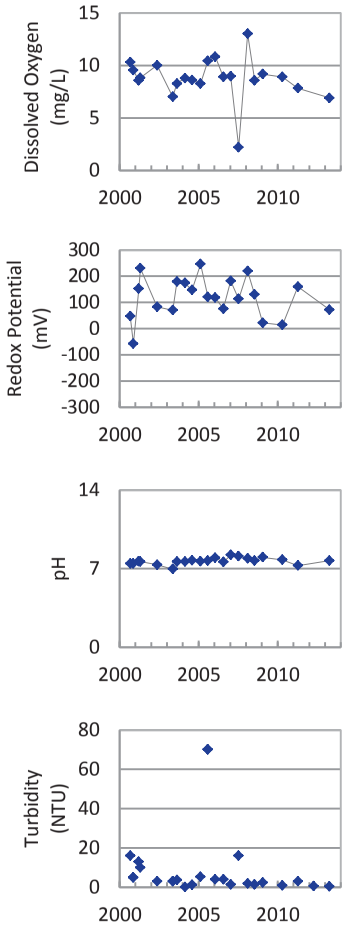
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/5/2000 to 4/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1048A
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: N/A (<4 Detections in

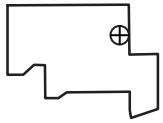
MAROS Linear Regression Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

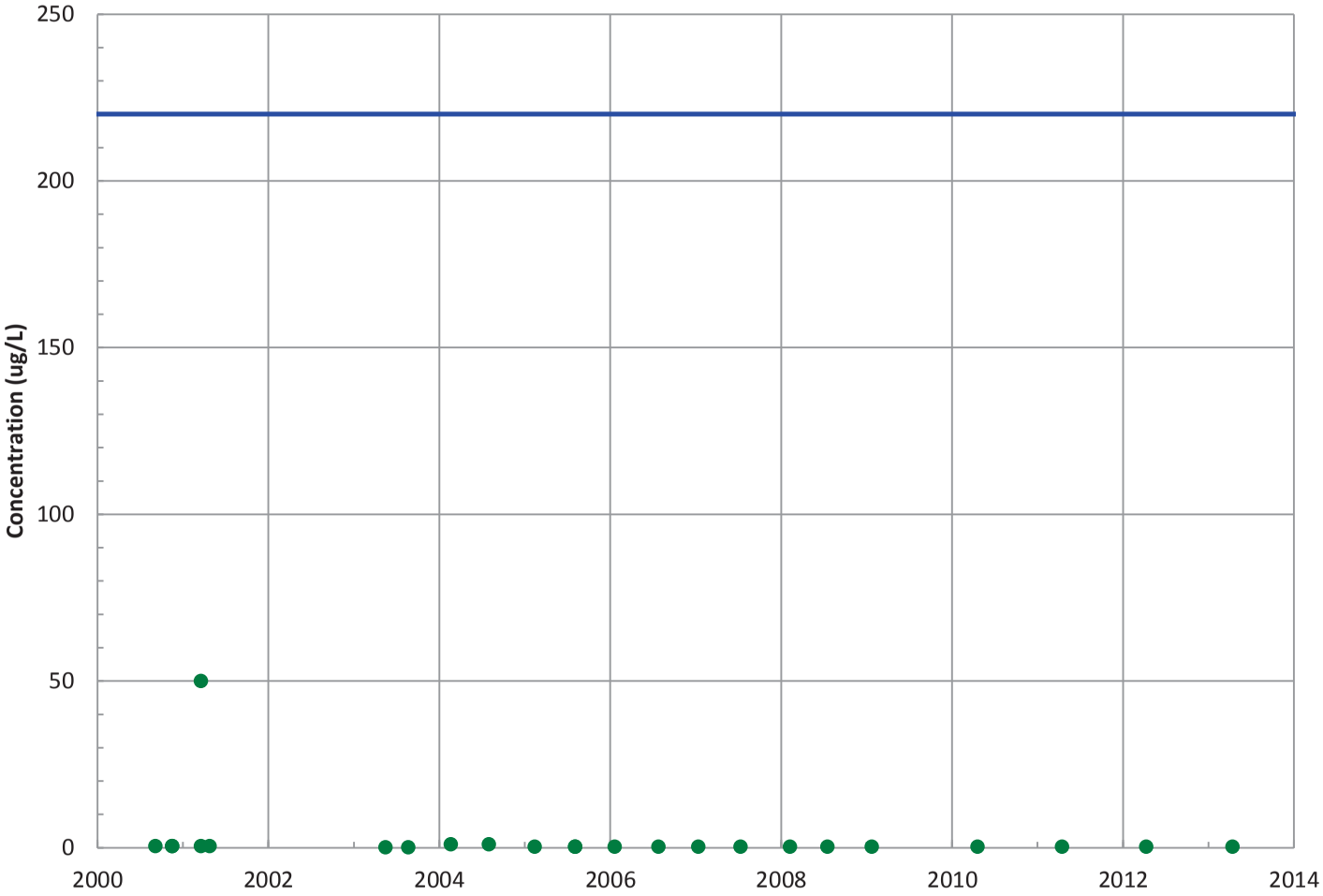
Well Location



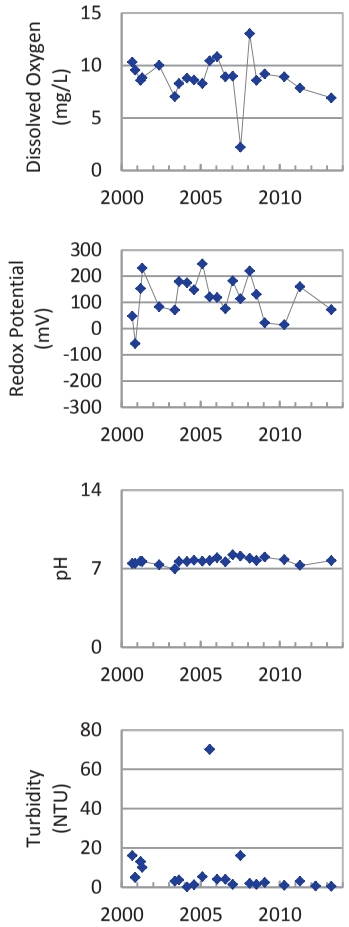
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/5/2000 to 4/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1048A
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



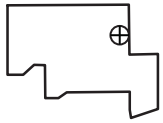
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

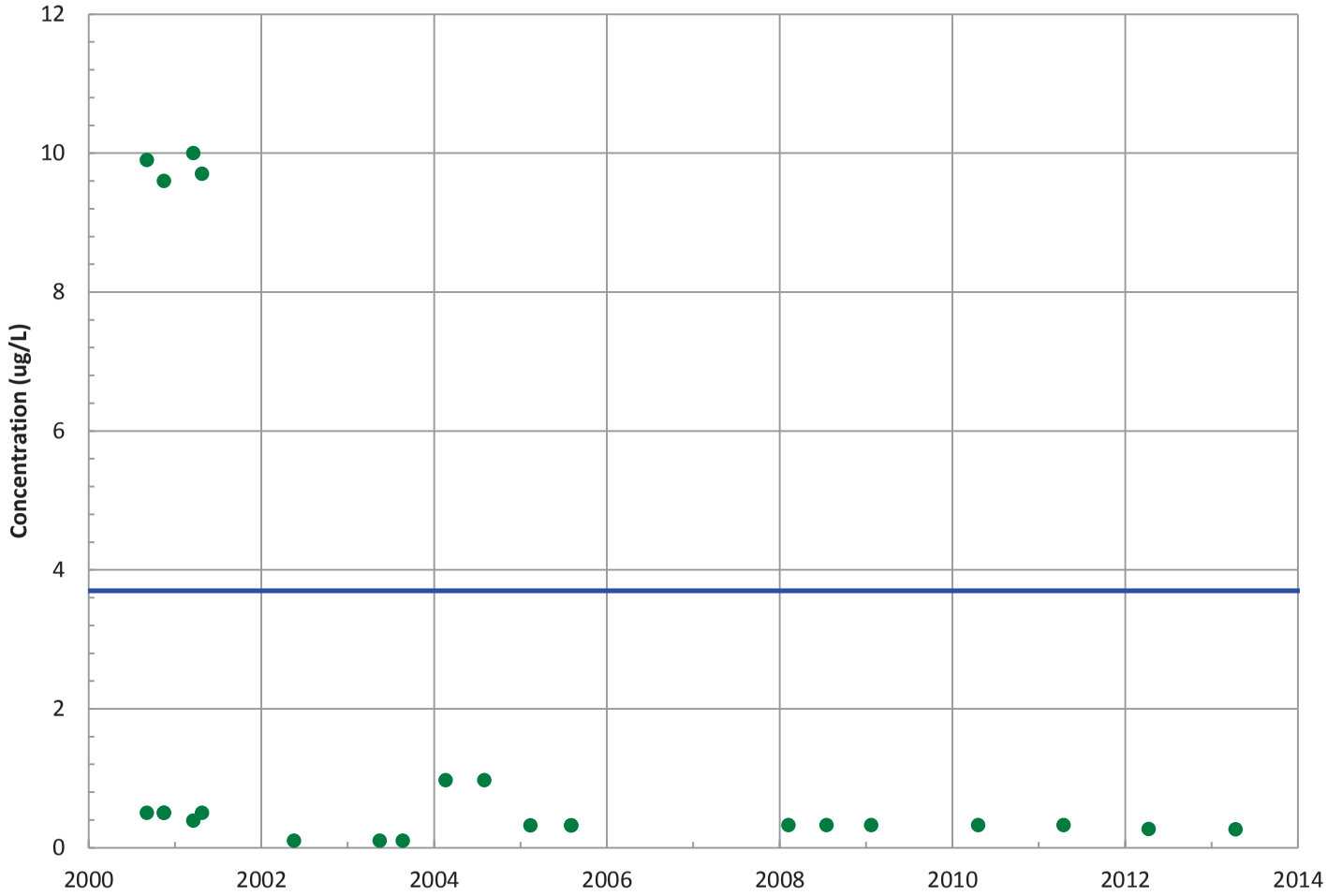
Well Location



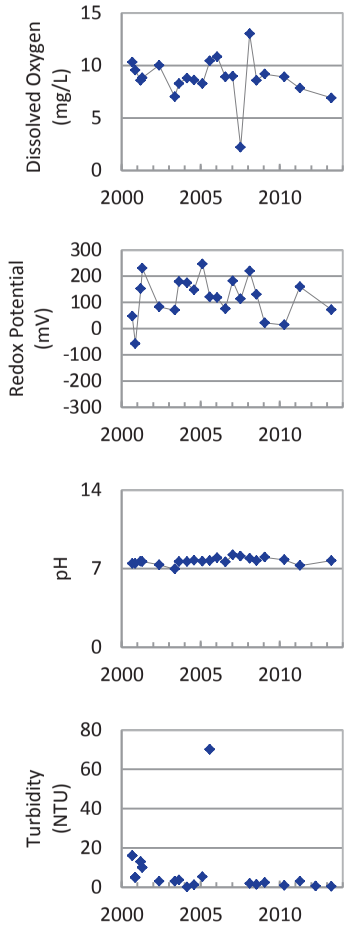
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/5/2000 to 4/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1048A
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



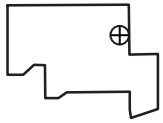
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

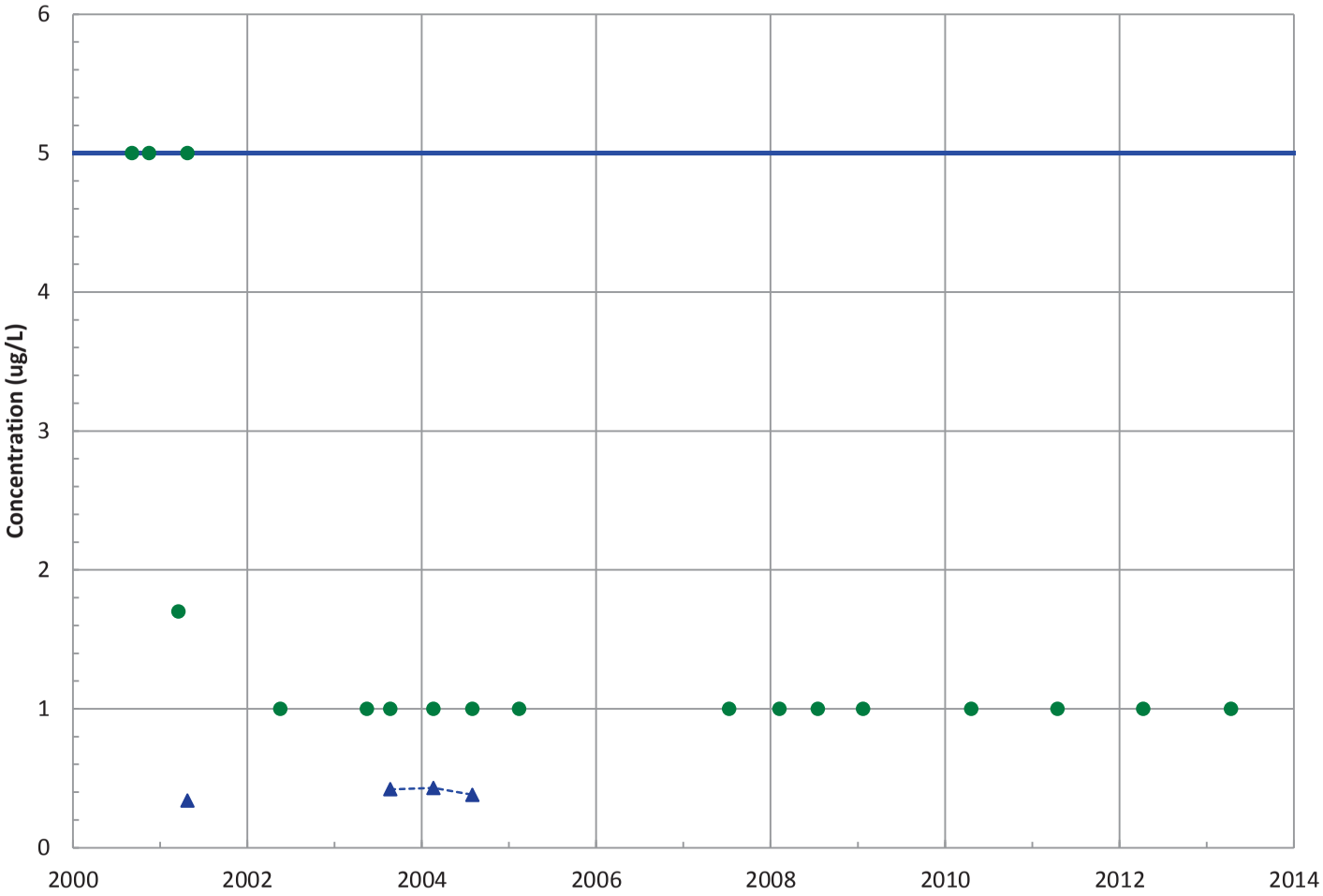
Well Location



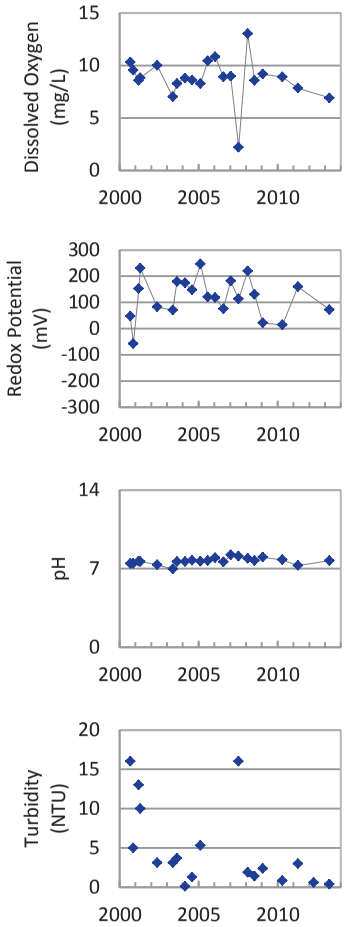
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/5/2000 to 4/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1048A
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



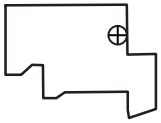
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: No Trend

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

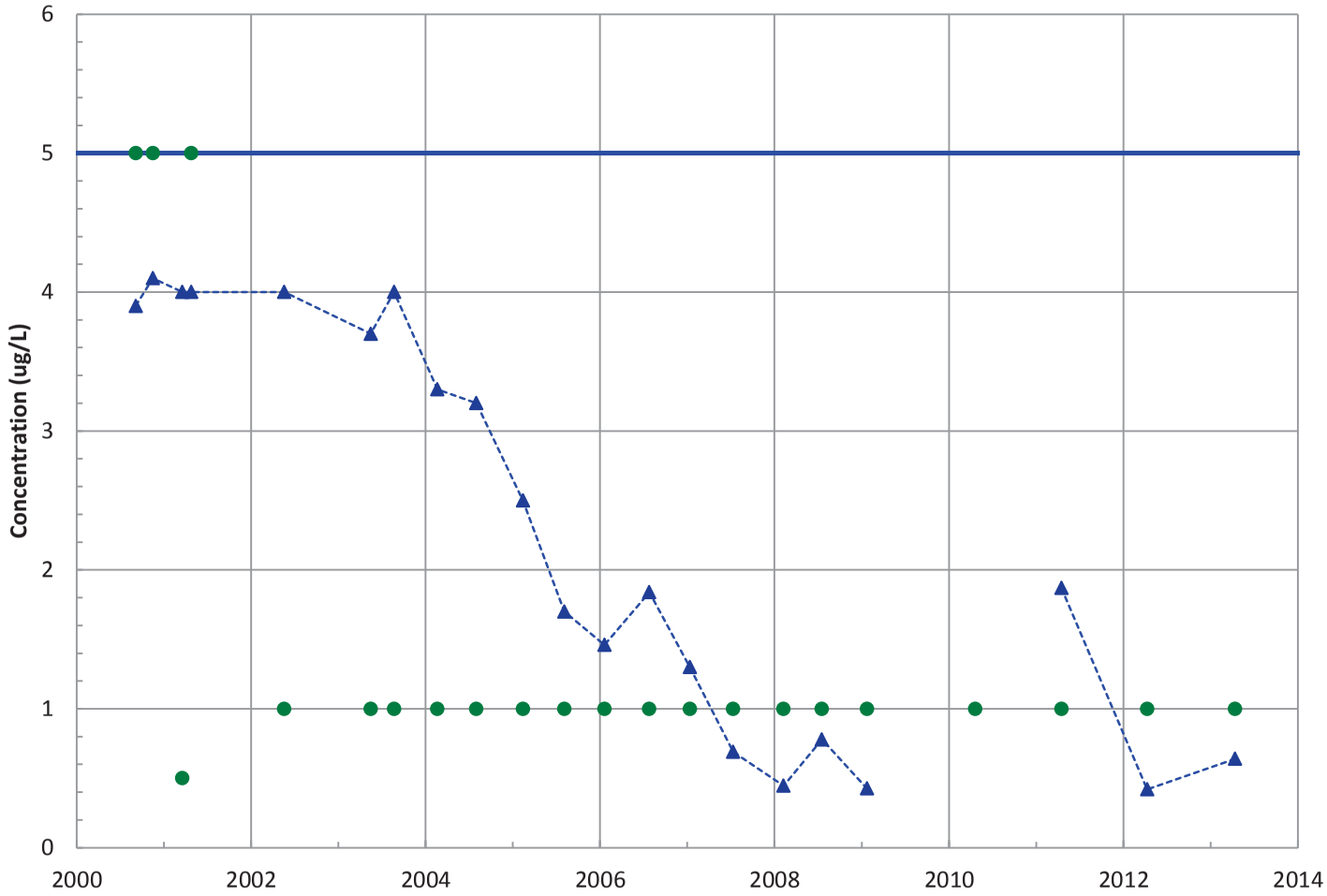
Well Location



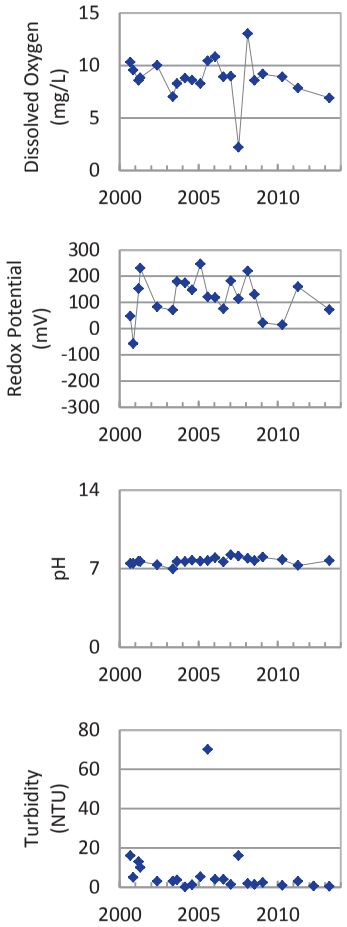
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/5/2000 to 4/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1048A
Trichloroethene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: N/A (<4 Detections in

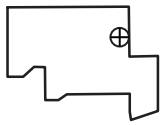
MAROS Linear Regression Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

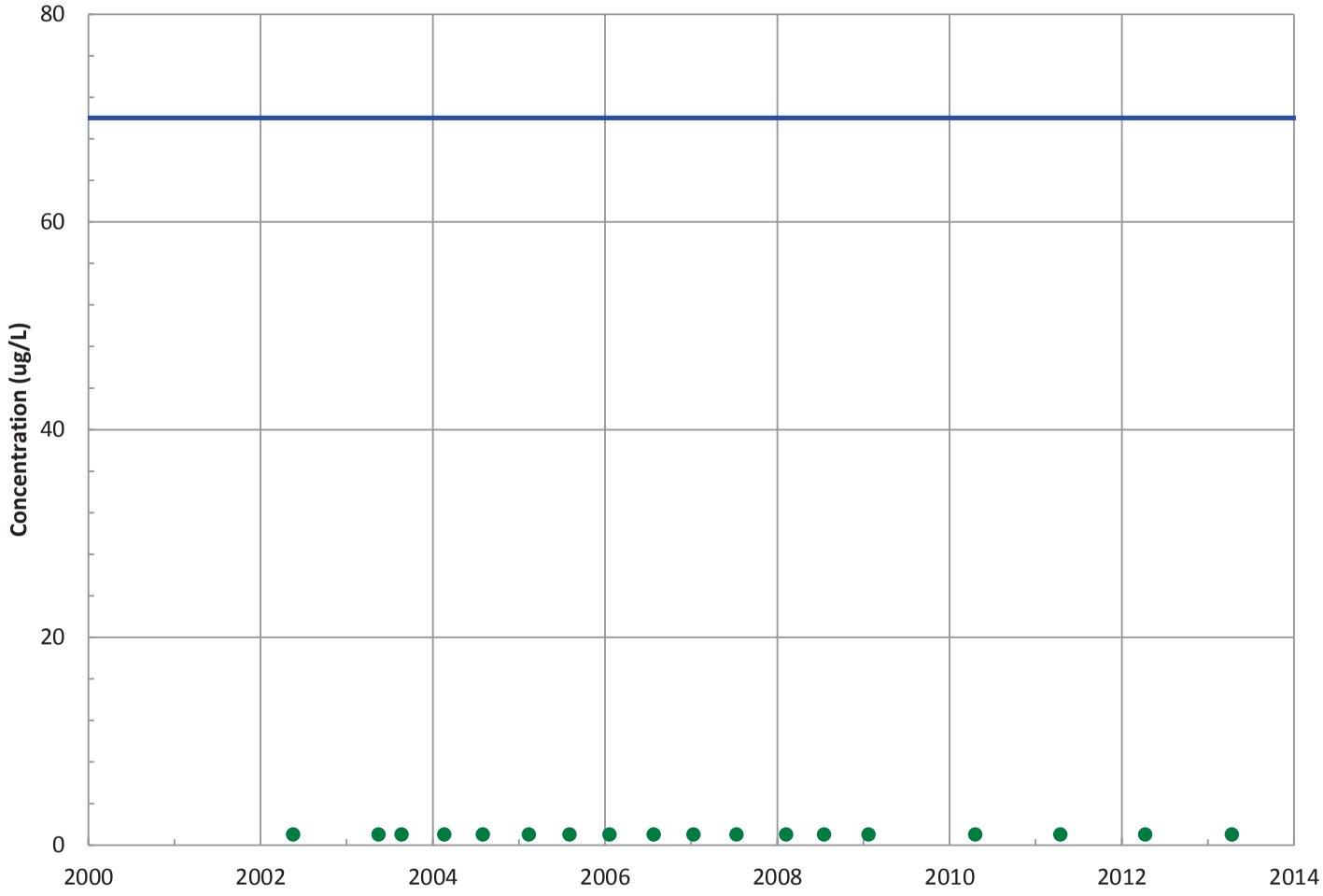
Well Location



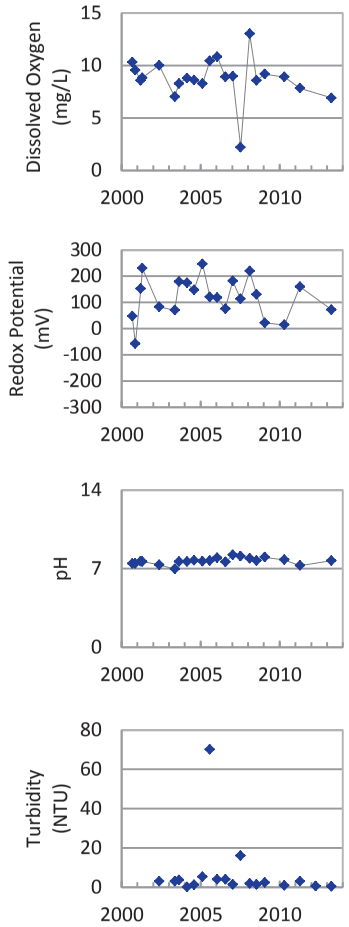
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/5/2000 to 4/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1048A
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



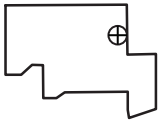
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

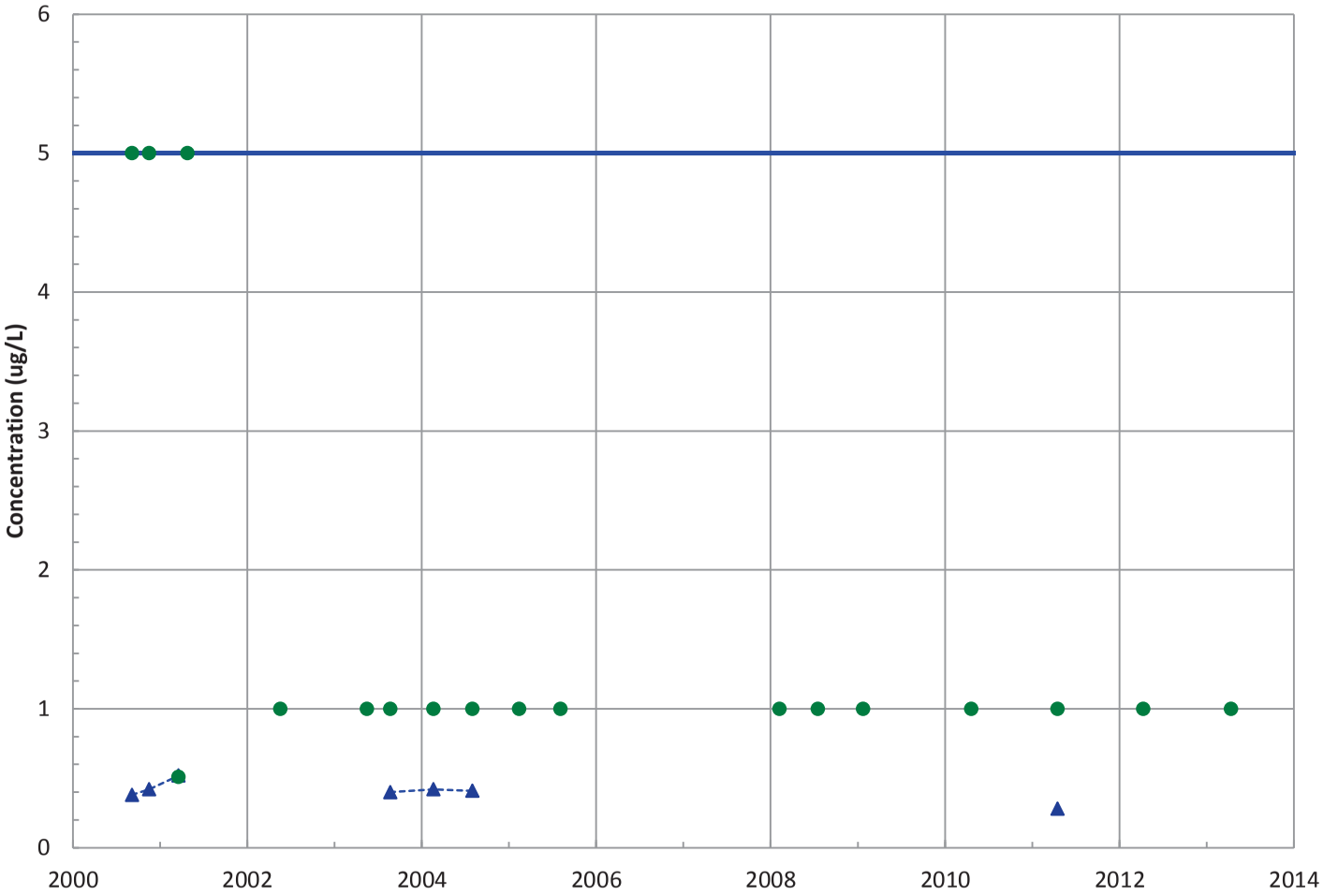
Well Location



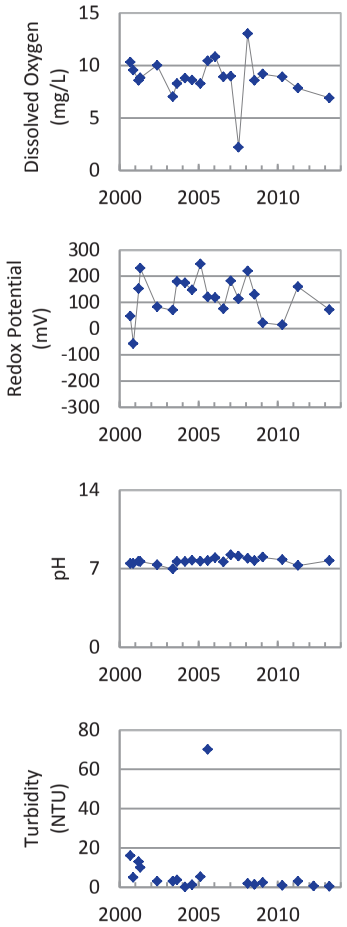
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/21/2002 to 4/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1048A
1,2-Dichloroethane Trend in Perched Aquifer



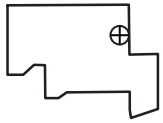
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

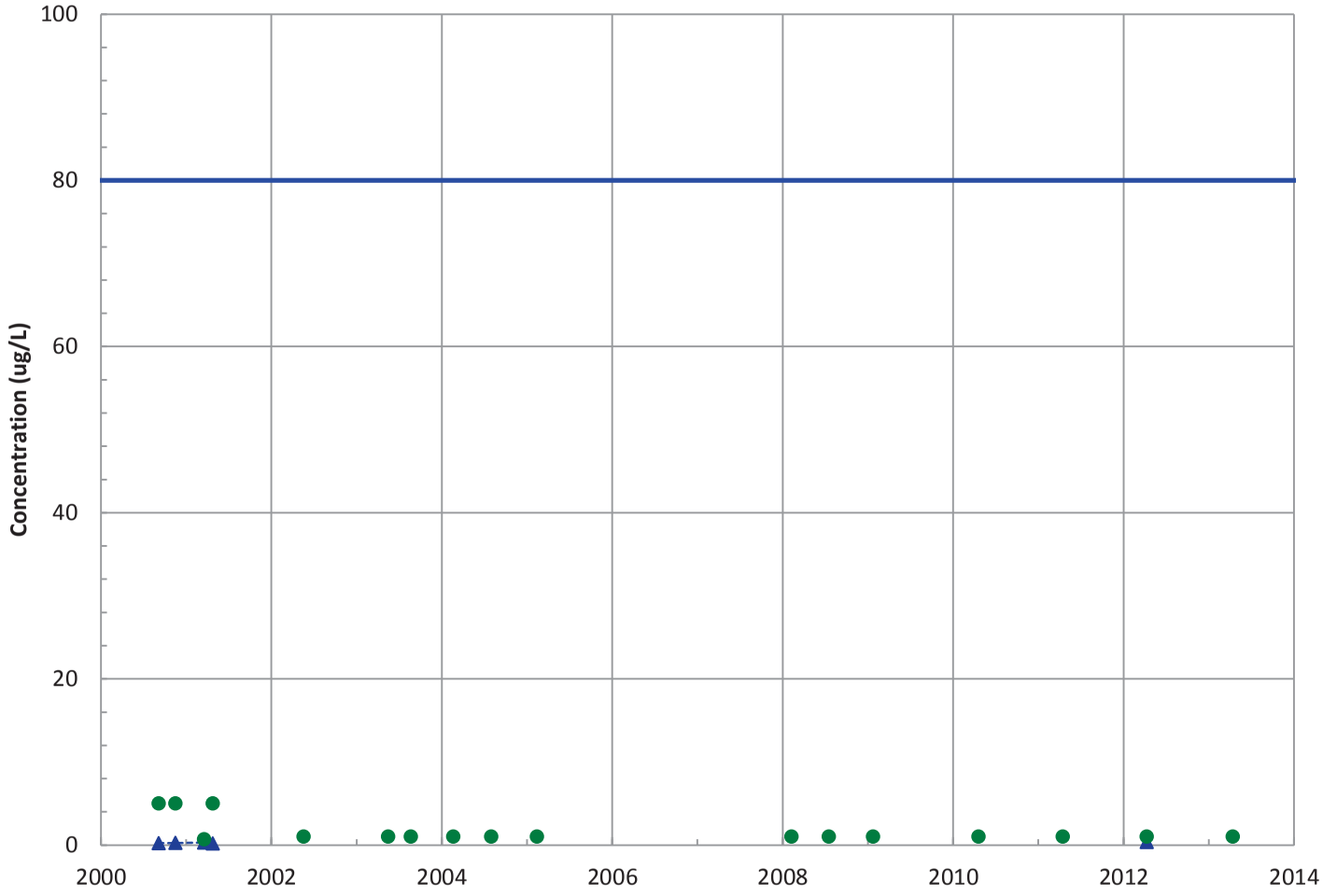
Well Location



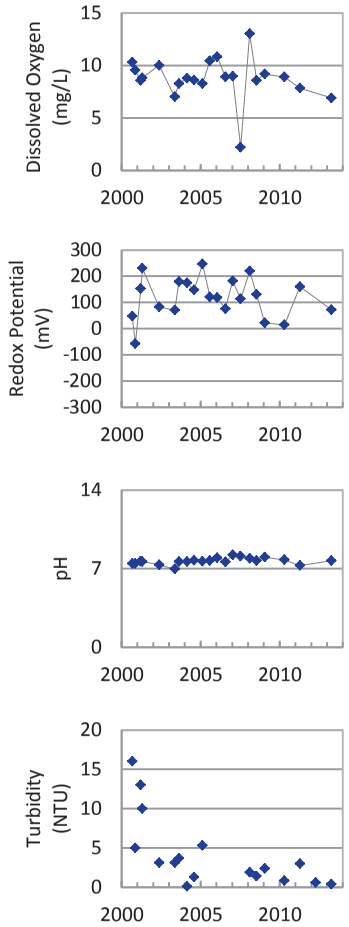
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/5/2000 to 4/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1048A
Chloroform Trend in Perched Aquifer



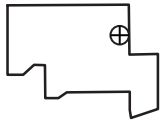
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

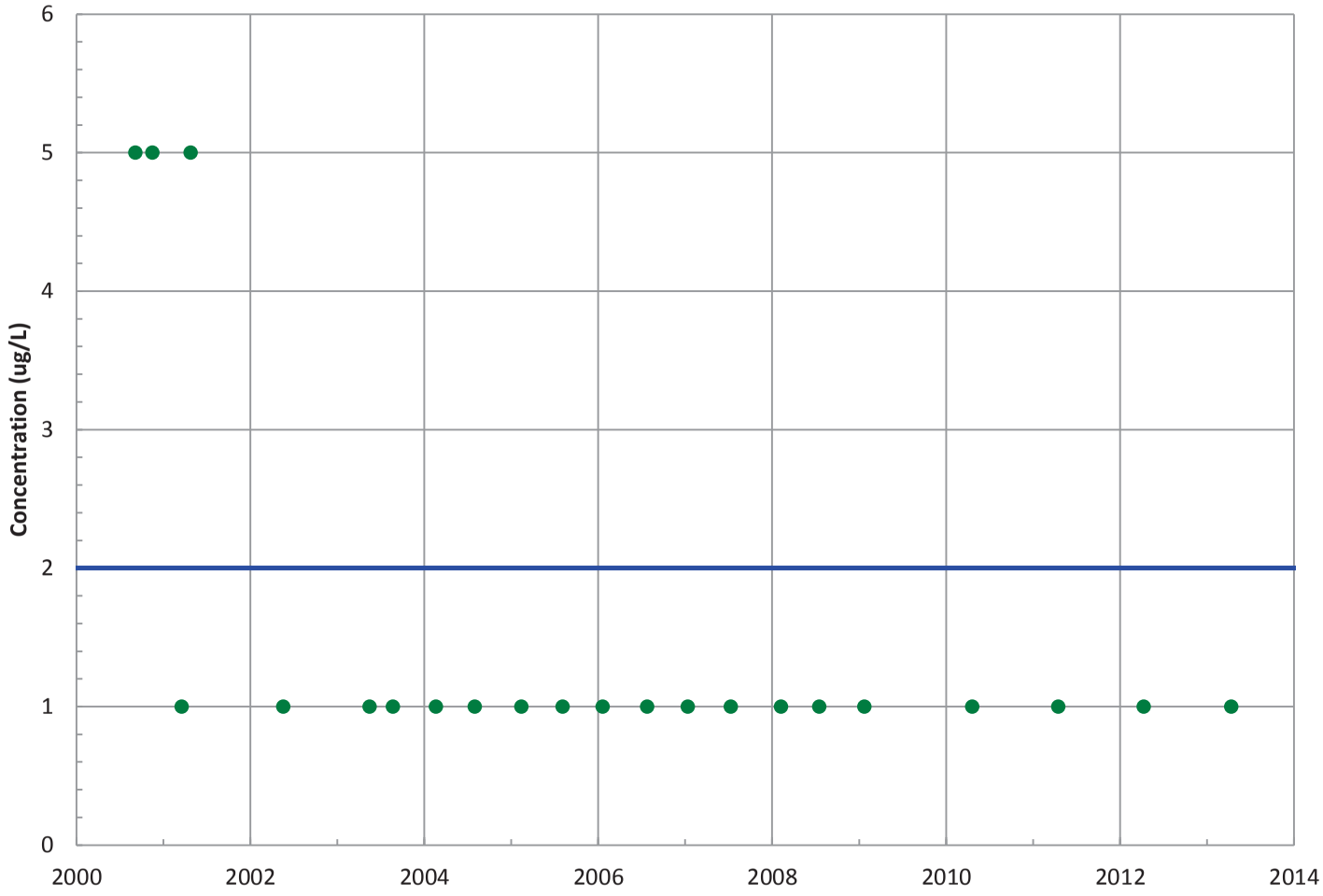
Well Location



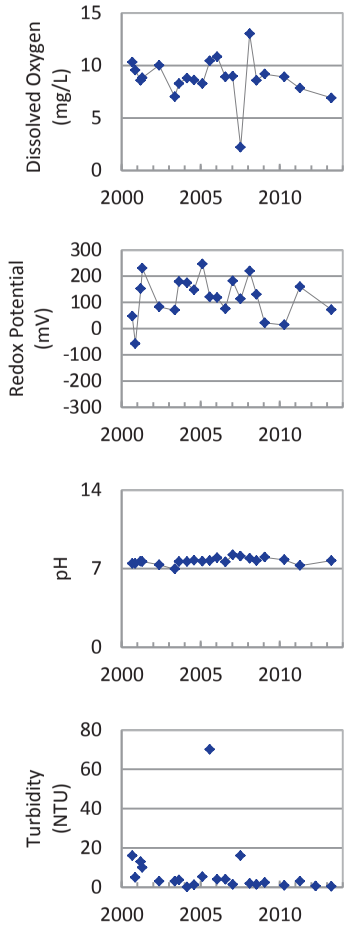
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/5/2000 to 4/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1048A
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



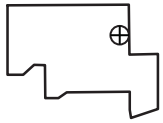
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

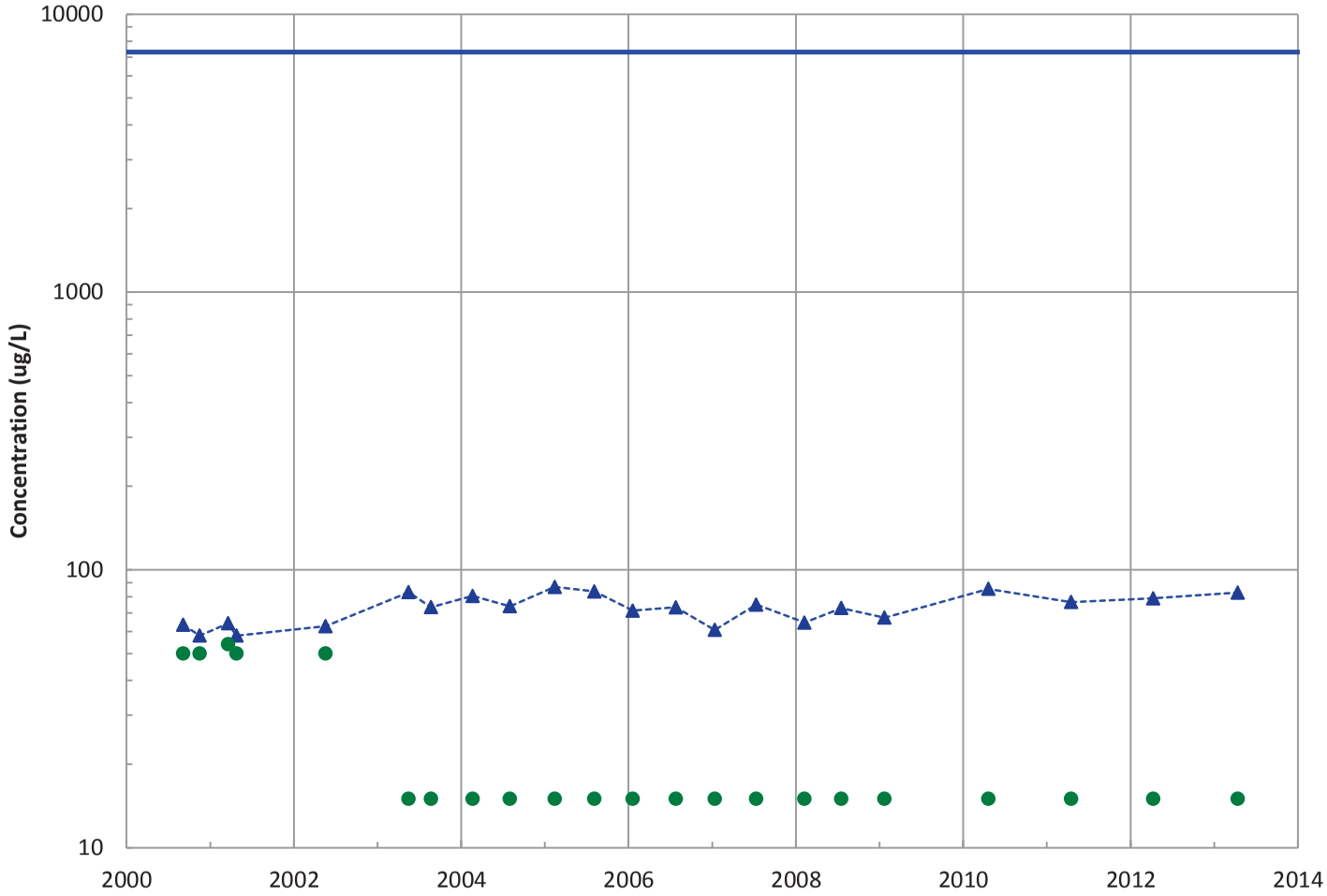
Well Location



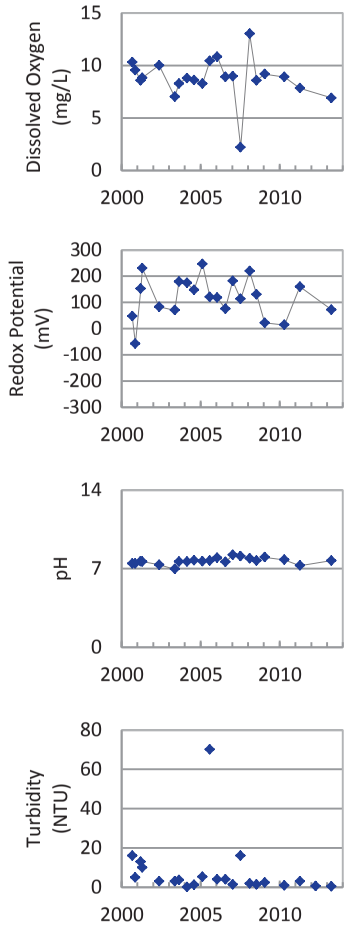
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/5/2000 to 4/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1048A
Boron Trend in Perched Aquifer



Field Parameters



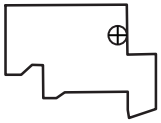
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

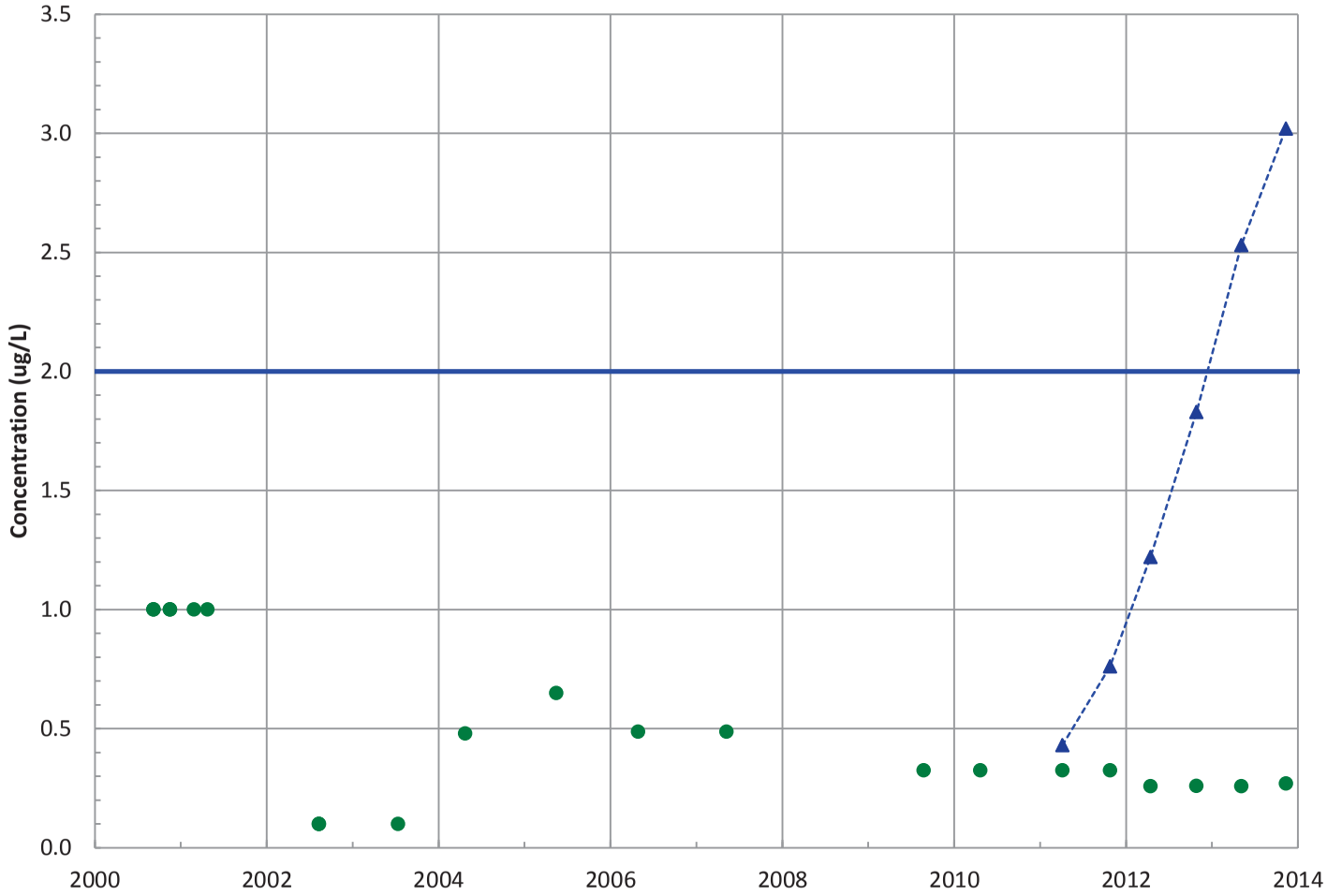
Well Location



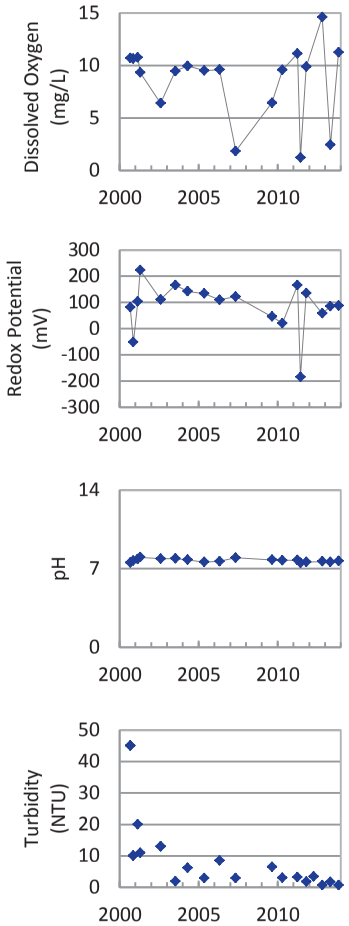
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/5/2000 to 4/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1049
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



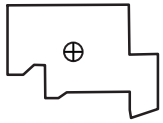
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Increasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Increasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

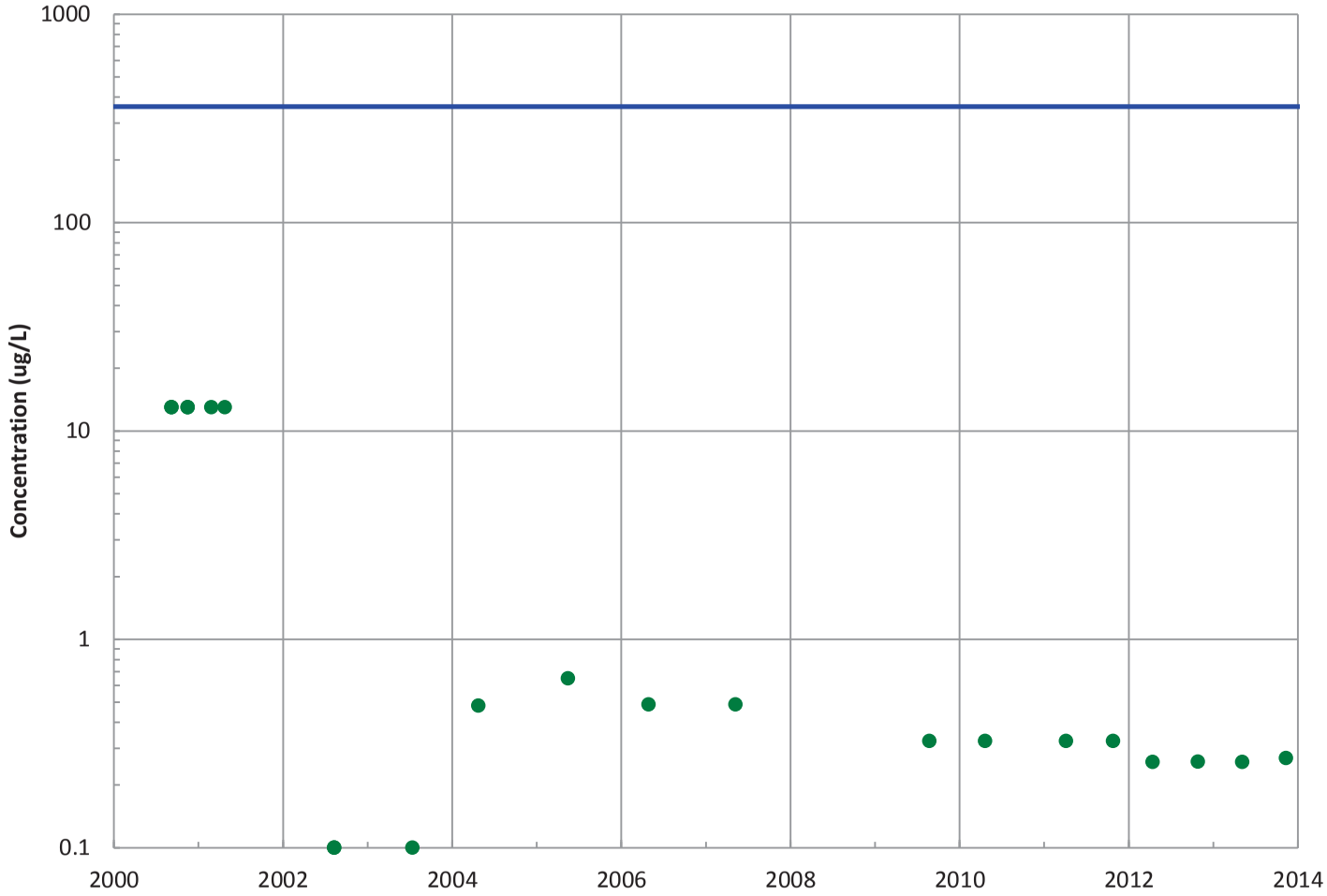
Well Location



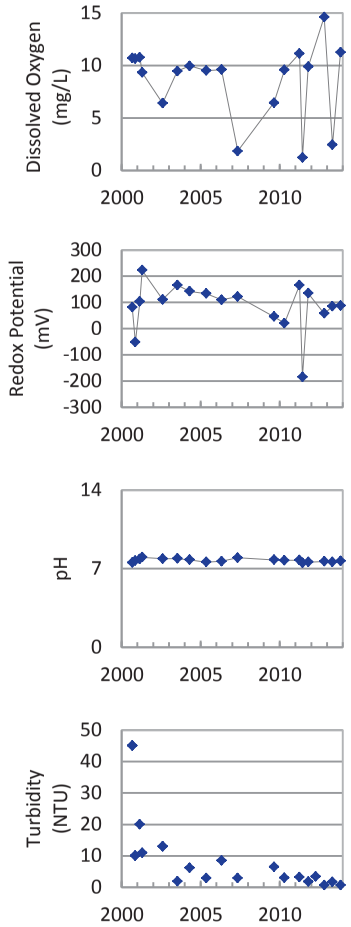
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/7/2000 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1049
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



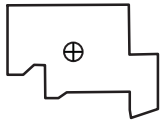
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

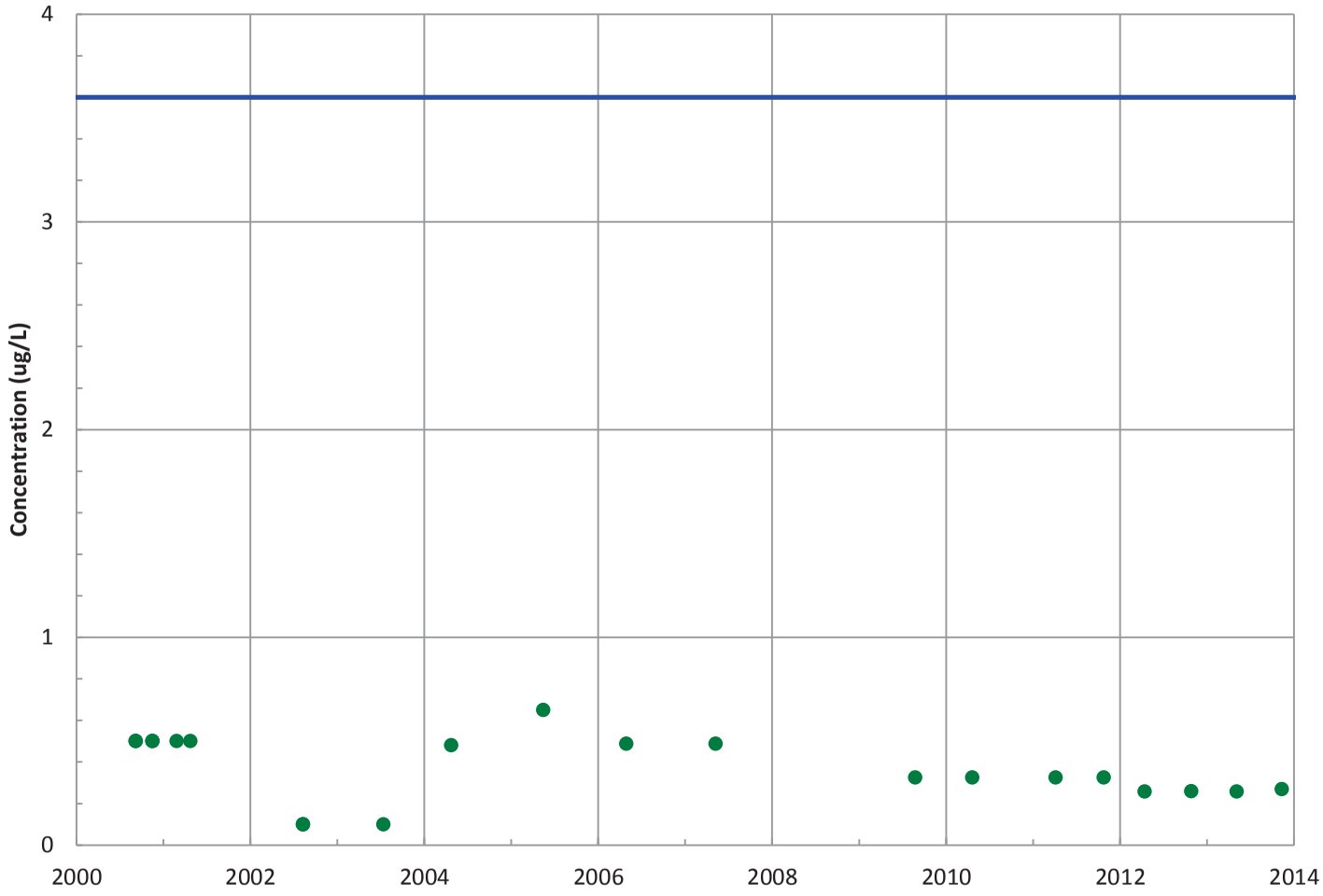
Well Location



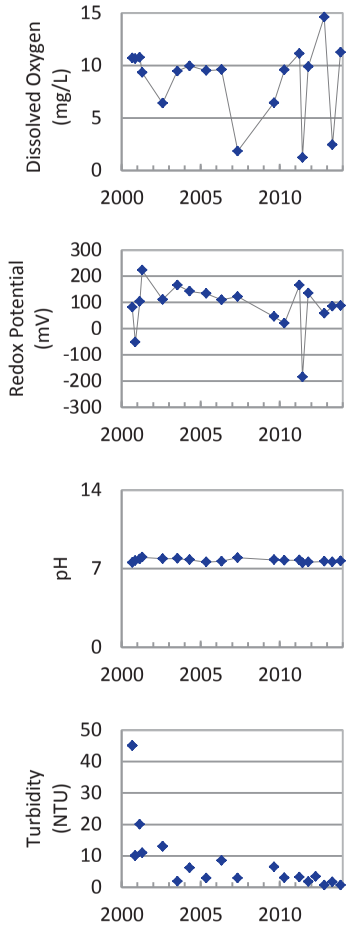
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/7/2000 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1049
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



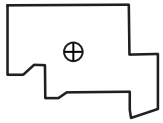
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

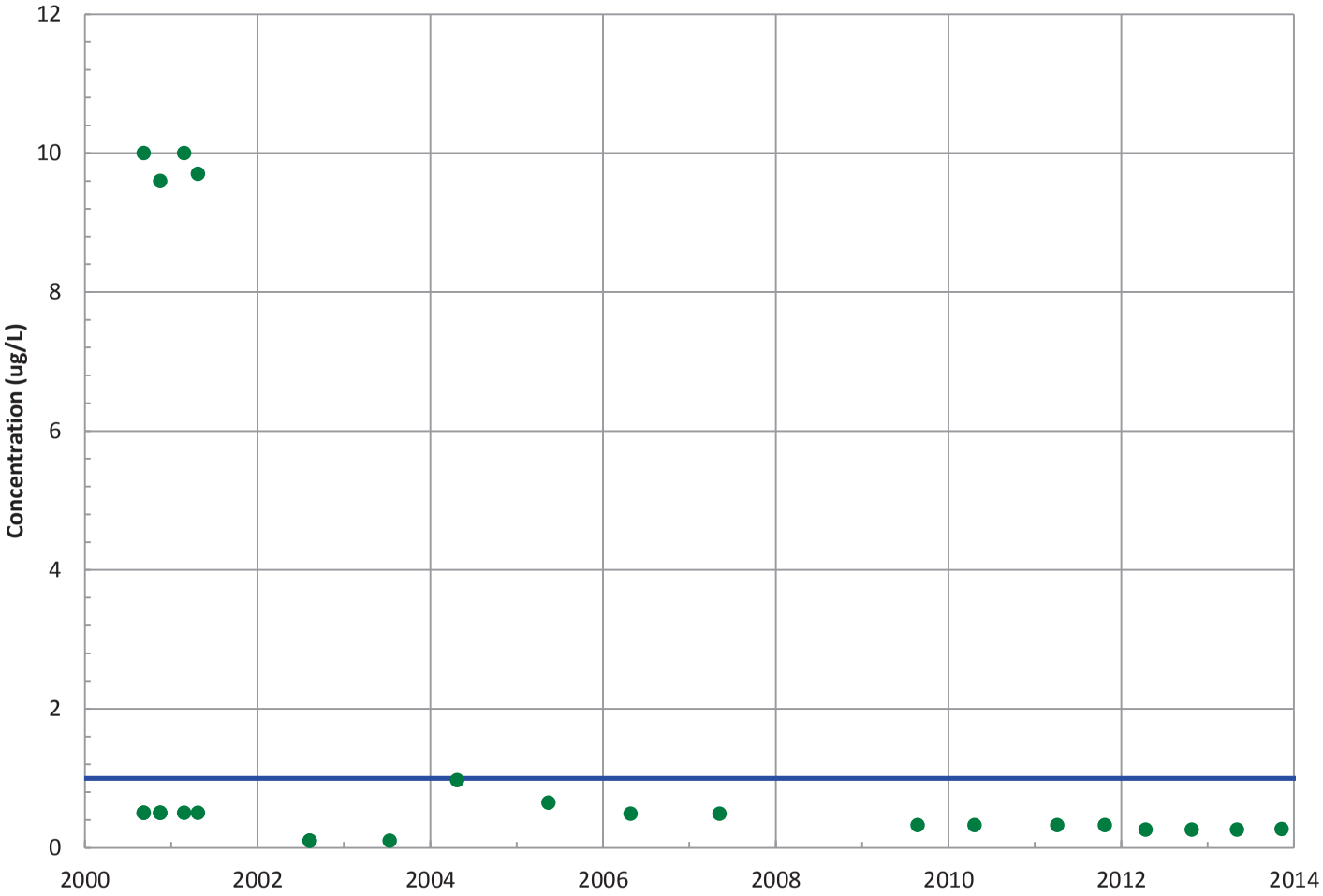
Well Location



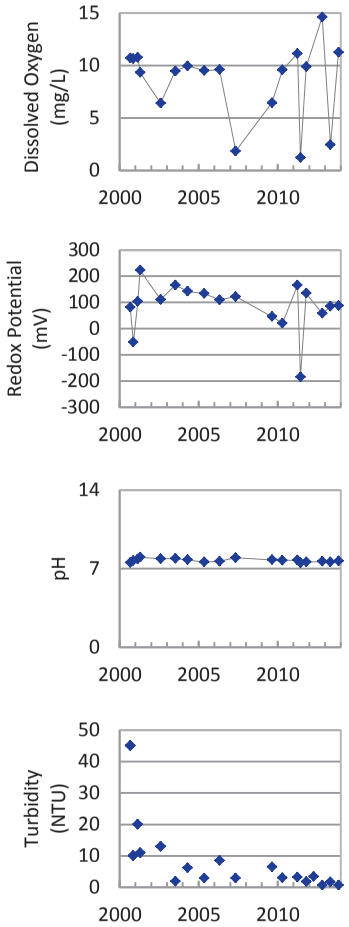
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/7/2000 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1049
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



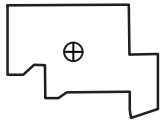
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

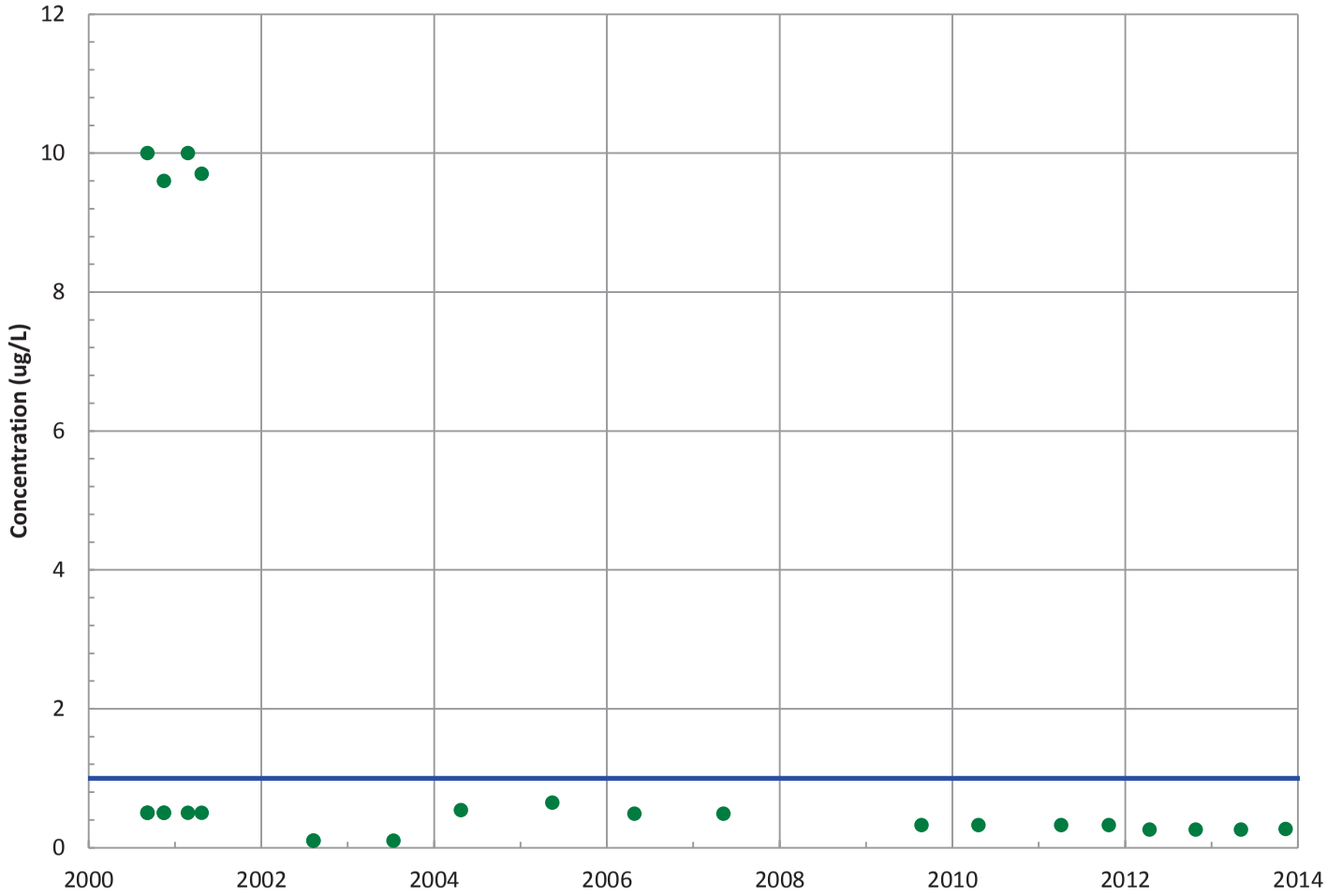
Well Location



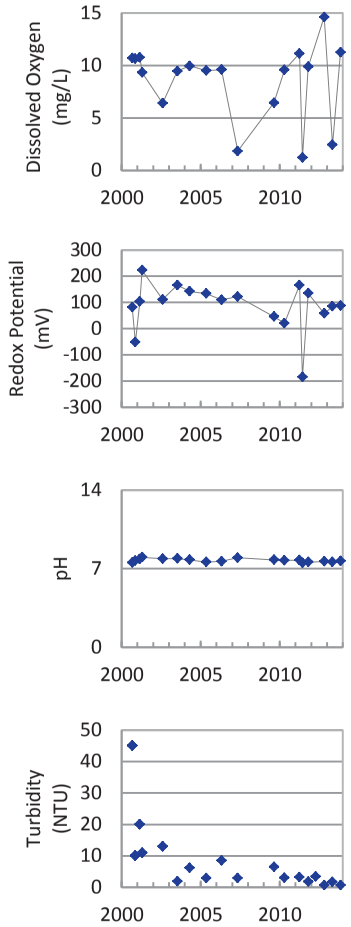
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/7/2000 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1049
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



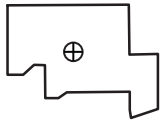
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

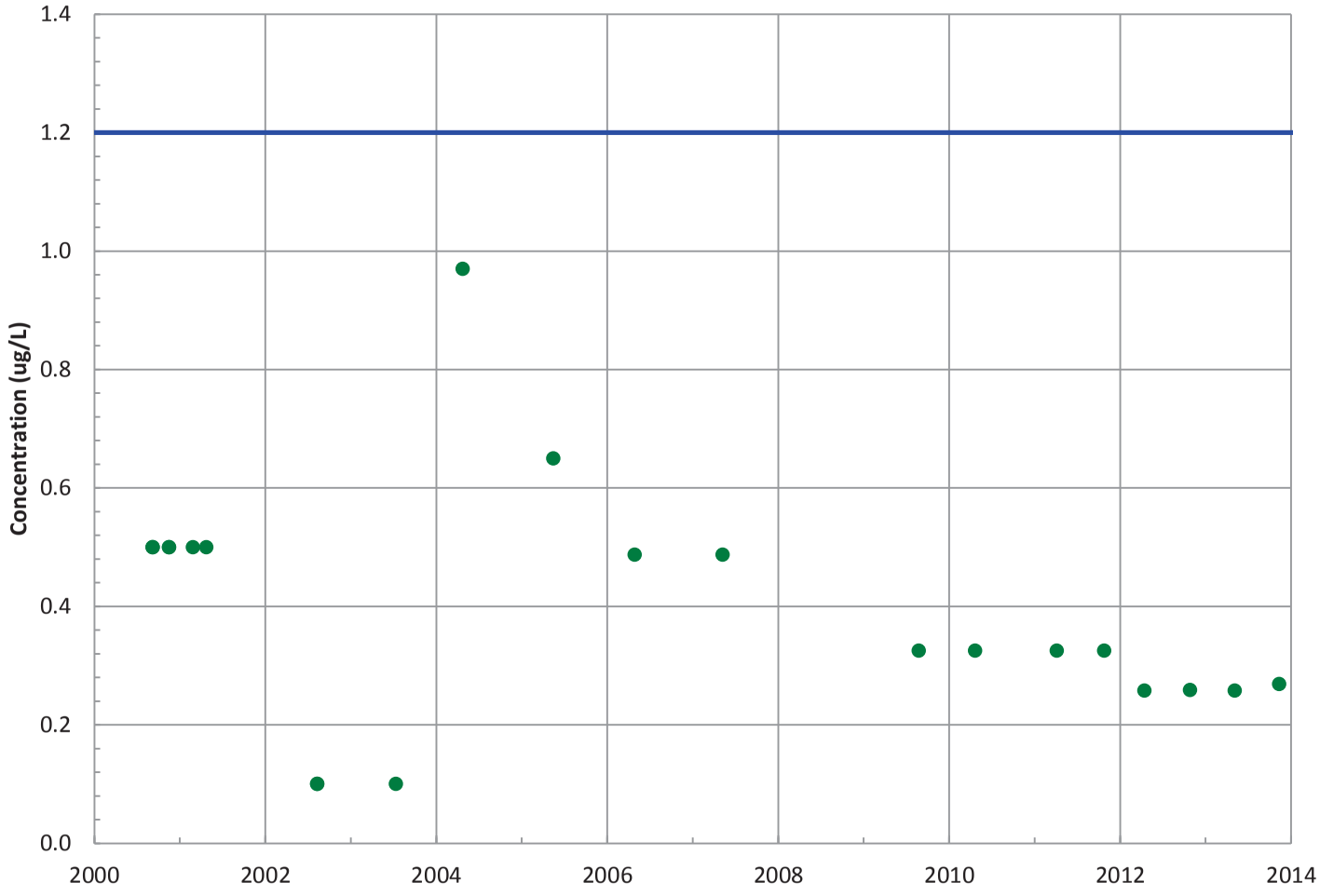
Well Location



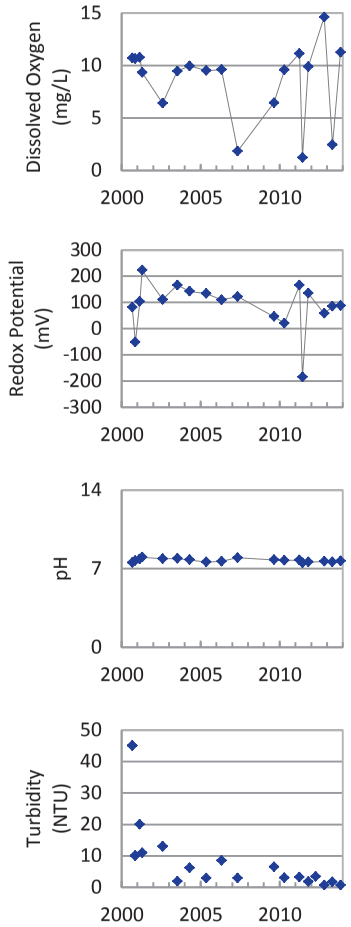
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/7/2000 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1049
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



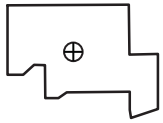
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

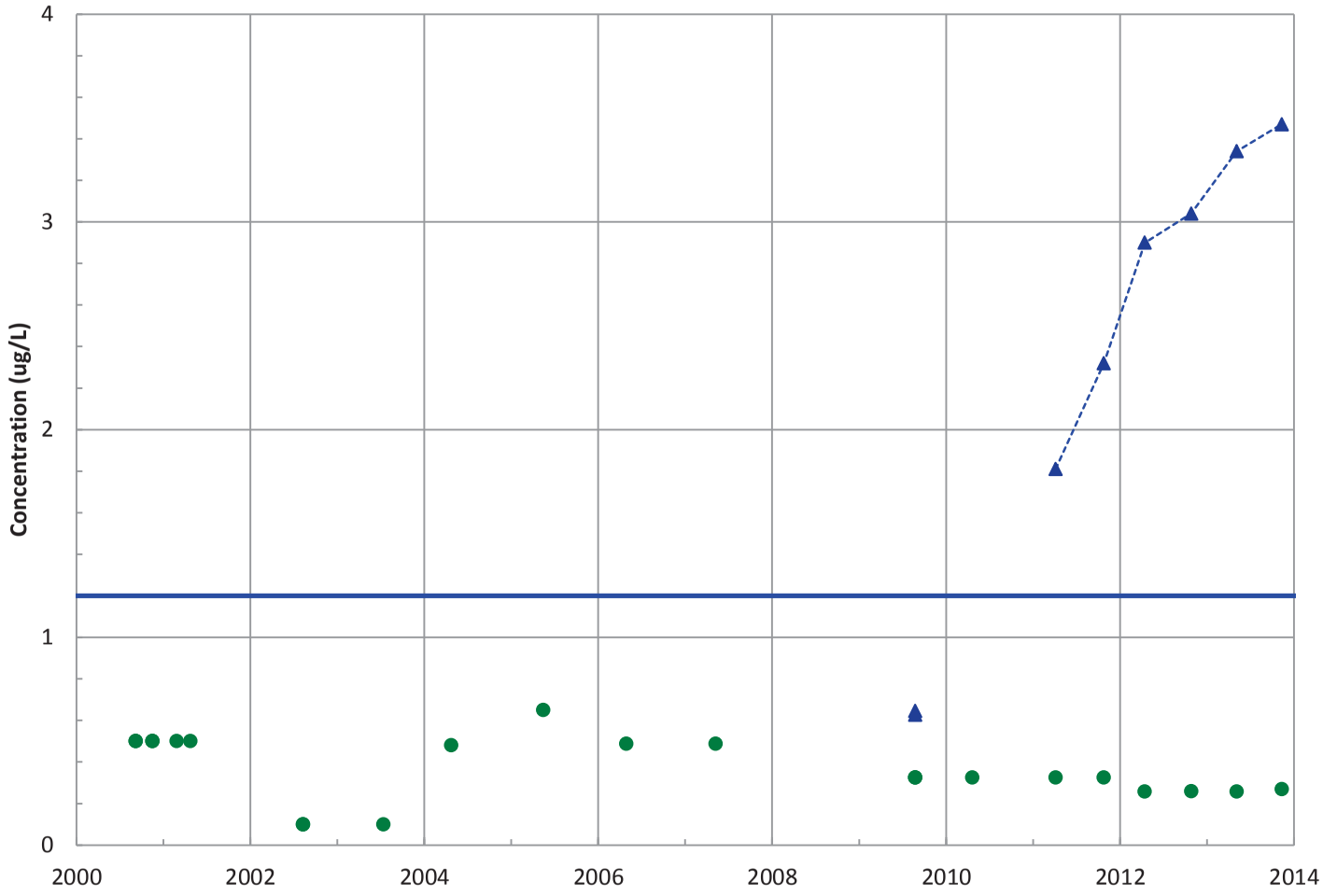
Well Location



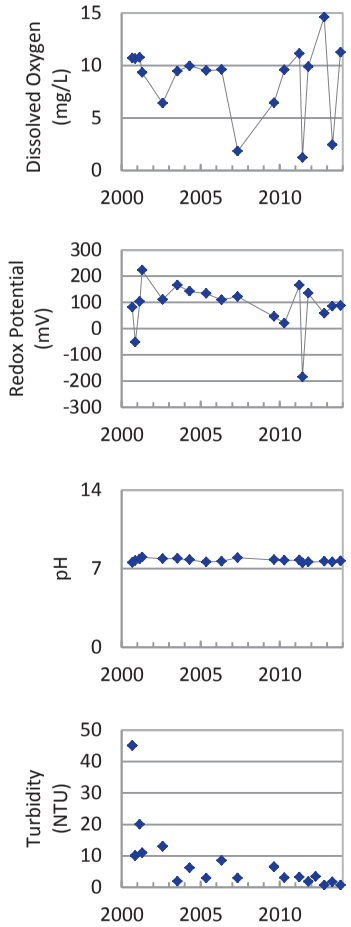
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/7/2000 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1049
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



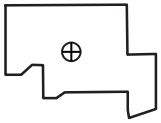
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Increasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Increasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

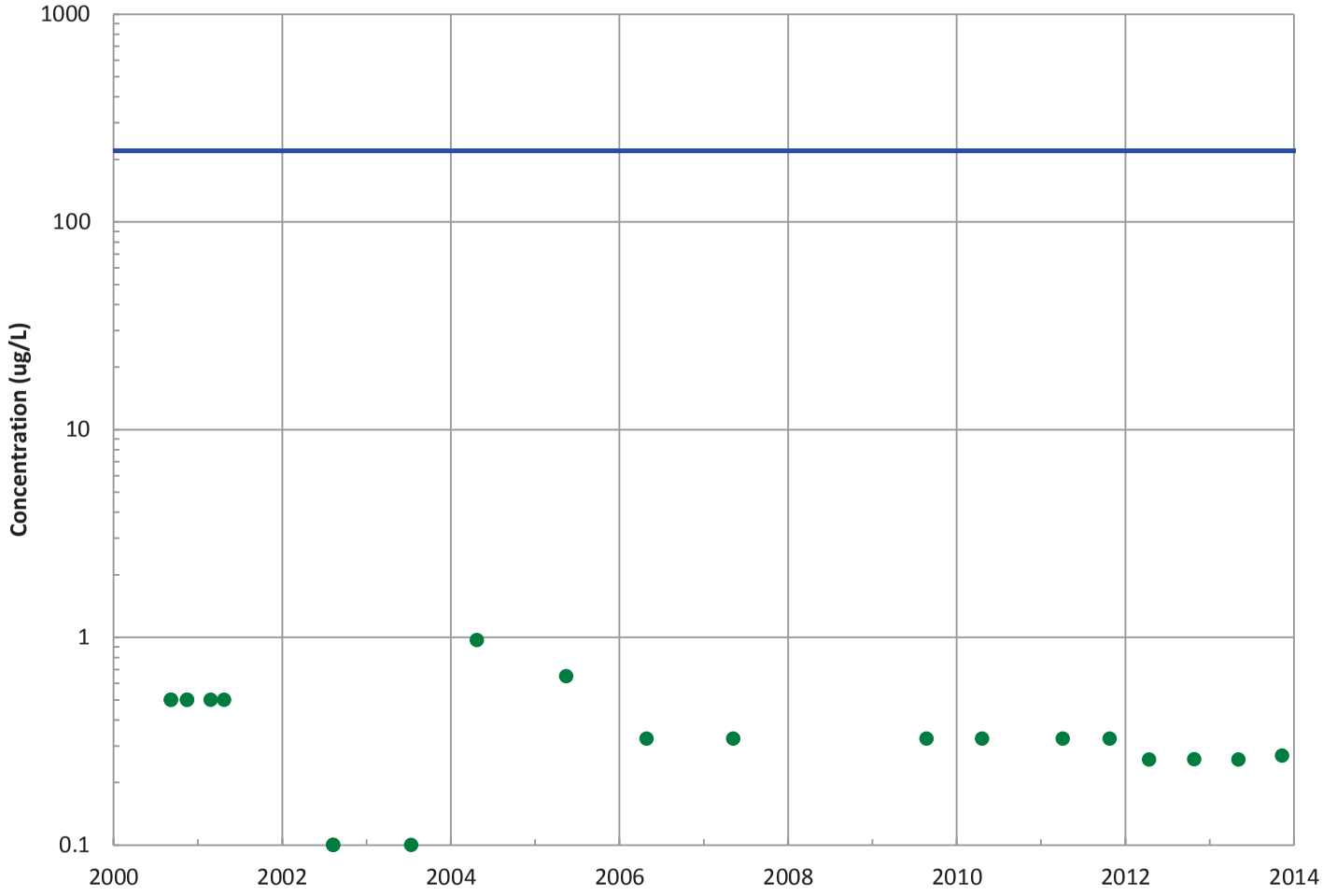
Well Location



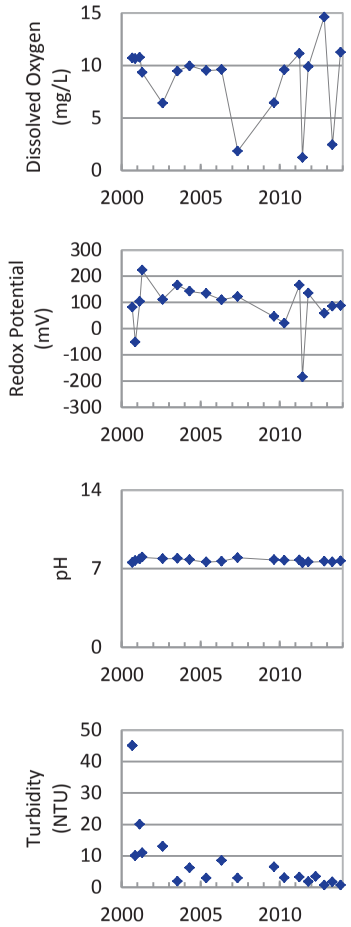
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/7/2000 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1049
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



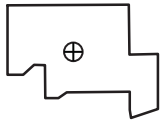
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

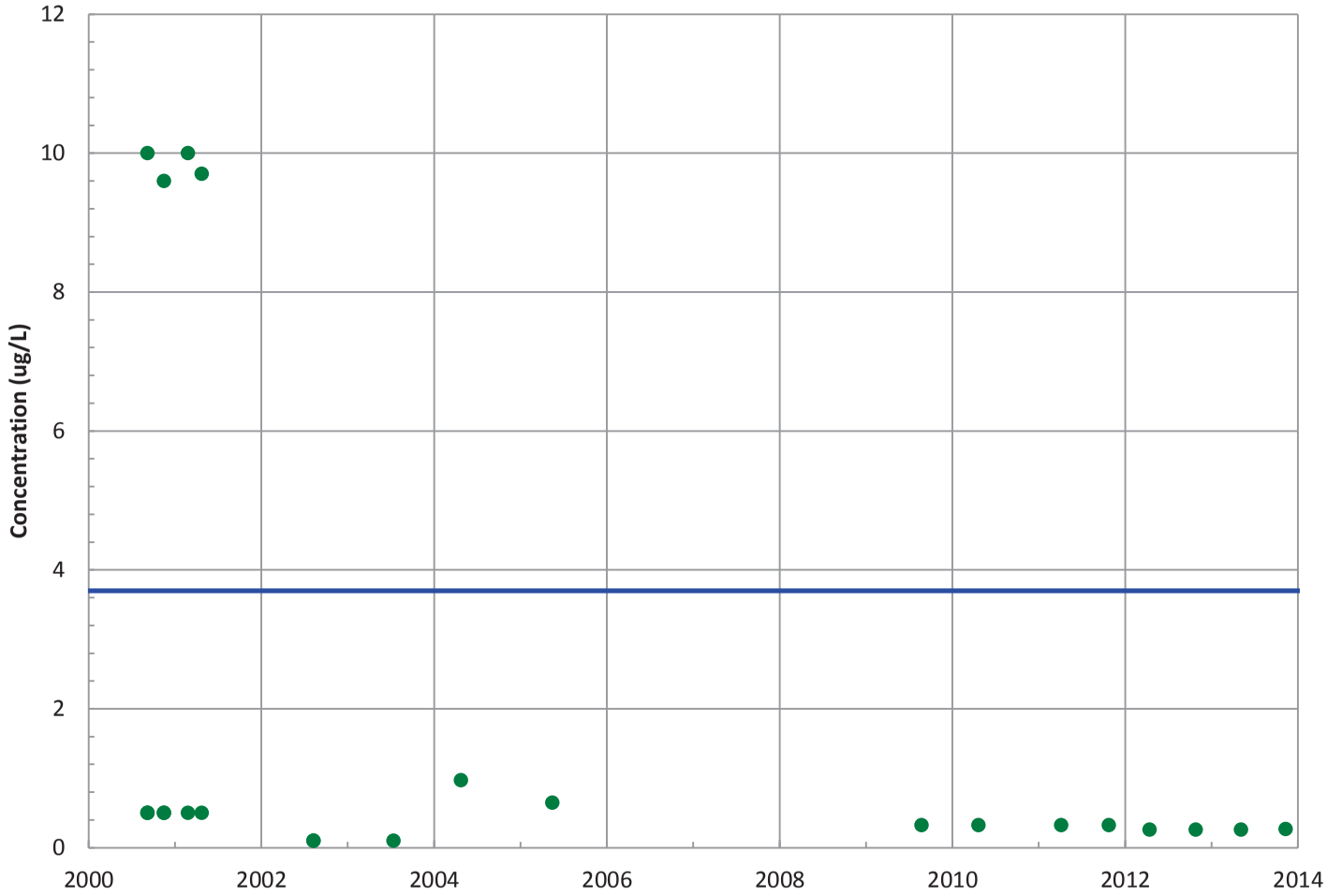
Well Location



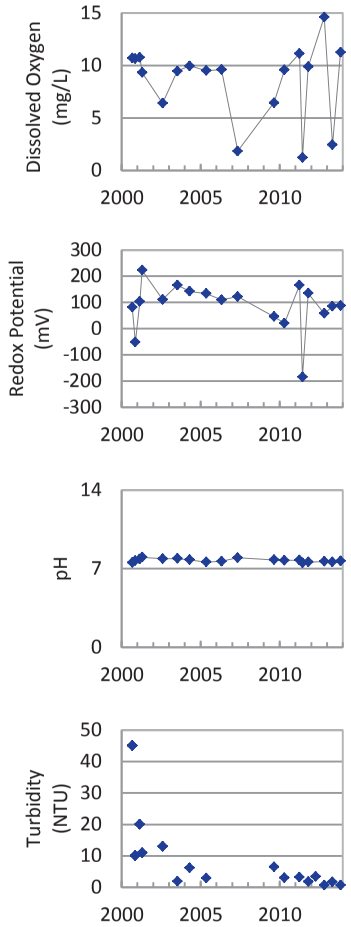
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/7/2000 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1049
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



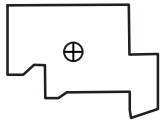
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

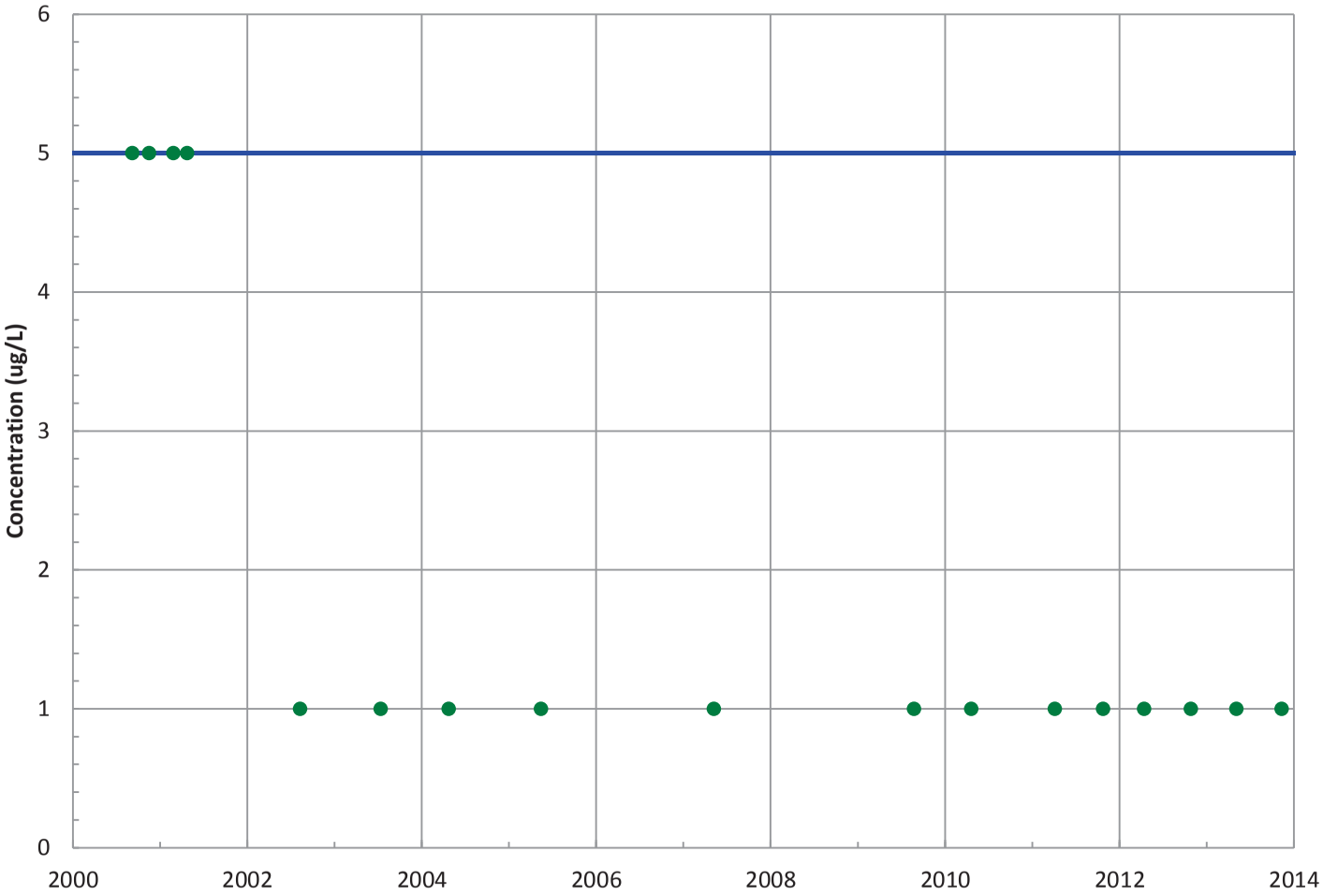
Well Location



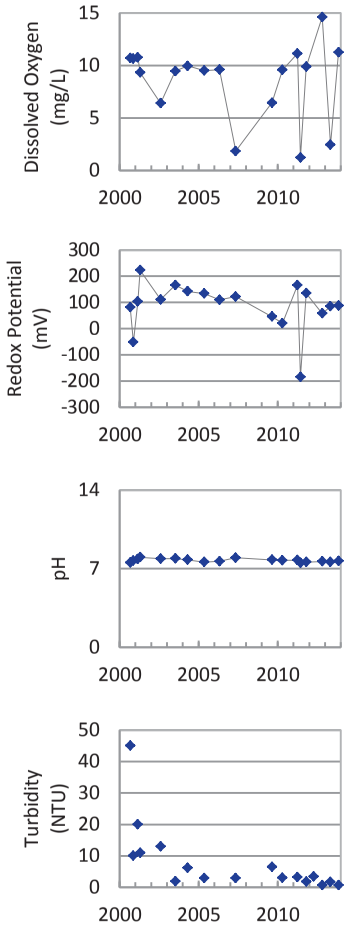
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/7/2000 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1049
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



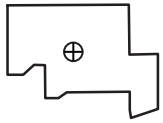
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

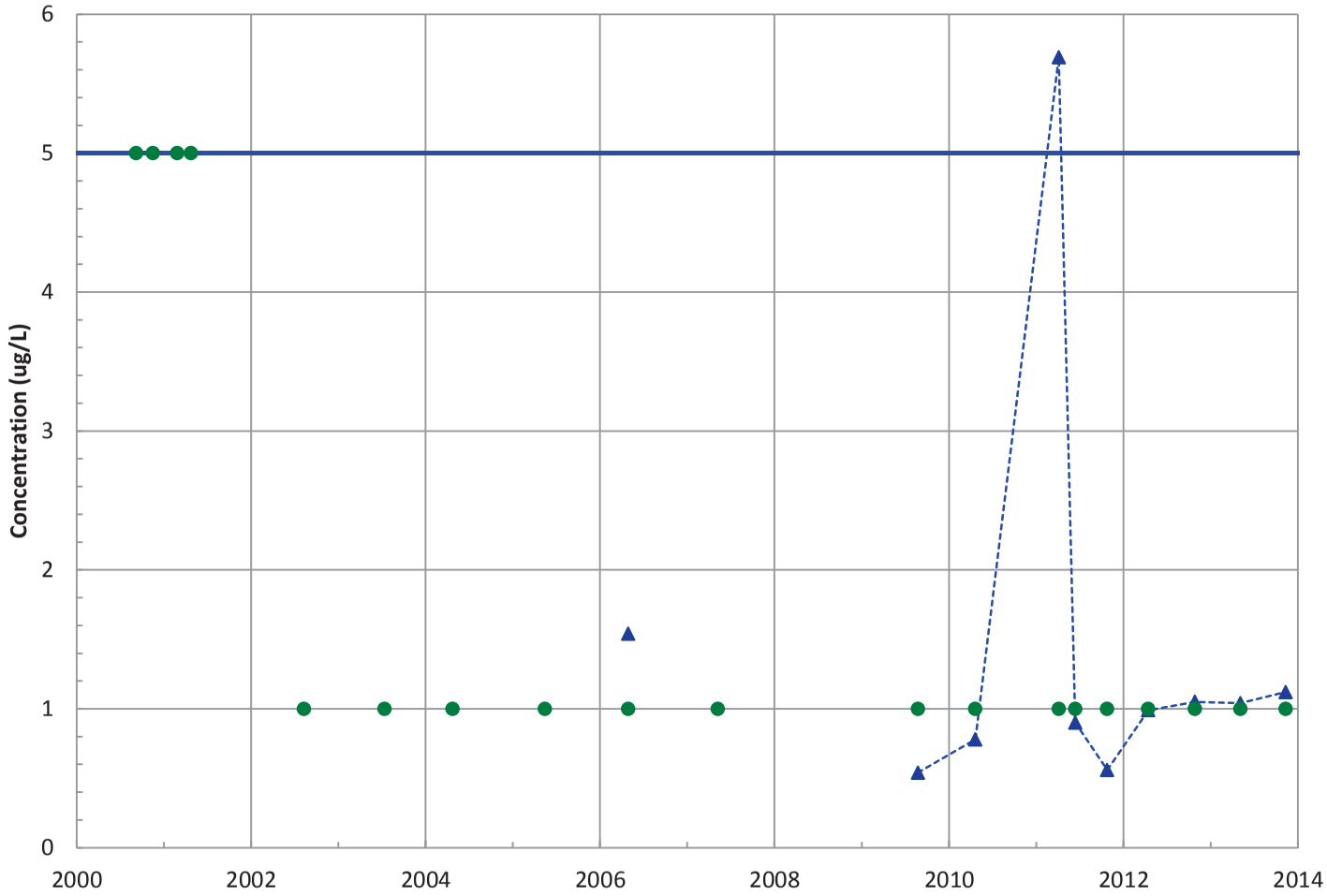
Well Location



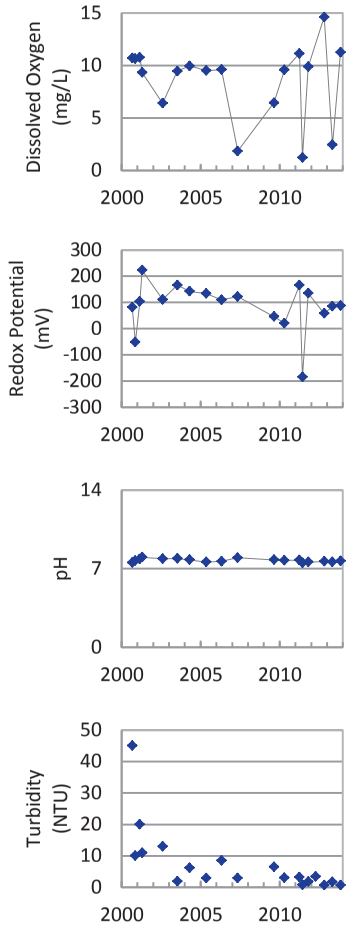
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/7/2000 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1049
Trichloroethene Trend in Perched Aquifer



Field Parameters



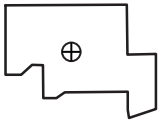
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Probably Increasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

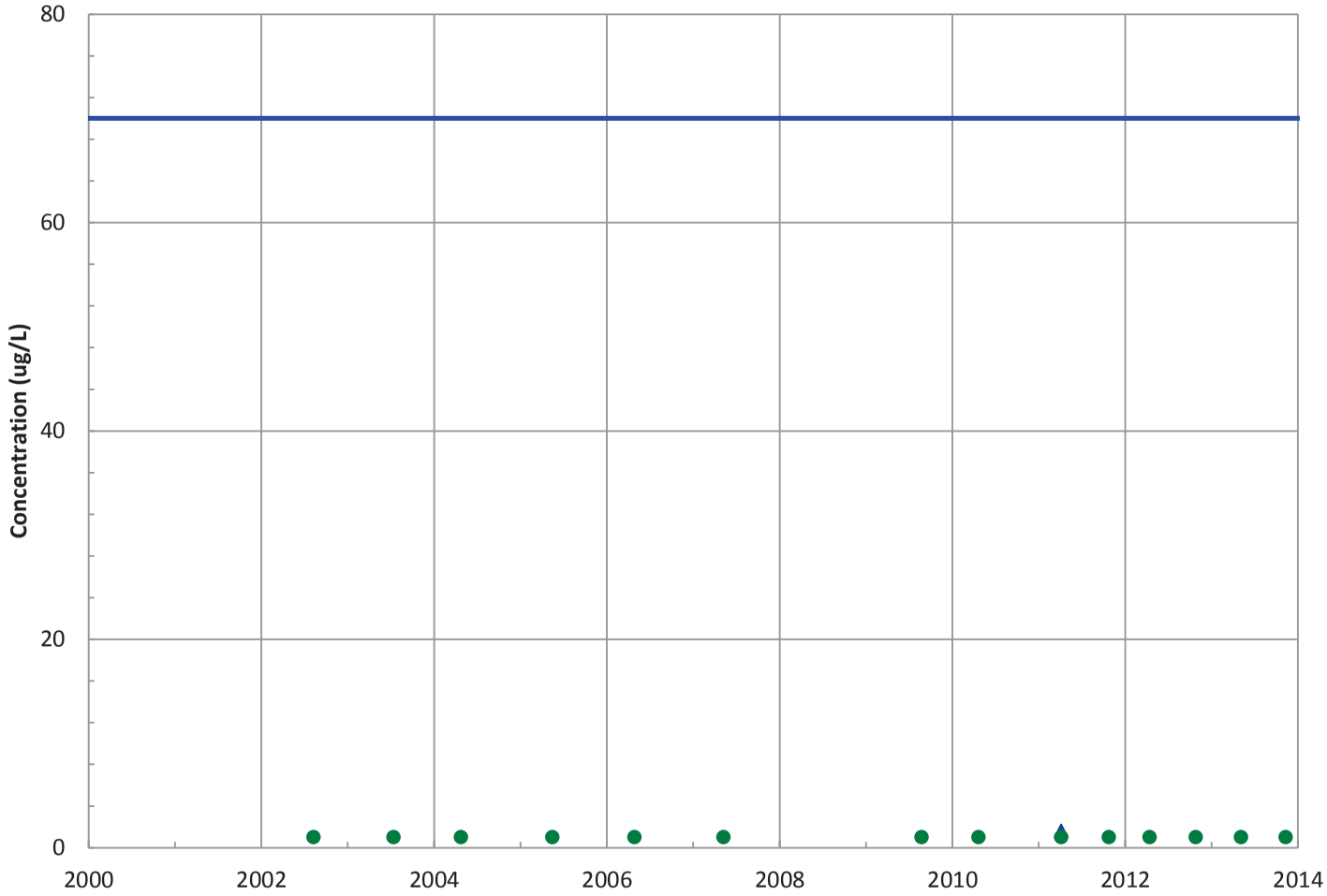
Well Location



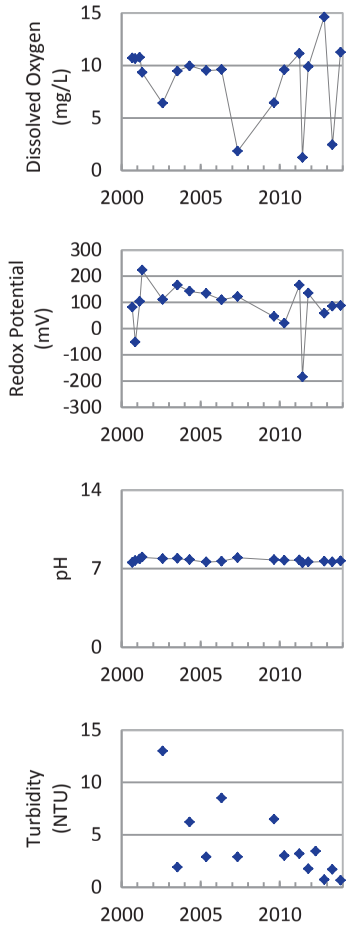
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/7/2000 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1049
cis-1,2-Dichloroethene Trend in Perched Aquifer



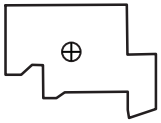
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: All Non-Detect
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

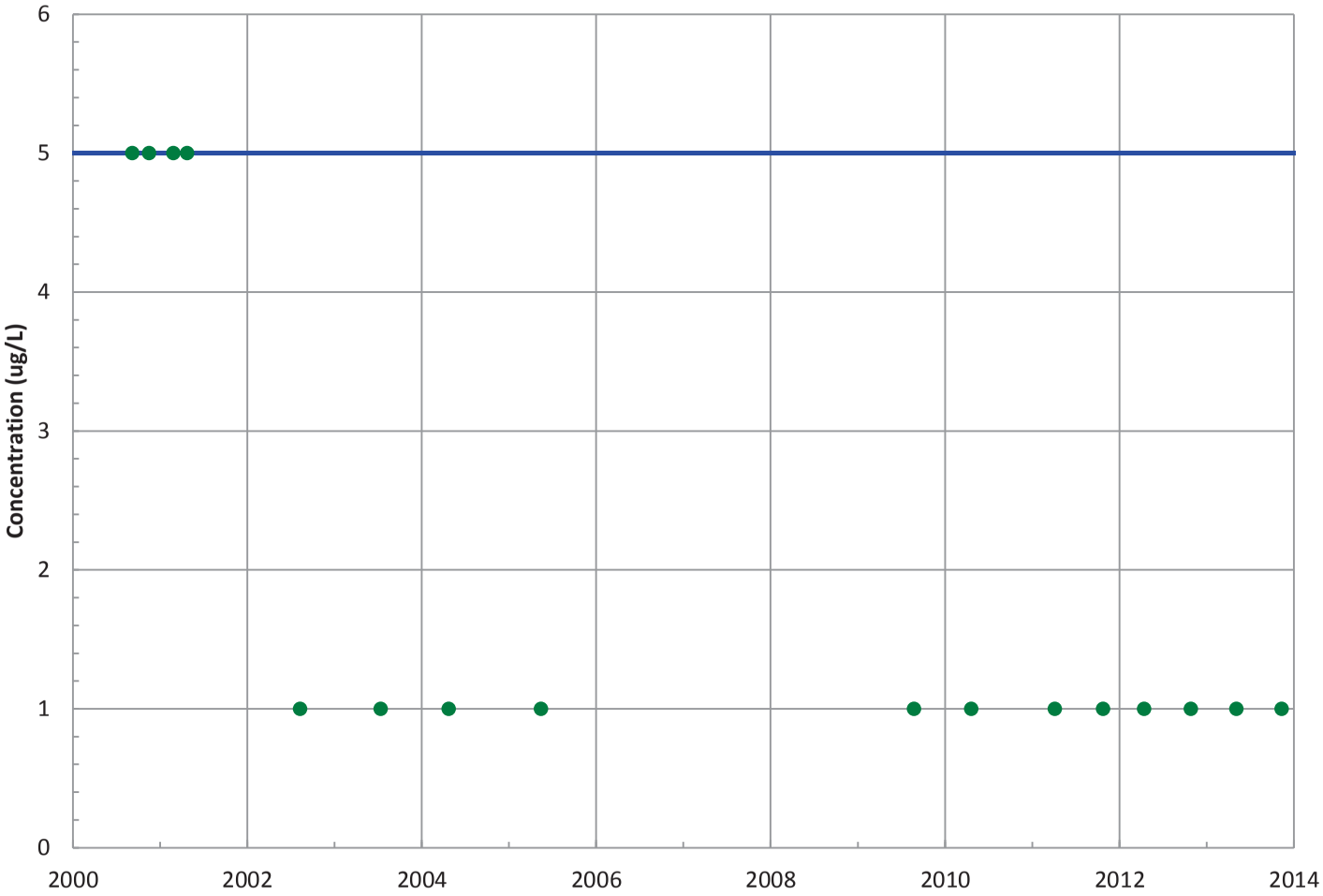
Well Location



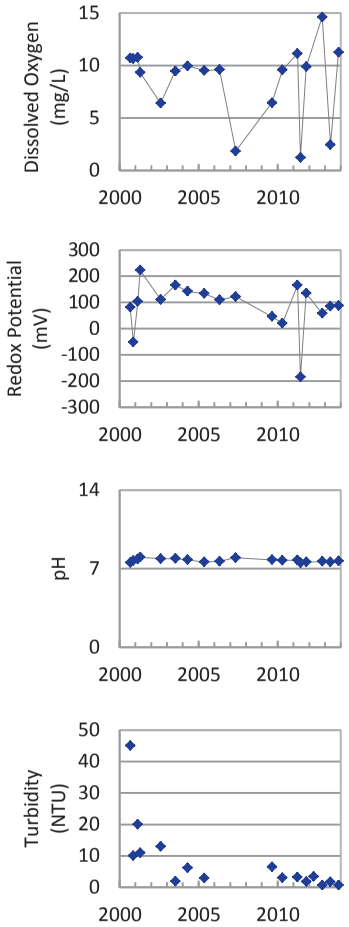
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/12/2002 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1049
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



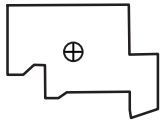
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

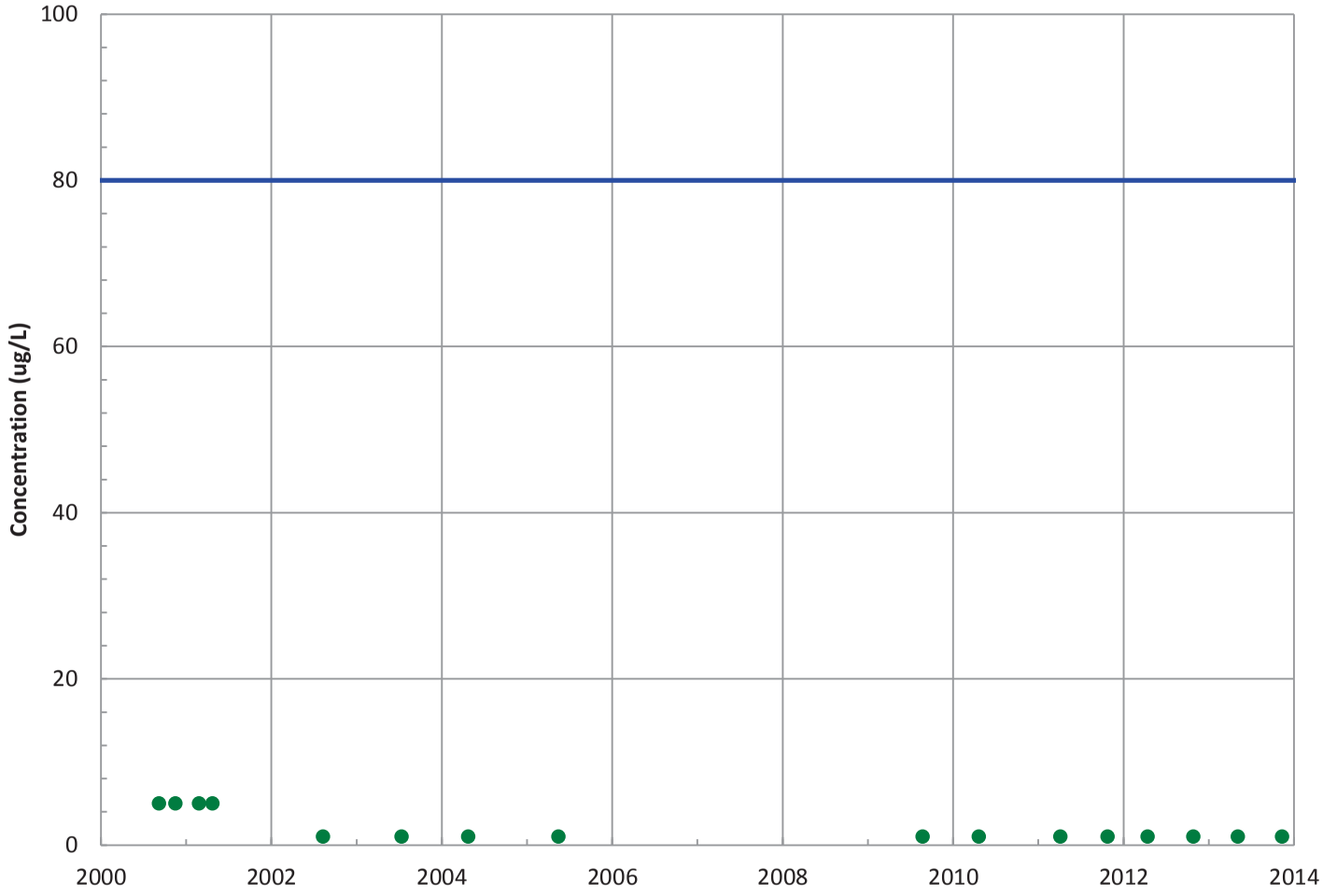
Well Location



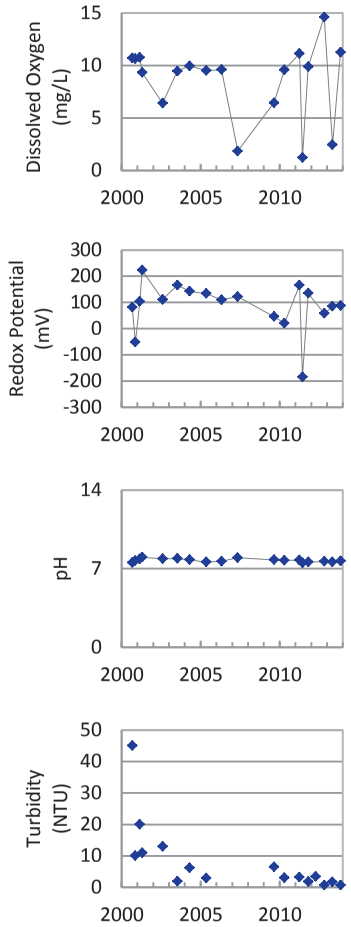
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/7/2000 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1049
Chloroform Trend in Perched Aquifer



Field Parameters



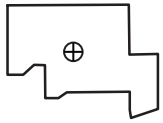
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

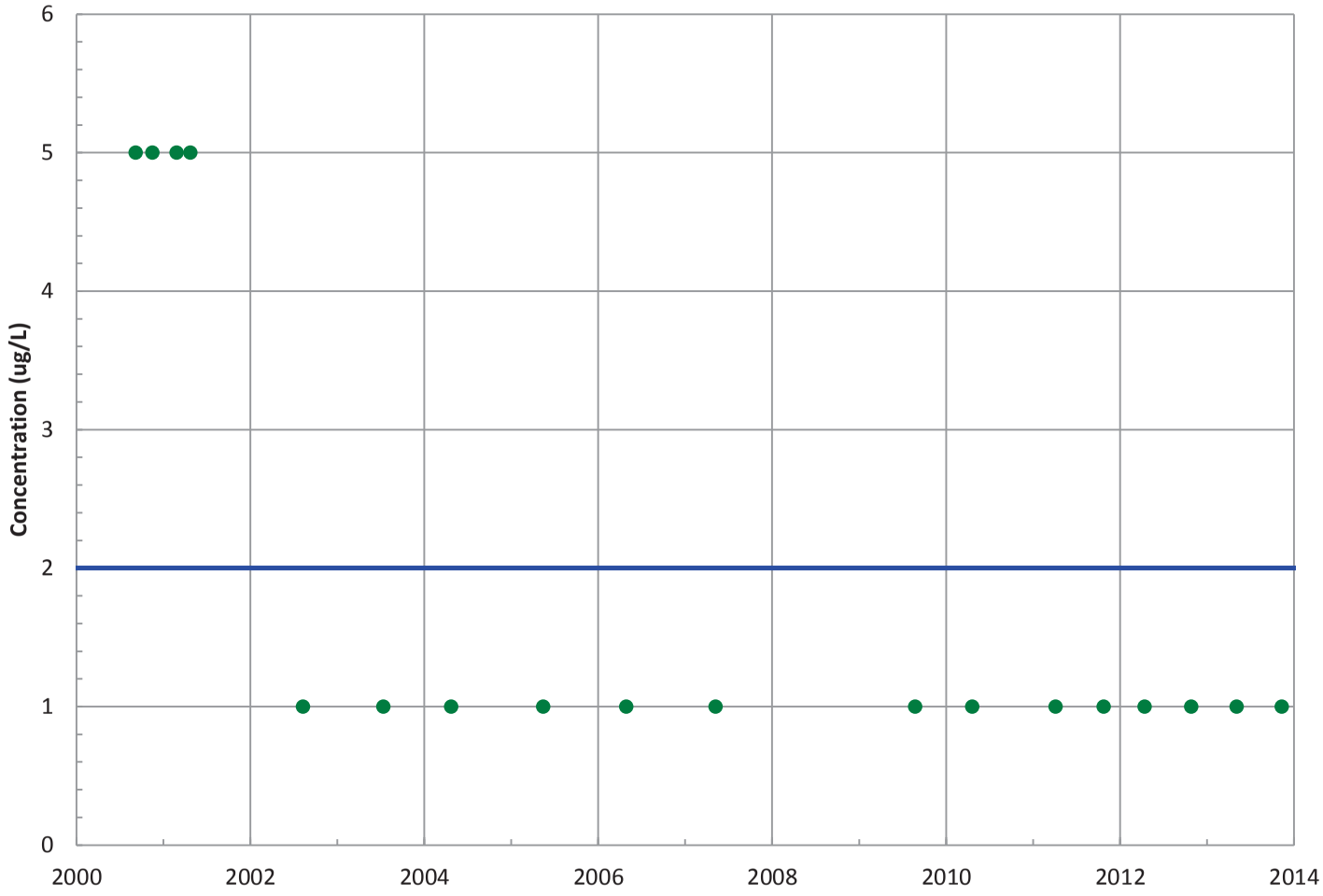
Well Location



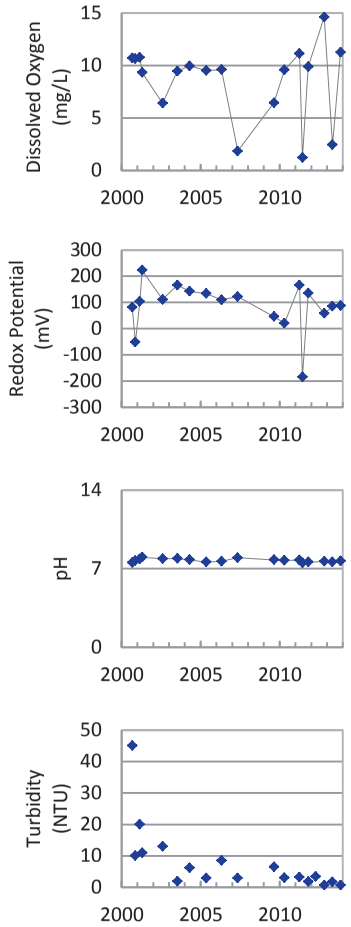
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/7/2000 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1049
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



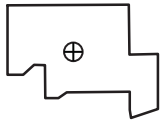
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

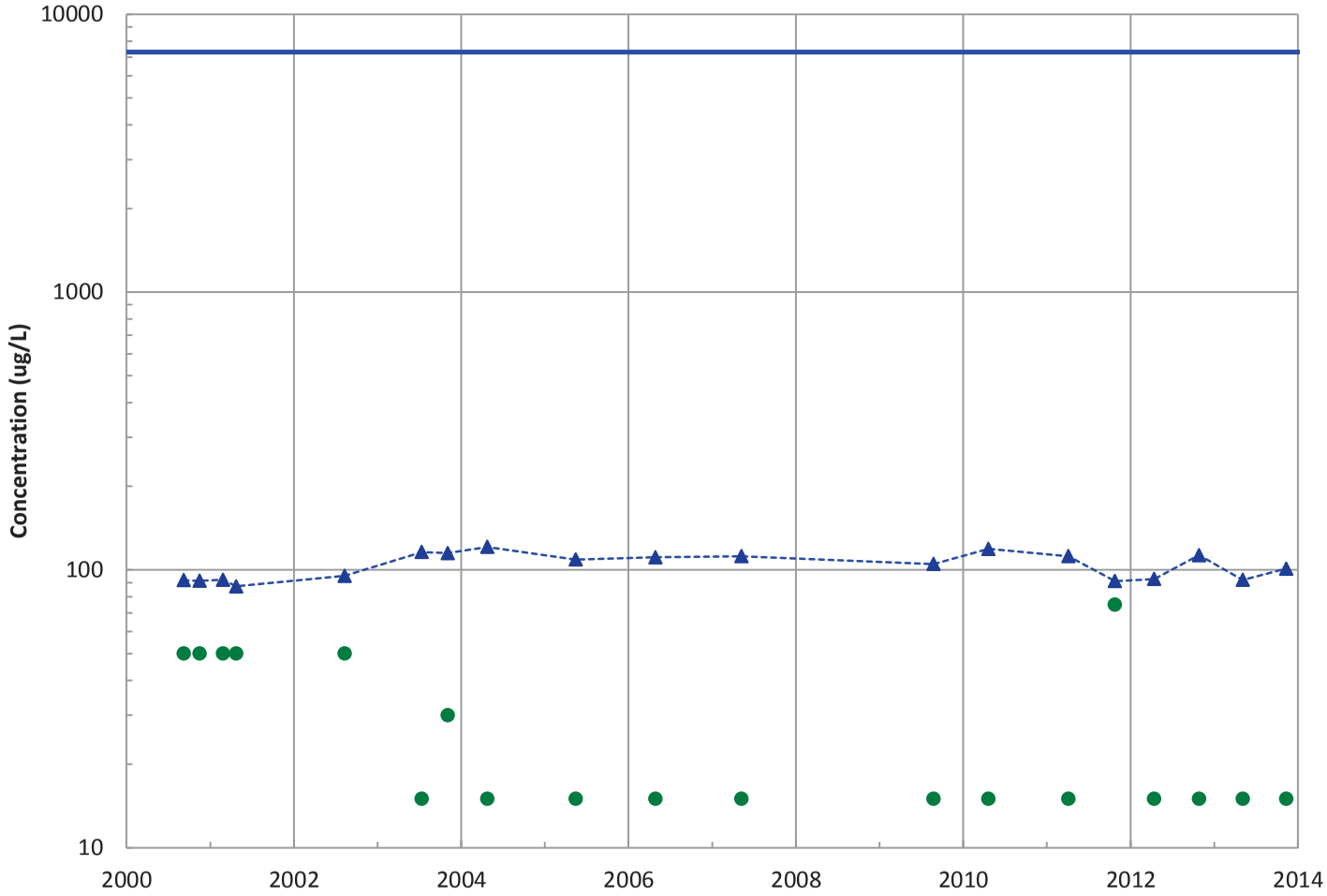
Well Location



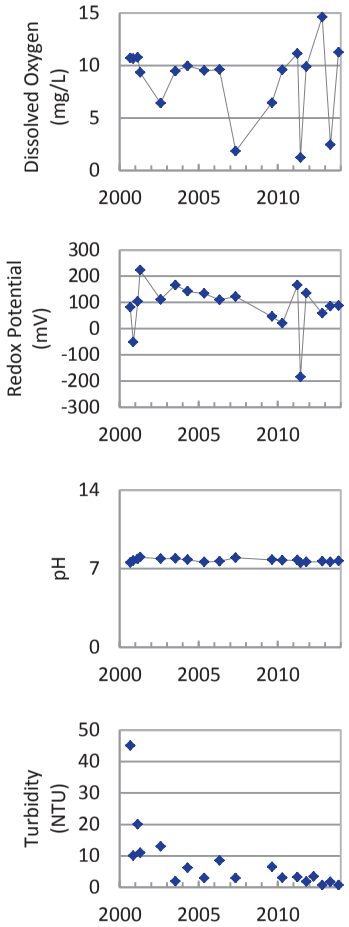
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/7/2000 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1049
Boron Trend in Perched Aquifer



Field Parameters



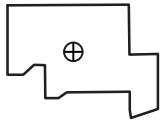
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Decreasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

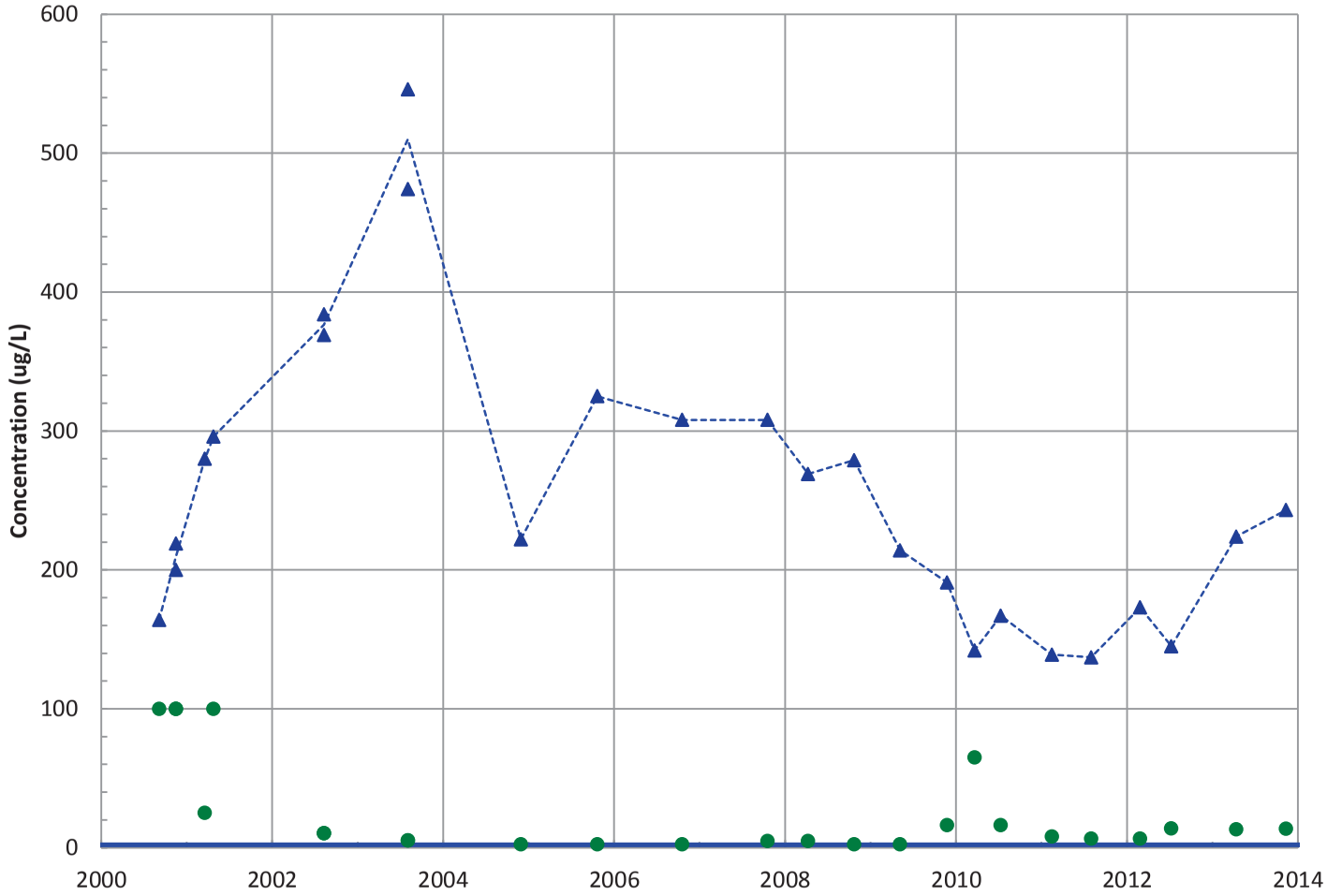
Well Location



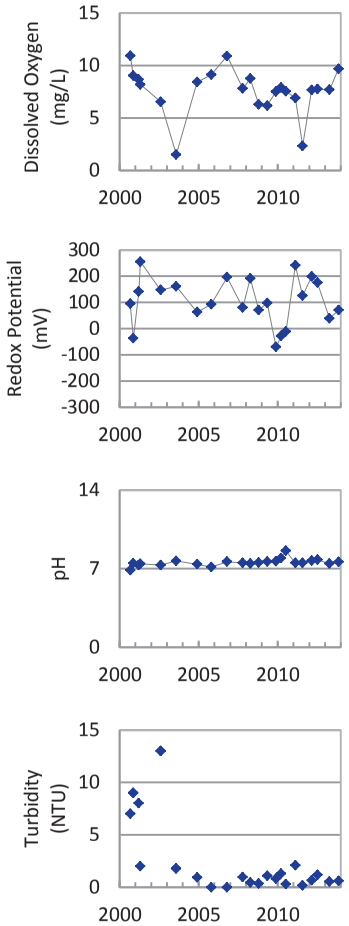
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/7/2000 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1050
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



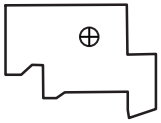
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Probably Increasing
2011 - 2013 Data: Probably Increasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

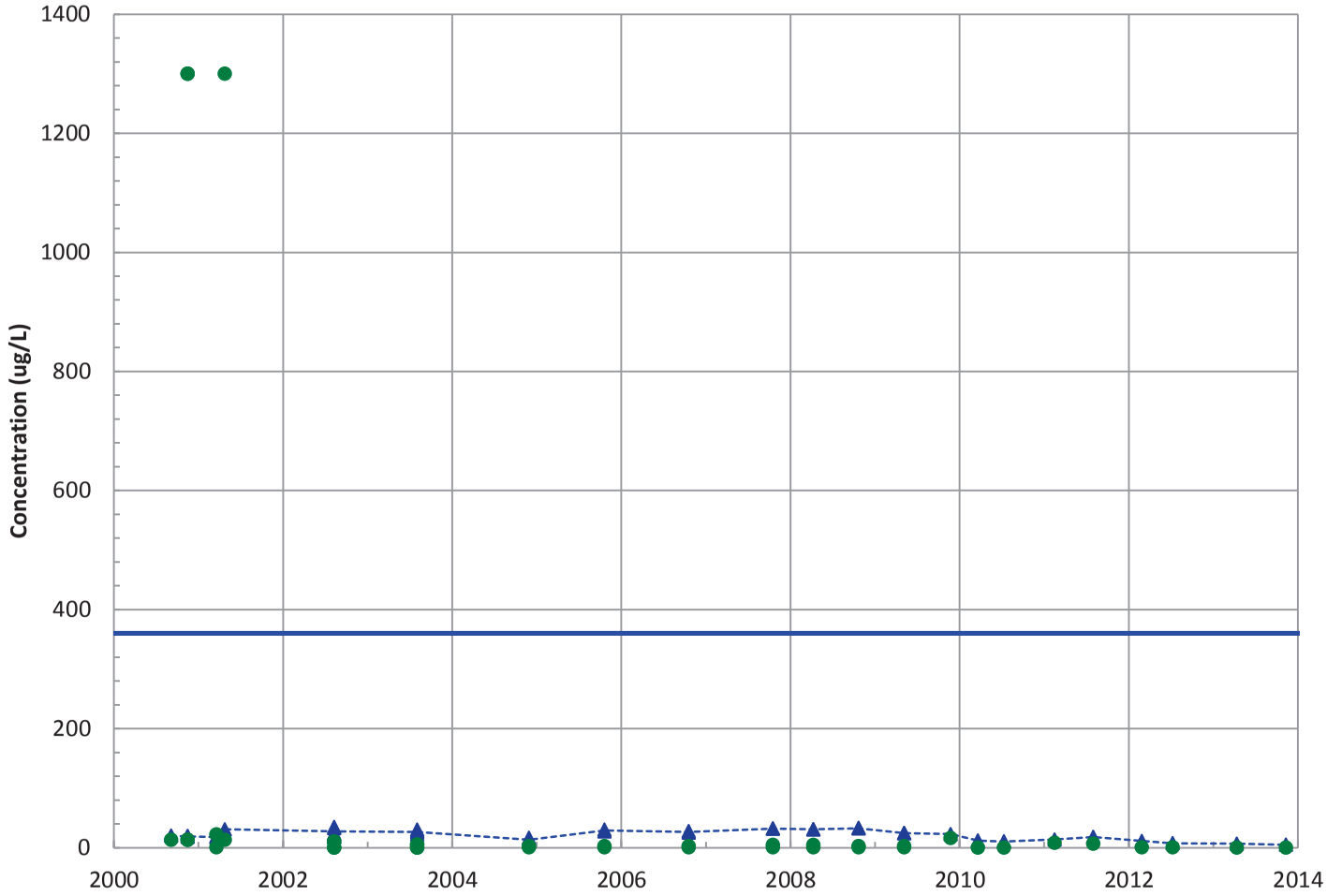
Well Location



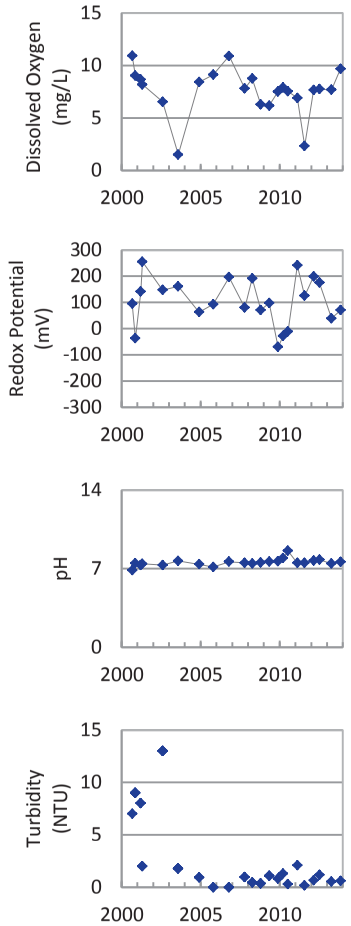
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/5/2000 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1050
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



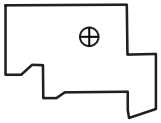
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

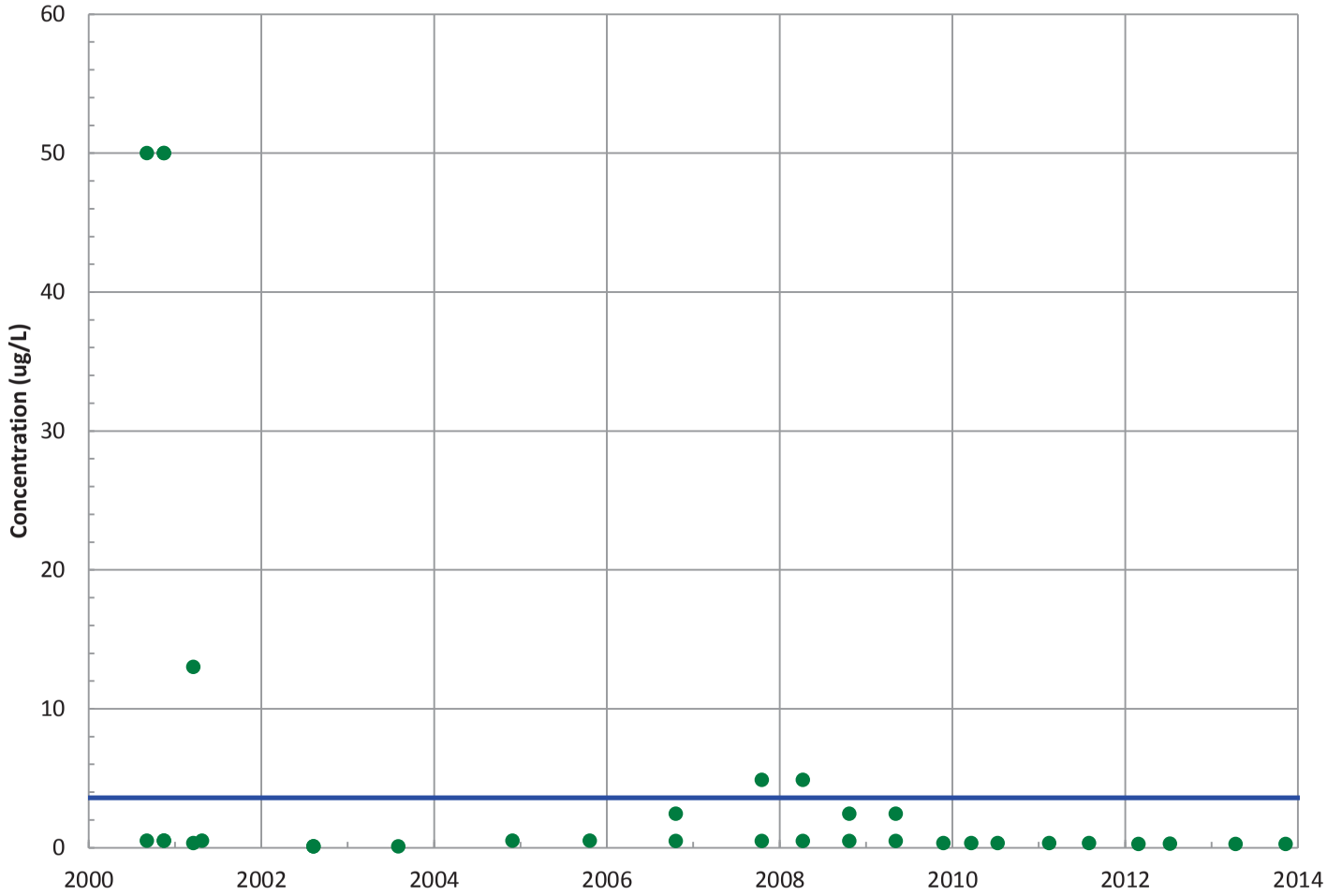
Well Location



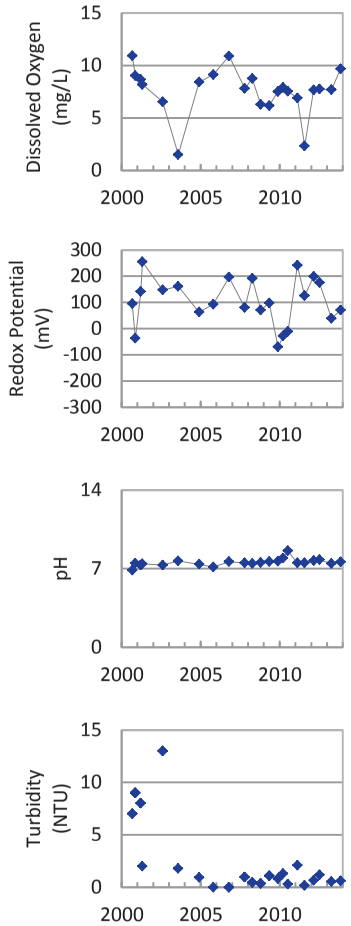
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/5/2000 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1050
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



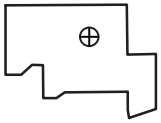
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

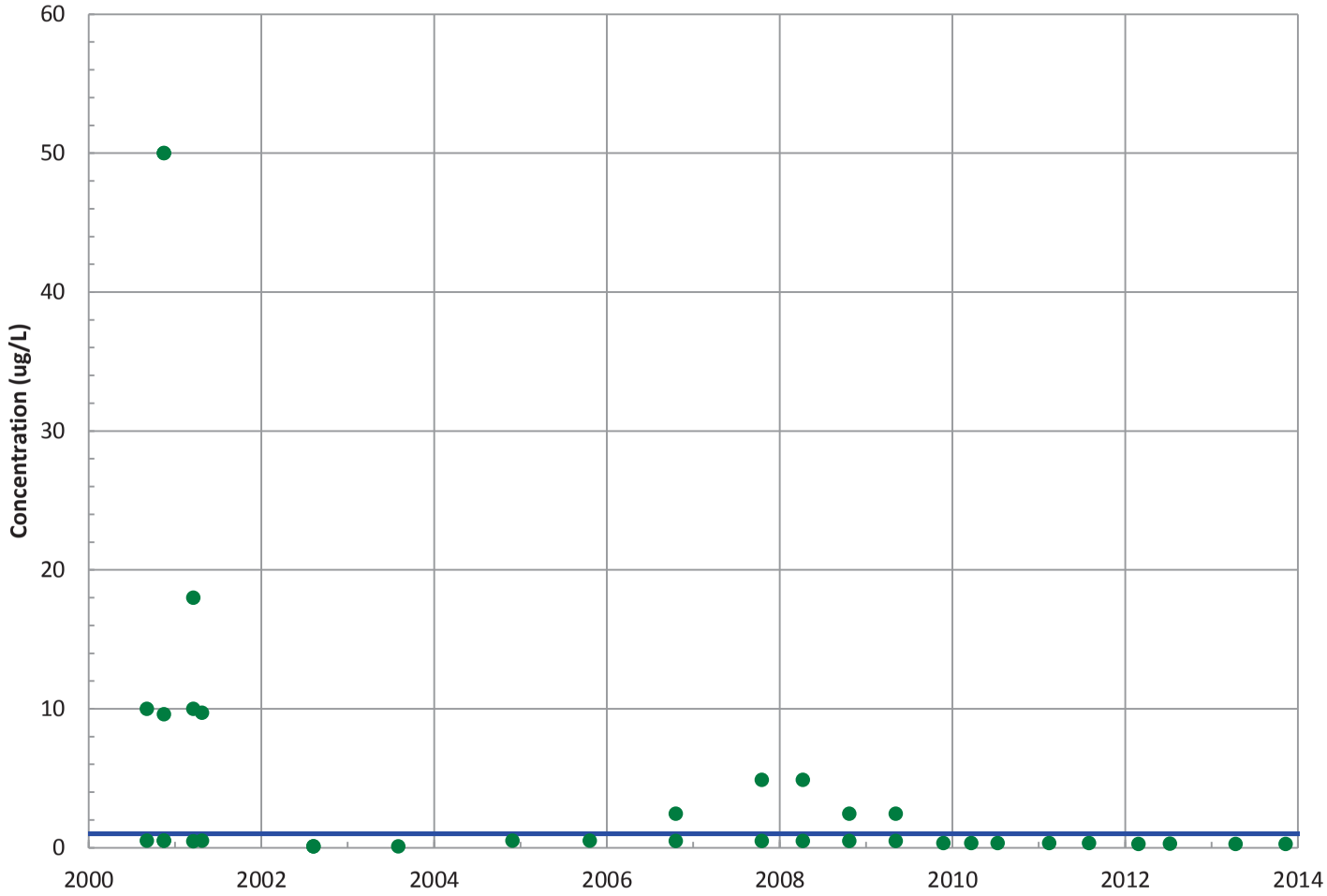
Well Location



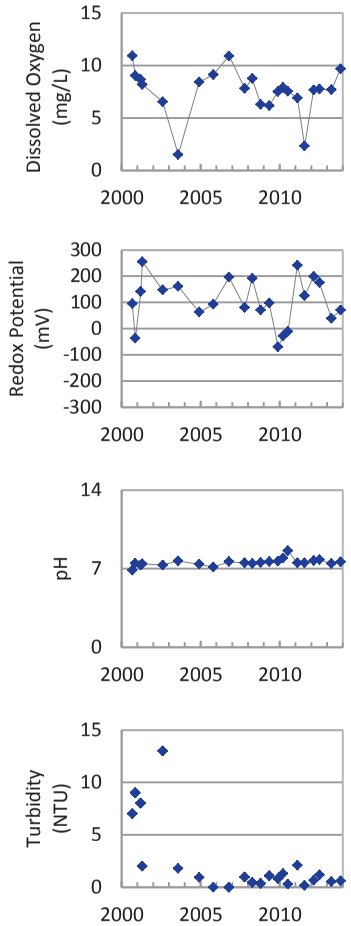
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/5/2000 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1050
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



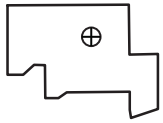
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

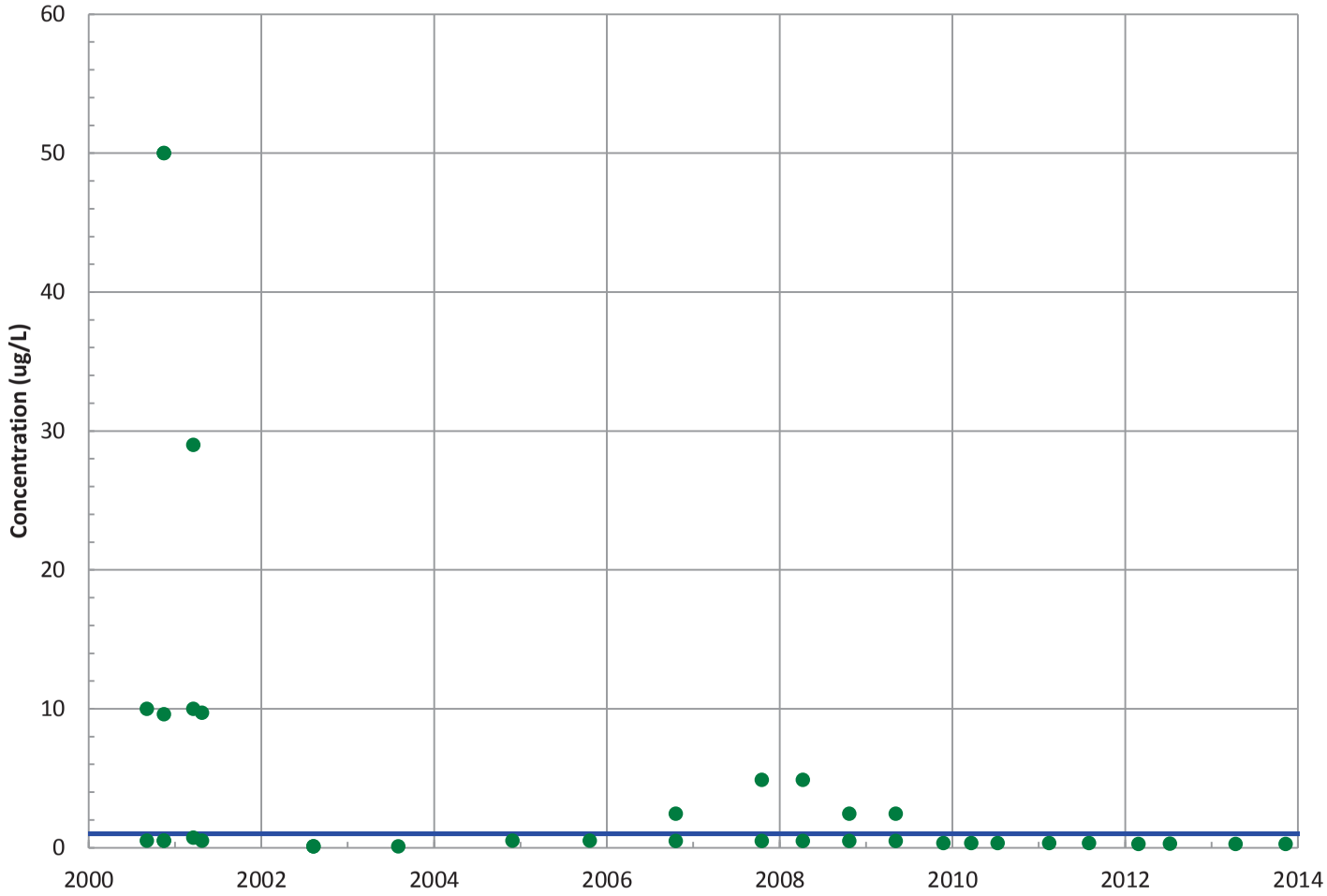
Well Location



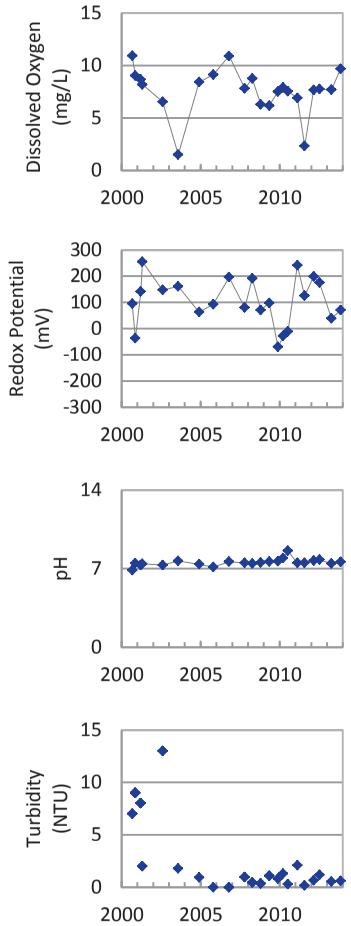
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/5/2000 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1050
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



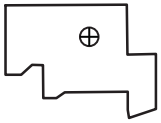
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

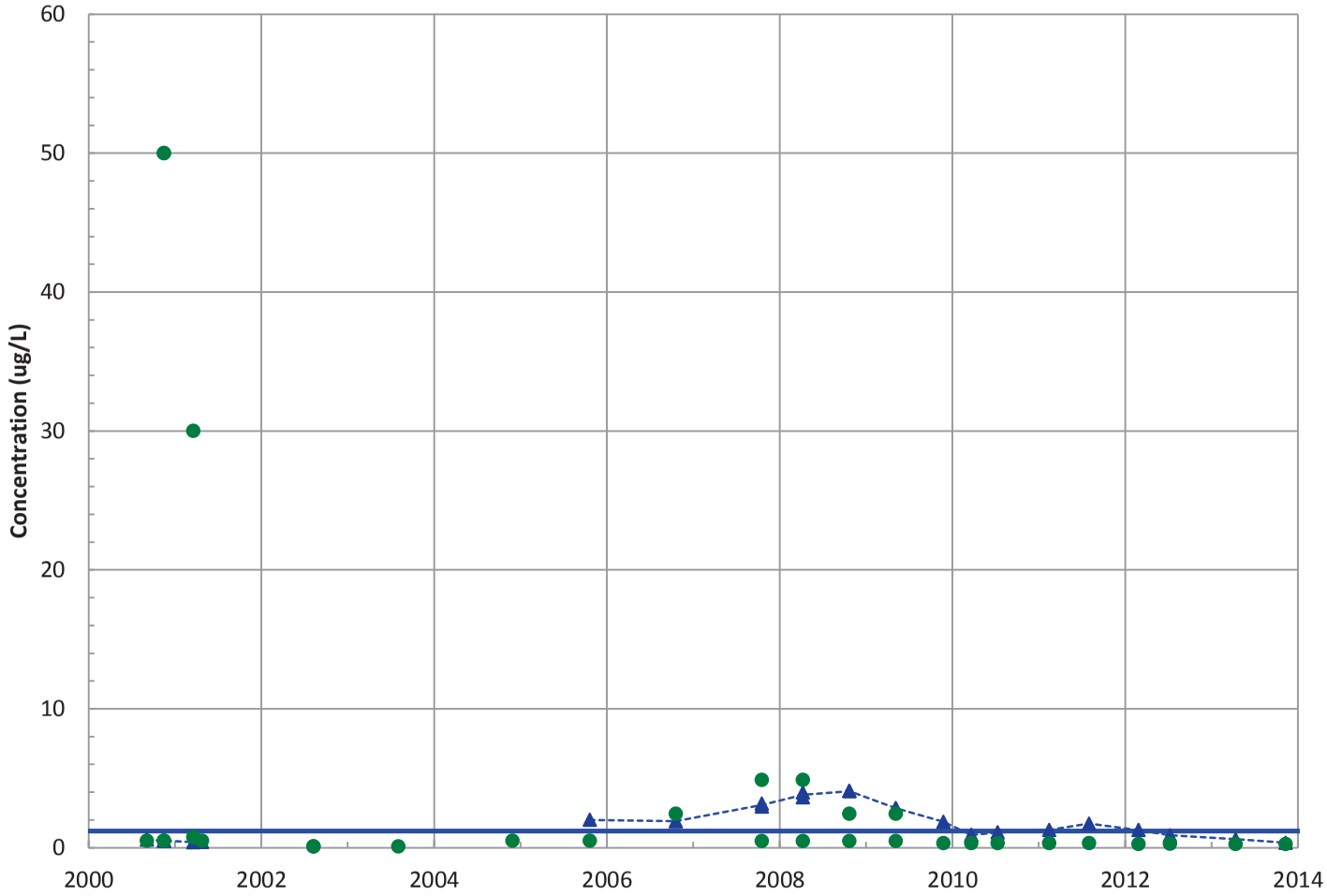
Well Location



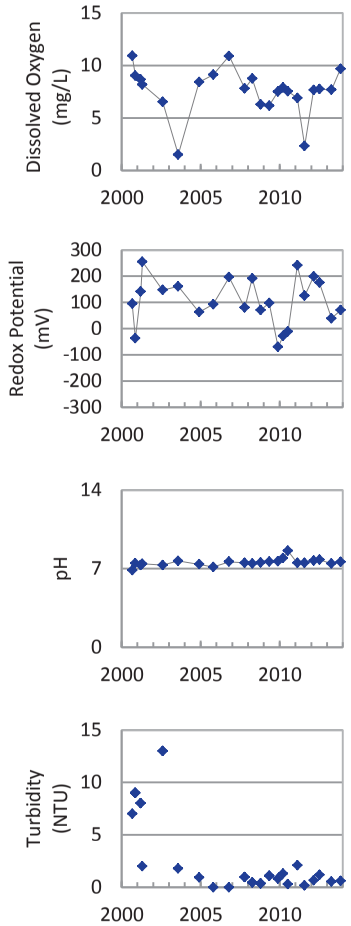
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/5/2000 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1050
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



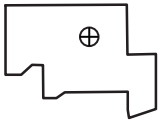
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

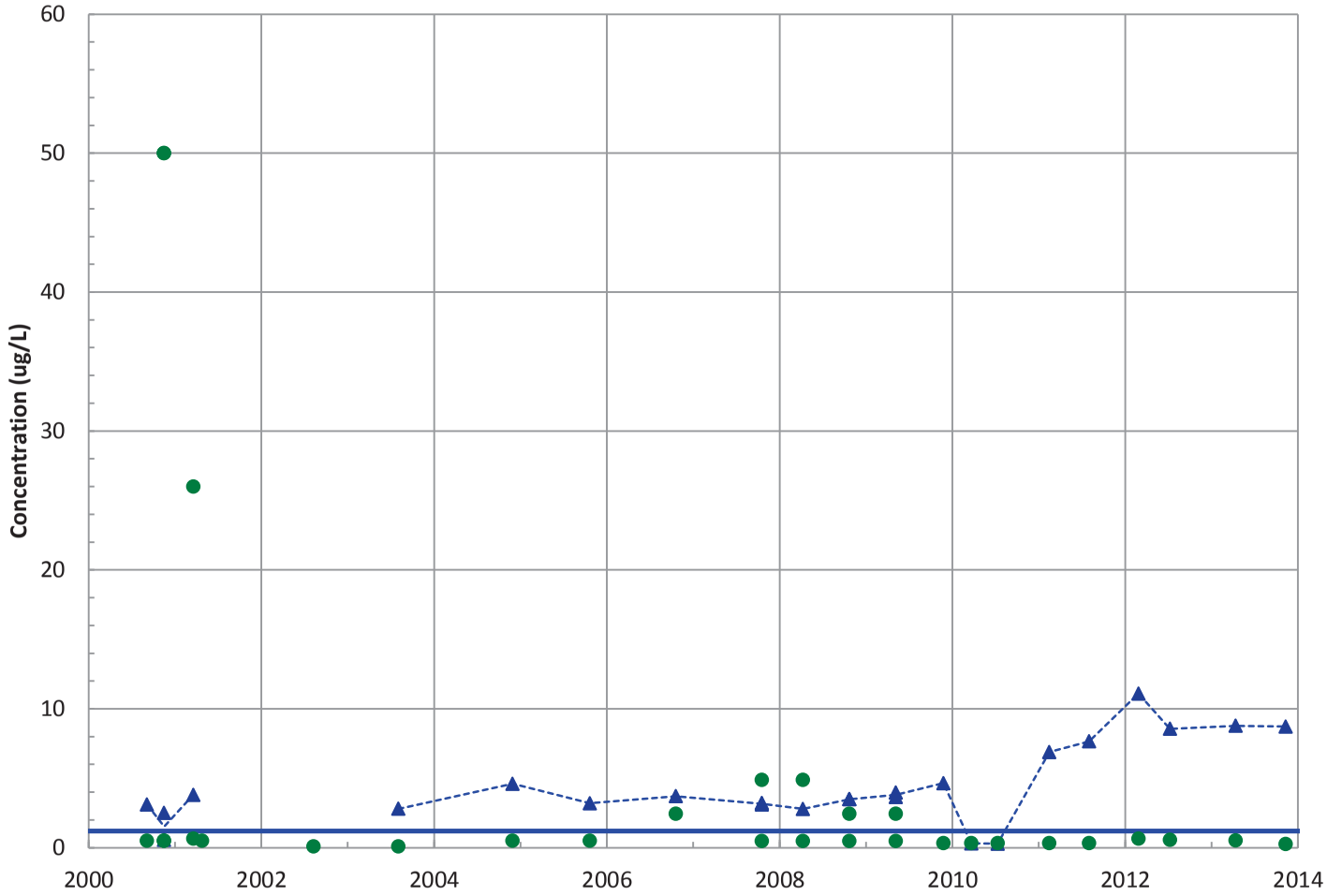
Well Location



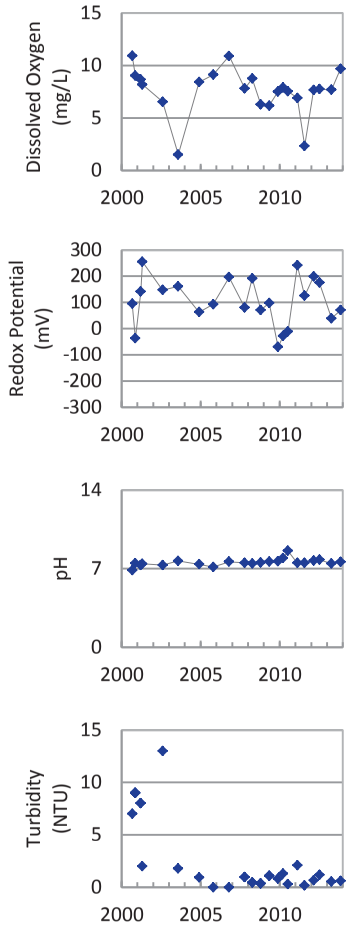
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/5/2000 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1050
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



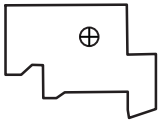
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------ Concentration Trend
- ——— Groundwater Protection Standard

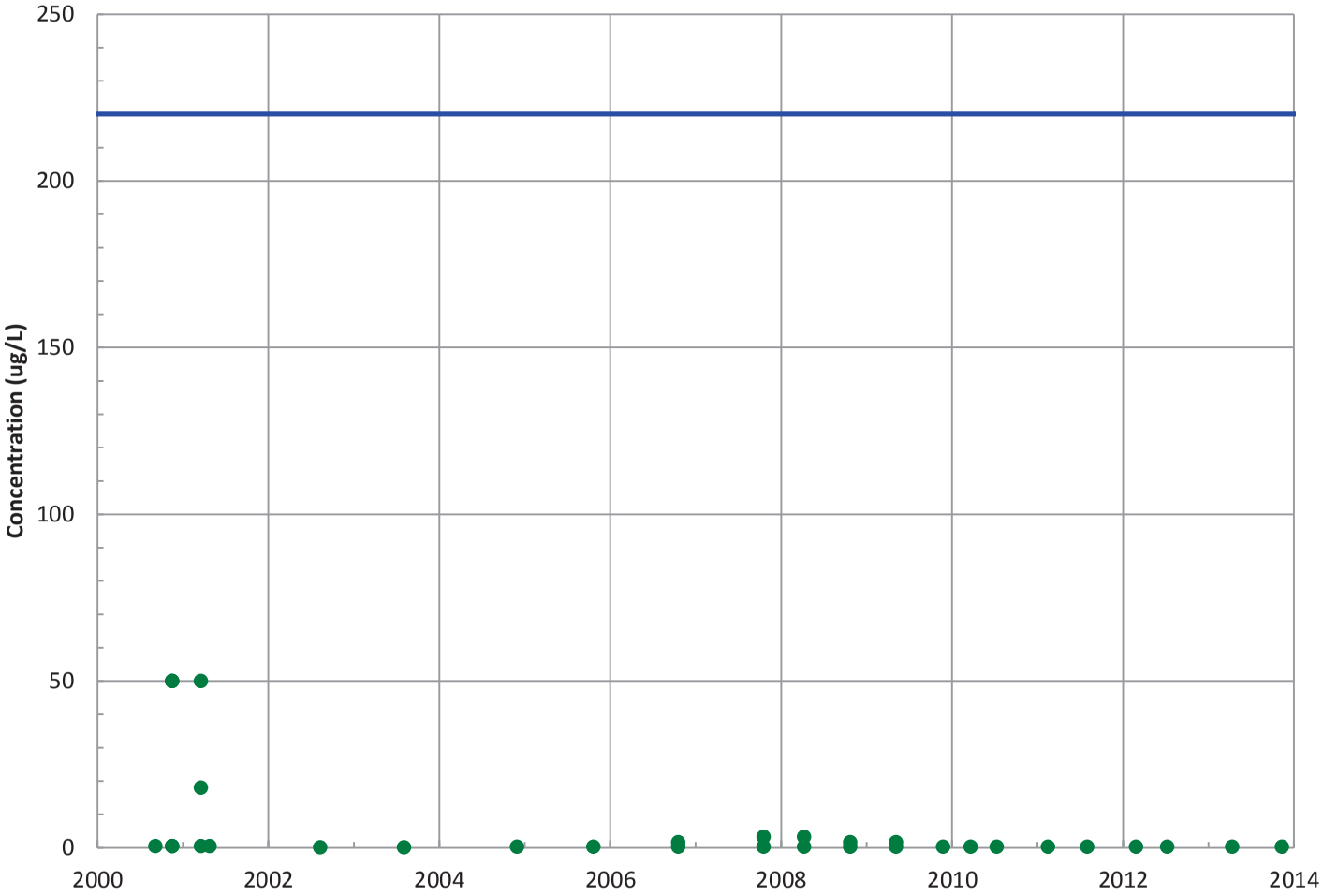
Well Location



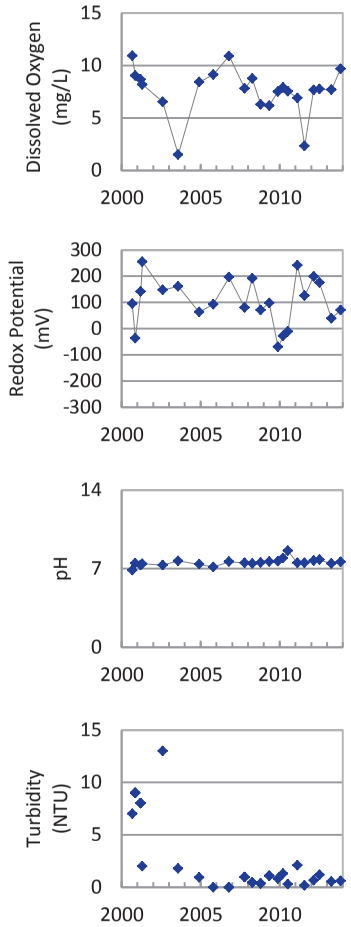
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/5/2000 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1050
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



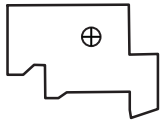
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

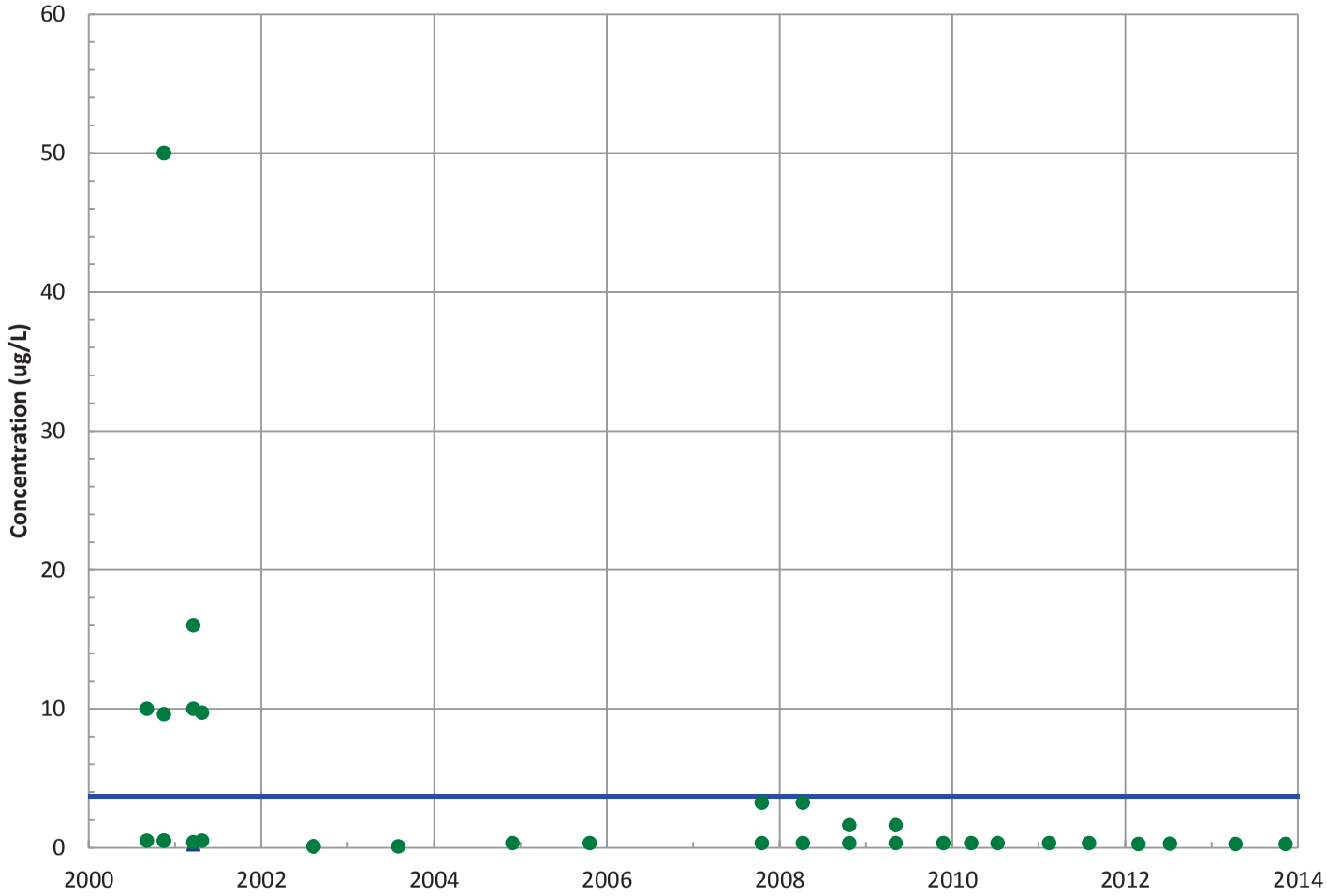
Well Location



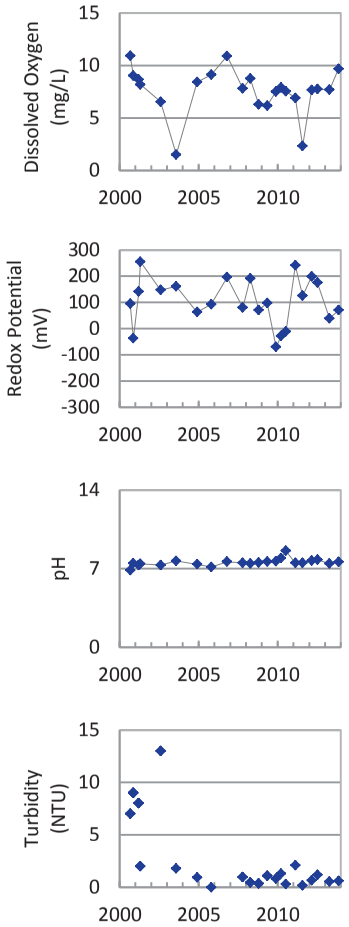
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/5/2000 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1050
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



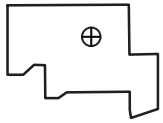
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

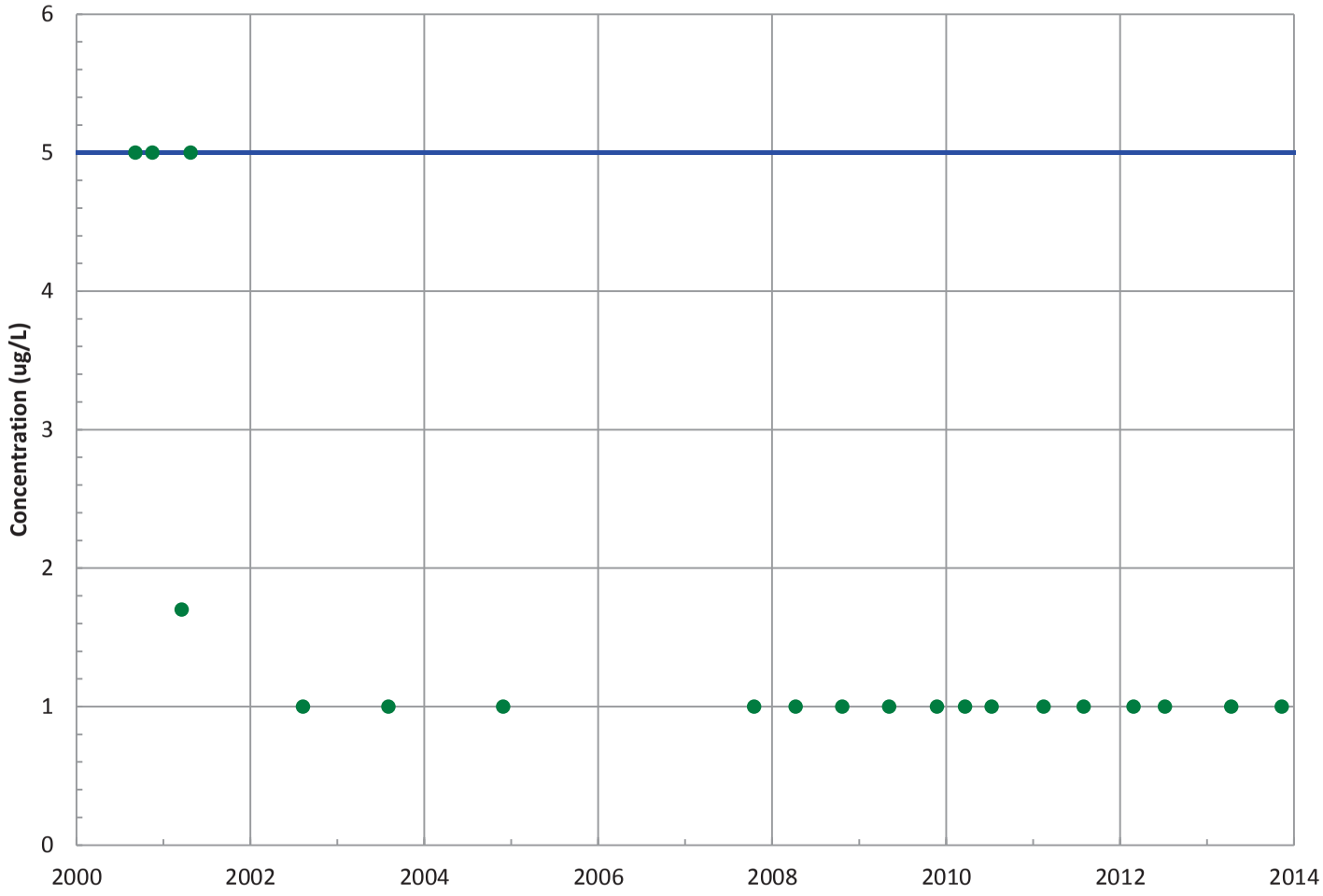
Well Location



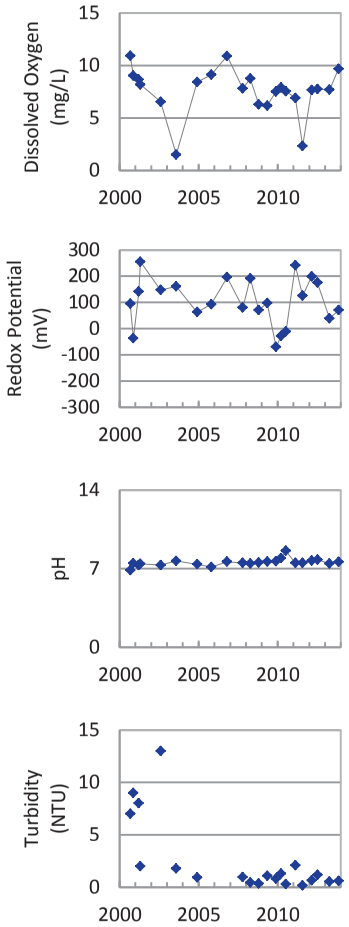
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/5/2000 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1050
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



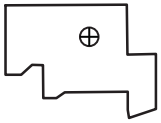
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

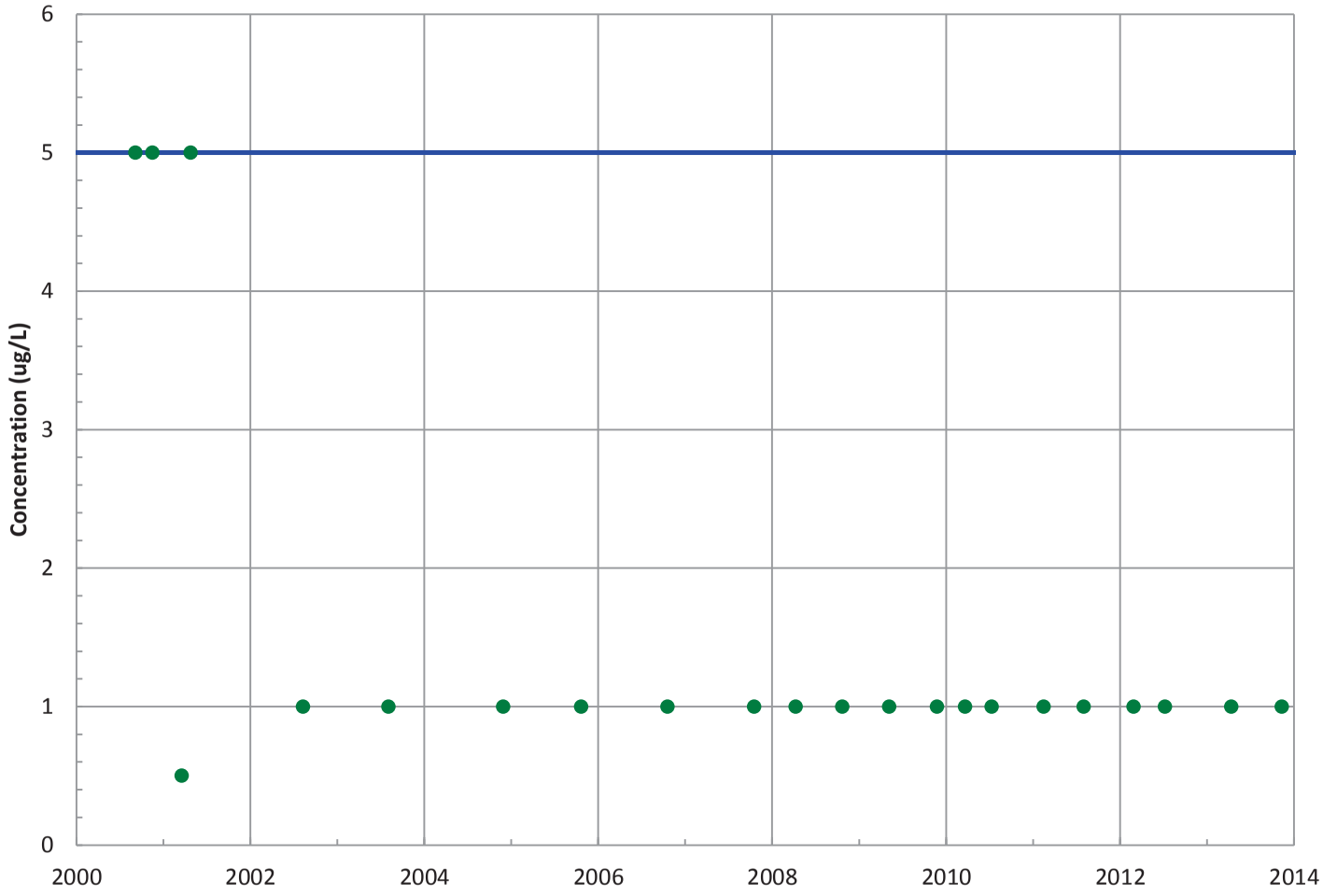
Well Location



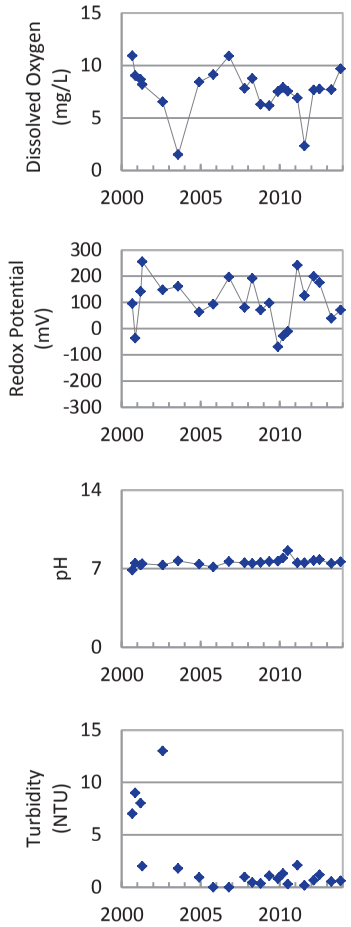
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/5/2000 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1050
Trichloroethene Trend in Perched Aquifer



Field Parameters



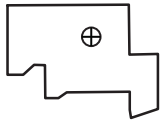
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

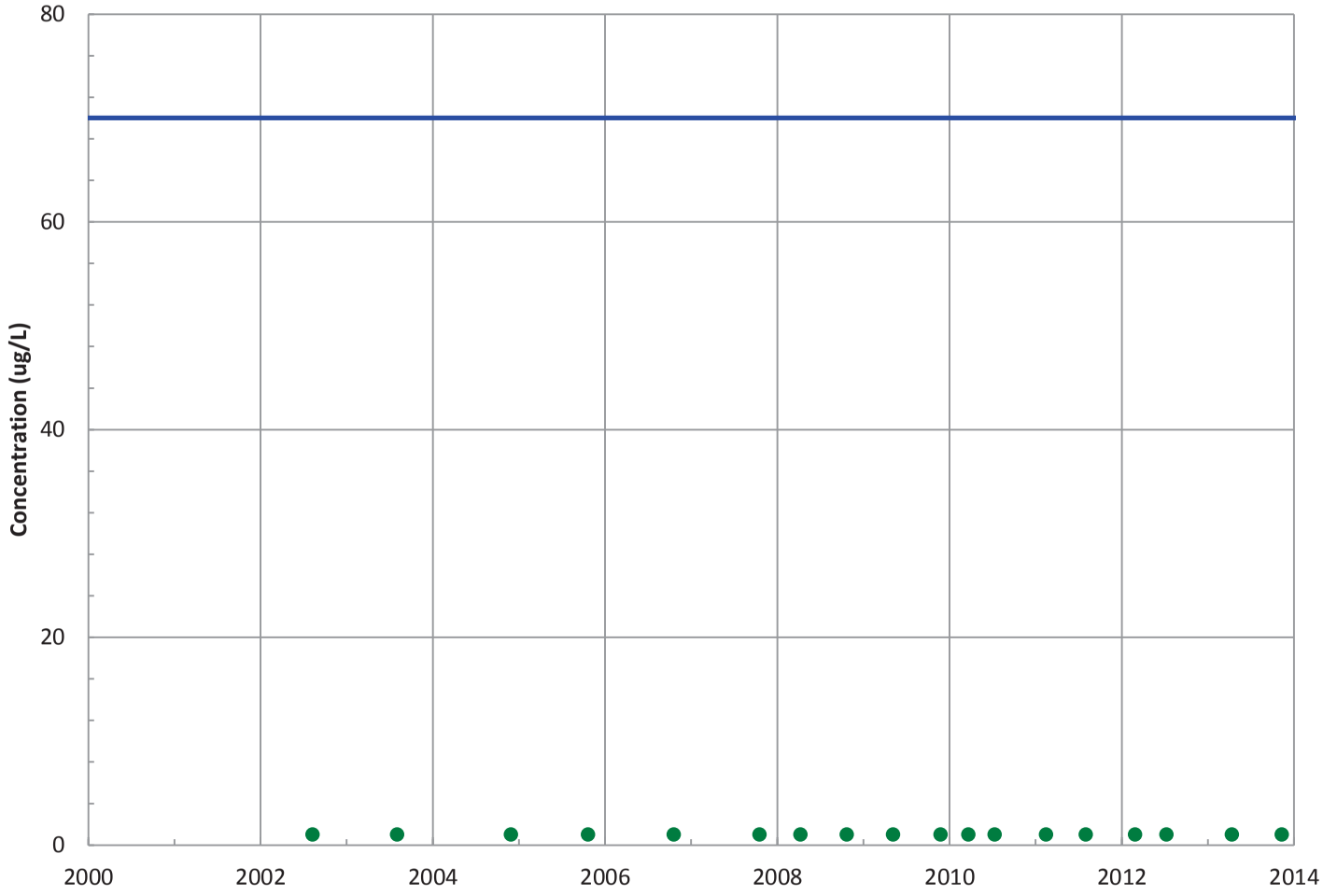
Well Location



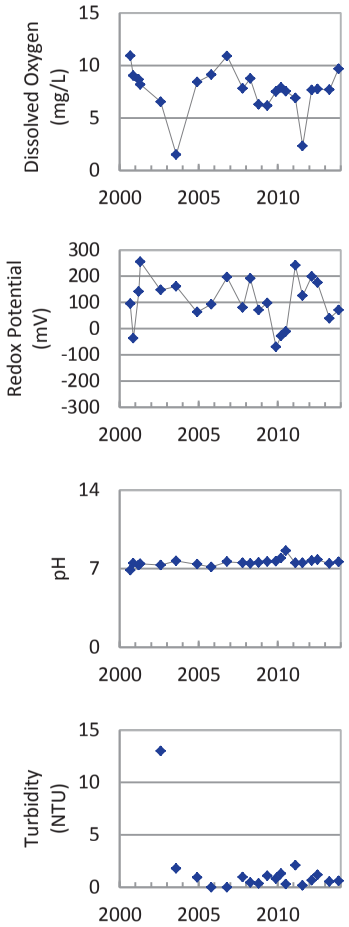
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/5/2000 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1050
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



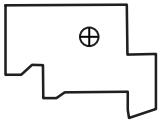
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

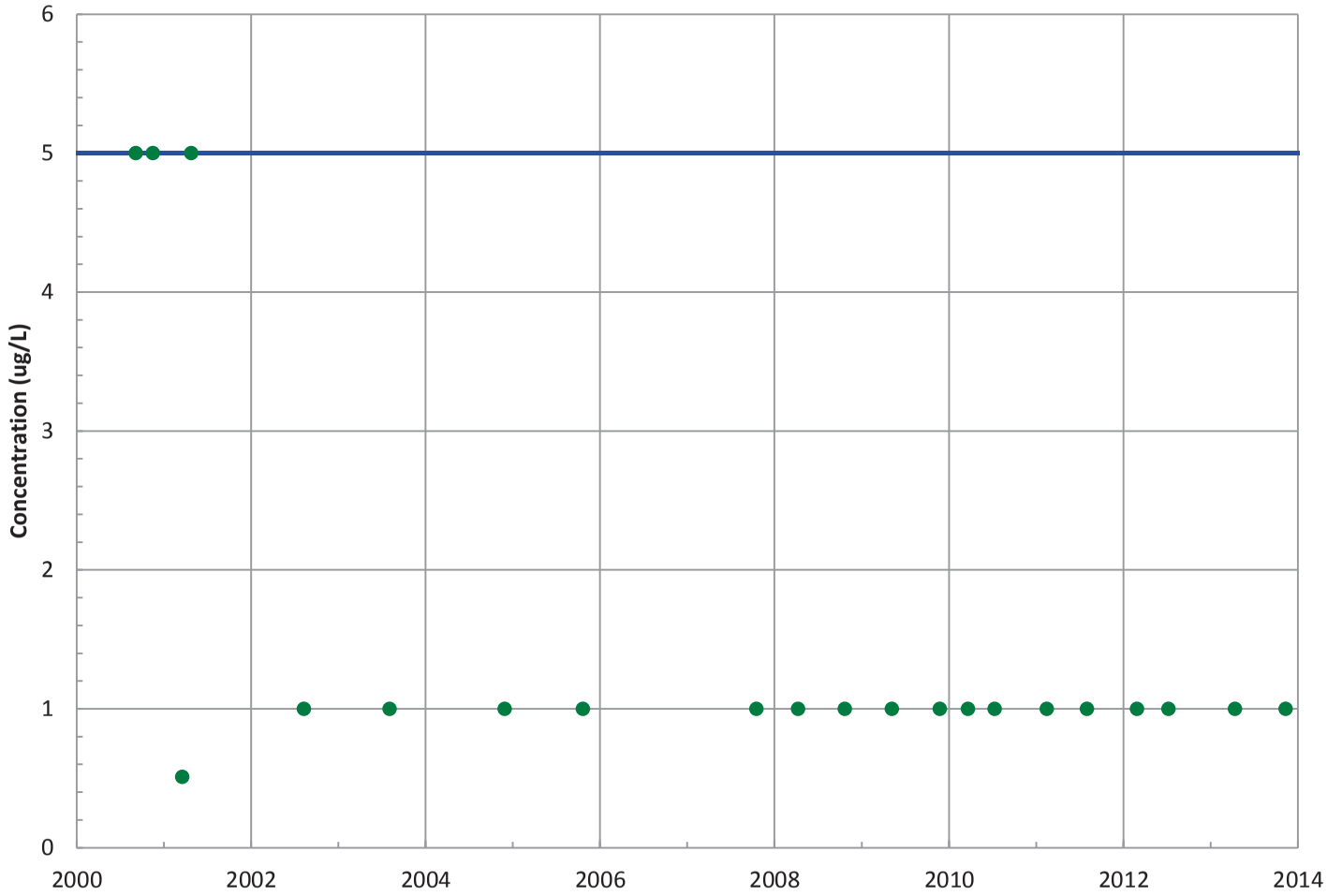
Well Location



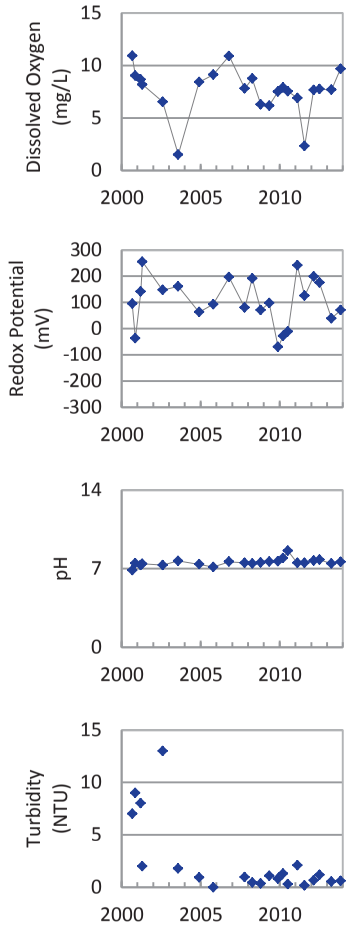
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/12/2002 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1050
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



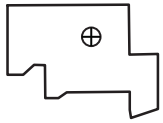
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

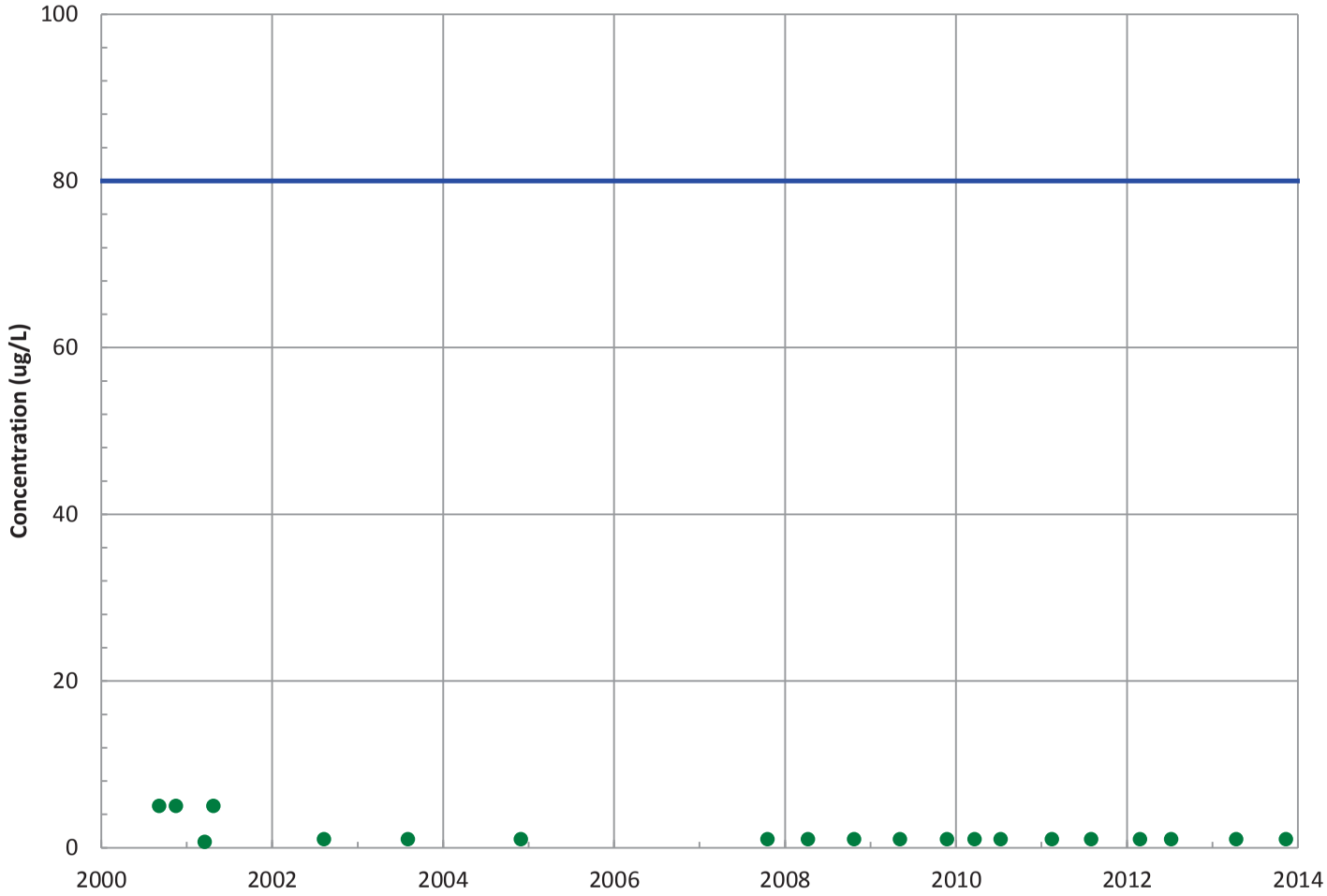
Well Location



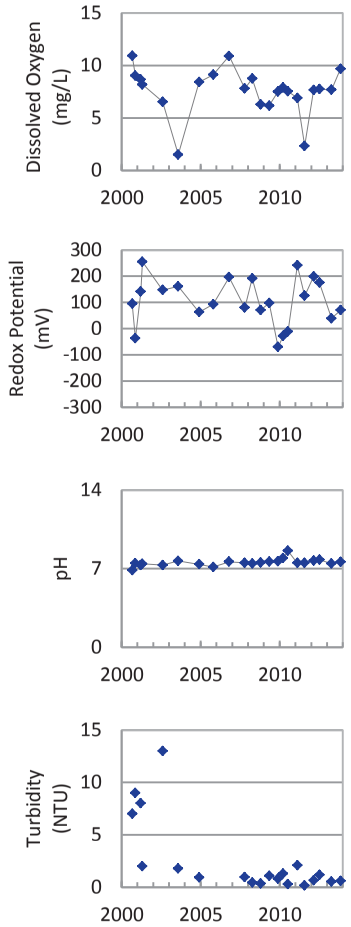
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/5/2000 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1050
Chloroform Trend in Perched Aquifer



Field Parameters



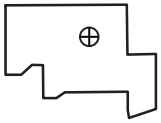
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

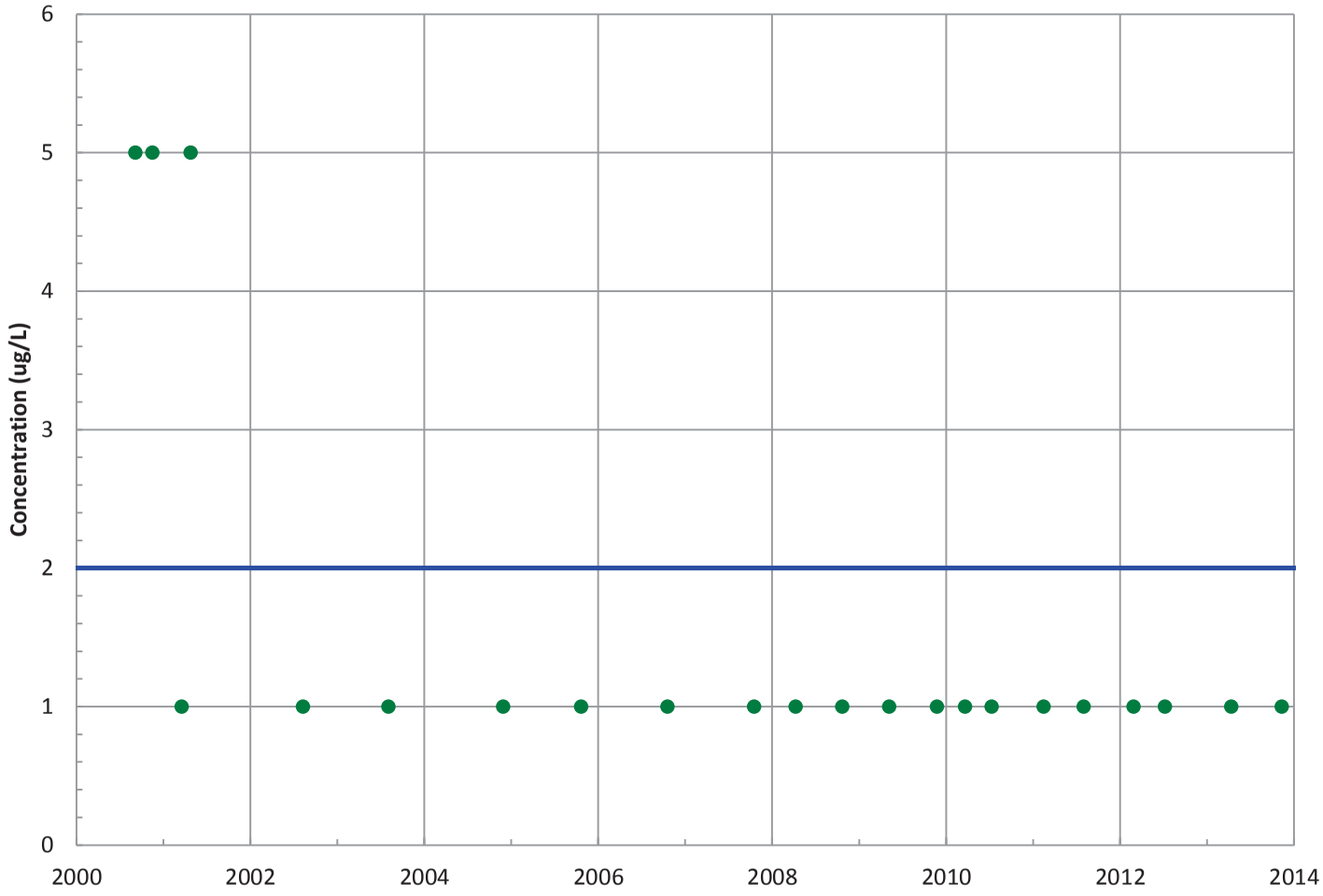
Well Location



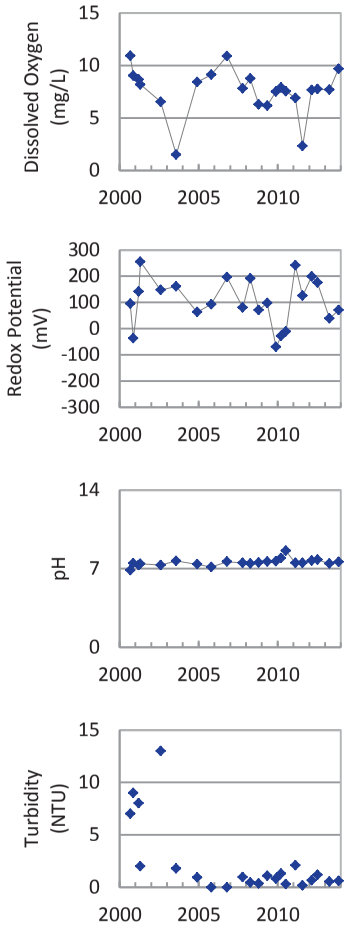
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/5/2000 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1050
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



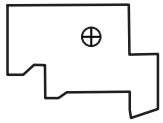
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

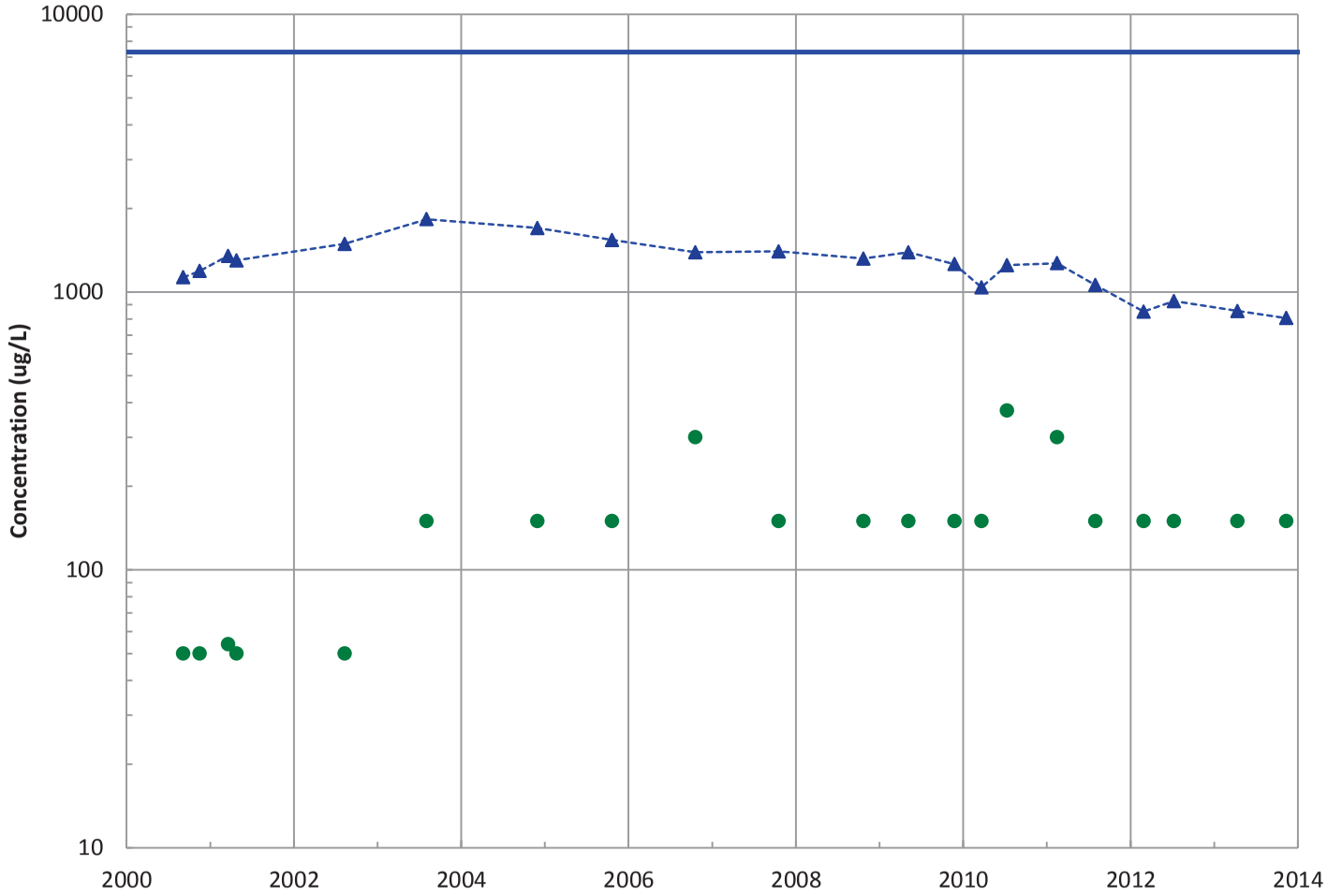
Well Location



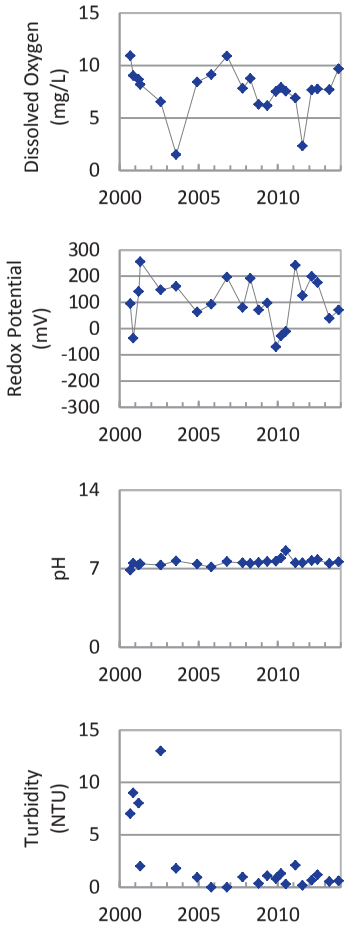
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/5/2000 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1050
Boron Trend in Perched Aquifer



Field Parameters



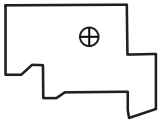
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

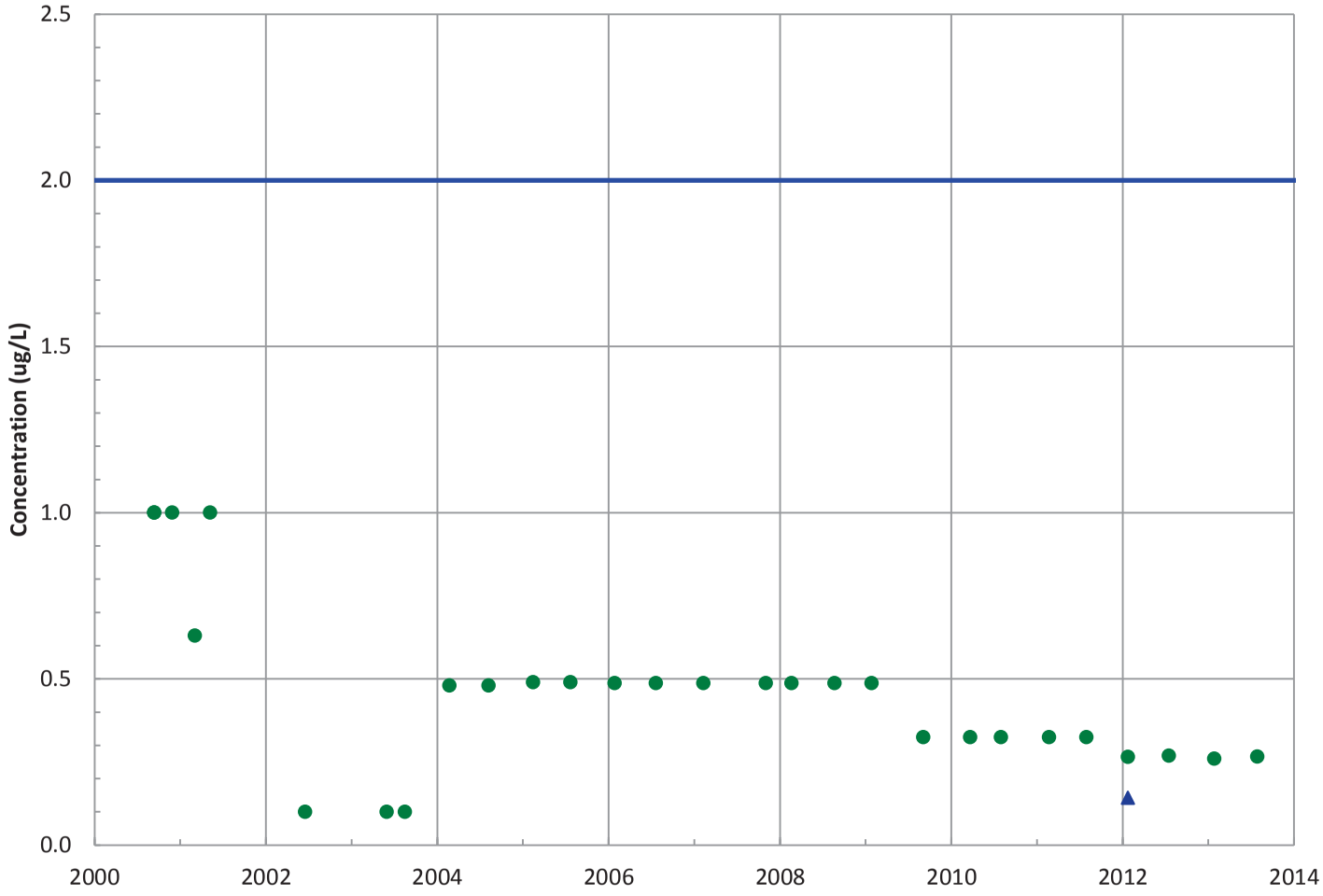
Well Location



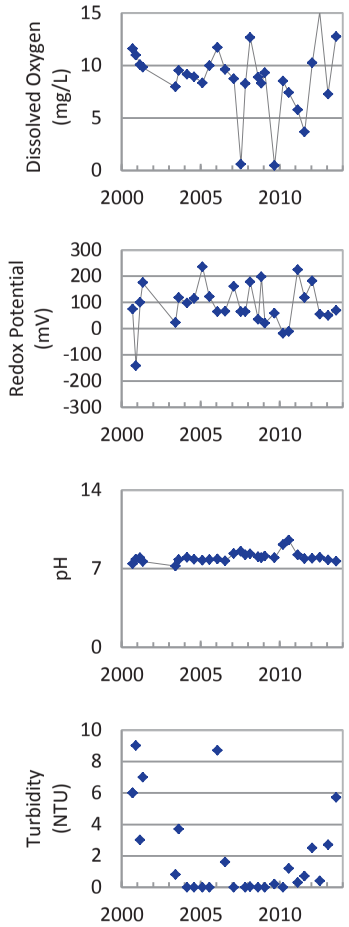
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/5/2000 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1052
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



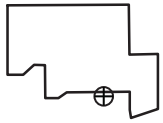
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

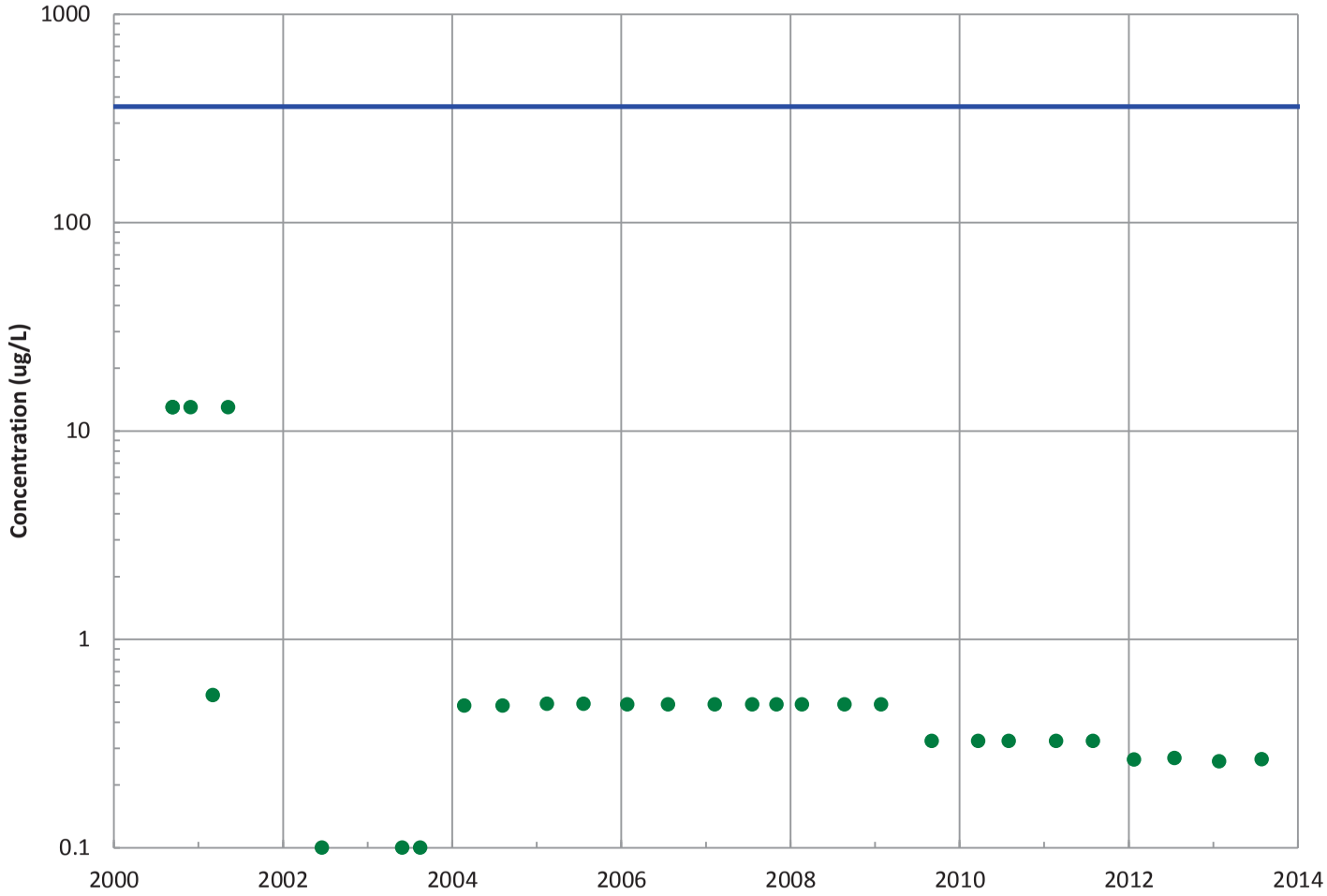
Well Location



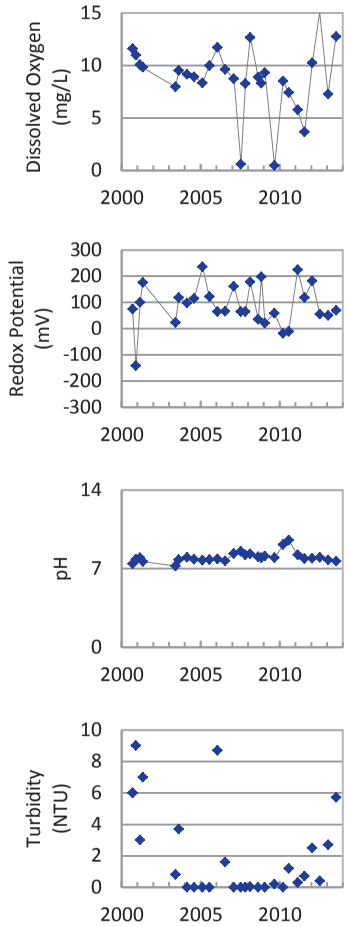
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/12/2000 to 8/8/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1052
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



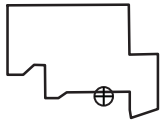
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

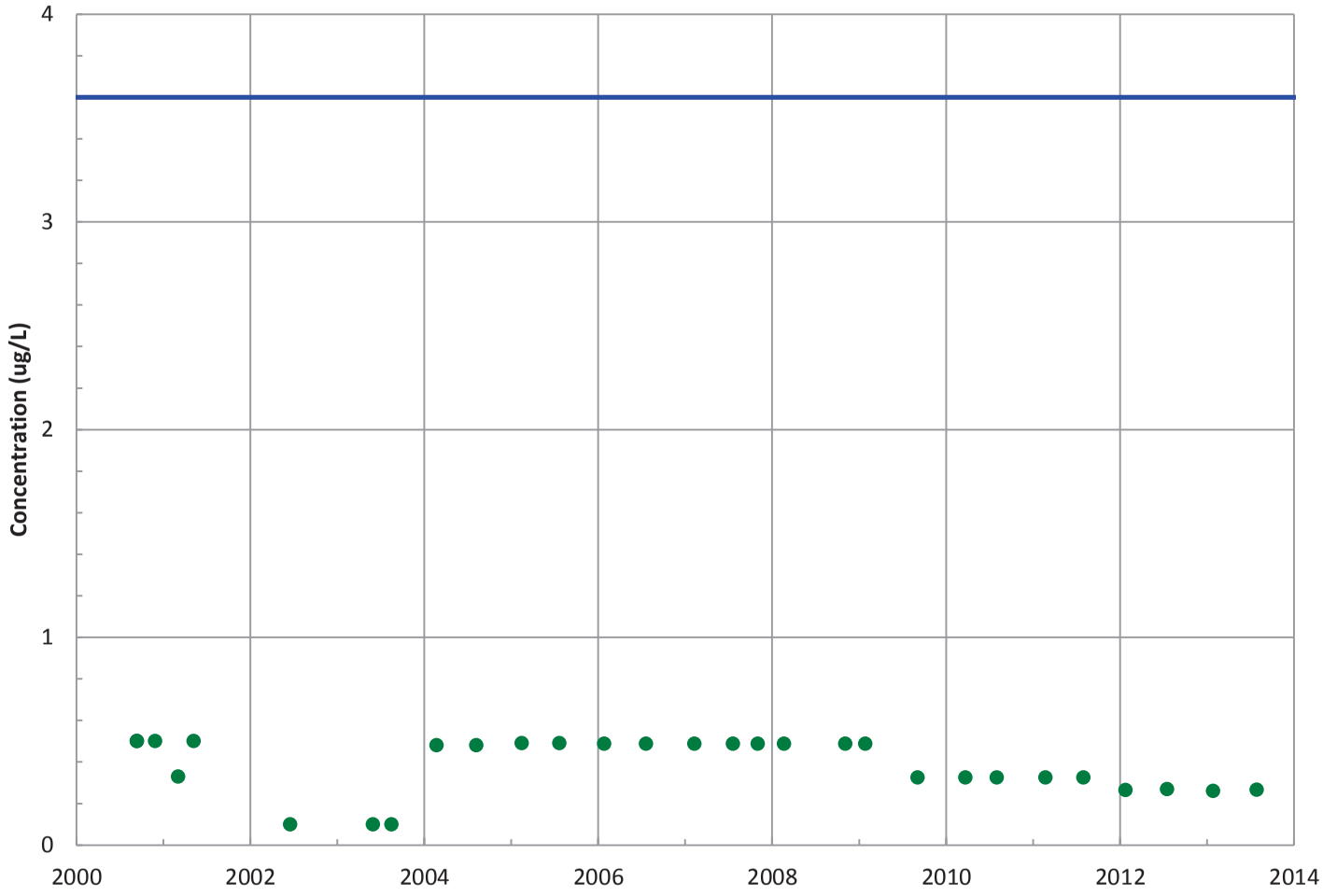
Well Location



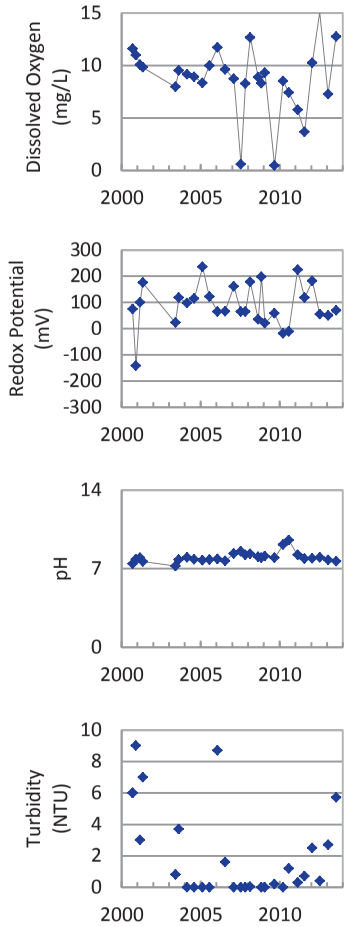
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/12/2000 to 8/8/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1052
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



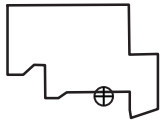
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

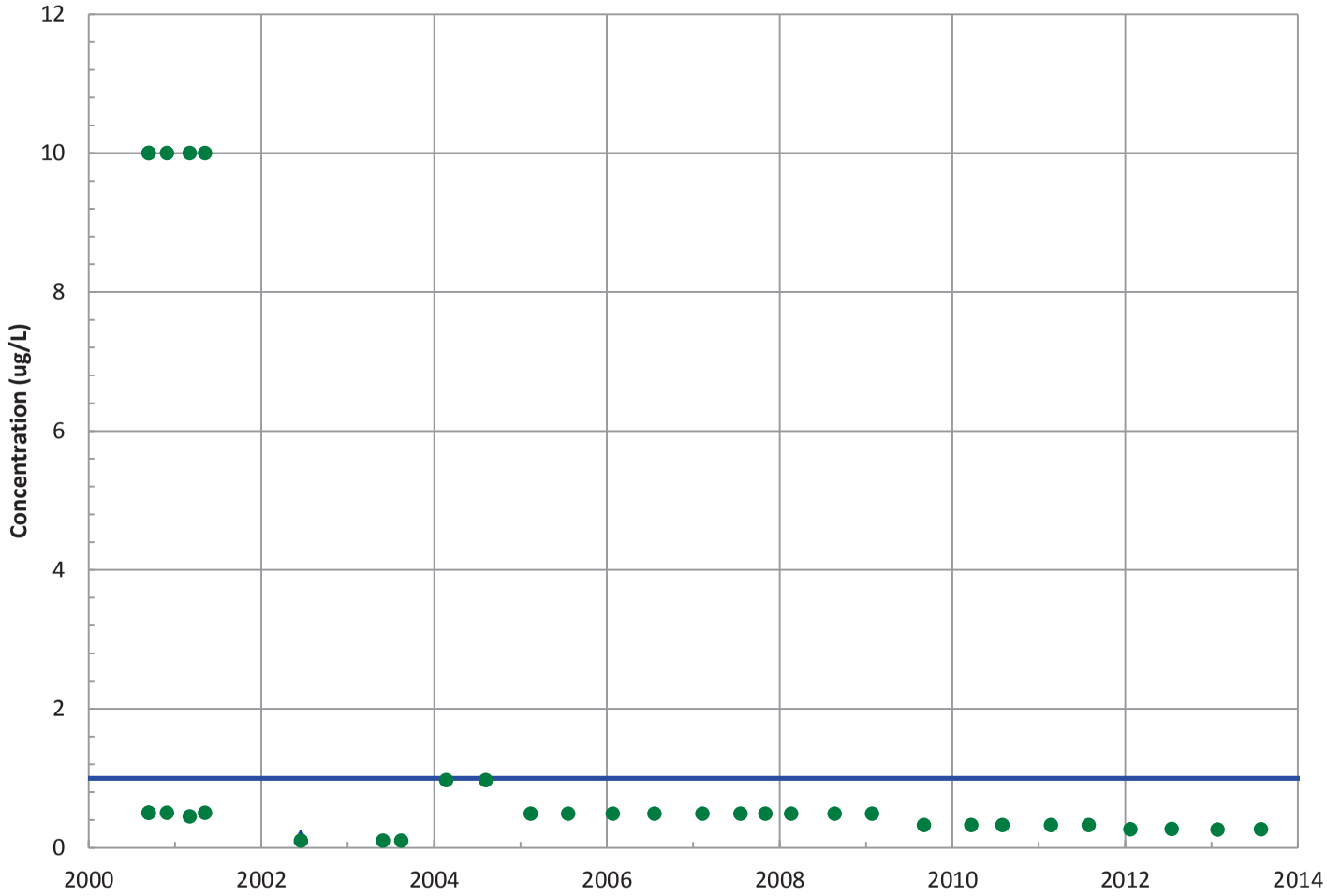
Well Location



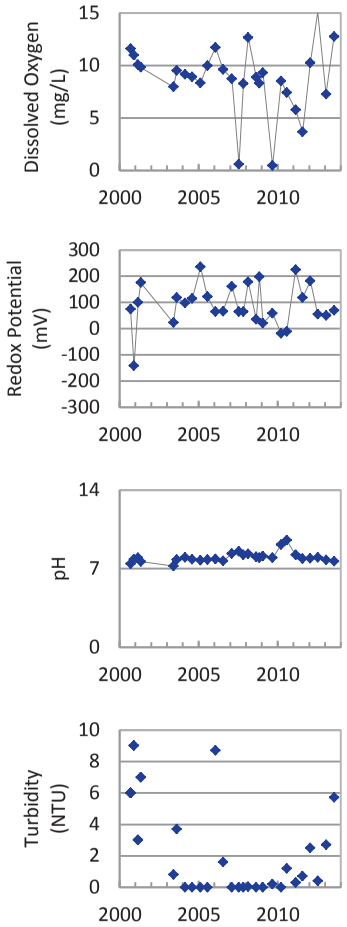
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/12/2000 to 8/8/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1052
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



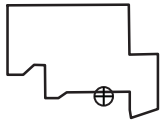
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

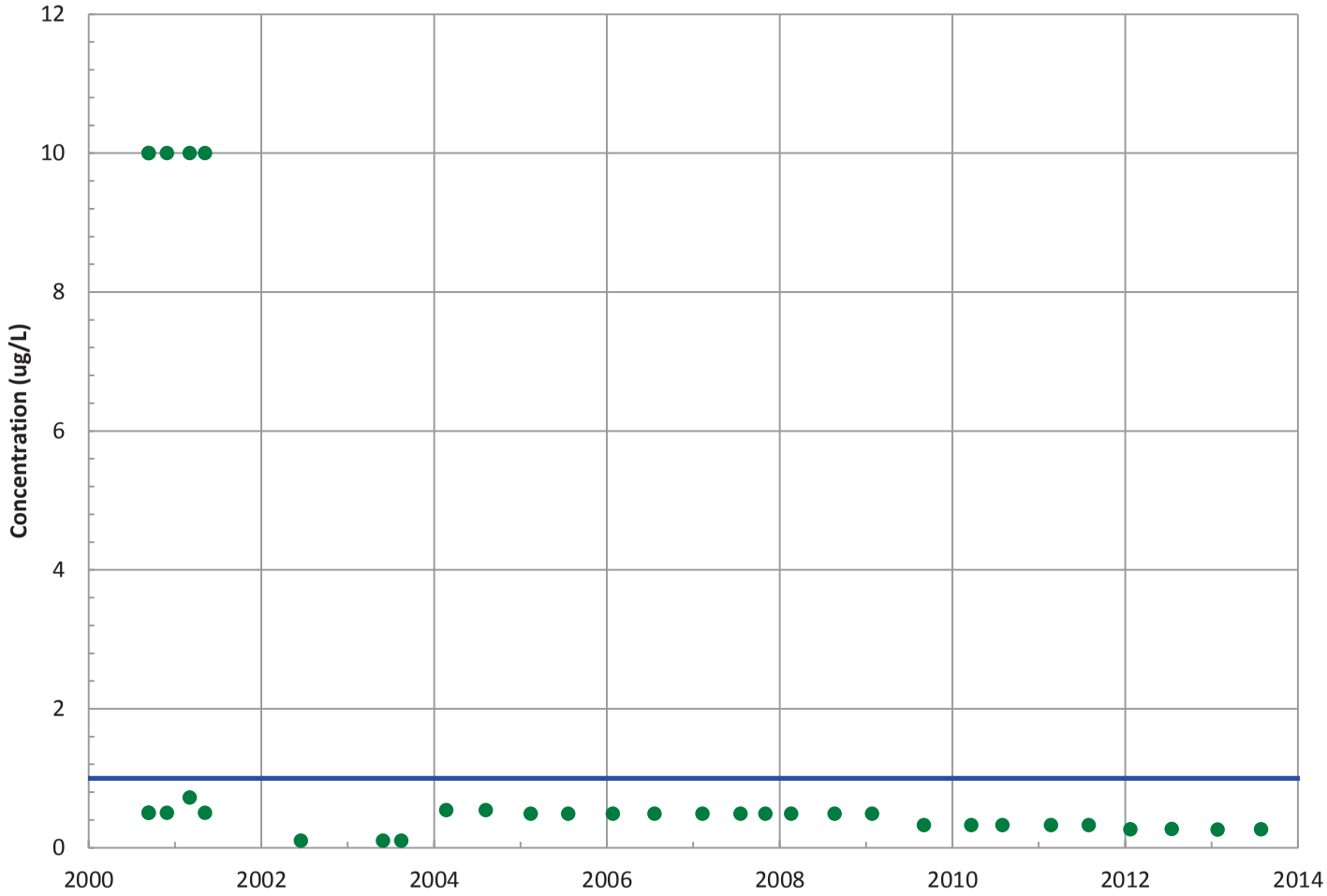
Well Location



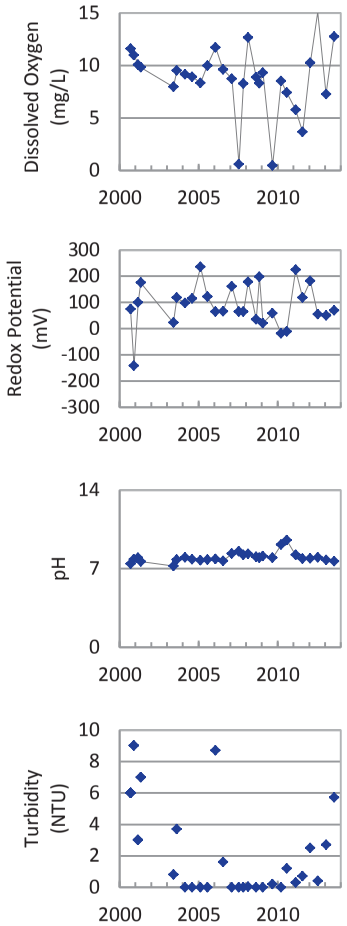
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/12/2000 to 8/8/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1052
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



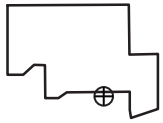
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

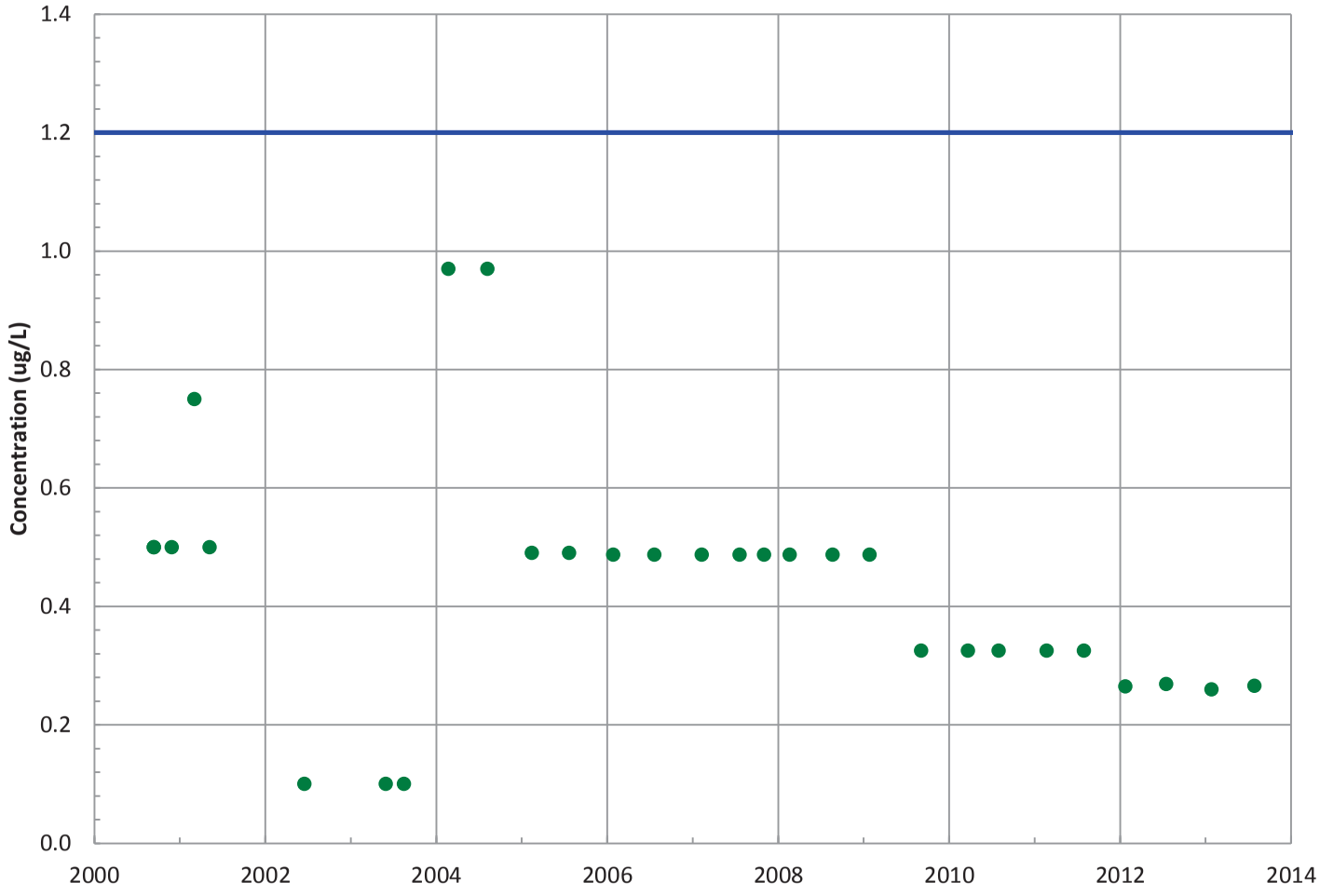
Well Location



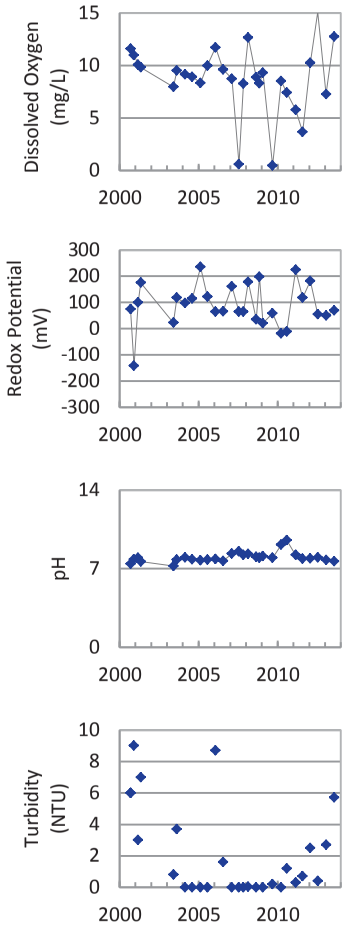
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/12/2000 to 8/8/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1052
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



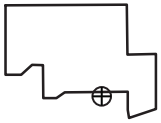
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

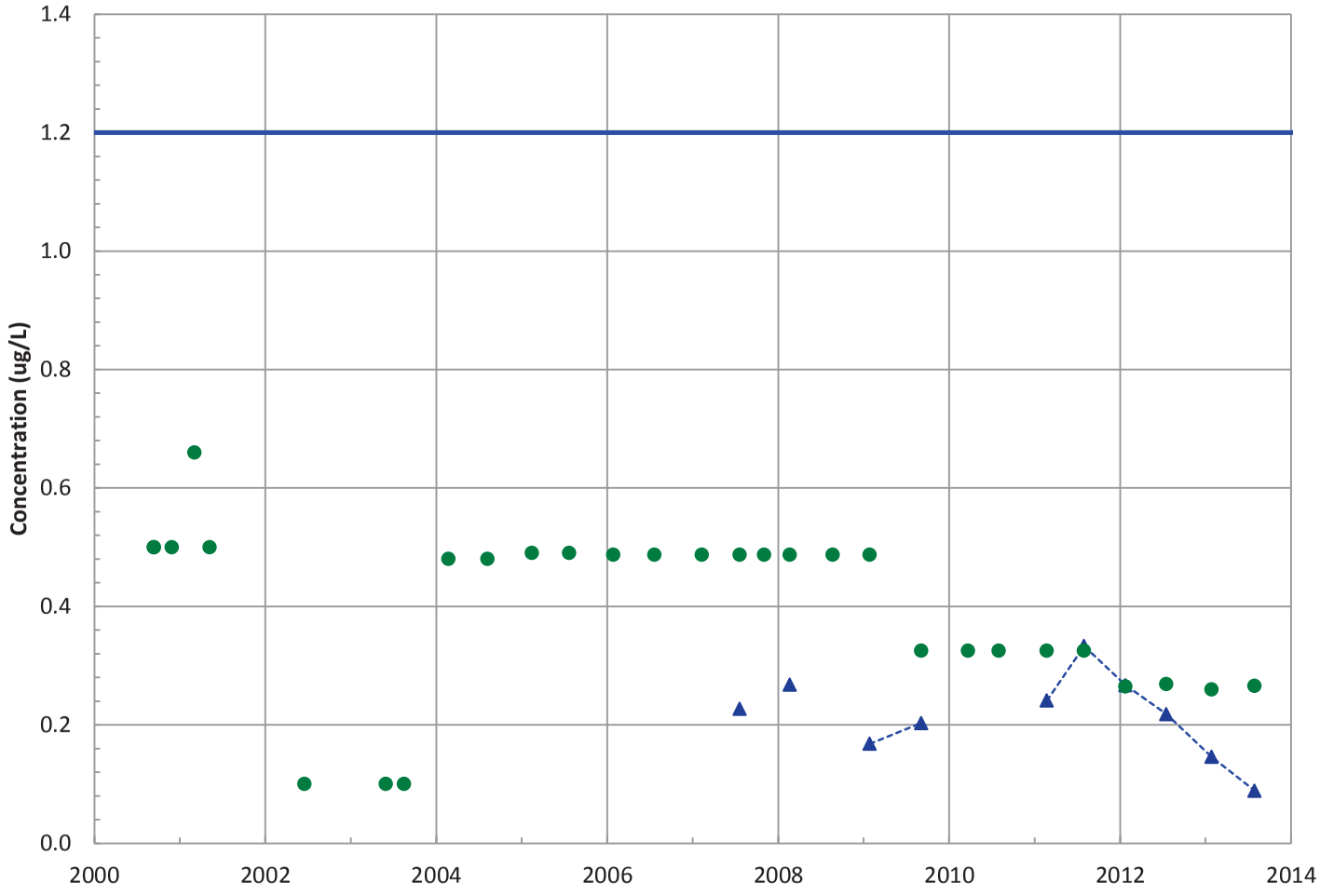
Well Location



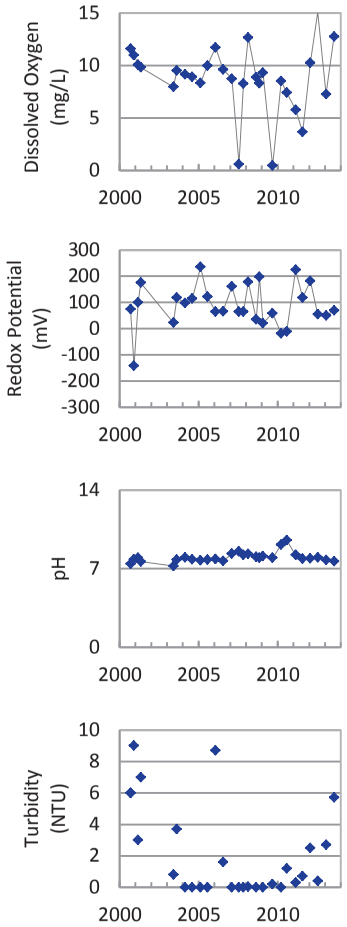
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/12/2000 to 8/8/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1052
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



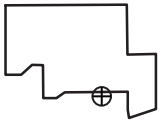
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Probably Decreasing
2011 - 2013 Data: Decreasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

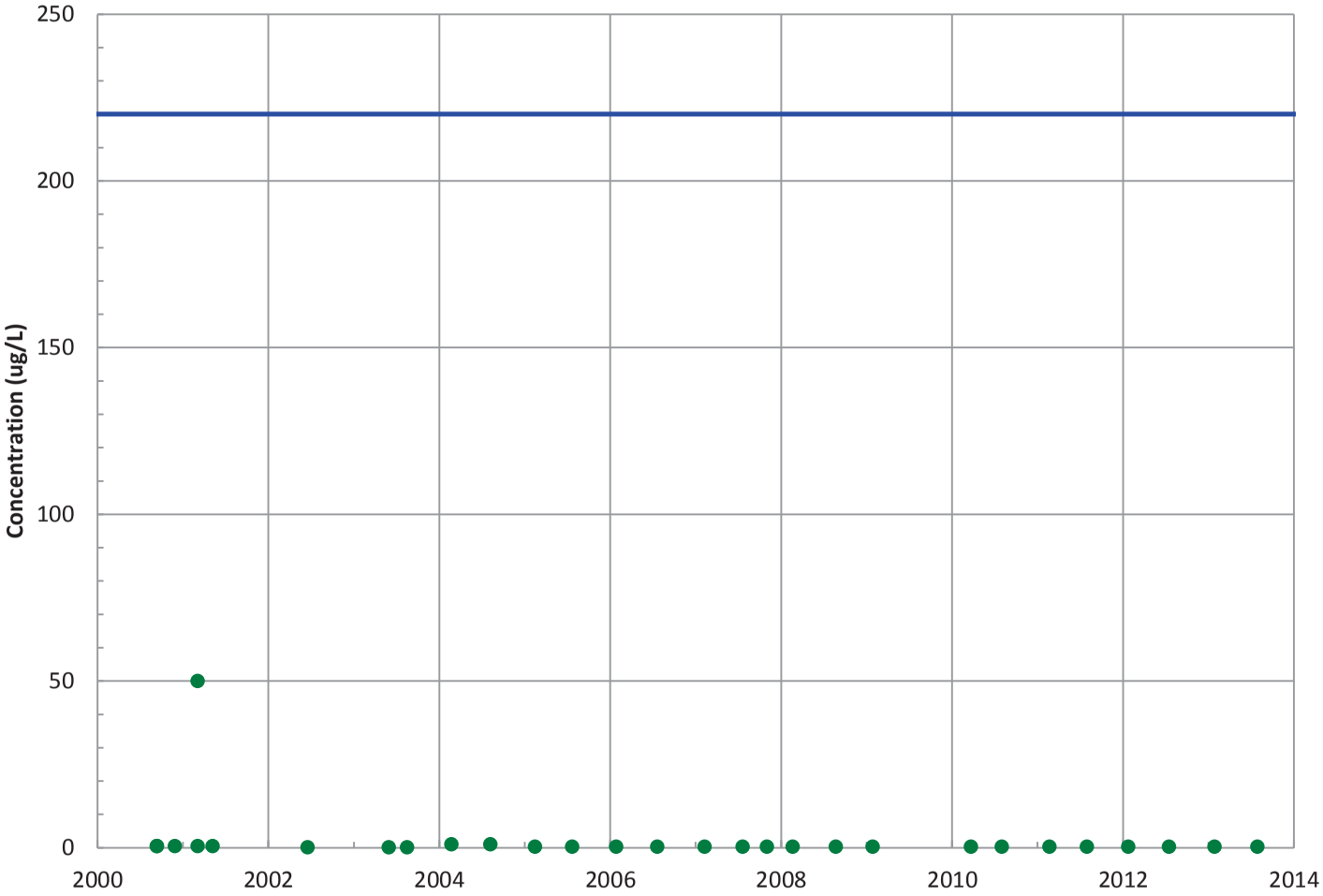
Well Location



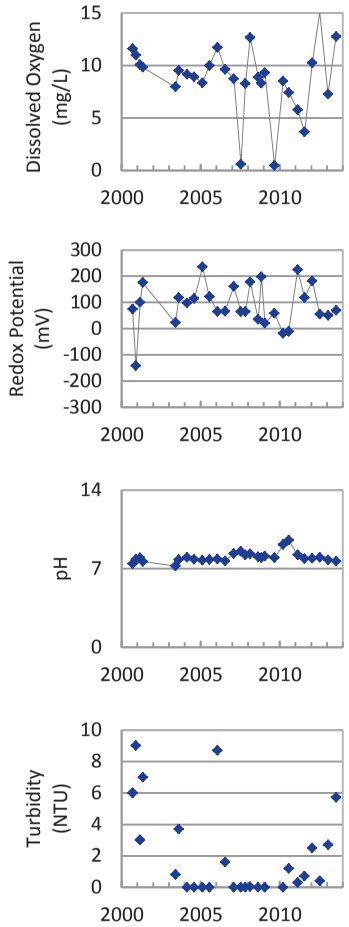
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/12/2000 to 8/8/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1052
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



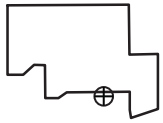
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

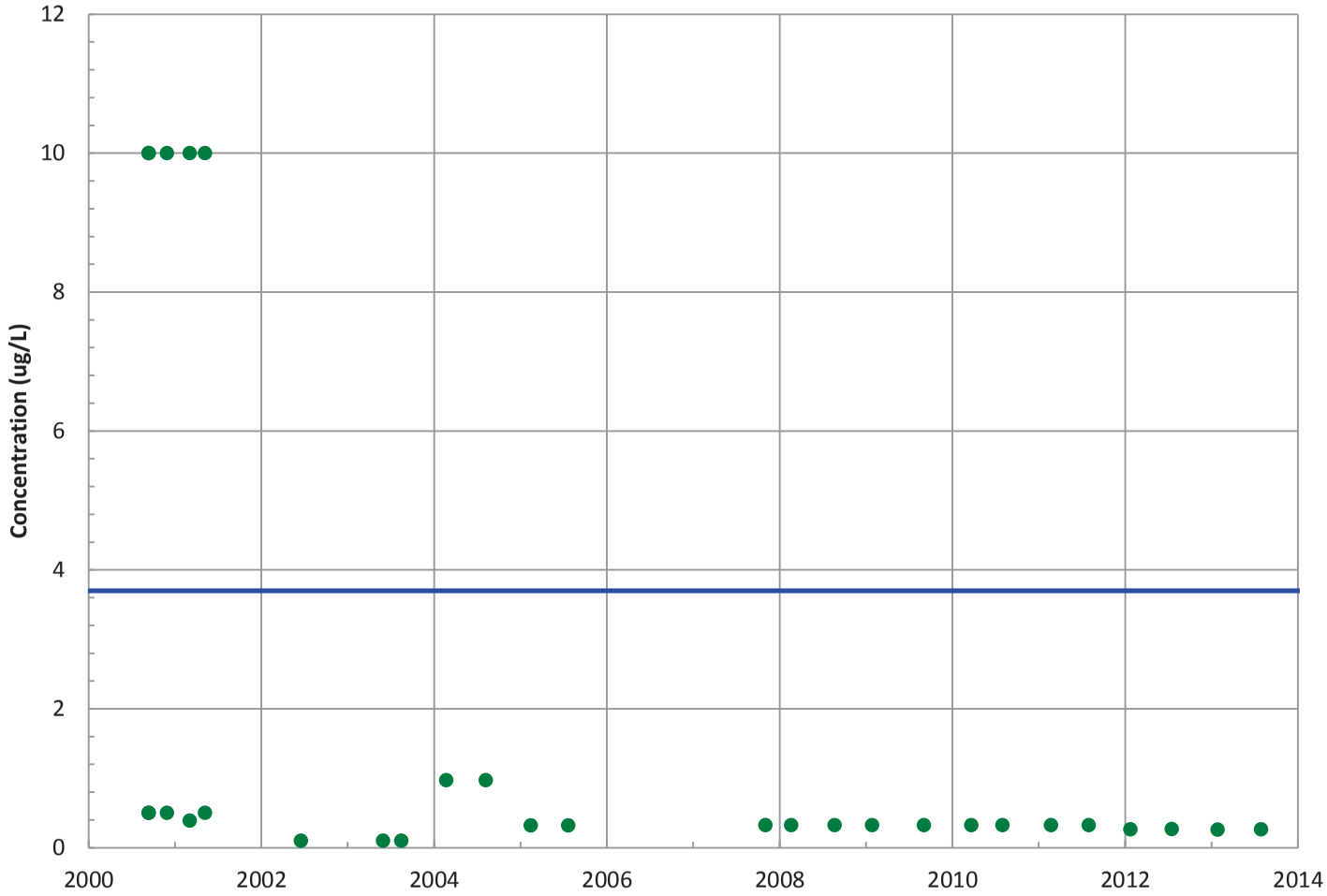
Well Location



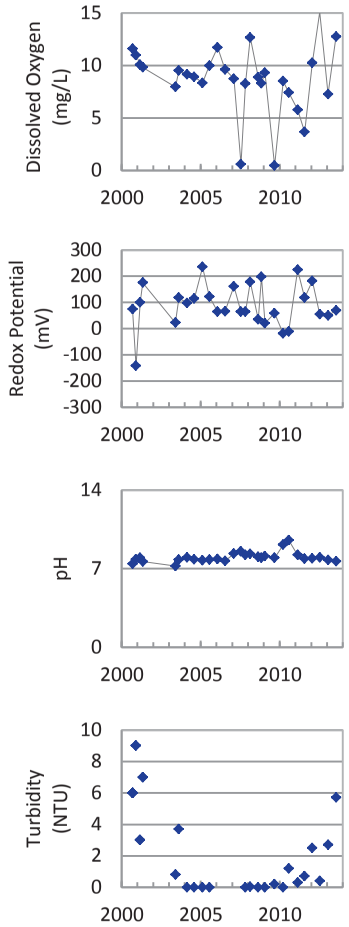
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/12/2000 to 8/8/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1052
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



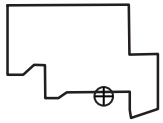
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

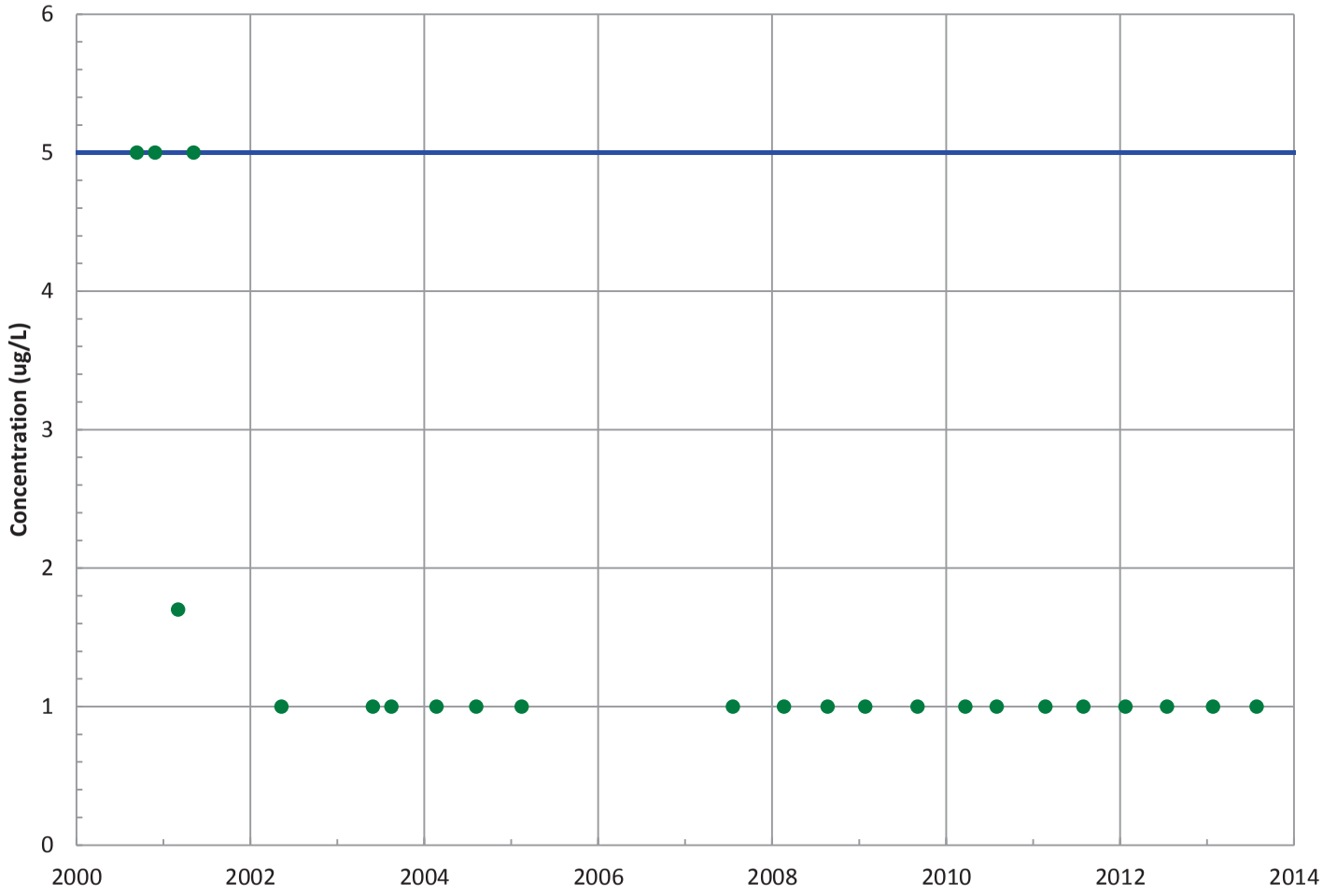
Well Location



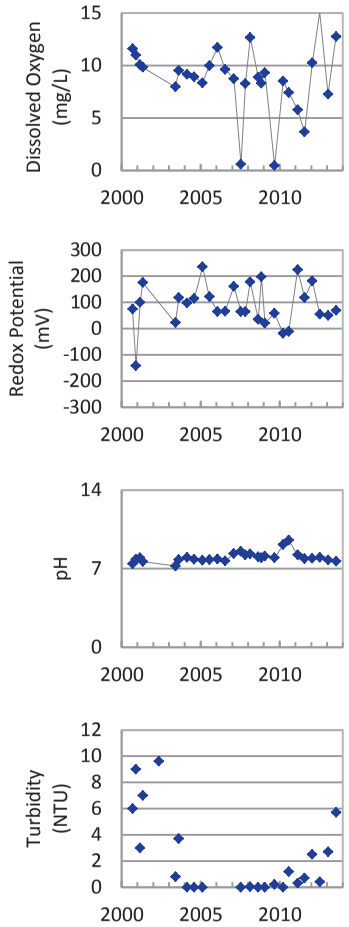
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/12/2000 to 8/8/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1052
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



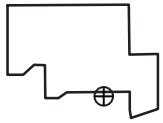
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

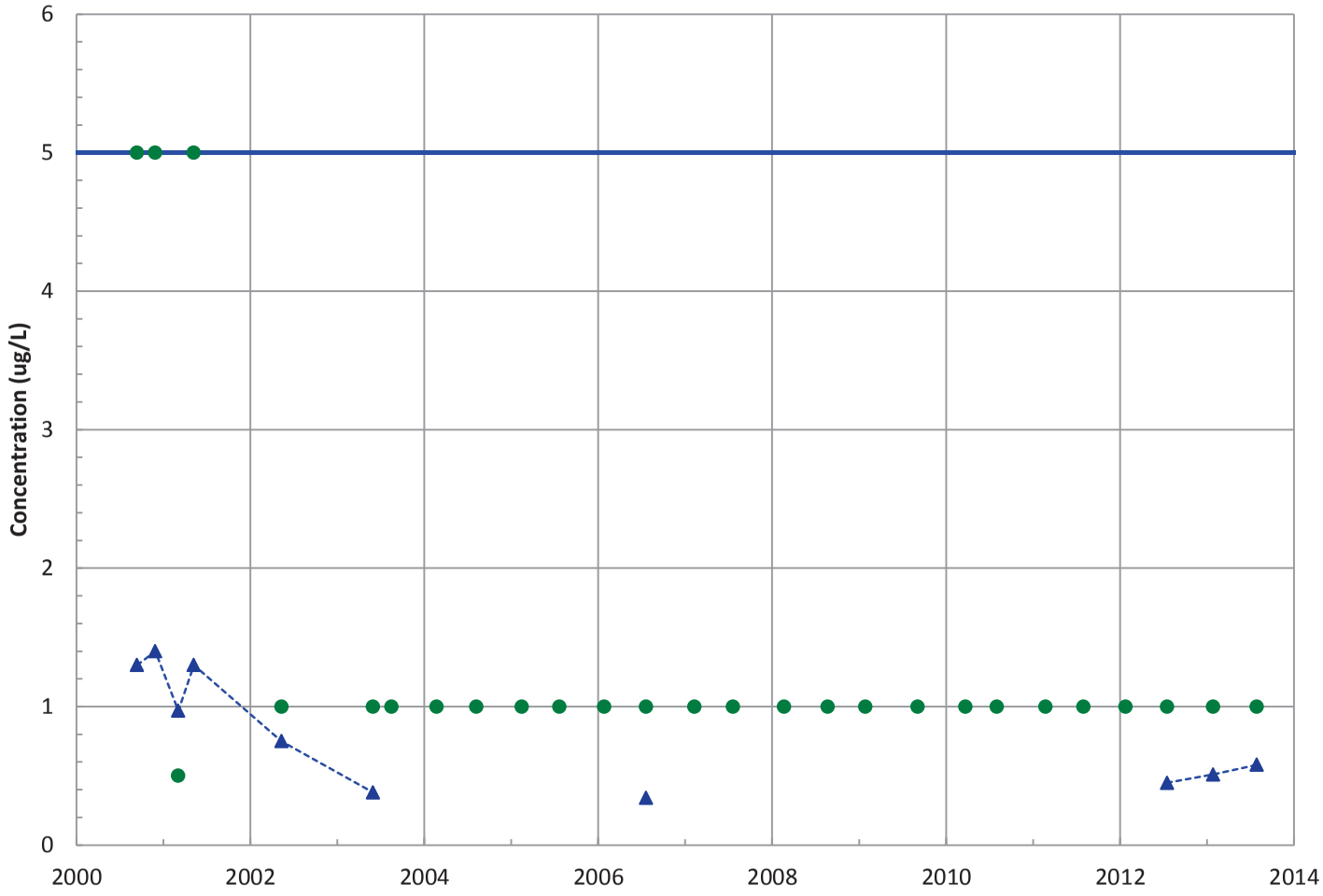
Well Location



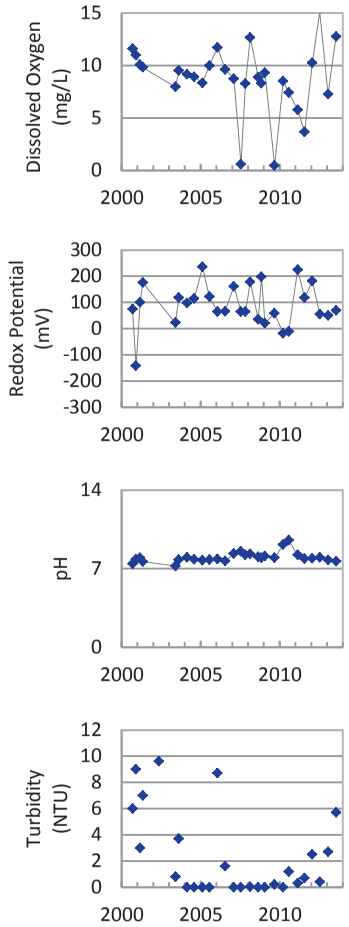
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/12/2000 to 8/8/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1052
Trichloroethene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: N/A (<4 Detections in

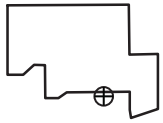
MAROS Linear Regression Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: Increasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------ Concentration Trend
- ——— Groundwater Protection Standard

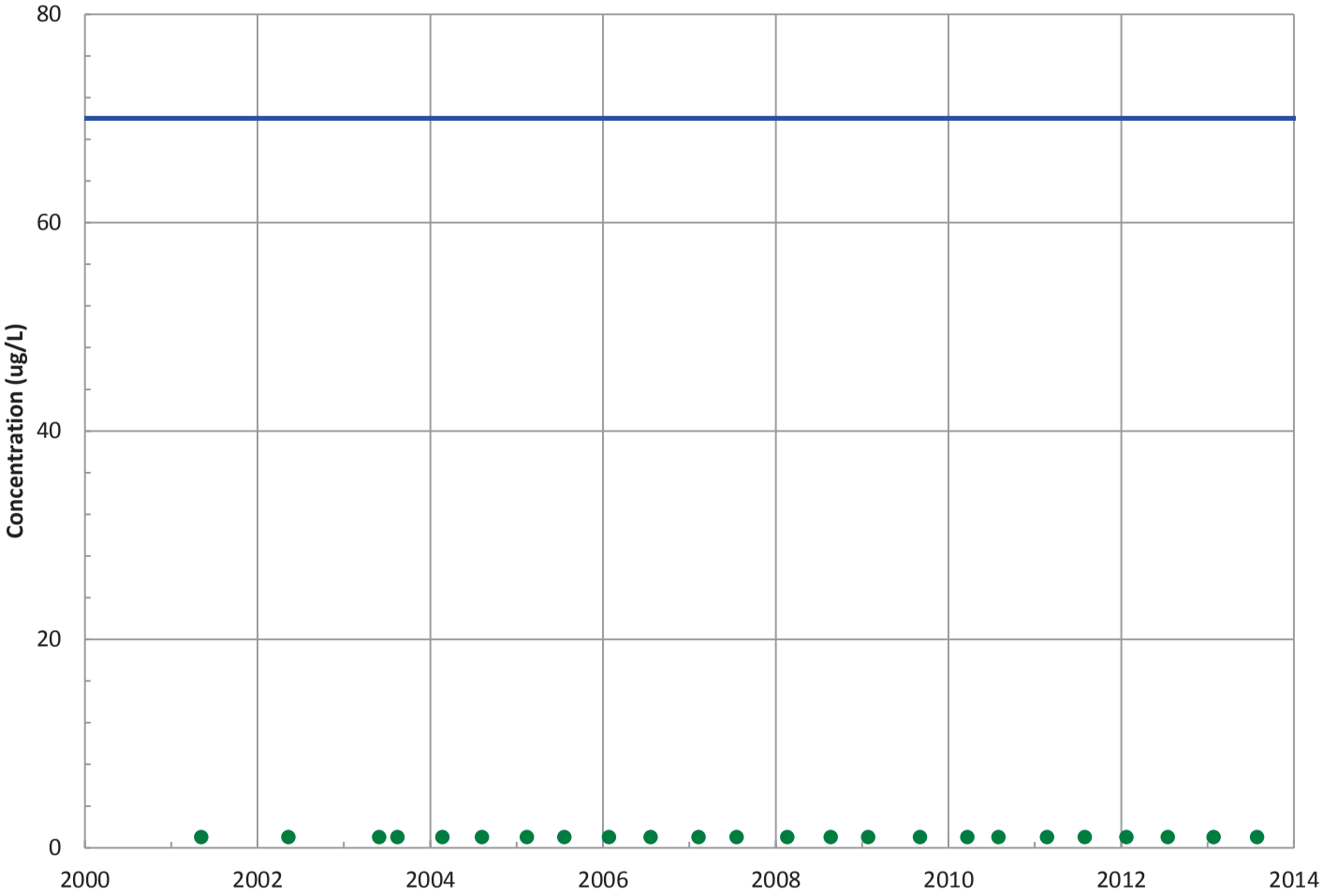
Well Location



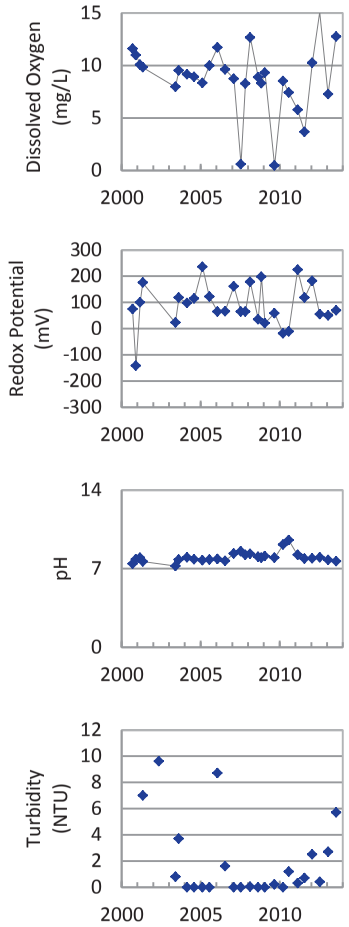
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/12/2000 to 8/8/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1052
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



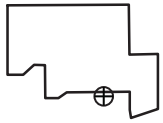
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

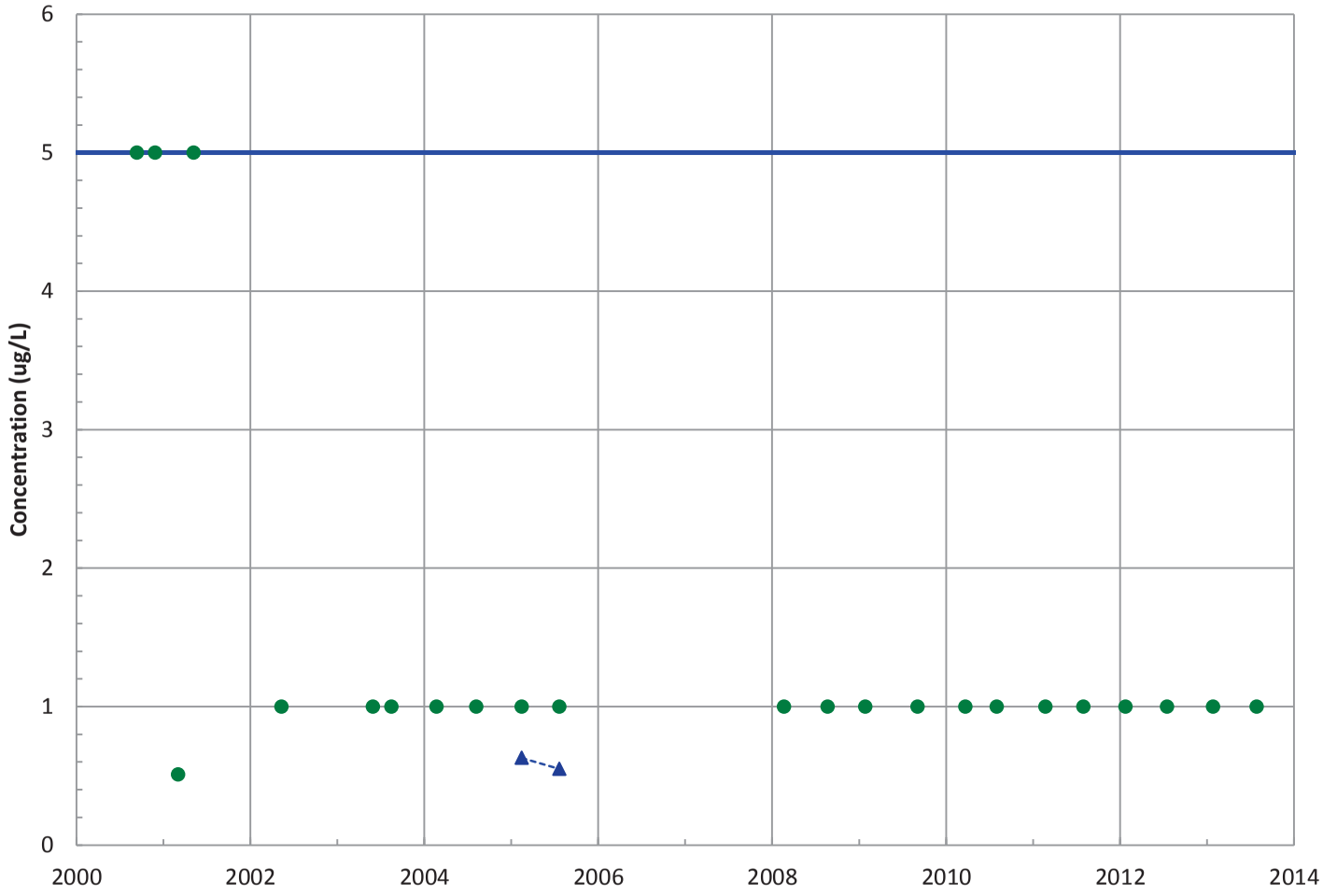
Well Location



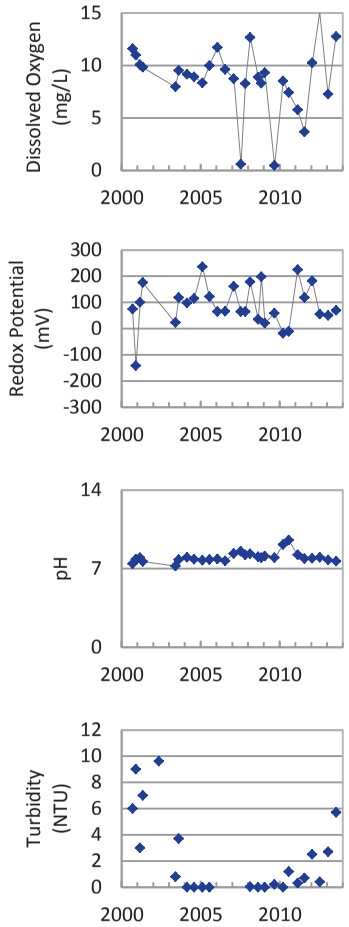
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/9/2001 to 8/8/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1052
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): All Non-Detect

2011 - 2013 Data: All Non-Detect

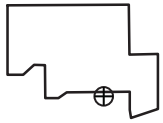
MAROS Linear Regression Method

Data (7/2009 - 12/2013): All Non-Detect

2011 - 2013 Data: N/A (<4 Detections in Dataset)

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location



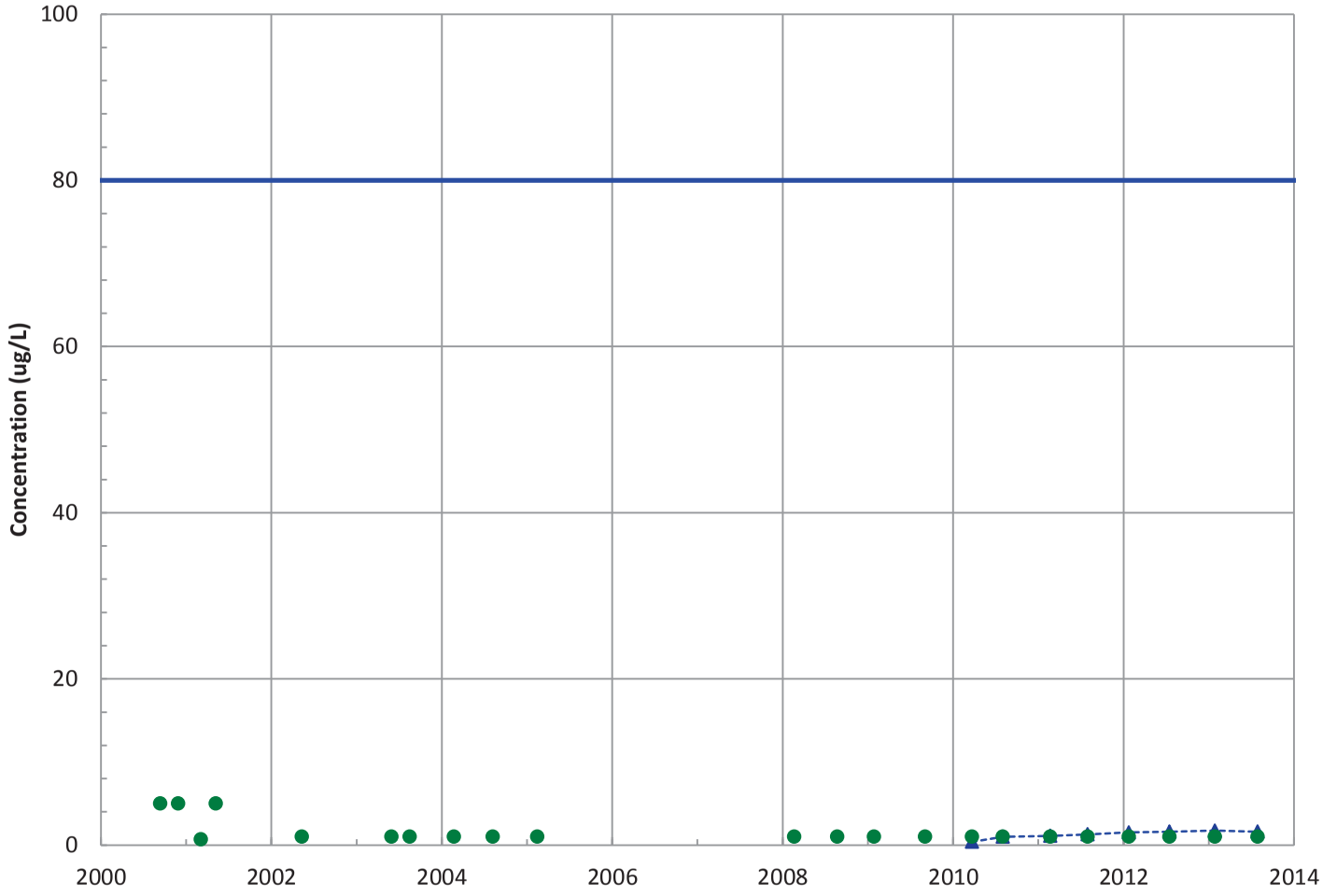
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 9/12/2000 to 8/8/2013

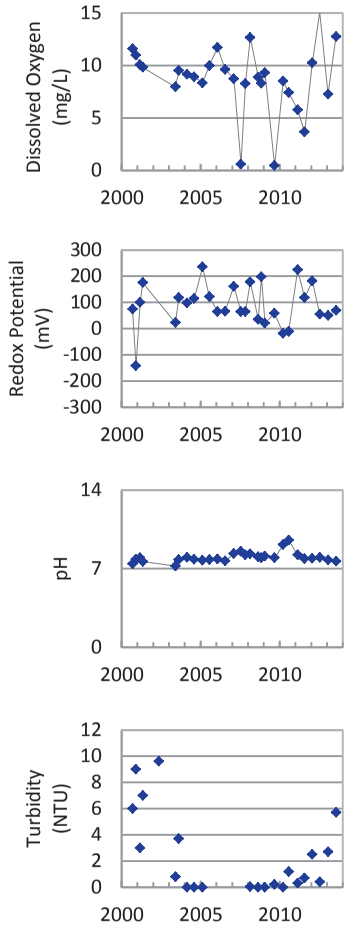
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1052
Chloroform Trend in Perched Aquifer



Field Parameters



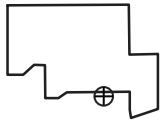
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

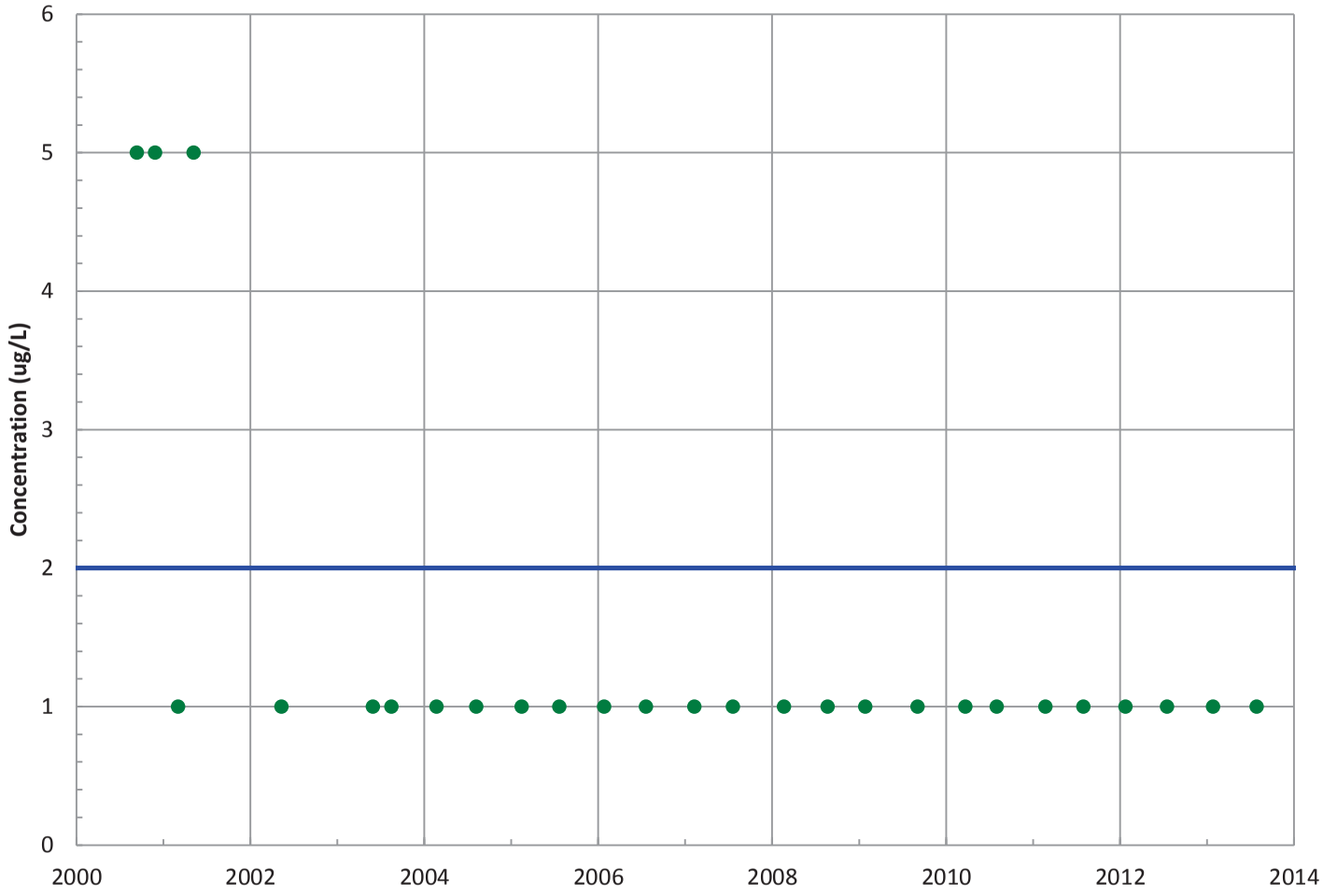
Well Location



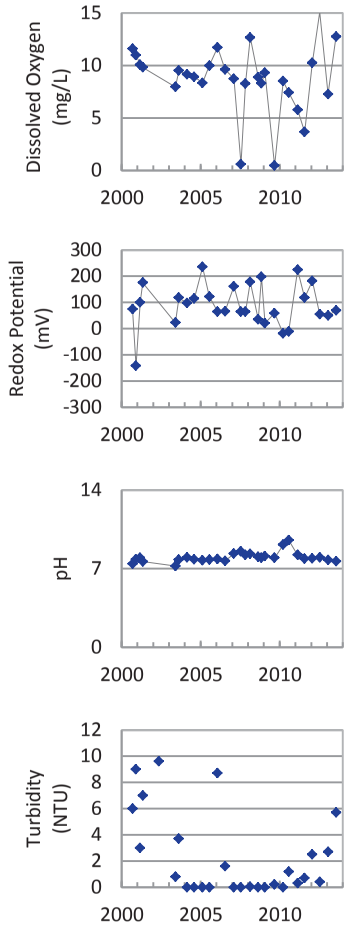
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/12/2000 to 8/8/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1052
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



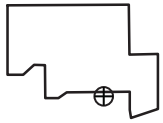
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

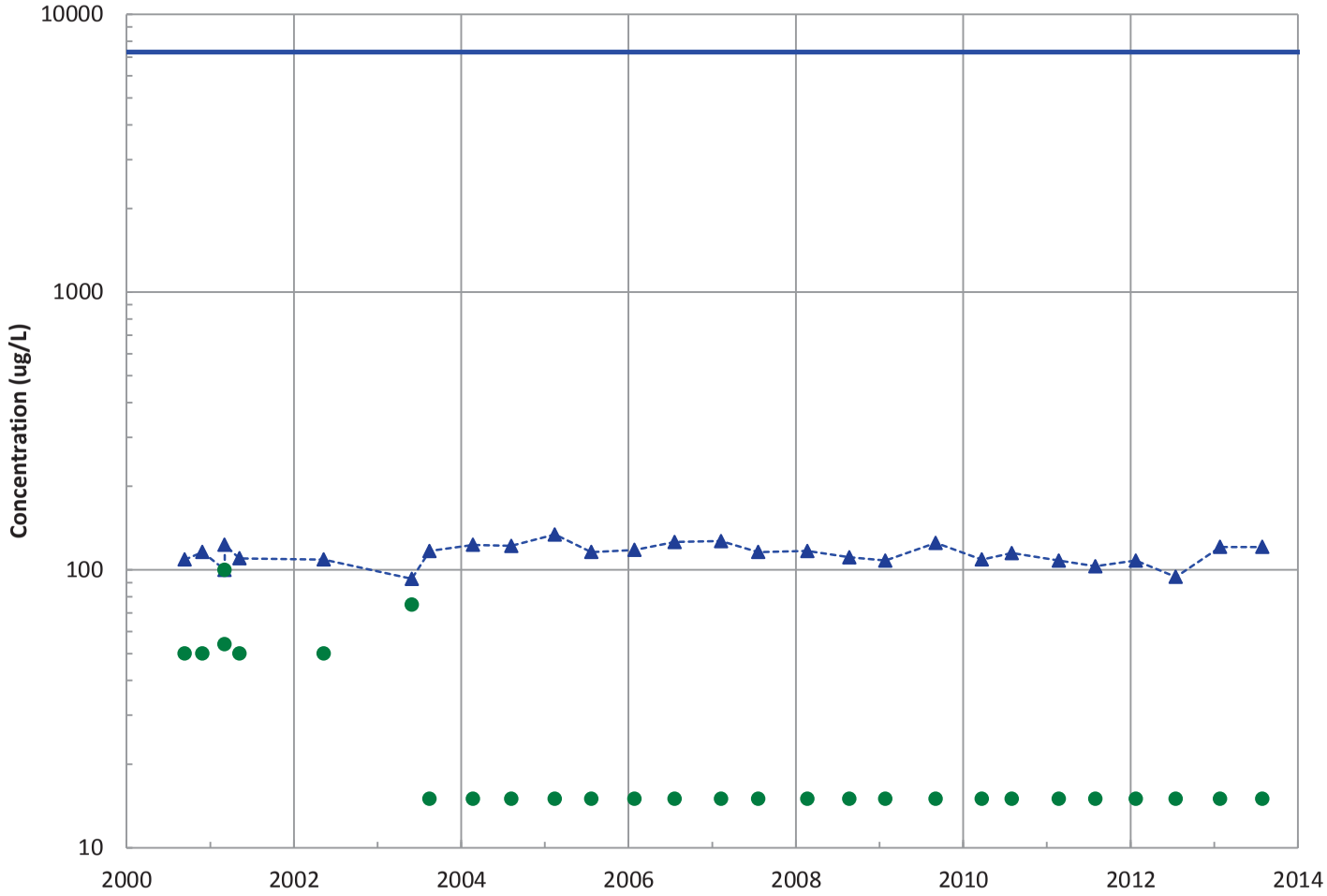
Well Location



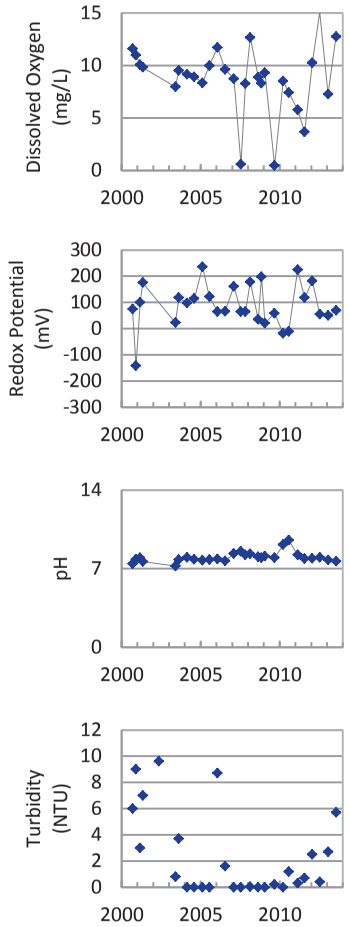
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/12/2000 to 8/8/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1052
Boron Trend in Perched Aquifer



Field Parameters



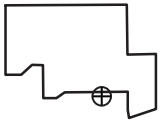
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: No Trend

Measured Value
Sample Detection Limit
Concentration Trend
Groundwater Protection Standard

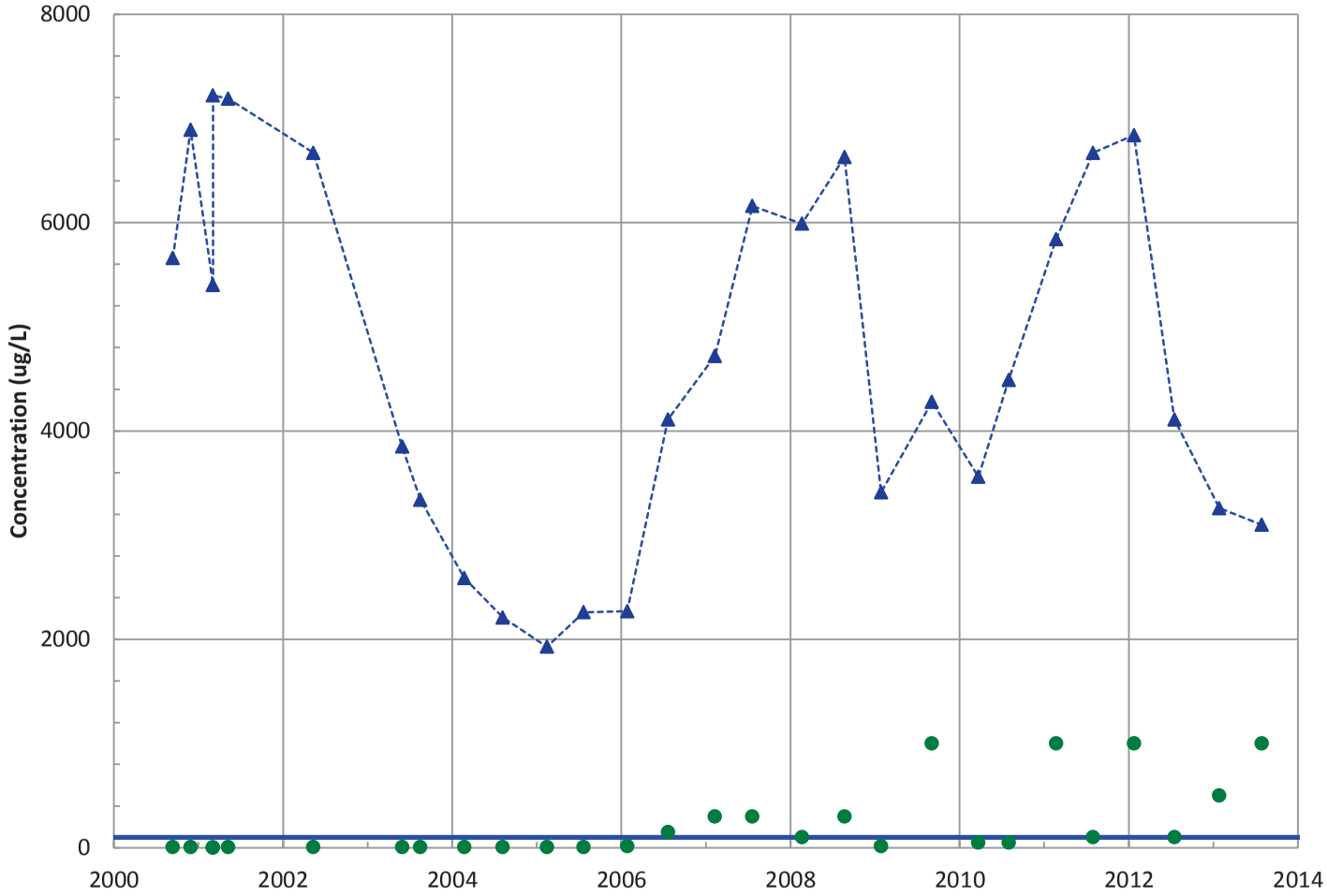
Well Location



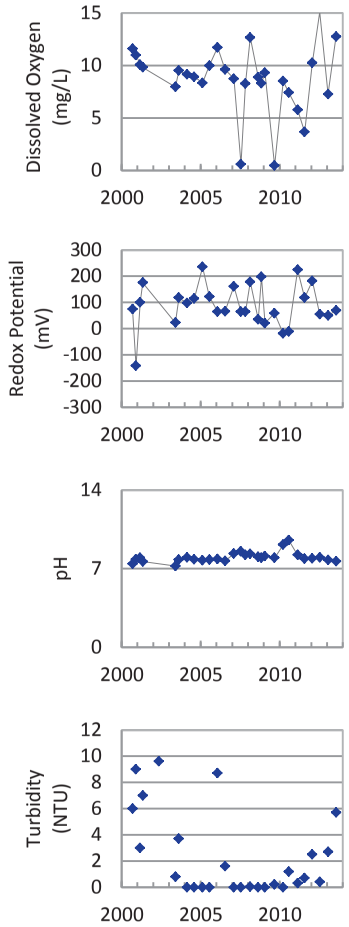
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/12/2000 to 8/8/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1052
Chromium, Total Trend in Perched Aquifer



Field Parameters



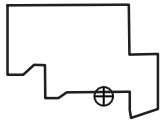
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Decreasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------ Concentration Trend
- ——— Groundwater Protection Standard

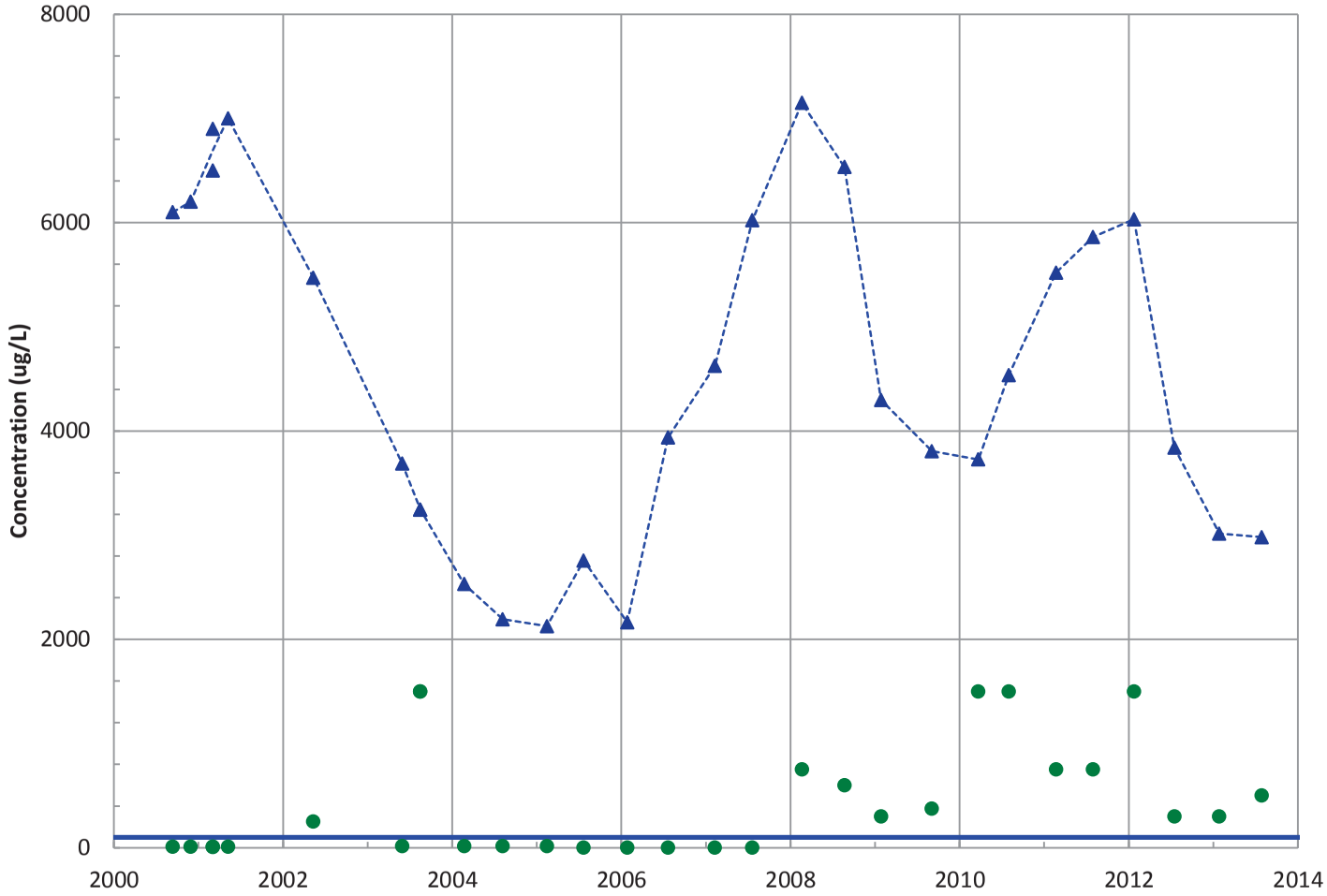
Well Location



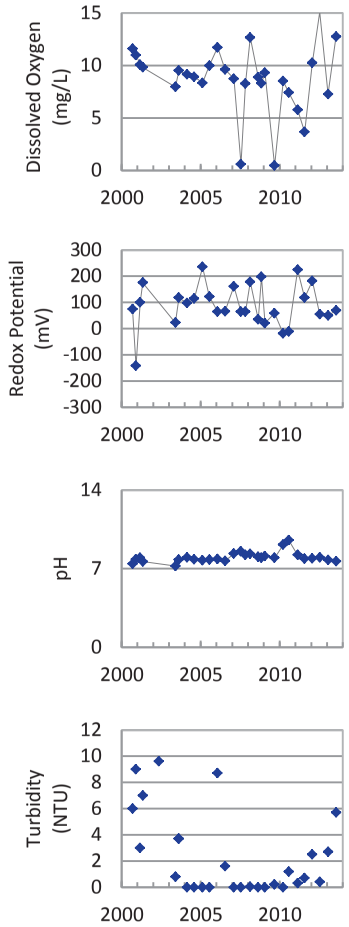
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/12/2000 to 8/8/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1052
Chromium, Hexavalent Trend in Perched Aquifer



Field Parameters



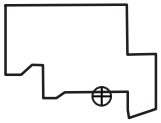
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Decreasing

Measured Value
Sample Detection Limit
Concentration Trend
Groundwater Protection Standard

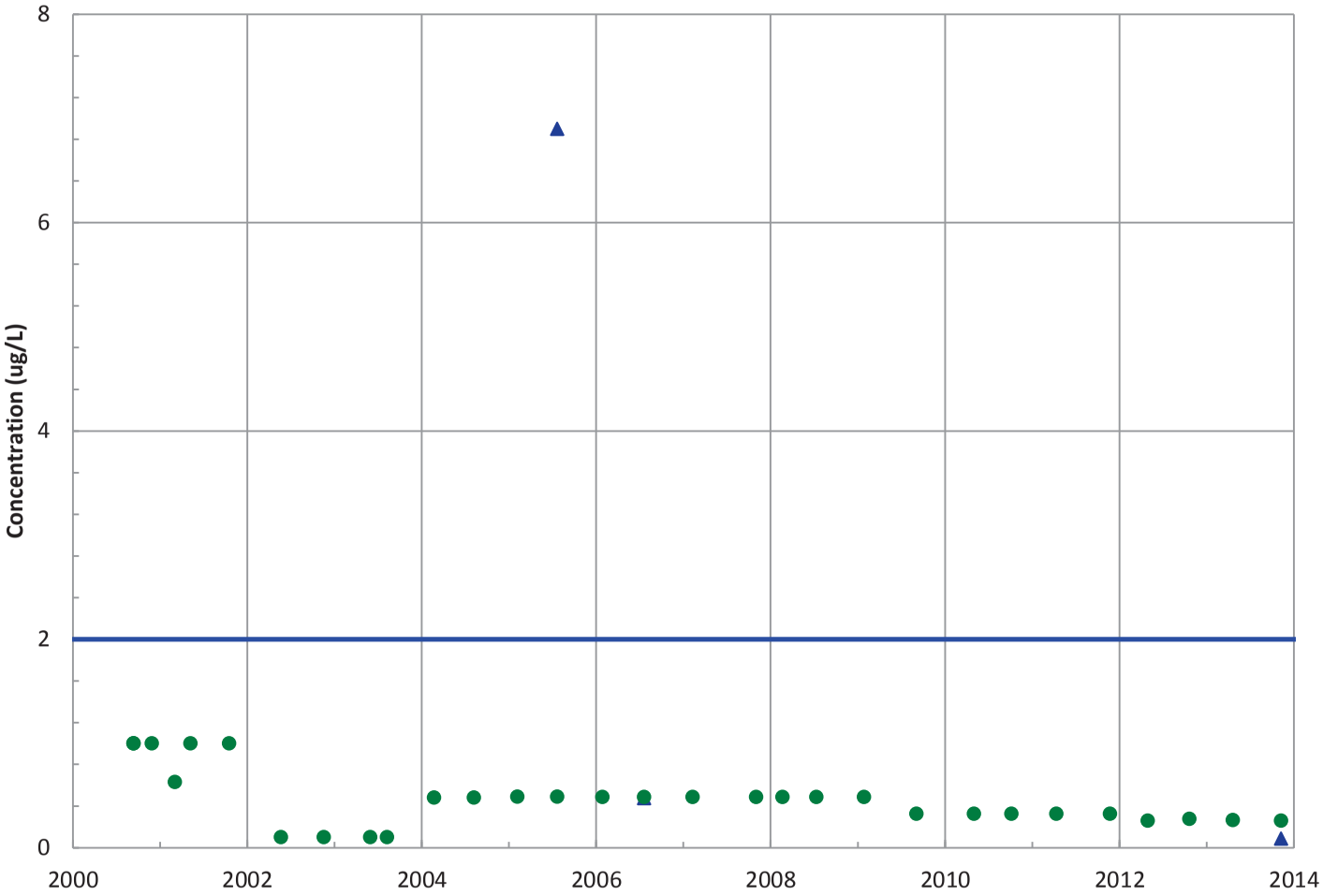
Well Location



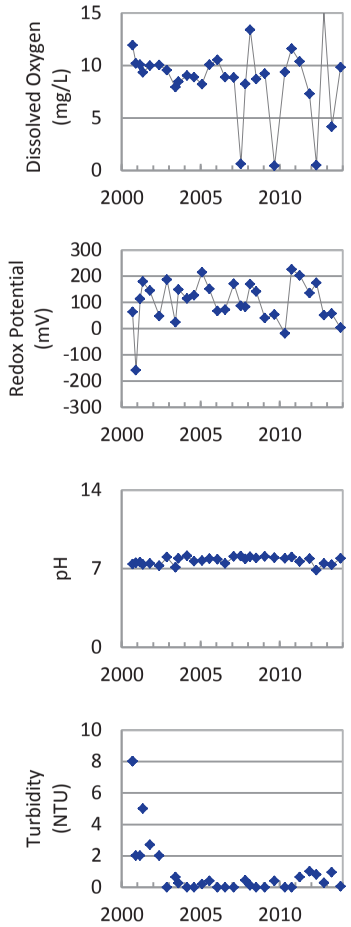
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/12/2000 to 8/8/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1053
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



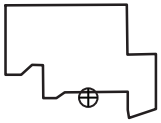
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

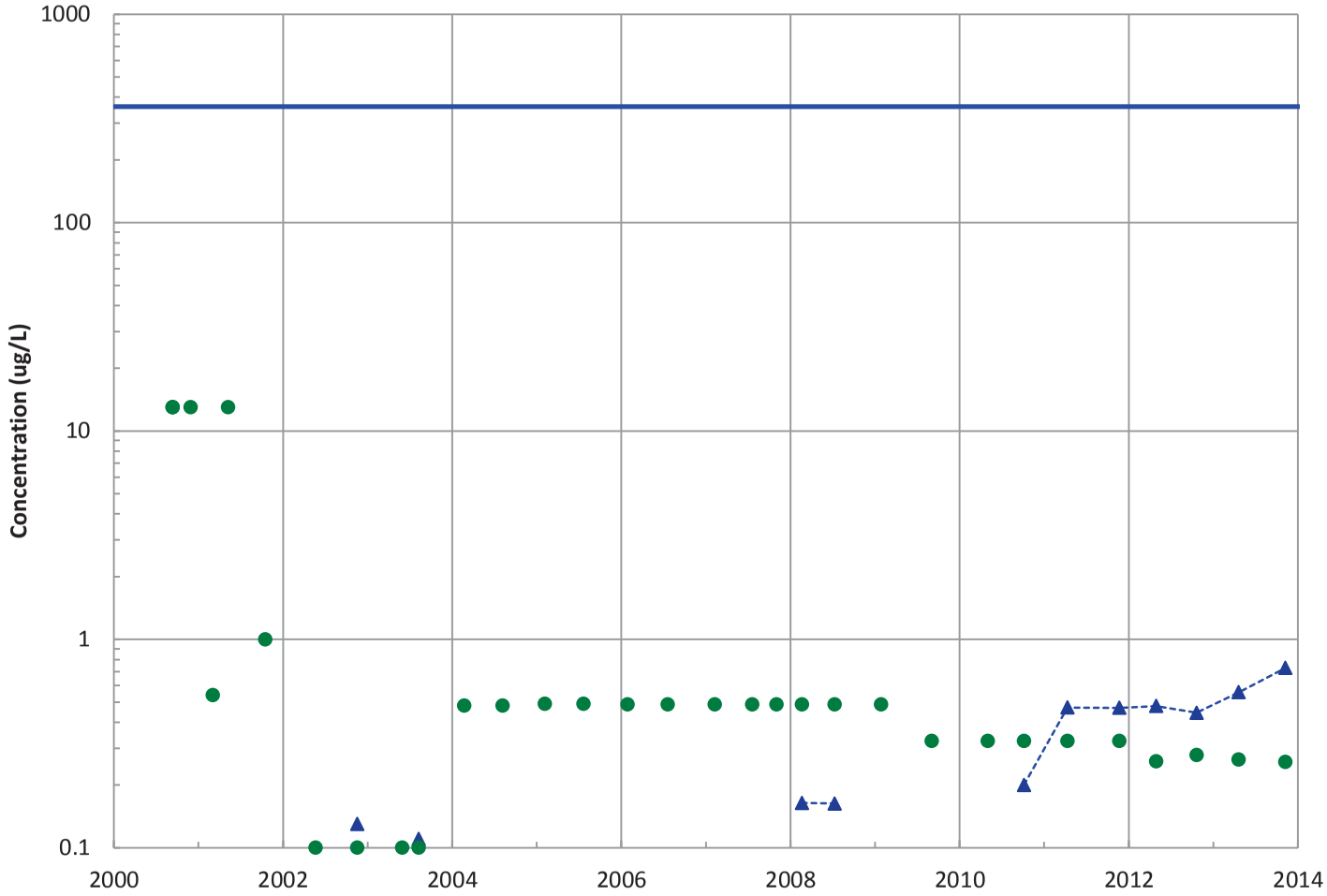
Well Location



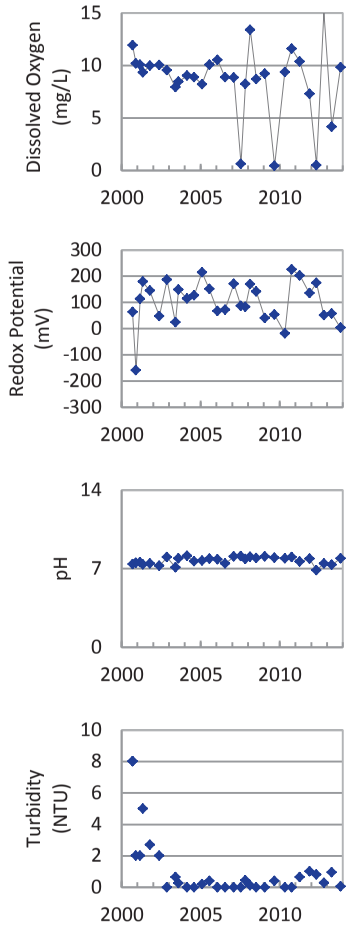
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/12/2000 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1053
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



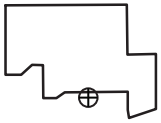
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Probably Increasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

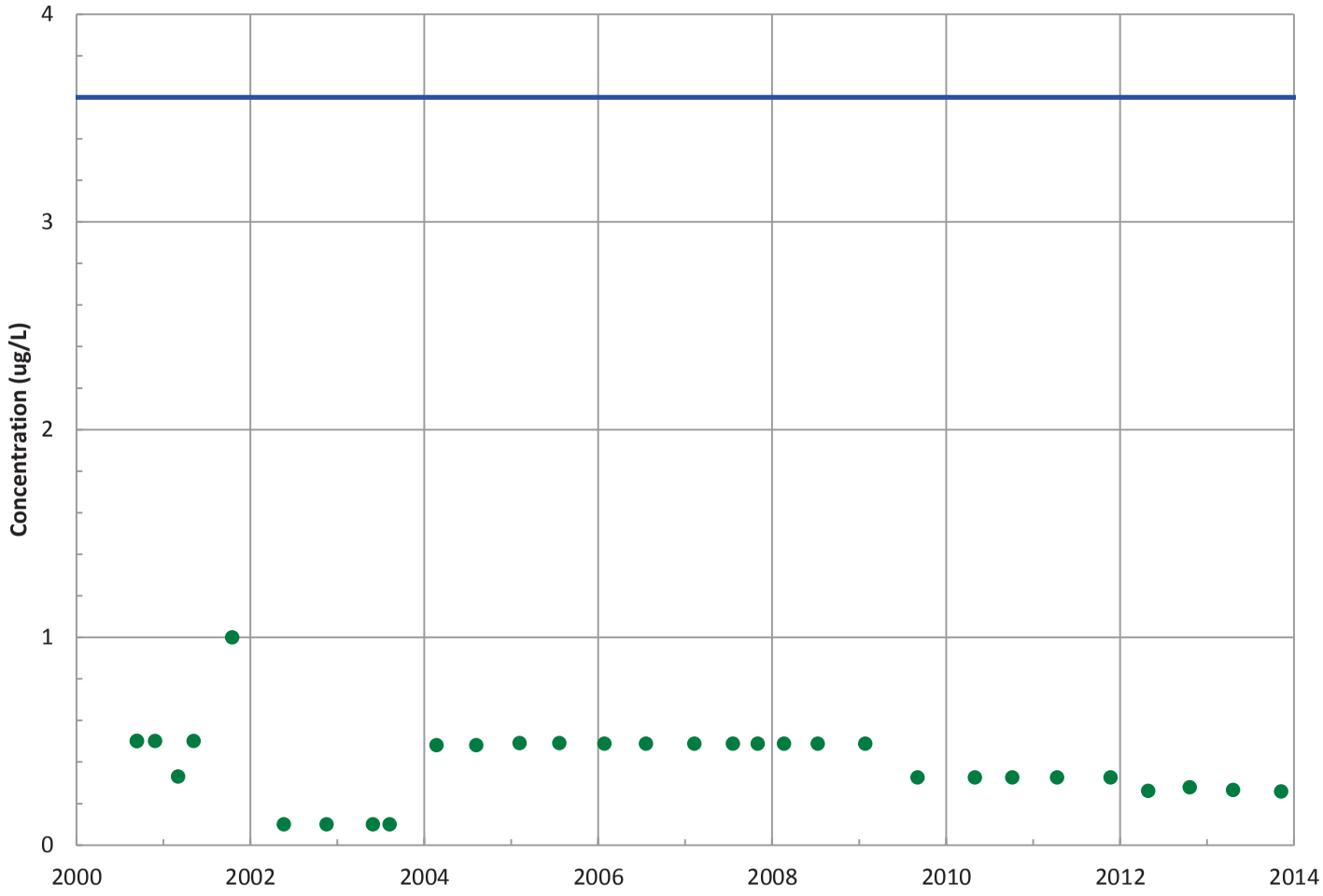
Well Location



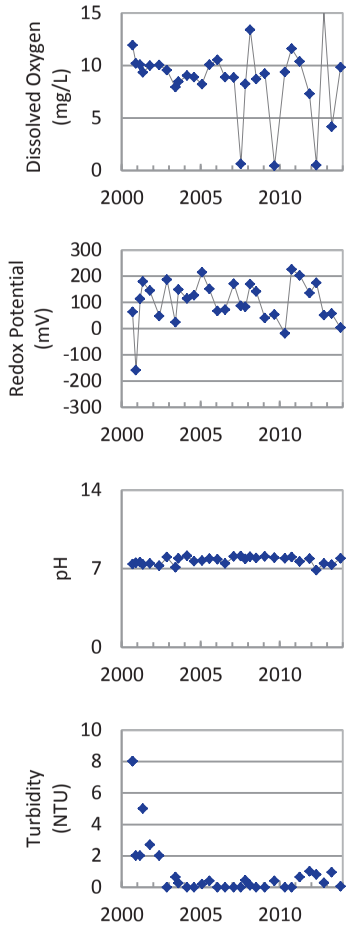
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/12/2000 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1053
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



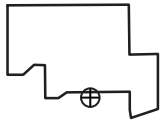
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

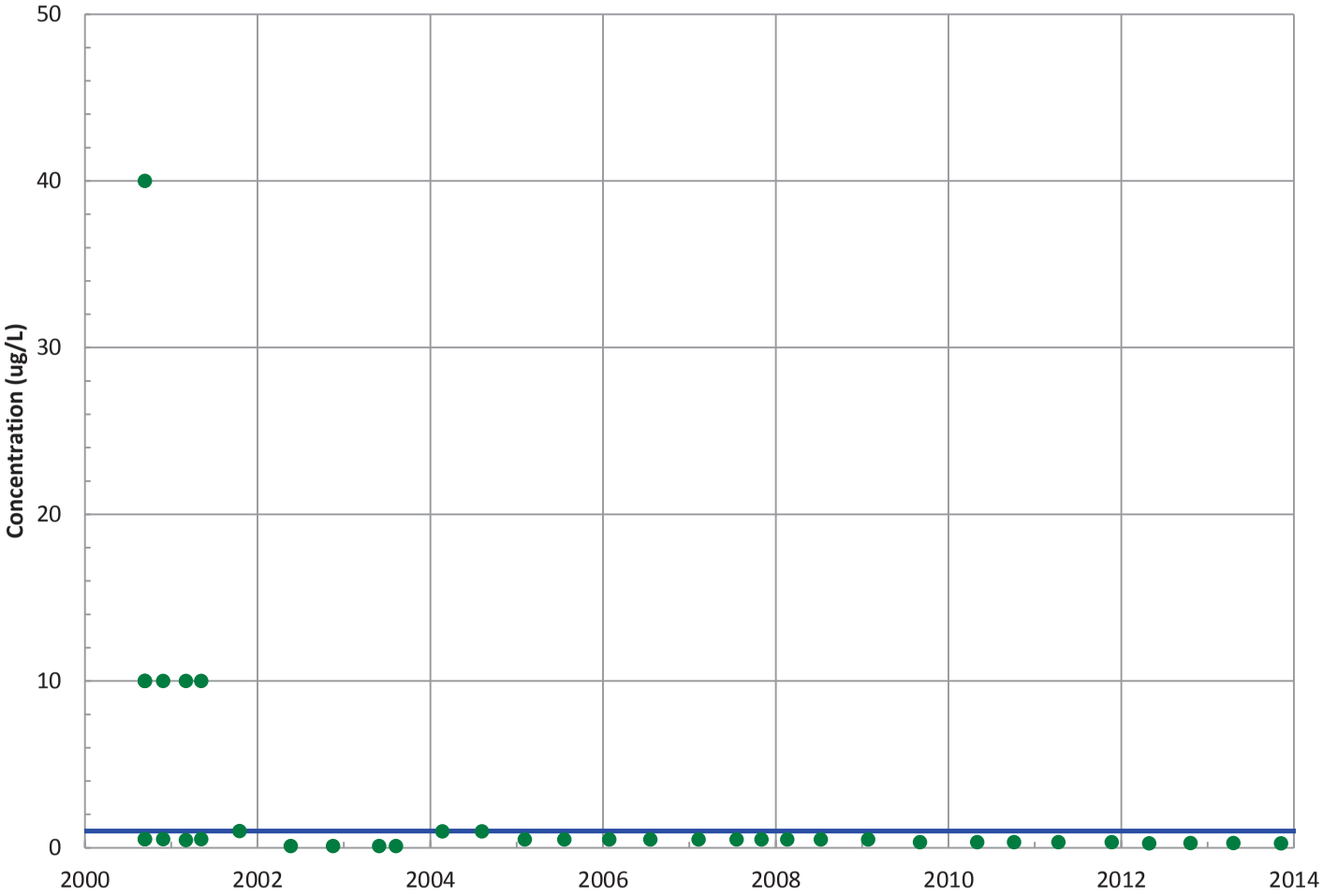
Well Location



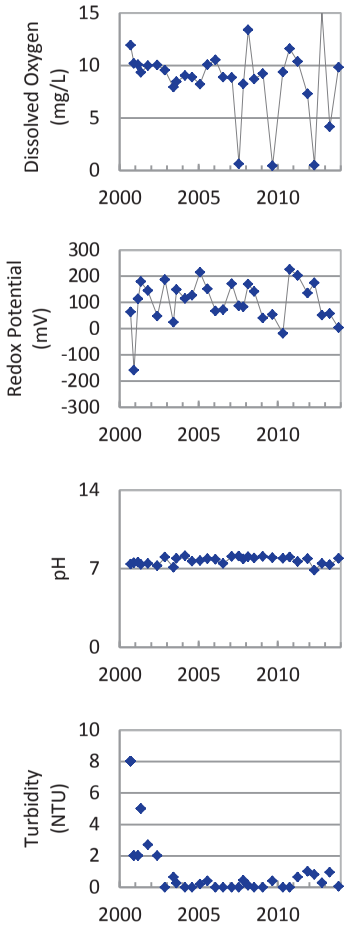
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/12/2000 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1053
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



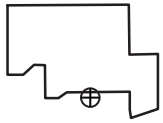
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

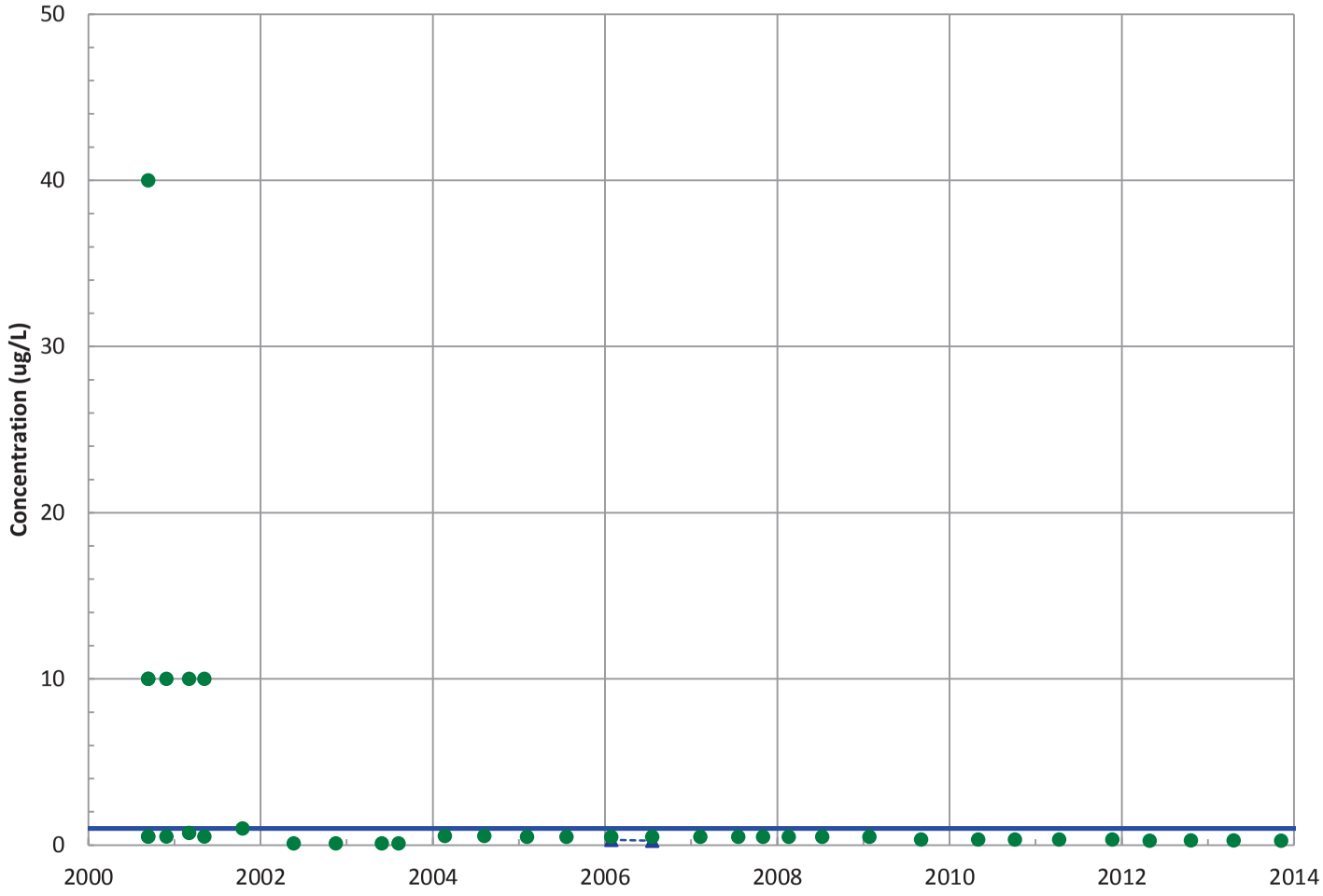
Well Location



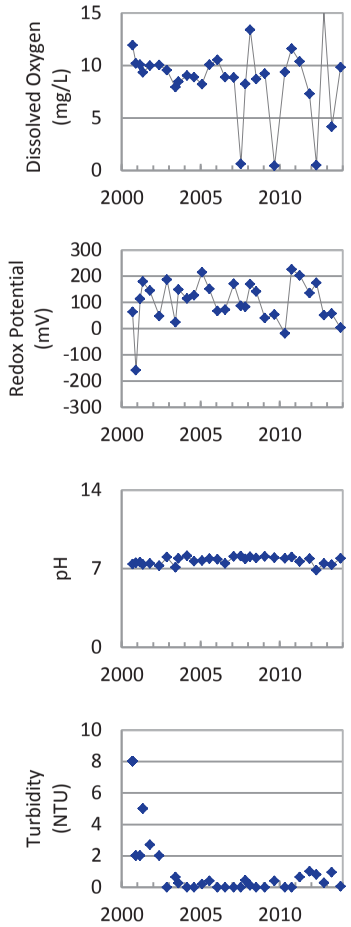
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/12/2000 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1053
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



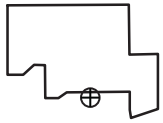
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

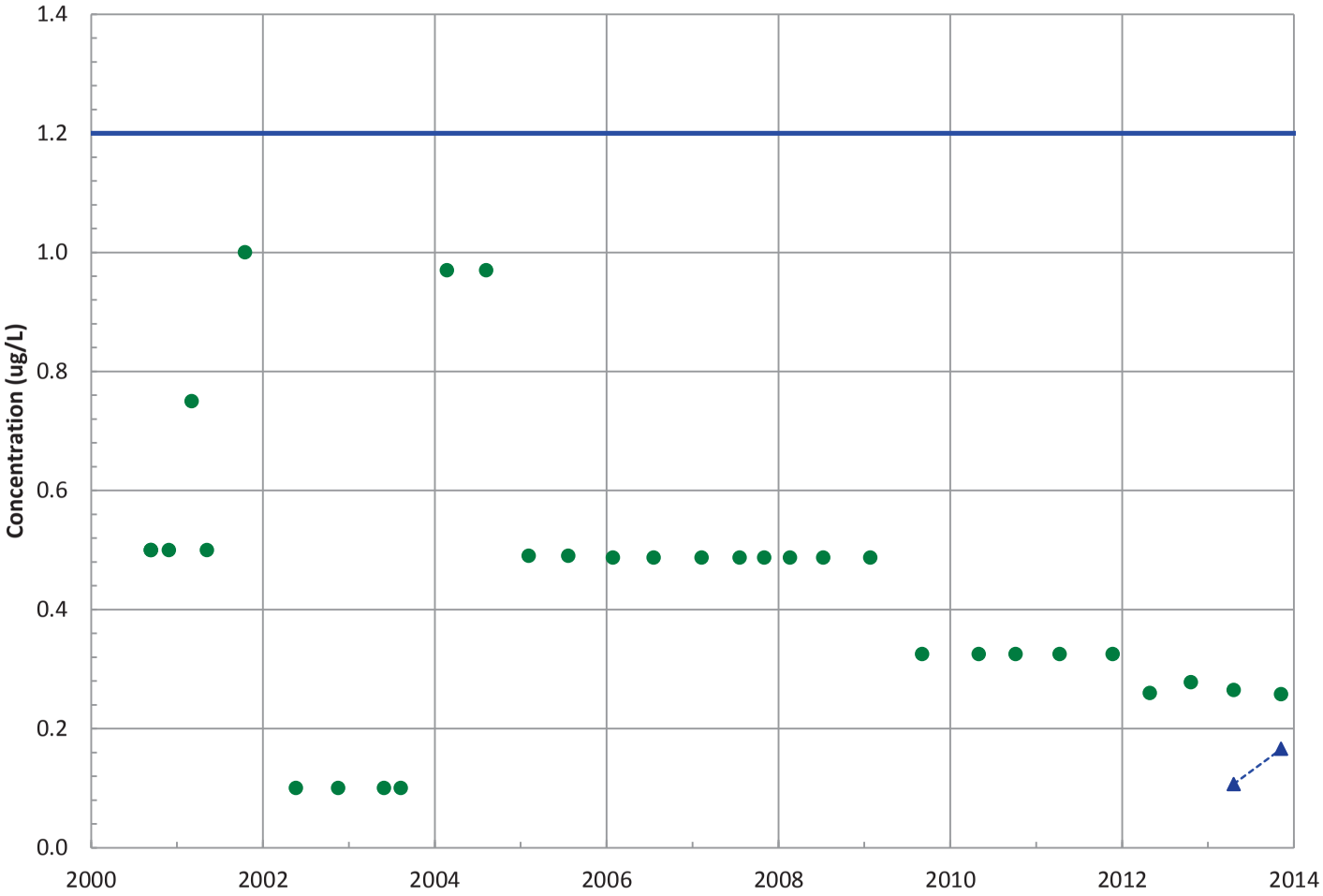
Well Location



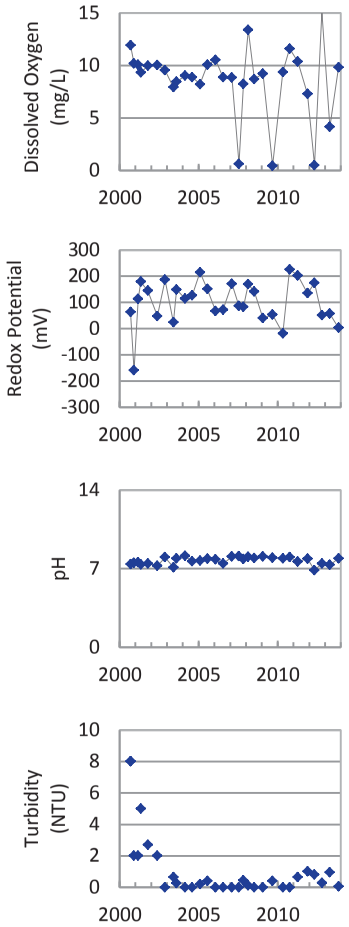
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/12/2000 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1053
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



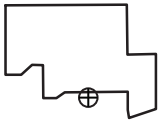
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

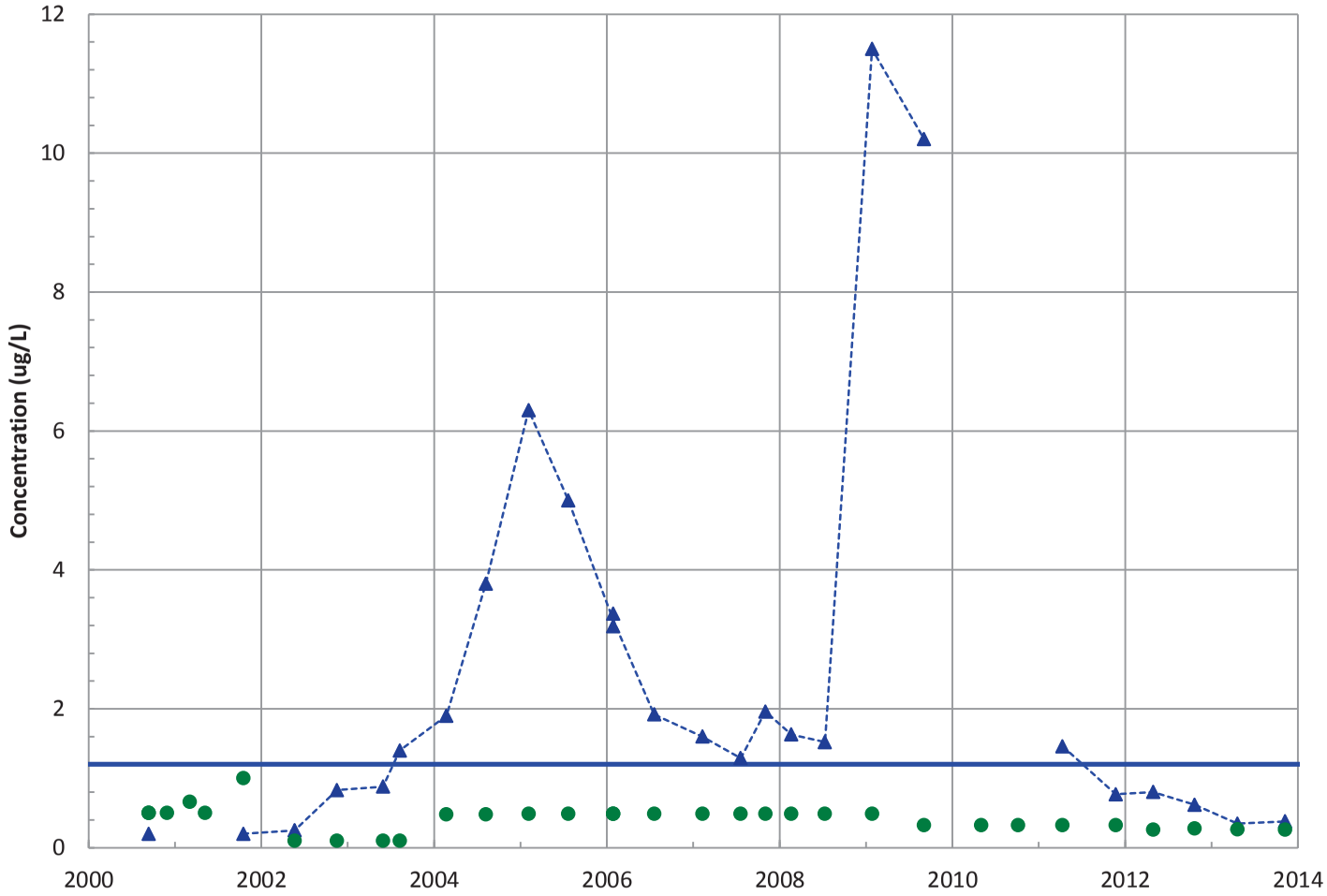
Well Location



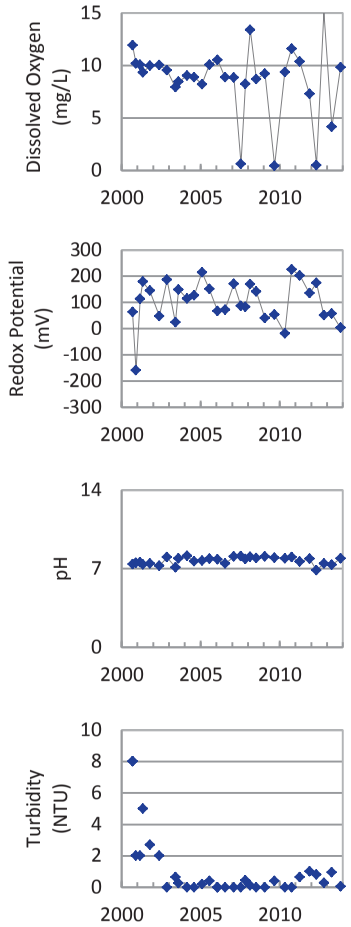
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/12/2000 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1053
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



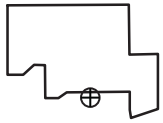
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

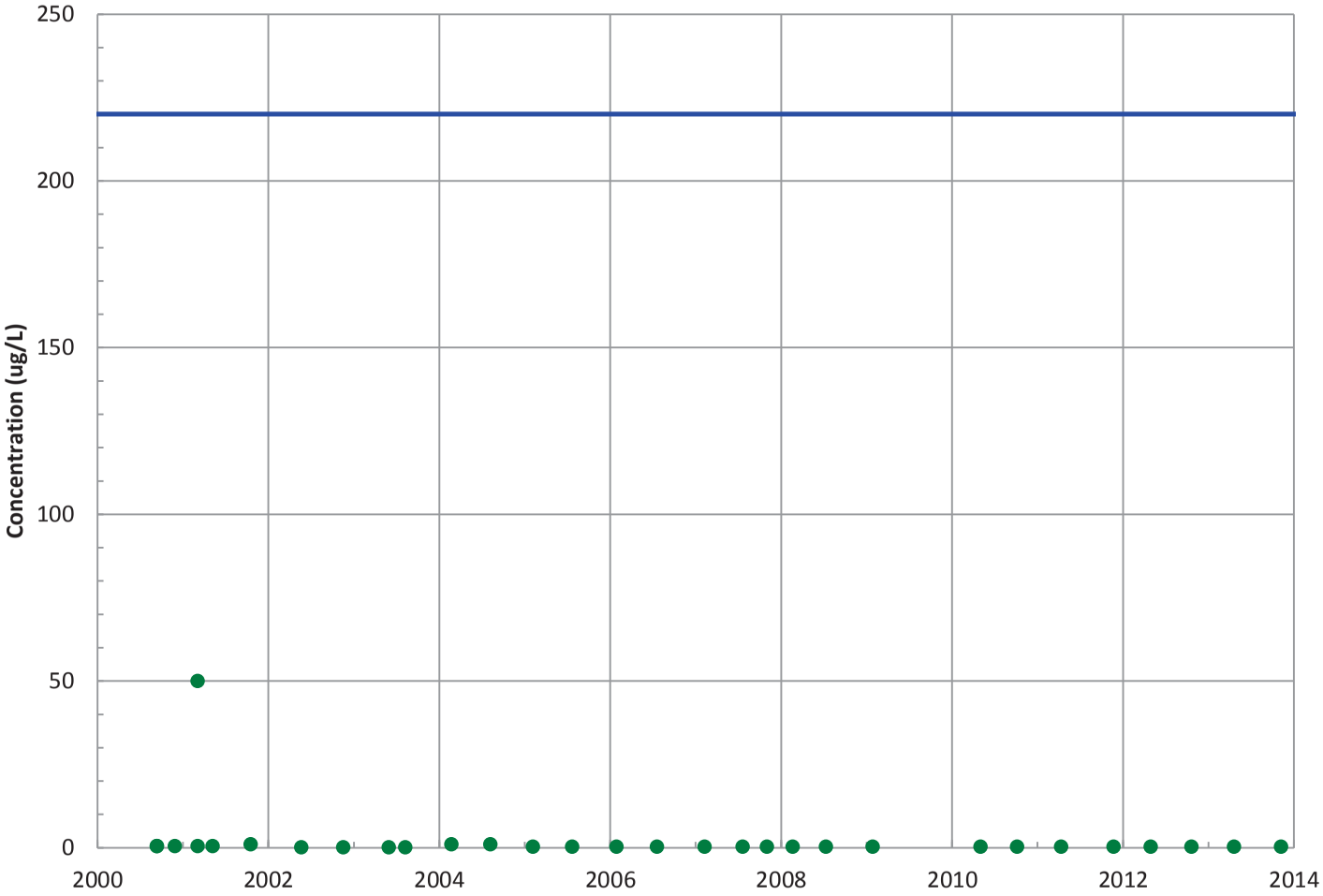
Well Location



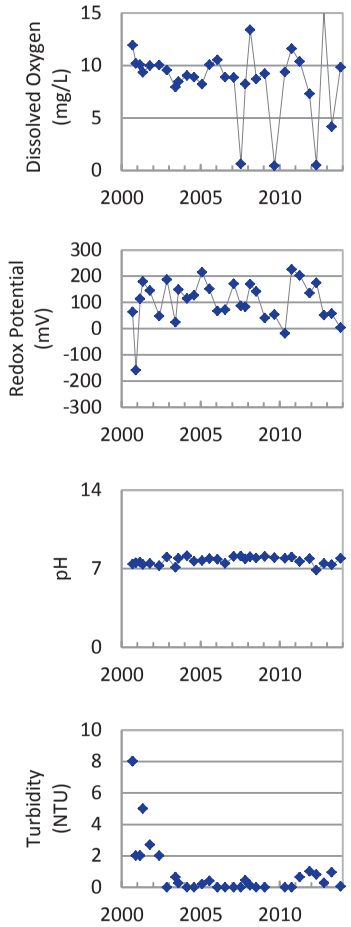
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/12/2000 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1053
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



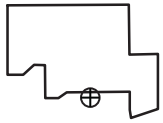
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

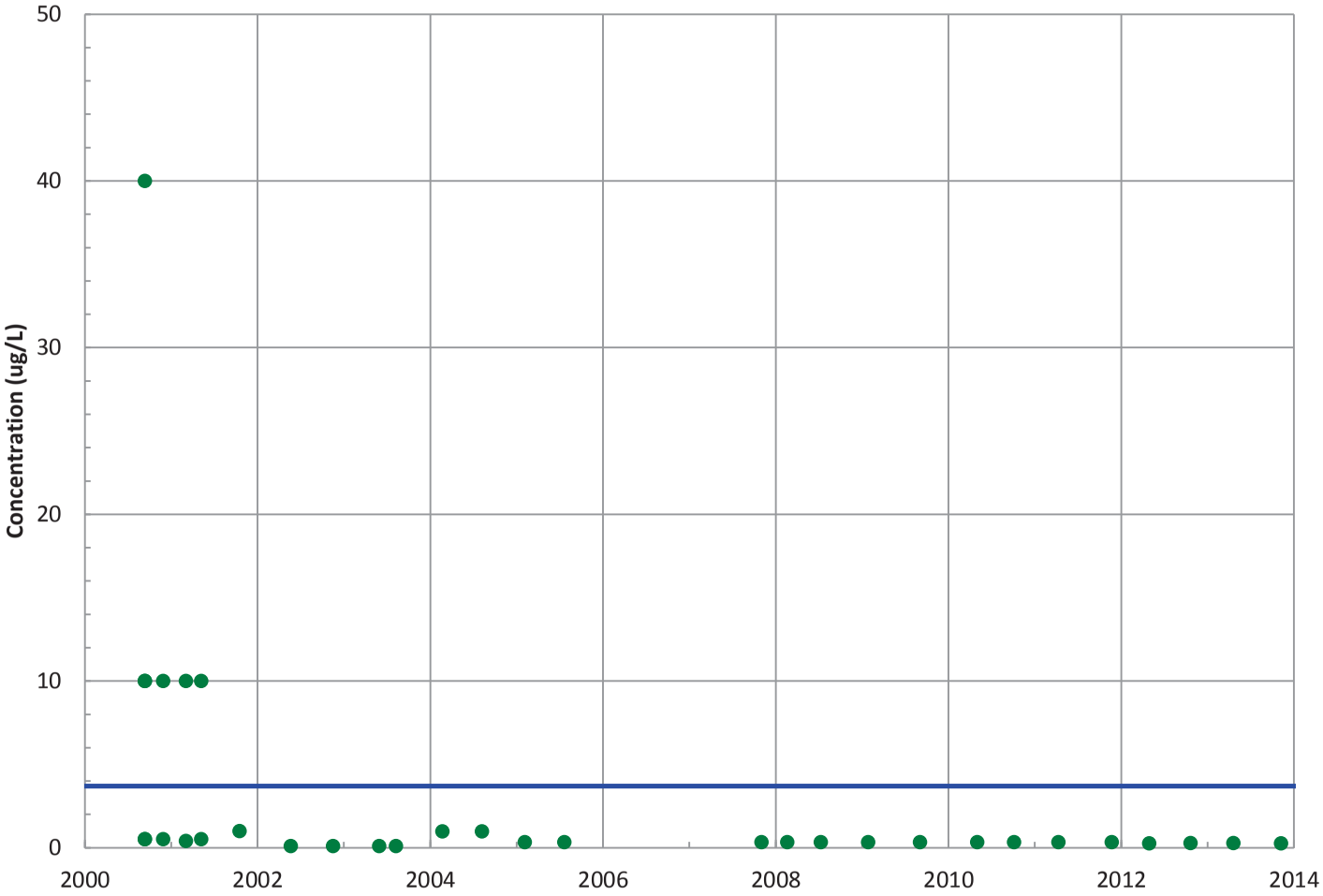
Well Location



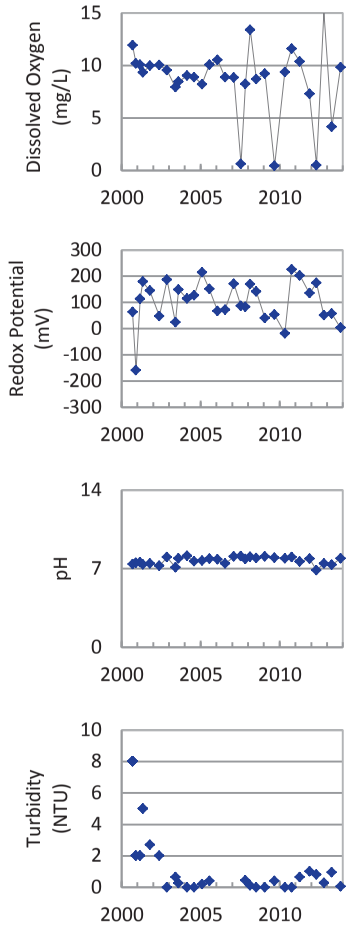
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/12/2000 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1053
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



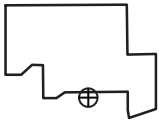
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

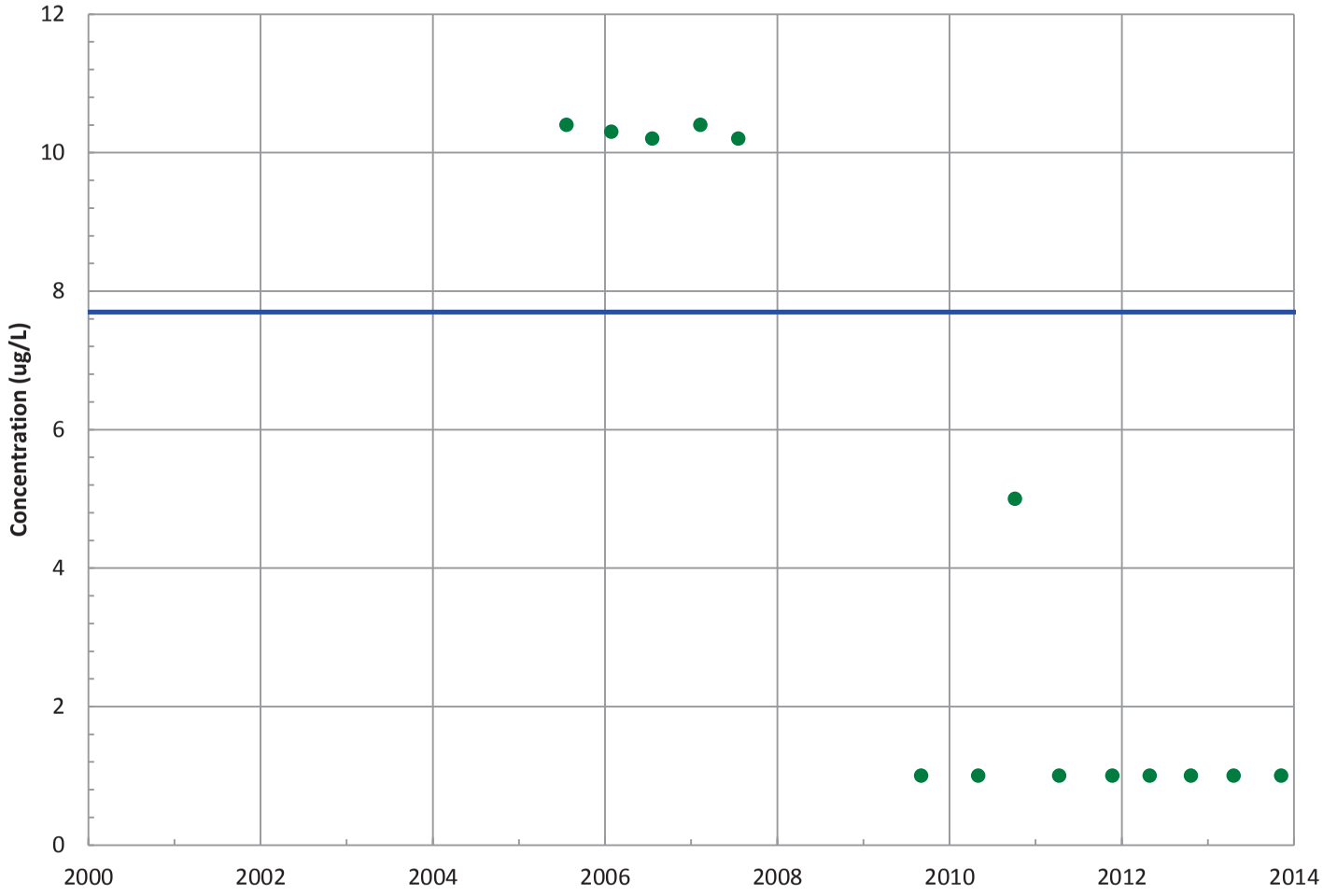
Well Location



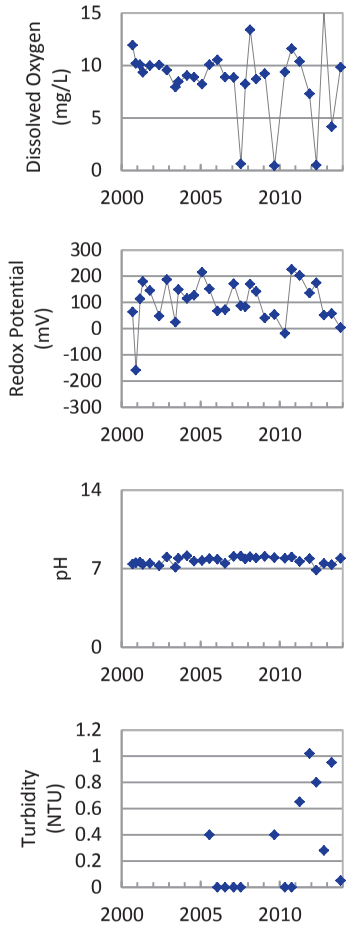
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/12/2000 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1053
1,4-Dioxane (p-Dioxane) Trend in Perched Aquifer



Field Parameters



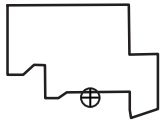
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

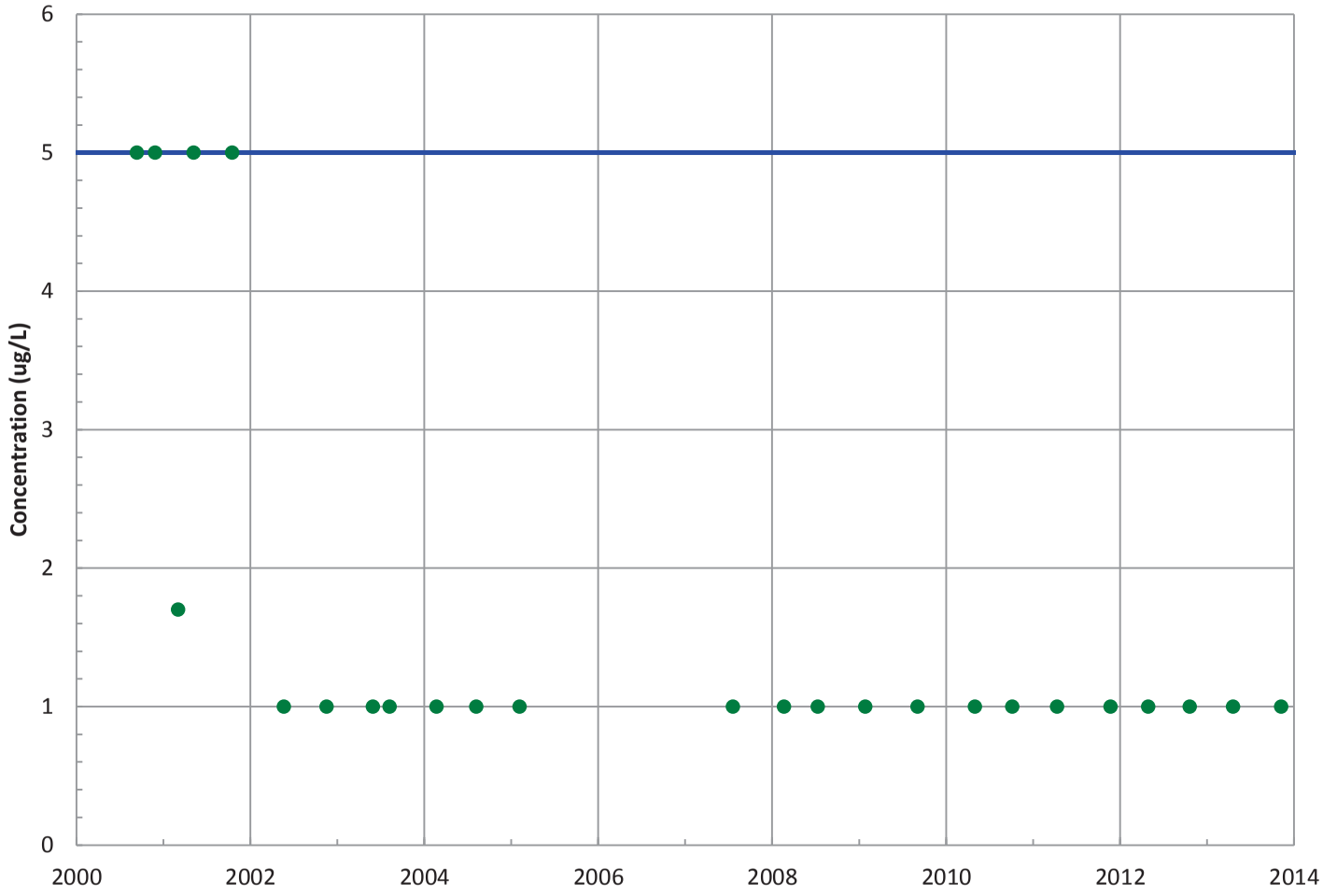
Well Location



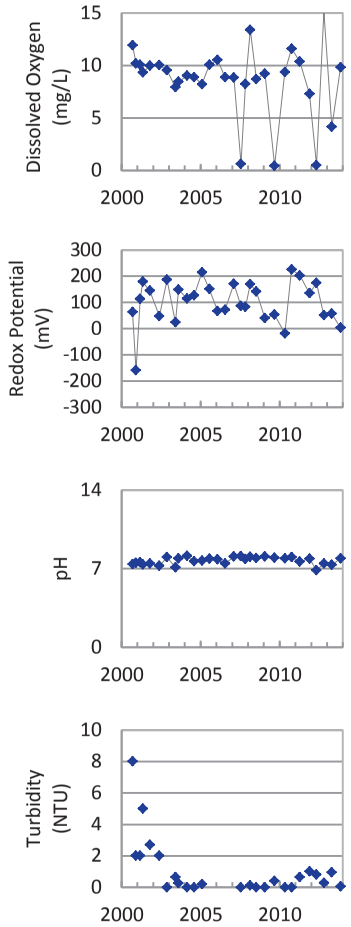
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 7/26/2005 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1053
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



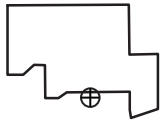
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

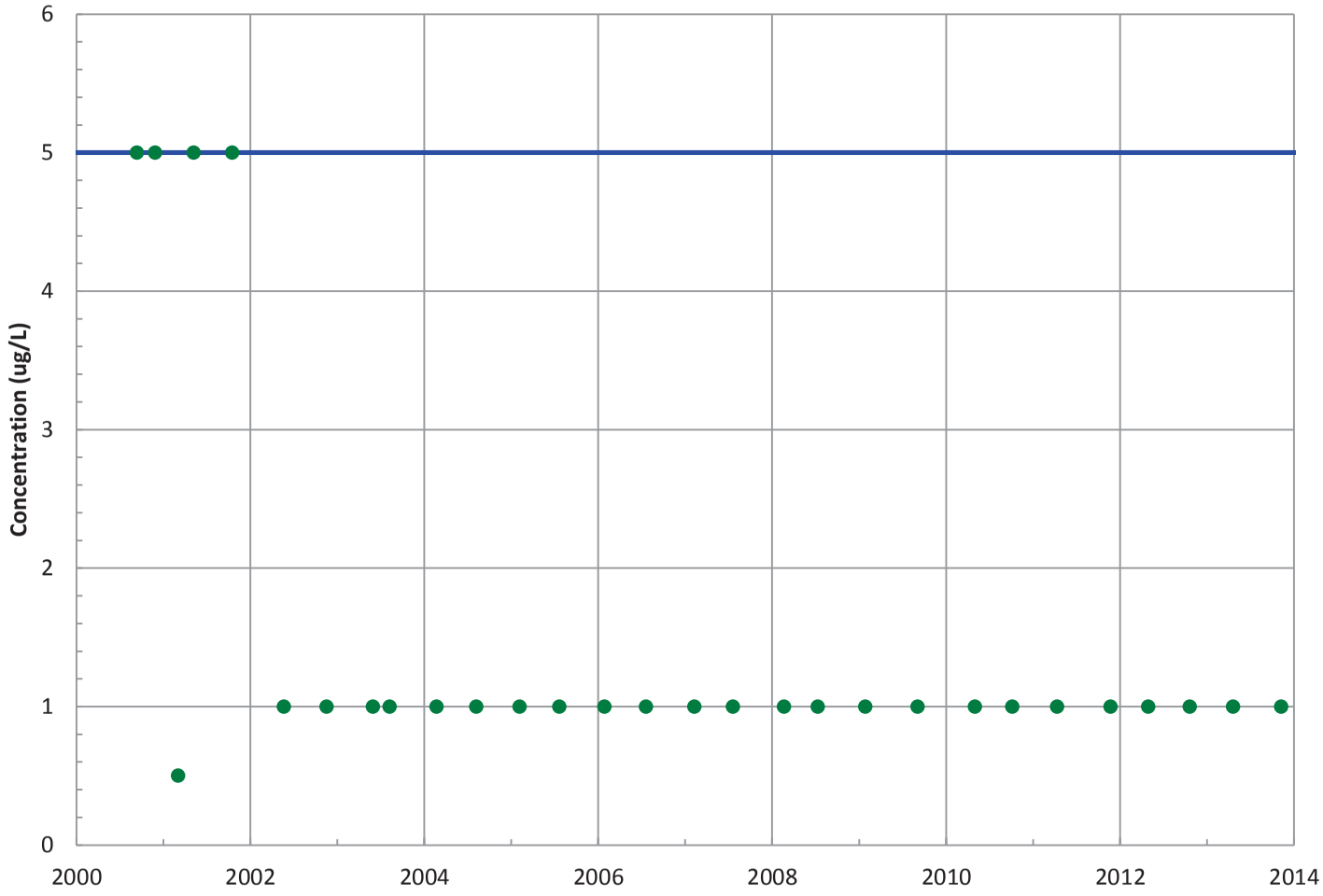
Well Location



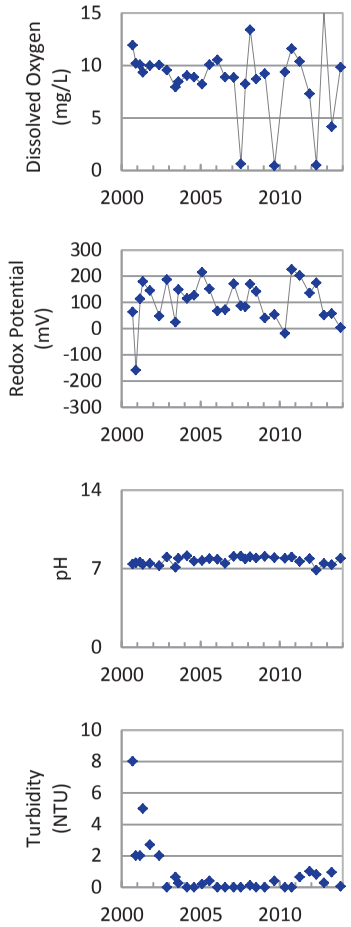
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/12/2000 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1053
Trichloroethene Trend in Perched Aquifer



Field Parameters



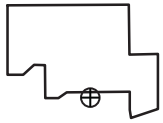
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

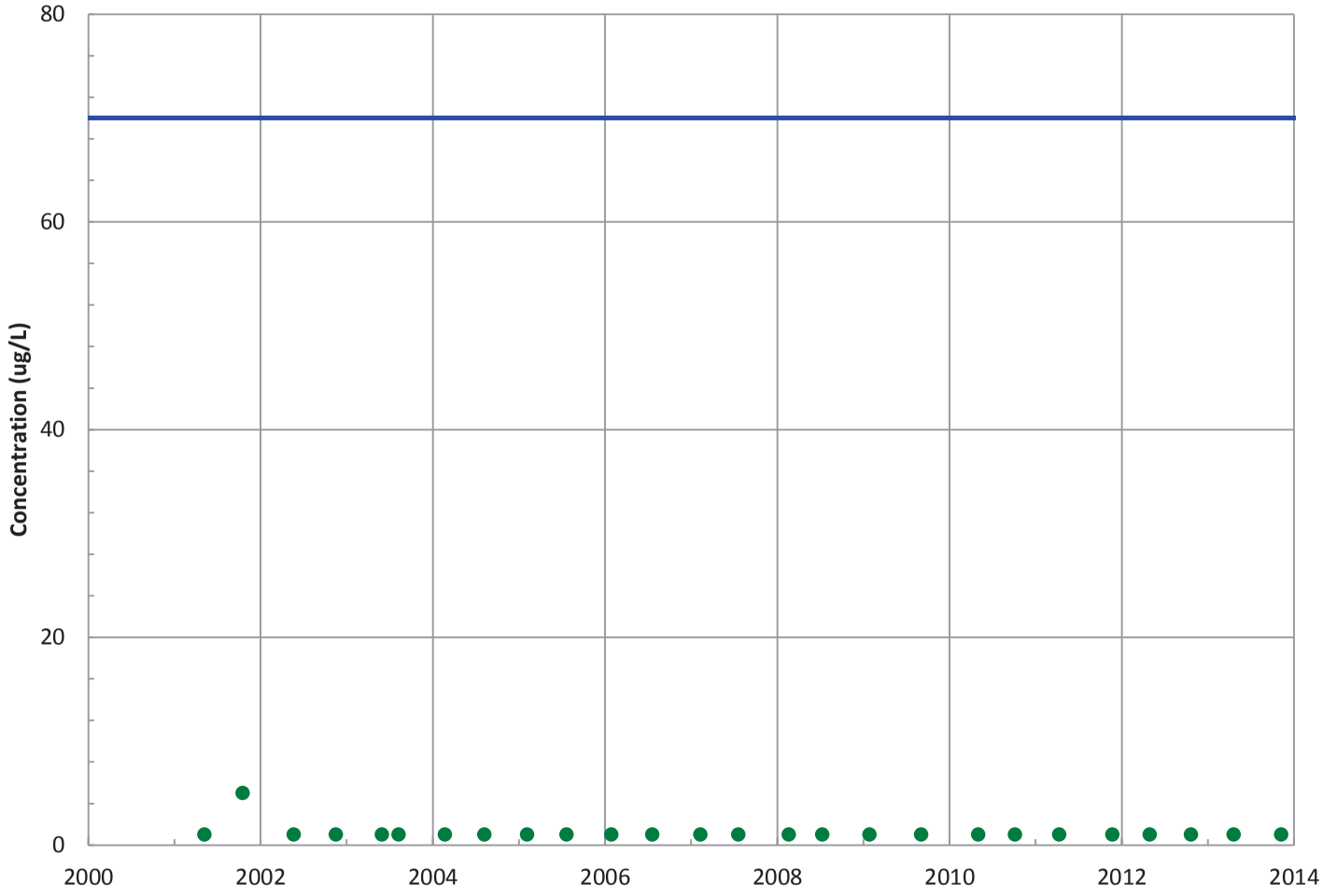
Well Location



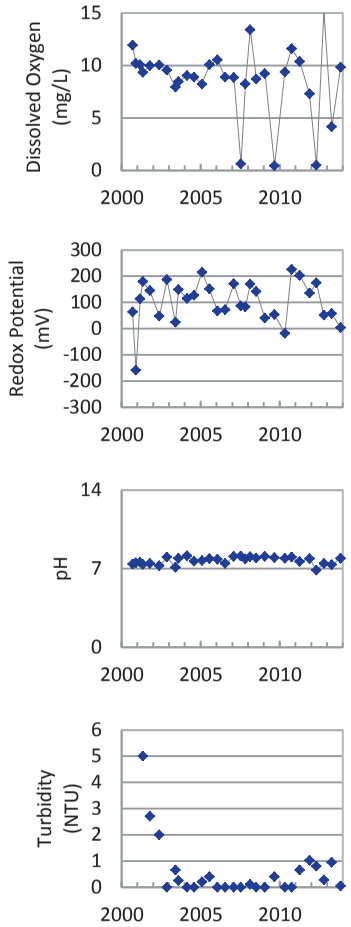
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/12/2000 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1053
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



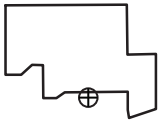
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

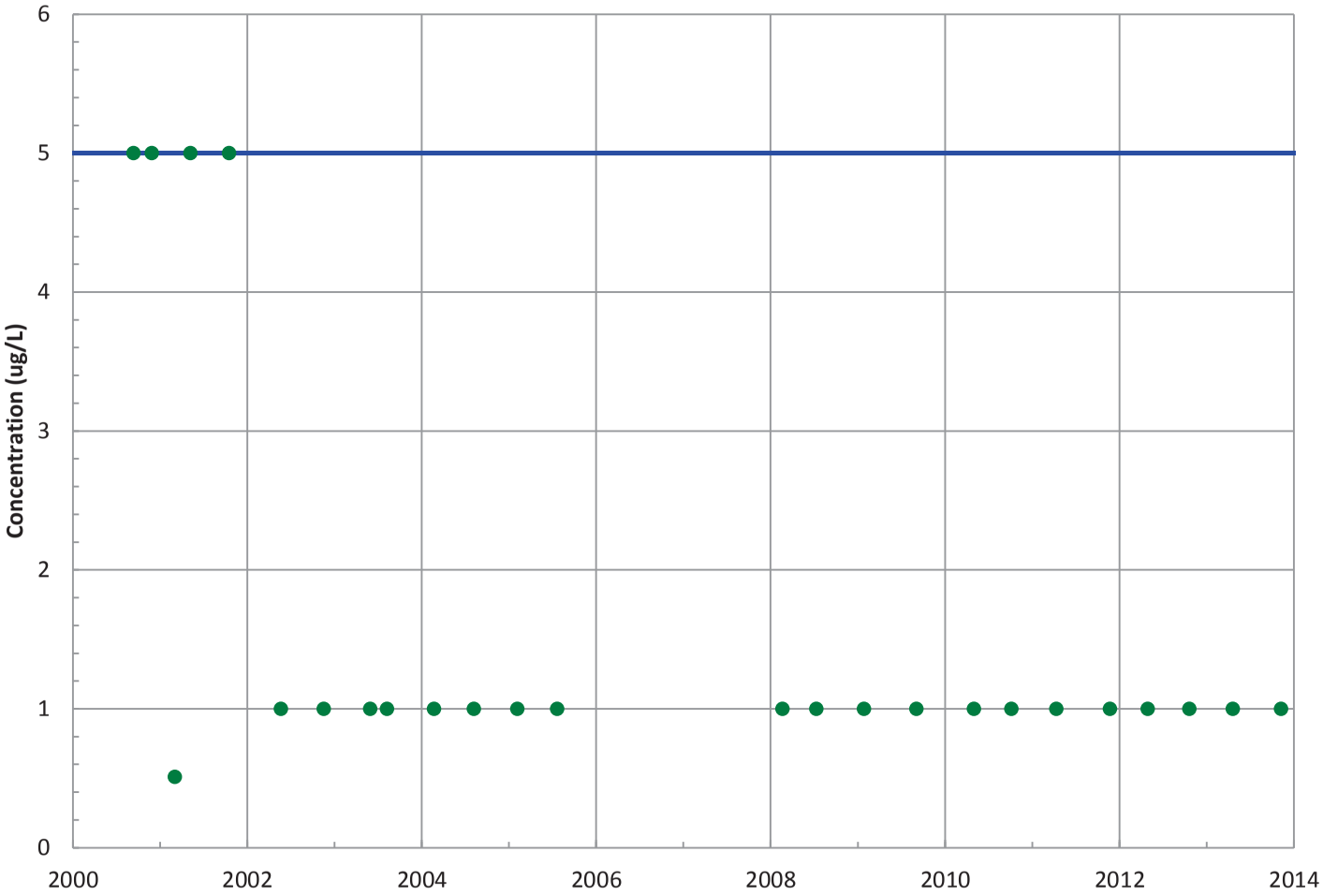
Well Location



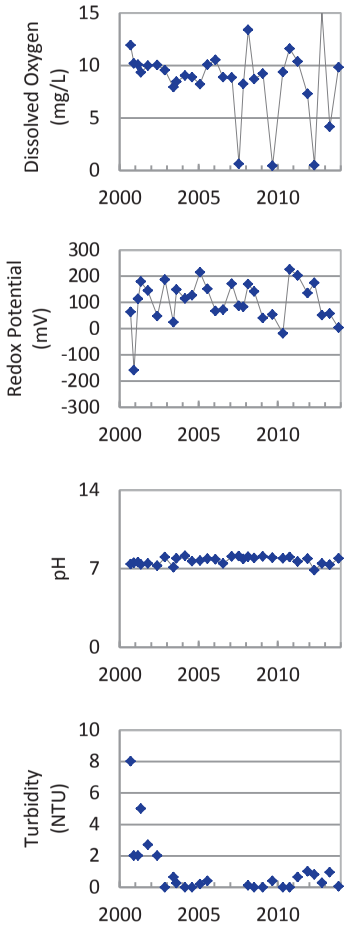
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/9/2001 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1053
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



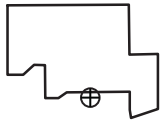
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

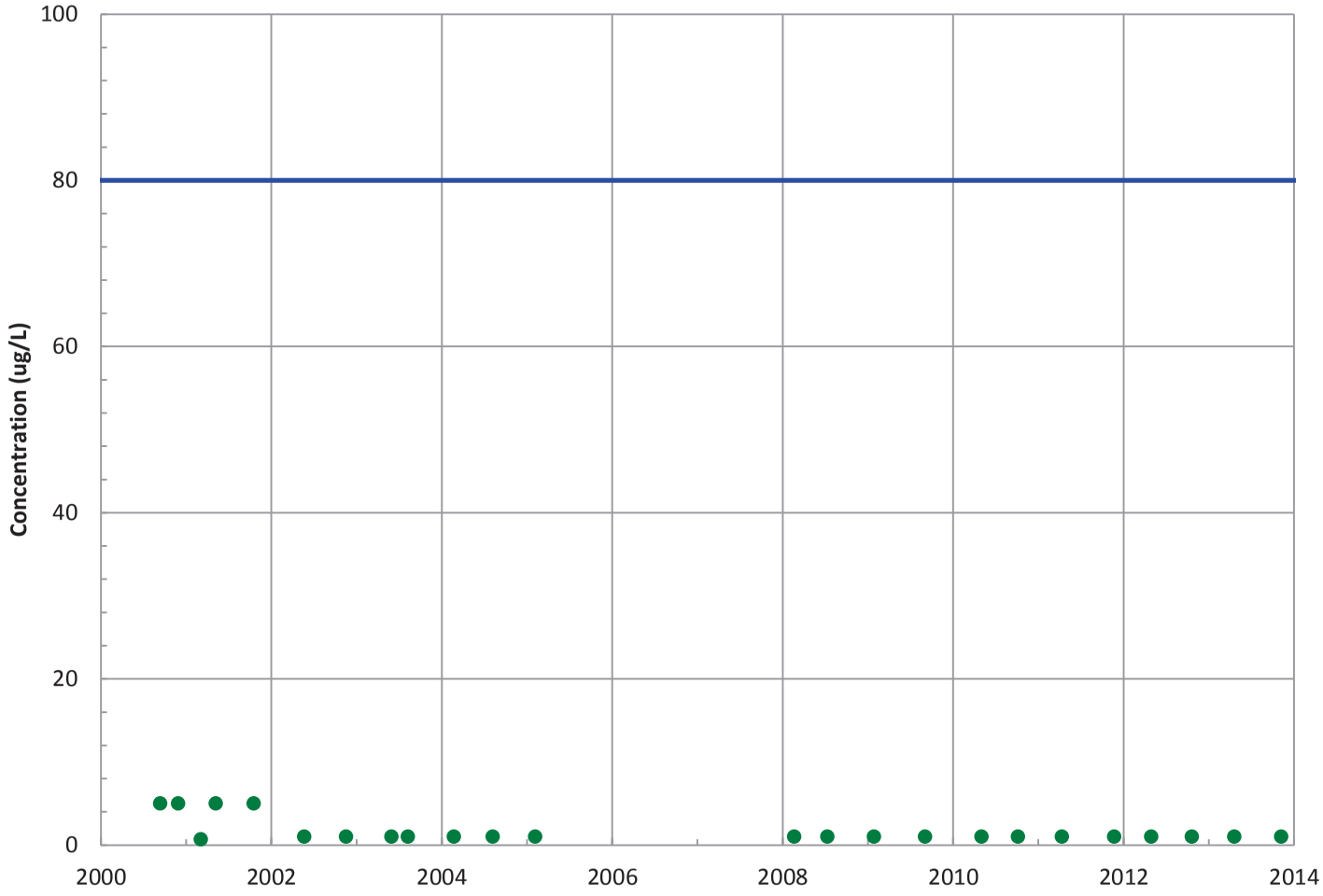
Well Location



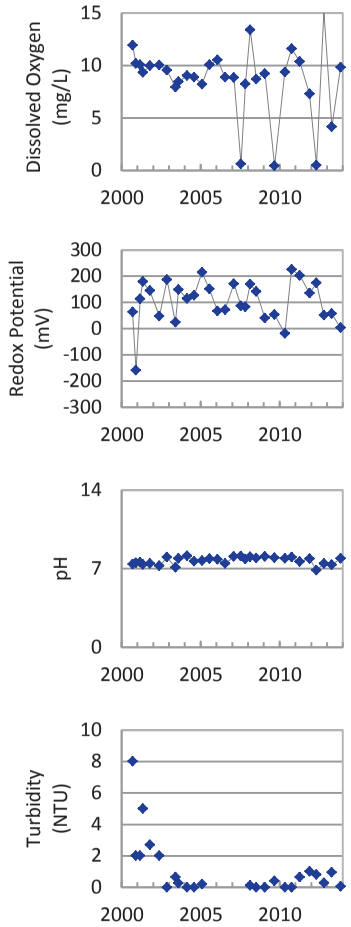
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/12/2000 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1053
Chloroform Trend in Perched Aquifer



Field Parameters



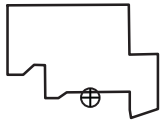
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

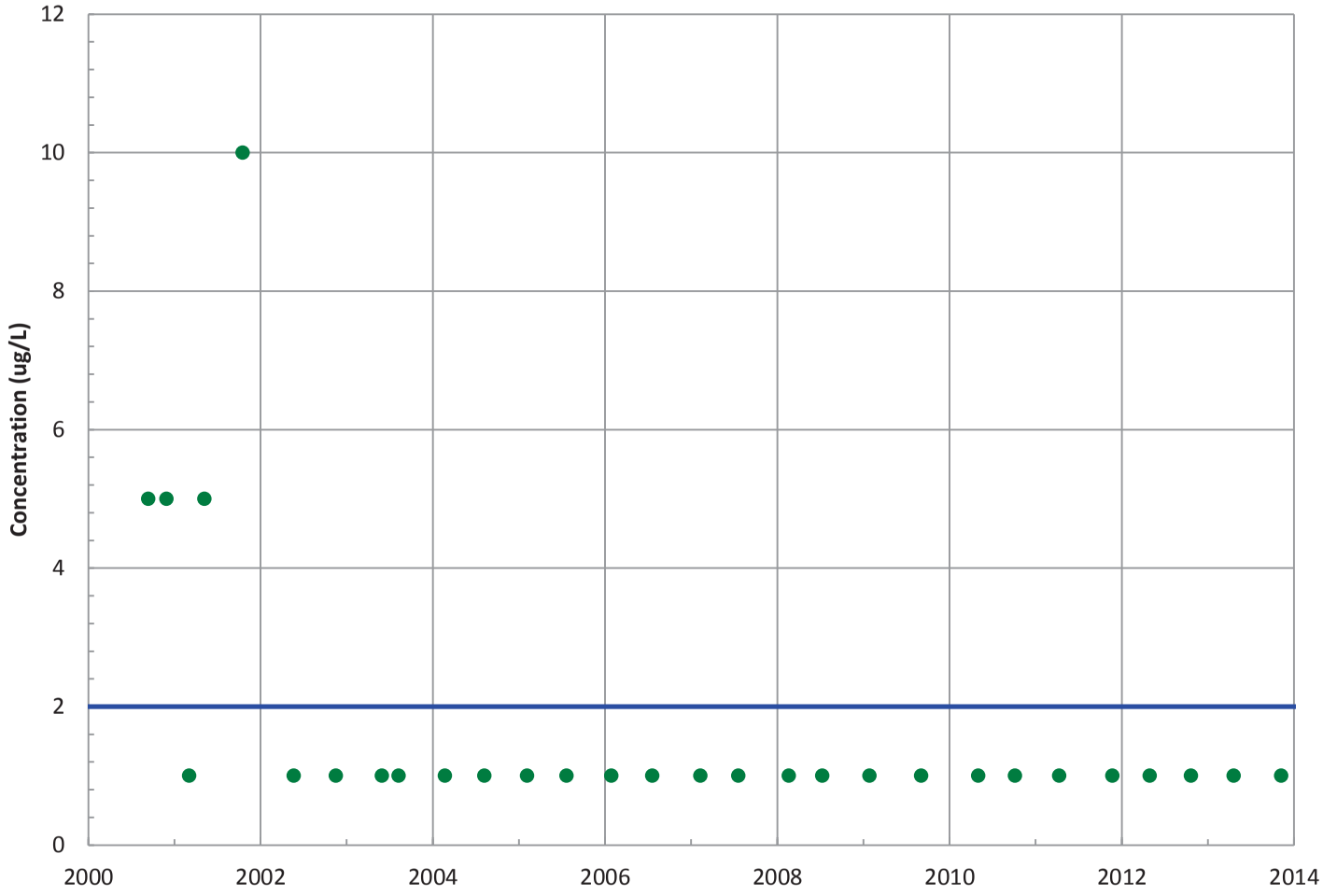
Well Location



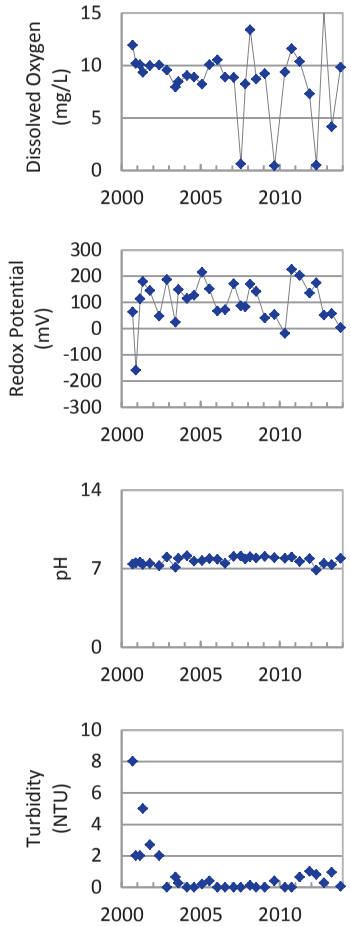
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/12/2000 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1053
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



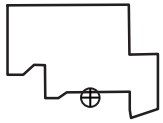
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

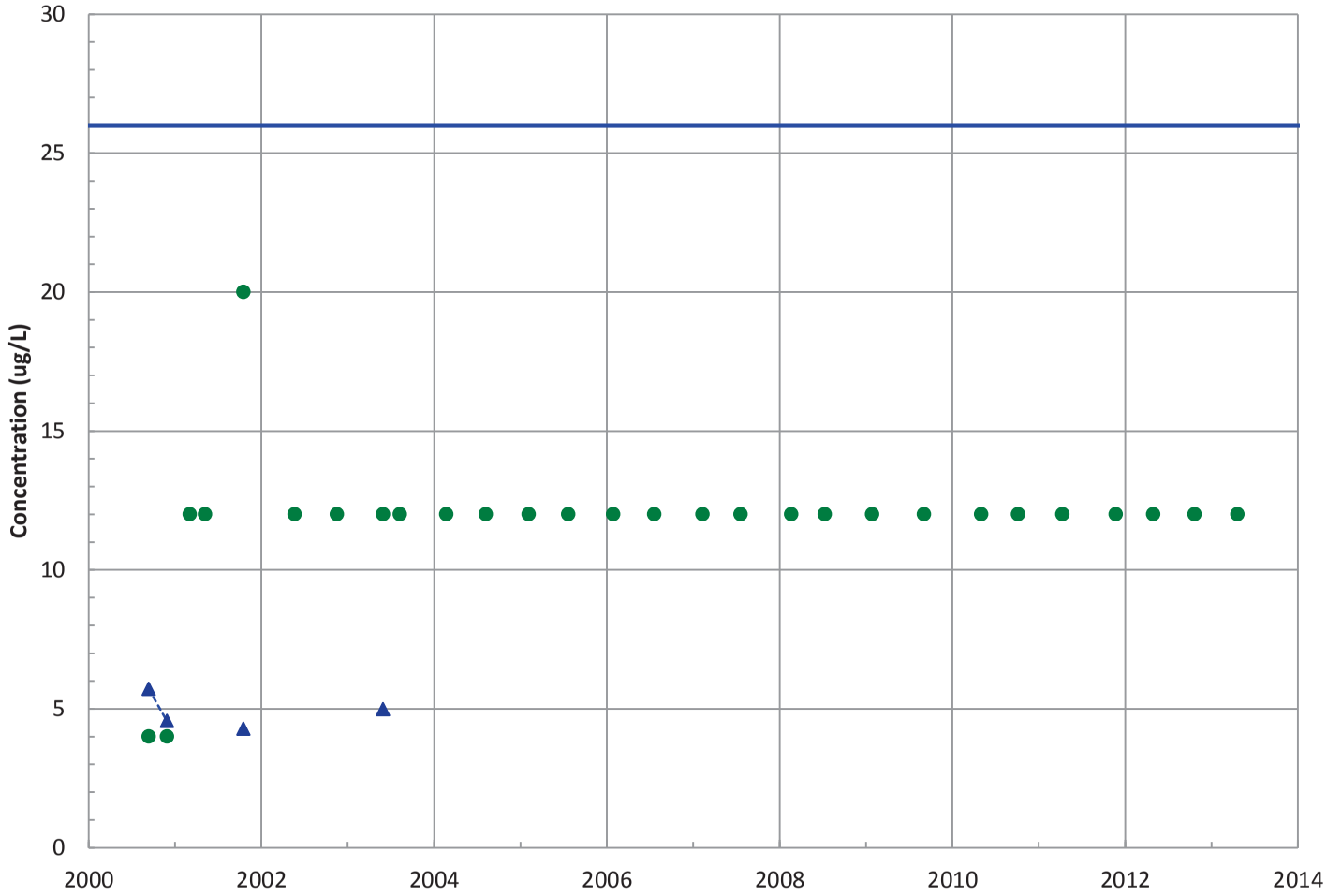
Well Location



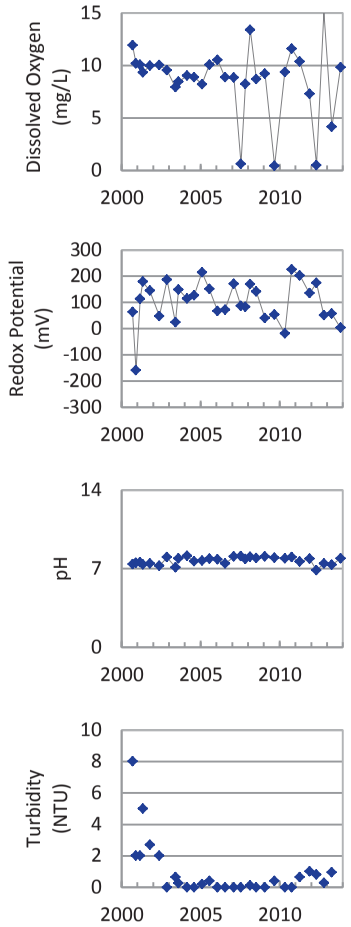
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/12/2000 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1053
Perchlorate Trend in Perched Aquifer



Field Parameters



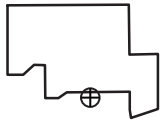
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

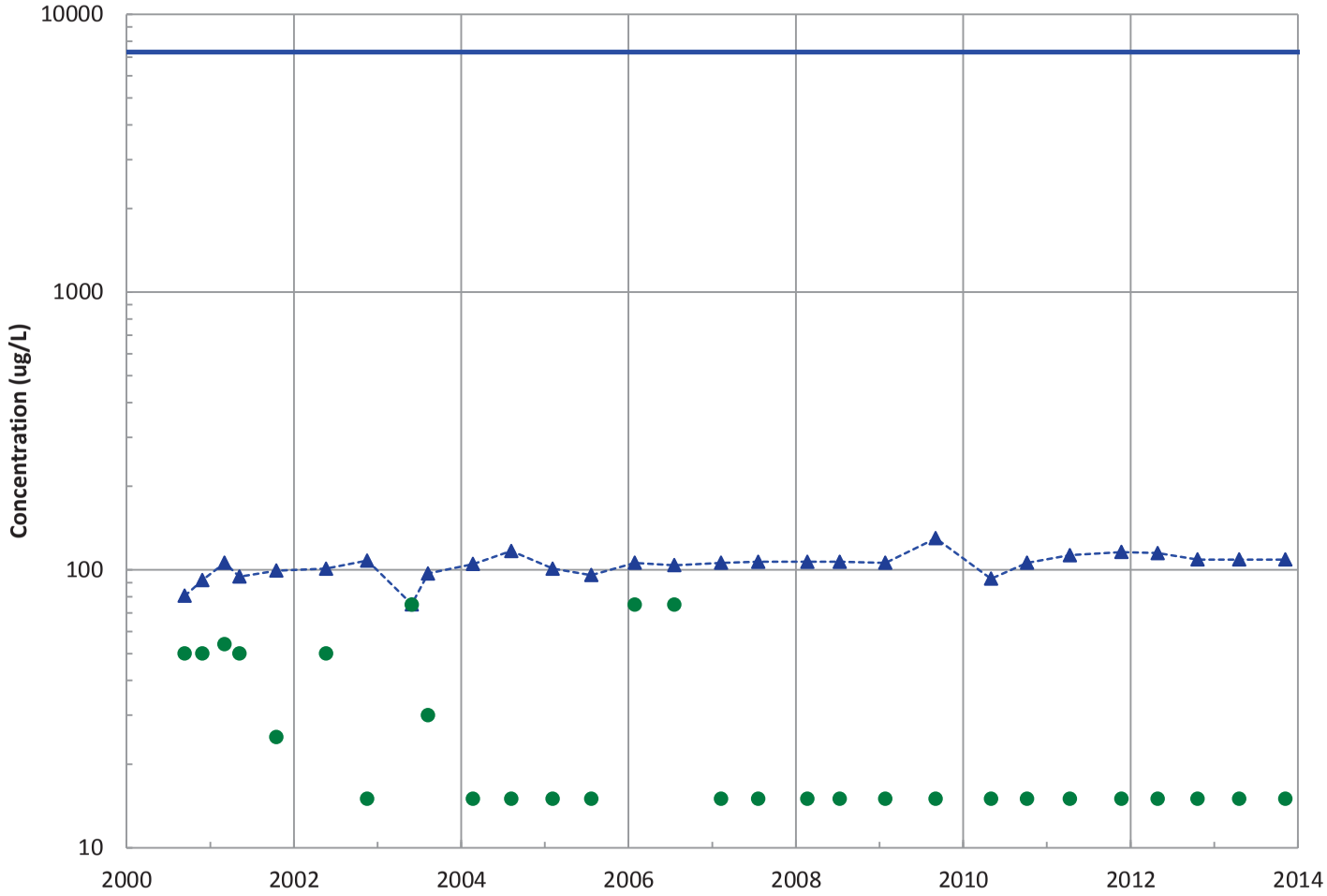
Well Location



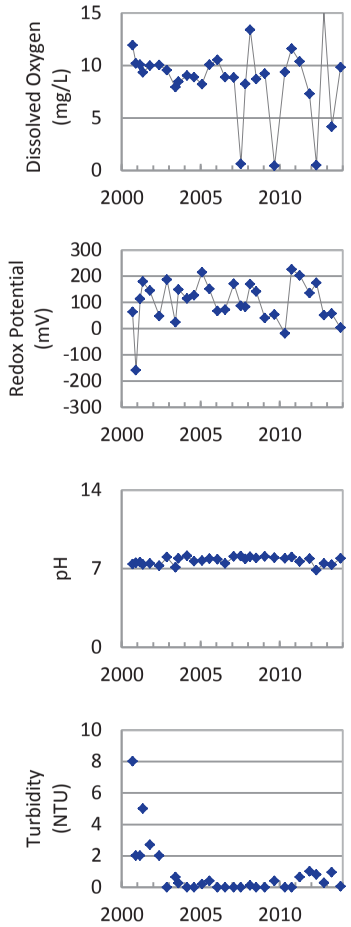
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/12/2000 to 4/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1053
Boron Trend in Perched Aquifer



Field Parameters



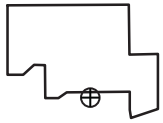
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

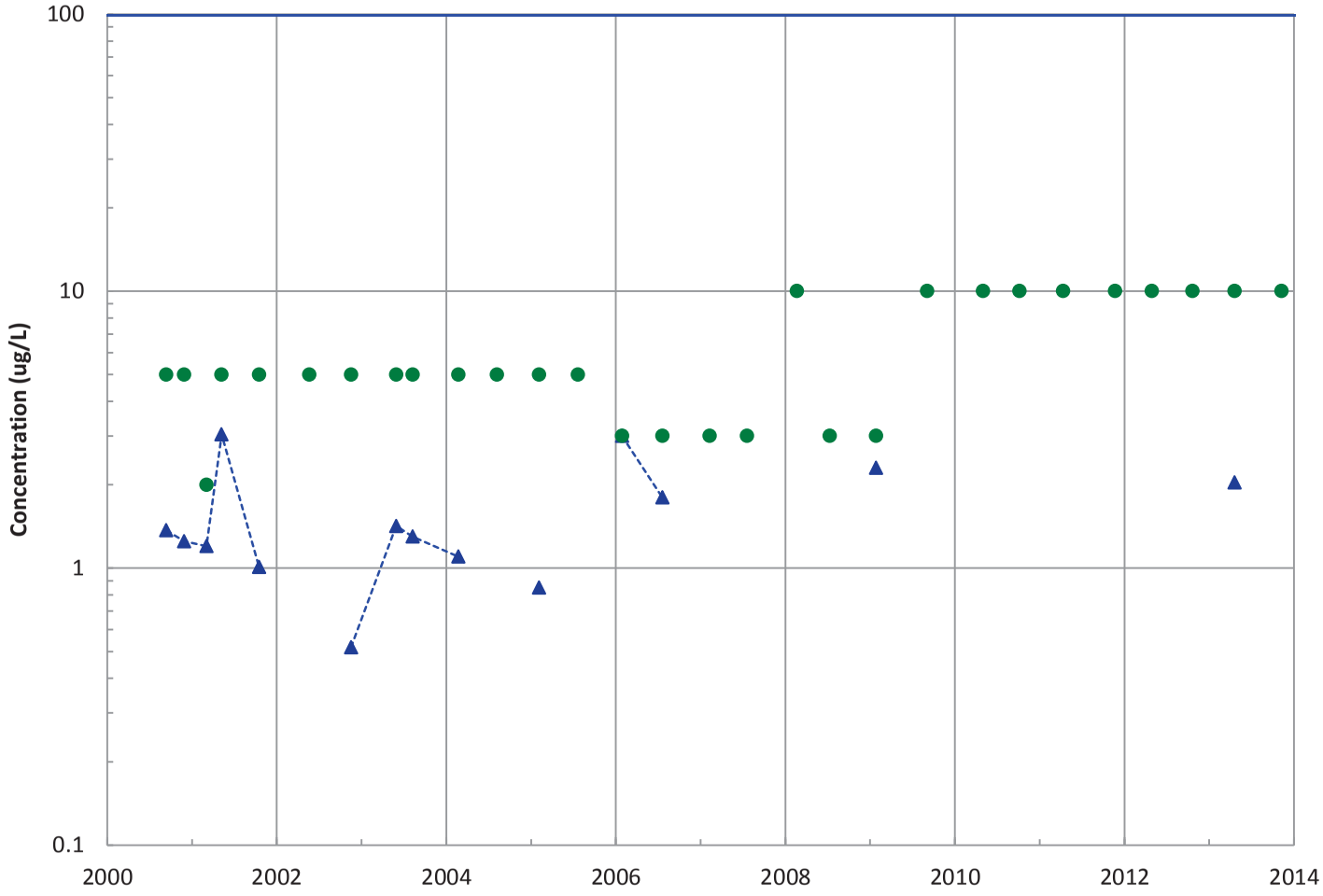
Well Location



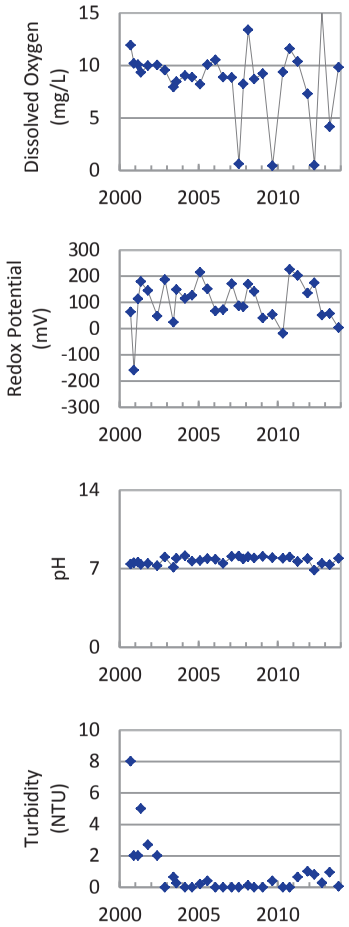
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/12/2000 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1053
Chromium, Total Trend in Perched Aquifer



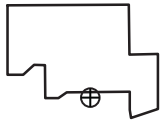
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

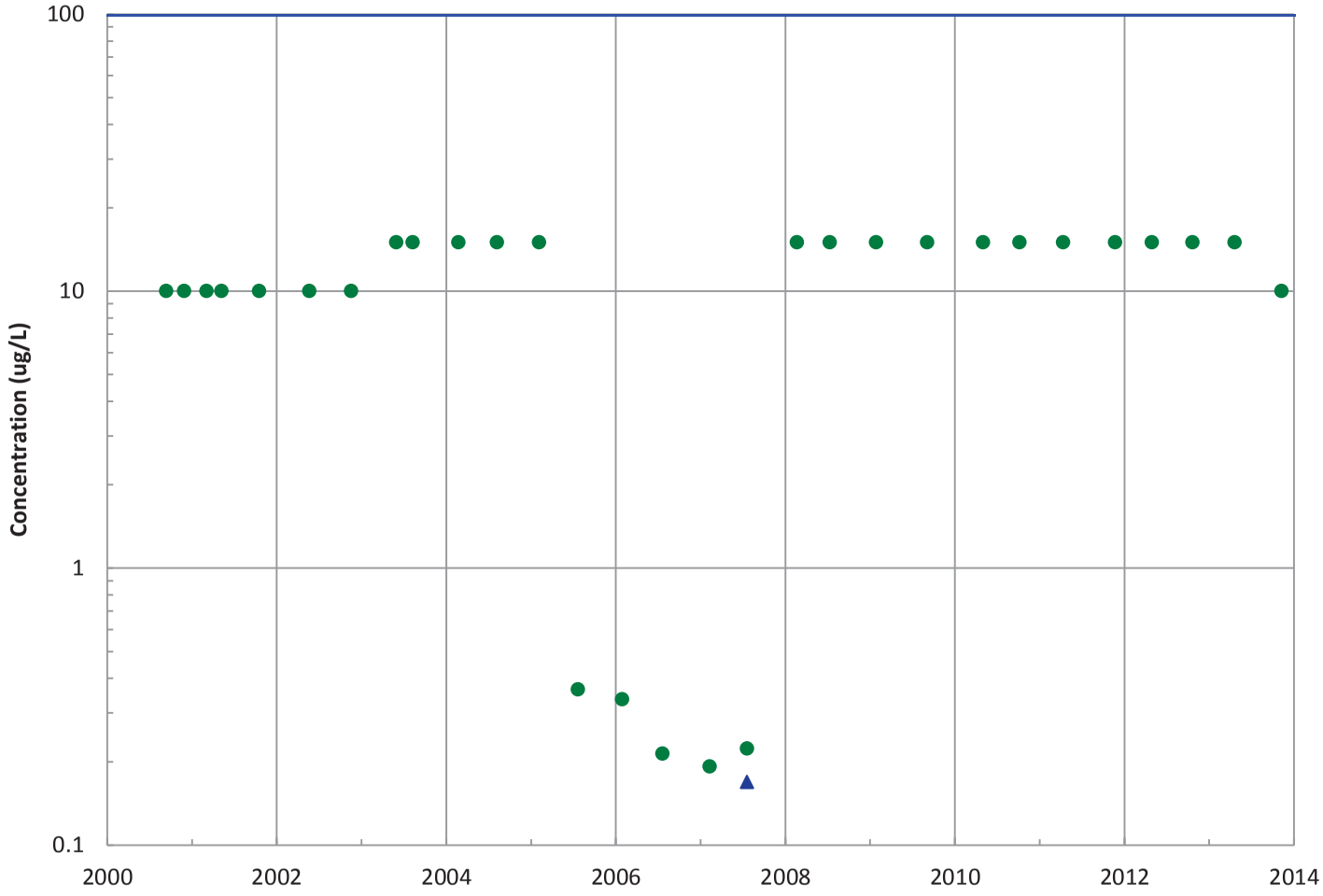
Well Location



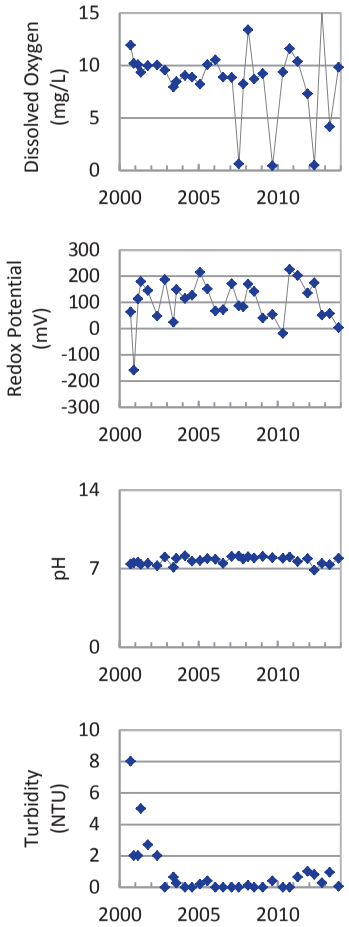
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/12/2000 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1053
Chromium, Hexavalent Trend in Perched Aquifer



Field Parameters



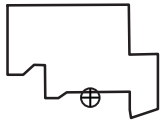
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

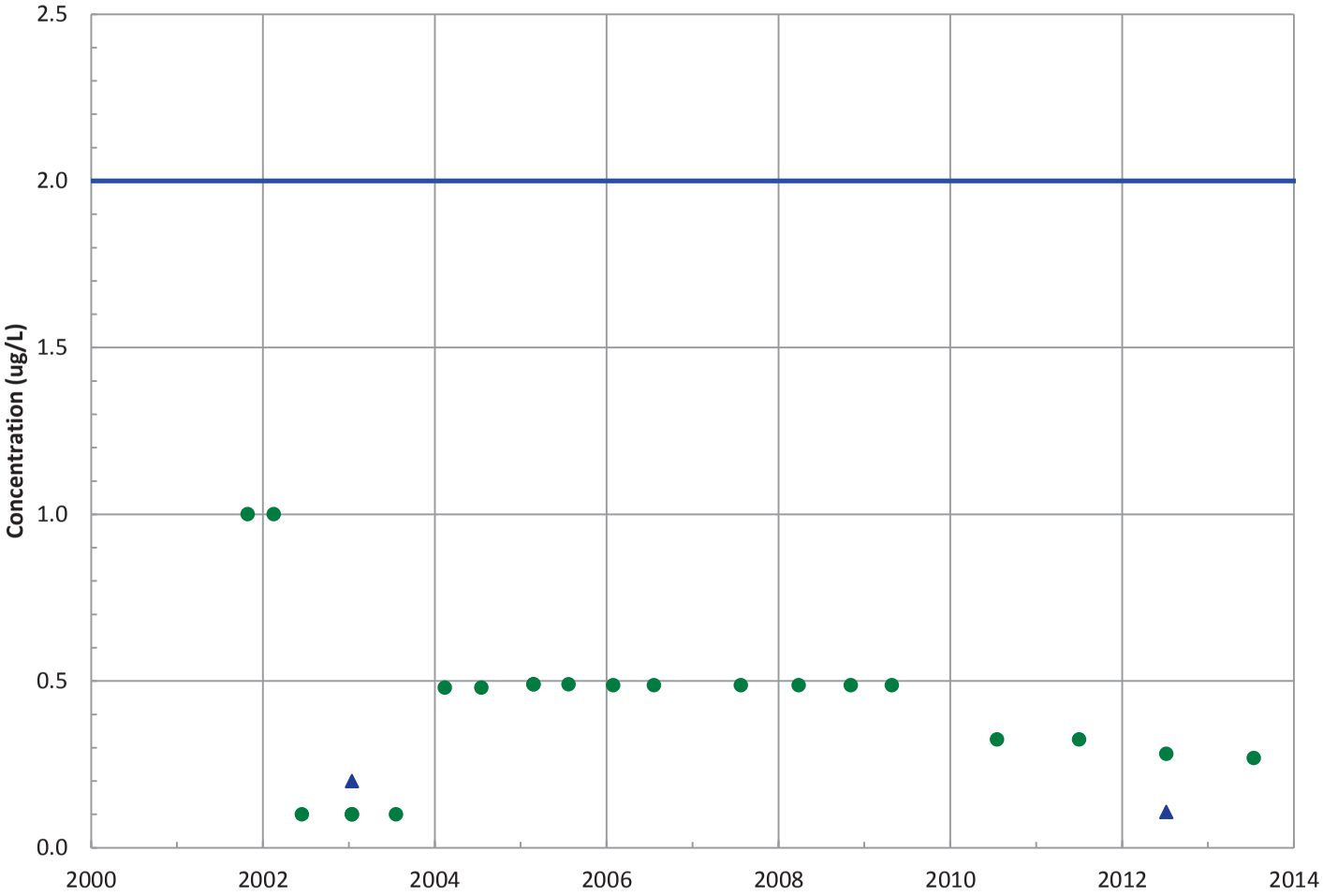
Well Location



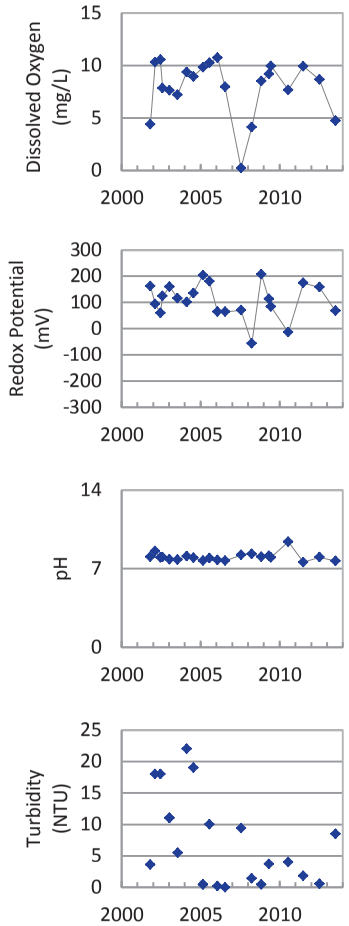
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/12/2000 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1069
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



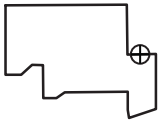
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

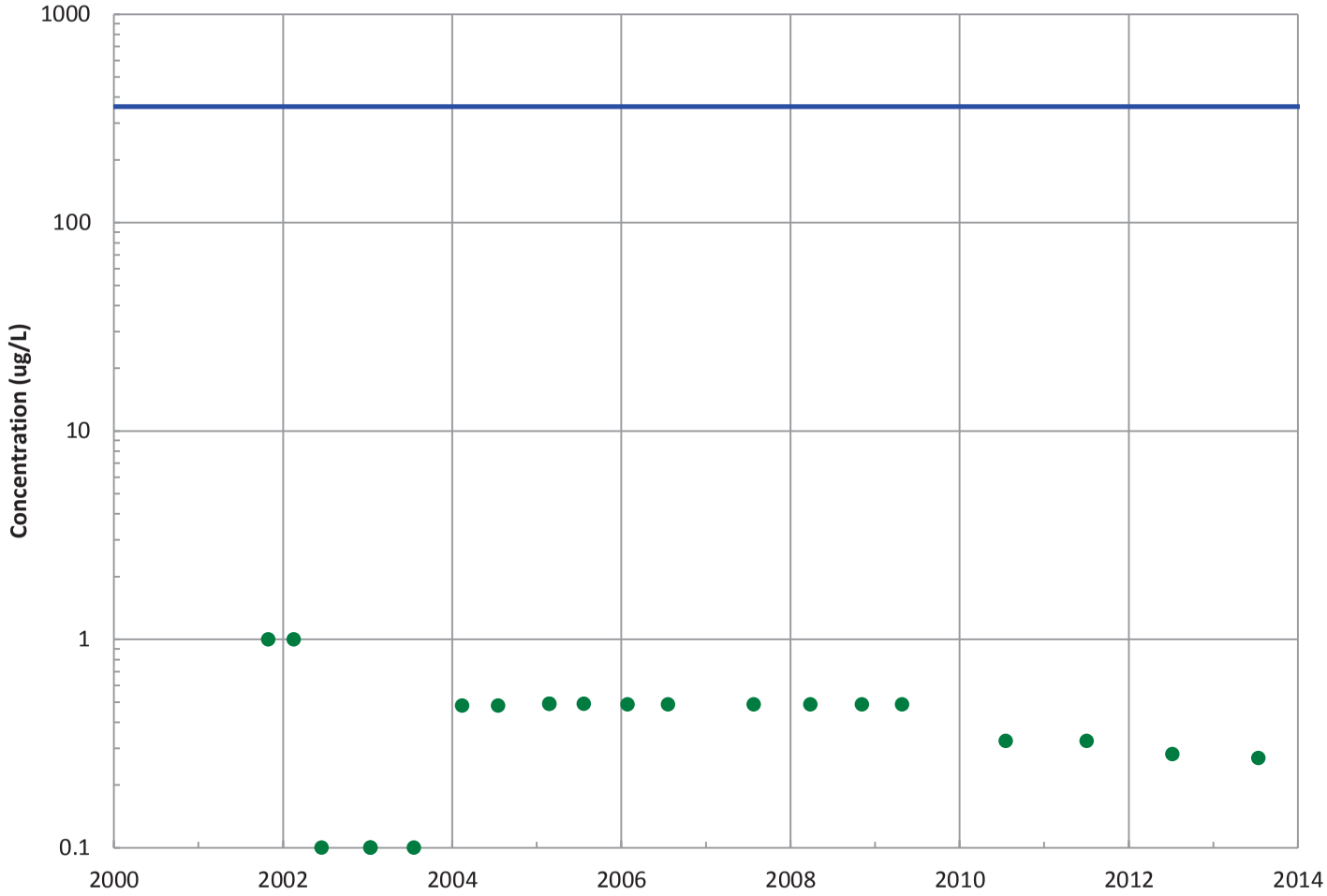
Well Location



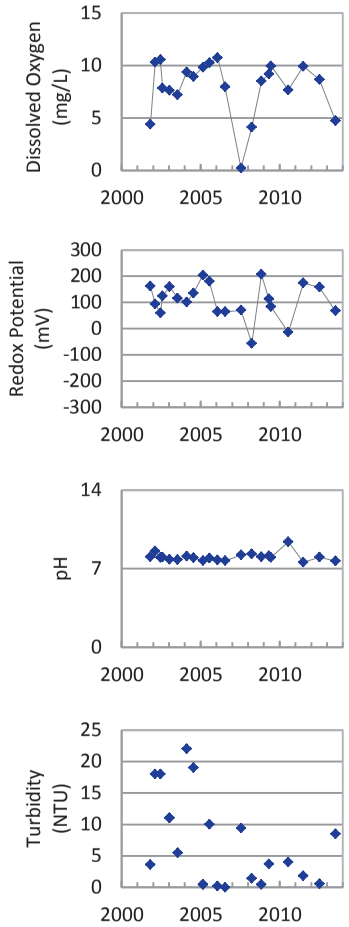
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/30/2001 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1069
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



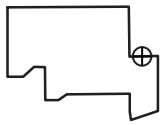
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

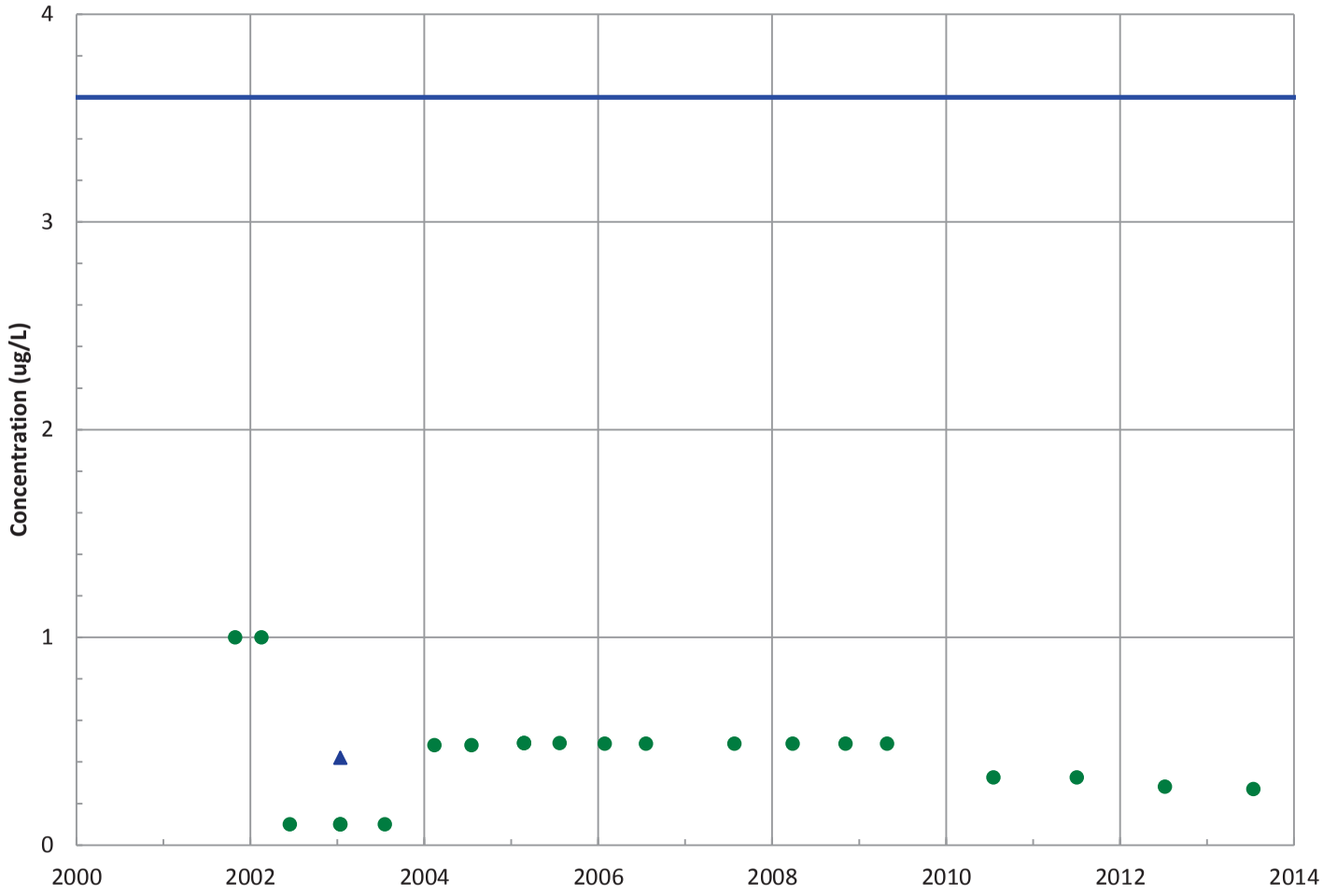
Well Location



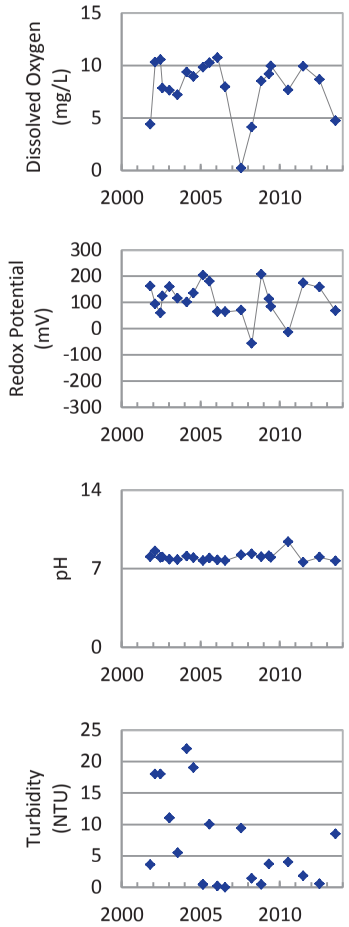
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/30/2001 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1069
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): All Non-Detect

2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method

Data (7/2009 - 12/2013): All Non-Detect

2011 - 2013 Data: N/A (<4 Detections in Dataset)

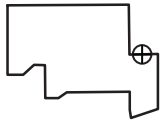
▲ Measured Value

● Sample Detection Limit

------- Concentration Trend

——— Groundwater Protection Standard

Well Location



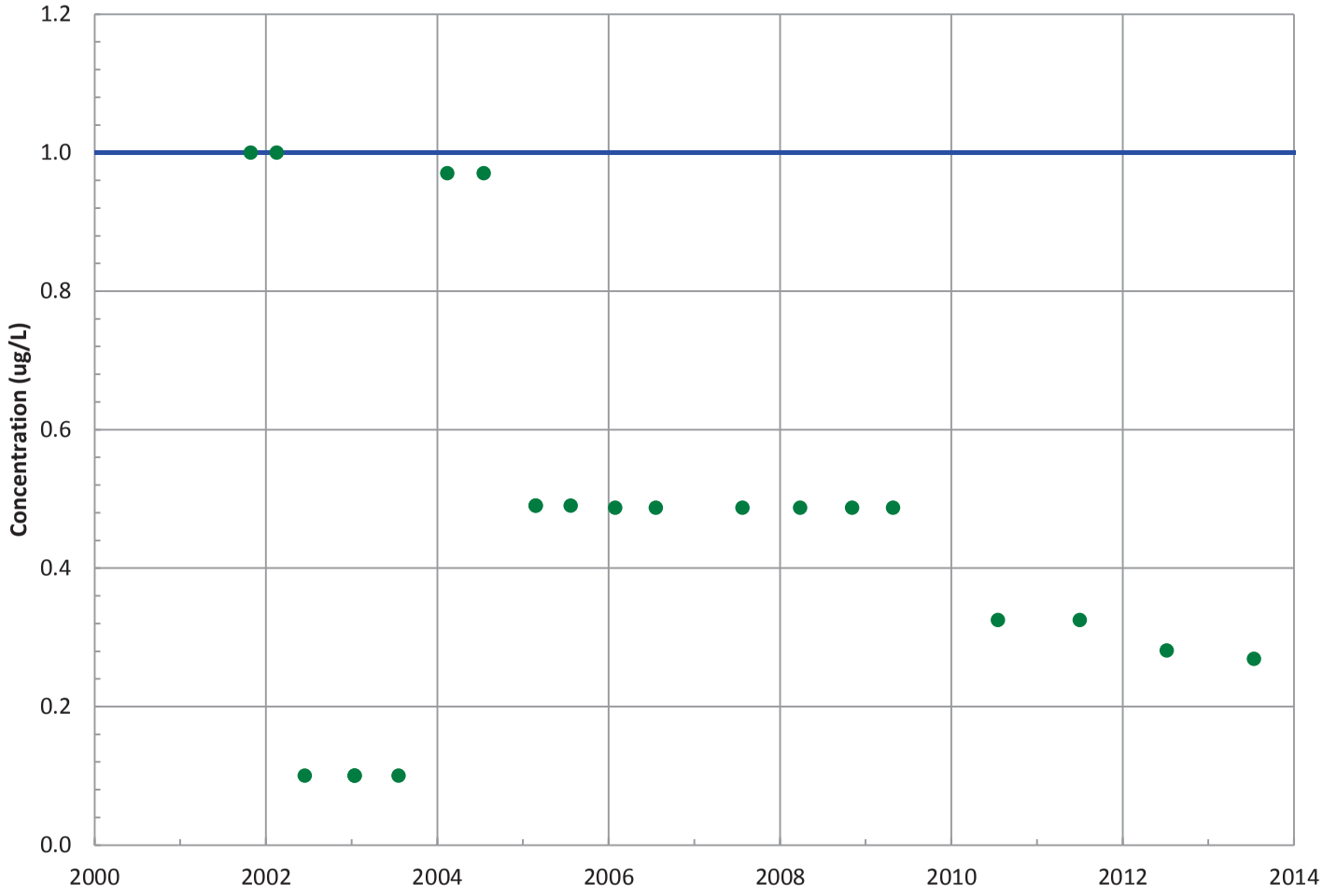
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 10/30/2001 to 7/24/2013

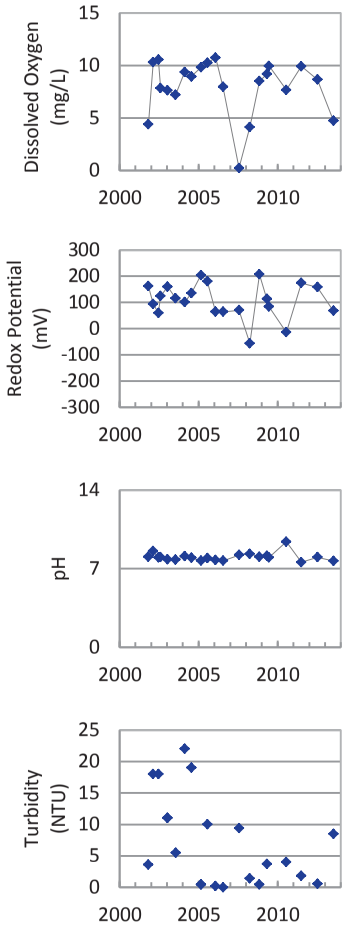
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1069
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



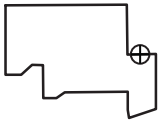
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

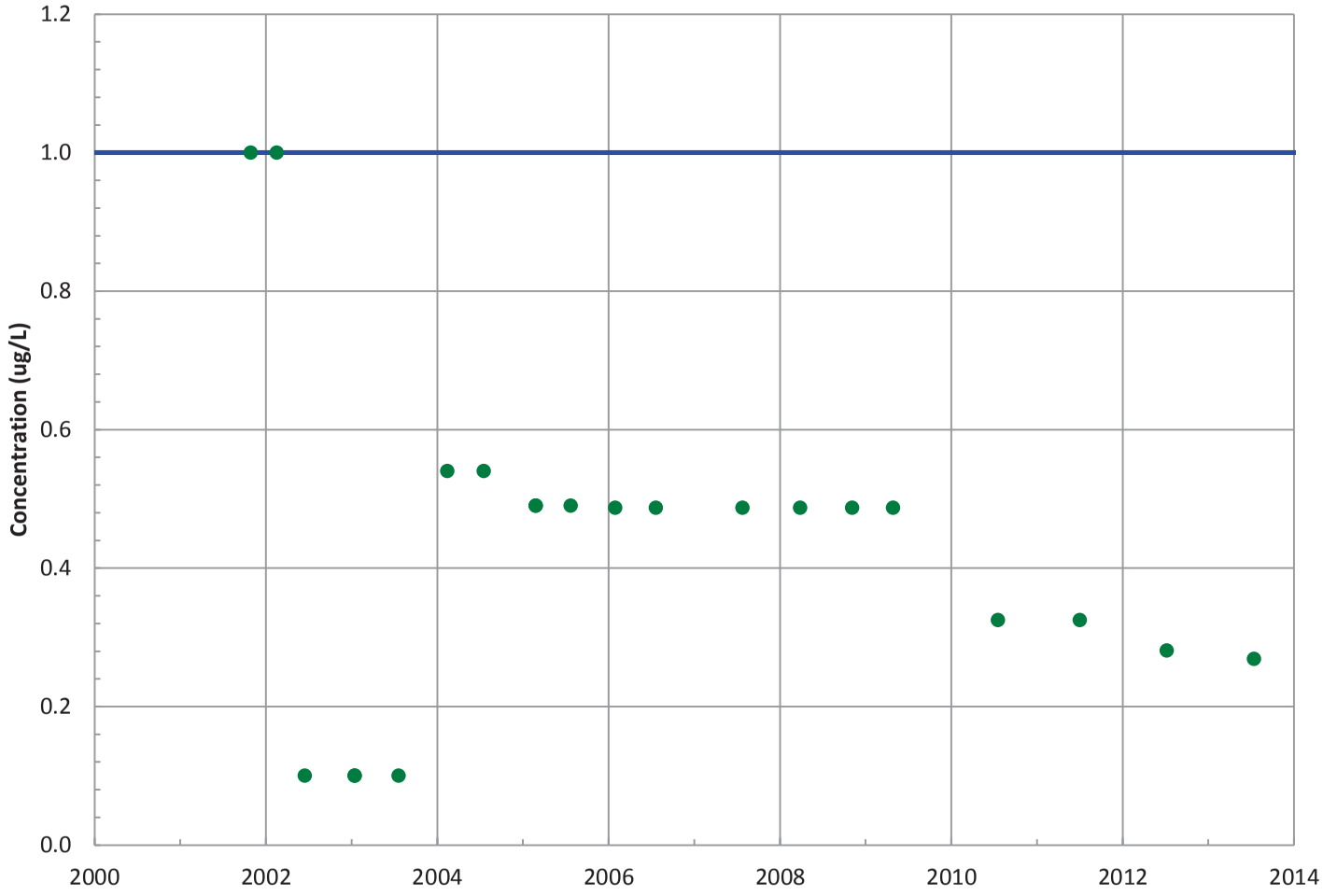
Well Location



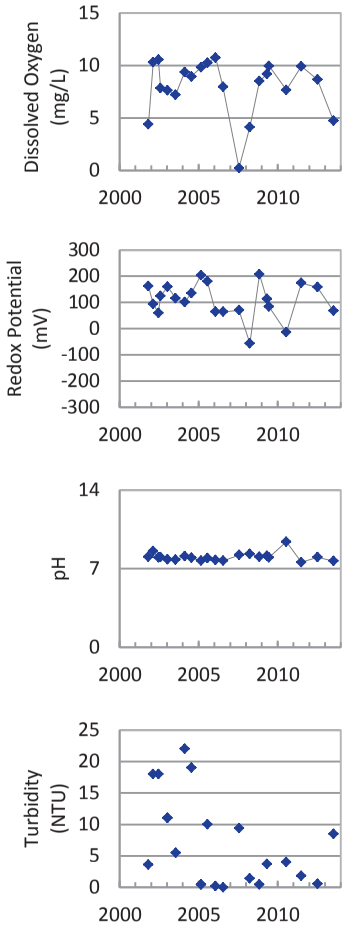
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/30/2001 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1069
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



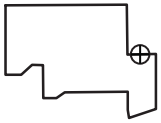
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

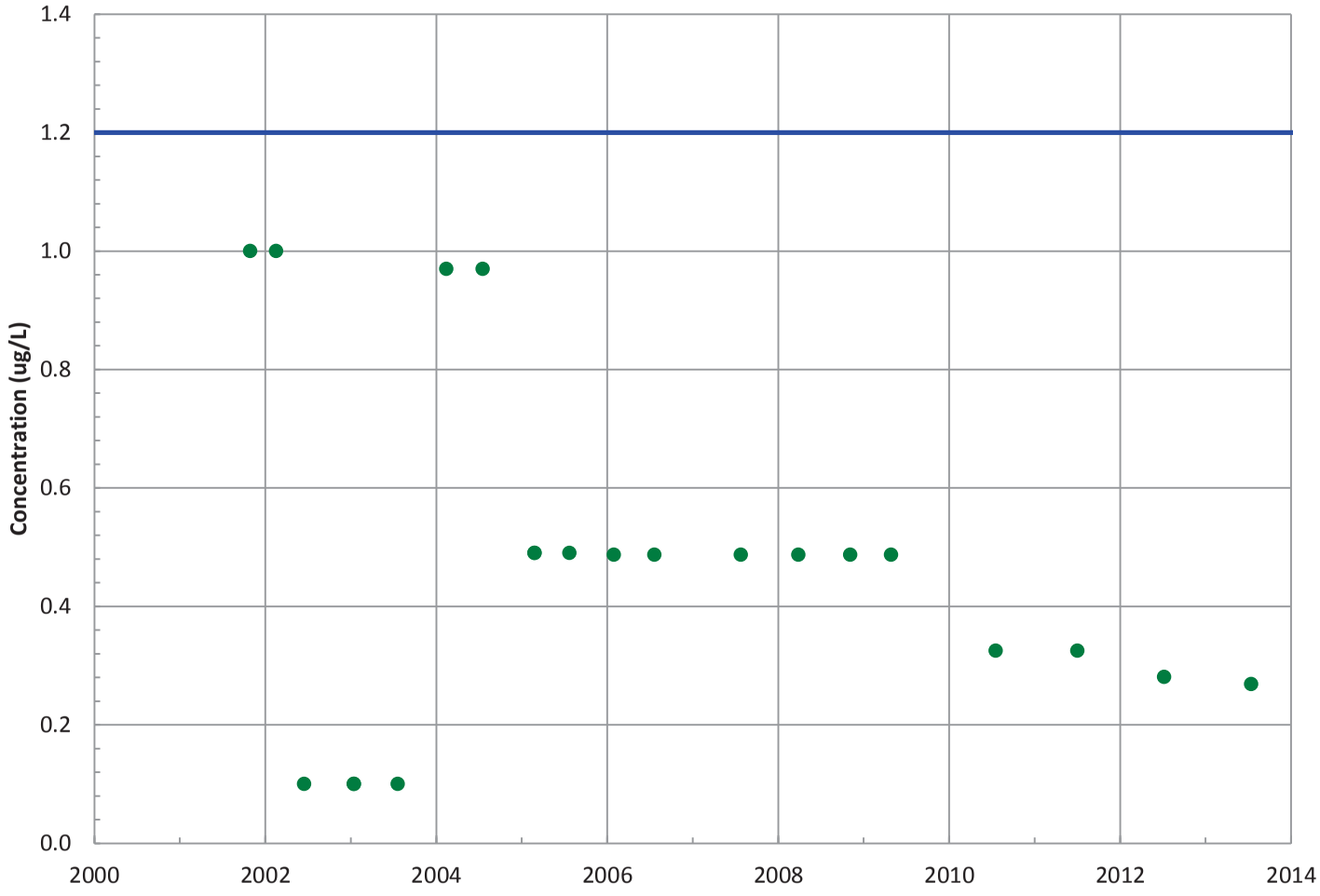
Well Location



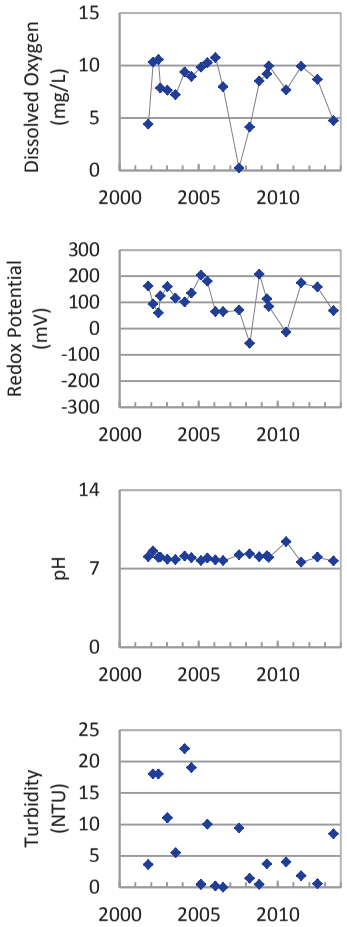
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/30/2001 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1069
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



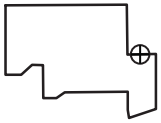
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

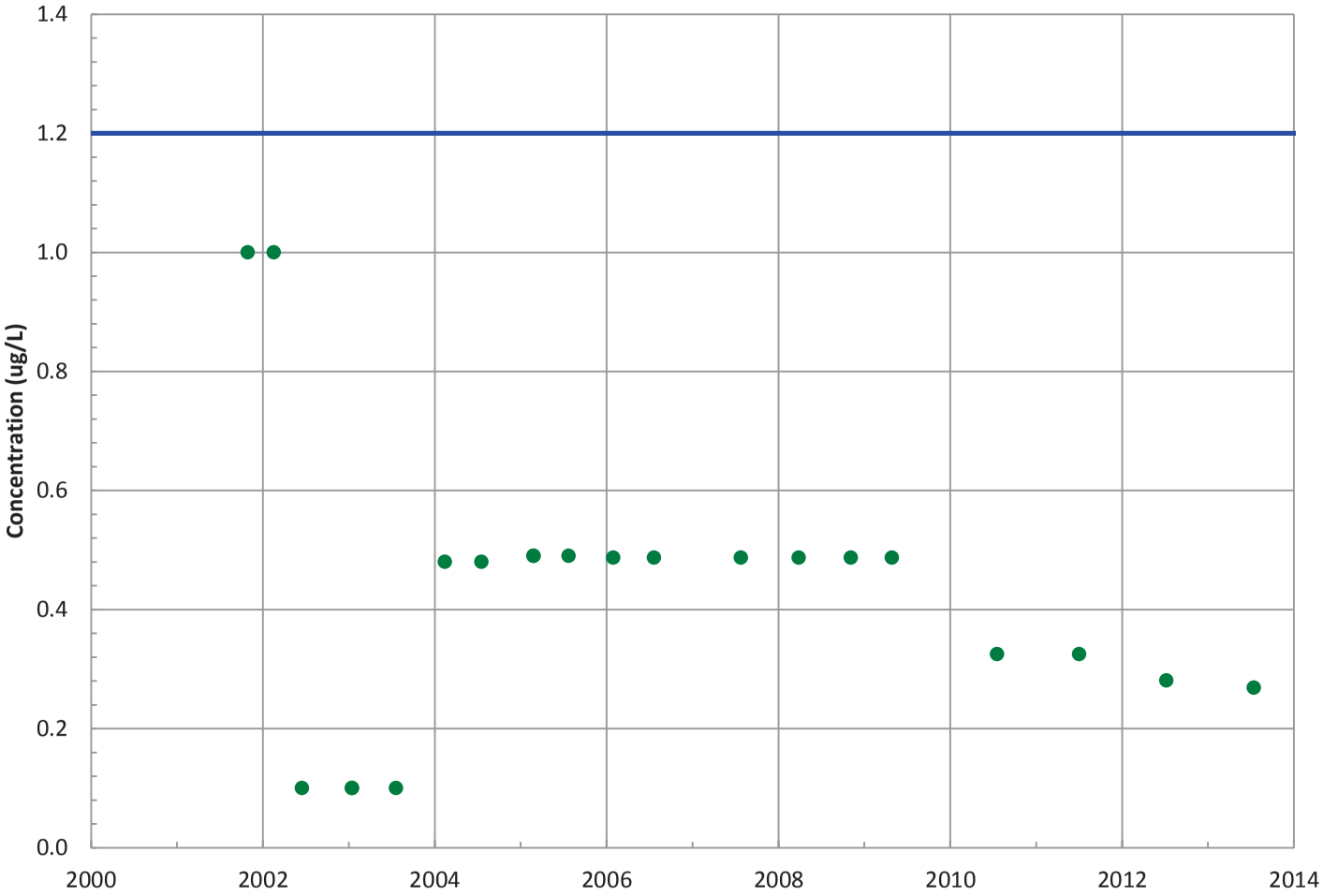
Well Location



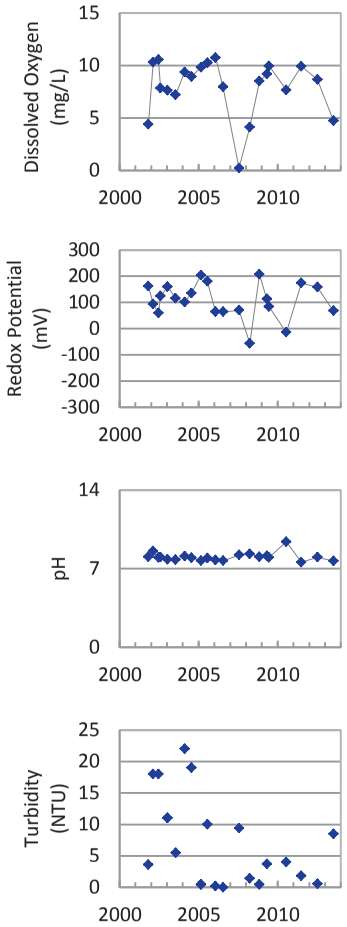
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/30/2001 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1069
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



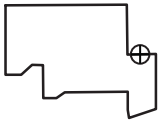
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

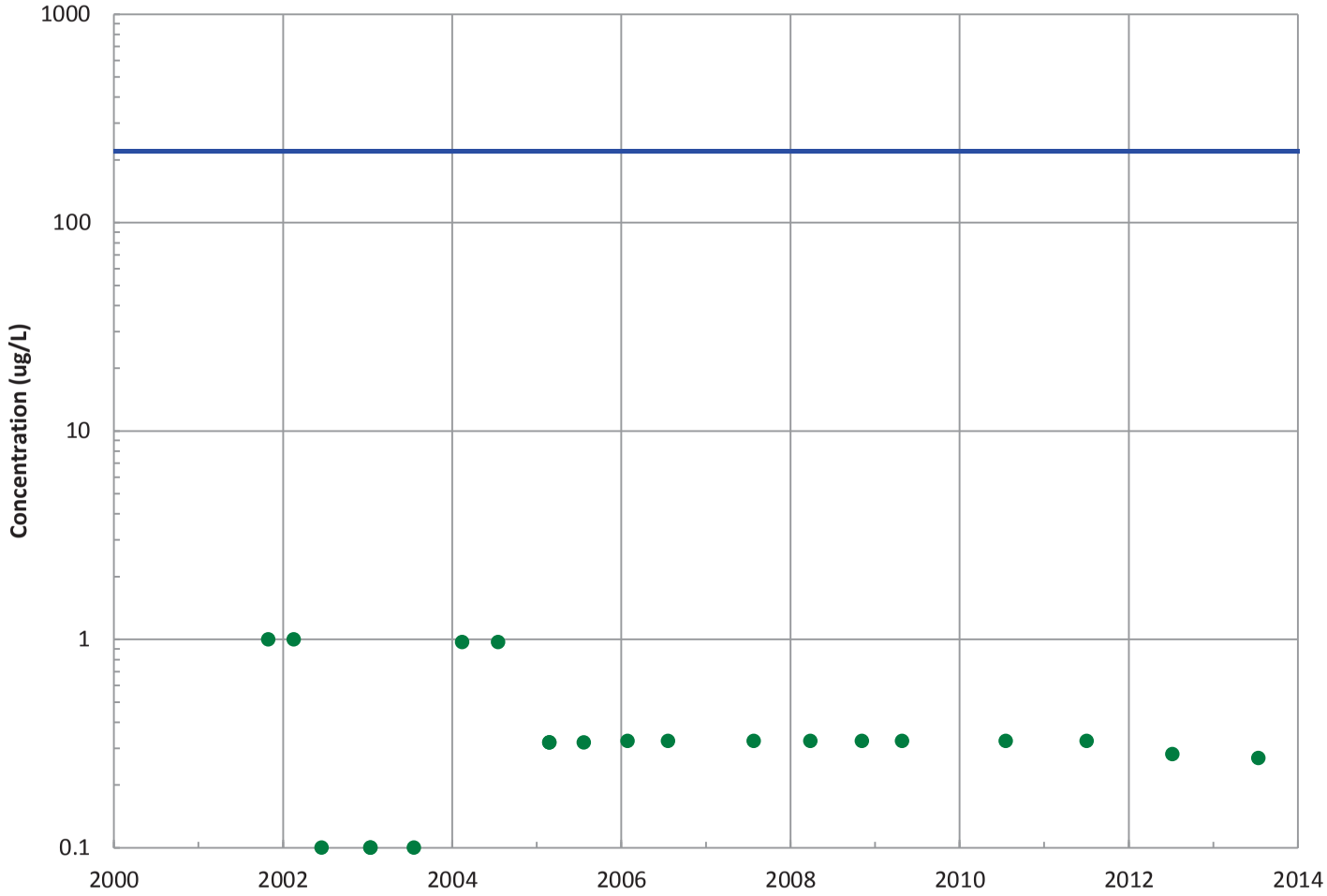
Well Location



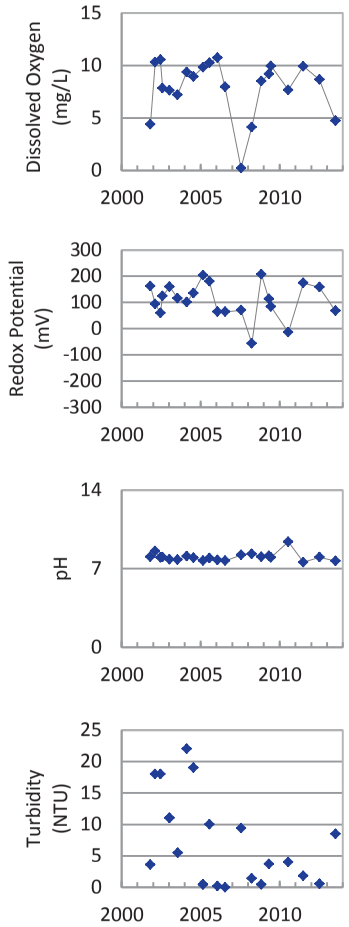
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/30/2001 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1069
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



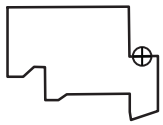
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

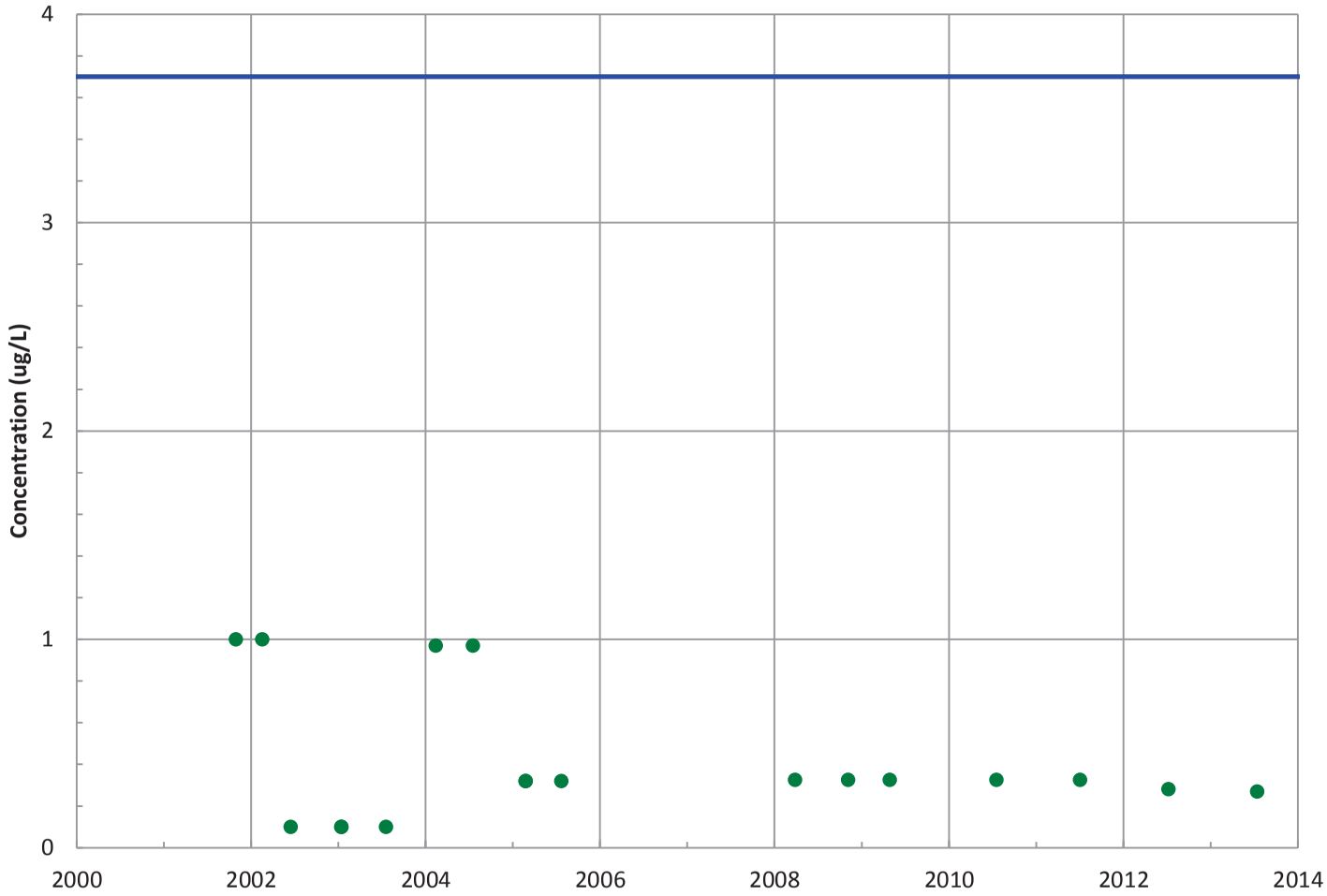
Well Location



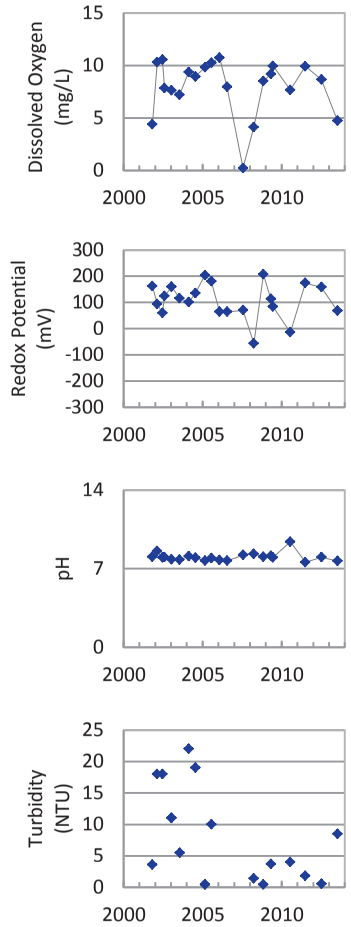
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/30/2001 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1069
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



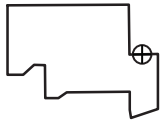
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

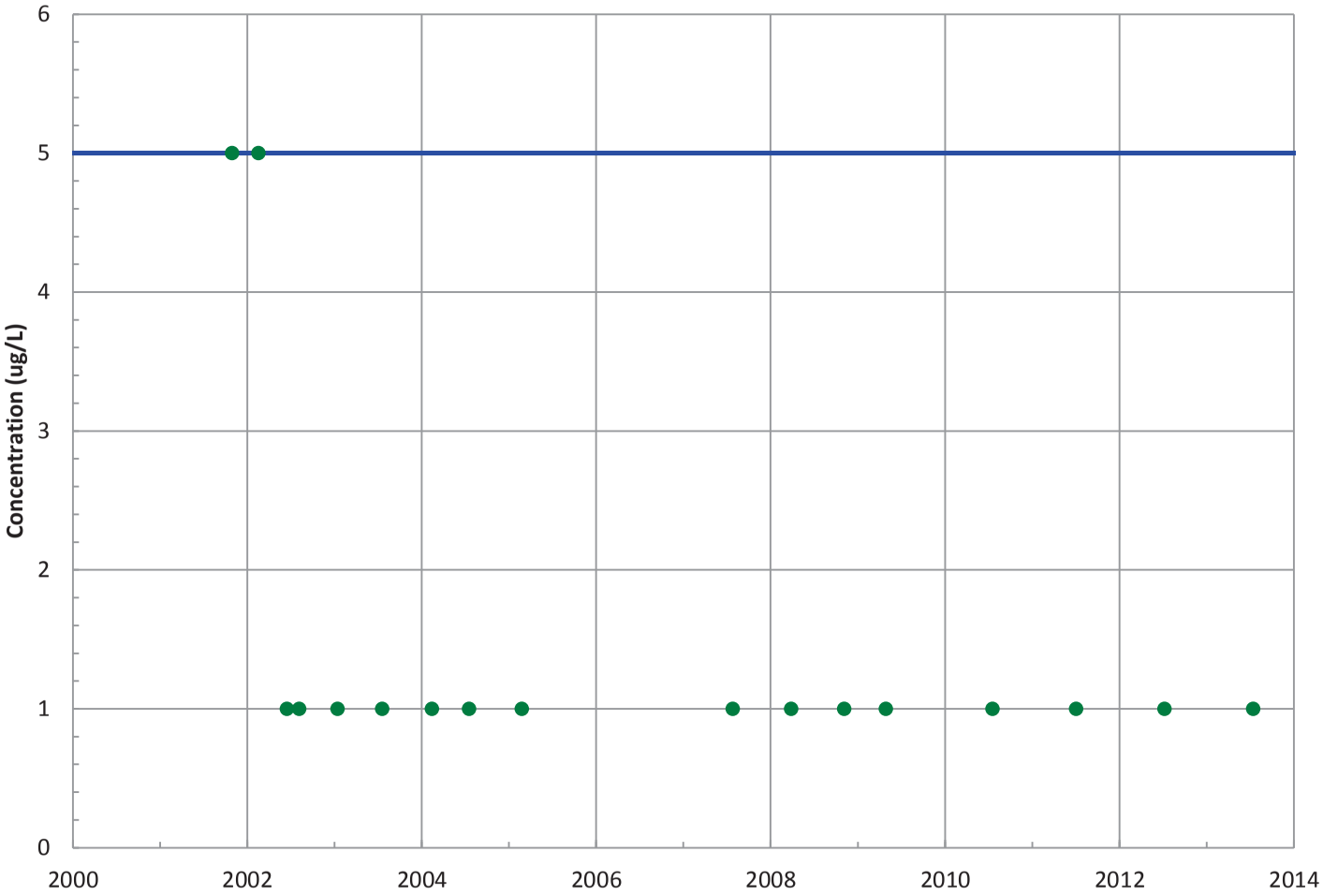
Well Location



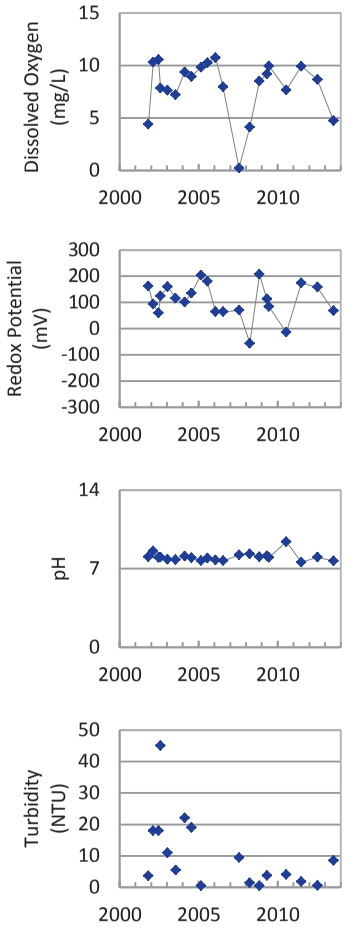
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/30/2001 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1069
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



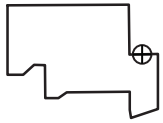
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

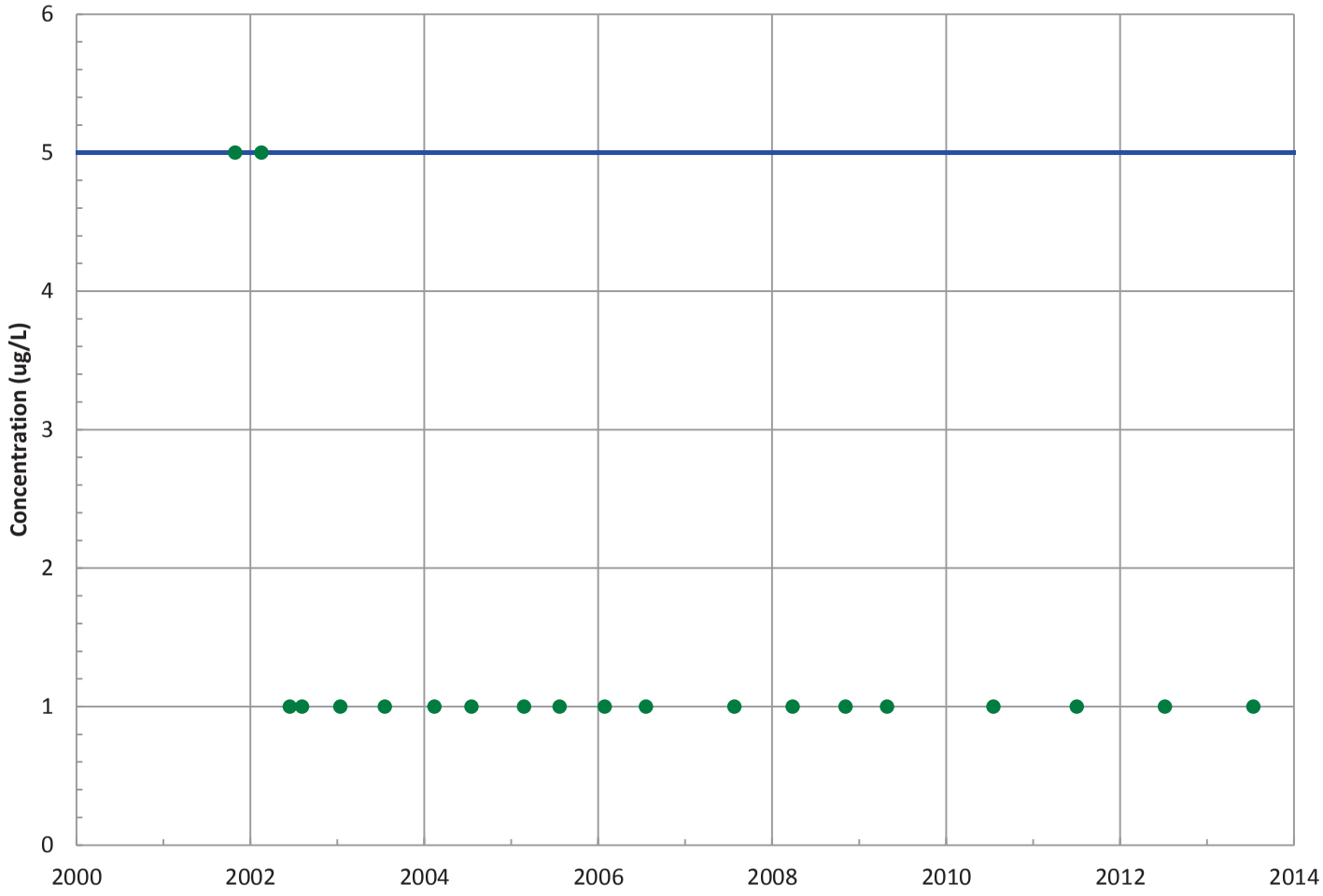
Well Location



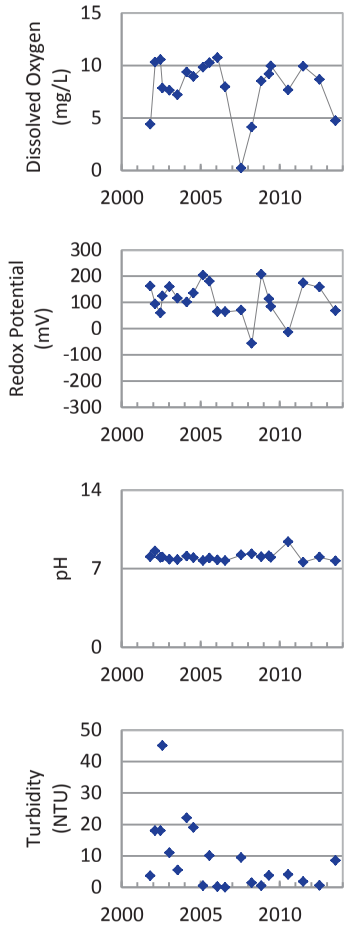
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/30/2001 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1069
Trichloroethene Trend in Perched Aquifer



Field Parameters



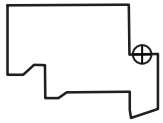
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

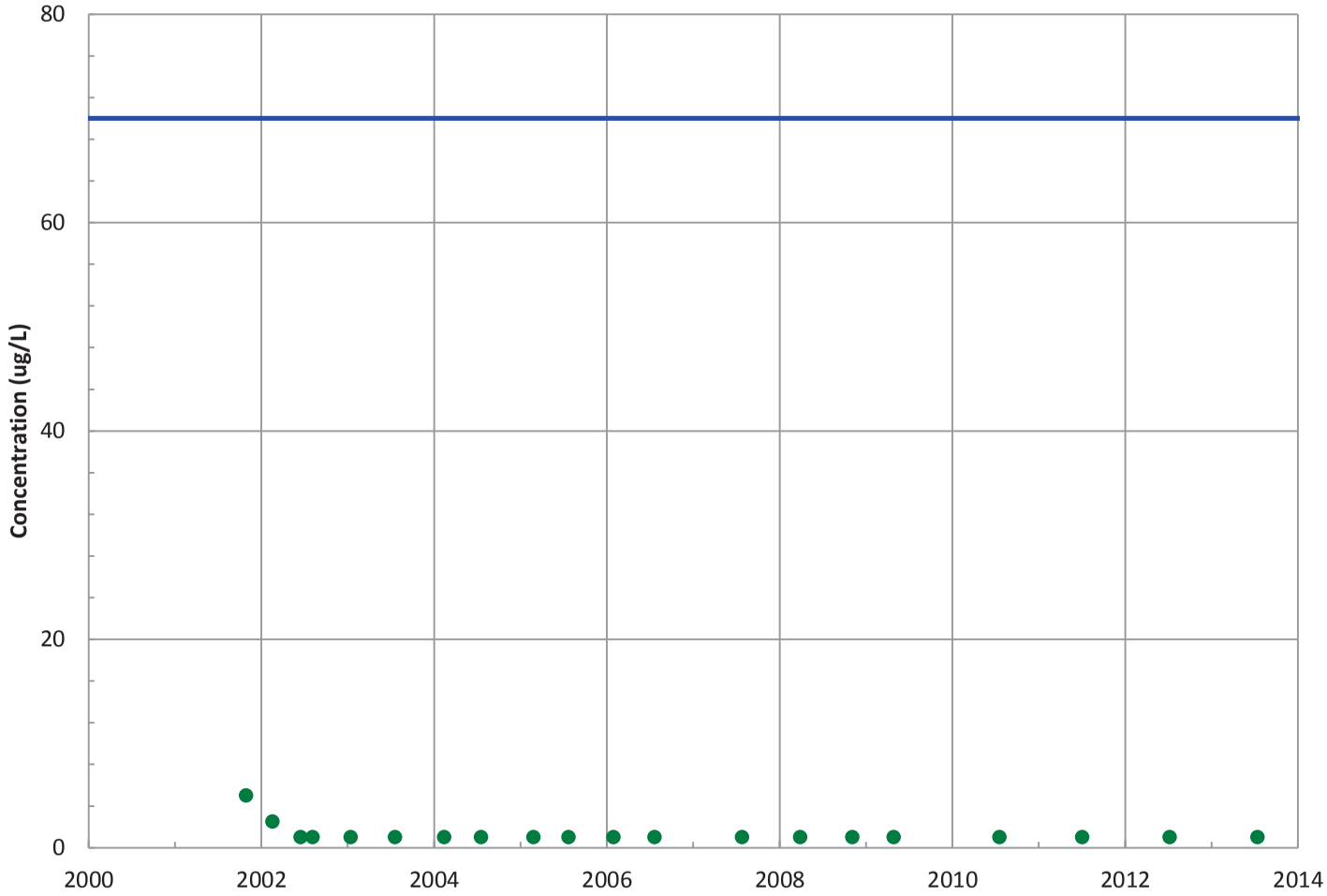
Well Location



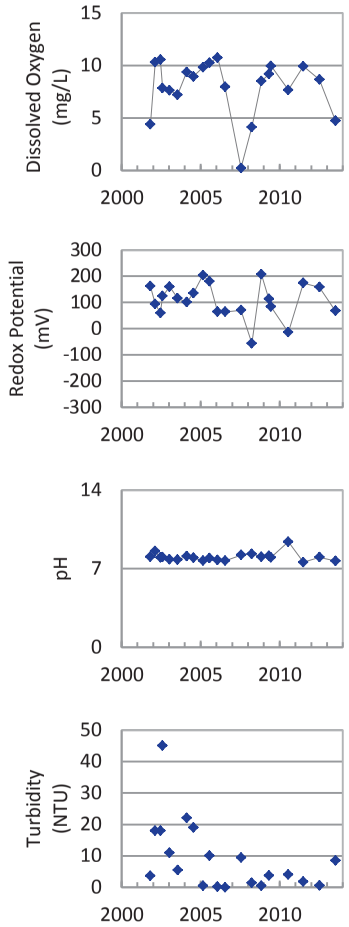
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/30/2001 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1069
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



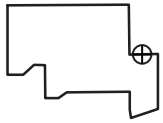
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

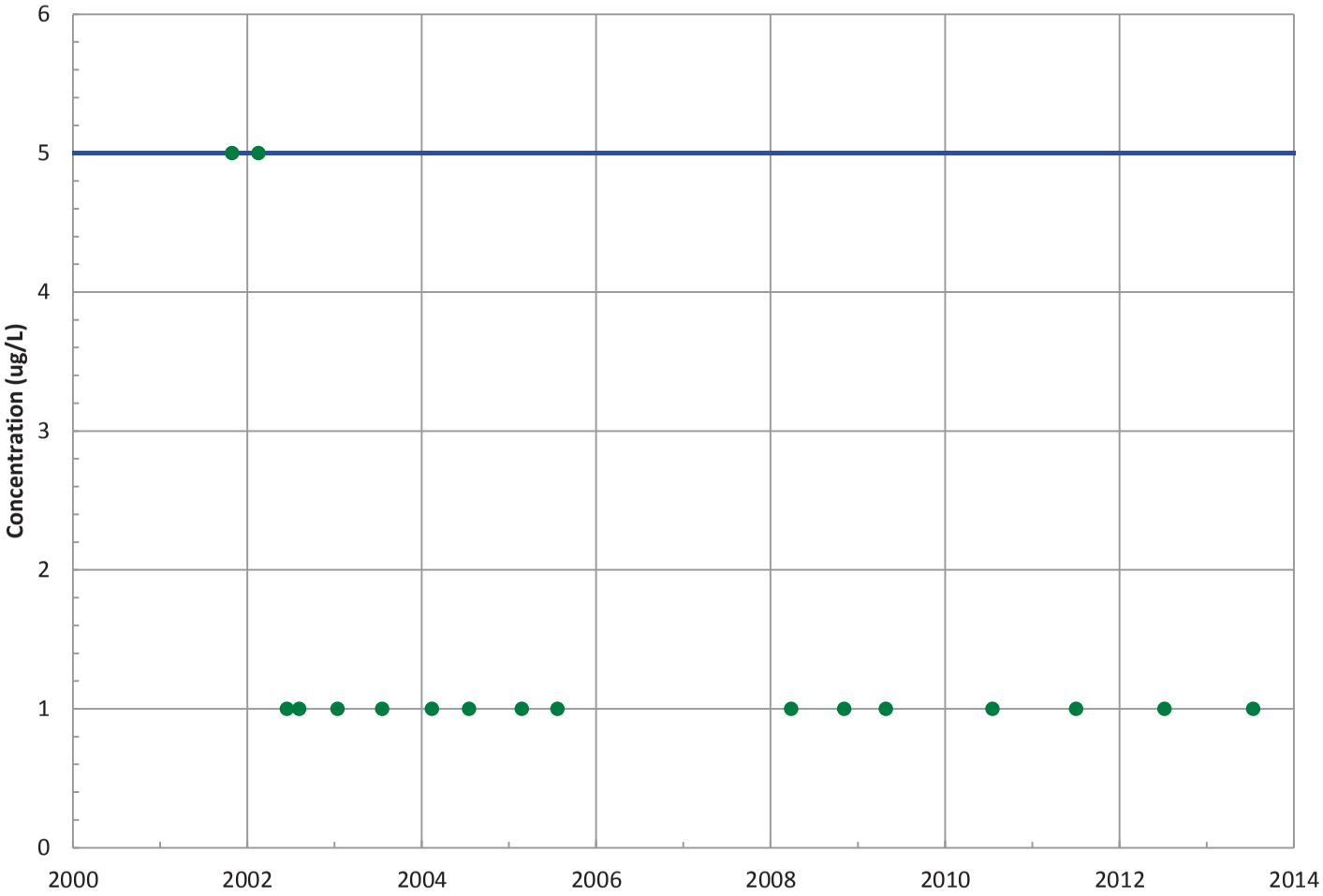
Well Location



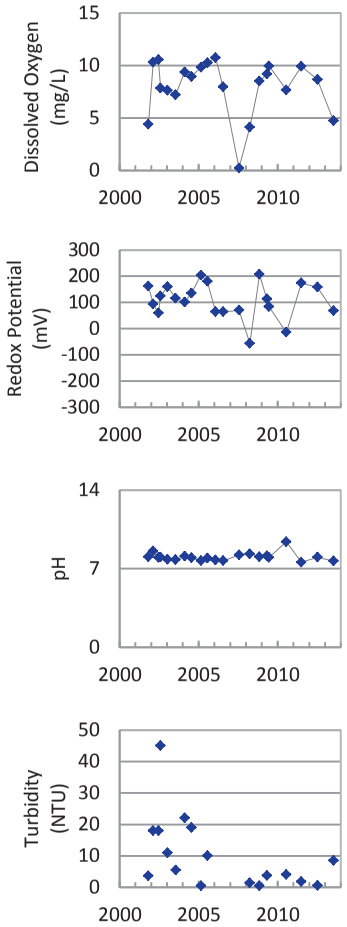
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/30/2001 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1069
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



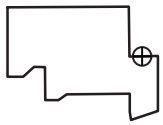
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

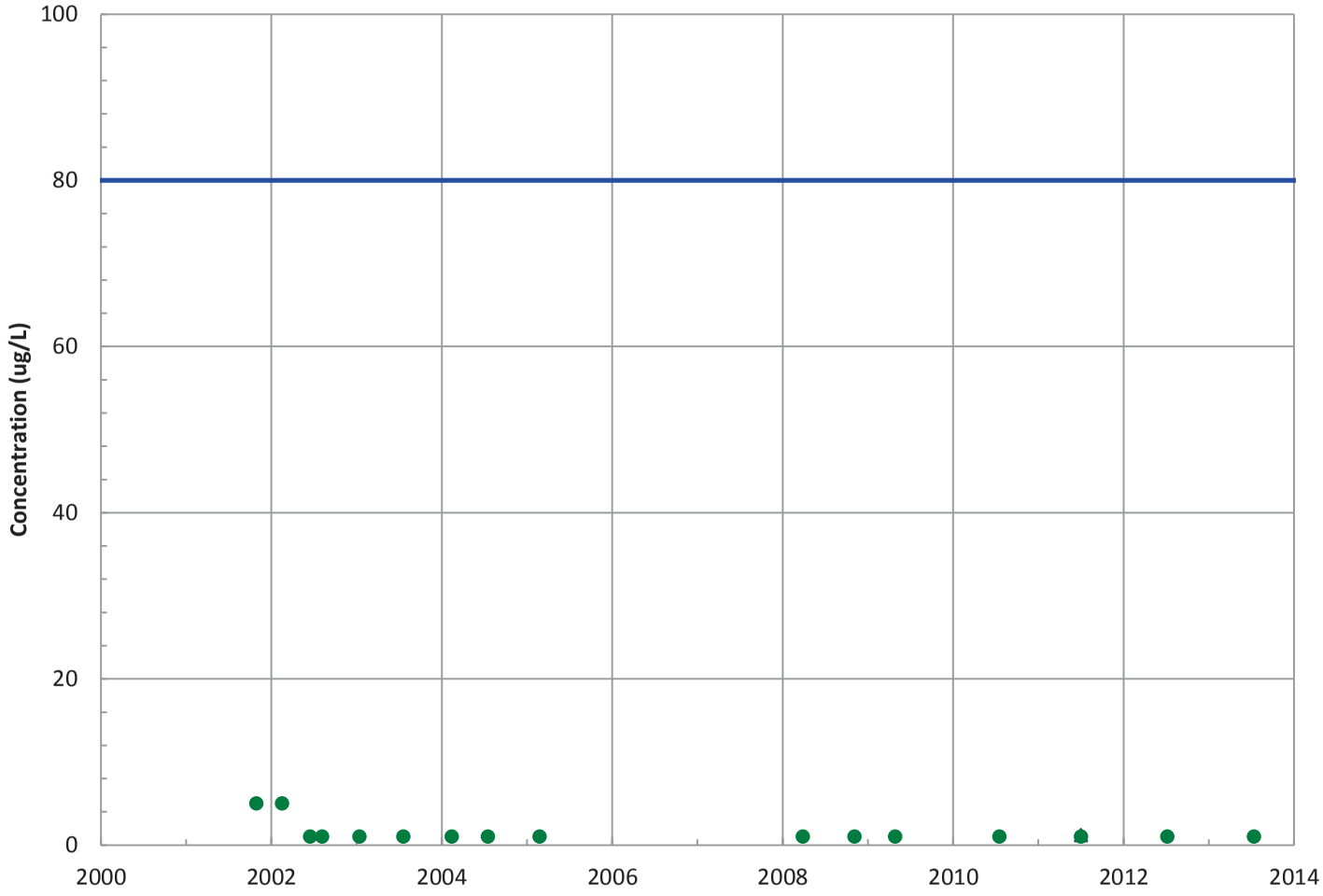
Well Location



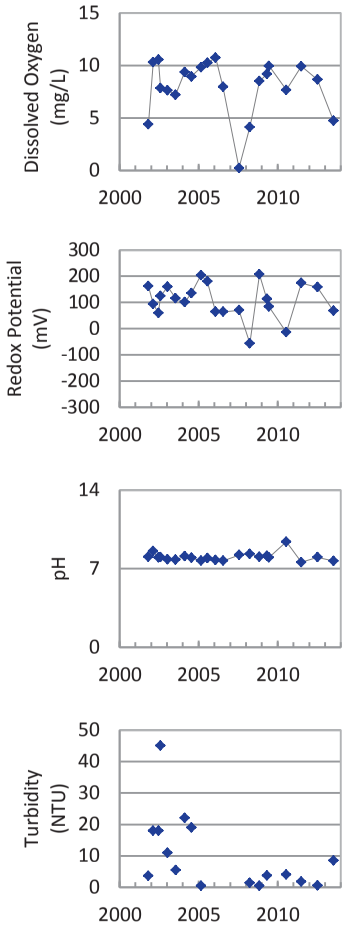
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/30/2001 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1069
Chloroform Trend in Perched Aquifer



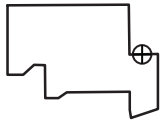
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

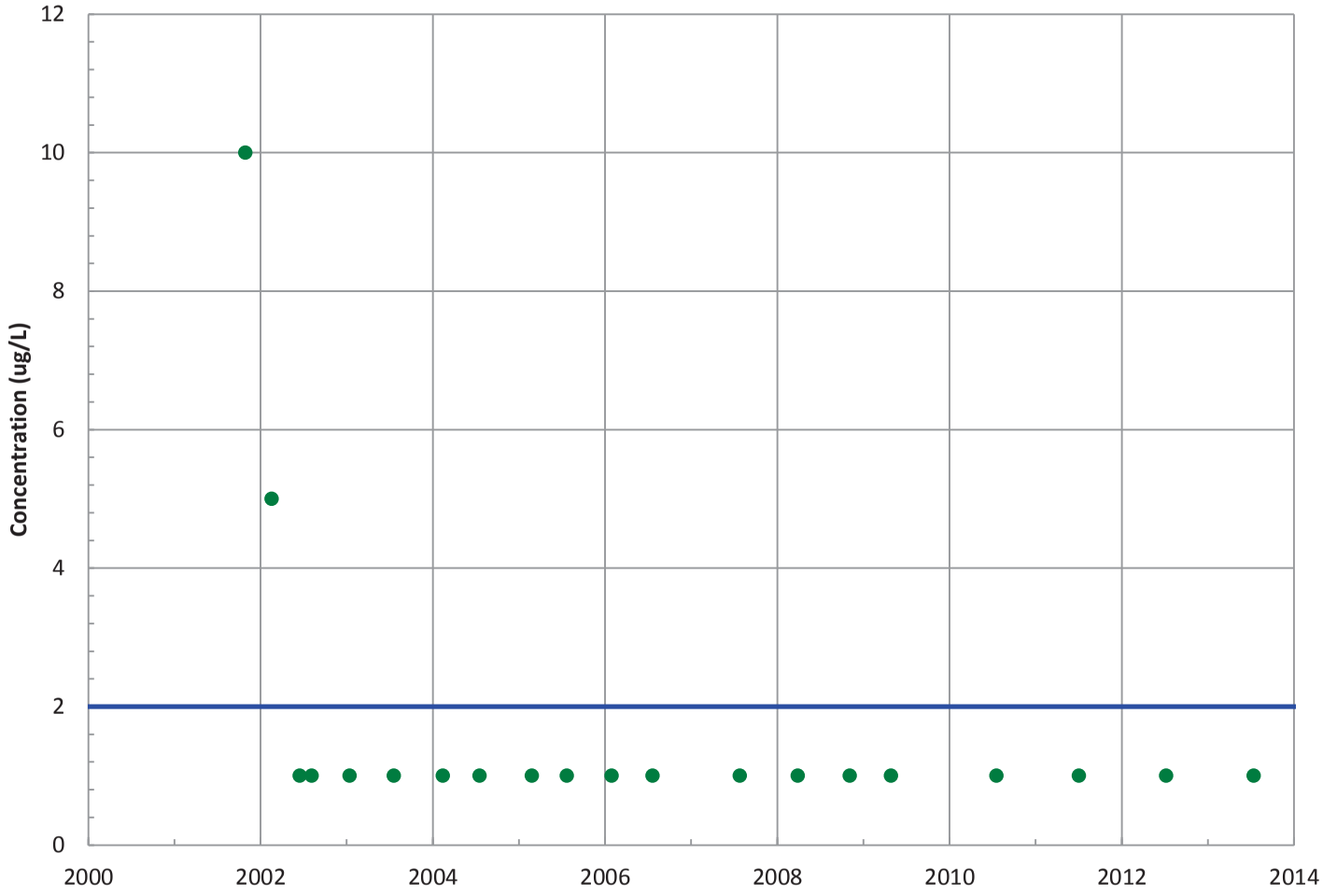
Well Location



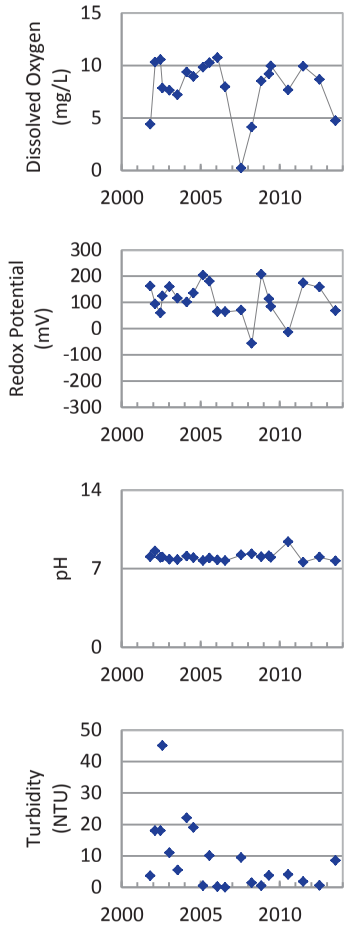
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/30/2001 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1069
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



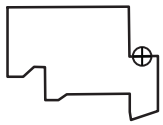
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

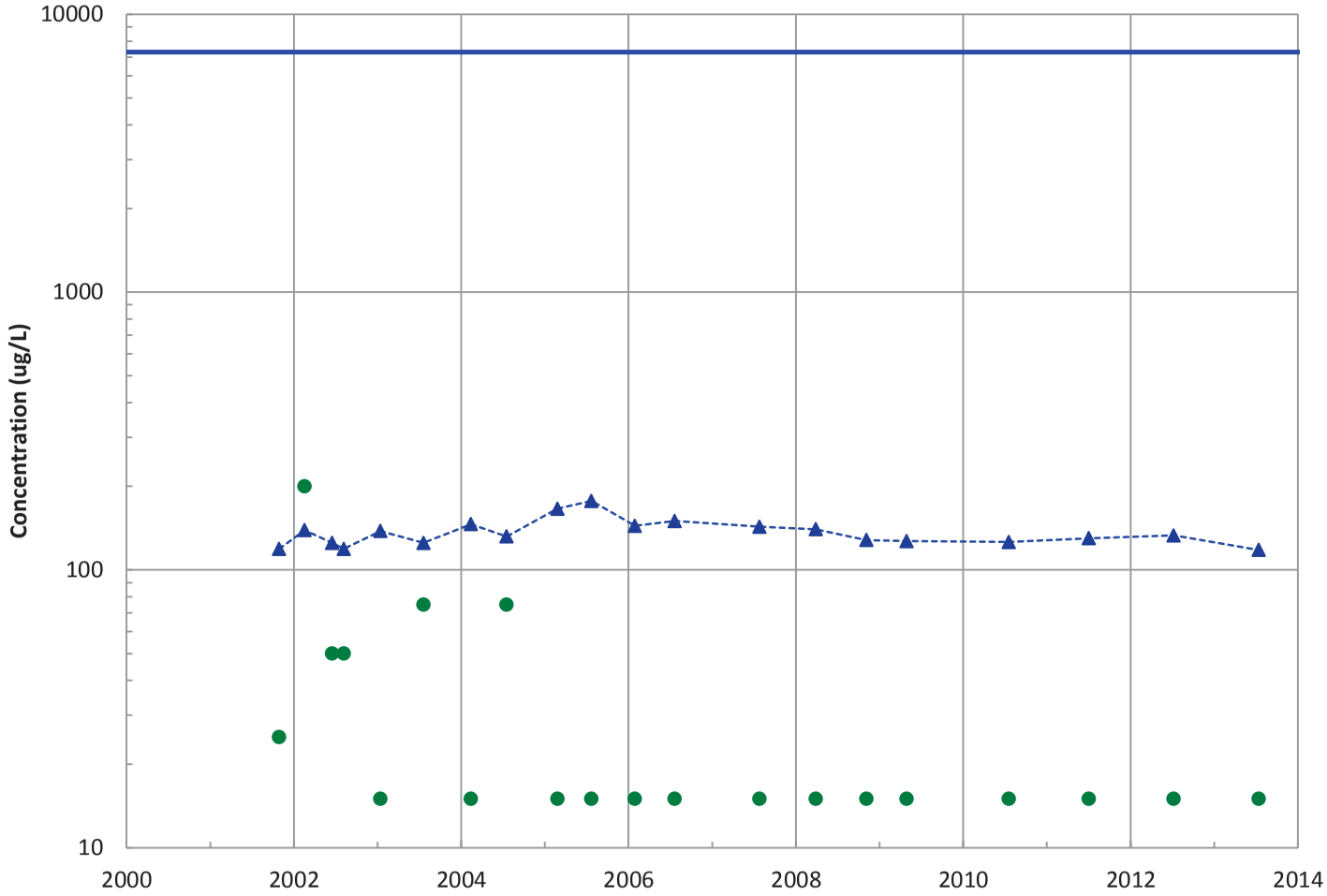
Well Location



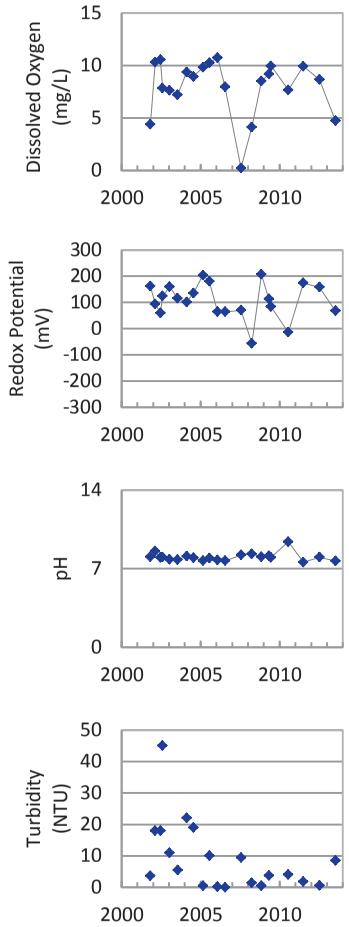
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/30/2001 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1069
Boron Trend in Perched Aquifer



Field Parameters



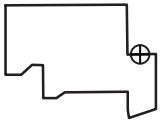
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

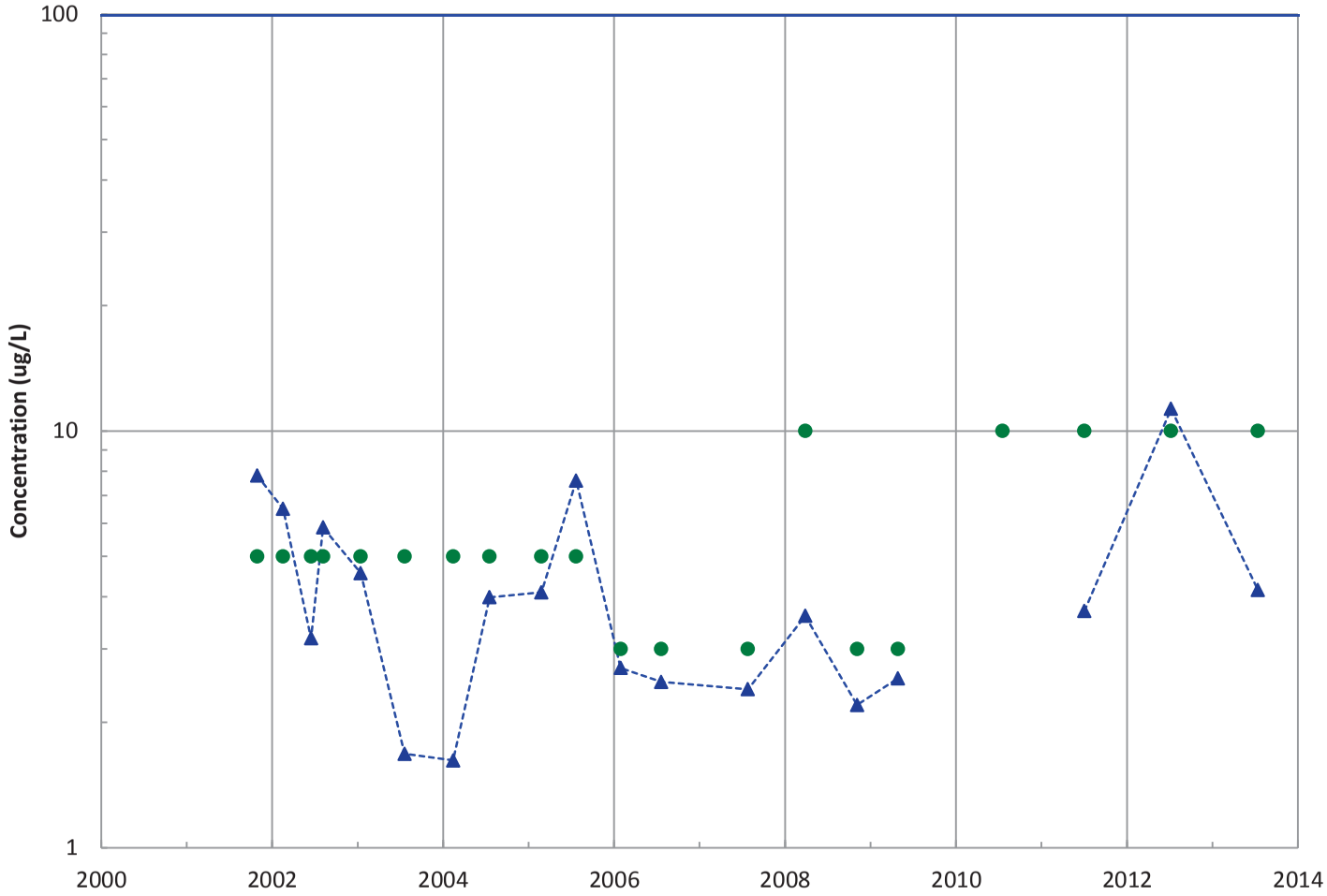
Well Location



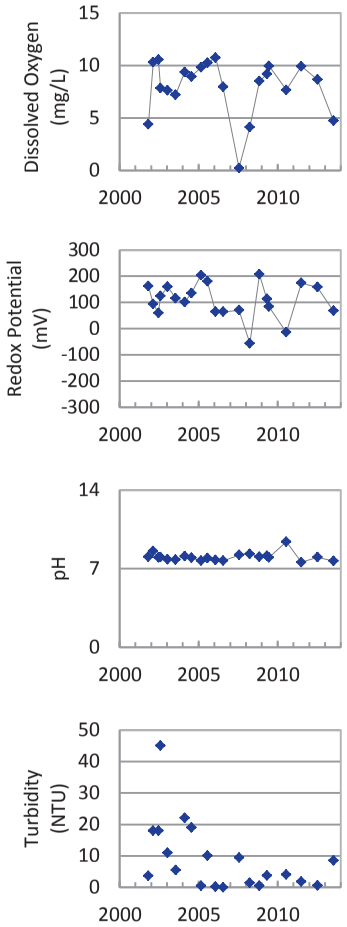
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/30/2001 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1069
Chromium, Total Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: N/A (<4 Detections in

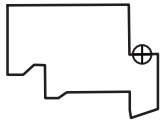
MAROS Linear Regression Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

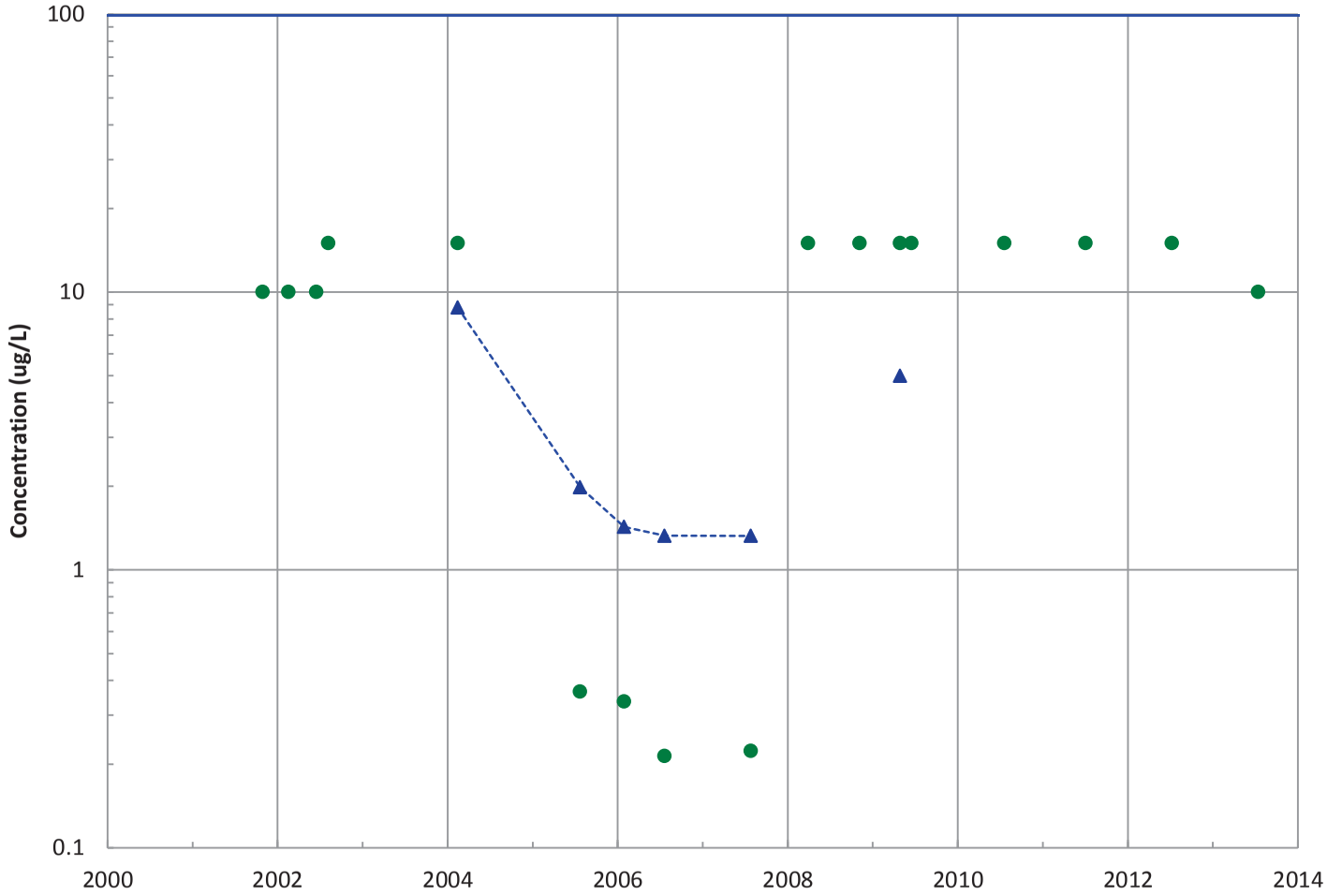
Well Location



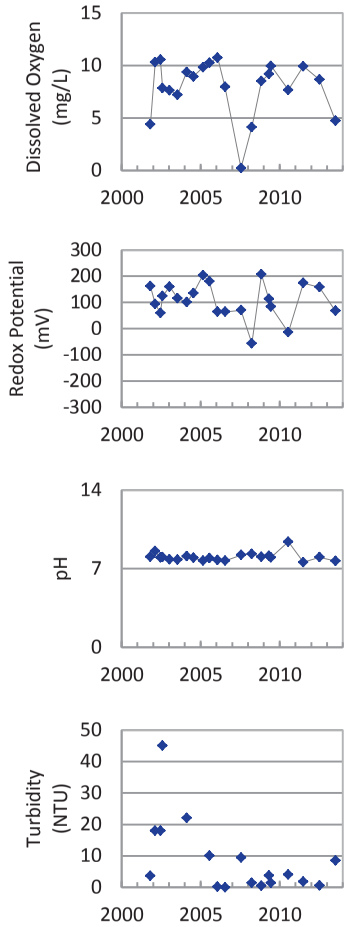
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/30/2001 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1069
Chromium, Hexavalent Trend in Perched Aquifer



Field Parameters



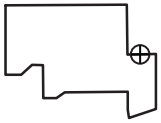
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: No Trend

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

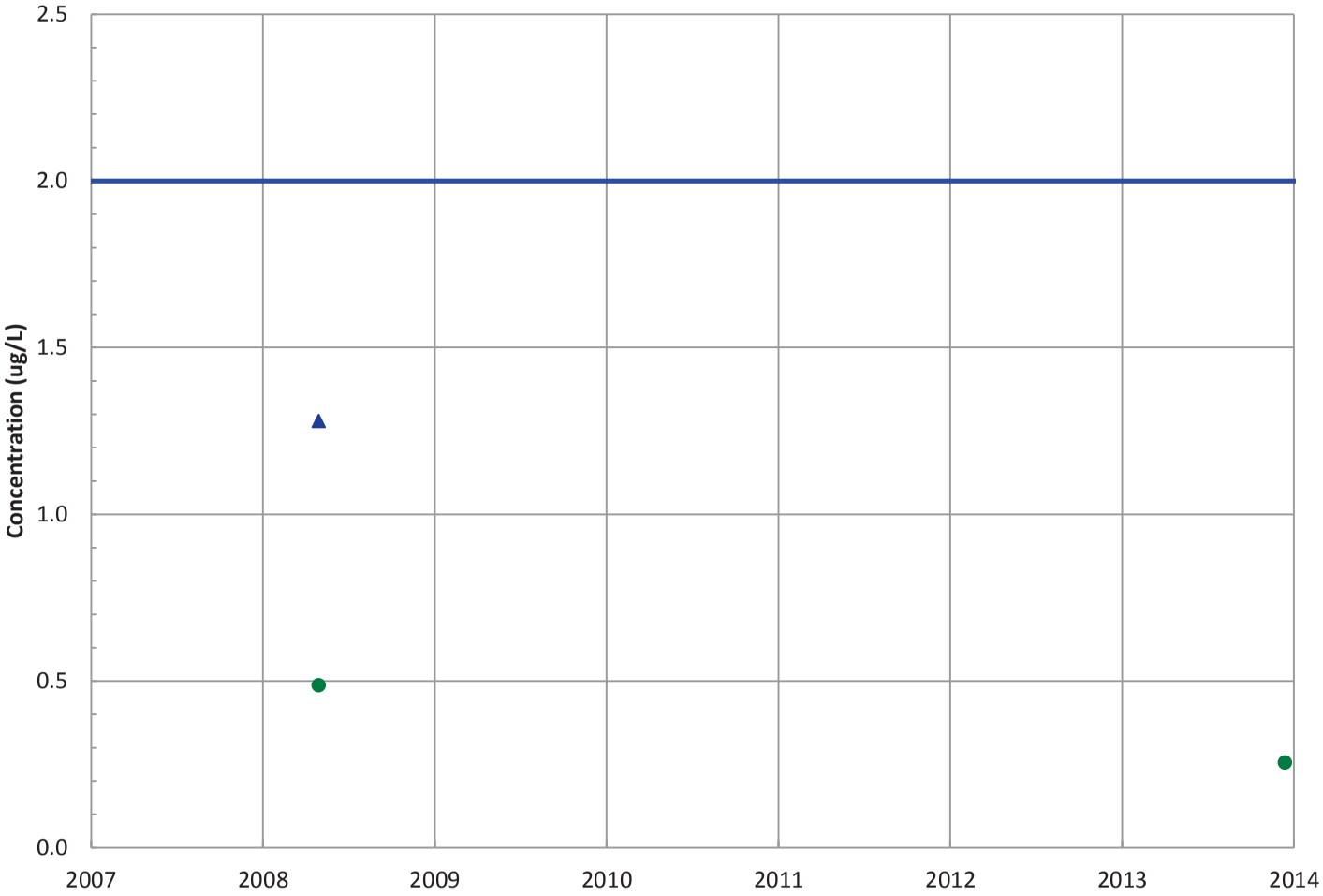
Well Location



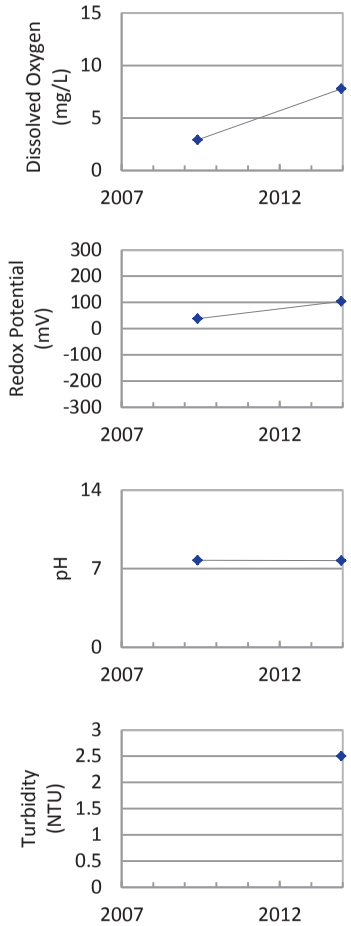
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/30/2001 to 7/24/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1073A
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



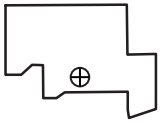
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Samples in Dataset)
2011 - 2013 Data: N/A (<4 Samples in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Samples in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

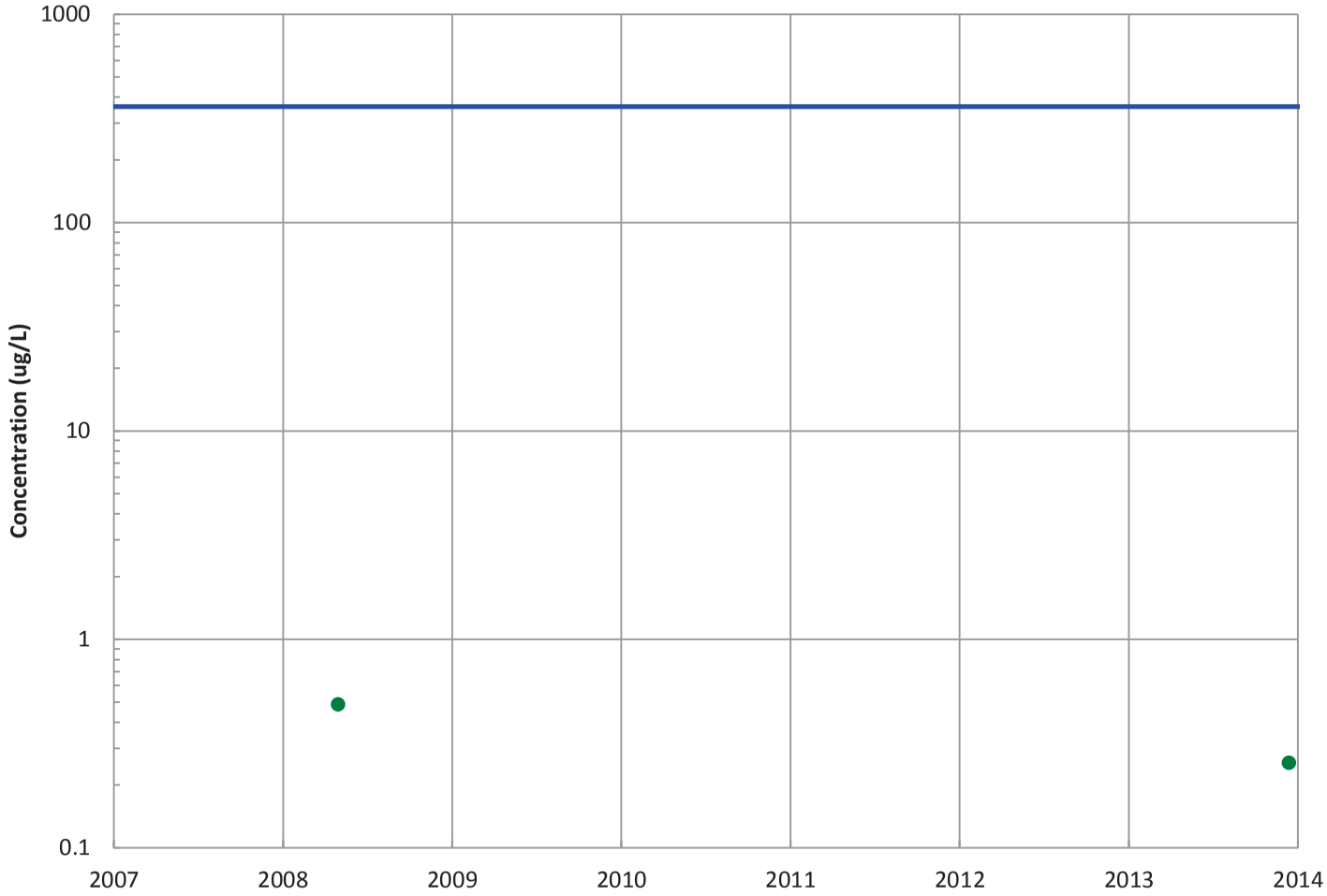
Well Location



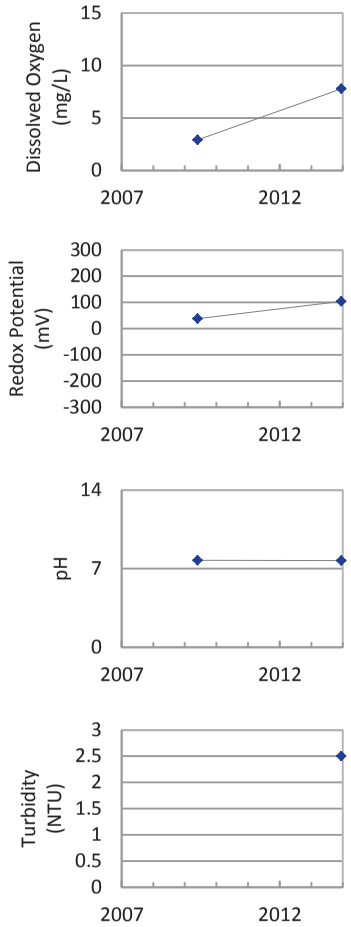
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/30/2008 to 12/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1073A
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



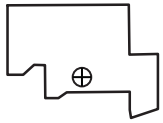
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Samples in Dataset)
2011 - 2013 Data: N/A (<4 Samples in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Samples in Dataset)
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

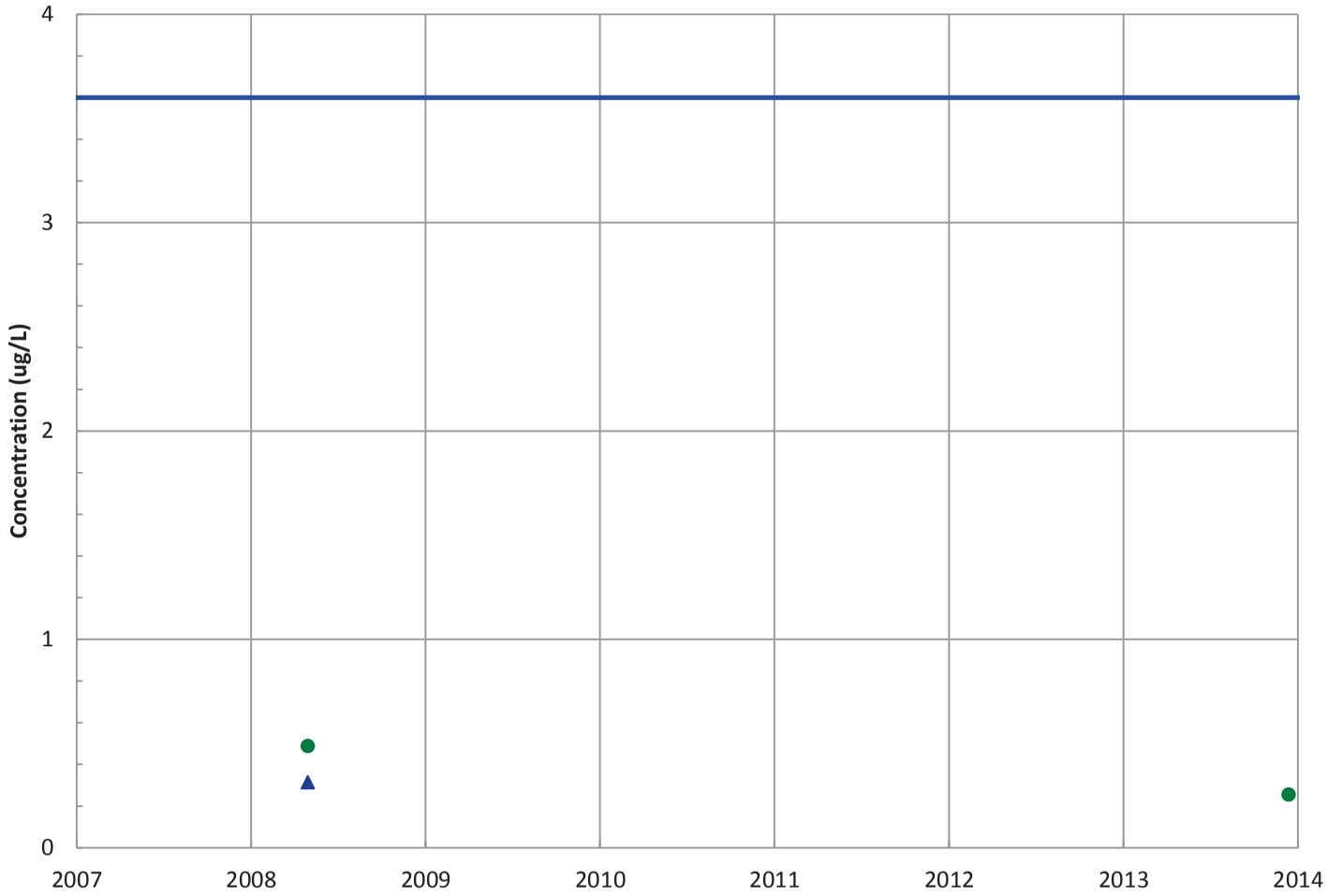
Well Location



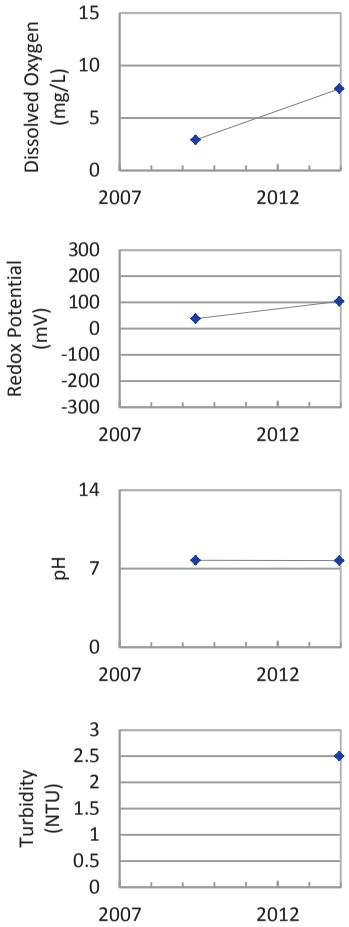
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/30/2008 to 12/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1073A
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): N/A (<4 Samples in Dataset)

2011 - 2013 Data: N/A (<4 Samples in

MAROS Linear Regression Method

Data (7/2009 - 12/2013): N/A (<4 Samples in Dataset)

2011 - 2013 Data: N/A (<4 Detections in

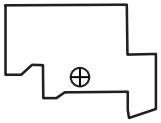
▲ Measured Value

● Sample Detection Limit

------- Concentration Trend

——— Groundwater Protection Standard

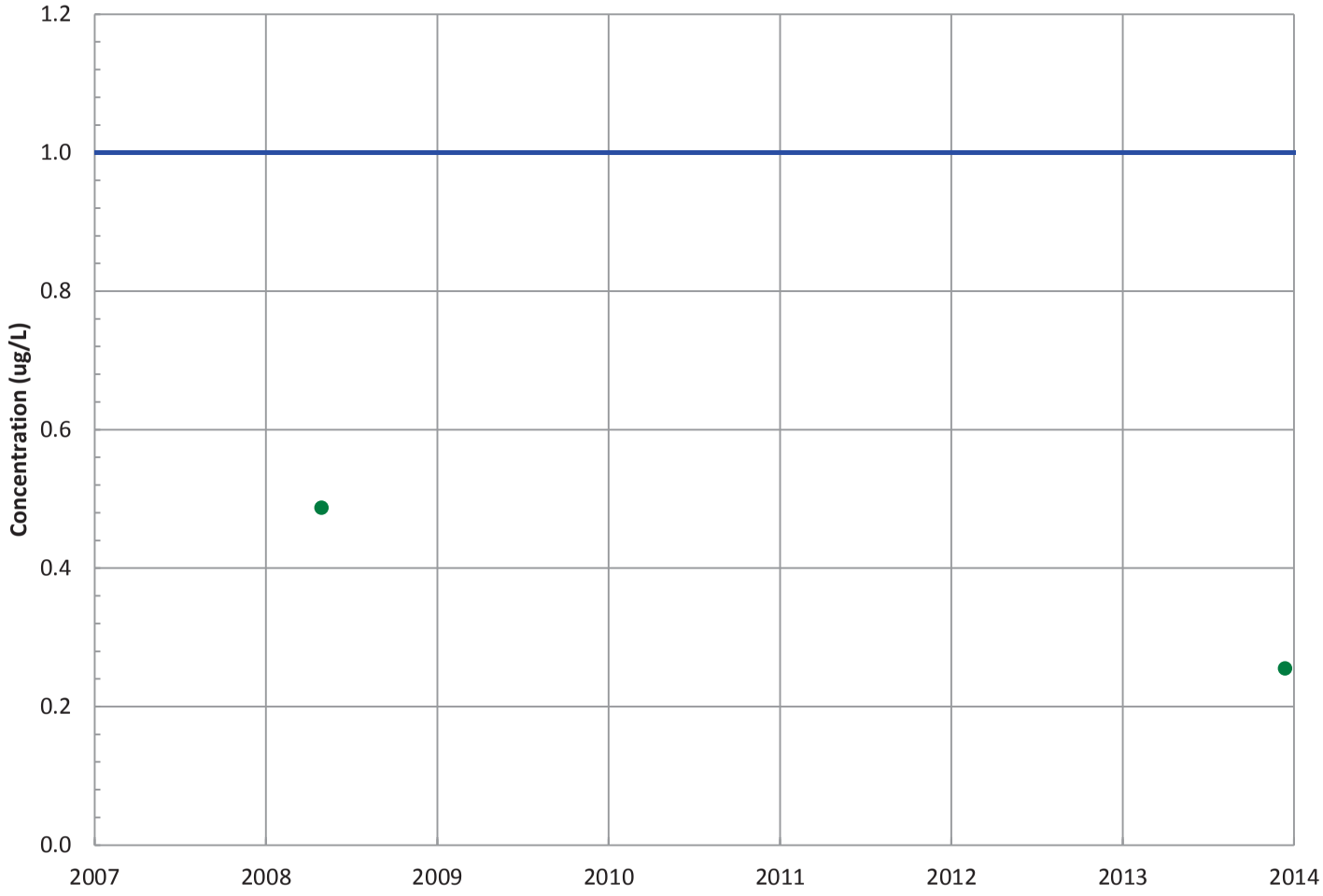
Well Location



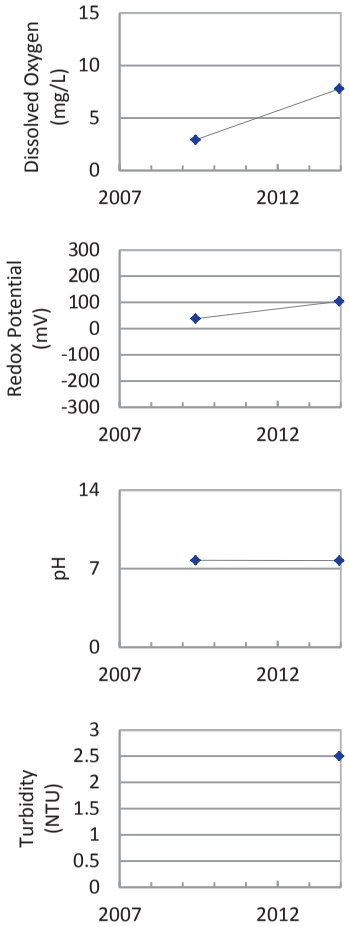
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/30/2008 to 12/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1073A
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): N/A (<4 Samples in Dataset)

2011 - 2013 Data: N/A (<4 Samples in

MAROS Linear Regression Method

Data (7/2009 - 12/2013): N/A (<4 Samples in Dataset)

2011 - 2013 Data: All Non-Detect

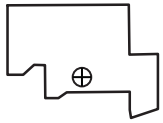
▲ Measured Value

● Sample Detection Limit

------- Concentration Trend

——— Groundwater Protection Standard

Well Location



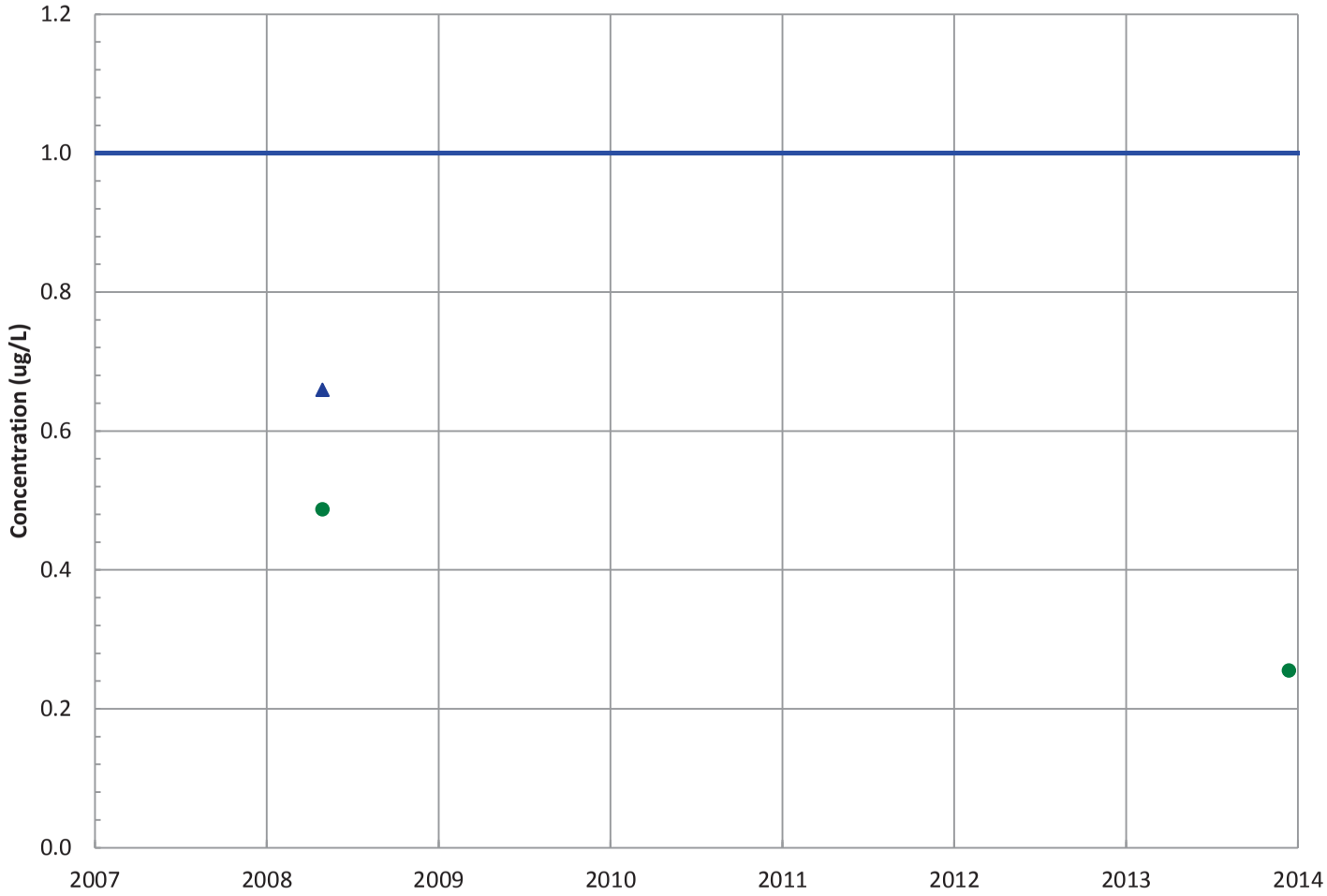
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 4/30/2008 to 12/18/2013

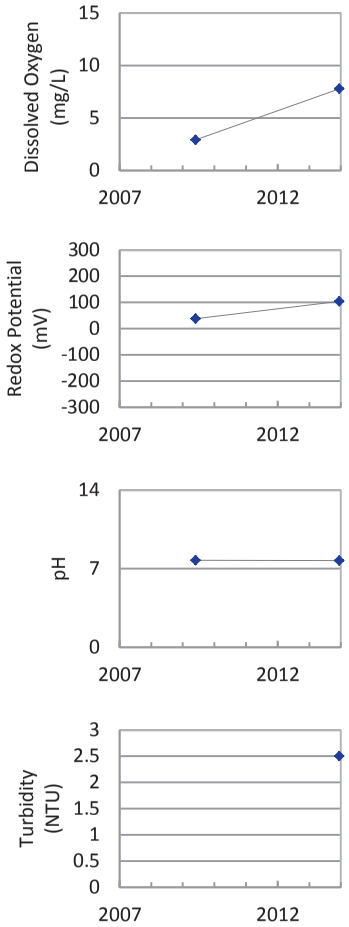
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1073A
2,6-Dinitrotoluene Trend in Perched Aquifer



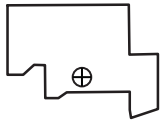
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Samples in Dataset)
2011 - 2013 Data: N/A (<4 Samples in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Samples in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

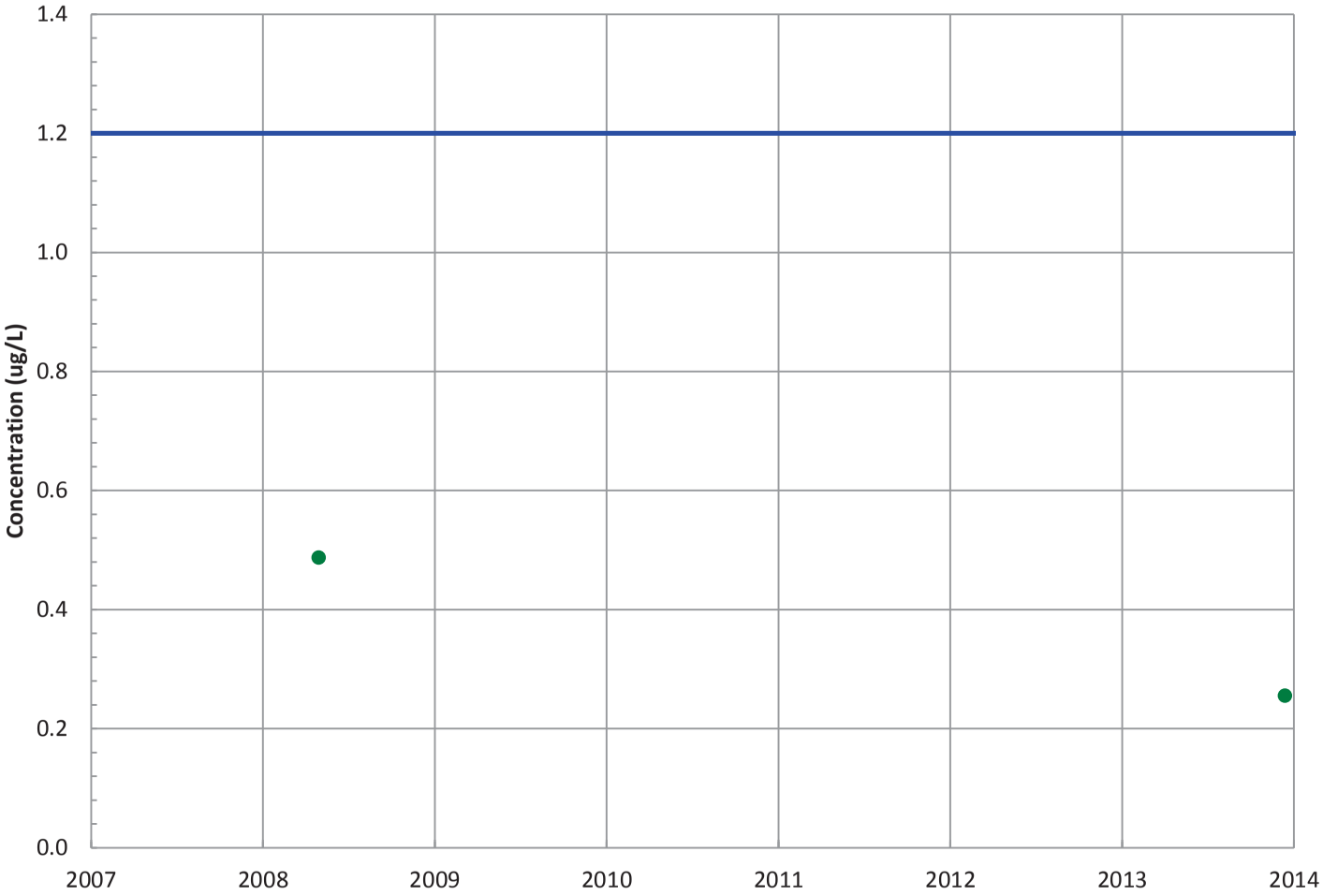
Well Location



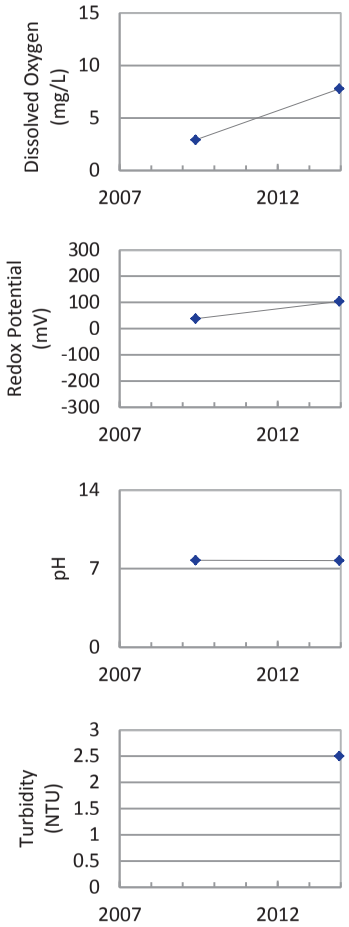
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/30/2008 to 12/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1073A
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): N/A (<4 Samples in Dataset)

2011 - 2013 Data: N/A (<4 Samples in

MAROS Linear Regression Method

Data (7/2009 - 12/2013): N/A (<4 Samples in Dataset)

2011 - 2013 Data: All Non-Detect

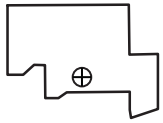
▲ Measured Value

● Sample Detection Limit

------- Concentration Trend

——— Groundwater Protection Standard

Well Location



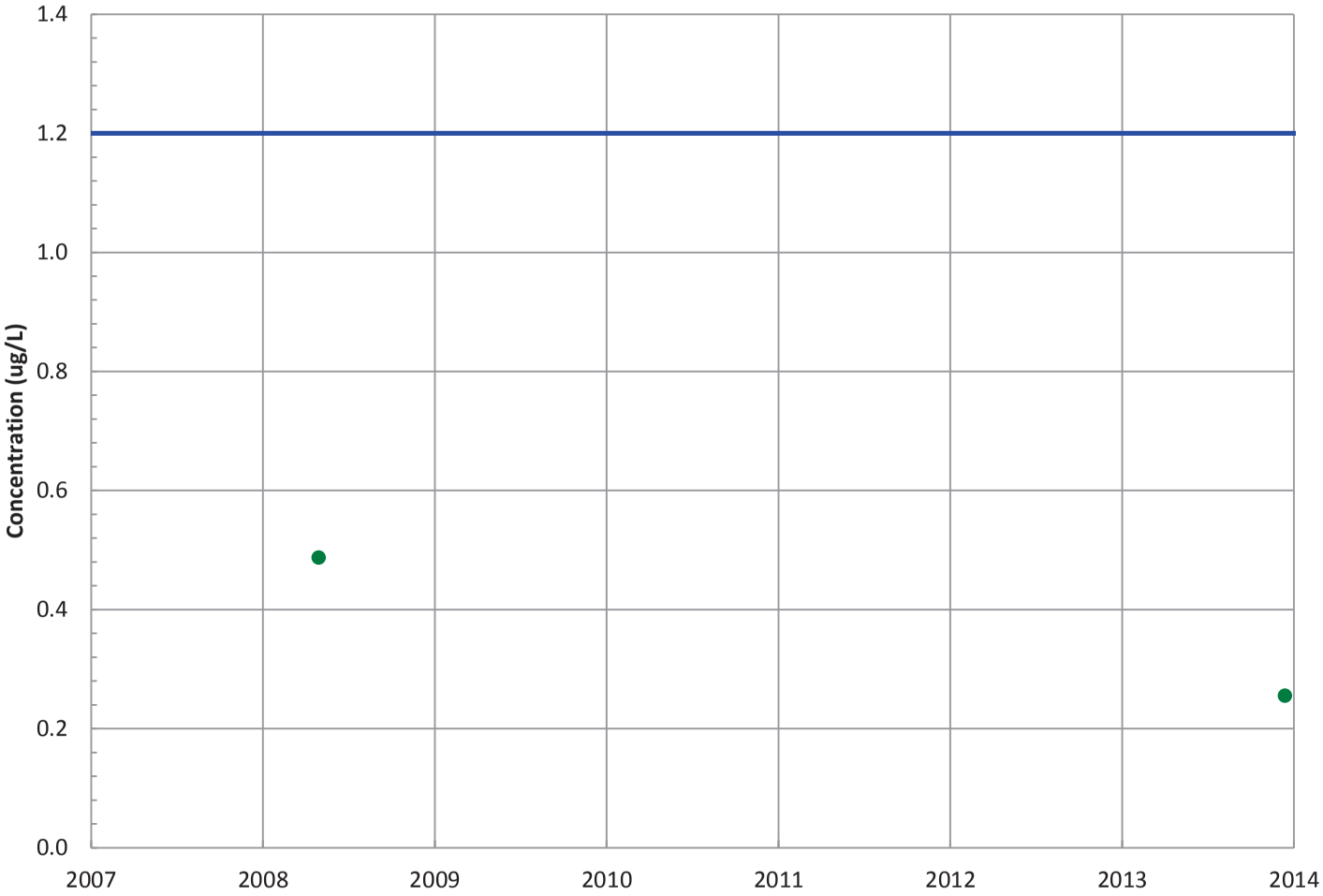
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 4/30/2008 to 12/18/2013

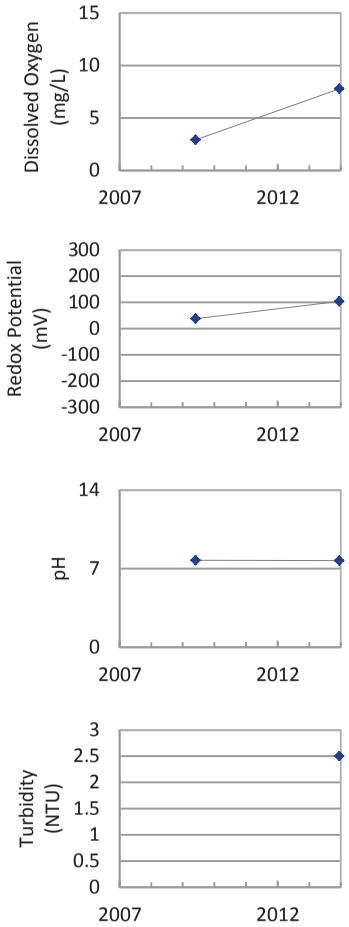
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1073A
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): N/A (<4 Samples in Dataset)

2011 - 2013 Data: N/A (<4 Samples in

MAROS Linear Regression Method

Data (7/2009 - 12/2013): N/A (<4 Samples in Dataset)

2011 - 2013 Data: All Non-Detect

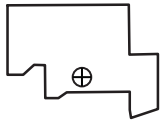
▲ Measured Value

● Sample Detection Limit

------- Concentration Trend

——— Groundwater Protection Standard

Well Location



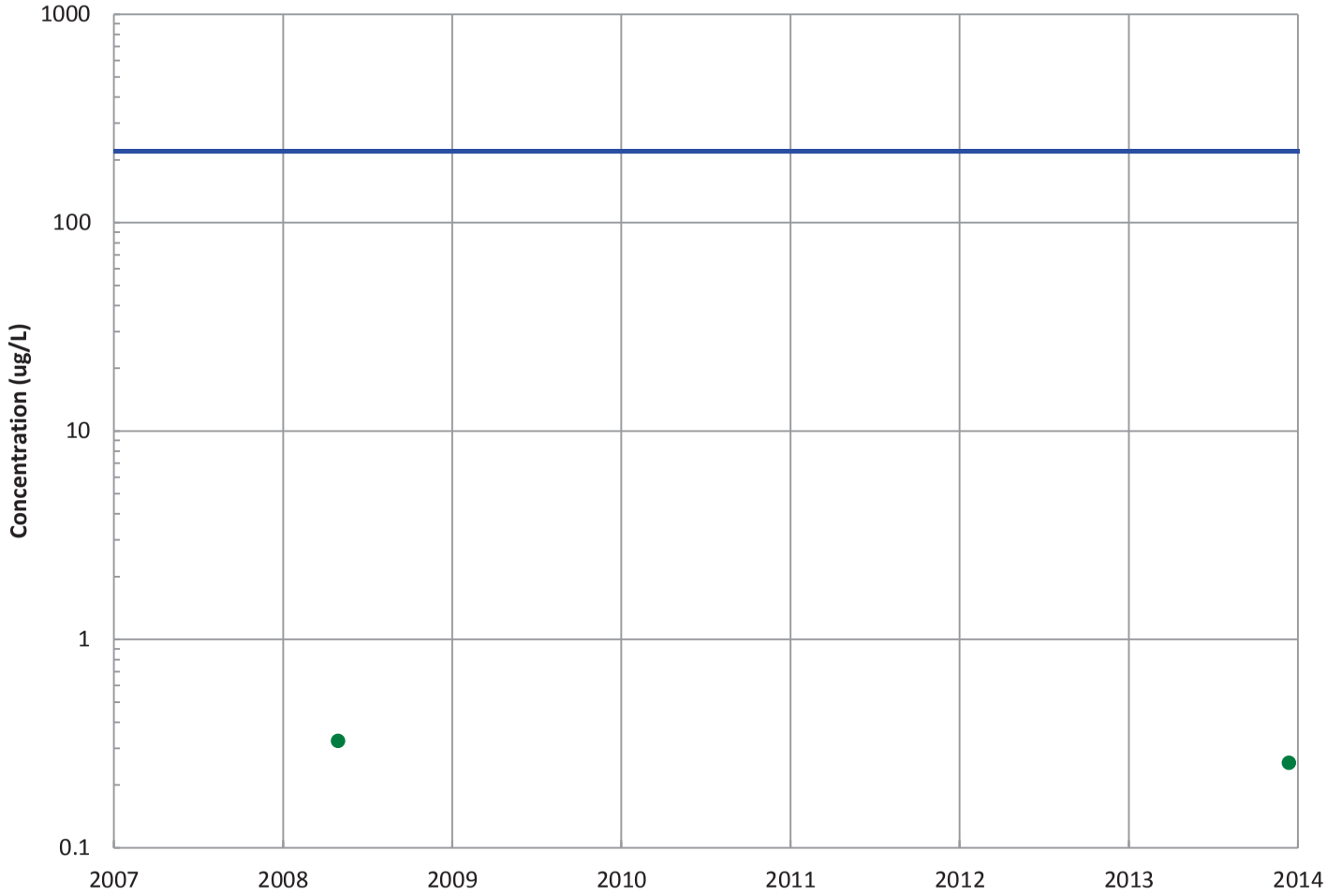
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 4/30/2008 to 12/18/2013

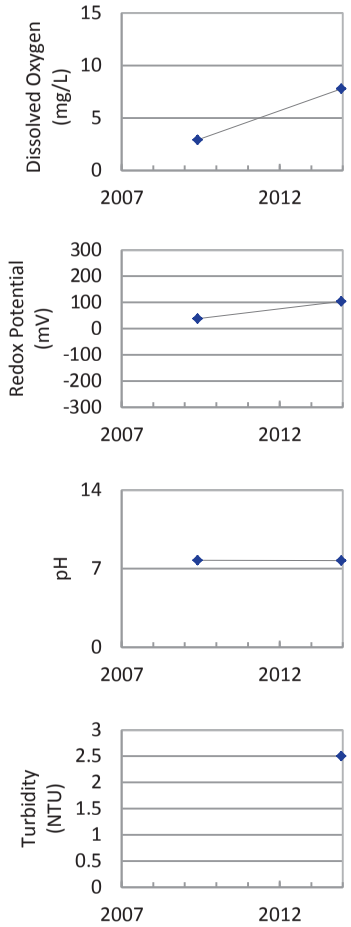
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1073A
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): N/A (<4 Samples in Dataset)

2011 - 2013 Data: N/A (<4 Samples in

MAROS Linear Regression Method

Data (7/2009 - 12/2013): N/A (<4 Samples in Dataset)

2011 - 2013 Data: All Non-Detect

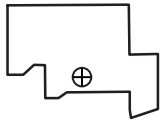
▲ Measured Value

● Sample Detection Limit

------- Concentration Trend

——— Groundwater Protection Standard

Well Location



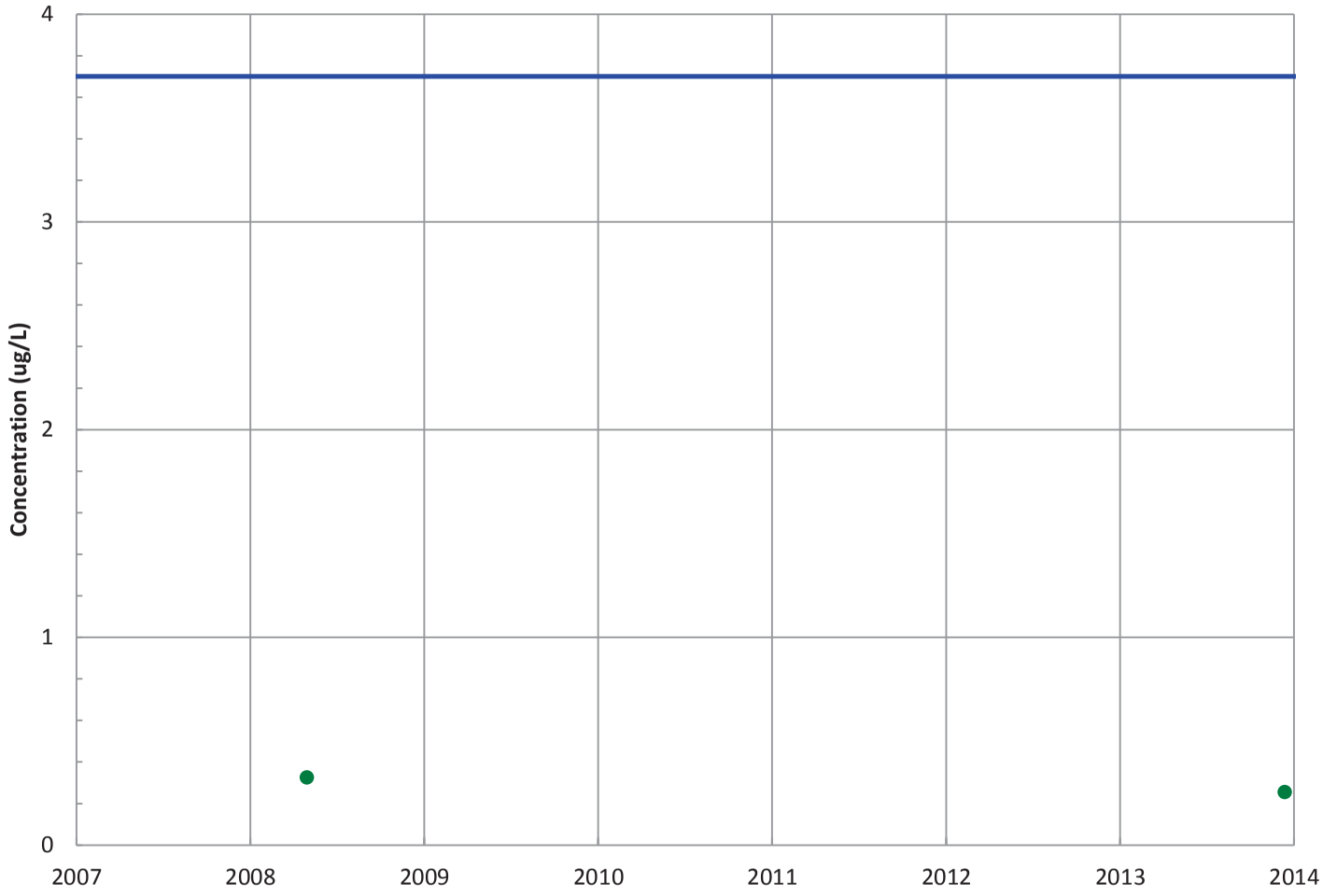
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 4/30/2008 to 12/18/2013

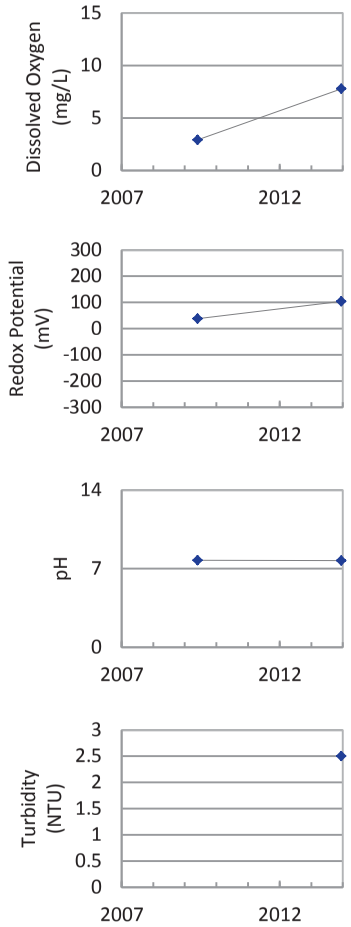
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1073A
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): N/A (<4 Samples in Dataset)

2011 - 2013 Data: N/A (<4 Samples in

MAROS Linear Regression Method

Data (7/2009 - 12/2013): N/A (<4 Samples in Dataset)

2011 - 2013 Data: All Non-Detect

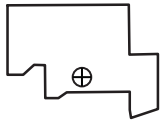
▲ Measured Value

● Sample Detection Limit

------- Concentration Trend

——— Groundwater Protection Standard

Well Location



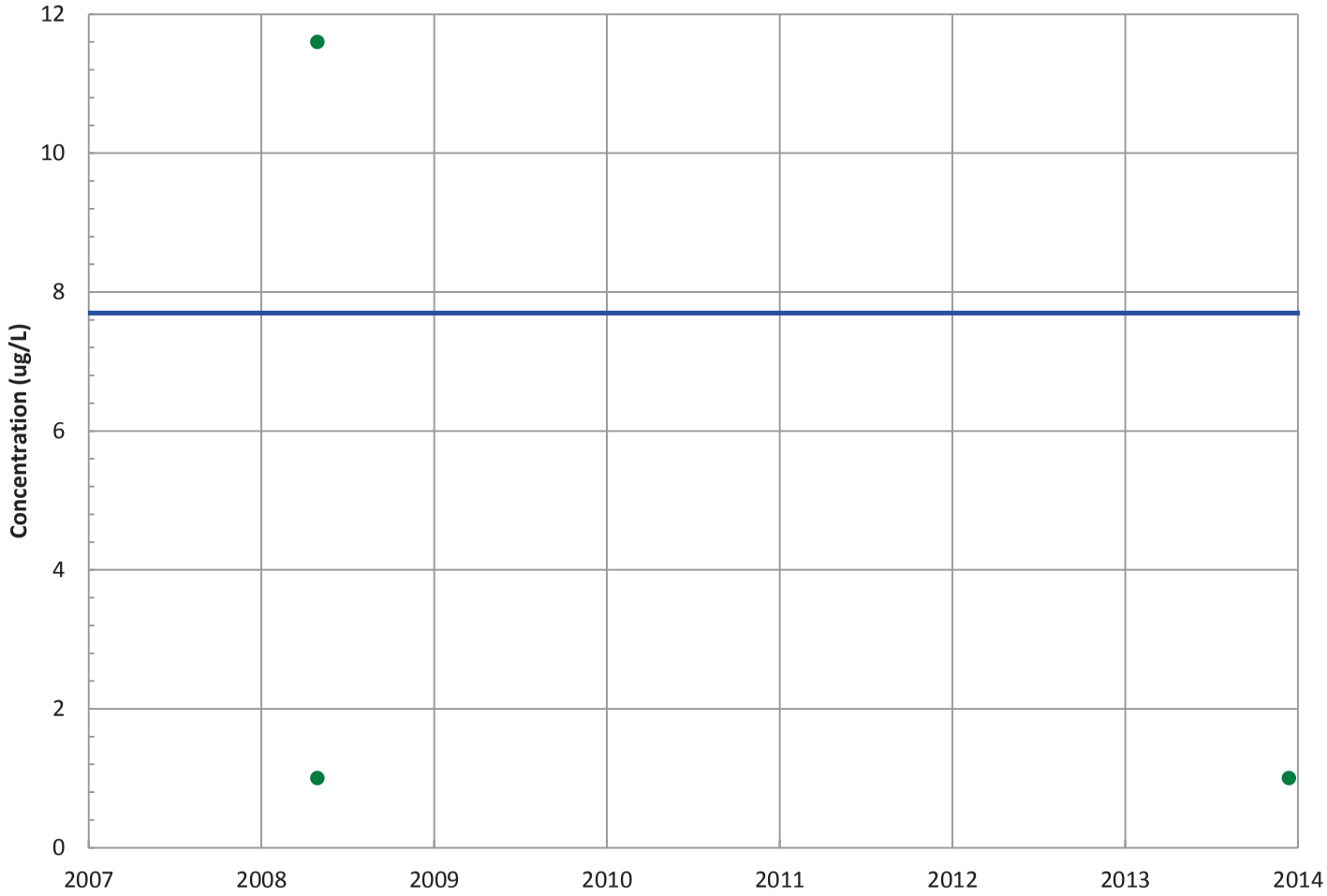
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 4/30/2008 to 12/18/2013

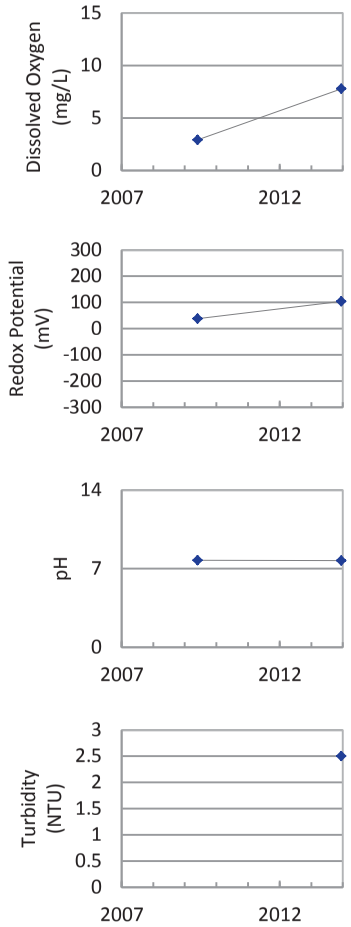
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1073A
1,4-Dioxane (p-Dioxane) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): N/A (<4 Samples in Dataset)

2011 - 2013 Data: N/A (<4 Samples in

MAROS Linear Regression Method

Data (7/2009 - 12/2013): N/A (<4 Samples in Dataset)

2011 - 2013 Data: All Non-Detect

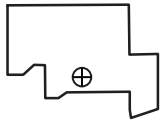
▲ Measured Value

● Sample Detection Limit

------- Concentration Trend

——— Groundwater Protection Standard

Well Location



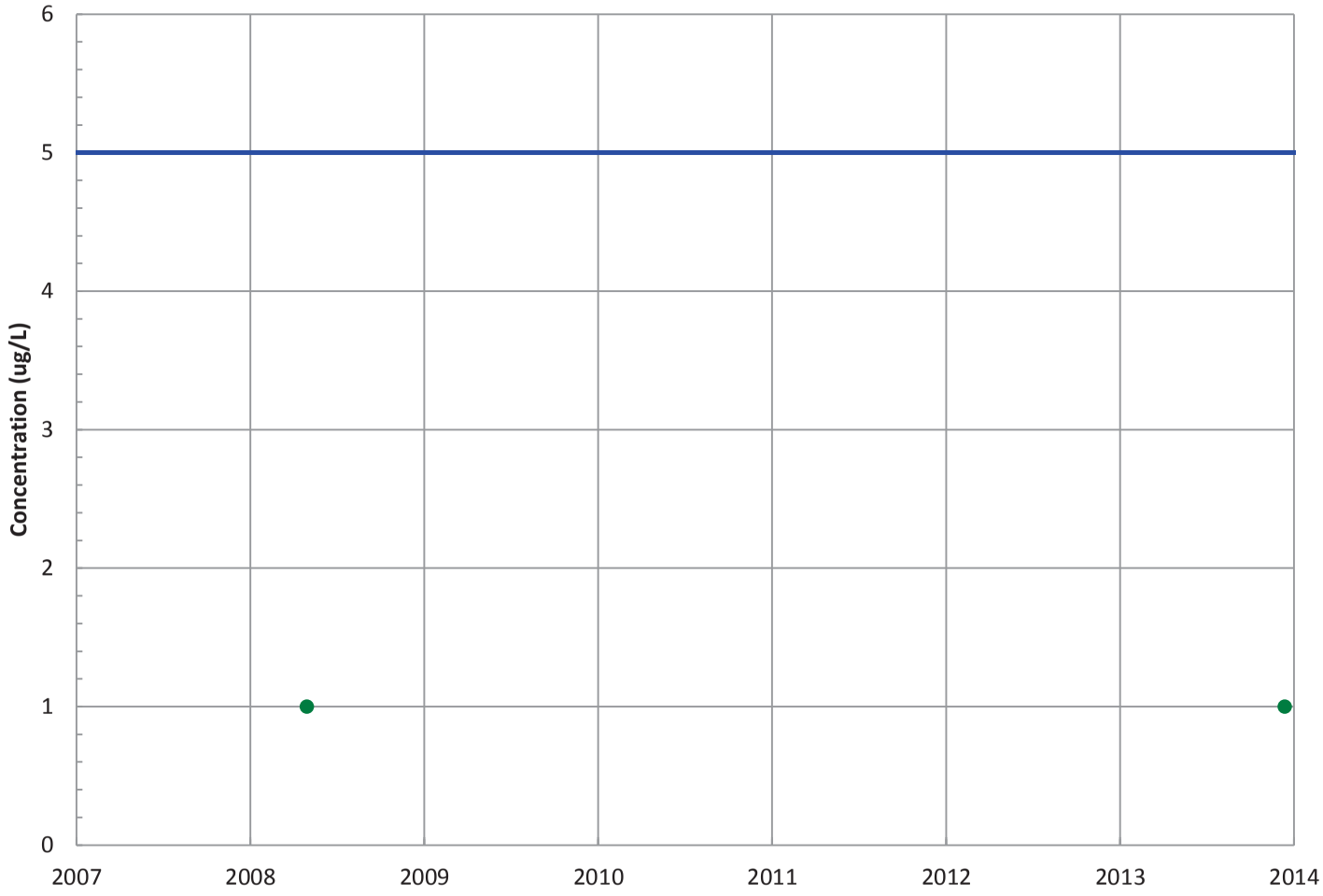
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 4/30/2008 to 12/18/2013

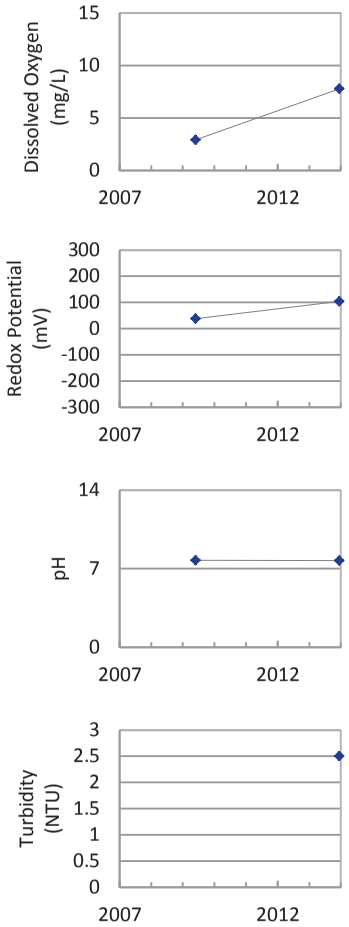
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1073A
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): N/A (<4 Samples in Dataset)

2011 - 2013 Data: N/A (<4 Samples in

MAROS Linear Regression Method

Data (7/2009 - 12/2013): N/A (<4 Samples in Dataset)

2011 - 2013 Data: All Non-Detect

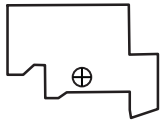
▲ Measured Value

● Sample Detection Limit

------- Concentration Trend

——— Groundwater Protection Standard

Well Location



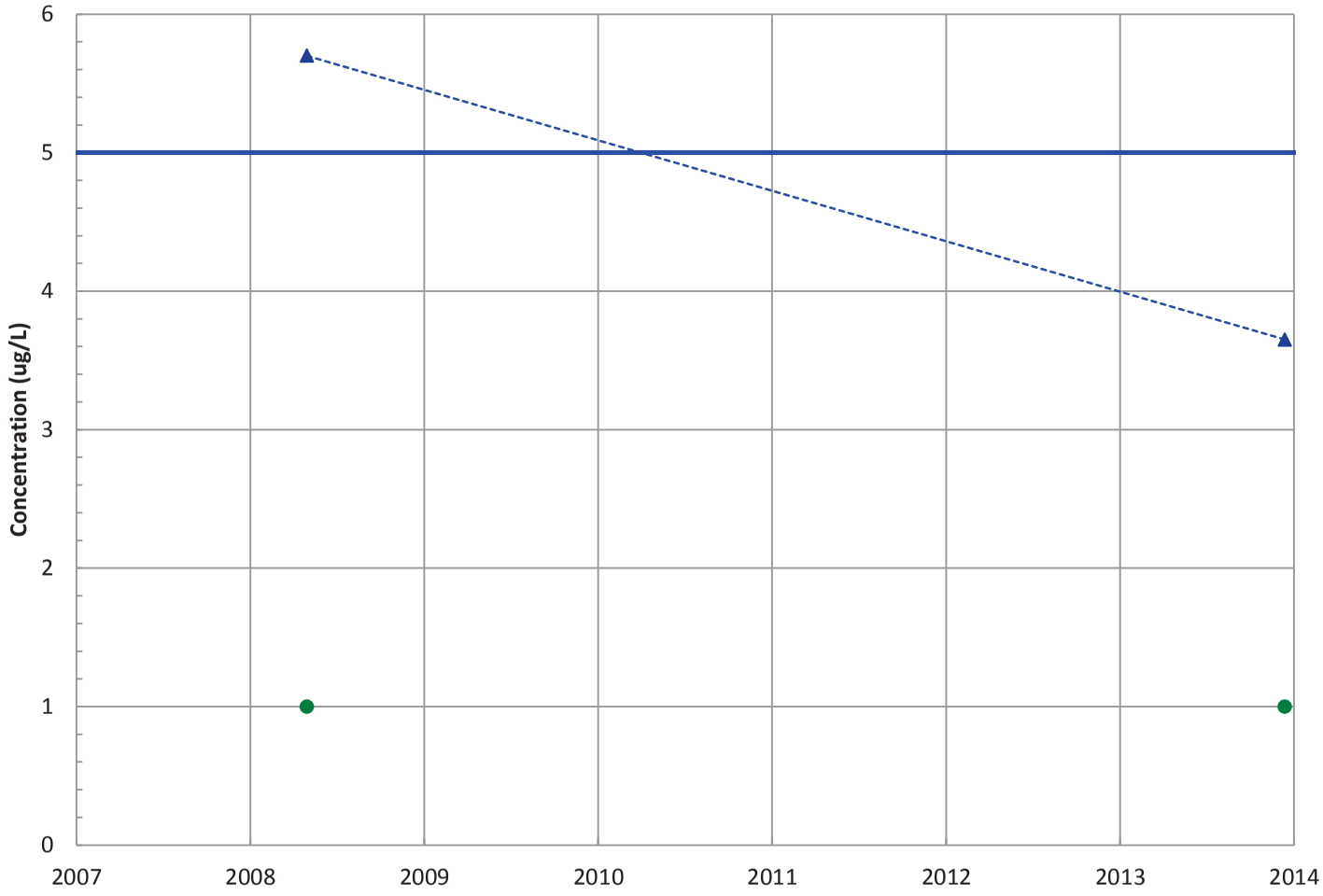
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 4/30/2008 to 12/18/2013

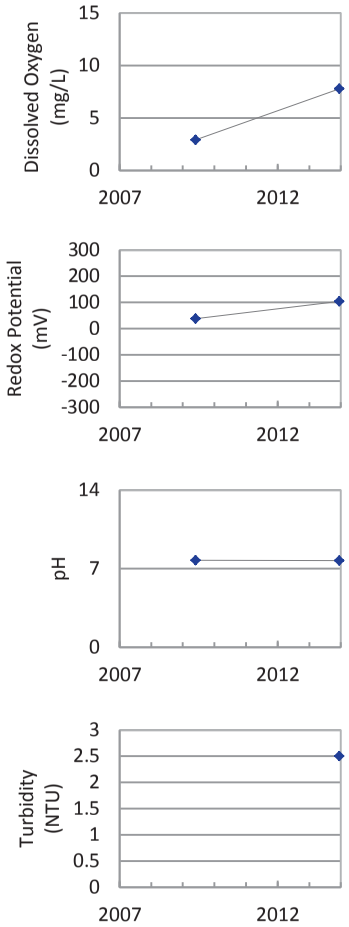
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1073A
Trichloroethene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): N/A (<4 Samples in Dataset)

2011 - 2013 Data: N/A (<4 Samples in

MAROS Linear Regression Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: N/A (<4 Detections in

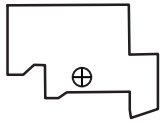
▲ Measured Value

● Sample Detection Limit

Concentration Trend

Groundwater Protection Standard

Well Location



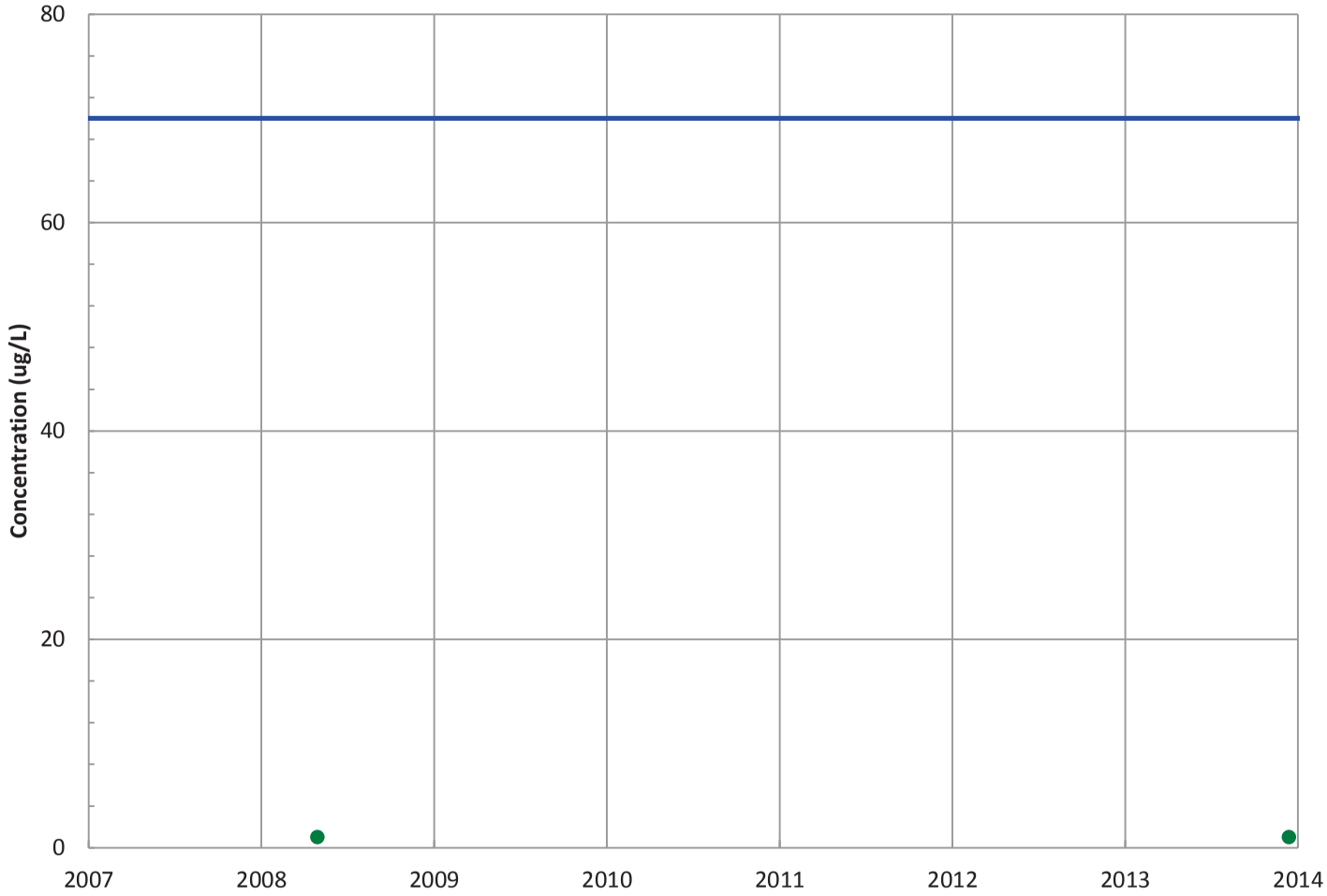
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 4/30/2008 to 12/18/2013

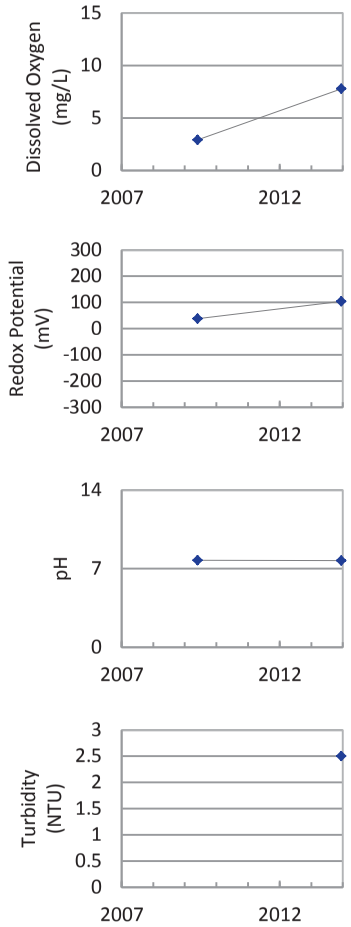
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1073A
cis-1,2-Dichloroethene Trend in Perched Aquifer



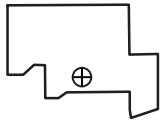
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Samples in Dataset)
2011 - 2013 Data: N/A (<4 Samples in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Samples in Dataset)
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

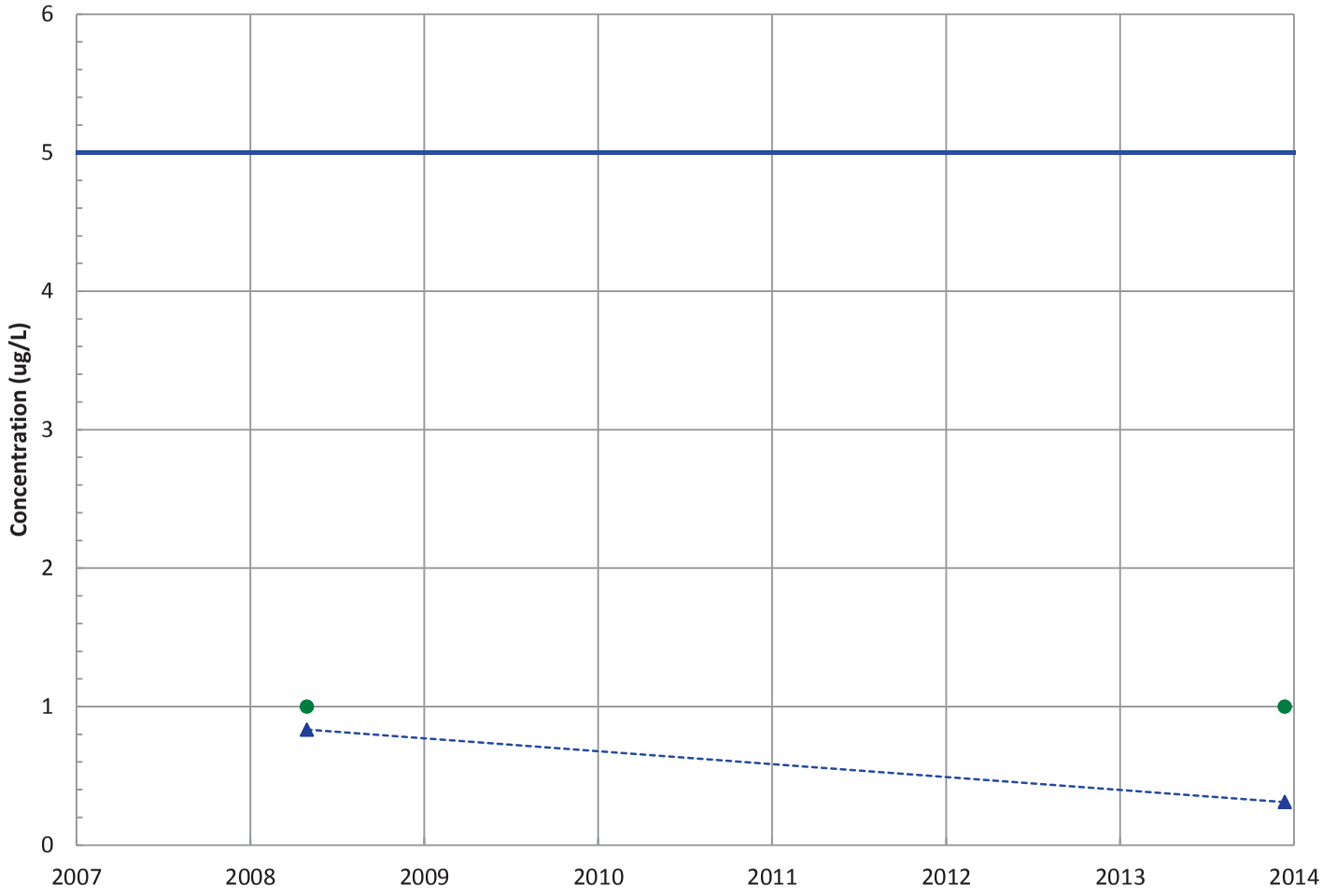
Well Location



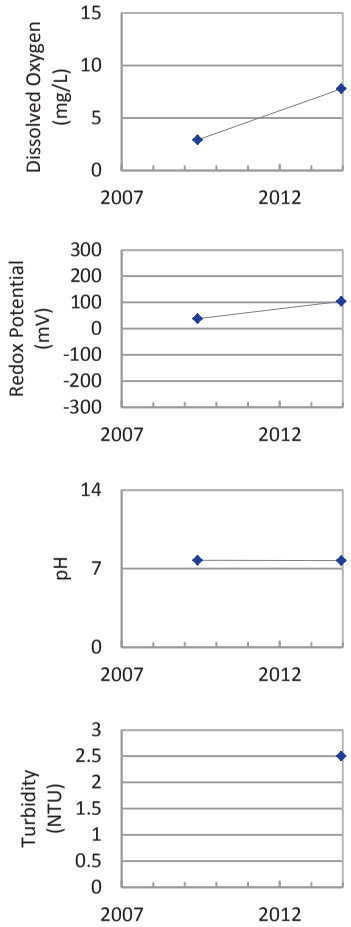
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/30/2008 to 12/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1073A
1,2-Dichloroethane Trend in Perched Aquifer



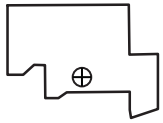
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Samples in Dataset)
2011 - 2013 Data: N/A (<4 Samples in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

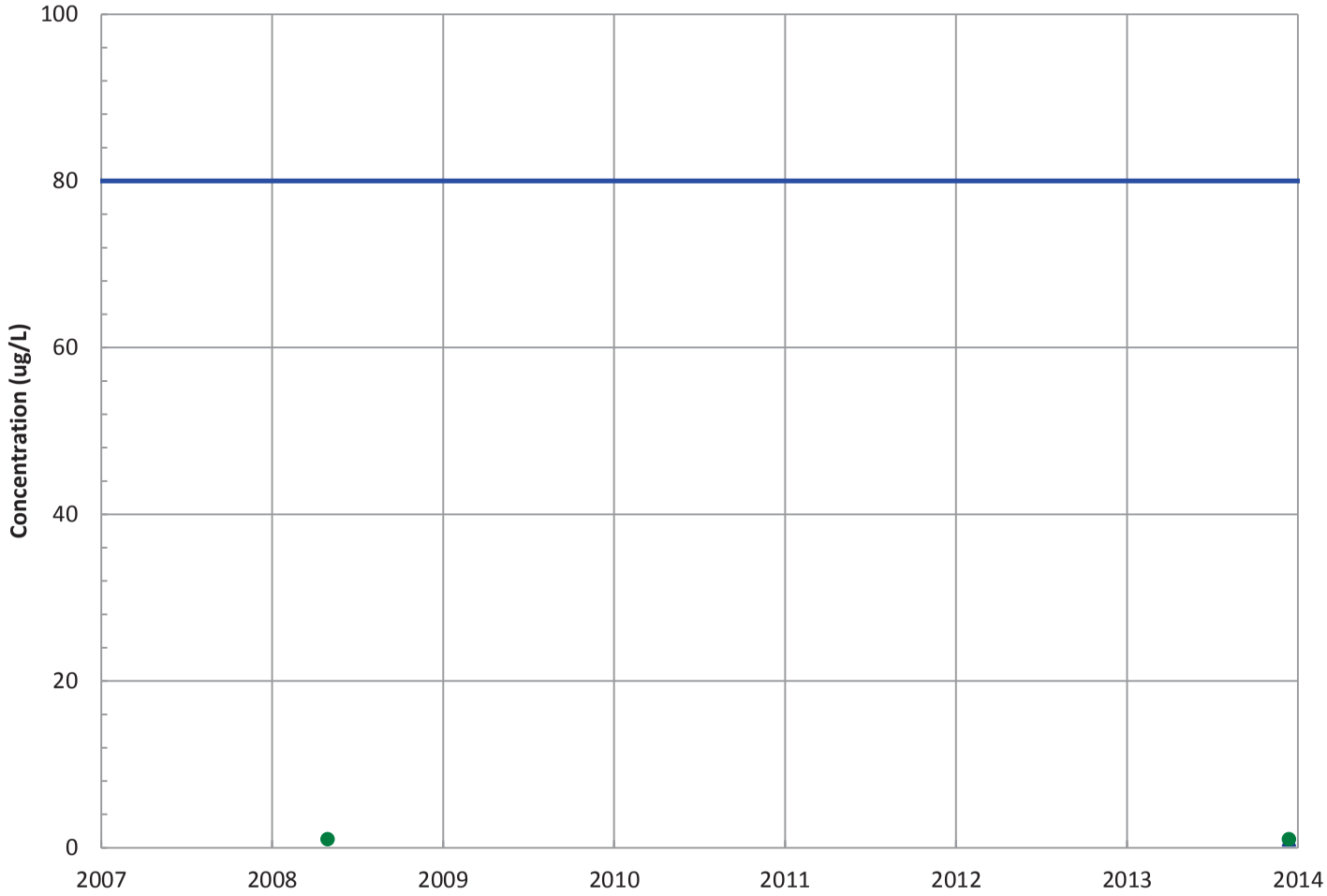
Well Location



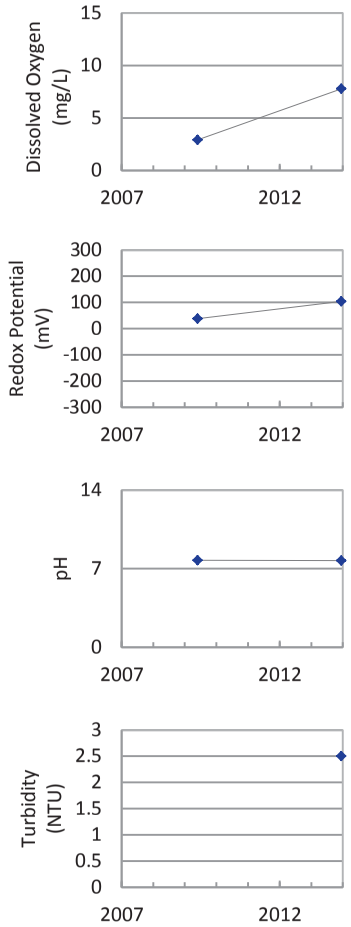
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/30/2008 to 12/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1073A
Chloroform Trend in Perched Aquifer



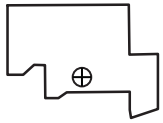
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Samples in Dataset)
2011 - 2013 Data: N/A (<4 Samples in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

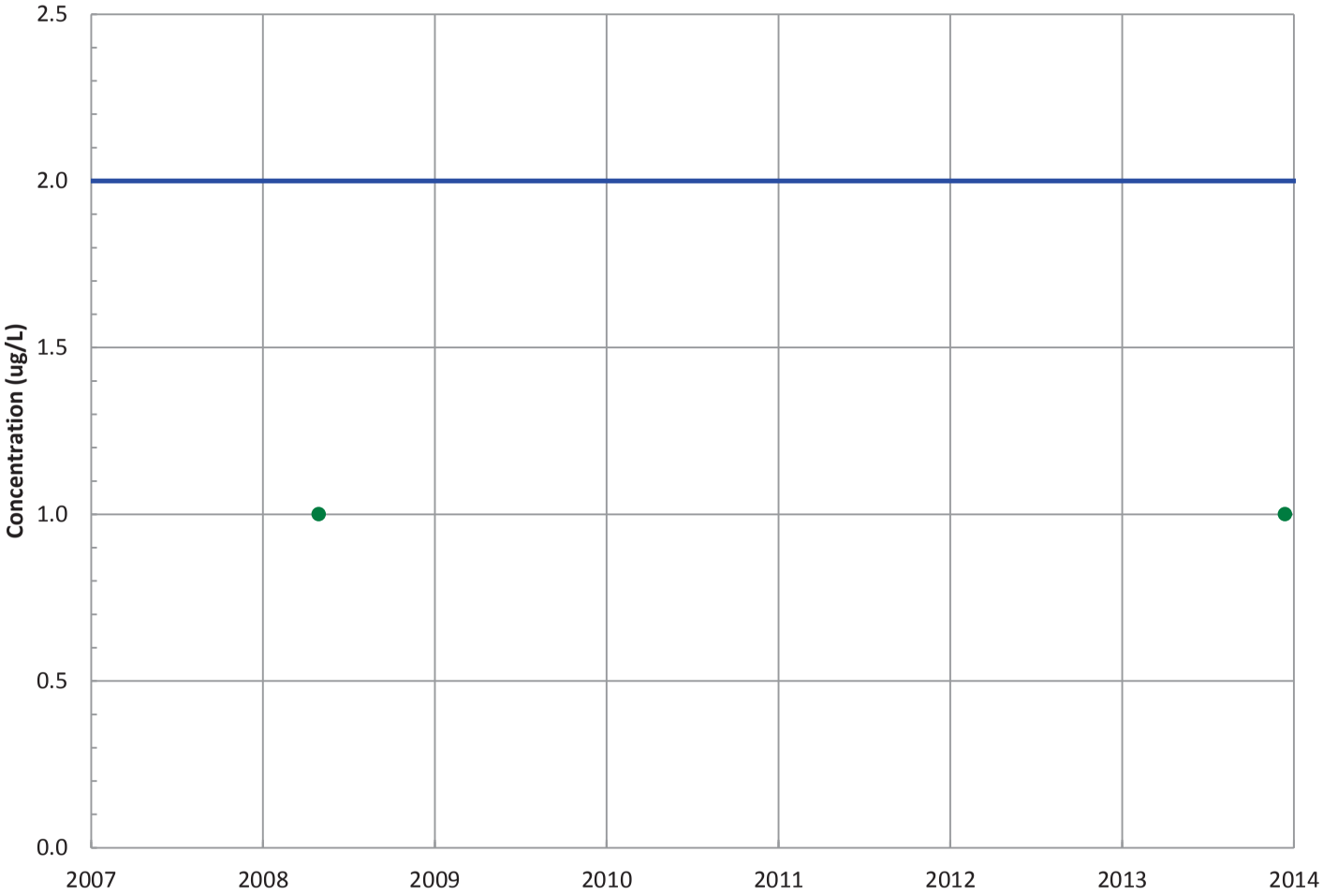
Well Location



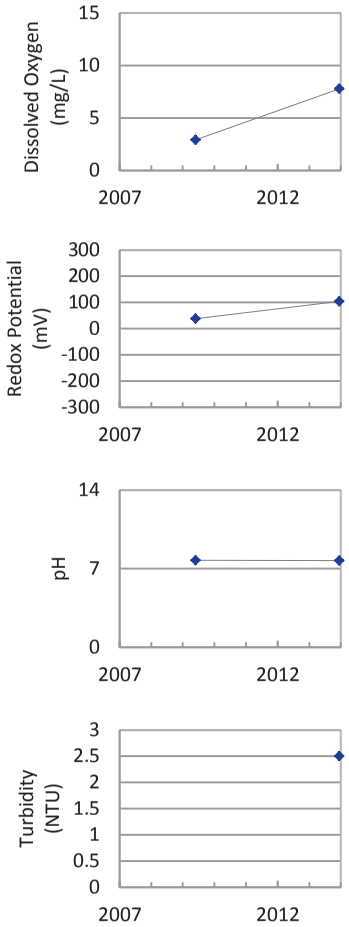
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/30/2008 to 12/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1073A
Vinyl Chloride Trend in Perched Aquifer



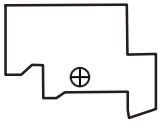
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Samples in Dataset)
2011 - 2013 Data: N/A (<4 Samples in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Samples in Dataset)
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

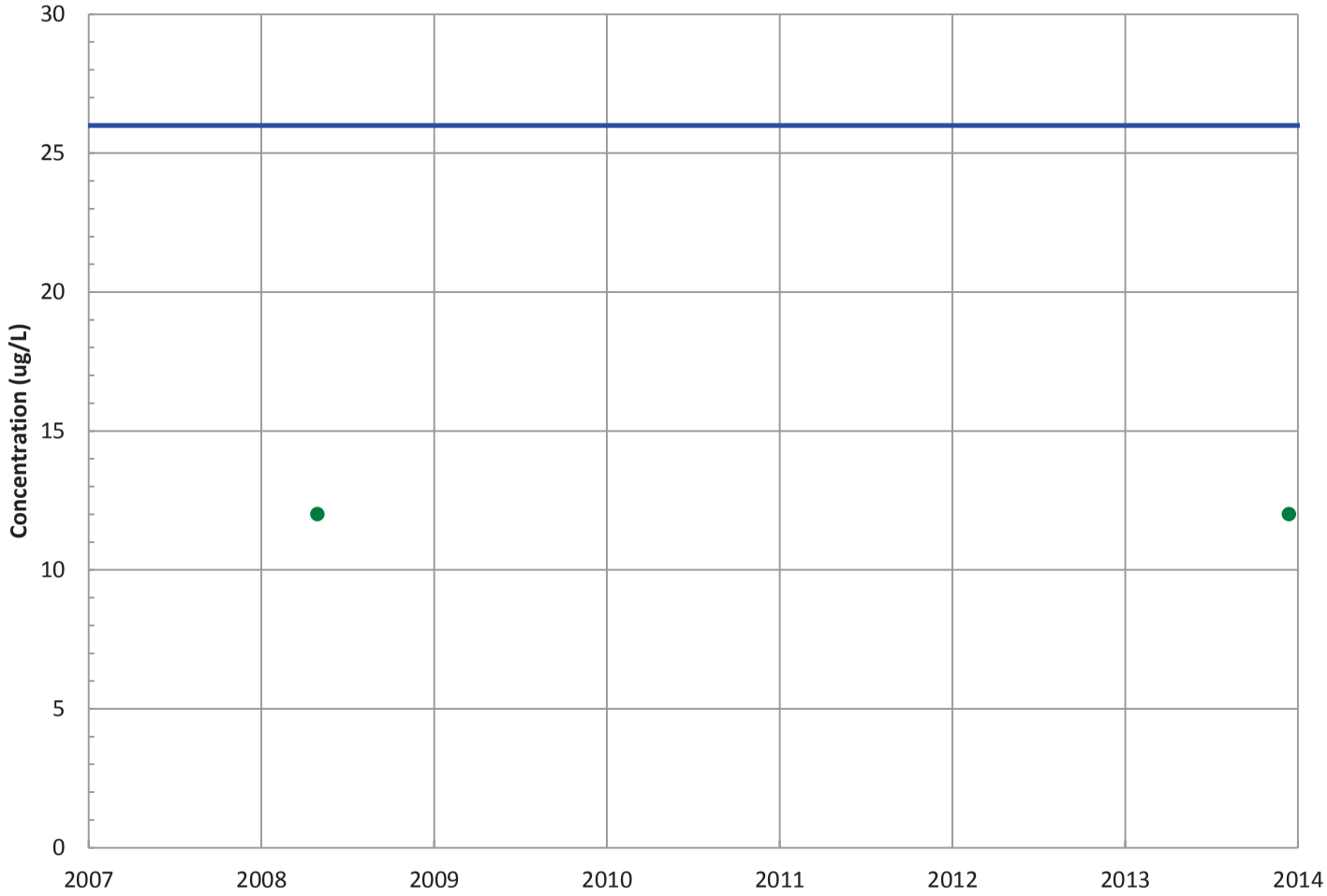
Well Location



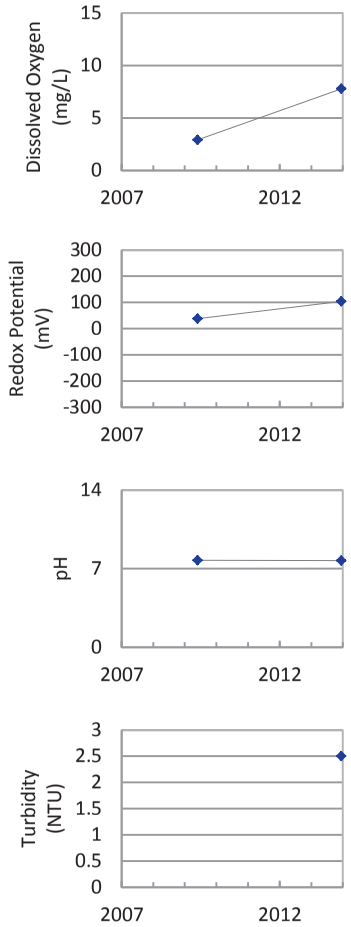
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/30/2008 to 12/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1073A
Perchlorate Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): N/A (<4 Samples in Dataset)

2011 - 2013 Data: N/A (<4 Samples in

MAROS Linear Regression Method

Data (7/2009 - 12/2013): N/A (<4 Samples in Dataset)

2011 - 2013 Data: All Non-Detect

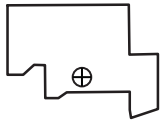
▲ Measured Value

● Sample Detection Limit

------- Concentration Trend

——— Groundwater Protection Standard

Well Location



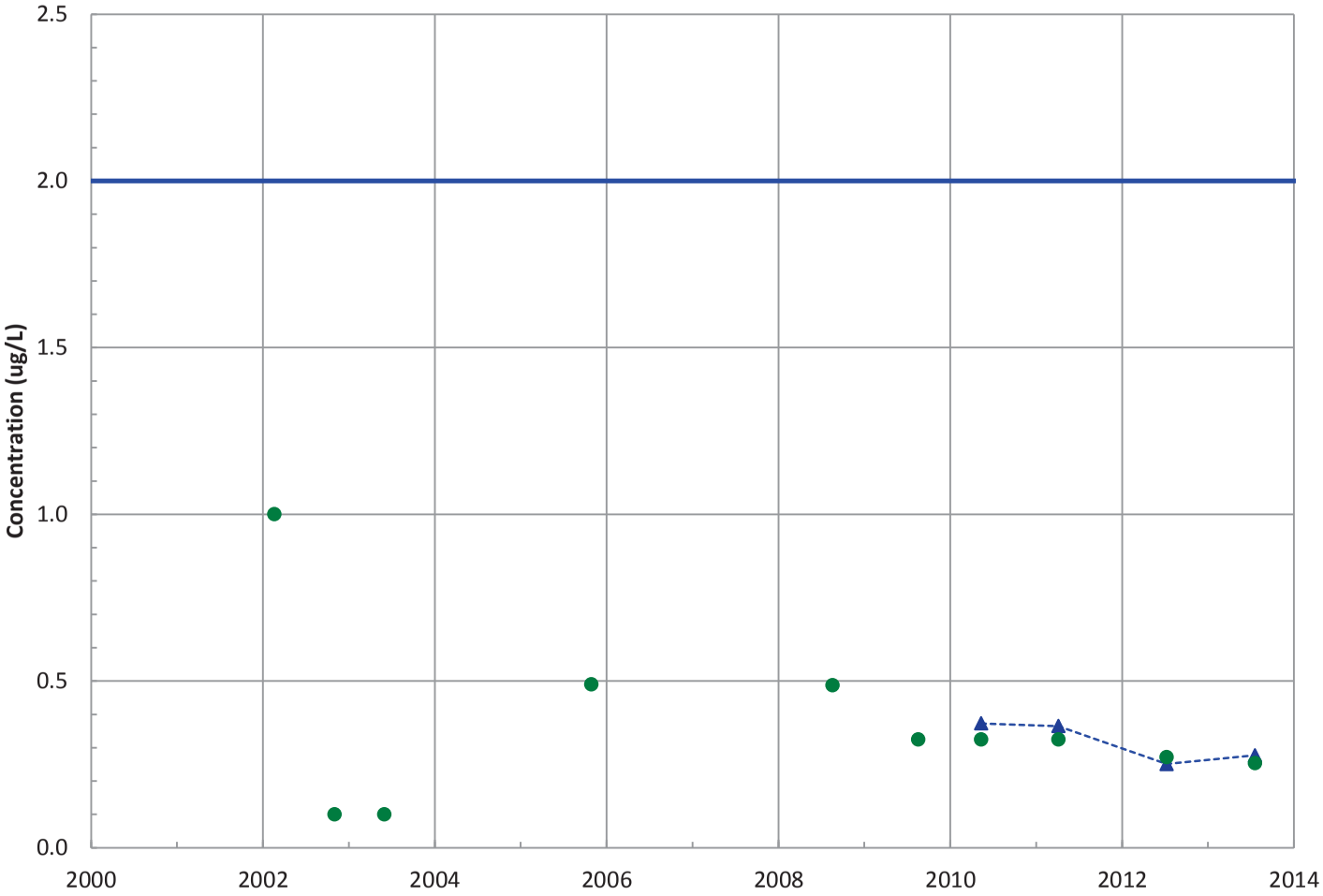
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 4/30/2008 to 12/18/2013

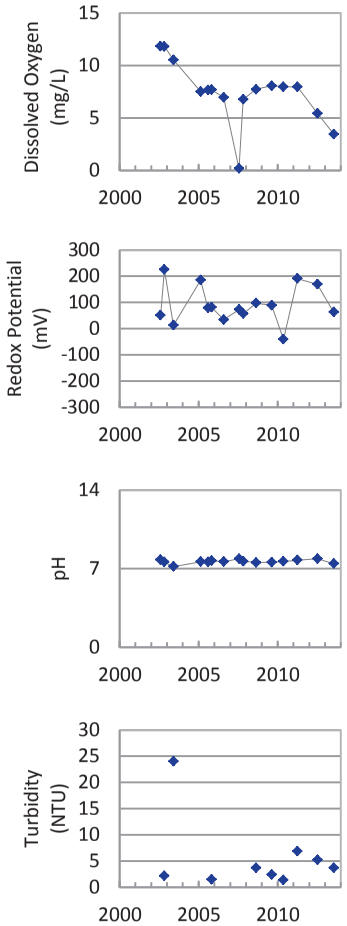
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1077A
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



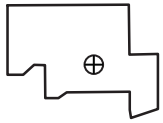
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Probably Decreasing
2011 - 2013 Data: Probably Decreasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

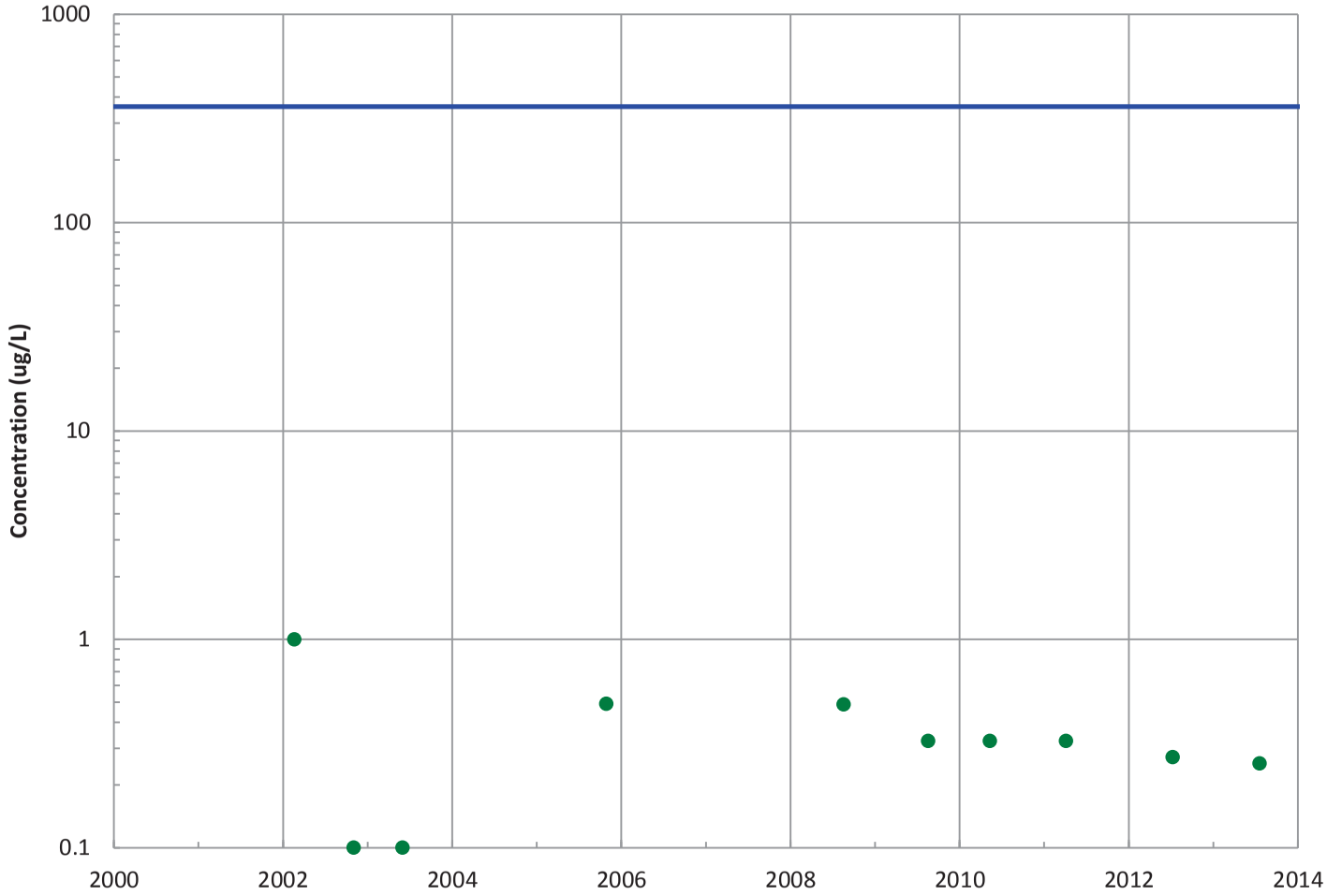
Well Location



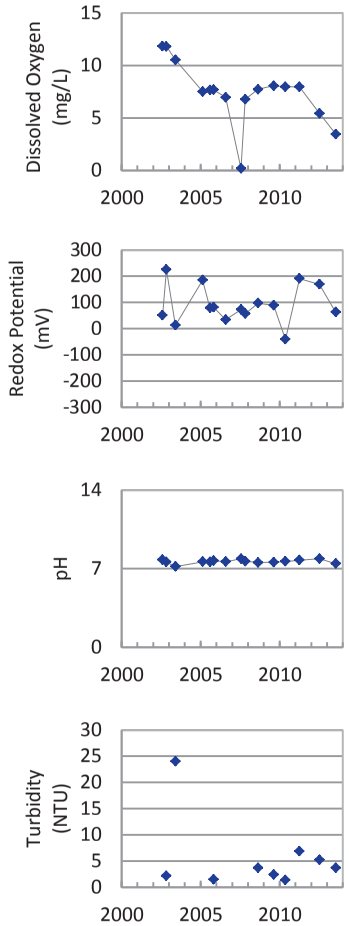
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/20/2002 to 7/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1077A
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



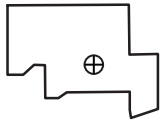
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

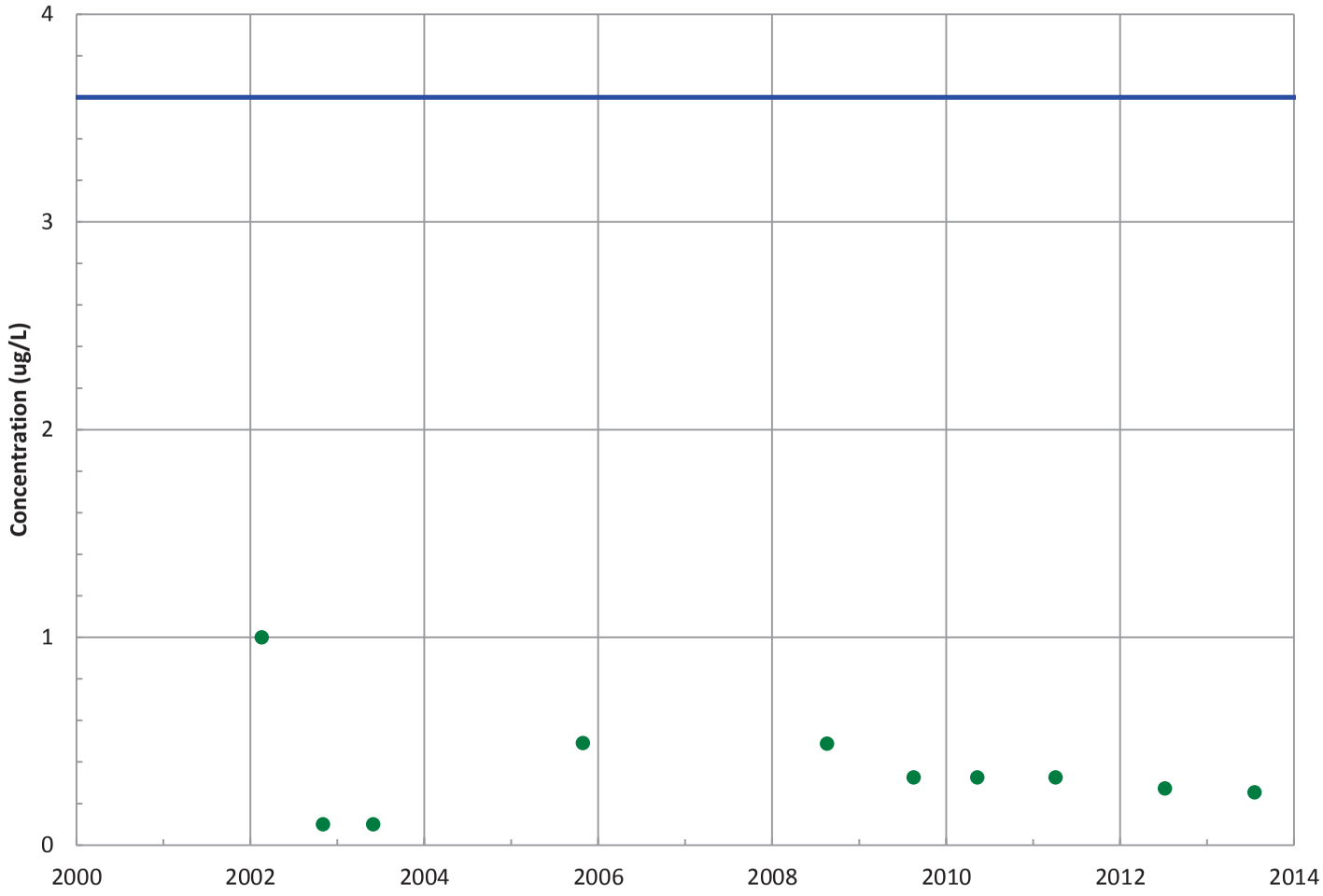
Well Location



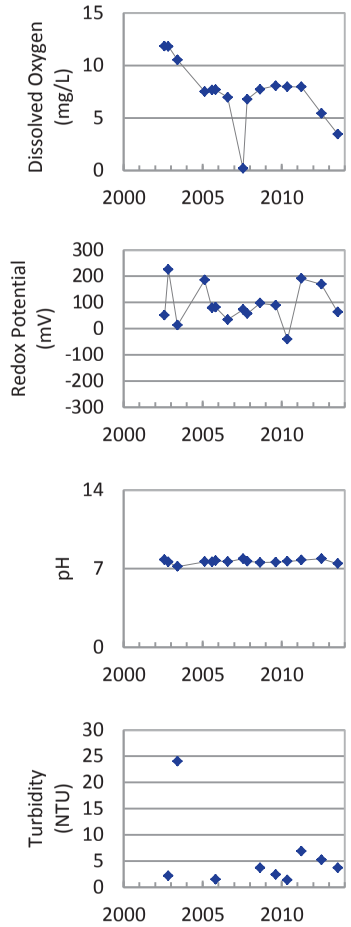
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/20/2002 to 7/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1077A
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



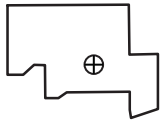
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

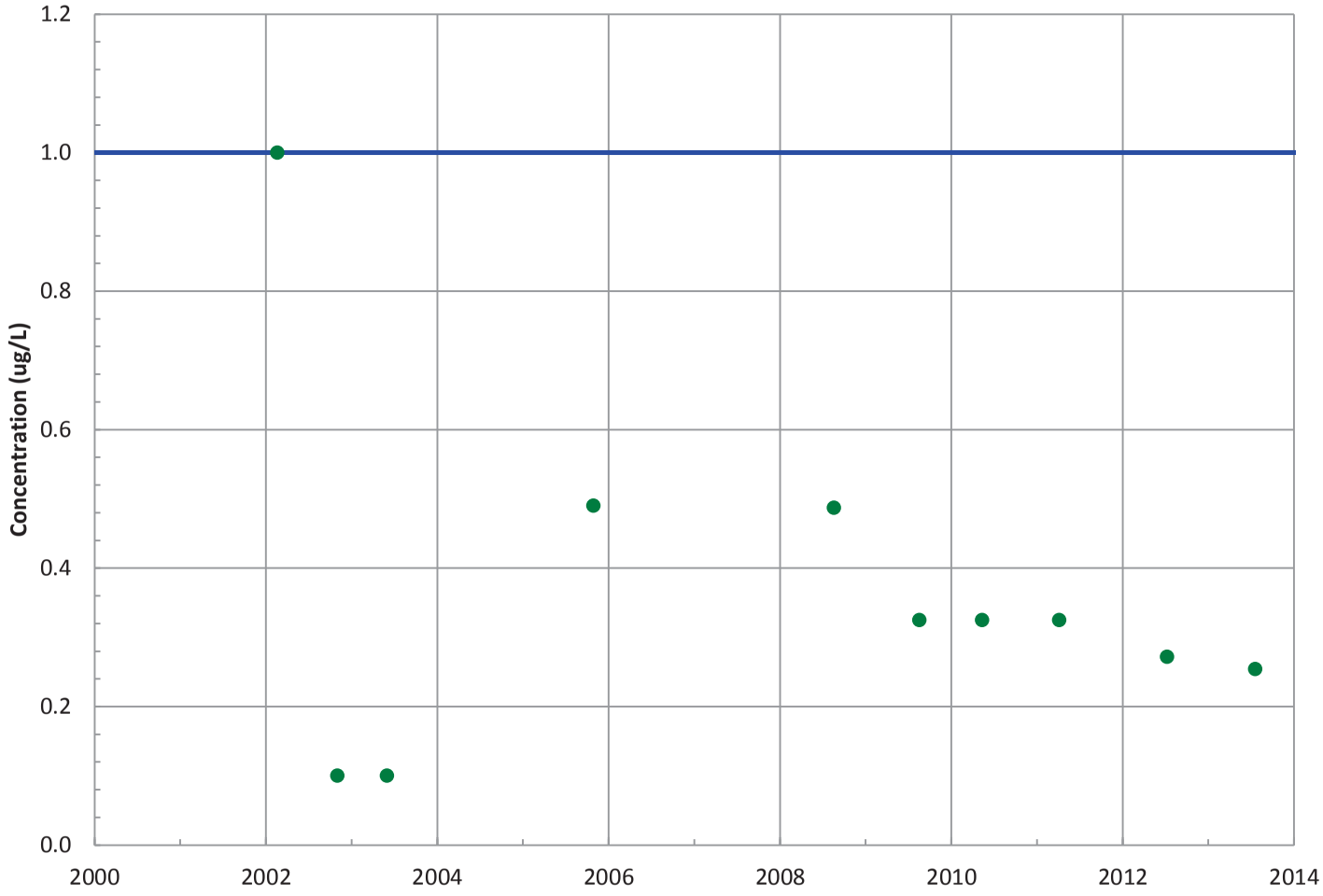
Well Location



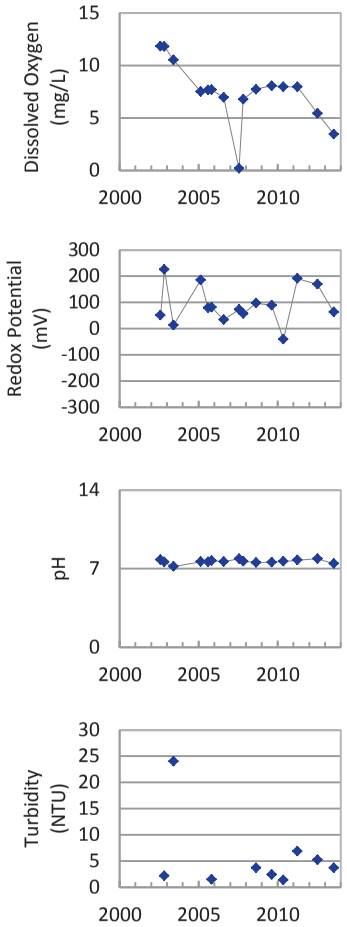
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/20/2002 to 7/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1077A
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



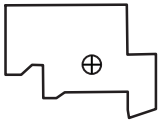
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

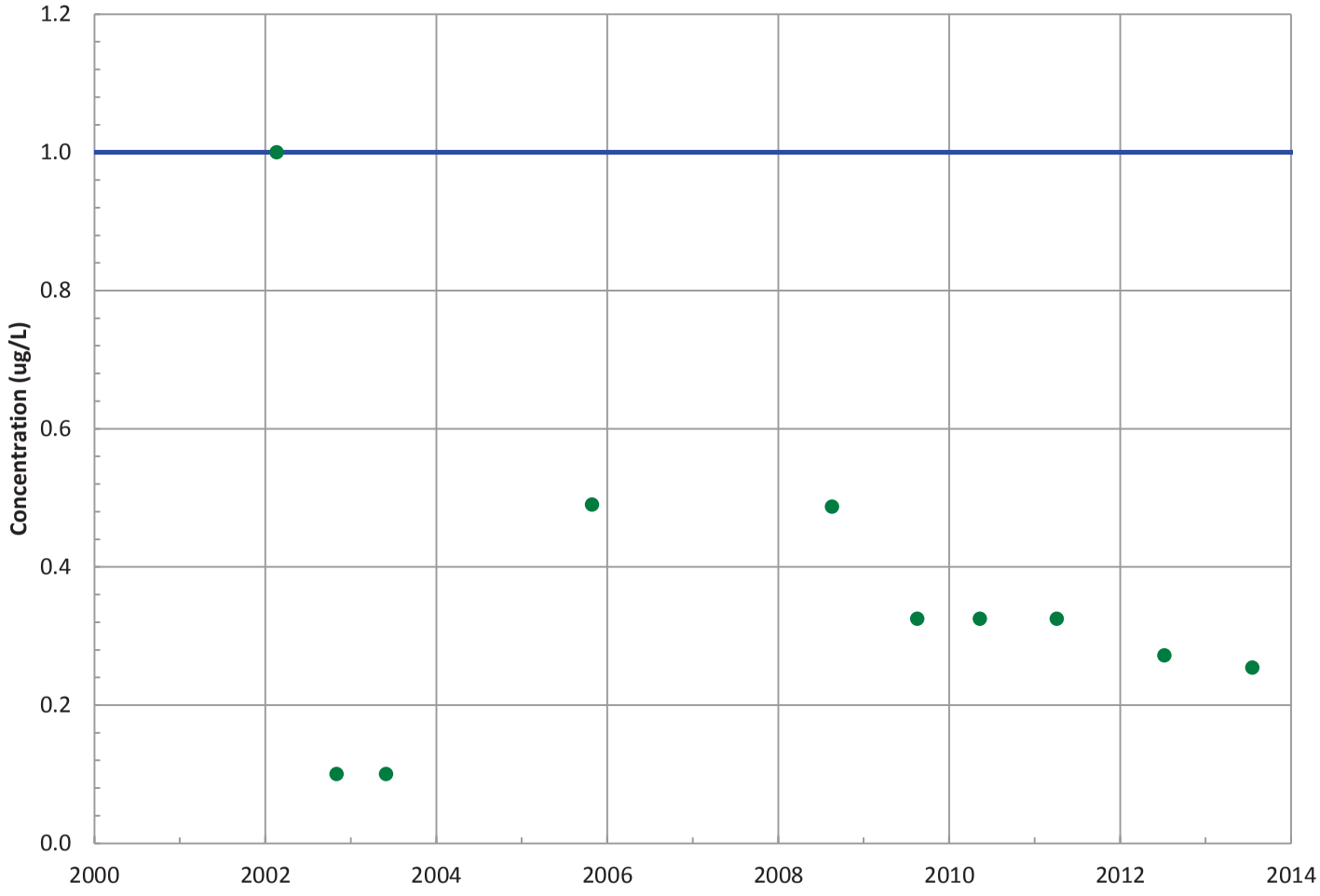
Well Location



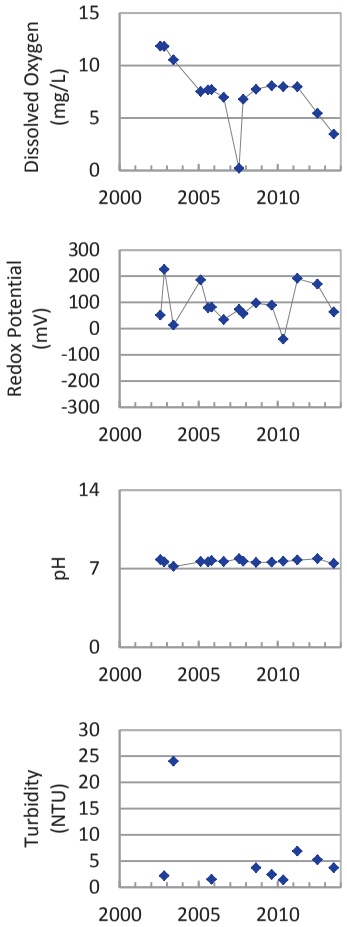
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/20/2002 to 7/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1077A
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



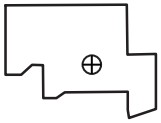
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

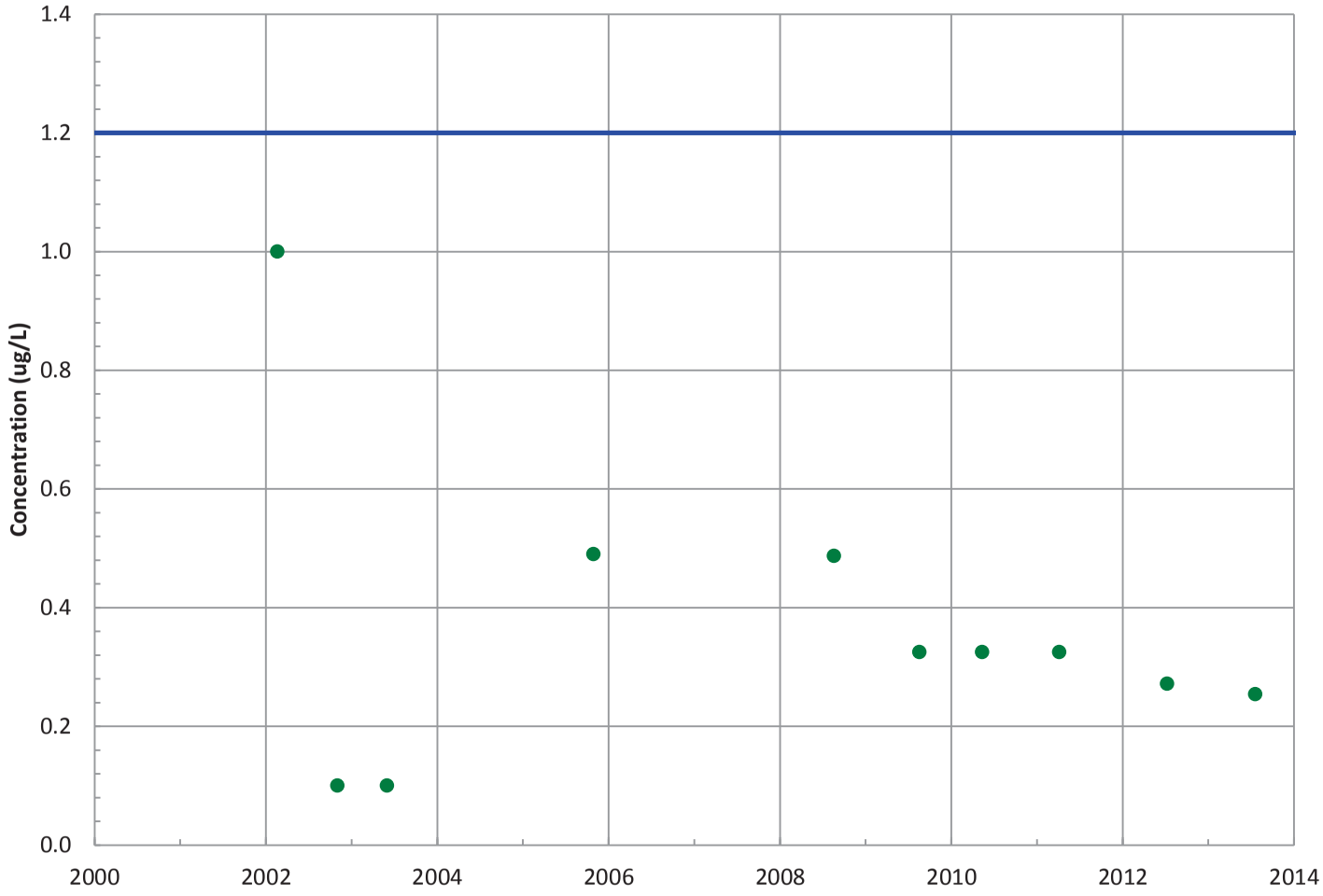
Well Location



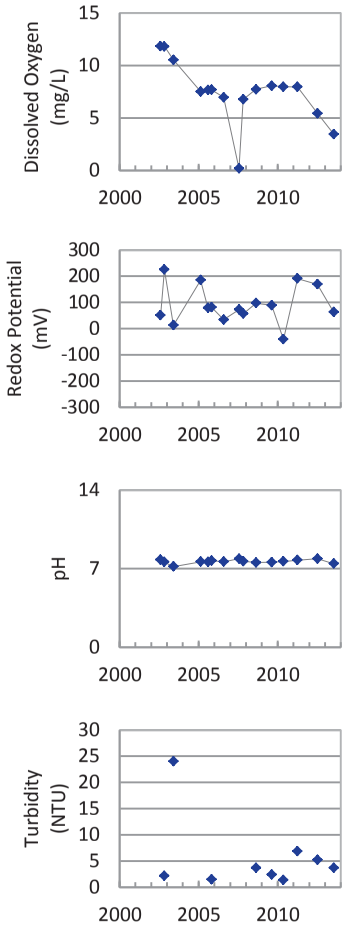
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/20/2002 to 7/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1077A
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



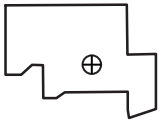
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

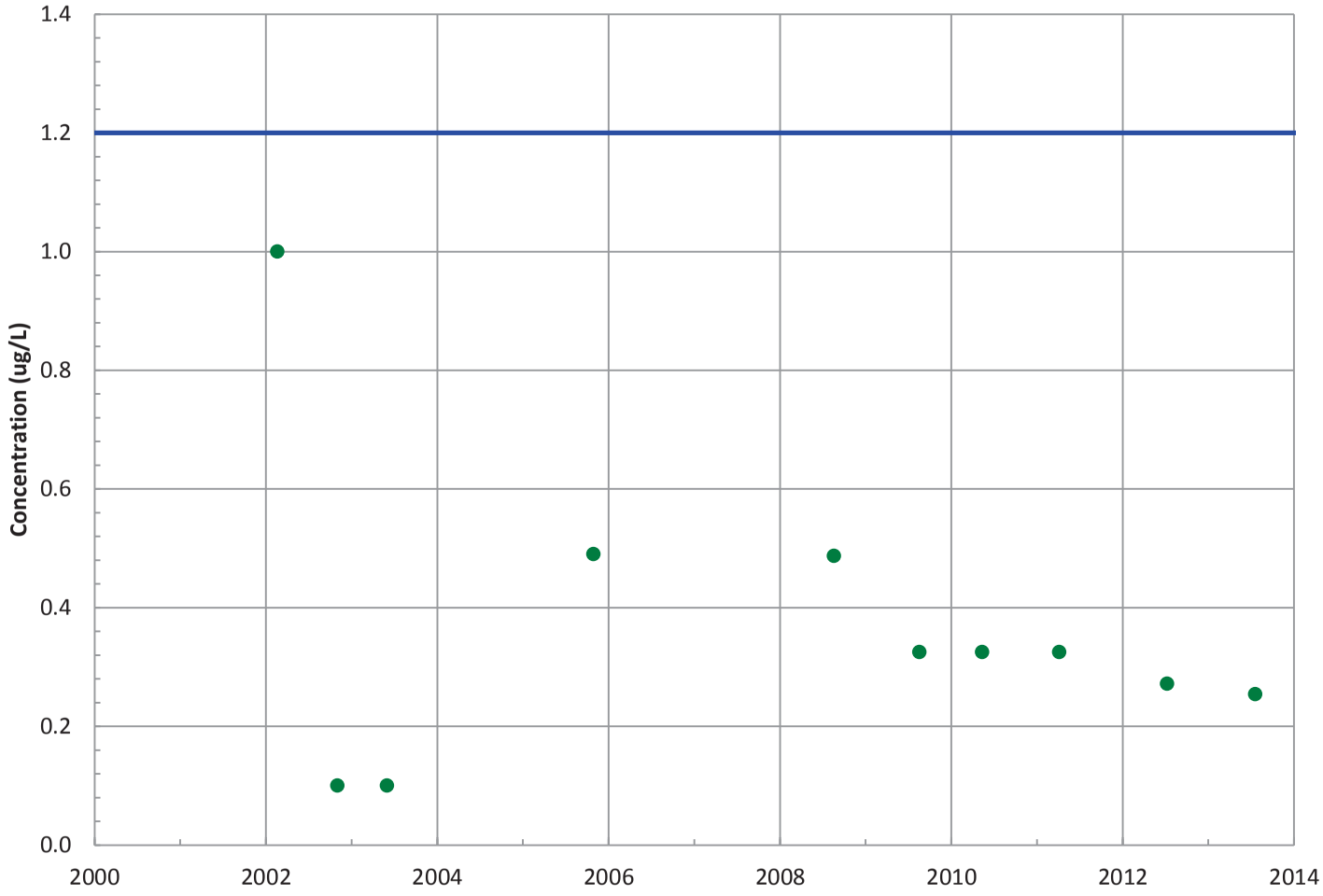
Well Location



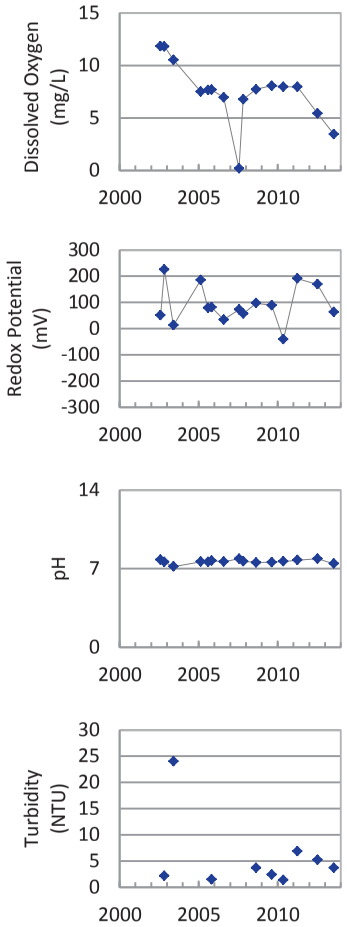
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/20/2002 to 7/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1077A
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



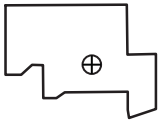
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

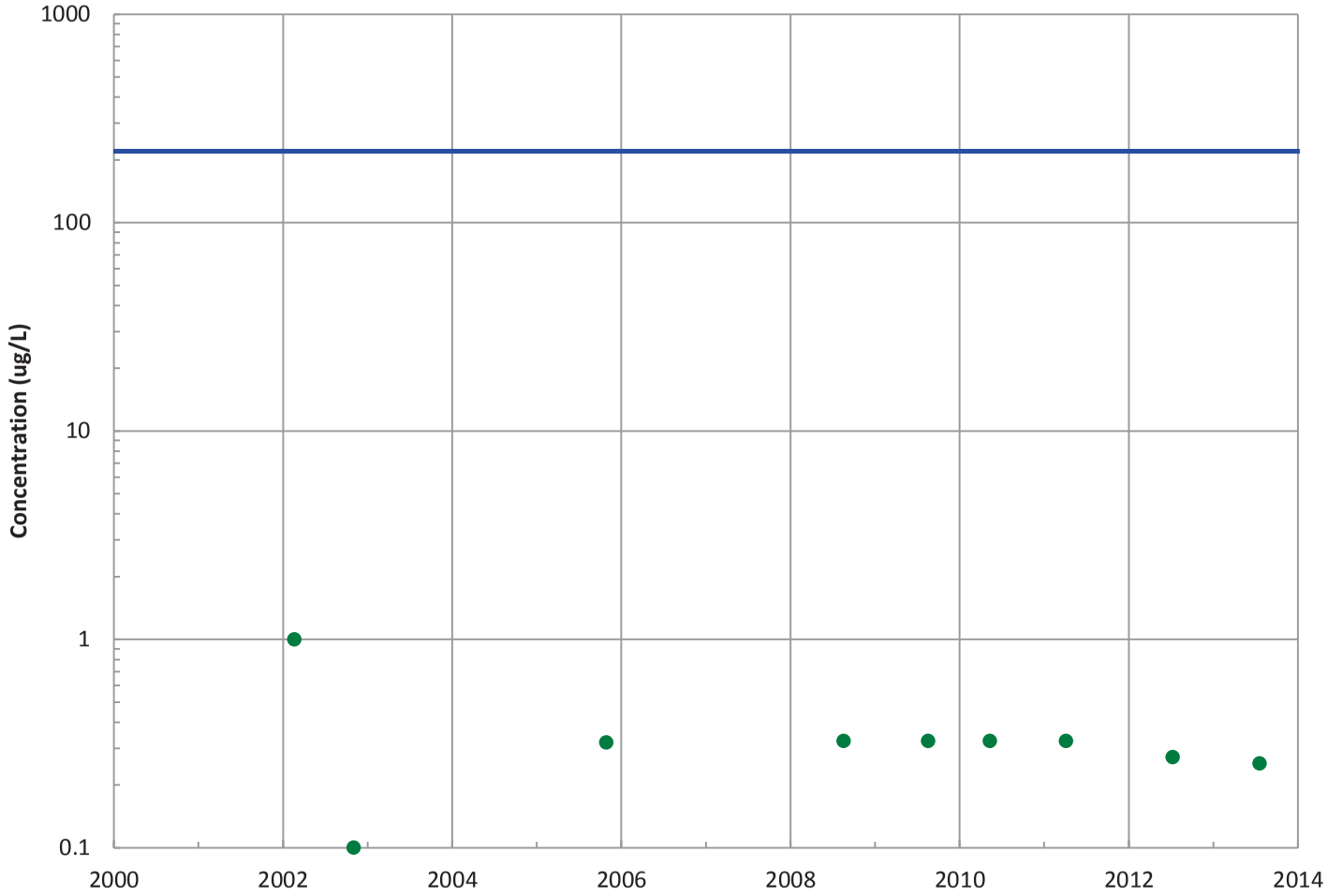
Well Location



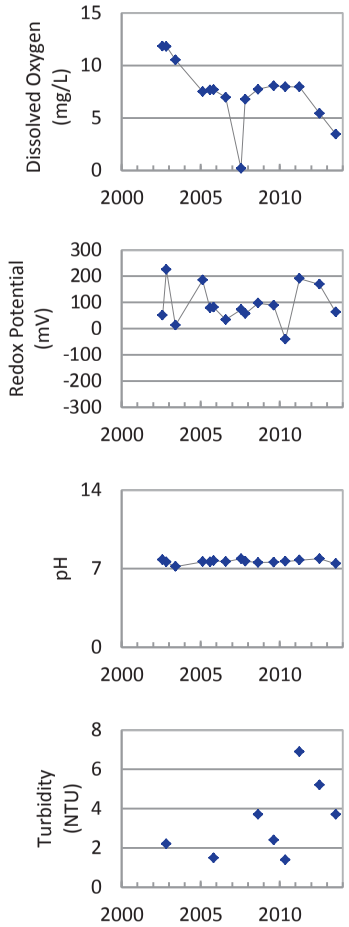
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/20/2002 to 7/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1077A
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



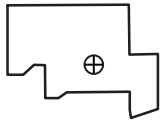
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

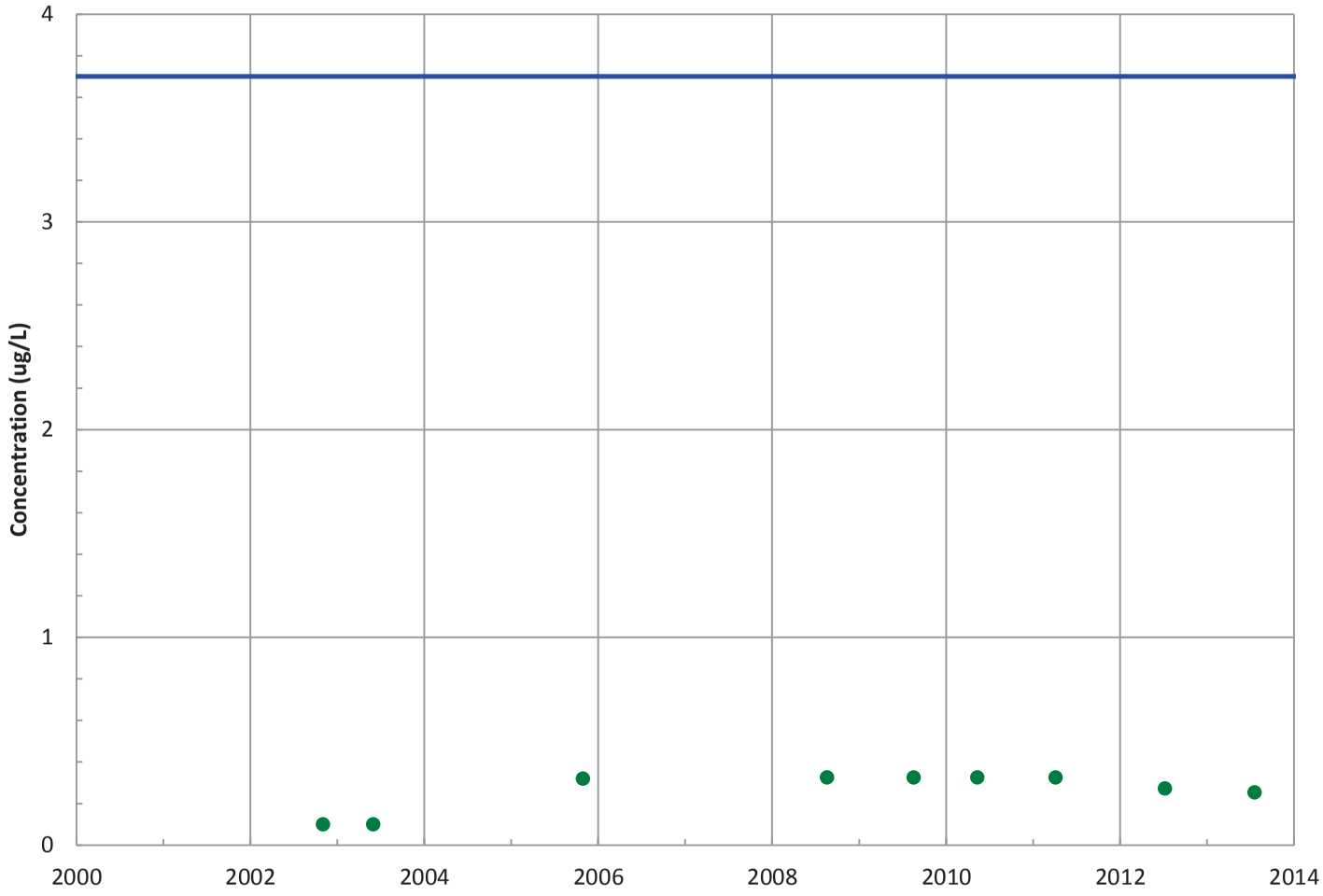
Well Location



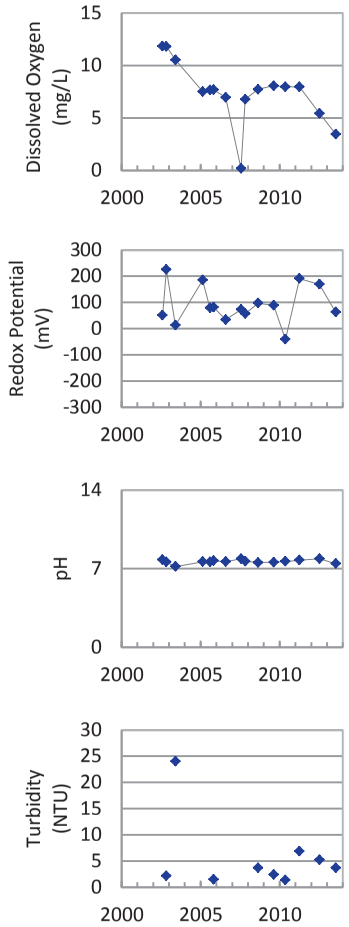
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/20/2002 to 7/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1077A
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



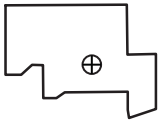
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

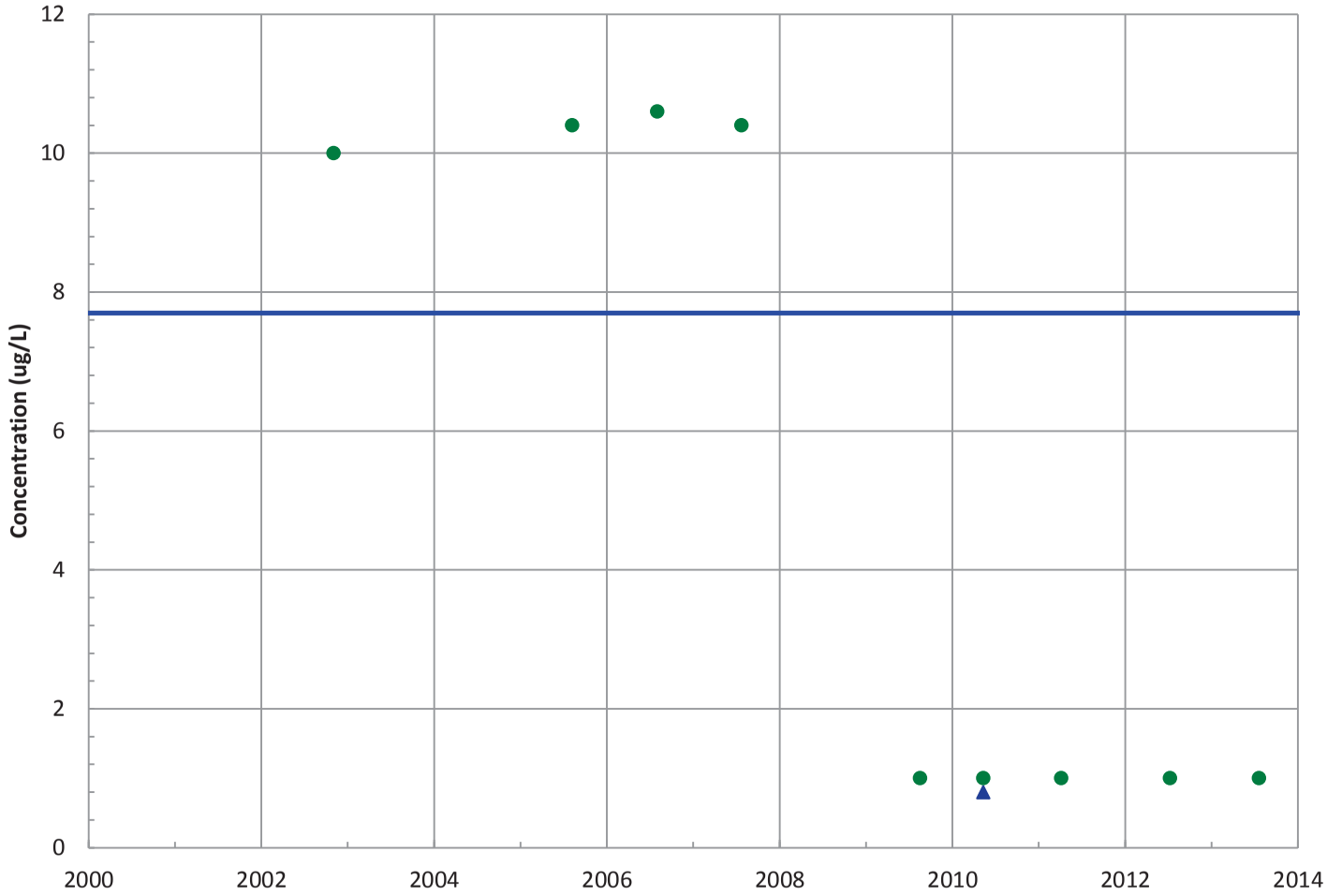
Well Location



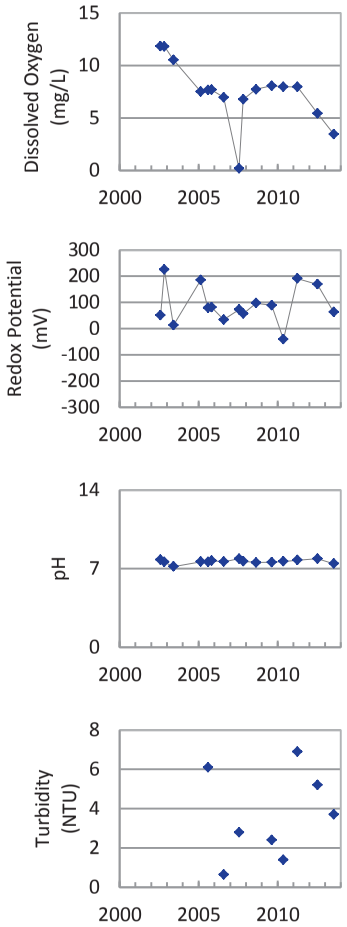
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/4/2002 to 7/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1077A
1,4-Dioxane (p-Dioxane) Trend in Perched Aquifer



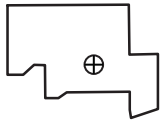
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

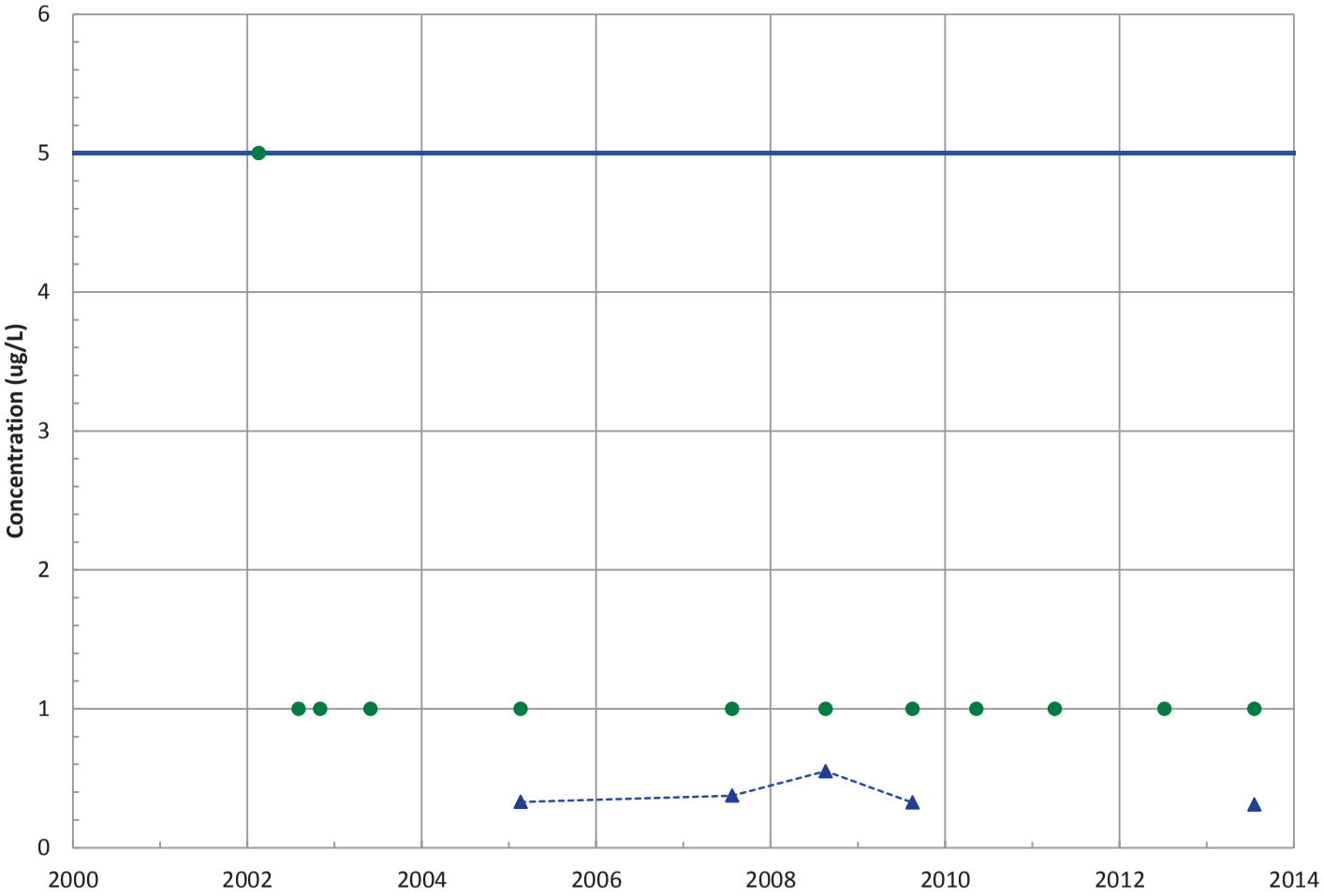
Well Location



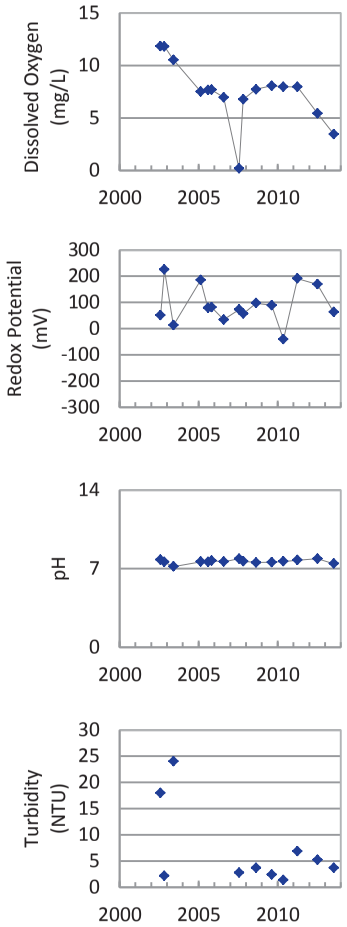
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/4/2002 to 7/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1077A
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: N/A (<4 Detections in

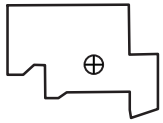
MAROS Linear Regression Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location



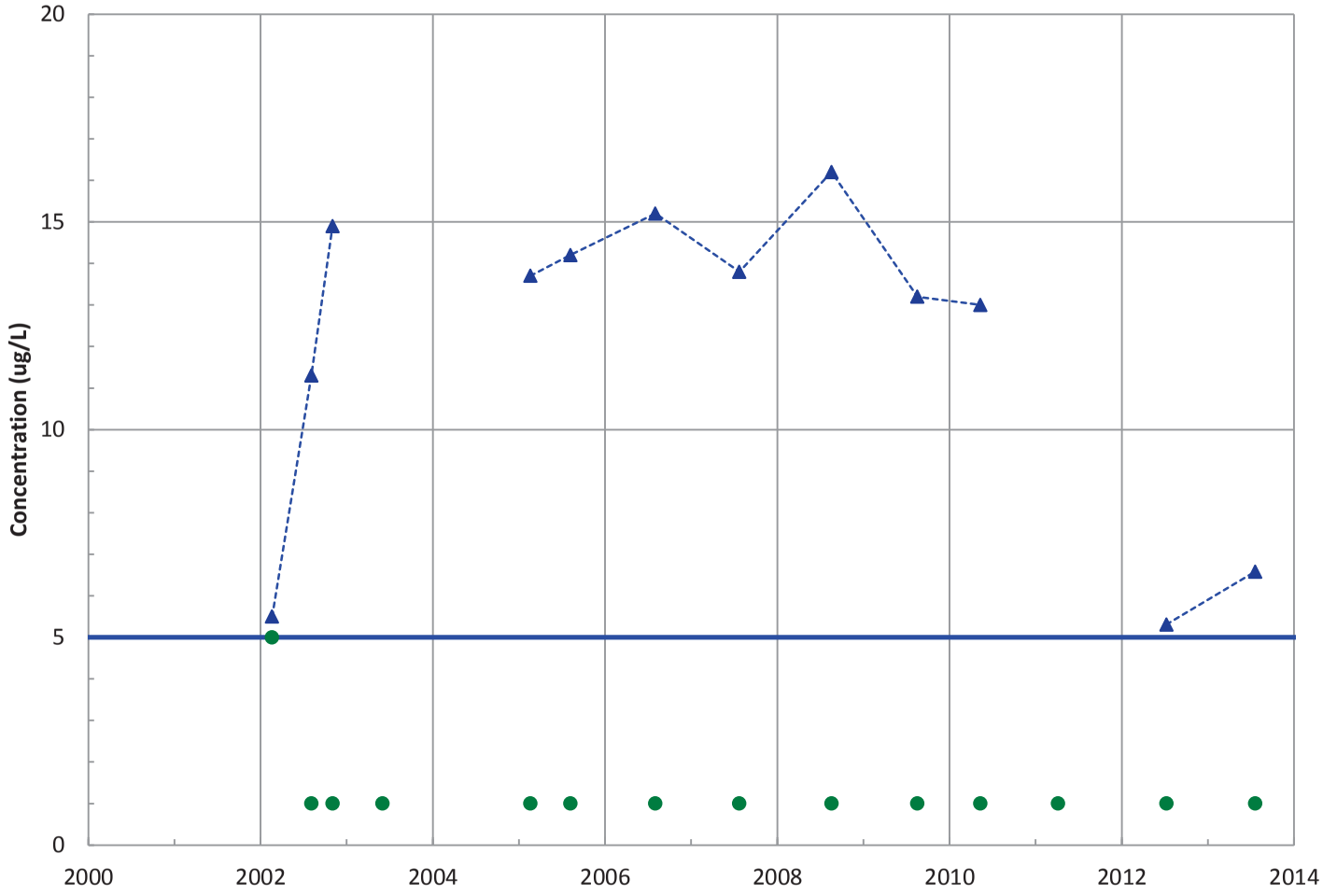
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 2/20/2002 to 7/30/2013

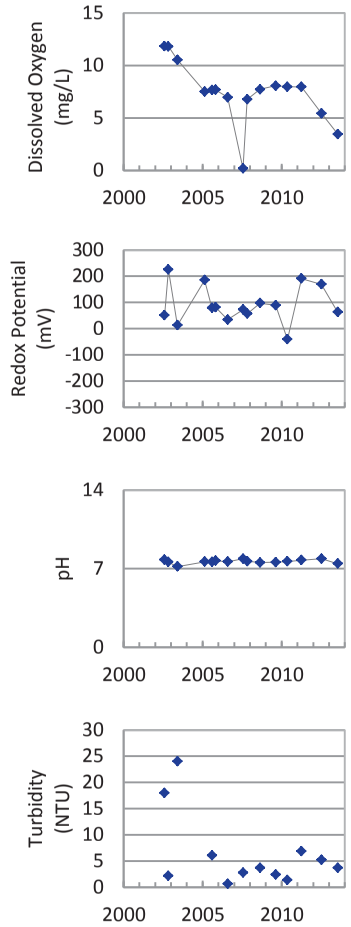
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1077A
Trichloroethene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Decreasing

2011 - 2013 Data: N/A (<4 Detections in Dataset)

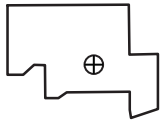
MAROS Linear Regression Method

Data (7/2009 - 12/2013): Decreasing

2011 - 2013 Data: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

Well Location



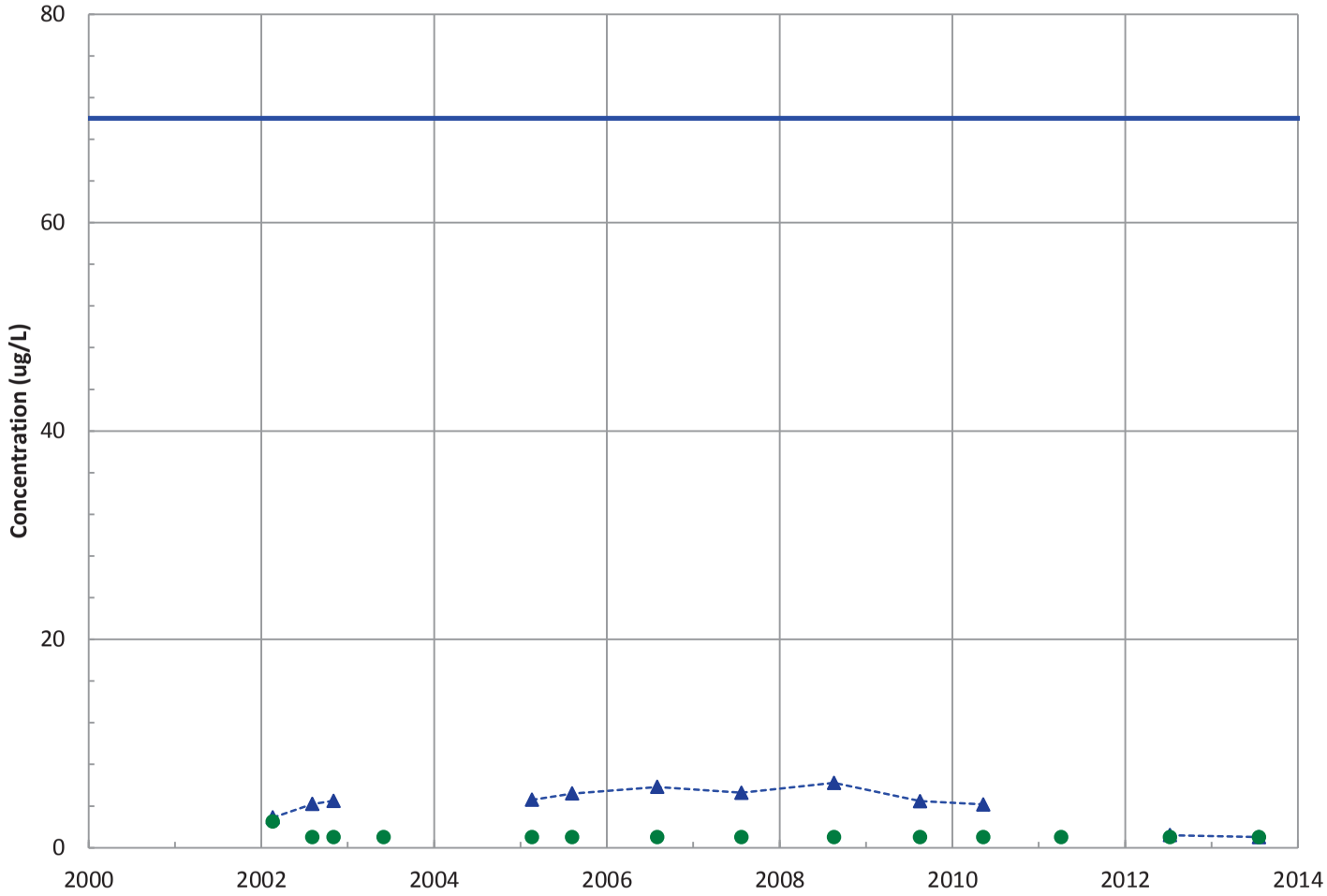
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 2/20/2002 to 7/30/2013

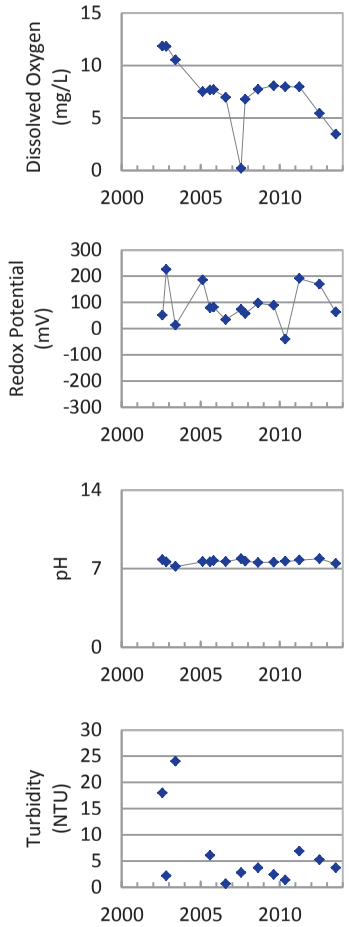
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1077A
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Decreasing

2011 - 2013 Data: N/A (<4 Detections in Dataset)

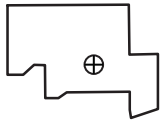
MAROS Linear Regression Method

Data (7/2009 - 12/2013): Decreasing

2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------ Concentration Trend
- ——— Groundwater Protection Standard

Well Location



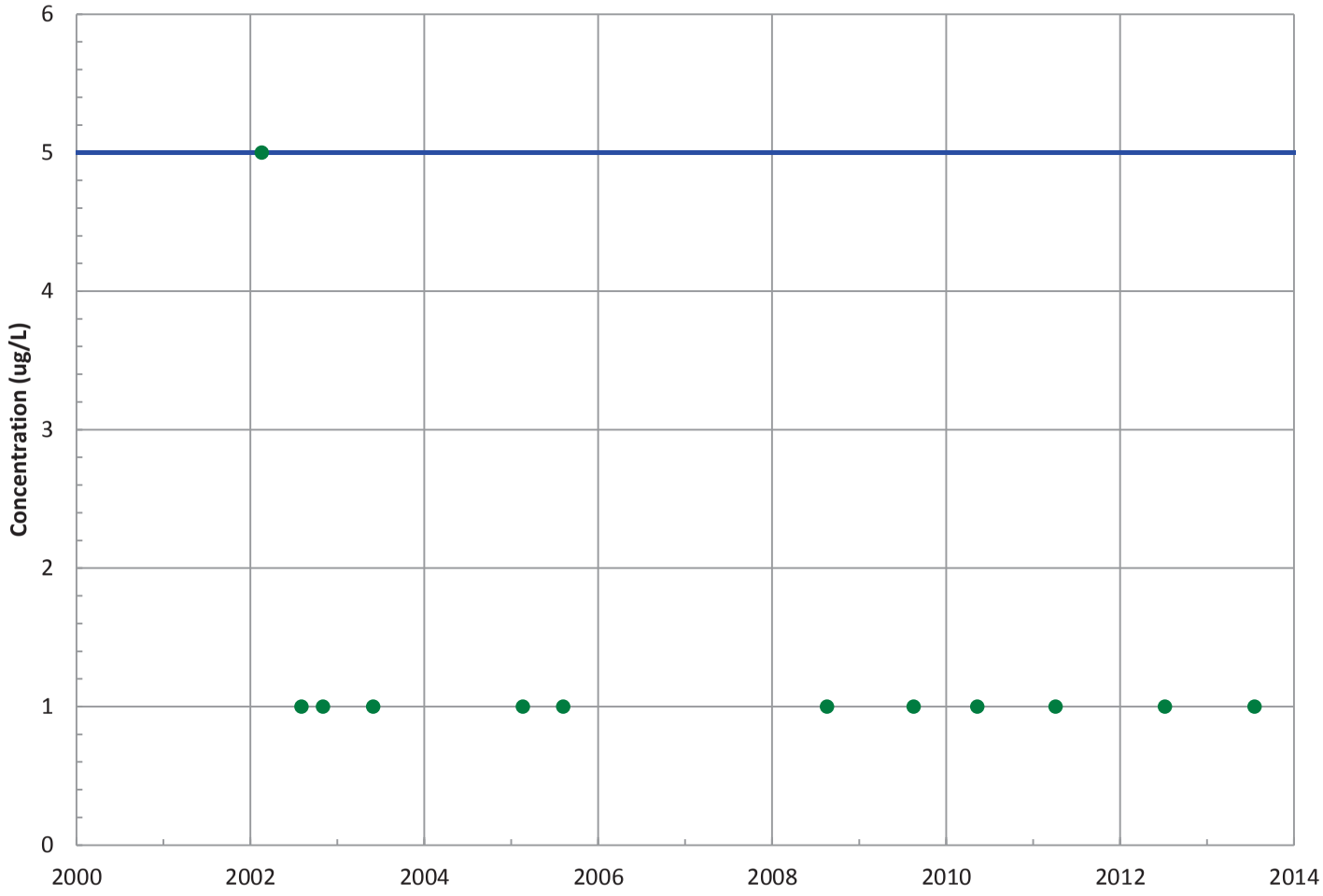
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 2/20/2002 to 7/30/2013

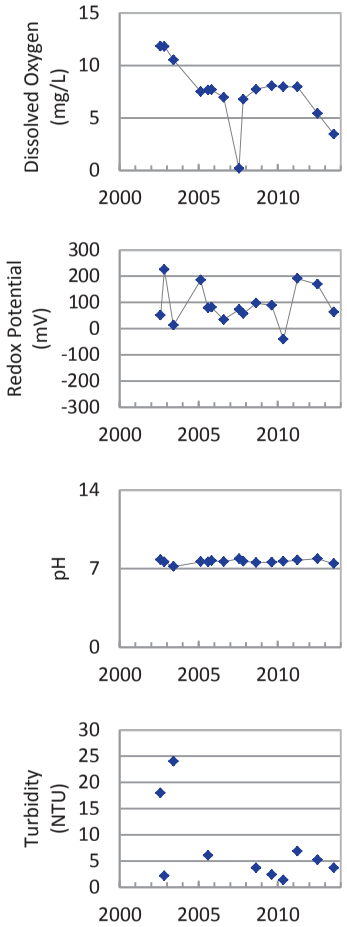
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1077A
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



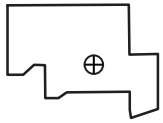
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

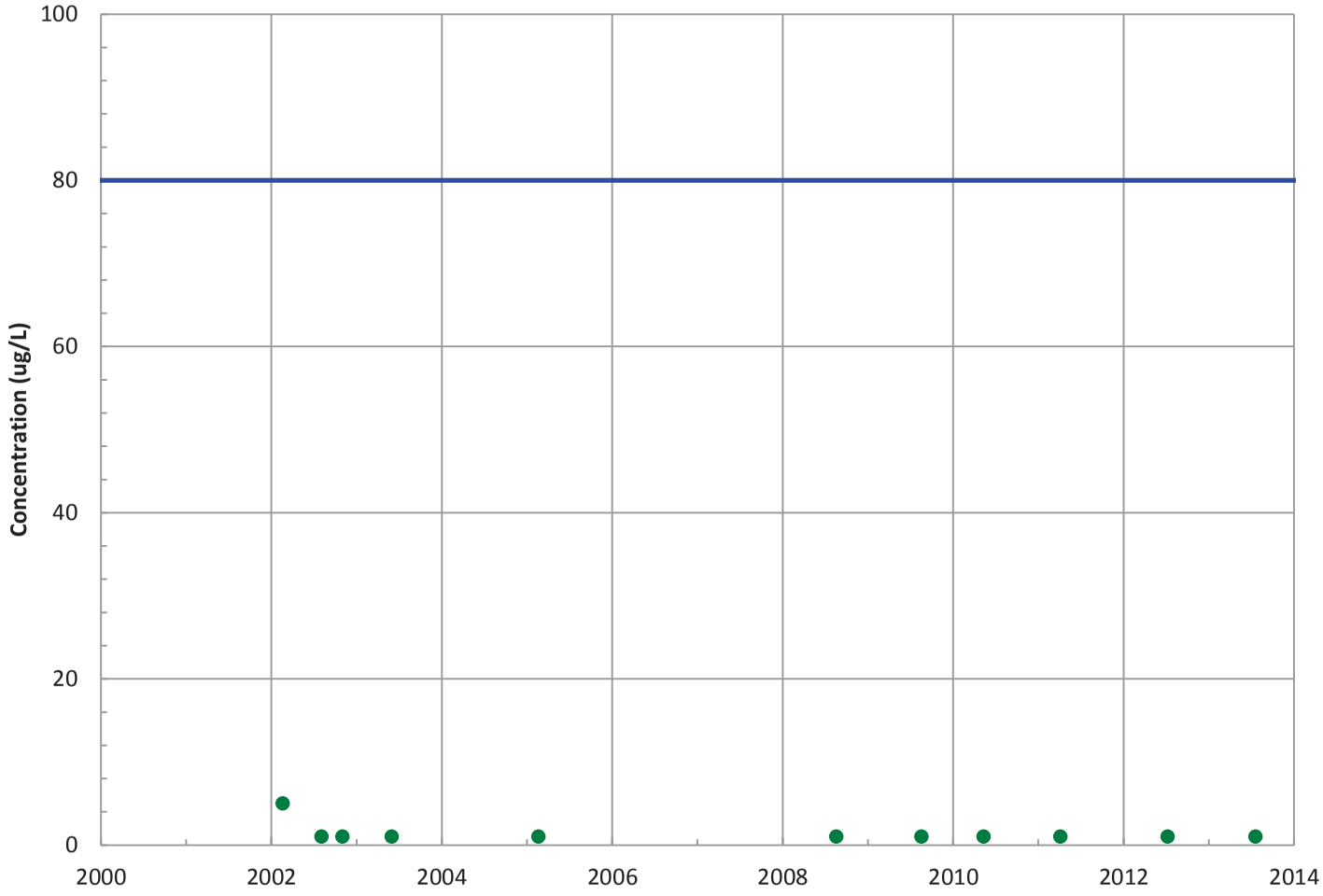
Well Location



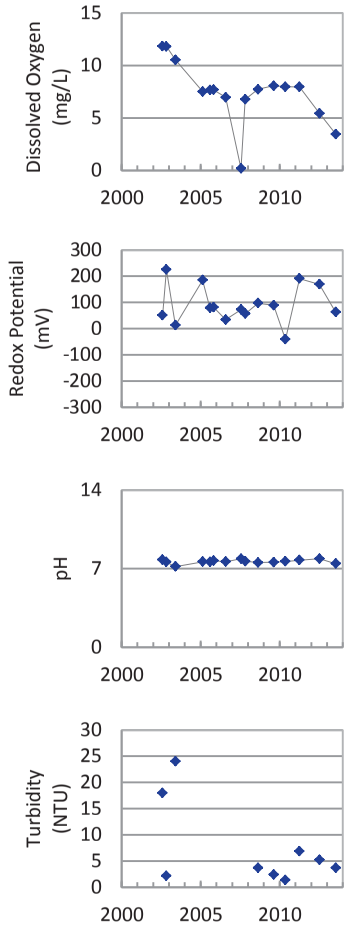
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/20/2002 to 7/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1077A
Chloroform Trend in Perched Aquifer



Field Parameters



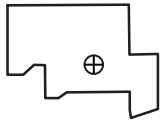
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

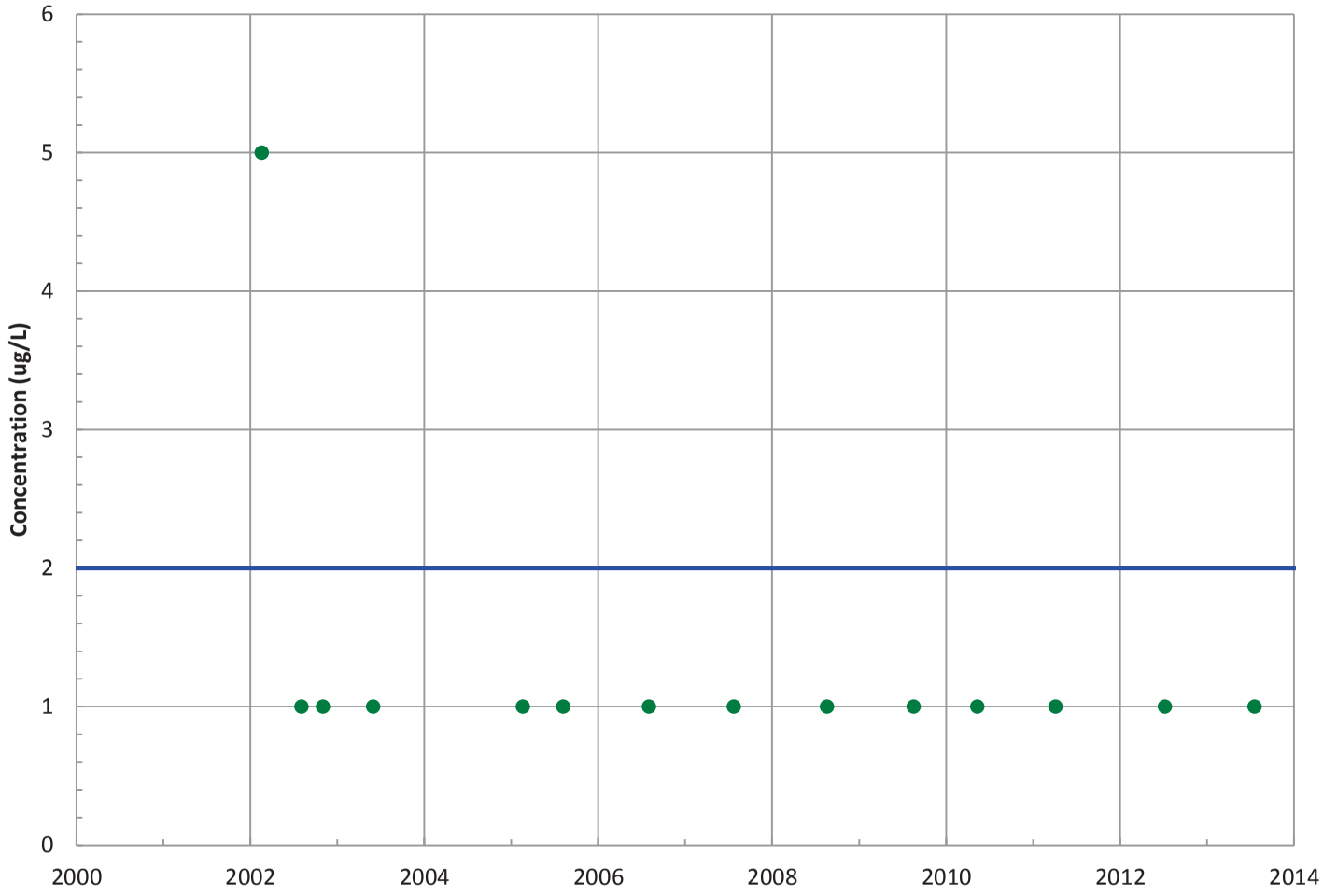
Well Location



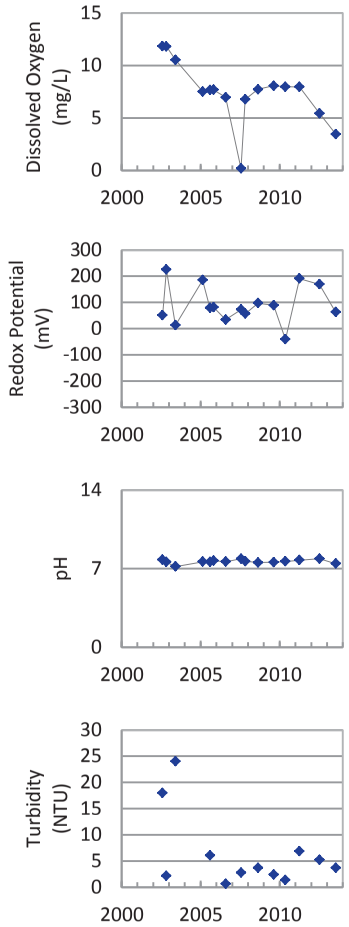
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/20/2002 to 7/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1077A
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



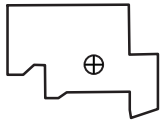
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

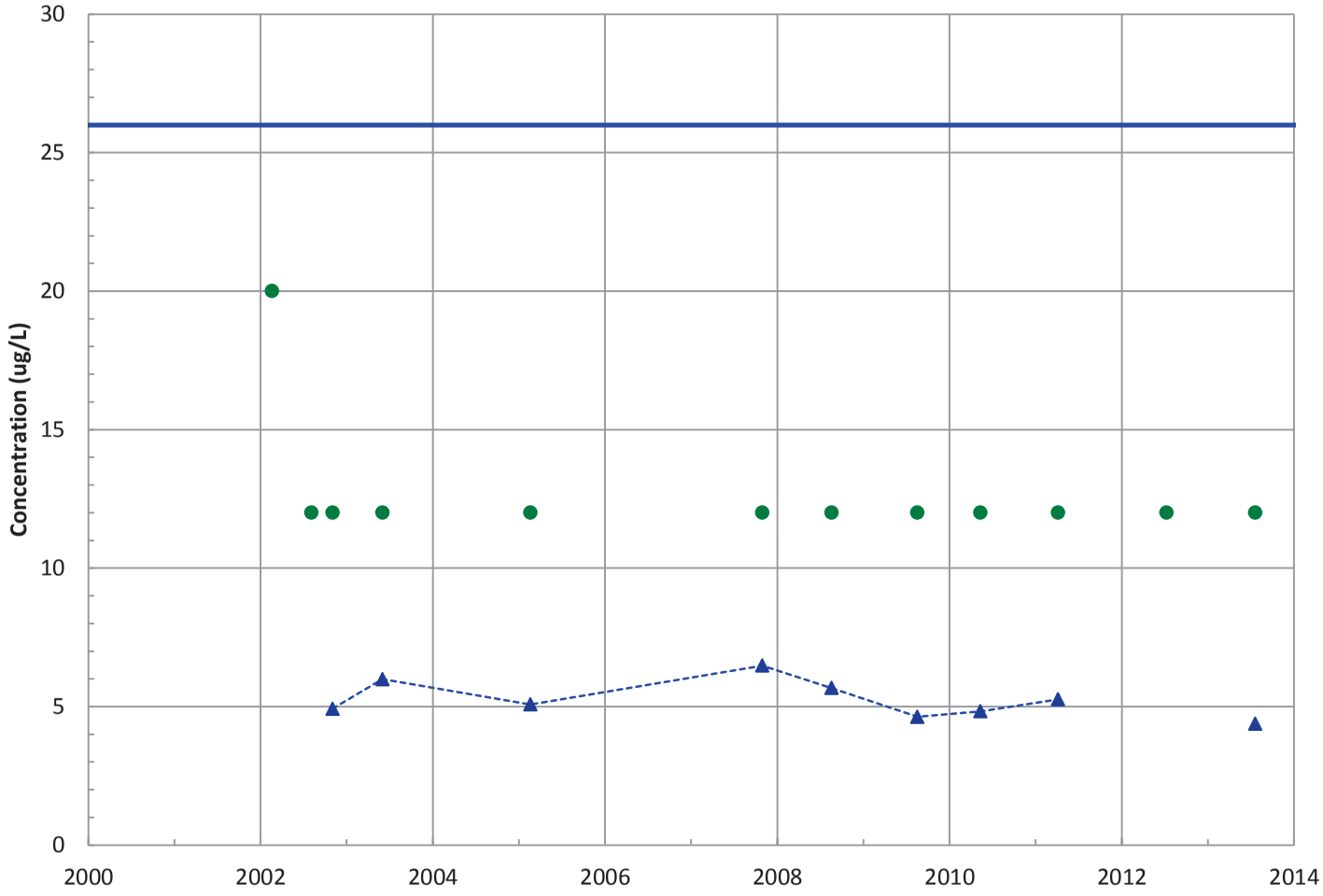
Well Location



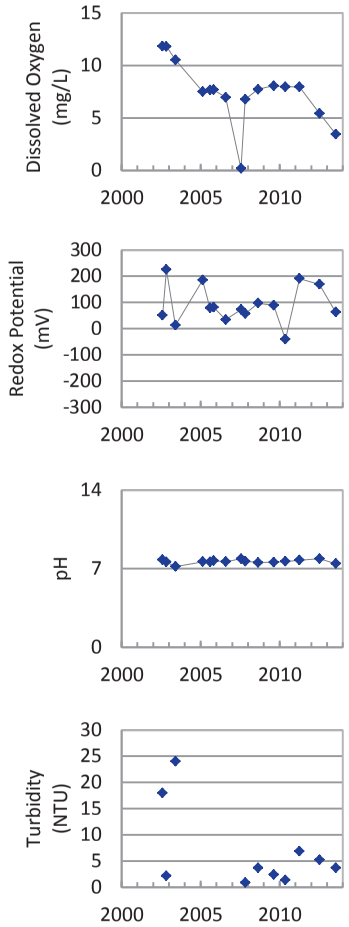
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/20/2002 to 7/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1077A
Perchlorate Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): No Trend

2011 - 2013 Data: N/A (<4 Detections in Dataset)

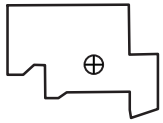
MAROS Linear Regression Method

Data (7/2009 - 12/2013): Stable

2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------ Concentration Trend
- ——— Groundwater Protection Standard

Well Location



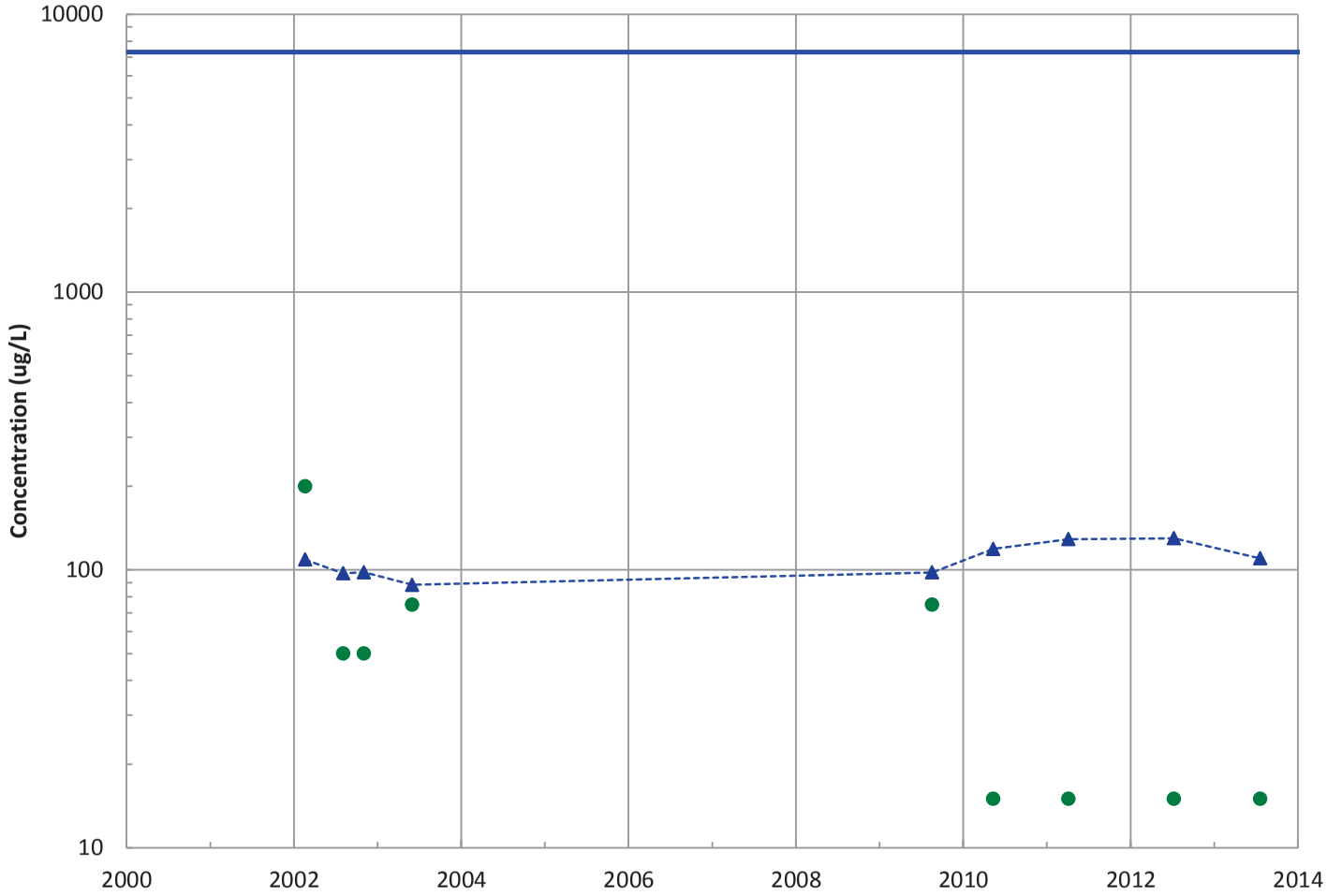
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 2/20/2002 to 7/30/2013

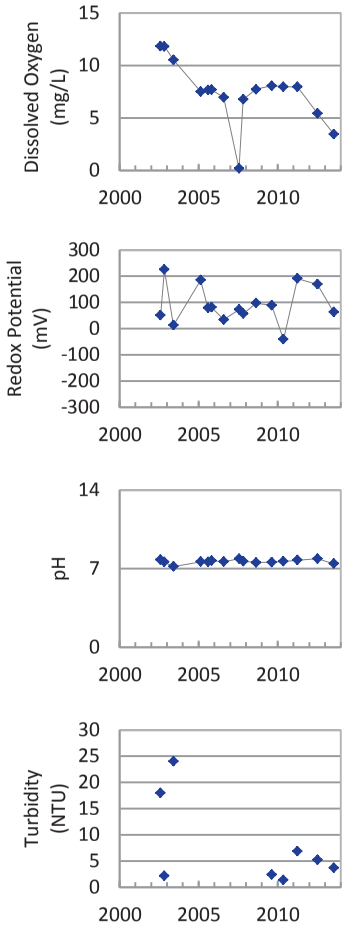
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1077A
Boron Trend in Perched Aquifer



Field Parameters



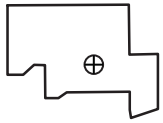
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

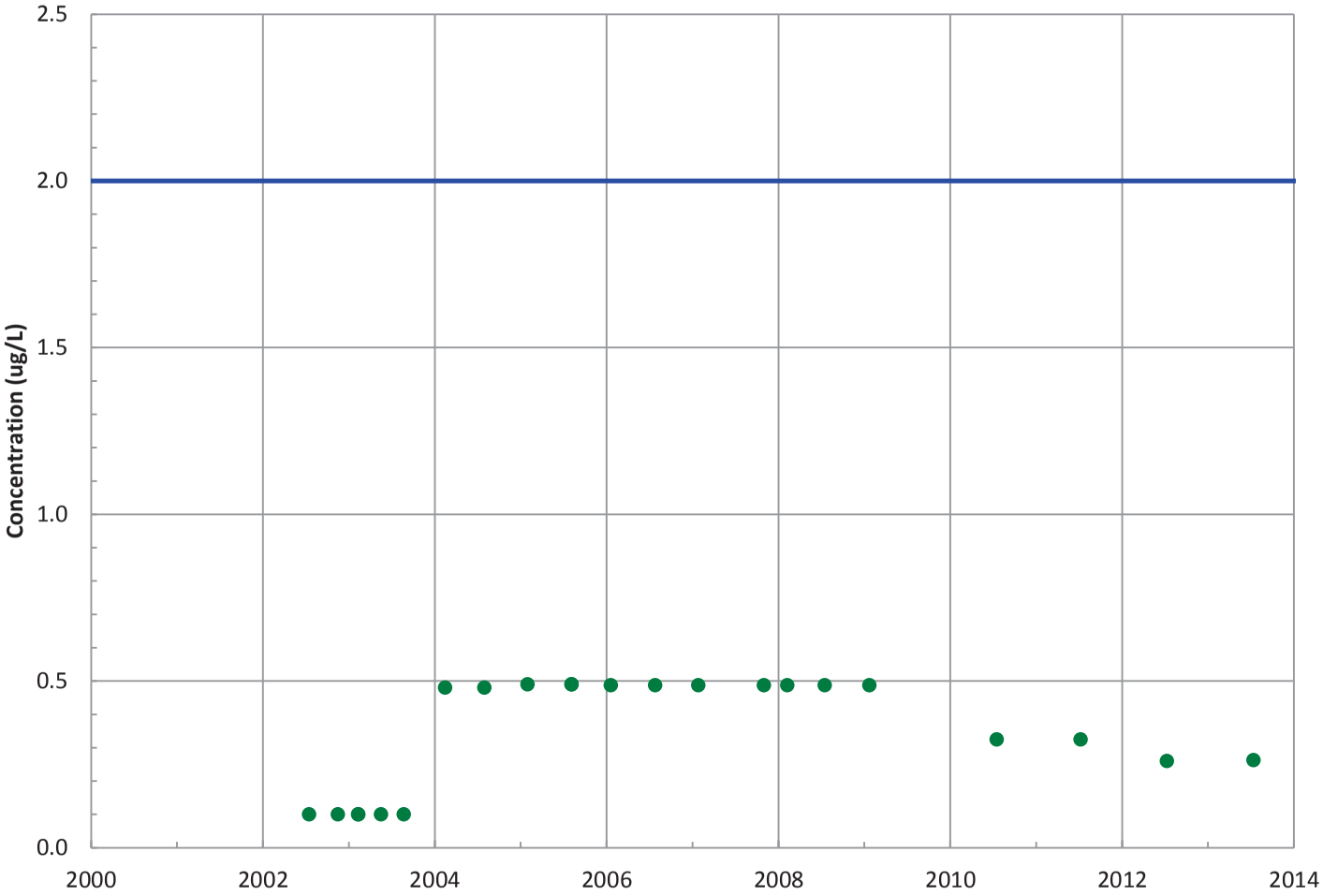
Well Location



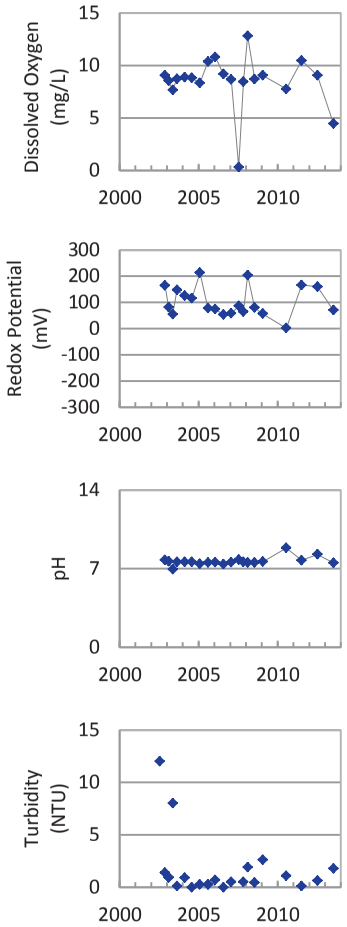
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/20/2002 to 7/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1081
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



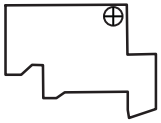
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

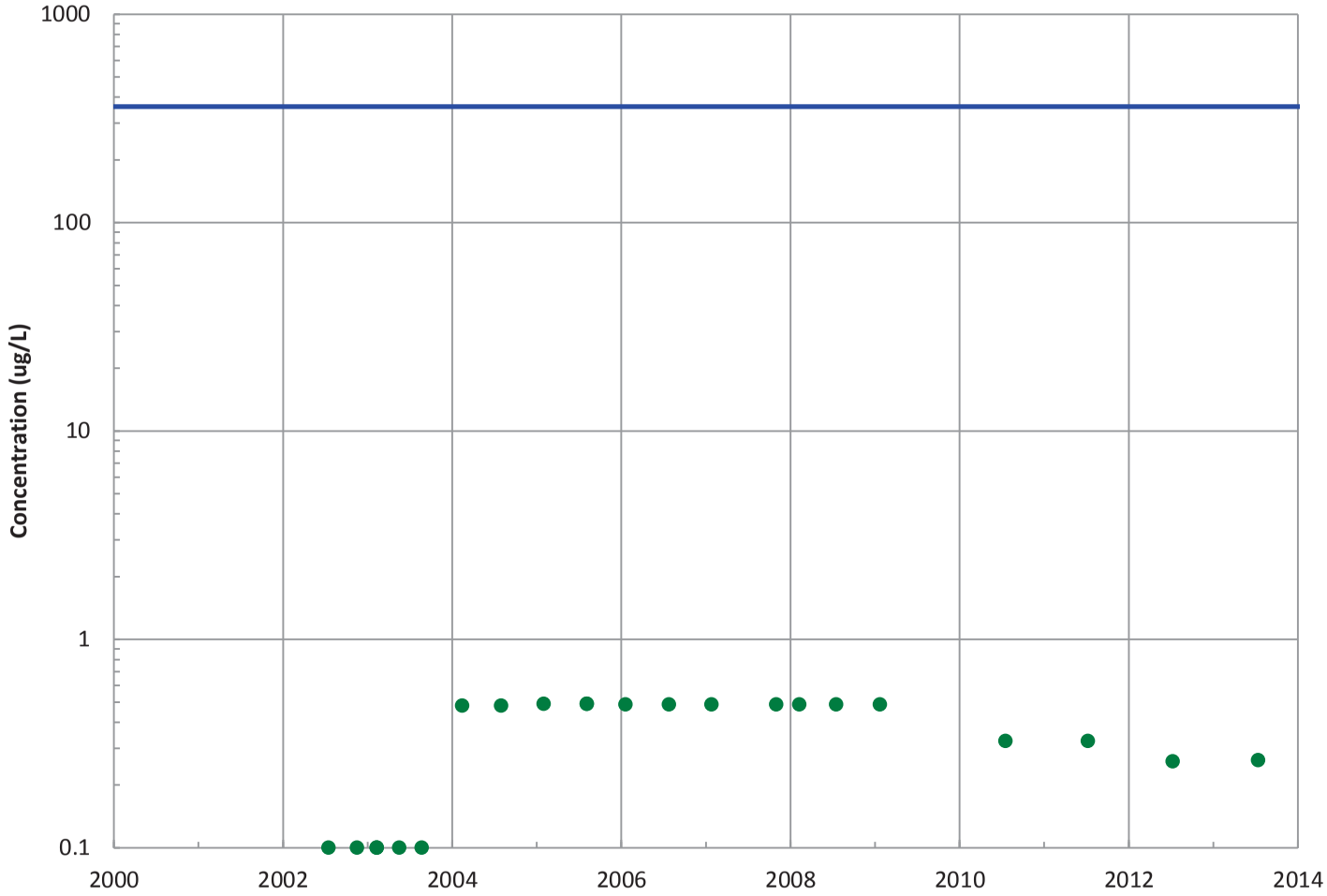
Well Location



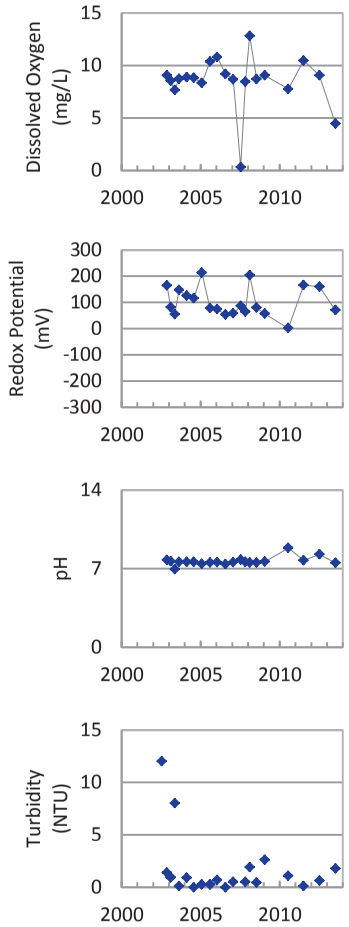
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 7/18/2002 to 7/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1081
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



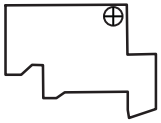
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

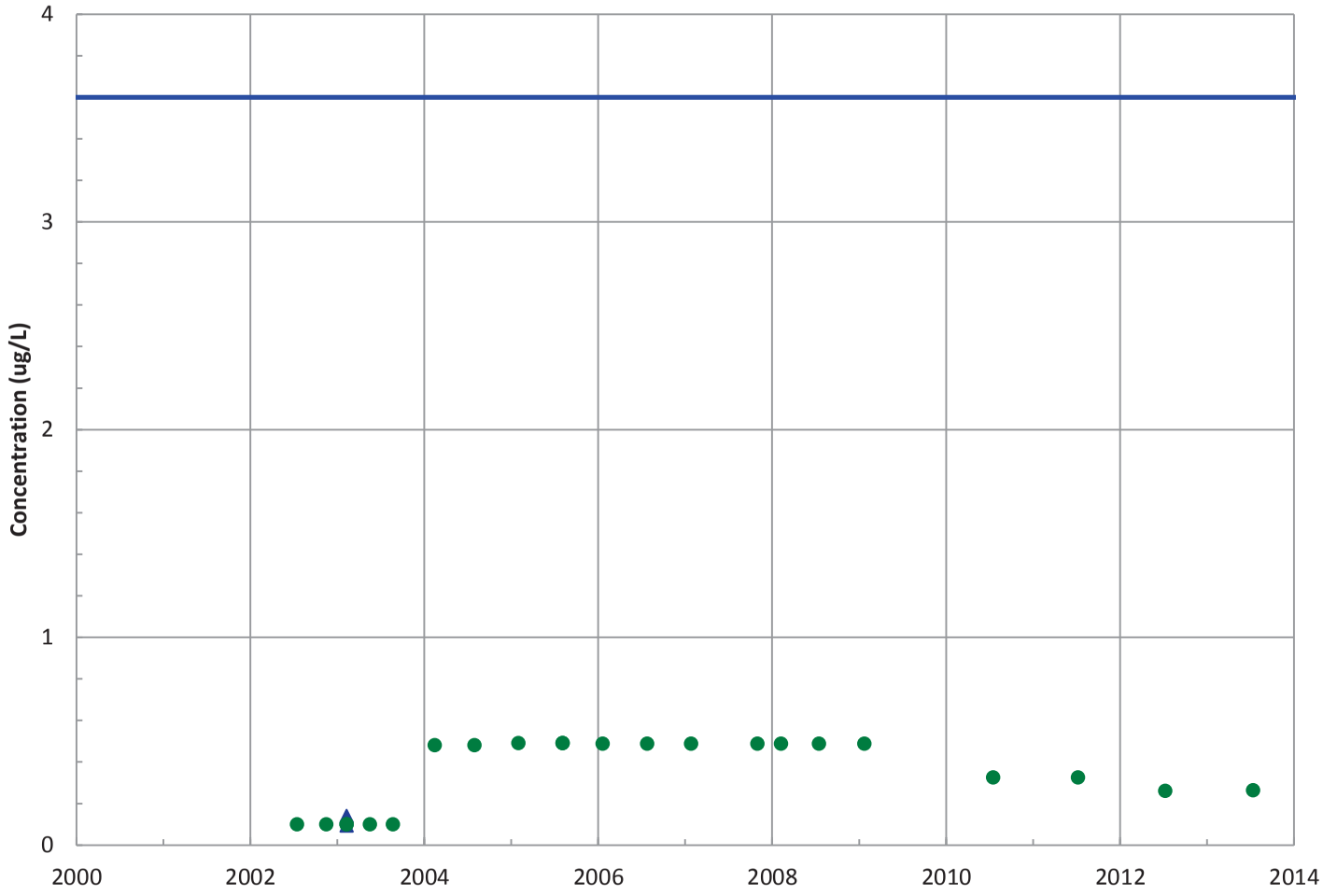
Well Location



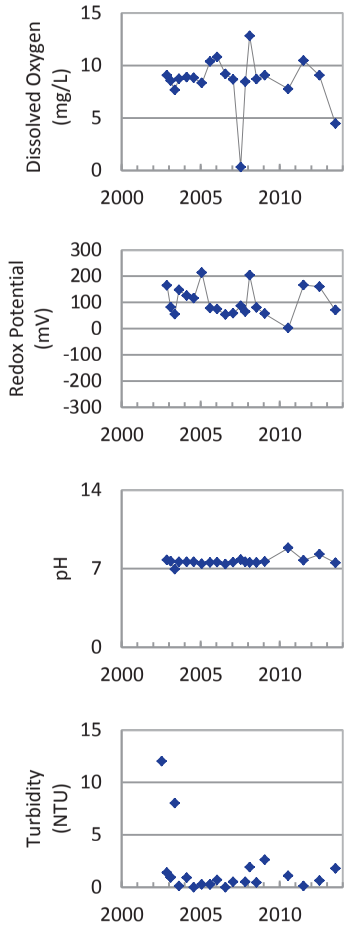
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 7/18/2002 to 7/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1081
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): All Non-Detect

2011 - 2013 Data: All Non-Detect

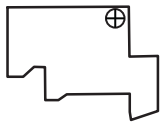
MAROS Linear Regression Method

Data (7/2009 - 12/2013): All Non-Detect

2011 - 2013 Data: N/A (<4 Detections in Dataset)

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location



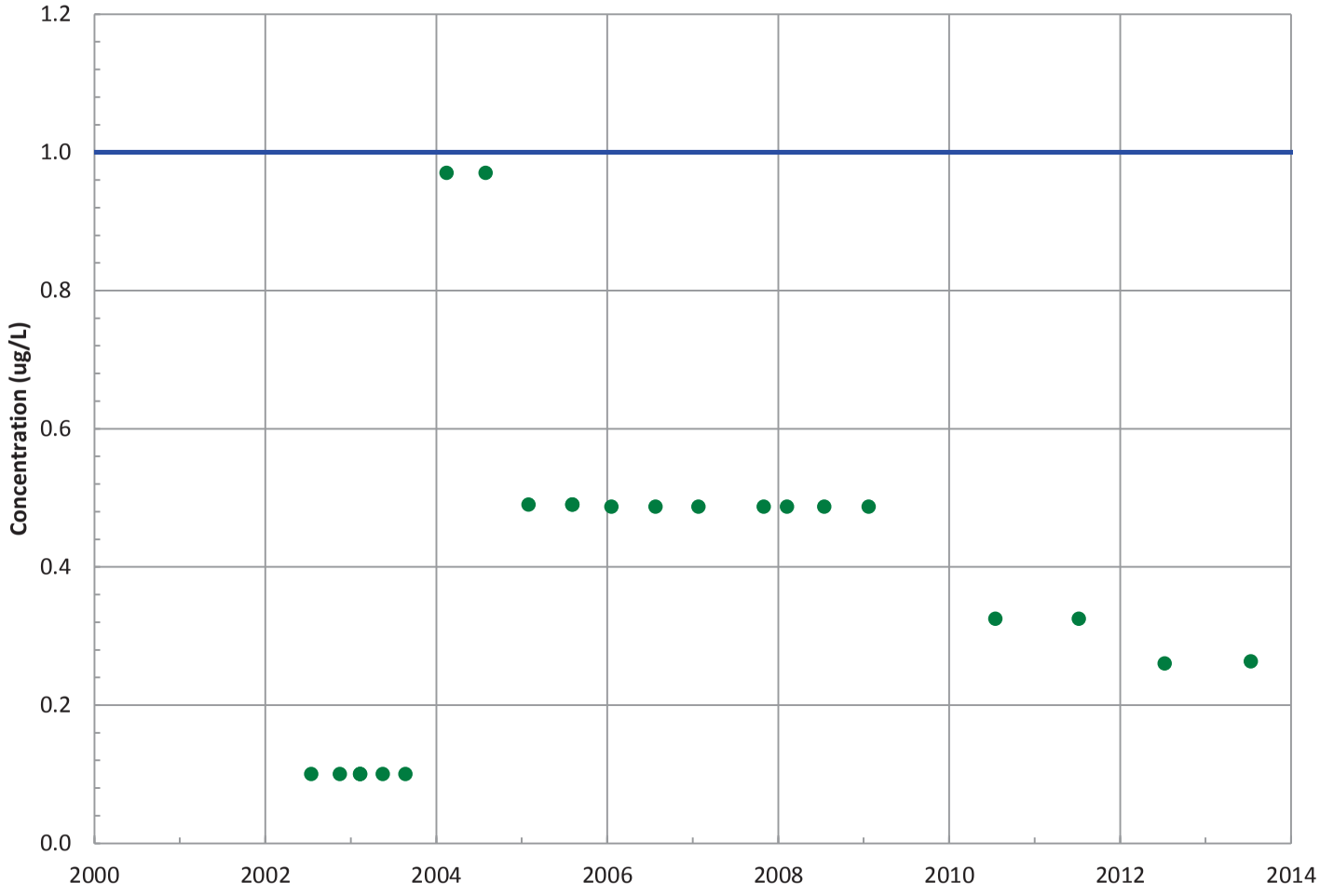
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 7/18/2002 to 7/23/2013

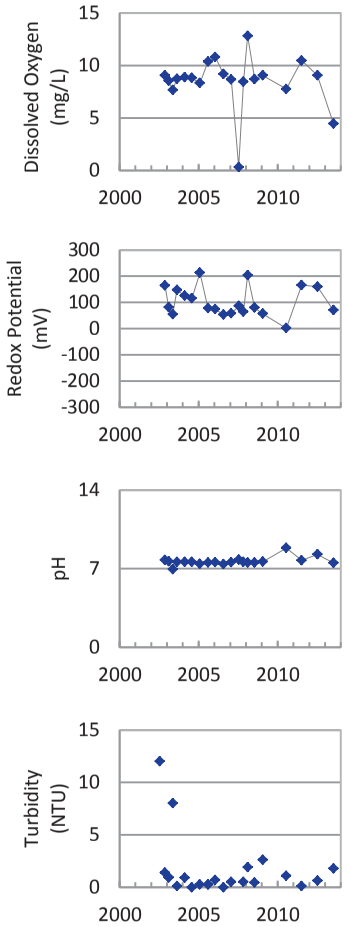
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1081
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



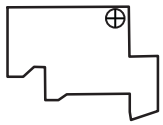
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

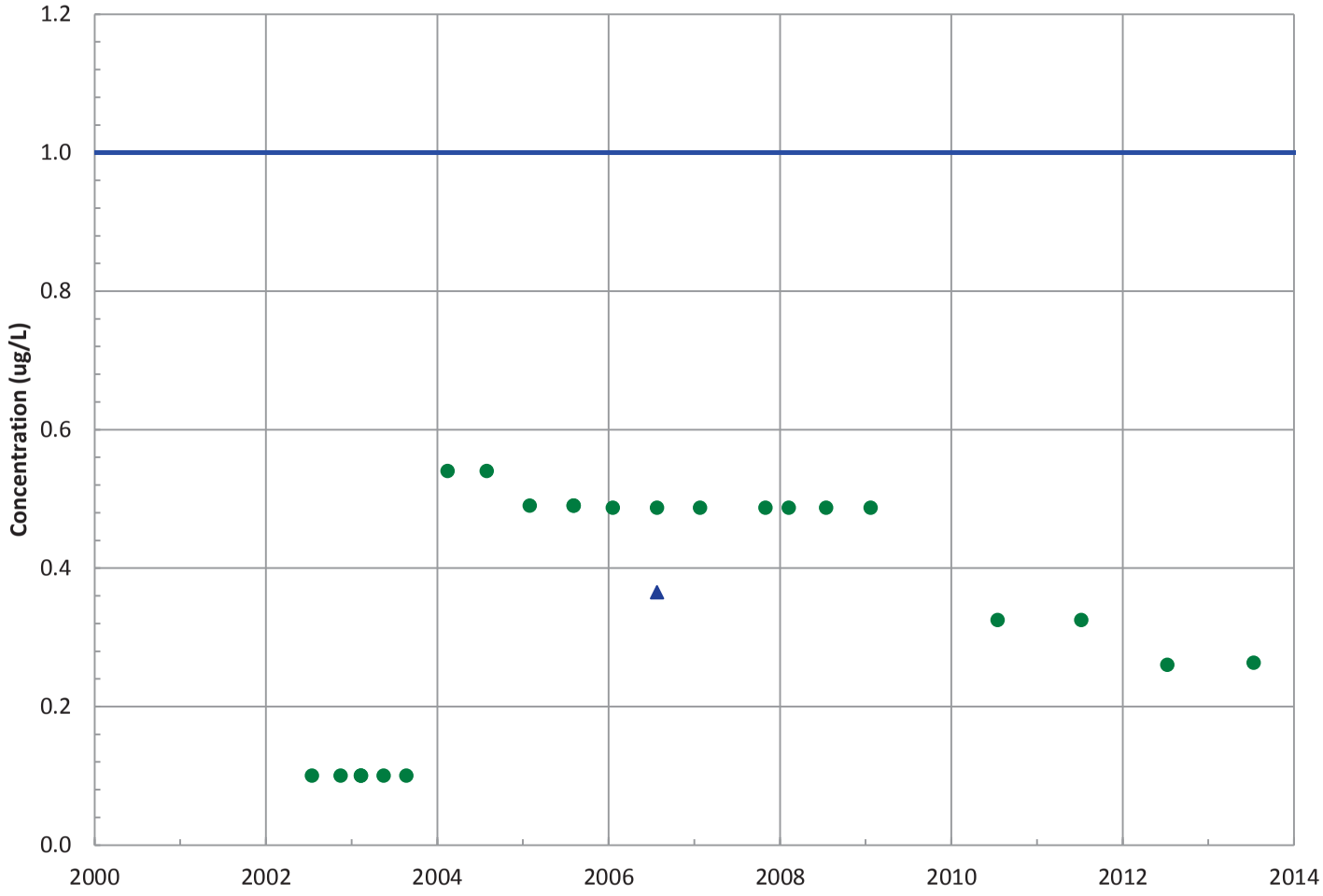
Well Location



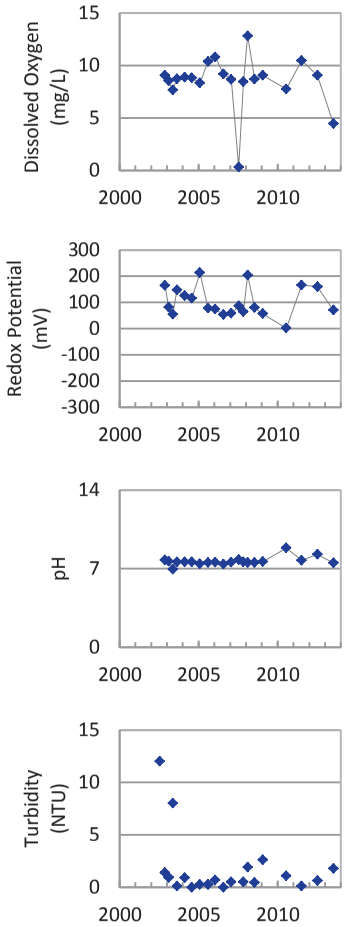
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 7/18/2002 to 7/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1081
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



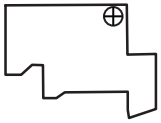
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

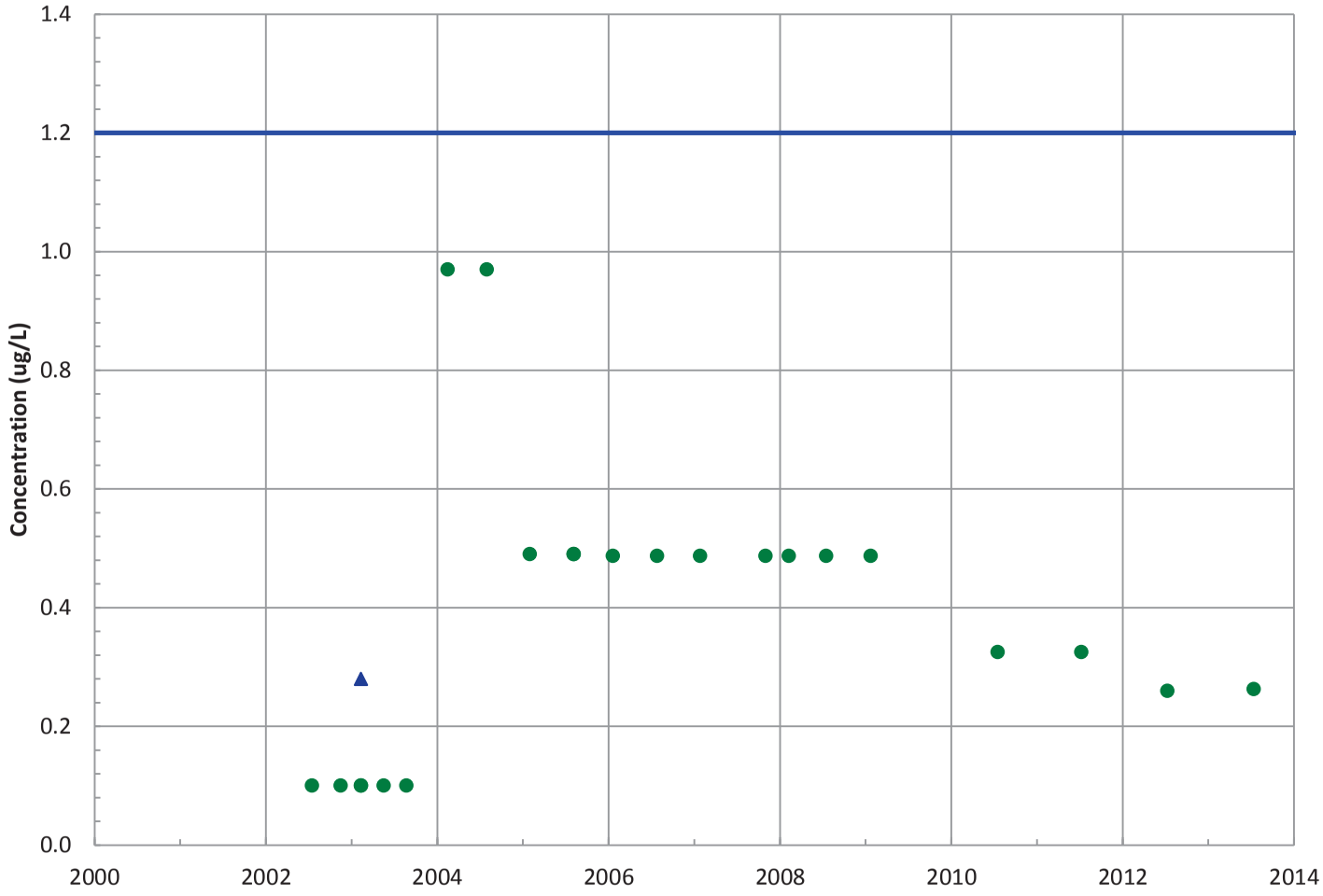
Well Location



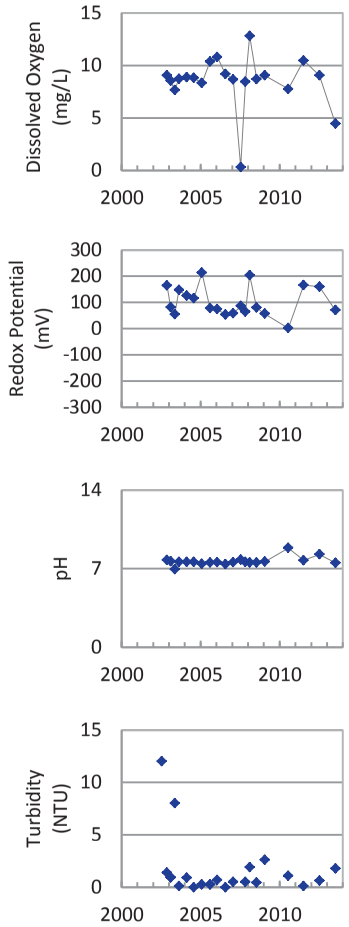
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 7/18/2002 to 7/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1081
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



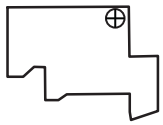
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

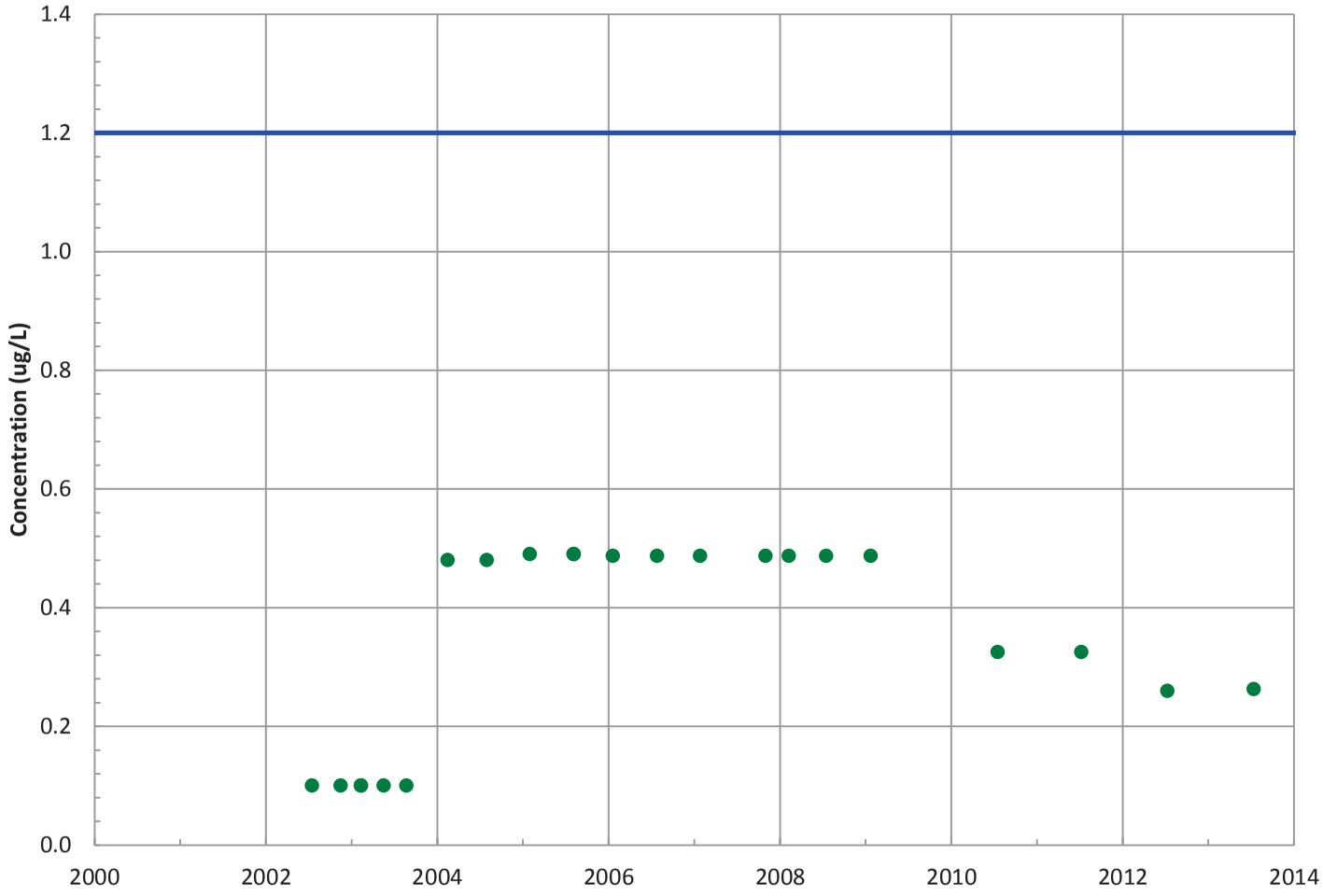
Well Location



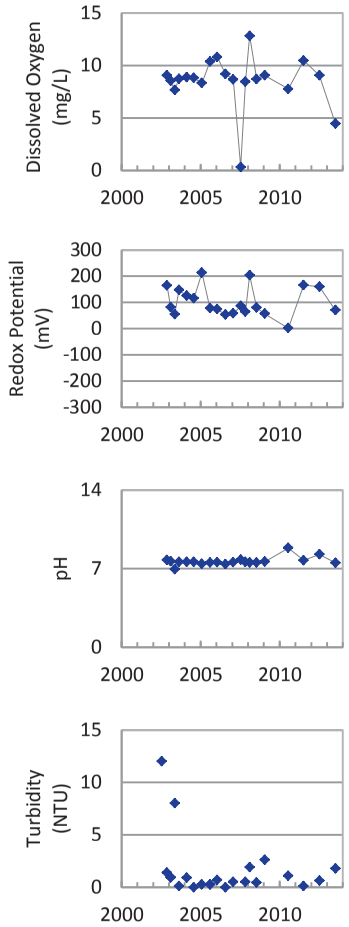
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 7/18/2002 to 7/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1081
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



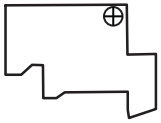
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

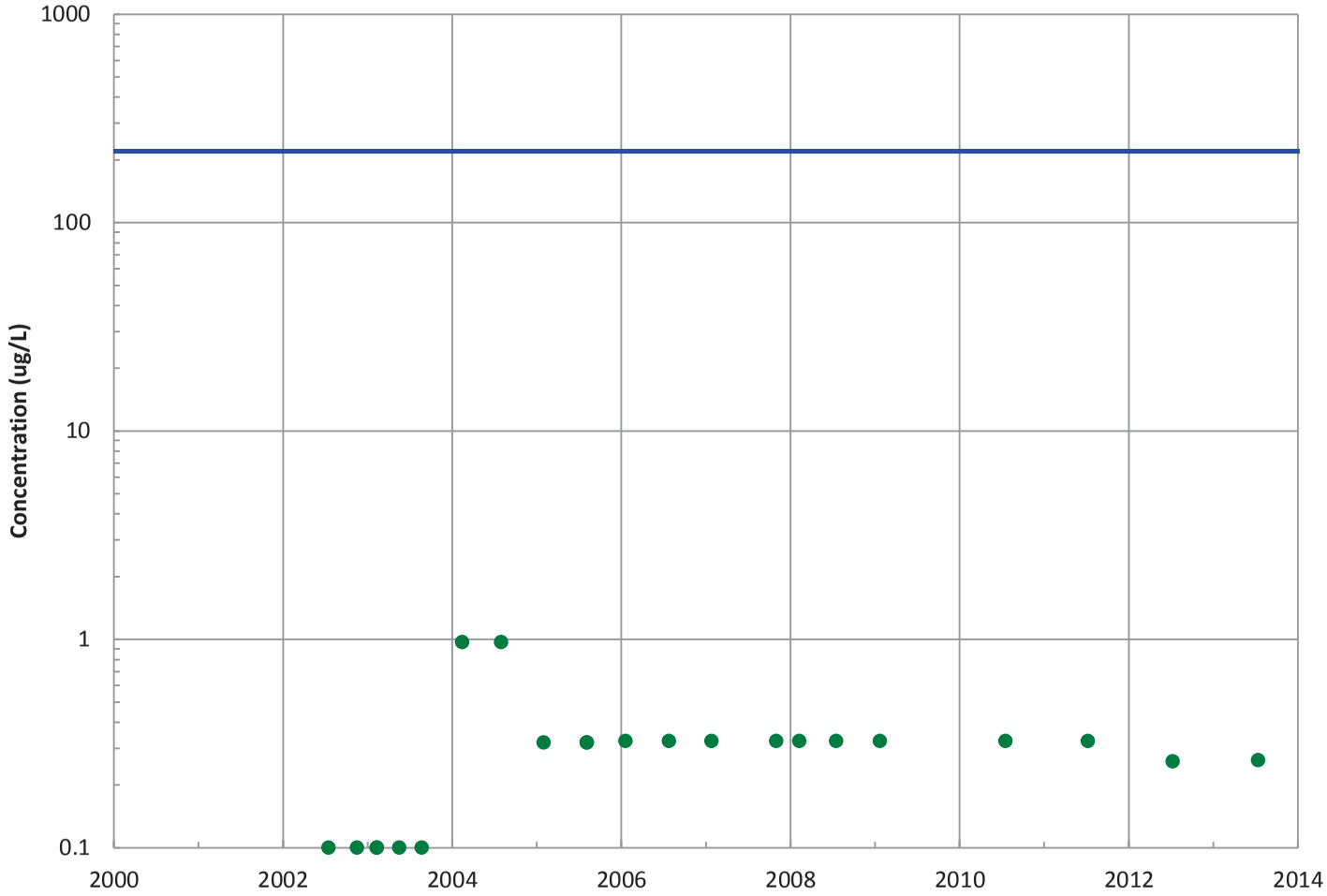
Well Location



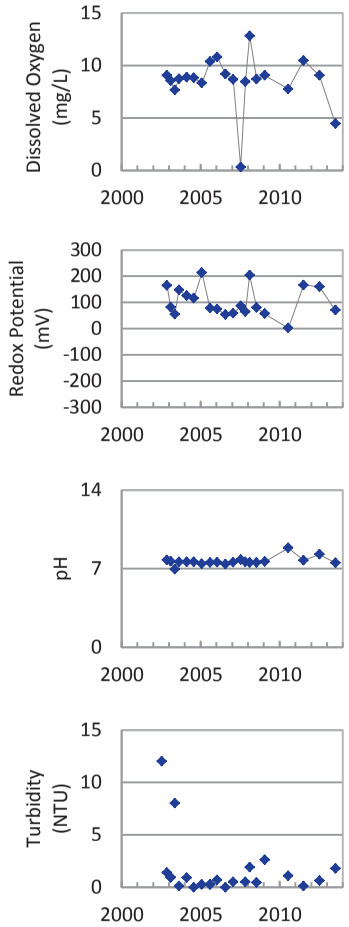
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 7/18/2002 to 7/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1081
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



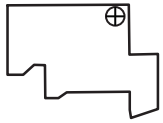
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

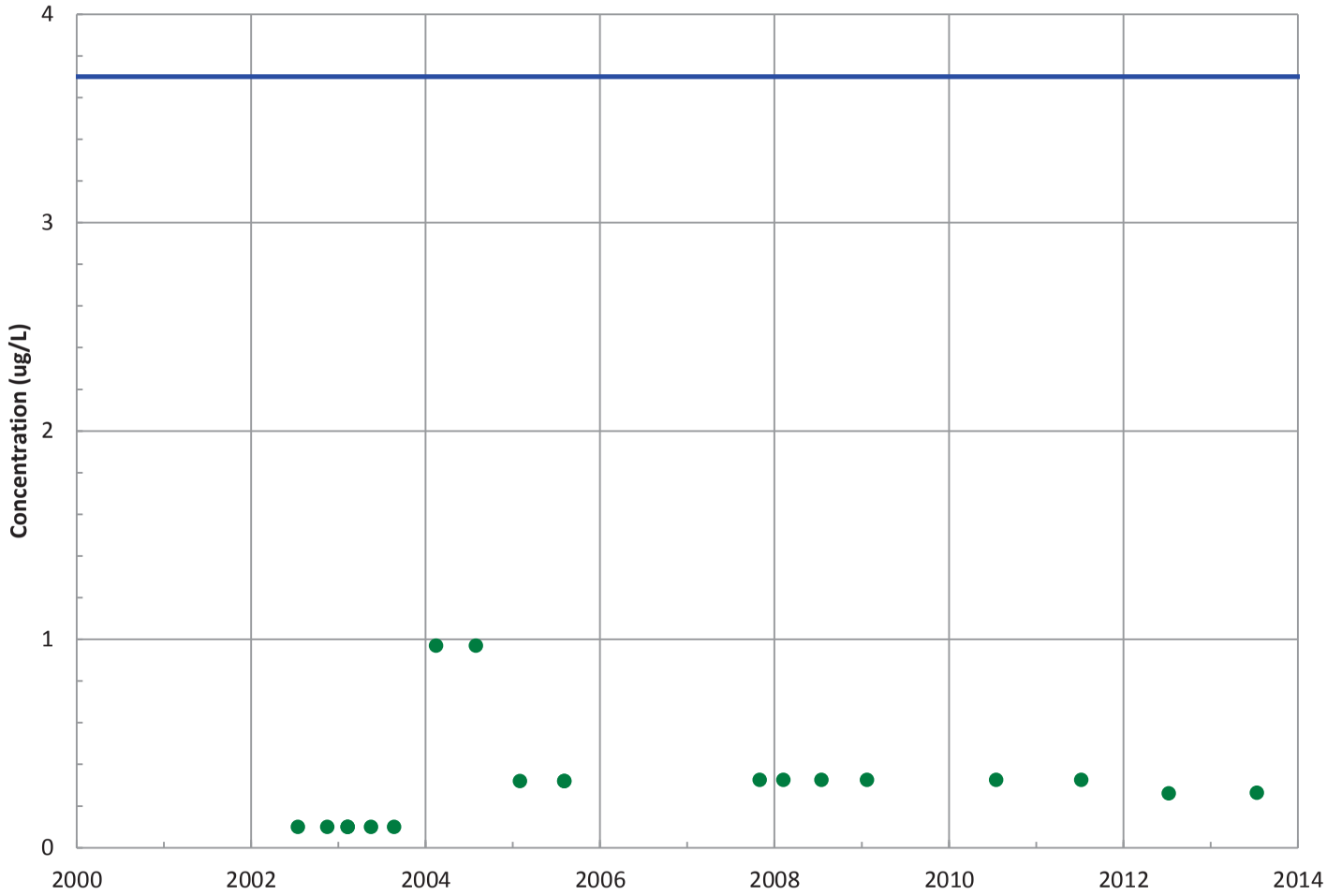
Well Location



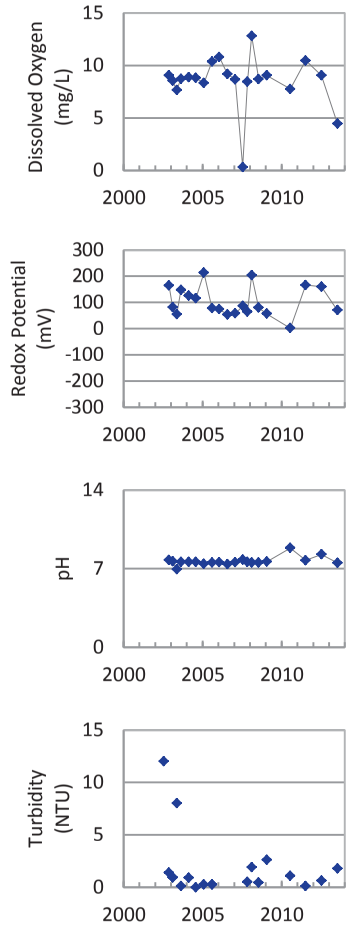
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 7/18/2002 to 7/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1081
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



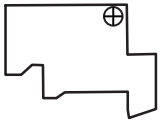
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

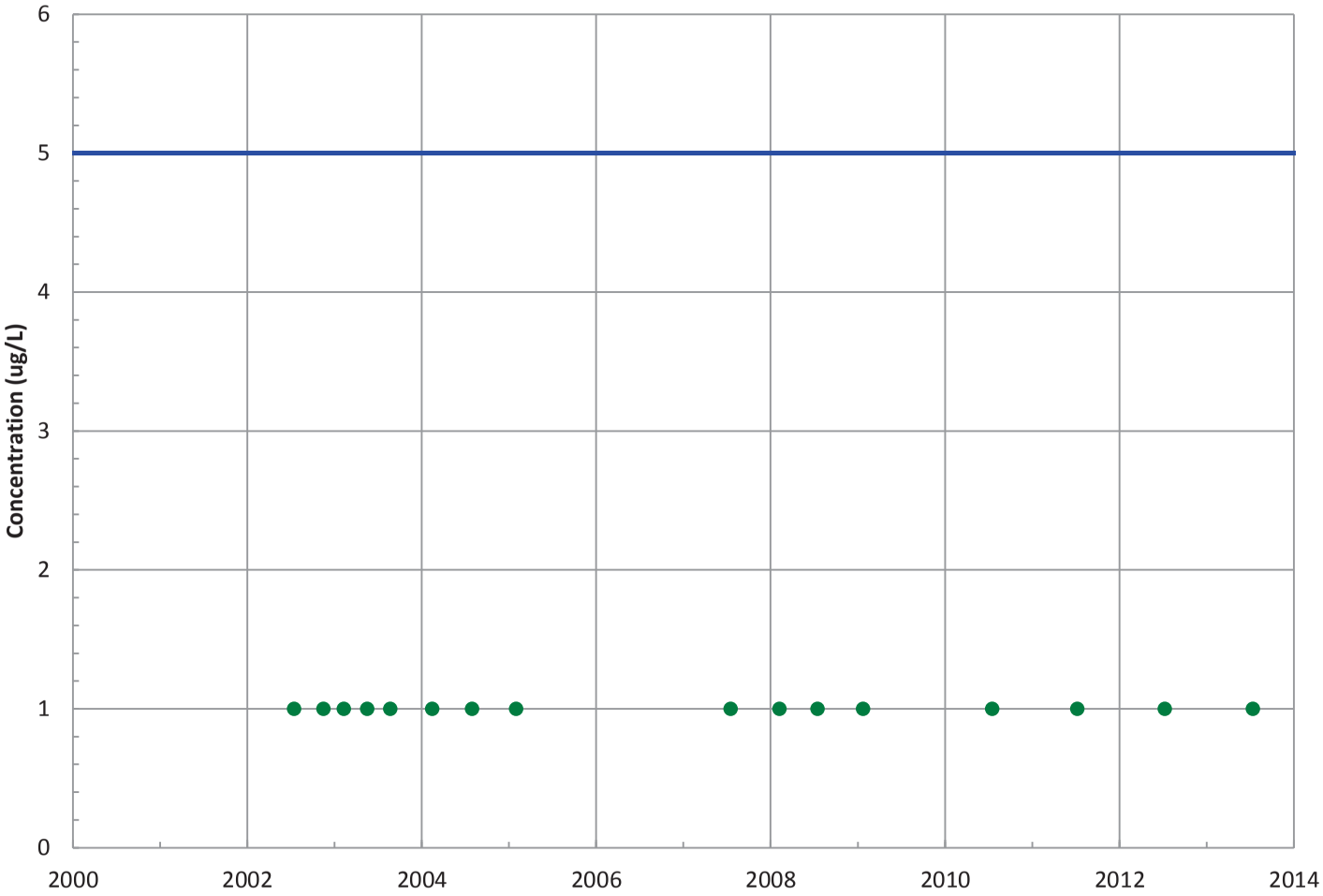
Well Location



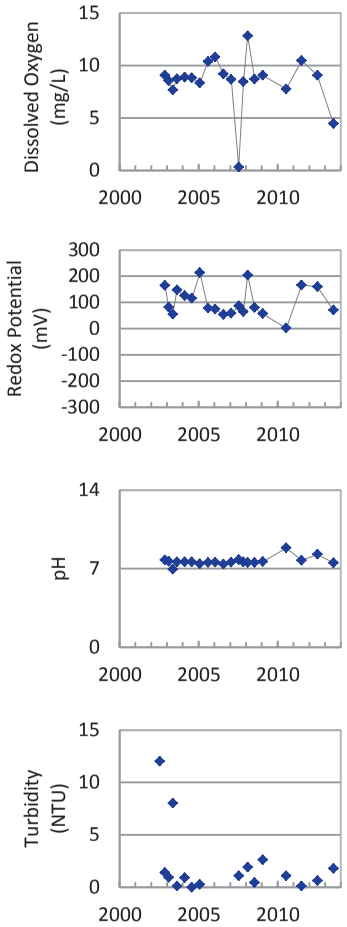
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 7/18/2002 to 7/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1081
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



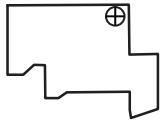
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

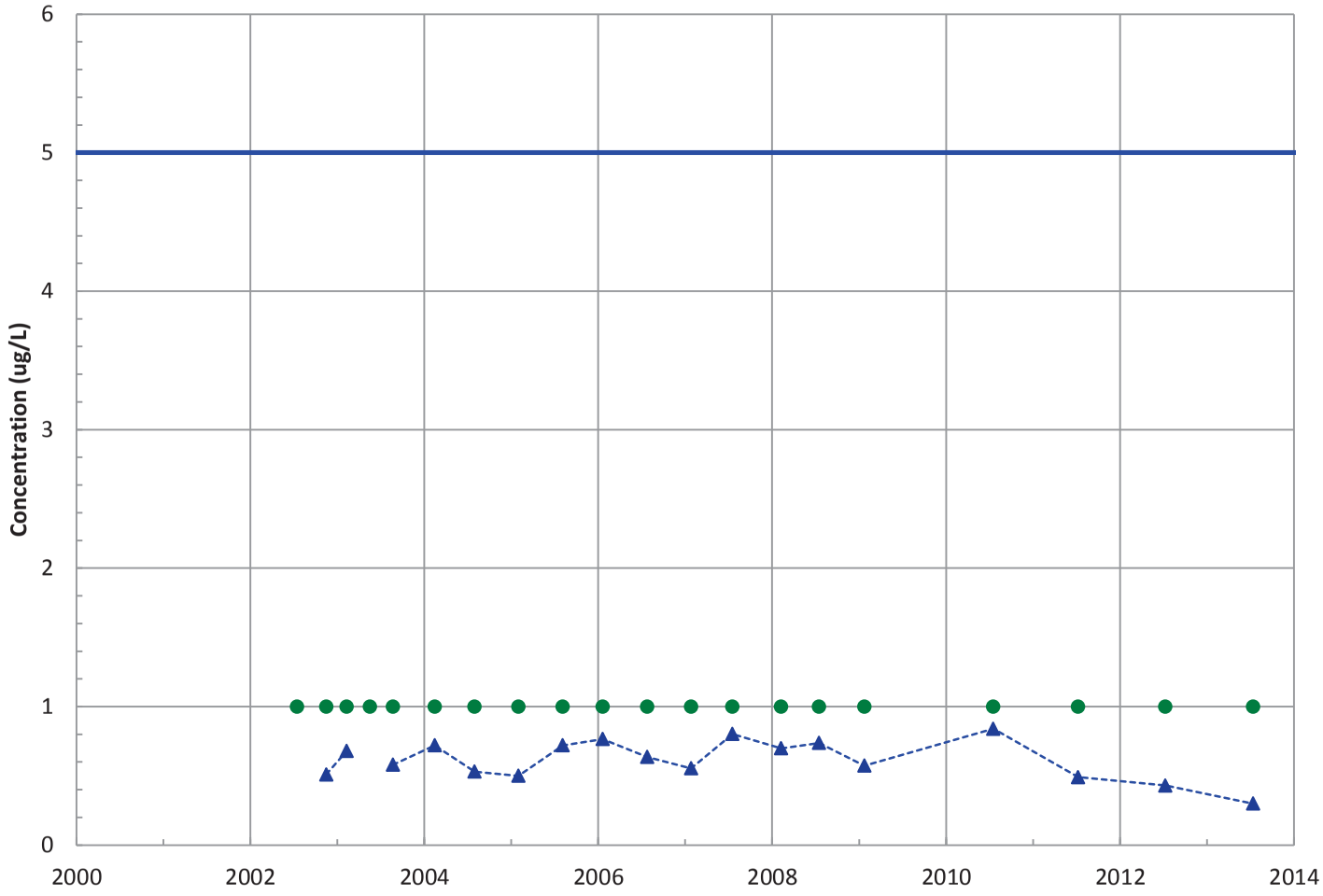
Well Location



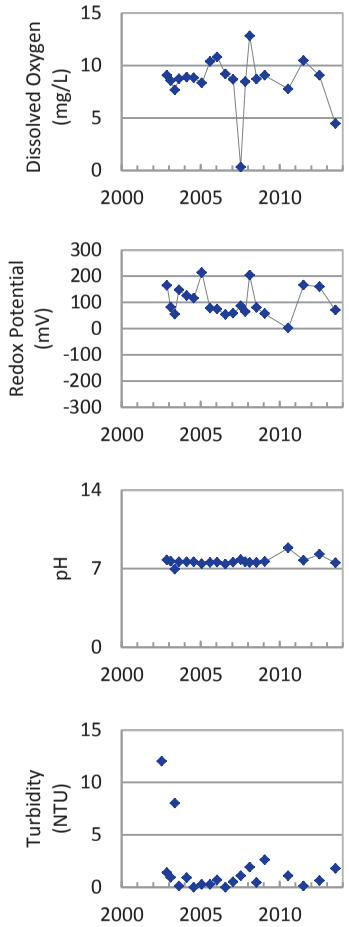
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 7/18/2002 to 7/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1081
Trichloroethene Trend in Perched Aquifer



Field Parameters



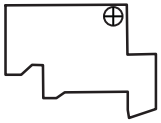
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

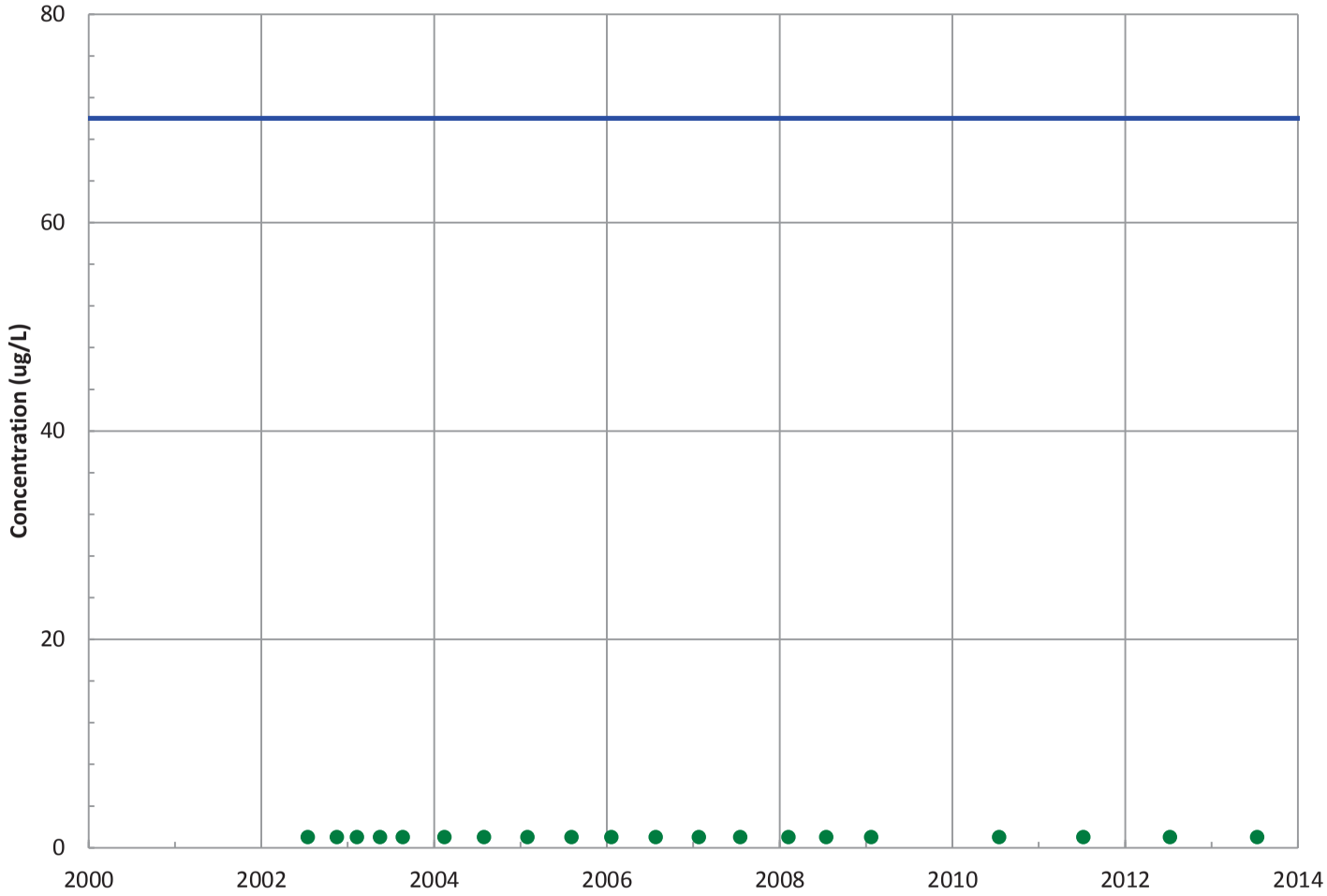
Well Location



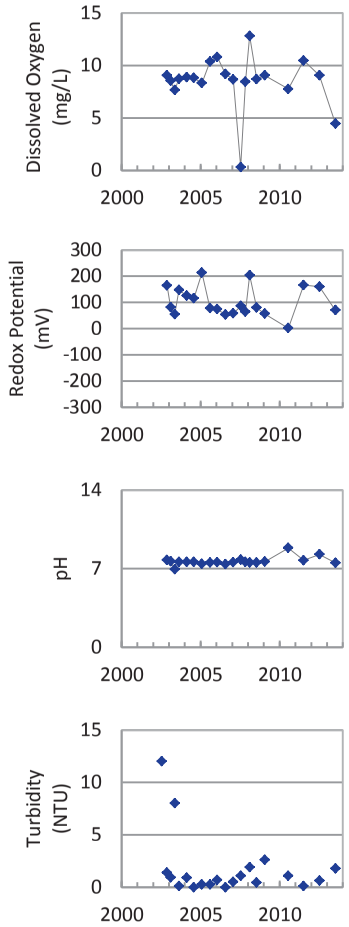
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 7/18/2002 to 7/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1081
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



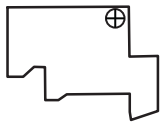
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

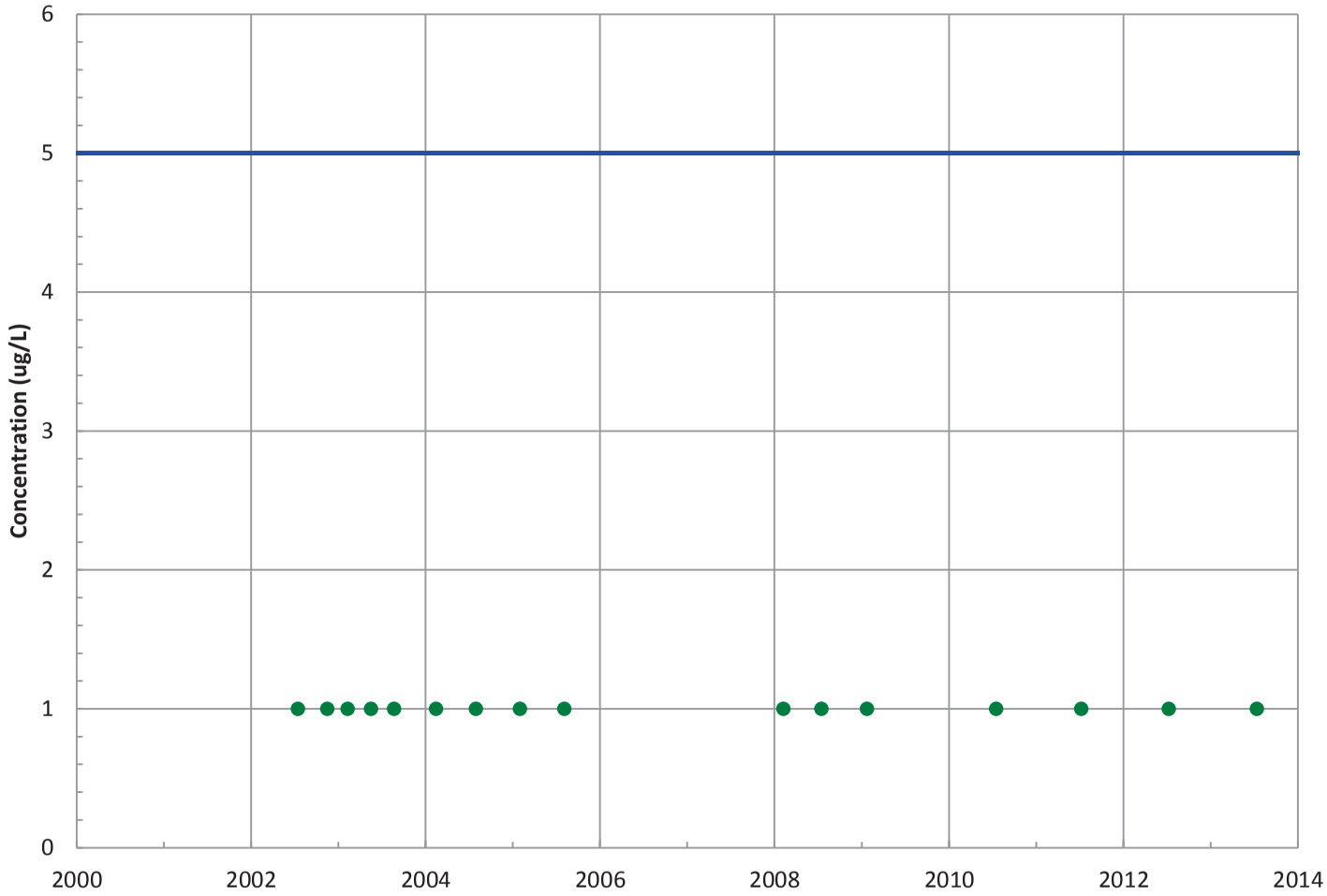
Well Location



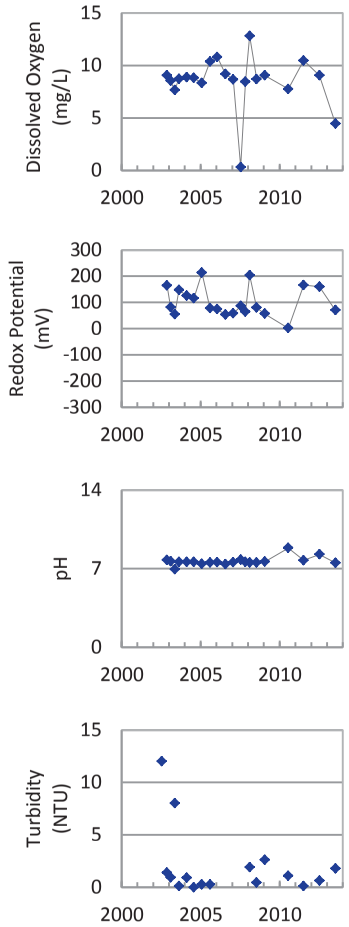
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 7/18/2002 to 7/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1081
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



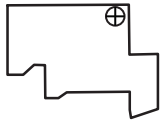
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

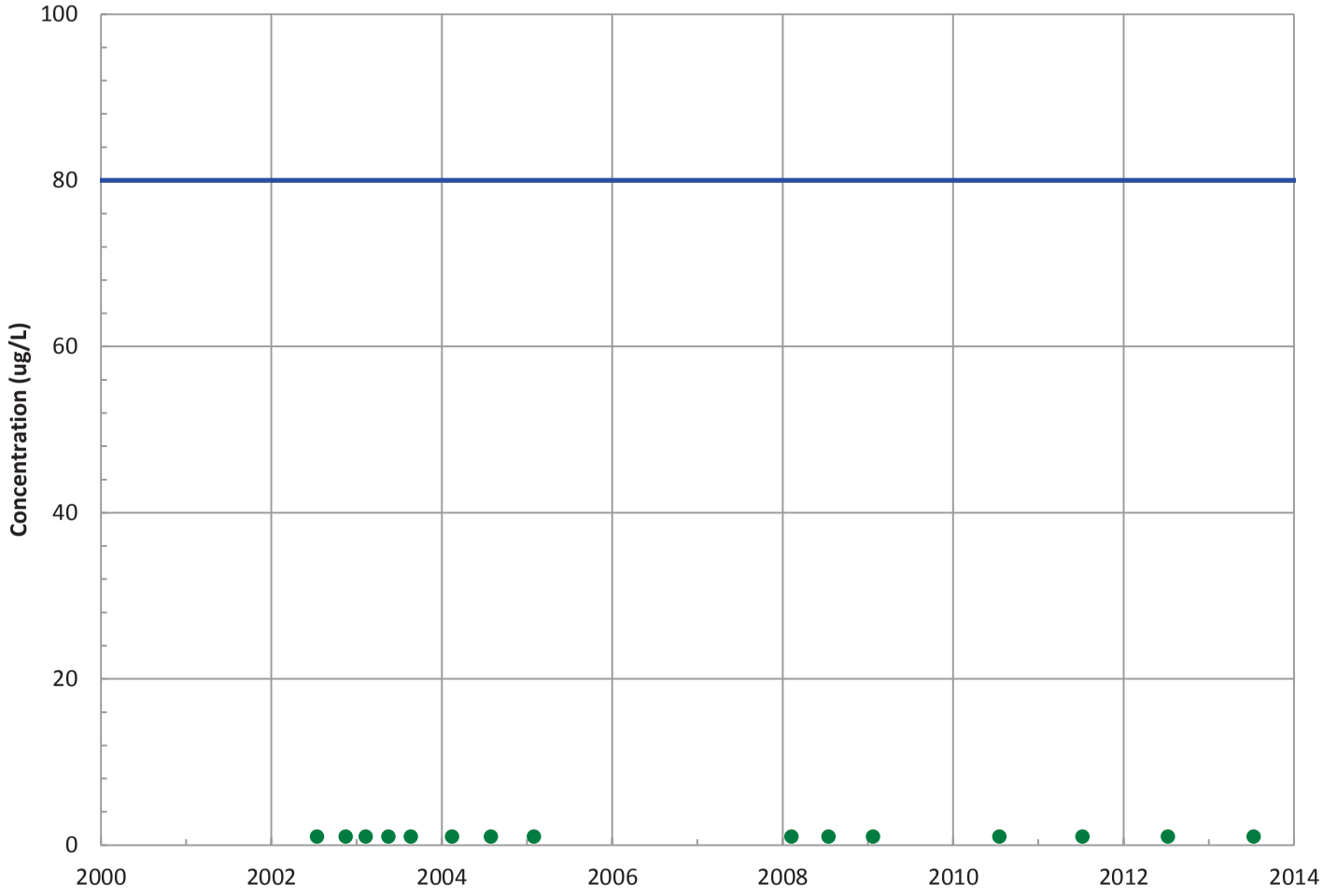
Well Location



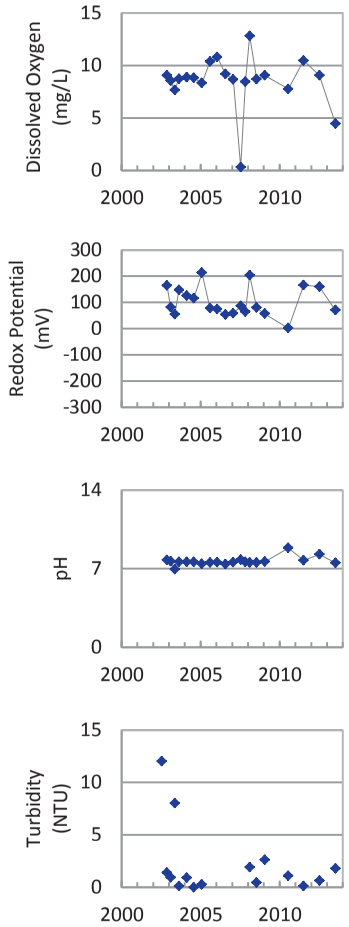
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 7/18/2002 to 7/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1081
Chloroform Trend in Perched Aquifer



Field Parameters



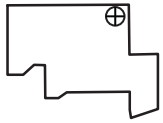
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

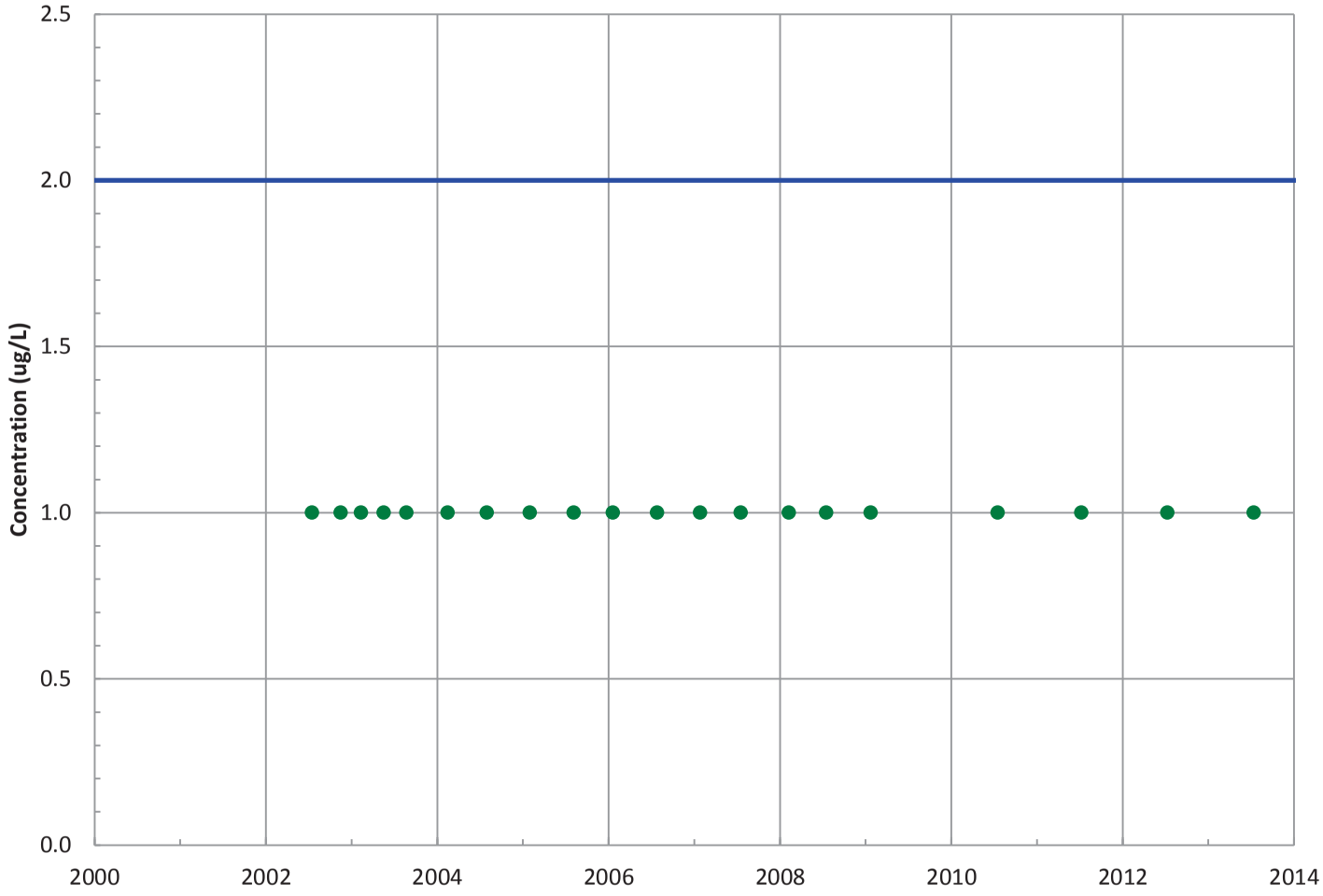
Well Location



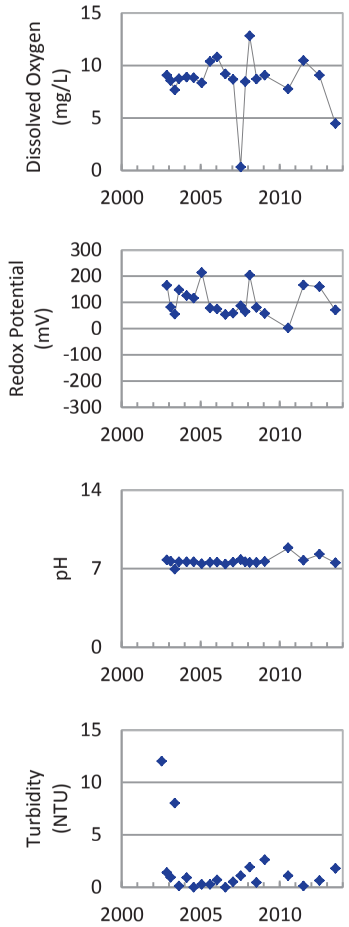
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 7/18/2002 to 7/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1081
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



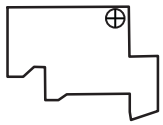
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

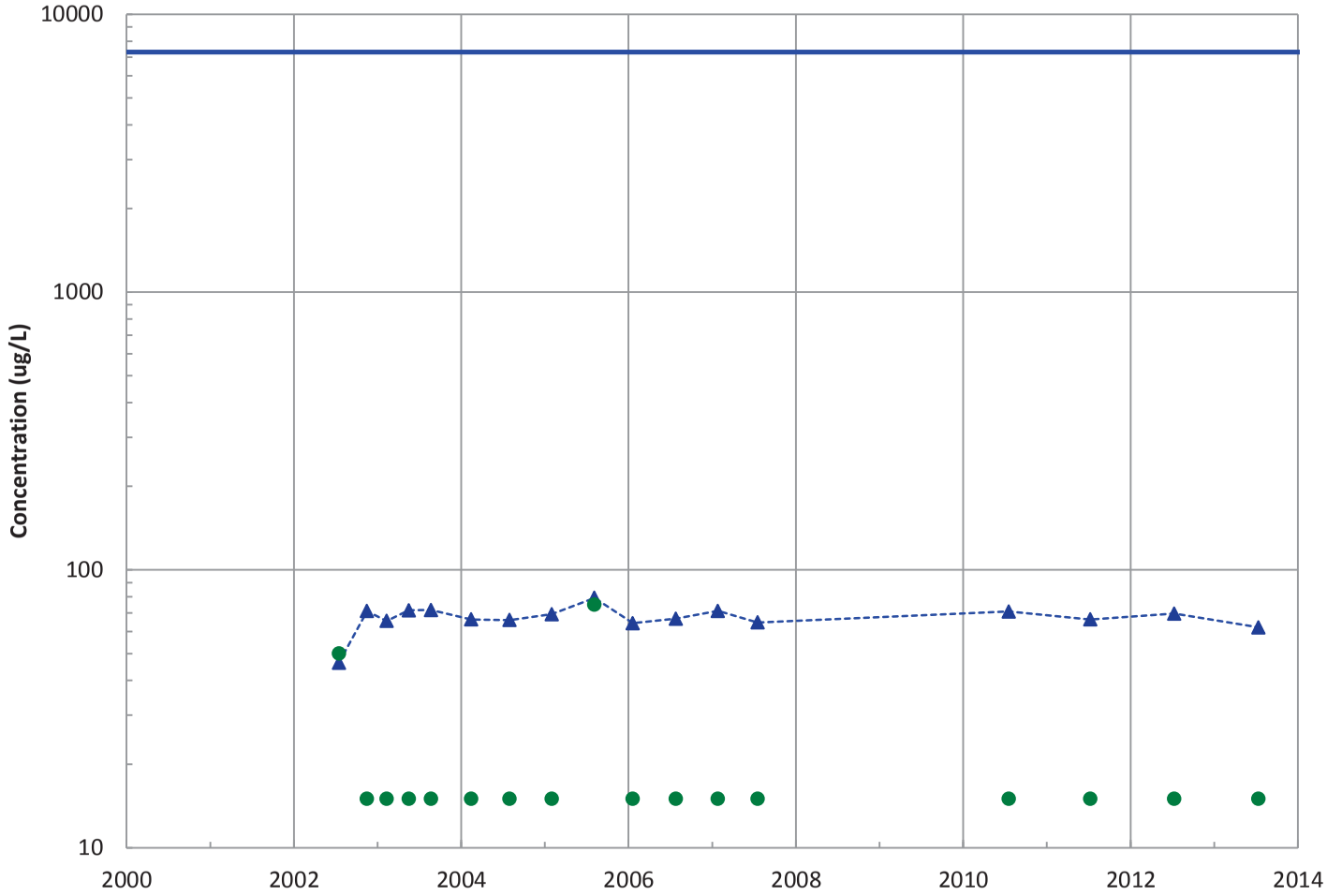
Well Location



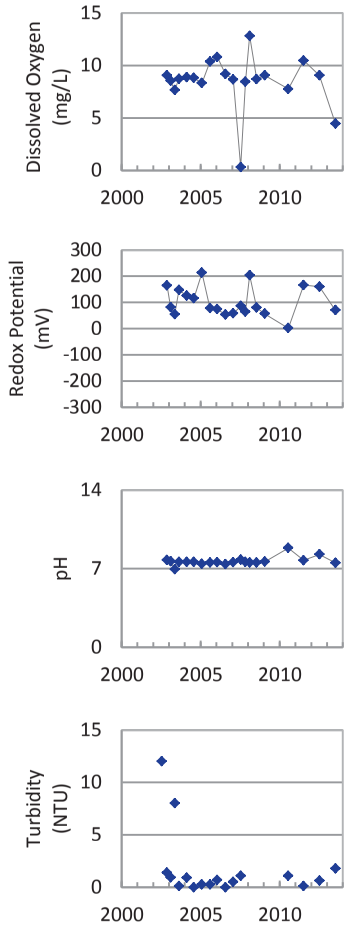
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 7/18/2002 to 7/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1081
Boron Trend in Perched Aquifer



Field Parameters



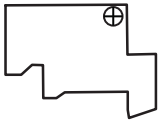
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

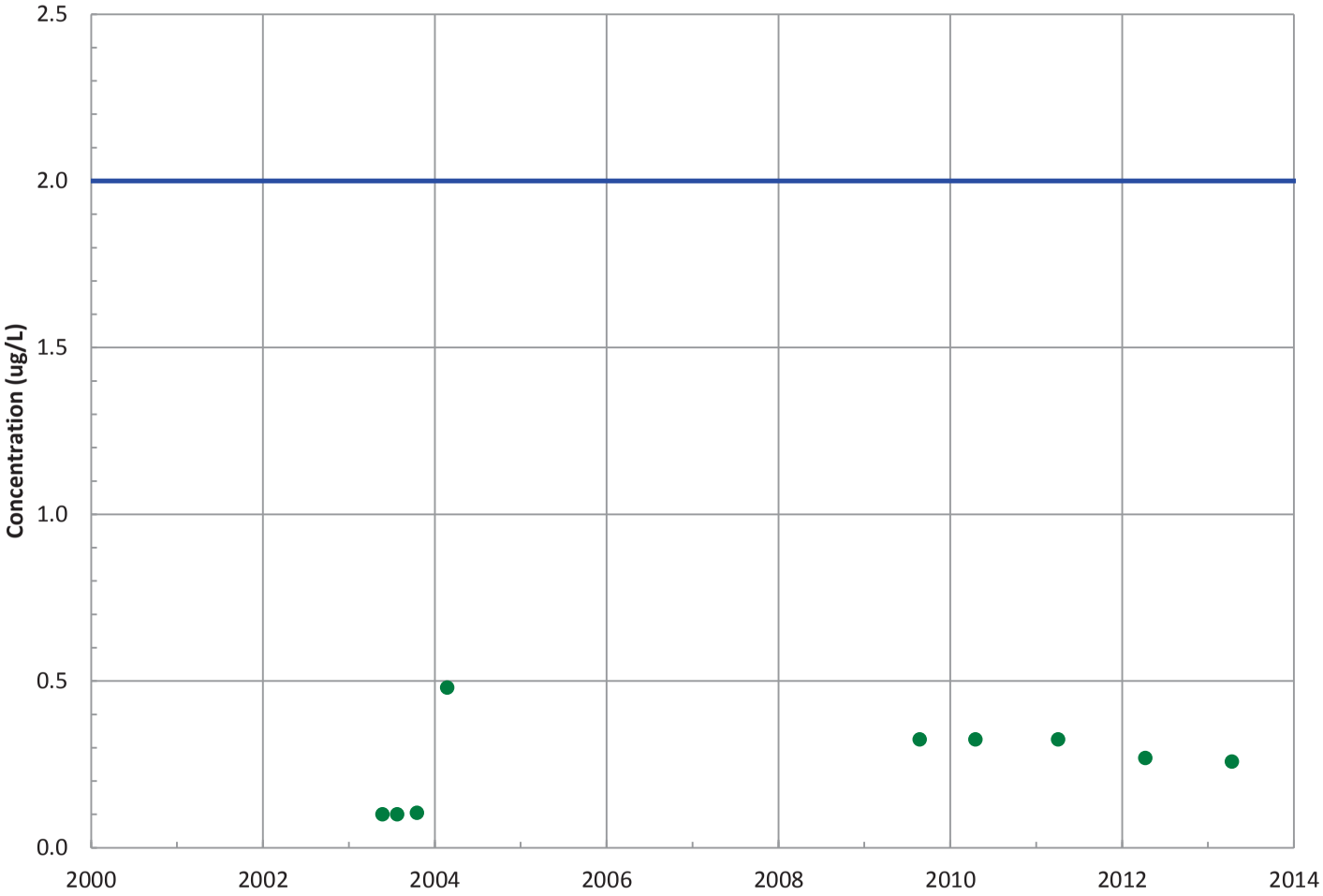
Well Location



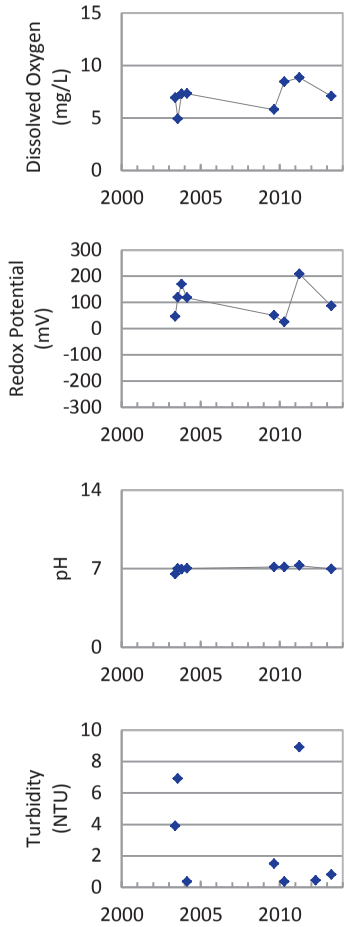
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 7/18/2002 to 7/23/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1085
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



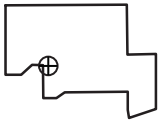
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

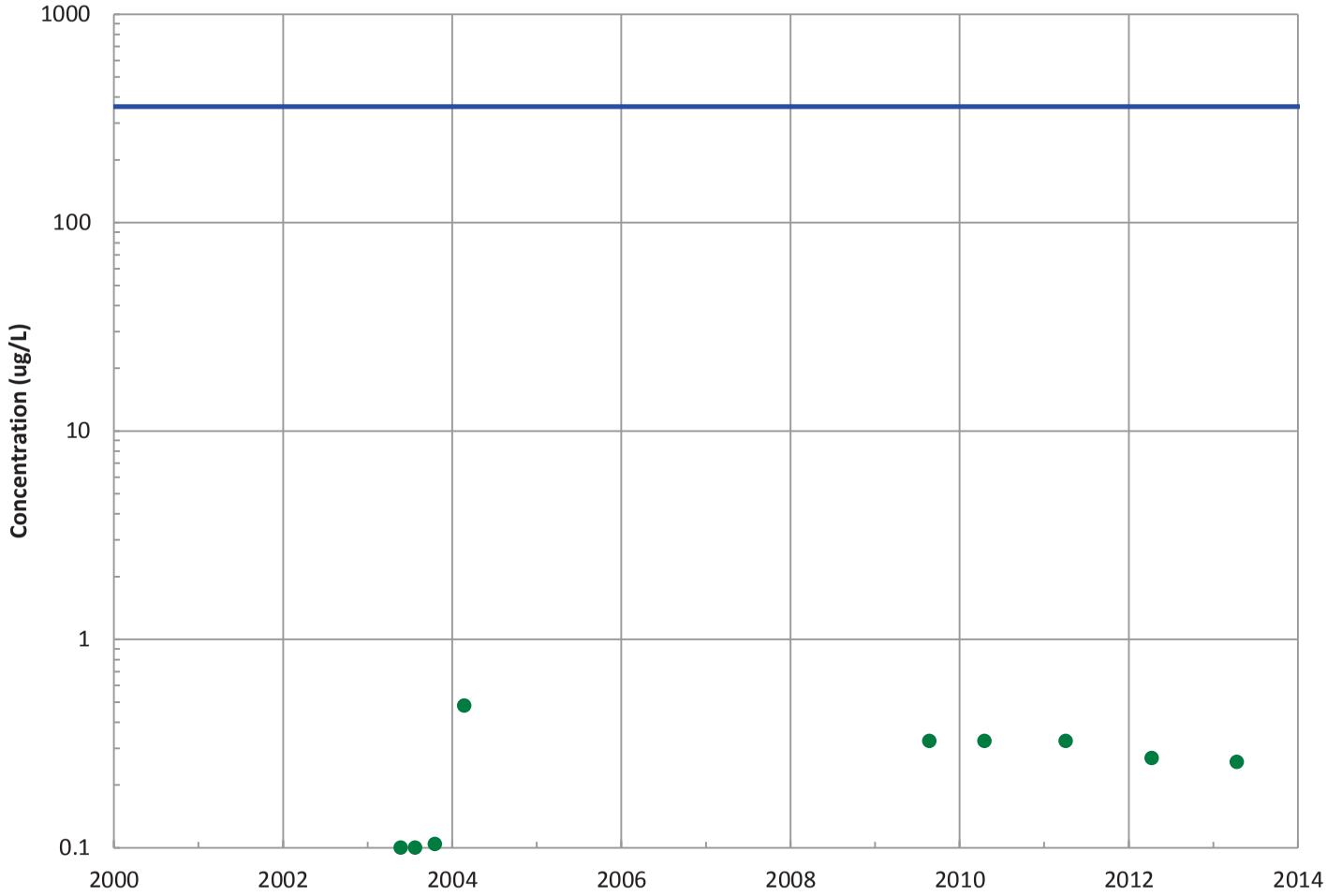
Well Location



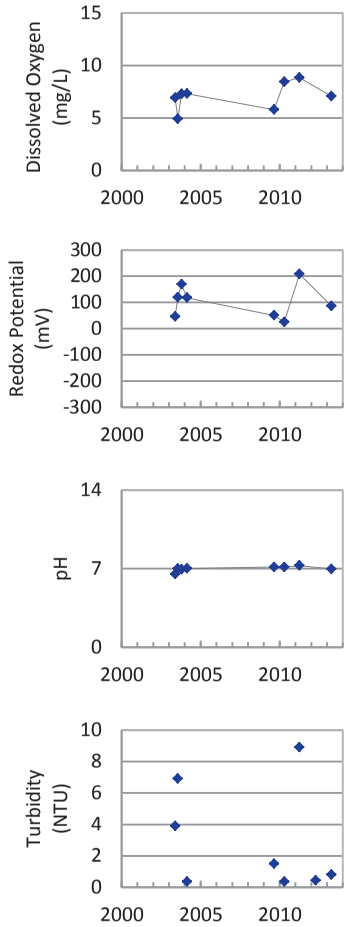
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2003 to 4/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1085
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



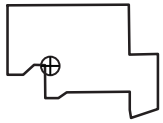
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

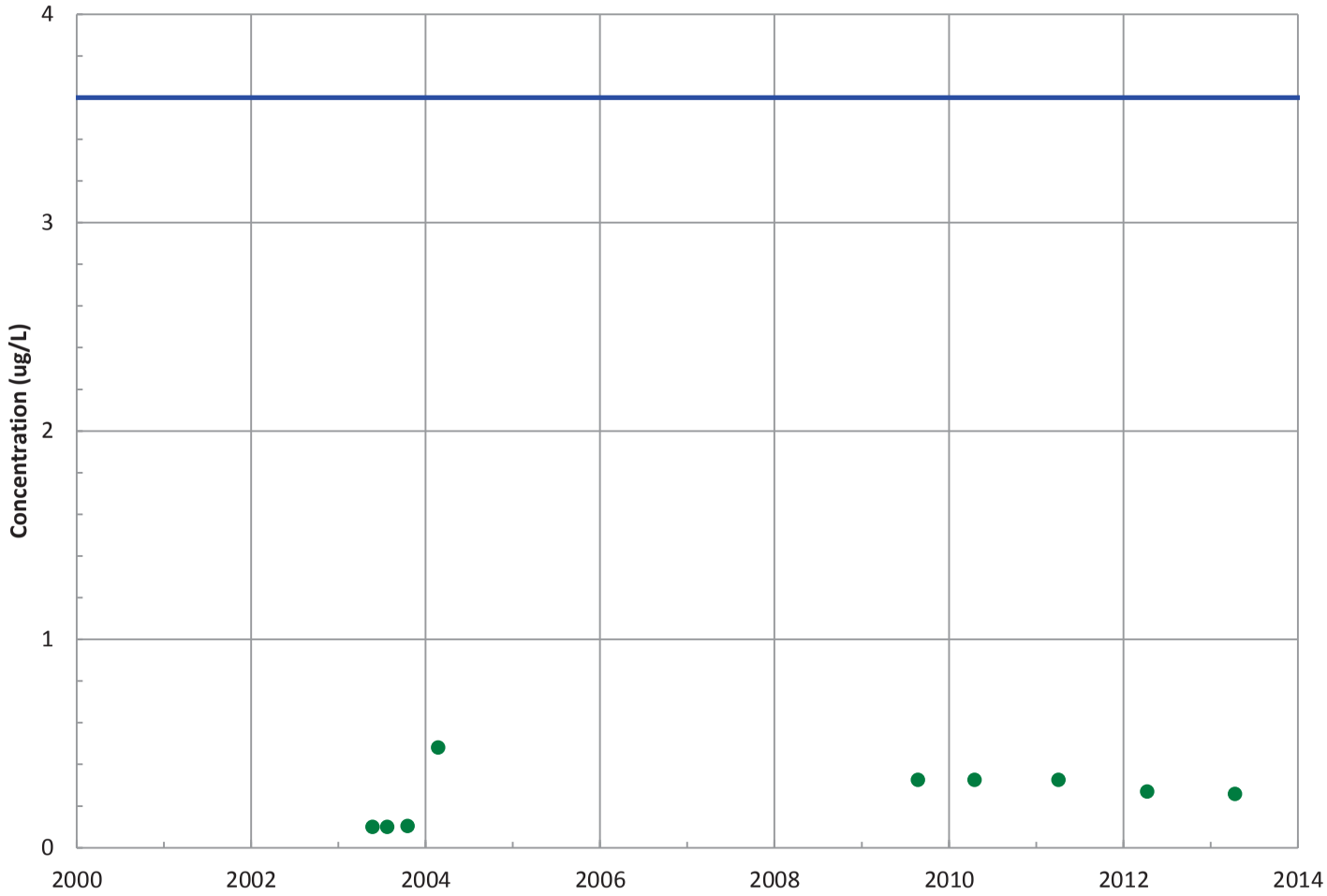
Well Location



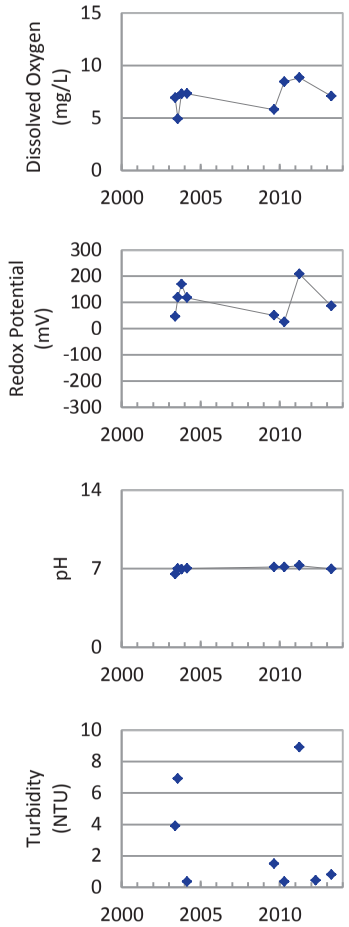
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2003 to 4/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1085
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



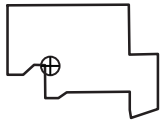
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

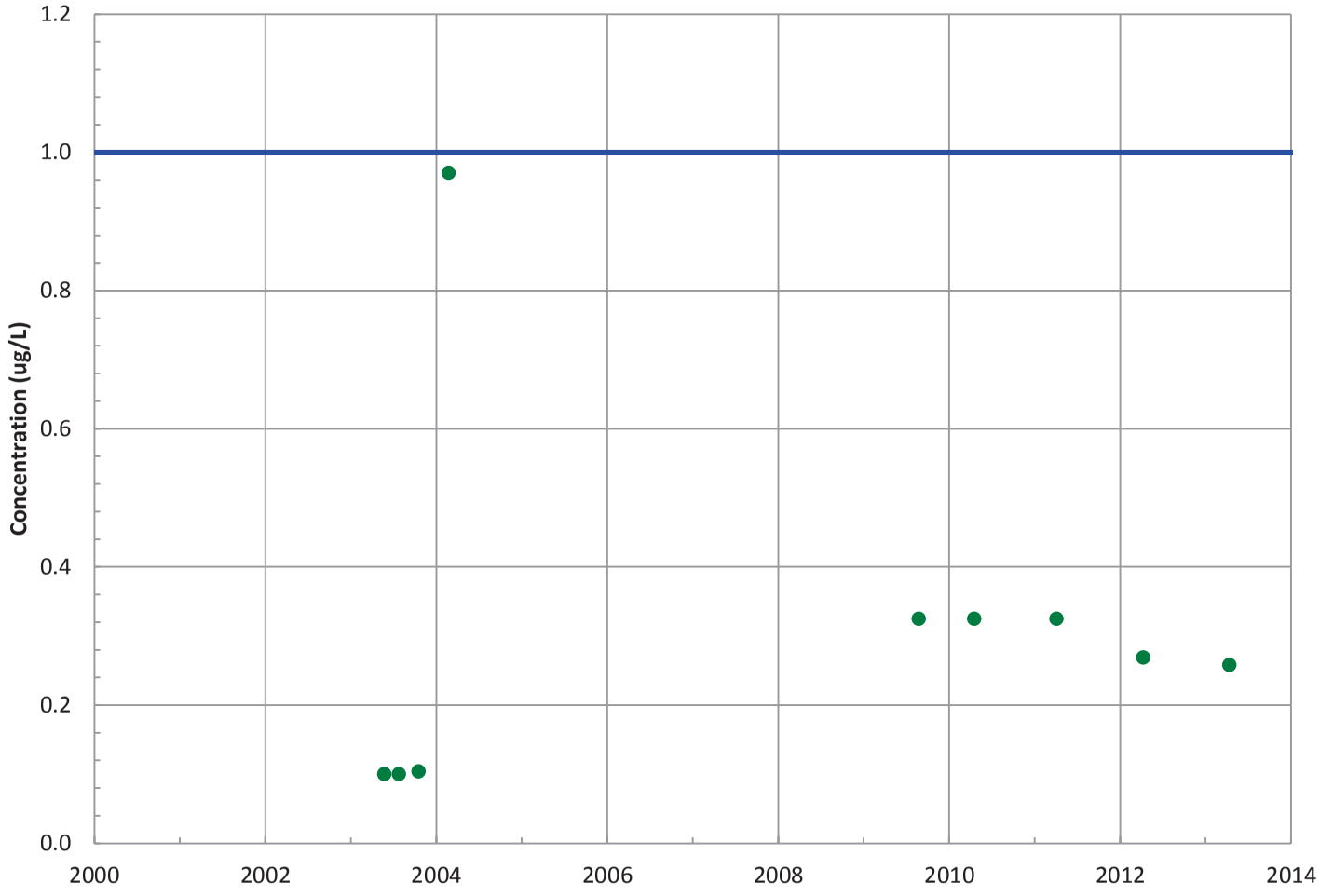
Well Location



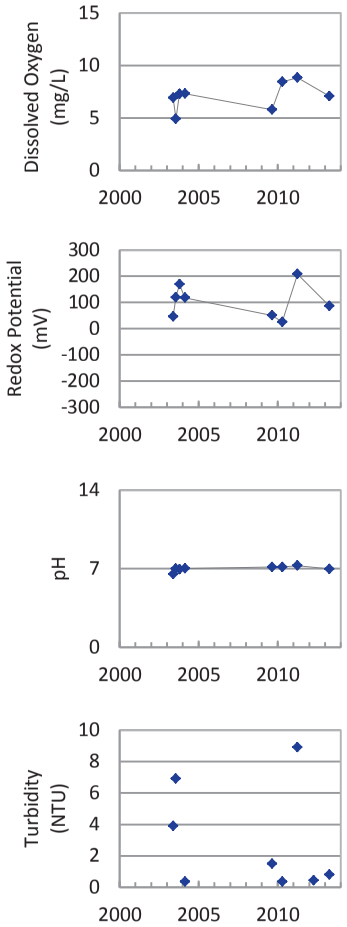
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2003 to 4/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1085
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



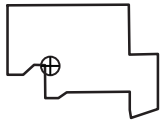
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

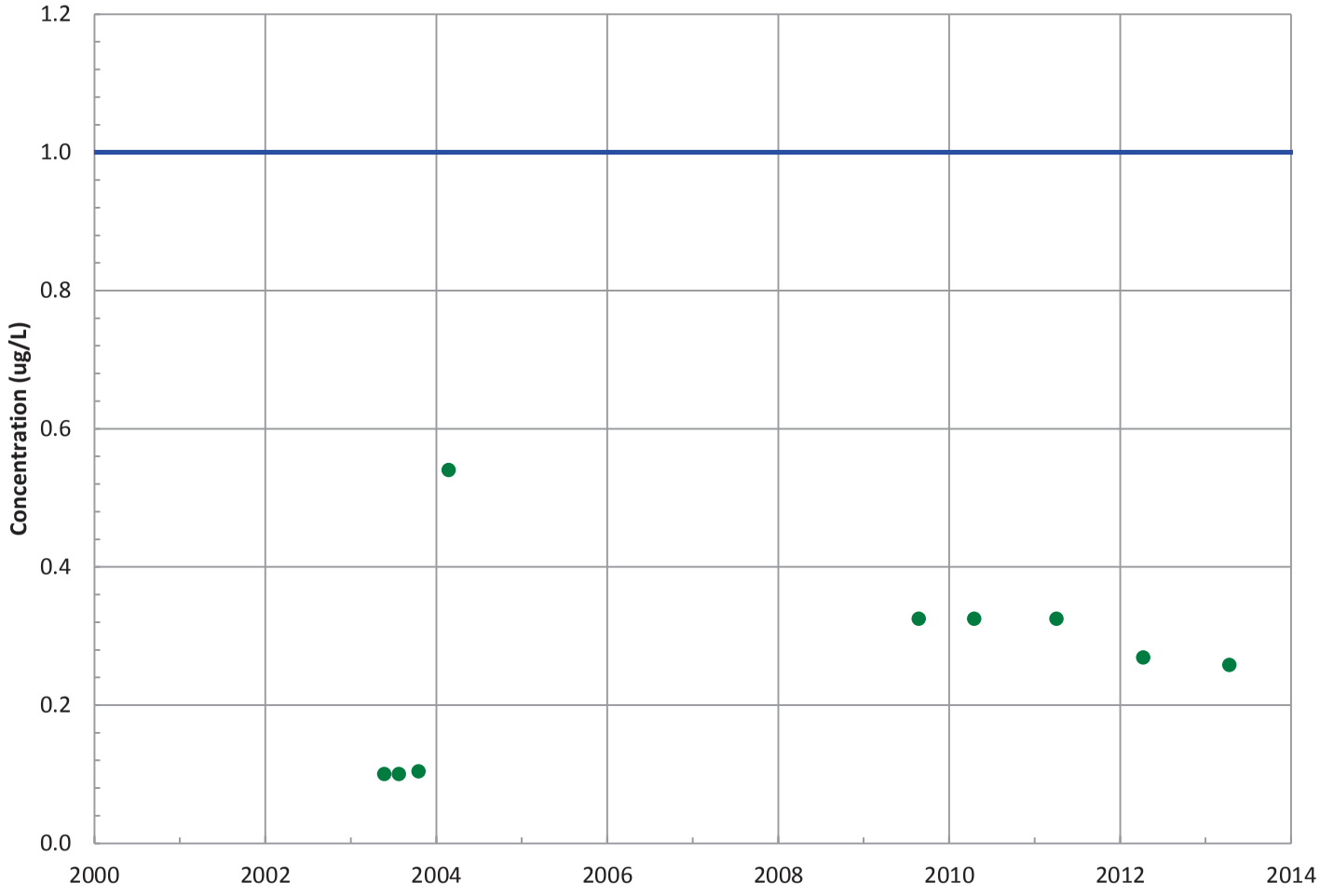
Well Location



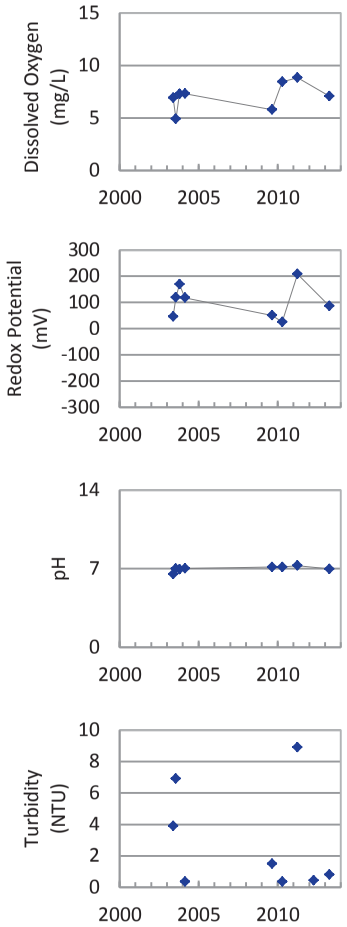
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2003 to 4/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1085
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



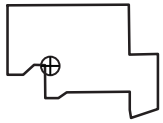
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

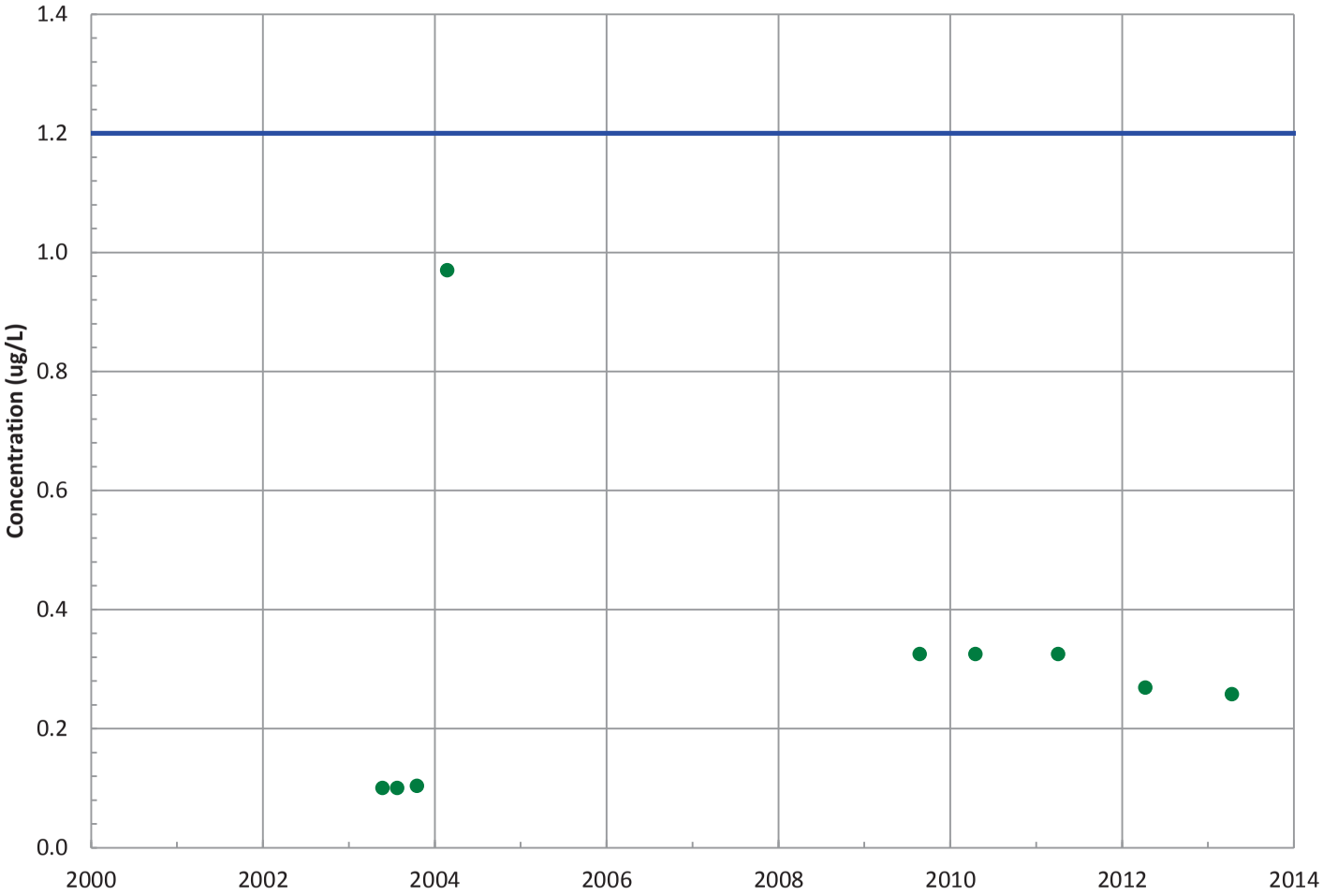
Well Location



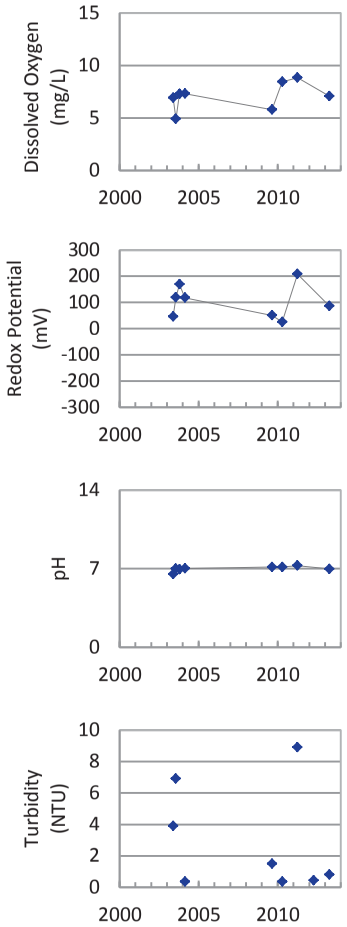
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2003 to 4/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1085
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



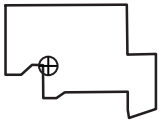
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

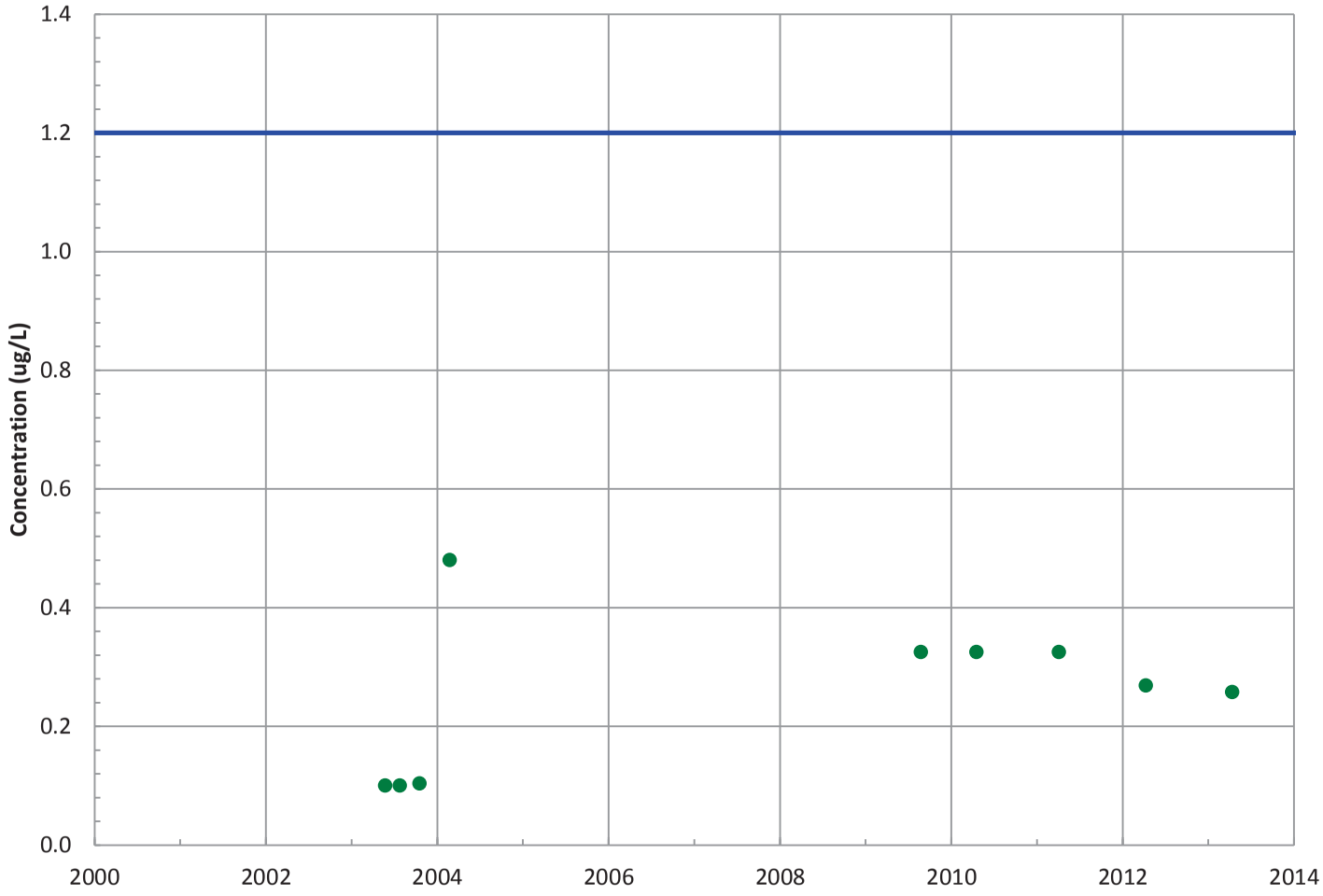
Well Location



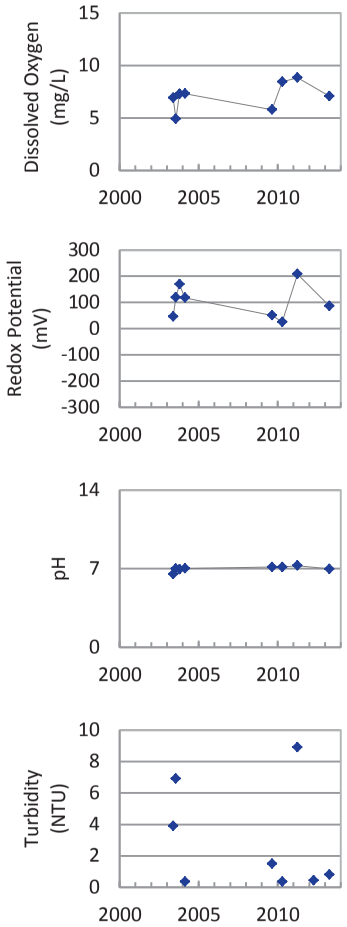
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2003 to 4/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1085
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



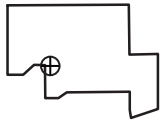
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

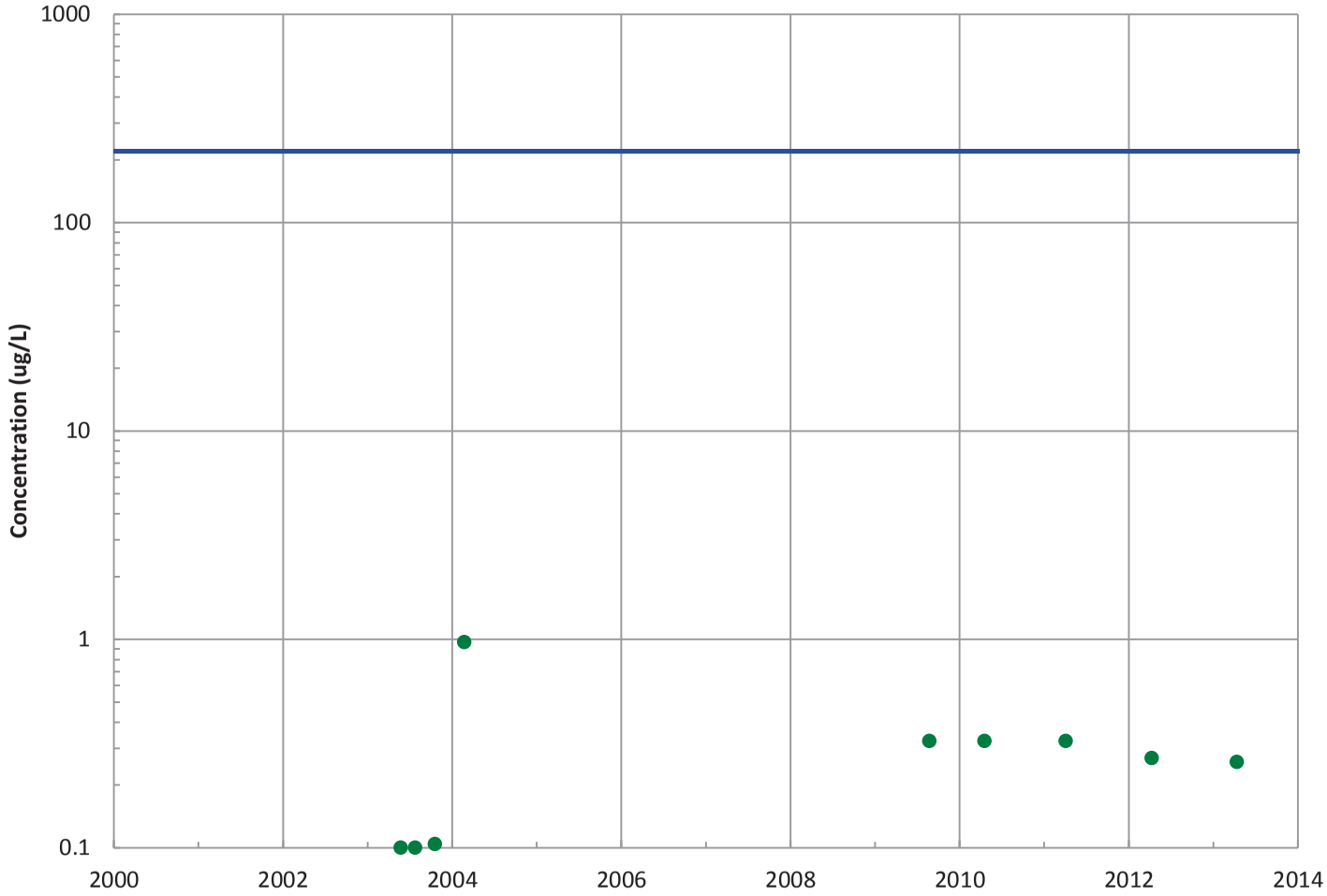
Well Location



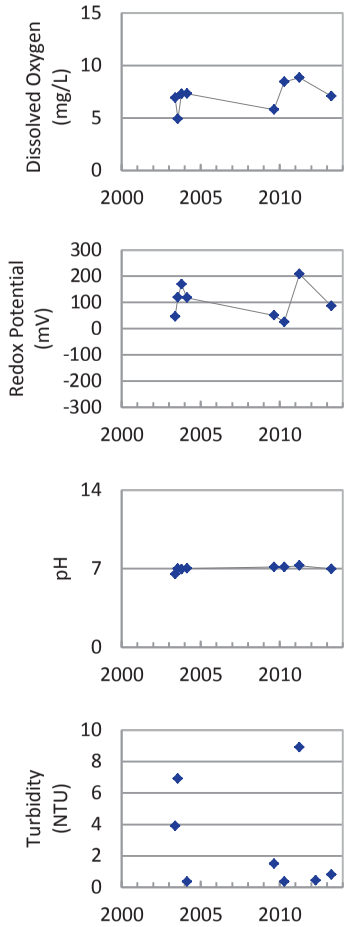
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2003 to 4/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1085
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



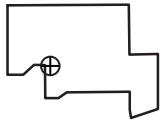
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

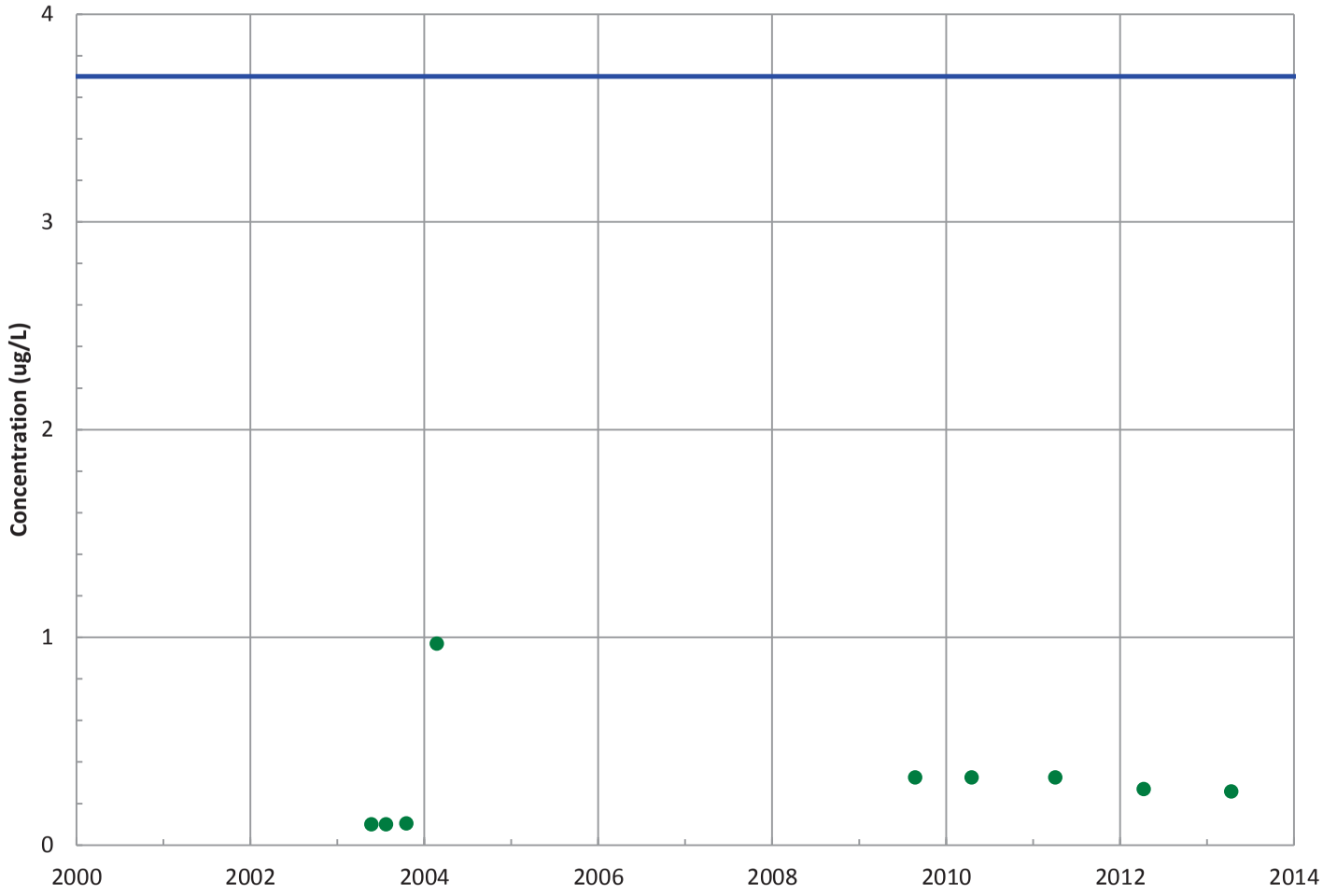
Well Location



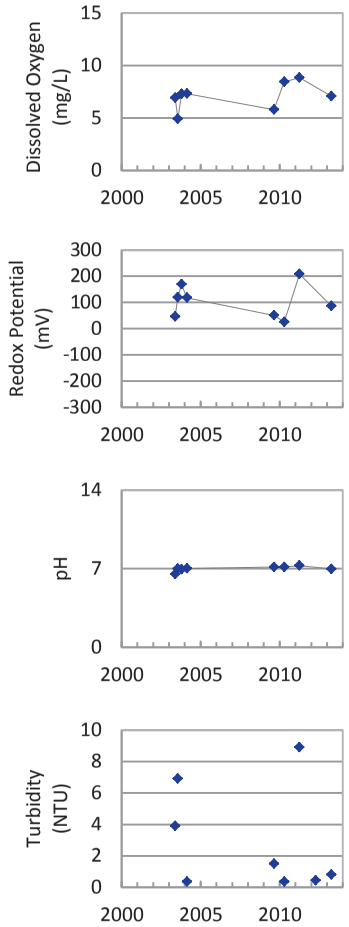
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2003 to 4/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1085
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



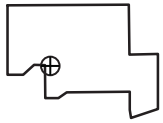
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

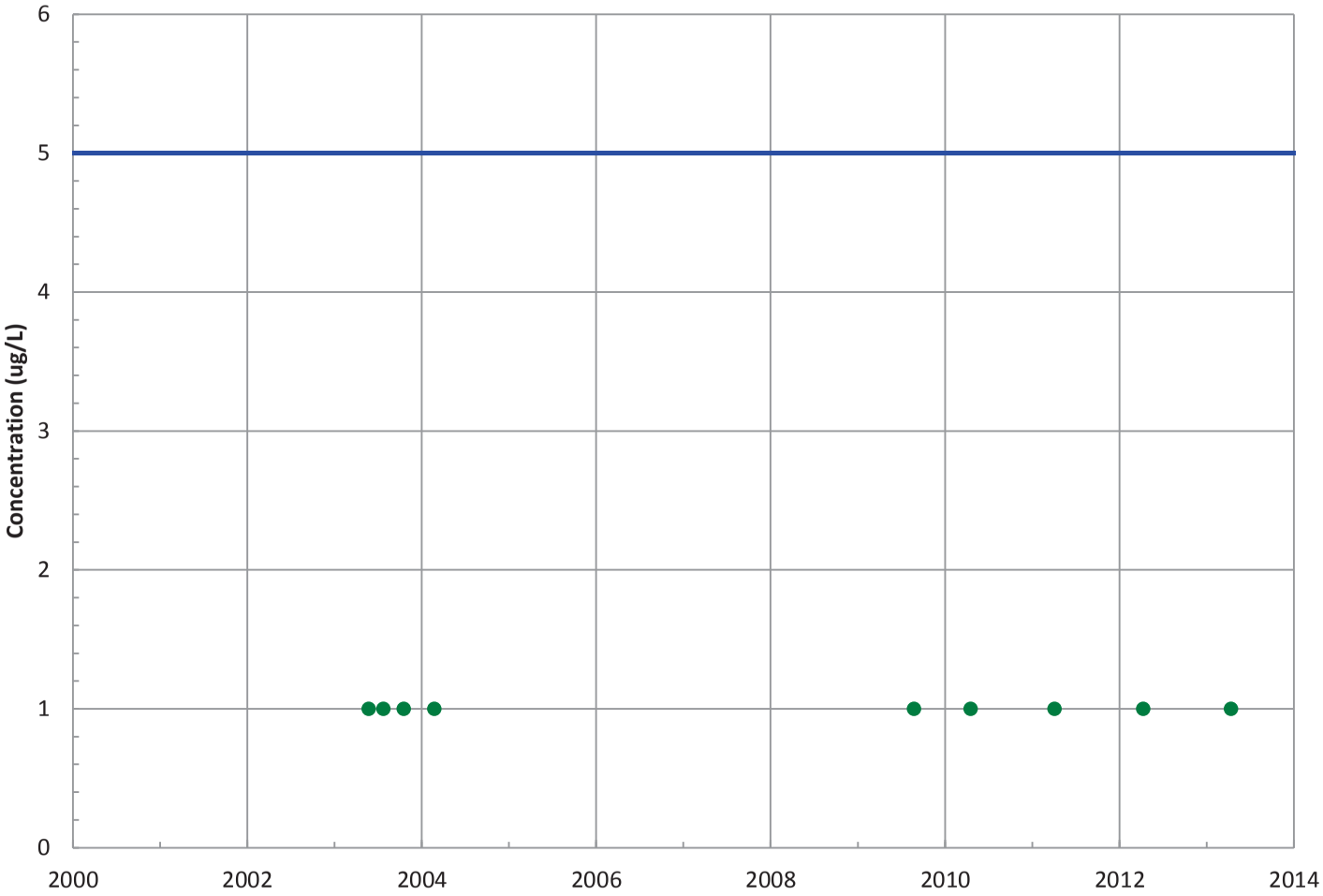
Well Location



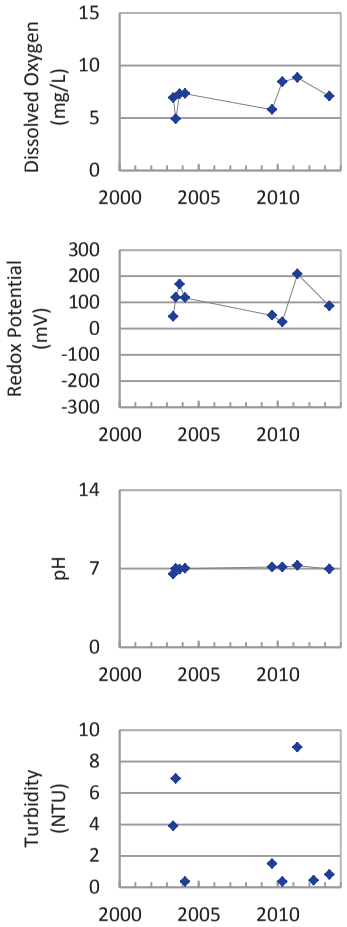
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2003 to 4/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1085
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



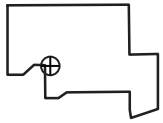
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

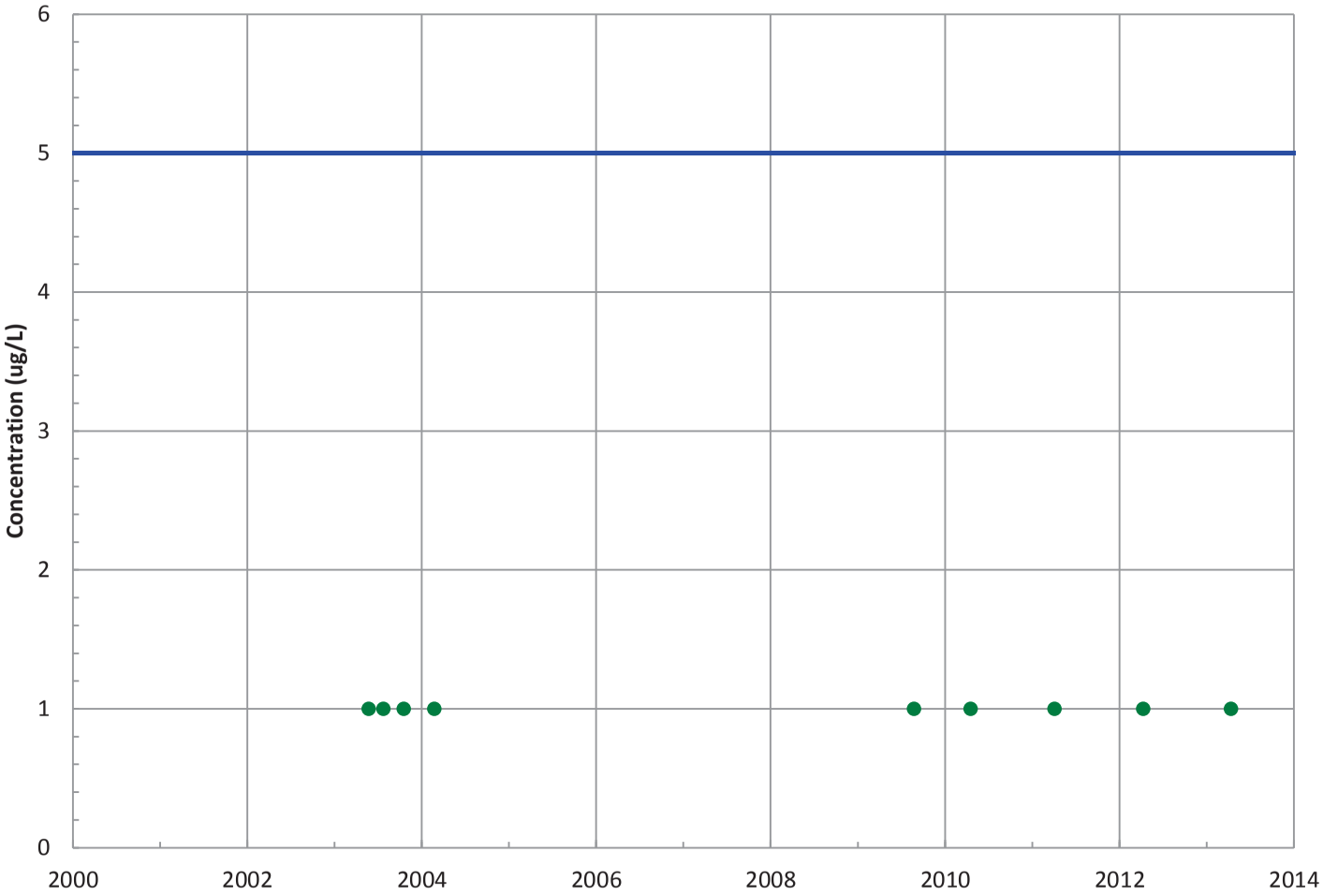
Well Location



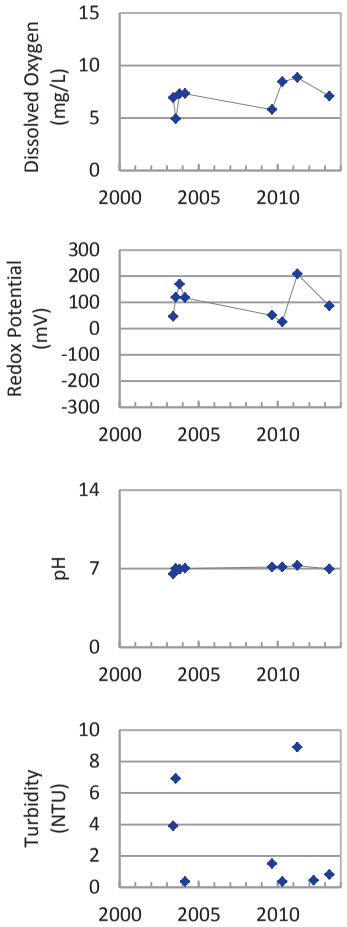
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2003 to 4/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1085
Trichloroethene Trend in Perched Aquifer



Field Parameters



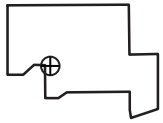
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

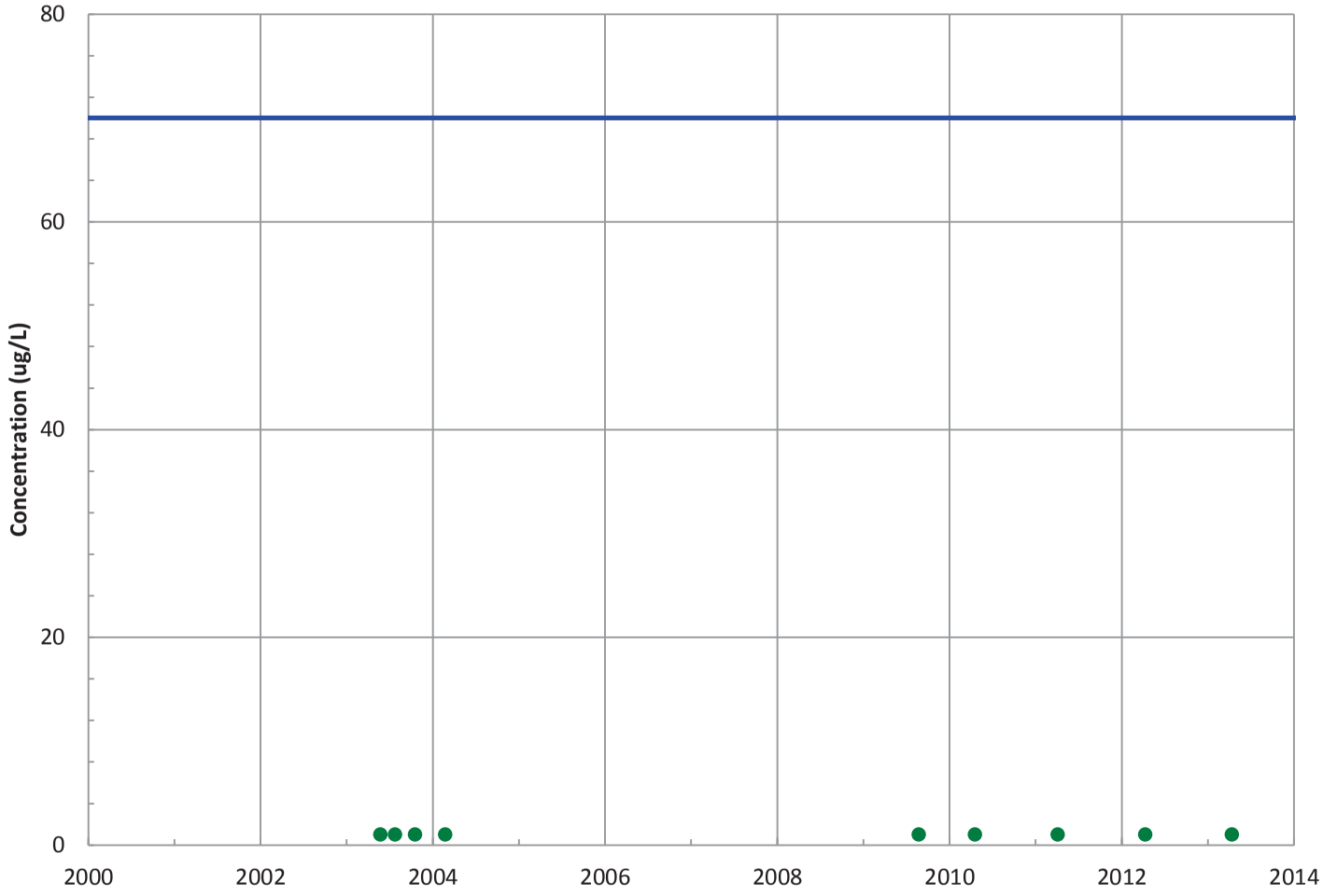
Well Location



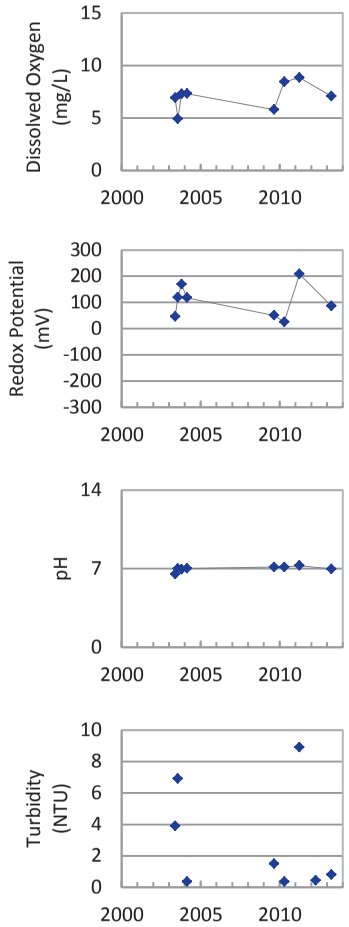
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2003 to 4/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1085
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



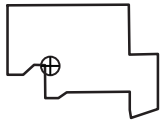
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

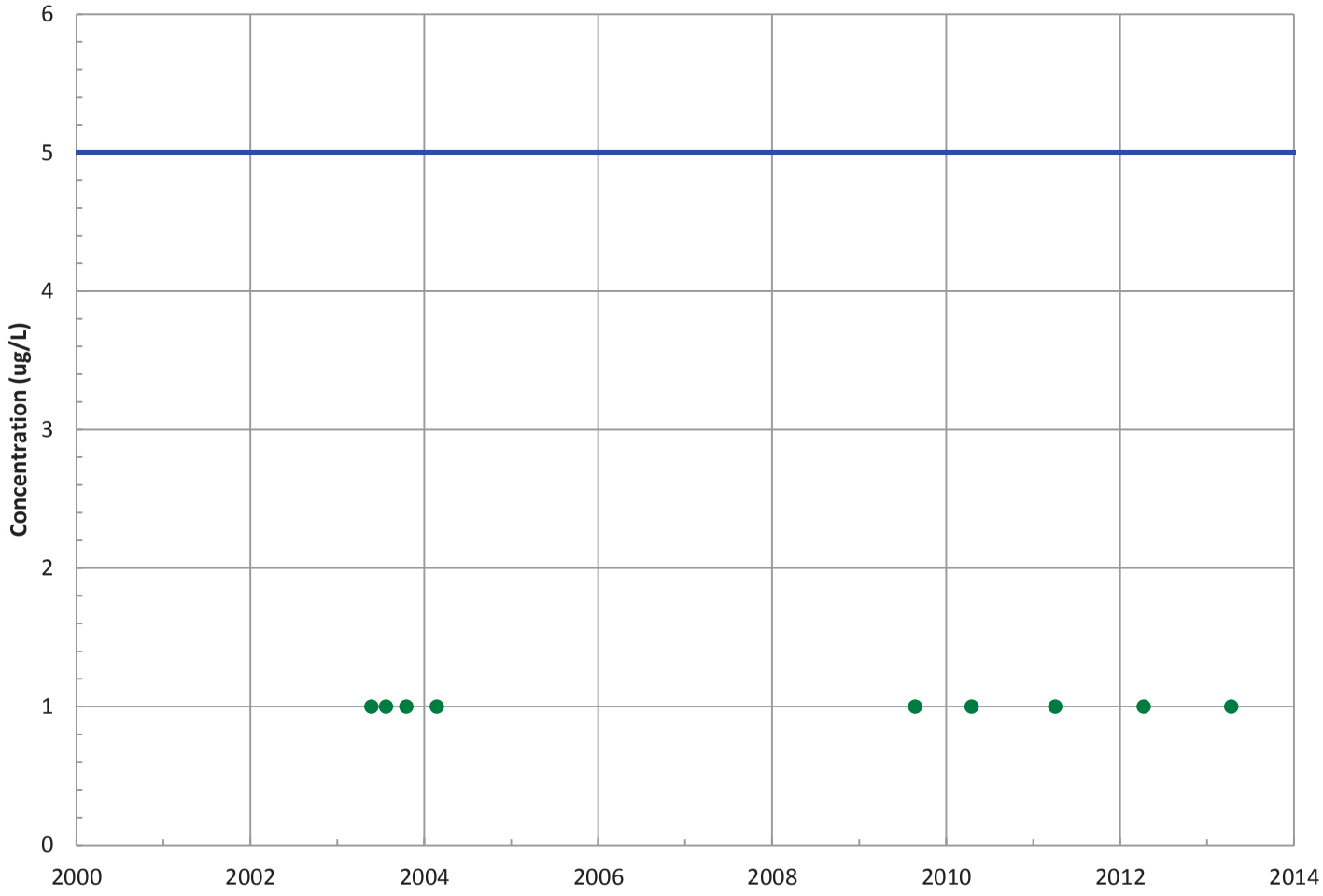
Well Location



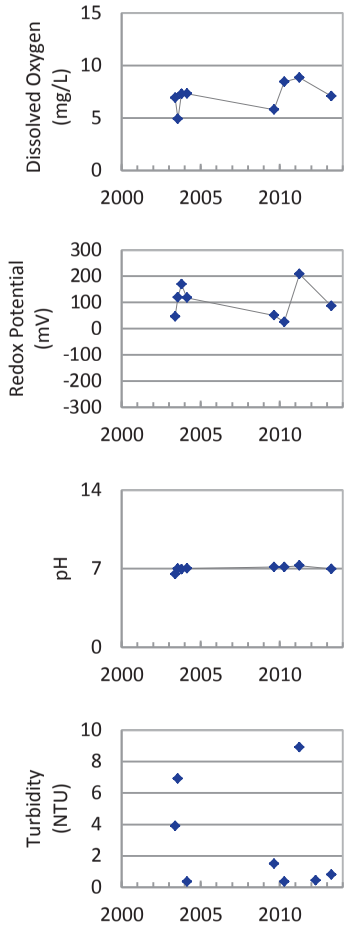
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2003 to 4/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1085
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



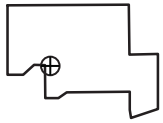
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

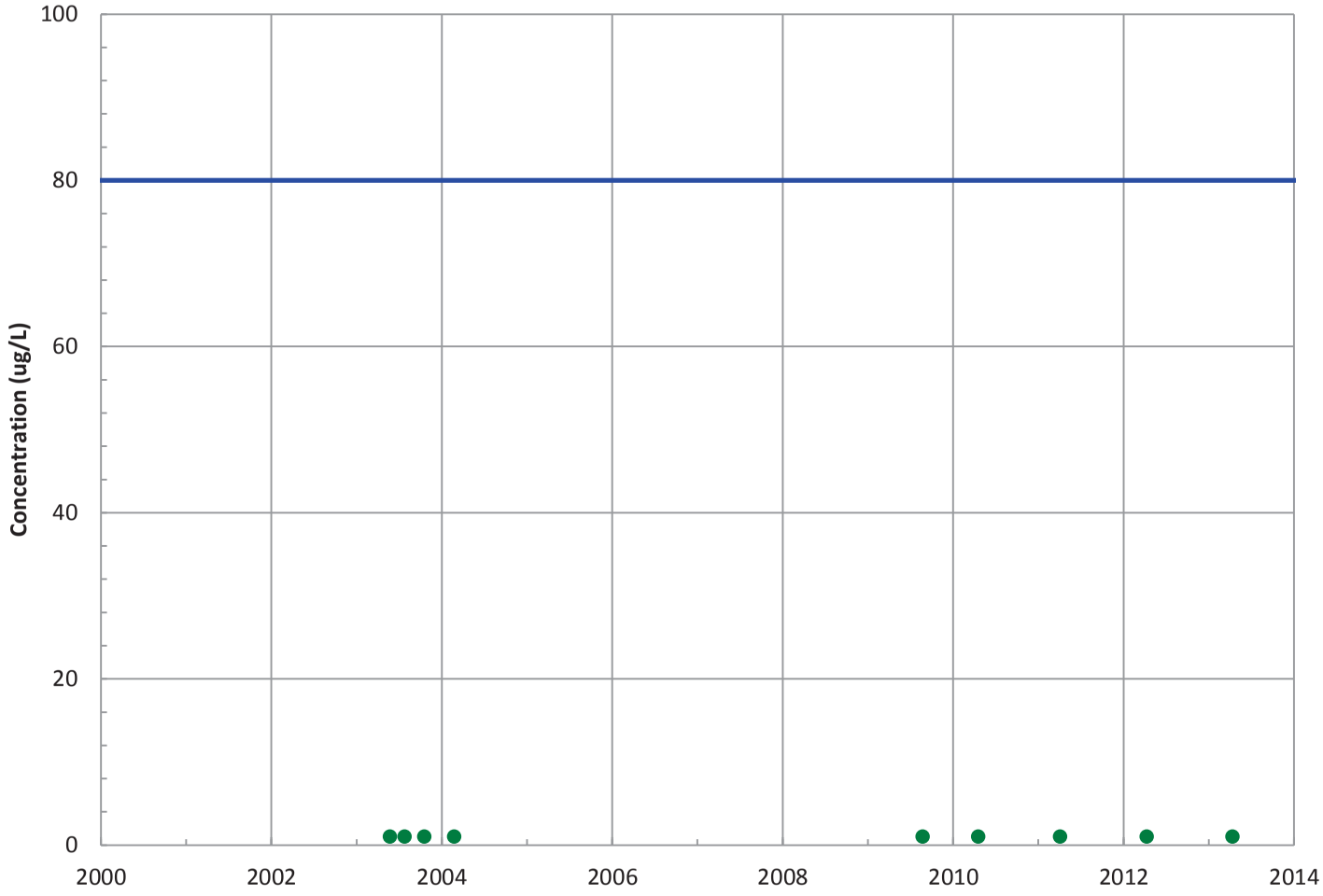
Well Location



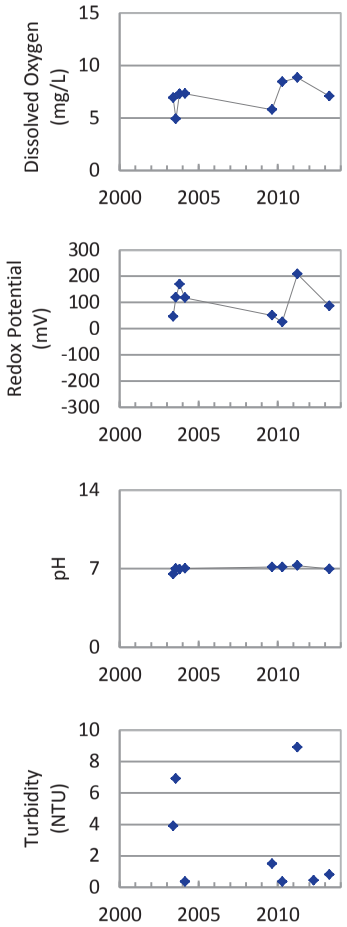
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2003 to 4/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1085
Chloroform Trend in Perched Aquifer



Field Parameters



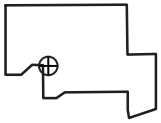
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

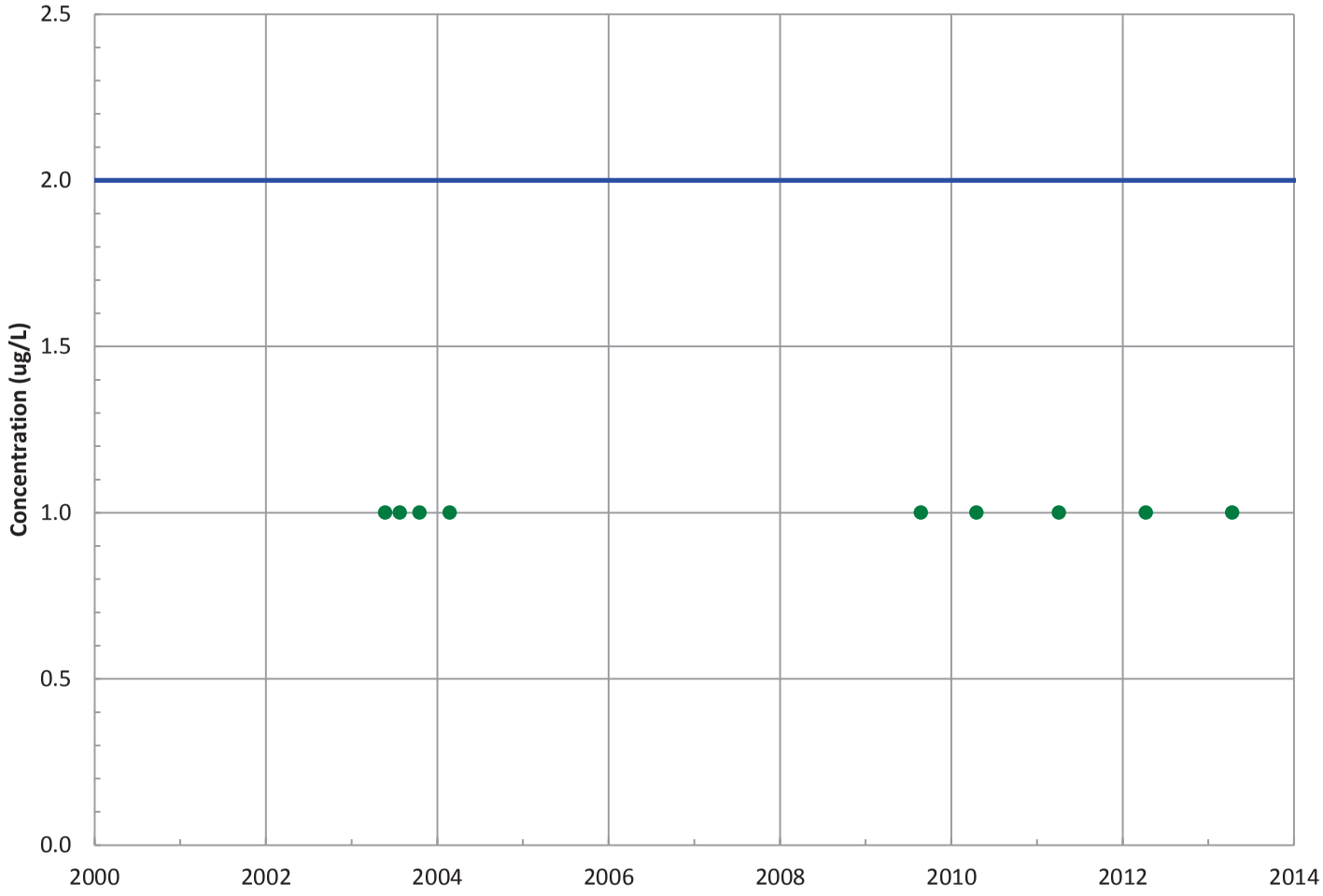
Well Location



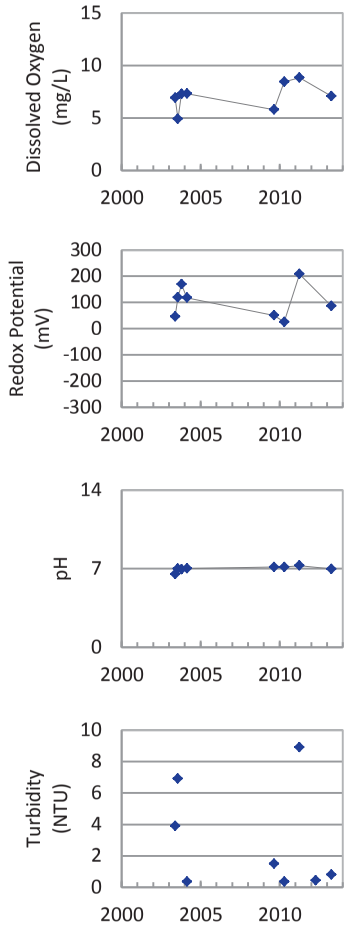
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2003 to 4/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1085
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



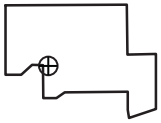
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

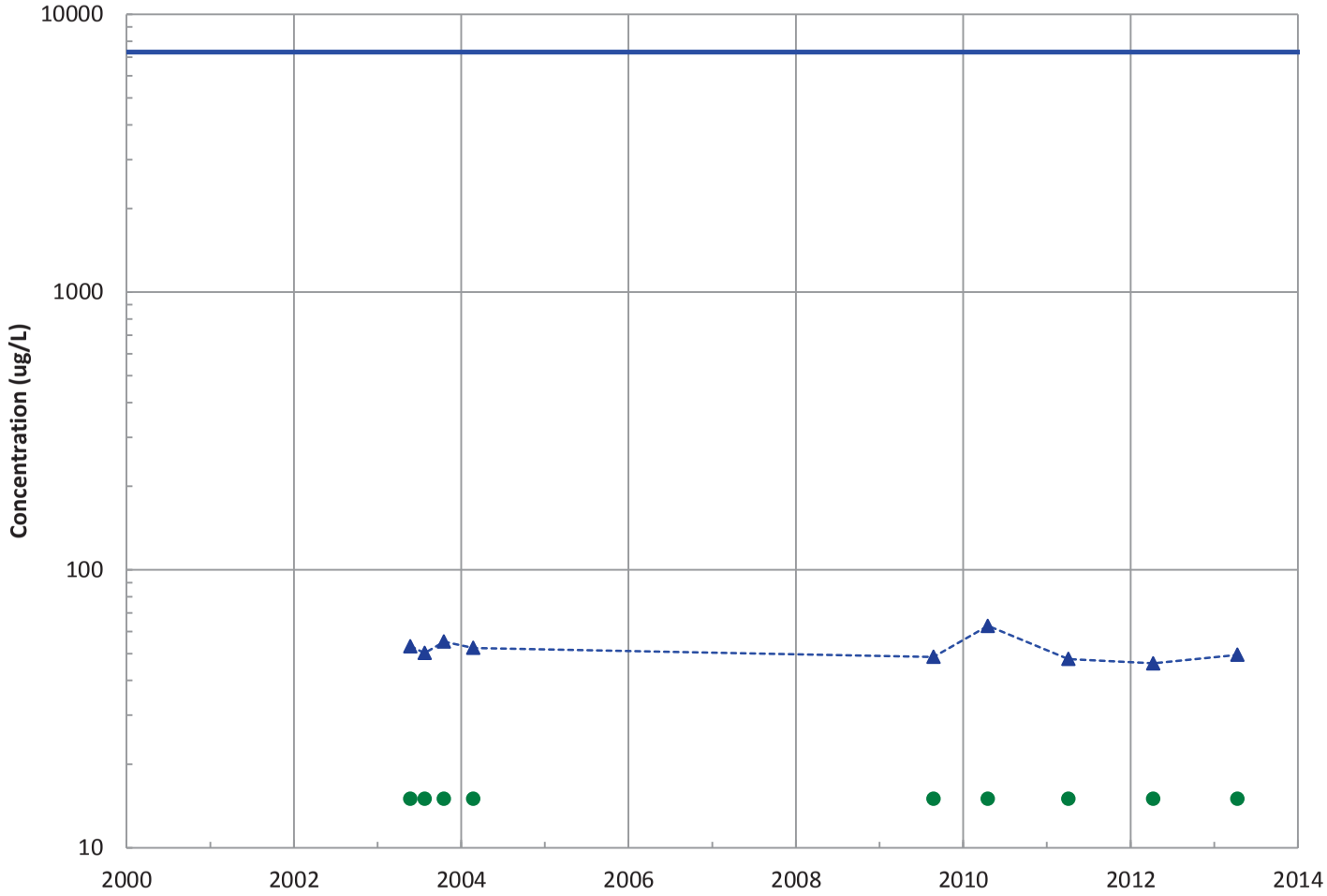
Well Location



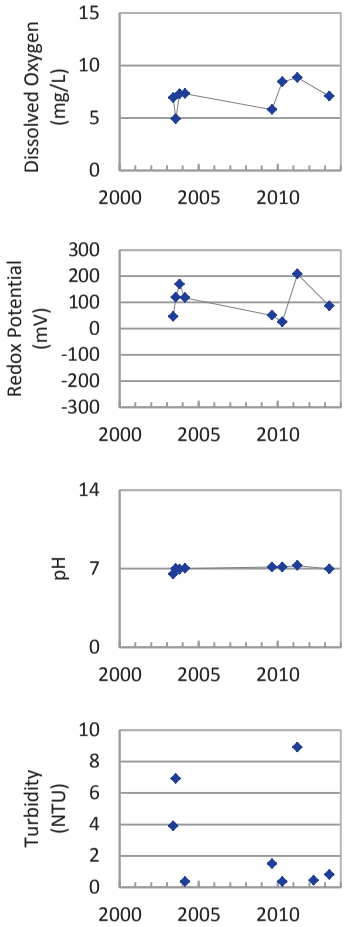
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2003 to 4/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1085
Boron Trend in Perched Aquifer



Field Parameters



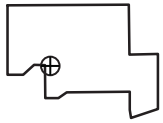
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

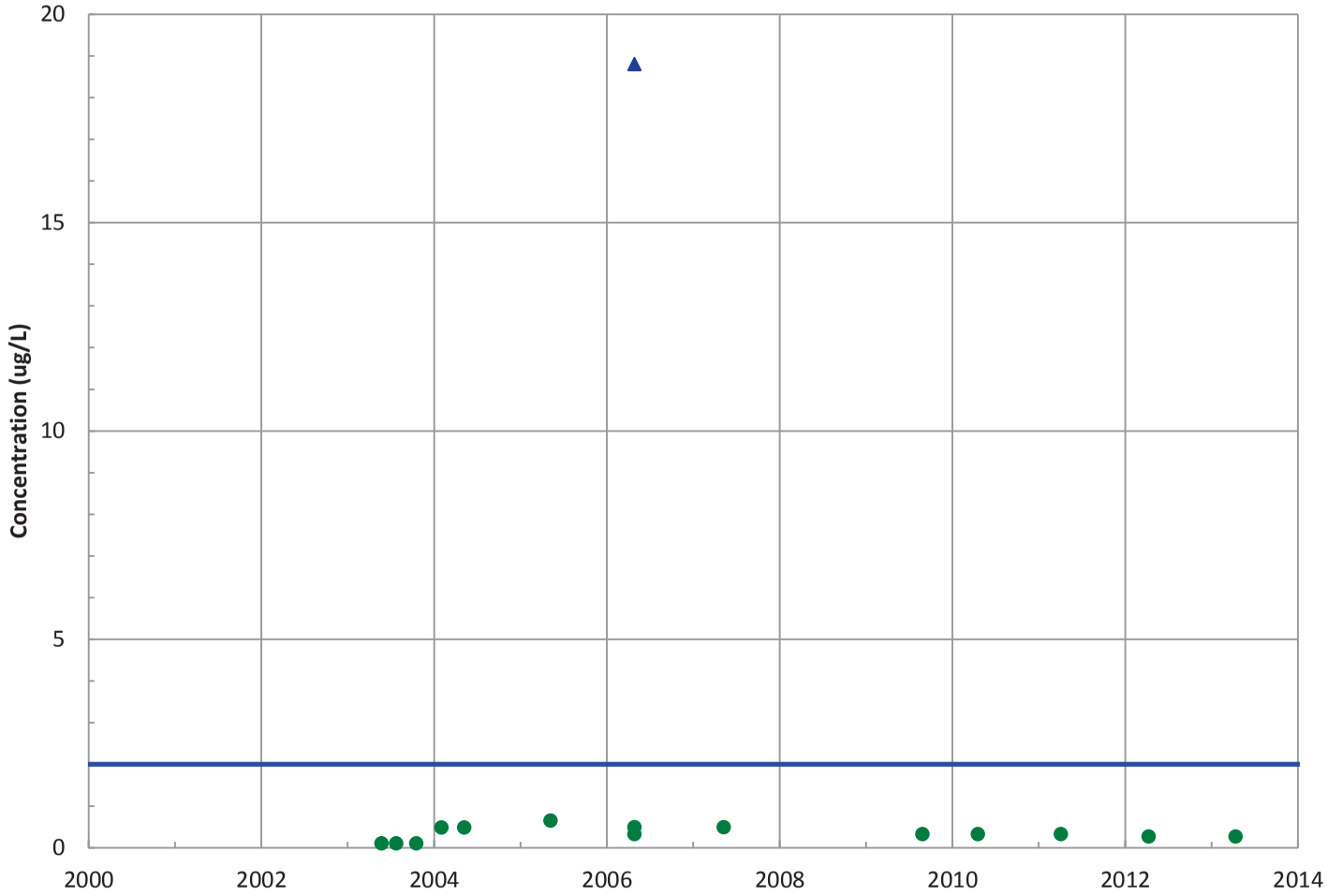
Well Location



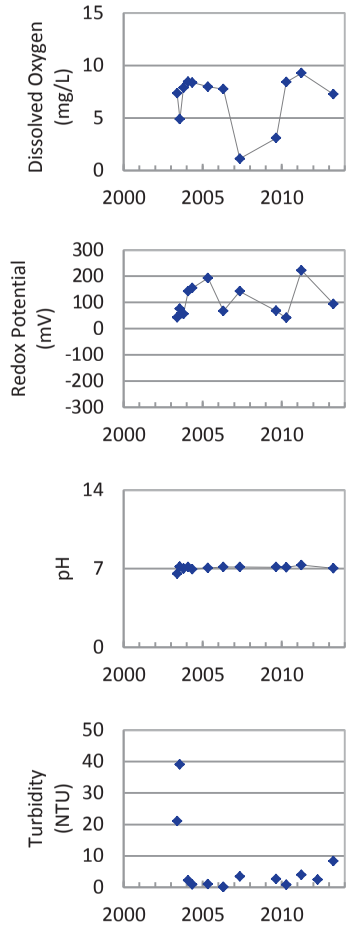
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2003 to 4/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1086
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



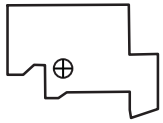
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

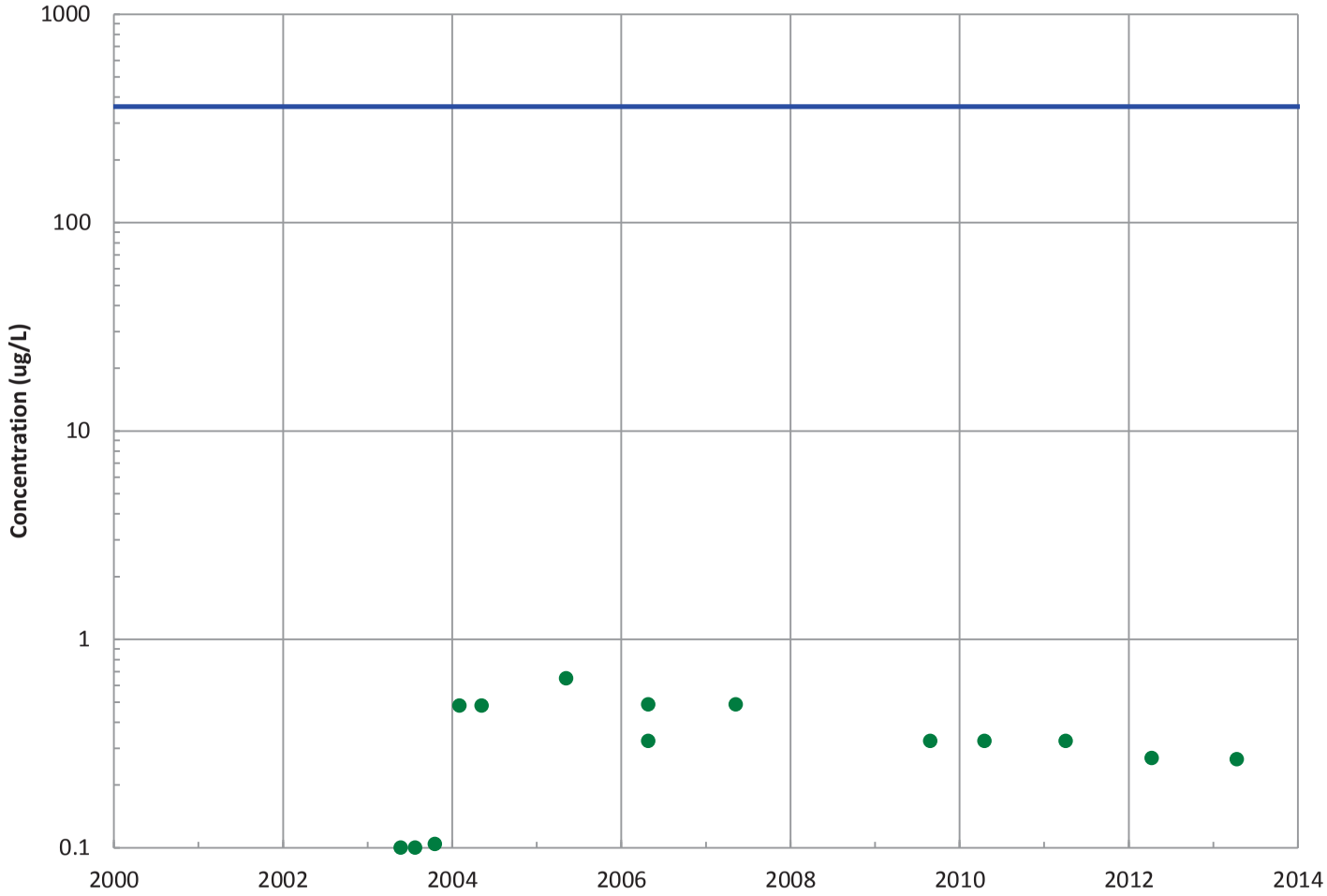
Well Location



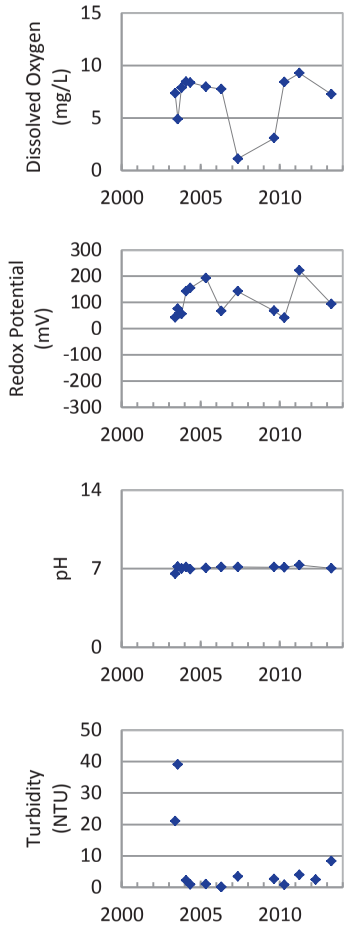
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2003 to 4/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1086
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



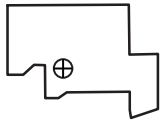
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

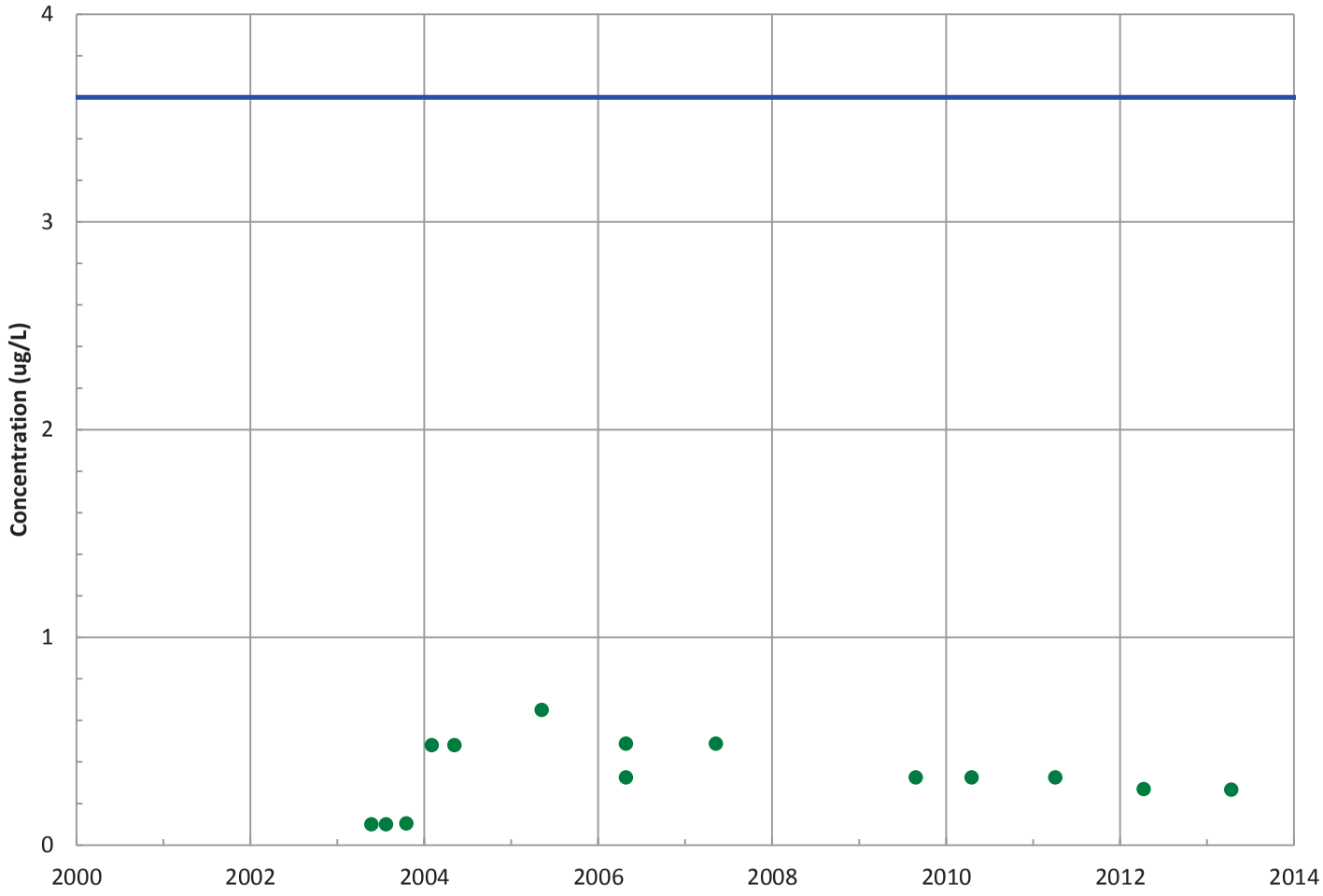
Well Location



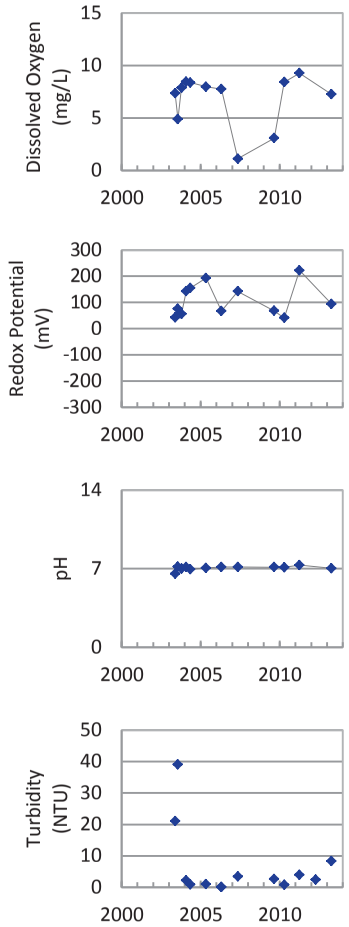
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2003 to 4/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1086
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



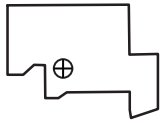
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

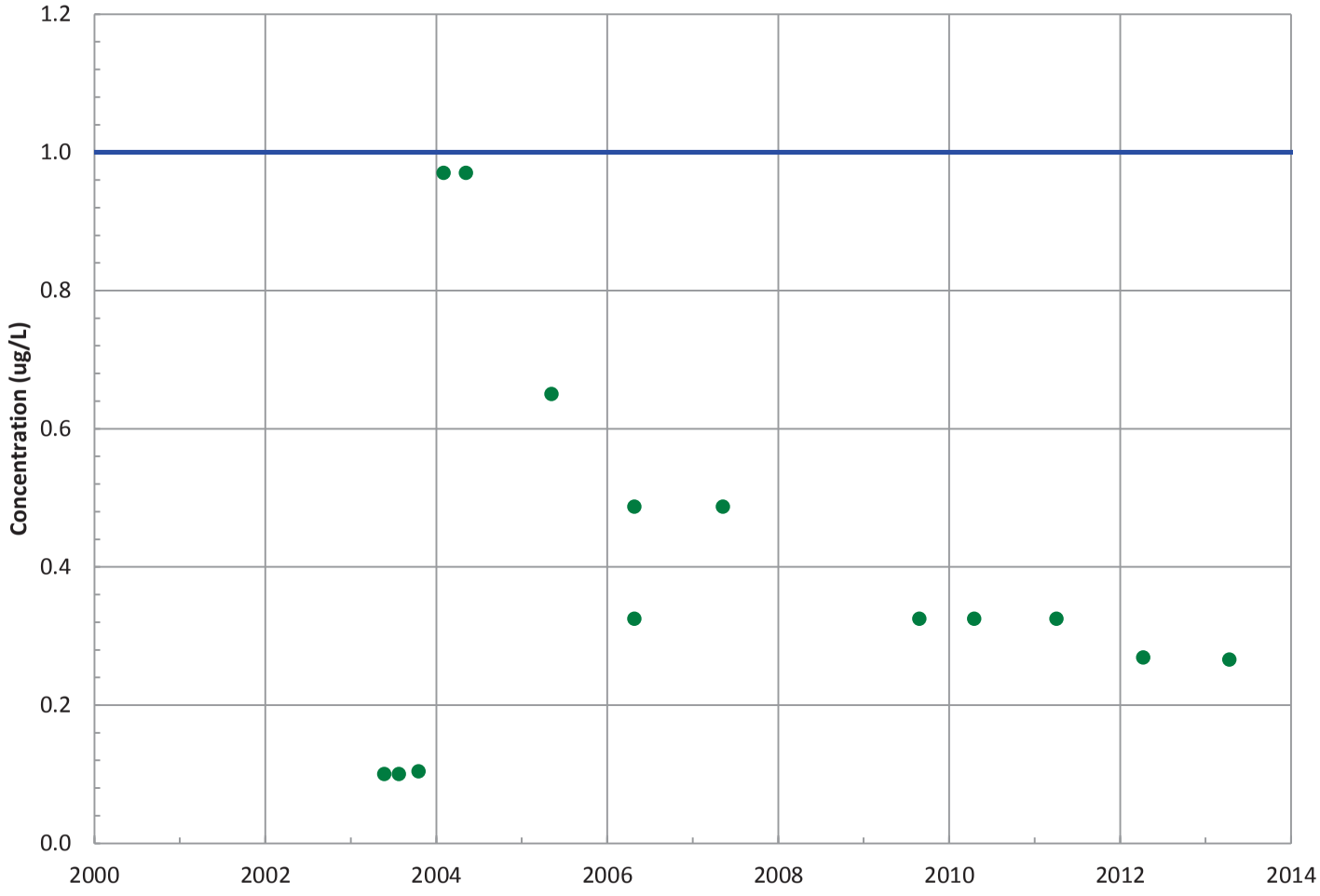
Well Location



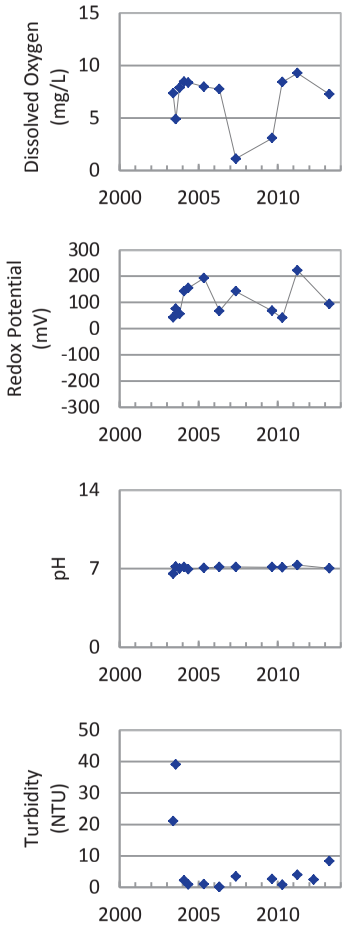
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2003 to 4/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1086
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



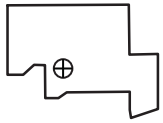
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

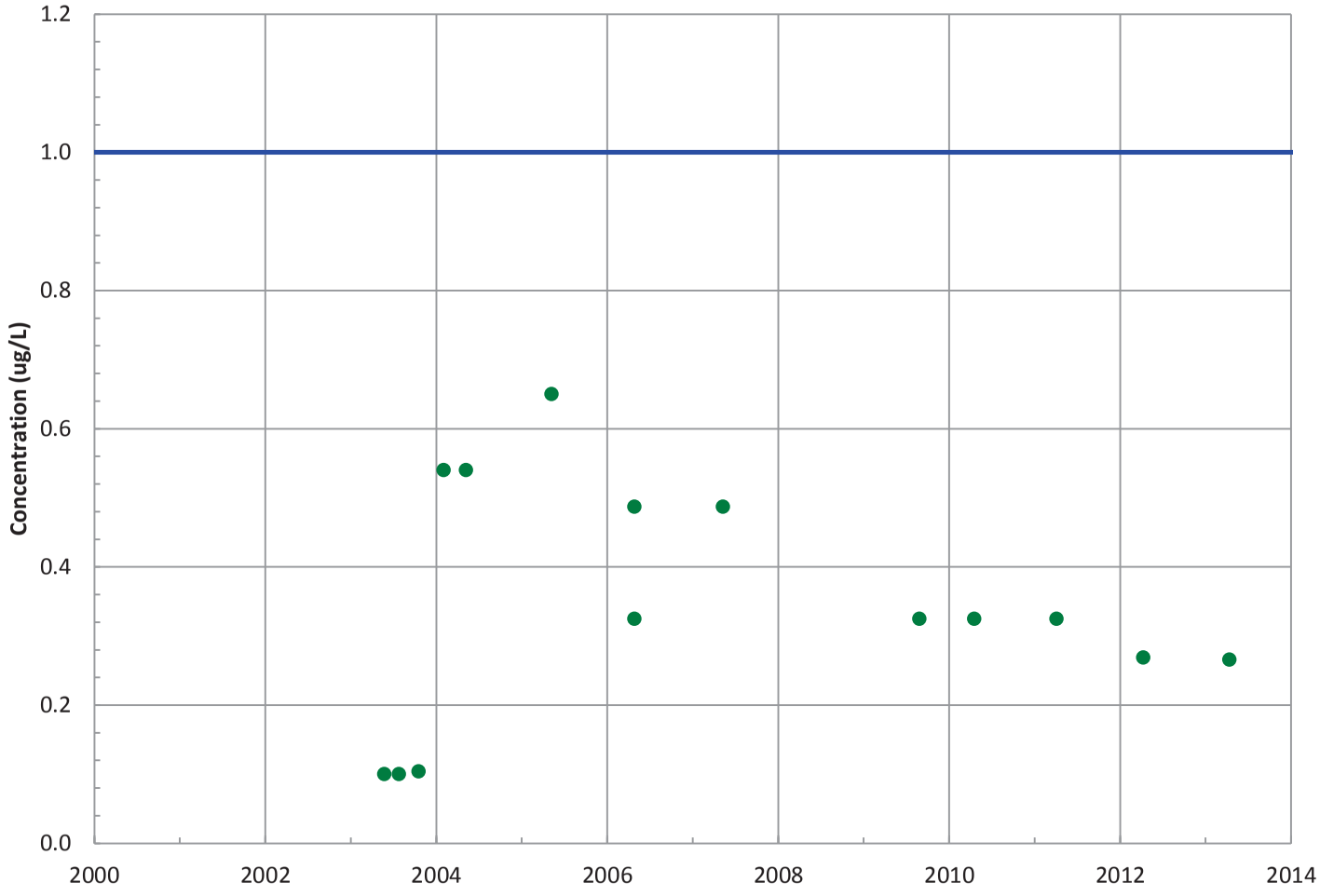
Well Location



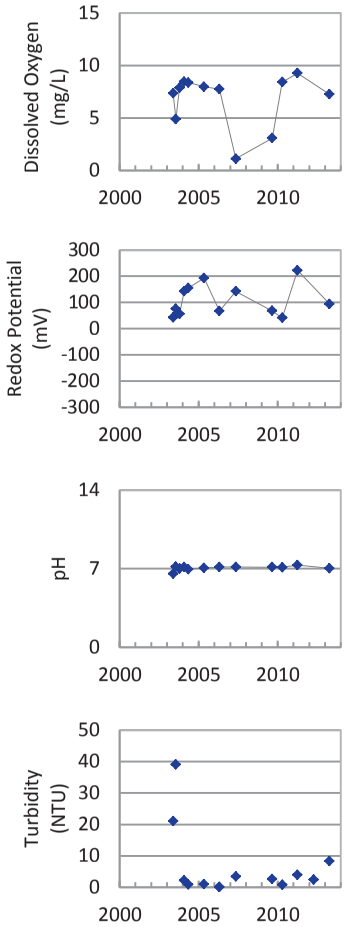
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2003 to 4/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1086
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



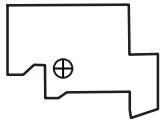
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

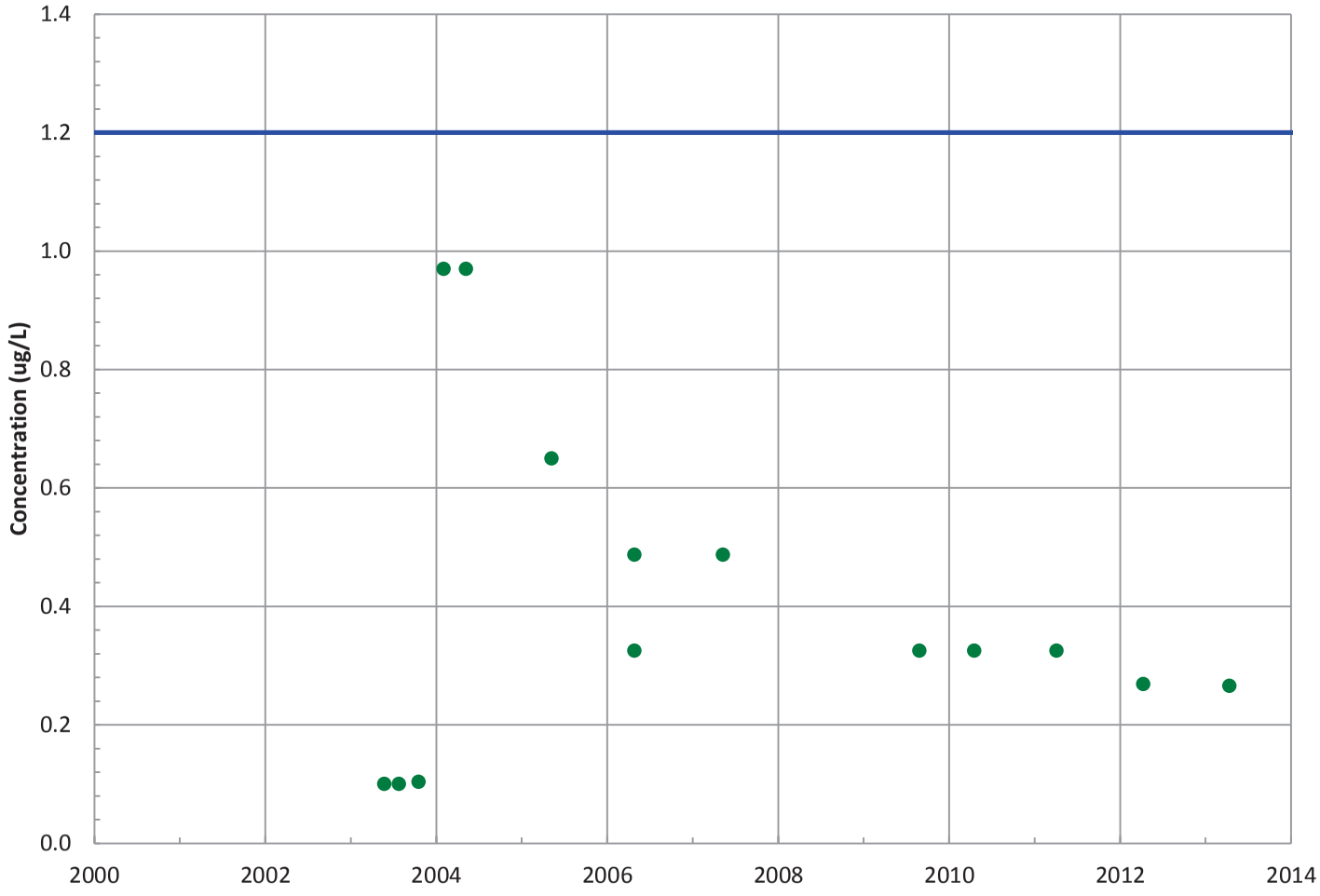
Well Location



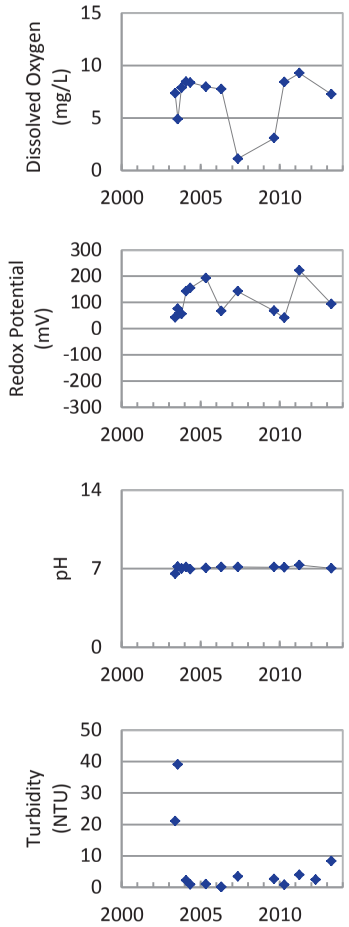
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2003 to 4/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1086
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



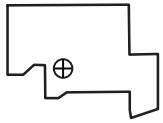
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

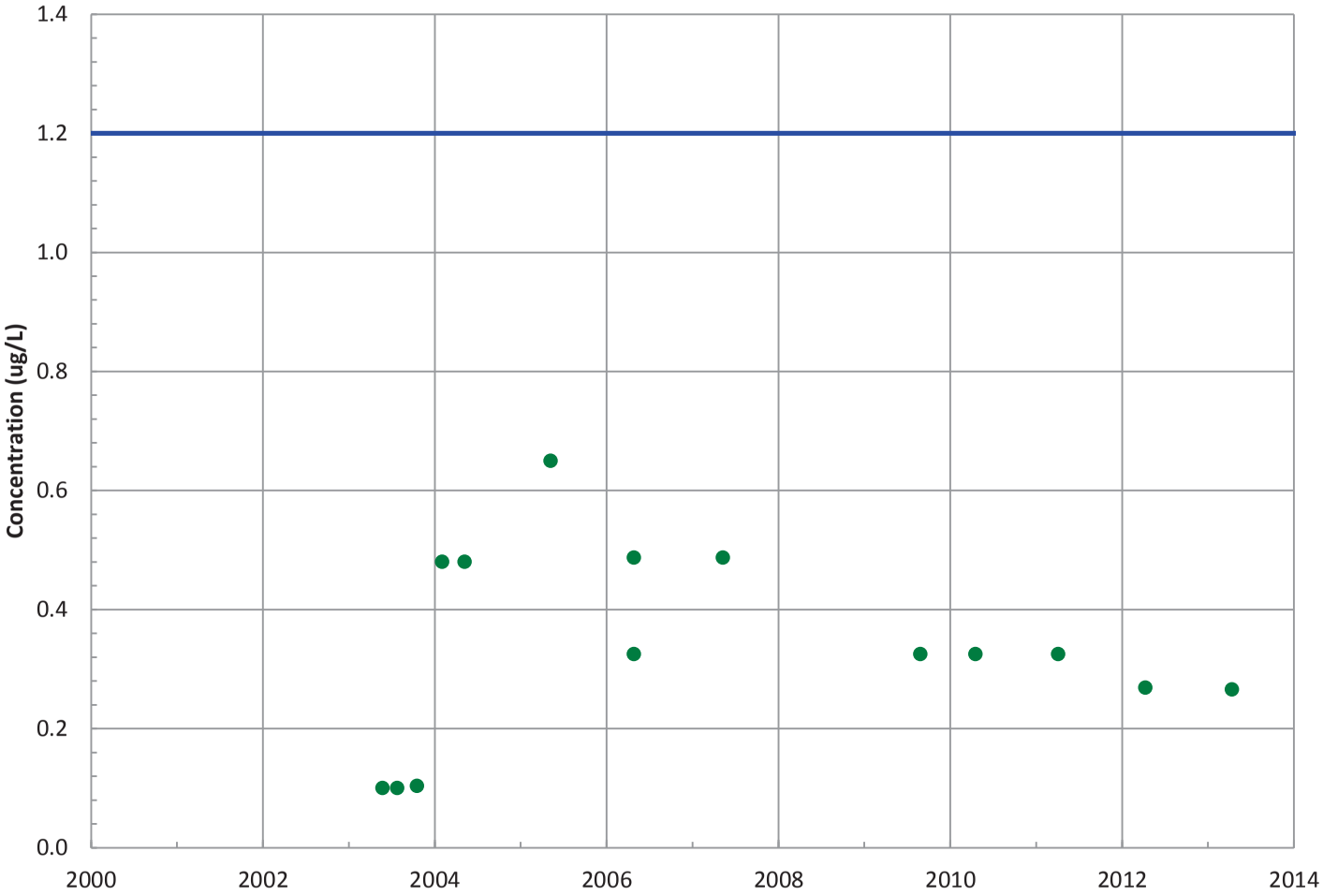
Well Location



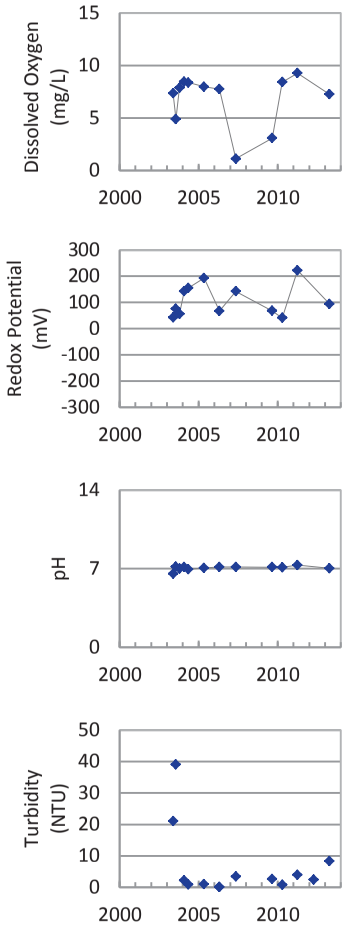
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2003 to 4/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1086
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



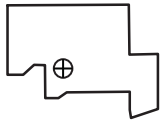
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

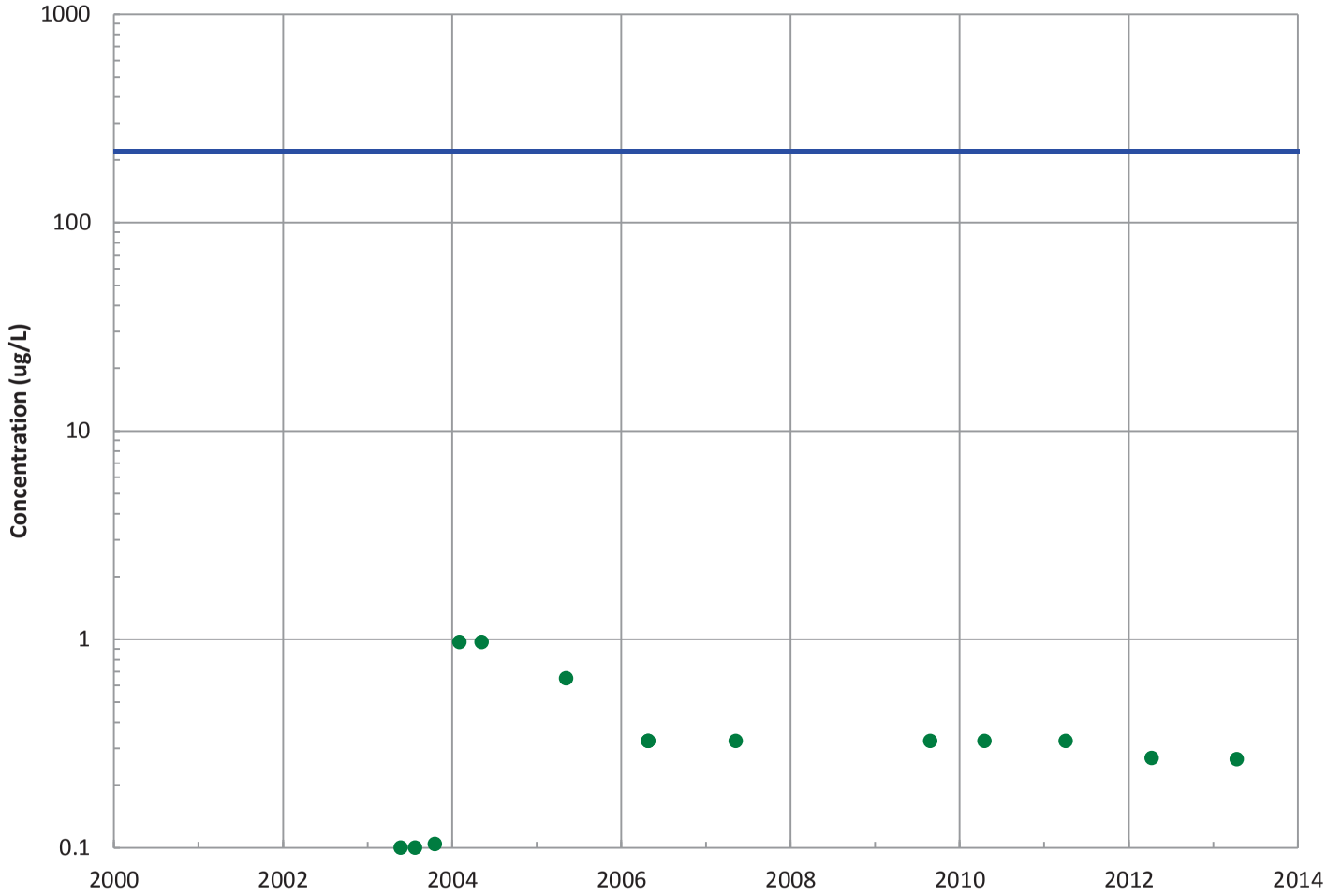
Well Location



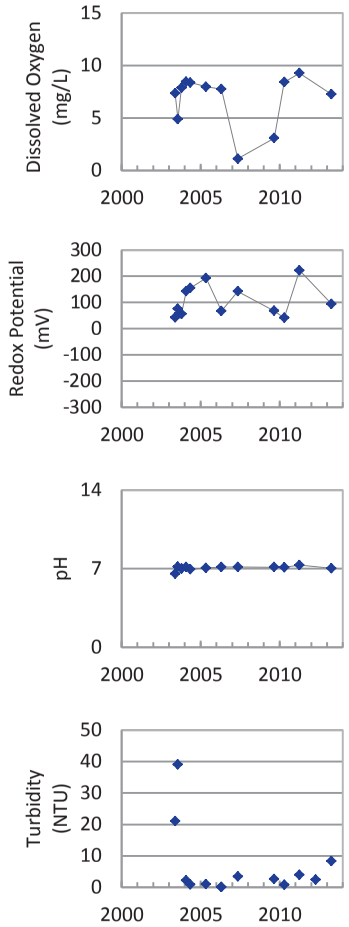
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2003 to 4/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1086
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



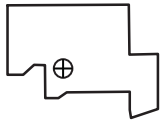
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

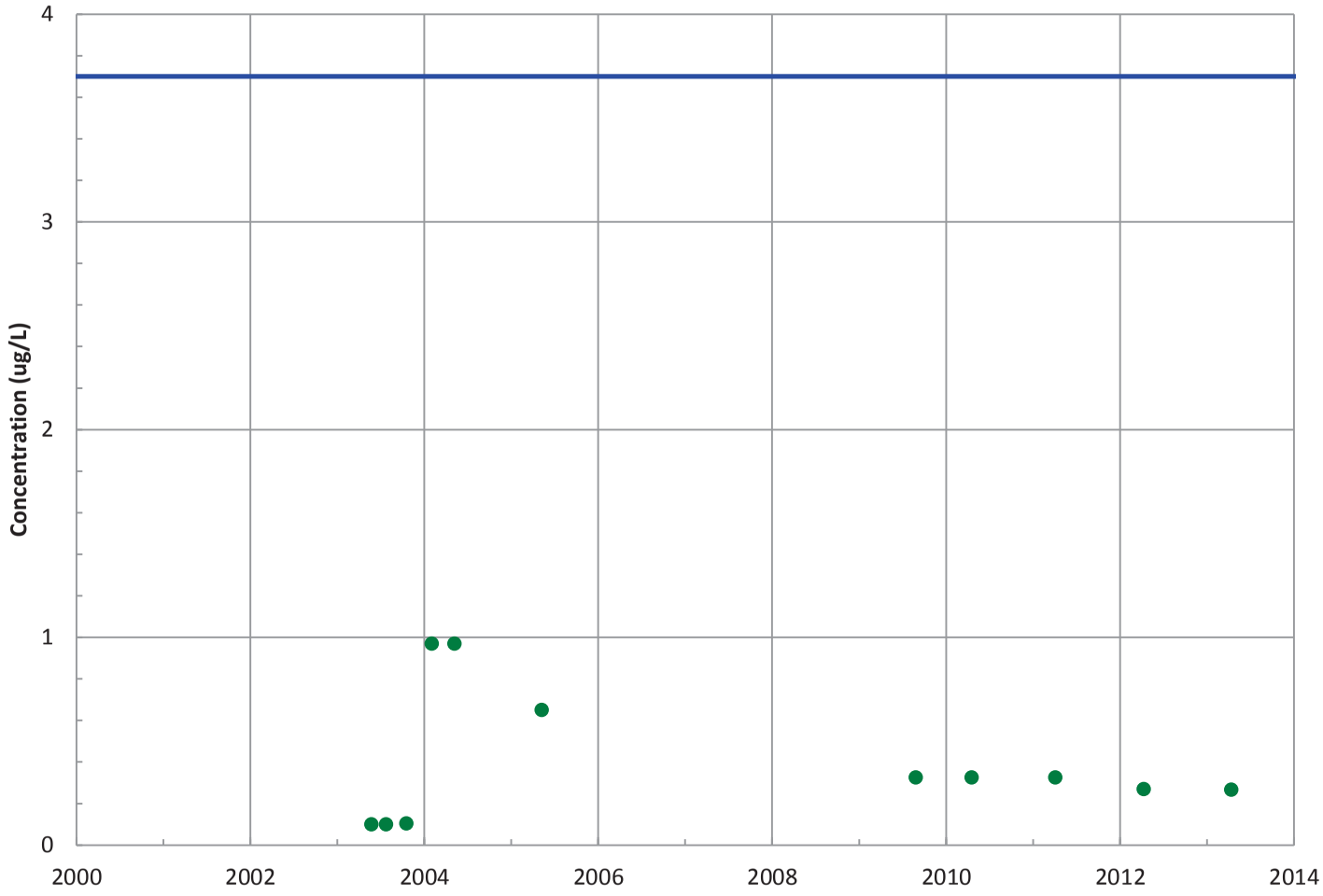
Well Location



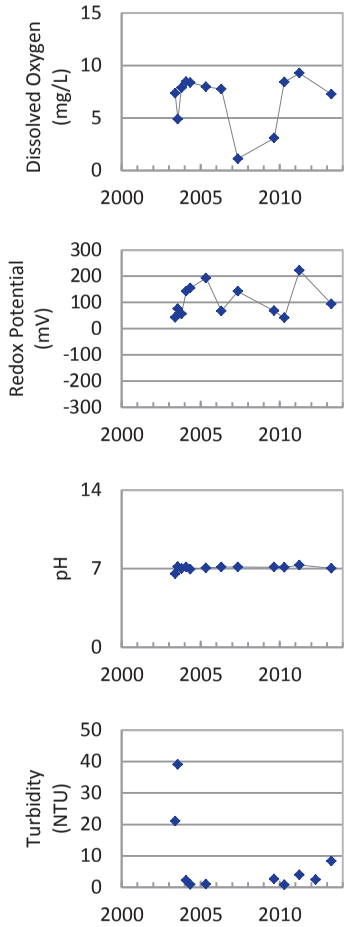
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2003 to 4/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1086
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



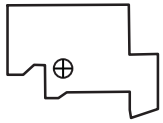
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

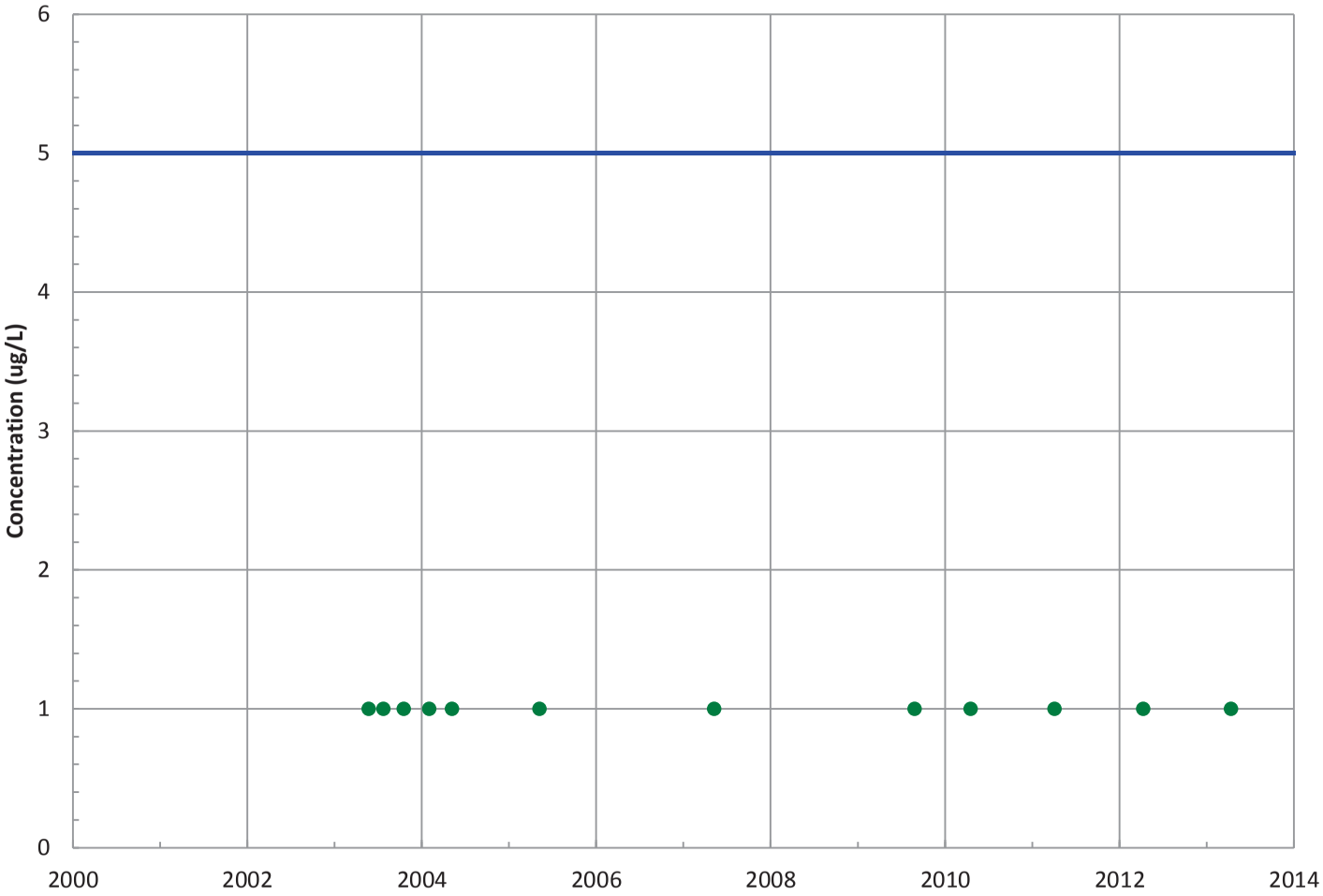
Well Location



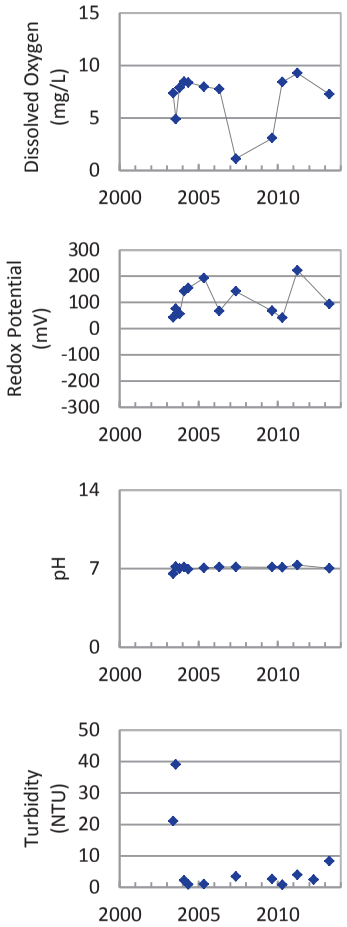
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2003 to 4/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1086
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



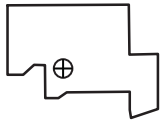
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

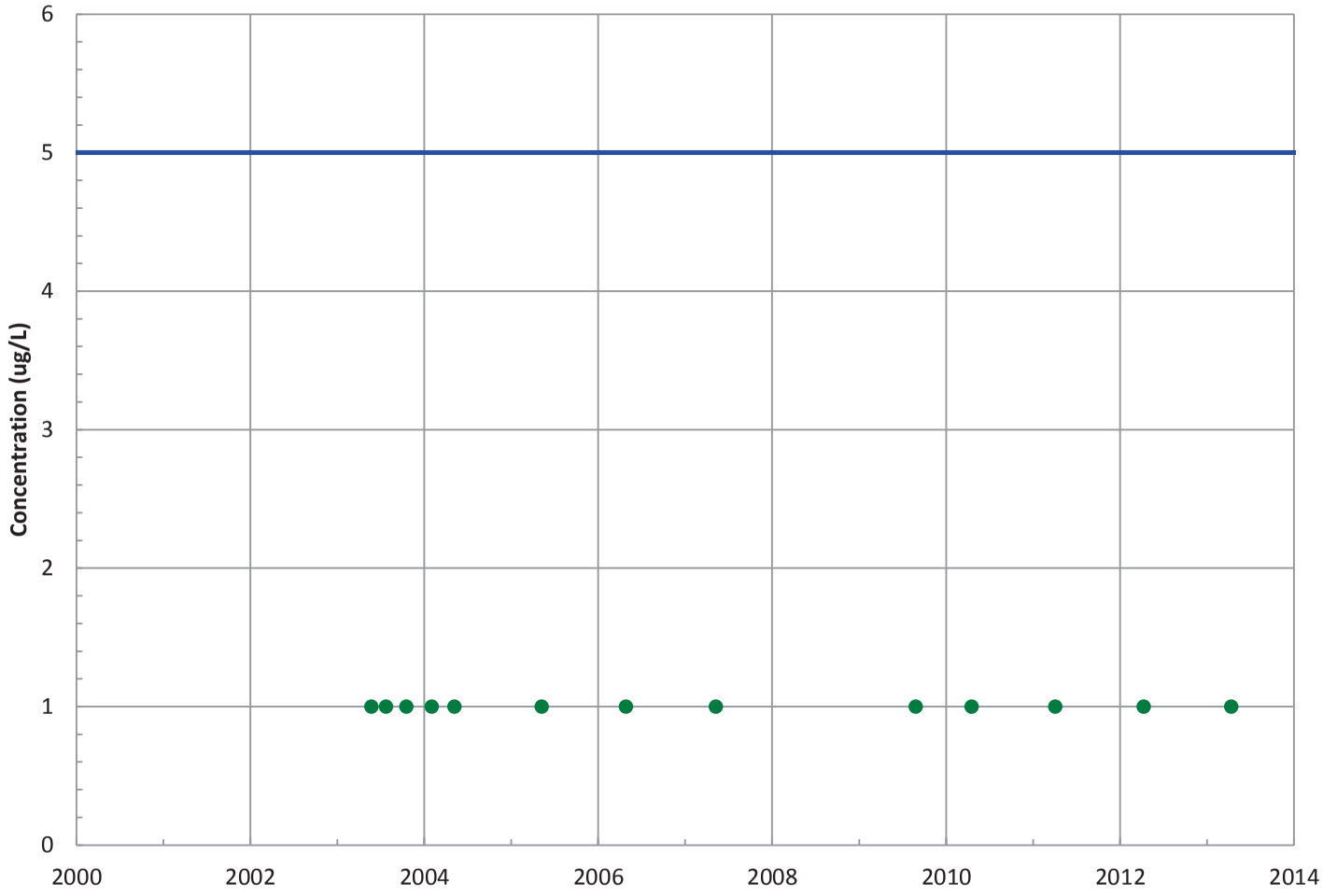
Well Location



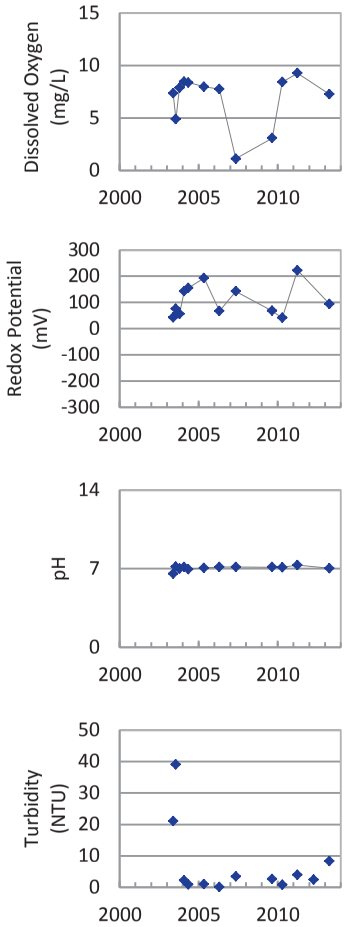
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2003 to 4/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1086
Trichloroethene Trend in Perched Aquifer



Field Parameters



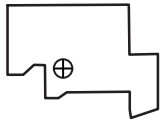
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

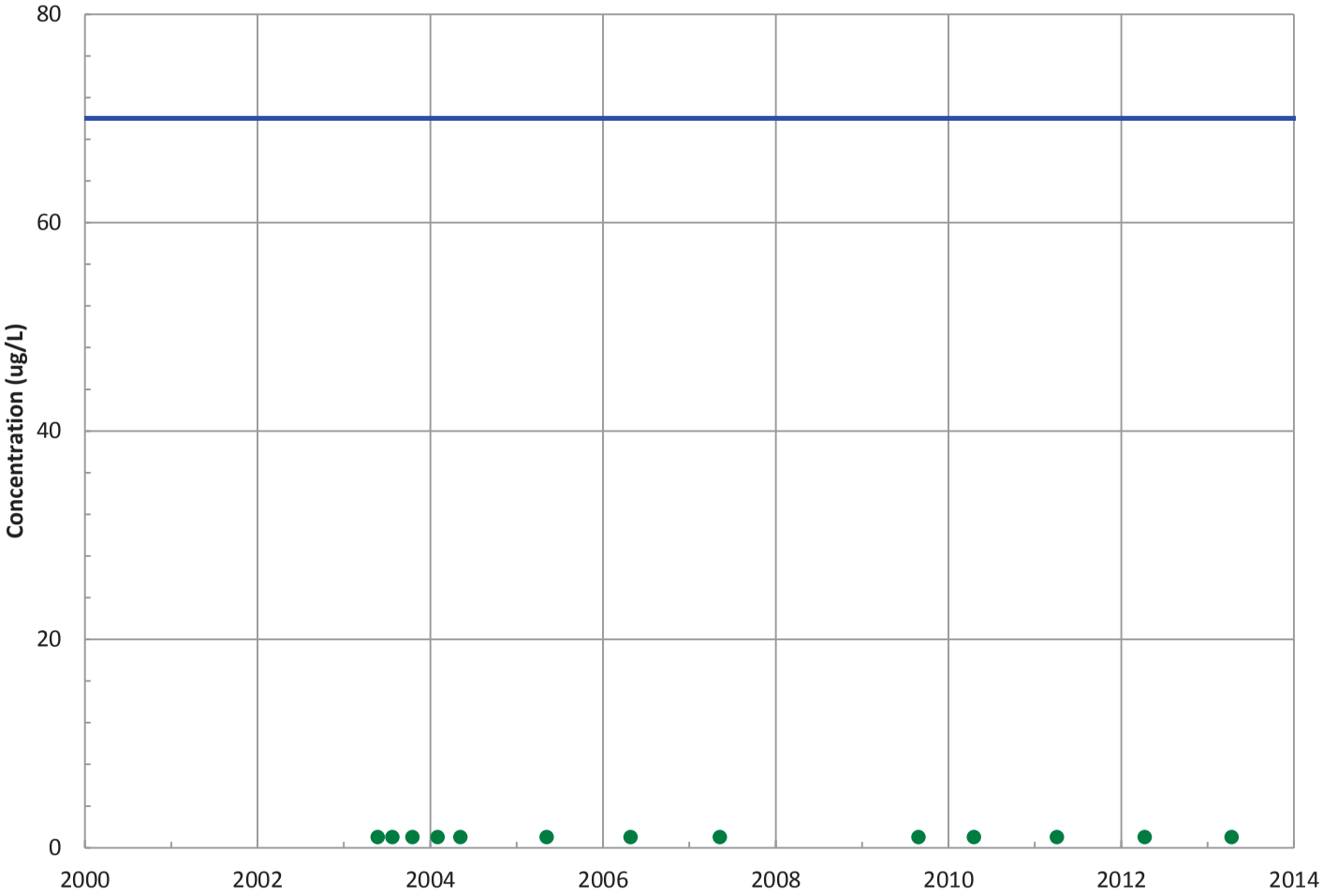
Well Location



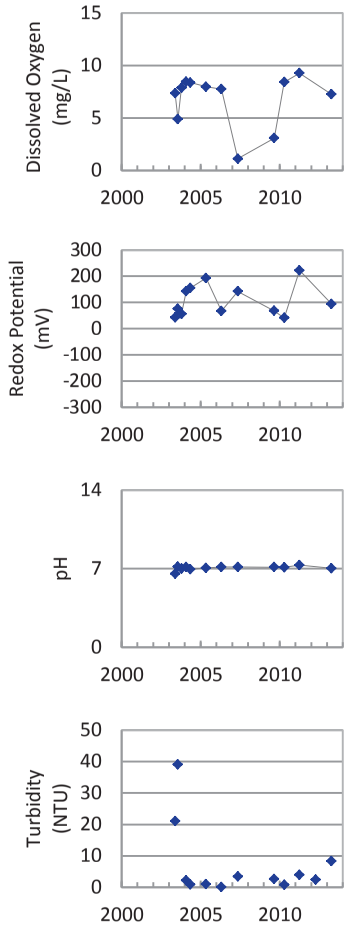
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2003 to 4/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1086
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



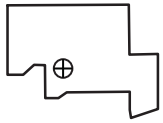
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

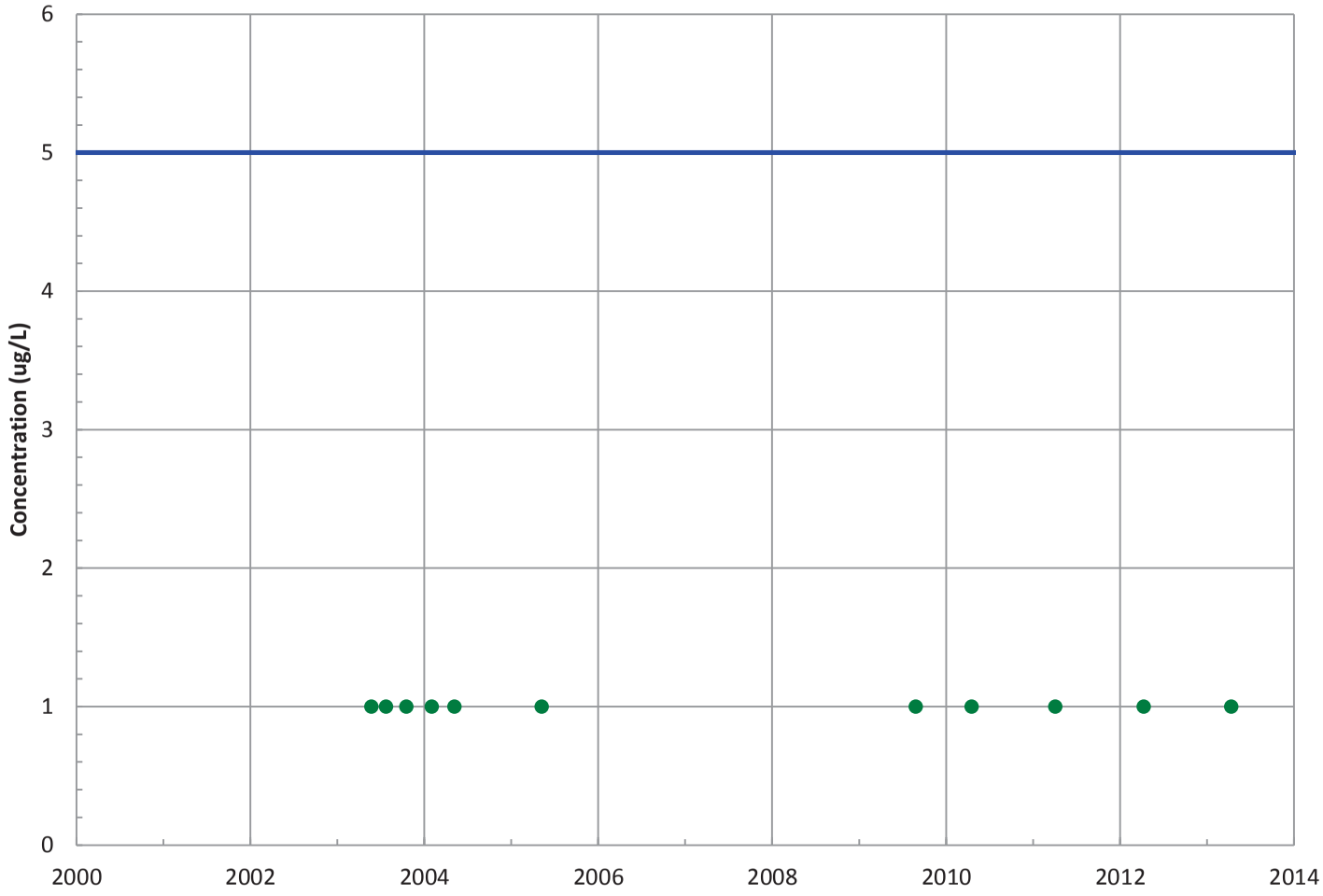
Well Location



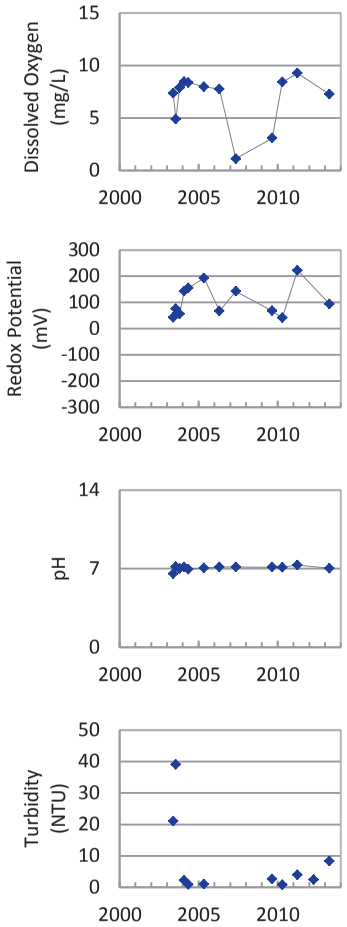
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2003 to 4/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1086
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



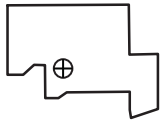
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

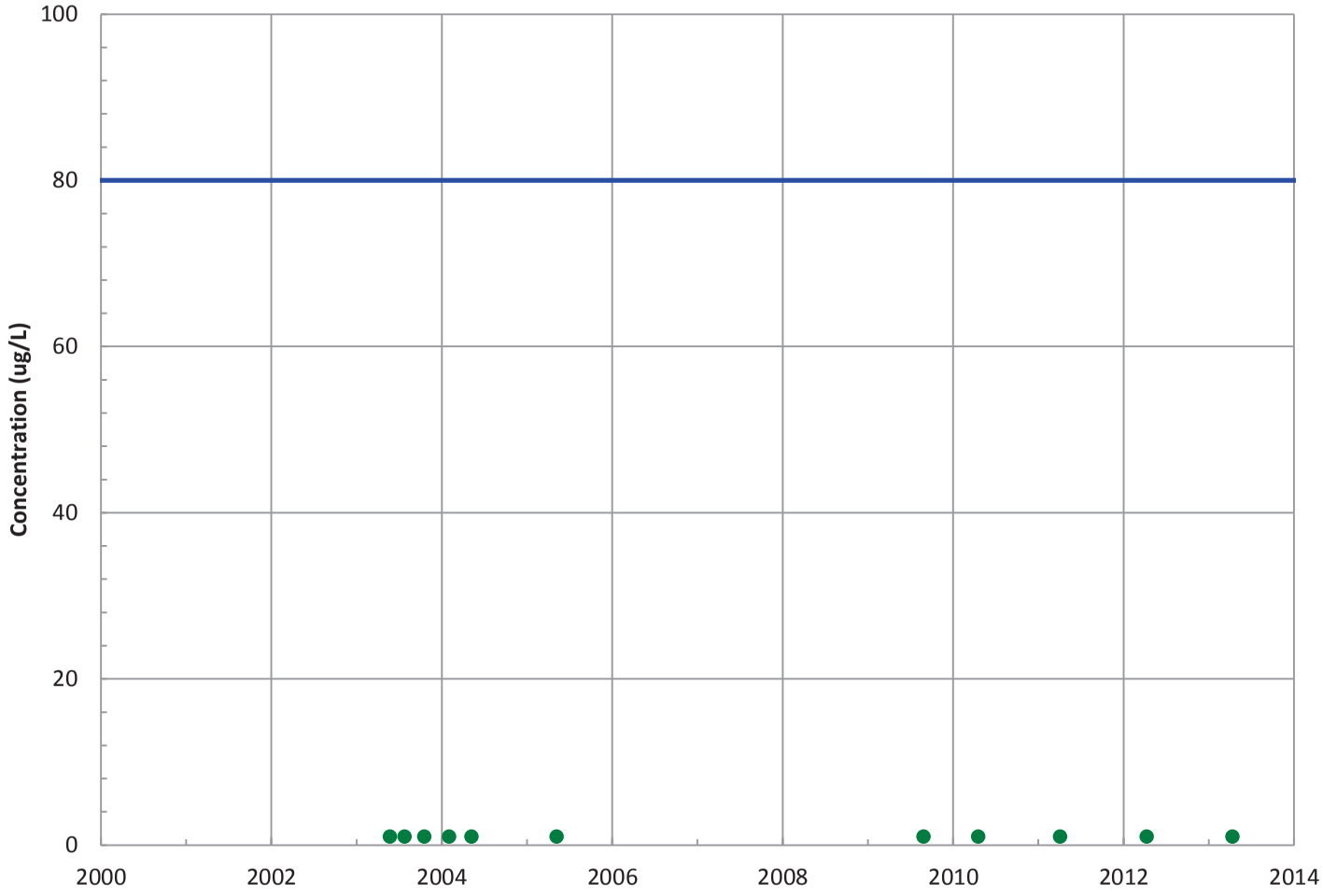
Well Location



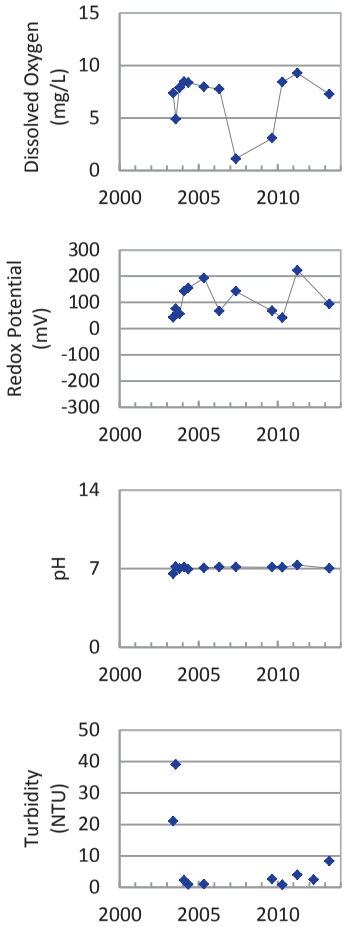
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2003 to 4/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1086
Chloroform Trend in Perched Aquifer



Field Parameters



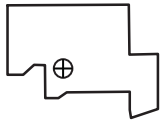
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

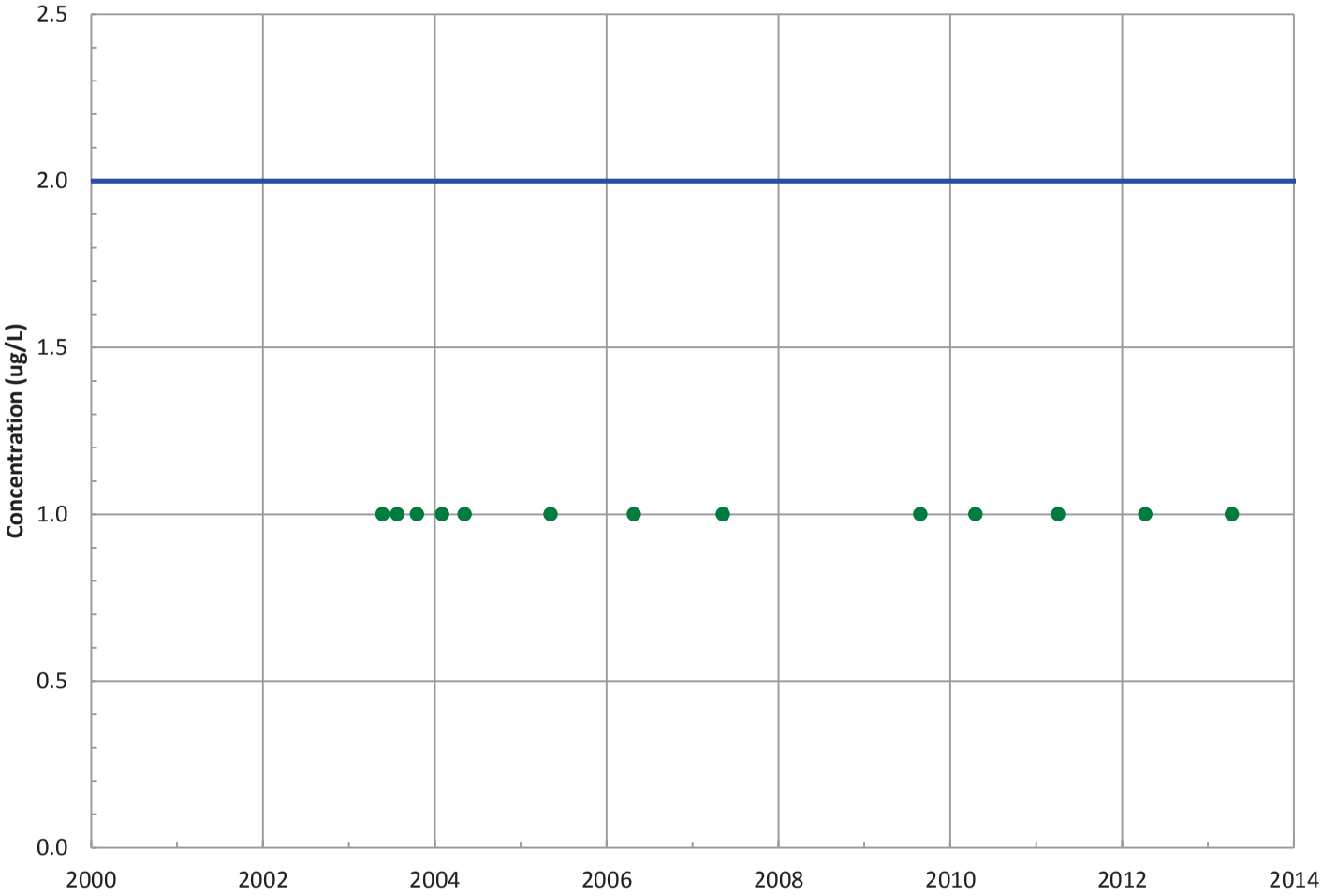
Well Location



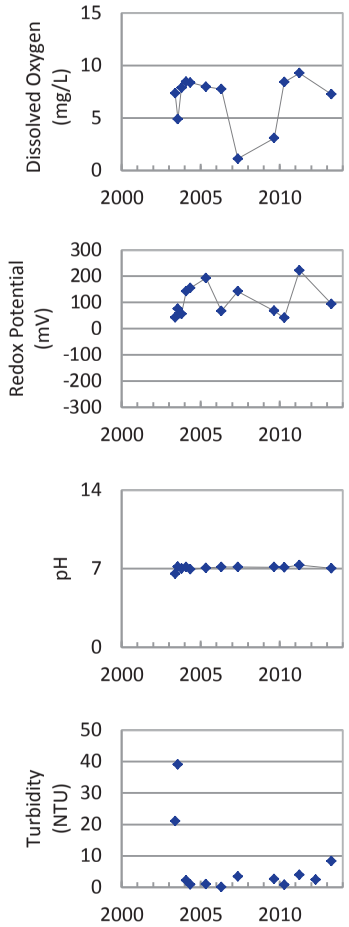
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2003 to 4/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1086
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



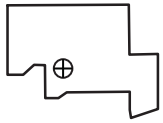
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

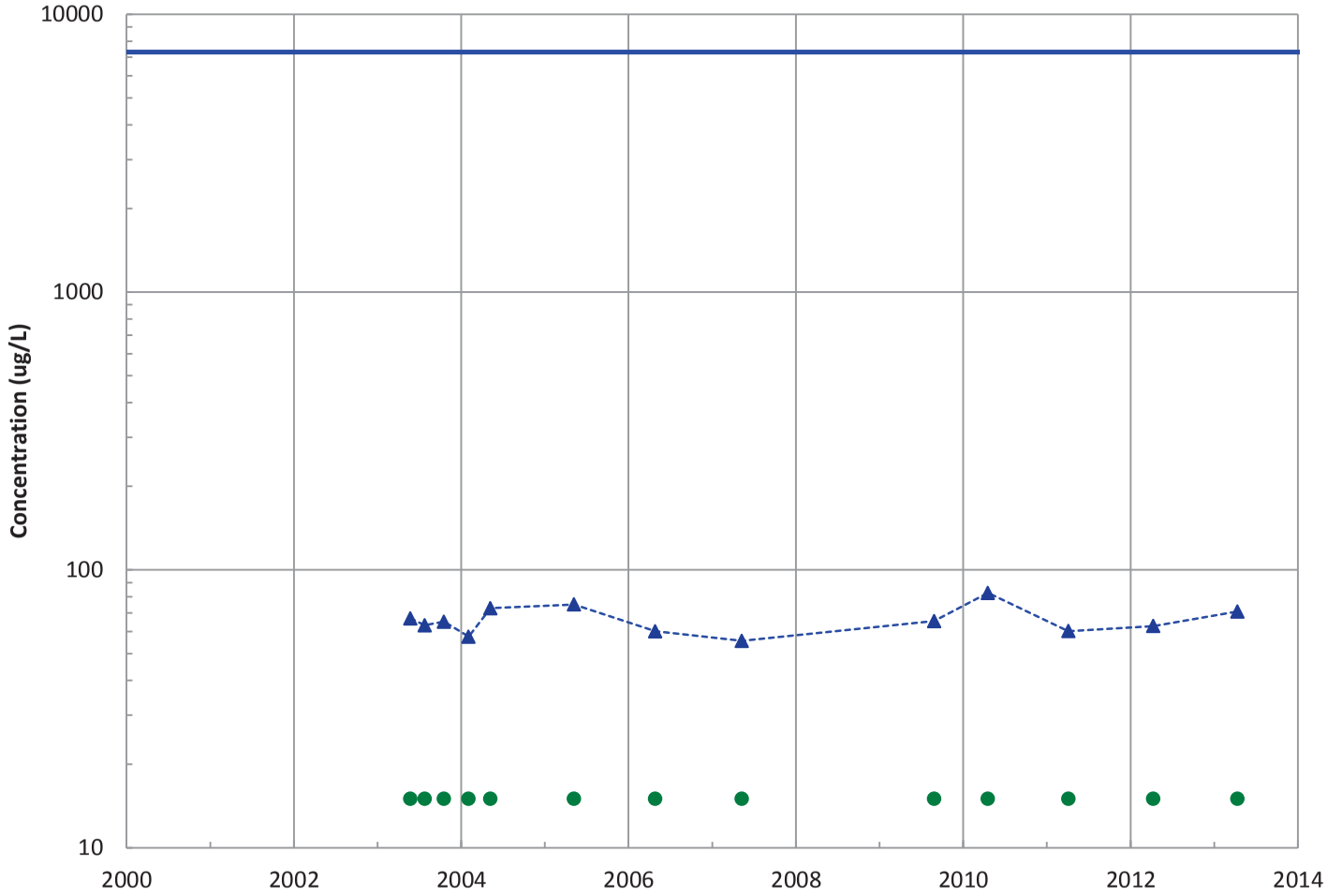
Well Location



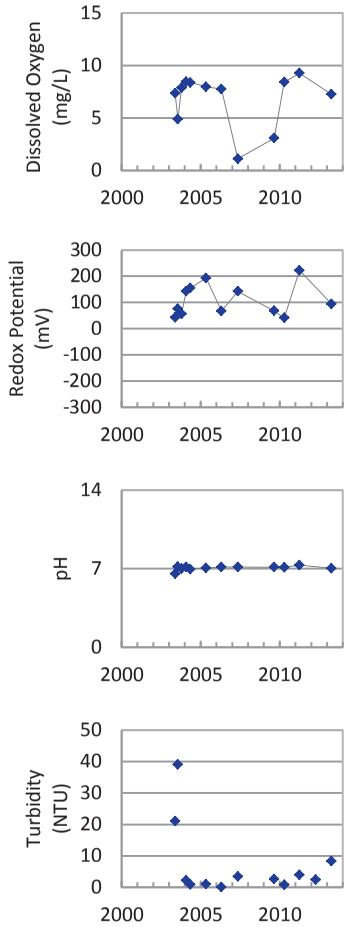
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2003 to 4/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1086
Boron Trend in Perched Aquifer



Field Parameters



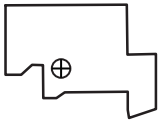
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

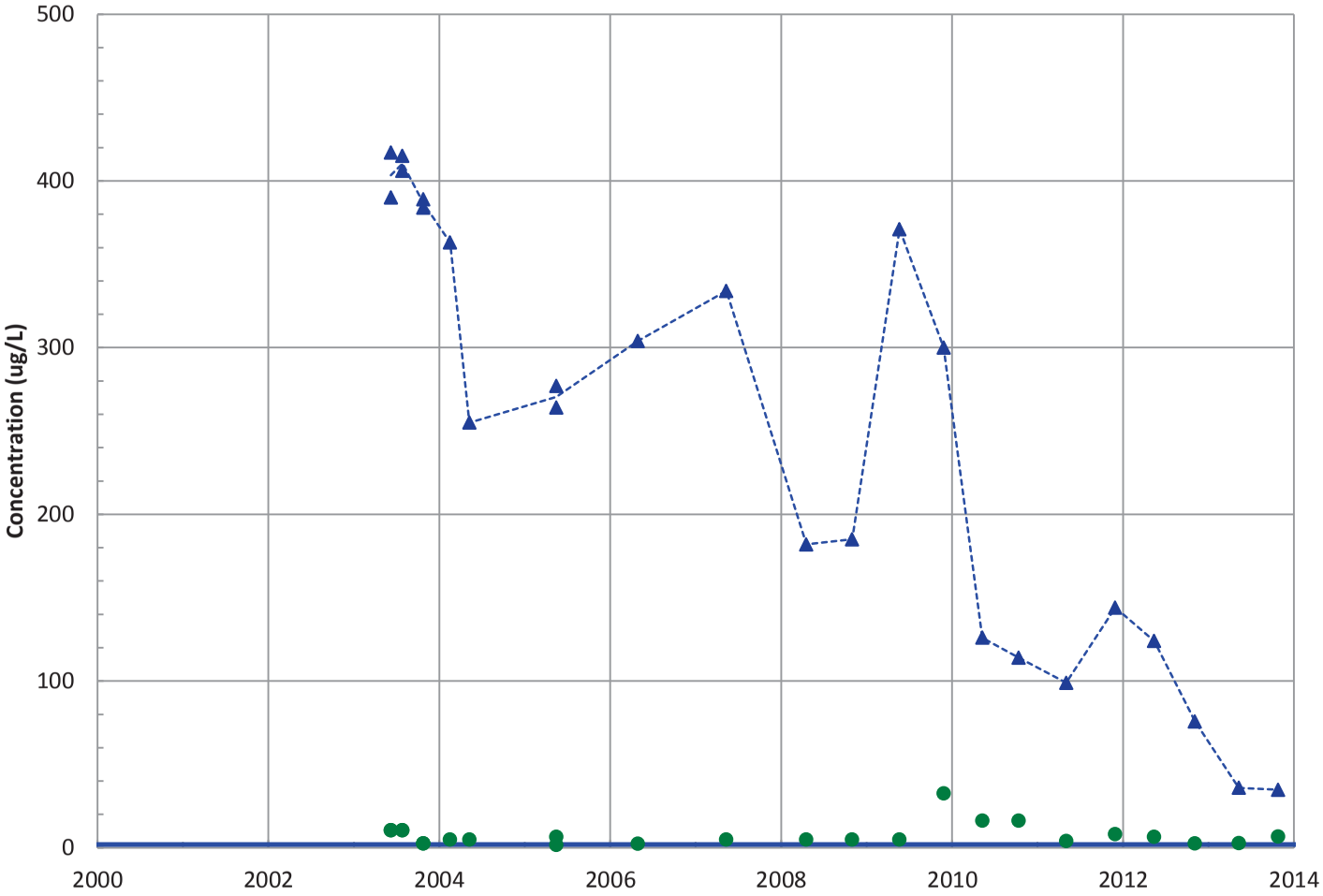
Well Location



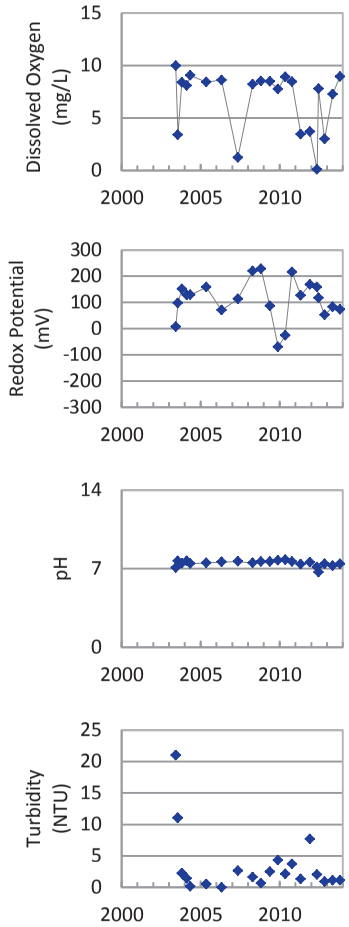
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2003 to 4/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1088
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



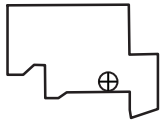
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

Well Location

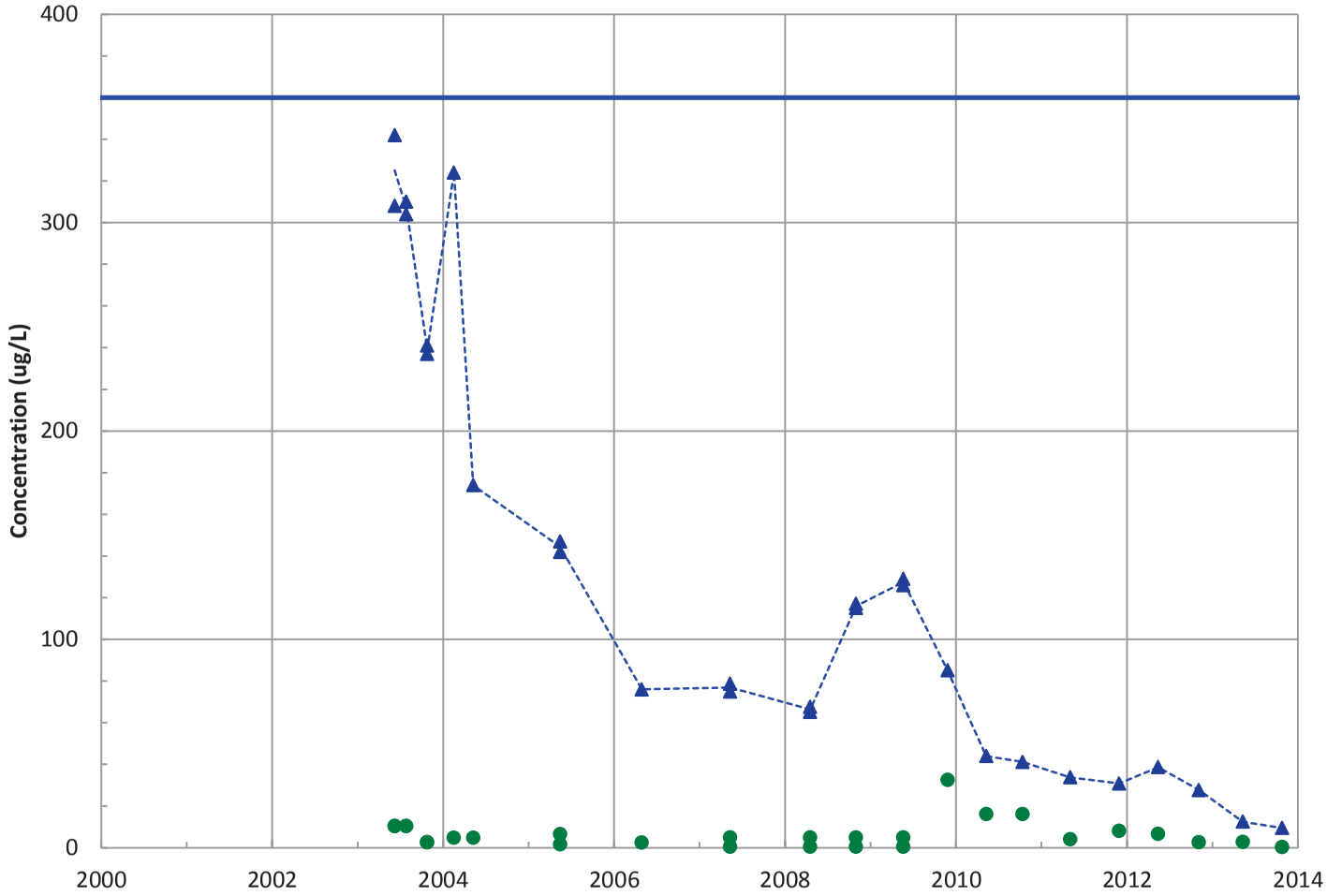


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/11/2003 to 11/5/2013
Analysis Date: 3/4/2014

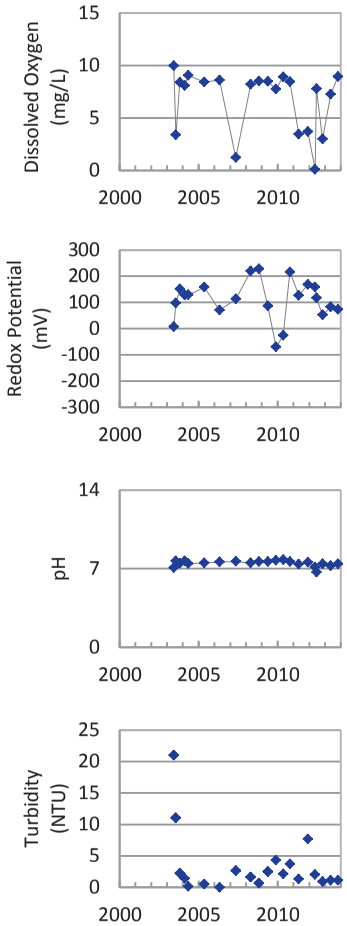
B&W Pantex

PTX06-1088

HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



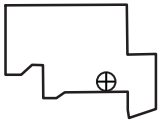
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

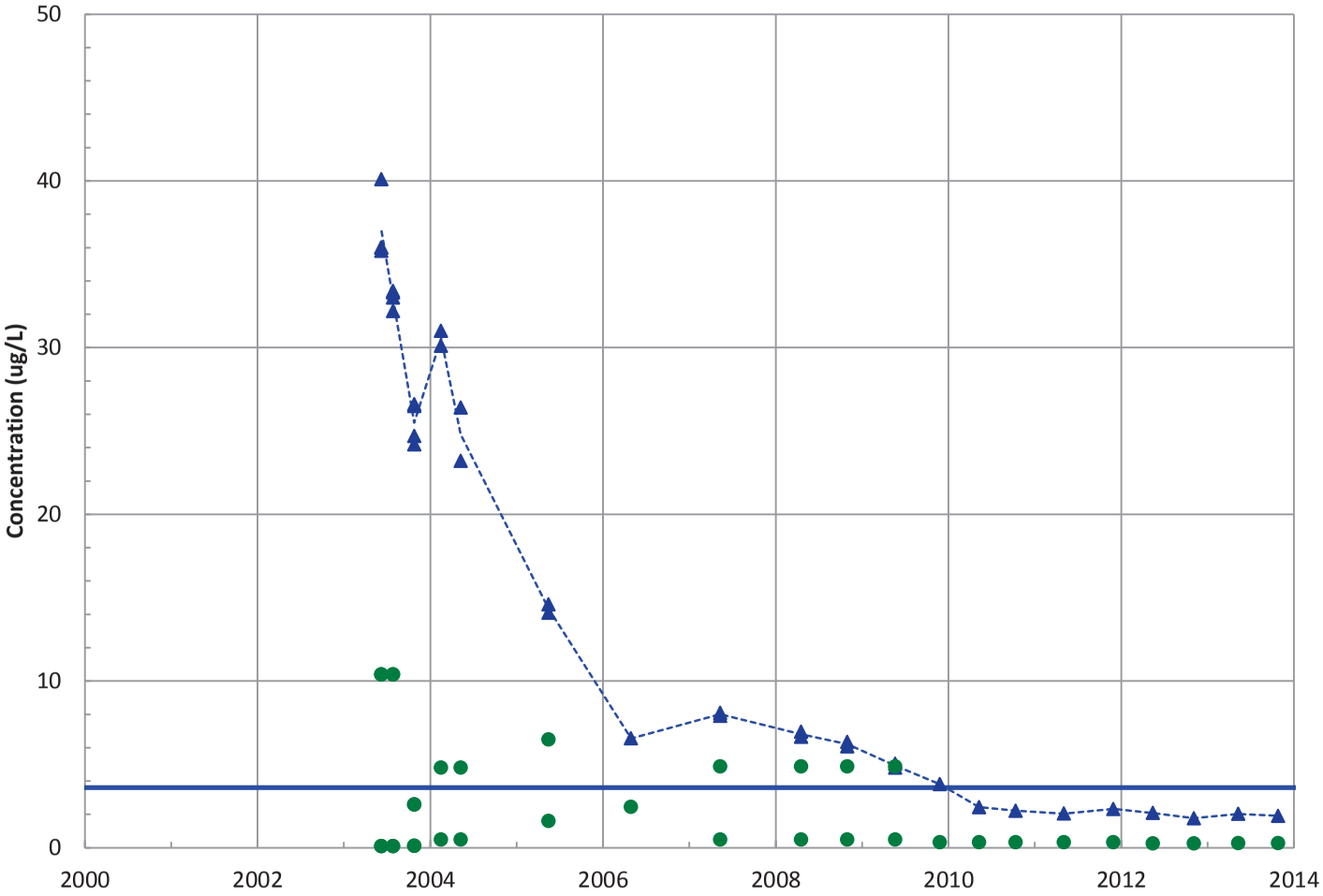
Well Location



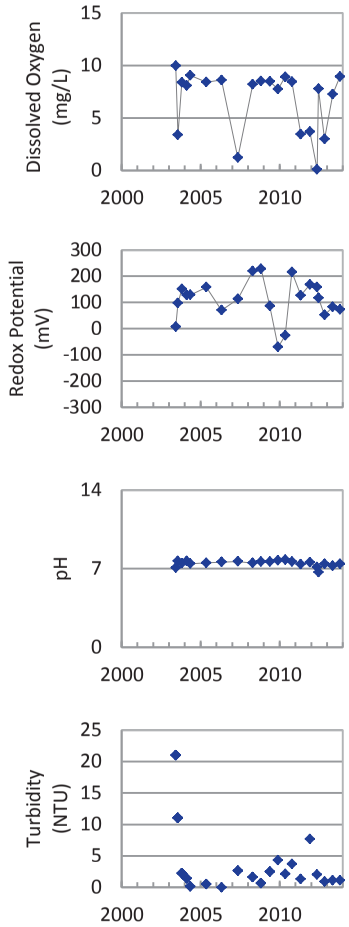
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/11/2003 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1088
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



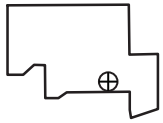
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

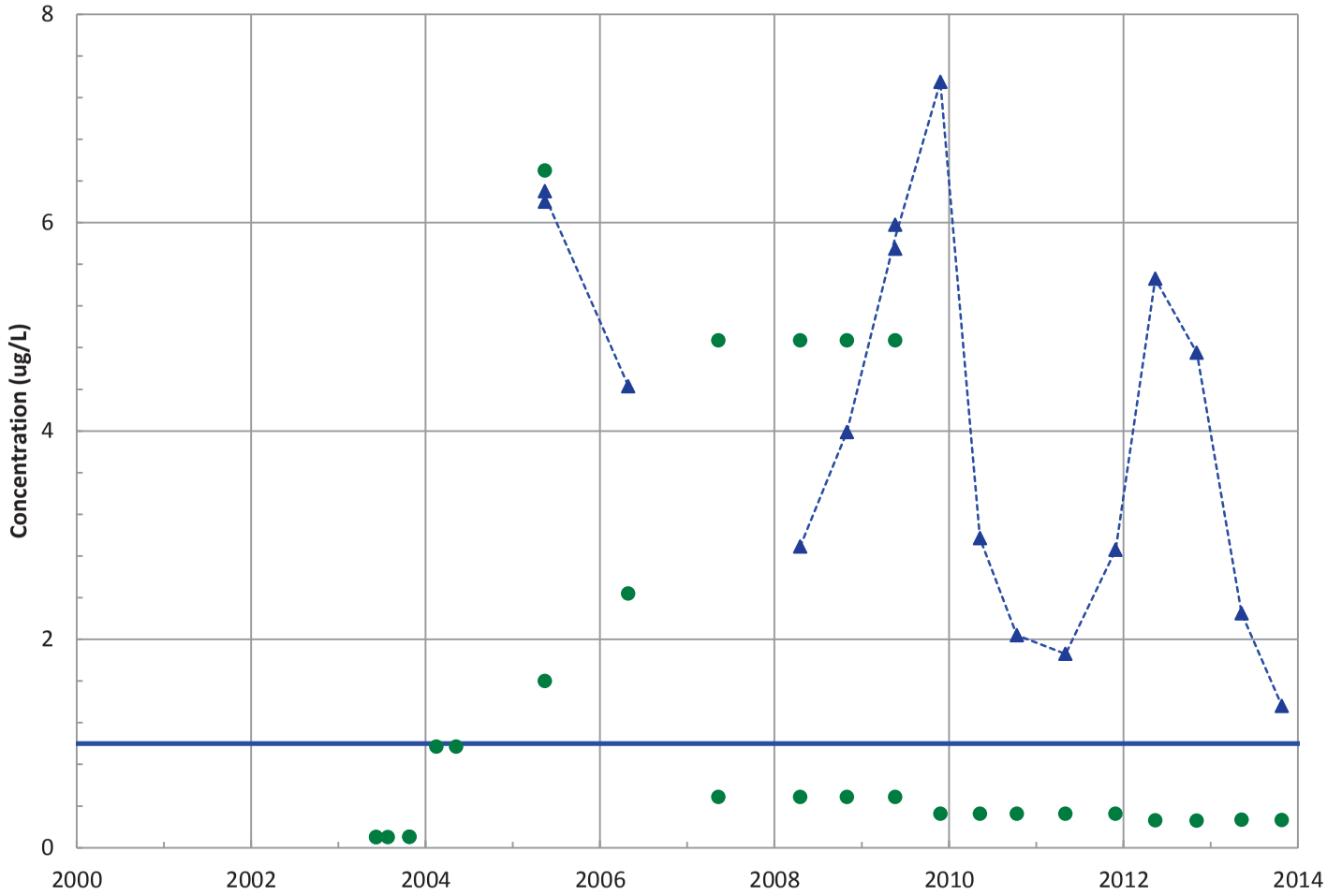
Well Location



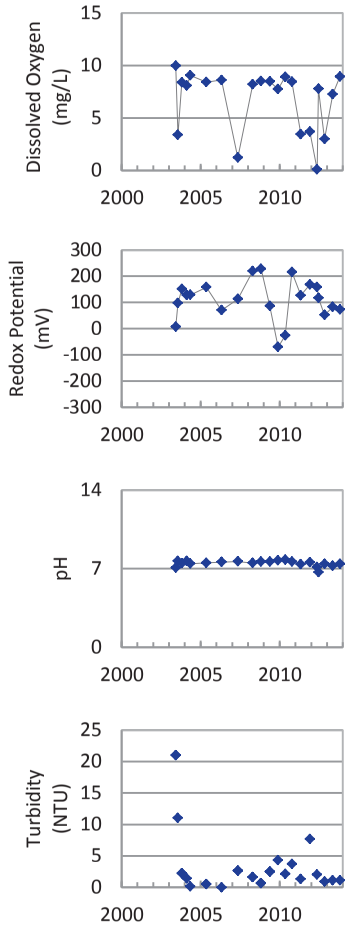
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/11/2003 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1088
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



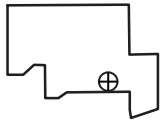
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Decreasing

- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

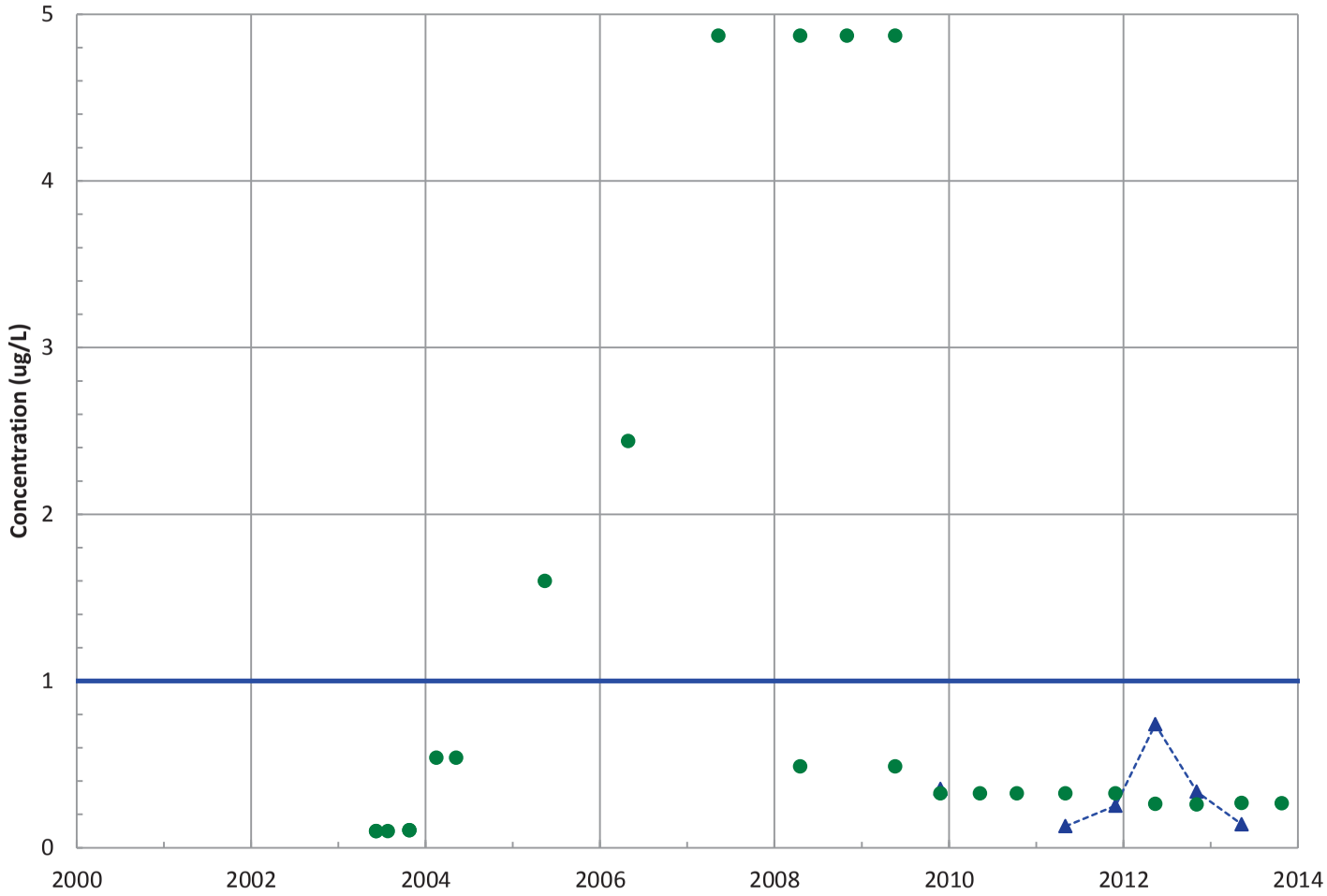
Well Location



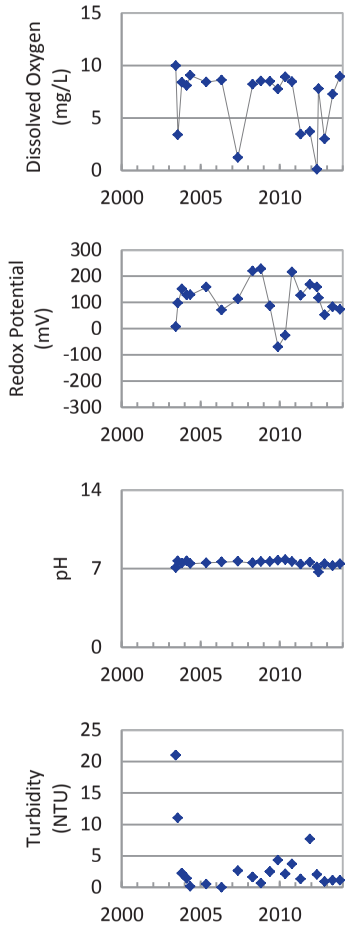
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/11/2003 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1088
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Decreasing

2011 - 2013 Data: N/A (<4 Detections in Dataset)

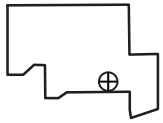
MAROS Linear Regression Method

Data (7/2009 - 12/2013): Stable

2011 - 2013 Data: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

Well Location



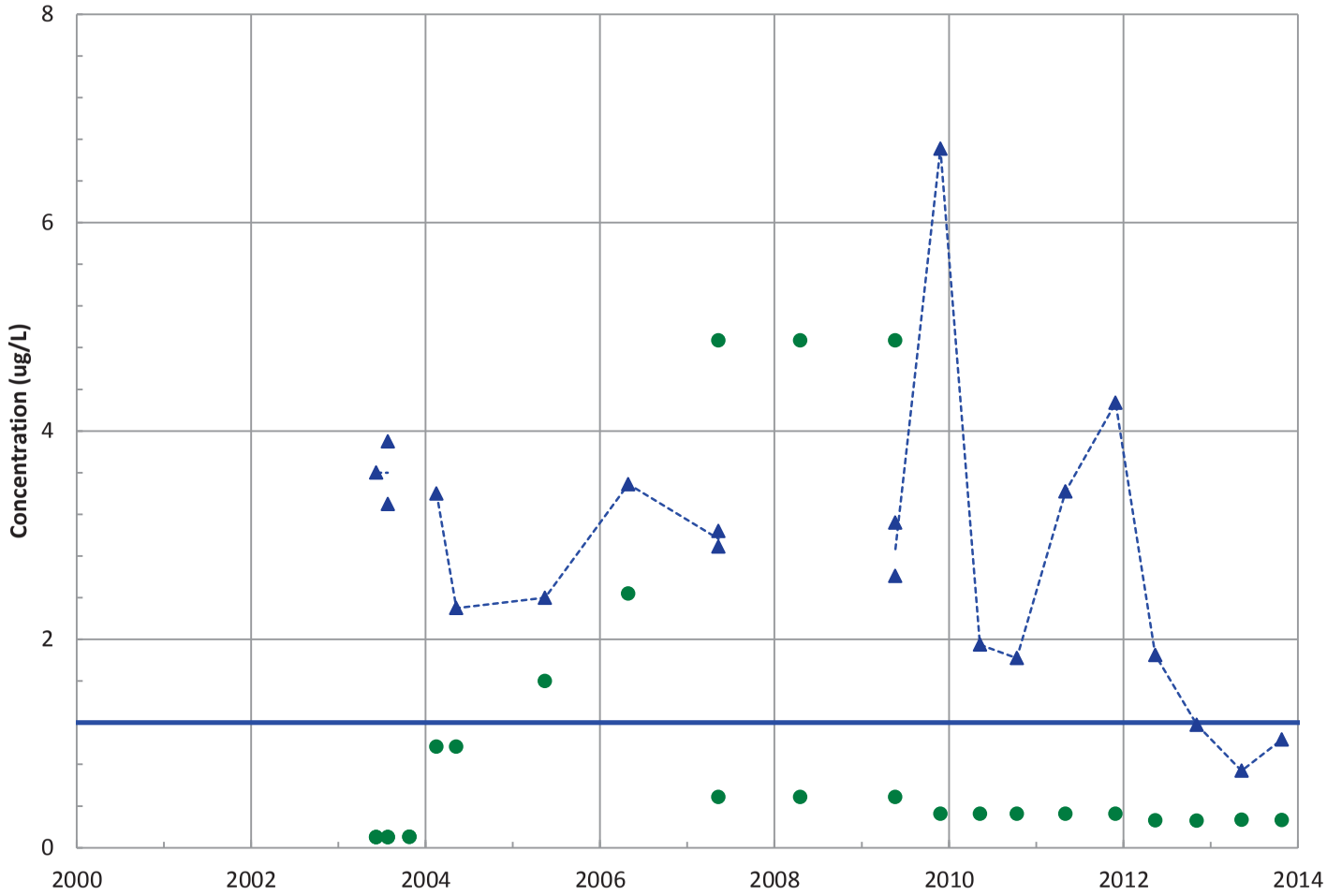
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 6/11/2003 to 11/5/2013

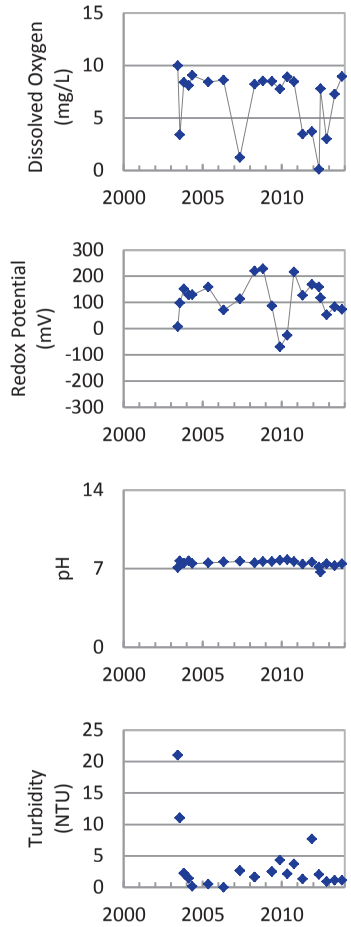
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1088
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



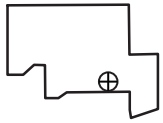
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

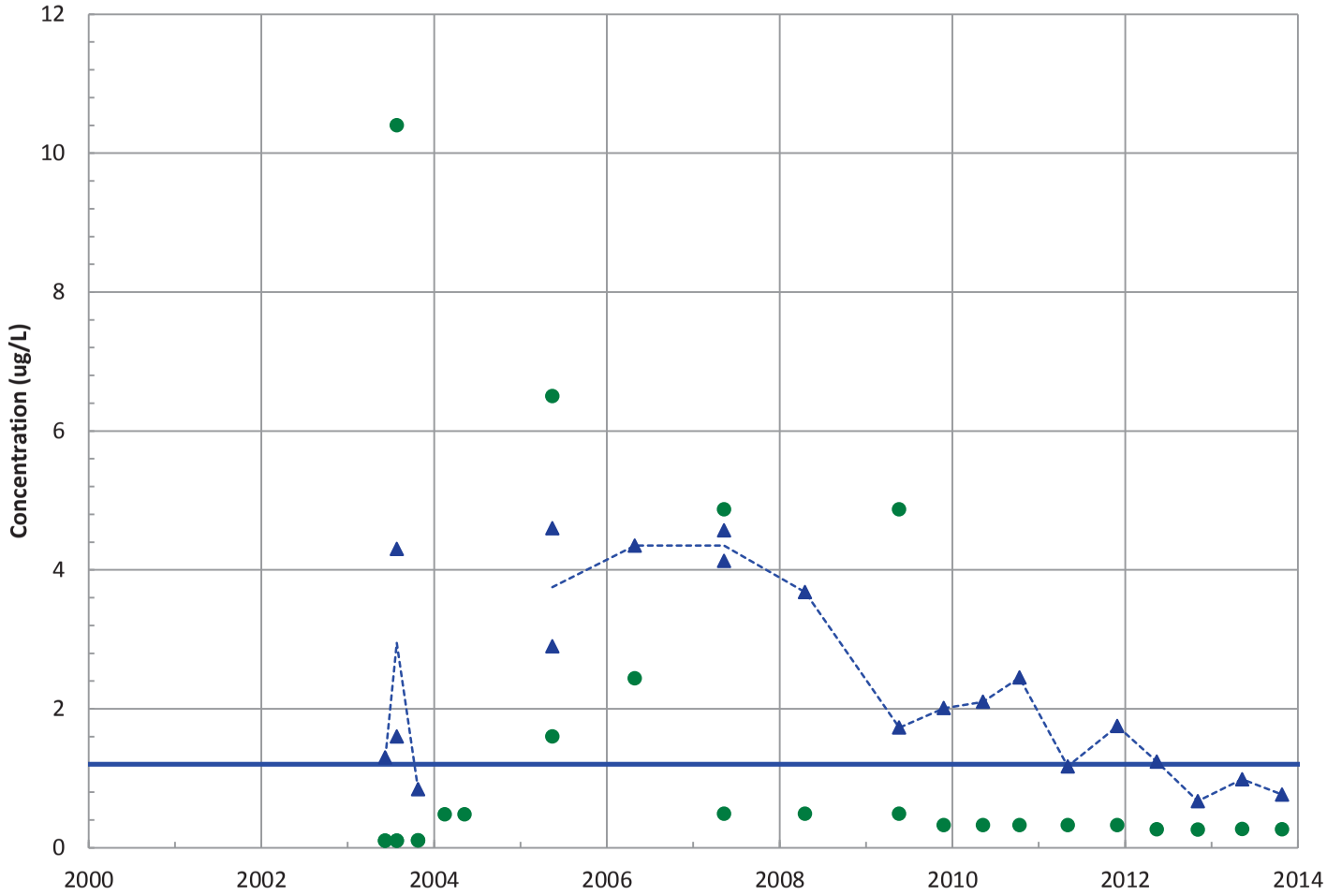
Well Location



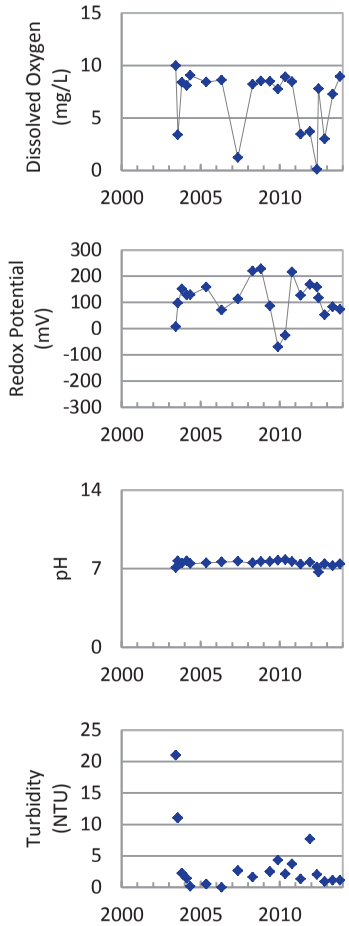
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/11/2003 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1088
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



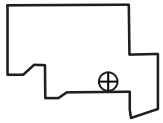
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

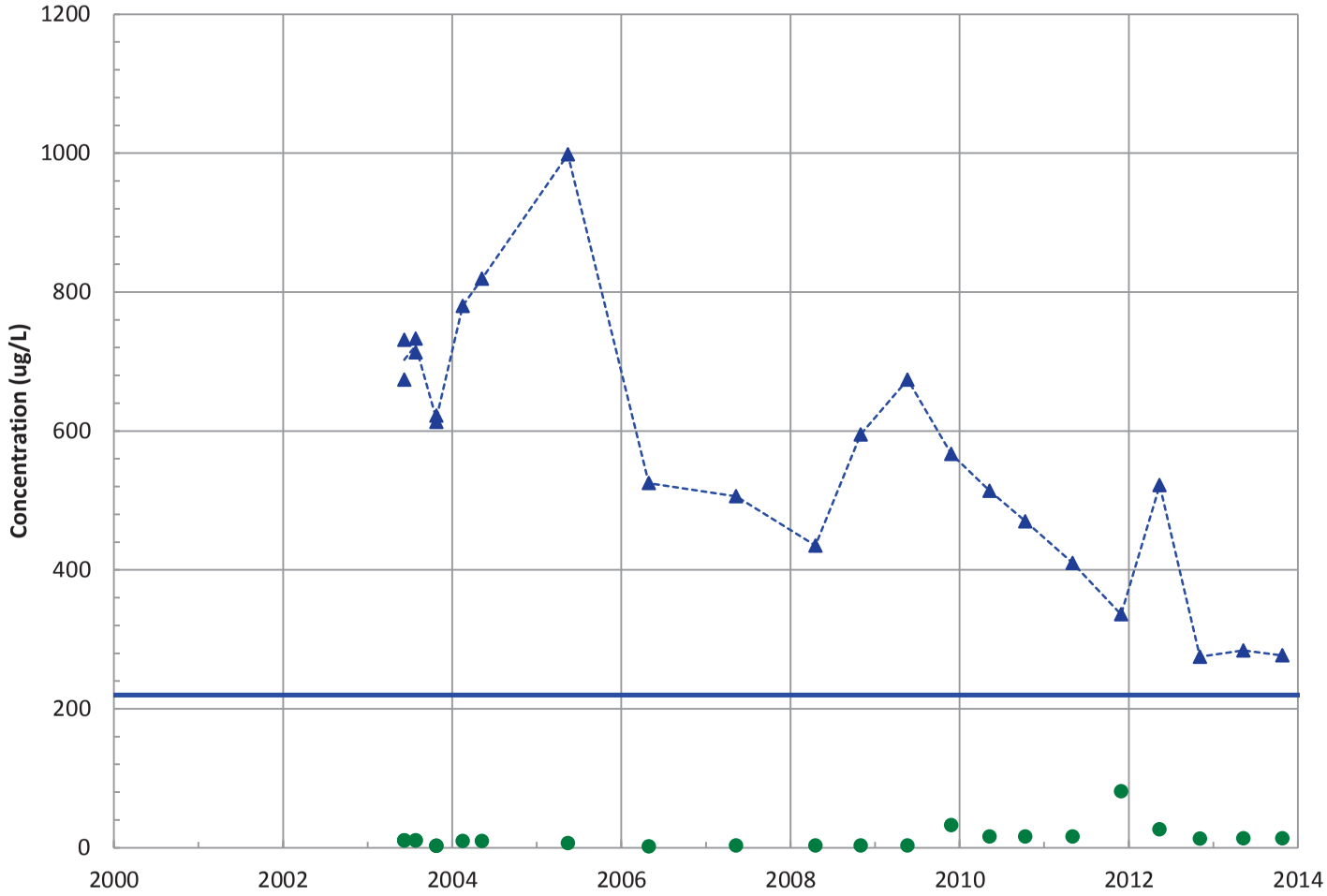
Well Location



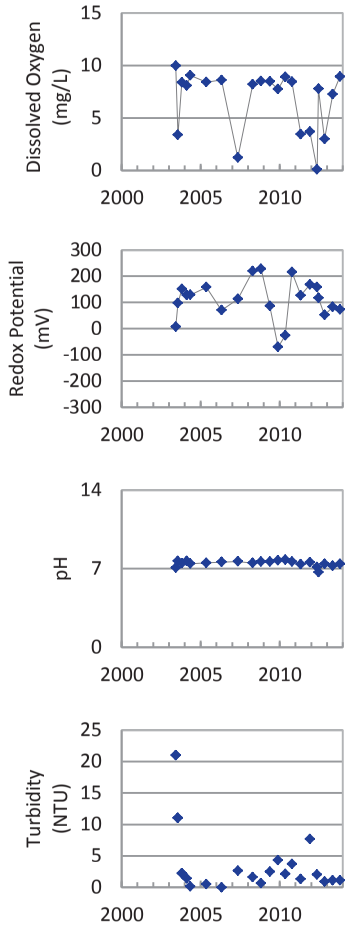
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/11/2003 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1088
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



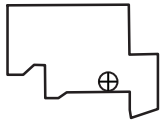
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------ Concentration Trend
- ——— Groundwater Protection Standard

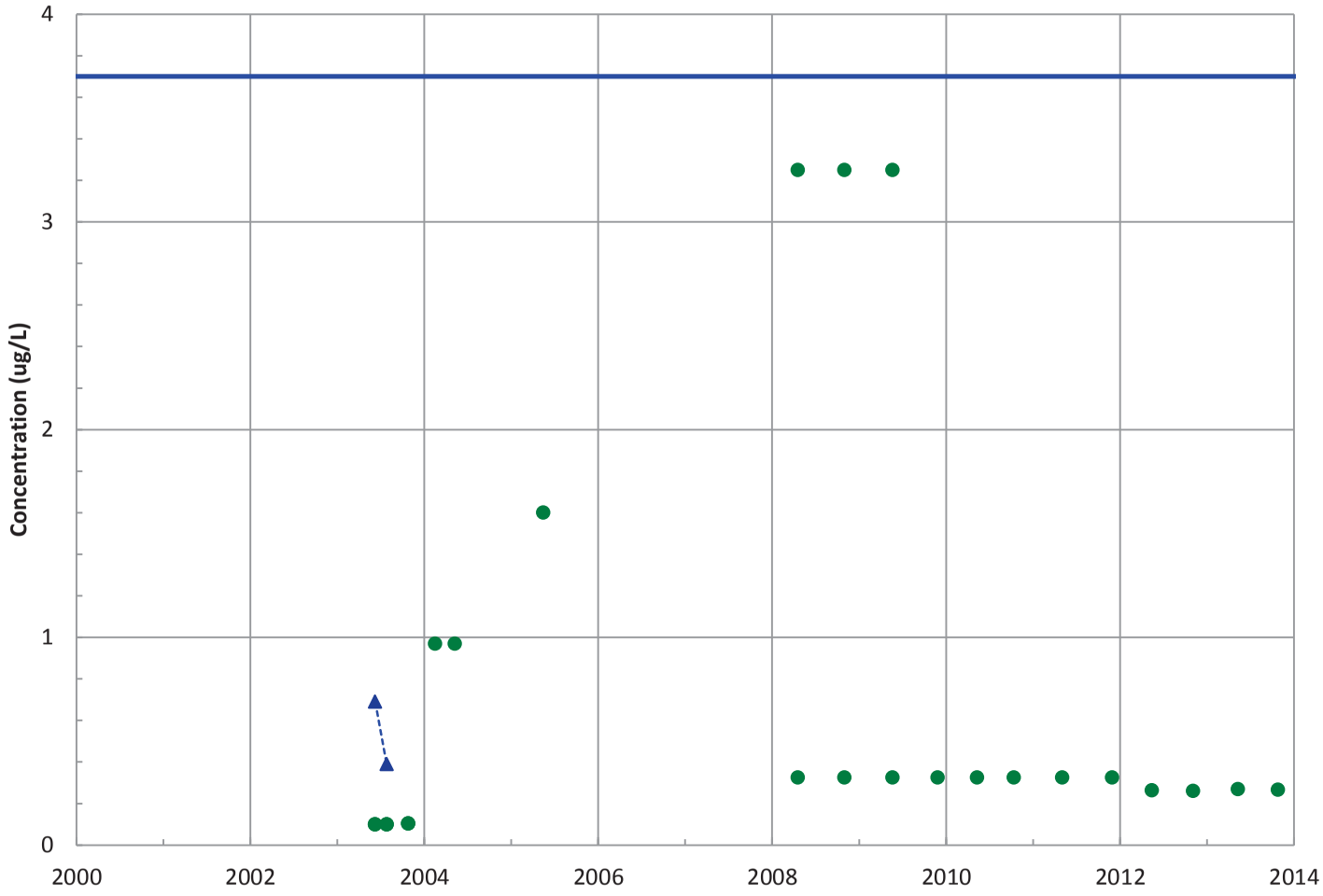
Well Location



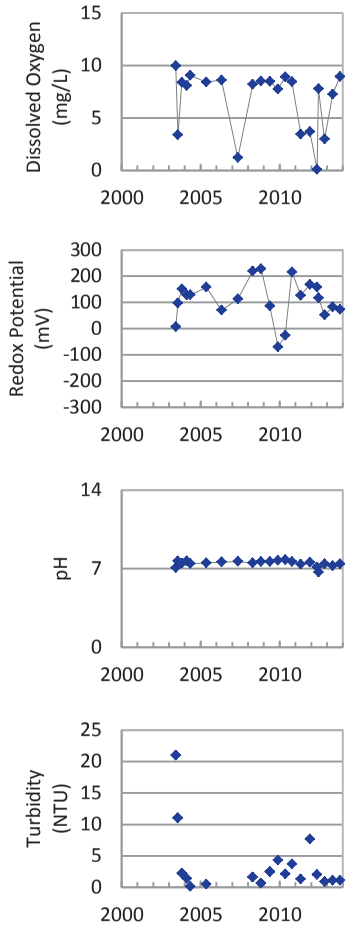
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/11/2003 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1088
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): All Non-Detect

2011 - 2013 Data: All Non-Detect

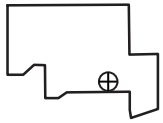
MAROS Linear Regression Method

Data (7/2009 - 12/2013): All Non-Detect

2011 - 2013 Data: N/A (<4 Detections in Dataset)

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location



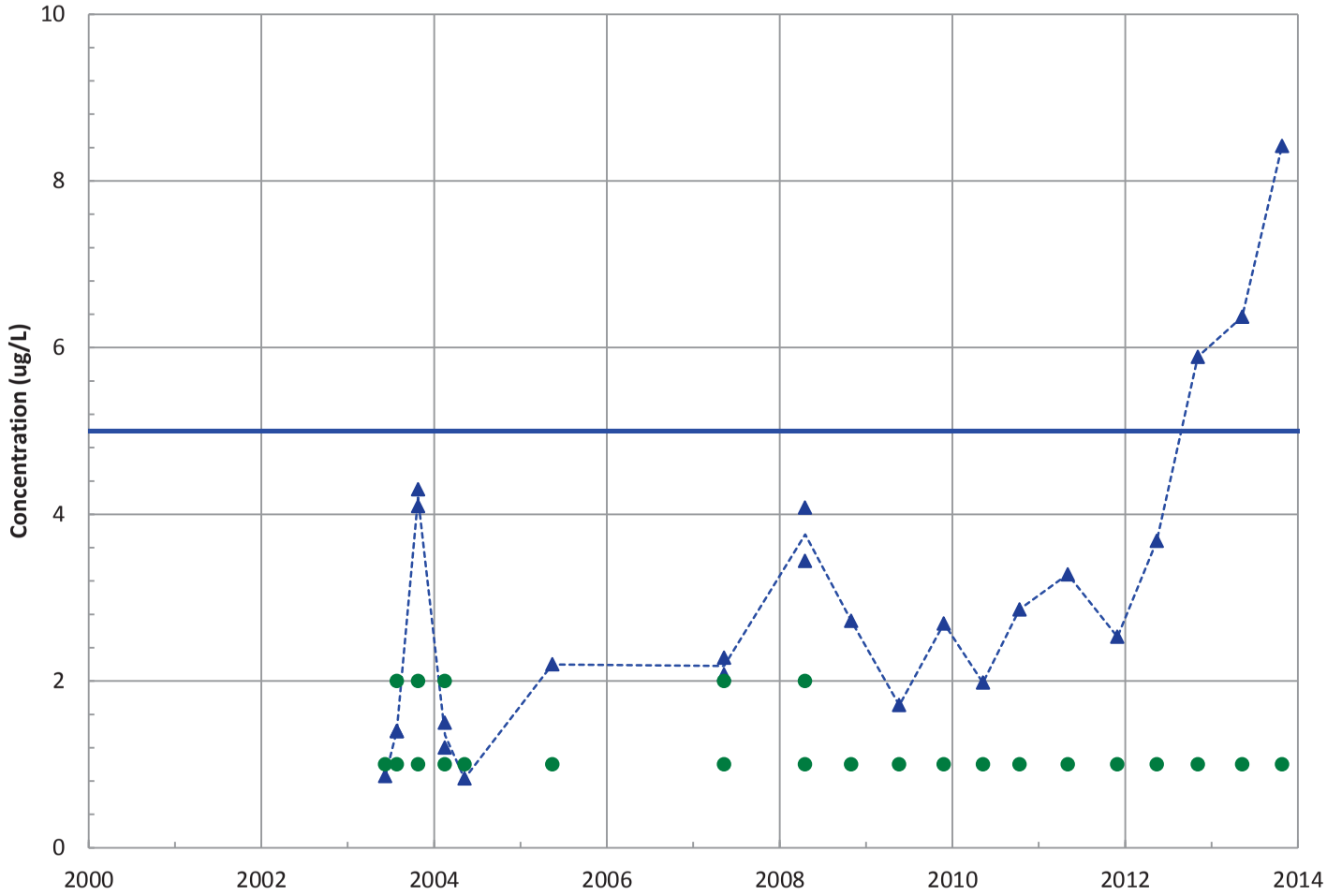
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 6/11/2003 to 11/5/2013

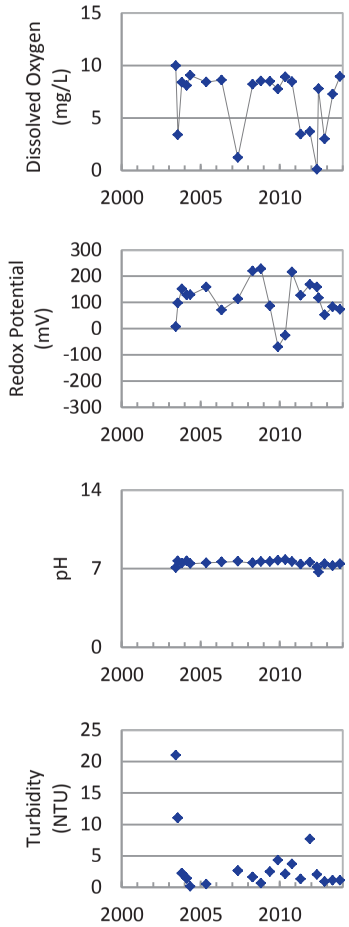
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1088
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



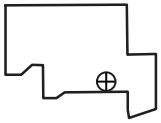
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Increasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Increasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

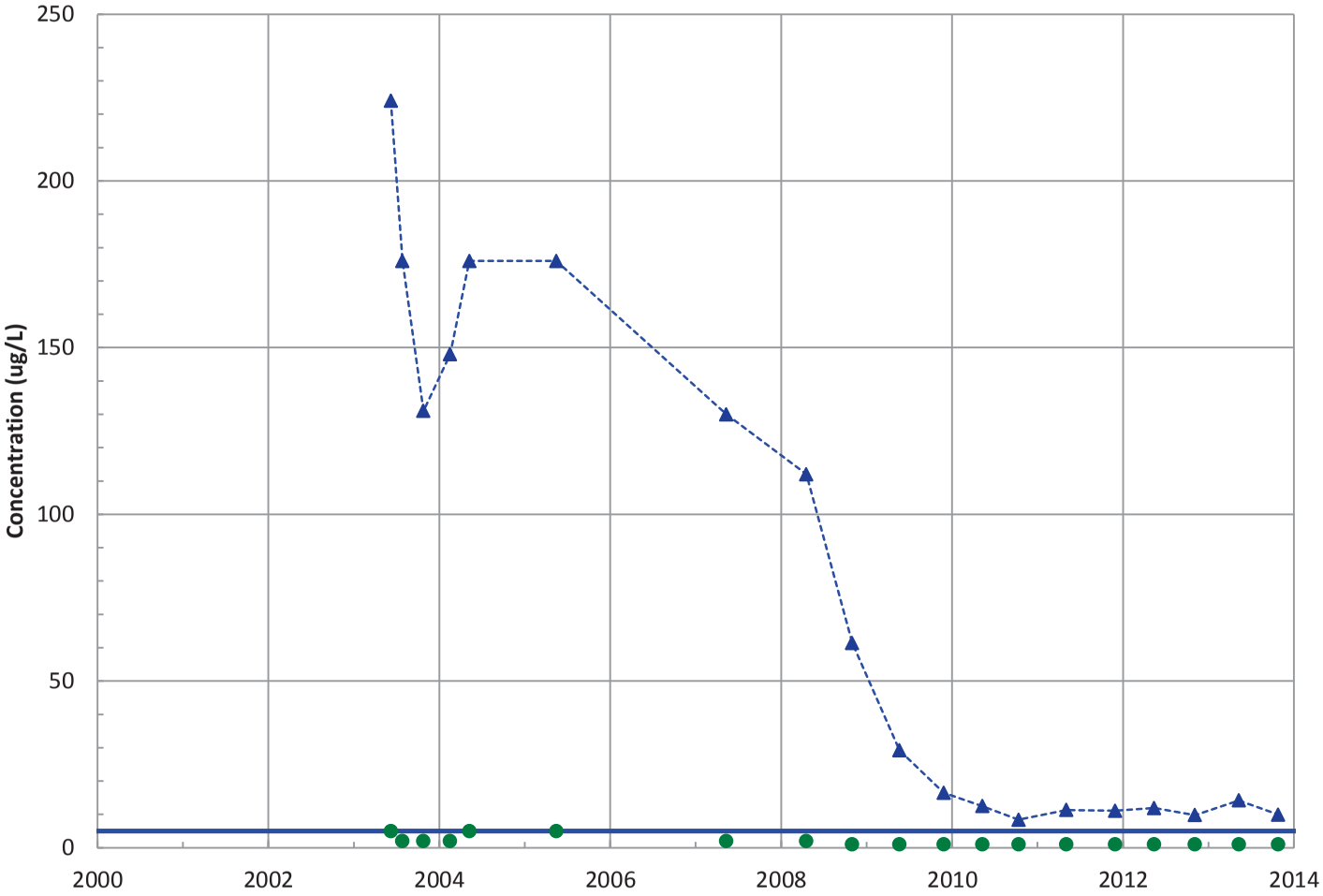
Well Location



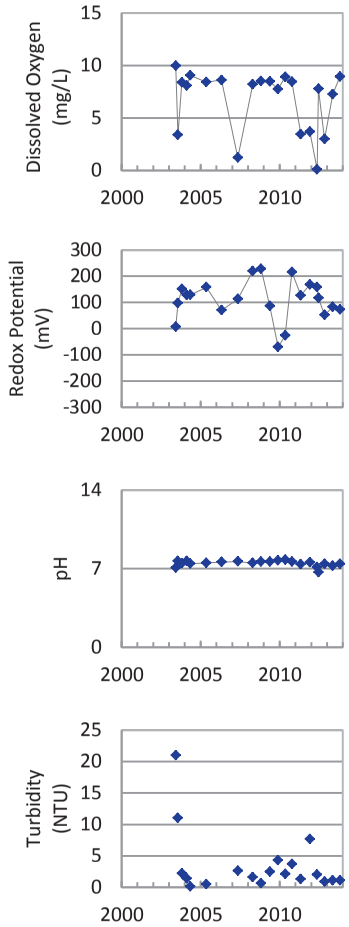
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/11/2003 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1088
Trichloroethene Trend in Perched Aquifer



Field Parameters



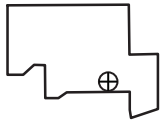
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

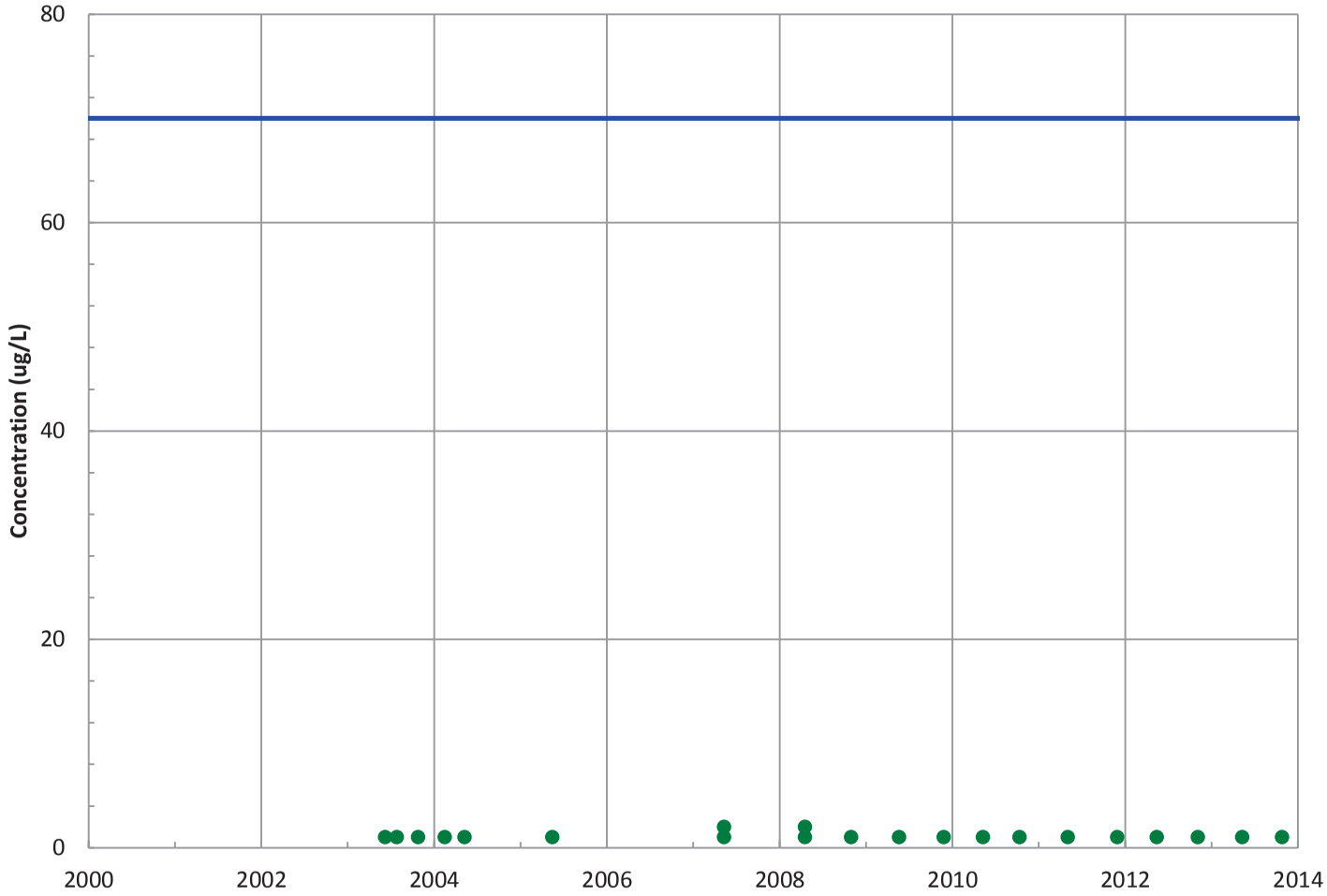
Well Location



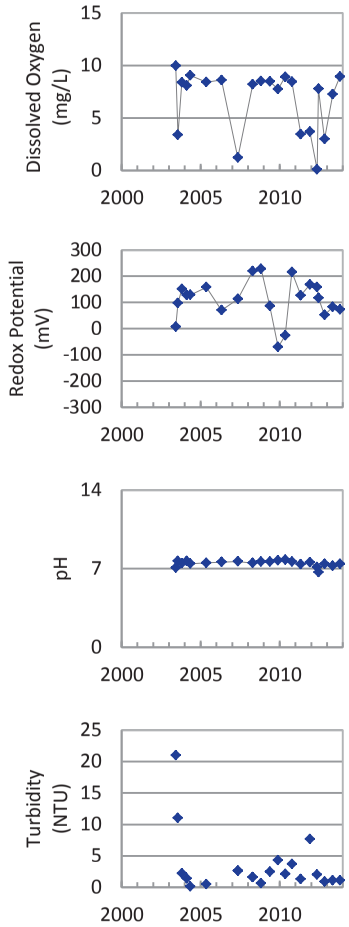
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/11/2003 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1088
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



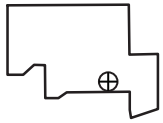
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

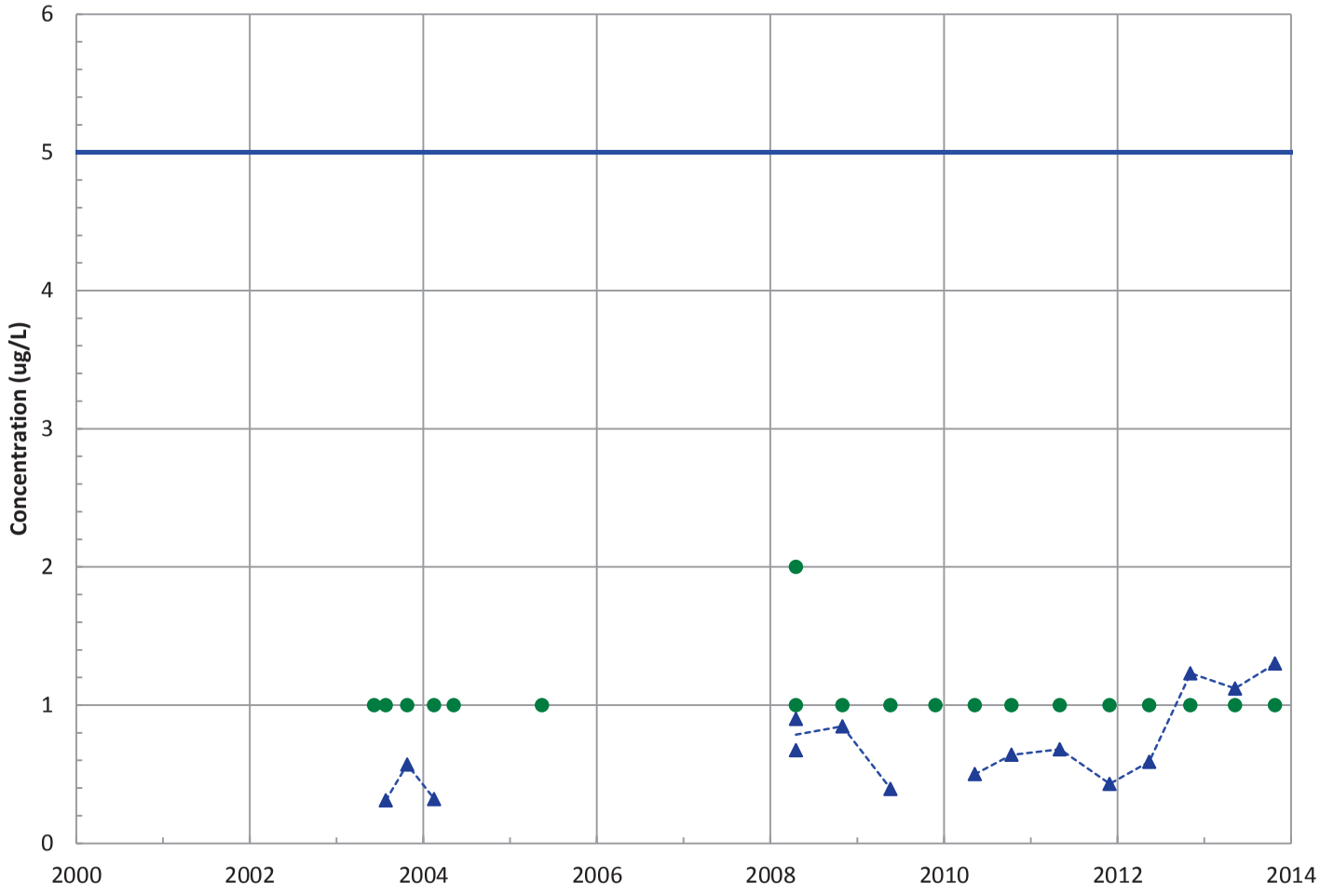
Well Location



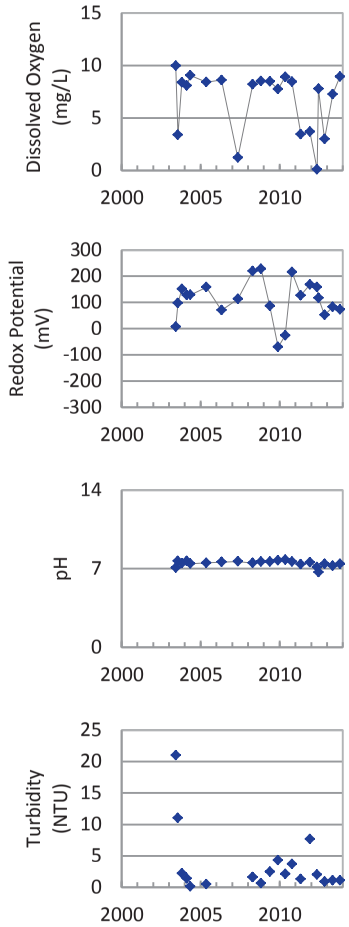
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/11/2003 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1088
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



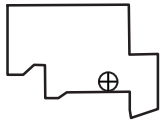
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

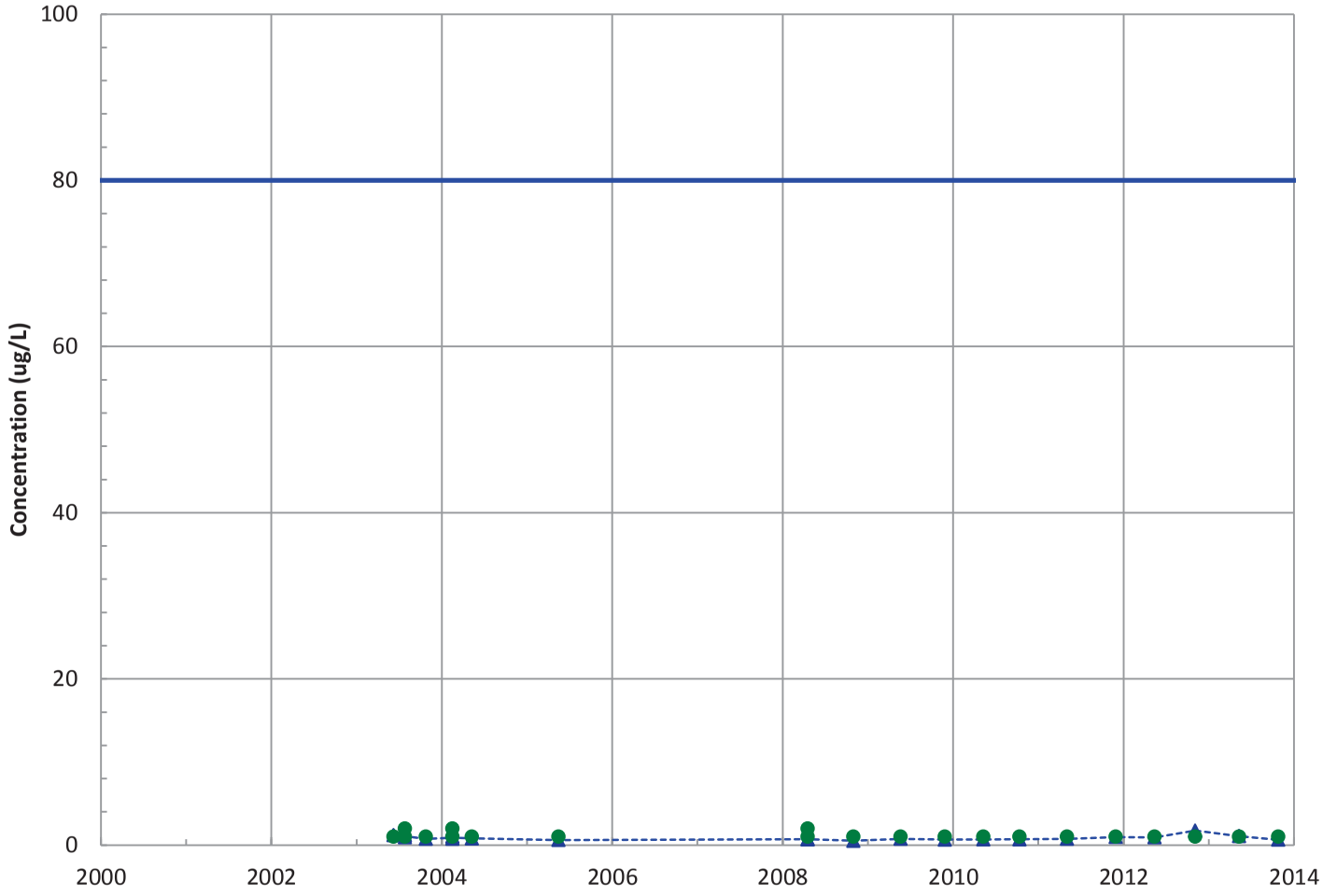
Well Location



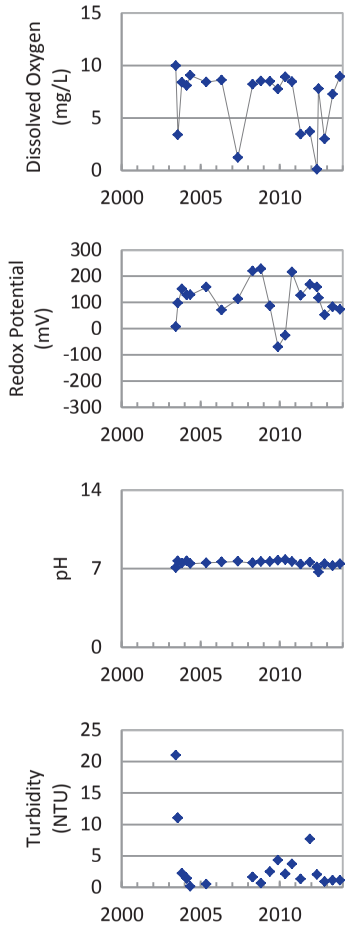
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/11/2003 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1088
Chloroform Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Probably Increasing

2011 - 2013 Data: Decreasing

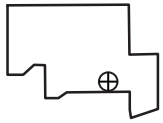
MAROS Linear Regression Method

Data (7/2009 - 12/2013): Probably Increasing

2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location



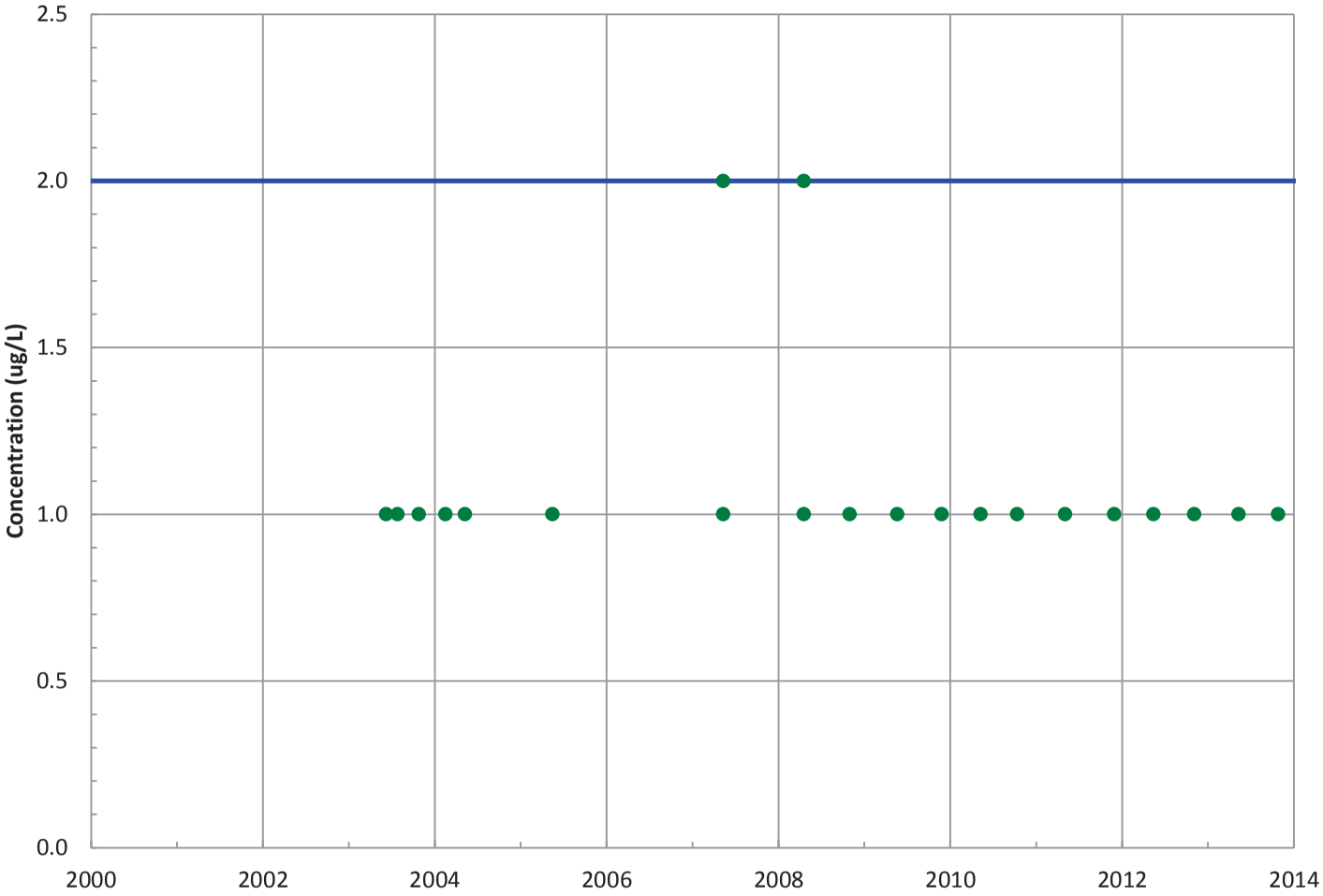
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 6/11/2003 to 11/5/2013

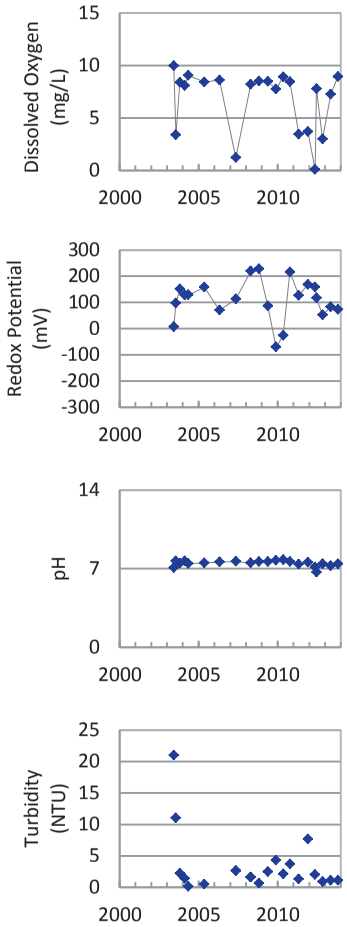
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1088
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



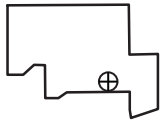
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

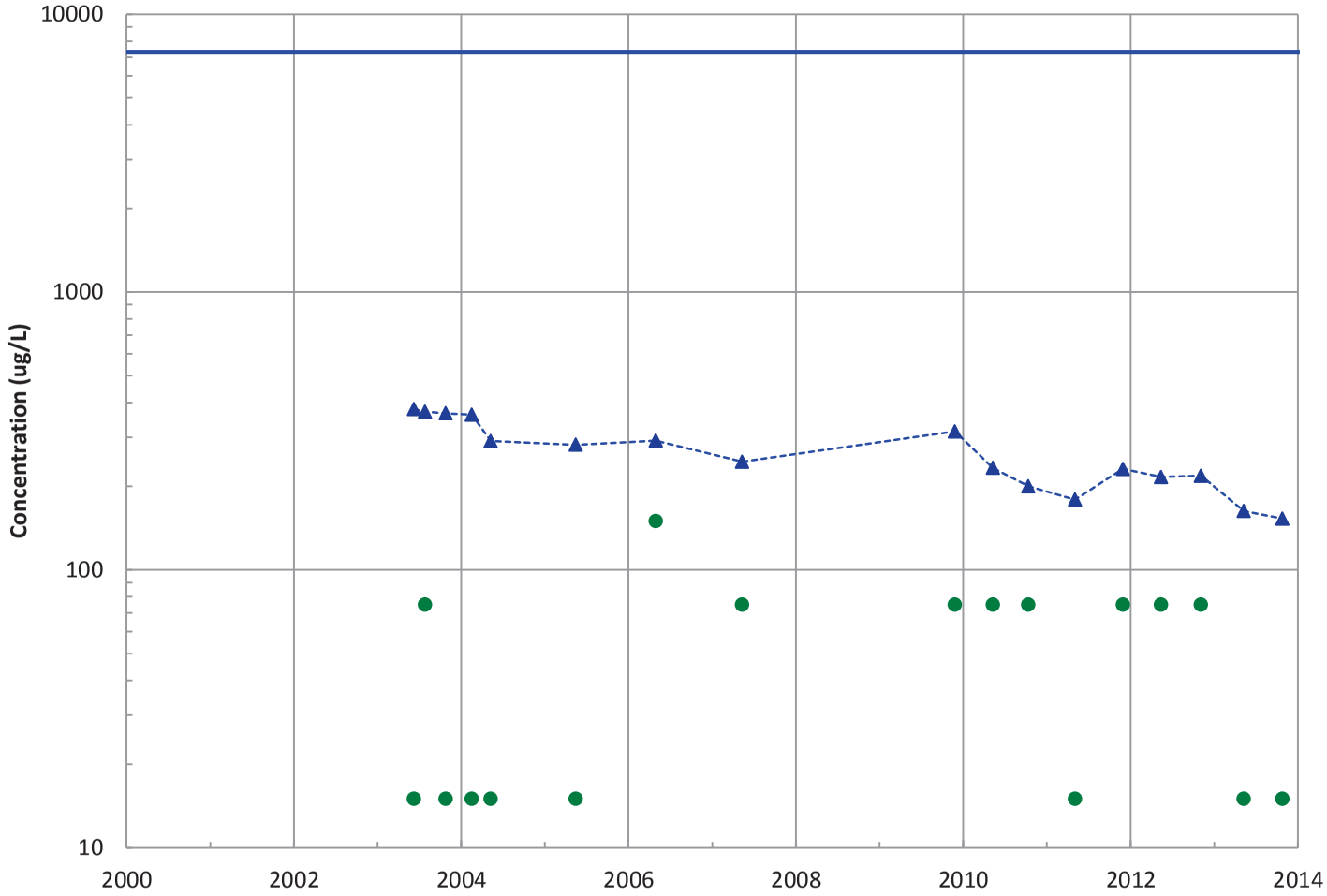
Well Location



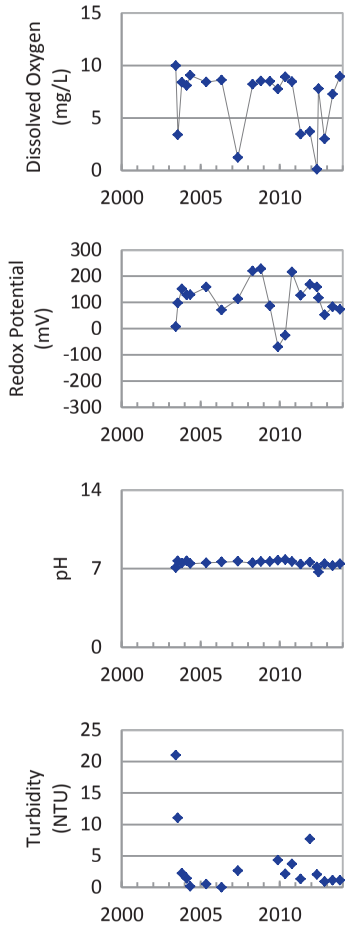
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/11/2003 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1088
Boron Trend in Perched Aquifer



Field Parameters



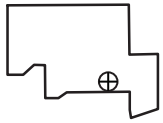
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

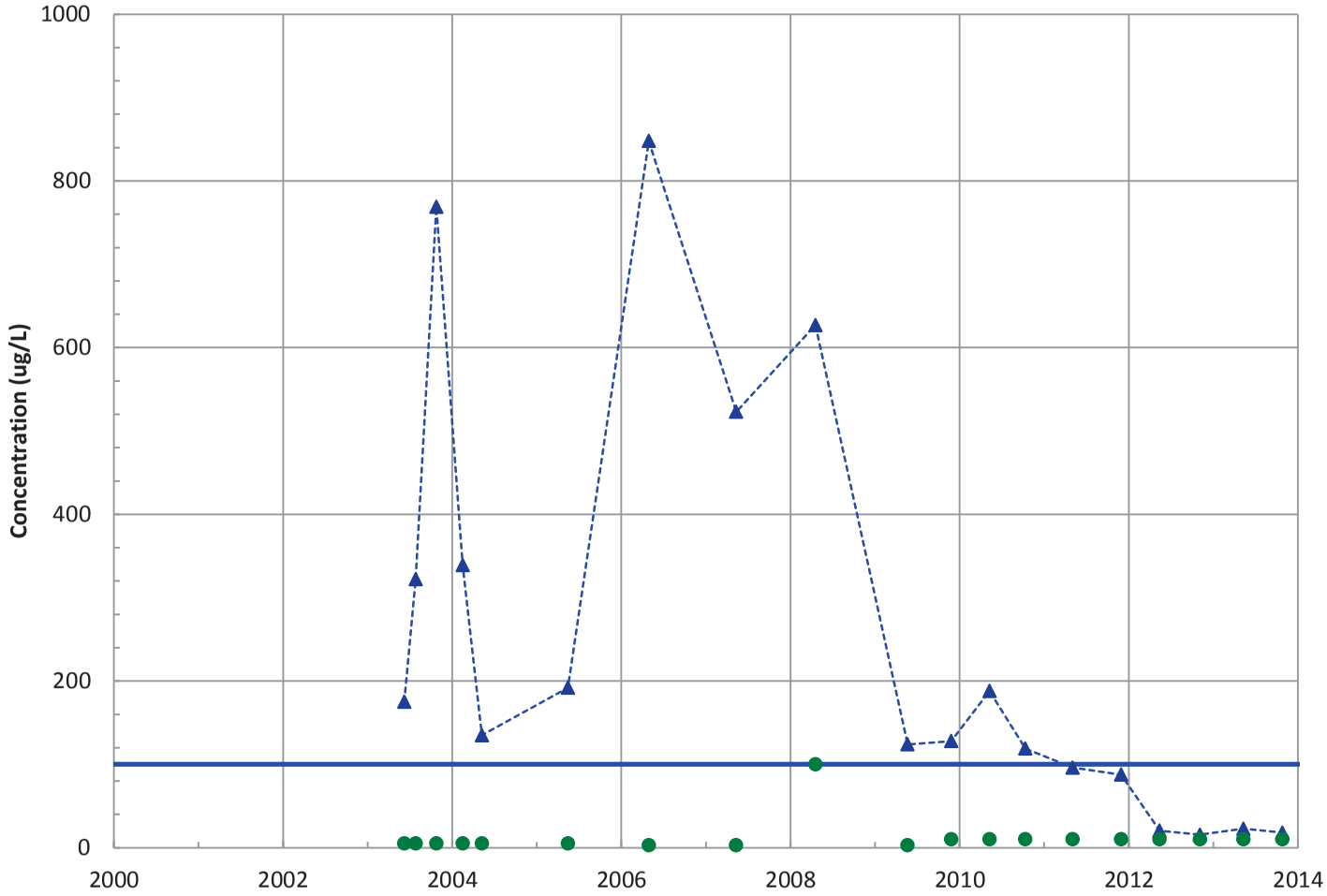
Well Location



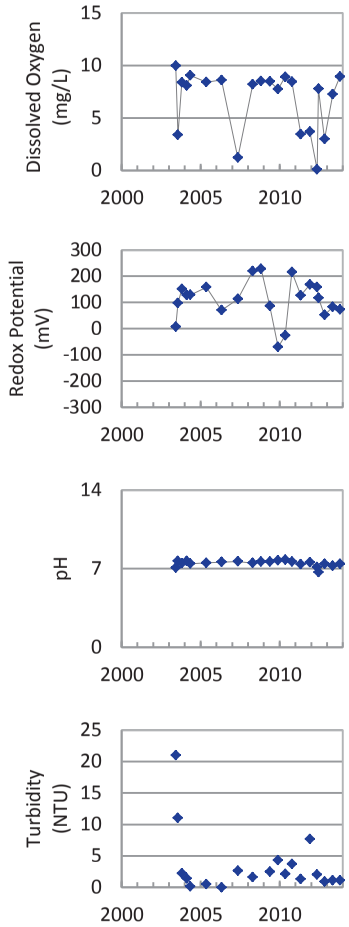
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/11/2003 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1088
Chromium, Total Trend in Perched Aquifer



Field Parameters



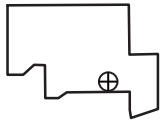
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

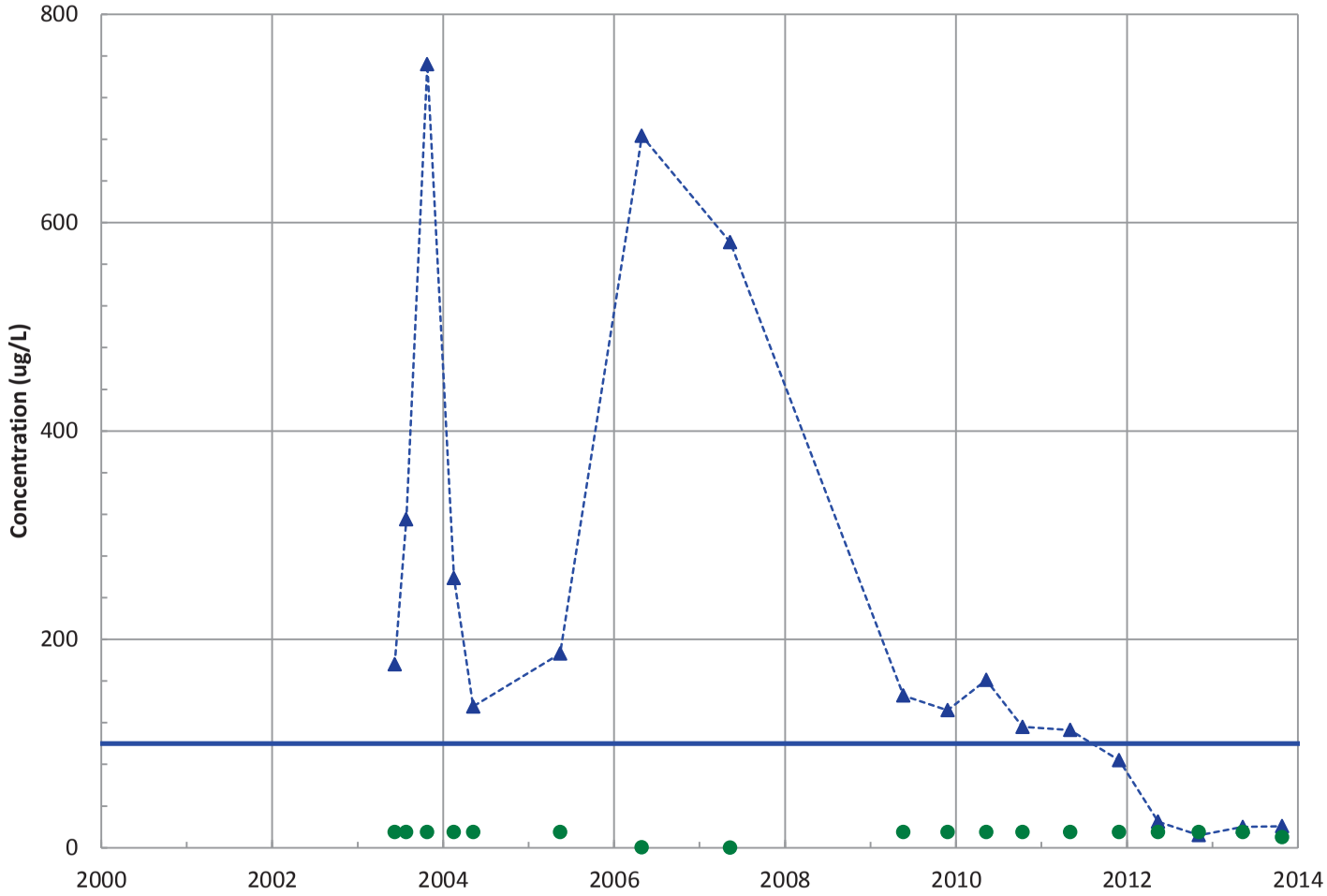
Well Location



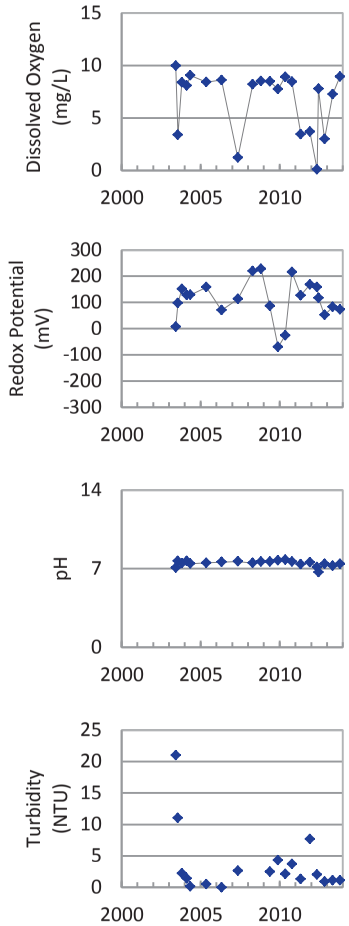
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/11/2003 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1088
Chromium, Hexavalent Trend in Perched Aquifer



Field Parameters



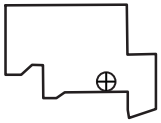
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

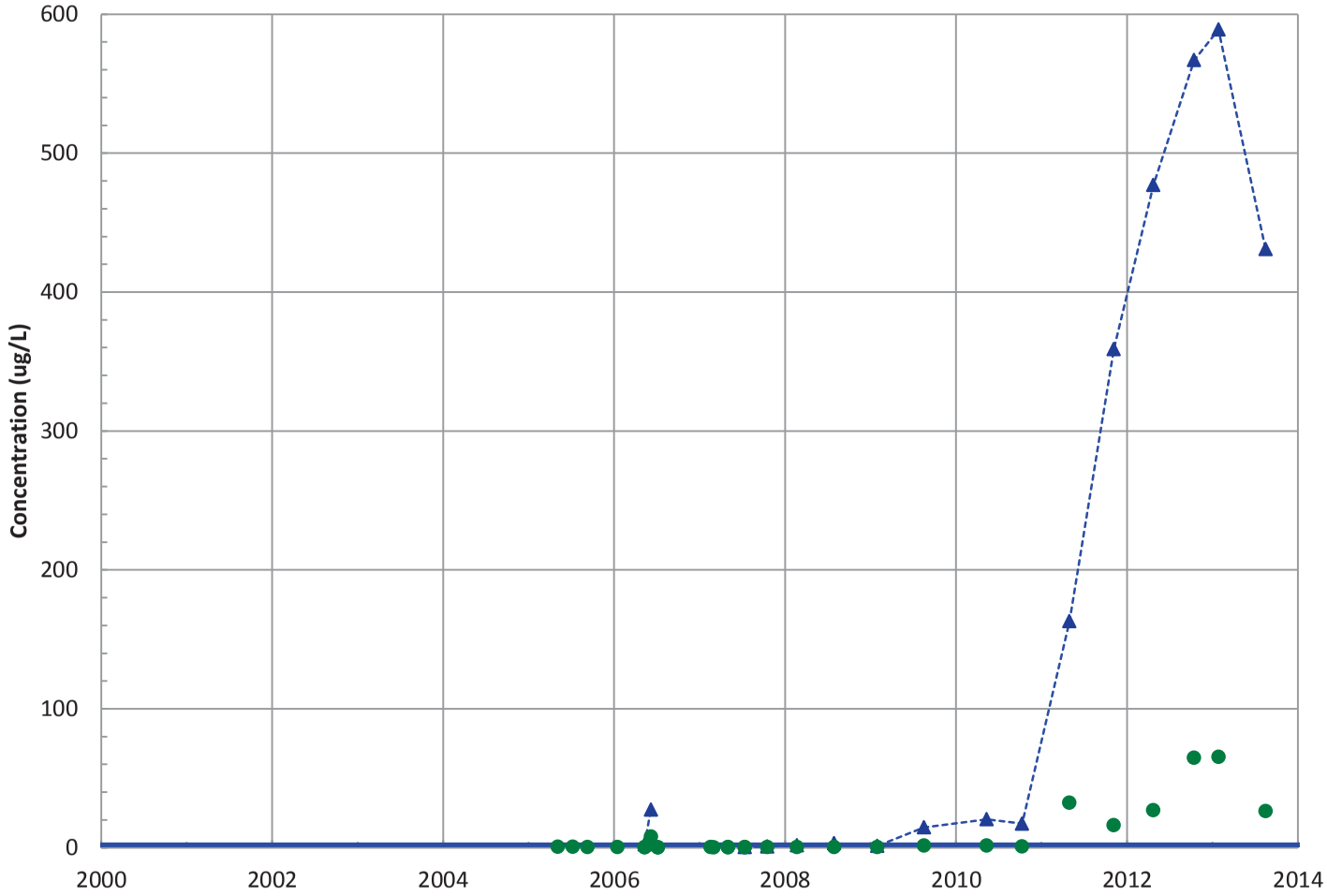
Well Location



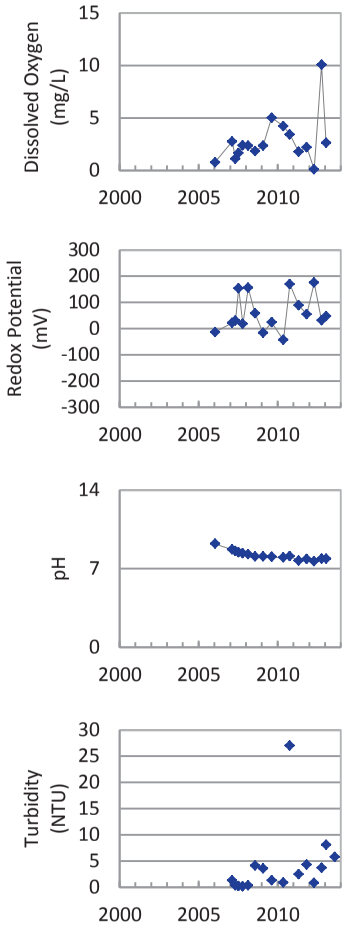
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/11/2003 to 11/5/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1095A
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



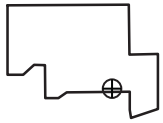
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

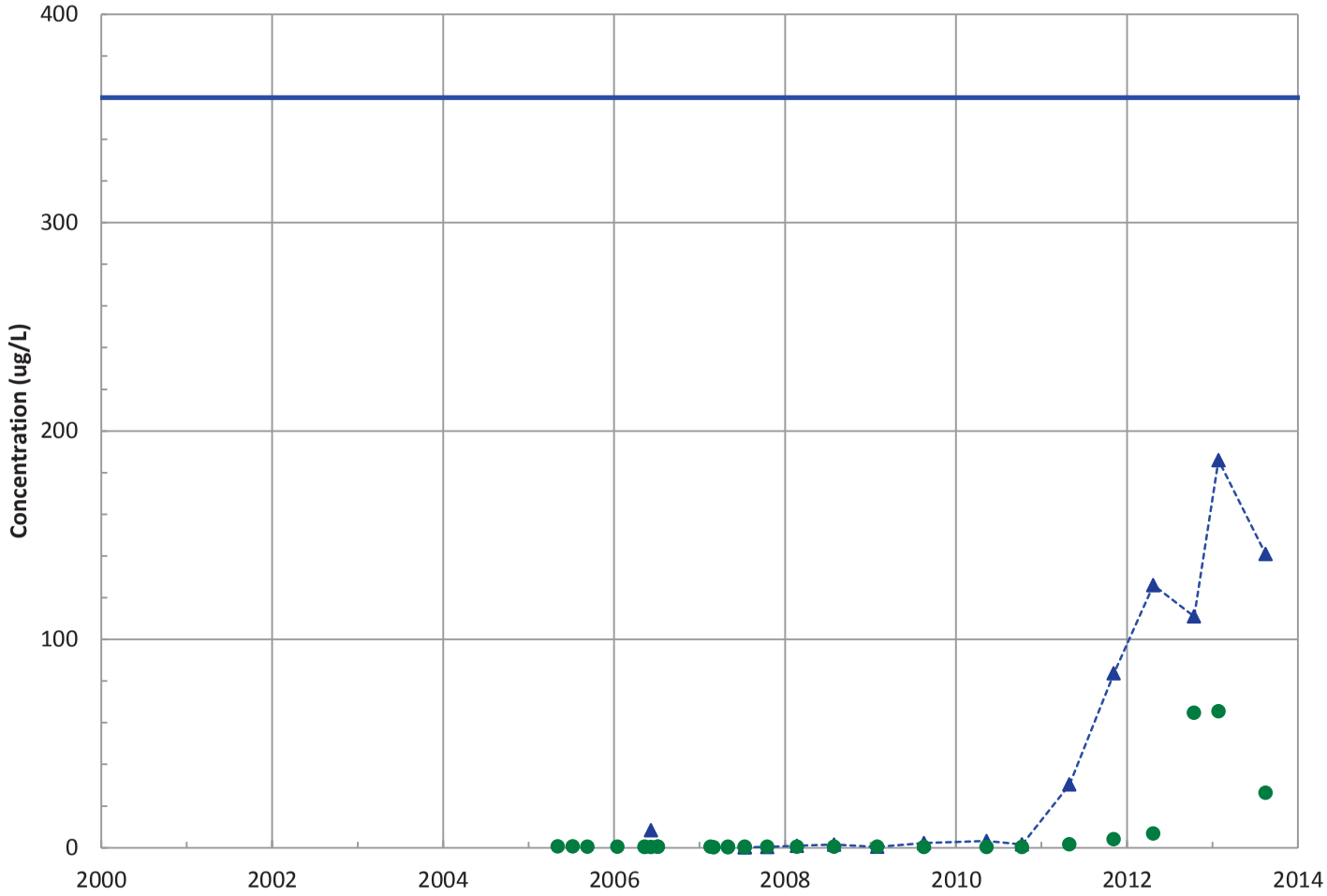
Well Location



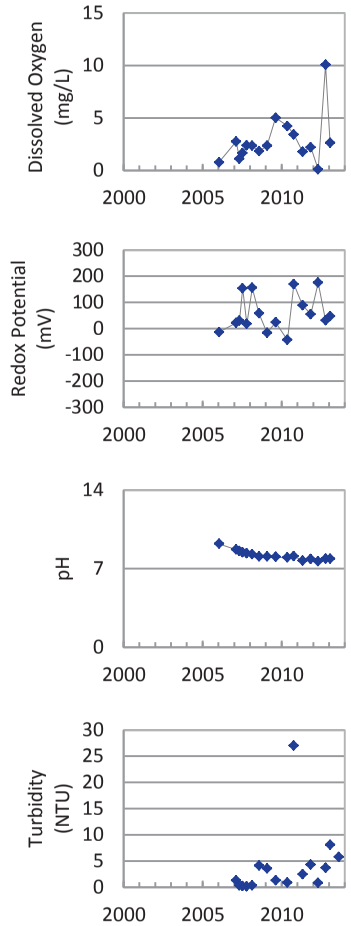
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/9/2005 to 8/26/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1095A
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



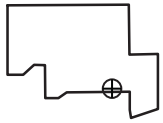
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

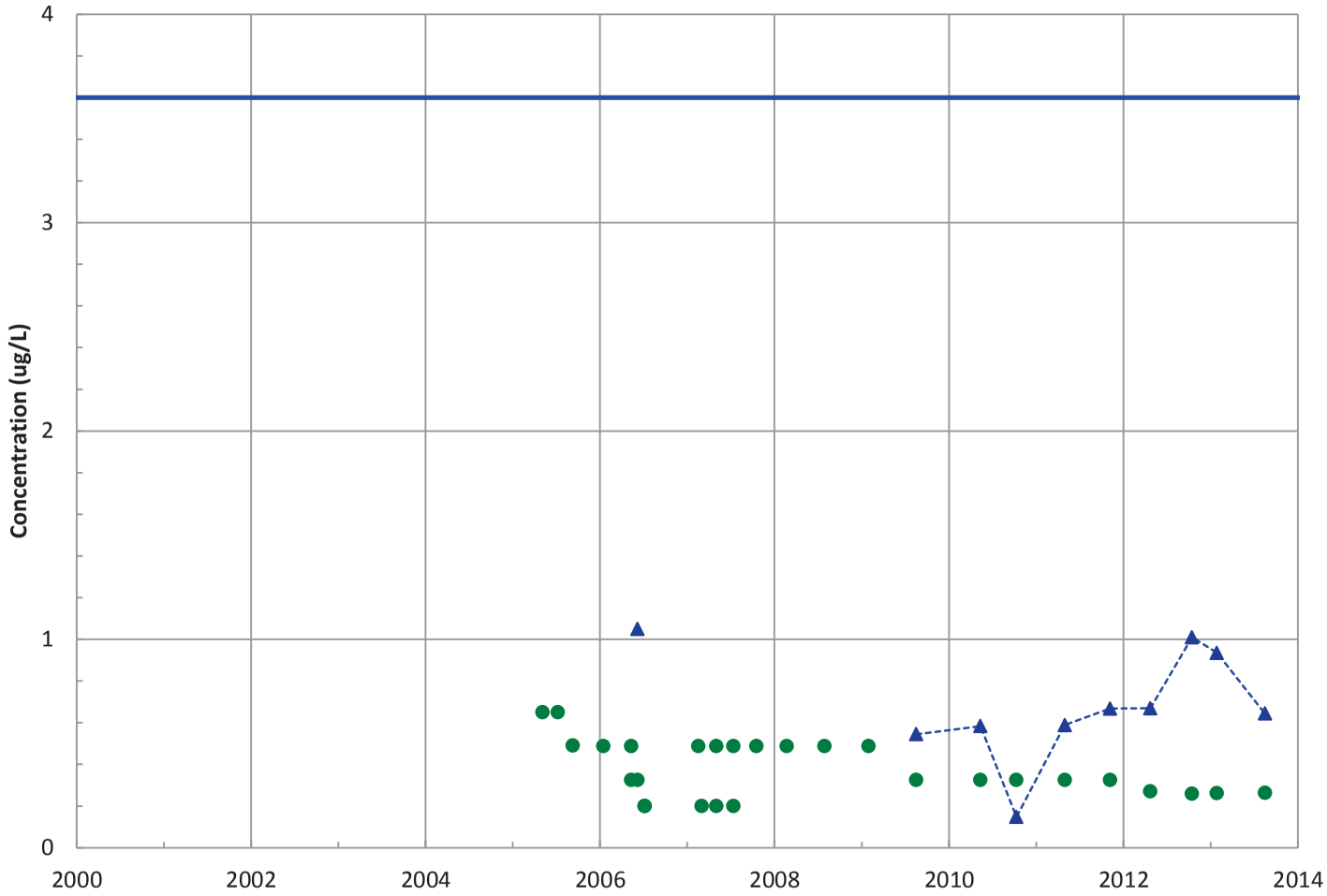
Well Location



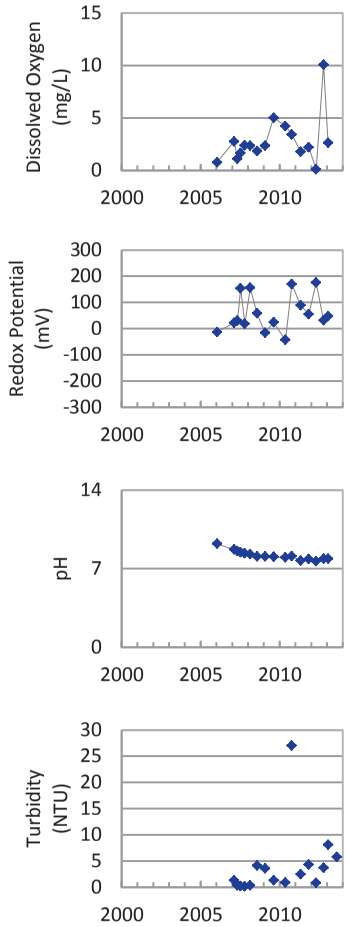
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/9/2005 to 8/26/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1095A
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



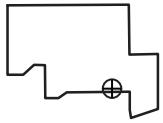
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Probably Increasing
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

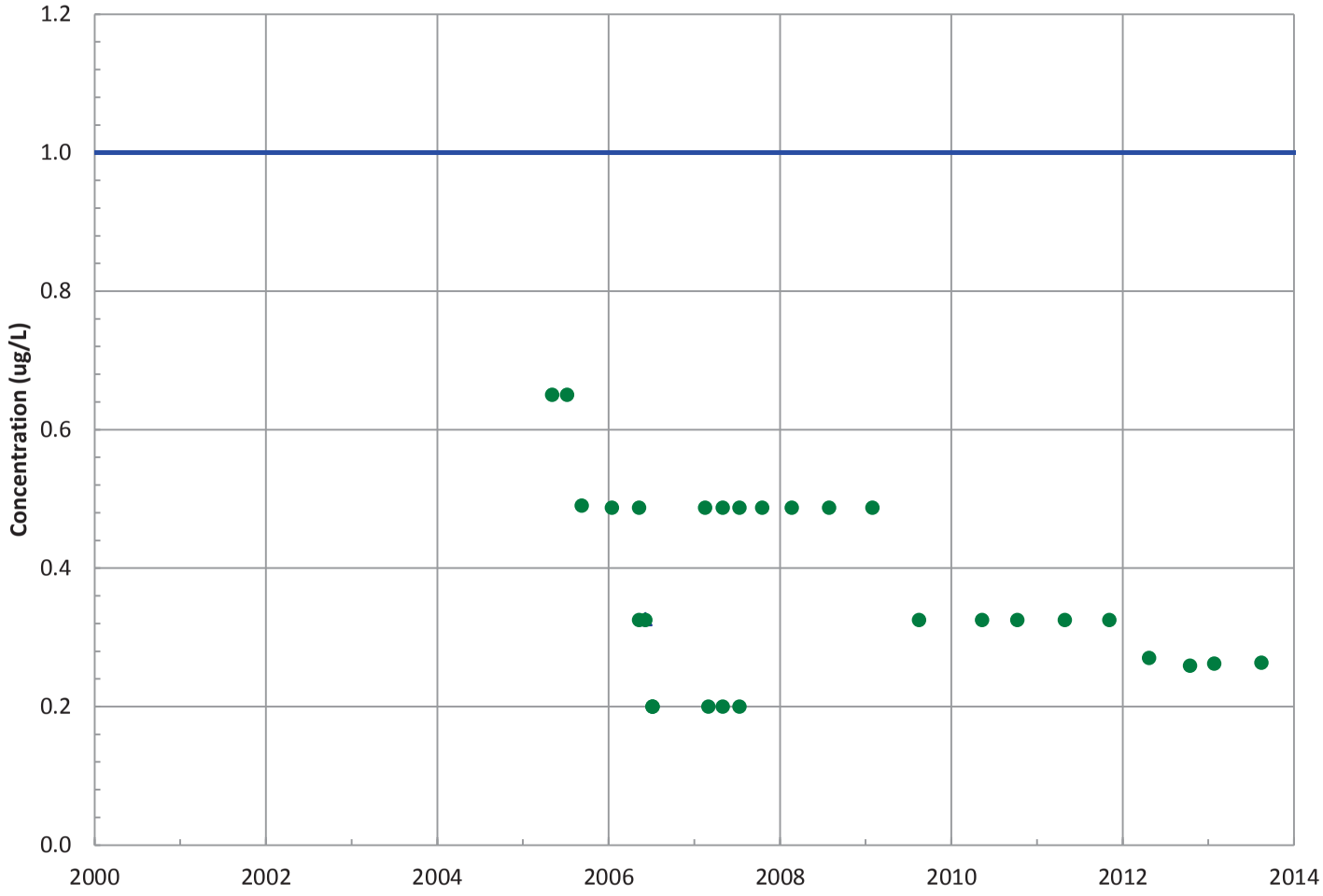
Well Location



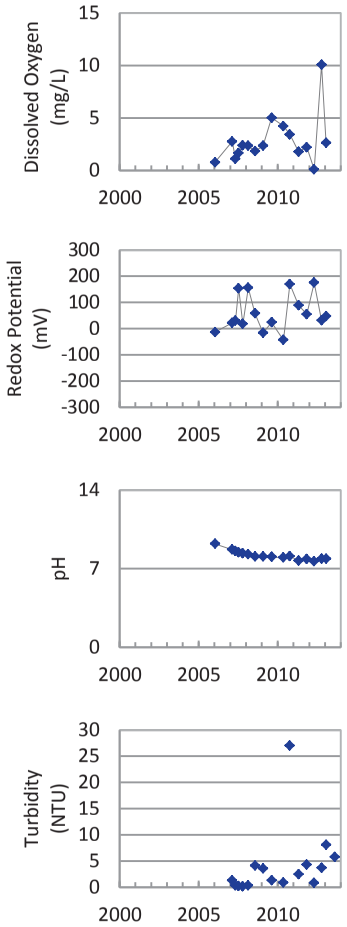
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/9/2005 to 8/26/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1095A
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): All Non-Detect

2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method

Data (7/2009 - 12/2013): All Non-Detect

2011 - 2013 Data: N/A (<4 Detections in Dataset)

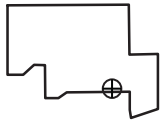
▲ Measured Value

● Sample Detection Limit

------- Concentration Trend

——— Groundwater Protection Standard

Well Location



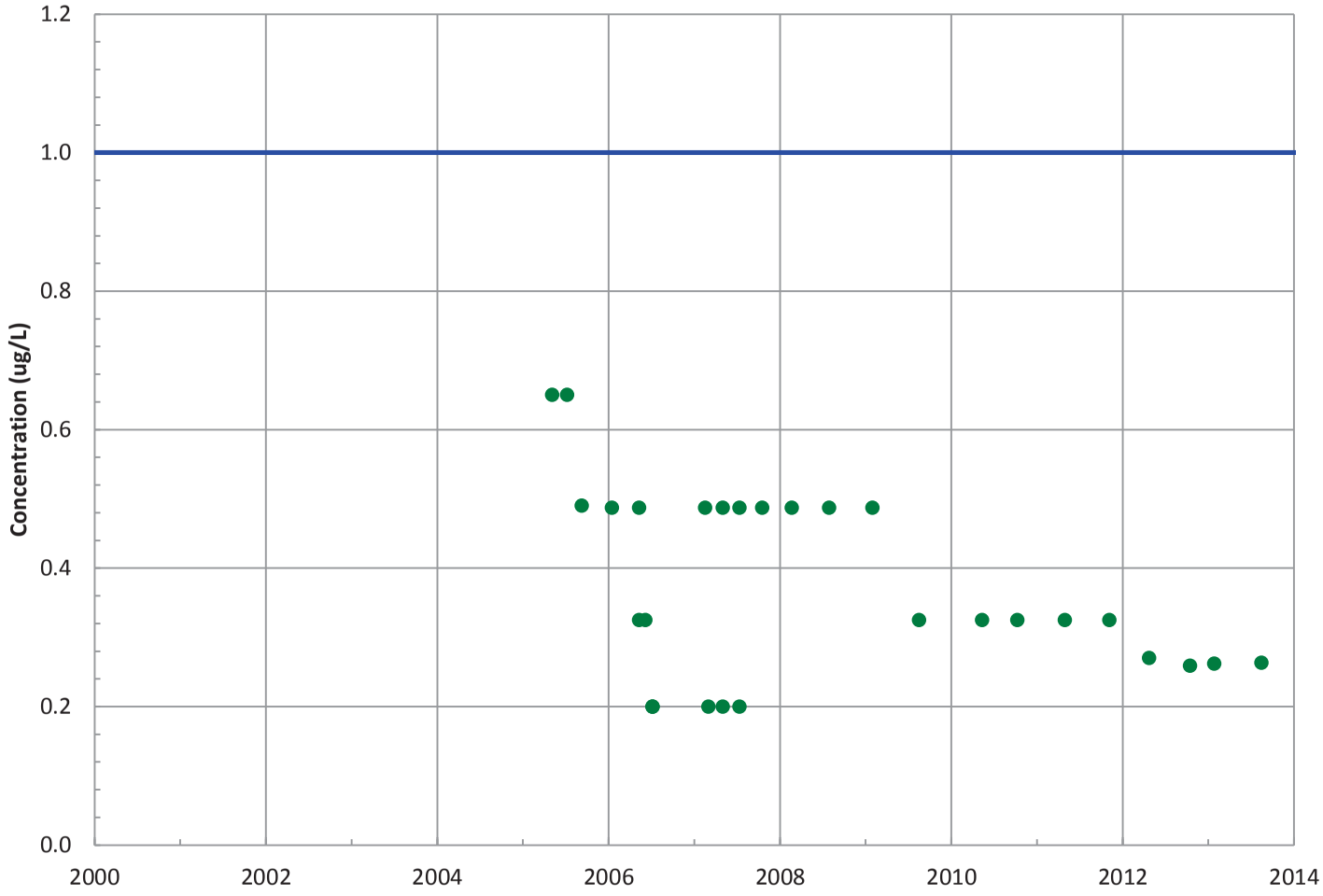
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 5/9/2005 to 8/26/2013

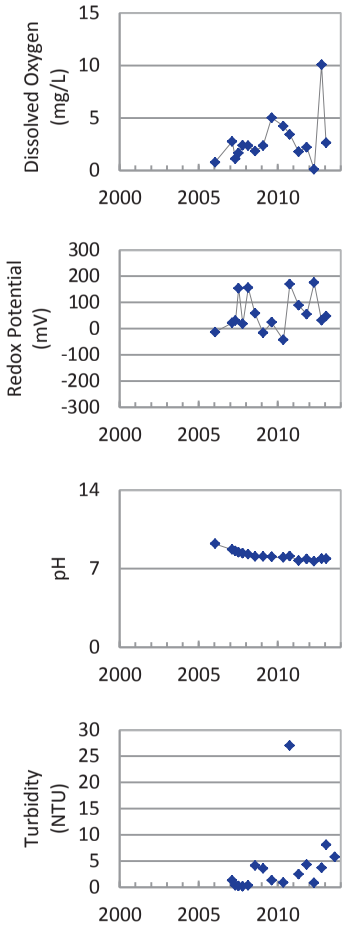
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1095A
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



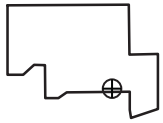
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

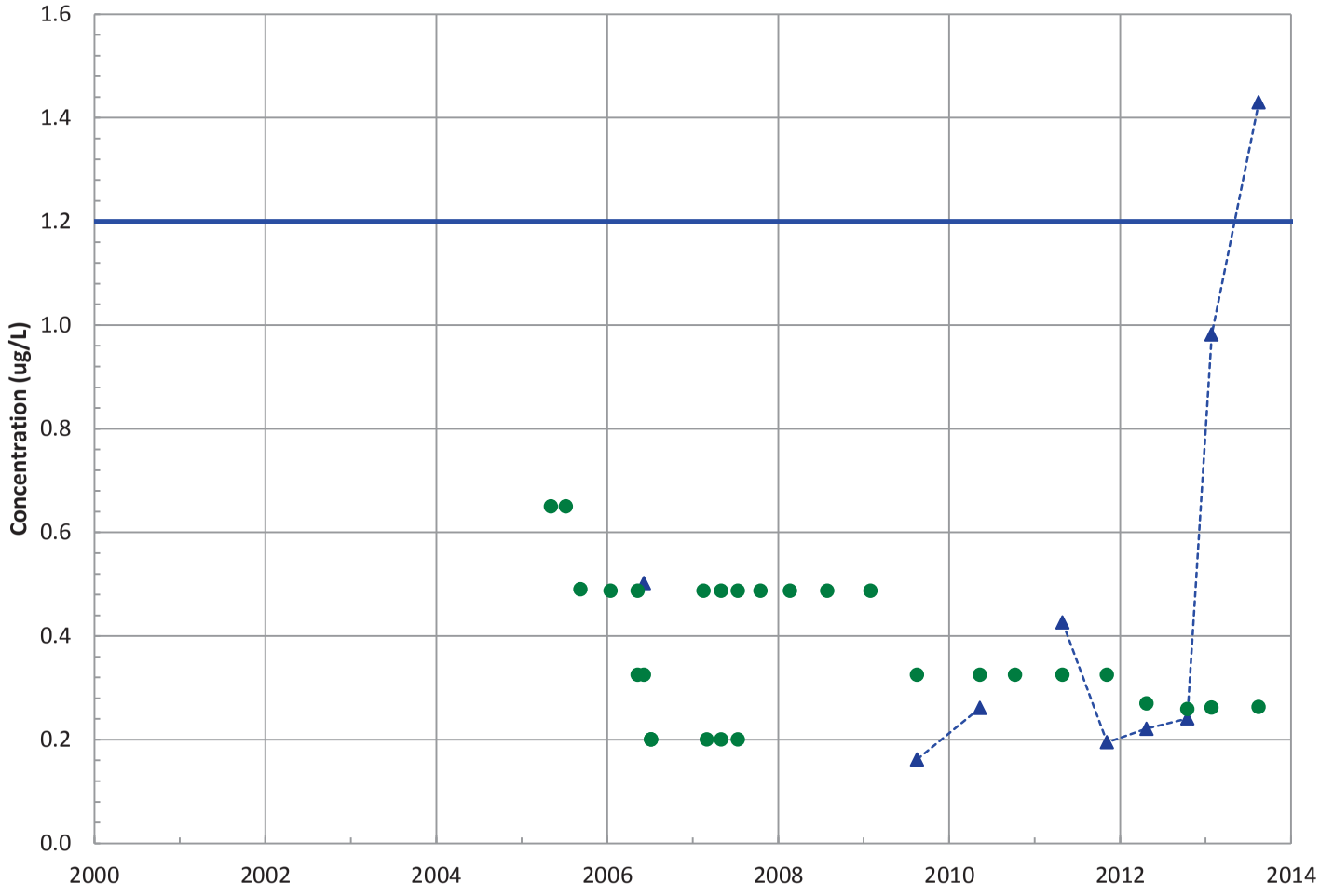
Well Location



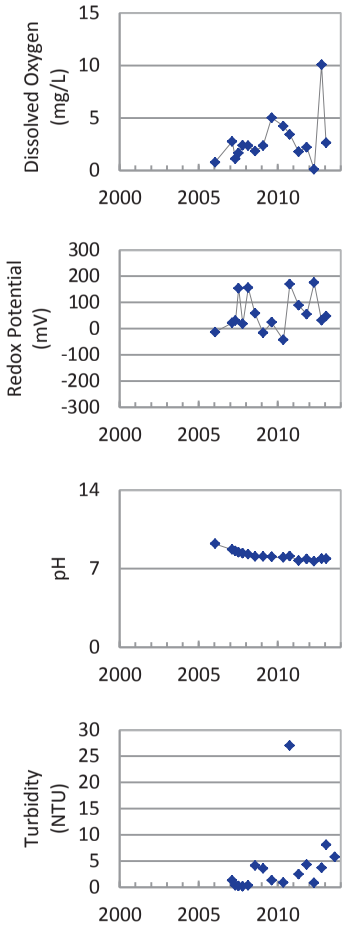
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/9/2005 to 8/26/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1095A
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



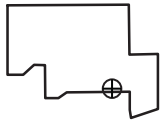
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Increasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Probably Increasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

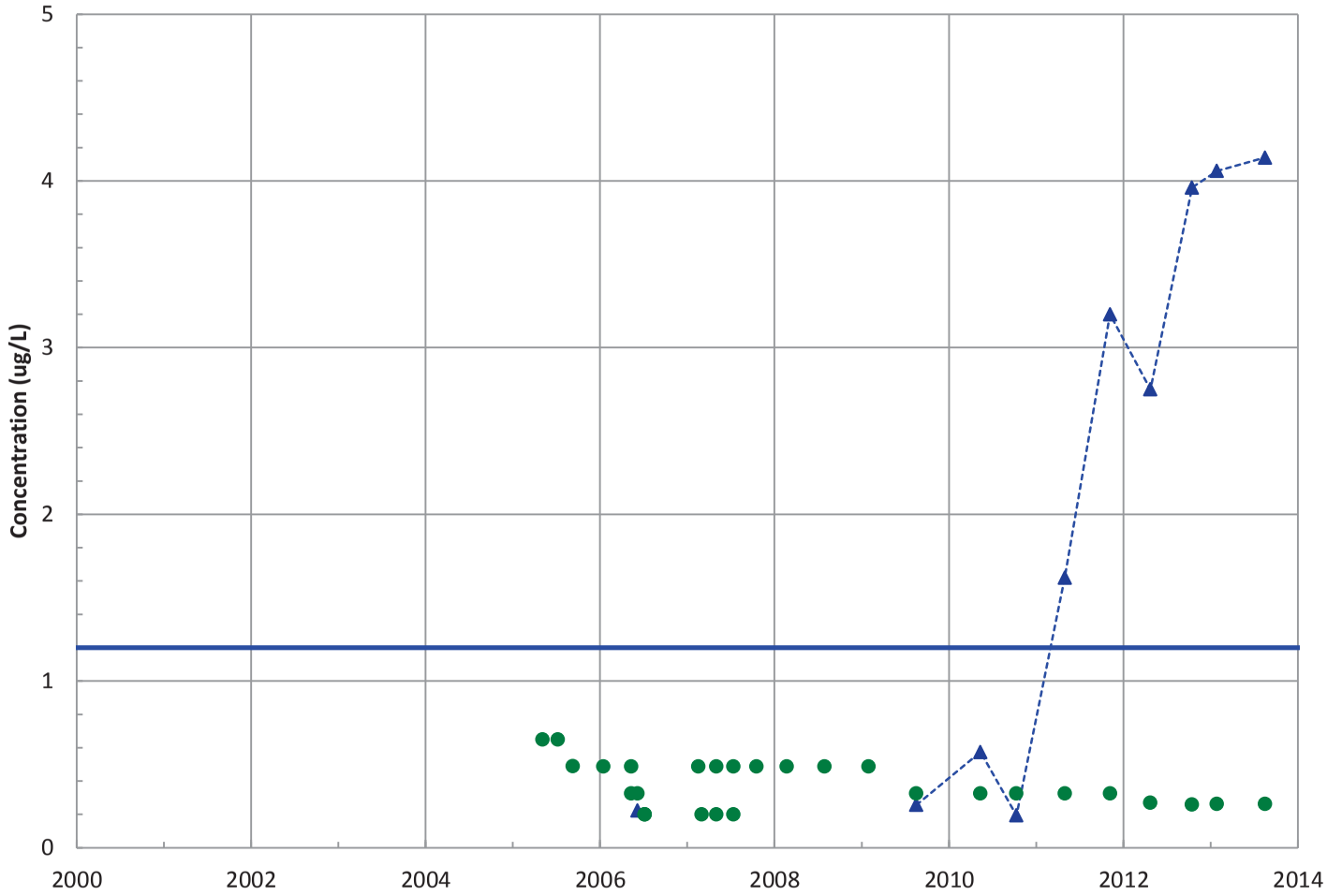
Well Location



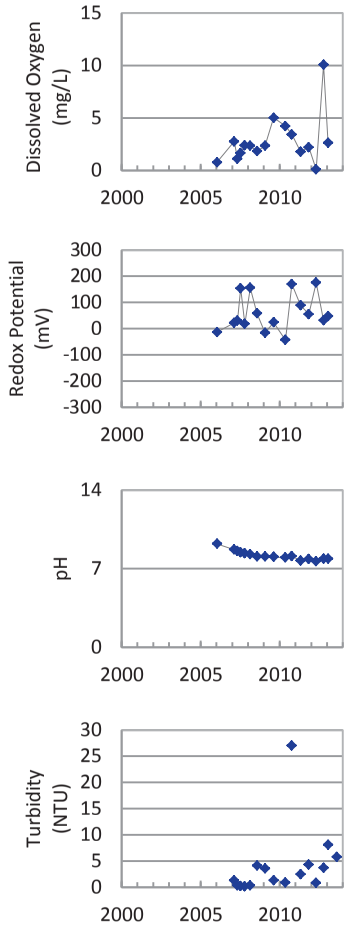
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/9/2005 to 8/26/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1095A
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



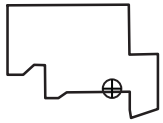
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Increasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Increasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

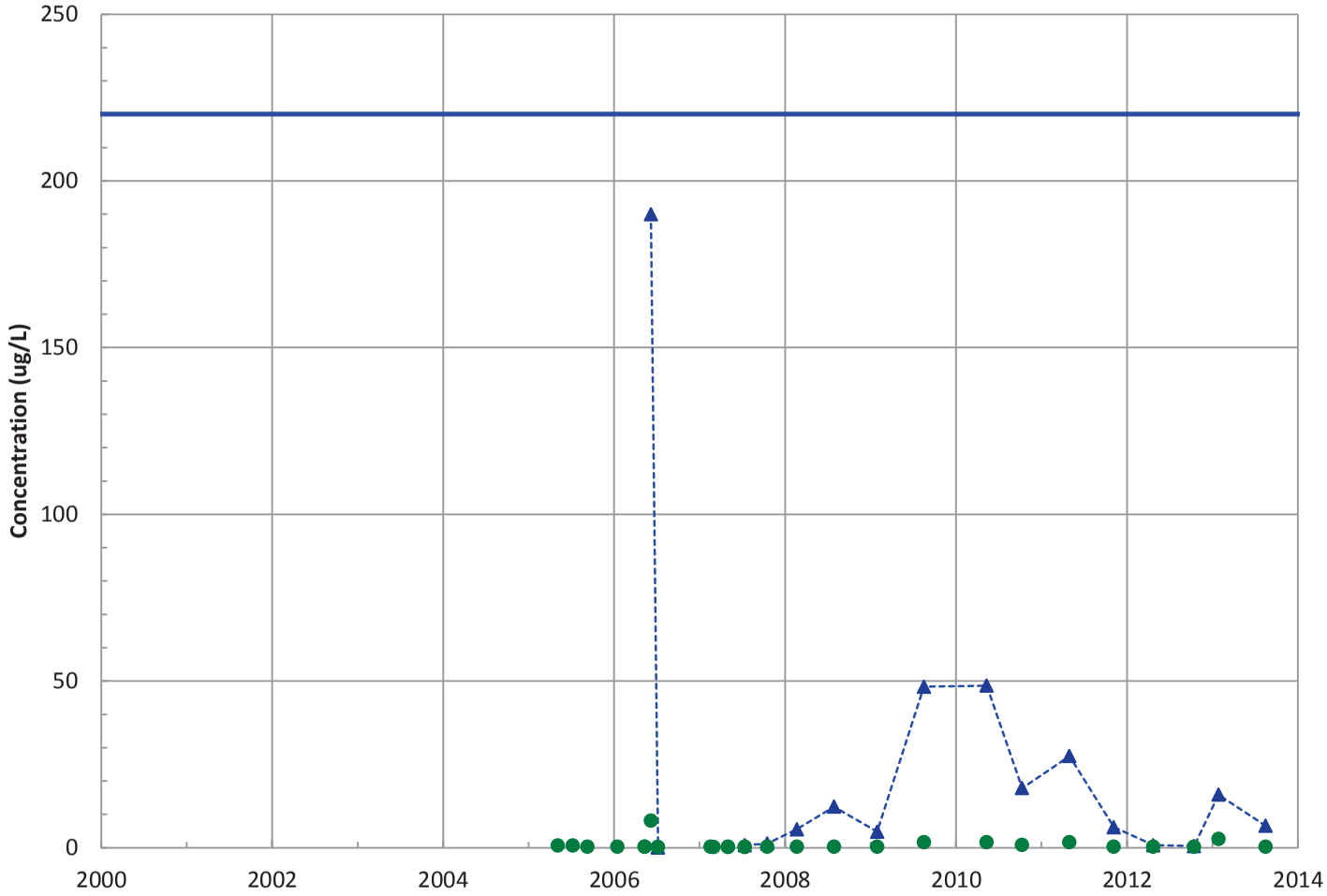
Well Location



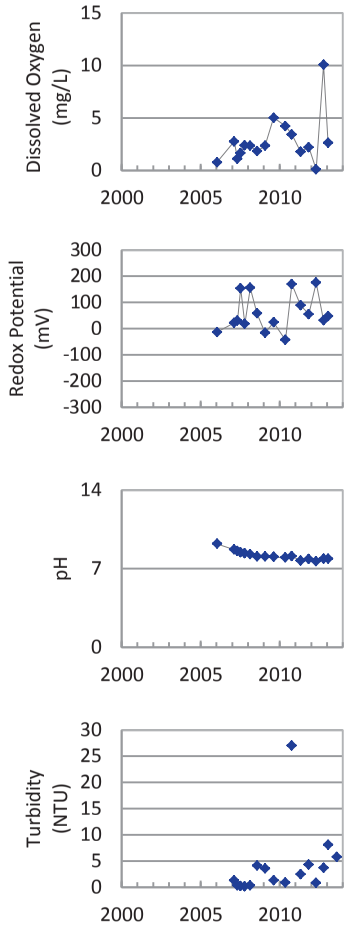
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/9/2005 to 8/26/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1095A
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



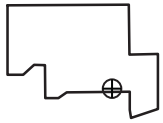
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Increasing

- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

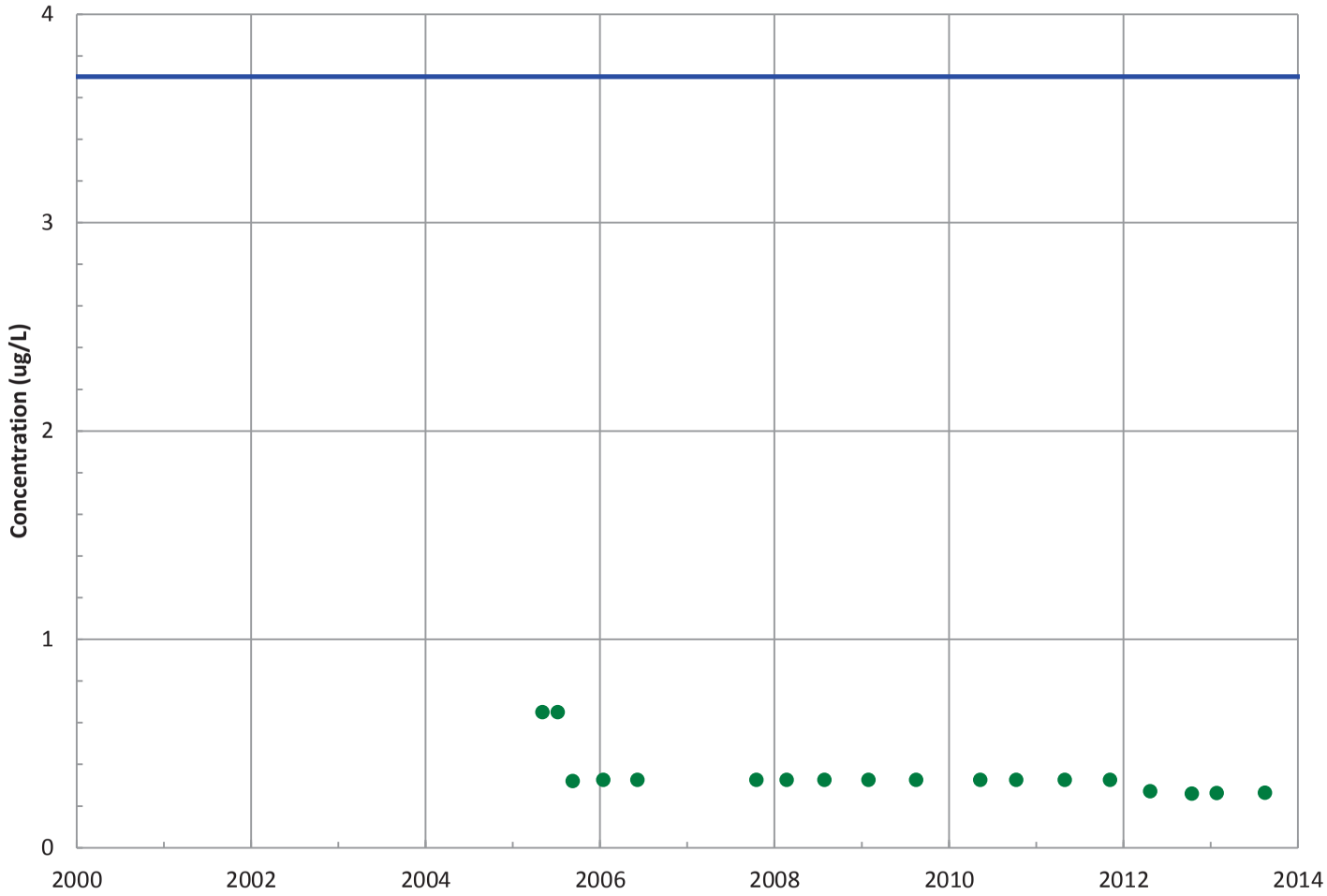
Well Location



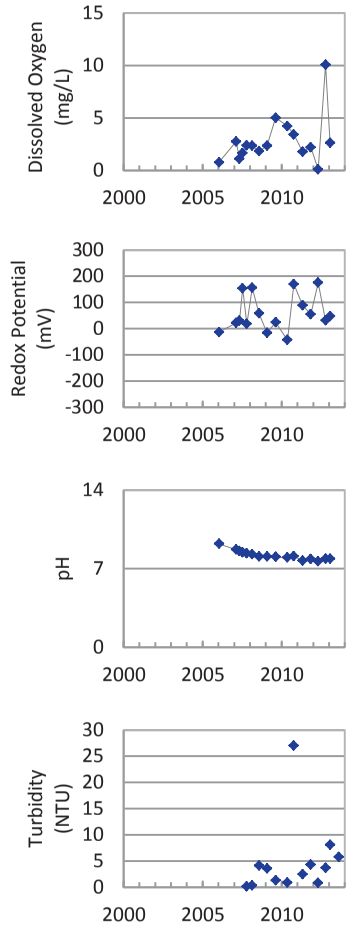
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/9/2005 to 8/26/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1095A
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



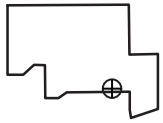
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

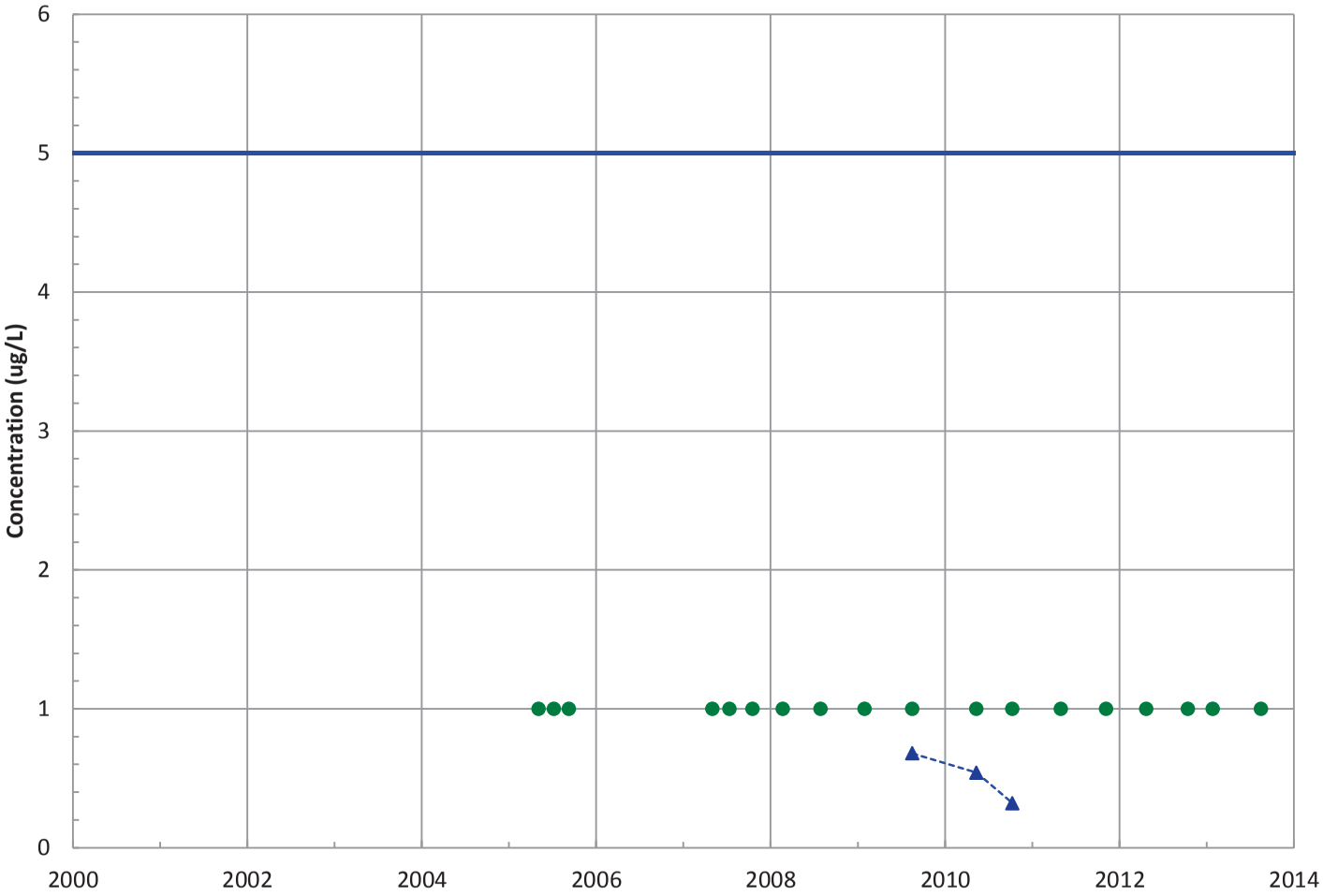
Well Location



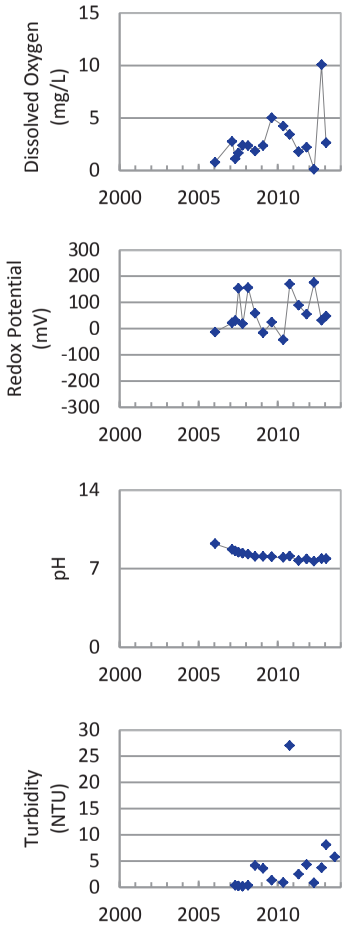
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/9/2005 to 8/26/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1095A
Tetrachloroethylene (PCE) Trend in Perched Aquifer



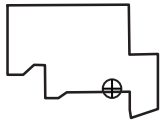
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: All Non-Detect
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

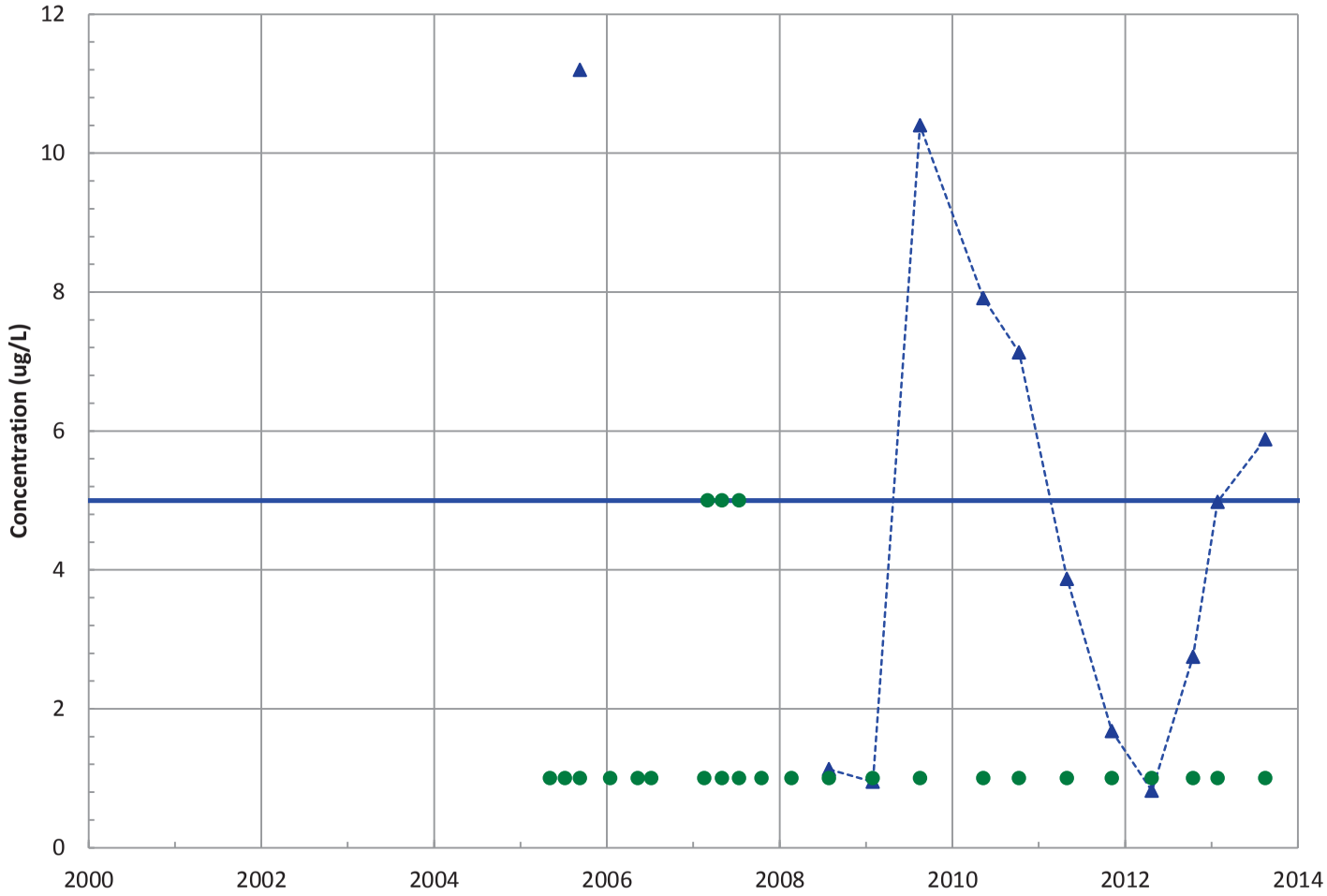
Well Location



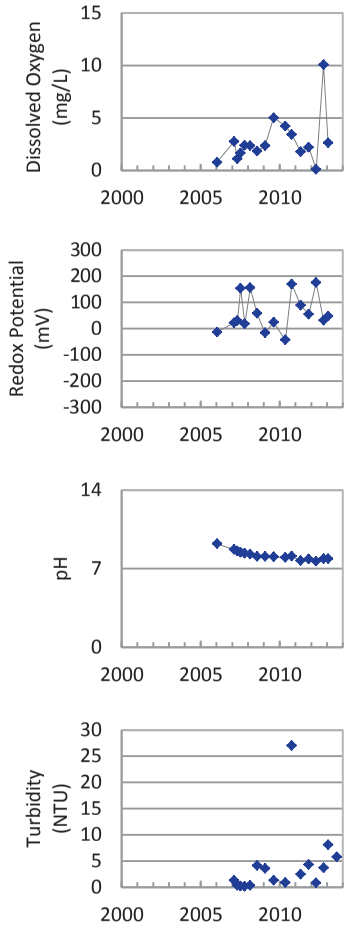
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/9/2005 to 8/26/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1095A
Trichloroethene Trend in Perched Aquifer



Field Parameters



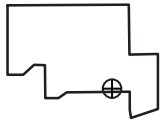
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Increasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Increasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

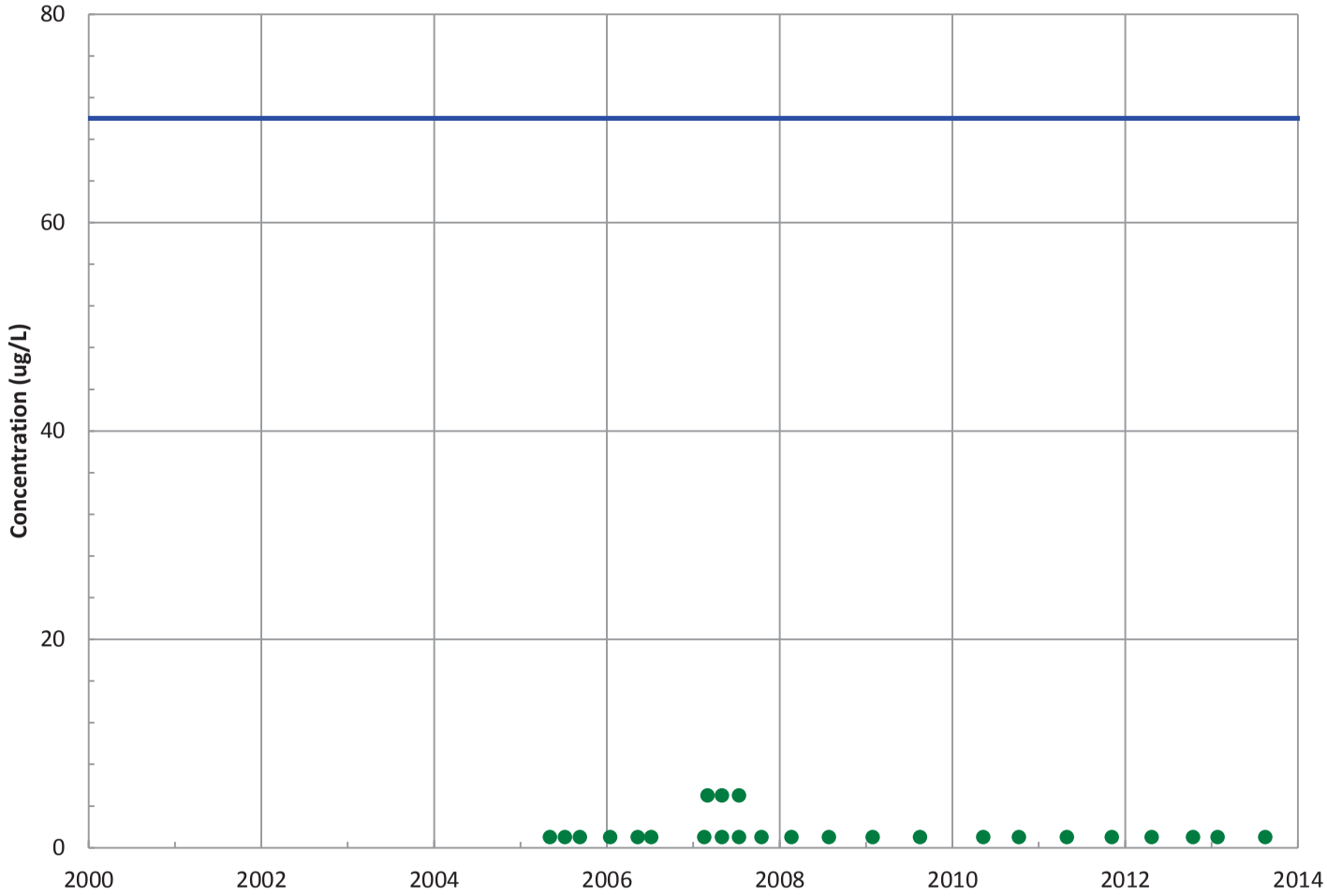
Well Location



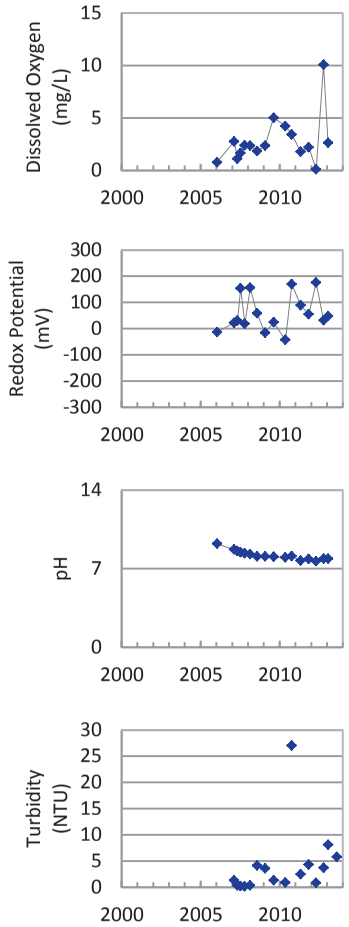
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/9/2005 to 8/26/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1095A
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



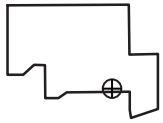
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

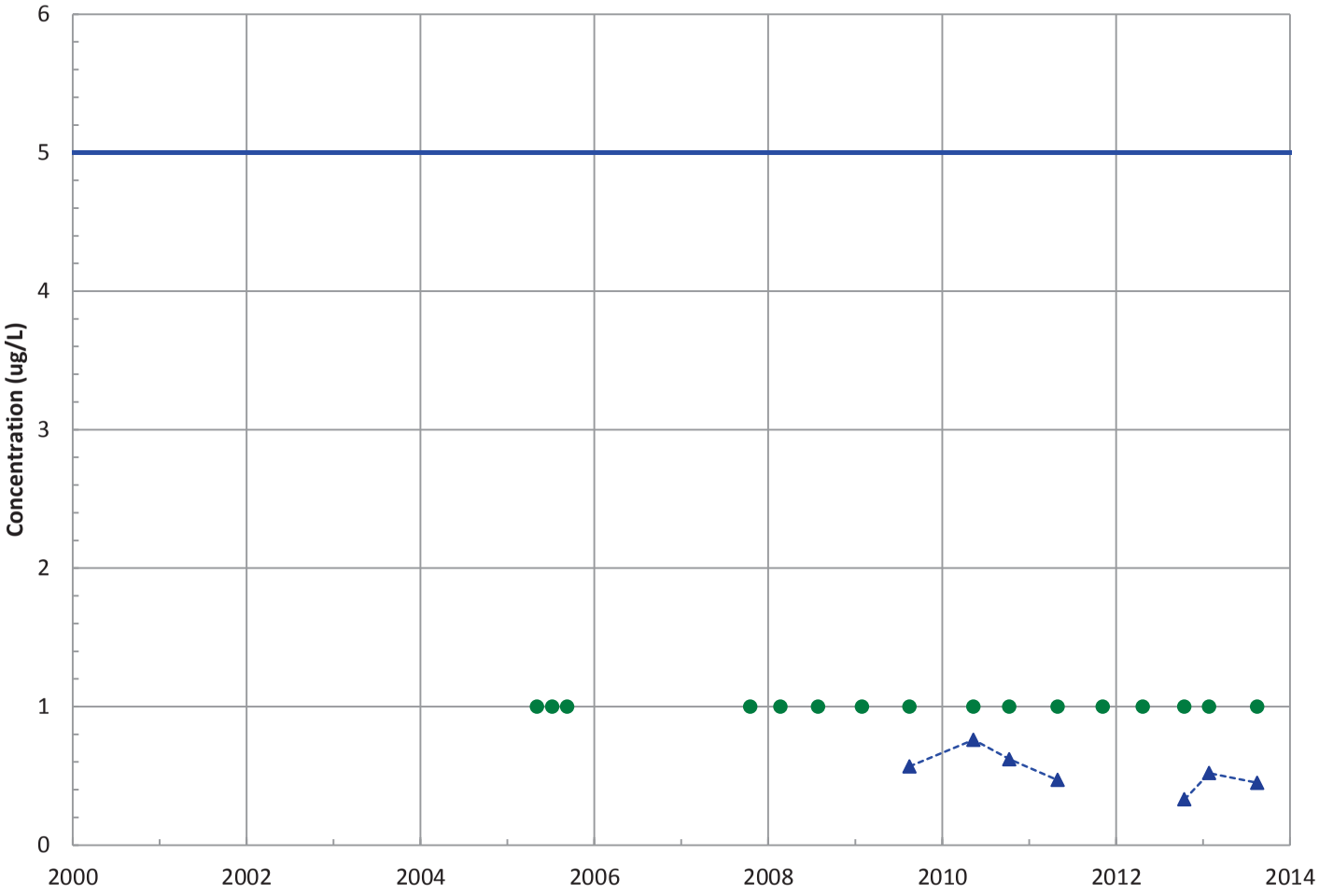
Well Location



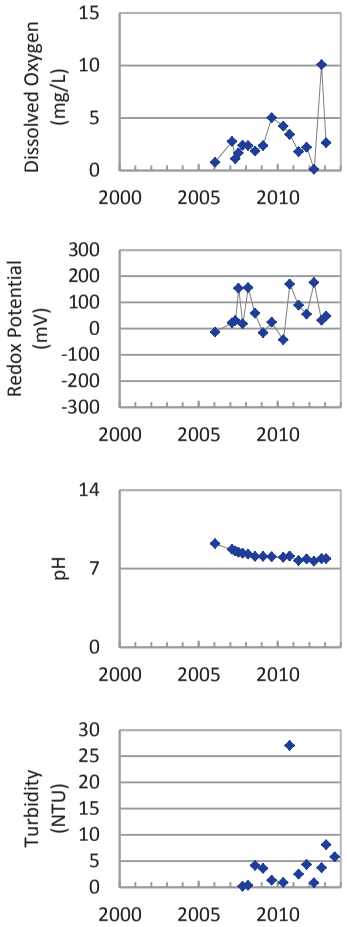
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/9/2005 to 8/26/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1095A
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Decreasing

2011 - 2013 Data: N/A (<4 Detections in Dataset)

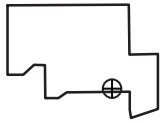
MAROS Linear Regression Method

Data (7/2009 - 12/2013): Probably Decreasing

2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location



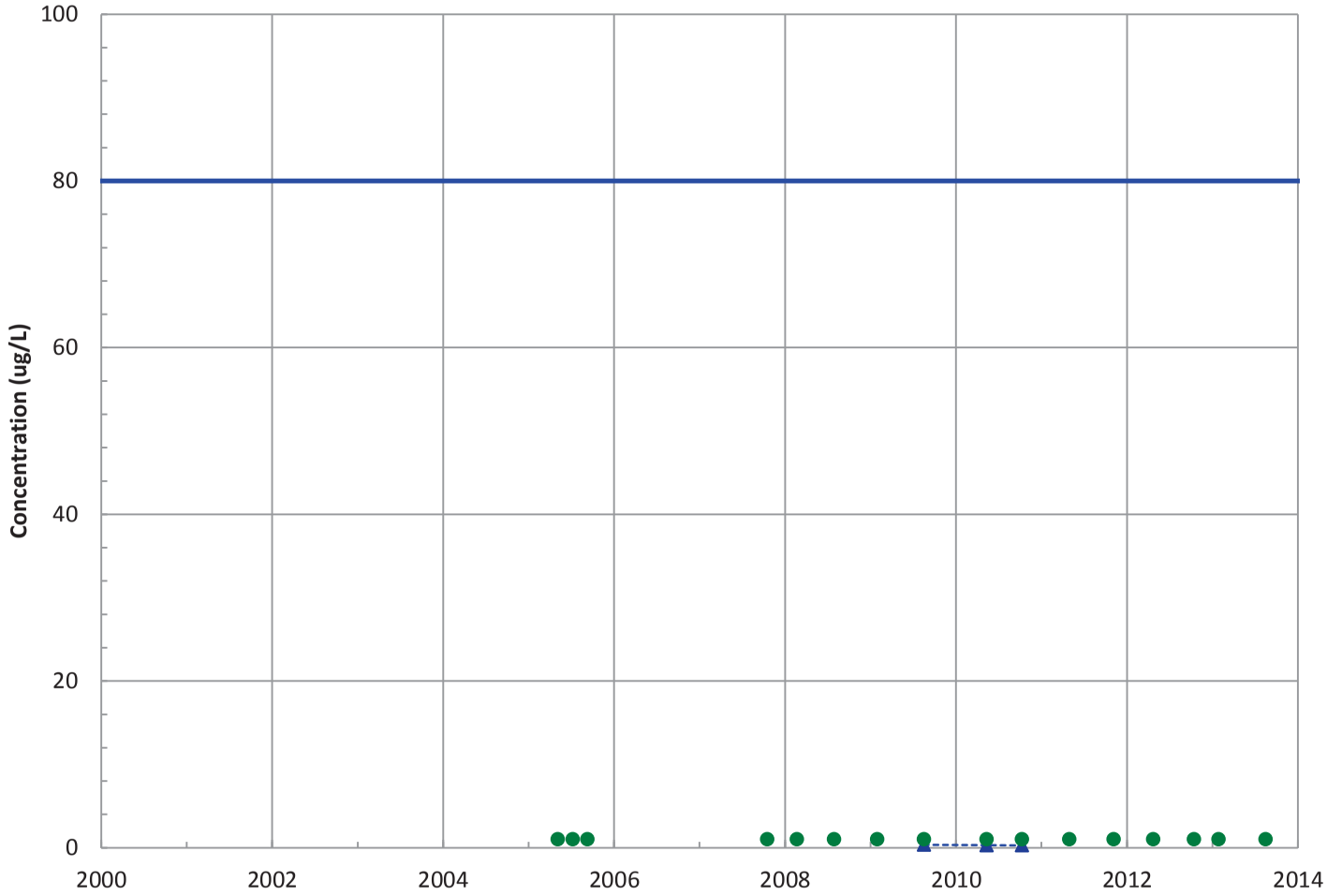
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 5/9/2005 to 8/26/2013

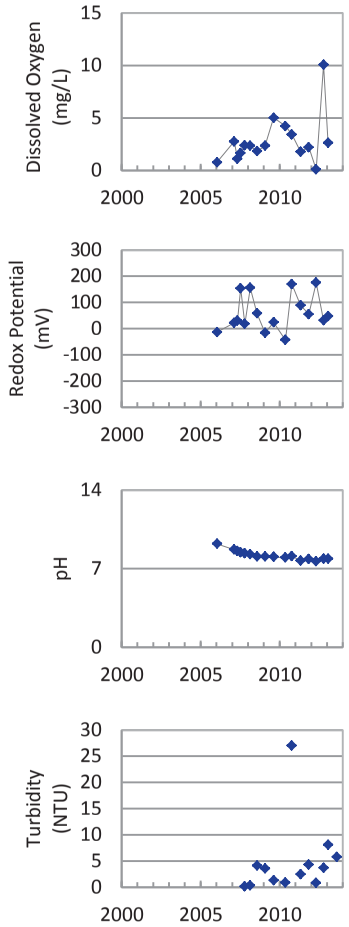
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1095A
Chloroform Trend in Perched Aquifer



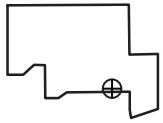
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: All Non-Detect
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

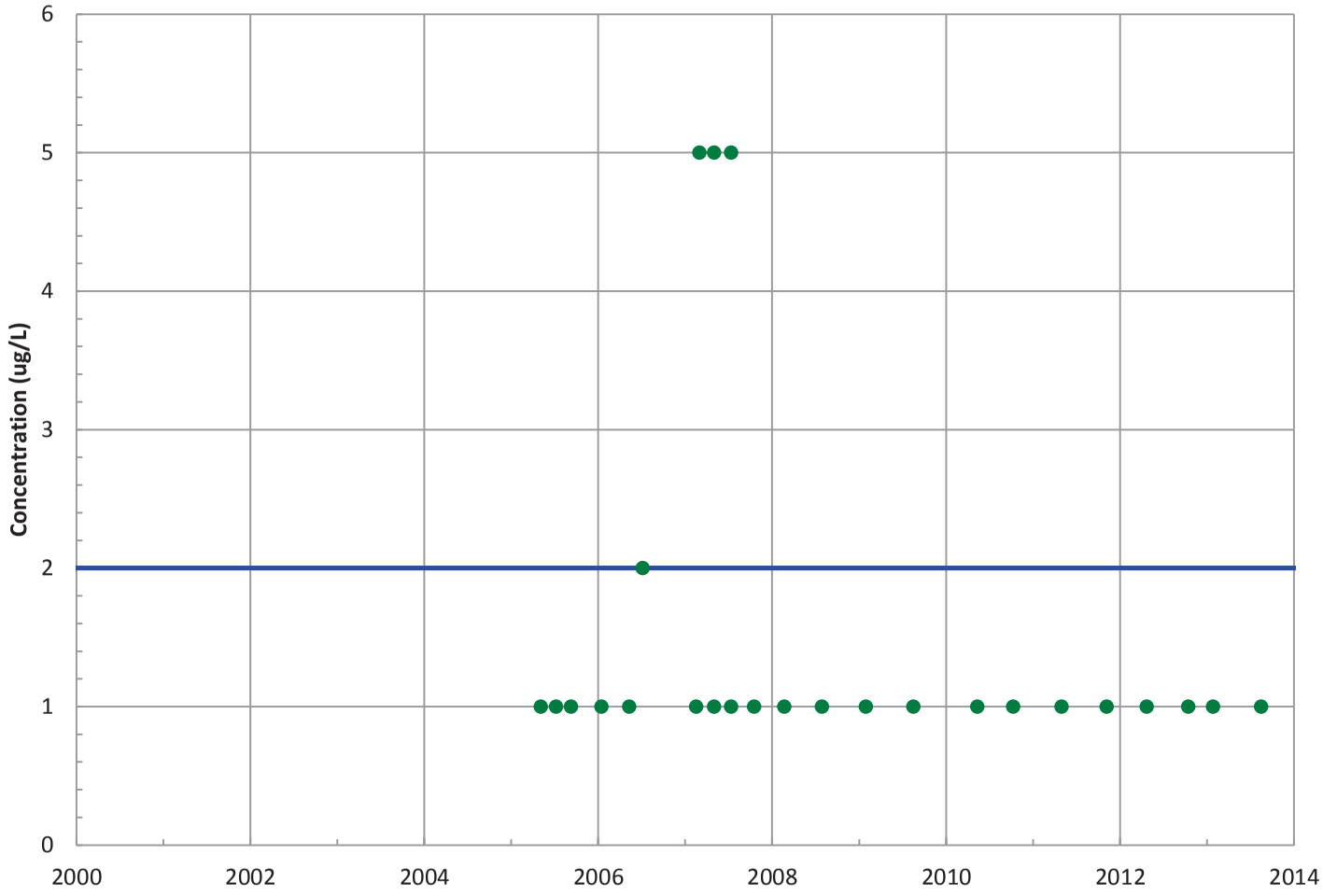
Well Location



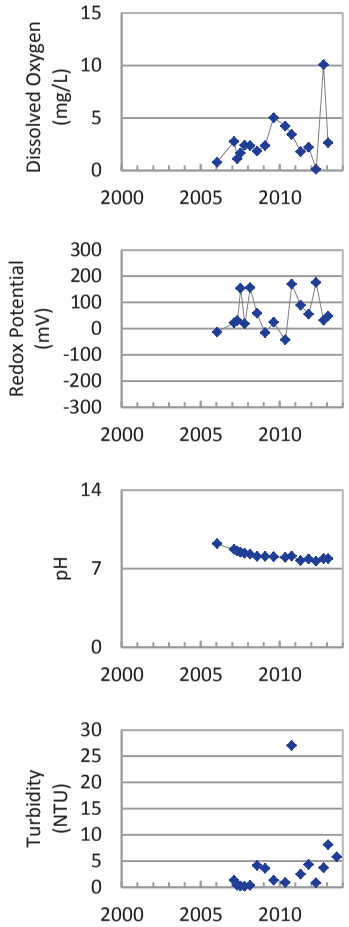
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/9/2005 to 8/26/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1095A
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



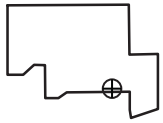
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

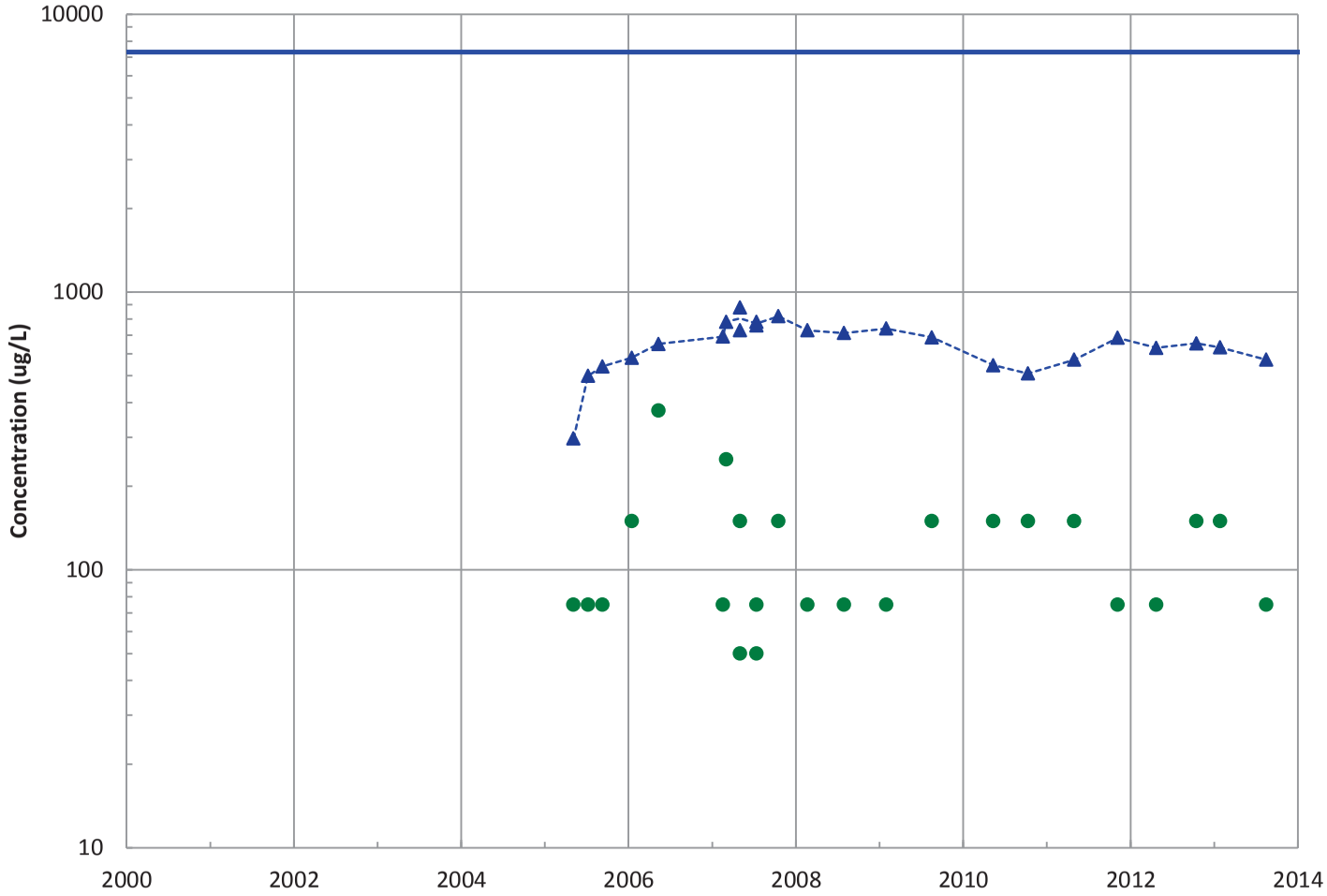
Well Location



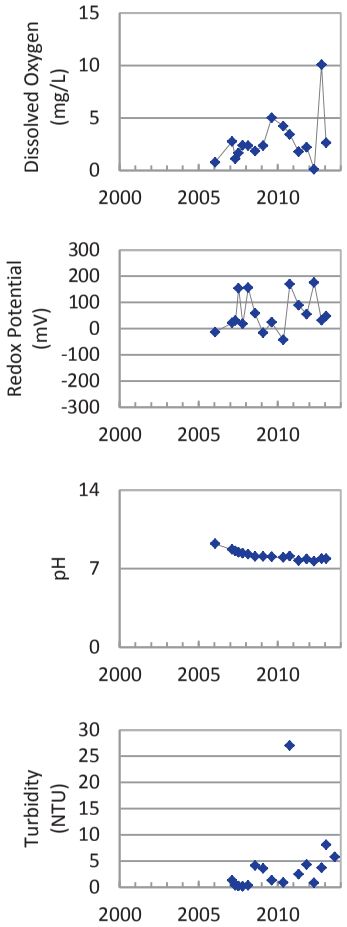
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/9/2005 to 8/26/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1095A
Boron Trend in Perched Aquifer



Field Parameters



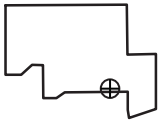
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Probably Decreasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

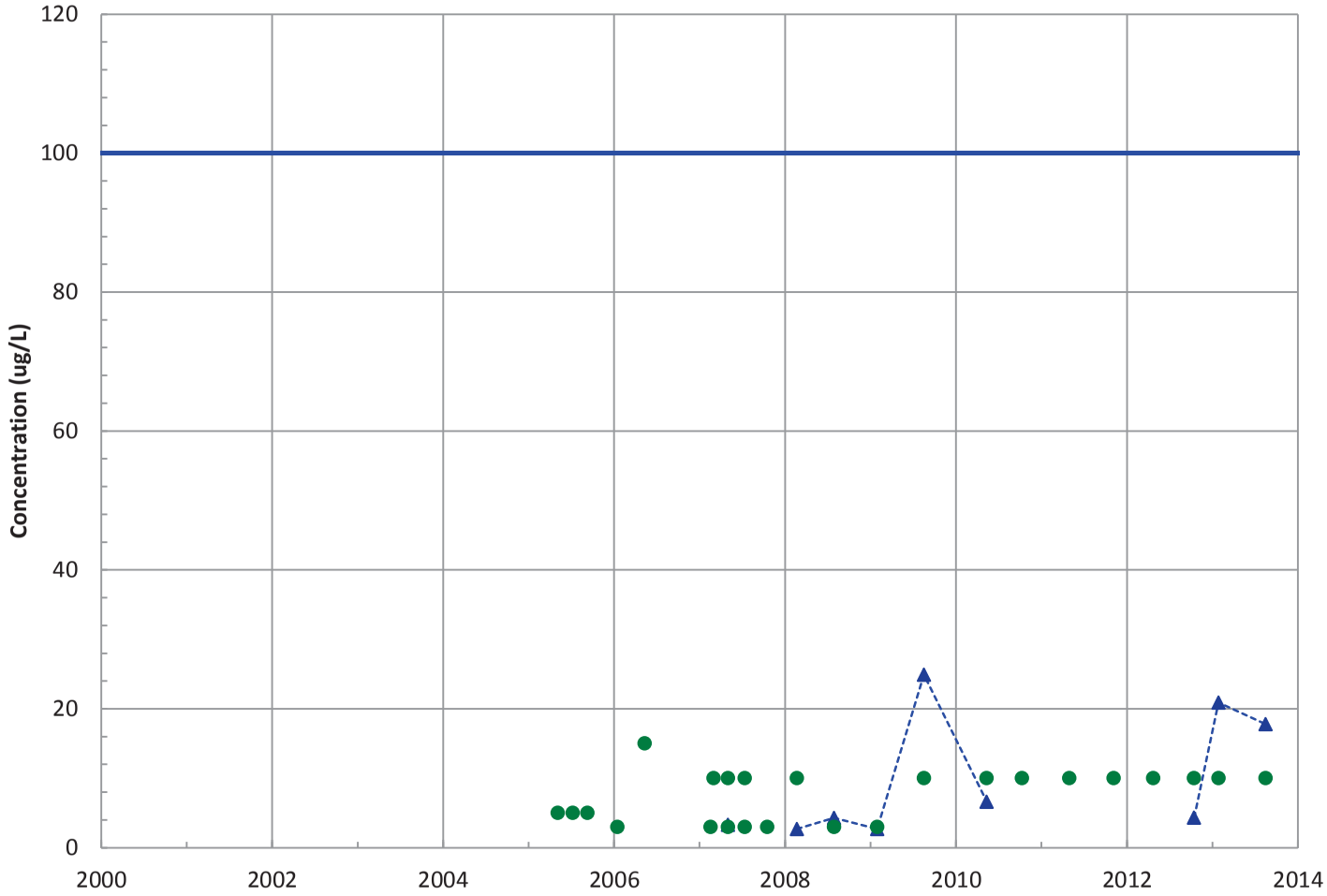
Well Location



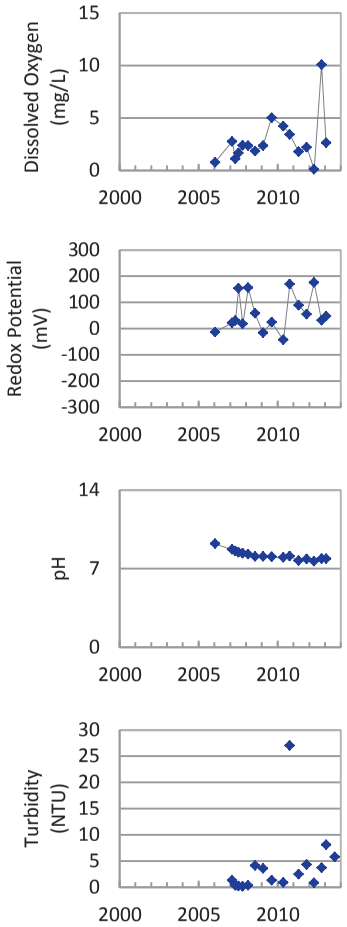
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/9/2005 to 8/26/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1095A
Chromium, Total Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Decreasing

2011 - 2013 Data: N/A (<4 Detections in Dataset)

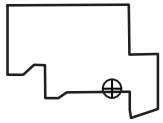
MAROS Linear Regression Method

Data (7/2009 - 12/2013): Stable

2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location



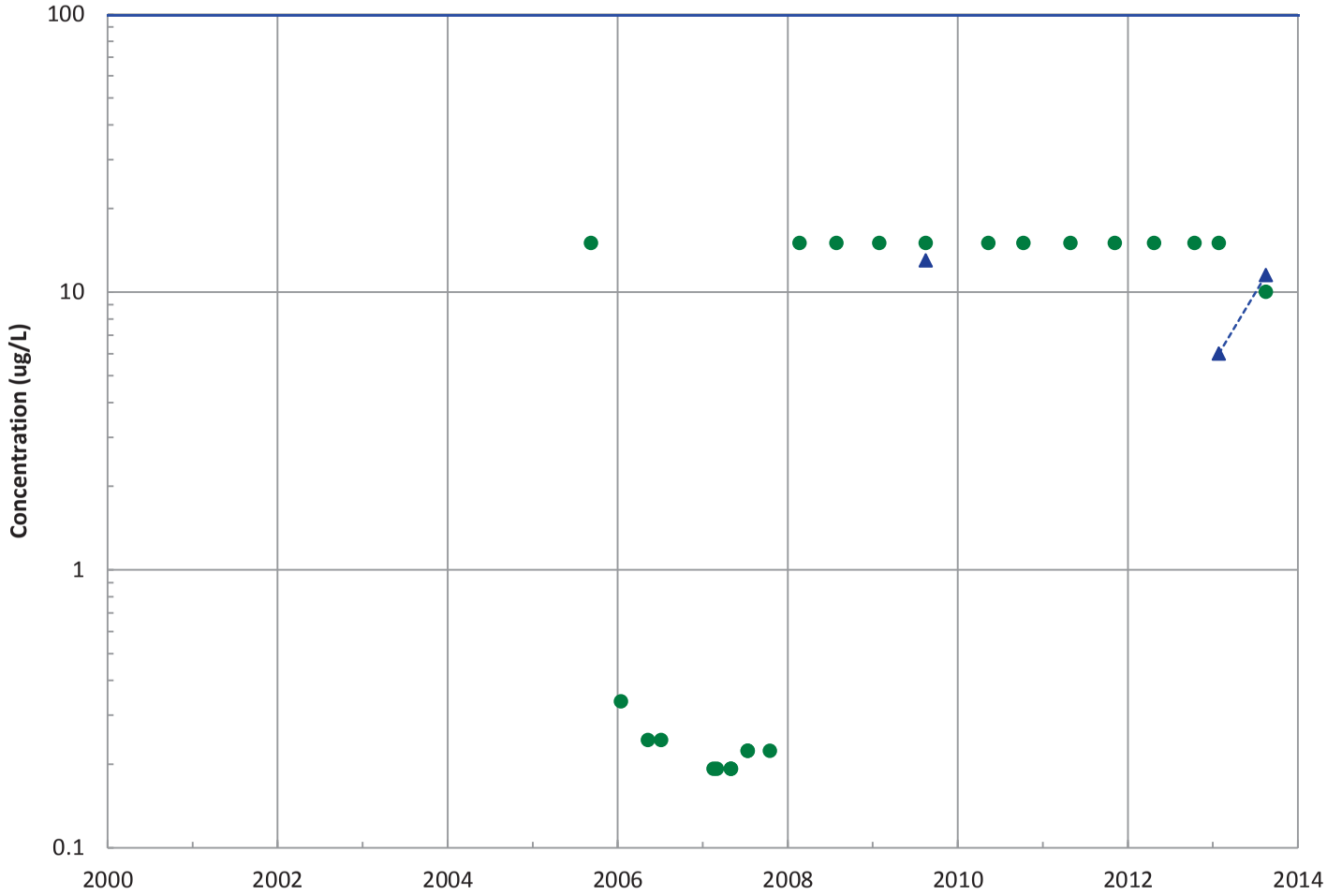
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 5/9/2005 to 8/26/2013

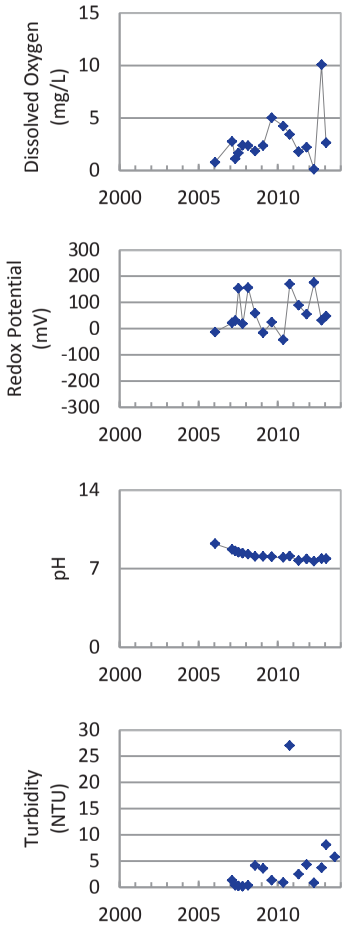
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1095A
Chromium, Hexavalent Trend in Perched Aquifer



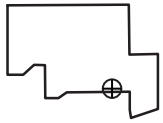
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

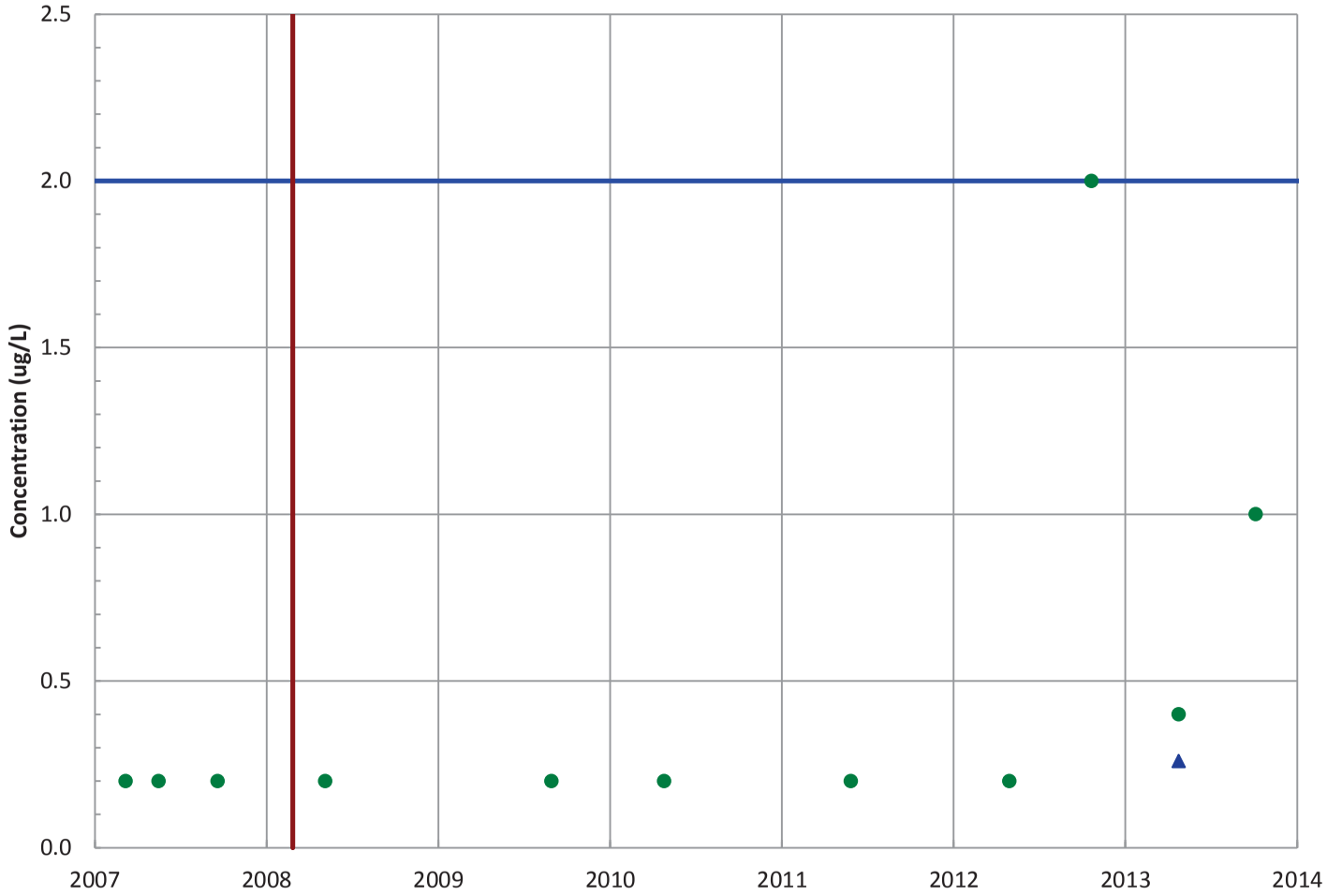
Well Location



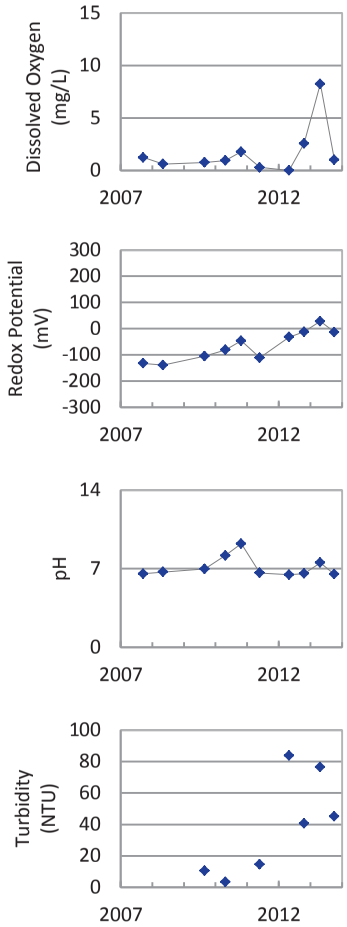
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/13/2005 to 8/26/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1098
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



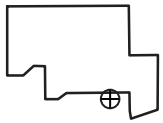
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

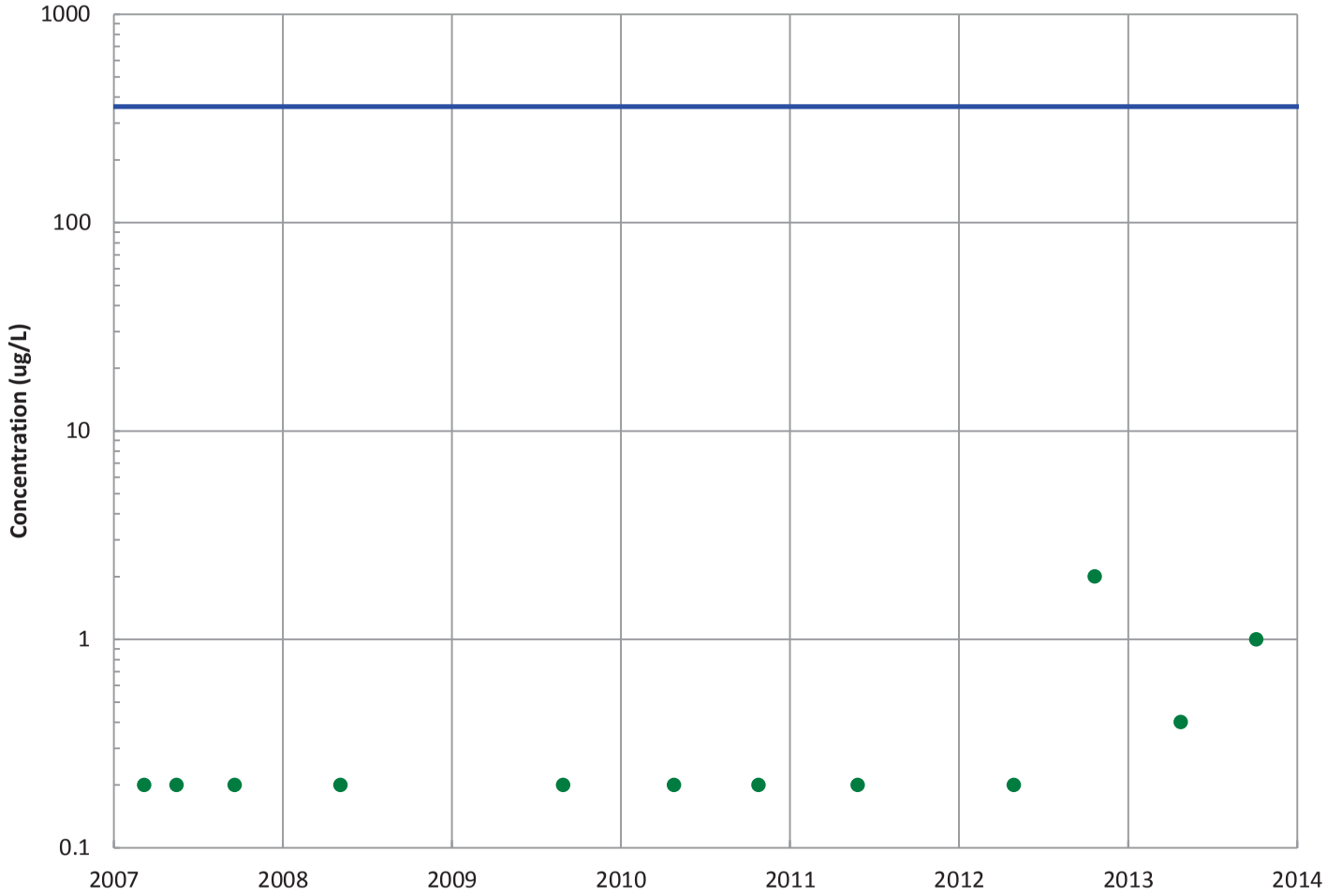
Well Location



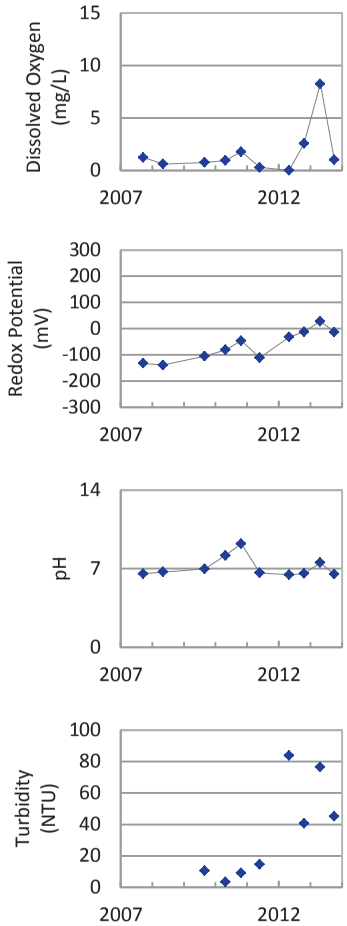
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/8/2007 to 10/10/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1098
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



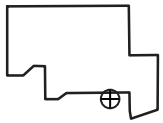
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

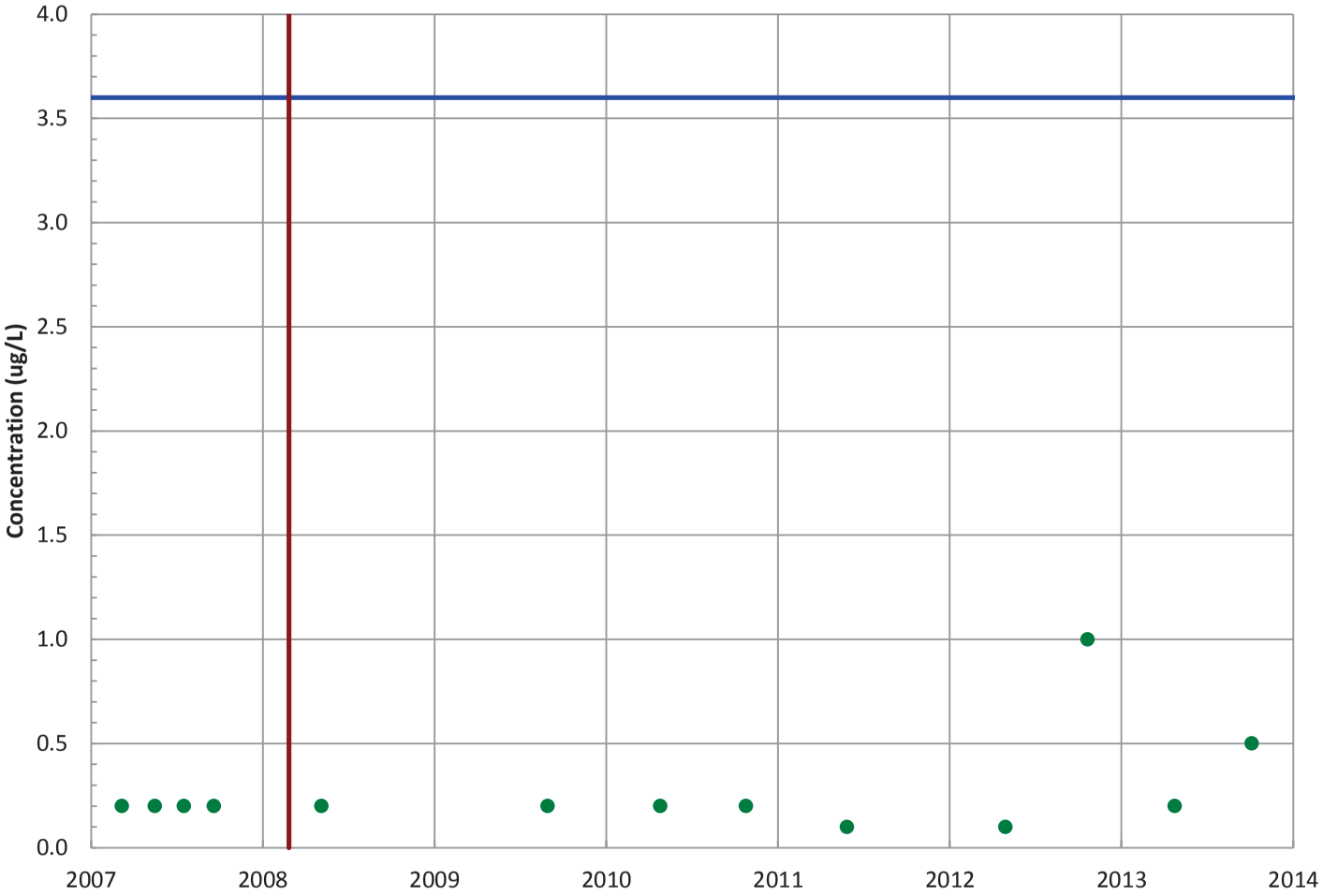
Well Location



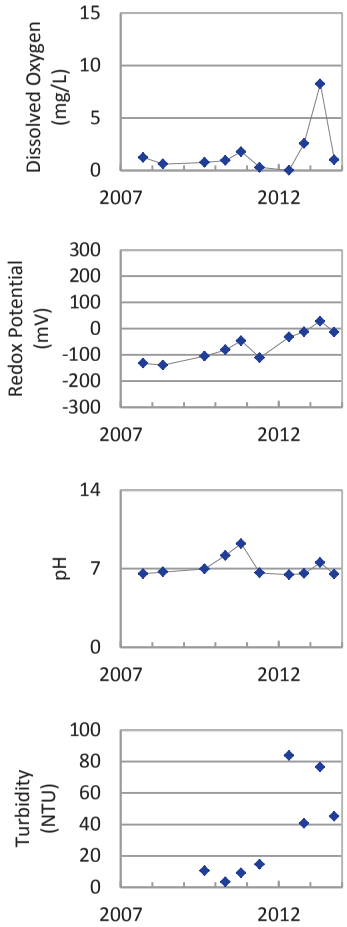
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/8/2007 to 10/10/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1098
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



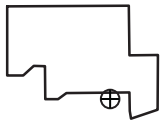
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

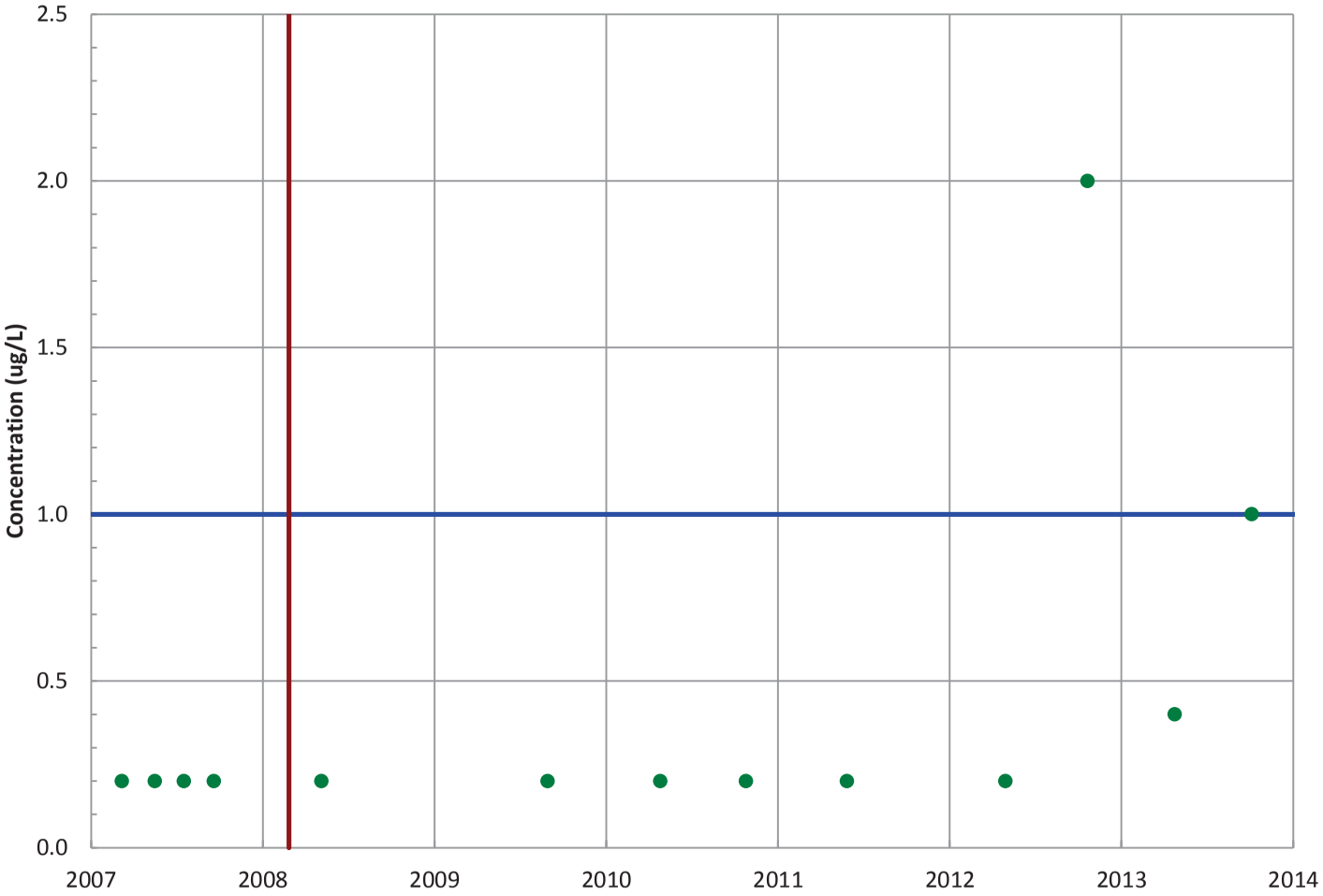
Well Location



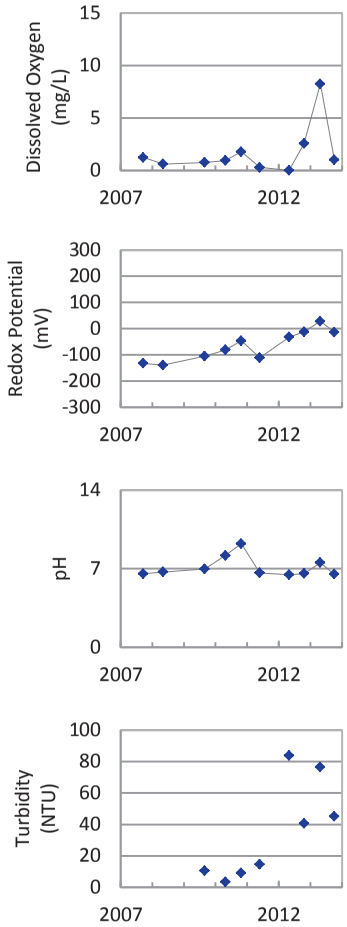
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/8/2007 to 10/10/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1098
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



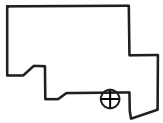
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

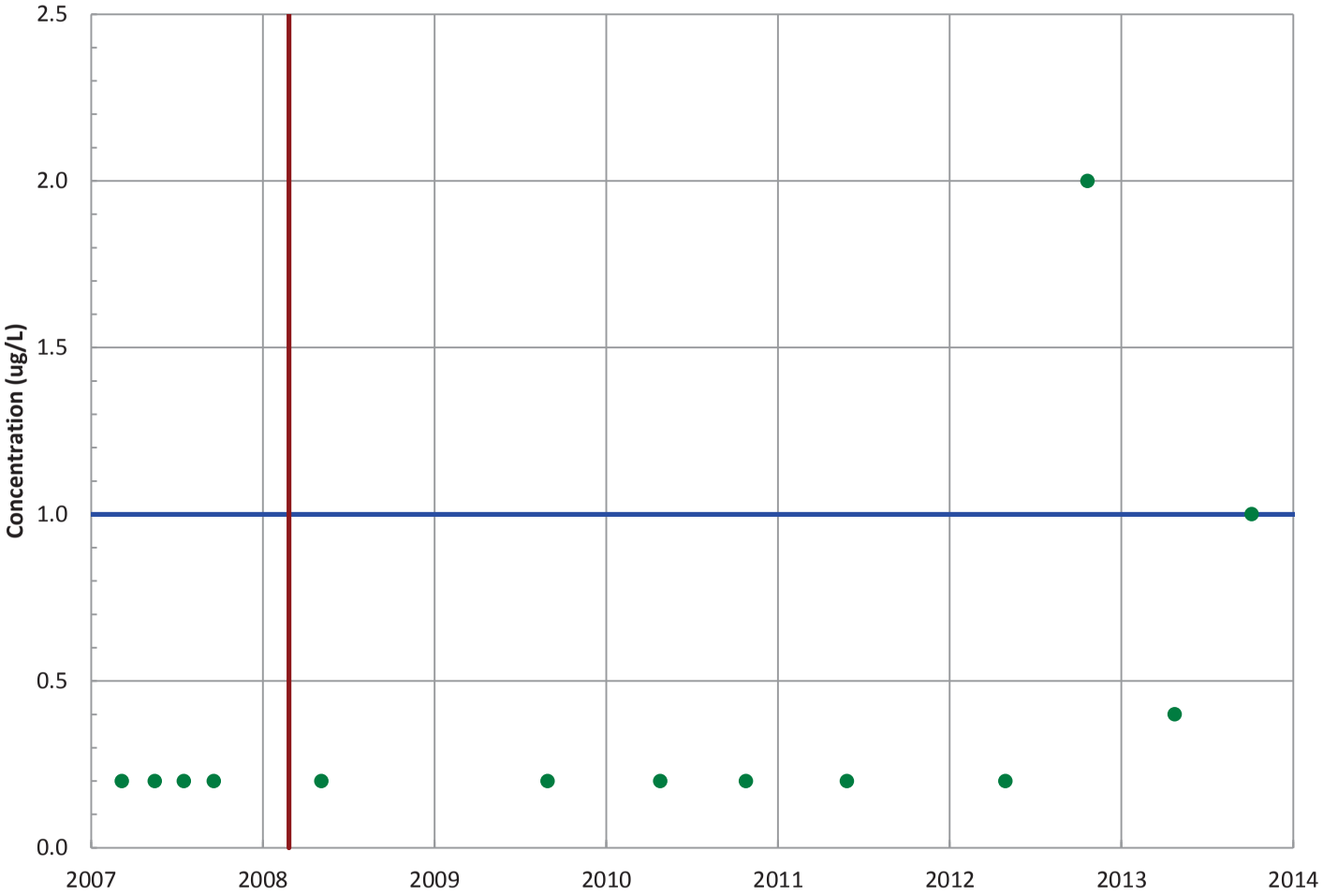
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/8/2007 to 10/10/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1098
2,6-Dinitrotoluene Trend in Perched Aquifer



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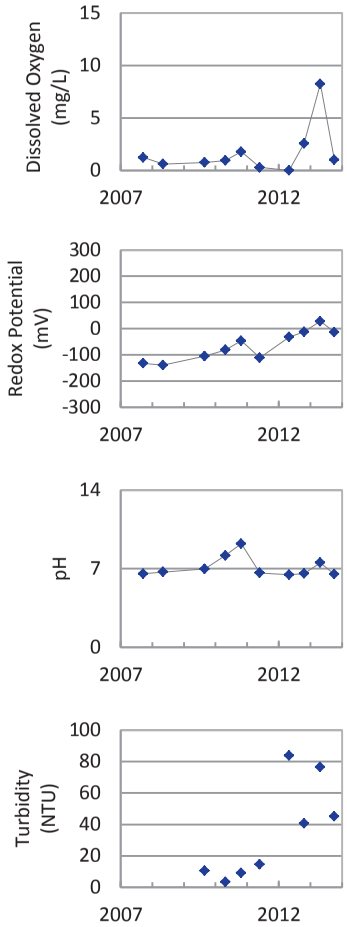


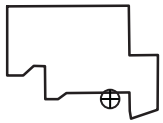
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

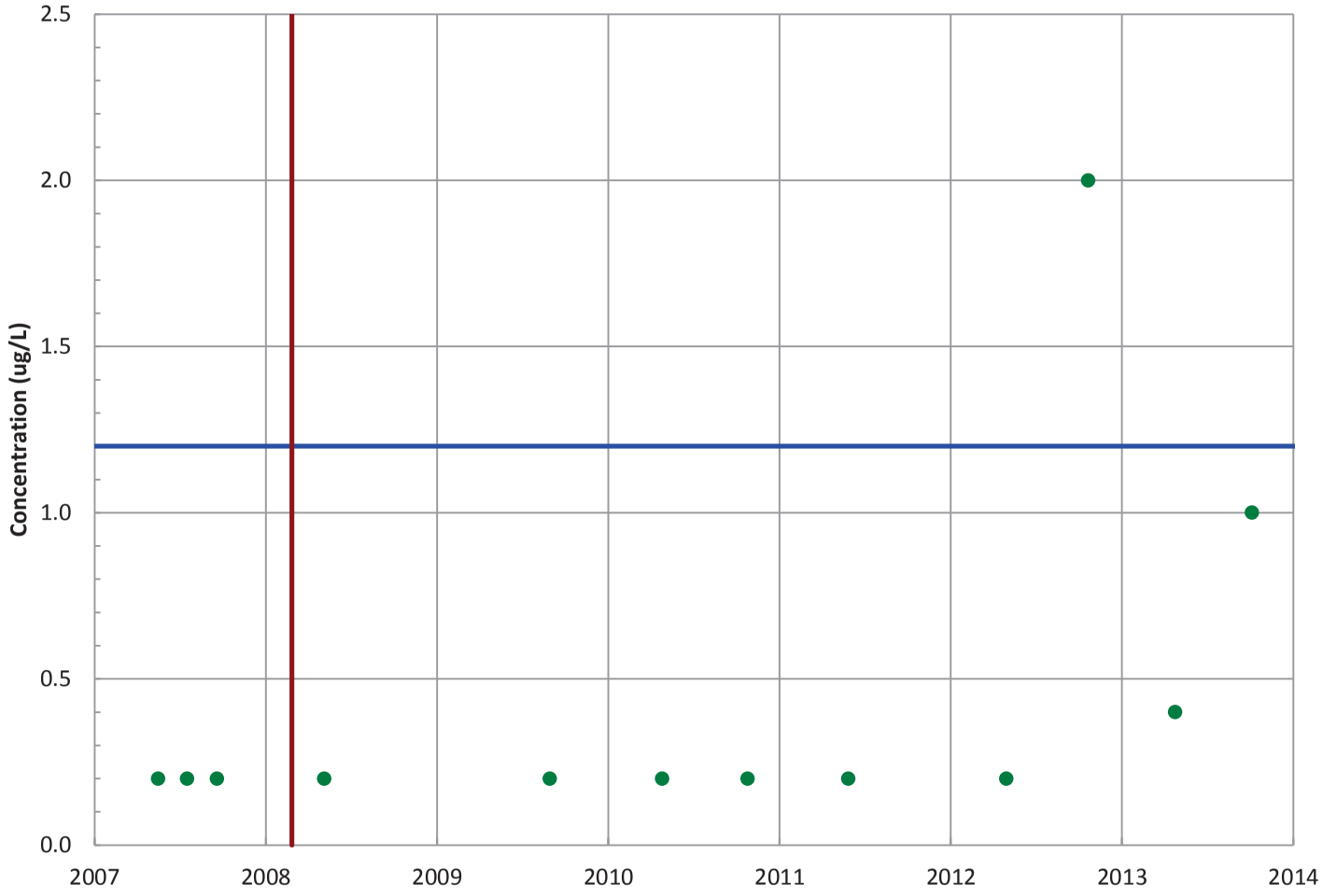
Well Location



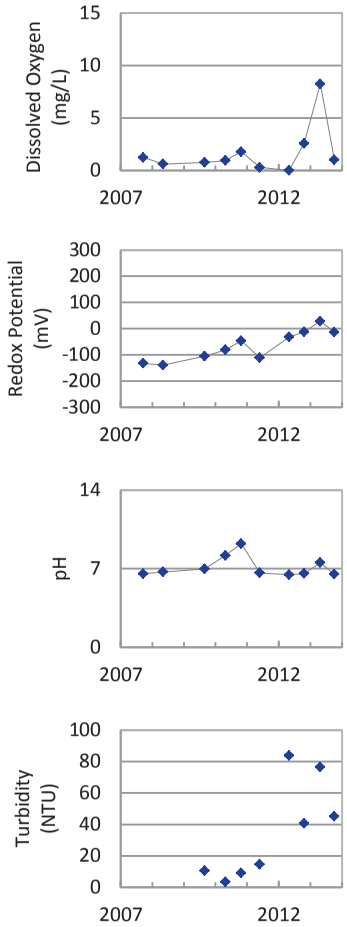
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/8/2007 to 10/10/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1098
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



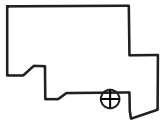
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

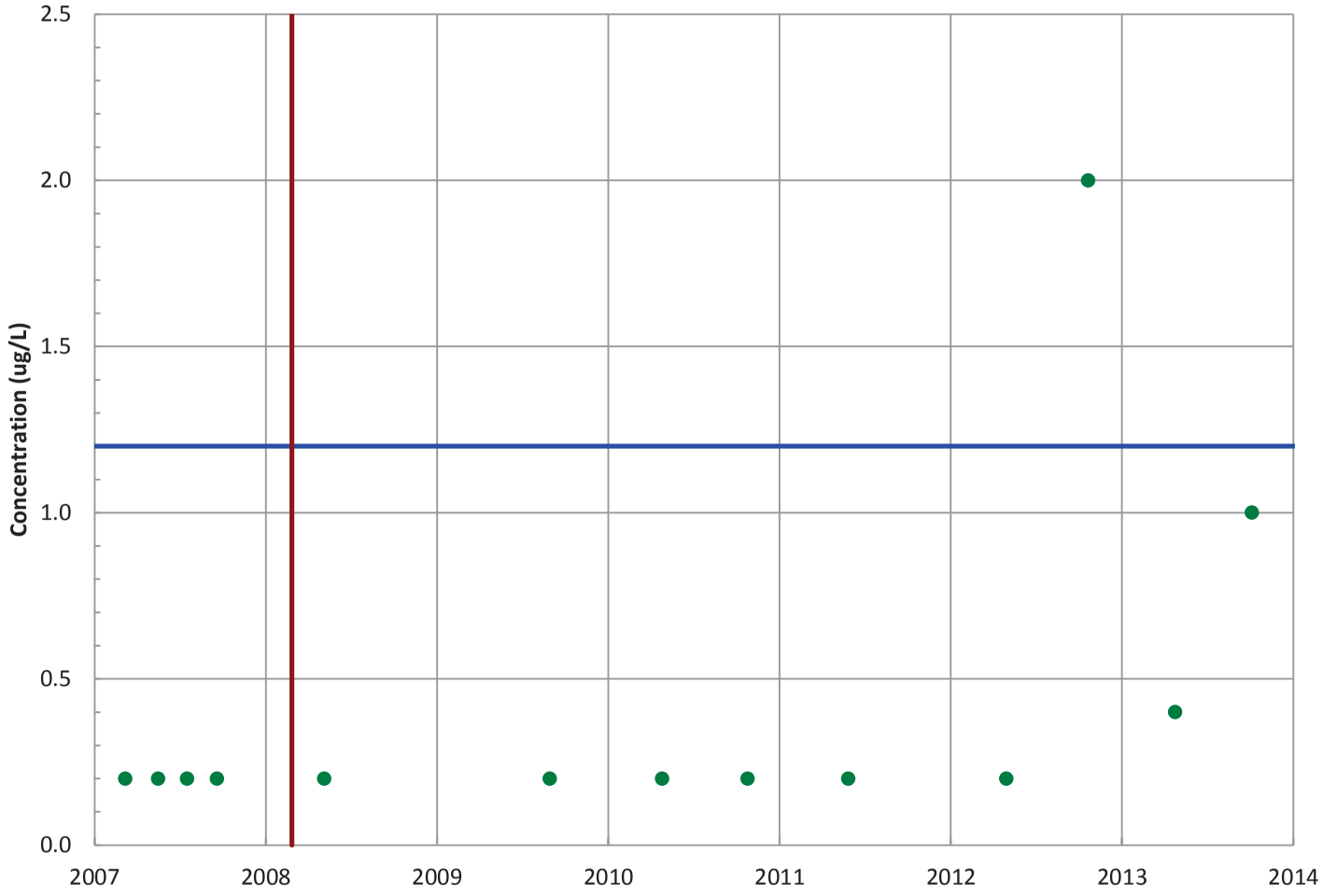
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/17/2007 to 10/10/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1098
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



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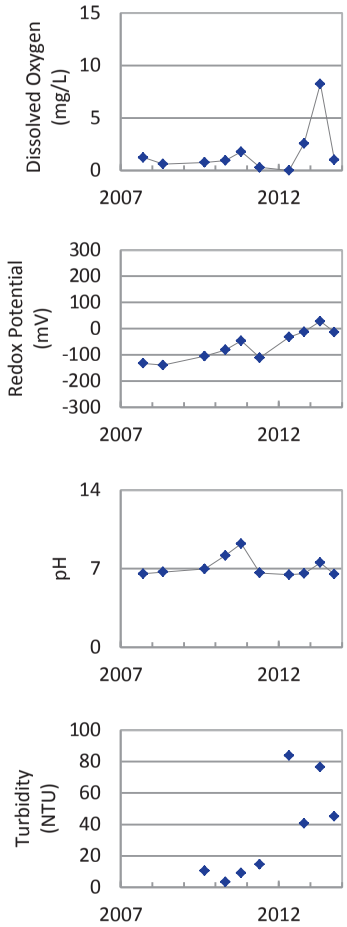


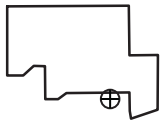
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

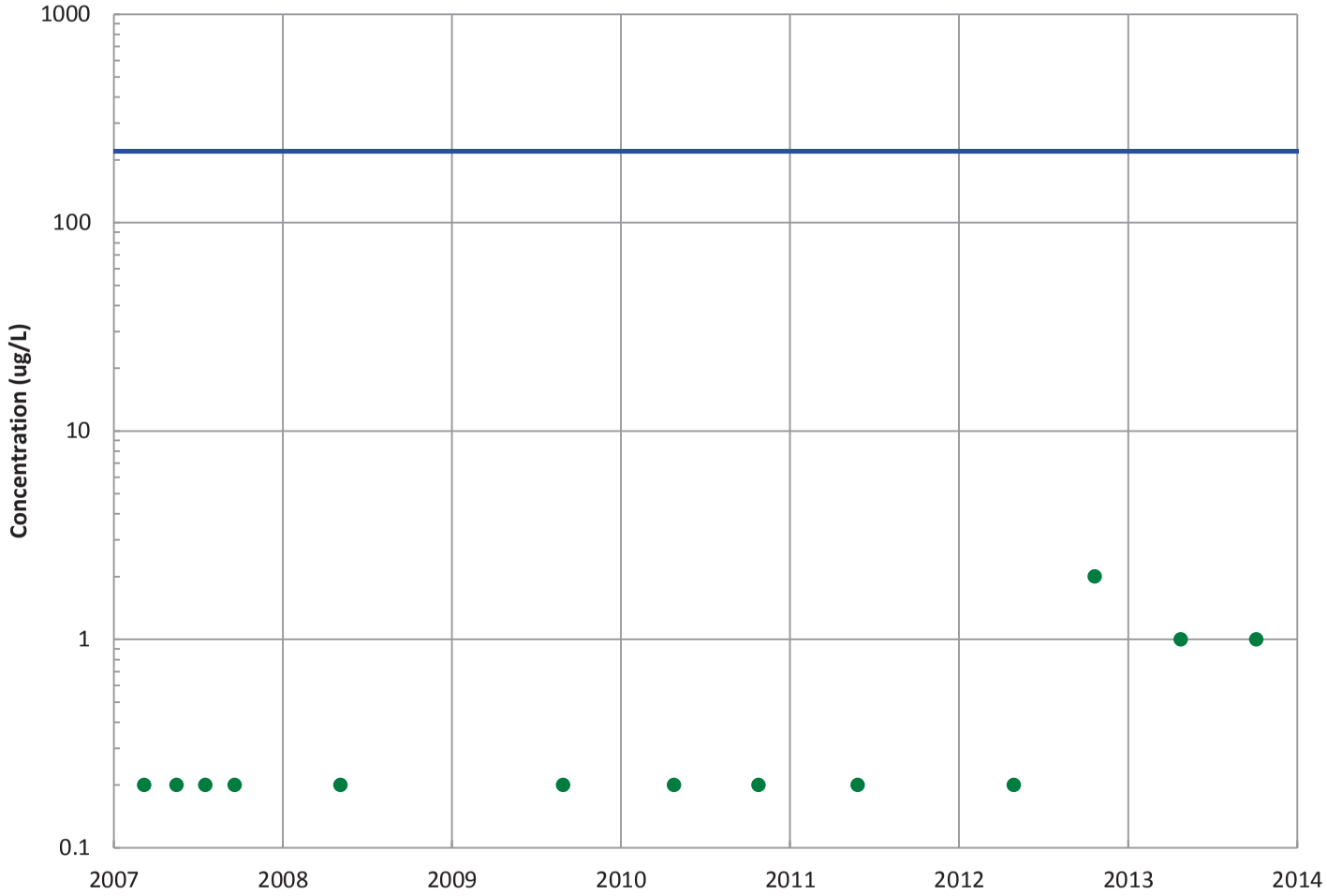
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/8/2007 to 10/10/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1098
1,3,5-Trinitrobenzene Trend in Perched Aquifer



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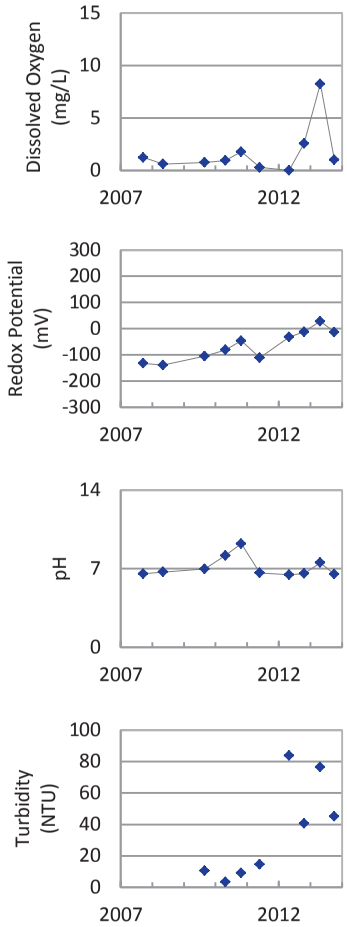


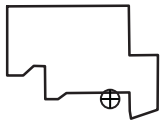
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

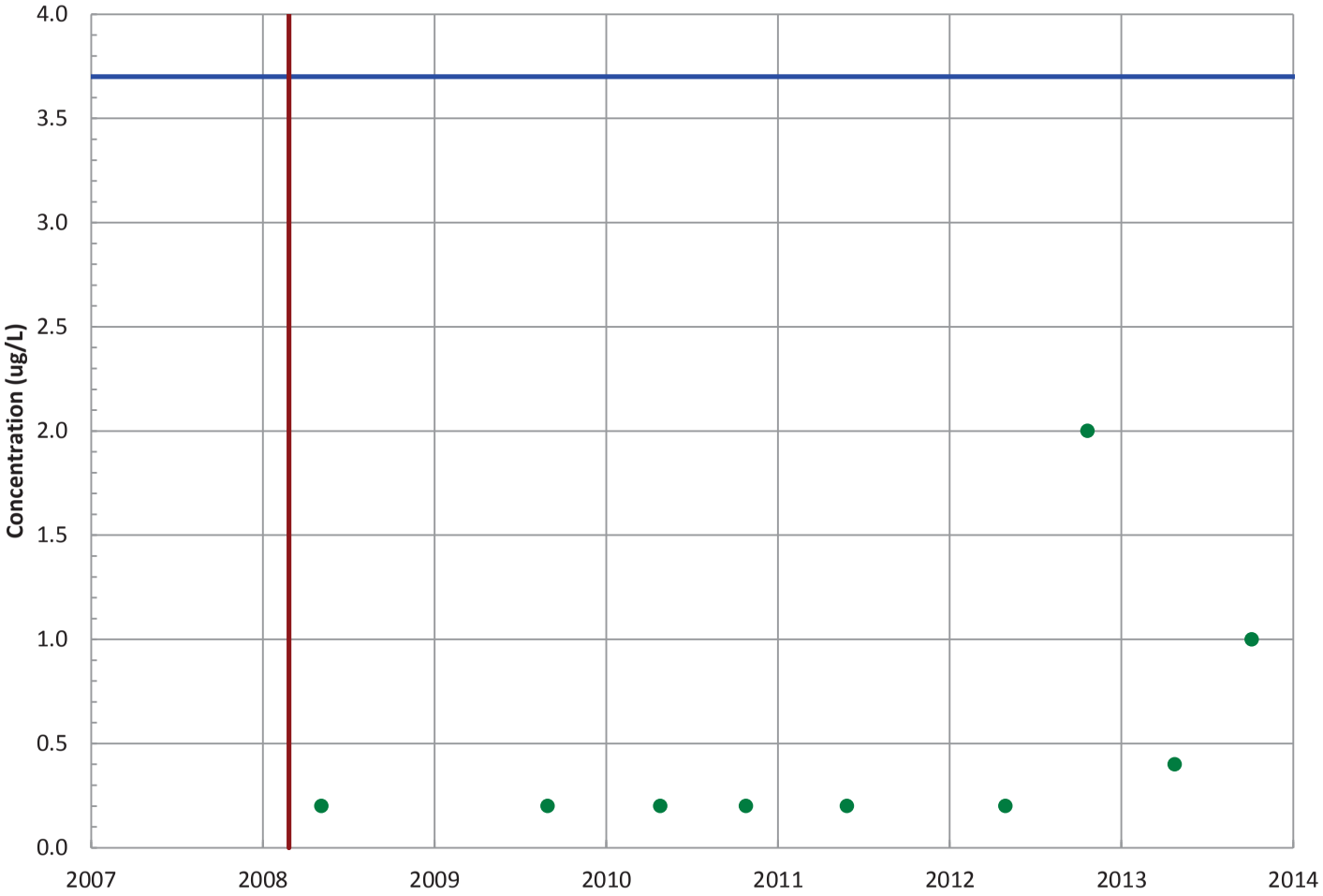
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/8/2007 to 10/10/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1098
1,3-Dinitrobenzene Trend in Perched Aquifer



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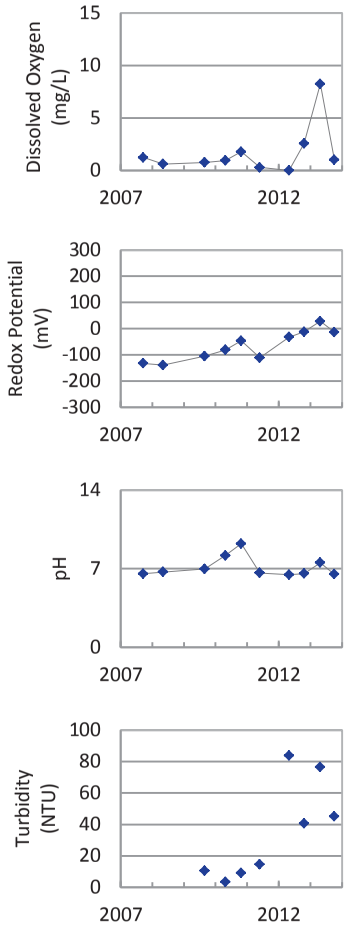


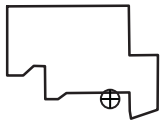
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

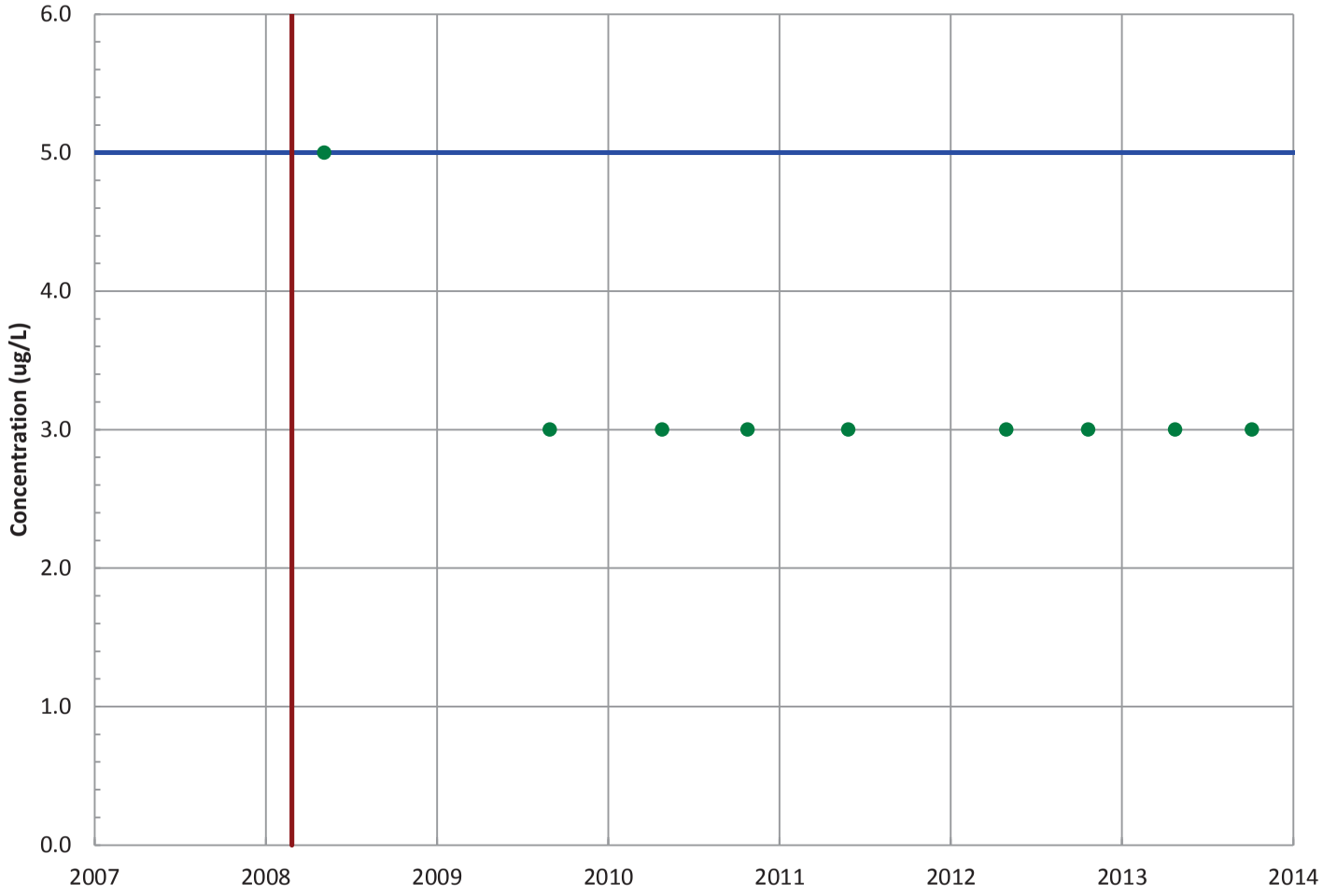
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/6/2008 to 10/10/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1098
Tetrachloroethylene (PCE) Trend in Perched Aquifer



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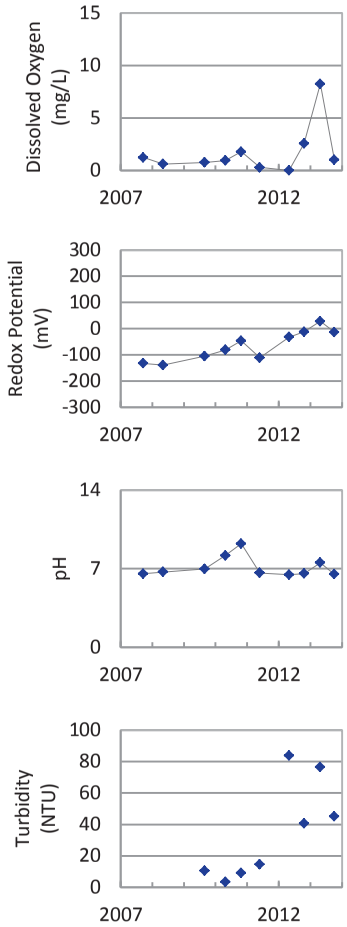


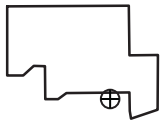
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

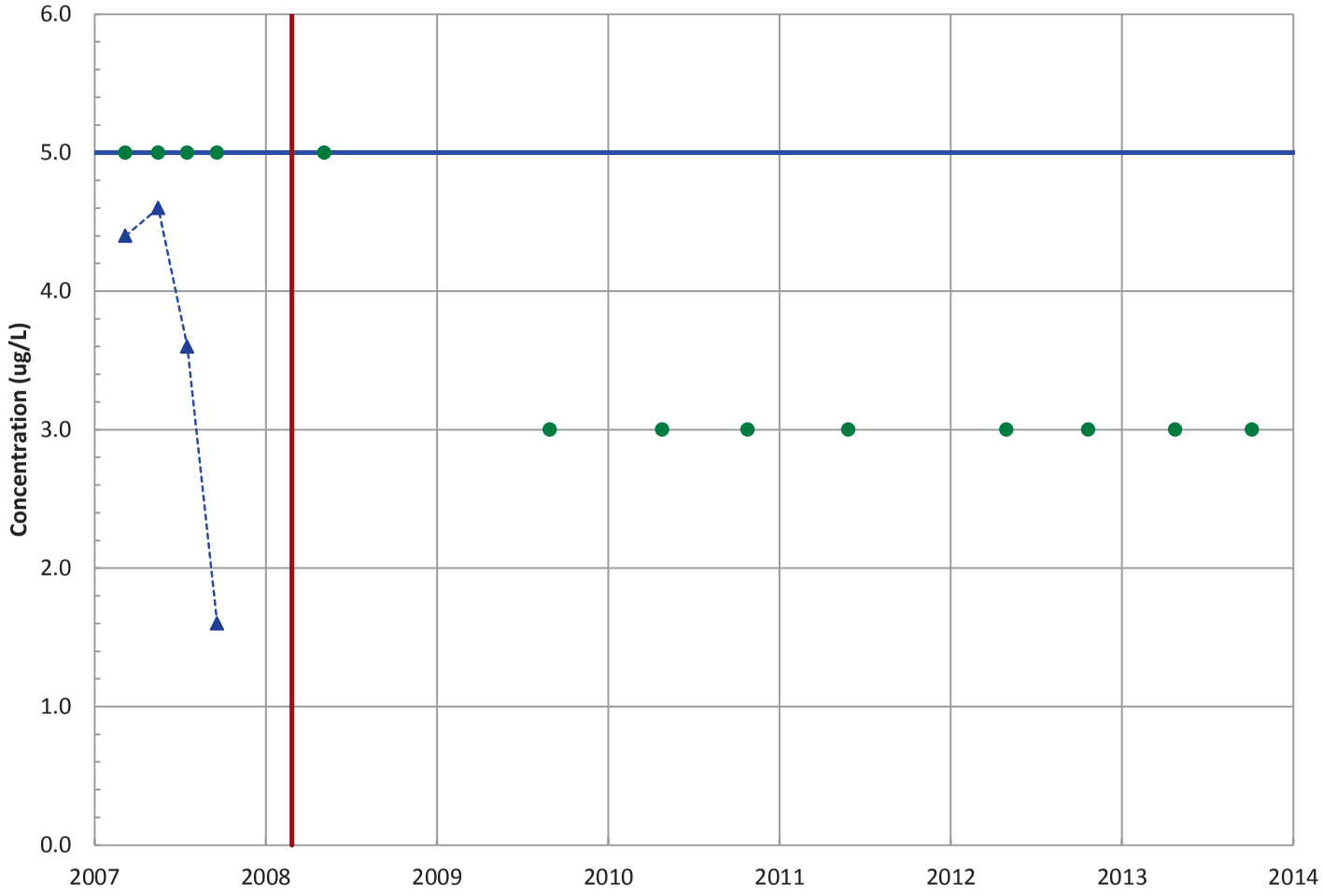
Well Location



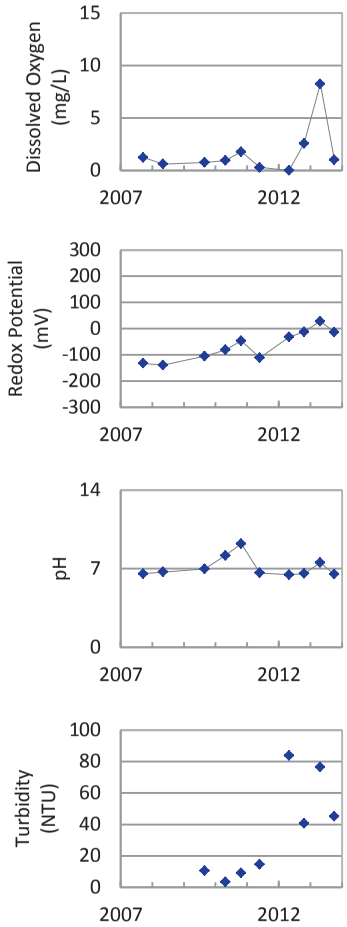
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/6/2008 to 10/10/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1098
Trichloroethene Trend in Perched Aquifer



Field Parameters



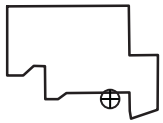
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: Probably Decreasing
Last 4 Samples: Probably Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

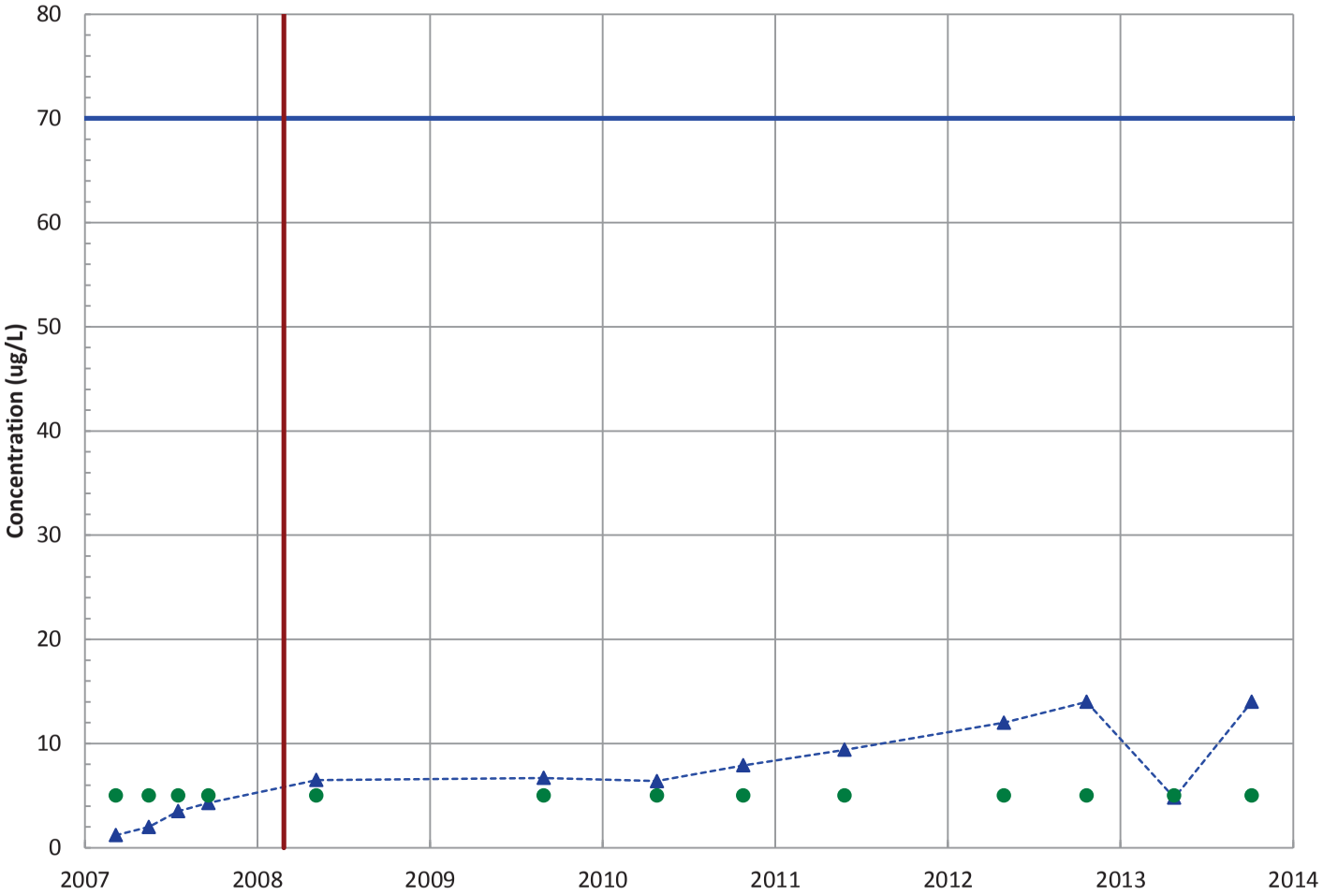
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/8/2007 to 10/10/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1098
cis-1,2-Dichloroethene Trend in Perched Aquifer



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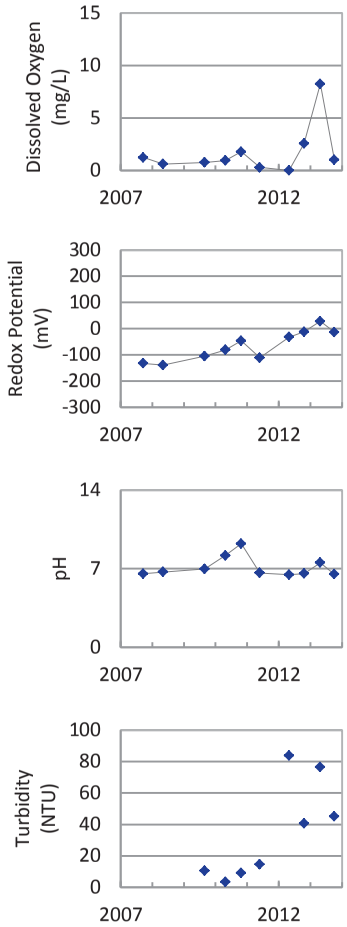


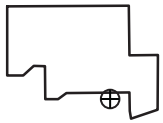
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

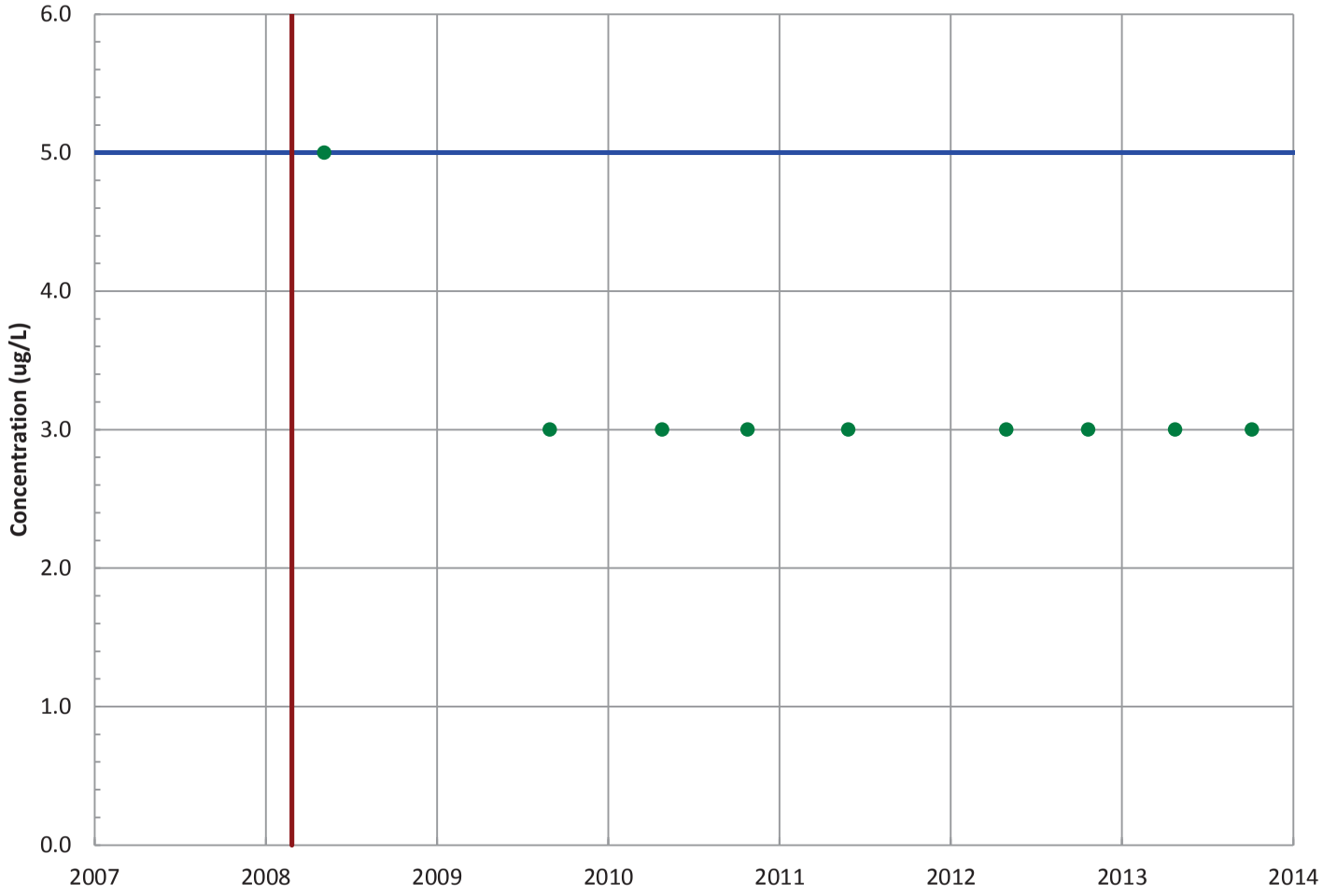
Well Location



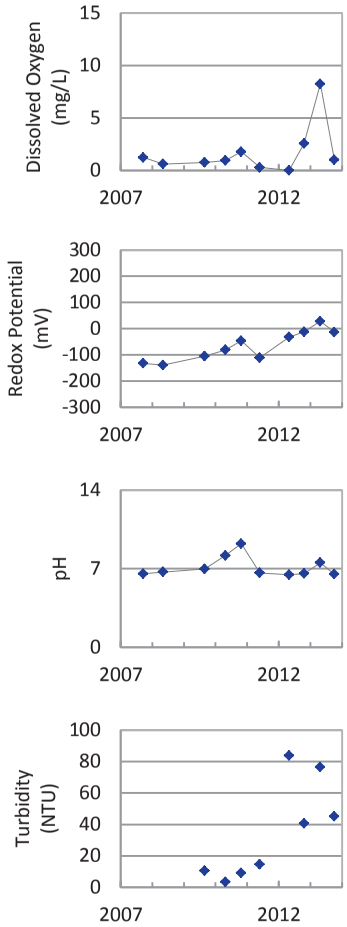
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/8/2007 to 10/10/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1098
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



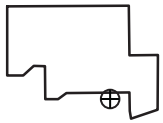
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

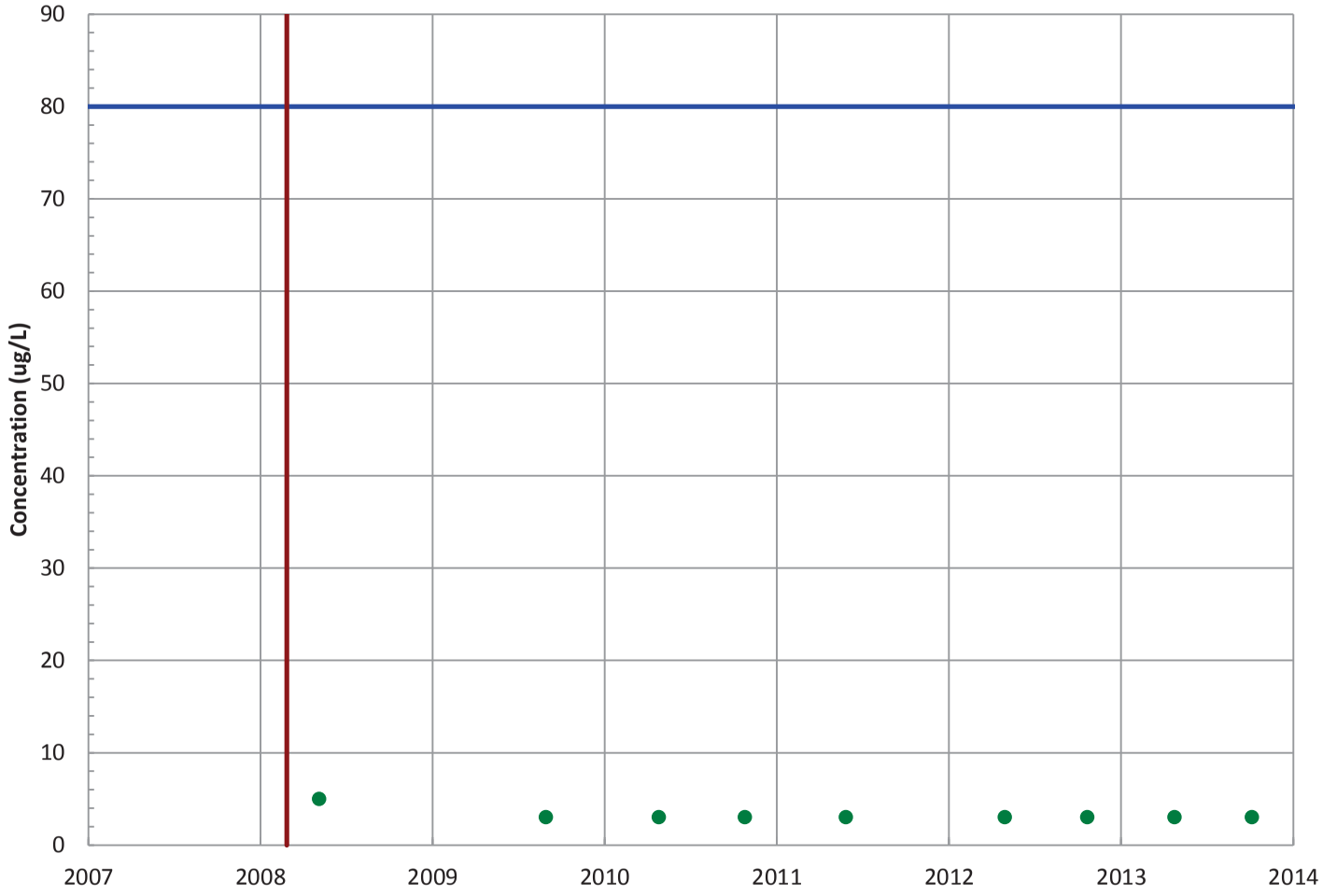
Well Location



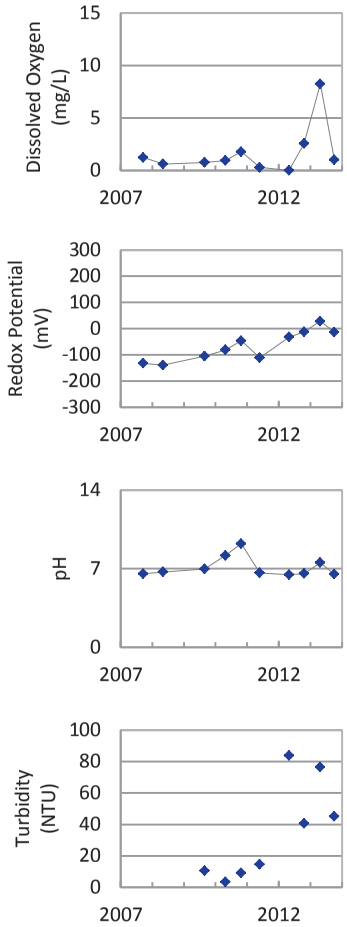
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/6/2008 to 10/10/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1098
Chloroform Trend in Perched Aquifer



Field Parameters



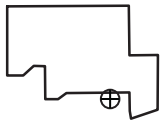
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

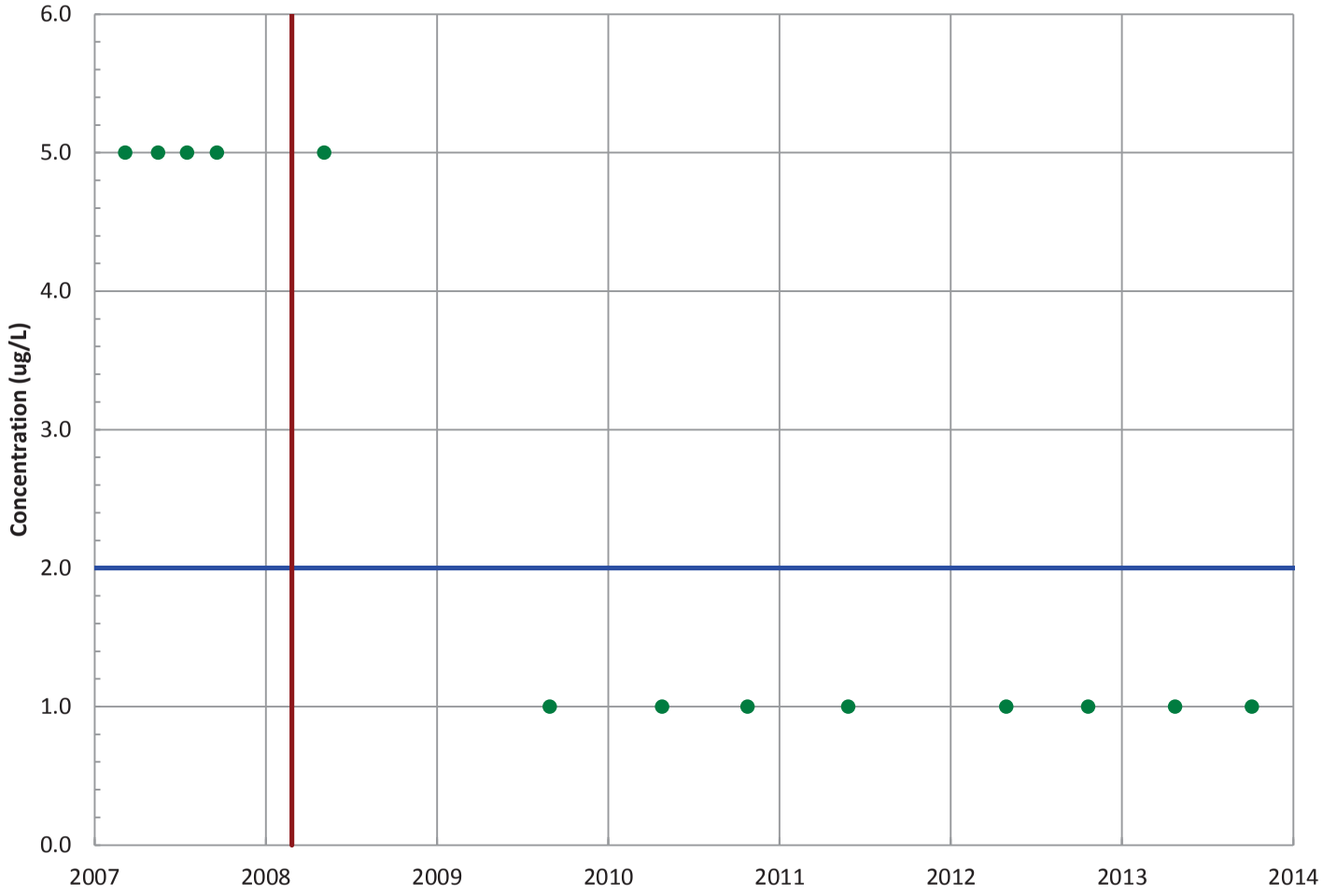
Well Location



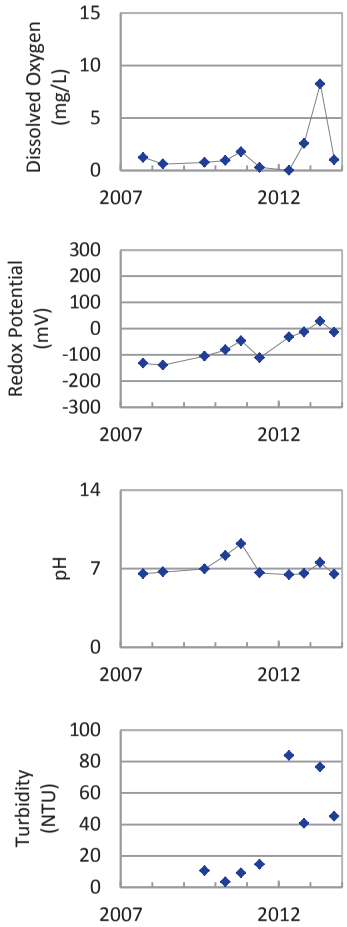
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/6/2008 to 10/10/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1098
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



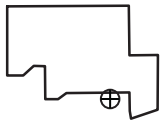
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

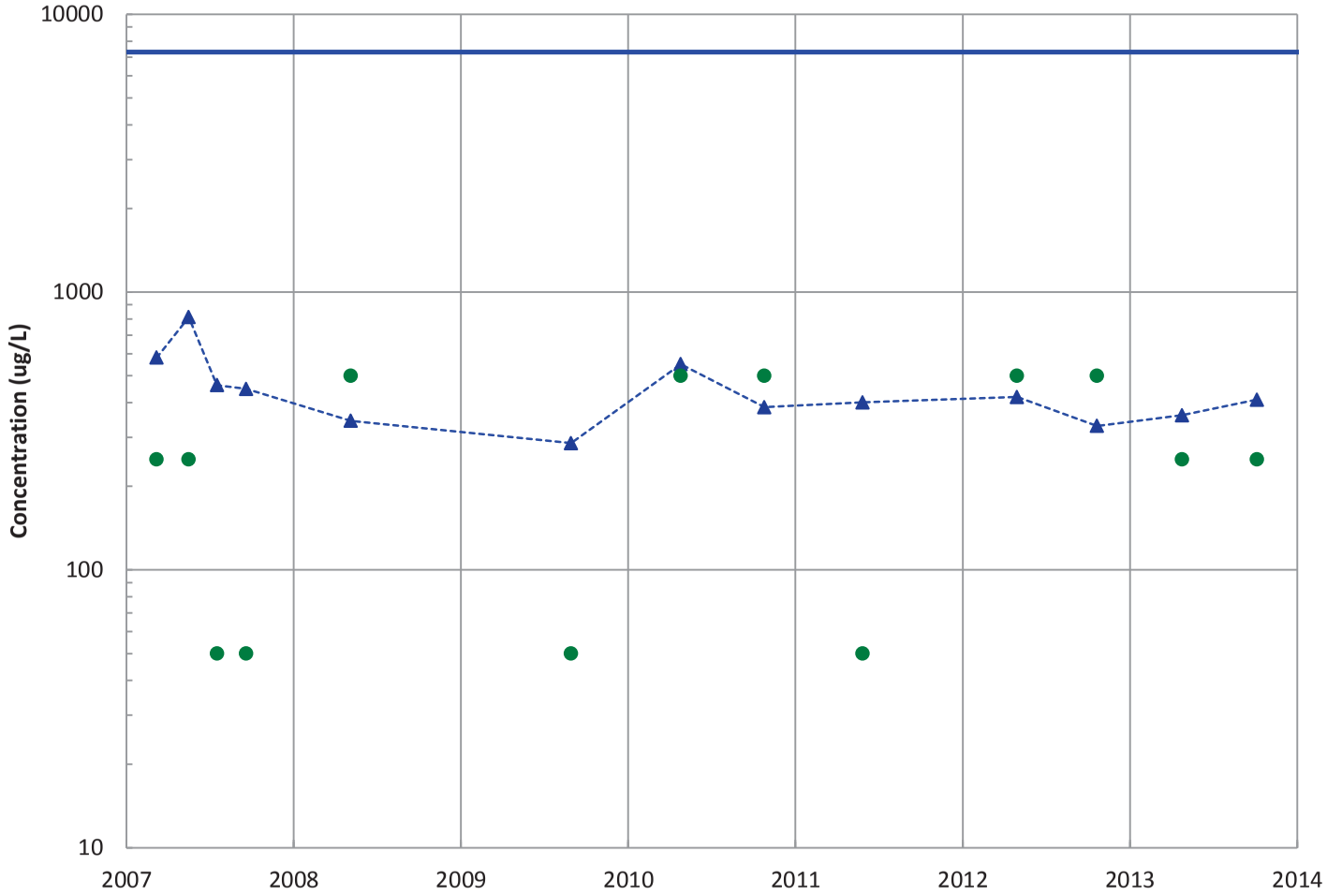
Well Location



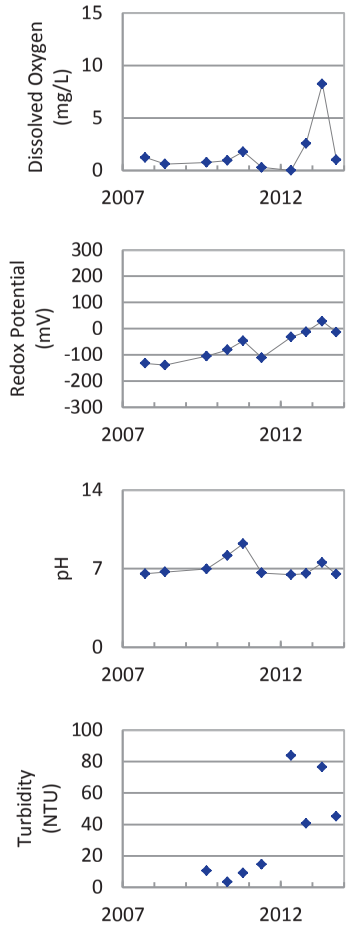
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/8/2007 to 10/10/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1098
Boron Trend in Perched Aquifer



Field Parameters



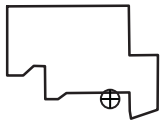
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Stable

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Increasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

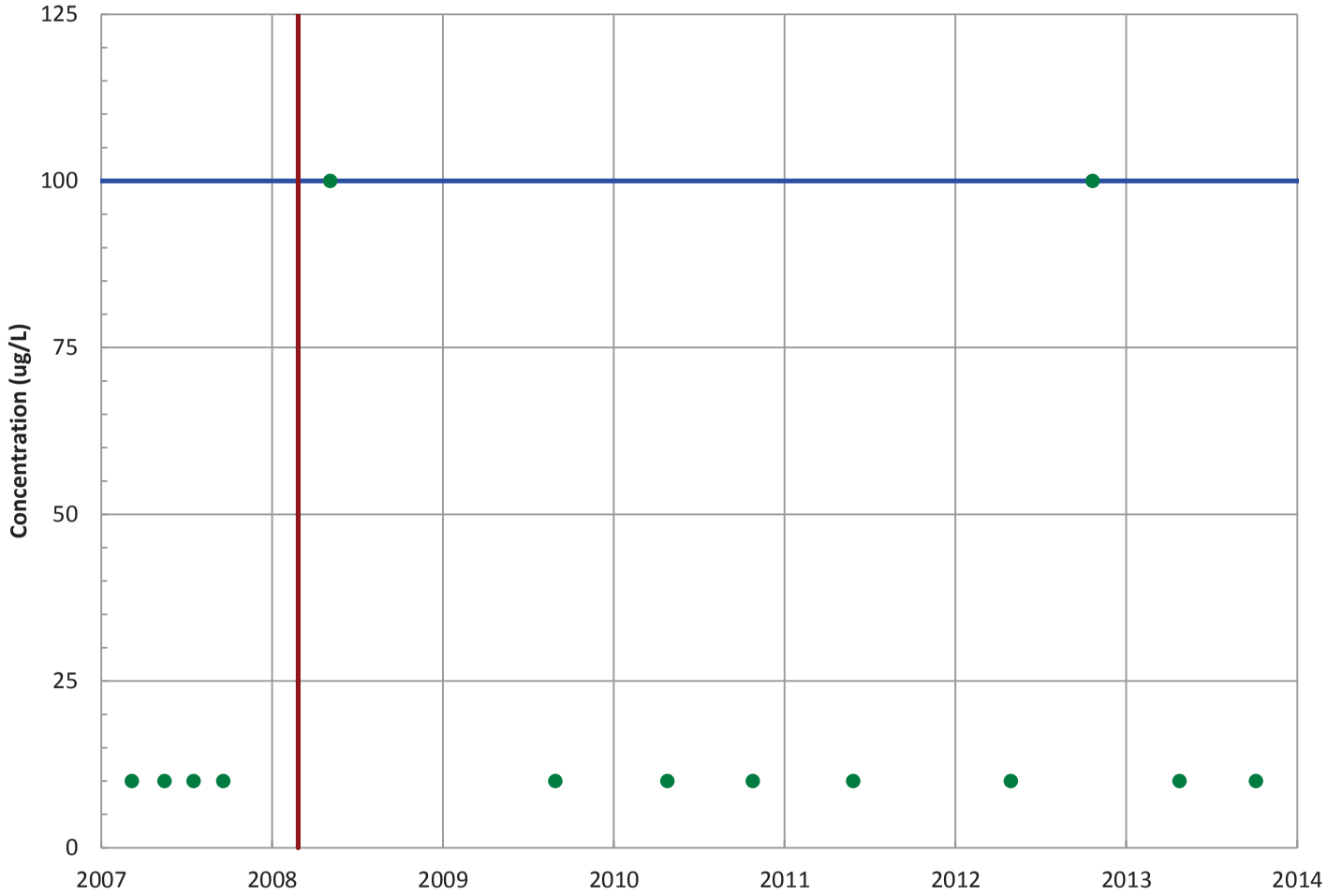
Well Location



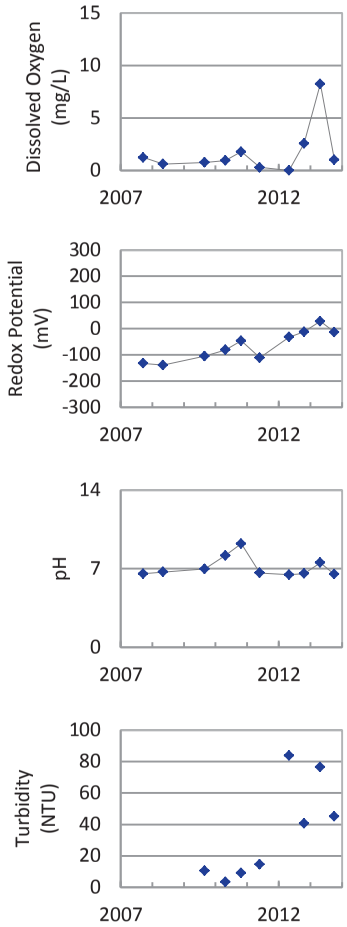
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/8/2007 to 10/10/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1098
Chromium, Total Trend in Perched Aquifer



Field Parameters



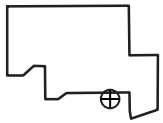
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

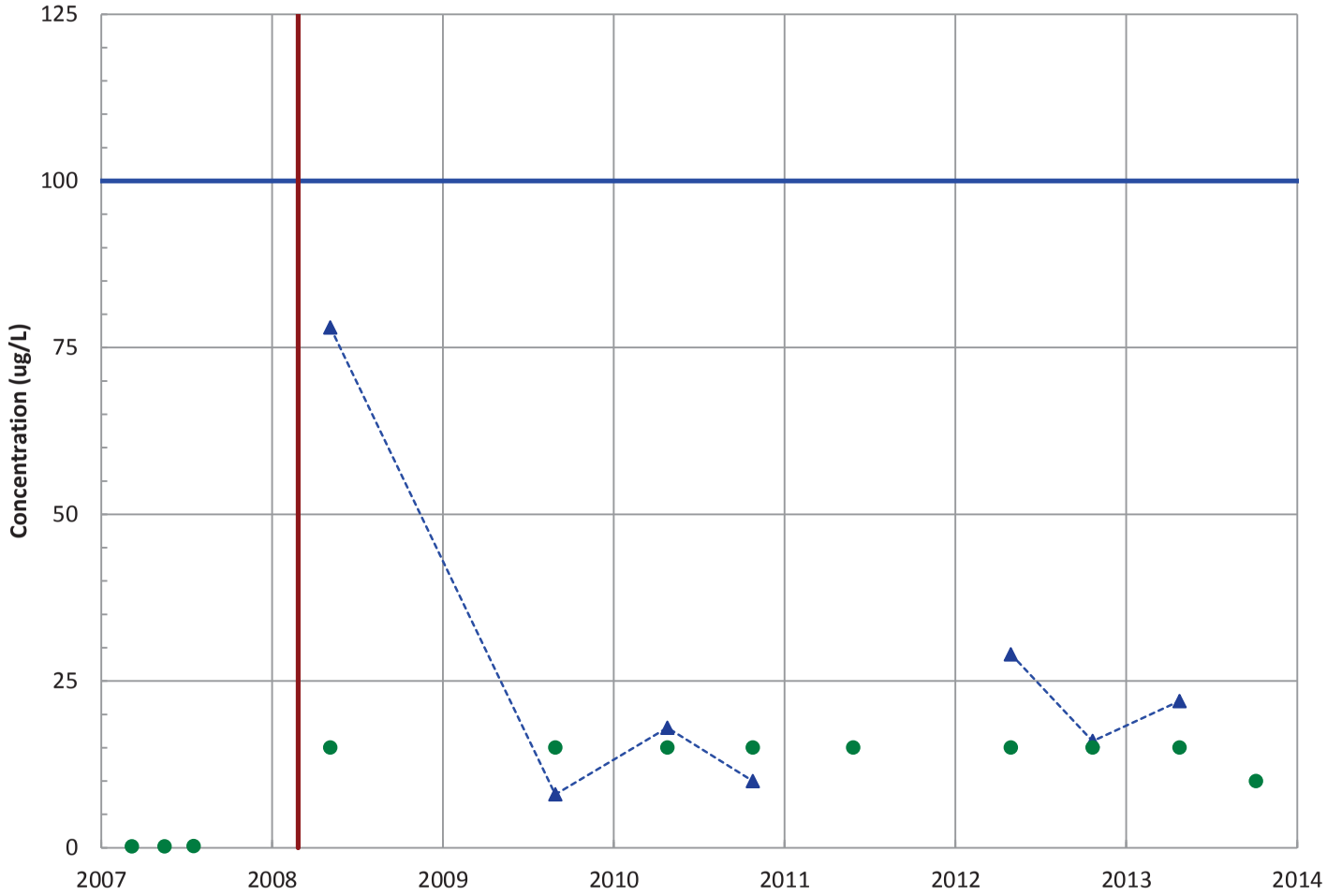
Well Location



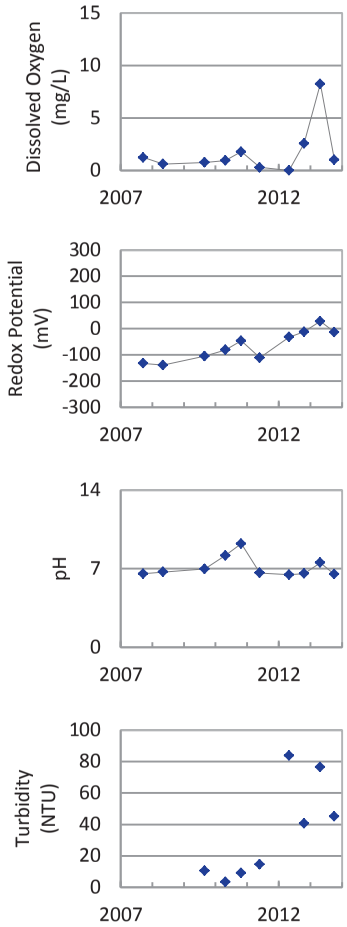
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/8/2007 to 10/10/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1098
Chromium, Hexavalent Trend in Perched Aquifer



Field Parameters



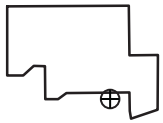
Concentration Trend

MAROS Mann-Kendall Method
All Data: Probably Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

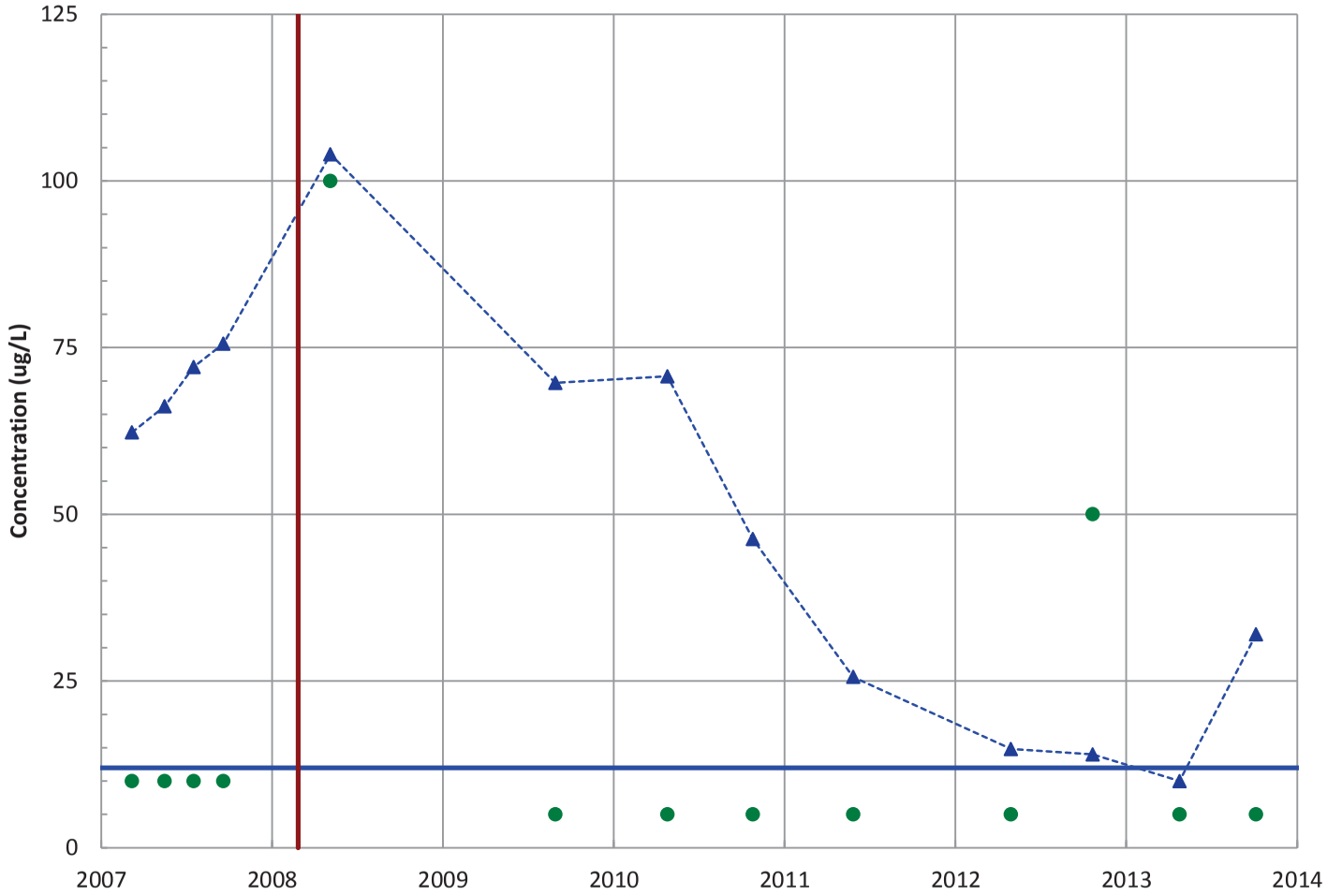
Well Location



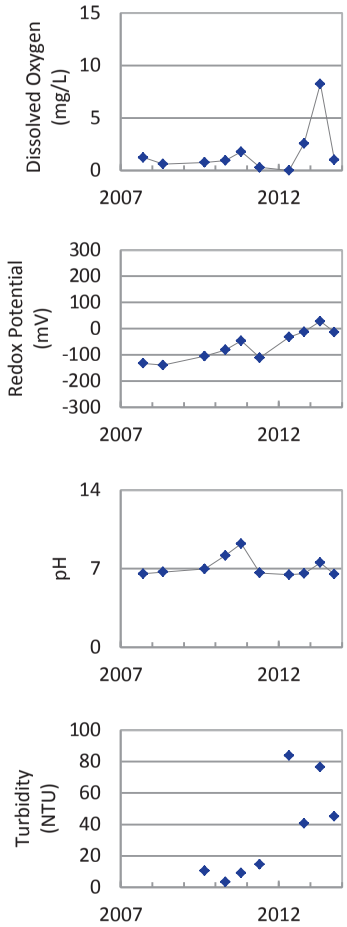
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/8/2007 to 10/10/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1098
Arsenic Trend in Perched Aquifer



Field Parameters



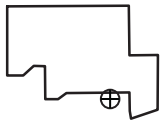
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Stable

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

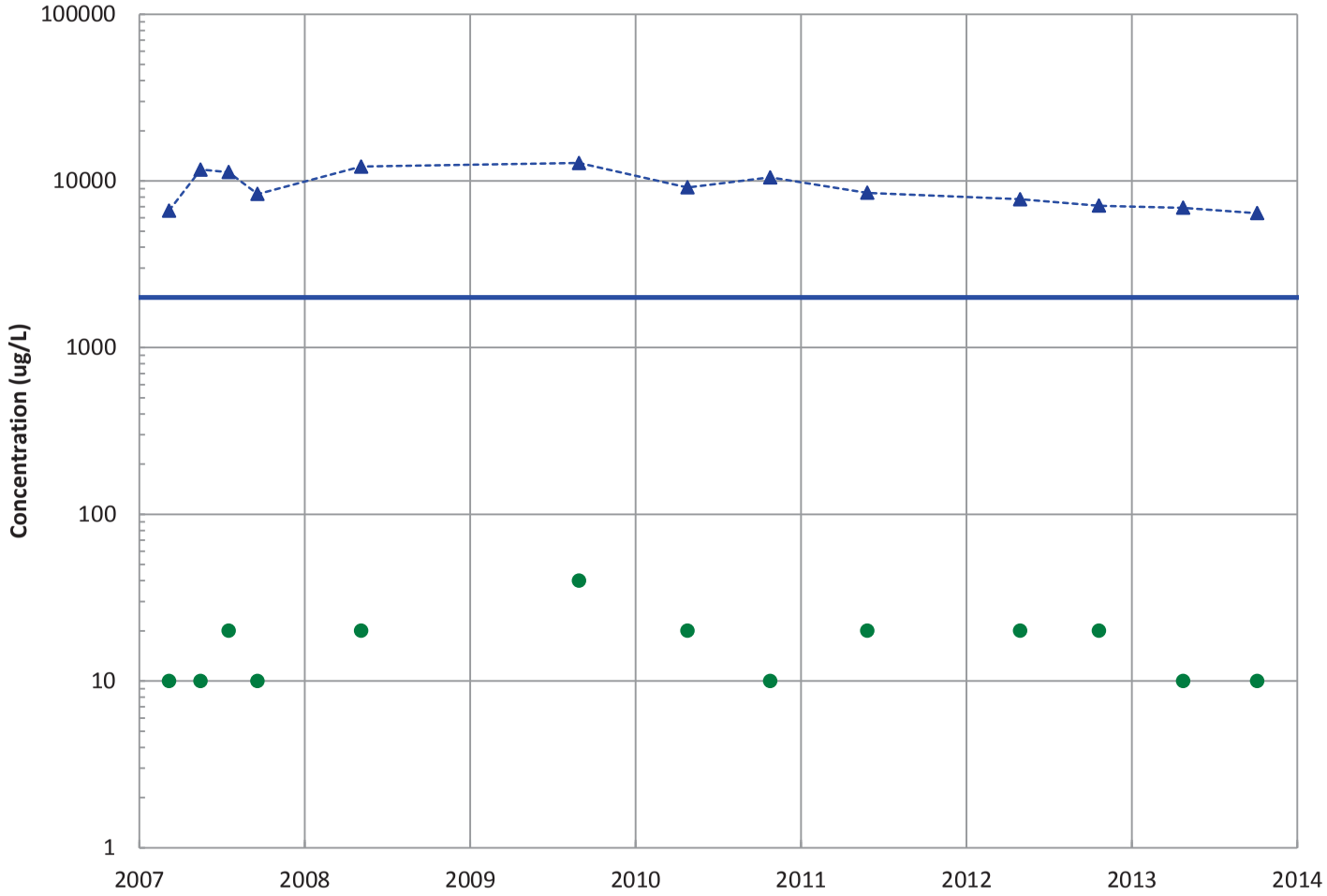
Well Location



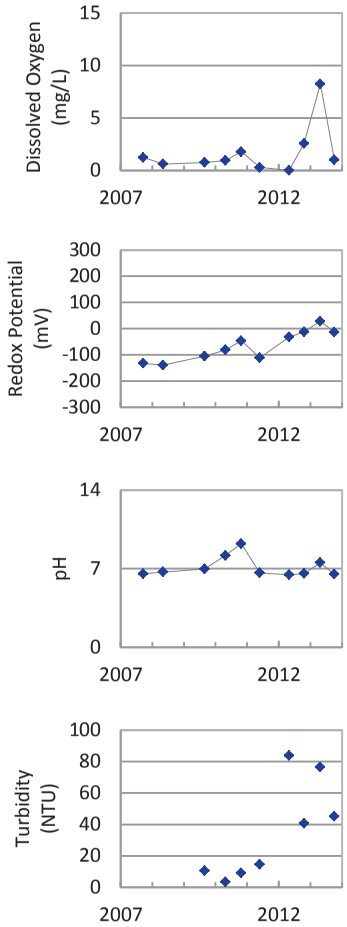
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/8/2007 to 10/10/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1098
Barium Trend in Perched Aquifer



Field Parameters



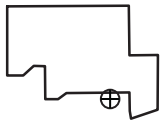
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

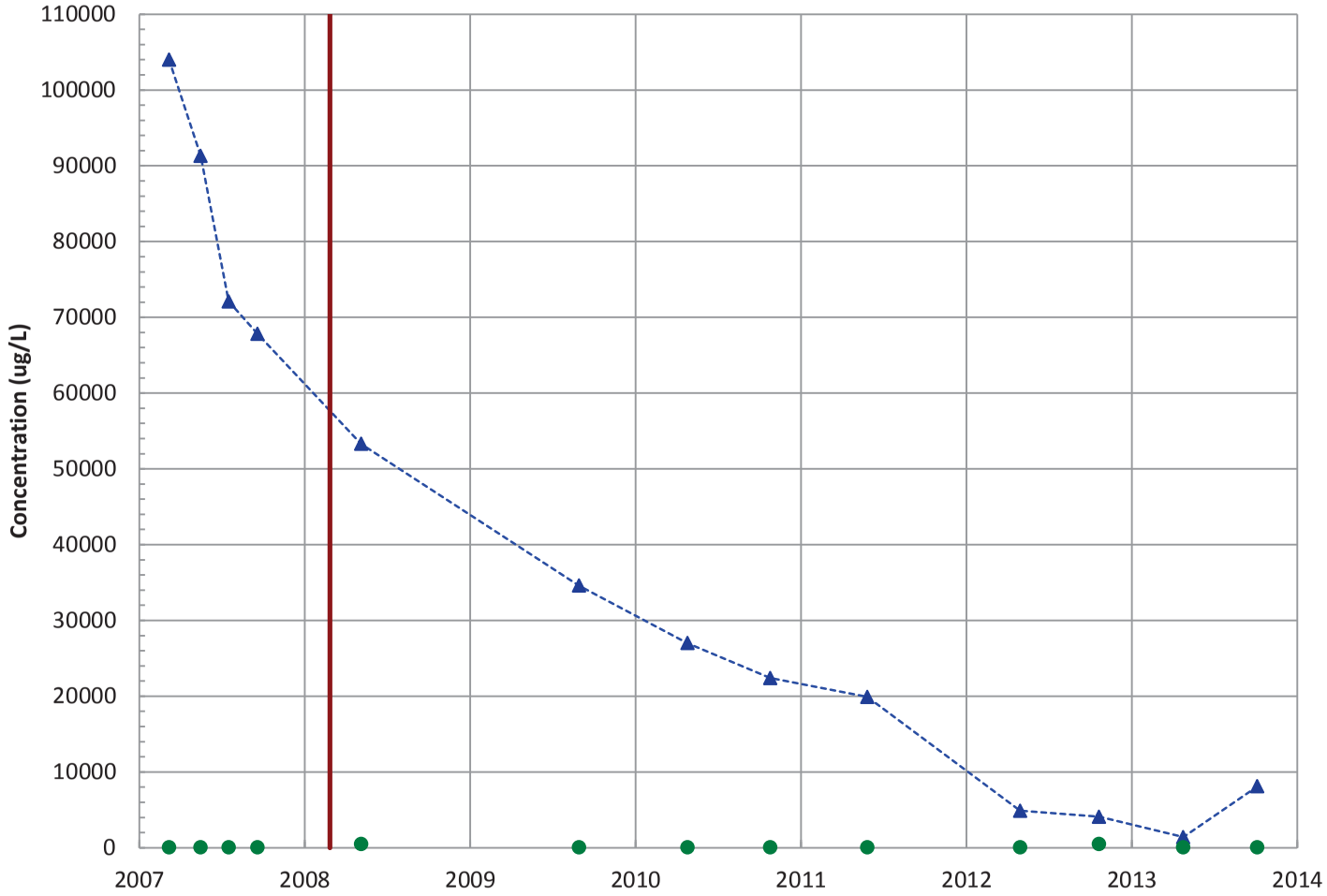
Well Location



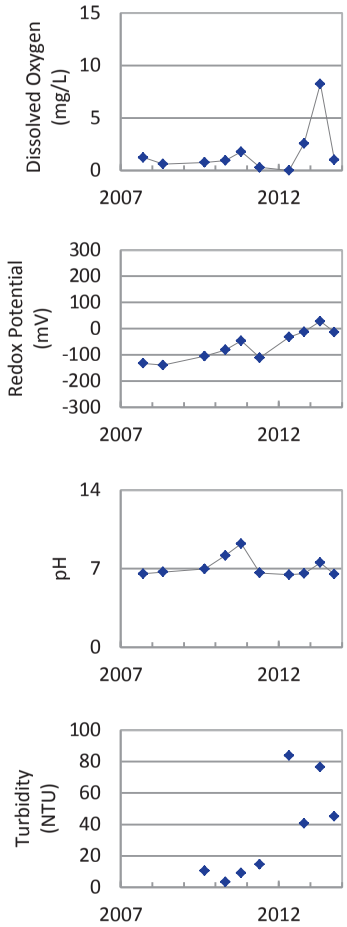
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/8/2007 to 10/10/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1098
Iron Trend in Perched Aquifer



Field Parameters



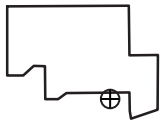
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Stable

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

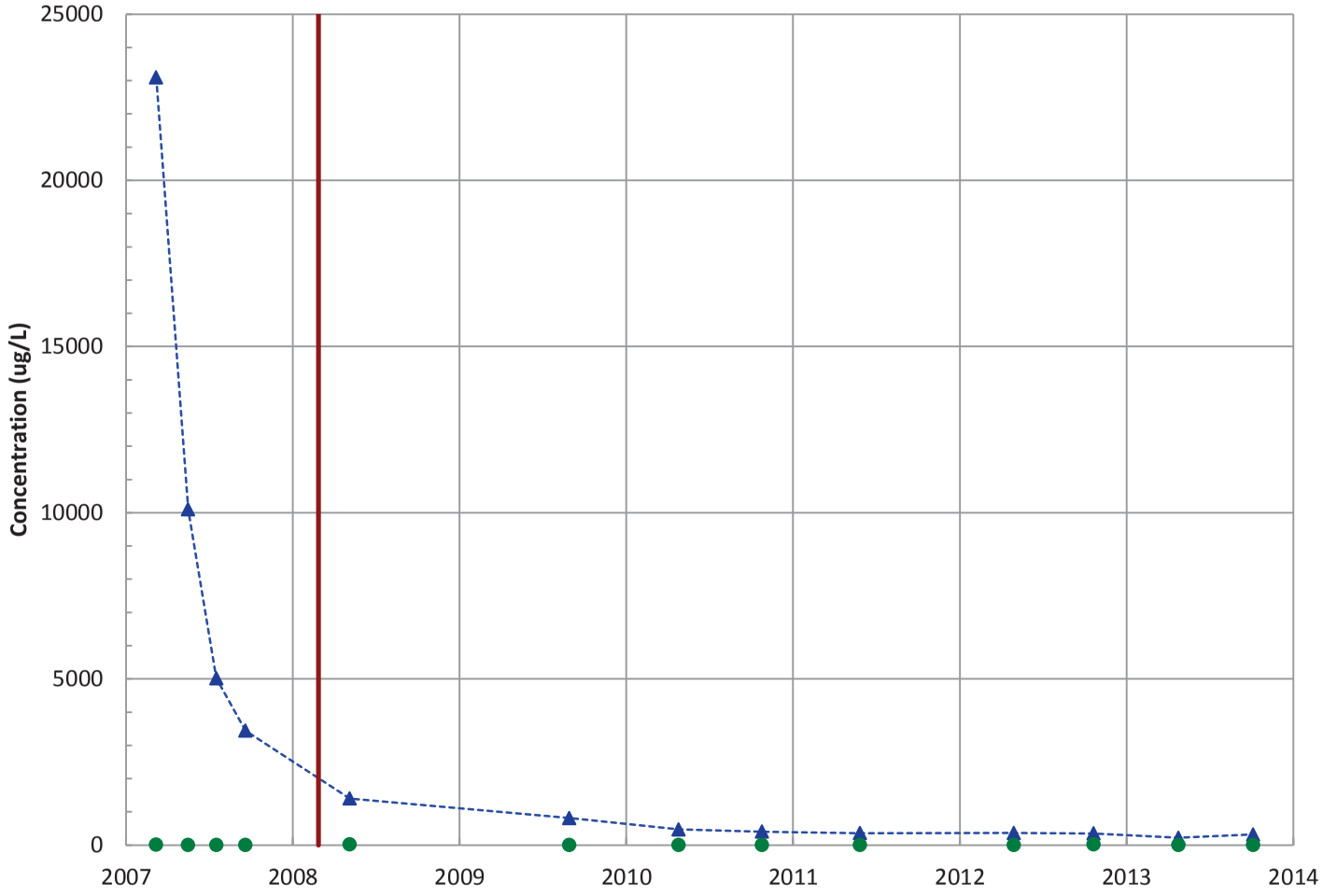
Well Location



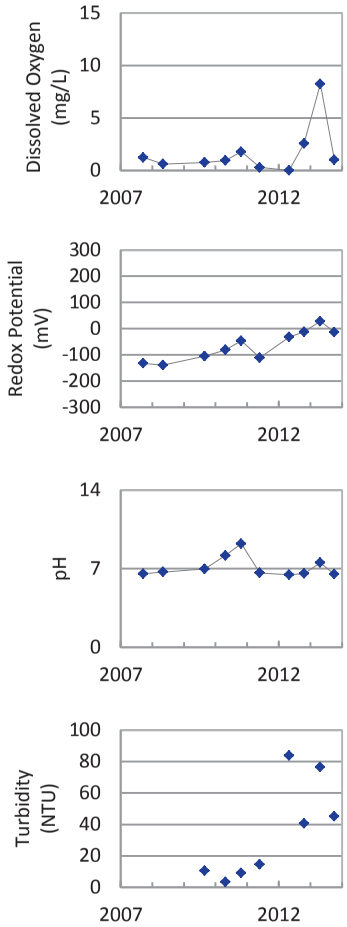
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/8/2007 to 10/10/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1098
Manganese Trend in Perched Aquifer



Field Parameters



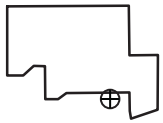
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Stable

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

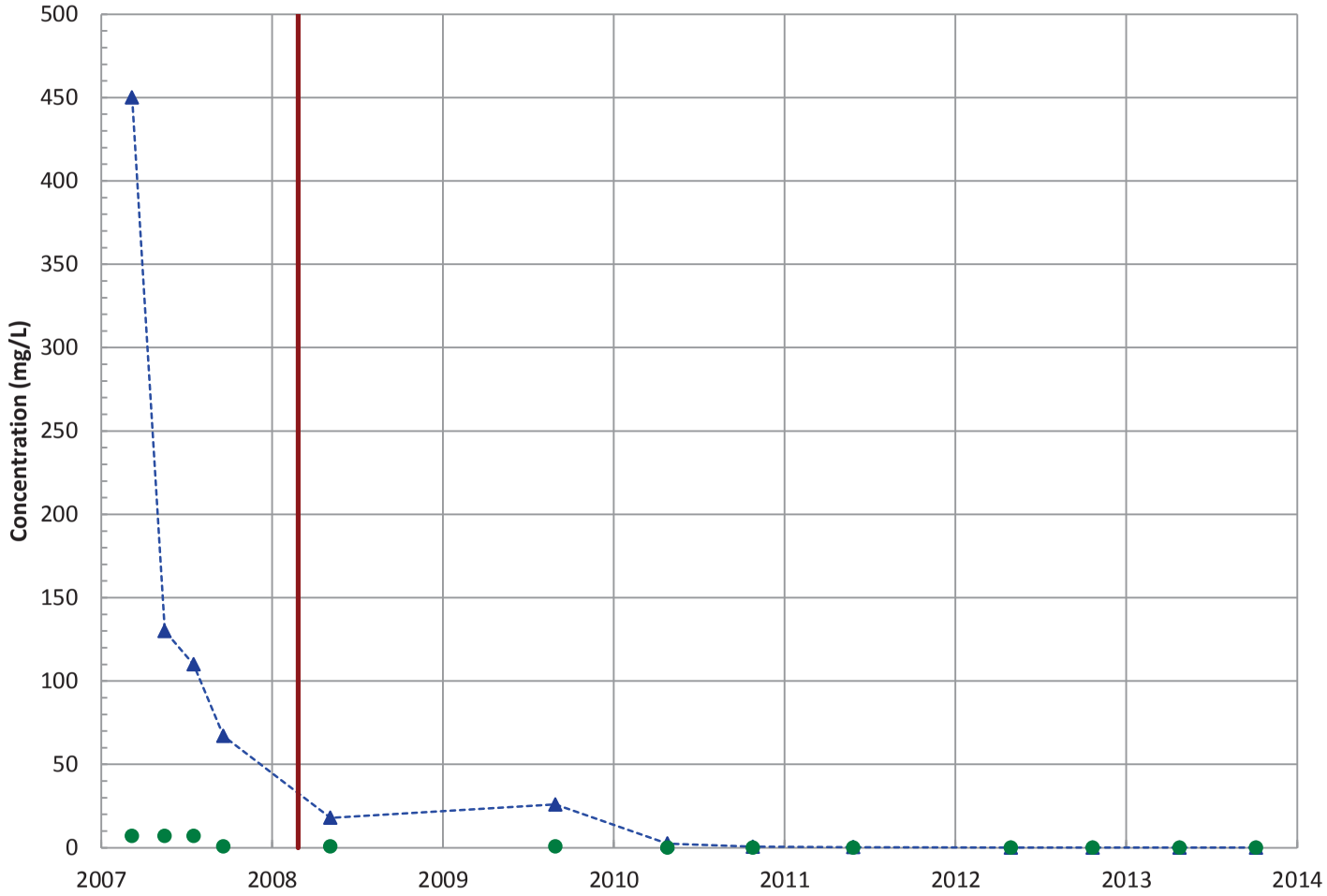
Well Location



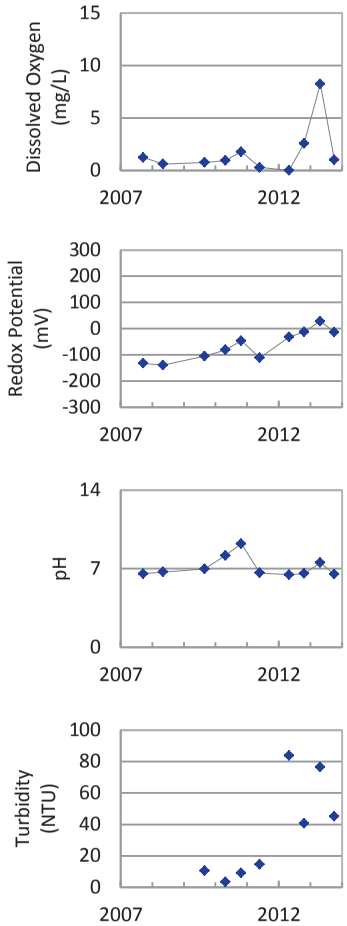
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/8/2007 to 10/10/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1098
Acetic Acid Trend in Perched Aquifer



Field Parameters



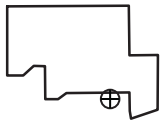
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

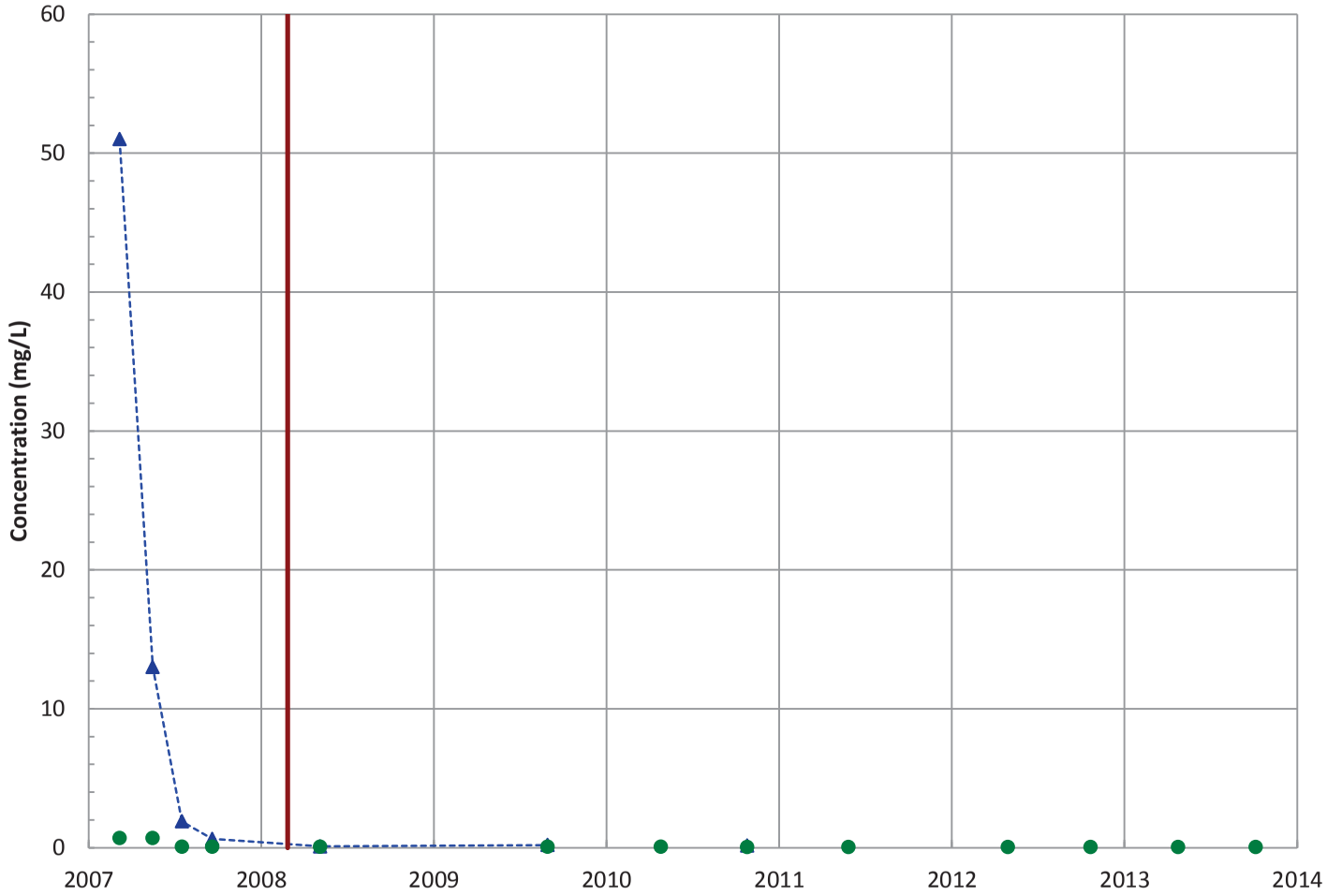
Well Location



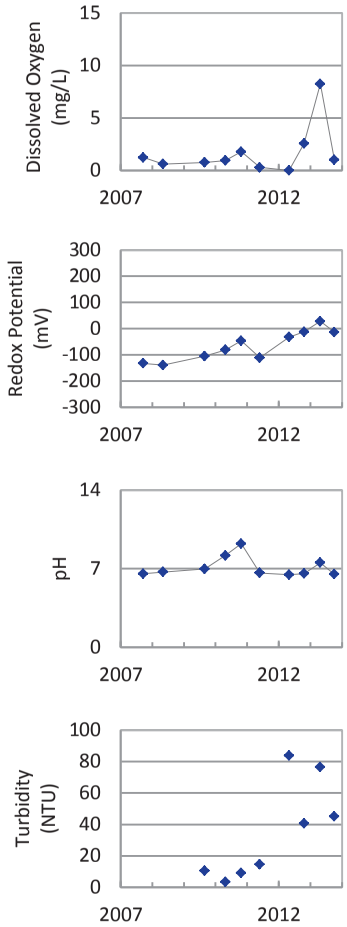
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/8/2007 to 10/10/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1098
Butyric Acid Trend in Perched Aquifer



Field Parameters



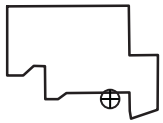
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Stable

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

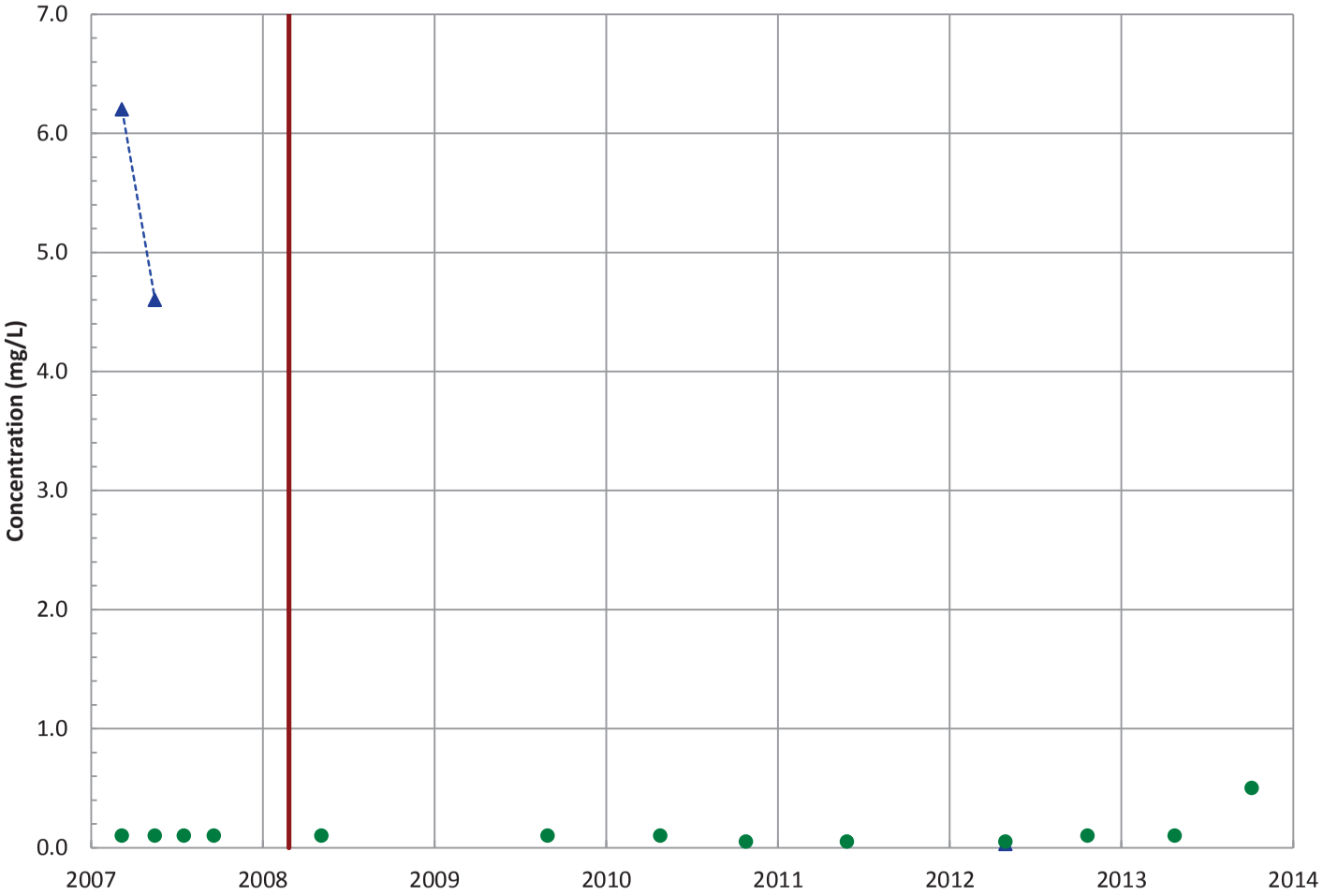
Well Location



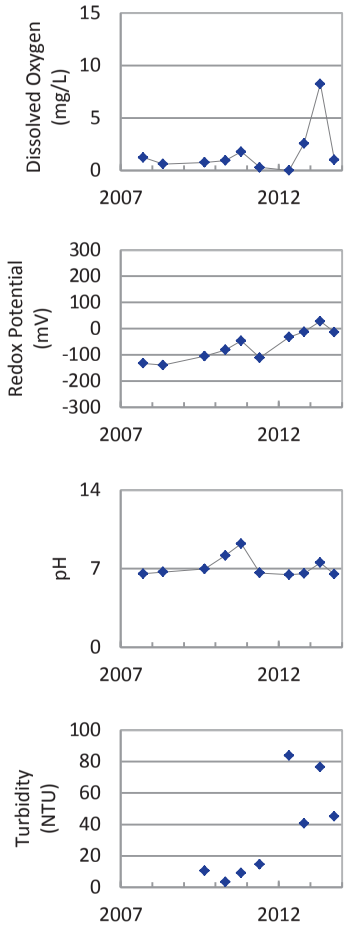
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/8/2007 to 10/10/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1098
Hexanoic Acid Trend in Perched Aquifer



Field Parameters



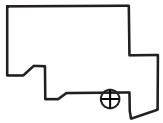
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Injection Dates

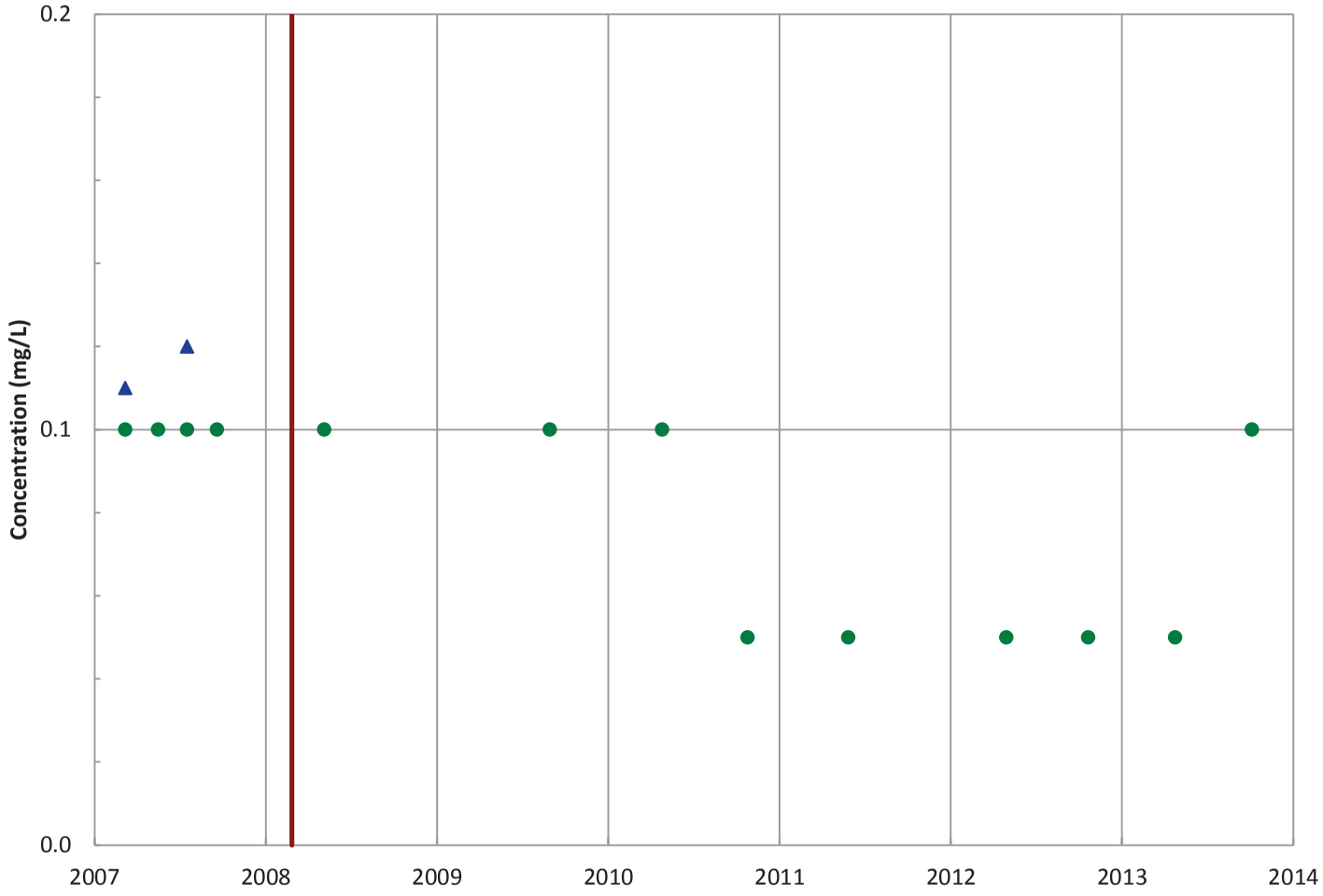
Well Location



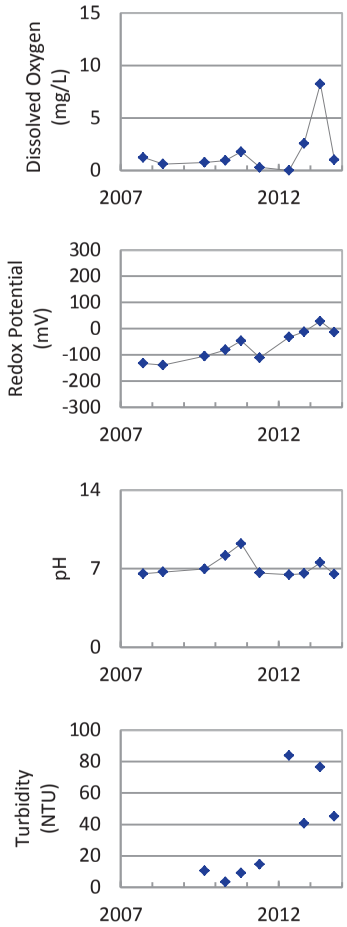
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/8/2007 to 10/10/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1098
i-Hexanoic Acid Trend in Perched Aquifer



Field Parameters



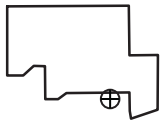
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Injection Dates

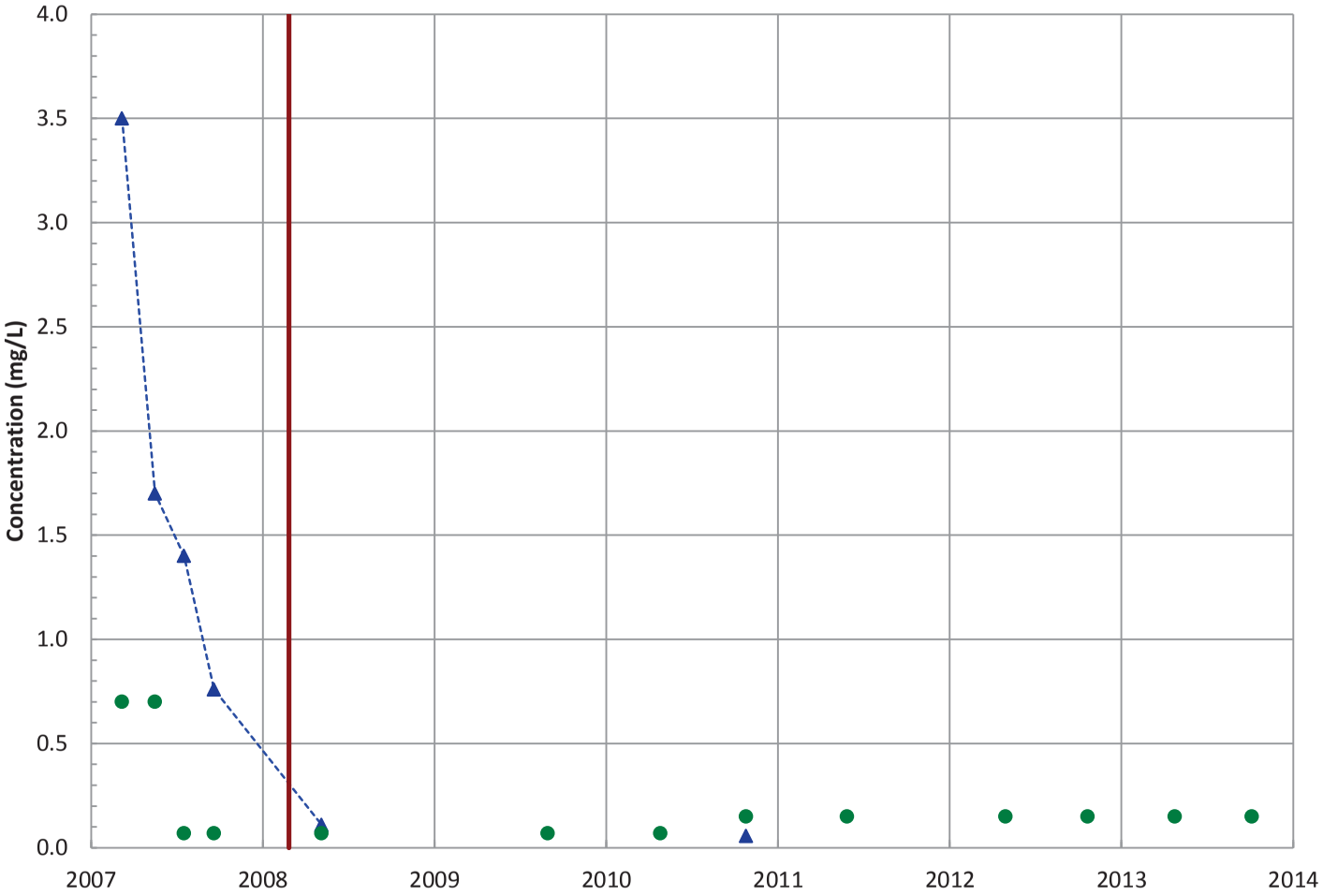
Well Location



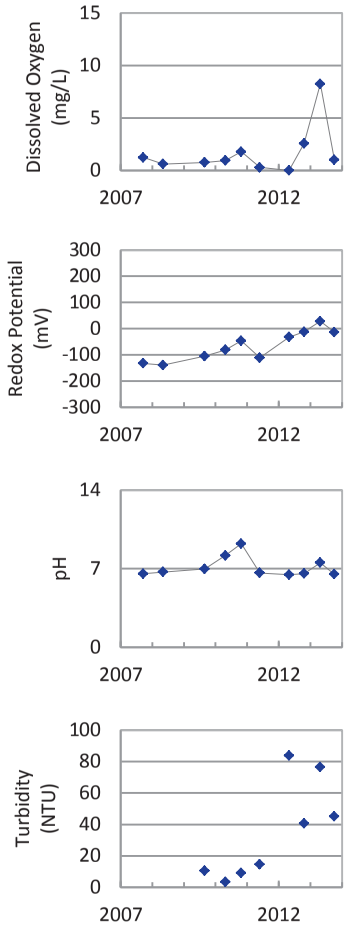
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/8/2007 to 10/10/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1098
i-Pentanoic Acid Trend in Perched Aquifer



Field Parameters



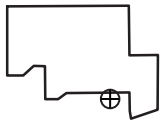
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Decreasing

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

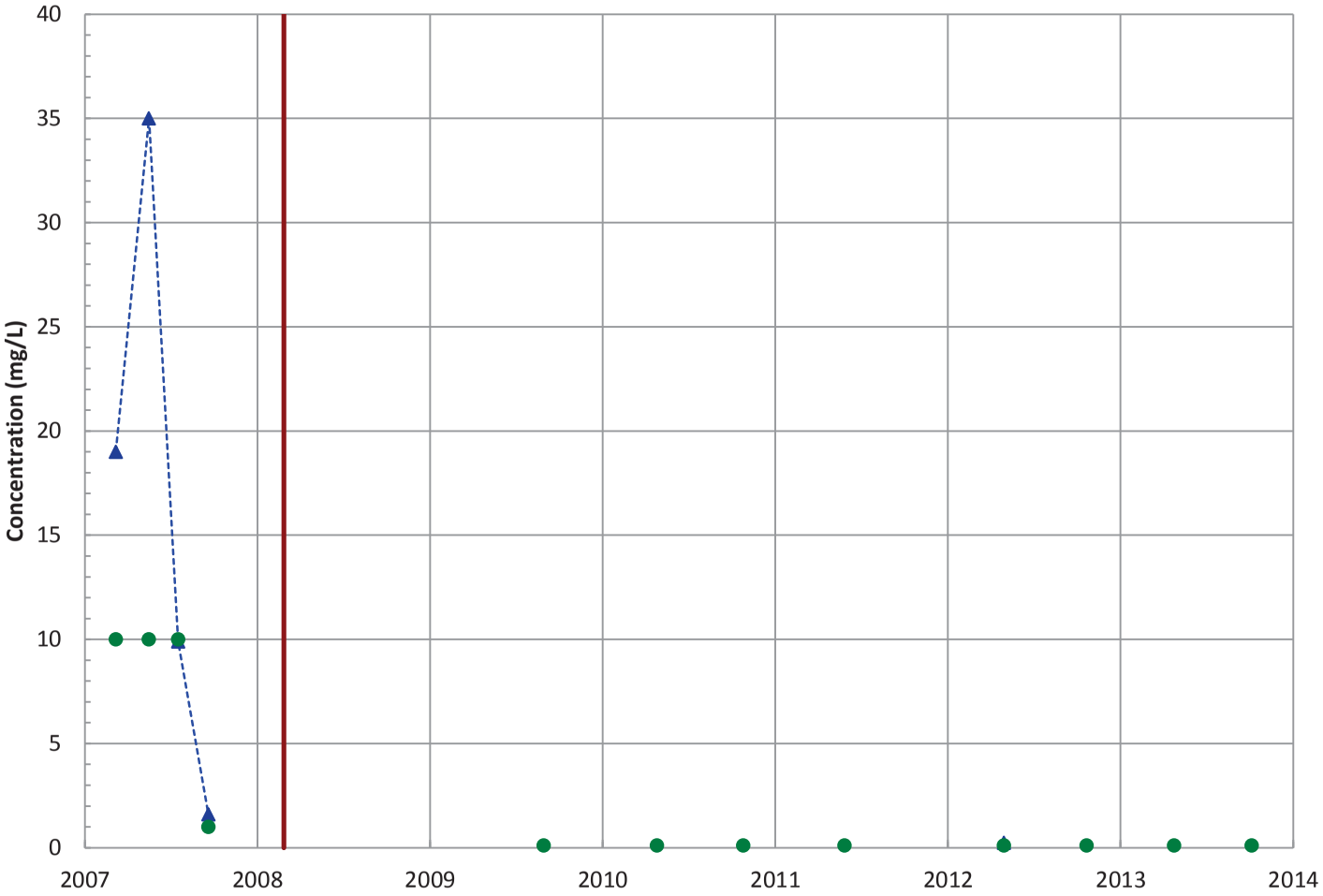
Well Location



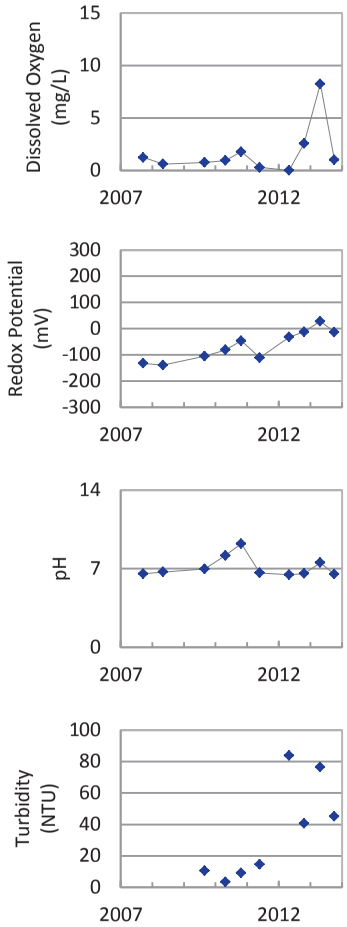
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/8/2007 to 10/10/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1098
Lactic Acid and HIBA Trend in Perched Aquifer



Field Parameters



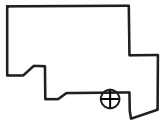
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Decreasing

▲ Measured Value
● Sample Detection Limit
- - - - Concentration Trend
═══ Injection Dates

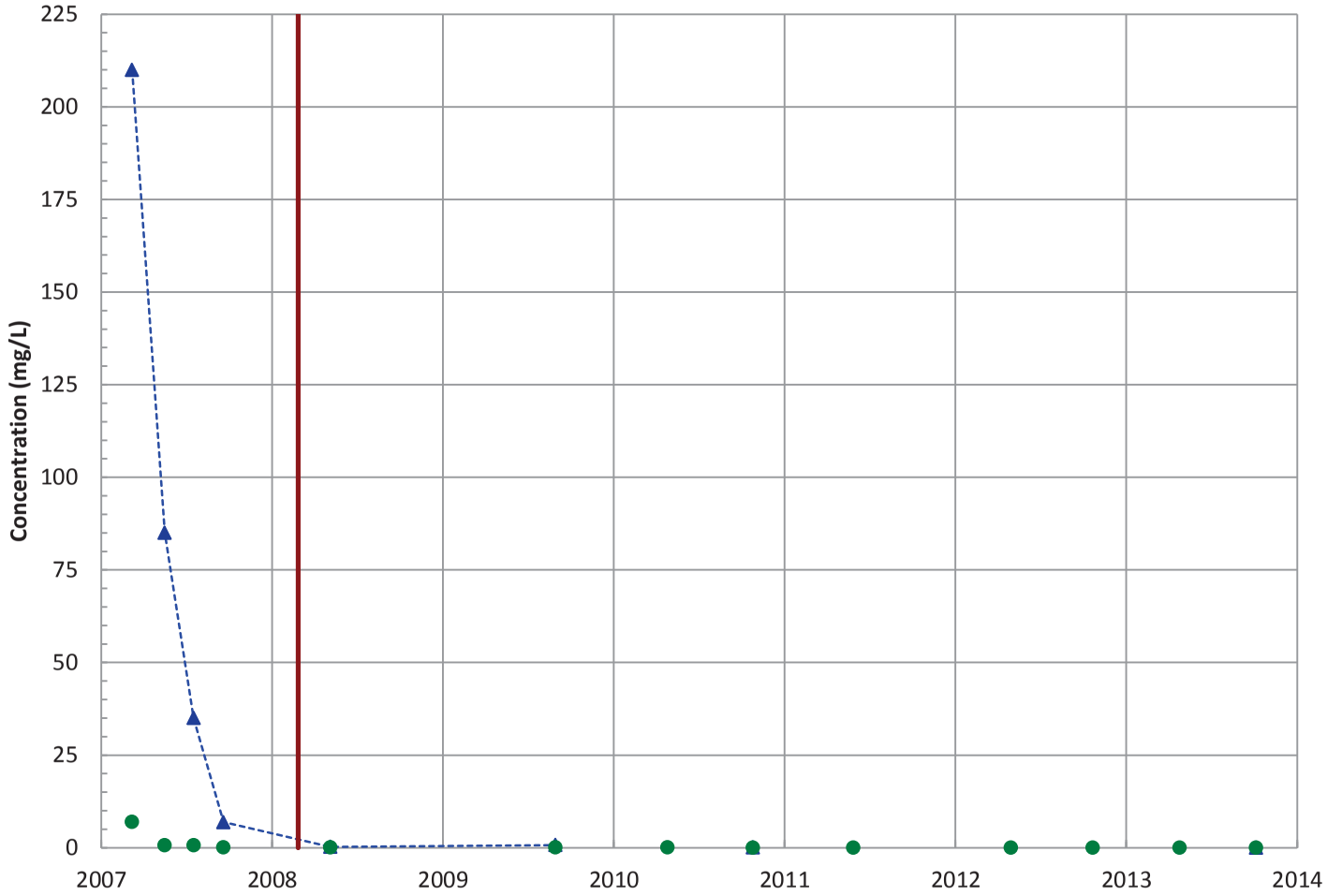
Well Location



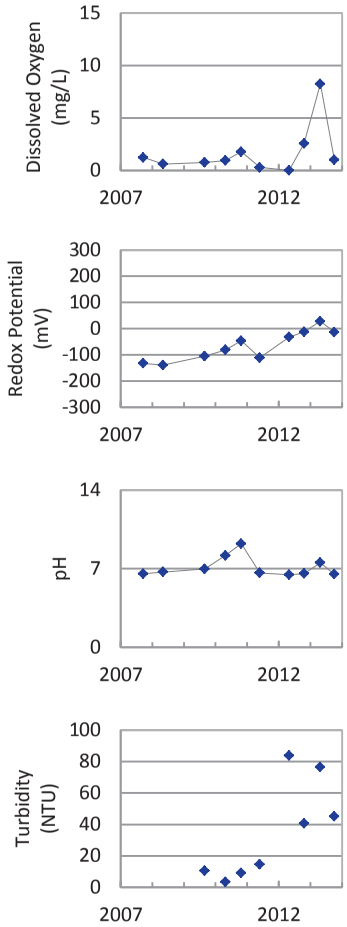
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/8/2007 to 10/10/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1098
Propionic Acid Trend in Perched Aquifer



Field Parameters



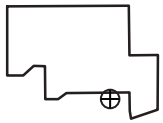
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Injection Dates

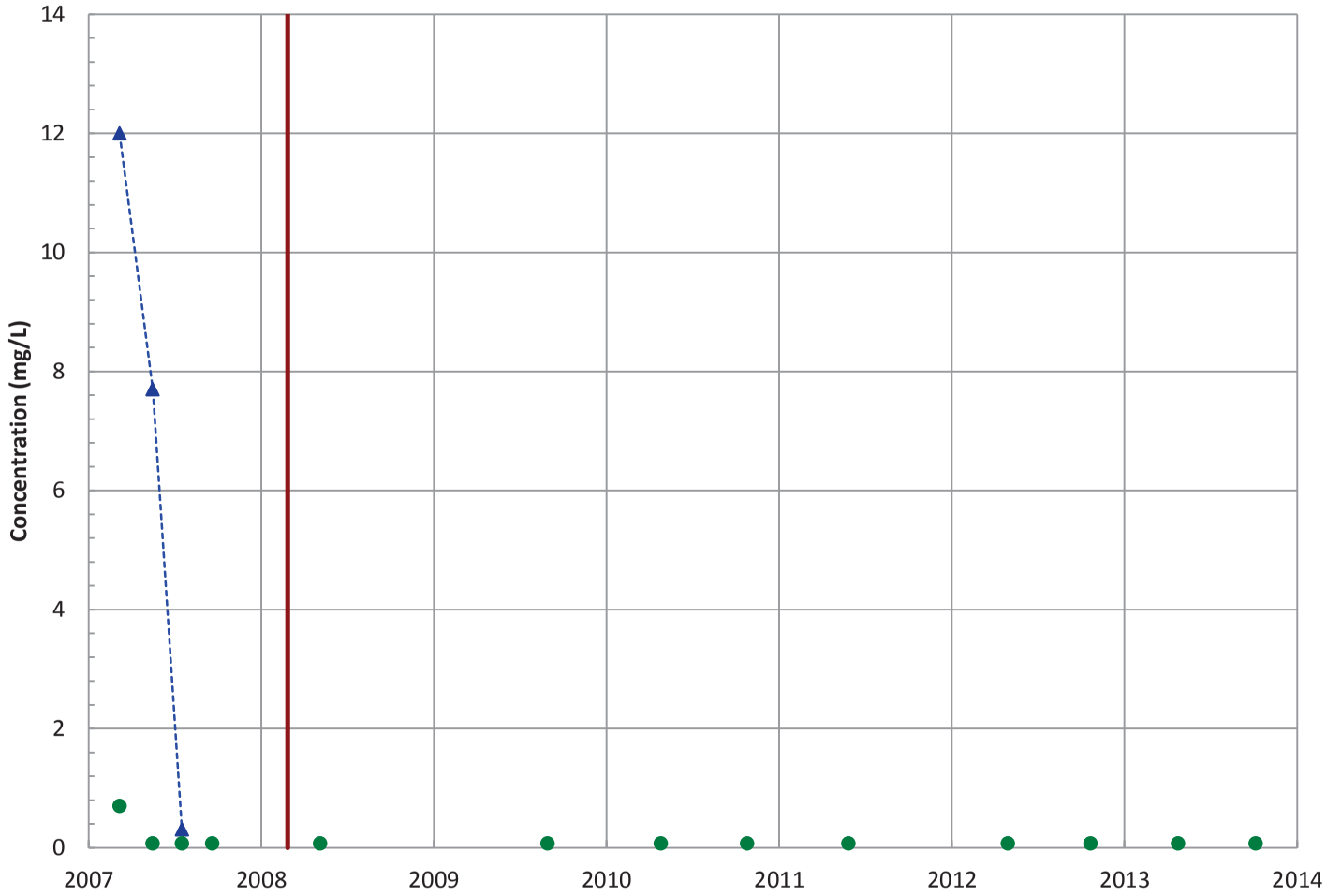
Well Location



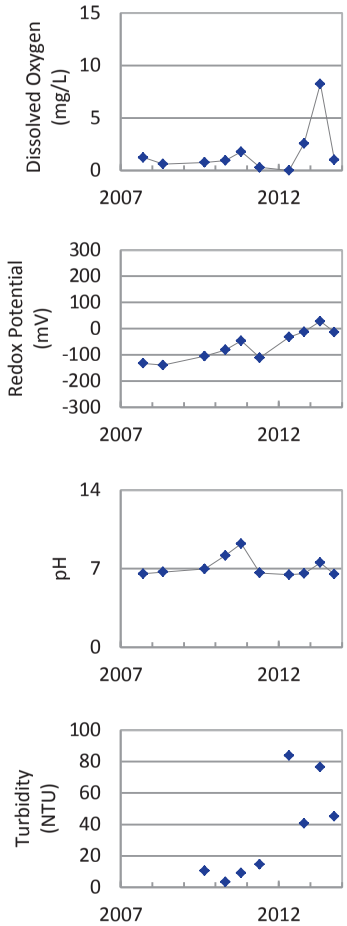
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/8/2007 to 10/10/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1098
Pentanoic Acid Trend in Perched Aquifer



Field Parameters



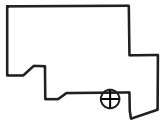
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

▲ Measured Value
● Sample Detection Limit
Concentration Trend
Injection Dates

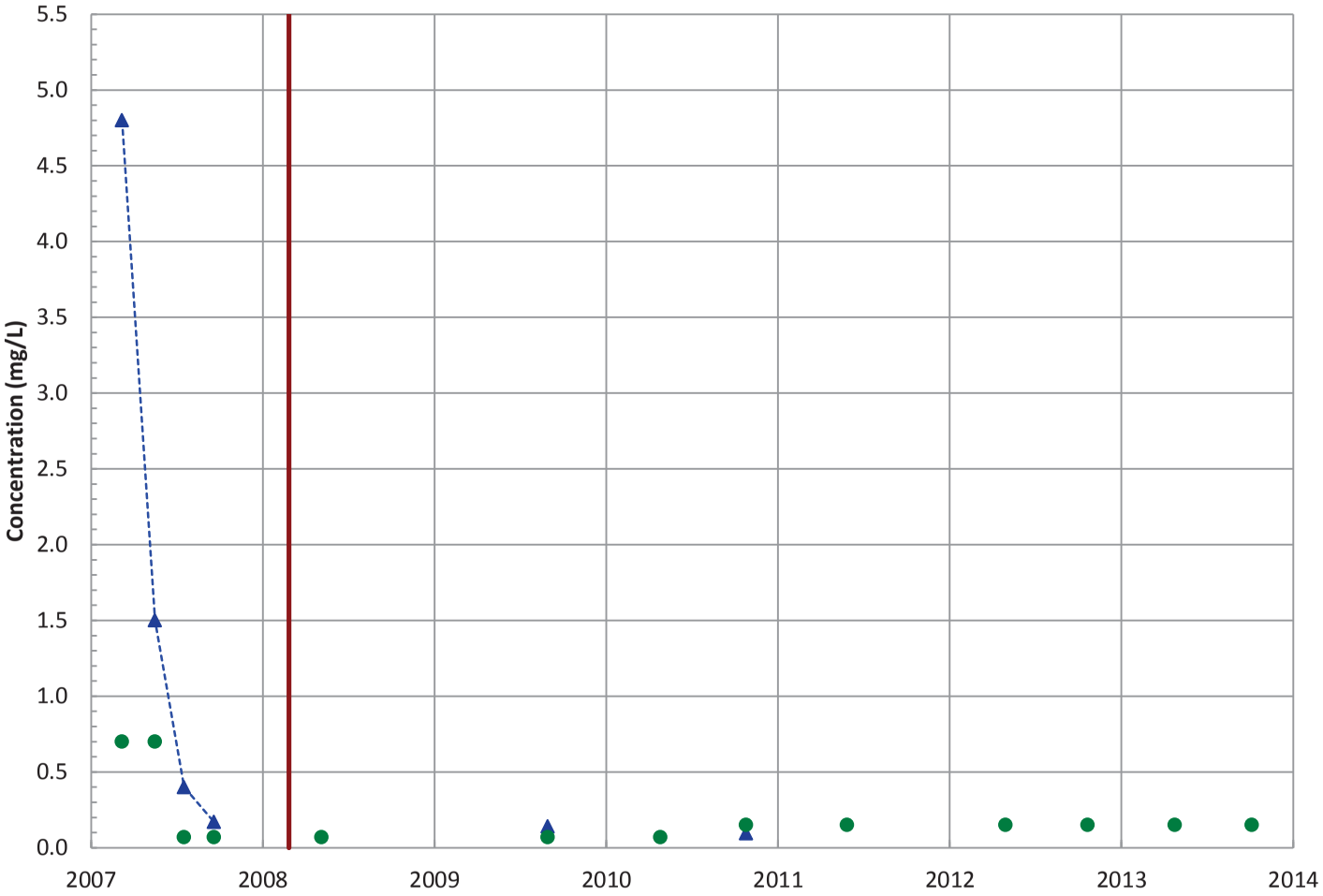
Well Location



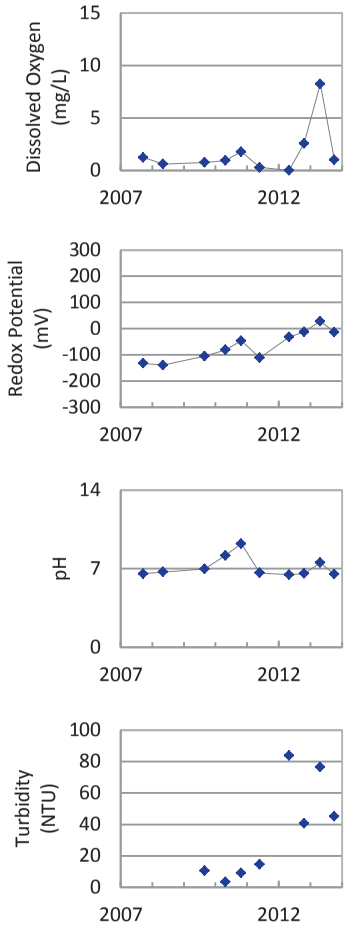
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/8/2007 to 10/10/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1098
Pyruvic Acid Trend in Perched Aquifer



Field Parameters



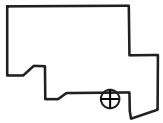
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Decreasing

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

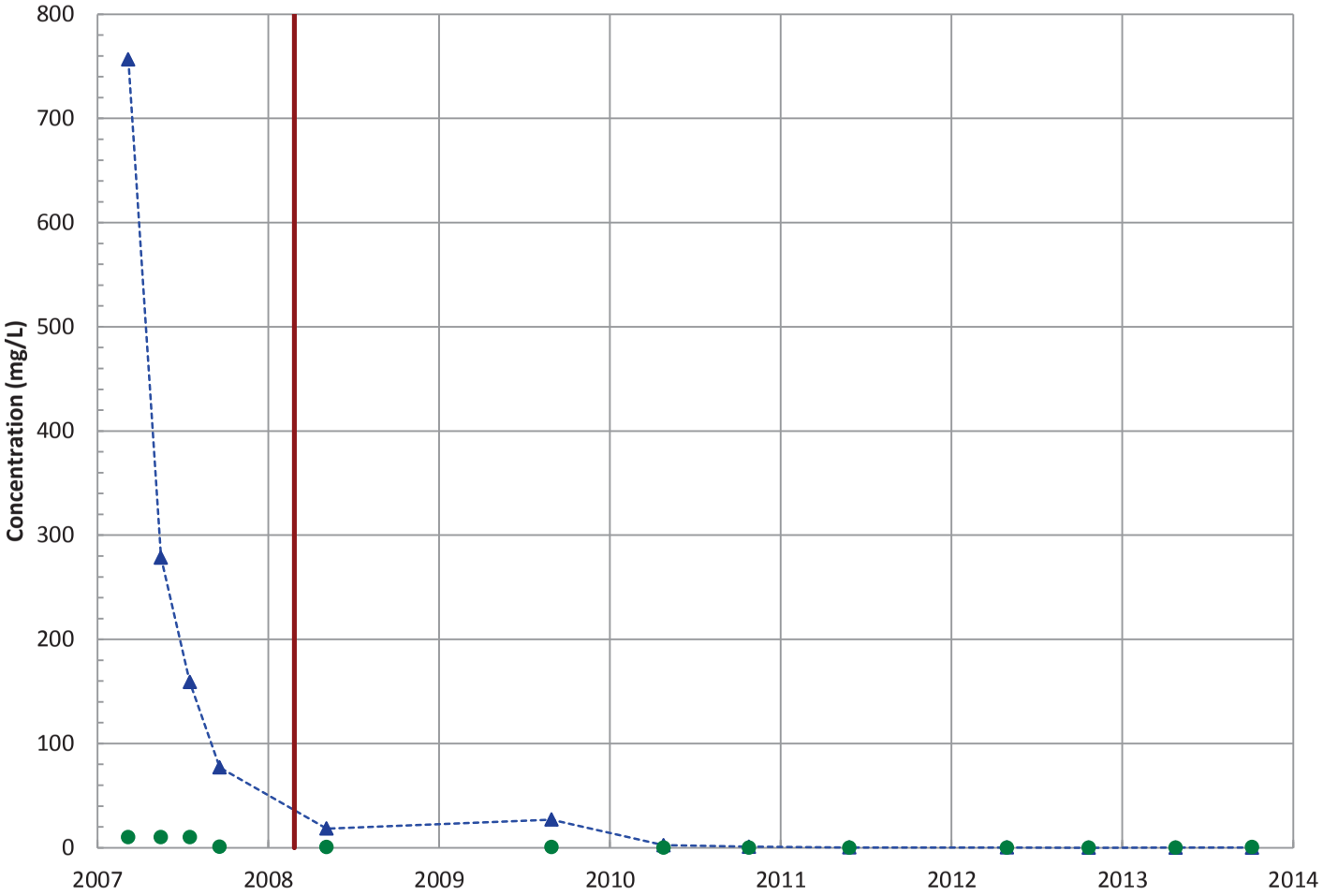
Well Location



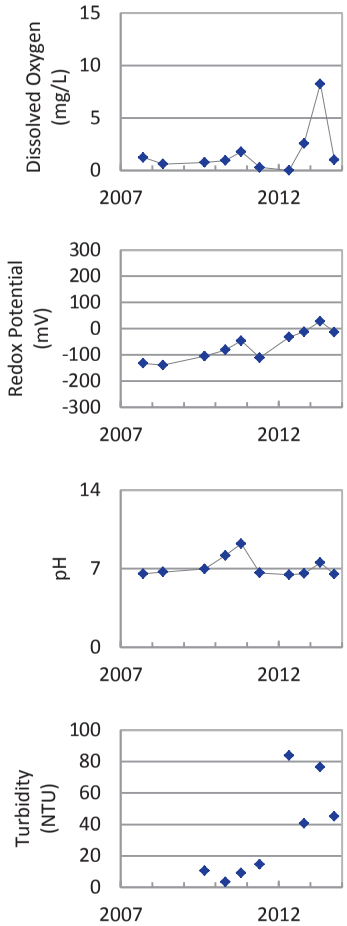
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/8/2007 to 10/10/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1098
Total Volatile Fatty Acids Trend in Perched Aquifer



Field Parameters



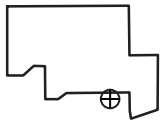
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Stable

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

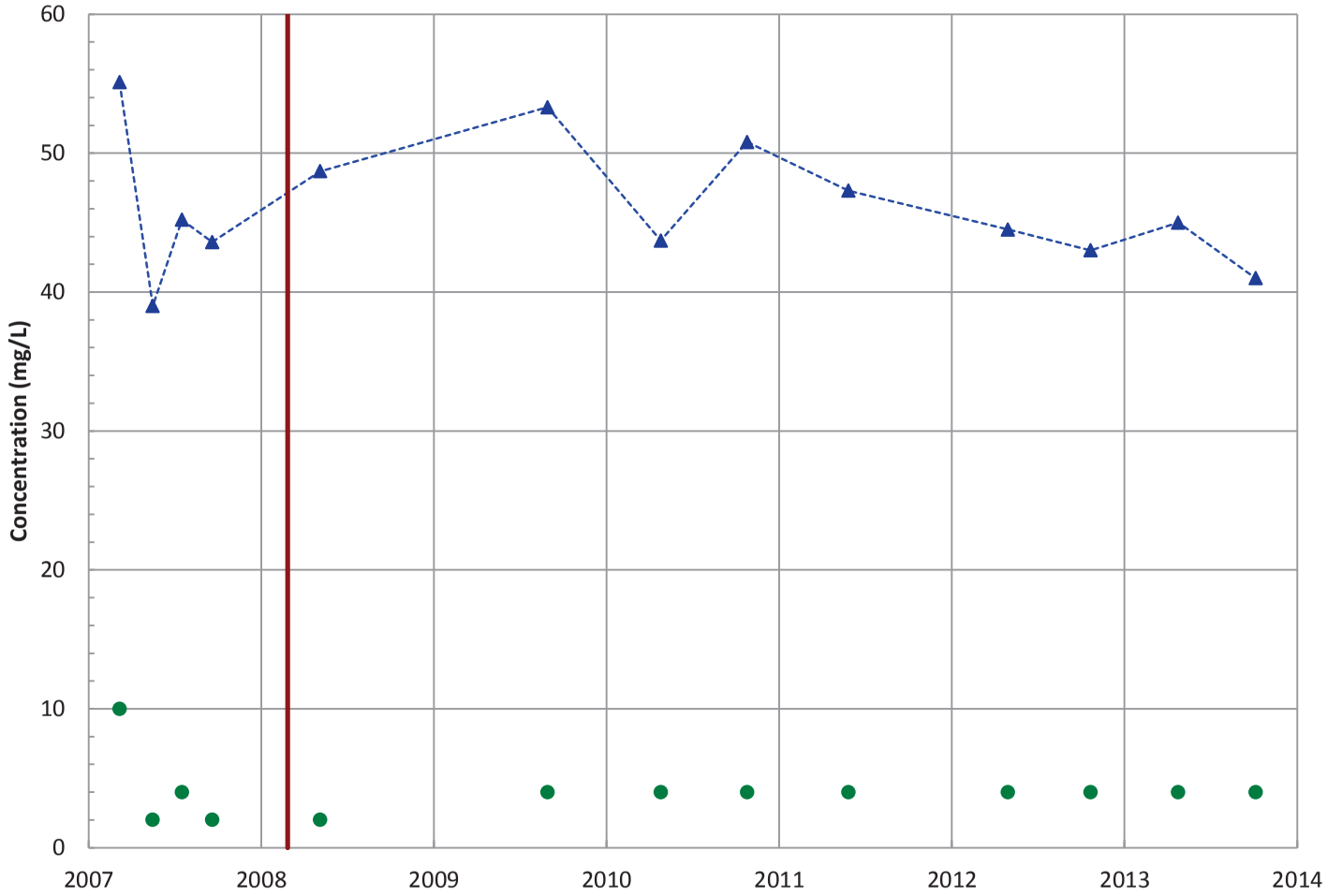
Well Location



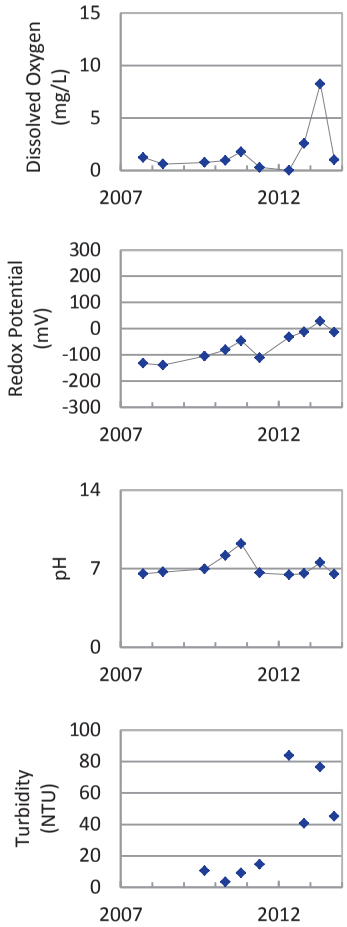
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/8/2007 to 10/10/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1098
Chloride (as Cl) Trend in Perched Aquifer



Field Parameters



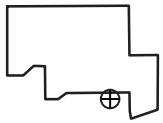
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: Stable

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

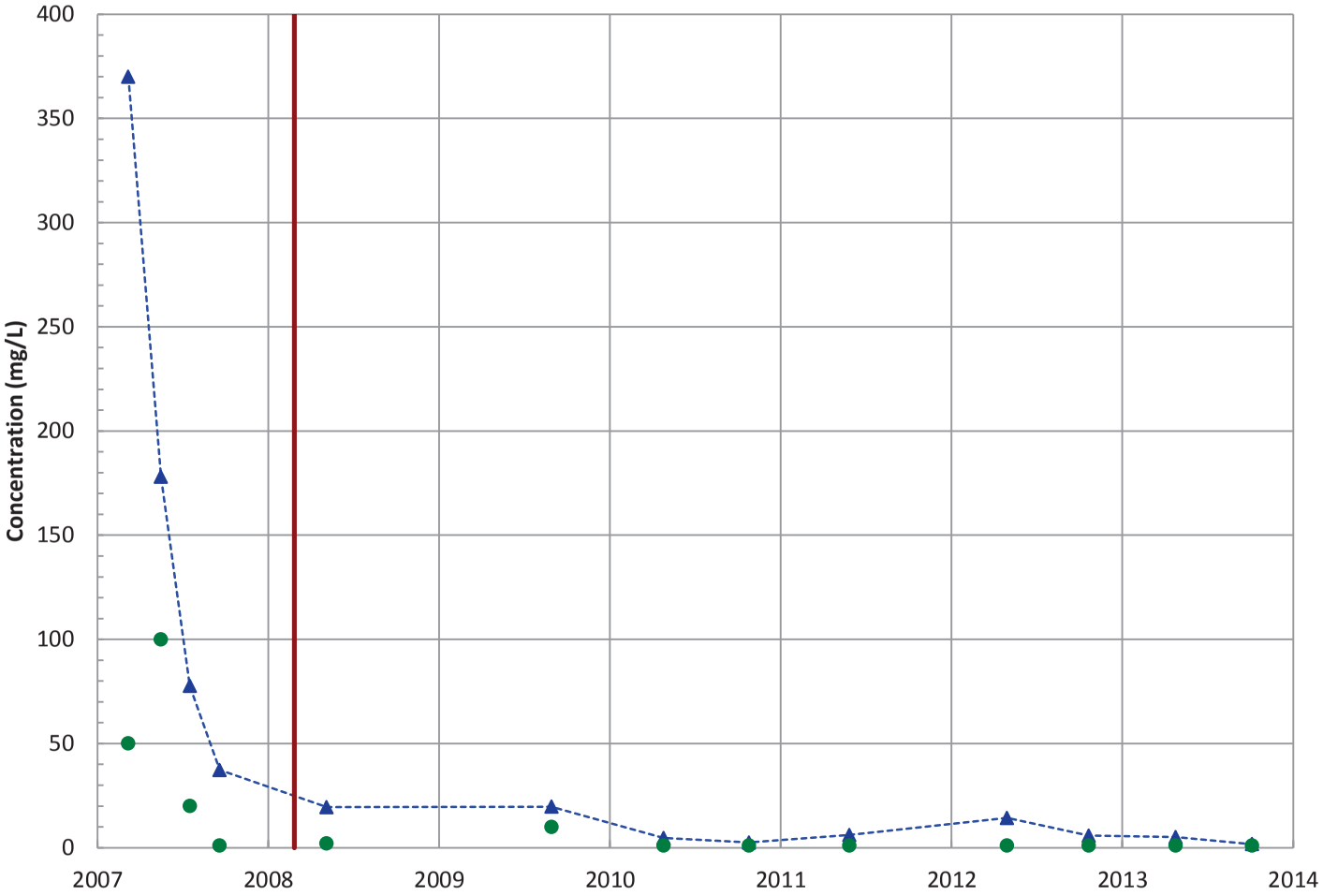
Well Location



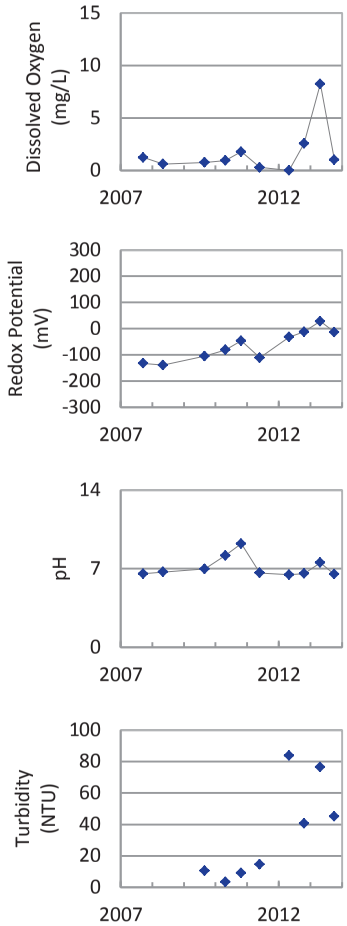
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/8/2007 to 10/10/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1098
Total Organic Carbon Trend in Perched Aquifer



Field Parameters



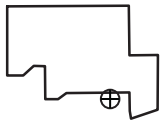
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Decreasing

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

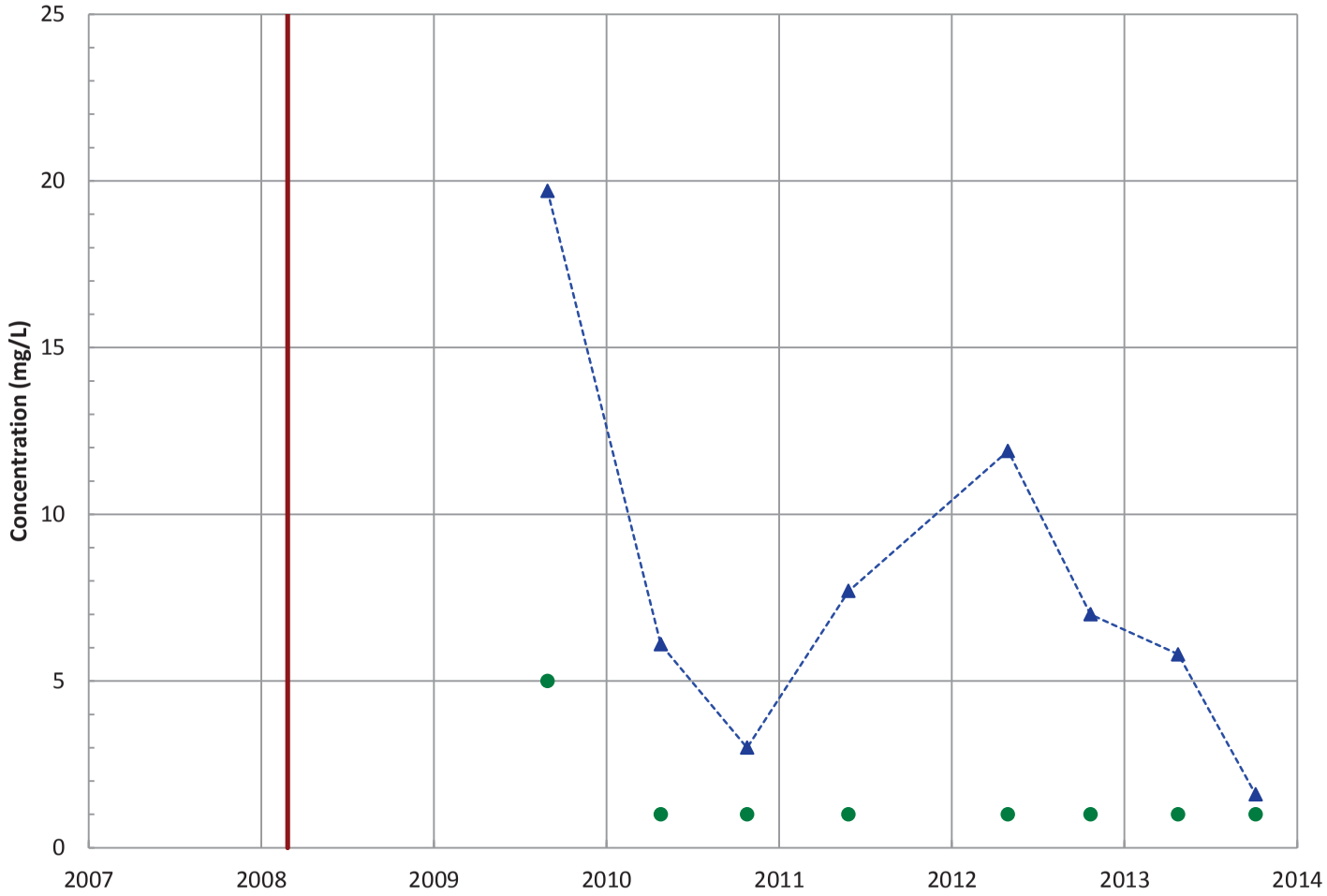
Well Location



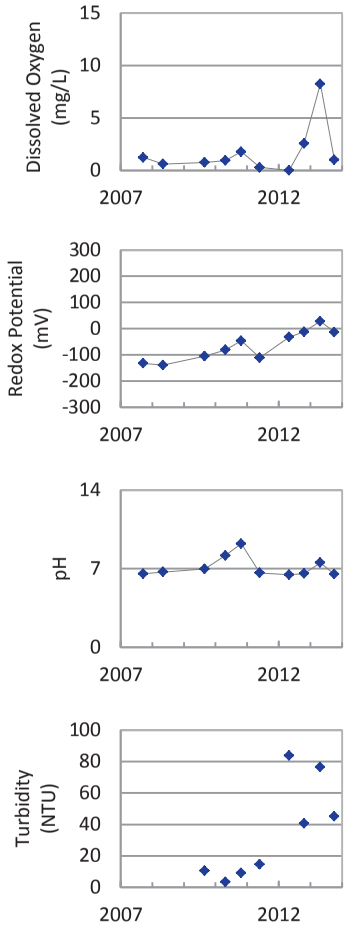
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/8/2007 to 10/10/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1098
Dissolved Organic Carbon (DOC) Trend in Perched Aquifer



Field Parameters



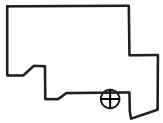
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Probably Decreasing
Last 4 Samples: Decreasing

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

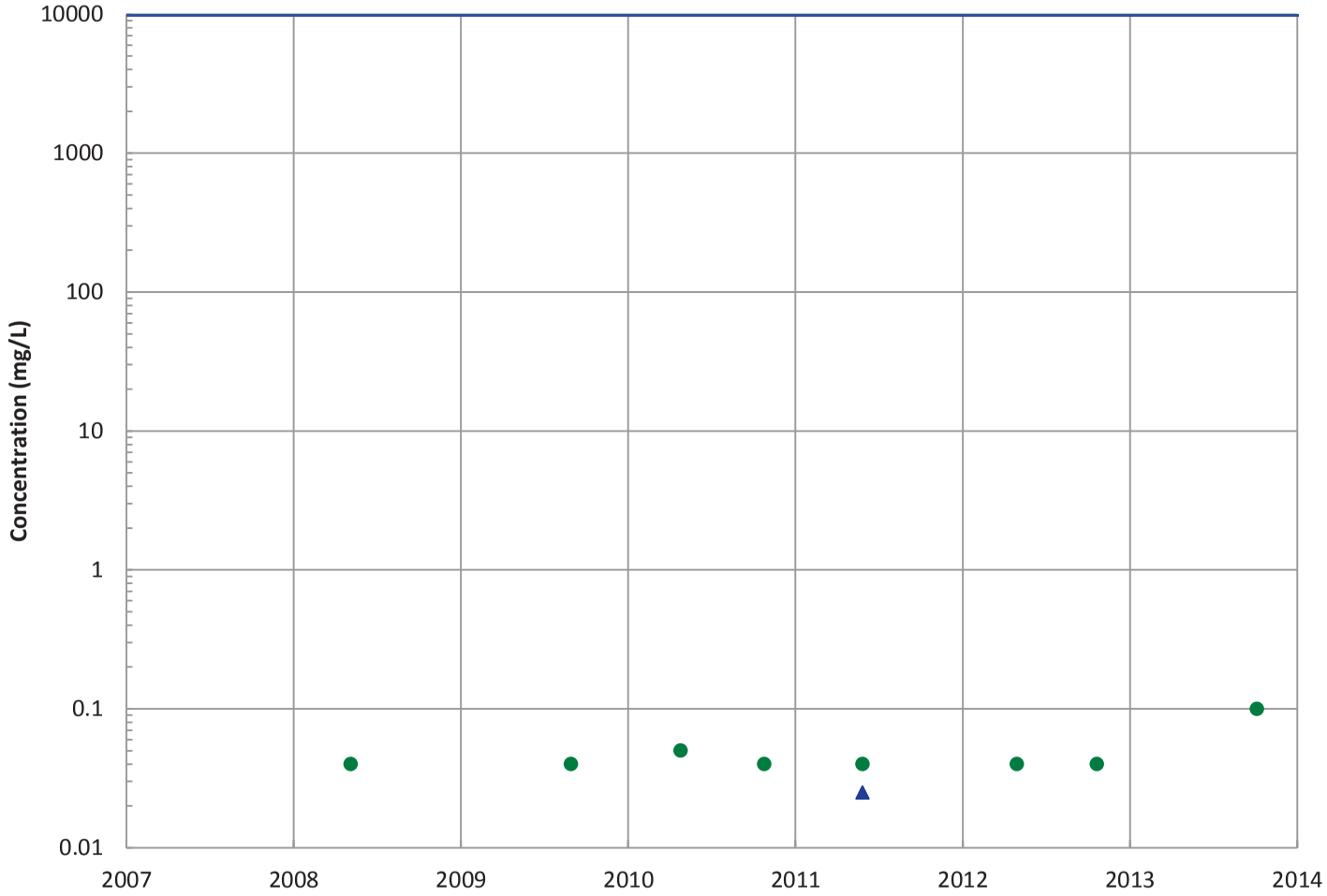
Well Location



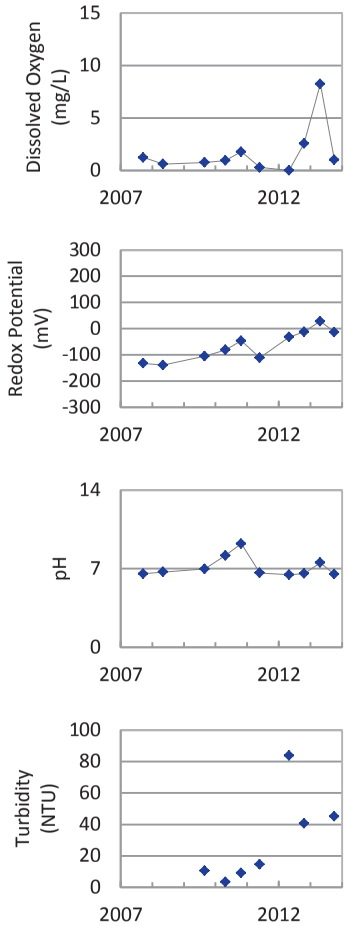
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/31/2009 to 10/10/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1098
Nitrate as N Trend in Perched Aquifer



Field Parameters



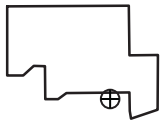
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

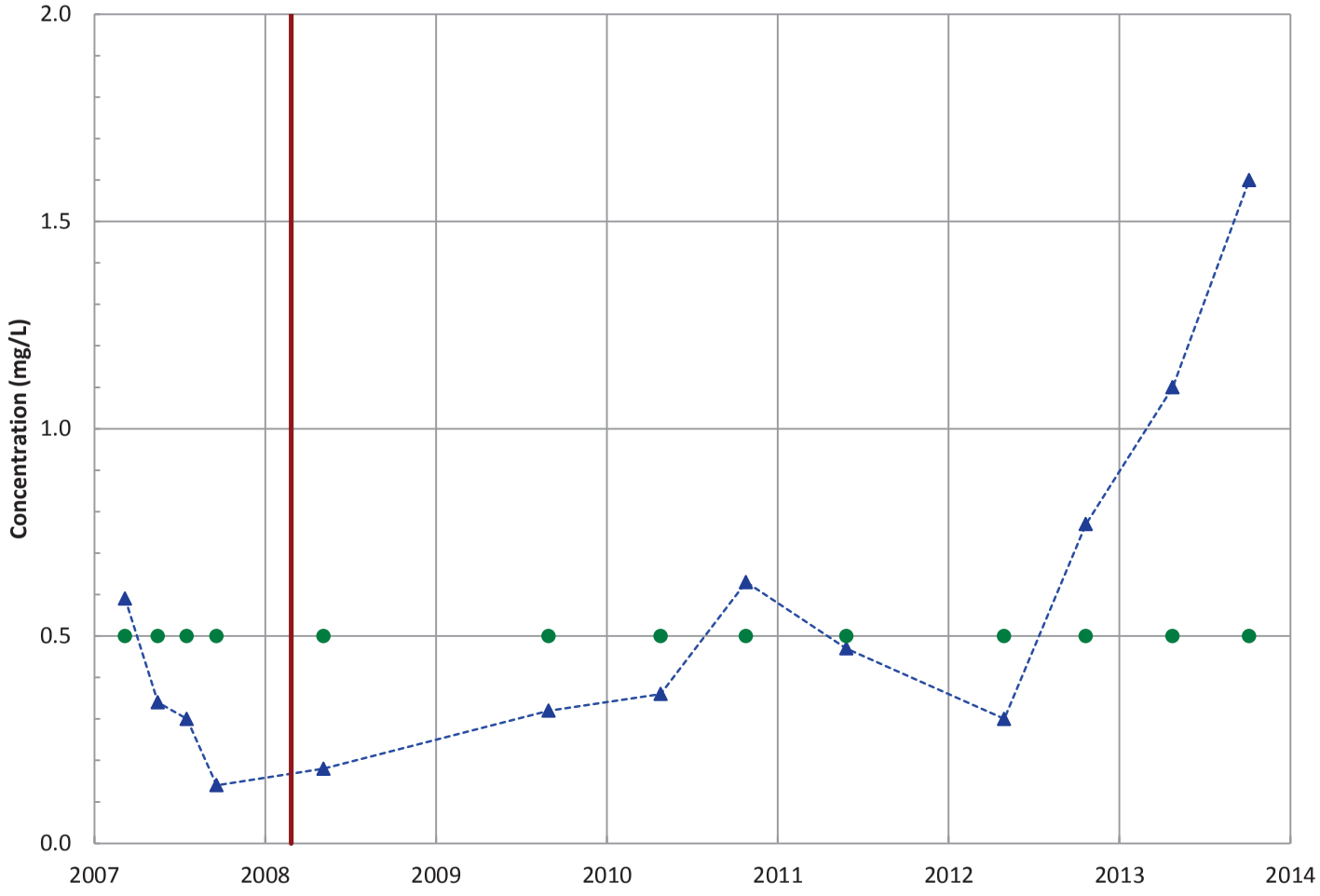
Well Location



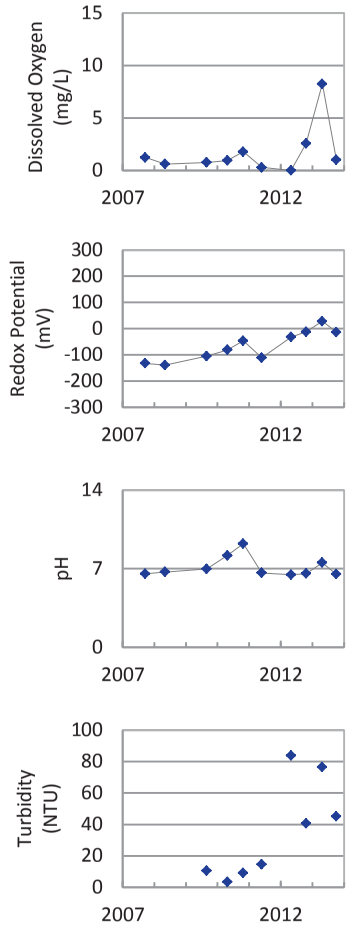
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/6/2008 to 10/10/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1098
Sulfate (as SO4) Trend in Perched Aquifer



Field Parameters



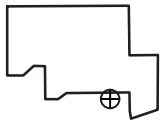
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Increasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Increasing

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

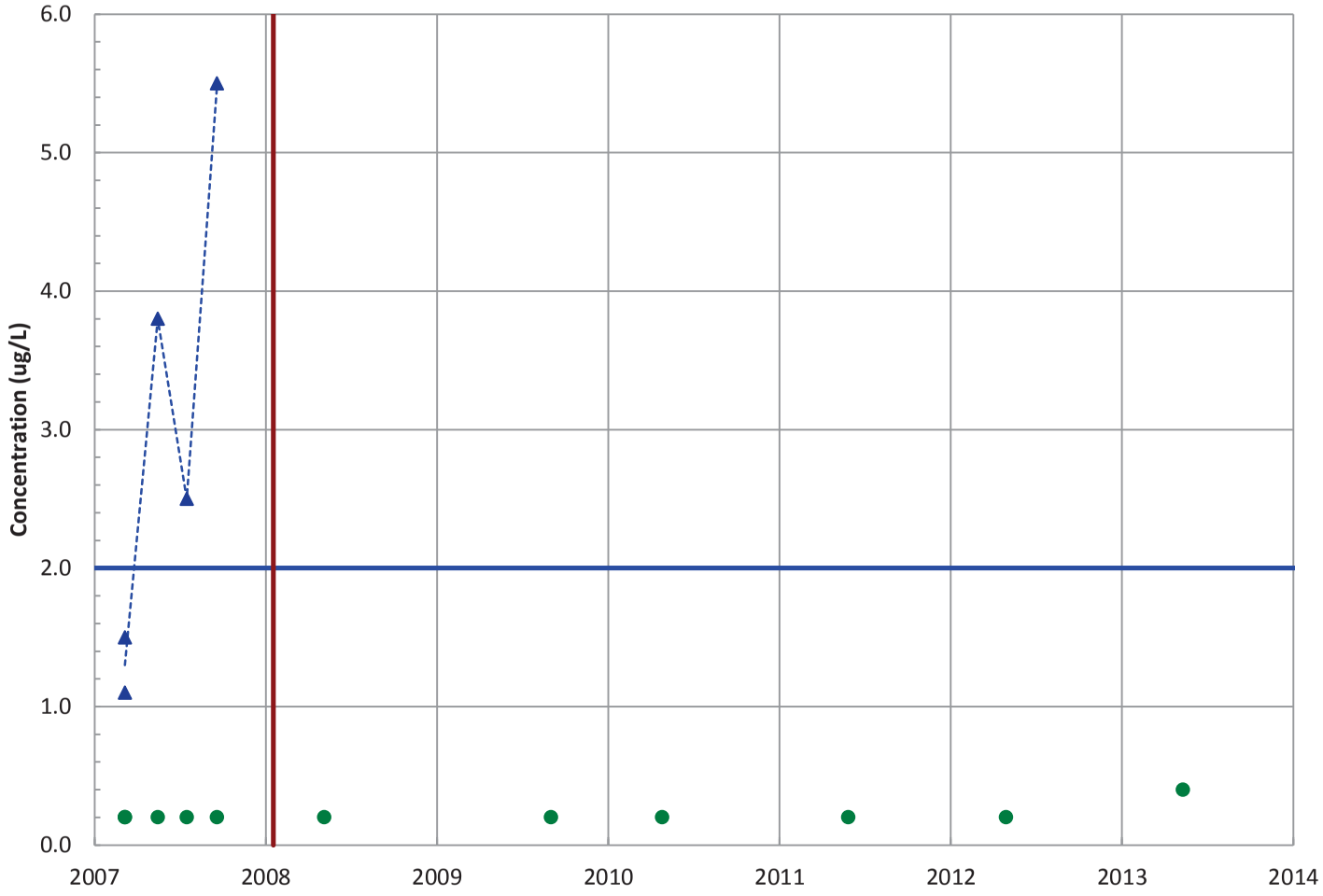
Well Location



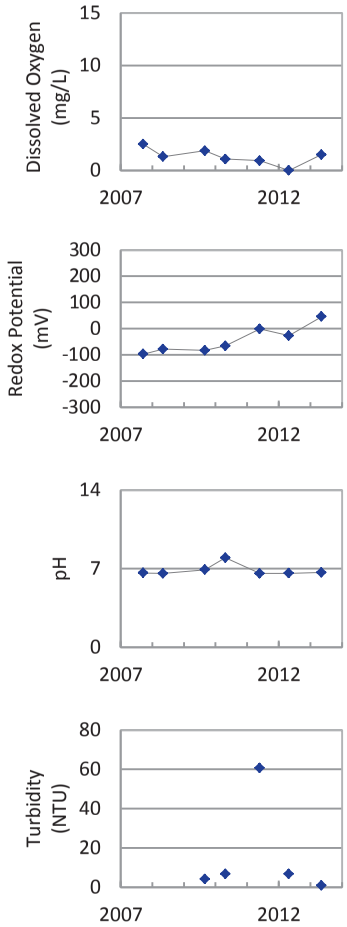
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/8/2007 to 10/10/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1100
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



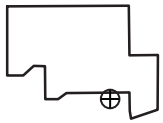
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: Probably Increasing
Last 4 Samples: Probably Increasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

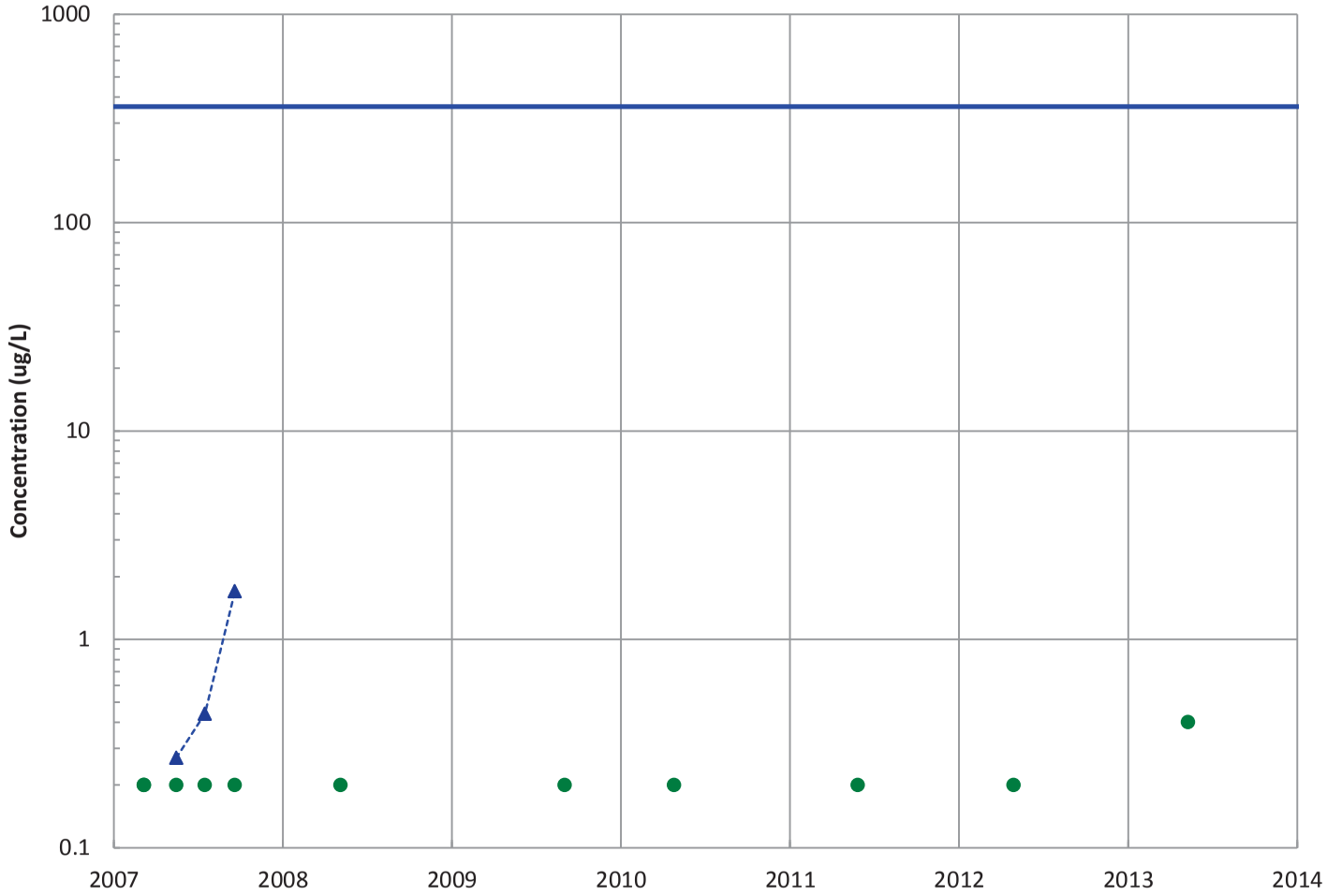
Well Location



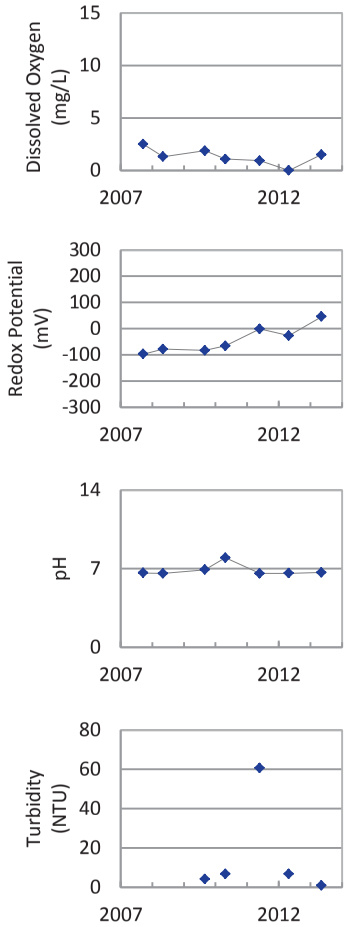
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/7/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1100
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



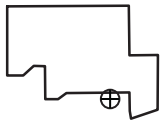
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

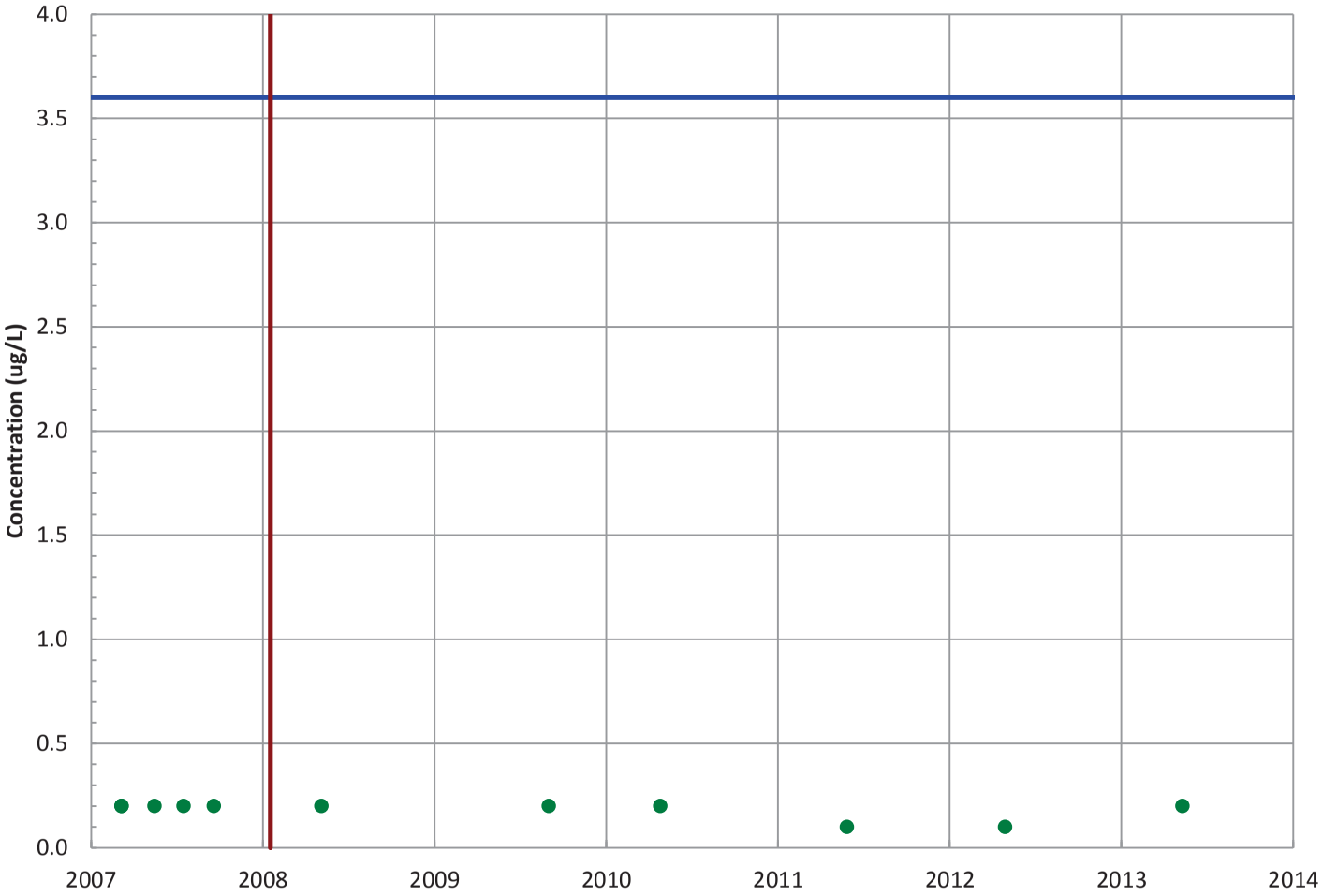
Well Location



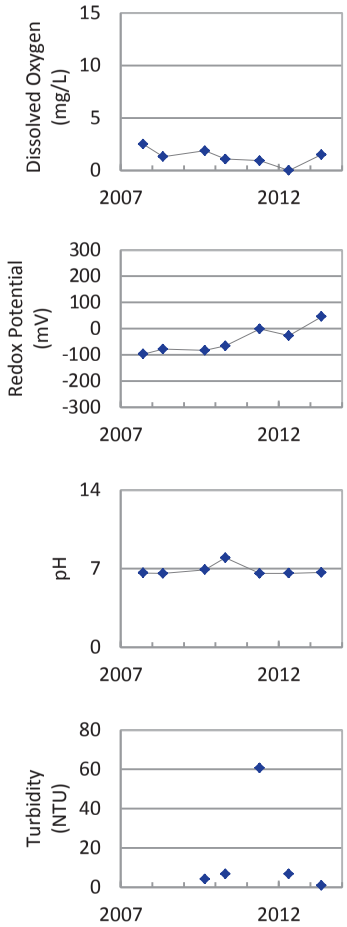
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/7/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1100
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



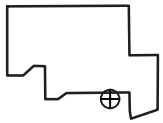
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

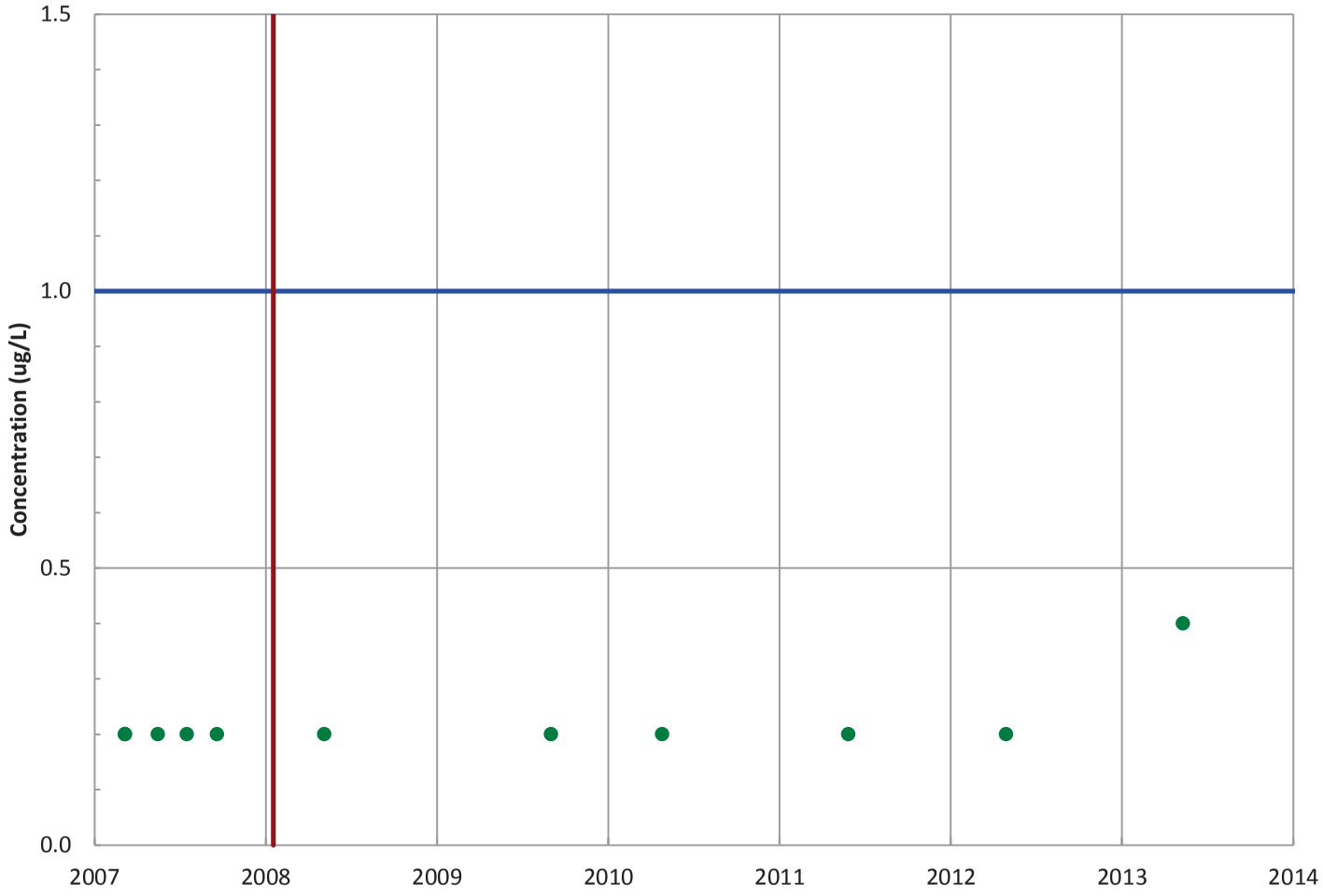
Well Location



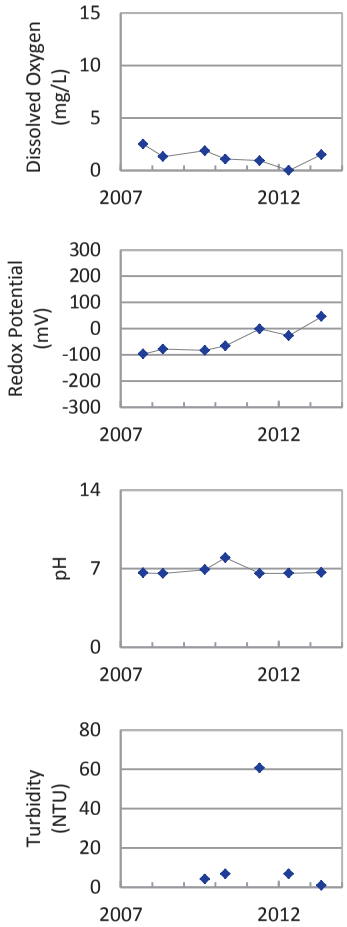
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/7/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1100
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



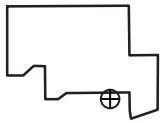
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

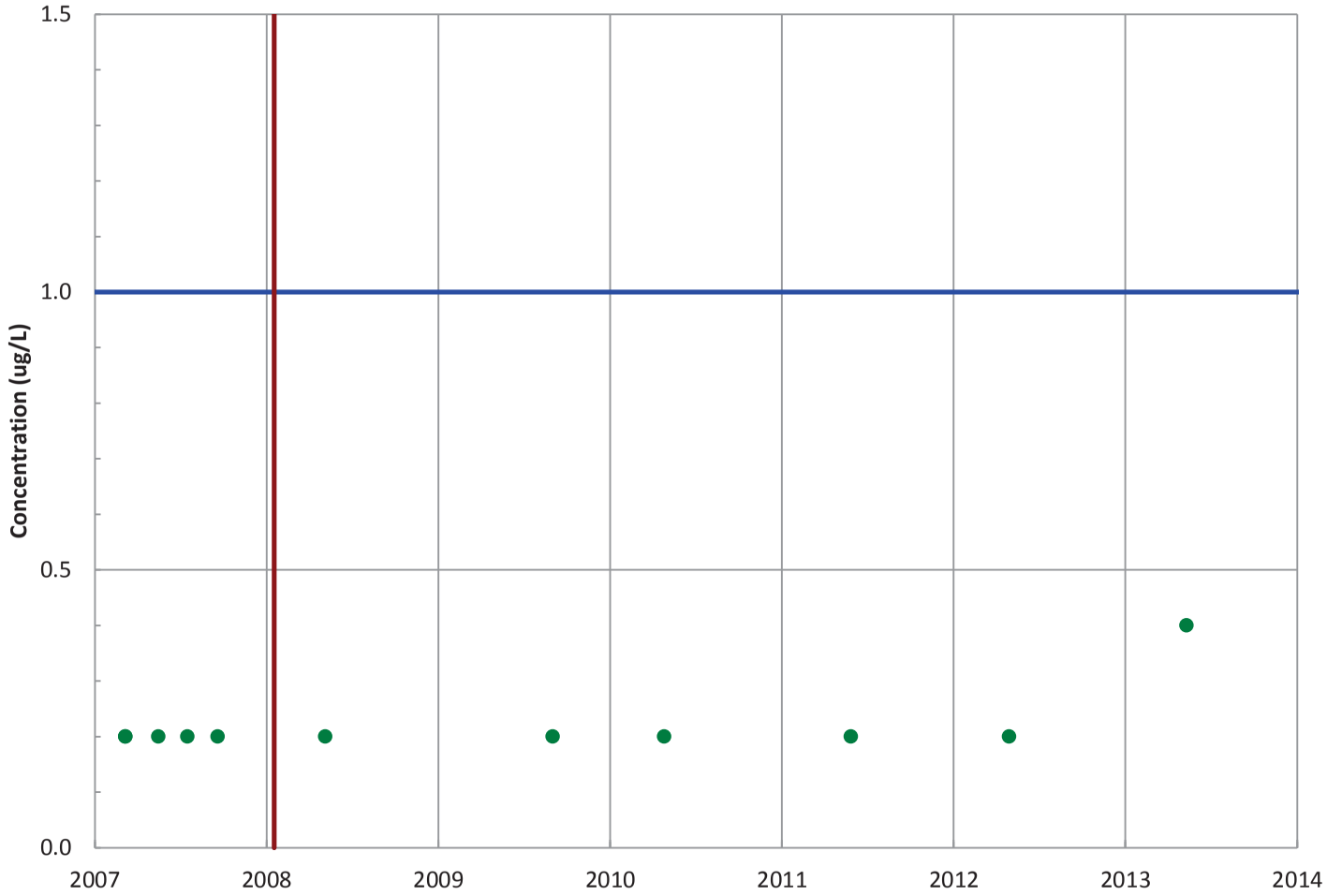
Well Location



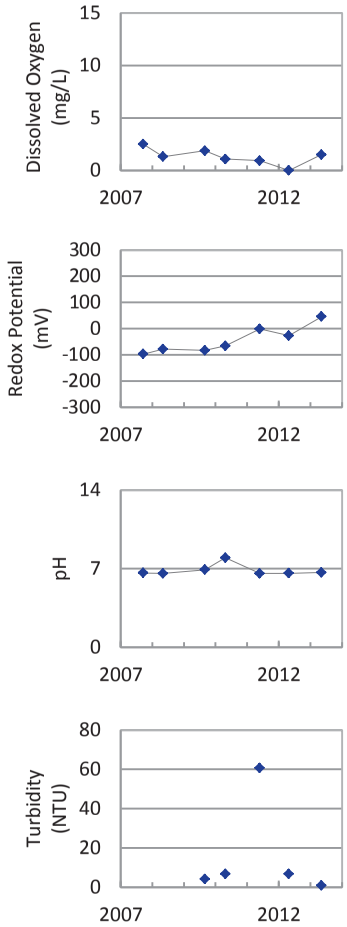
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/7/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1100
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



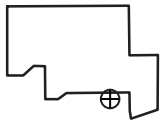
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

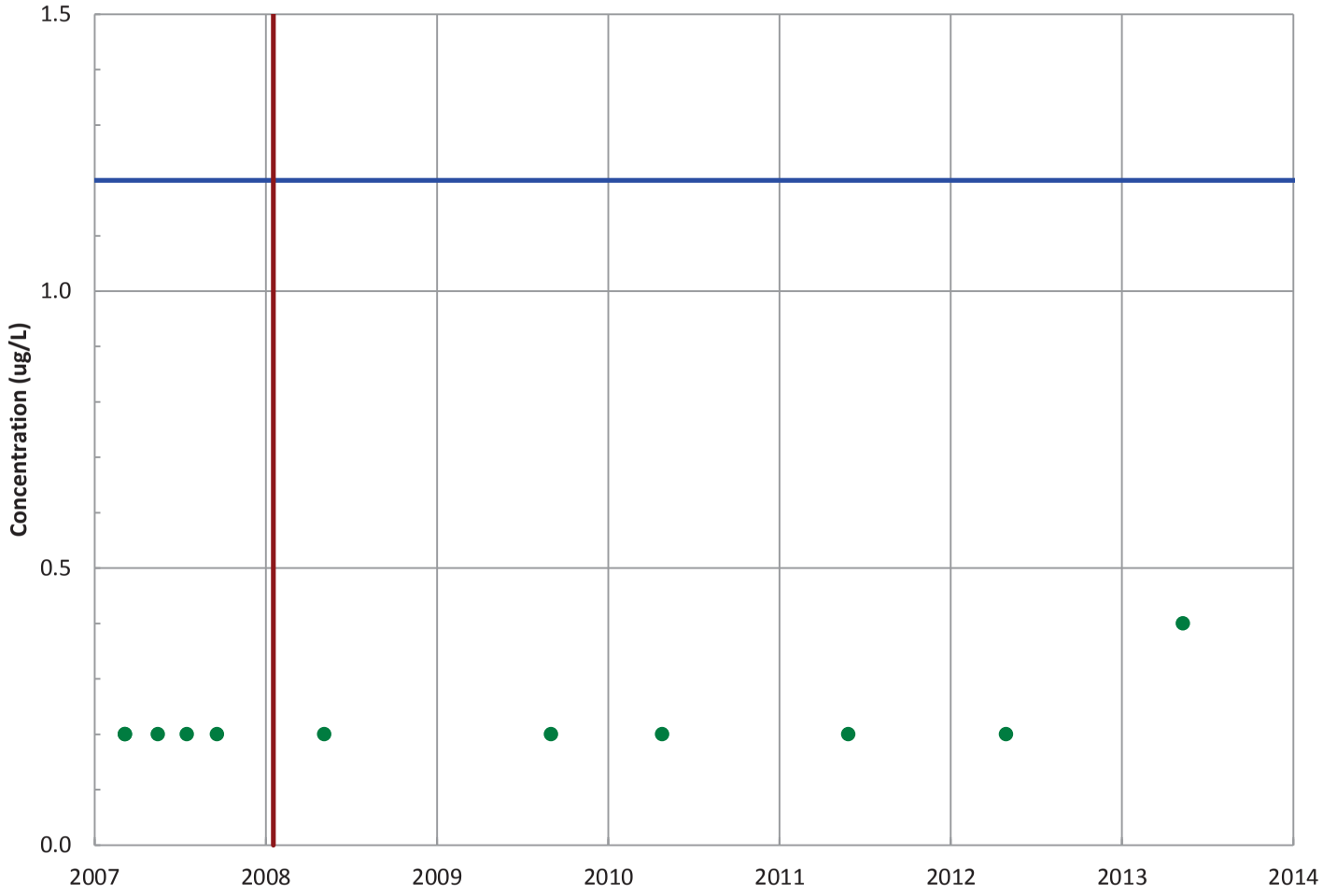
Well Location



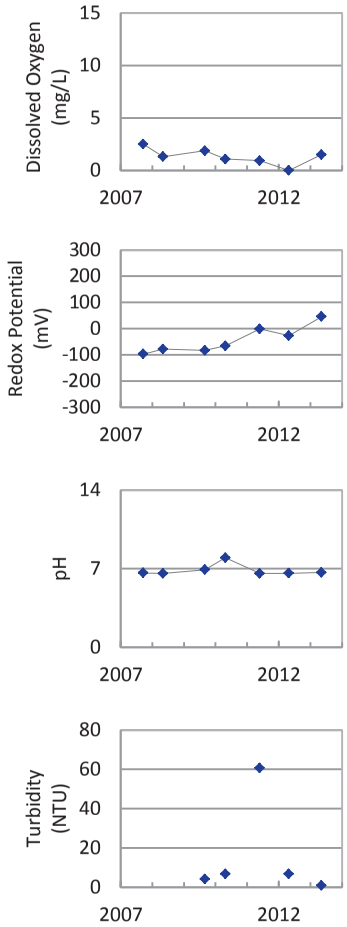
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/7/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1100
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



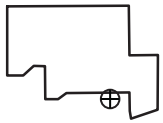
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

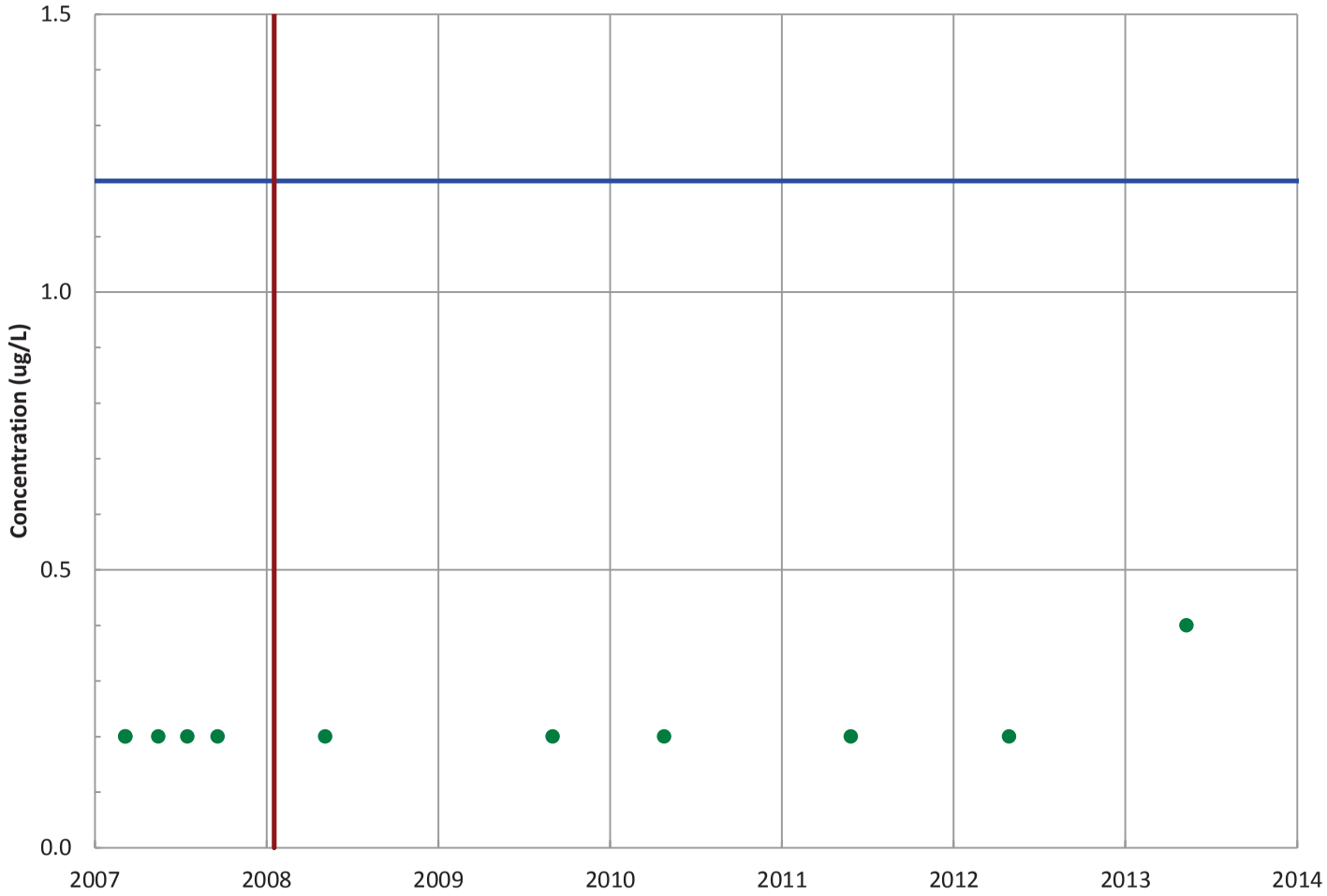
Well Location



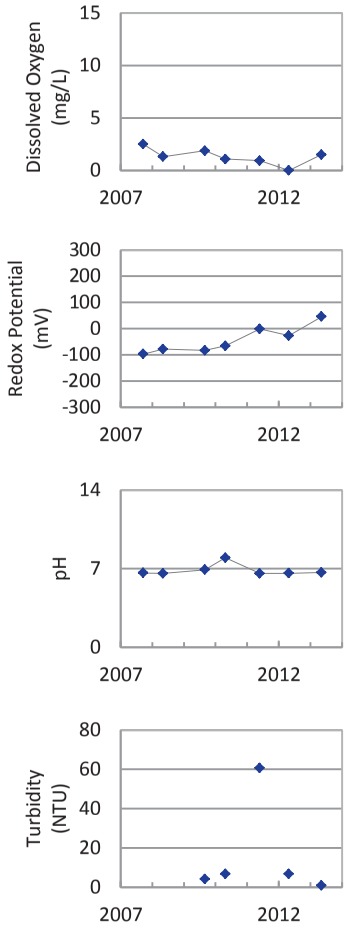
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/7/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1100
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



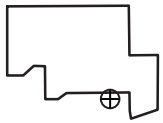
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

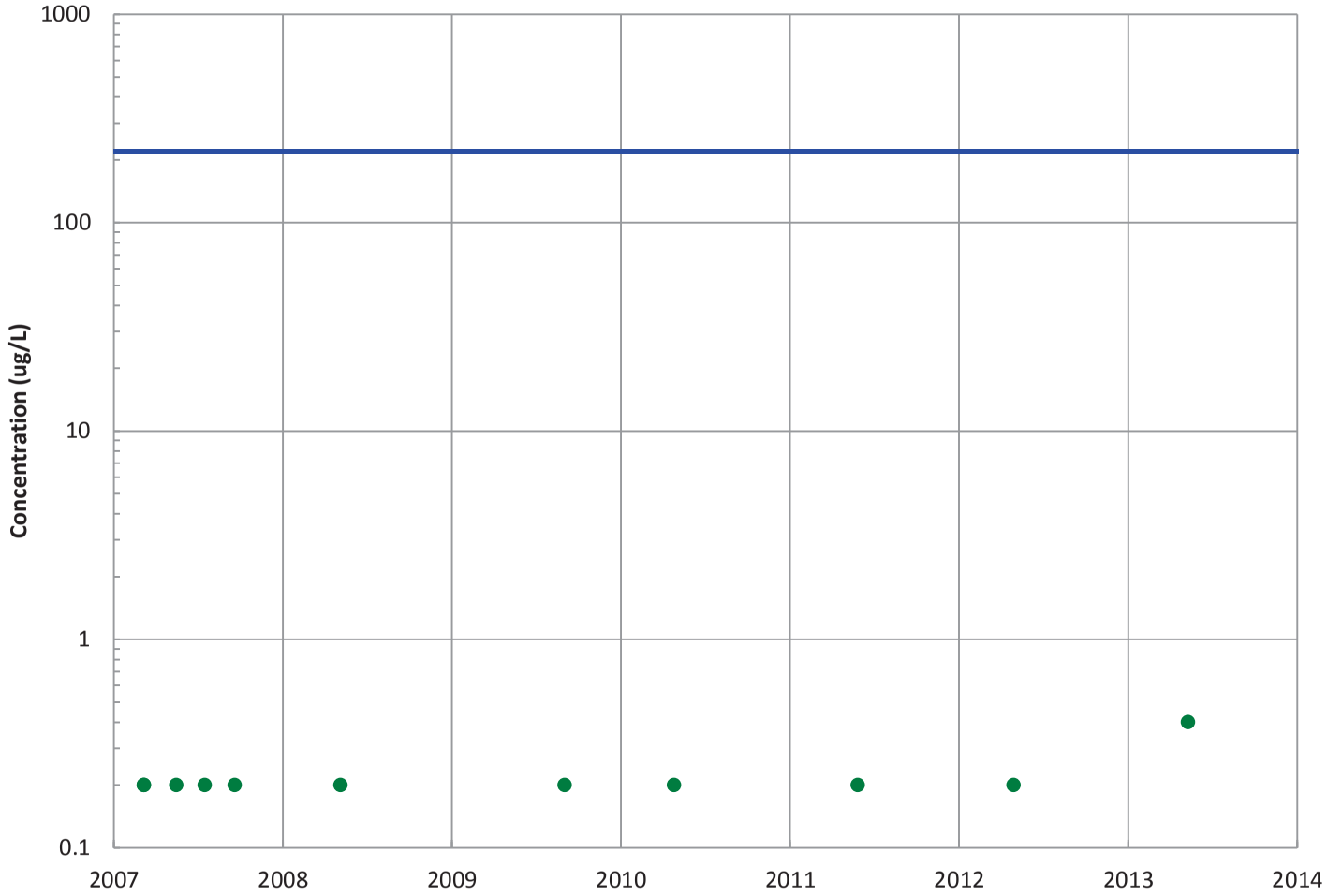
Well Location



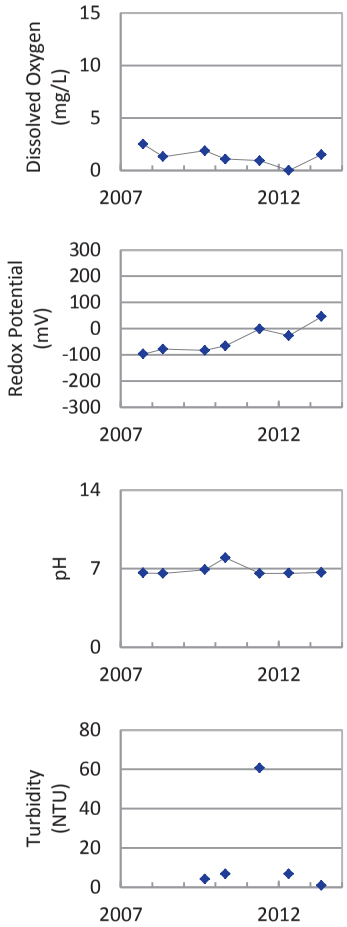
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/7/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1100
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



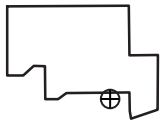
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

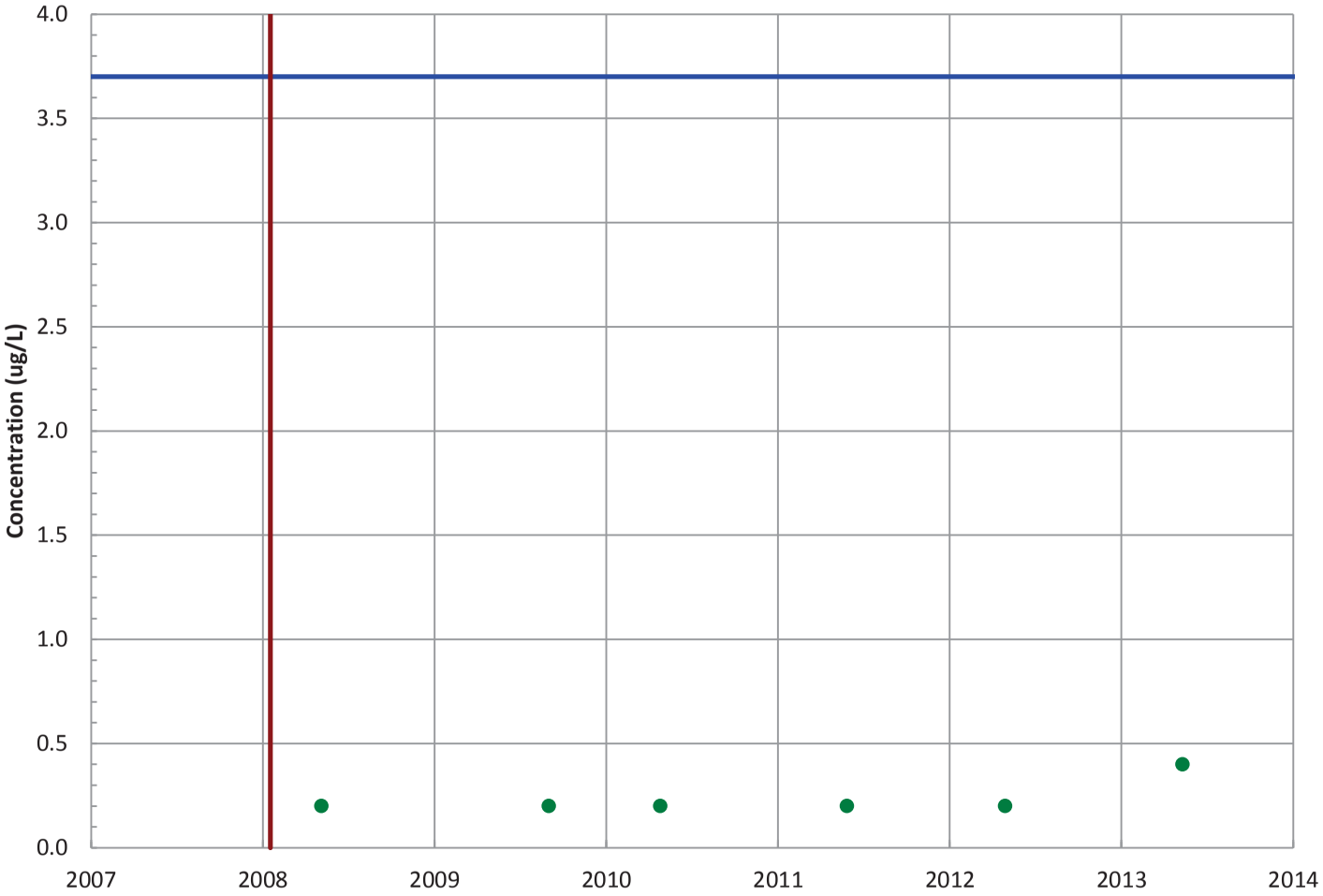
Well Location



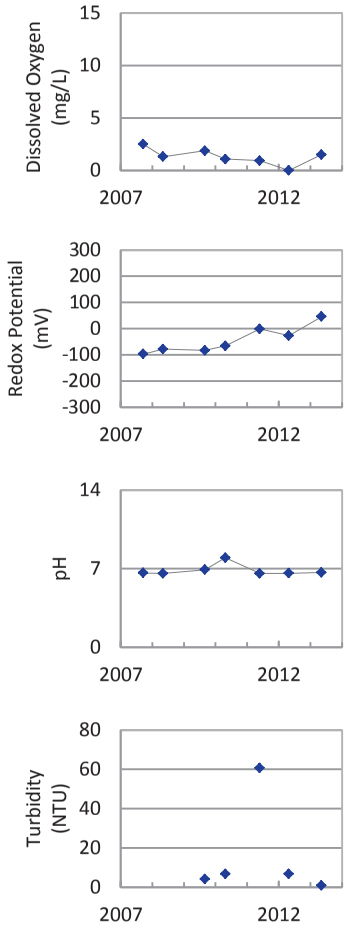
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/7/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1100
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



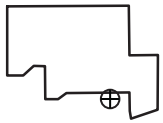
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

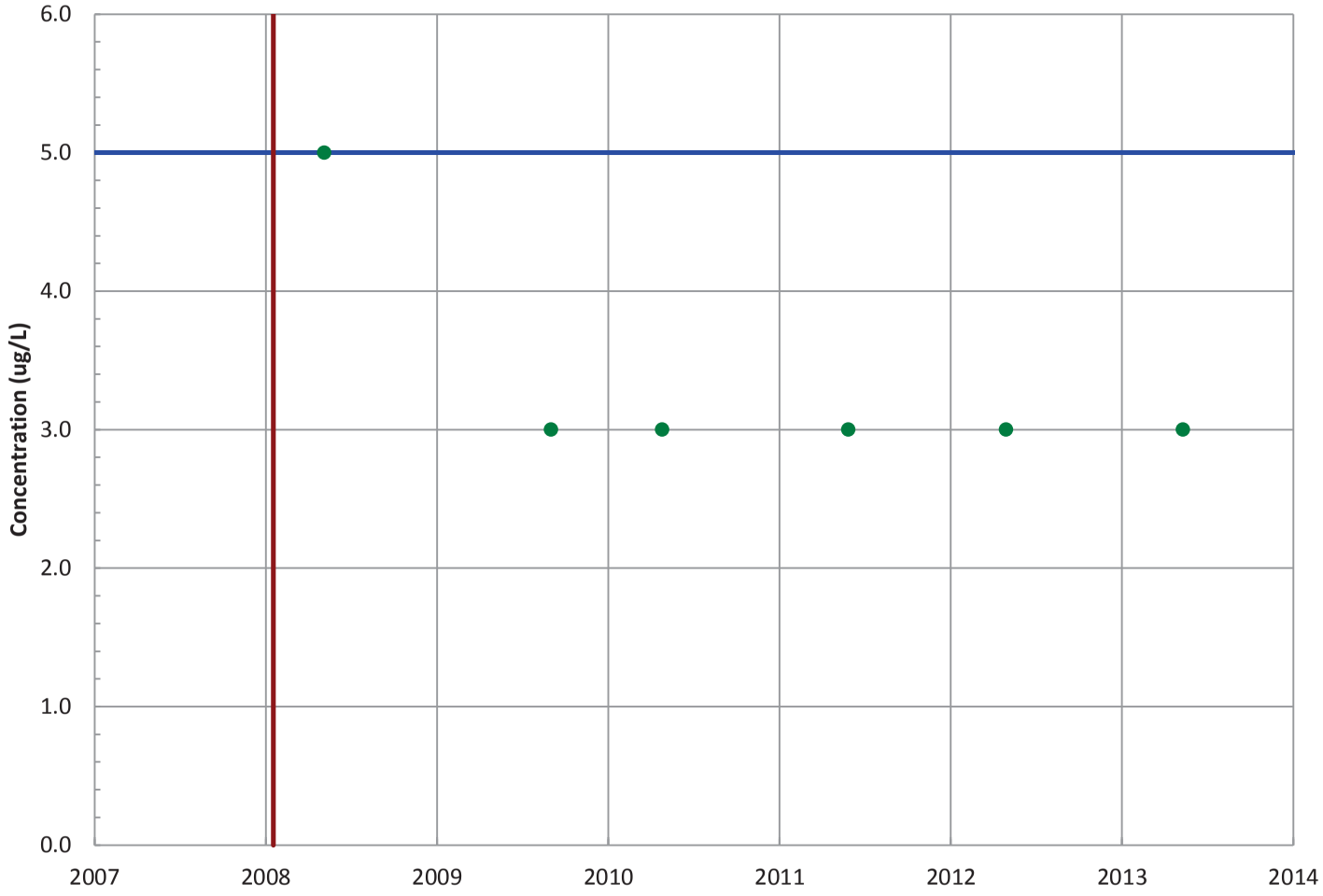
Well Location



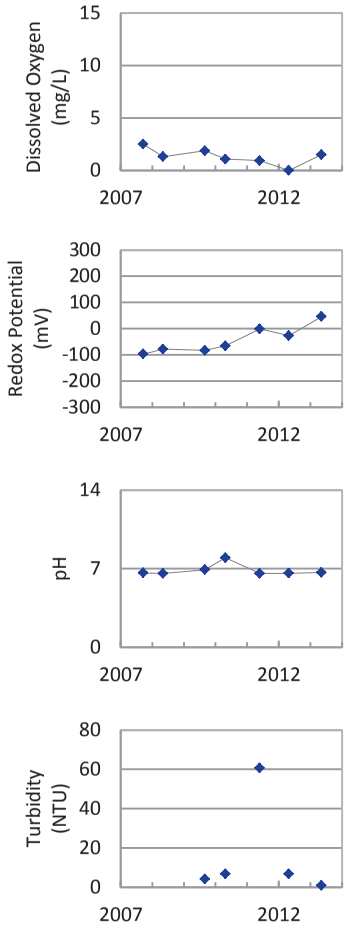
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/6/2008 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1100
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



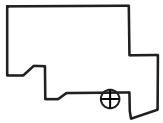
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

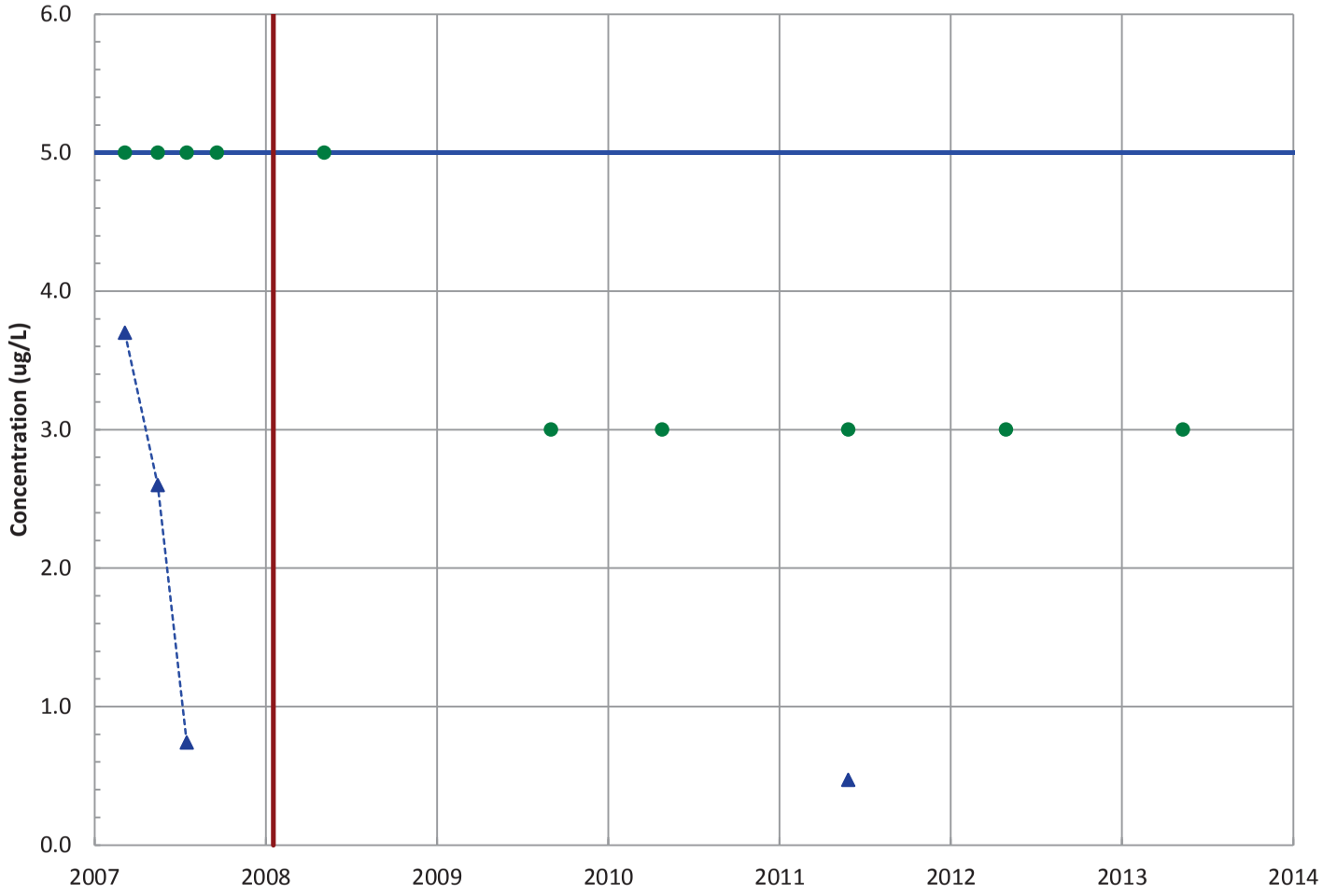
Well Location



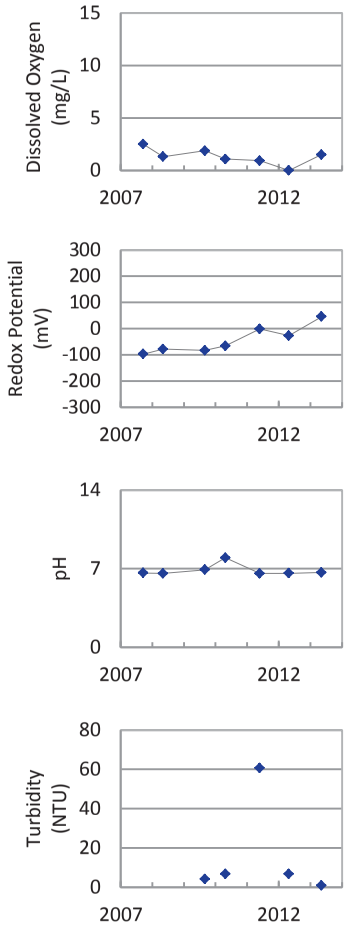
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/6/2008 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1100
Trichloroethene Trend in Perched Aquifer



Field Parameters



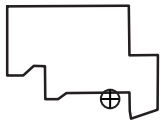
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

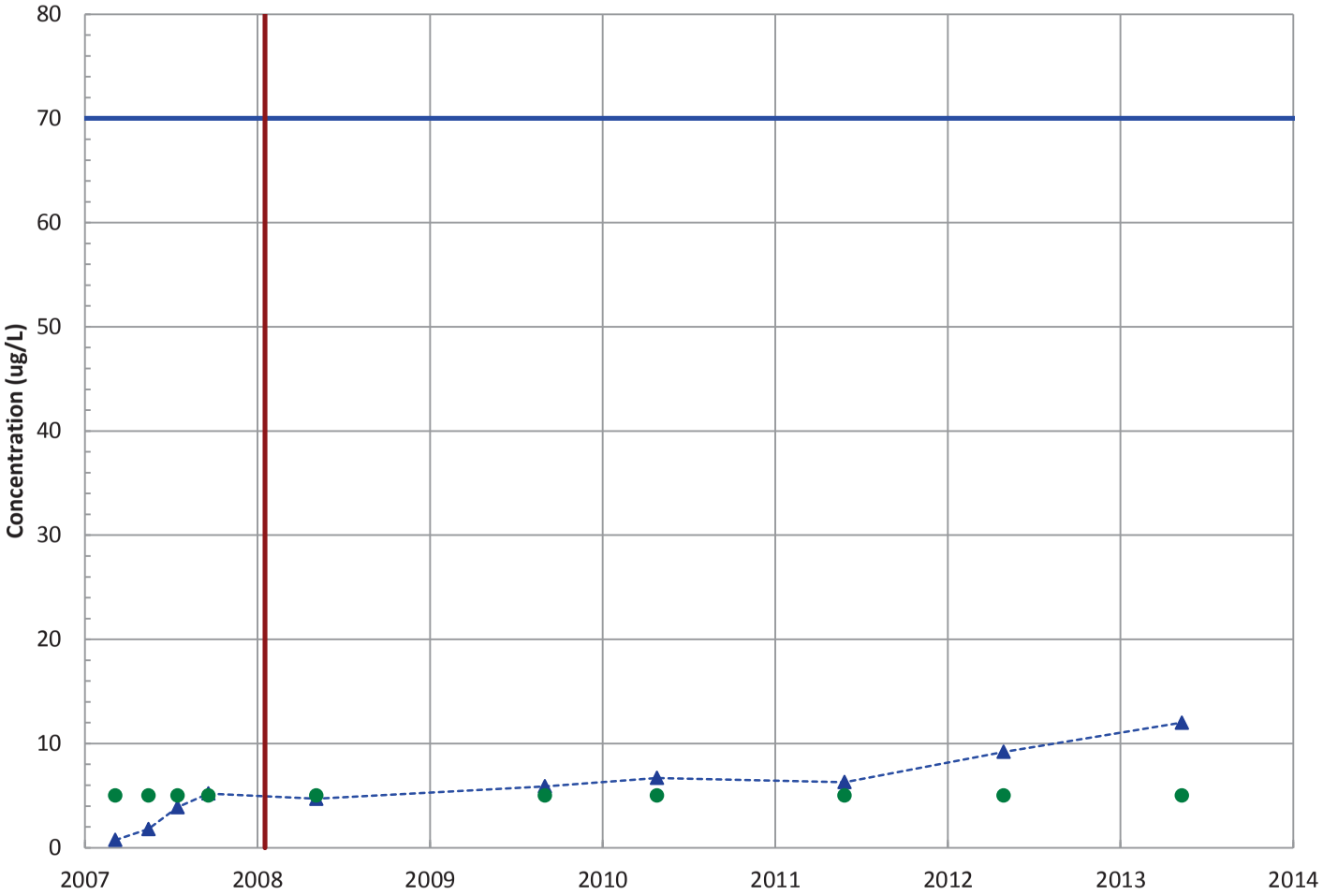
Well Location



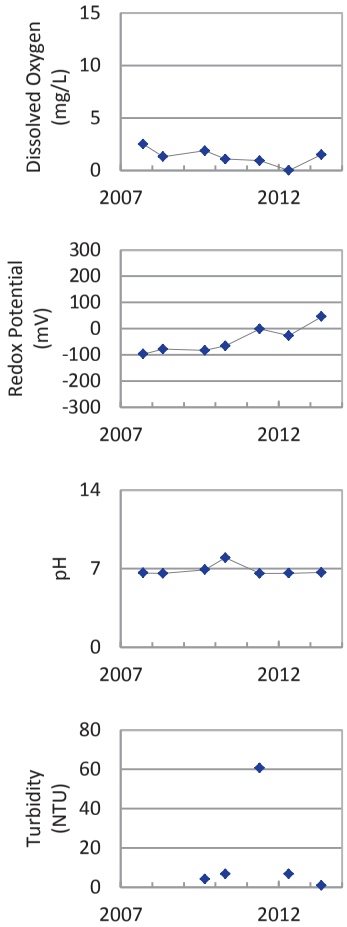
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/7/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1100
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



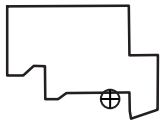
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Increasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

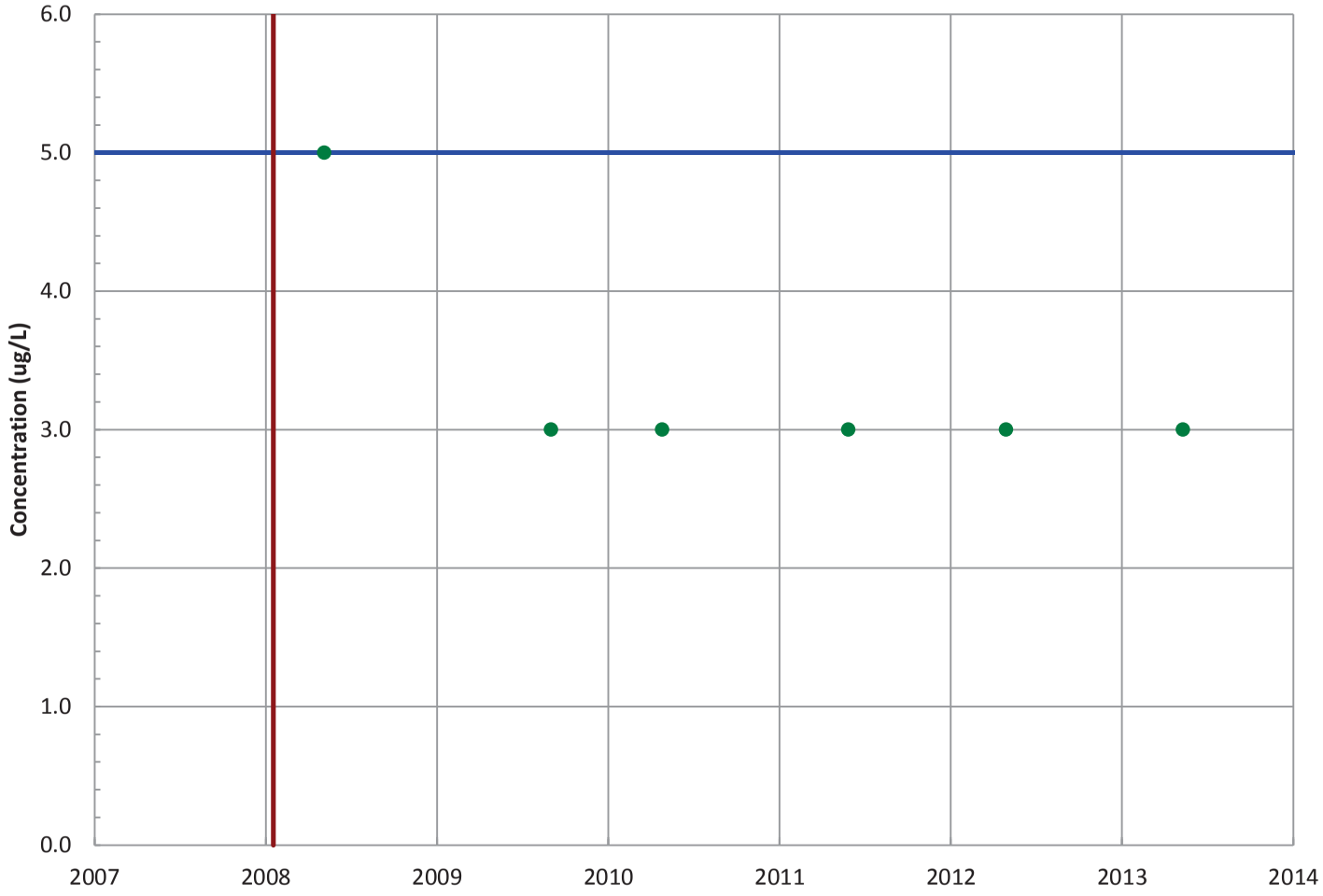
Well Location



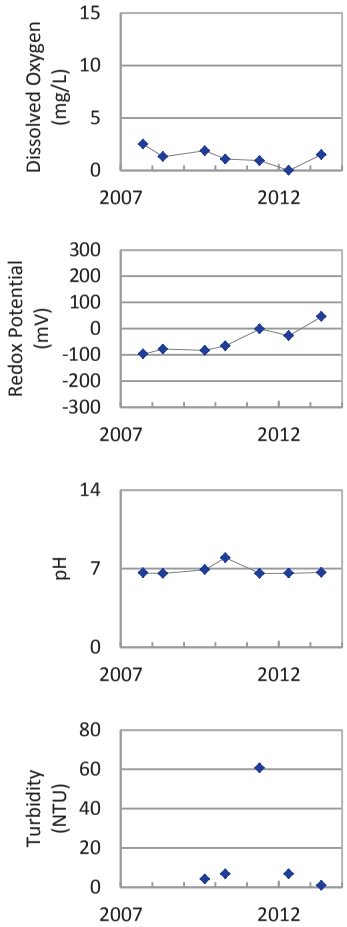
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/7/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1100
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



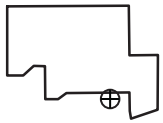
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

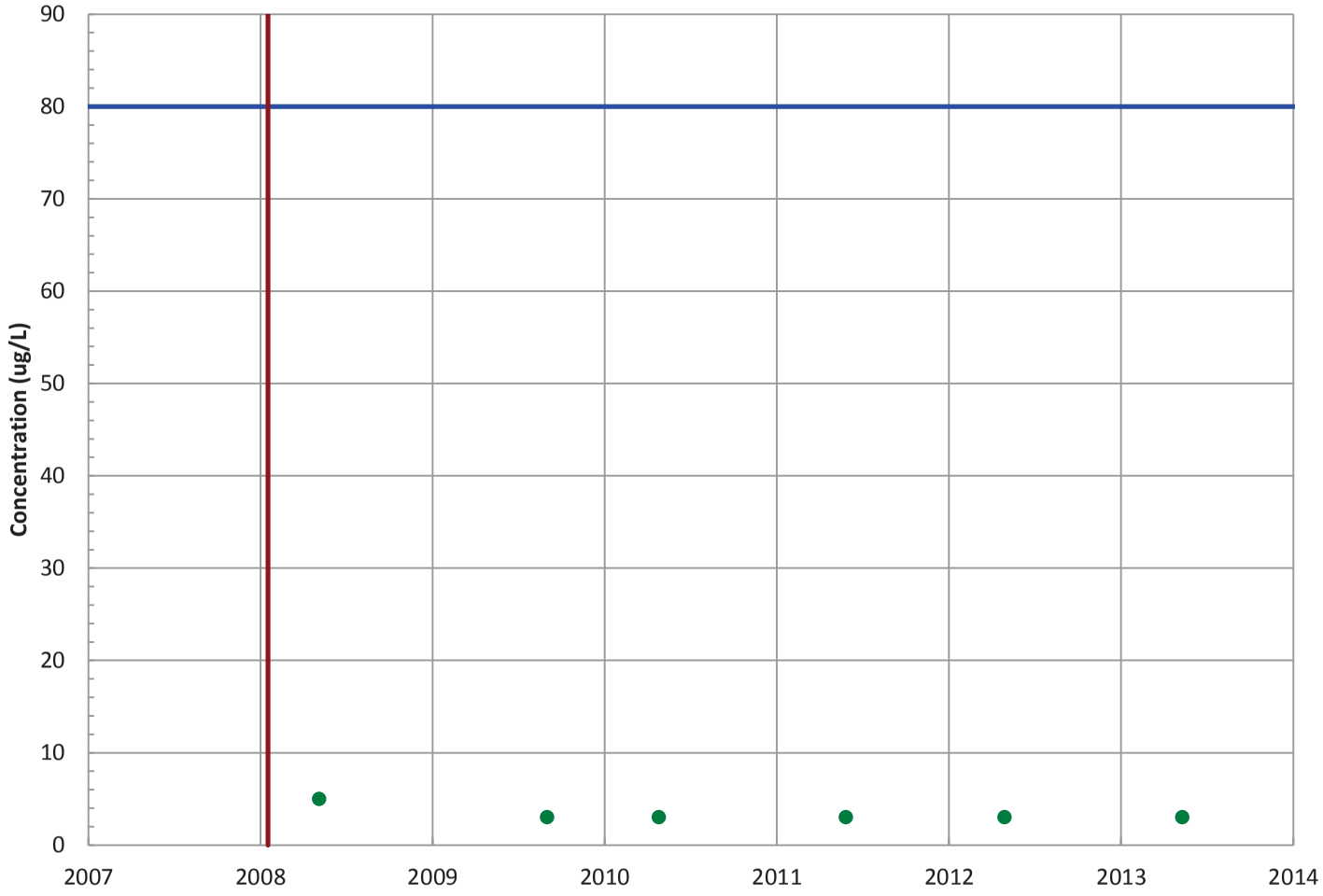
Well Location



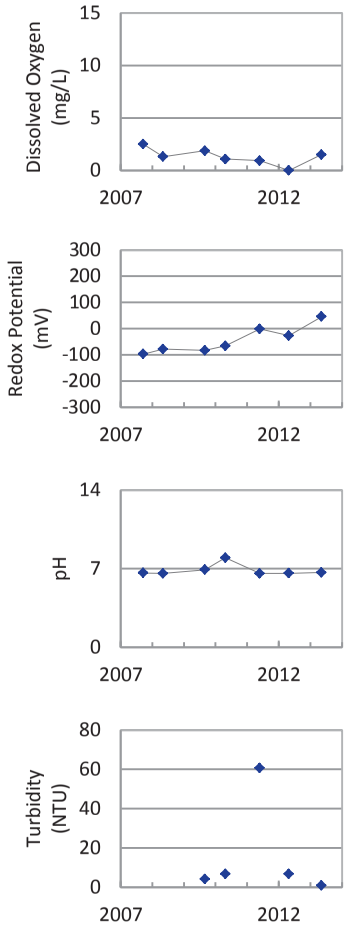
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/6/2008 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1100
Chloroform Trend in Perched Aquifer



Field Parameters



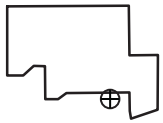
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

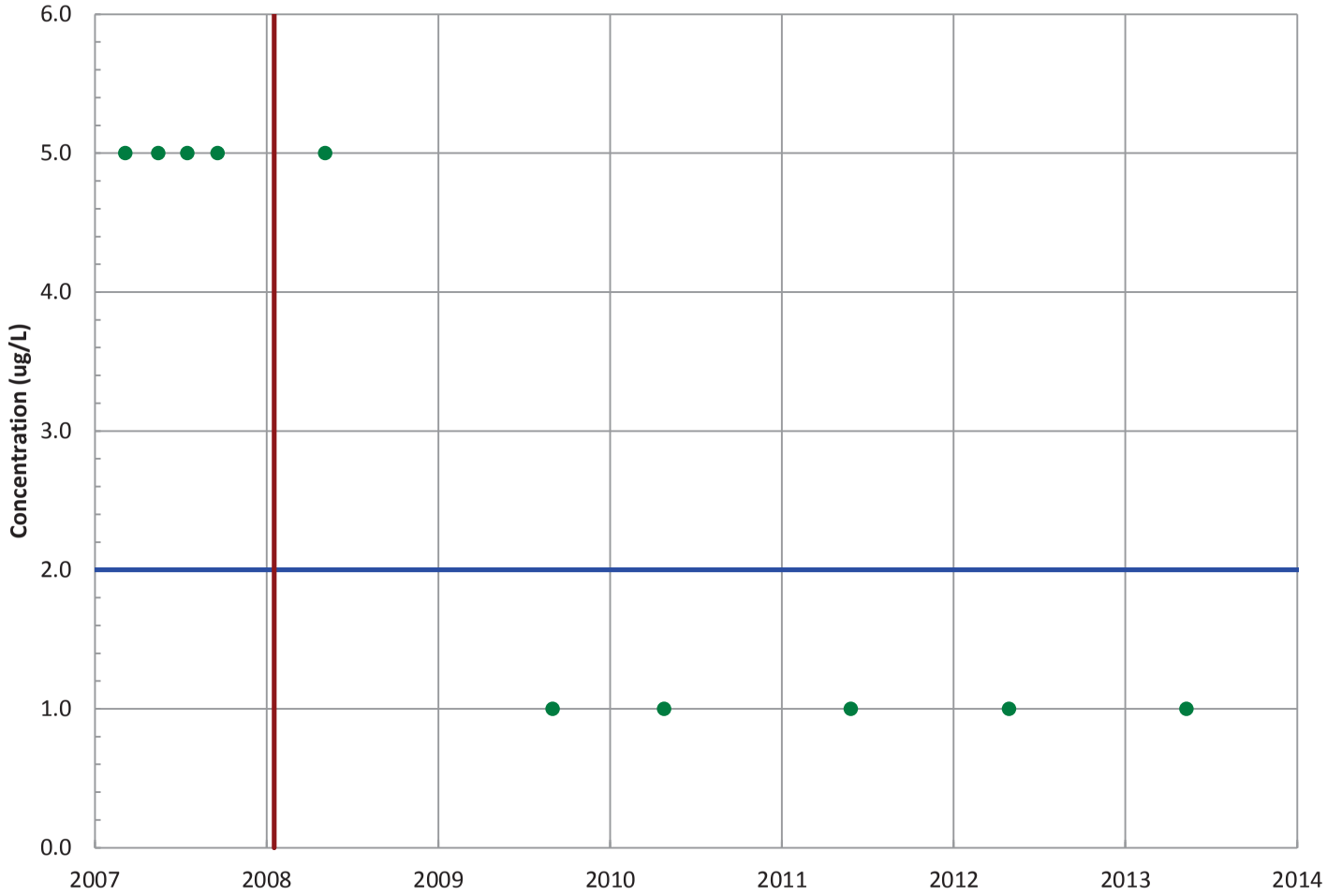
Well Location



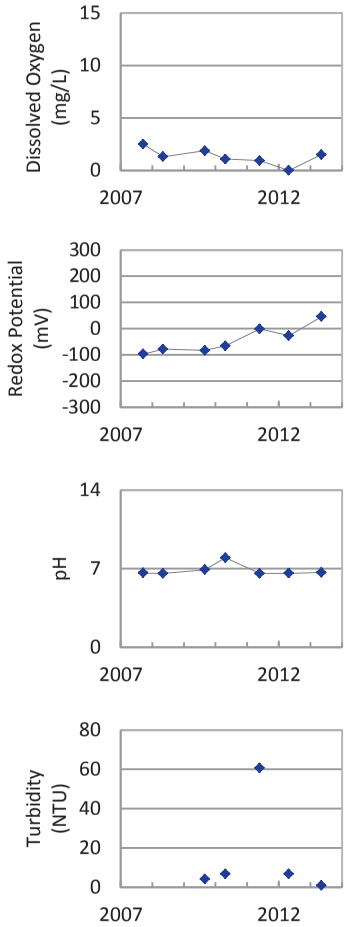
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/6/2008 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1100
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



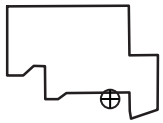
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

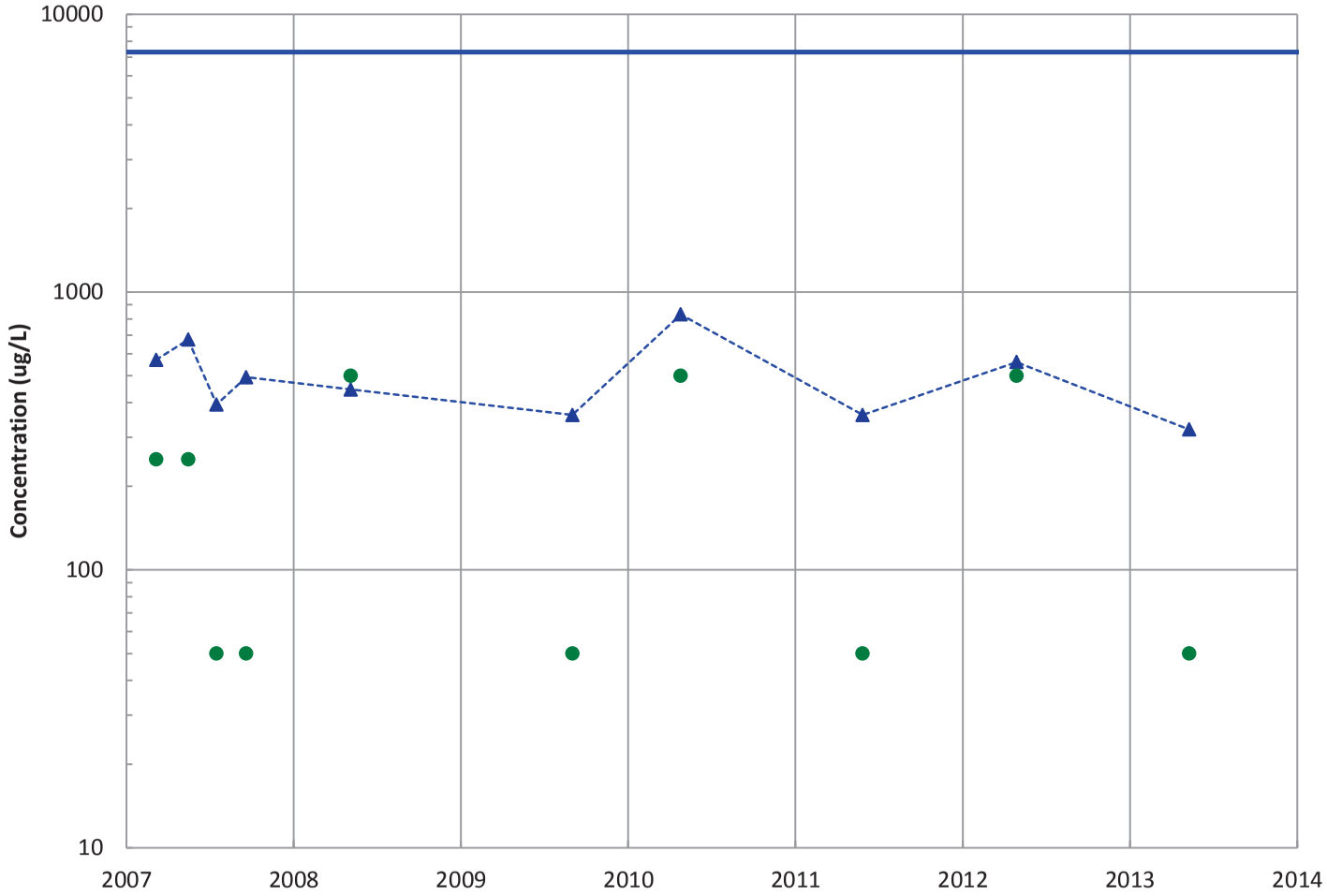
Well Location



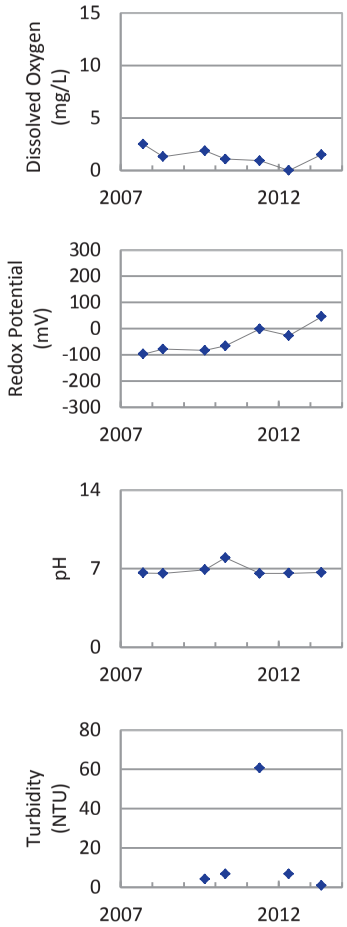
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/7/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1100
Boron Trend in Perched Aquifer



Field Parameters



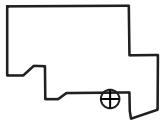
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

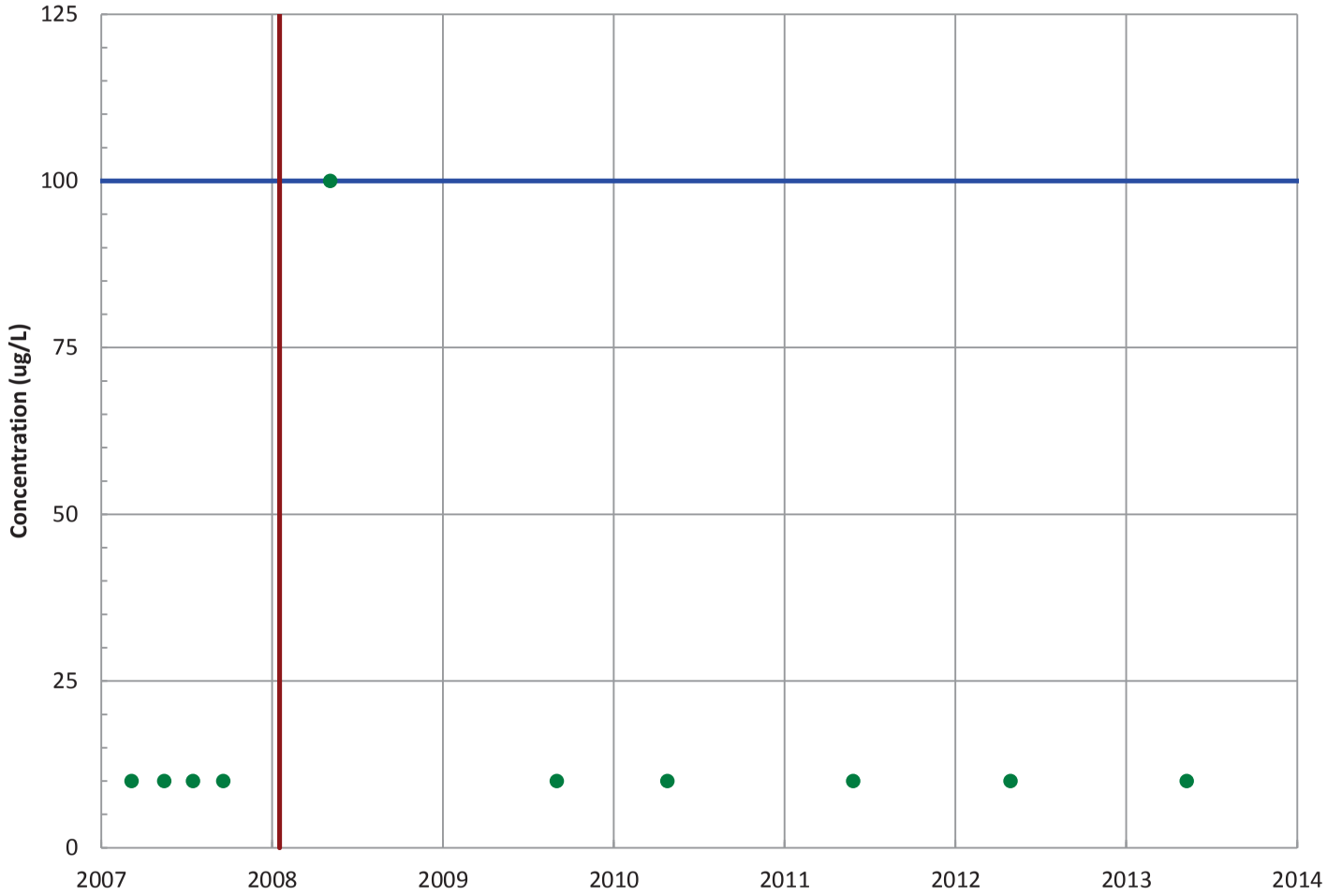
Well Location



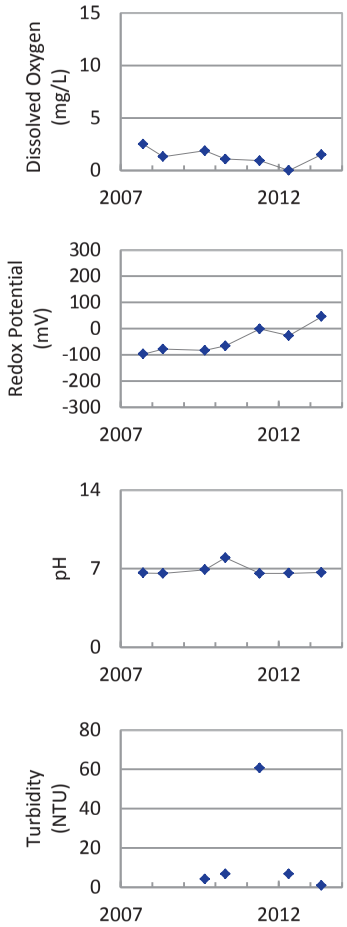
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/7/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1100
Chromium, Total Trend in Perched Aquifer



Field Parameters



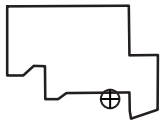
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

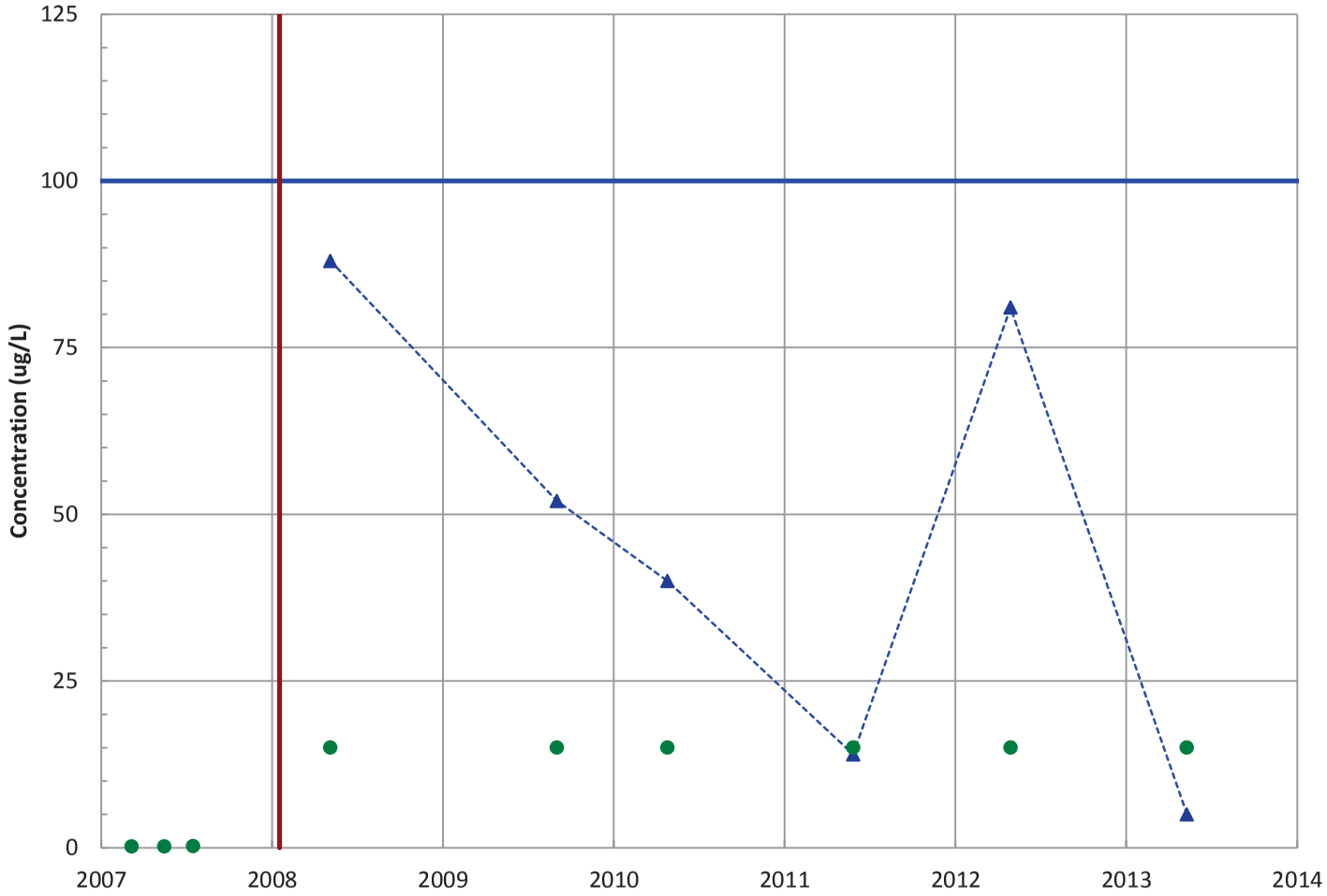
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/7/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1100
Chromium, Hexavalent Trend in Perched Aquifer



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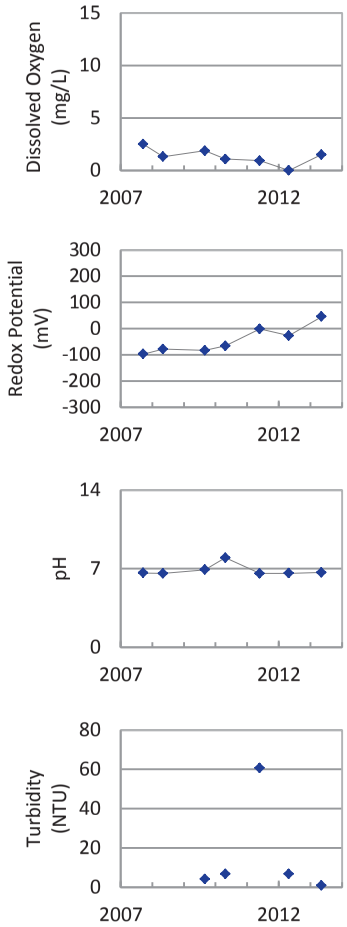


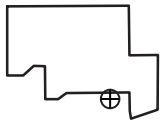
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Probably Decreasing
Last 4 Samples: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

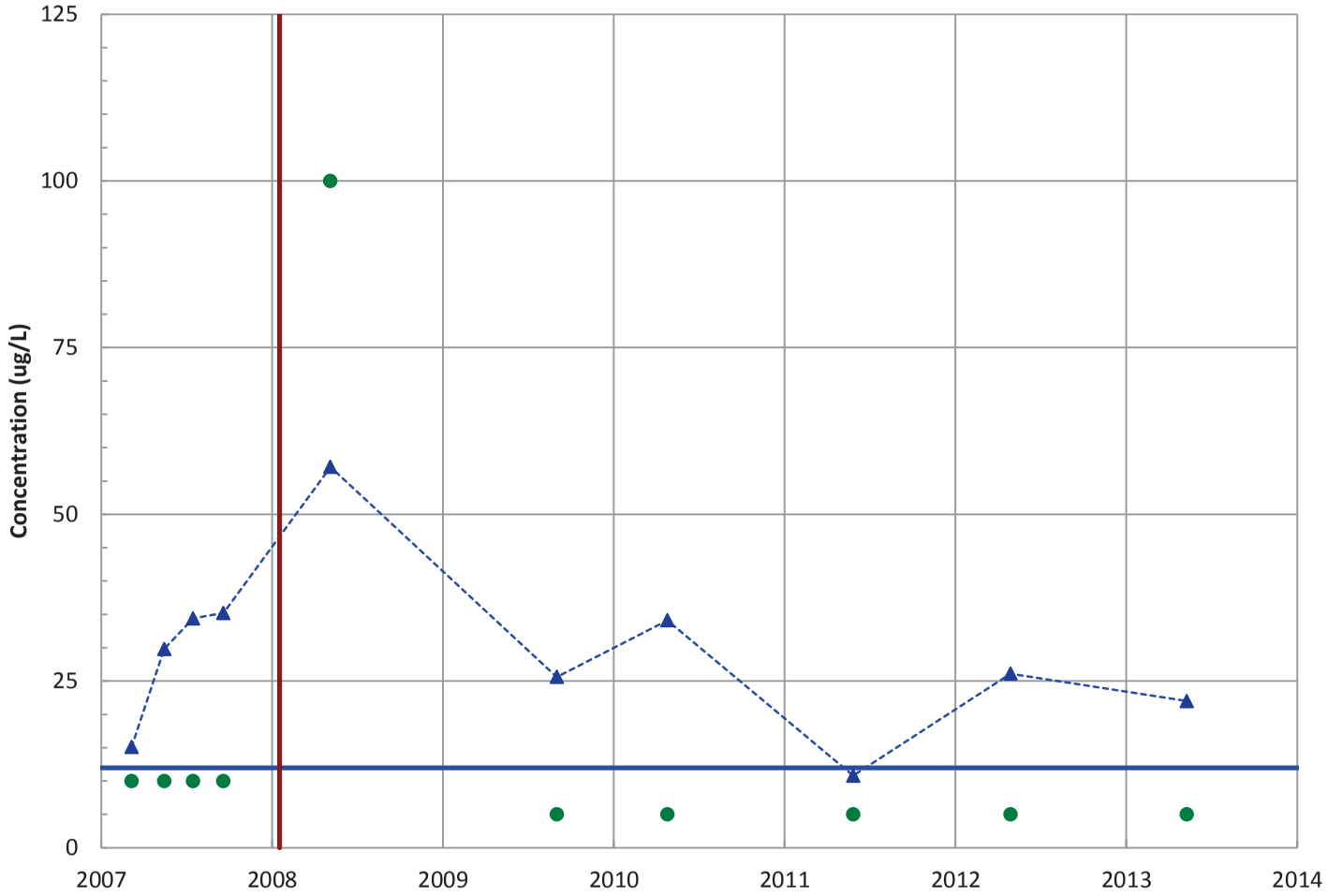
Well Location



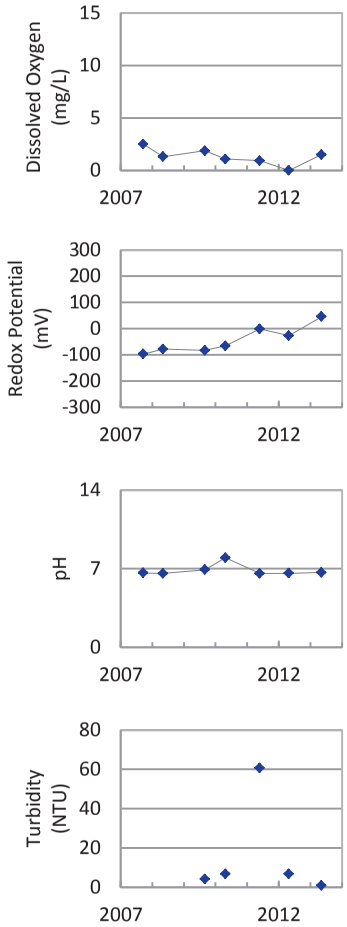
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/7/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1100
Arsenic Trend in Perched Aquifer



Field Parameters



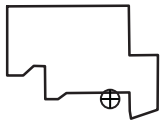
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

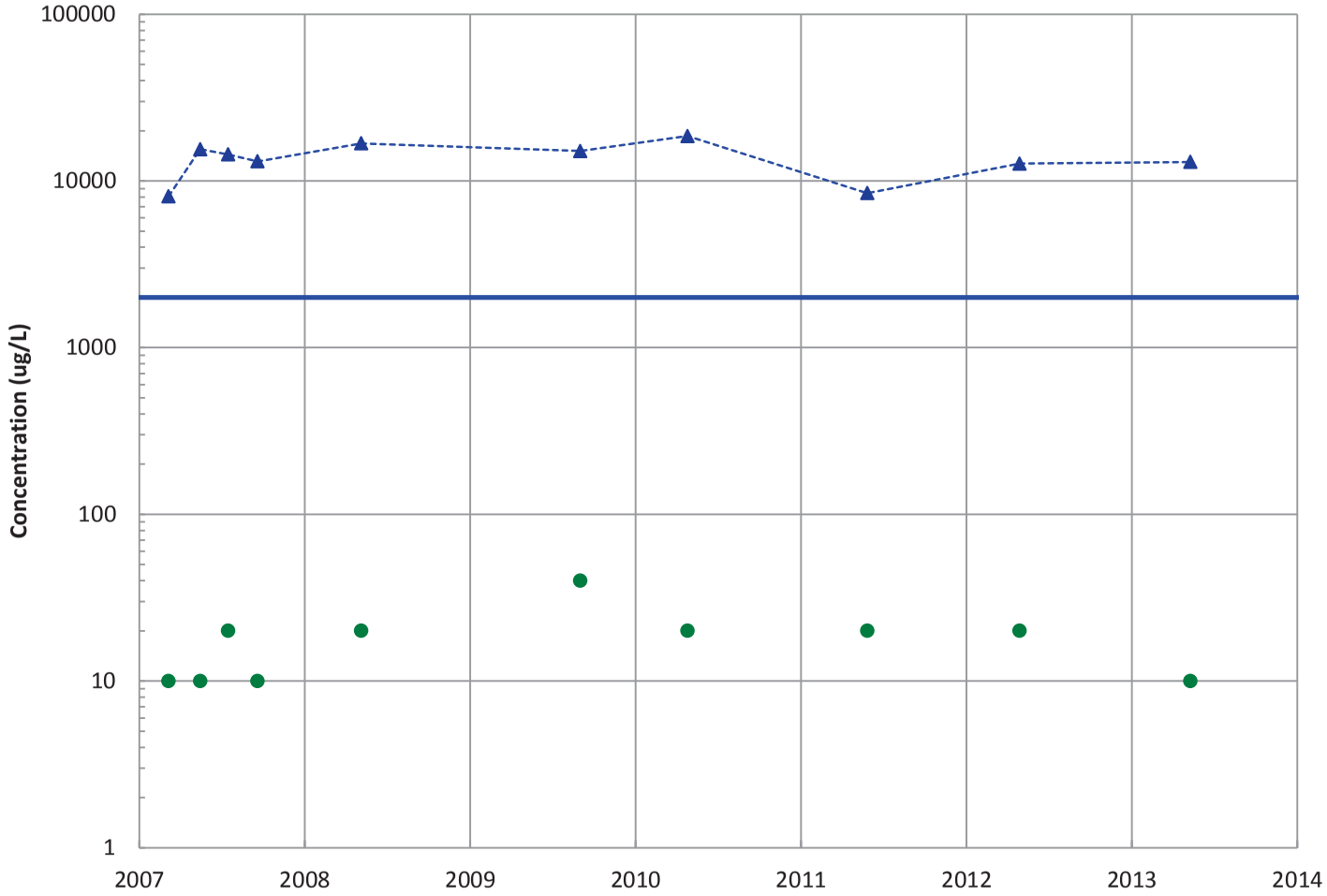
Well Location



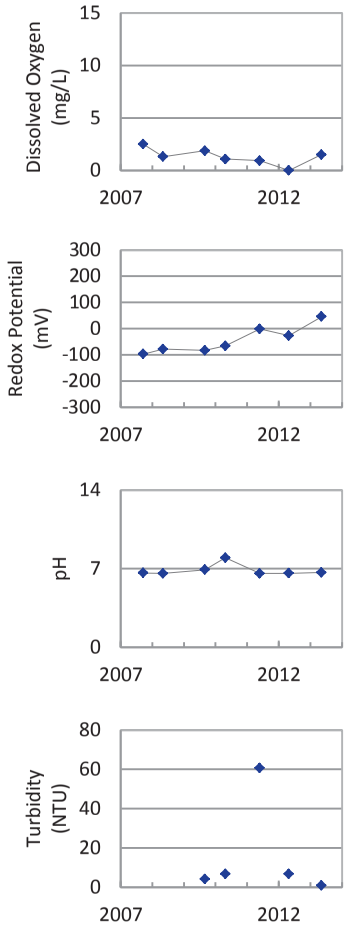
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/7/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1100
Barium Trend in Perched Aquifer



Field Parameters



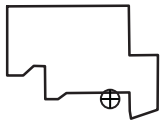
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Stable

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

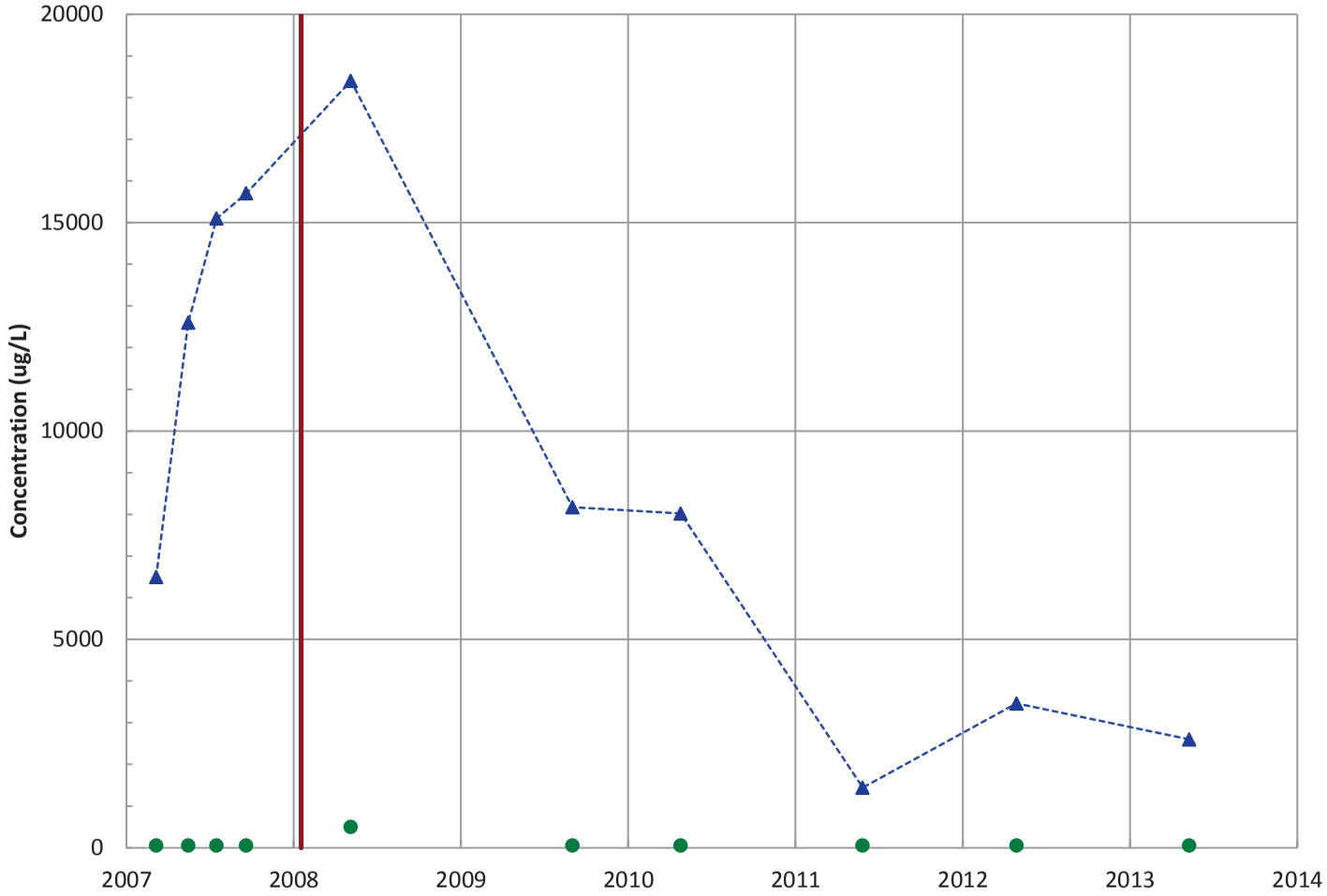
Well Location



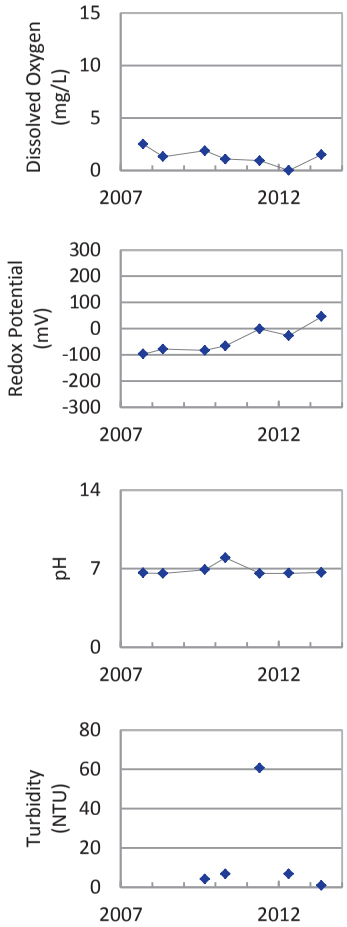
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/7/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1100
Iron Trend in Perched Aquifer



Field Parameters



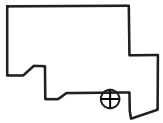
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Stable

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

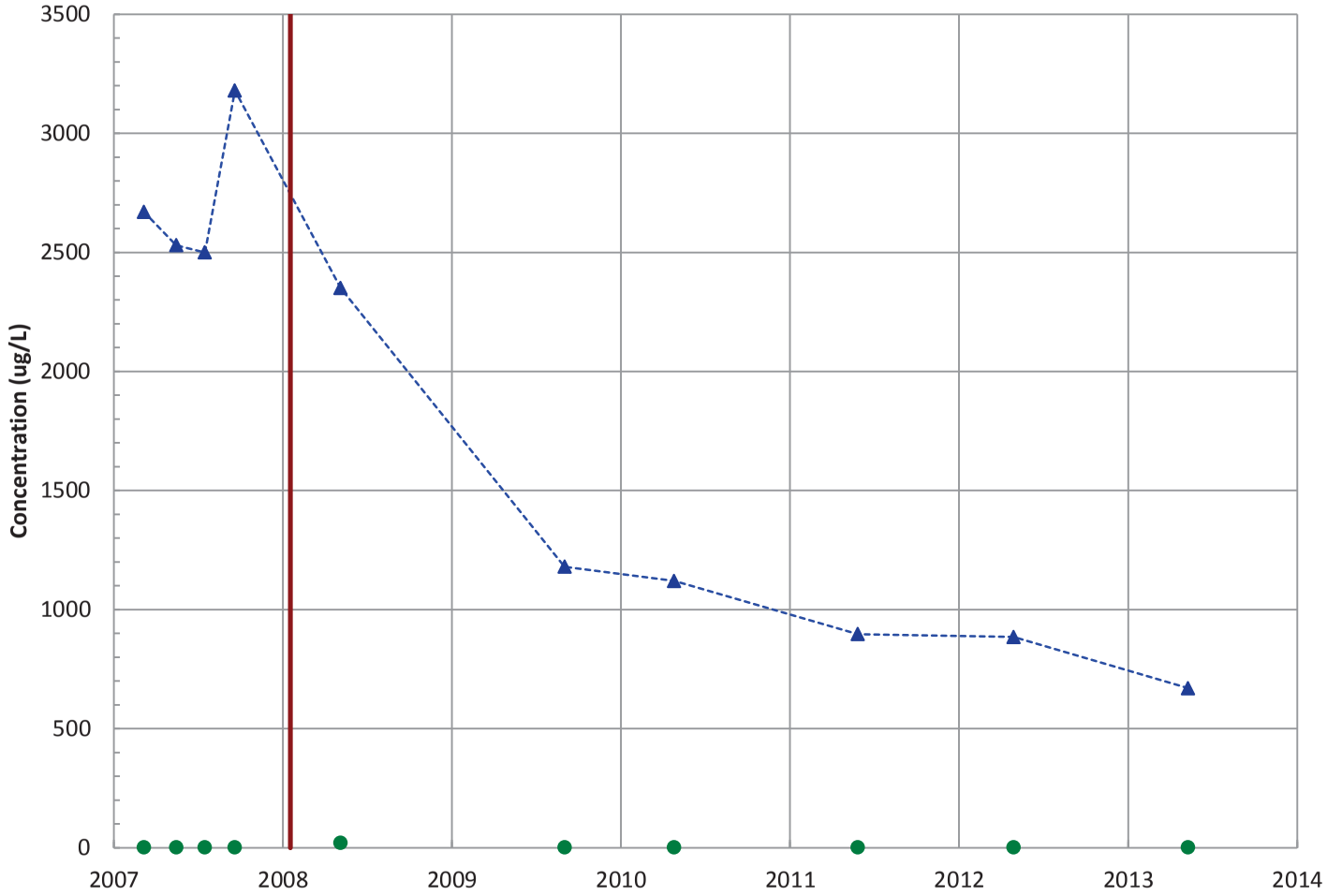
Well Location



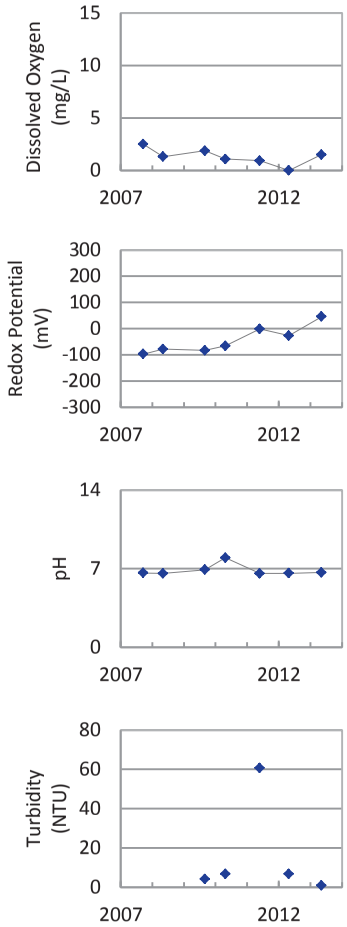
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/7/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1100
Manganese Trend in Perched Aquifer



Field Parameters



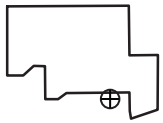
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Decreasing

▲ Measured Value
● Sample Detection Limit
Concentration Trend
Injection Dates

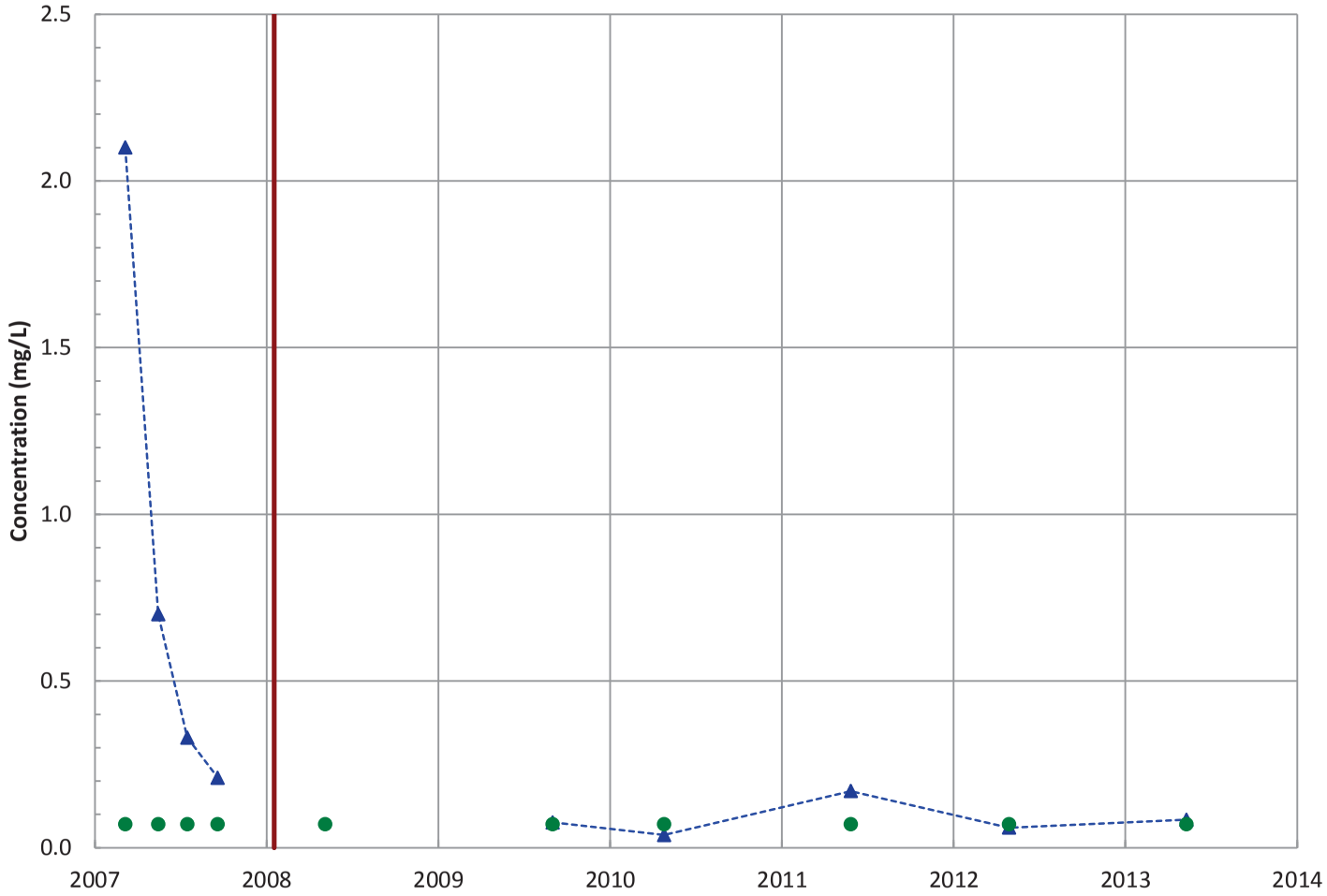
Well Location



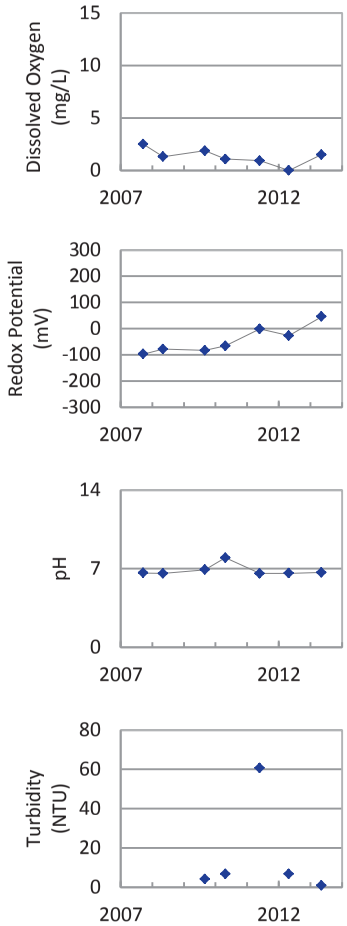
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/7/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1100
Acetic Acid Trend in Perched Aquifer



Field Parameters



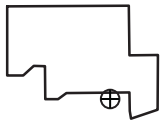
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

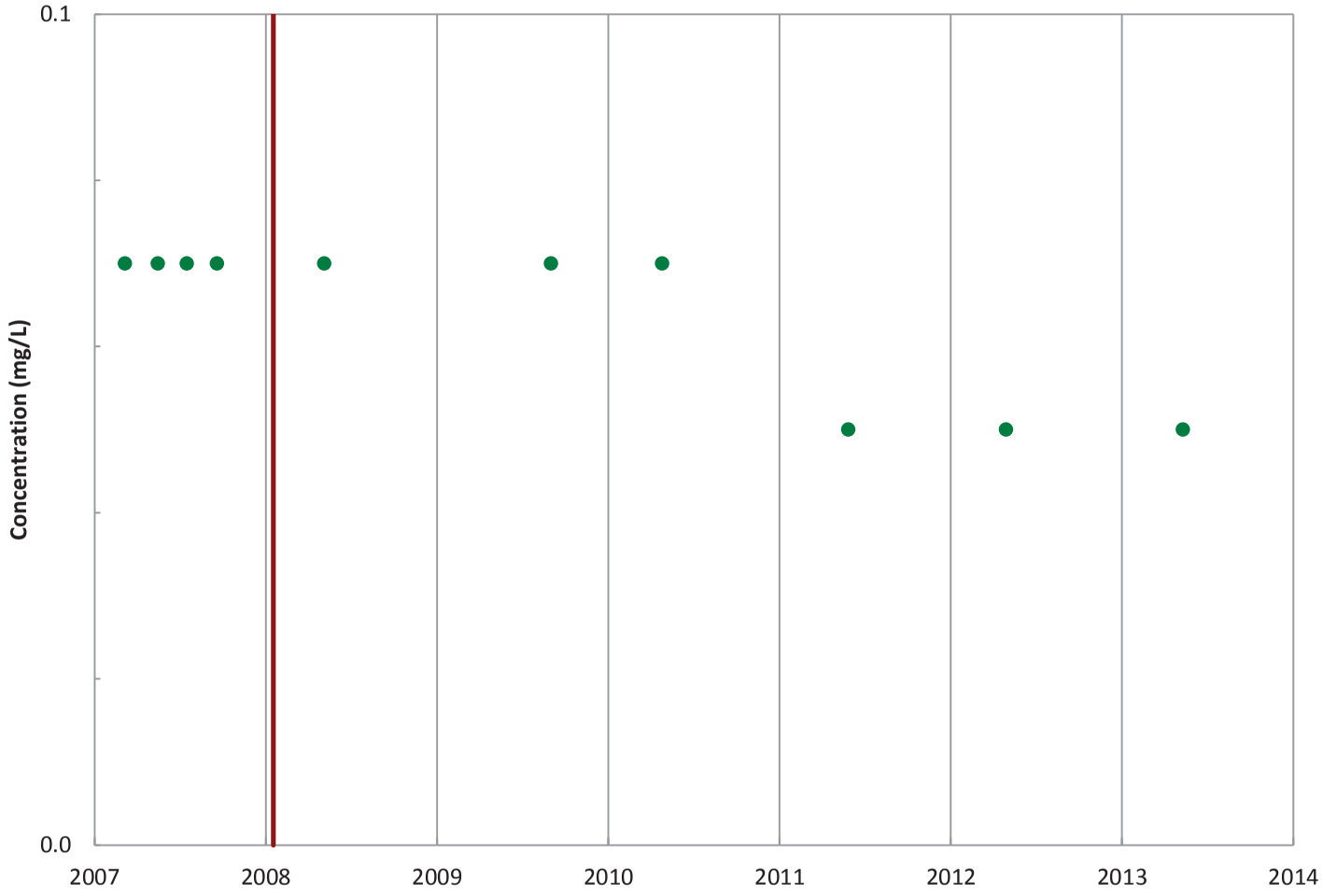
Well Location



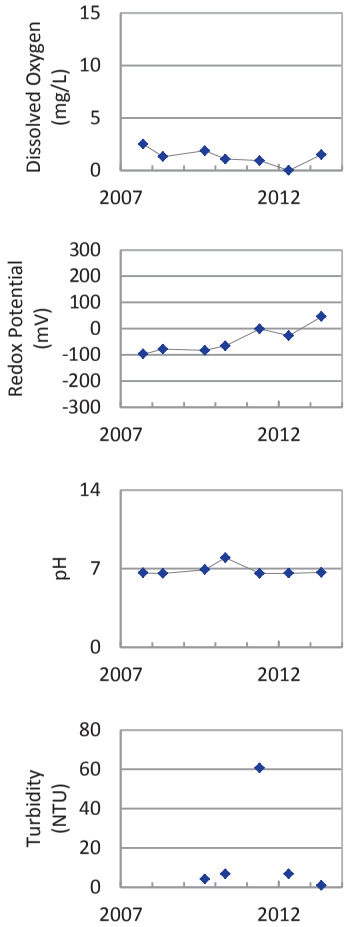
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/7/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1100
Butyric Acid Trend in Perched Aquifer



Field Parameters



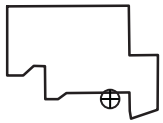
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
Injection Dates

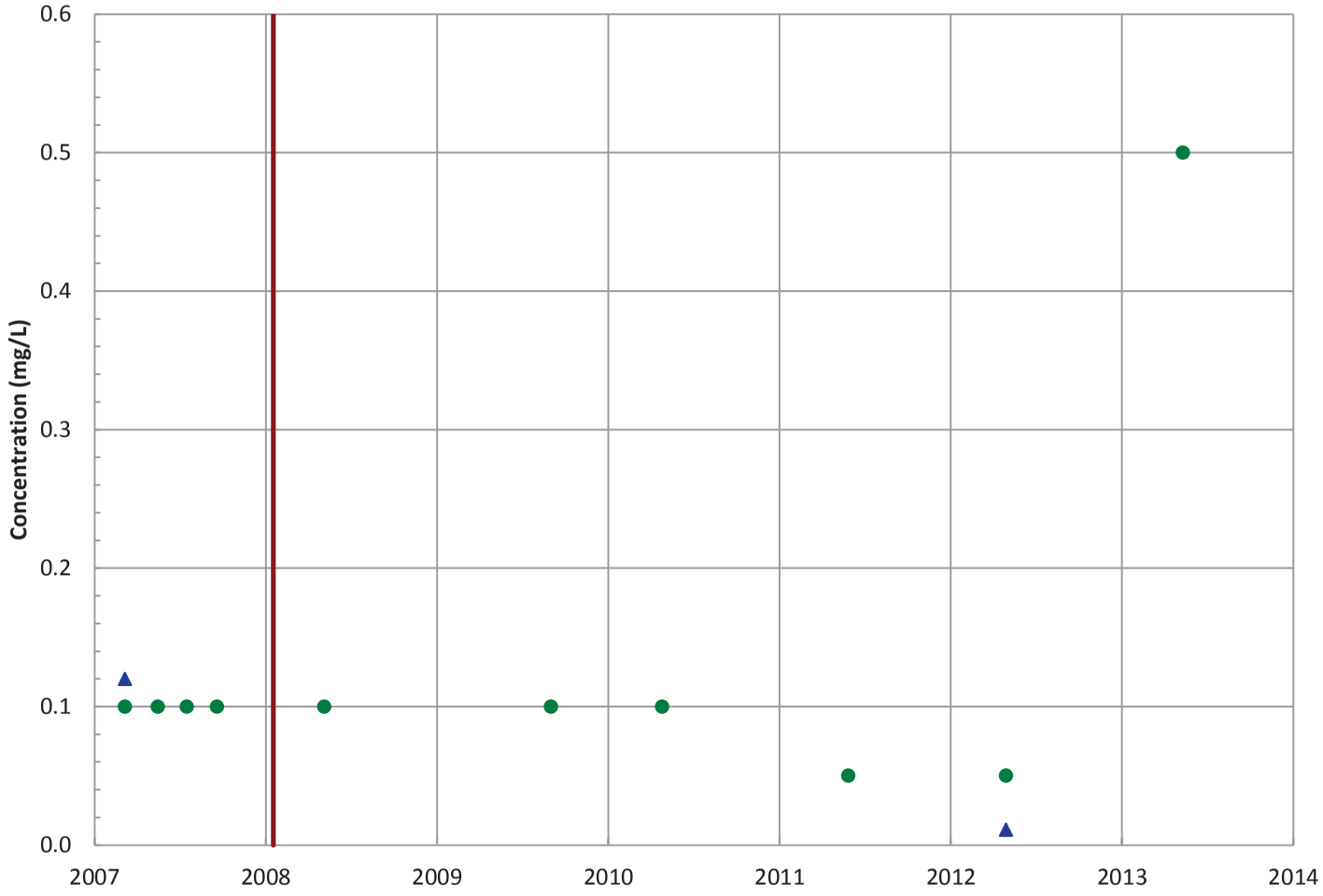
Well Location



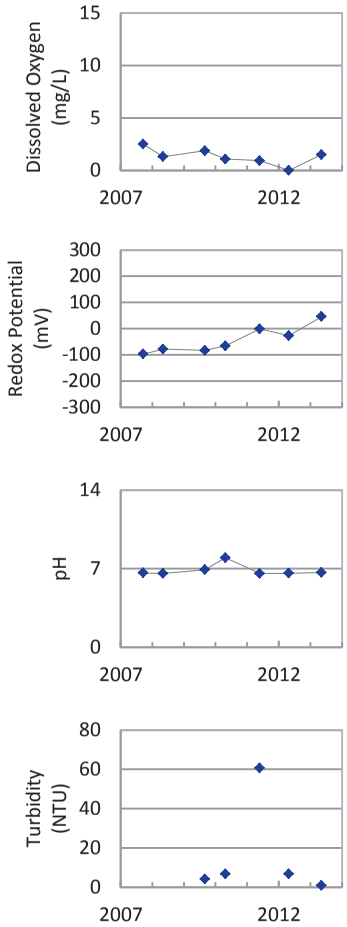
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/7/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1100
Hexanoic Acid Trend in Perched Aquifer



Field Parameters



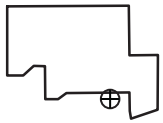
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Injection Dates

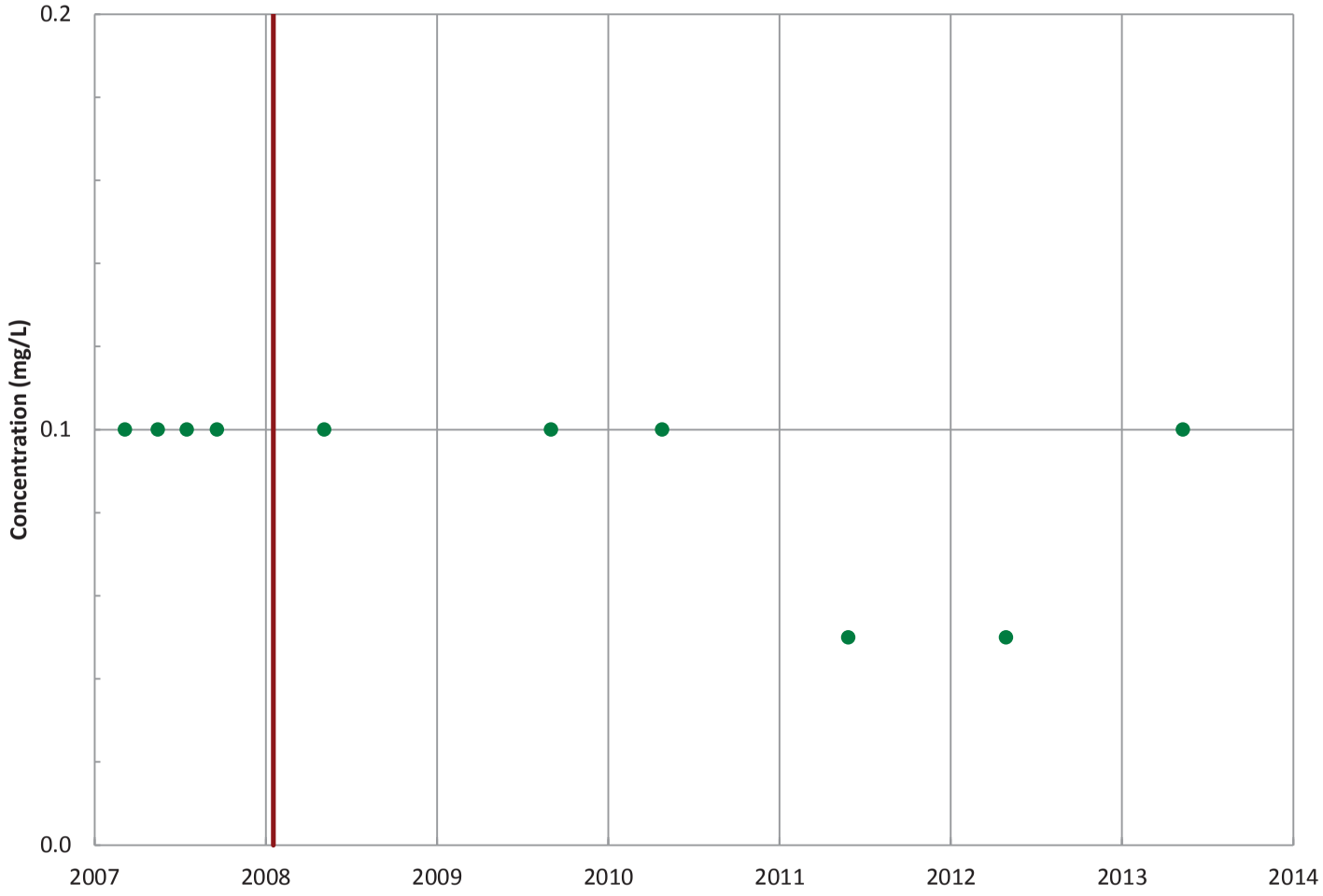
Well Location



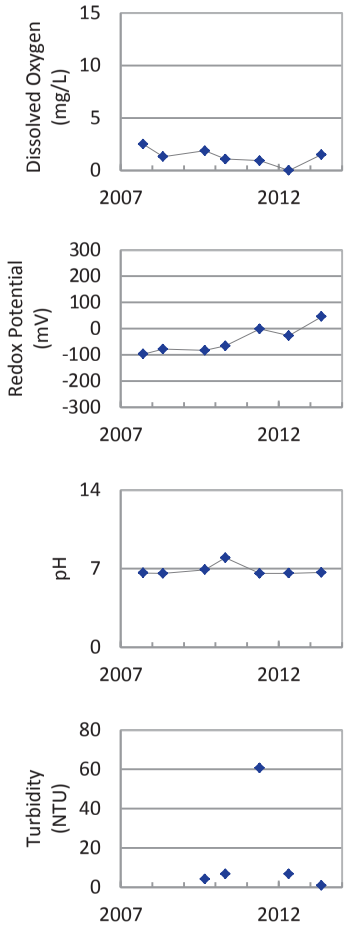
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/7/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1100
i-Hexanoic Acid Trend in Perched Aquifer



Field Parameters



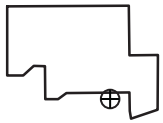
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
Injection Dates

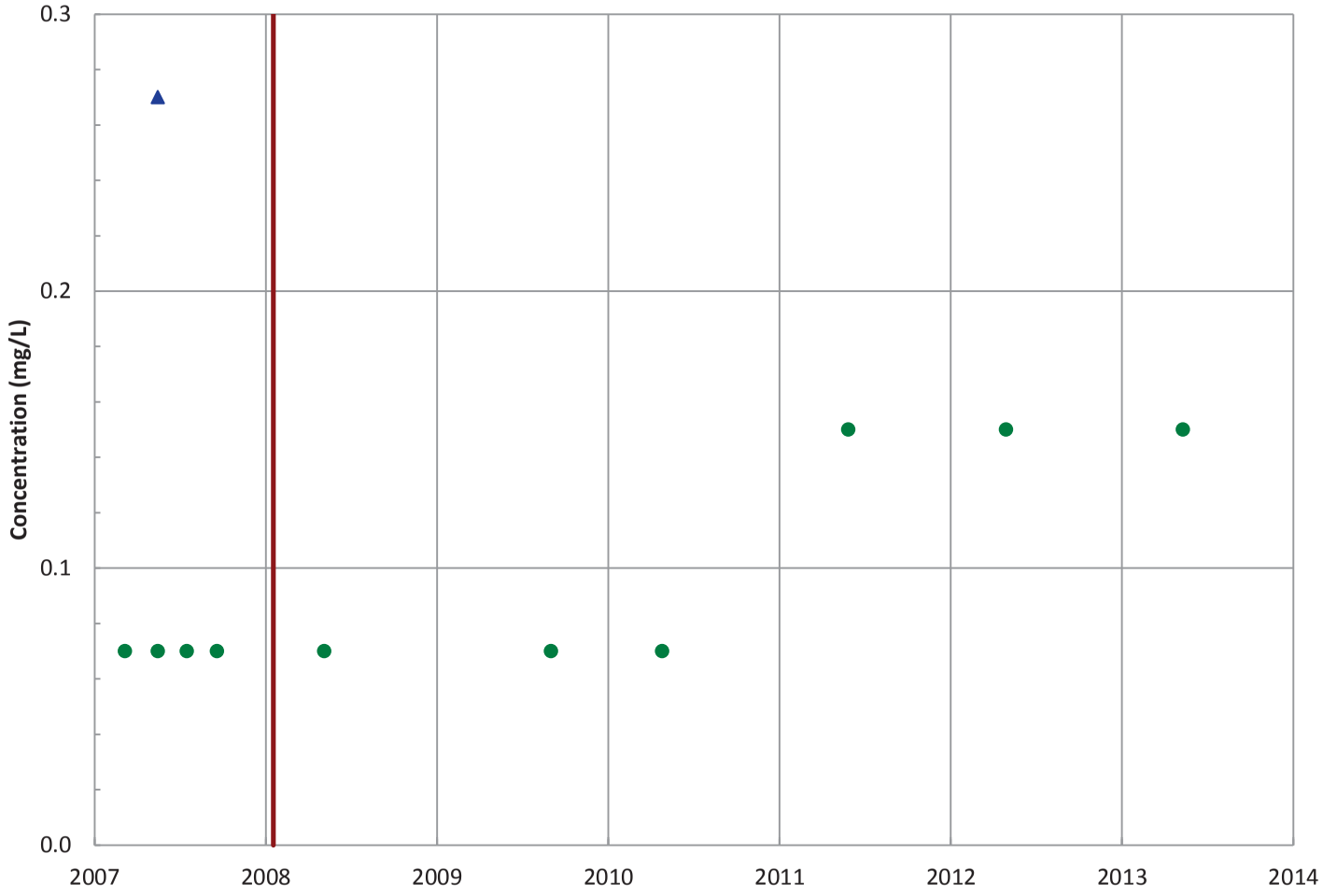
Well Location



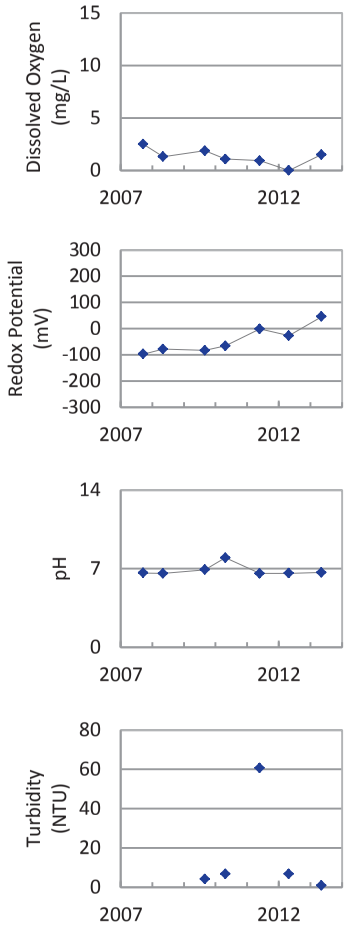
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/7/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1100
i-Pentanoic Acid Trend in Perched Aquifer



Field Parameters



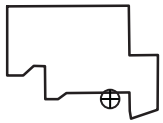
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
Injection Dates

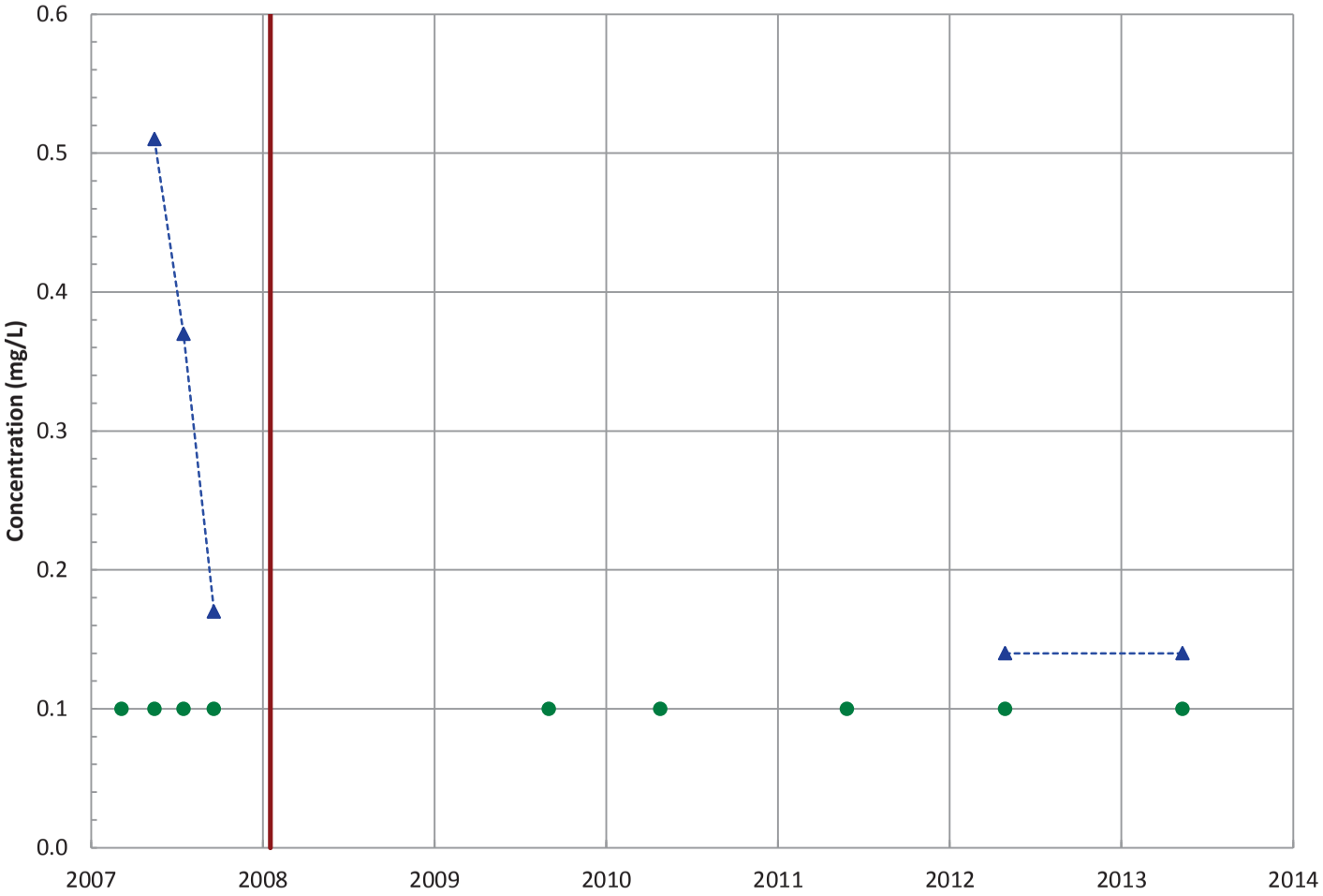
Well Location



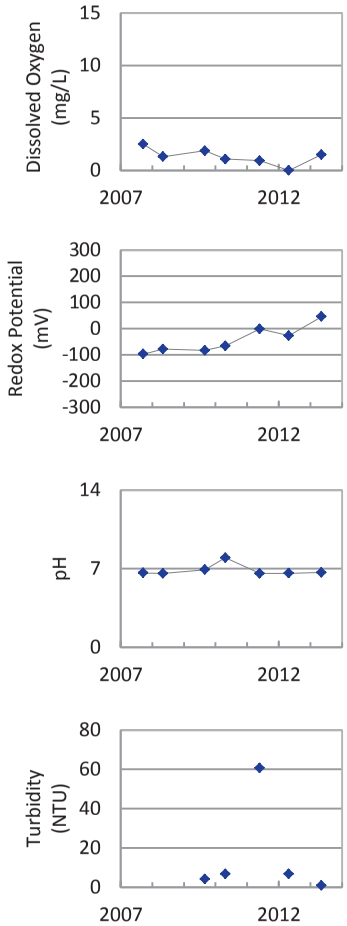
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/7/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1100
Lactic Acid and HIBA Trend in Perched Aquifer



Field Parameters



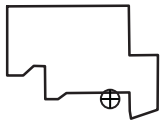
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Probably Decreasing
Last 4 Samples: Stable

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

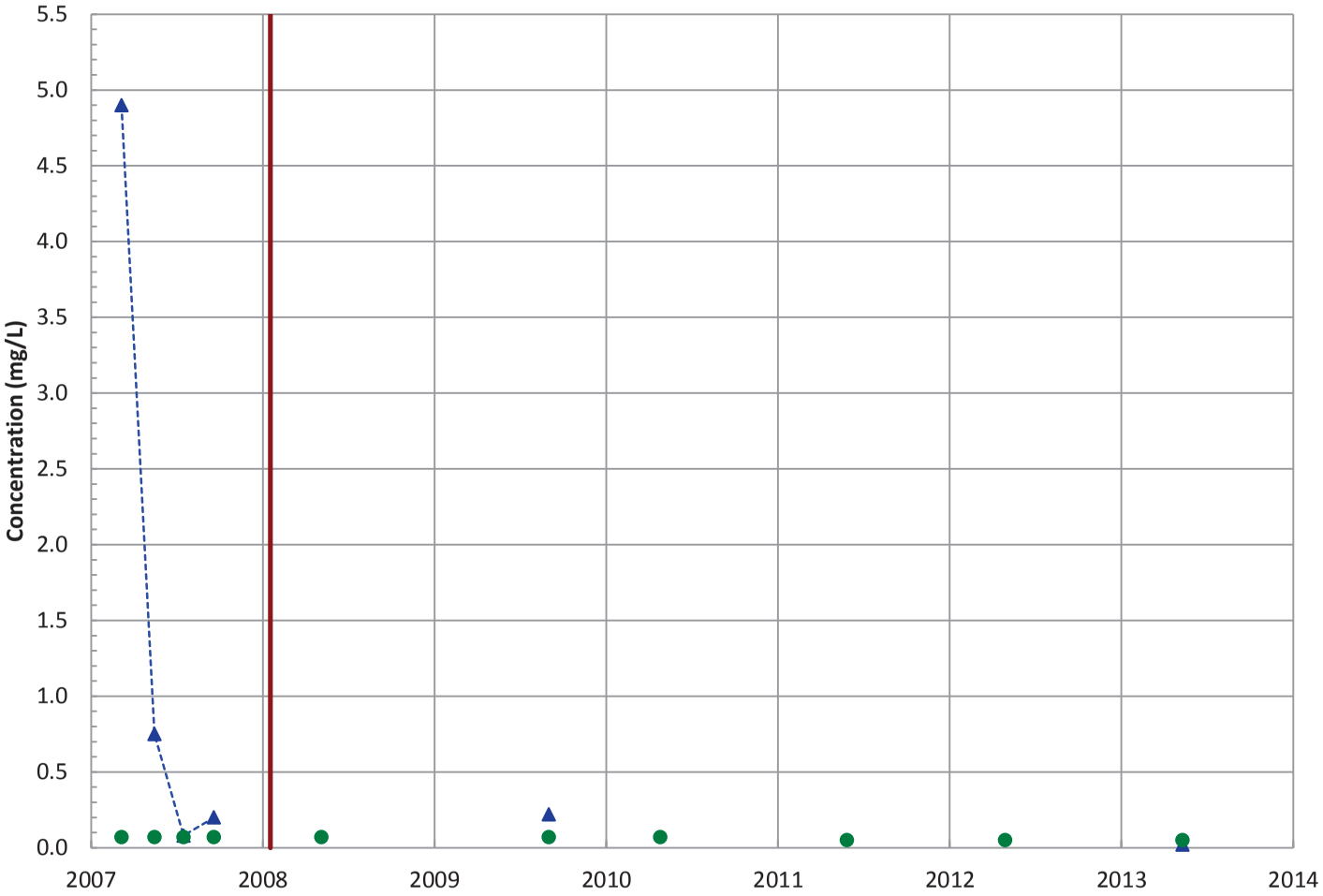
Well Location



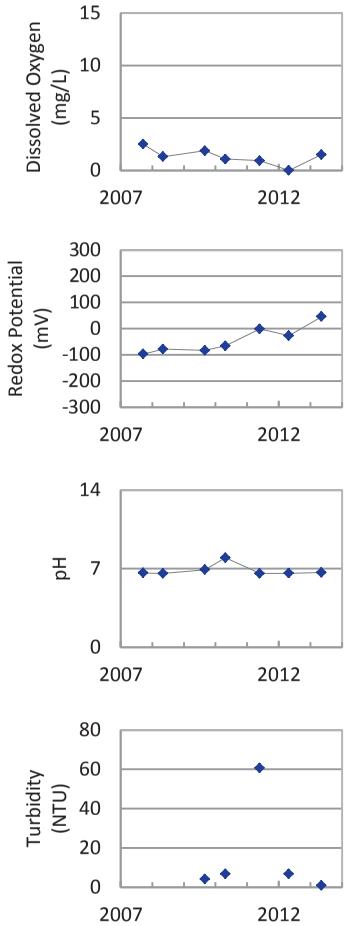
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/7/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1100
Propionic Acid Trend in Perched Aquifer



Field Parameters



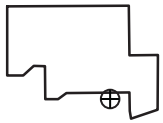
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: Probably Decreasing
Last 4 Samples: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
Injection Dates

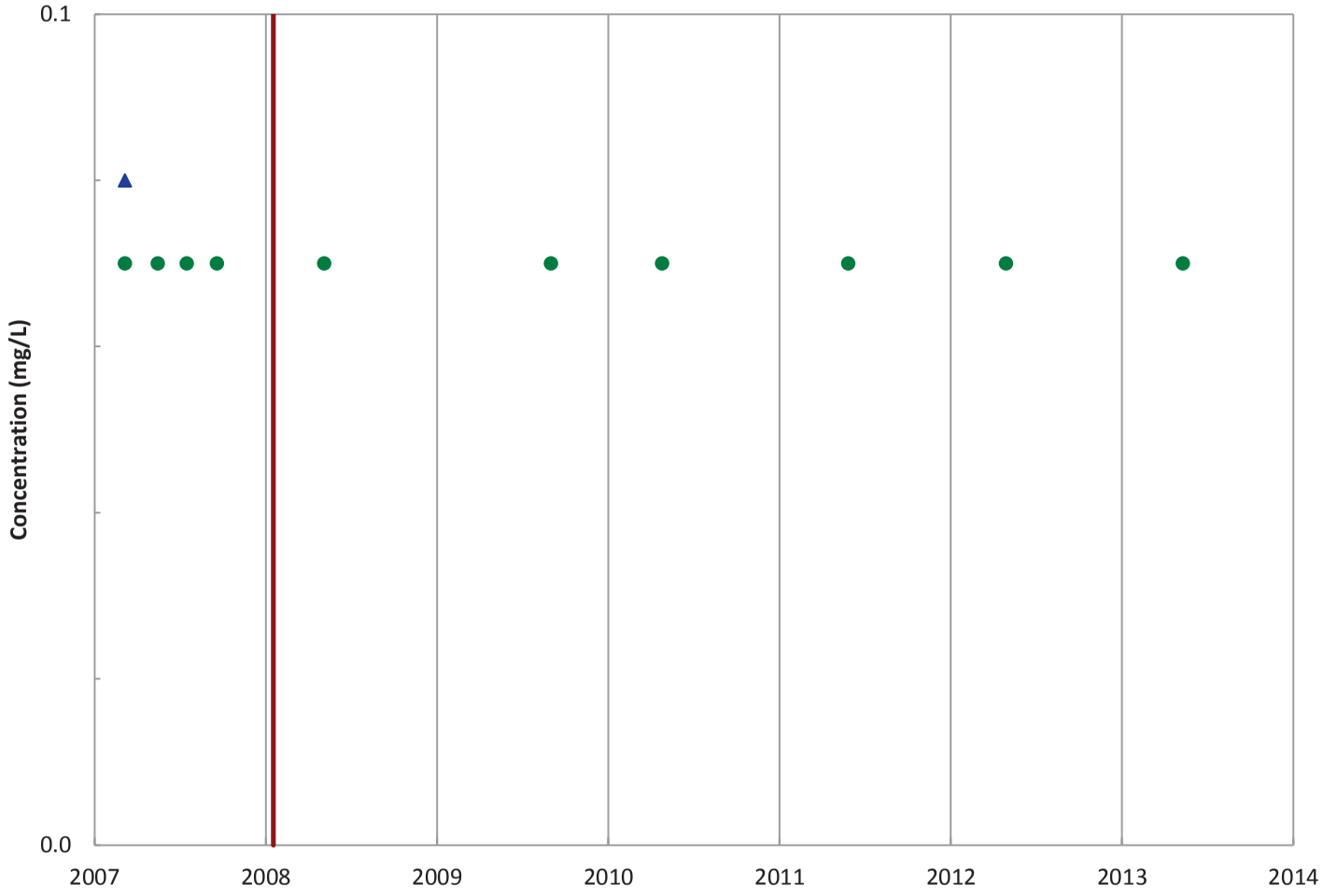
Well Location



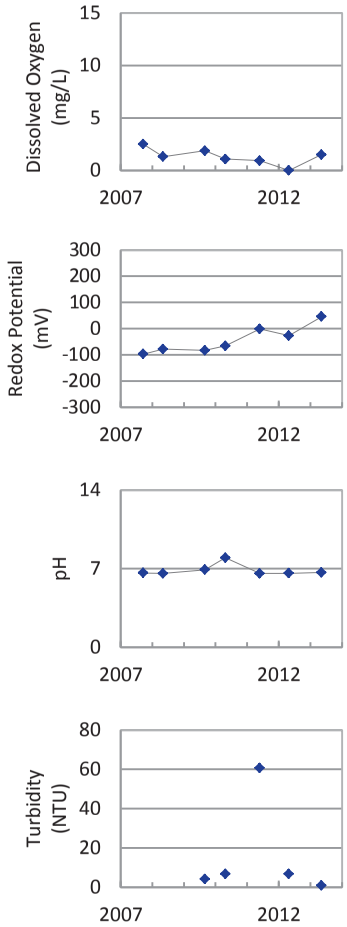
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/7/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1100
Pentanoic Acid Trend in Perched Aquifer



Field Parameters



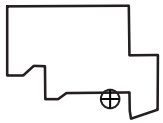
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
Injection Dates

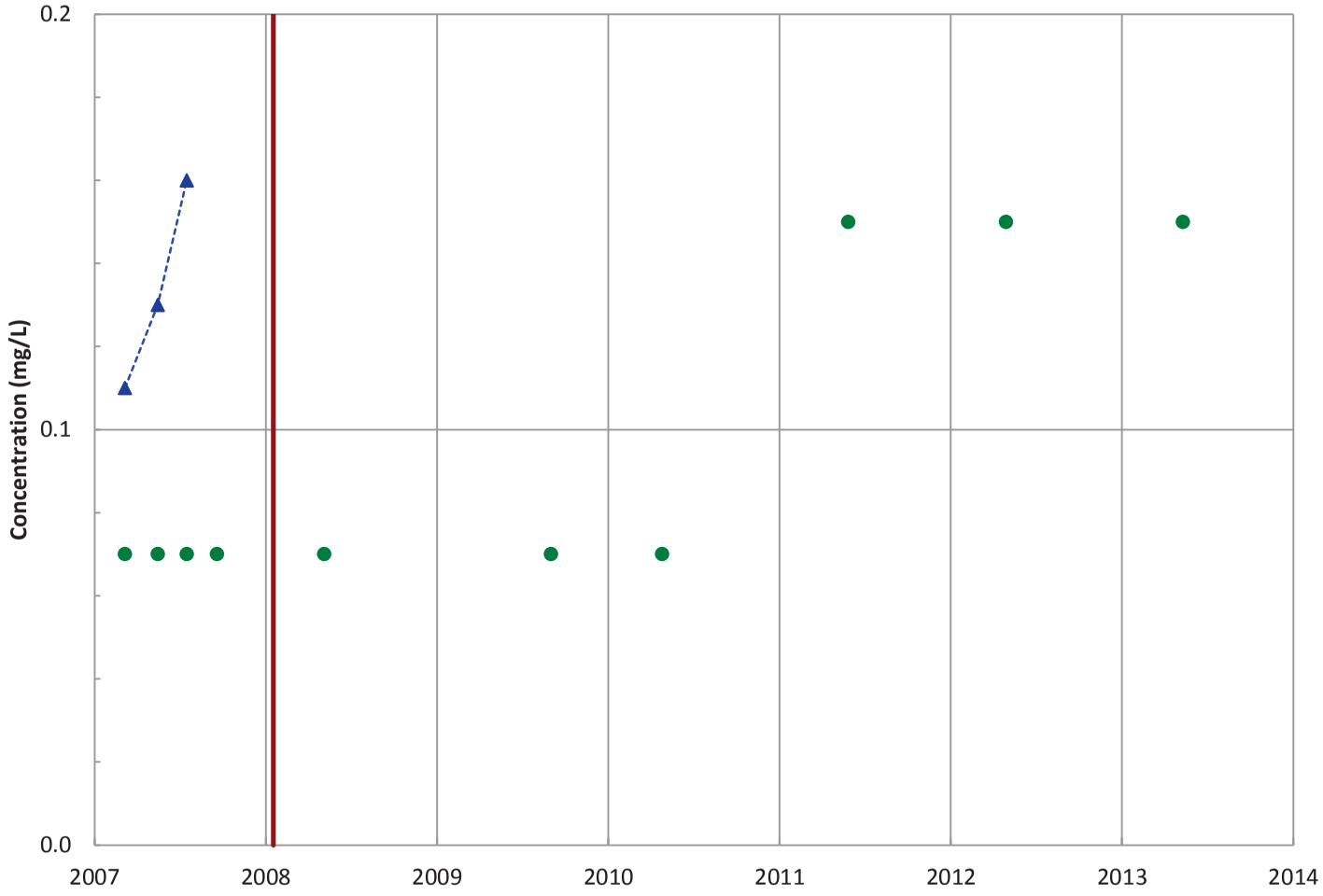
Well Location



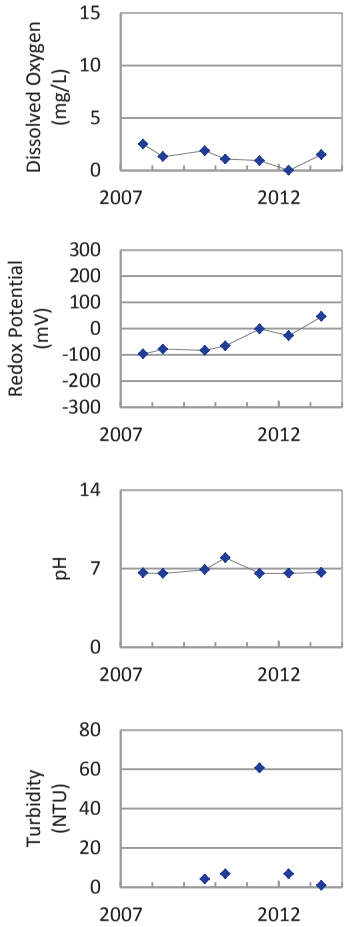
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/7/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1100
Pyruvic Acid Trend in Perched Aquifer



Field Parameters



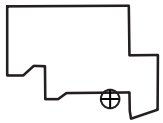
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
Injection Dates

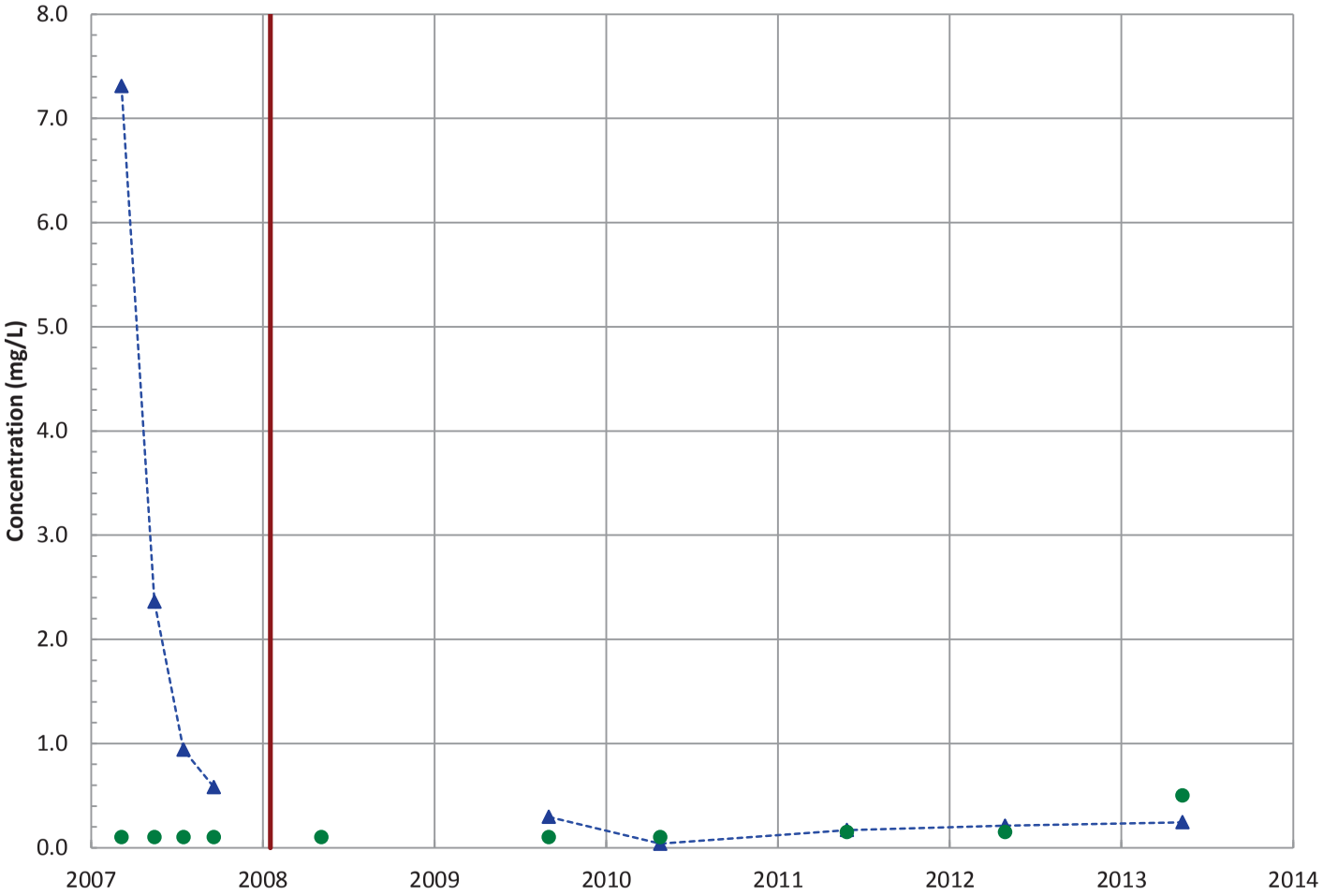
Well Location



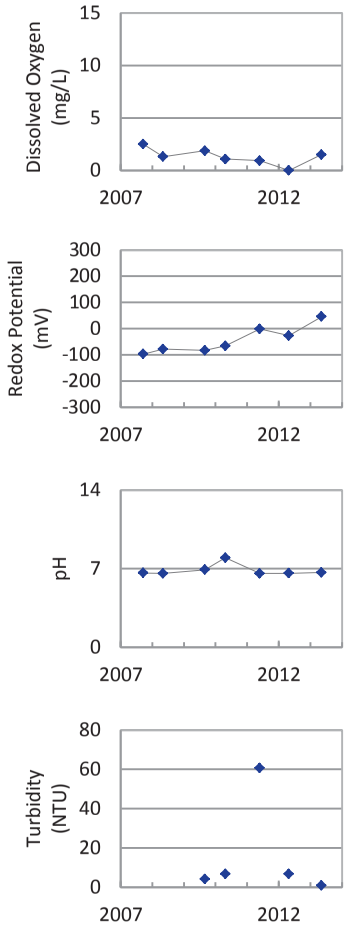
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/7/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1100
Total Volatile Fatty Acids Trend in Perched Aquifer



Field Parameters



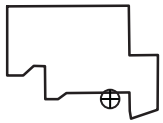
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Increasing

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Probably Increasing

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

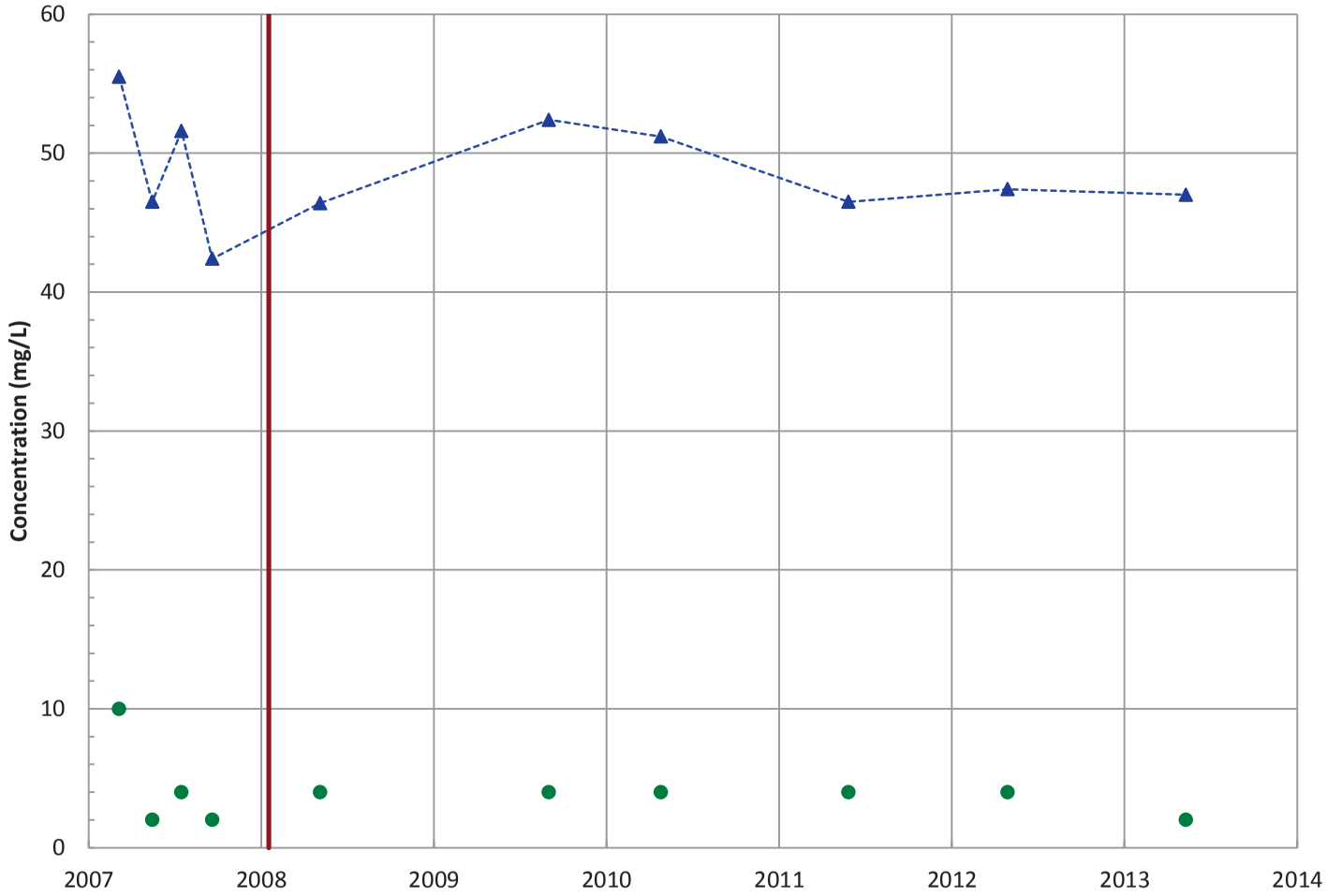
Well Location



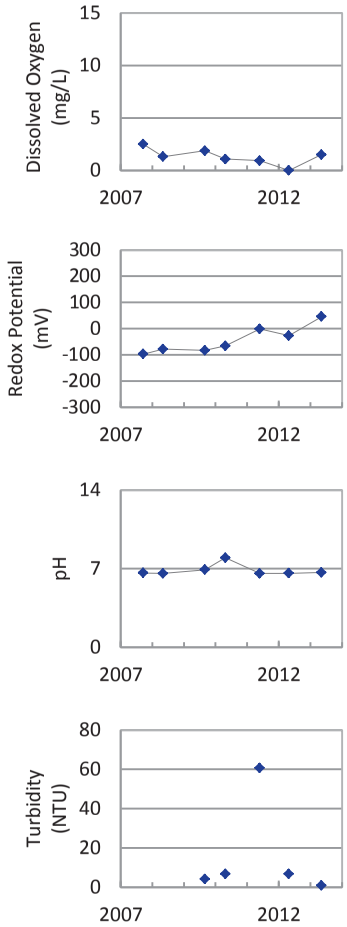
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/7/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1100
Chloride (as Cl) Trend in Perched Aquifer



Field Parameters



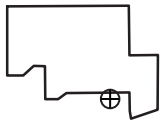
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
═══ Injection Dates

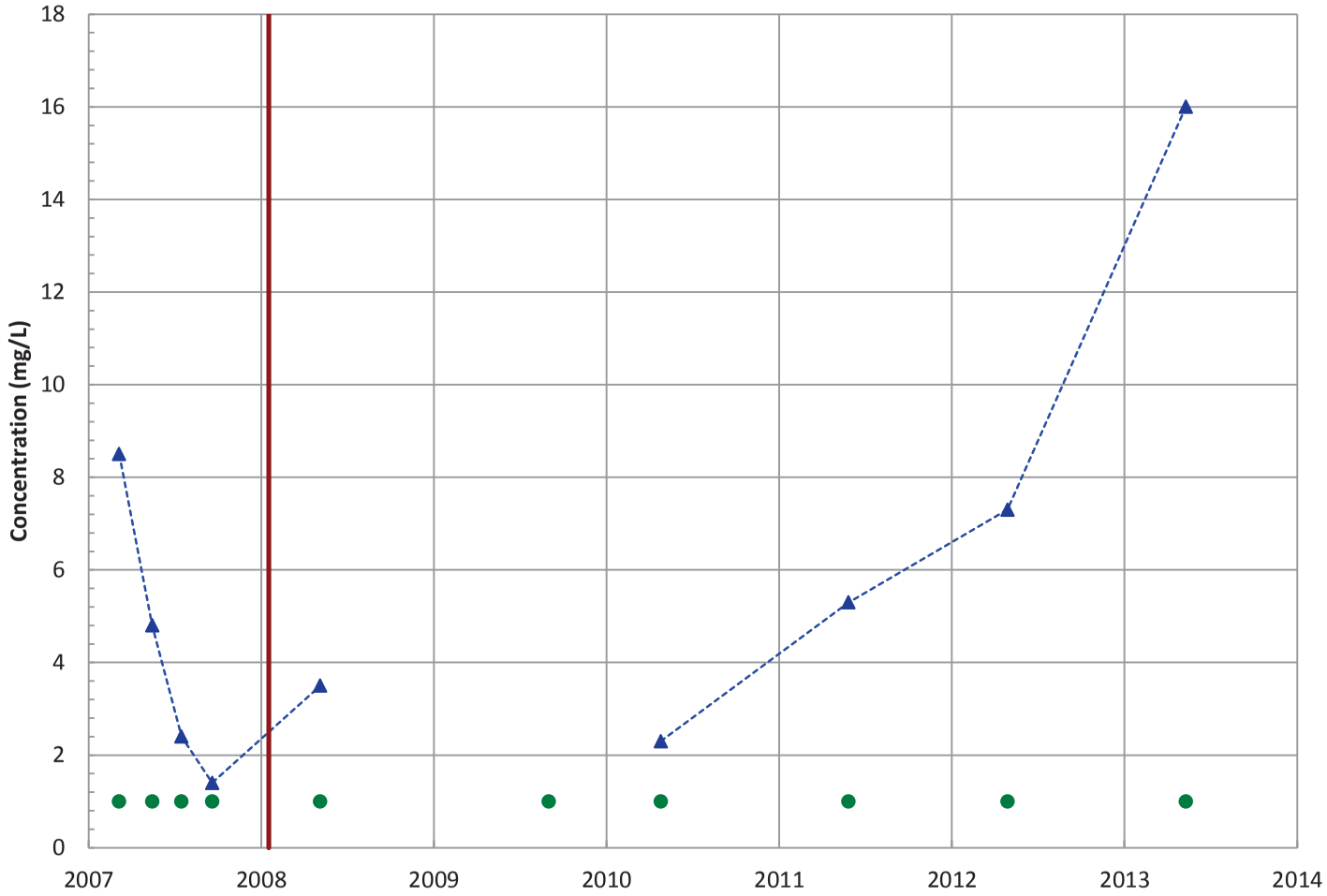
Well Location



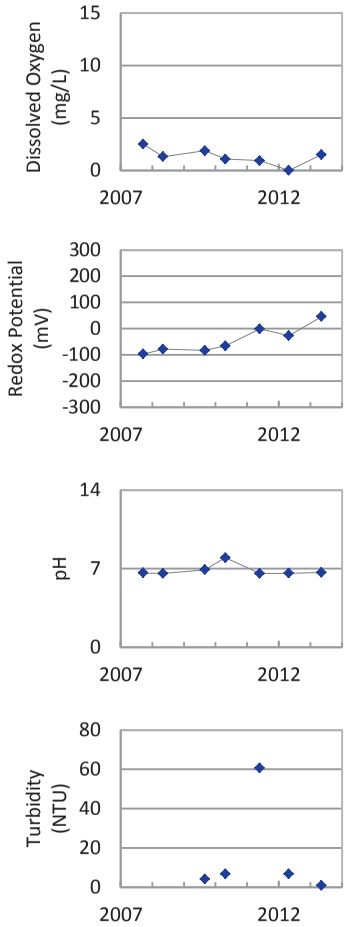
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/7/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1100
Total Organic Carbon Trend in Perched Aquifer



Field Parameters



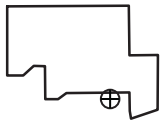
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Increasing

MAROS Linear Regression Method
All Data: Probably Increasing
Last 4 Samples: Increasing

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

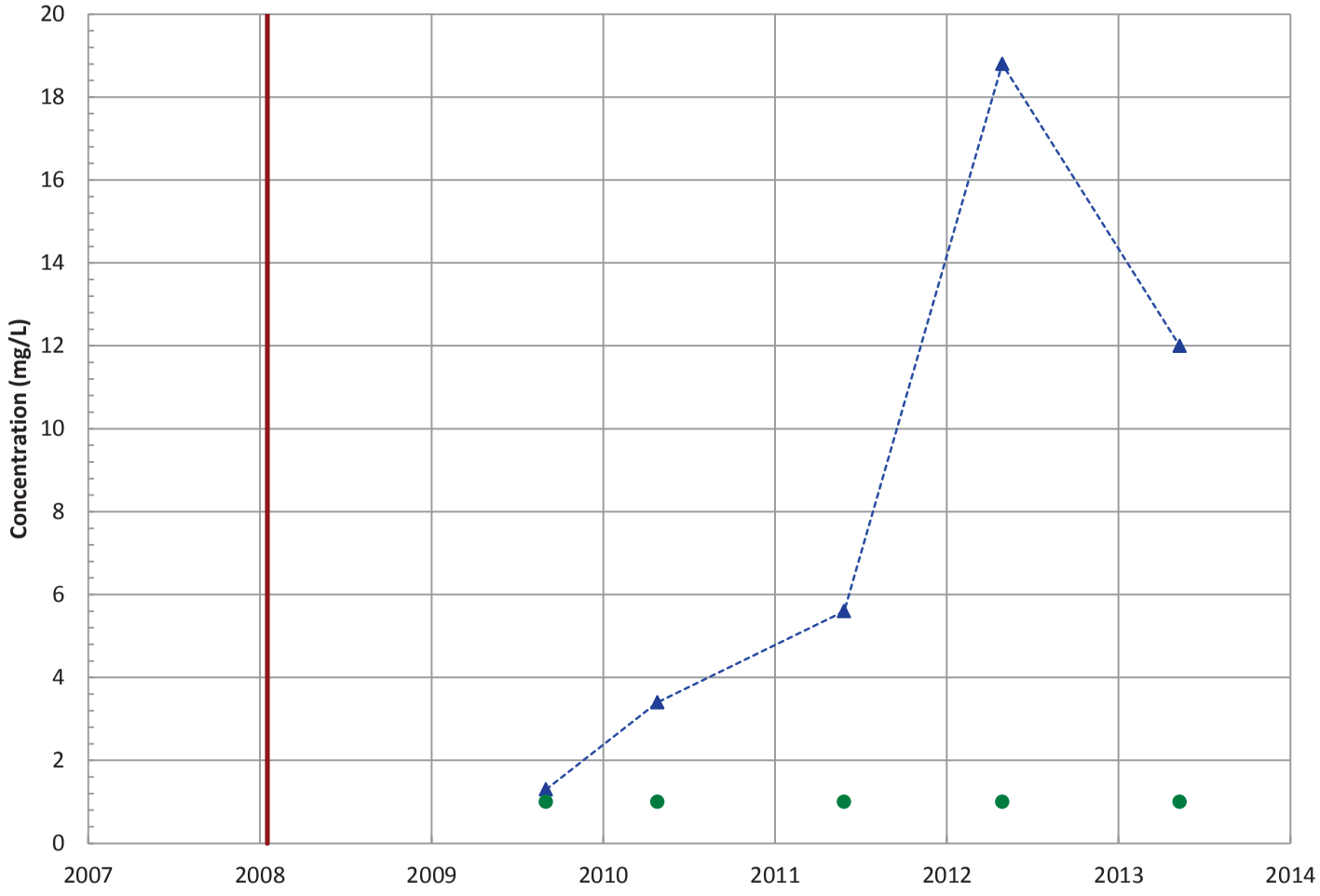
Well Location



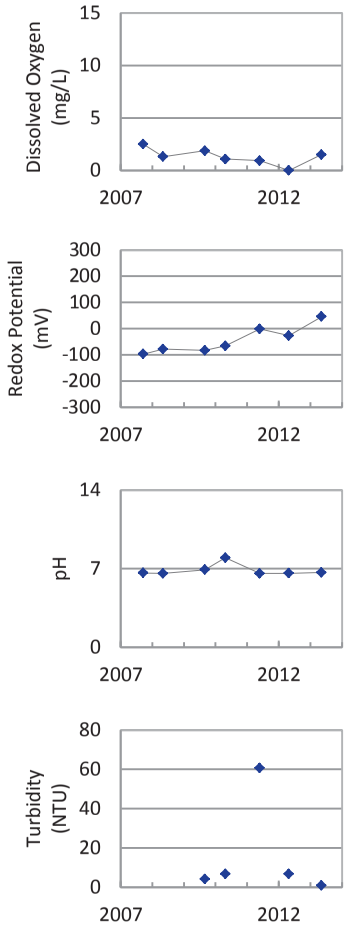
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/7/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1100
Dissolved Organic Carbon (DOC) Trend in Perched Aquifer



Field Parameters



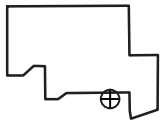
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Probably Increasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Injection Dates

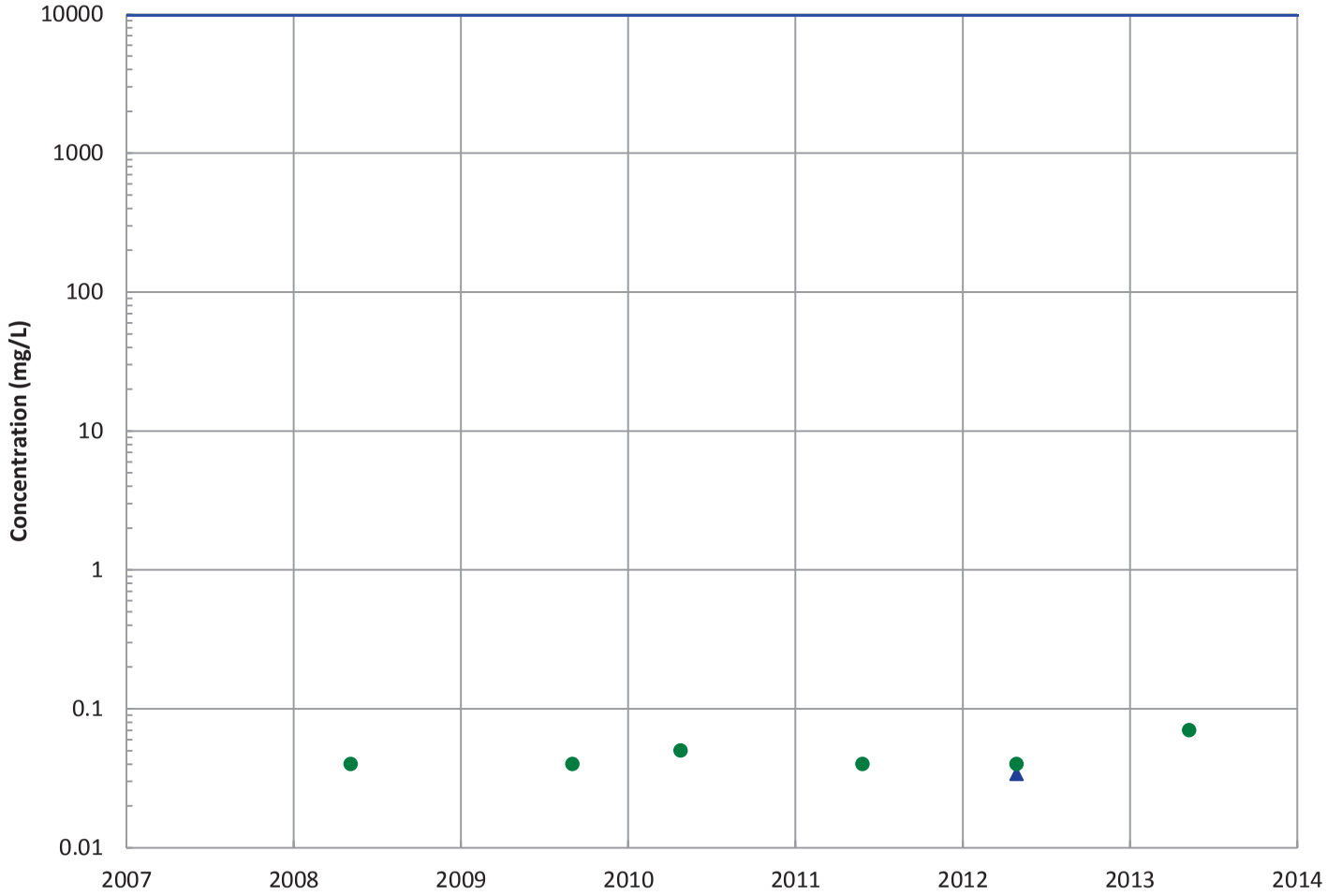
Well Location



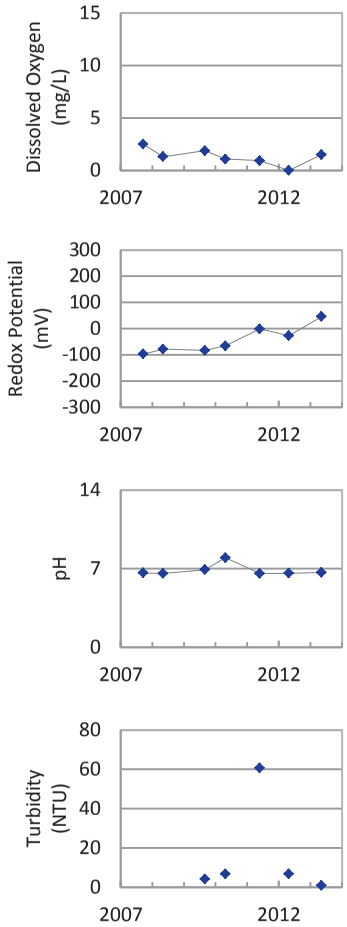
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/3/2009 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1100
Nitrate as N Trend in Perched Aquifer



Field Parameters



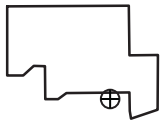
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

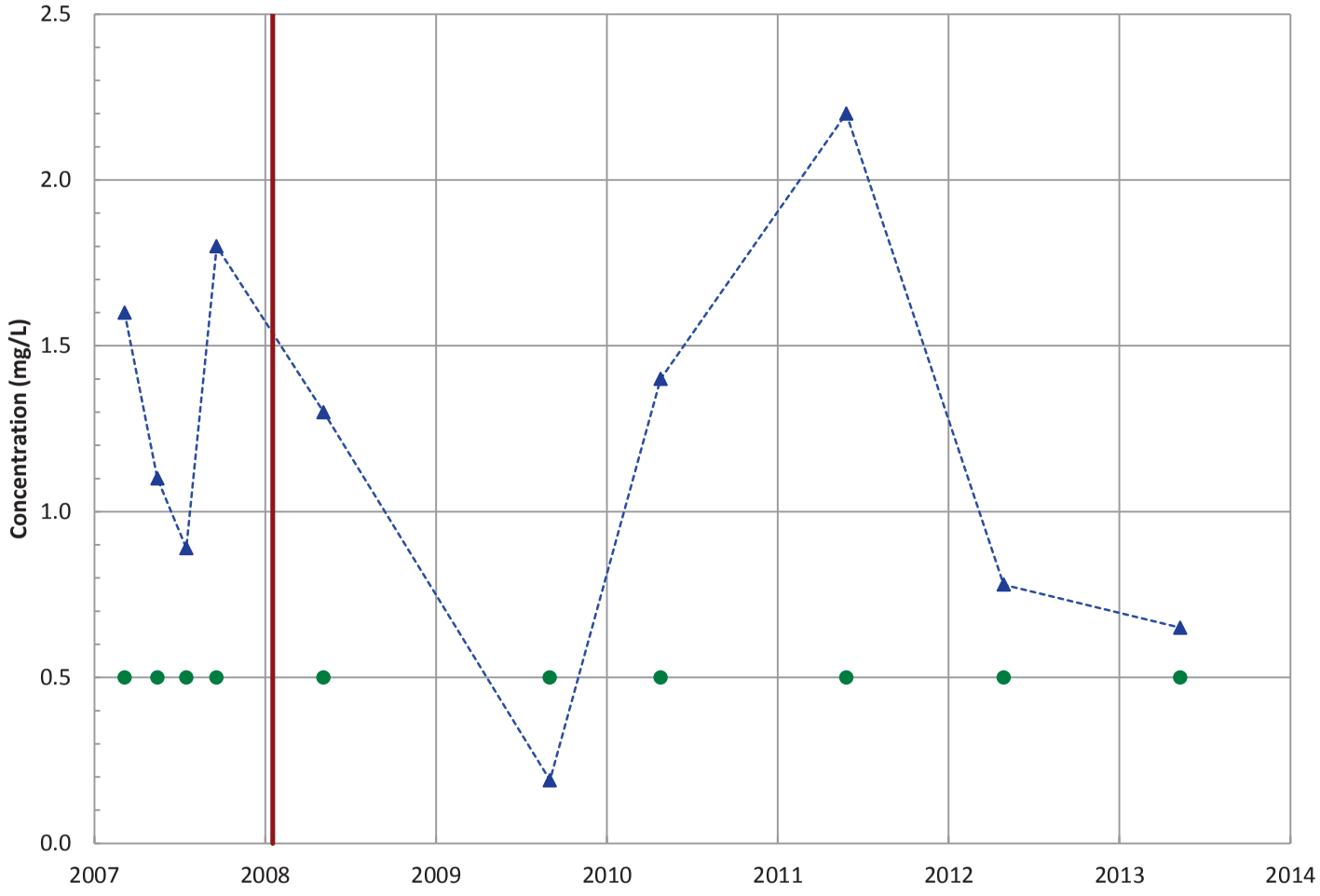
Well Location



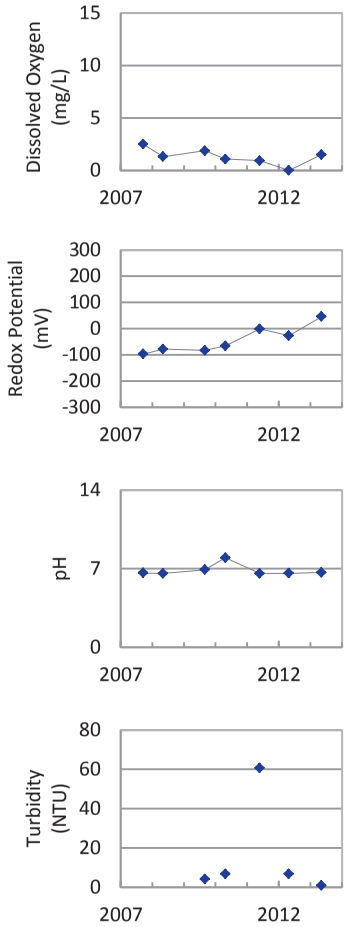
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/6/2008 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1100
Sulfate (as SO4) Trend in Perched Aquifer



Field Parameters



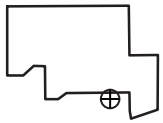
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: Stable

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

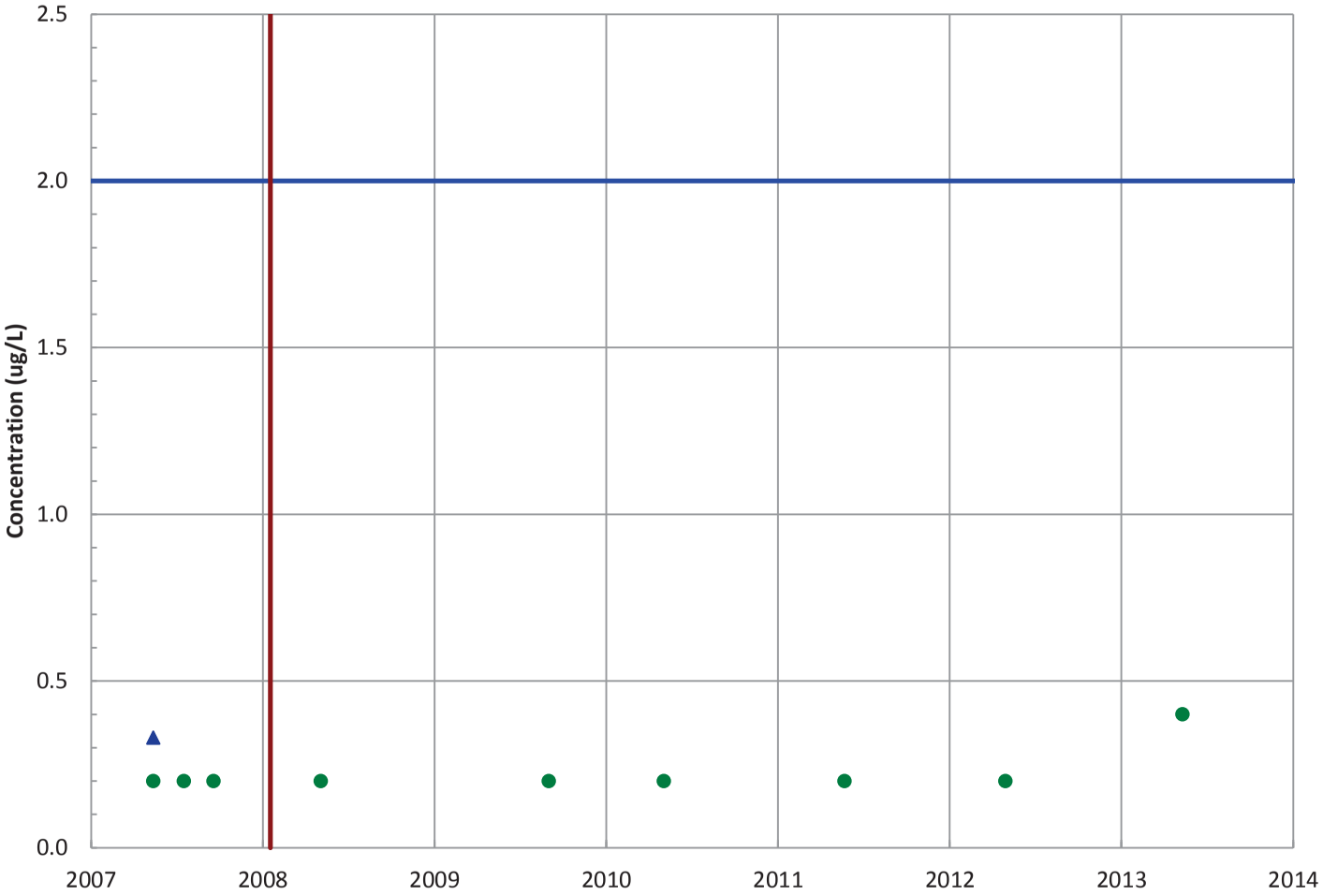
Well Location



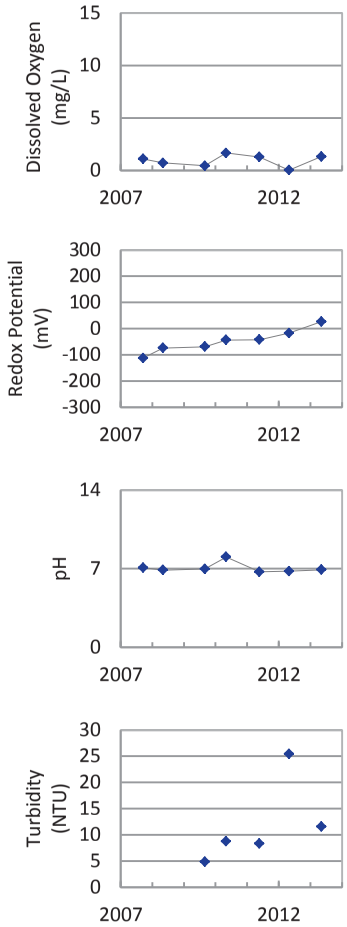
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/7/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1101
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



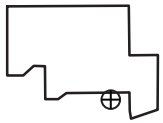
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

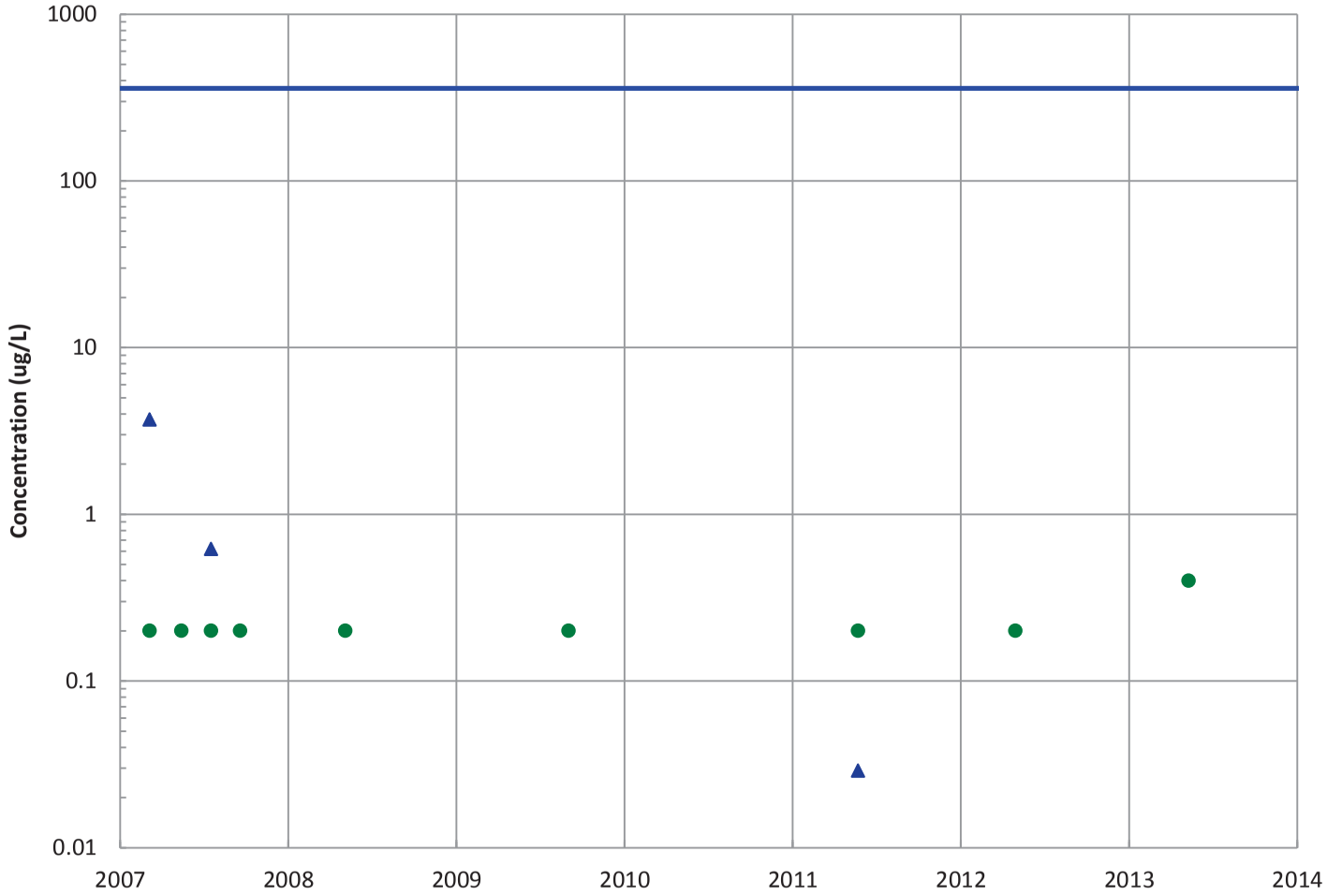
Well Location



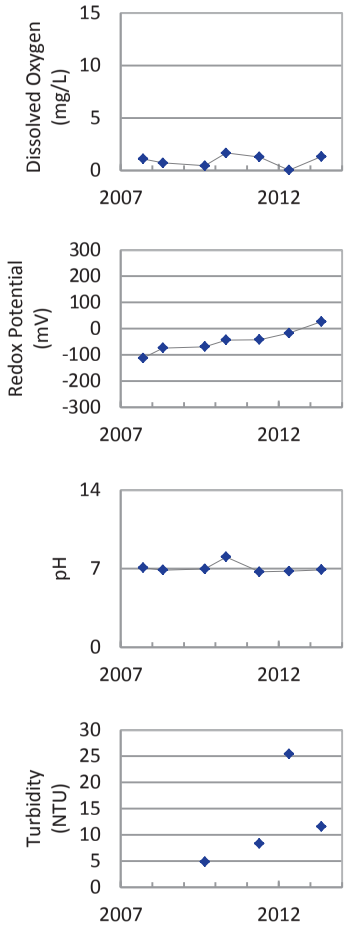
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/14/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1101
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



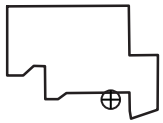
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

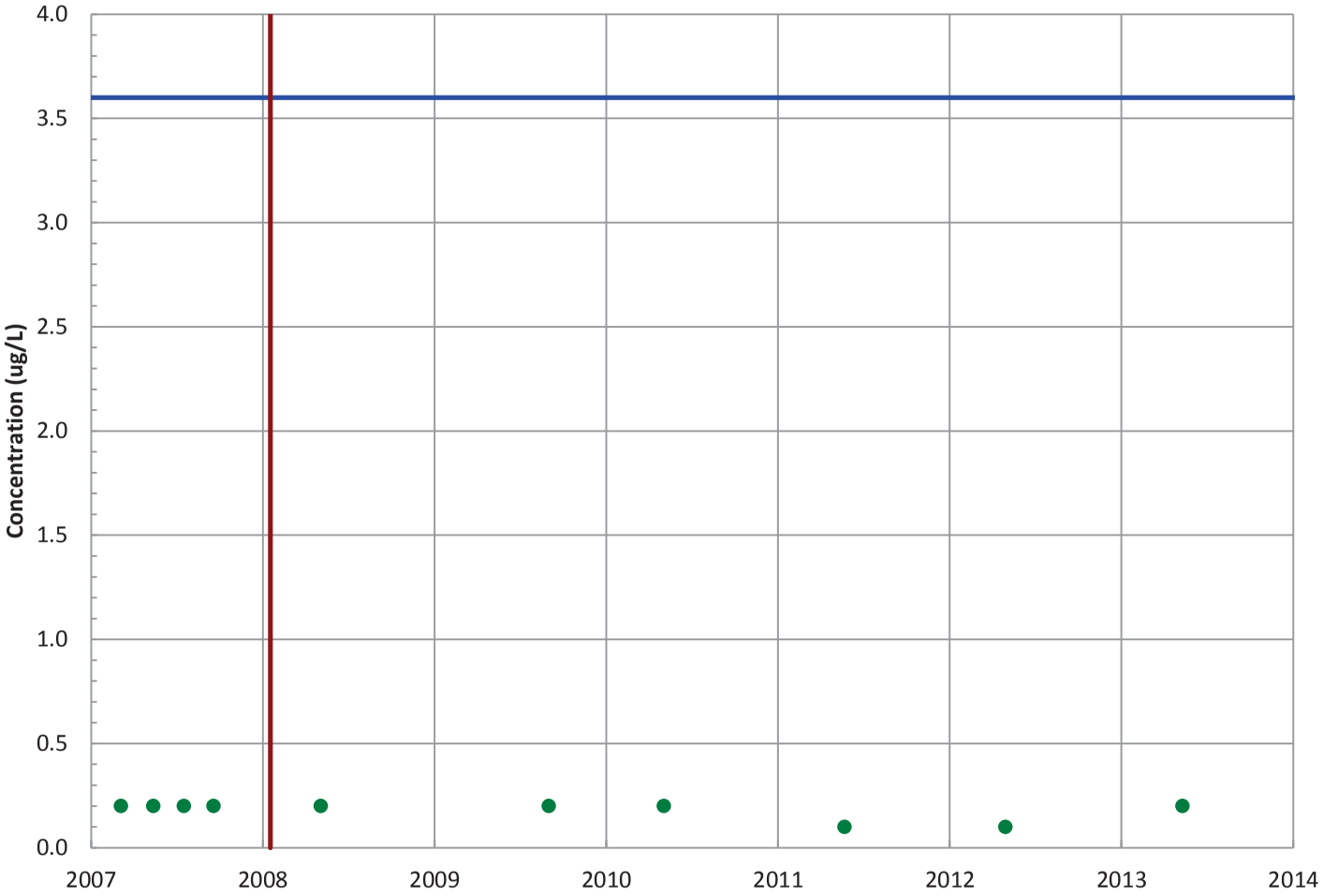
Well Location



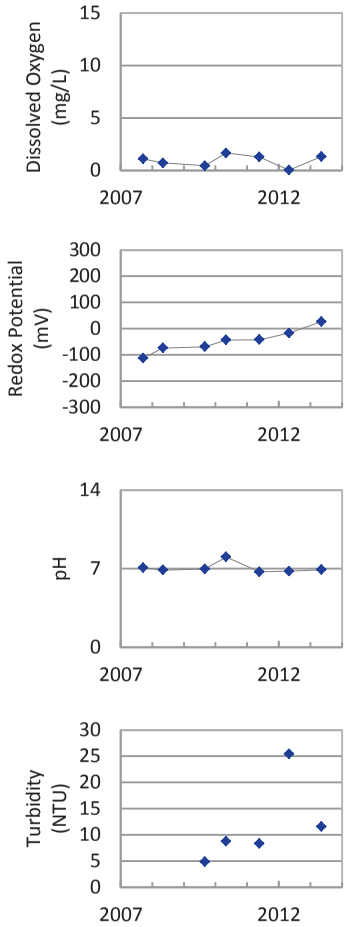
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/6/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1101
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



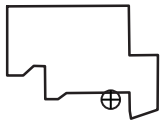
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

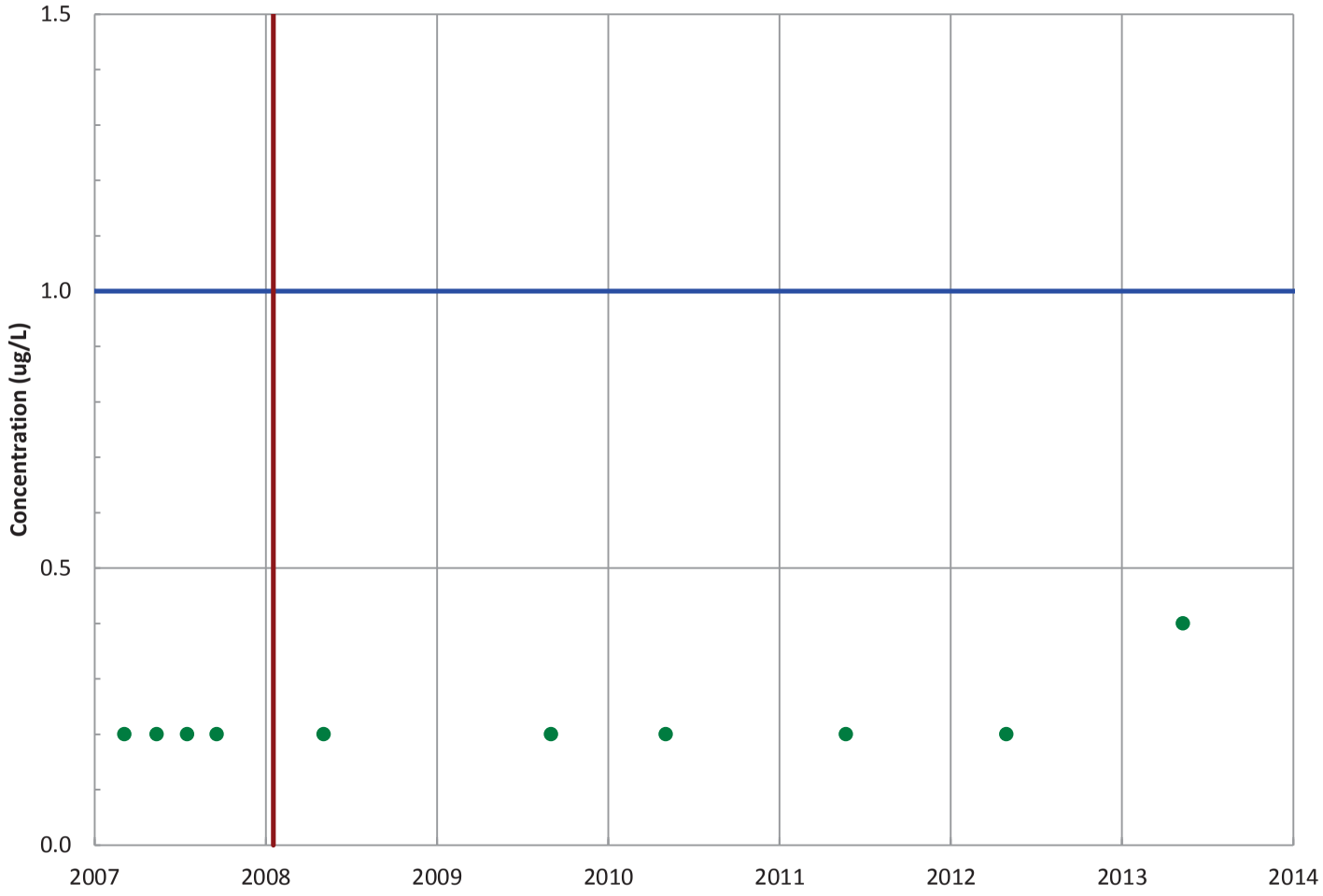
Well Location



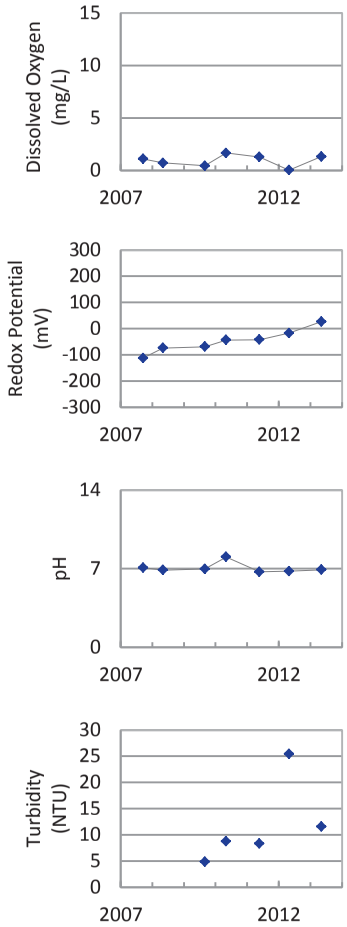
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/6/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1101
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



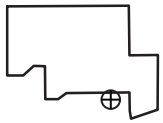
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

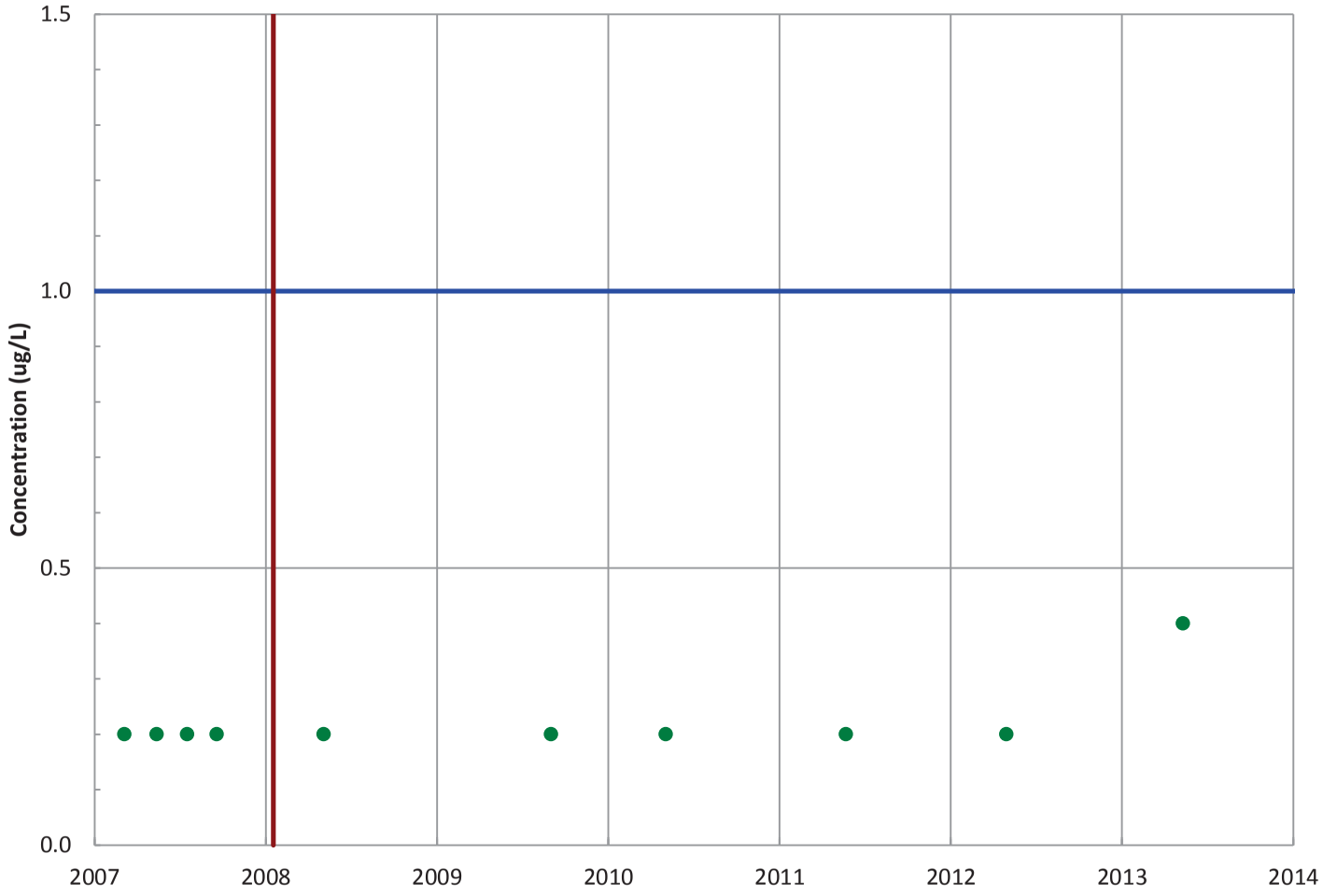
Well Location



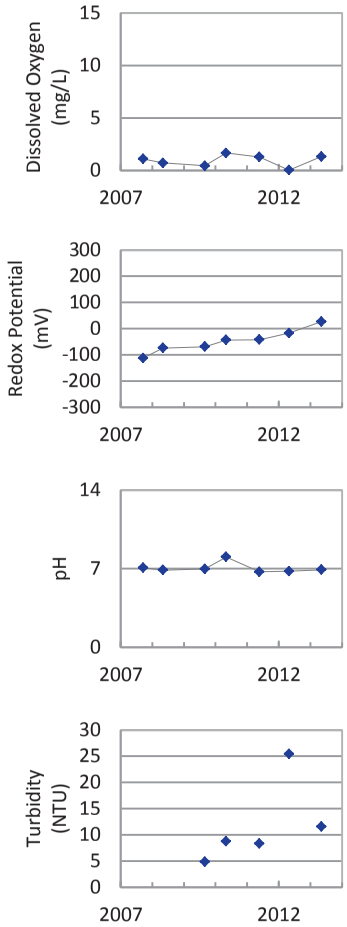
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/6/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1101
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



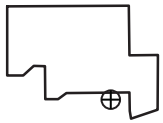
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

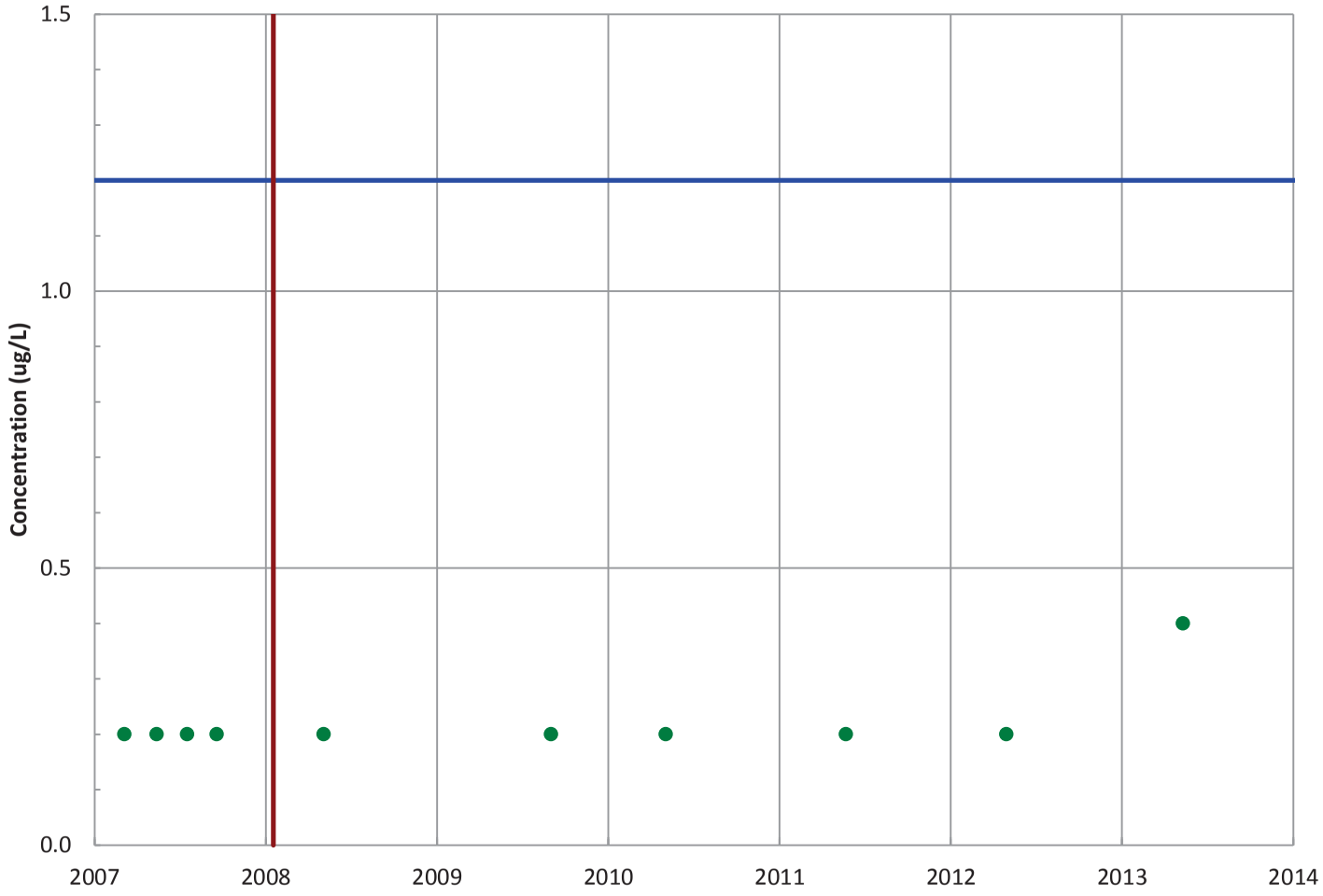
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/6/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1101
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



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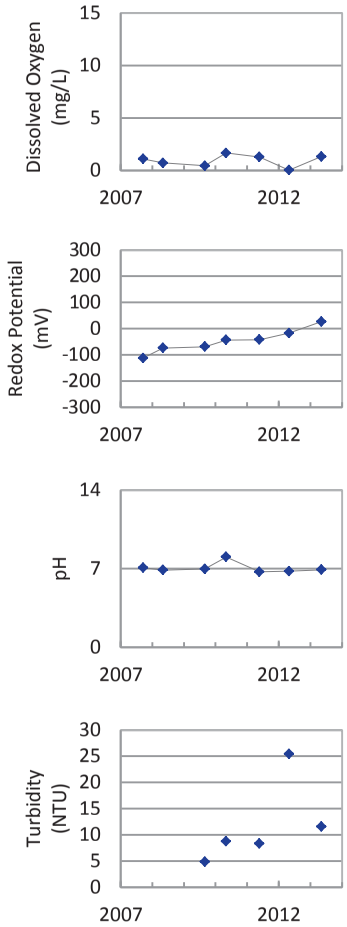


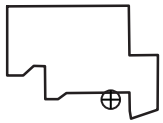
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

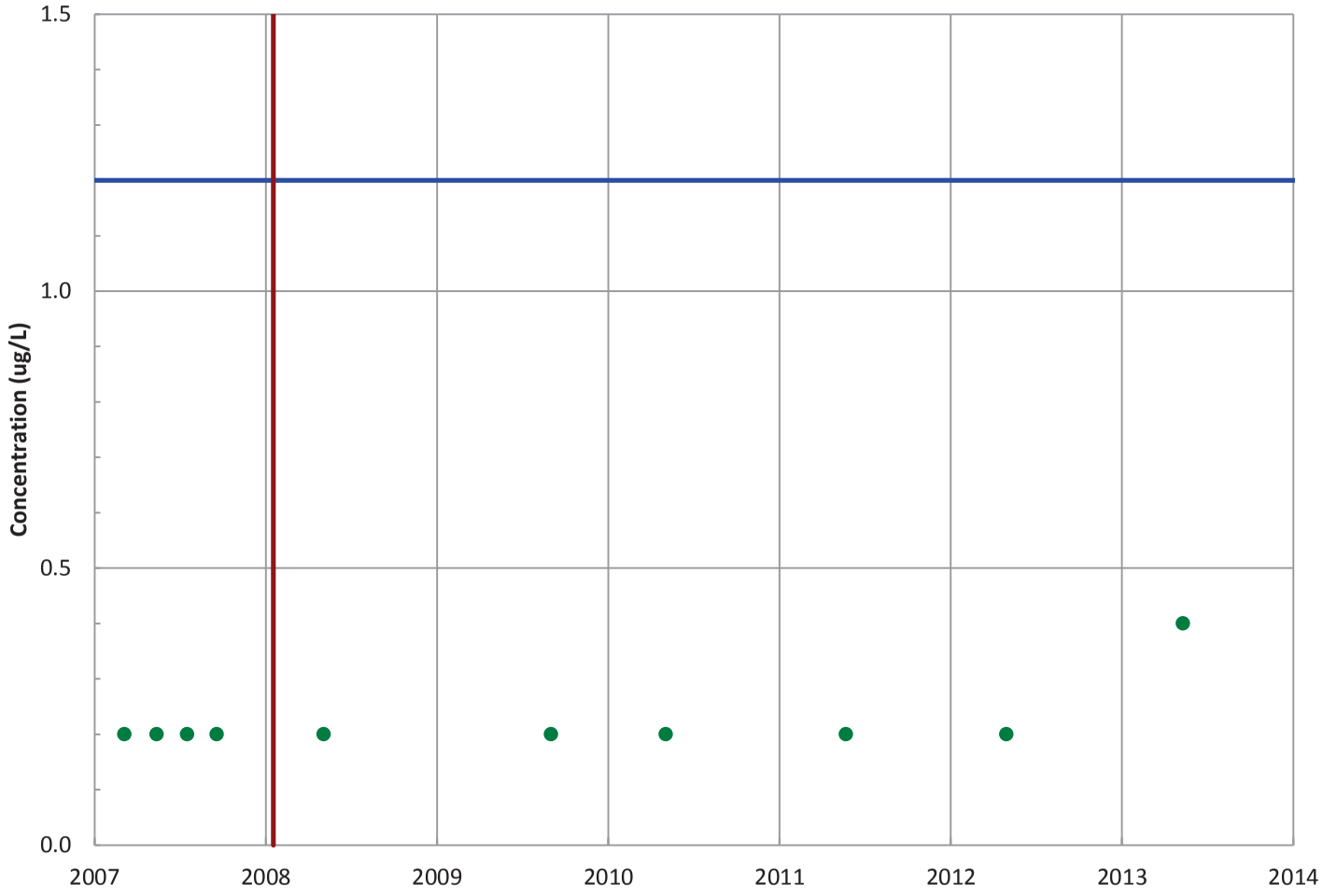
Well Location



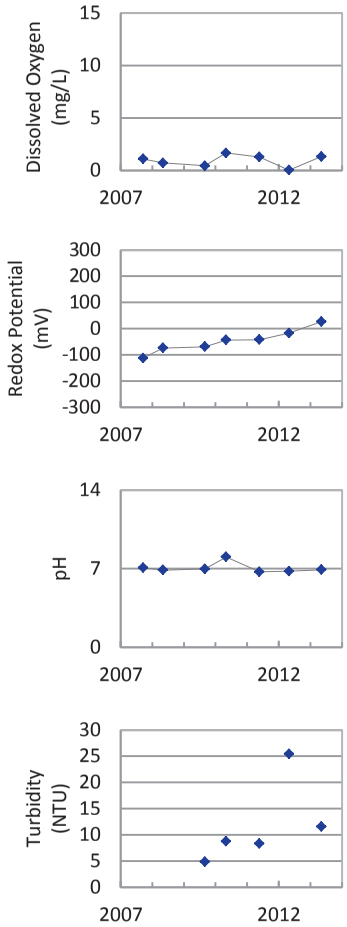
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/6/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1101
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



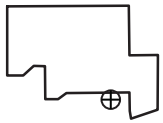
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

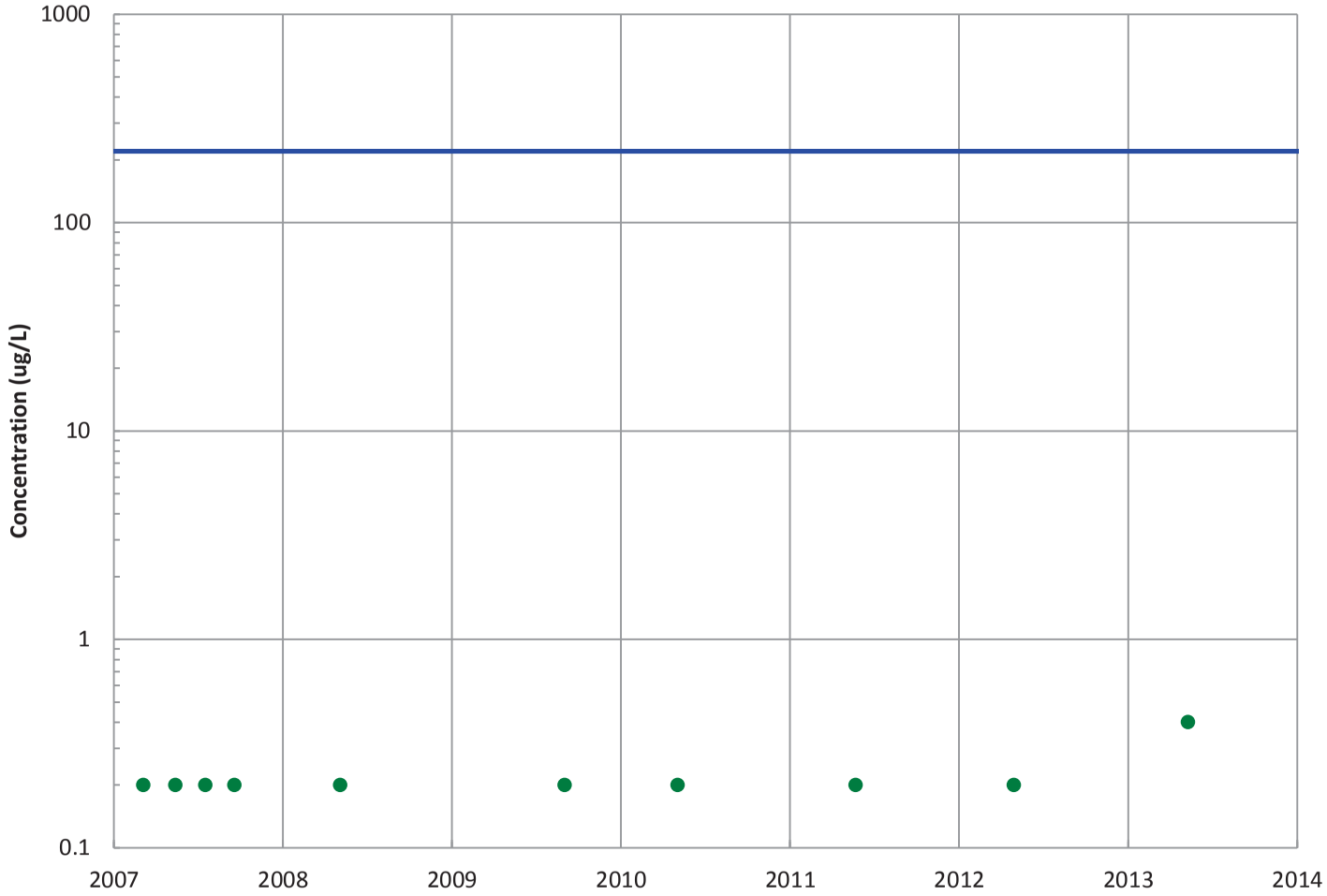
Well Location



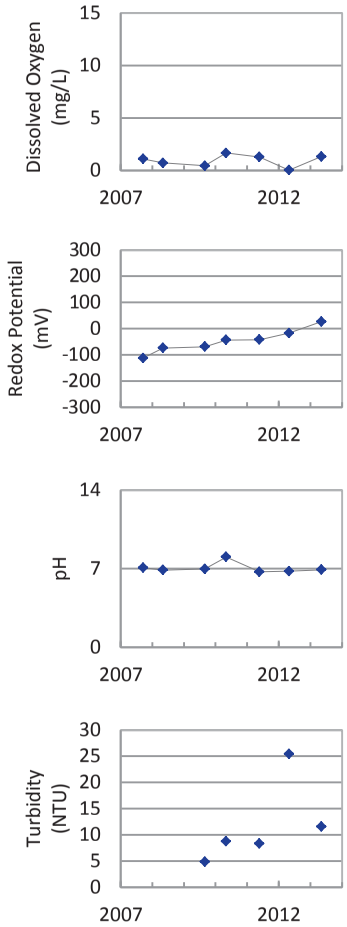
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/6/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1101
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



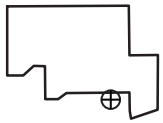
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

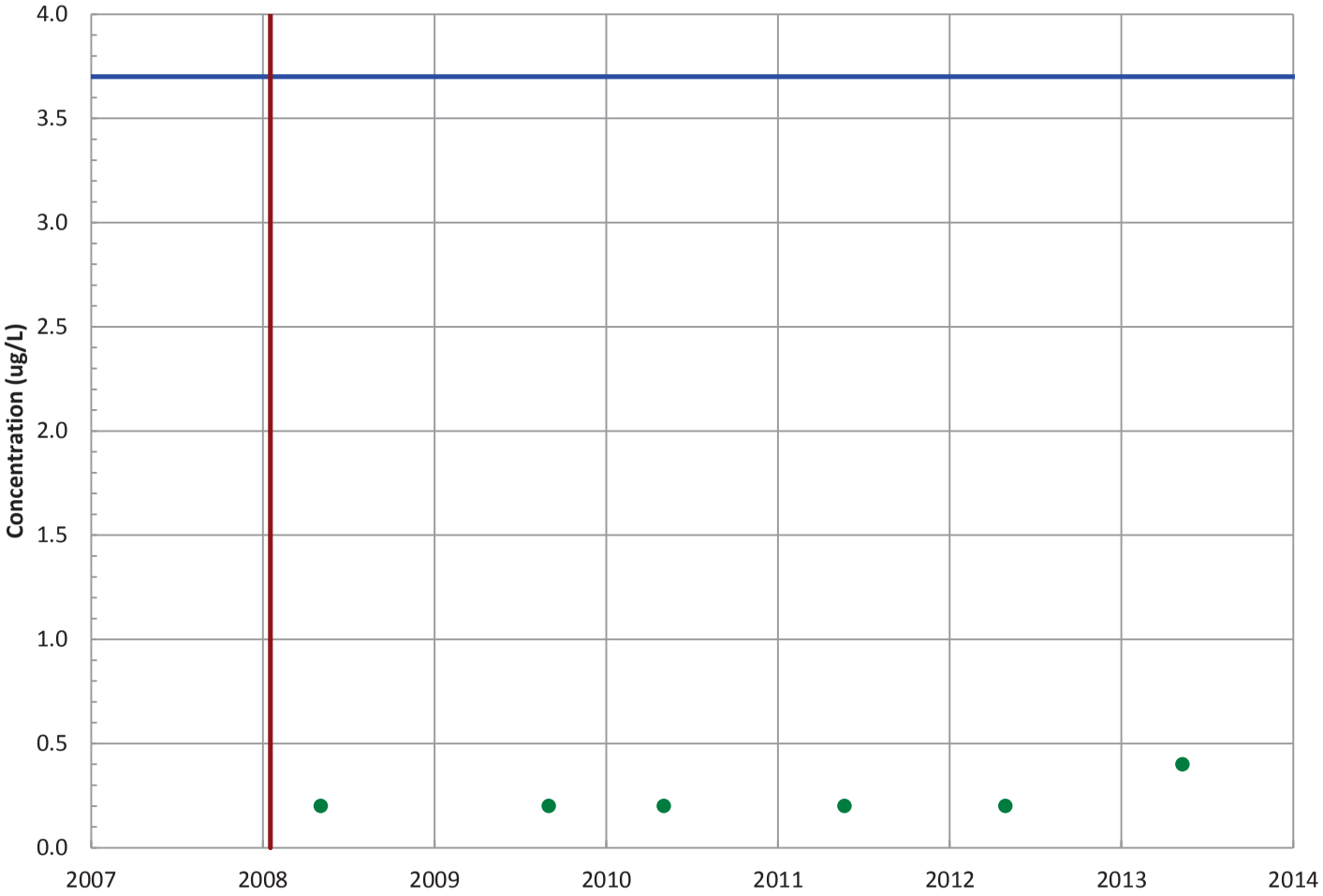
Well Location



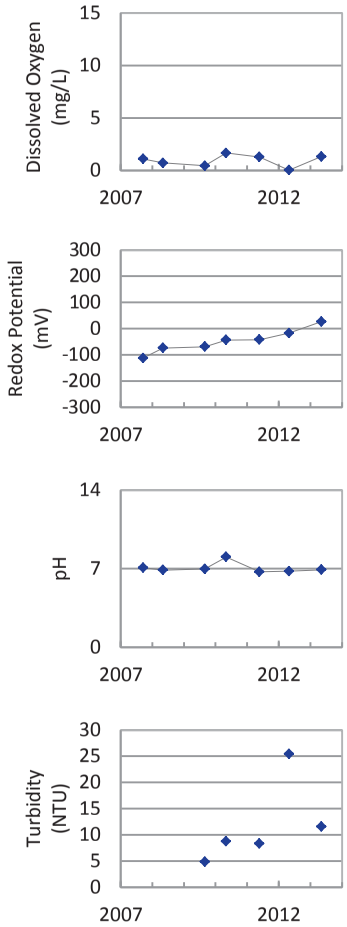
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/6/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1101
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



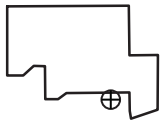
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

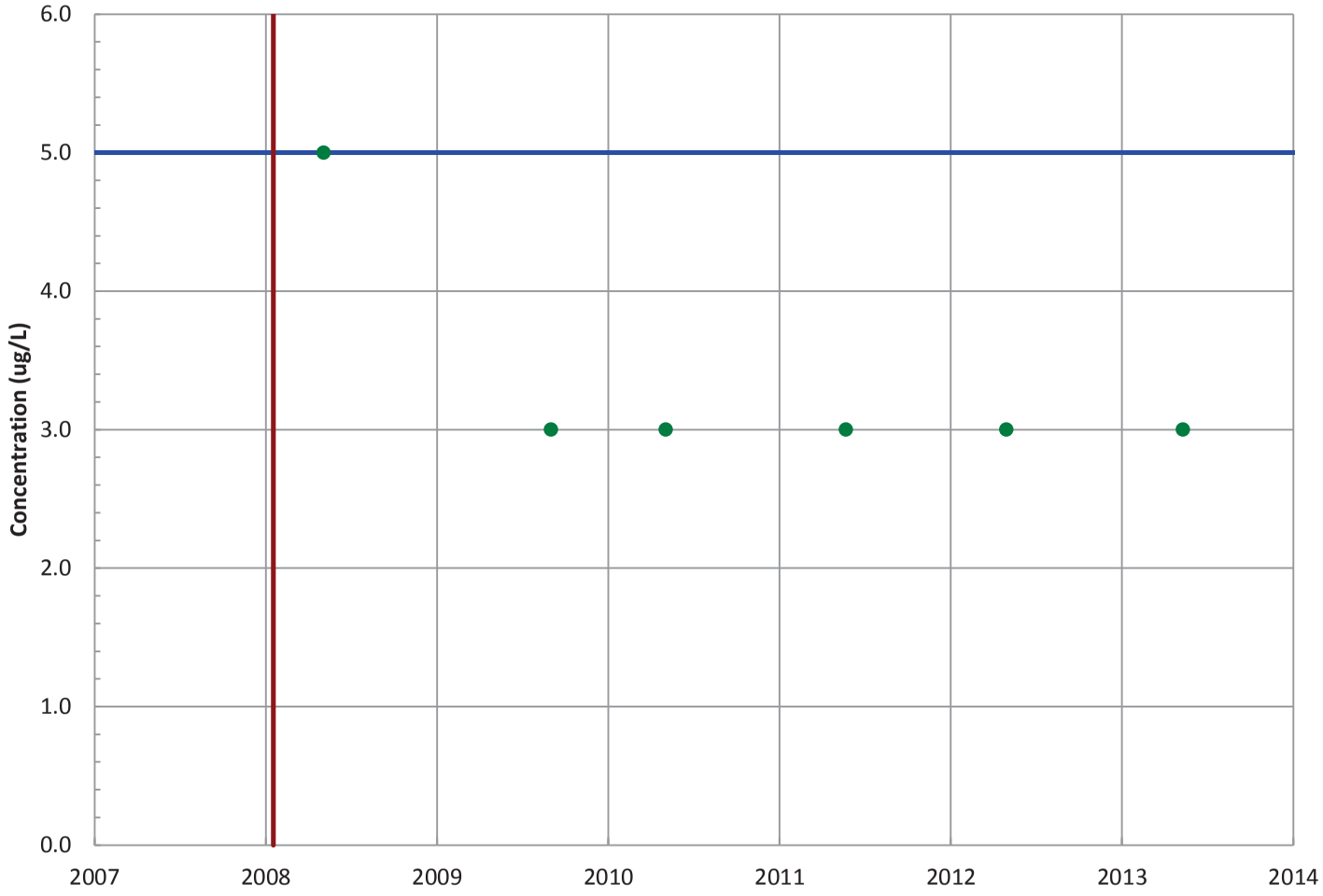
Well Location



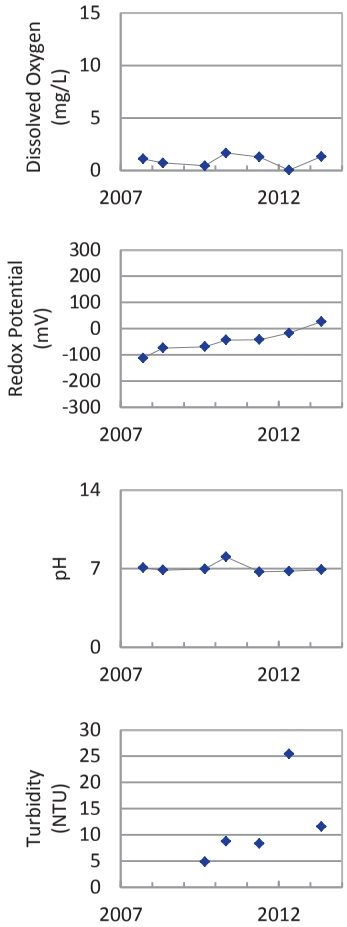
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/5/2008 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1101
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



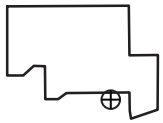
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

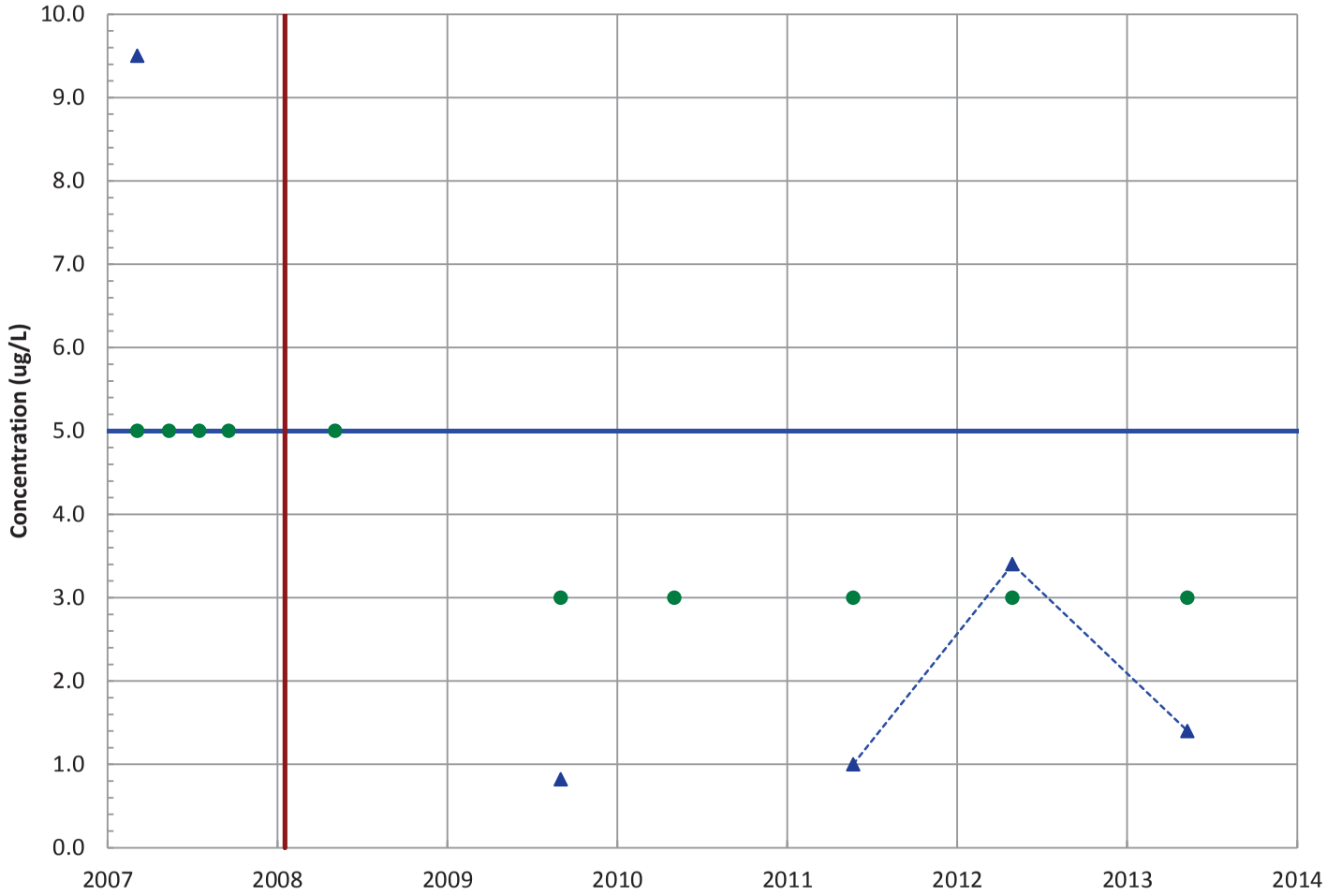
Well Location



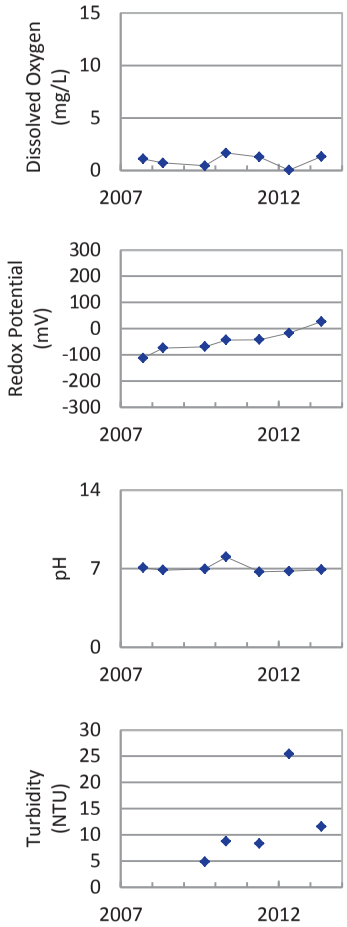
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/5/2008 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1101
Trichloroethene Trend in Perched Aquifer



Field Parameters



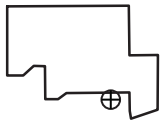
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Stable

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

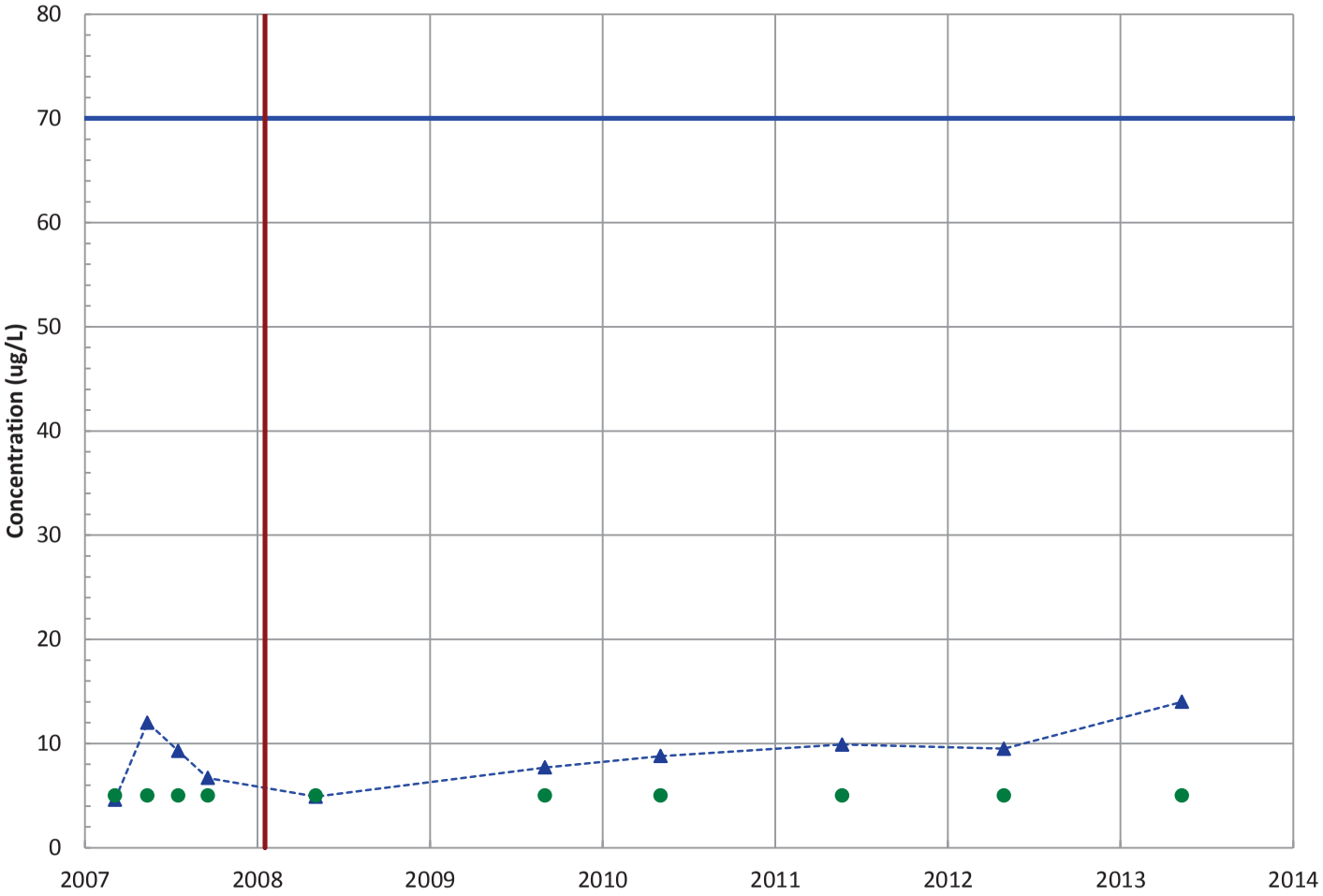
Well Location



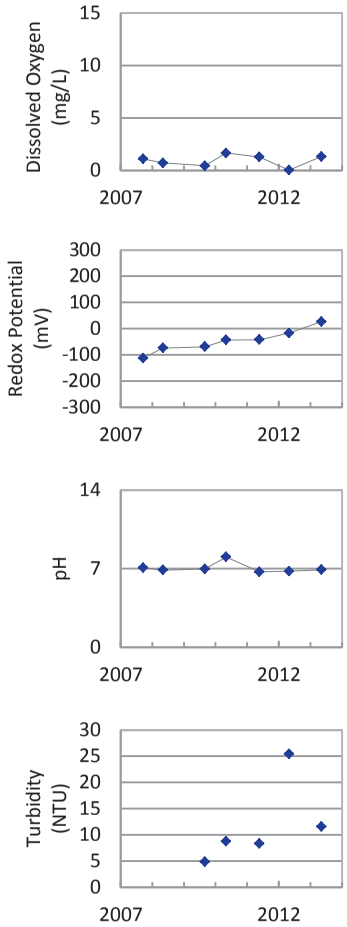
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/6/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1101
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



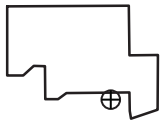
Concentration Trend

MAROS Mann-Kendall Method
All Data: Probably Increasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Probably Increasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

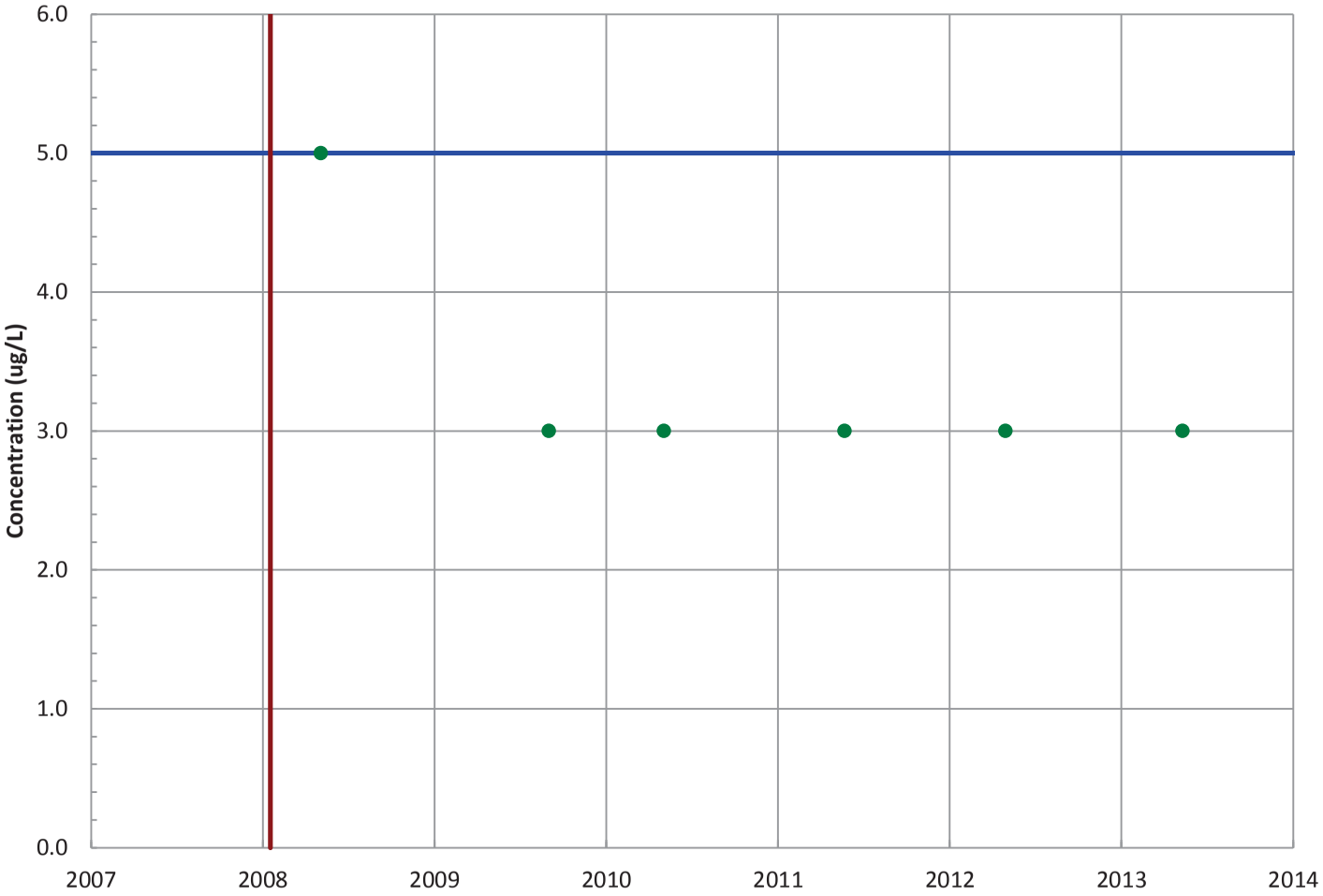
Well Location



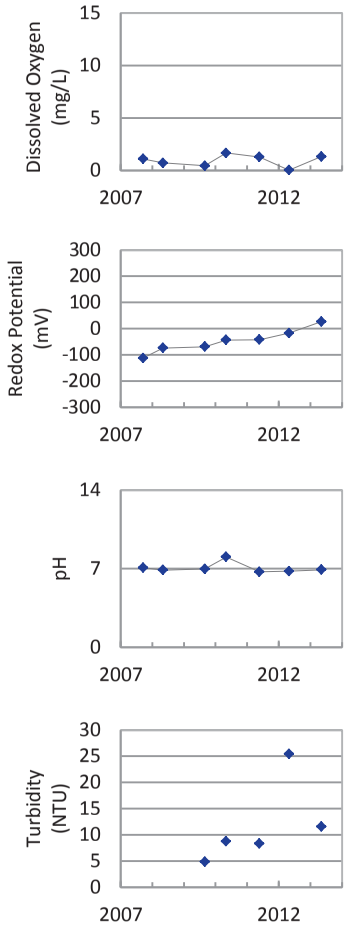
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/6/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1101
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



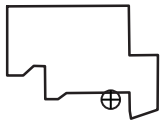
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

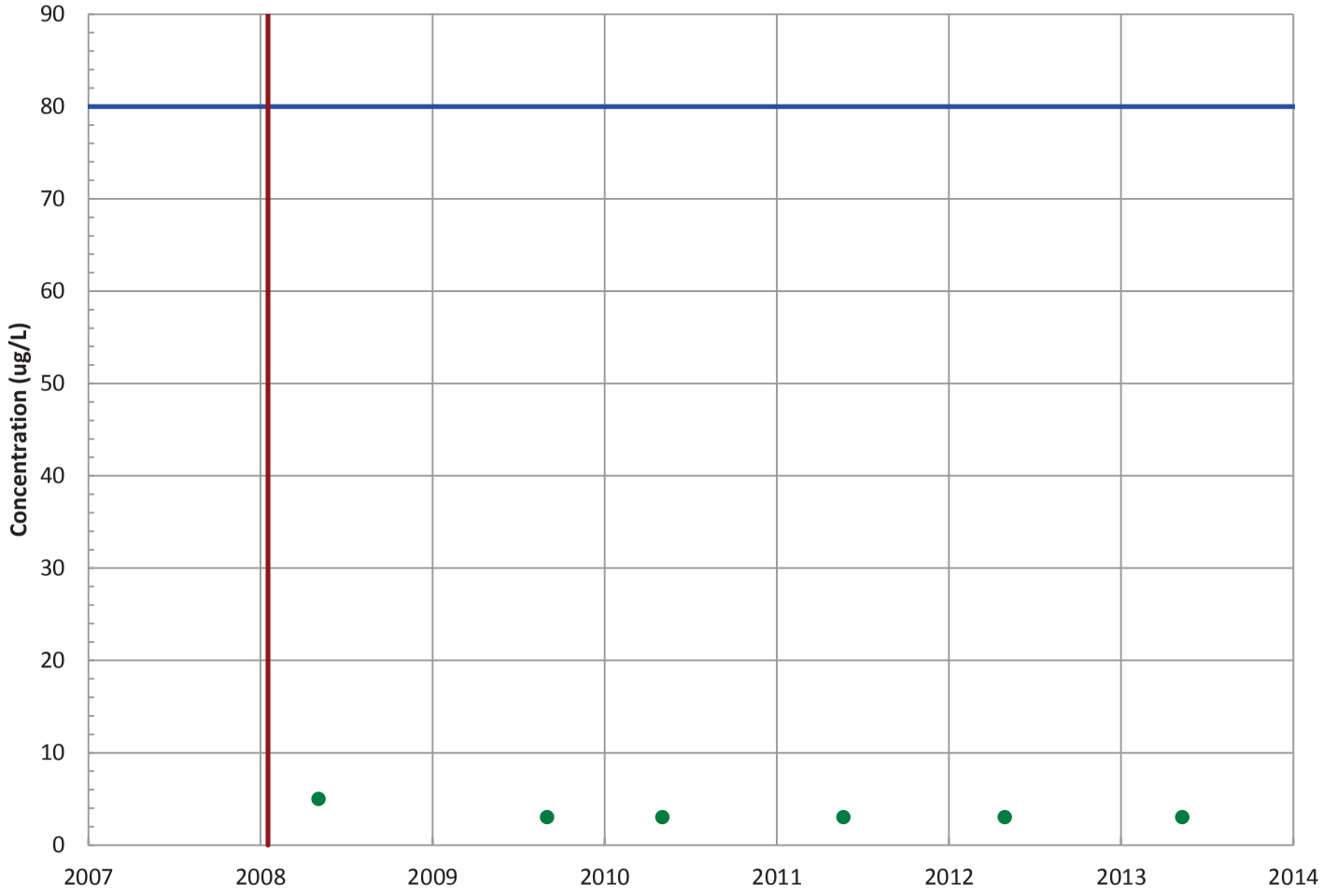
Well Location



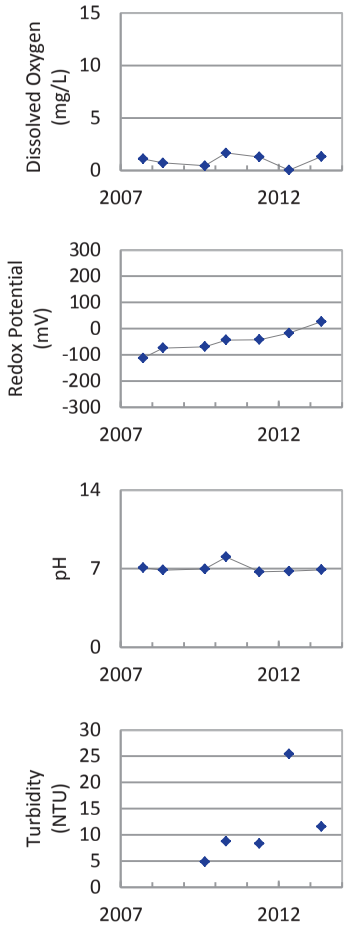
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/5/2008 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1101
Chloroform Trend in Perched Aquifer



Field Parameters



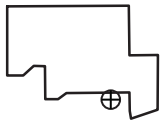
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

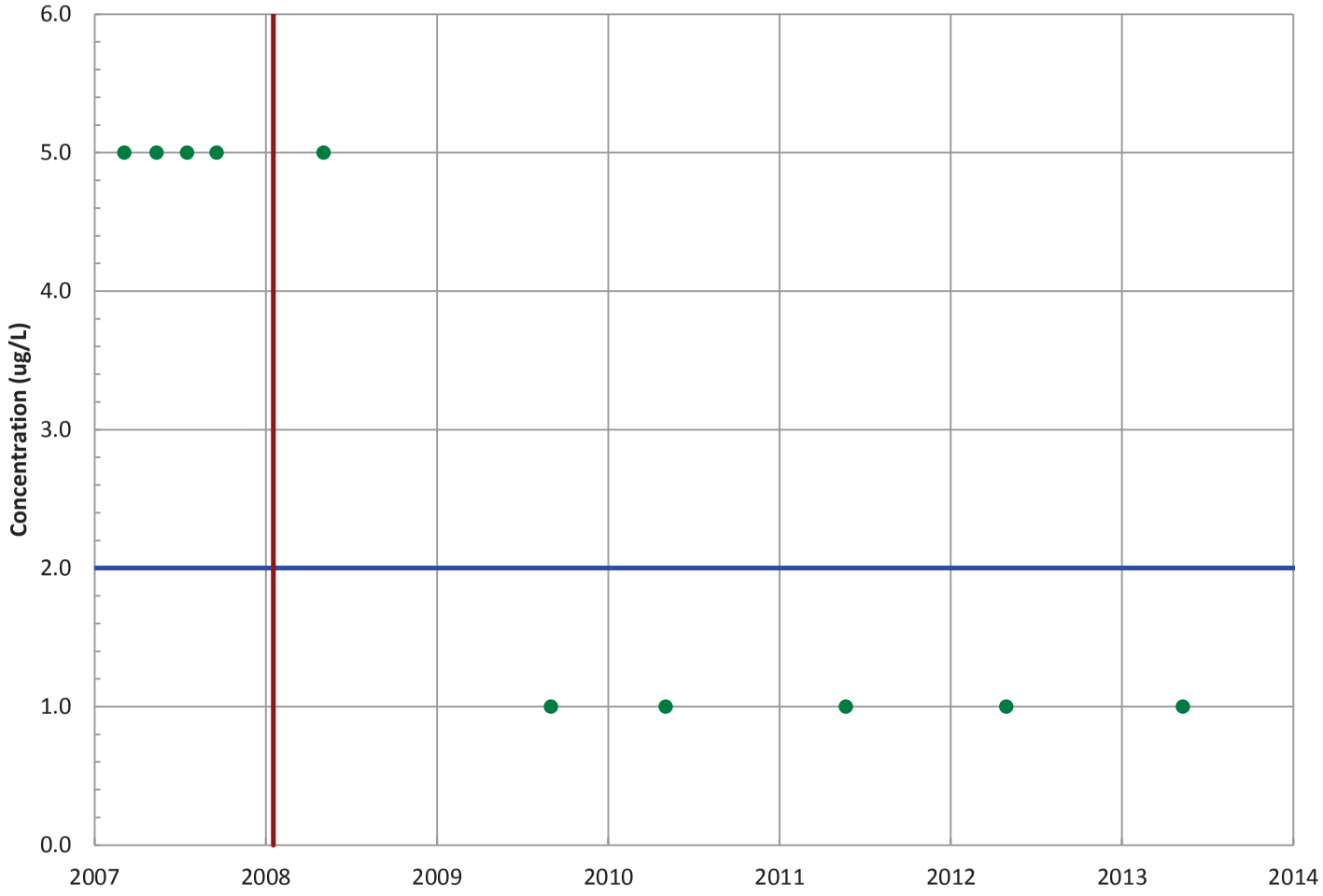
Well Location



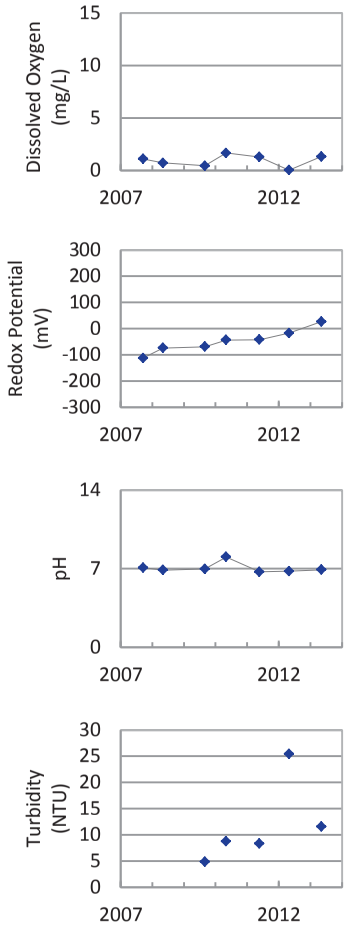
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/5/2008 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1101
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



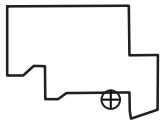
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

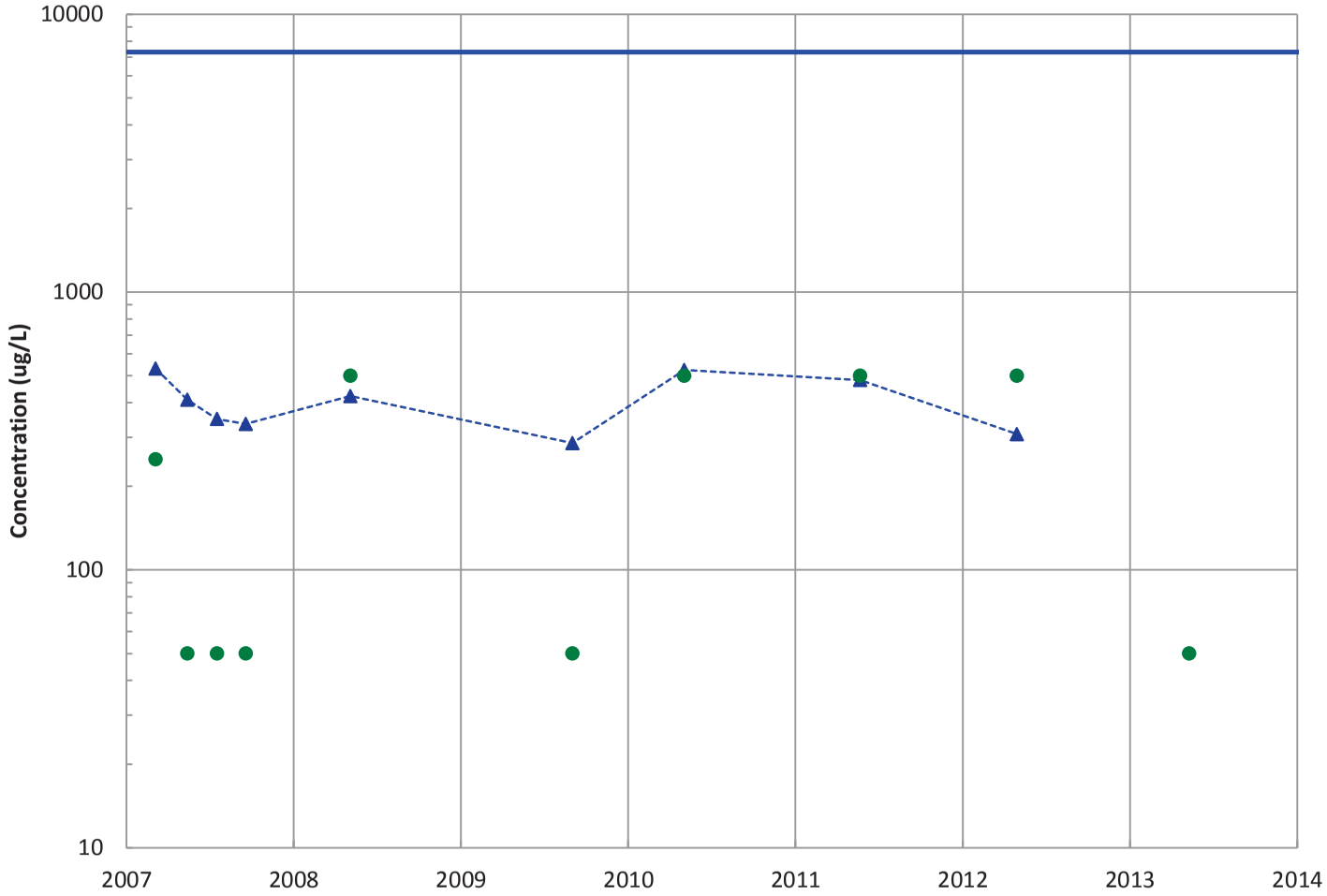
Well Location



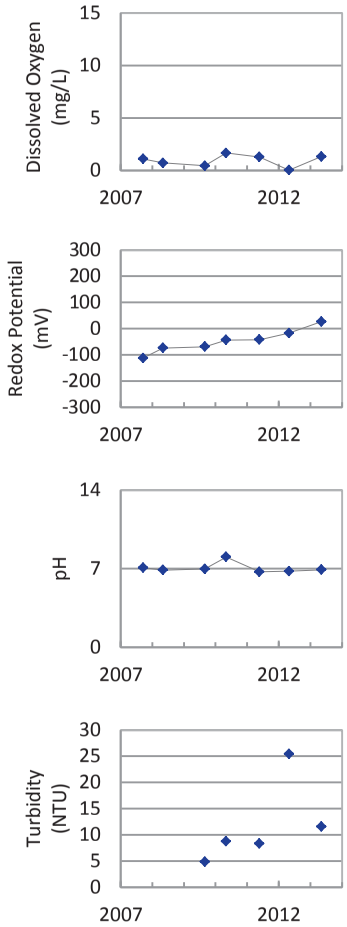
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/6/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1101
Boron Trend in Perched Aquifer



Field Parameters



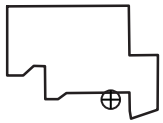
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

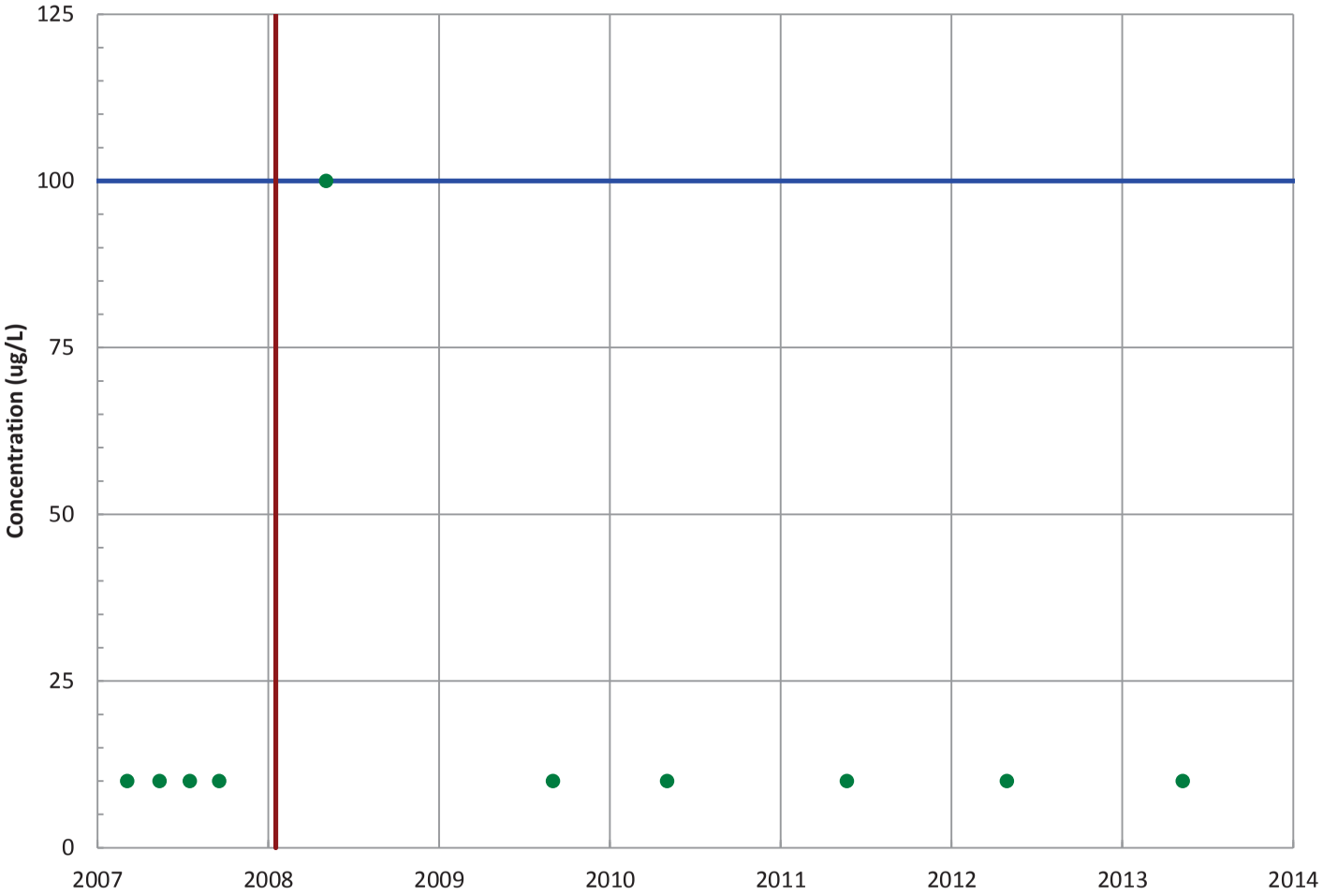
Well Location



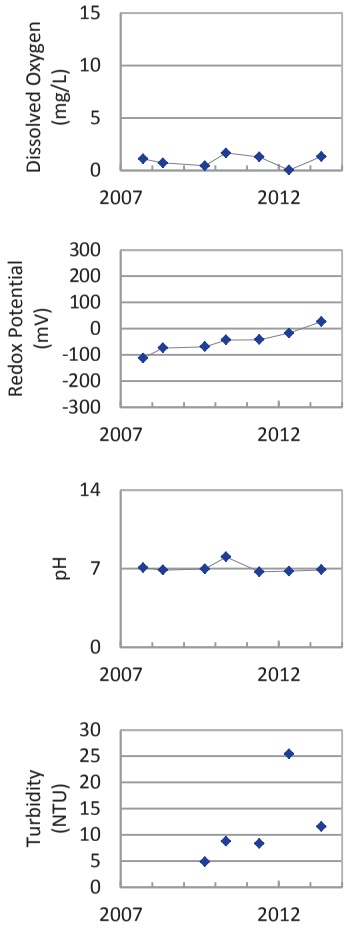
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/6/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1101
Chromium, Total Trend in Perched Aquifer



Field Parameters



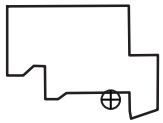
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

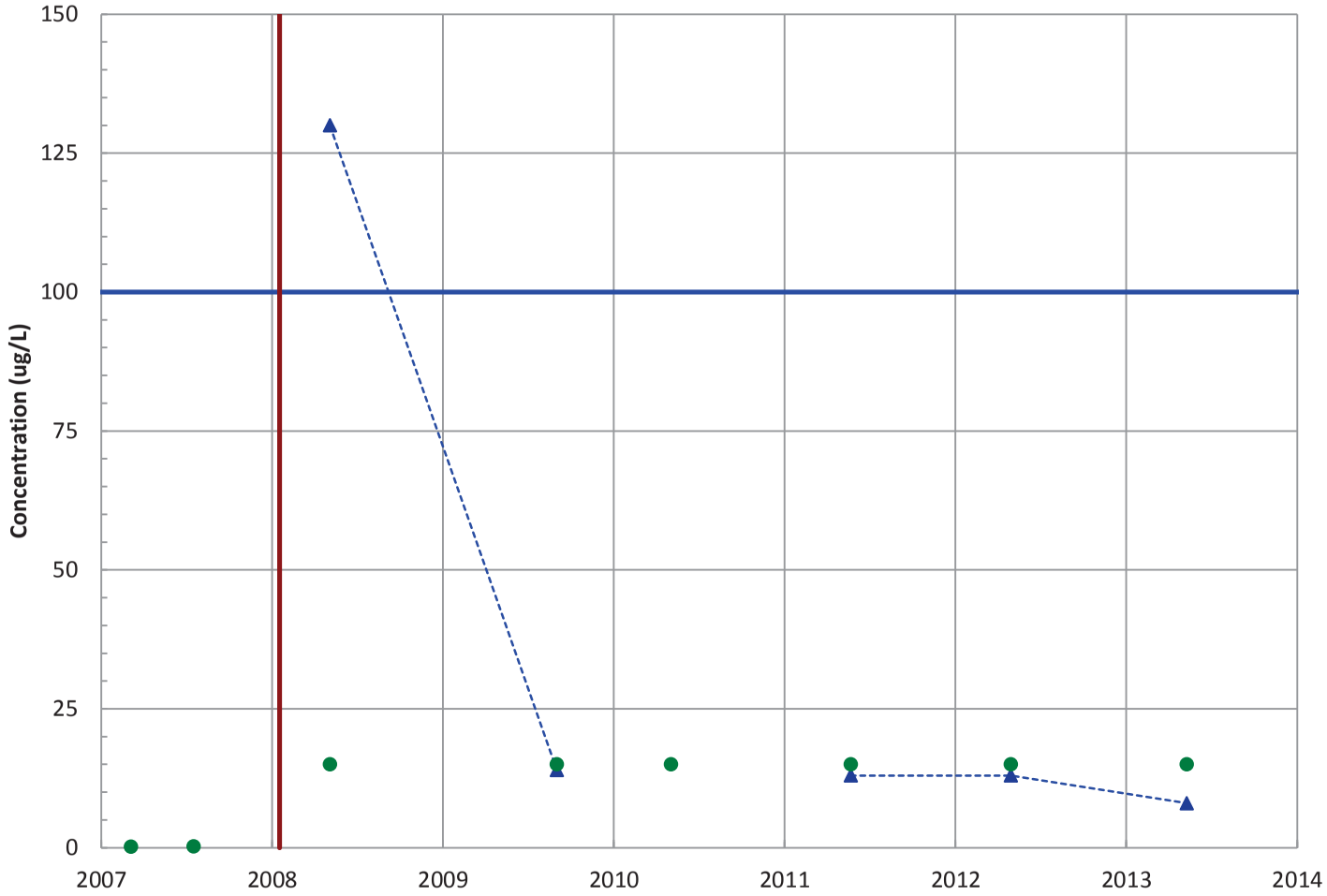
Well Location



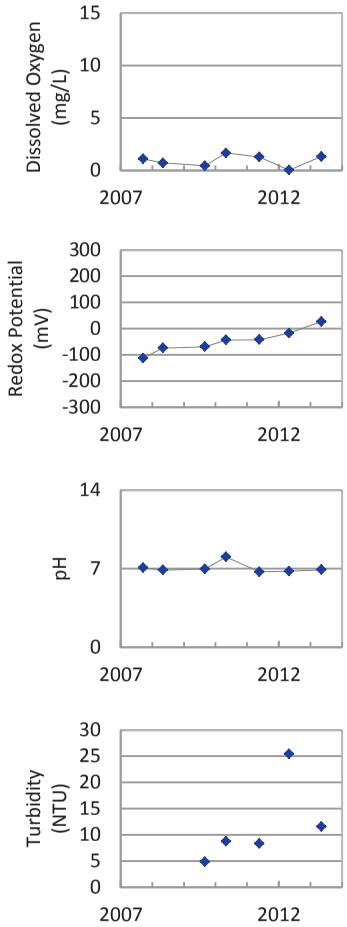
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/6/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1101
Chromium, Hexavalent Trend in Perched Aquifer



Field Parameters



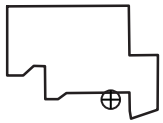
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

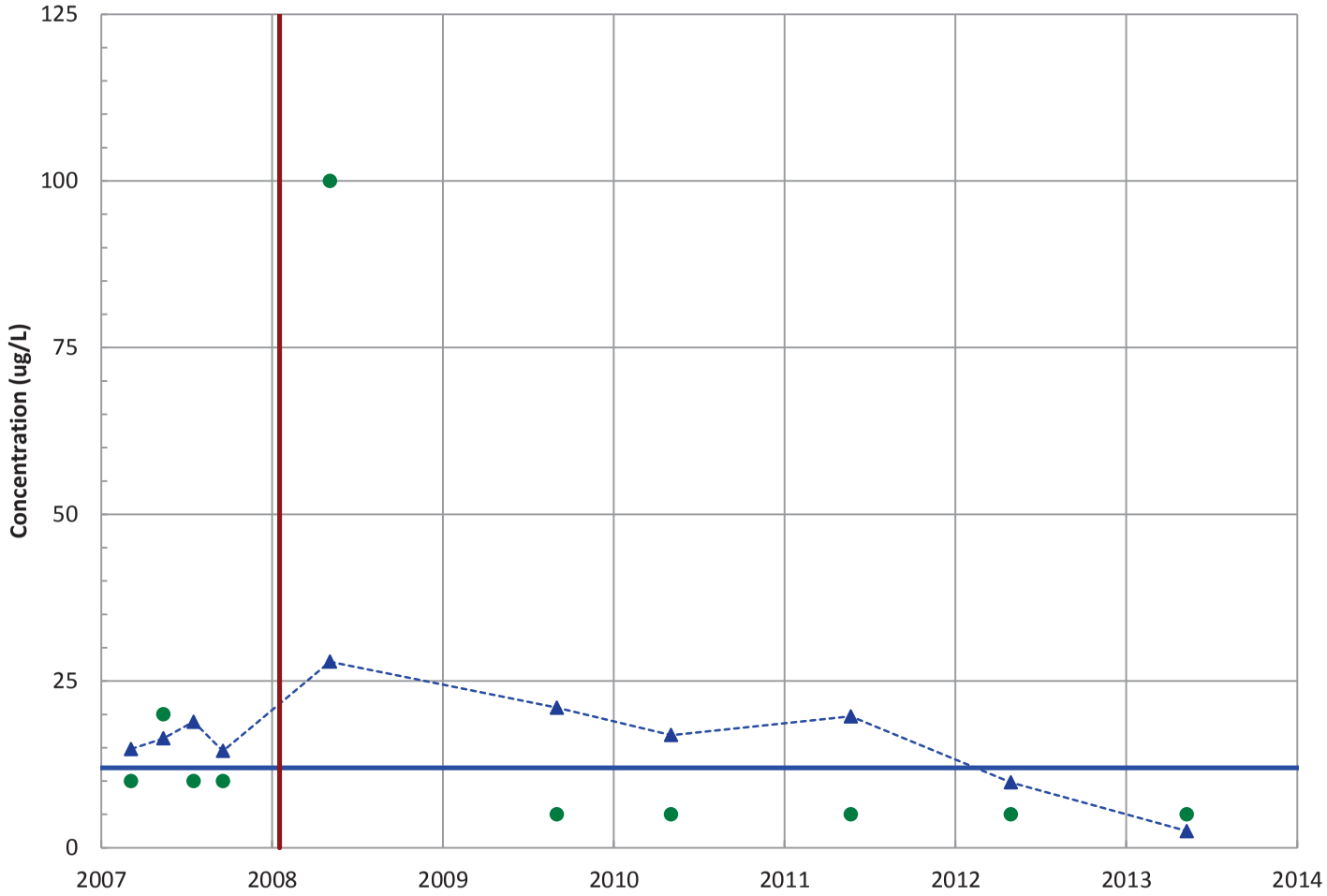
Well Location



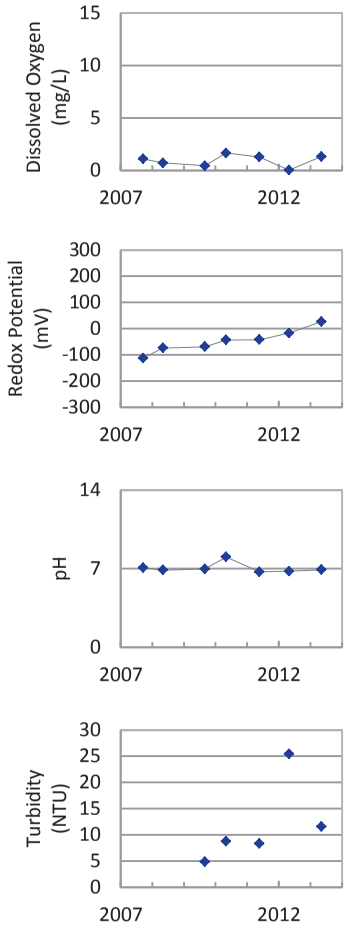
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/6/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1101
Arsenic Trend in Perched Aquifer



Field Parameters



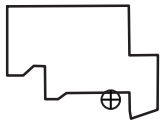
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Probably Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

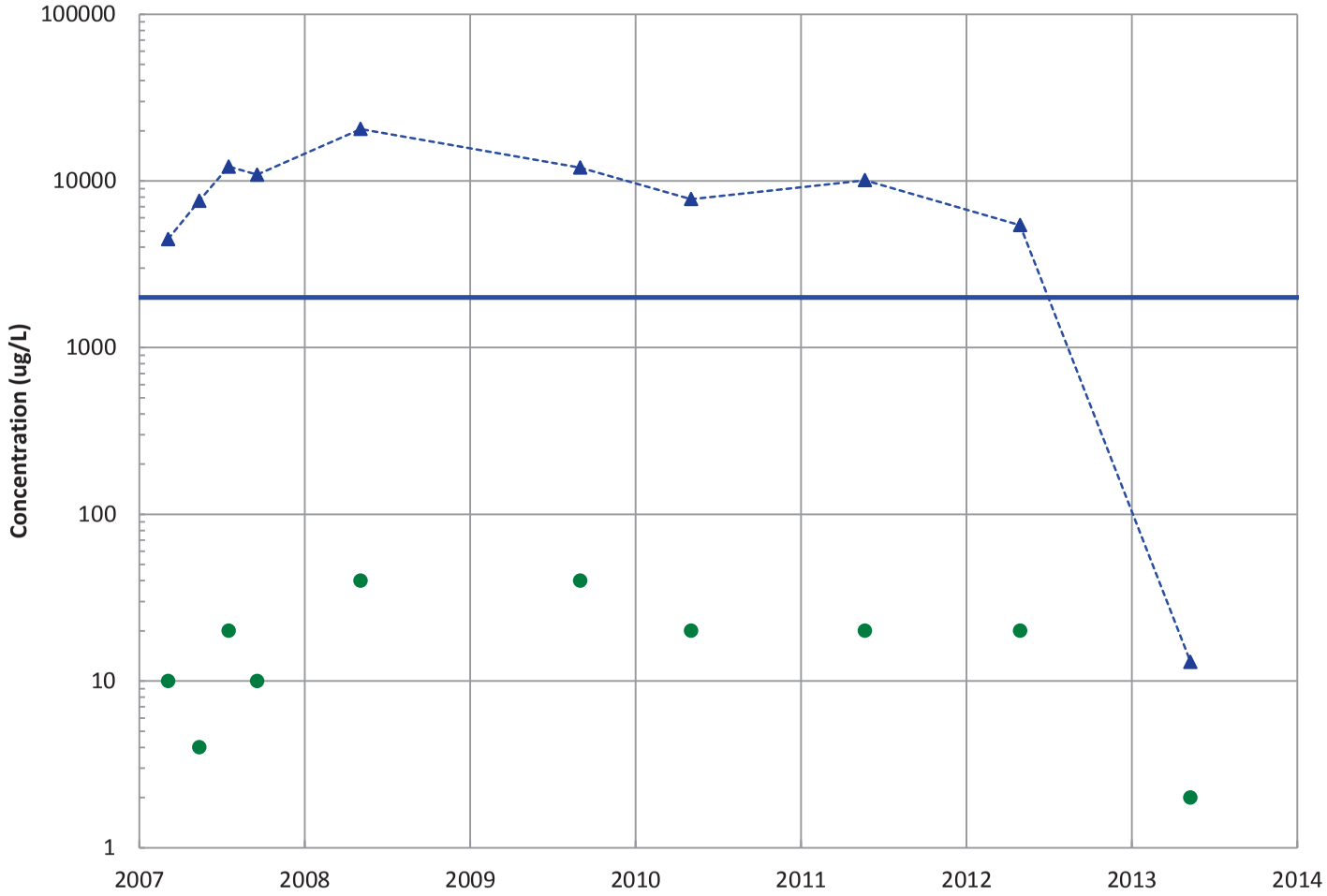
Well Location



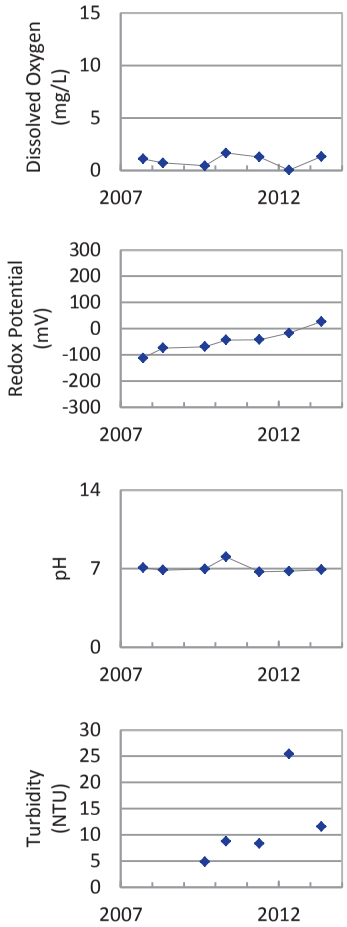
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/6/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1101
Barium Trend in Perched Aquifer



Field Parameters



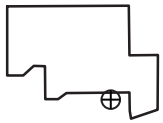
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

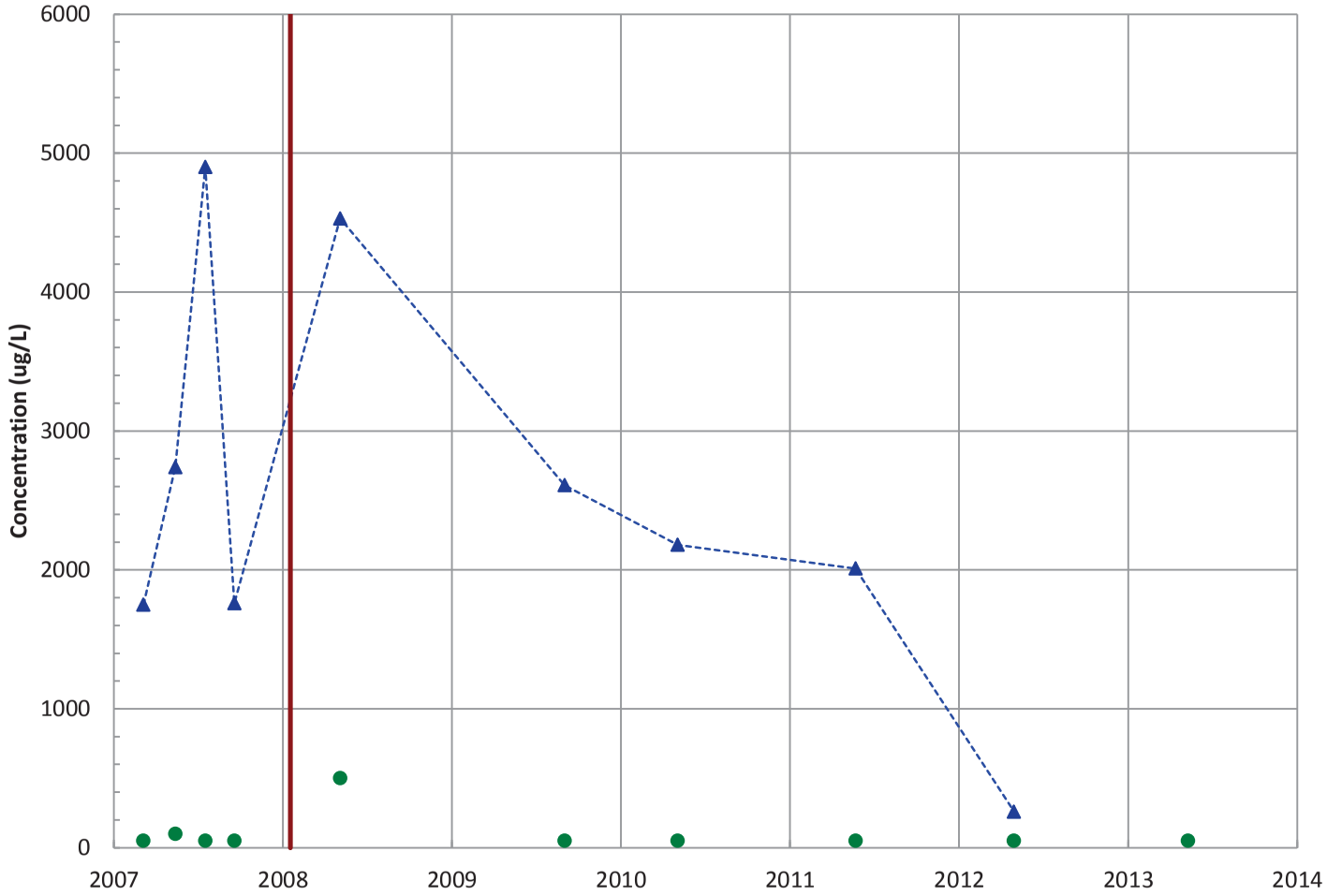
Well Location



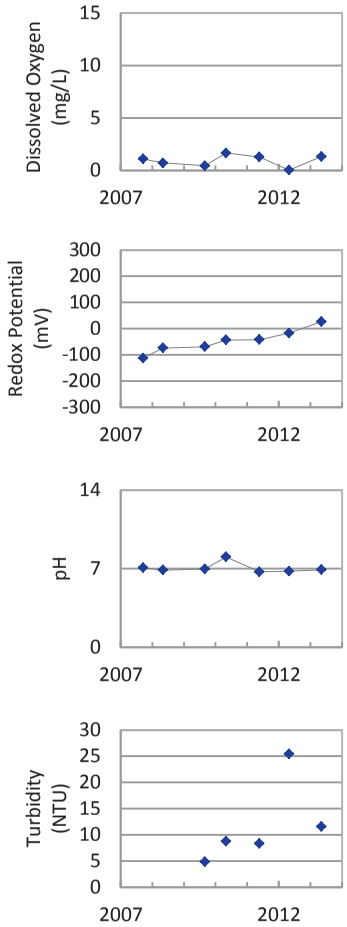
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/6/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1101
Iron Trend in Perched Aquifer



Field Parameters



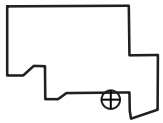
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Probably Decreasing

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

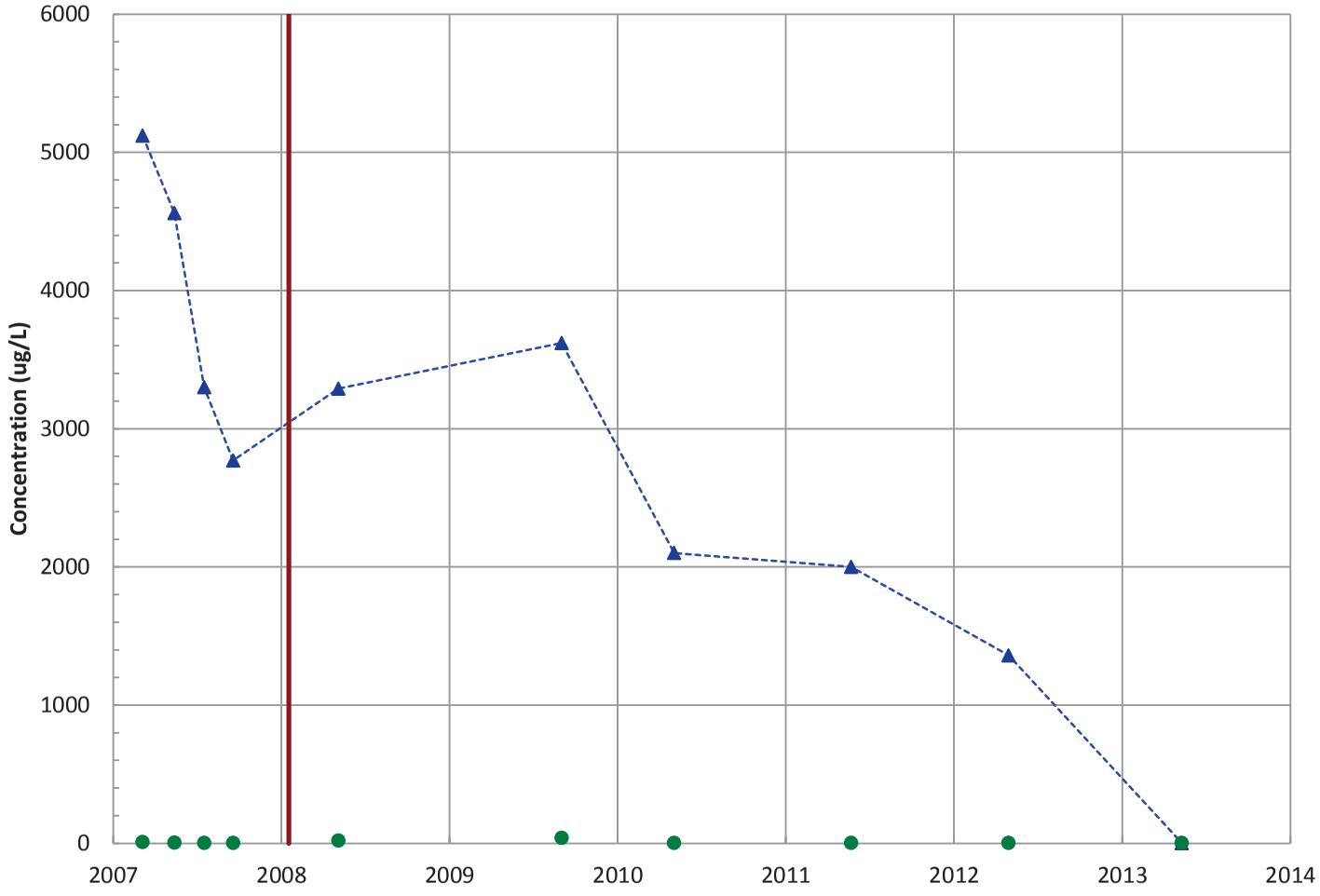
Well Location



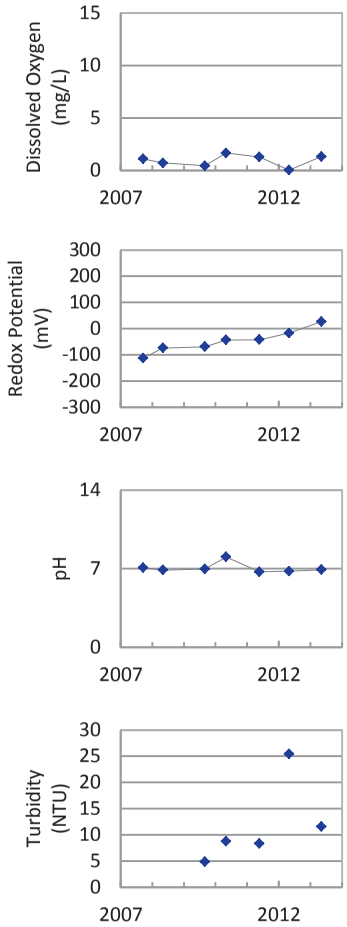
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/6/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1101
Manganese Trend in Perched Aquifer



Field Parameters



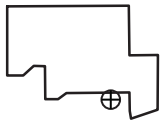
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Stable

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

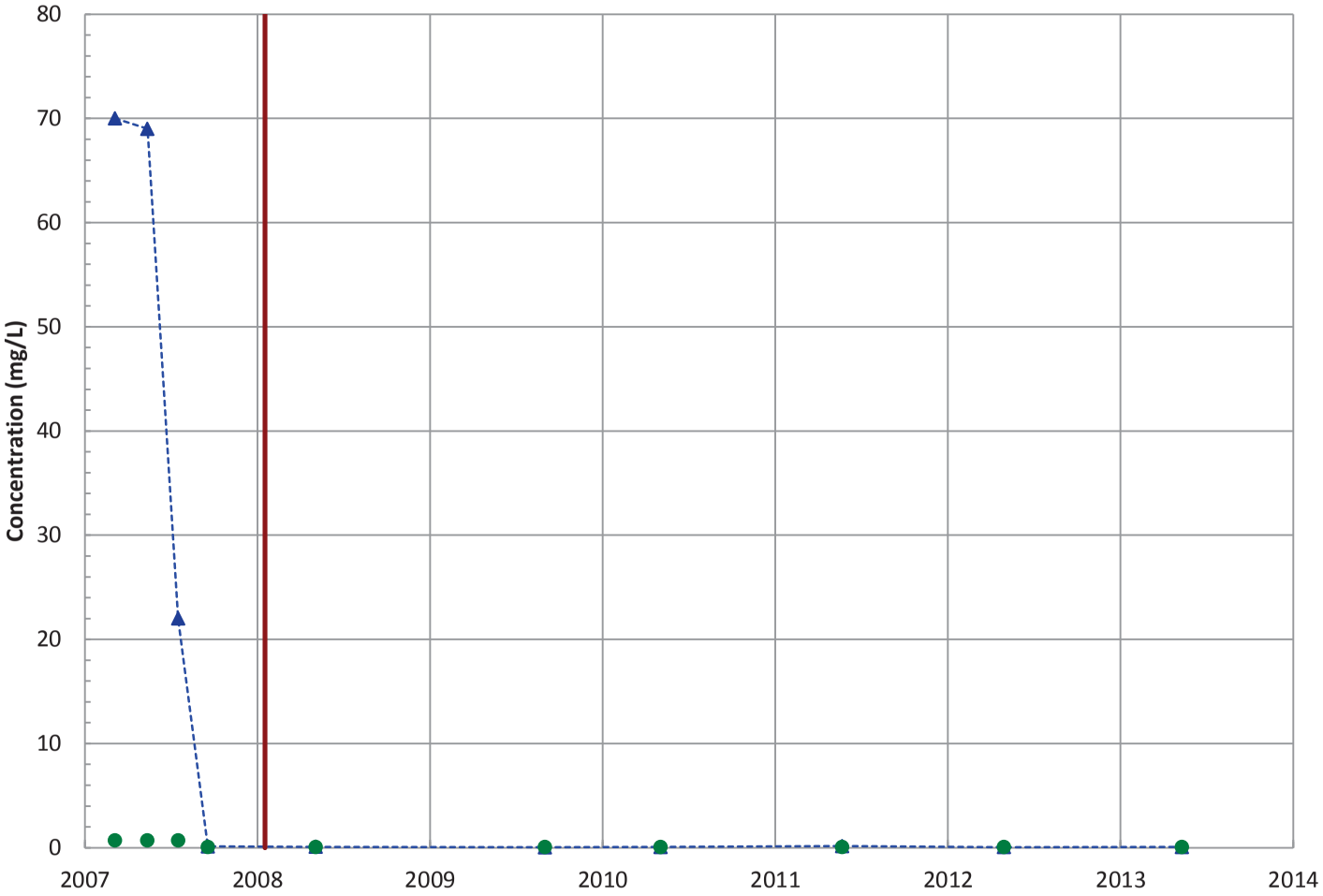
Well Location



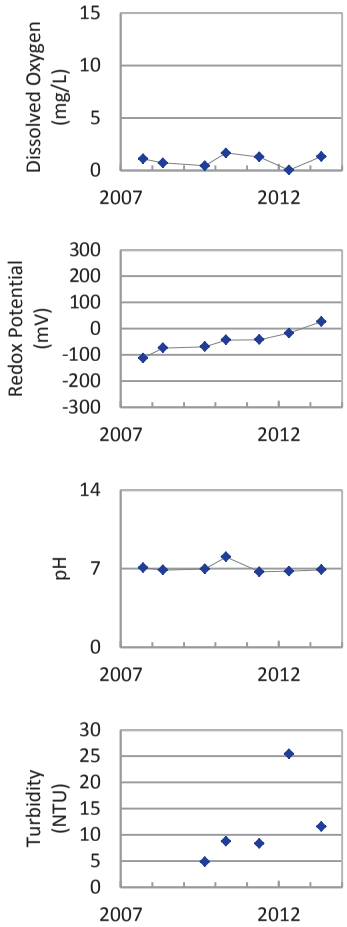
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/6/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1101
Acetic Acid Trend in Perched Aquifer



Field Parameters



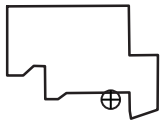
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Stable

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
Injection Dates

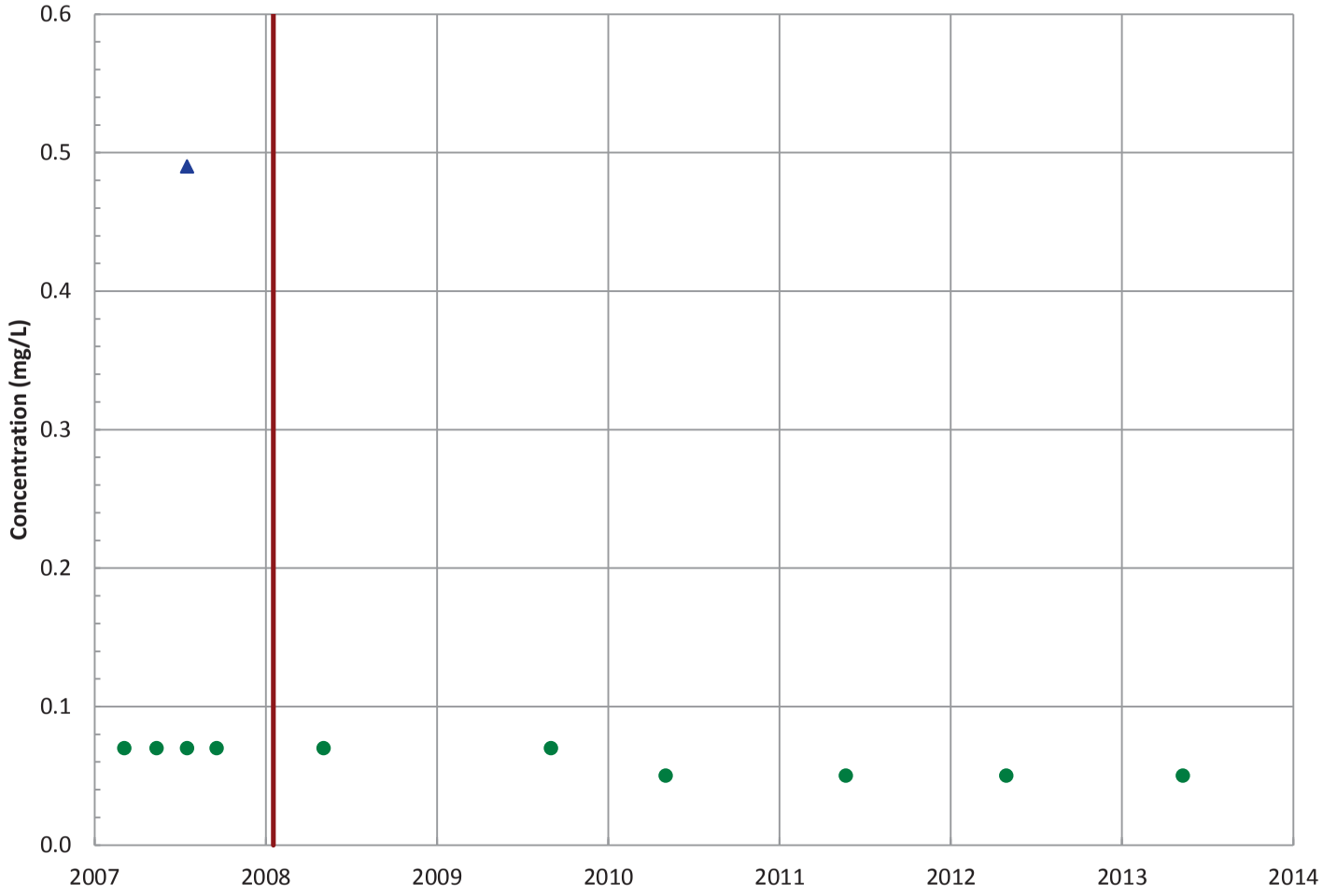
Well Location



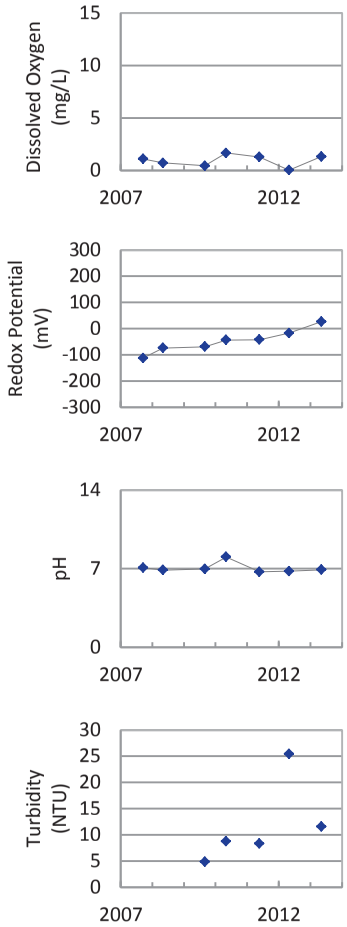
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/6/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1101
Butyric Acid Trend in Perched Aquifer



Field Parameters



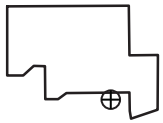
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Injection Dates

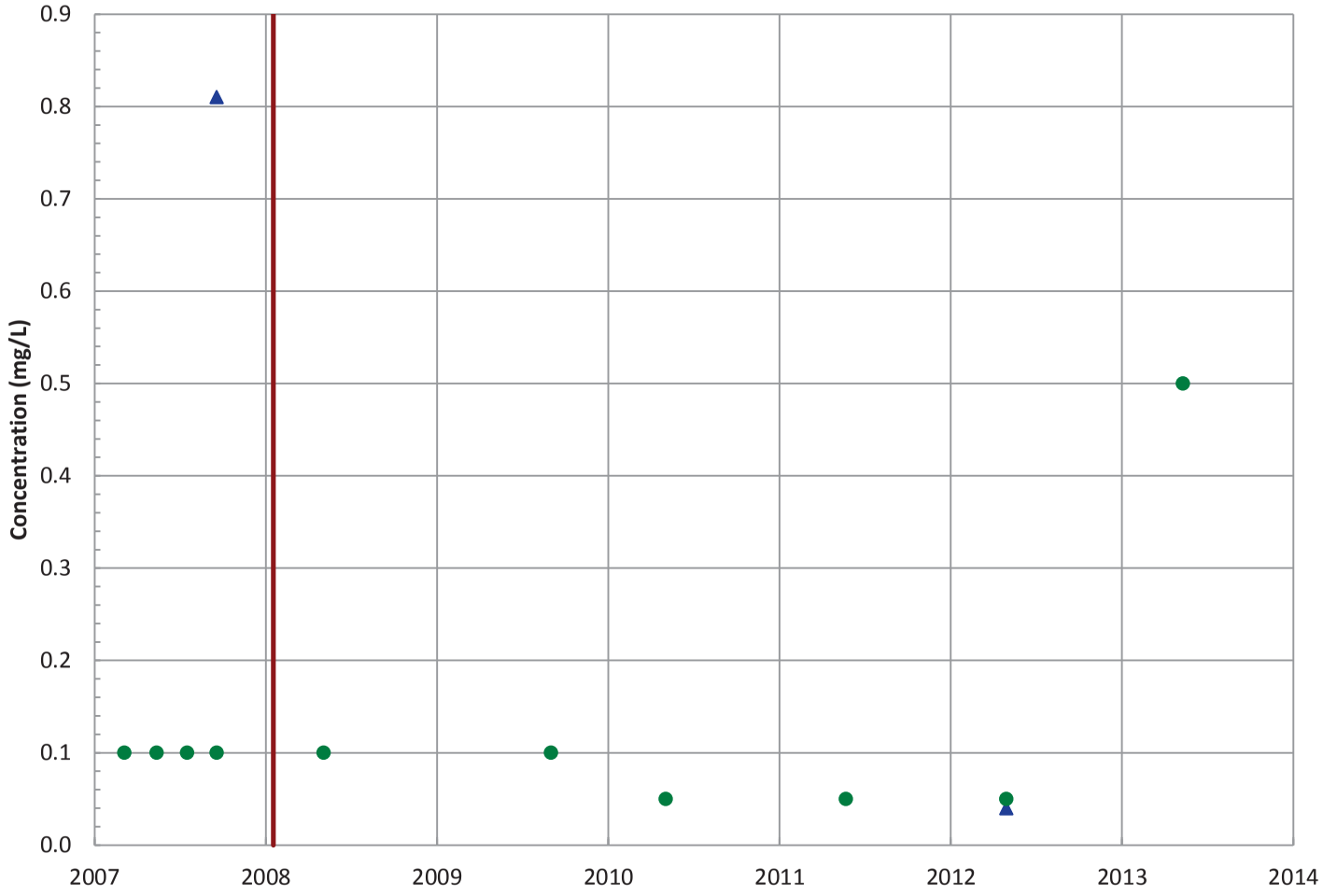
Well Location



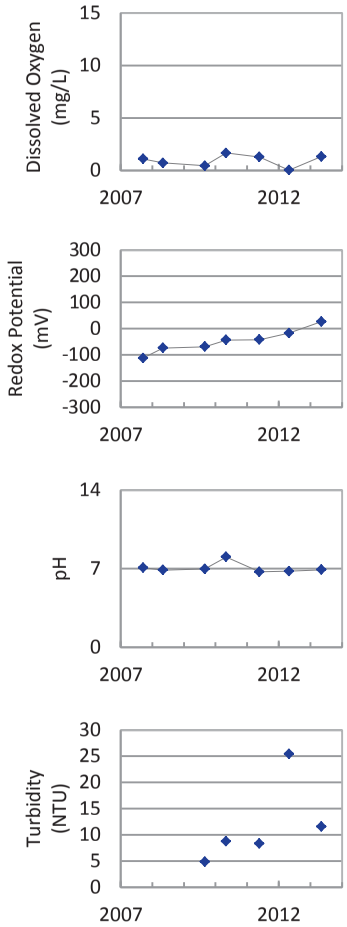
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/6/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1101
Hexanoic Acid Trend in Perched Aquifer



Field Parameters



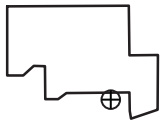
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
Injection Dates

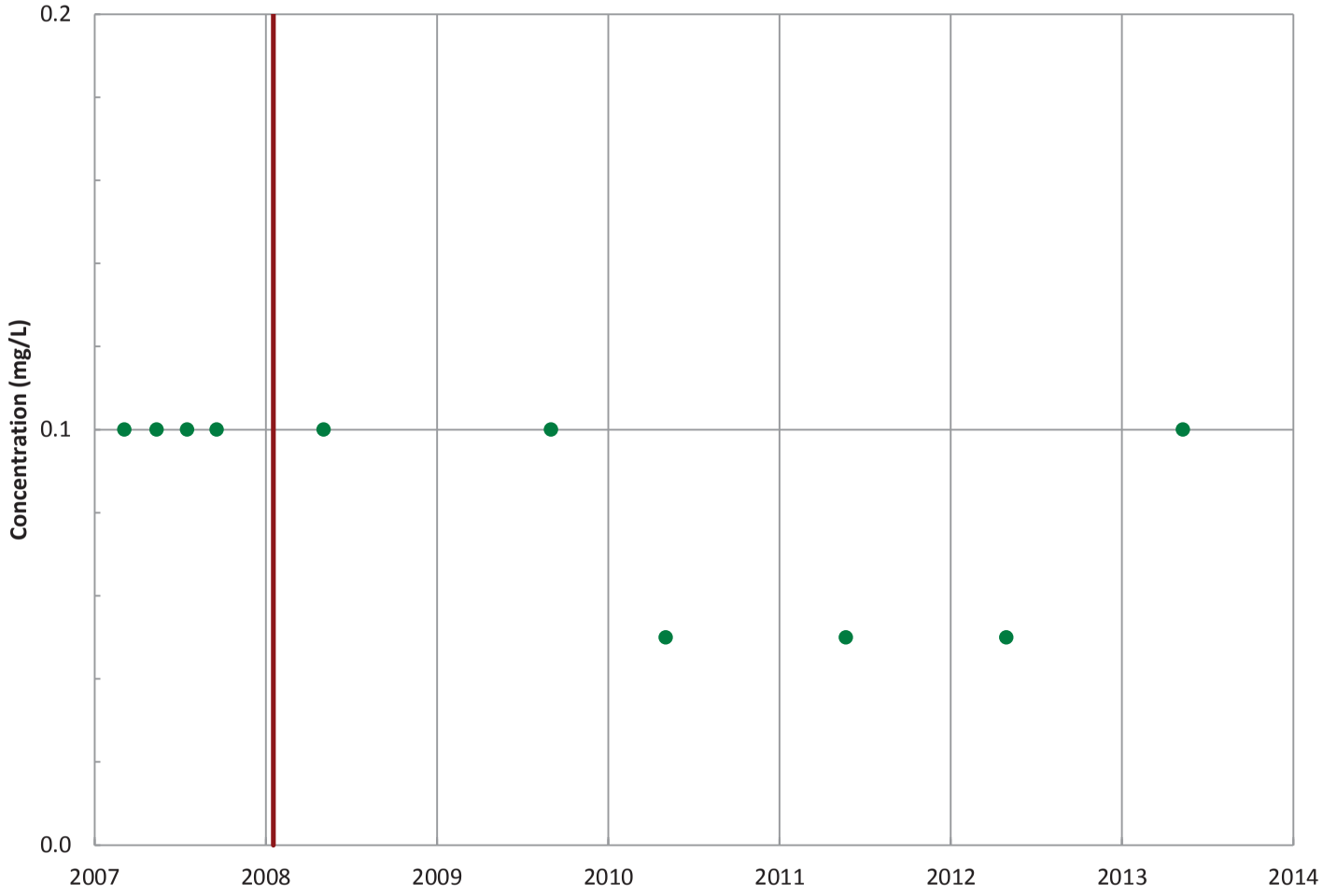
Well Location



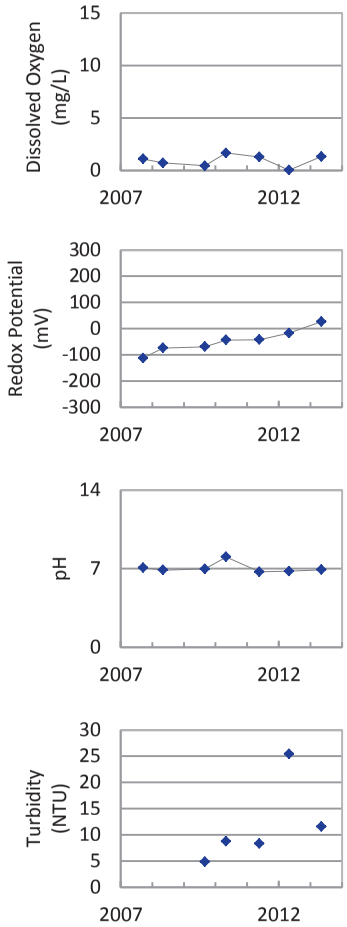
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/6/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1101
i-Hexanoic Acid Trend in Perched Aquifer



Field Parameters



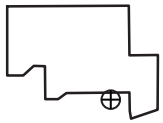
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
Injection Dates

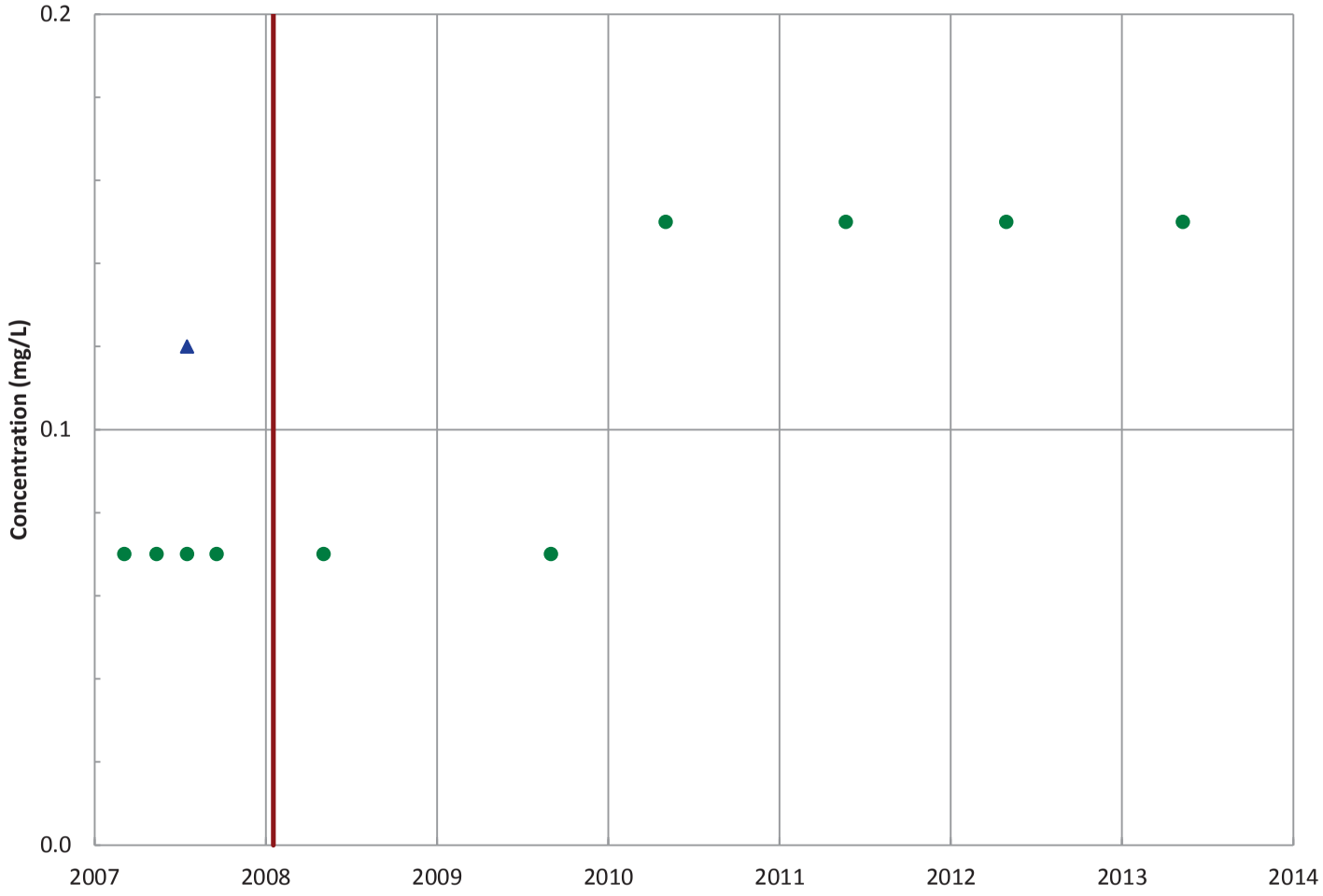
Well Location



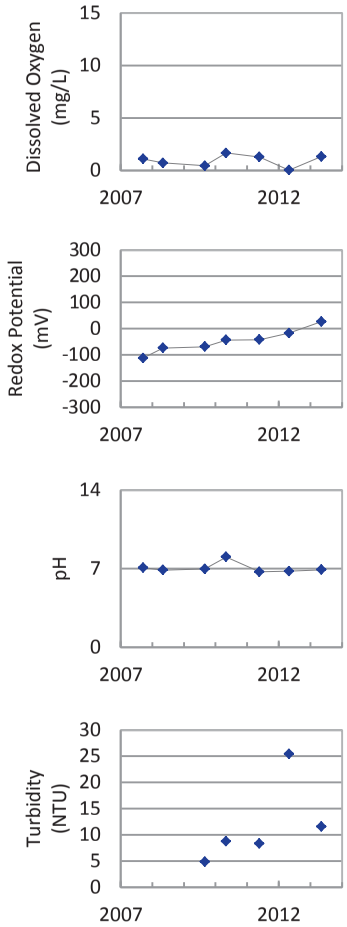
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/6/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1101
i-Pentanoic Acid Trend in Perched Aquifer



Field Parameters



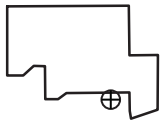
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
Injection Dates

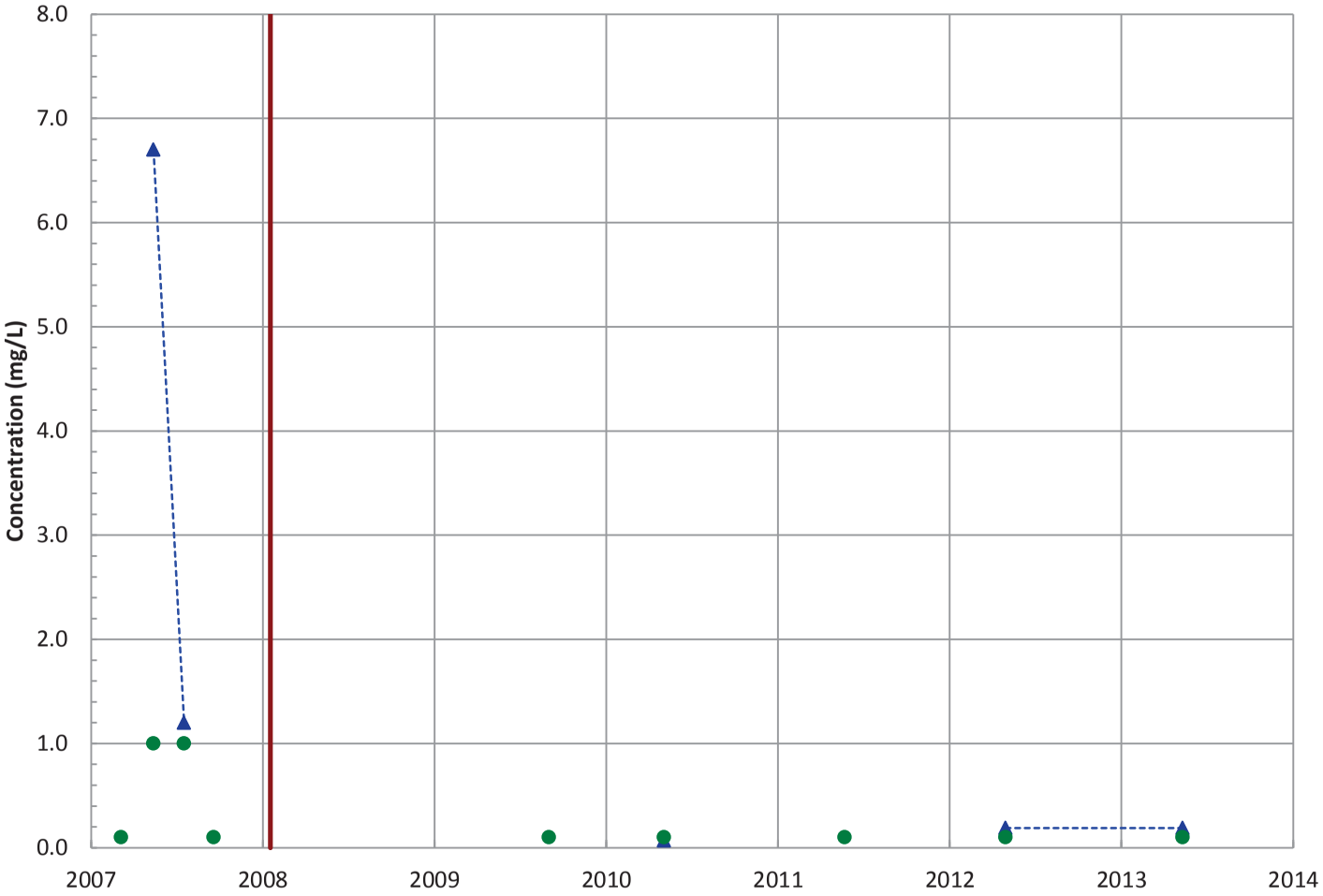
Well Location



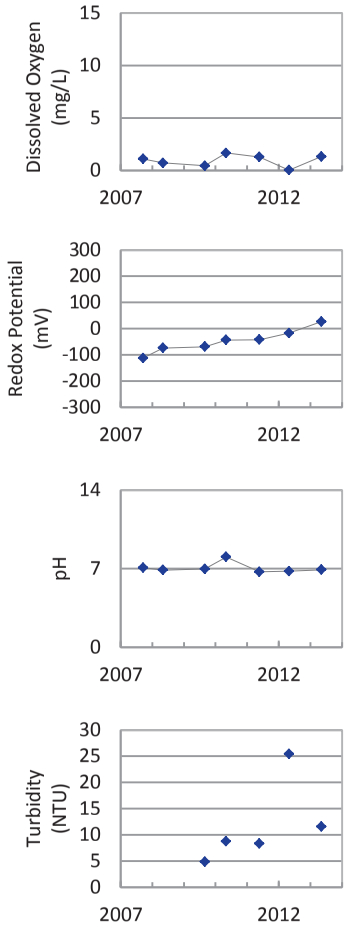
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/6/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1101
Lactic Acid and HIBA Trend in Perched Aquifer



Field Parameters



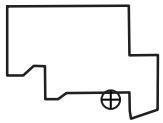
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Probably Decreasing
Last 4 Samples: No Trend

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

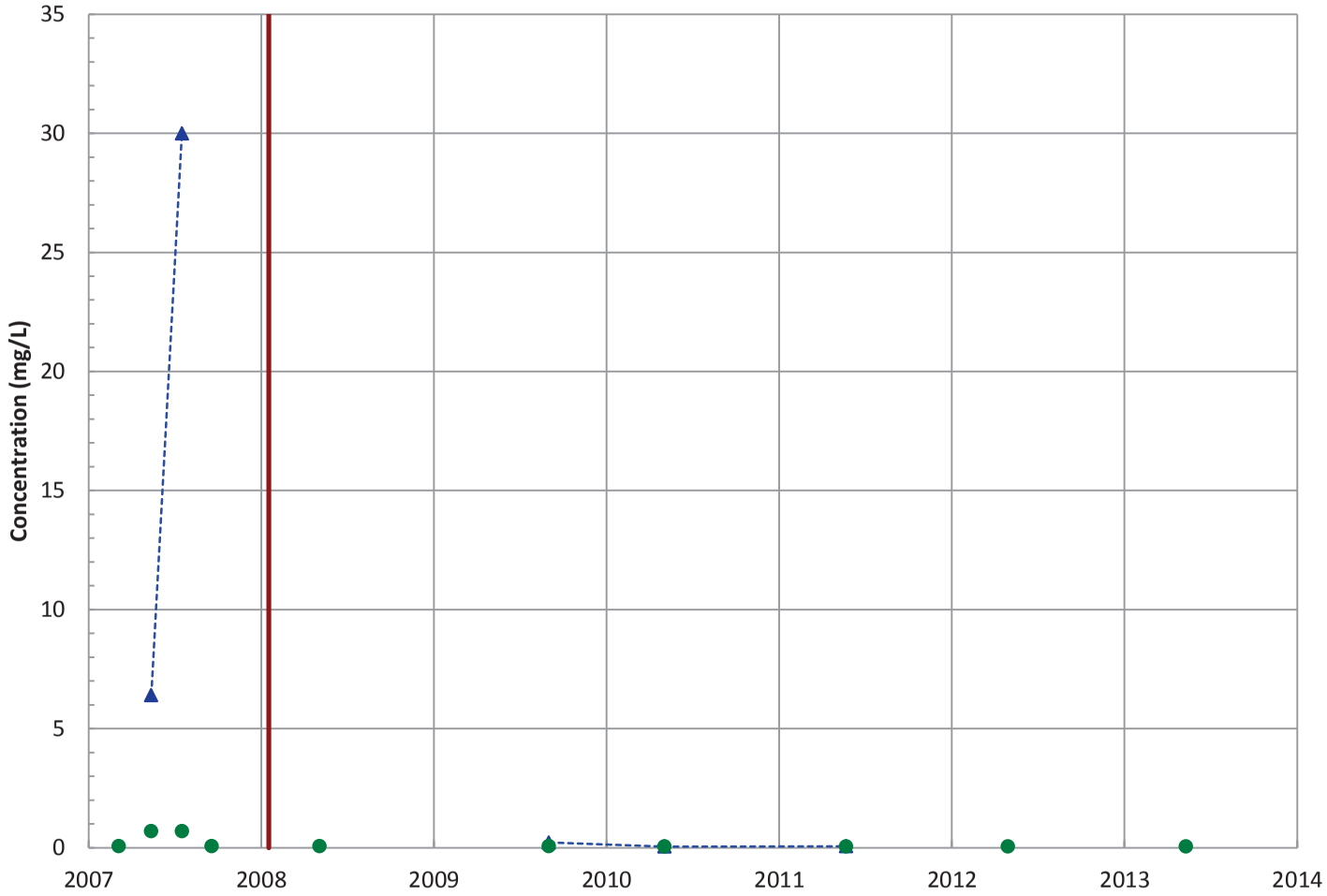
Well Location



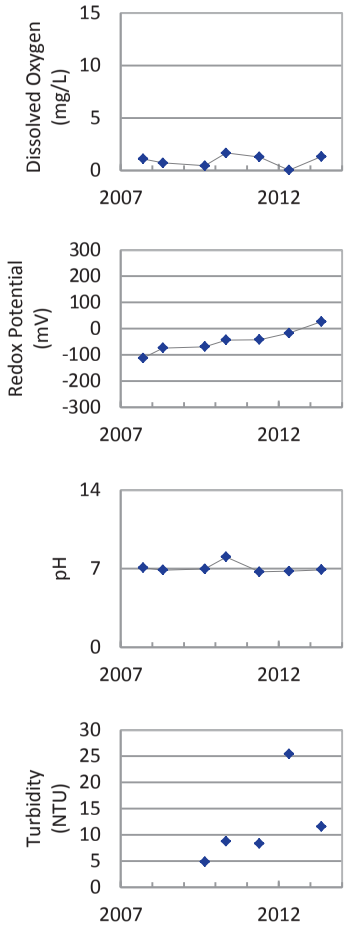
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/6/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1101
Propionic Acid Trend in Perched Aquifer



Field Parameters



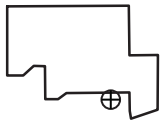
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Injection Dates

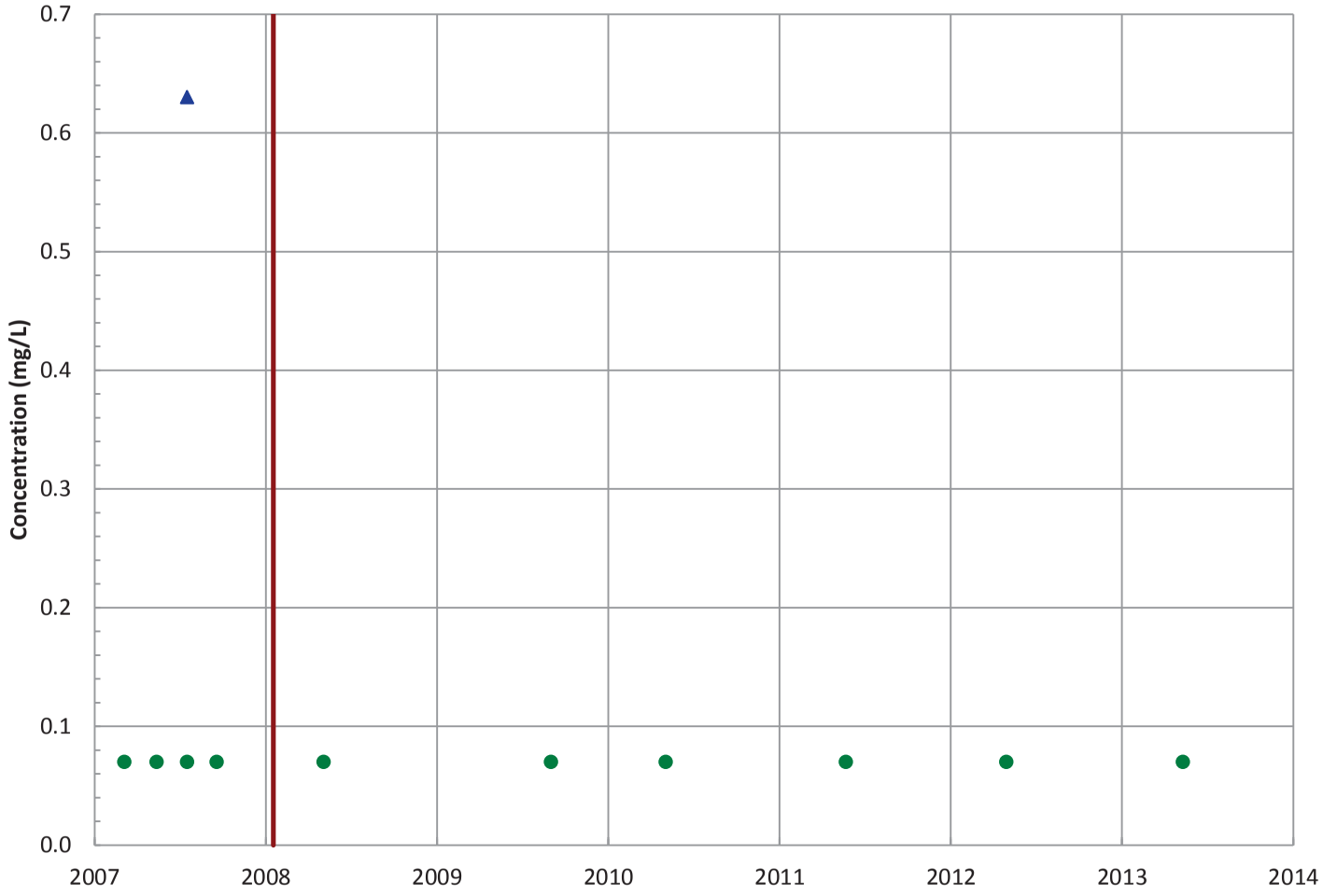
Well Location



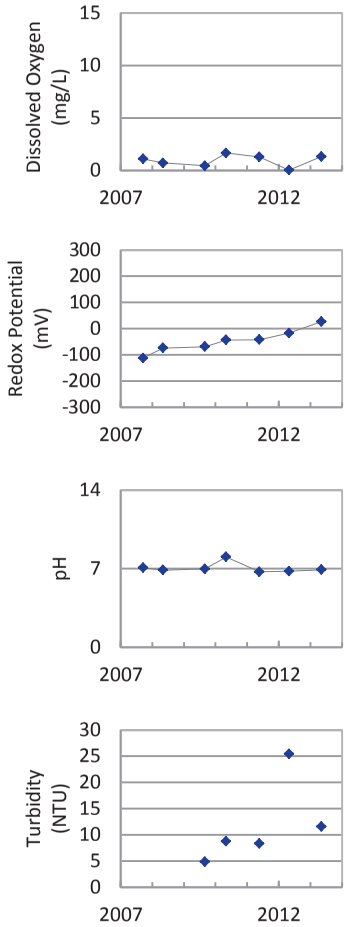
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/6/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1101
Pentanoic Acid Trend in Perched Aquifer



Field Parameters



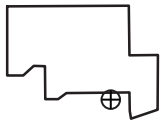
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Injection Dates

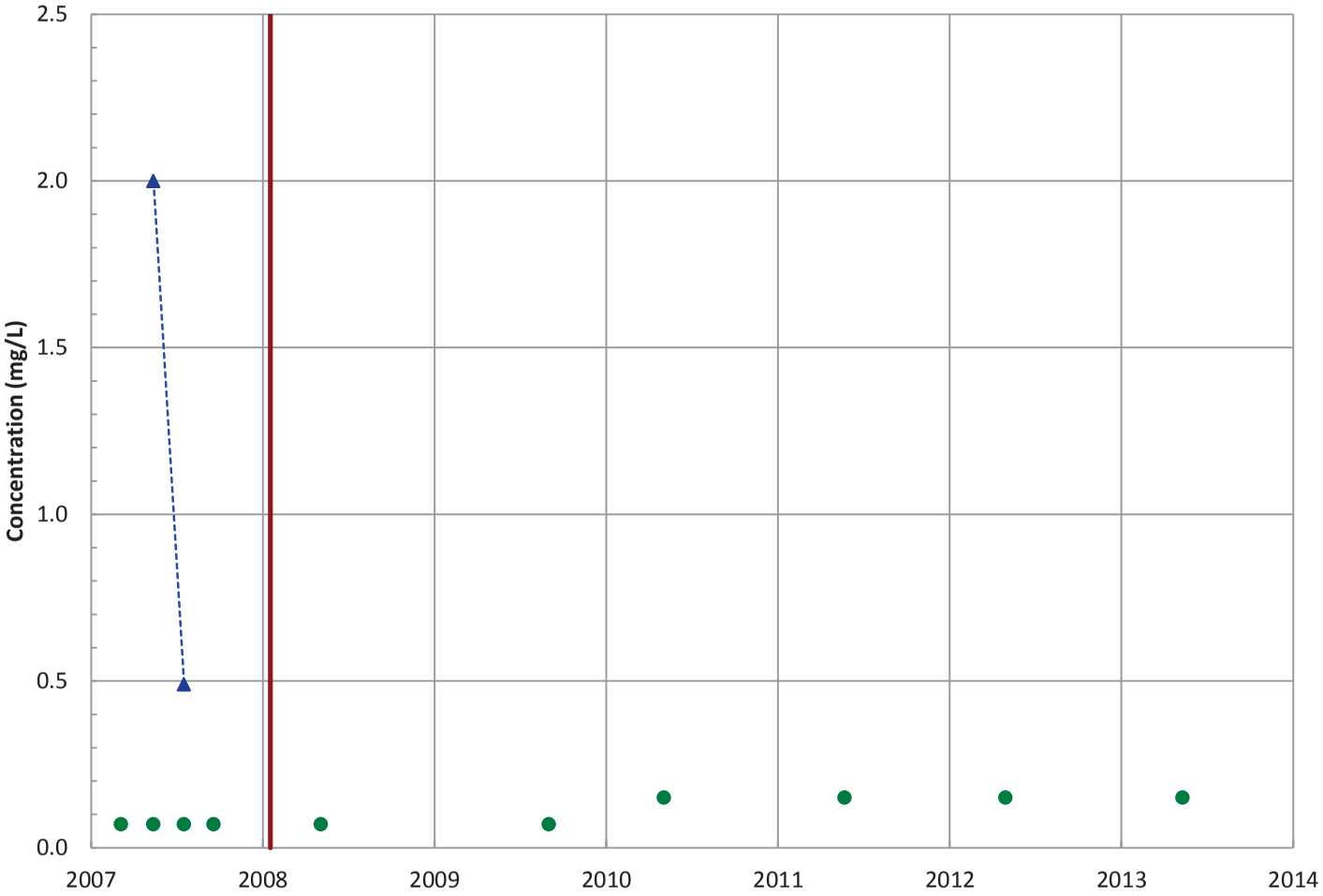
Well Location



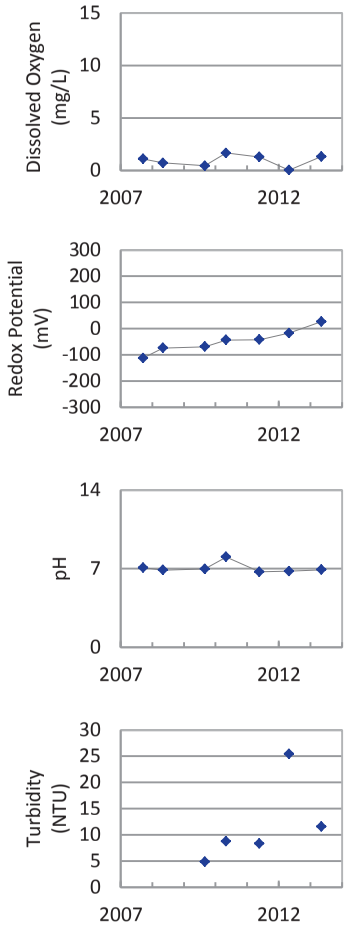
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/6/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1101
Pyruvic Acid Trend in Perched Aquifer



Field Parameters



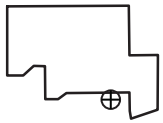
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

▲ Measured Value
● Sample Detection Limit
- - - - Concentration Trend
— Injection Dates

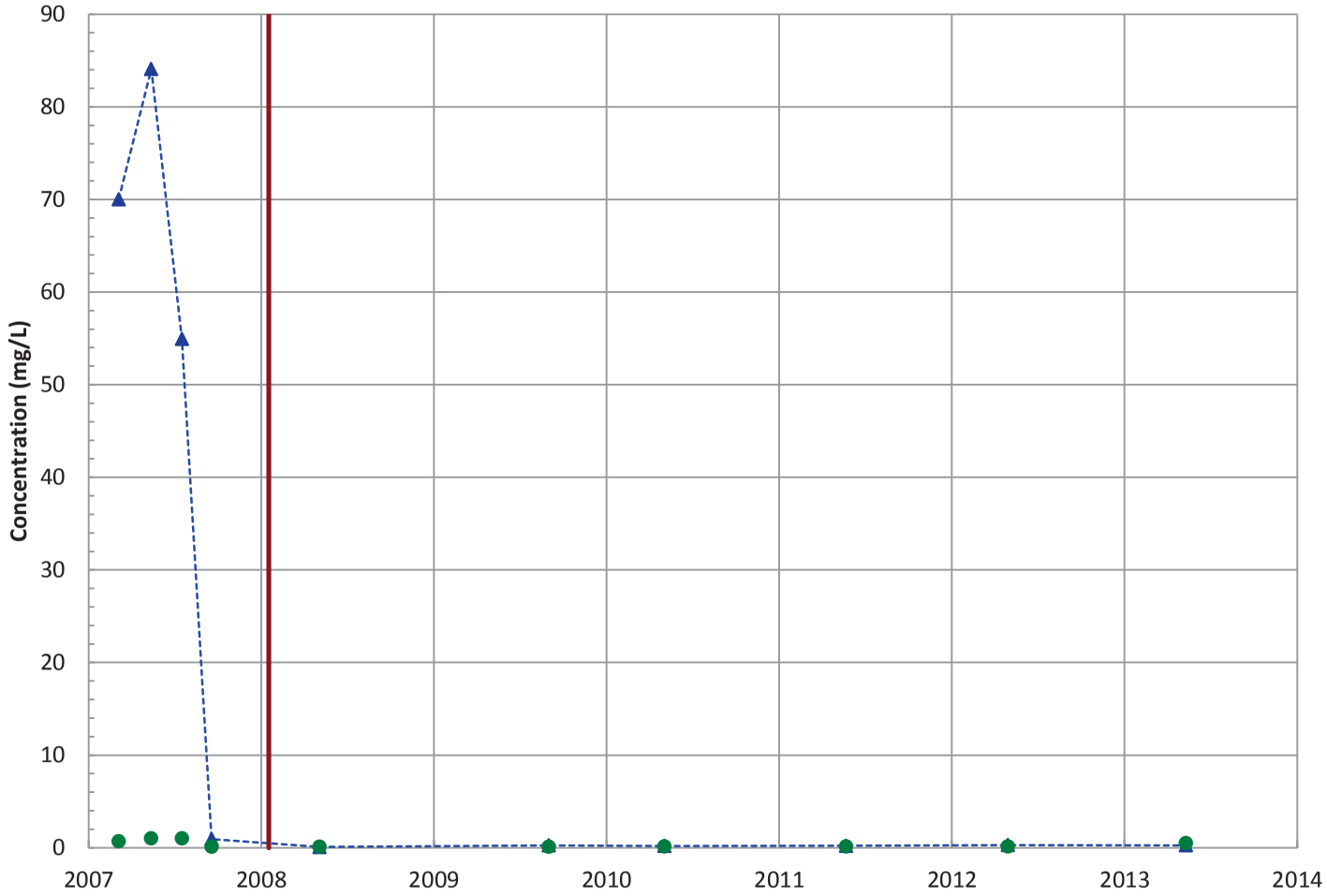
Well Location



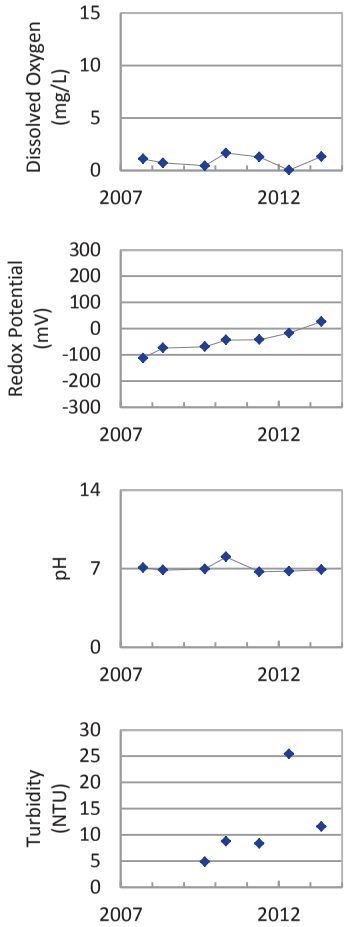
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/6/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1101
Total Volatile Fatty Acids Trend in Perched Aquifer



Field Parameters



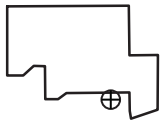
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Probably Increasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
Injection Dates

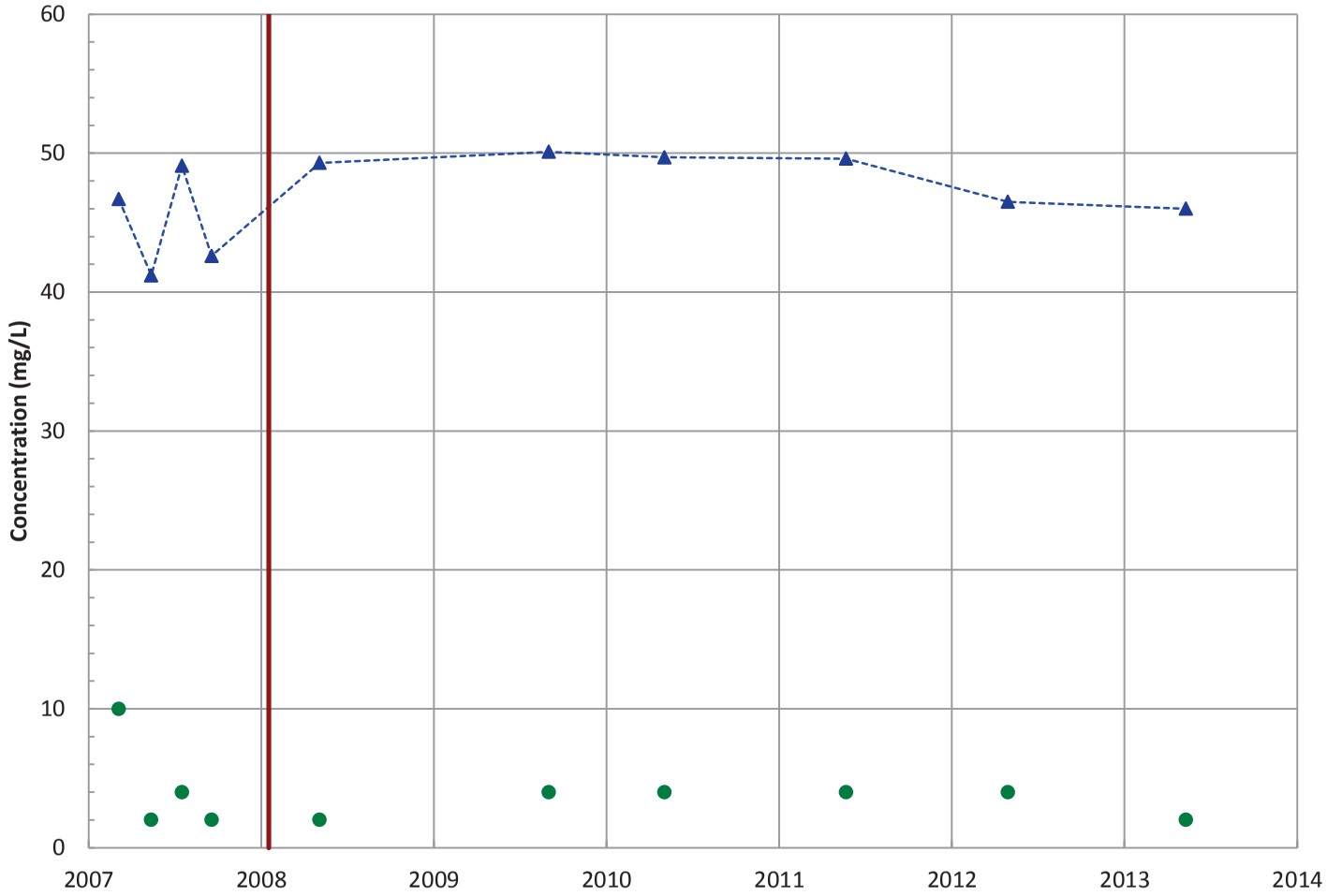
Well Location



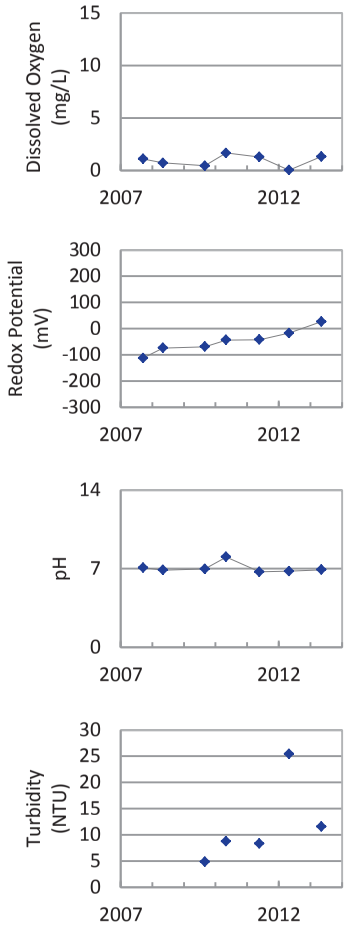
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/6/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1101
Chloride (as Cl) Trend in Perched Aquifer



Field Parameters



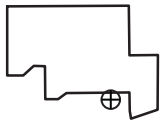
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Decreasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
═══ Injection Dates

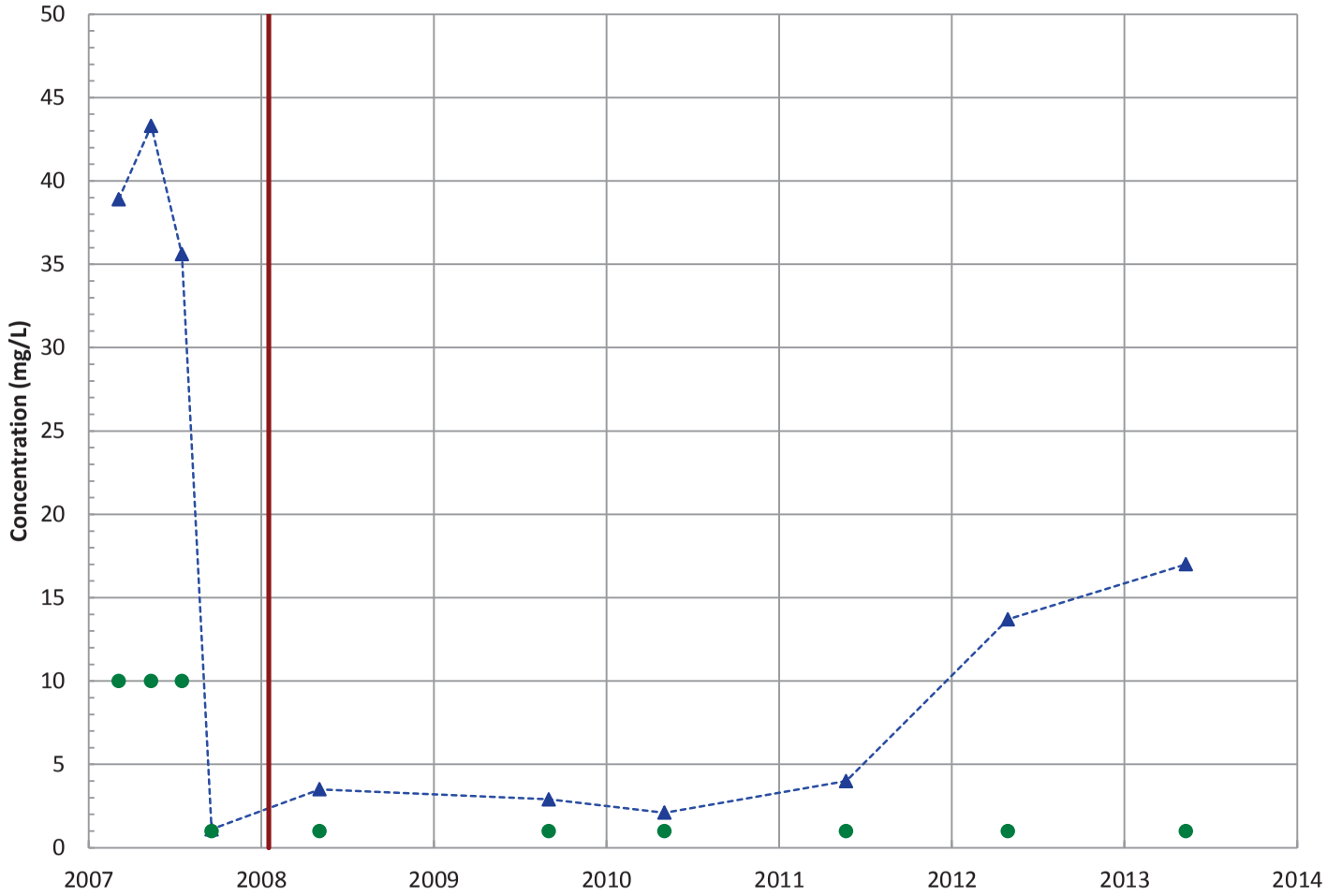
Well Location



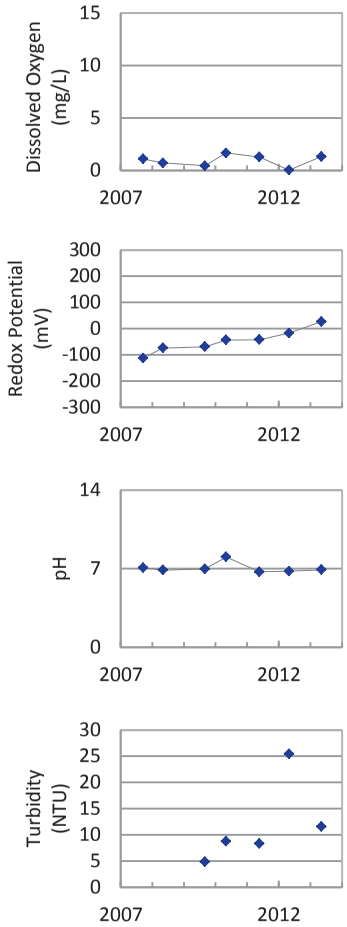
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/6/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1101
Total Organic Carbon Trend in Perched Aquifer



Field Parameters



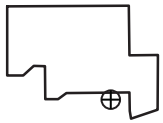
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Increasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Increasing

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

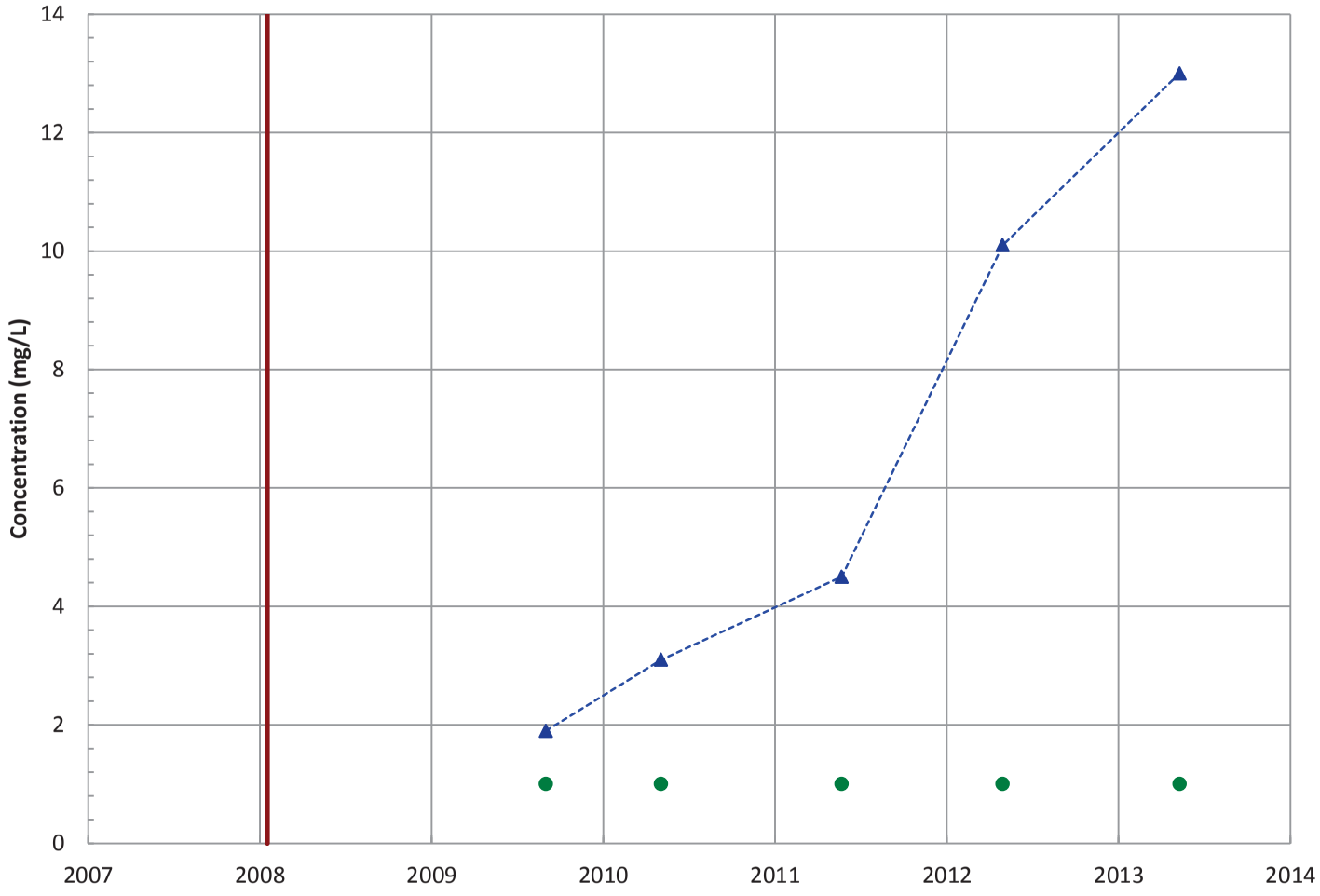
Well Location



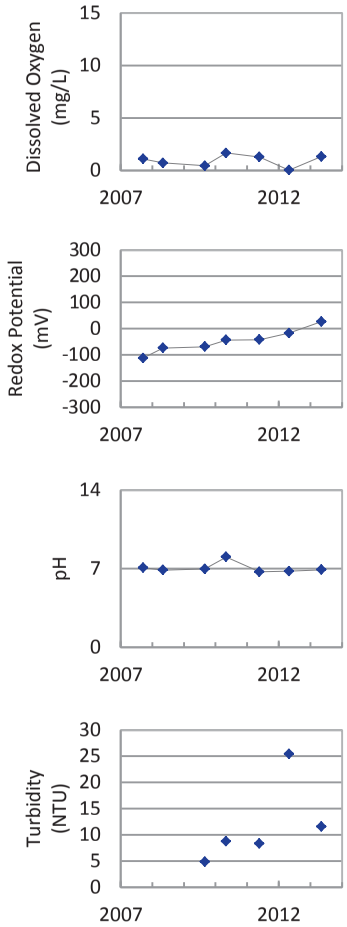
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/6/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1101
Dissolved Organic Carbon (DOC) Trend in Perched Aquifer



Field Parameters



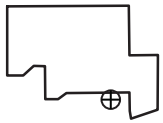
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Increasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Increasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
Injection Dates

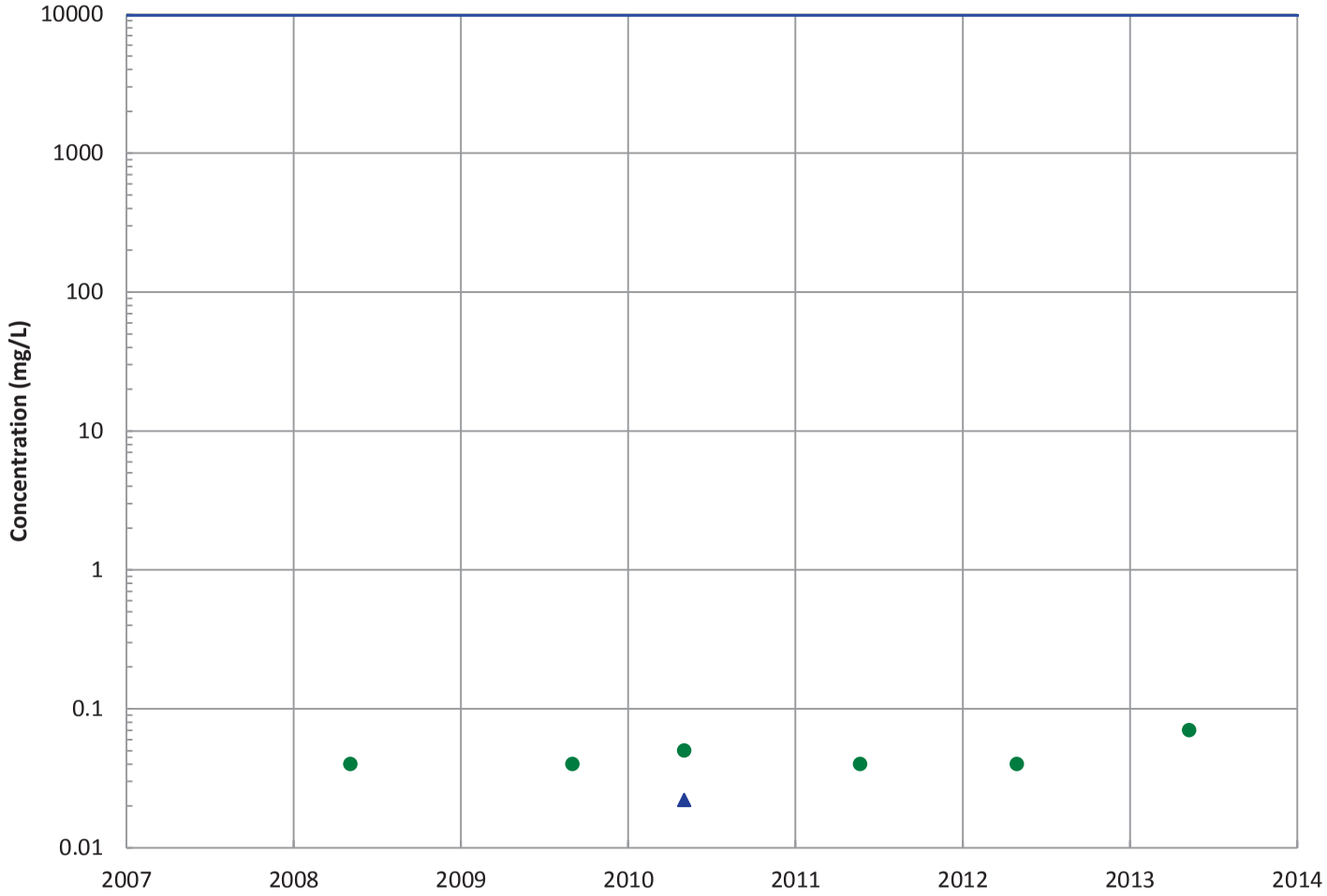
Well Location



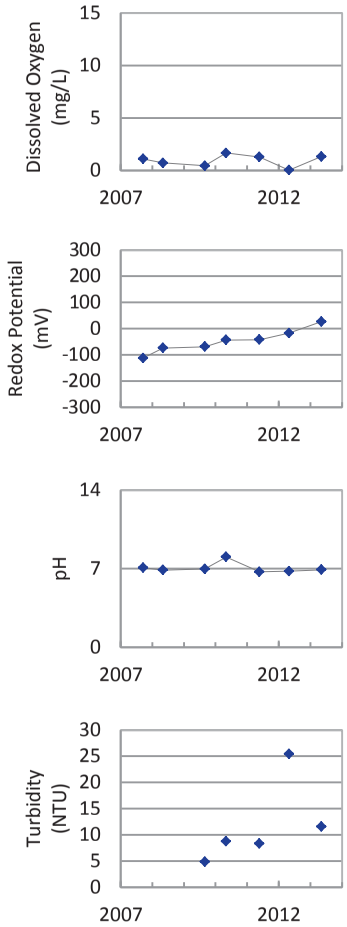
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/3/2009 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1101
Nitrate as N Trend in Perched Aquifer



Field Parameters



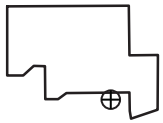
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

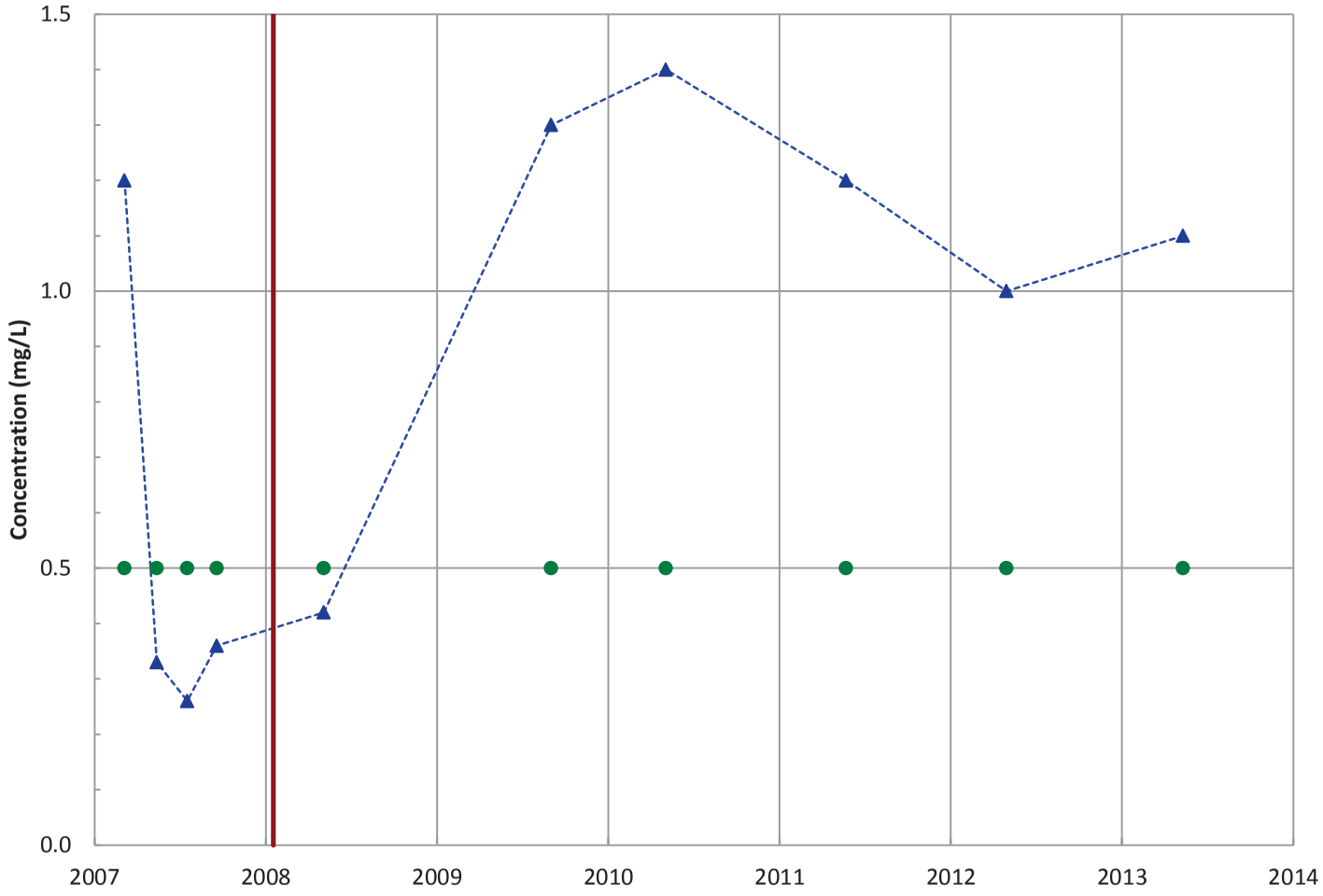
Well Location



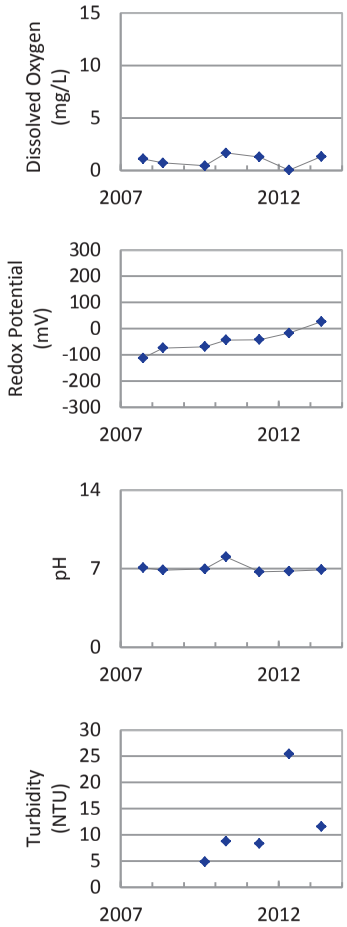
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/5/2008 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1101
Sulfate (as SO4) Trend in Perched Aquifer



Field Parameters



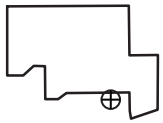
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Probably Decreasing

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

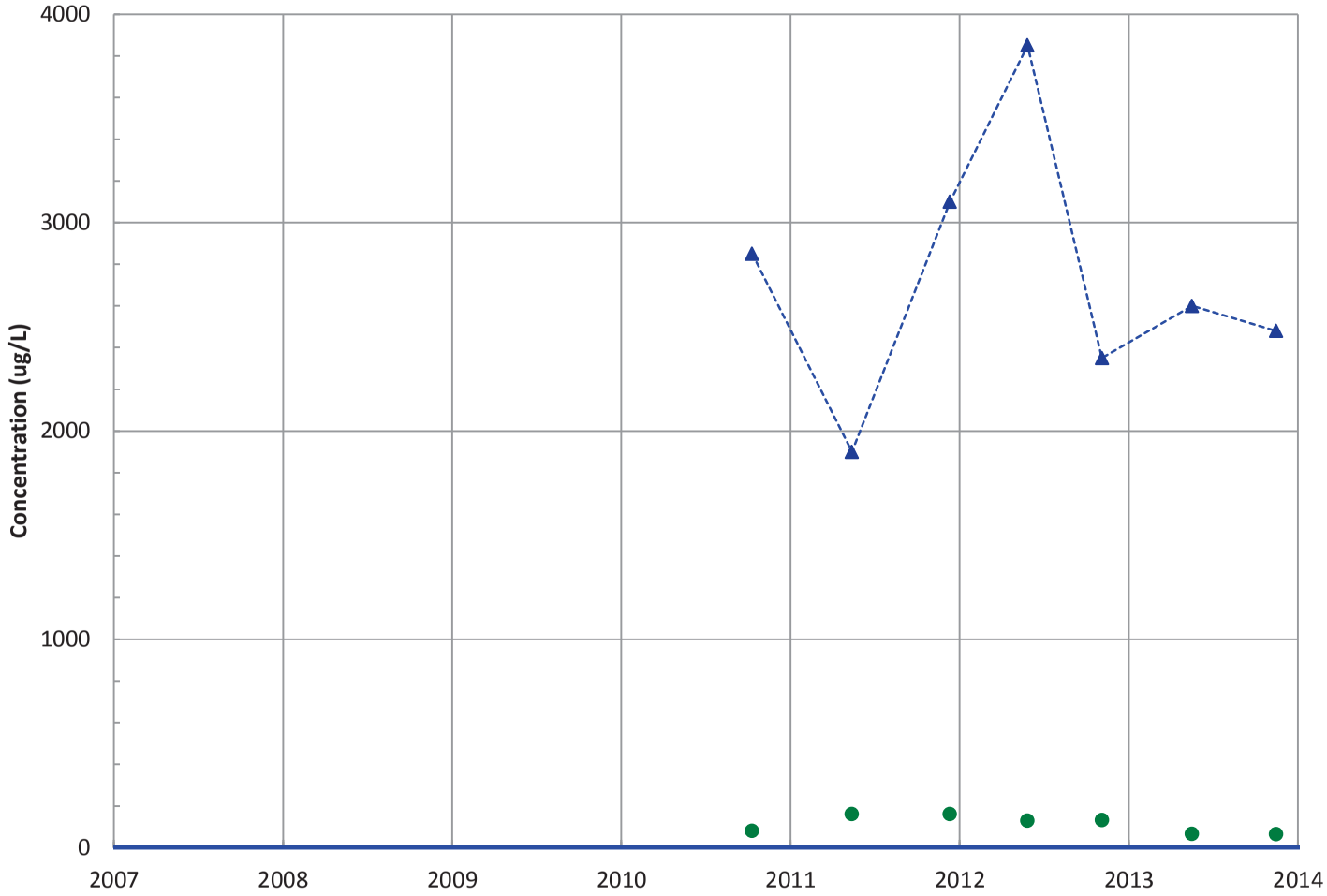
Well Location



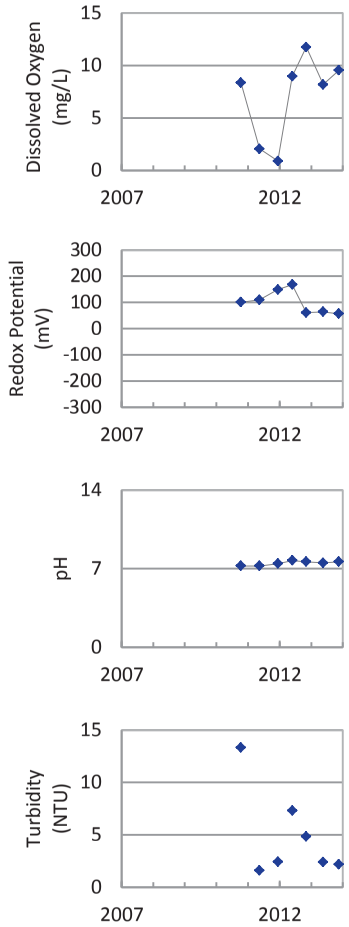
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/6/2007 to 5/15/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1120
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

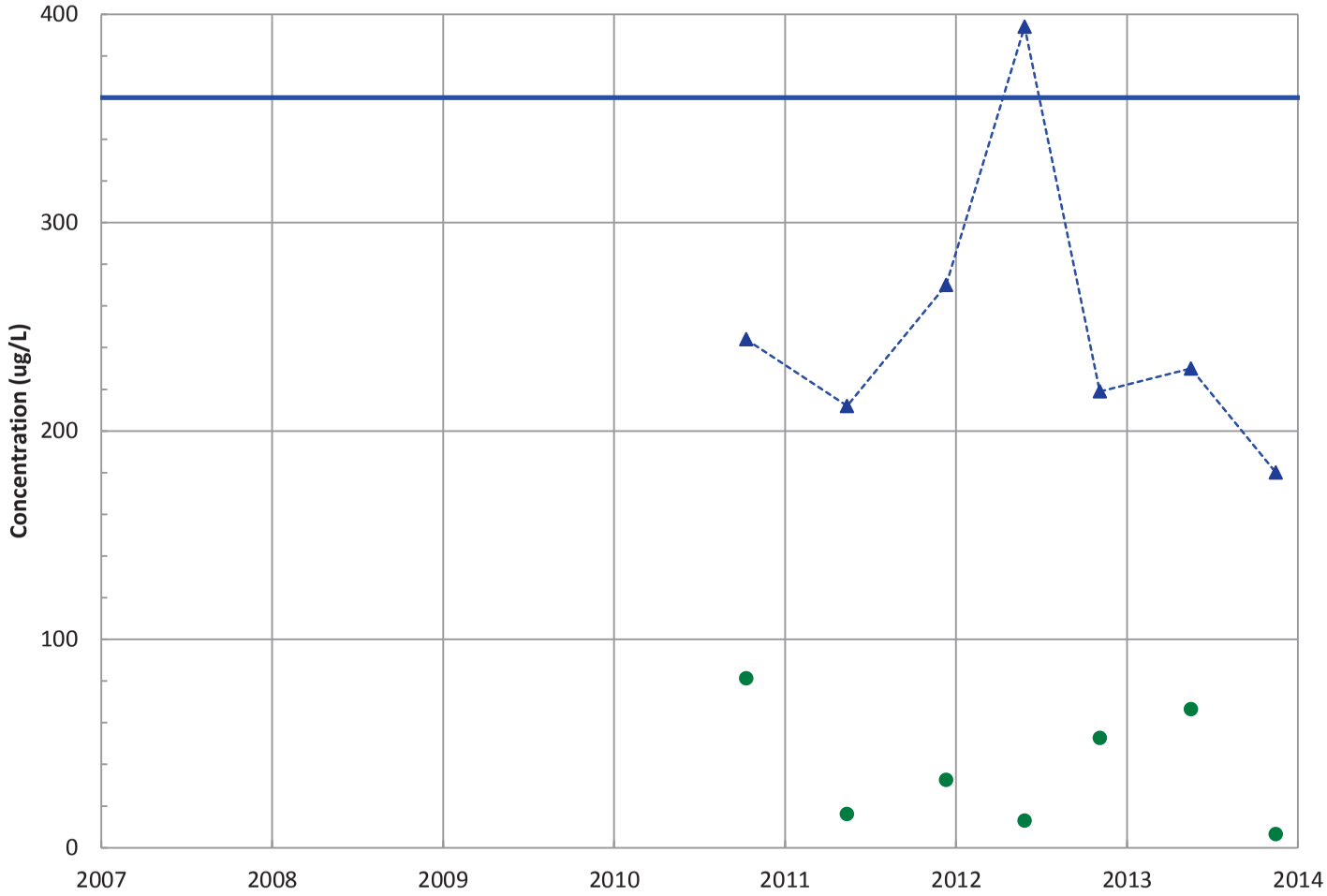
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

Well Location

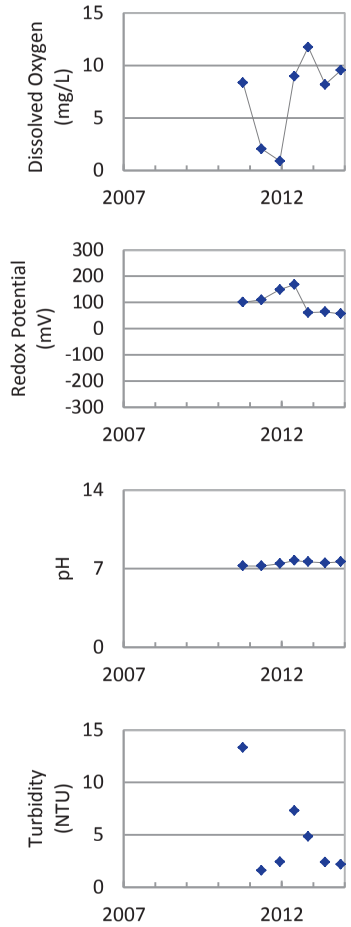
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/13/2010 to 11/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1120
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Probably Decreasing

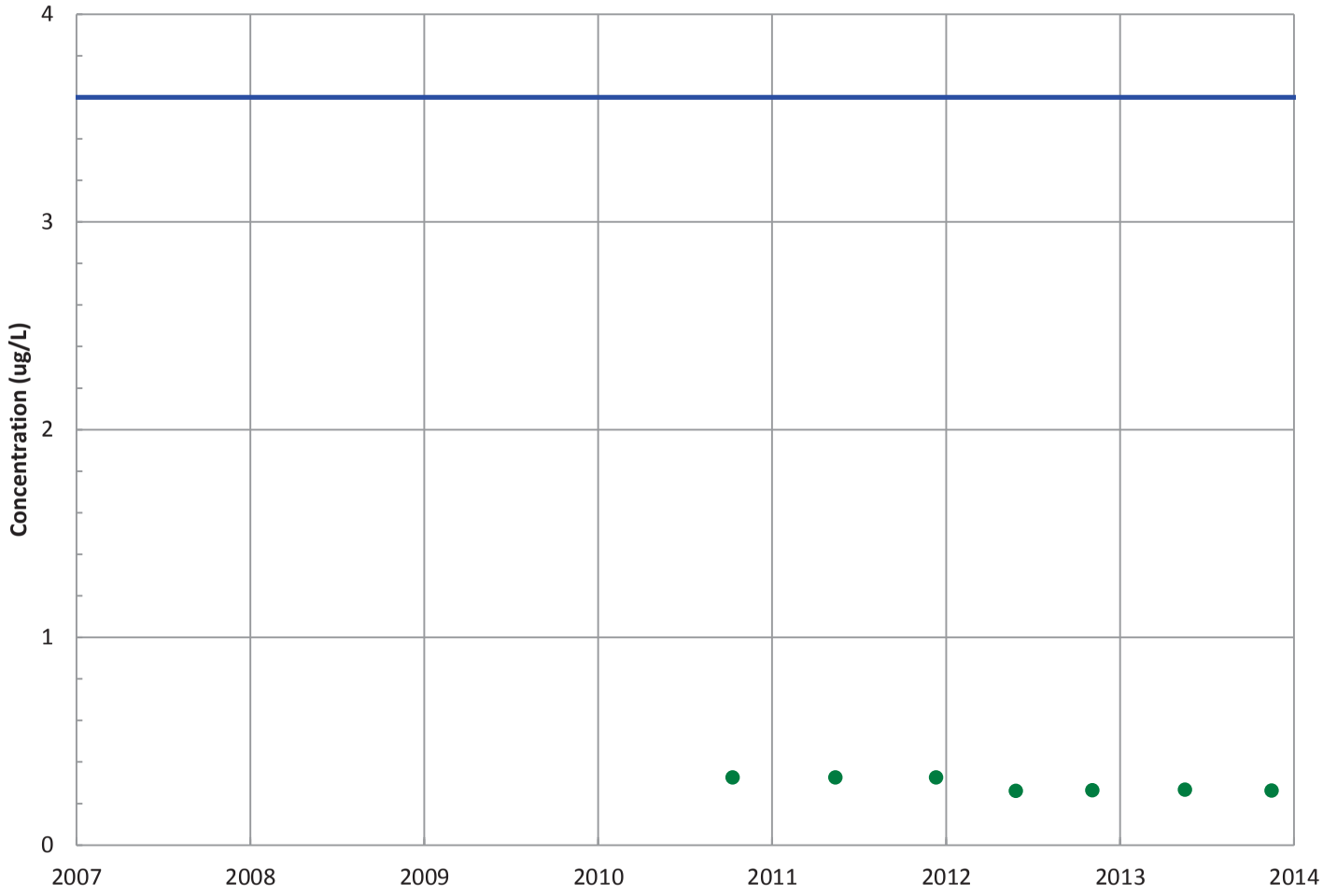
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

Well Location

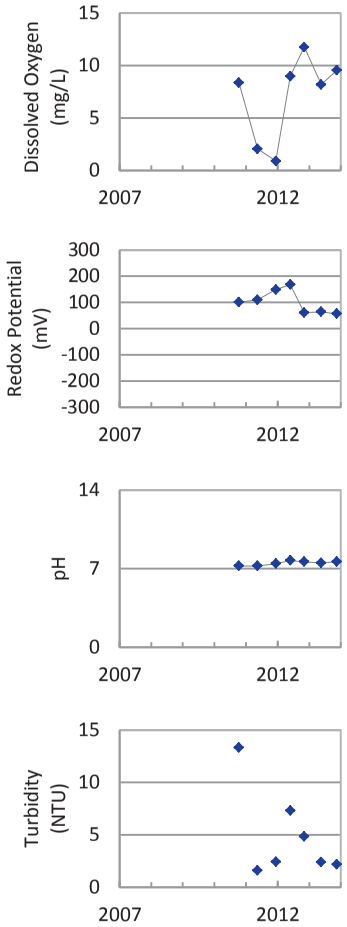
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/13/2010 to 11/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1120
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

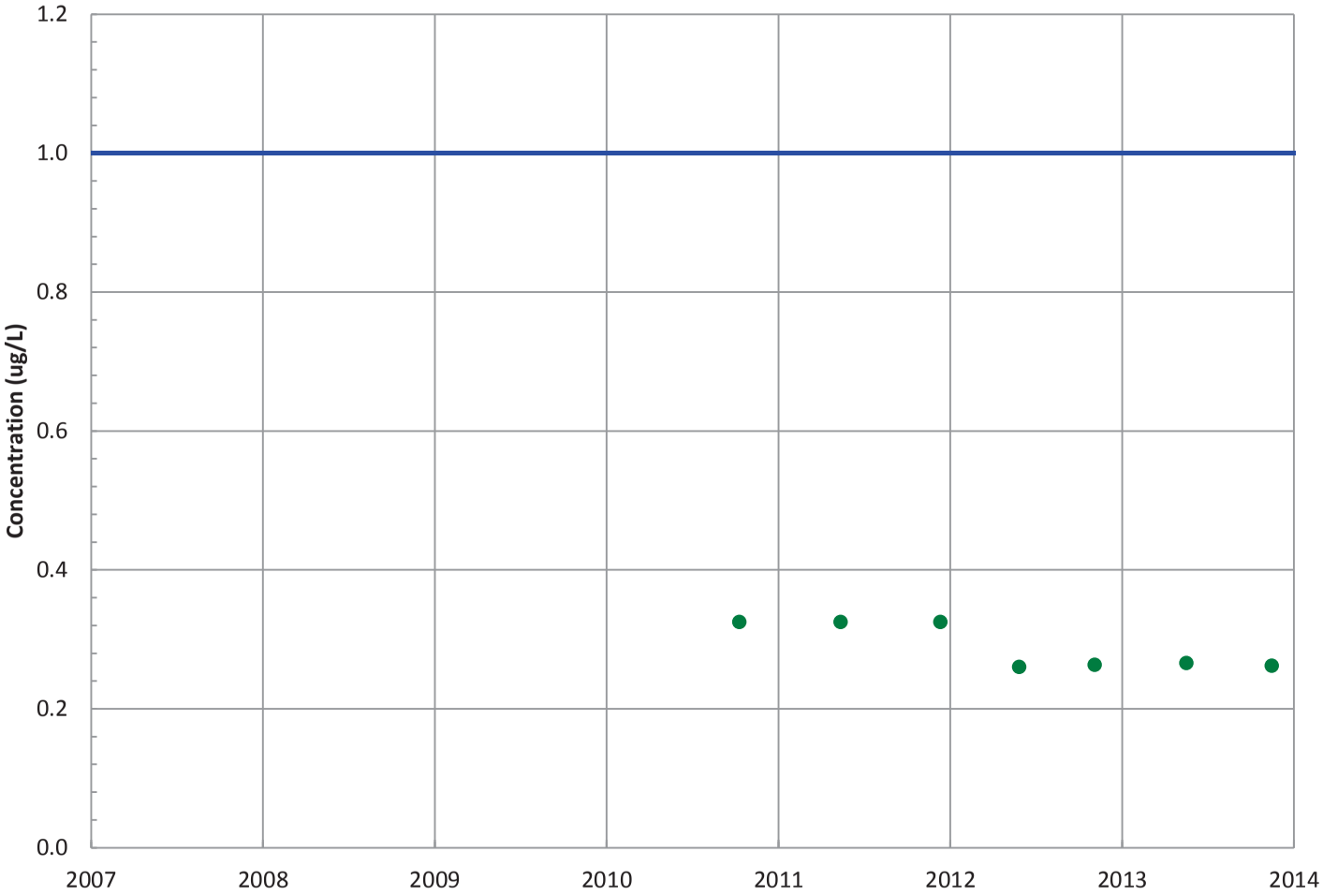
- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location

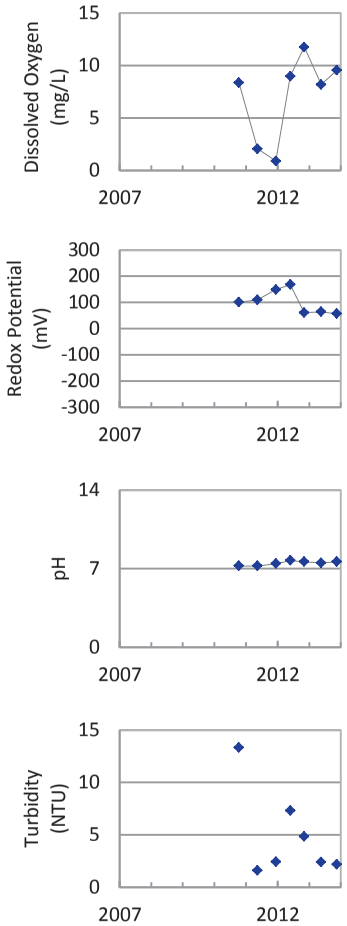
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/13/2010 to 11/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1120
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

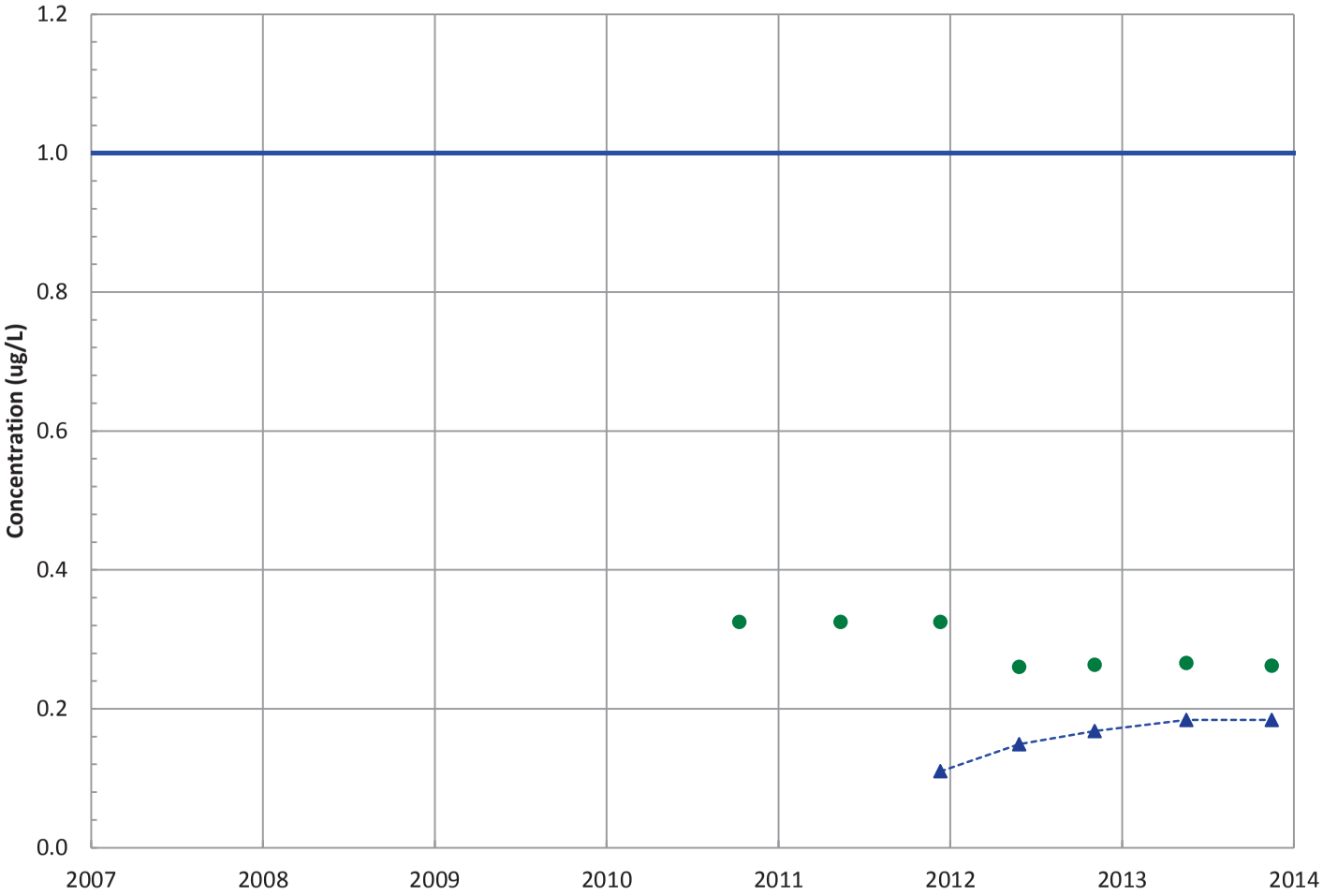
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

Well Location

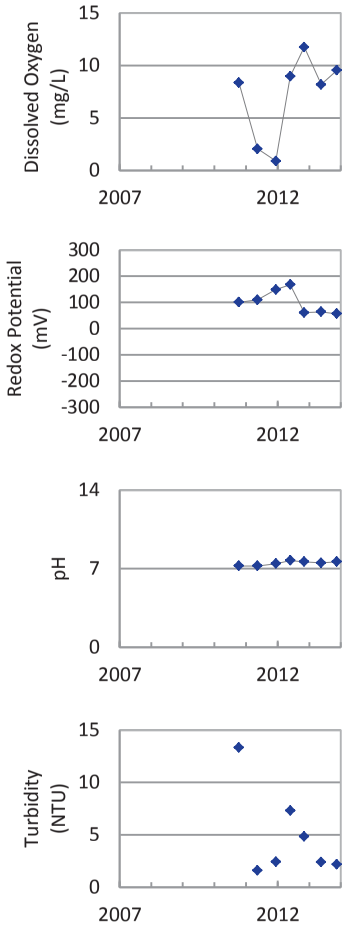
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/13/2010 to 11/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1120
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Probably Increasing

2011 - 2013 Data: No Trend

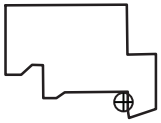
MAROS Linear Regression Method

Data (7/2009 - 12/2013): Increasing

2011 - 2013 Data: Increasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location



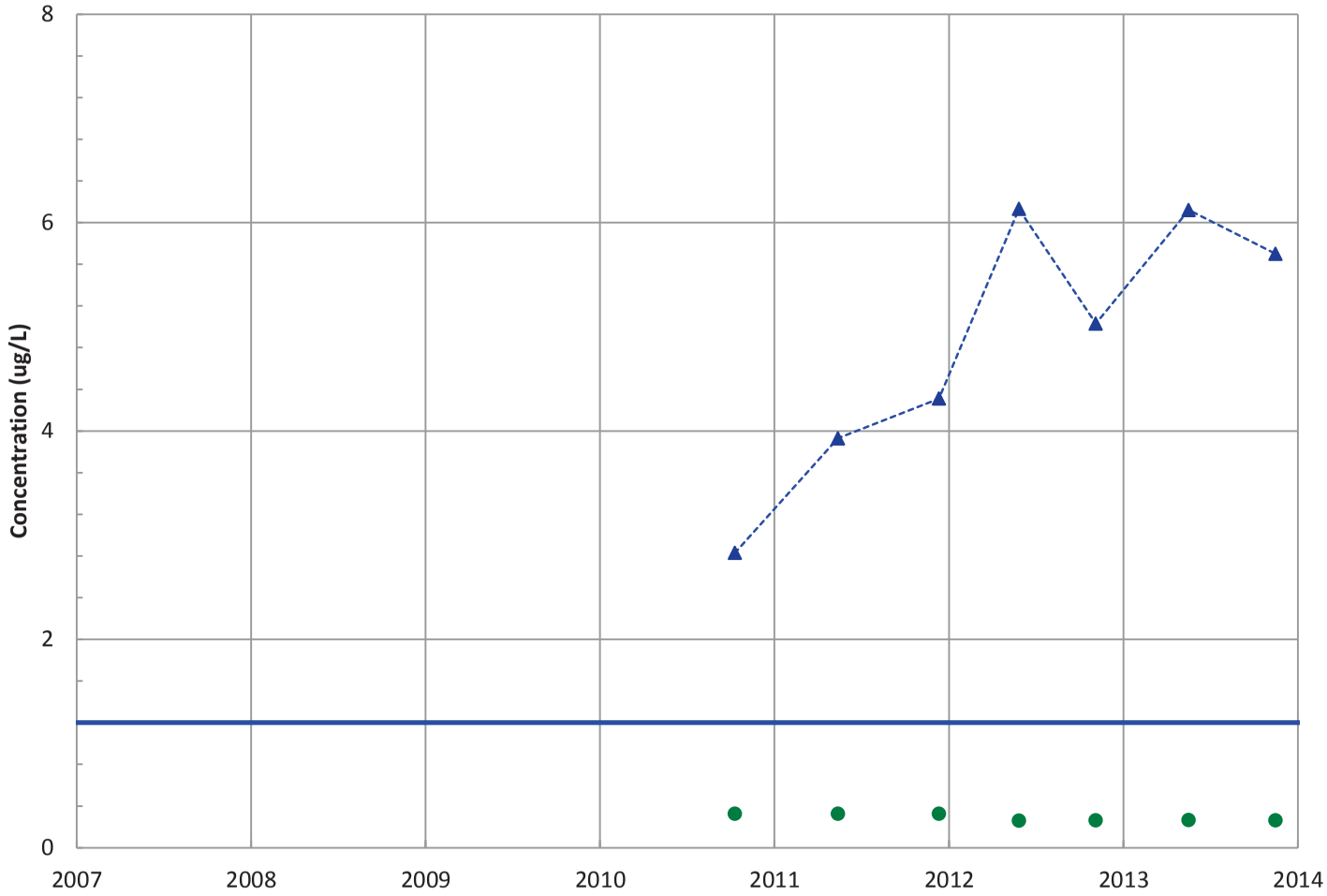
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 10/13/2010 to 11/20/2013

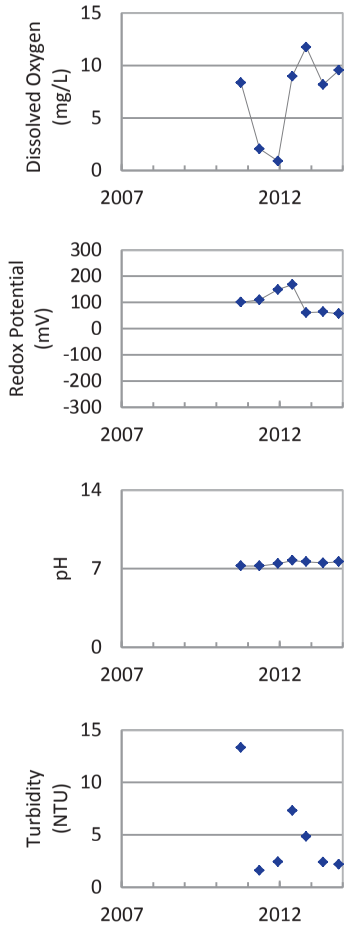
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1120
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



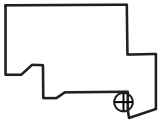
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

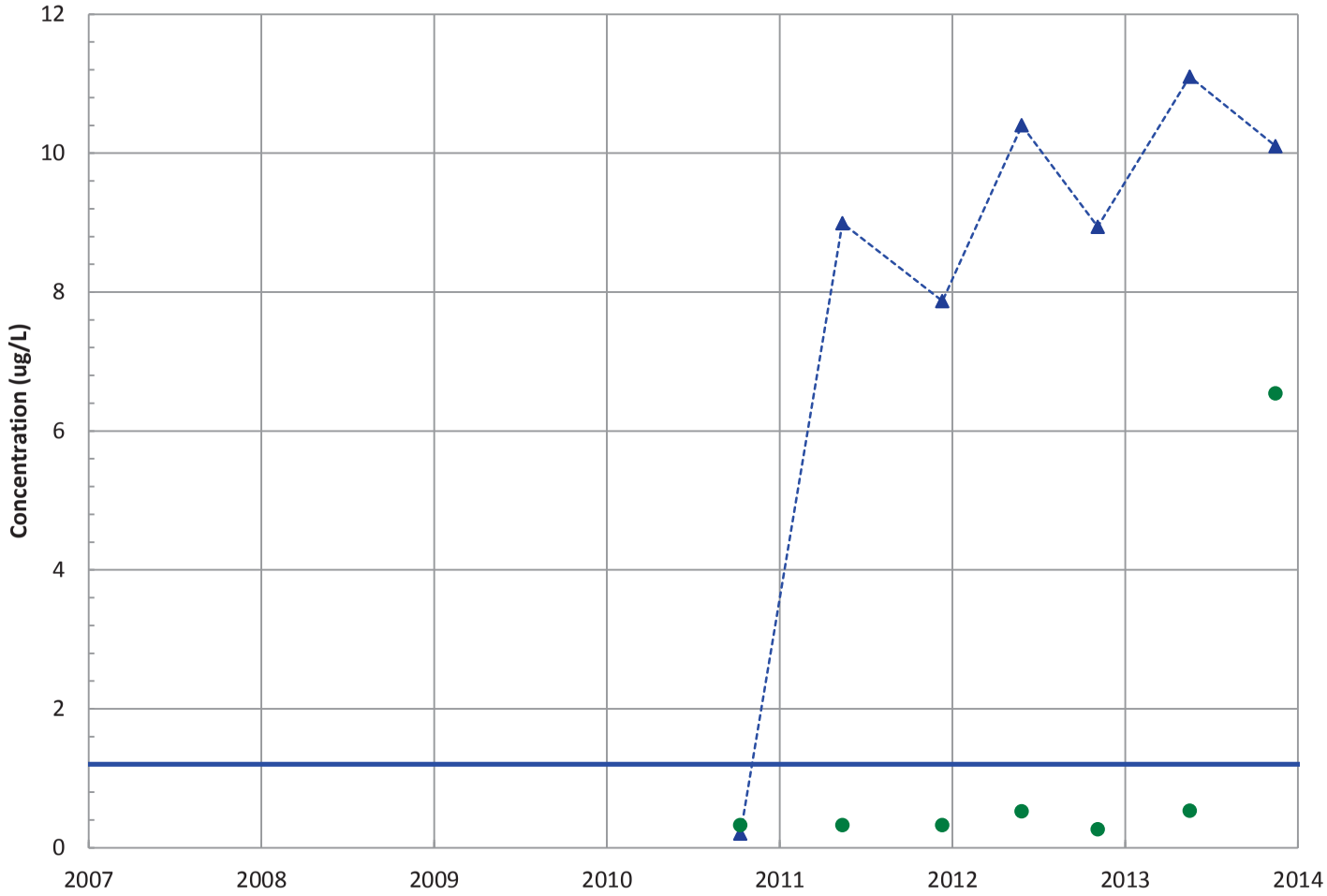
Well Location



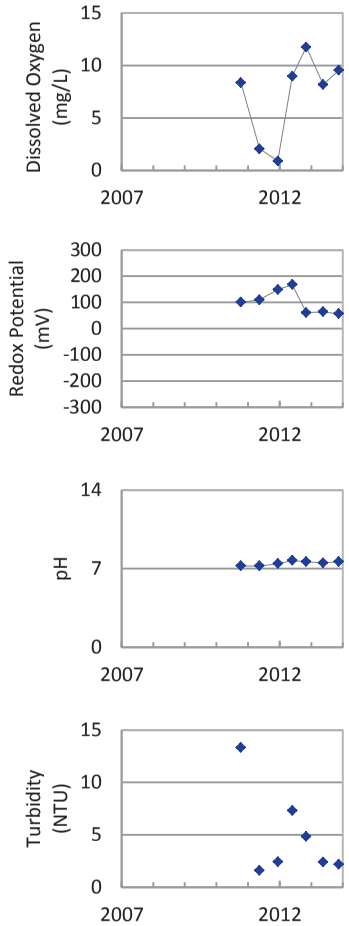
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/13/2010 to 11/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1120
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Probably Increasing

2011 - 2013 Data: Stable

MAROS Linear Regression Method

Data (7/2009 - 12/2013): Increasing

2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location

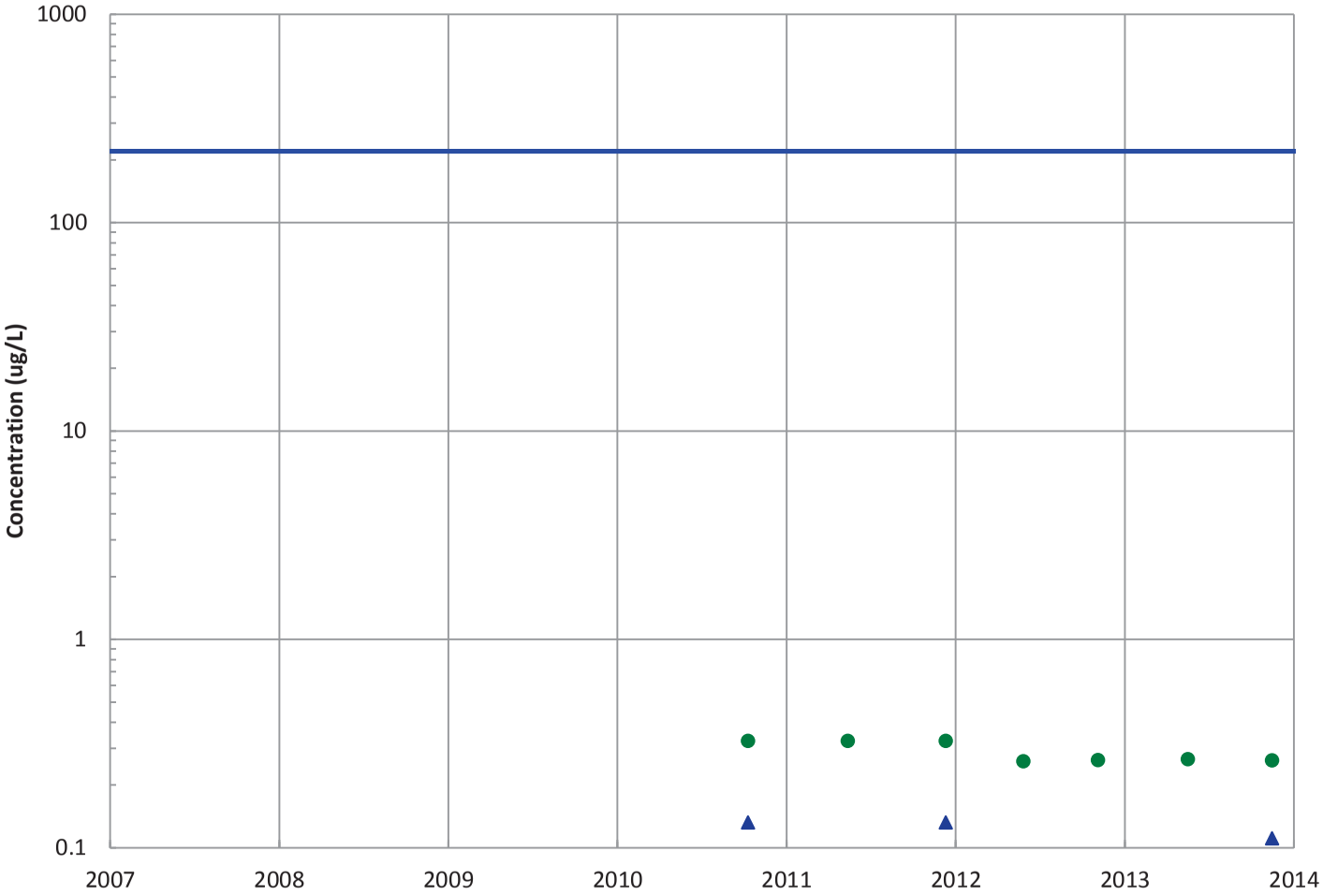
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 10/13/2010 to 11/20/2013

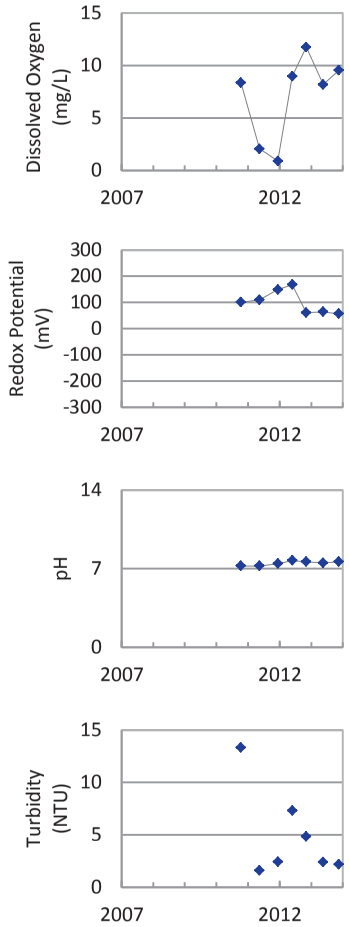
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1120
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

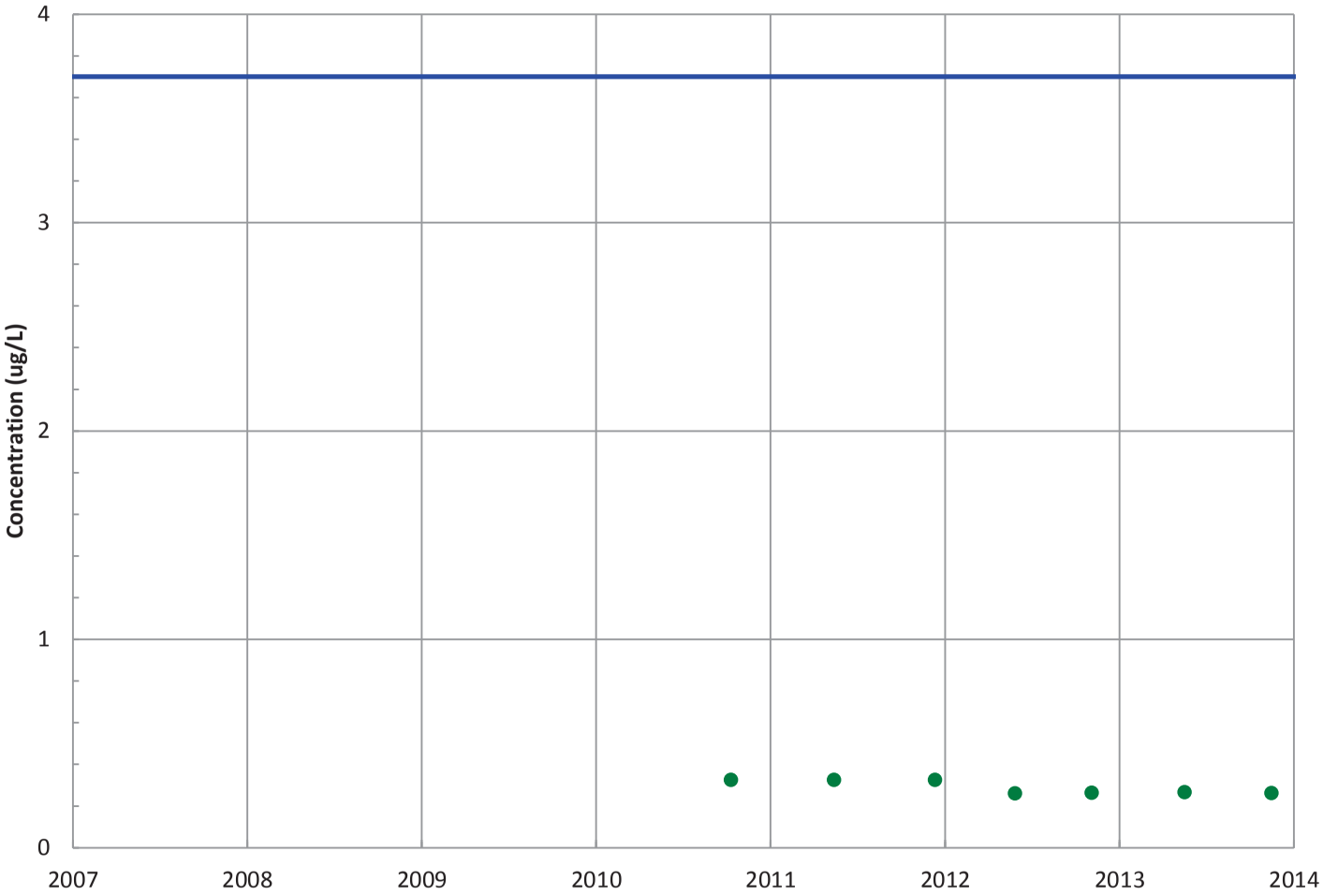
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

Well Location

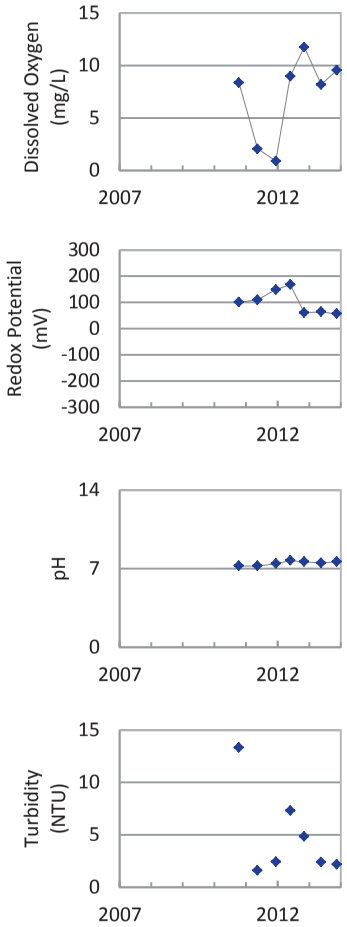
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/13/2010 to 11/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1120
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

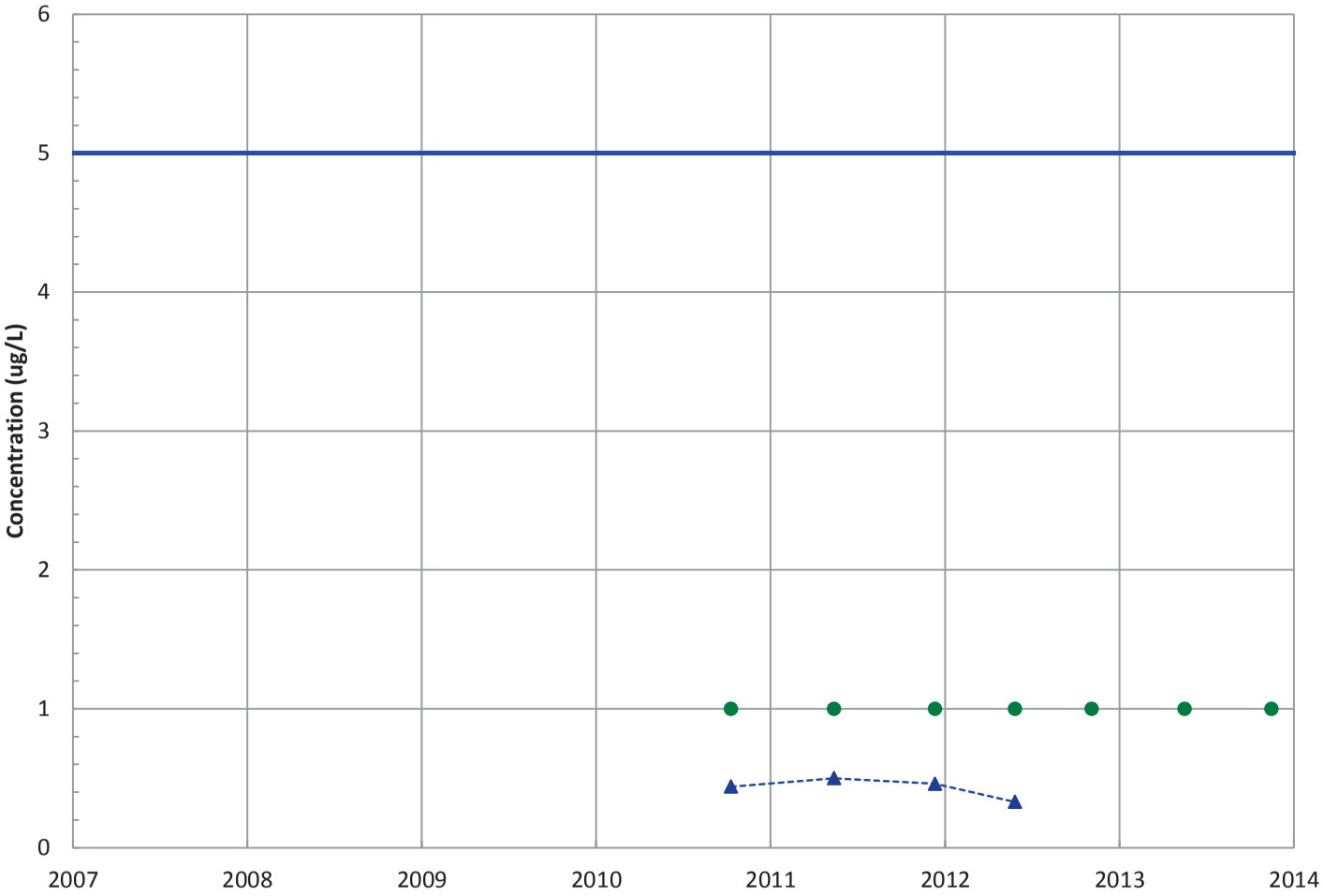
- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location

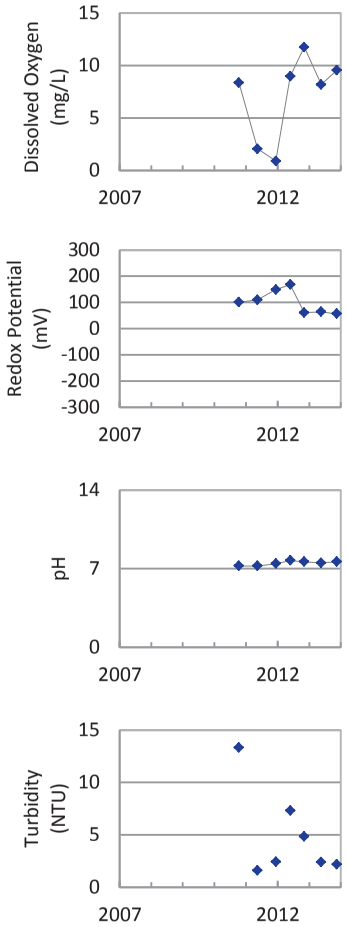
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/13/2010 to 11/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1120
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): No Trend

2011 - 2013 Data: N/A (<4 Detections in Dataset)

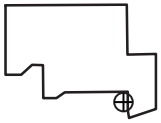
MAROS Linear Regression Method

Data (7/2009 - 12/2013): Stable

2011 - 2013 Data: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

Well Location



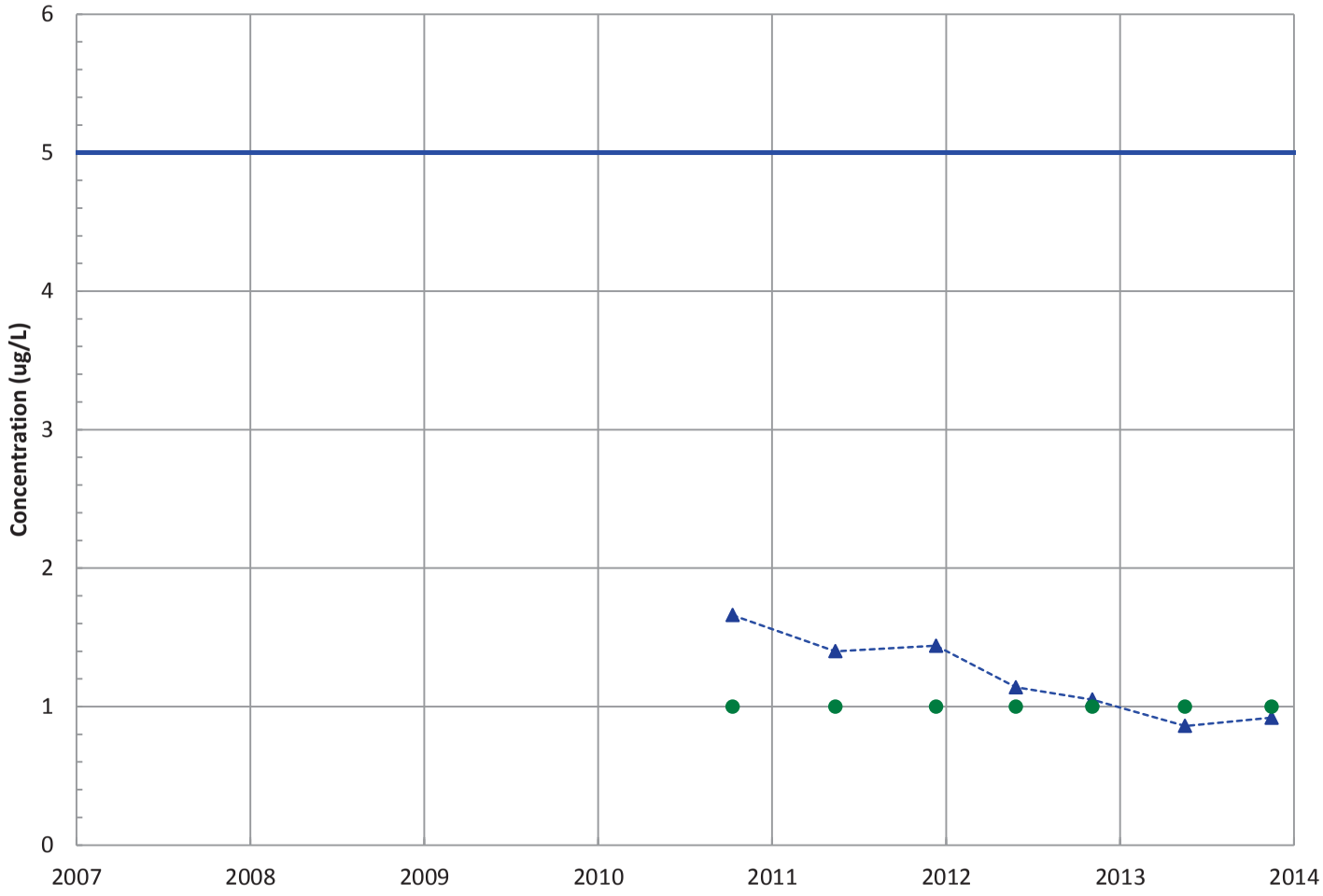
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 10/13/2010 to 11/20/2013

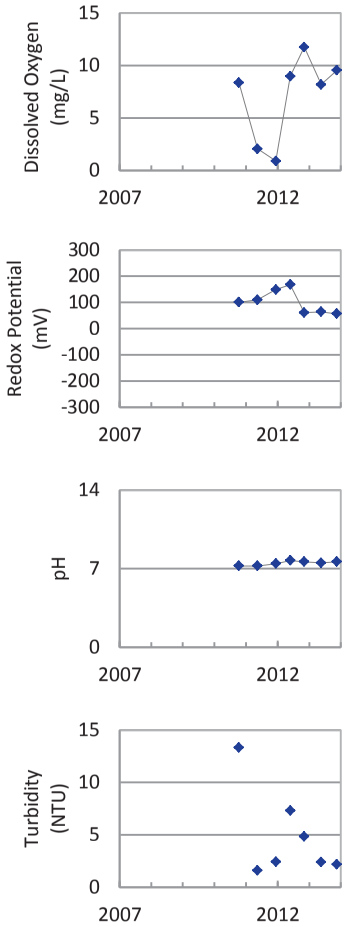
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1120
Trichloroethene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Probably Decreasing

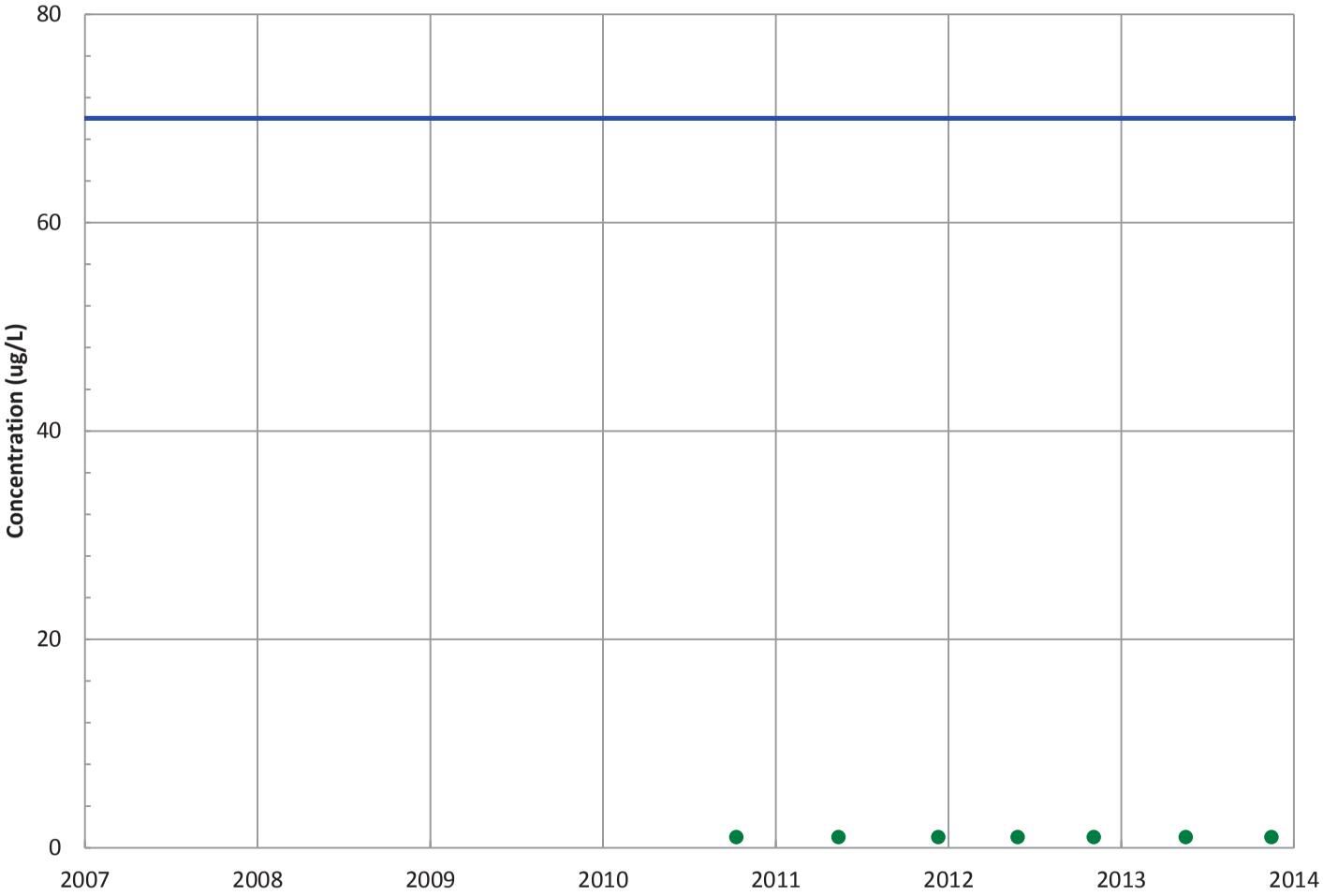
- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location

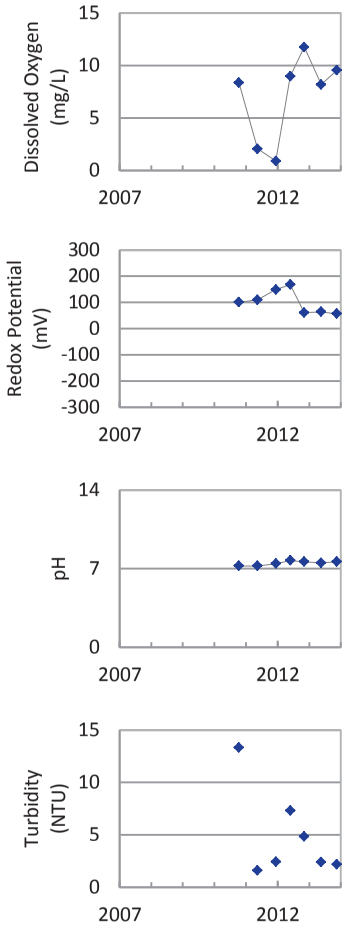
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/13/2010 to 11/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1120
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

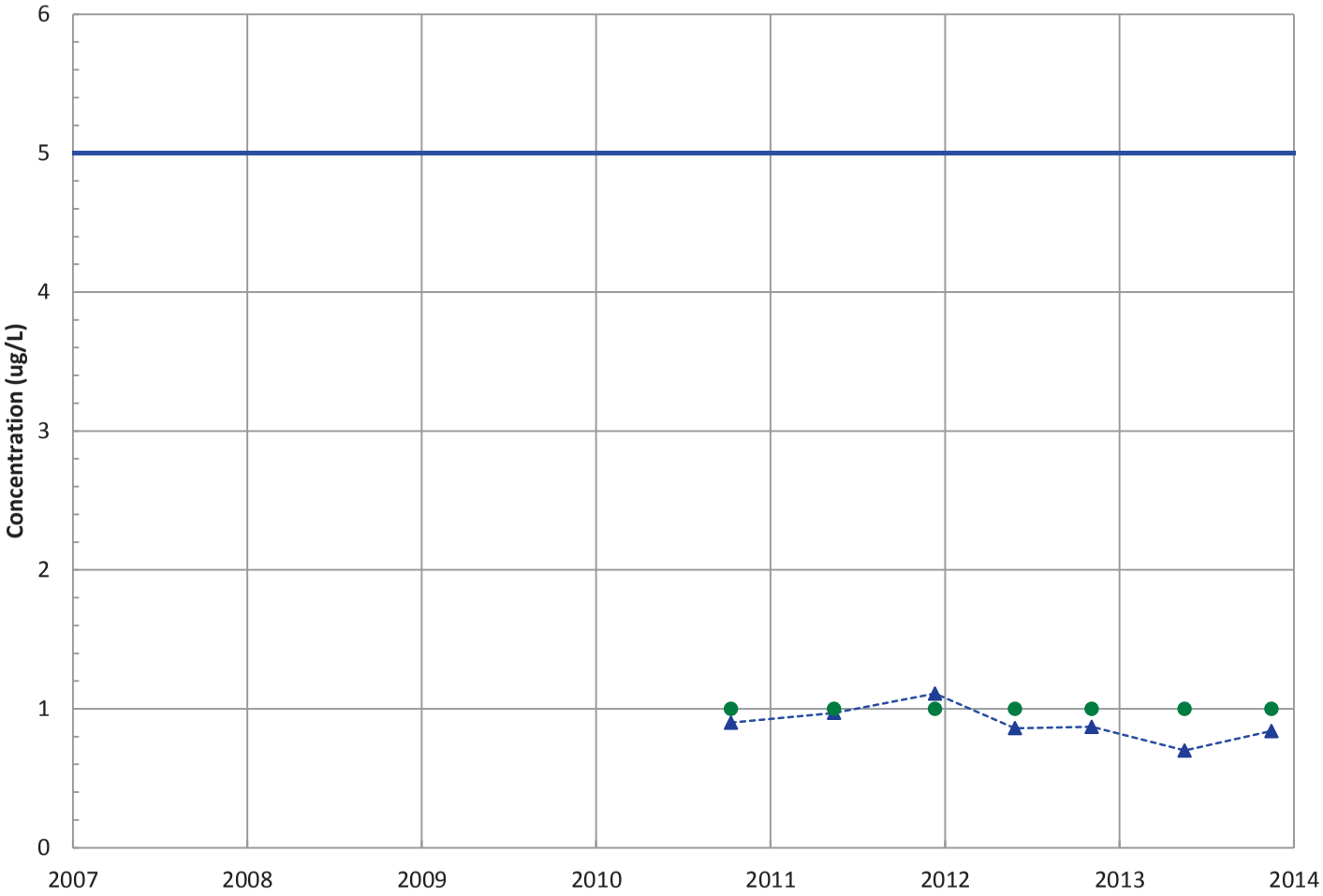
- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location

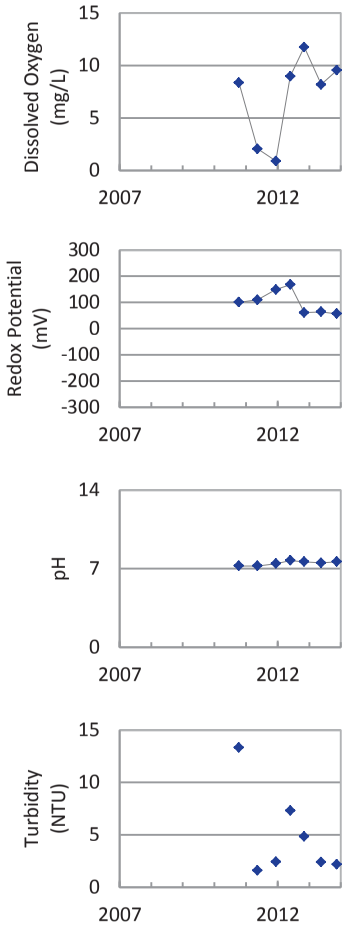
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/13/2010 to 11/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1120
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Probably Decreasing
2011 - 2013 Data: Stable

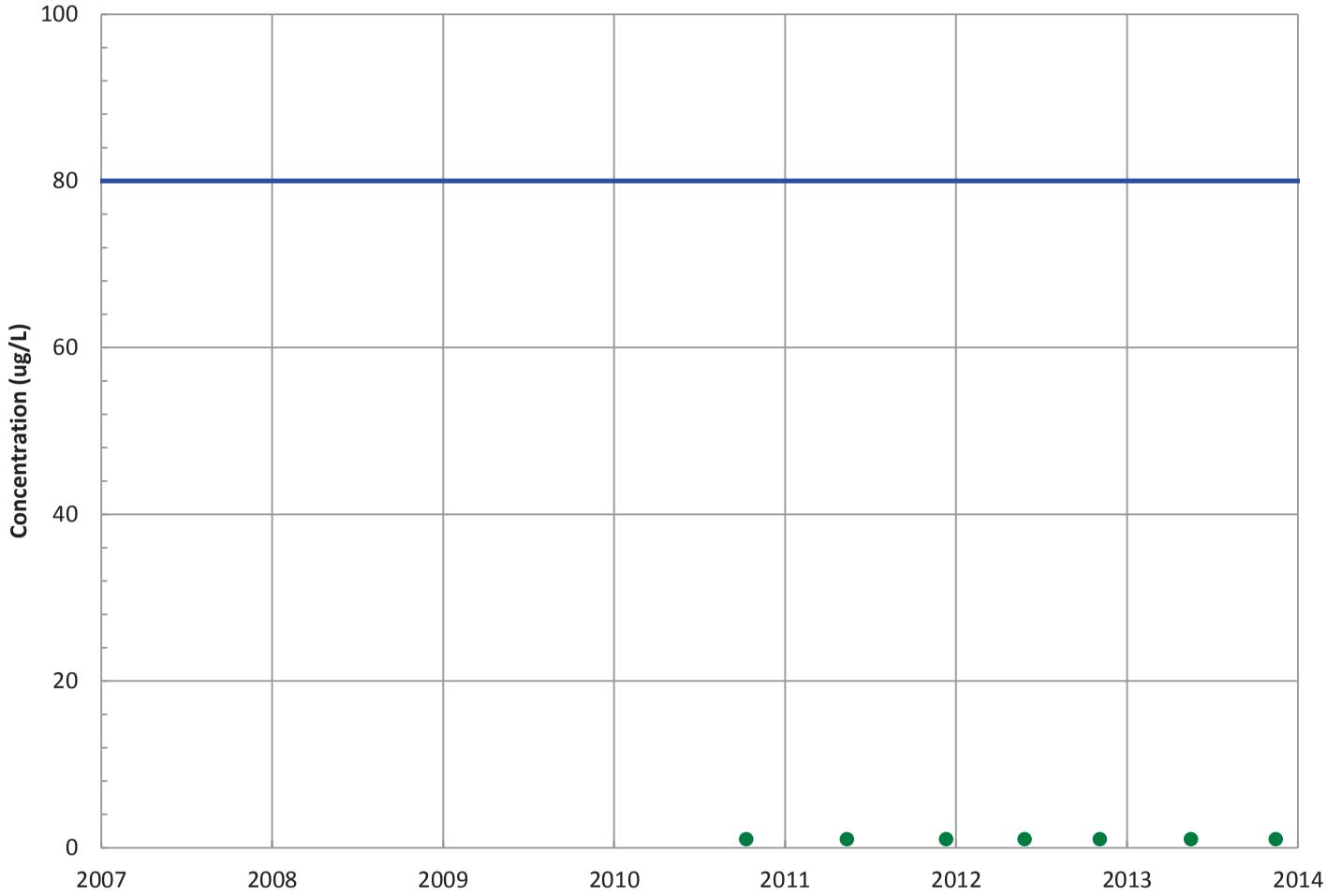
- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location

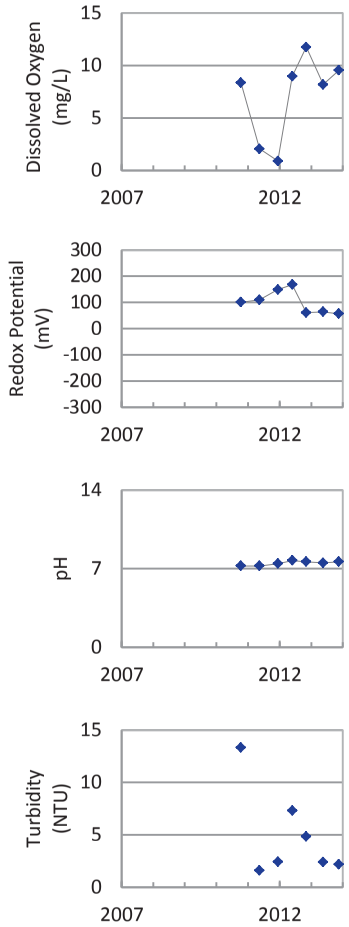
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/13/2010 to 11/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1120
Chloroform Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

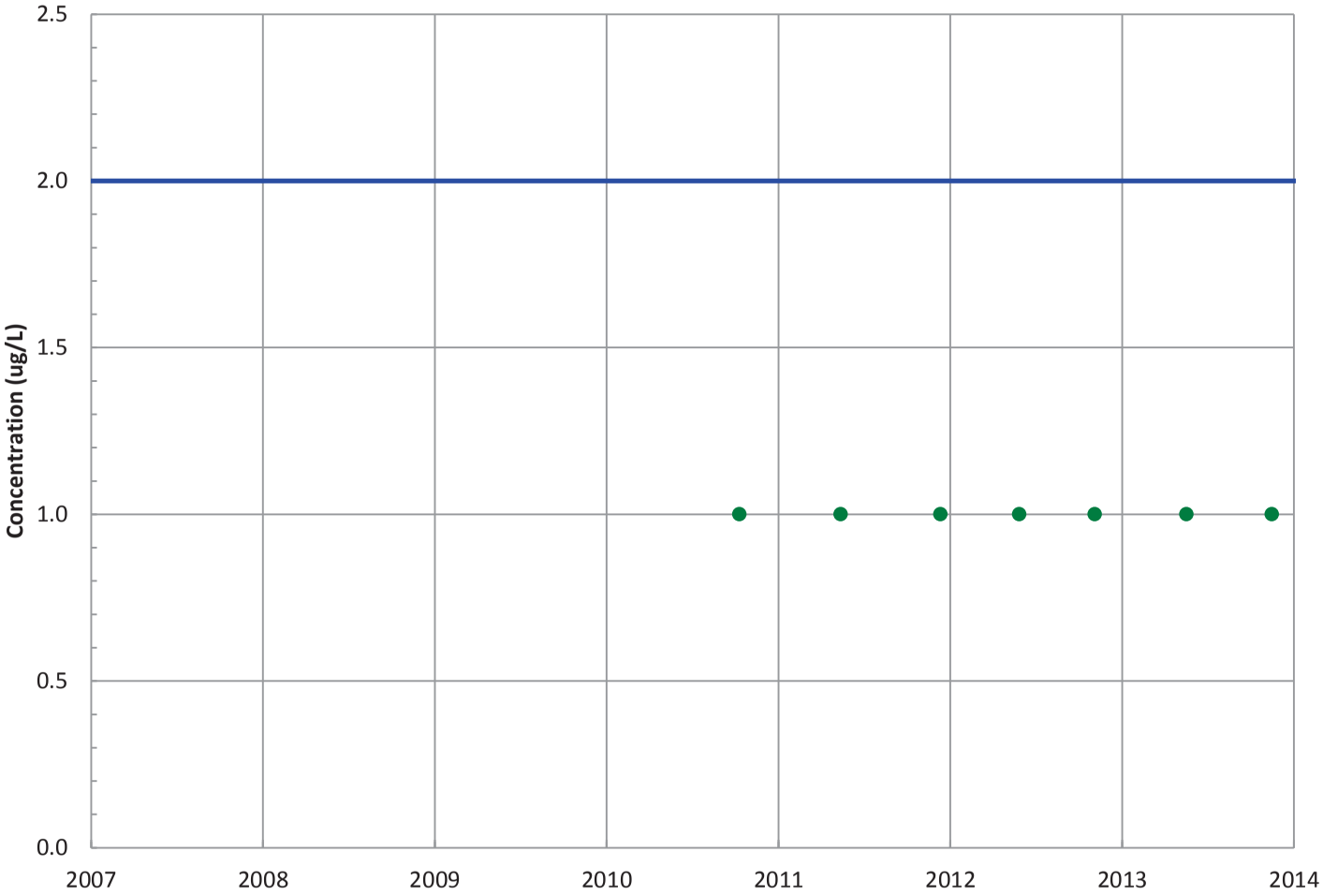
- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location

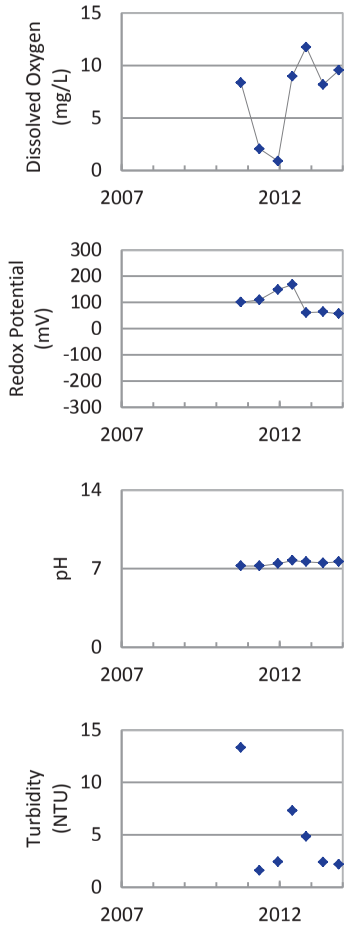
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/13/2010 to 11/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1120
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

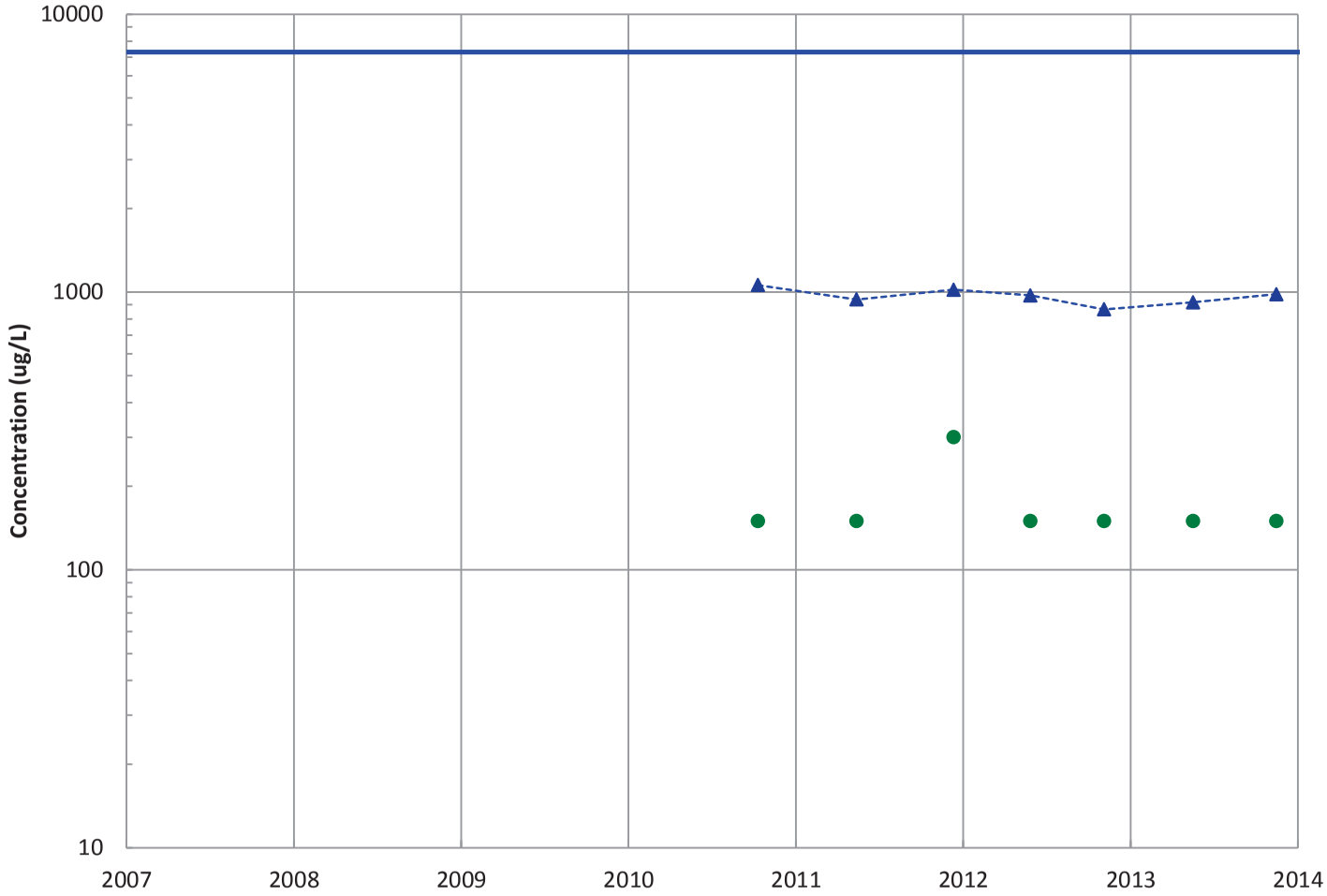
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

Well Location

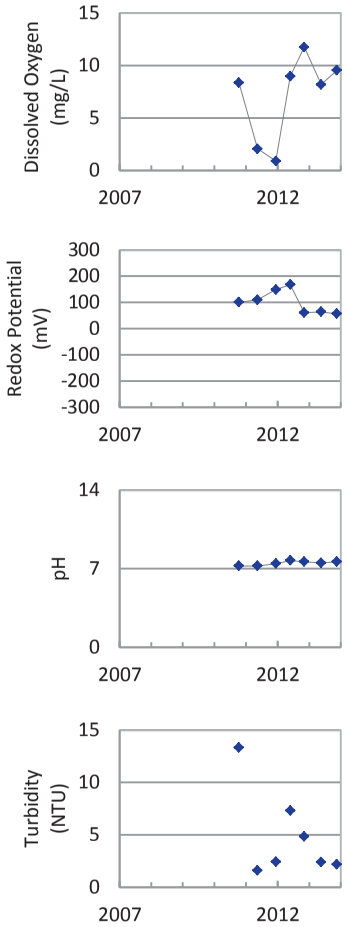
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/13/2010 to 11/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1120
Boron Trend in Perched Aquifer



Field Parameters



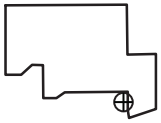
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: No Trend

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

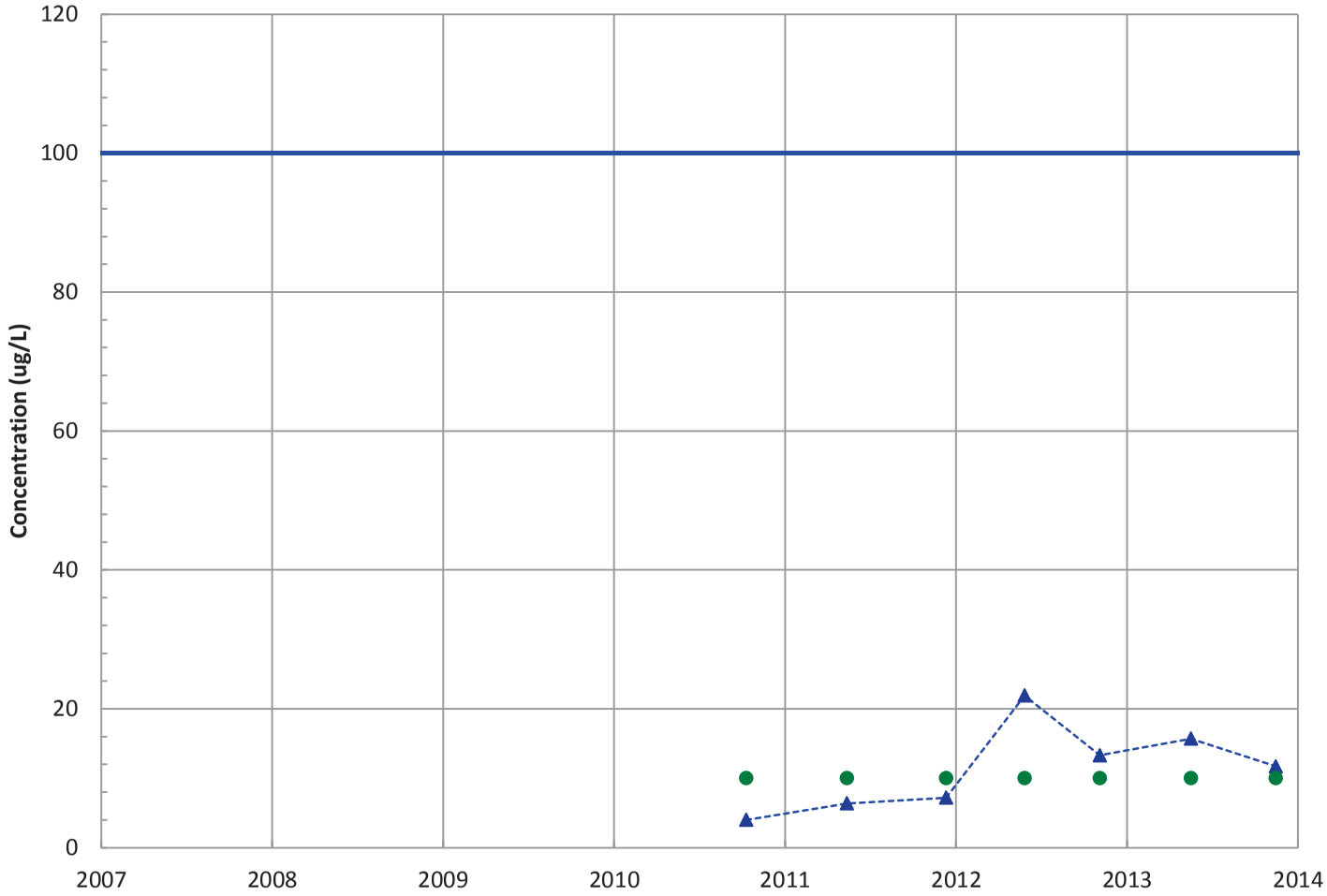
Well Location



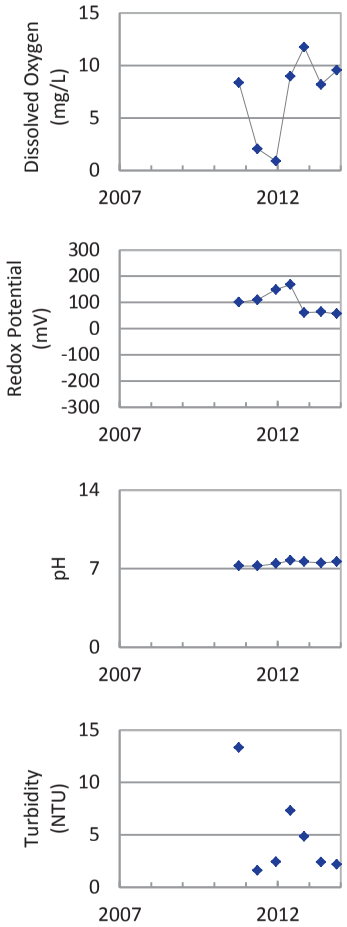
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/13/2010 to 11/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1120
Chromium, Total Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Probably Increasing

2011 - 2013 Data: Decreasing

MAROS Linear Regression Method

Data (7/2009 - 12/2013): Increasing

2011 - 2013 Data: Probably Decreasing

▲ Measured Value

● Sample Detection Limit

------- Concentration Trend

——— Groundwater Protection Standard

Well Location

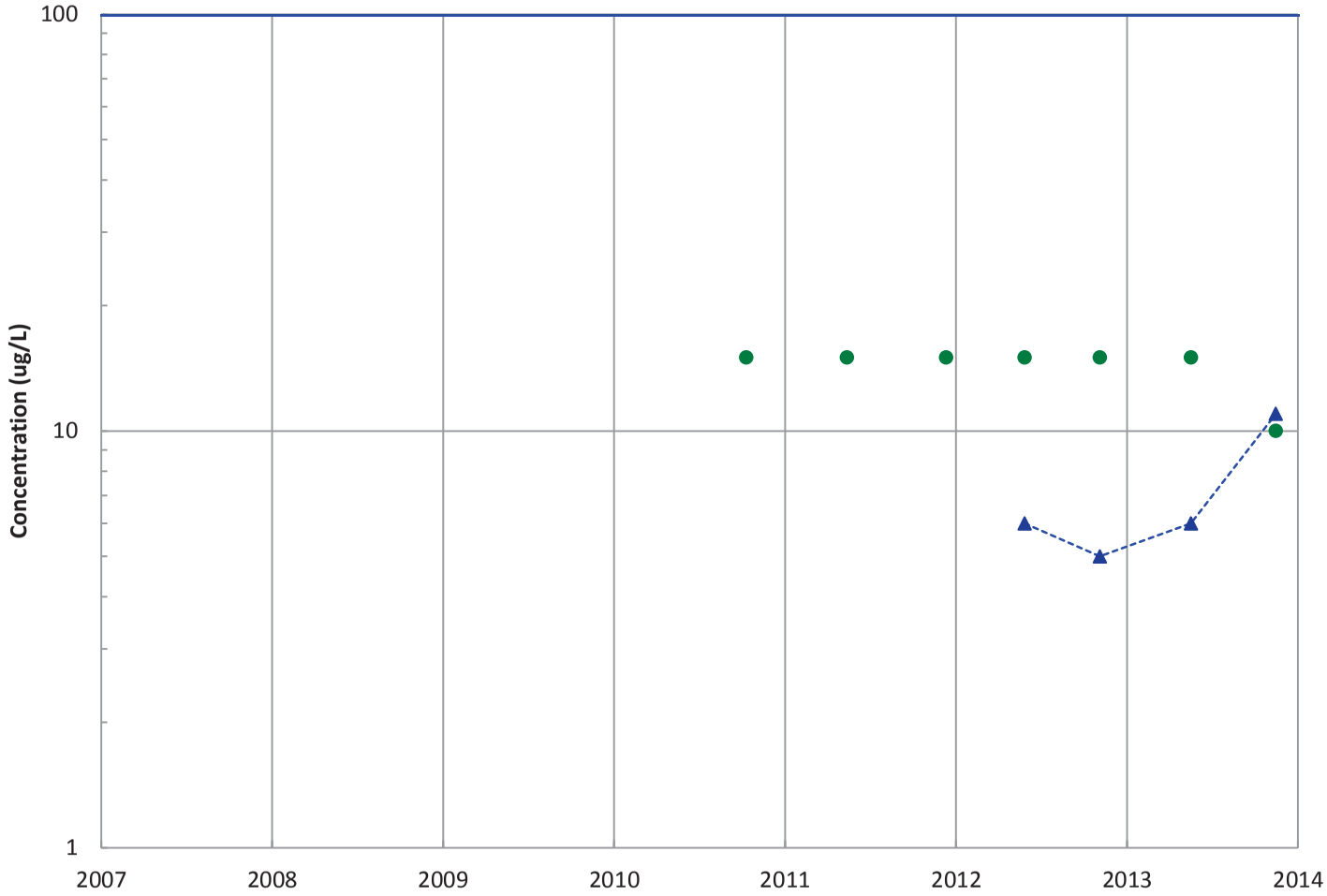
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 10/13/2010 to 11/20/2013

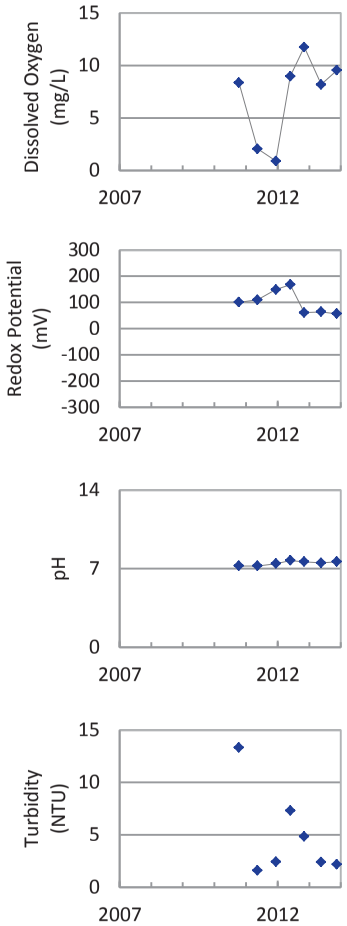
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1120
Chromium, Hexavalent Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

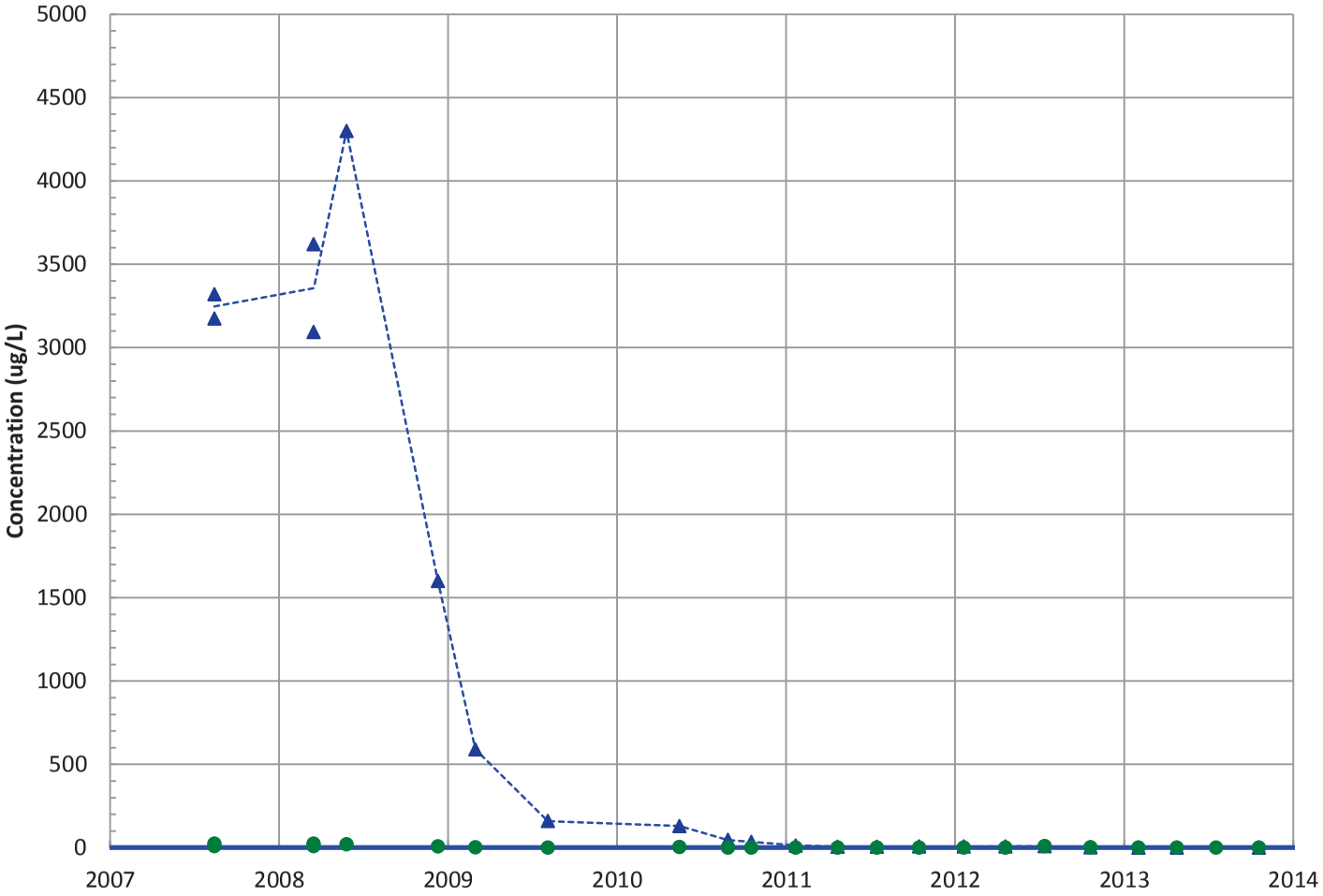
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

Well Location

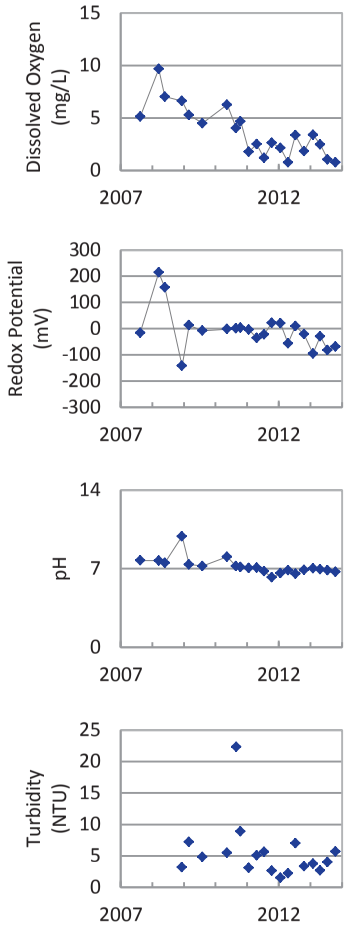
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/13/2010 to 11/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1123
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Stable

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Stable

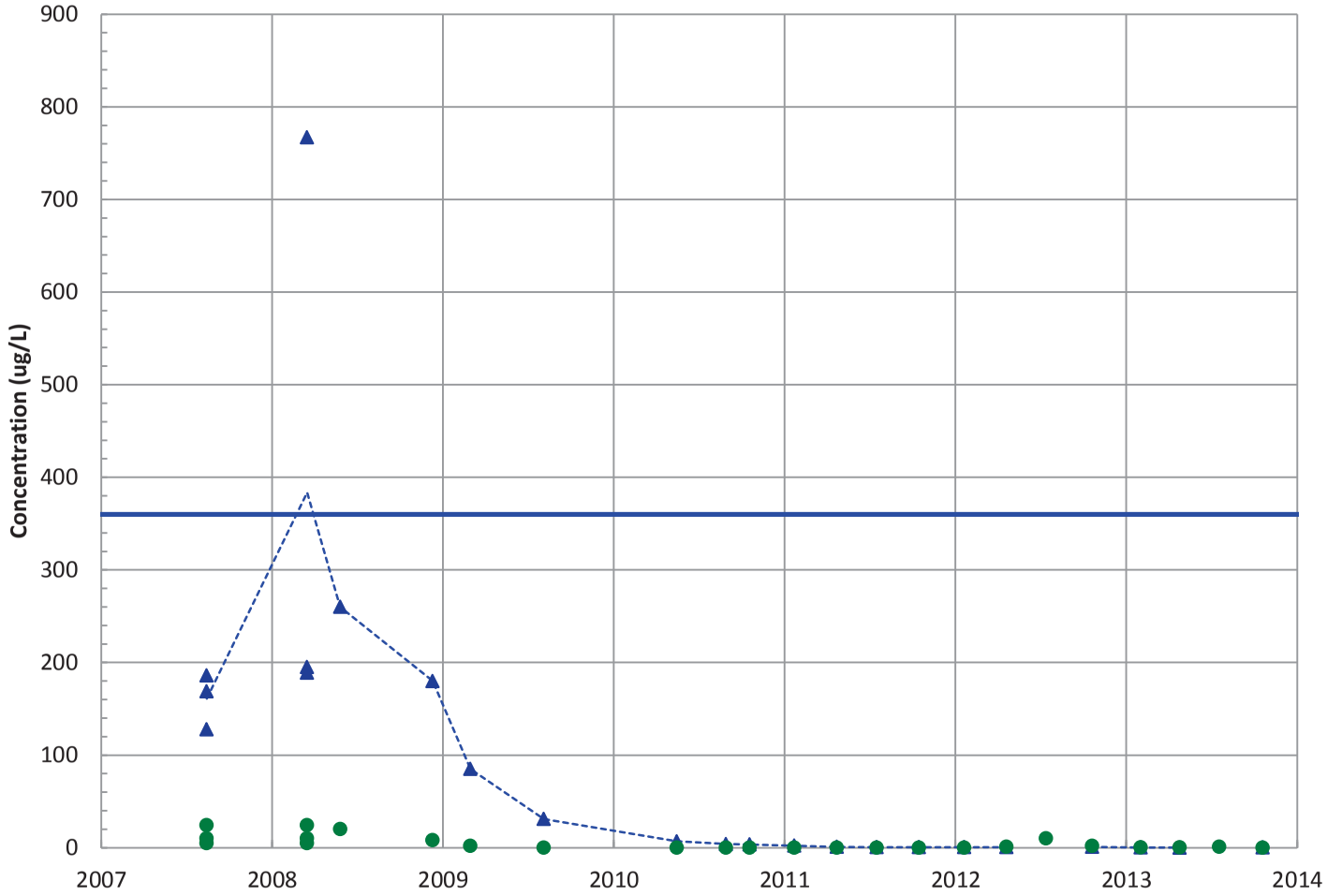
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

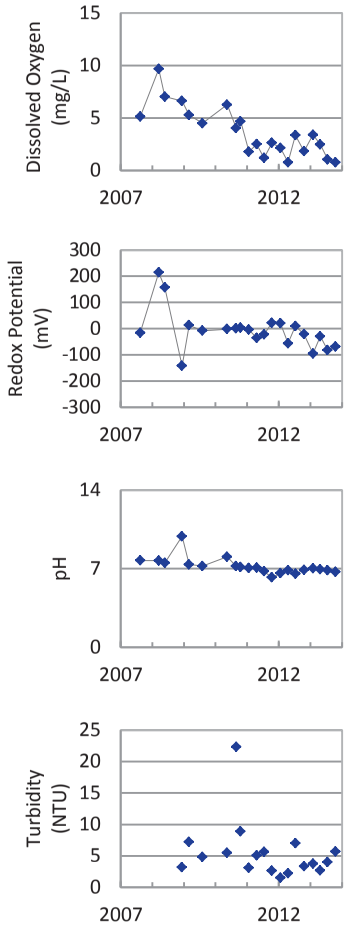
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/15/2007 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1123
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Stable

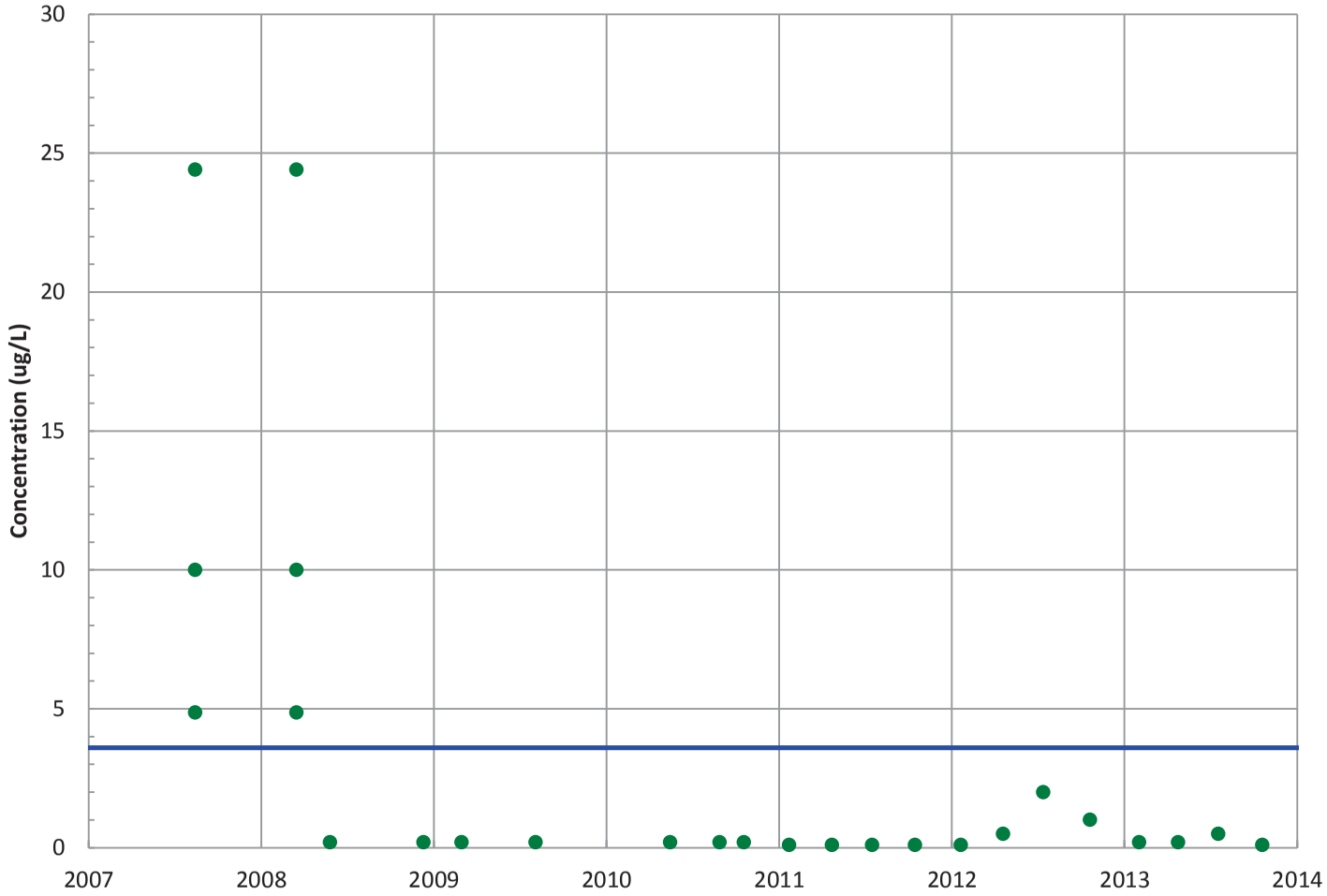
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

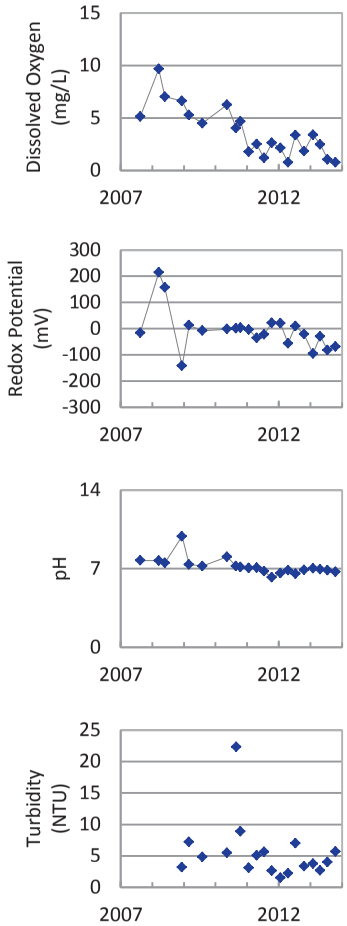
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/15/2007 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1123
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

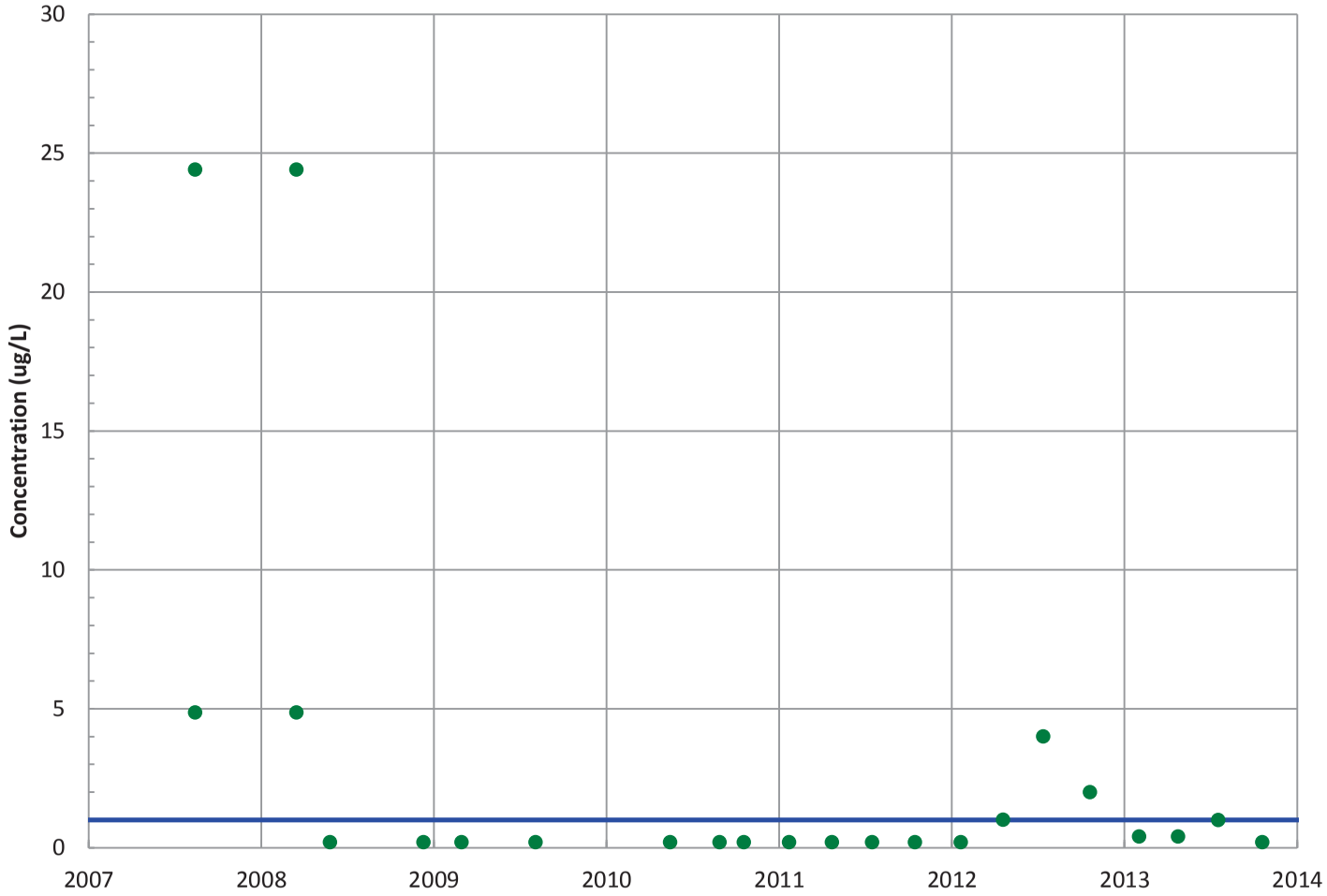
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

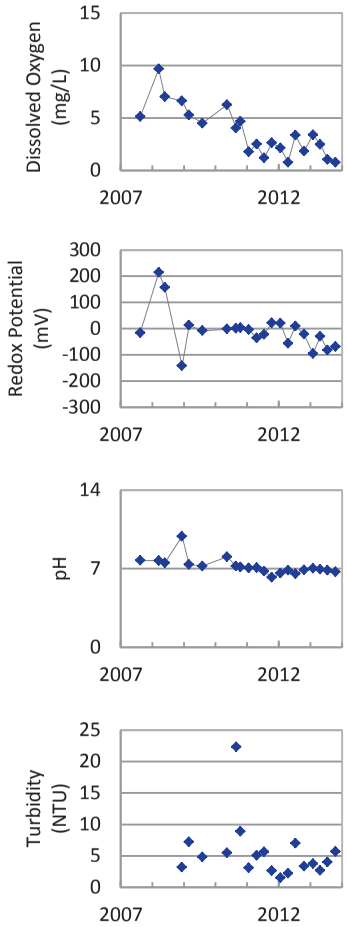
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/15/2007 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1123
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

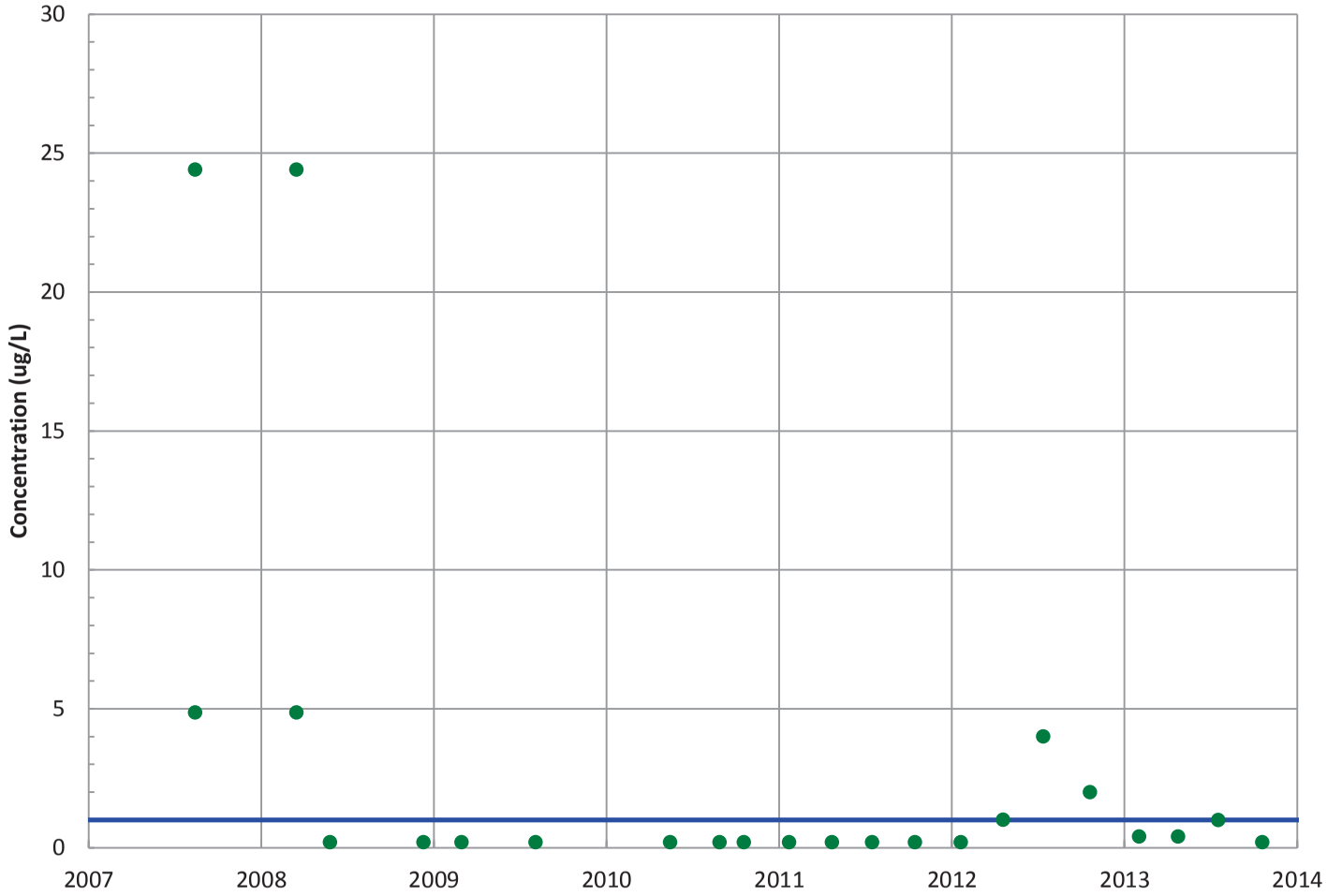
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

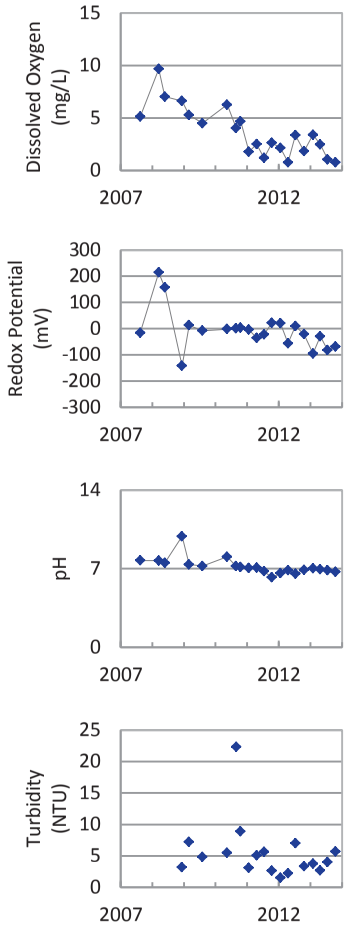
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/15/2007 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1123
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

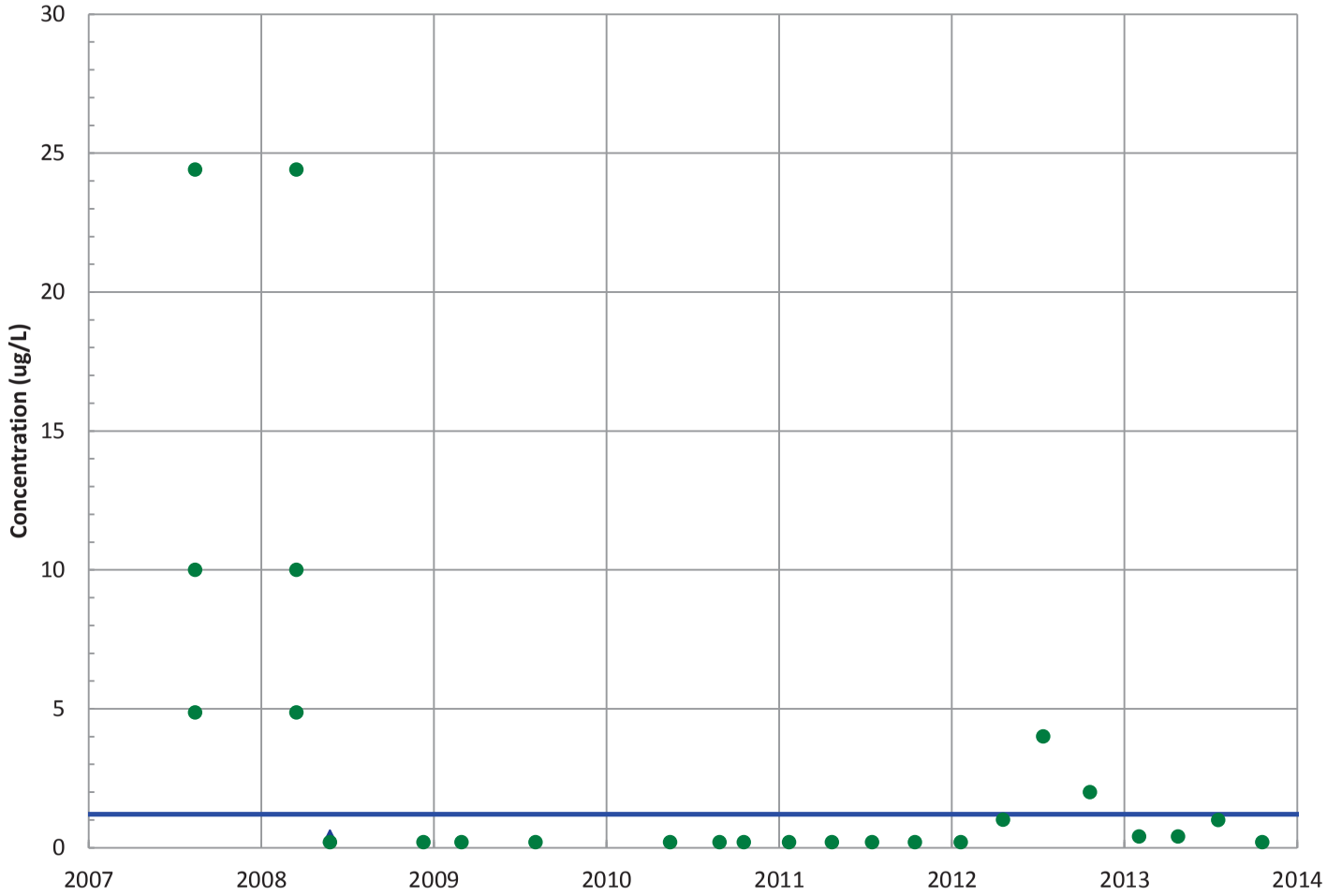
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

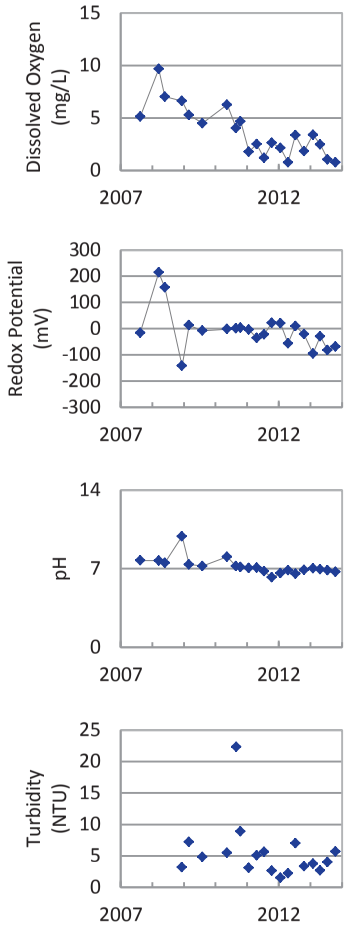
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/15/2007 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1123
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

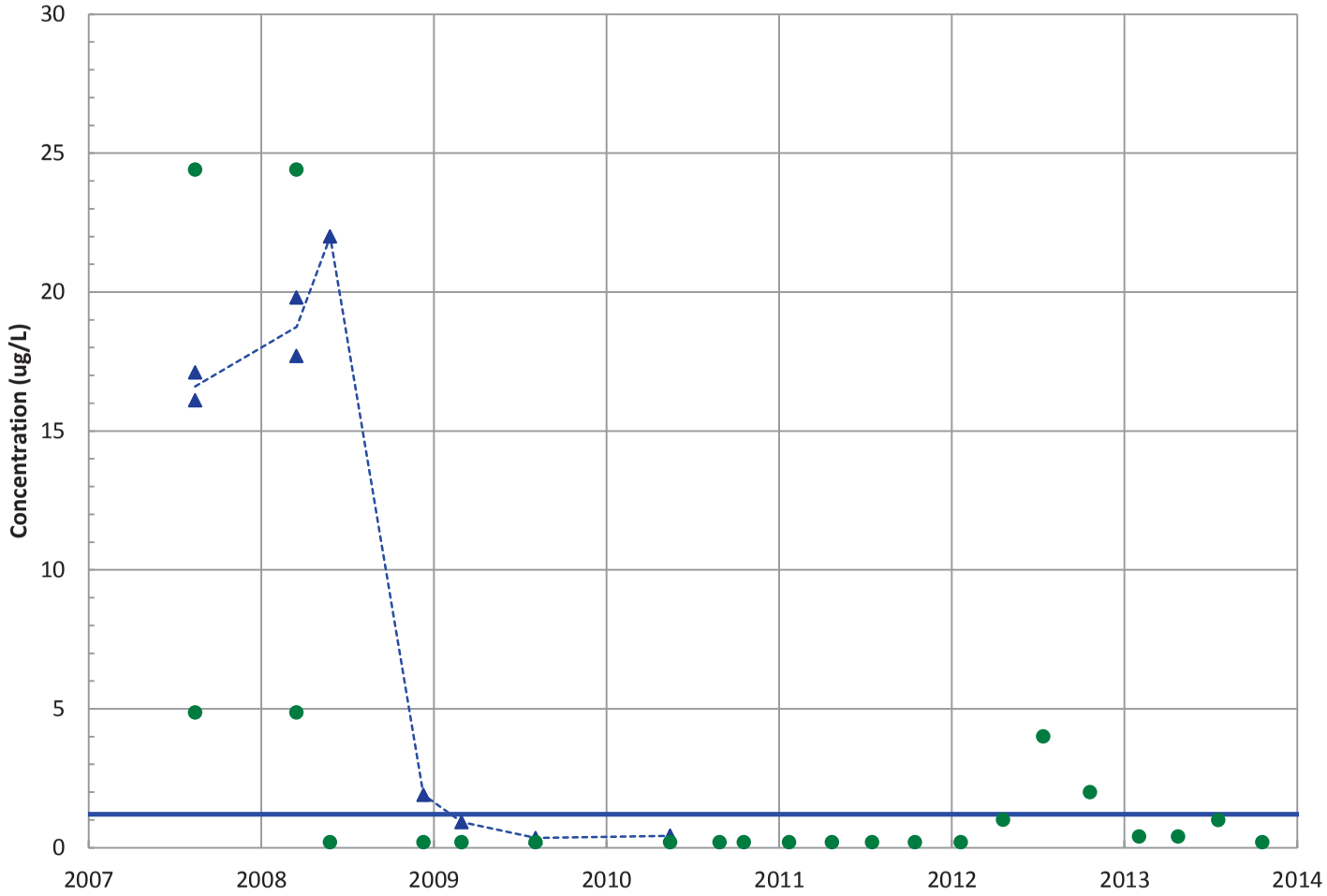
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

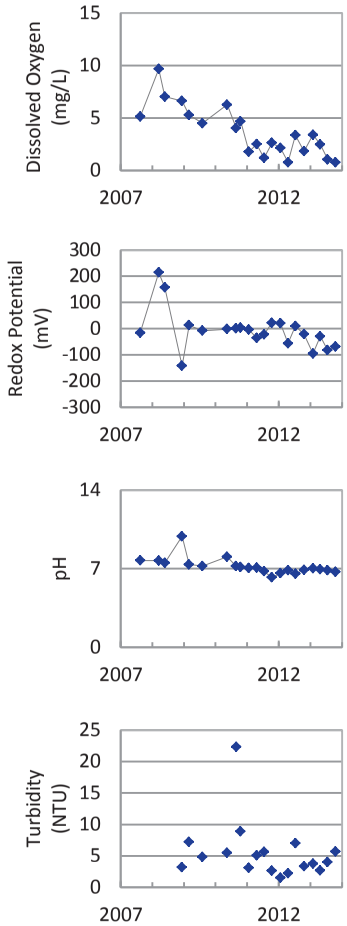
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/15/2007 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1123
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Probably Decreasing

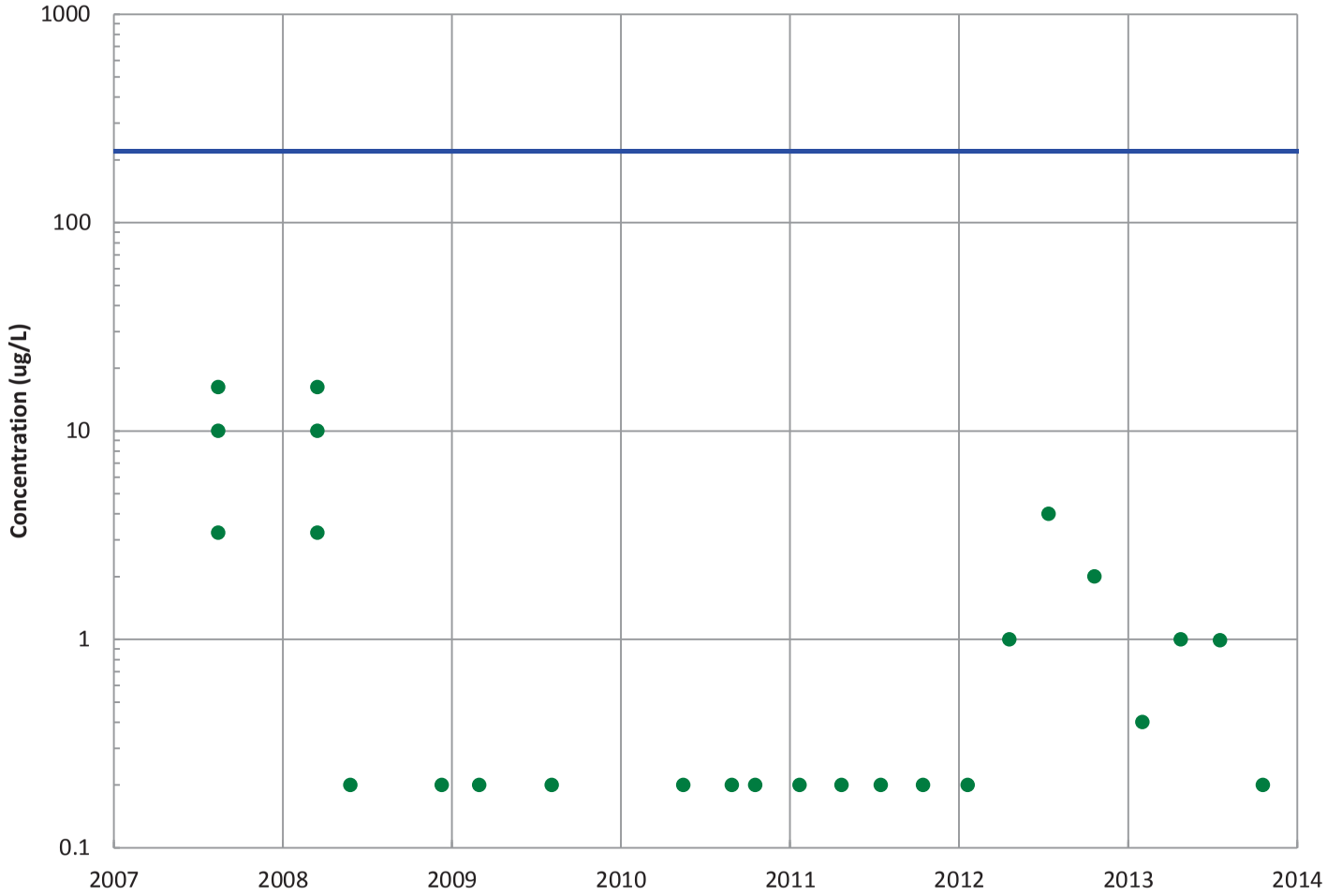
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

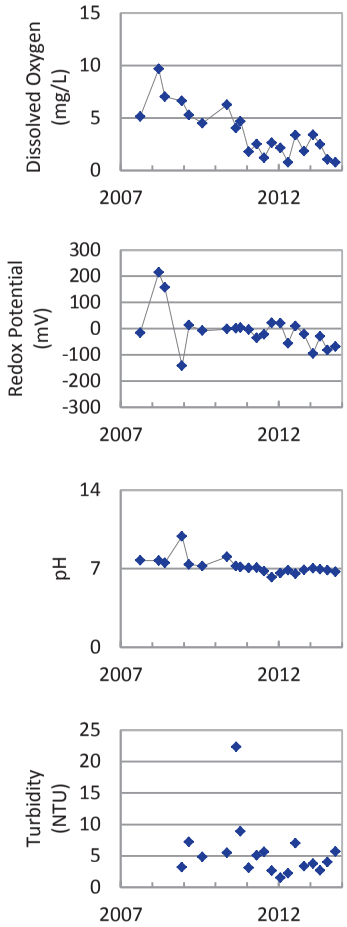
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/15/2007 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1123
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

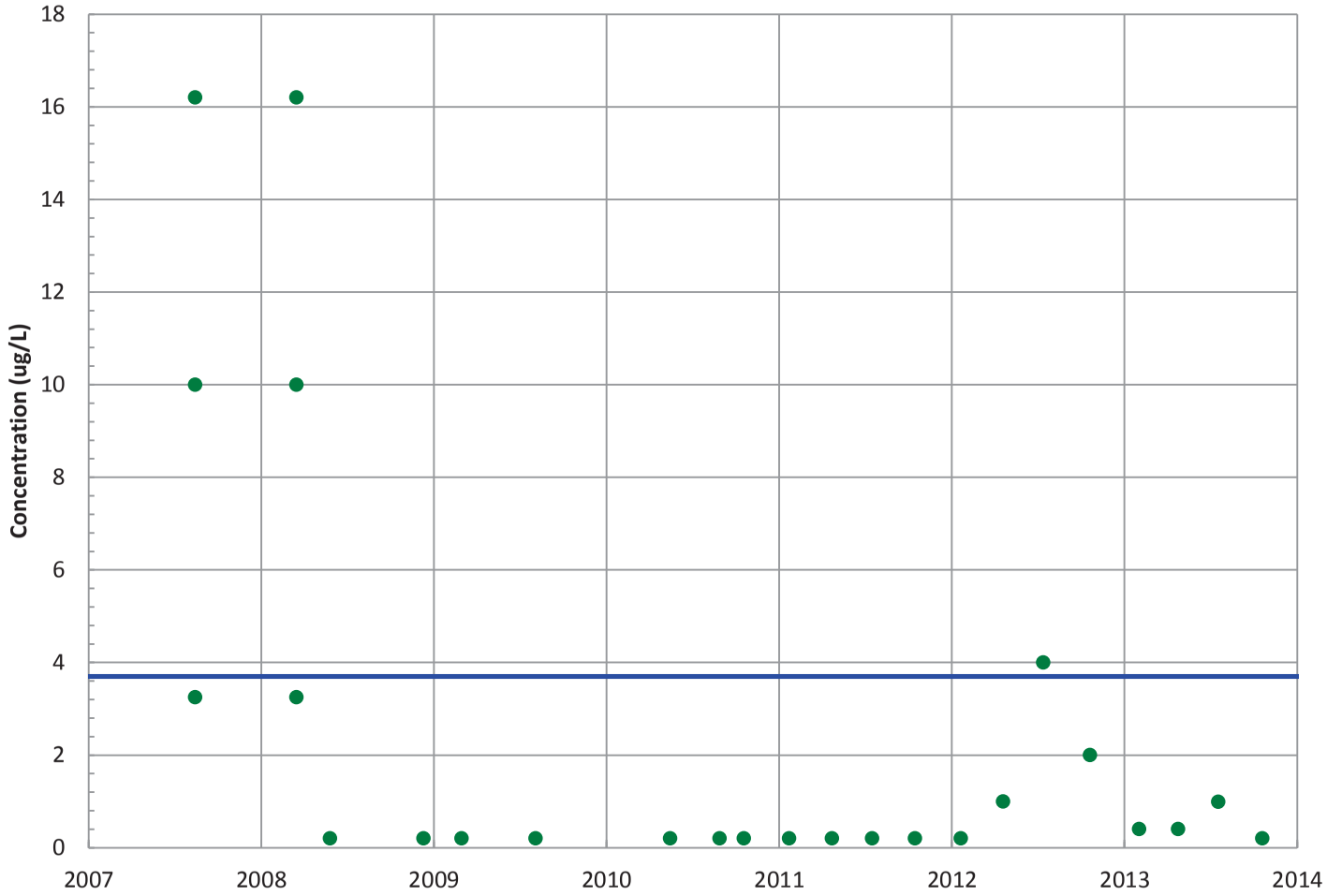
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

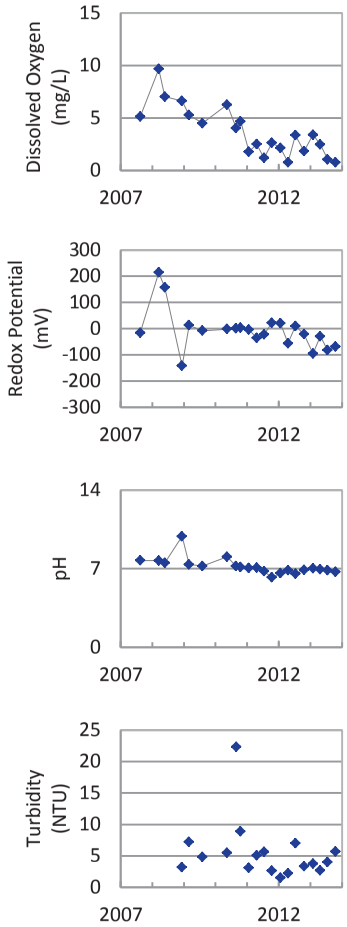
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/15/2007 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1123
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

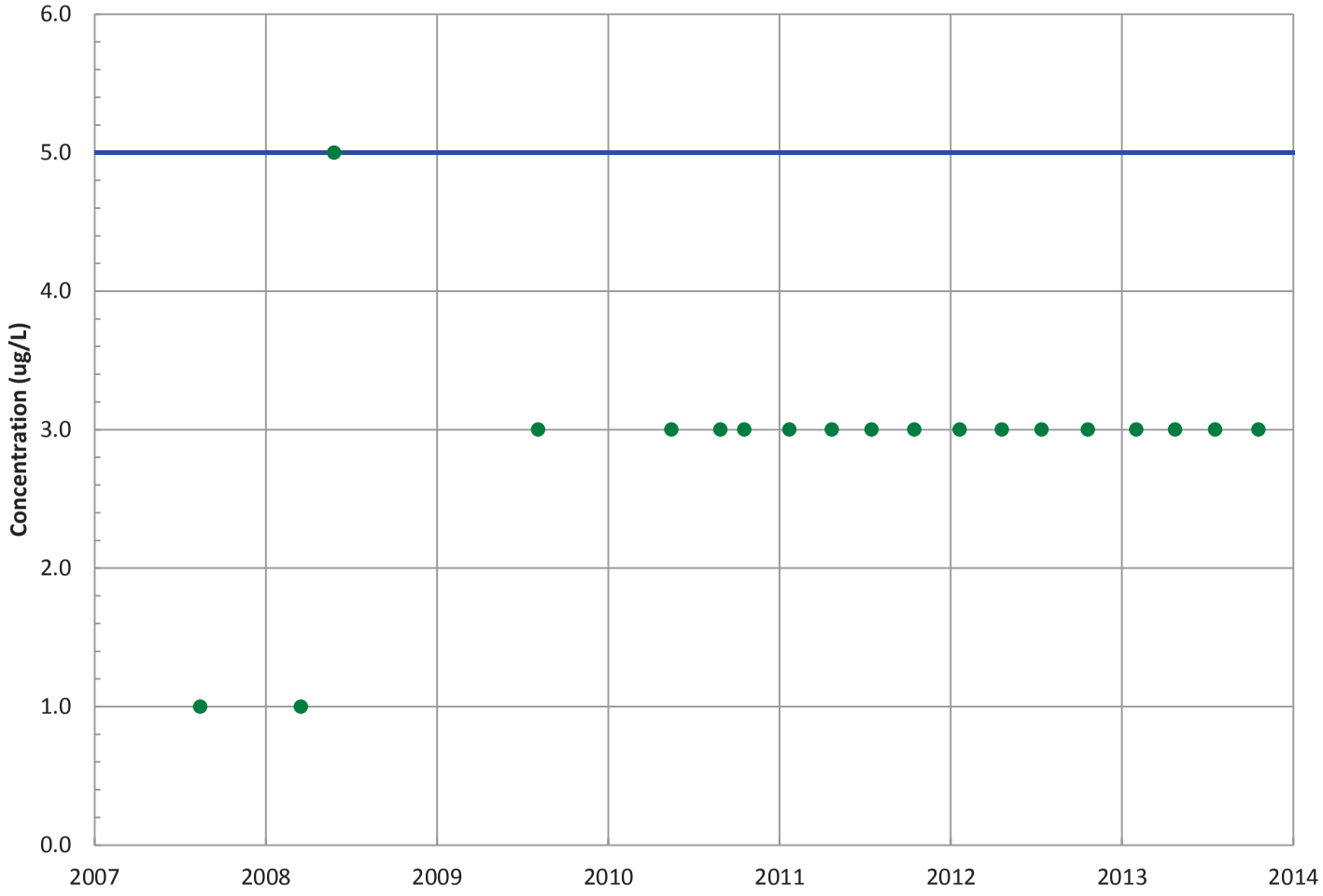
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

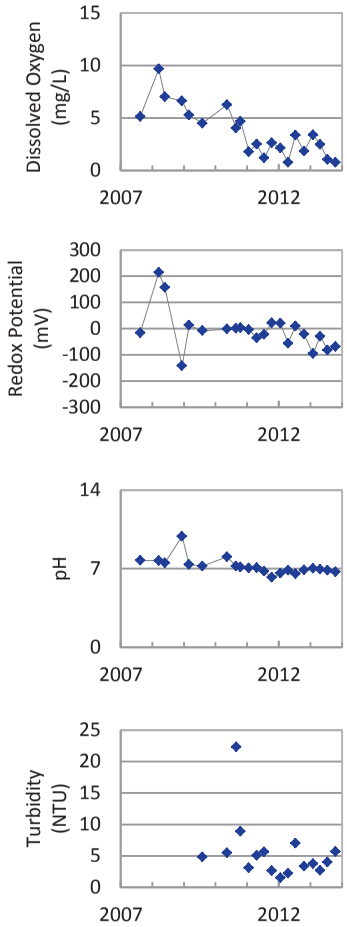
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/15/2007 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1123
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

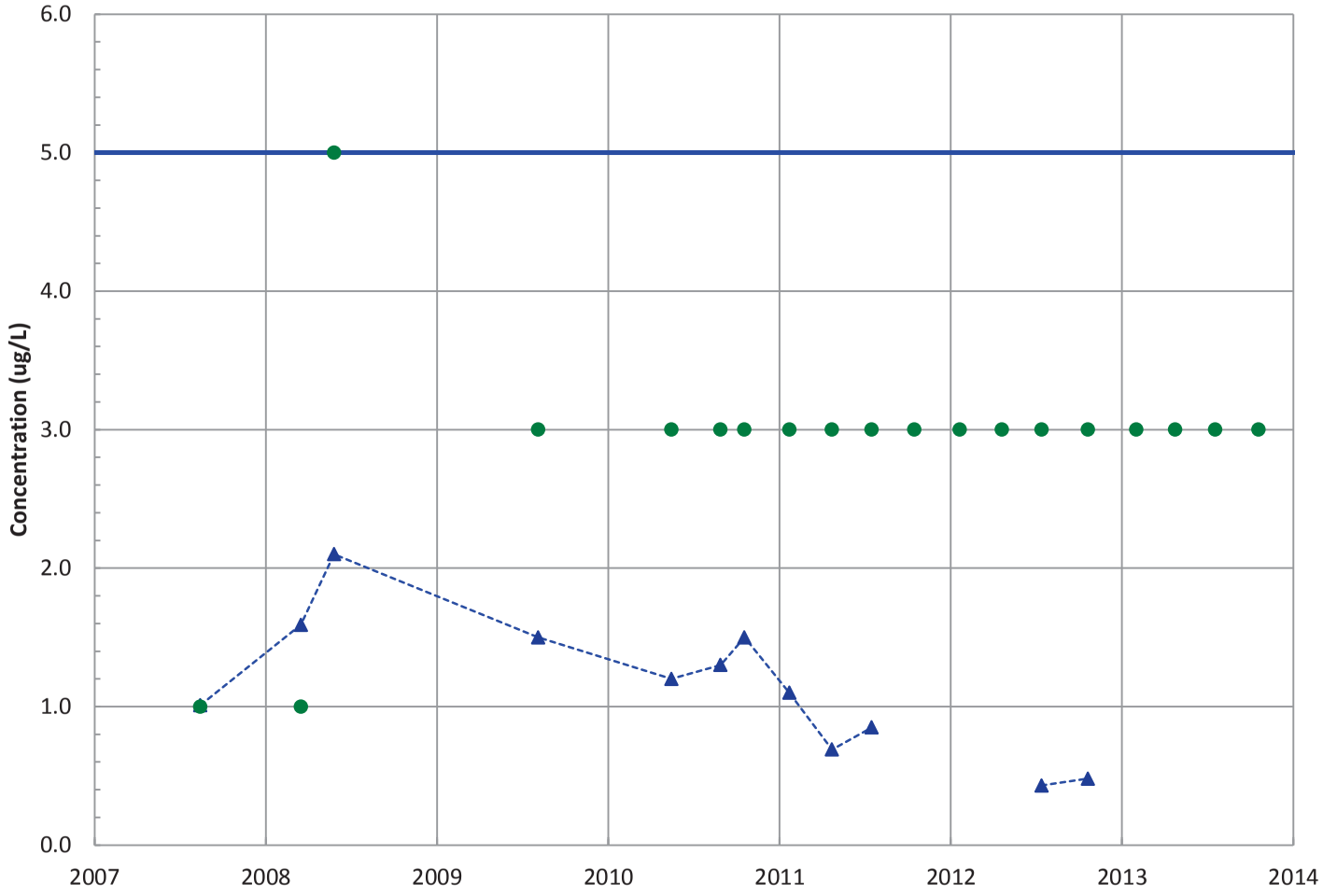
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

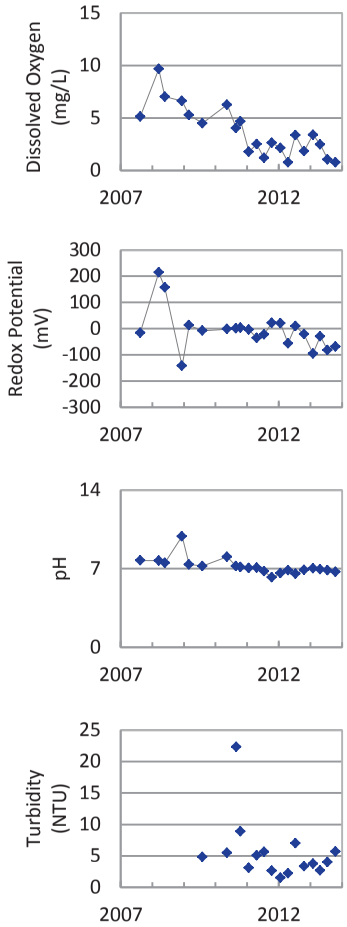
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/15/2007 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1123
Trichloroethene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Stable

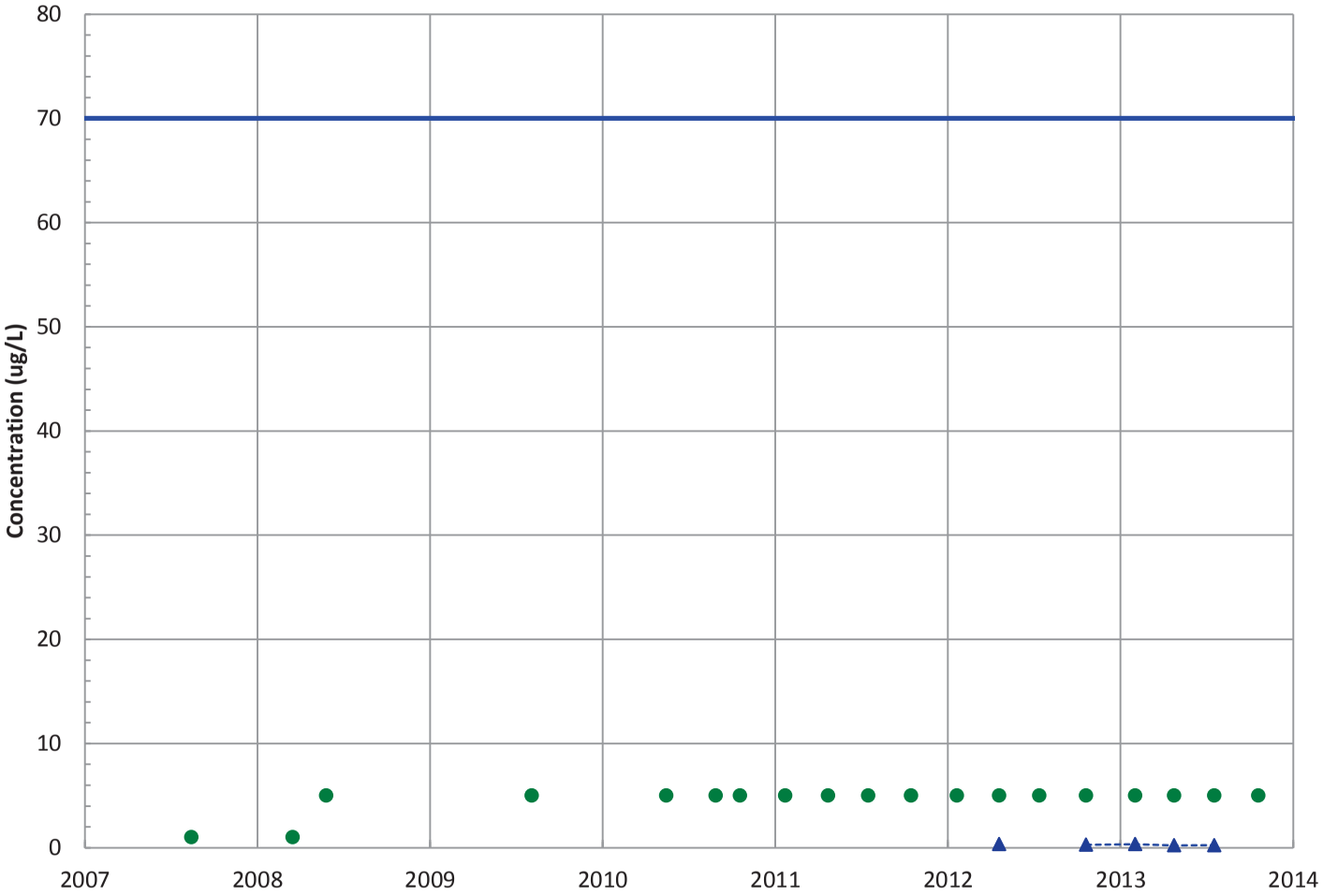
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

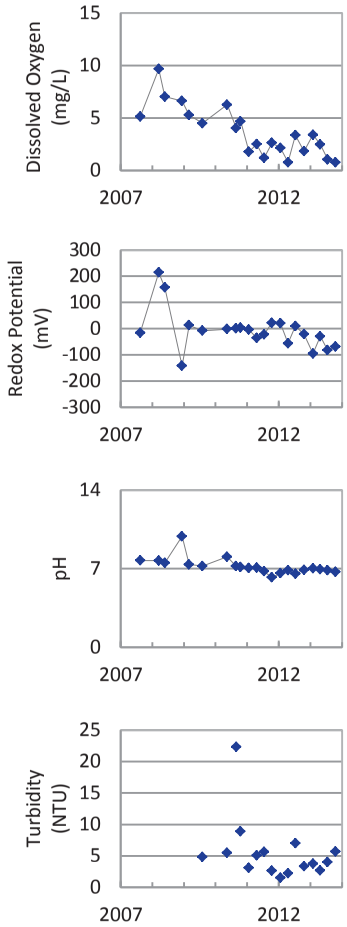
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/15/2007 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1123
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Probably Decreasing
Last 4 Samples: Stable

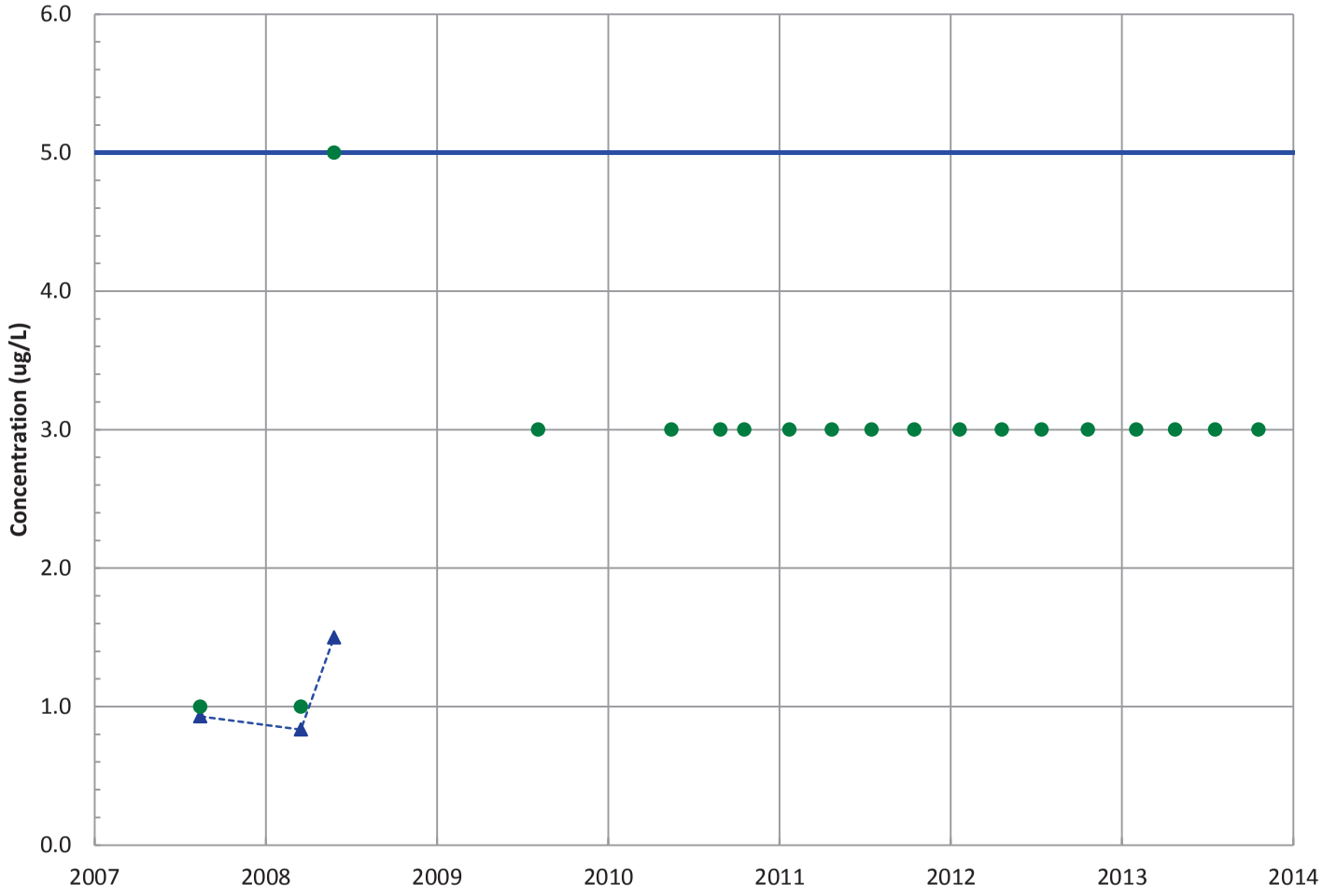
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

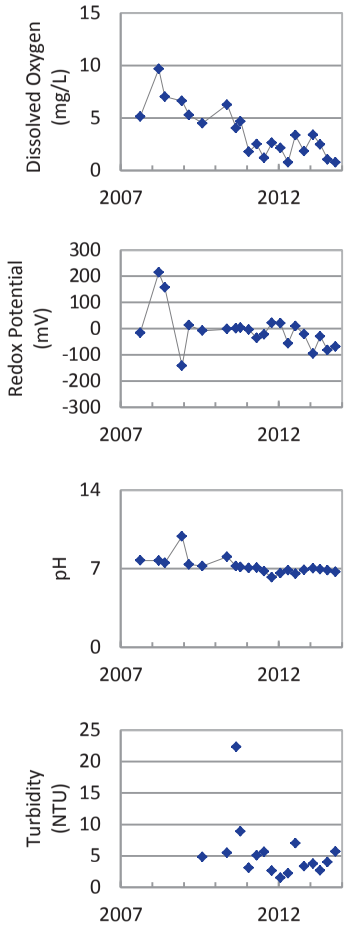
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/15/2007 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1123
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

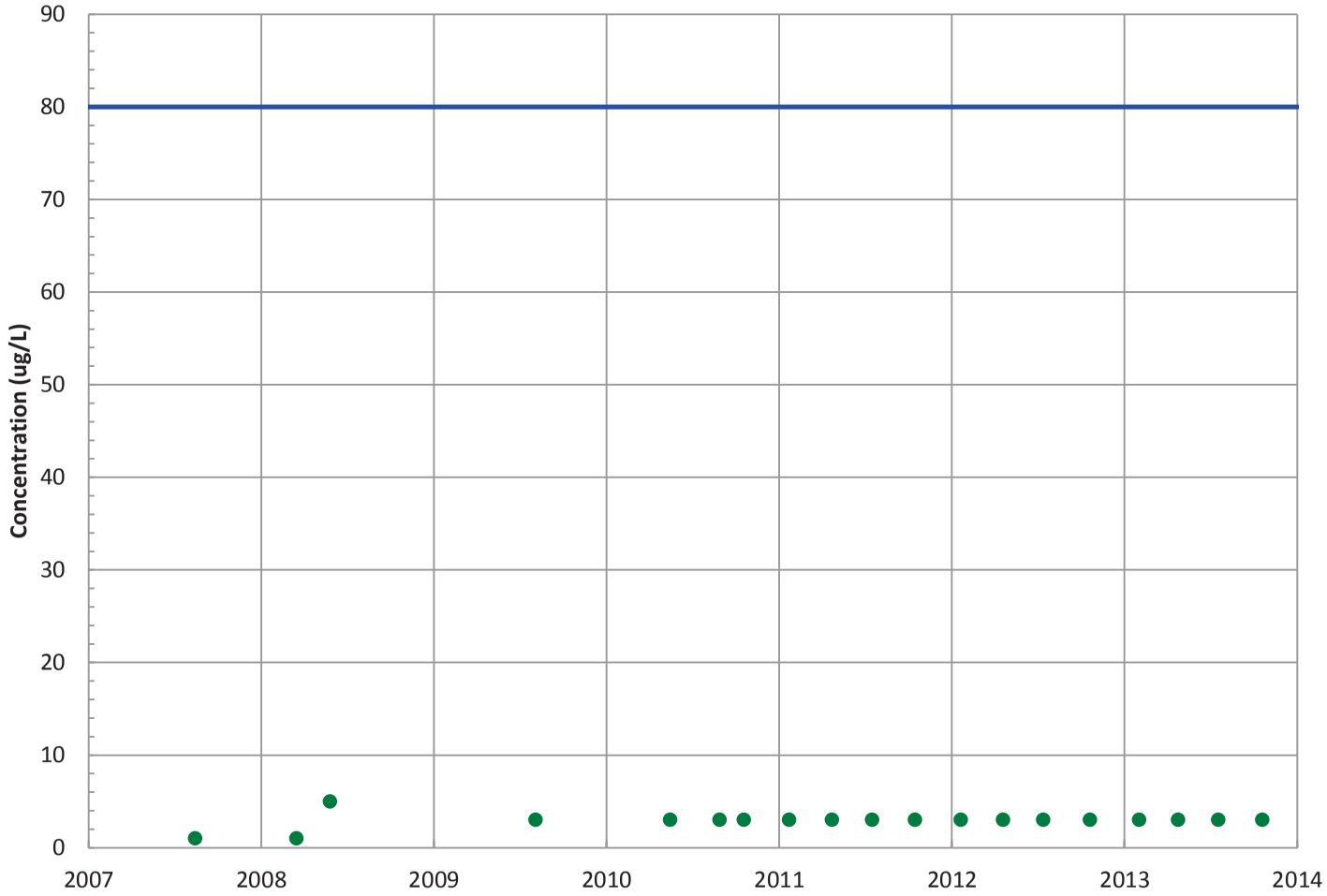
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

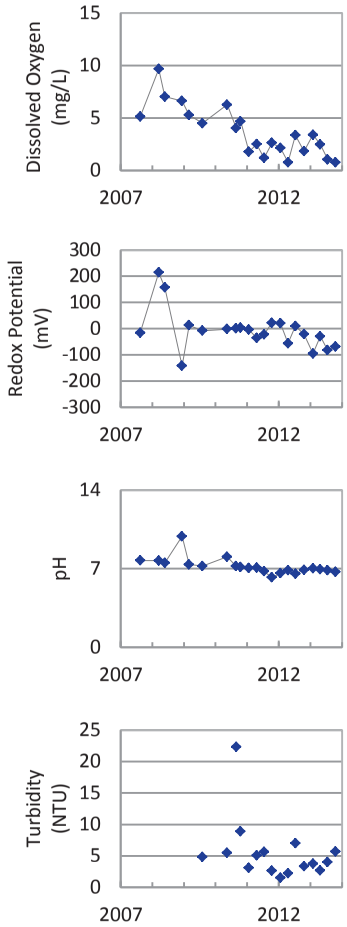
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/15/2007 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1123
Chloroform Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

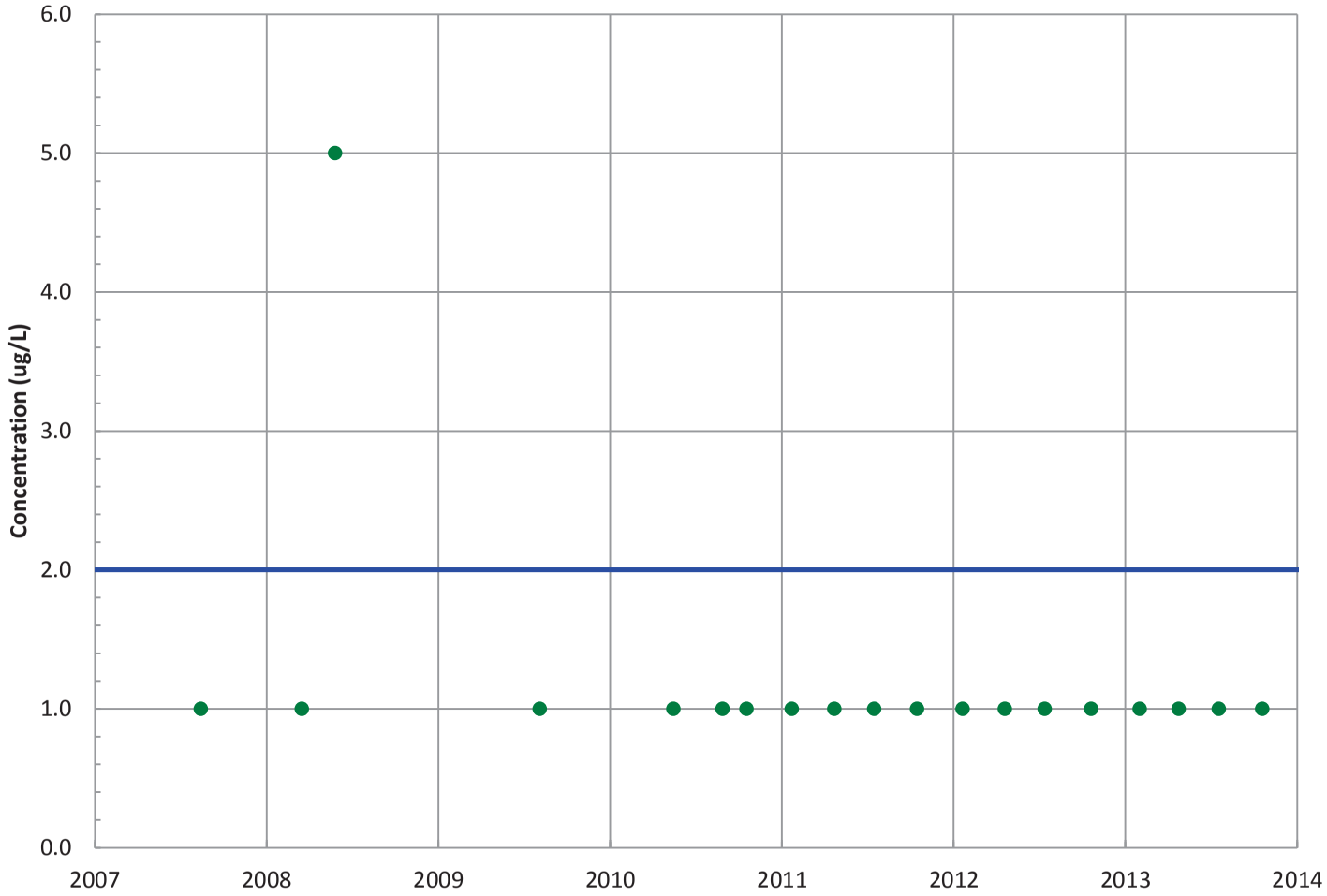
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

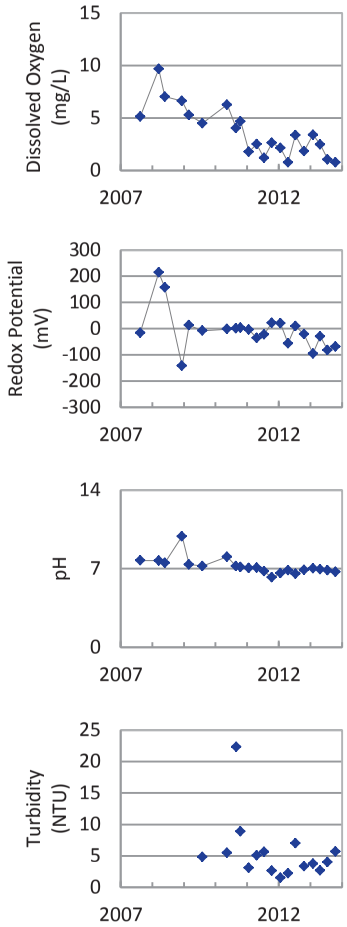
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/15/2007 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1123
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

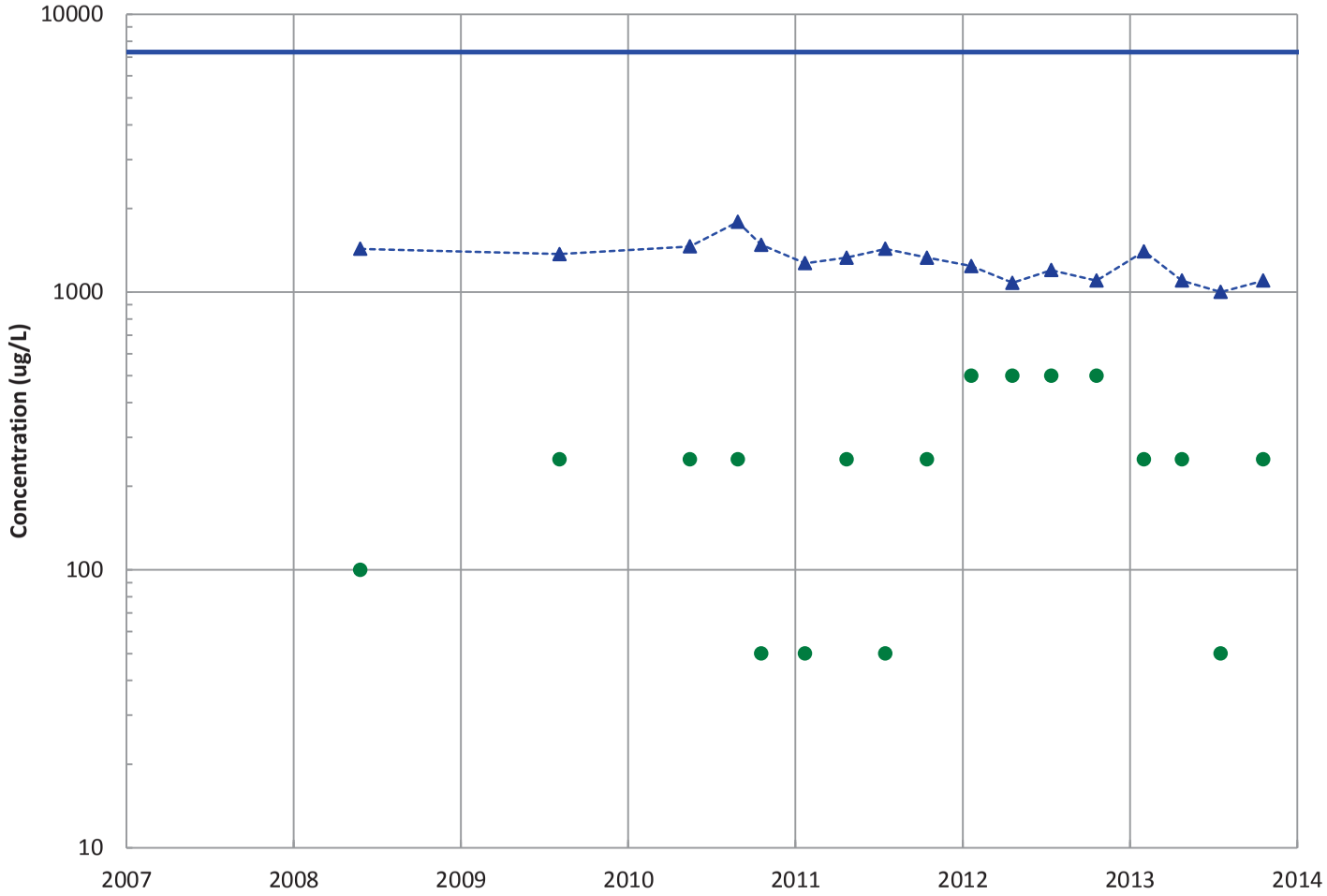
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

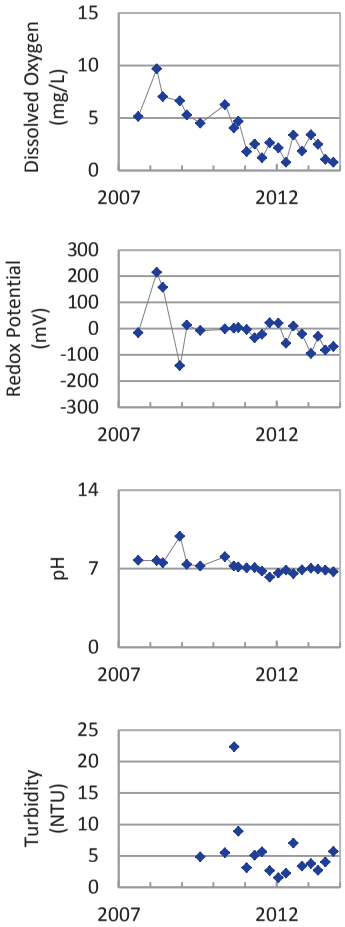
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/15/2007 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1123
Boron Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Probably Decreasing

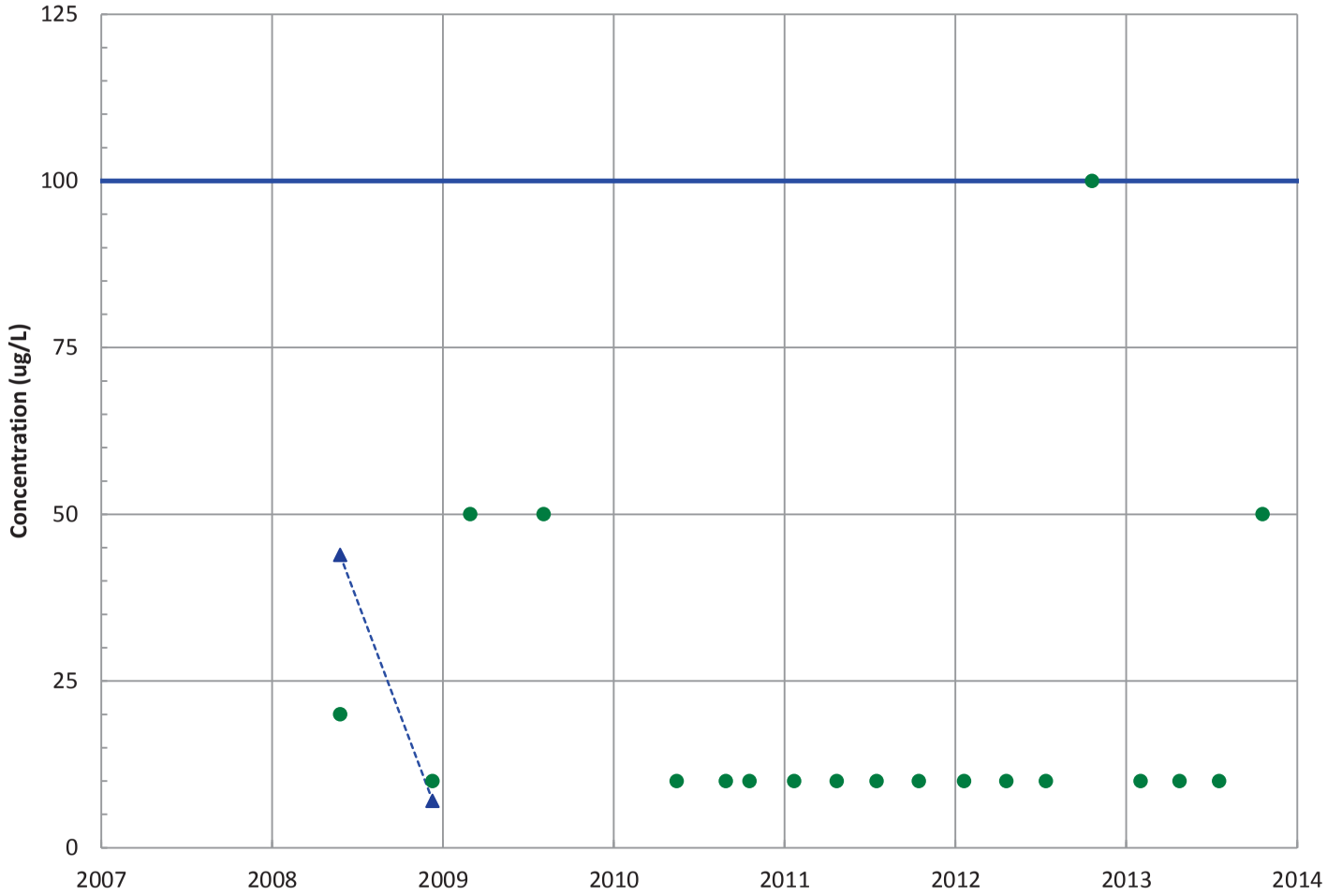
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

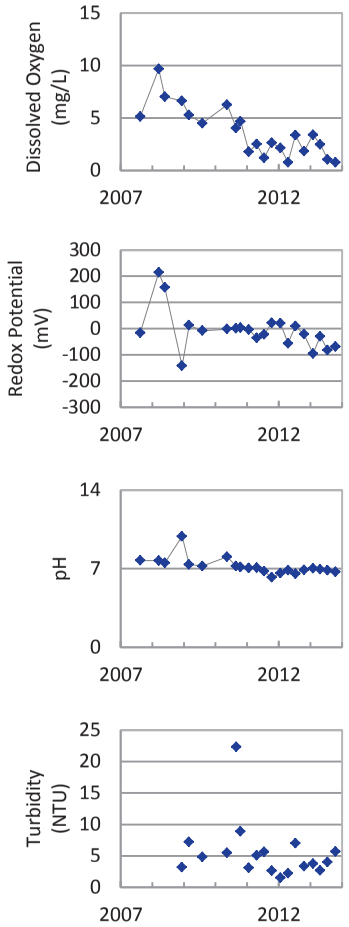
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2008 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1123
Chromium, Total Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

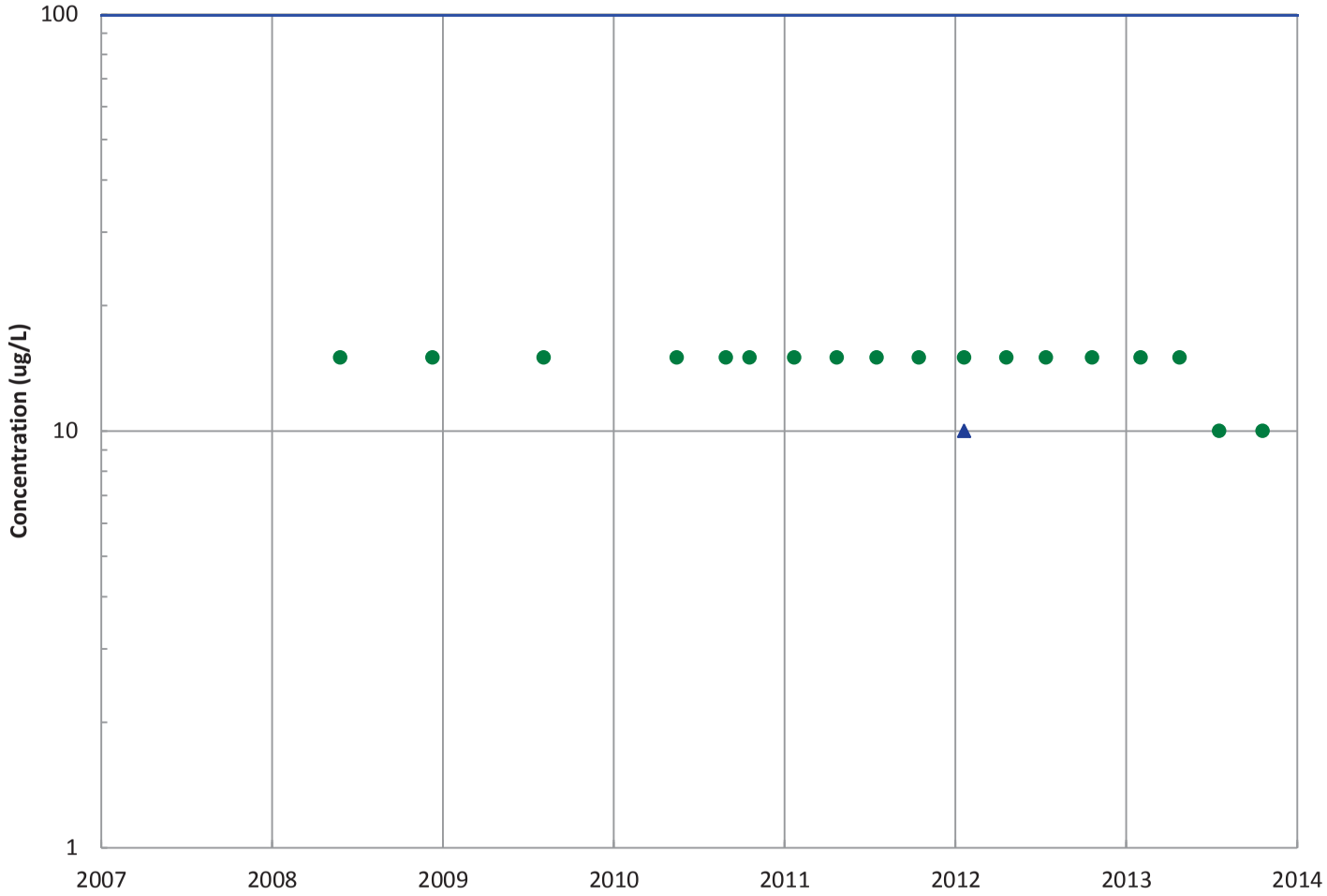
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

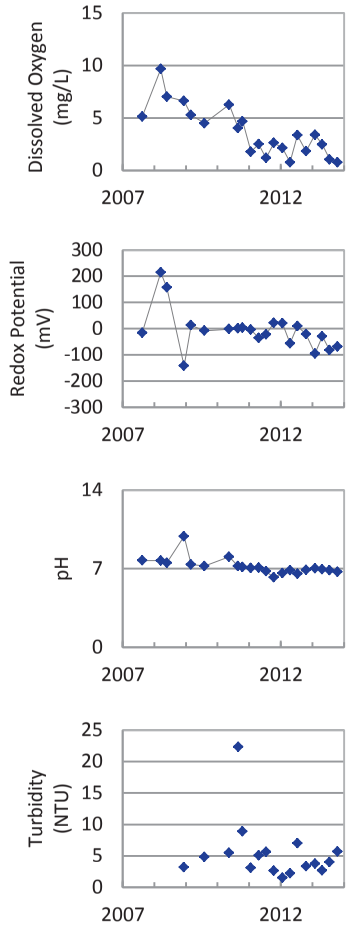
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2008 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1123
Chromium, Hexavalent Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

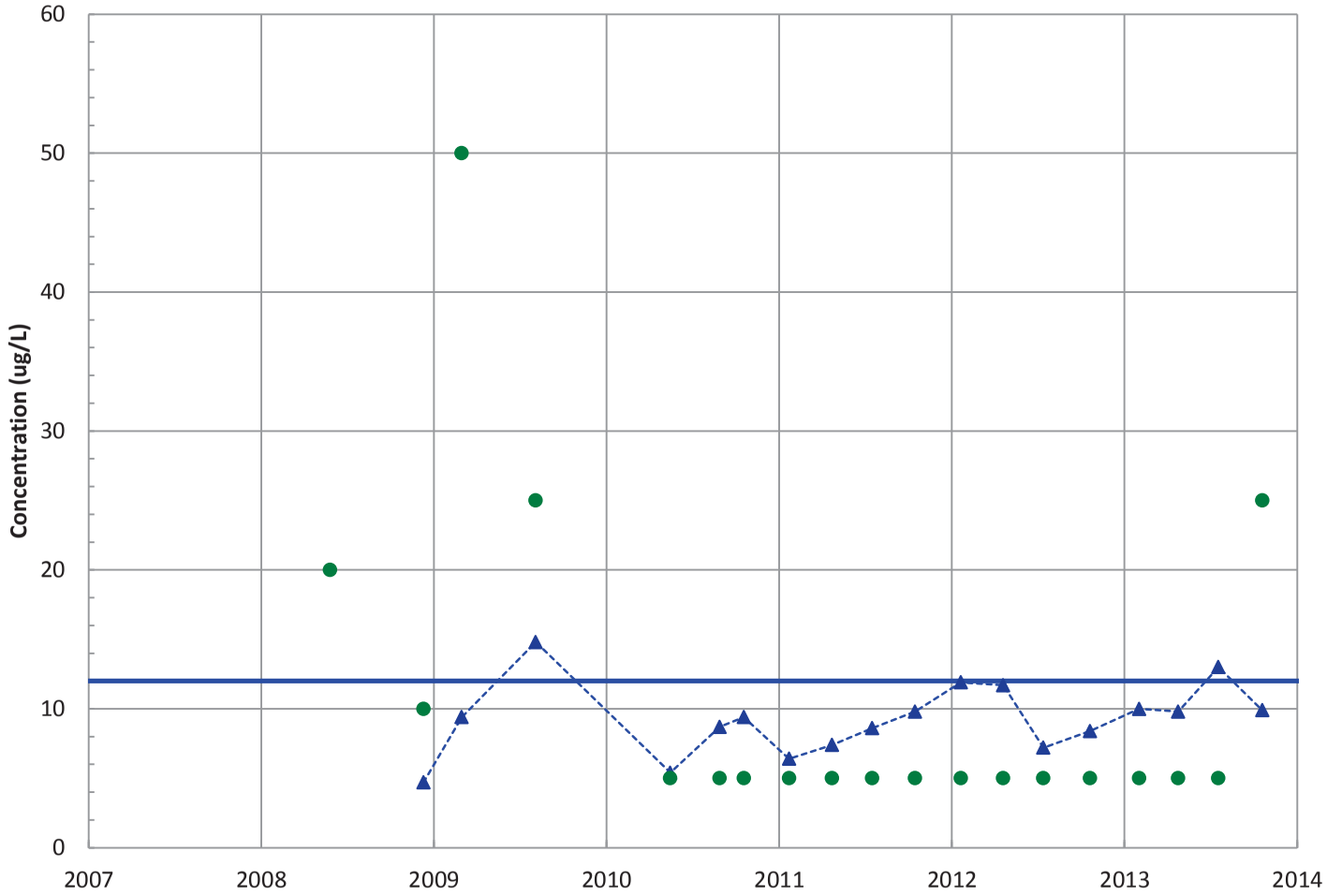
- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

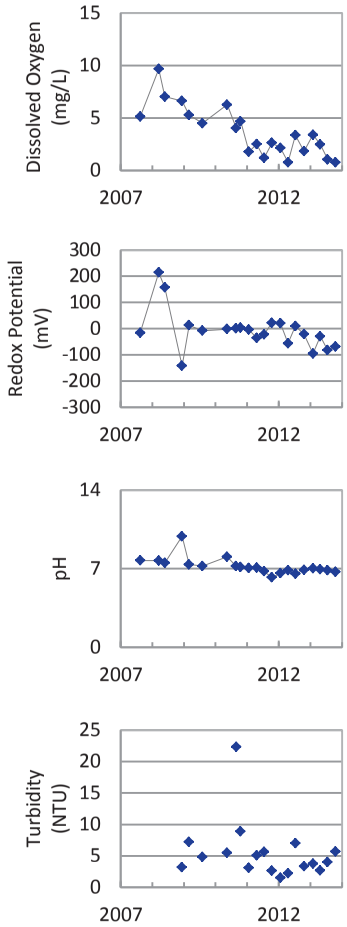
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2008 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1123
Arsenic Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Probably Increasing
Last 4 Samples: Stable

MAROS Linear Regression Method
All Data: Probably Increasing
Last 4 Samples: No Trend

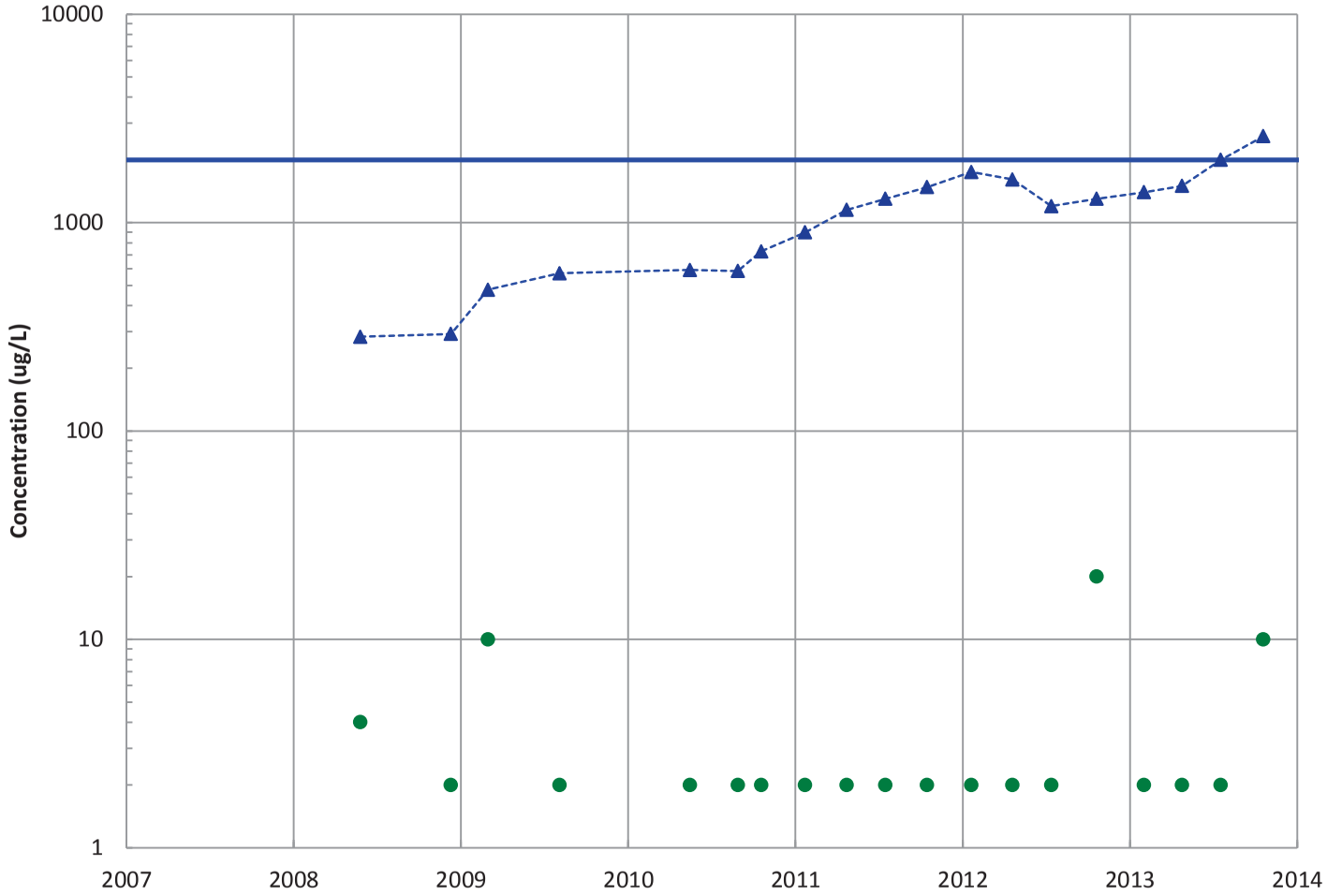
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

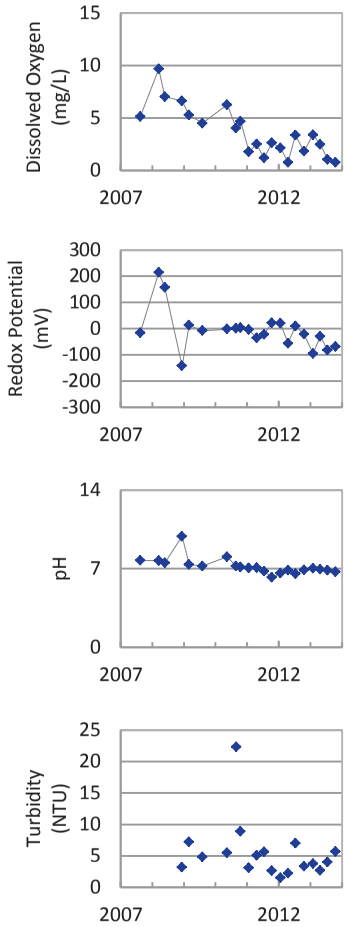
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2008 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1123
Barium Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Increasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Increasing

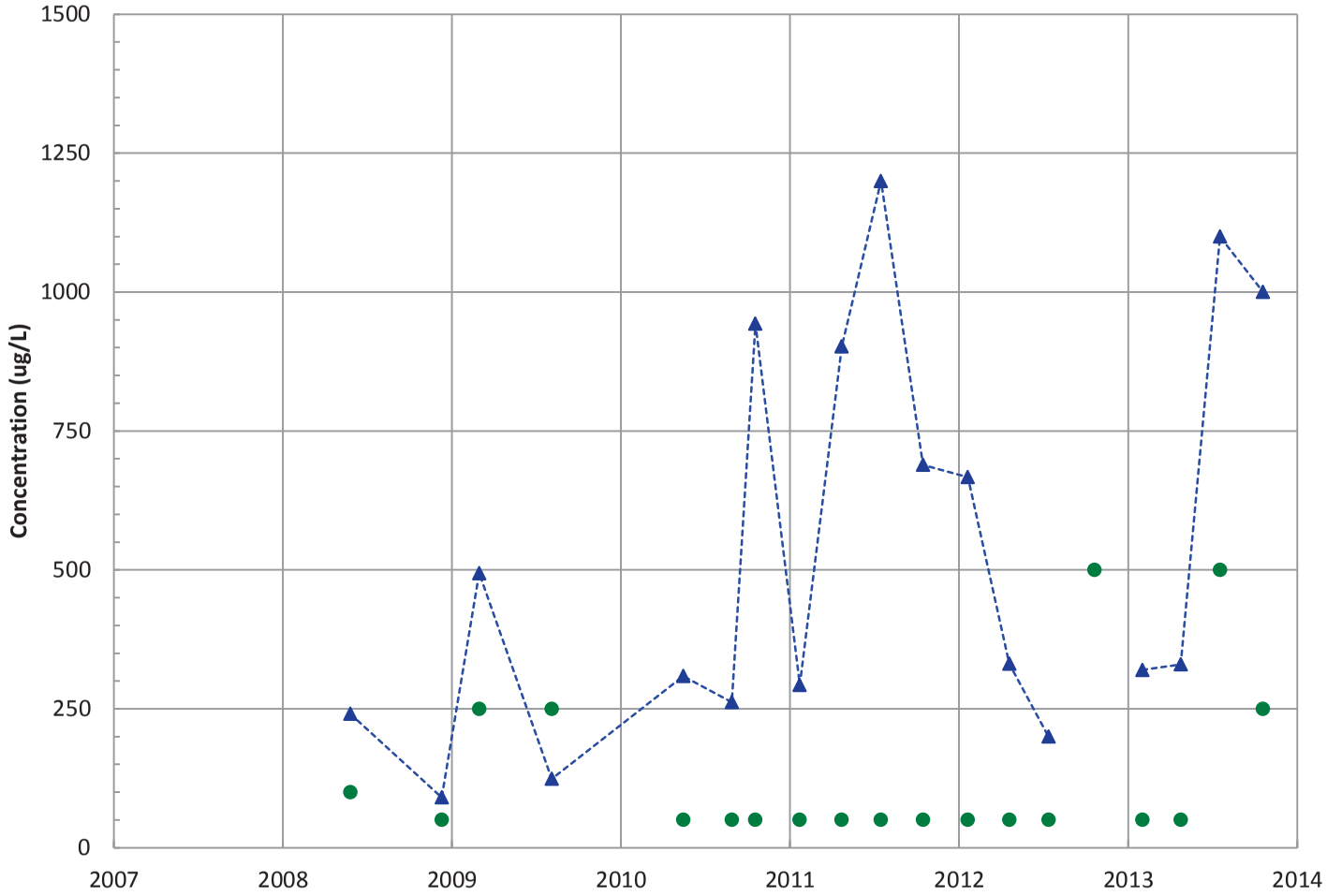
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

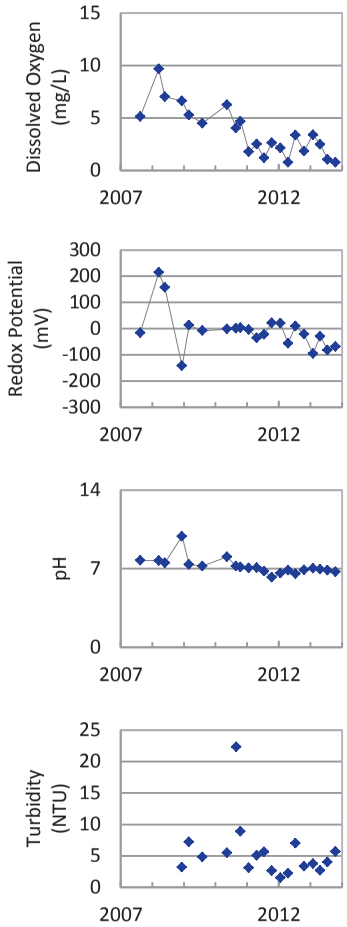
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2008 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1123
Iron Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Probably Increasing

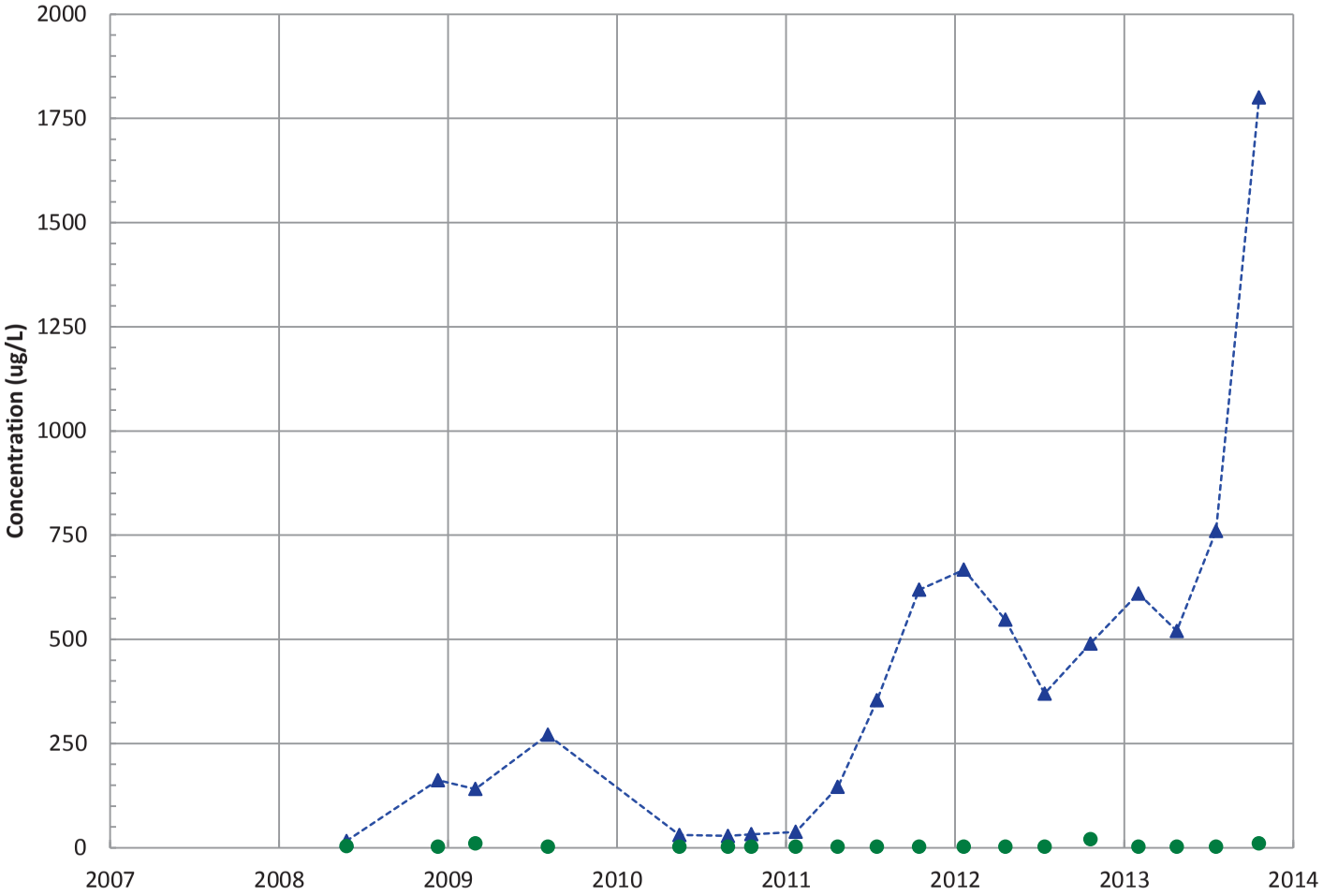
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

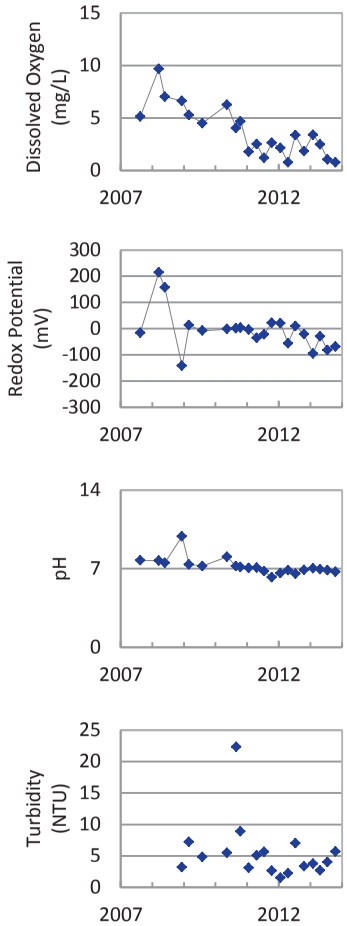
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2008 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1123
Manganese Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: No Trend

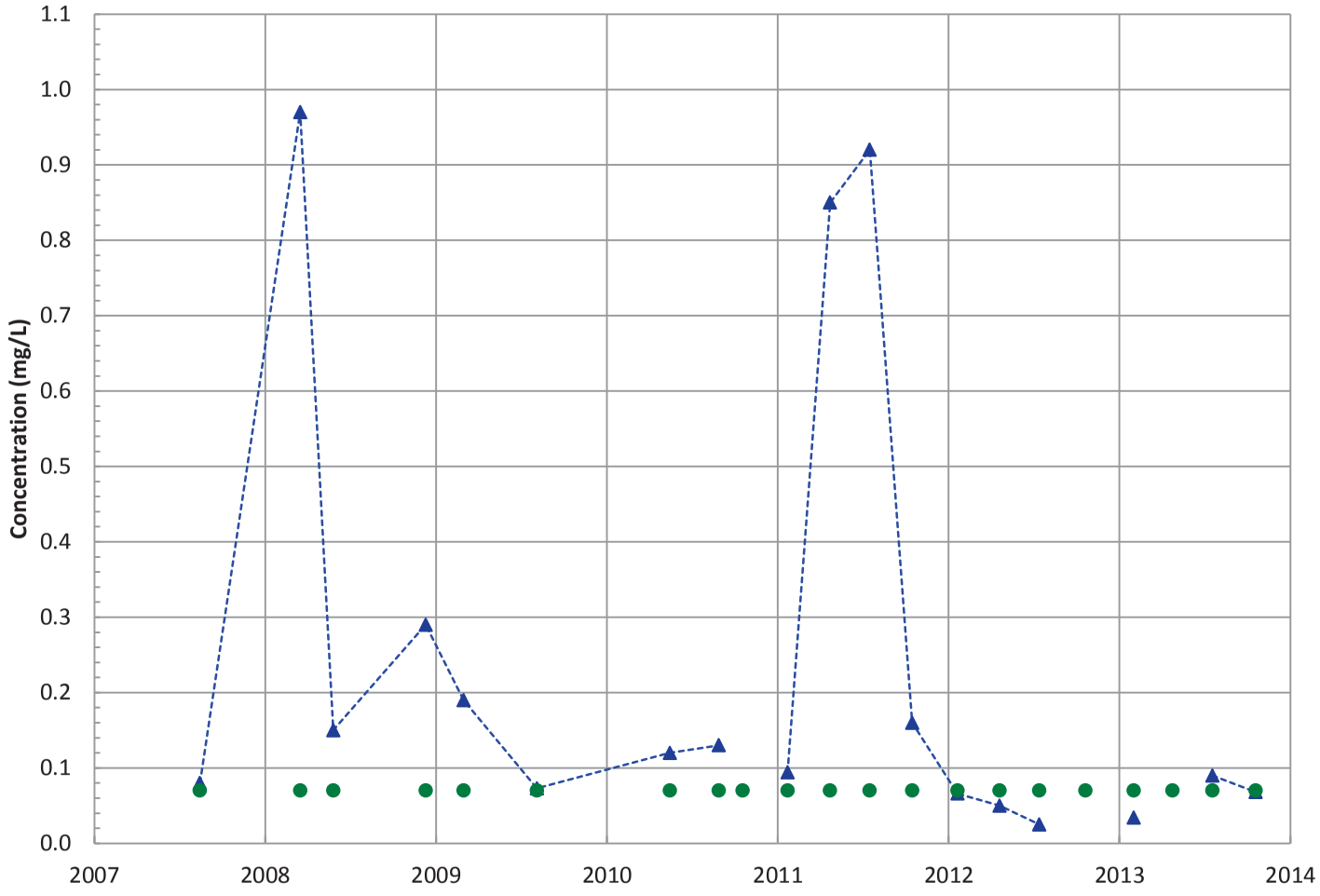
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

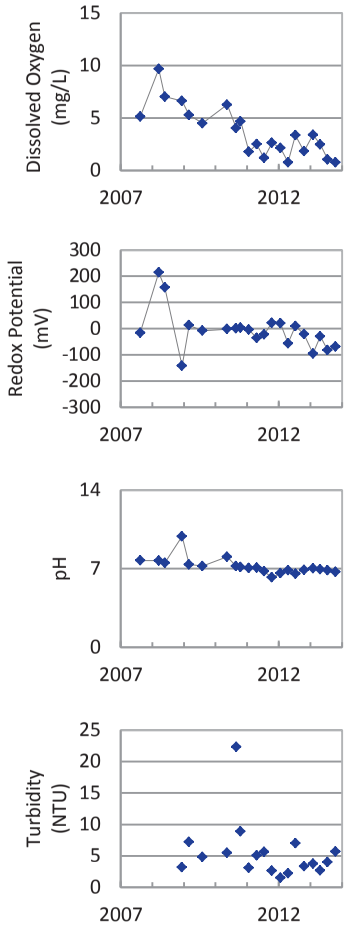
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2008 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1123
Acetic Acid Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

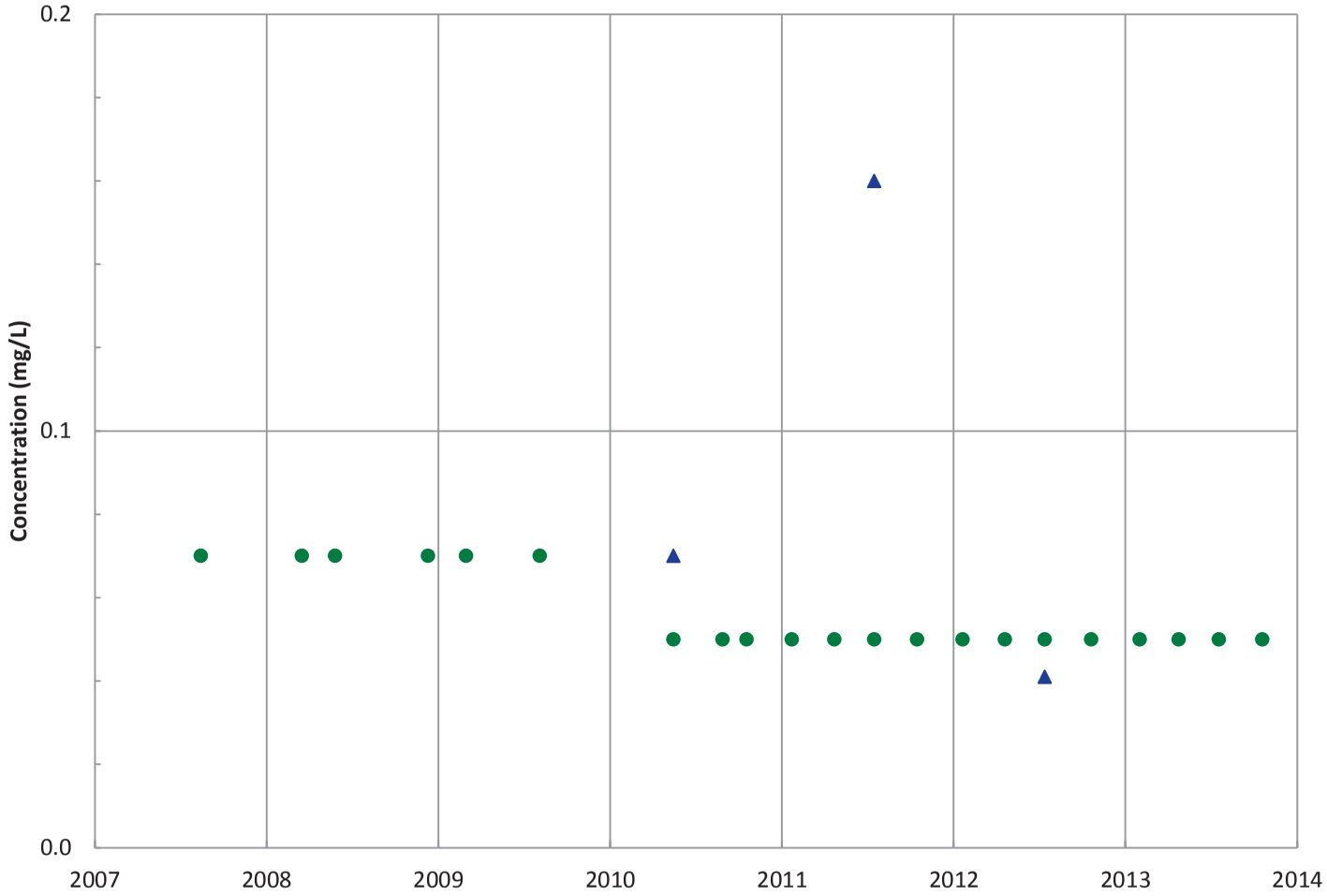
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

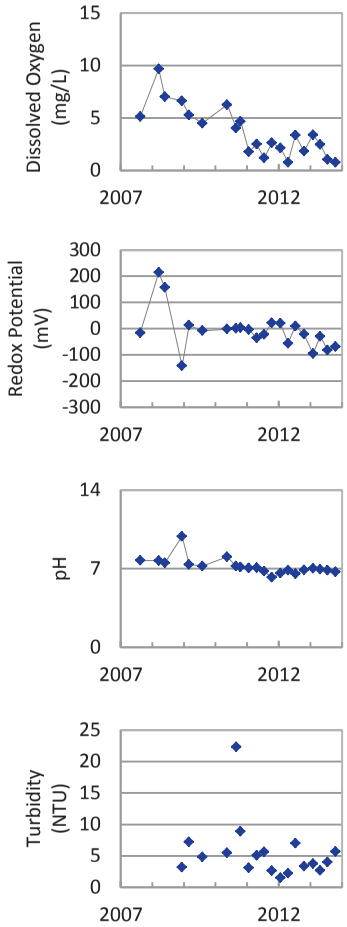
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/15/2007 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1123
Butyric Acid Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

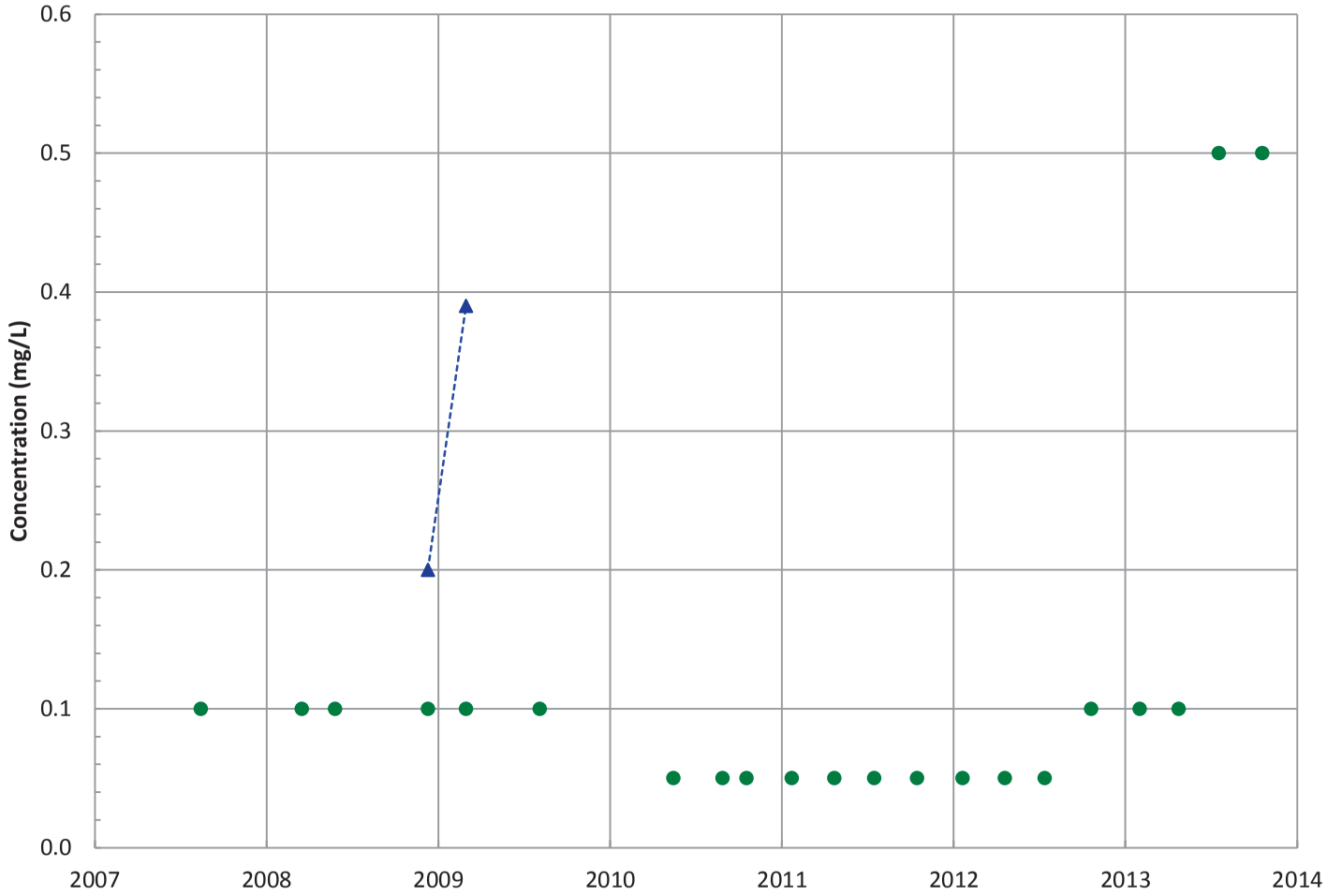
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
Injection Dates

Well Location

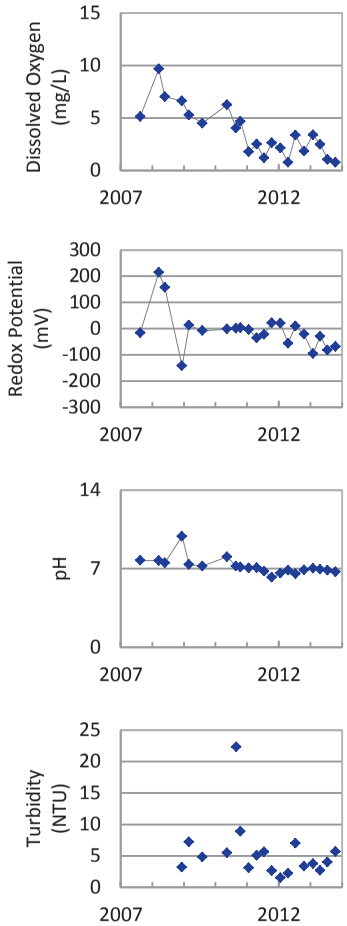
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/15/2007 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1123
Hexanoic Acid Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

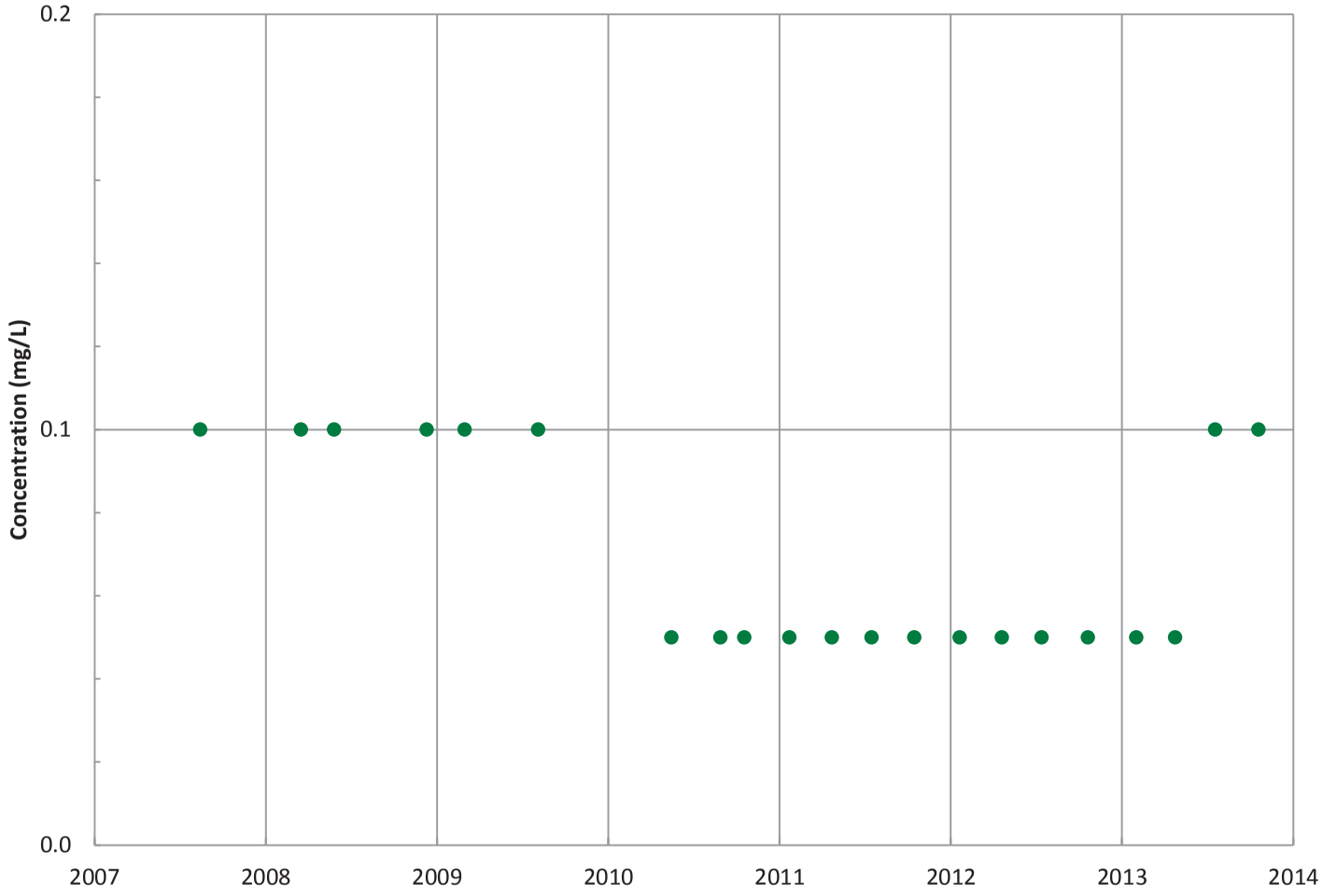
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Injection Dates

Well Location

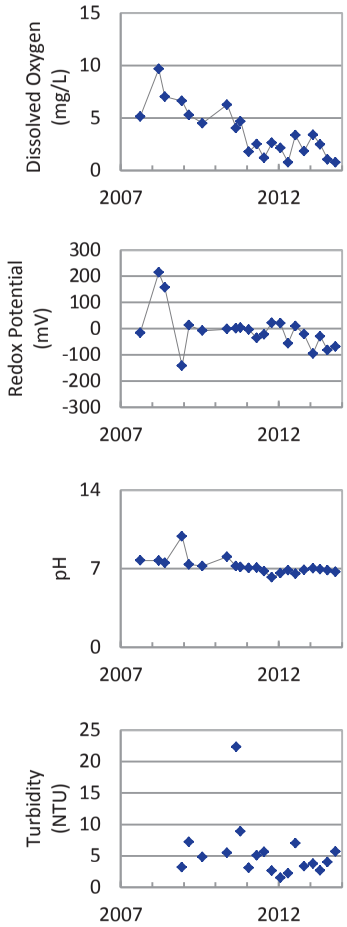
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/15/2007 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1123
i-Hexanoic Acid Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

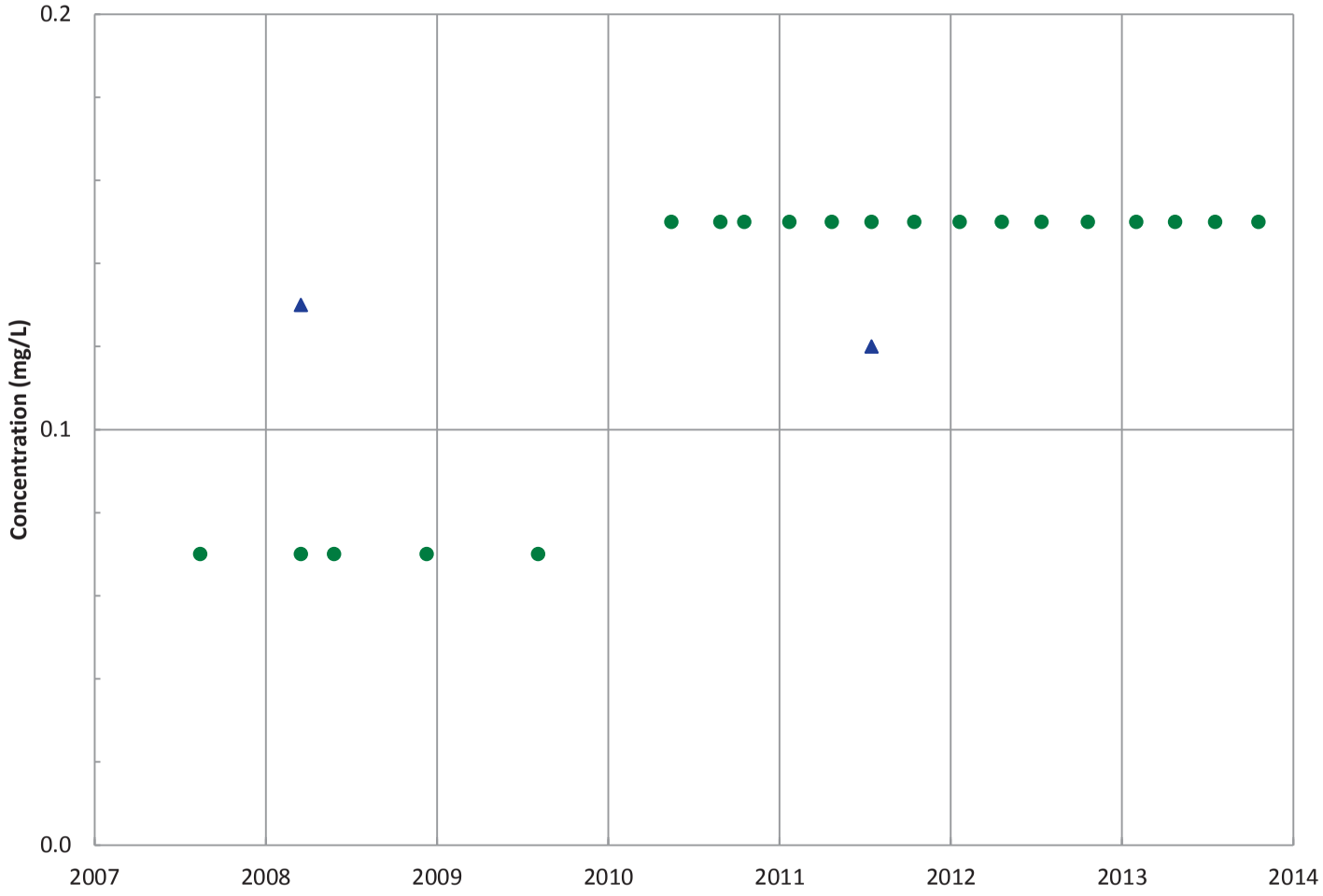
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
Injection Dates

Well Location

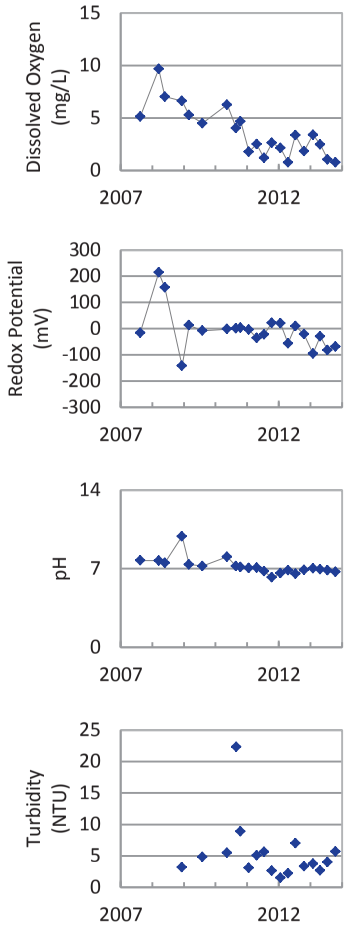
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/15/2007 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1123
i-Pentanoic Acid Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

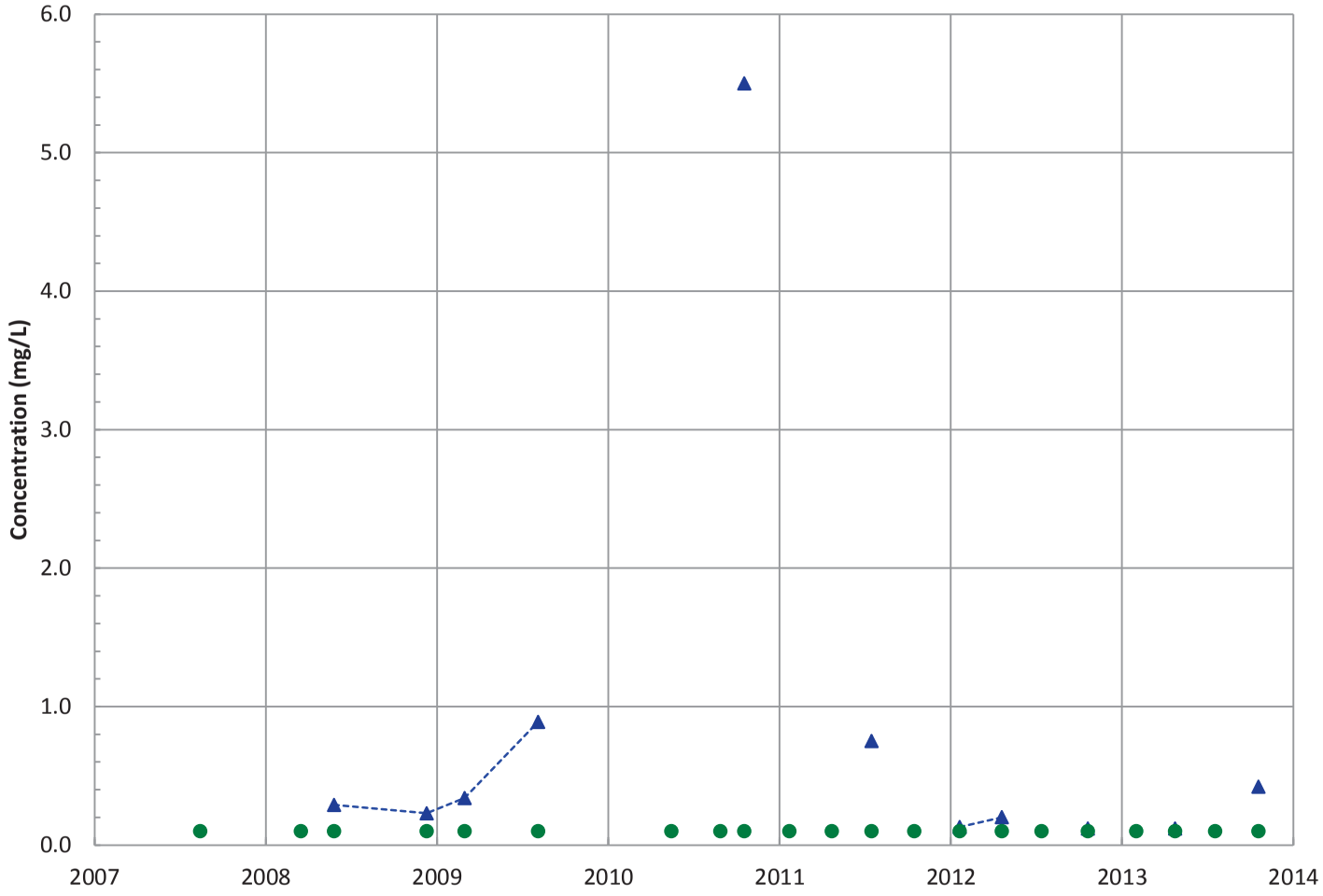
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Injection Dates

Well Location

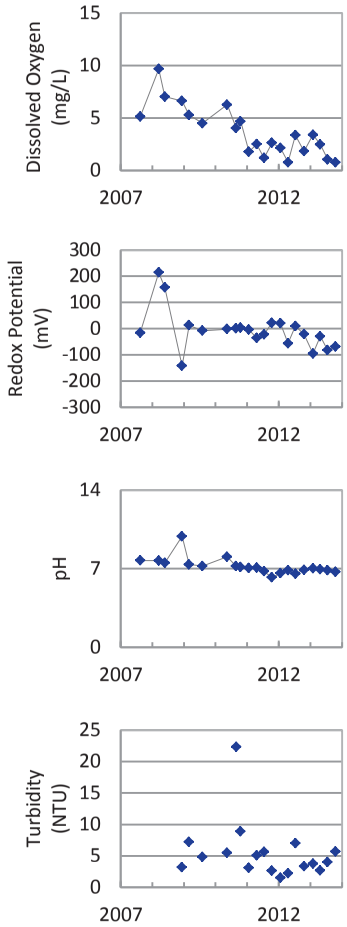
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/15/2007 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1123
Lactic Acid and HIBA Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

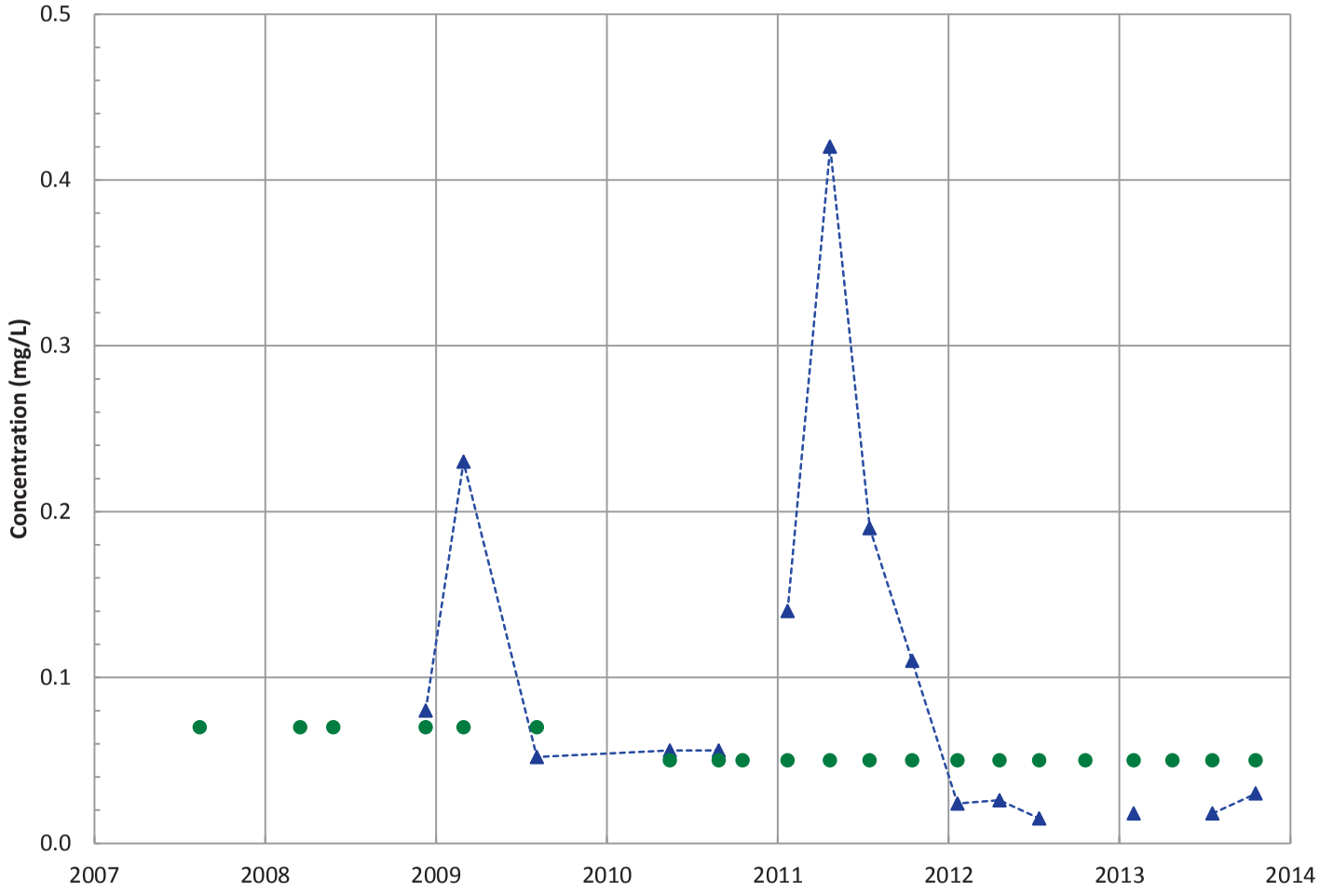
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

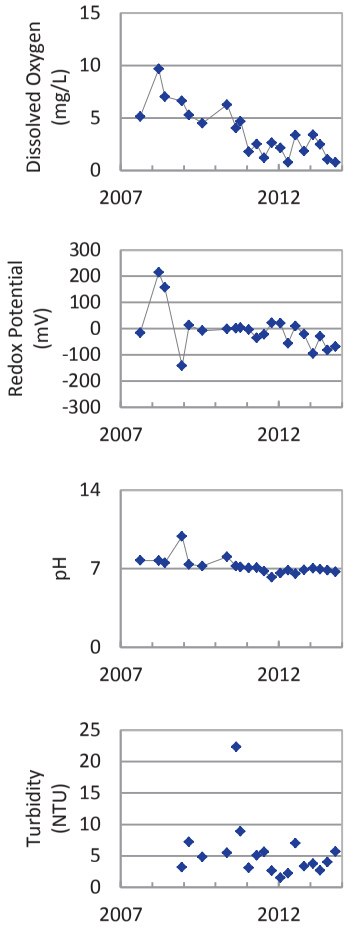
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/15/2007 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1123
Propionic Acid Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Increasing

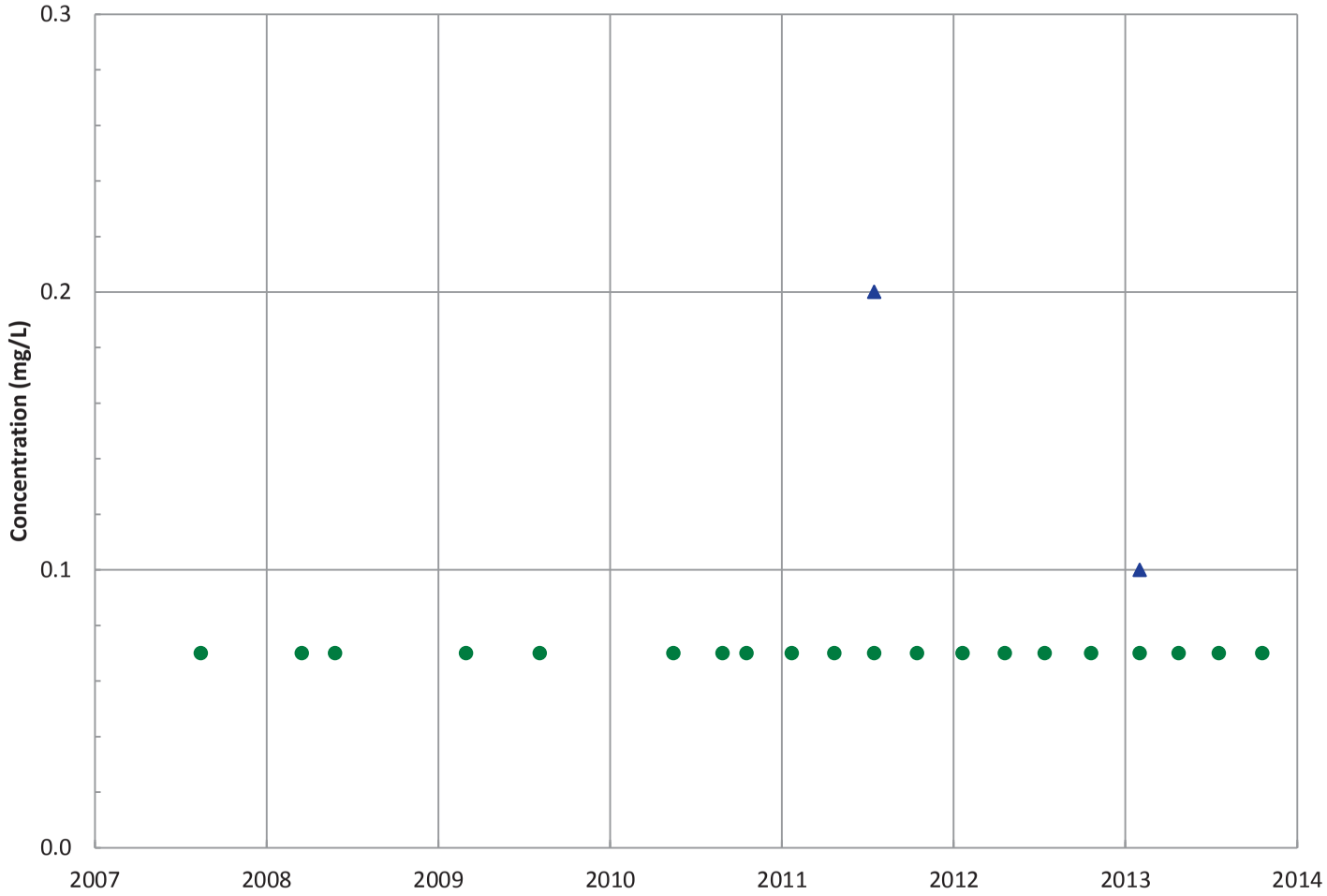
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

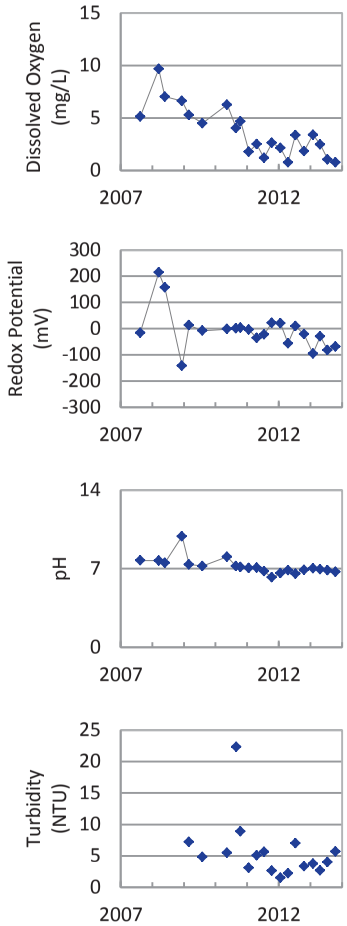
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/15/2007 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1123
Pentanoic Acid Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

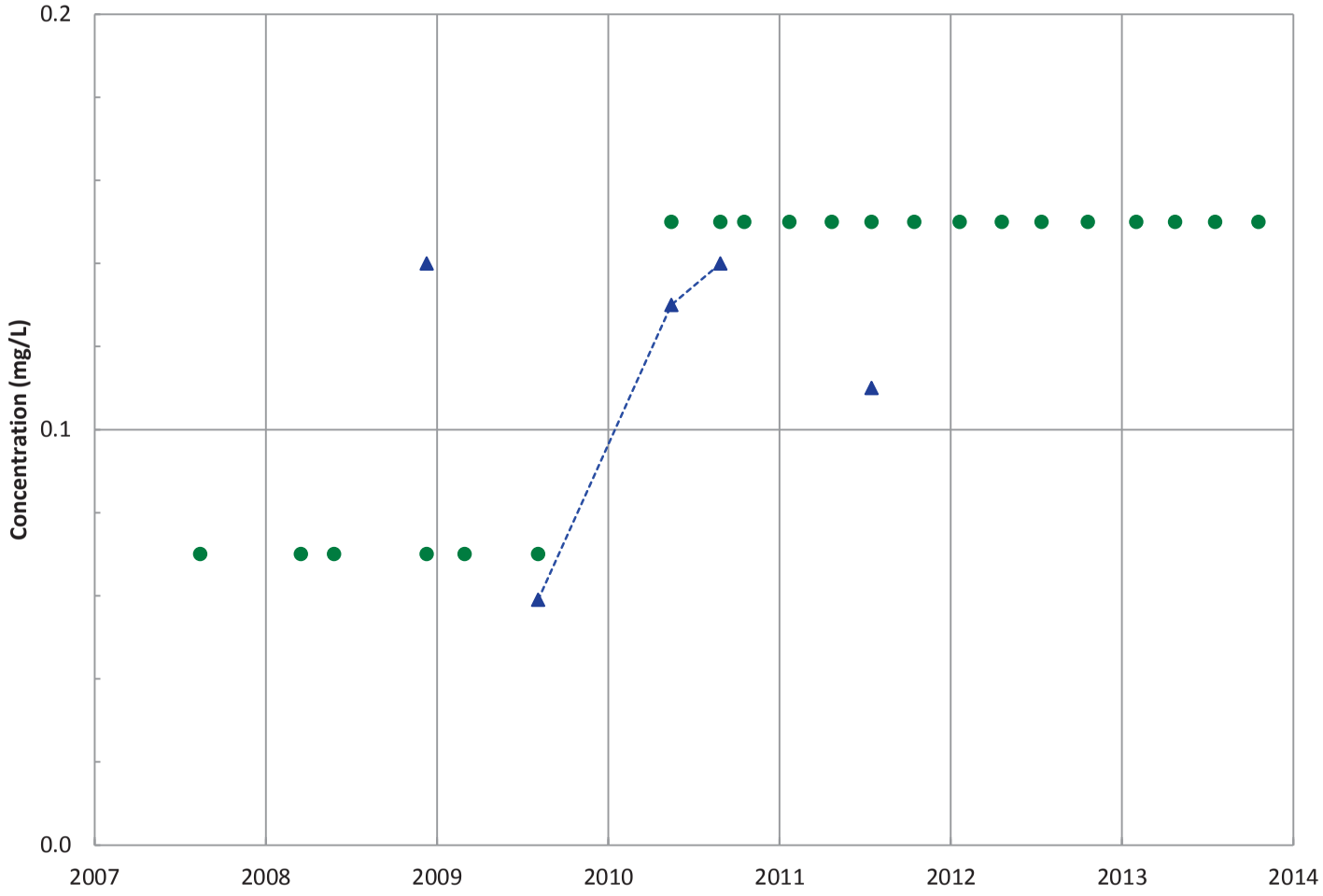
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Injection Dates

Well Location

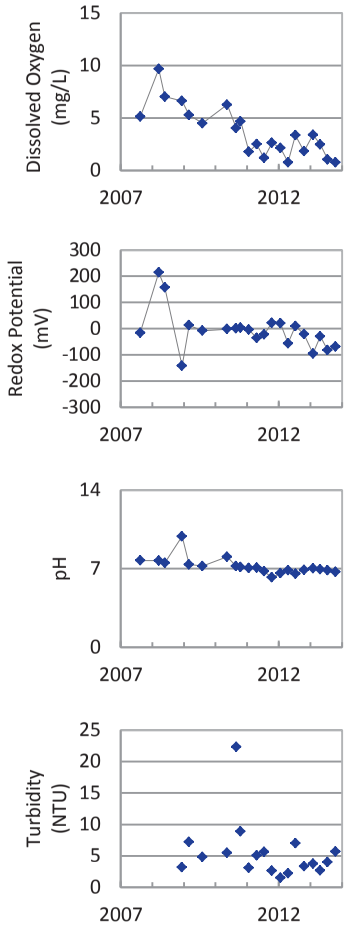
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/15/2007 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1123
Pyruvic Acid Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

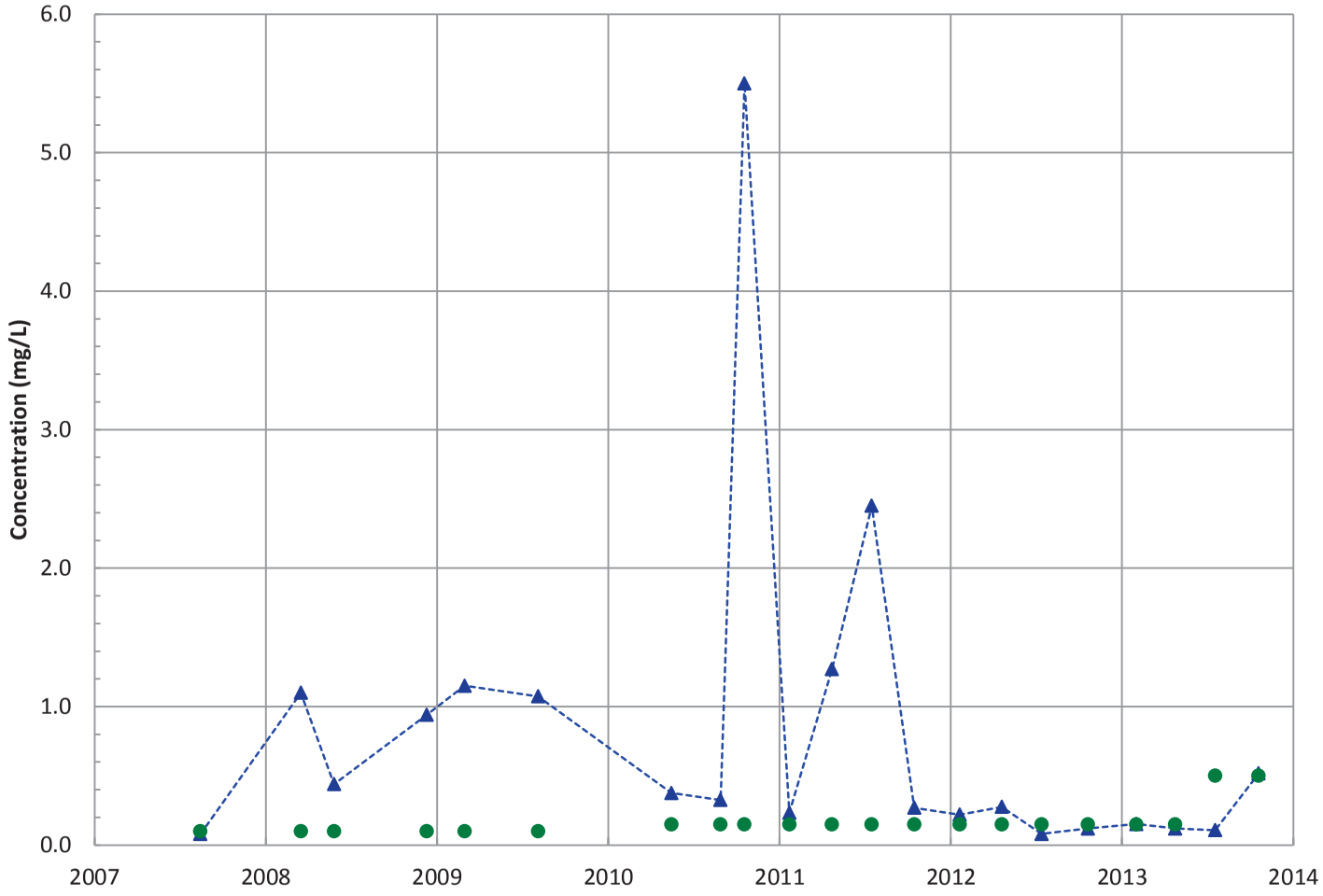
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

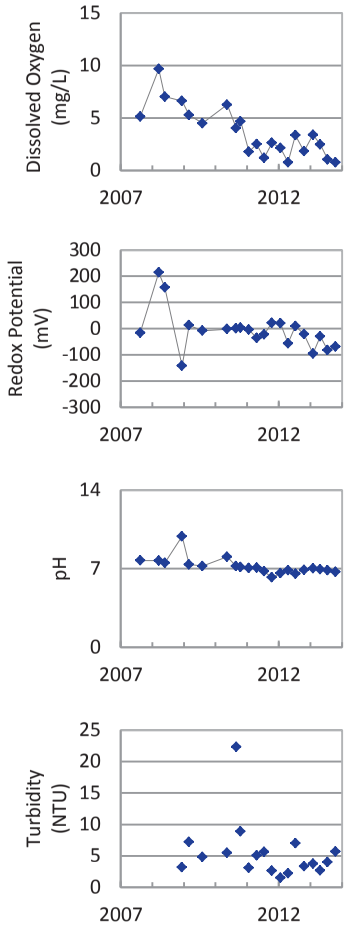
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/15/2007 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1123
Total Volatile Fatty Acids Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Stable

MAROS Linear Regression Method
All Data: Probably Decreasing
Last 4 Samples: No Trend

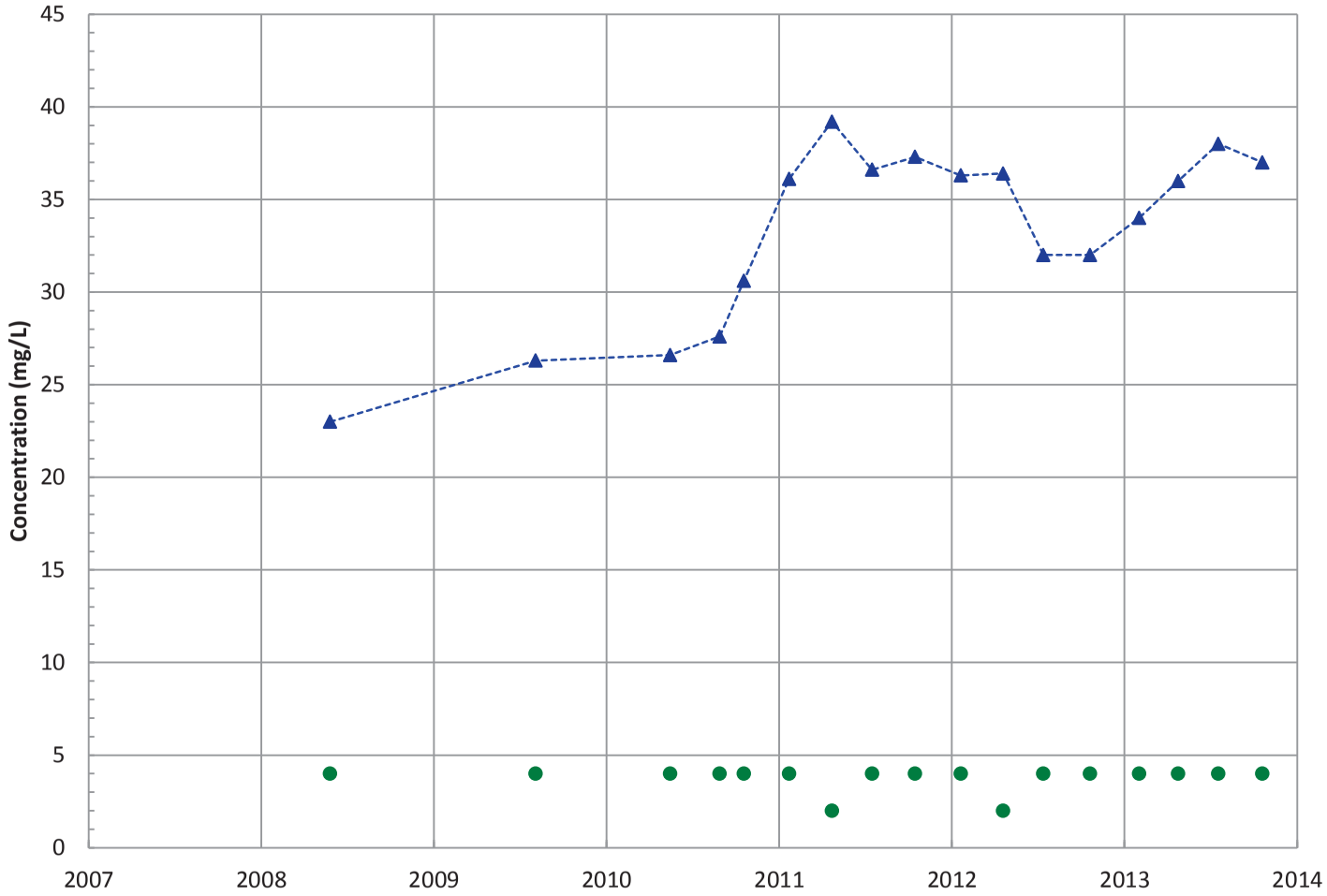
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

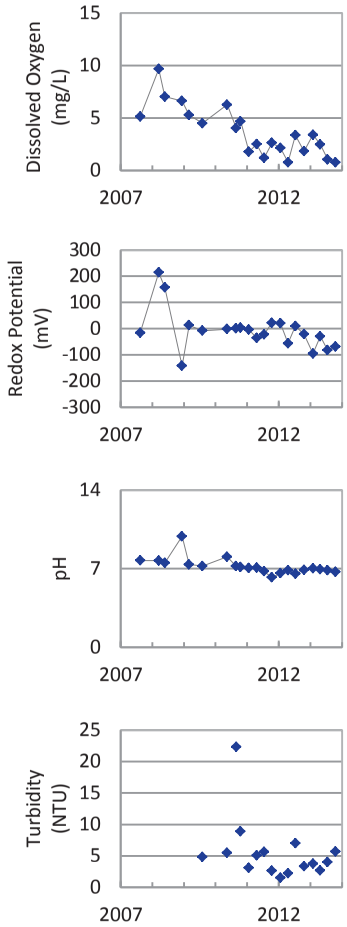
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/15/2007 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1123
Chloride (as Cl) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Increasing

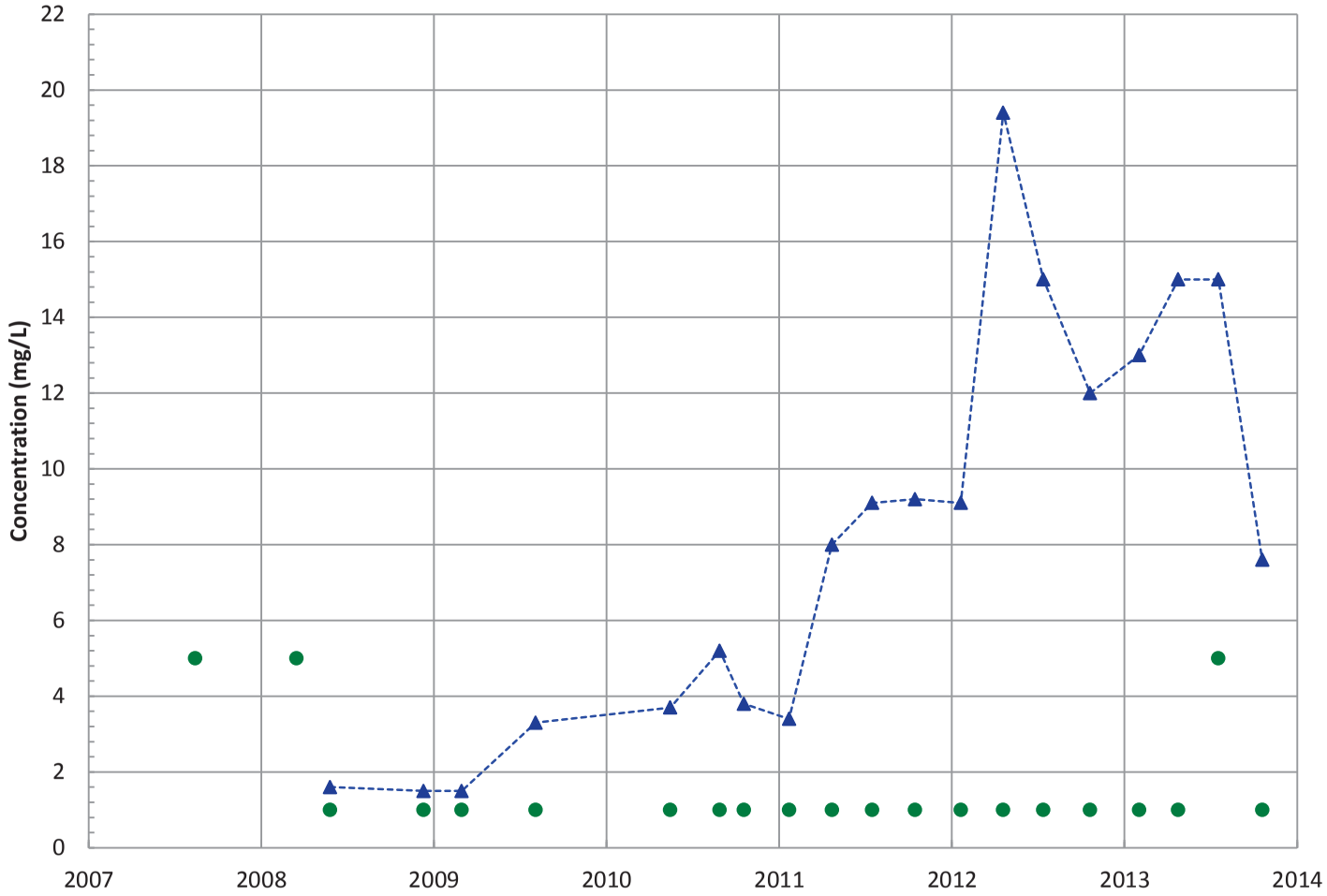
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

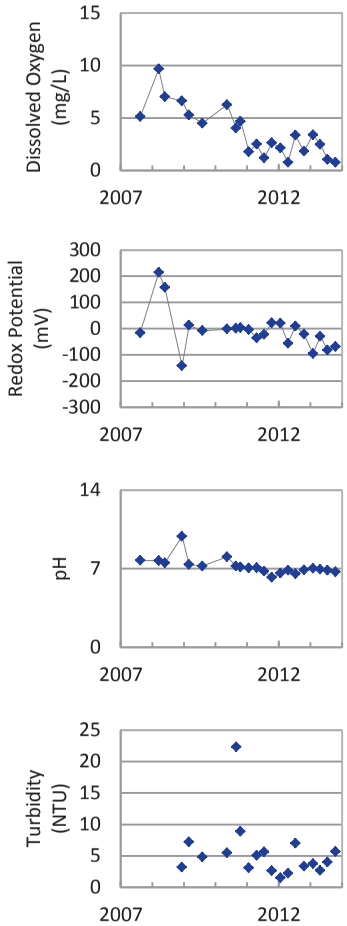
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2008 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1123
Total Organic Carbon Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Stable

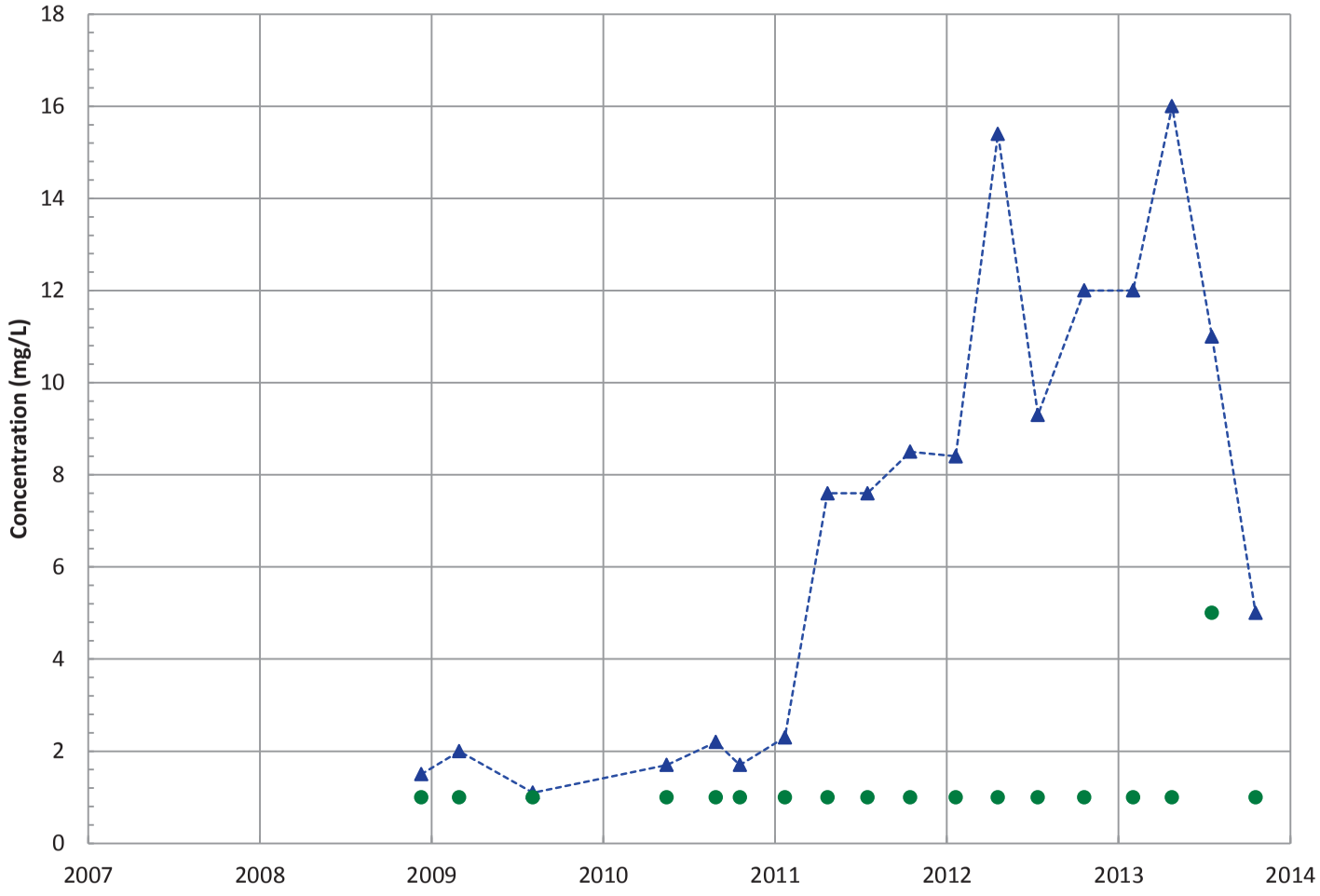
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

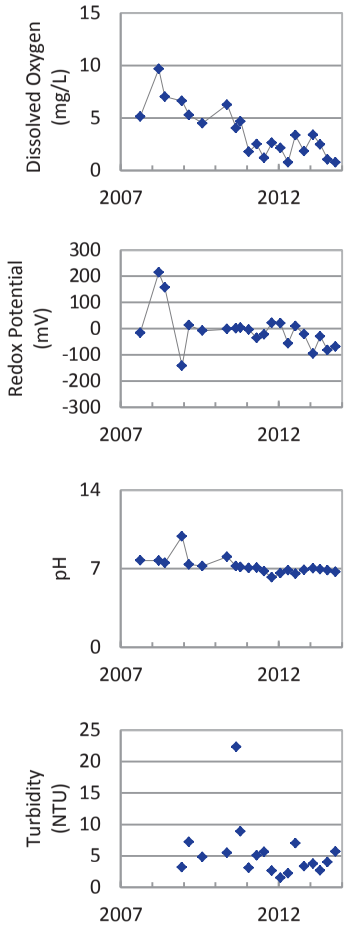
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/15/2007 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1123
Dissolved Organic Carbon (DOC) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Decreasing

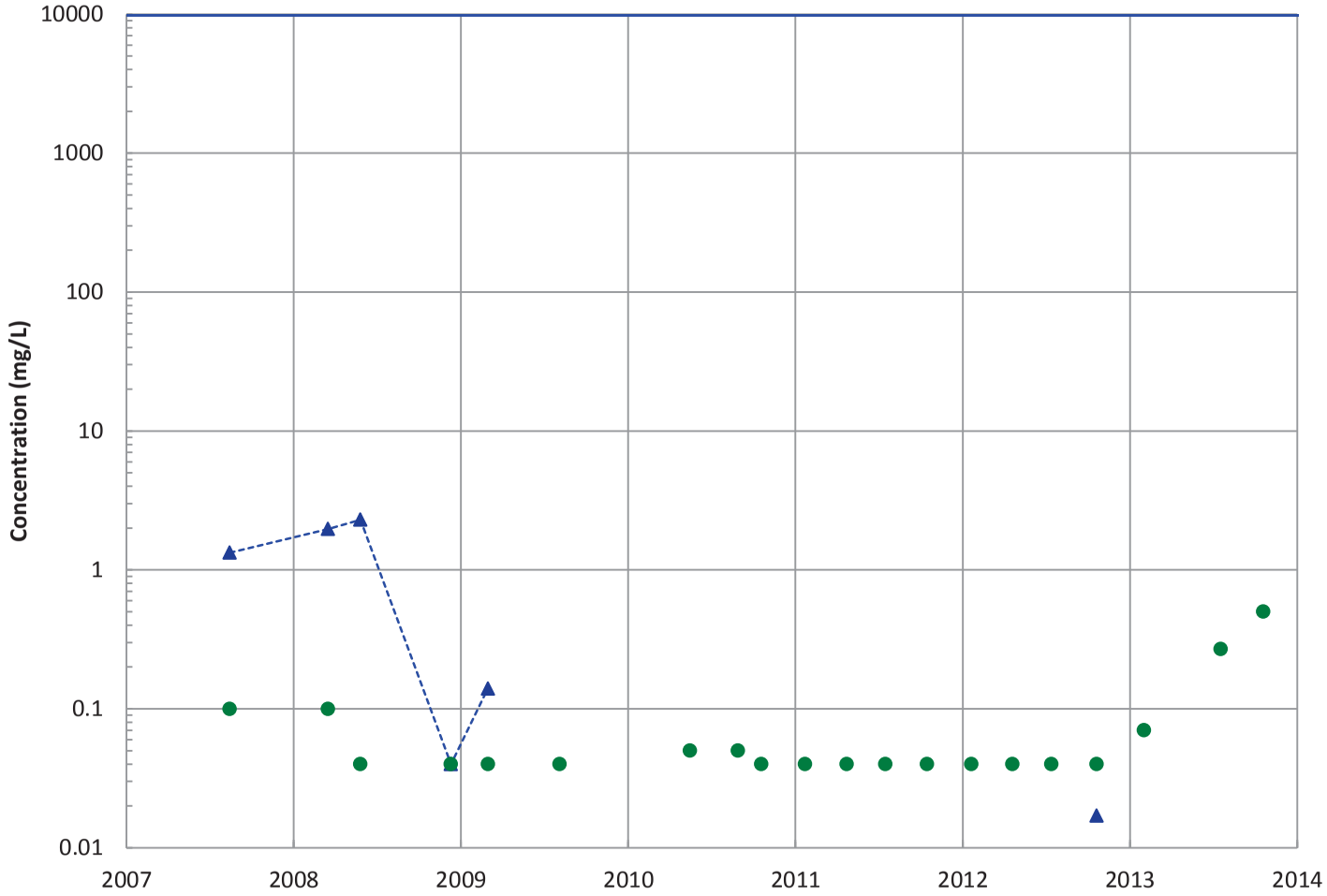
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

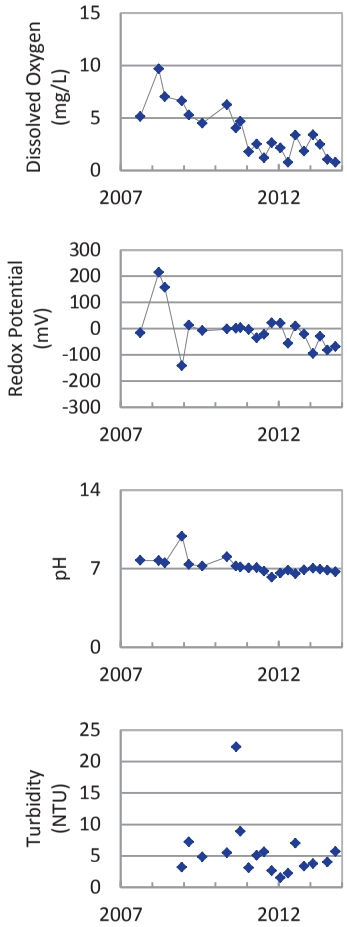
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/11/2008 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1123
Nitrate as N Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Probably Decreasing

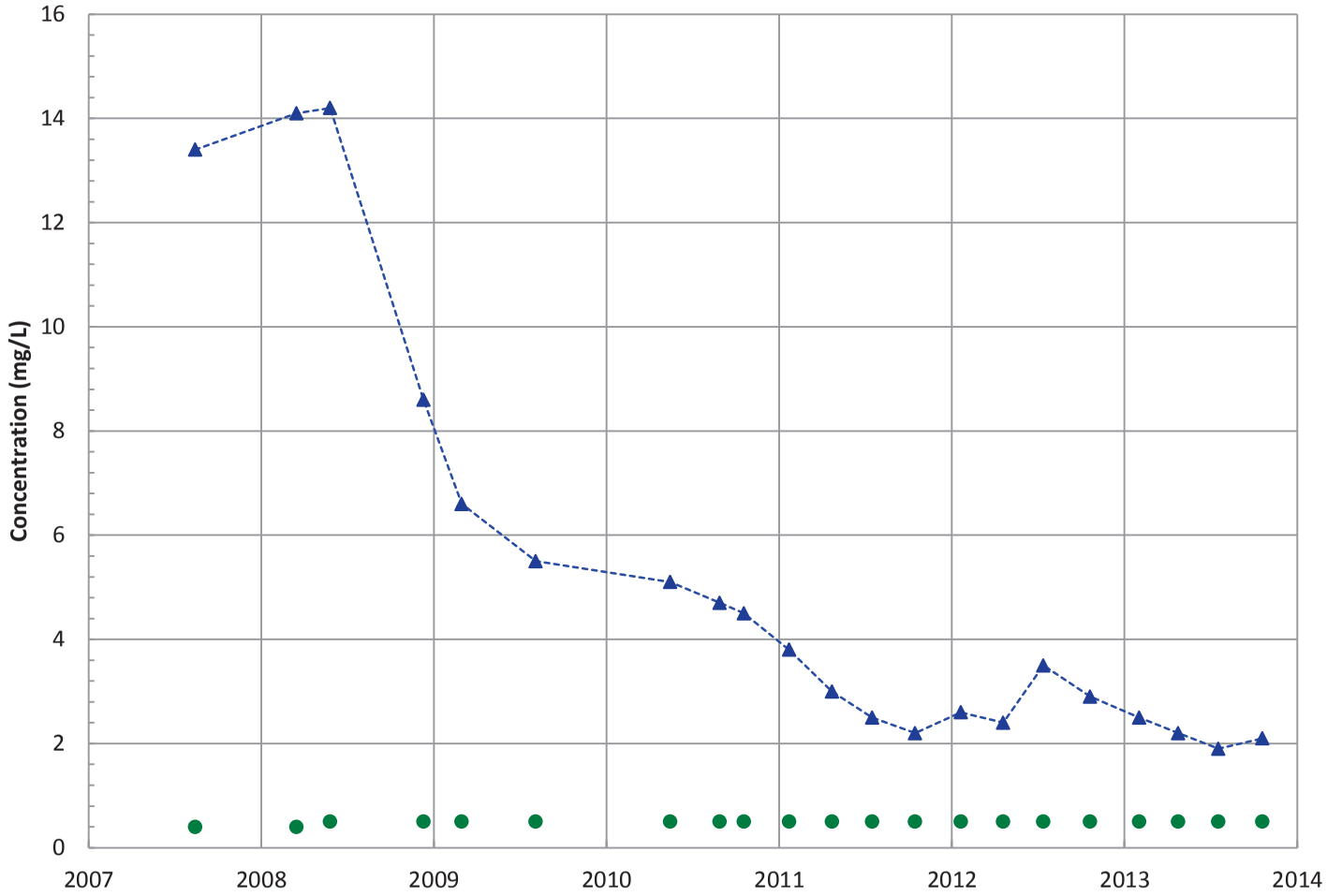
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

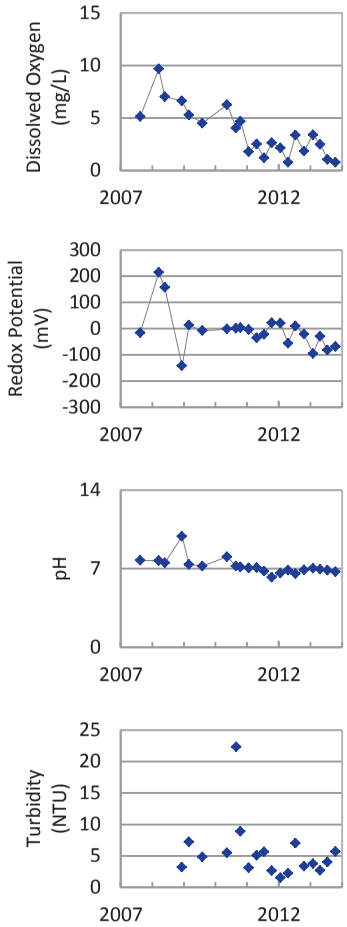
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/15/2007 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1123
Sulfate (as SO4) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Stable

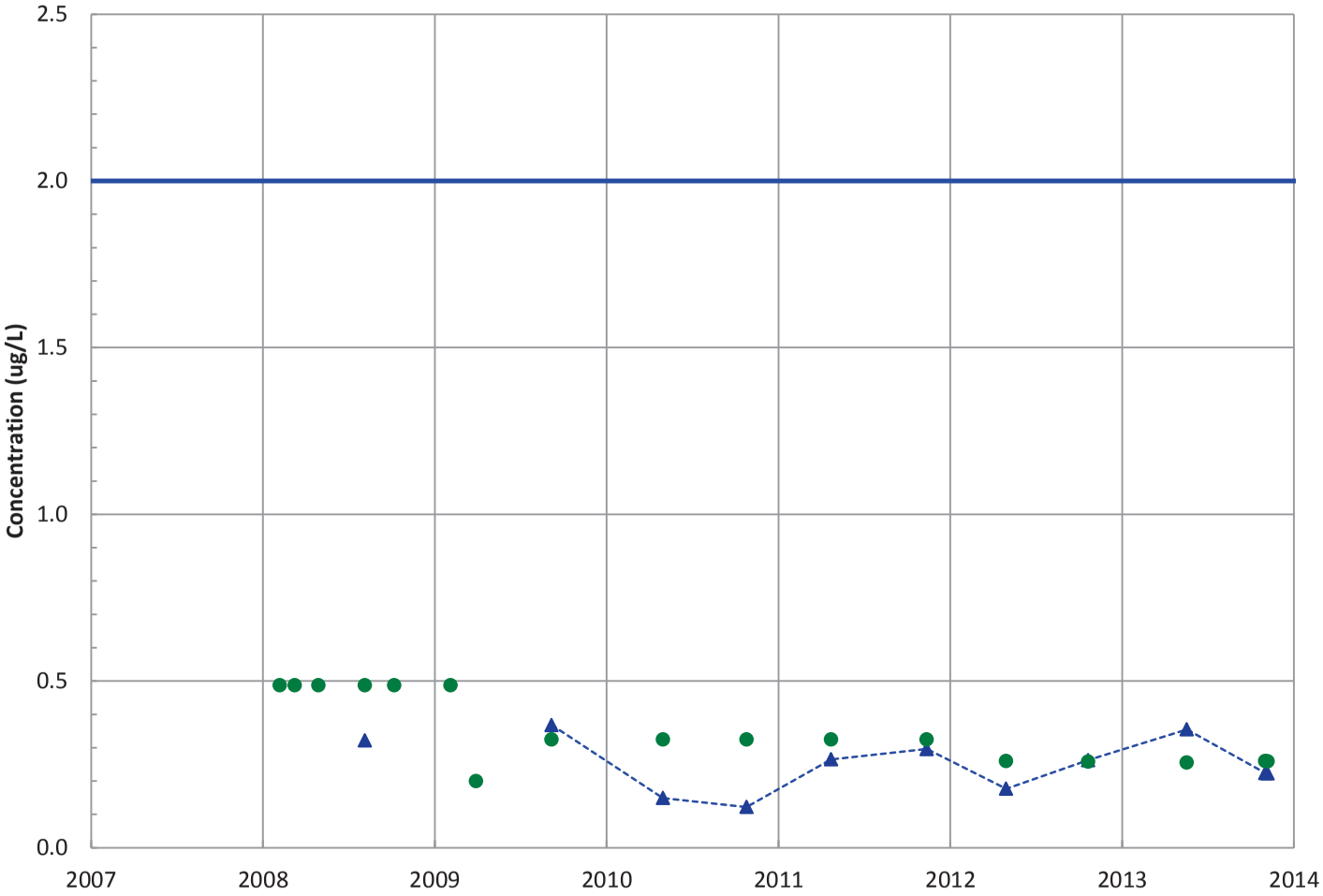
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

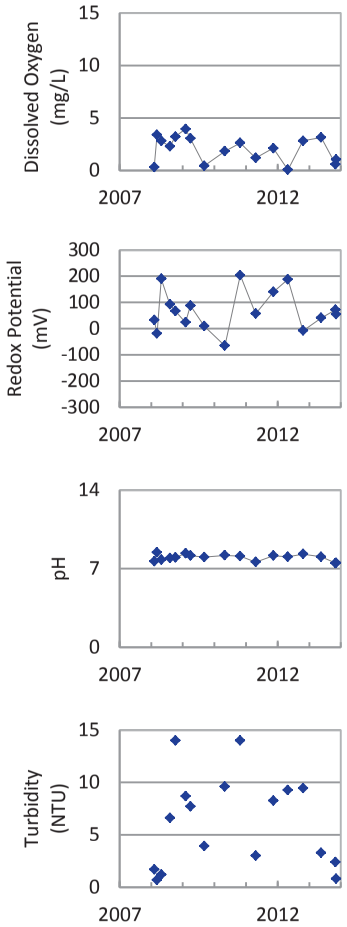
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/15/2007 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1126
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



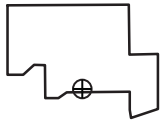
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

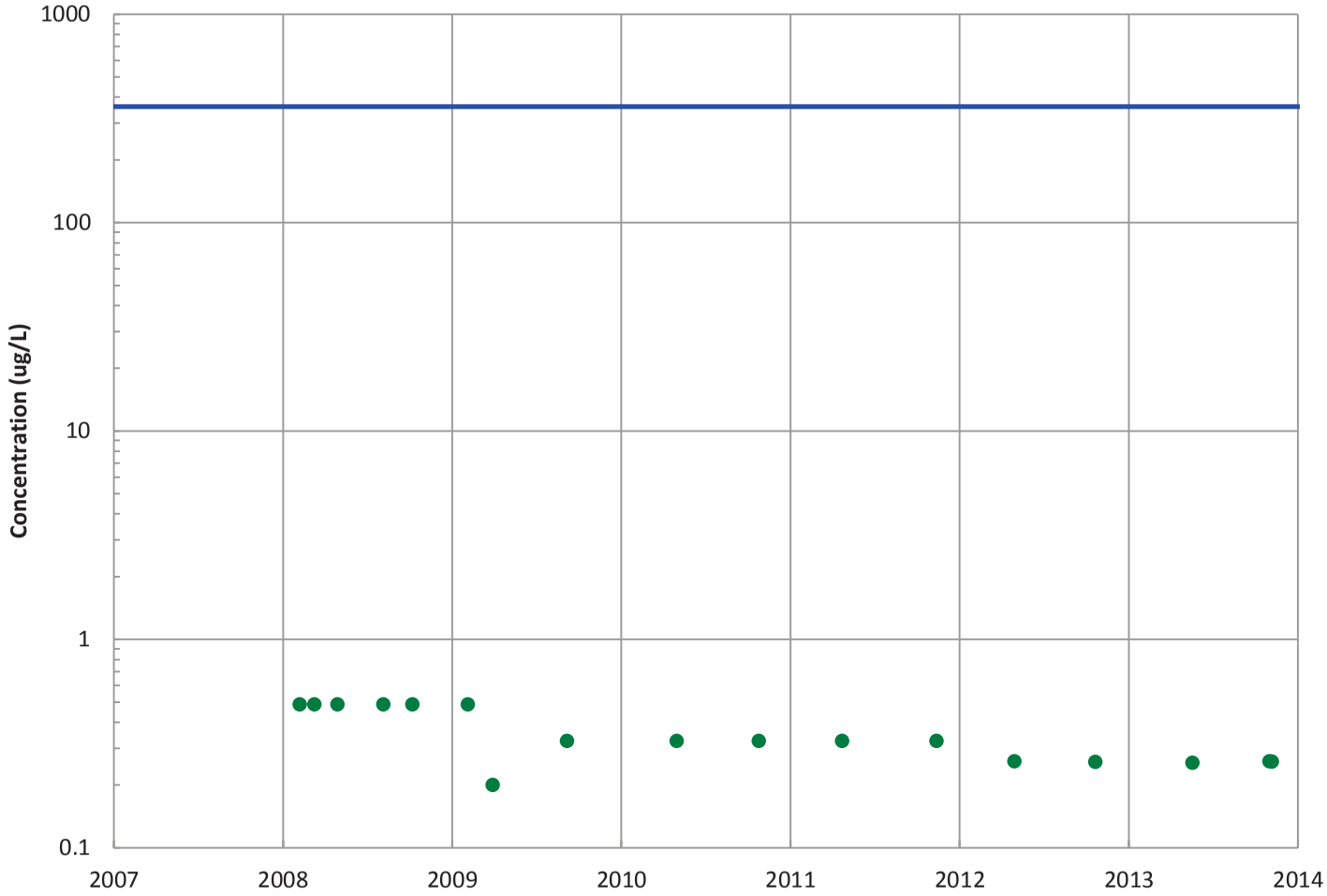
Well Location



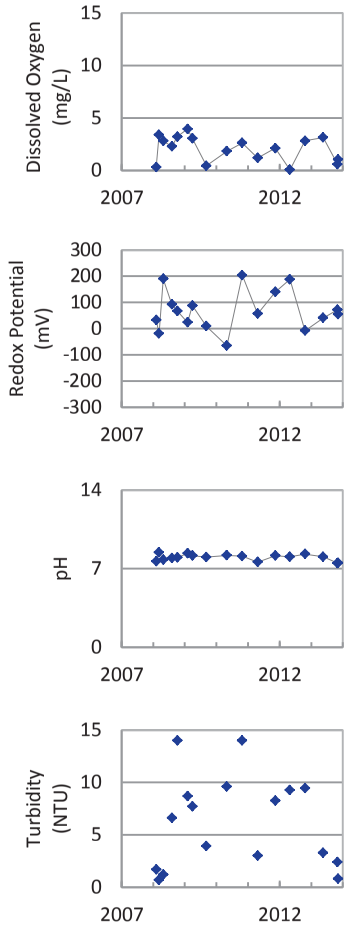
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/7/2008 to 11/11/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1126
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



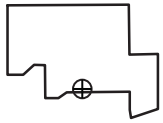
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

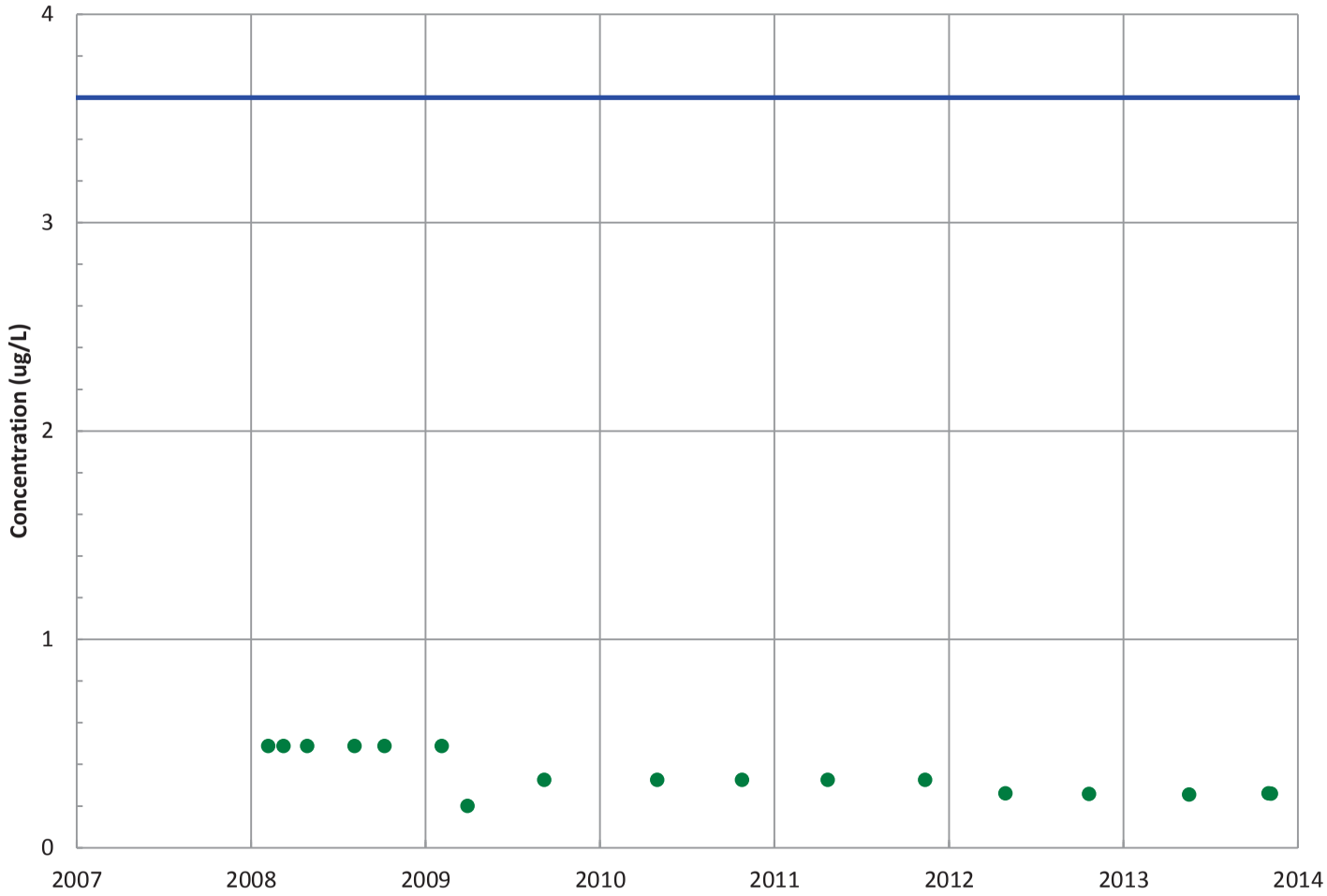
Well Location



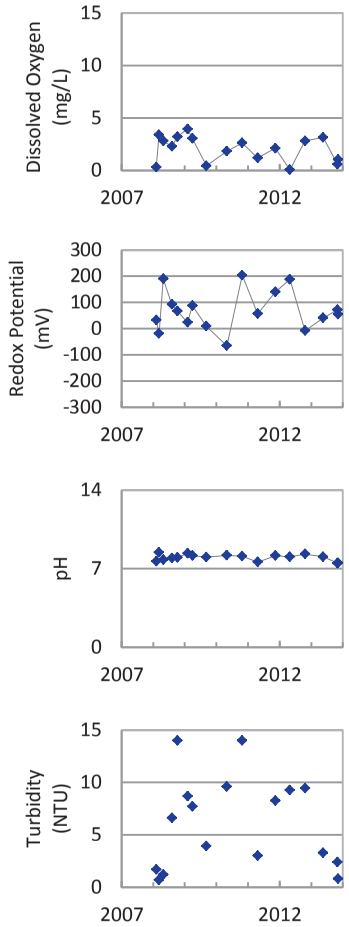
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/7/2008 to 11/11/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1126
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



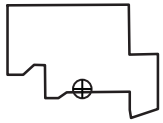
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

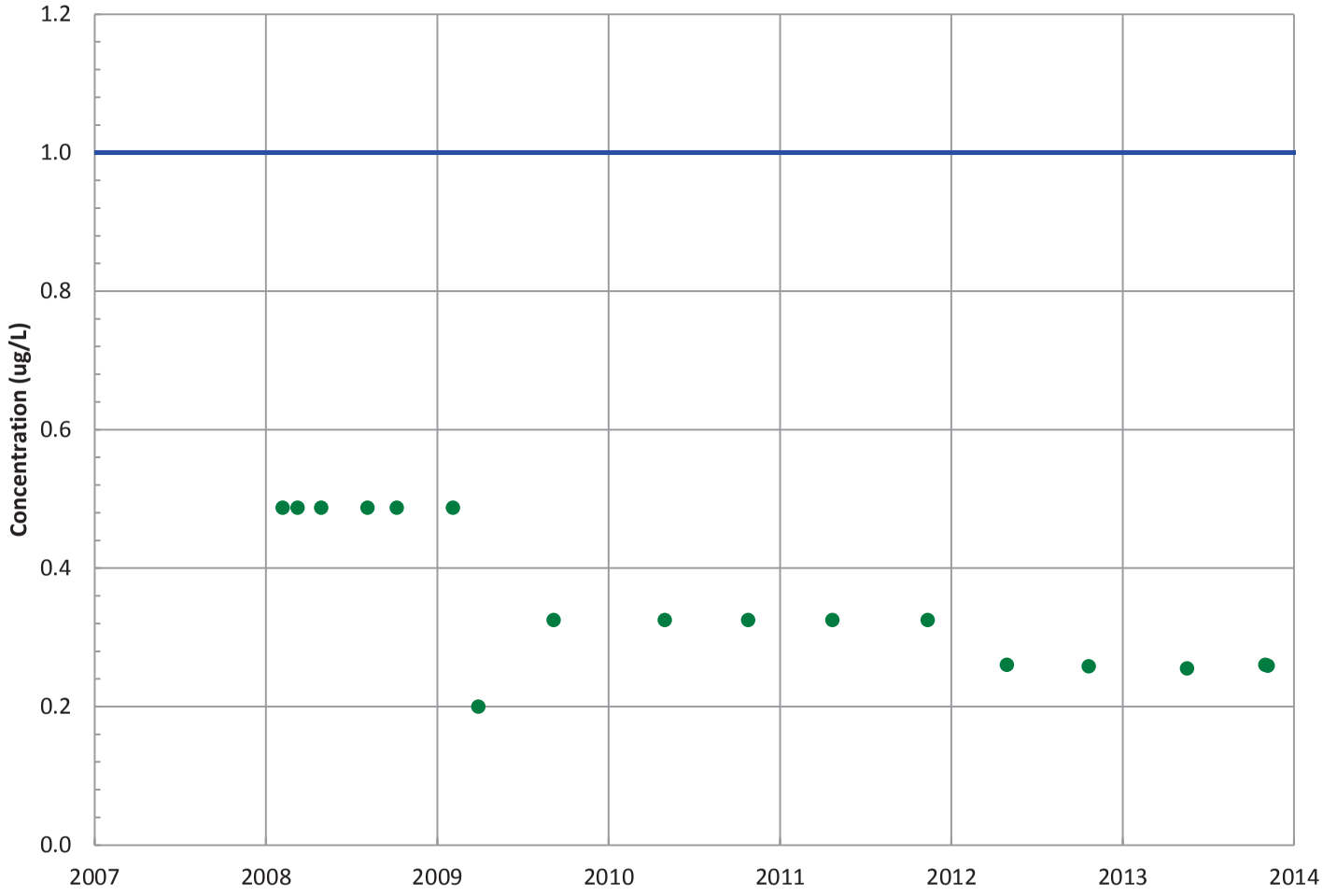
Well Location



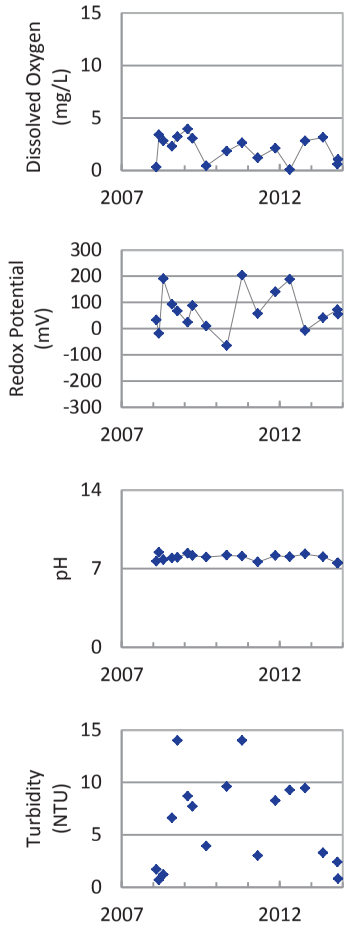
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/7/2008 to 11/11/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1126
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



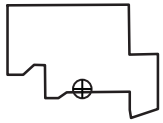
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

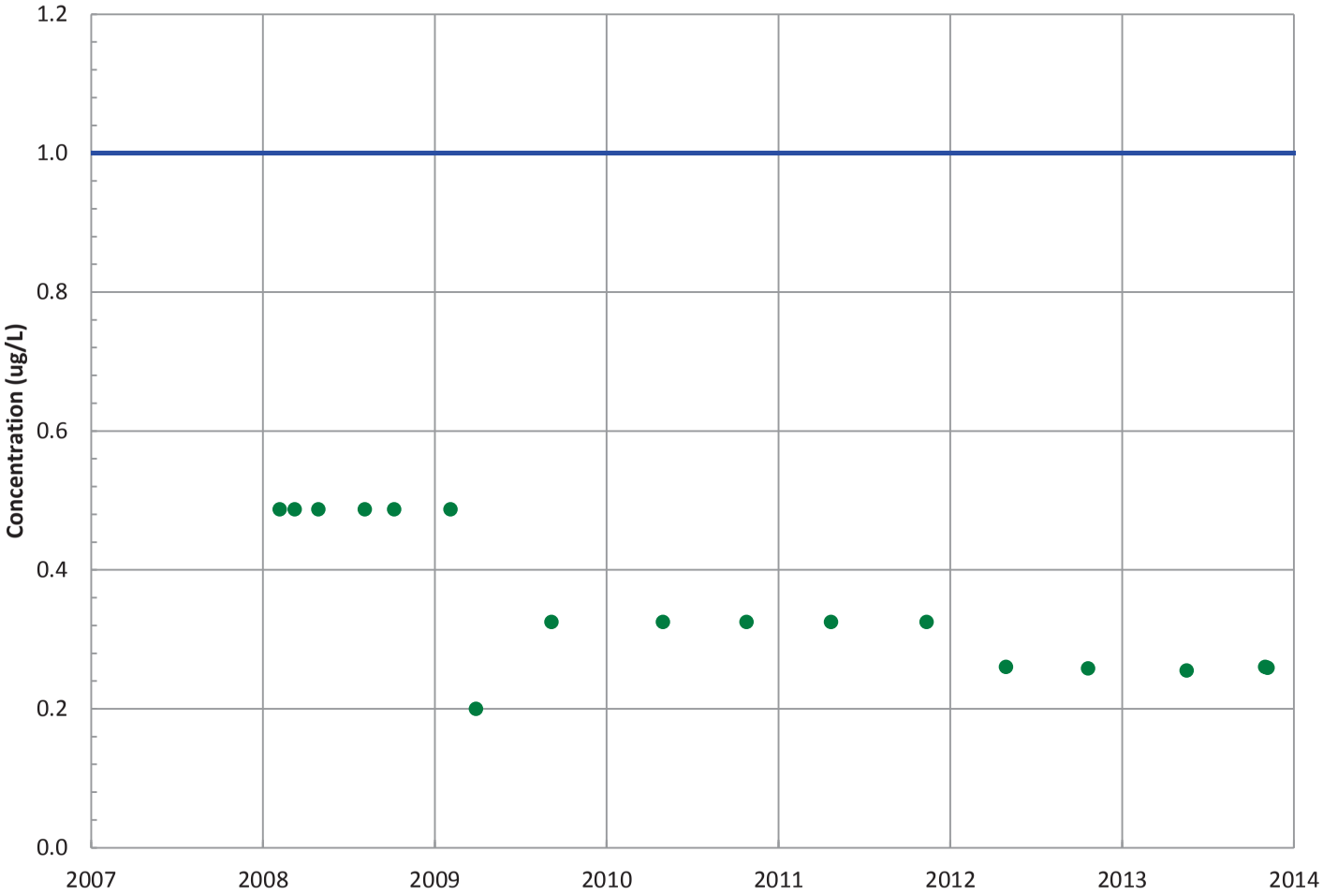
Well Location



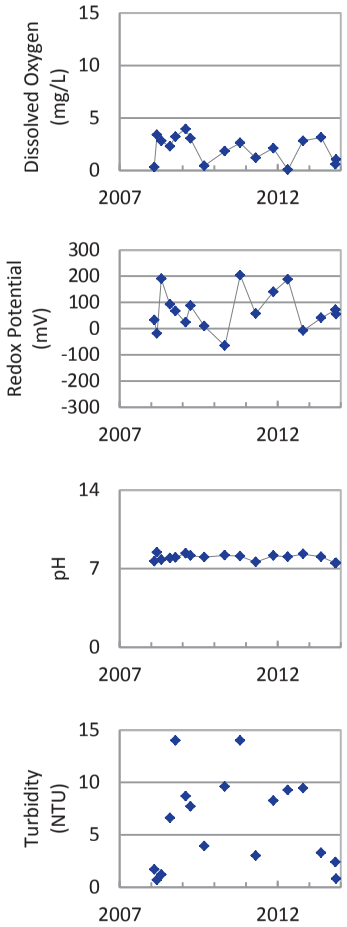
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/7/2008 to 11/11/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1126
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



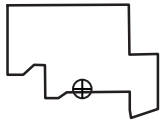
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

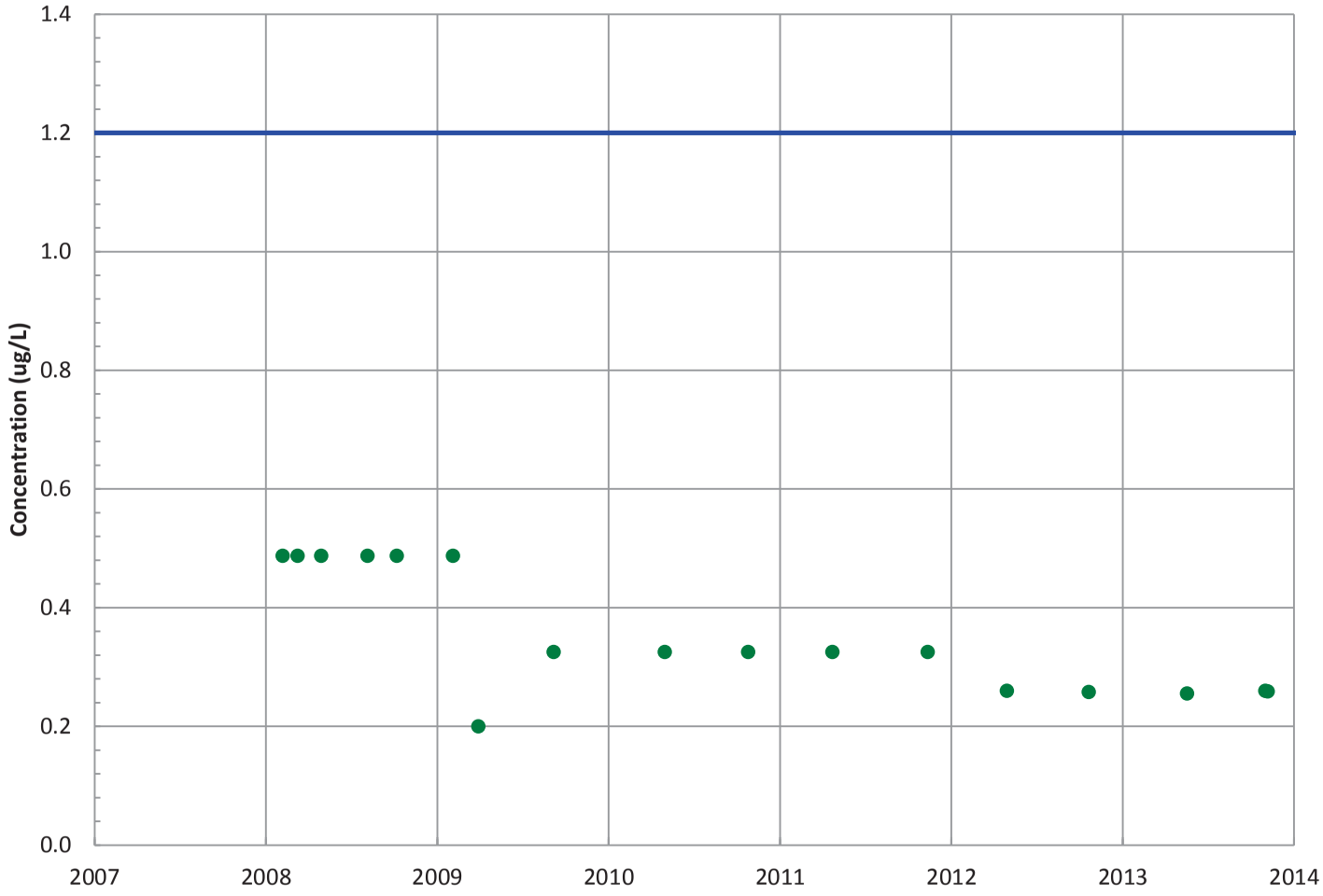
Well Location



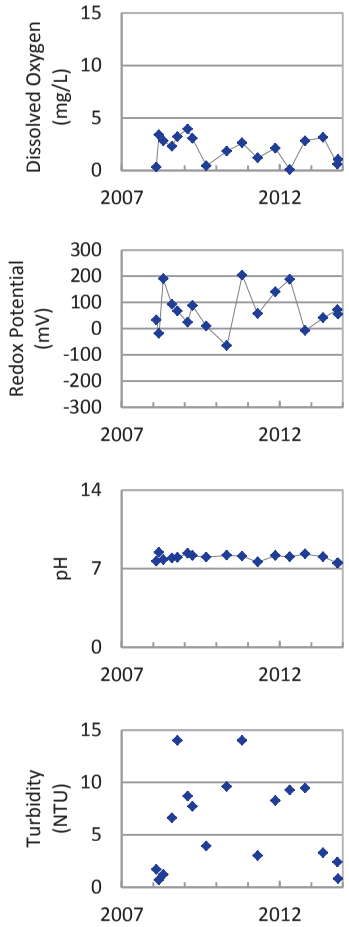
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/7/2008 to 11/11/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1126
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



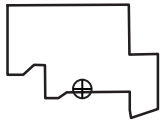
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

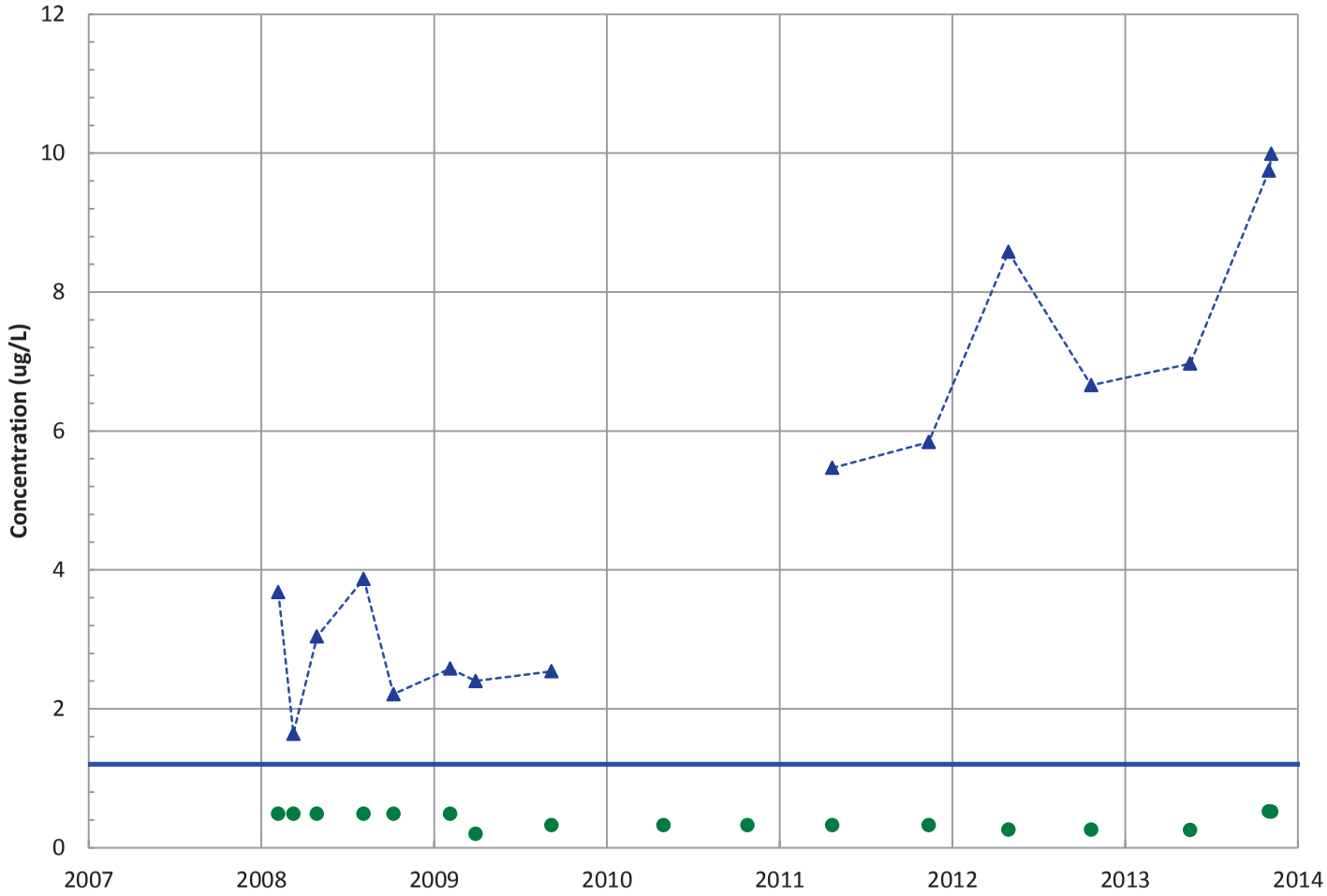
Well Location



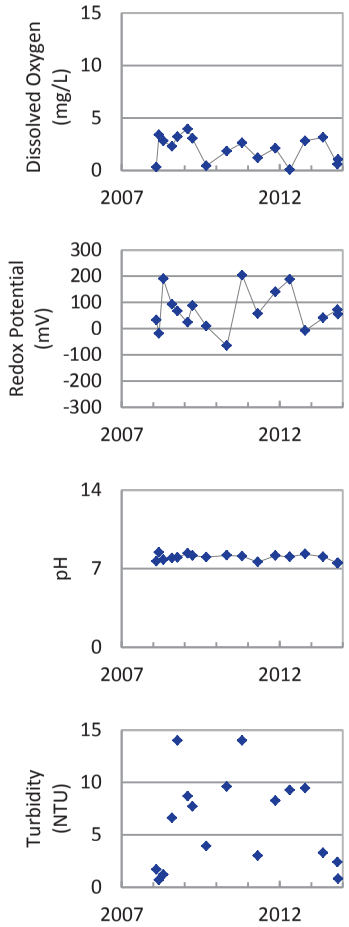
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/7/2008 to 11/11/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1126
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



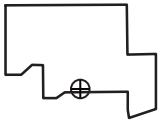
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Increasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Probably Increasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

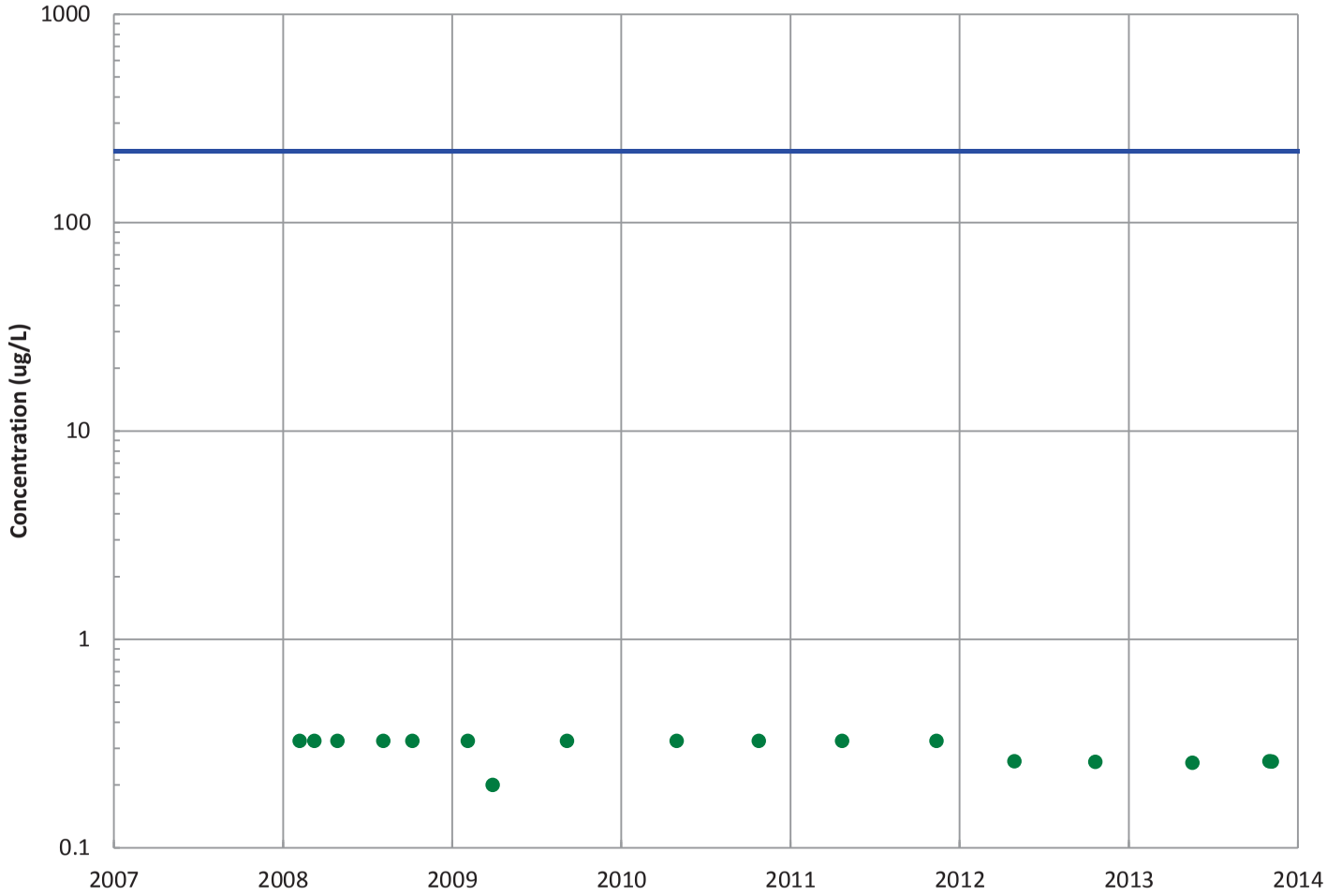
Well Location



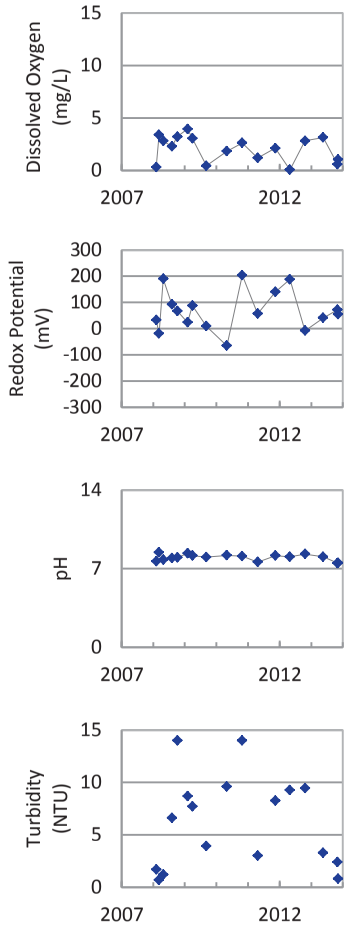
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/7/2008 to 11/11/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1126
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



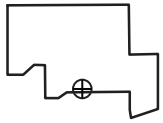
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

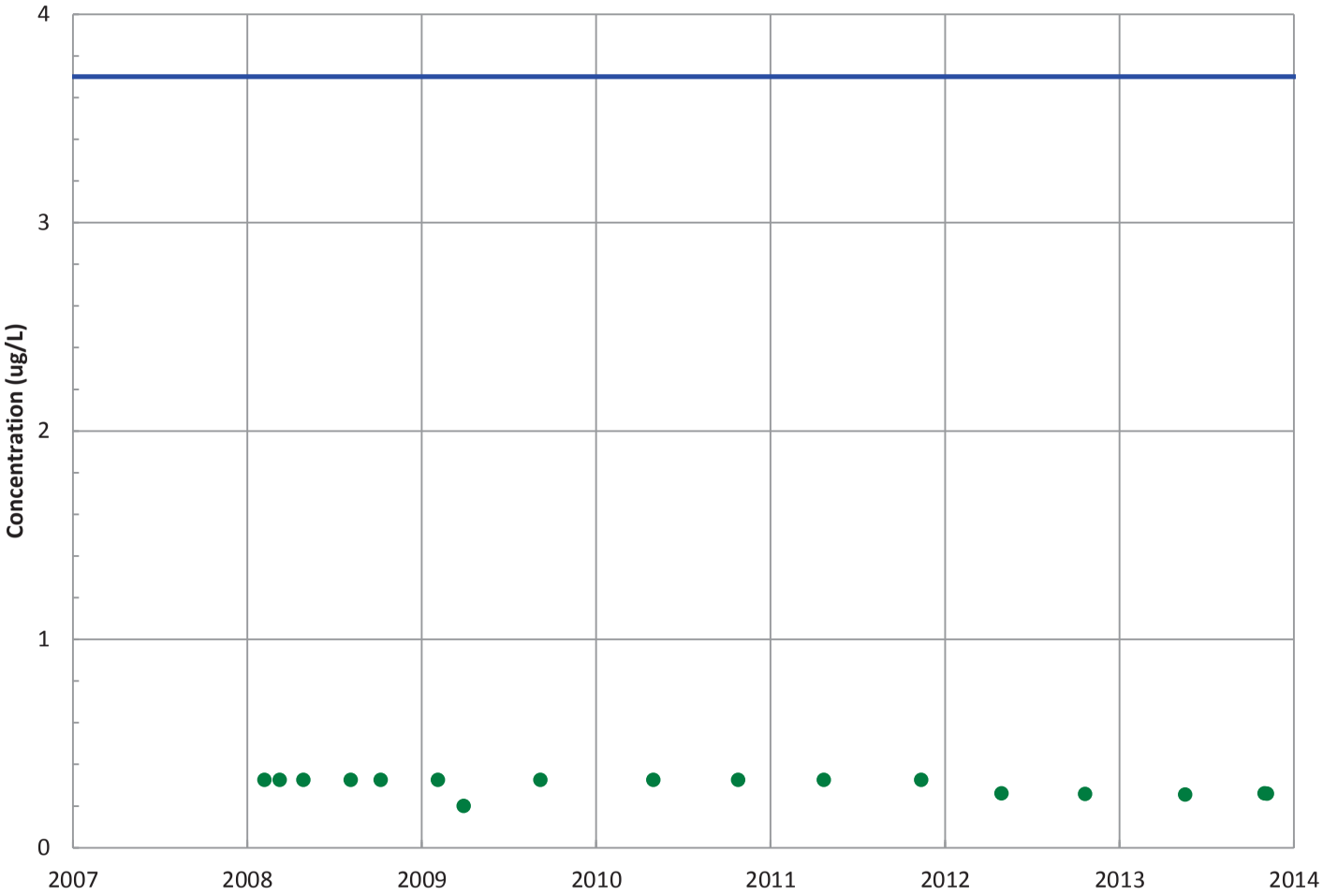
Well Location



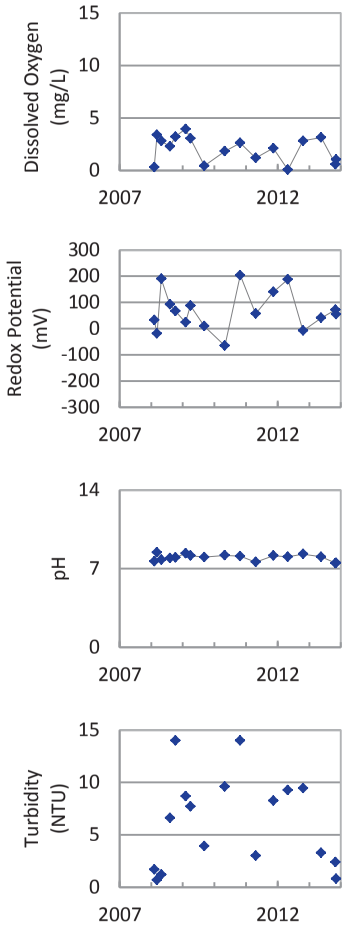
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/7/2008 to 11/11/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1126
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



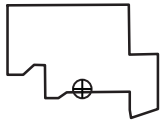
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

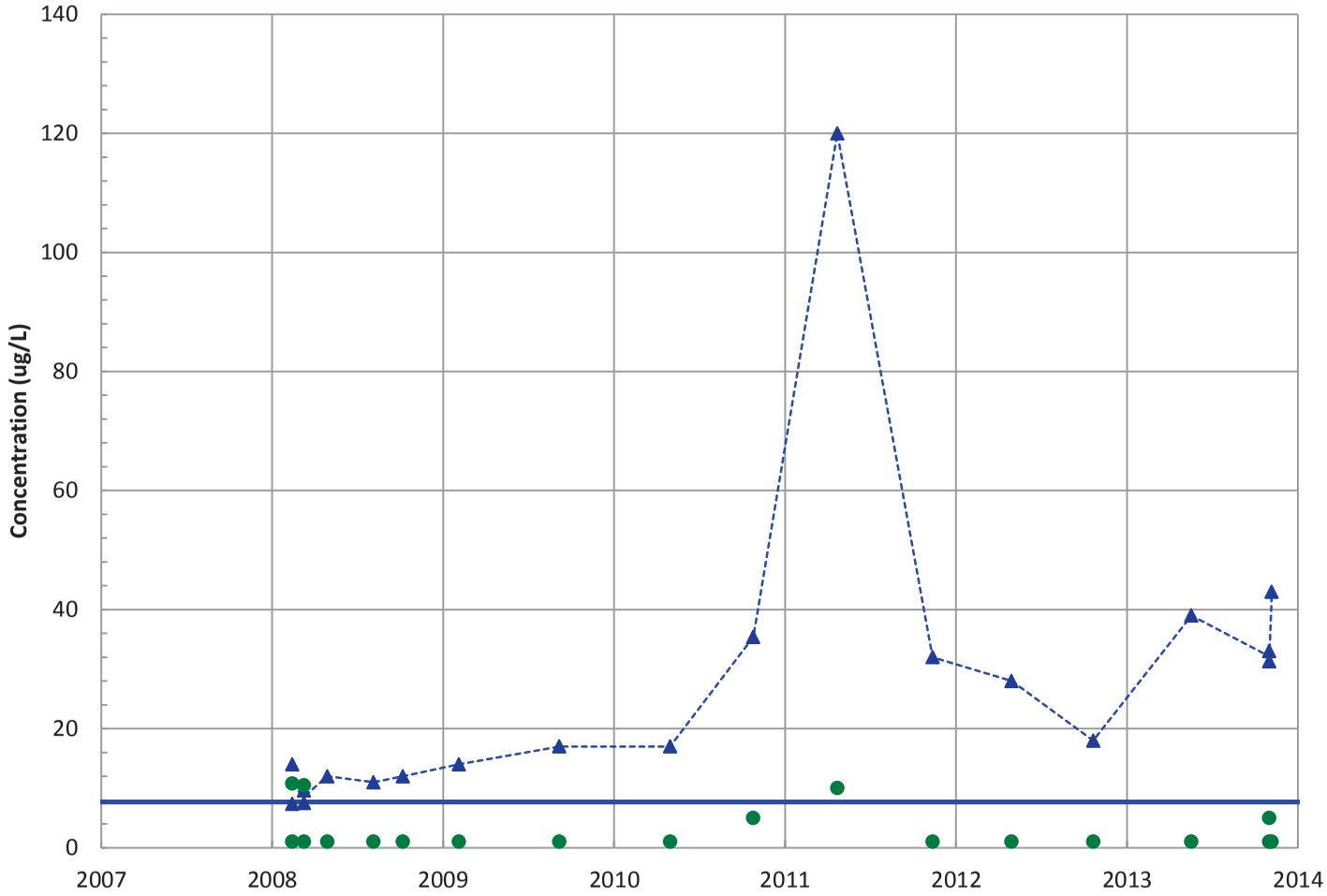
Well Location



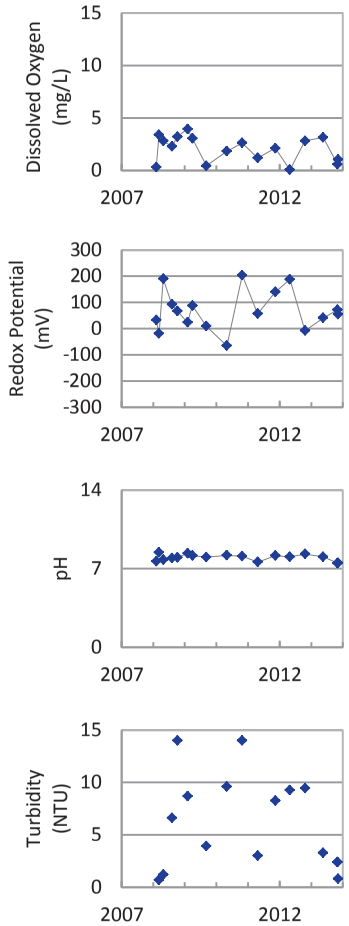
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/7/2008 to 11/11/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1126
1,4-Dioxane (p-Dioxane) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Probably Increasing

2011 - 2013 Data: No Trend

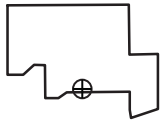
MAROS Linear Regression Method

Data (7/2009 - 12/2013): No Trend

2011 - 2013 Data: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

Well Location



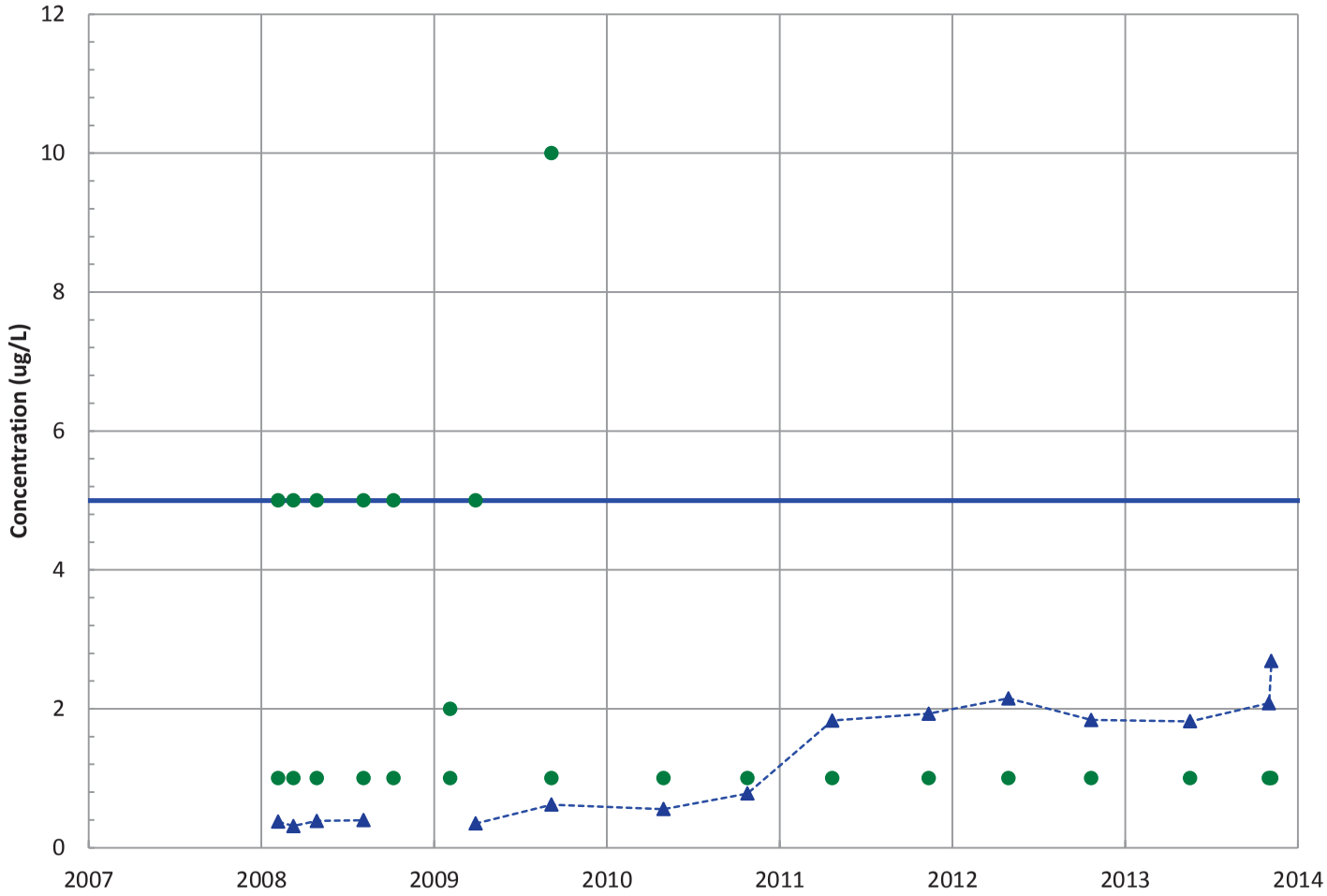
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 2/14/2008 to 11/11/2013

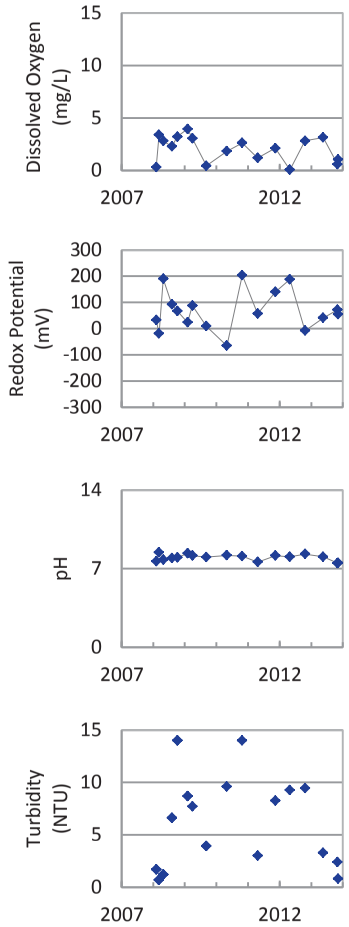
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1126
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



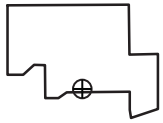
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Increasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

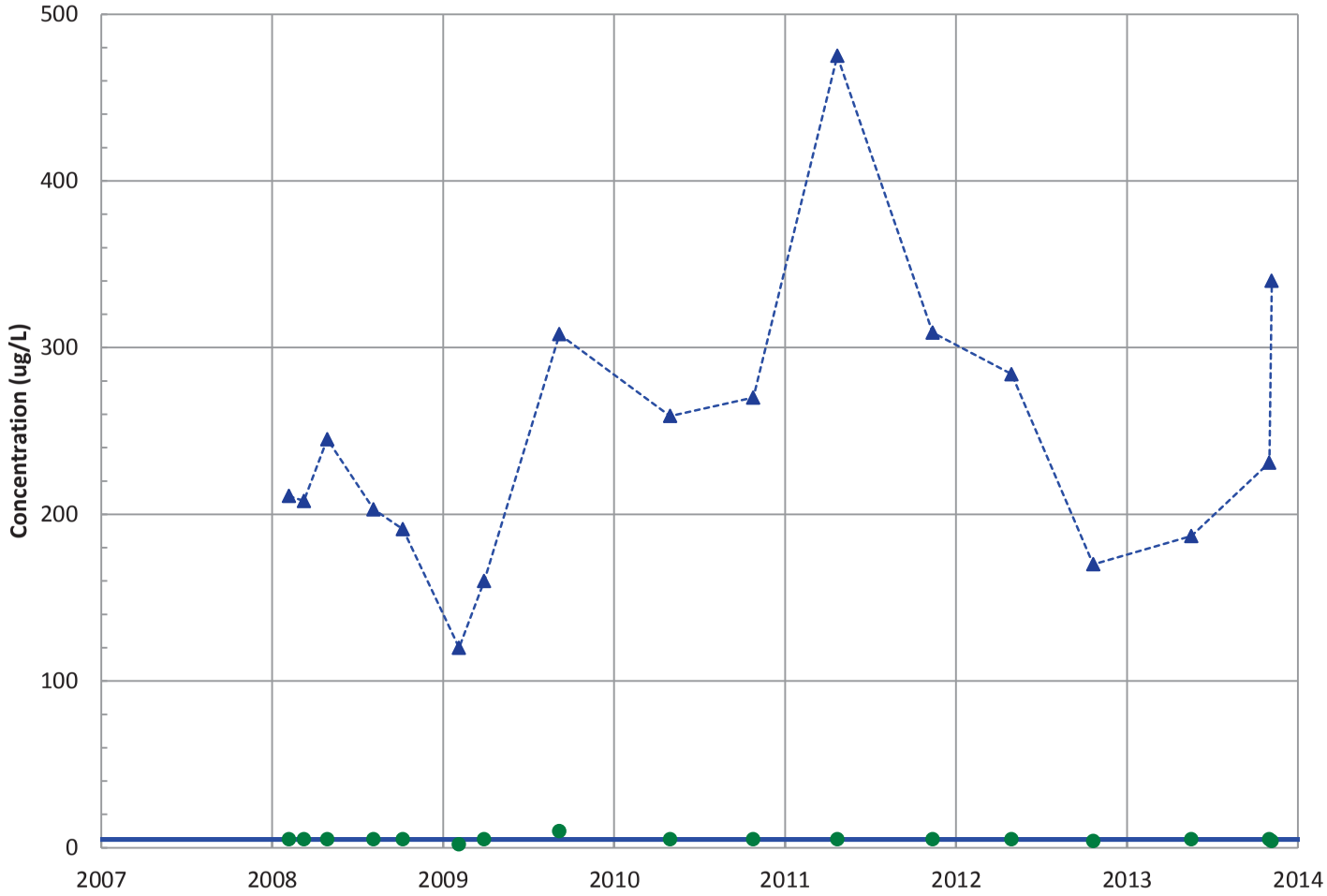
Well Location



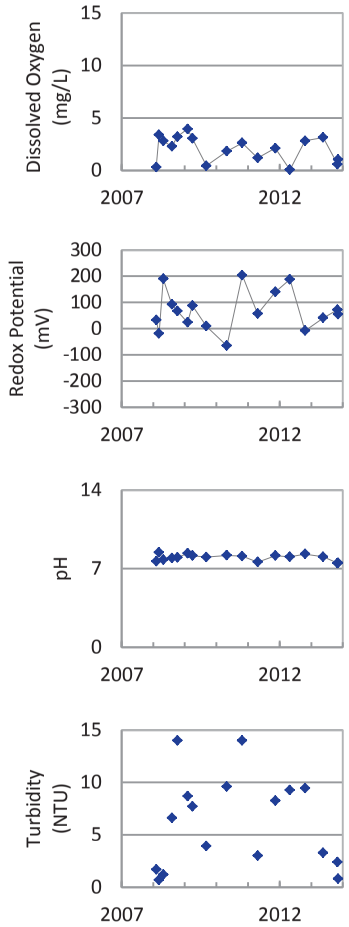
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/7/2008 to 11/11/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1126
Trichloroethene Trend in Perched Aquifer



Field Parameters



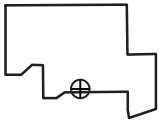
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Increasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Increasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

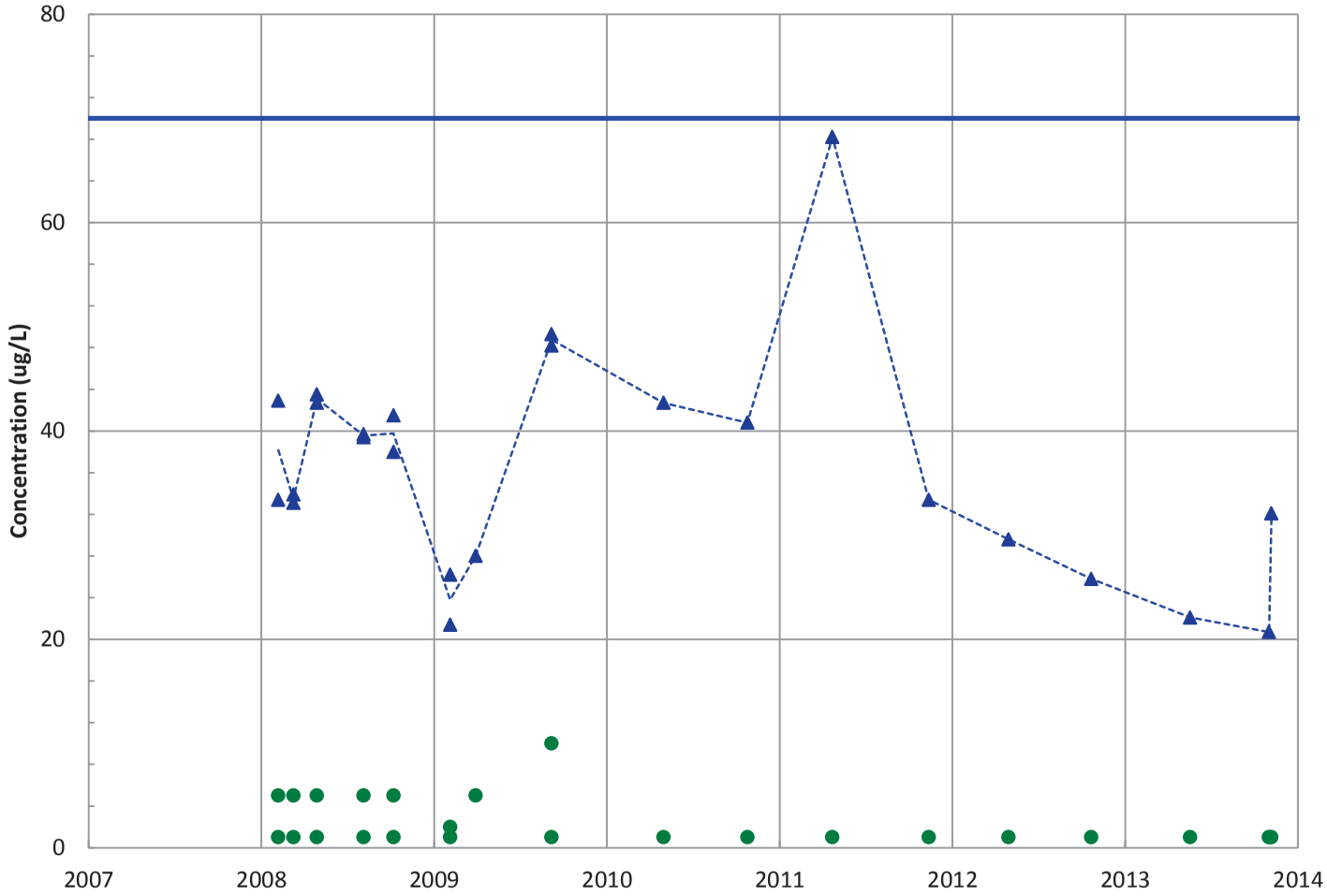
Well Location



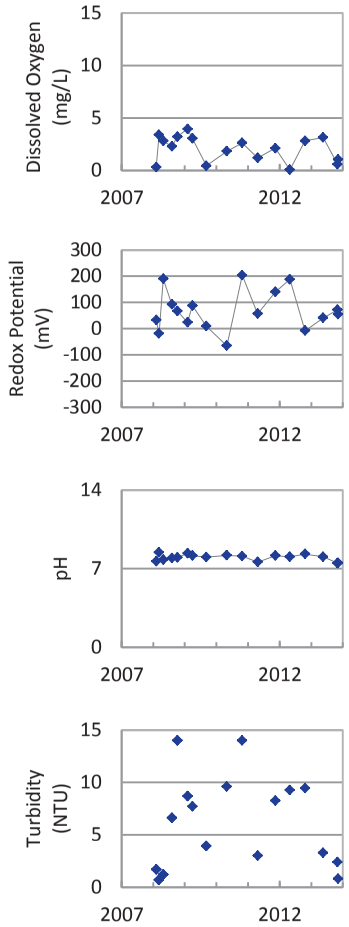
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/7/2008 to 11/11/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1126
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



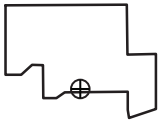
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

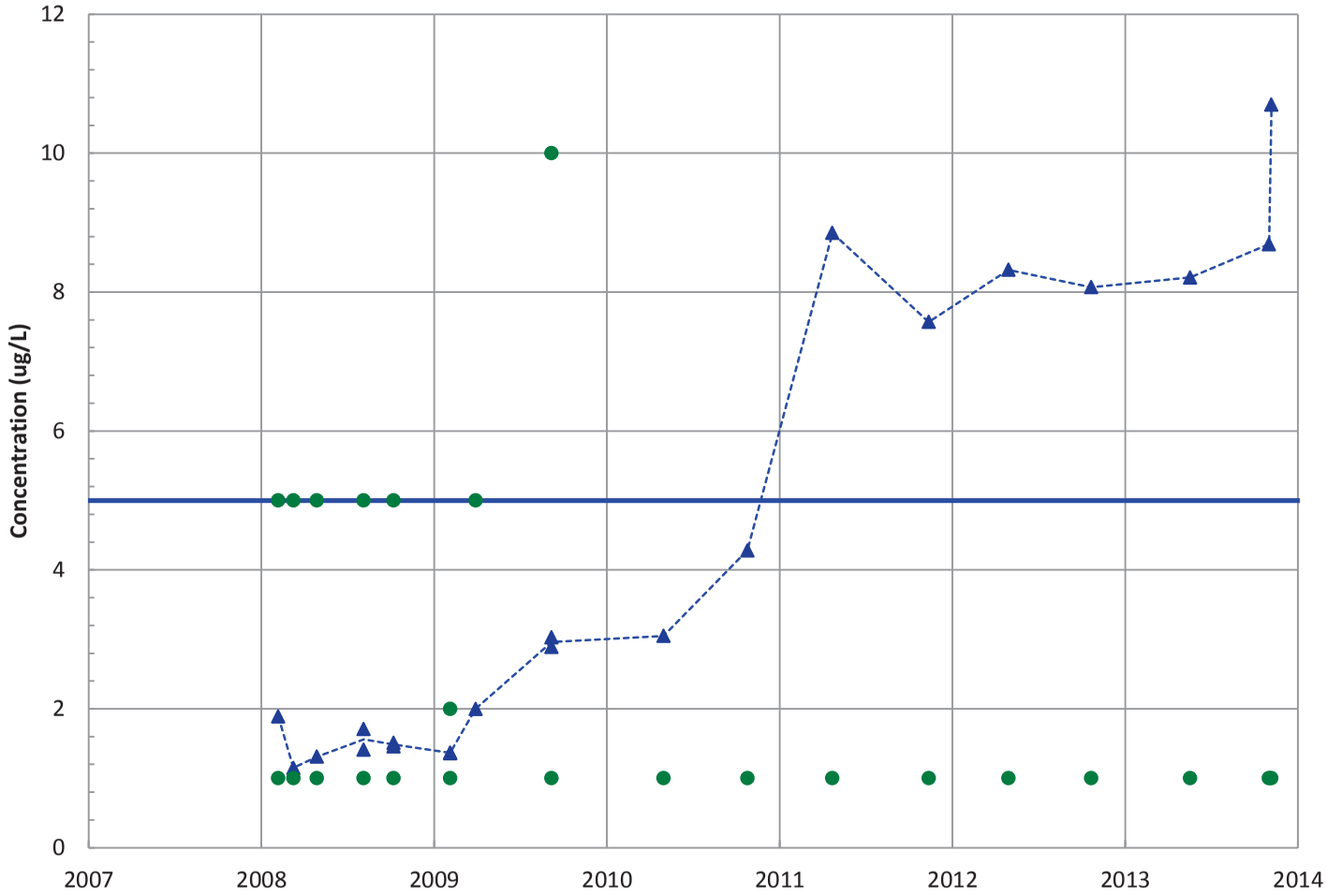
Well Location



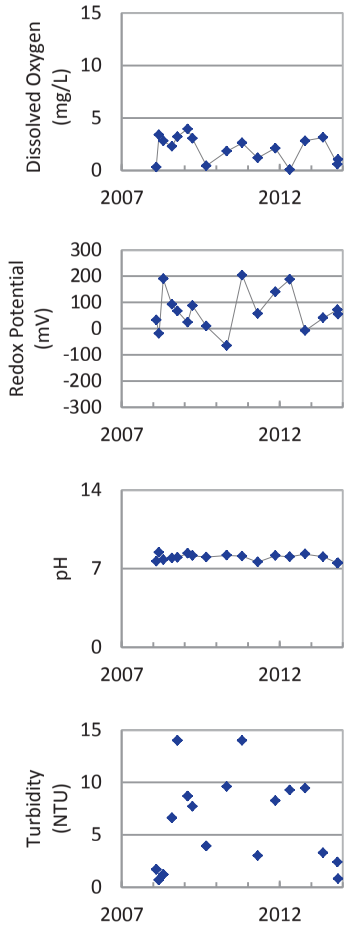
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/7/2008 to 11/11/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1126
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



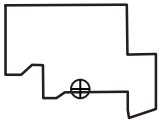
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Increasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Increasing

Measured Value
Sample Detection Limit
Concentration Trend
Groundwater Protection Standard

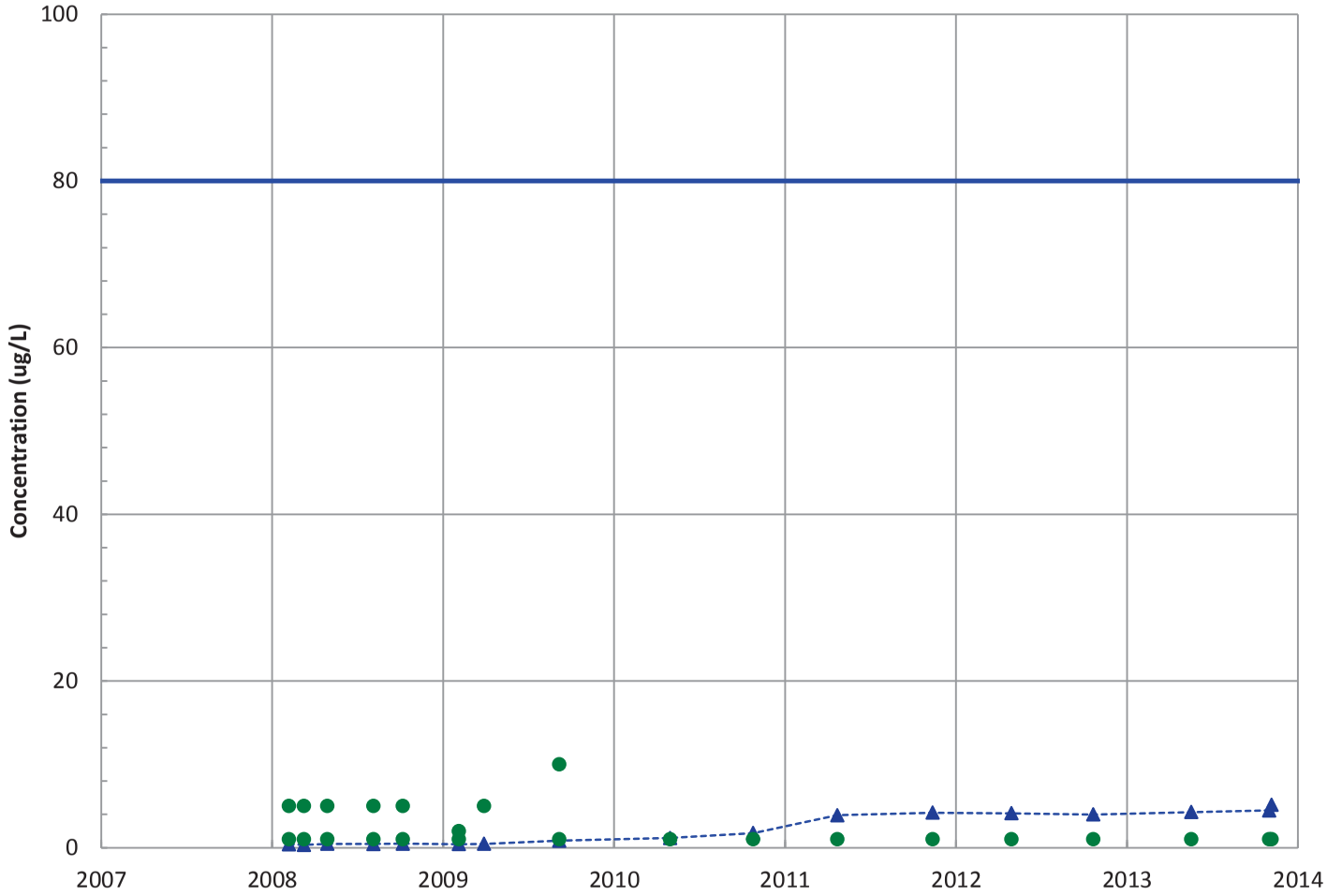
Well Location



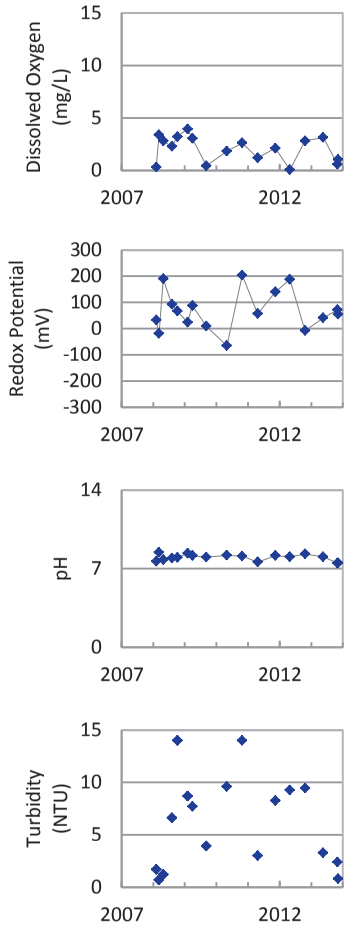
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/7/2008 to 11/11/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1126
Chloroform Trend in Perched Aquifer



Field Parameters



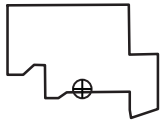
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Increasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Increasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

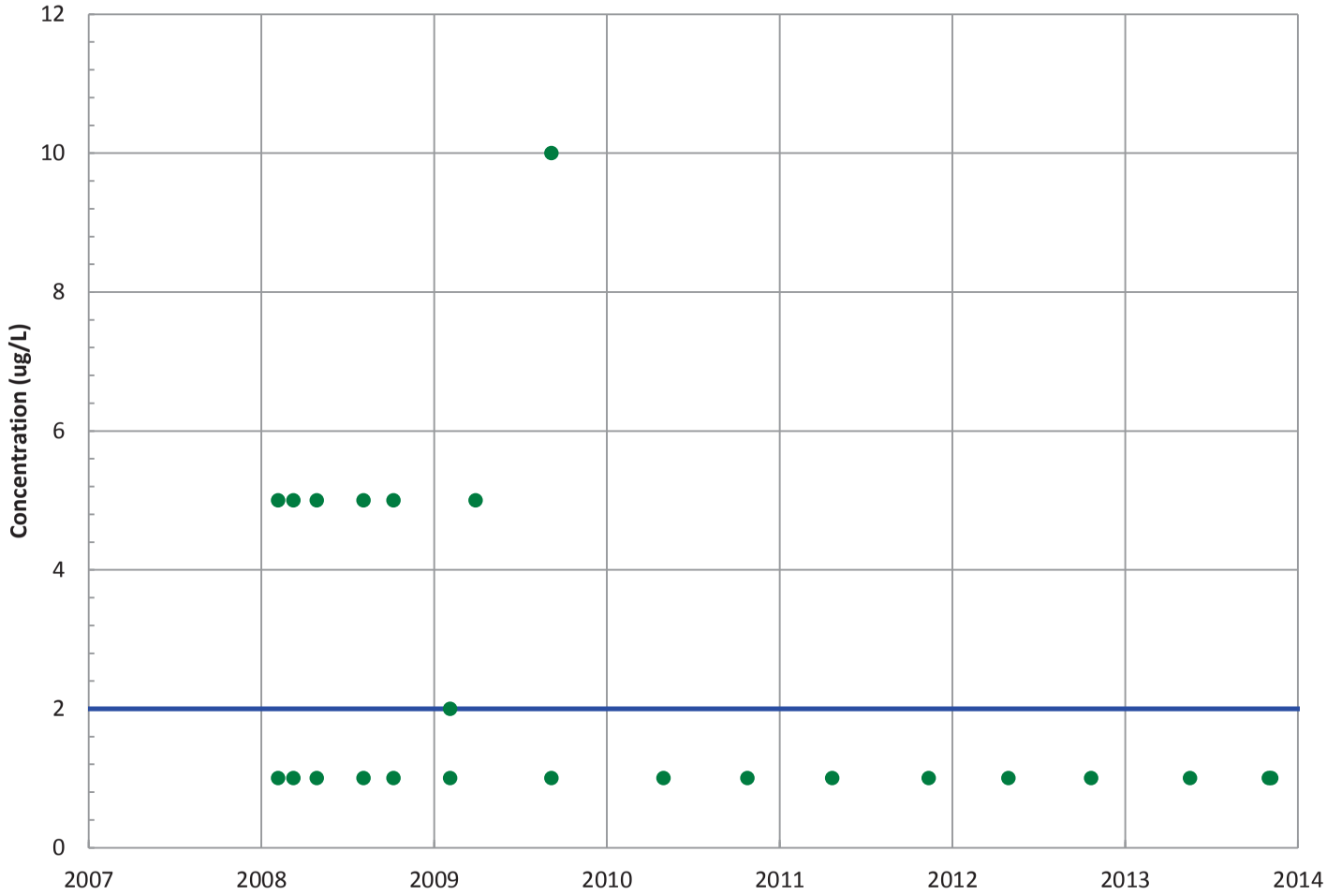
Well Location



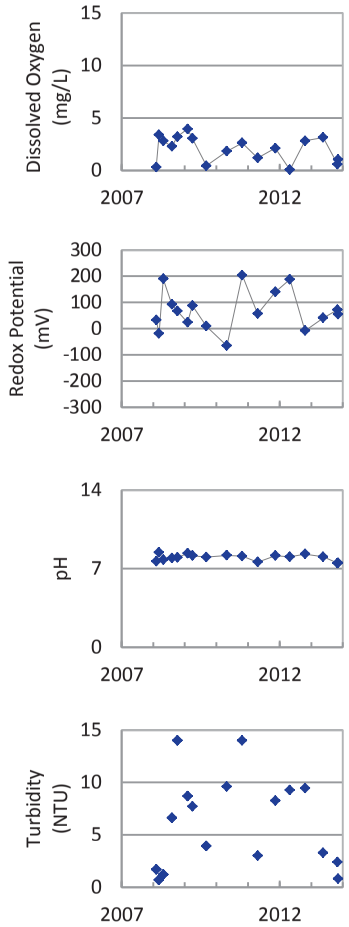
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/7/2008 to 11/11/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1126
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



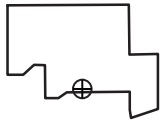
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

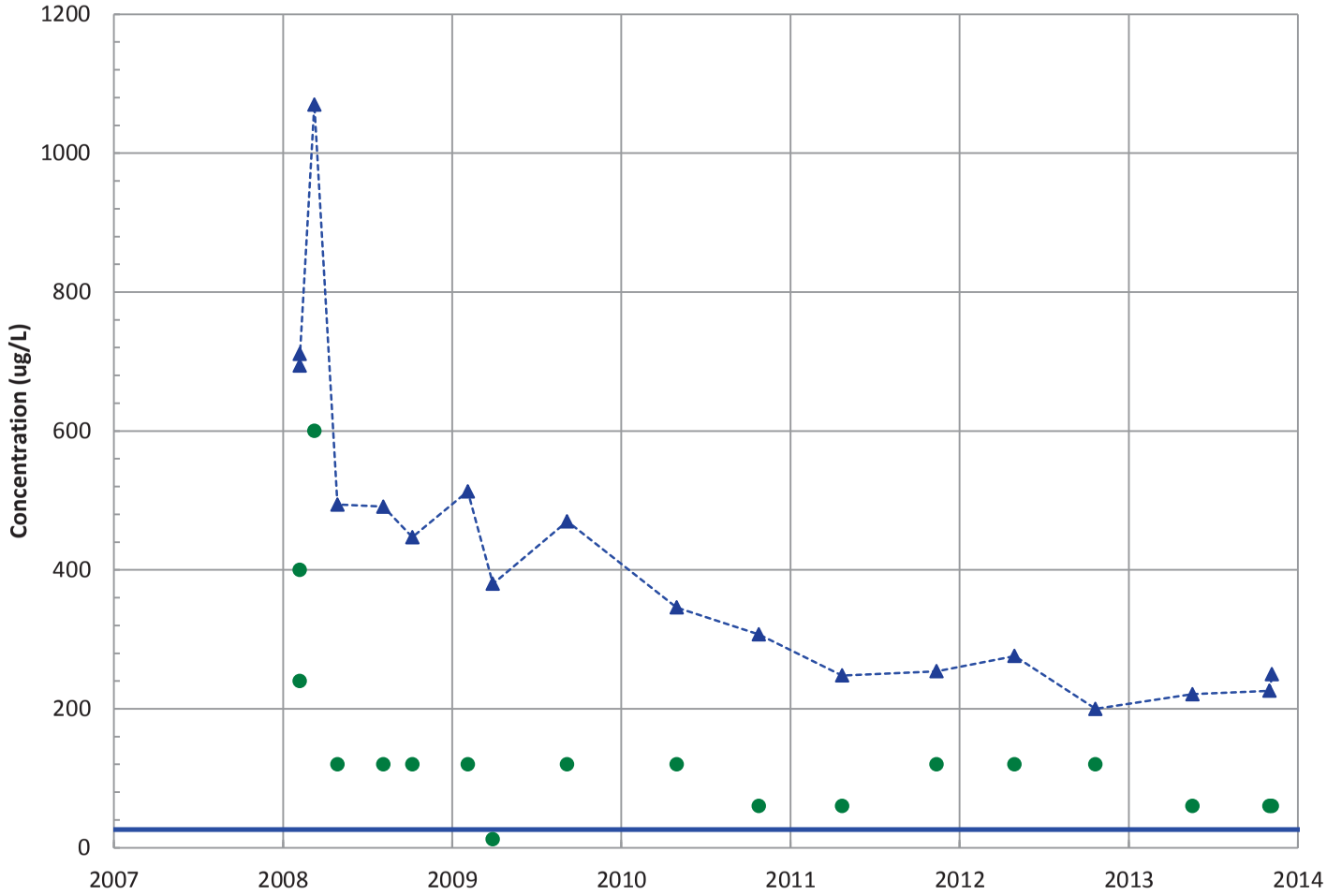
Well Location



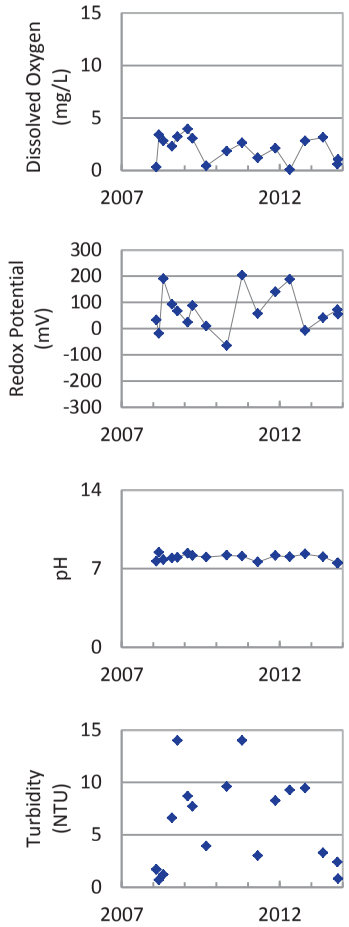
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/7/2008 to 11/11/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1126
Perchlorate Trend in Perched Aquifer



Field Parameters



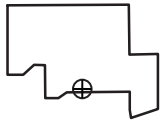
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Increasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Increasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

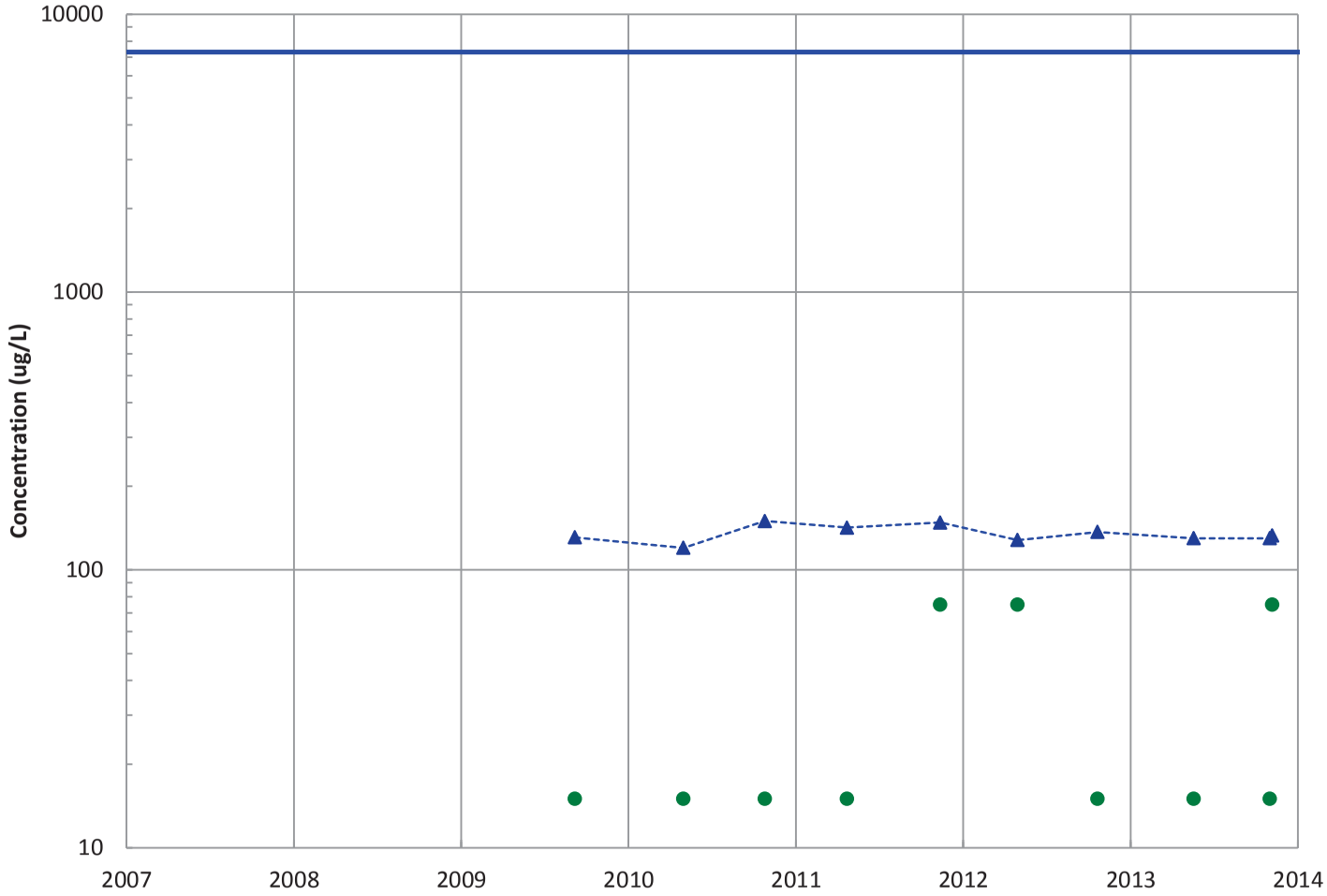
Well Location



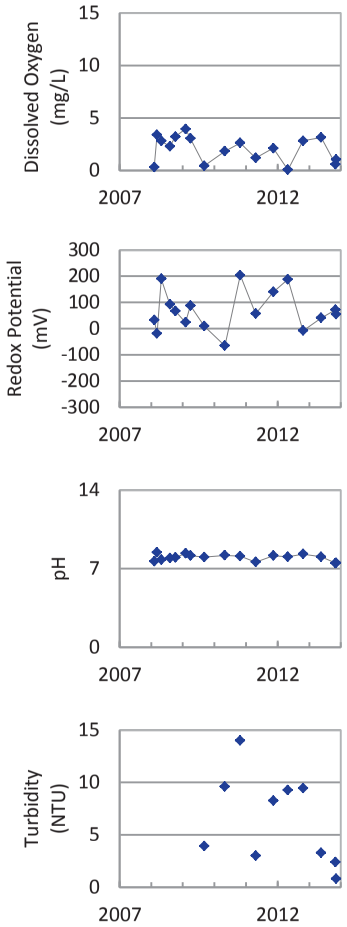
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/7/2008 to 11/11/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1126
Boron Trend in Perched Aquifer



Field Parameters



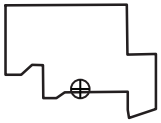
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

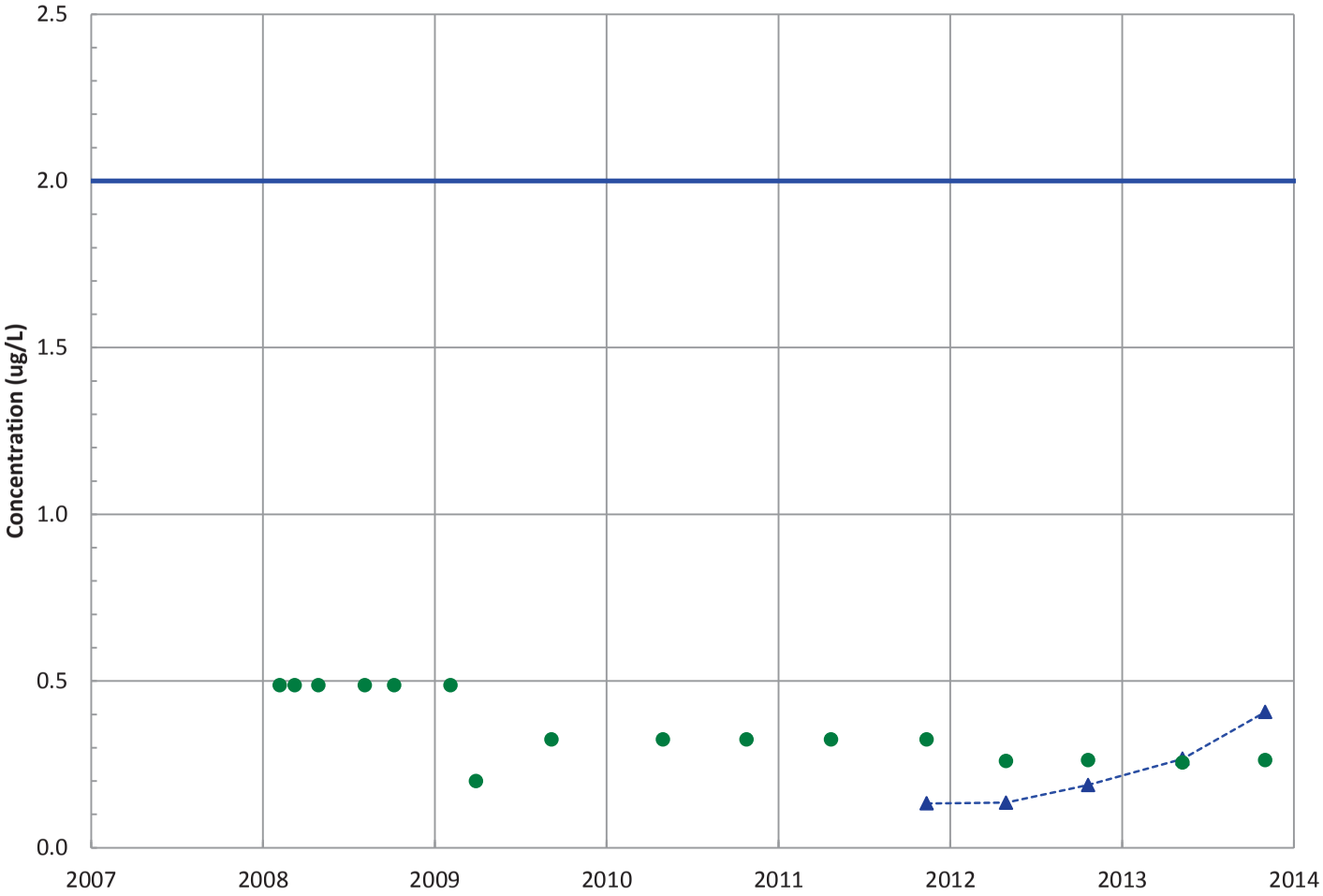
Well Location



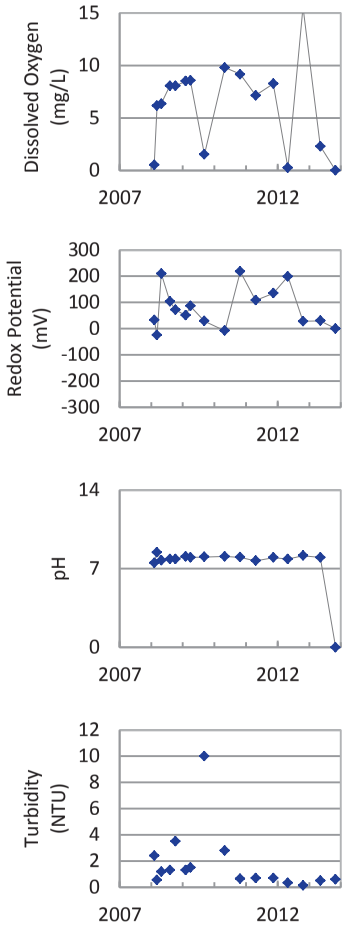
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/8/2009 to 11/11/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1127
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Probably Increasing

2011 - 2013 Data: Increasing

MAROS Linear Regression Method

Data (7/2009 - 12/2013): Increasing

2011 - 2013 Data: Increasing

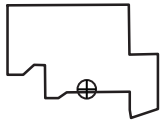
▲ Measured Value

● Sample Detection Limit

------- Concentration Trend

——— Groundwater Protection Standard

Well Location



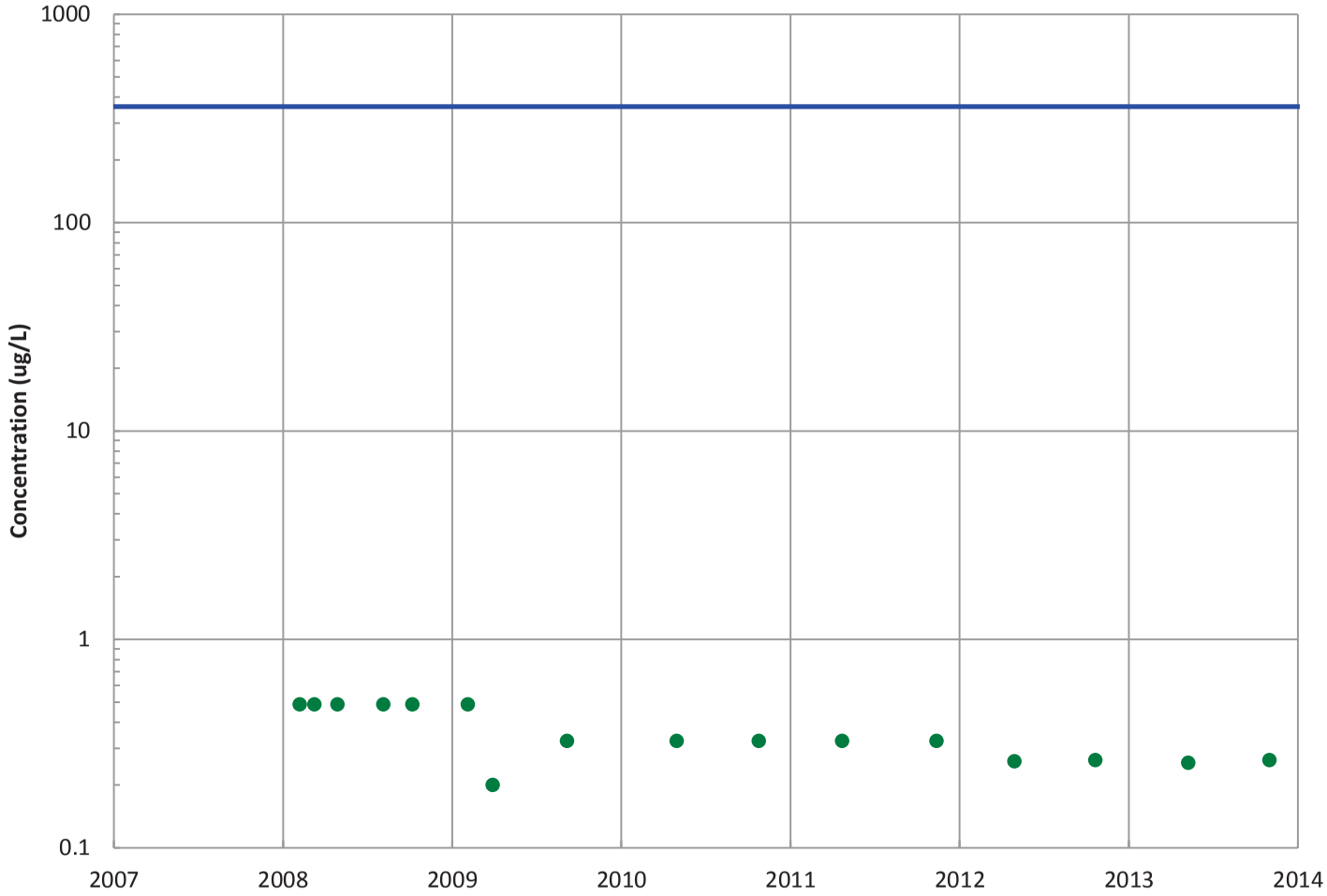
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 2/7/2008 to 11/6/2013

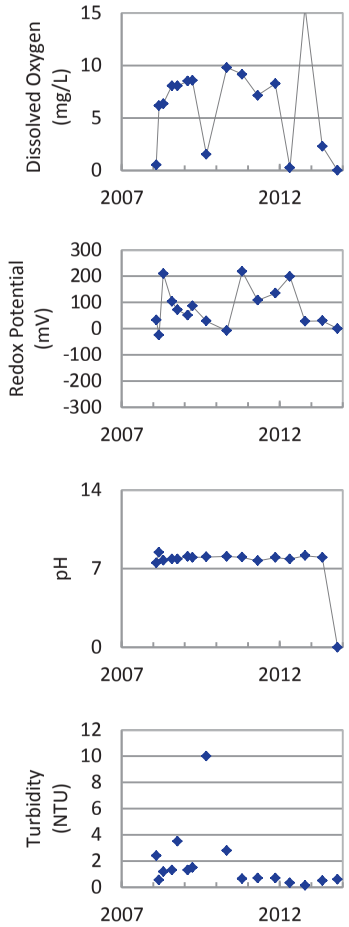
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1127
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



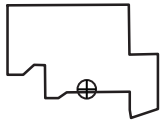
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

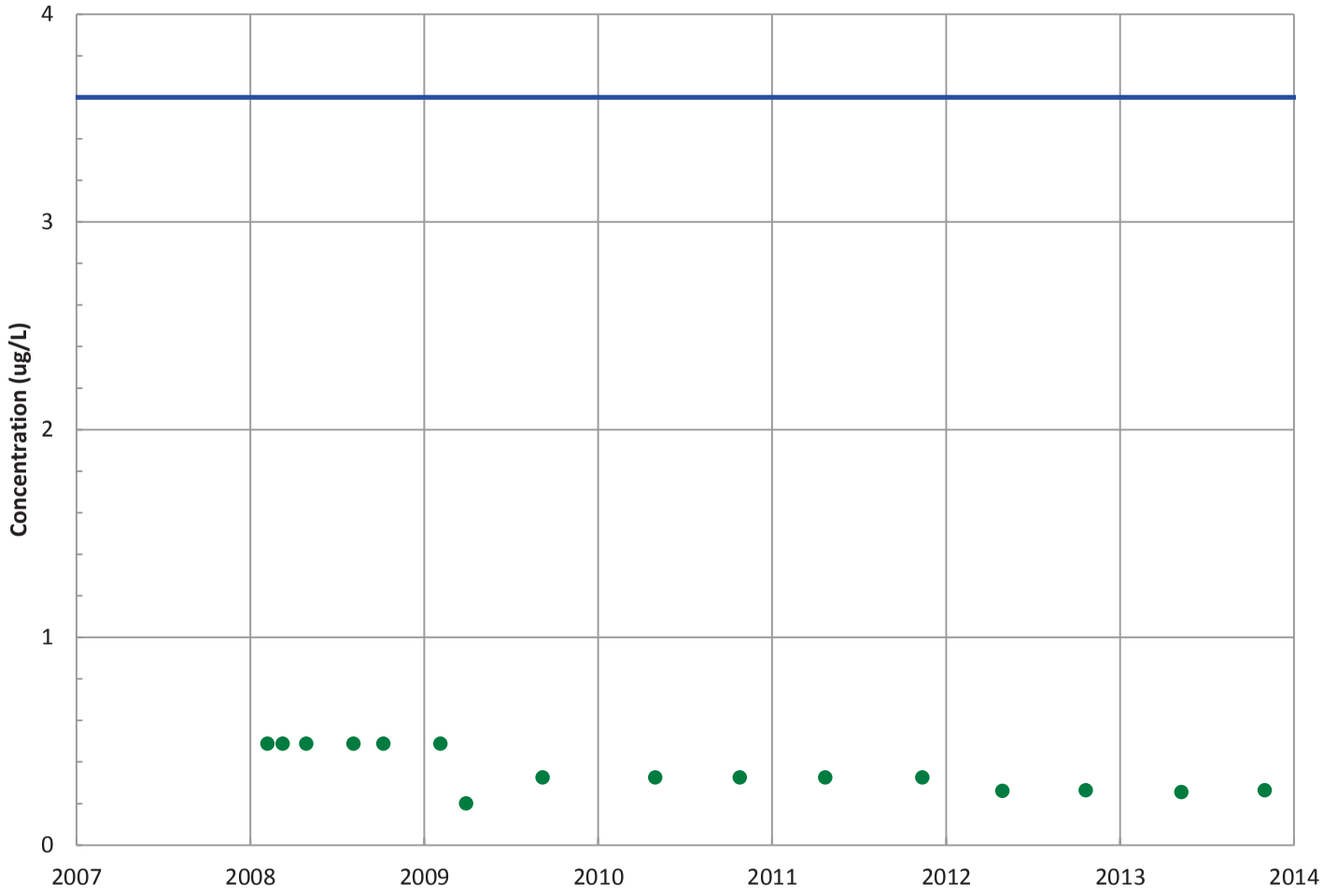
Well Location



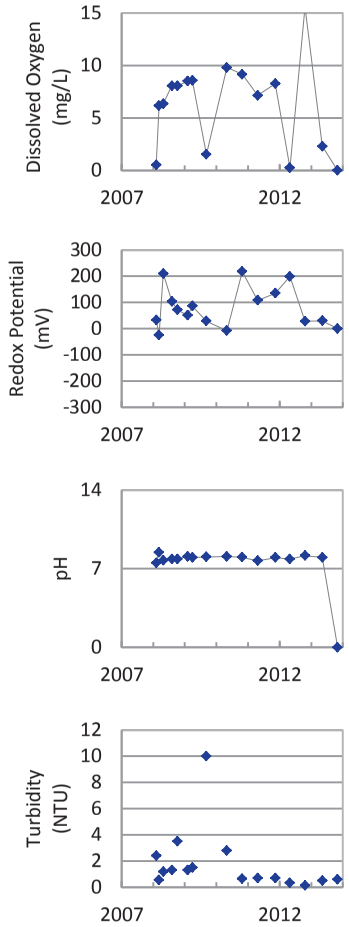
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/7/2008 to 11/6/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1127
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



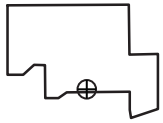
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

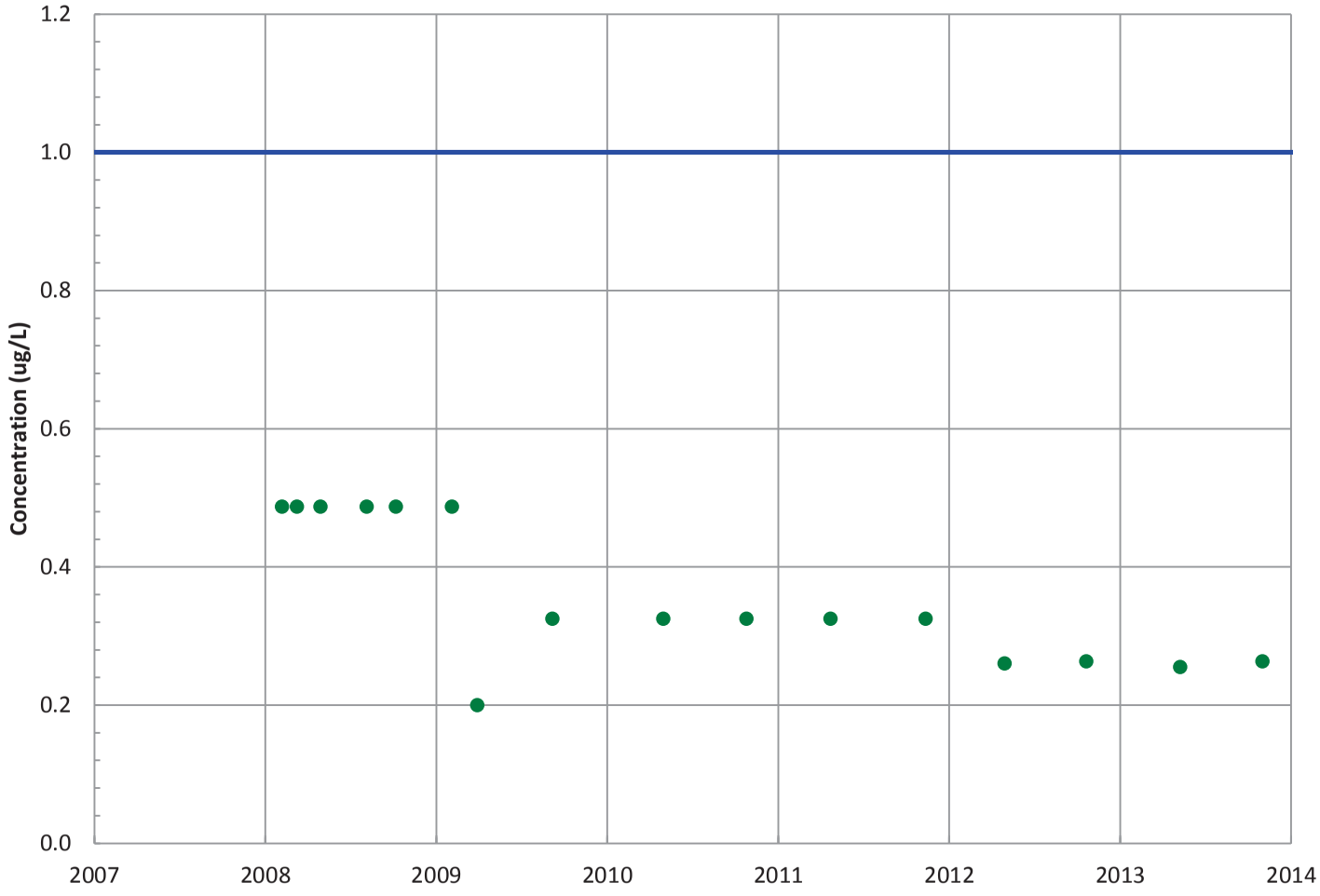
Well Location



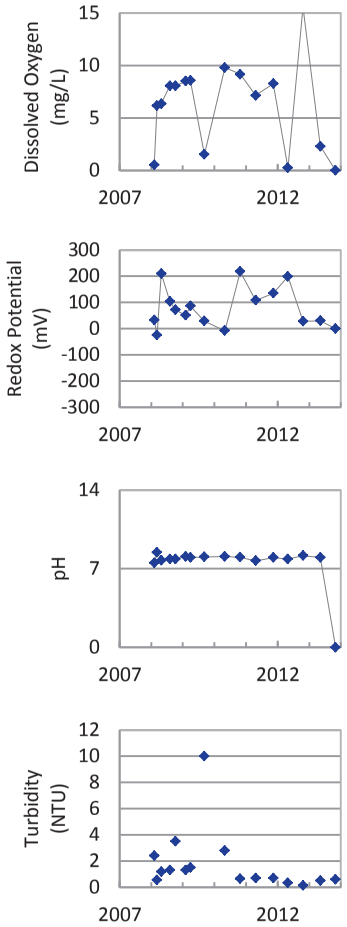
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/7/2008 to 11/6/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1127
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



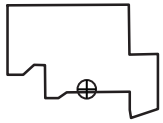
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

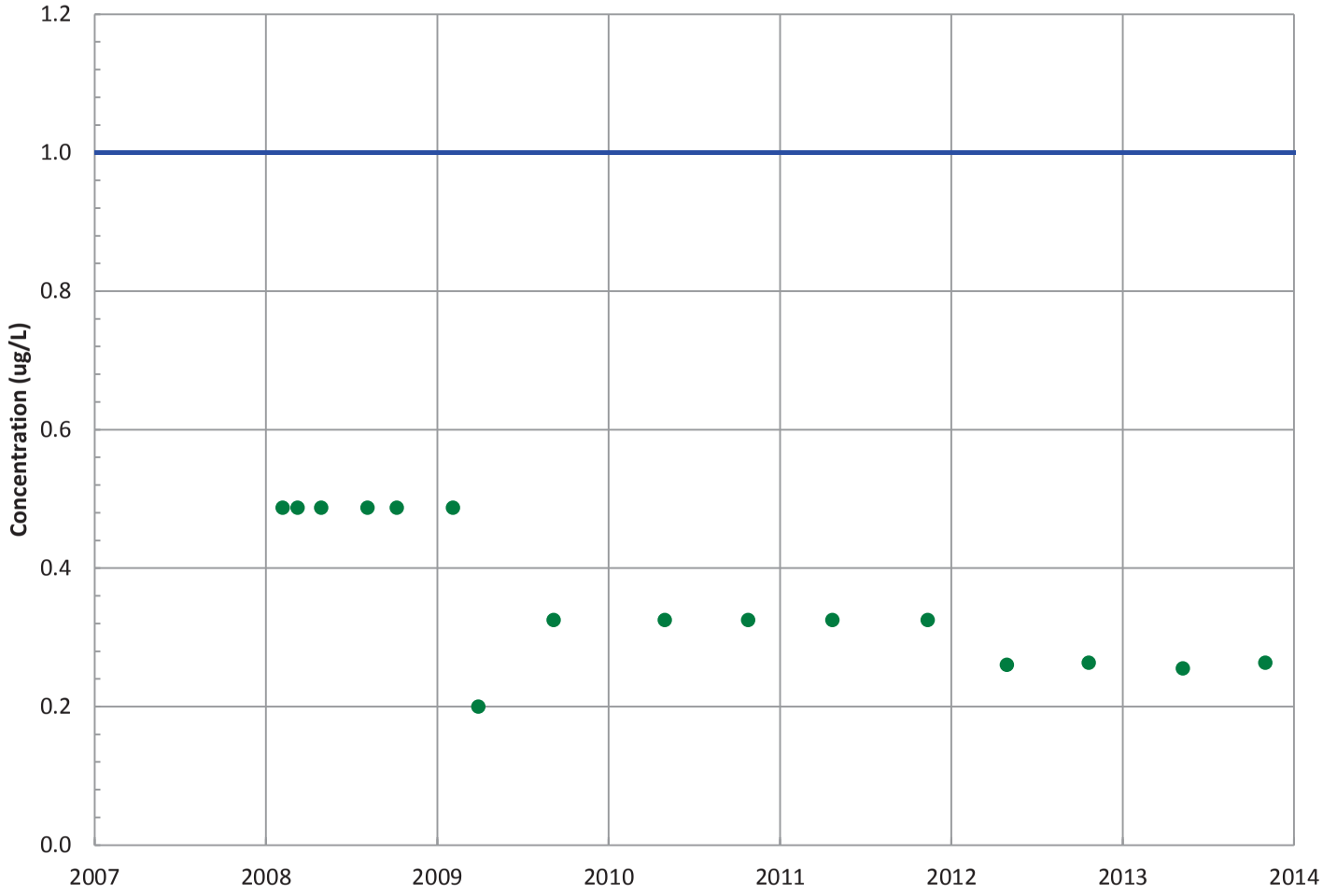
Well Location



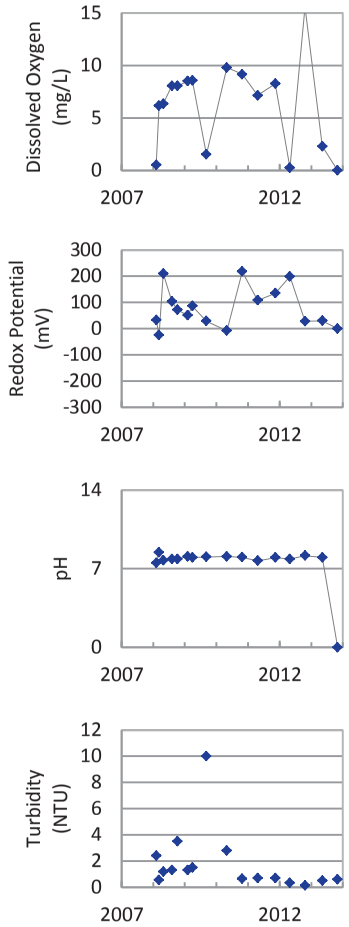
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/7/2008 to 11/6/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1127
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



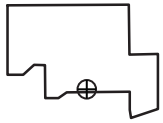
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

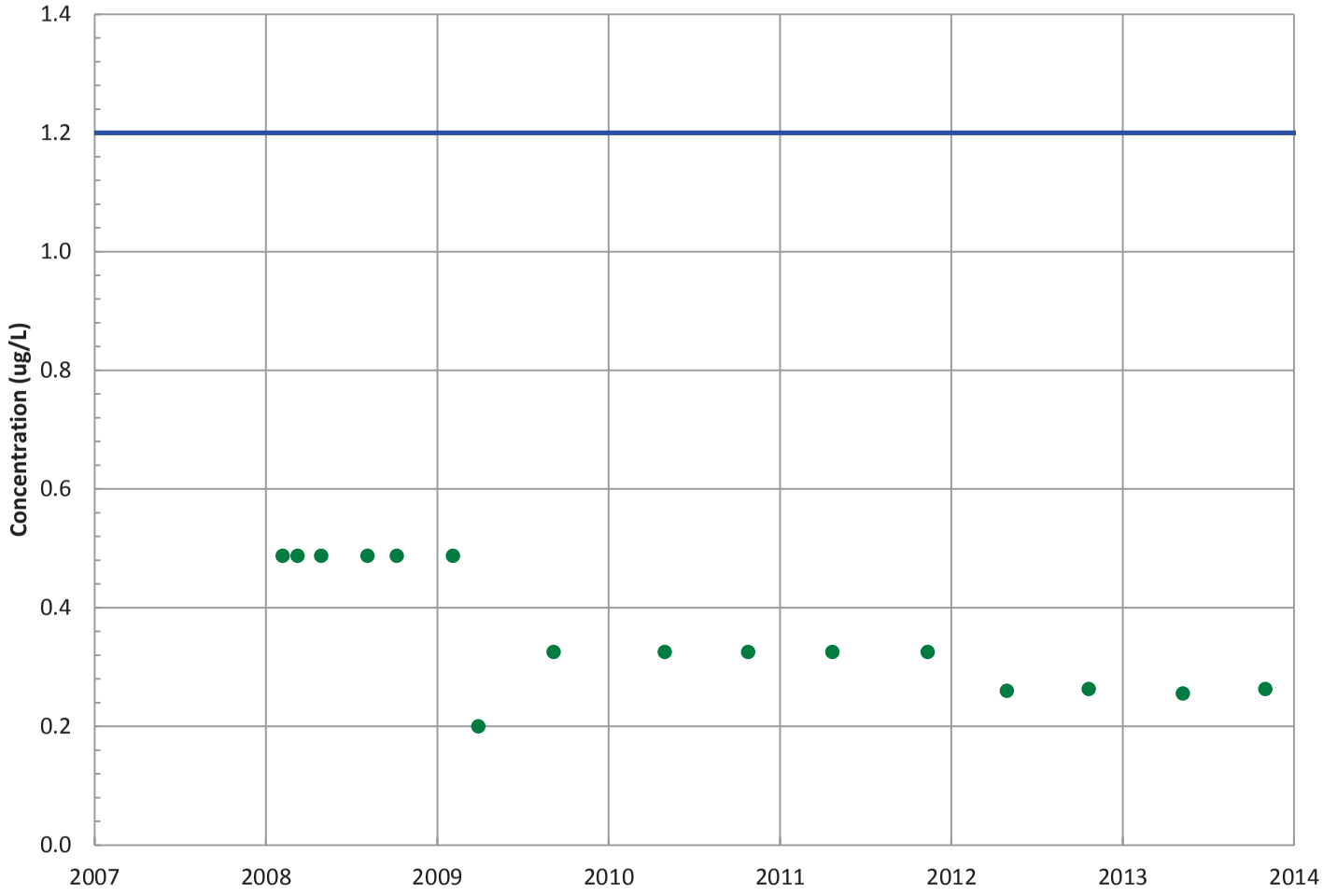
Well Location



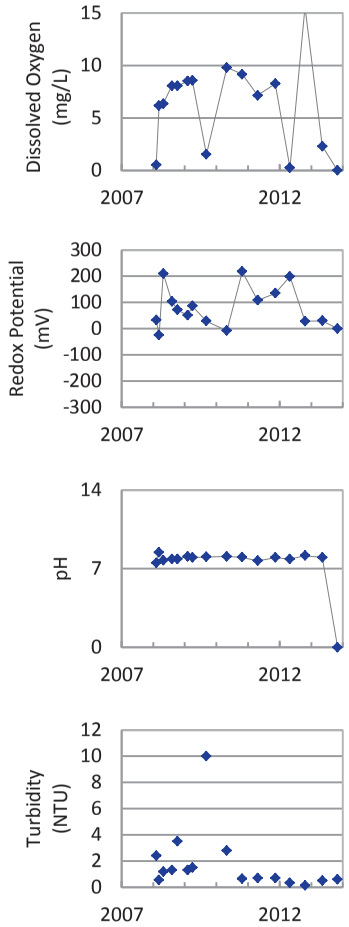
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/7/2008 to 11/6/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1127
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



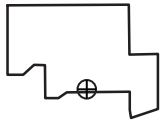
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

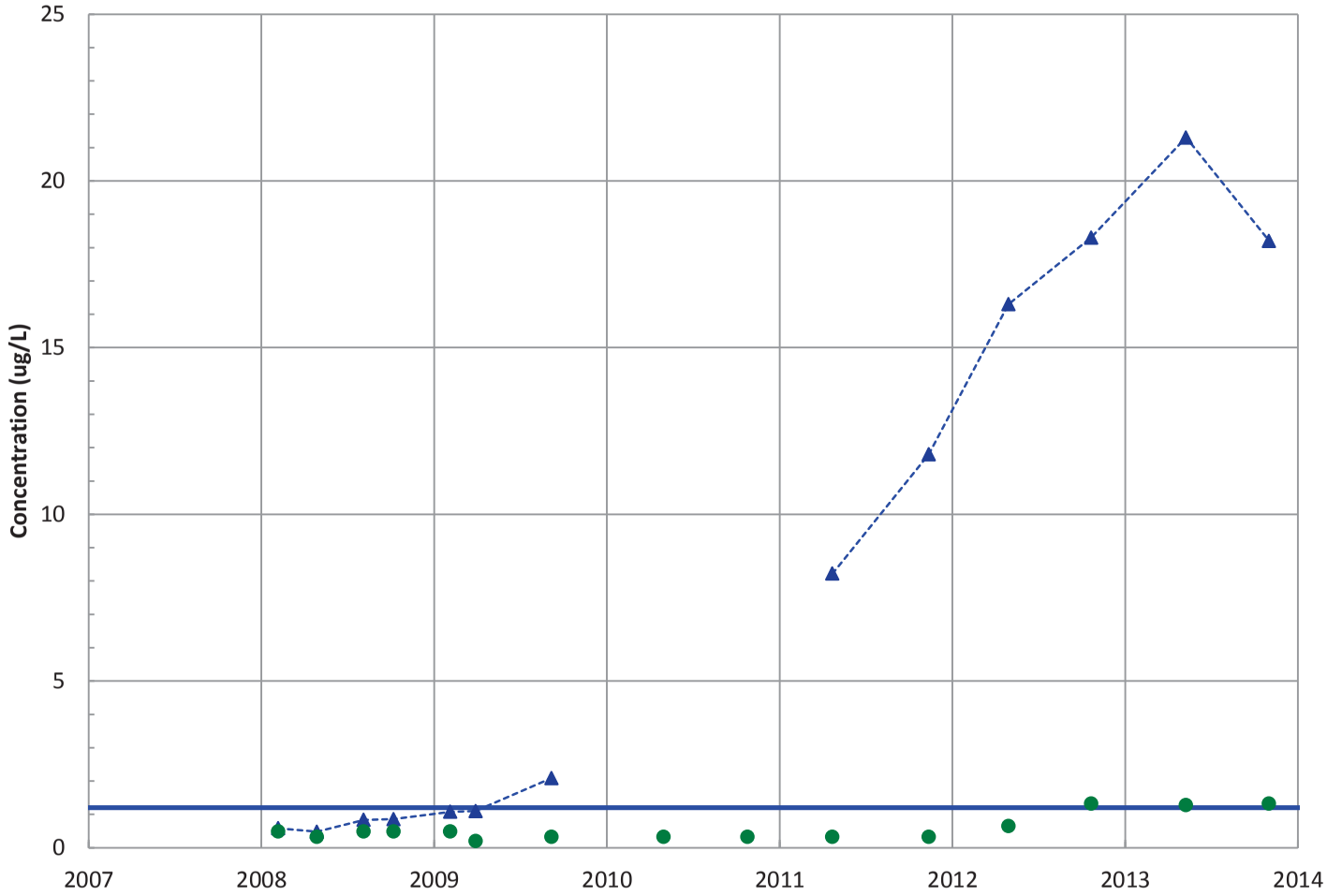
Well Location



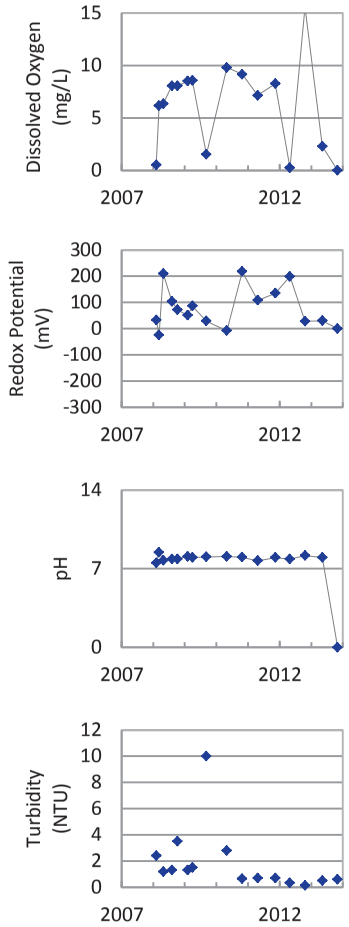
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/7/2008 to 11/6/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1127
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



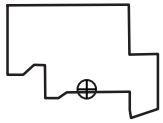
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------ Concentration Trend
- ——— Groundwater Protection Standard

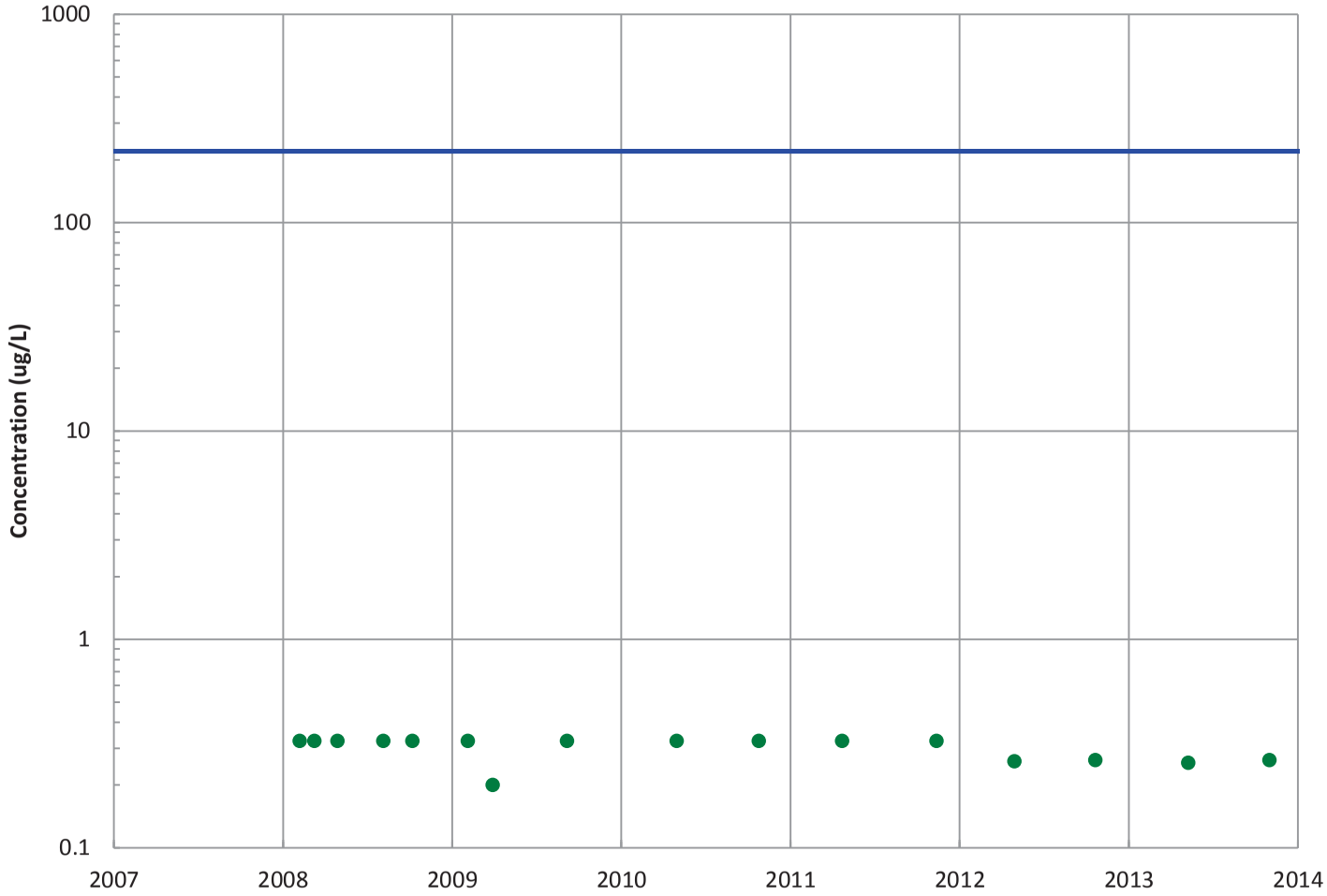
Well Location



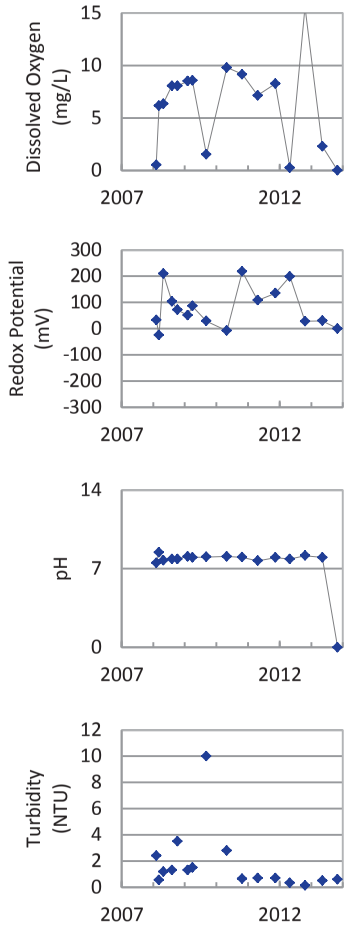
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/7/2008 to 11/6/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1127
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



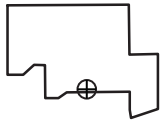
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

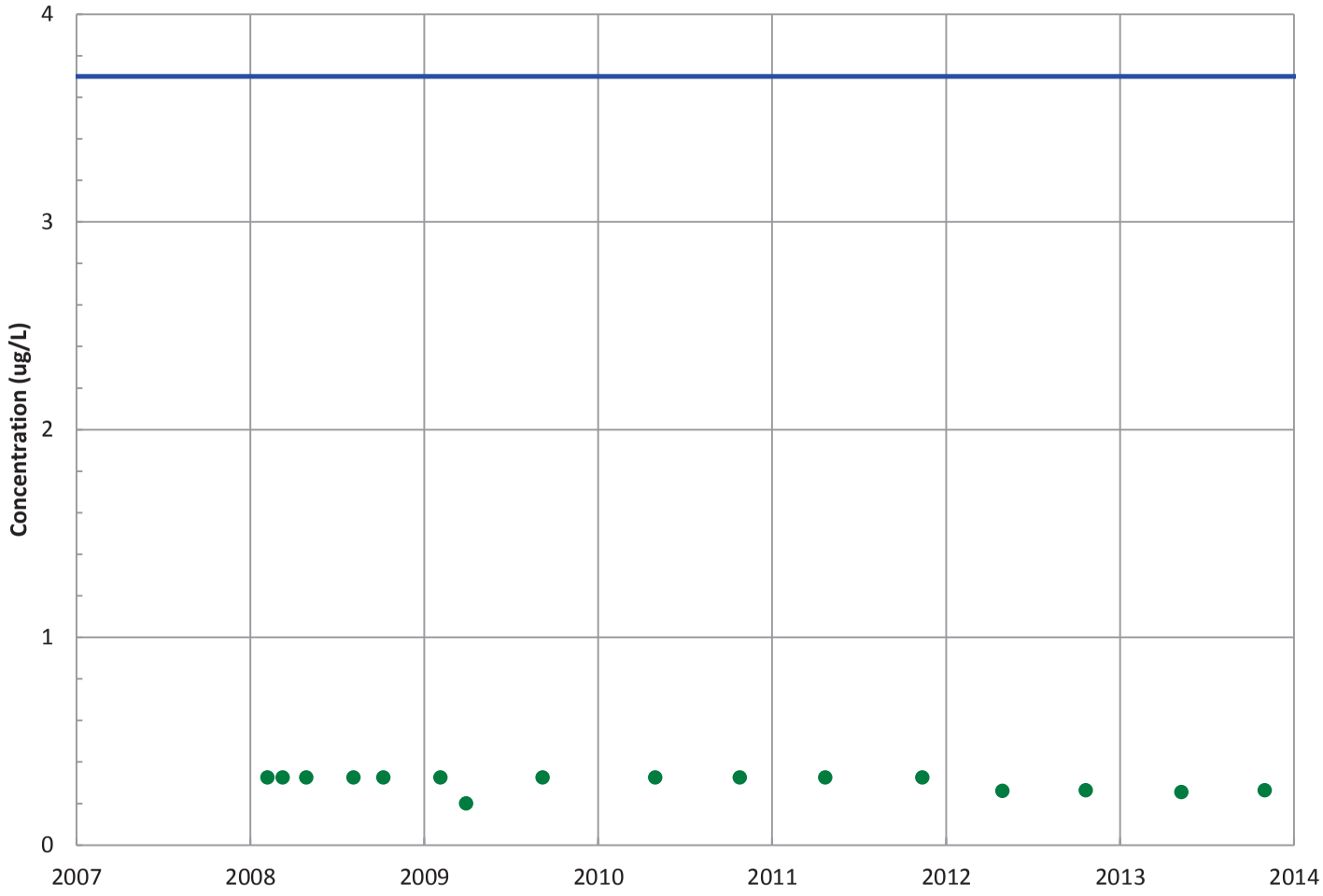
Well Location



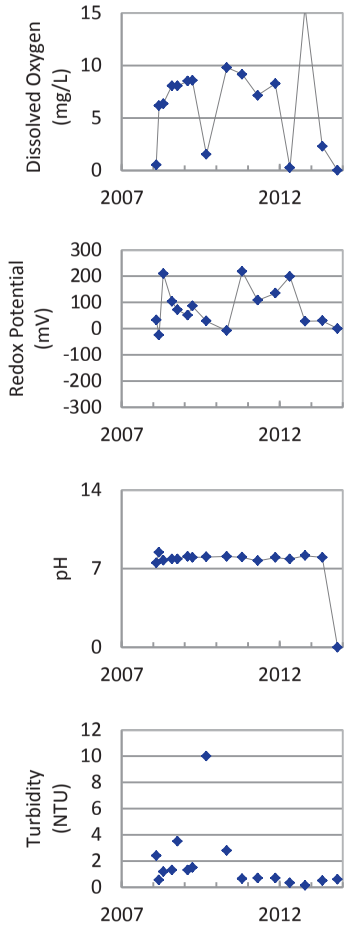
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/7/2008 to 11/6/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1127
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



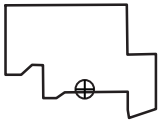
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

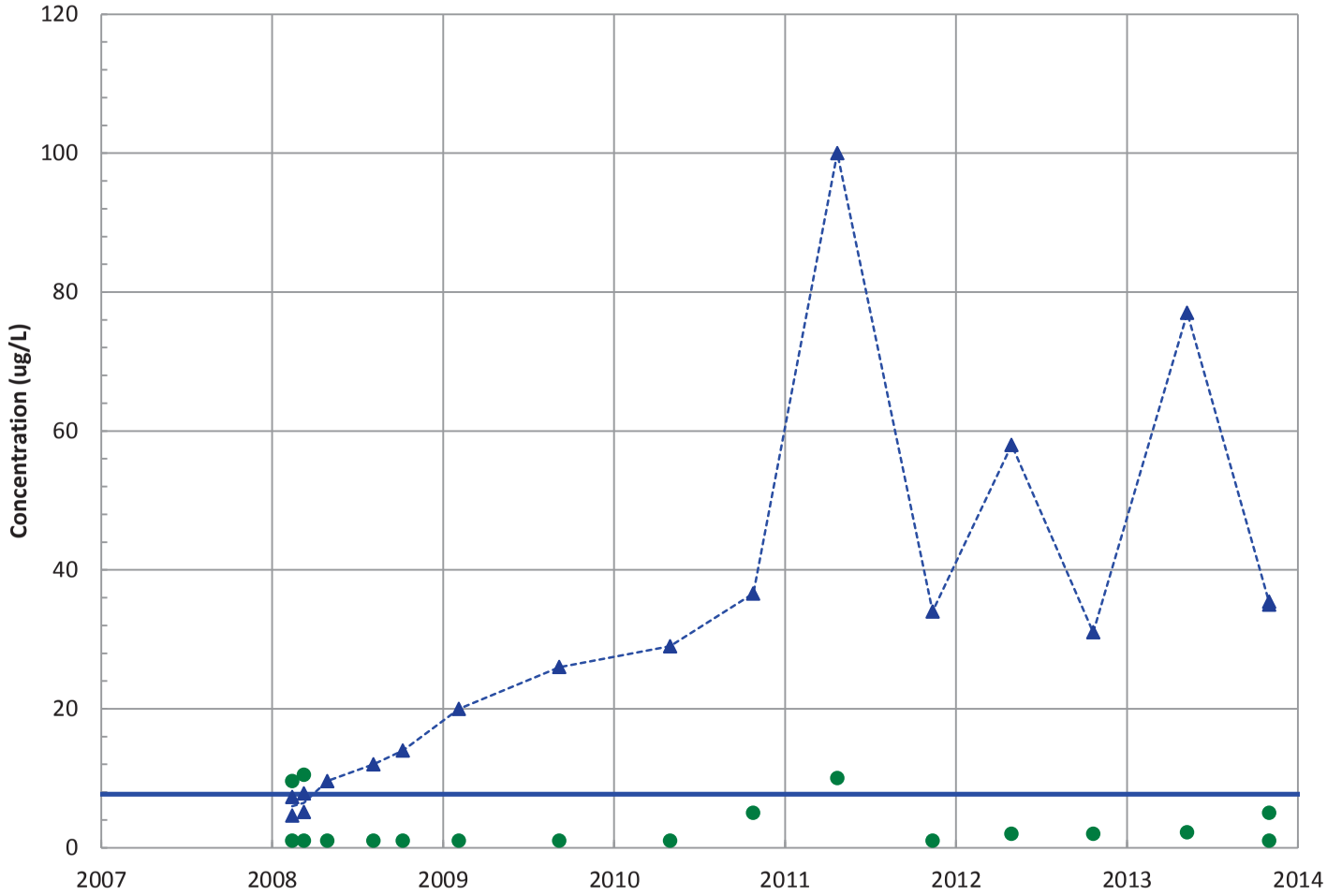
Well Location



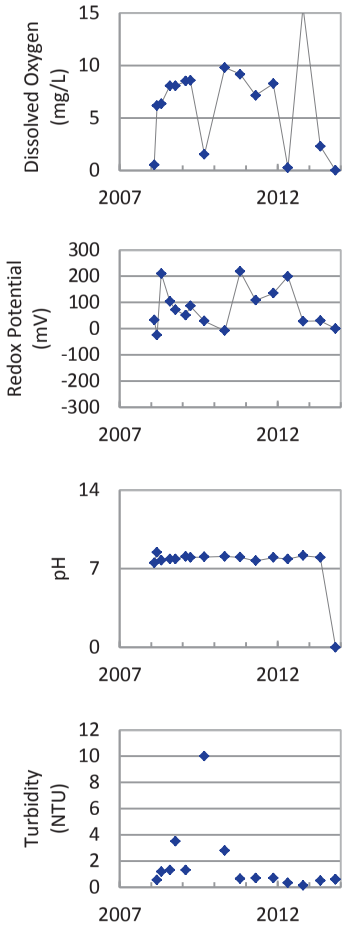
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/7/2008 to 11/6/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1127
1,4-Dioxane (p-Dioxane) Trend in Perched Aquifer



Field Parameters



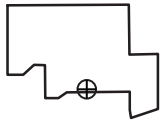
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

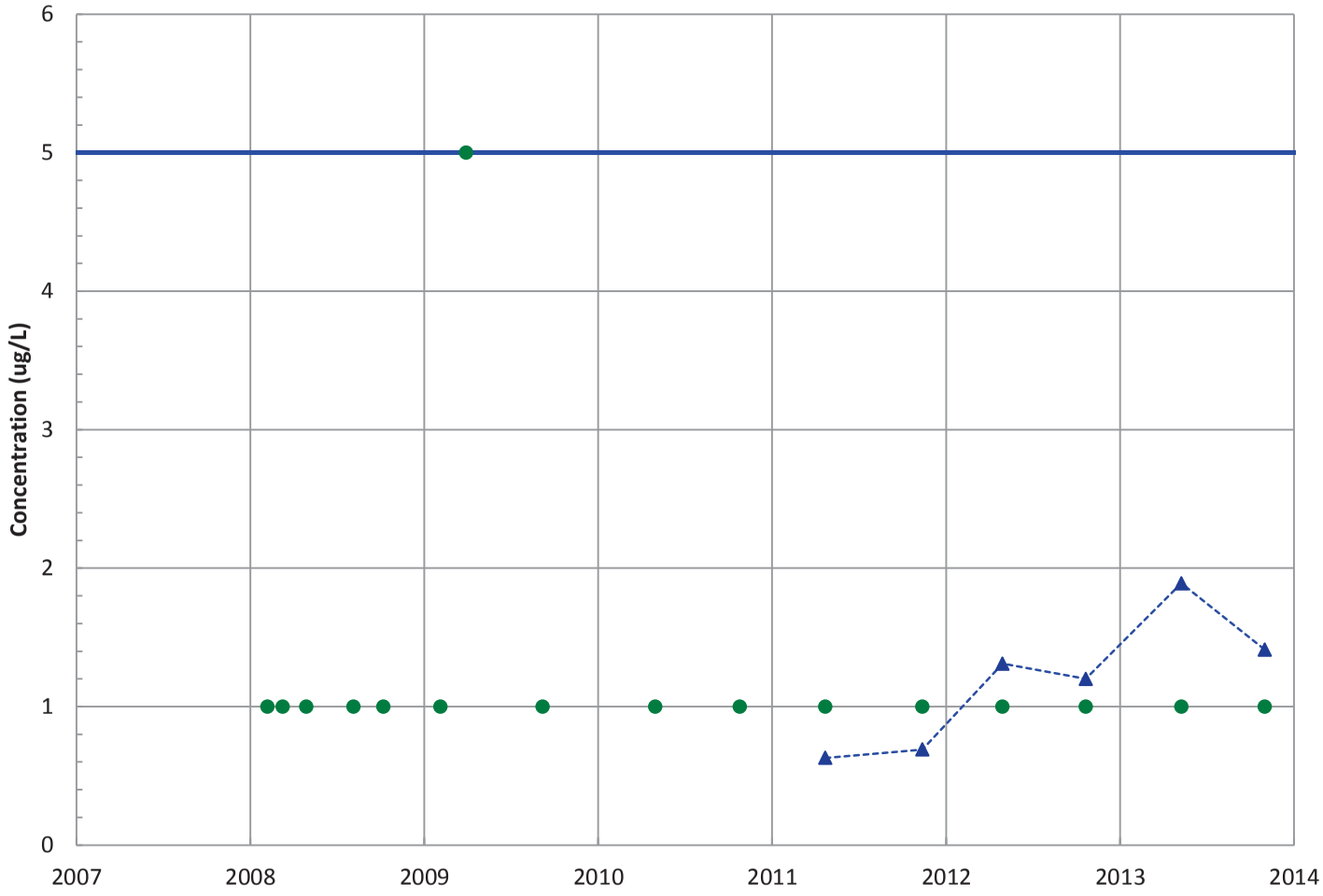
Well Location



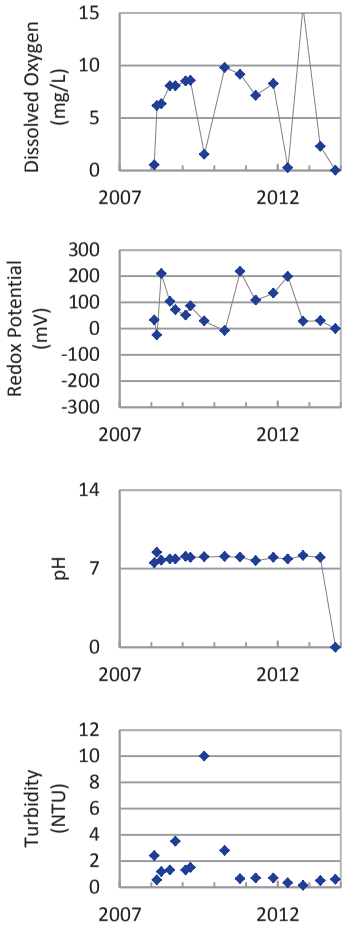
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/14/2008 to 11/6/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1127
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



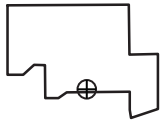
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

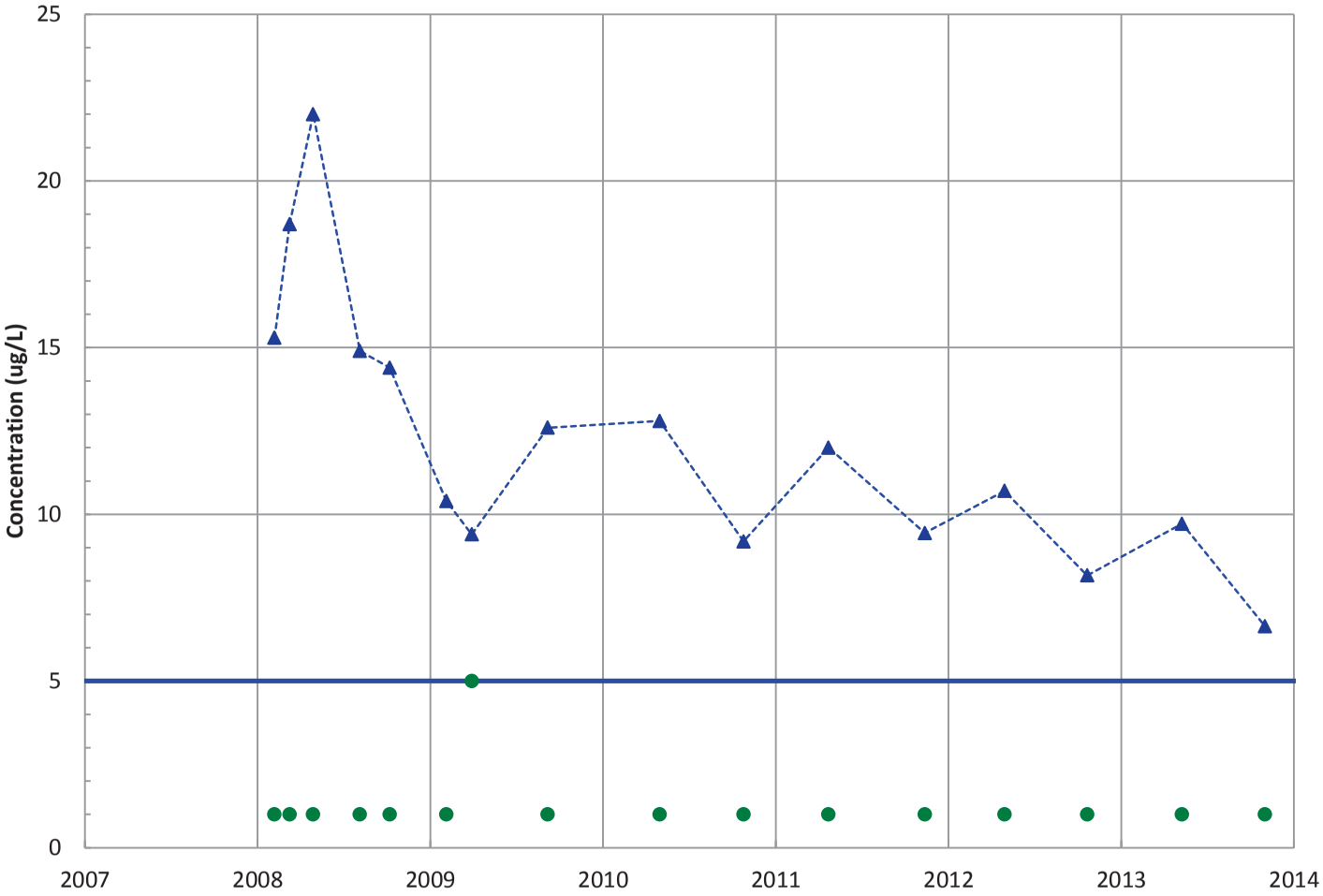
Well Location



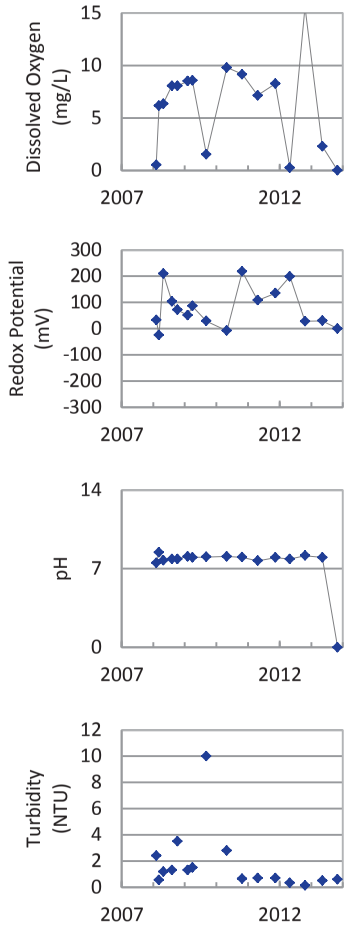
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/7/2008 to 11/6/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1127
Trichloroethene Trend in Perched Aquifer



Field Parameters



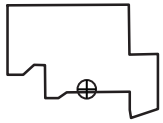
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Probably Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

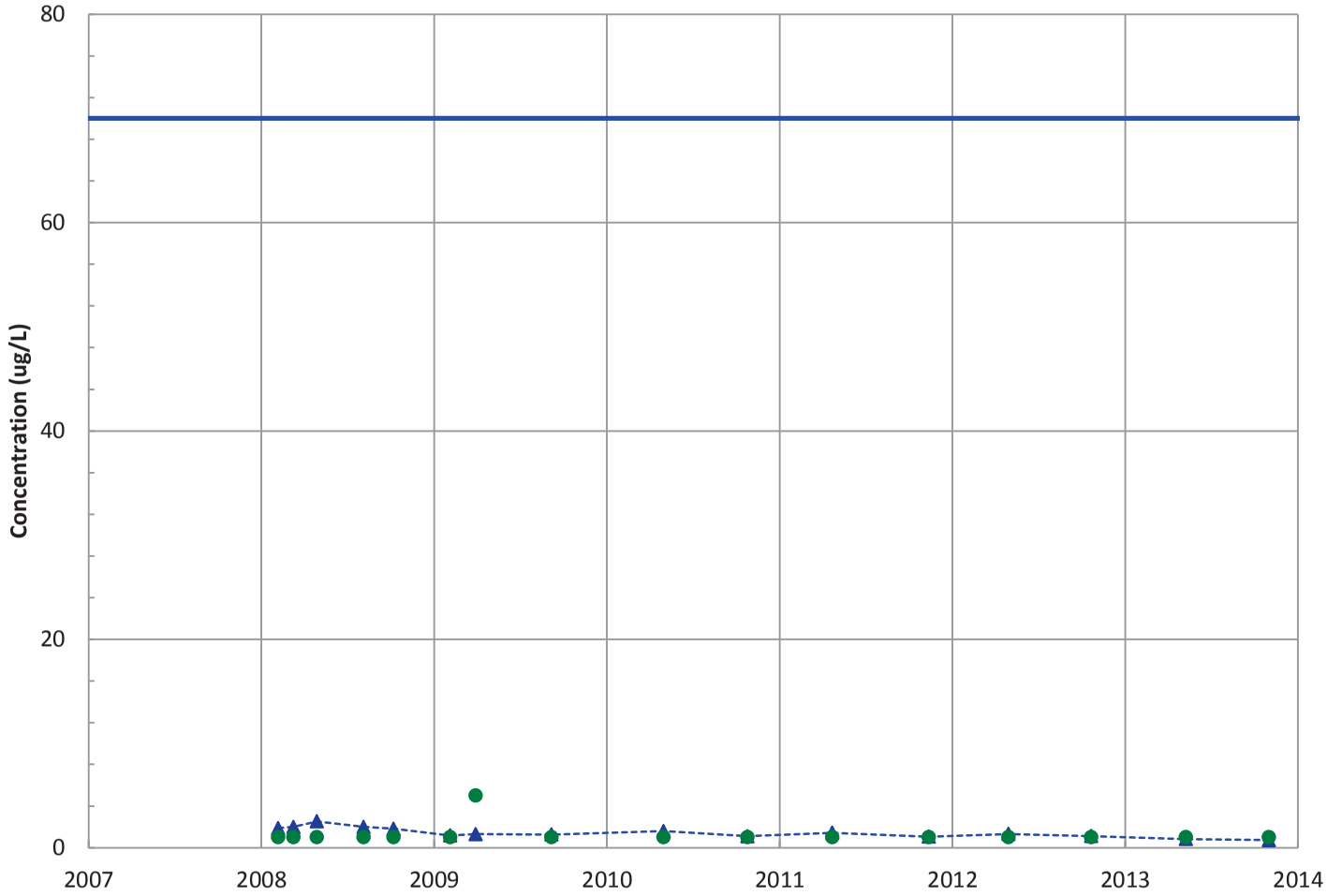
Well Location



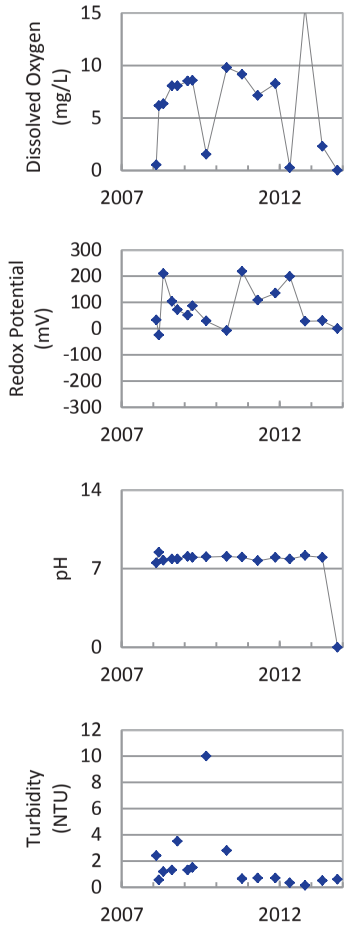
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/7/2008 to 11/6/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1127
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



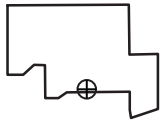
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

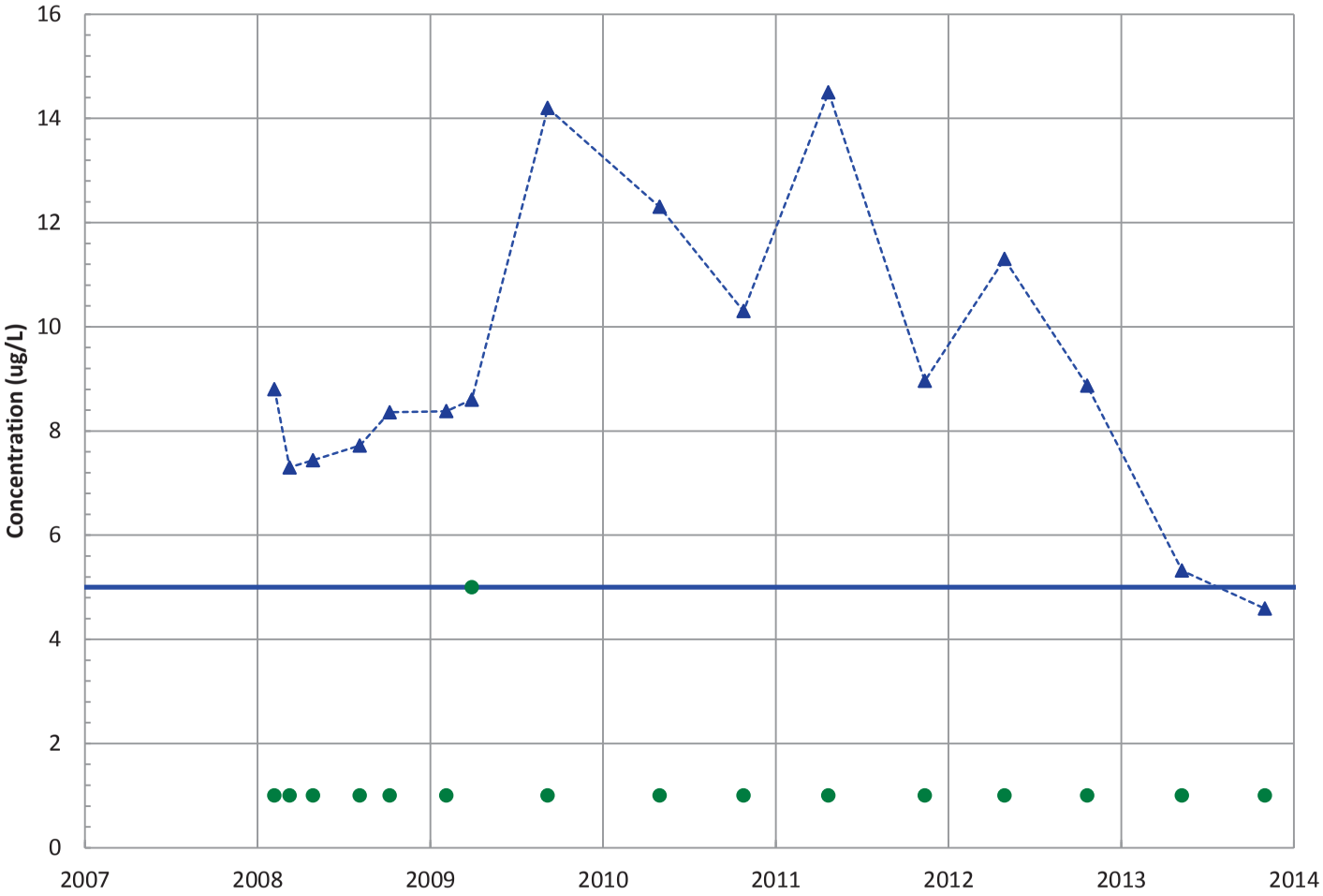
Well Location



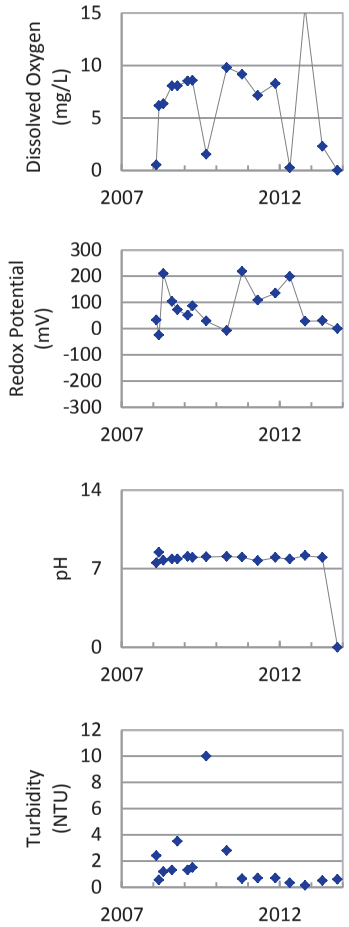
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/7/2008 to 11/6/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1127
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



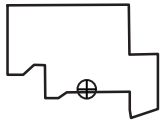
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

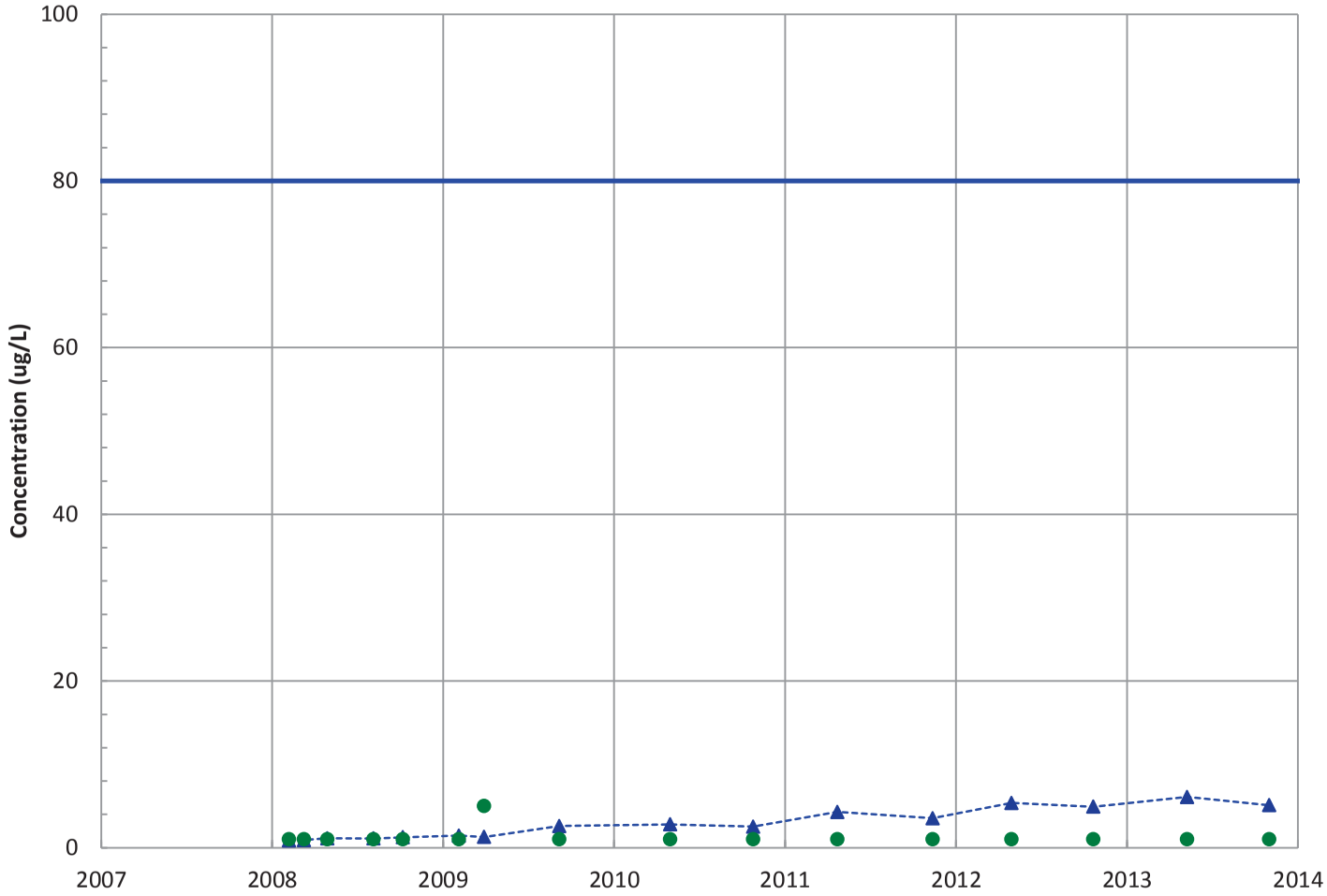
Well Location



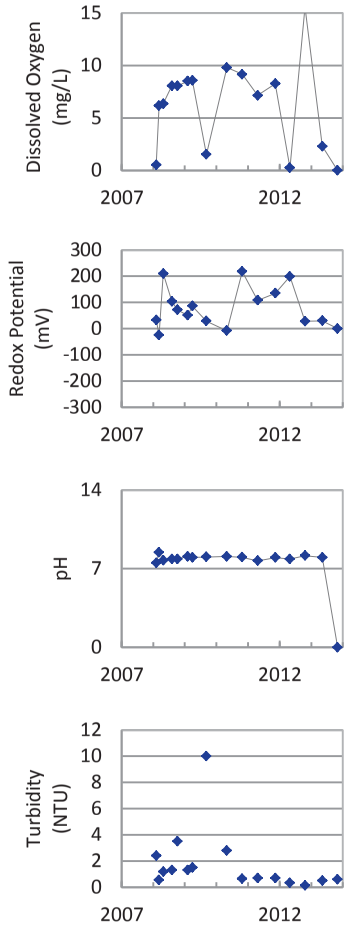
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/7/2008 to 11/6/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1127
Chloroform Trend in Perched Aquifer



Field Parameters



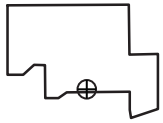
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

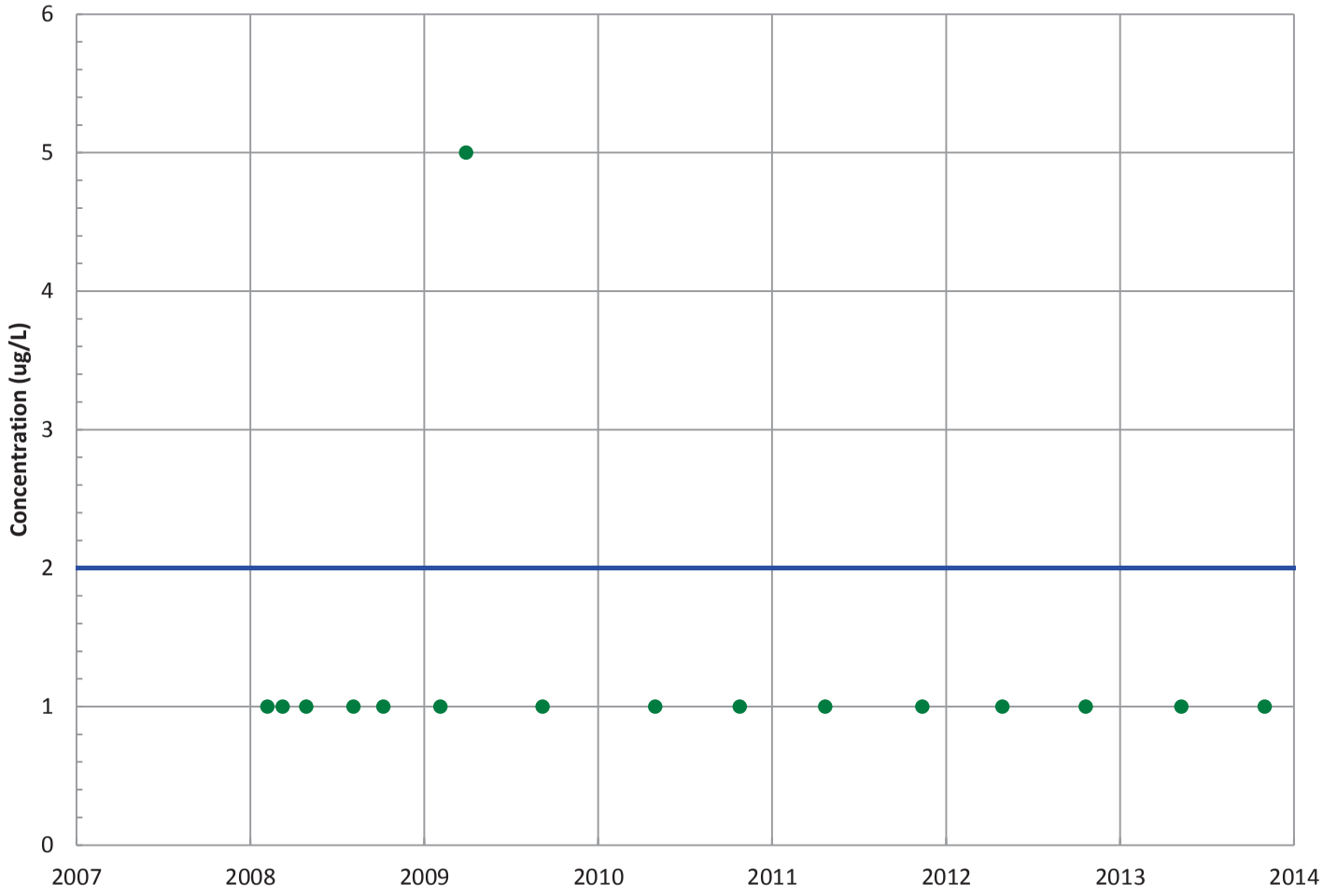
Well Location



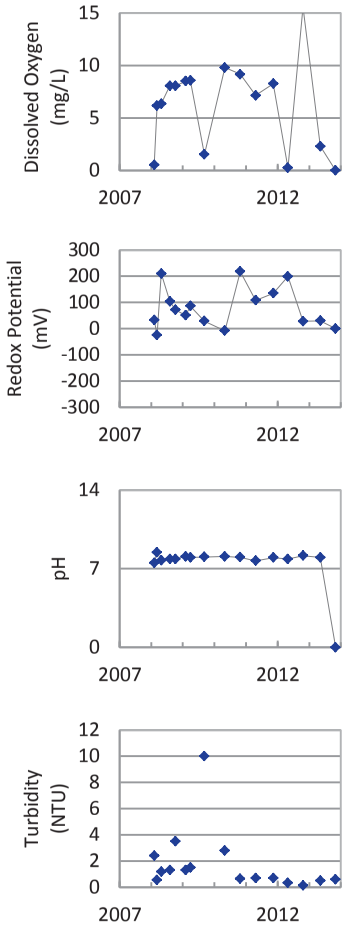
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/7/2008 to 11/6/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1127
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



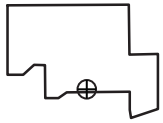
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

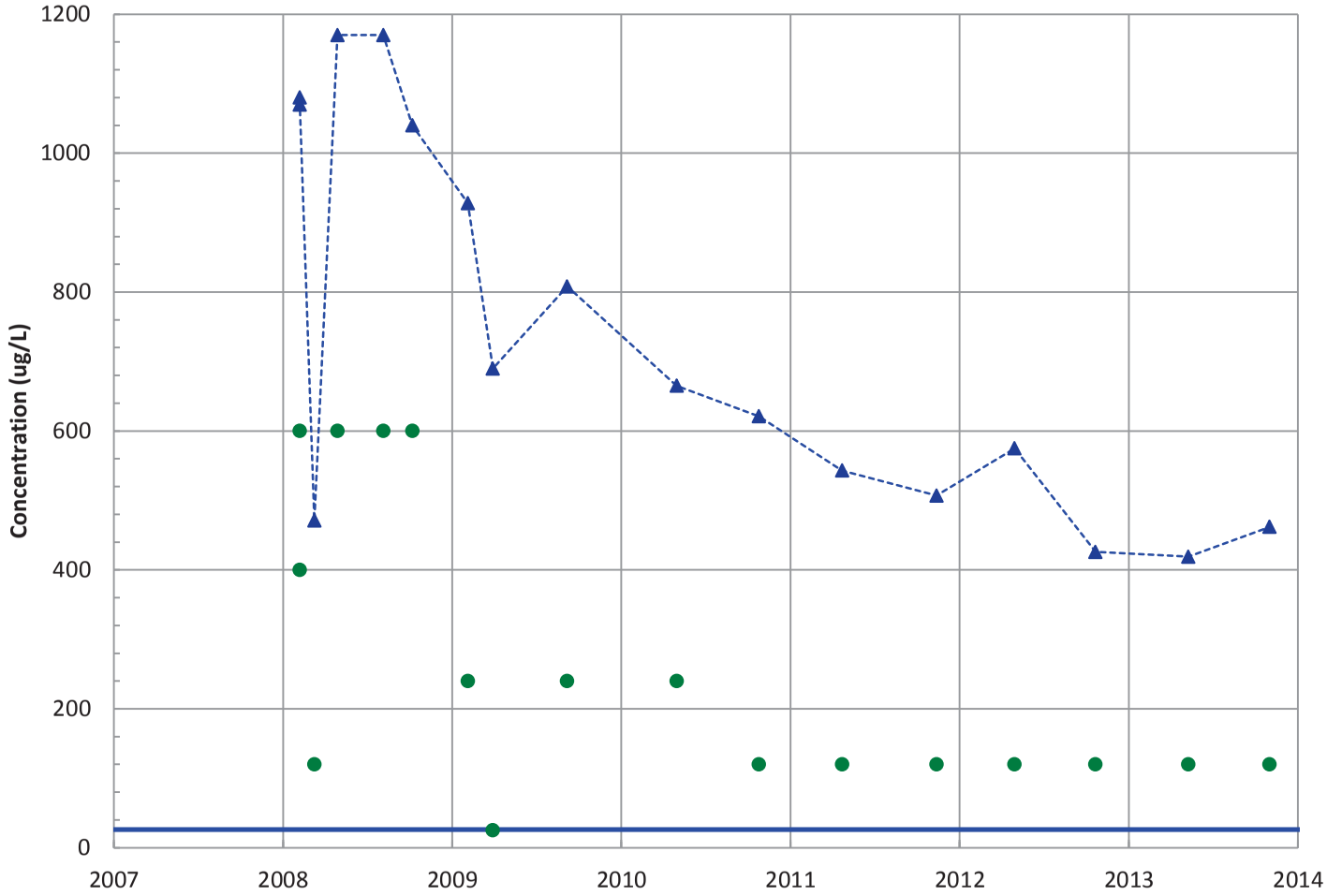
Well Location



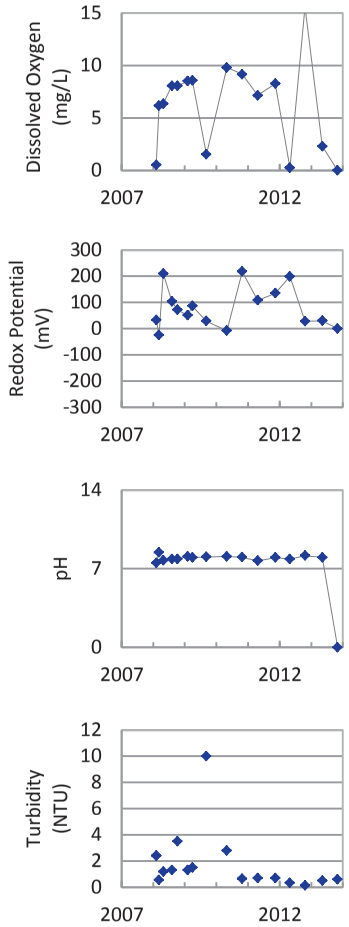
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/7/2008 to 11/6/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1127
Perchlorate Trend in Perched Aquifer



Field Parameters



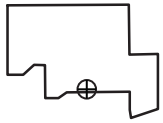
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

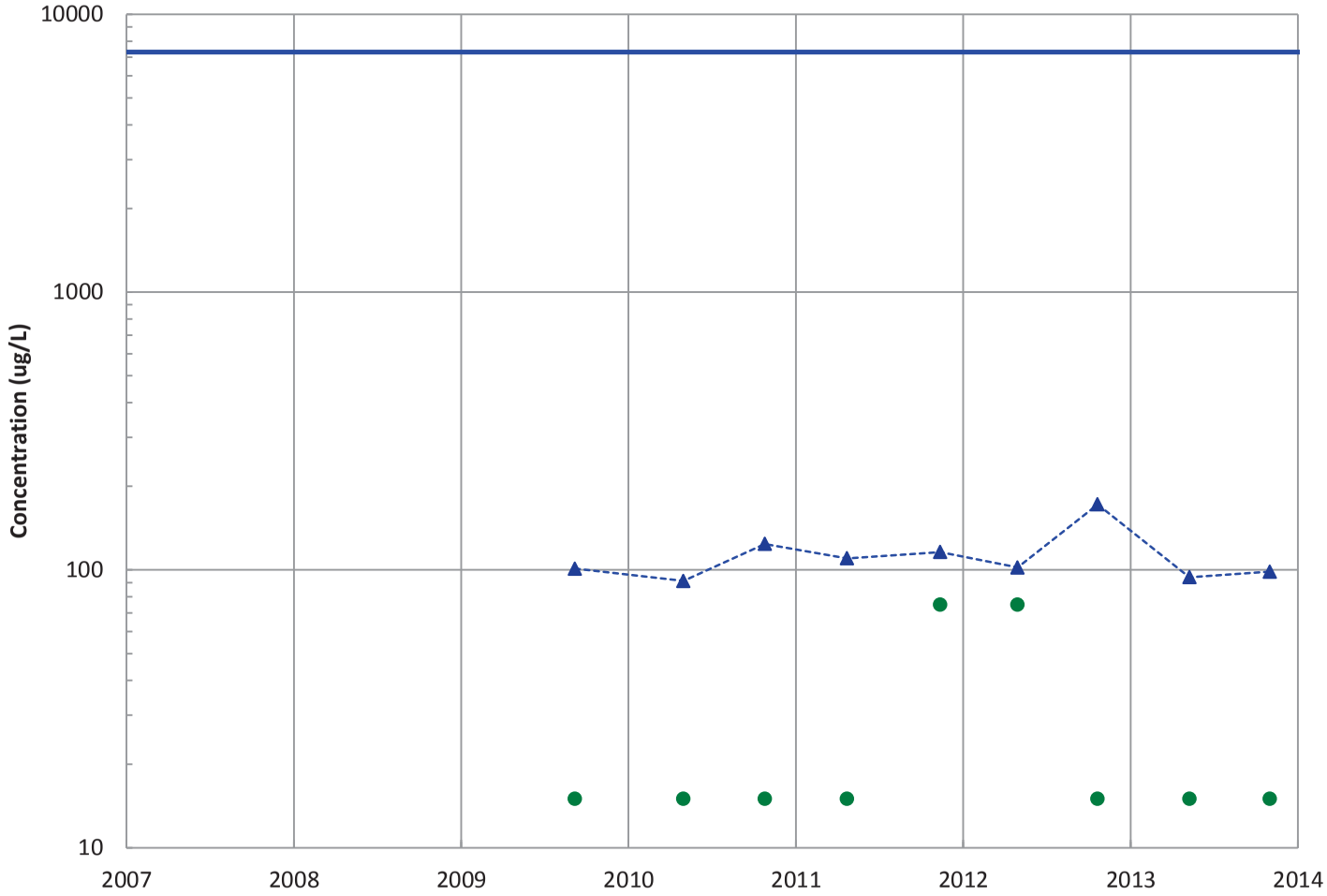
Well Location



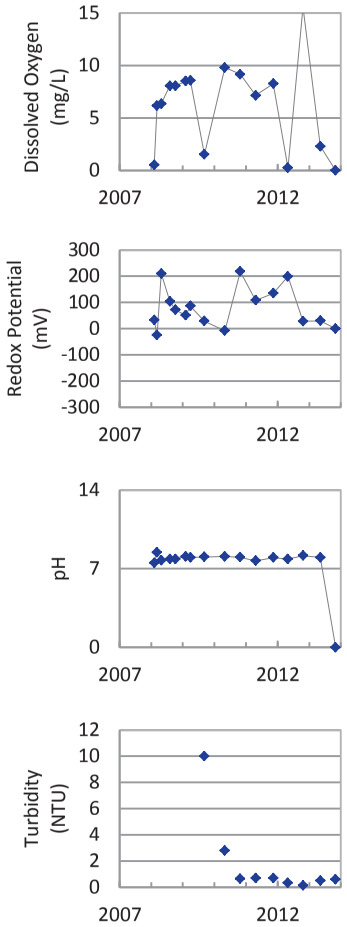
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/7/2008 to 11/6/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1127
Boron Trend in Perched Aquifer



Field Parameters



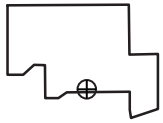
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

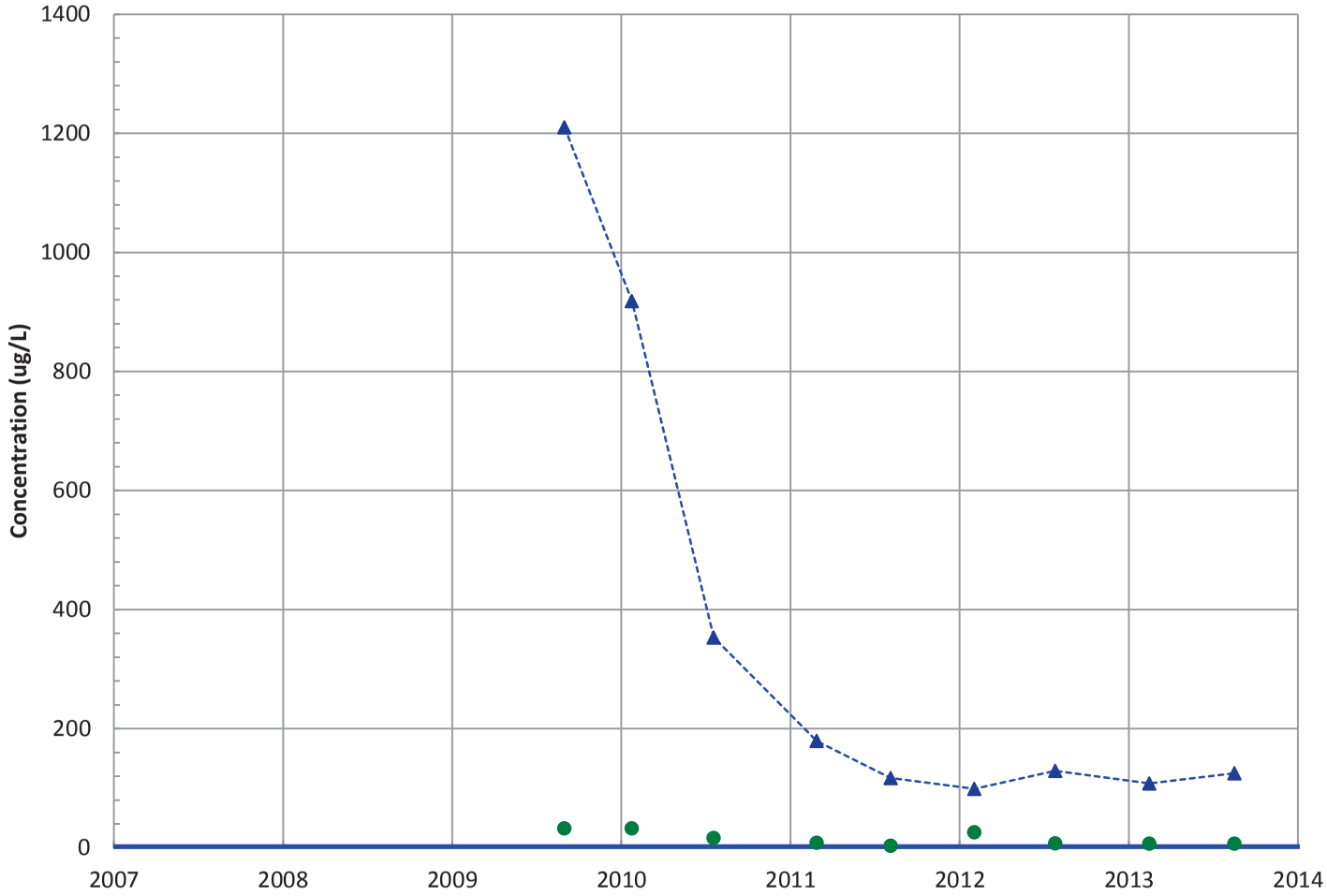
Well Location



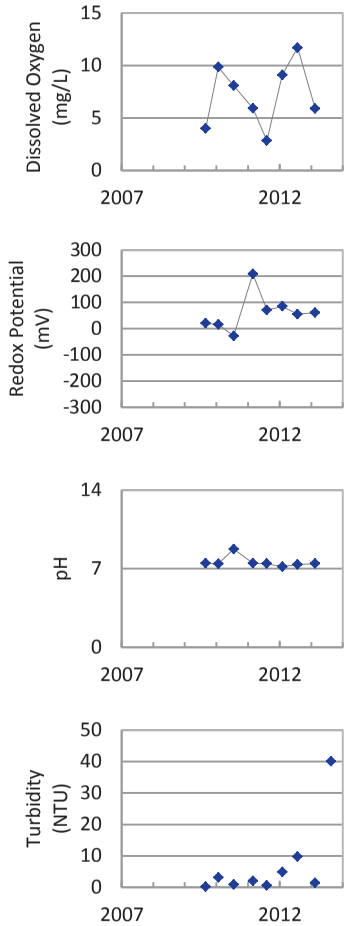
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/8/2009 to 11/6/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1130
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



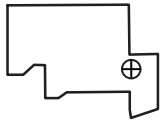
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: No Trend

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

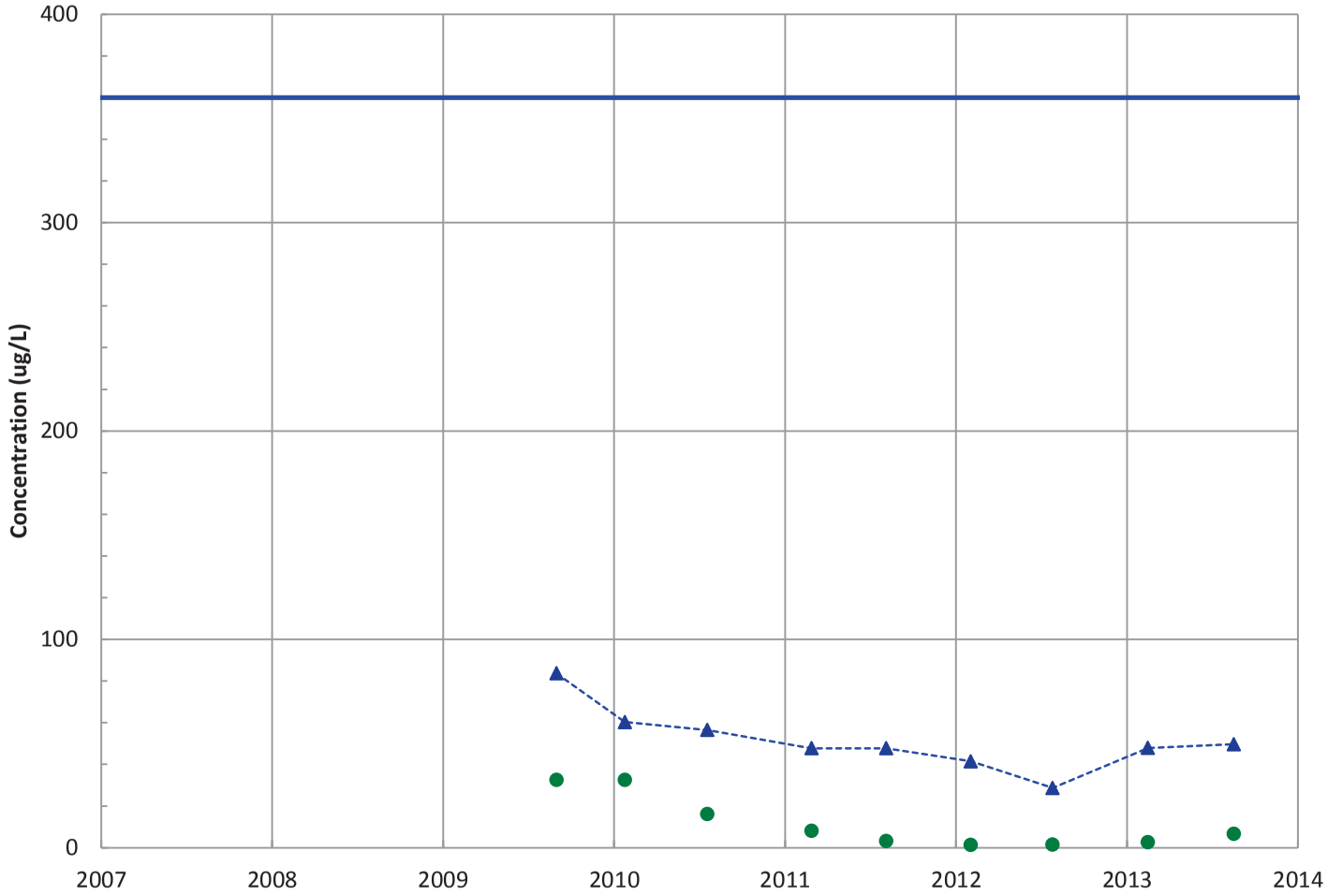
Well Location



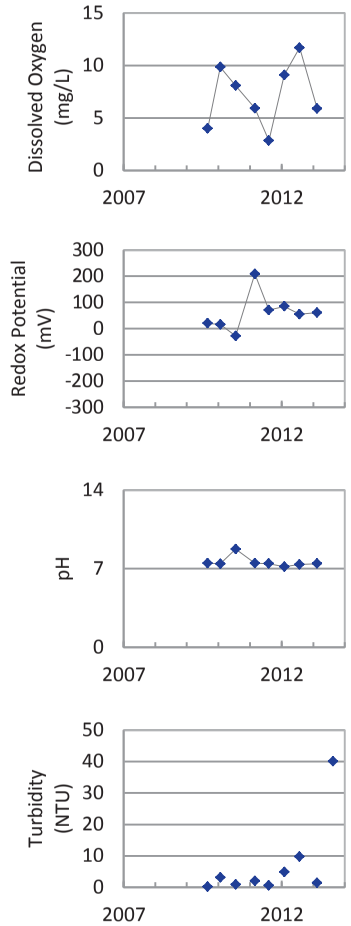
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/2/2009 to 8/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1130
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



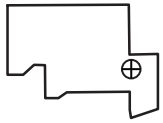
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: No Trend

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

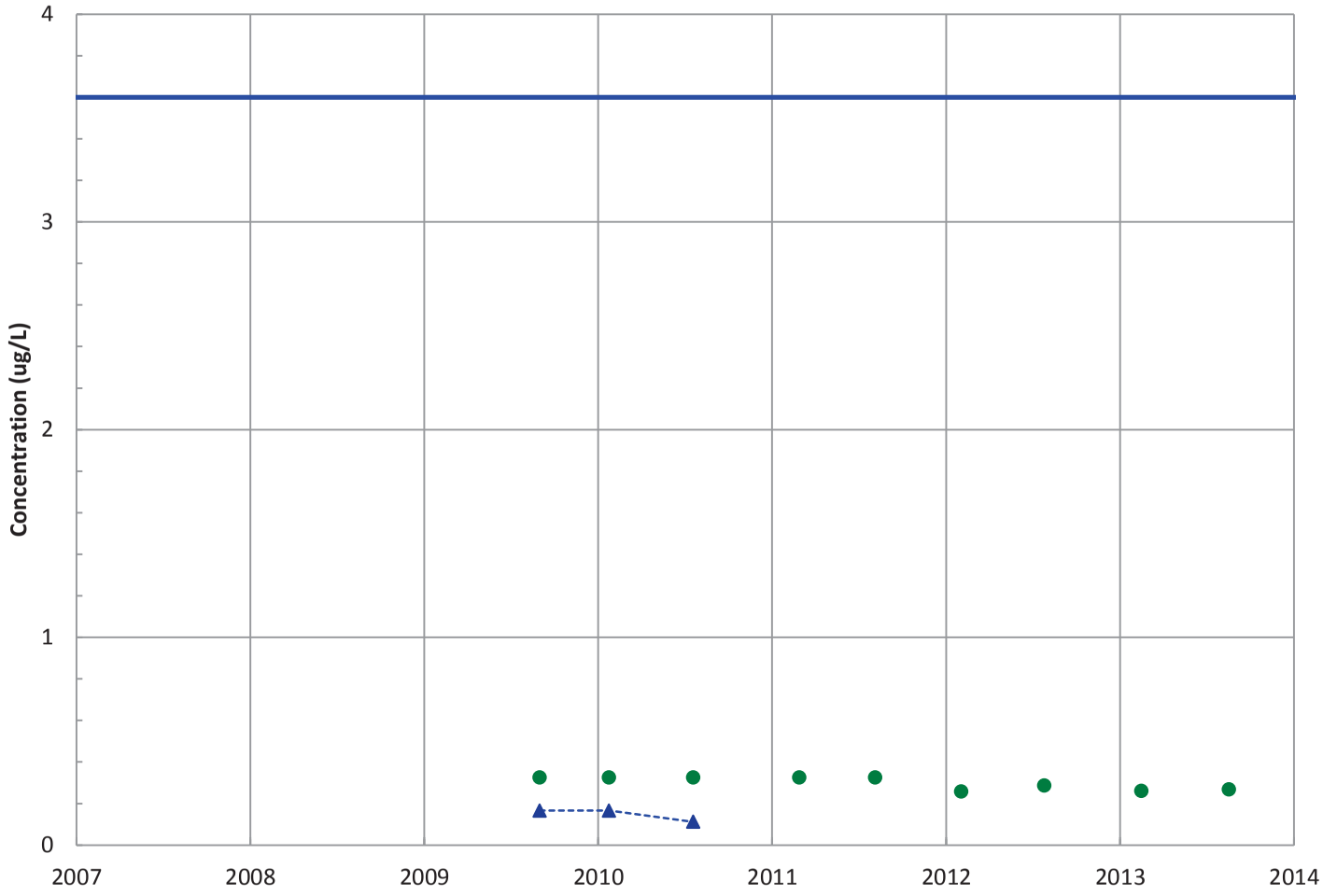
Well Location



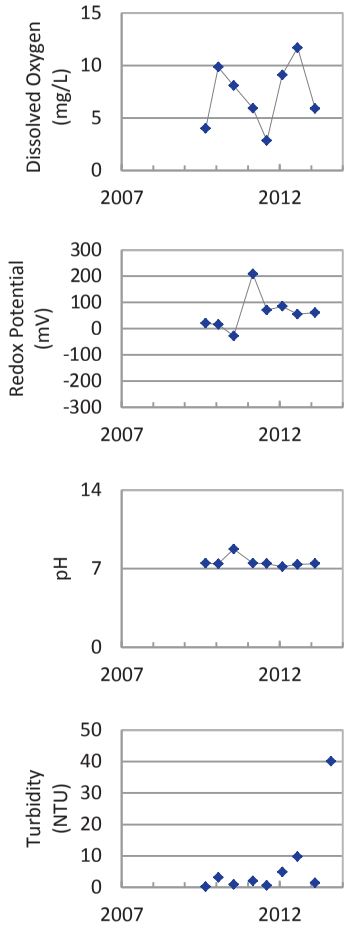
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/2/2009 to 8/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1130
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



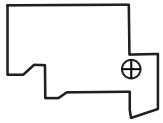
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: All Non-Detect
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

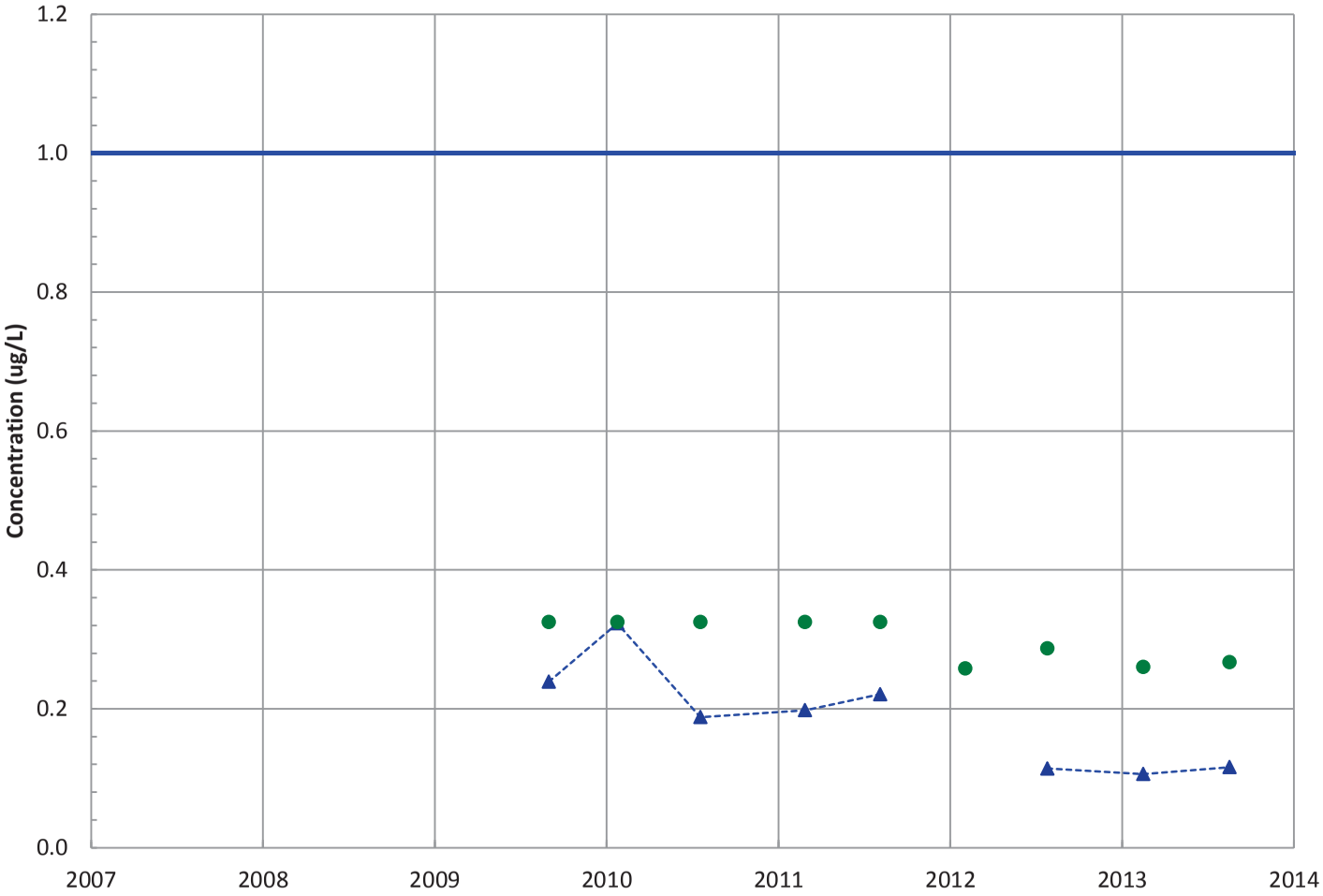
Well Location



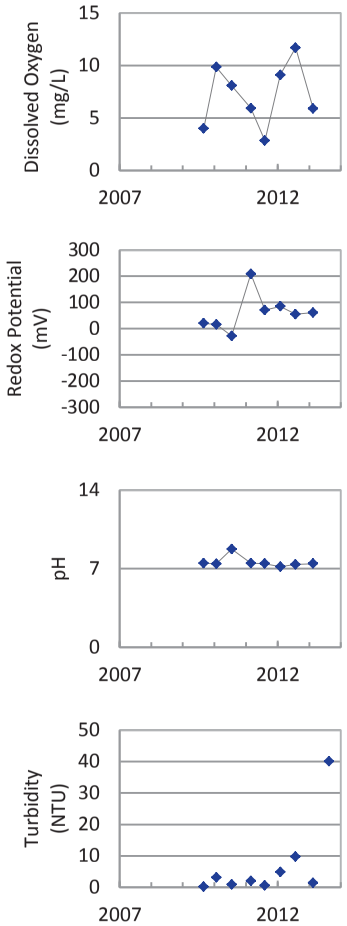
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/2/2009 to 8/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1130
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Decreasing

2011 - 2013 Data: N/A (<4 Detections in Dataset)

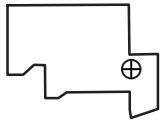
MAROS Linear Regression Method

Data (7/2009 - 12/2013): Decreasing

2011 - 2013 Data: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

Well Location



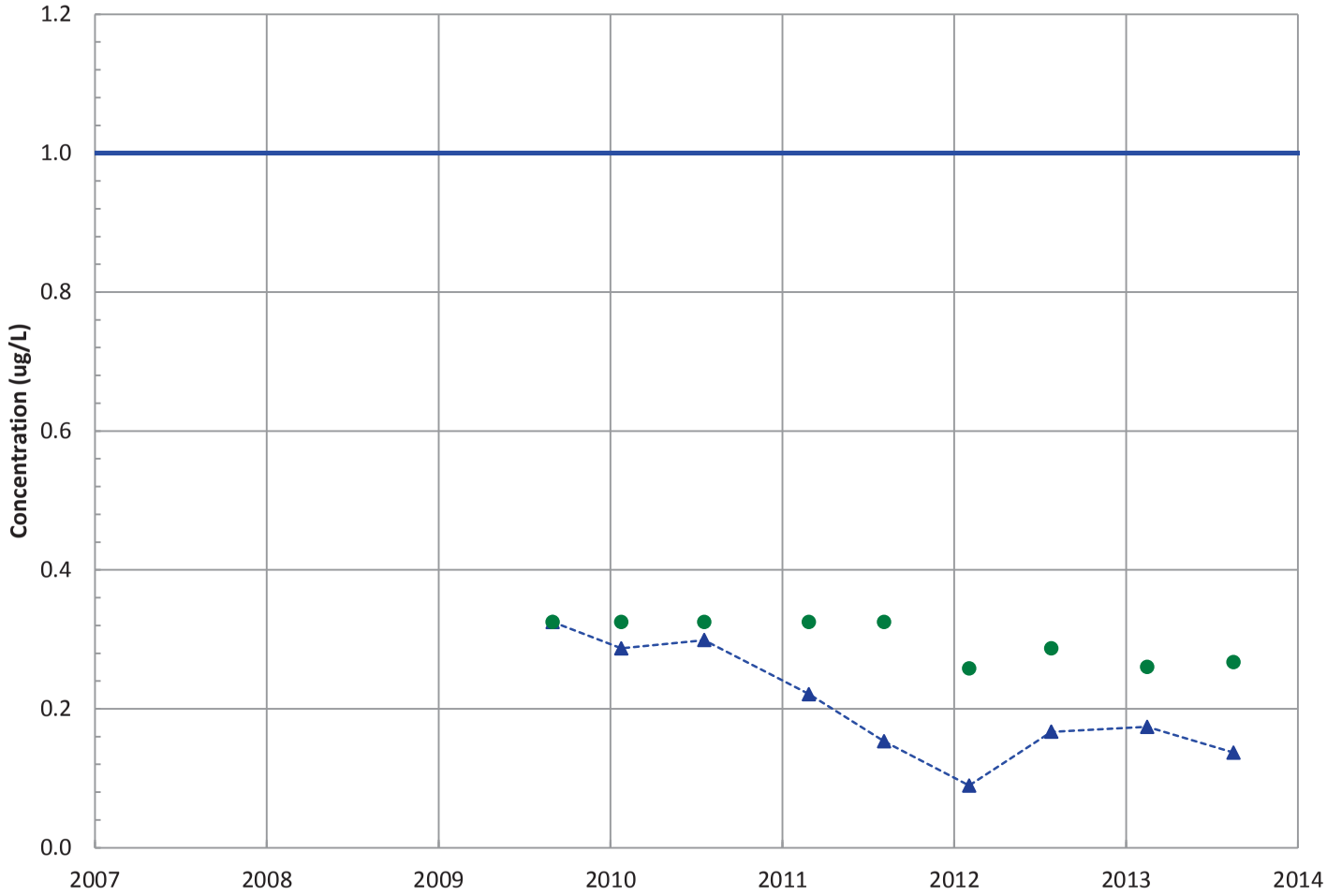
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 9/2/2009 to 8/22/2013

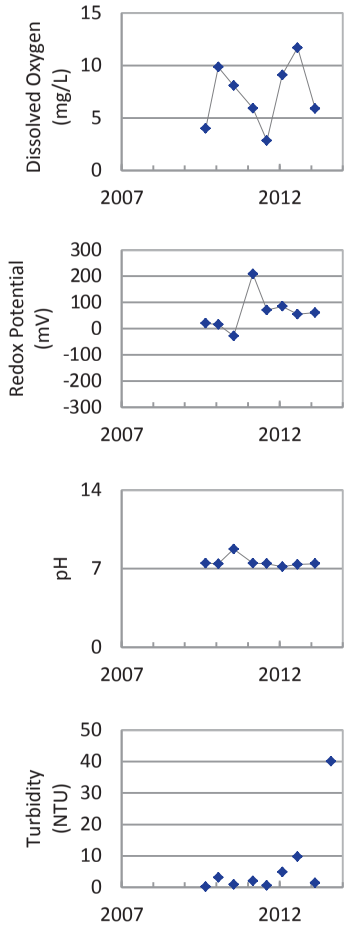
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1130
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



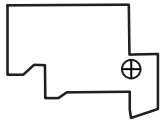
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------ Concentration Trend
- ——— Groundwater Protection Standard

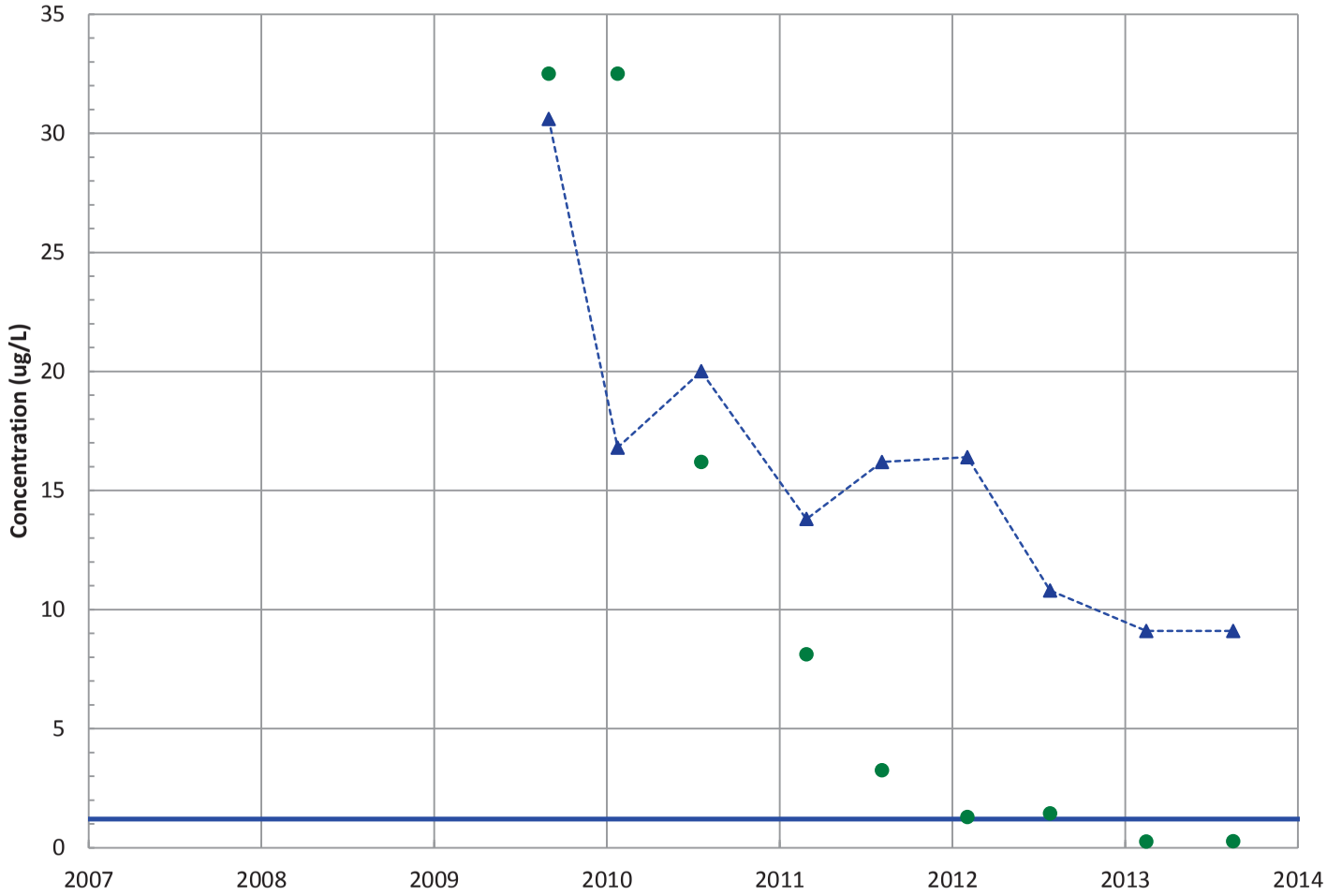
Well Location



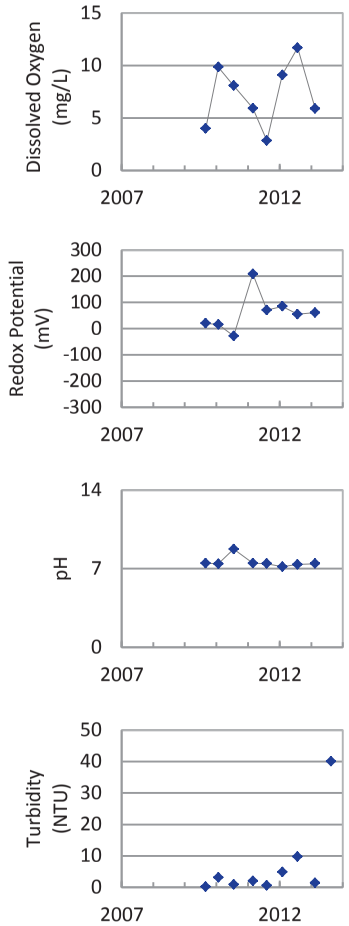
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/2/2009 to 8/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1130
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



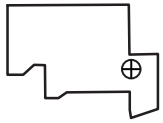
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Probably Decreasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

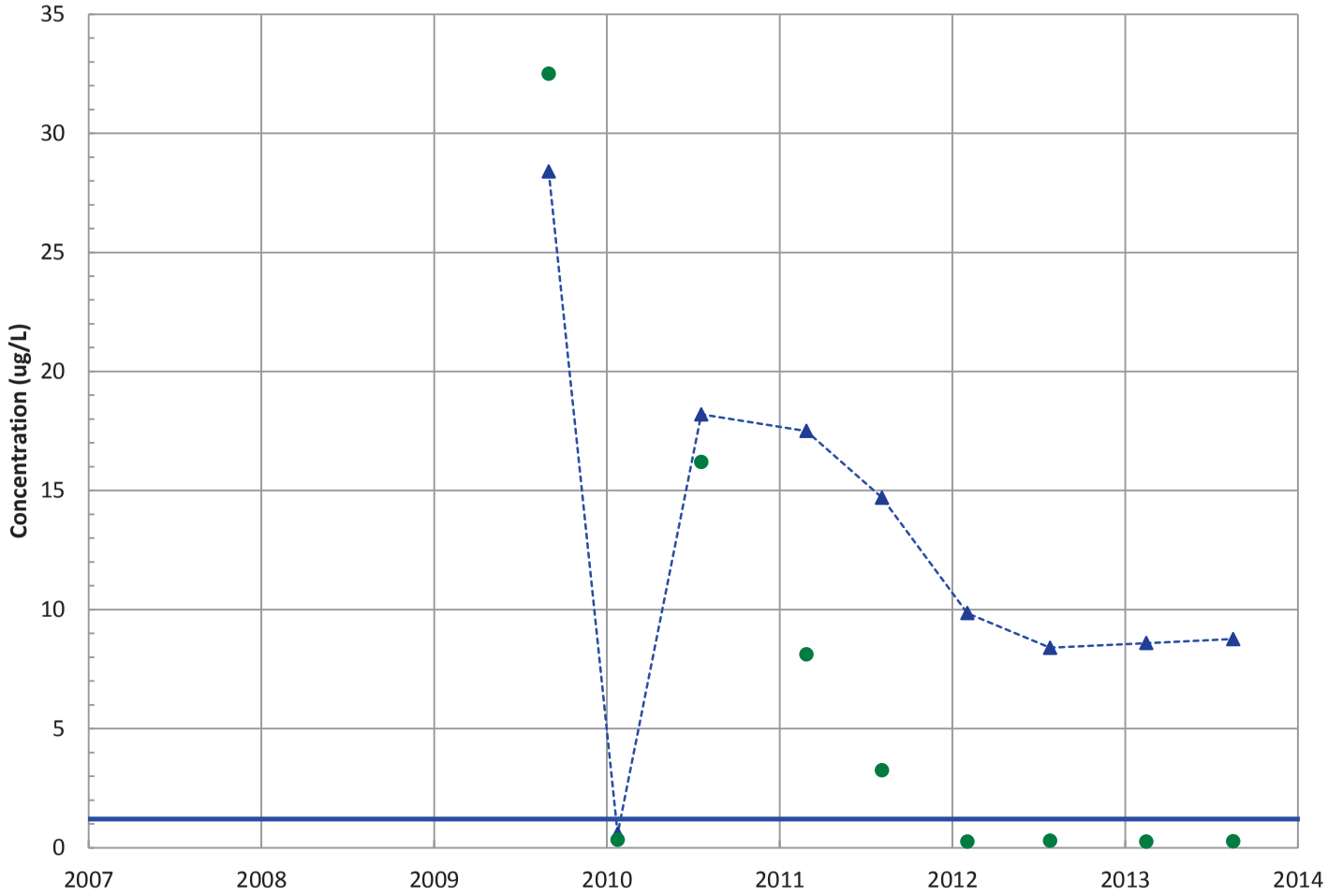
Well Location



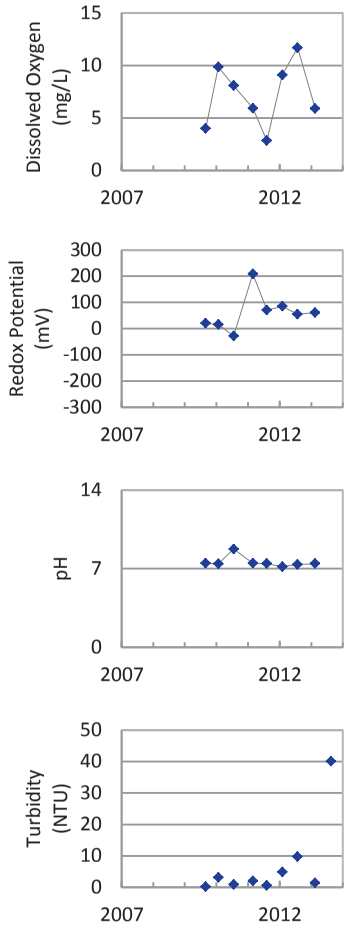
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/2/2009 to 8/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1130
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



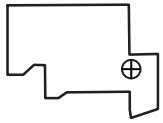
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------ Concentration Trend
- ——— Groundwater Protection Standard

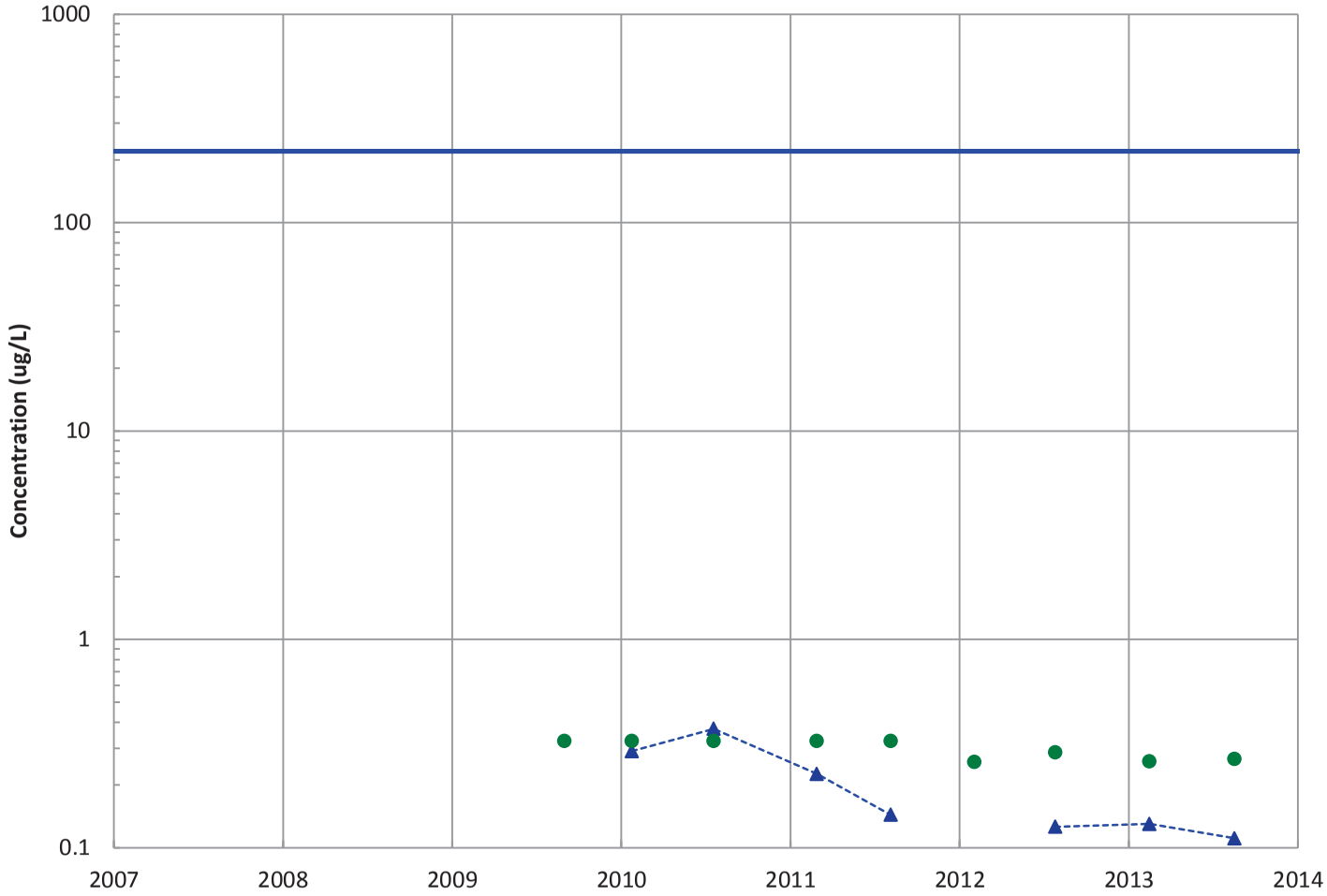
Well Location



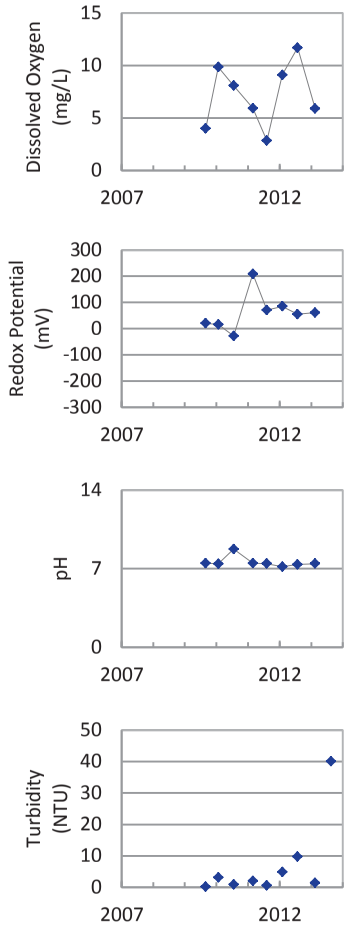
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/2/2009 to 8/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1130
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Decreasing

2011 - 2013 Data: N/A (<4 Detections in Dataset)

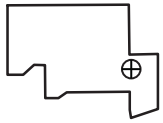
MAROS Linear Regression Method

Data (7/2009 - 12/2013): Decreasing

2011 - 2013 Data: Probably Decreasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location



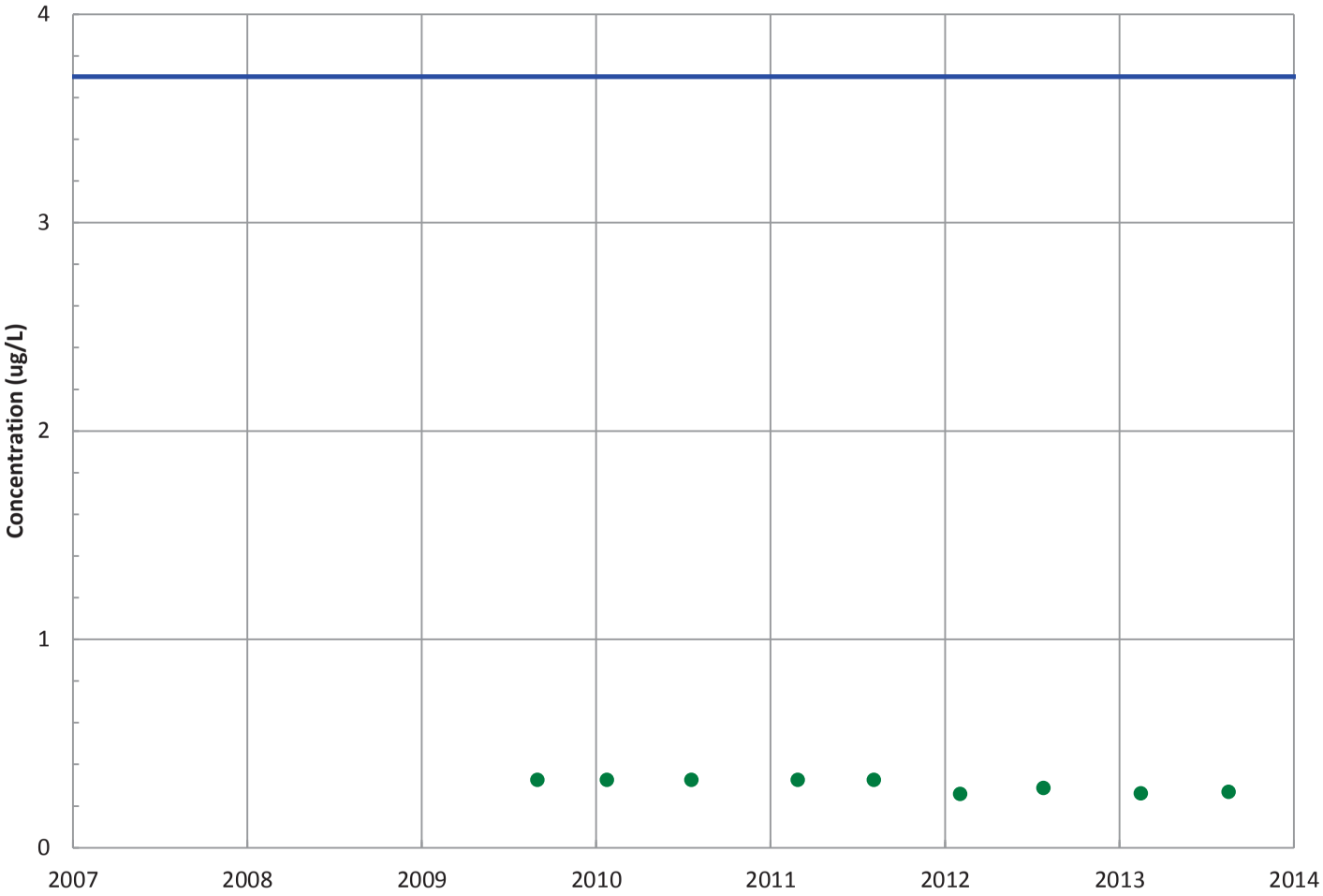
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 9/2/2009 to 8/22/2013

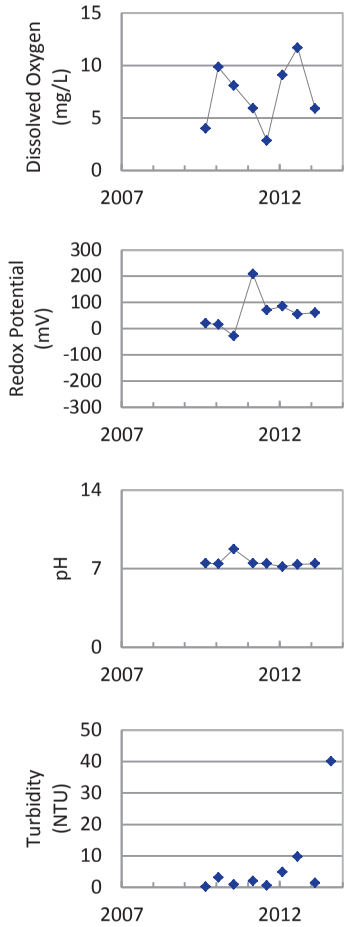
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1130
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



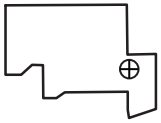
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

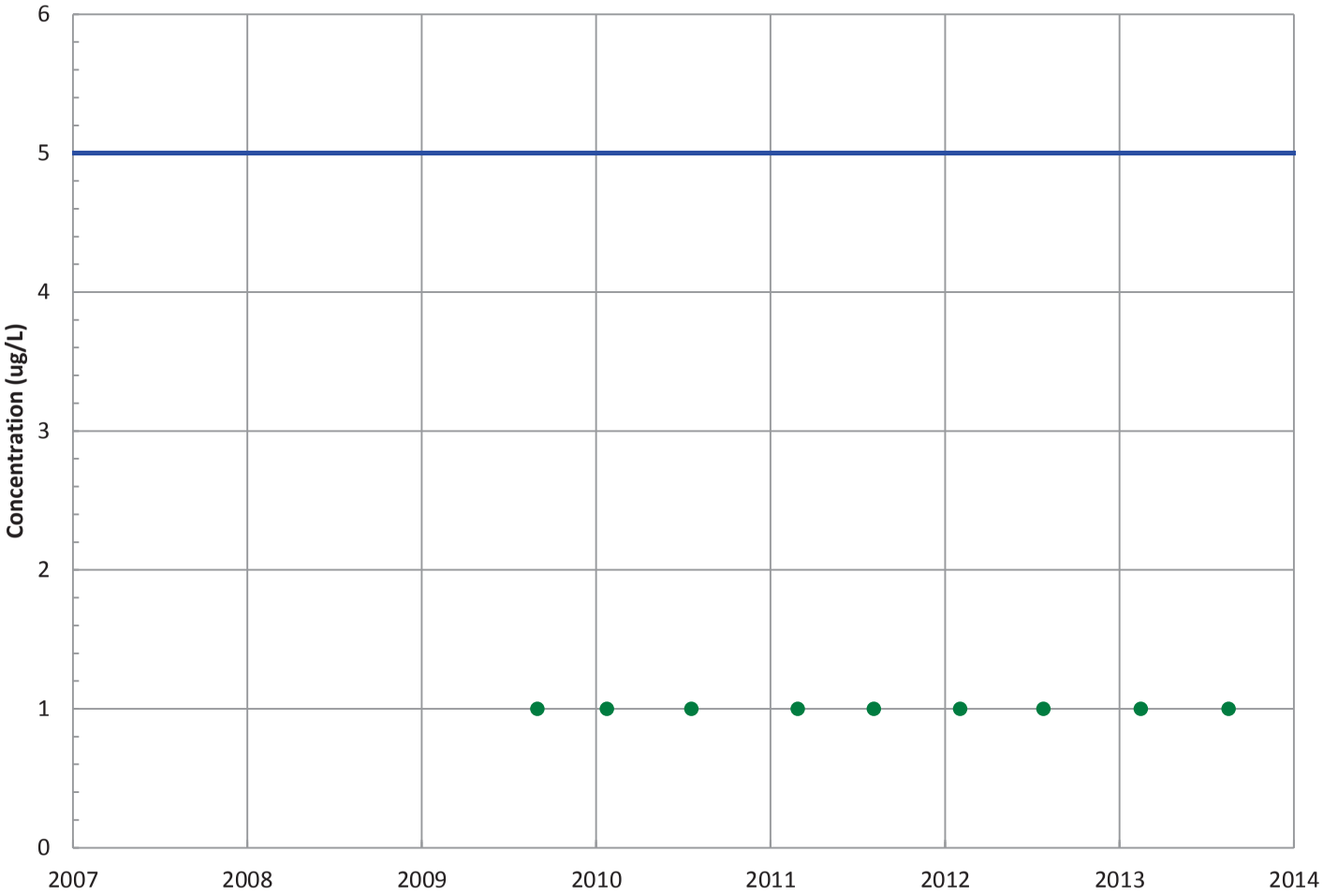
Well Location



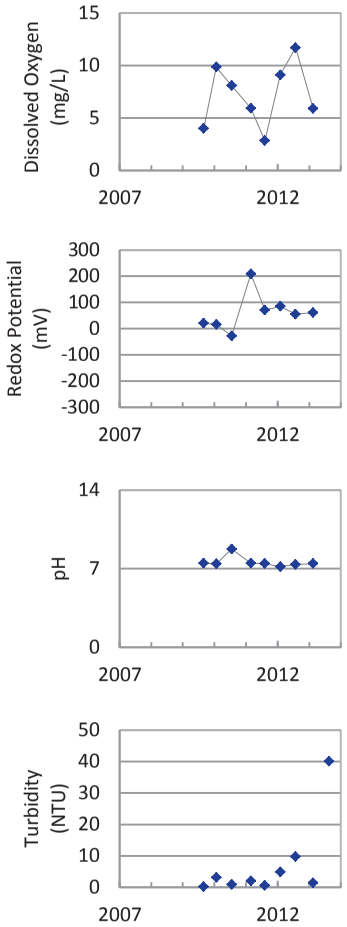
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/2/2009 to 8/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1130
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



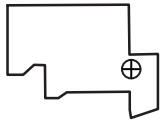
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

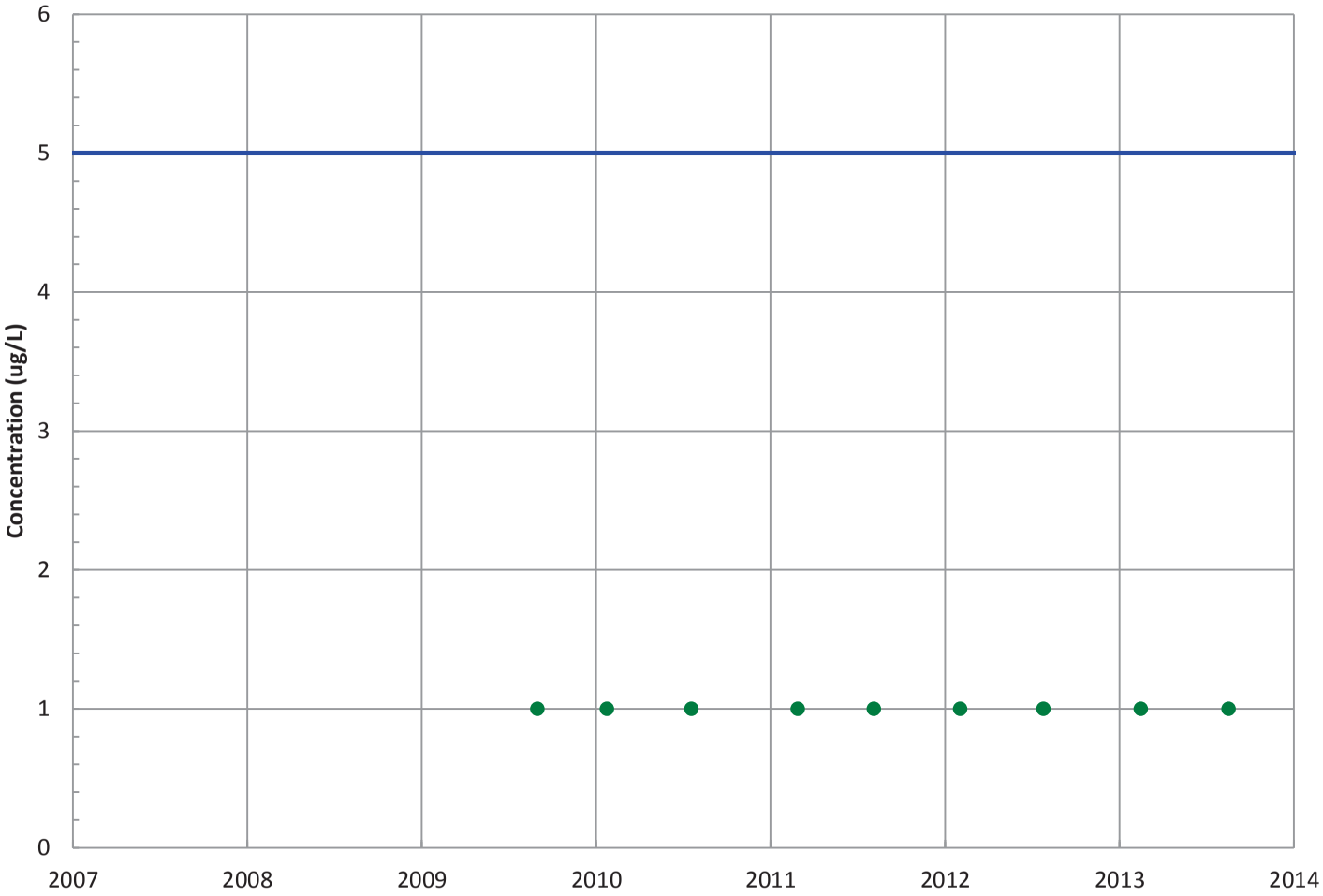
Well Location



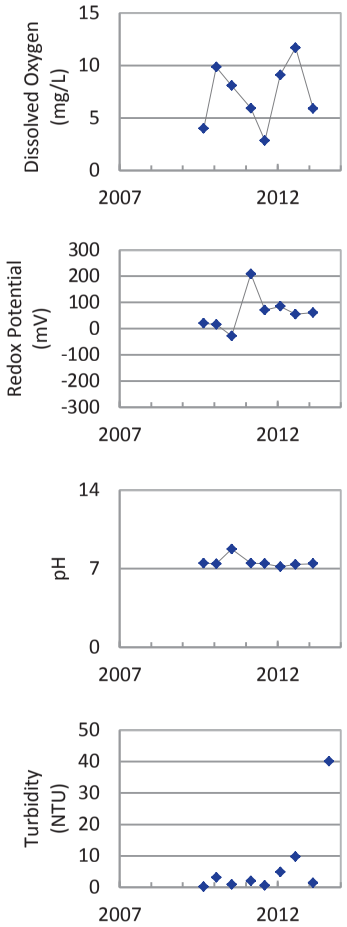
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/2/2009 to 8/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1130
Trichloroethene Trend in Perched Aquifer



Field Parameters



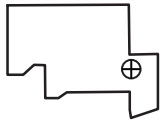
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

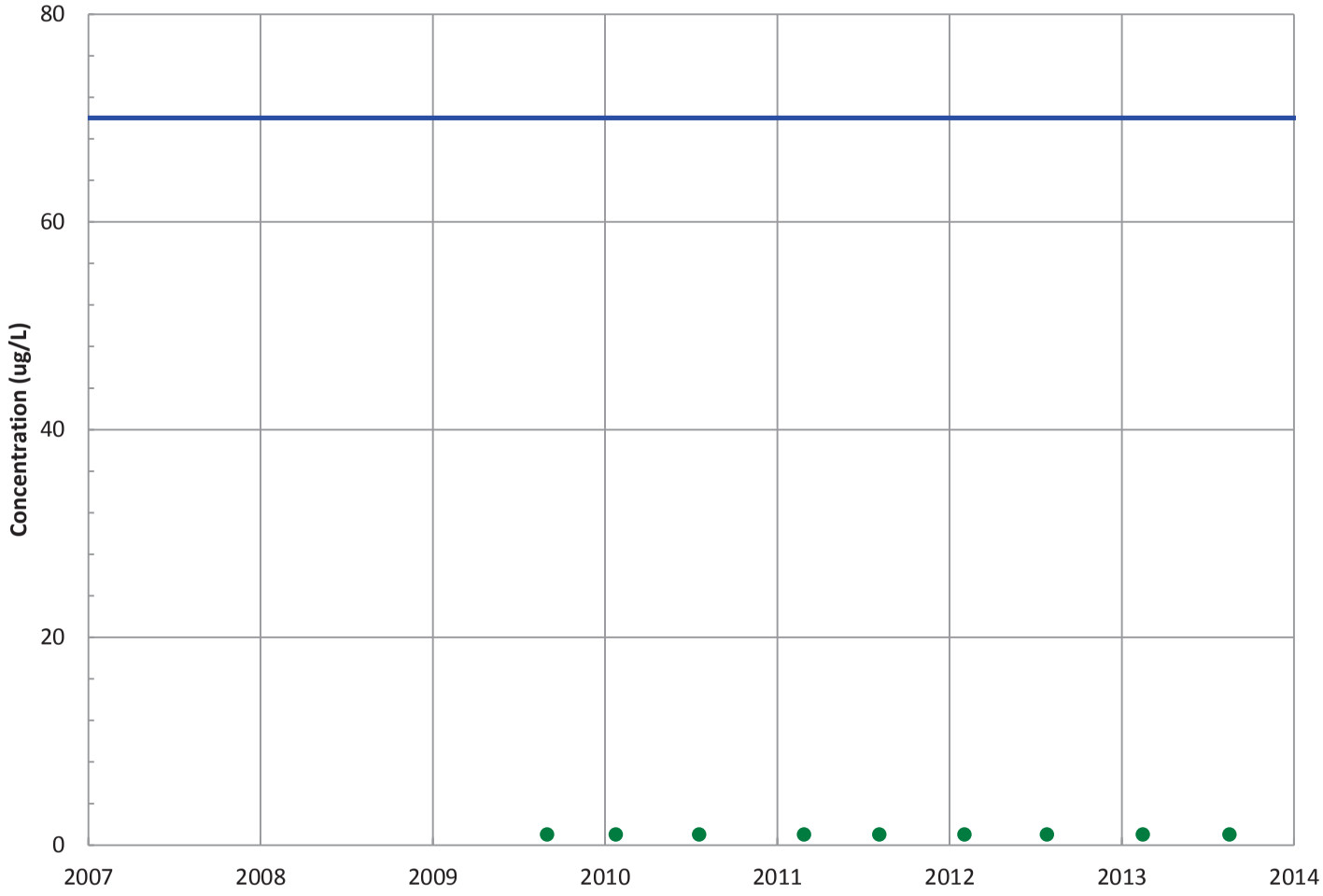
Well Location



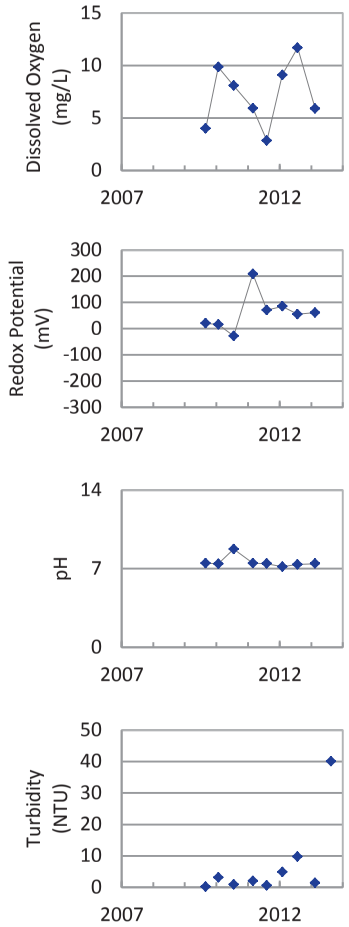
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/2/2009 to 8/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1130
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



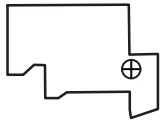
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

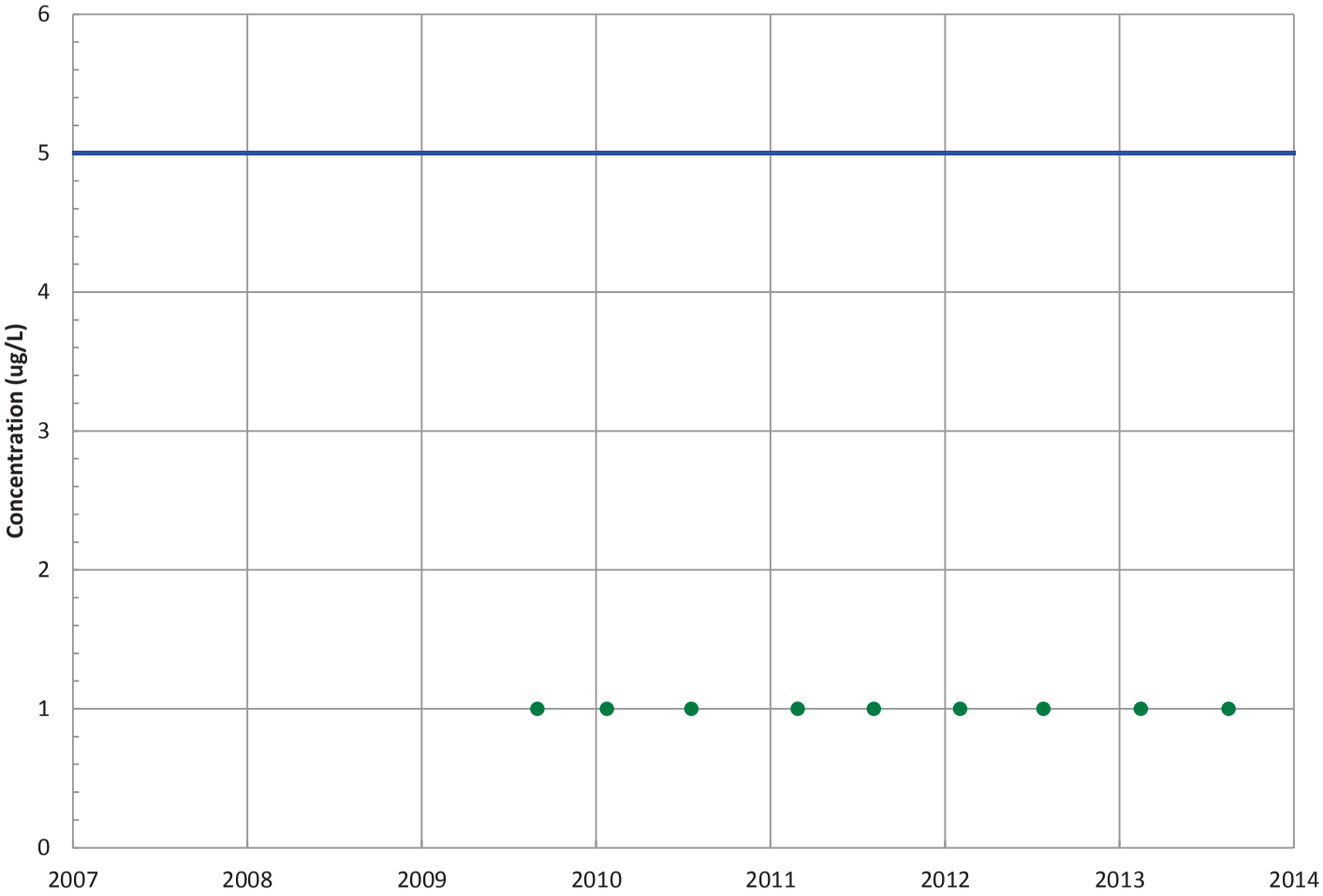
Well Location



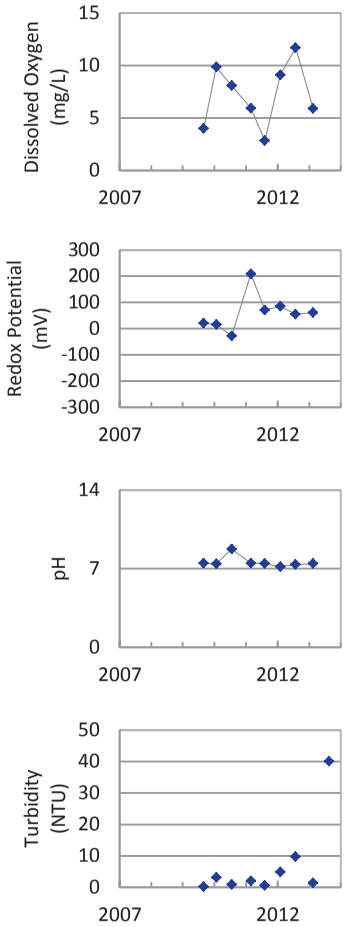
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/2/2009 to 8/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1130
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



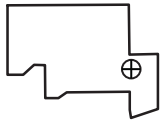
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

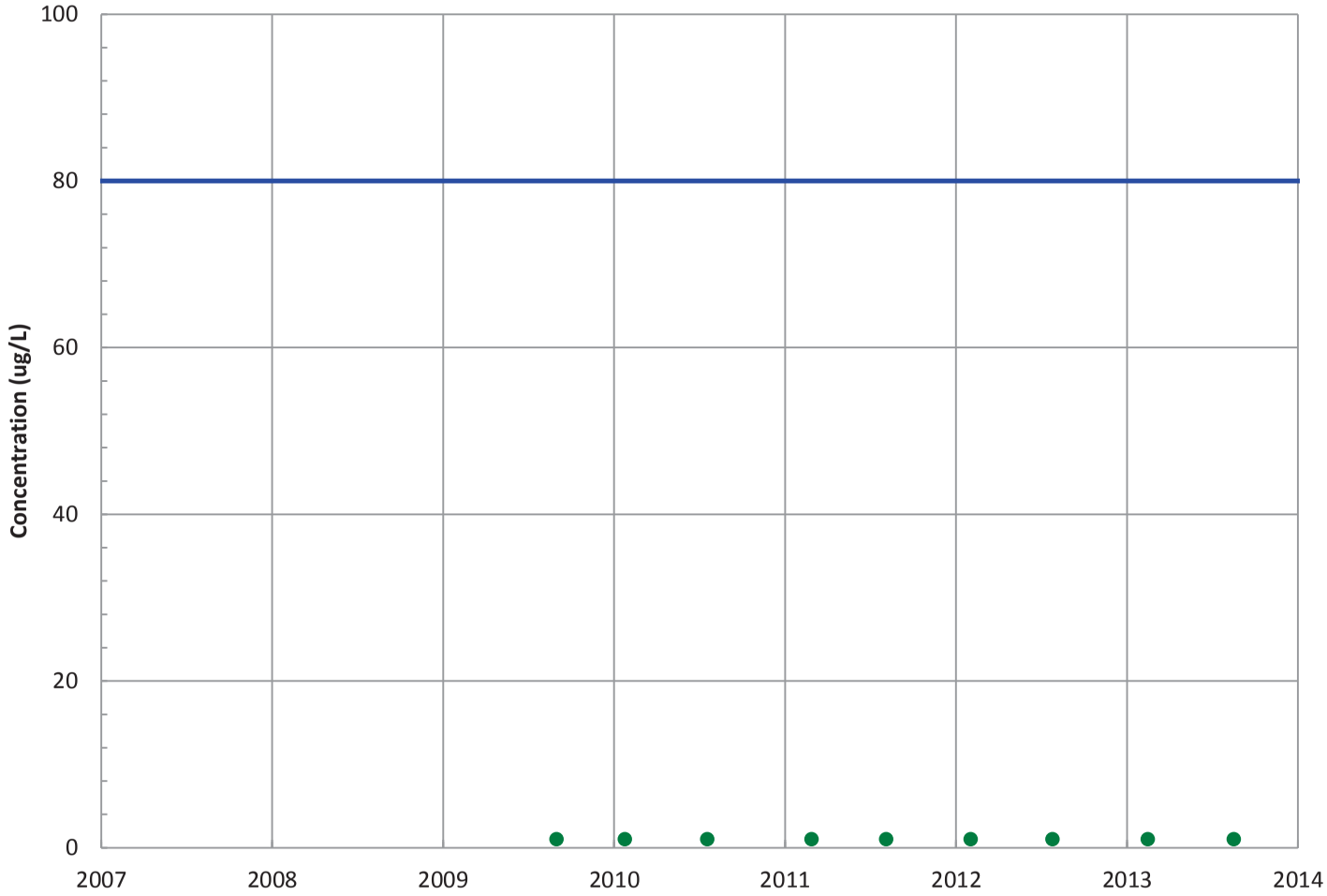
Well Location



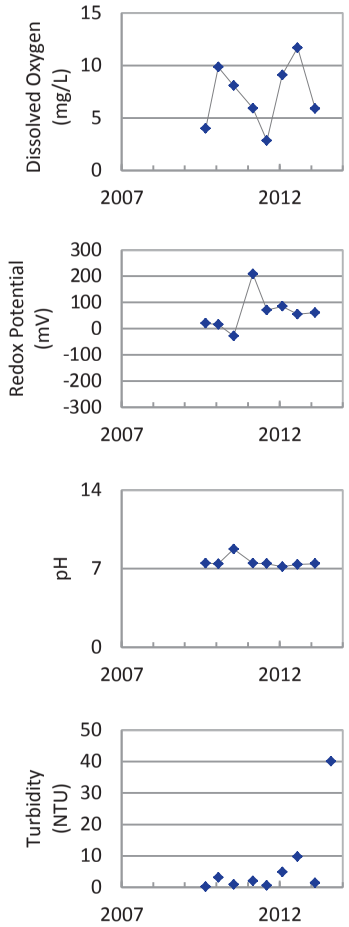
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/2/2009 to 8/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1130
Chloroform Trend in Perched Aquifer



Field Parameters



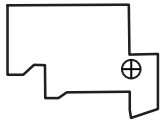
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

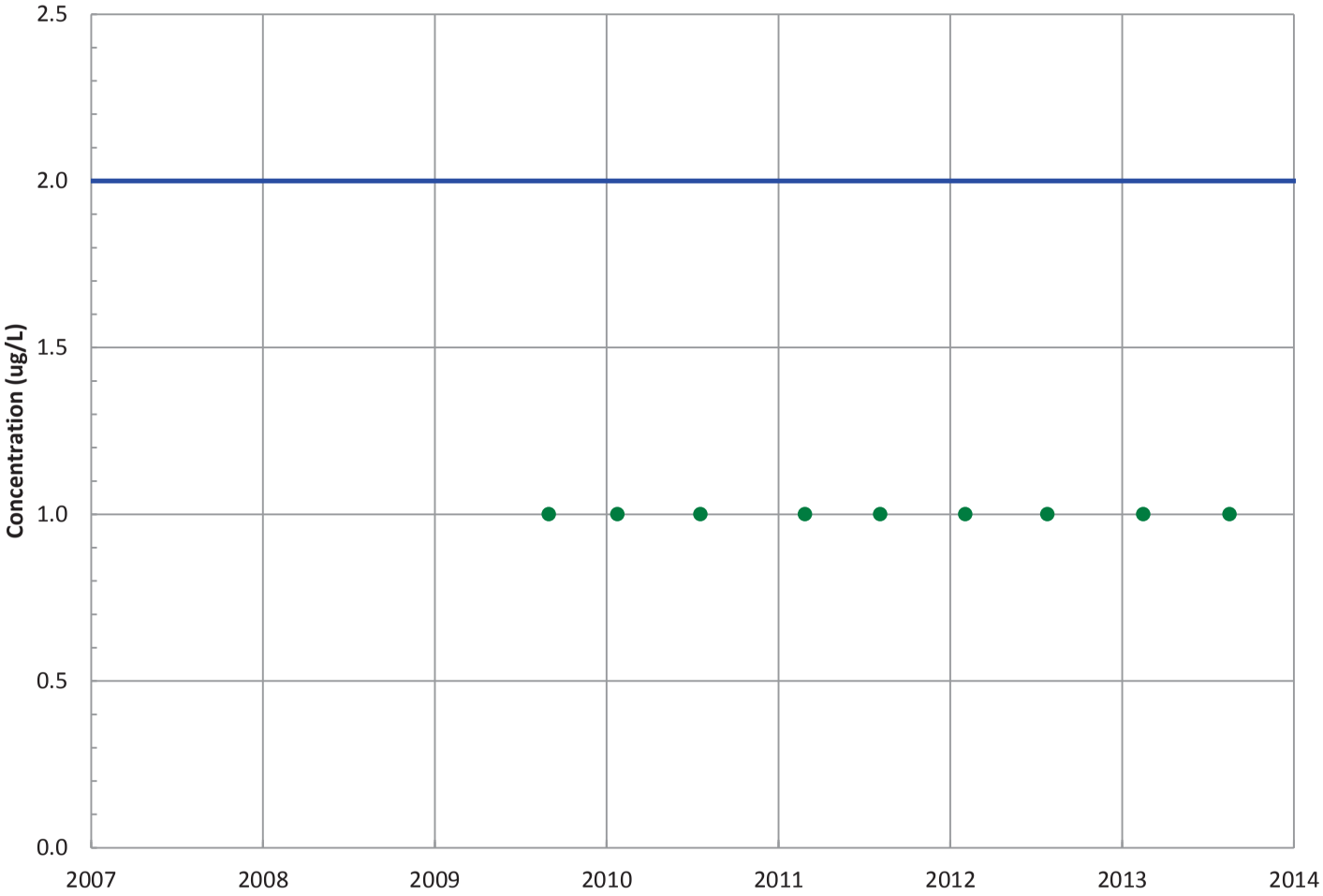
Well Location



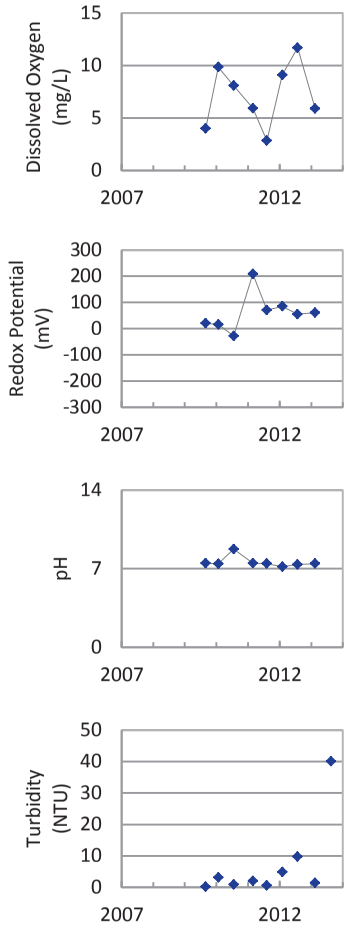
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/2/2009 to 8/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1130
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



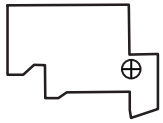
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

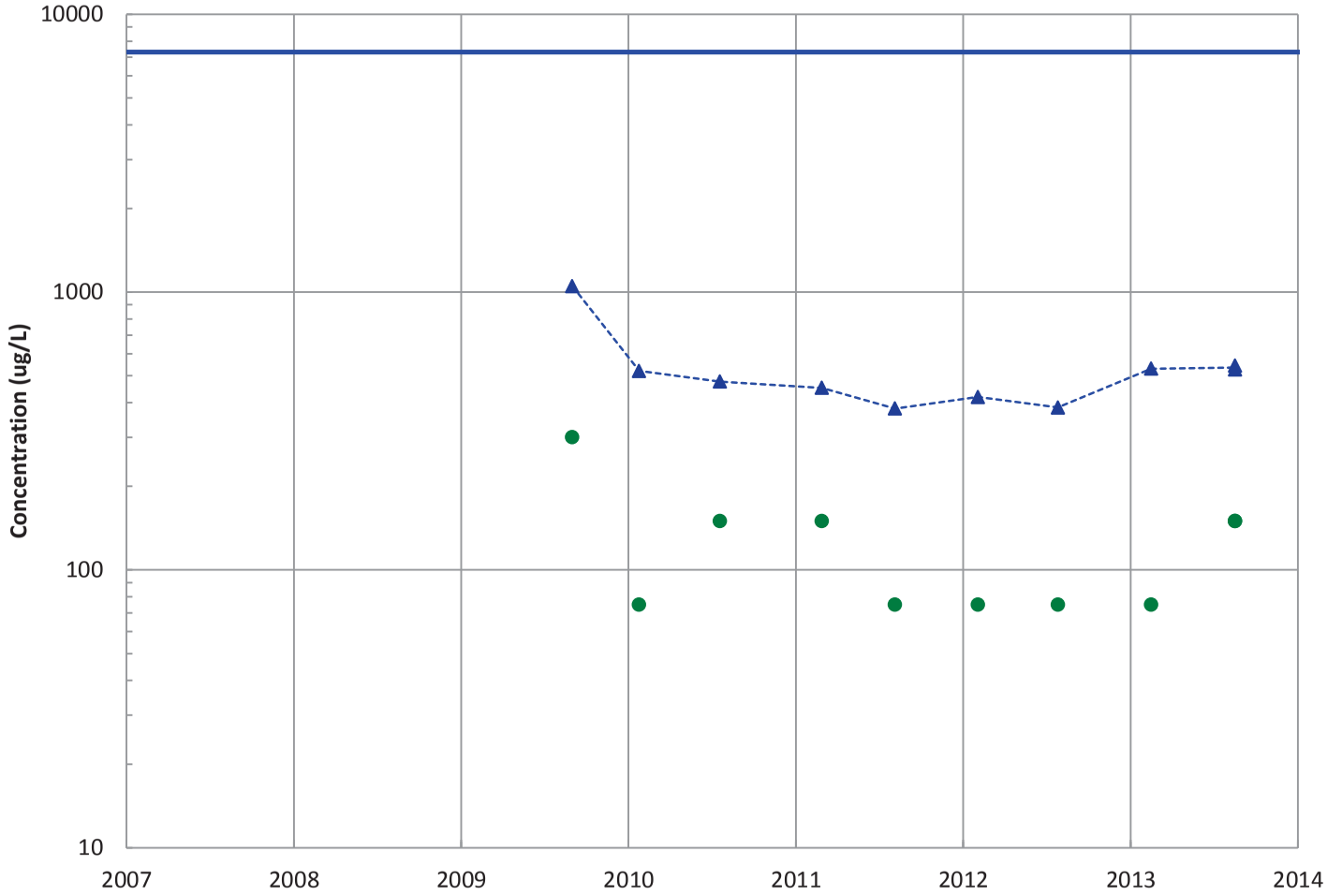
Well Location



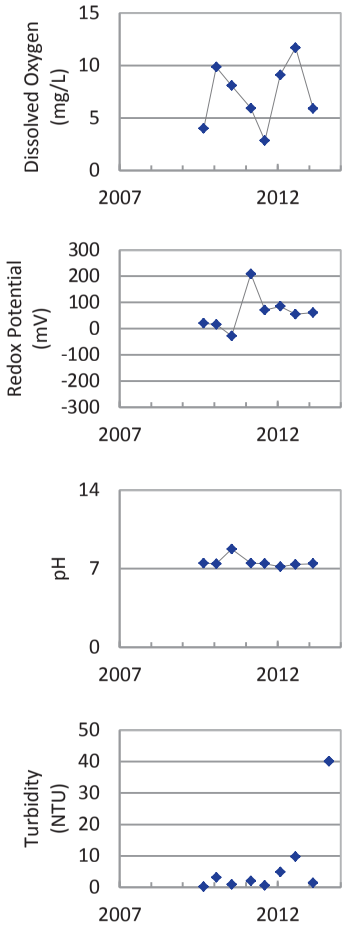
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/2/2009 to 8/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1130
Boron Trend in Perched Aquifer



Field Parameters



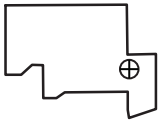
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Probably Increasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

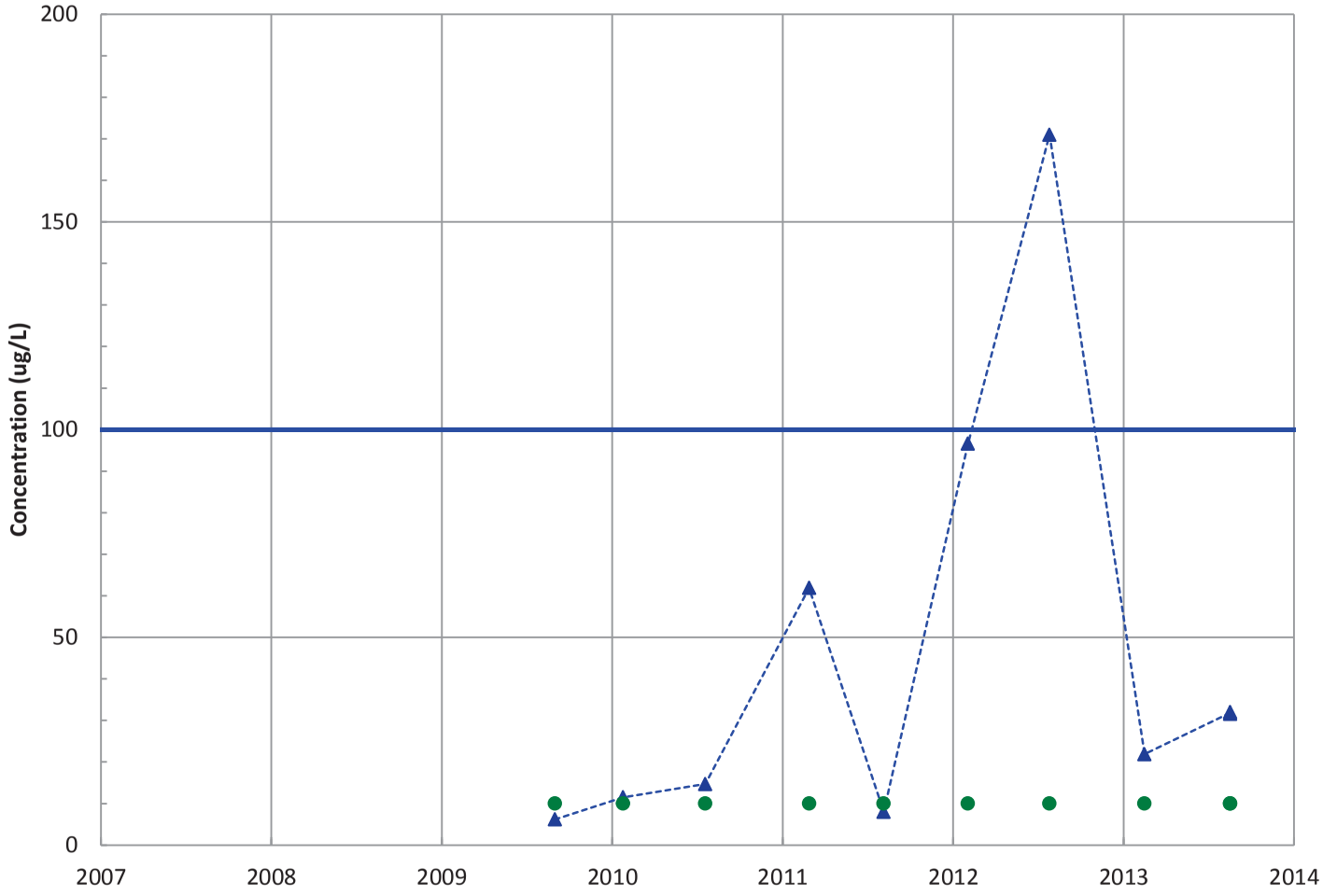
Well Location



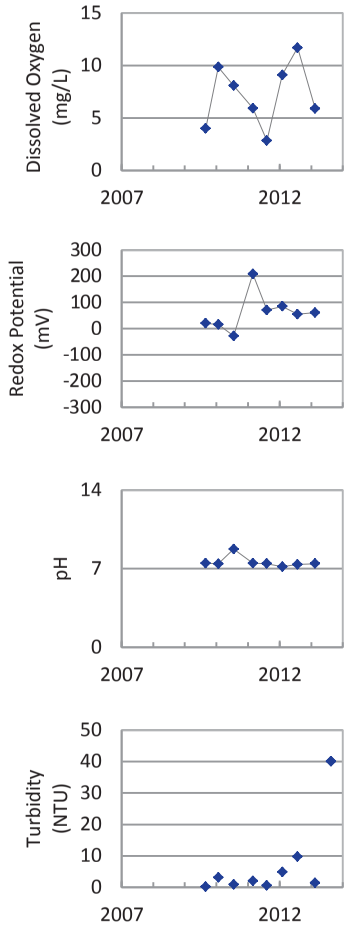
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/2/2009 to 8/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1130
Chromium, Total Trend in Perched Aquifer



Field Parameters



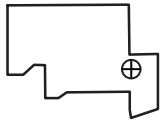
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Probably Increasing
2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

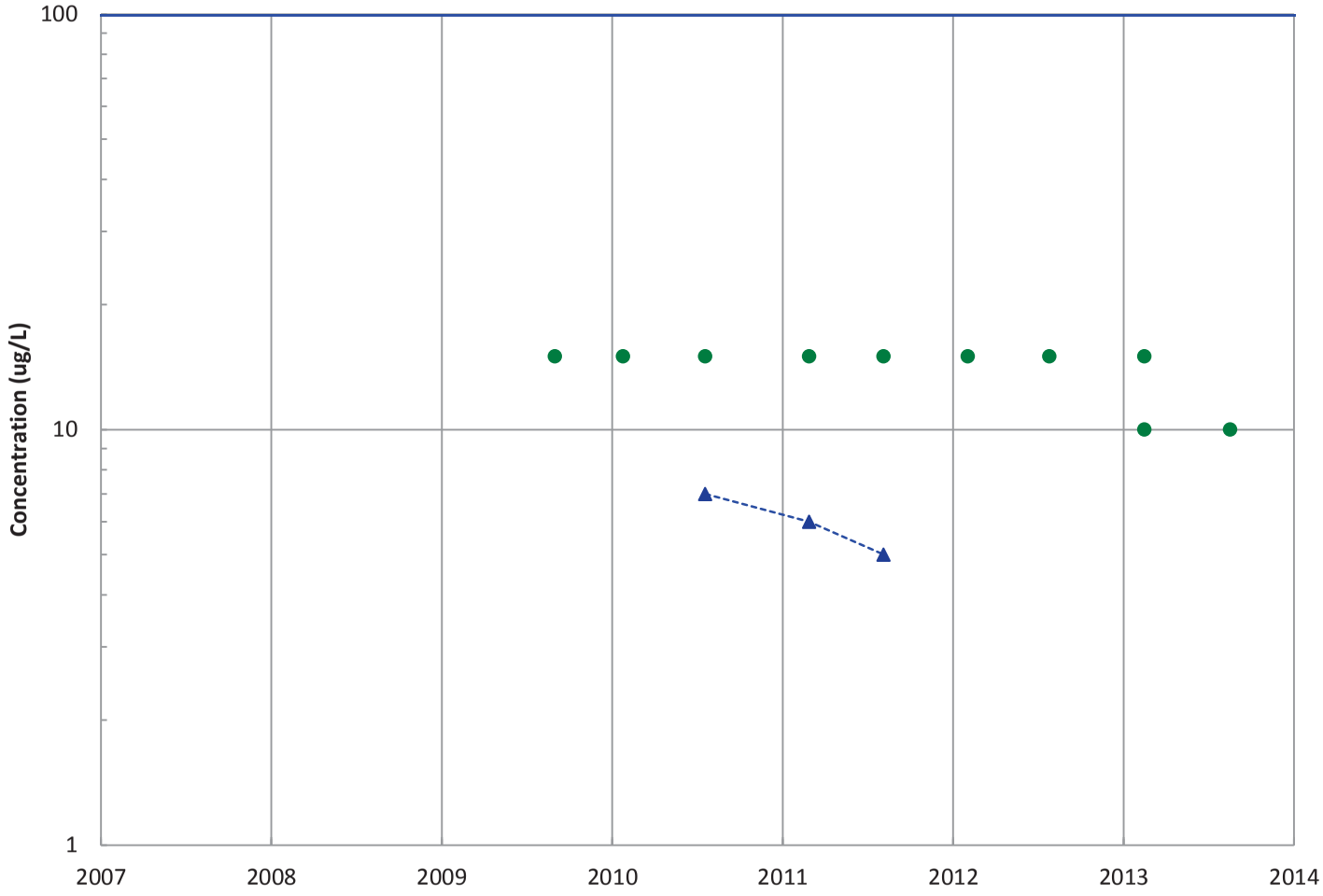
Well Location



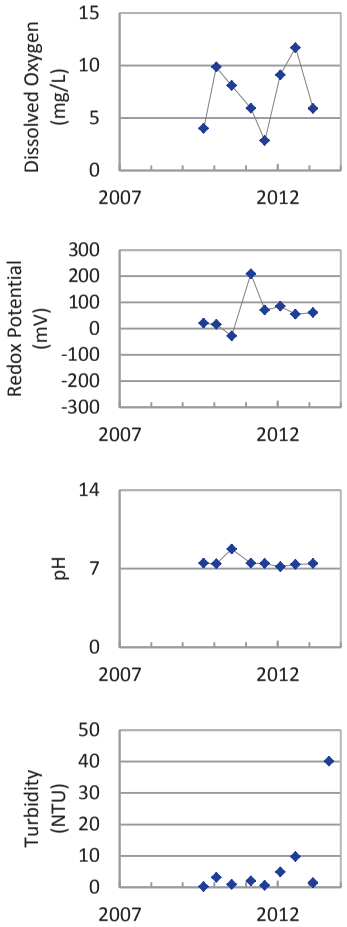
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/2/2009 to 8/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1130
Chromium, Hexavalent Trend in Perched Aquifer



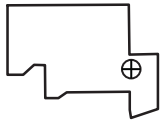
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: All Non-Detect
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

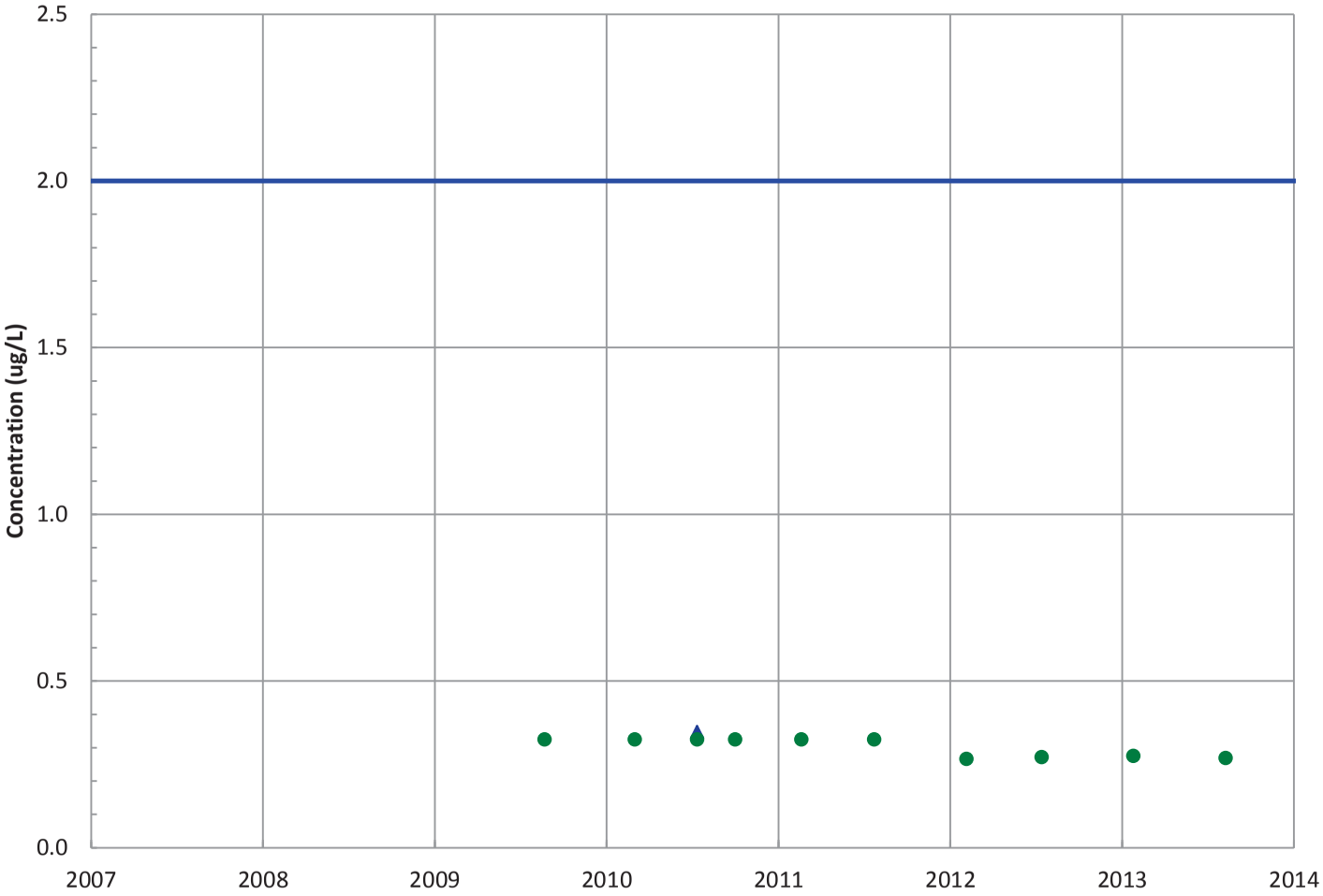
Well Location



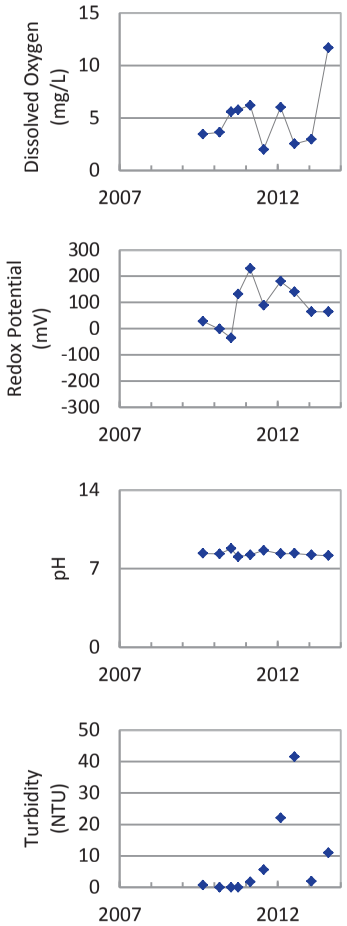
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/2/2009 to 8/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1131
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



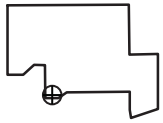
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: All Non-Detect
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

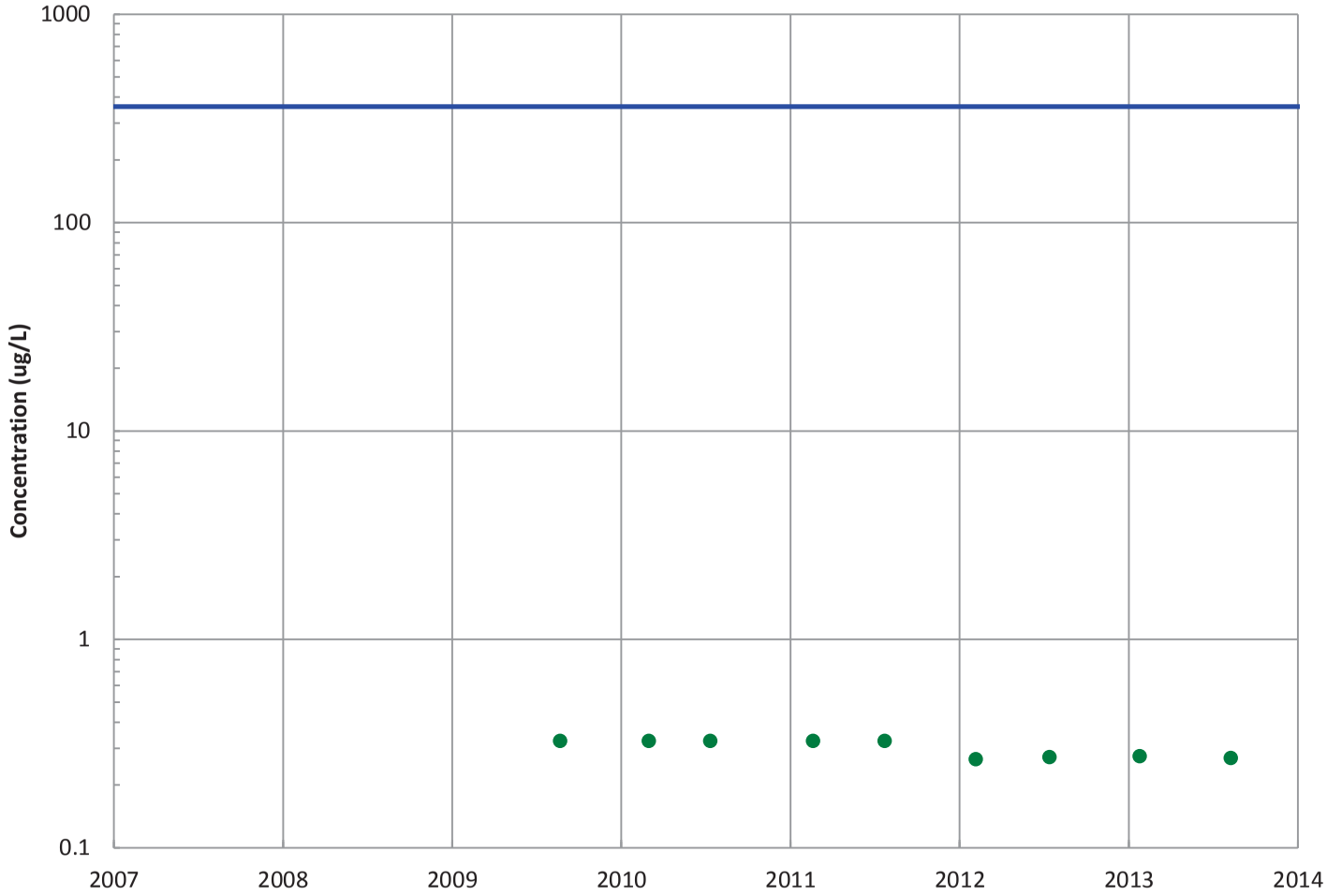
Well Location



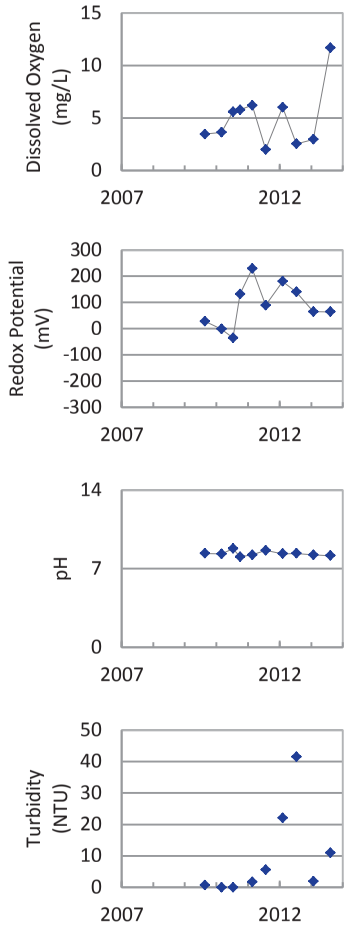
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/24/2009 to 8/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1131
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



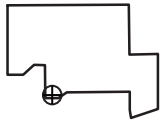
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

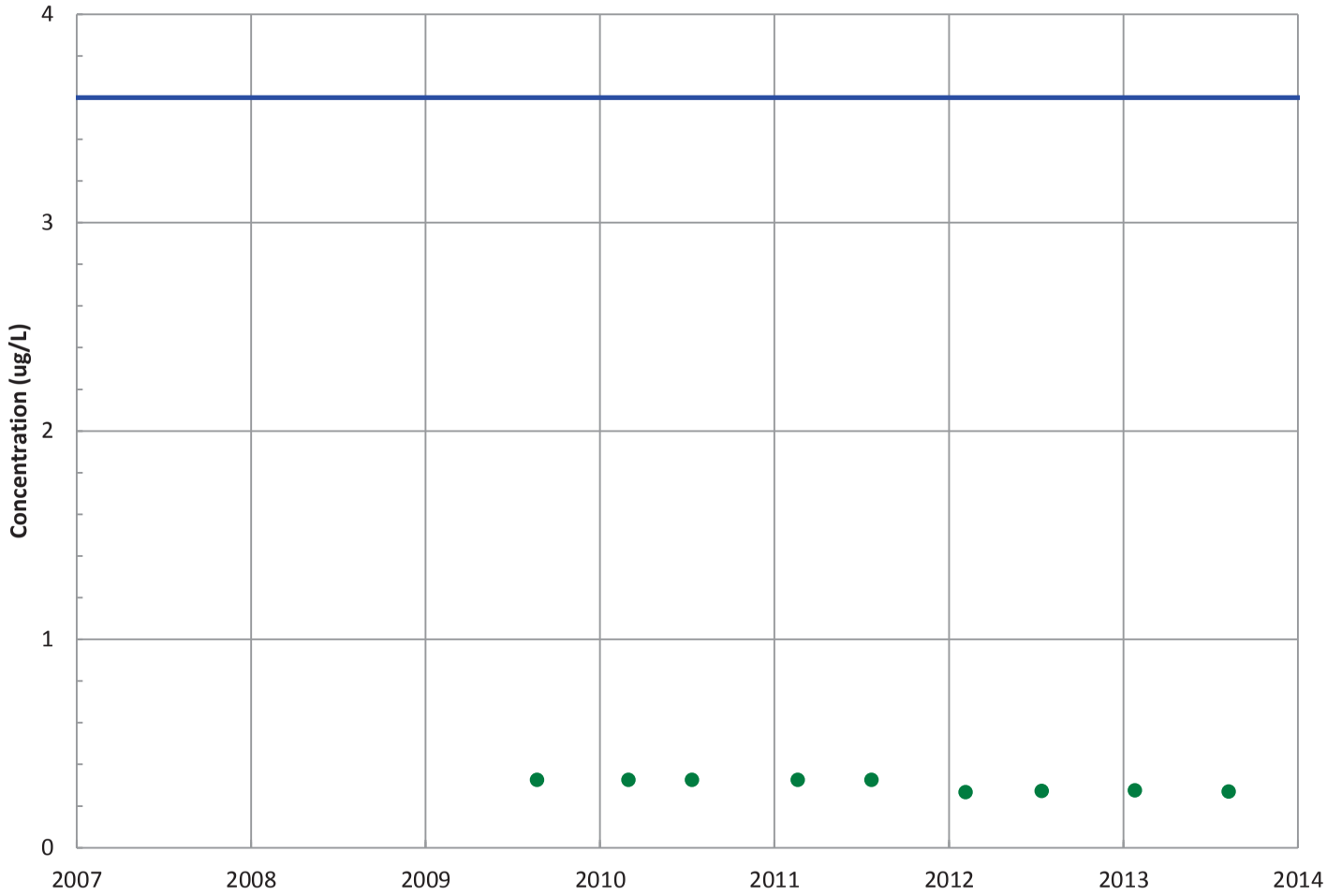
Well Location



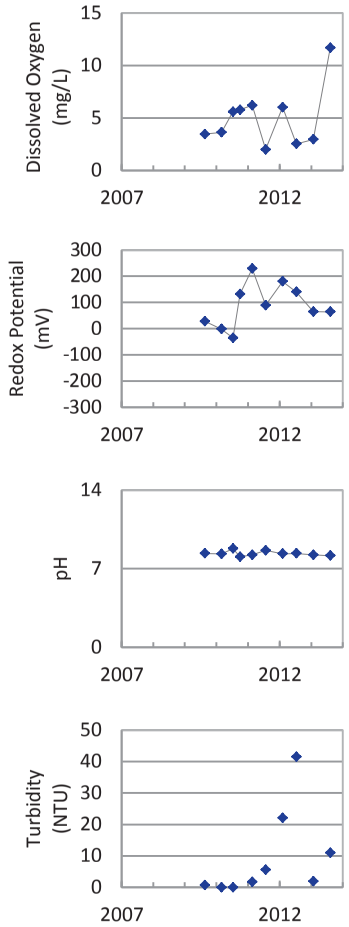
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/24/2009 to 8/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1131
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



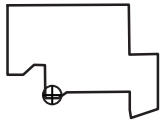
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

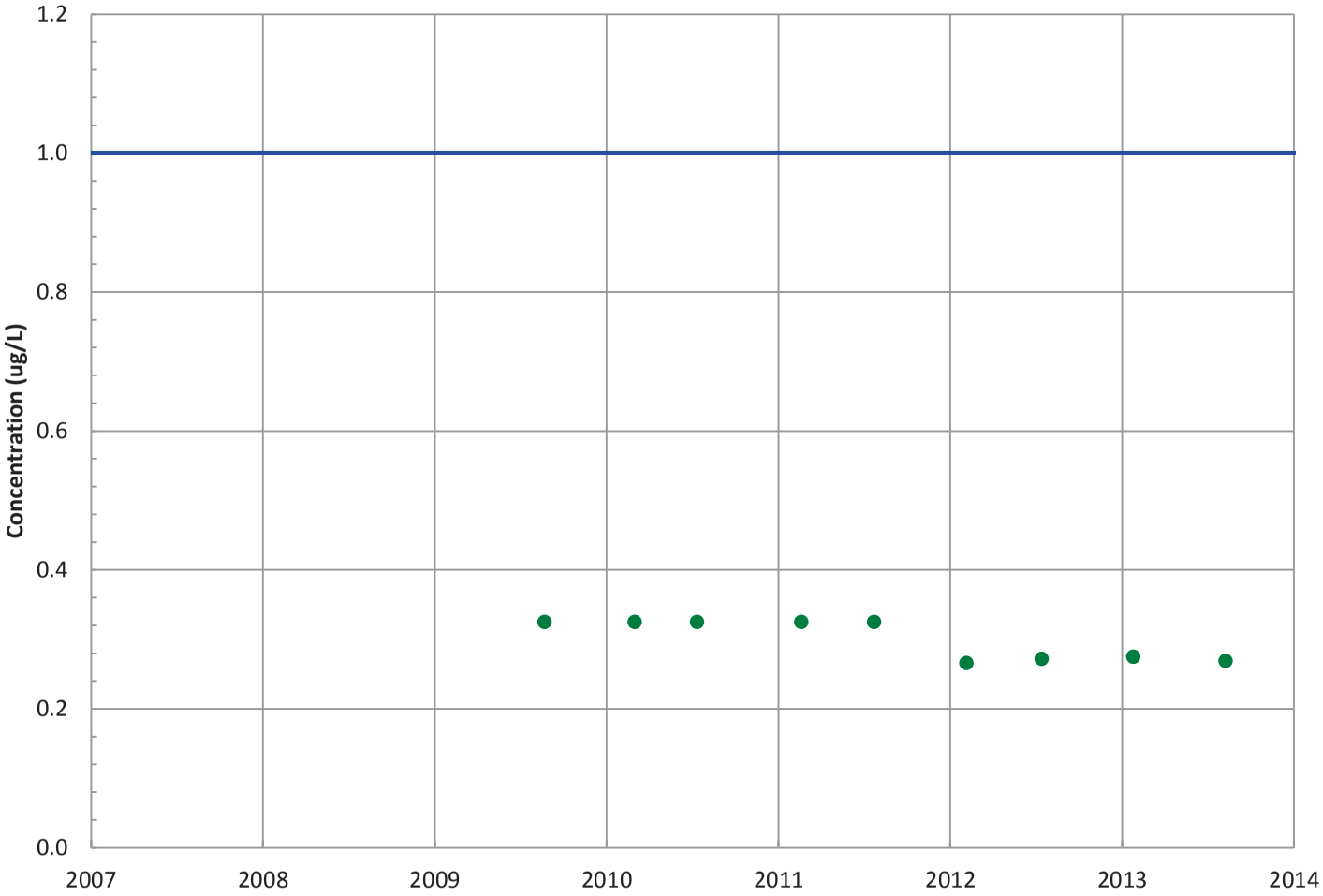
Well Location



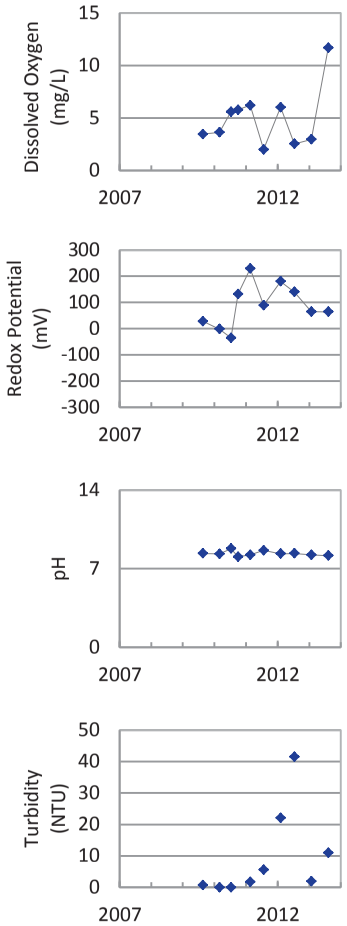
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/24/2009 to 8/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1131
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



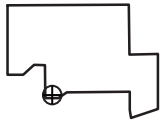
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

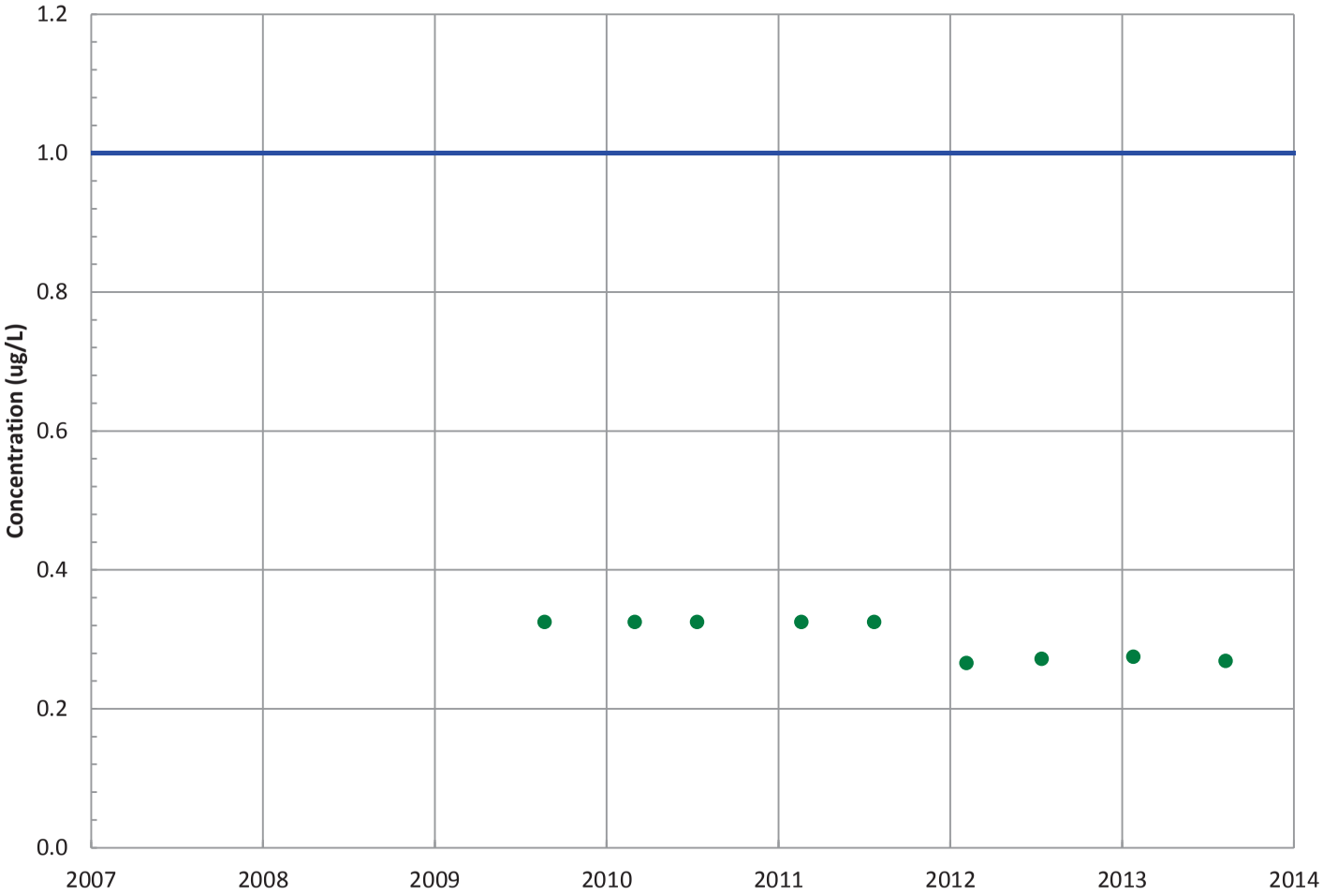
Well Location



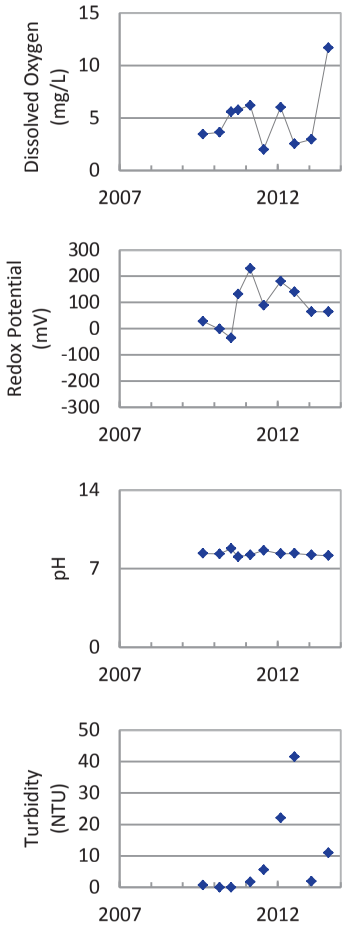
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/24/2009 to 8/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1131
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



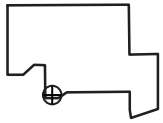
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

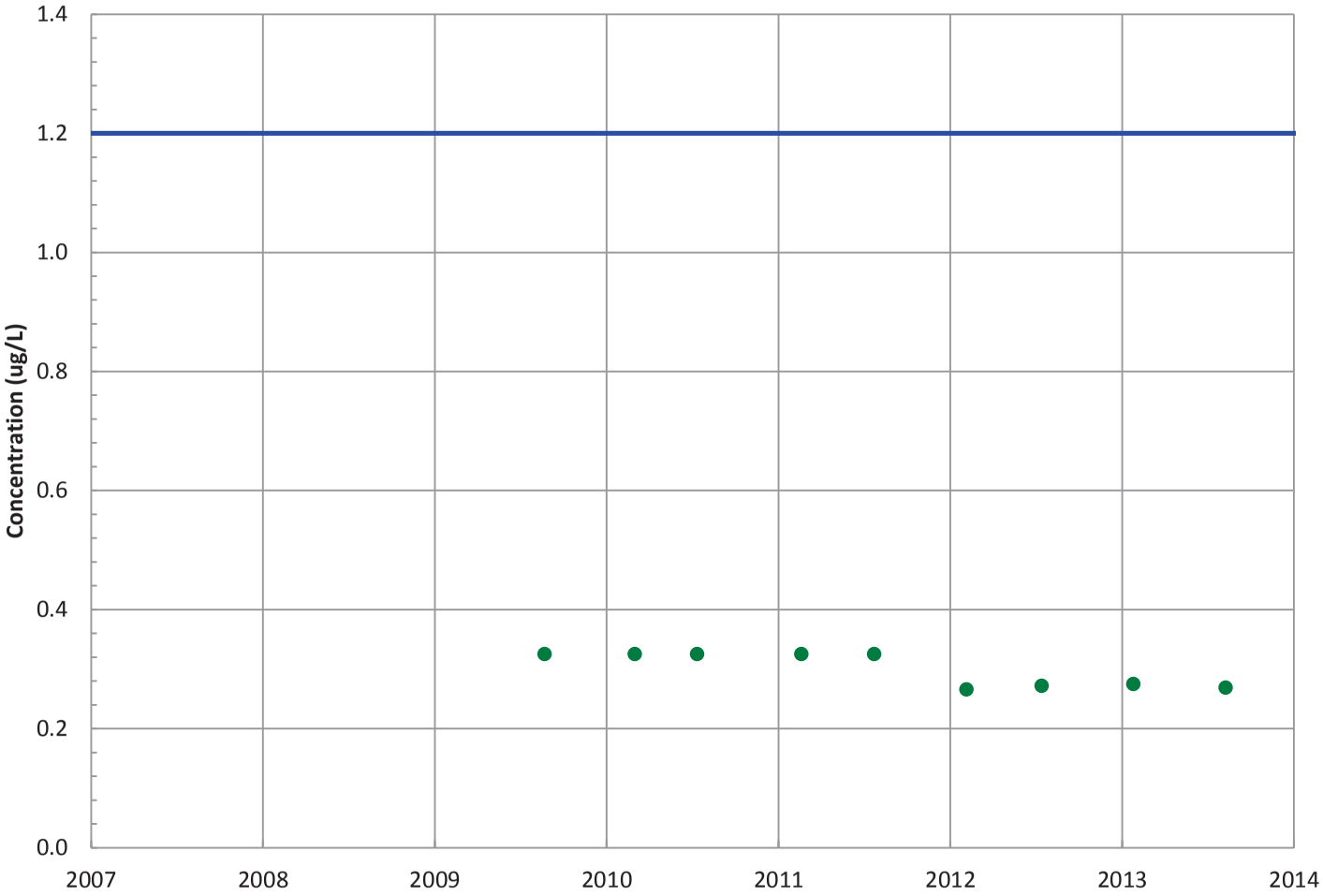
Well Location



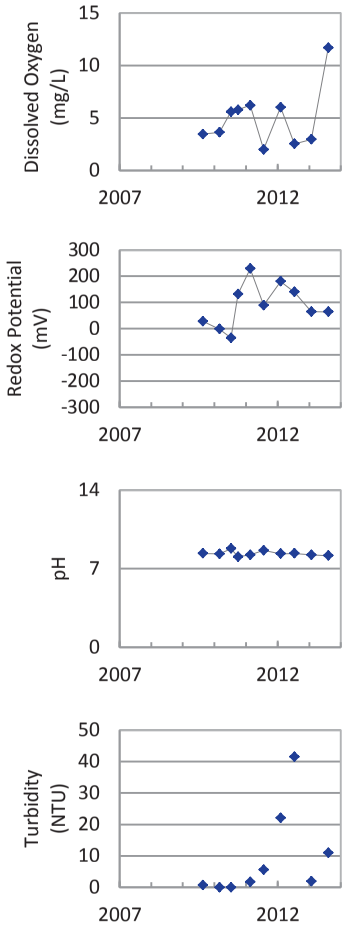
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/24/2009 to 8/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1131
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



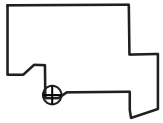
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

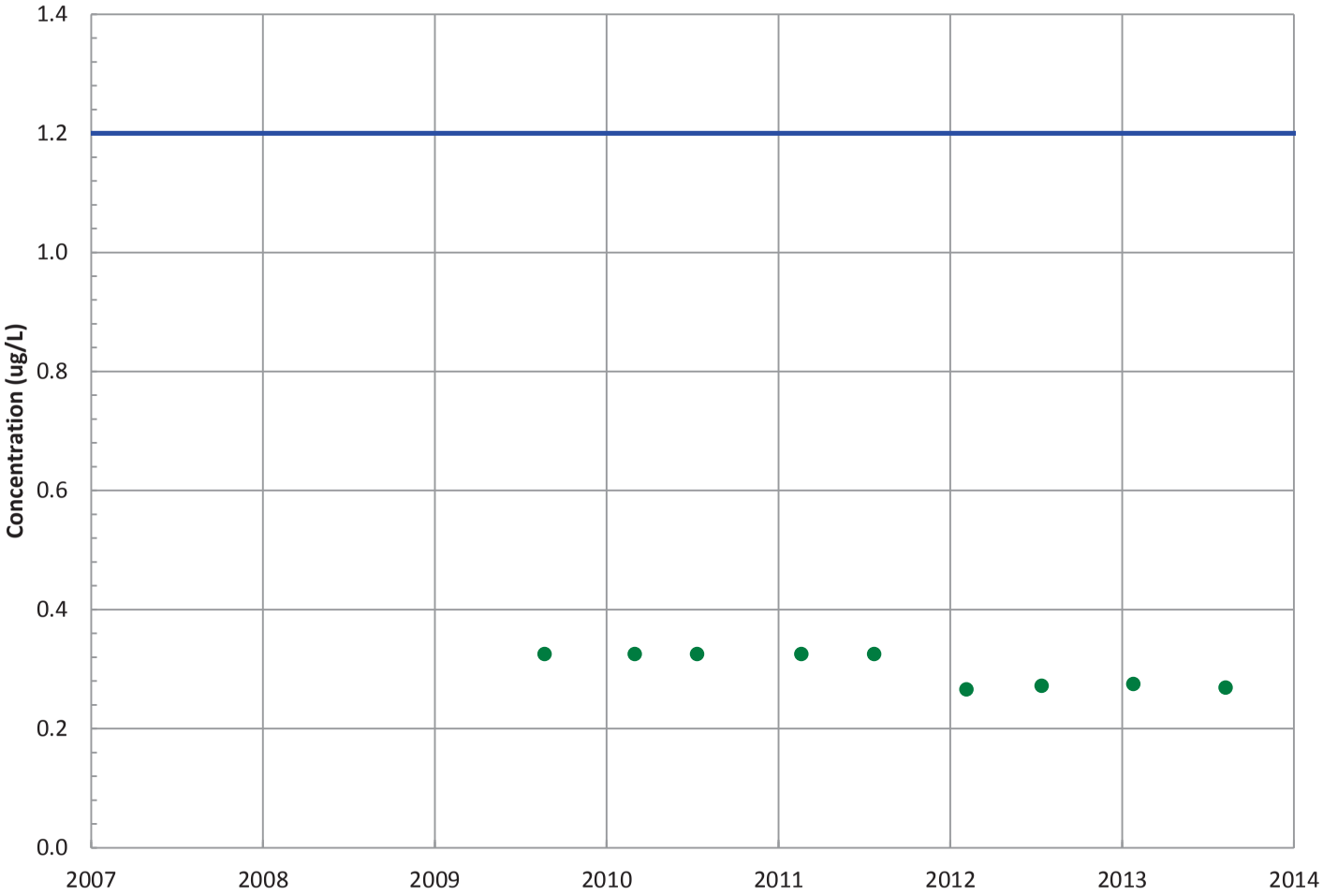
Well Location



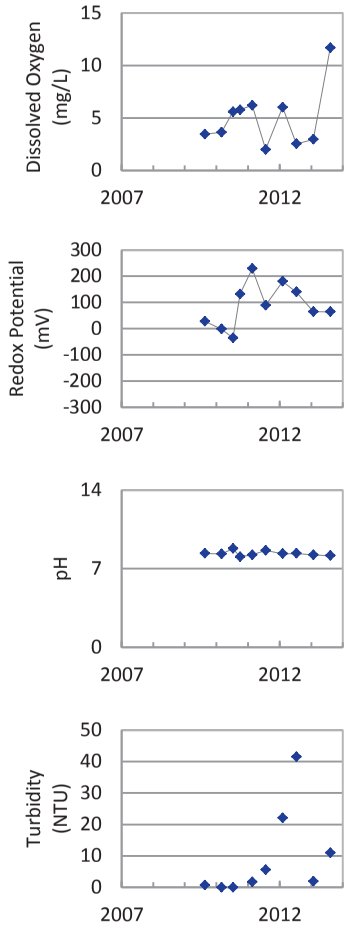
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/24/2009 to 8/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1131
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



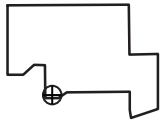
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

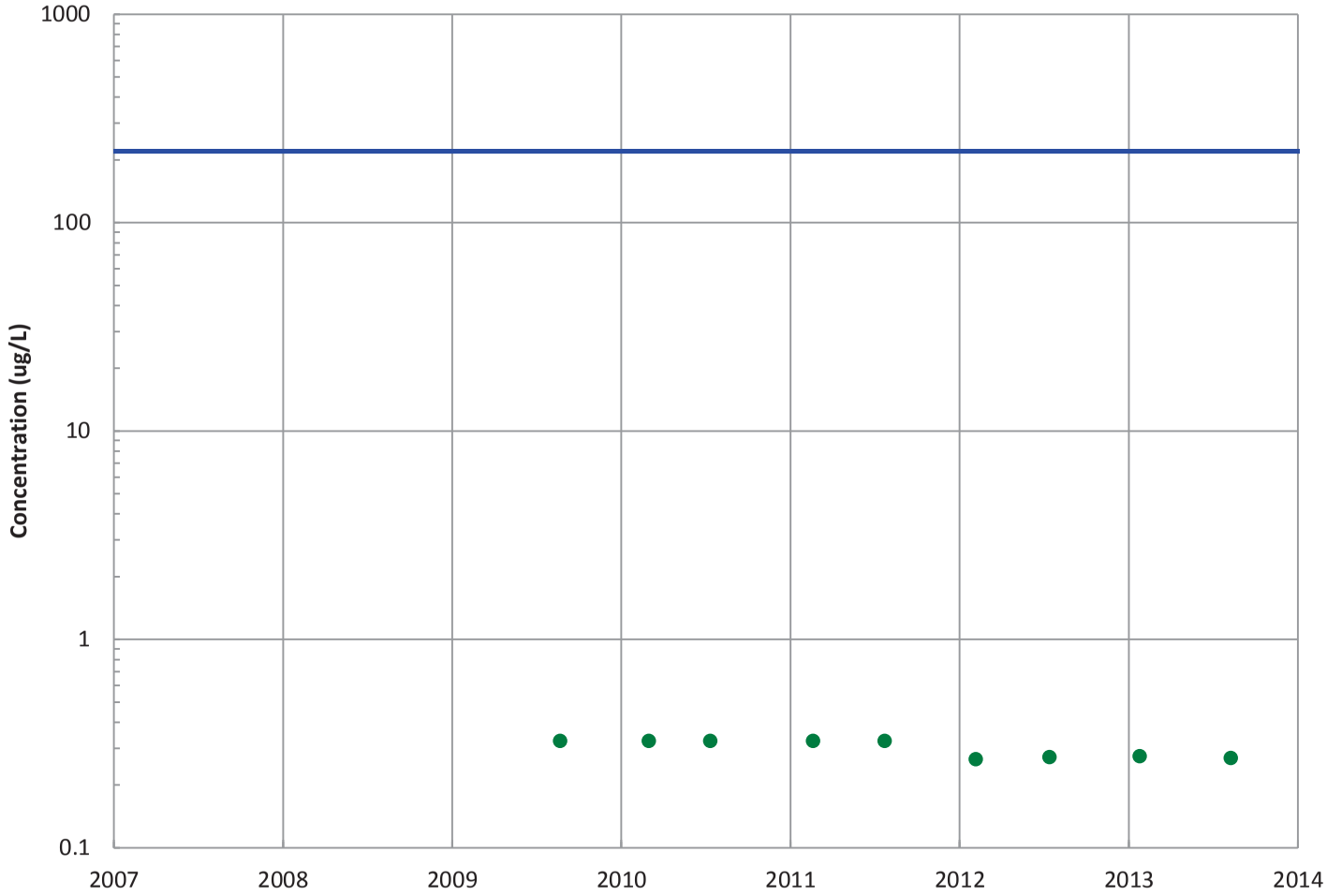
Well Location



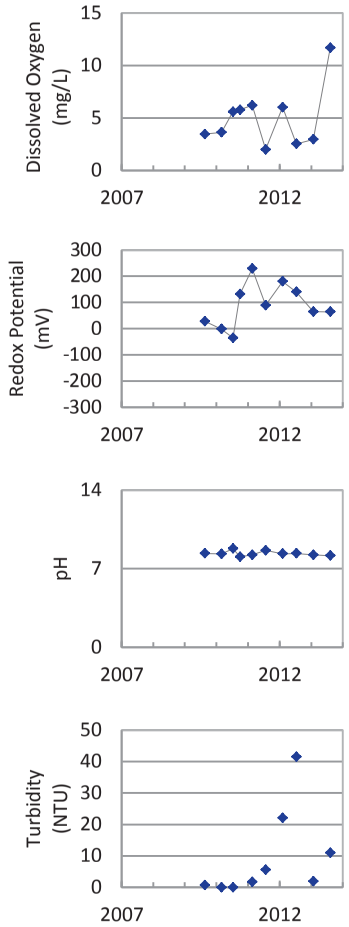
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/24/2009 to 8/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1131
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



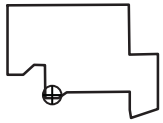
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

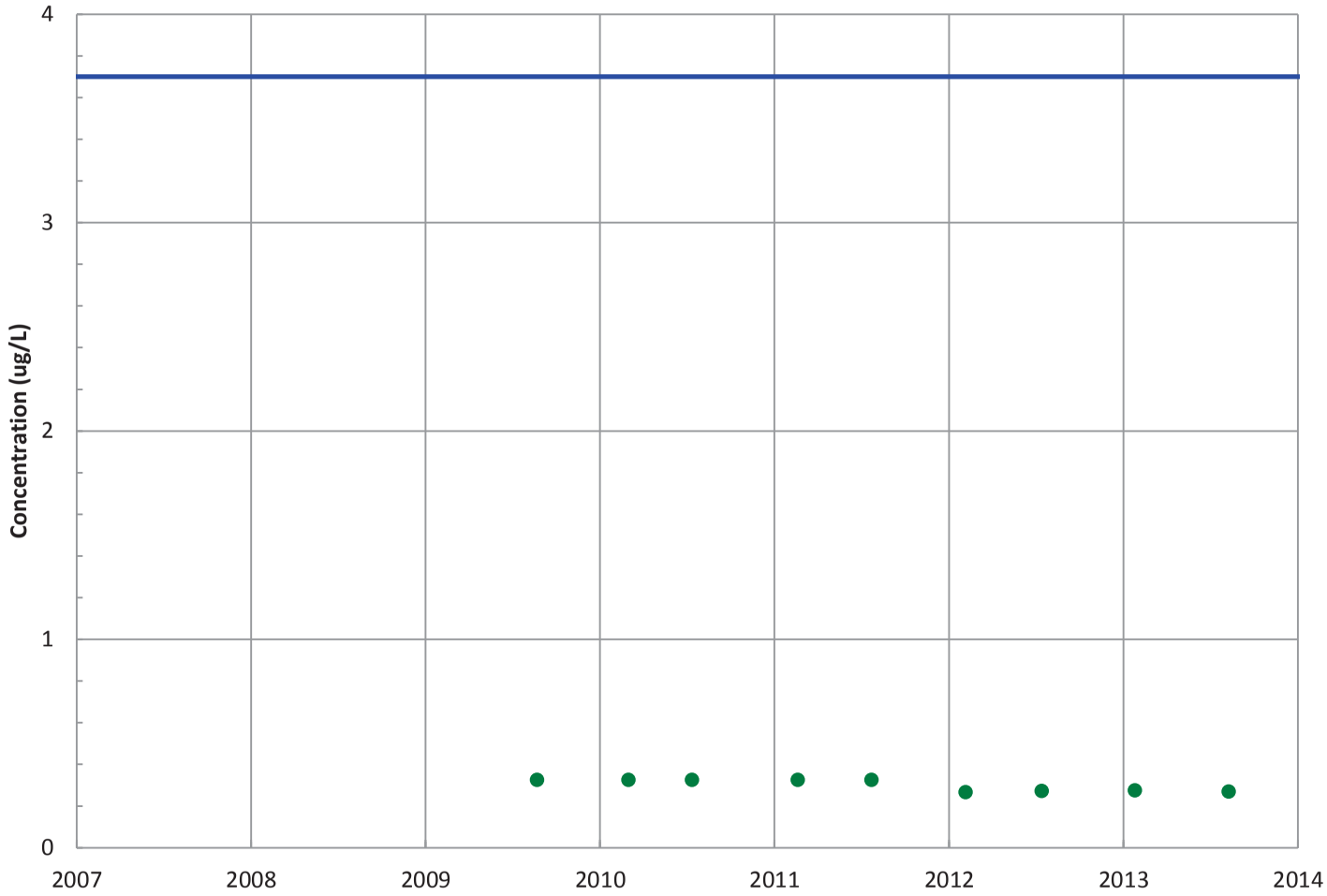
Well Location



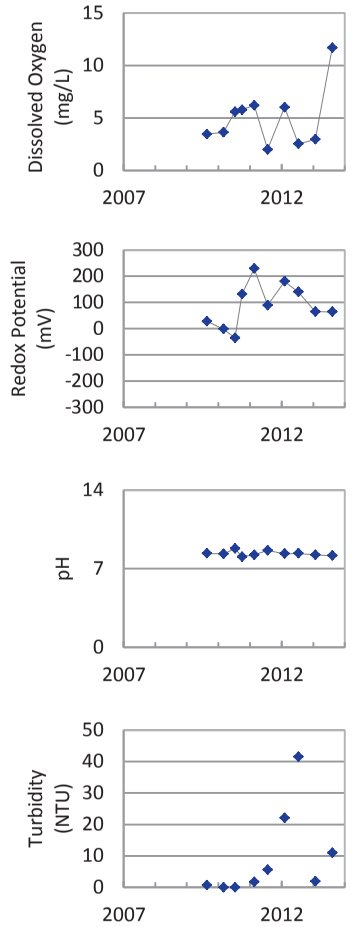
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/24/2009 to 8/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1131
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



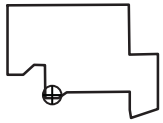
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

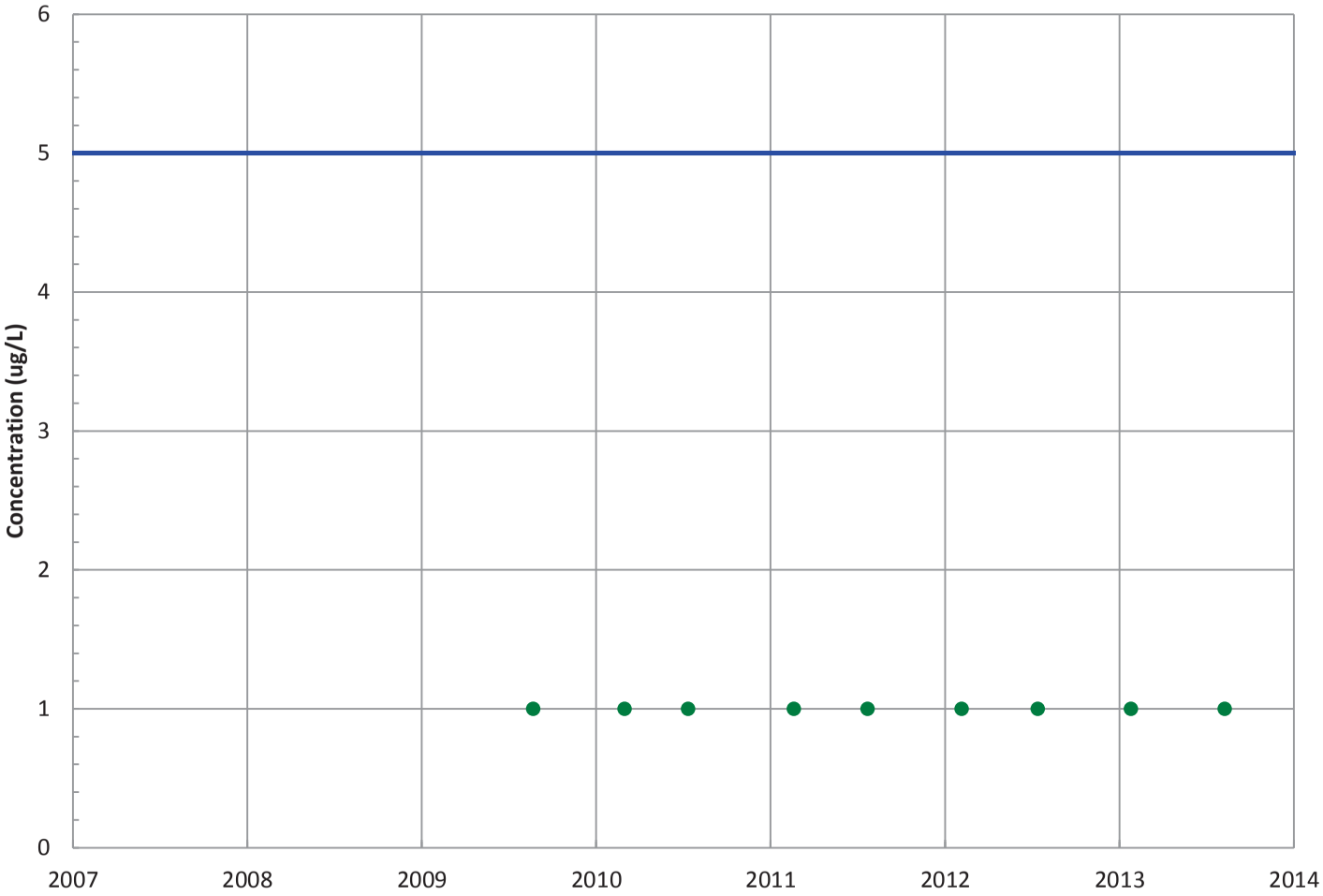
Well Location



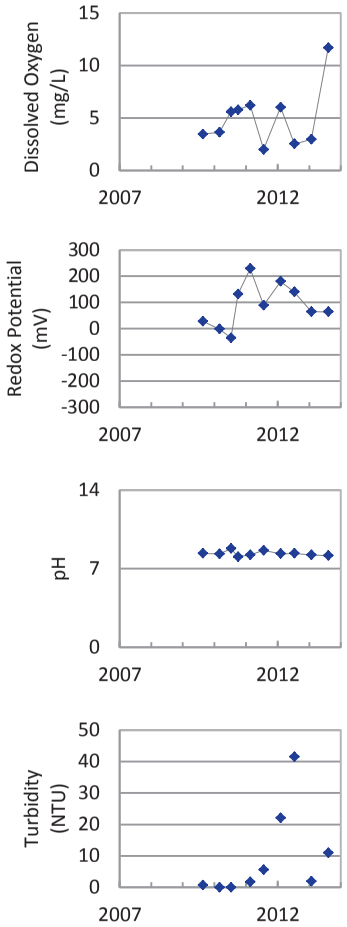
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/24/2009 to 8/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1131
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



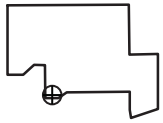
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

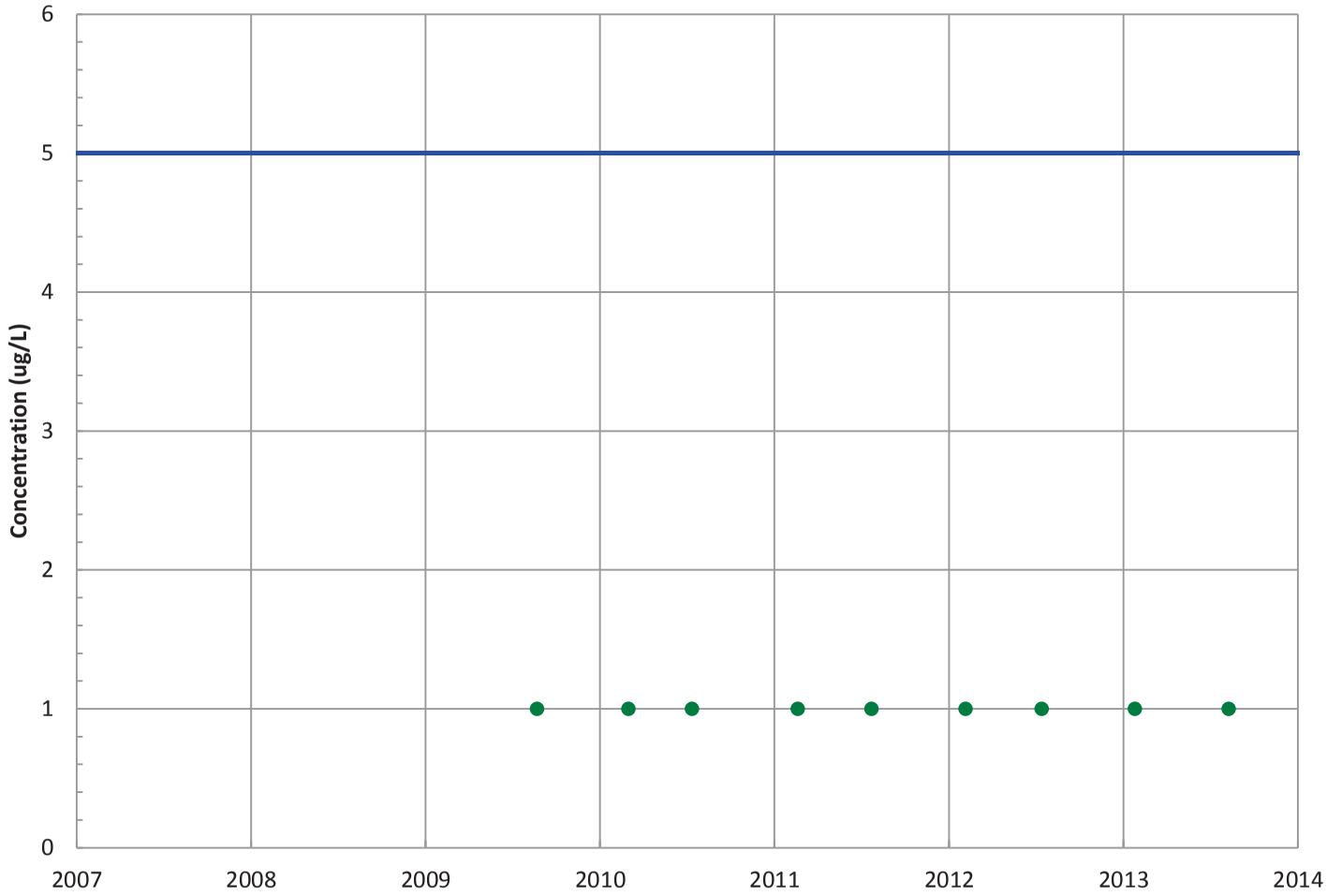
Well Location



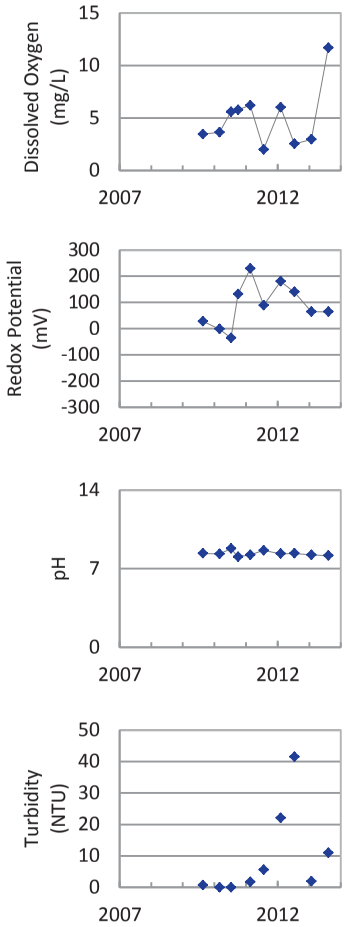
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/24/2009 to 8/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1131
Trichloroethene Trend in Perched Aquifer



Field Parameters



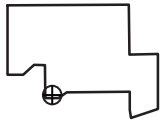
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

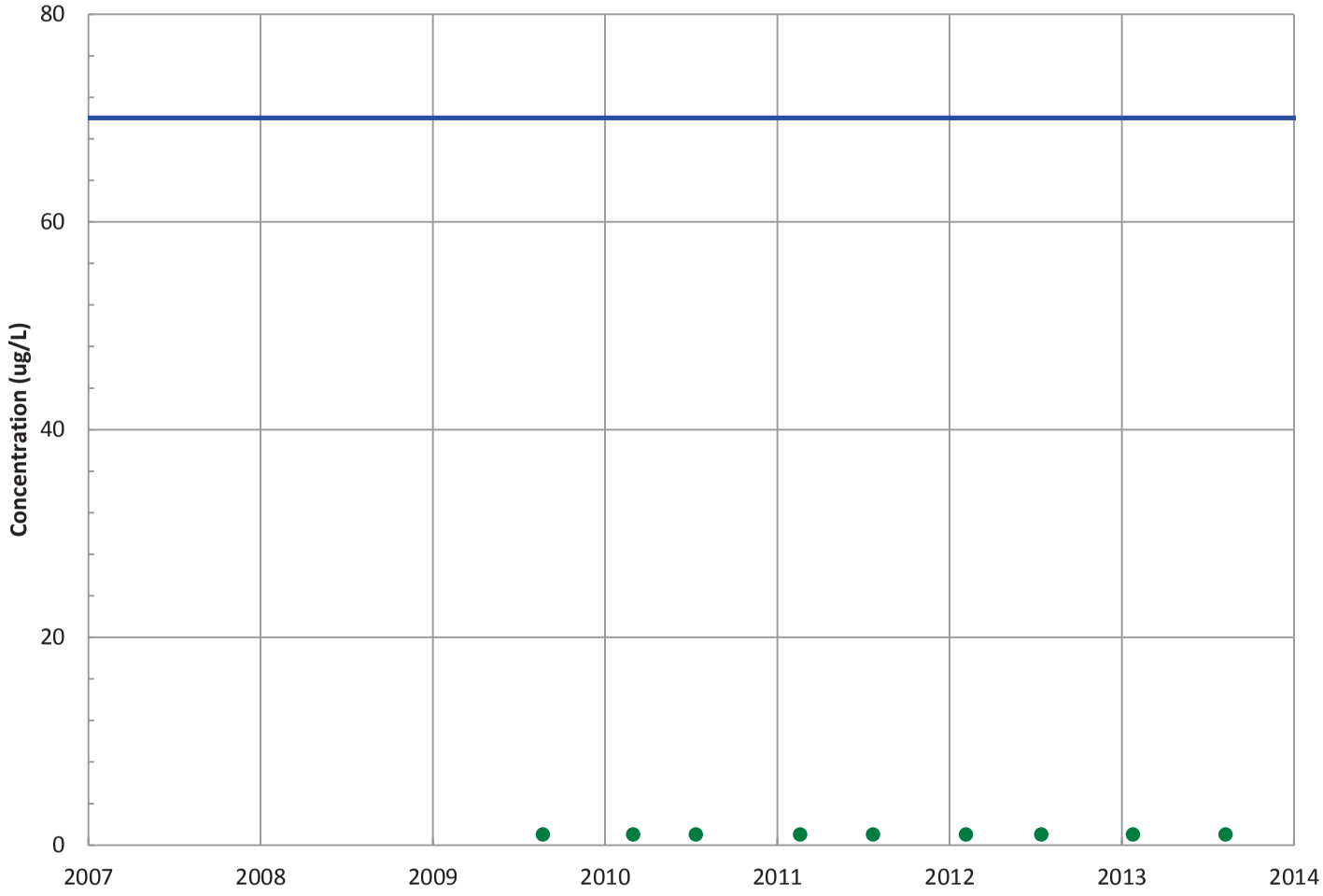
Well Location



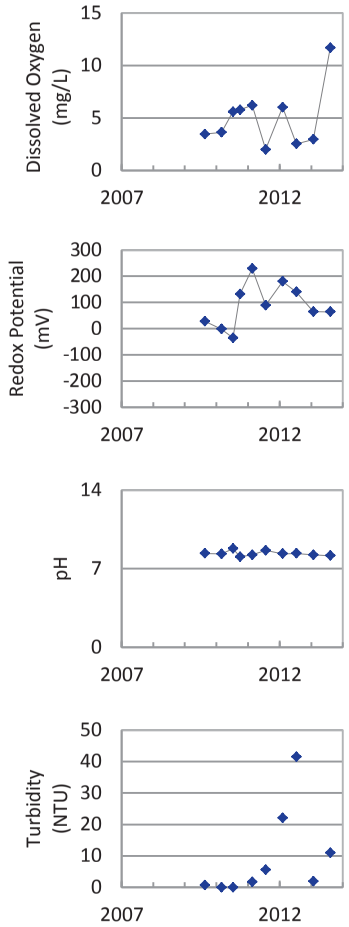
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/24/2009 to 8/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1131
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



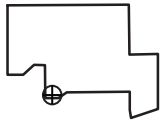
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

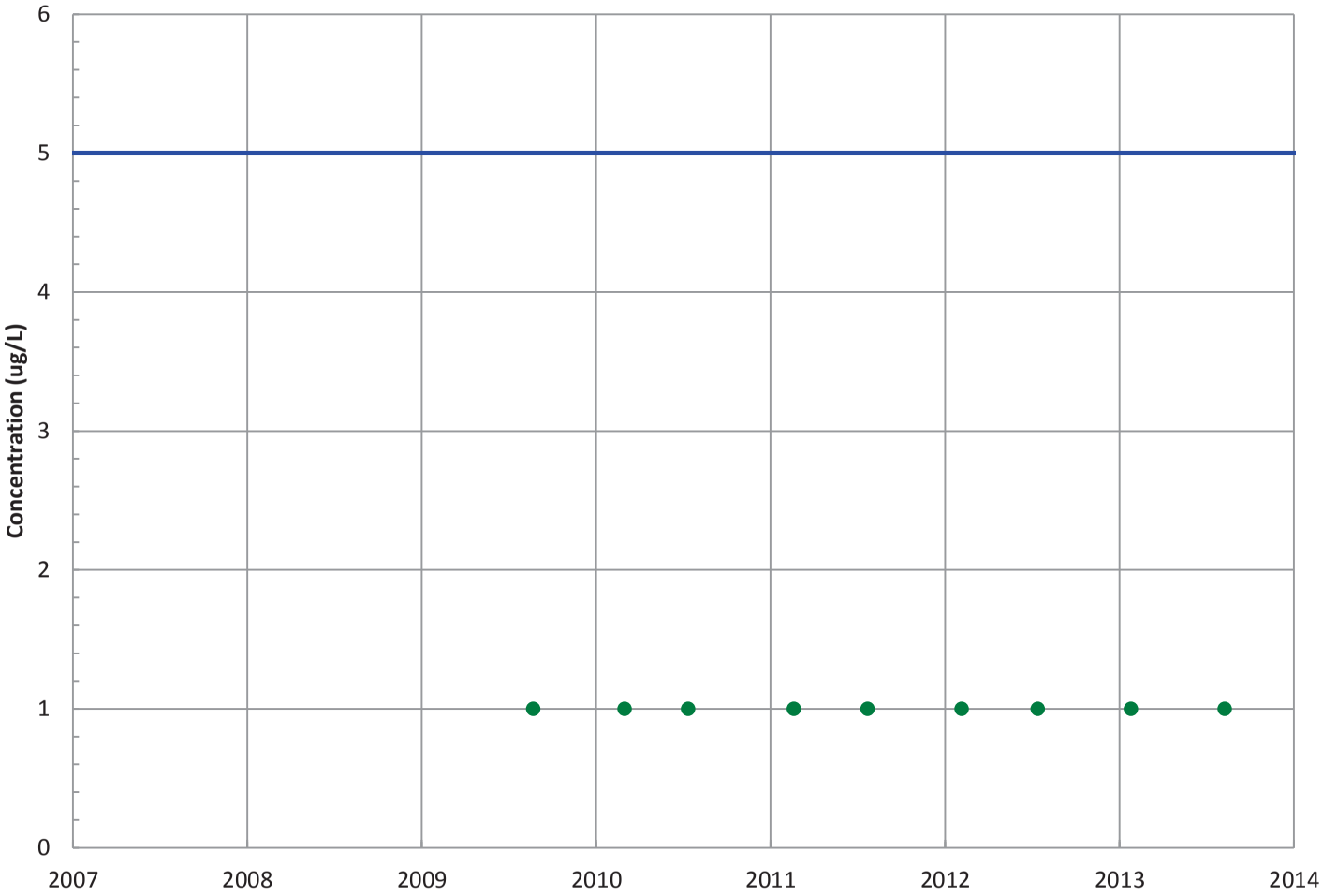
Well Location



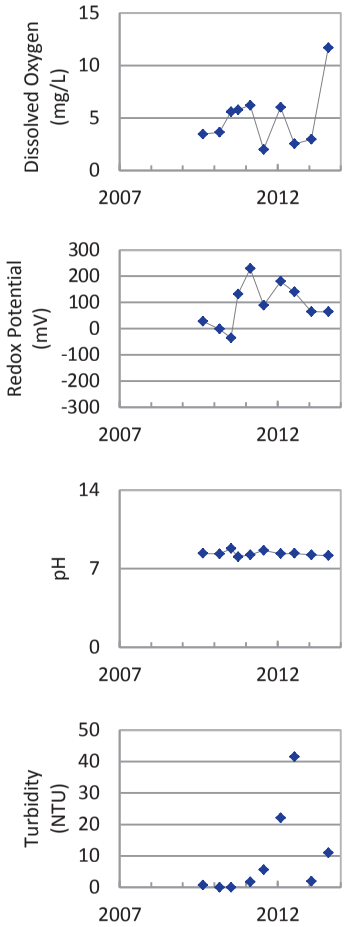
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/24/2009 to 8/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1131
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



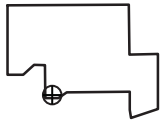
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

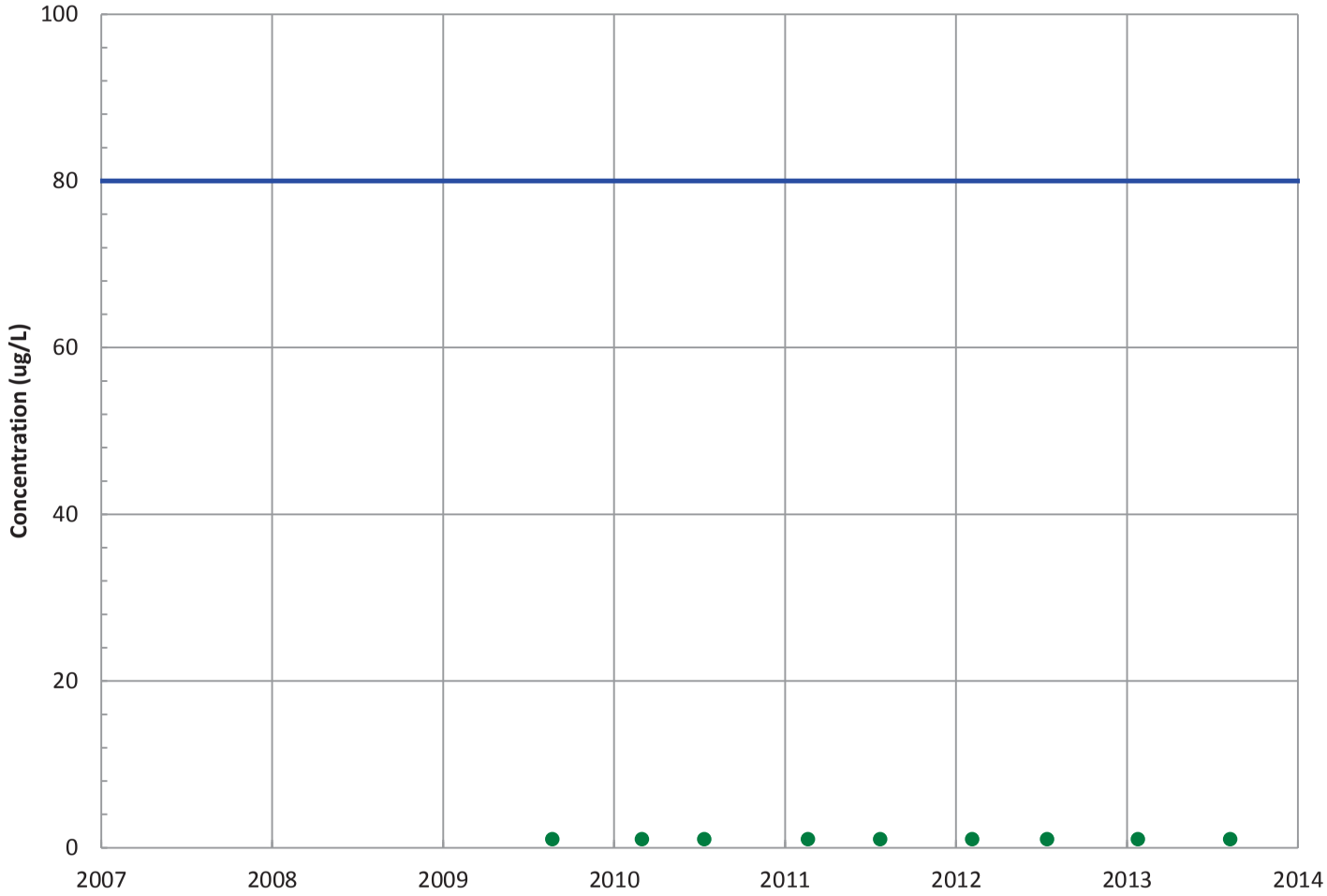
Well Location



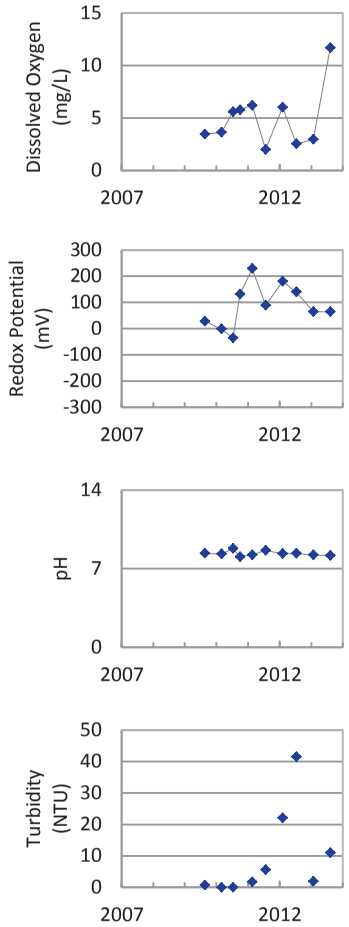
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/24/2009 to 8/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1131
Chloroform Trend in Perched Aquifer



Field Parameters



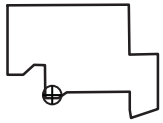
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

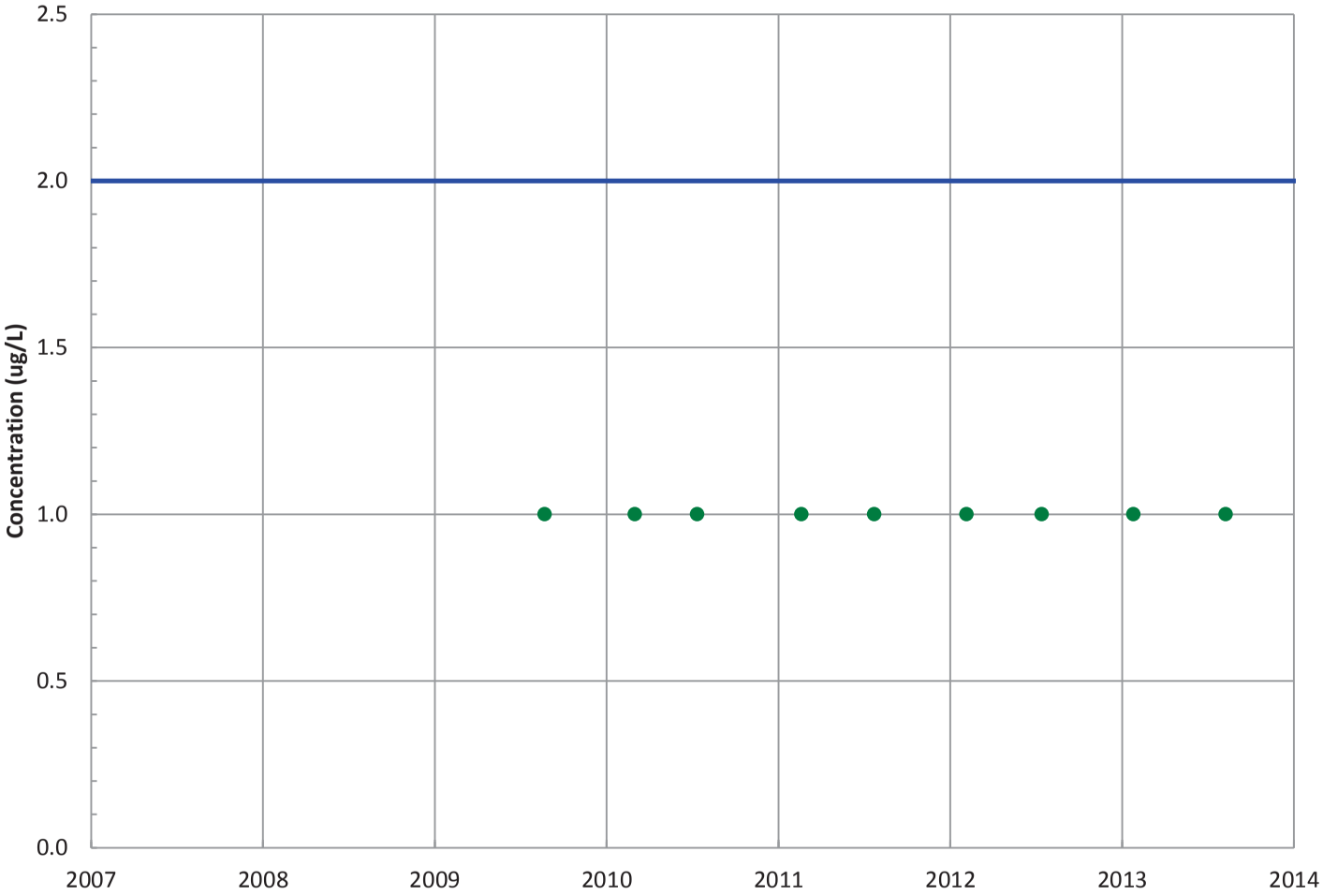
Well Location



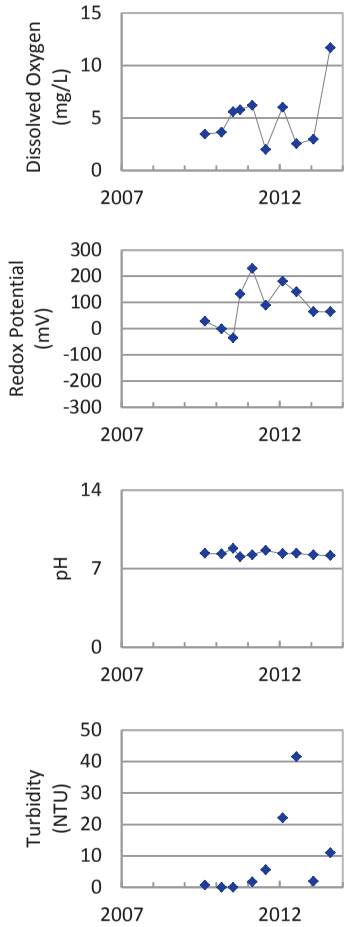
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/24/2009 to 8/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1131
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



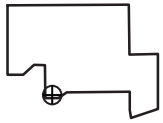
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

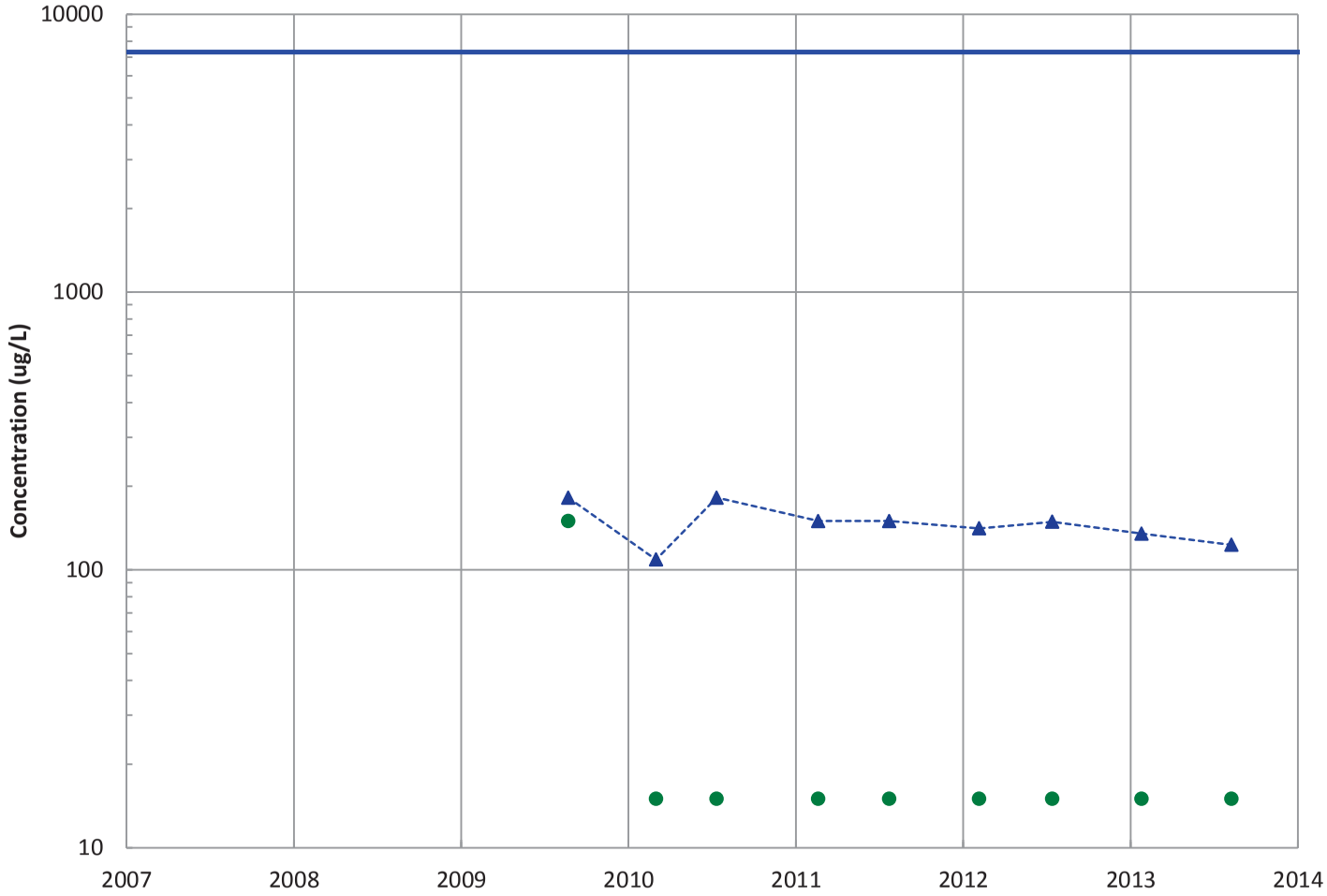
Well Location



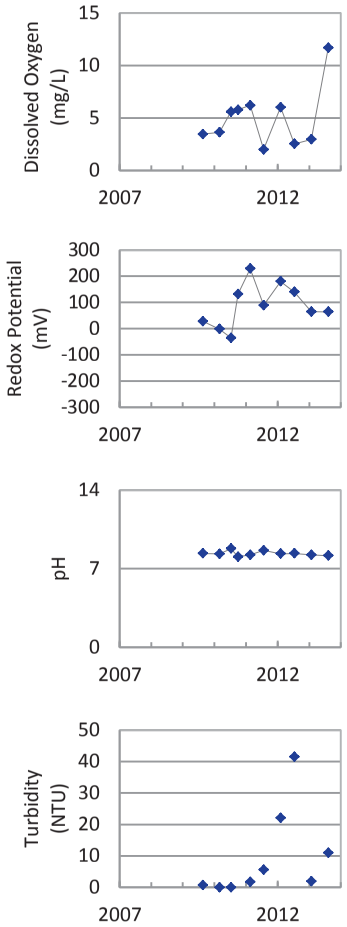
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/24/2009 to 8/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1131
Boron Trend in Perched Aquifer



Field Parameters



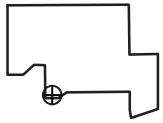
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Probably Decreasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

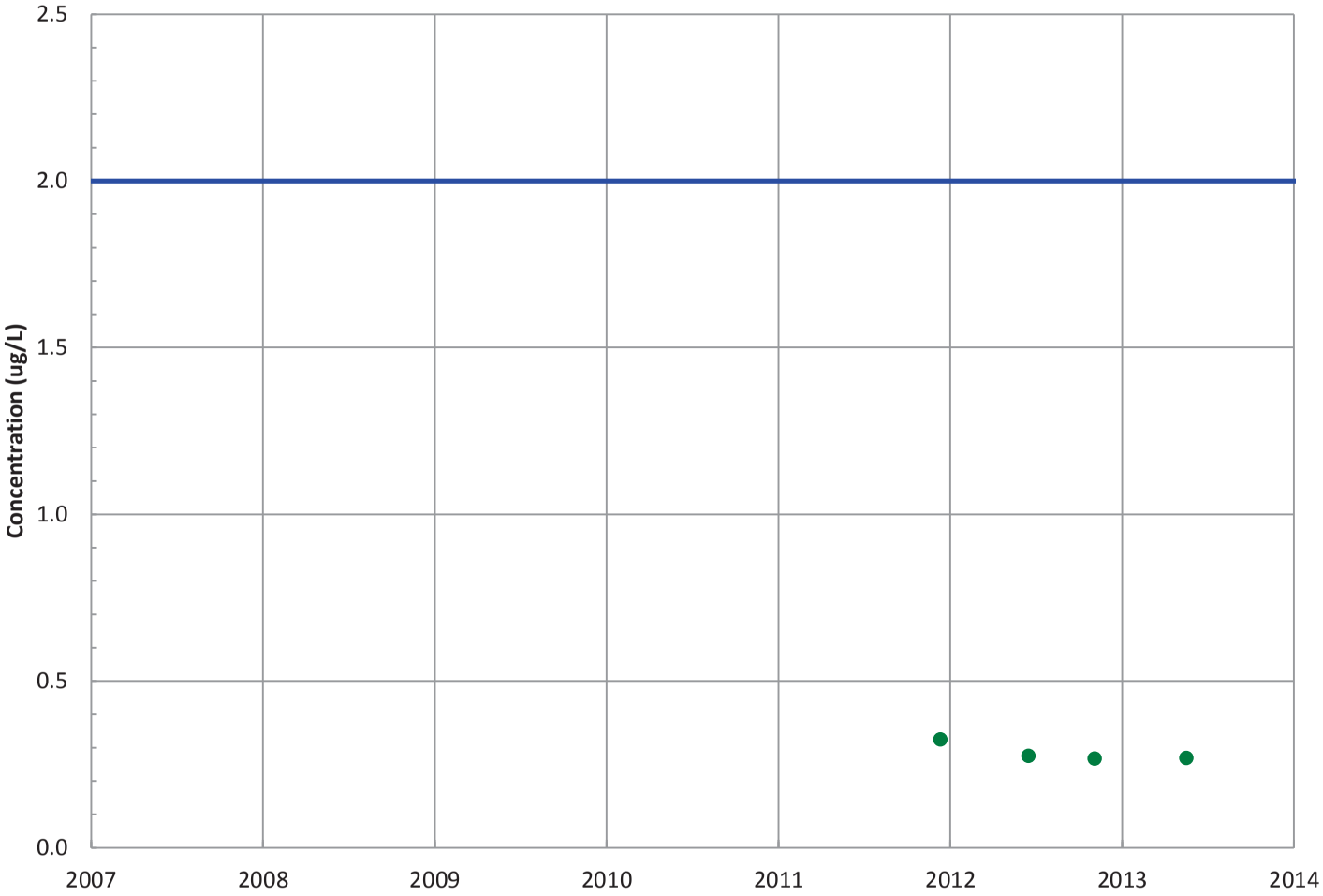
Well Location



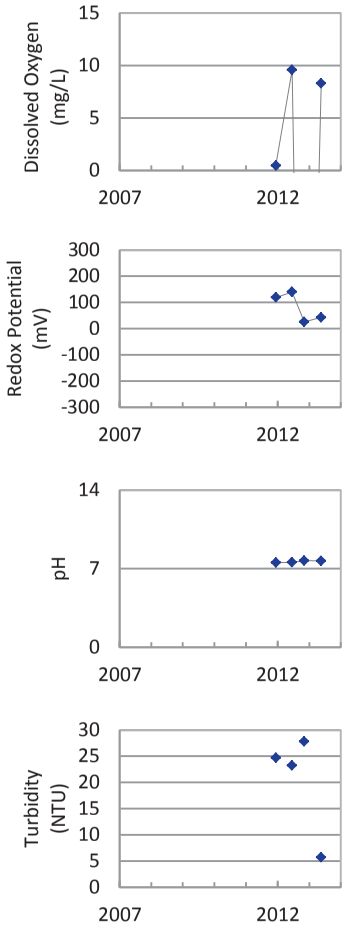
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/24/2009 to 8/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1133A
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



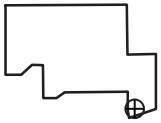
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

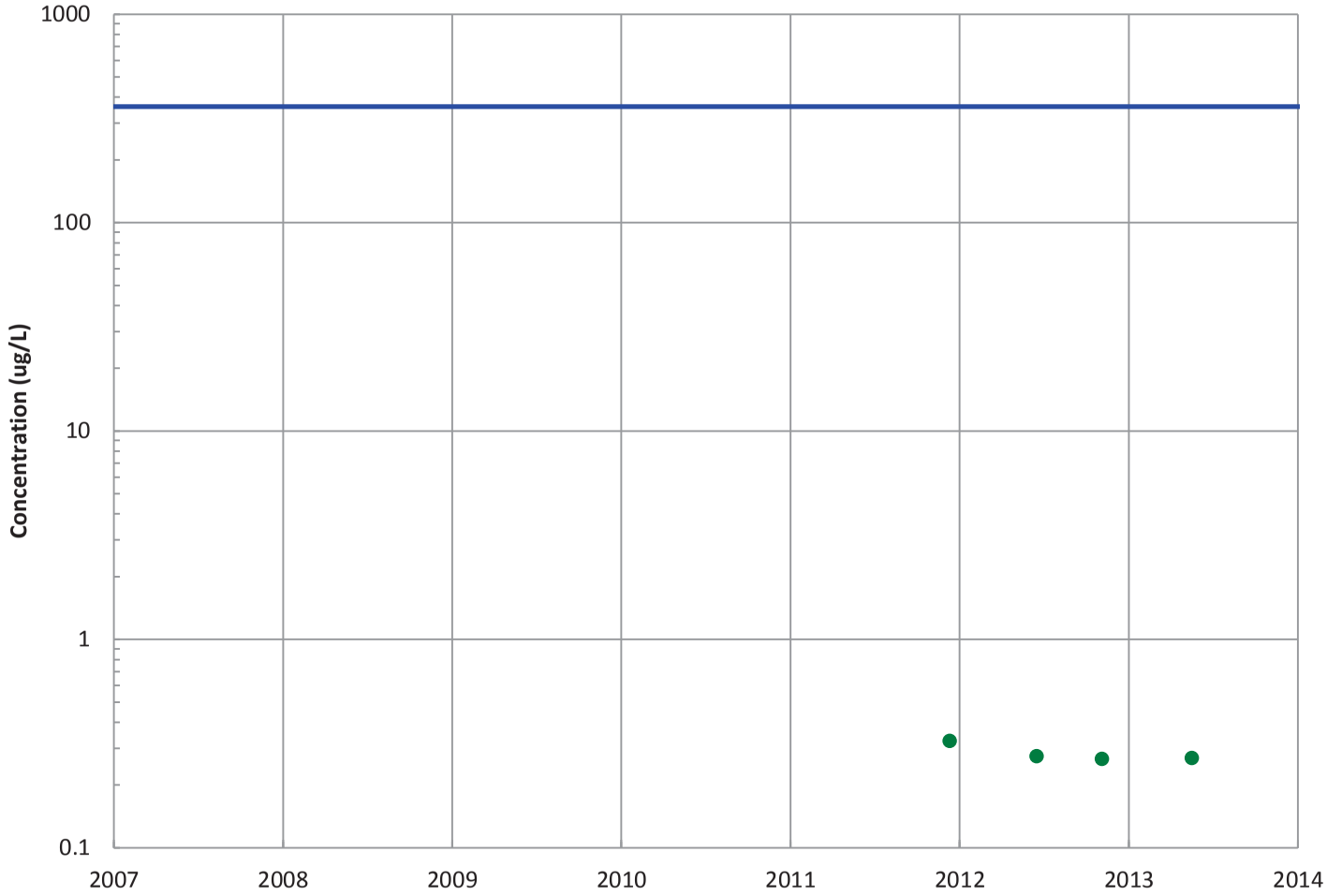
Well Location



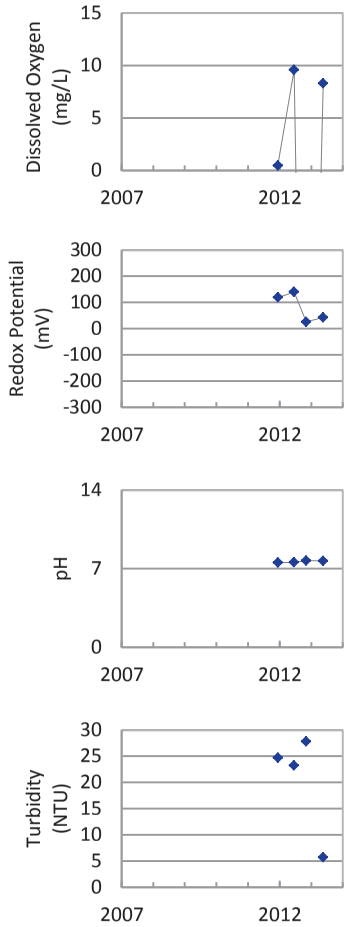
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/15/2011 to 5/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1133A
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



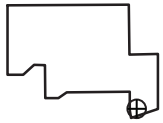
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

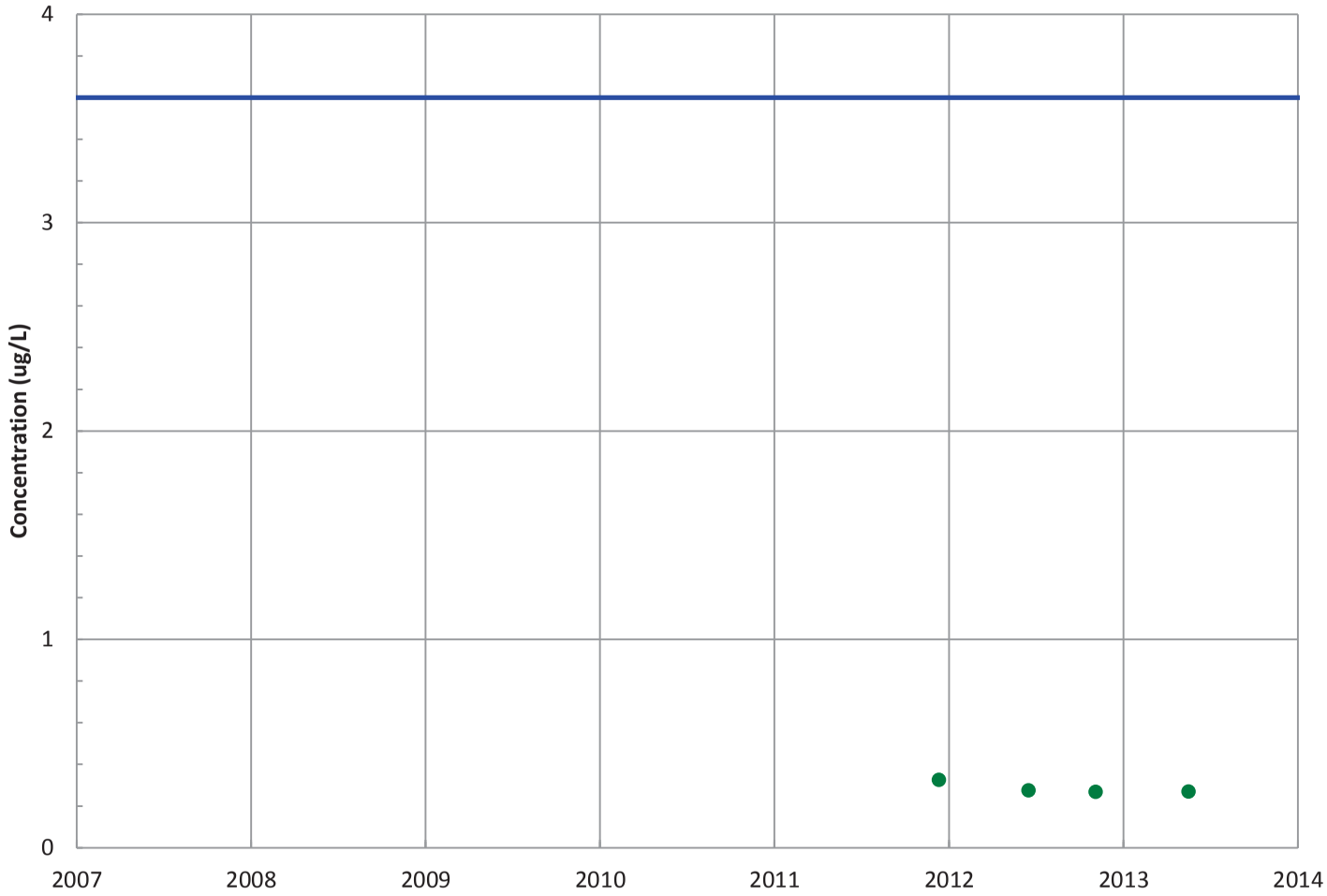
Well Location



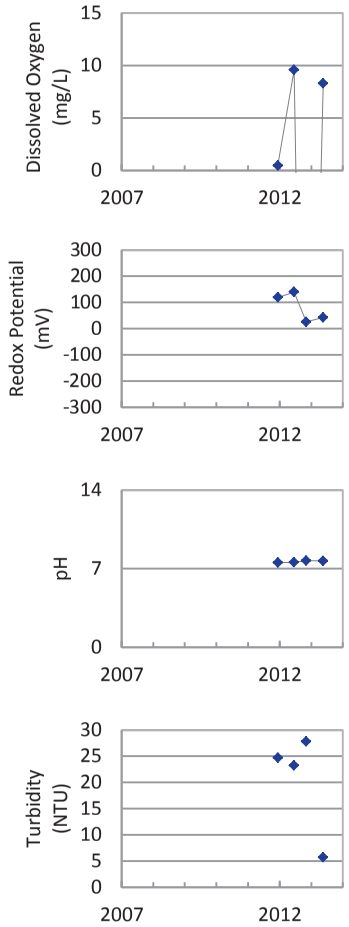
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/15/2011 to 5/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1133A
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



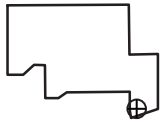
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

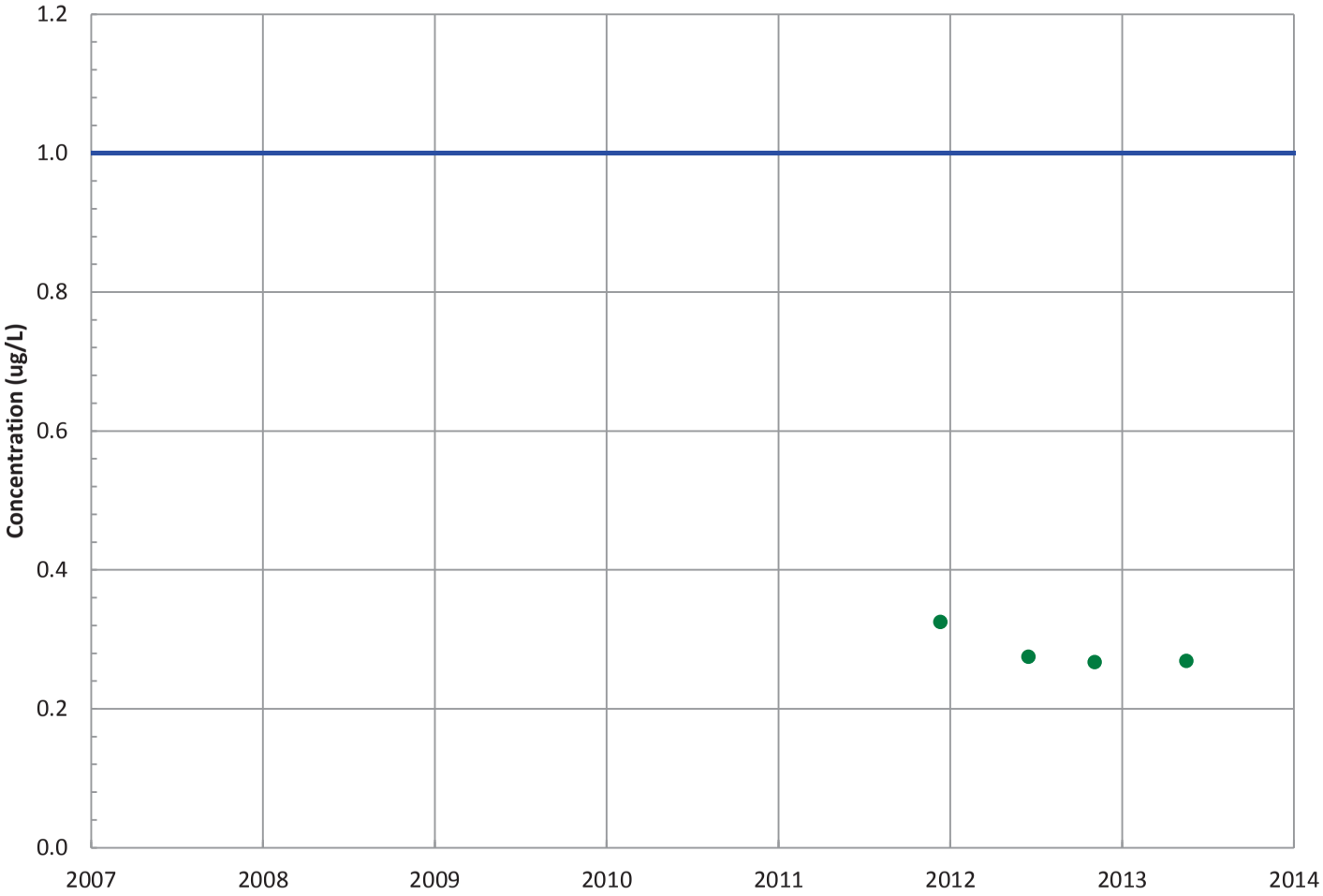
Well Location



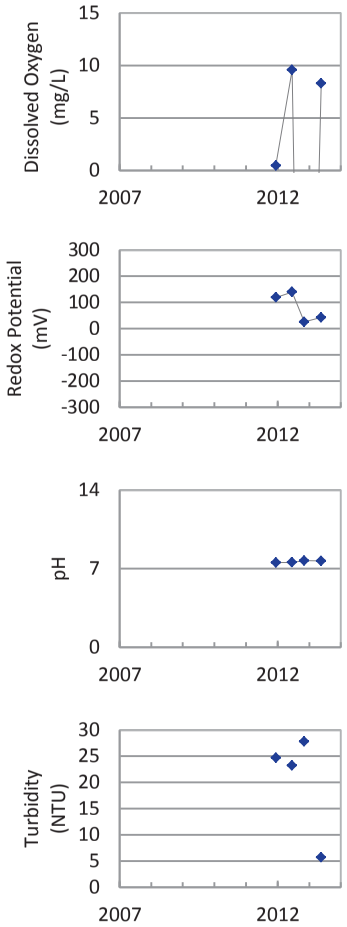
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/15/2011 to 5/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1133A
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



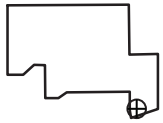
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

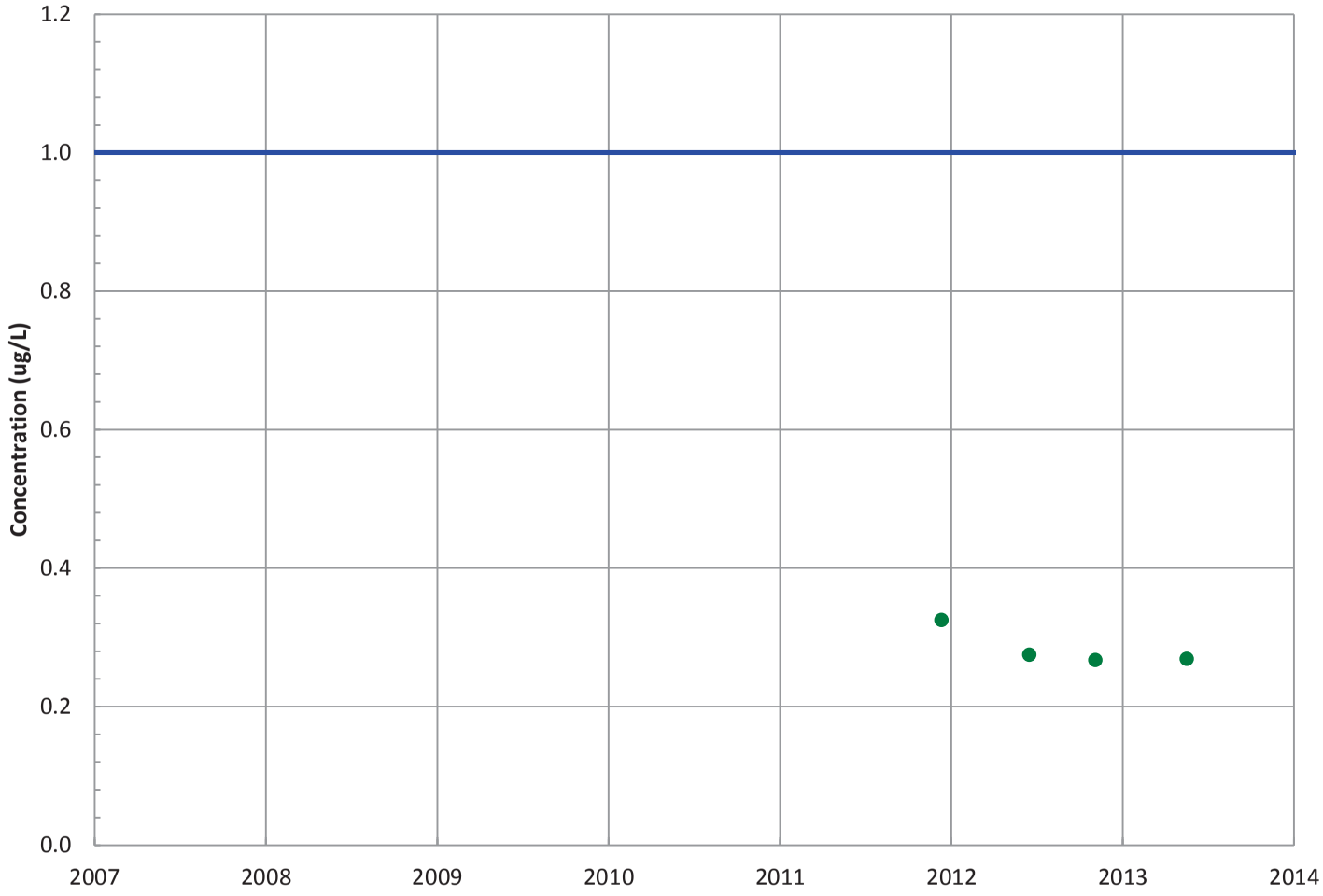
Well Location



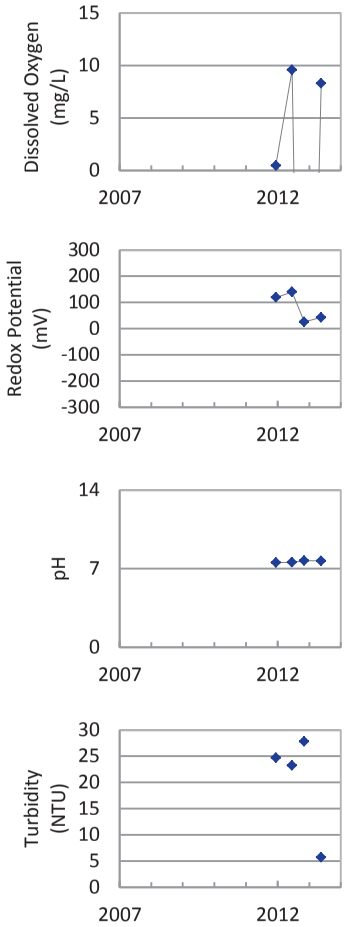
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/15/2011 to 5/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1133A
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



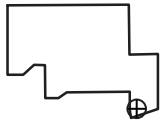
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

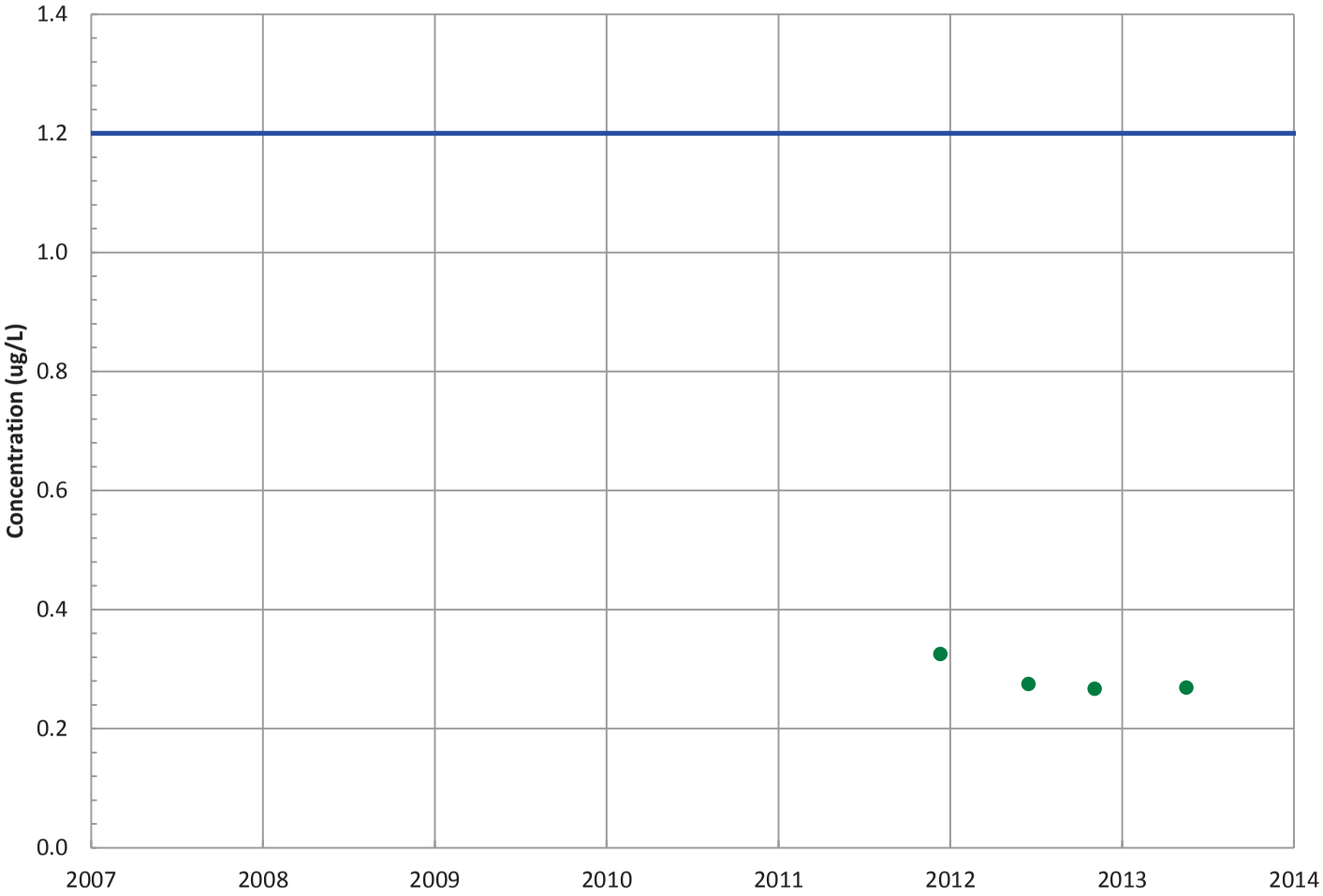
Well Location



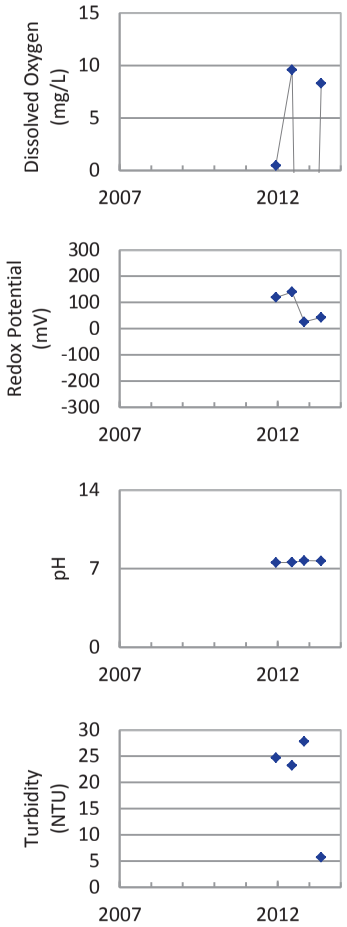
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/15/2011 to 5/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1133A
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



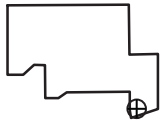
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

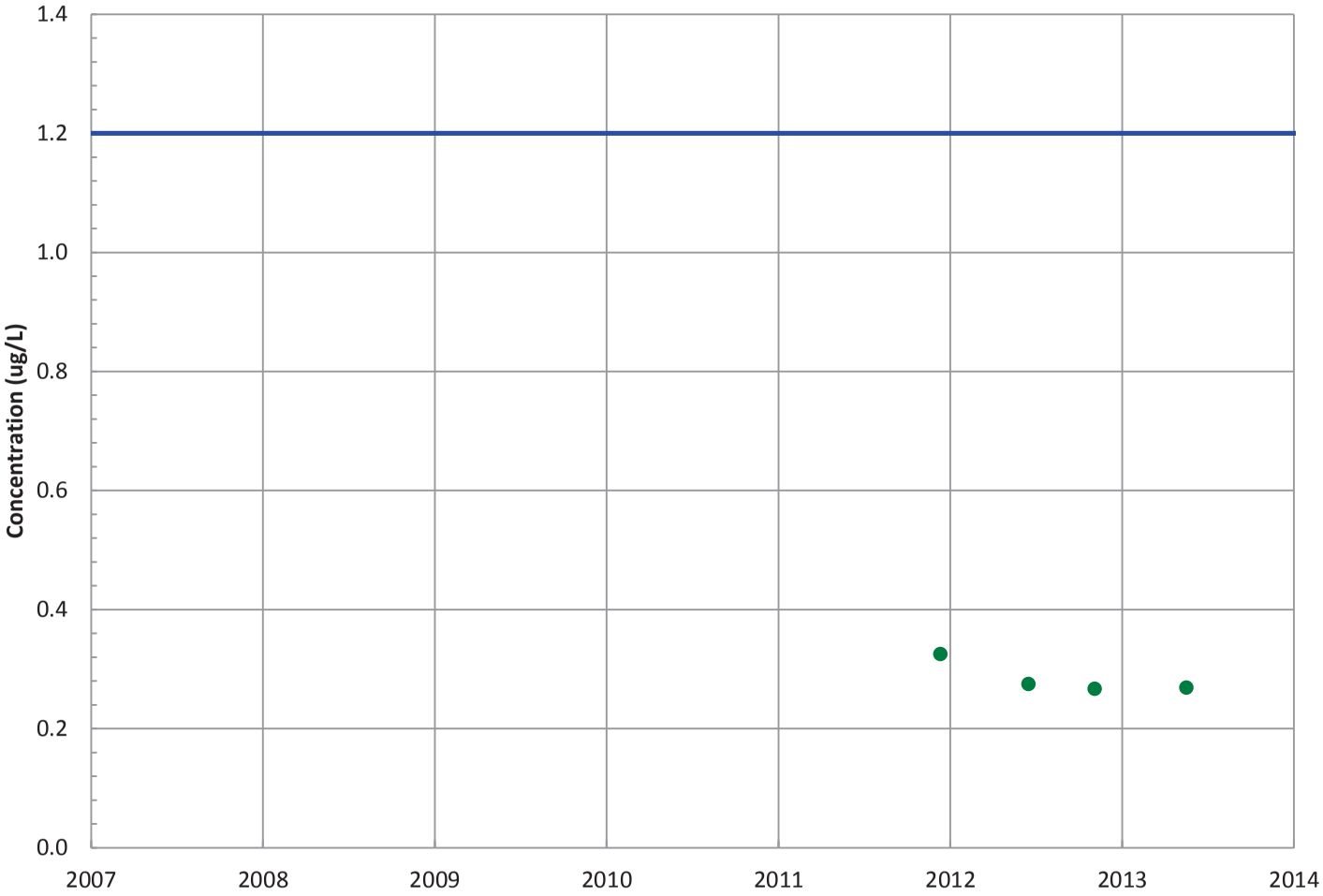
Well Location



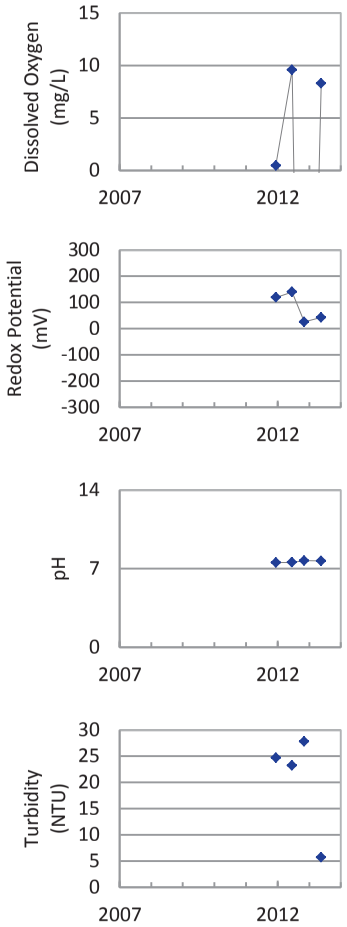
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/15/2011 to 5/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1133A
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



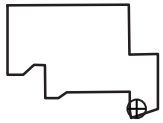
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

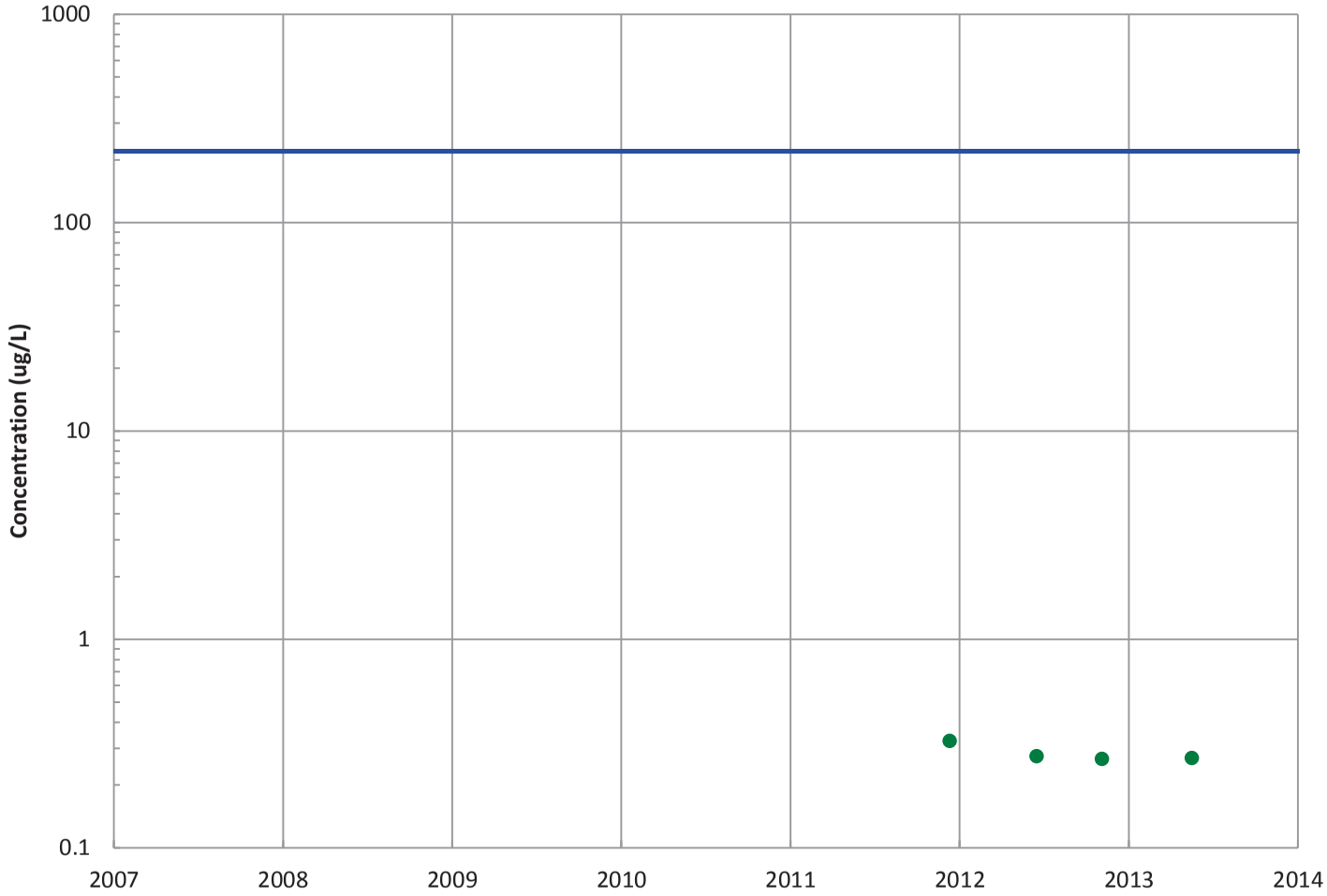
Well Location



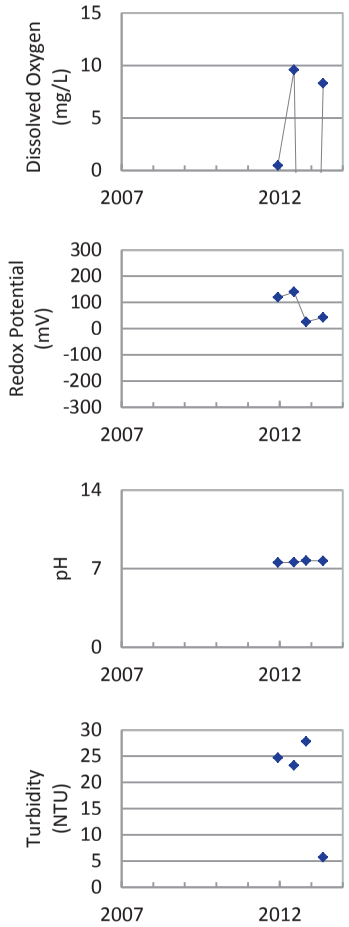
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/15/2011 to 5/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1133A
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



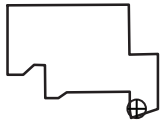
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

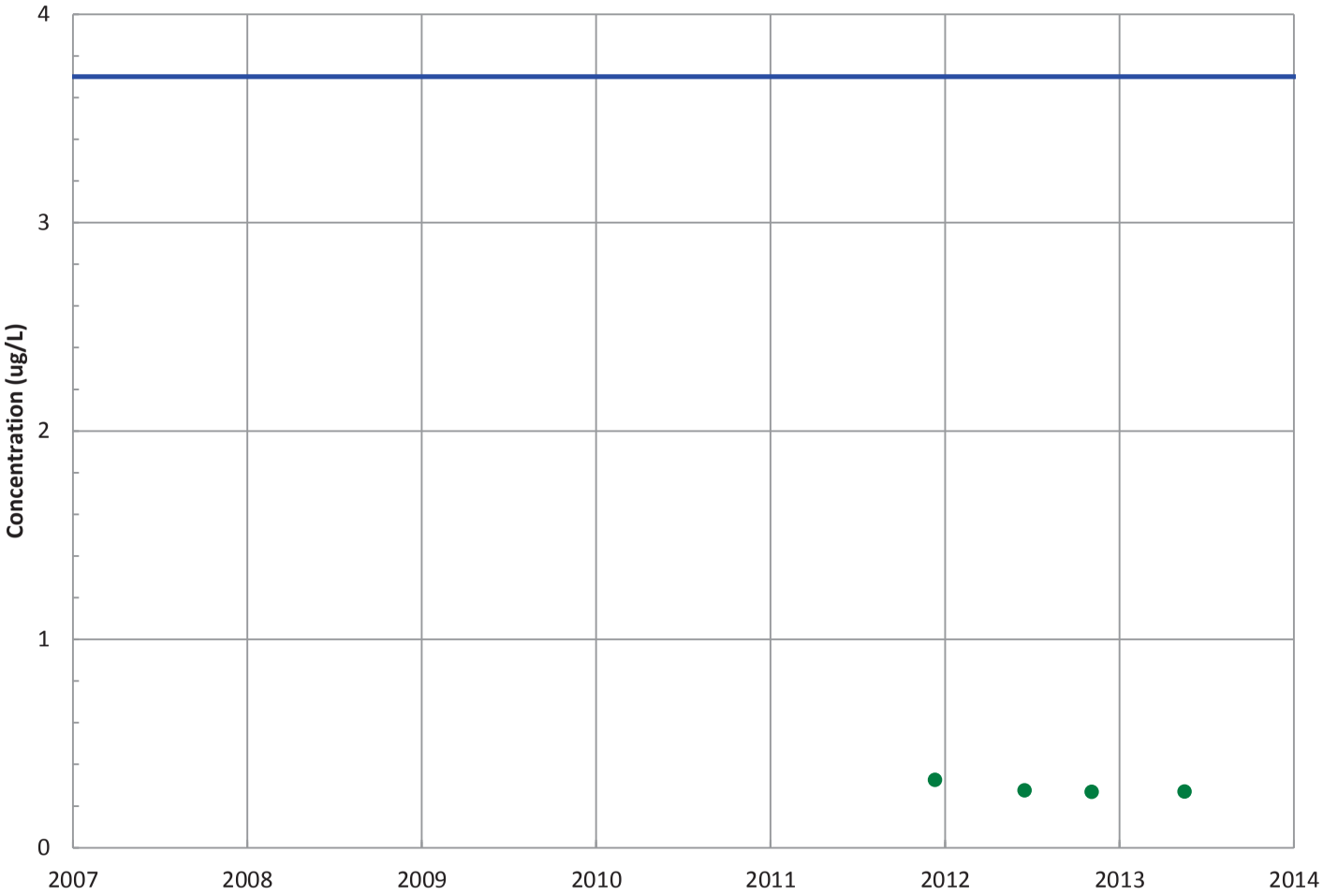
Well Location



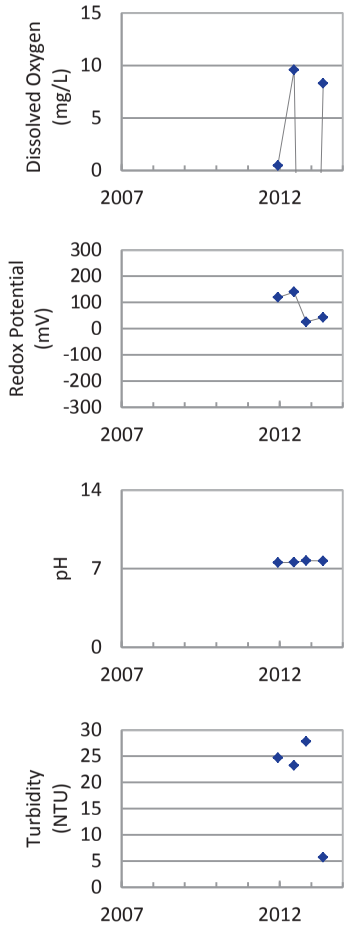
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/15/2011 to 5/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1133A
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



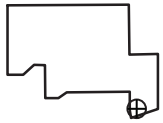
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

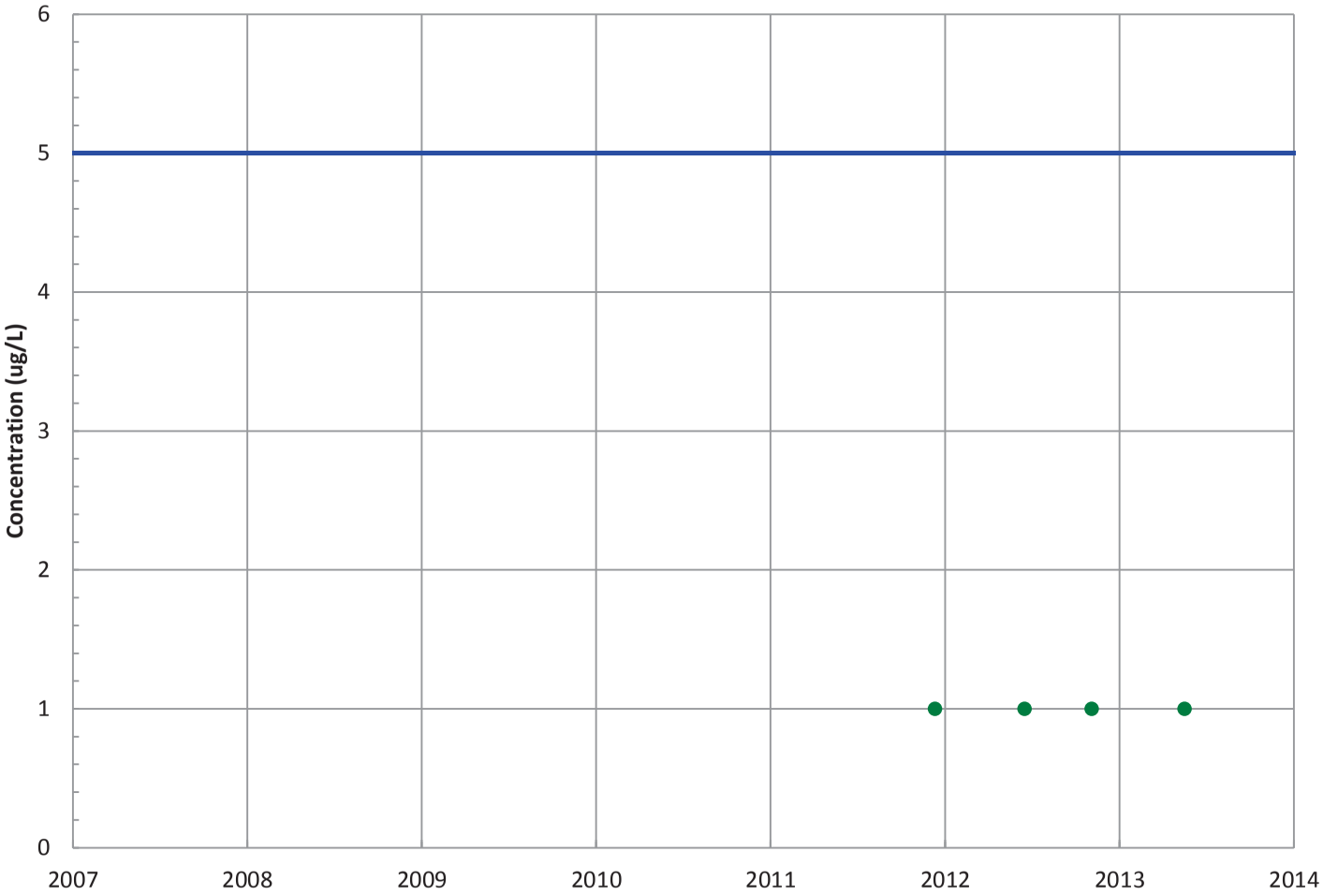
Well Location



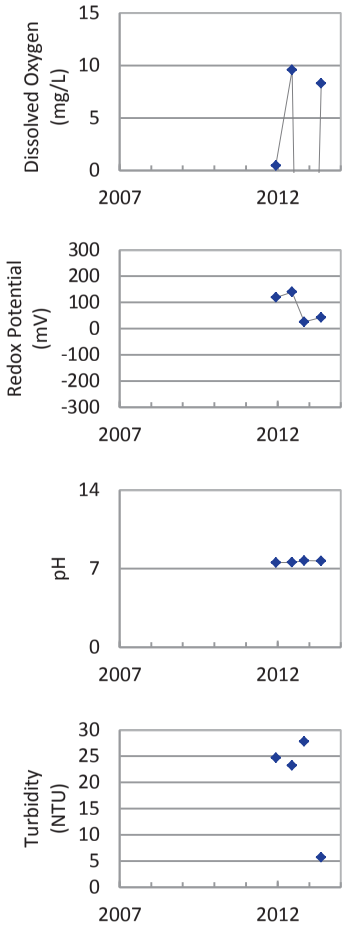
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/15/2011 to 5/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1133A
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



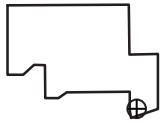
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

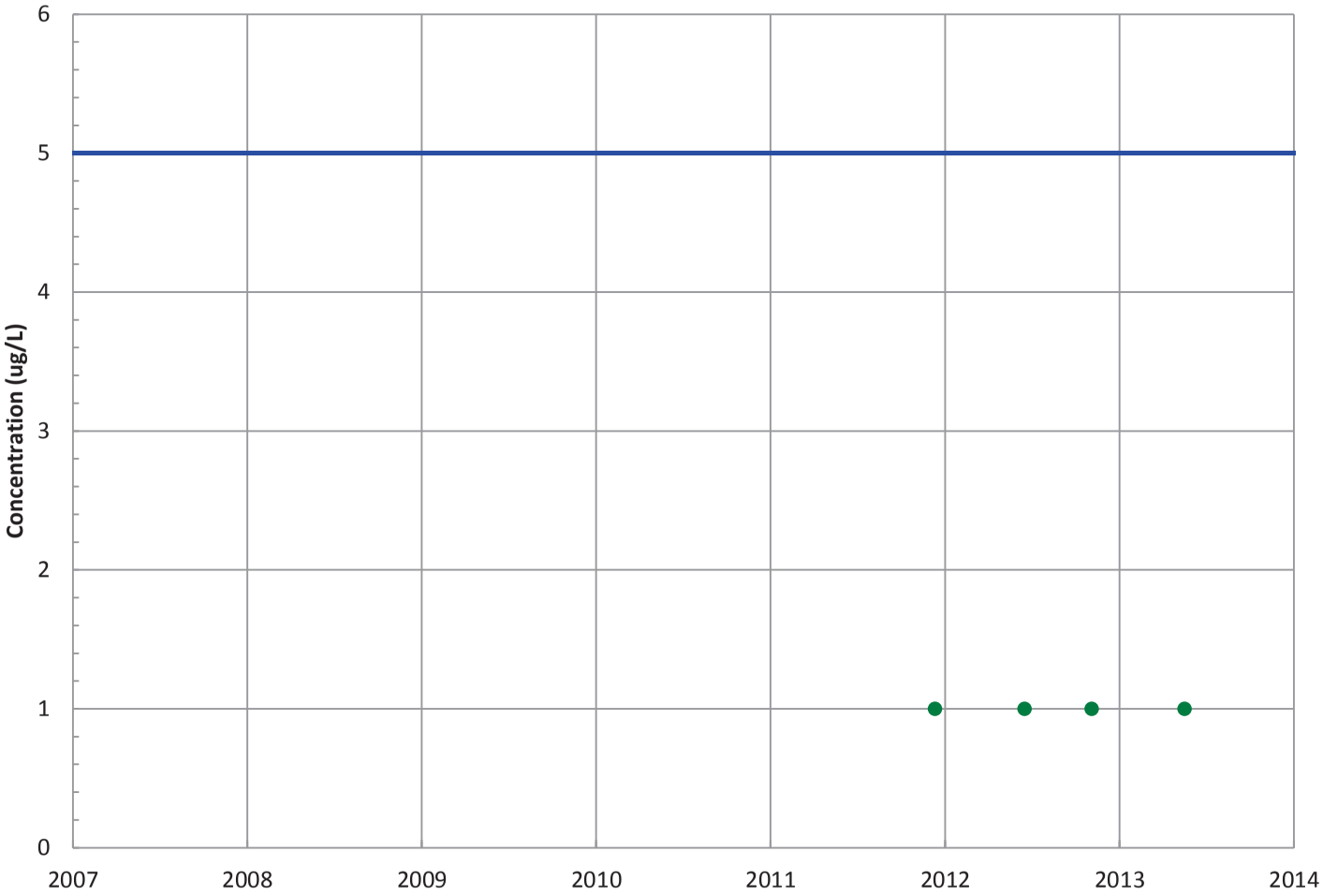
Well Location



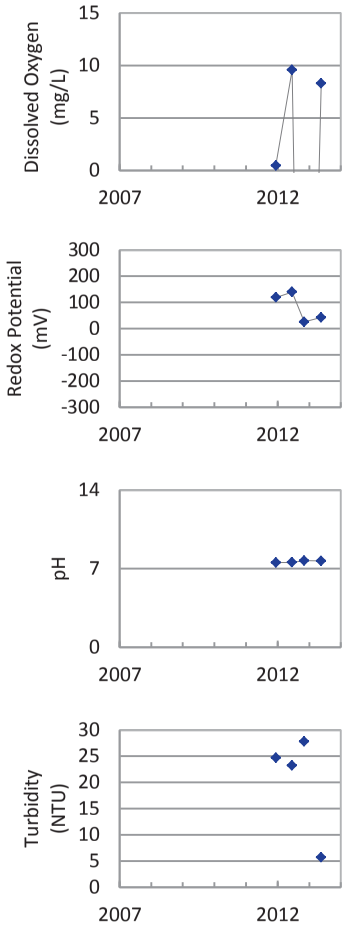
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/15/2011 to 5/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1133A
Trichloroethene Trend in Perched Aquifer



Field Parameters



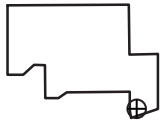
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

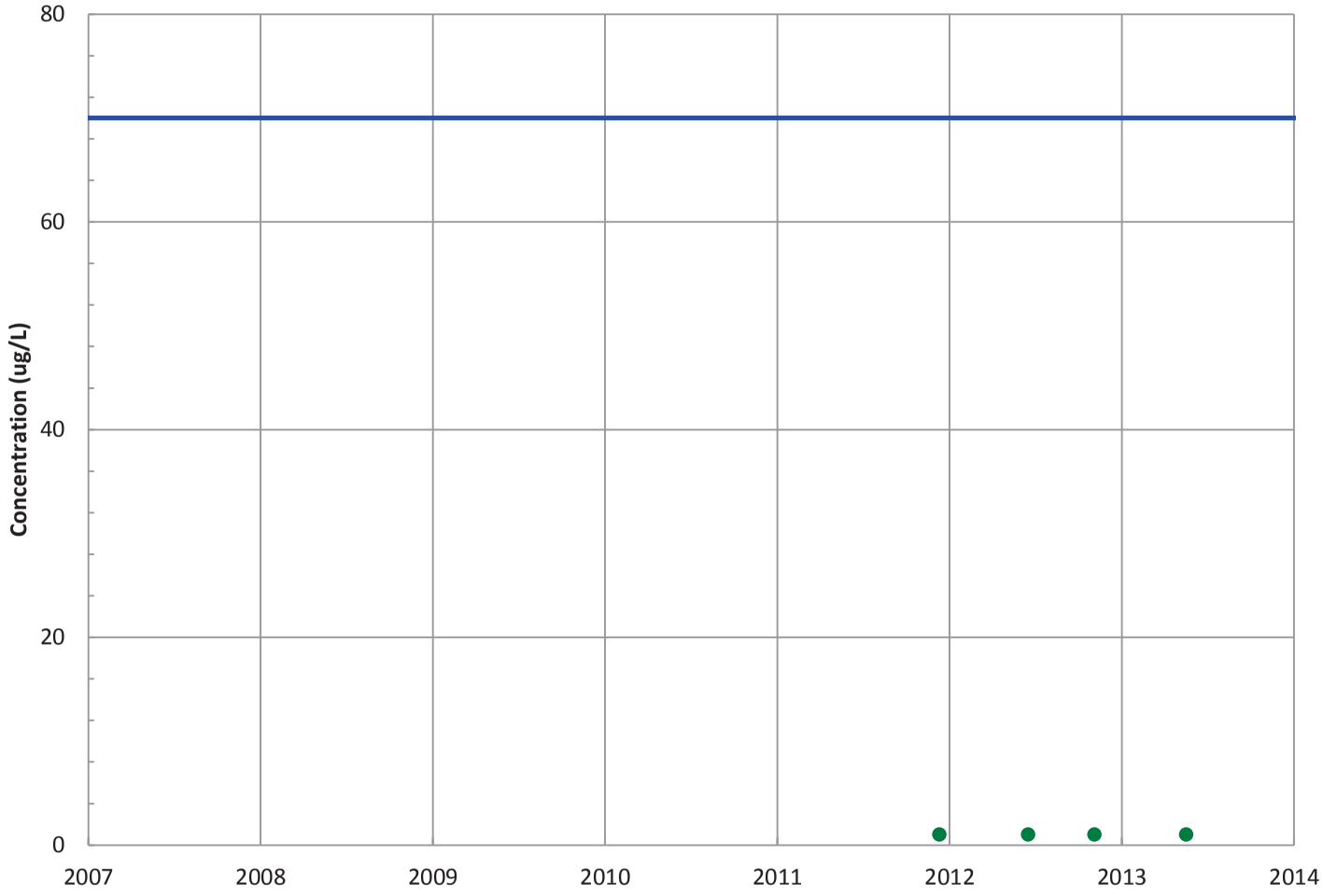
Well Location



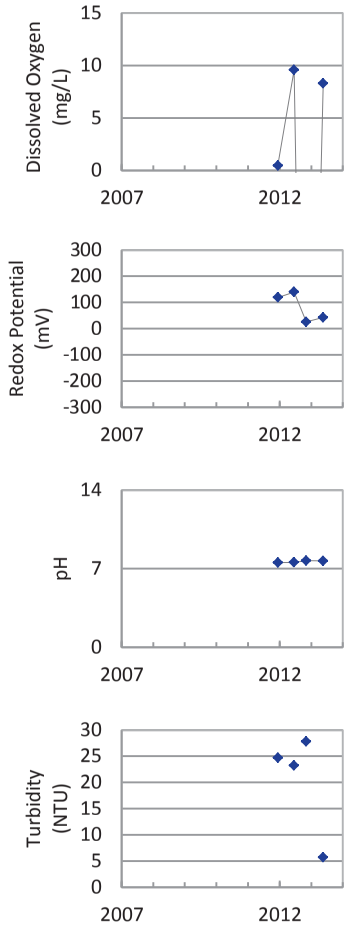
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/15/2011 to 5/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1133A
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



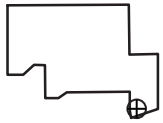
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

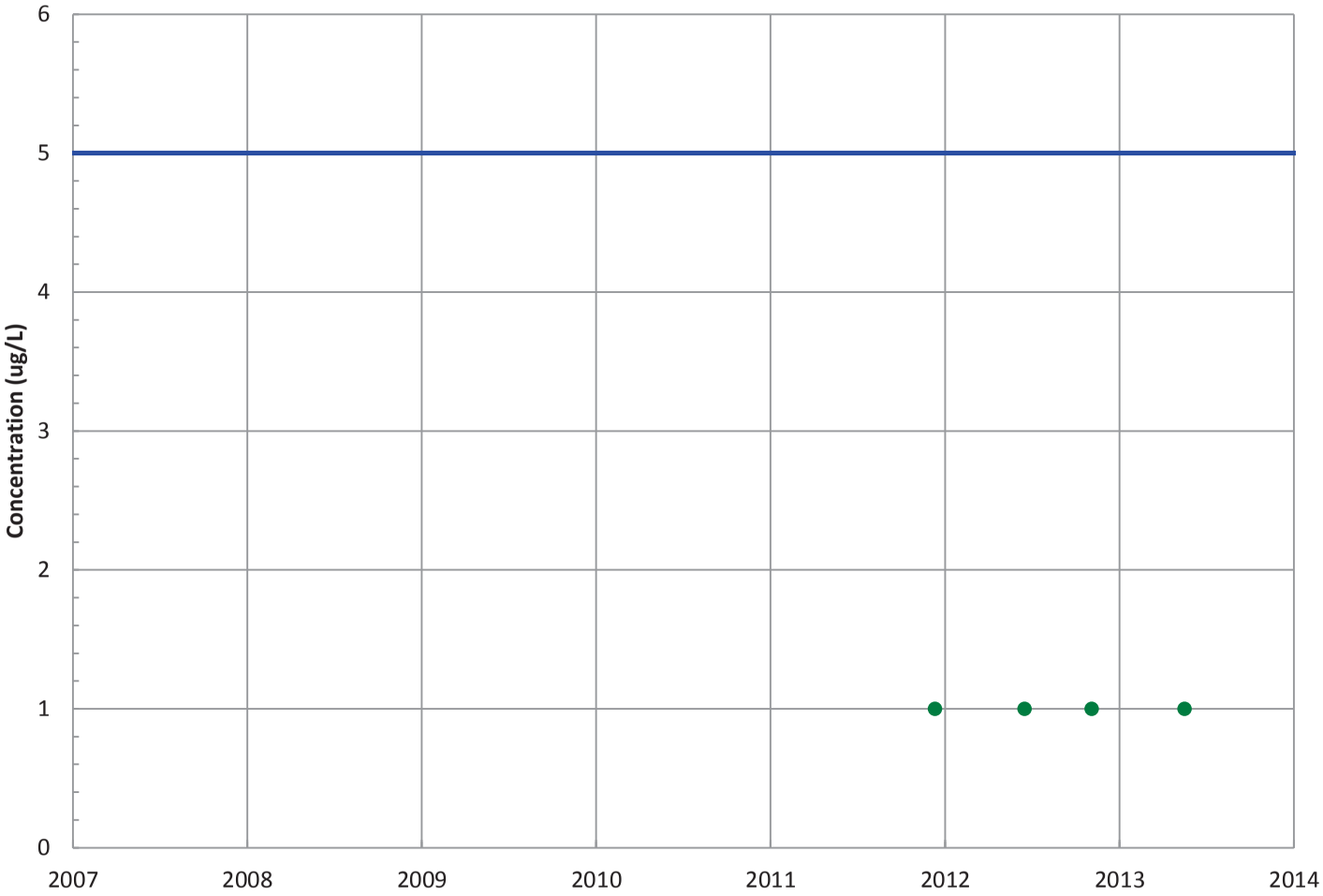
Well Location



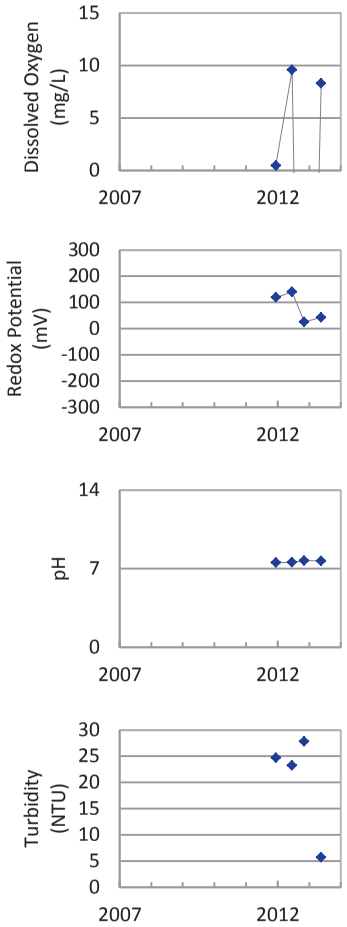
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/15/2011 to 5/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1133A
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



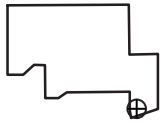
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

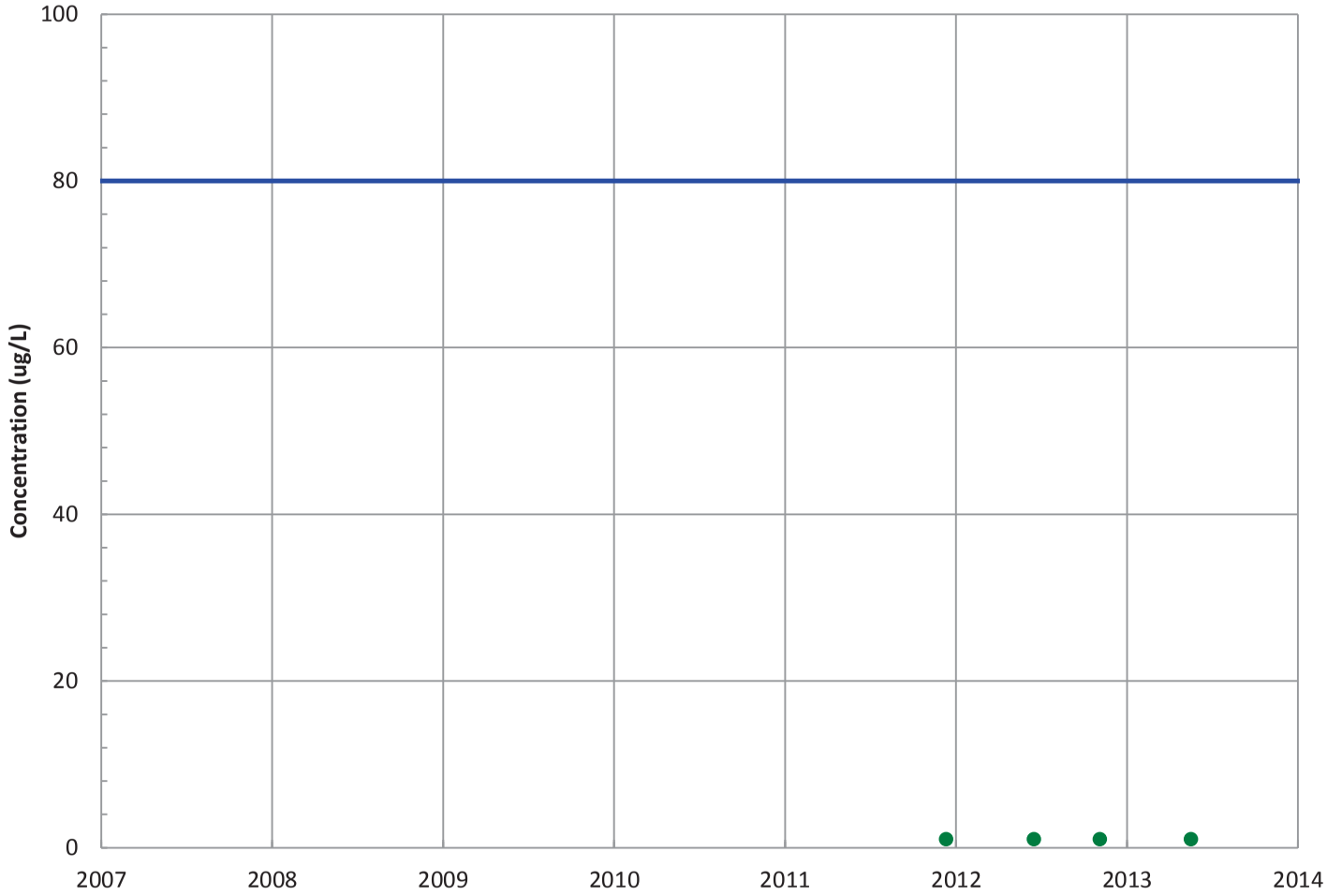
Well Location



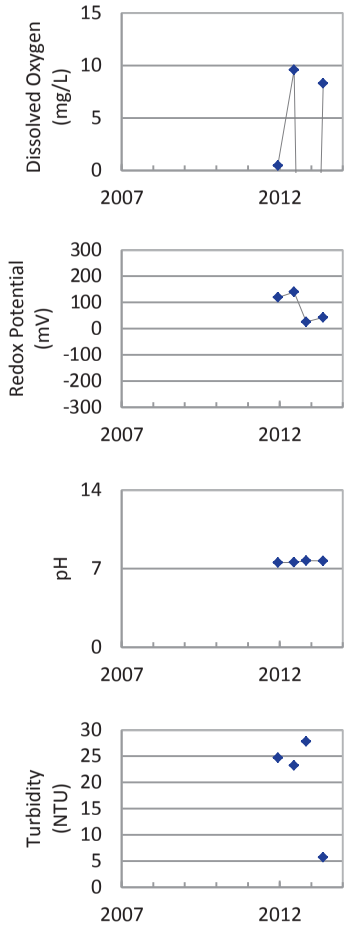
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/15/2011 to 5/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1133A
Chloroform Trend in Perched Aquifer



Field Parameters



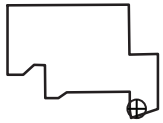
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

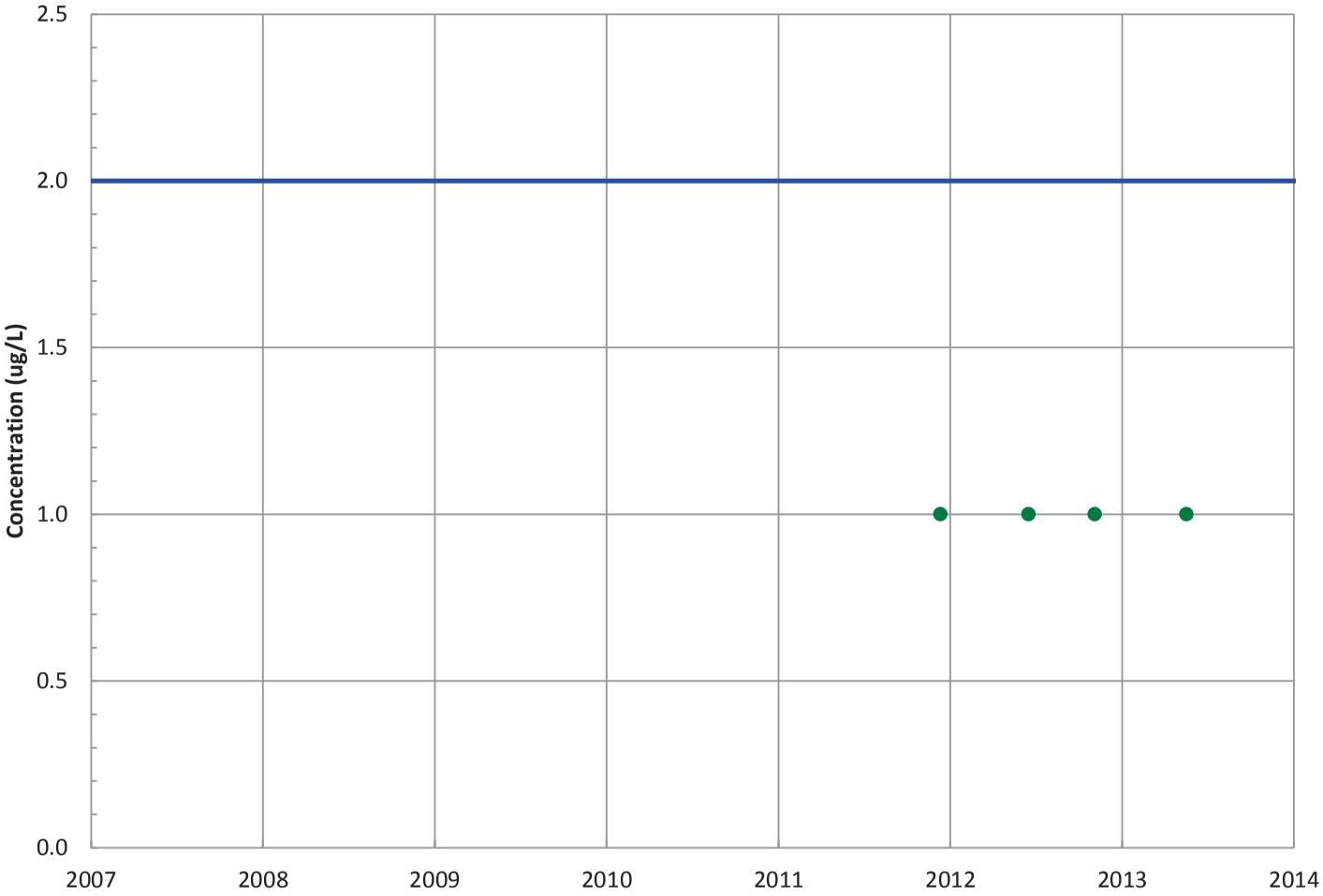
Well Location



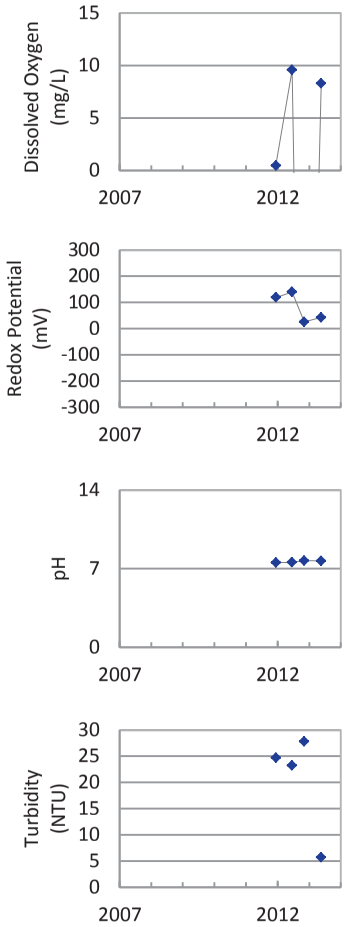
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/15/2011 to 5/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1133A
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



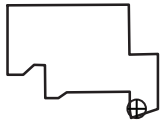
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

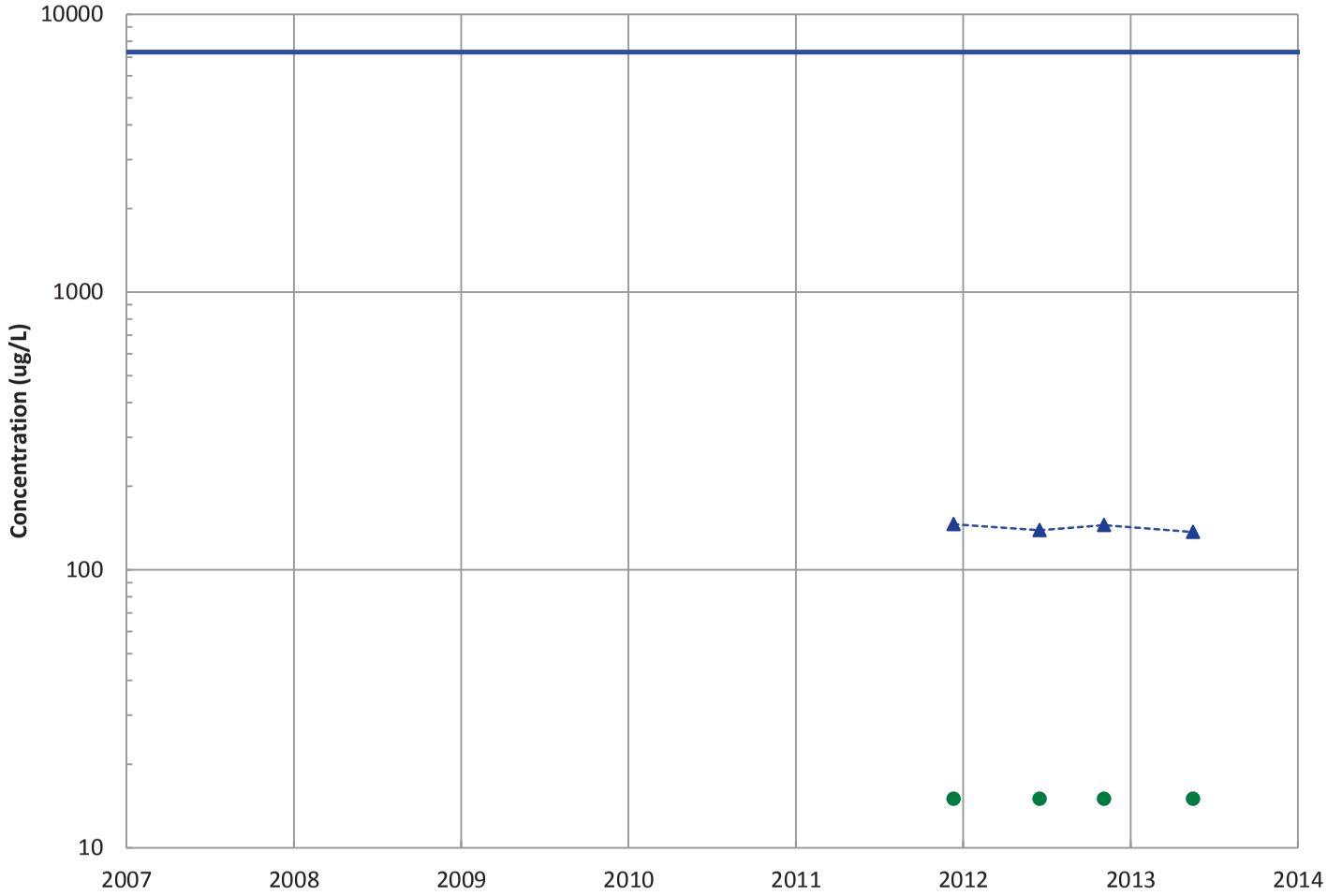
Well Location



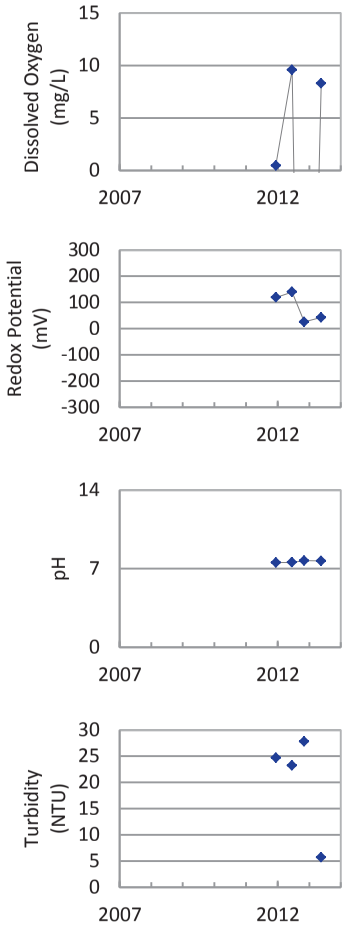
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/15/2011 to 5/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1133A
Boron Trend in Perched Aquifer



Field Parameters



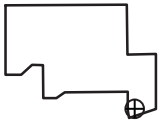
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

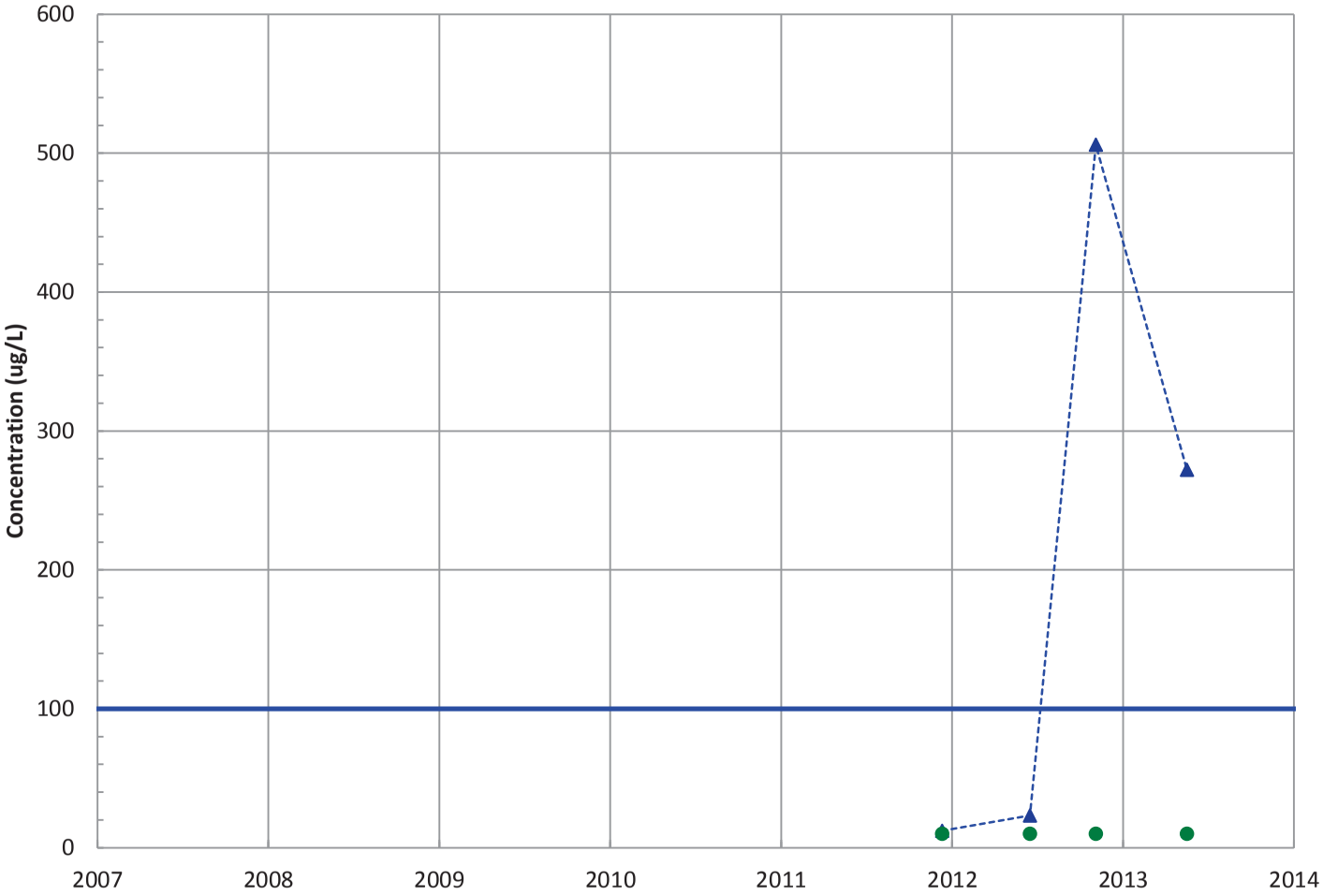
Well Location



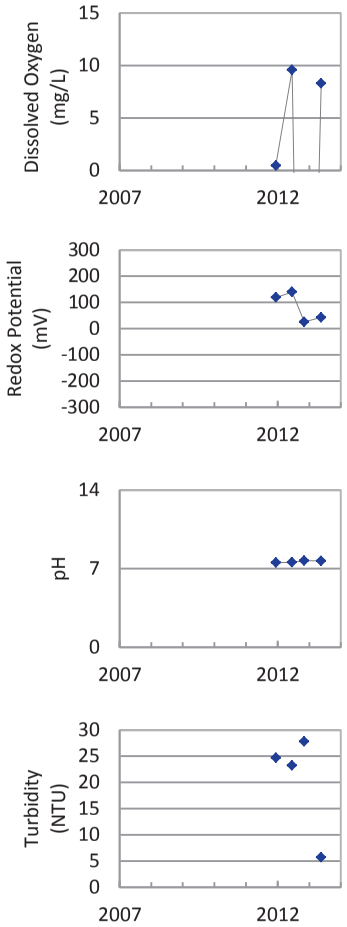
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/15/2011 to 5/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1133A
Chromium, Total Trend in Perched Aquifer



Field Parameters



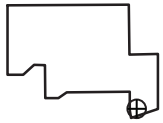
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Probably Increasing
2011 - 2013 Data: Probably Increasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

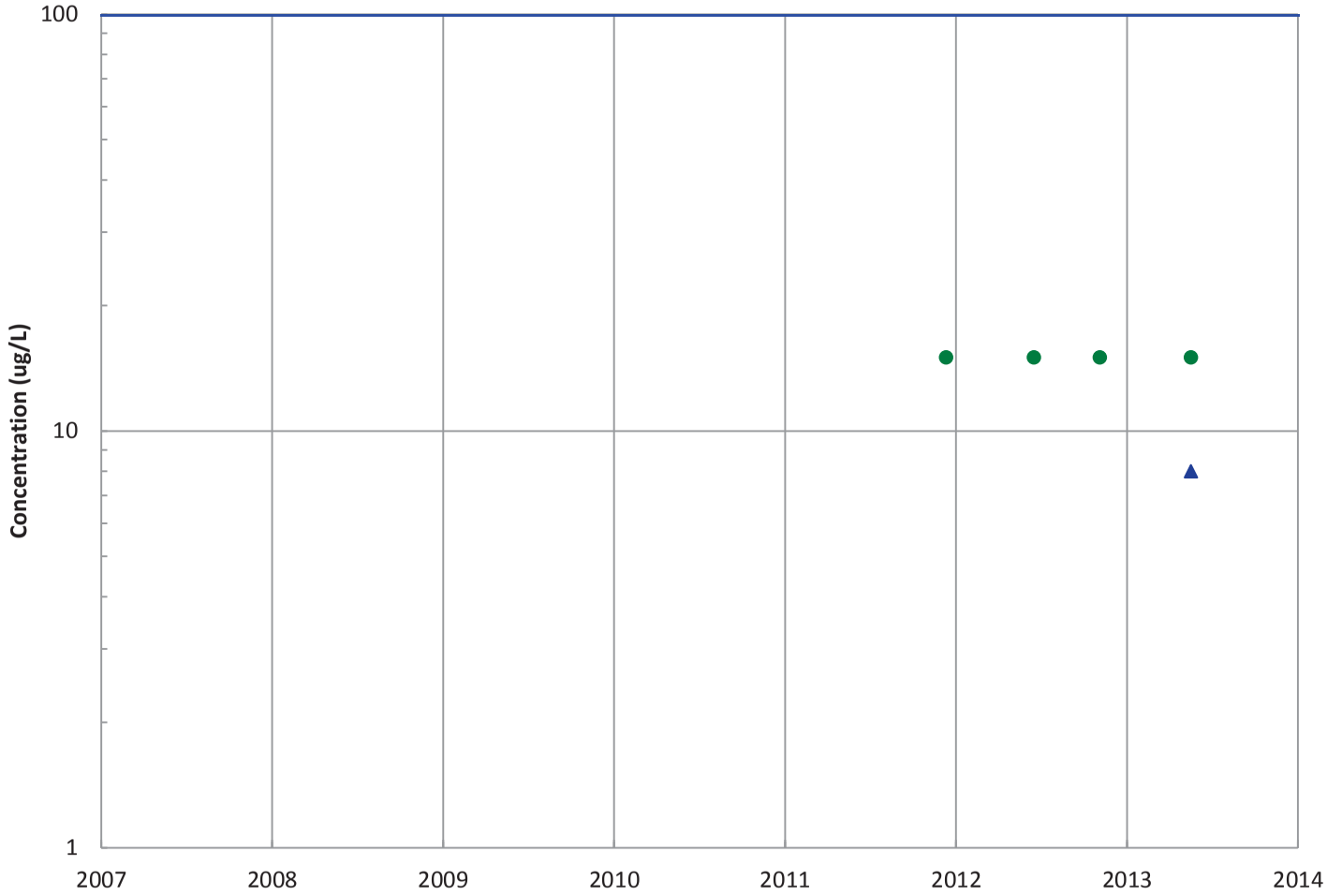
Well Location



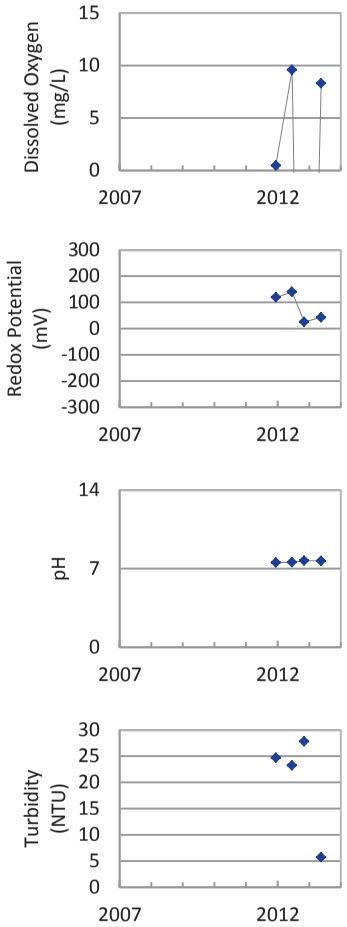
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/15/2011 to 5/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1133A
Chromium, Hexavalent Trend in Perched Aquifer



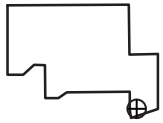
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

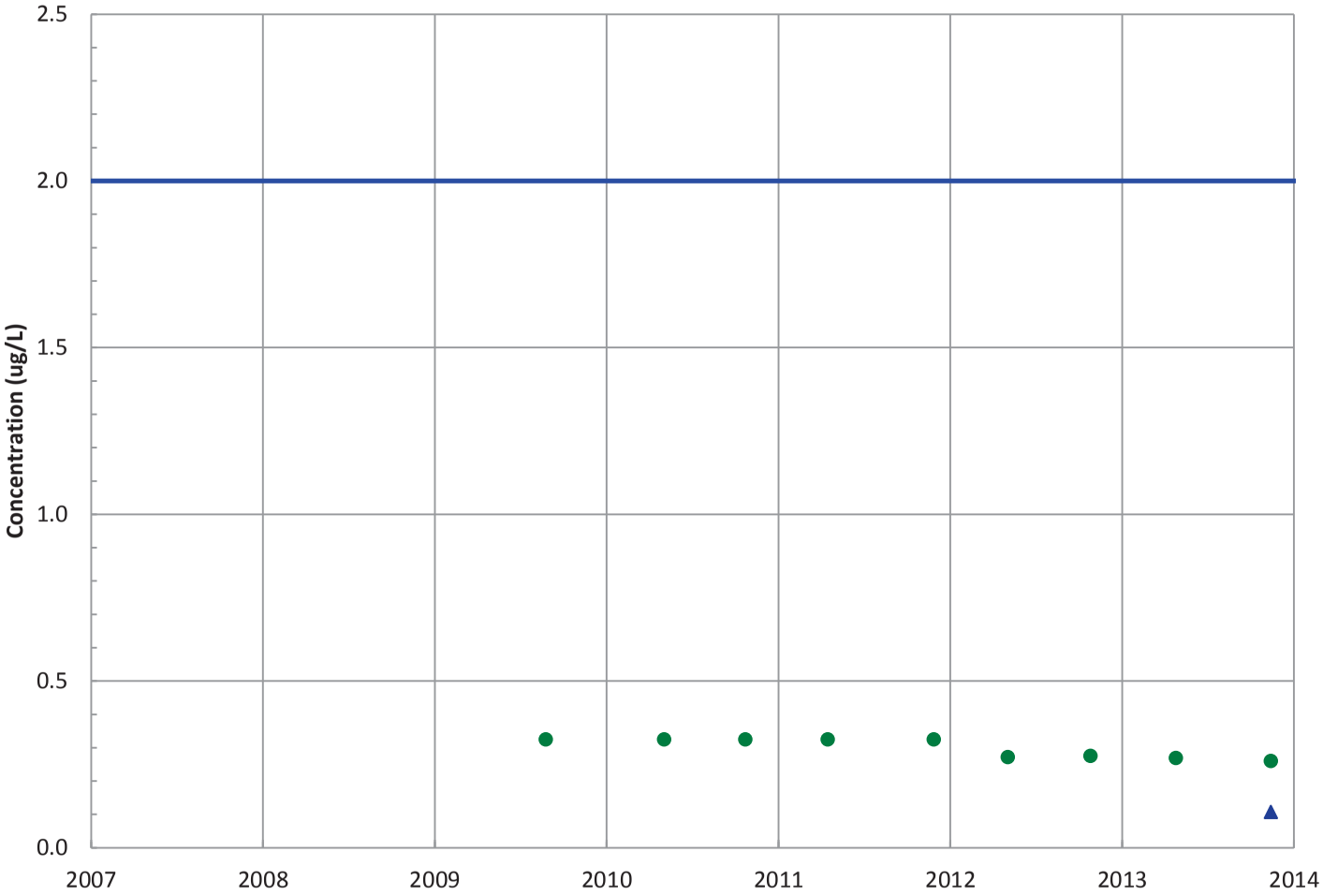
Well Location



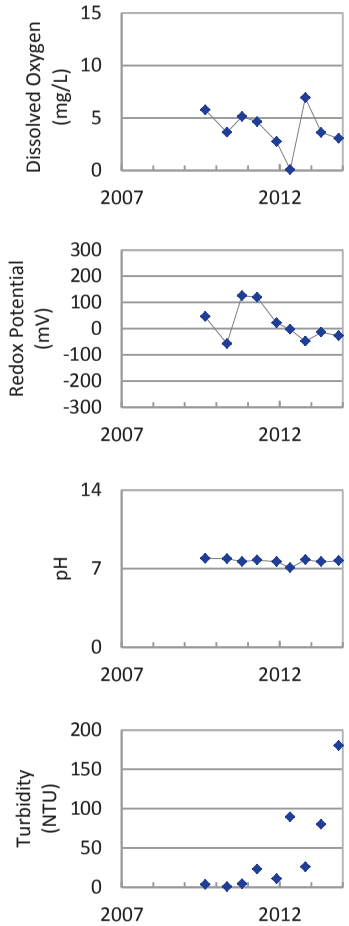
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/15/2011 to 5/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1134
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: N/A (<4 Detections in

MAROS Linear Regression Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: N/A (<4 Detections in

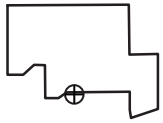
▲ Measured Value

● Sample Detection Limit

------- Concentration Trend

——— Groundwater Protection Standard

Well Location



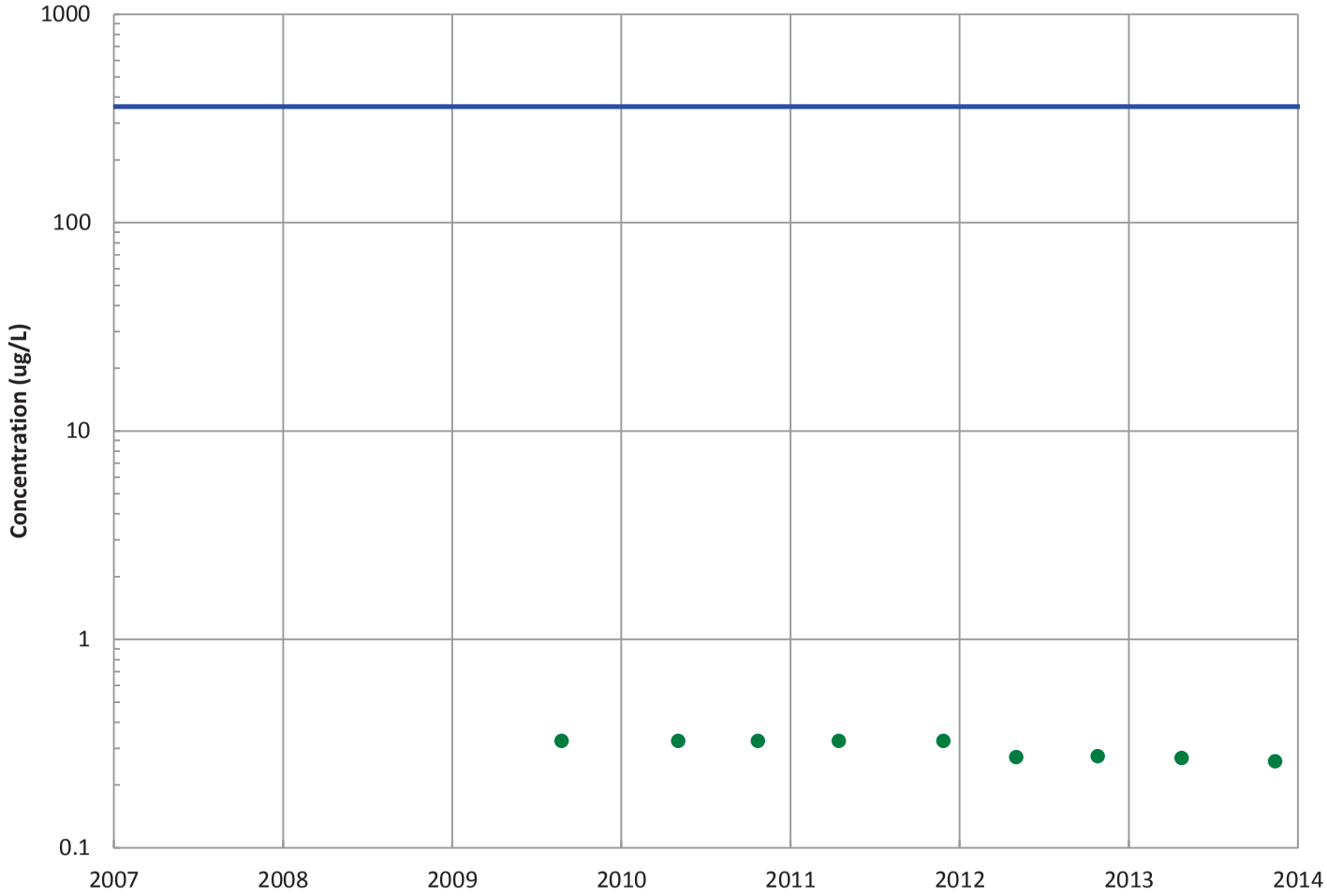
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 8/27/2009 to 11/18/2013

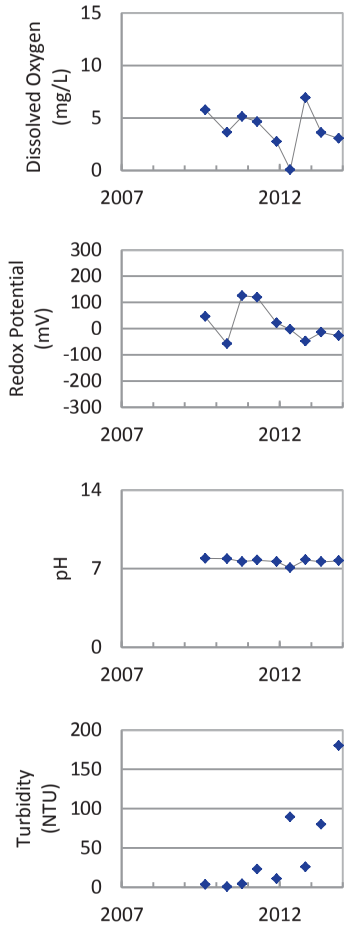
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1134
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



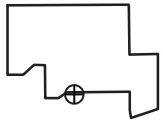
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

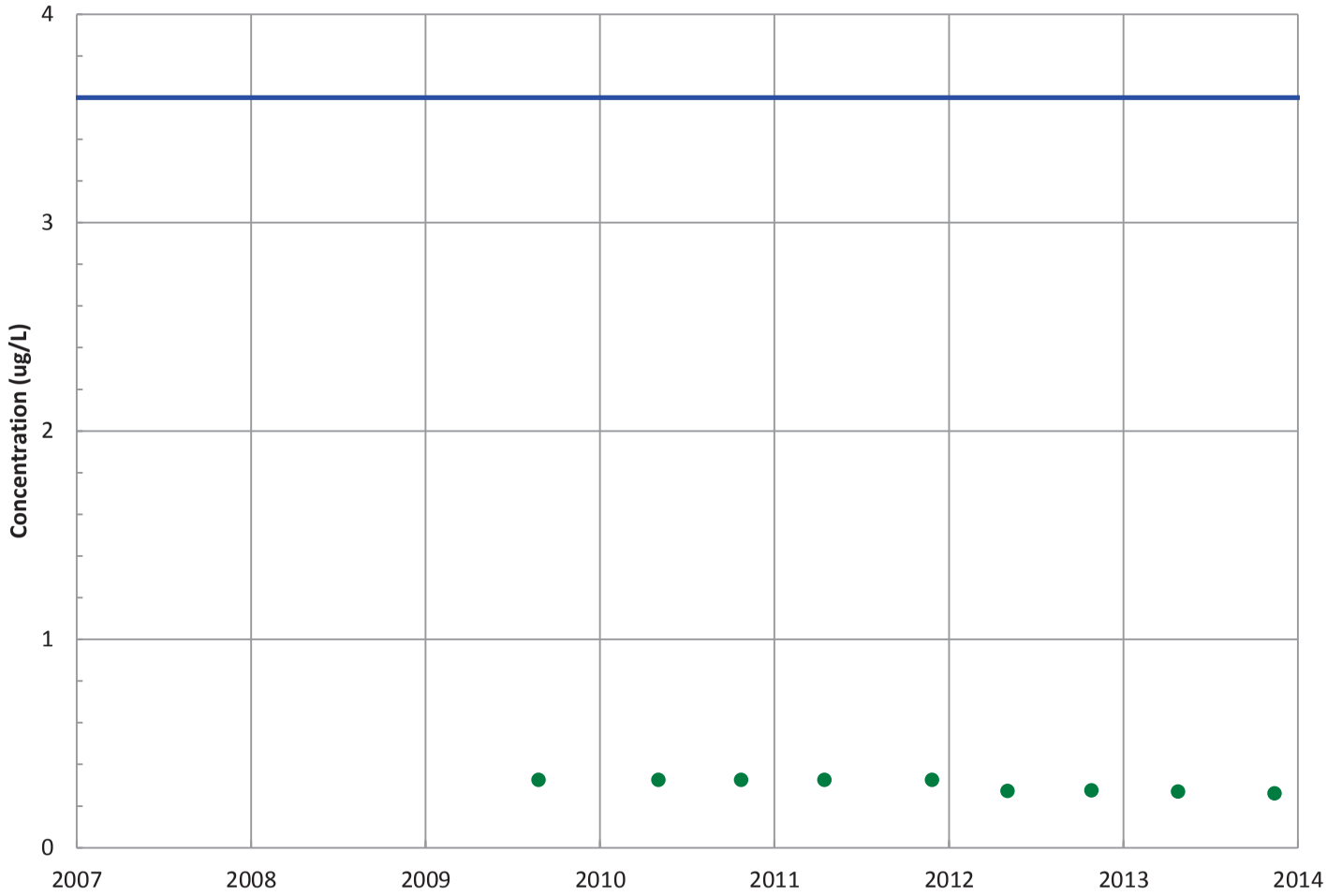
Well Location



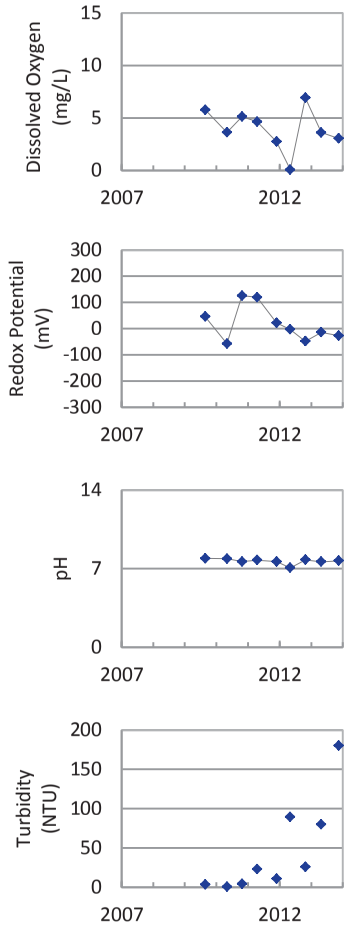
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/27/2009 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1134
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



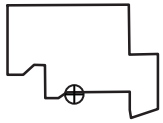
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

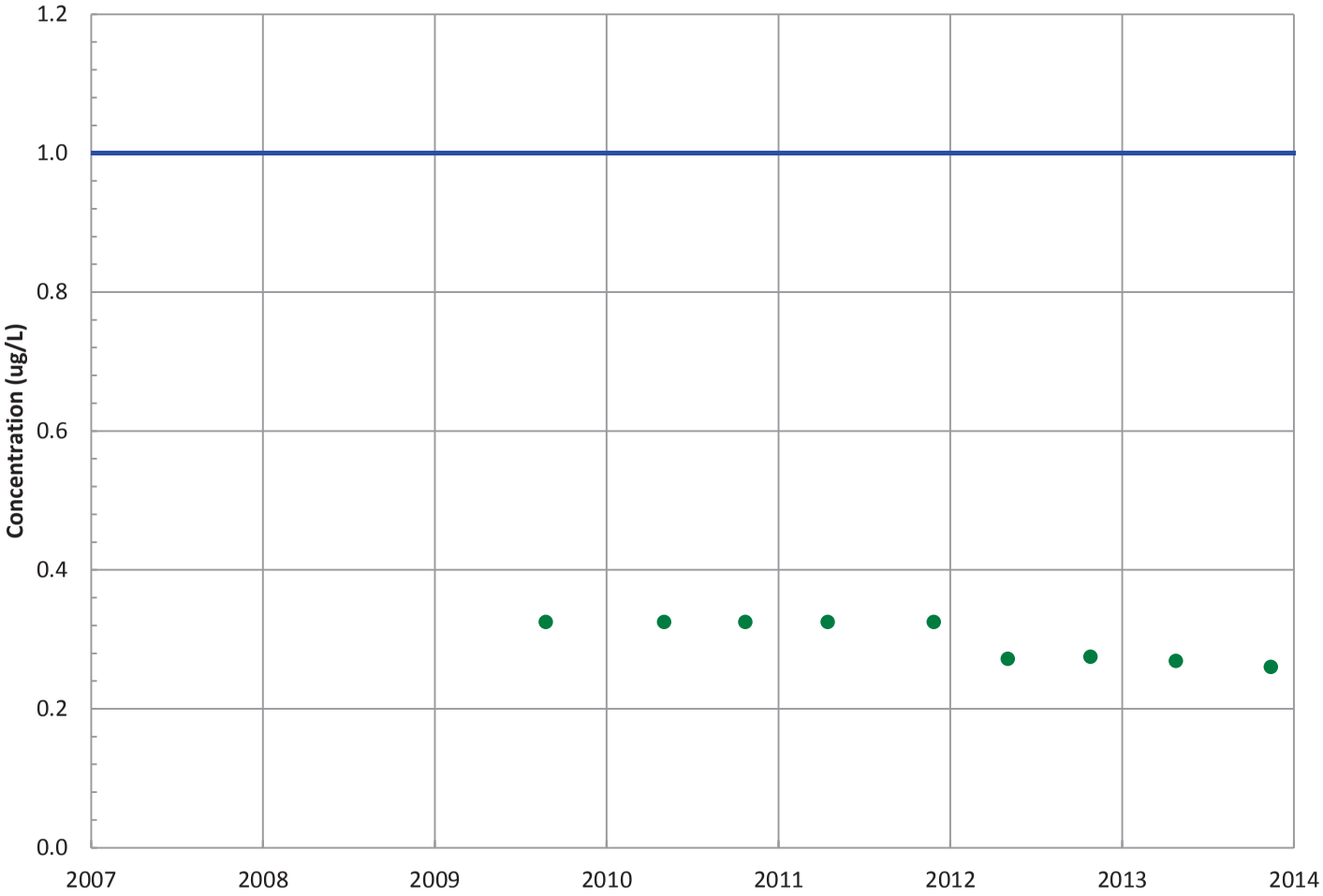
Well Location



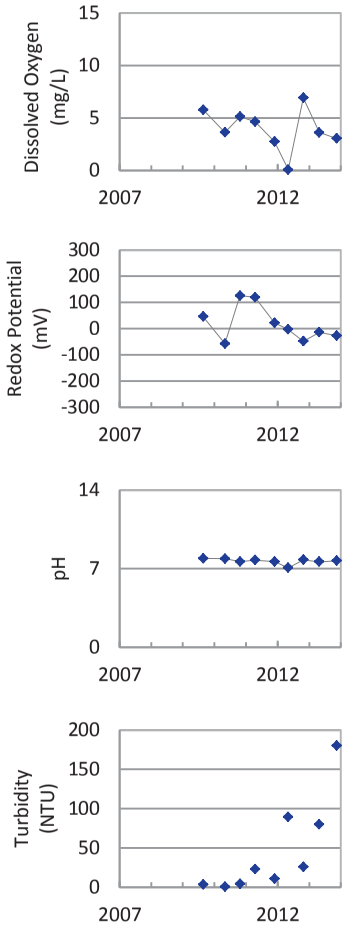
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/27/2009 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1134
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



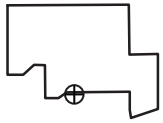
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

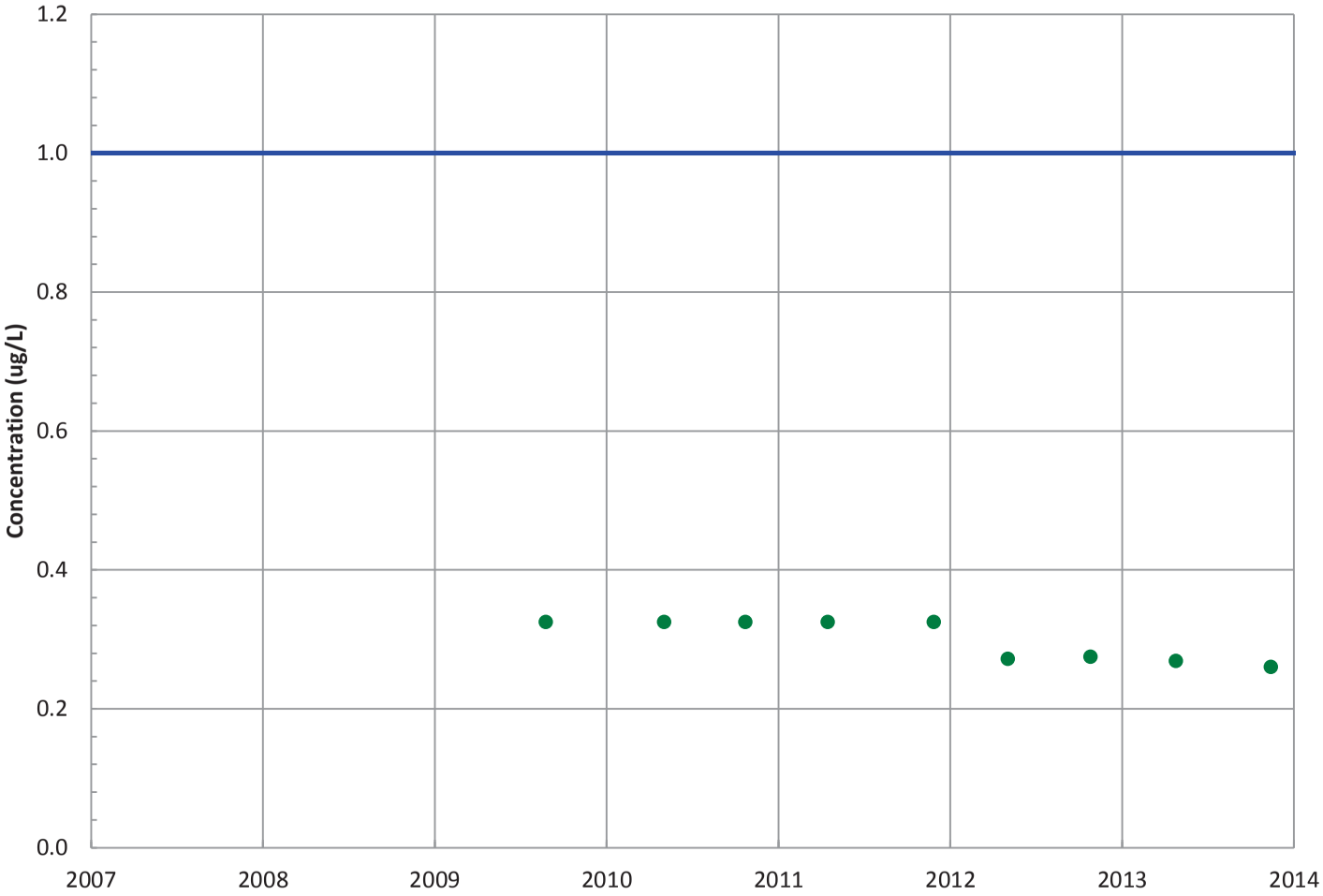
Well Location



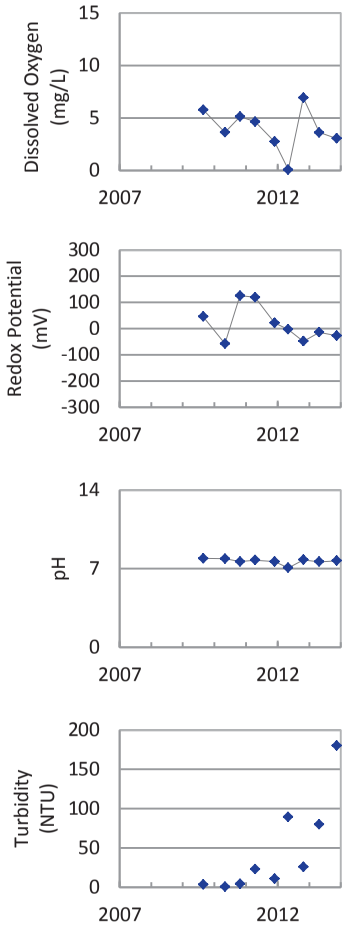
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/27/2009 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1134
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



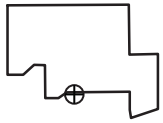
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

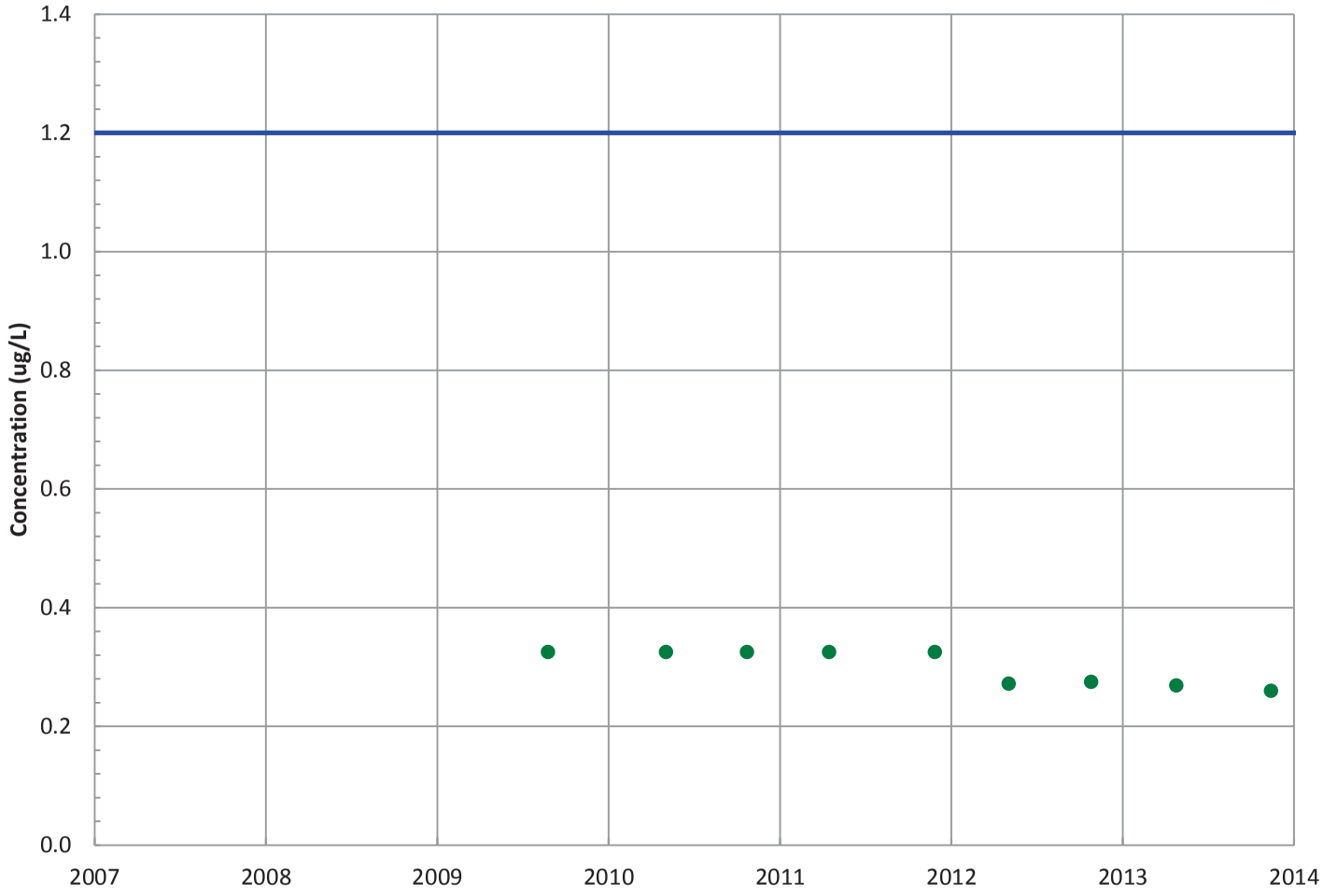
Well Location



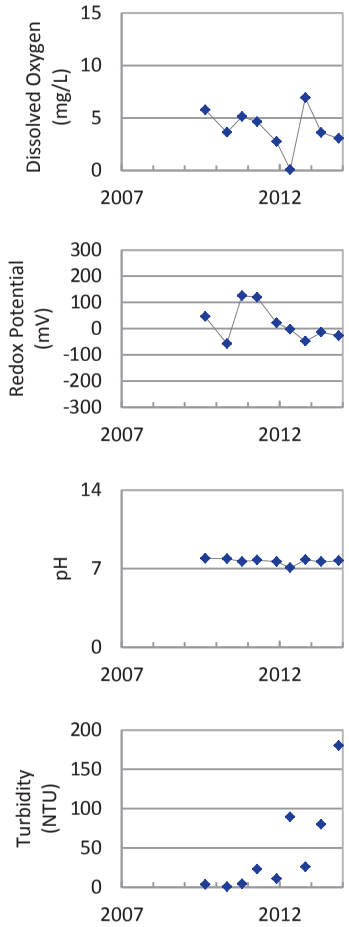
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/27/2009 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1134
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



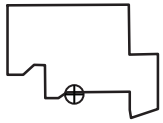
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

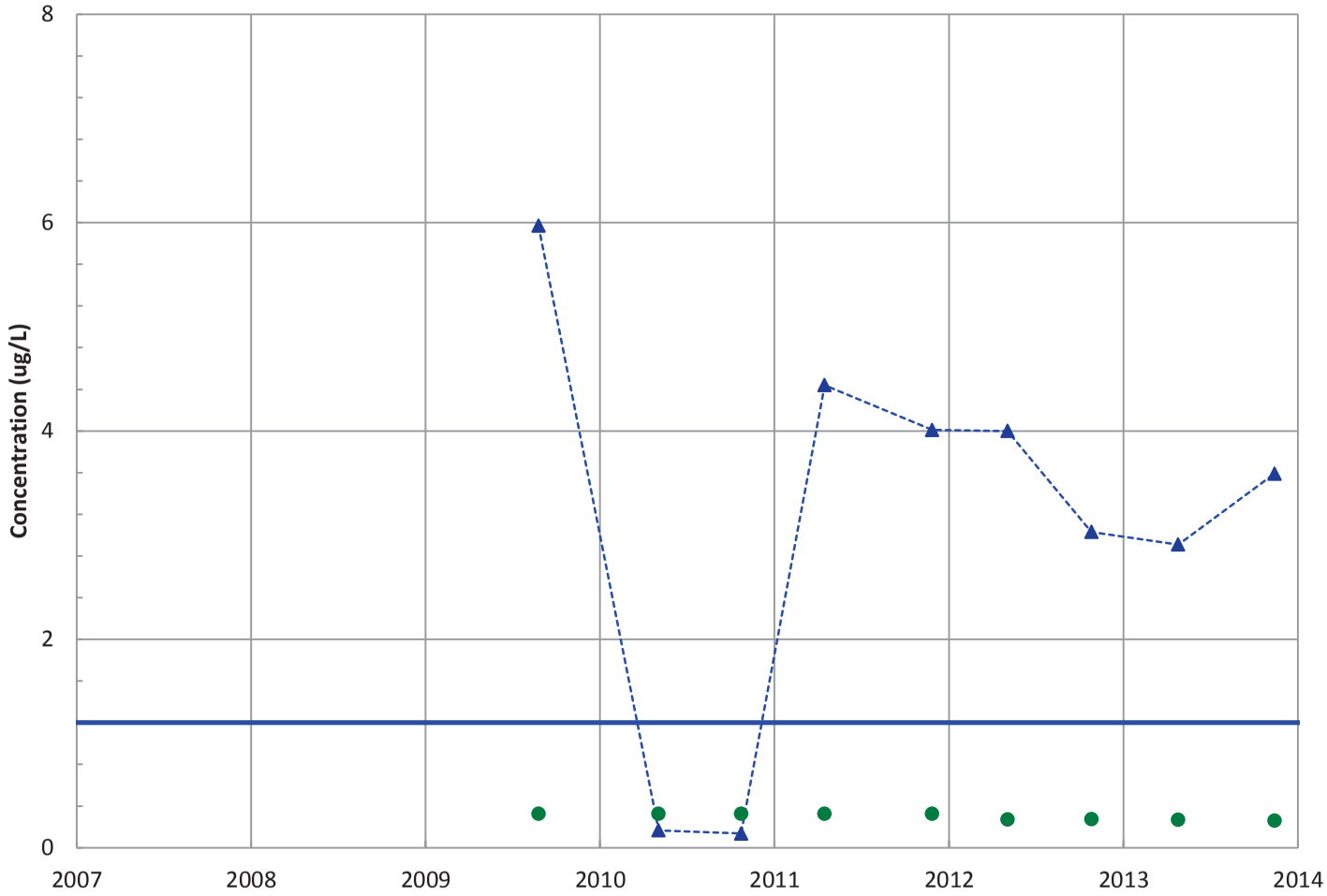
Well Location



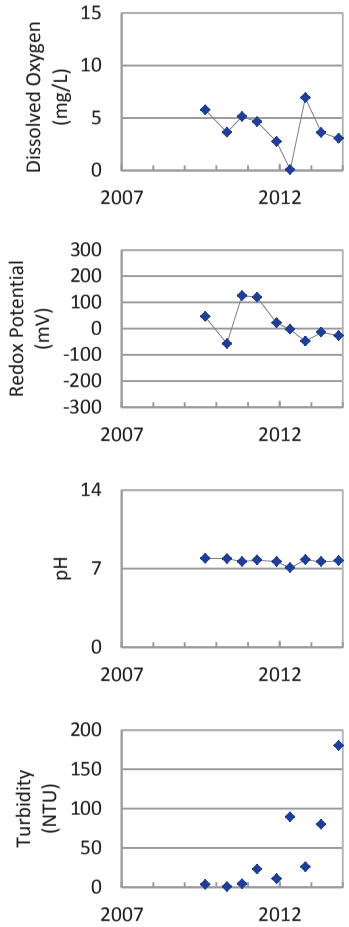
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/27/2009 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1134
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



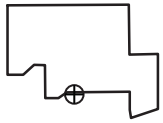
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

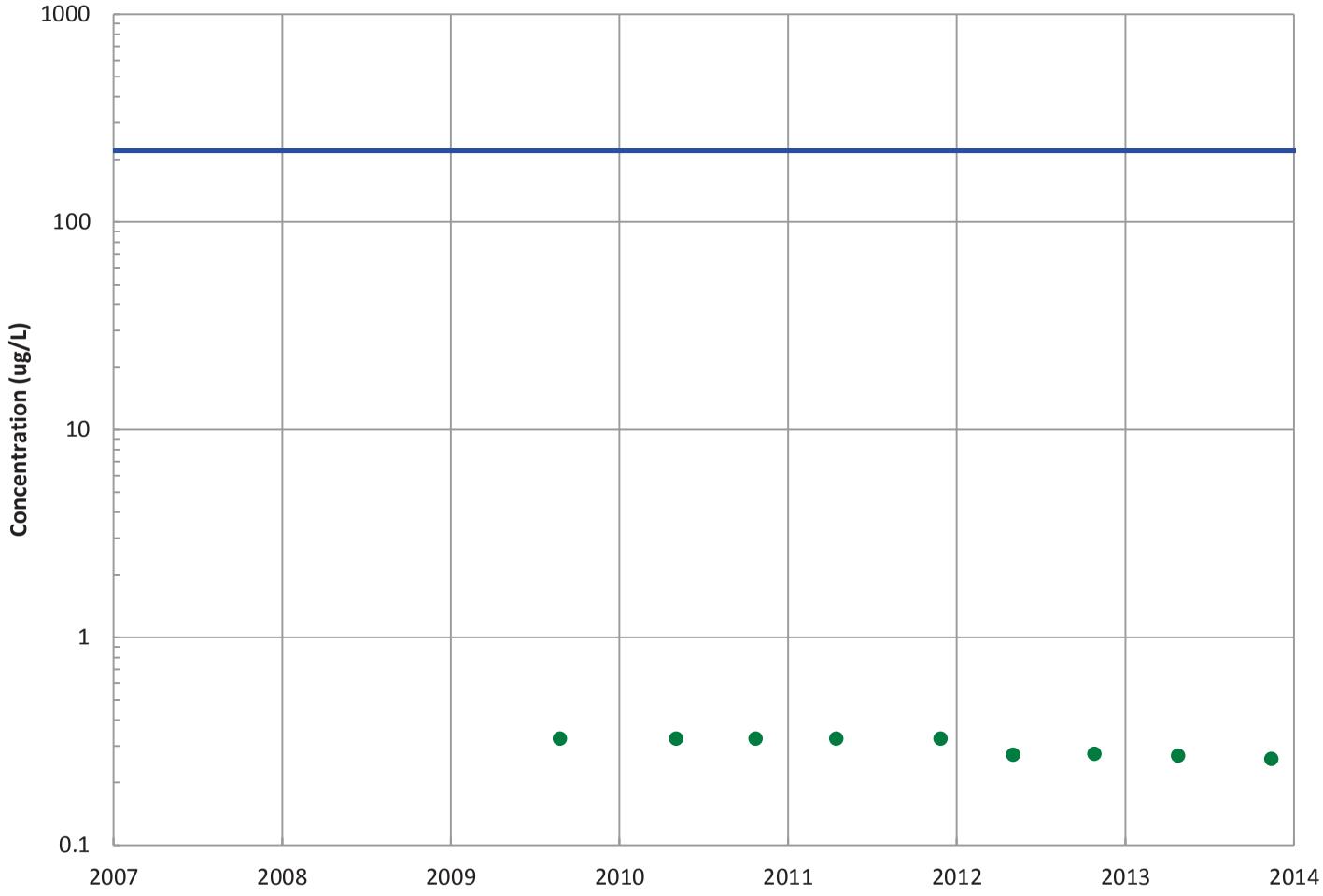
Well Location



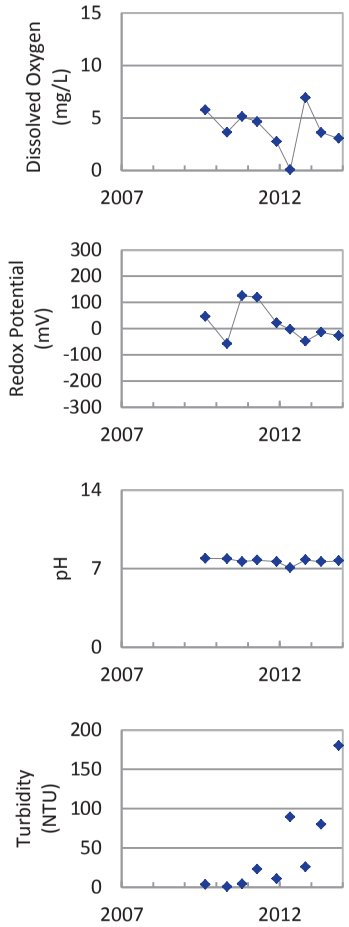
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/27/2009 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1134
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



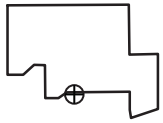
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

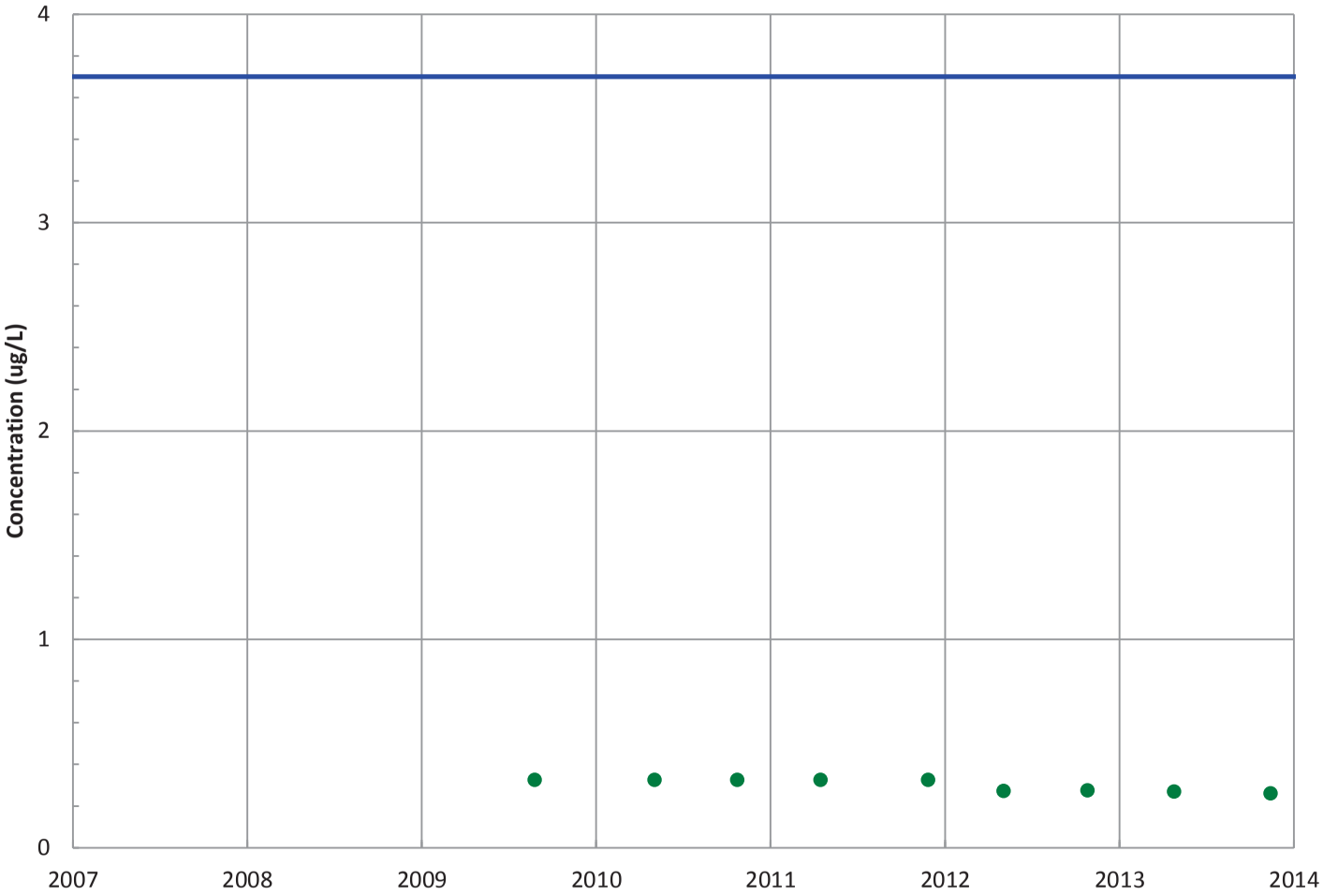
Well Location



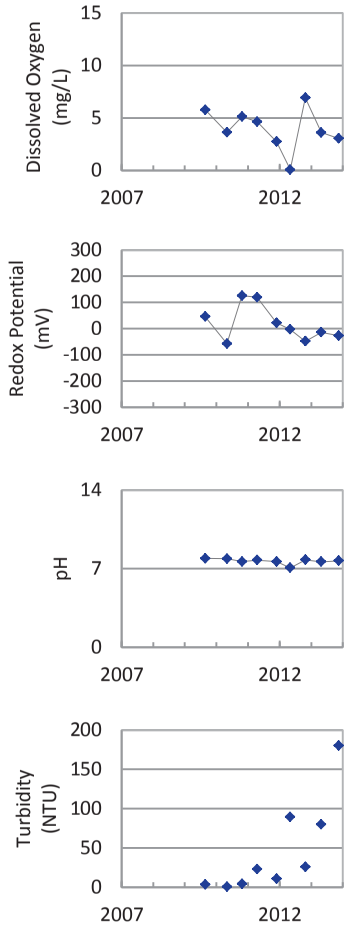
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/27/2009 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1134
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



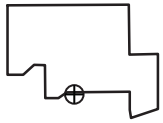
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

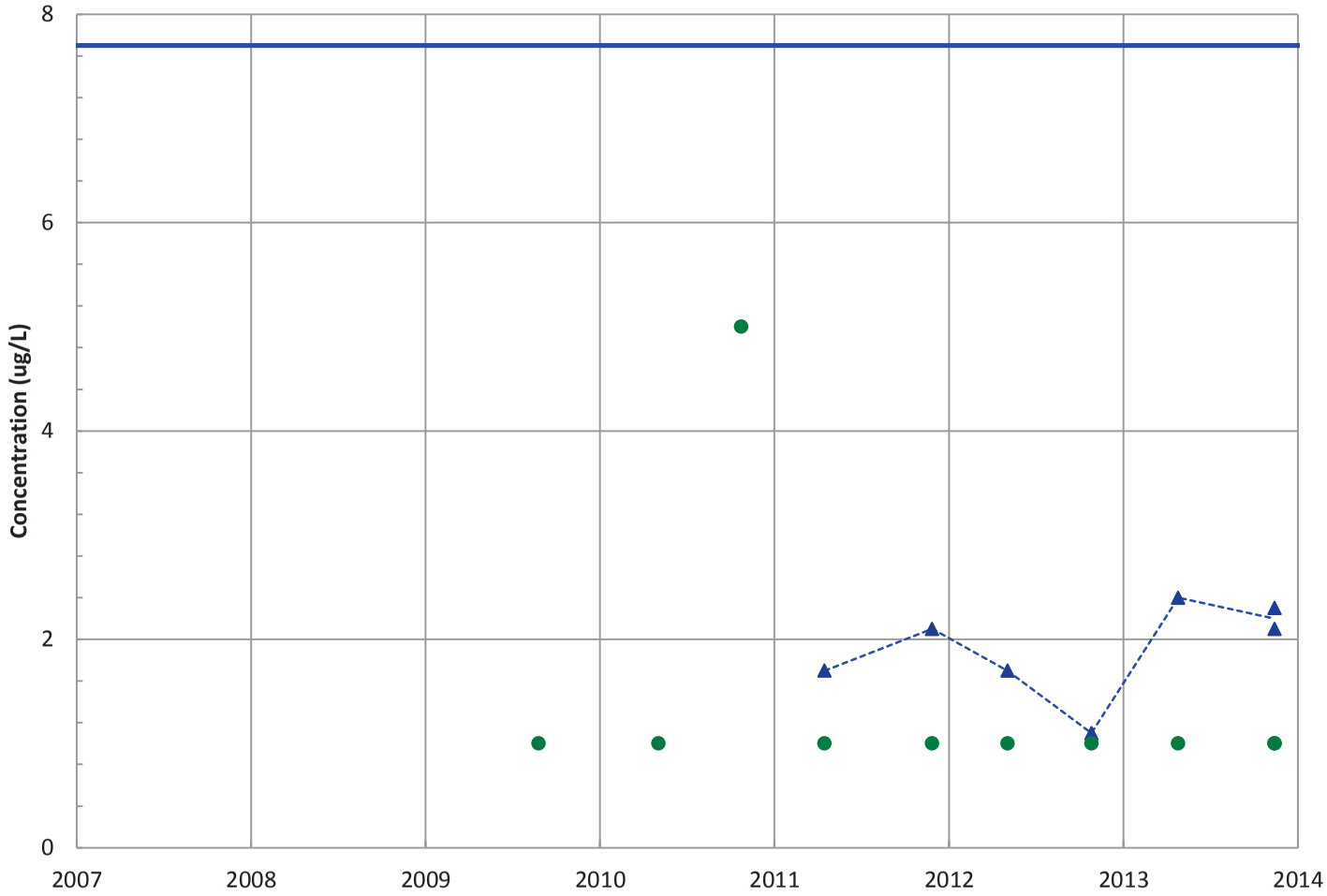
Well Location



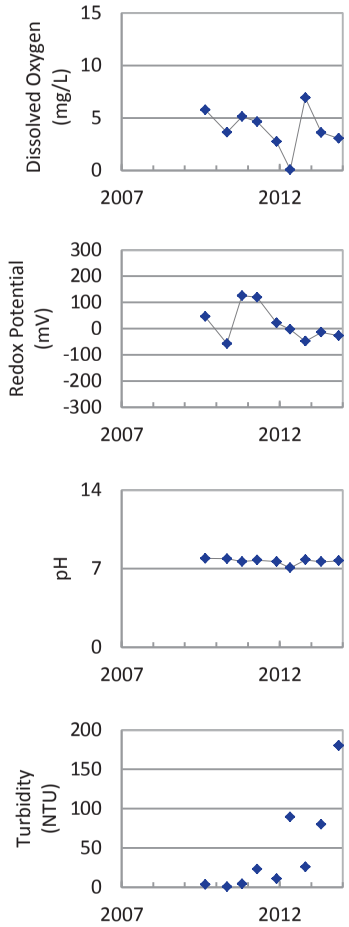
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/27/2009 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1134
1,4-Dioxane (p-Dioxane) Trend in Perched Aquifer



Field Parameters



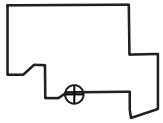
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

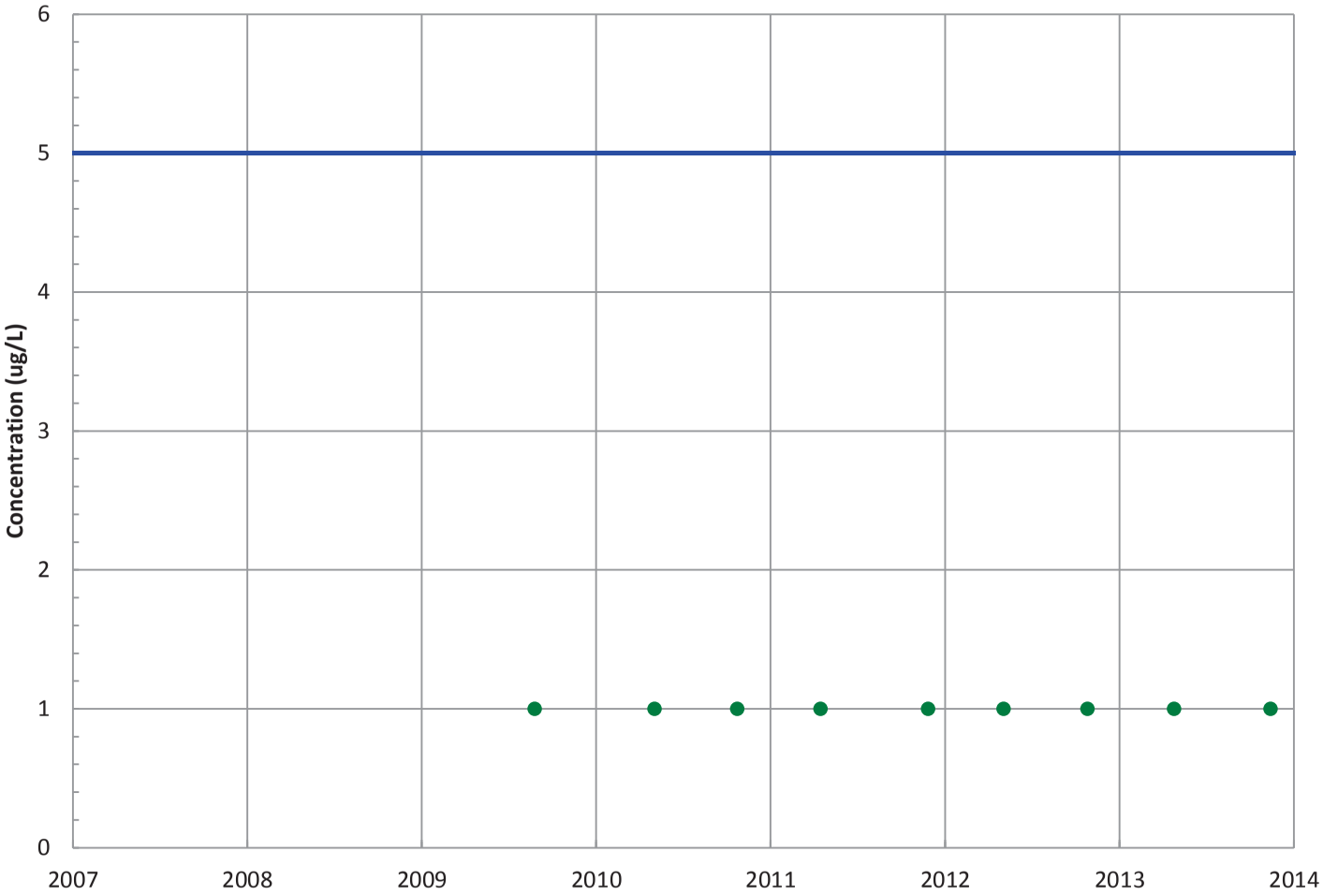
Well Location



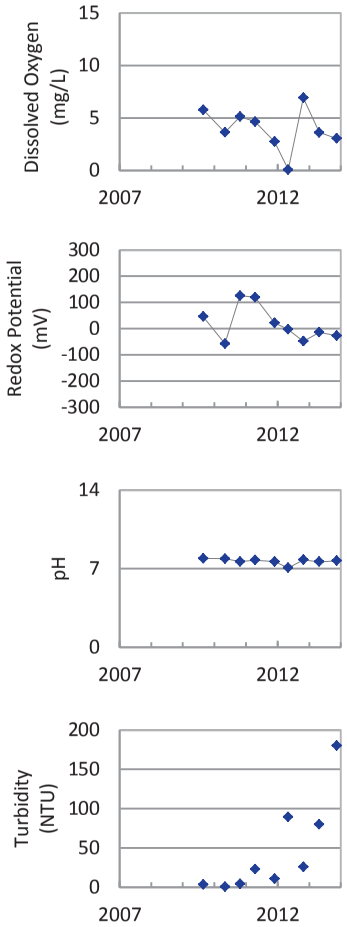
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/27/2009 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1134
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



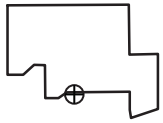
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

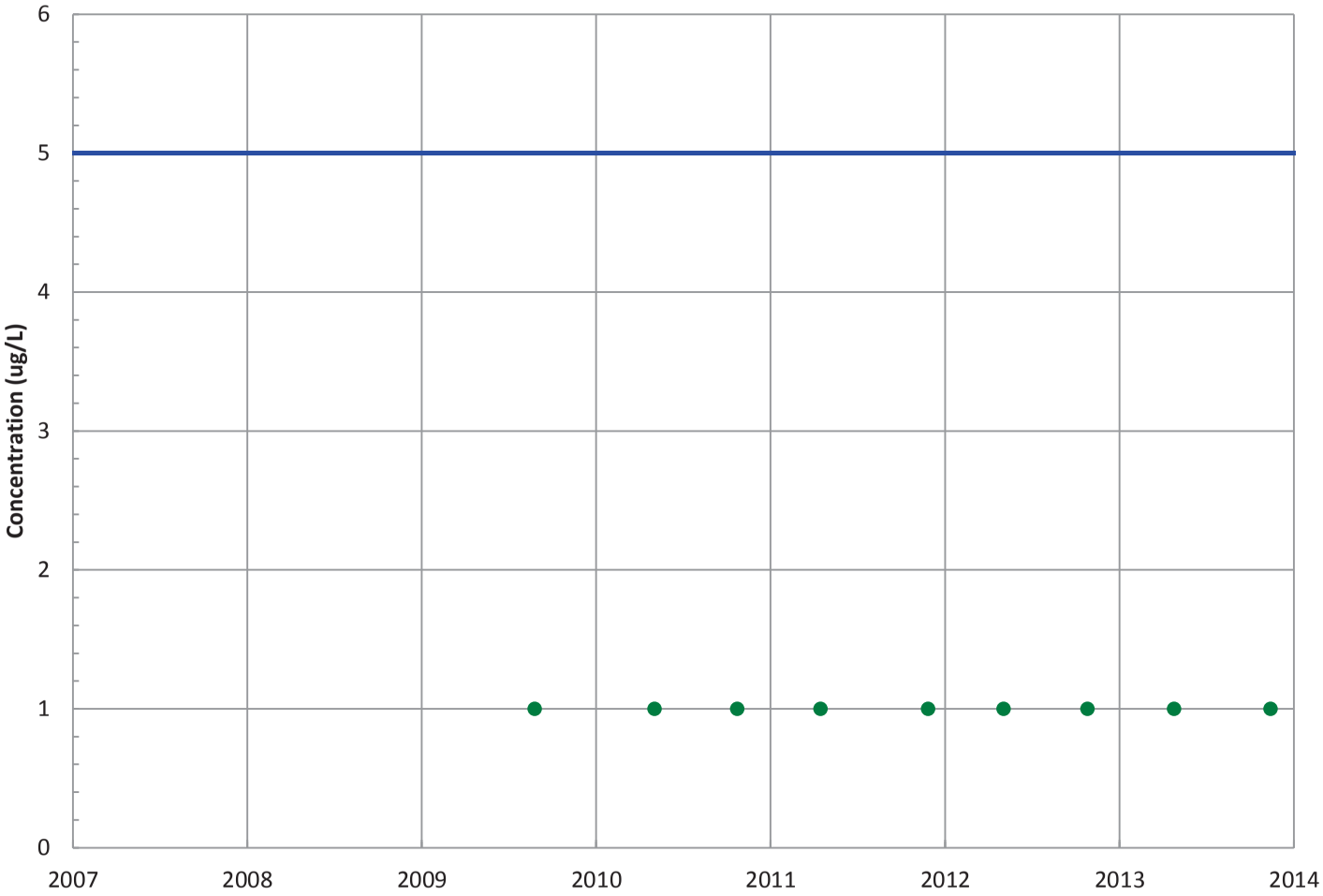
Well Location



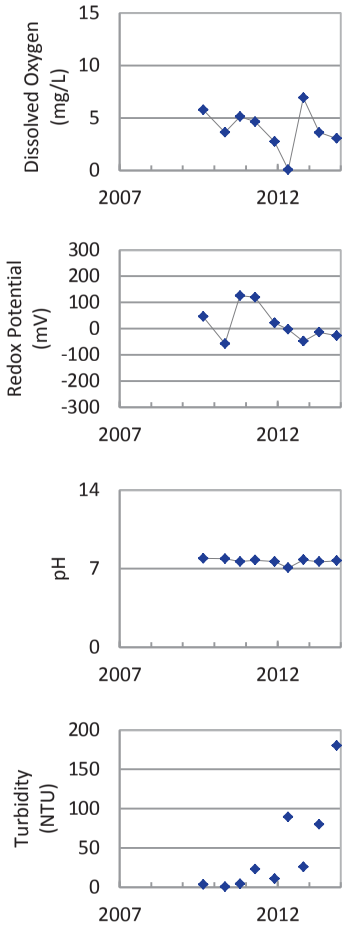
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/27/2009 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1134
Trichloroethene Trend in Perched Aquifer



Field Parameters



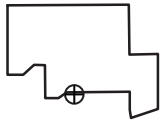
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

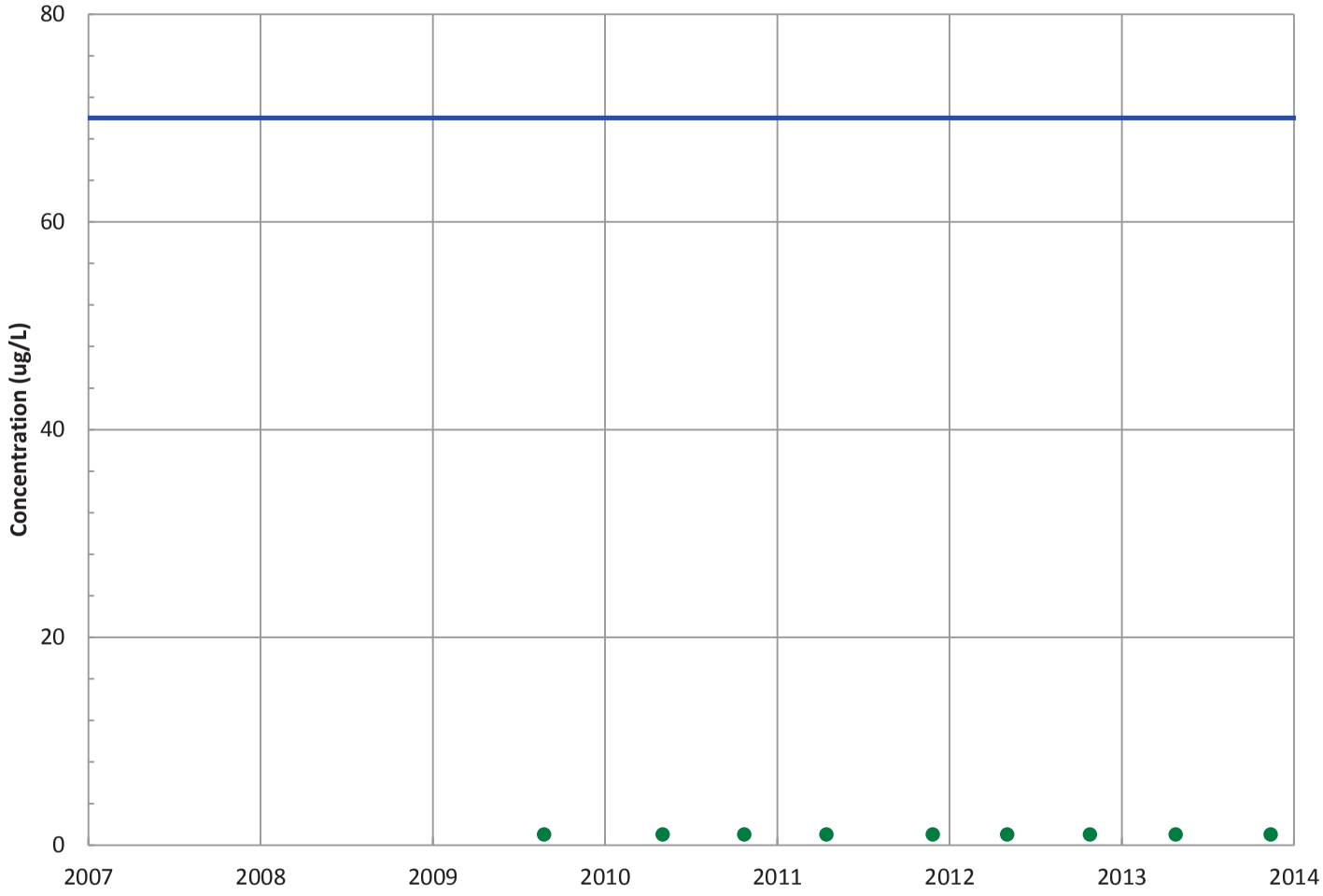
Well Location



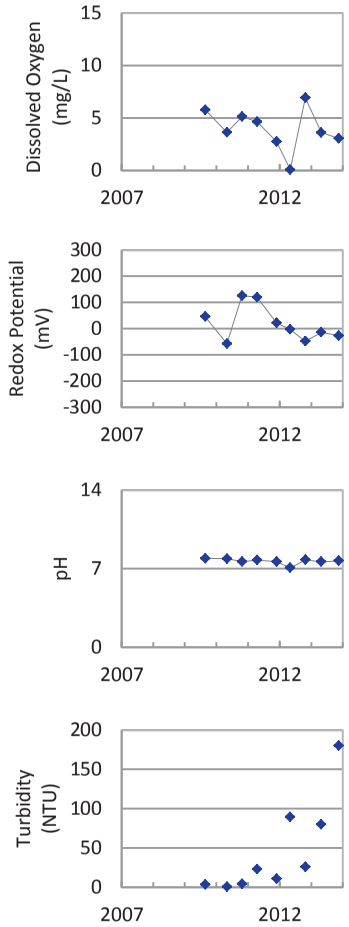
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/27/2009 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1134
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



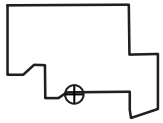
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

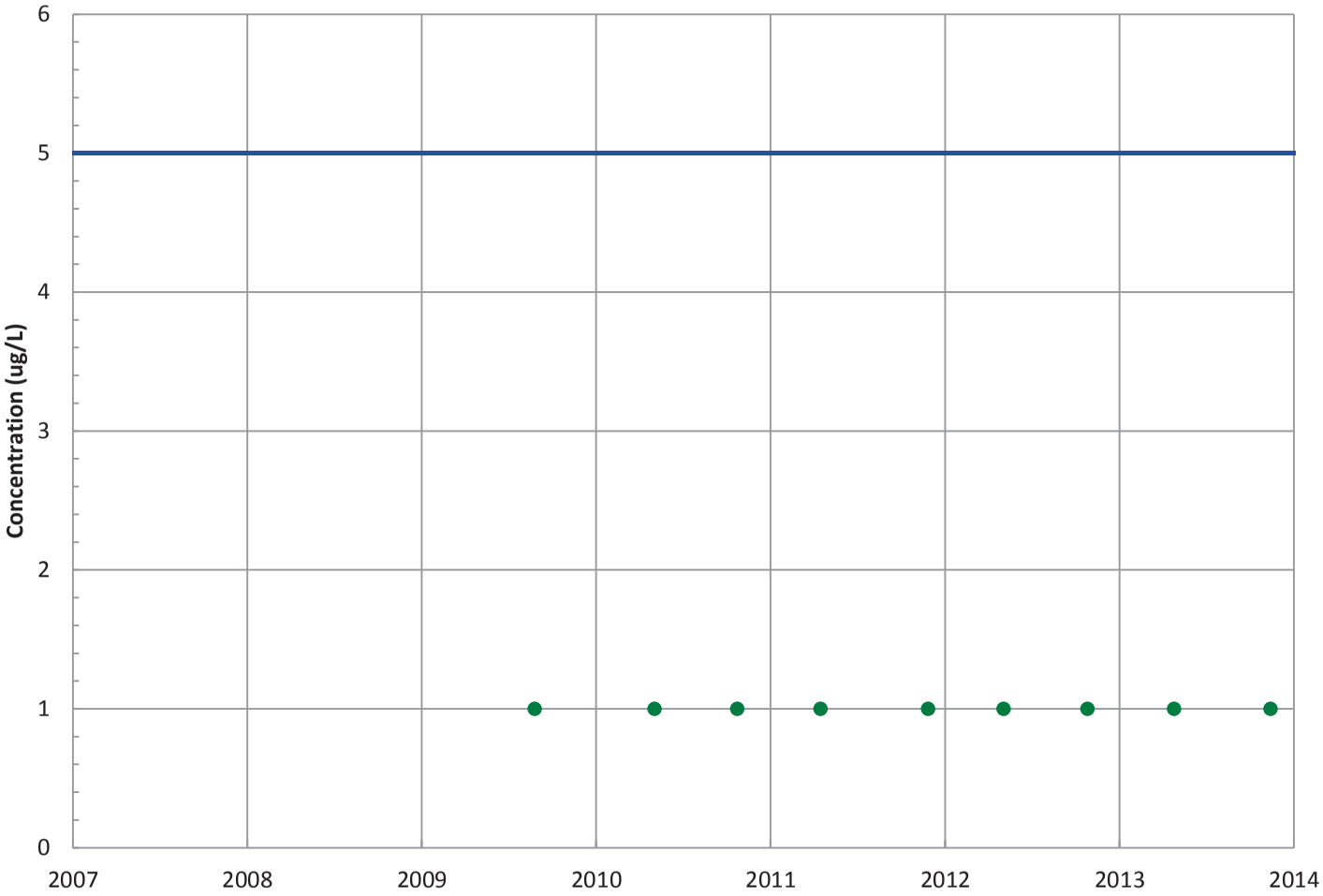
Well Location



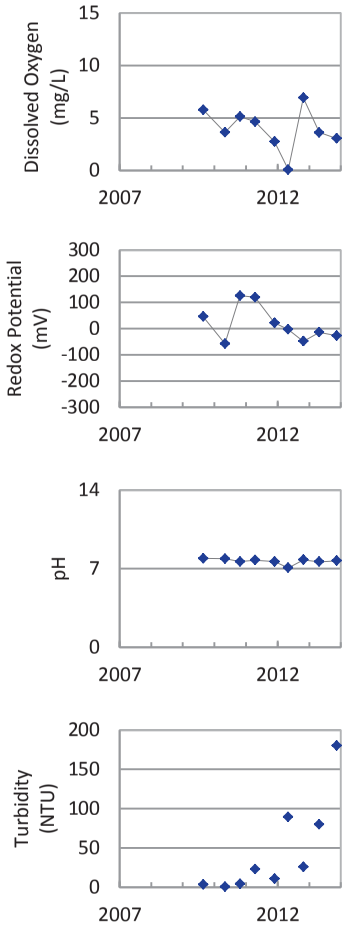
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/27/2009 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1134
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



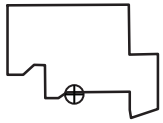
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

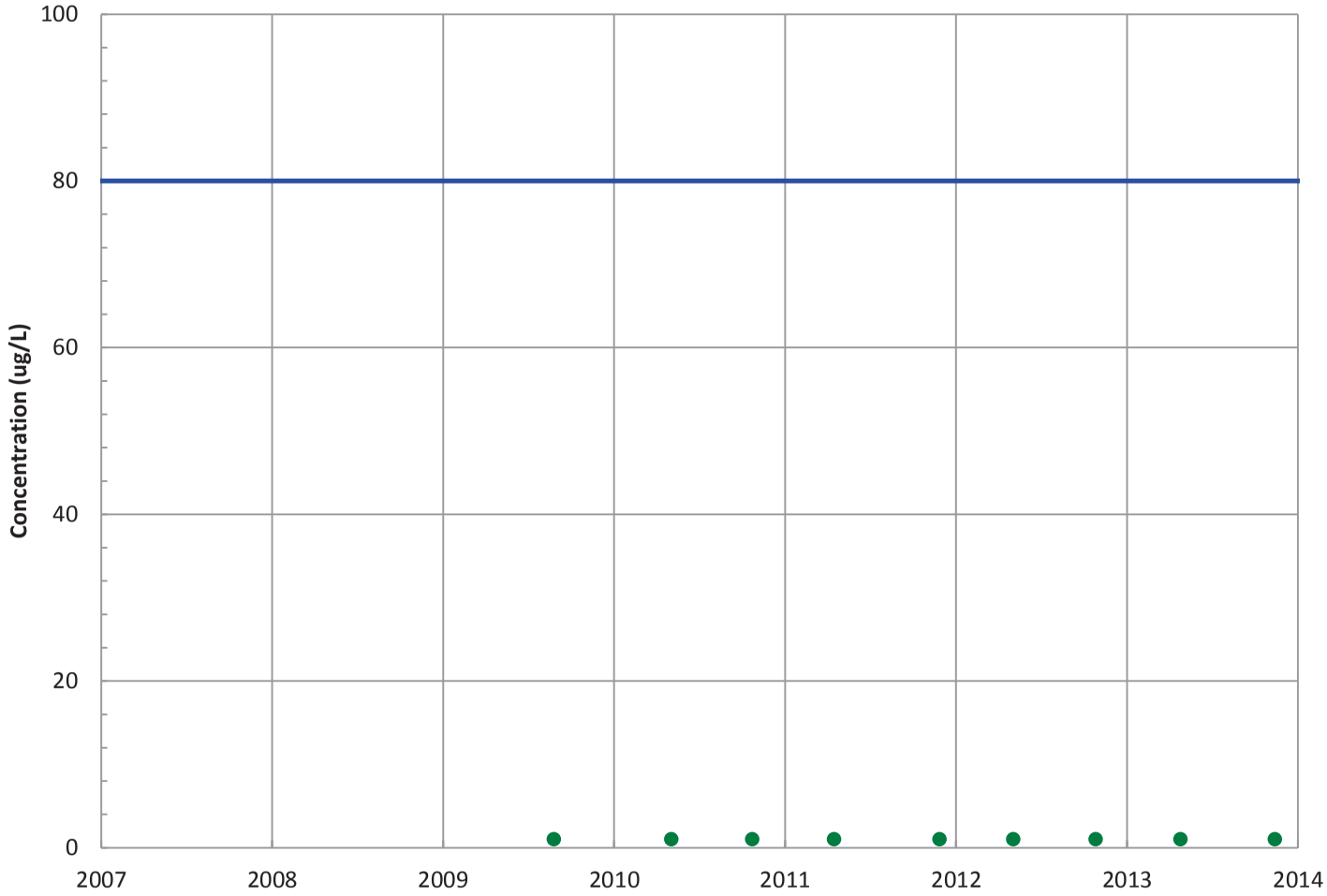
Well Location



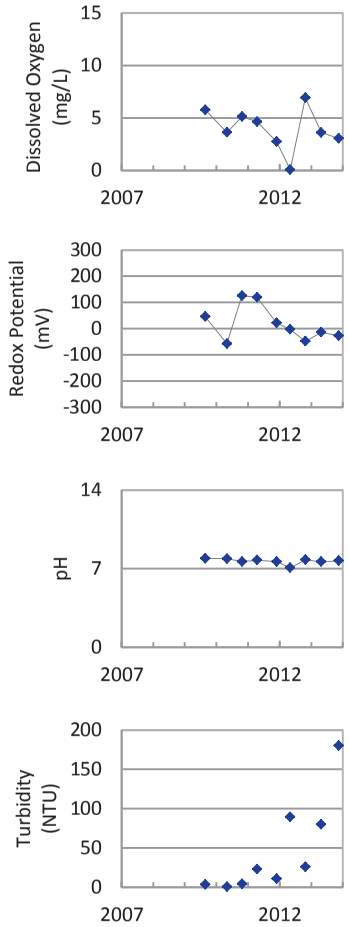
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/27/2009 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1134
Chloroform Trend in Perched Aquifer



Field Parameters



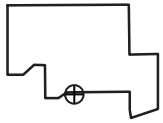
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

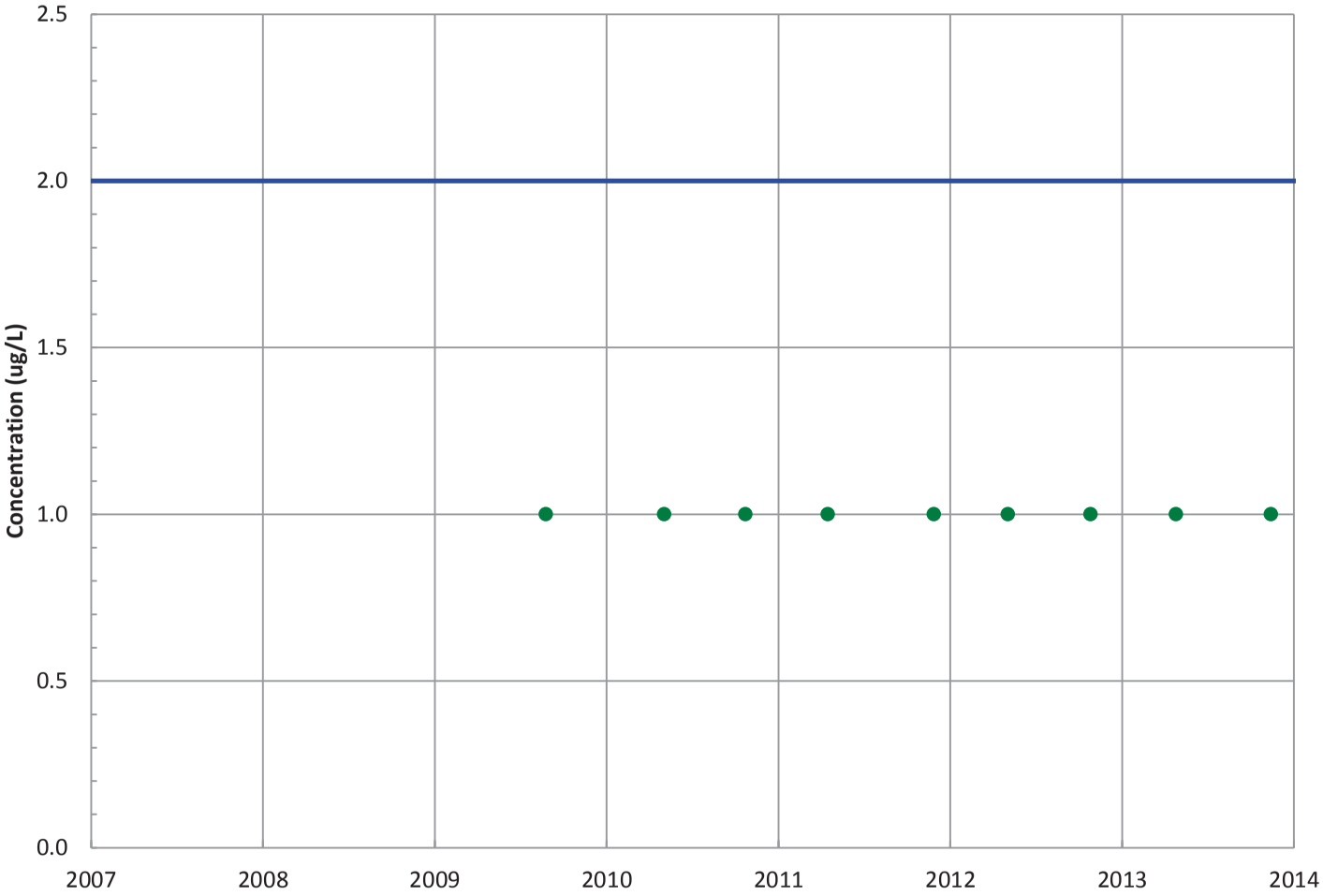
Well Location



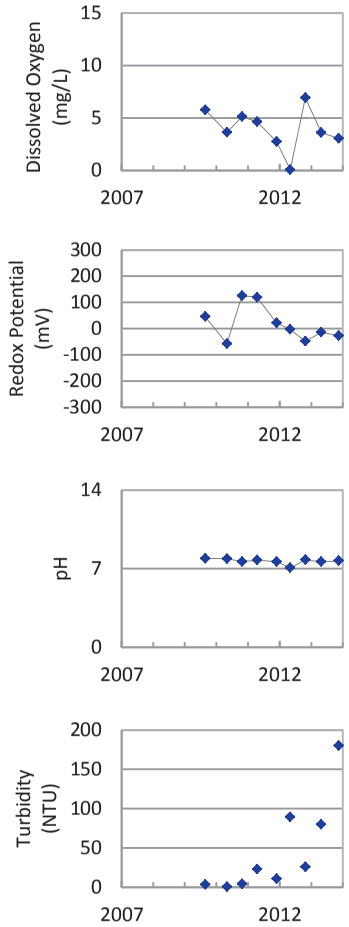
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/27/2009 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1134
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



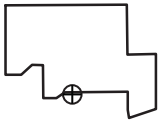
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

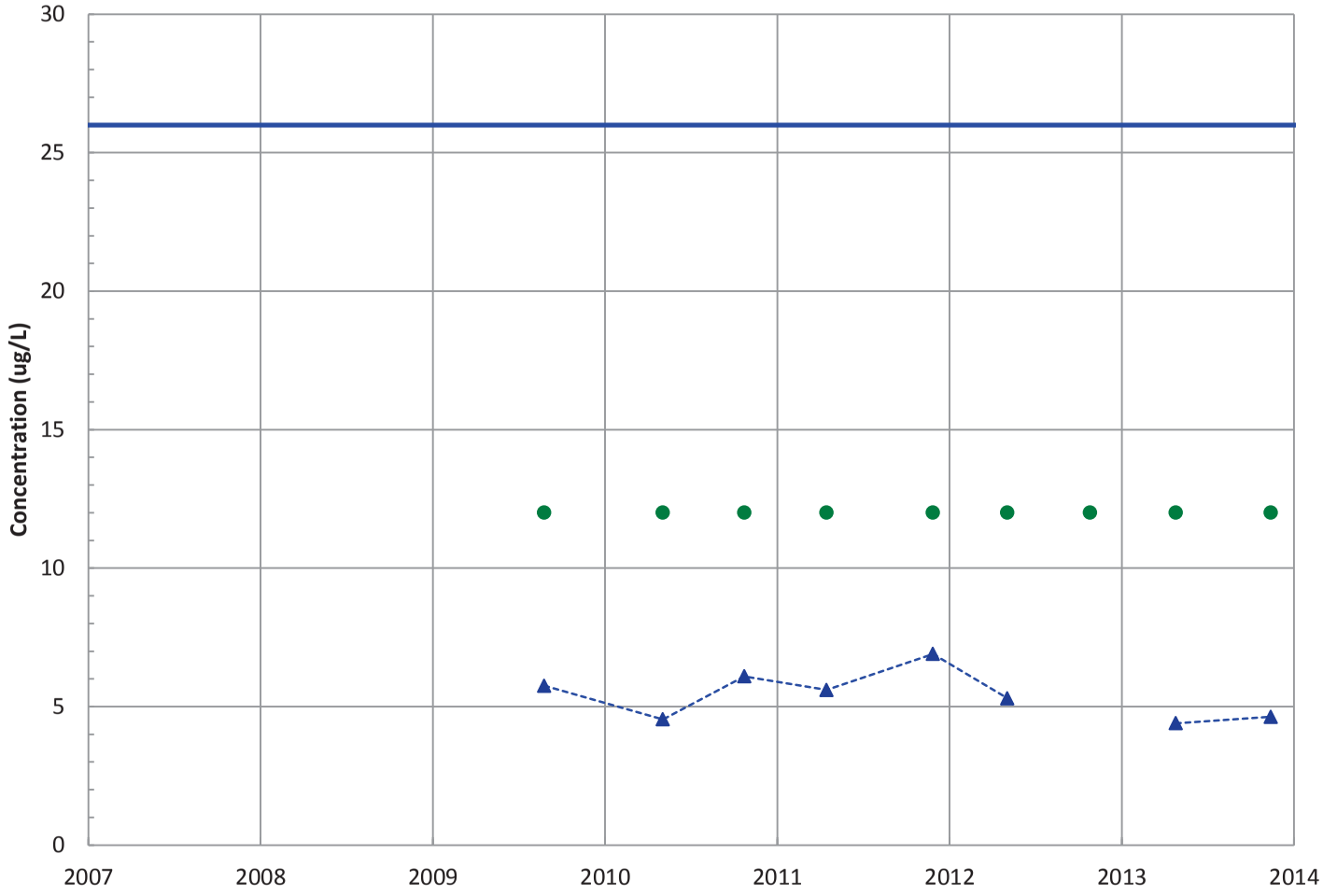
Well Location



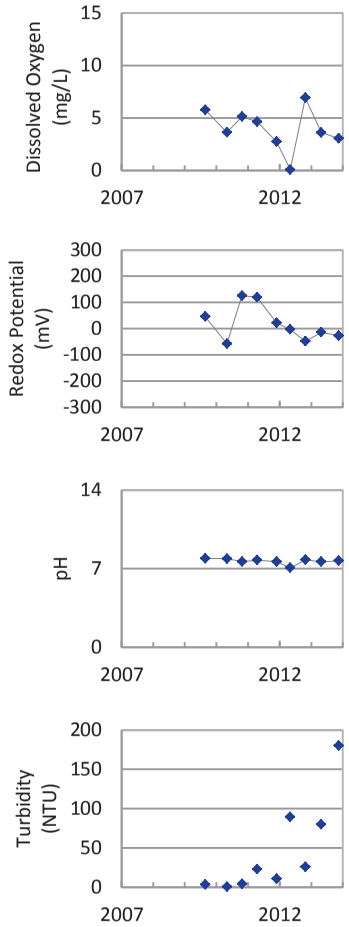
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/27/2009 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1134
Perchlorate Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Decreasing

2011 - 2013 Data: N/A (<4 Detections in Dataset)

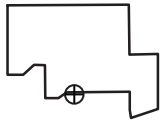
MAROS Linear Regression Method

Data (7/2009 - 12/2013): Stable

2011 - 2013 Data: Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

Well Location



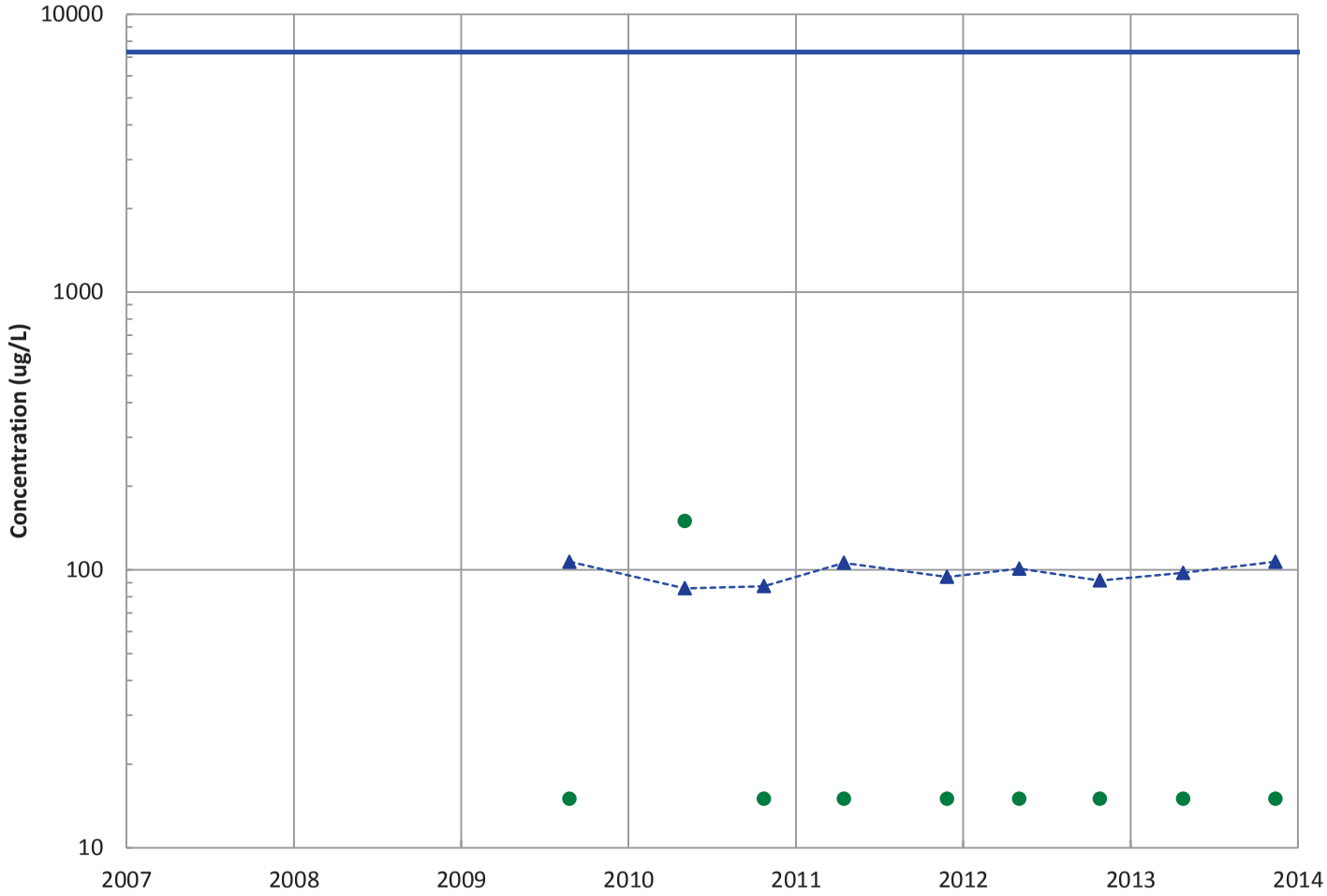
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 8/27/2009 to 11/18/2013

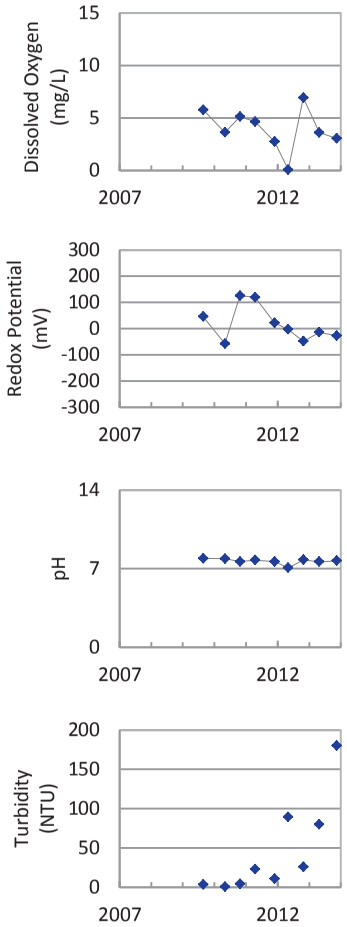
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1134
Boron Trend in Perched Aquifer



Field Parameters



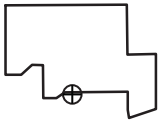
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

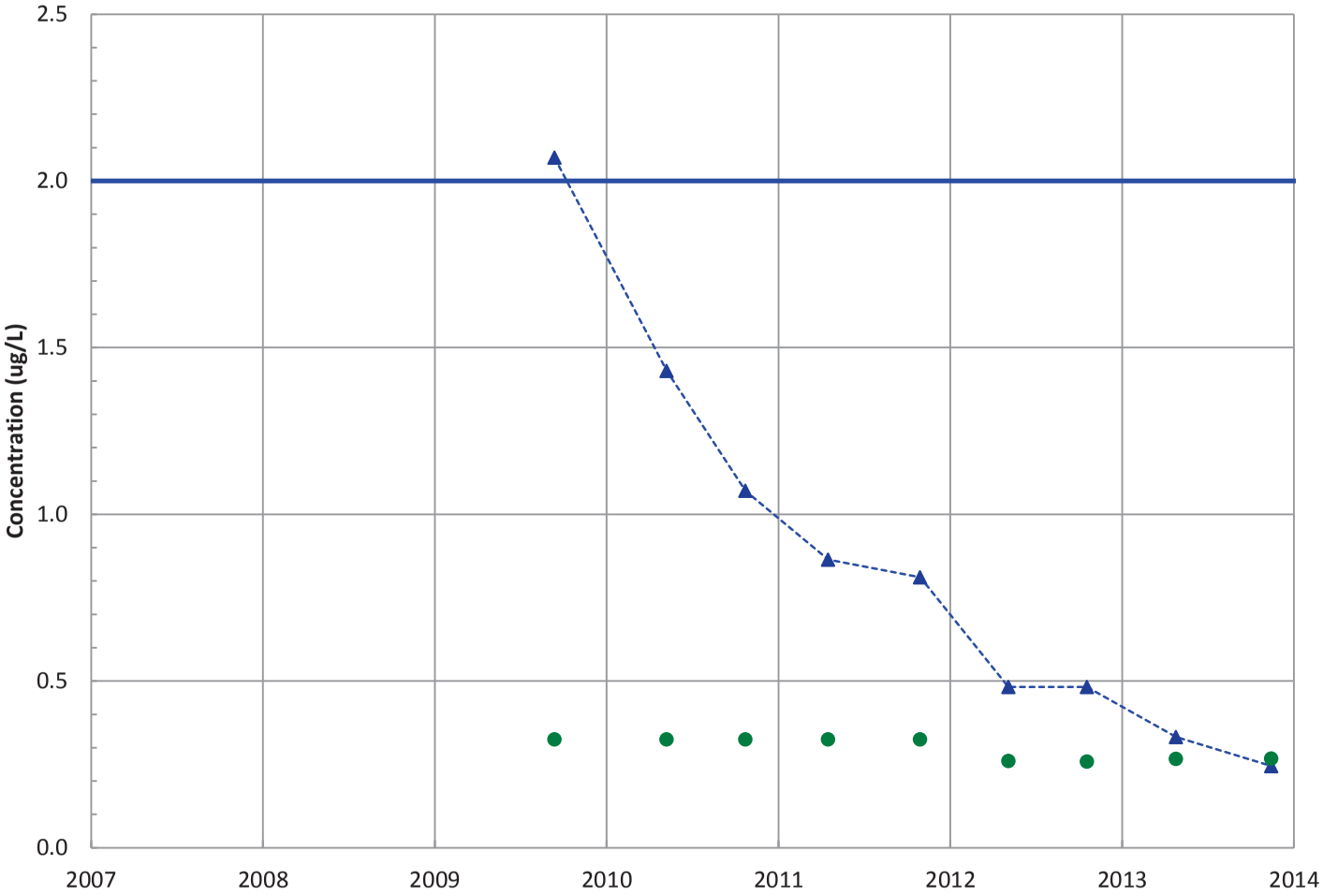
Well Location



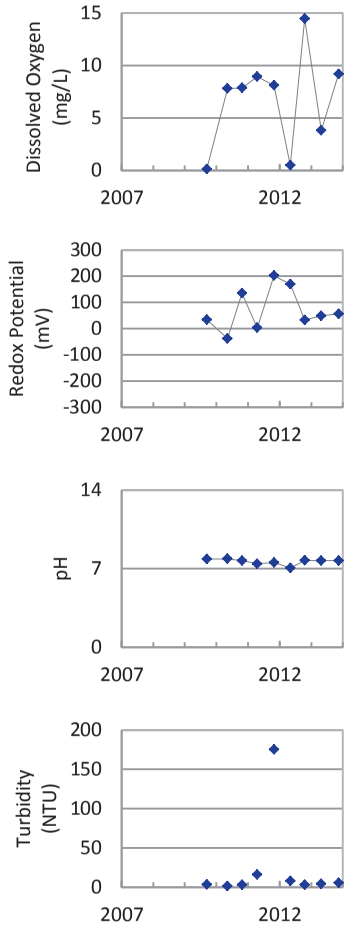
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/27/2009 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1135
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



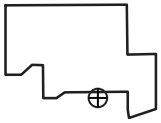
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

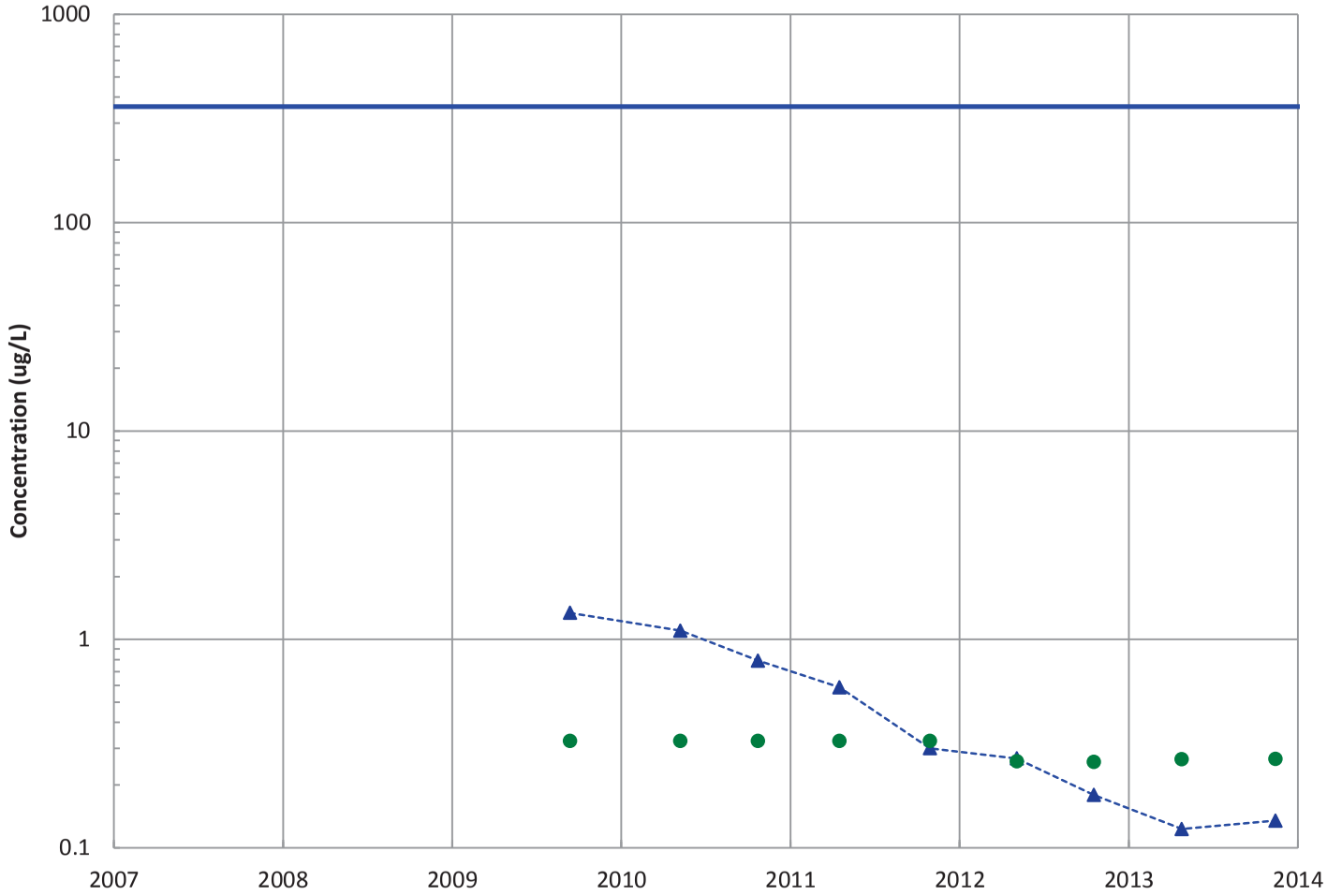
Well Location



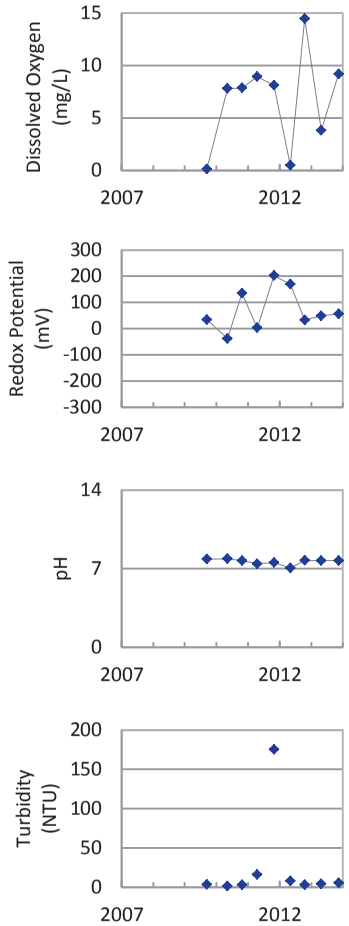
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1135
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



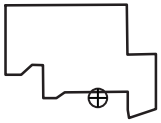
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

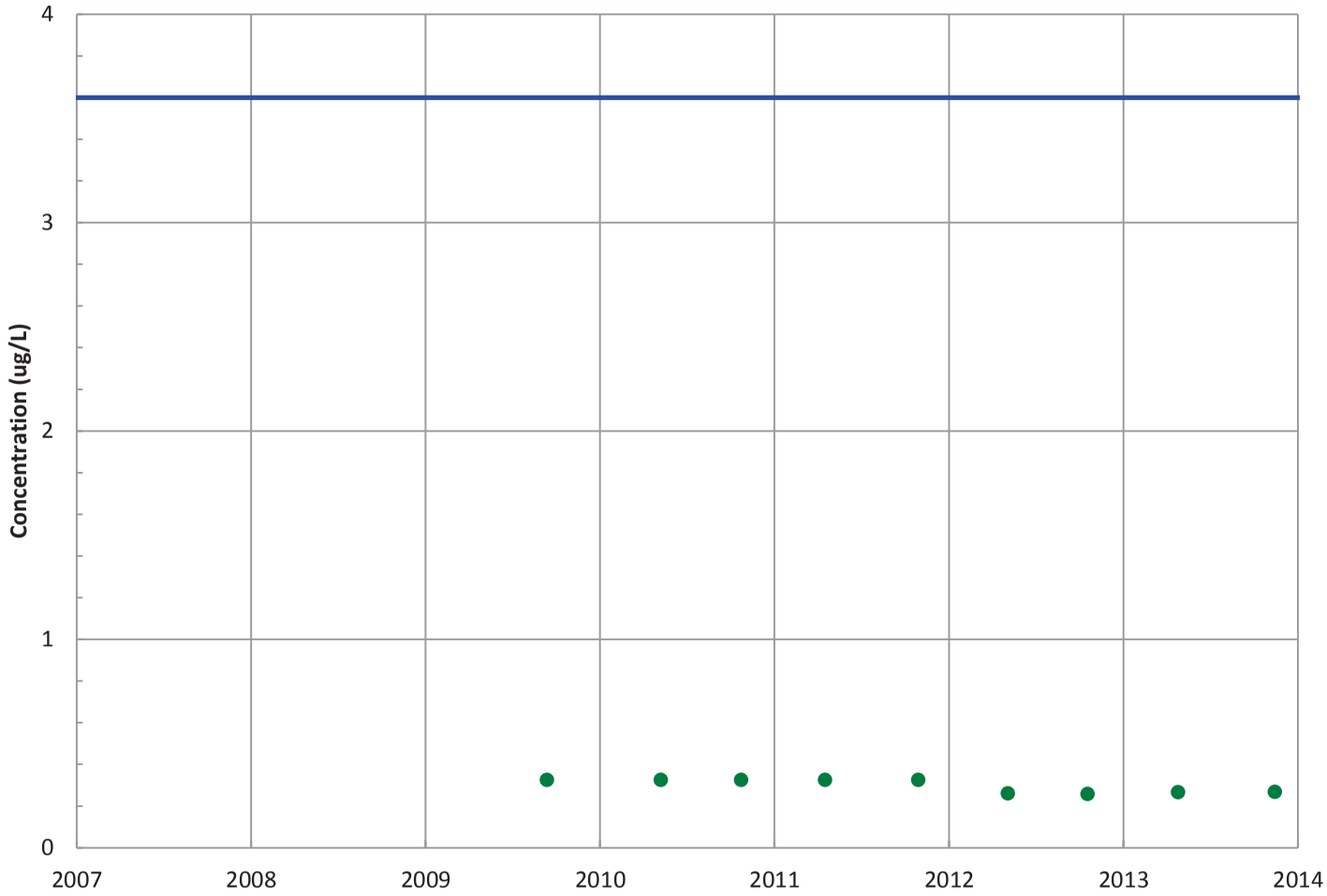
Well Location



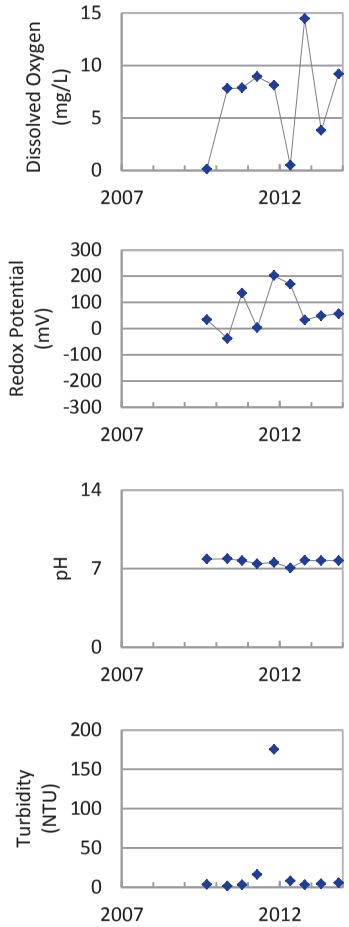
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1135
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



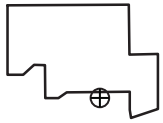
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

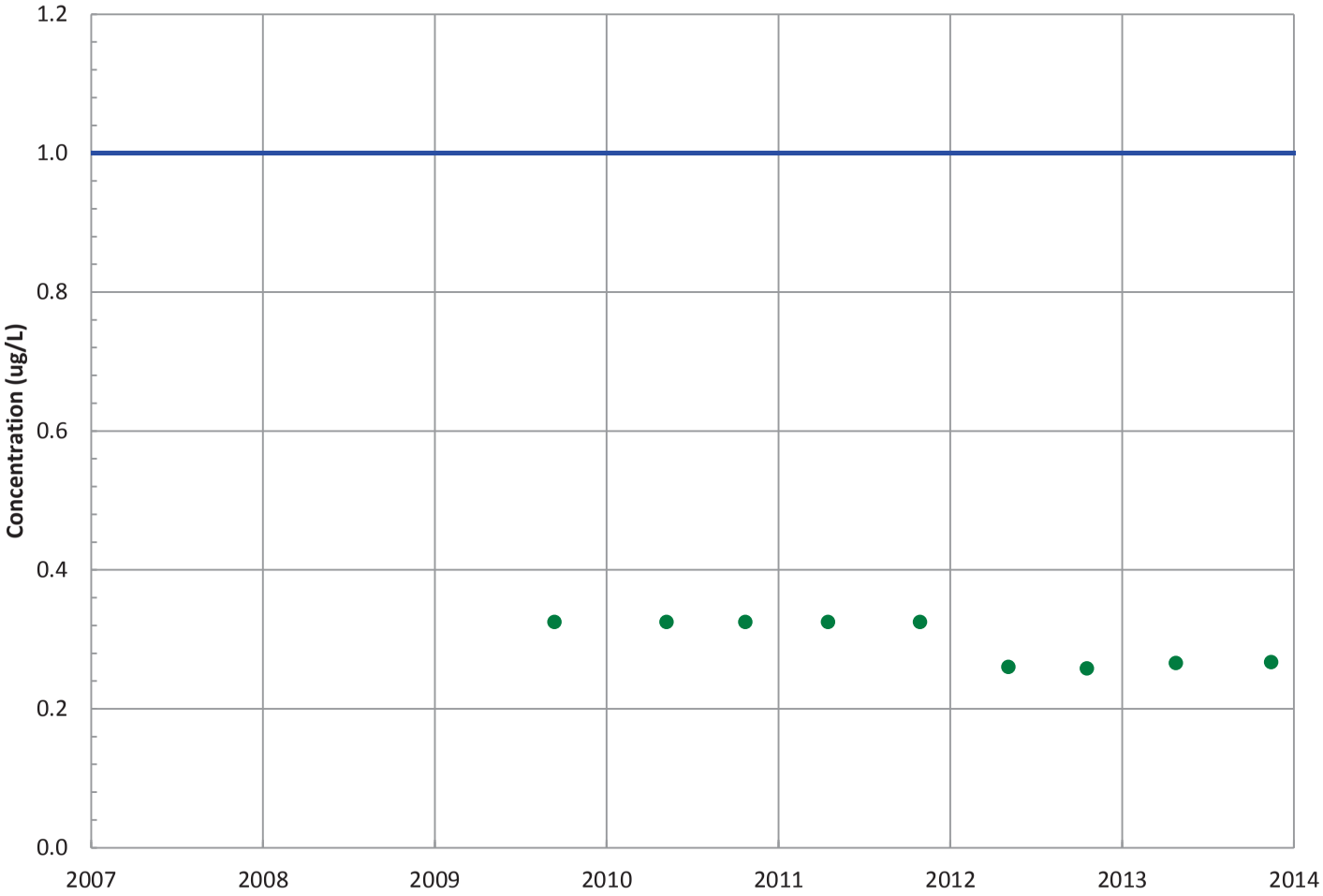
Well Location



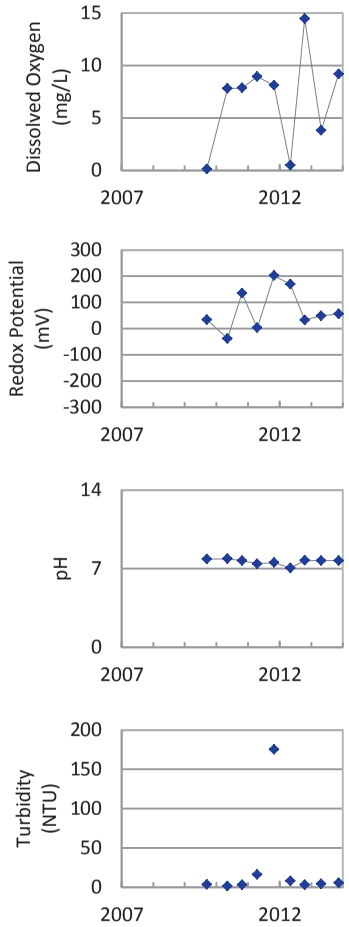
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1135
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



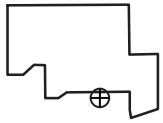
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

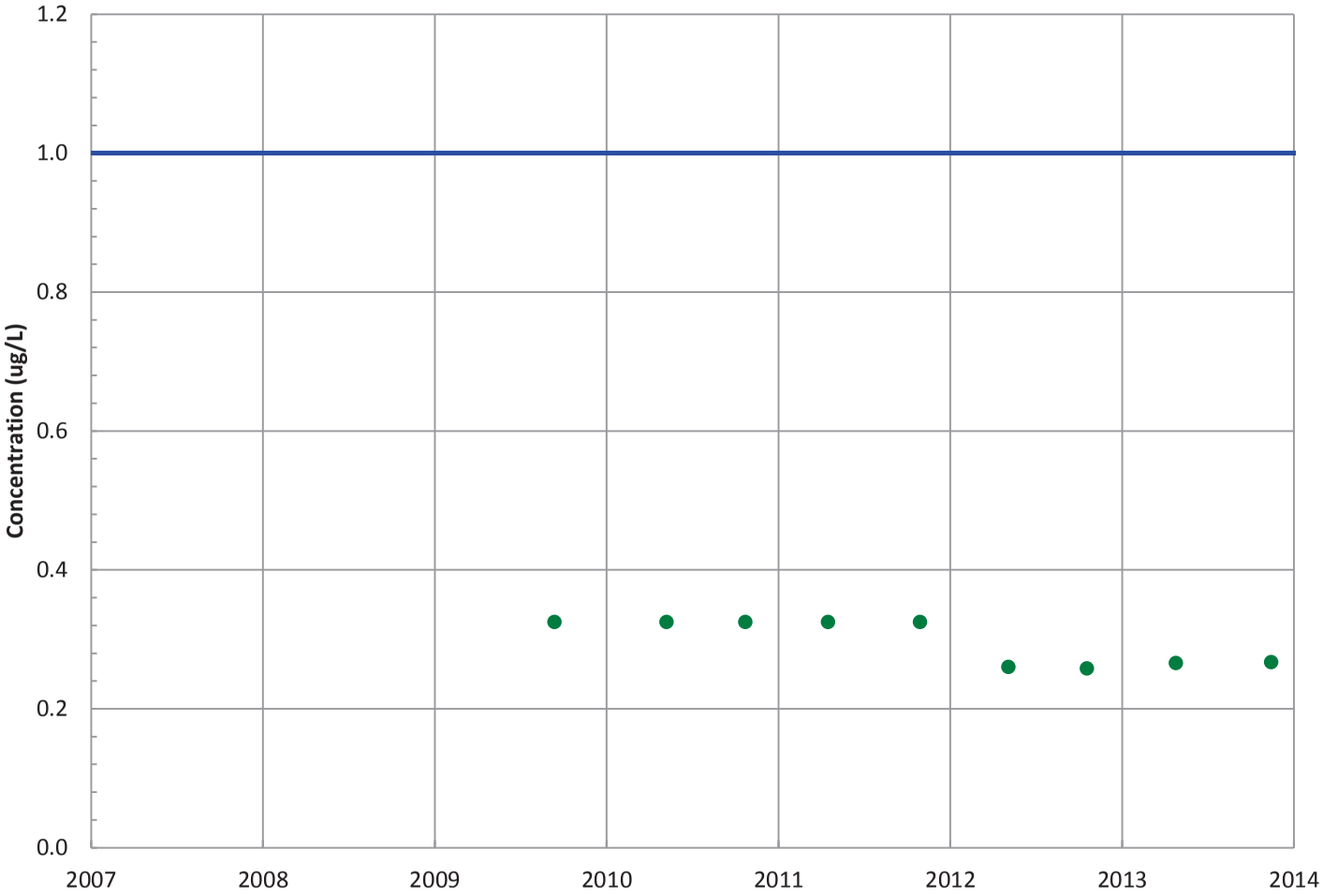
Well Location



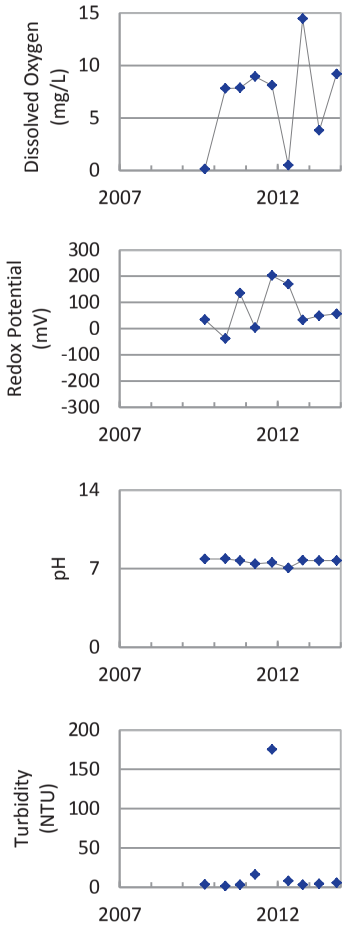
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1135
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



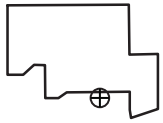
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

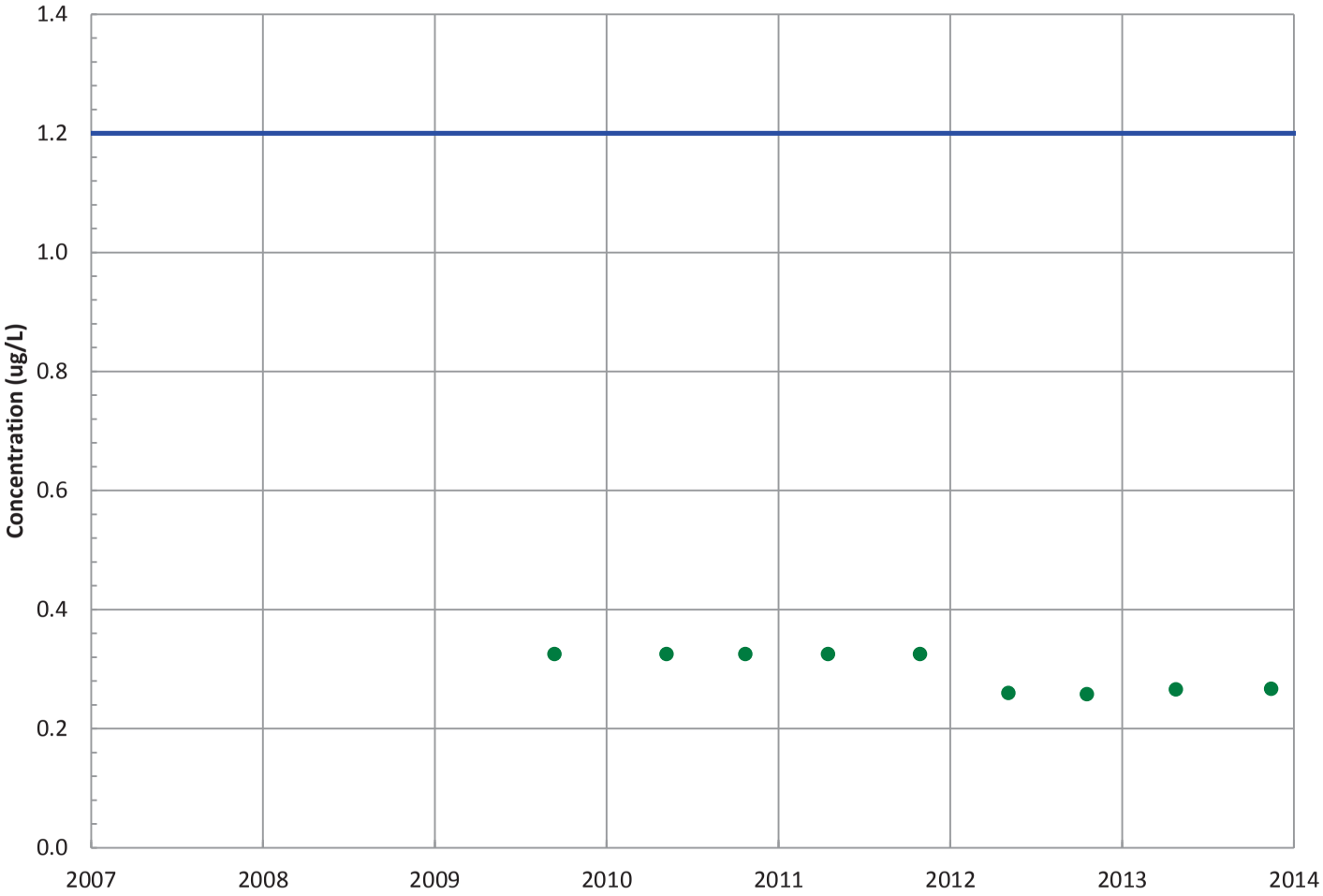
Well Location



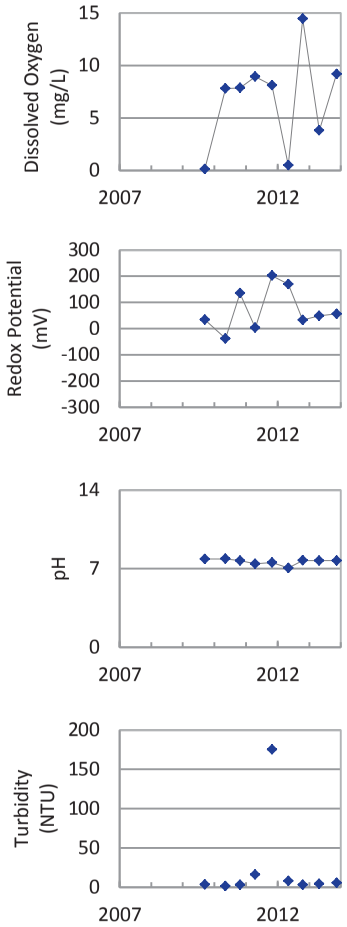
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1135
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



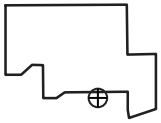
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

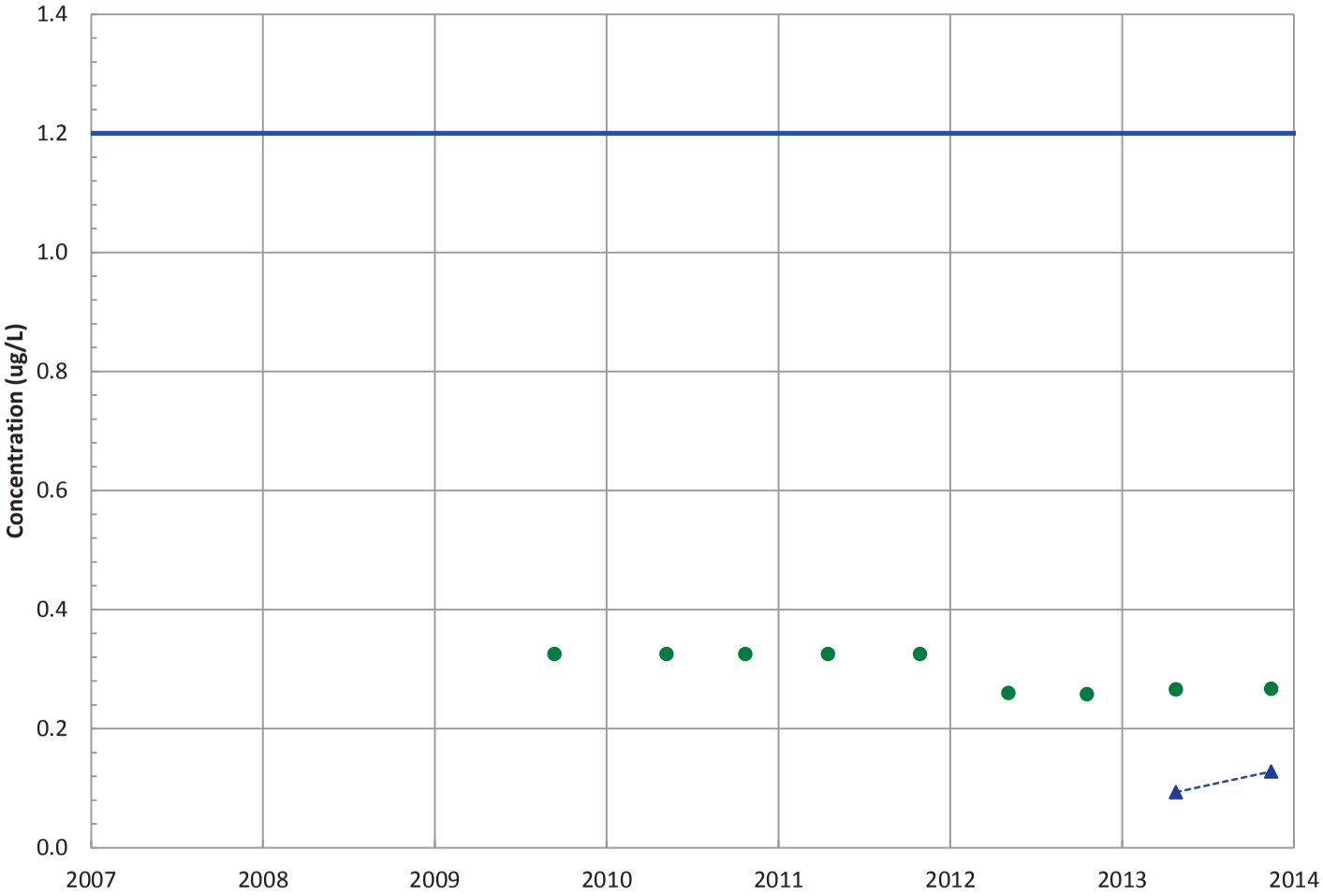
Well Location



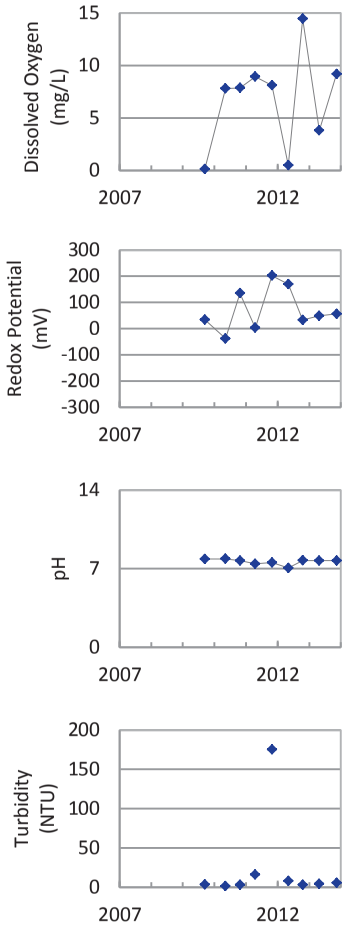
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1135
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: N/A (<4 Detections in

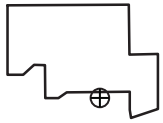
MAROS Linear Regression Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: N/A (<4 Detections in

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

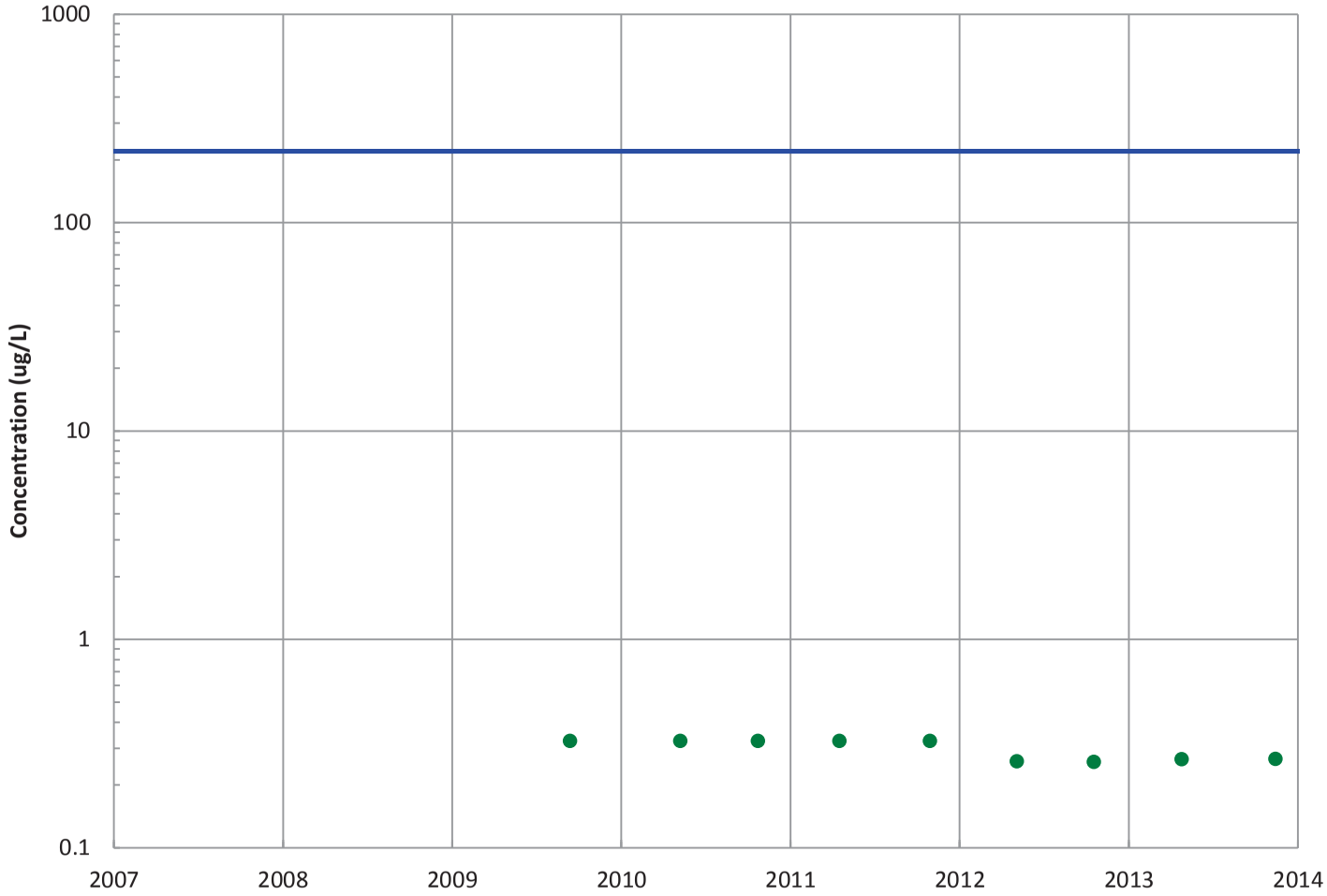
Well Location



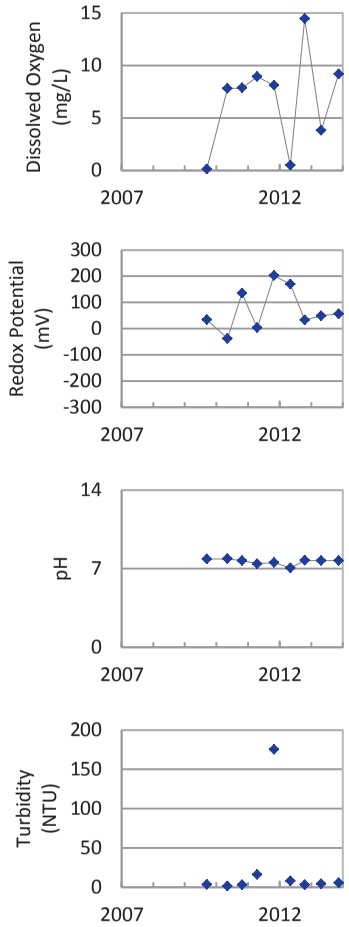
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1135
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



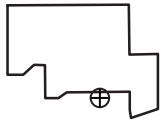
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

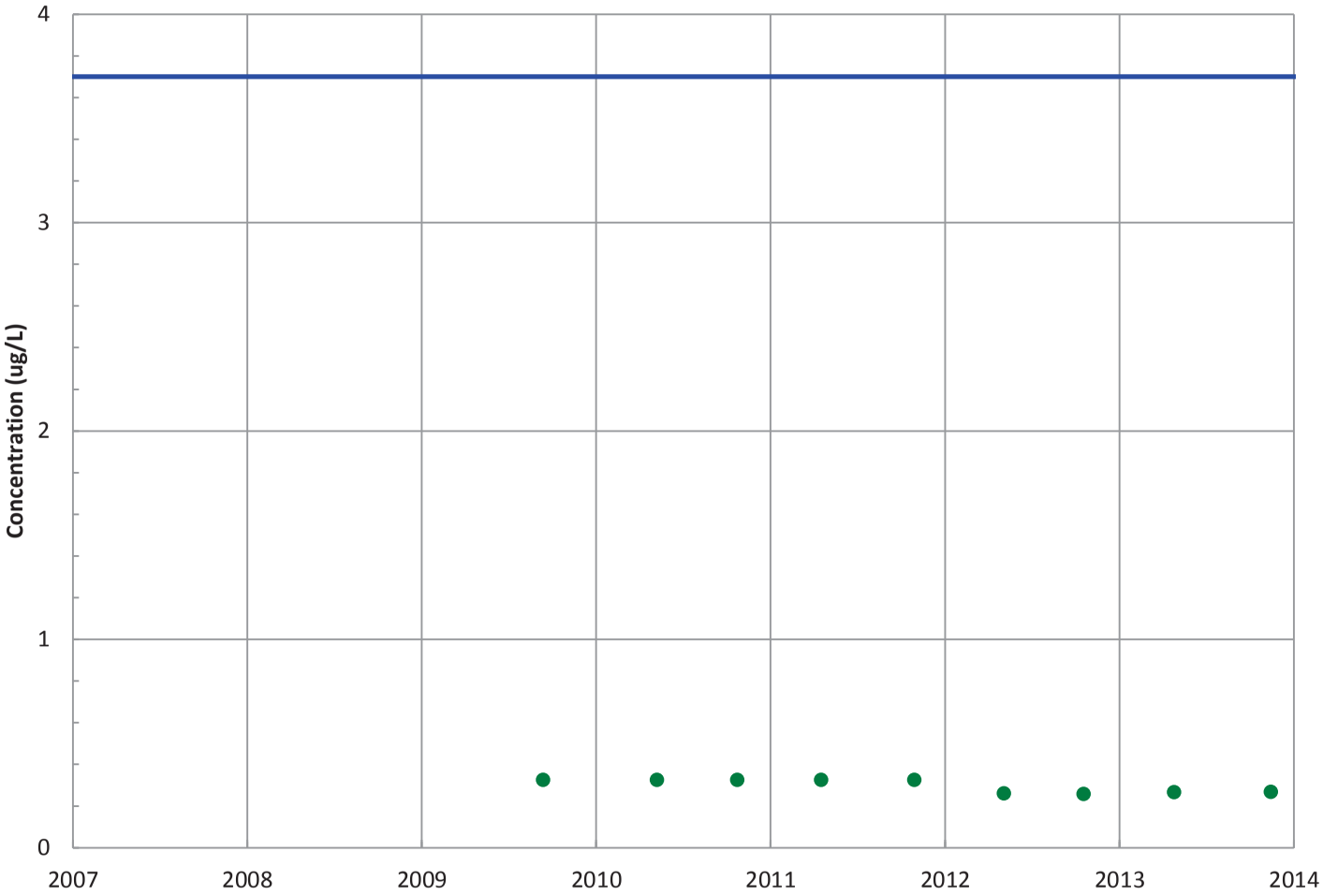
Well Location



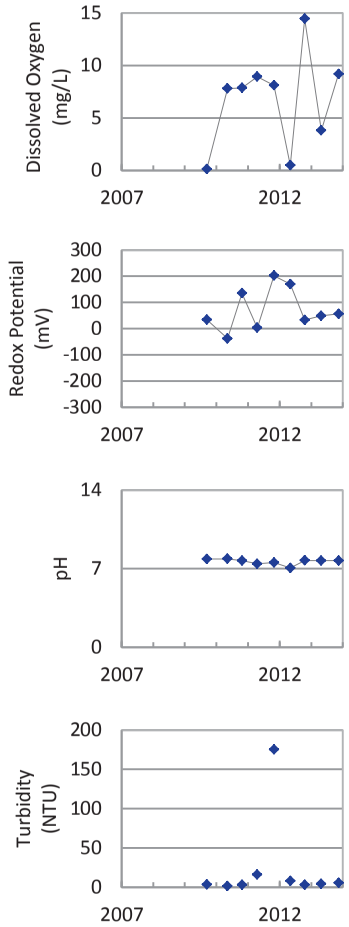
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1135
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



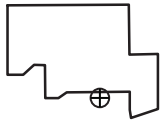
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

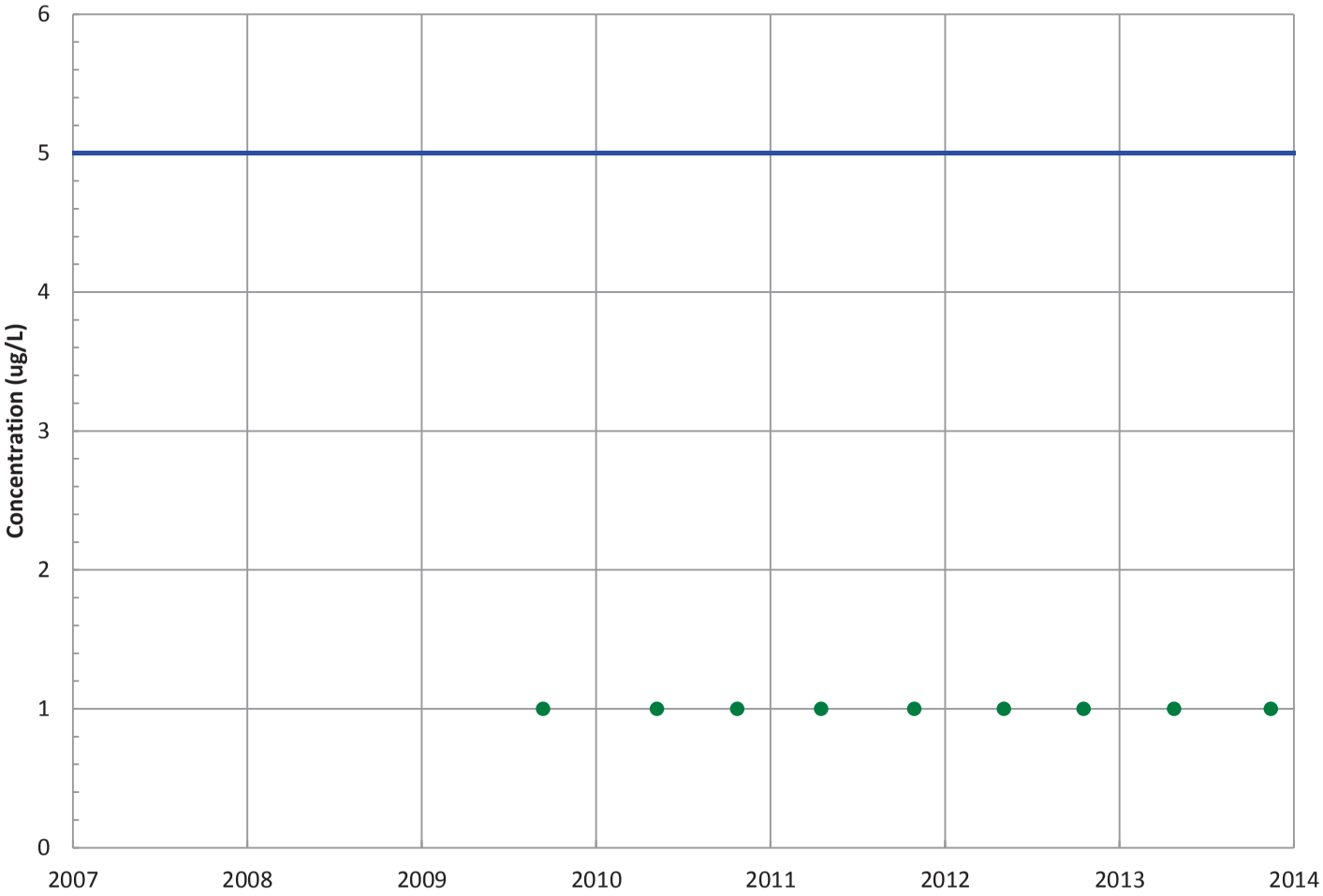
Well Location



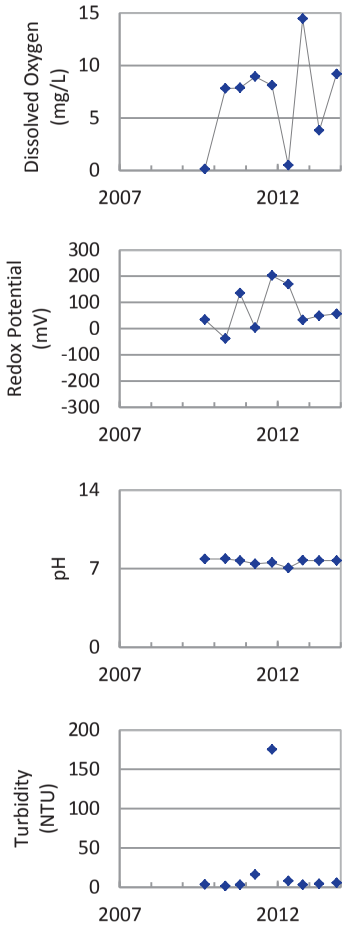
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1135
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



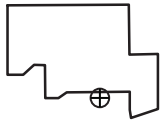
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

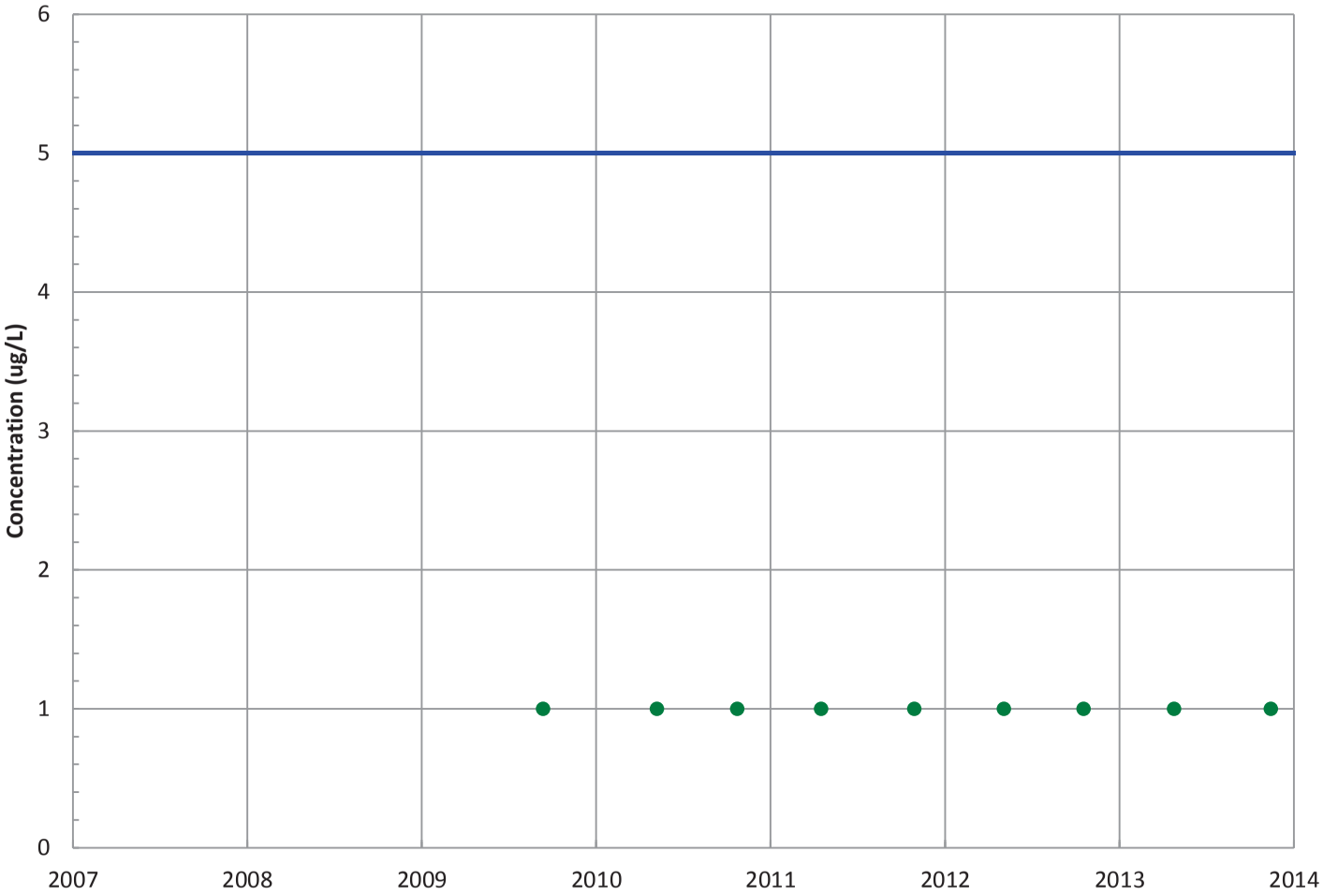
Well Location



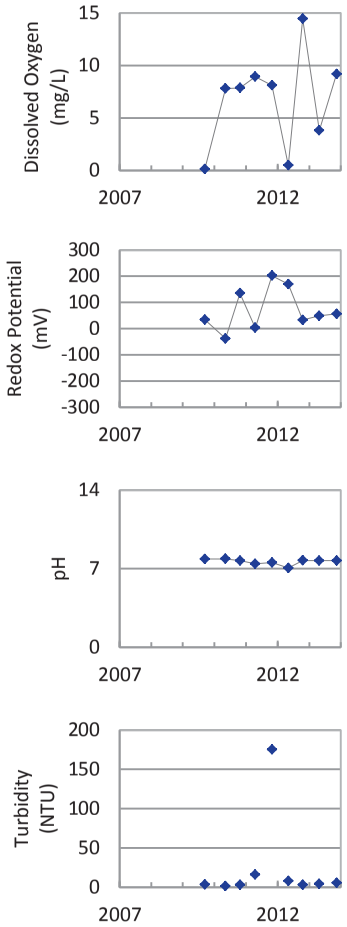
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1135
Trichloroethene Trend in Perched Aquifer



Field Parameters



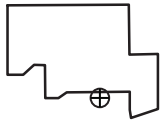
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

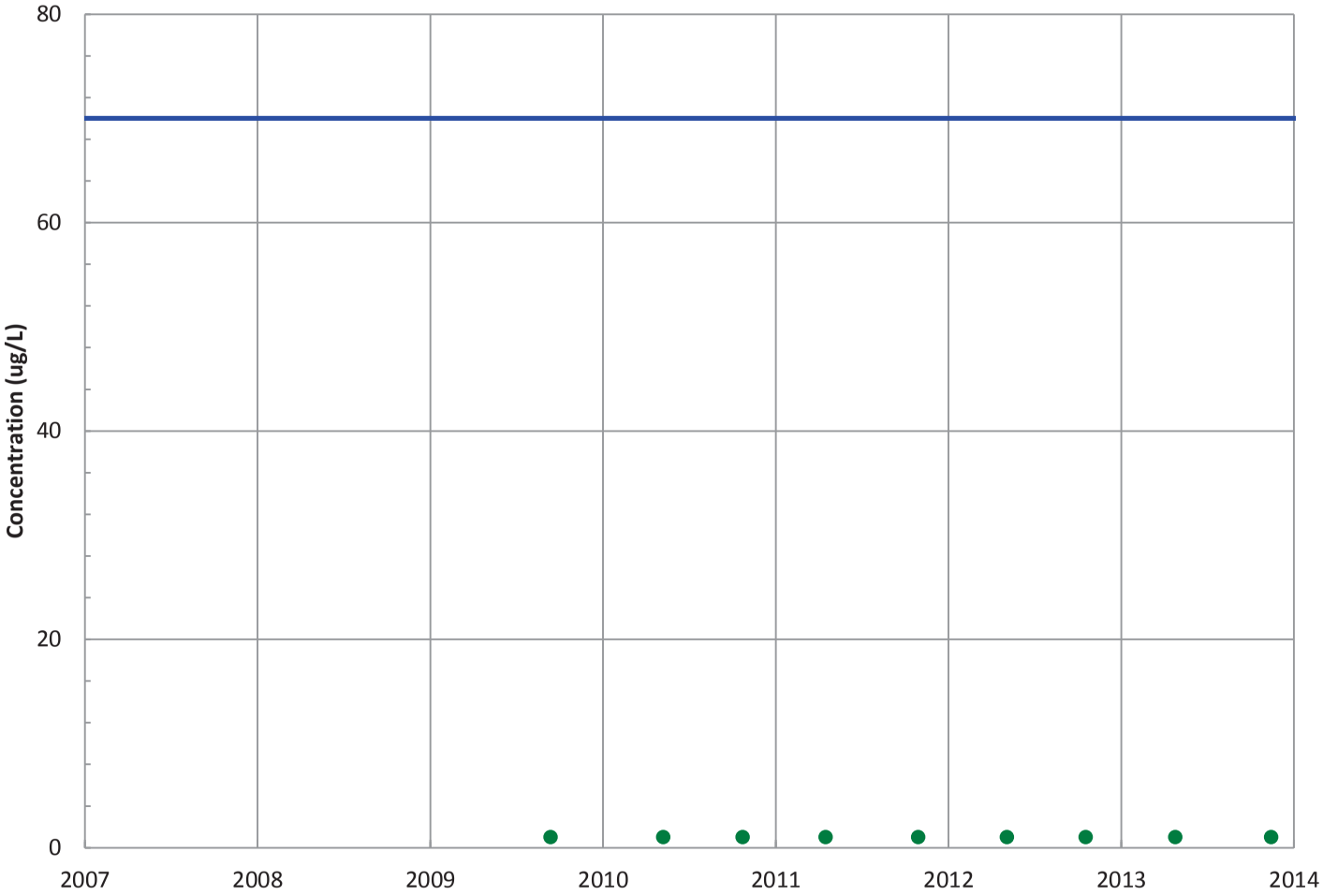
Well Location



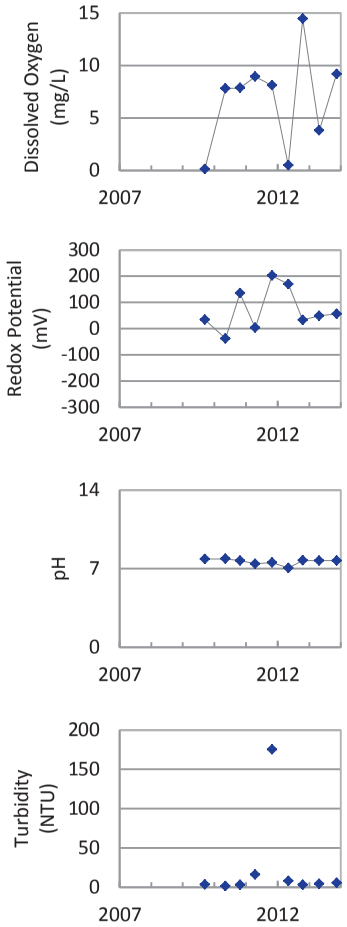
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1135
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



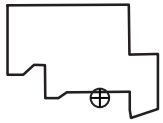
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

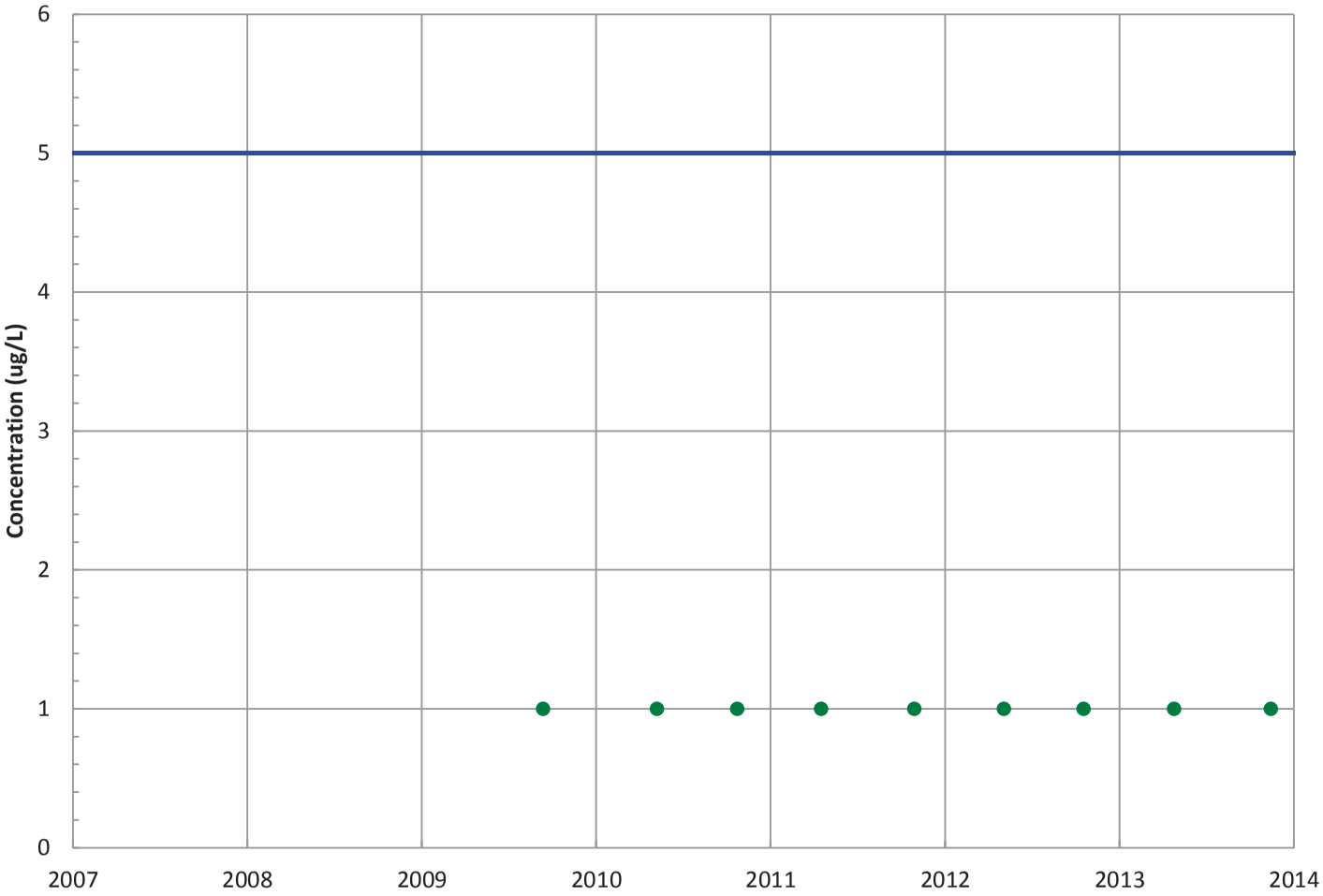
Well Location



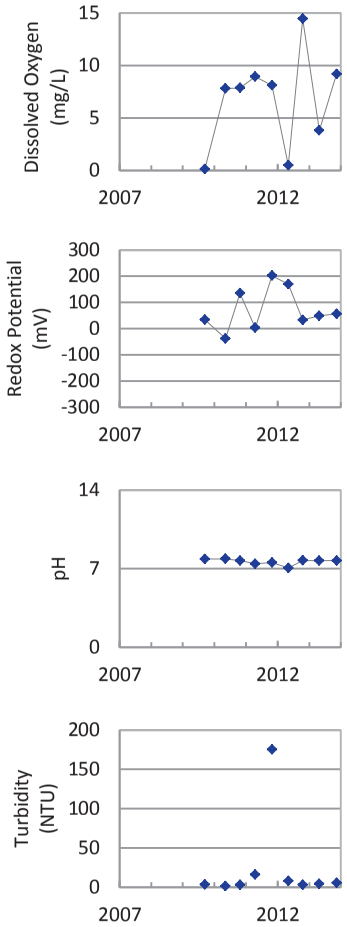
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1135
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



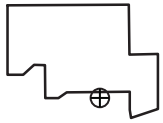
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

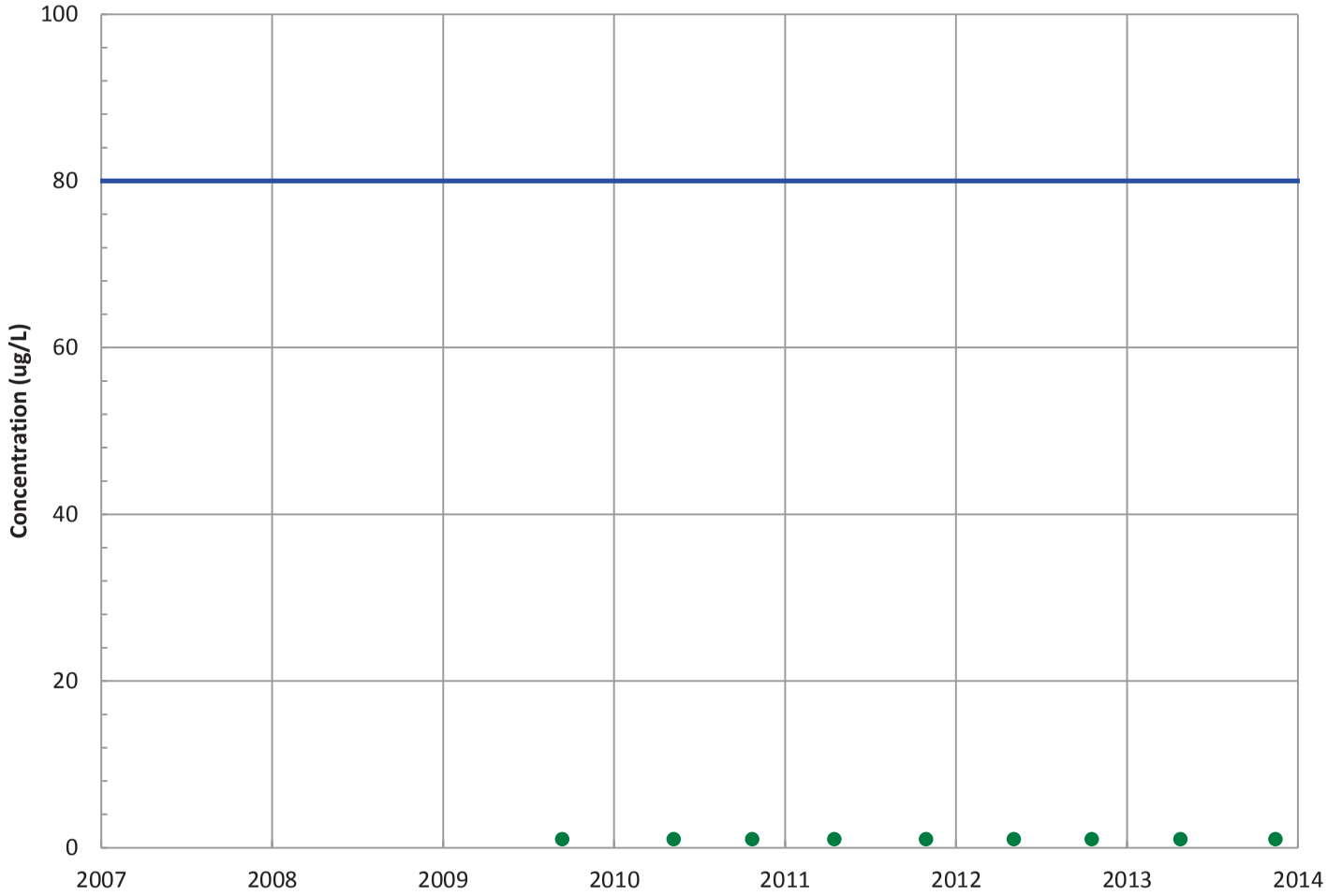
Well Location



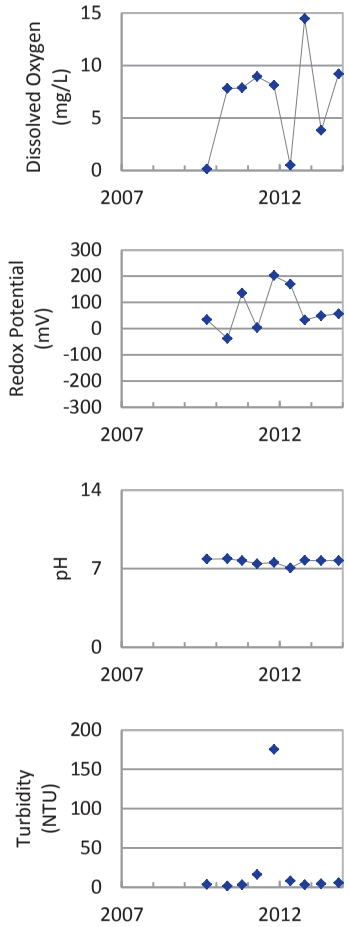
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1135
Chloroform Trend in Perched Aquifer



Field Parameters



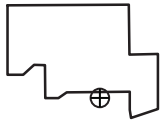
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

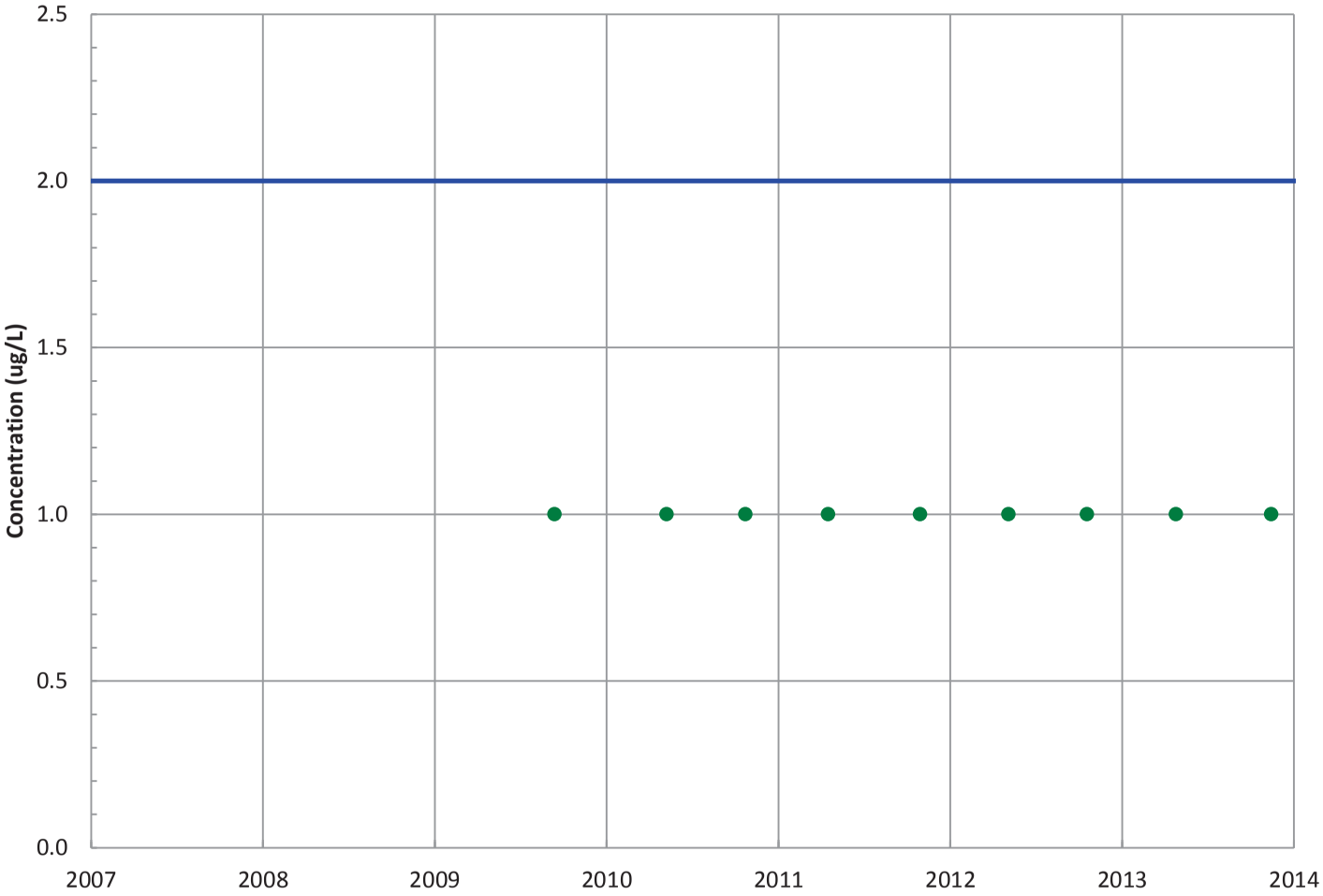
Well Location



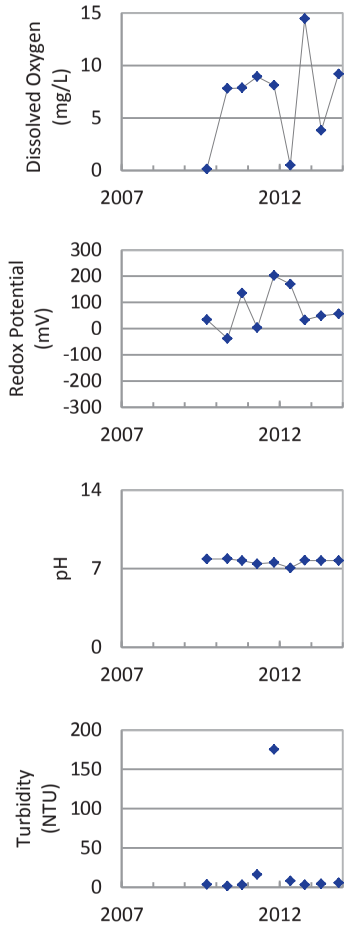
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1135
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



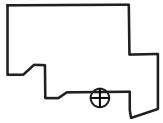
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

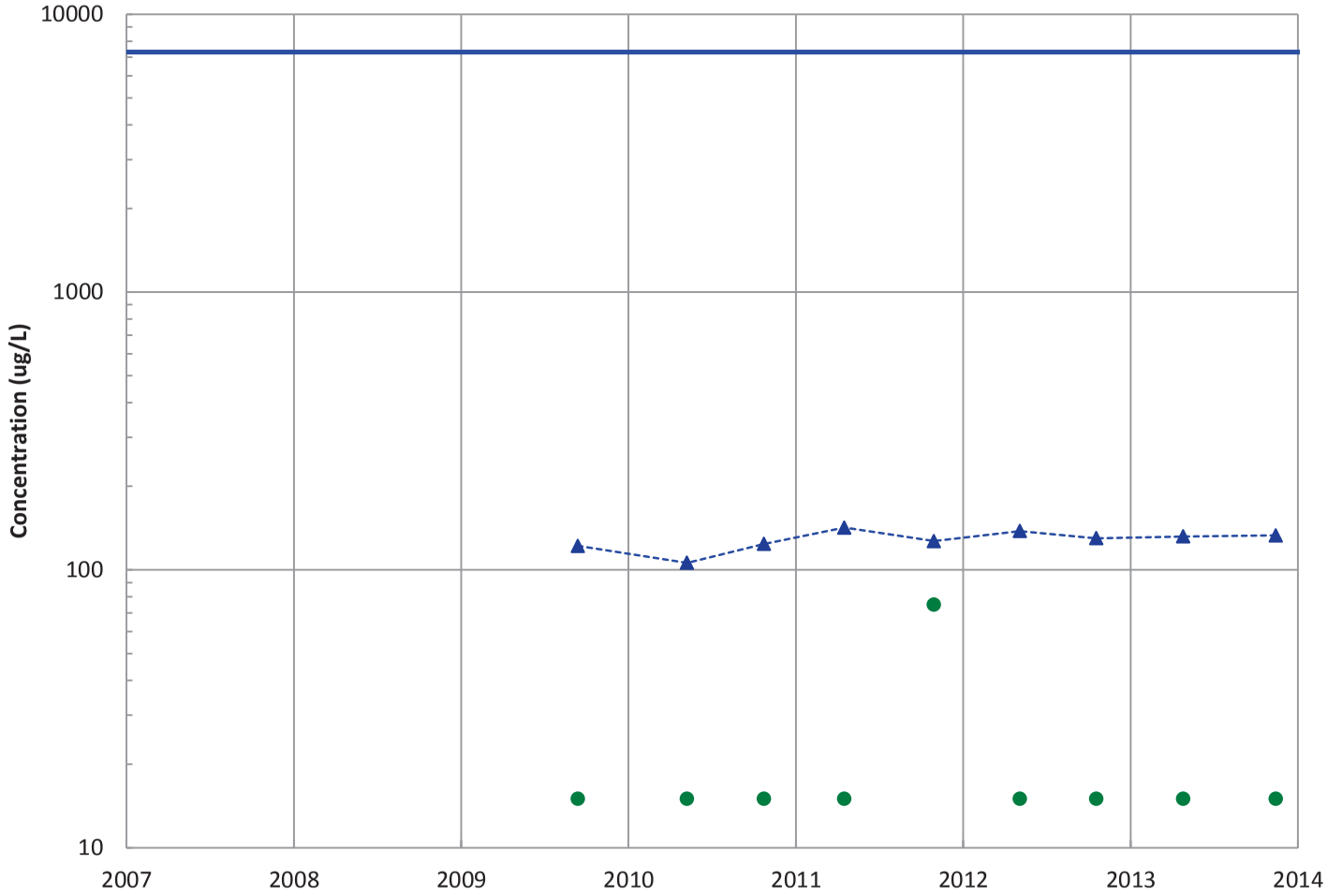
Well Location



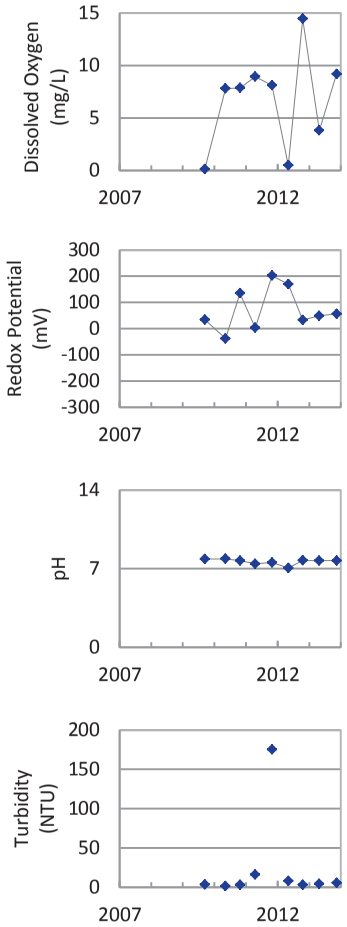
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1135
Boron Trend in Perched Aquifer



Field Parameters



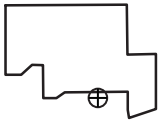
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Probably Increasing
2011 - 2013 Data: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

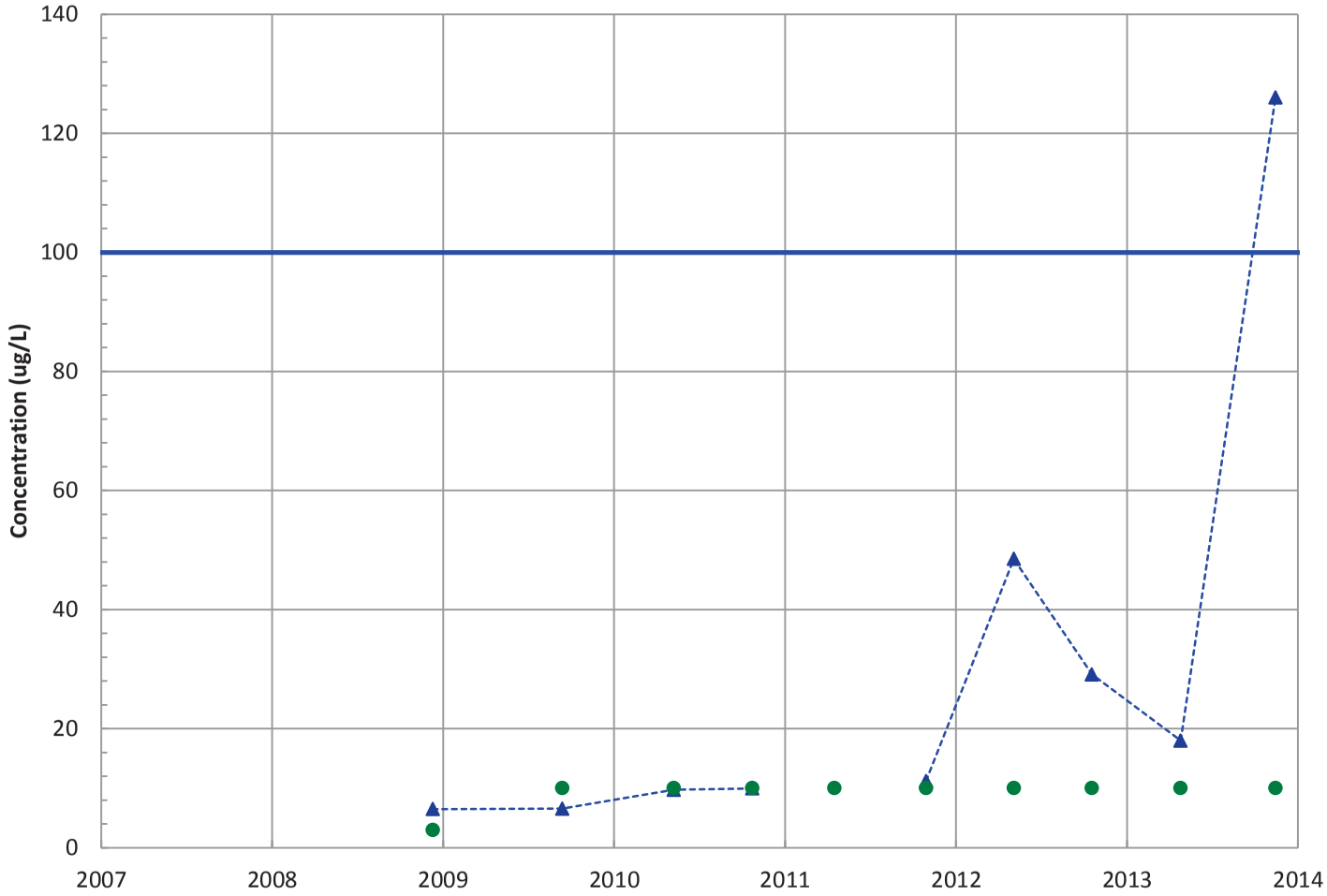
Well Location



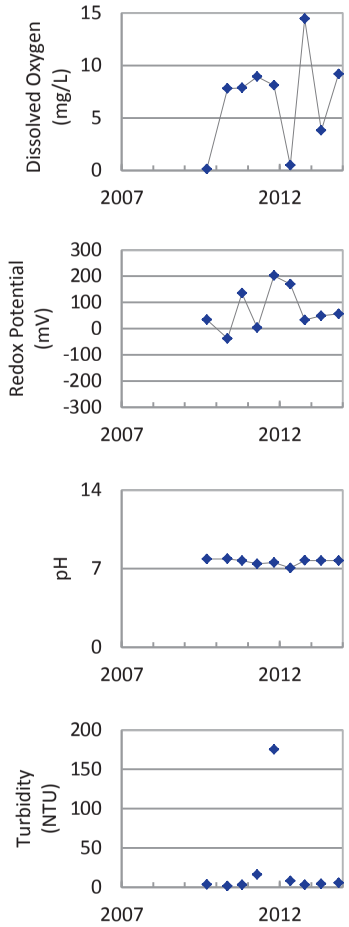
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1135
Chromium, Total Trend in Perched Aquifer



Field Parameters



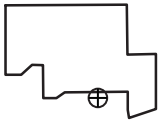
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

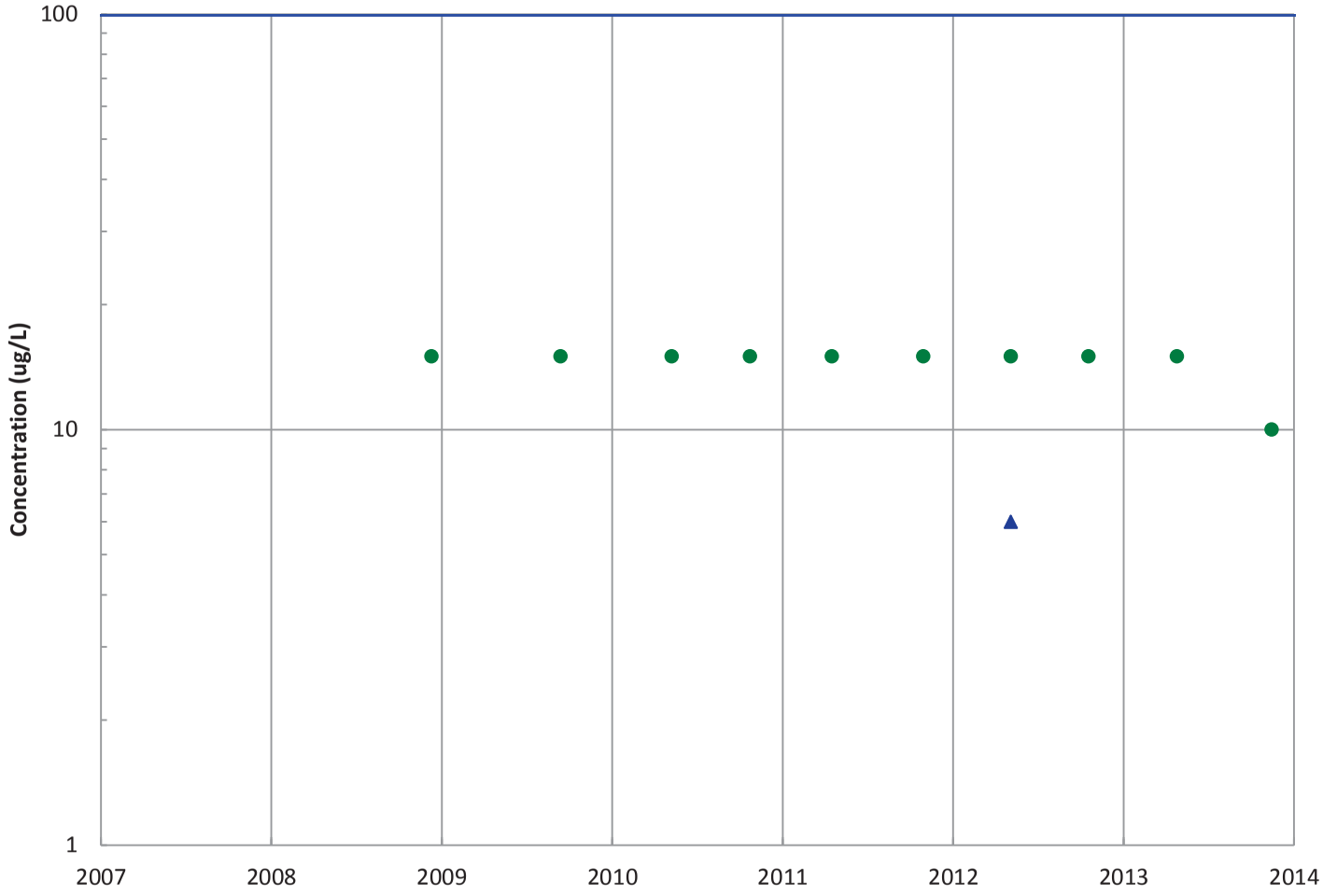
Well Location



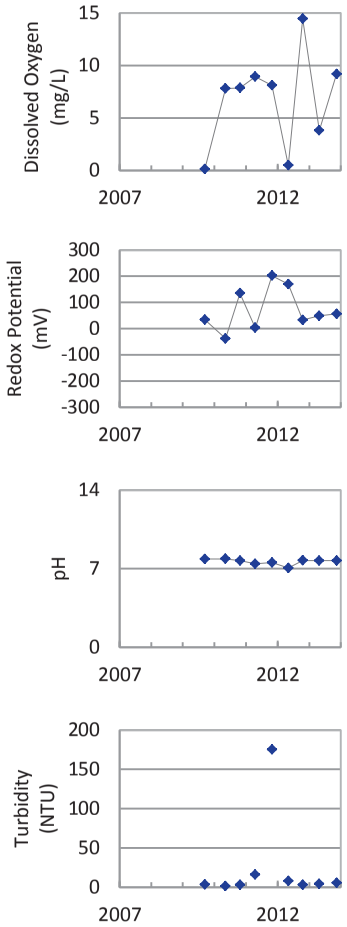
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/11/2008 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1135
Chromium, Hexavalent Trend in Perched Aquifer



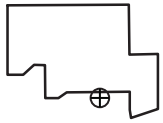
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

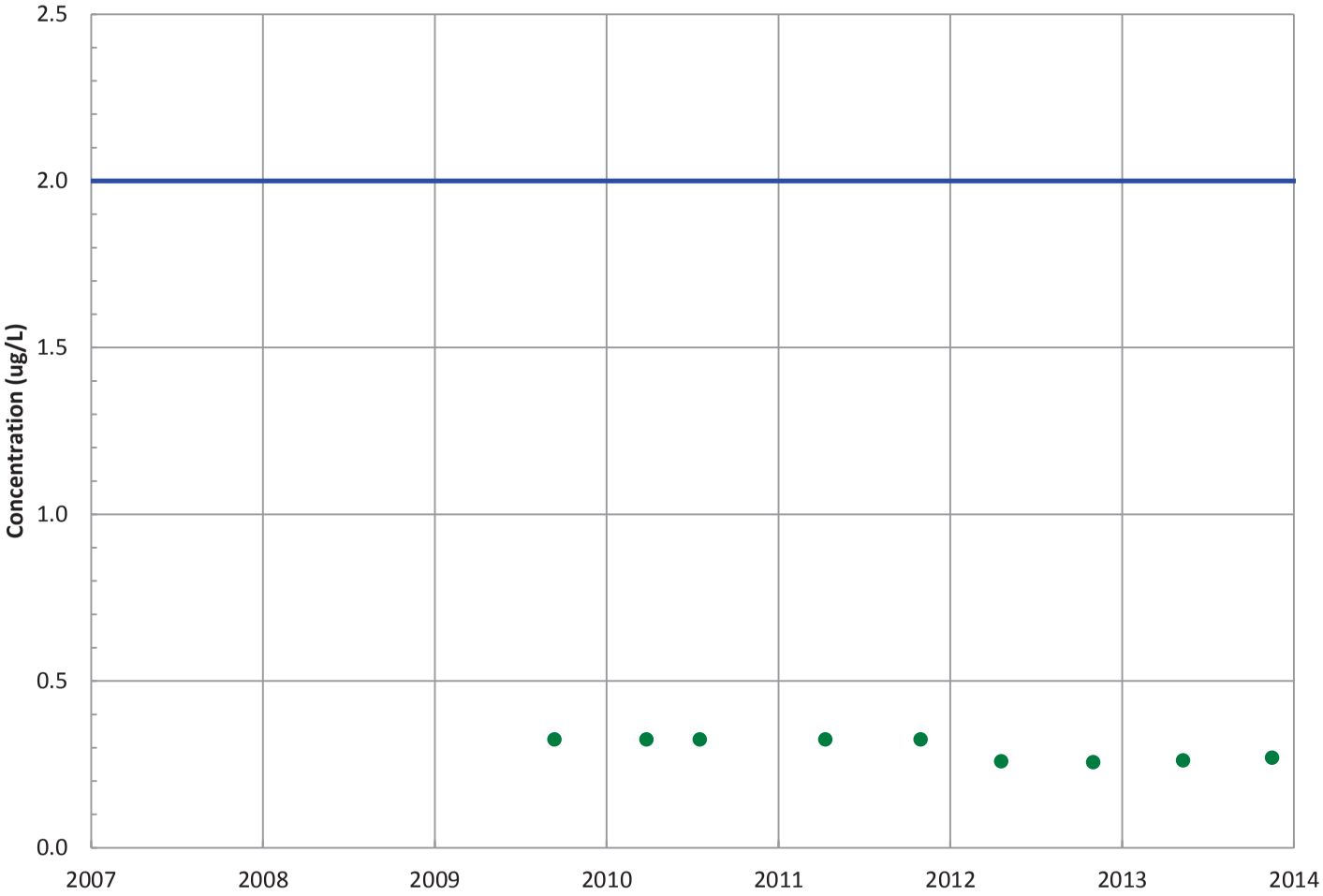
Well Location



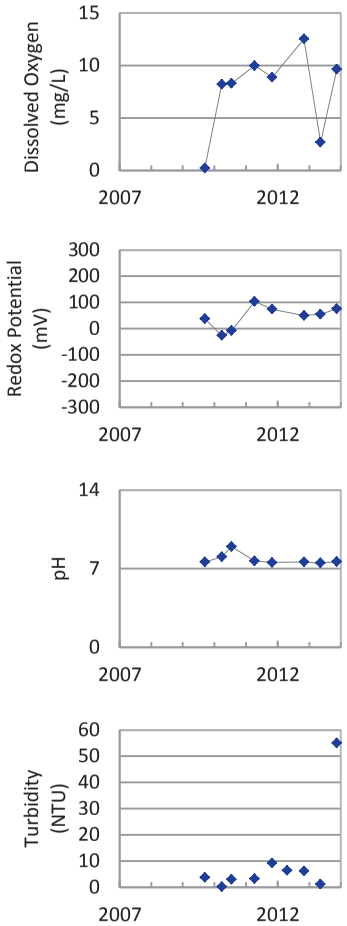
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/11/2008 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1136
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



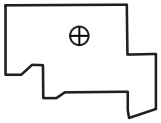
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

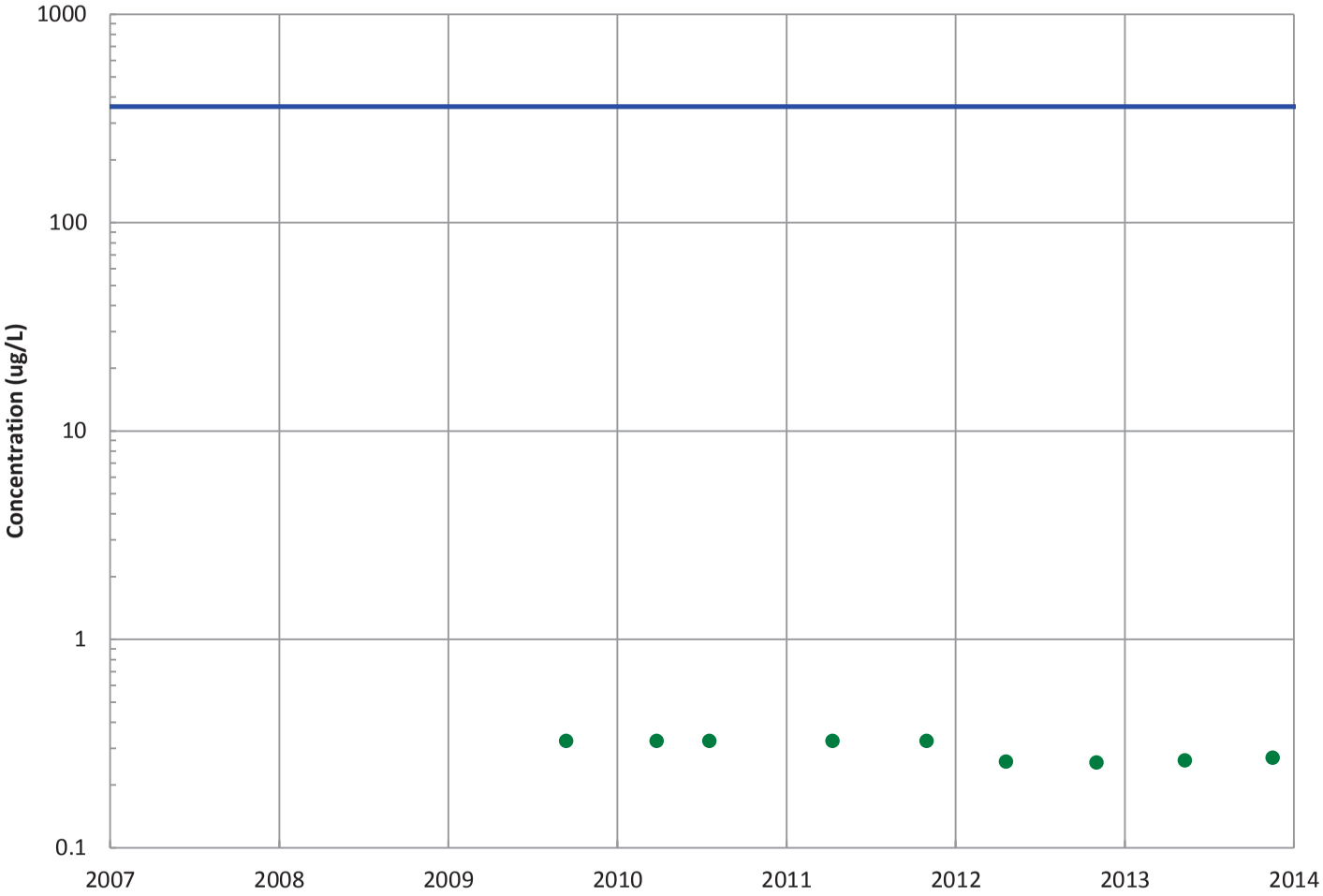
Well Location



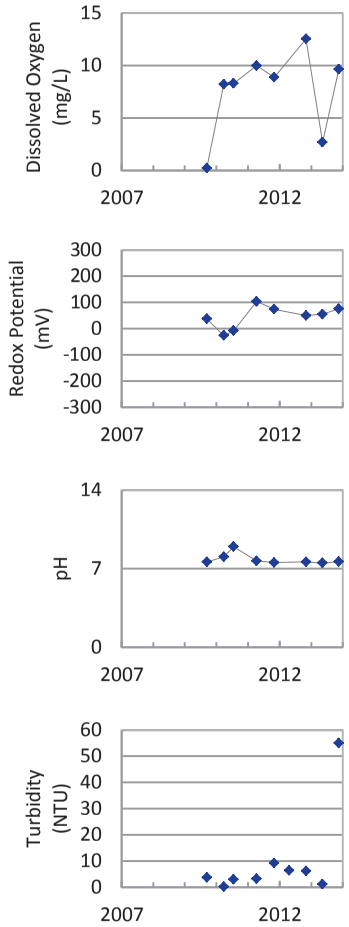
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1136
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



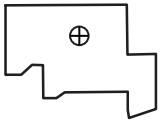
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

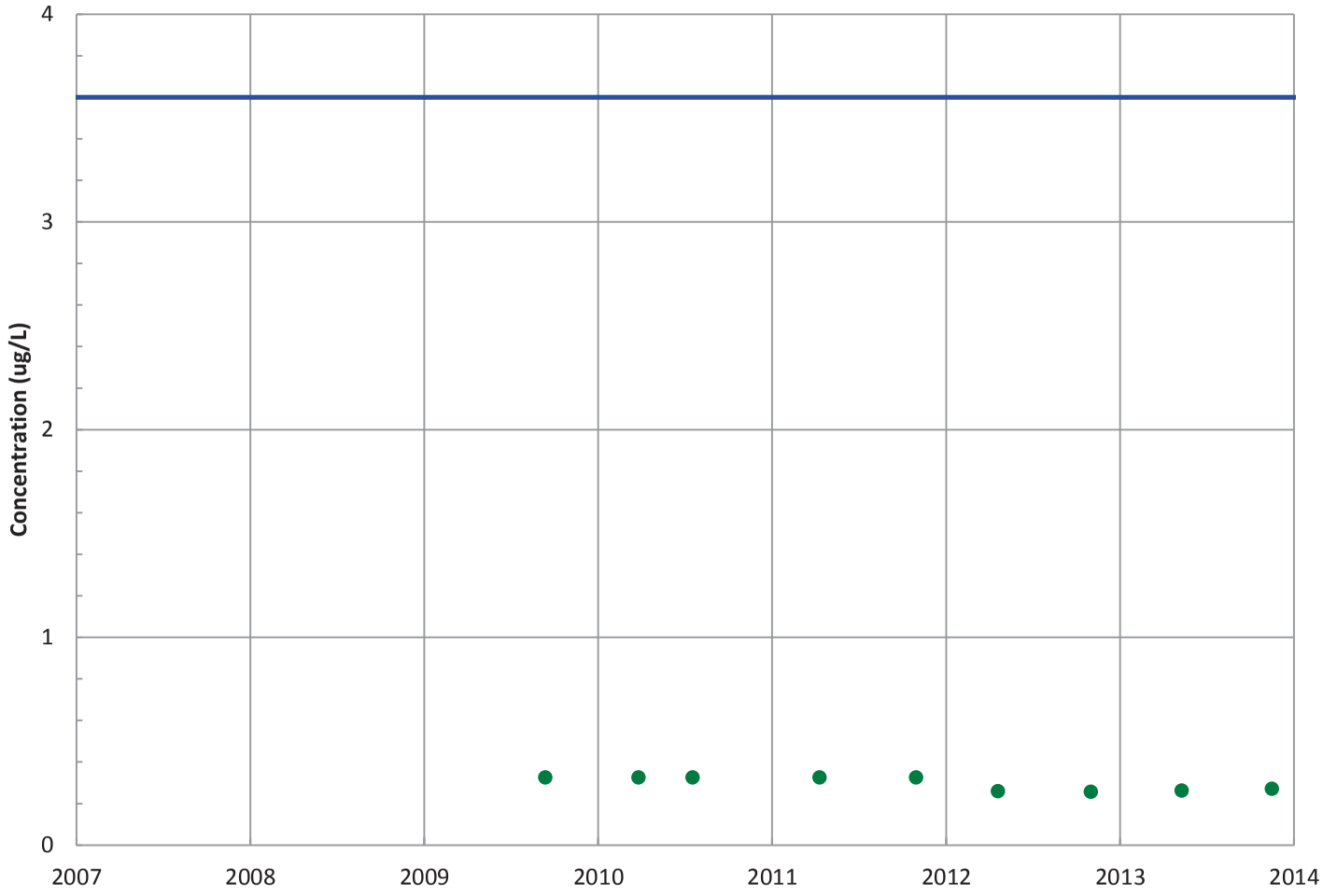
Well Location



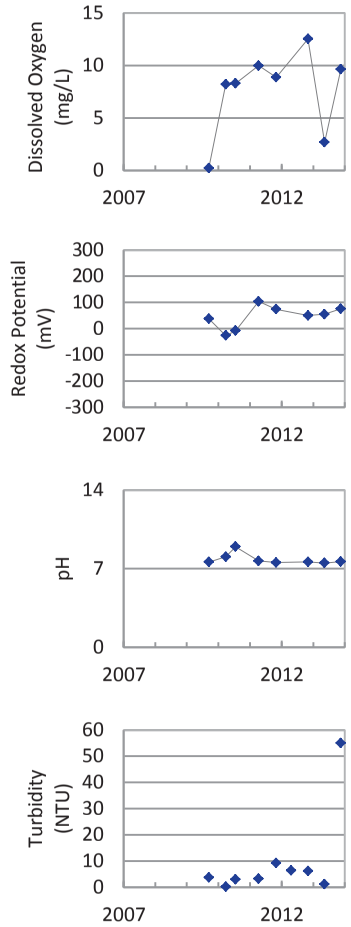
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1136
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



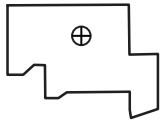
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

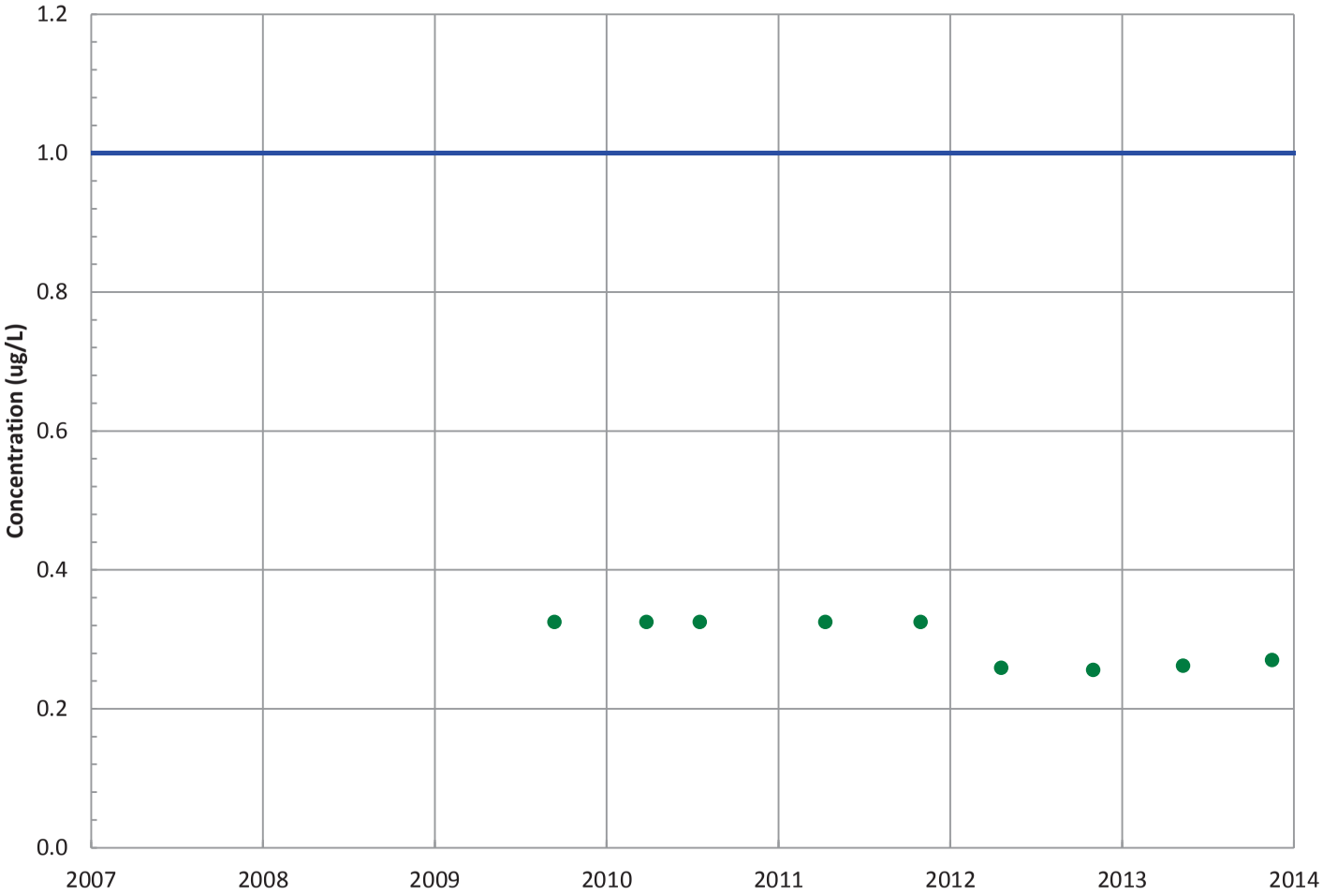
Well Location



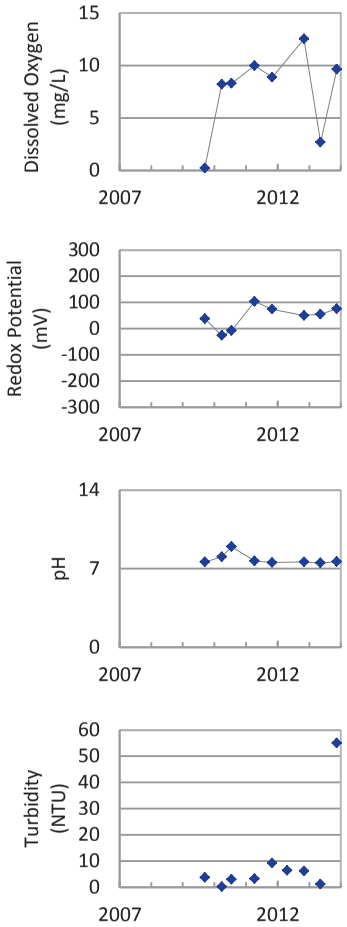
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1136
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



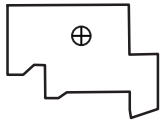
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

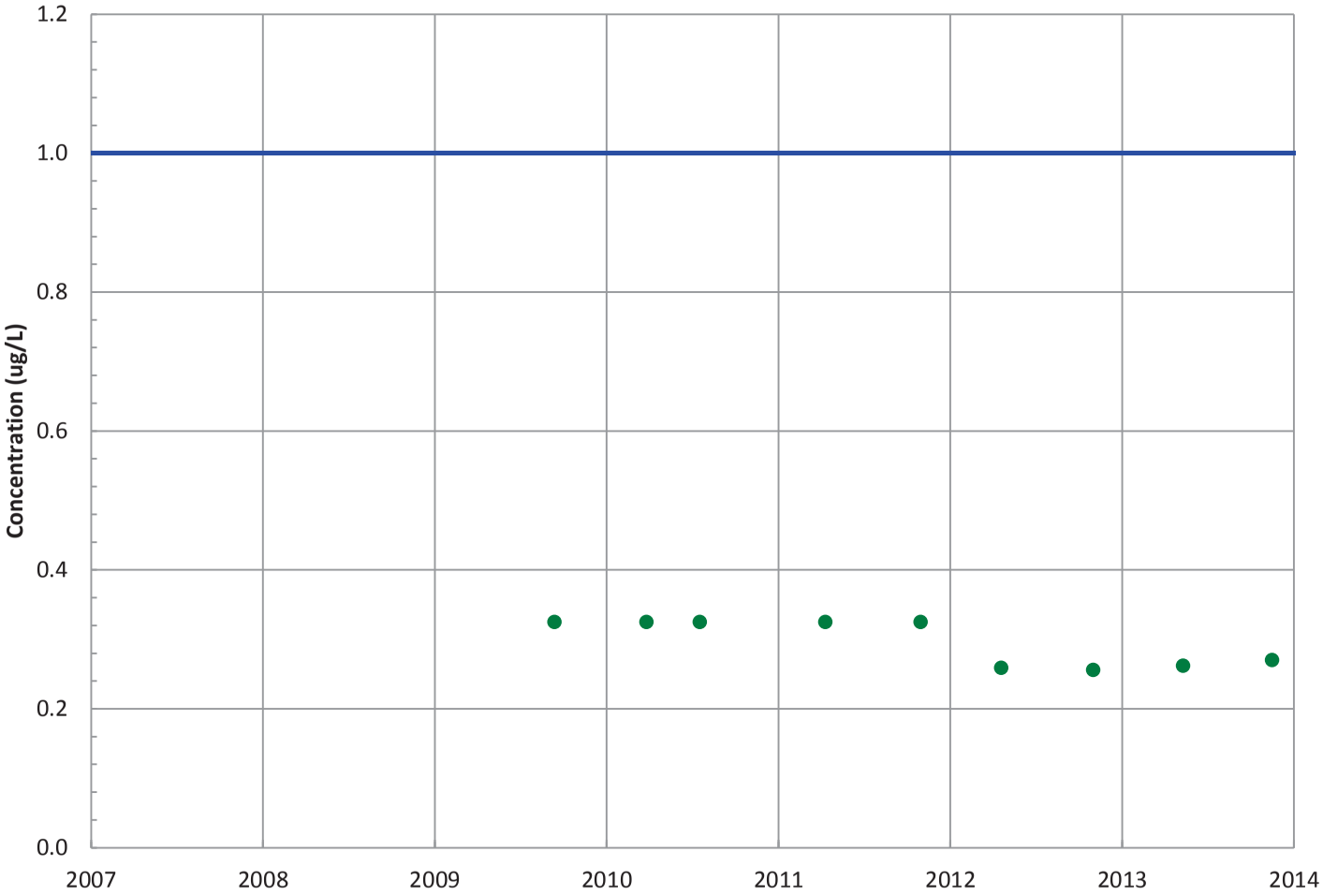
Well Location



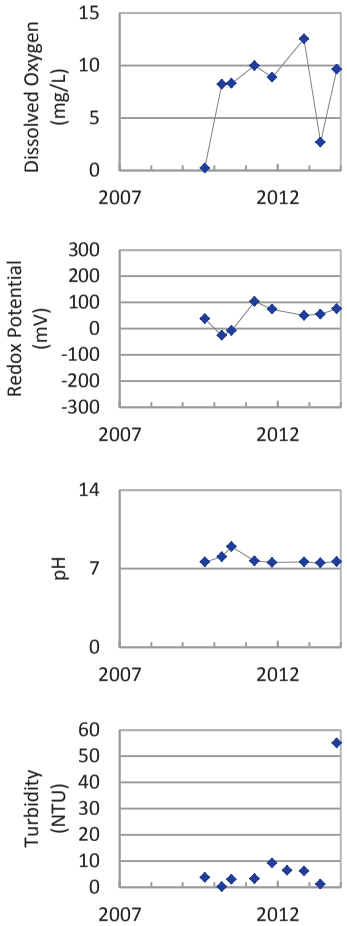
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1136
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



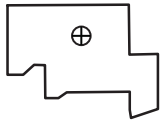
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

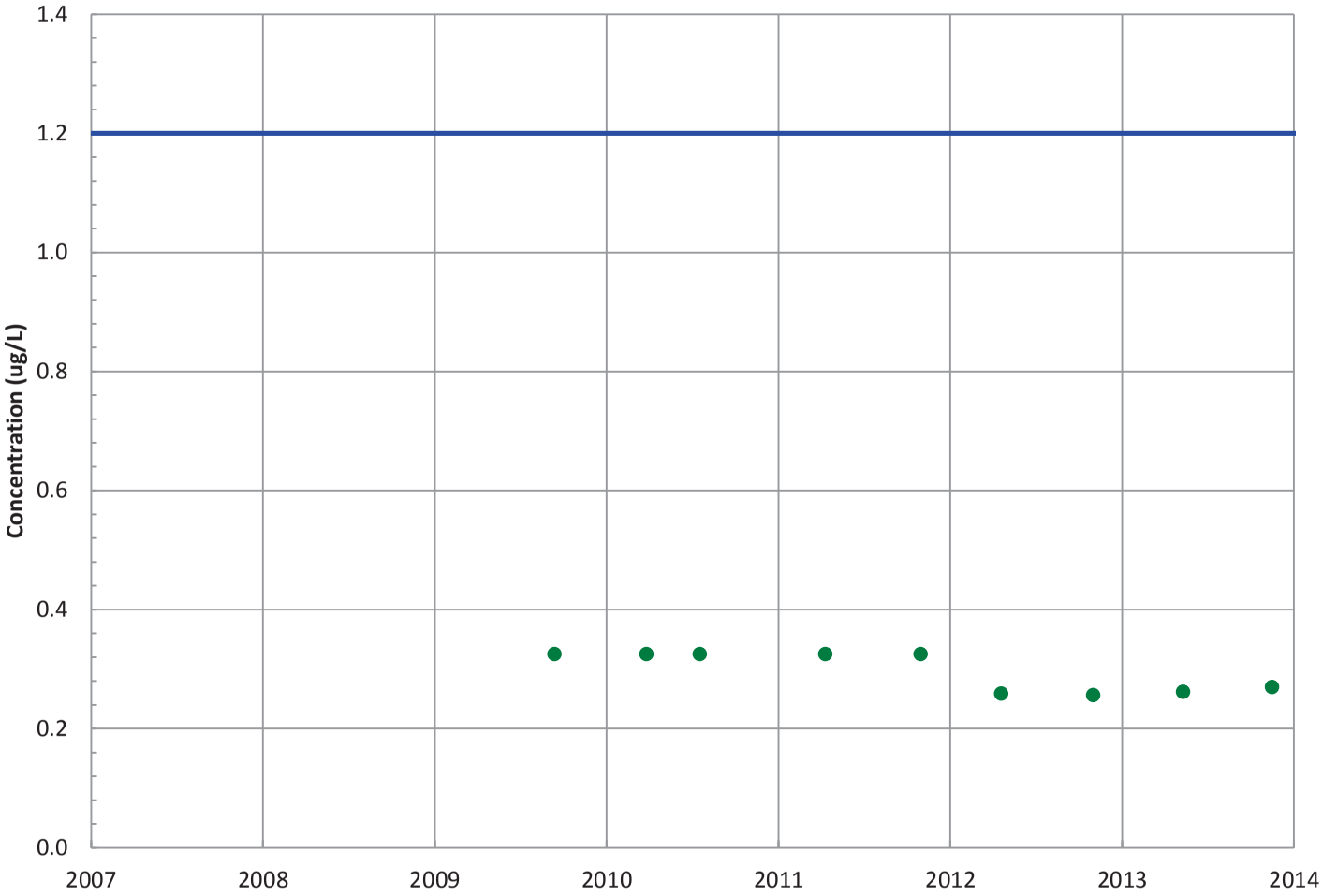
Well Location



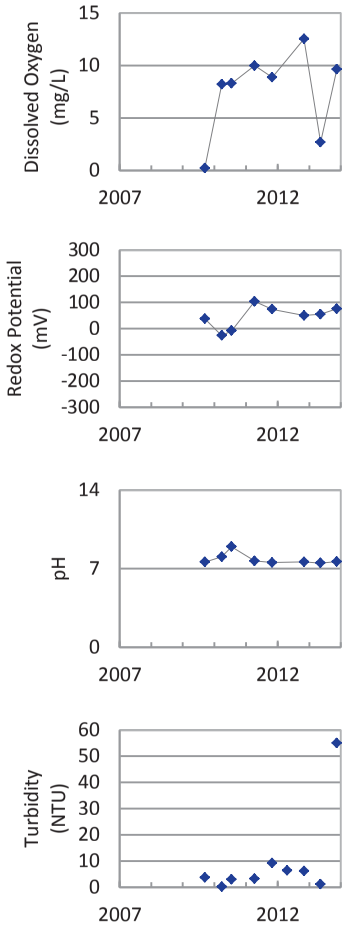
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1136
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



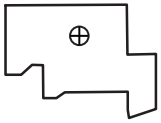
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

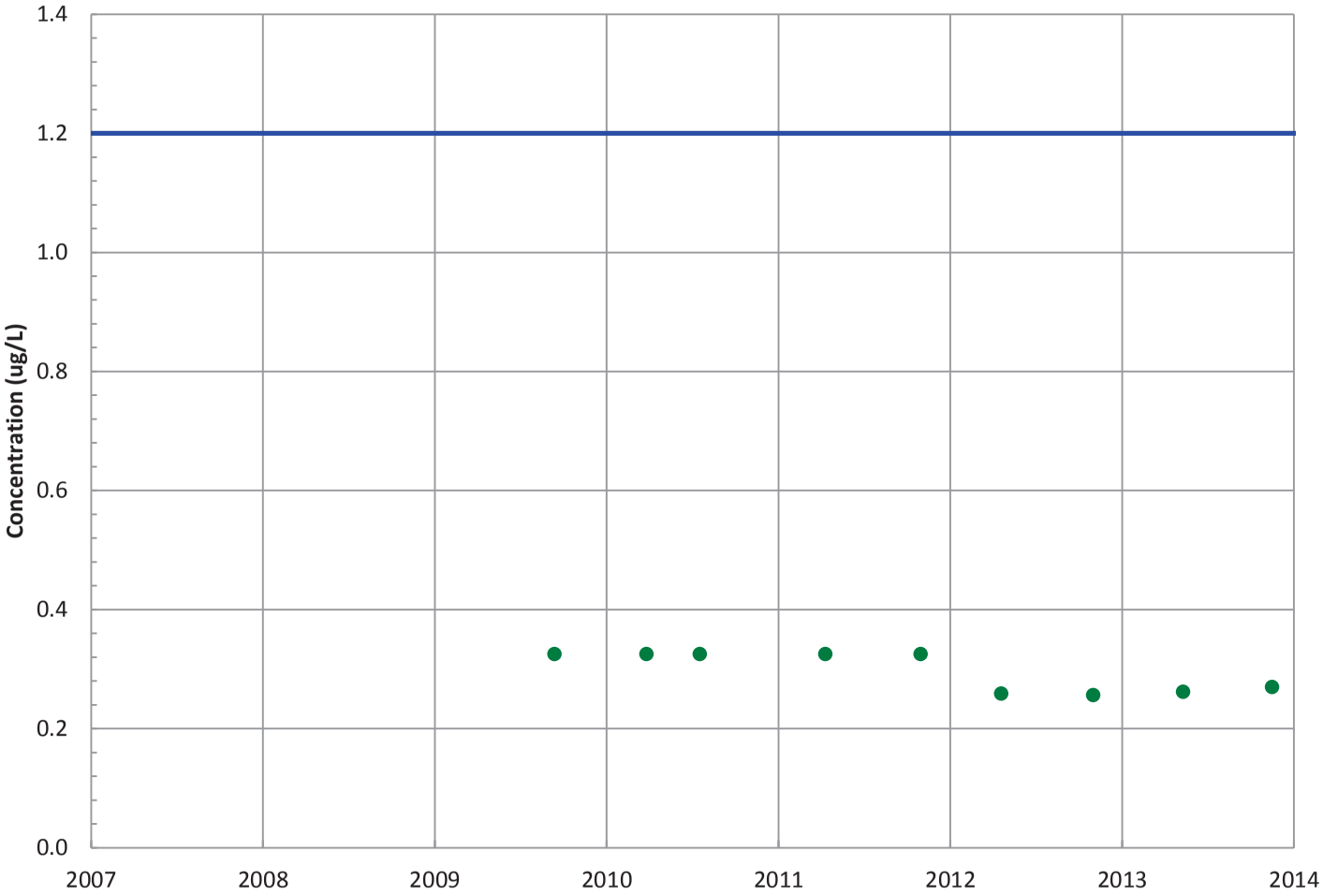
Well Location



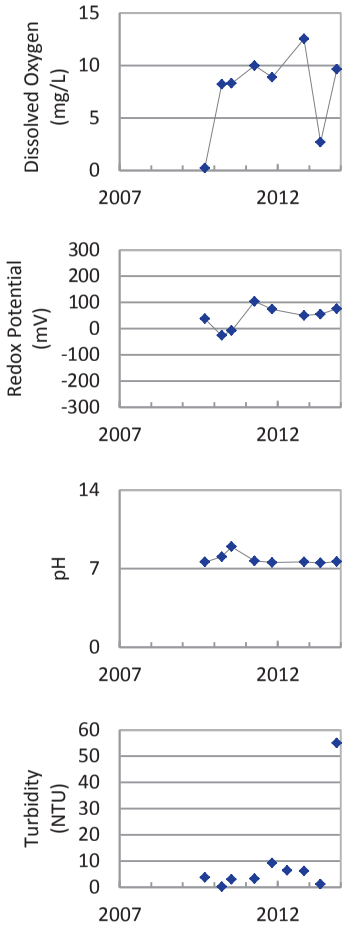
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1136
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



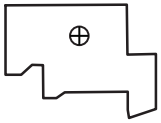
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

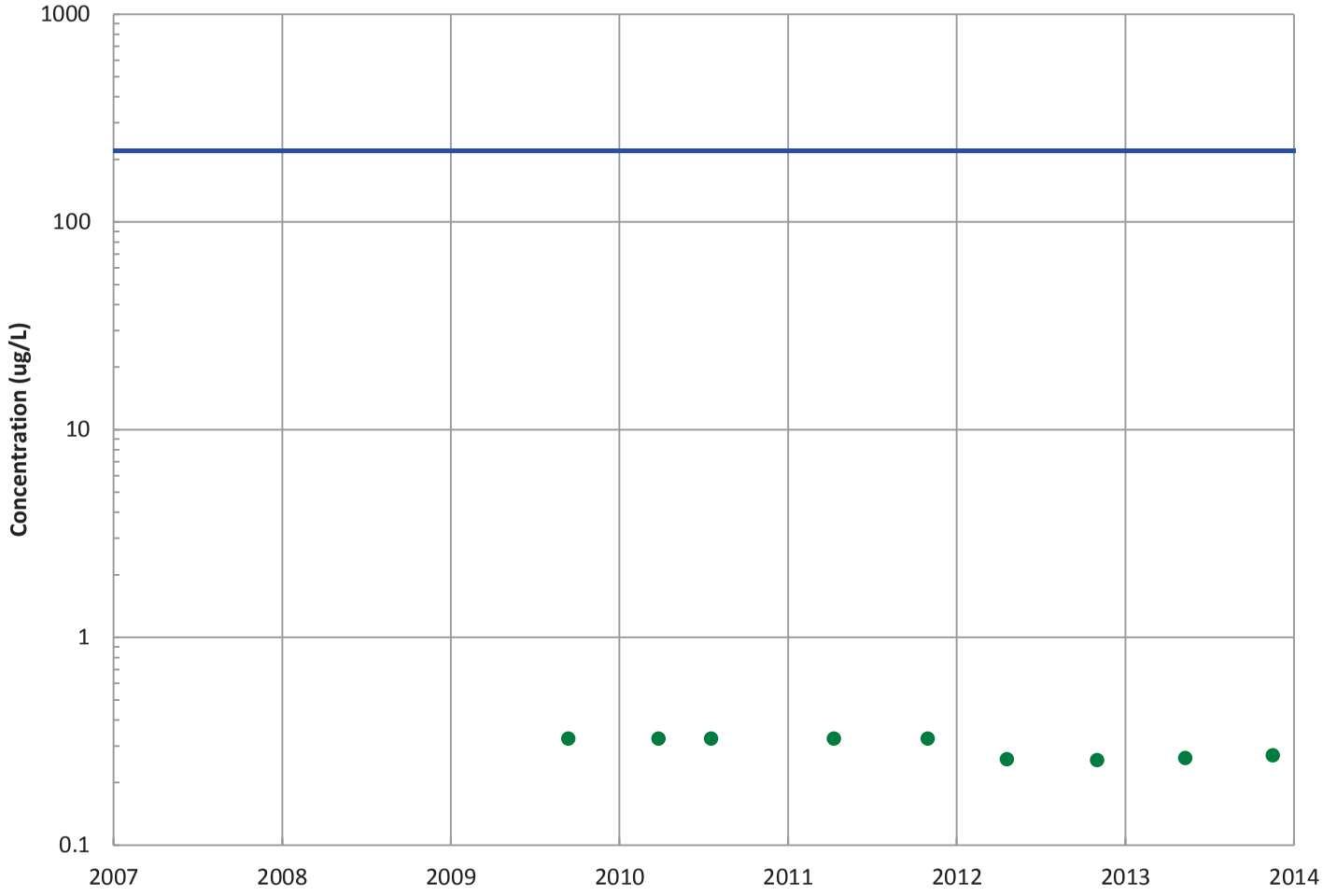
Well Location



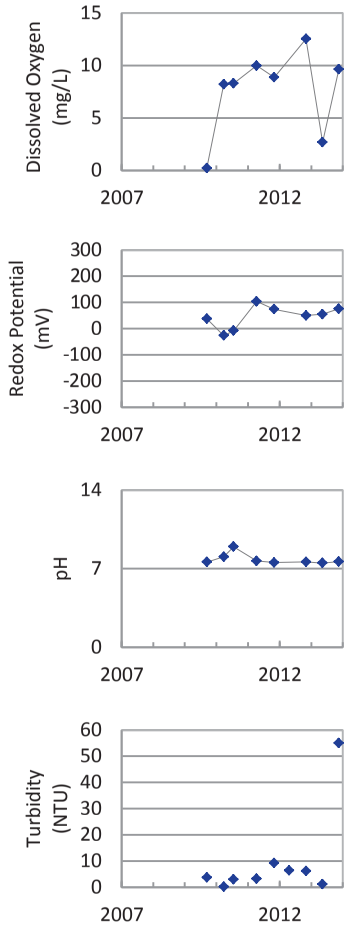
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1136
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



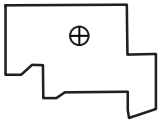
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

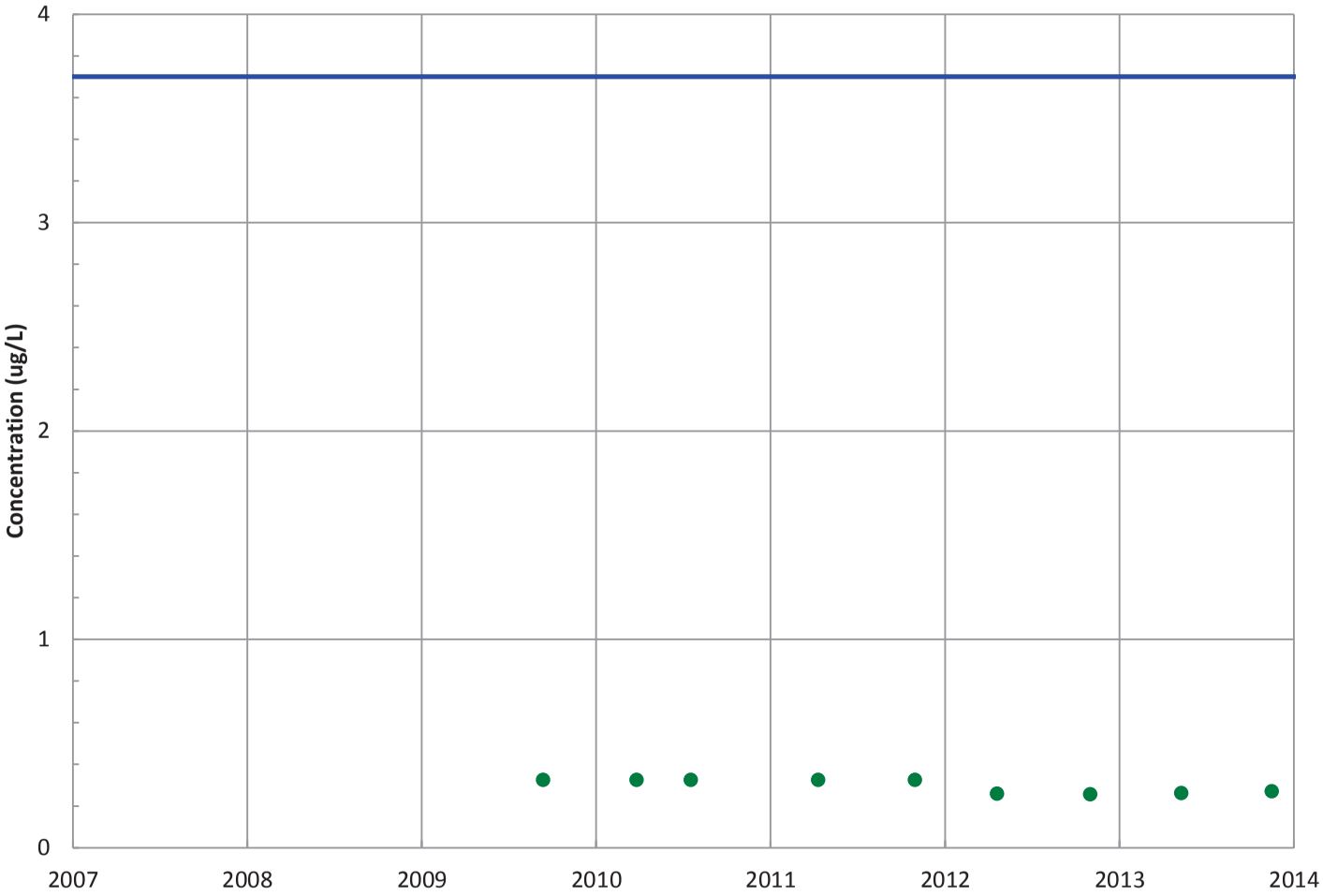
Well Location



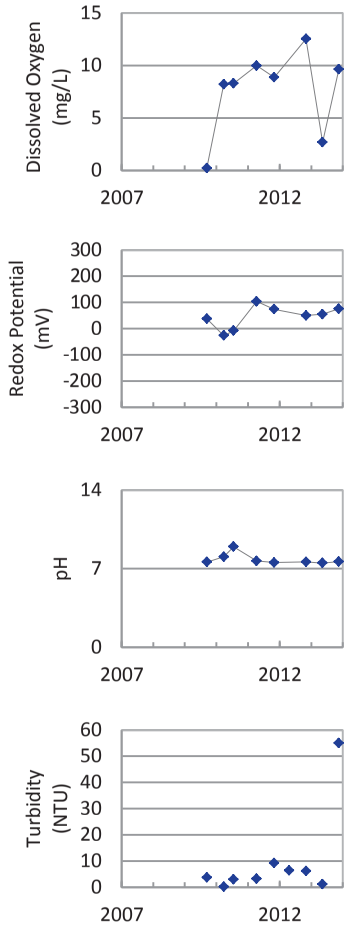
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1136
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



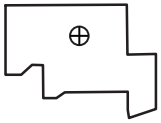
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

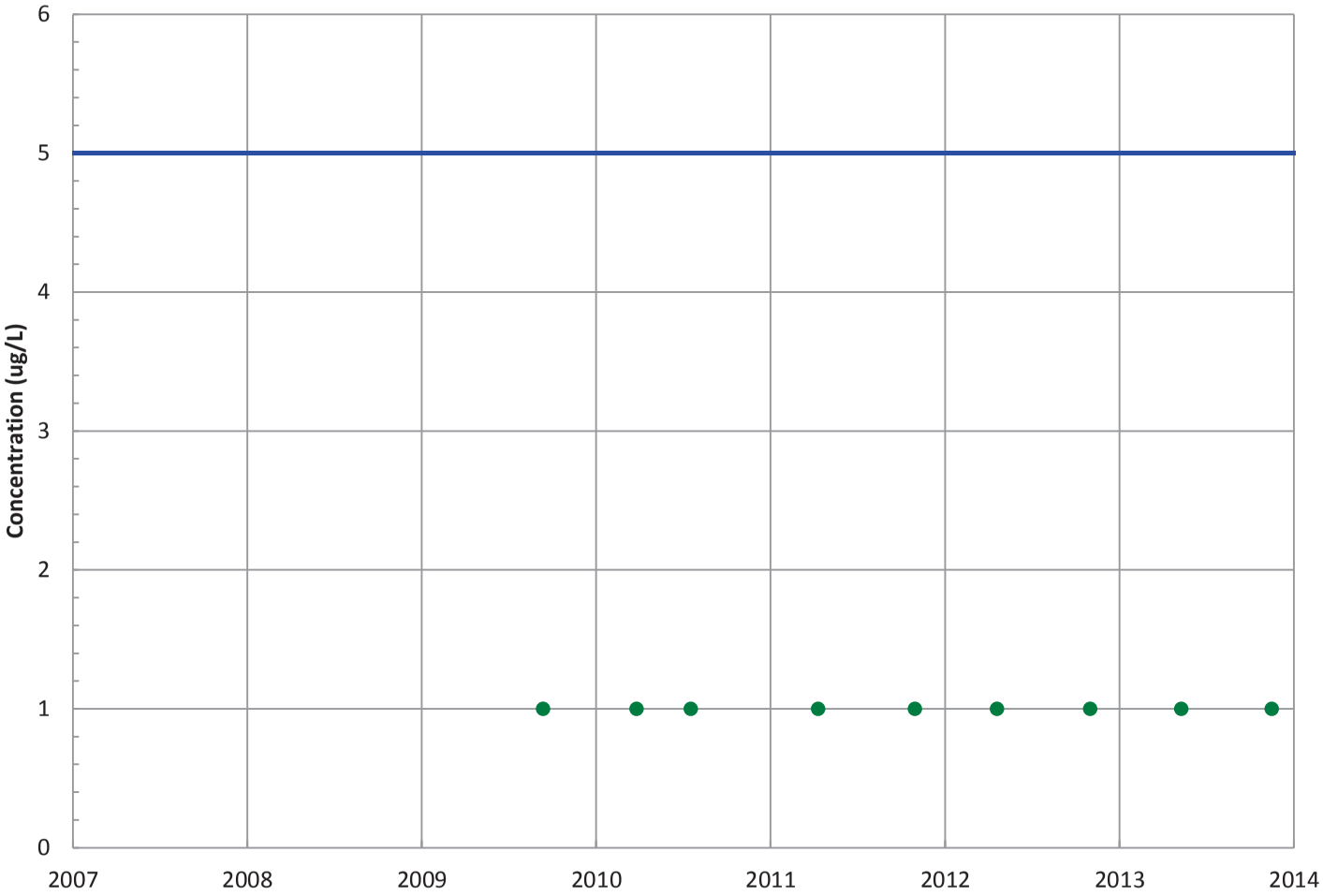
Well Location



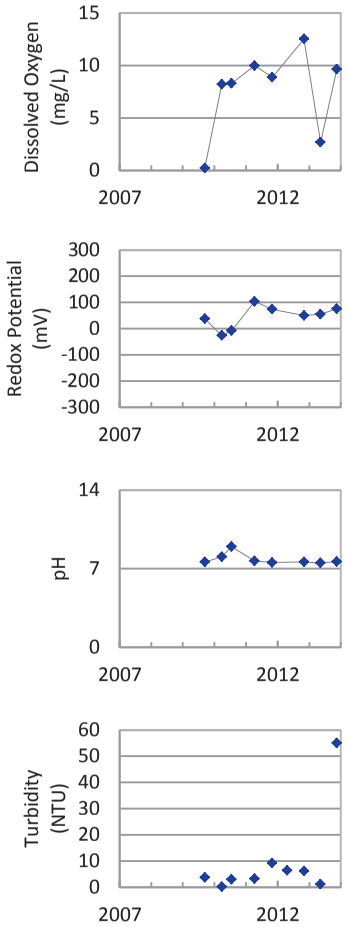
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1136
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



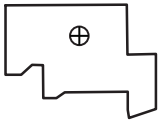
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

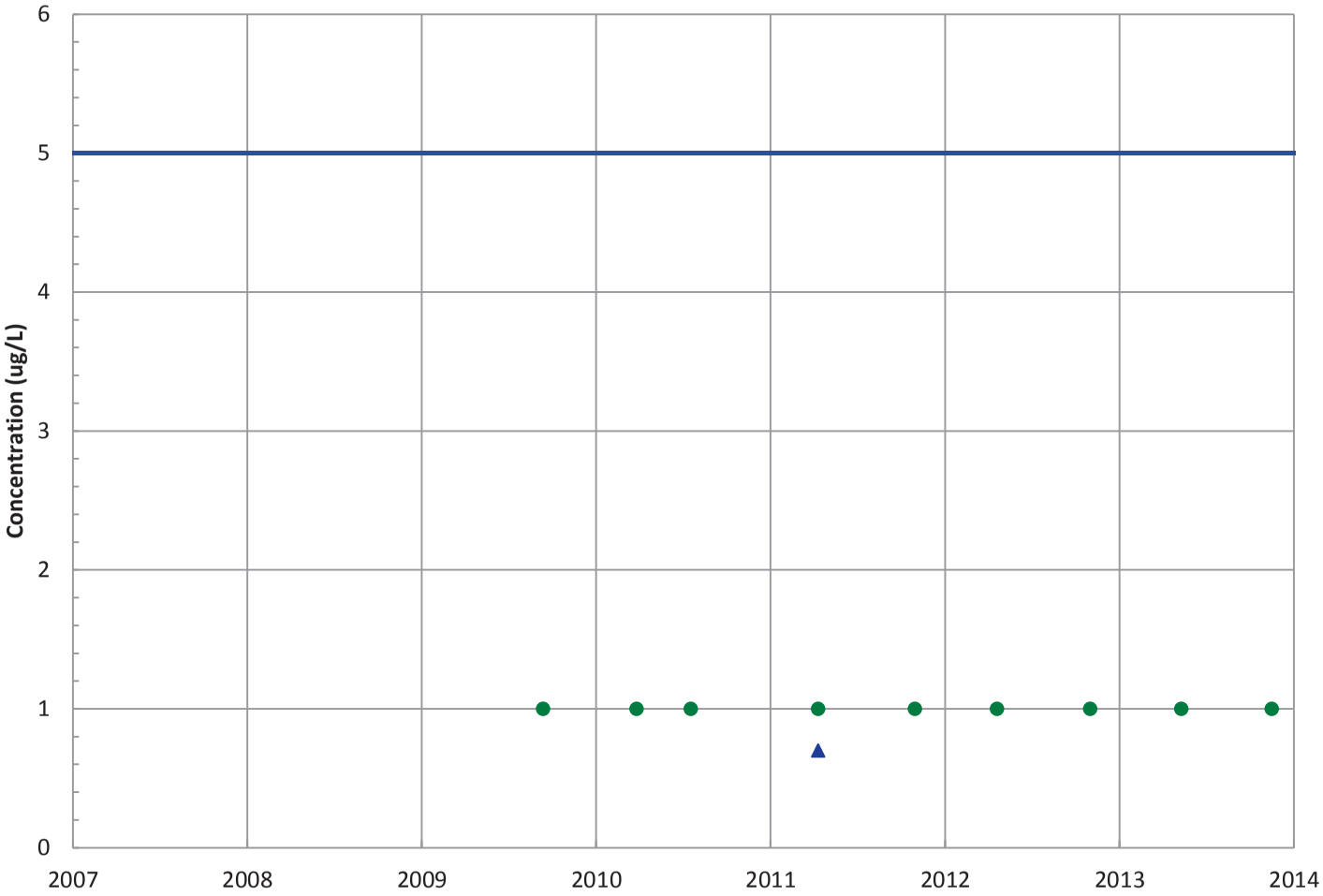
Well Location



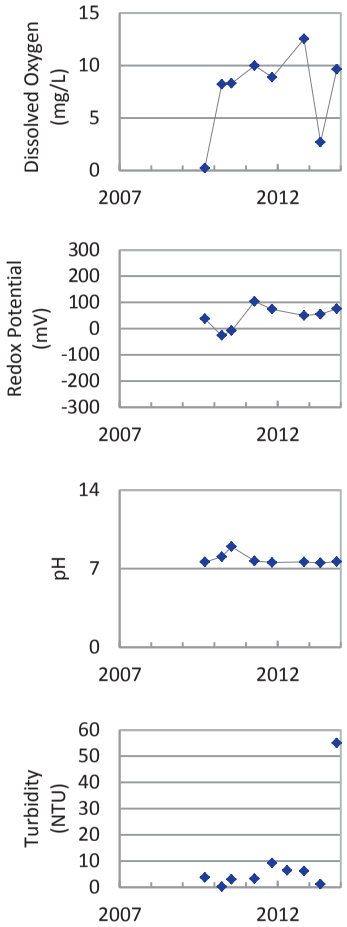
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1136
Trichloroethene Trend in Perched Aquifer



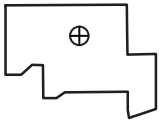
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: All Non-Detect
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

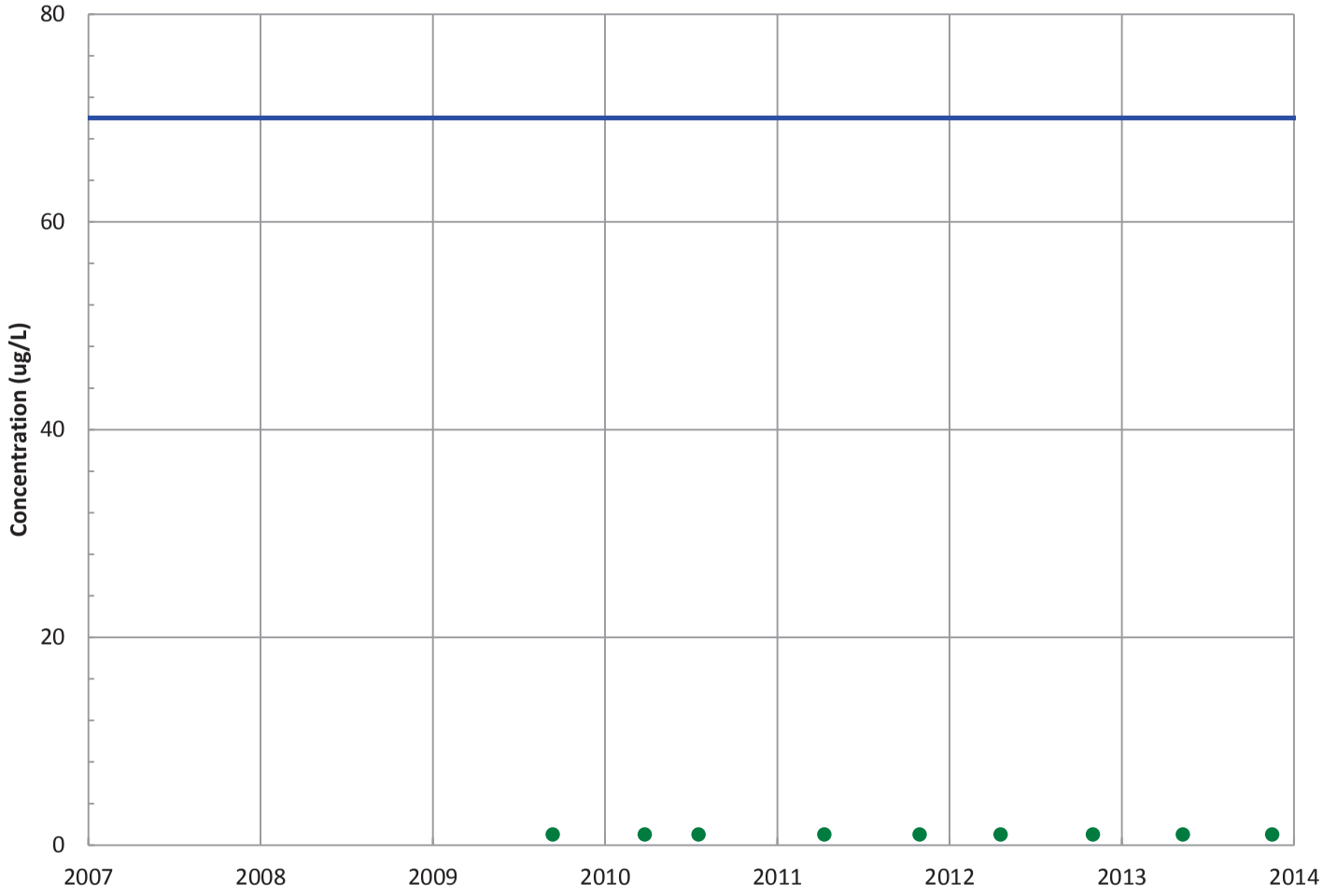
Well Location



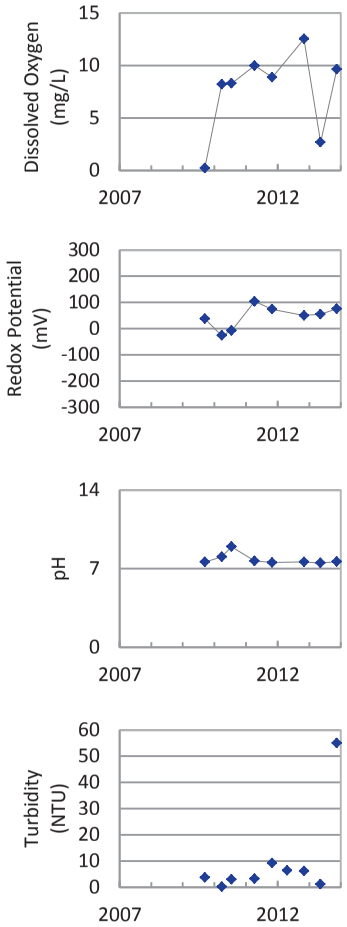
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1136
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



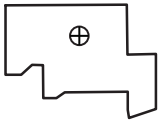
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

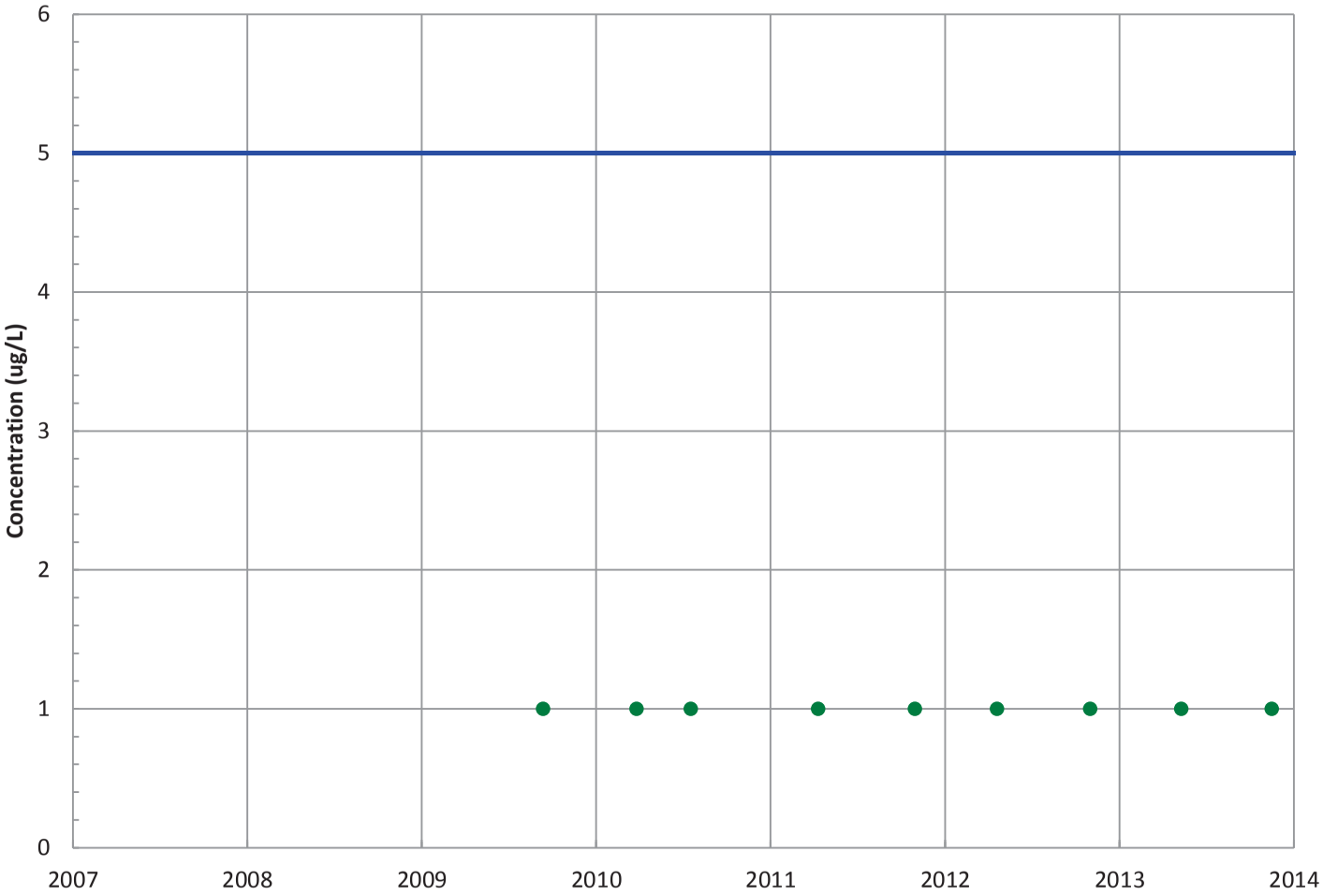
Well Location



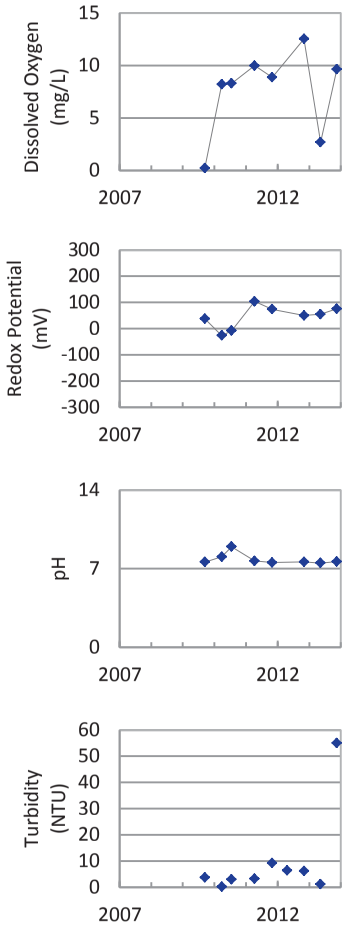
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1136
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



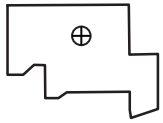
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

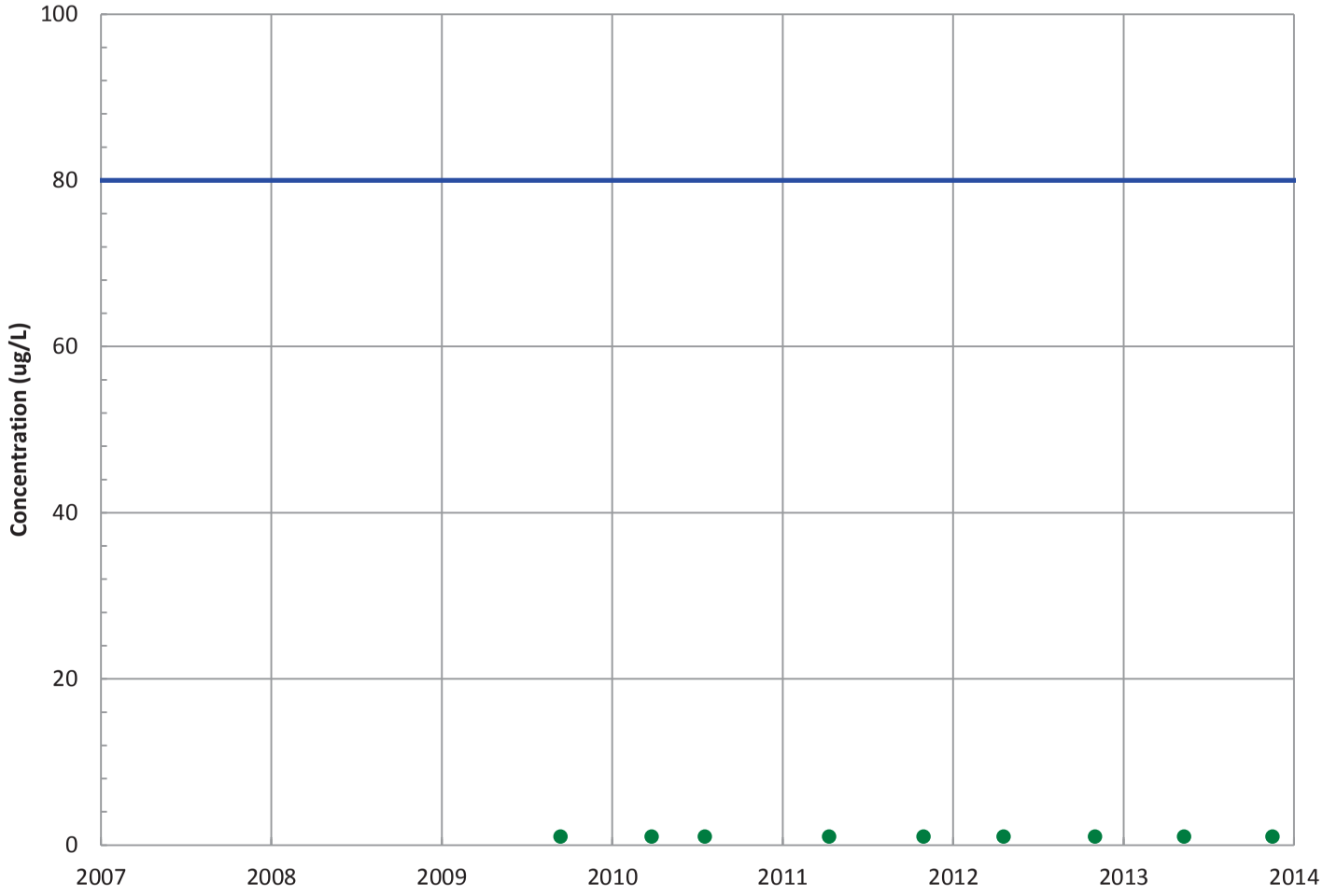
Well Location



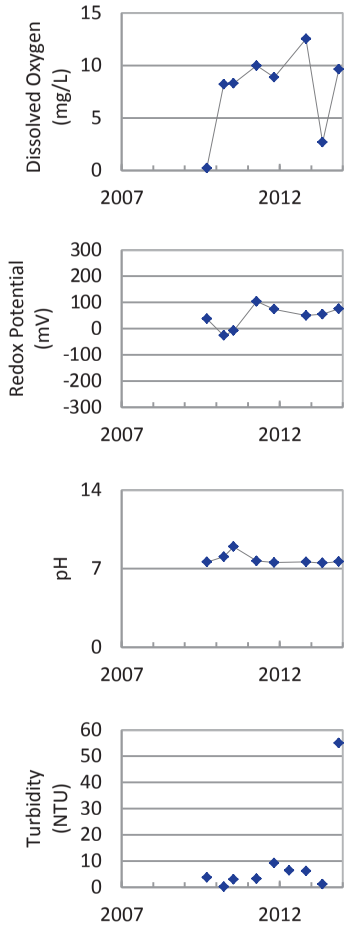
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1136
Chloroform Trend in Perched Aquifer



Field Parameters



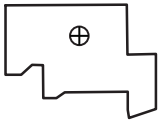
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

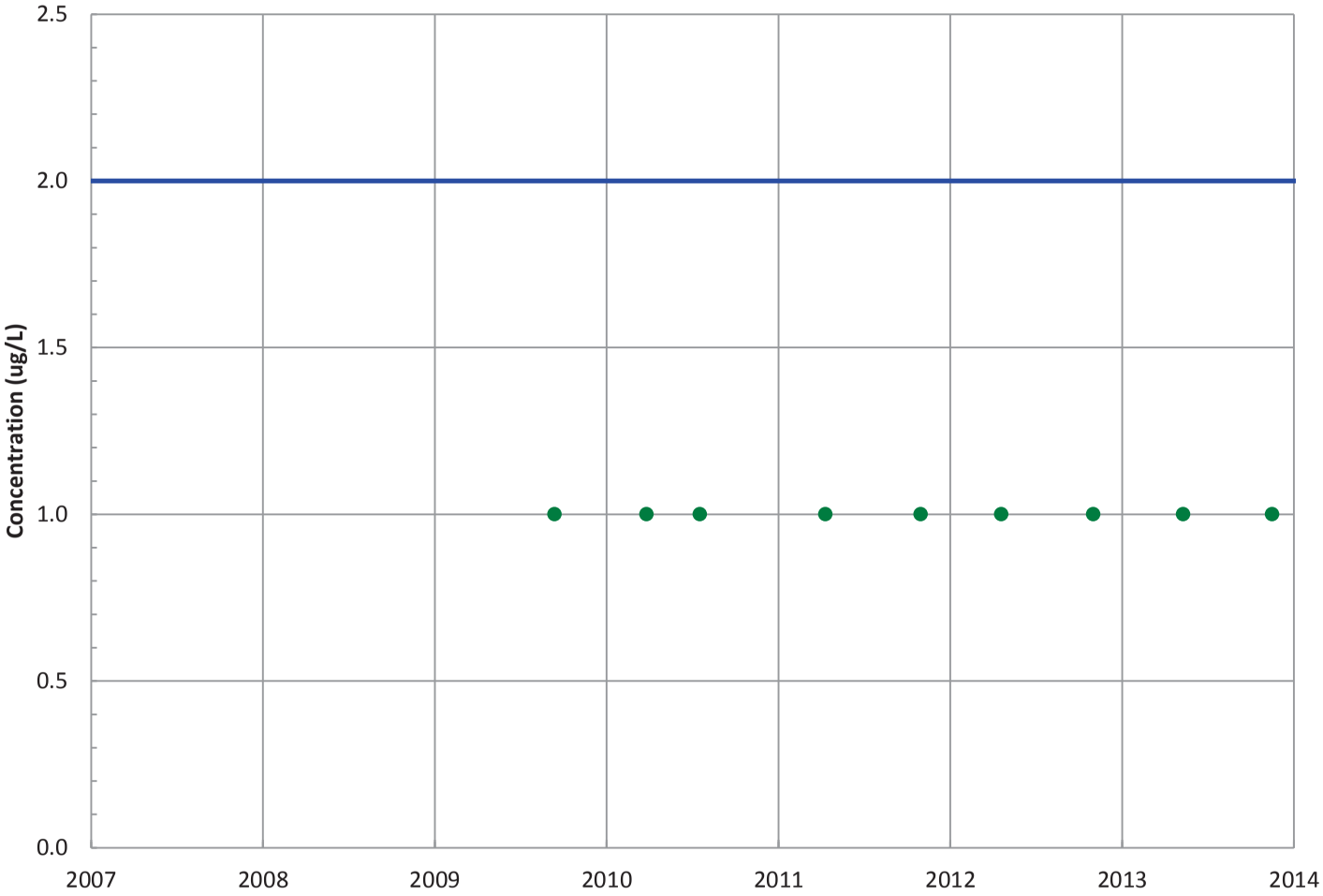
Well Location



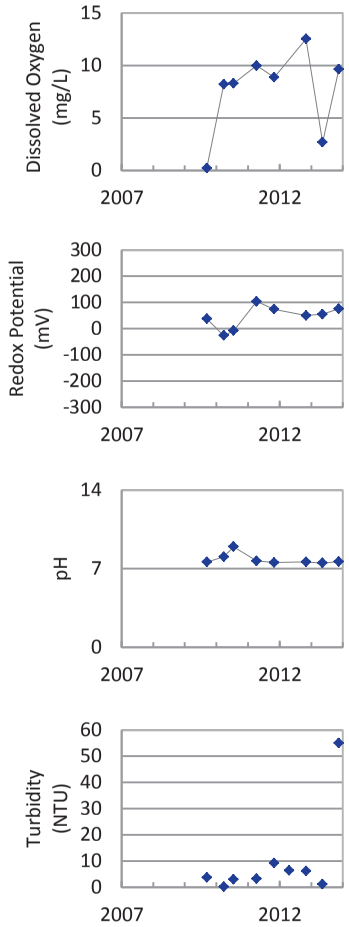
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1136
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



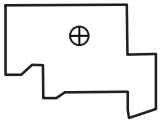
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

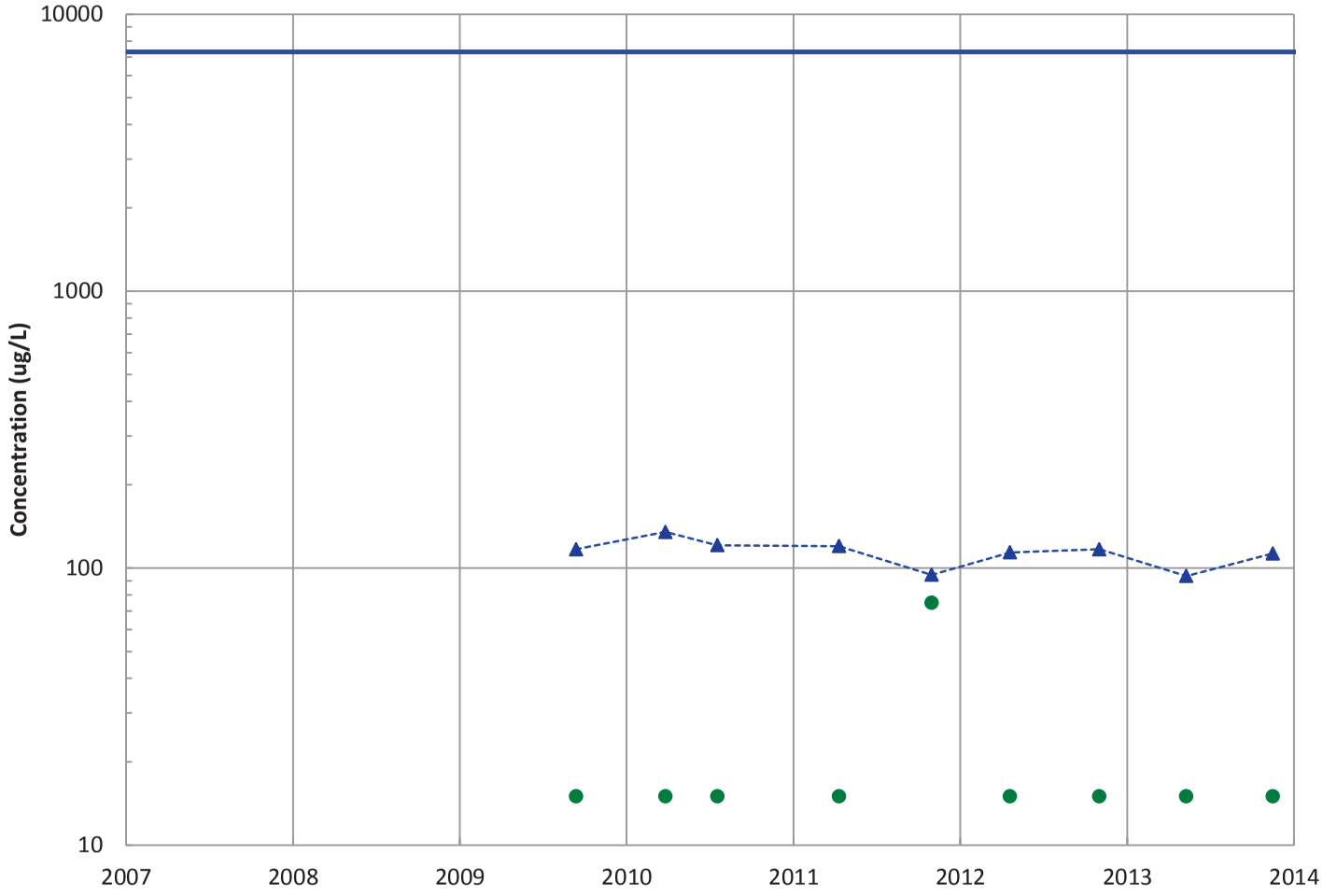
Well Location



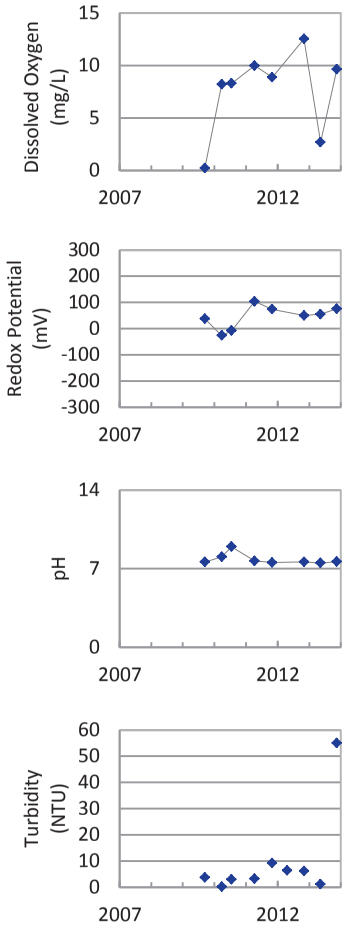
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1136
Boron Trend in Perched Aquifer



Field Parameters



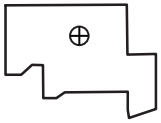
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Probably Decreasing
2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

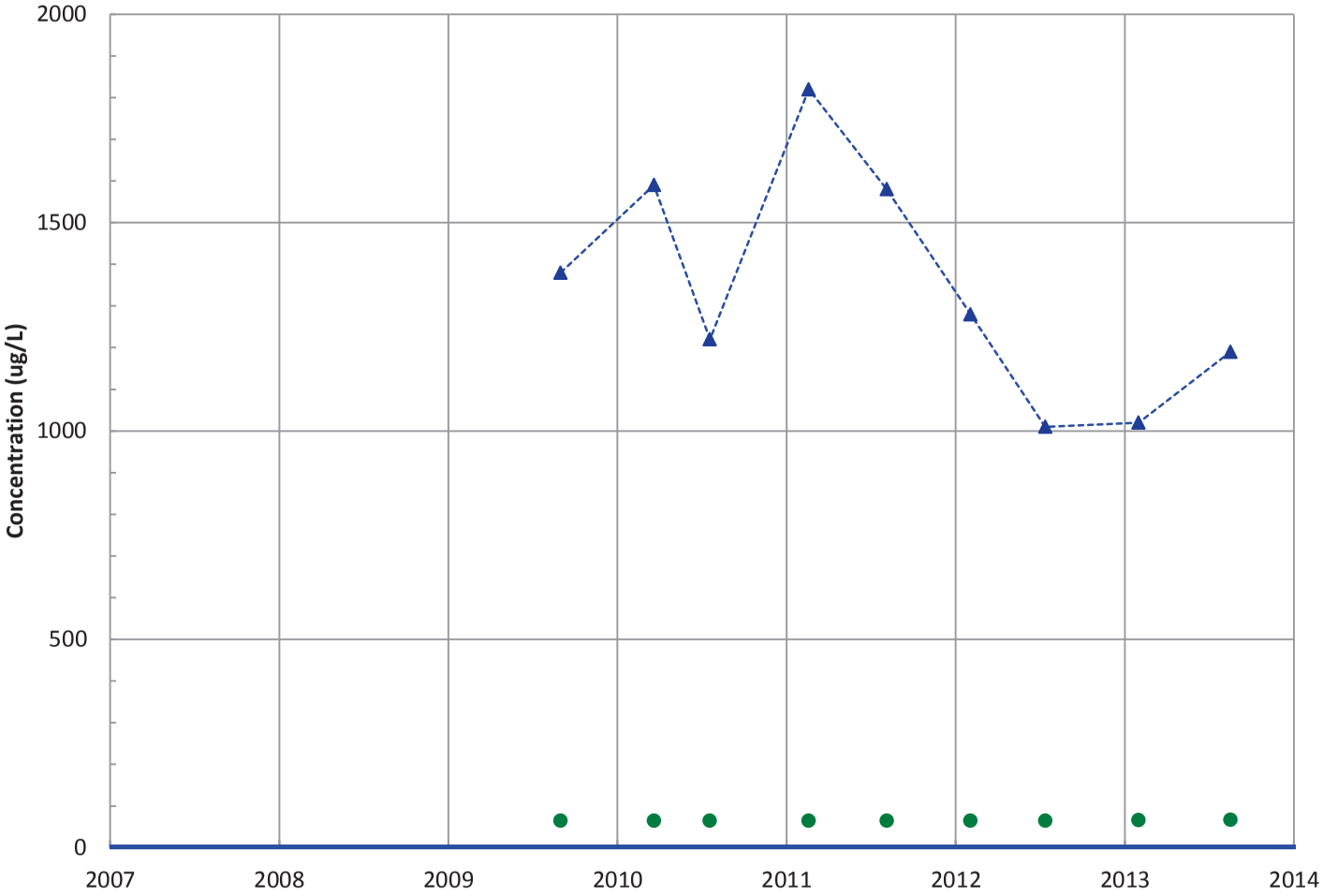
Well Location



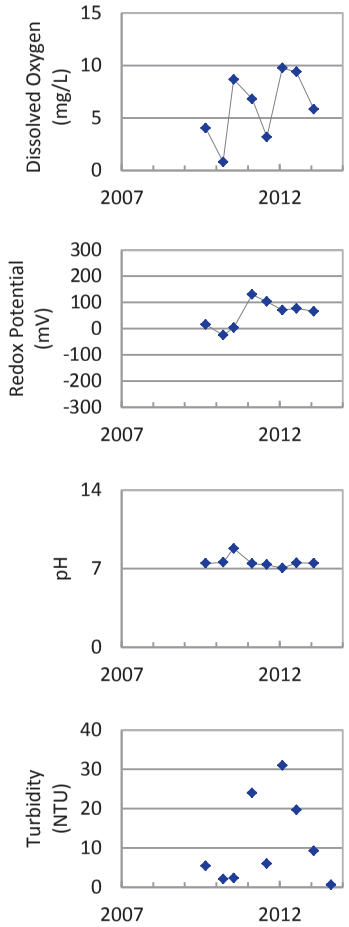
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/21/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1146
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



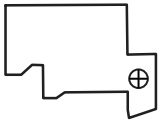
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

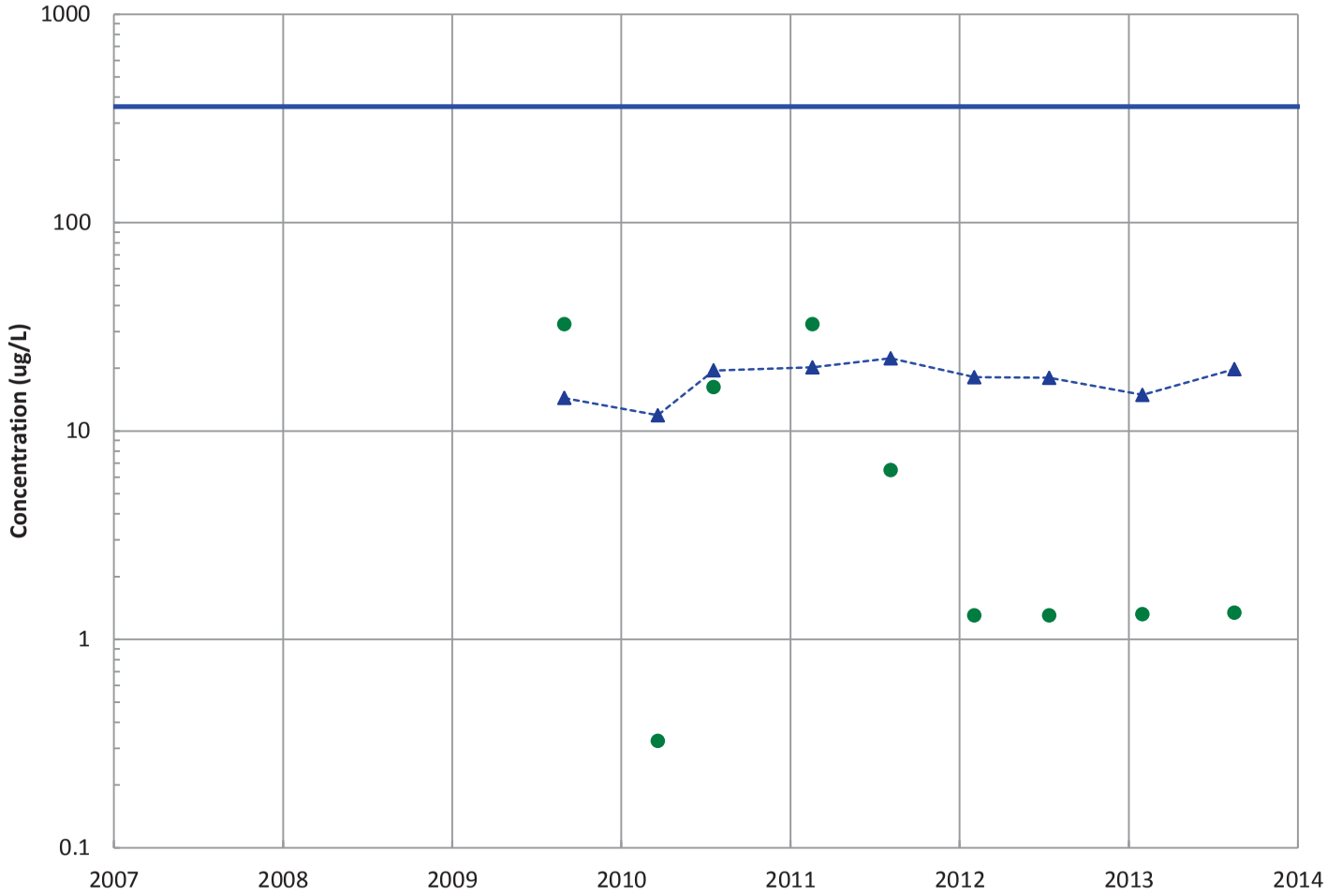
Well Location



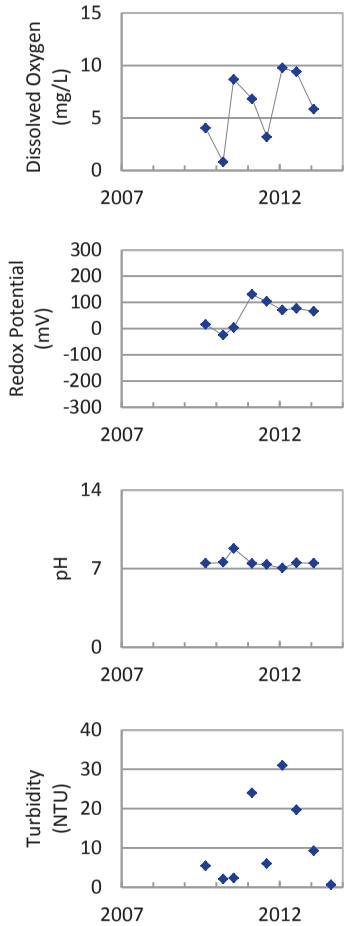
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/2/2009 to 8/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1146
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



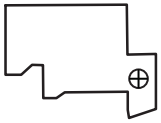
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

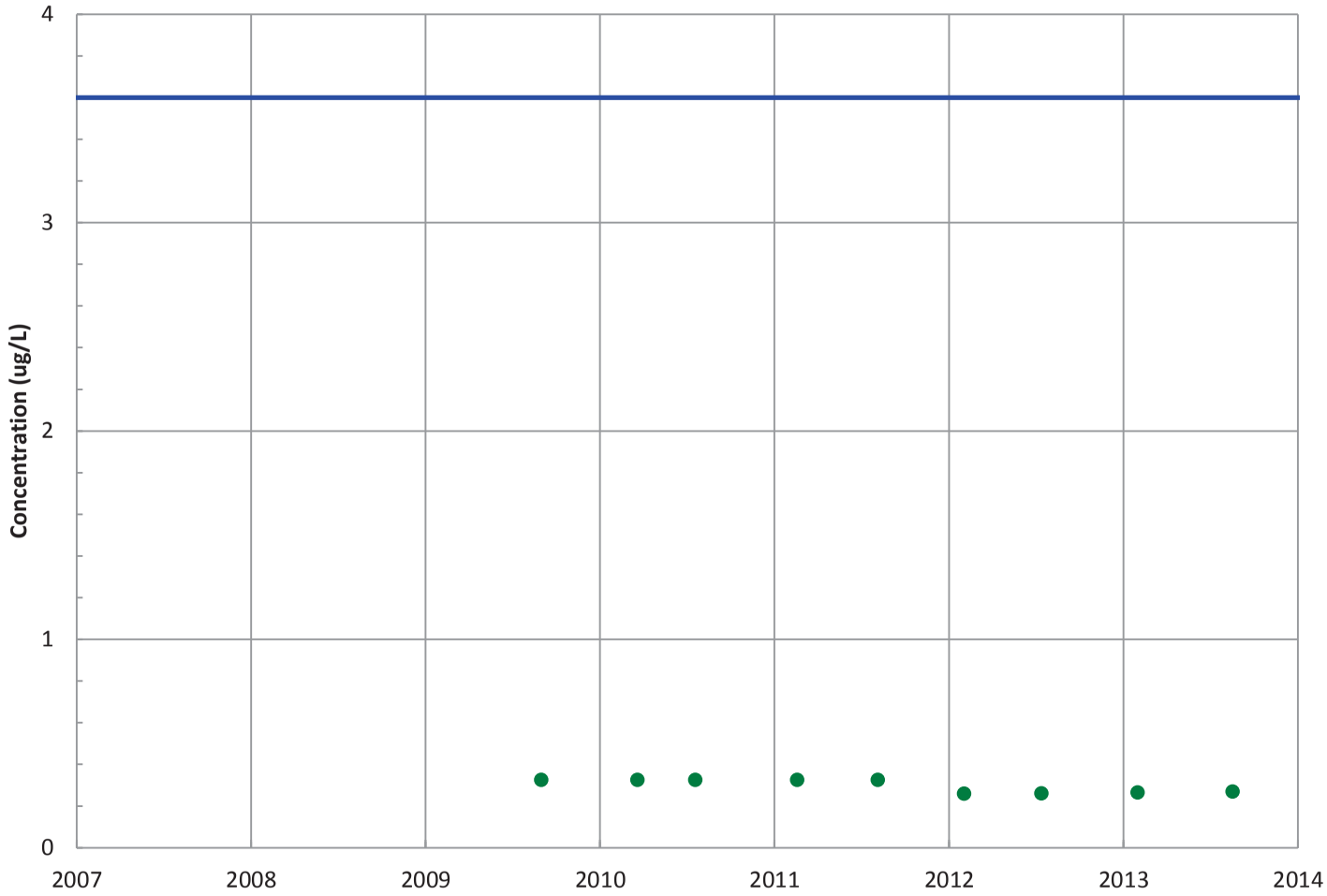
Well Location



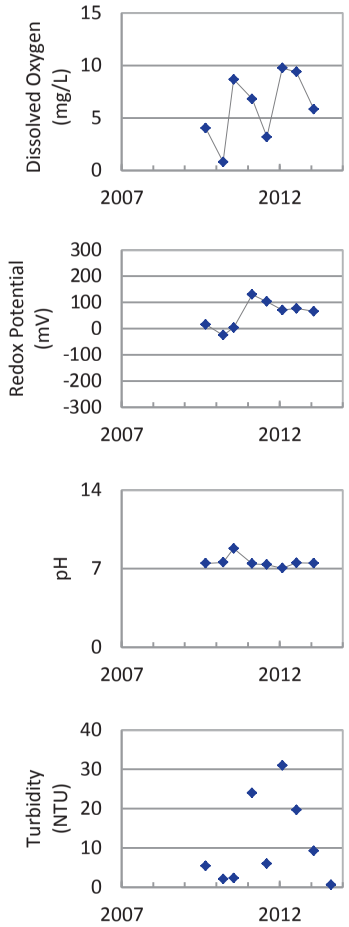
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/2/2009 to 8/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1146
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



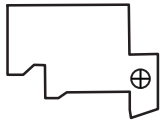
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

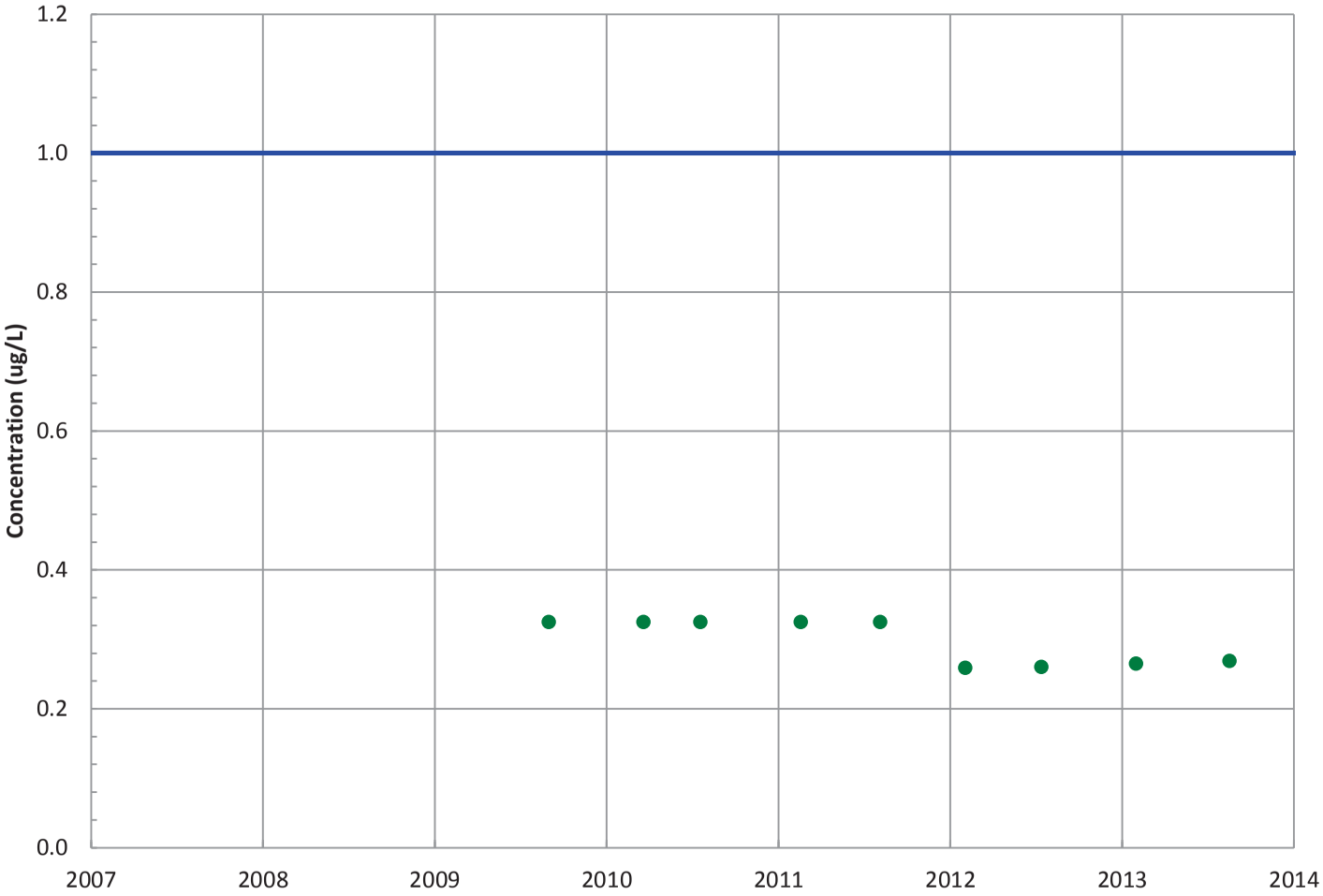
Well Location



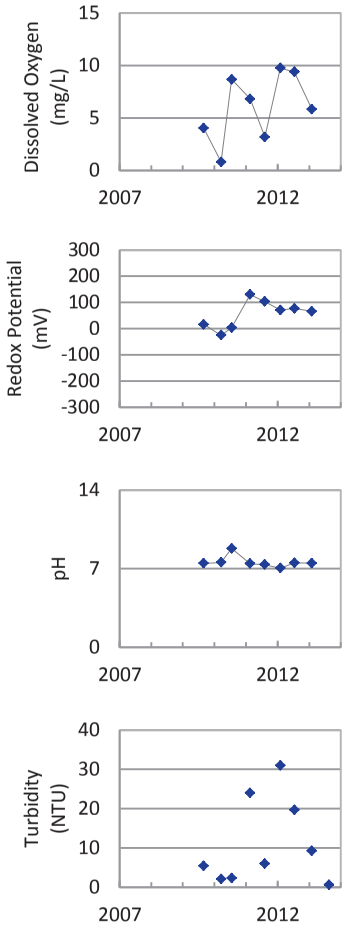
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/2/2009 to 8/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1146
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



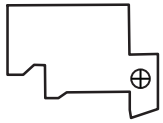
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

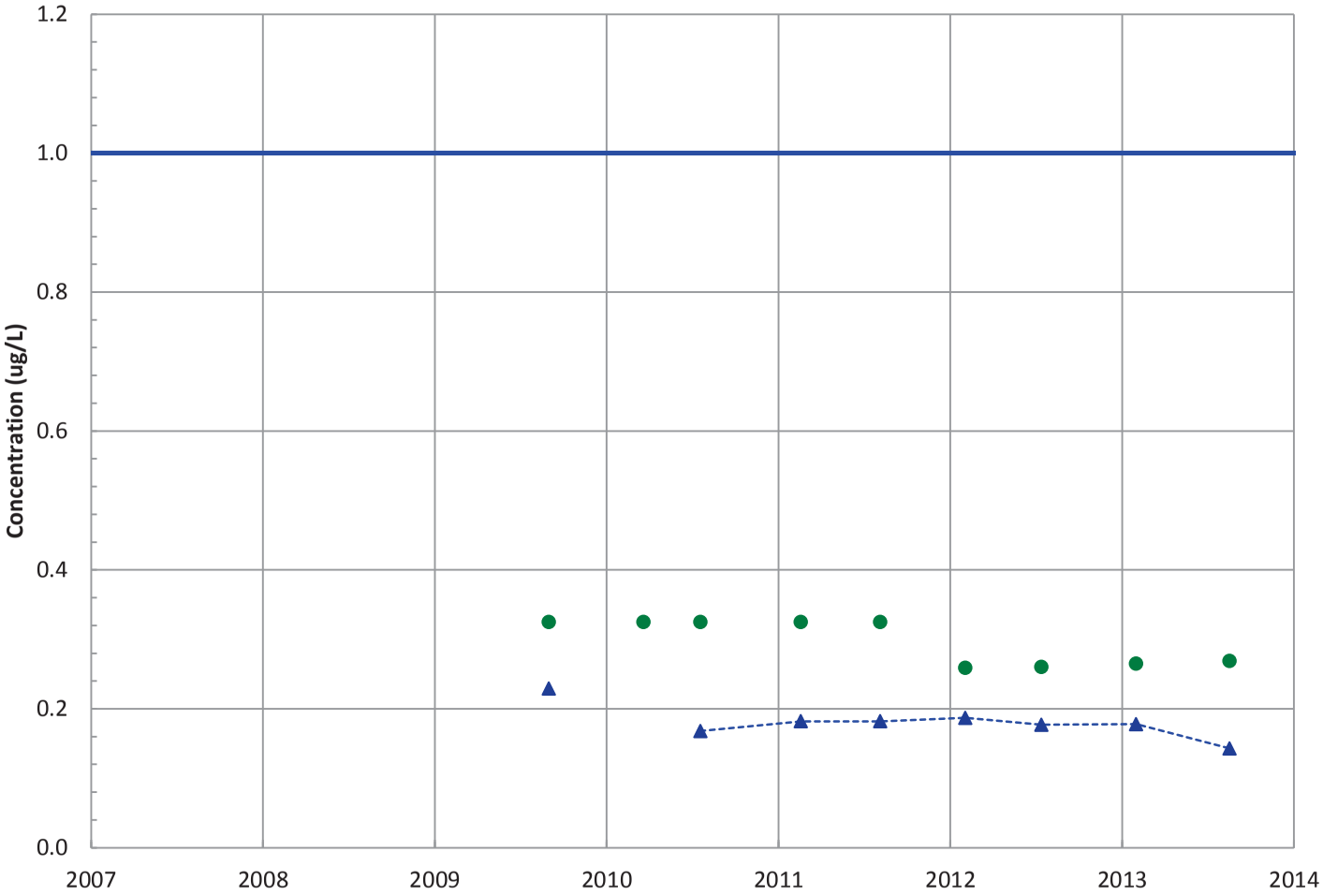
Well Location



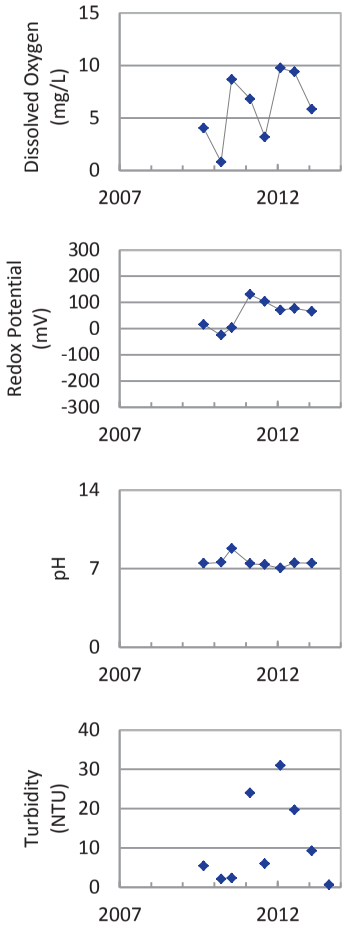
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/2/2009 to 8/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1146
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



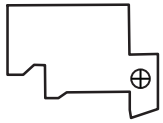
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Probably Decreasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

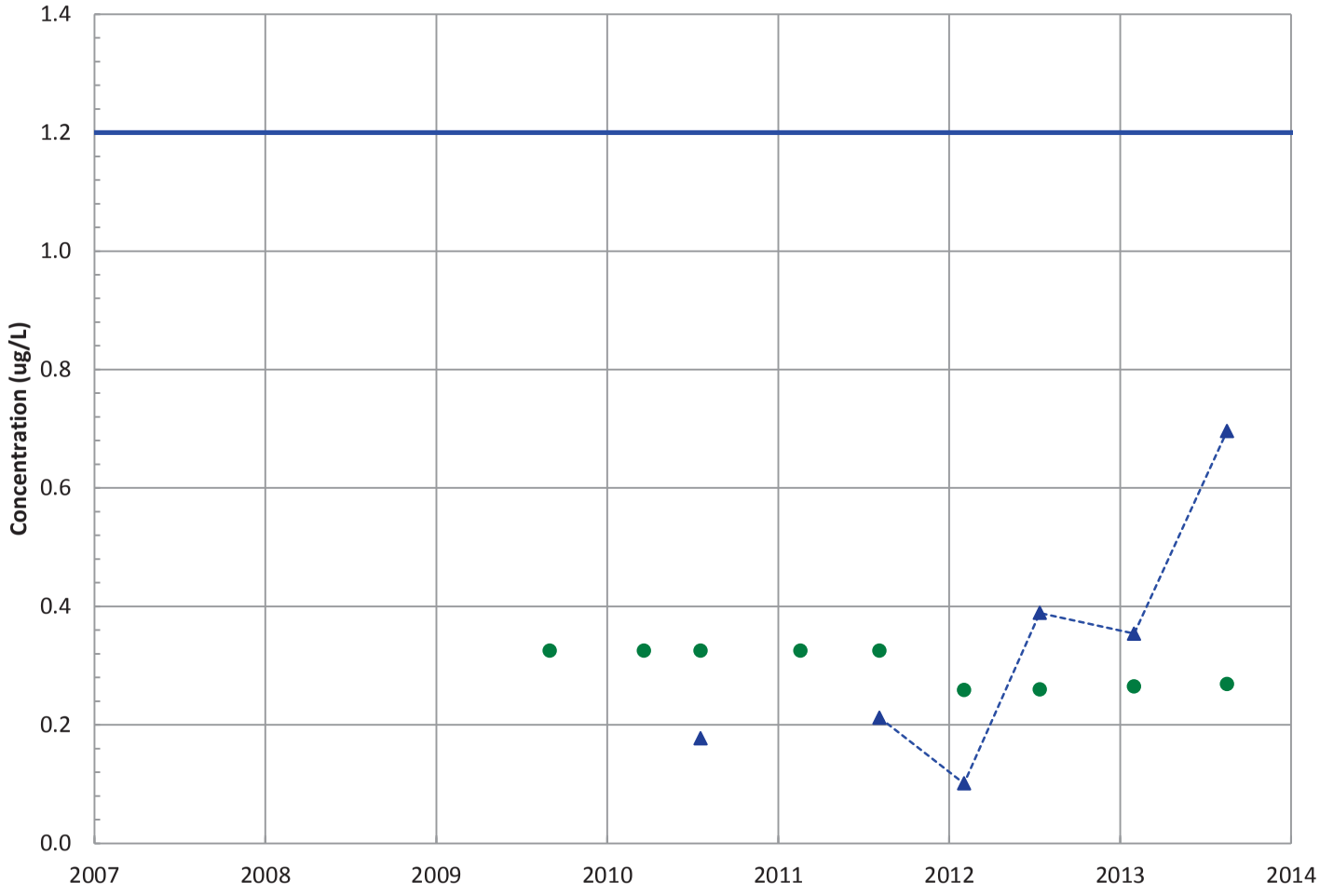
Well Location



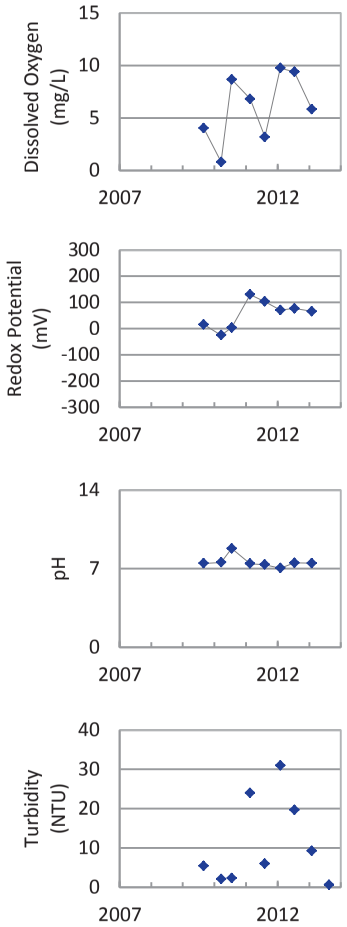
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/2/2009 to 8/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1146
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



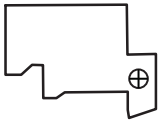
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Probably Increasing
2011 - 2013 Data: Increasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

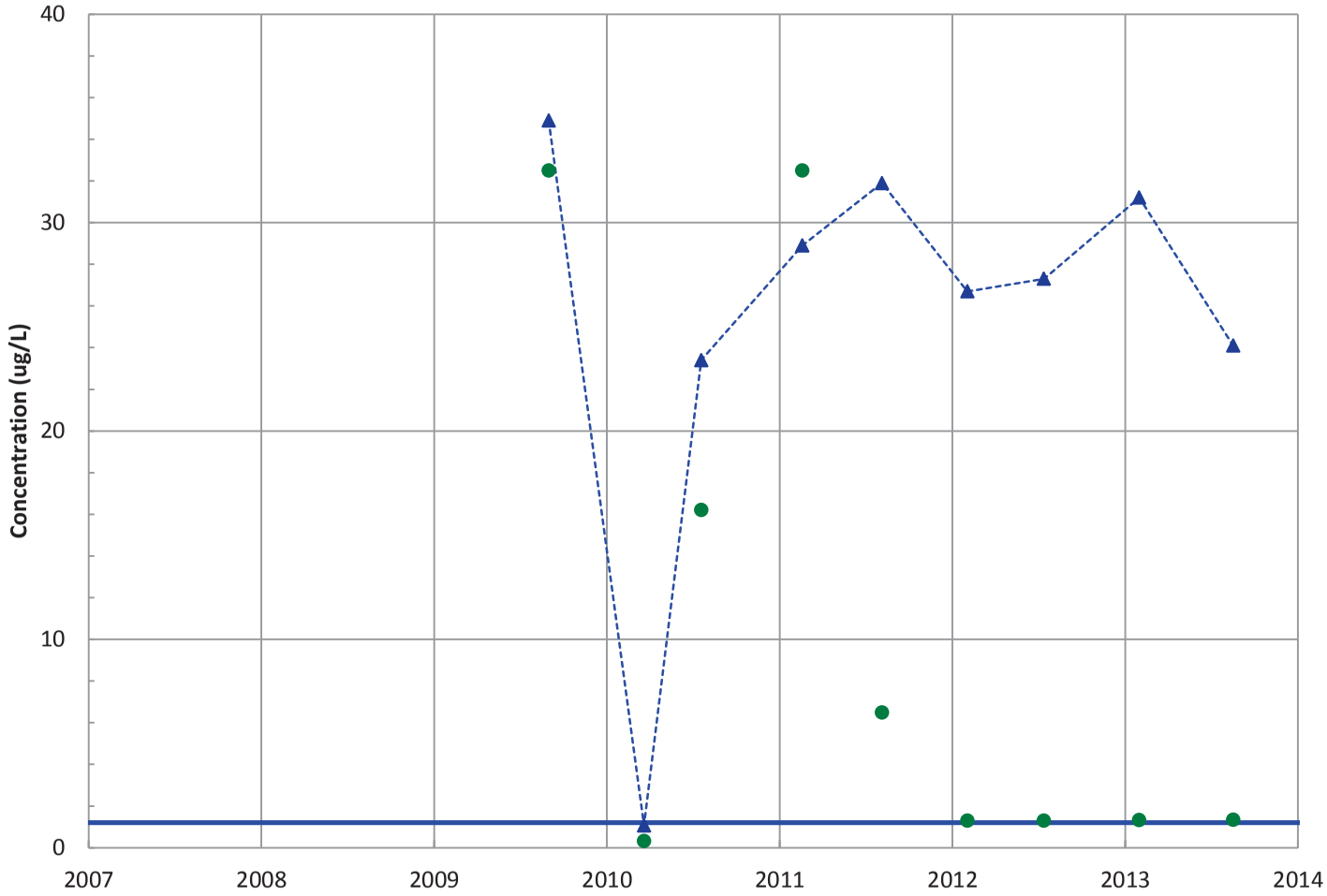
Well Location



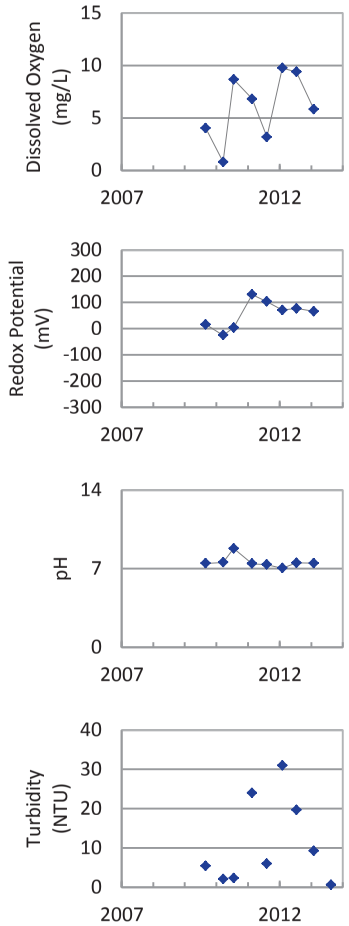
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/2/2009 to 8/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1146
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



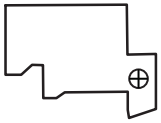
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

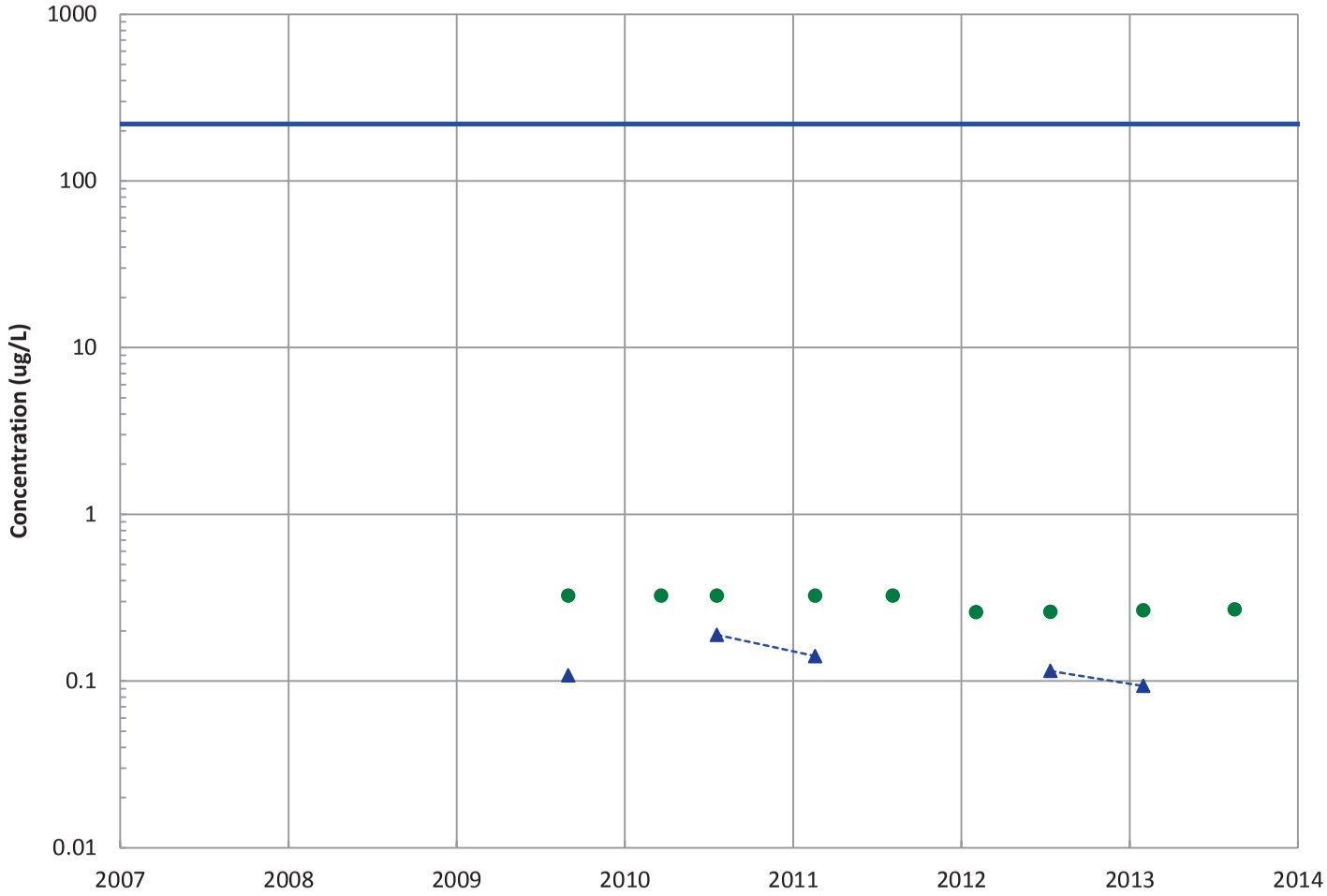
Well Location



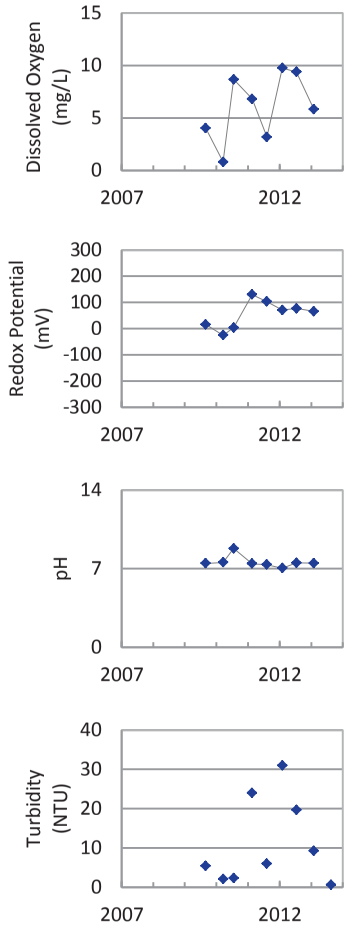
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/2/2009 to 8/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1146
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Decreasing

2011 - 2013 Data: N/A (<4 Detections in Dataset)

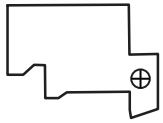
MAROS Linear Regression Method

Data (7/2009 - 12/2013): Stable

2011 - 2013 Data: Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

Well Location



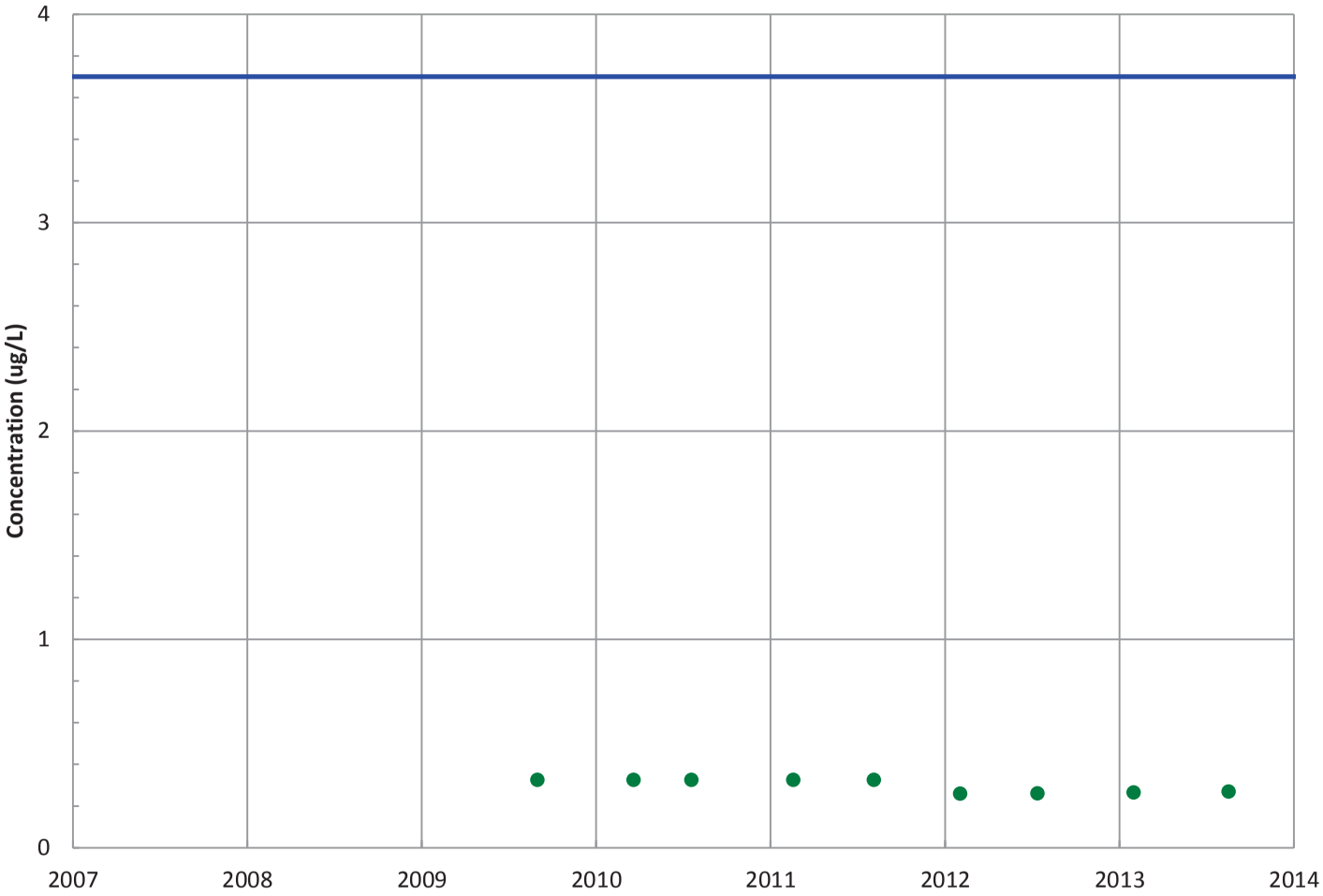
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 9/2/2009 to 8/22/2013

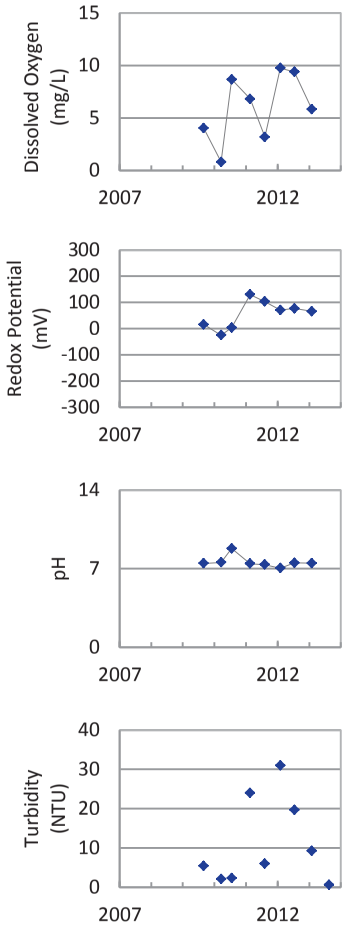
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1146
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



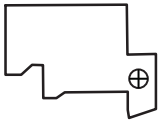
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

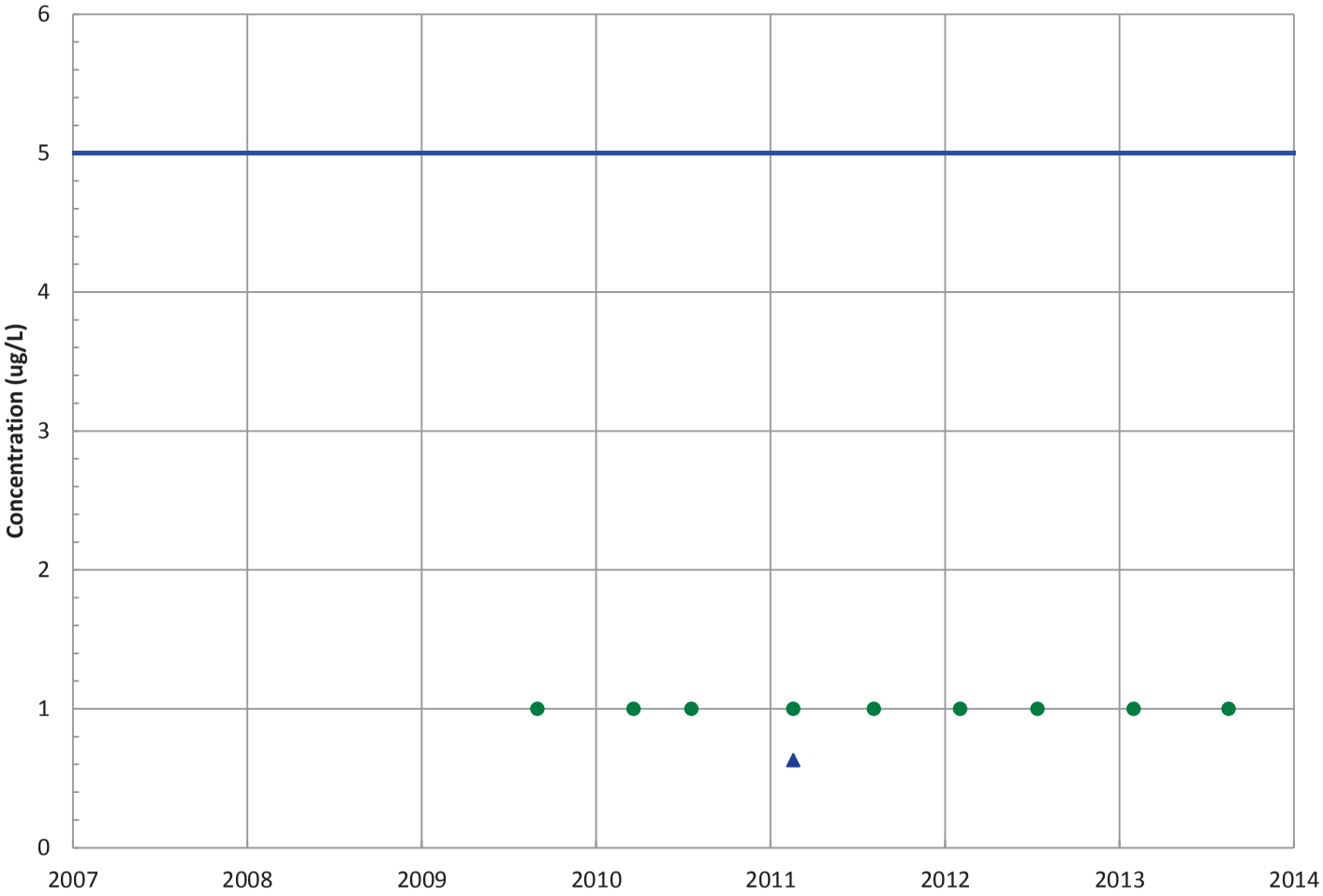
Well Location



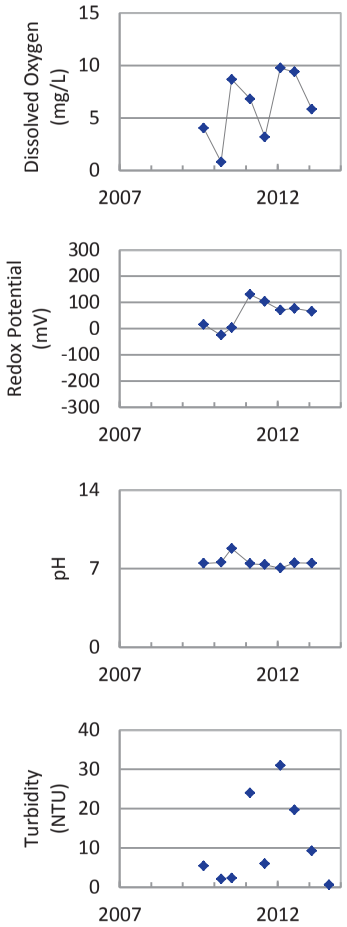
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/2/2009 to 8/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1146
Tetrachloroethylene (PCE) Trend in Perched Aquifer



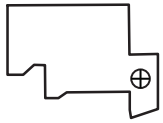
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: All Non-Detect
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

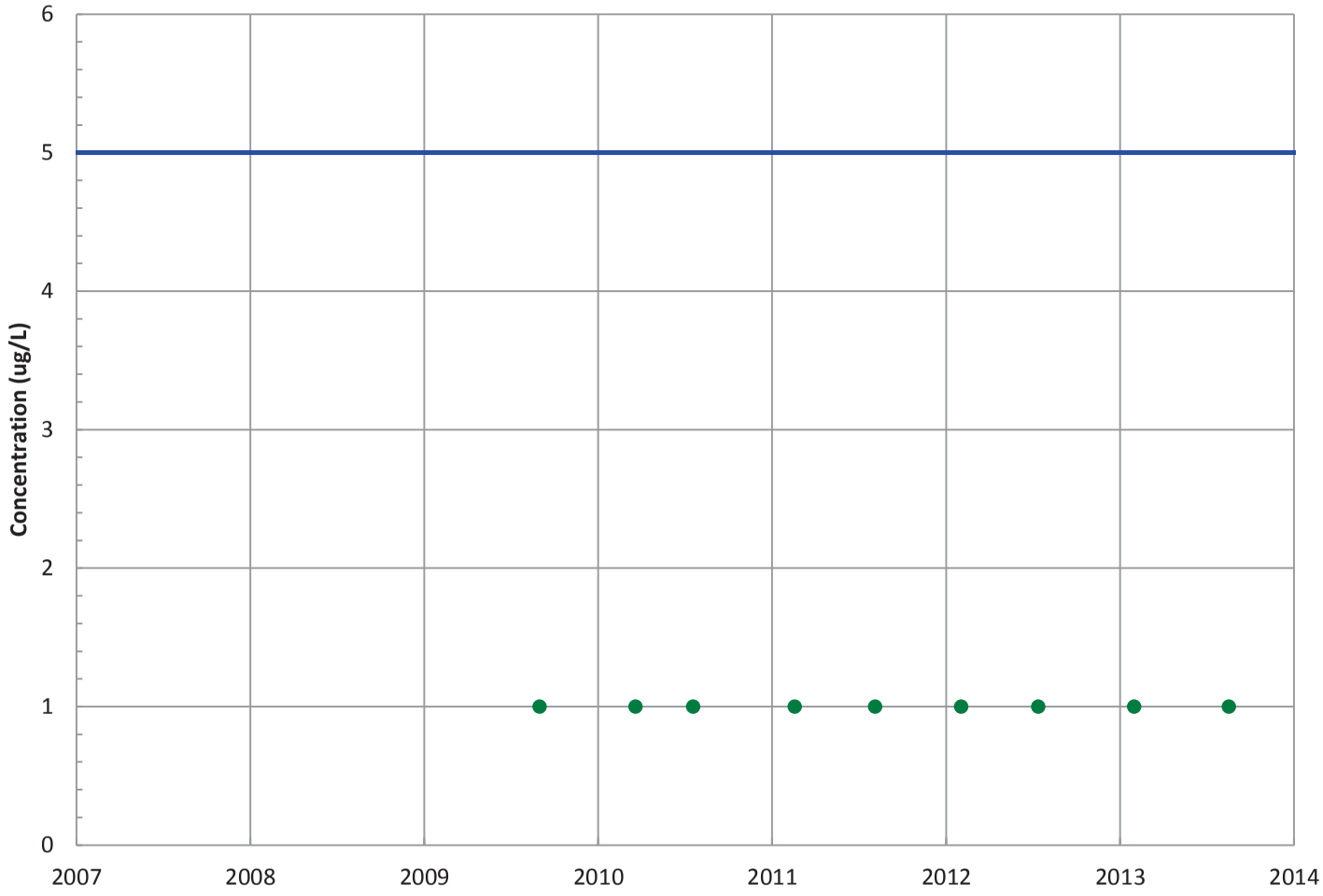
Well Location



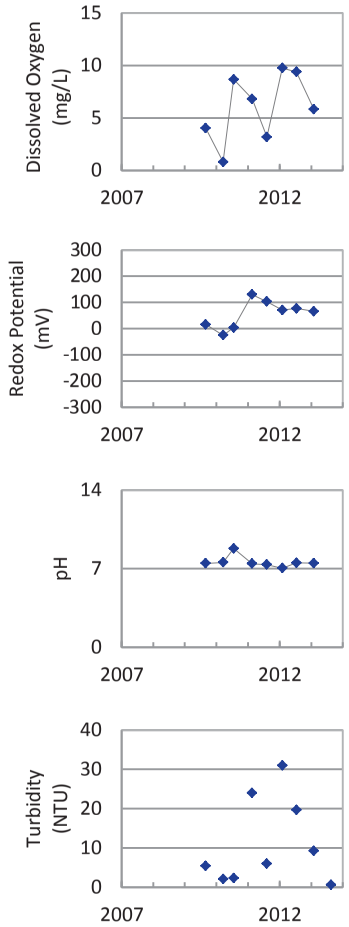
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/2/2009 to 8/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1146
Trichloroethene Trend in Perched Aquifer



Field Parameters



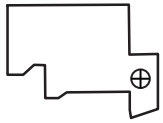
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

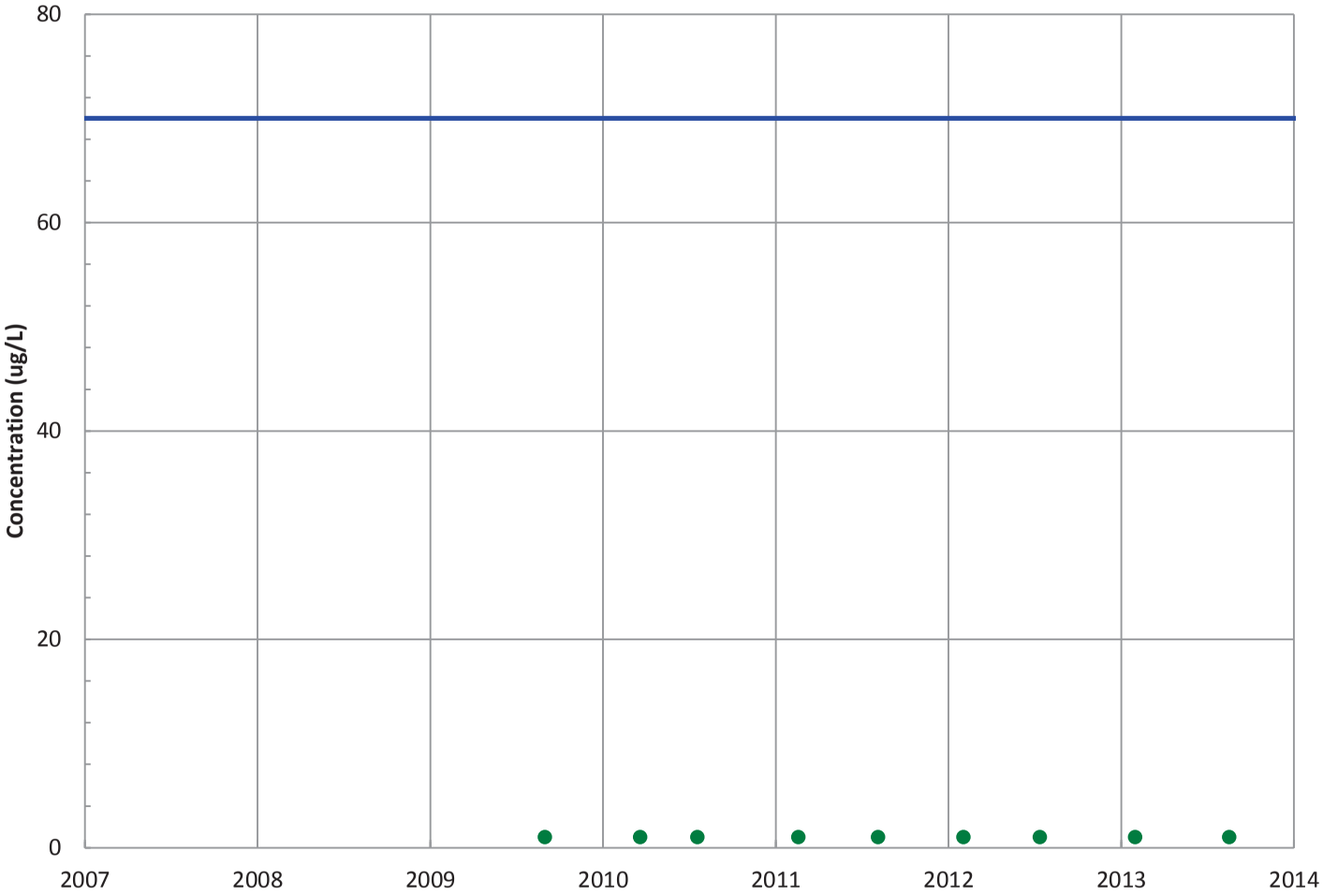
Well Location



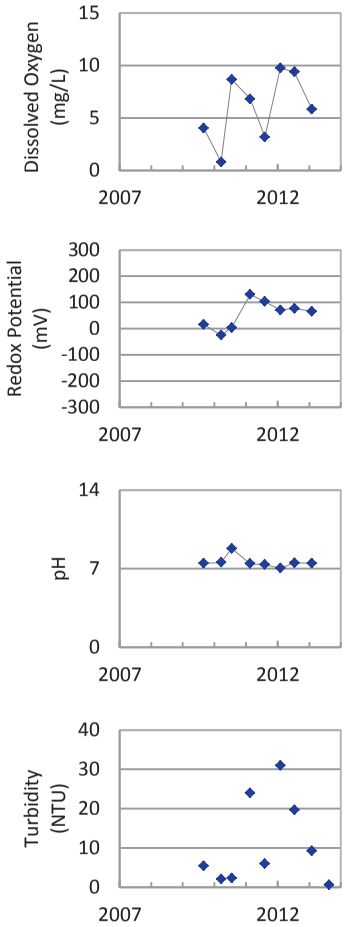
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/2/2009 to 8/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1146
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



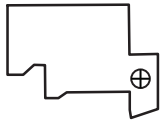
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

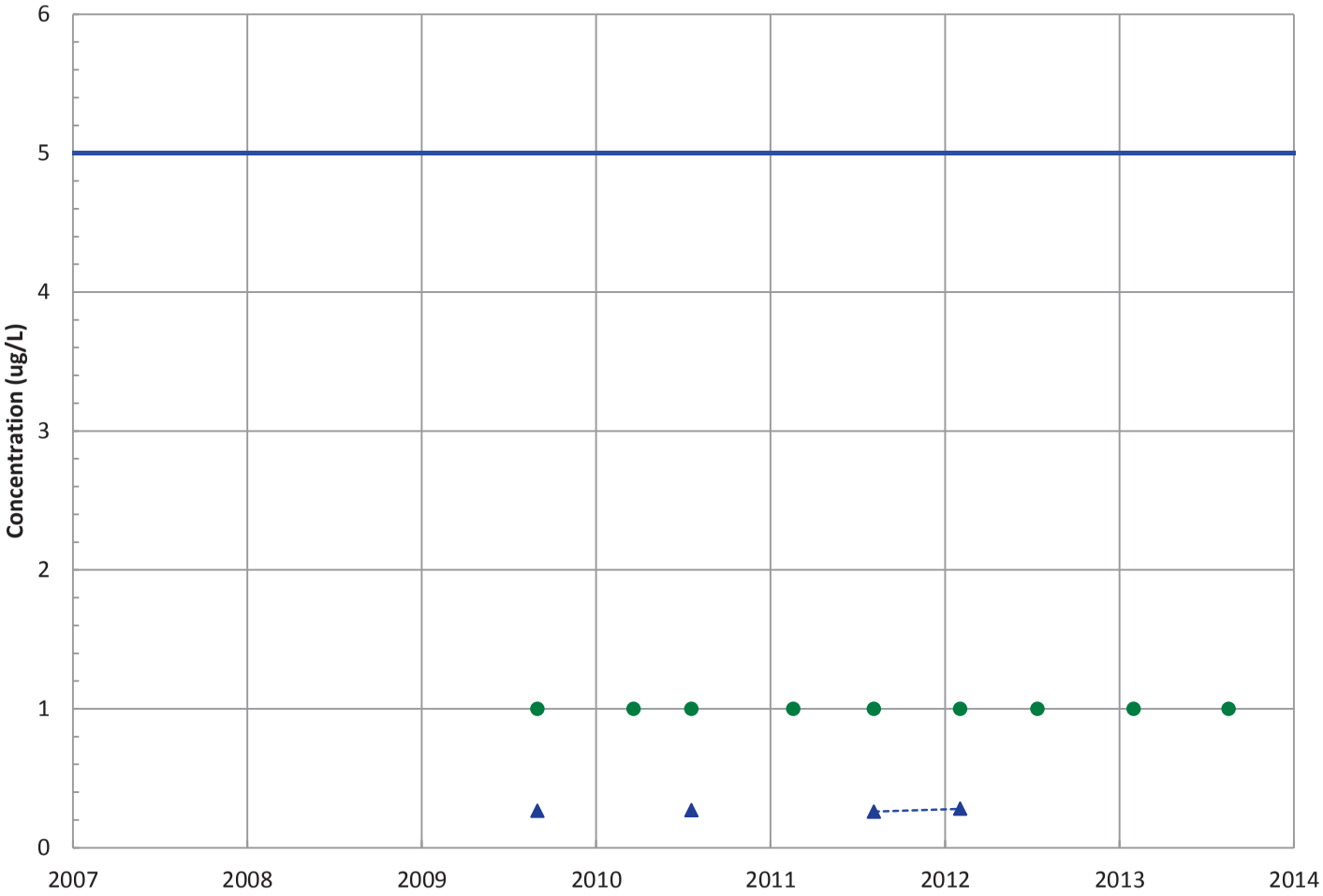
Well Location



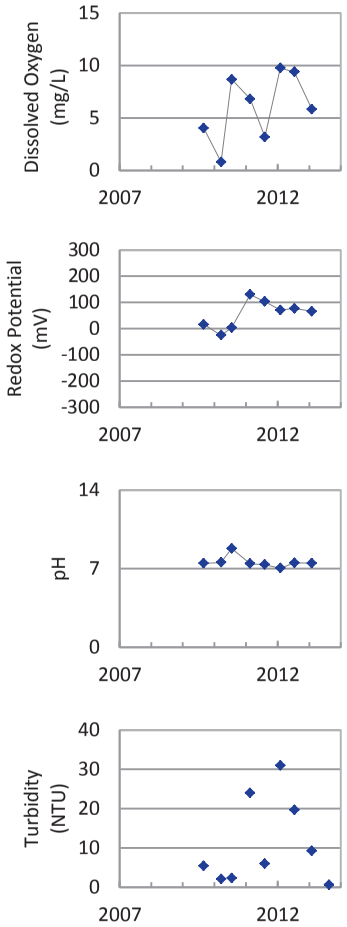
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/2/2009 to 8/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1146
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): No Trend

2011 - 2013 Data: N/A (<4 Detections in Dataset)

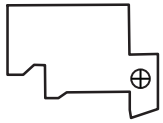
MAROS Linear Regression Method

Data (7/2009 - 12/2013): No Trend

2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location



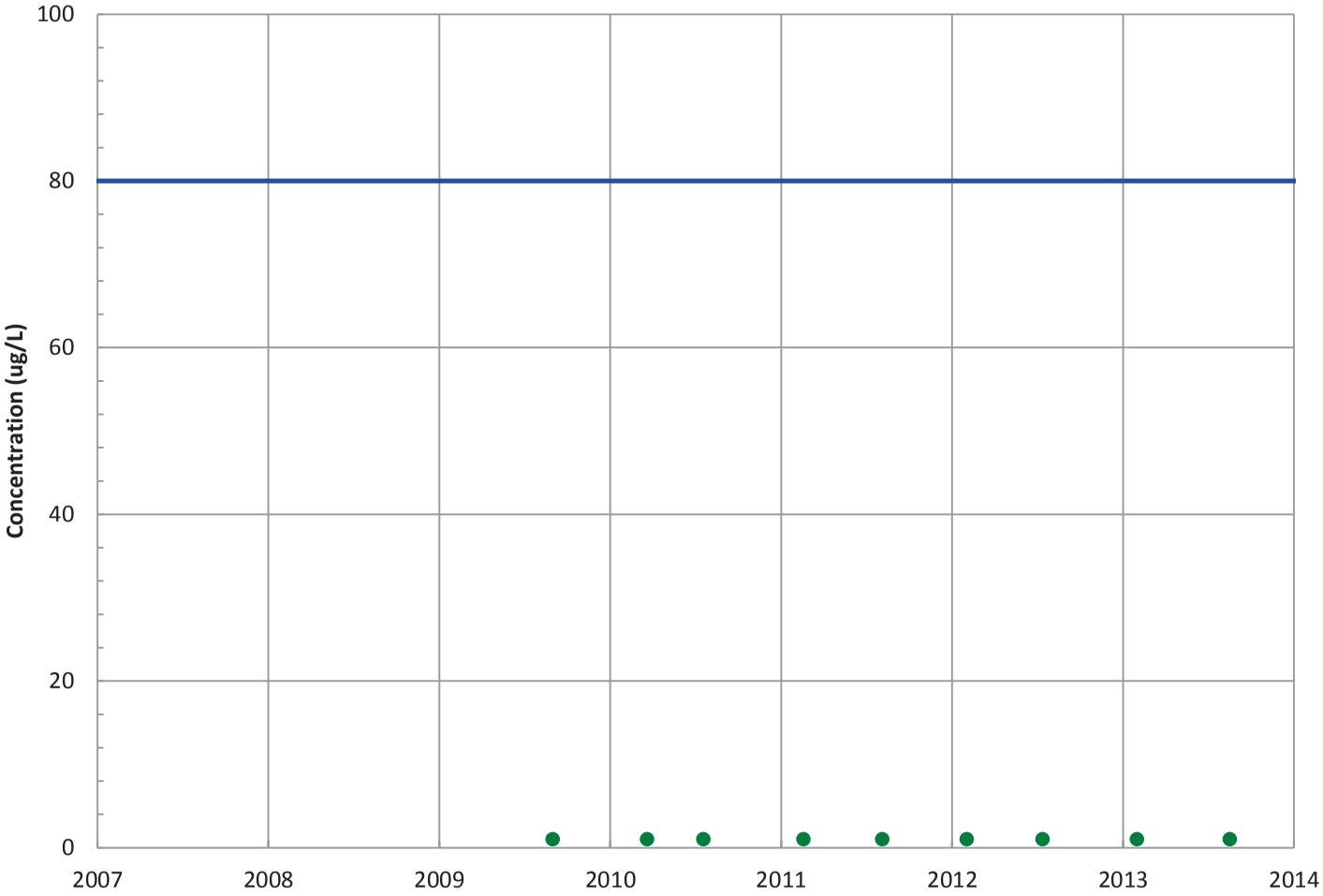
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 9/2/2009 to 8/22/2013

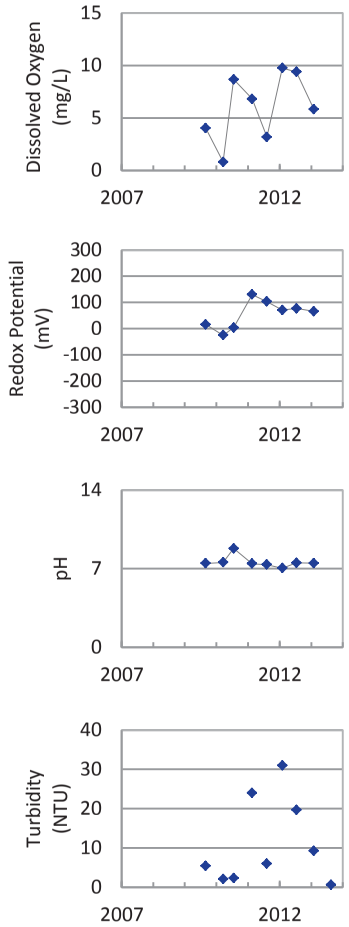
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1146
Chloroform Trend in Perched Aquifer



Field Parameters



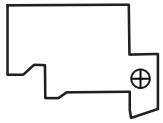
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

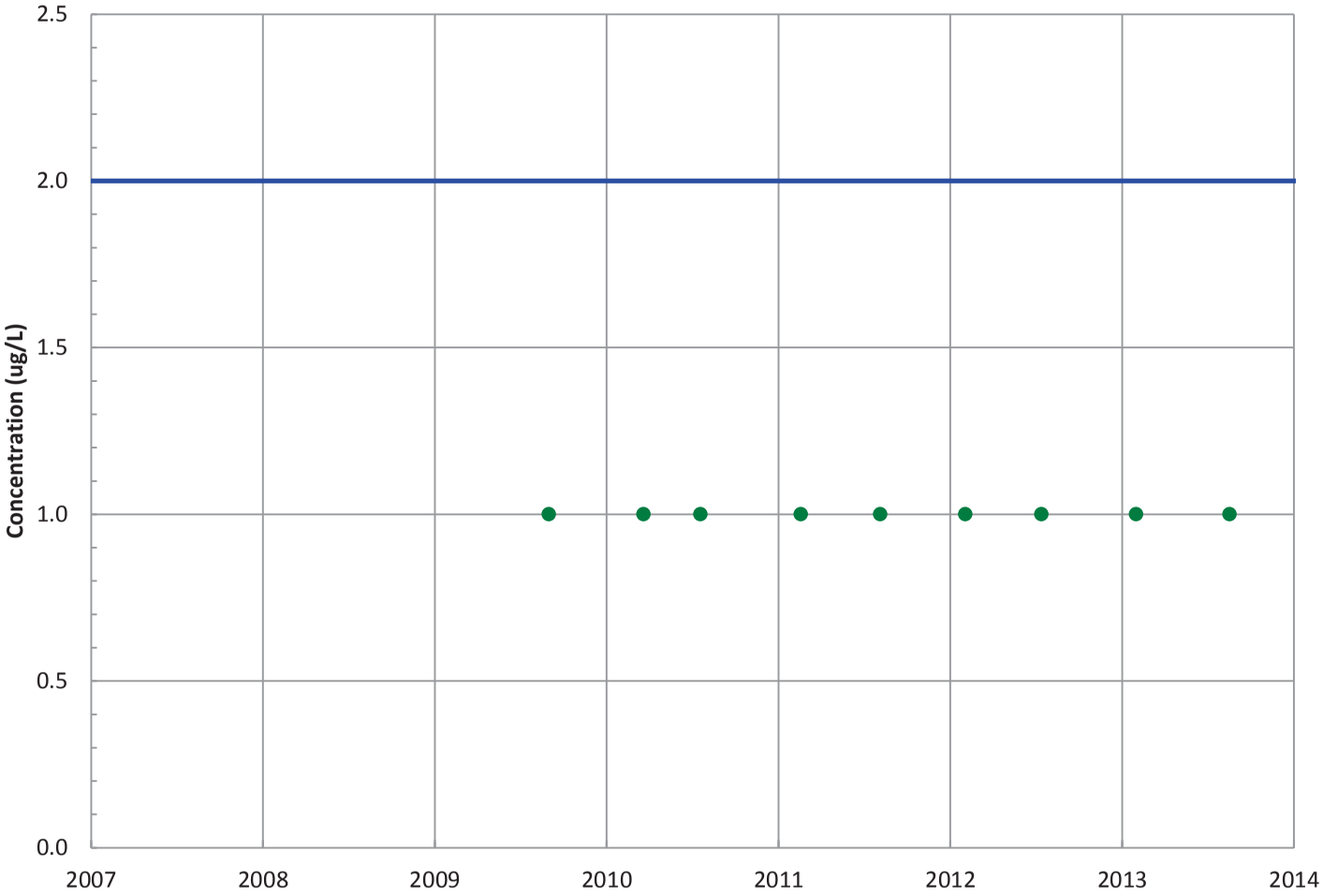
Well Location



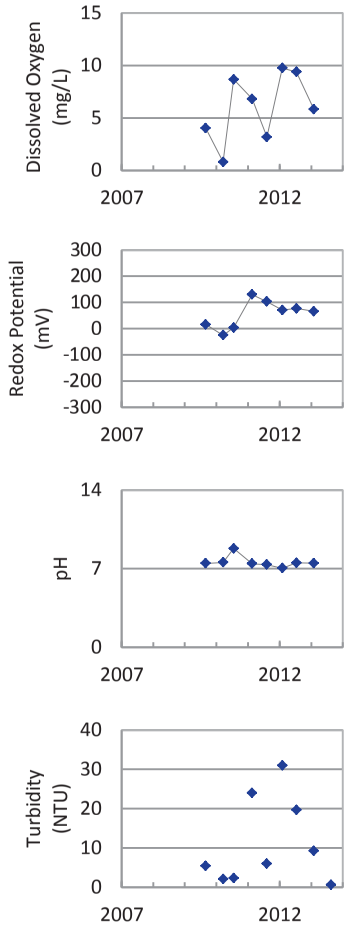
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/2/2009 to 8/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1146
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



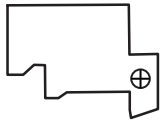
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

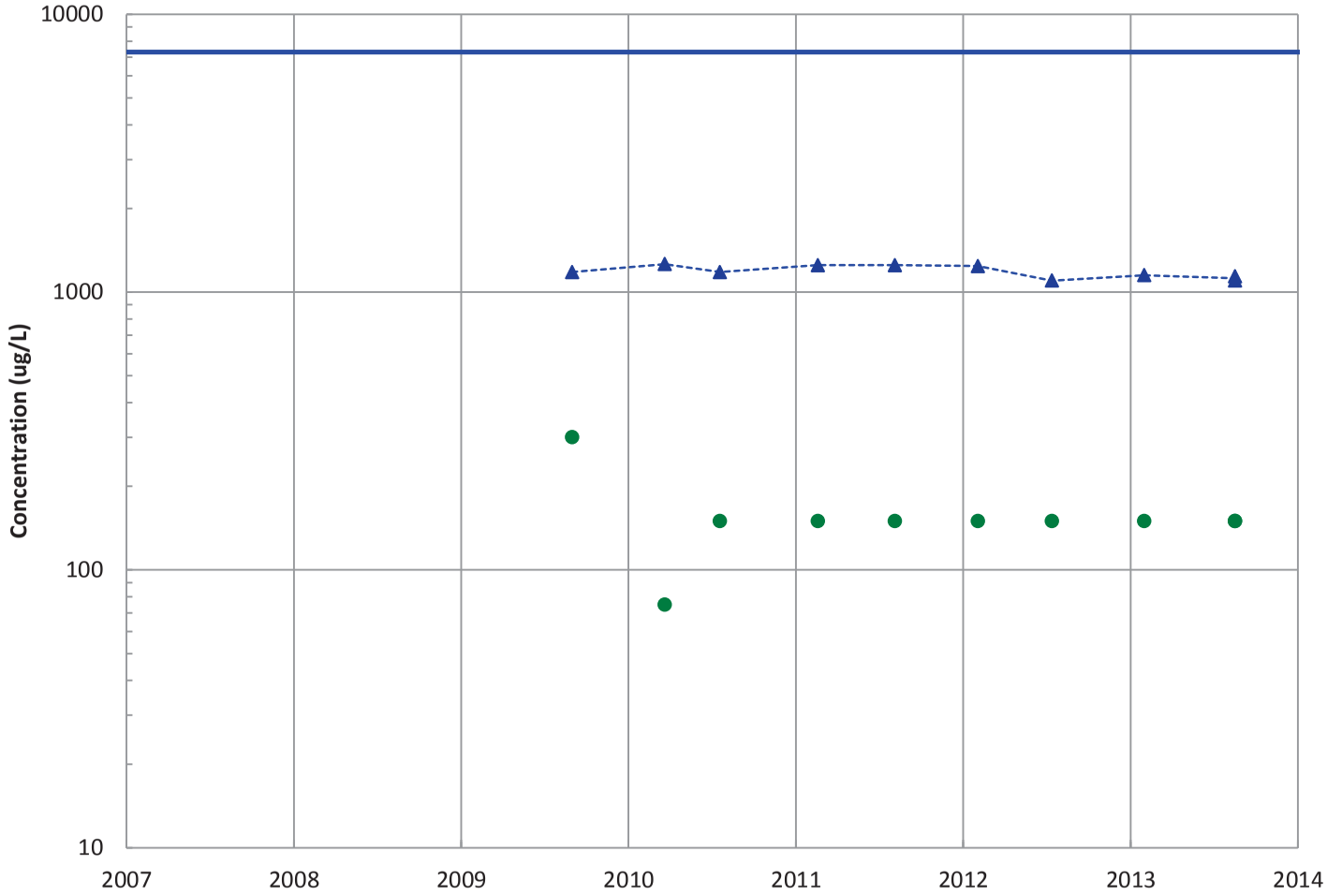
Well Location



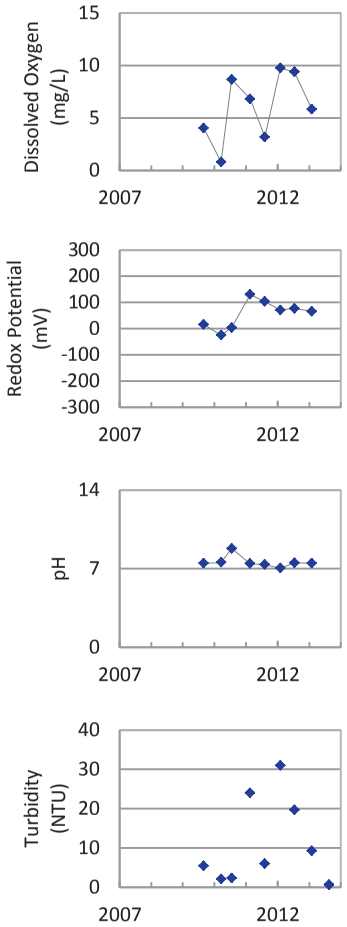
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/2/2009 to 8/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1146
Boron Trend in Perched Aquifer



Field Parameters



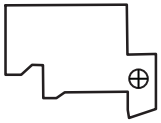
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Probably Decreasing
2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

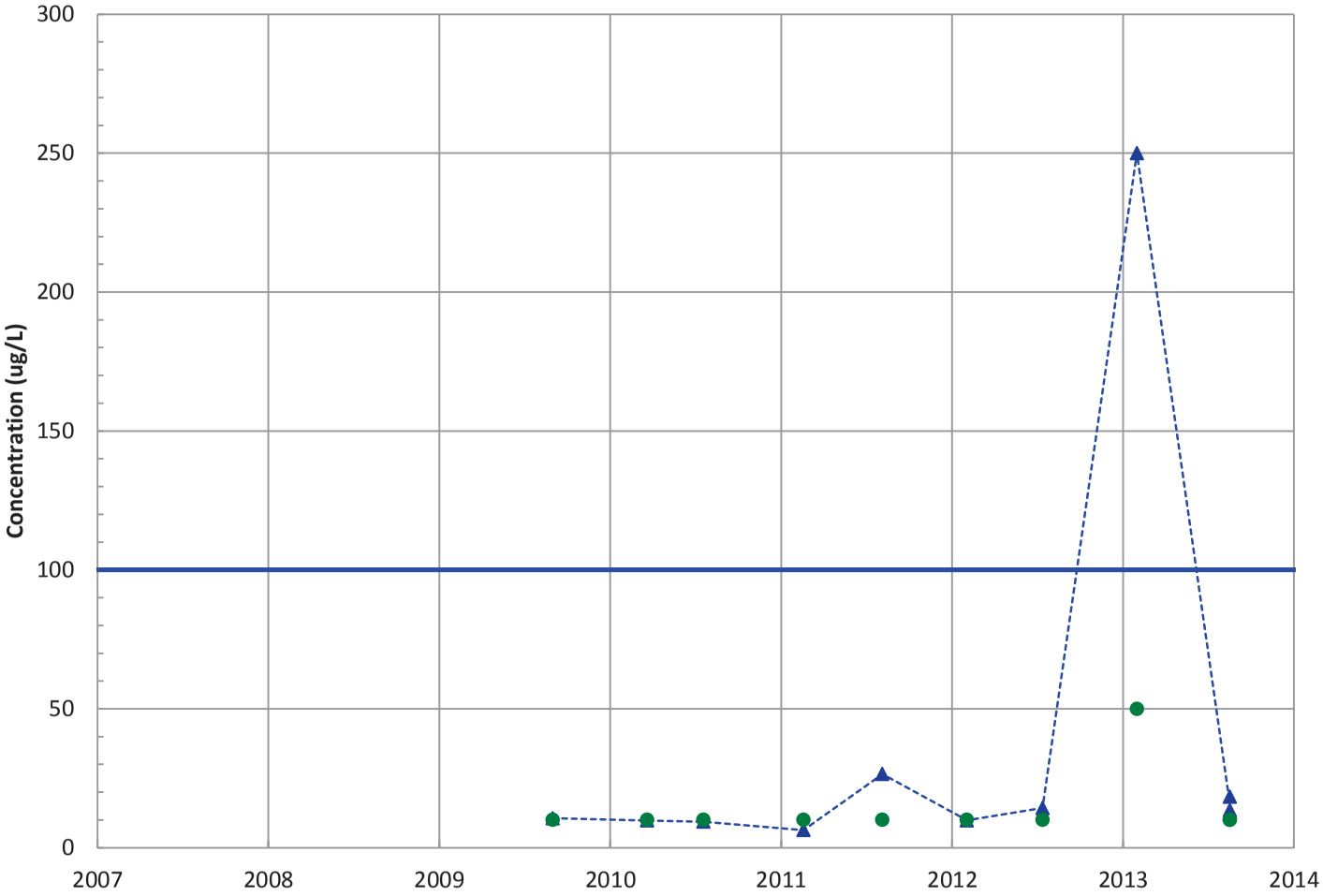
Well Location



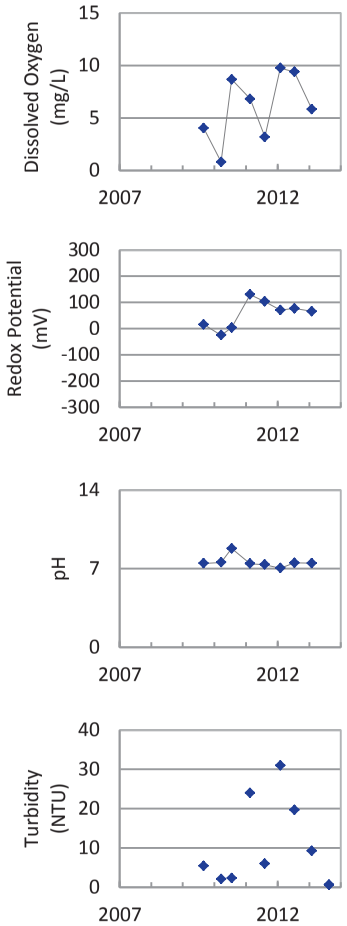
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/2/2009 to 8/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1146
Chromium, Total Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Probably Increasing

2011 - 2013 Data: No Trend

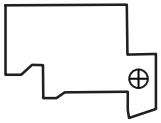
MAROS Linear Regression Method

Data (7/2009 - 12/2013): Probably Increasing

2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------ Concentration Trend
- ——— Groundwater Protection Standard

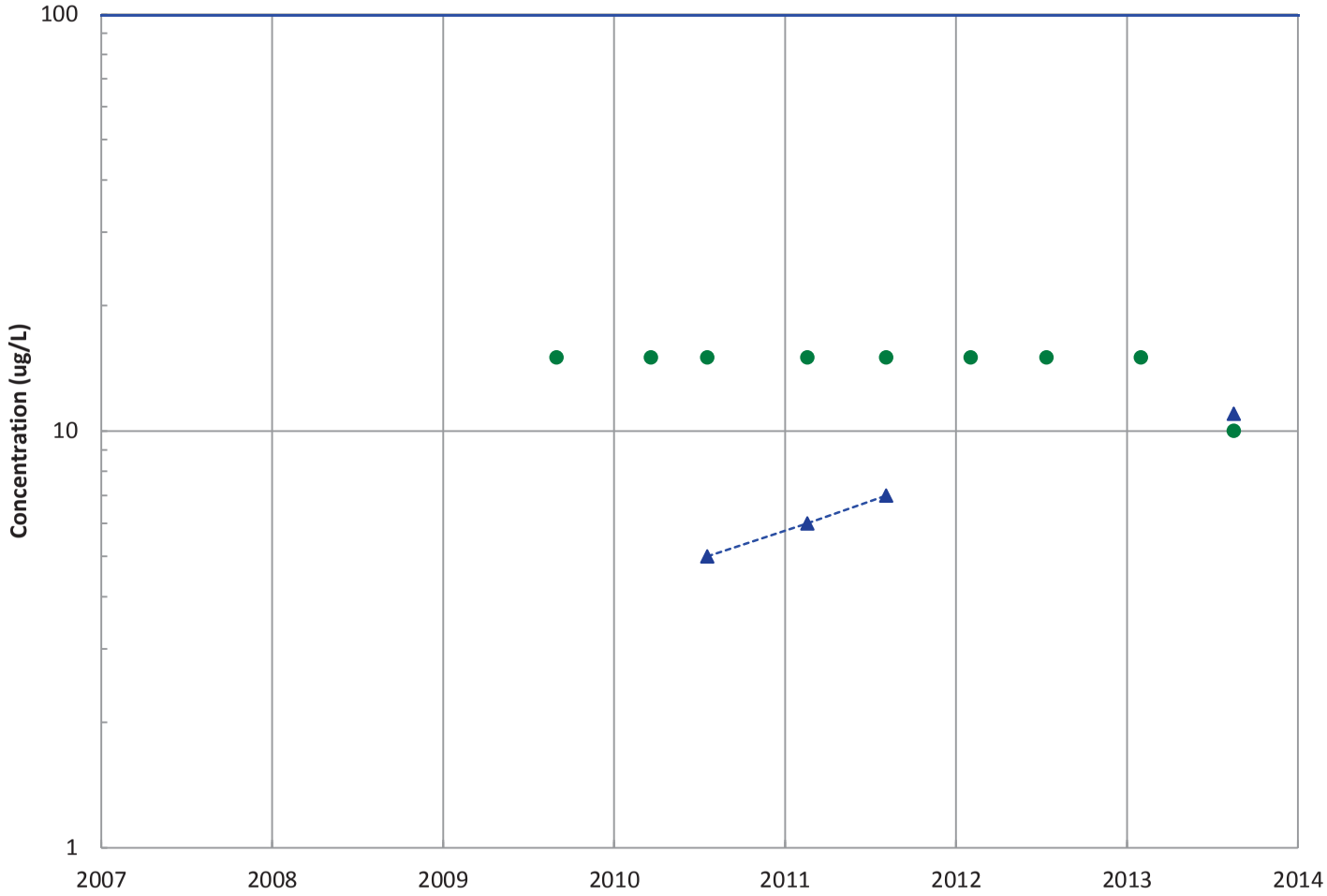
Well Location



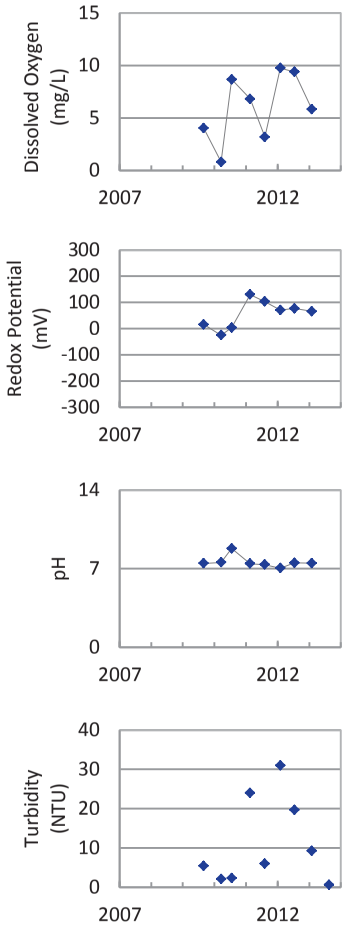
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/2/2009 to 8/22/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1146
Chromium, Hexavalent Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Probably Increasing

2011 - 2013 Data: N/A (<4 Detections in

MAROS Linear Regression Method

Data (7/2009 - 12/2013): Increasing

2011 - 2013 Data: Increasing

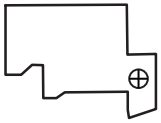
▲ Measured Value

● Sample Detection Limit

------- Concentration Trend

——— Groundwater Protection Standard

Well Location



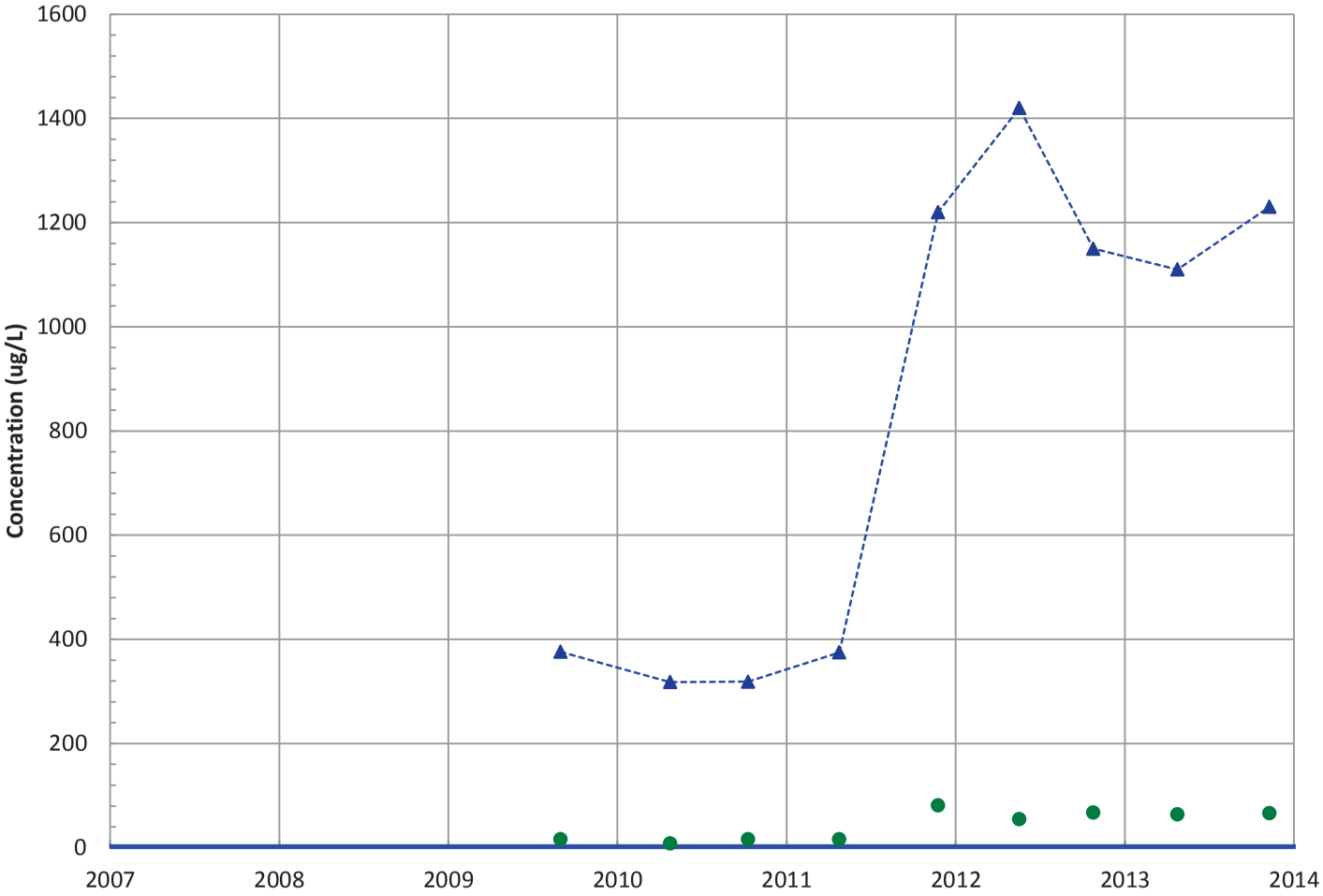
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 9/2/2009 to 8/22/2013

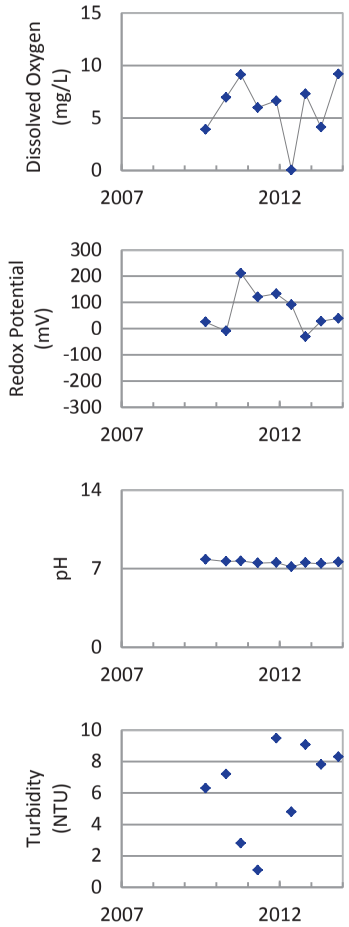
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1147
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



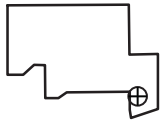
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

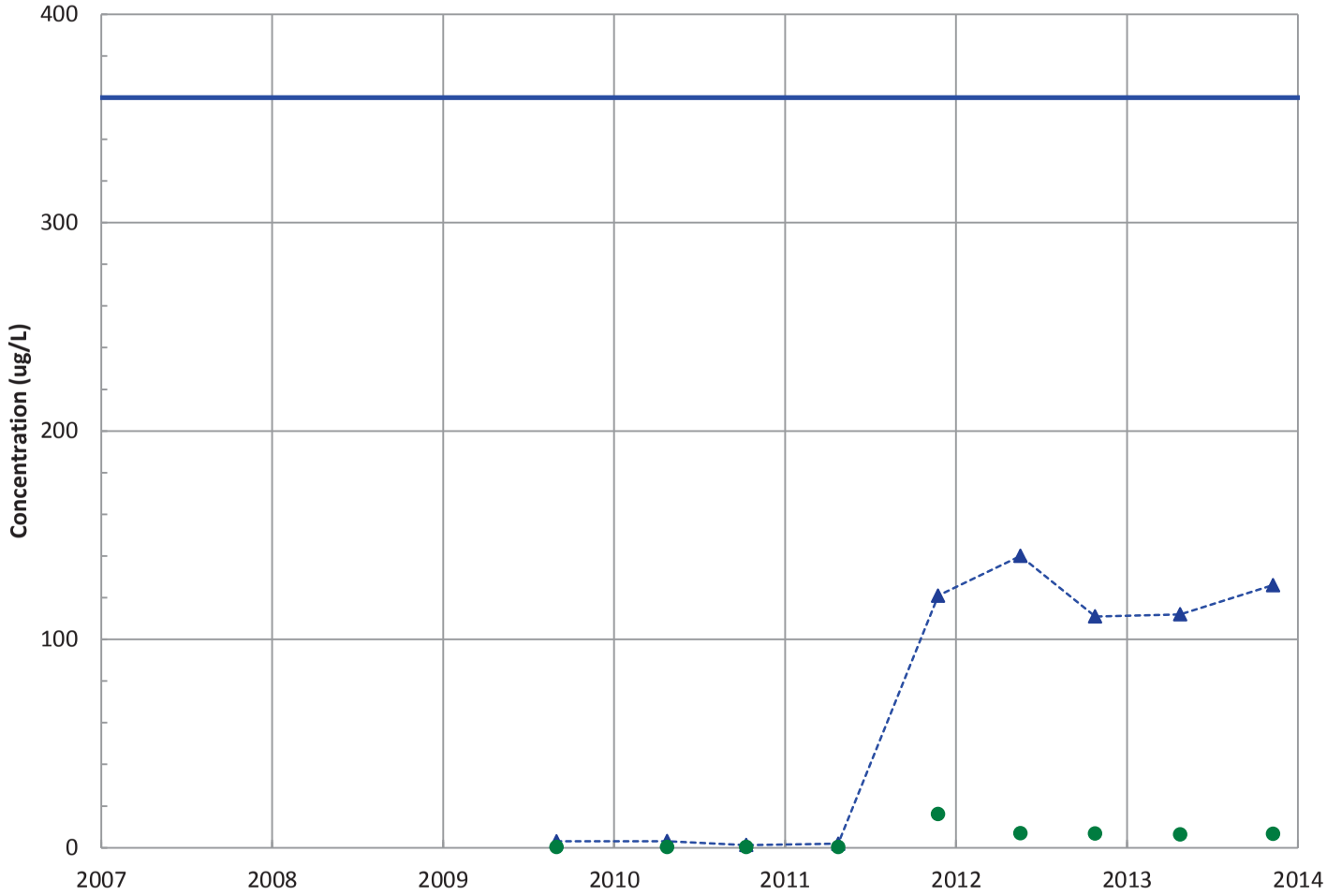
Well Location



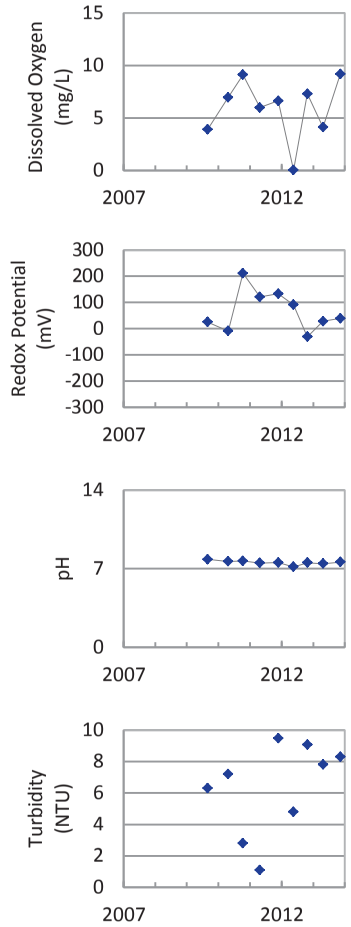
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/2/2009 to 11/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1147
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



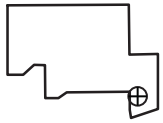
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

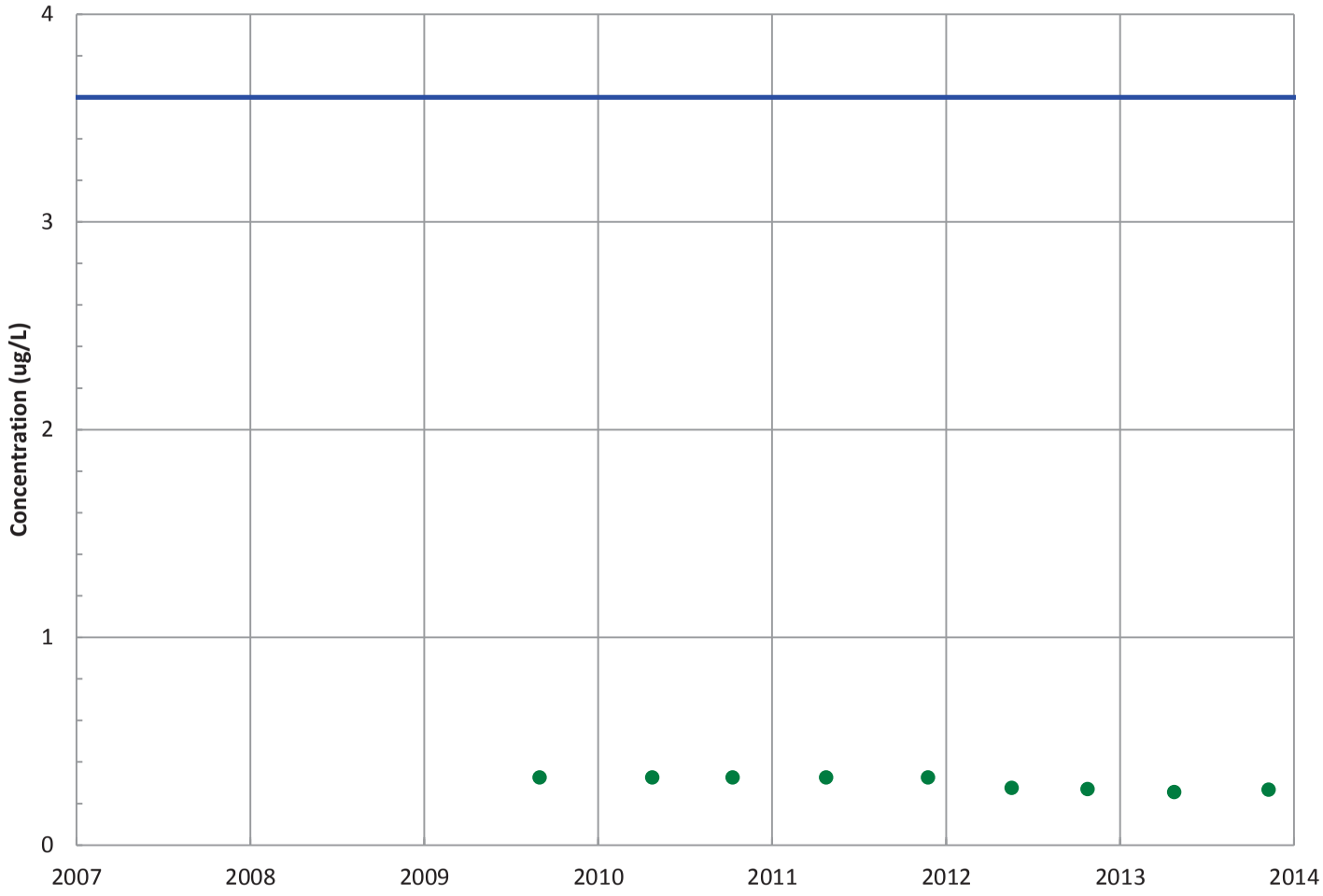
Well Location



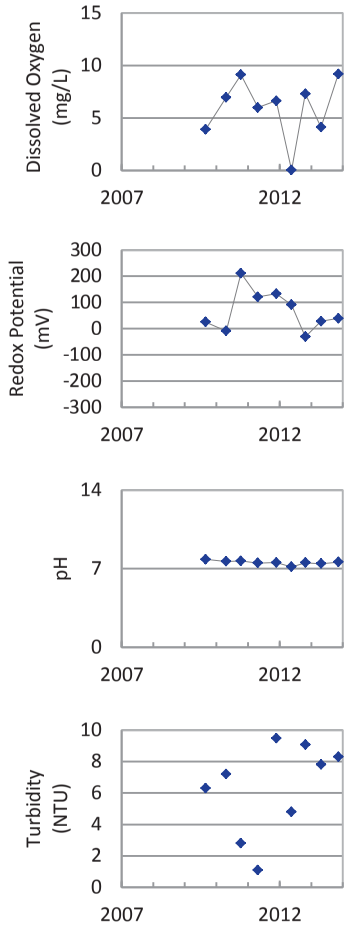
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/2/2009 to 11/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1147
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



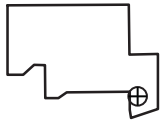
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

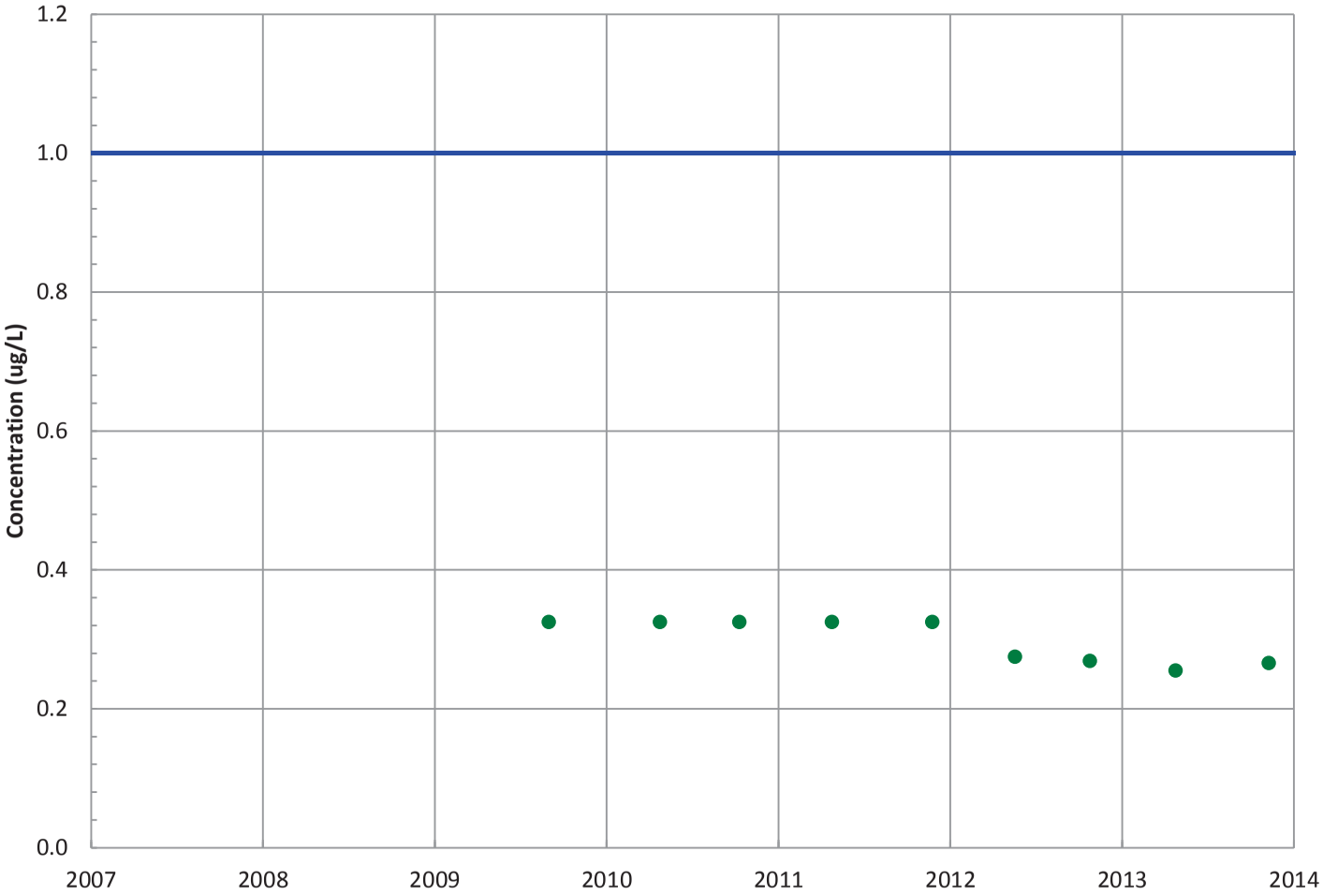
Well Location



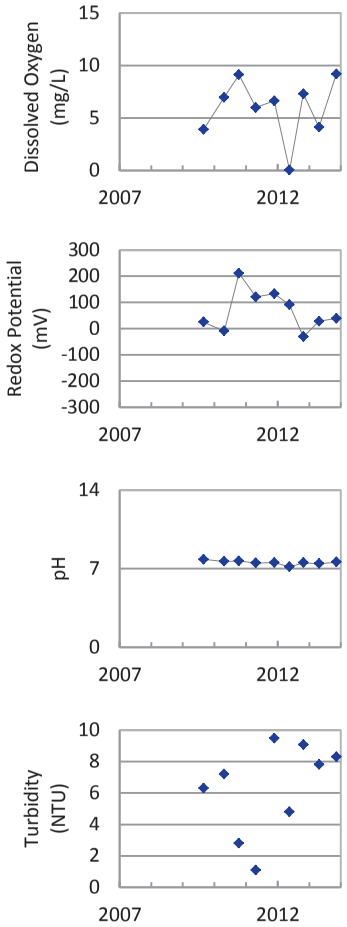
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/2/2009 to 11/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1147
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



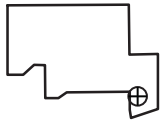
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

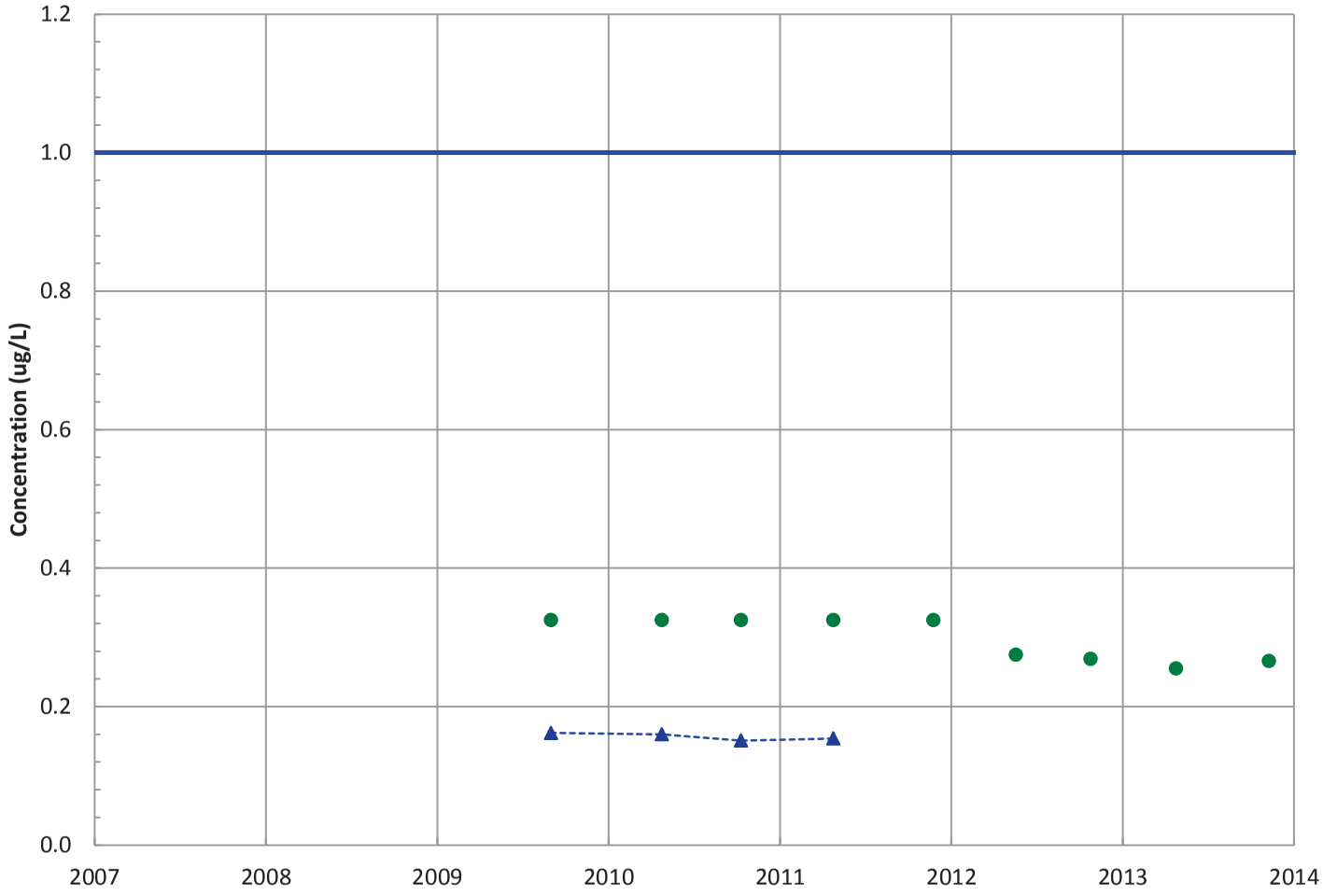
Well Location



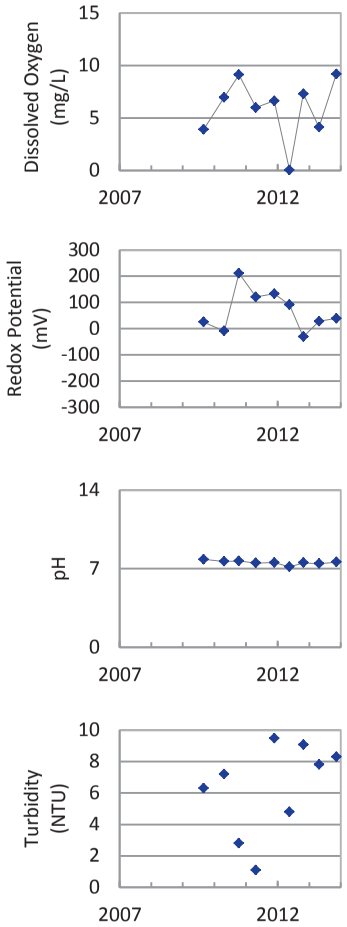
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/2/2009 to 11/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1147
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



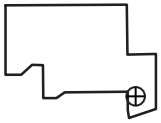
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Probably Decreasing
2011 - 2013 Data: Probably Decreasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

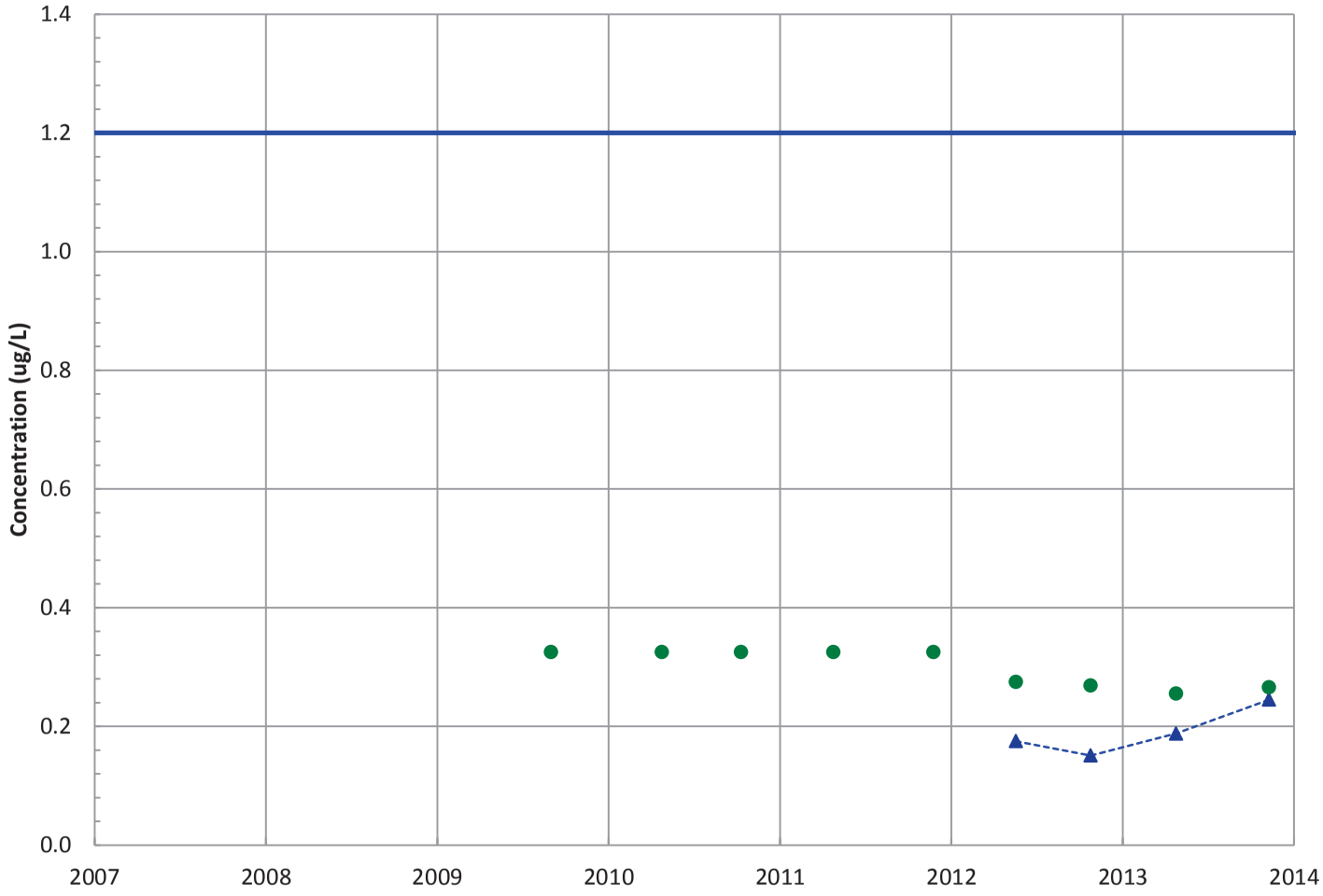
Well Location



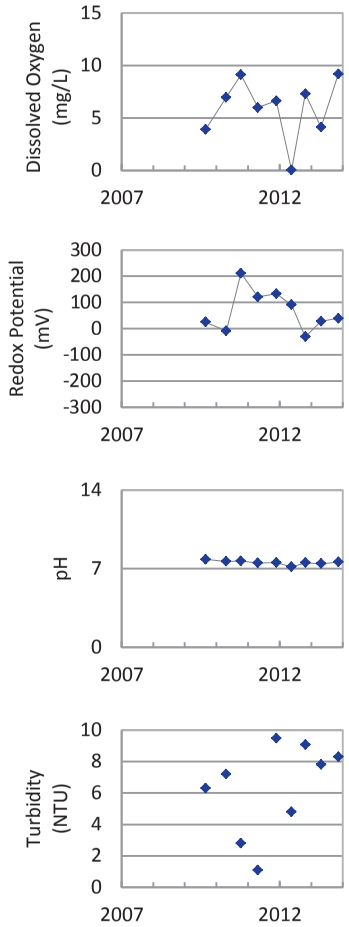
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/2/2009 to 11/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1147
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Probably Increasing

2011 - 2013 Data: No Trend

MAROS Linear Regression Method

Data (7/2009 - 12/2013): Probably Increasing

2011 - 2013 Data: Probably Increasing

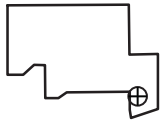
▲ Measured Value

● Sample Detection Limit

------- Concentration Trend

——— Groundwater Protection Standard

Well Location



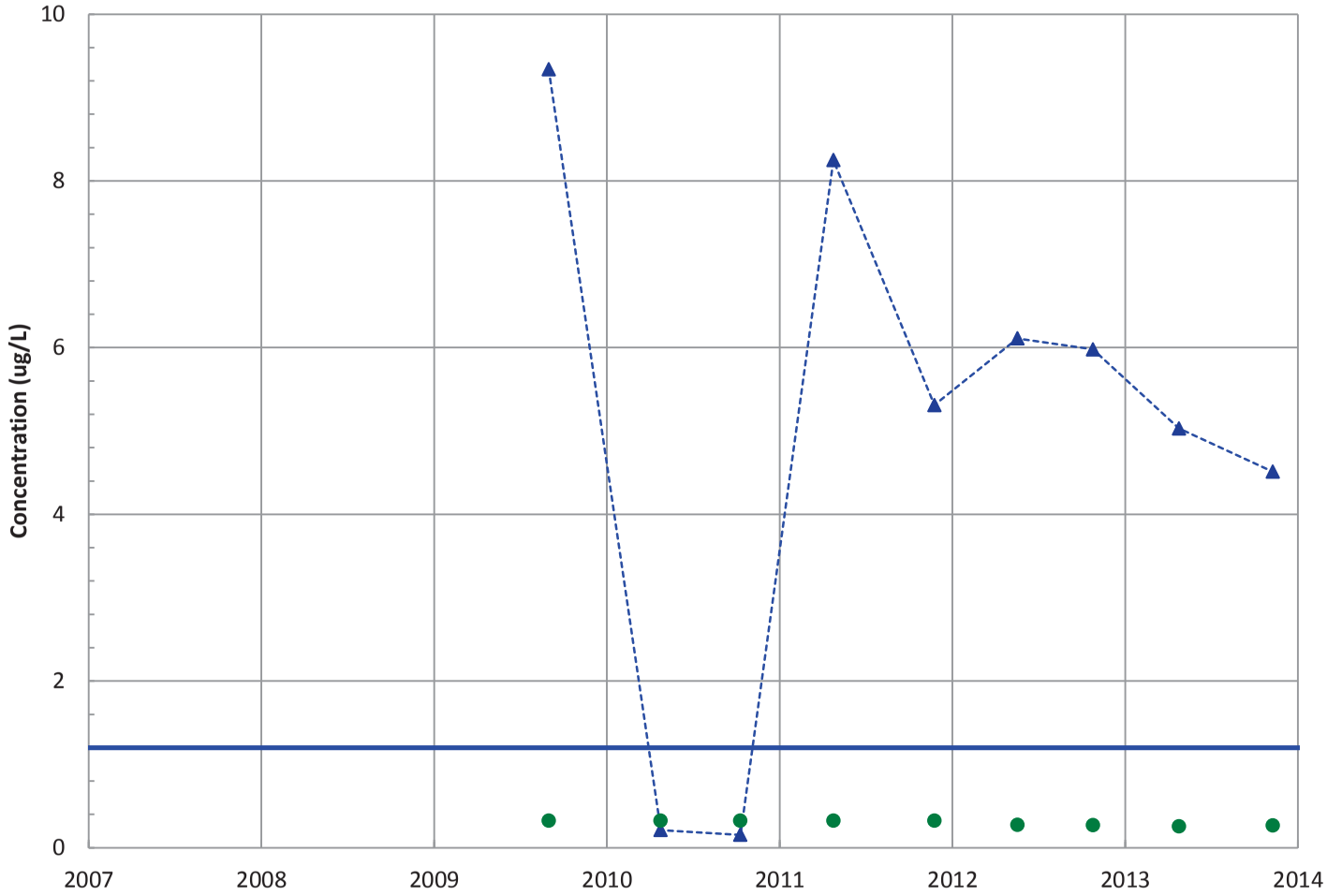
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 9/2/2009 to 11/14/2013

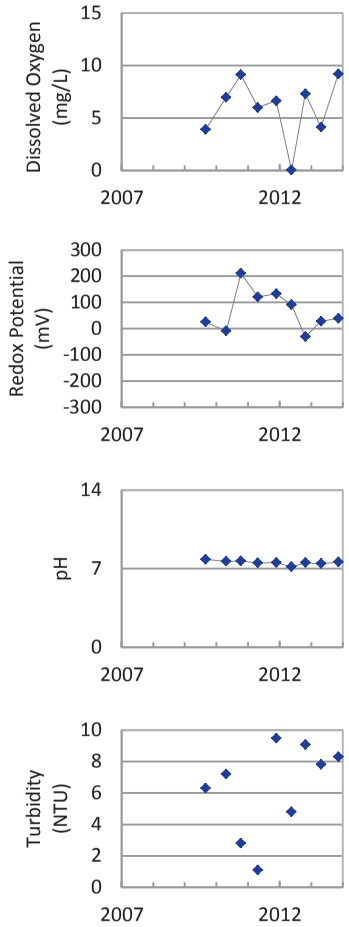
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1147
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



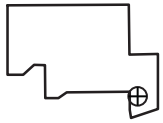
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Decreasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------ Concentration Trend
- ——— Groundwater Protection Standard

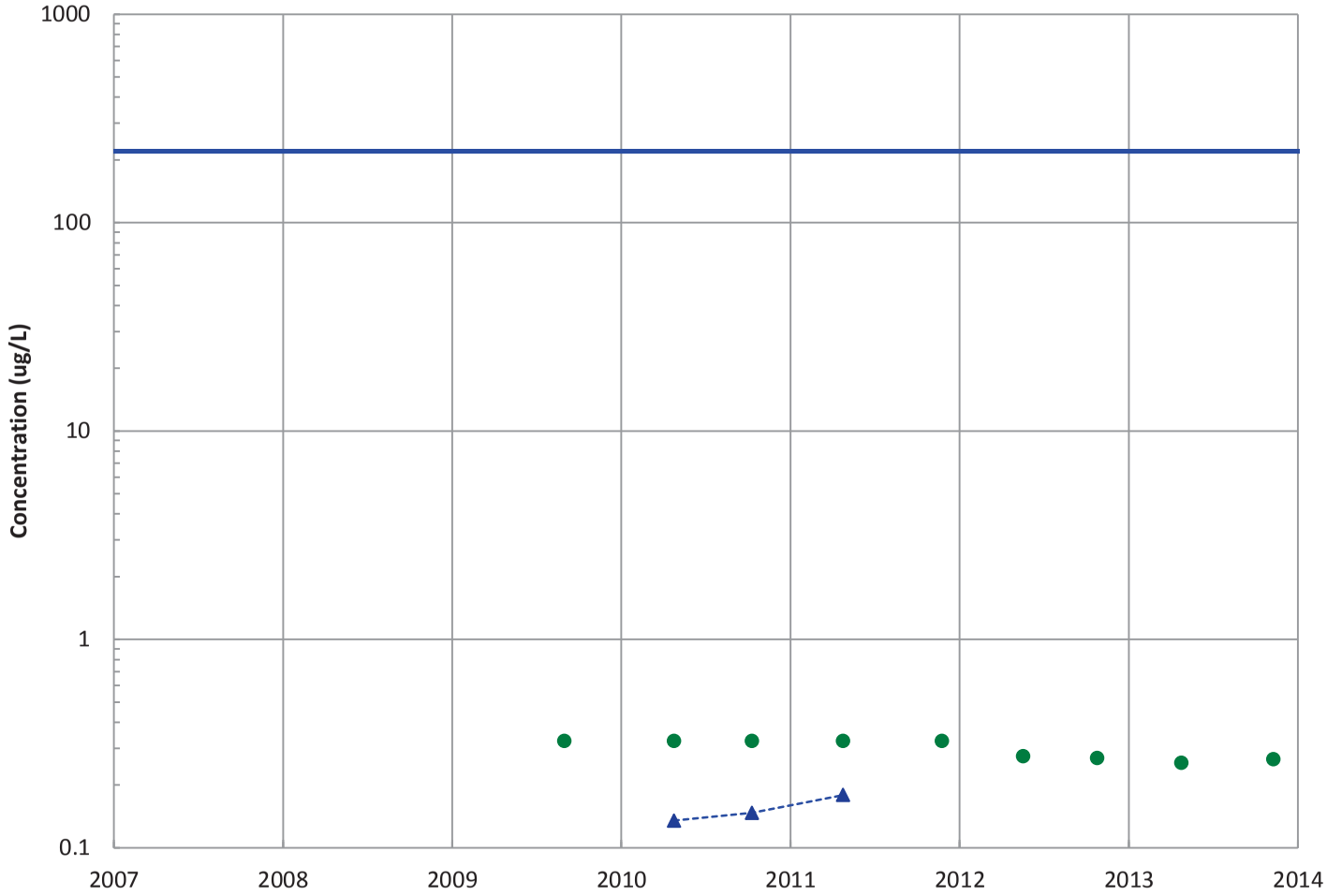
Well Location



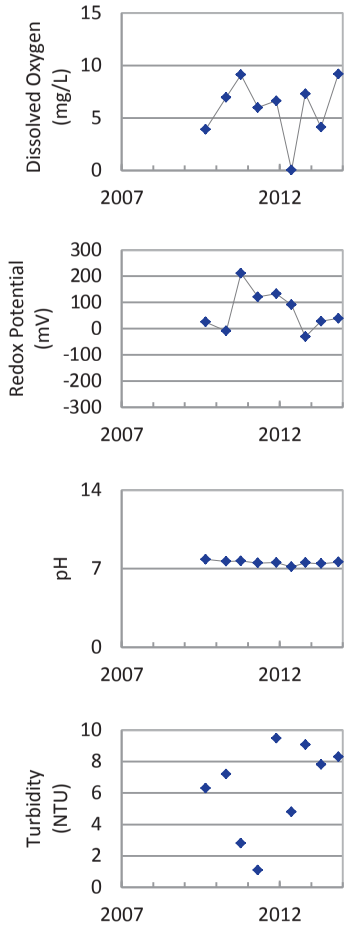
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/2/2009 to 11/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1147
1,3,5-Trinitrobenzene Trend in Perched Aquifer



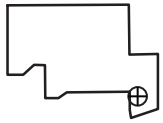
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: All Non-Detect
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

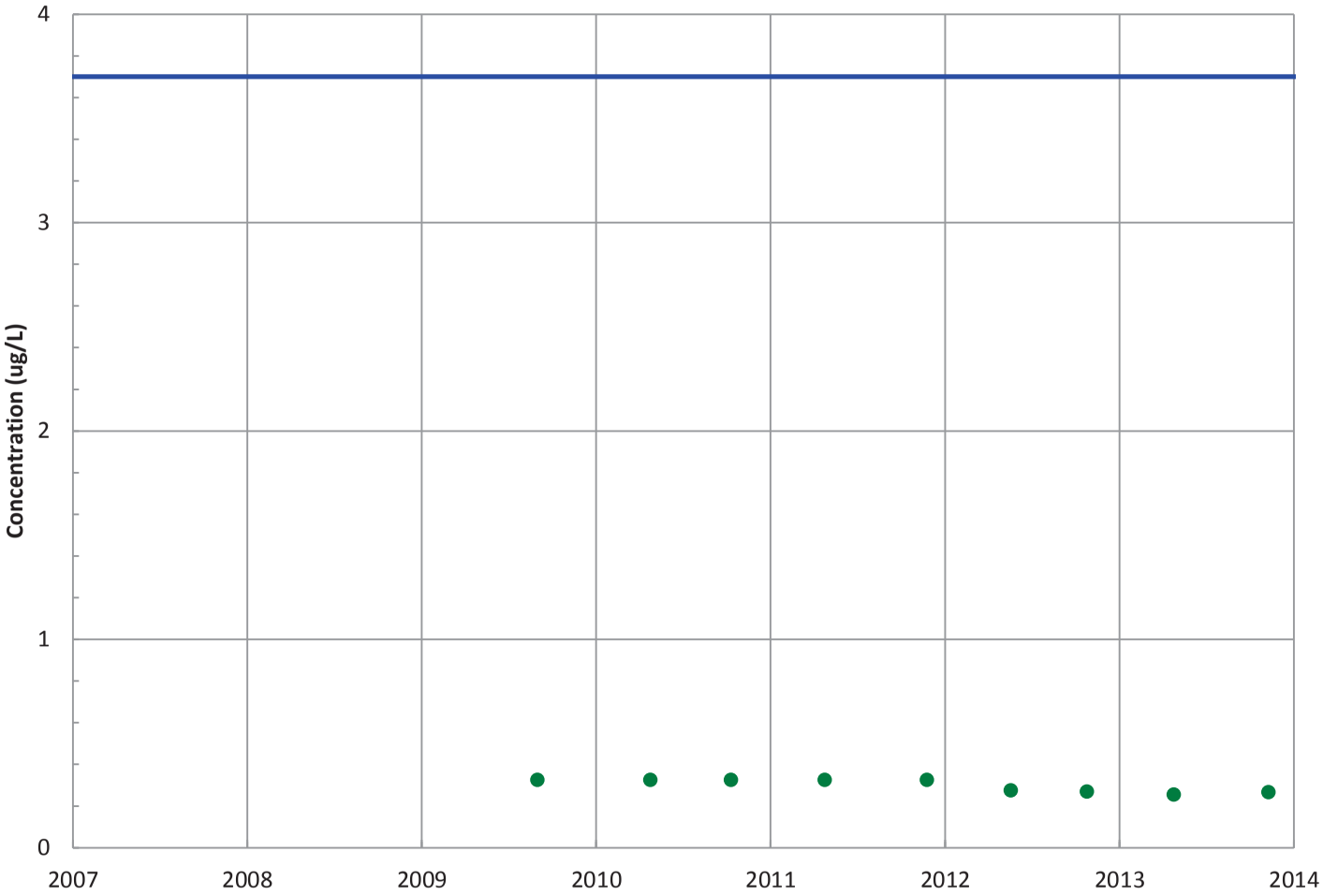
Well Location



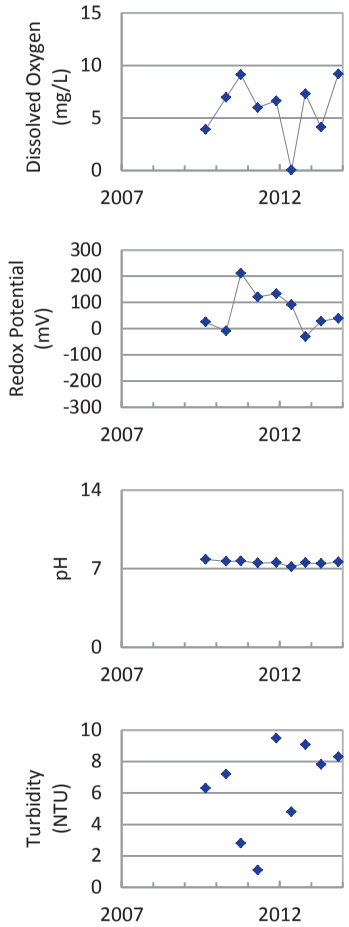
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/2/2009 to 11/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1147
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



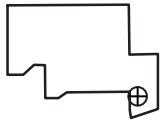
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

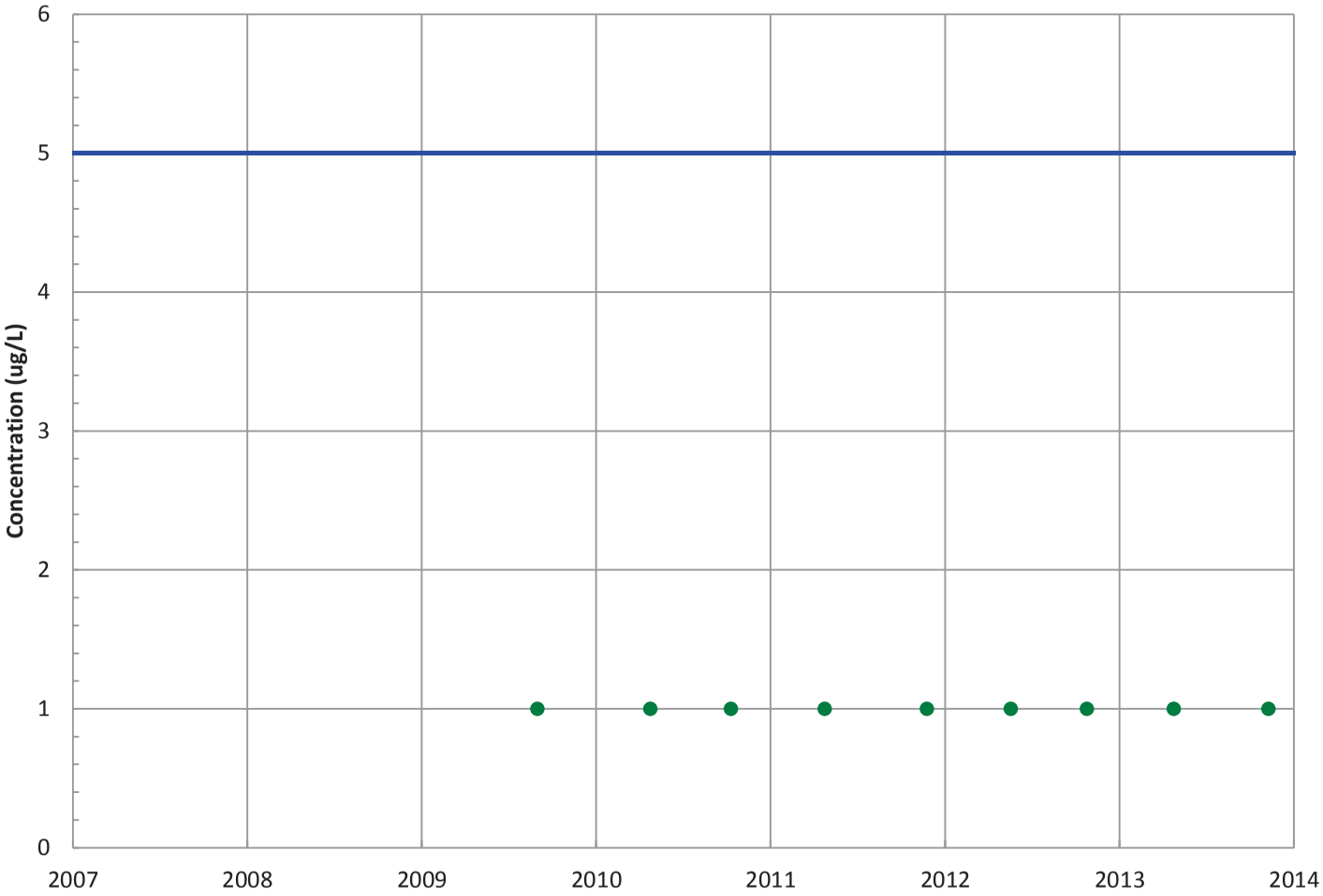
Well Location



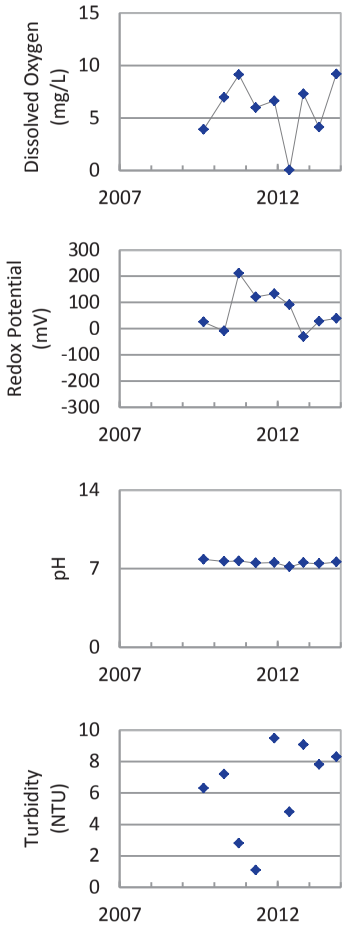
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/2/2009 to 11/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1147
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



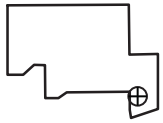
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

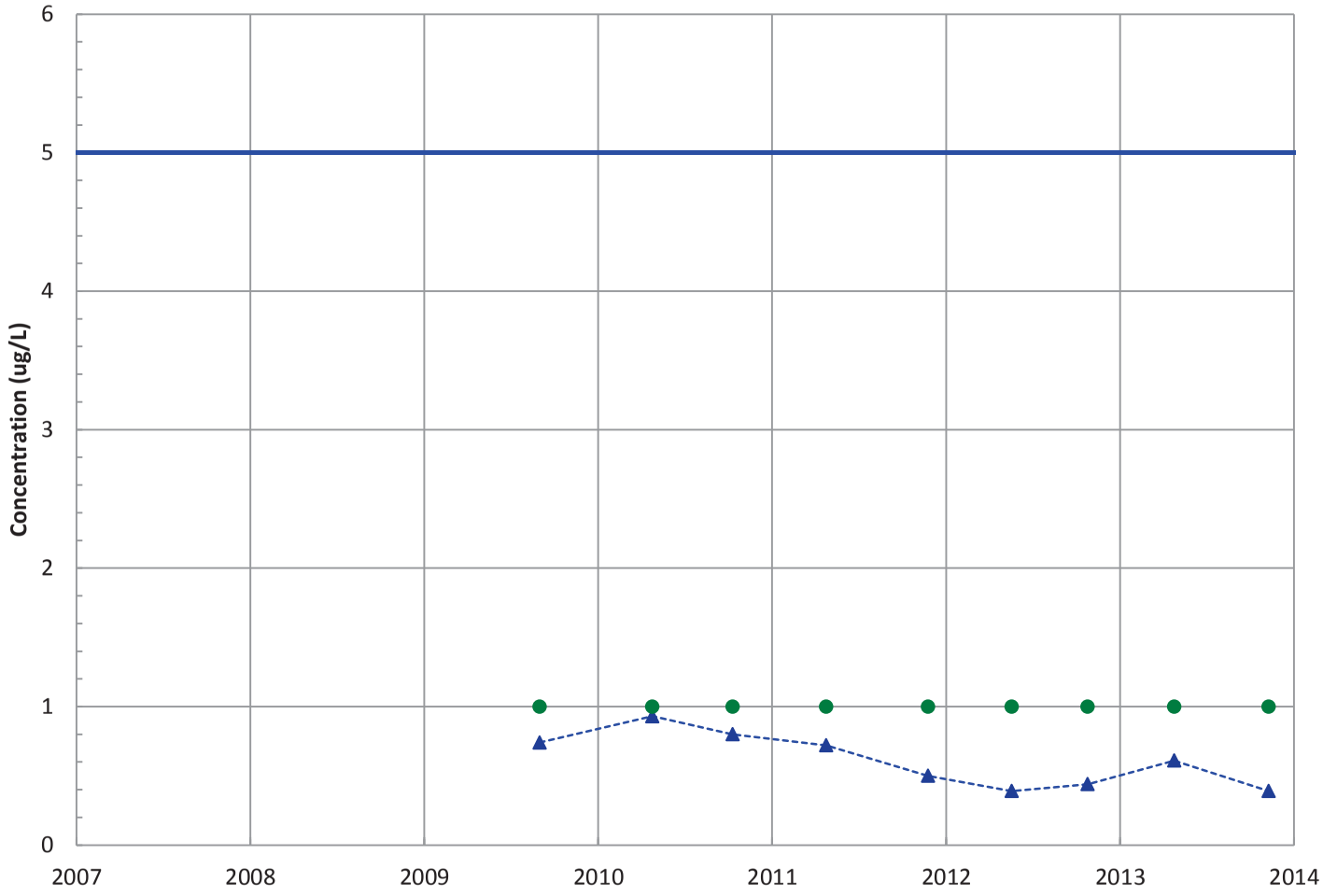
Well Location



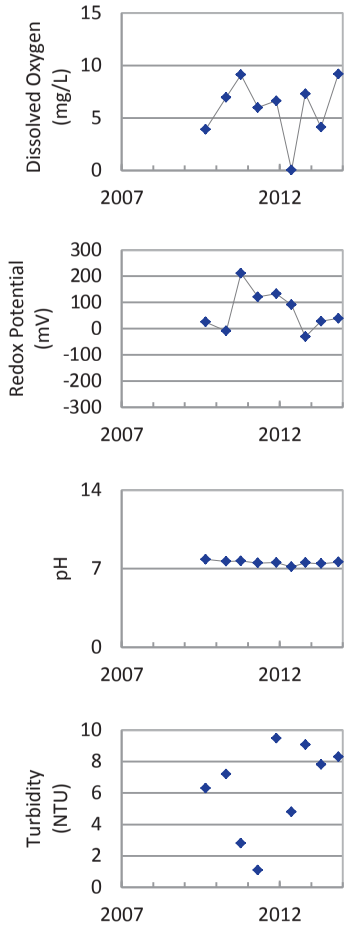
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/2/2009 to 11/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1147
Trichloroethene Trend in Perched Aquifer



Field Parameters



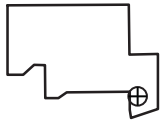
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------ Concentration Trend
- ——— Groundwater Protection Standard

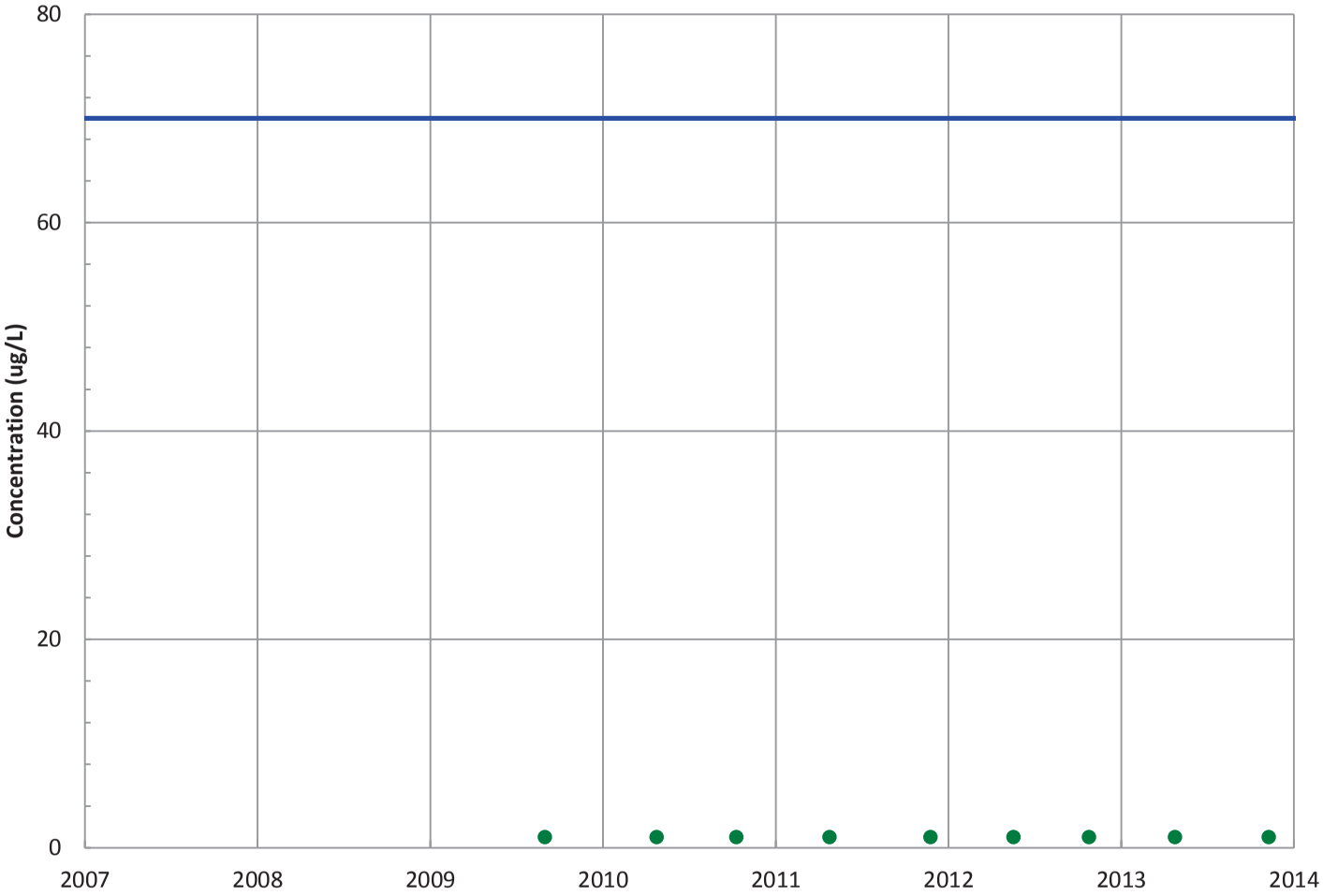
Well Location



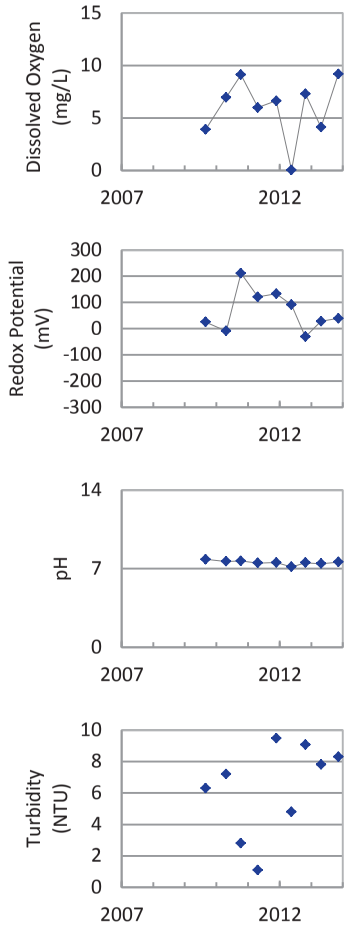
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/2/2009 to 11/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1147
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



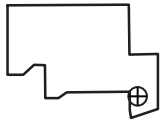
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

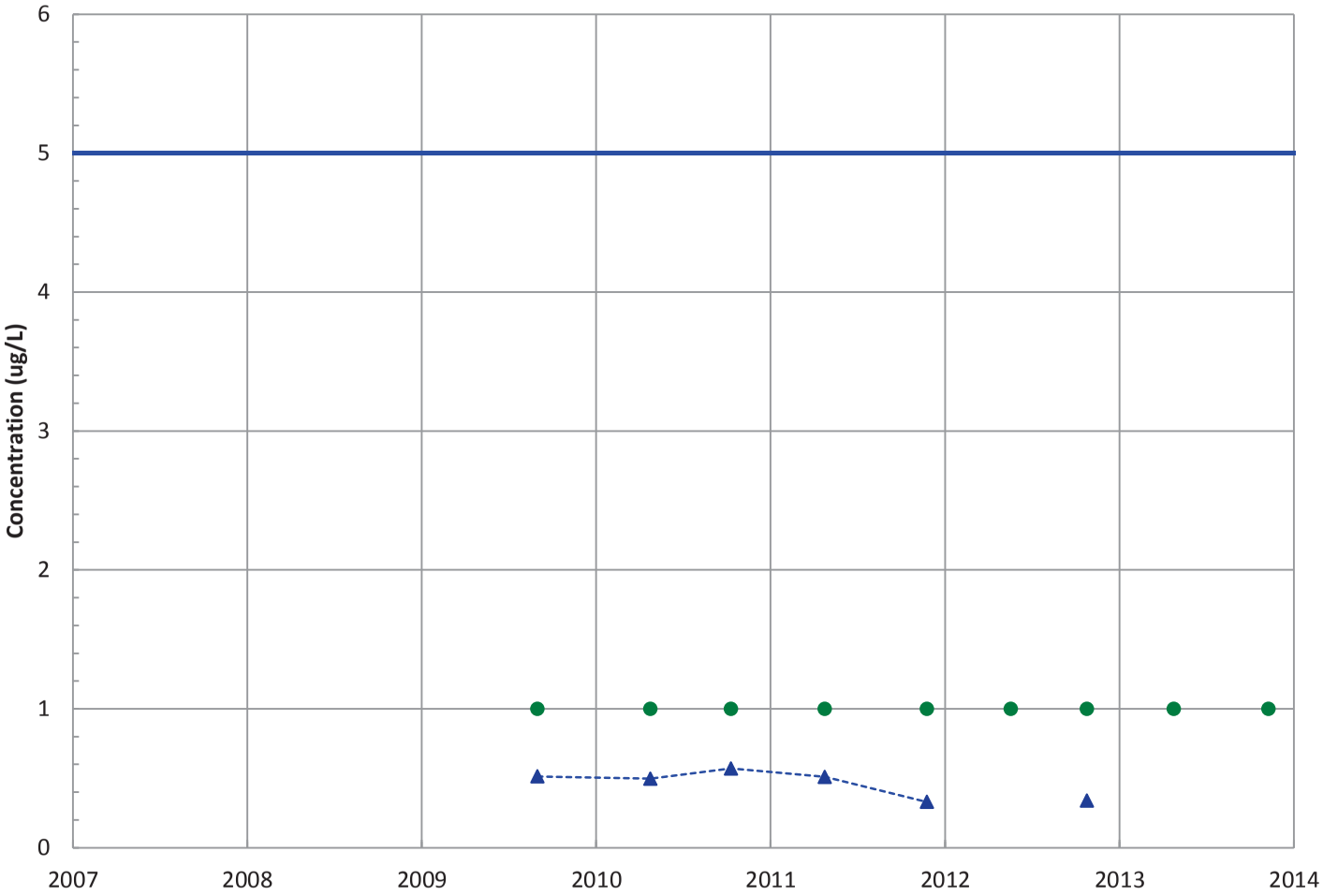
Well Location



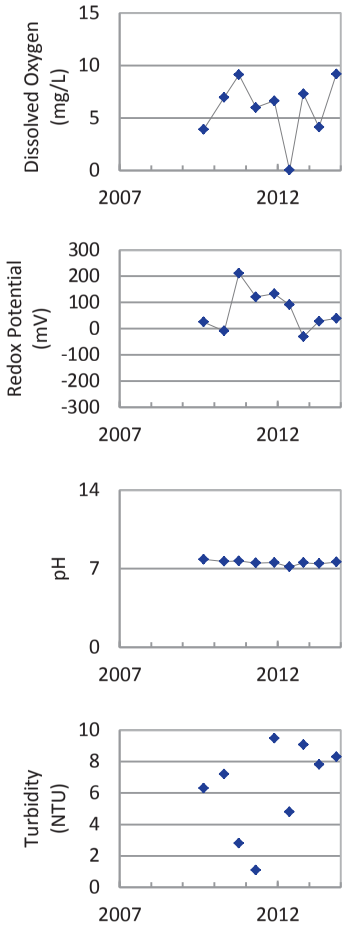
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/2/2009 to 11/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1147
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Decreasing

2011 - 2013 Data: N/A (<4 Detections in Dataset)

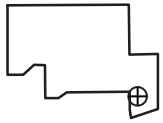
MAROS Linear Regression Method

Data (7/2009 - 12/2013): Decreasing

2011 - 2013 Data: Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

Well Location



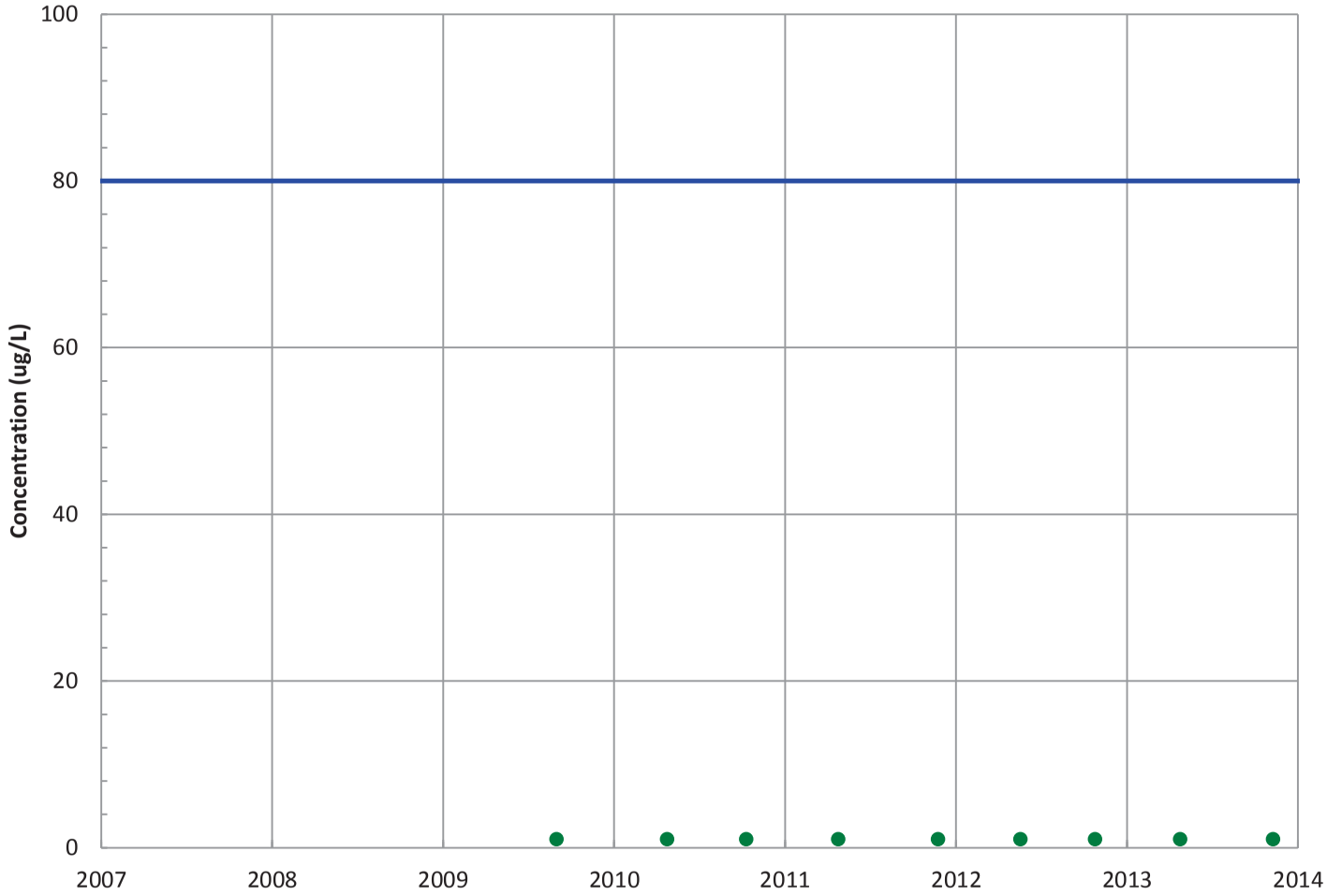
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 9/2/2009 to 11/14/2013

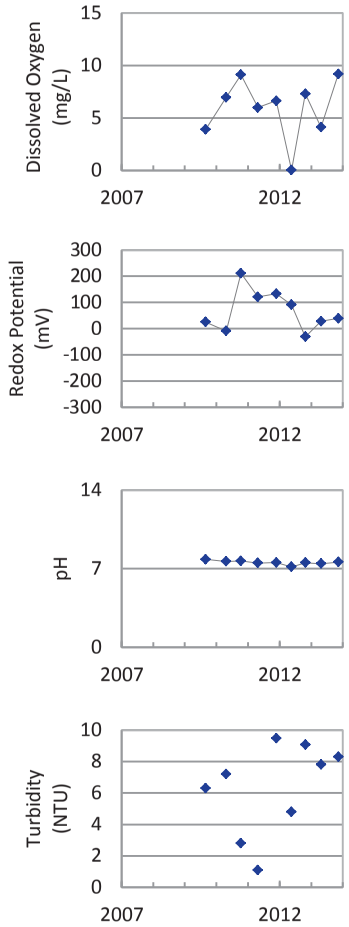
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1147
Chloroform Trend in Perched Aquifer



Field Parameters



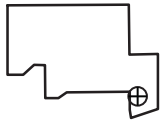
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

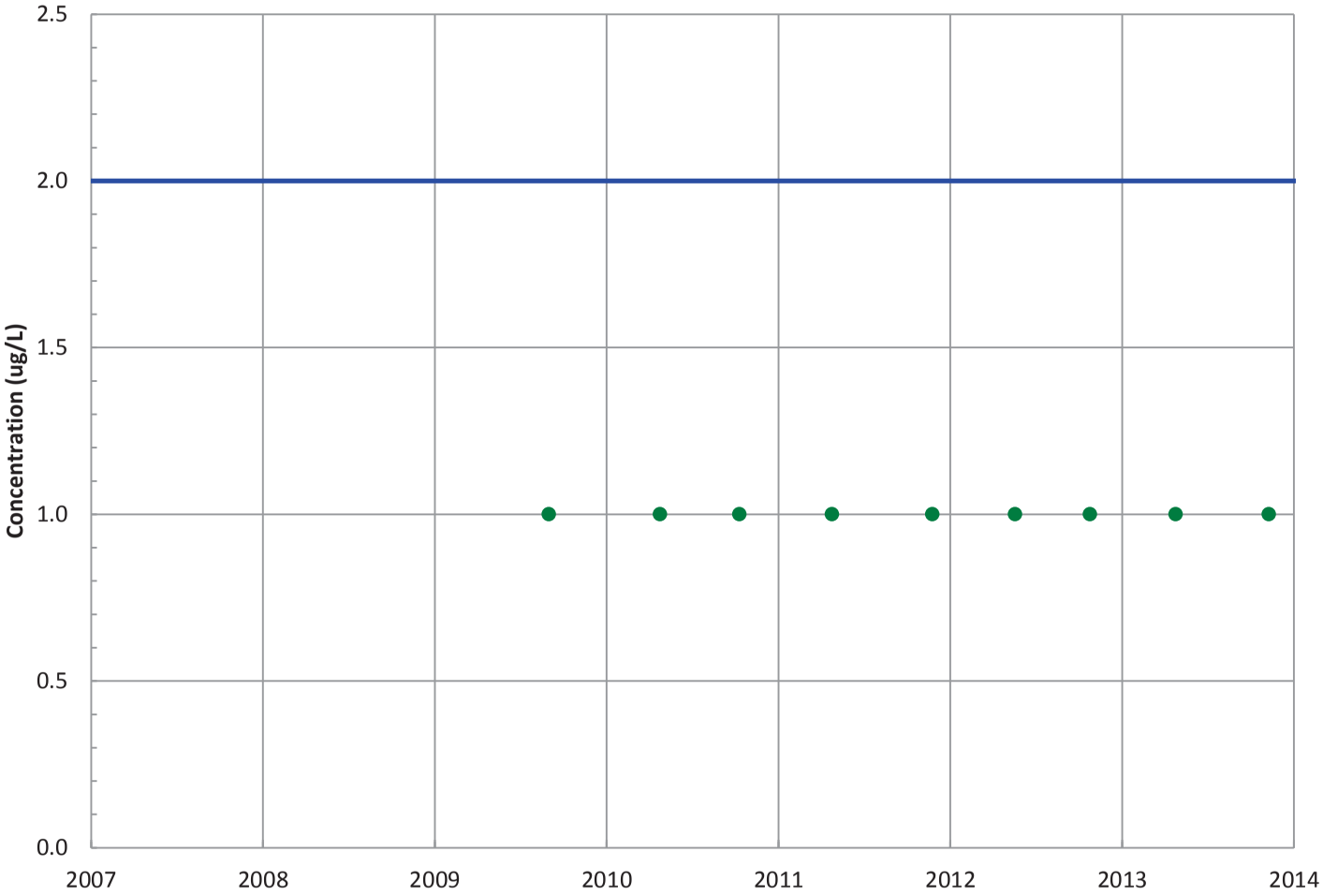
Well Location



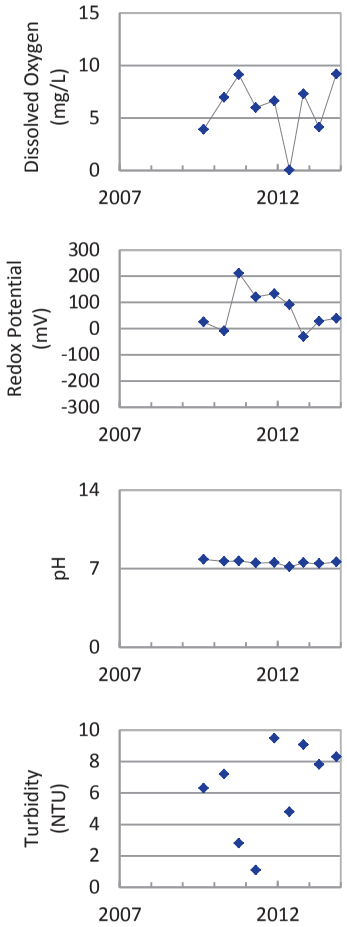
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/2/2009 to 11/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1147
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



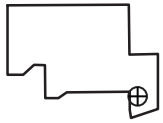
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

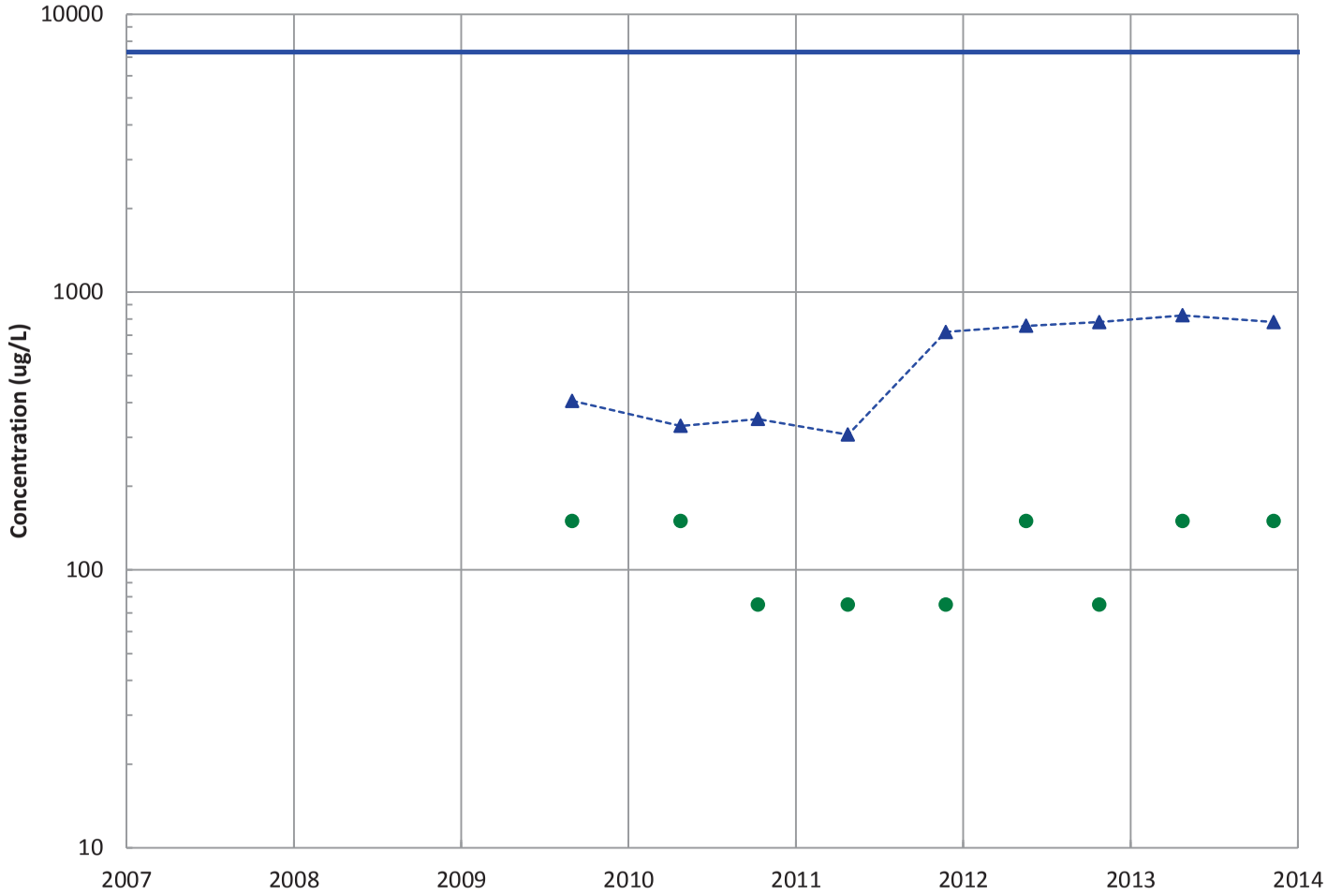
Well Location



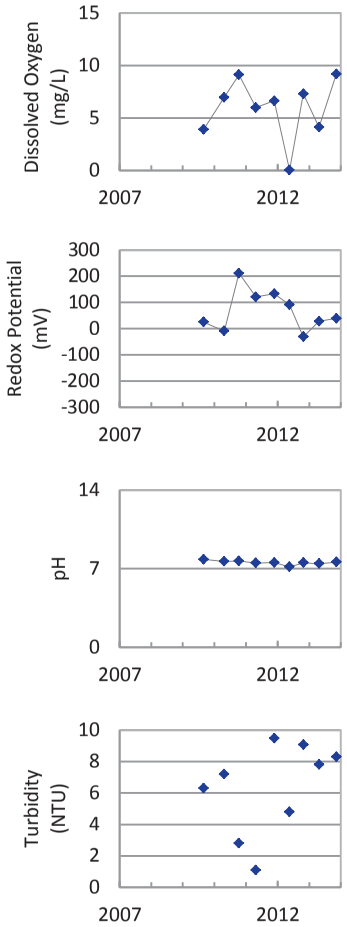
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/2/2009 to 11/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1147
Boron Trend in Perched Aquifer



Field Parameters



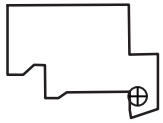
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

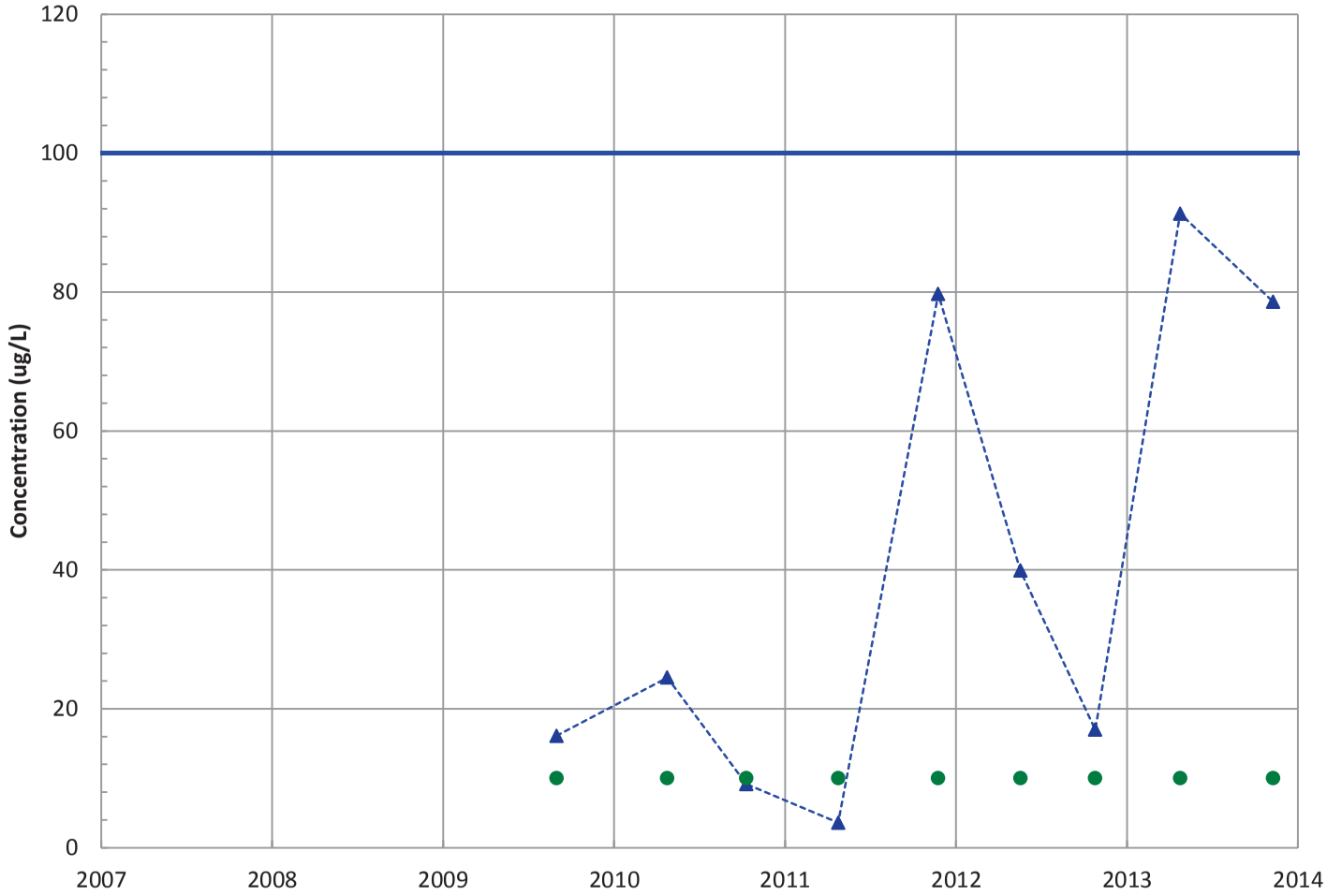
Well Location



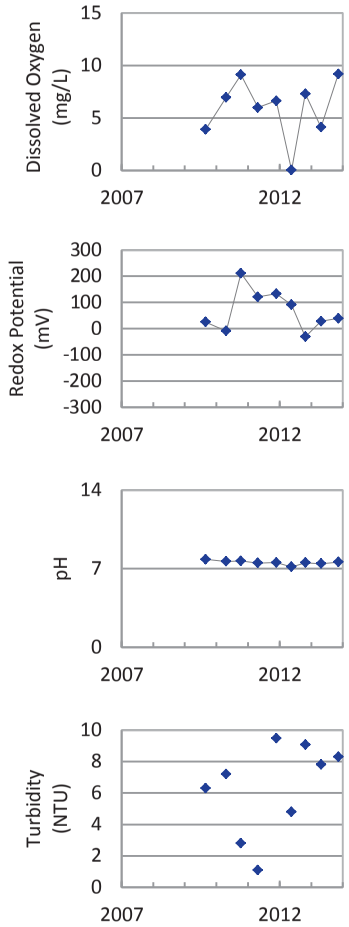
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/2/2009 to 11/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1147
Chromium, Total Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Probably Increasing

2011 - 2013 Data: No Trend

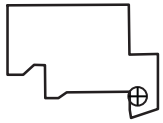
MAROS Linear Regression Method

Data (7/2009 - 12/2013): Increasing

2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------ Concentration Trend
- ——— Groundwater Protection Standard

Well Location



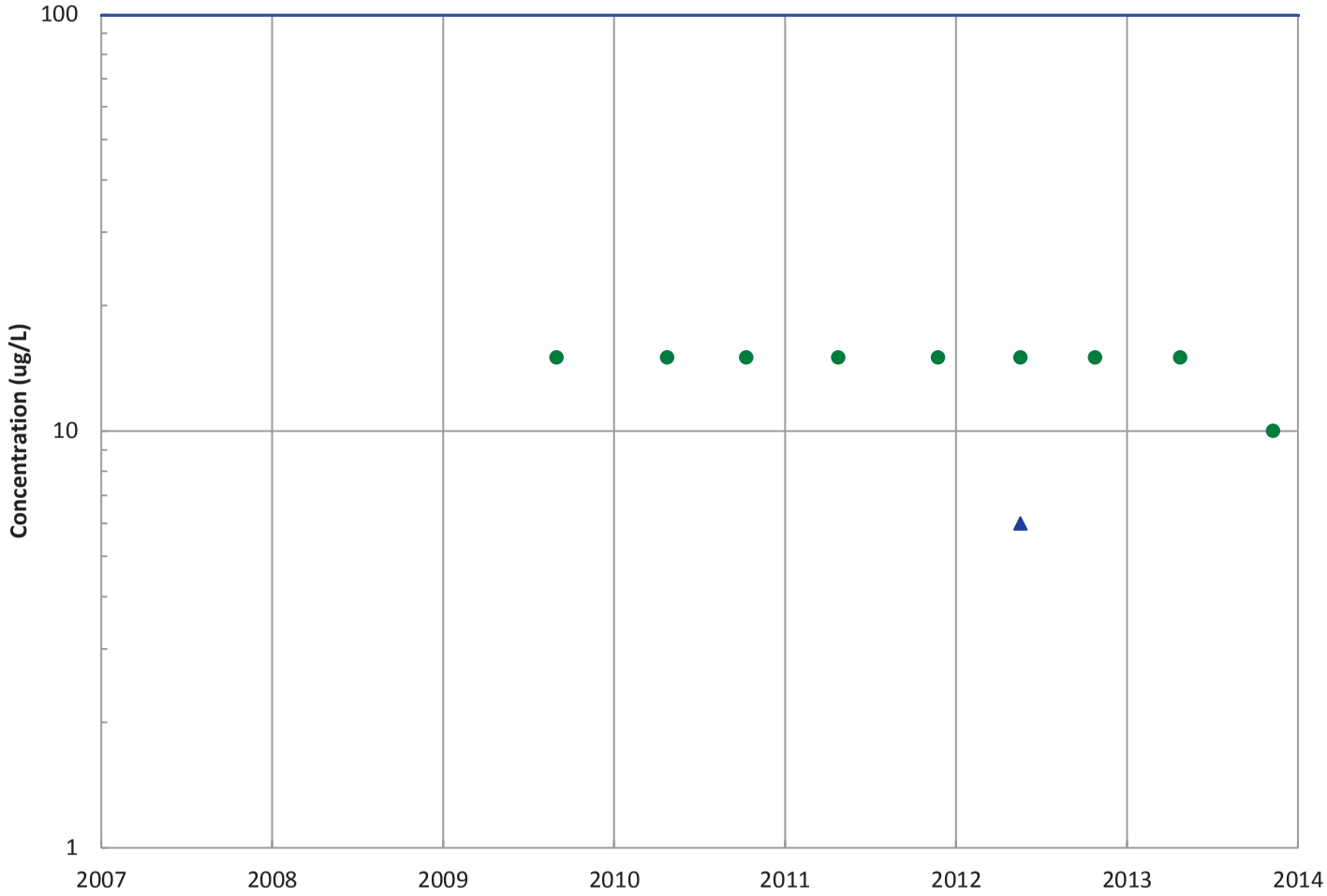
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 9/2/2009 to 11/14/2013

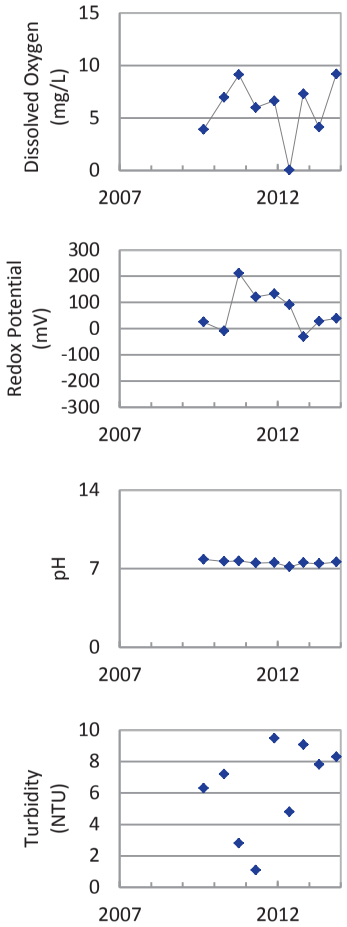
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1147
Chromium, Hexavalent Trend in Perched Aquifer



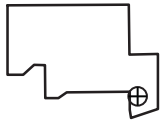
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

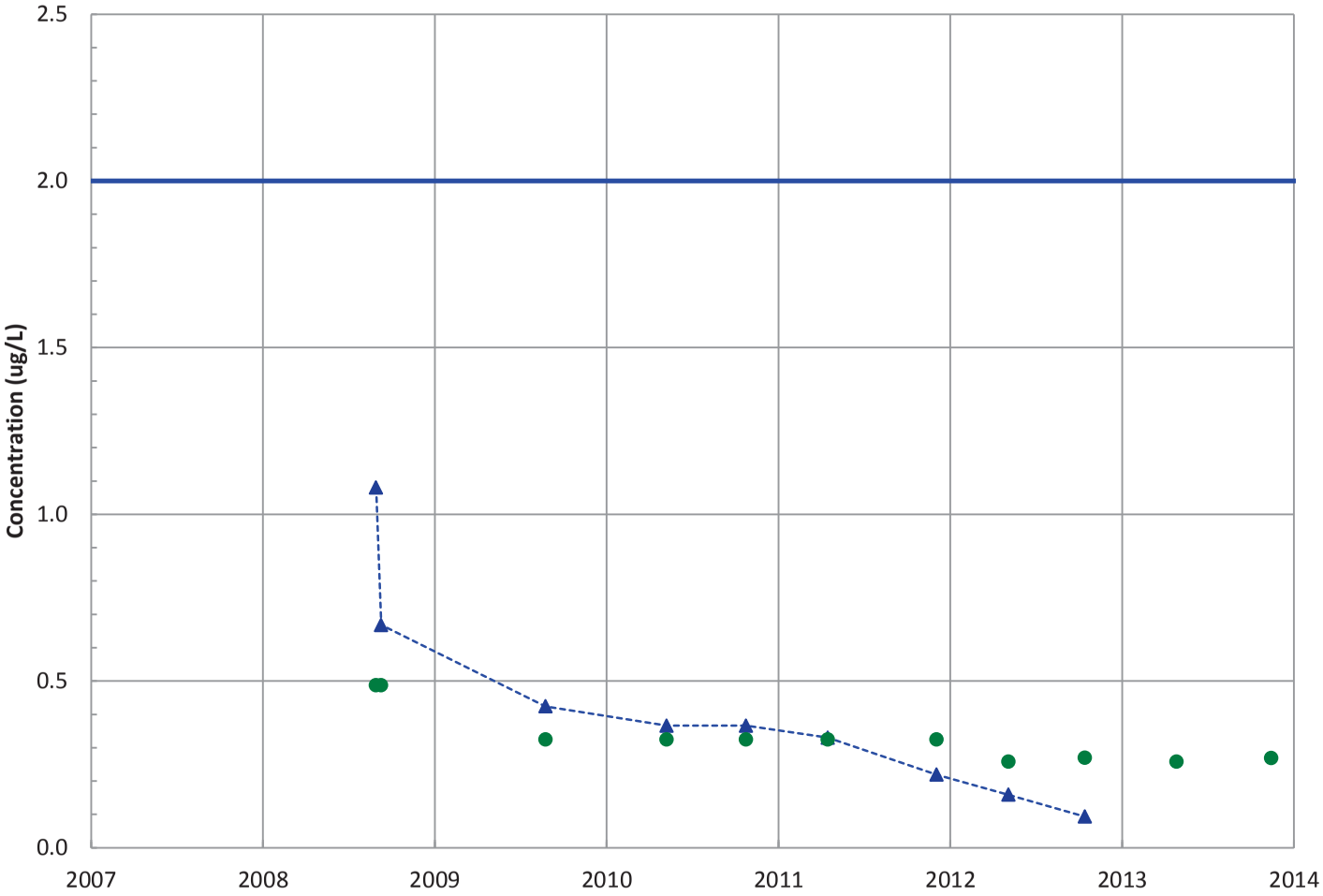
Well Location



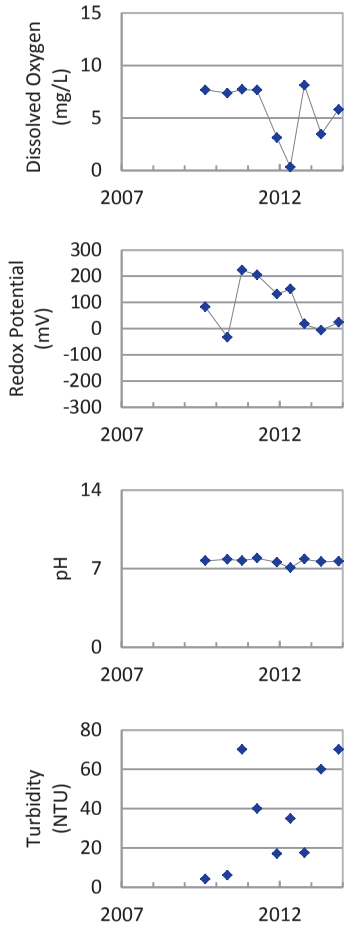
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/2/2009 to 11/14/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1148
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Decreasing

2011 - 2013 Data: N/A (<4 Detections in Dataset)

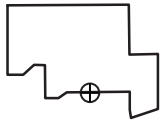
MAROS Linear Regression Method

Data (7/2009 - 12/2013): Decreasing

2011 - 2013 Data: Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

Well Location



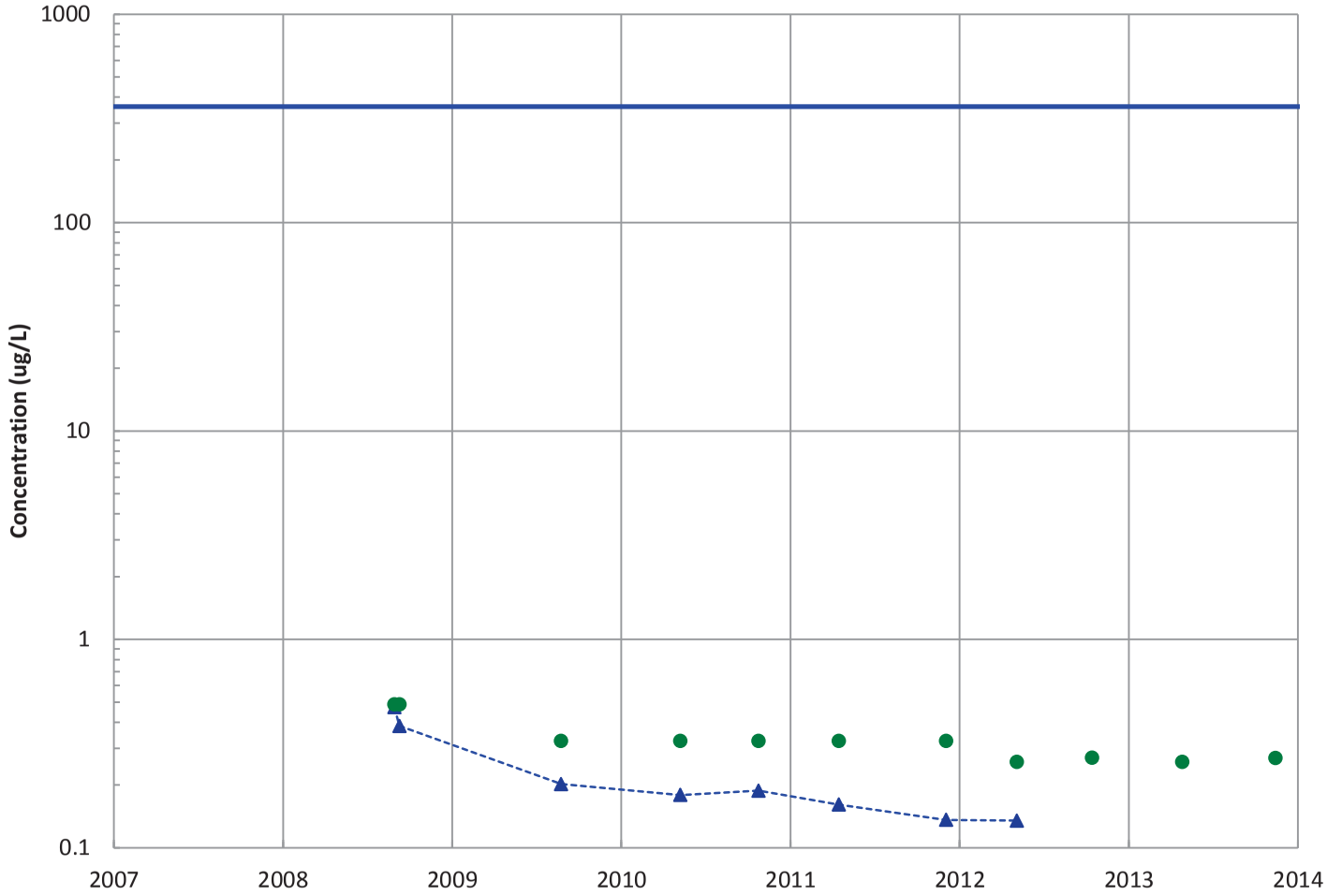
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 8/30/2008 to 11/19/2013

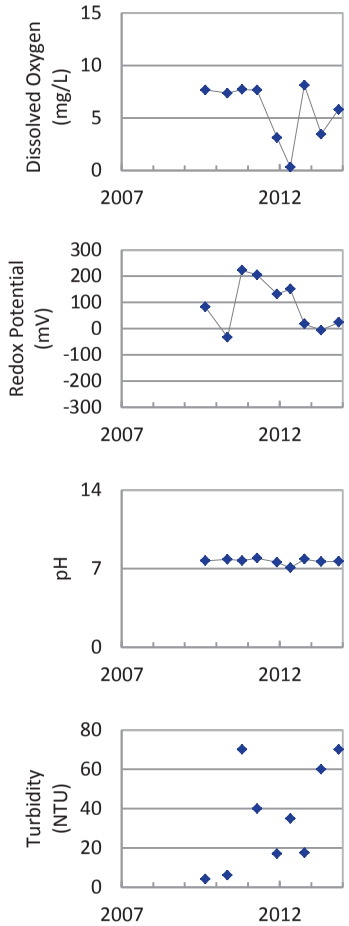
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1148
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Decreasing

2011 - 2013 Data: N/A (<4 Detections in Dataset)

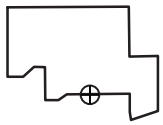
MAROS Linear Regression Method

Data (7/2009 - 12/2013): Decreasing

2011 - 2013 Data: Probably Decreasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location



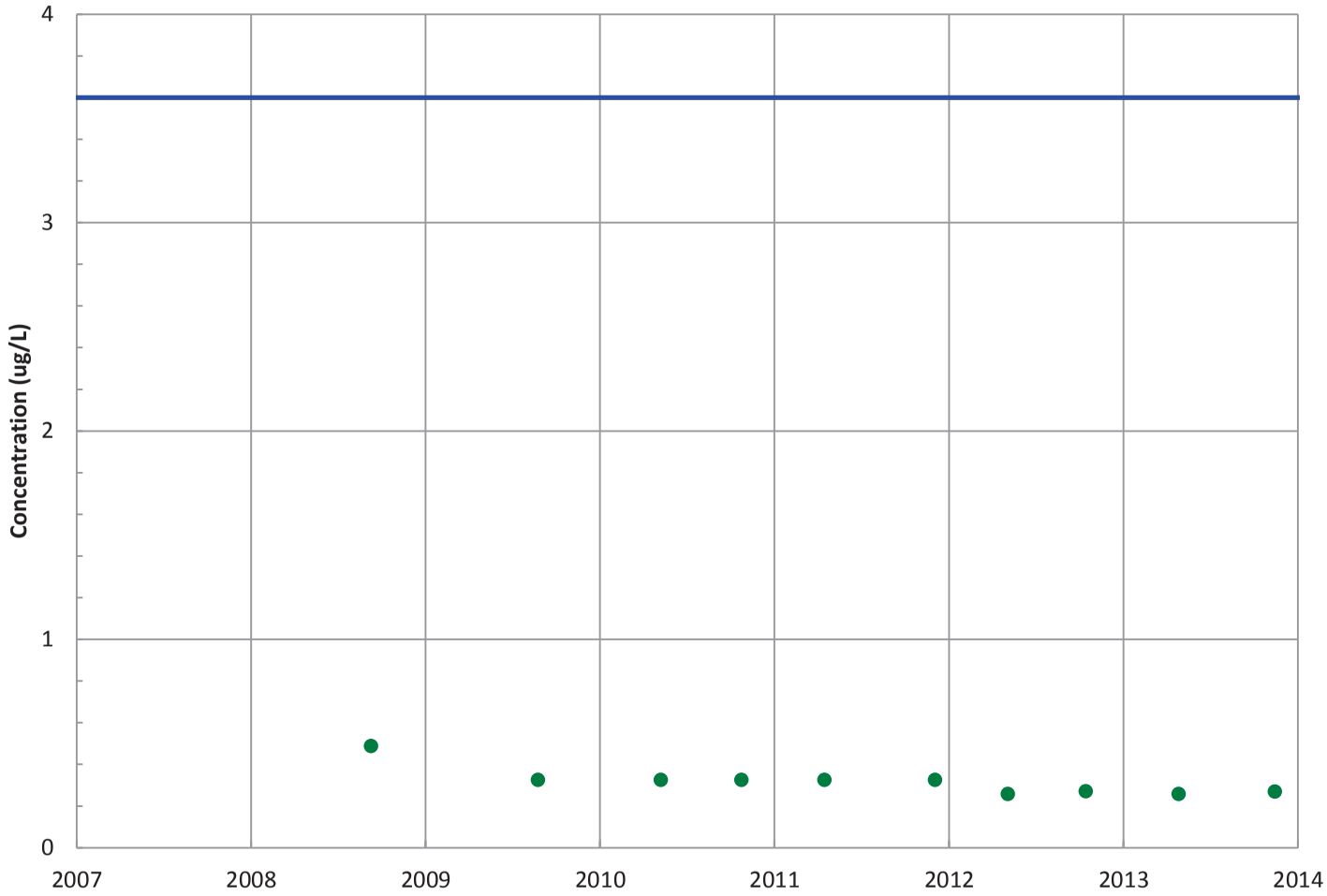
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 8/30/2008 to 11/19/2013

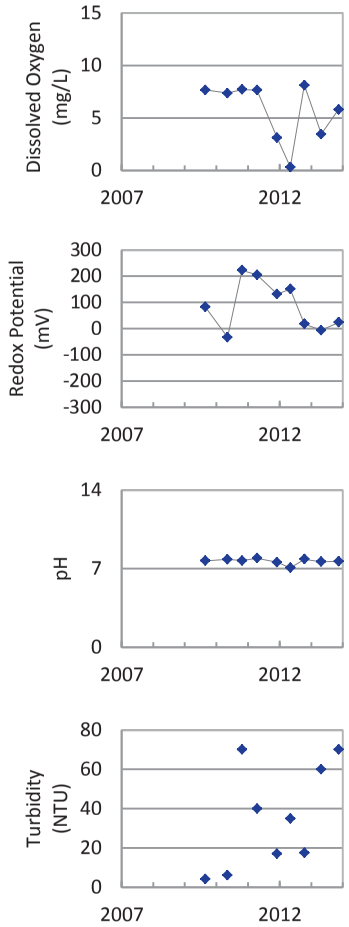
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1148
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



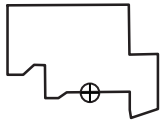
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

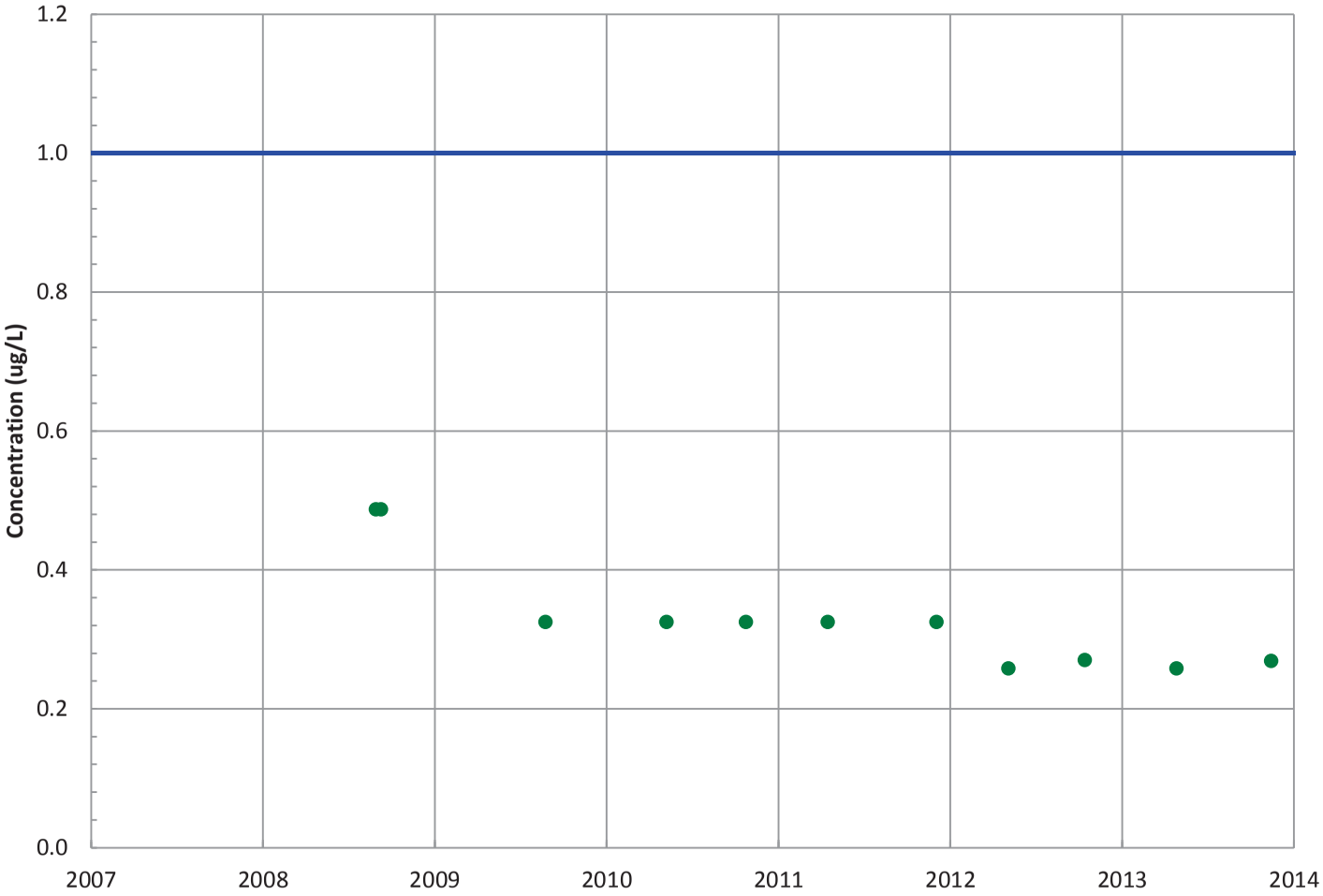
Well Location



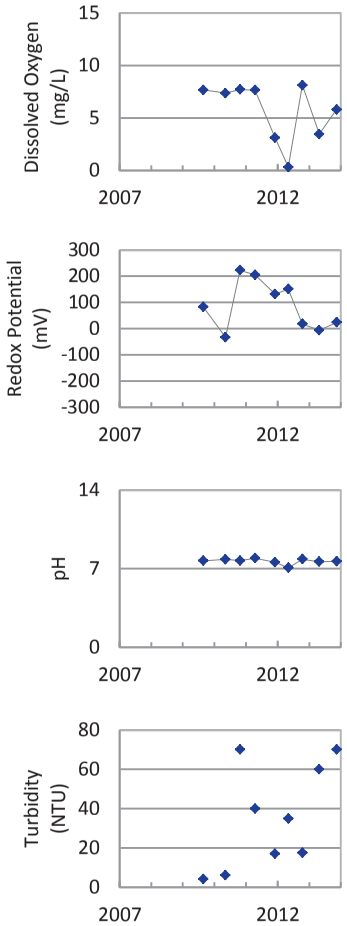
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/10/2008 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1148
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



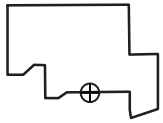
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

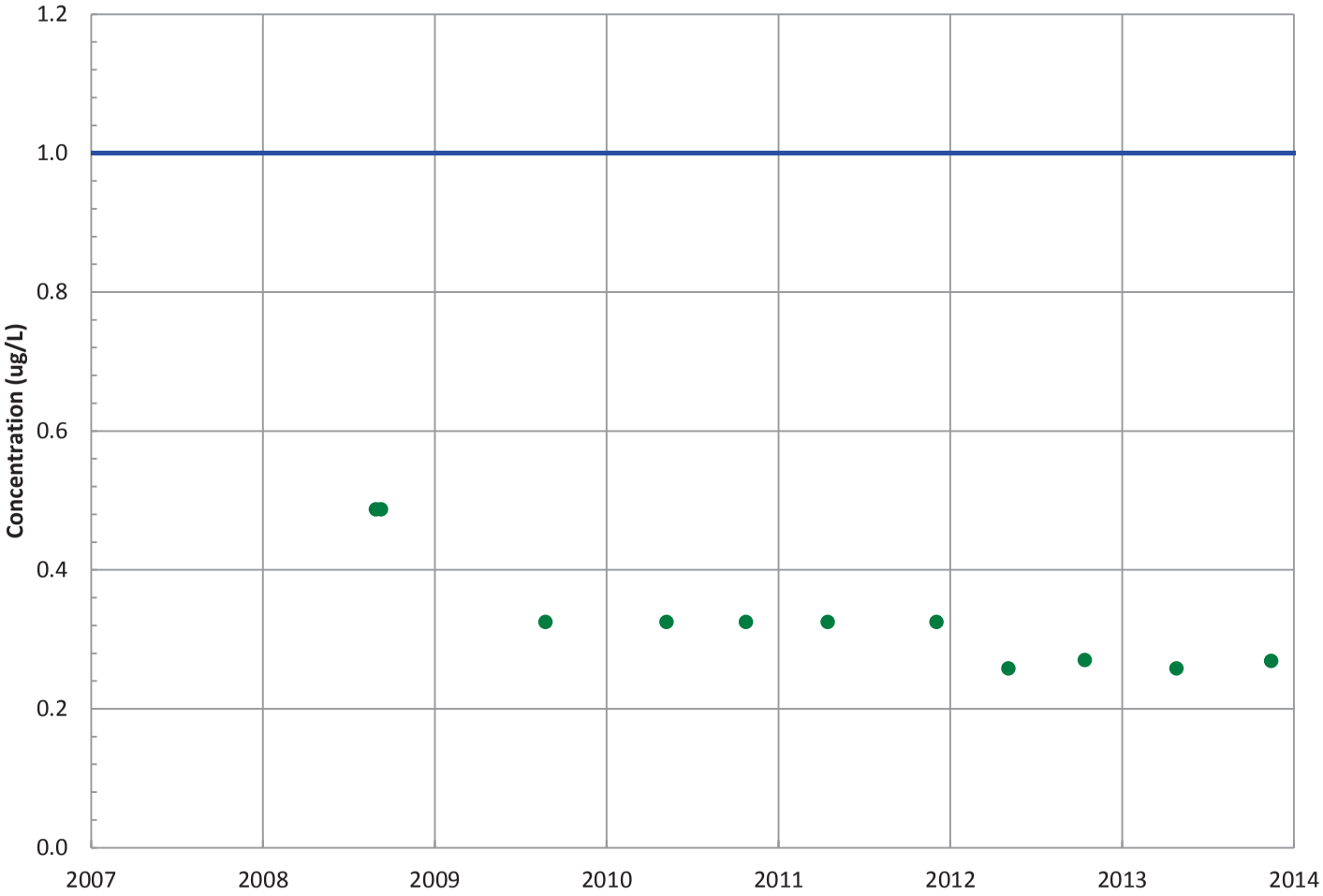
Well Location



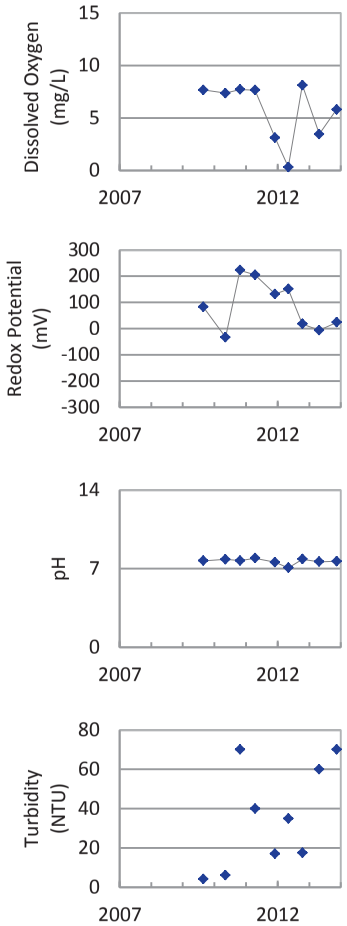
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/30/2008 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1148
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



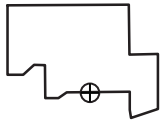
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

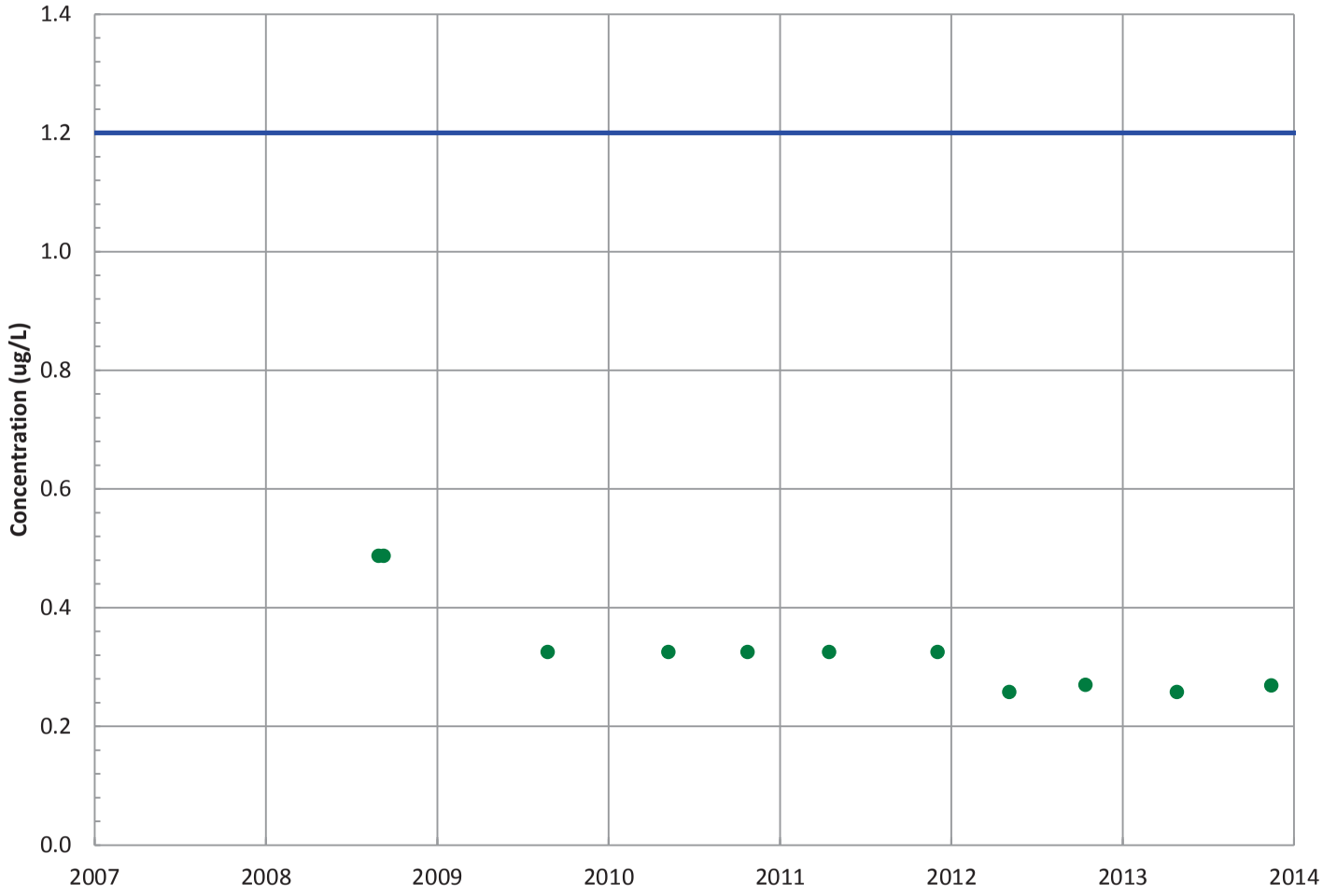
Well Location



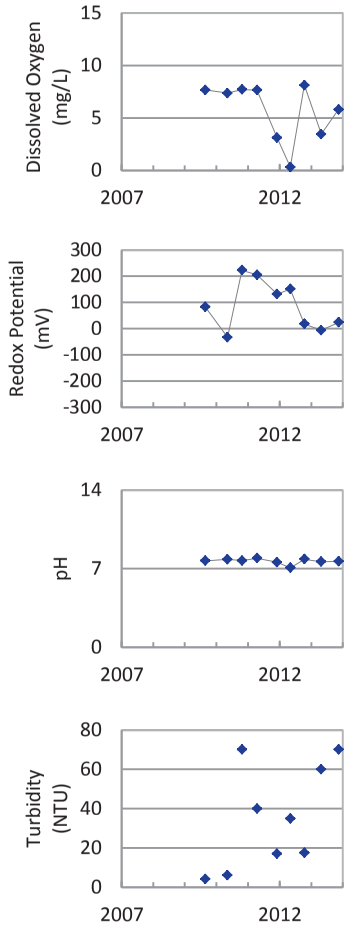
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/30/2008 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1148
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



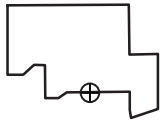
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

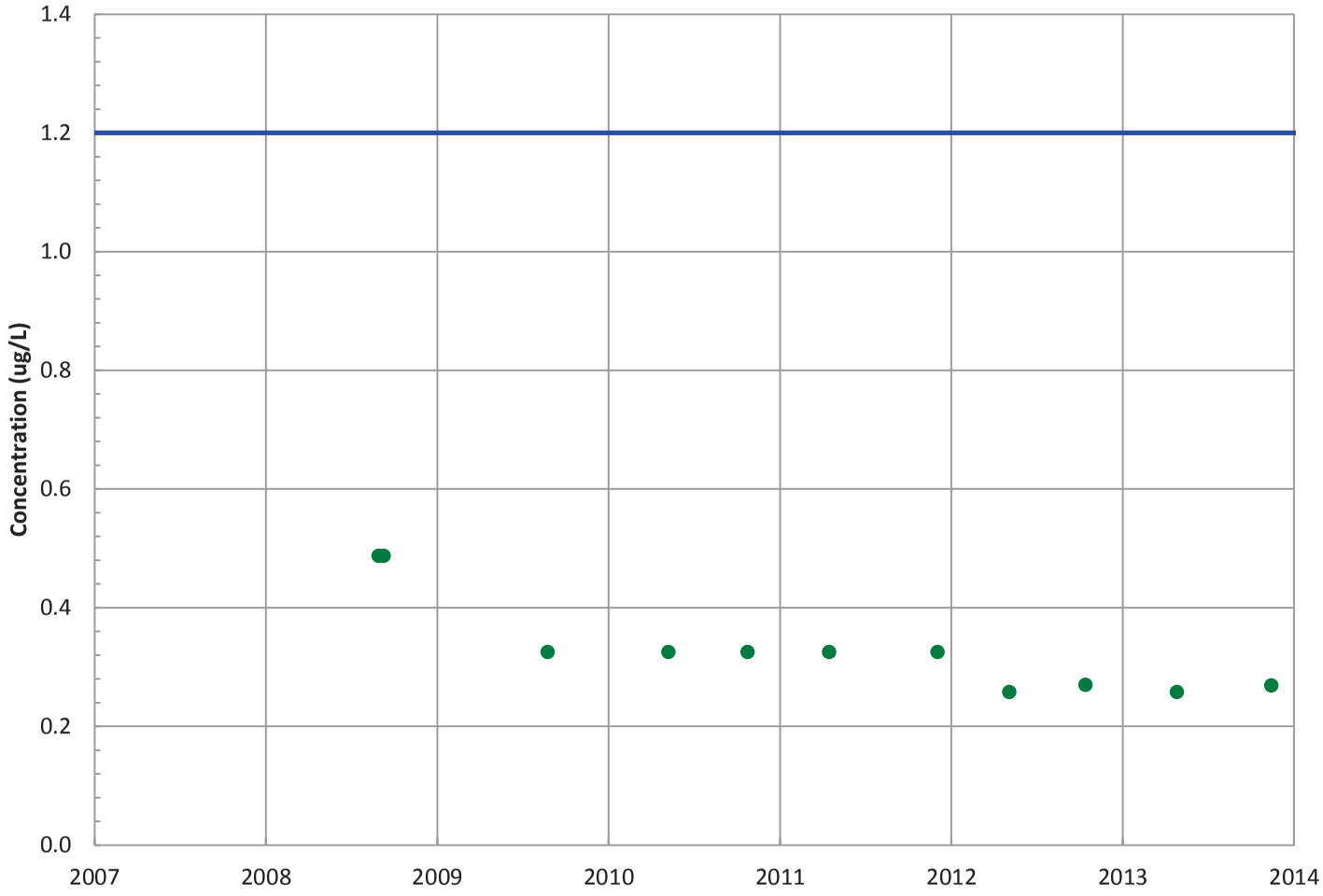
Well Location



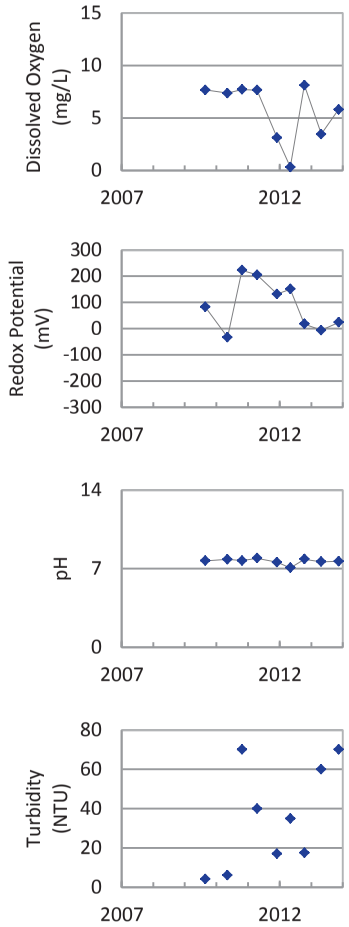
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/30/2008 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1148
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



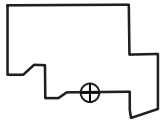
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

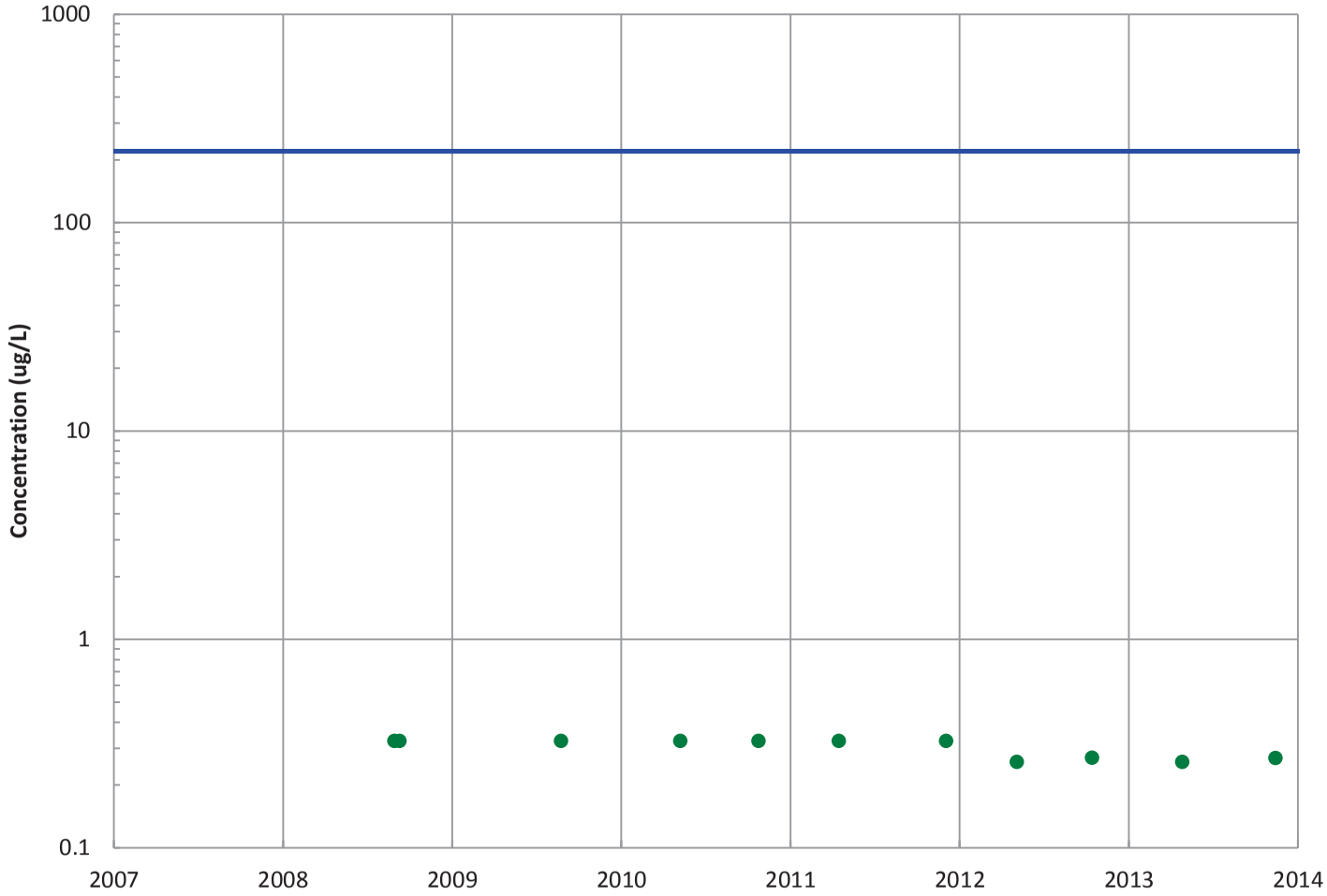
Well Location



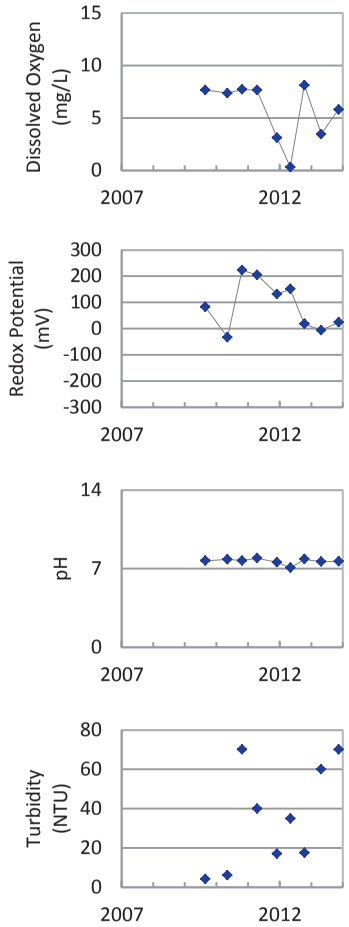
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/30/2008 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1148
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



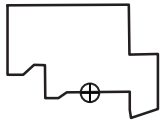
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

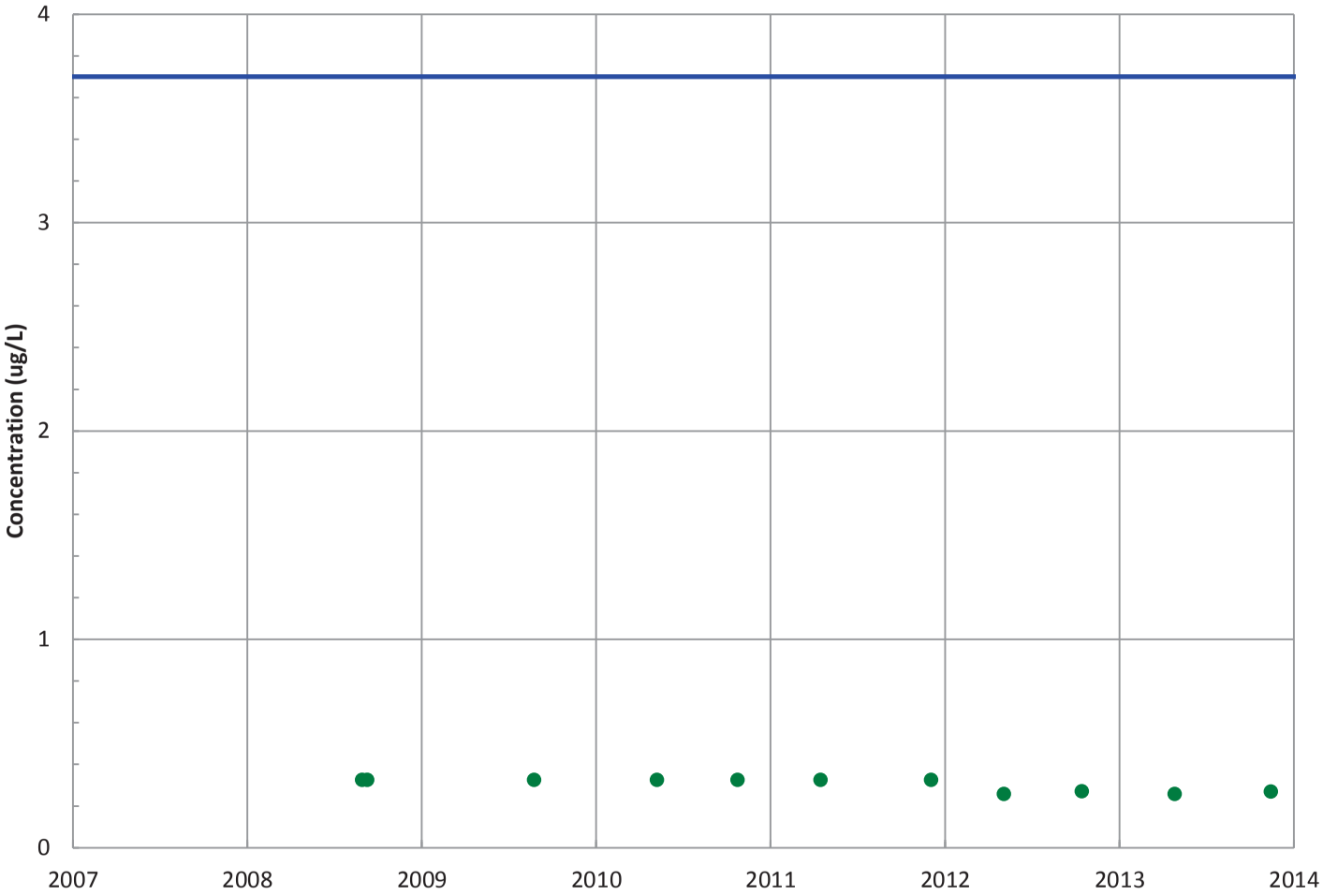
Well Location



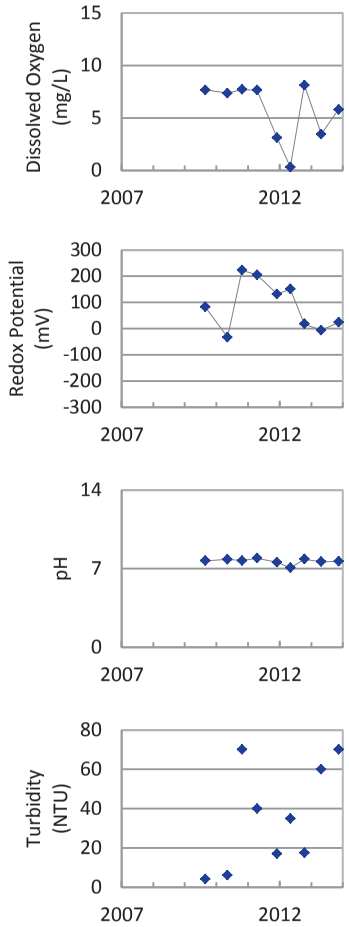
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/30/2008 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1148
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



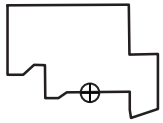
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

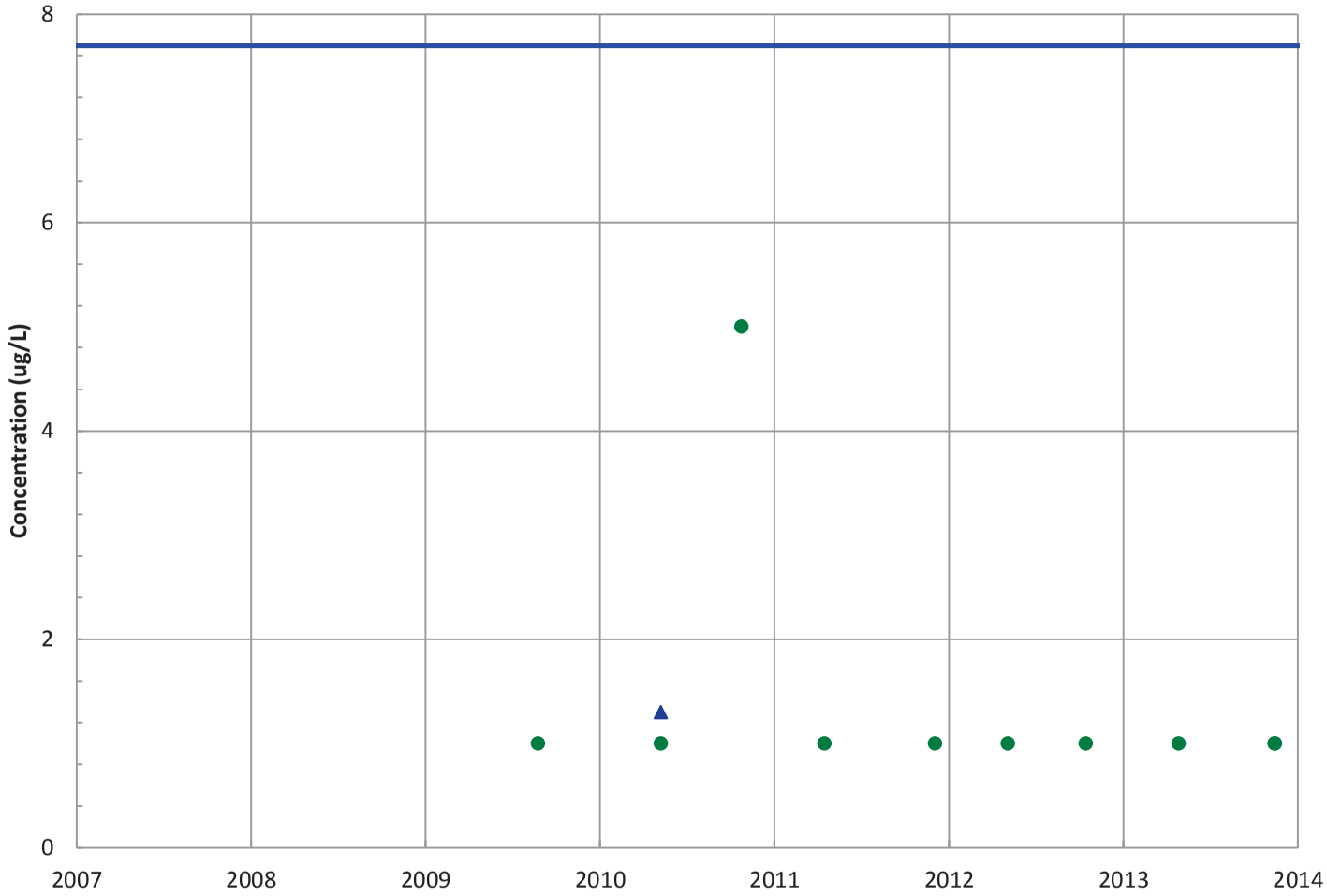
Well Location



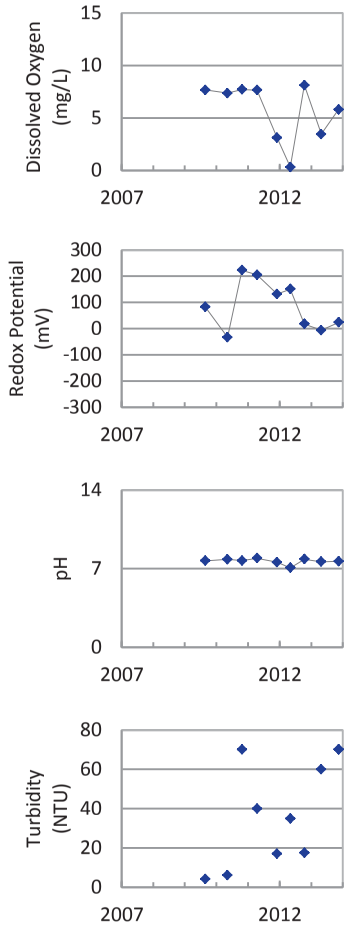
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/30/2008 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1148
1,4-Dioxane (p-Dioxane) Trend in Perched Aquifer



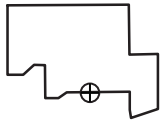
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: All Non-Detect
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

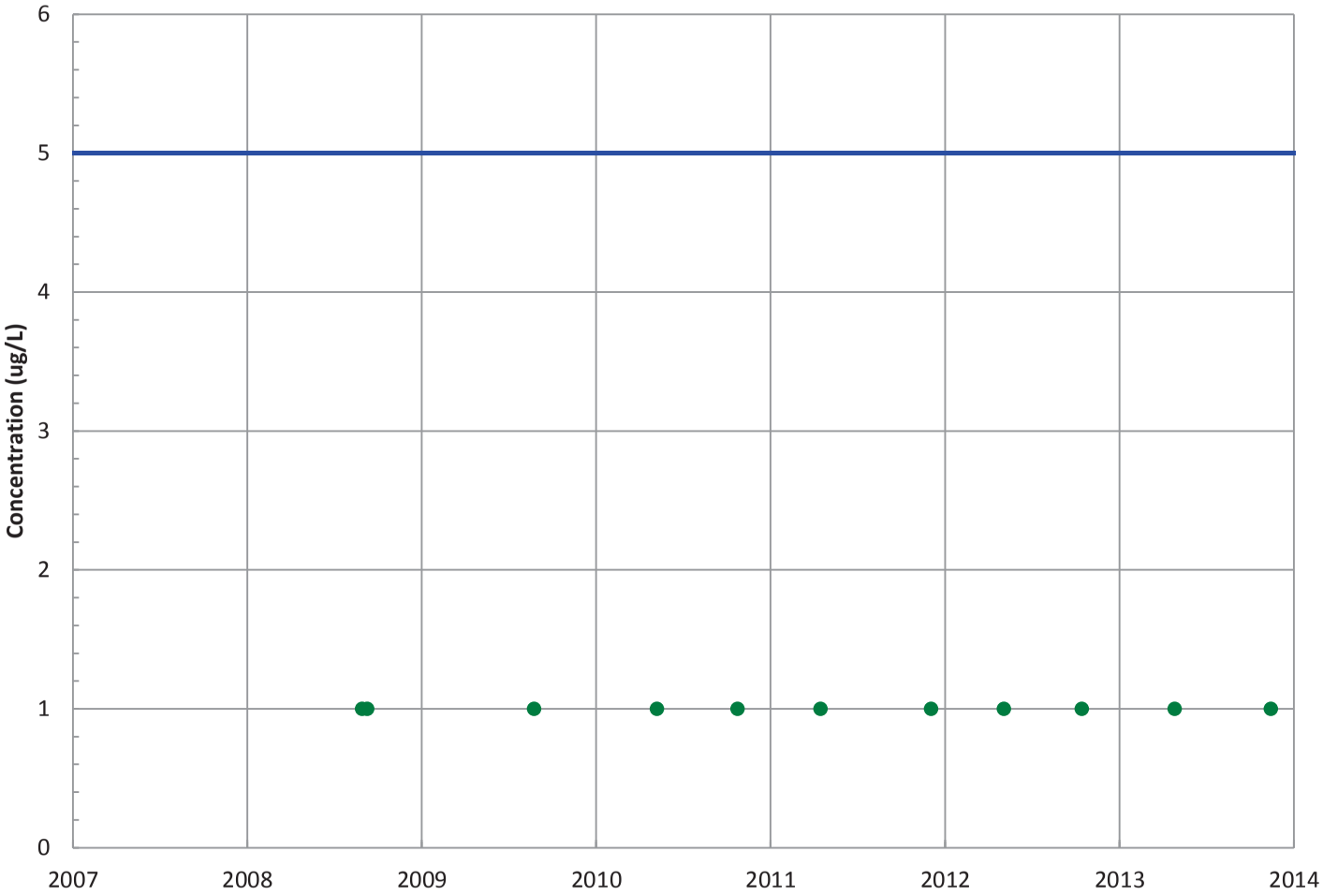
Well Location



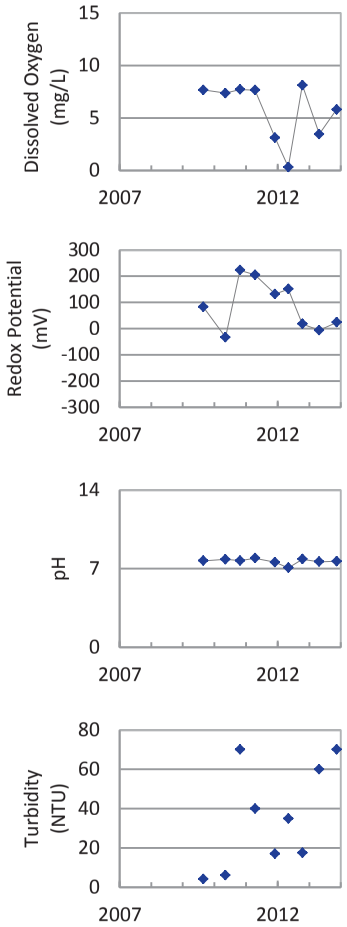
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/26/2009 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1148
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



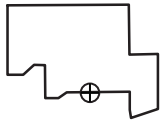
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

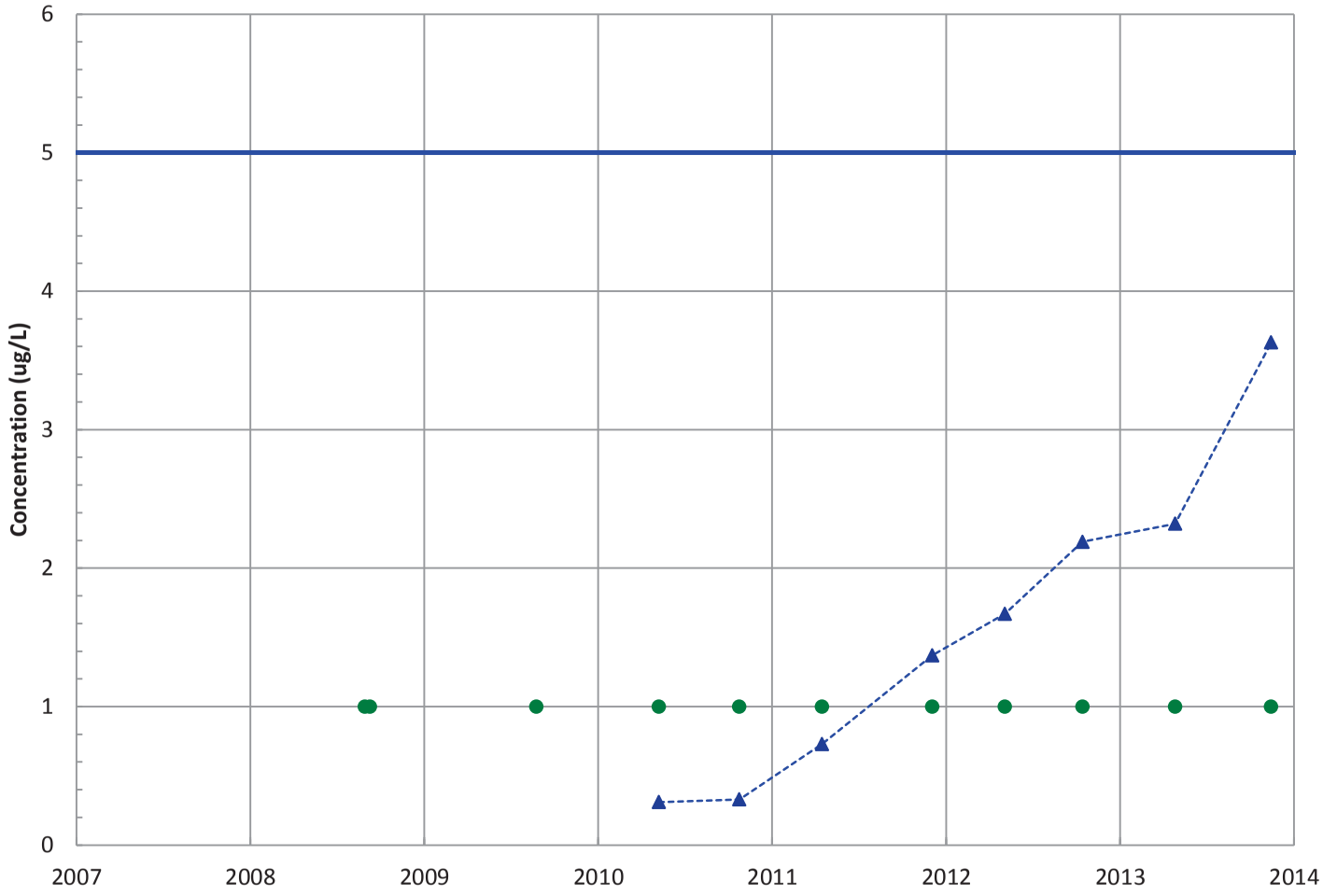
Well Location



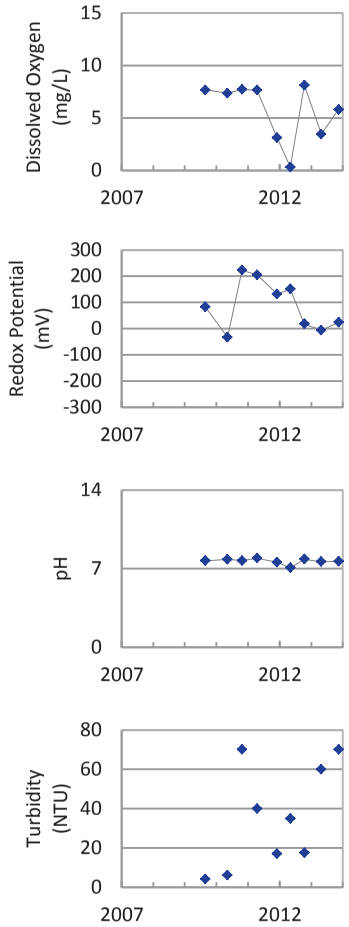
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/30/2008 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1148
Trichloroethene Trend in Perched Aquifer



Field Parameters



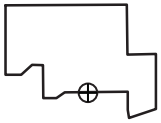
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Increasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Increasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

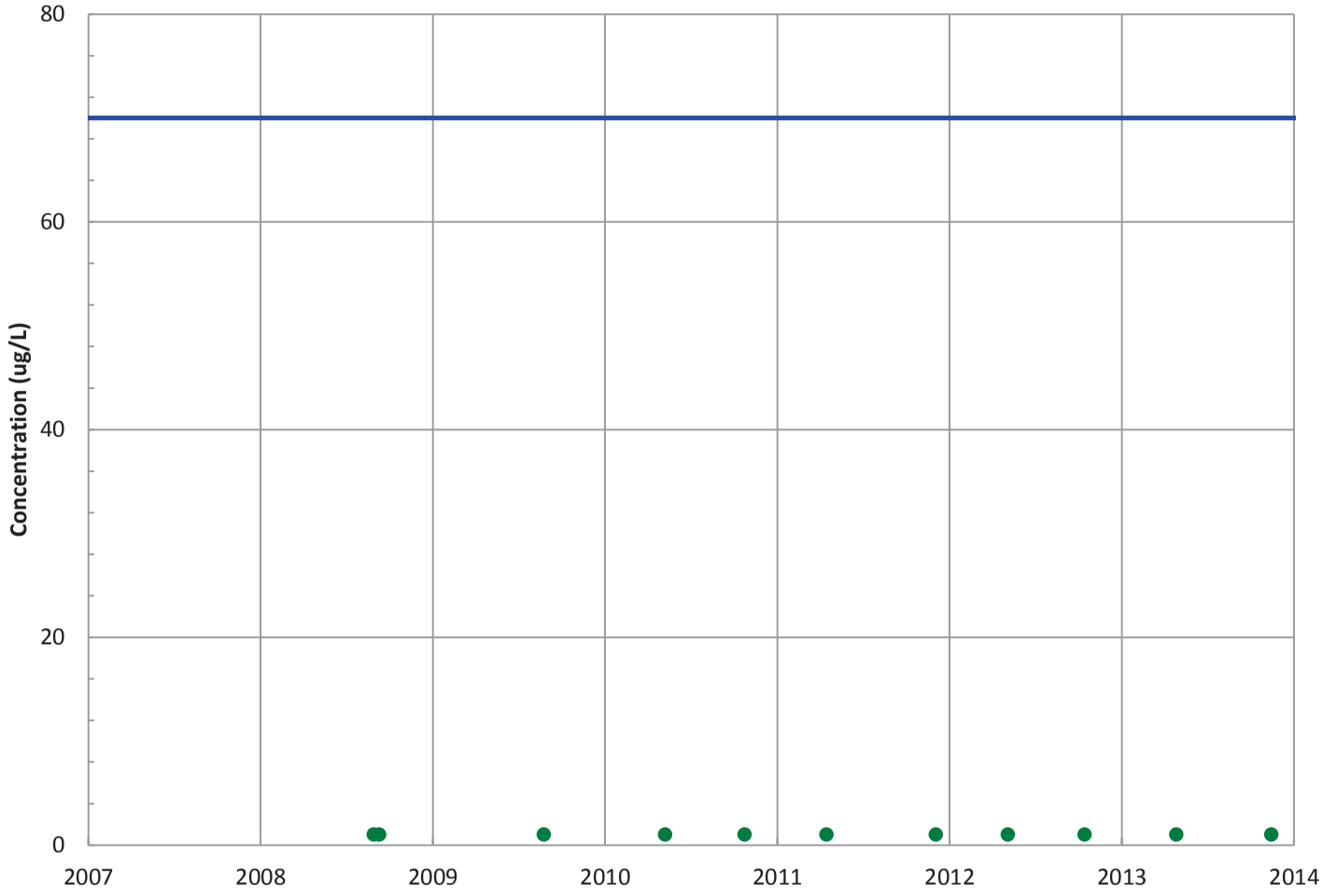
Well Location



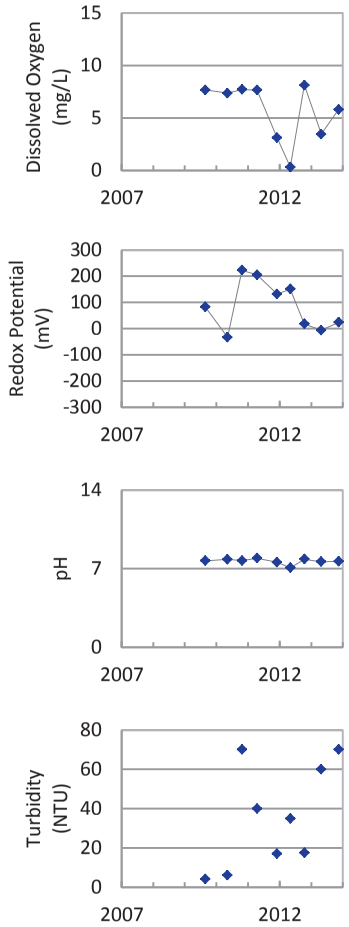
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/30/2008 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1148
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



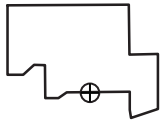
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

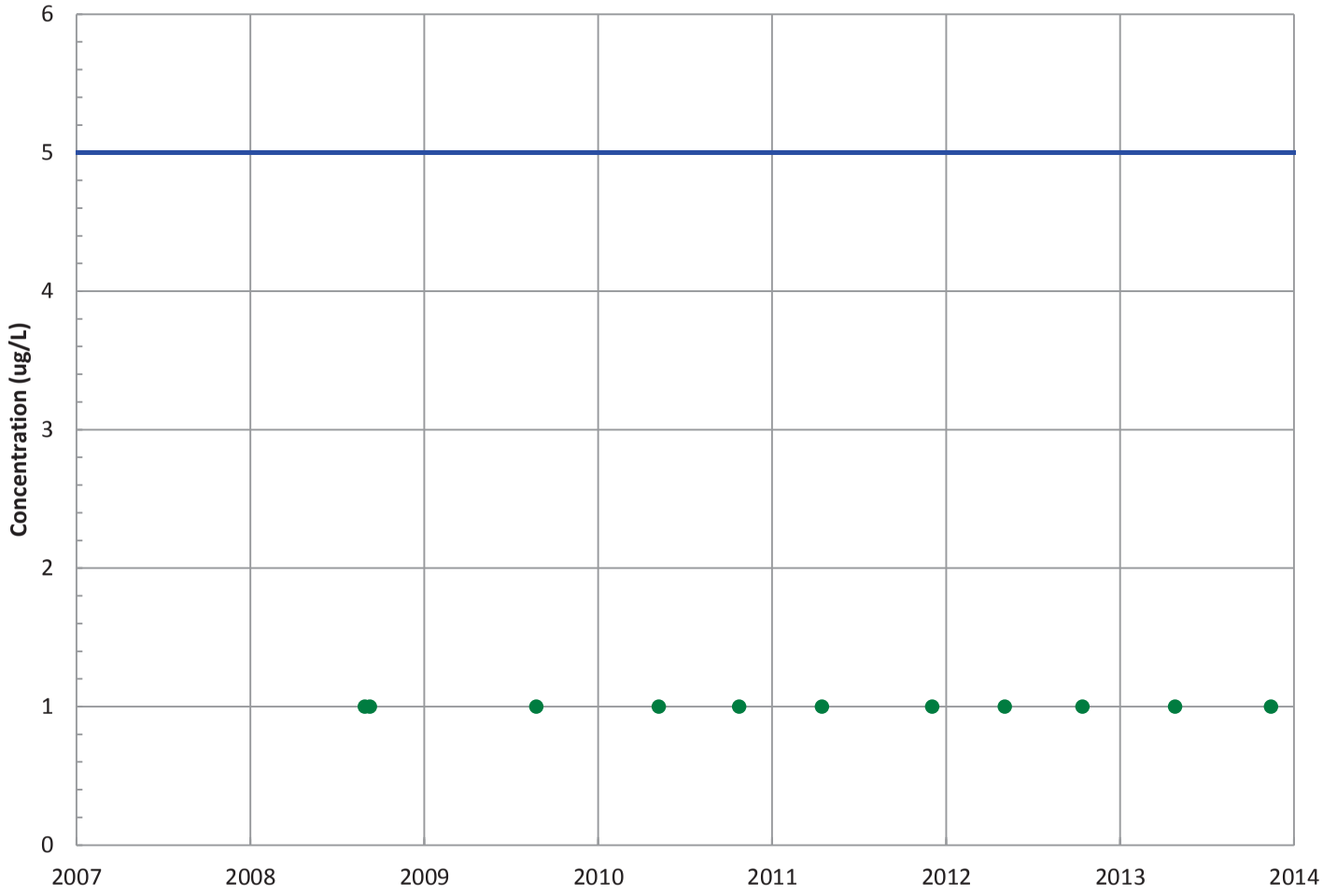
Well Location



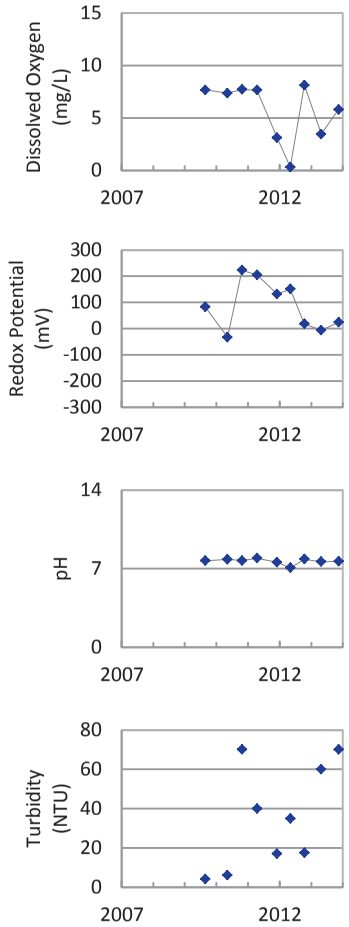
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/30/2008 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1148
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



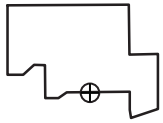
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

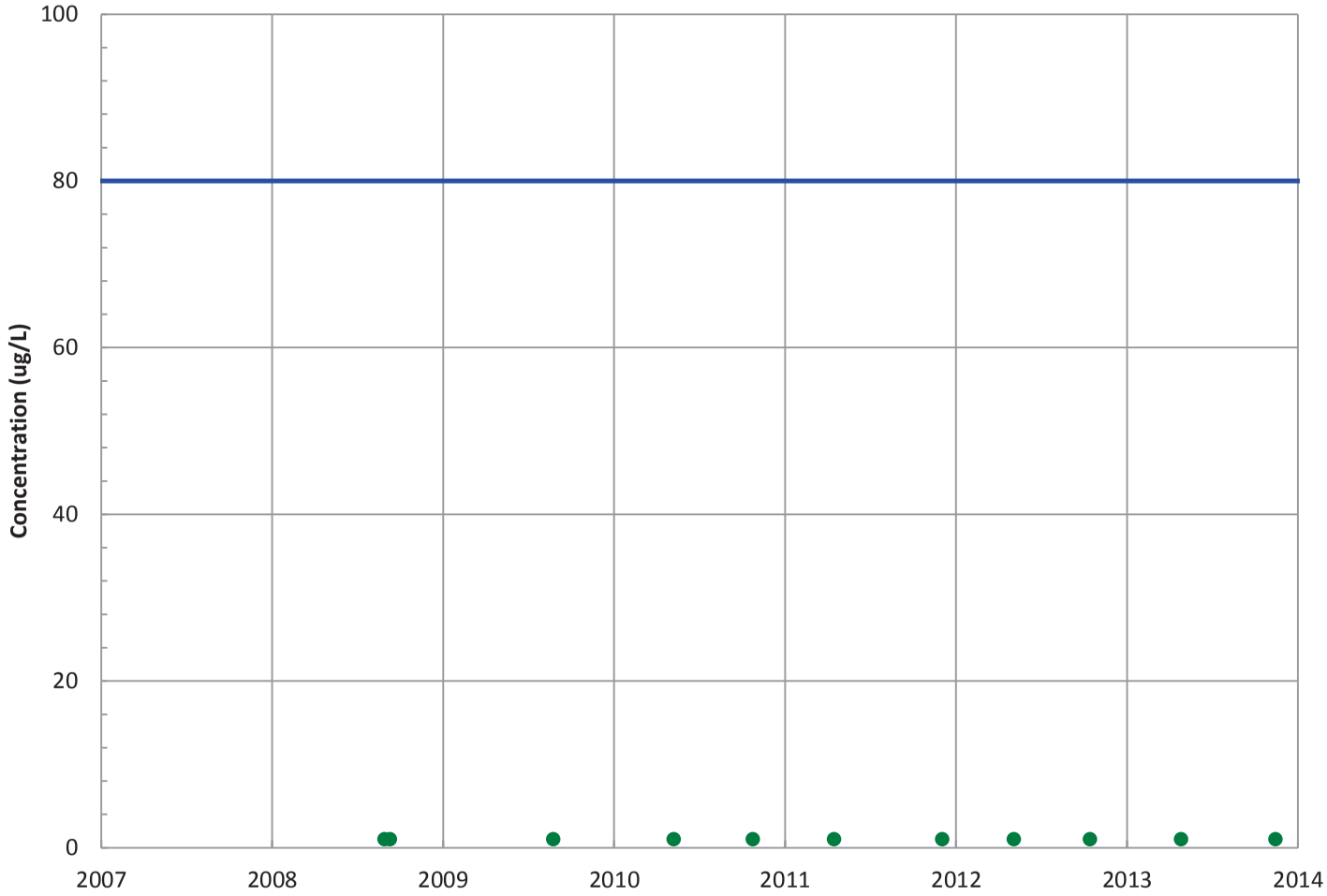
Well Location



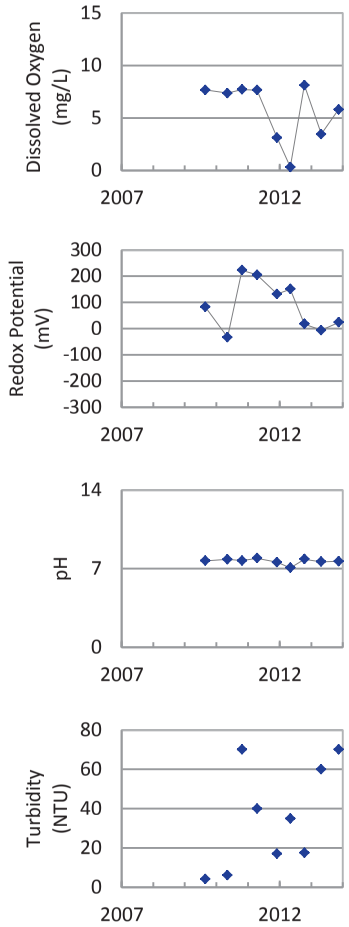
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/30/2008 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1148
Chloroform Trend in Perched Aquifer



Field Parameters



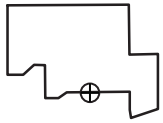
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

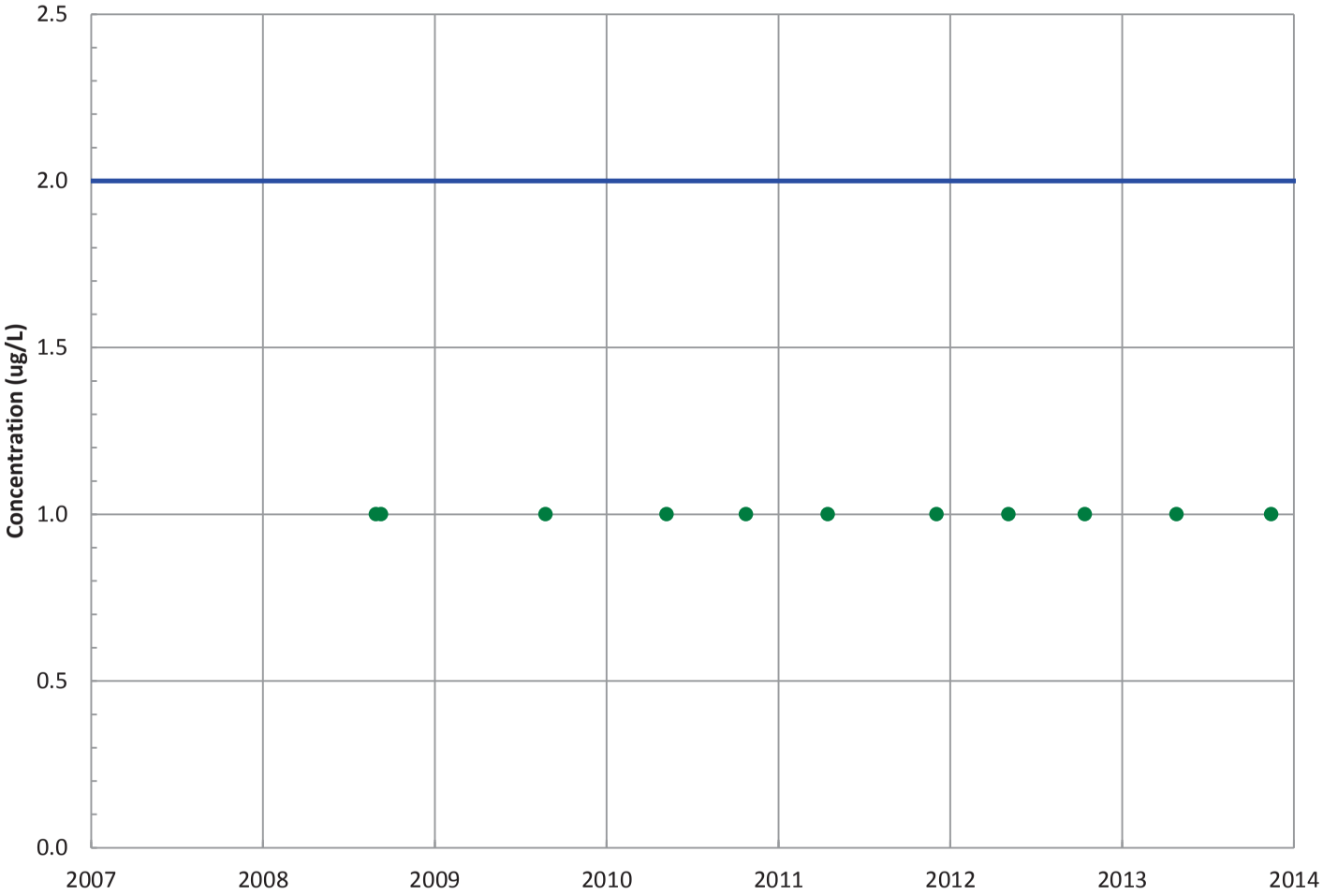
Well Location



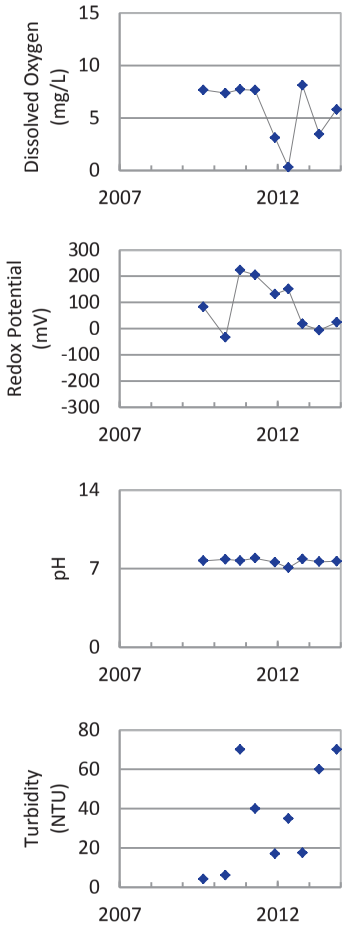
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/30/2008 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1148
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



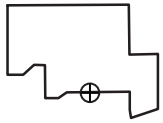
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

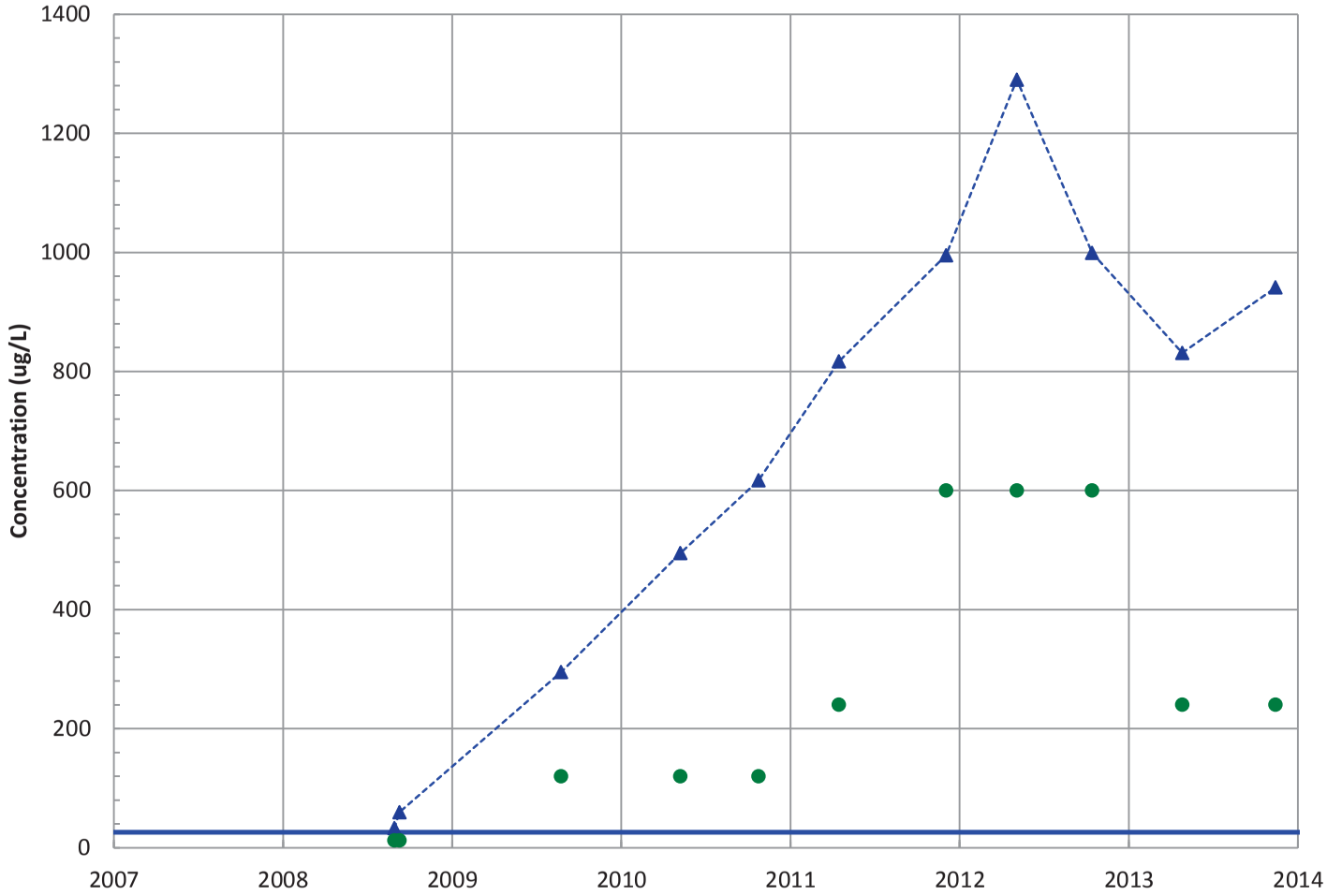
Well Location



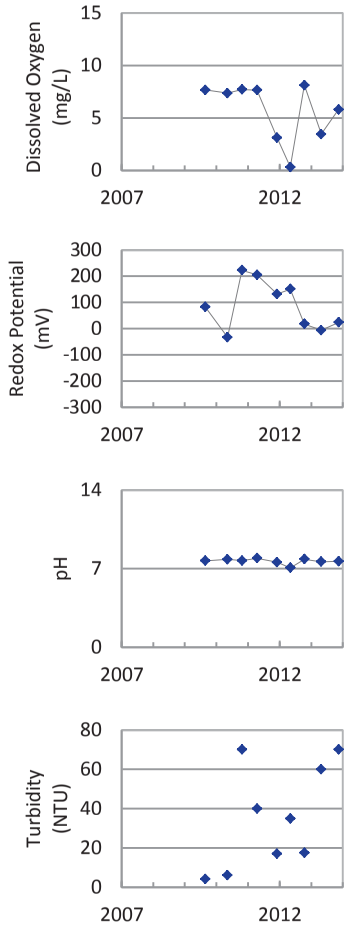
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/30/2008 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1148
Perchlorate Trend in Perched Aquifer



Field Parameters



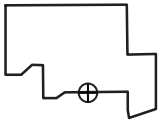
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

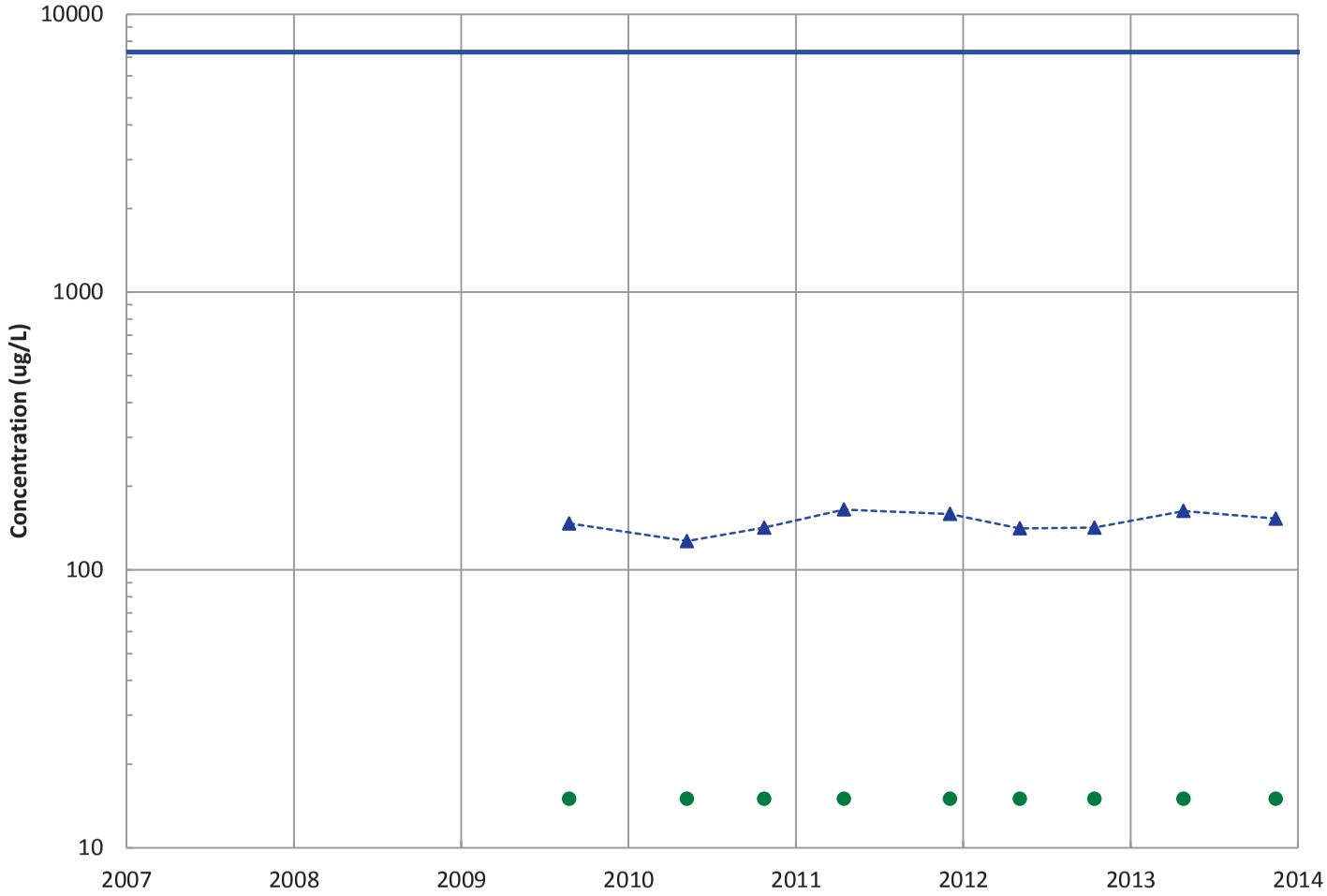
Well Location



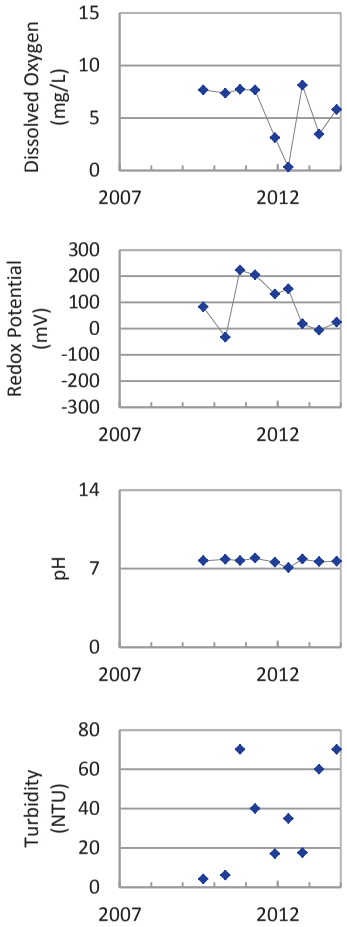
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/30/2008 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1148
Boron Trend in Perched Aquifer



Field Parameters



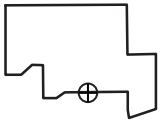
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

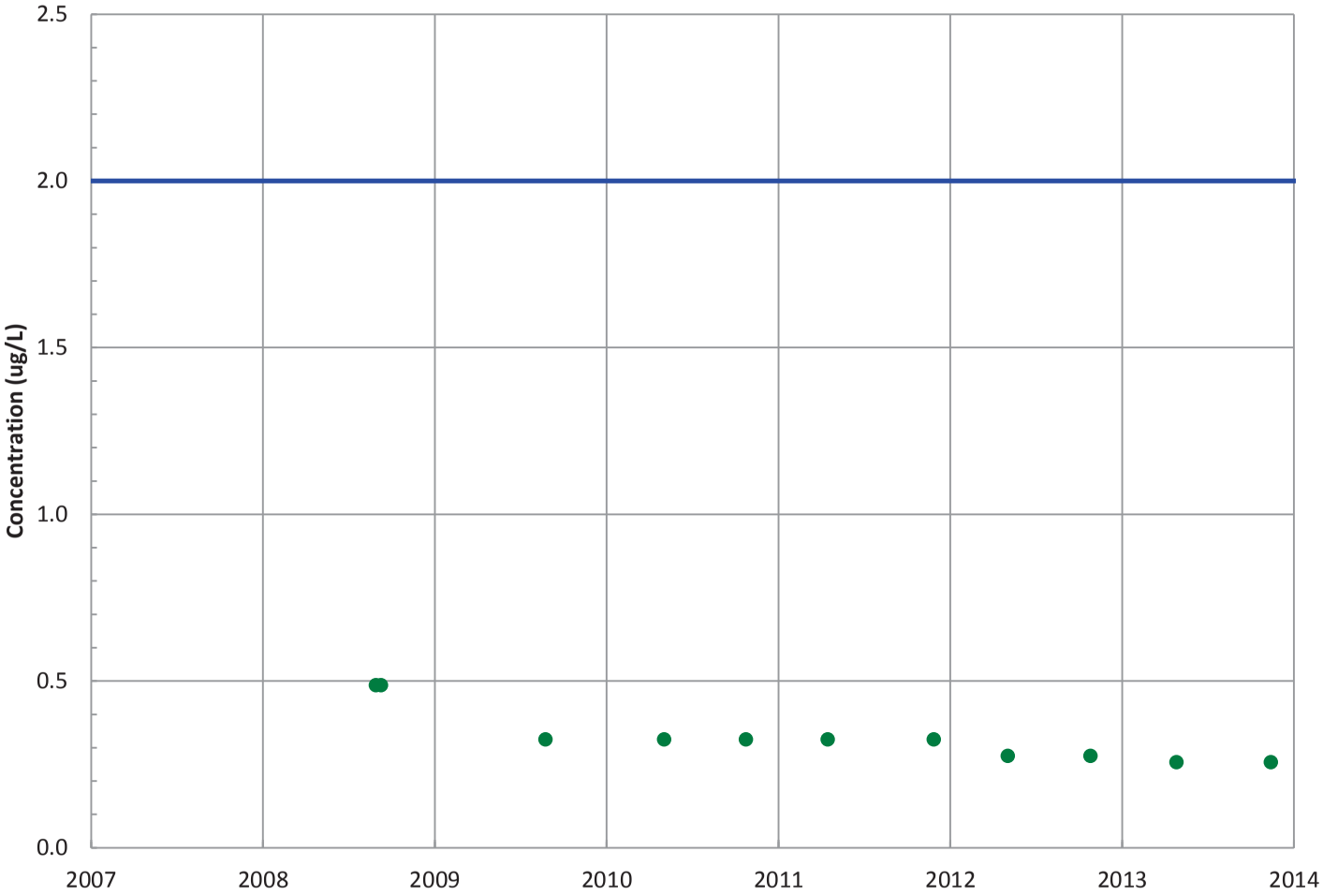
Well Location



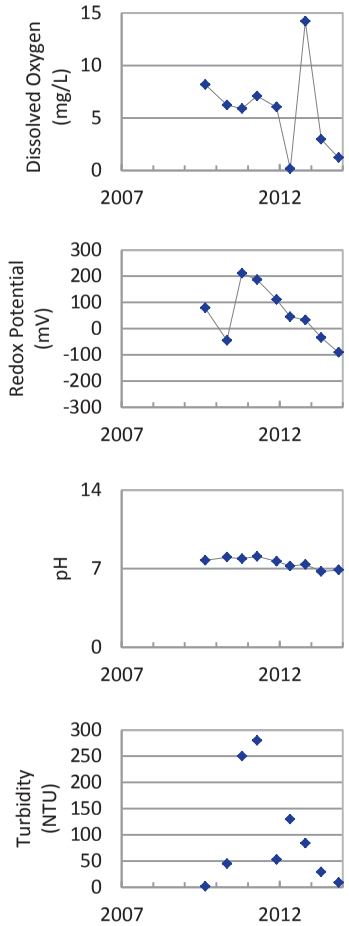
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/26/2009 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1149
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



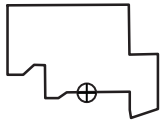
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

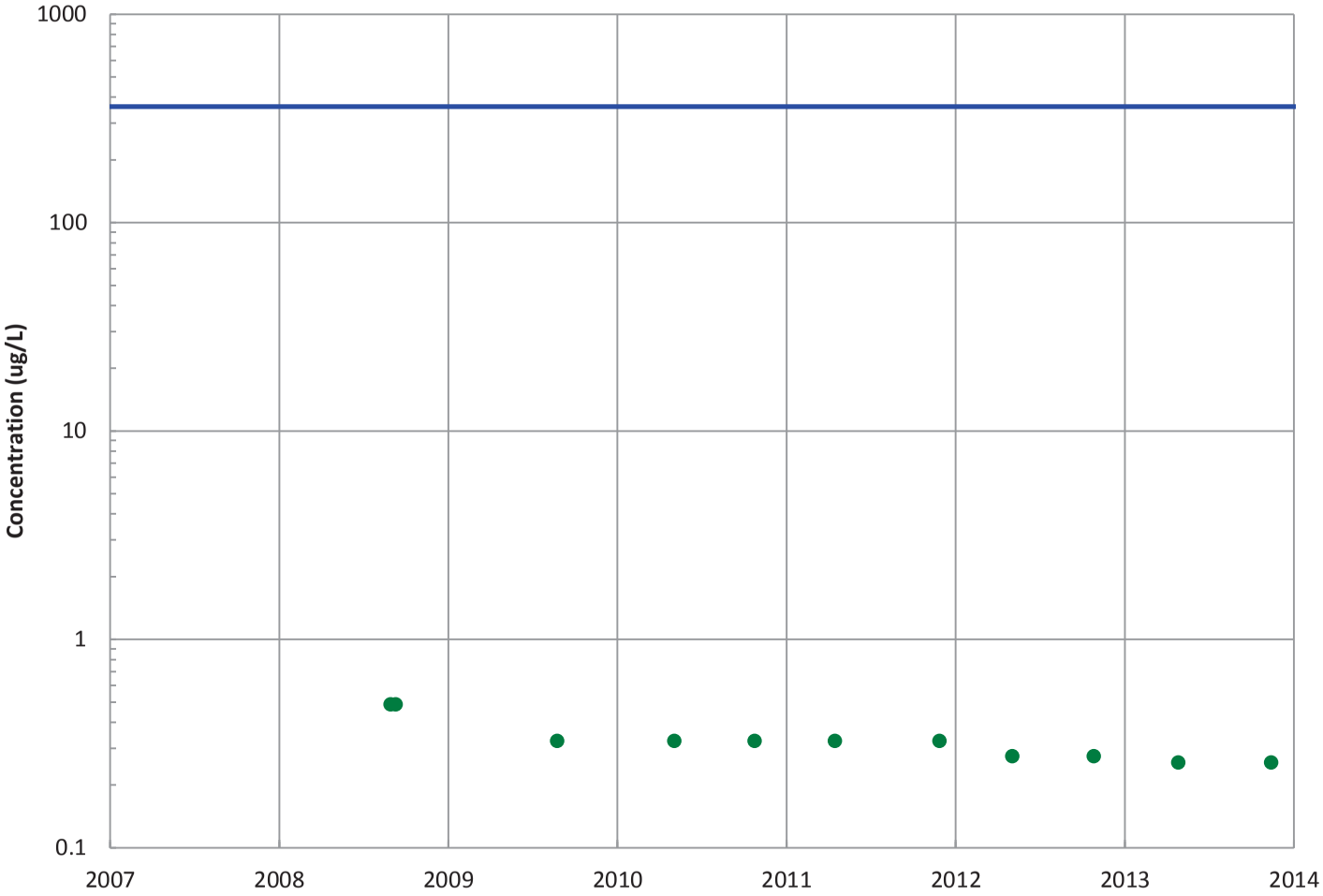
Well Location



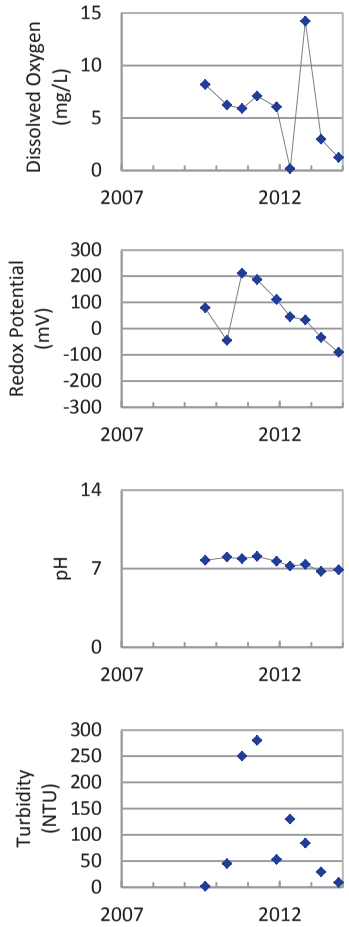
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/30/2008 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1149
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



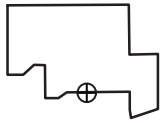
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

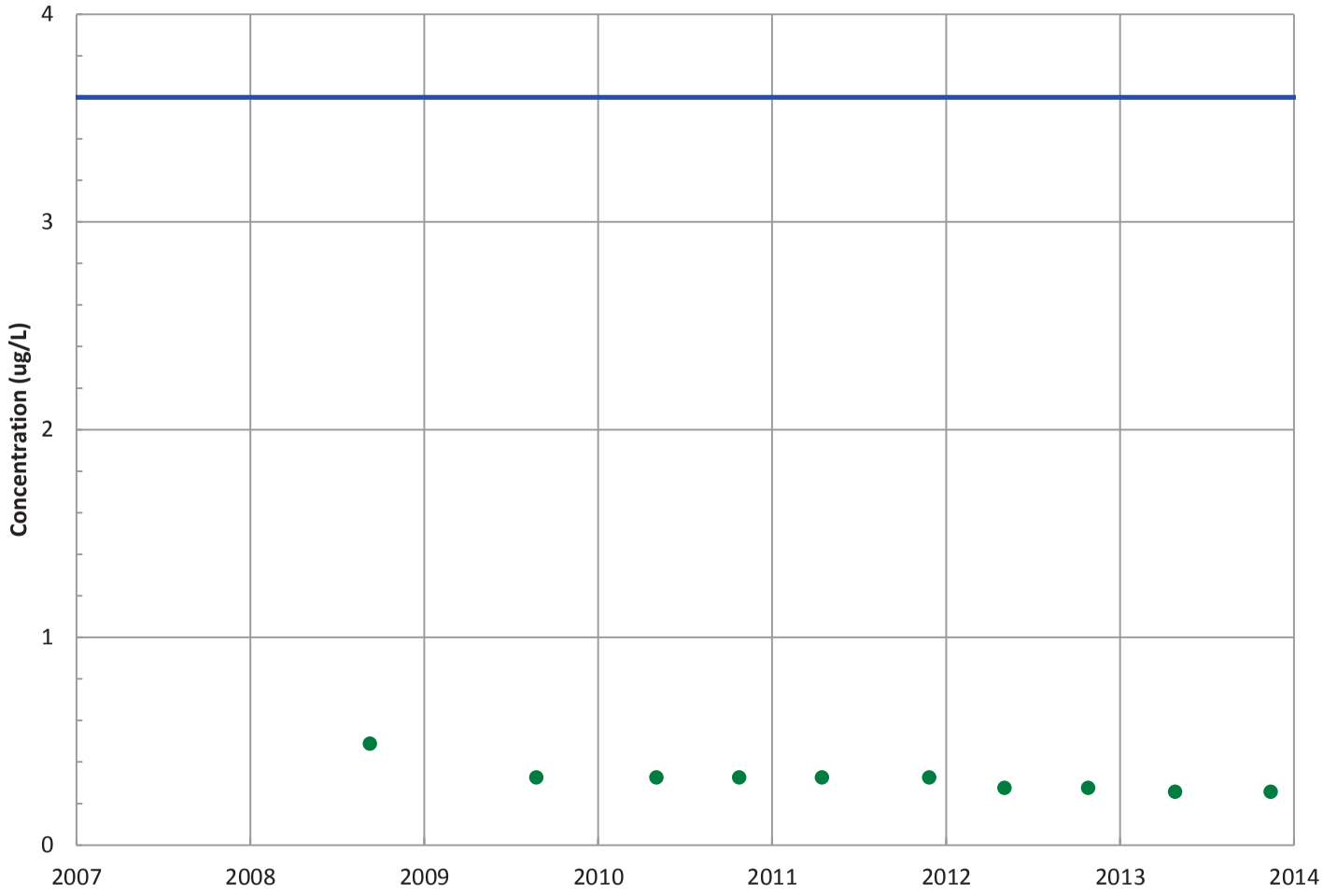
Well Location



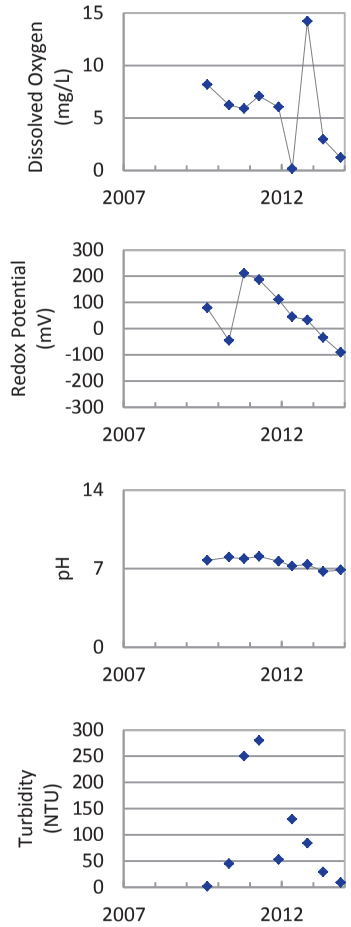
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/30/2008 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1149
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



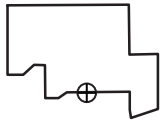
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

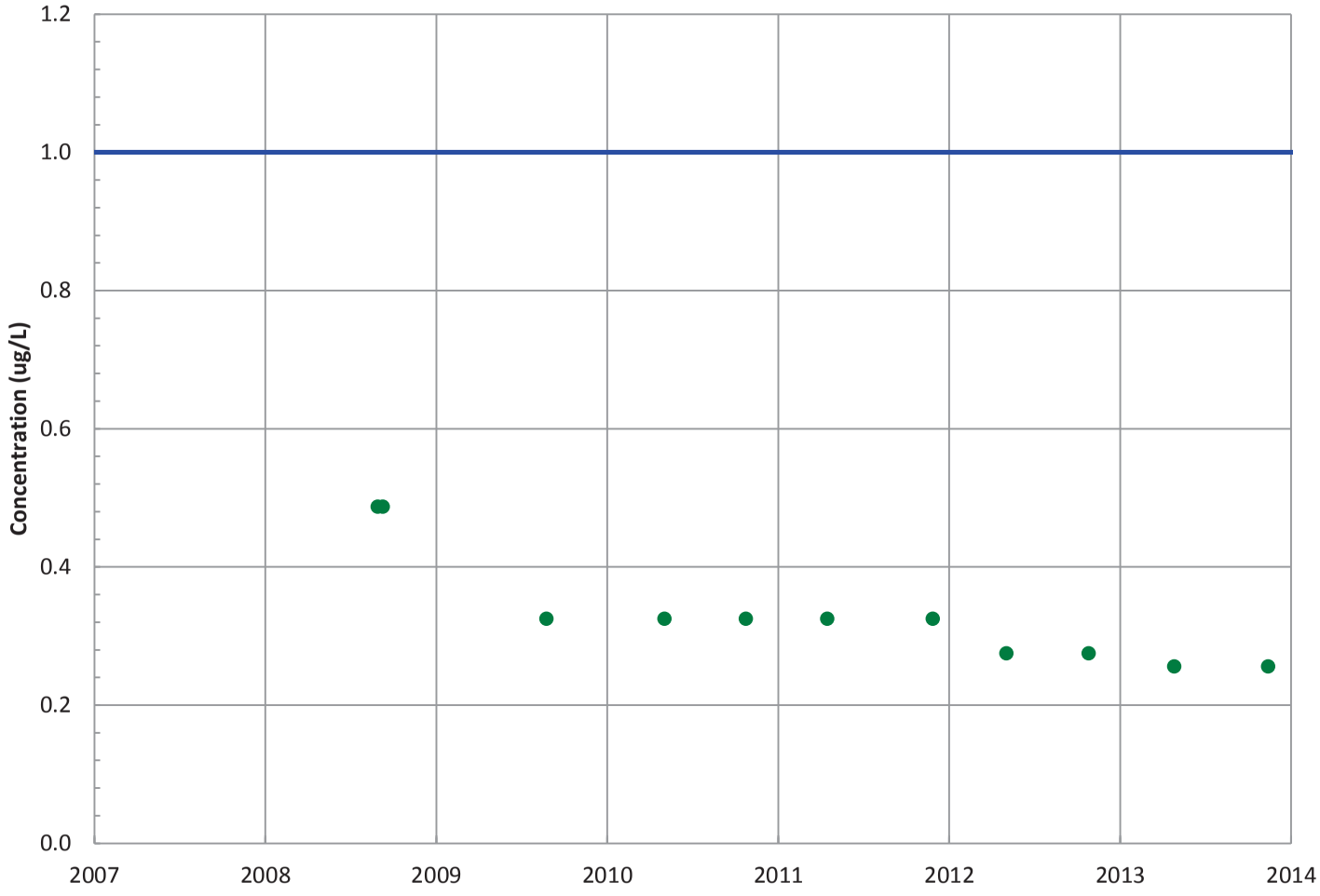
Well Location



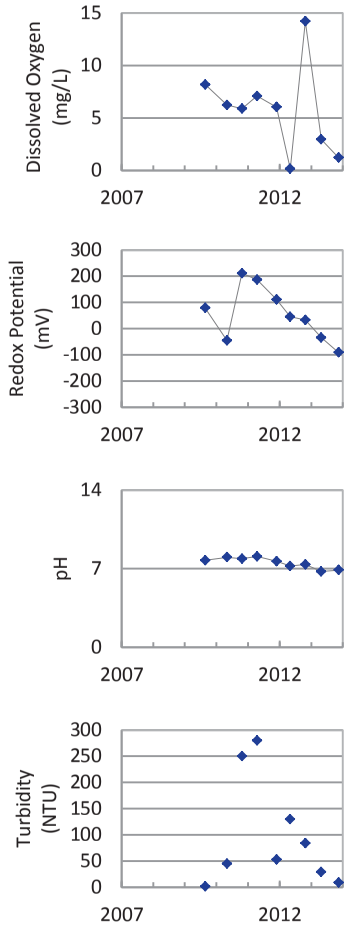
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/10/2008 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1149
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



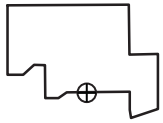
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

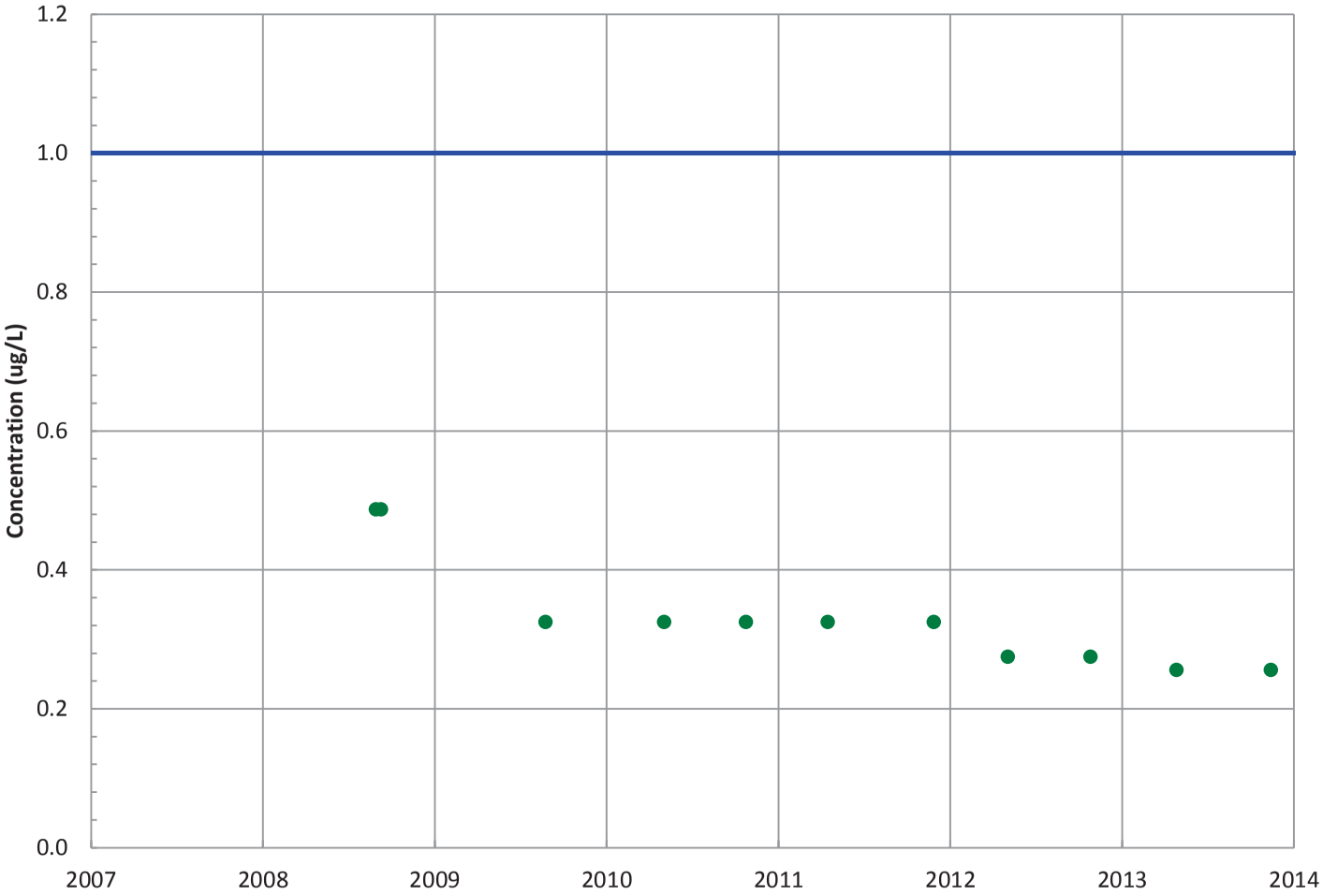
Well Location



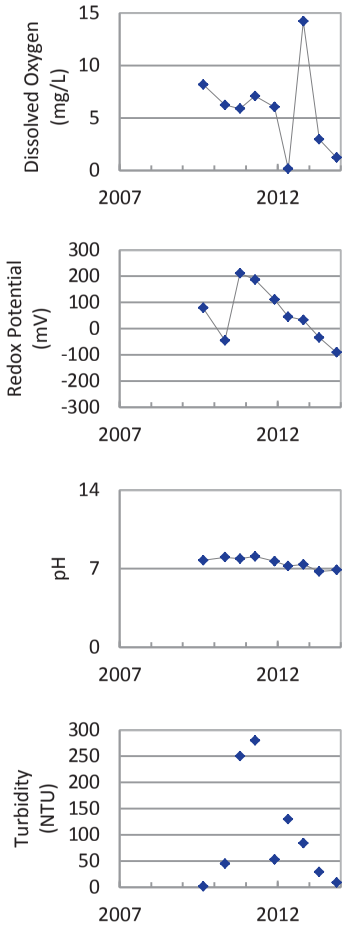
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/30/2008 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1149
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



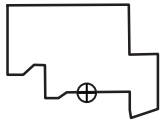
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

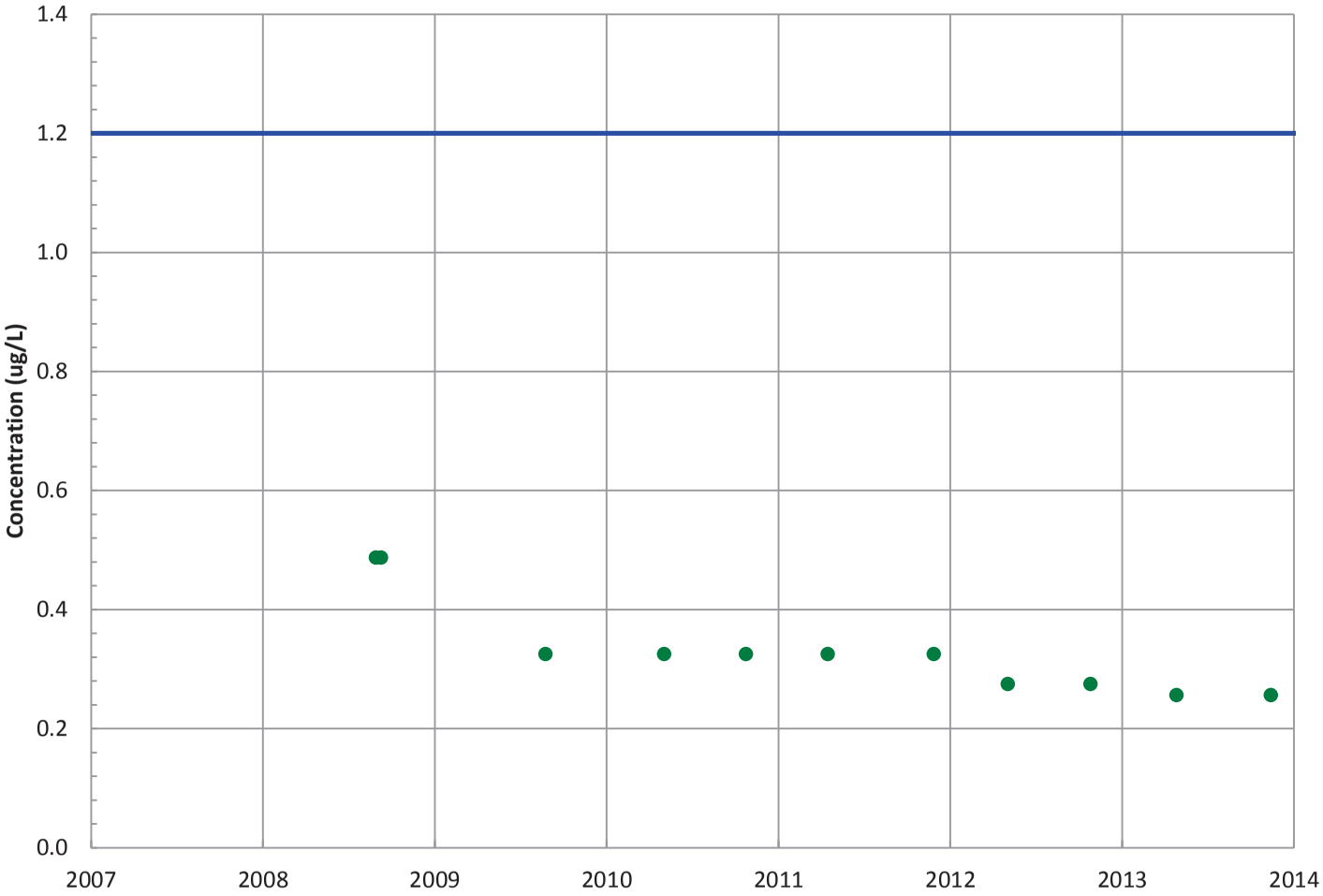
Well Location



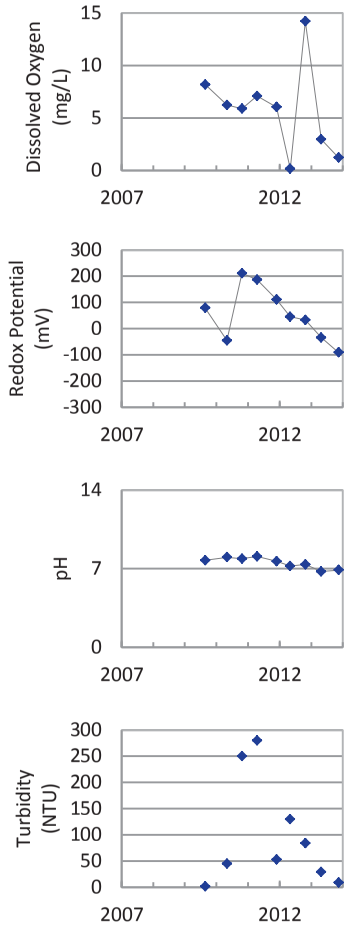
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/30/2008 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1149
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



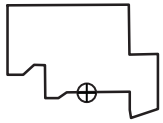
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

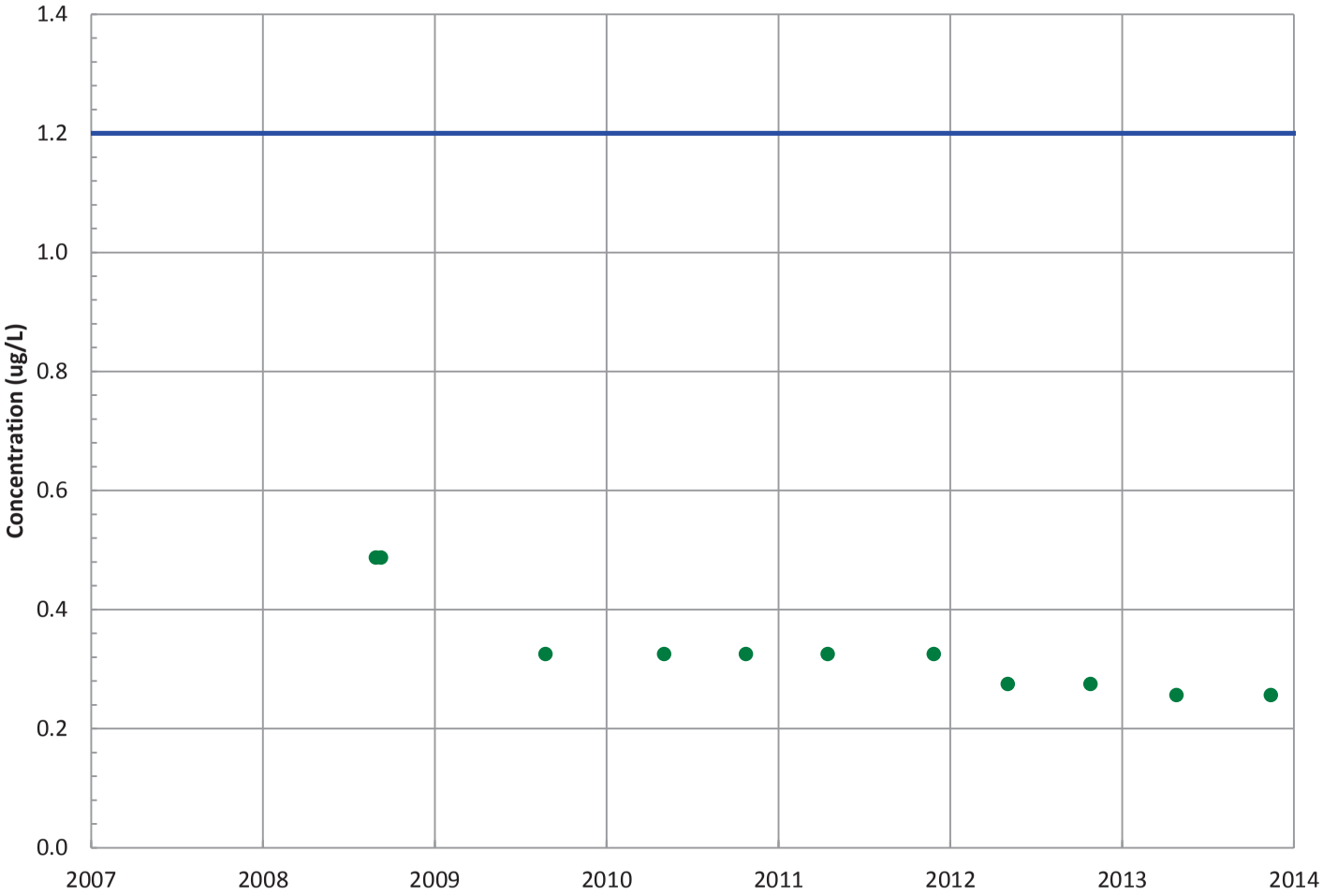
Well Location



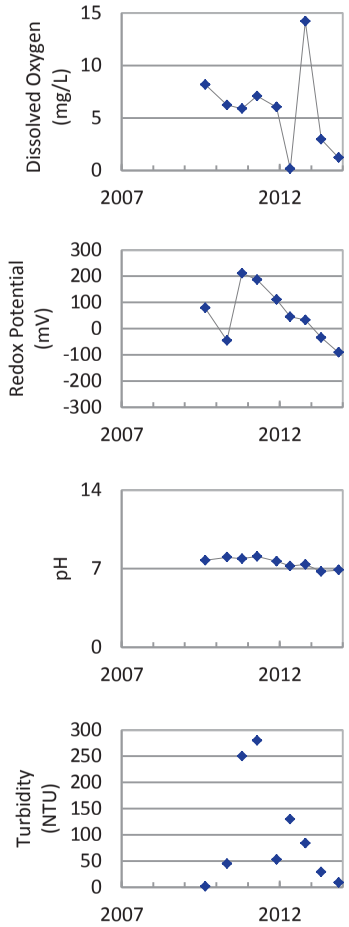
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/30/2008 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1149
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



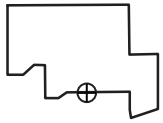
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

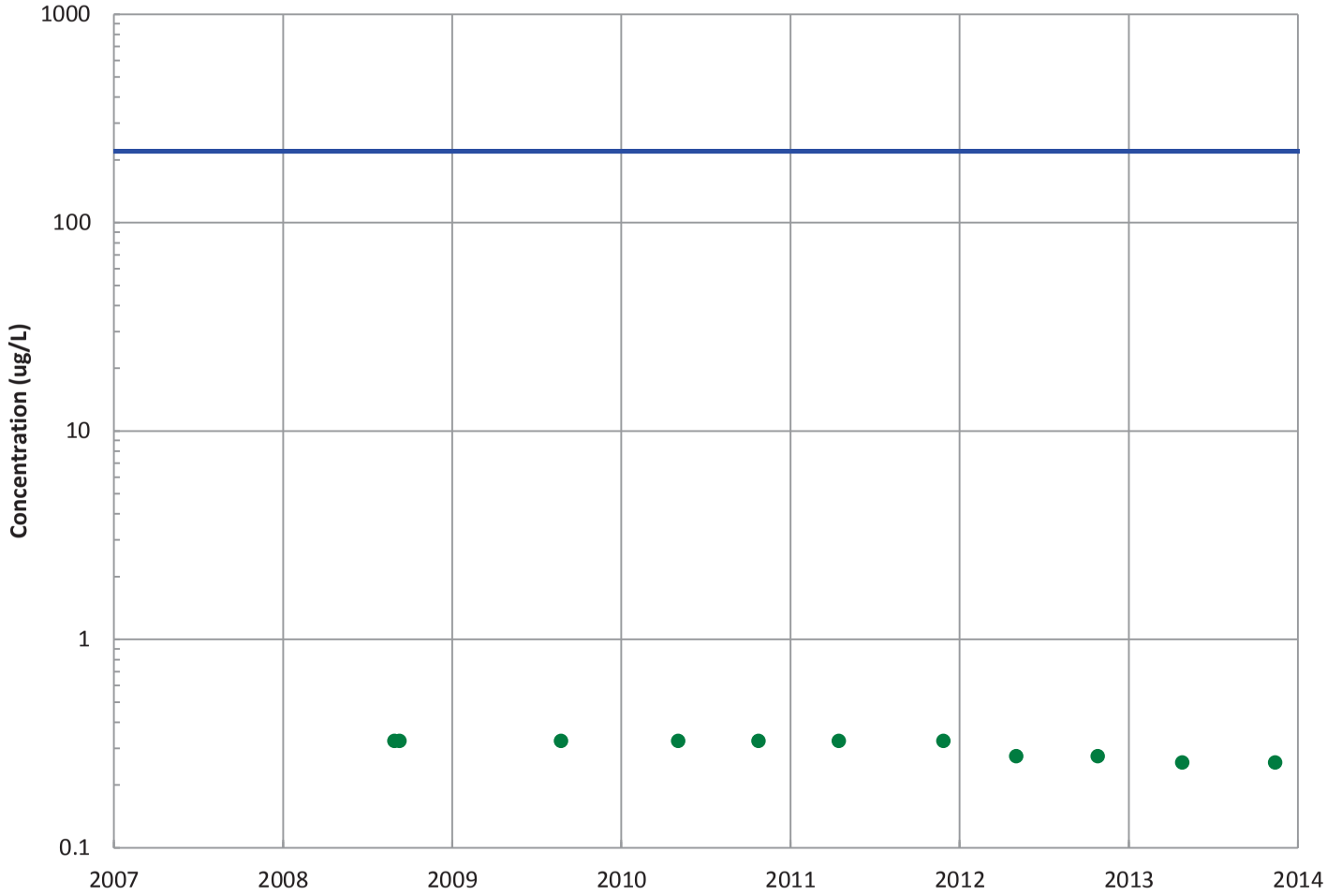
Well Location



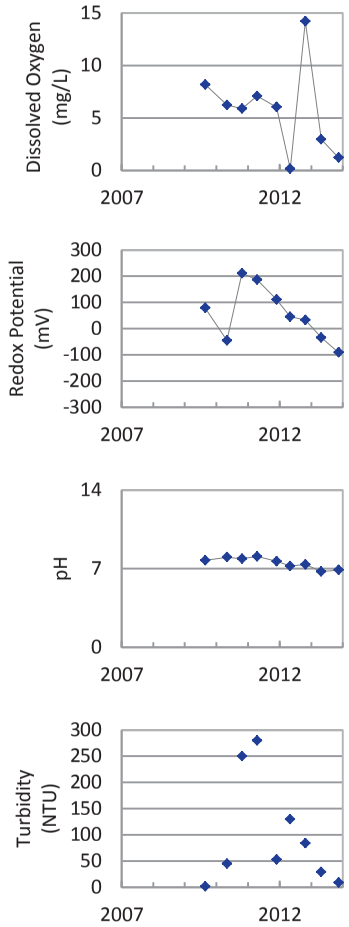
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/30/2008 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1149
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



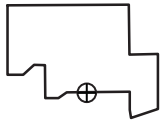
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

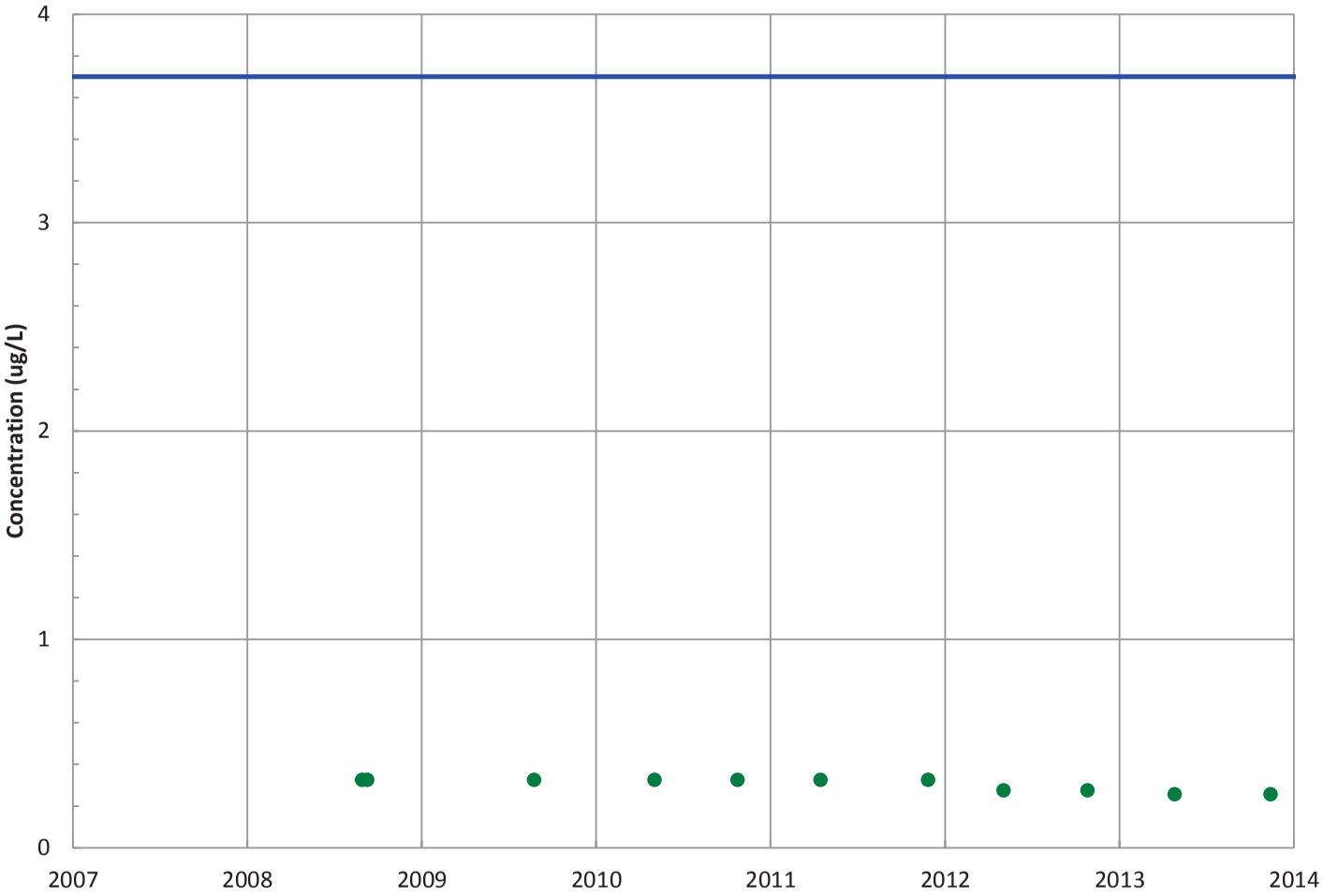
Well Location



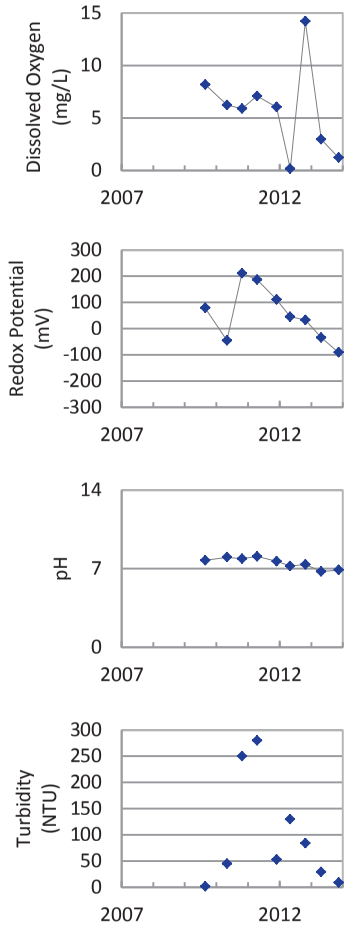
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/30/2008 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1149
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



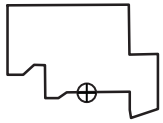
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

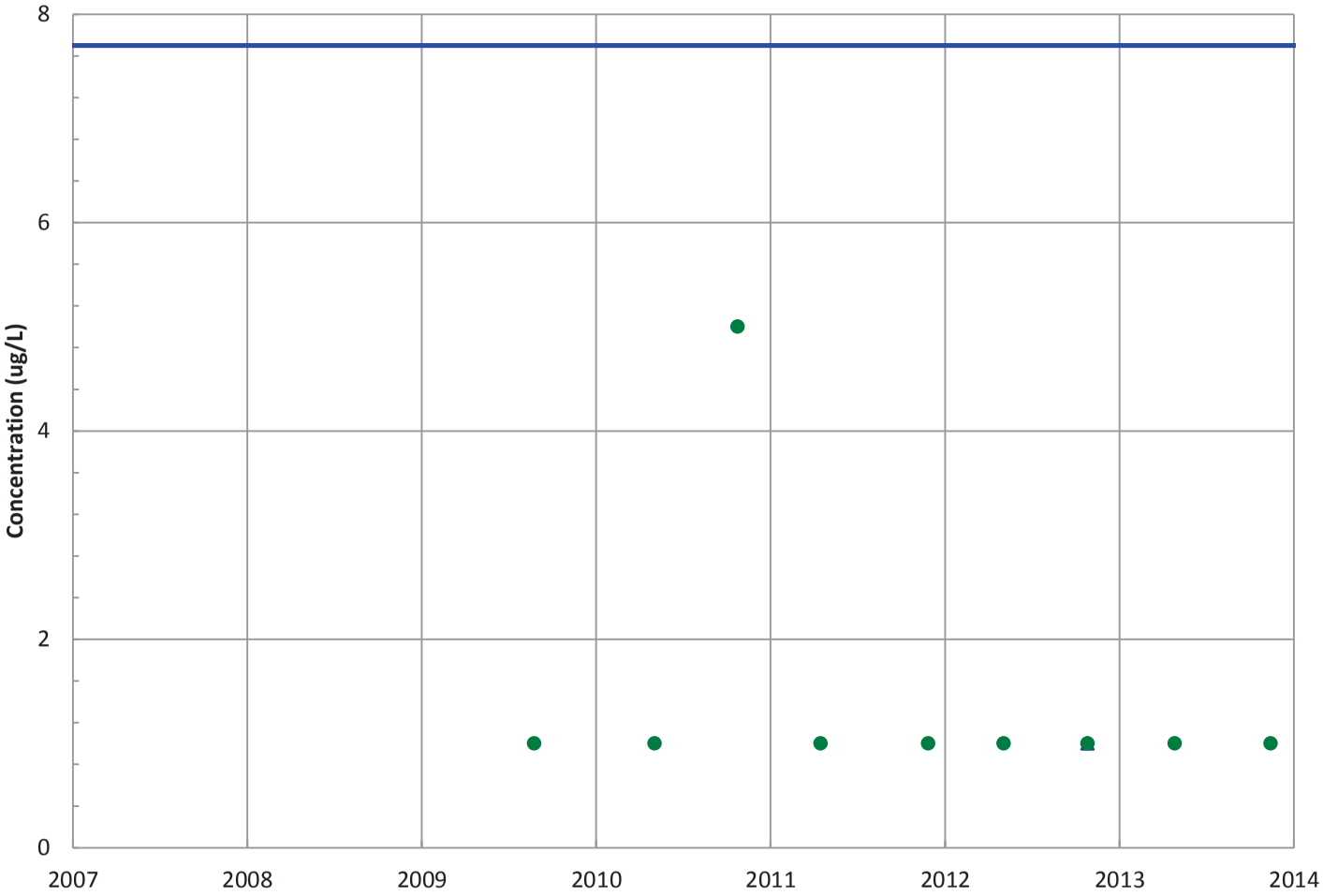
Well Location



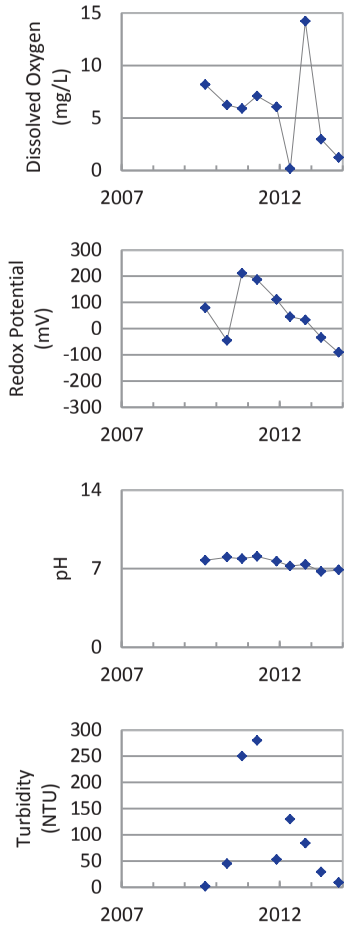
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/30/2008 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1149
1,4-Dioxane (p-Dioxane) Trend in Perched Aquifer



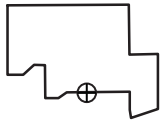
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

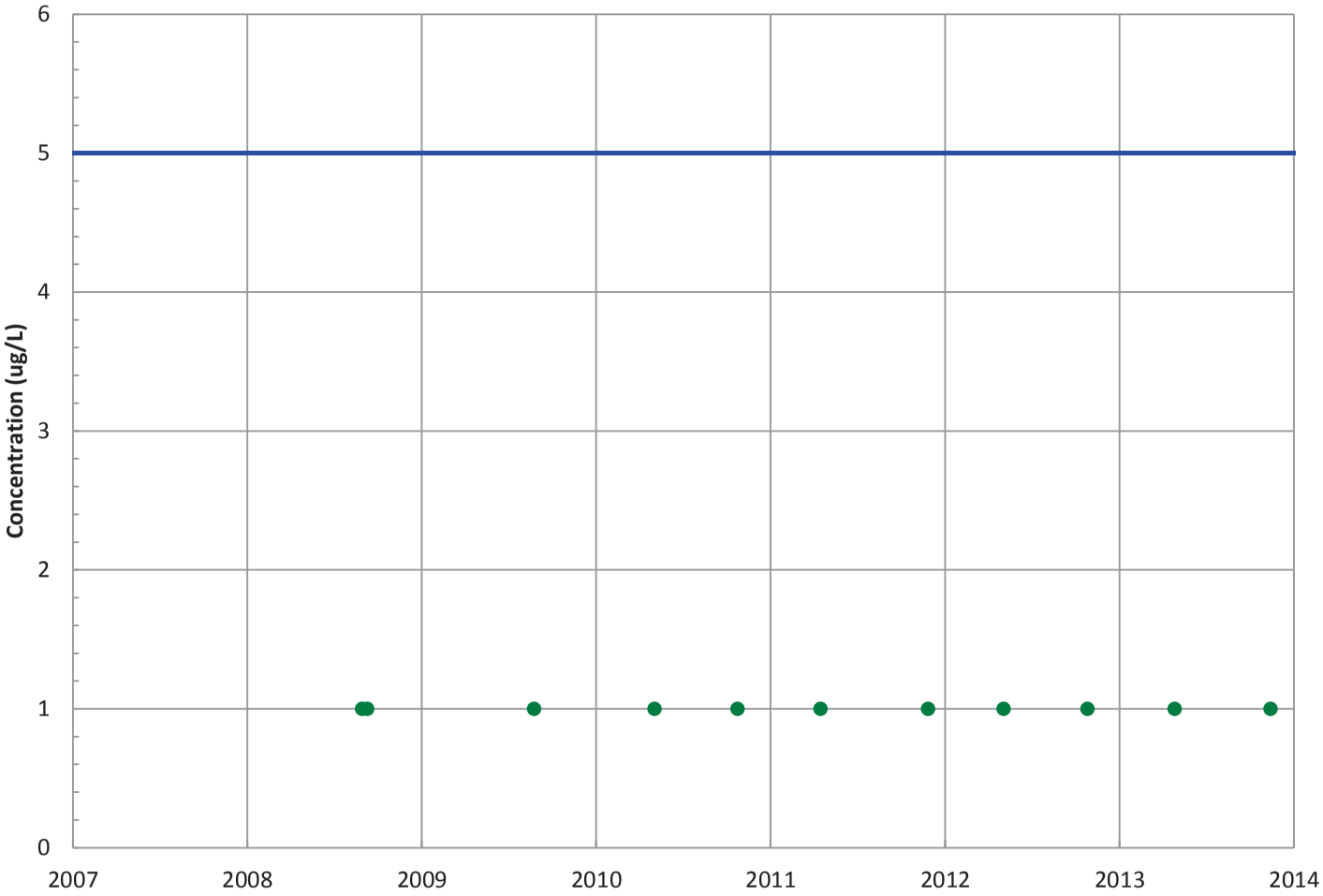
Well Location



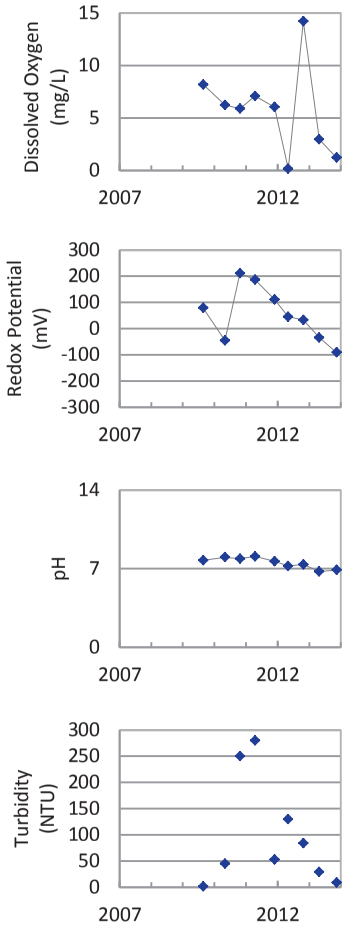
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/26/2009 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1149
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



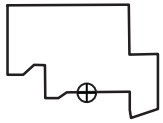
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

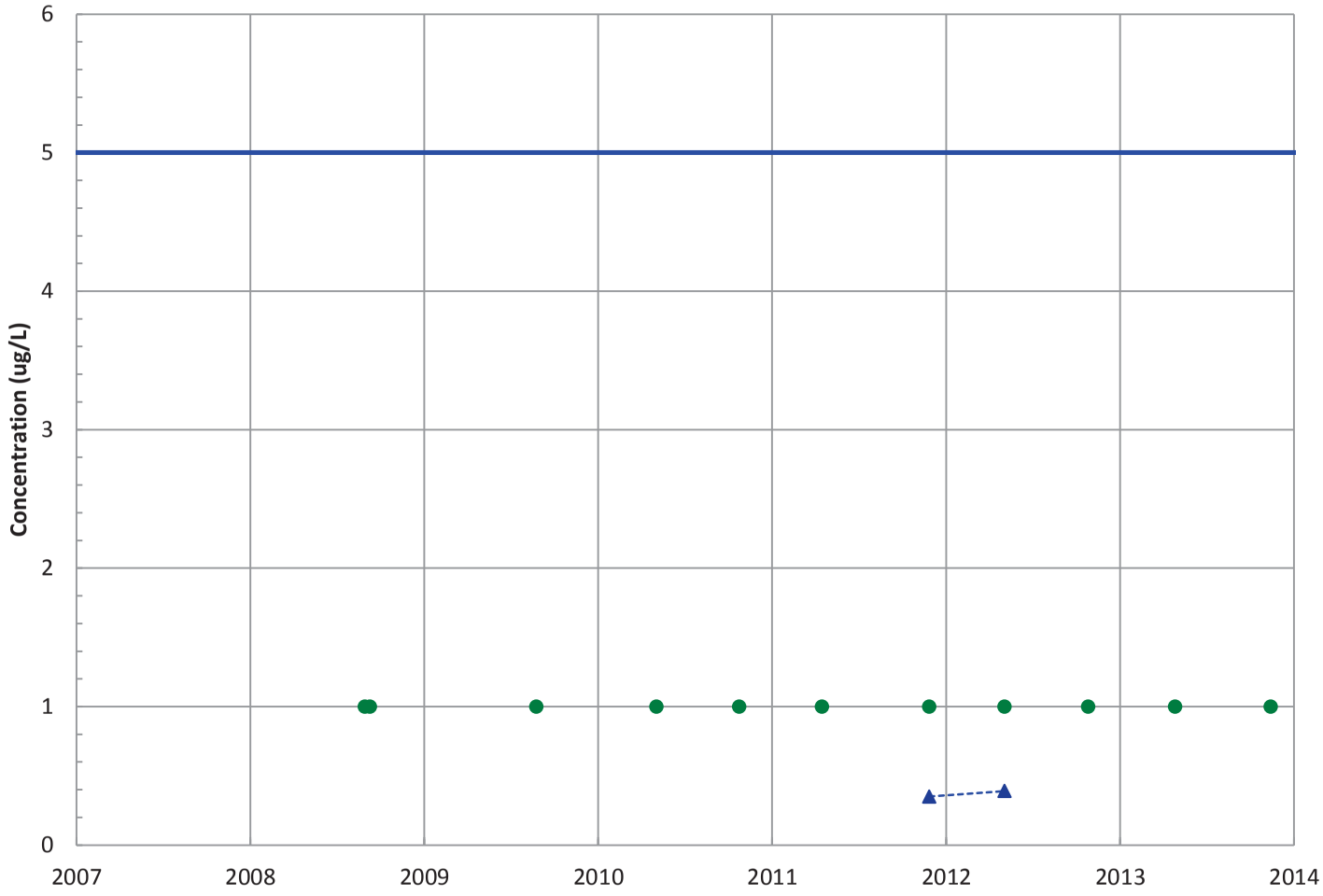
Well Location



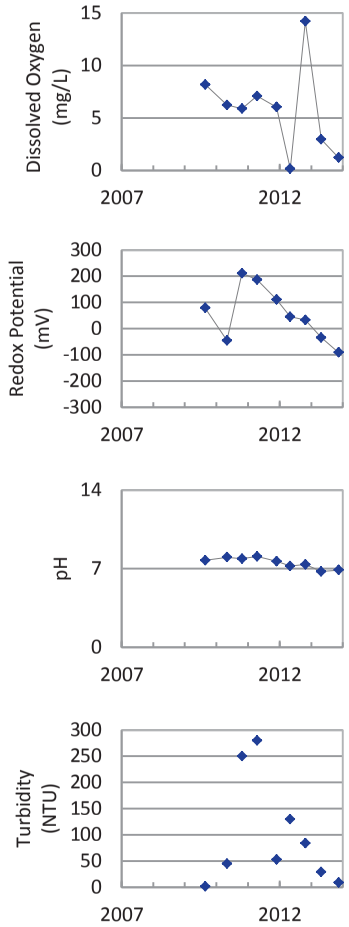
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/30/2008 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1149
Trichloroethene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: N/A (<4 Detections in

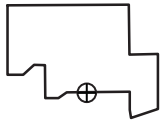
MAROS Linear Regression Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: N/A (<4 Detections in

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

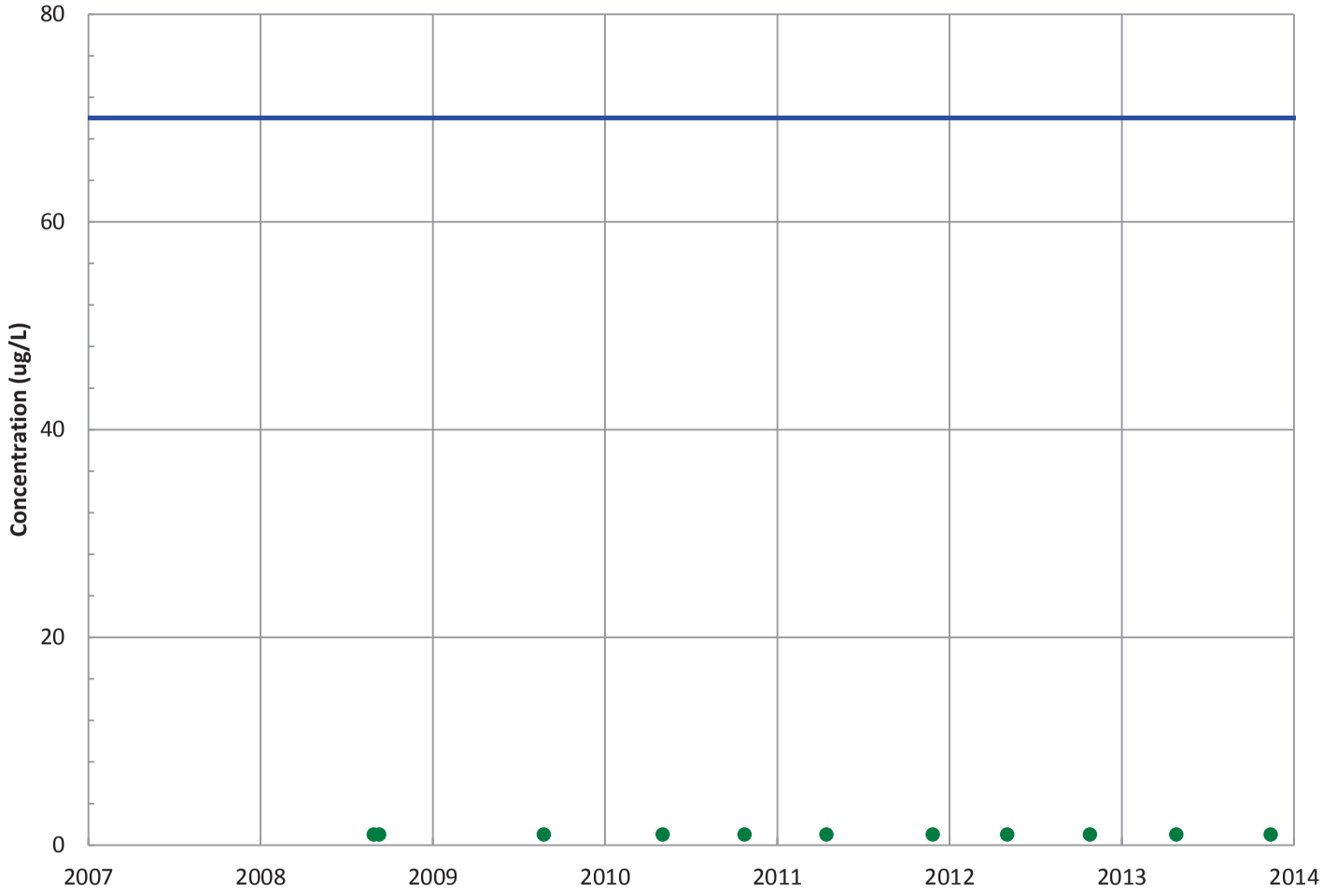
Well Location



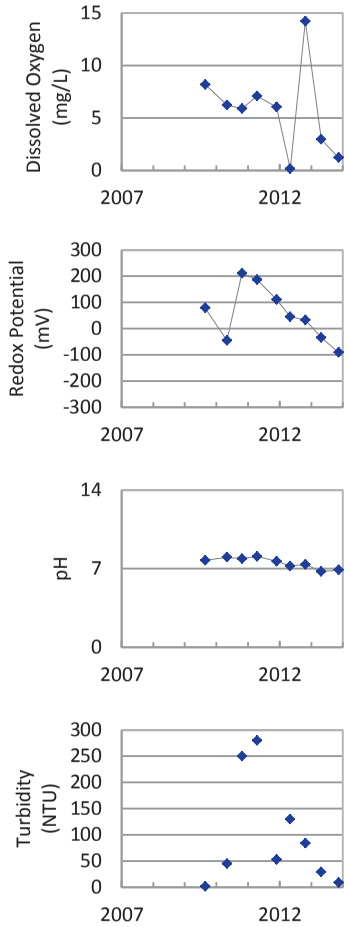
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/30/2008 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1149
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



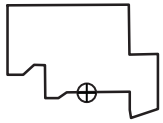
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

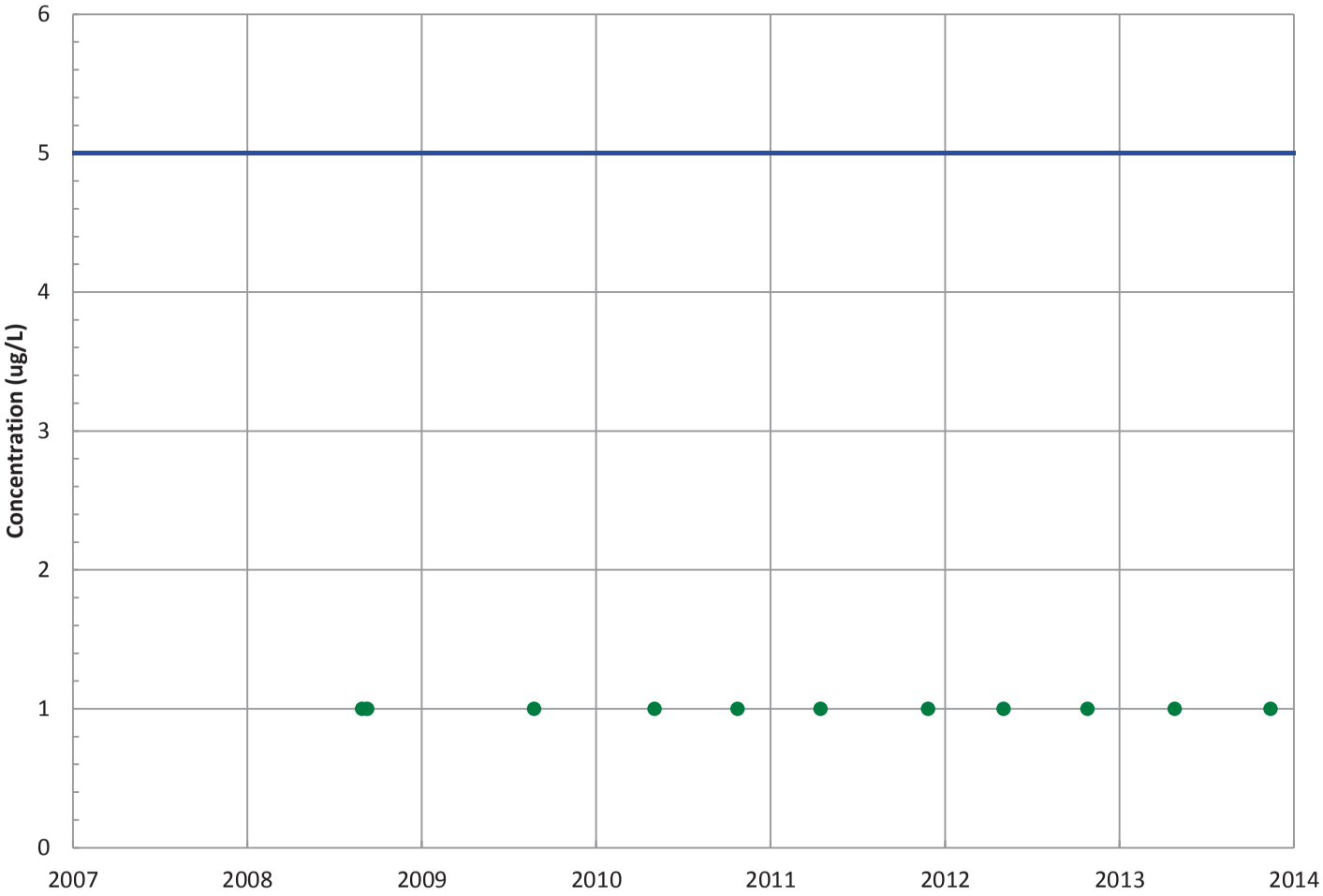
Well Location



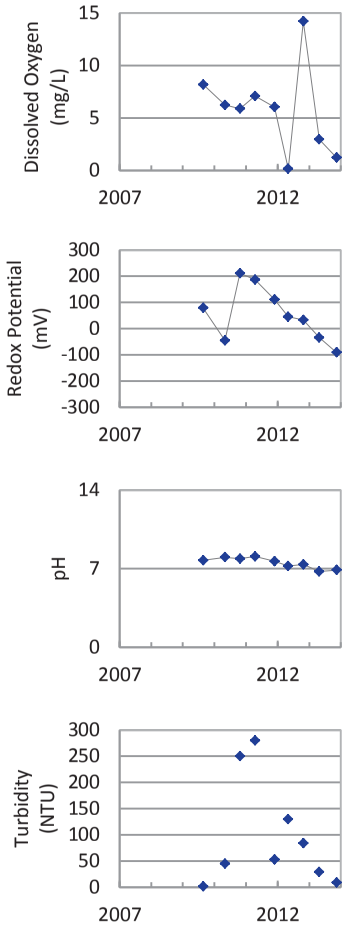
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/30/2008 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1149
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



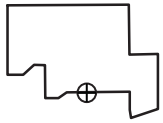
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

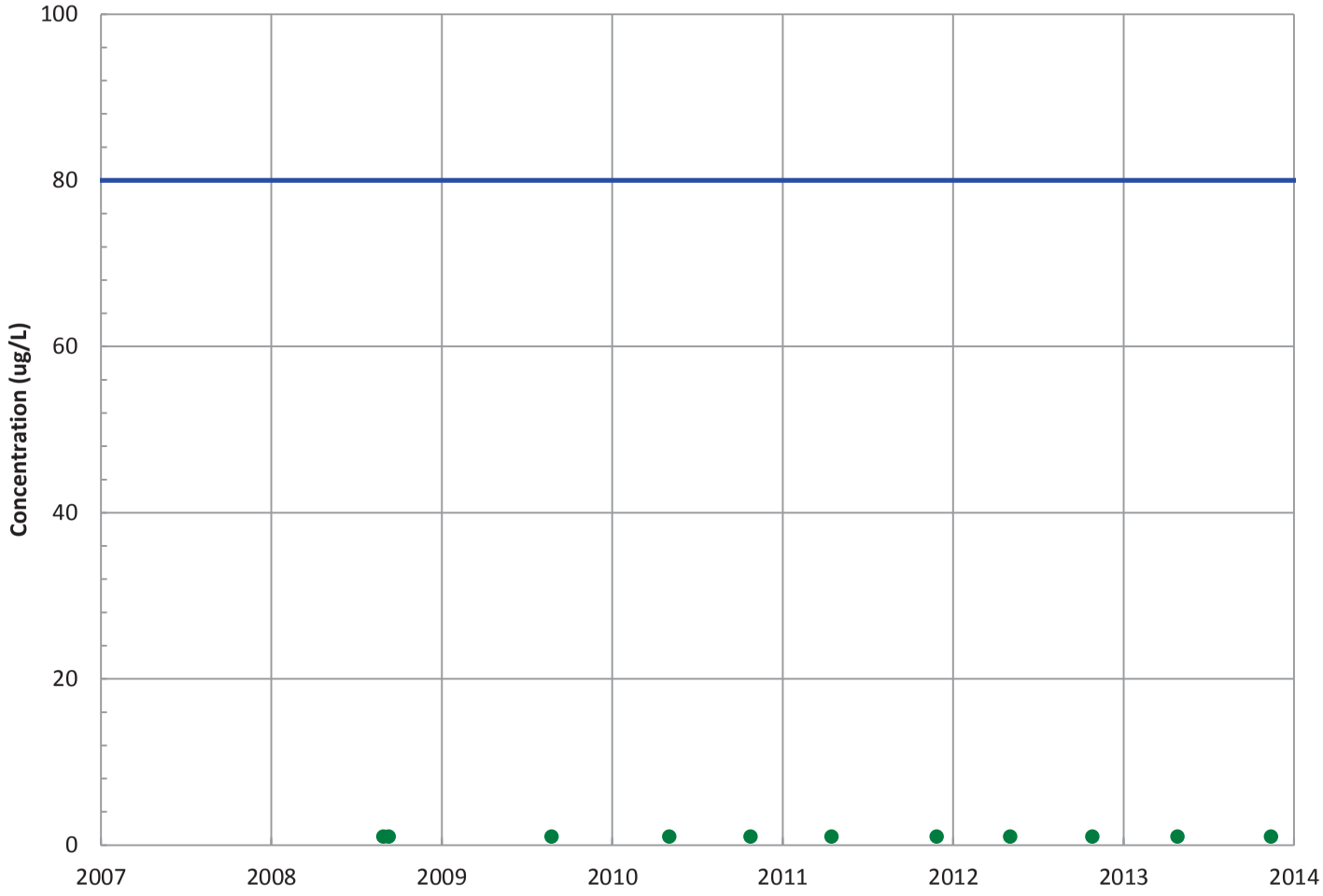
Well Location



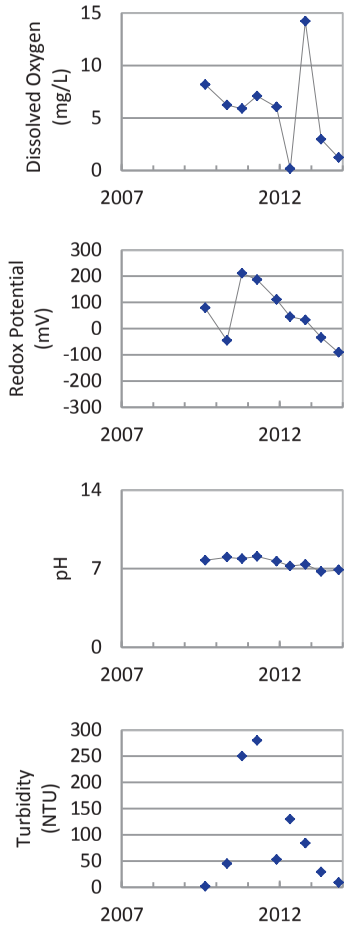
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/30/2008 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1149
Chloroform Trend in Perched Aquifer



Field Parameters



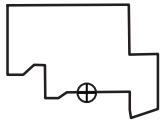
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

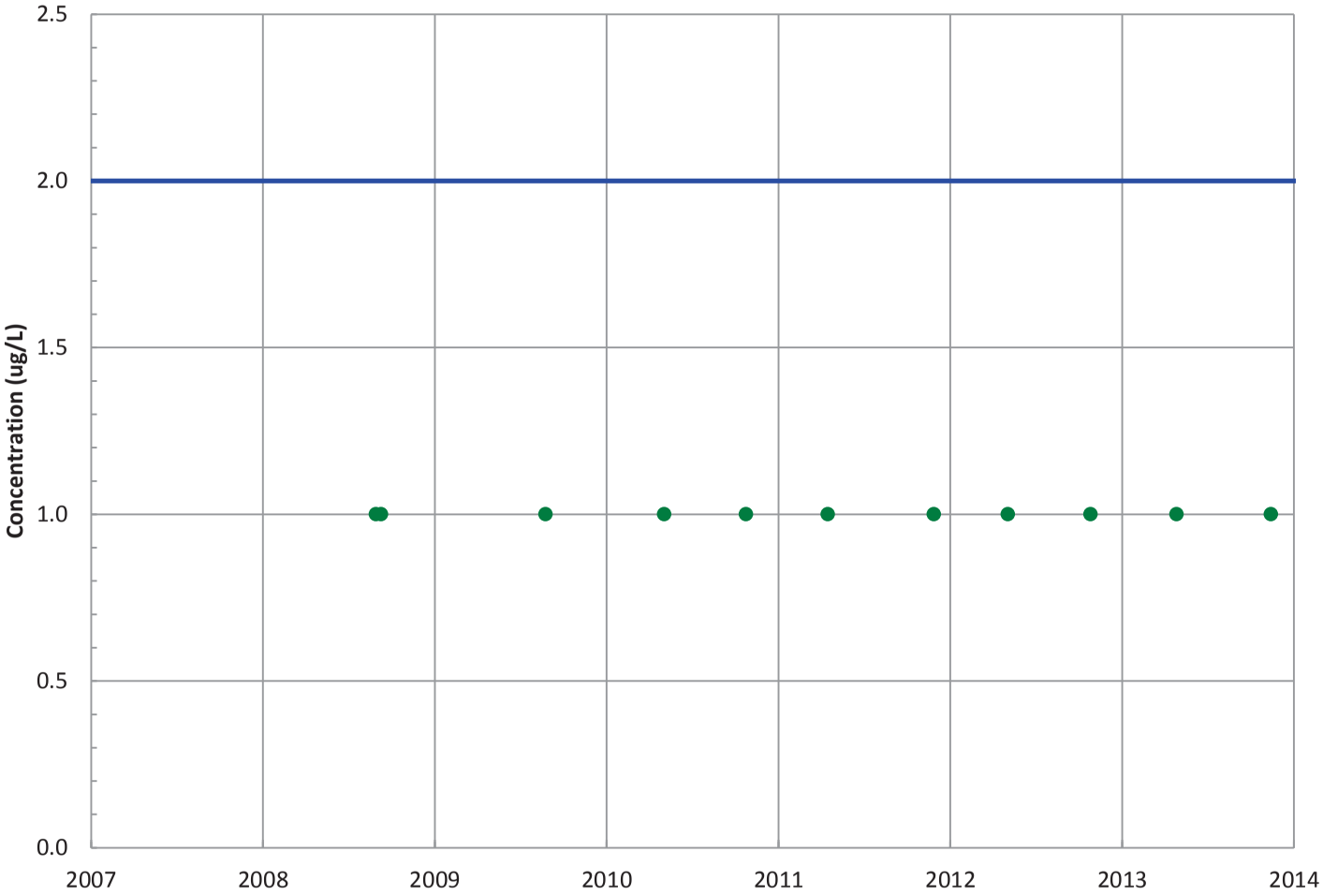
Well Location



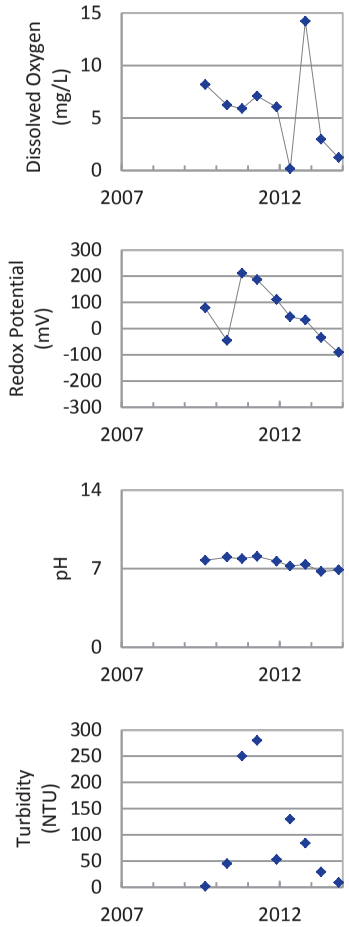
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/30/2008 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1149
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



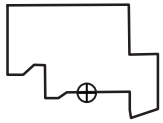
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

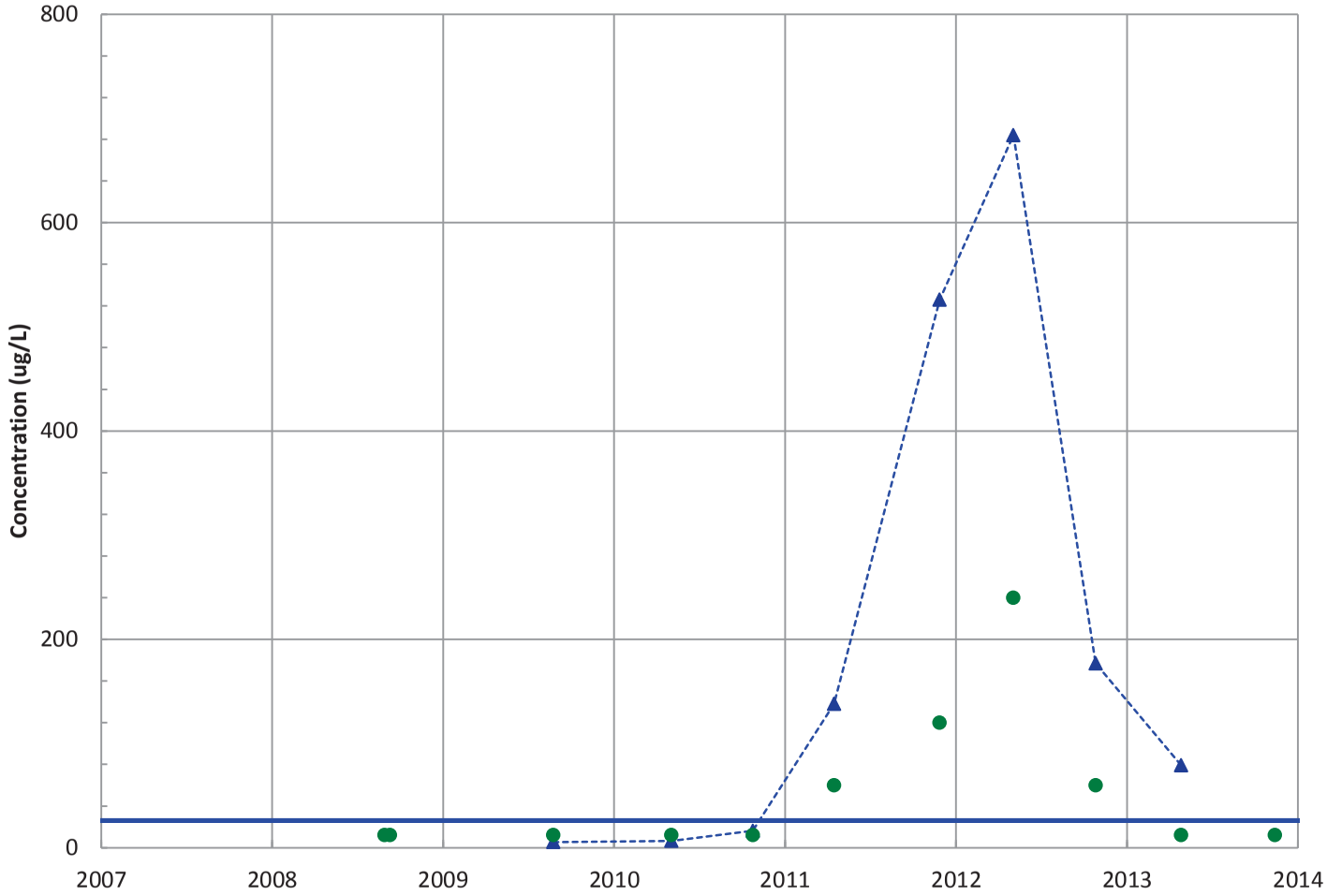
Well Location



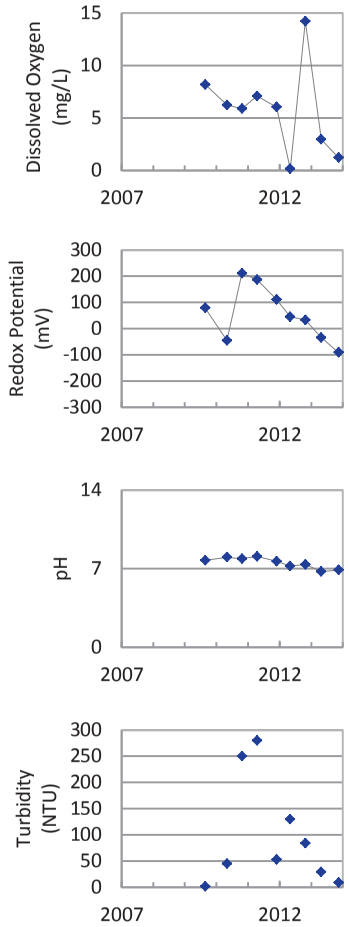
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/30/2008 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1149
Perchlorate Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): No Trend

2011 - 2013 Data: N/A (<4 Detections in Dataset)

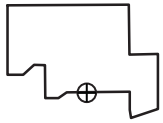
MAROS Linear Regression Method

Data (7/2009 - 12/2013): Increasing

2011 - 2013 Data: Probably Decreasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------ Concentration Trend
- ——— Groundwater Protection Standard

Well Location



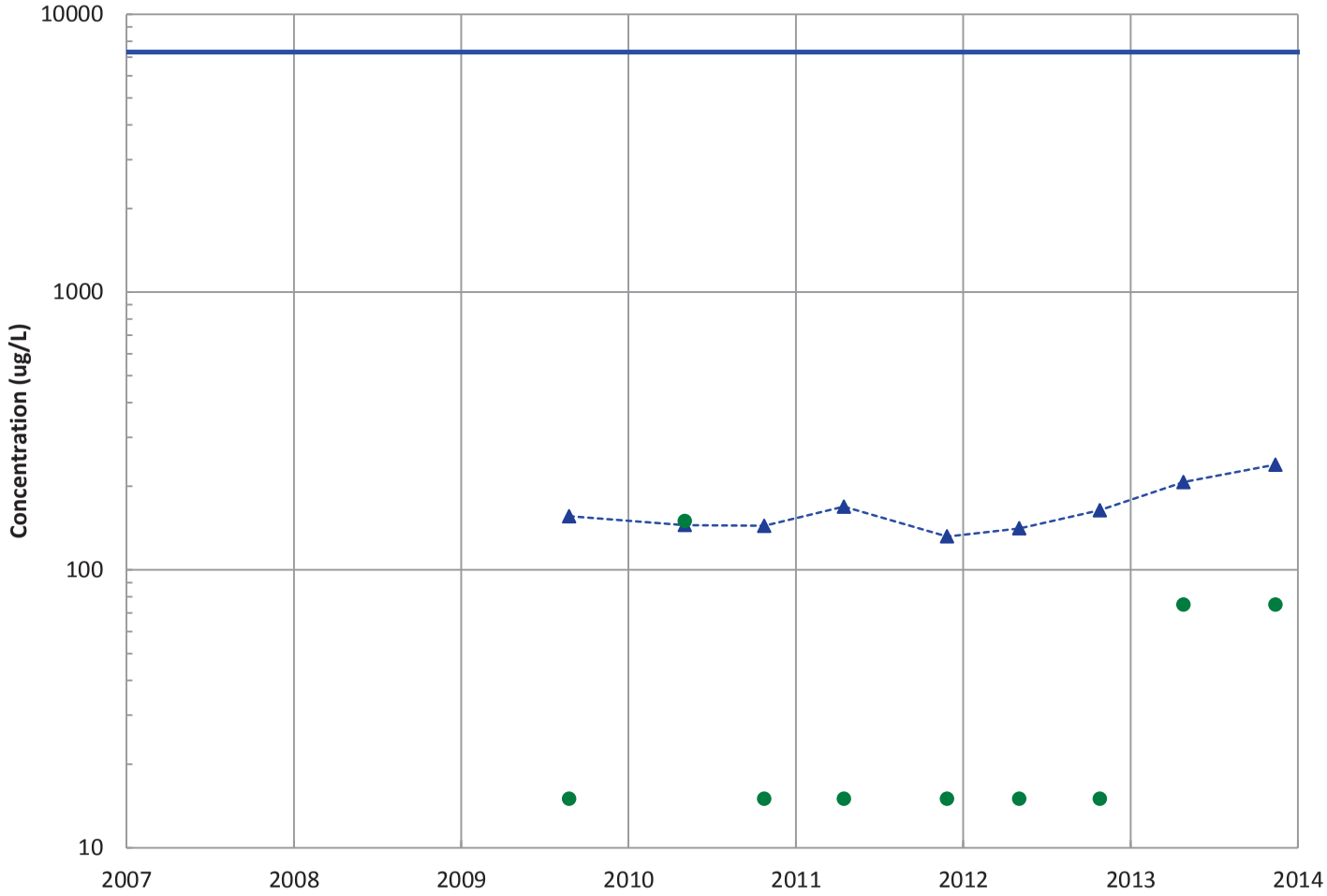
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 8/30/2008 to 11/18/2013

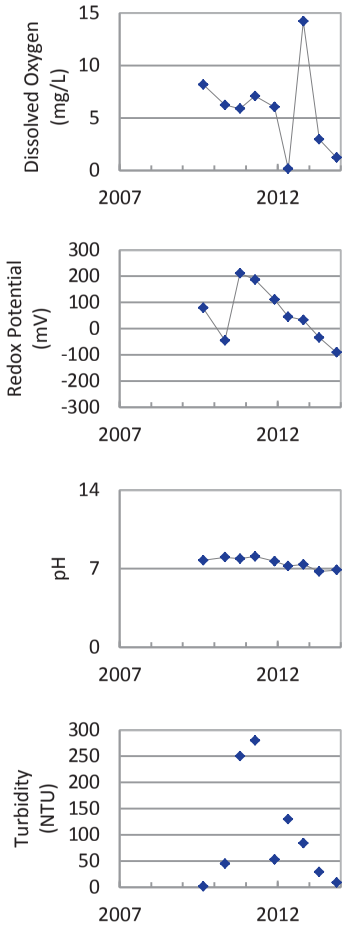
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1149
Boron Trend in Perched Aquifer



Field Parameters



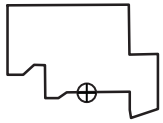
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Increasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Increasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

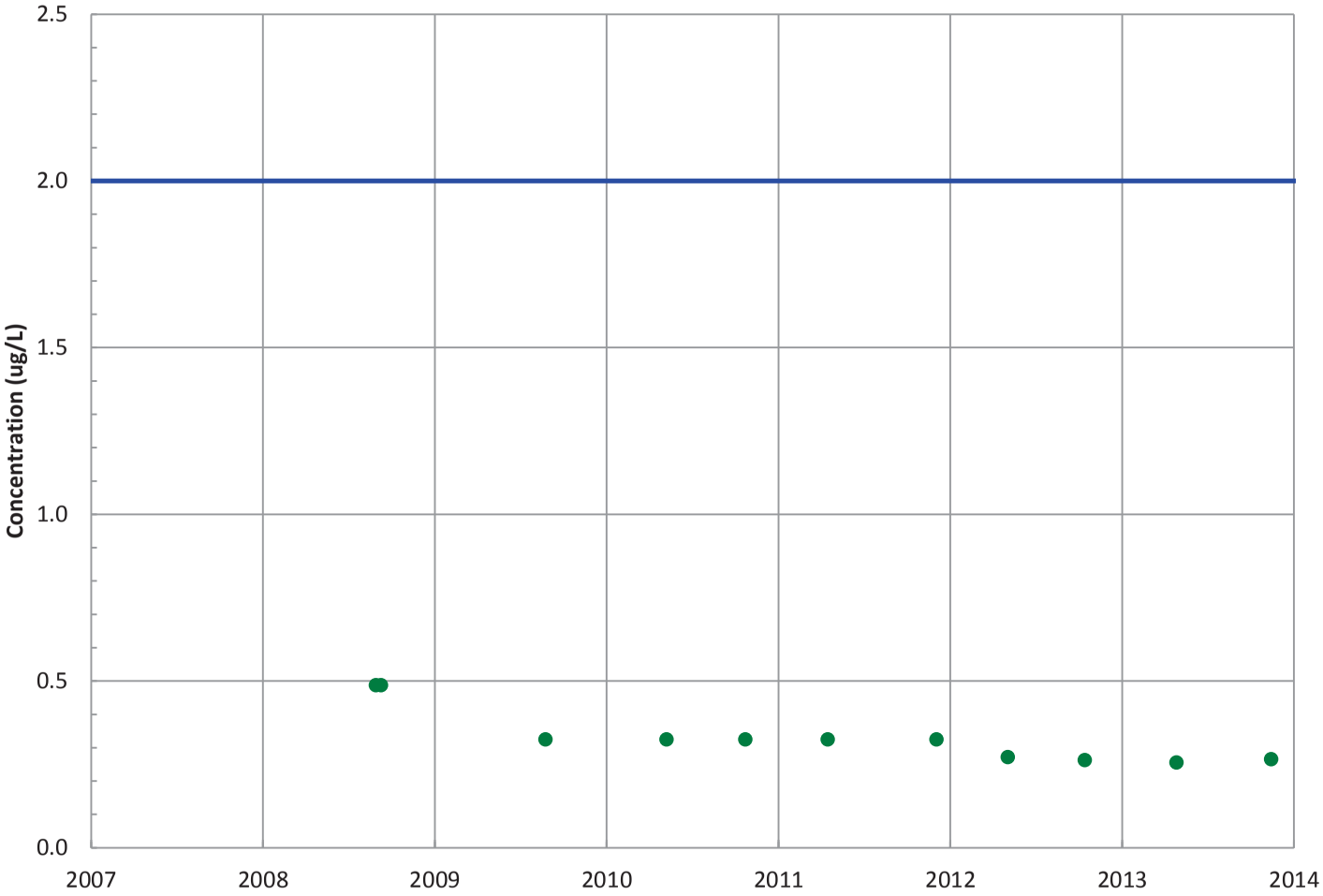
Well Location



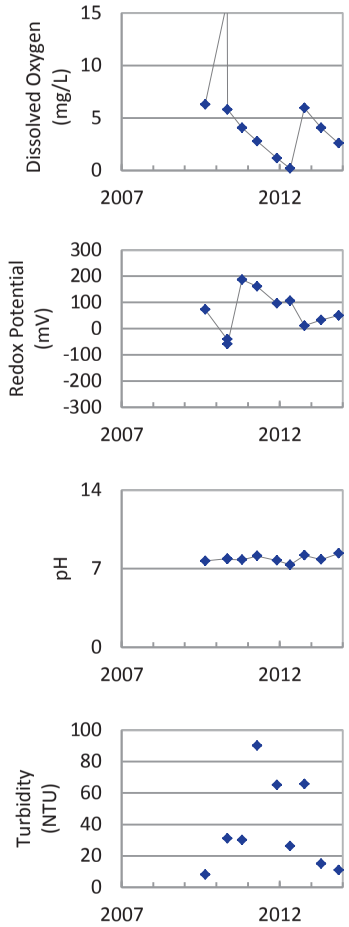
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/26/2009 to 11/18/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1150
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



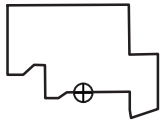
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

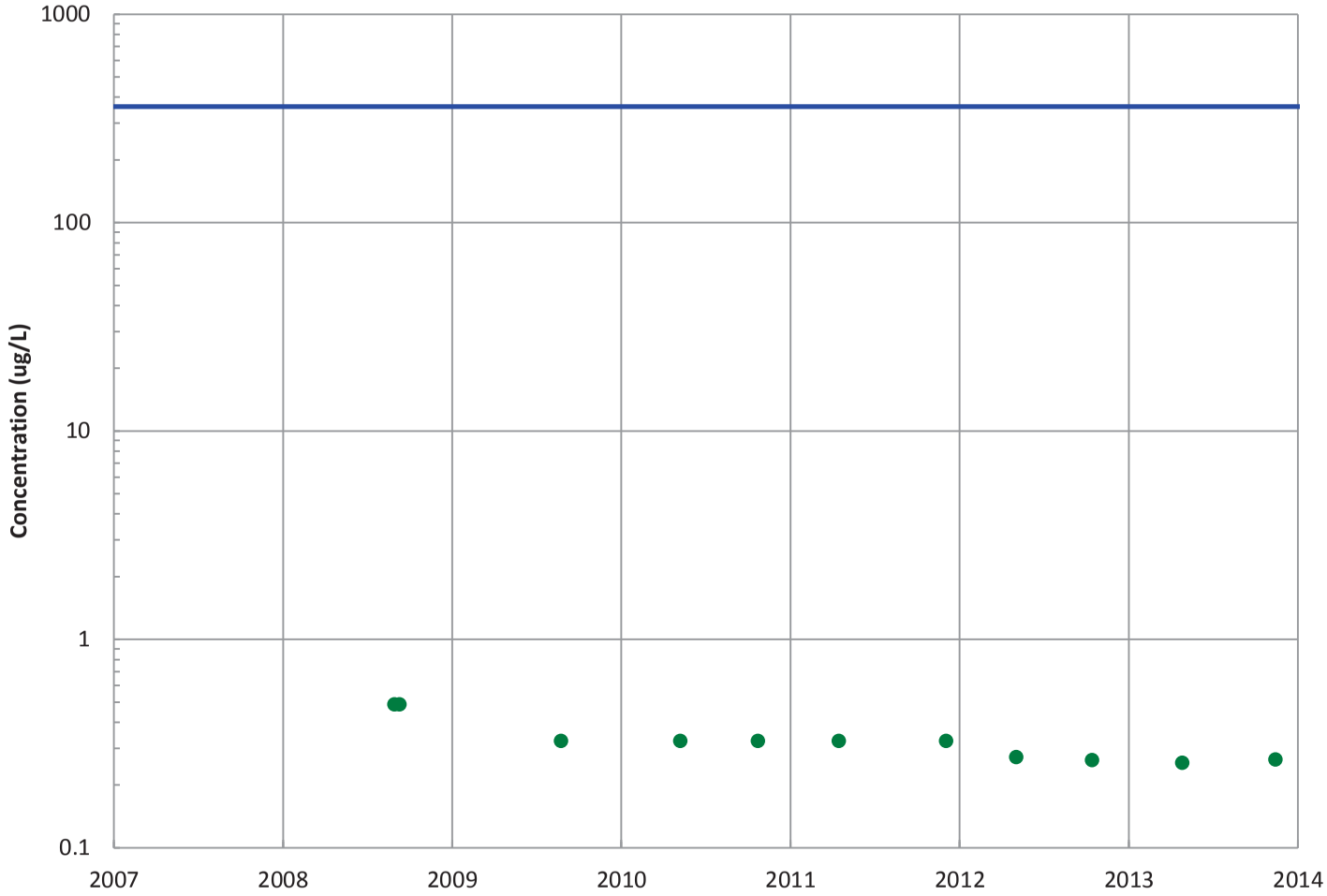
Well Location



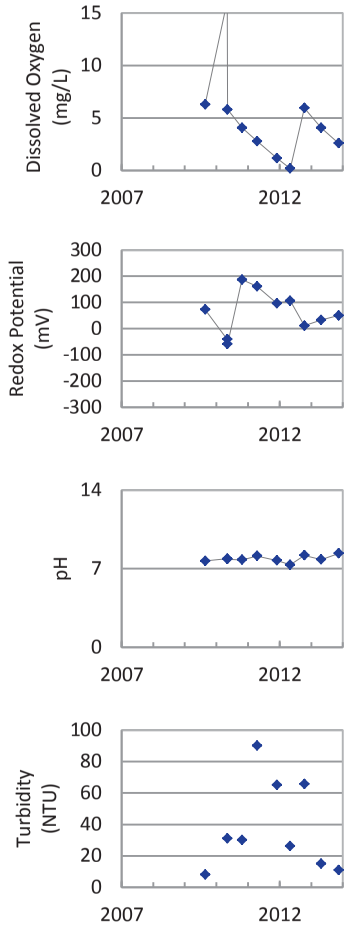
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/30/2008 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1150
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



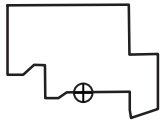
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

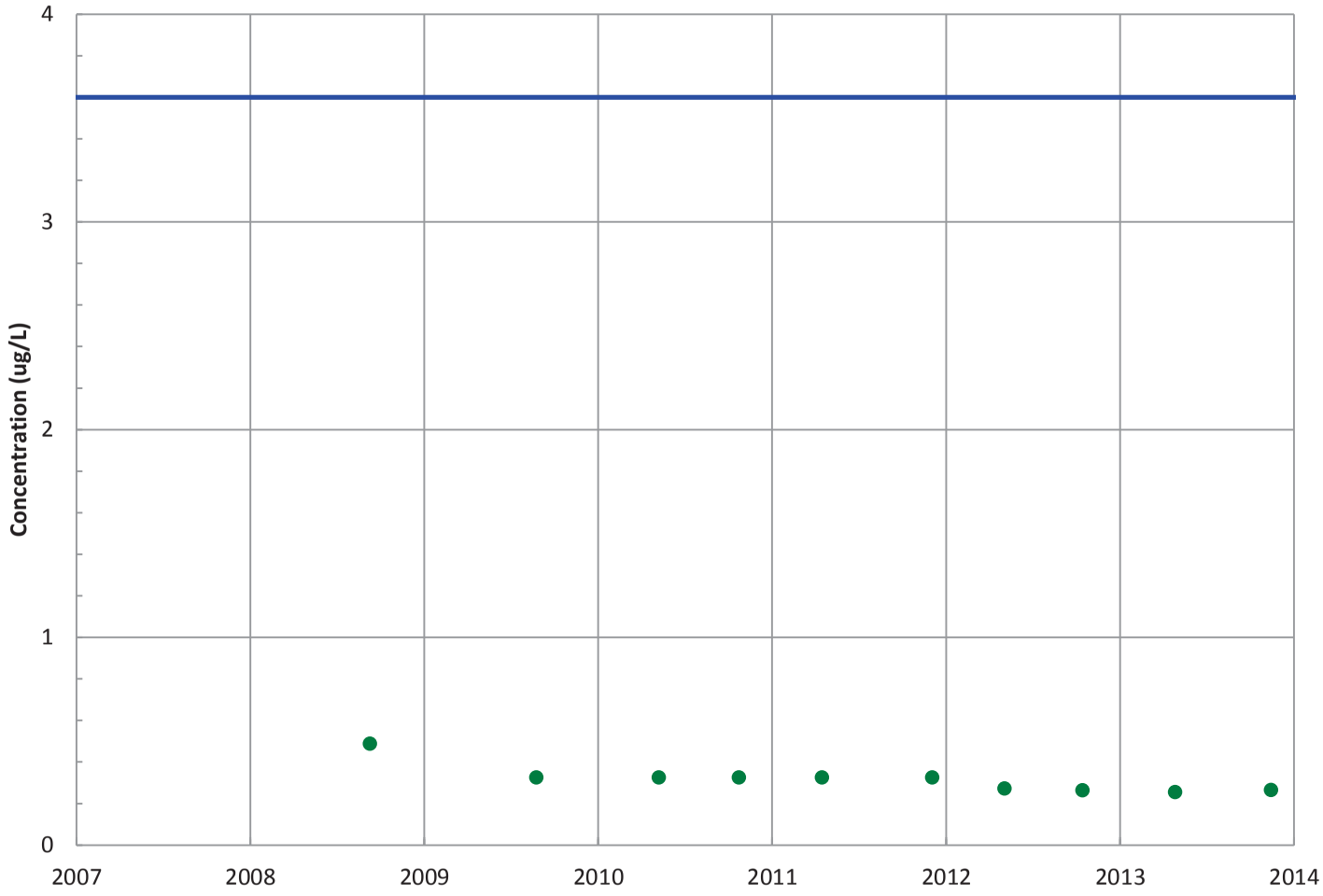
Well Location



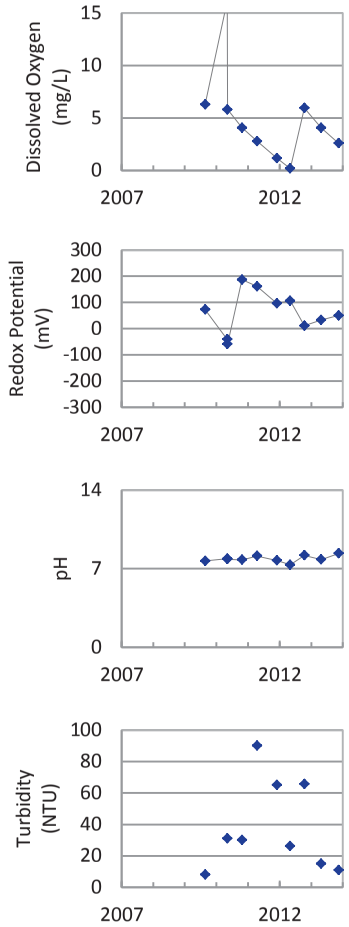
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/30/2008 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1150
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



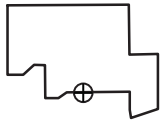
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

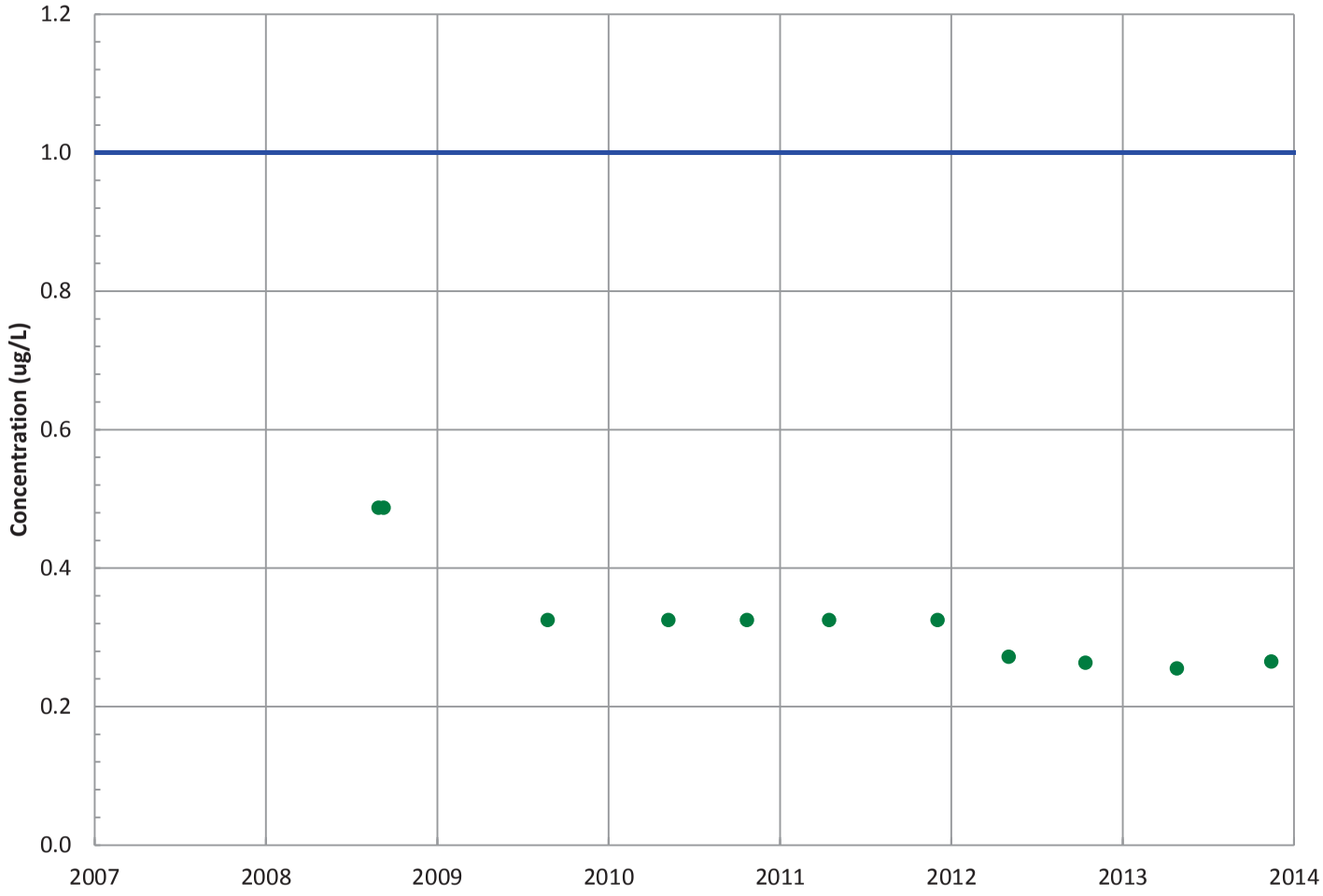
Well Location



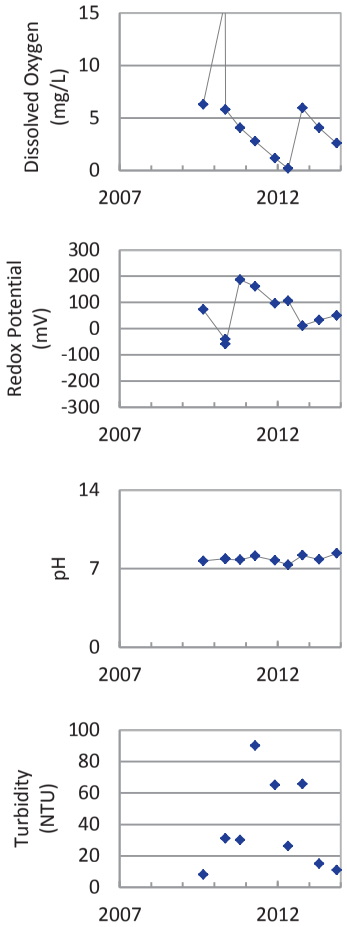
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/10/2008 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1150
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



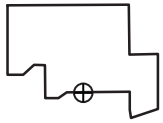
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

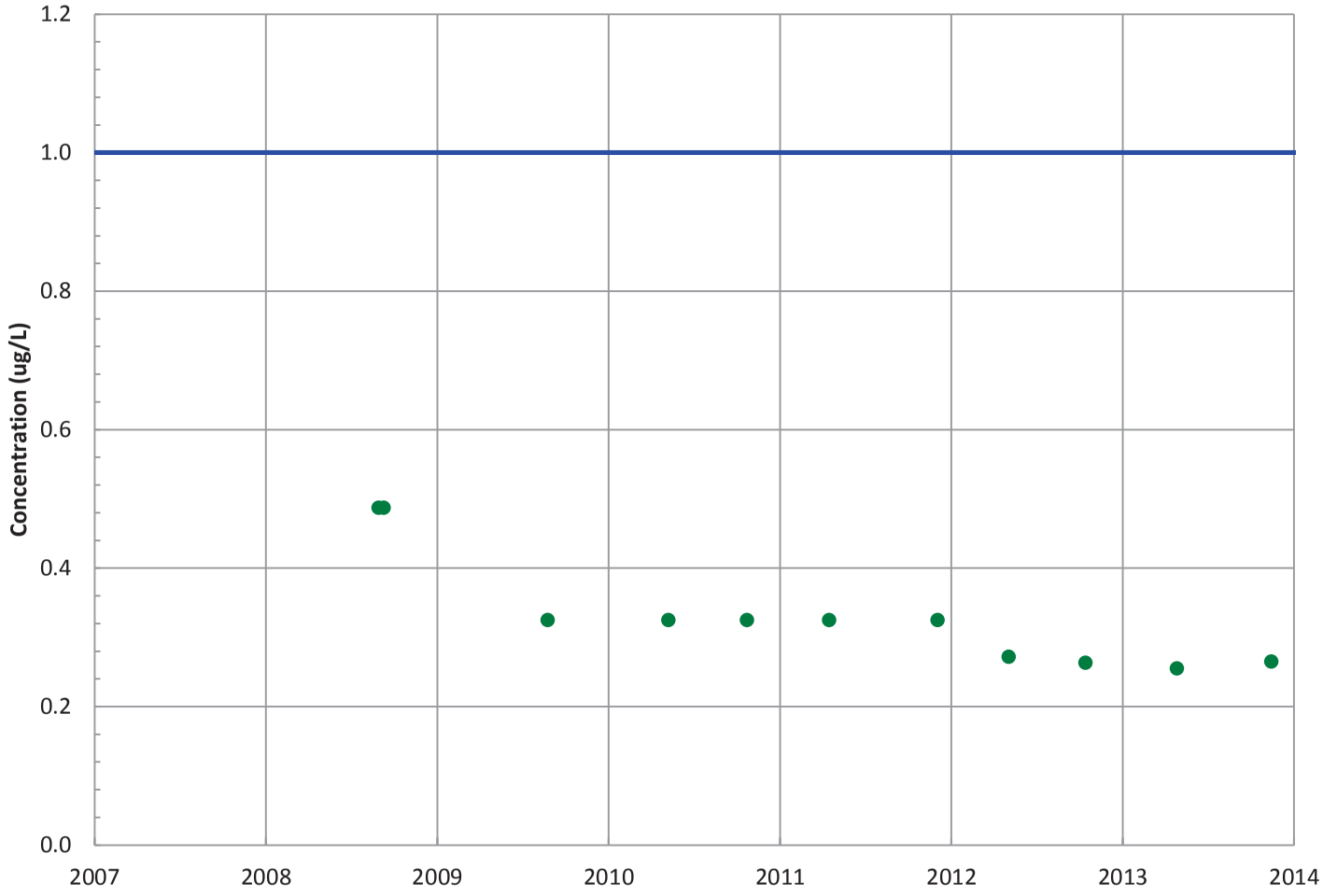
Well Location



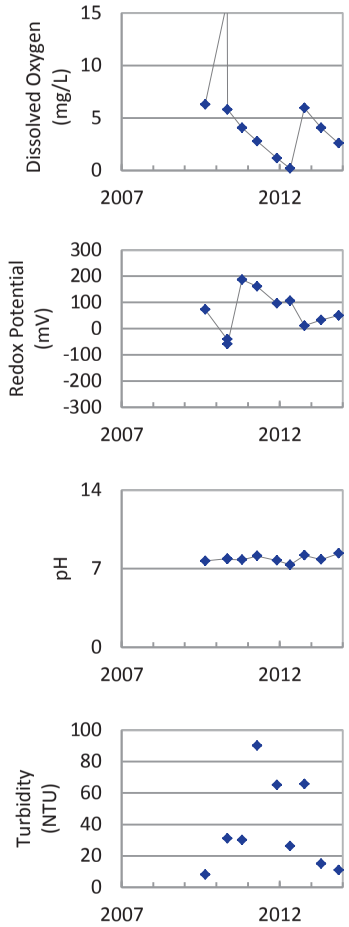
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/30/2008 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1150
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



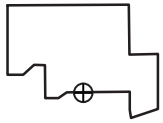
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

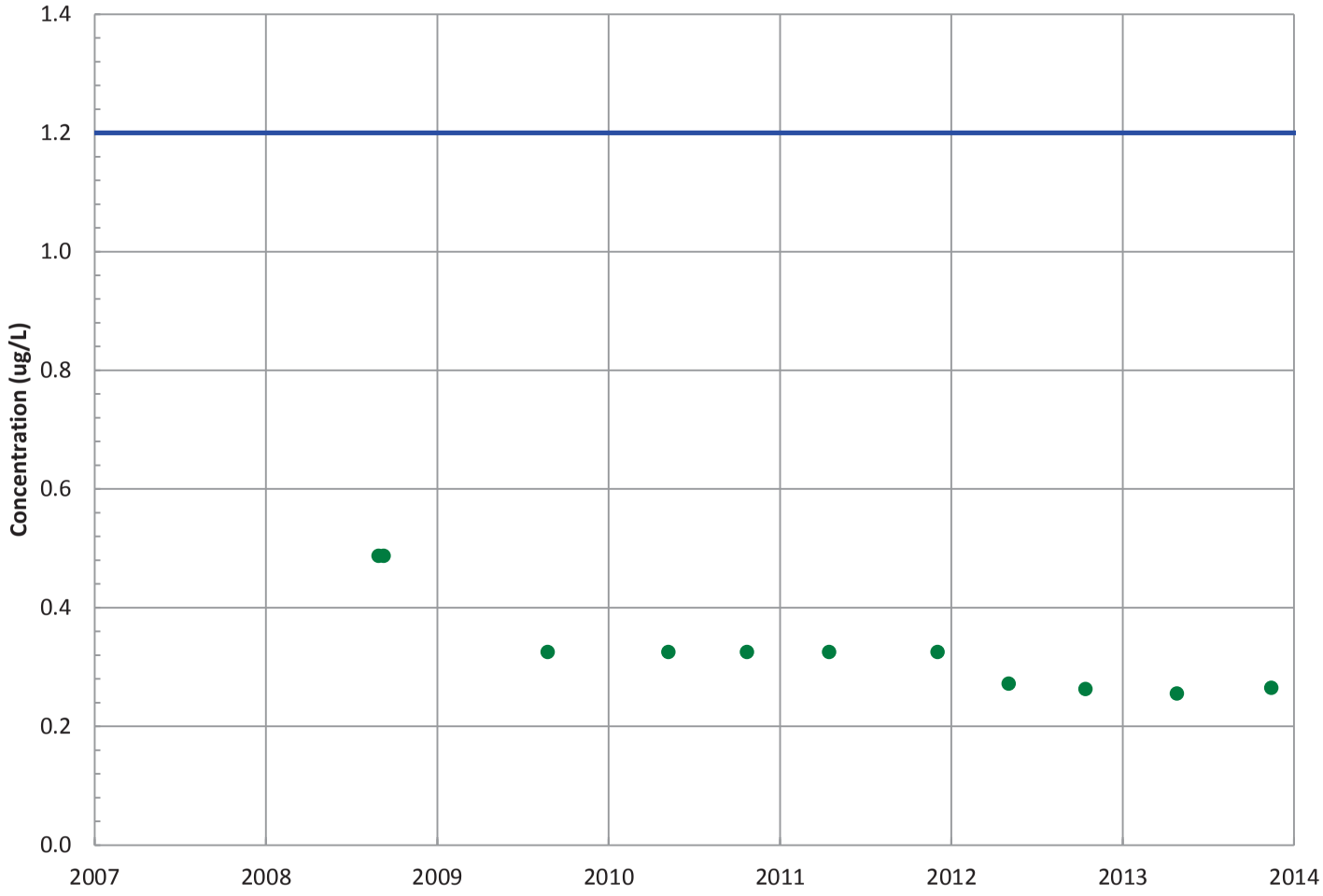
Well Location



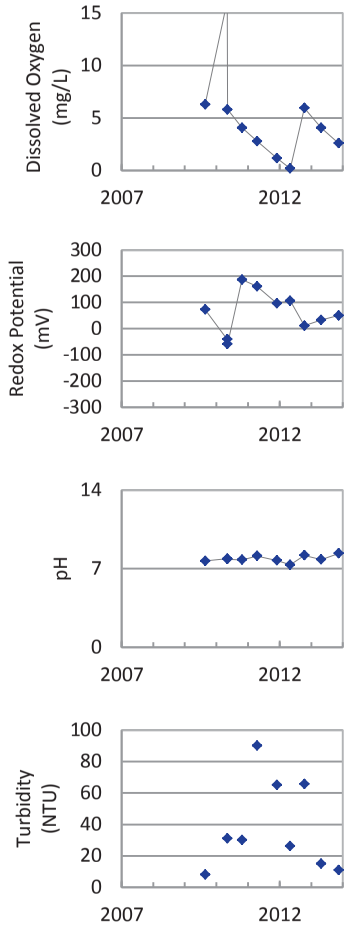
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/30/2008 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1150
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



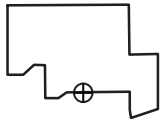
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

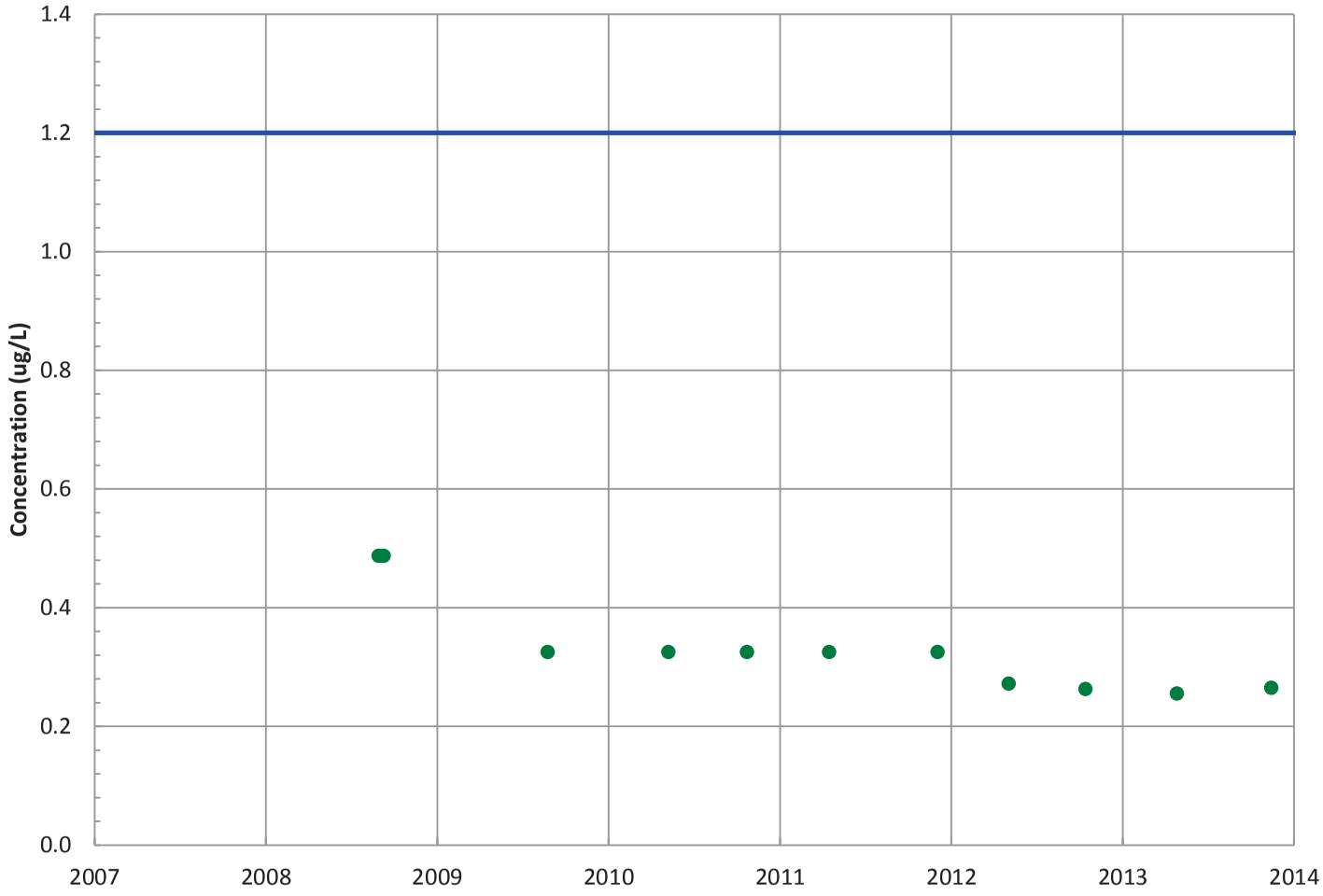
Well Location



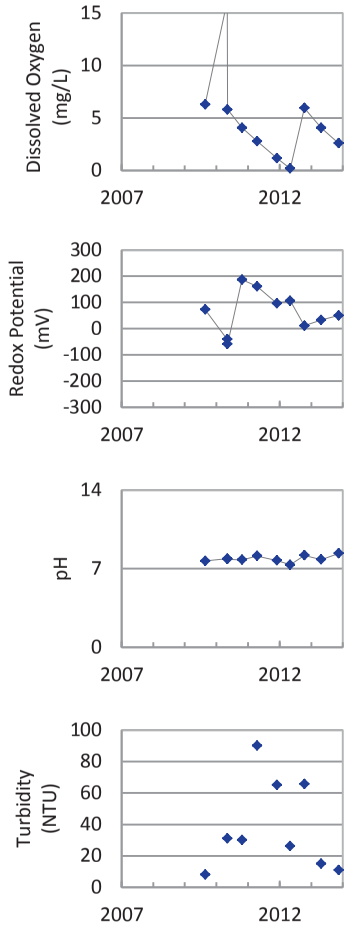
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/30/2008 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1150
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



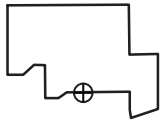
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

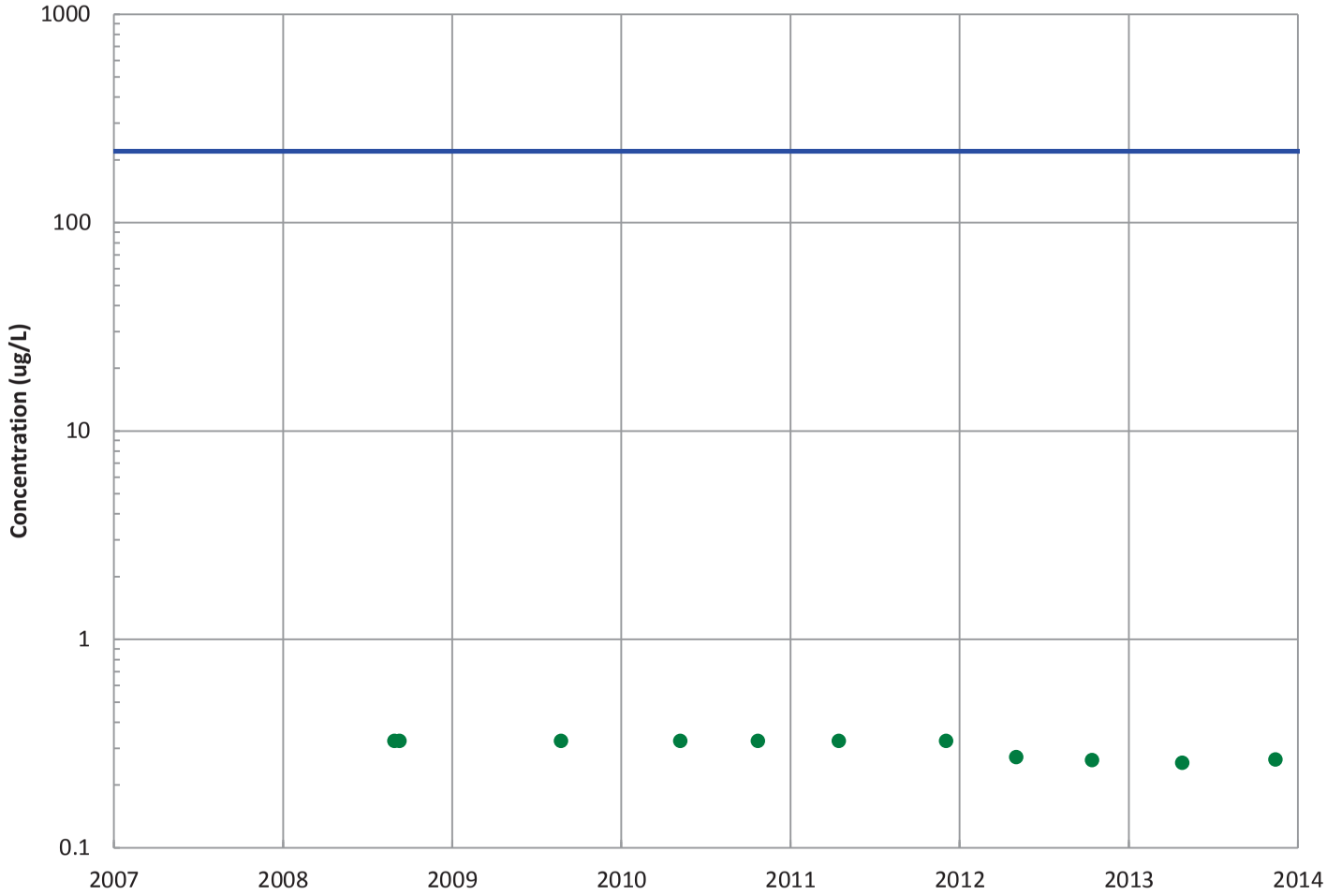
Well Location



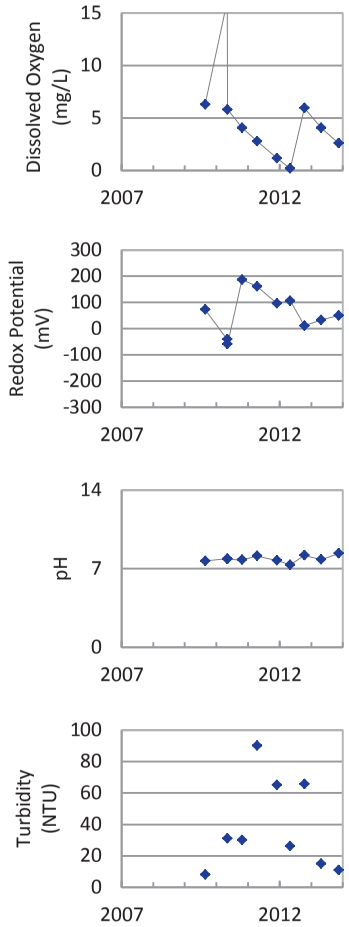
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/30/2008 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1150
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



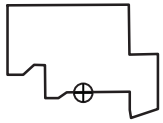
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

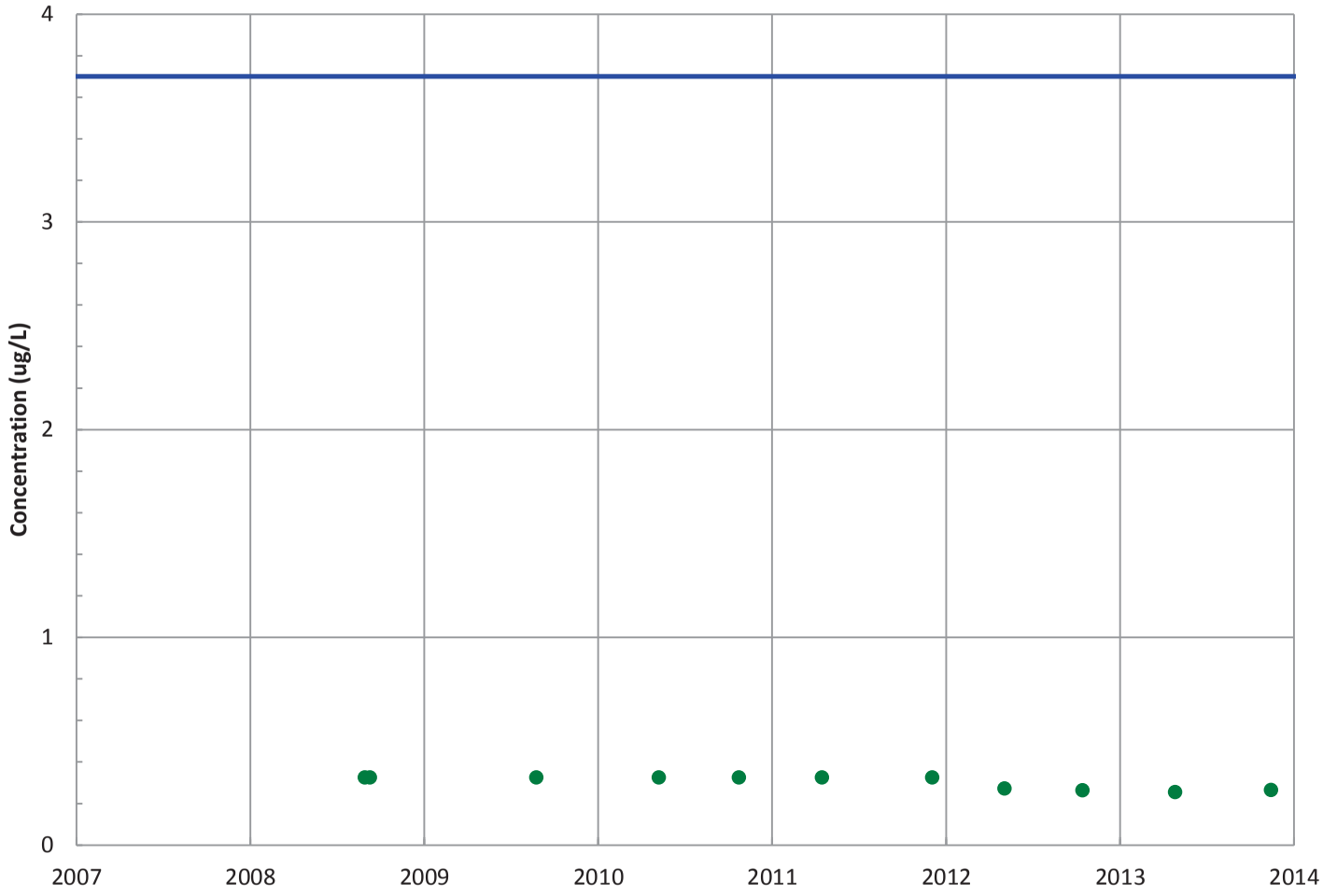
Well Location



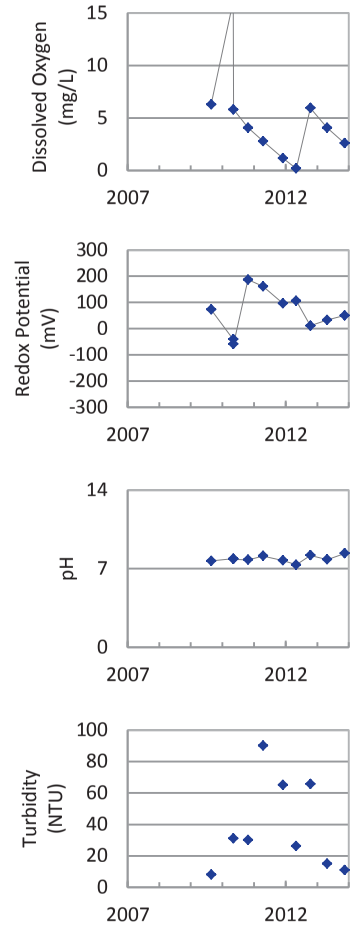
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/30/2008 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1150
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



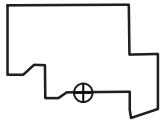
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

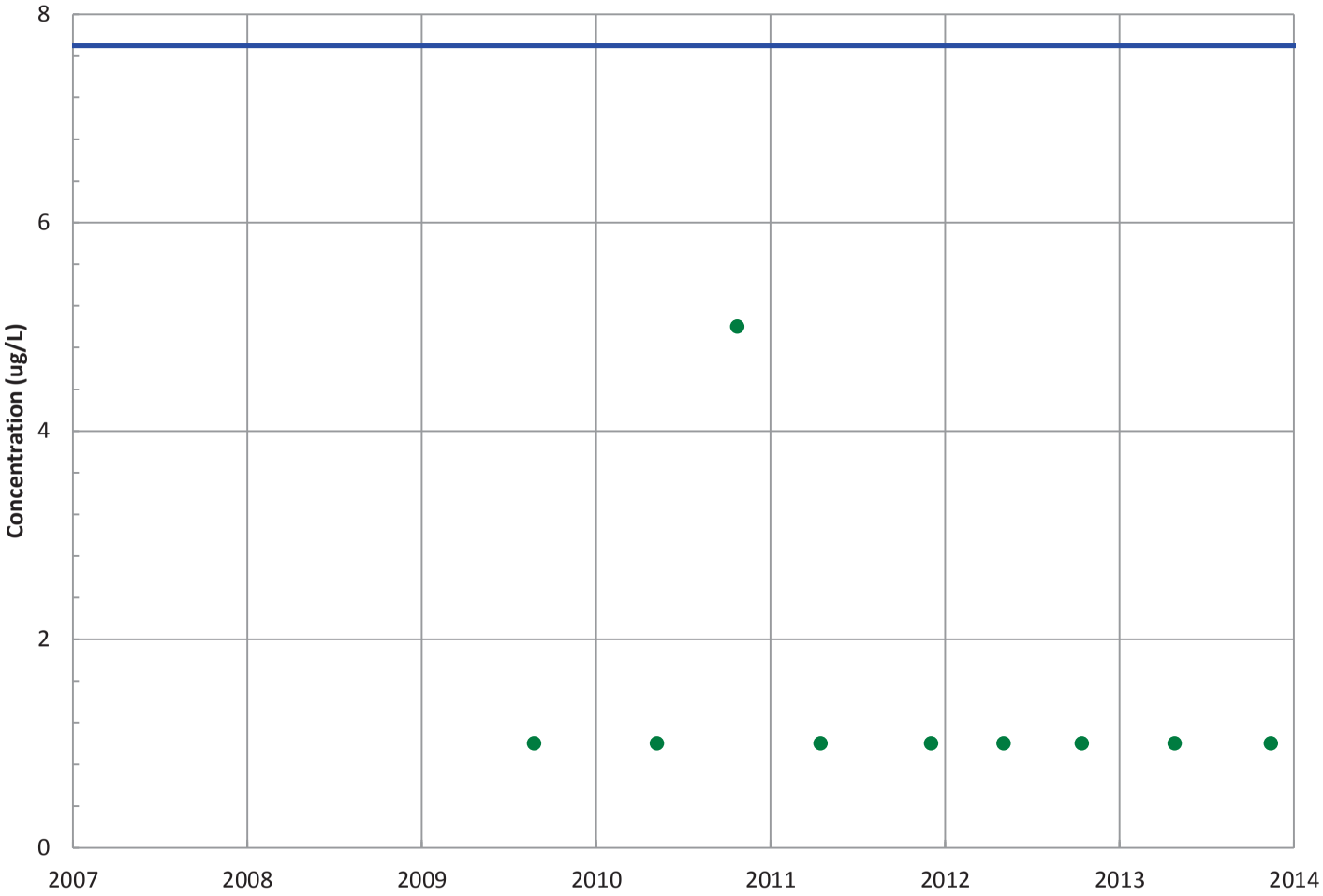
Well Location



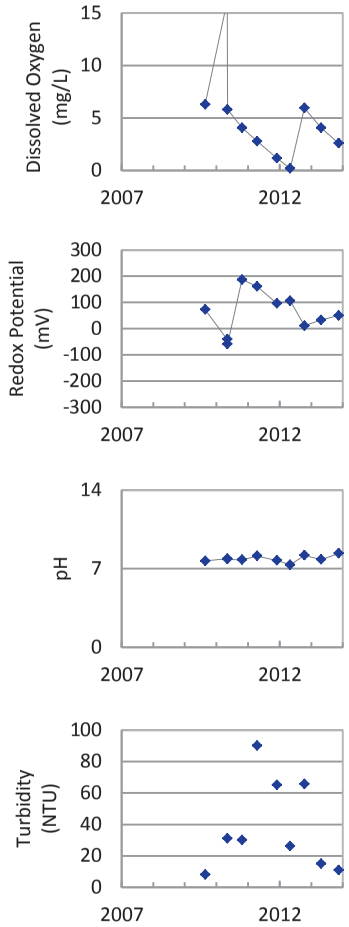
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/30/2008 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1150
1,4-Dioxane (p-Dioxane) Trend in Perched Aquifer



Field Parameters



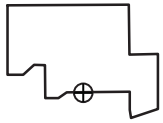
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

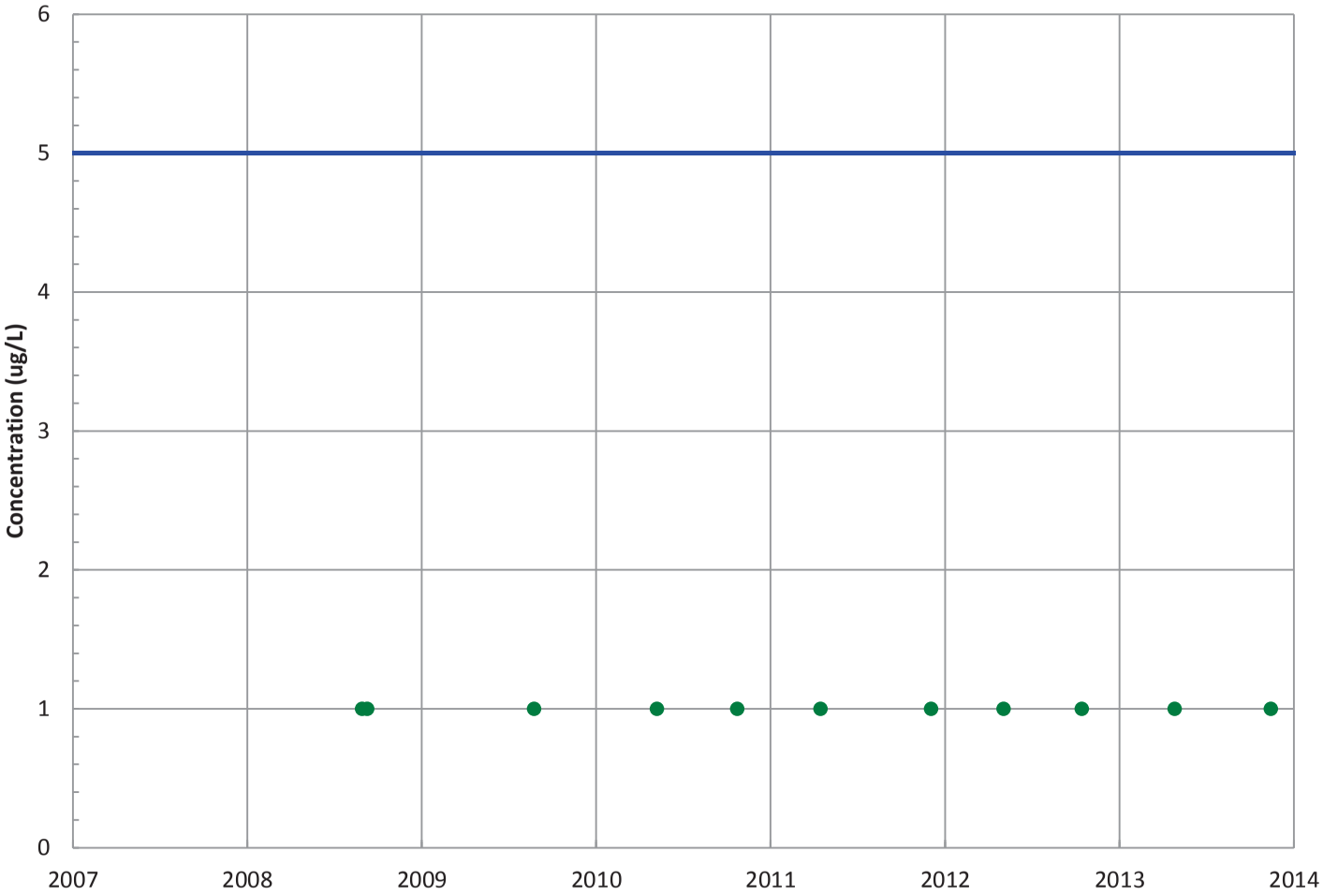
Well Location



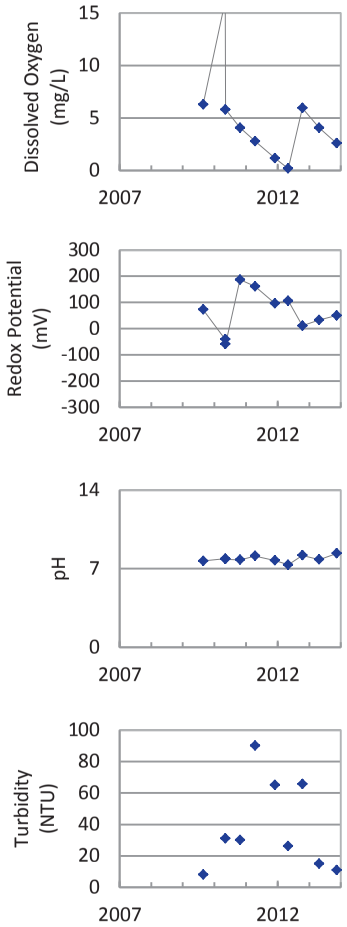
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/26/2009 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1150
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



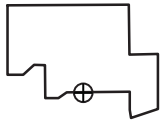
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

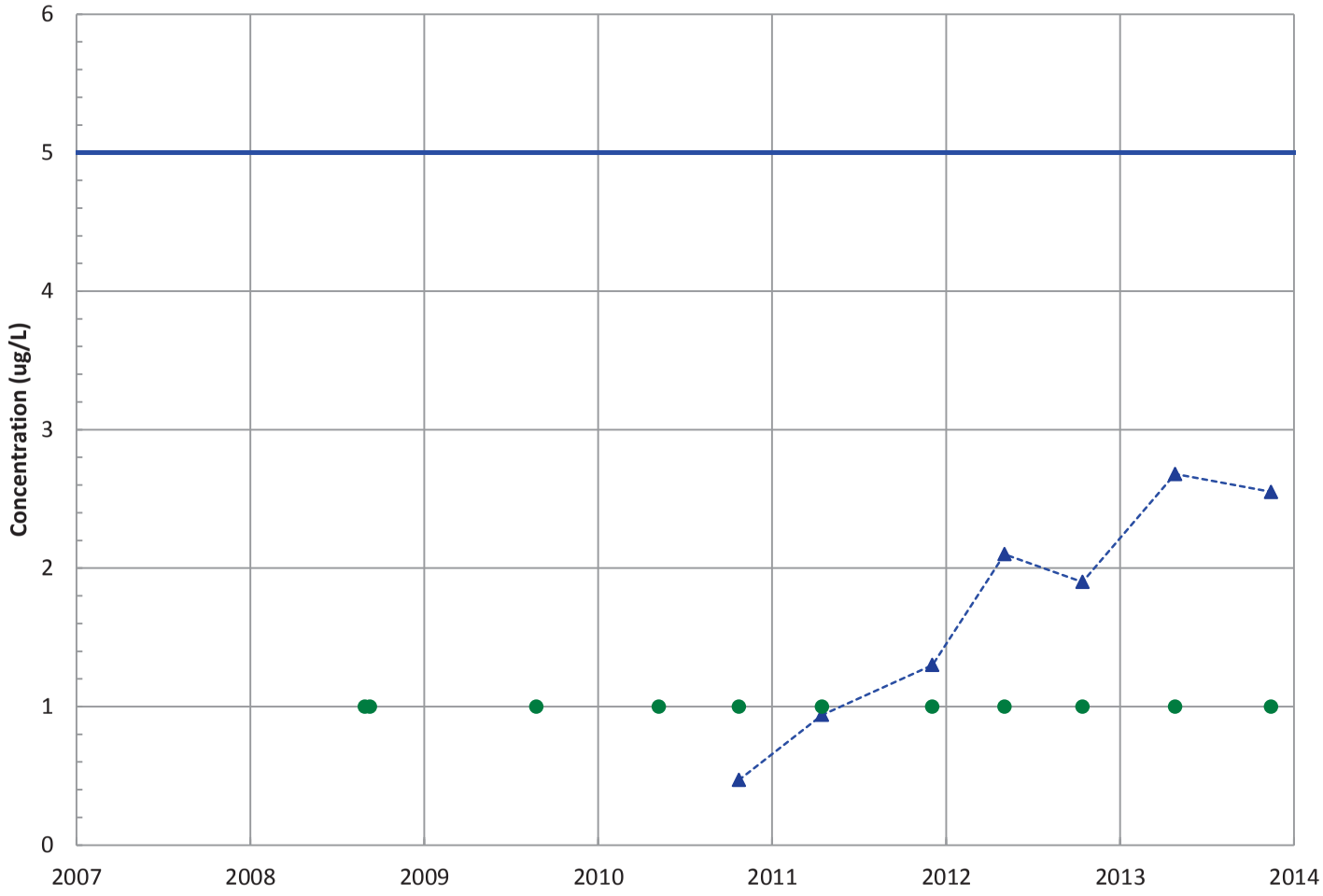
Well Location



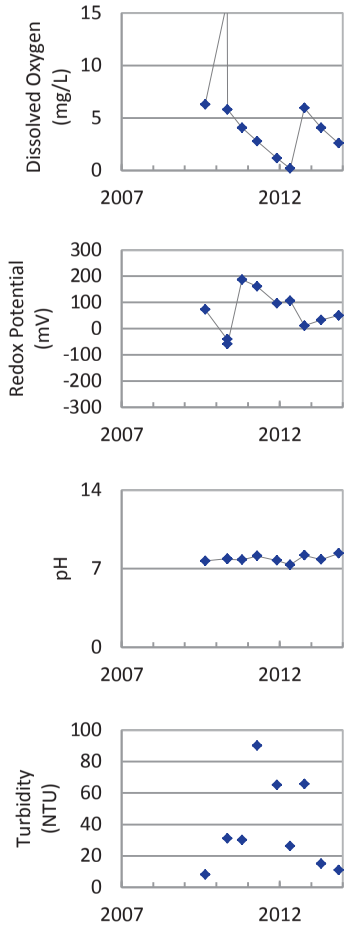
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/30/2008 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1150
Trichloroethene Trend in Perched Aquifer



Field Parameters



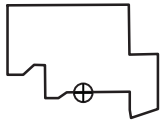
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

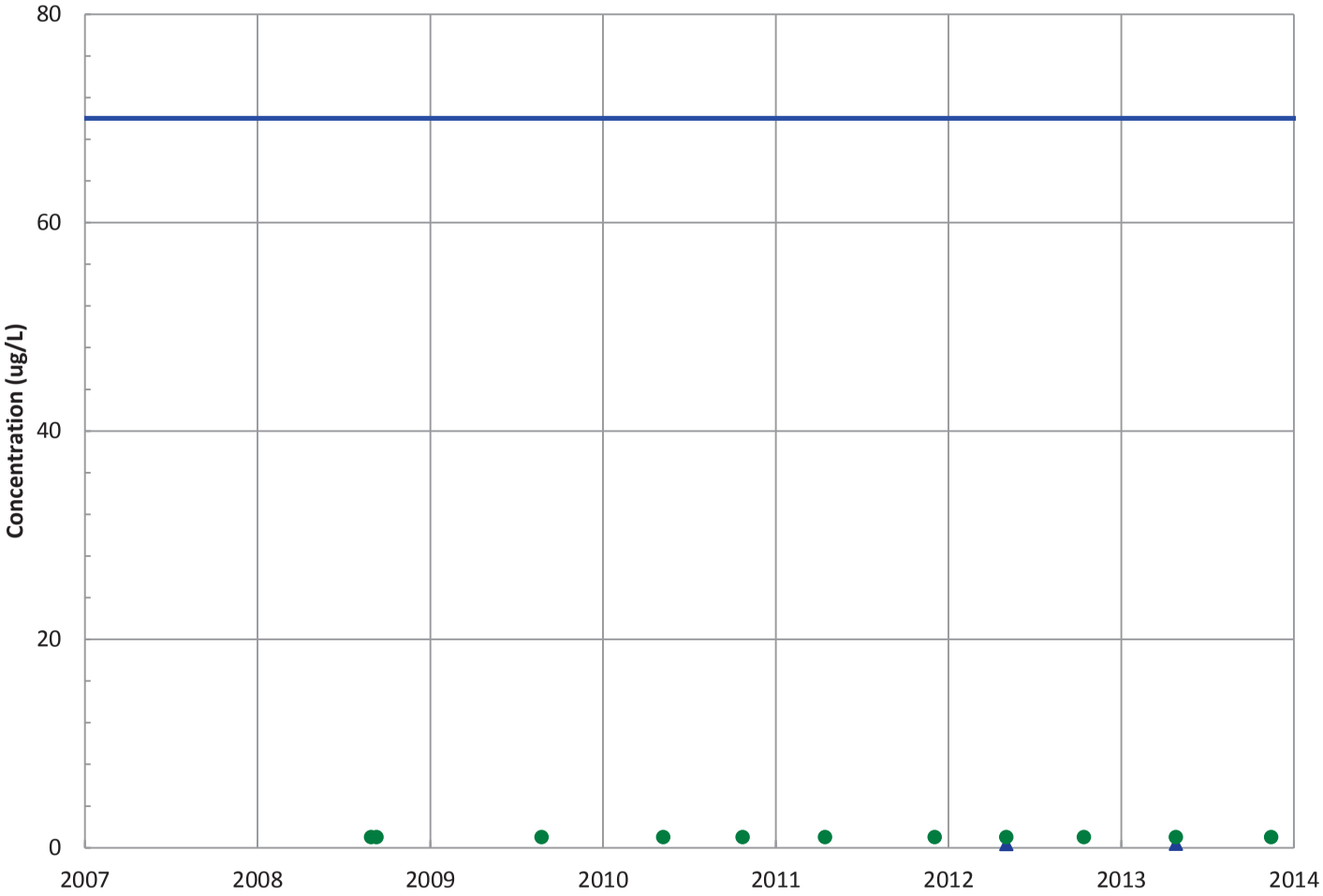
Well Location



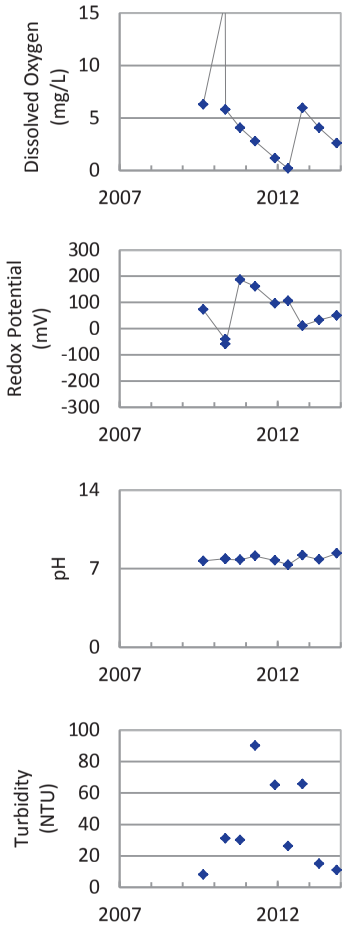
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/30/2008 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1150
cis-1,2-Dichloroethene Trend in Perched Aquifer



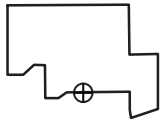
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

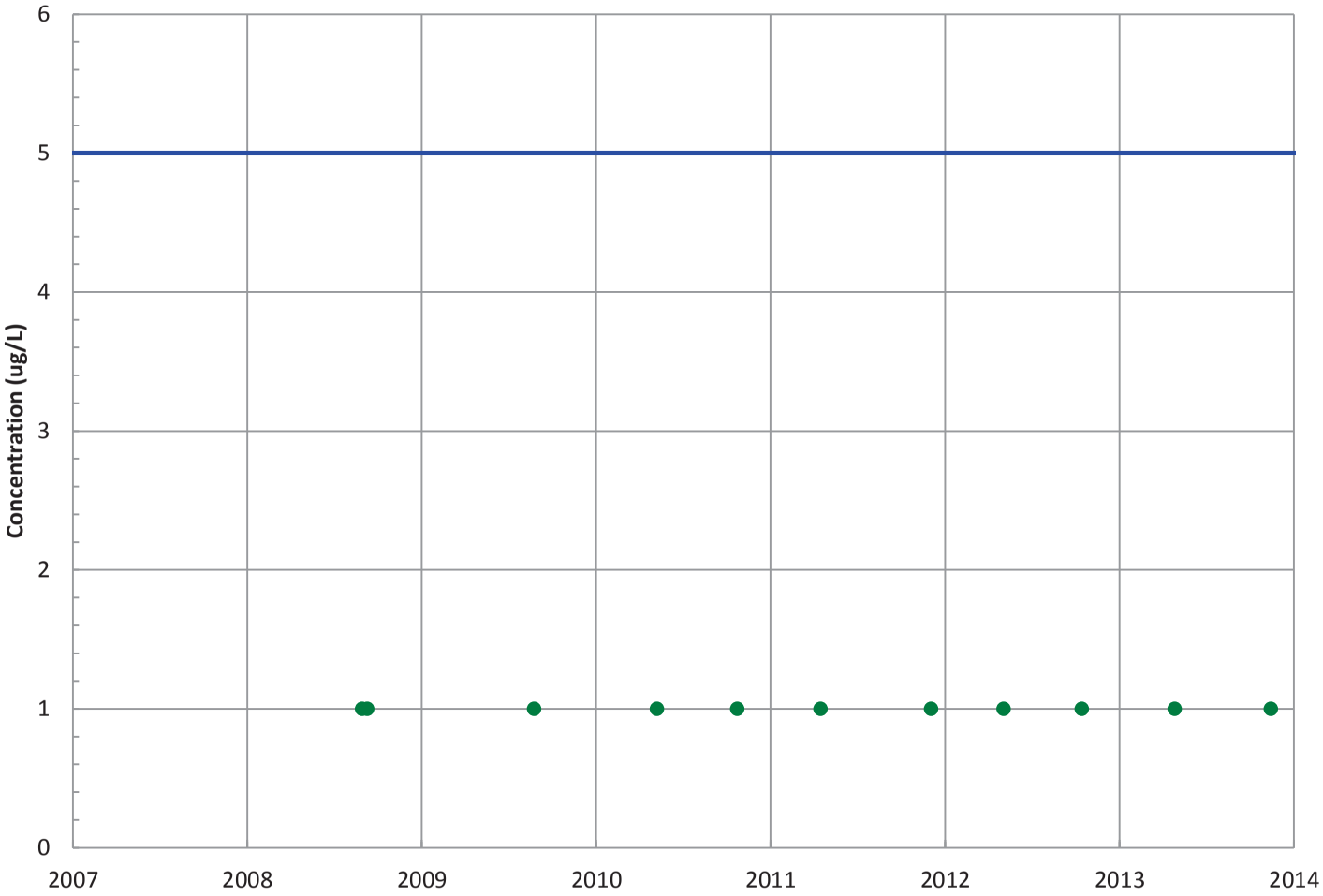
Well Location



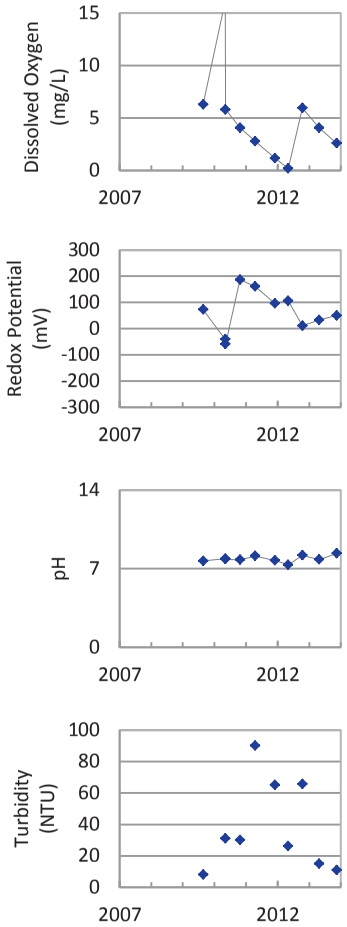
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/30/2008 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1150
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



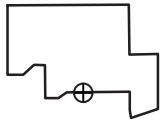
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

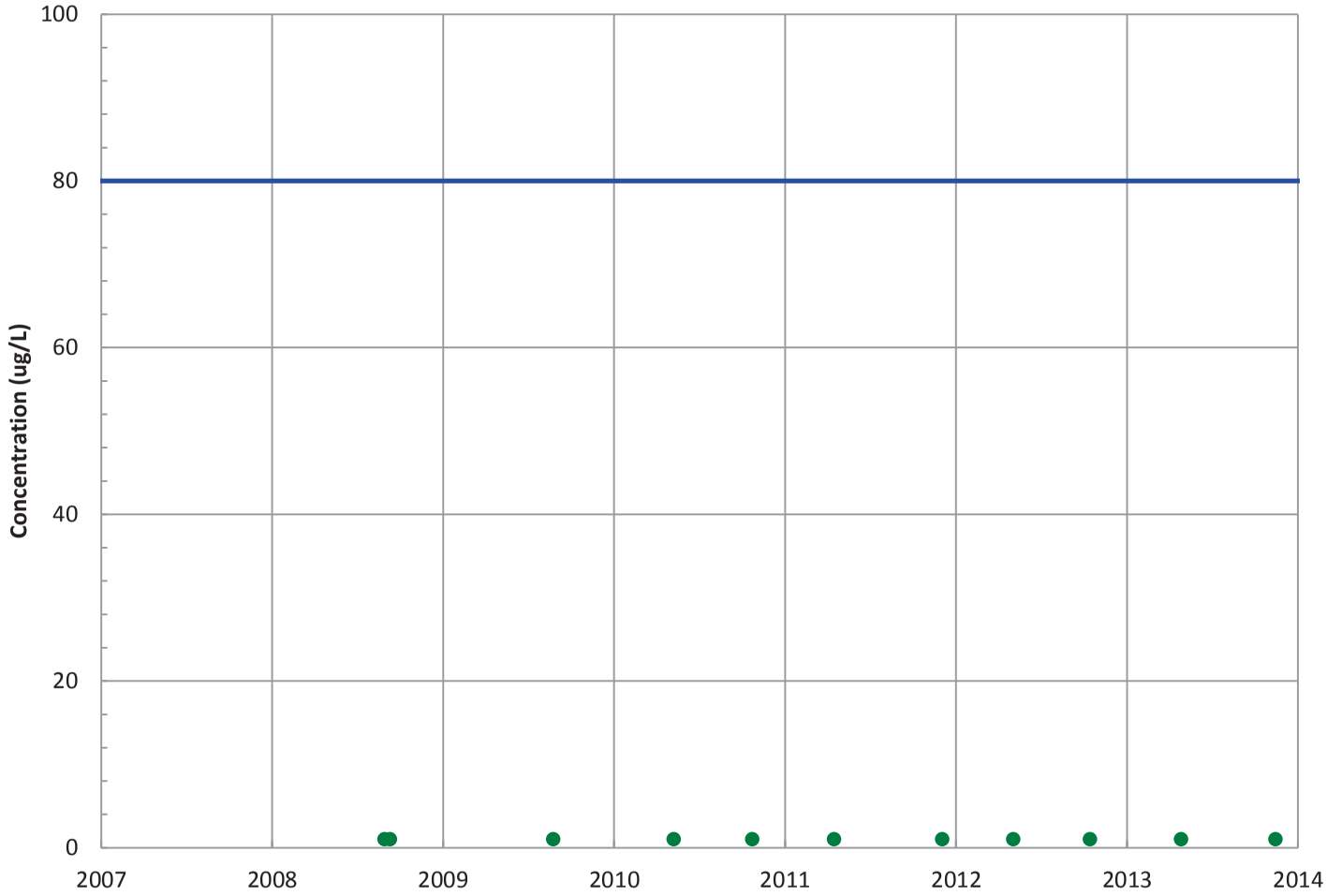
Well Location



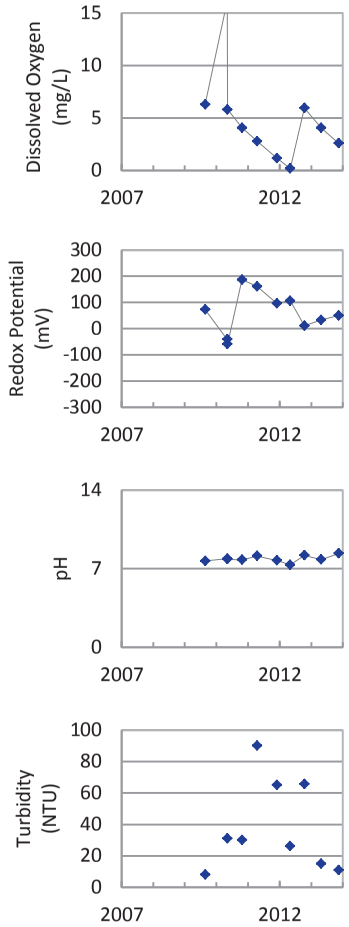
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/30/2008 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1150
Chloroform Trend in Perched Aquifer



Field Parameters



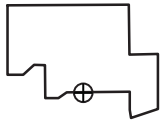
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

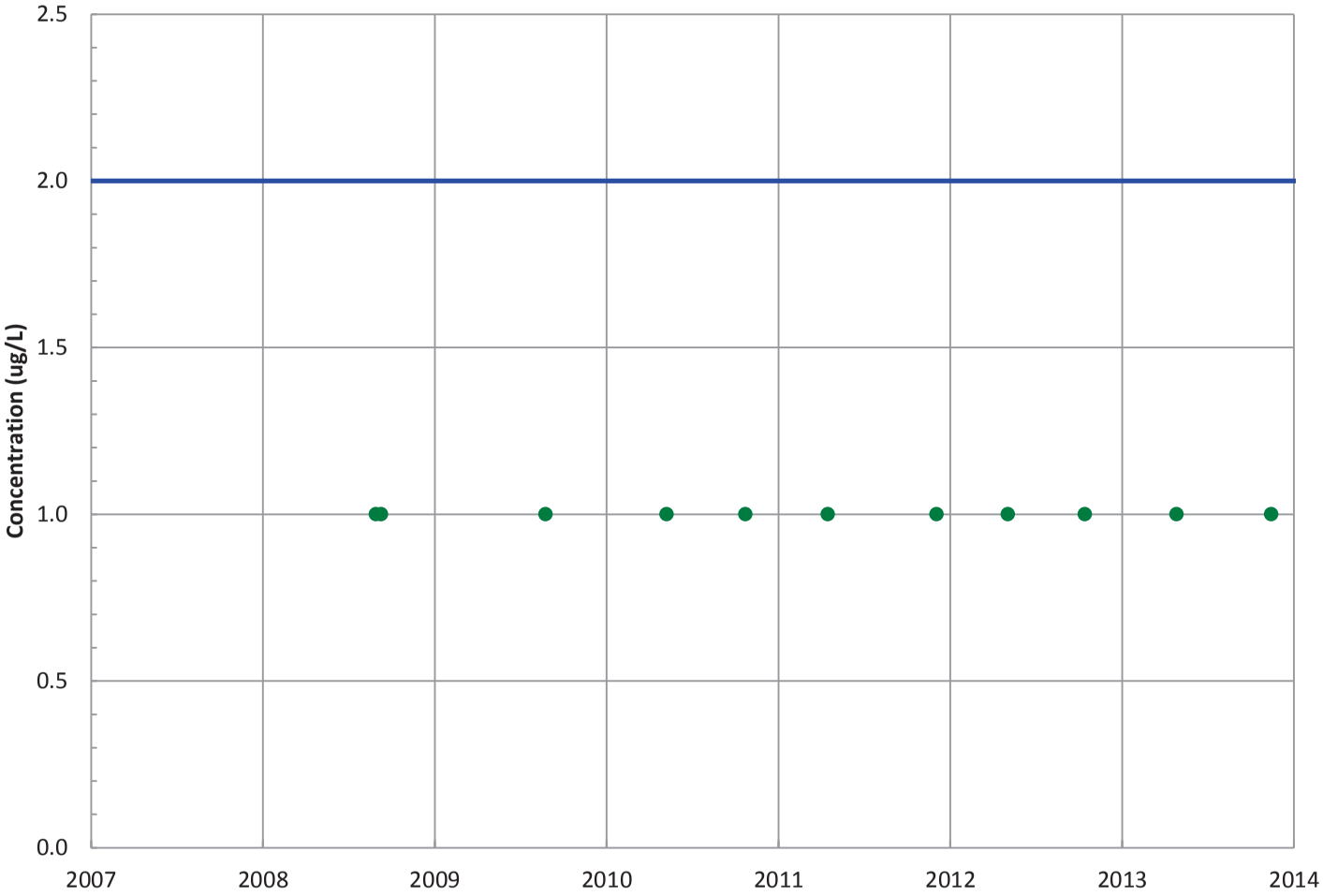
Well Location



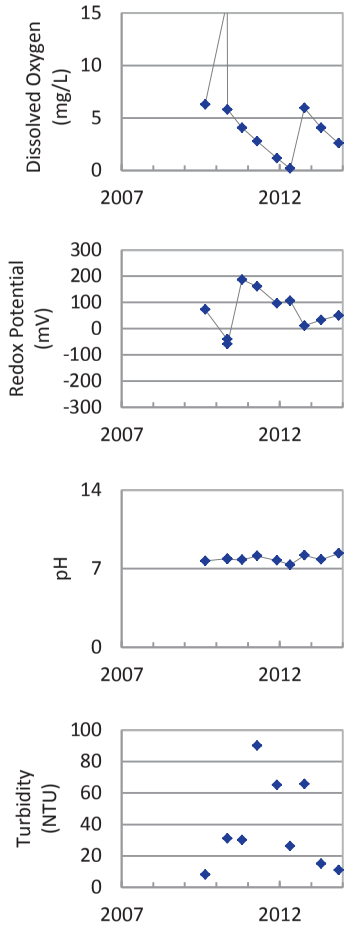
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/30/2008 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1150
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



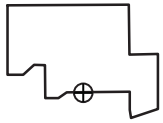
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

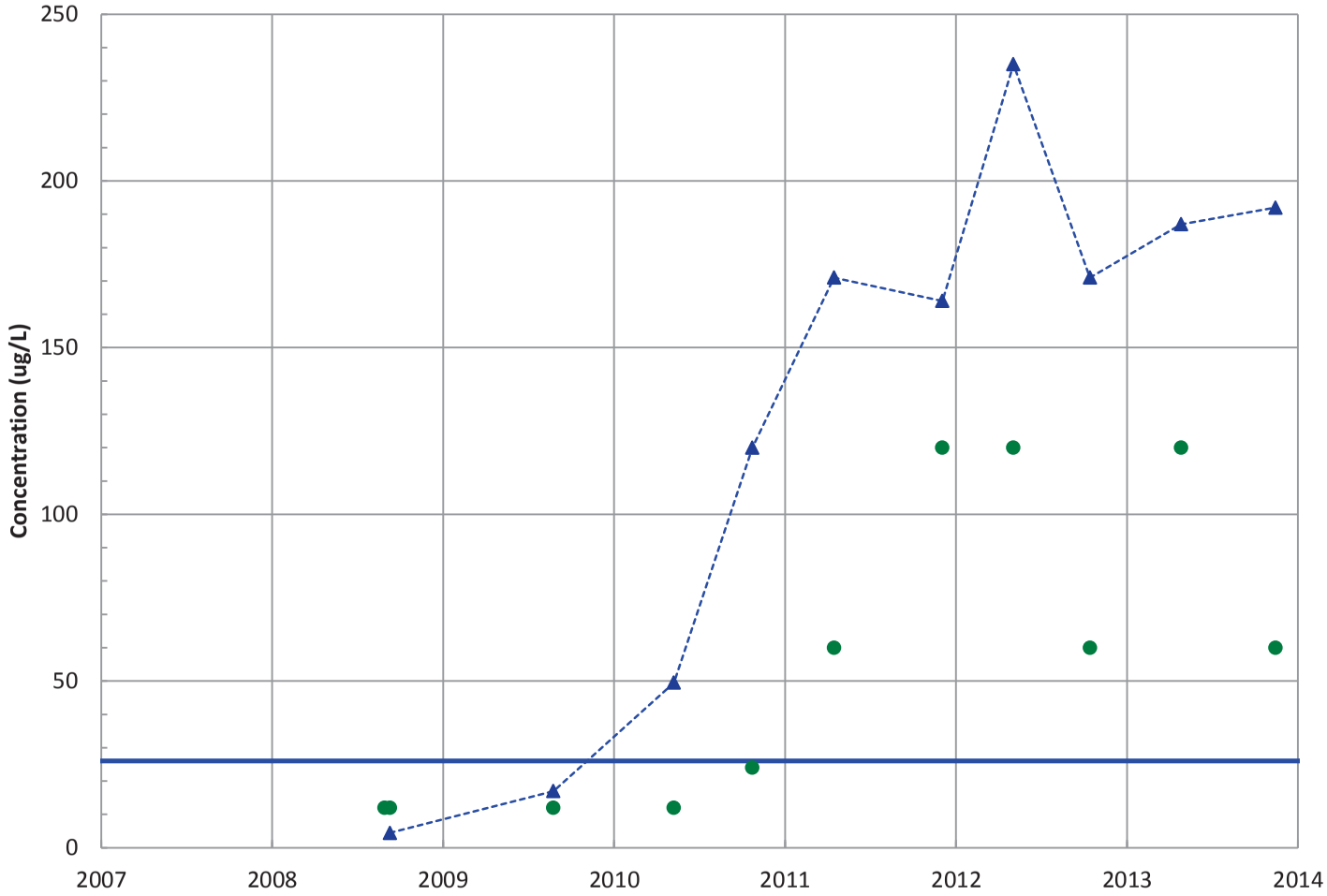
Well Location



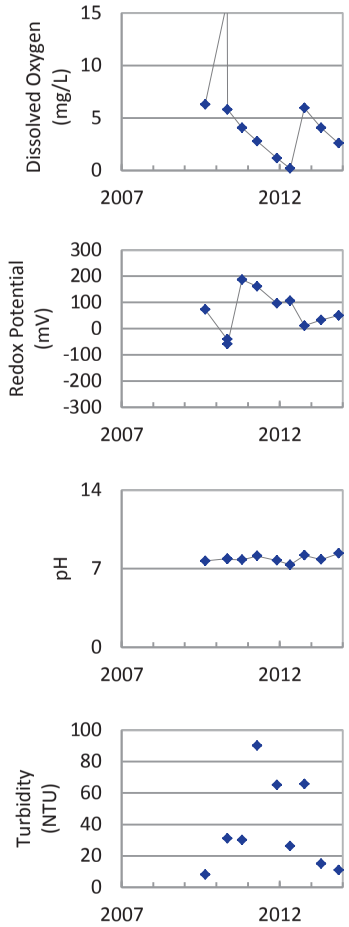
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/30/2008 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1150
Perchlorate Trend in Perched Aquifer



Field Parameters



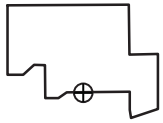
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

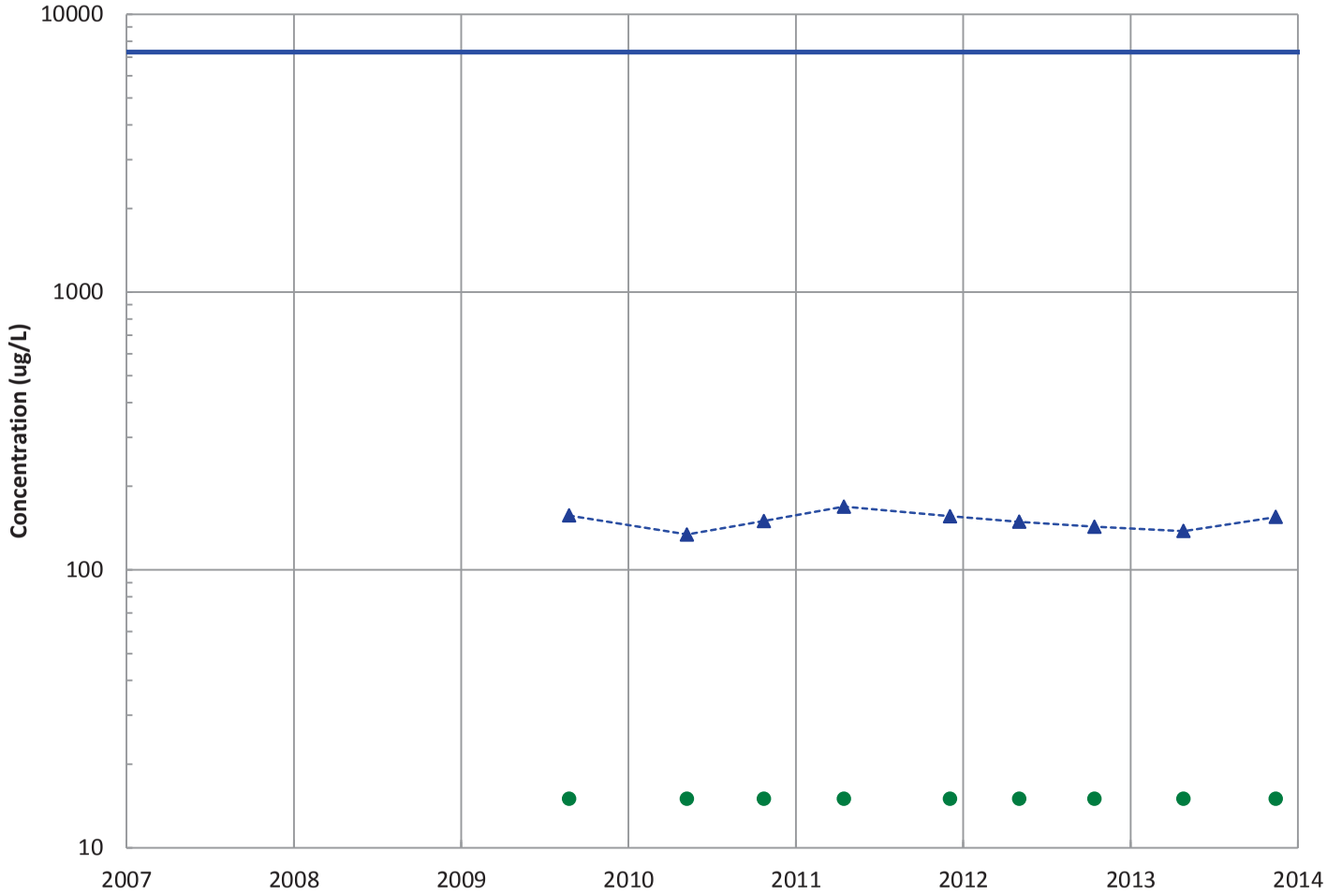
Well Location



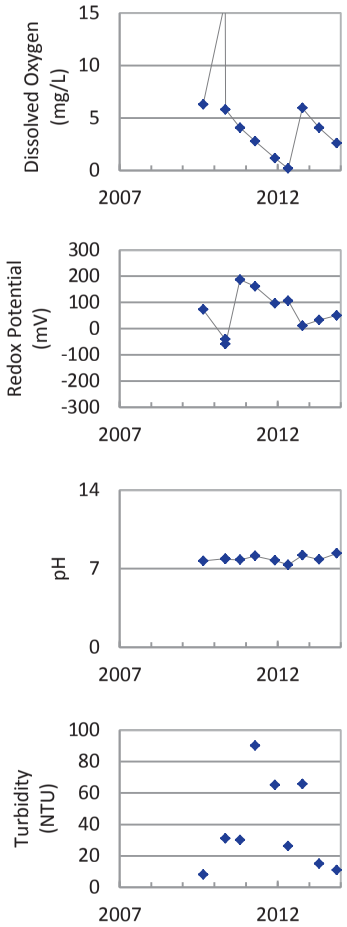
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/30/2008 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1150
Boron Trend in Perched Aquifer



Field Parameters



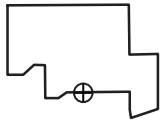
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

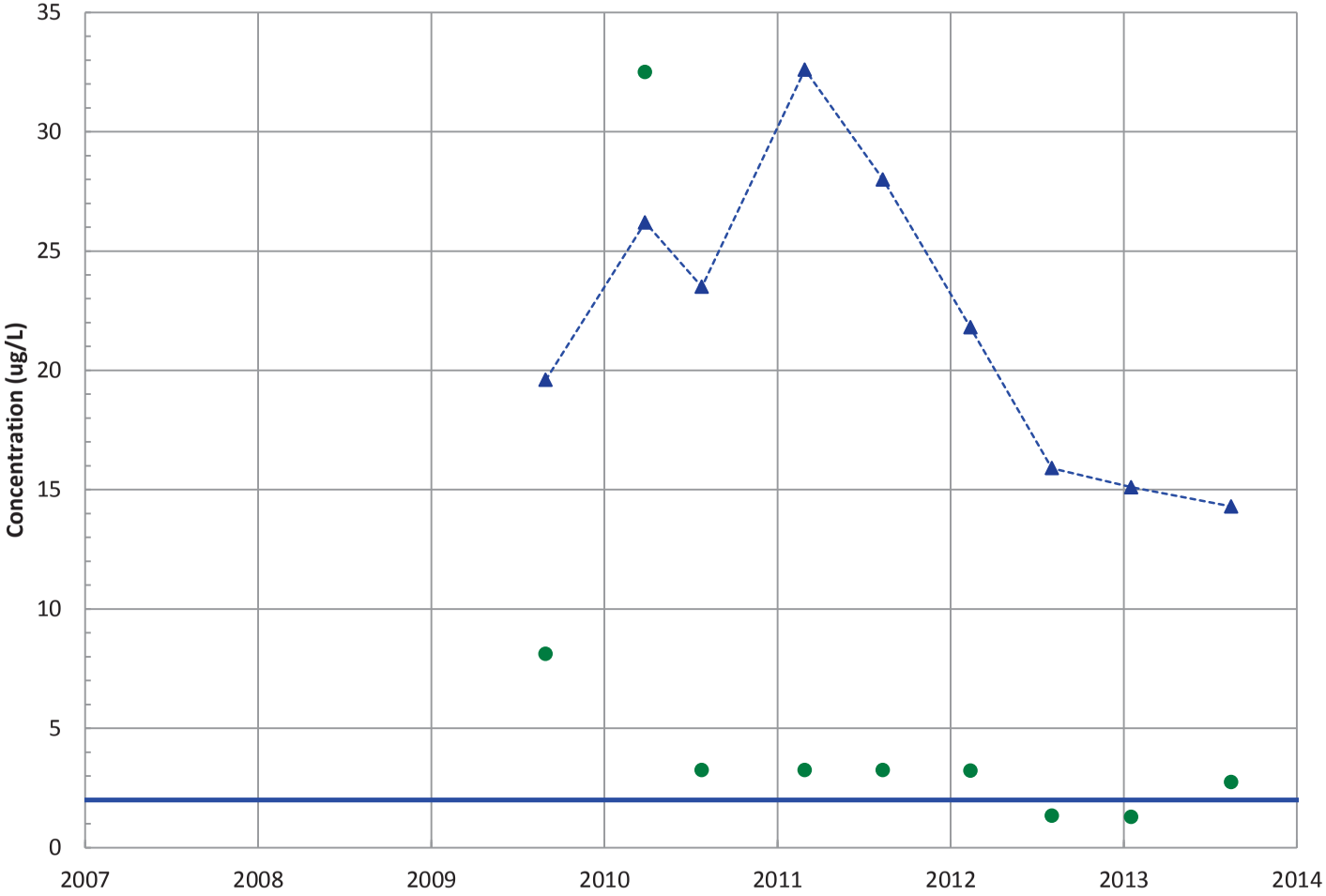
Well Location



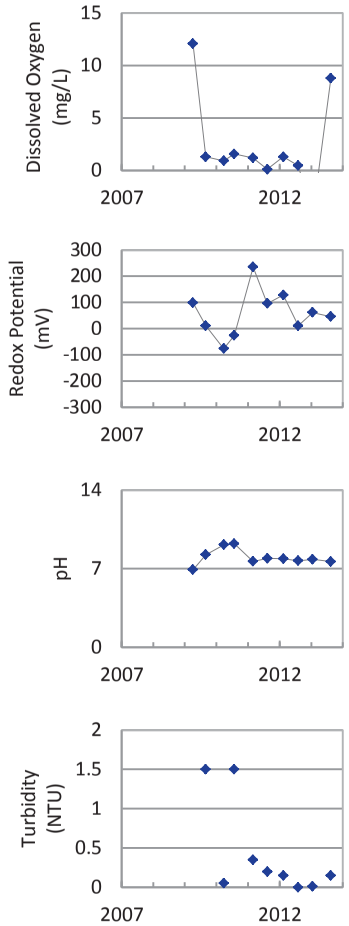
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/26/2009 to 11/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1151
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



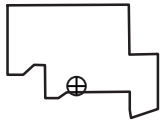
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

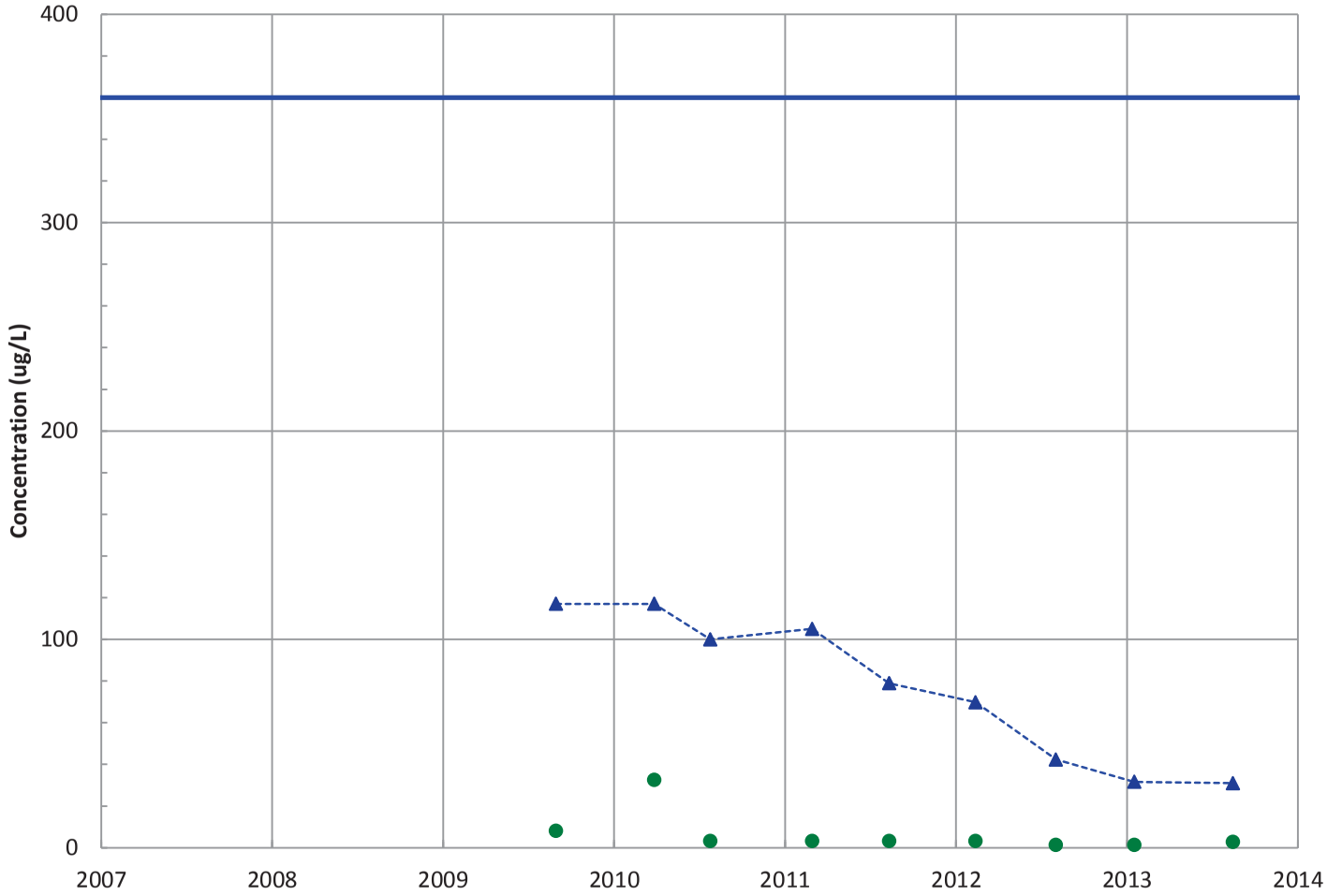
Well Location



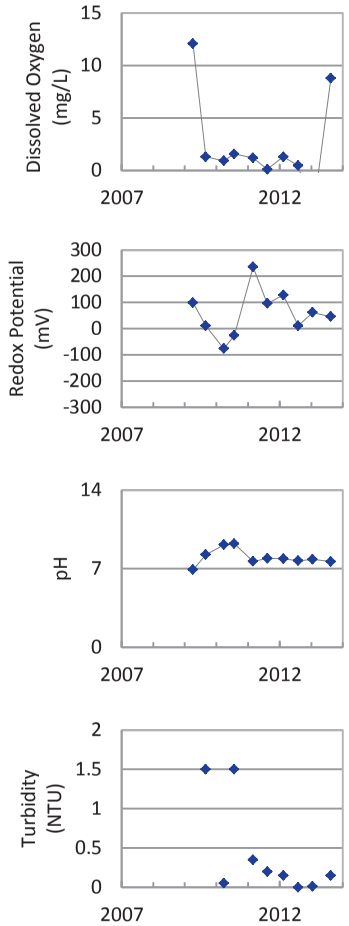
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/1/2009 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1151
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



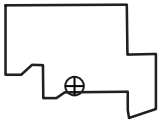
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

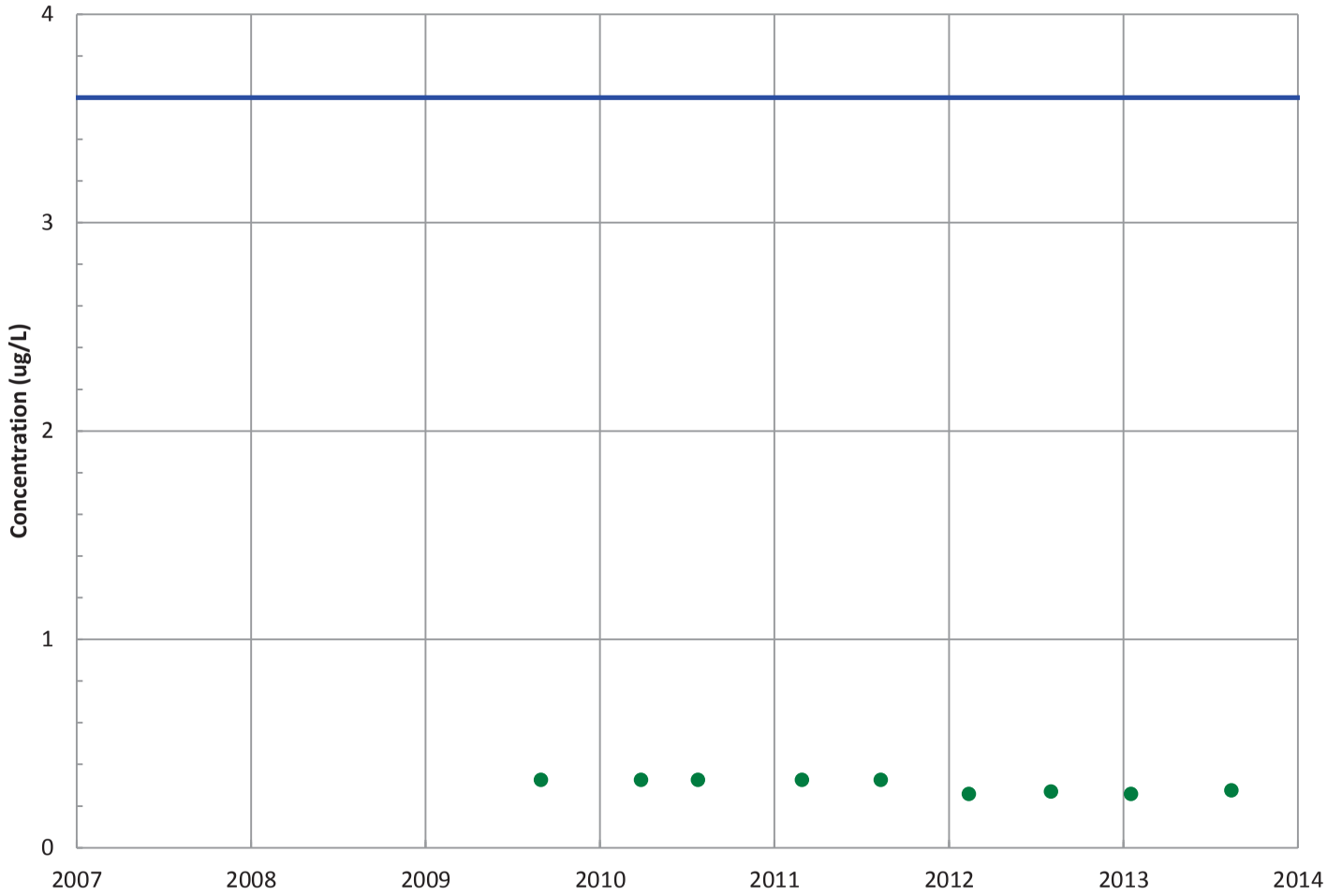
Well Location



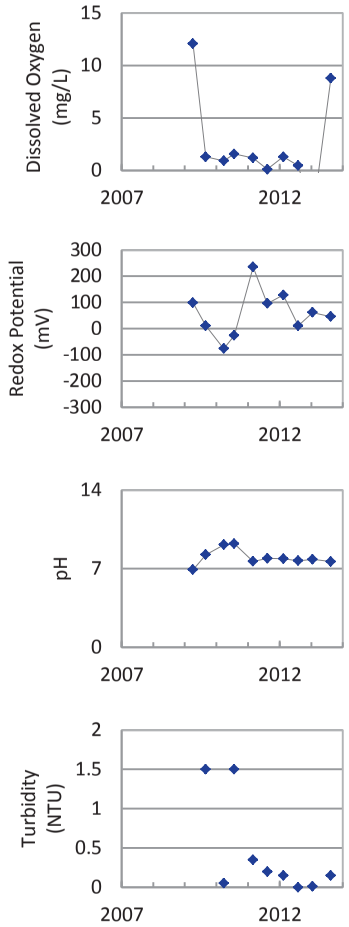
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/1/2009 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1151
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



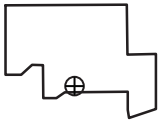
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

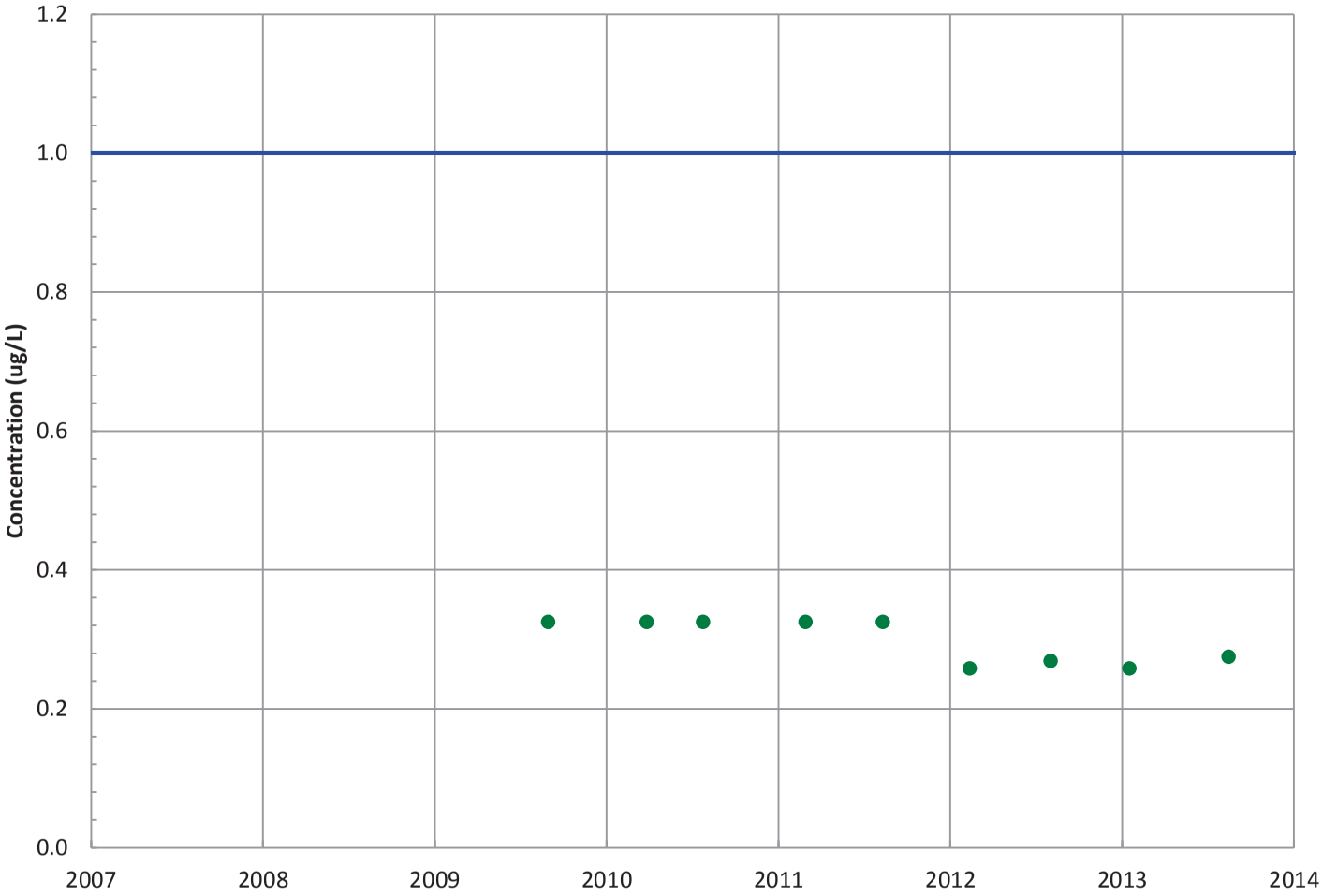
Well Location



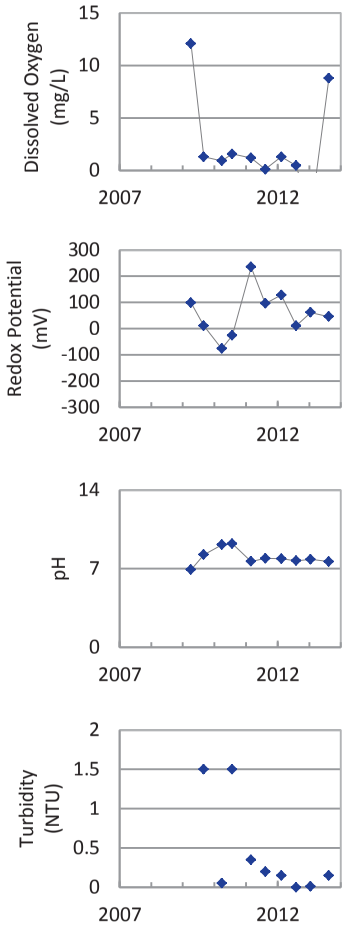
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/1/2009 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1151
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



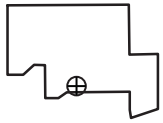
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

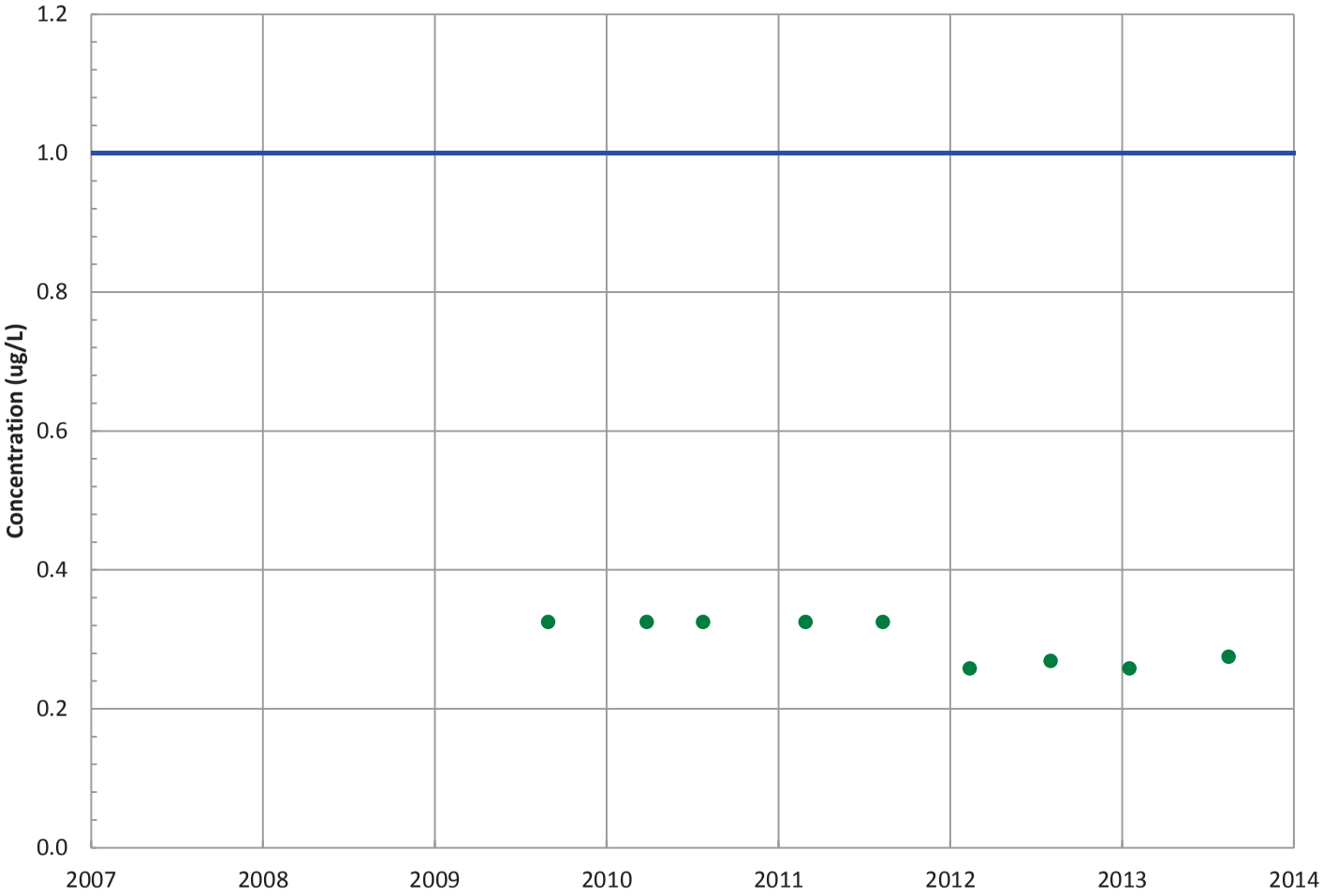
Well Location



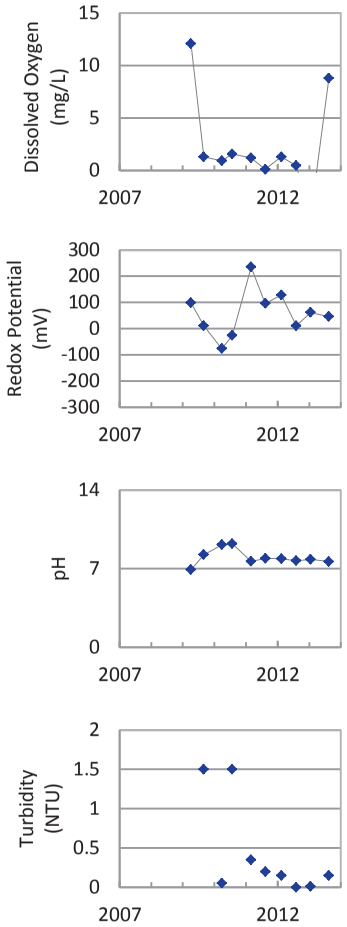
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/1/2009 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1151
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



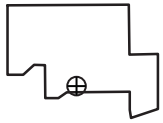
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

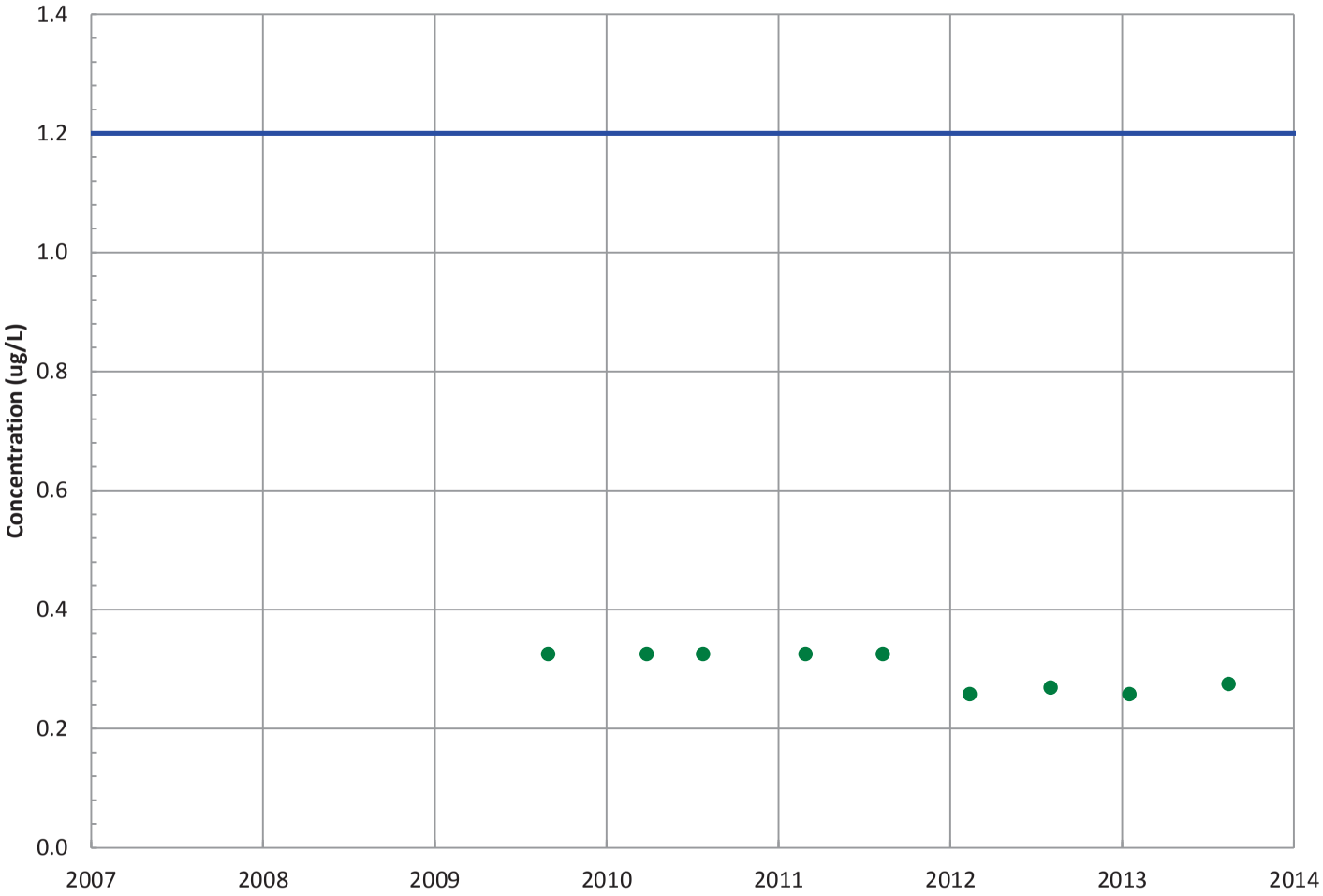
Well Location



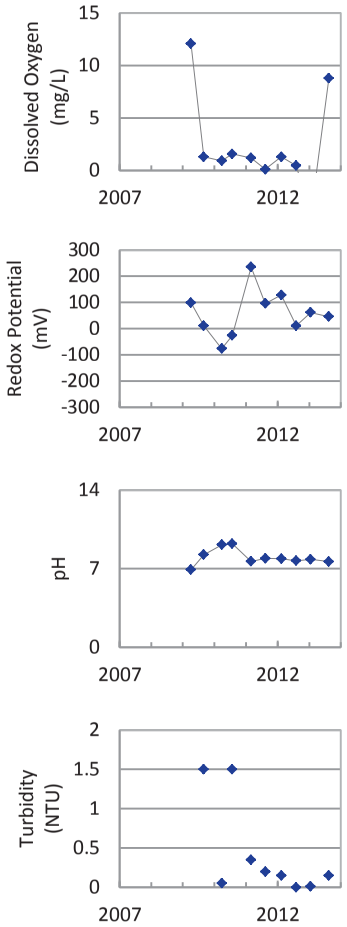
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/1/2009 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1151
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



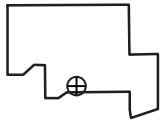
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

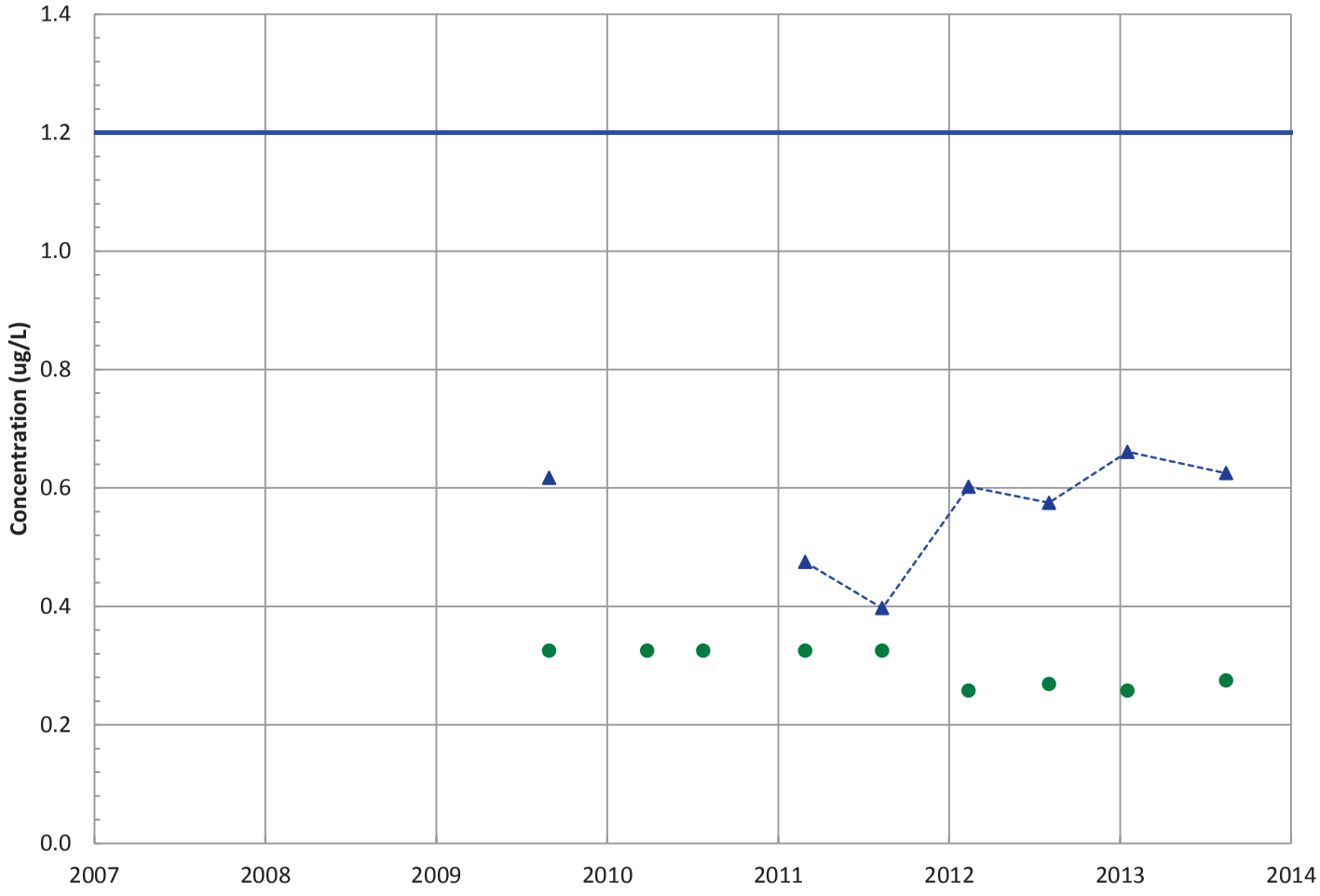
Well Location



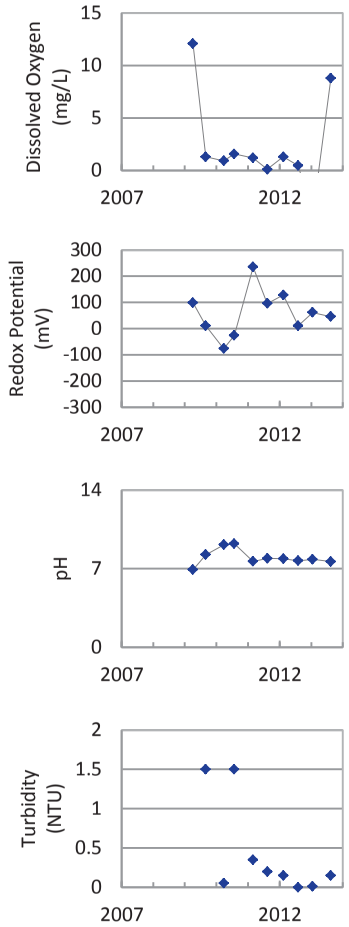
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/1/2009 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1151
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



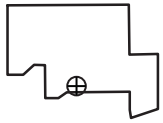
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

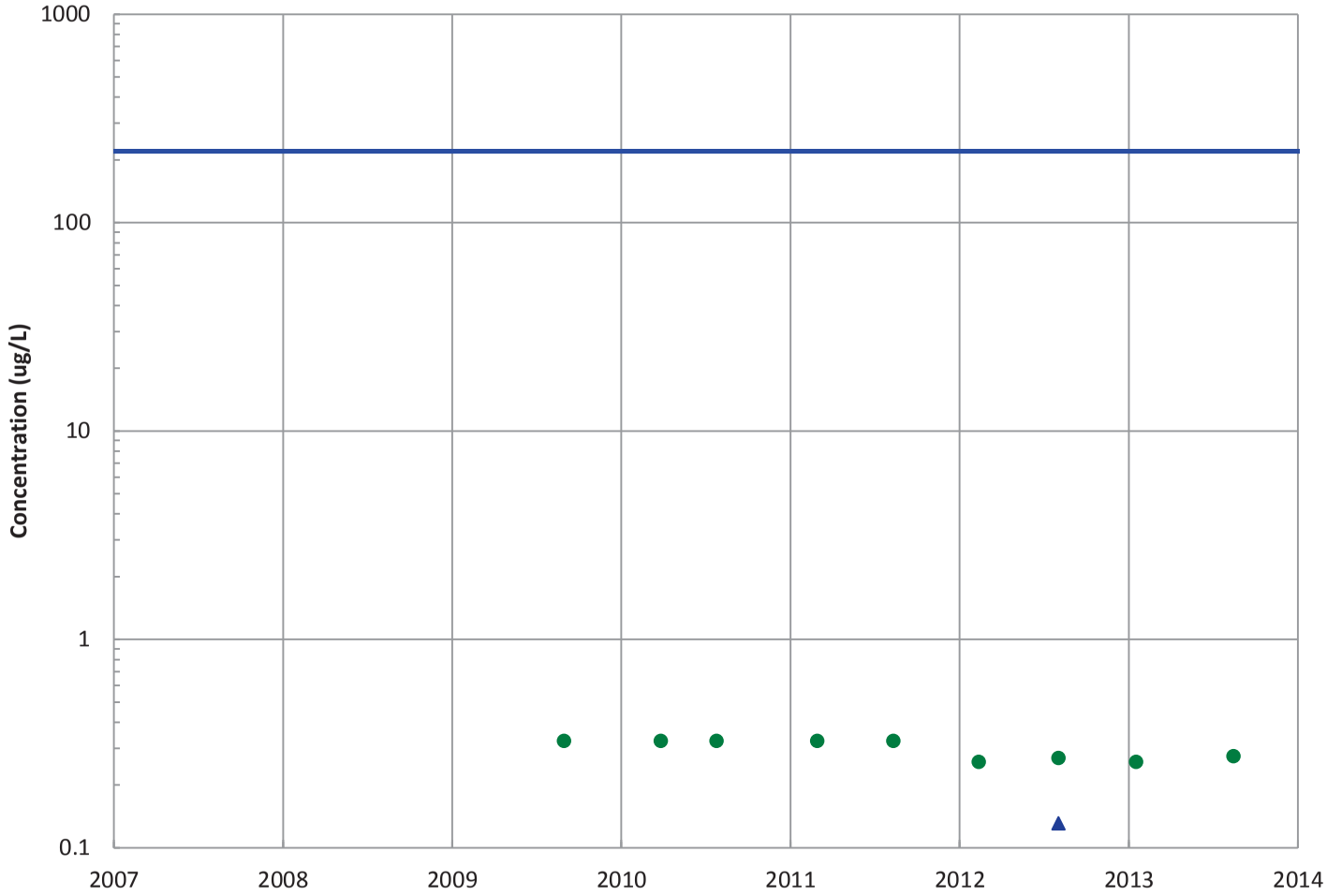
Well Location



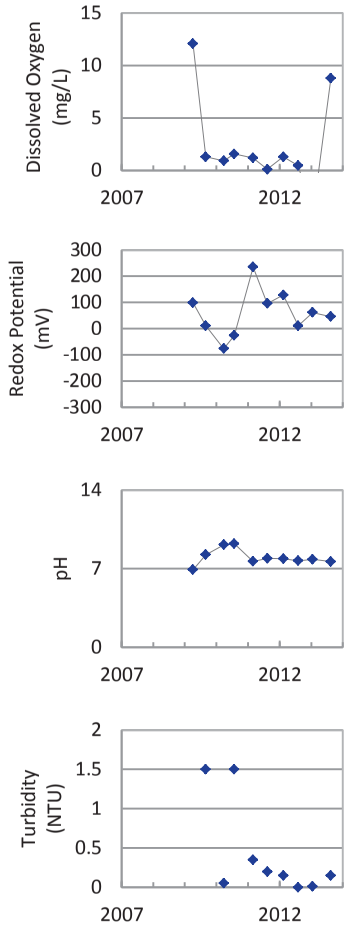
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/1/2009 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1151
1,3,5-Trinitrobenzene Trend in Perched Aquifer



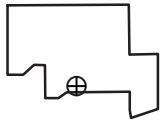
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

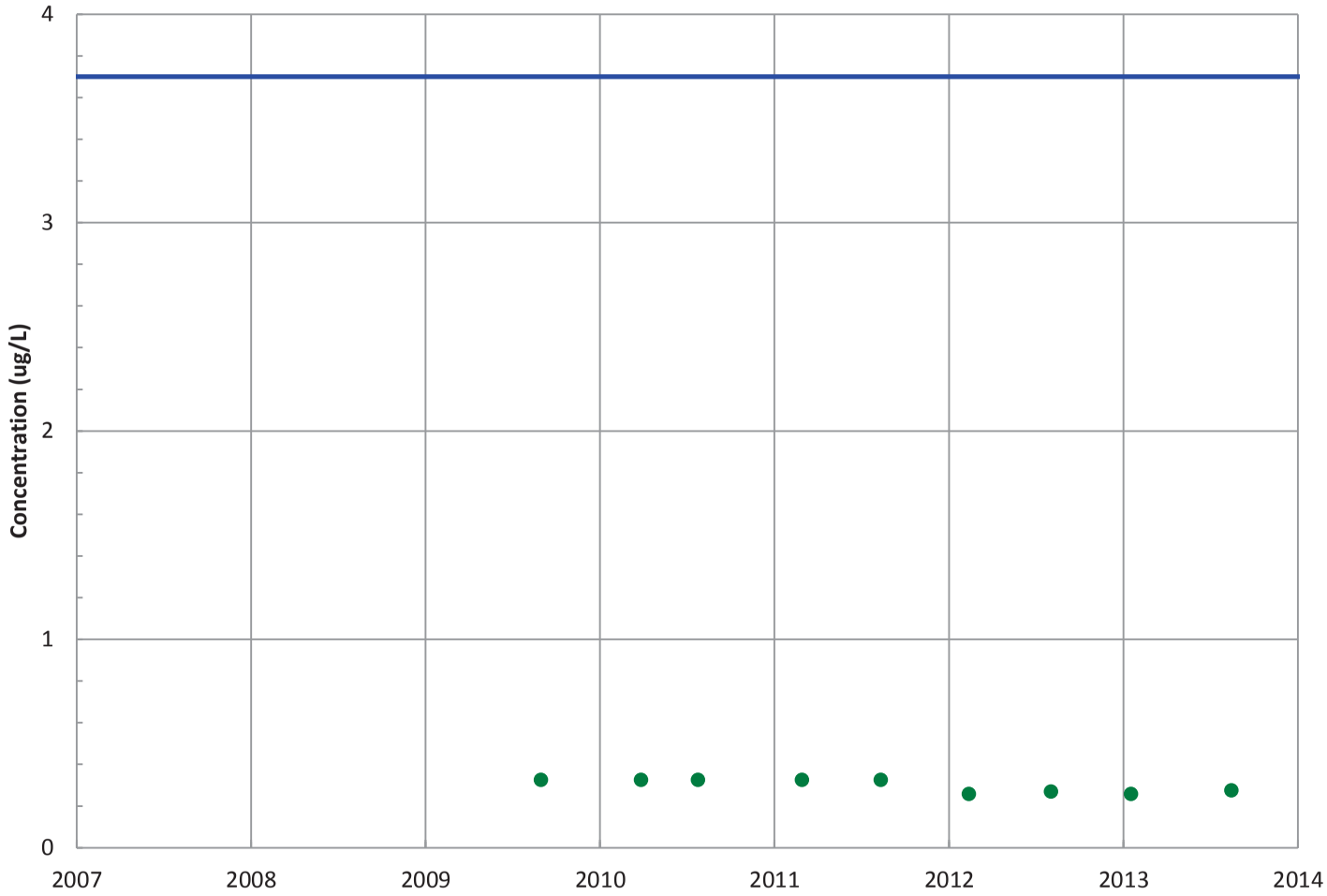
Well Location



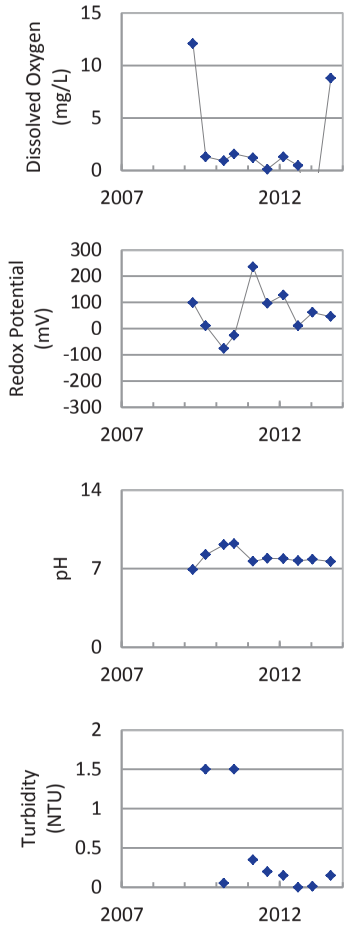
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/1/2009 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1151
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



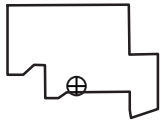
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

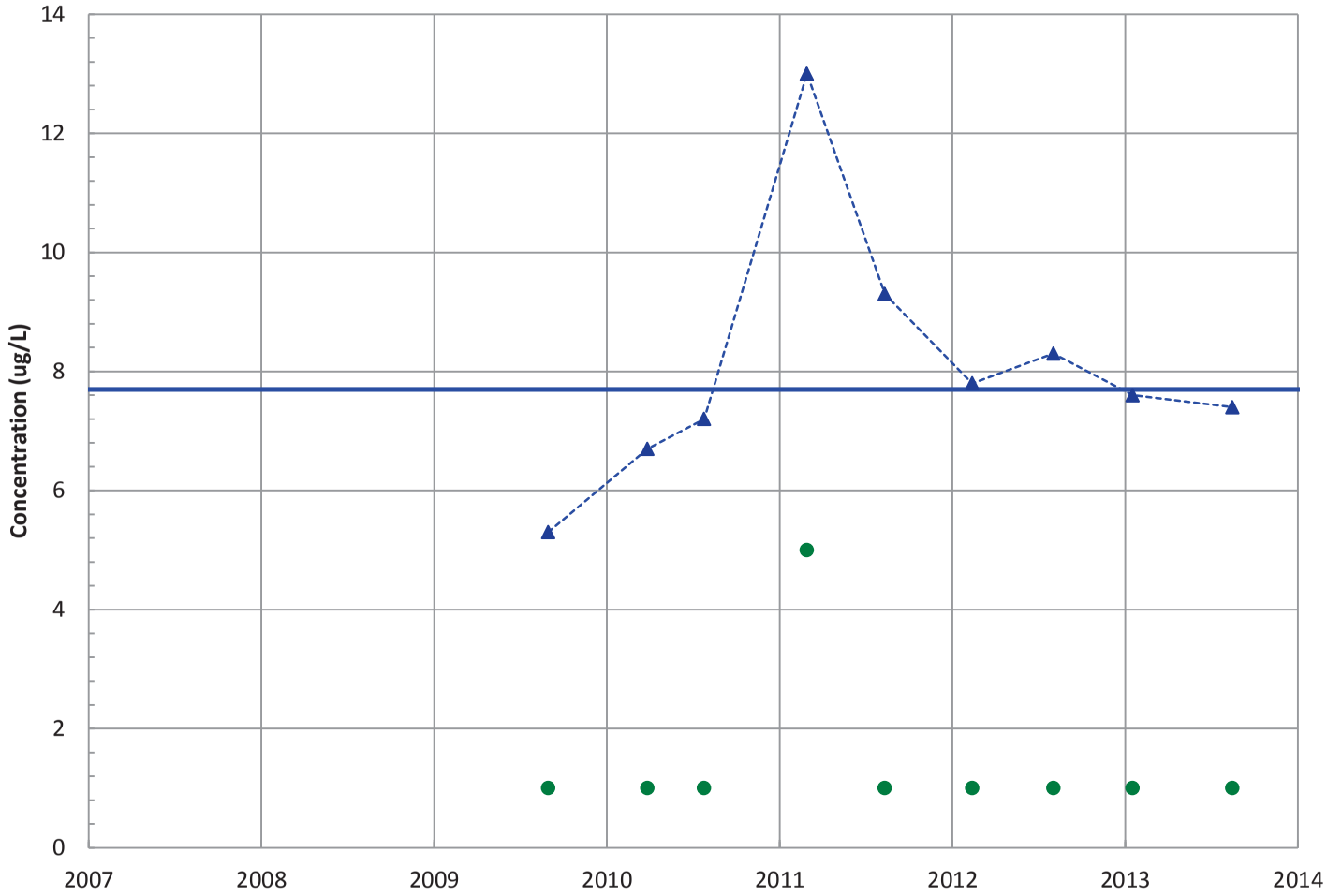
Well Location



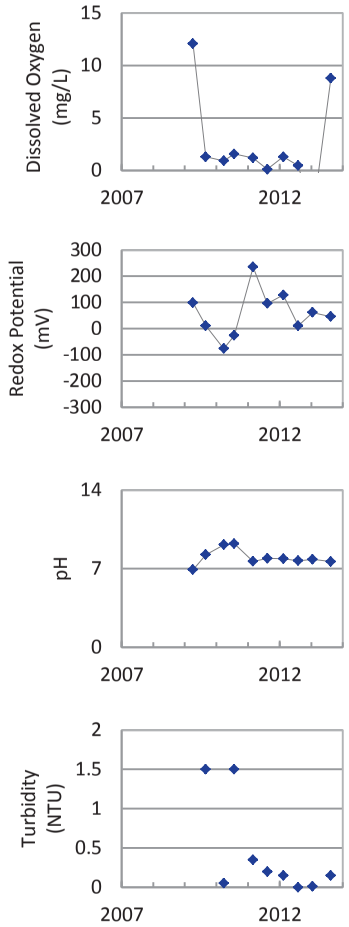
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/1/2009 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1151
1,4-Dioxane (p-Dioxane) Trend in Perched Aquifer



Field Parameters



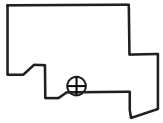
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

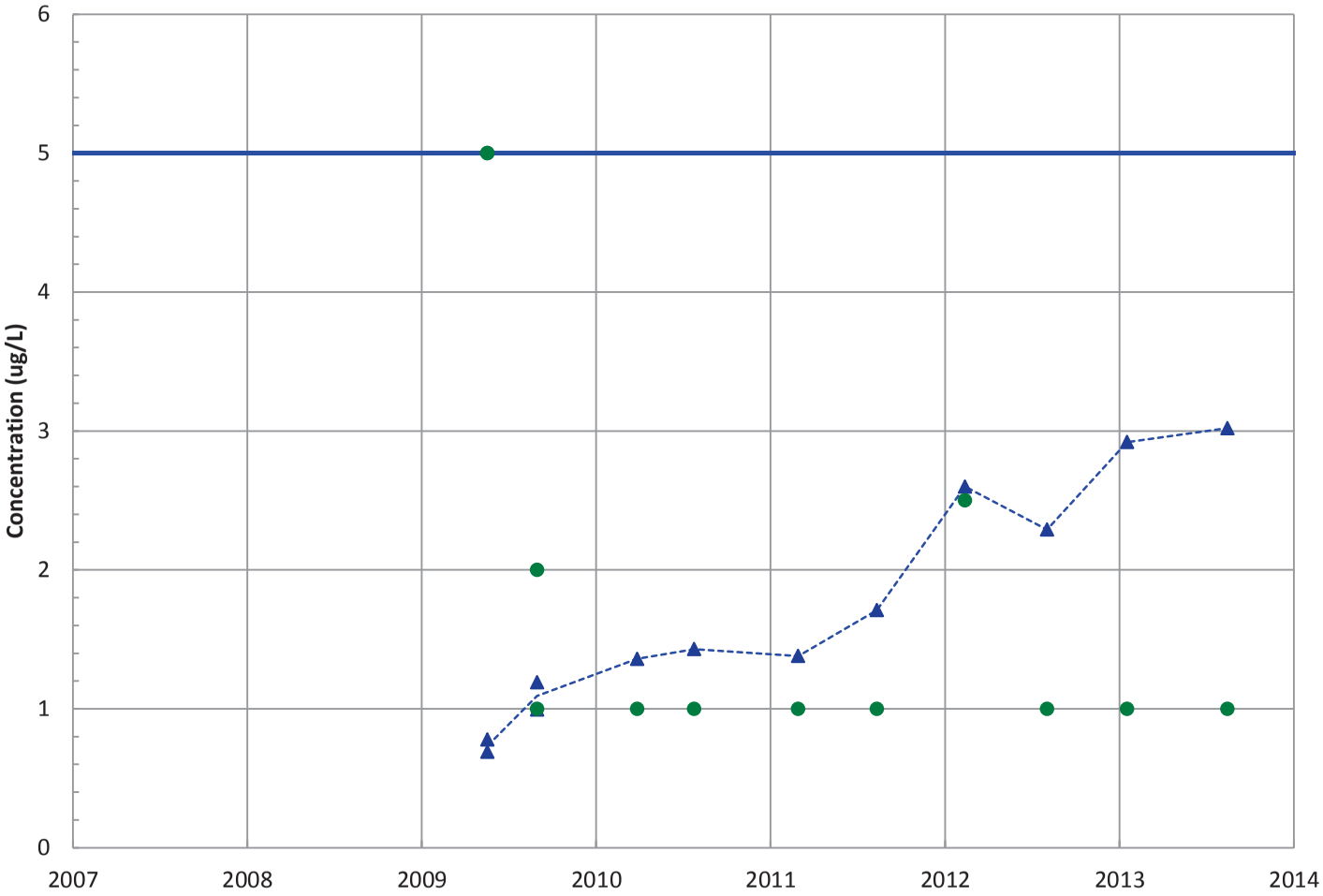
Well Location



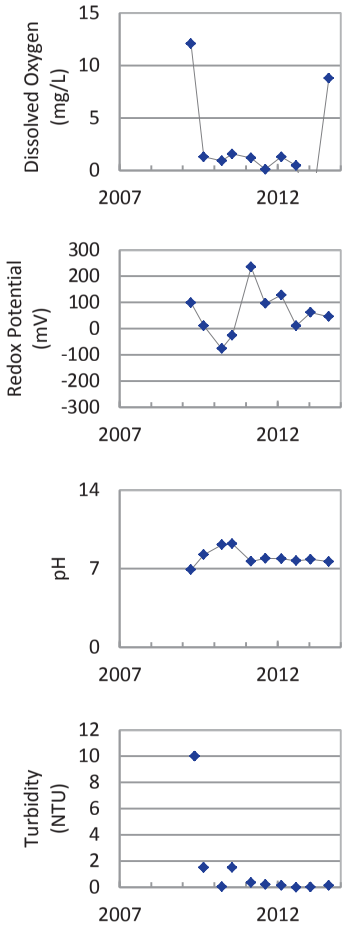
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/1/2009 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1151
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



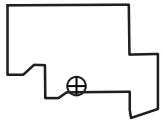
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

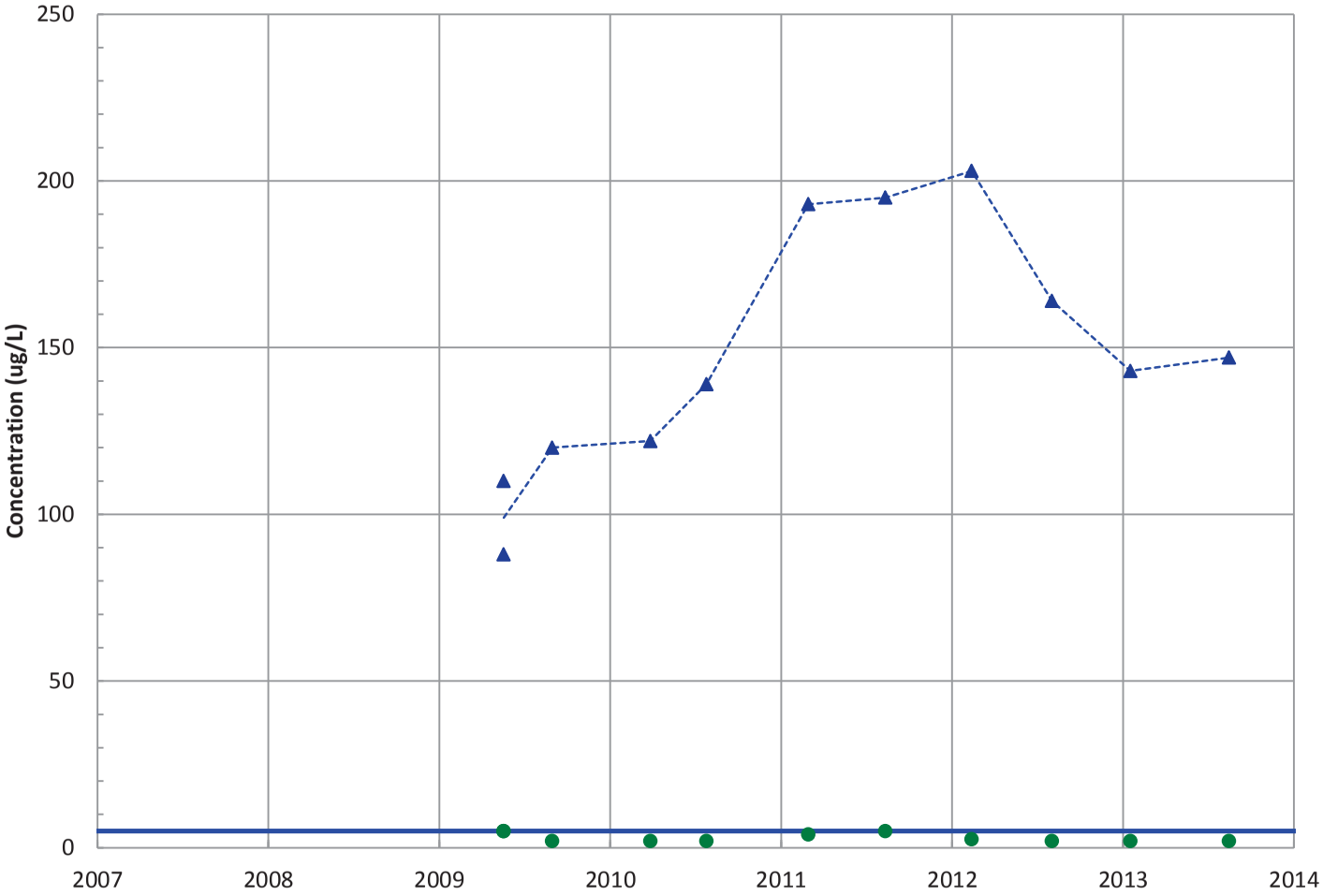
Well Location



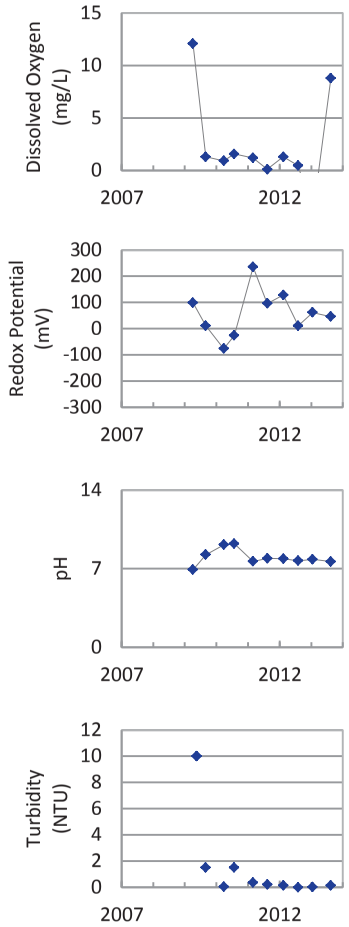
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/20/2009 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1151
Trichloroethene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Probably Increasing

2011 - 2013 Data: Decreasing

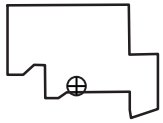
MAROS Linear Regression Method

Data (7/2009 - 12/2013): No Trend

2011 - 2013 Data: Probably Decreasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location



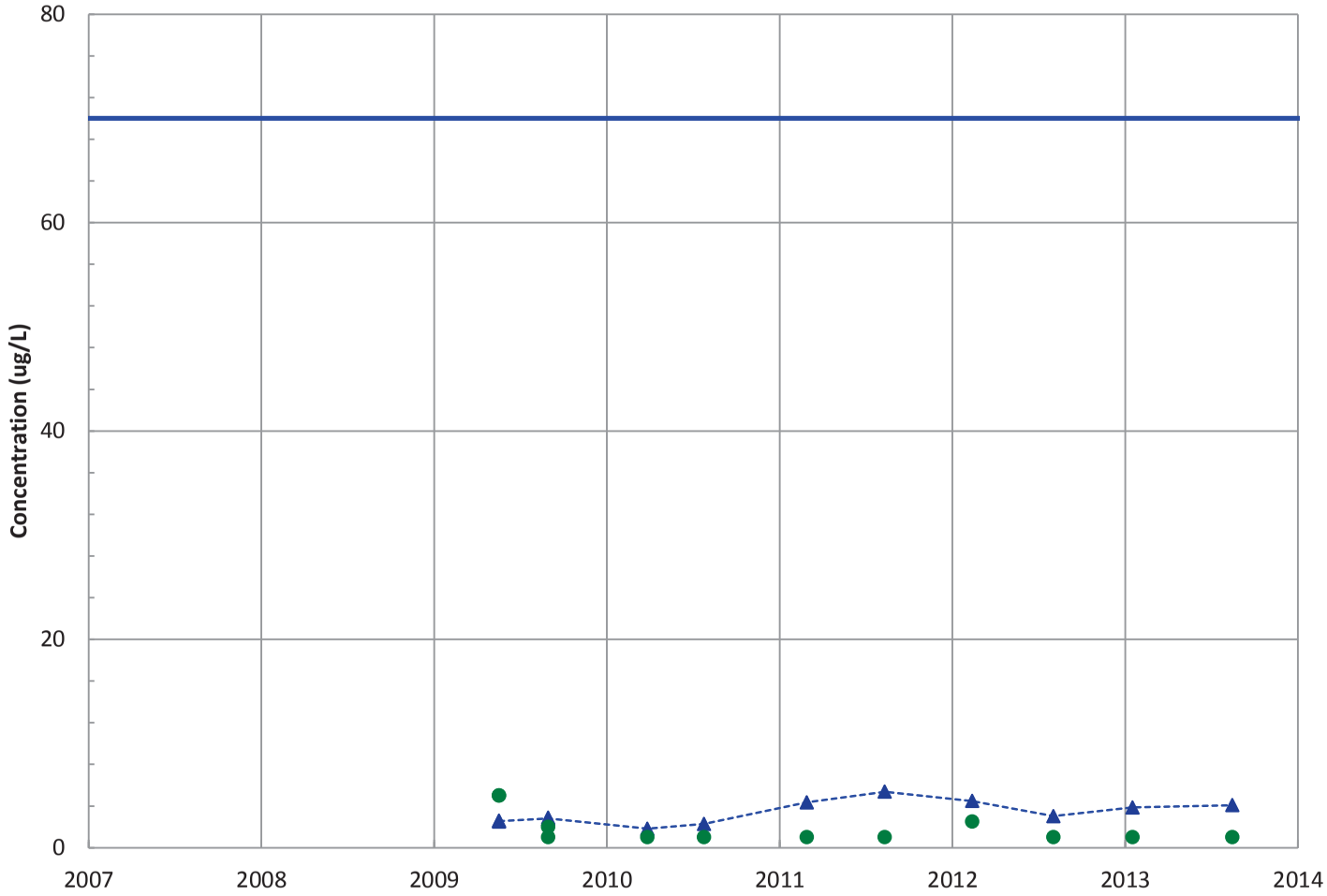
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 5/20/2009 to 8/20/2013

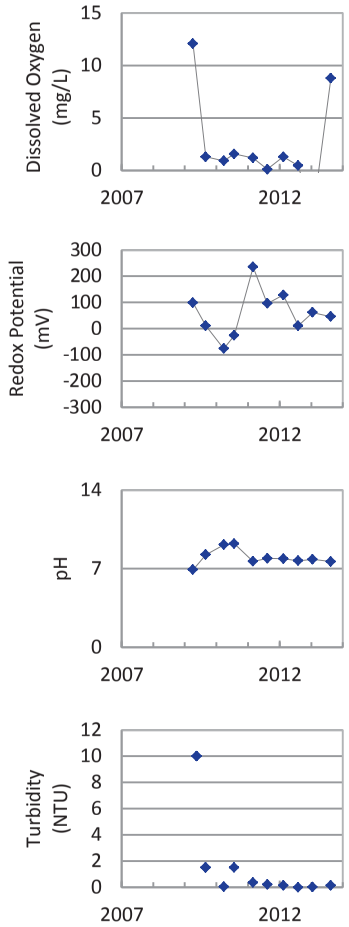
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1151
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



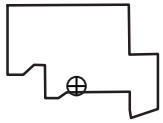
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Probably Increasing
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------ Concentration Trend
- ——— Groundwater Protection Standard

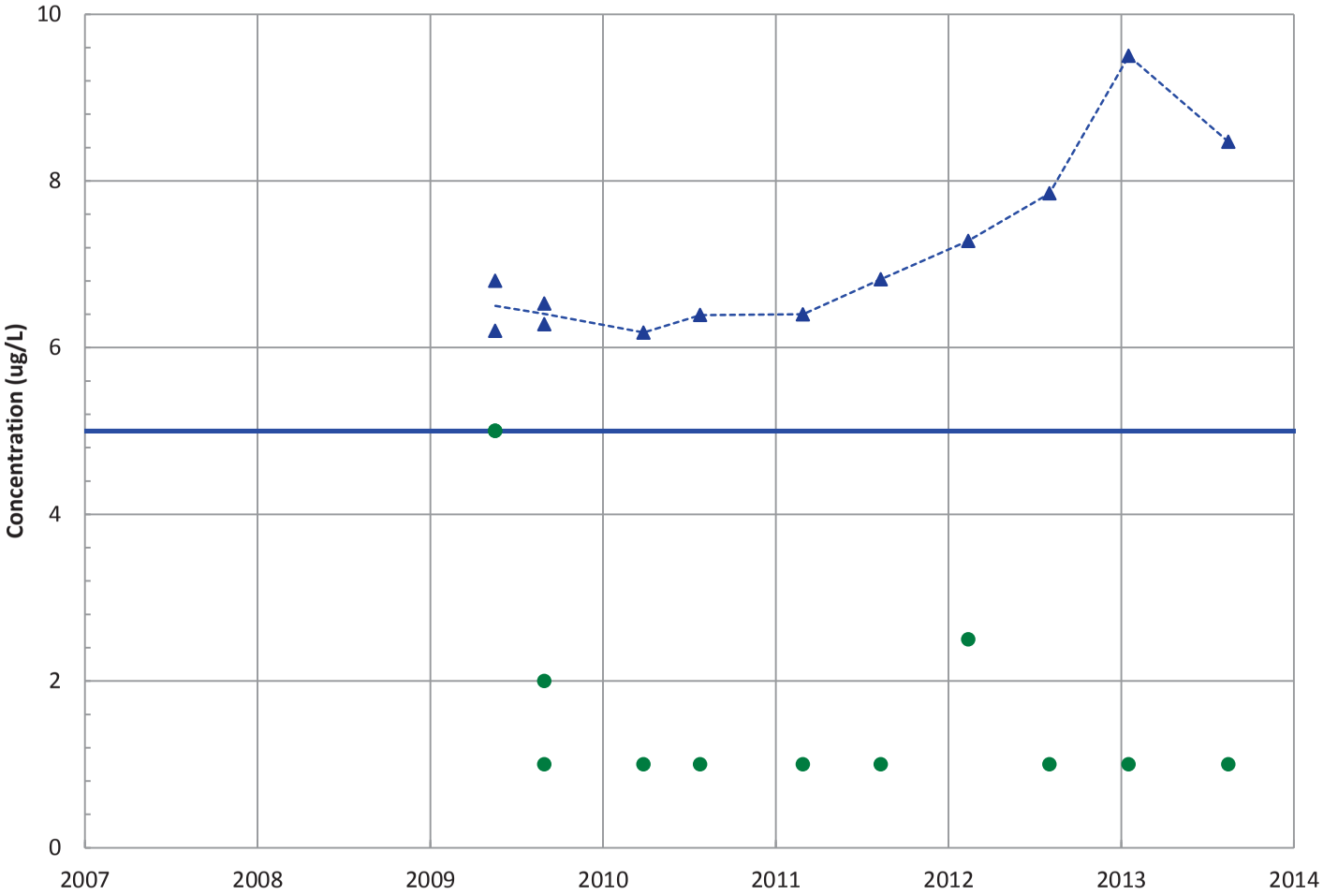
Well Location



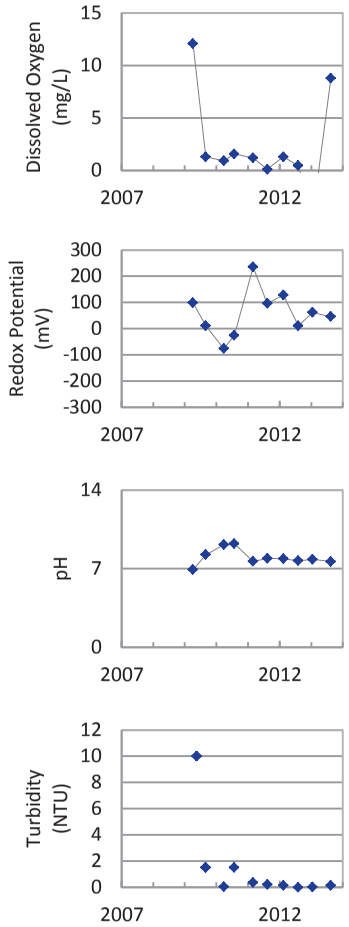
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/20/2009 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1151
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



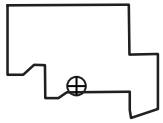
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

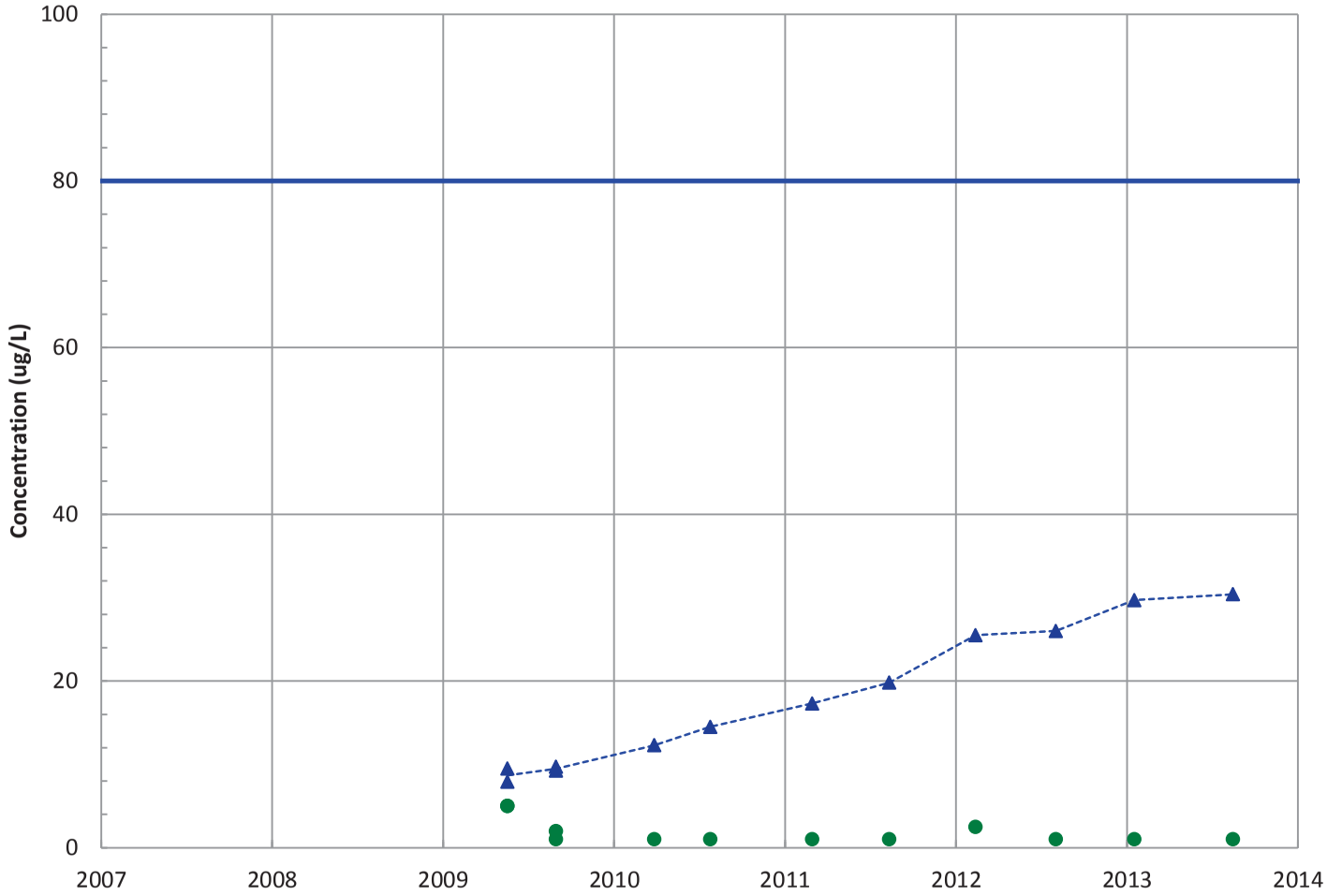
Well Location



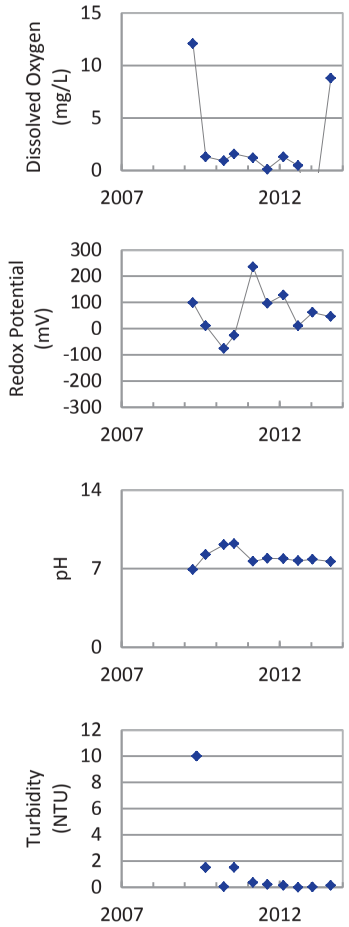
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/20/2009 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1151
Chloroform Trend in Perched Aquifer



Field Parameters



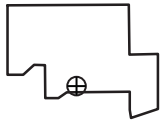
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Increasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Increasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

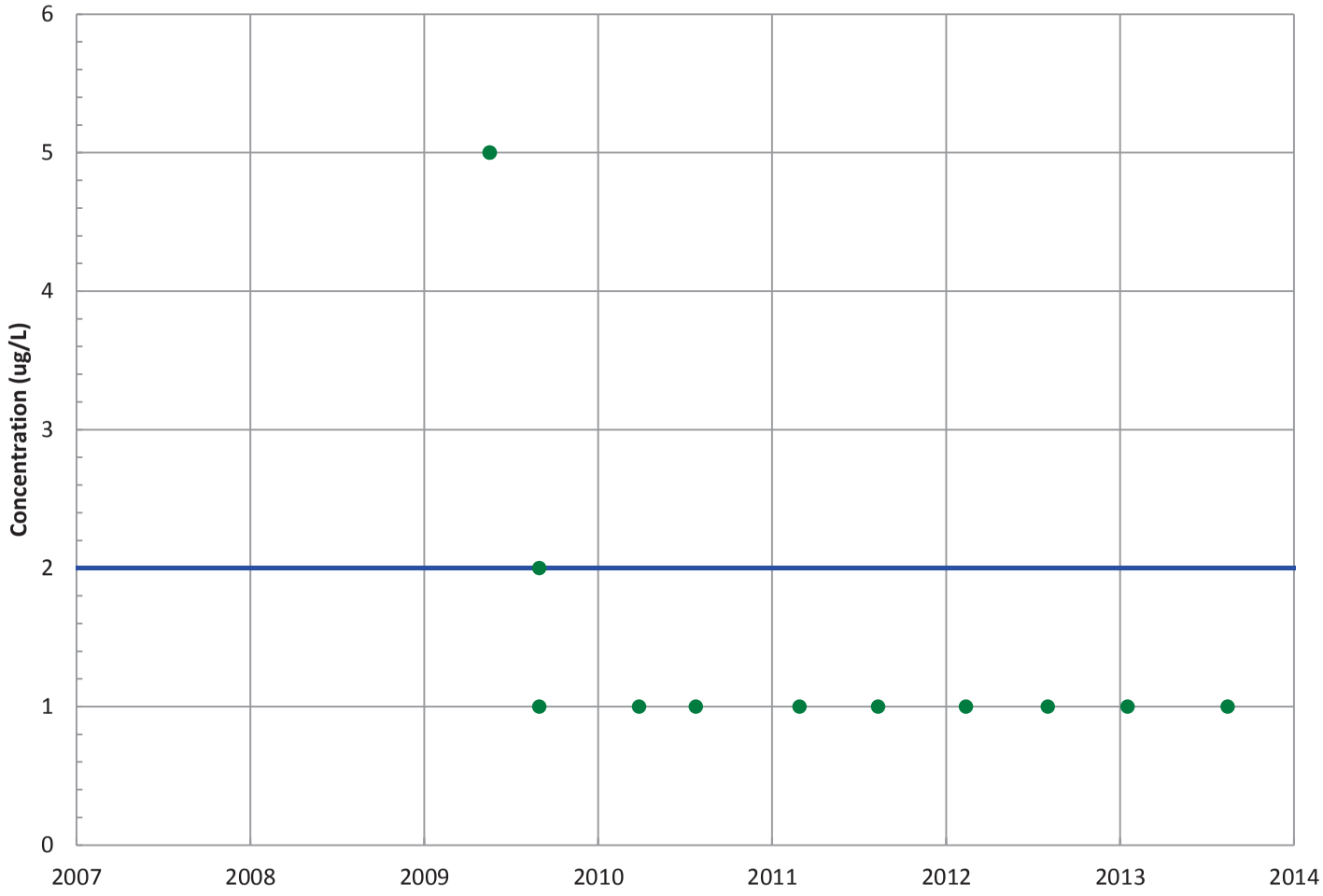
Well Location



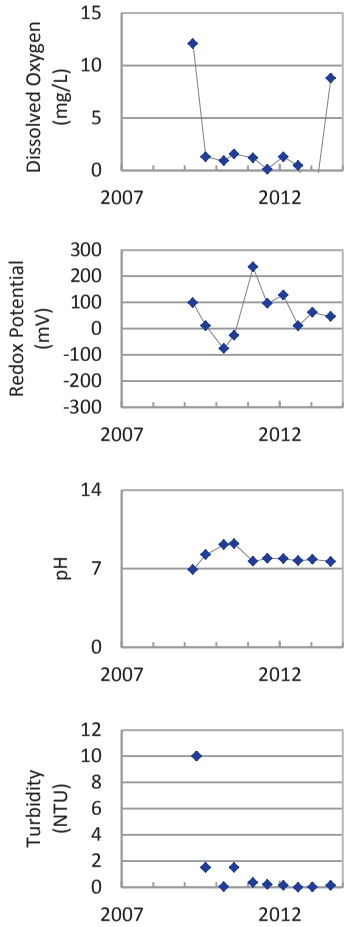
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/20/2009 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1151
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



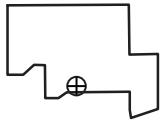
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

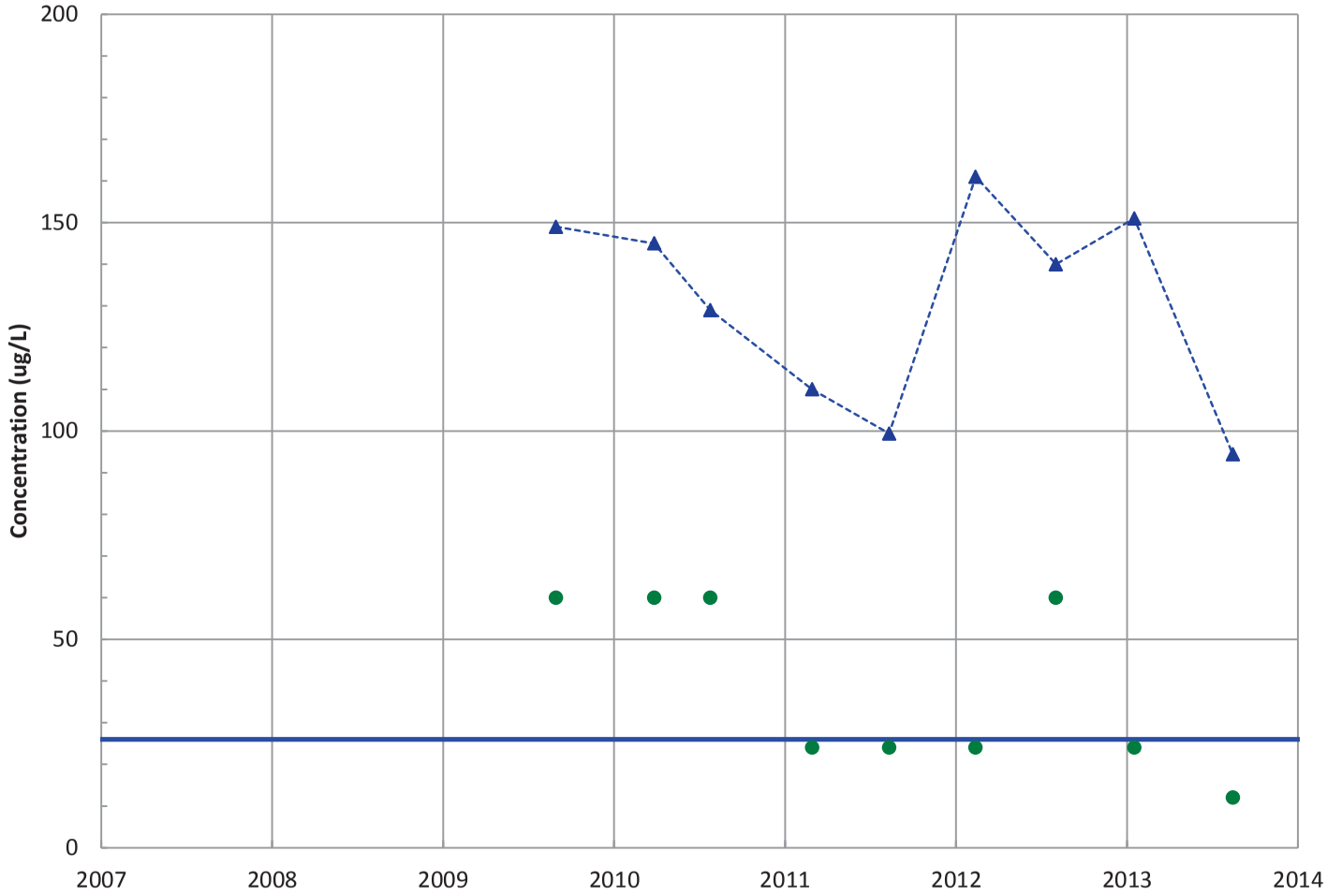
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/20/2009 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1151
Perchlorate Trend in Perched Aquifer



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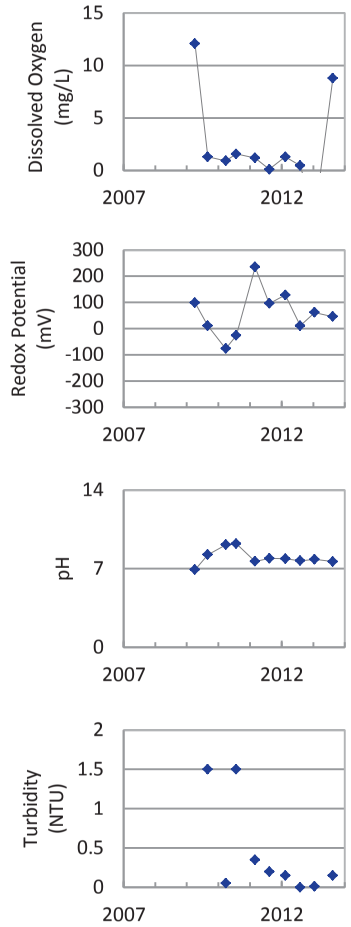


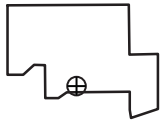
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Probably Decreasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

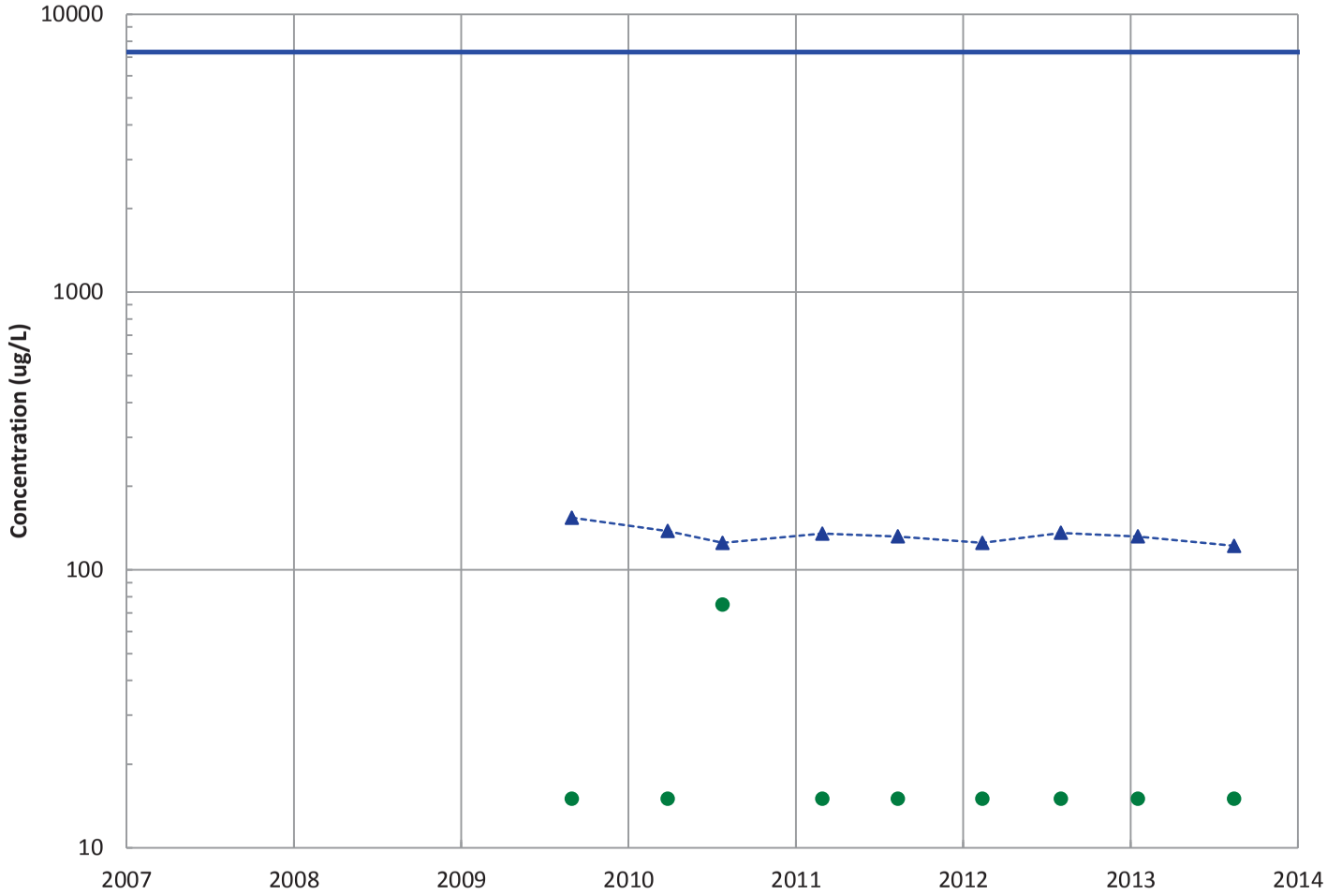
Well Location



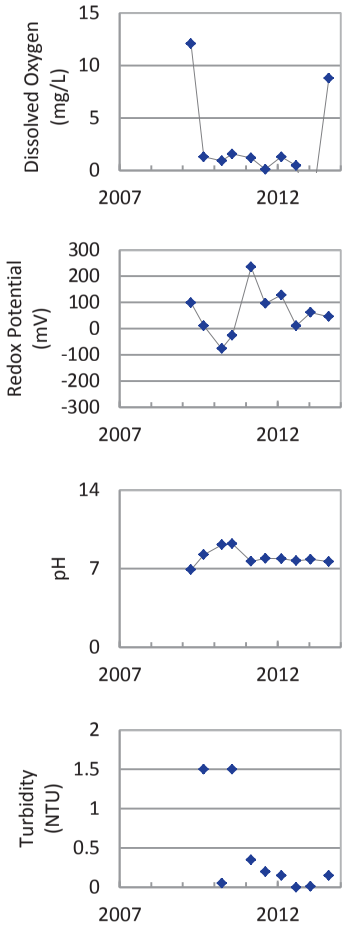
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/1/2009 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1151
Boron Trend in Perched Aquifer



Field Parameters



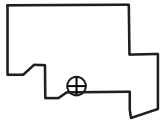
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

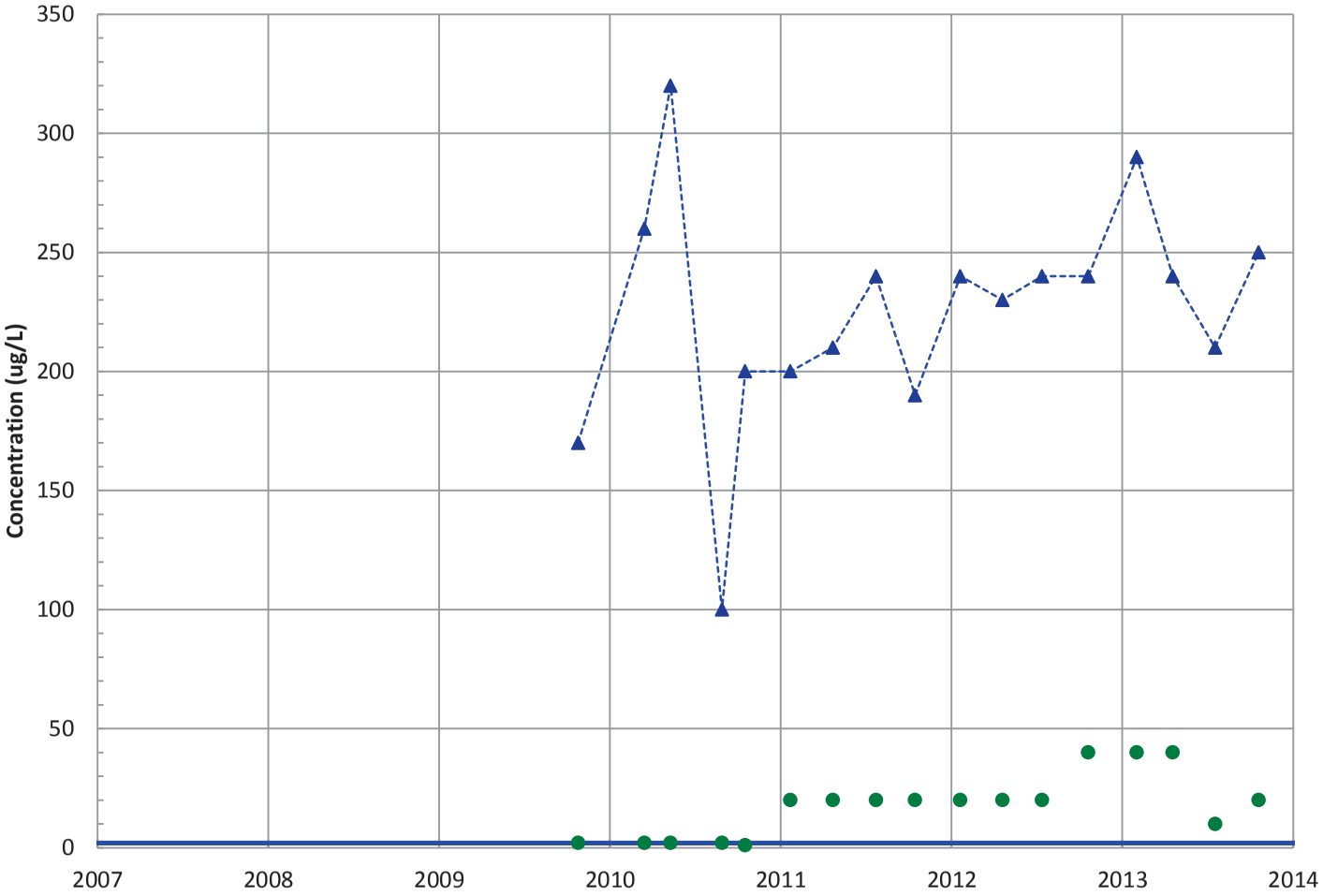
Well Location



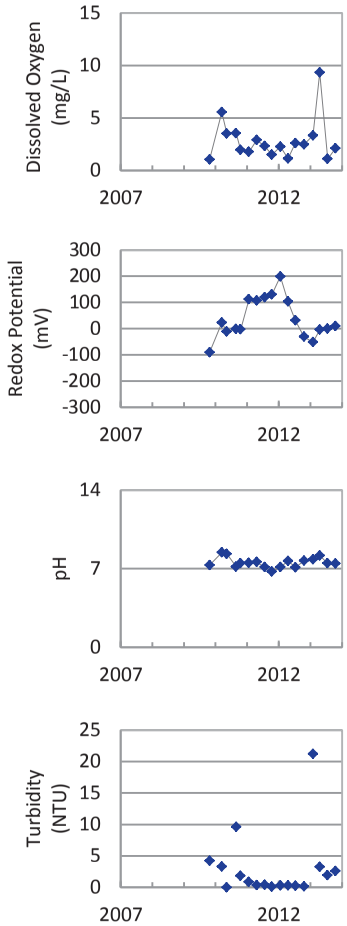
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/1/2009 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX06-1153
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



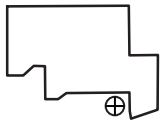
Concentration Trend

MAROS Mann-Kendall Method
All Data: Probably Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

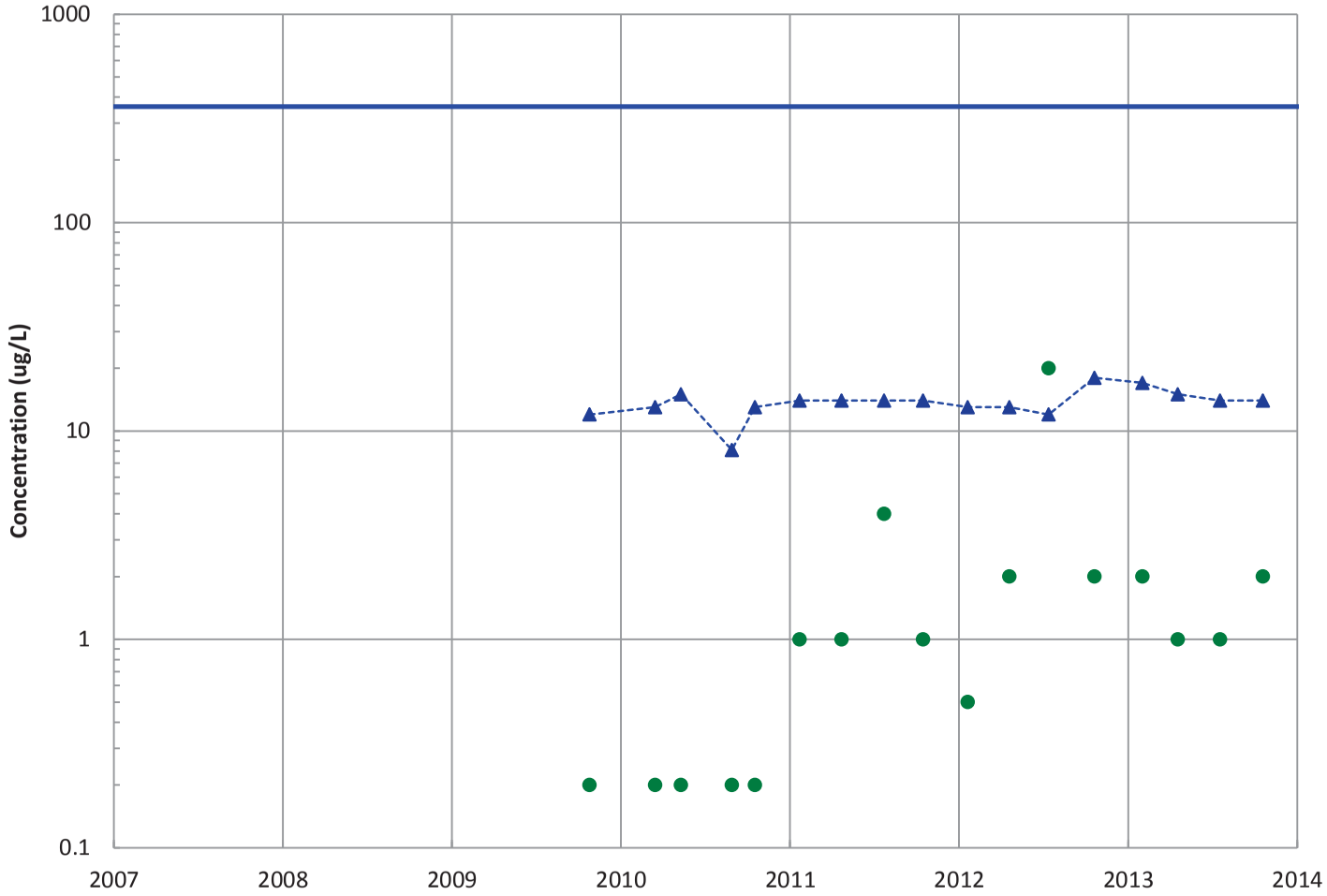
Well Location



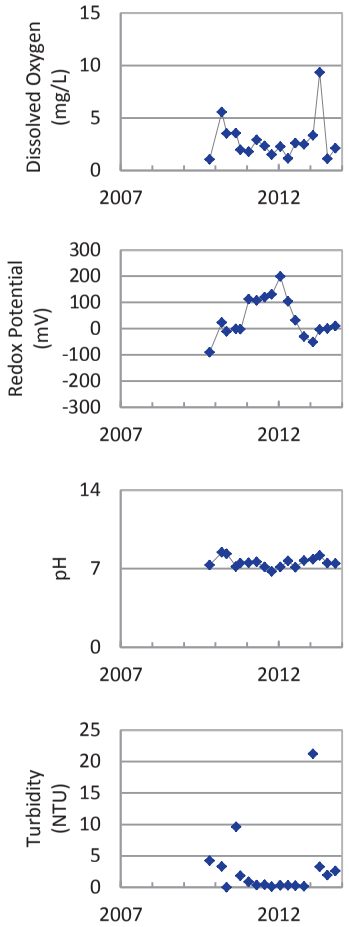
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1153
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



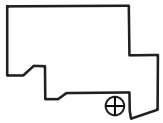
Concentration Trend

MAROS Mann-Kendall Method
All Data: Probably Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

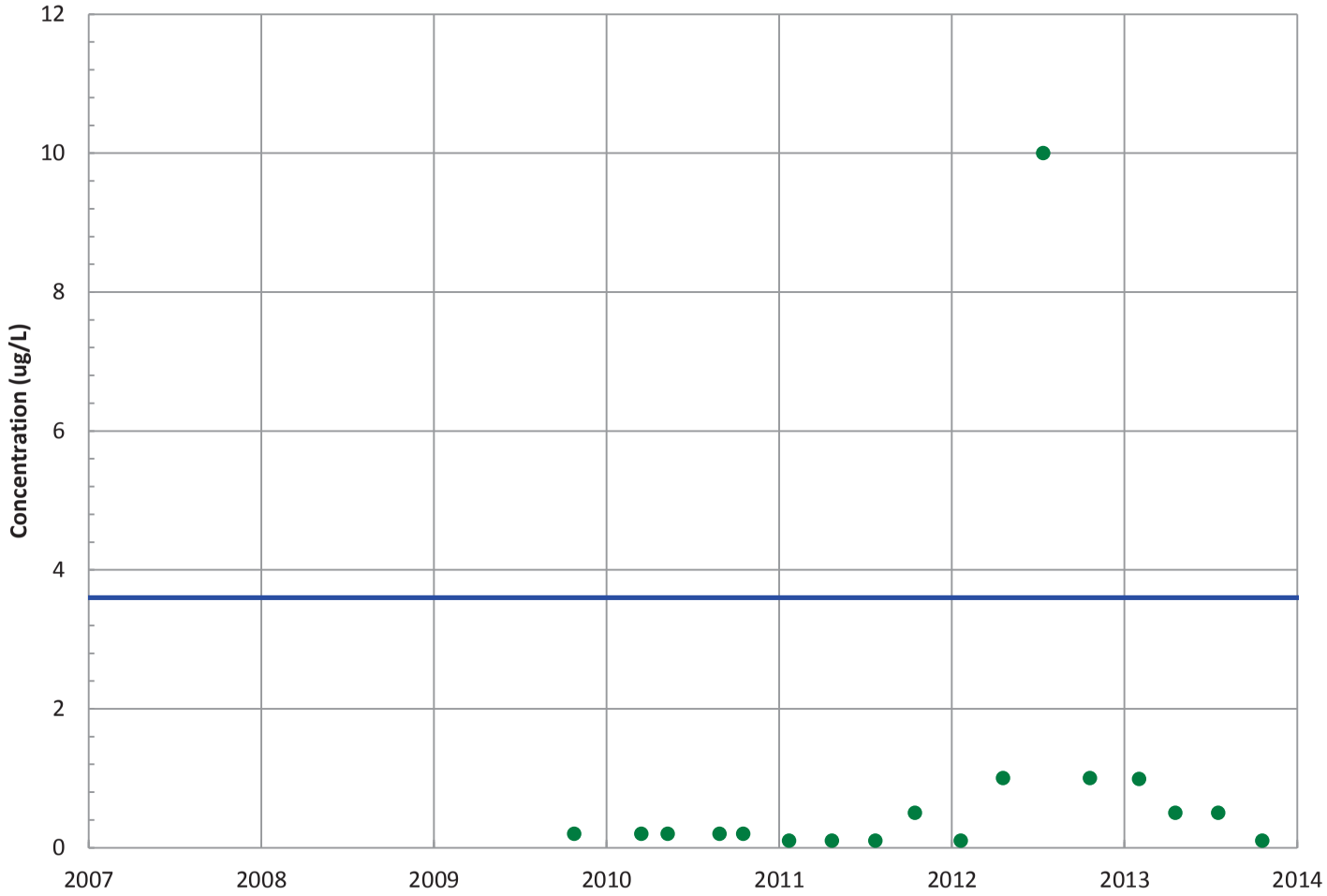
Well Location



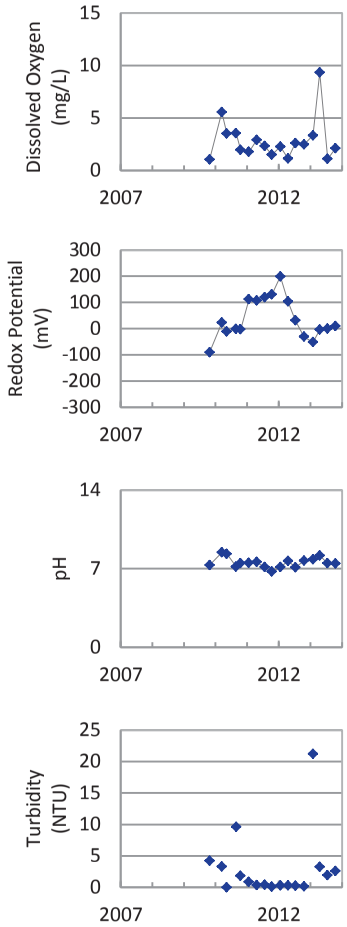
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1153
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



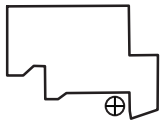
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

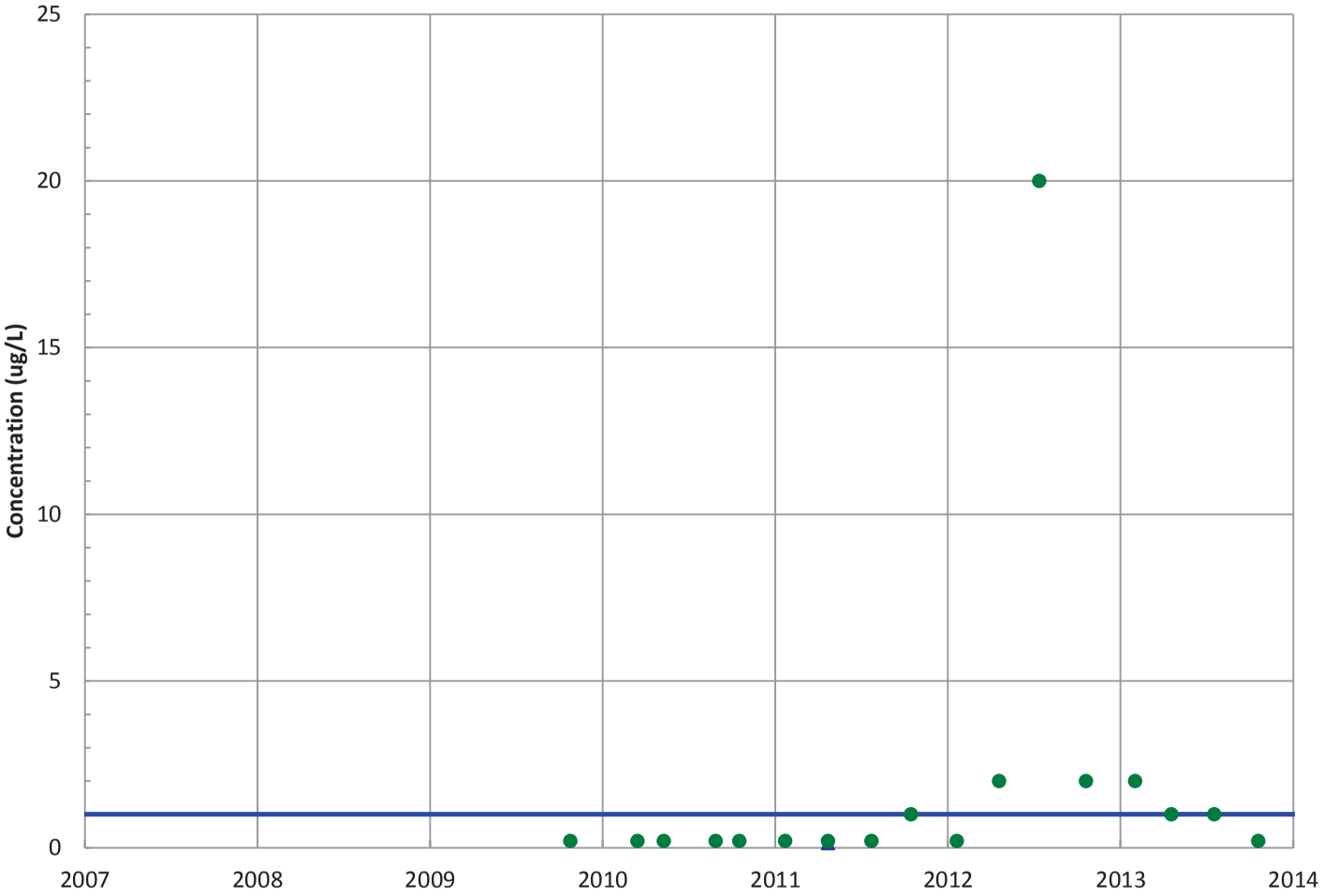
Well Location



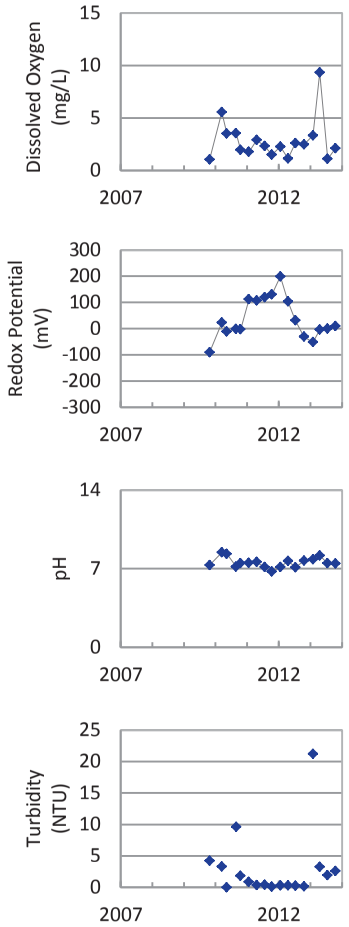
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1153
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



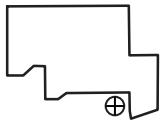
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

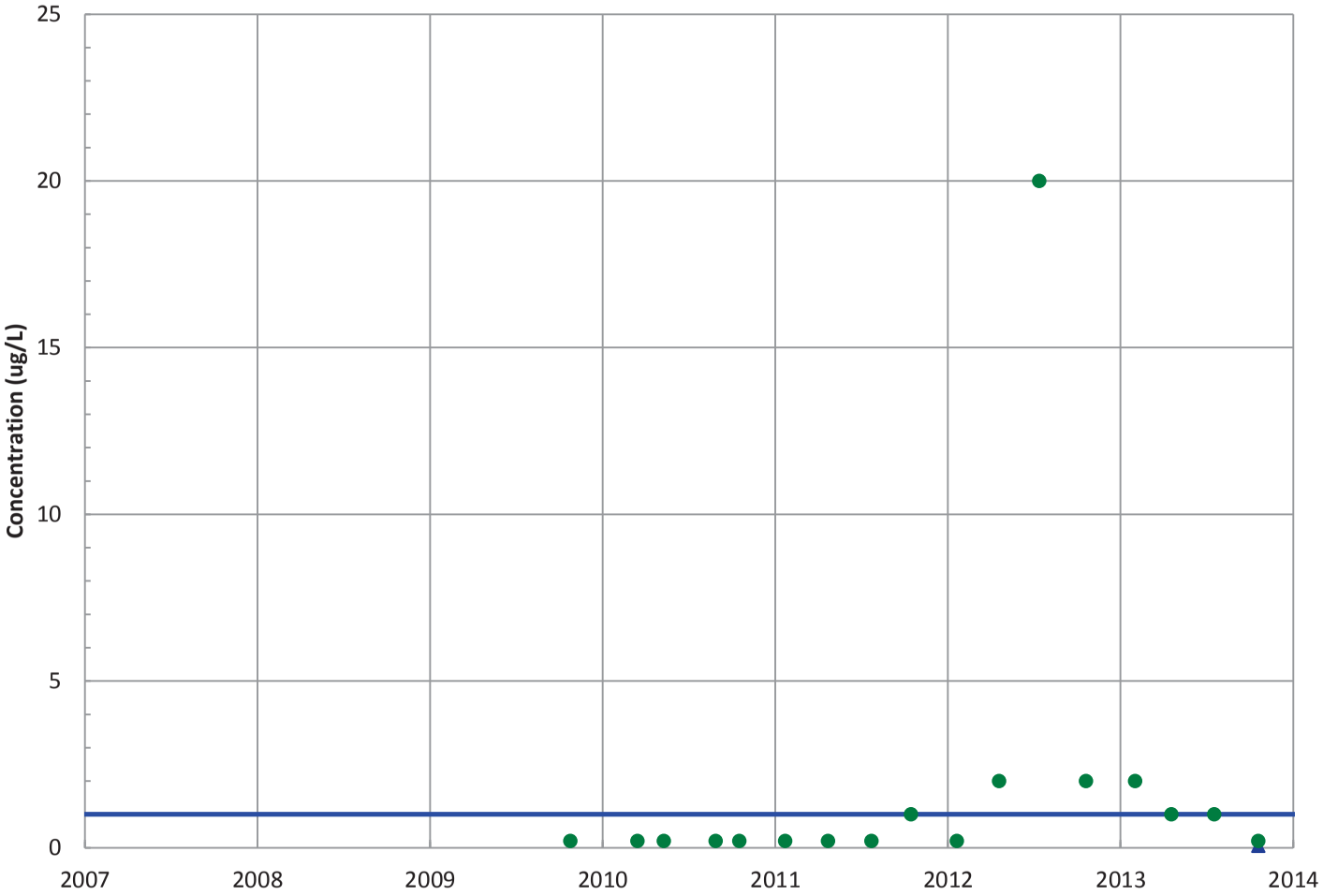
Well Location



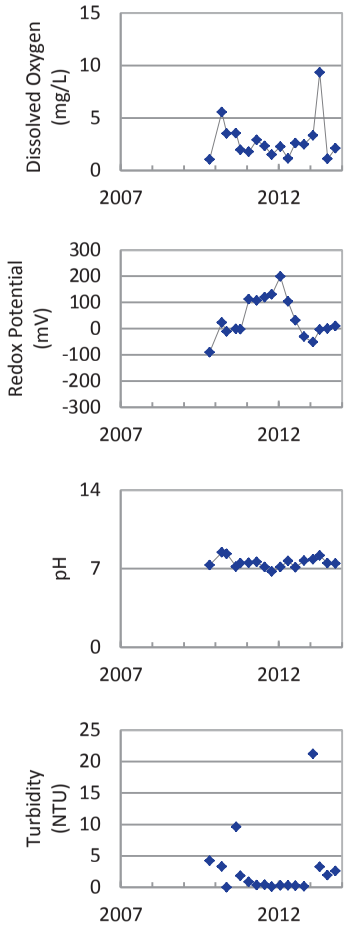
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1153
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



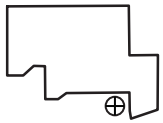
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

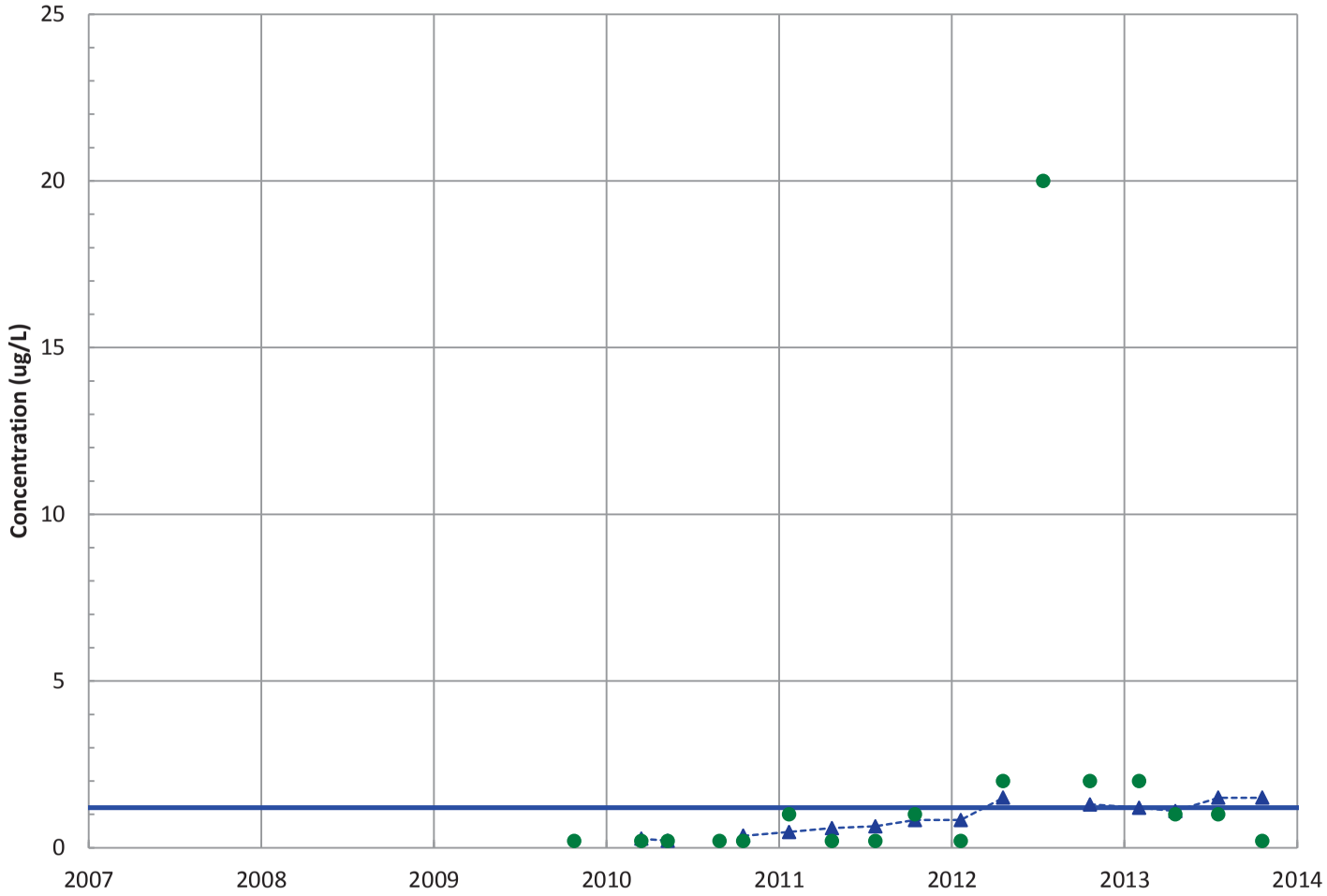
Well Location



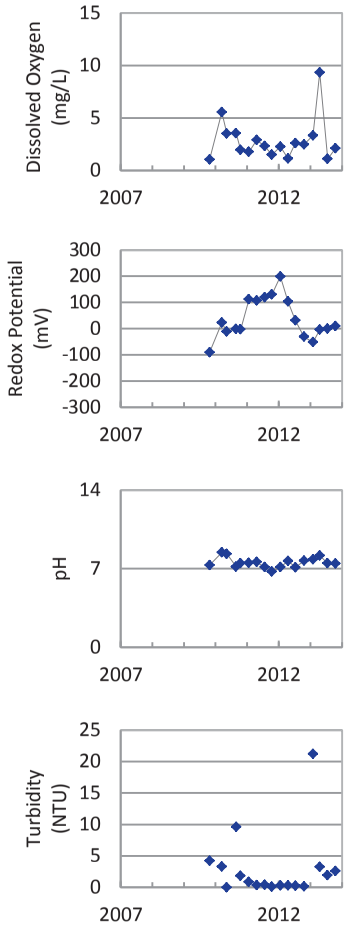
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1153
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



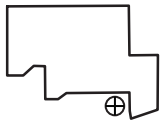
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Probably Increasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

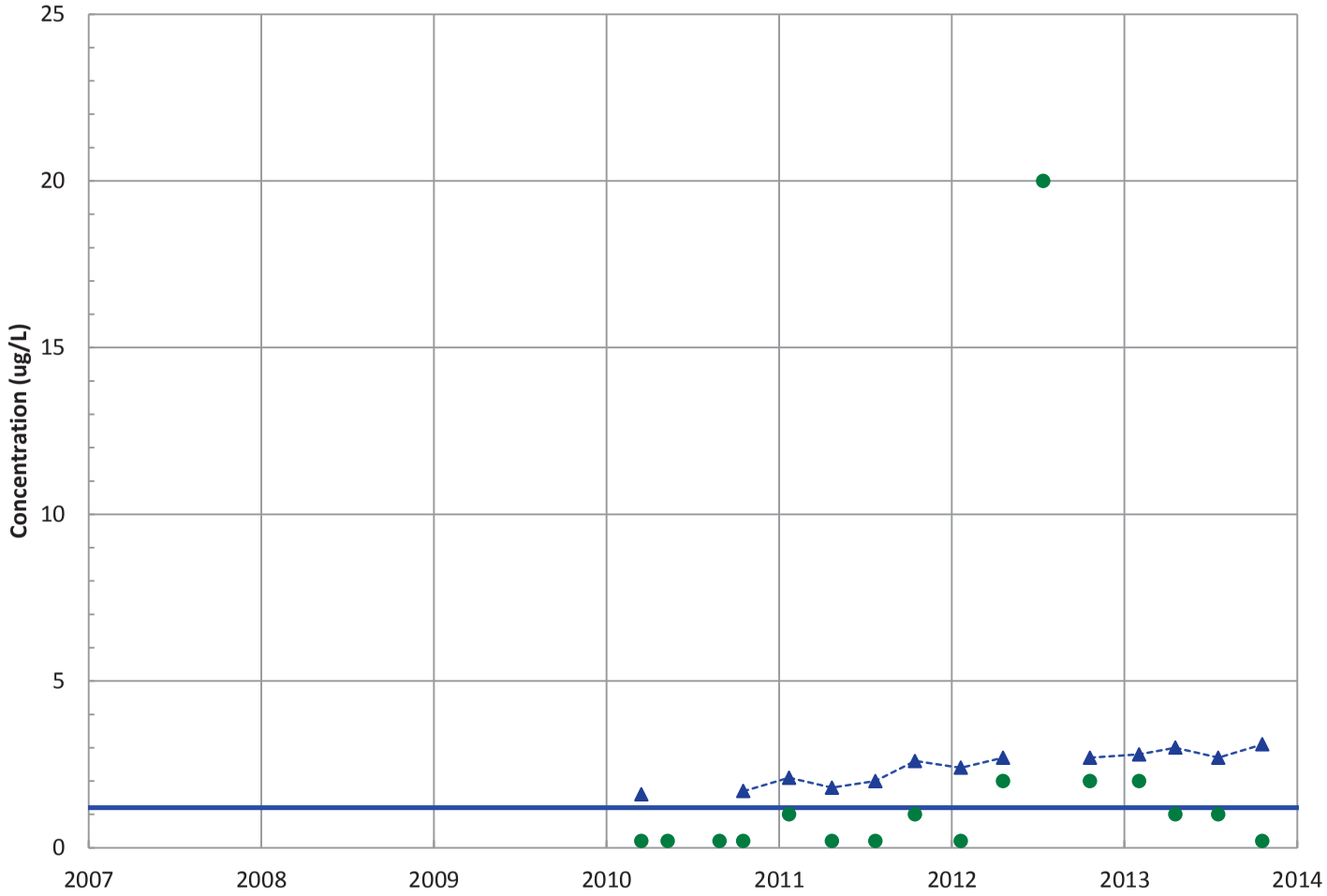
Well Location



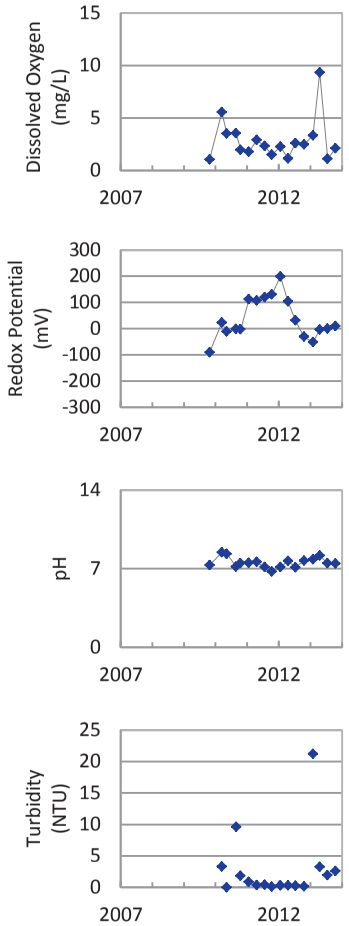
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1153
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



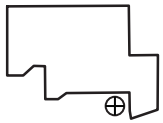
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

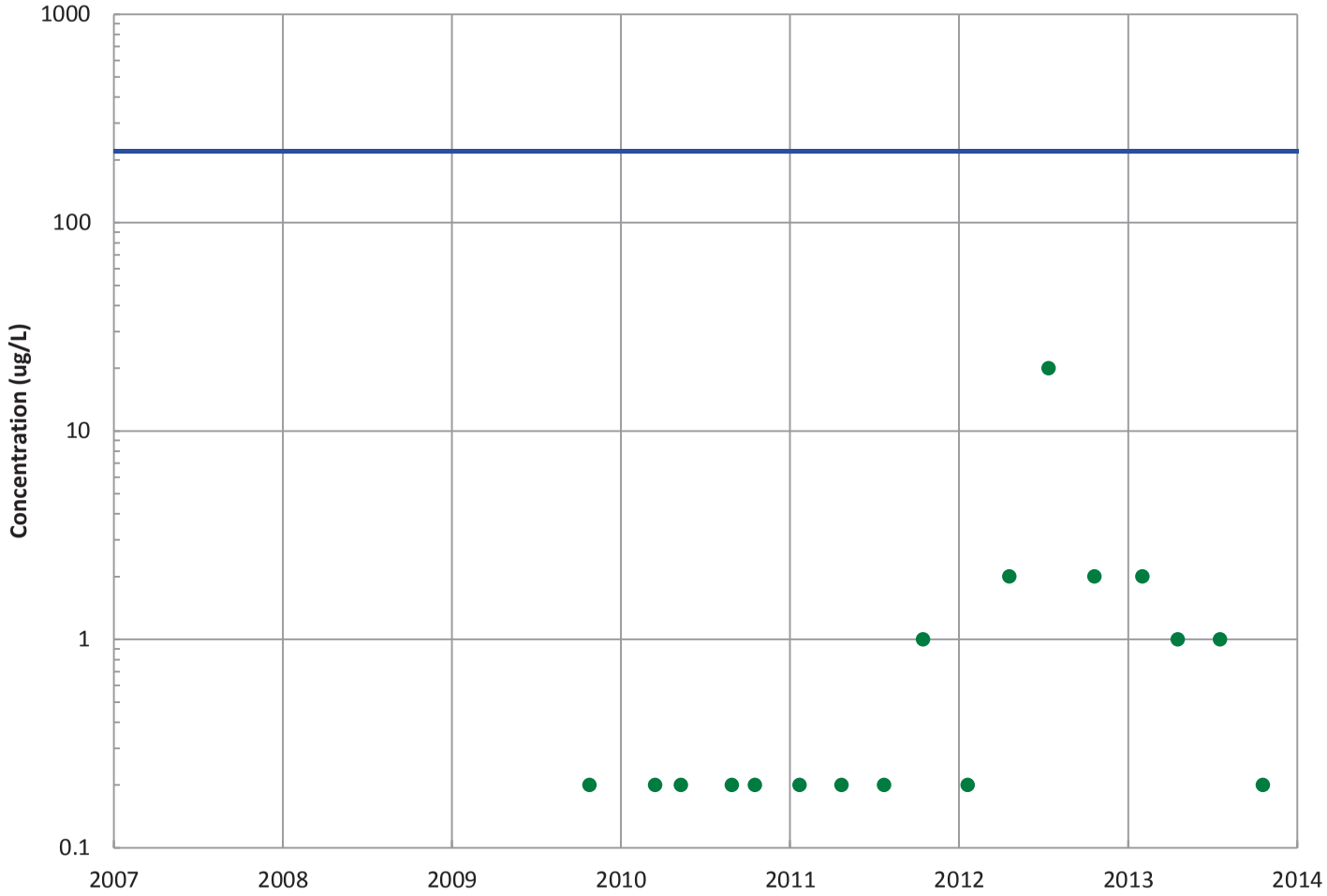
Well Location



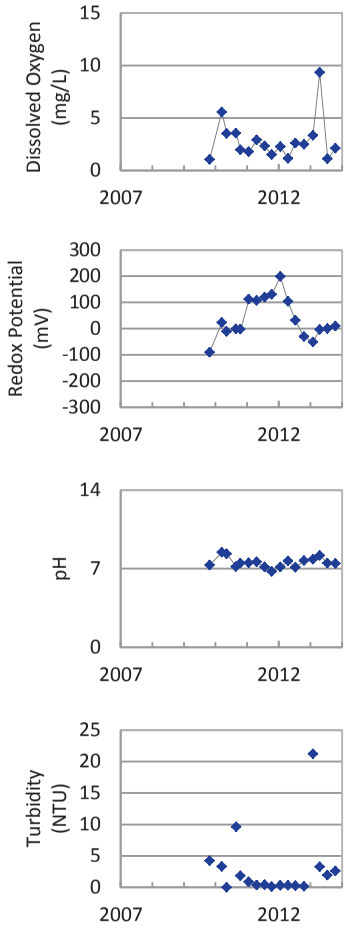
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/18/2010 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1153
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



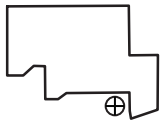
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

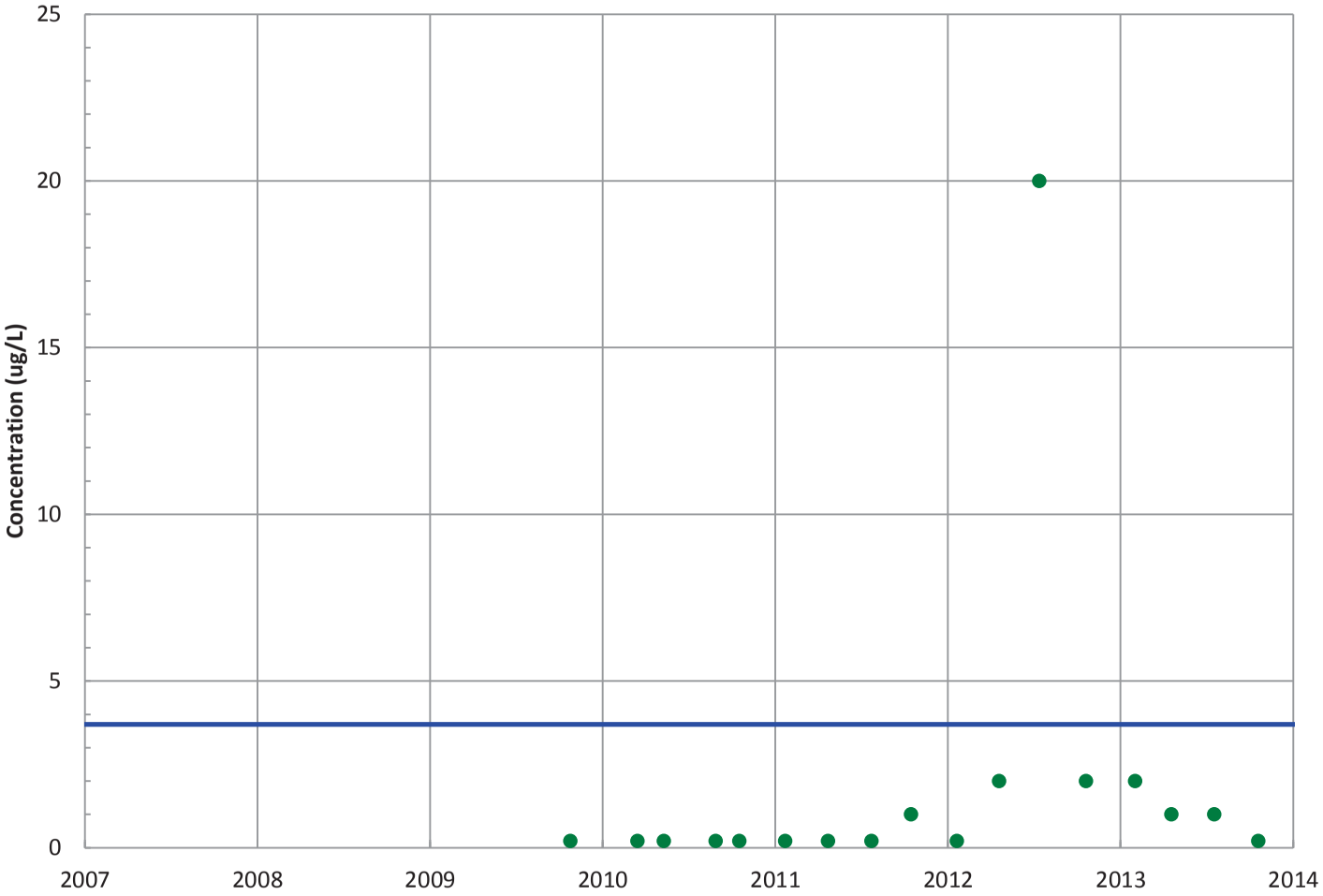
Well Location



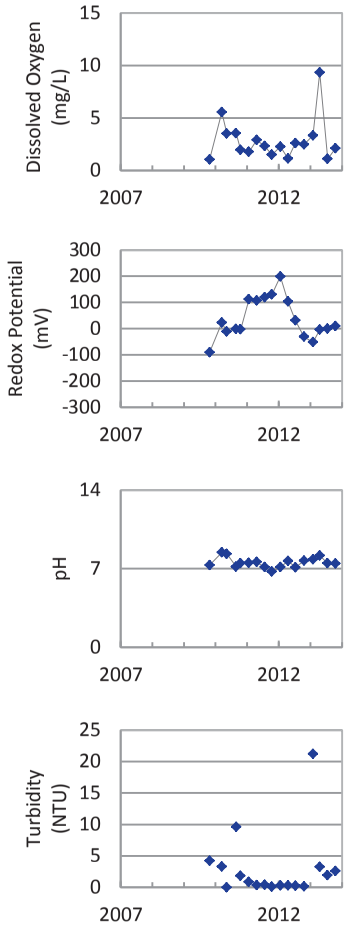
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1153
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



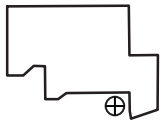
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

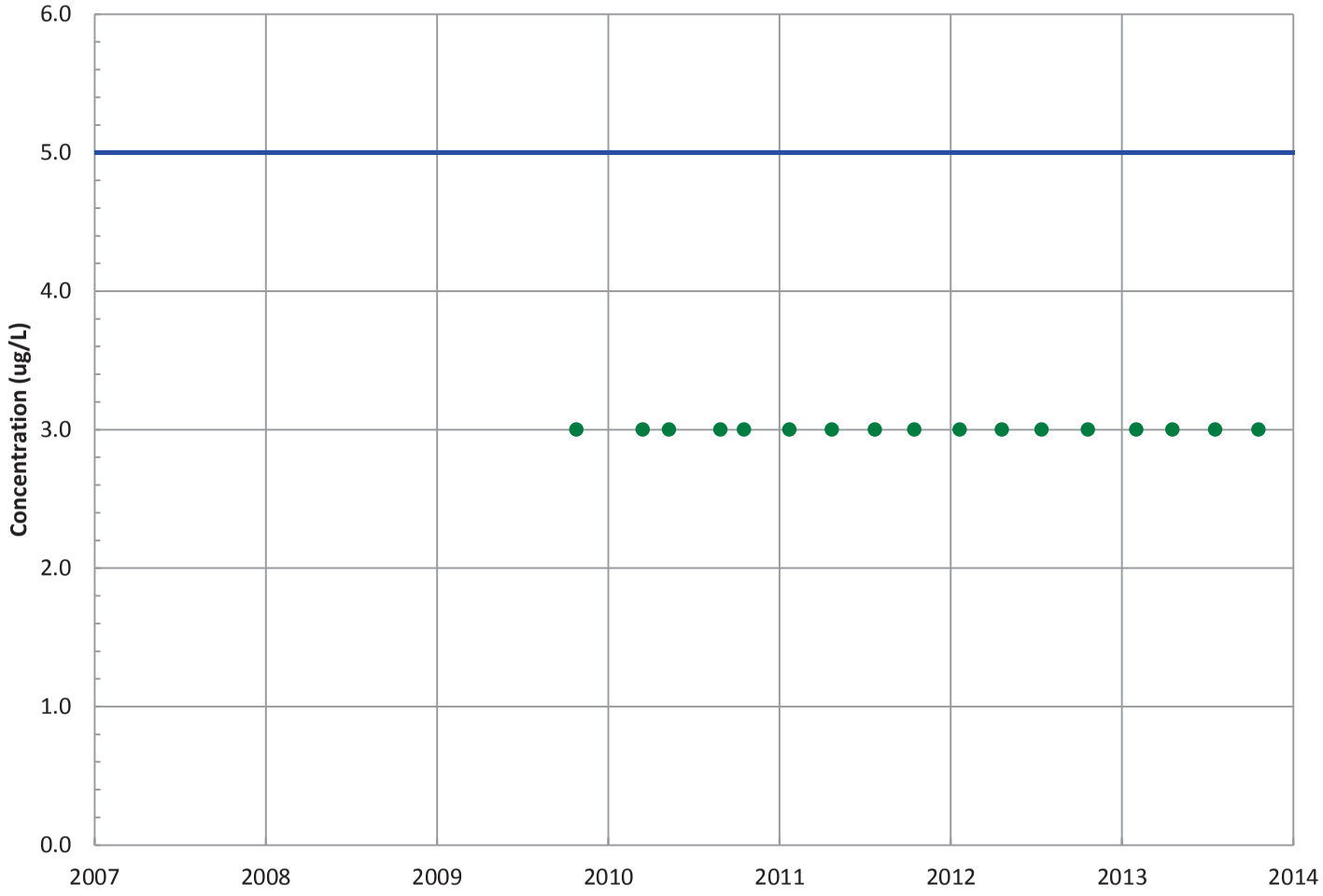
Well Location



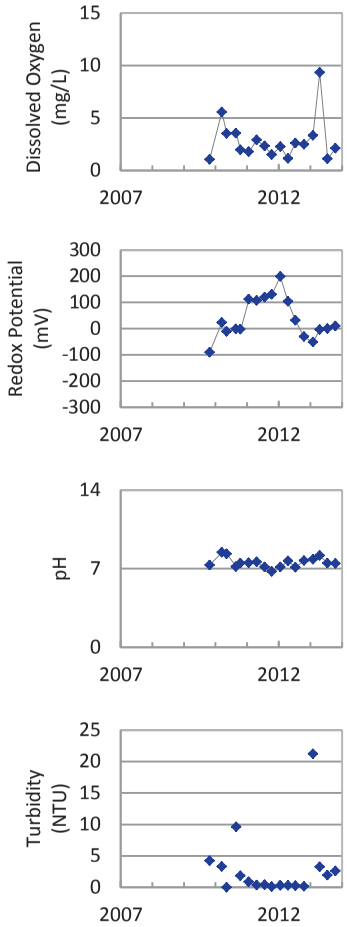
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1153
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



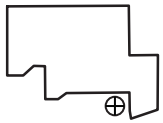
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

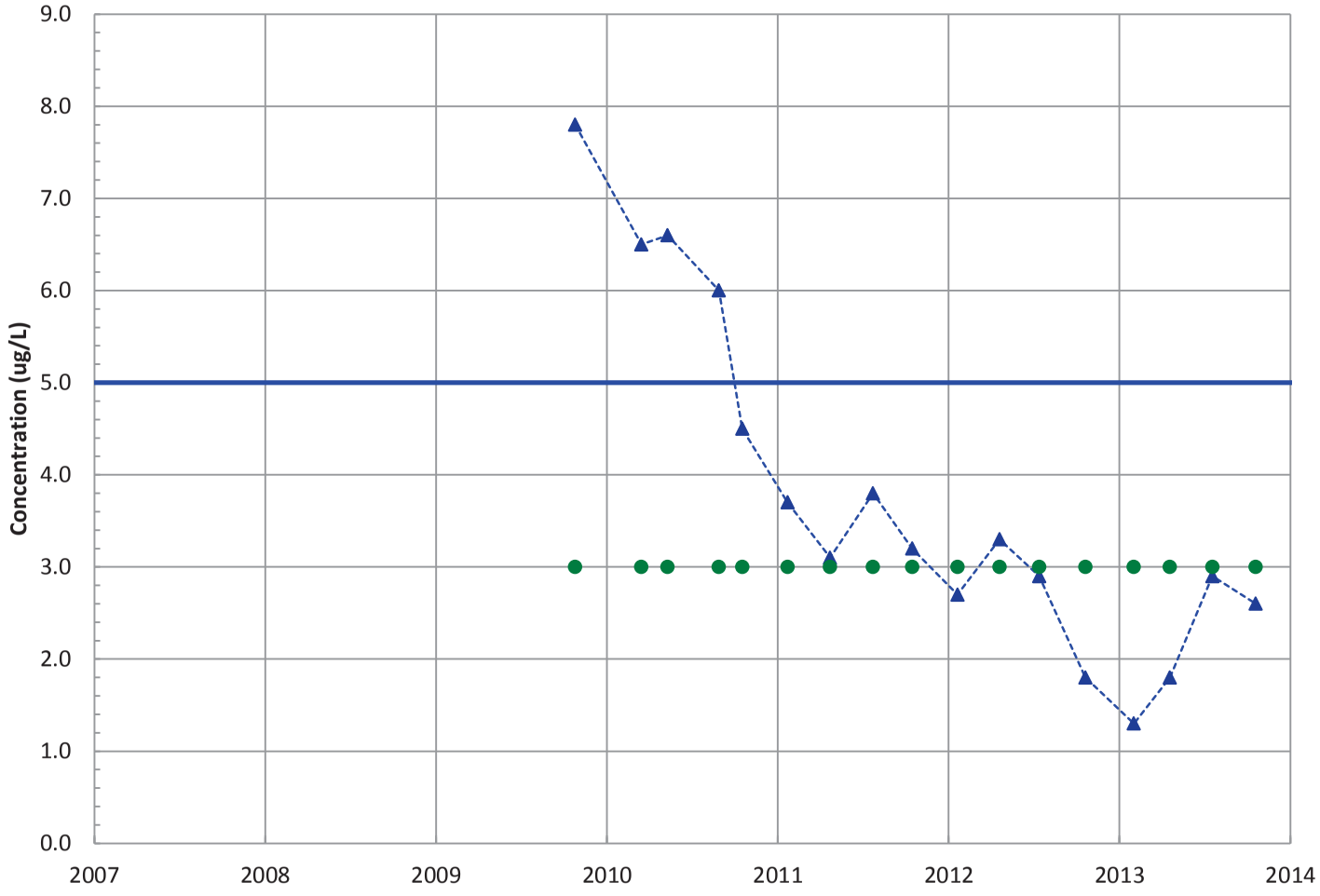
Well Location



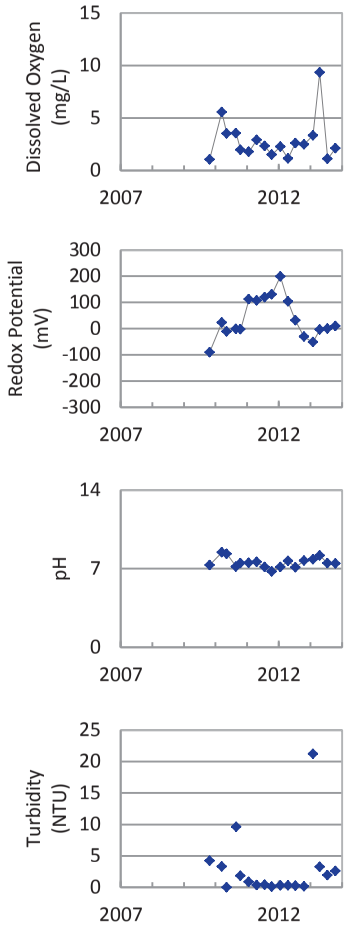
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1153
Trichloroethene Trend in Perched Aquifer



Field Parameters



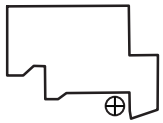
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Probably Increasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

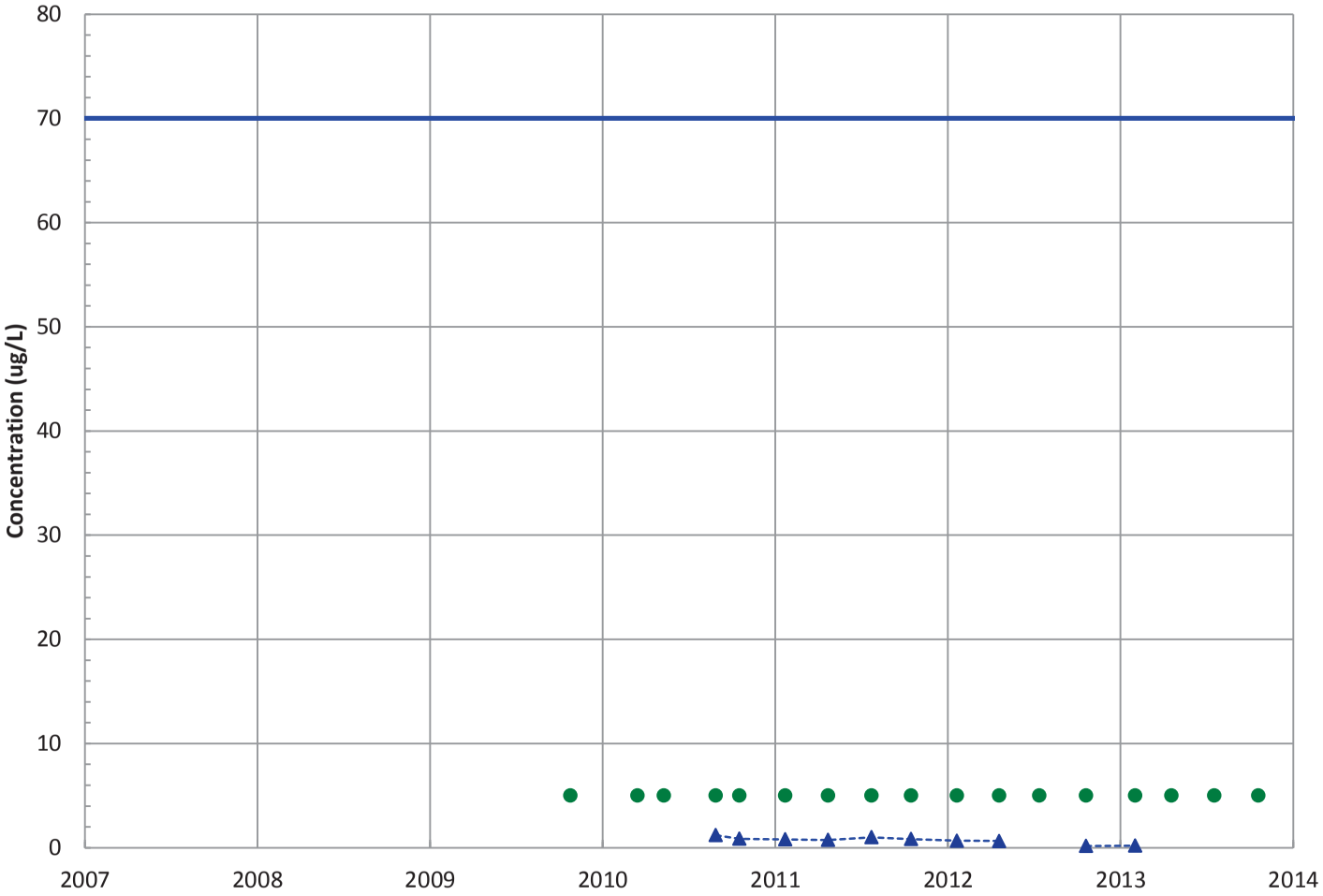
Well Location



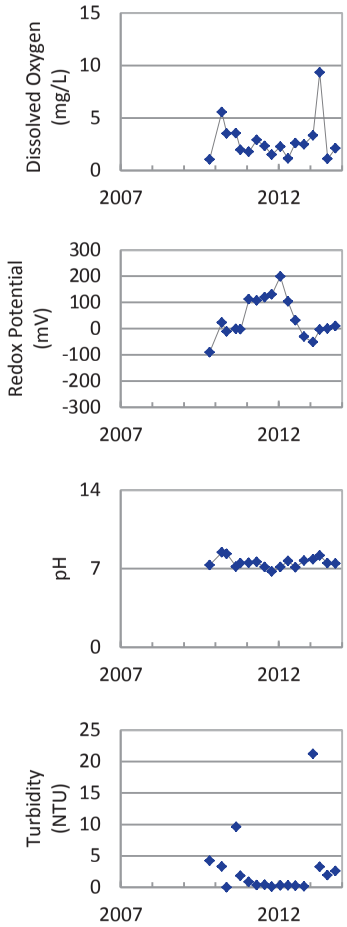
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1153
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



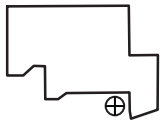
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Probably Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

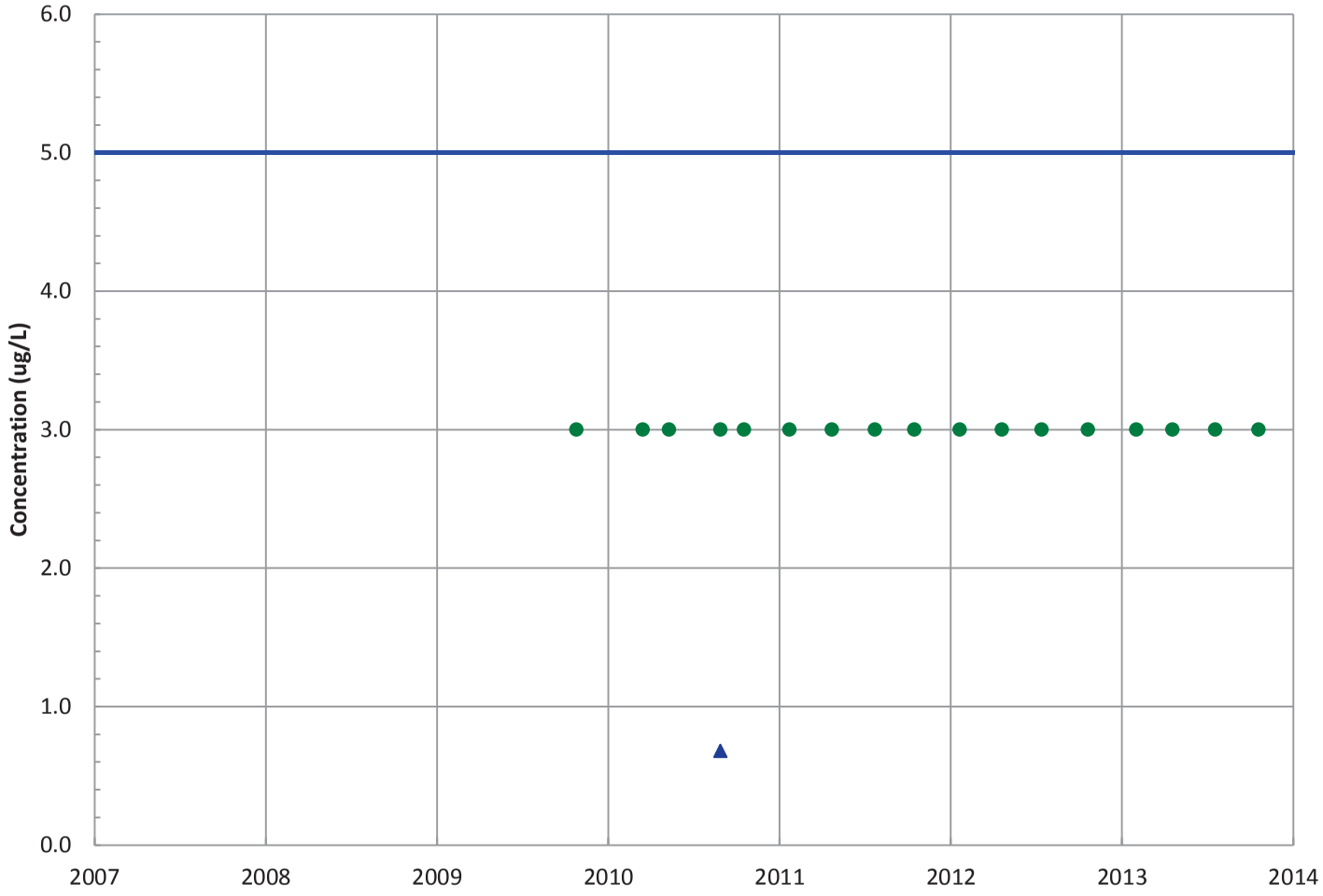
Well Location

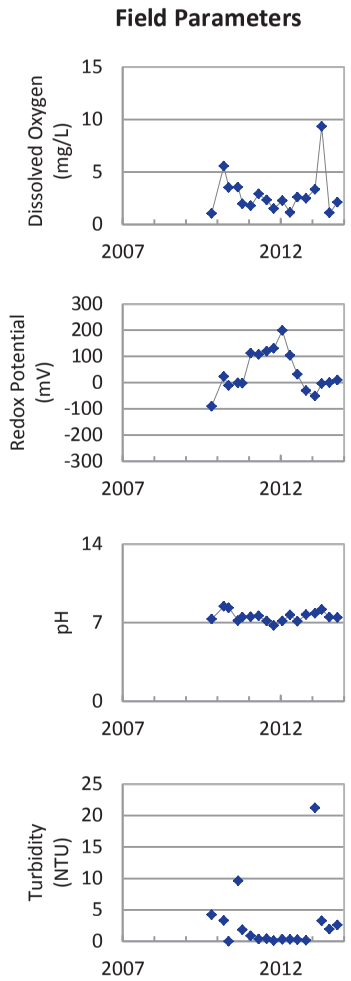


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1153
1,2-Dichloroethane Trend in Perched Aquifer





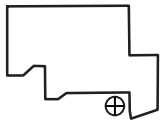
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

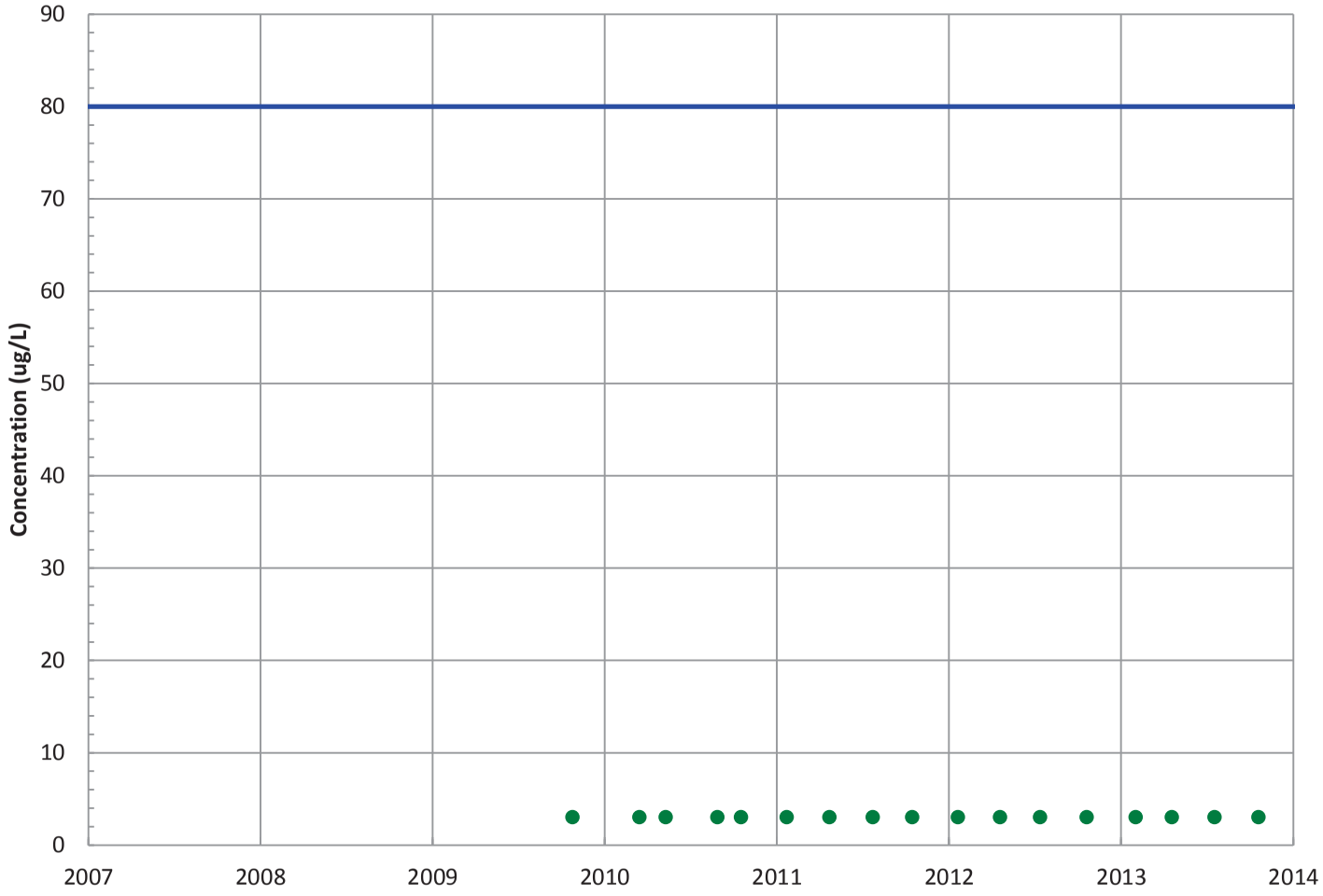
Well Location



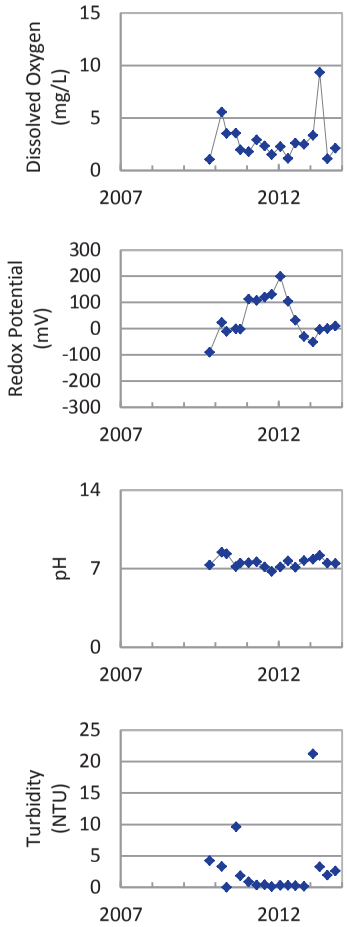
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1153
Chloroform Trend in Perched Aquifer



Field Parameters



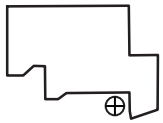
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

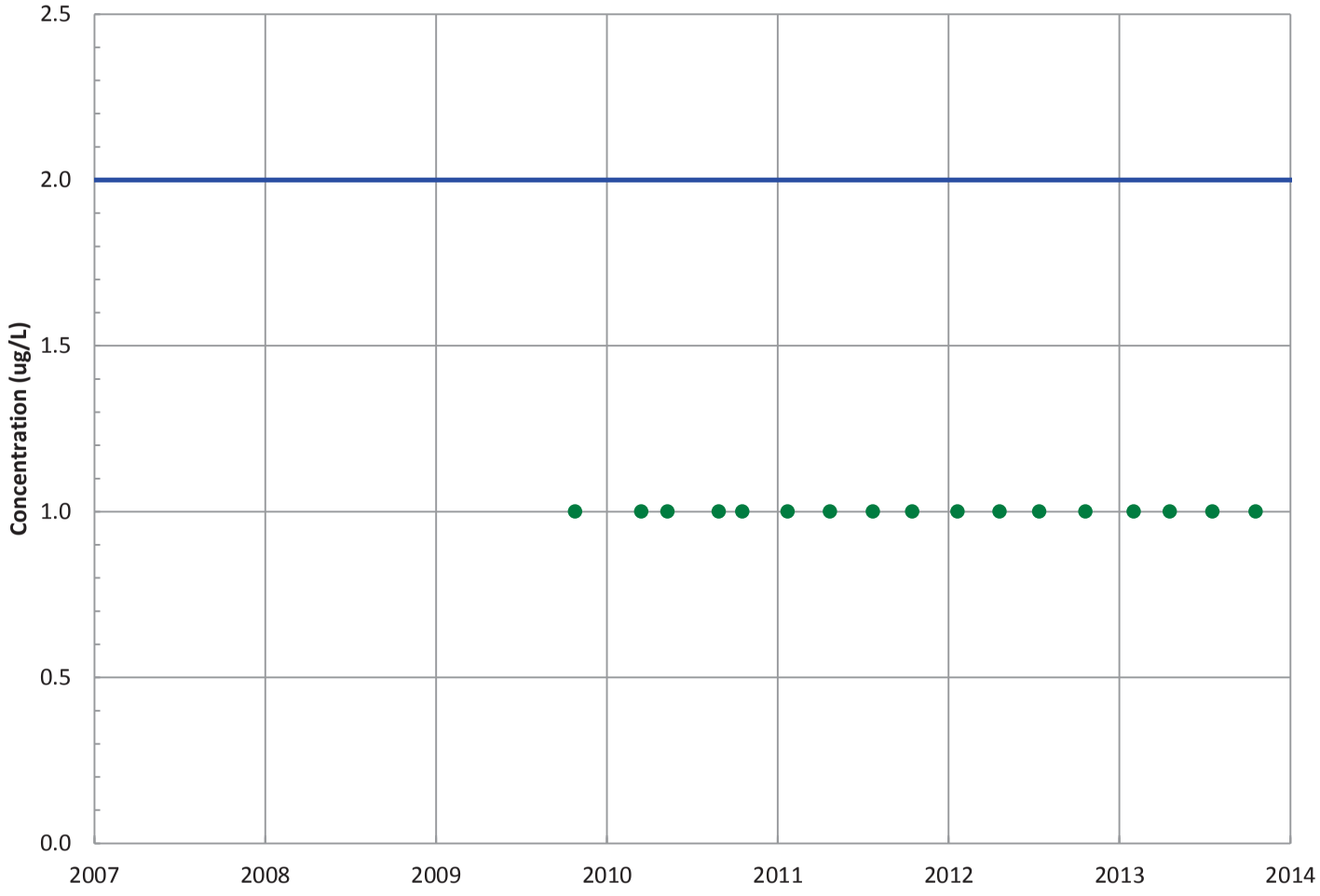
Well Location



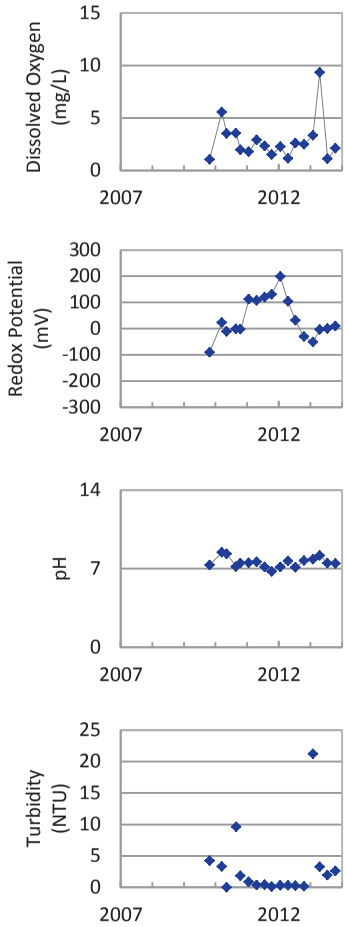
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1153
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



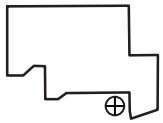
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

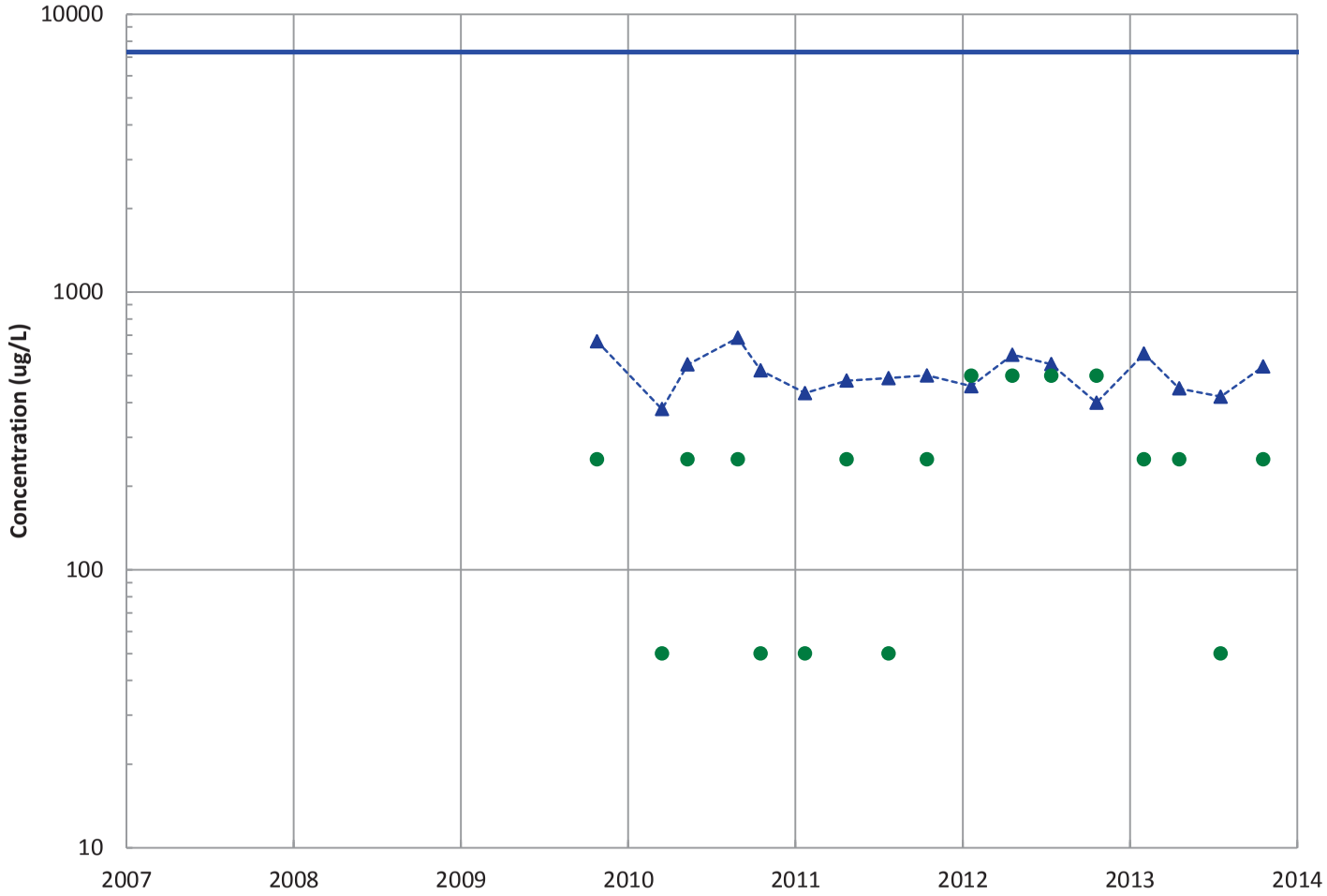
Well Location



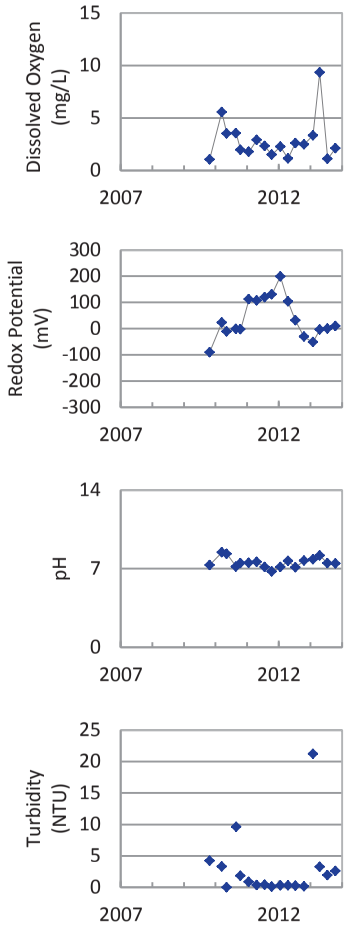
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1153
Boron Trend in Perched Aquifer



Field Parameters



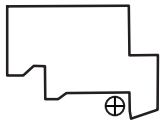
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

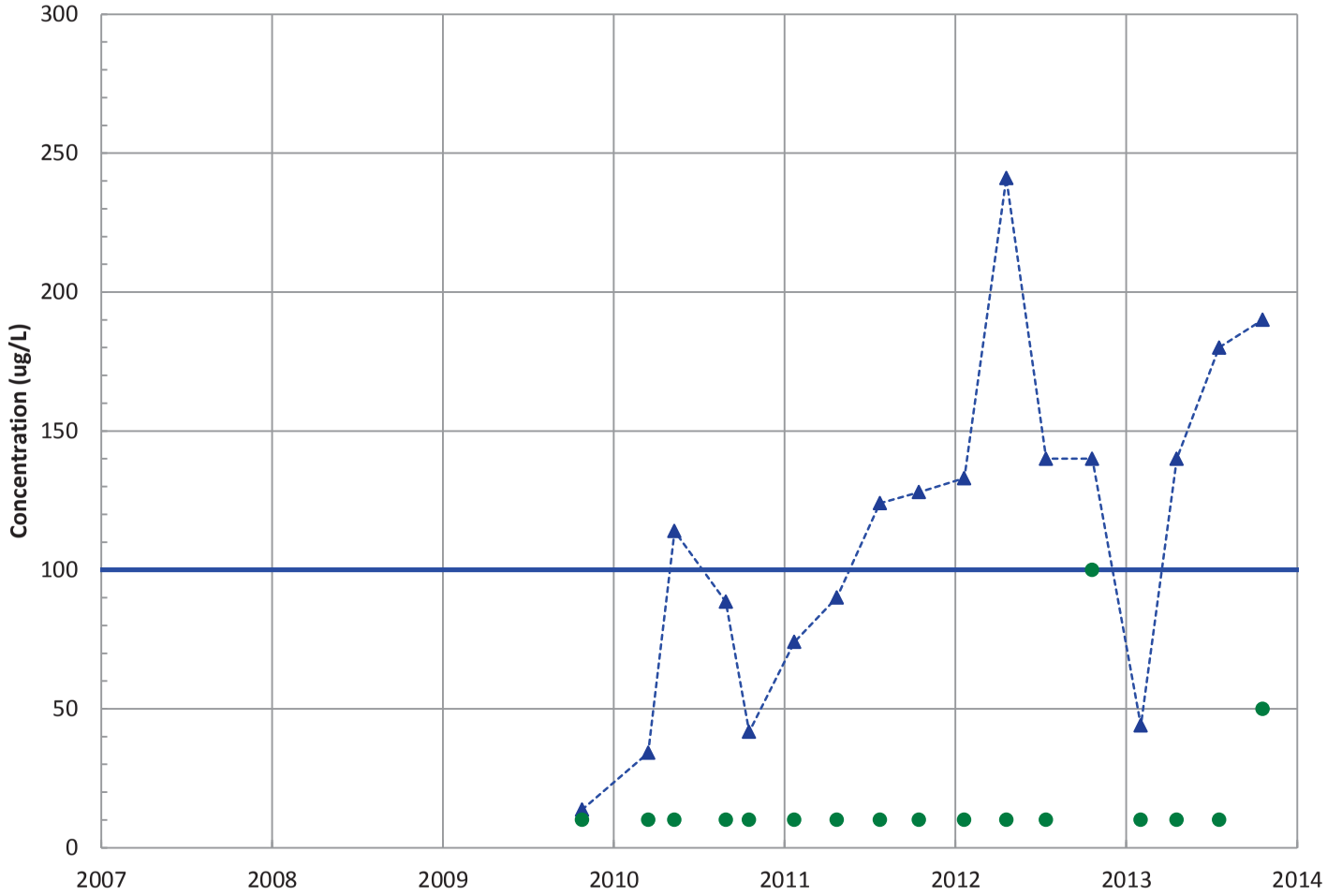
Well Location



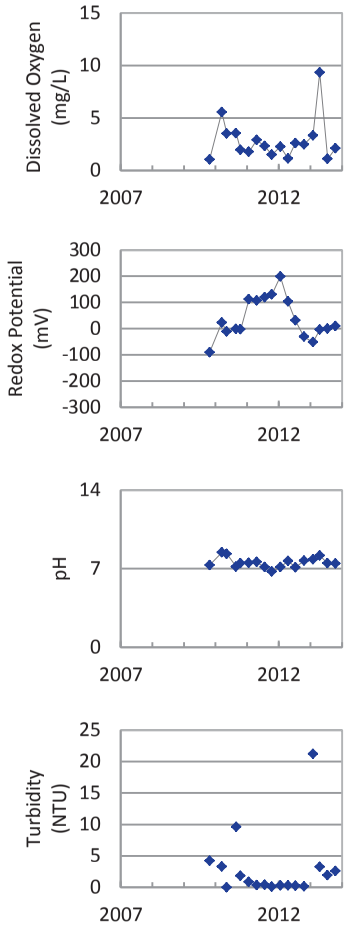
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1153
Chromium, Total Trend in Perched Aquifer



Field Parameters



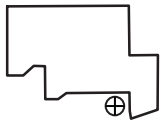
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Increasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Increasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

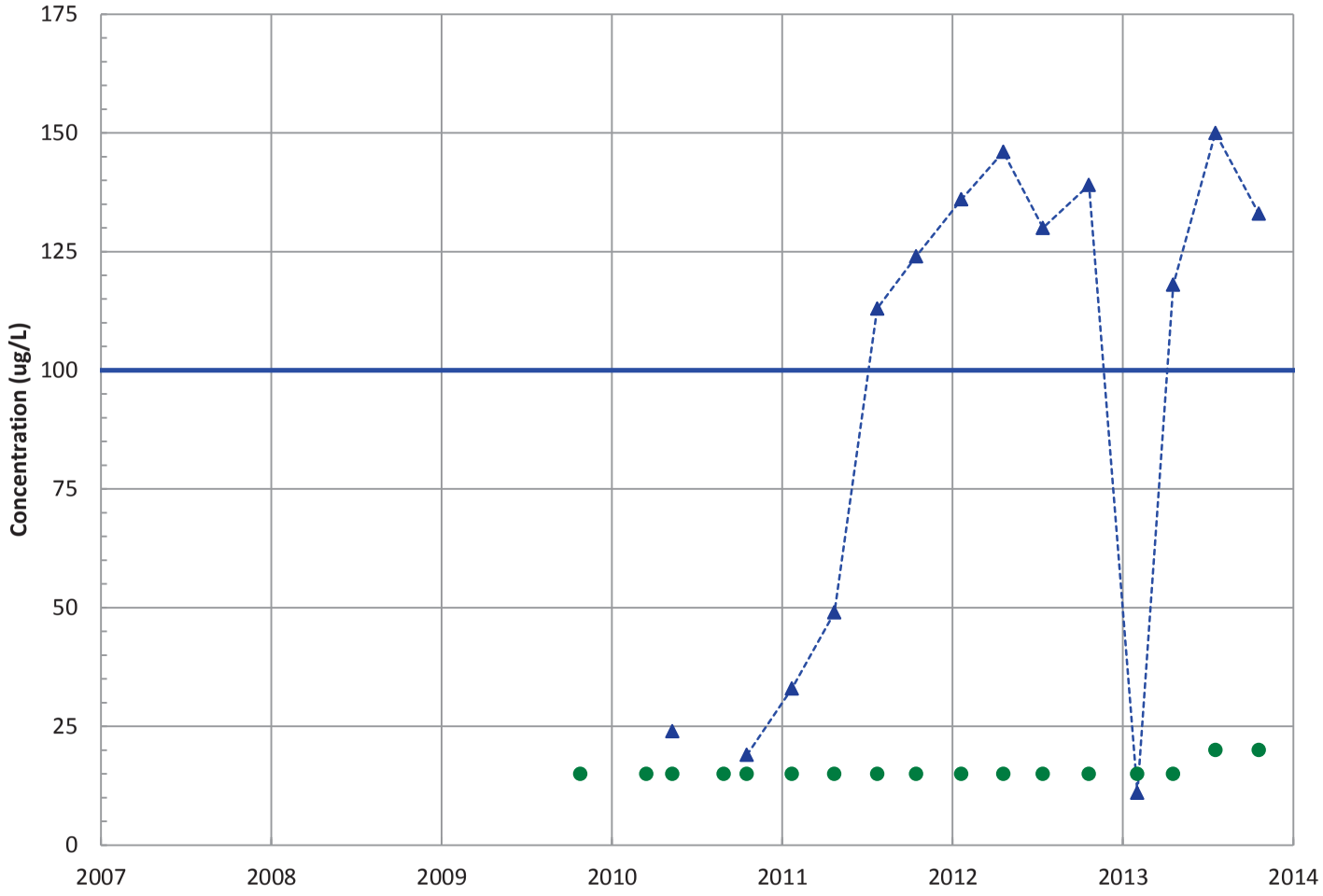
Well Location



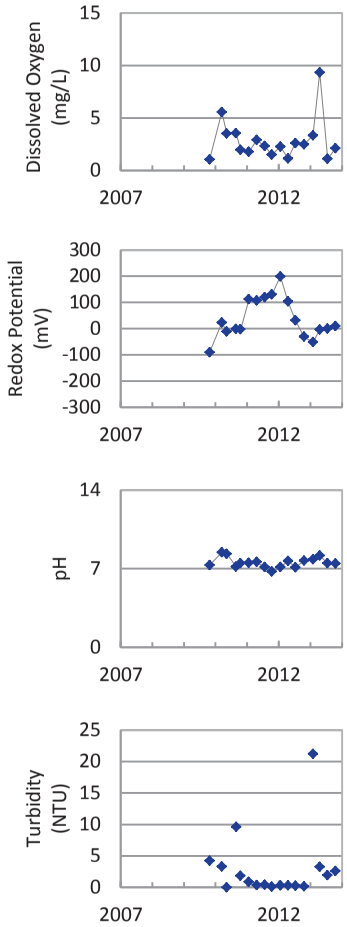
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1153
Chromium, Hexavalent Trend in Perched Aquifer



Field Parameters



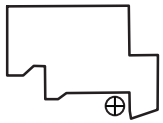
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Probably Increasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

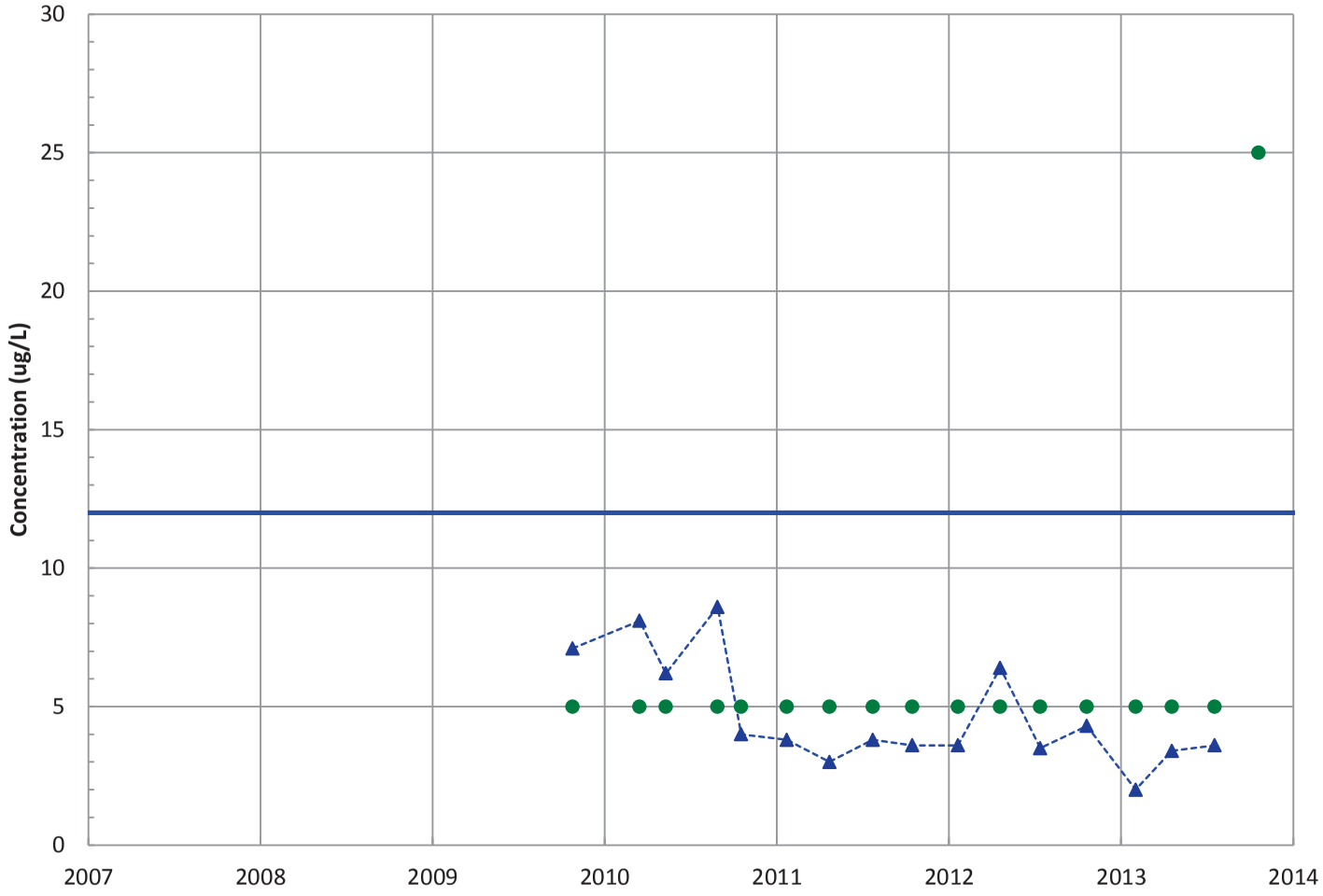
Well Location



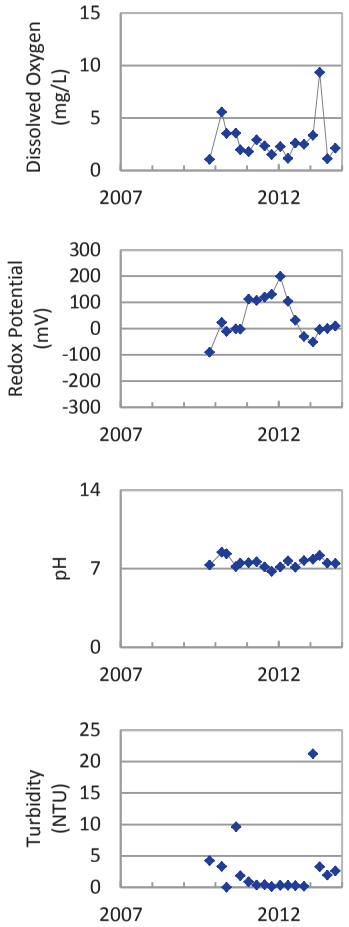
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1153
Arsenic Trend in Perched Aquifer



Field Parameters



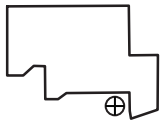
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Increasing

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

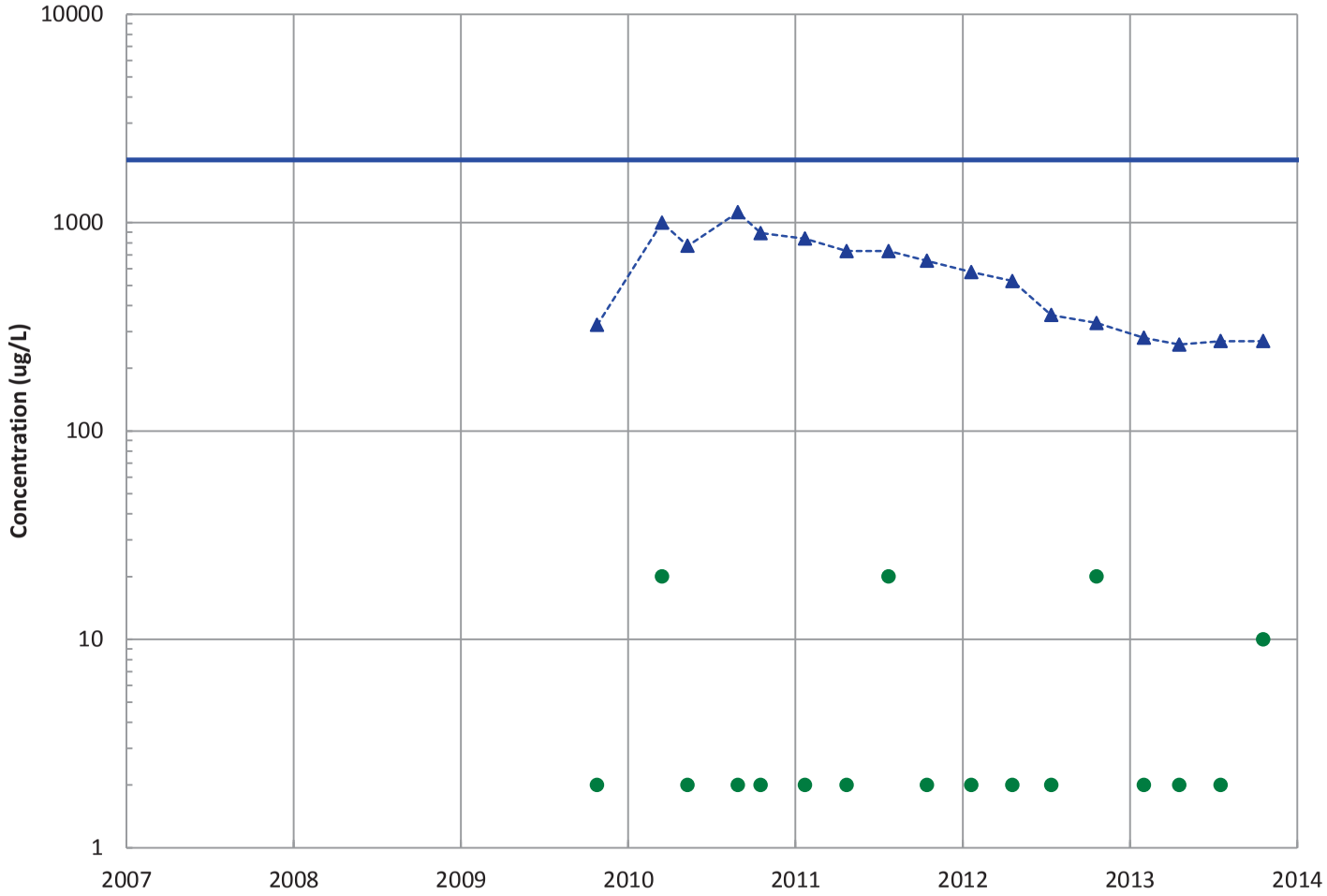
Well Location



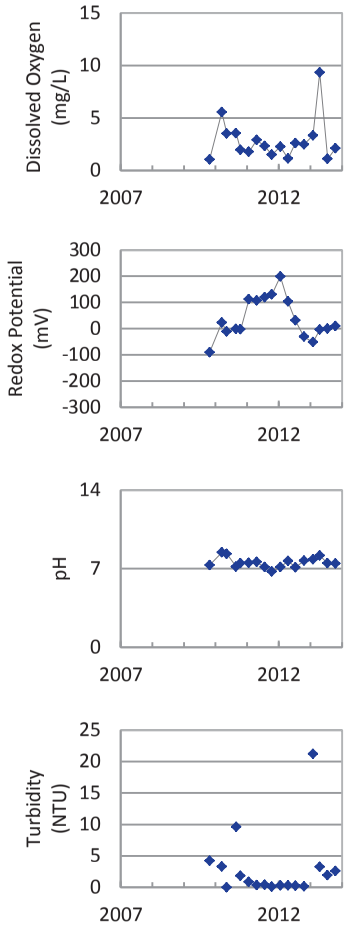
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1153
Barium Trend in Perched Aquifer



Field Parameters



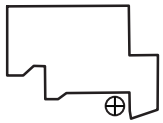
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

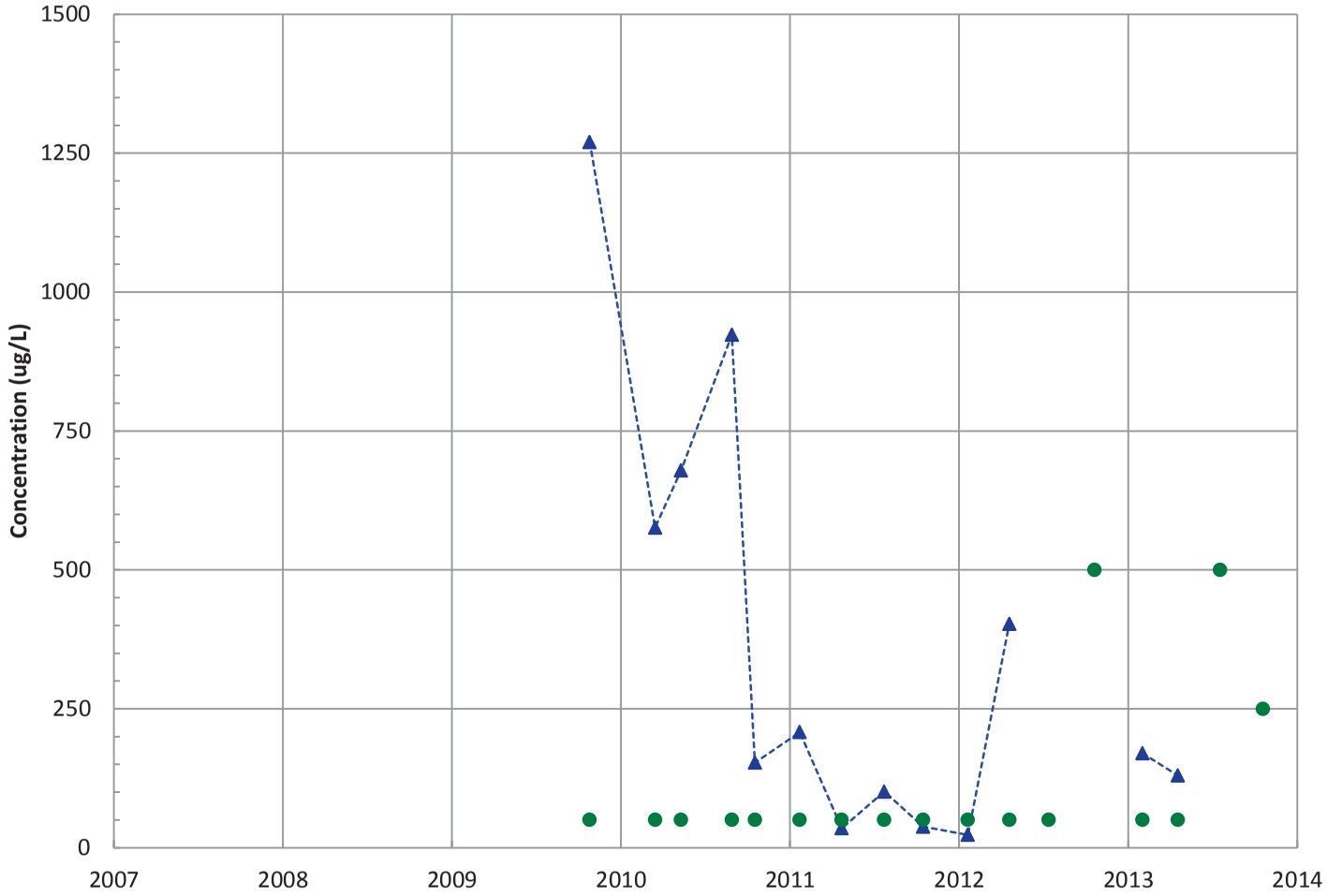
Well Location



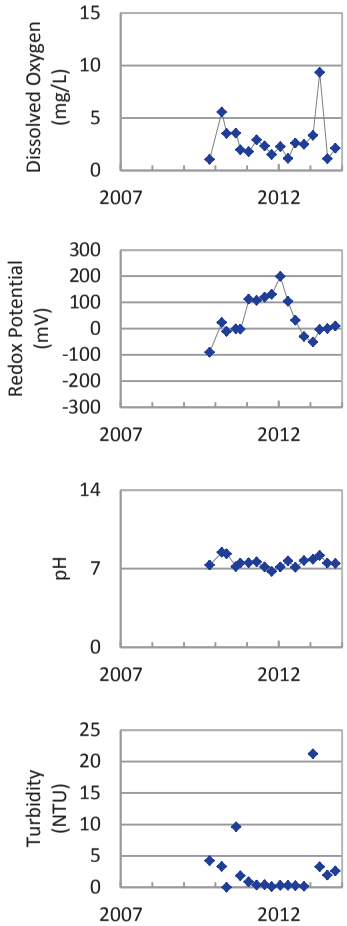
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1153
Iron Trend in Perched Aquifer



Field Parameters



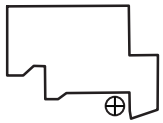
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

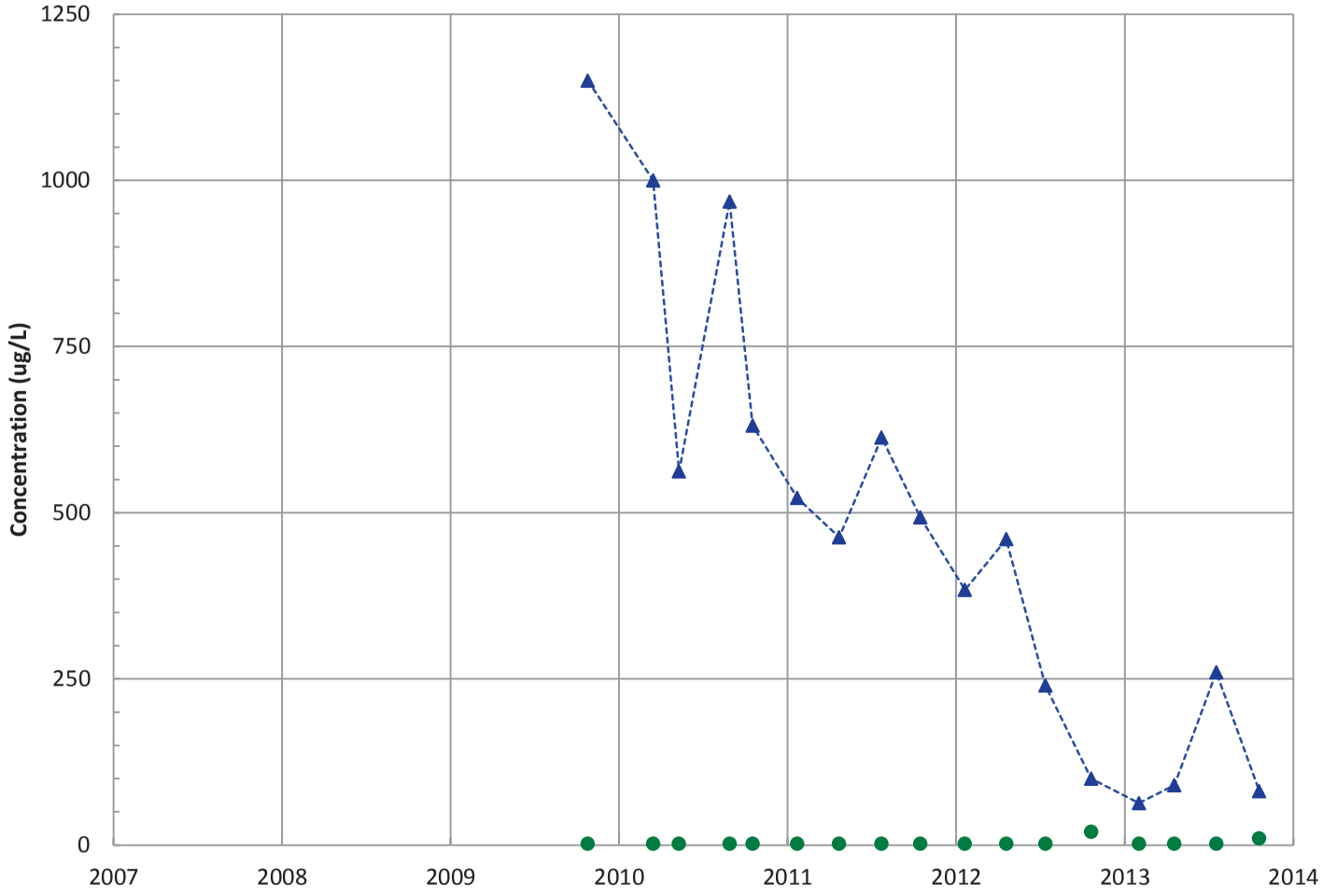
Well Location



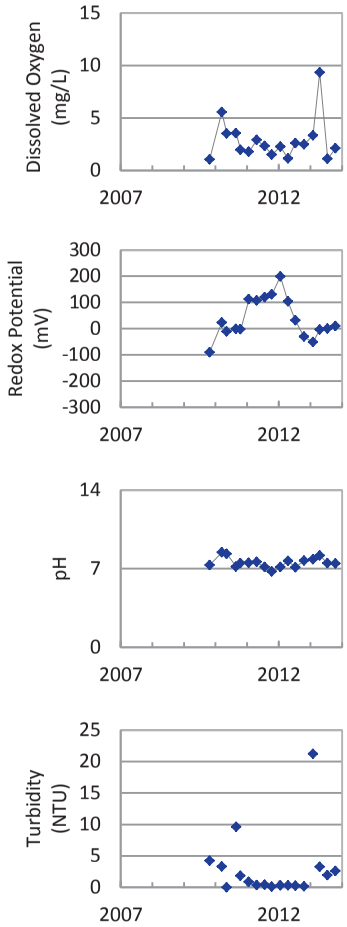
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1153
Manganese Trend in Perched Aquifer



Field Parameters



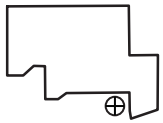
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

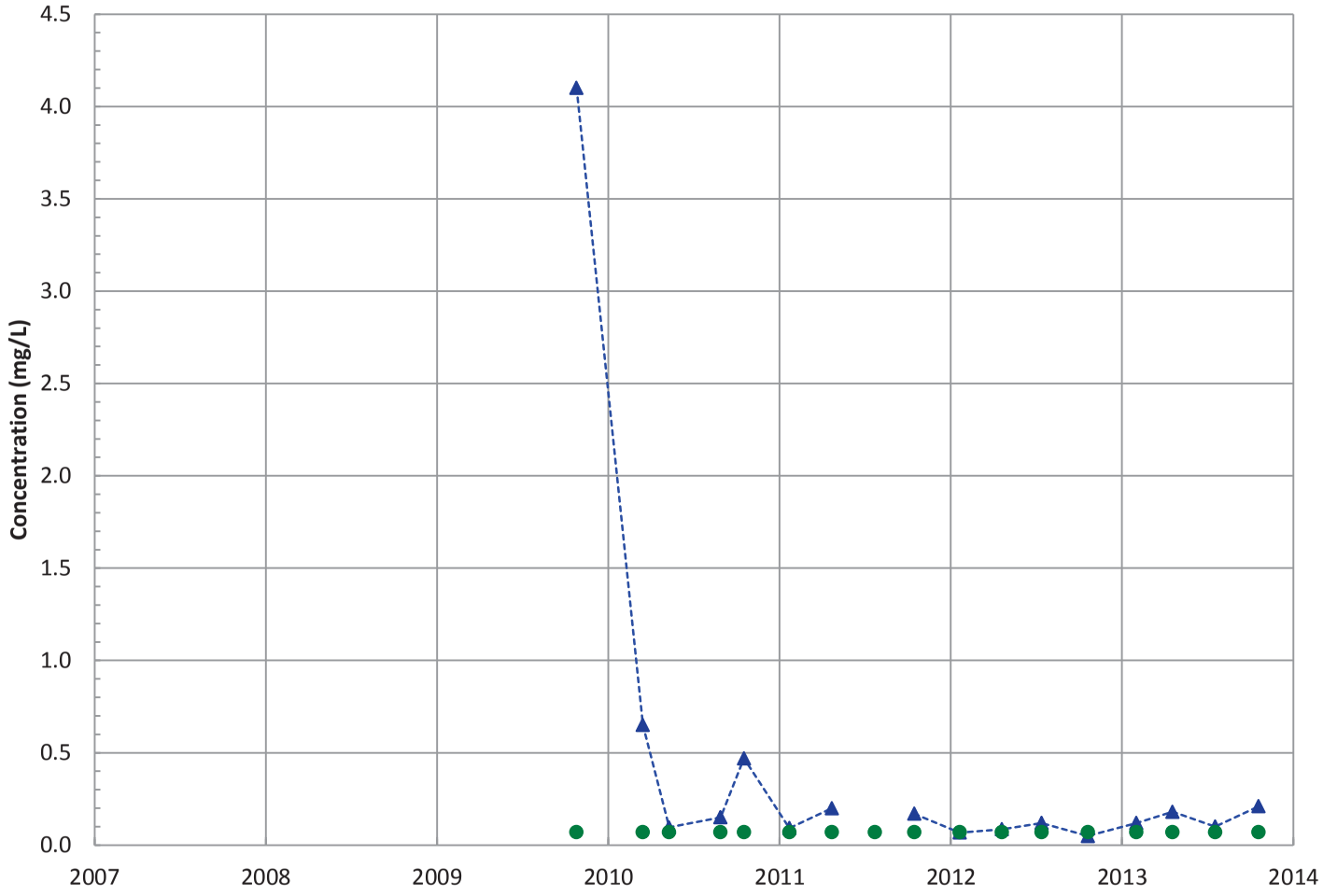
Well Location



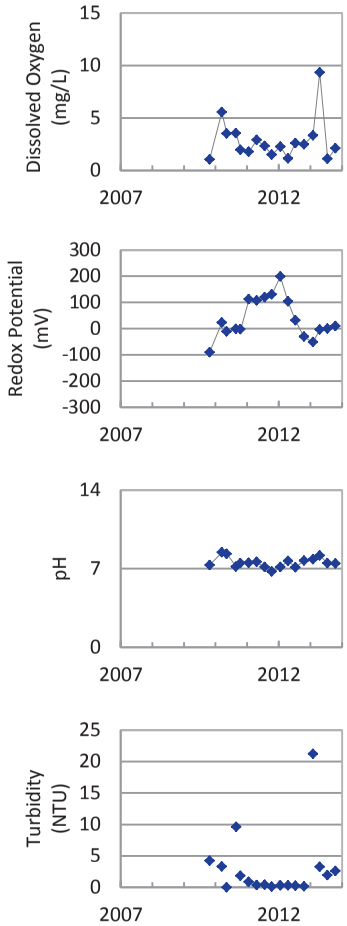
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1153
Acetic Acid Trend in Perched Aquifer



Field Parameters



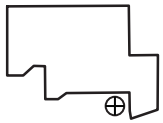
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

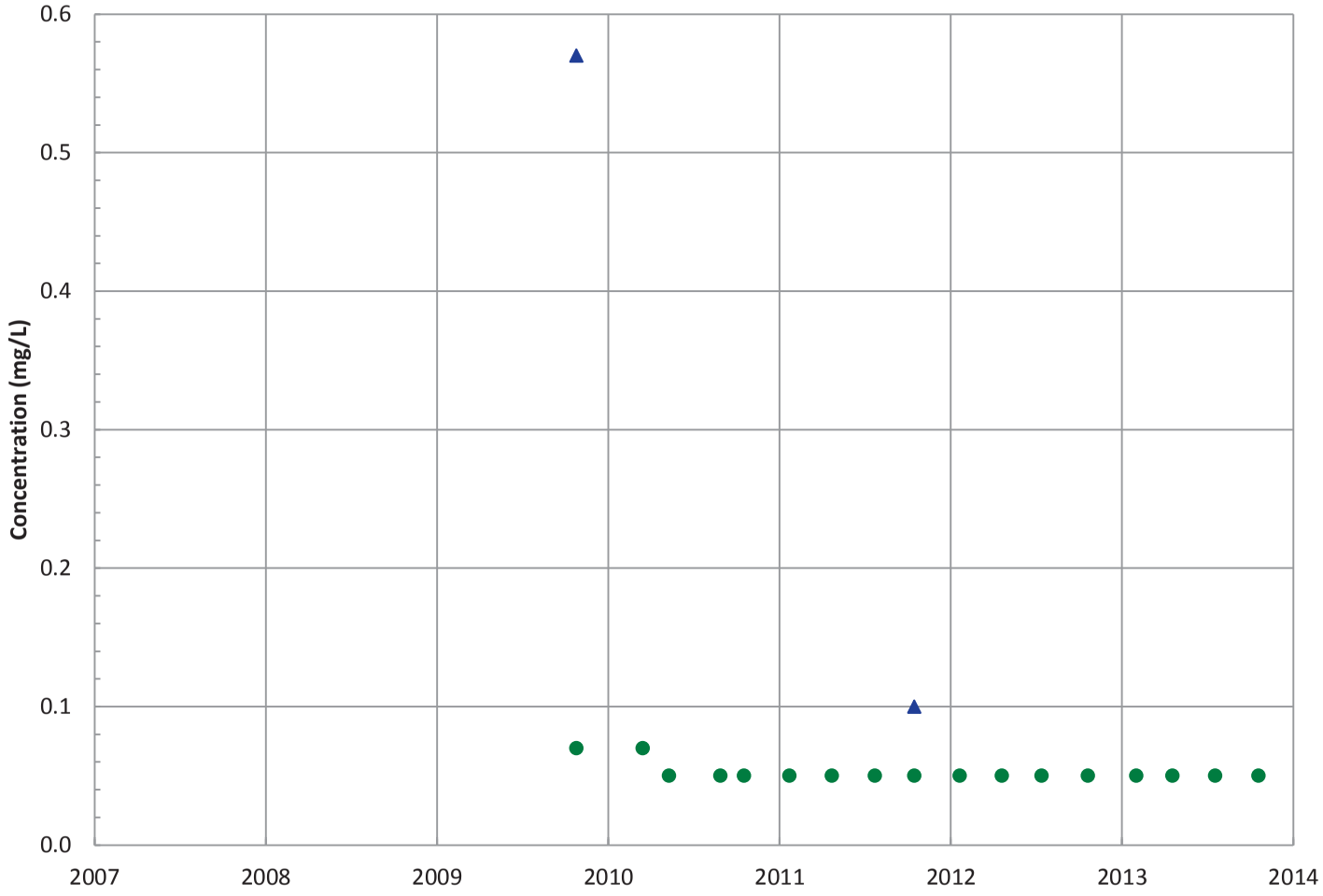
Well Location



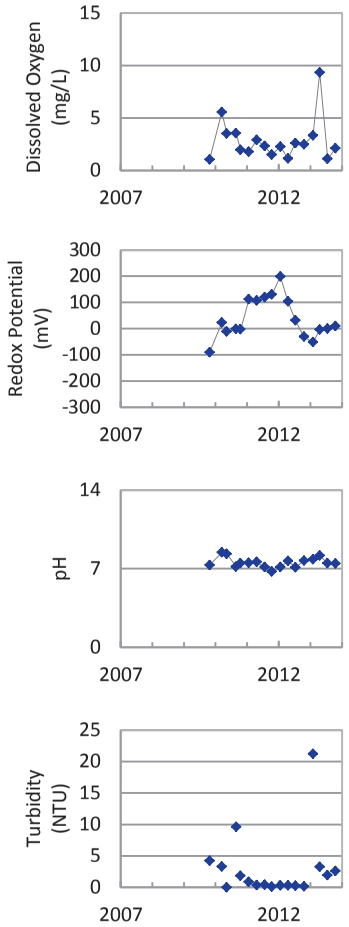
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1153
Butyric Acid Trend in Perched Aquifer



Field Parameters



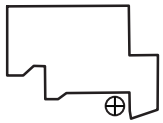
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Injection Dates

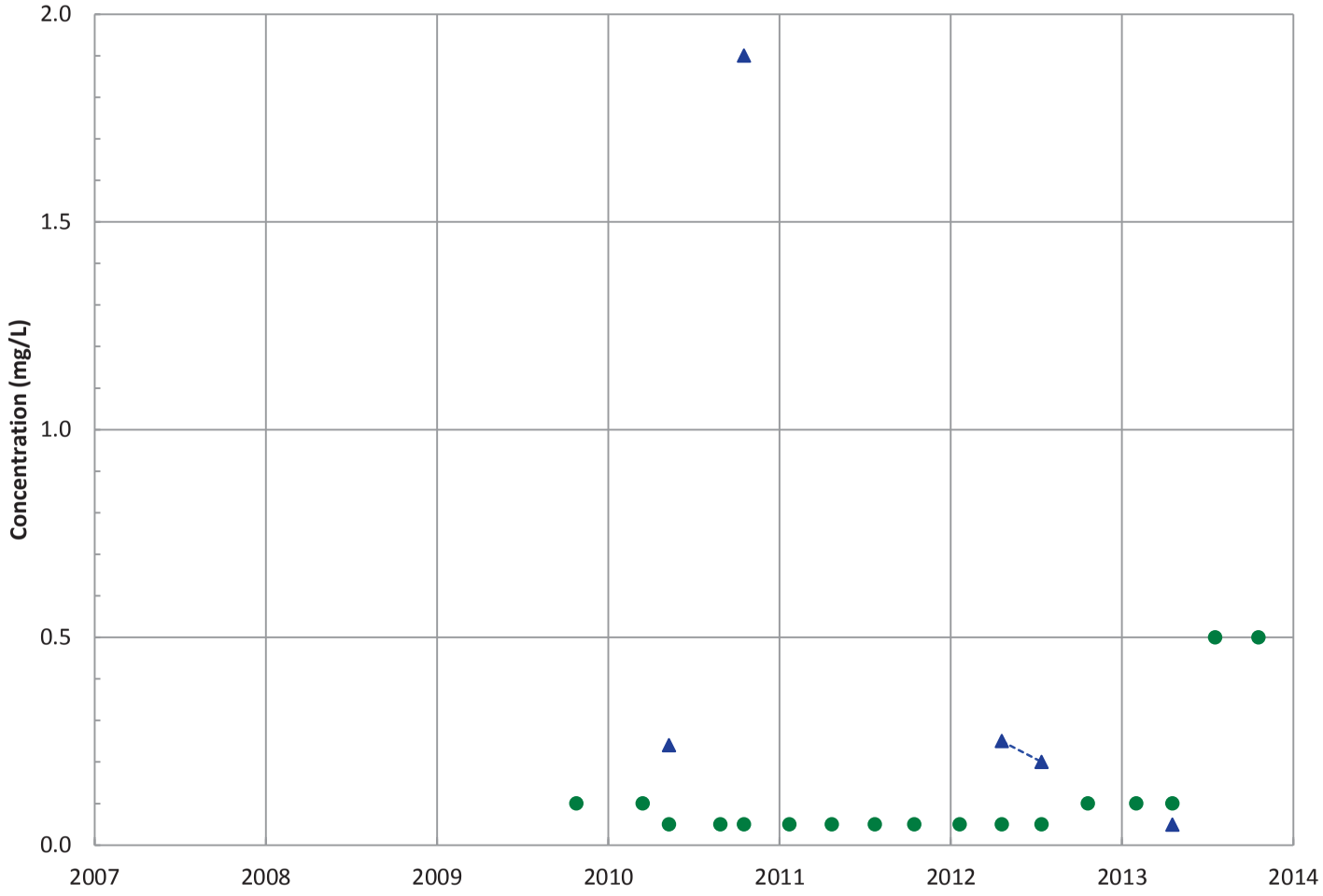
Well Location



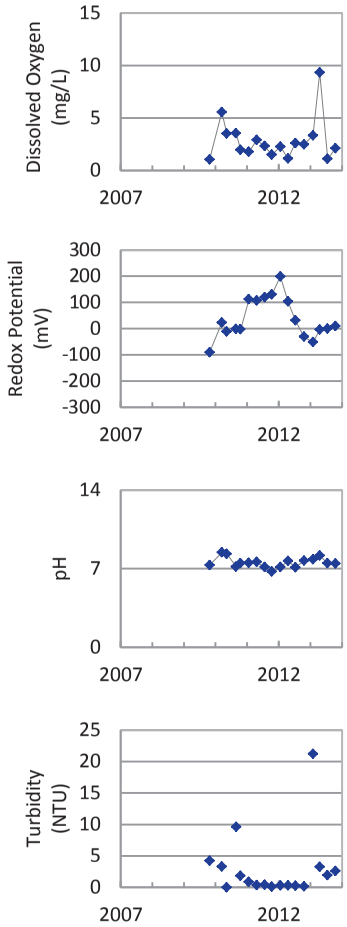
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1153
Hexanoic Acid Trend in Perched Aquifer



Field Parameters



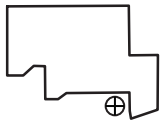
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: Probably Decreasing
Last 4 Samples: Probably Decreasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Injection Dates

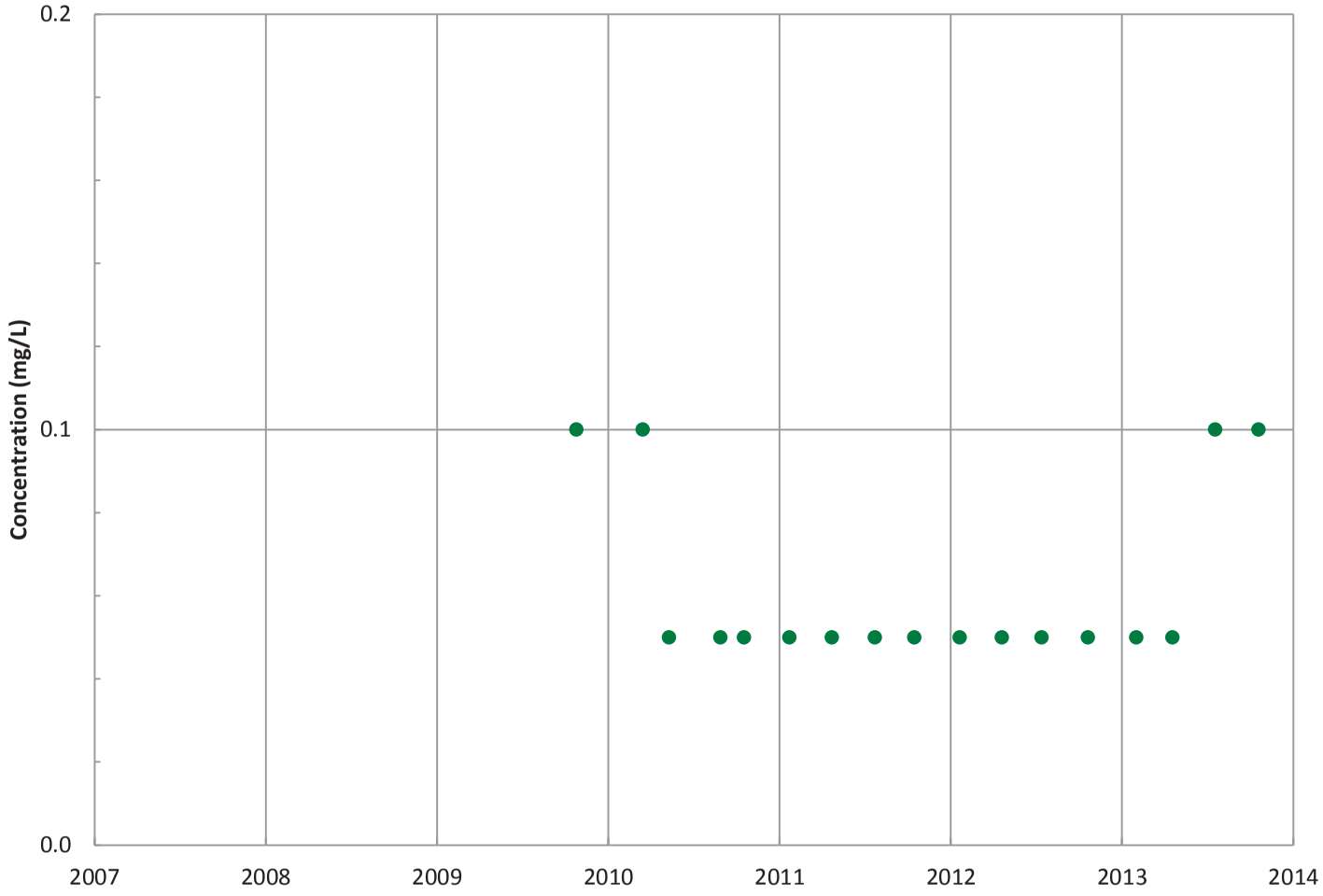
Well Location



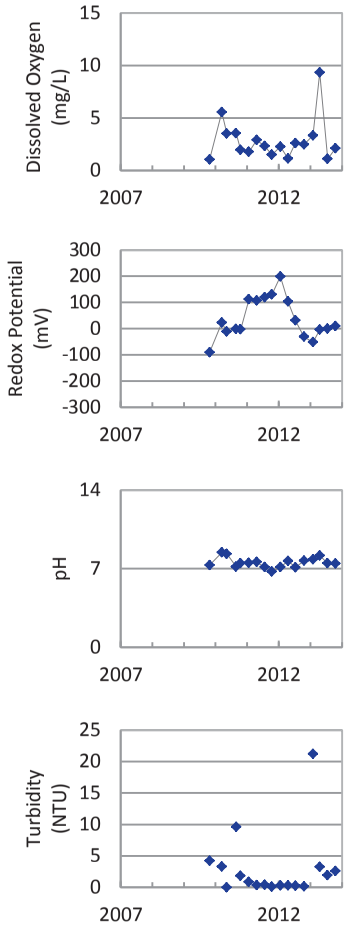
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1153
i-Hexanoic Acid Trend in Perched Aquifer



Field Parameters



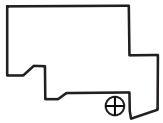
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Injection Dates

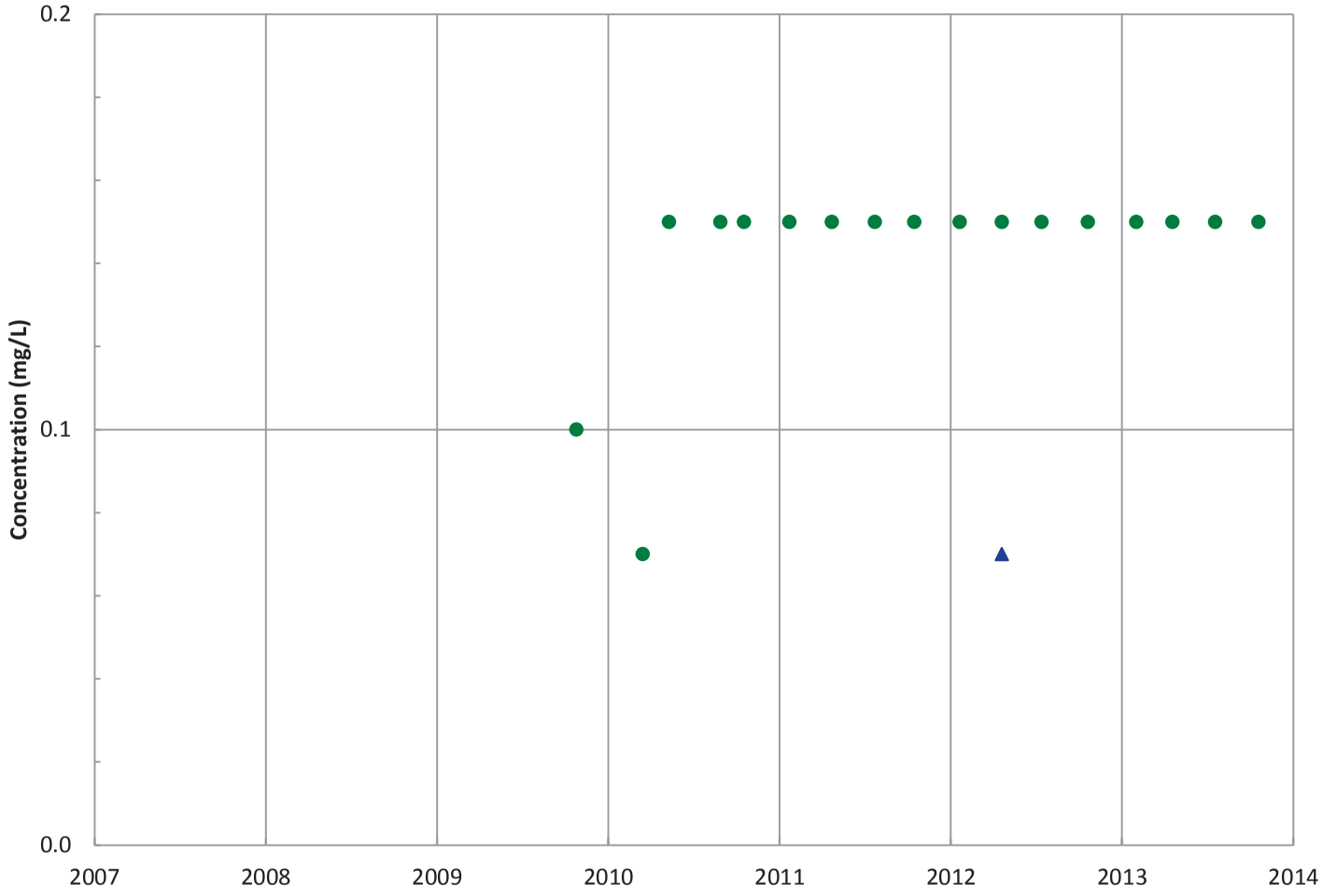
Well Location



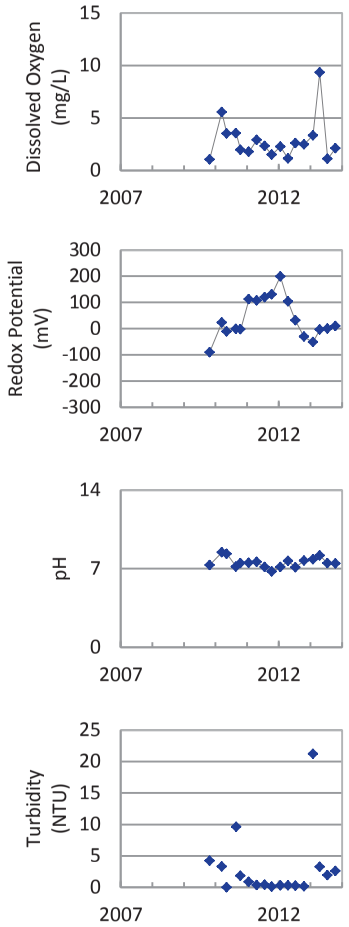
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1153
i-Pentanoic Acid Trend in Perched Aquifer



Field Parameters



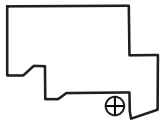
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
Injection Dates

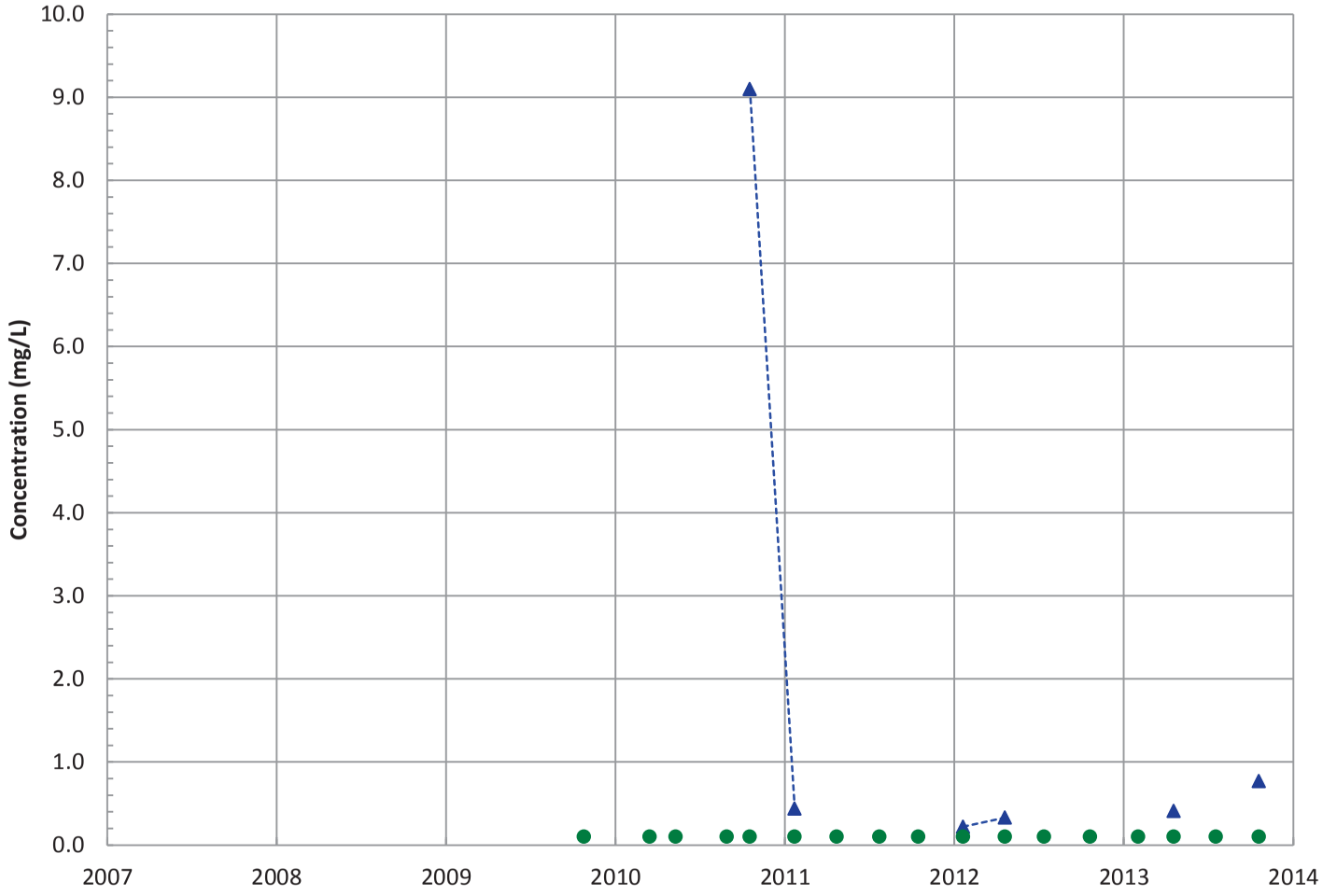
Well Location



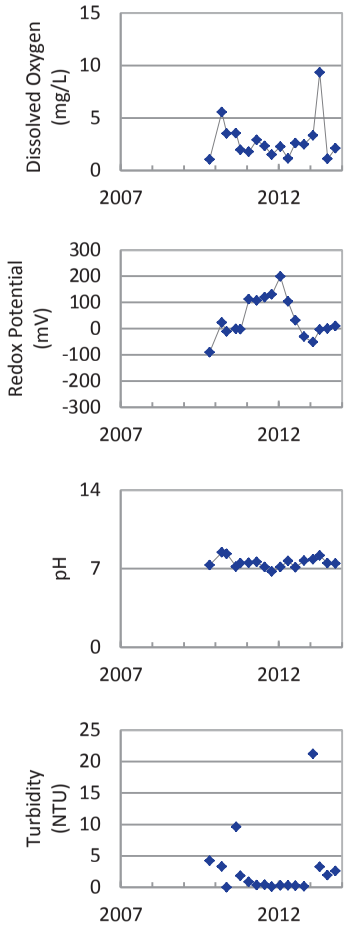
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1153
Lactic Acid and HIBA Trend in Perched Aquifer



Field Parameters



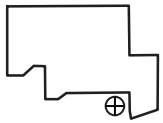
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Increasing

▲ Measured Value
● Sample Detection Limit
Concentration Trend
Injection Dates

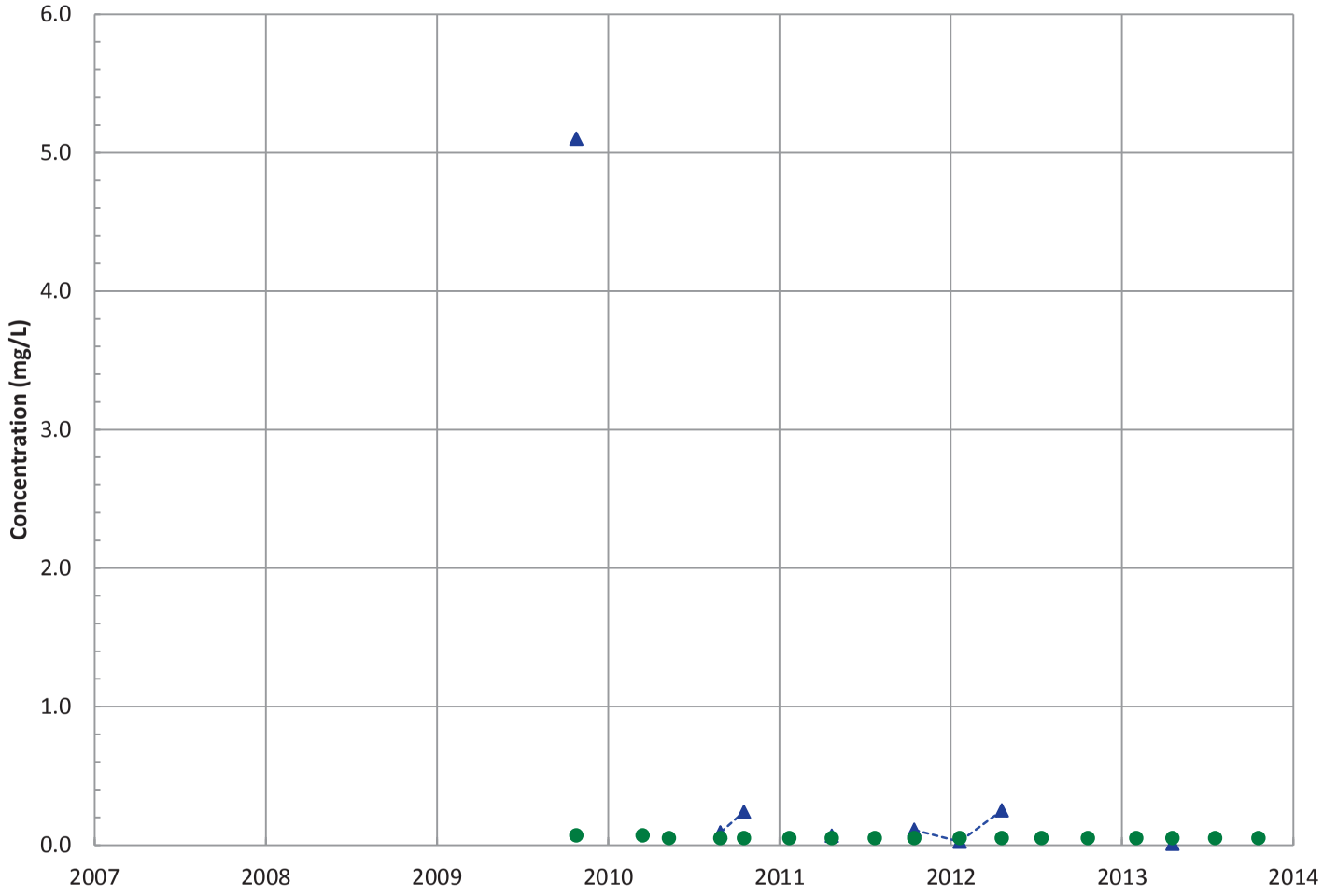
Well Location

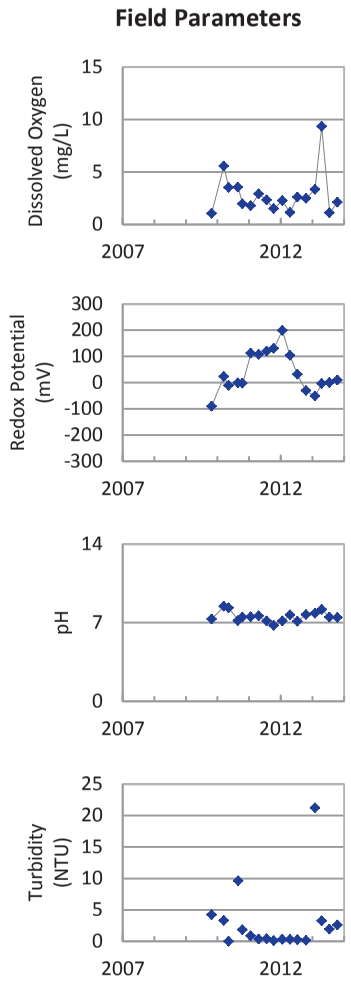


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1153
Propionic Acid Trend in Perched Aquifer





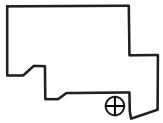
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Injection Dates

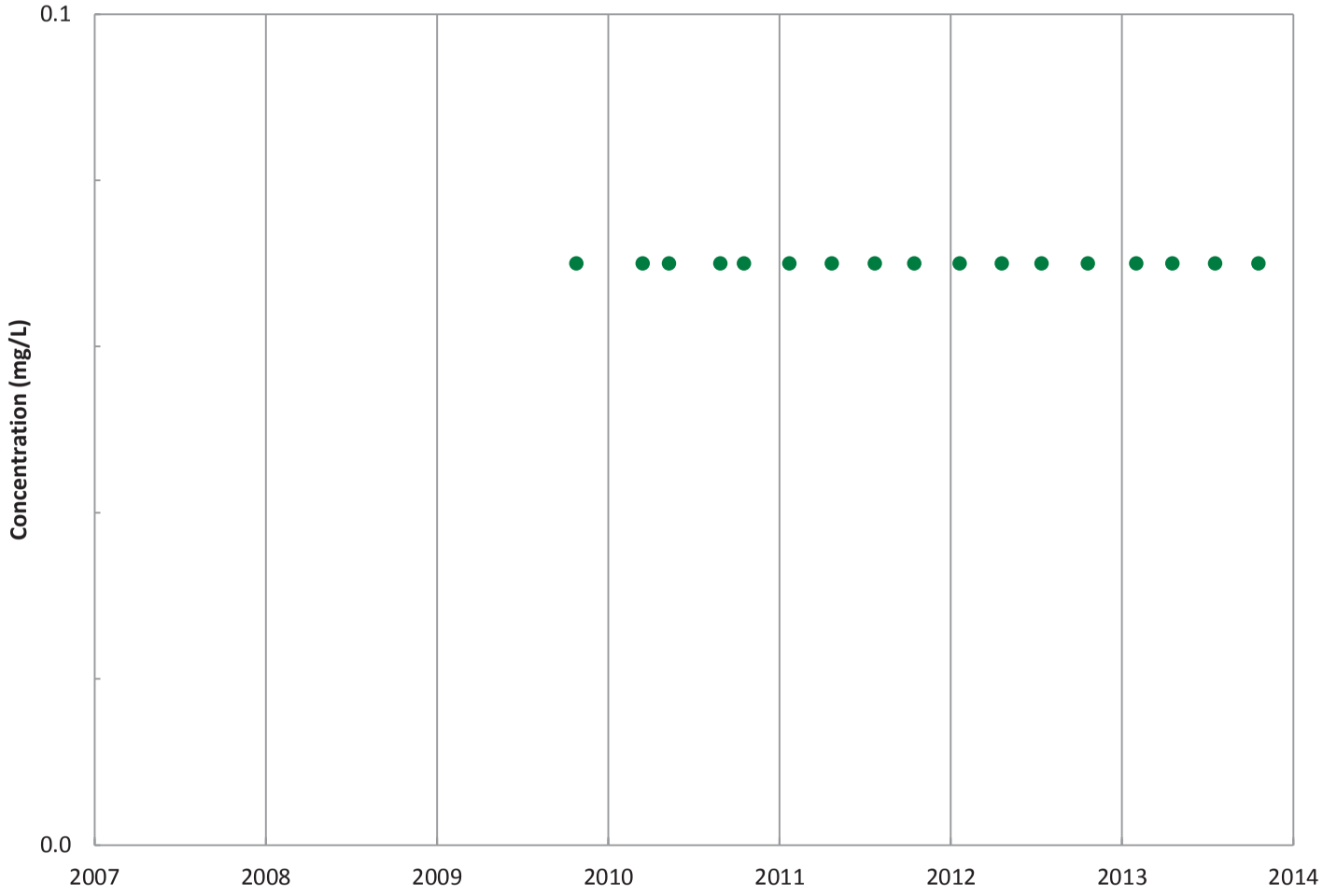
Well Location



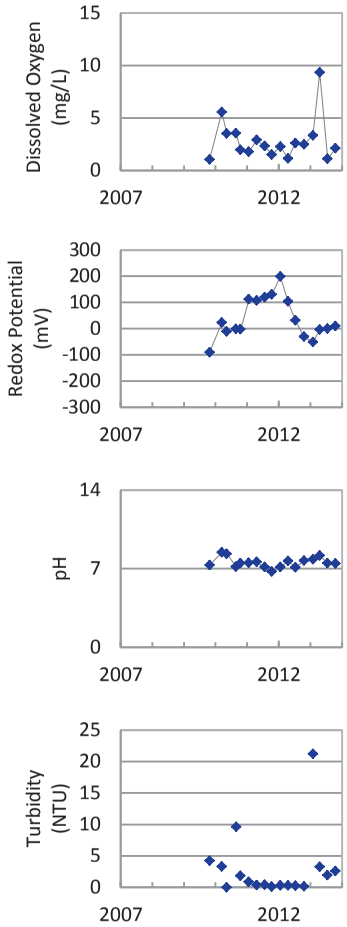
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1153
Pentanoic Acid Trend in Perched Aquifer



Field Parameters



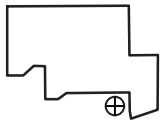
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Injection Dates

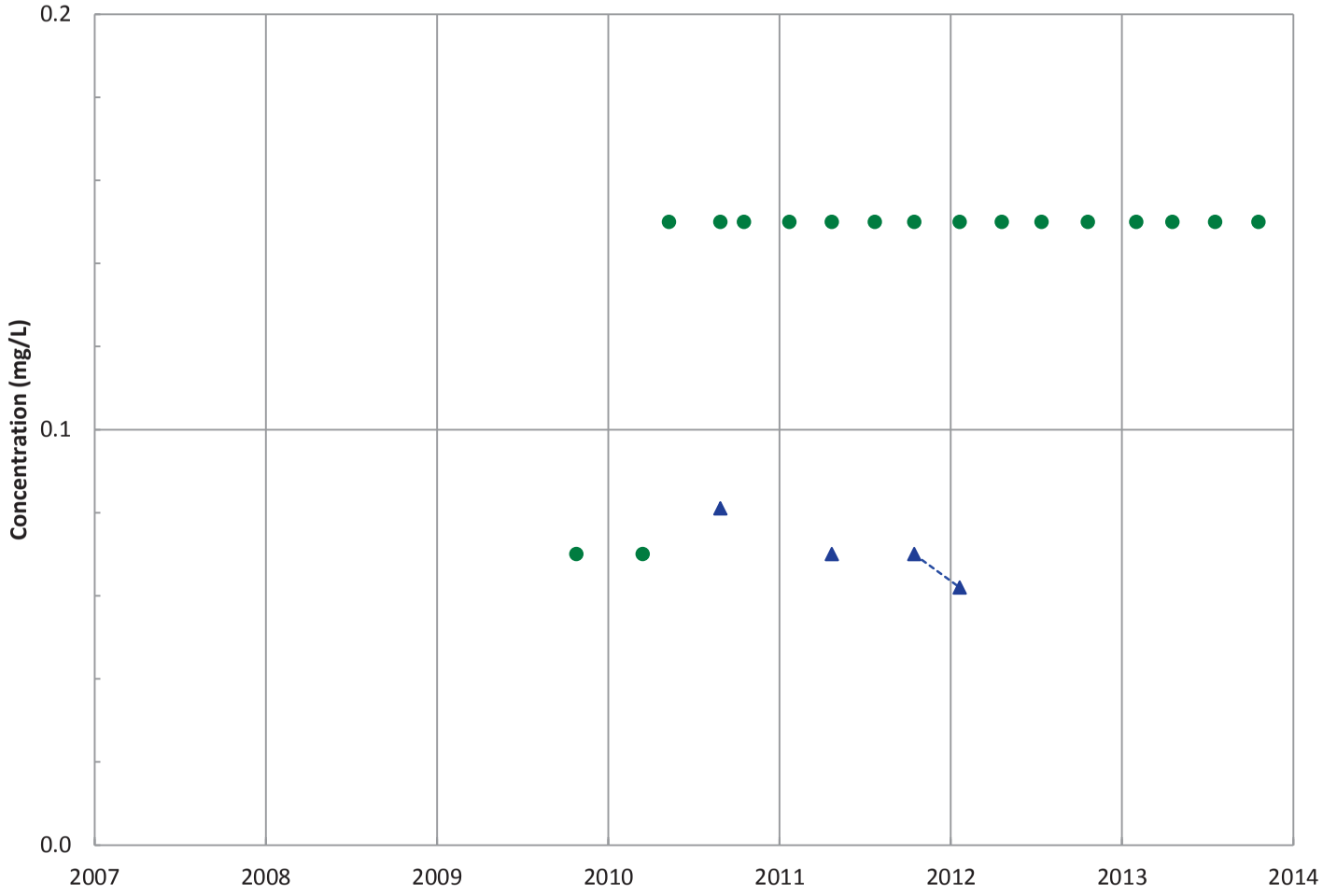
Well Location



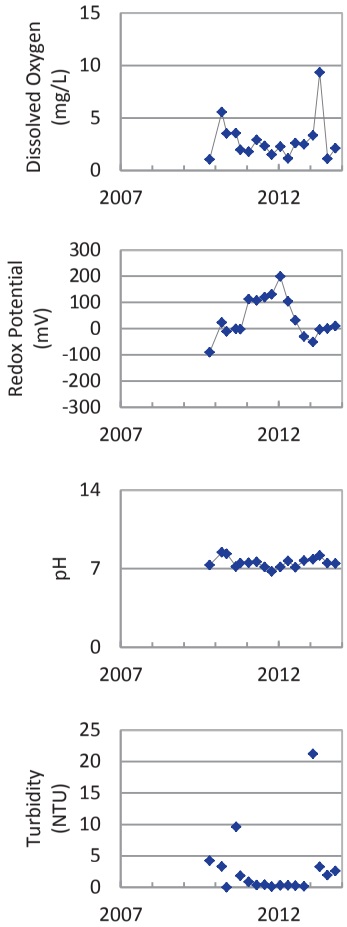
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1153
Pyruvic Acid Trend in Perched Aquifer



Field Parameters



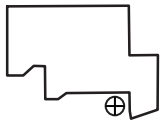
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Decreasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Injection Dates

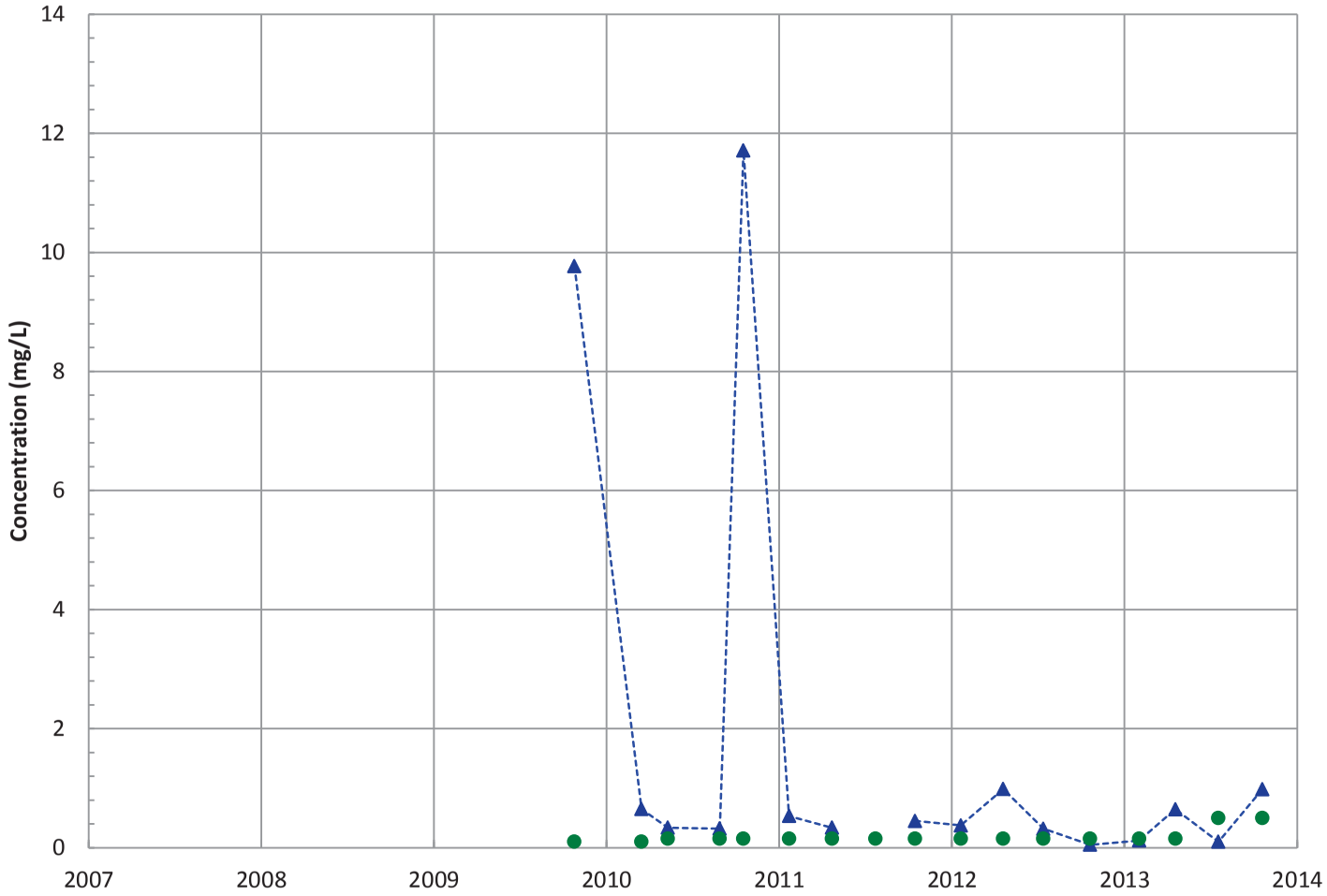
Well Location



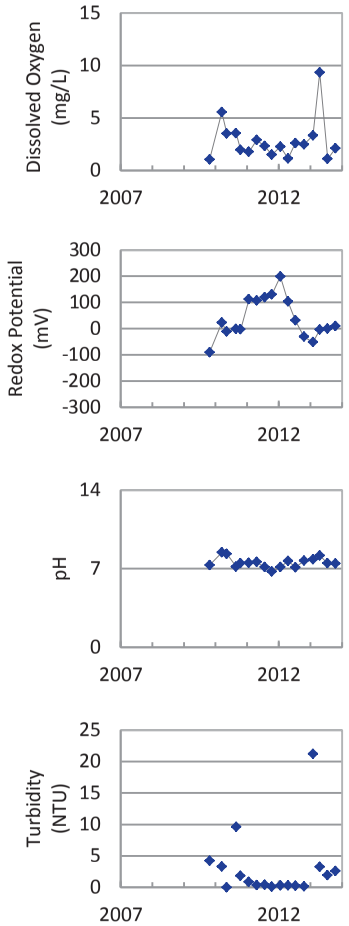
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1153
Total Volatile Fatty Acids Trend in Perched Aquifer



Field Parameters



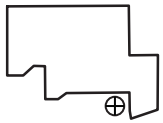
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

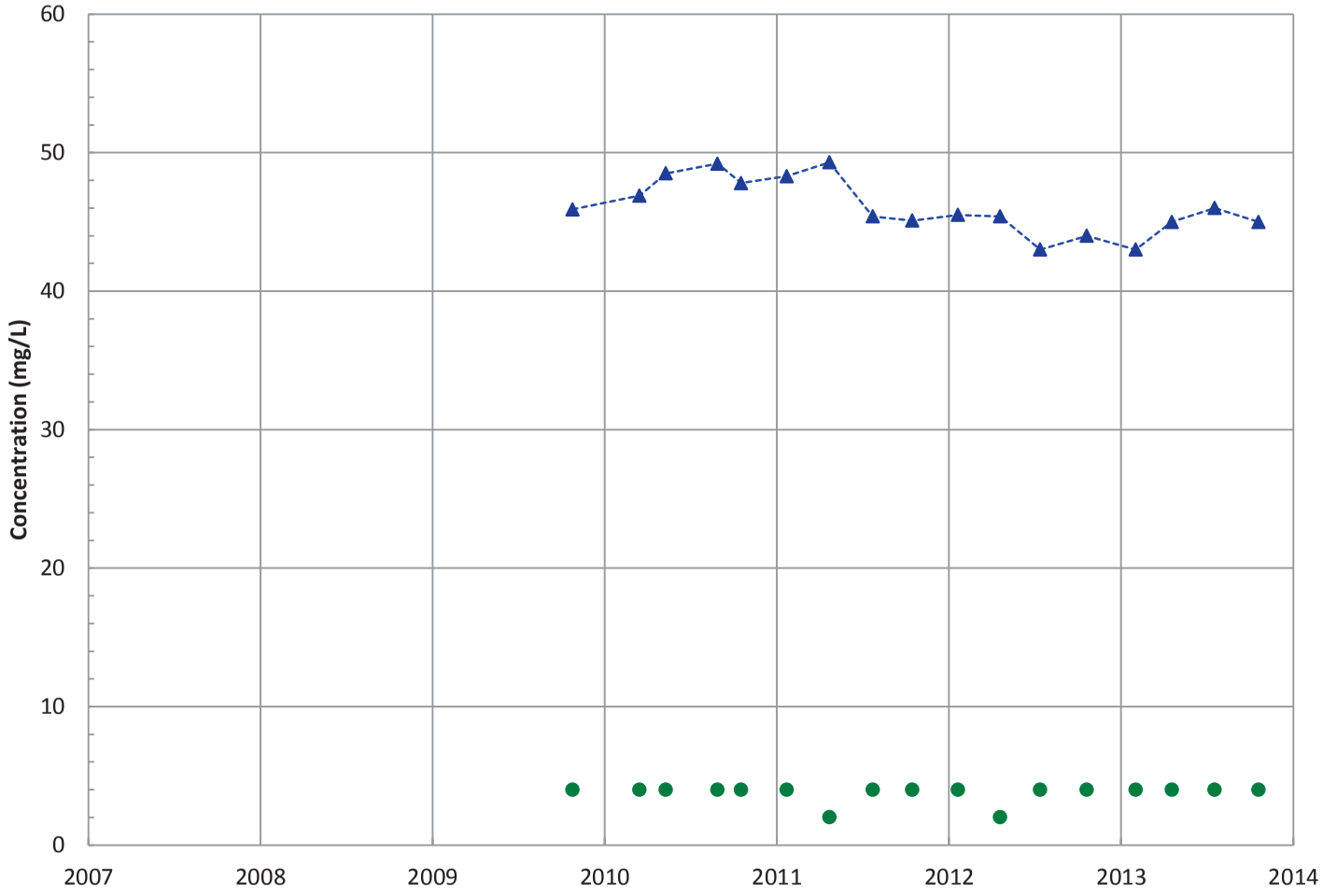
Well Location



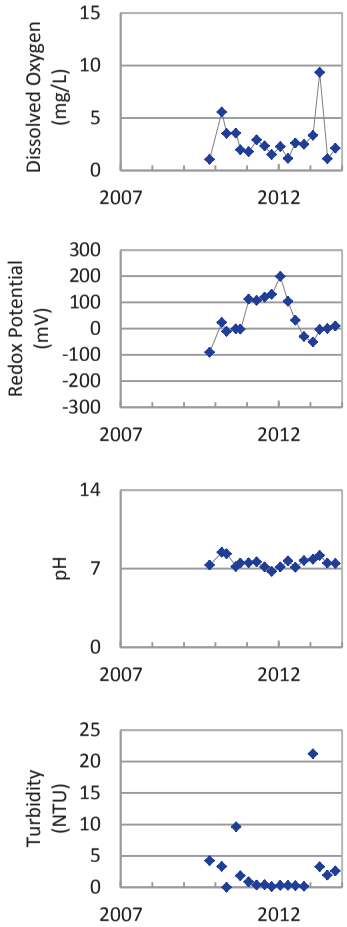
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1153
Chloride (as Cl) Trend in Perched Aquifer



Field Parameters



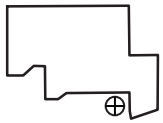
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

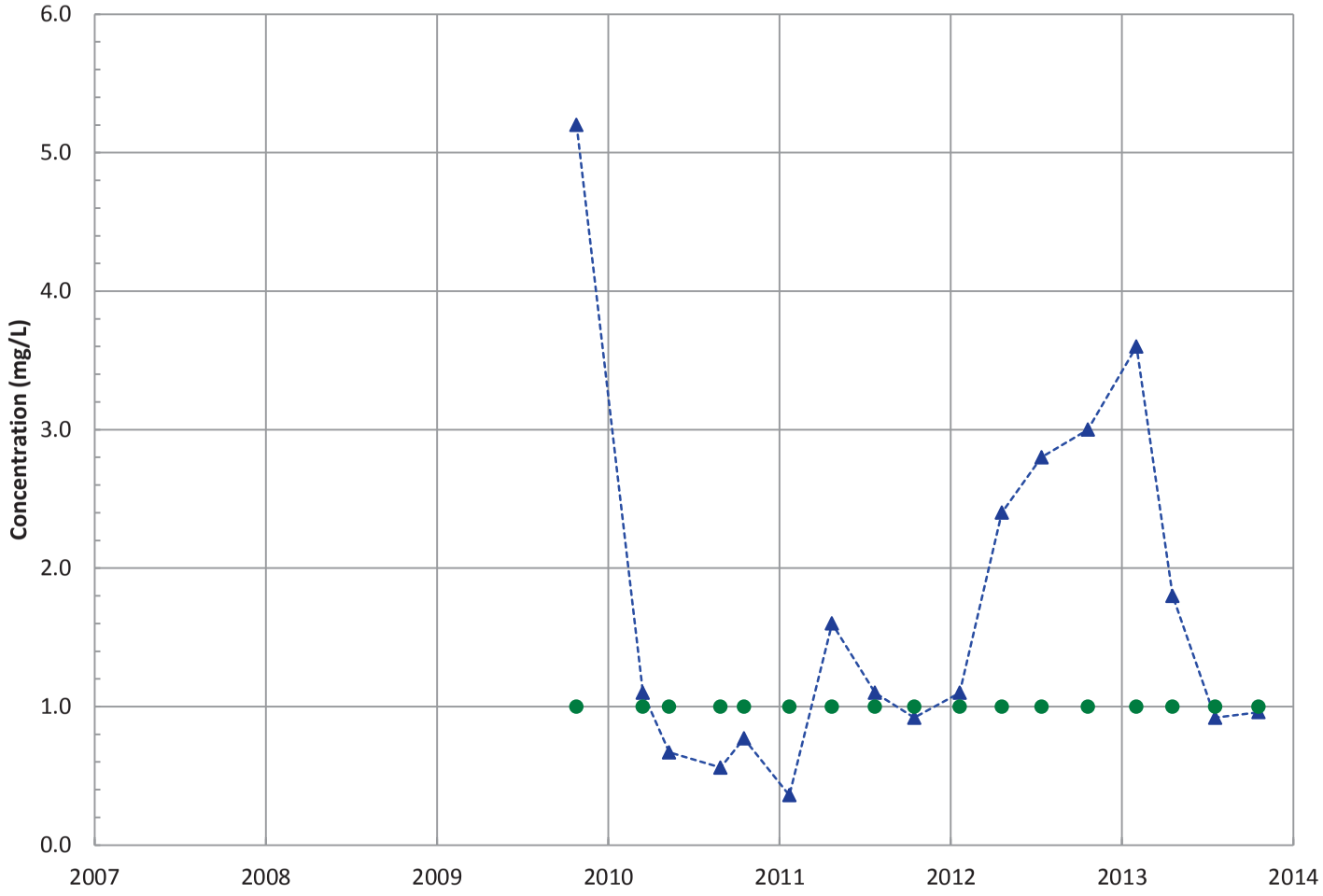
Well Location



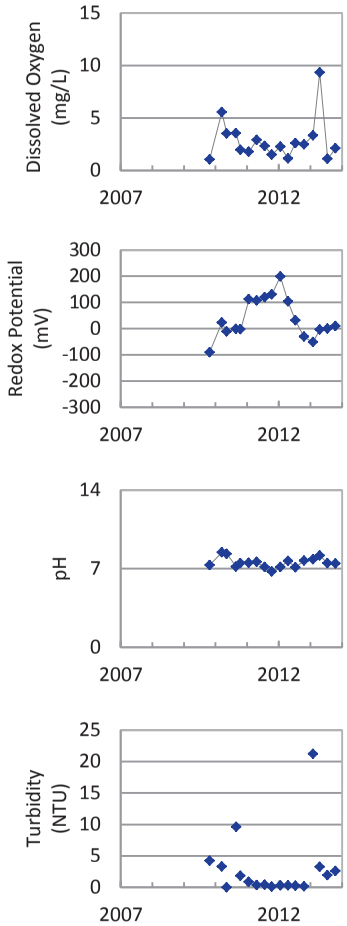
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1153
Total Organic Carbon Trend in Perched Aquifer



Field Parameters



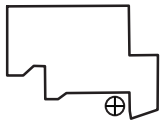
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Decreasing

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

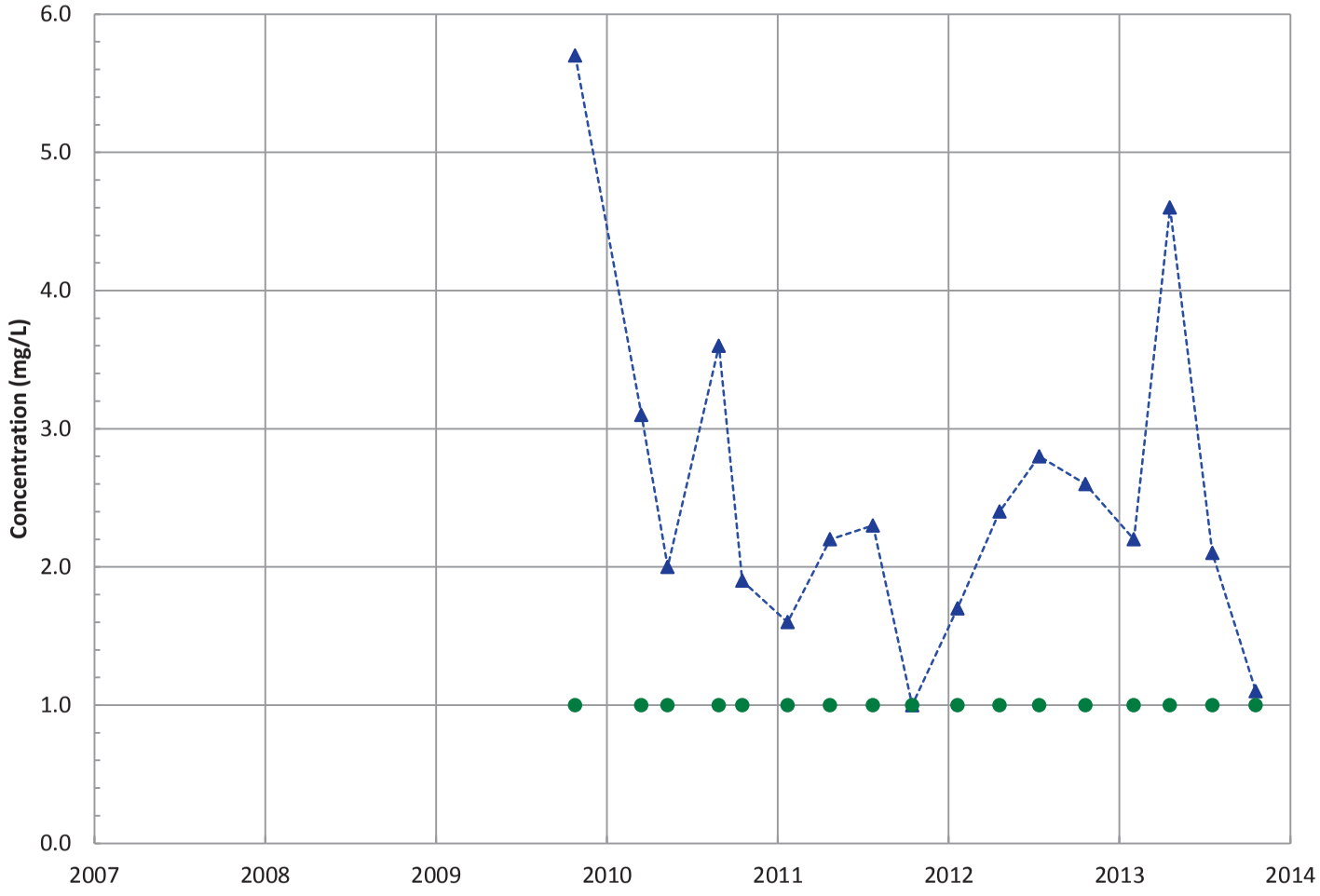
Well Location



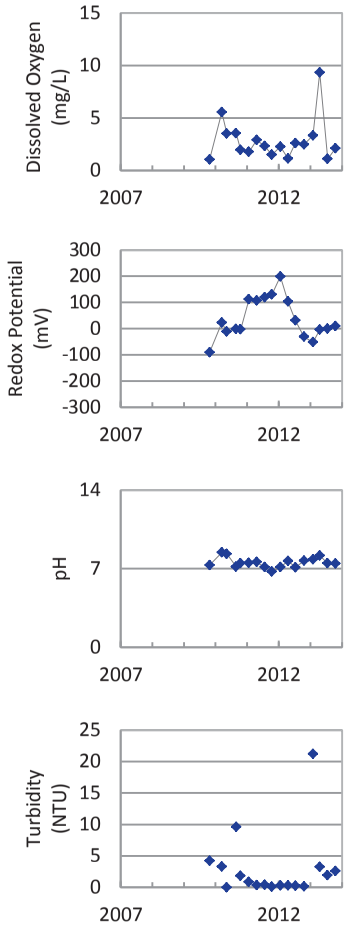
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1153
Dissolved Organic Carbon (DOC) Trend in Perched Aquifer



Field Parameters



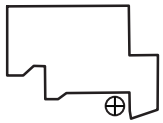
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: Stable

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

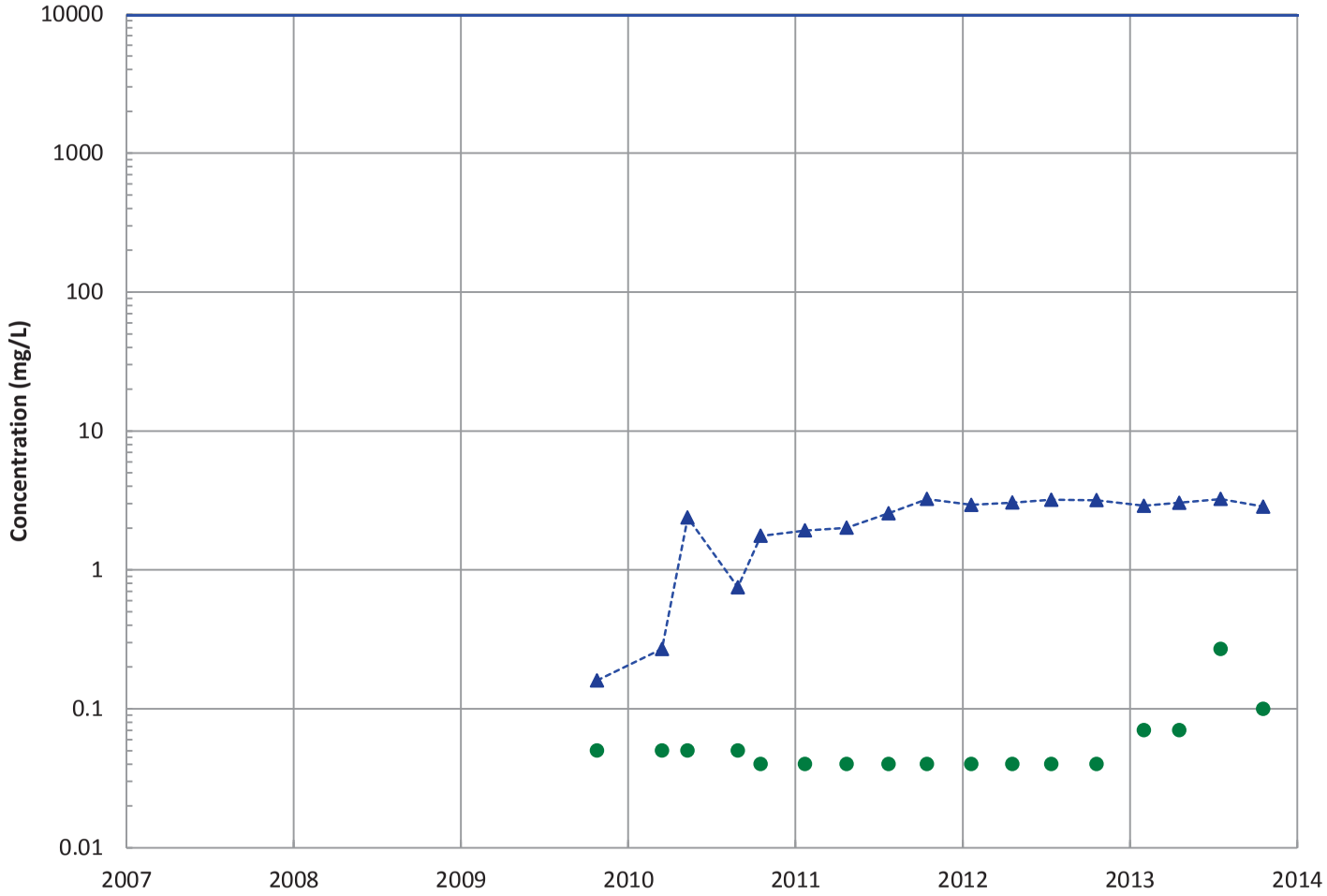
Well Location



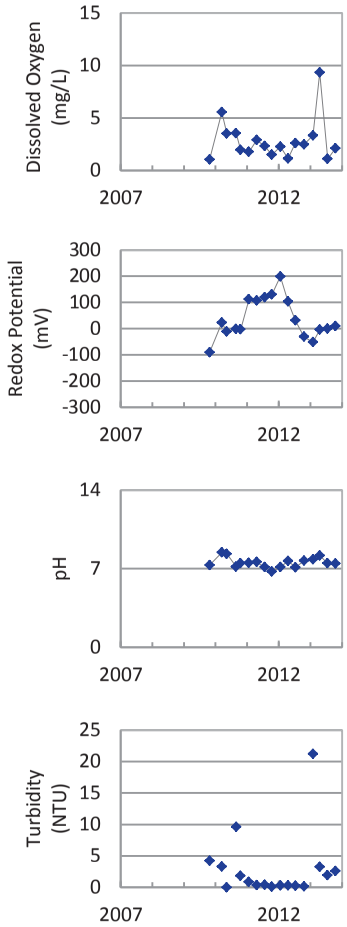
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1153
Nitrate as N Trend in Perched Aquifer



Field Parameters



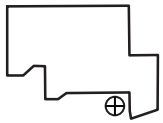
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Stable

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

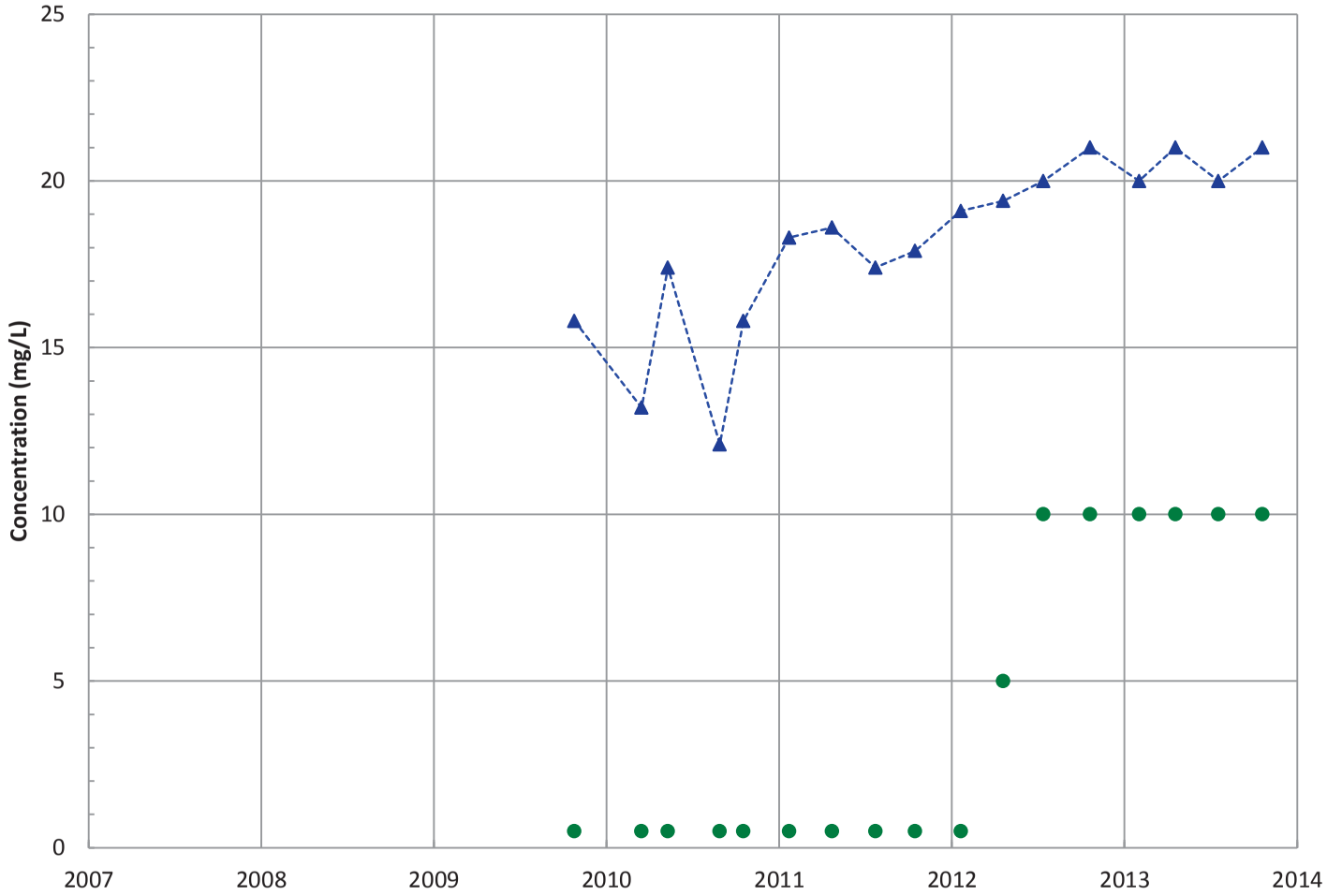
Well Location



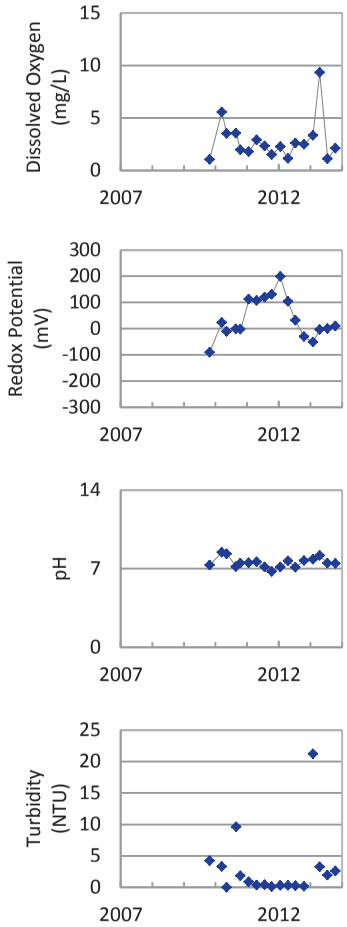
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1153
Sulfate (as SO4) Trend in Perched Aquifer



Field Parameters



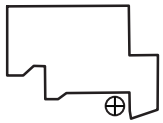
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: No Trend

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

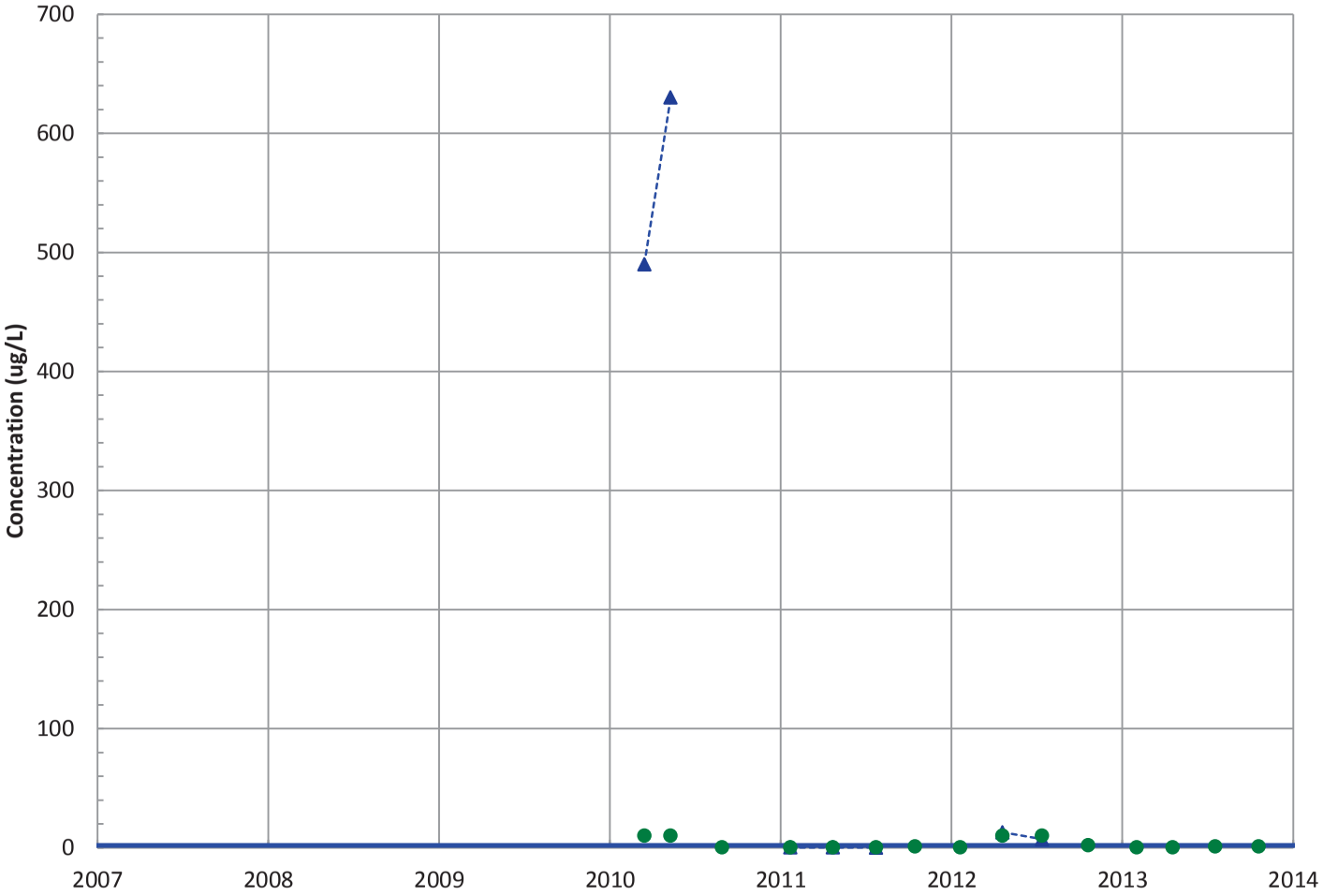
Well Location



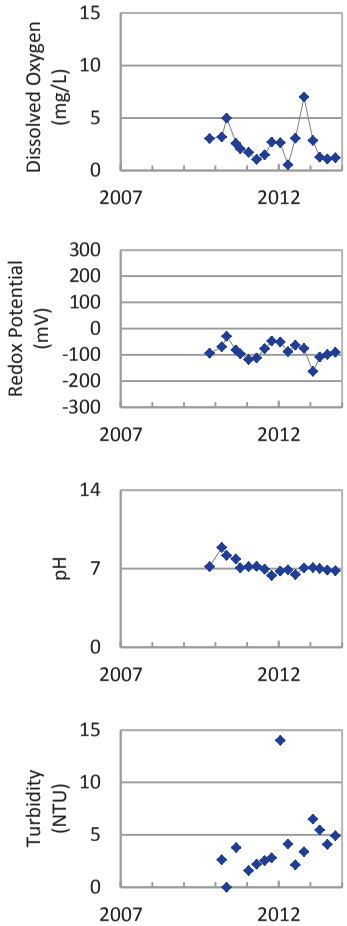
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1154
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Increasing

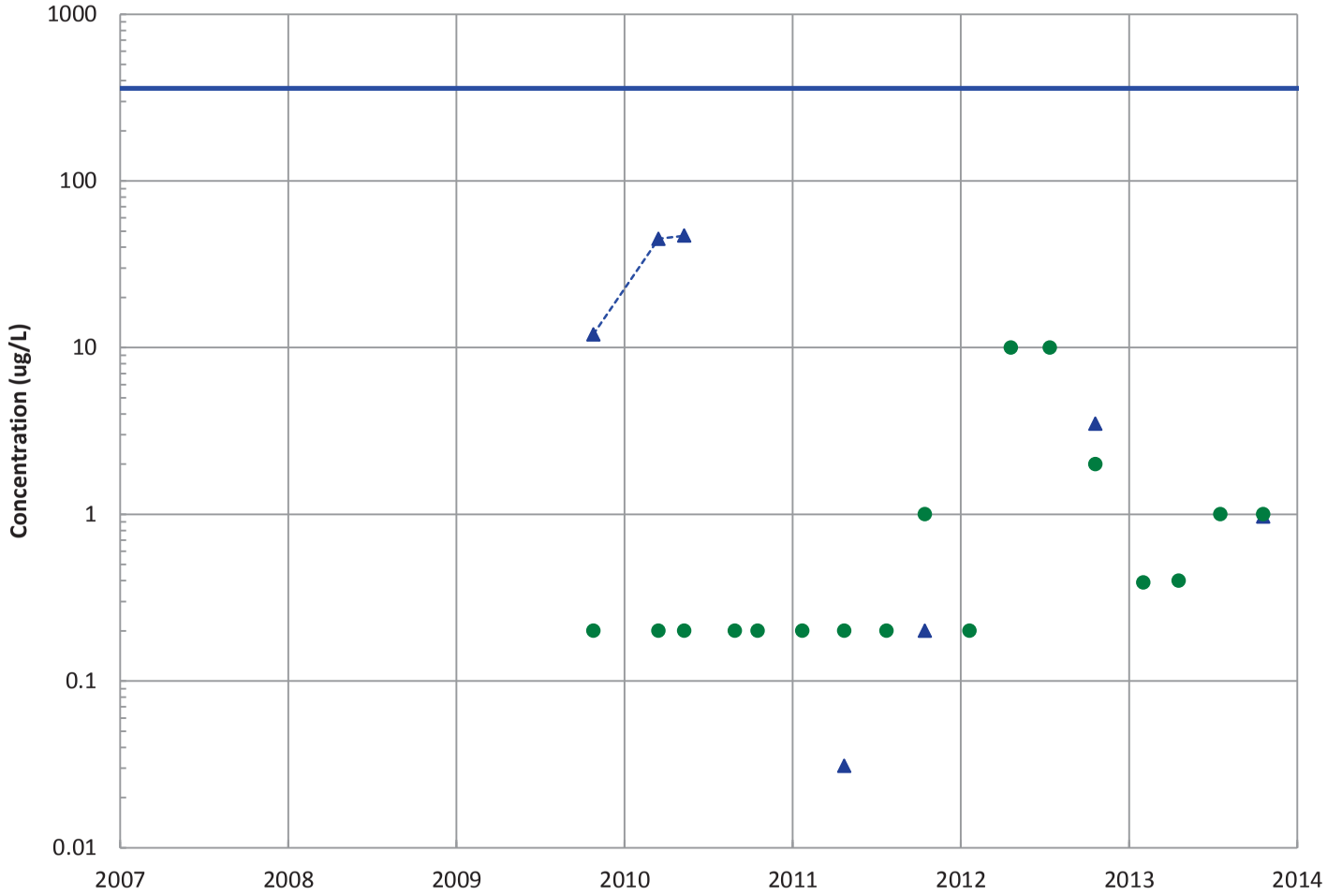
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

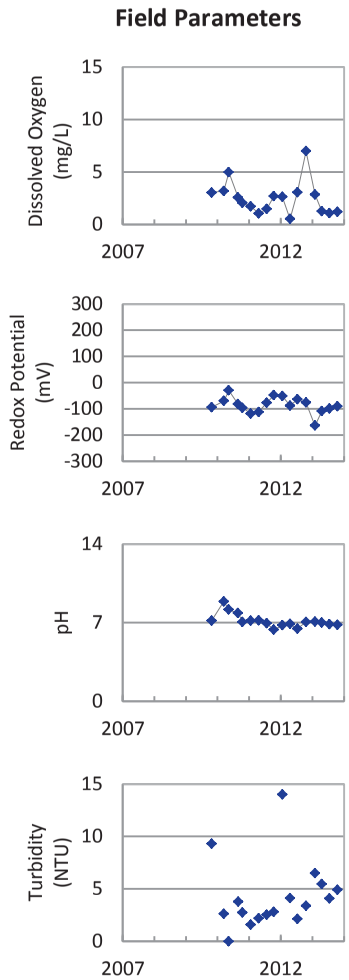
Well Location

Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/18/2010 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1154
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer





Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

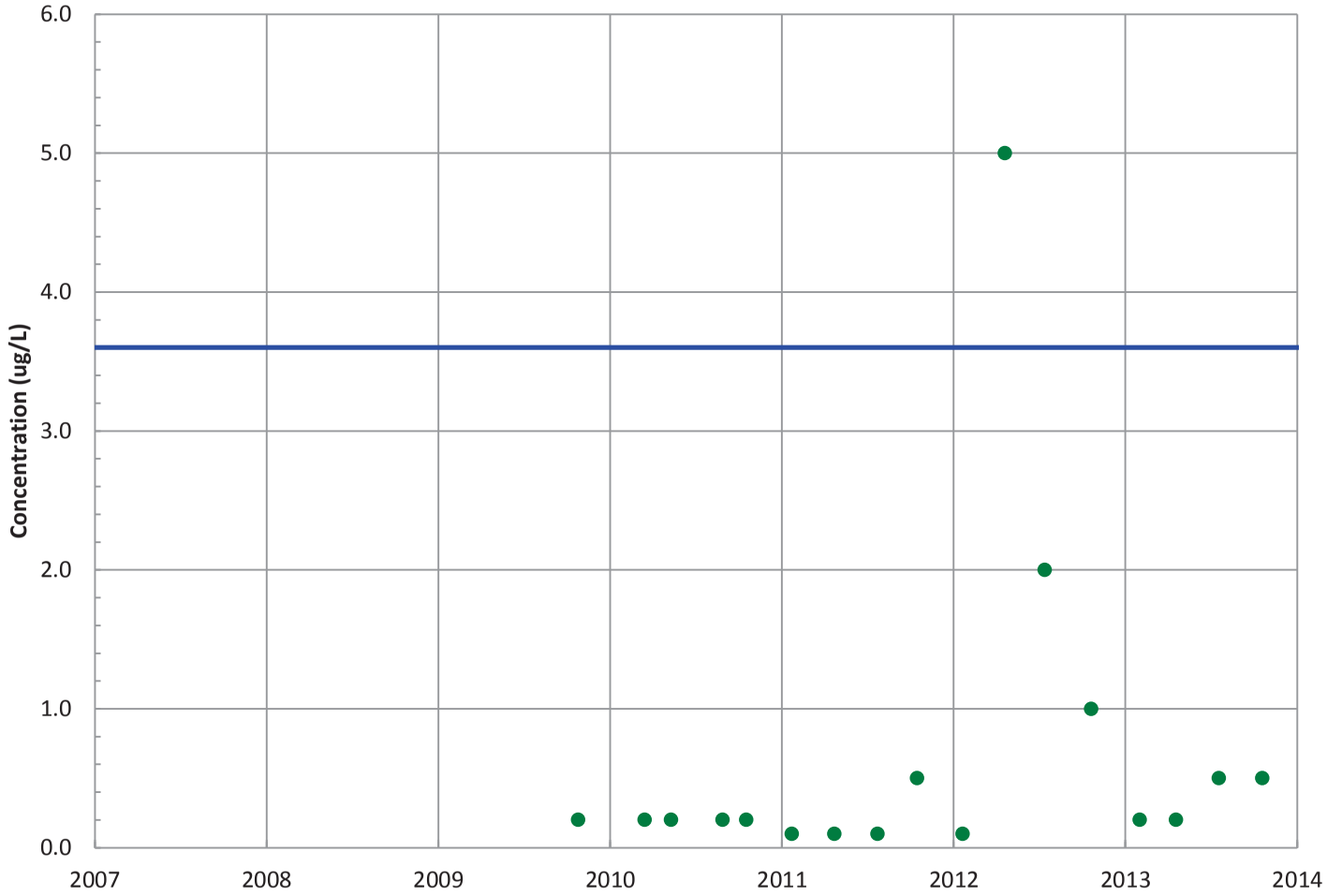
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

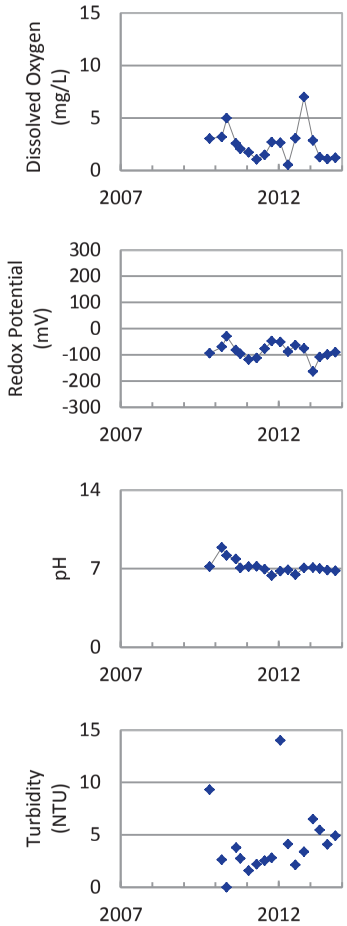
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1154
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

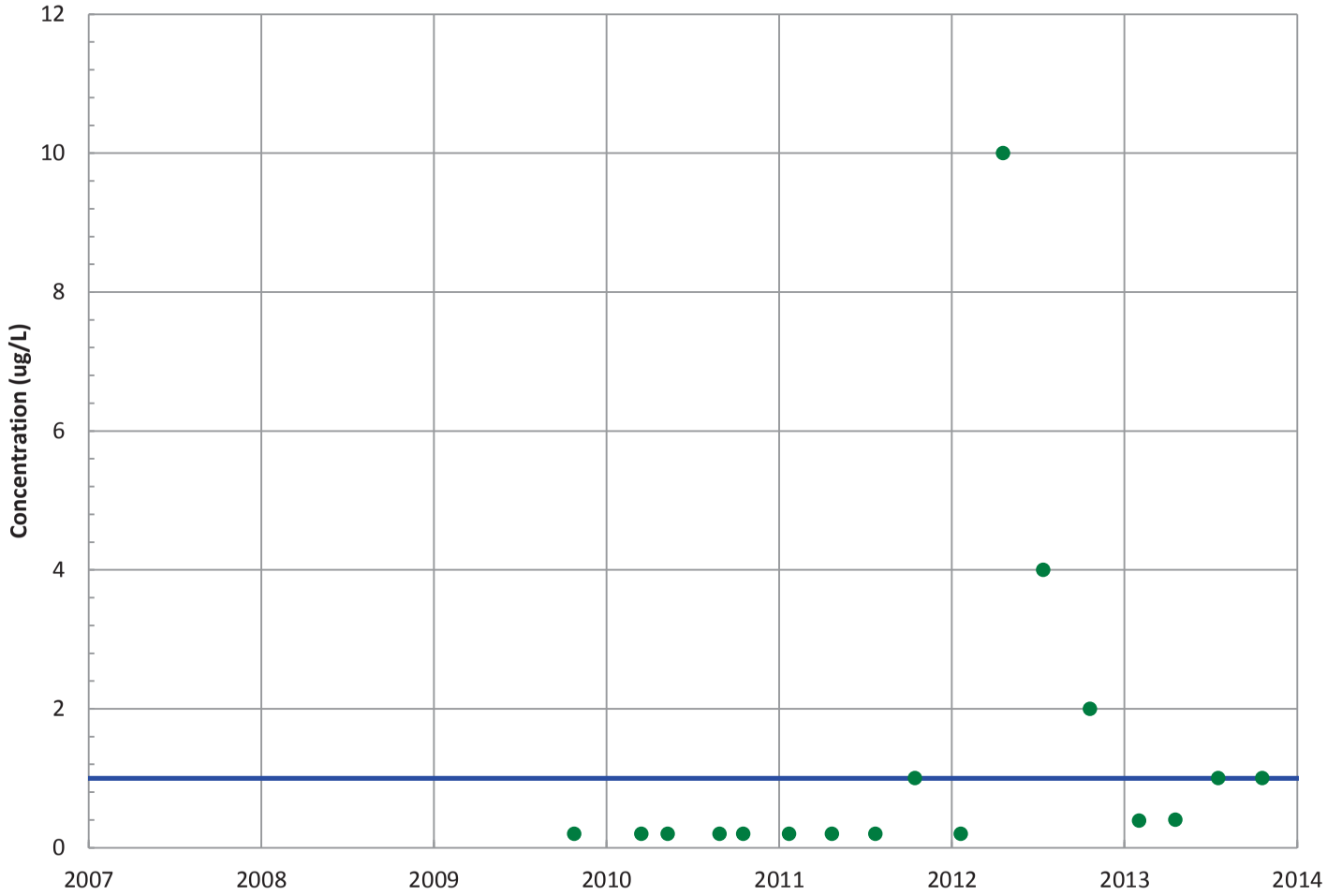
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

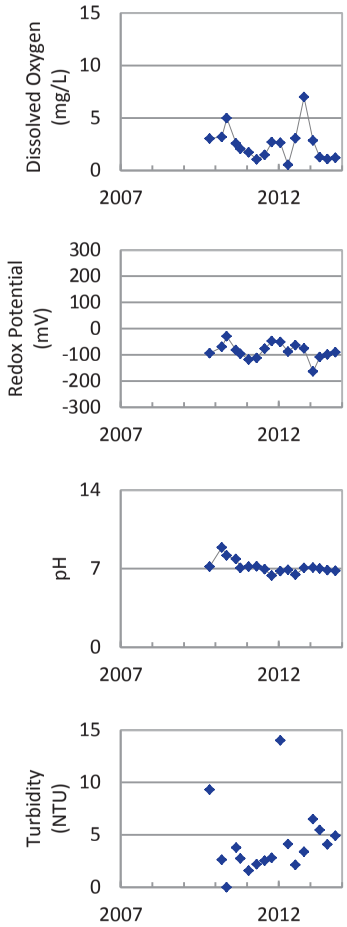
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1154
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

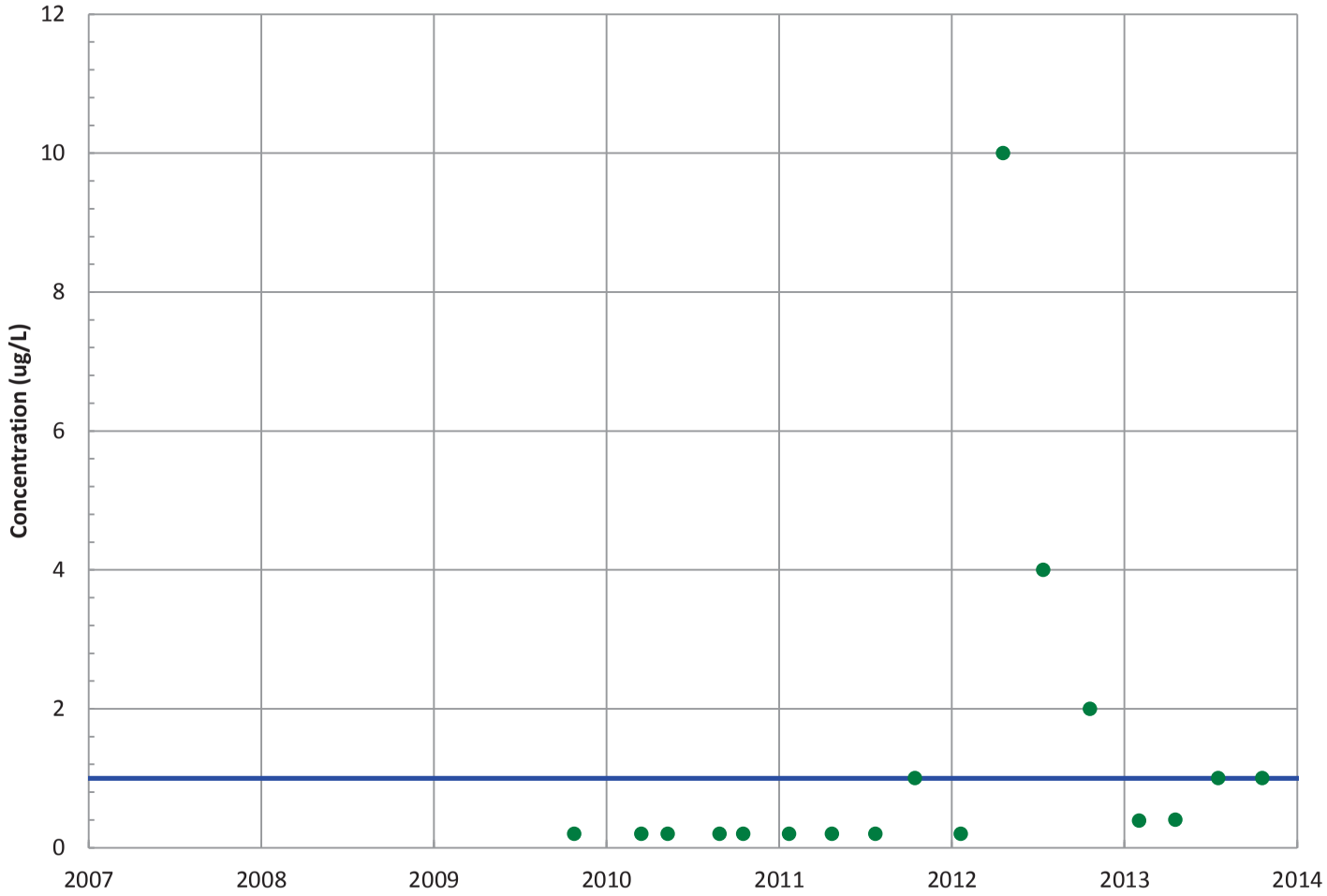
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

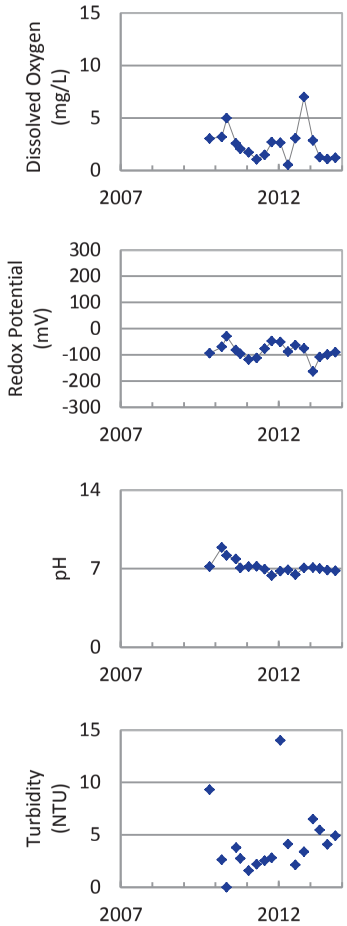
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1154
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

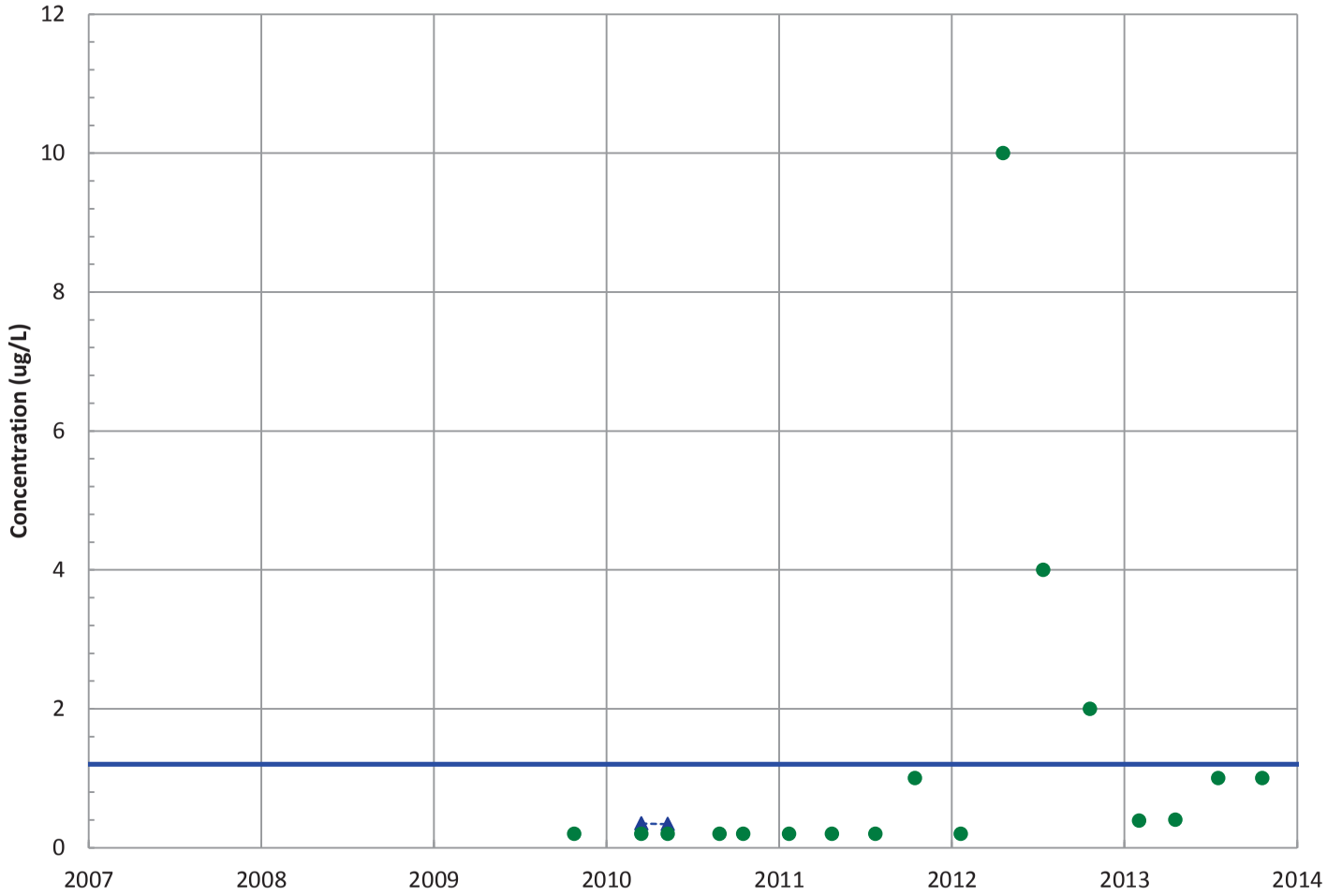
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

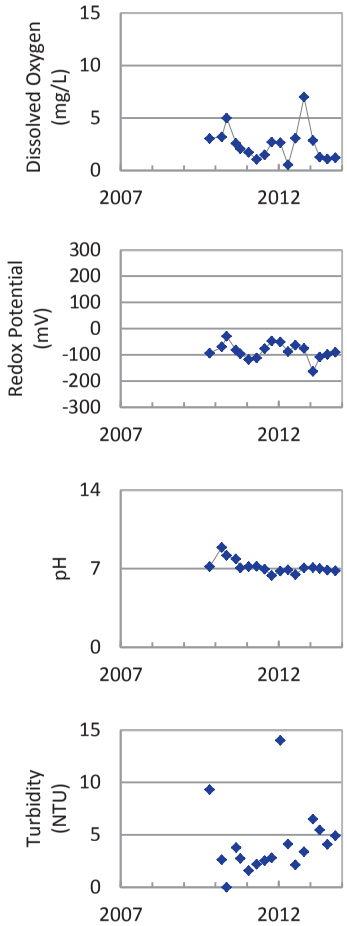
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1154
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

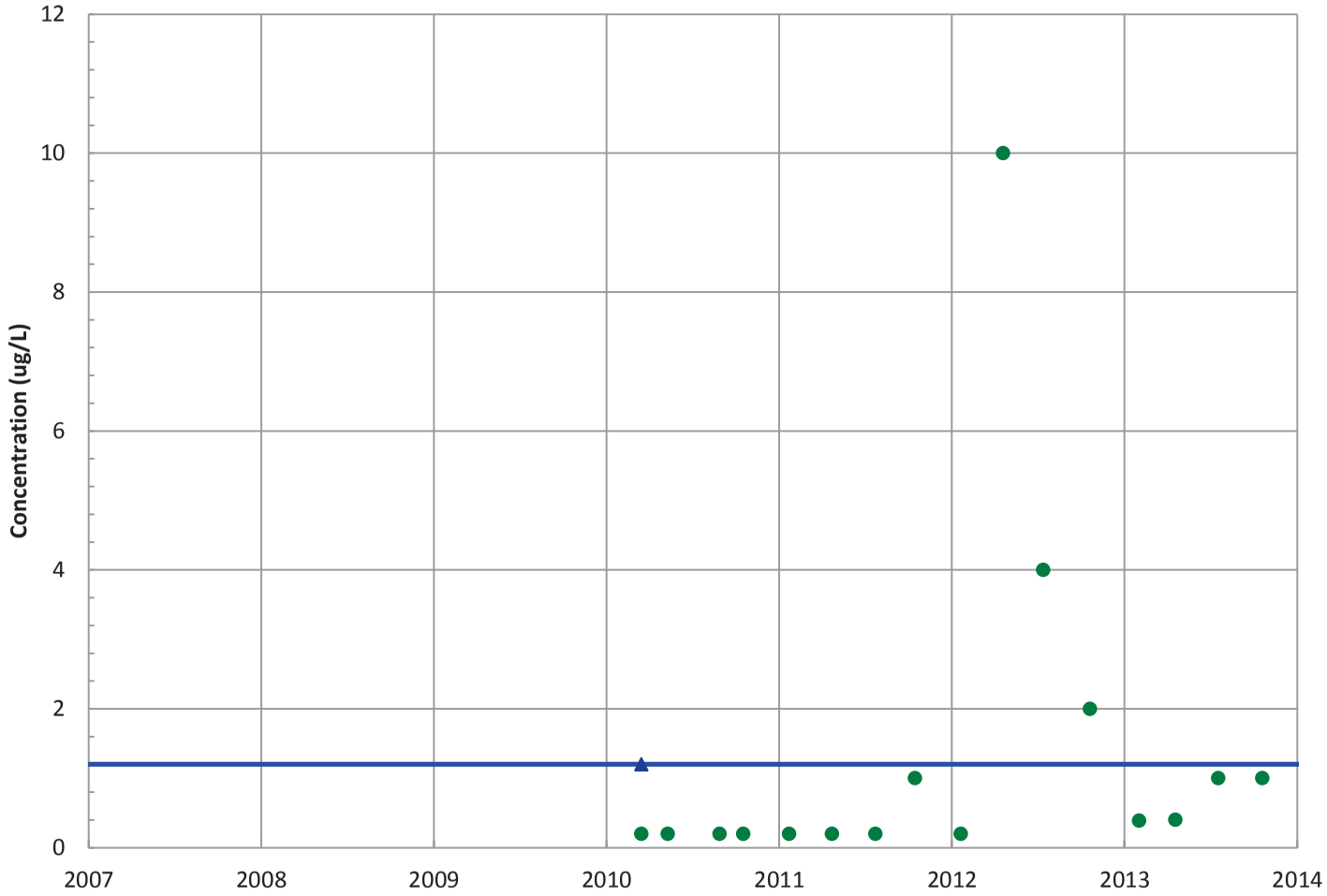
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

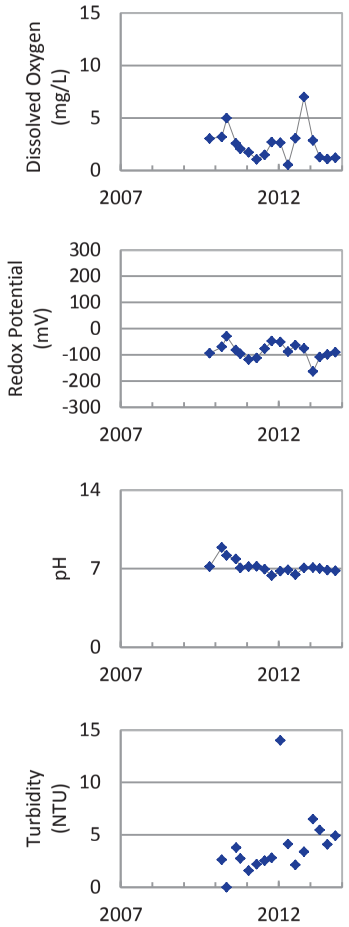
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1154
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

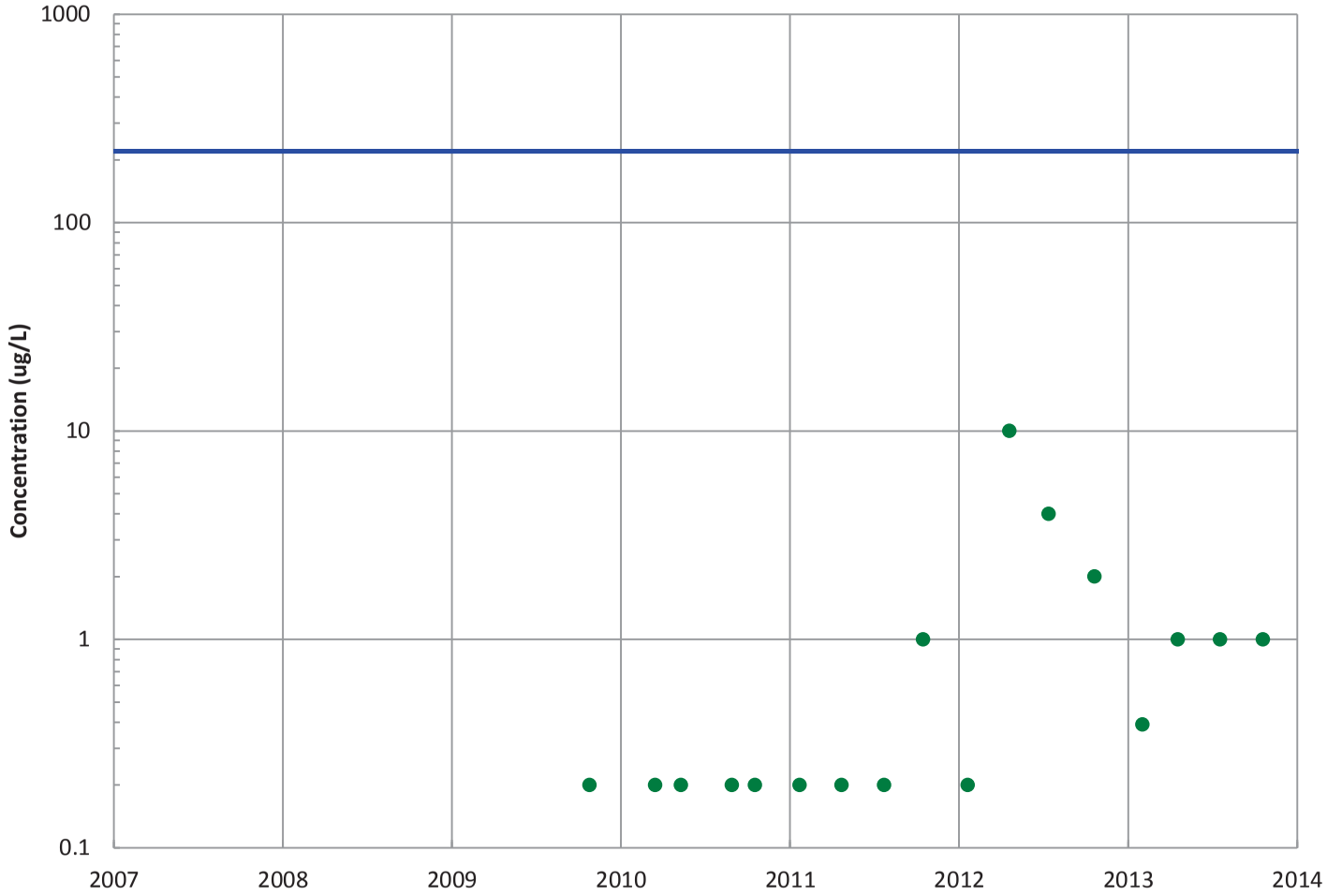
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

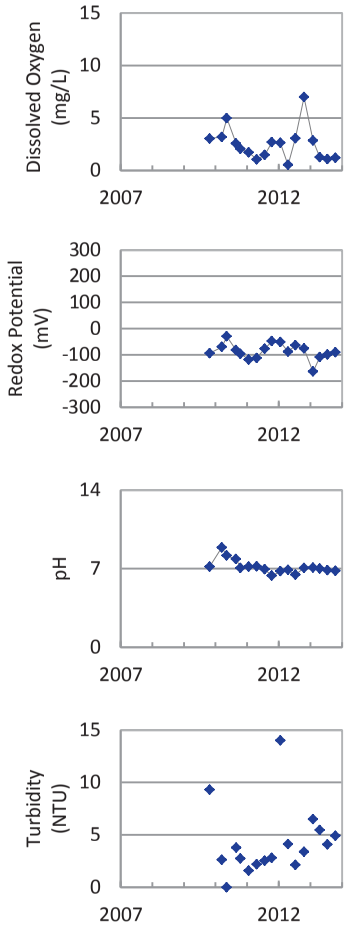
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/18/2010 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1154
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

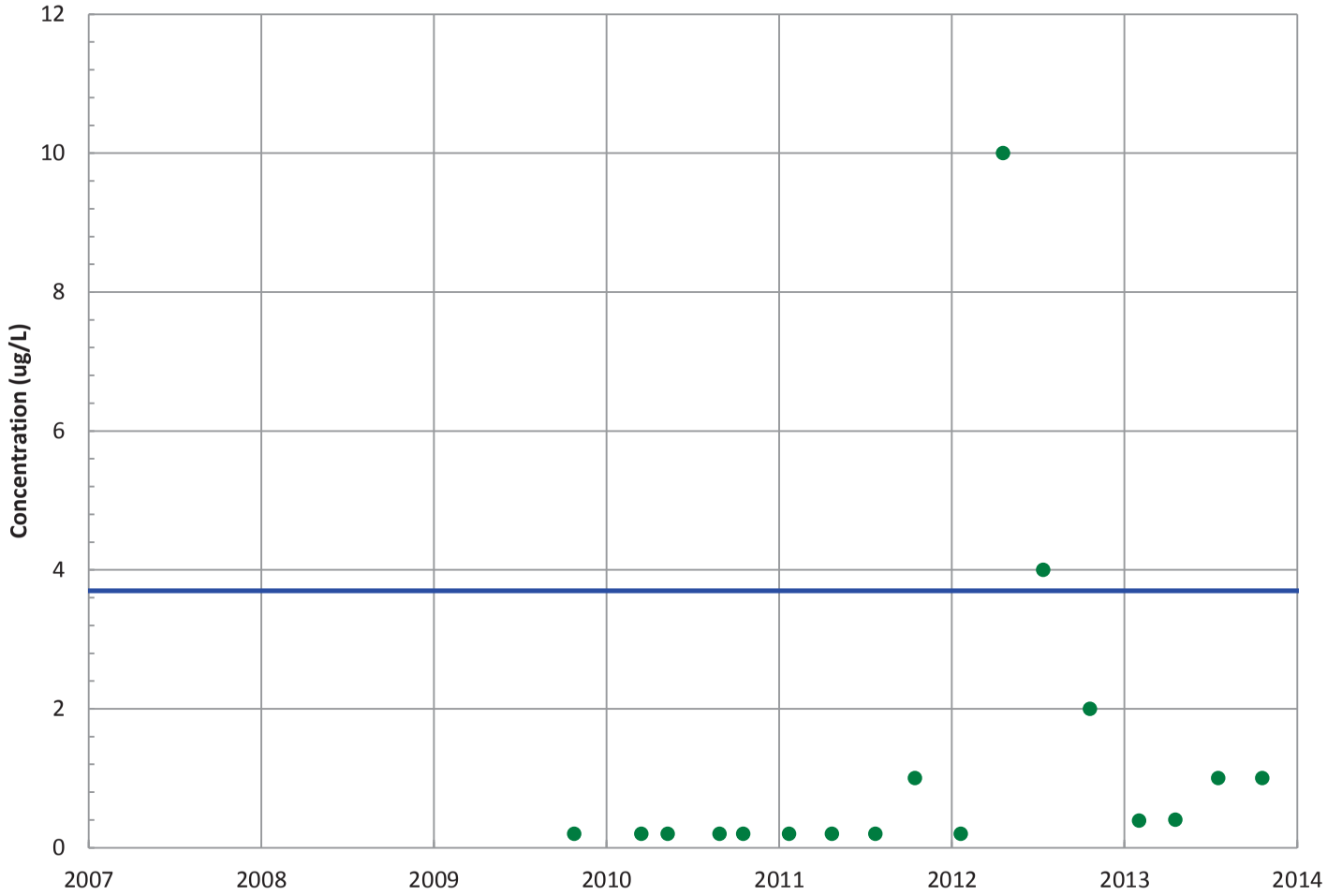
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

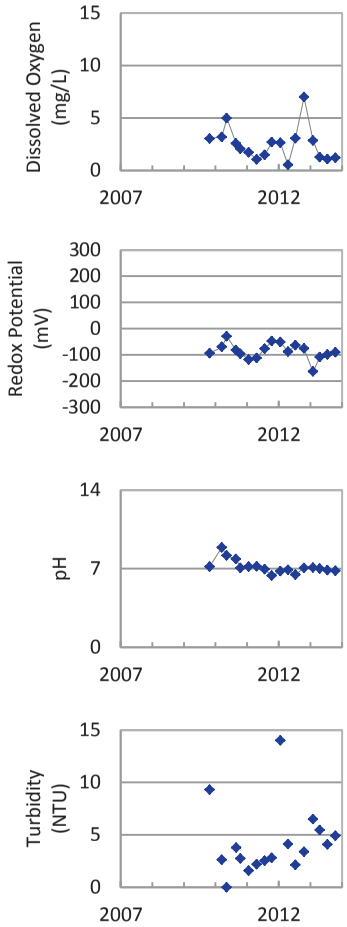
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1154
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

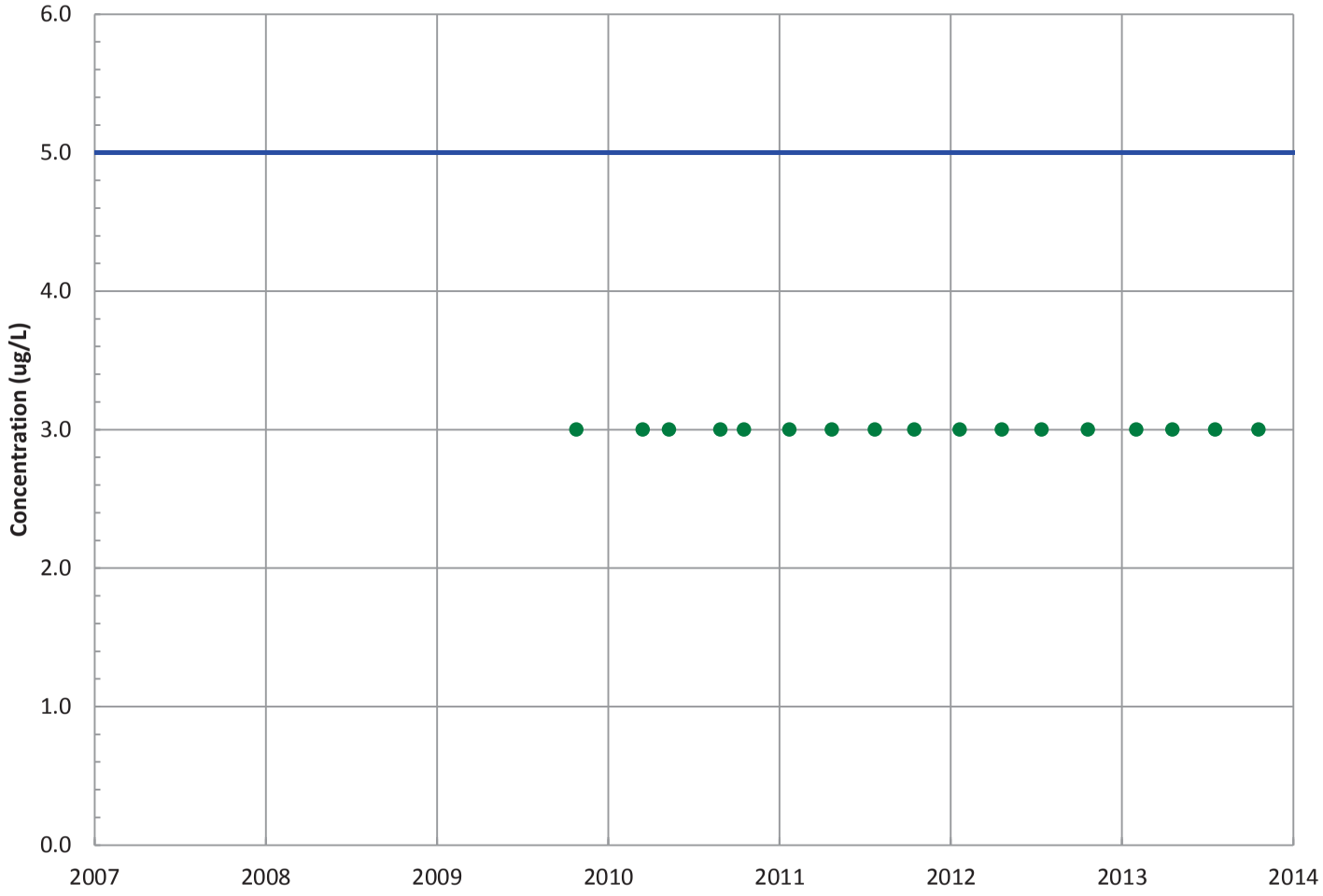
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

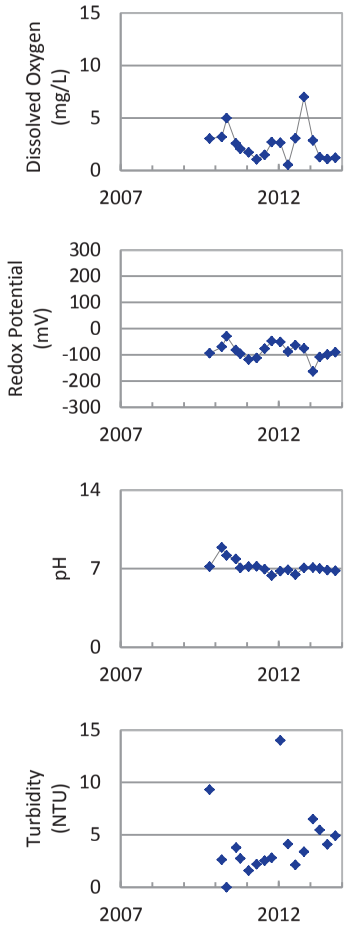
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1154
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

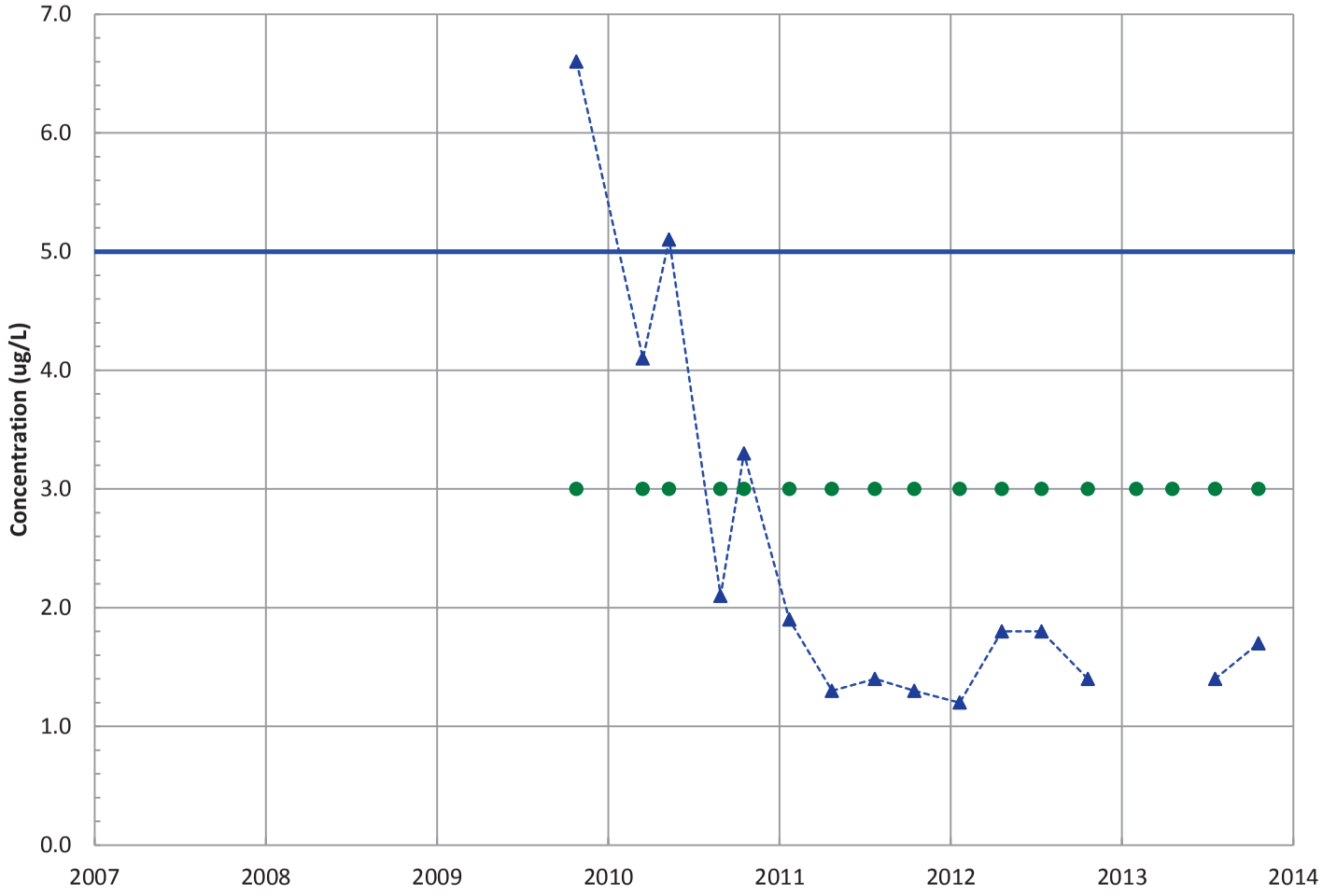
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

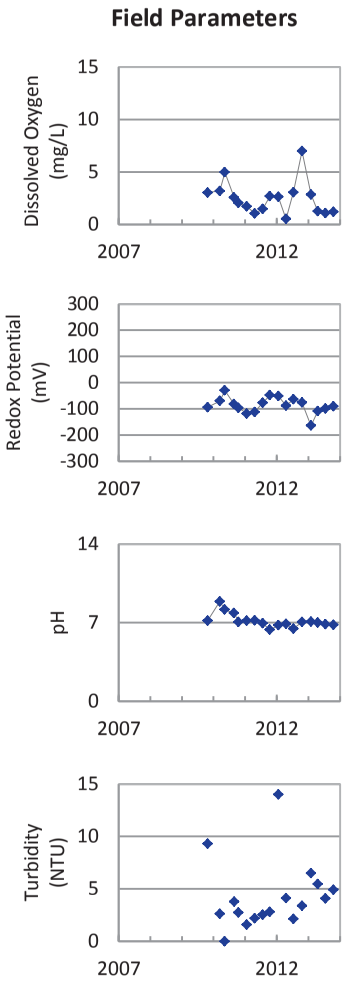
Well Location

Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1154
Trichloroethene Trend in Perched Aquifer





Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Stable

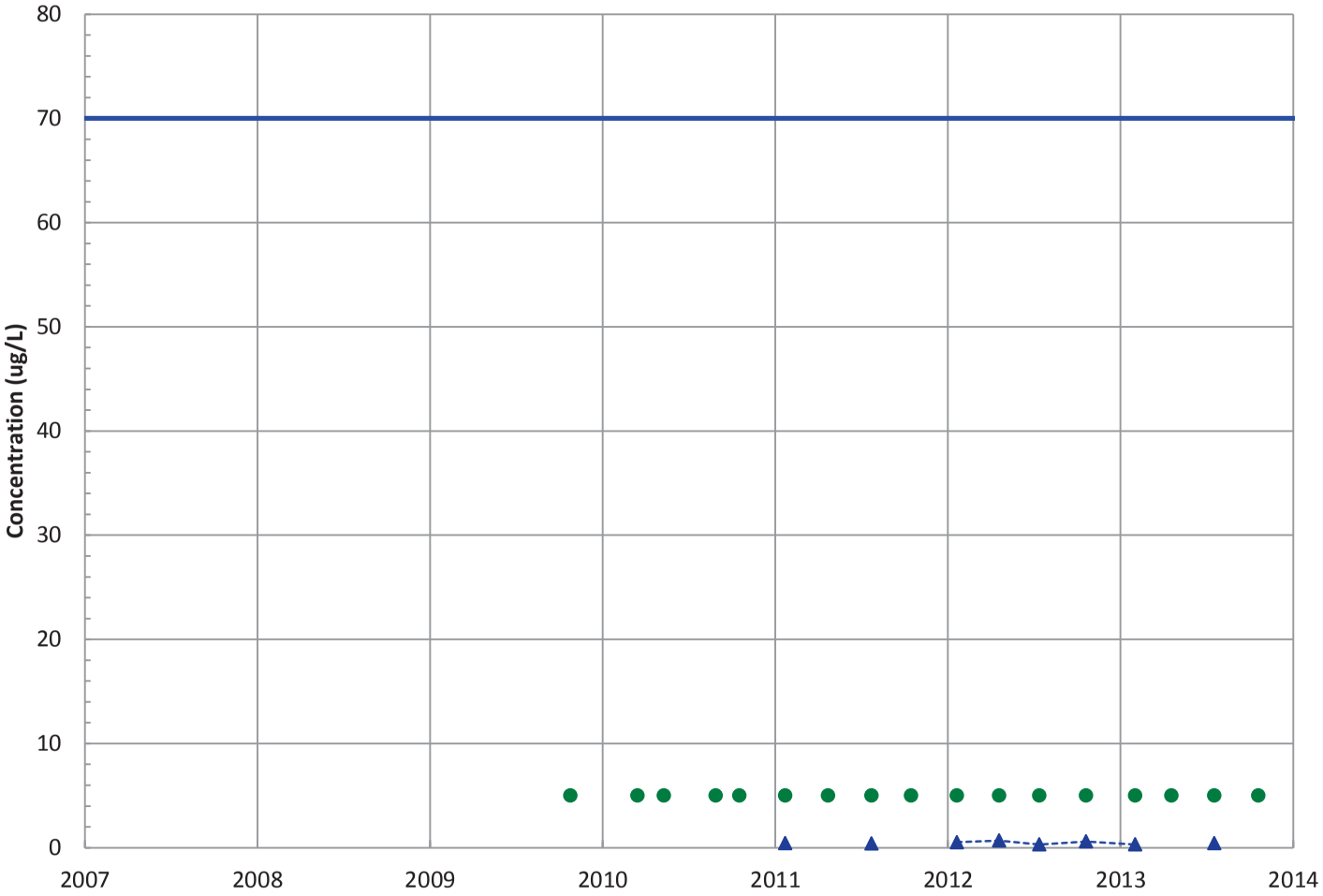
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

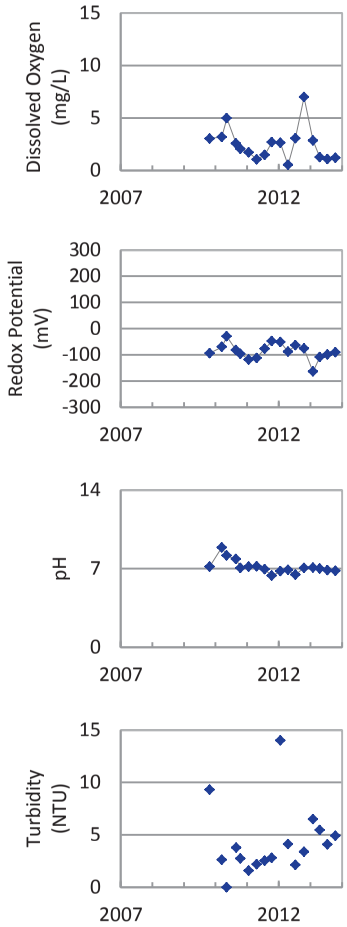
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1154
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: No Trend

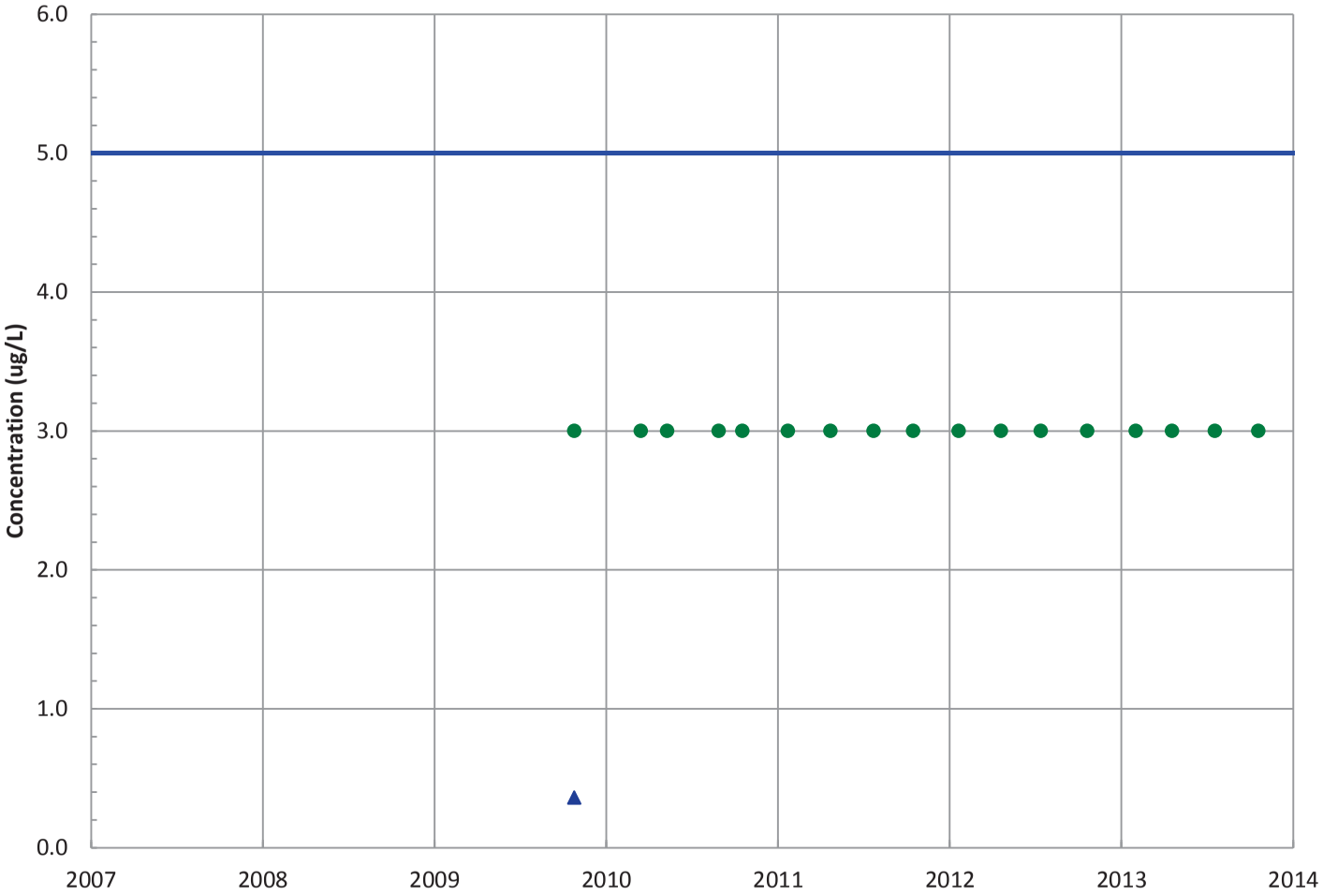
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

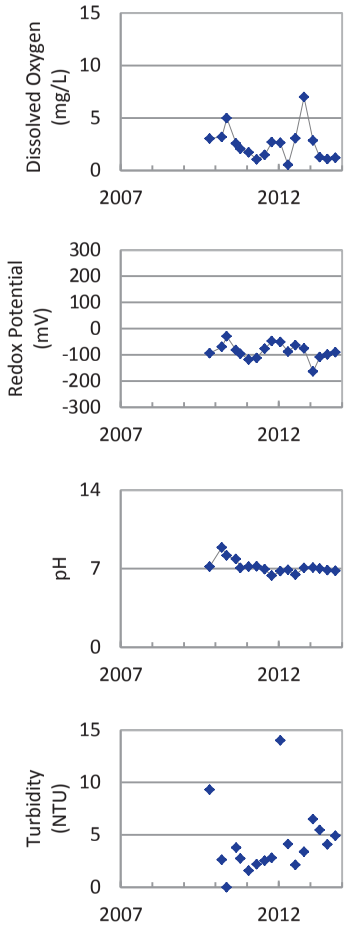
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1154
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

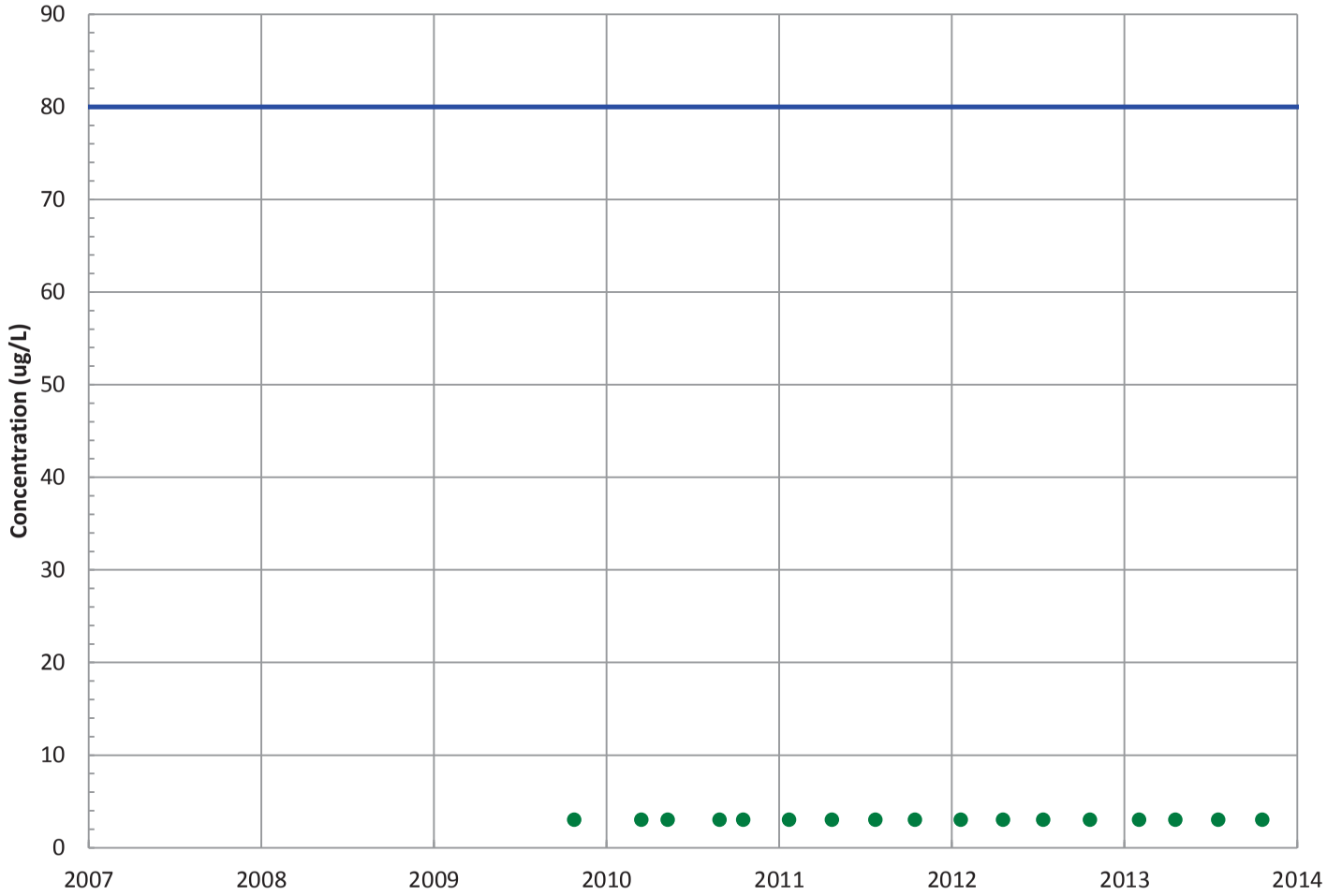
- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

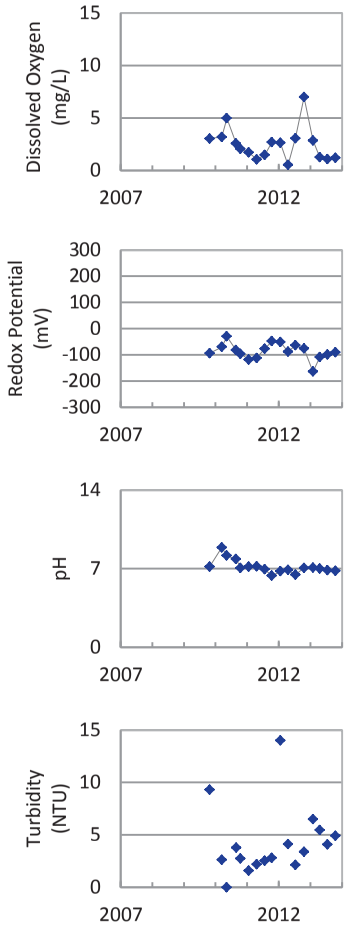
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1154
Chloroform Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

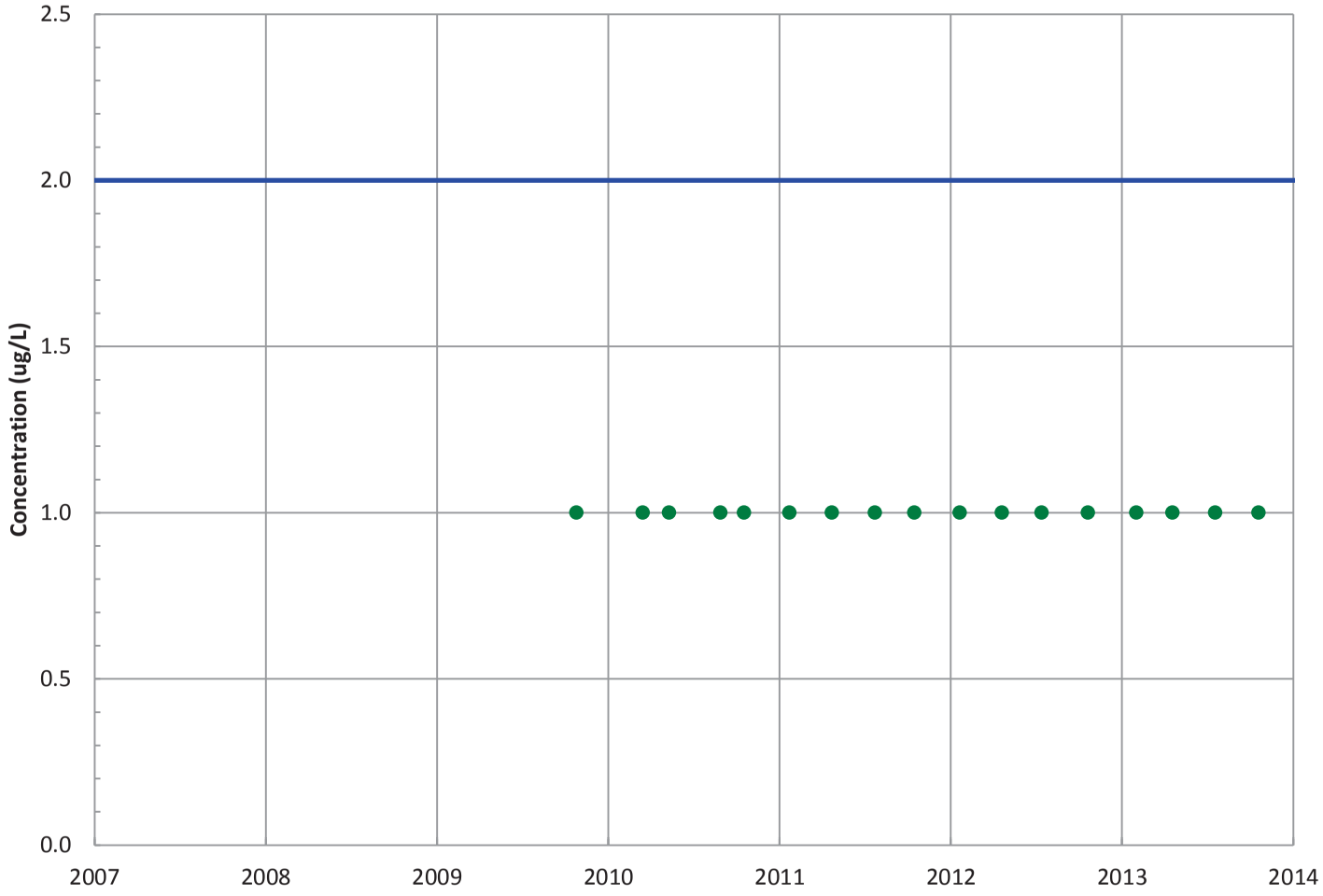
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

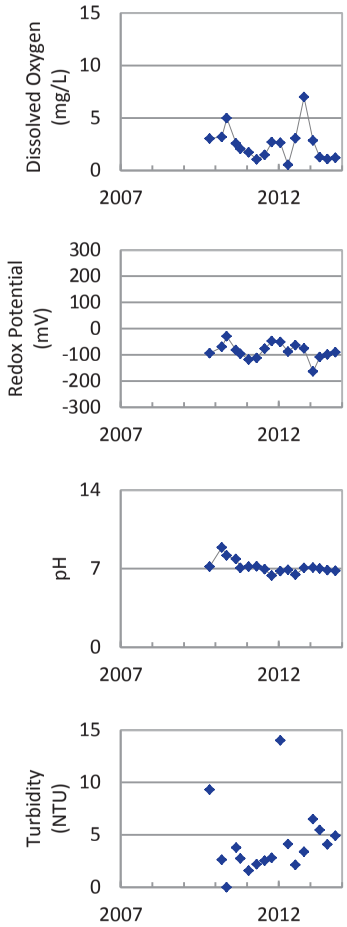
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1154
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

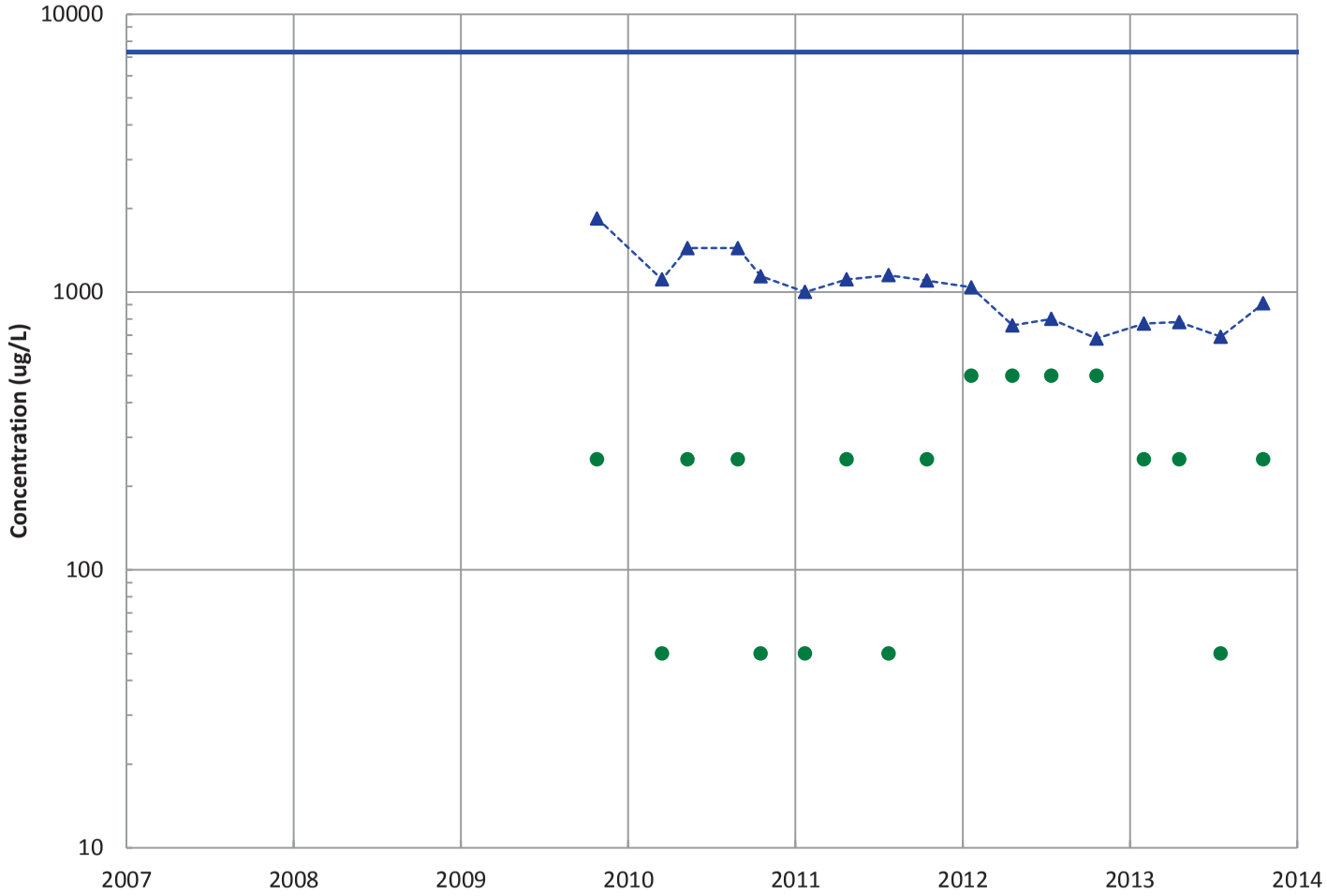
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1154
Boron Trend in Perched Aquifer



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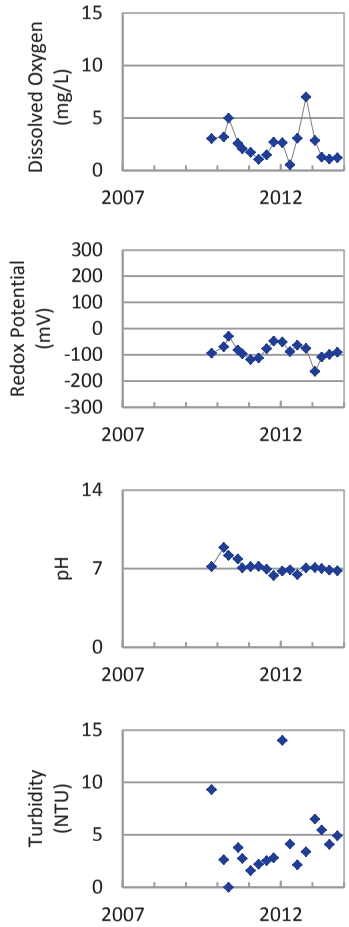


Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

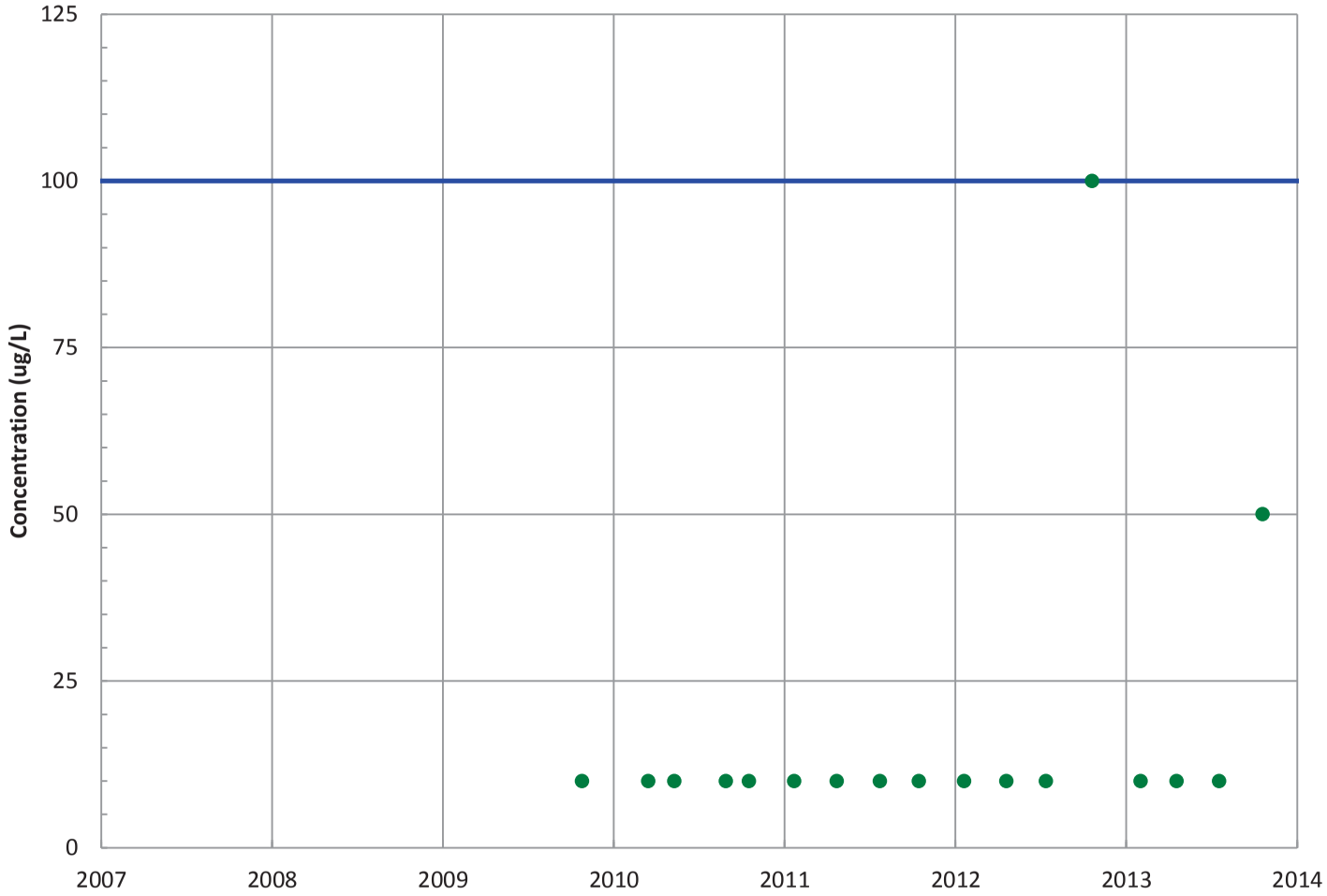
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

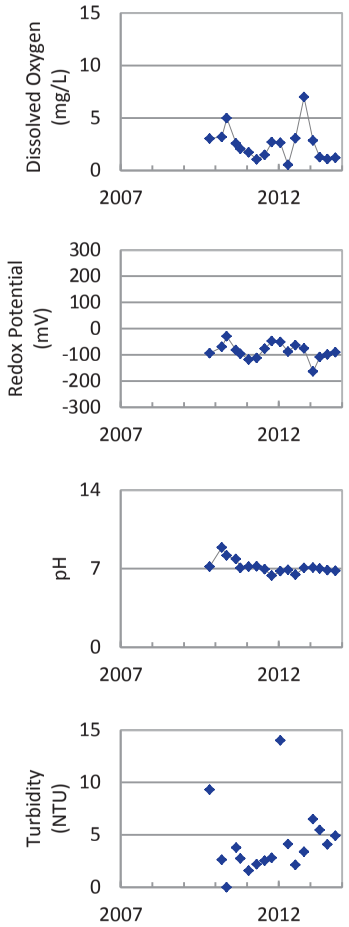
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1154
Chromium, Total Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

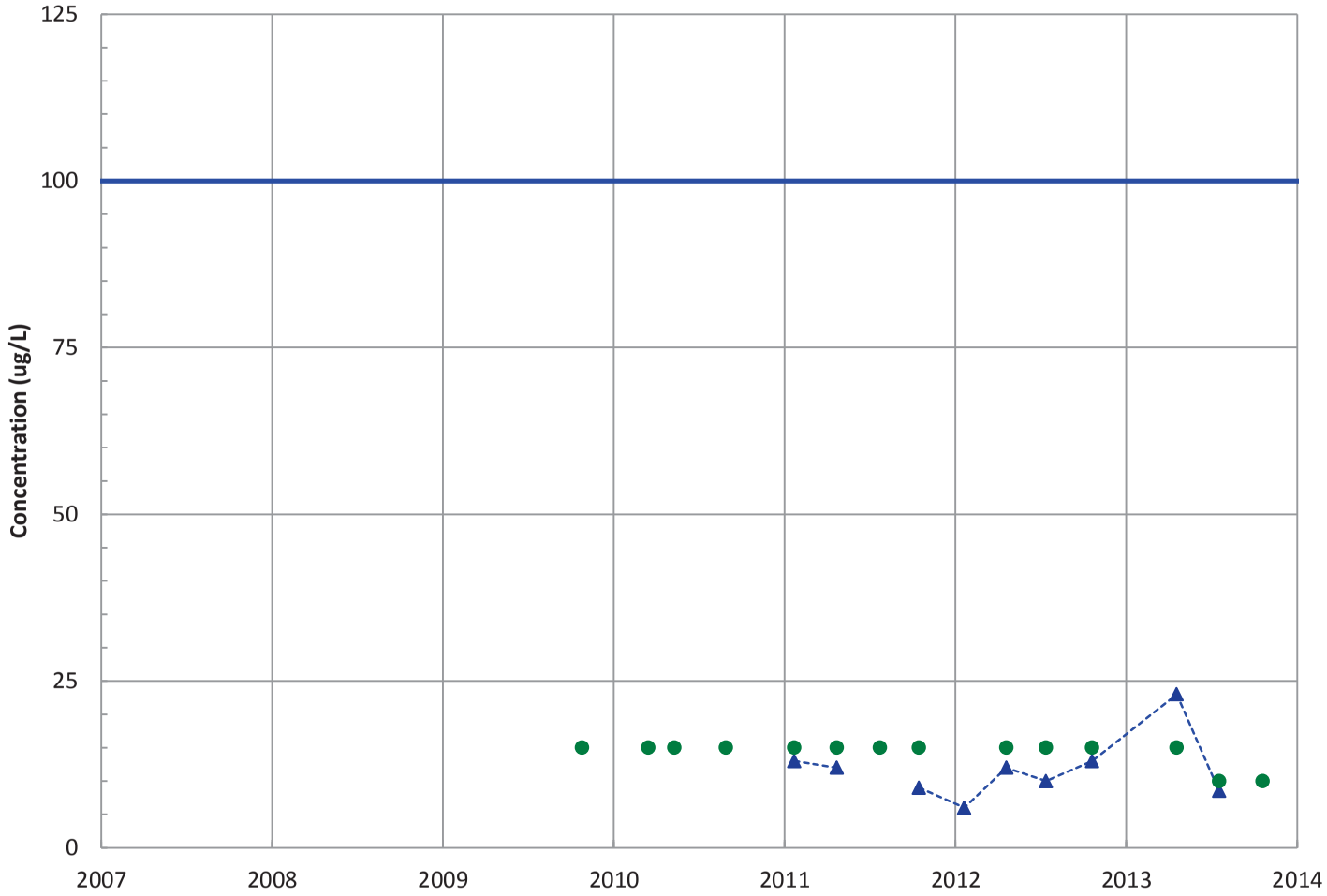
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

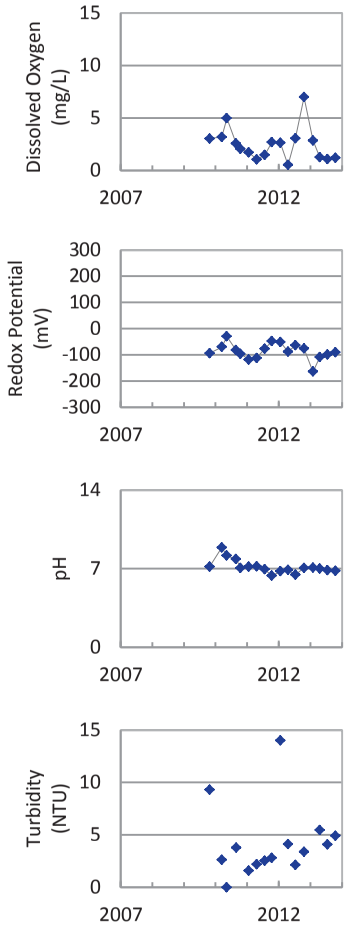
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1154
Chromium, Hexavalent Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

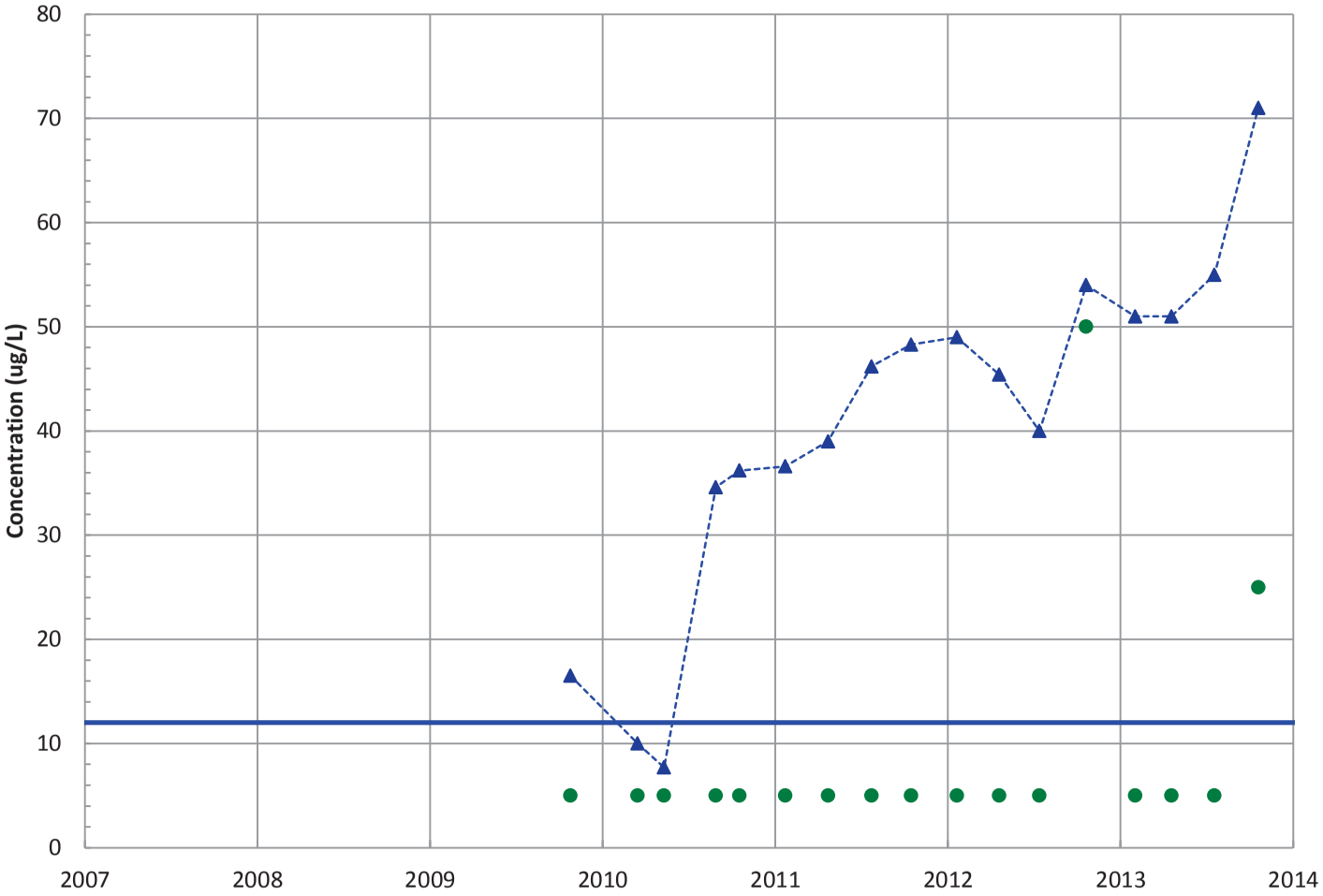
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

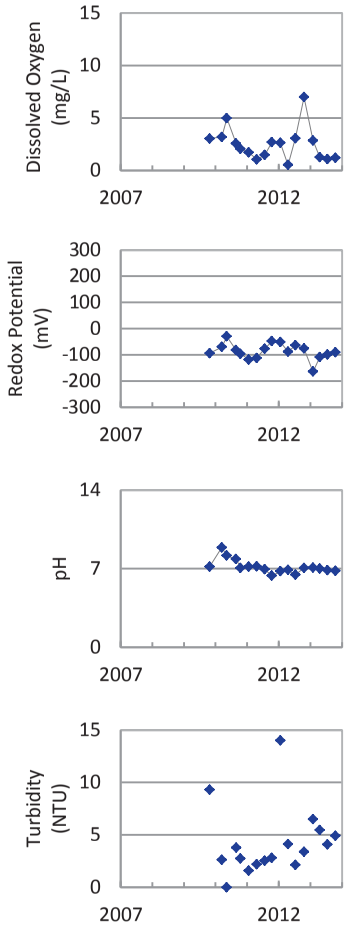
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1154
Arsenic Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Probably Increasing

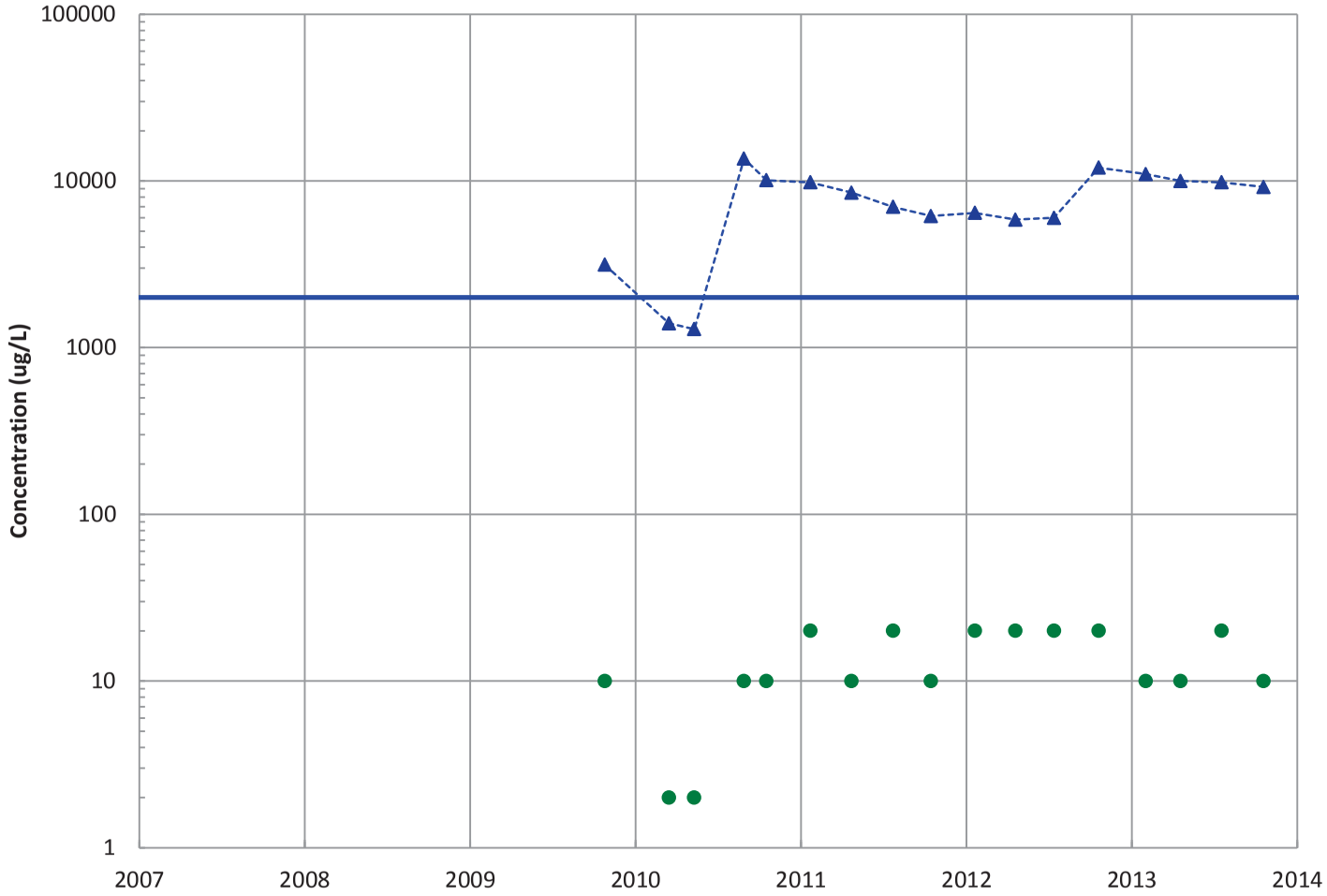
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

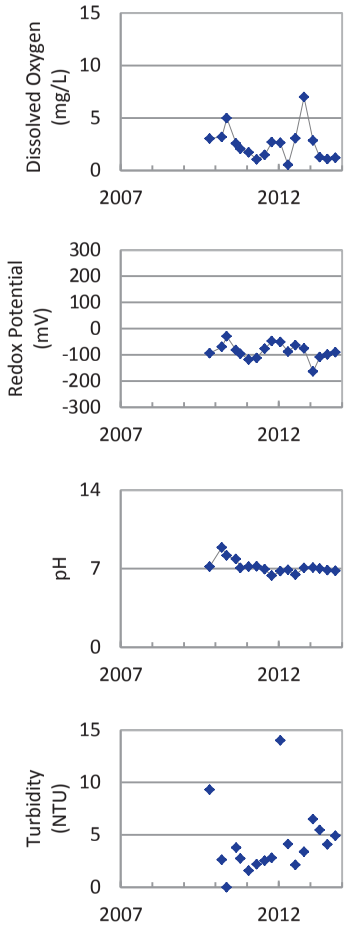
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1154
Barium Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Decreasing

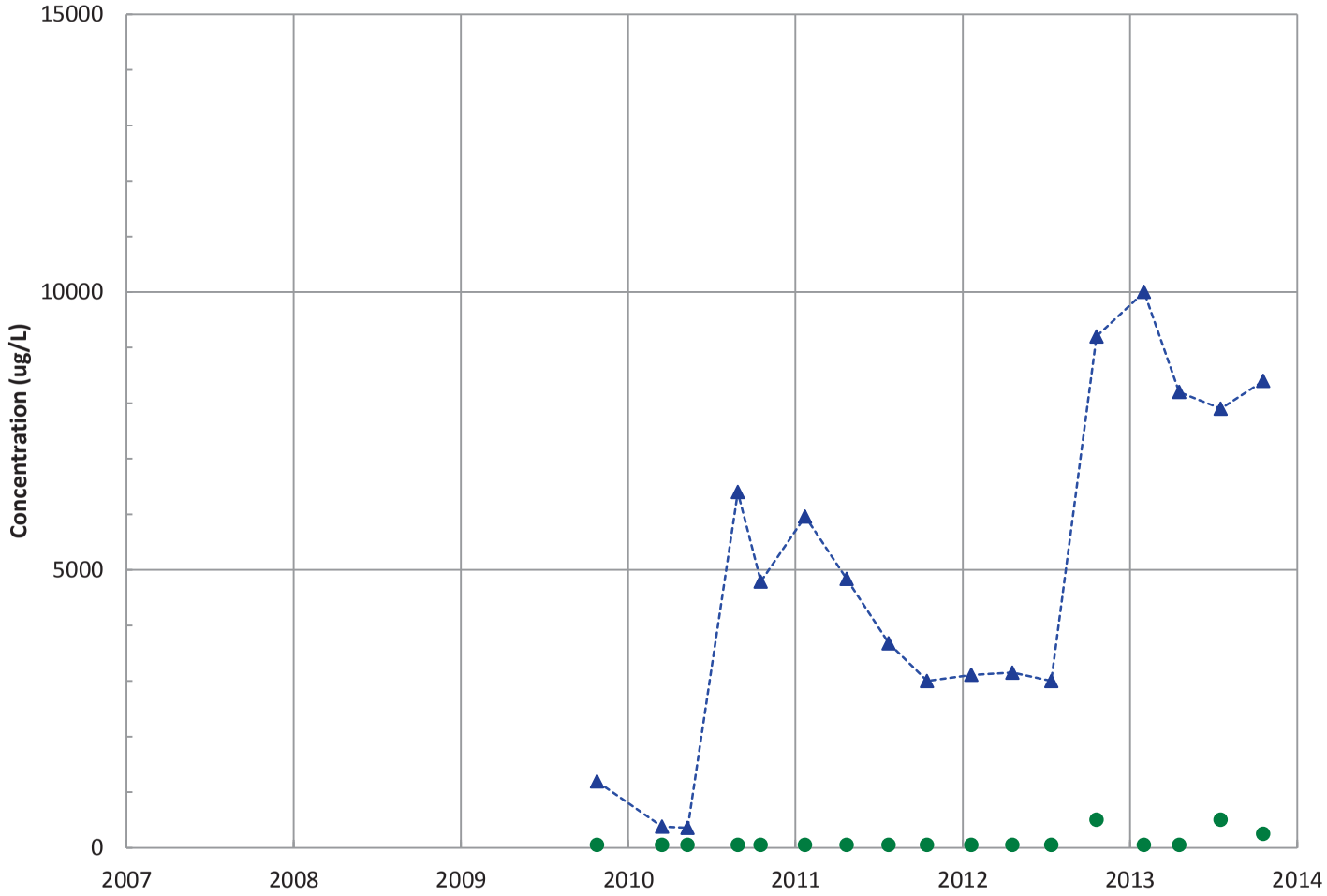
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

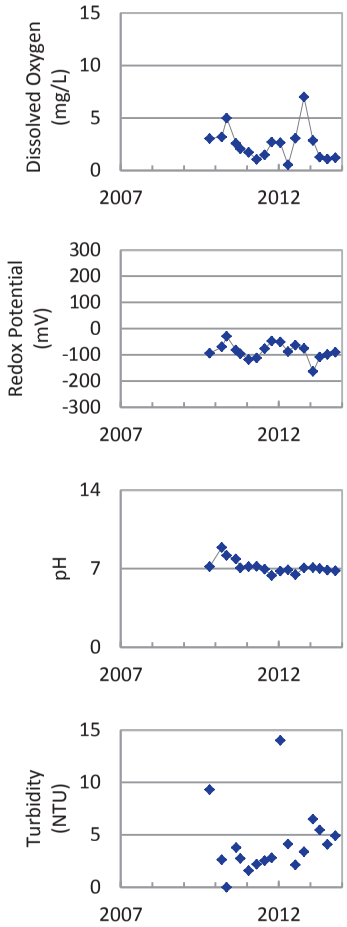
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1154
Iron Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Stable

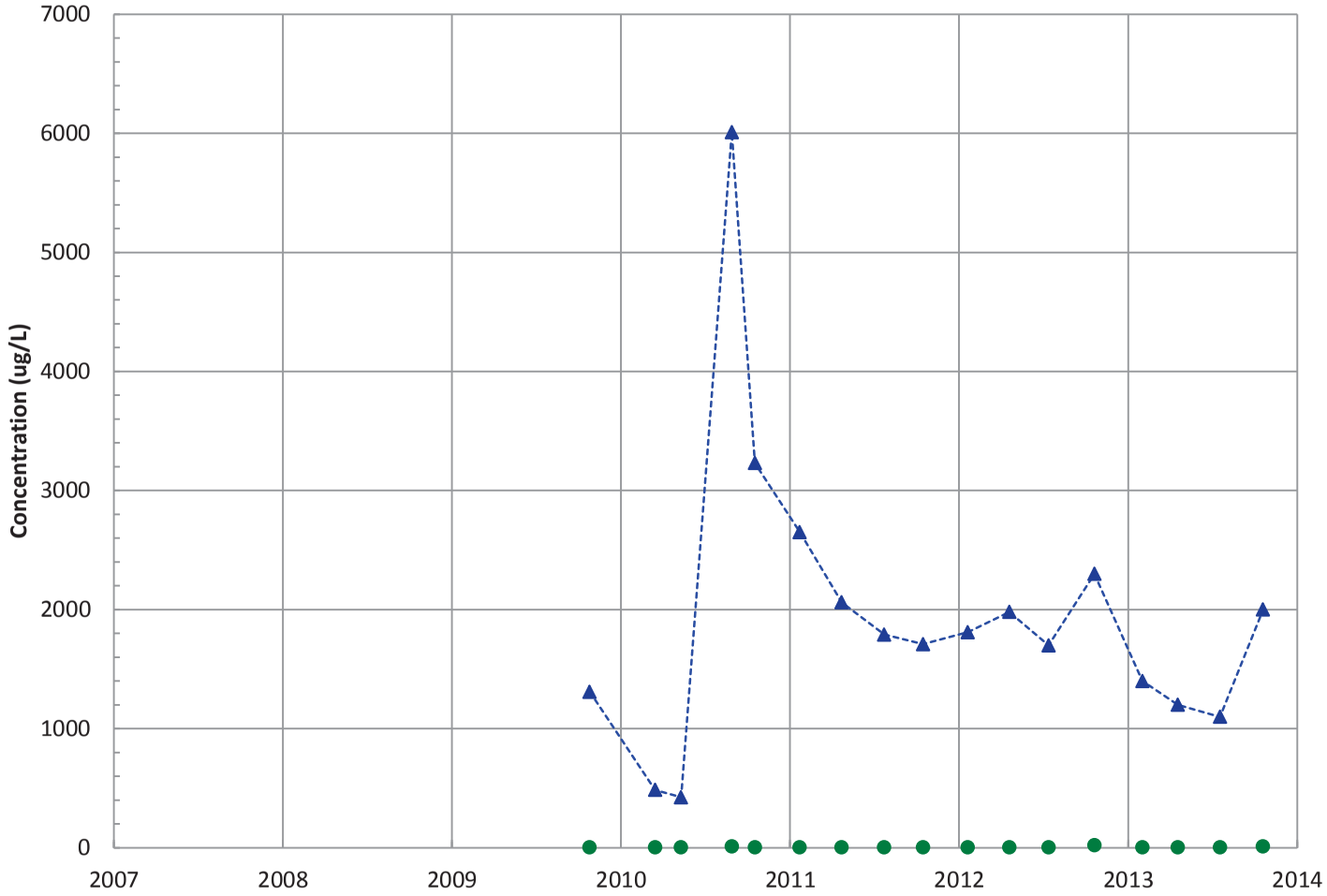
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

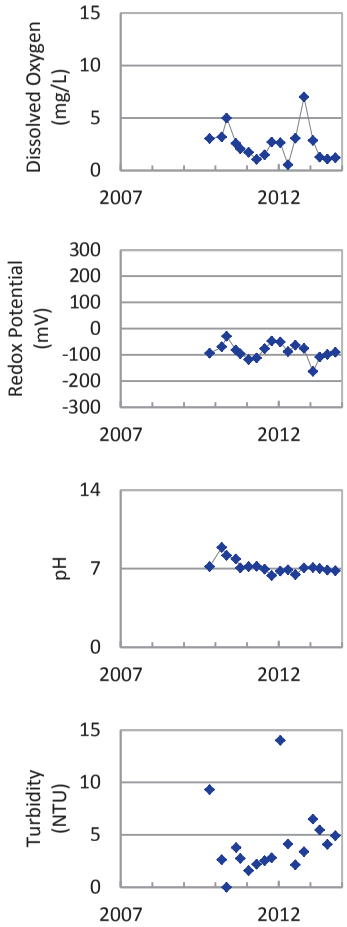
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1154
Manganese Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Stable

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

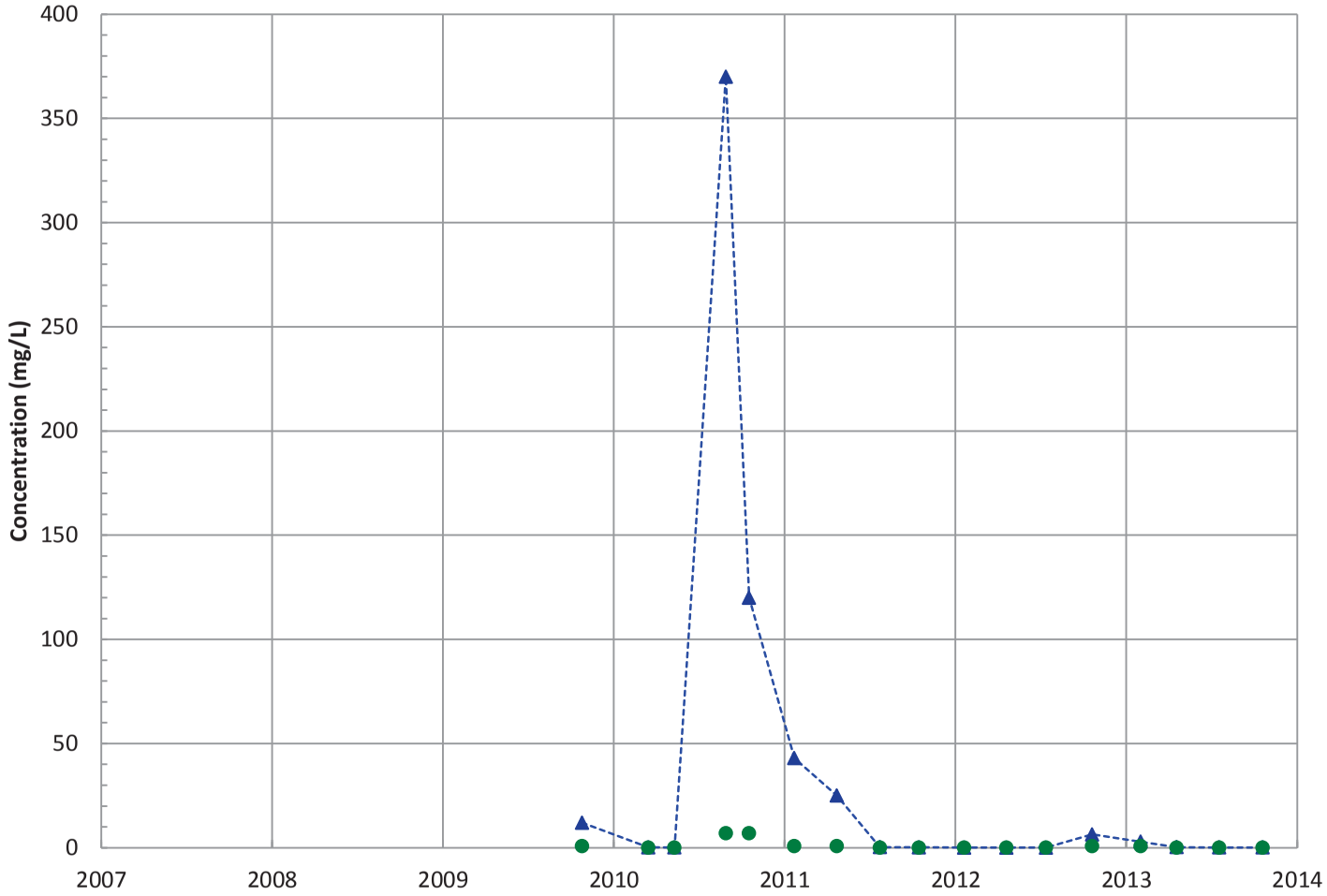
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

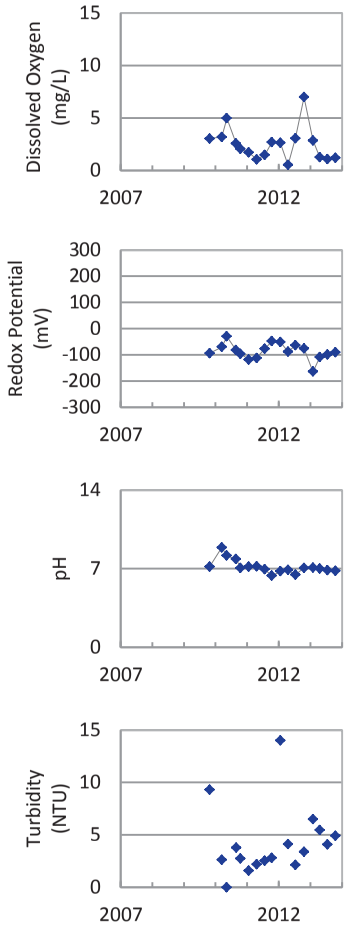
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1154
Acetic Acid Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Decreasing

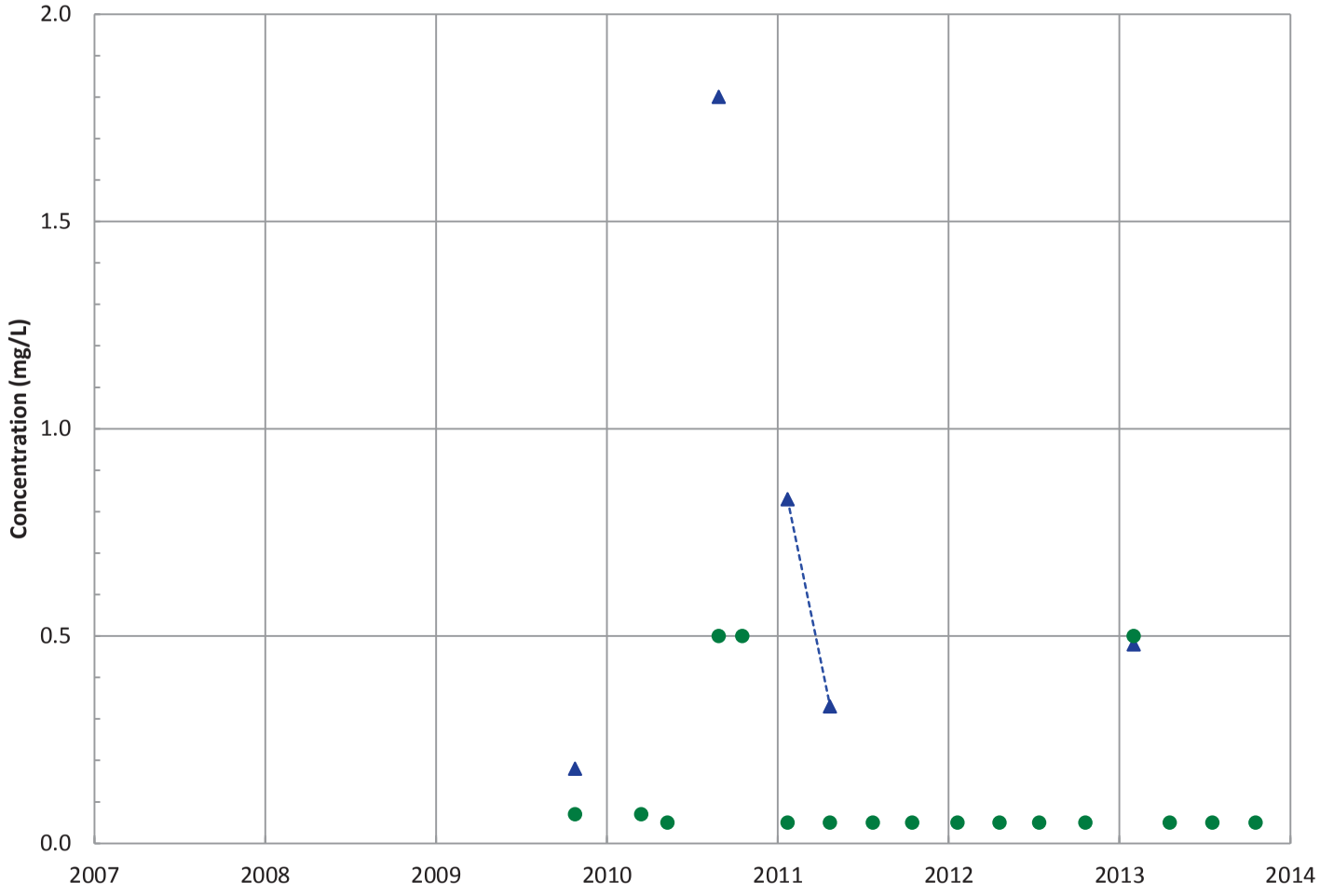
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

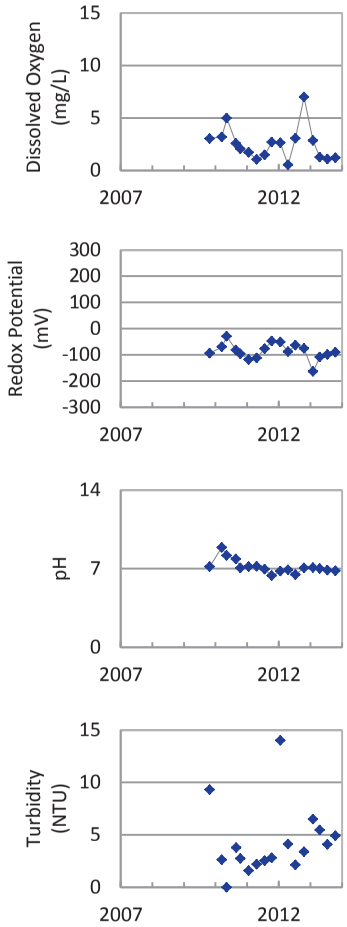
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1154
Butyric Acid Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Decreasing

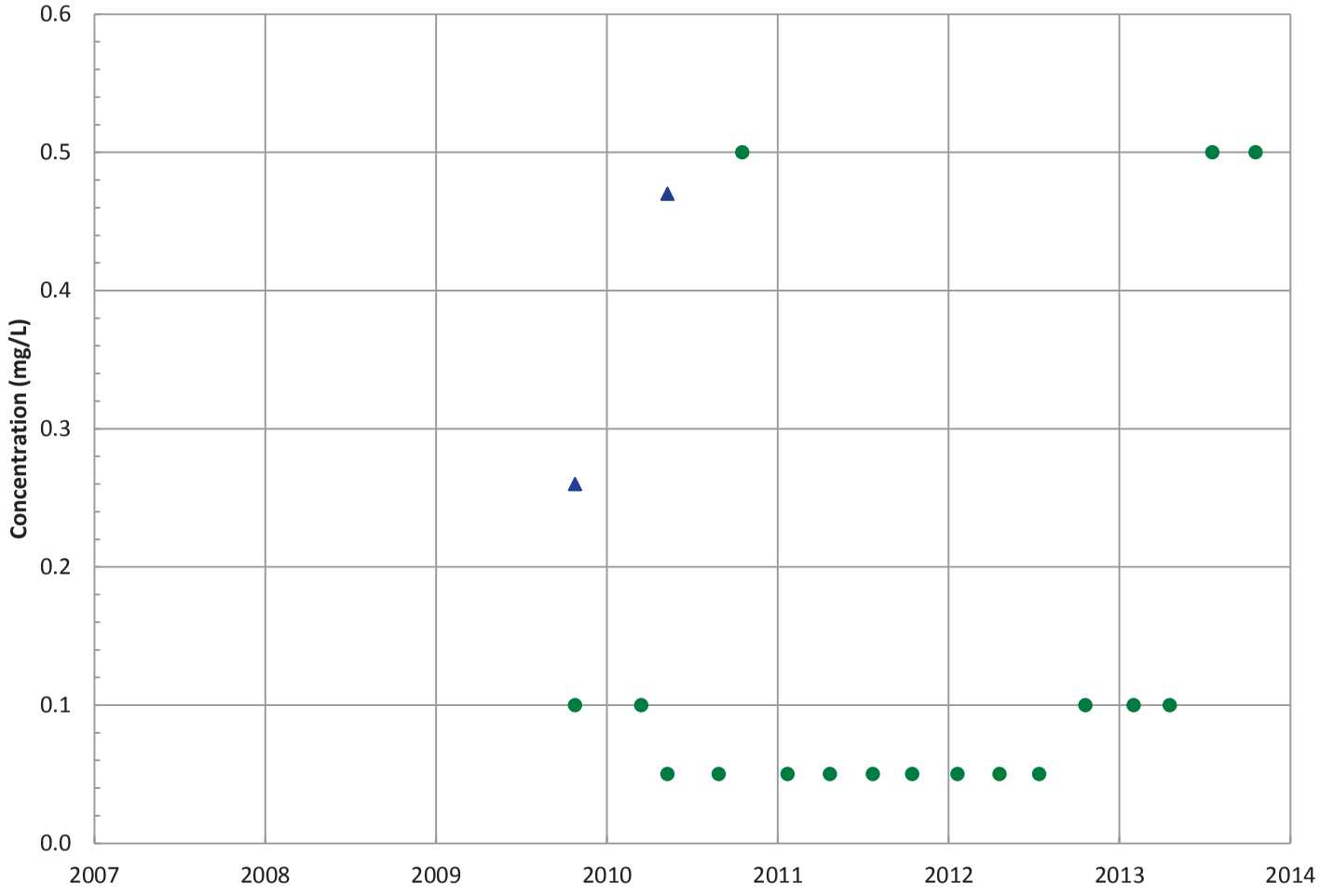
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

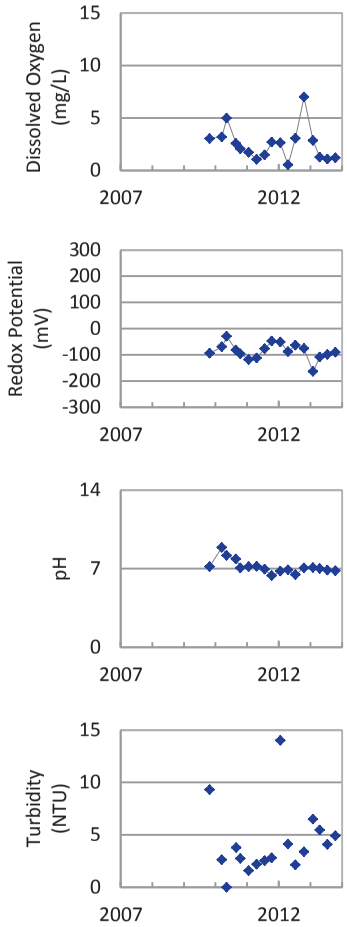
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1154
Hexanoic Acid Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

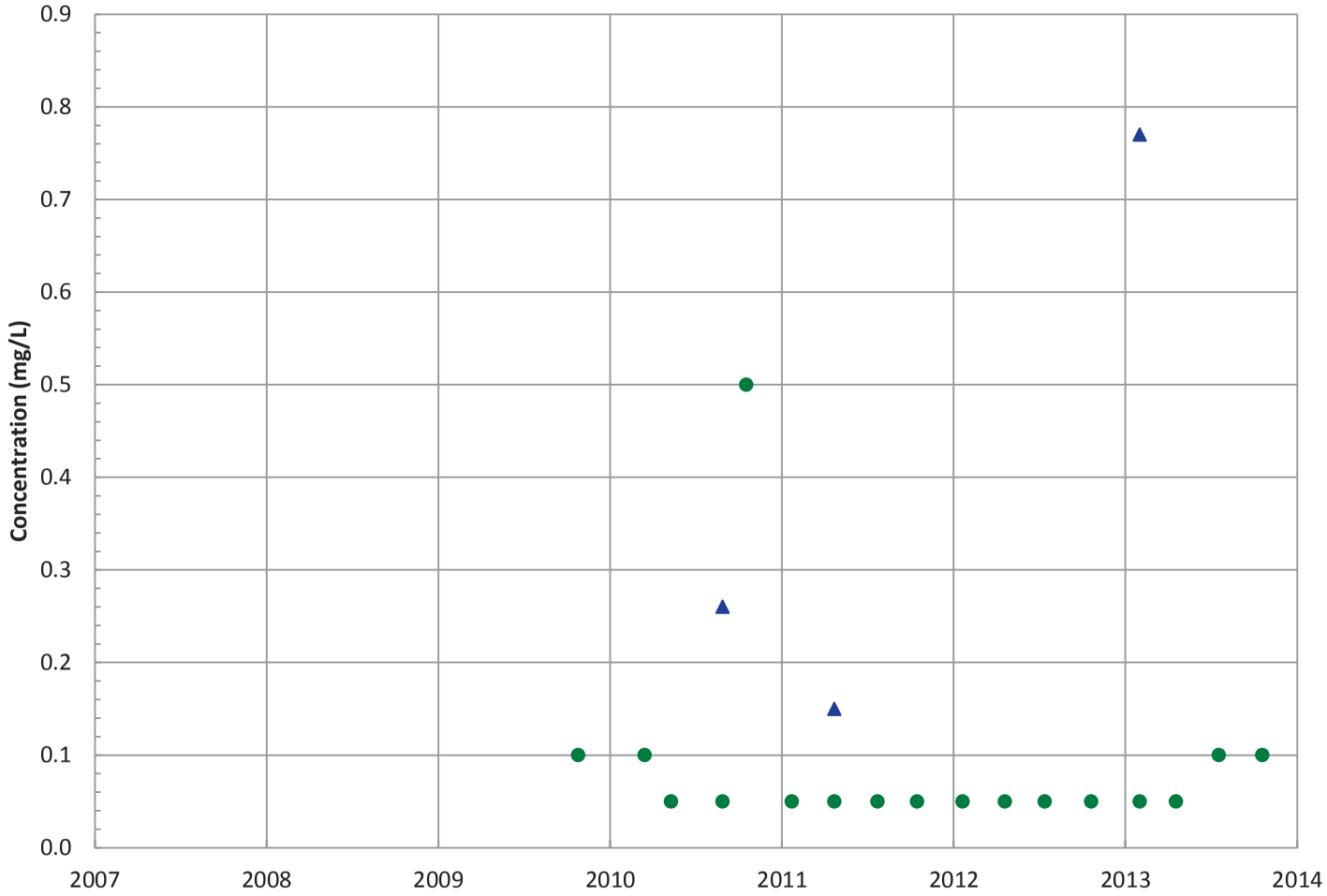
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Injection Dates

Well Location

Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1154
i-Hexanoic Acid Trend in Perched Aquifer



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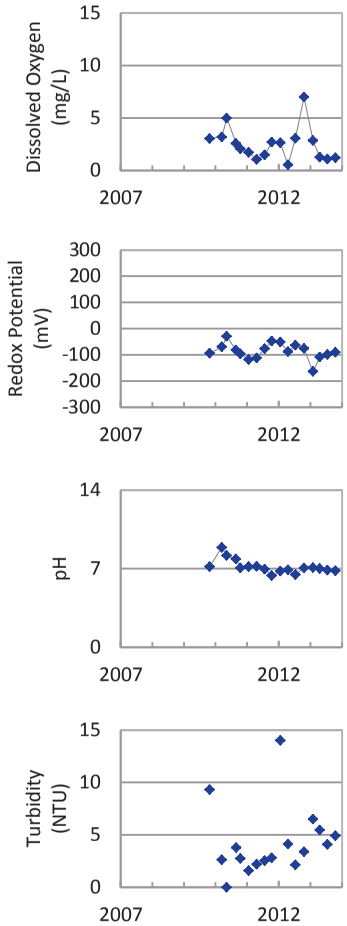


Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

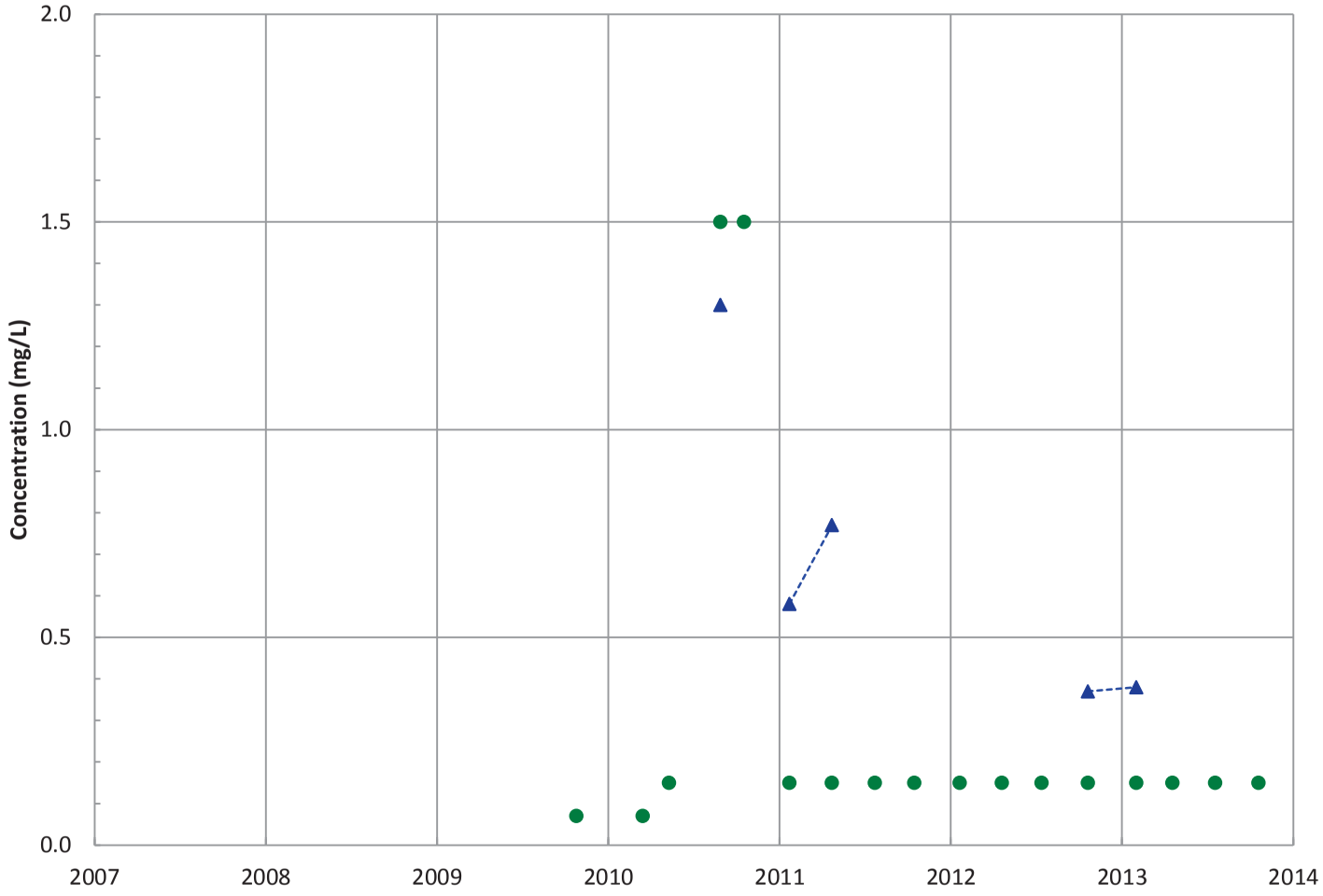
- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Injection Dates

Well Location

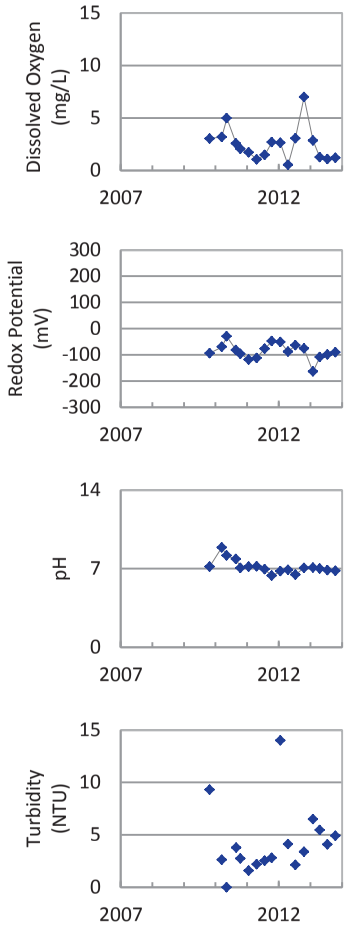
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1154
i-Pentanoic Acid Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Stable

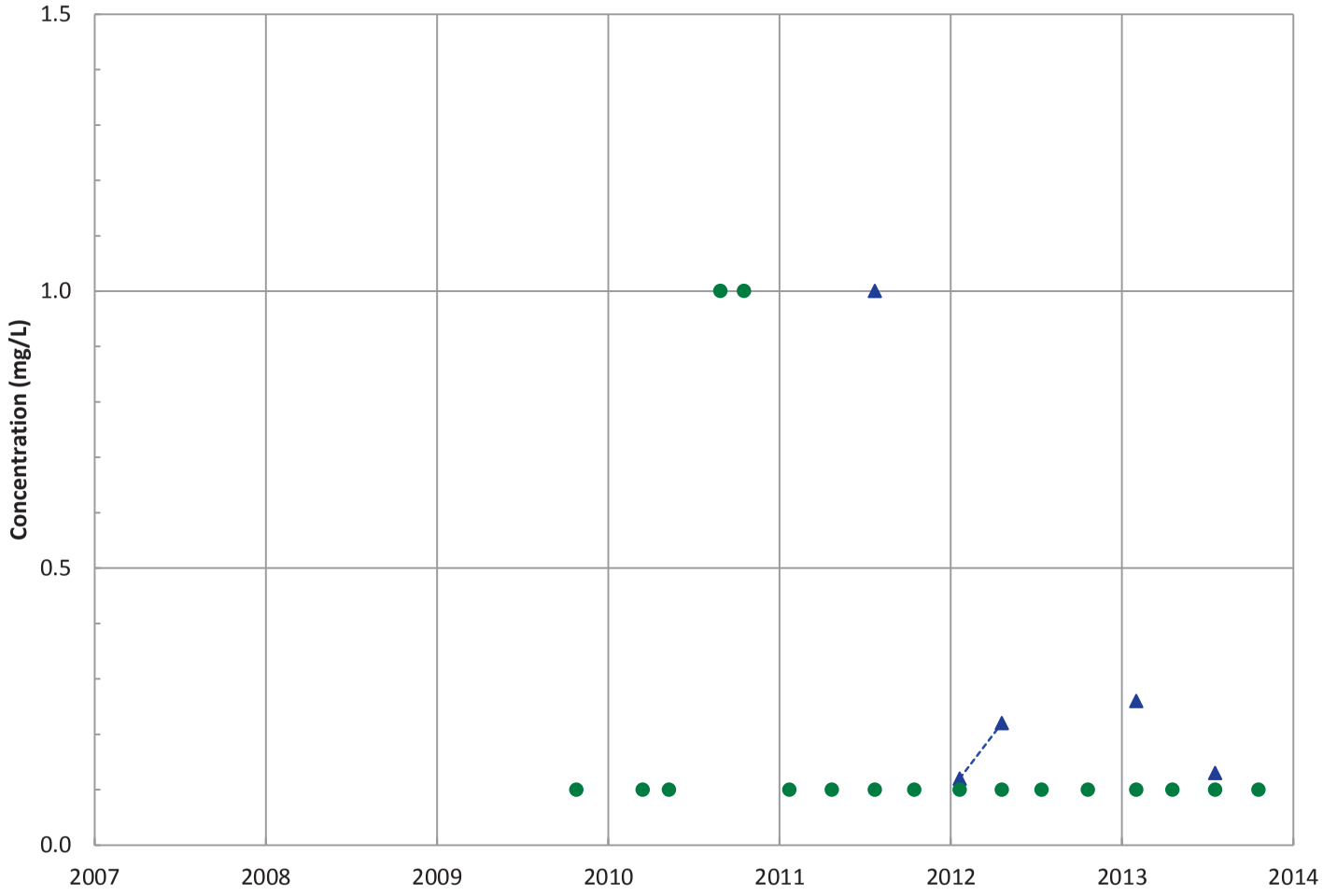
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

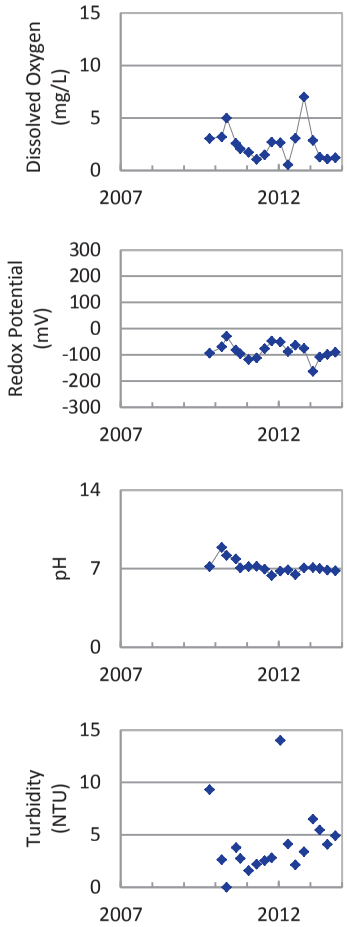
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1154
Lactic Acid and HIBA Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Stable

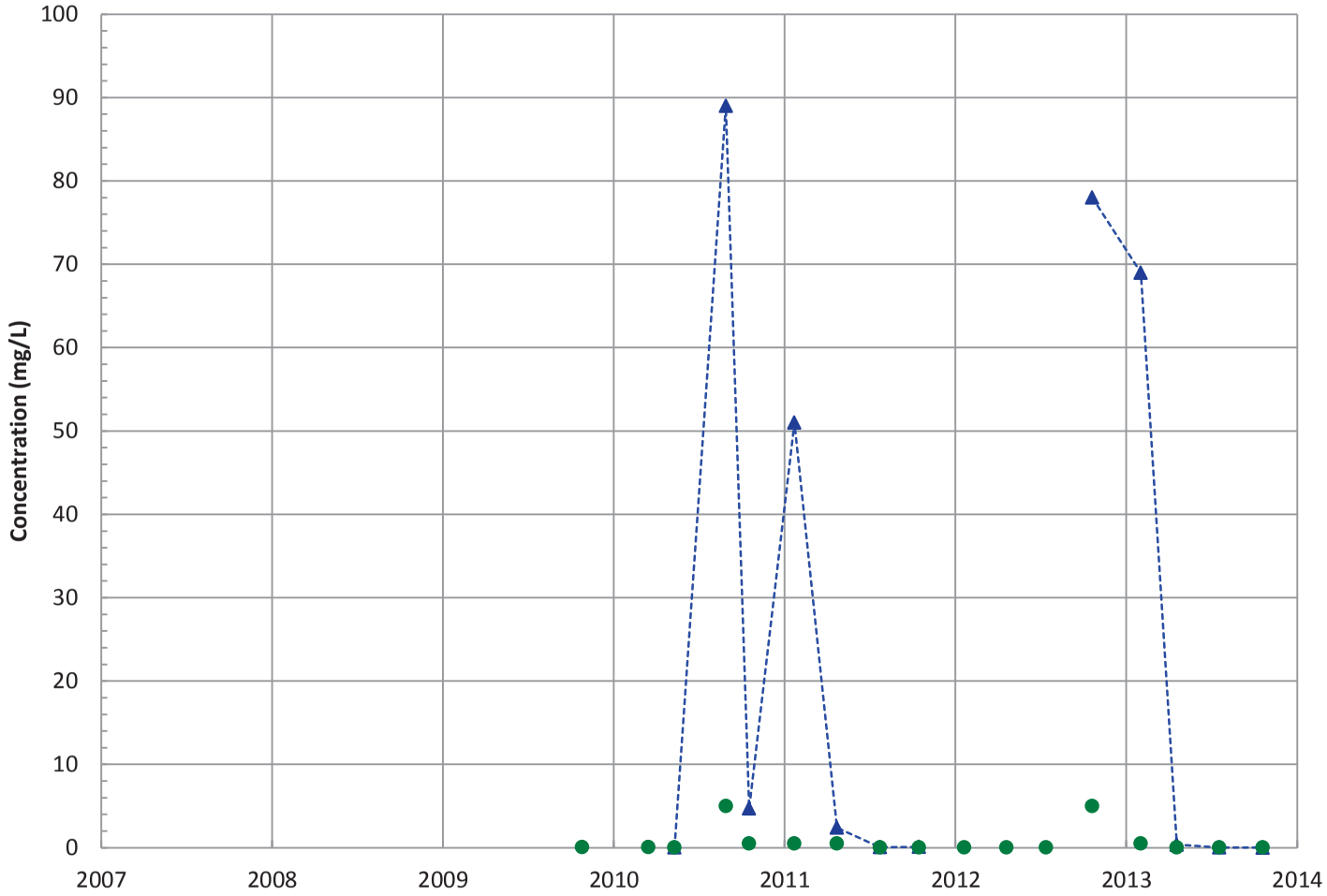
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

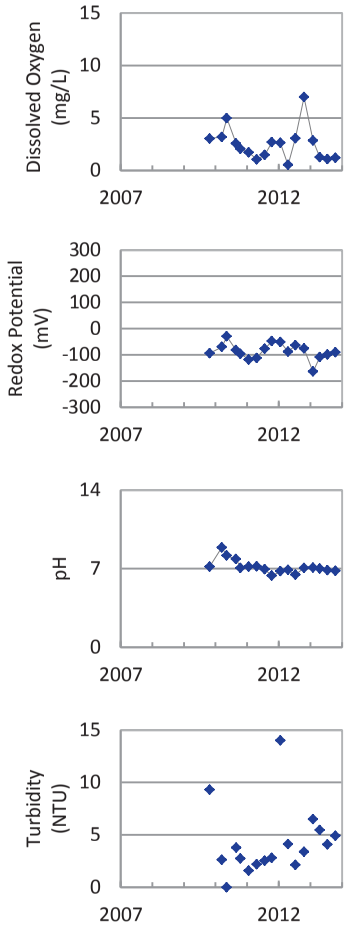
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1154
Propionic Acid Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Decreasing

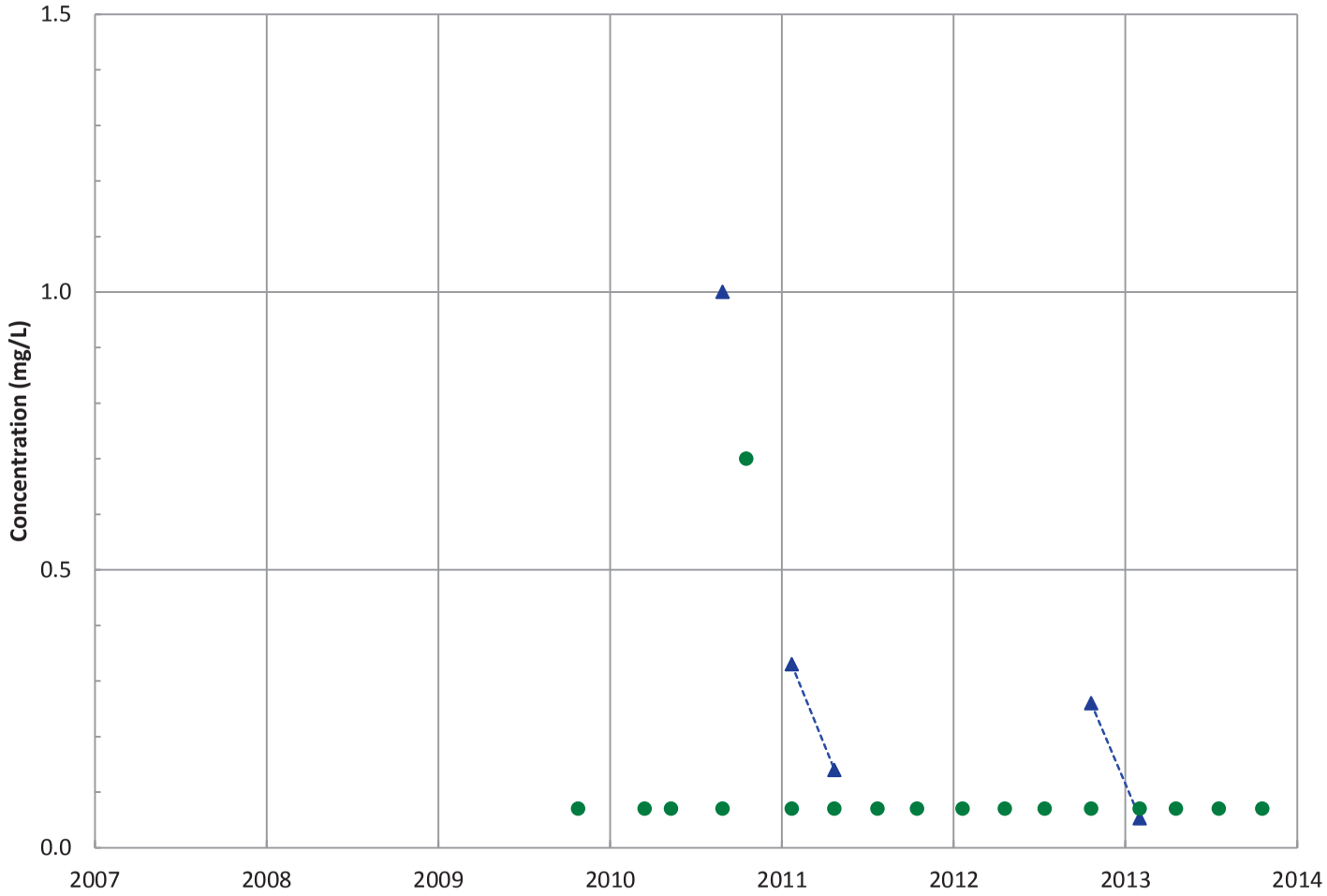
▲ Measured Value
● Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

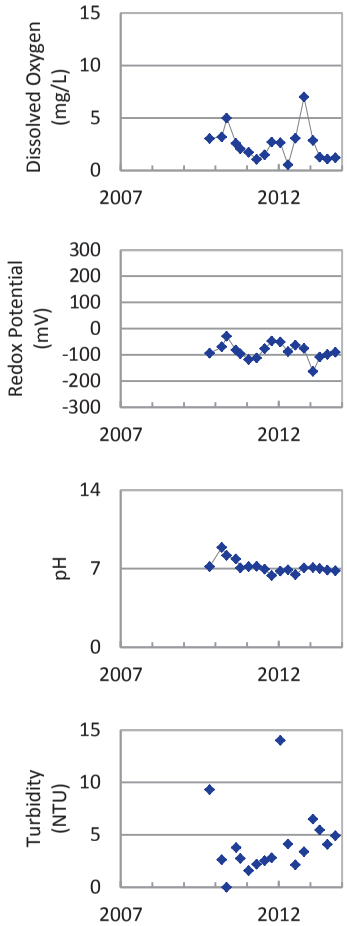
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1154
Pentanoic Acid Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: Probably Decreasing
Last 4 Samples: Decreasing

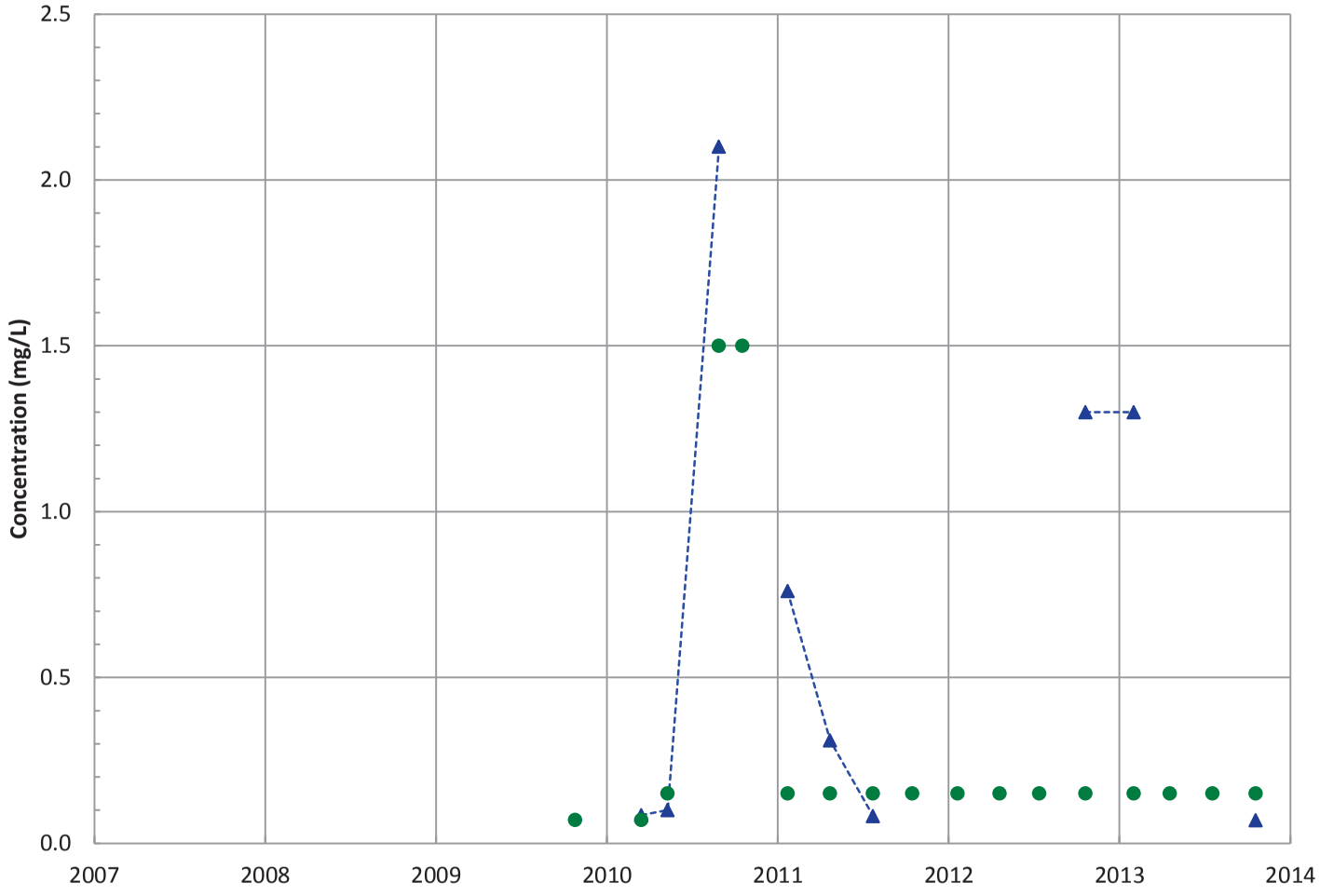
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Injection Dates

Well Location

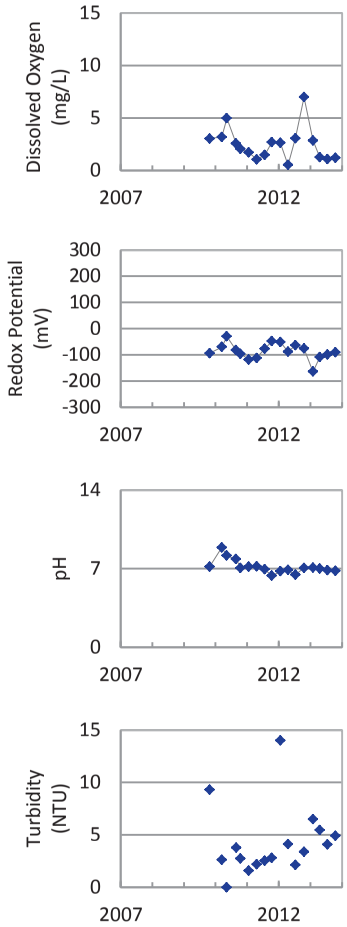
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1154
Pyruvic Acid Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

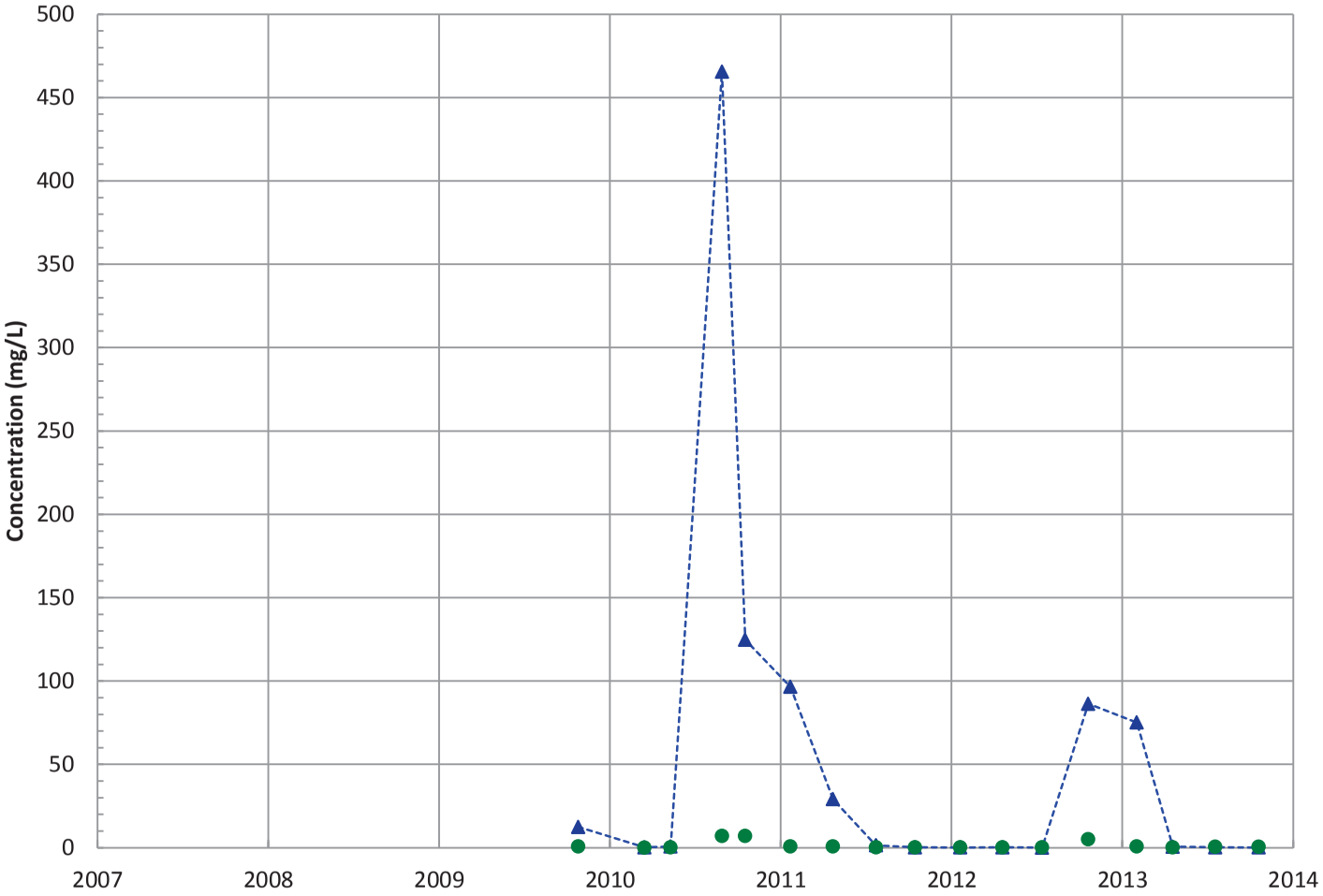
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

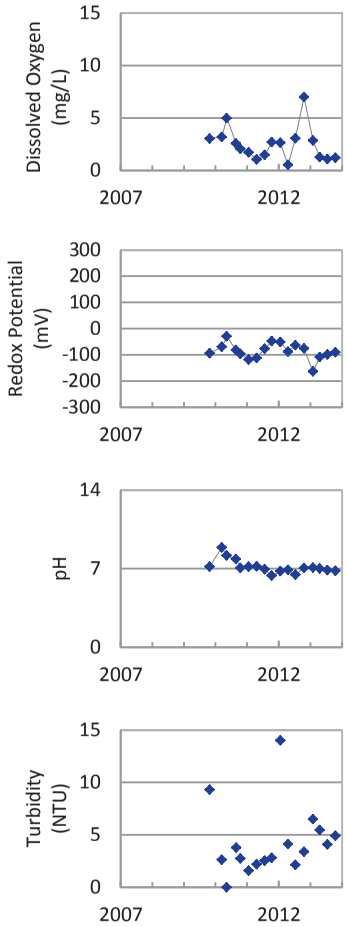
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1154
Total Volatile Fatty Acids Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Decreasing

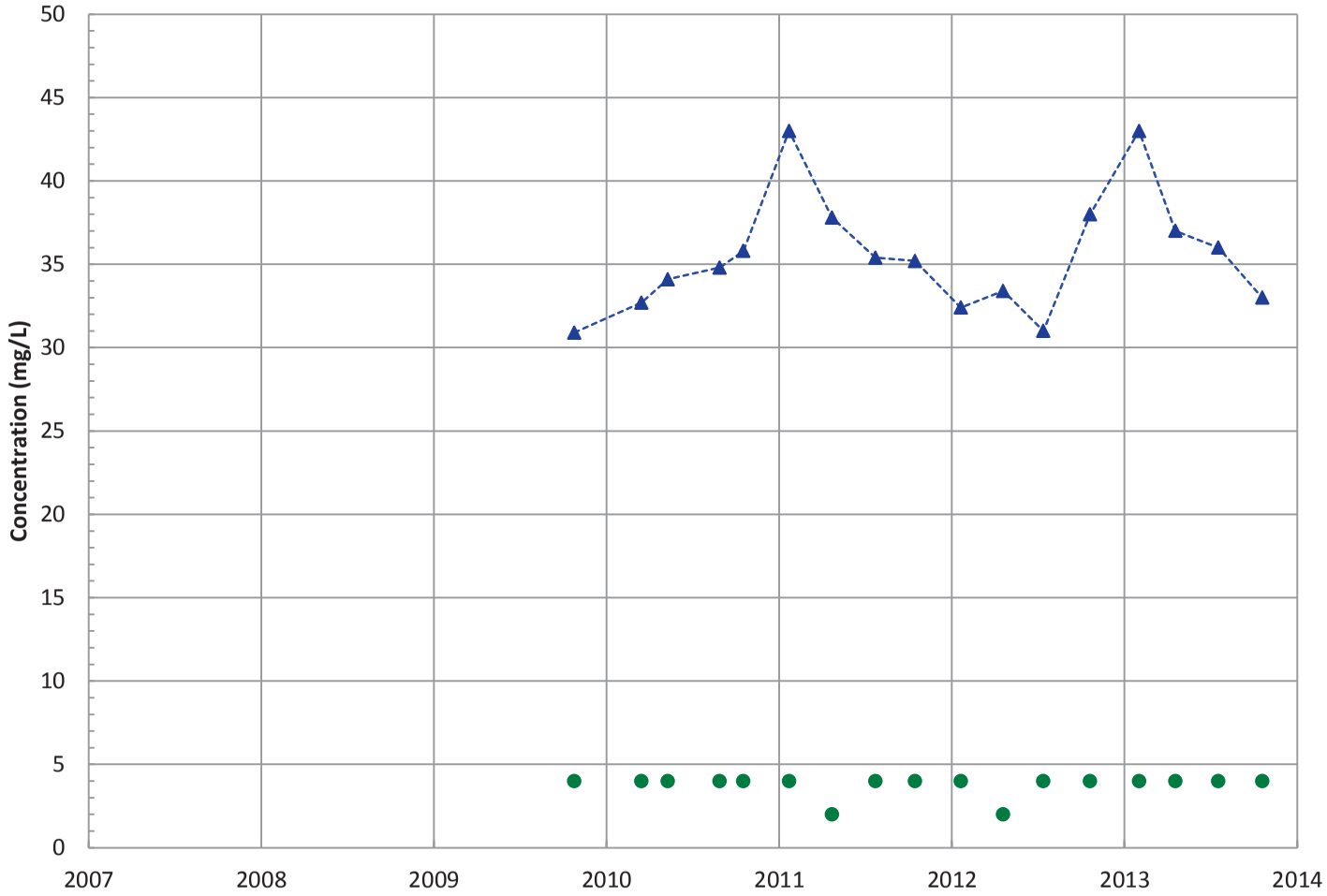
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

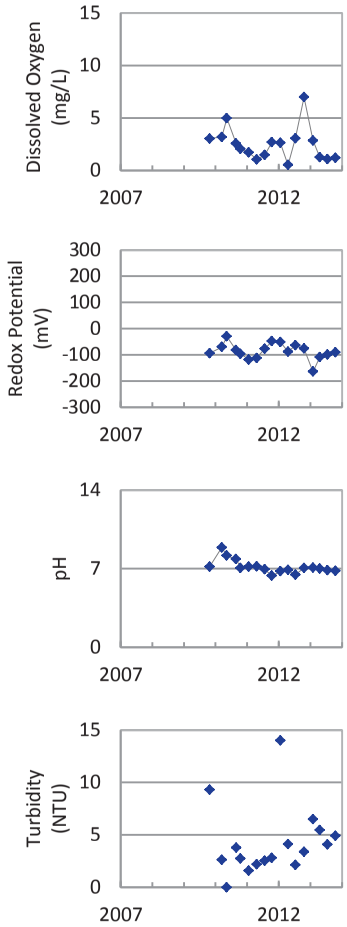
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1154
Chloride (as Cl) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Decreasing

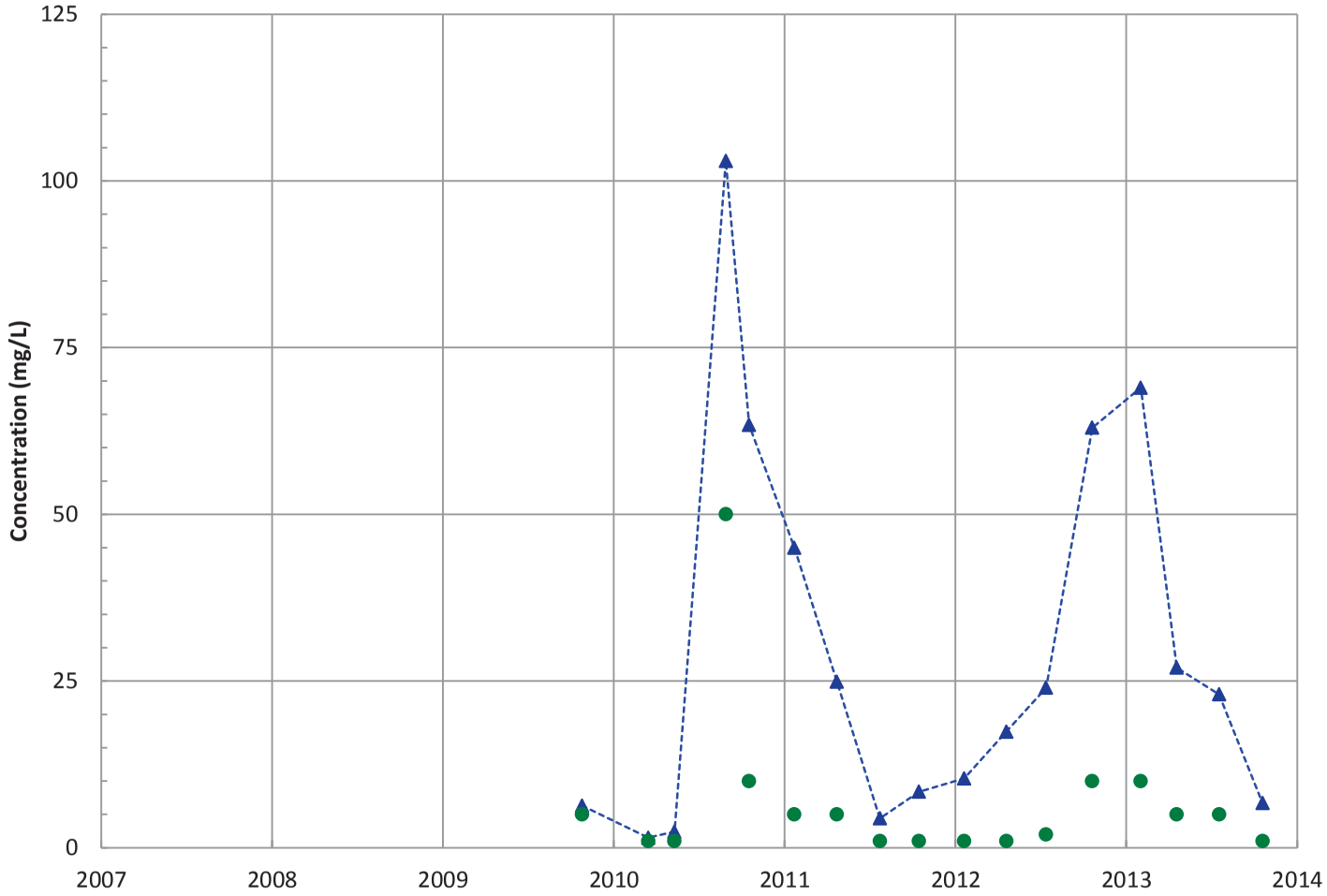
▲ Measured Value
● Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

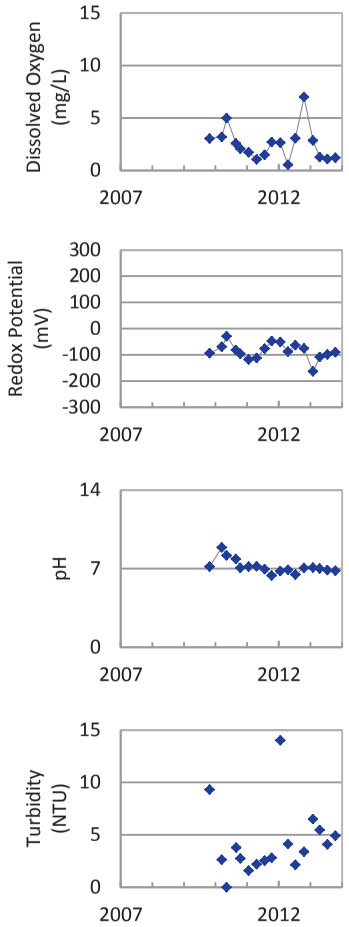
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1154
Total Organic Carbon Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Decreasing

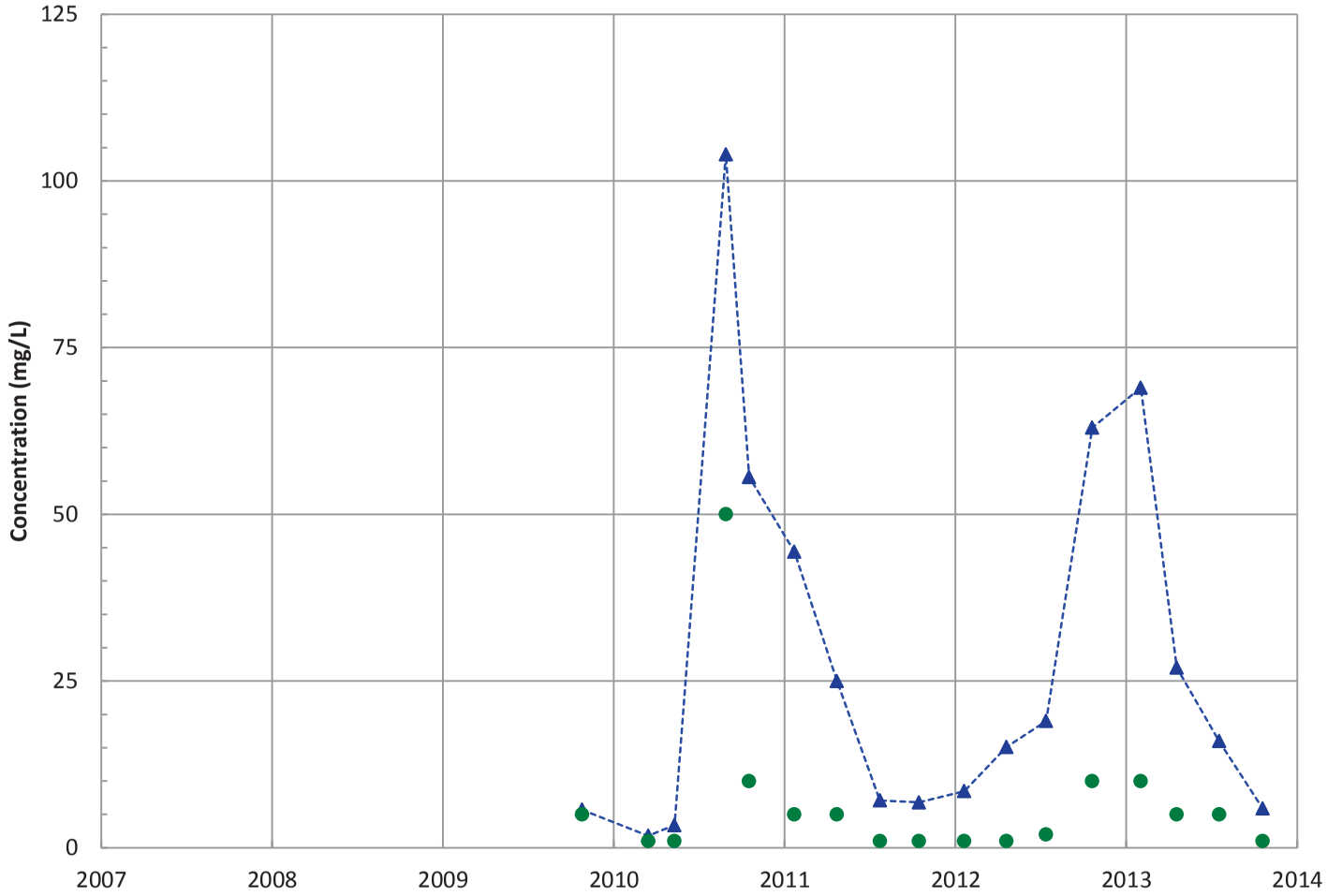
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

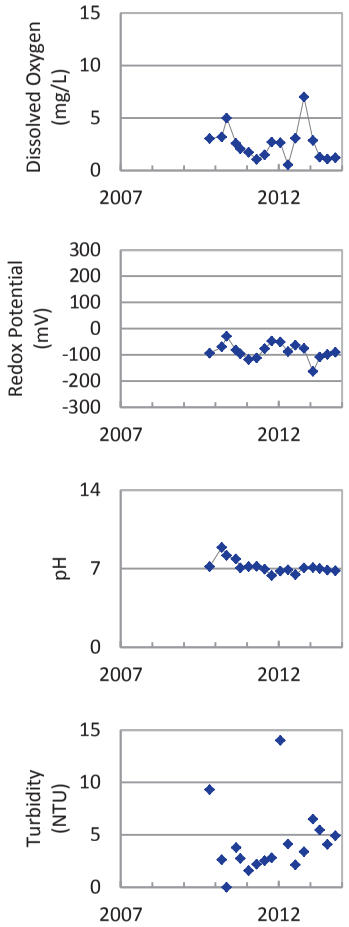
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1154
Dissolved Organic Carbon (DOC) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Decreasing

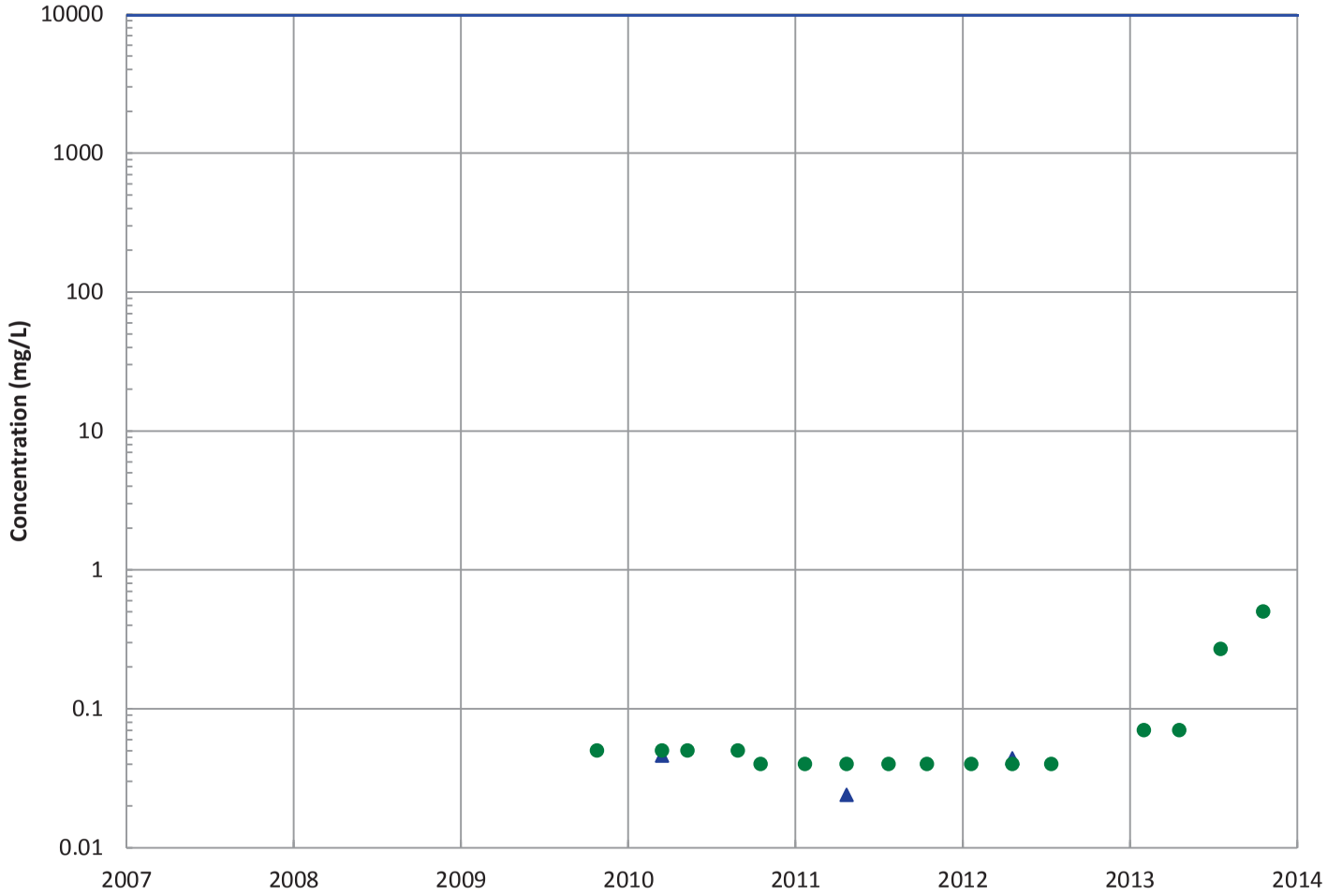
▲ Measured Value
● Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

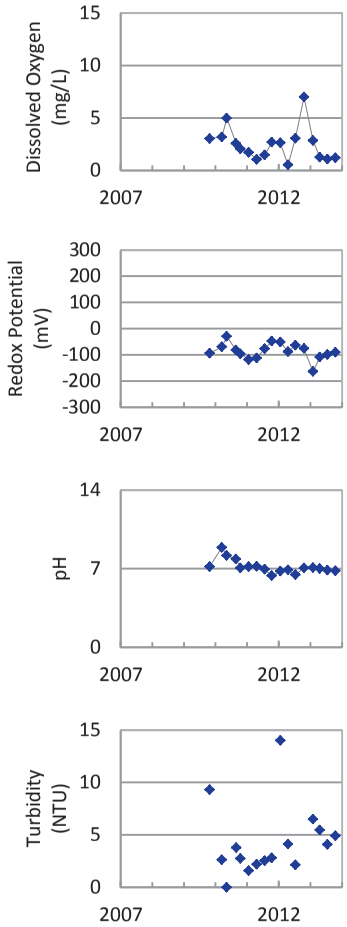
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1154
Nitrate as N Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

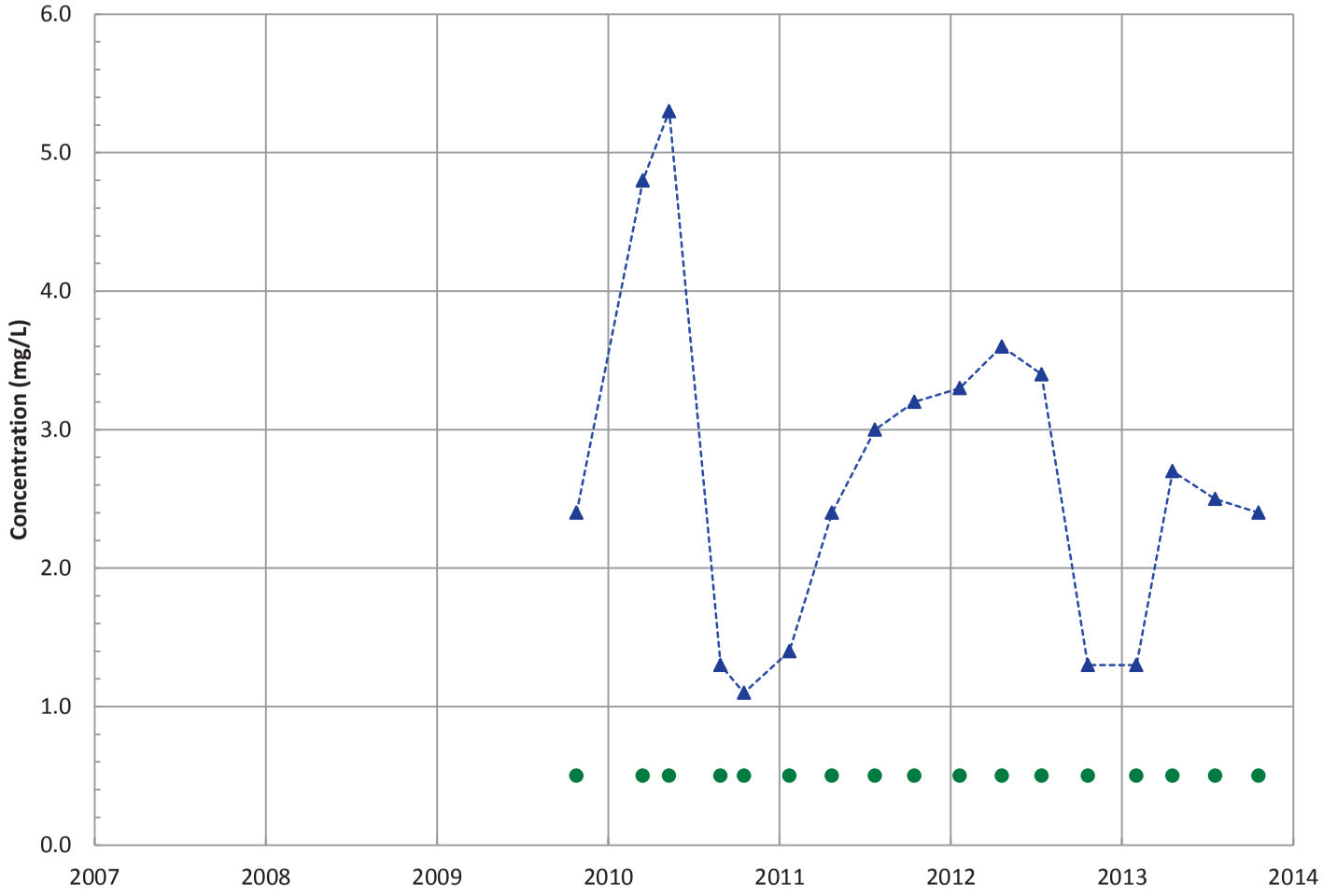
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

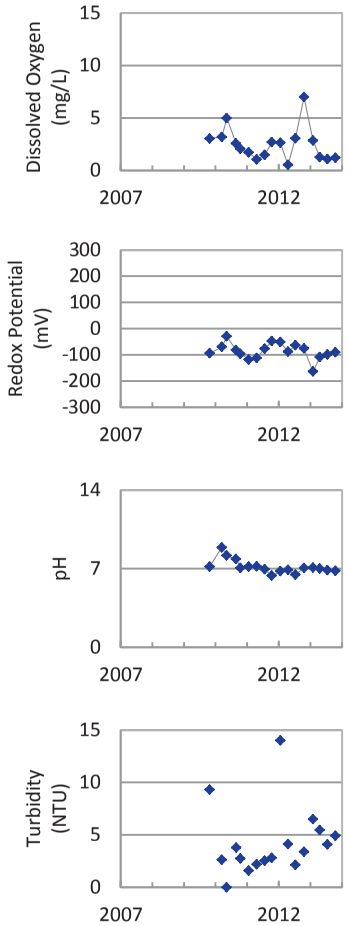
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1154
Sulfate (as SO4) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Stable

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: No Trend

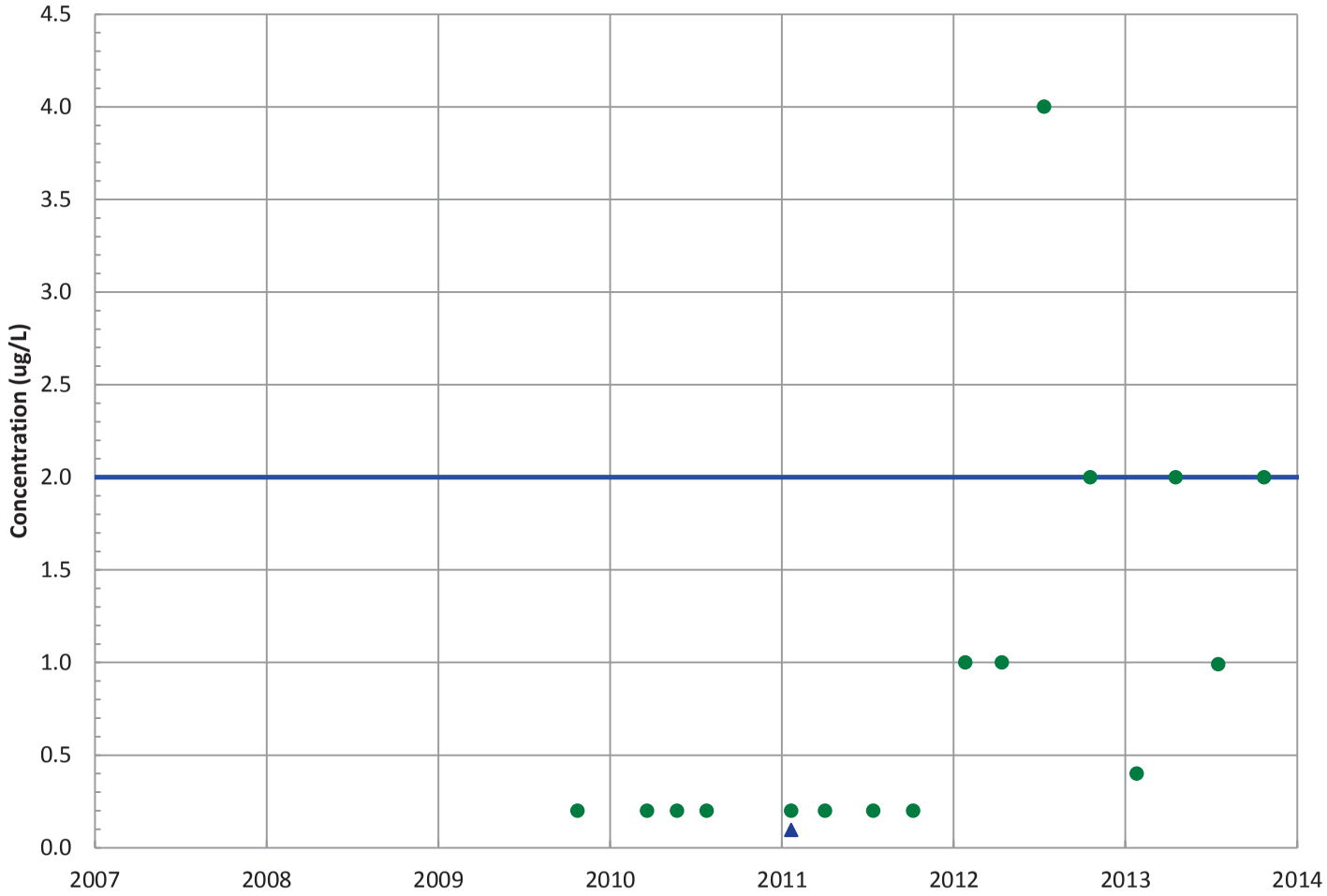
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

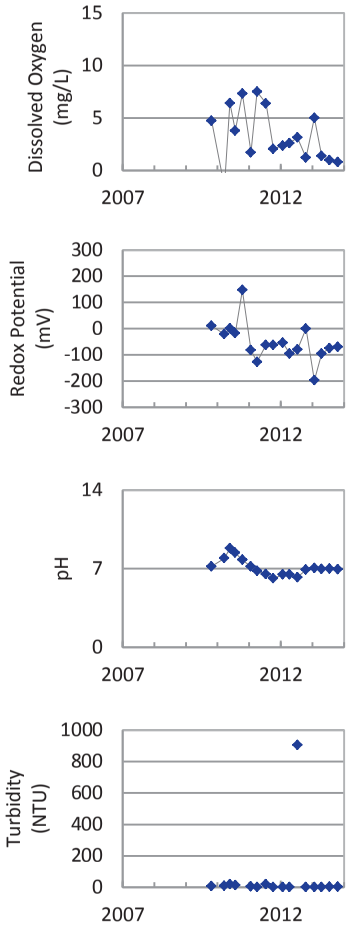
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/27/2009 to 10/24/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1155
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



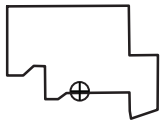
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

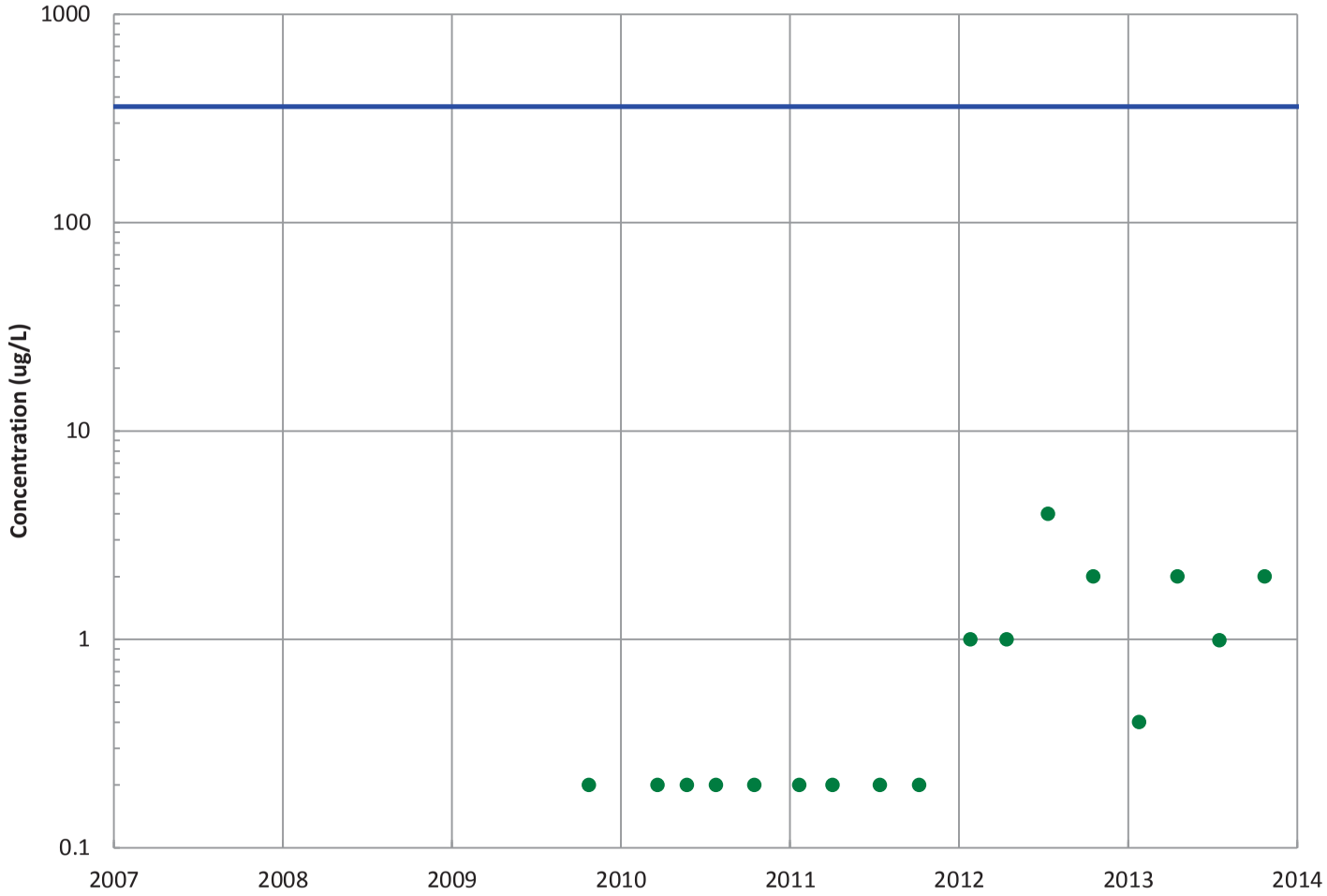
Well Location



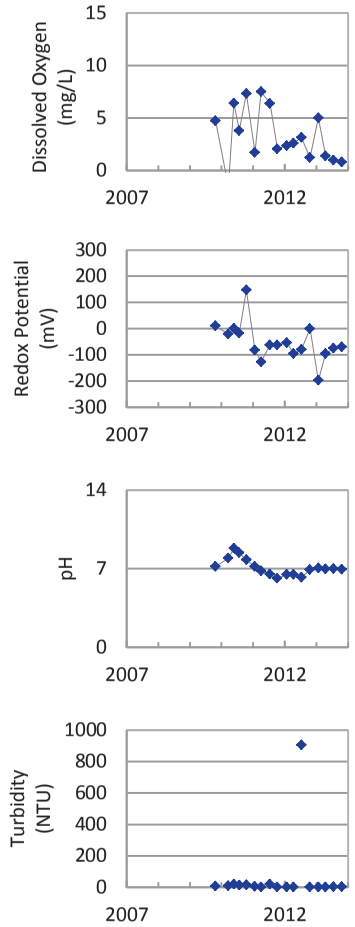
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1155
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



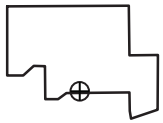
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

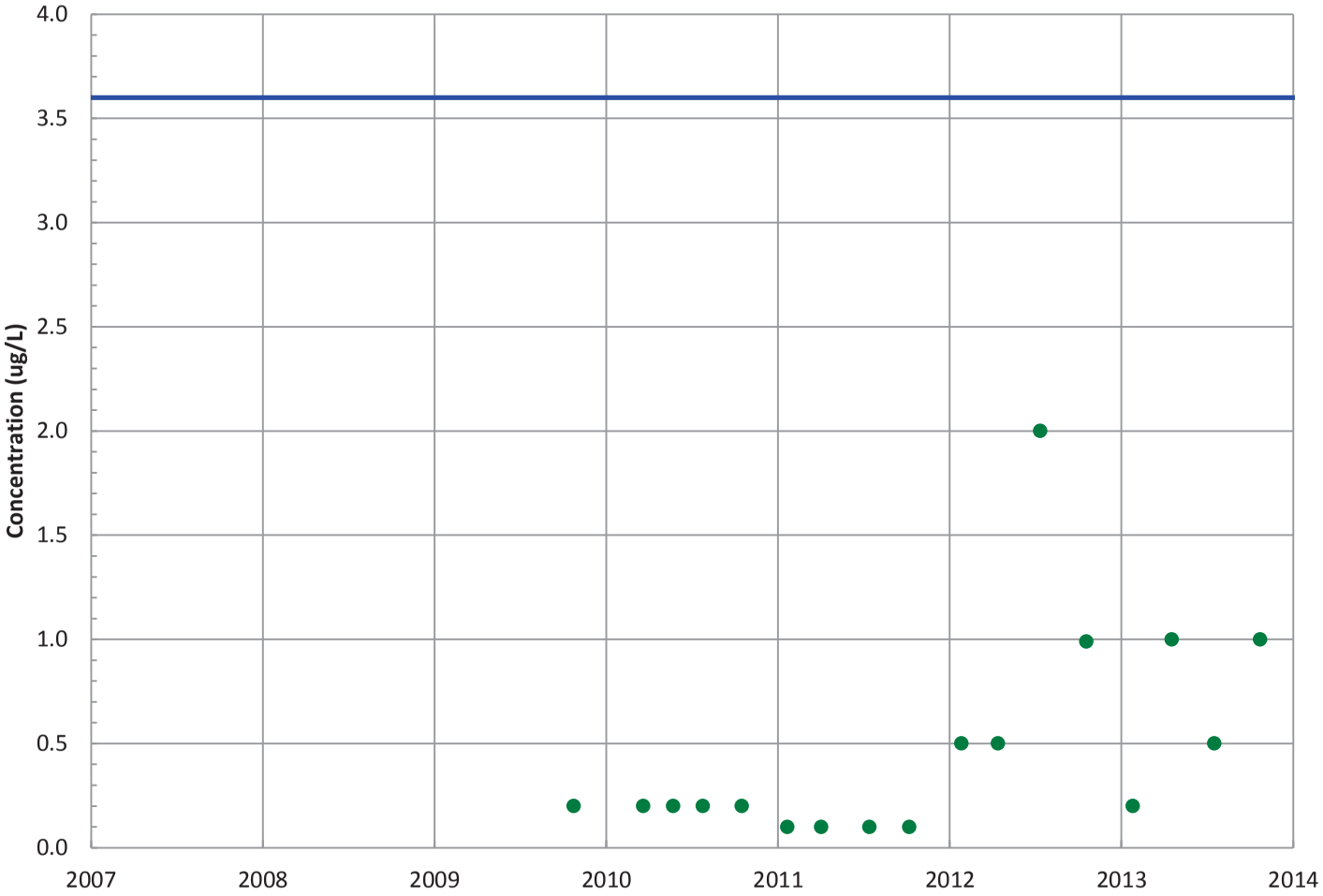
Well Location



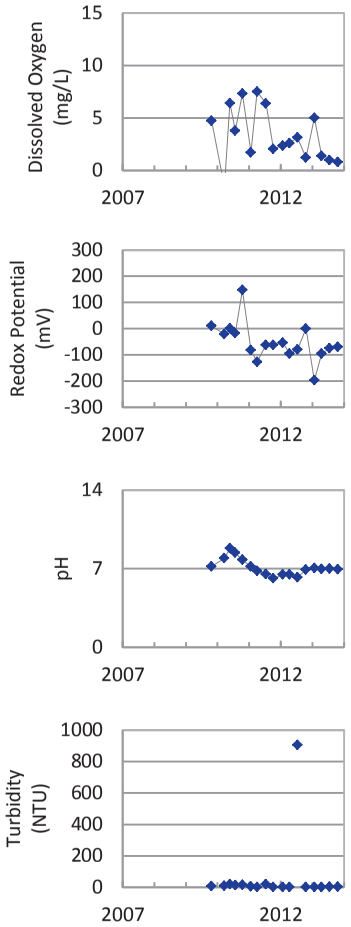
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1155
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



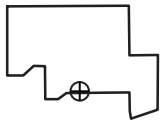
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

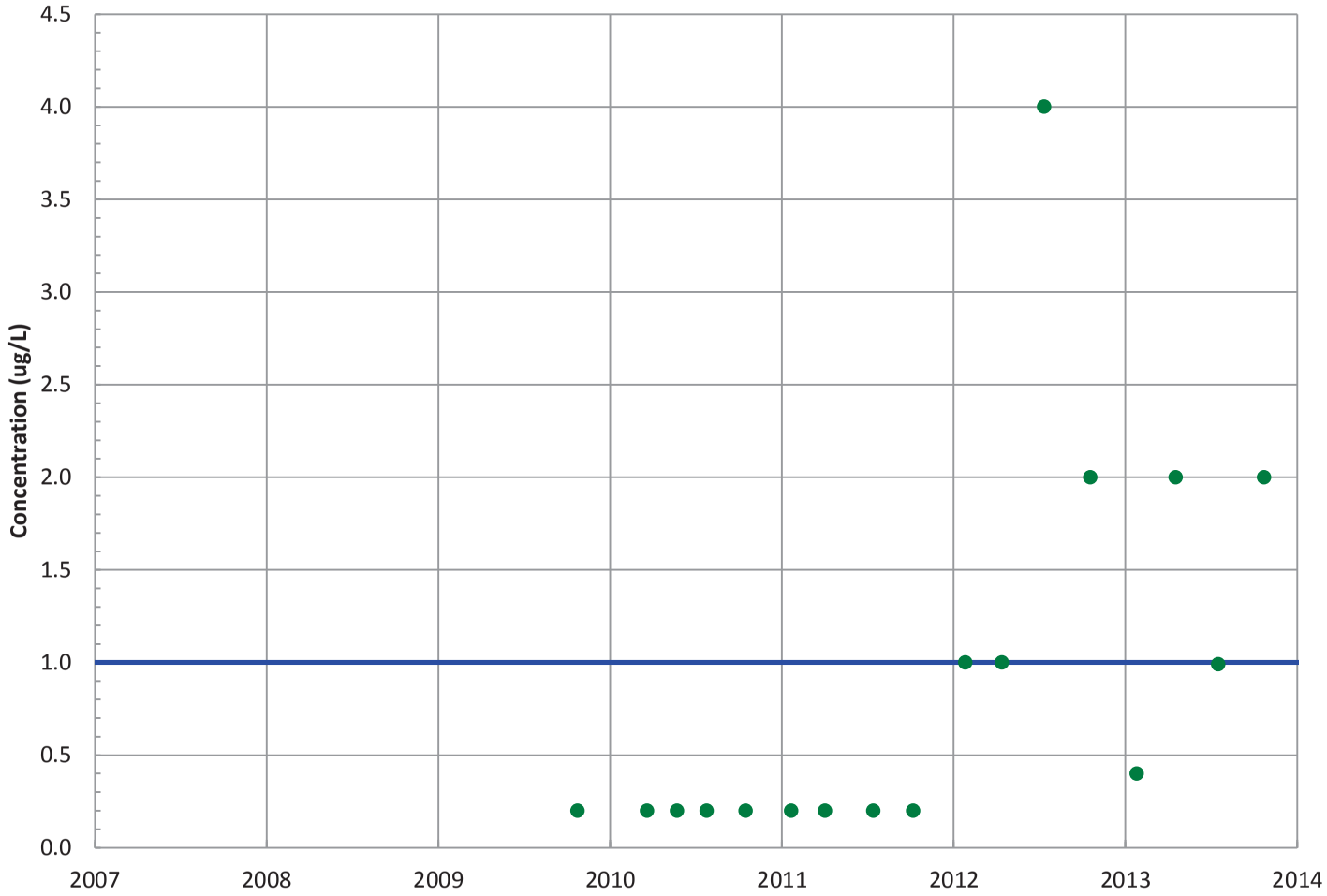
Well Location



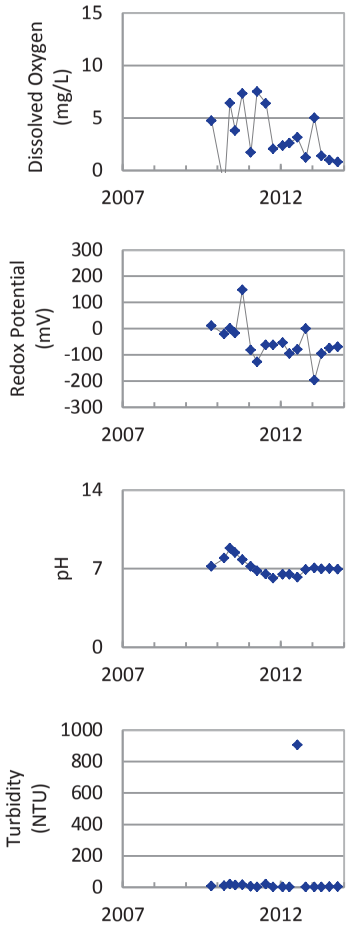
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1155
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



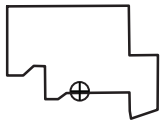
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

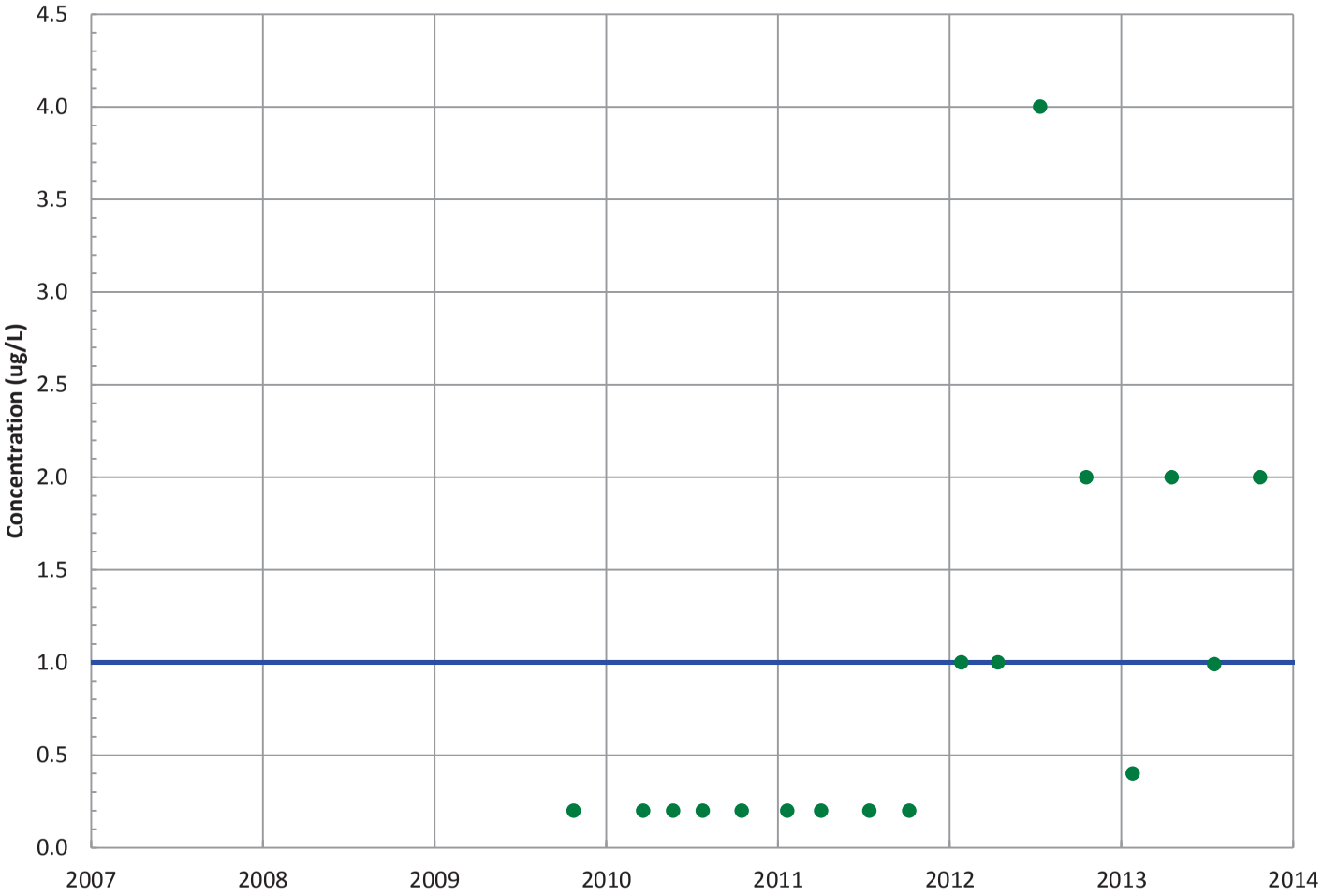
Well Location



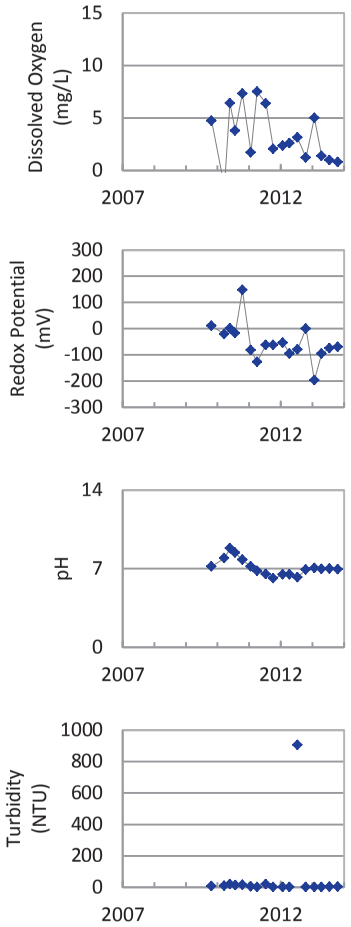
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1155
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



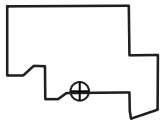
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

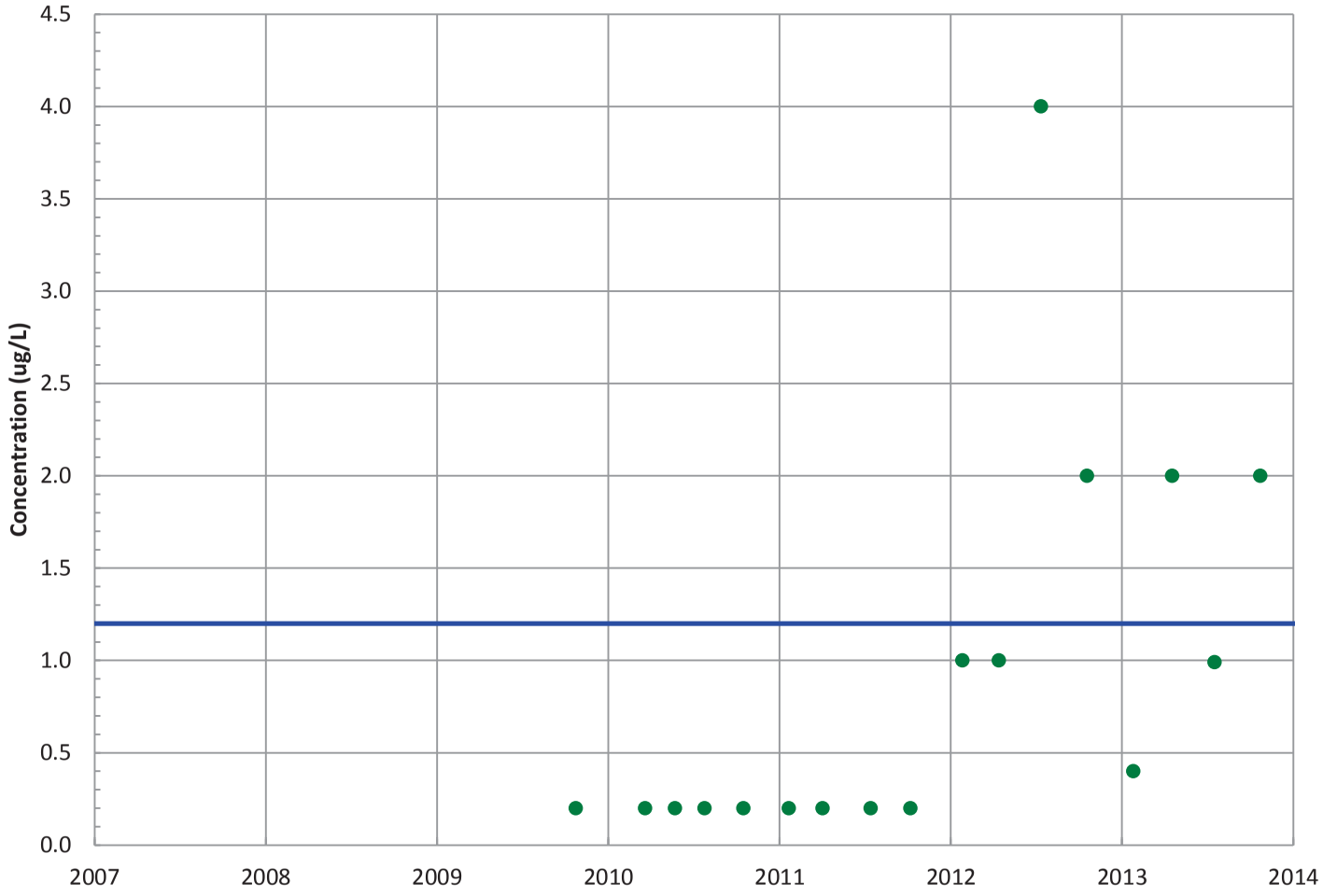
Well Location



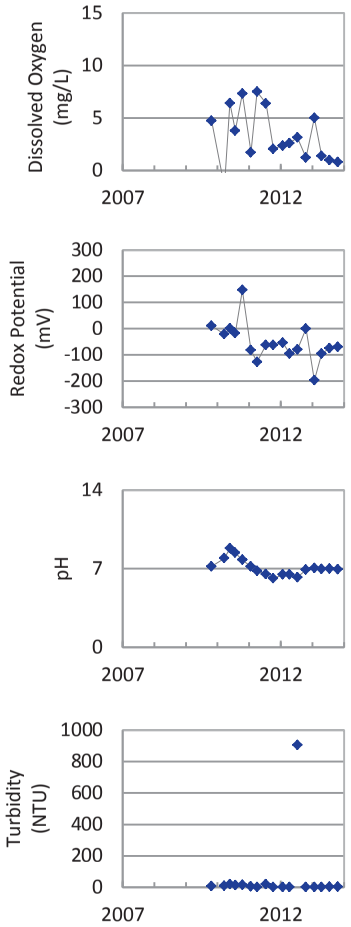
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1155
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



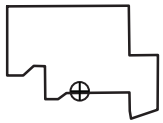
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

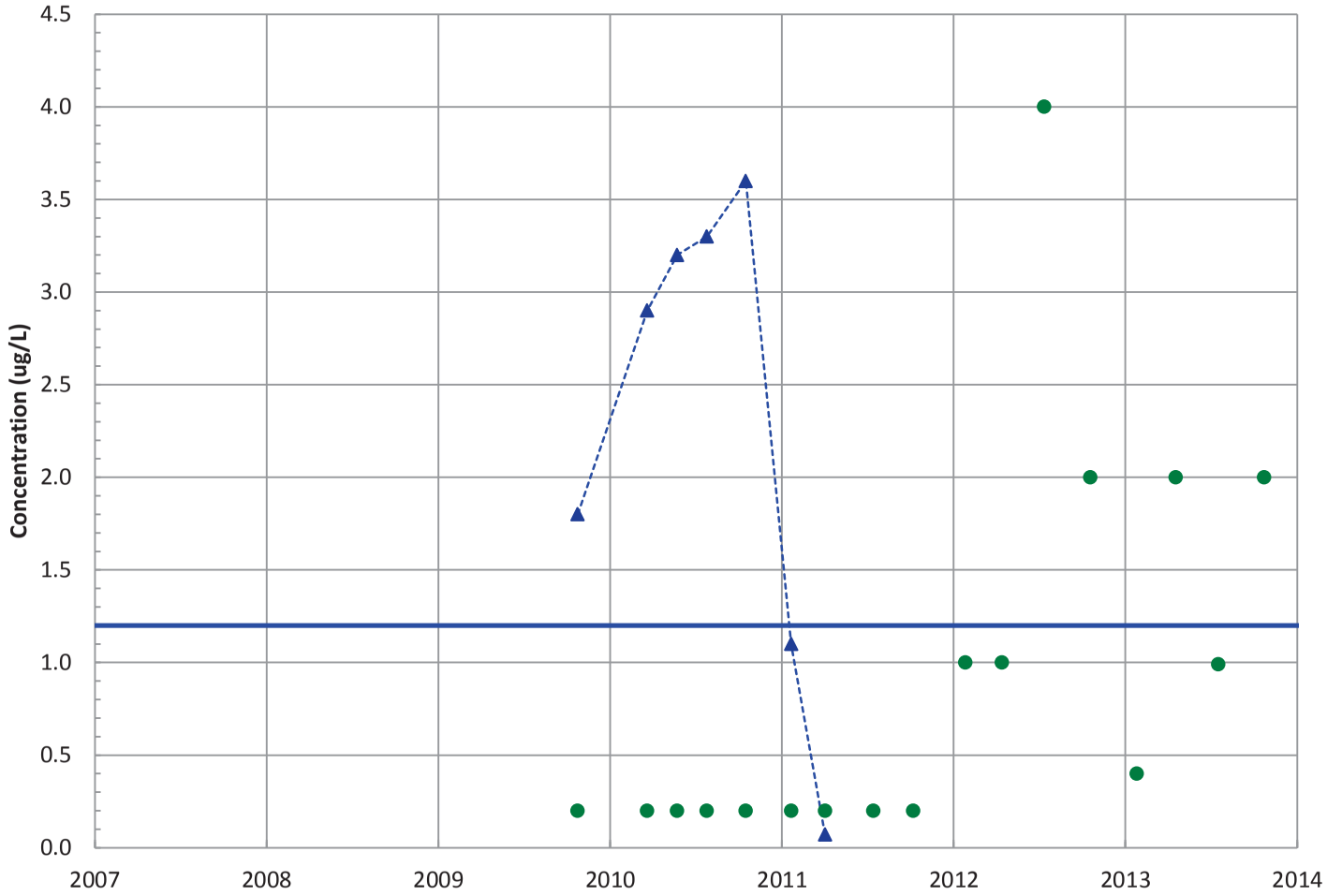
Well Location



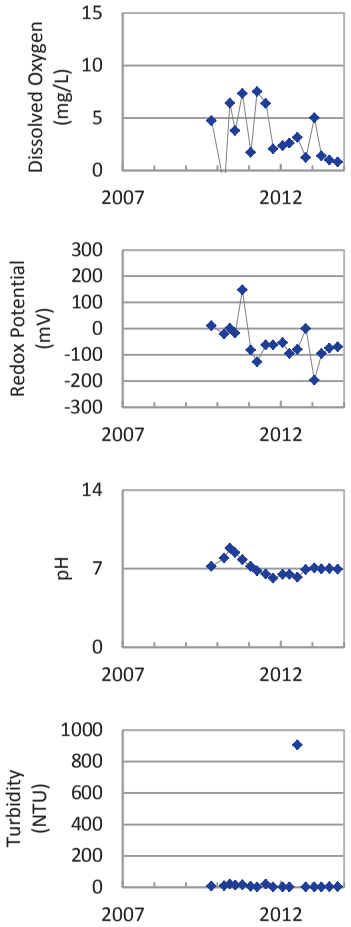
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1155
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



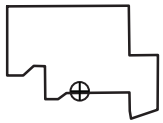
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: Probably Decreasing
Last 4 Samples: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

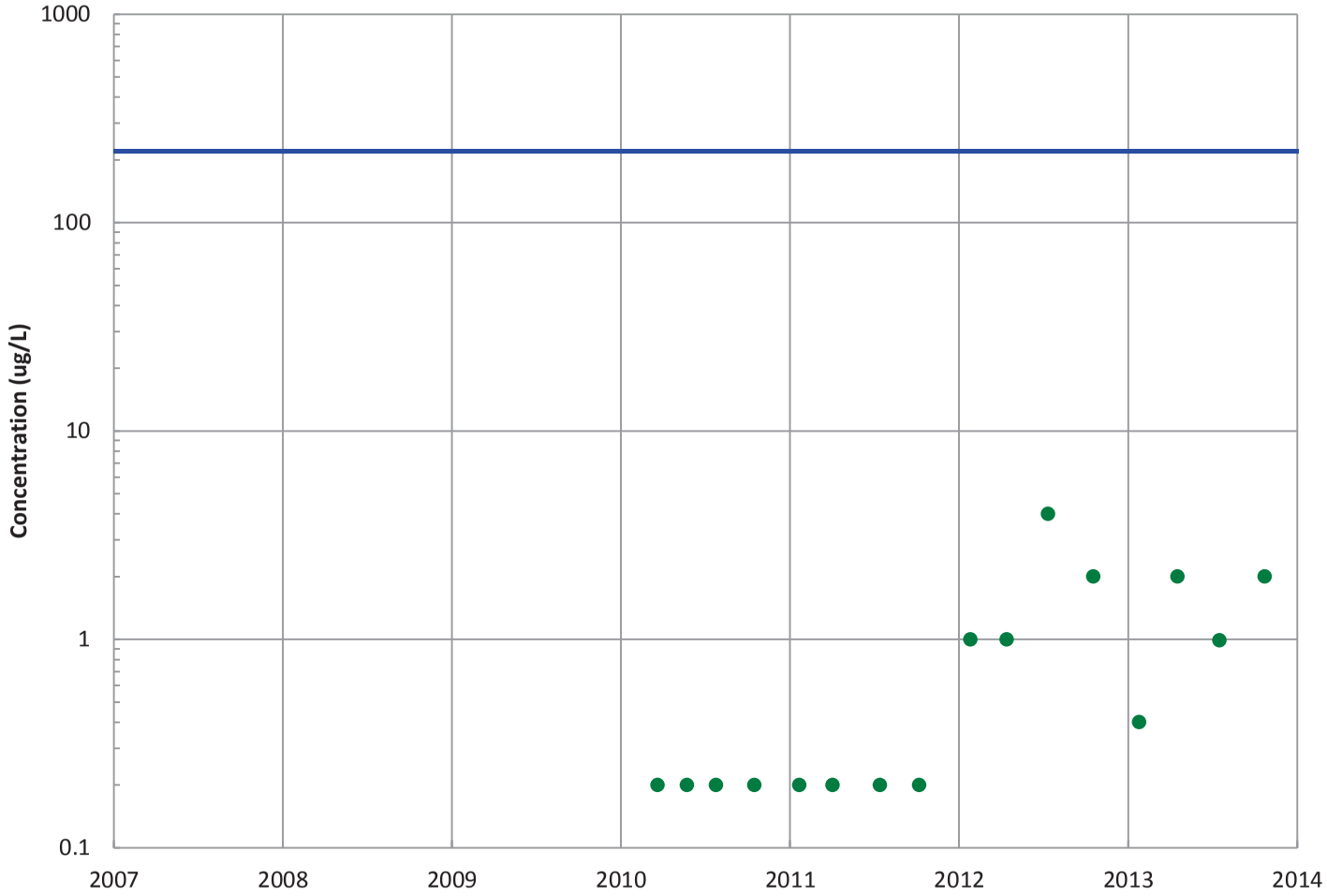
Well Location



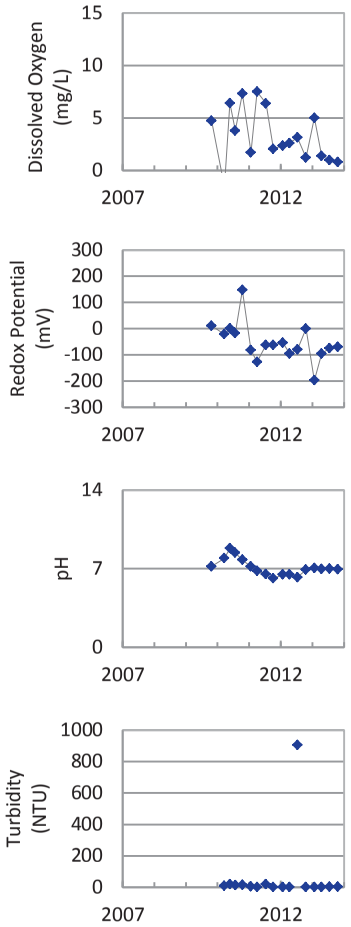
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1155
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



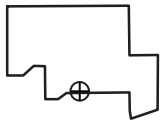
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

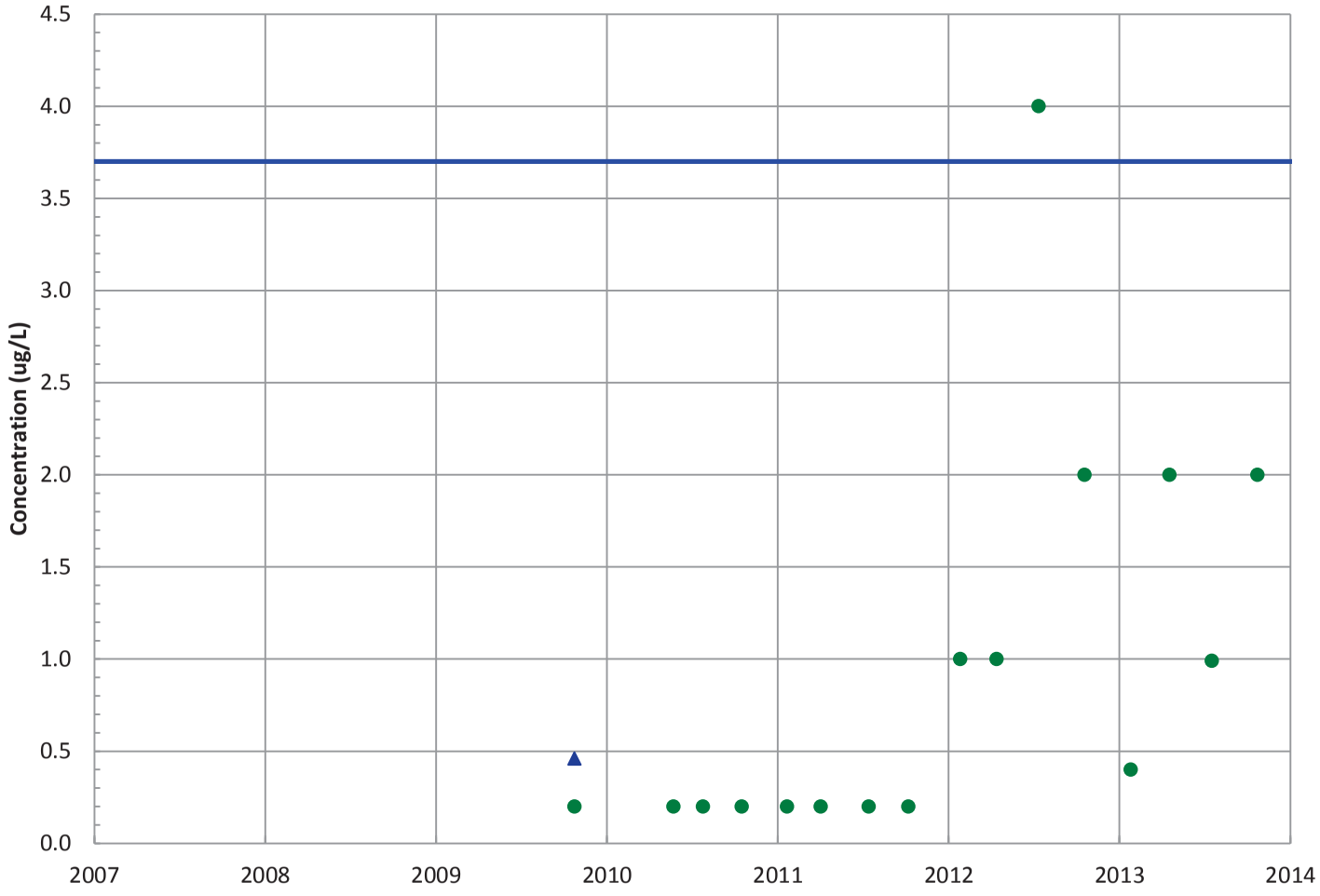
Well Location



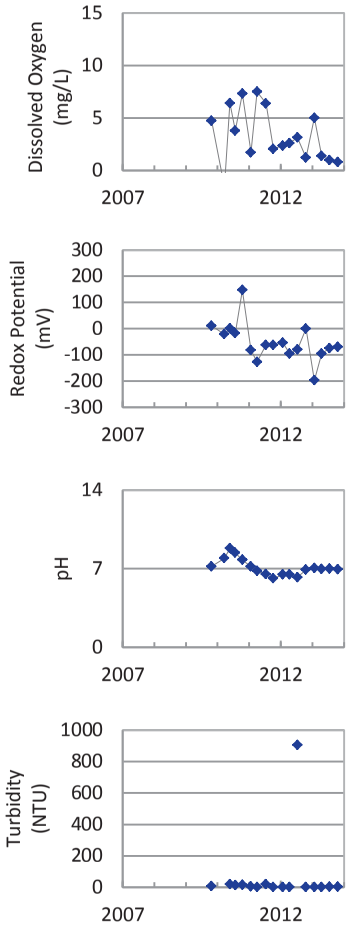
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/23/2010 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1155
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



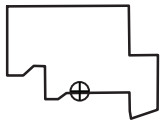
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

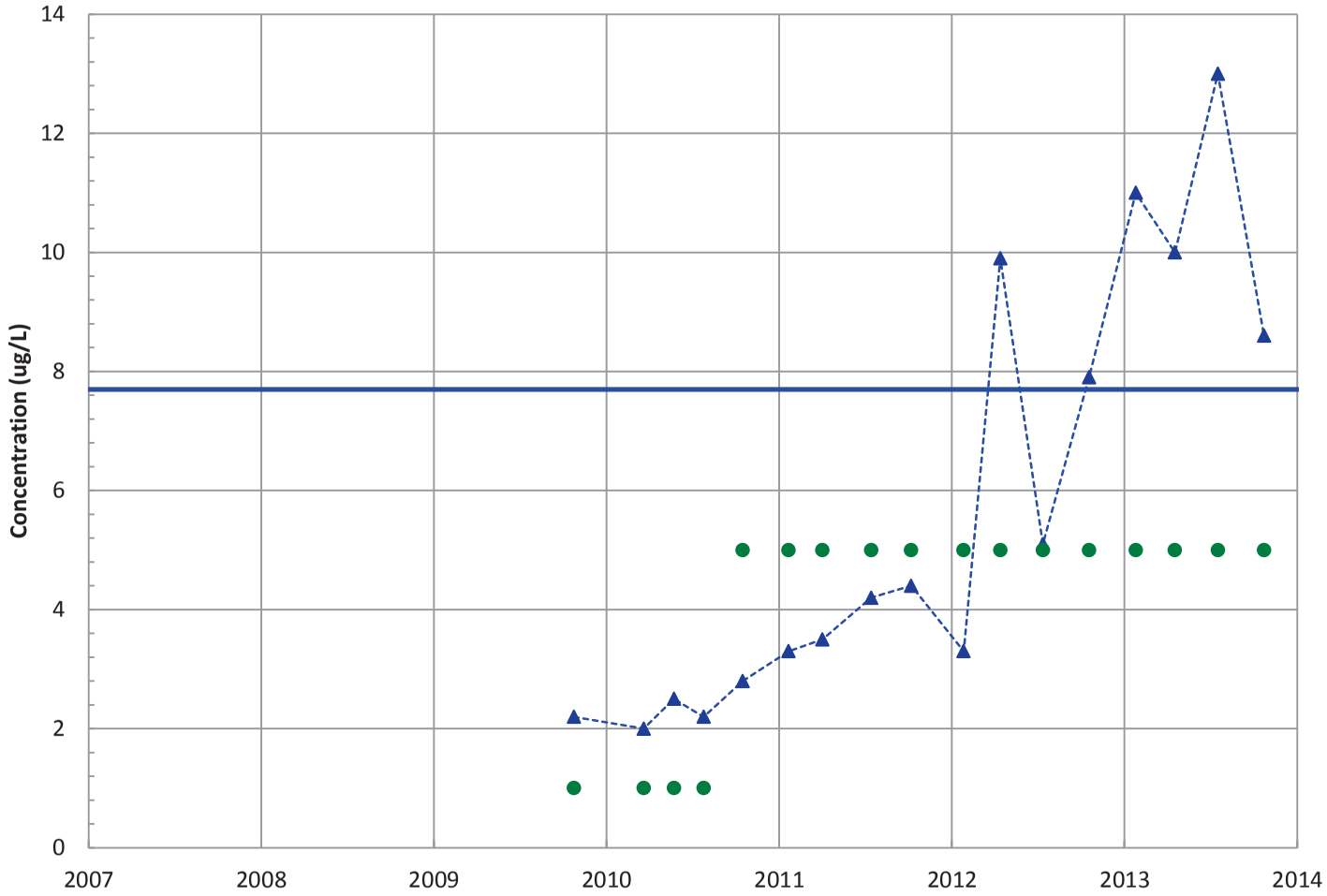
Well Location



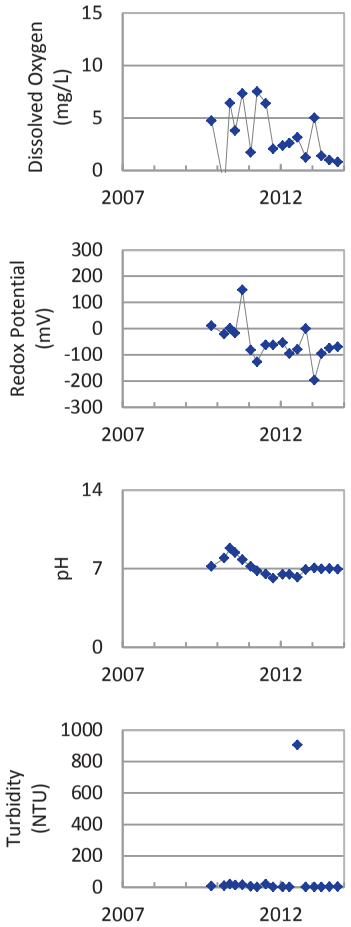
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1155
1,4-Dioxane (p-Dioxane) Trend in Perched Aquifer



Field Parameters



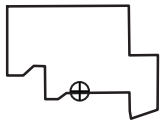
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

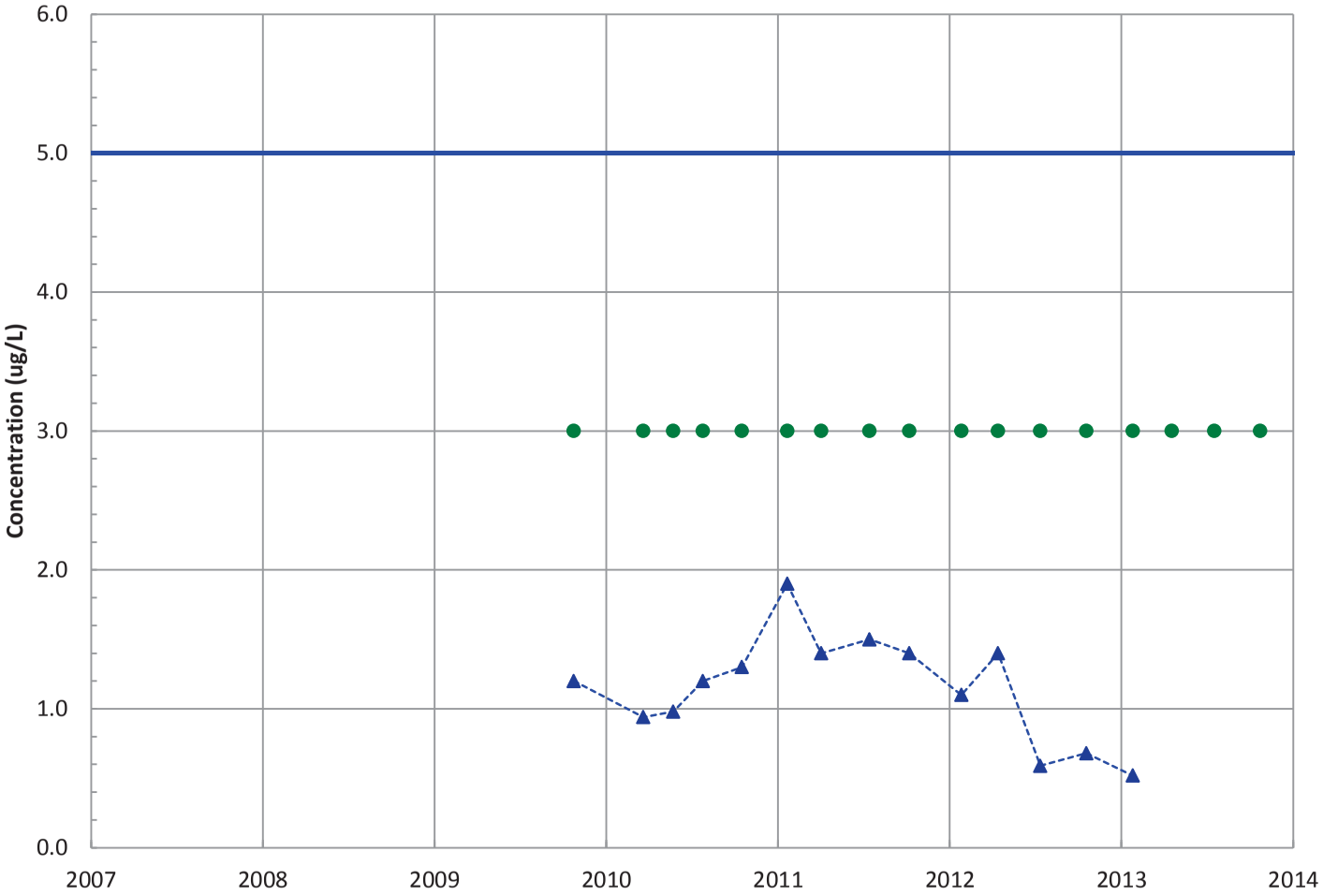
Well Location



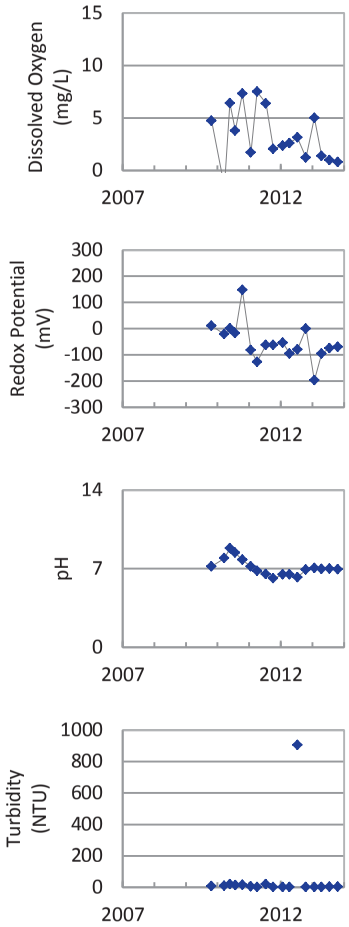
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1155
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



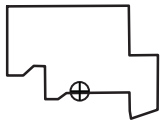
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

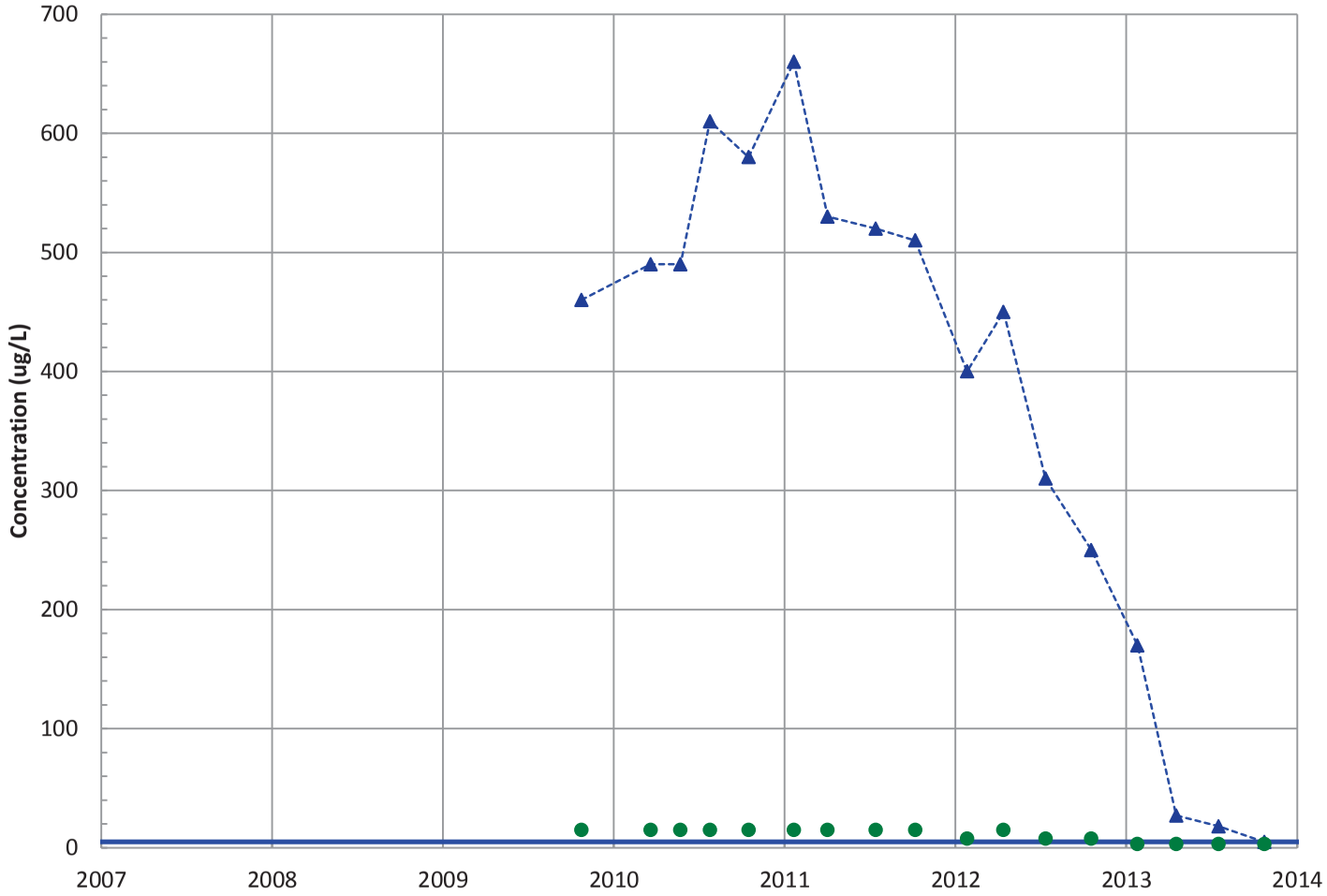
Well Location



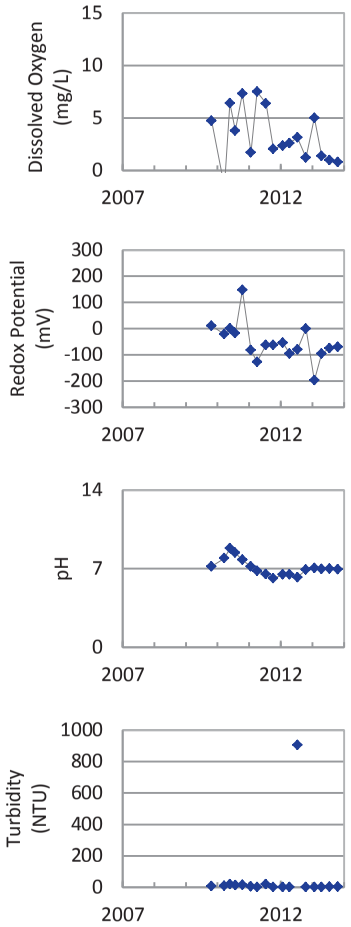
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1155
Trichloroethene Trend in Perched Aquifer



Field Parameters



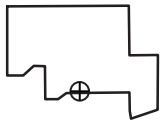
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

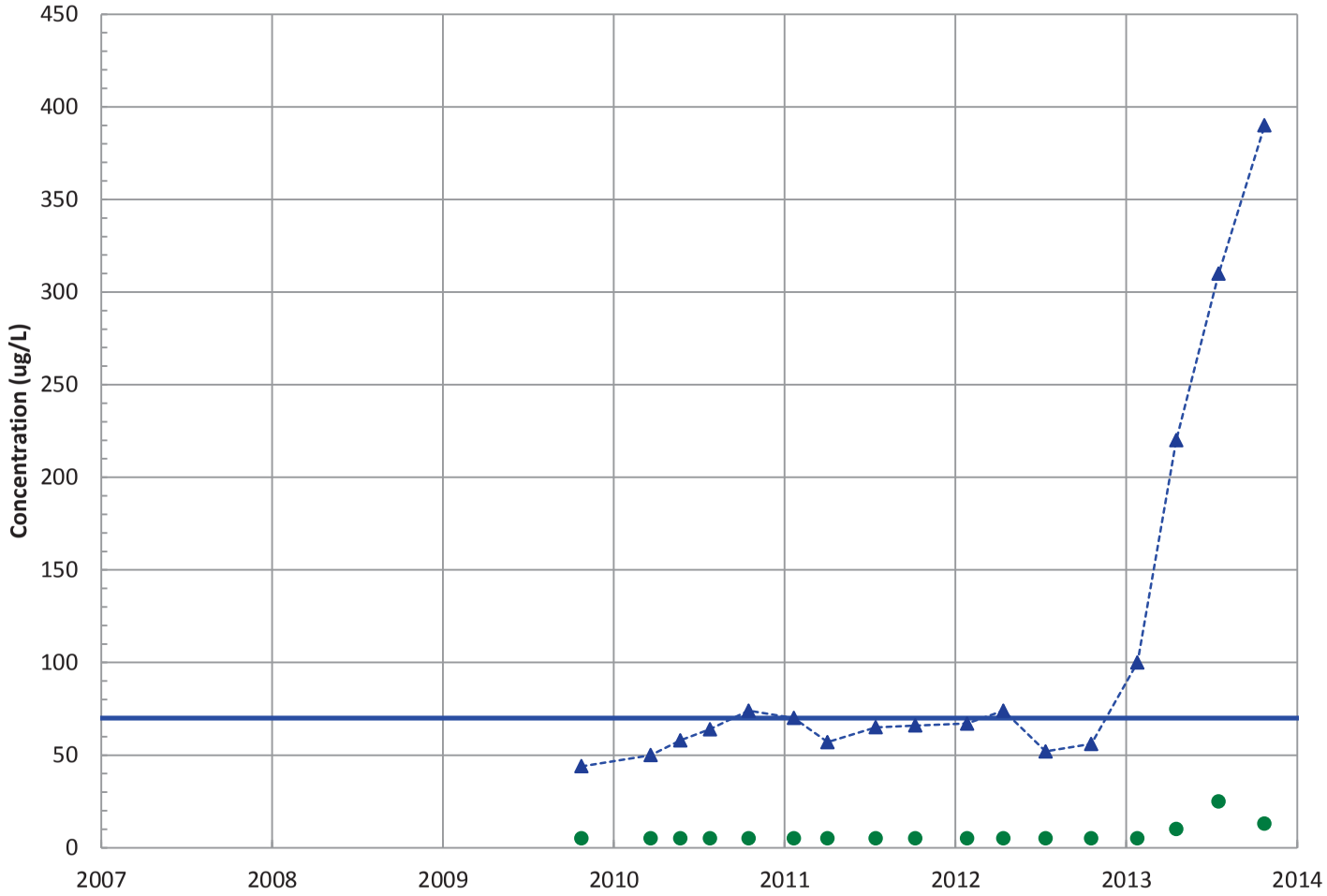
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1155
cis-1,2-Dichloroethene Trend in Perched Aquifer



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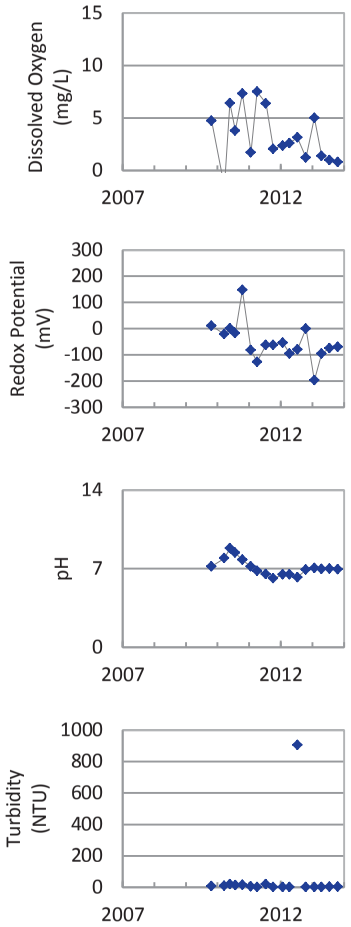


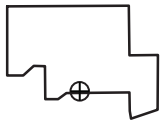
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Increasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Increasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

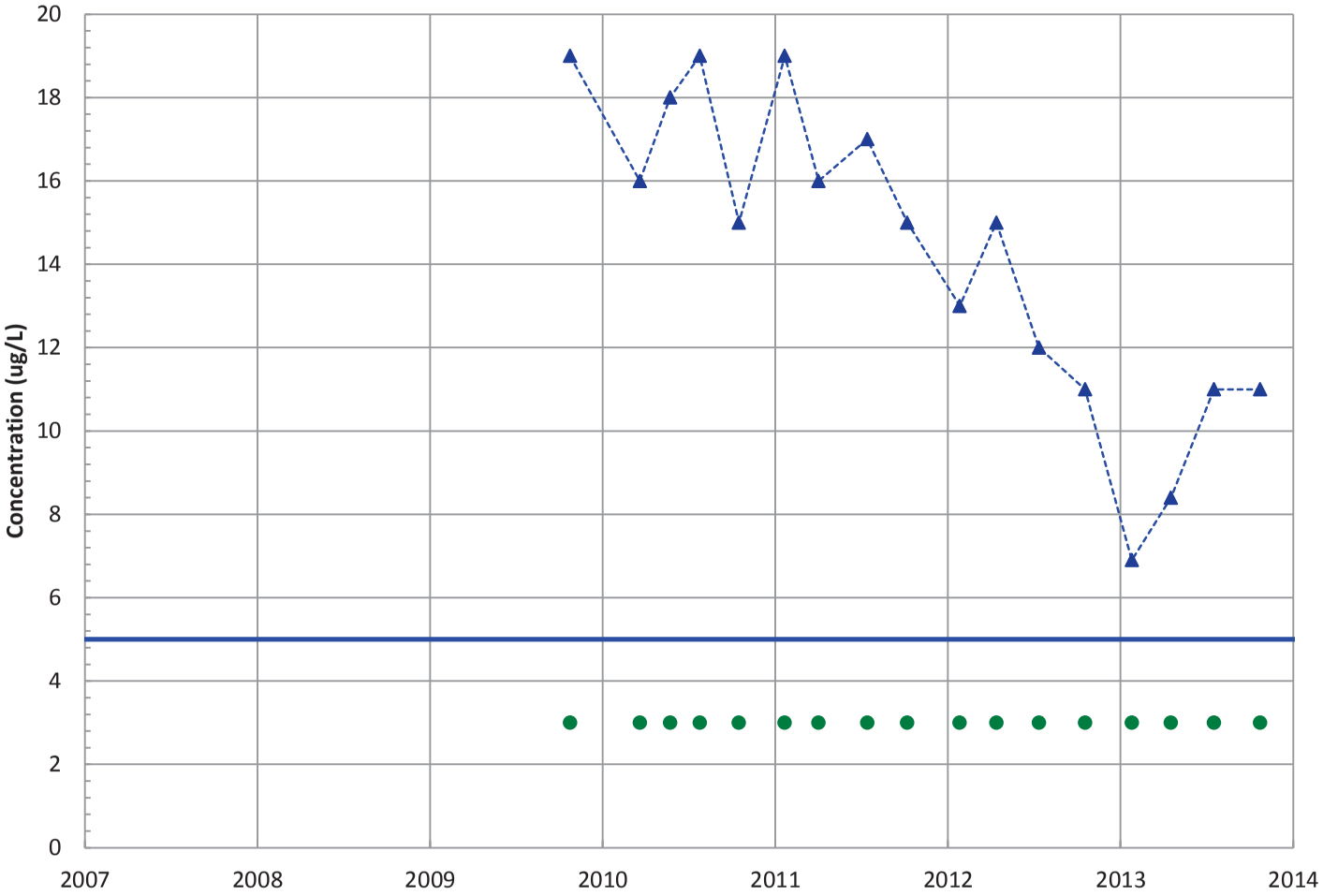
Well Location



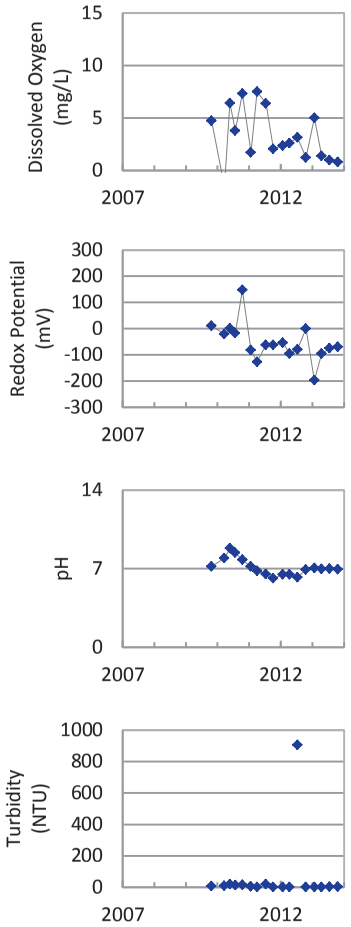
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1155
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



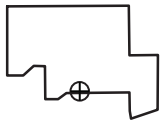
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Increasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

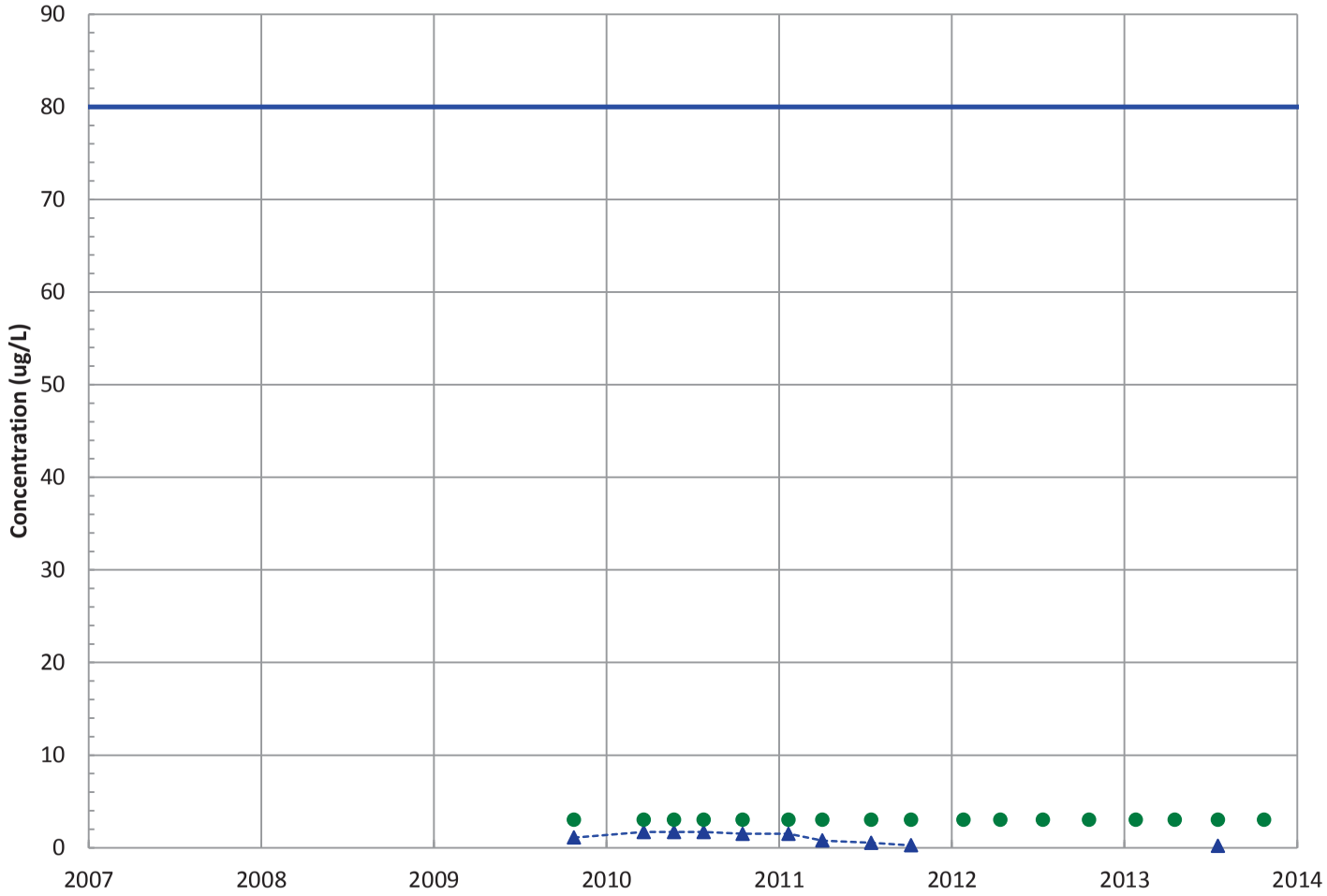
Well Location



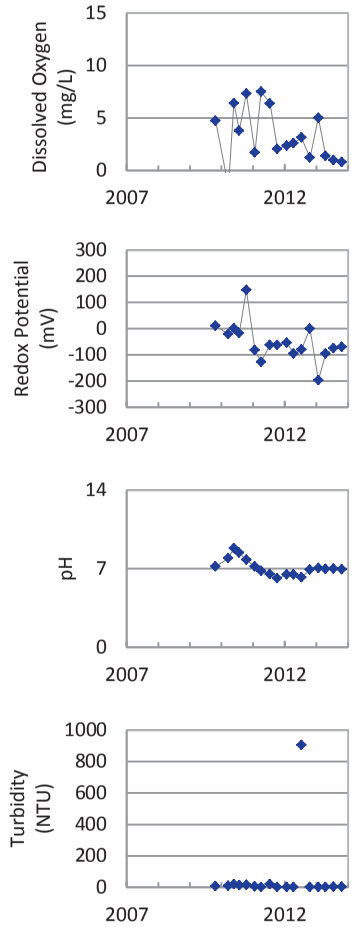
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1155
Chloroform Trend in Perched Aquifer



Field Parameters



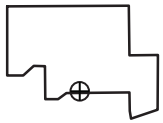
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

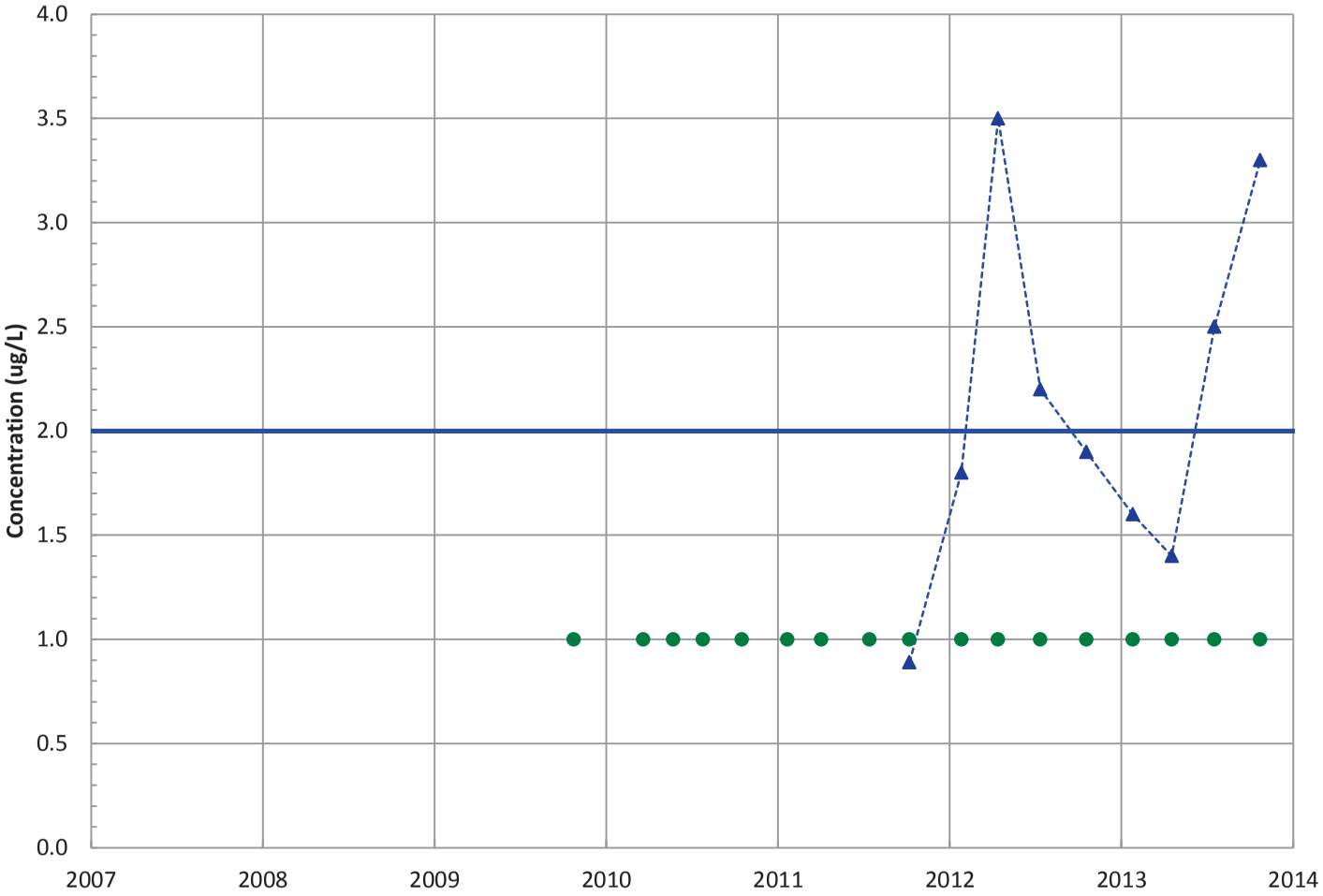
Well Location

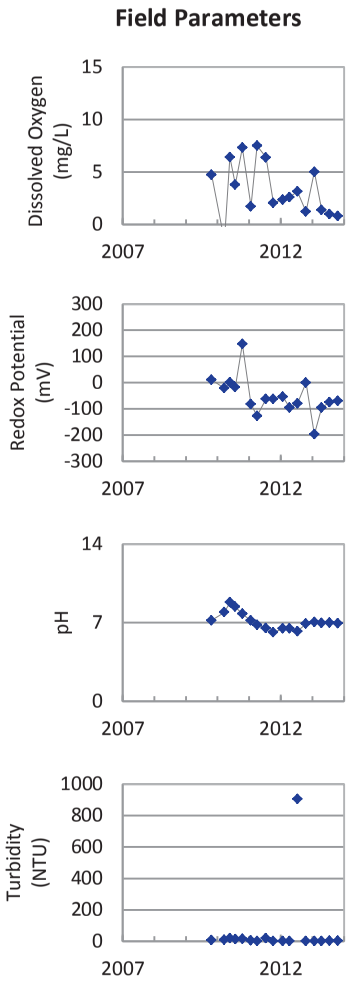


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1155
Vinyl Chloride Trend in Perched Aquifer





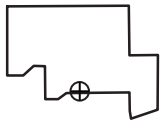
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Probably Increasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

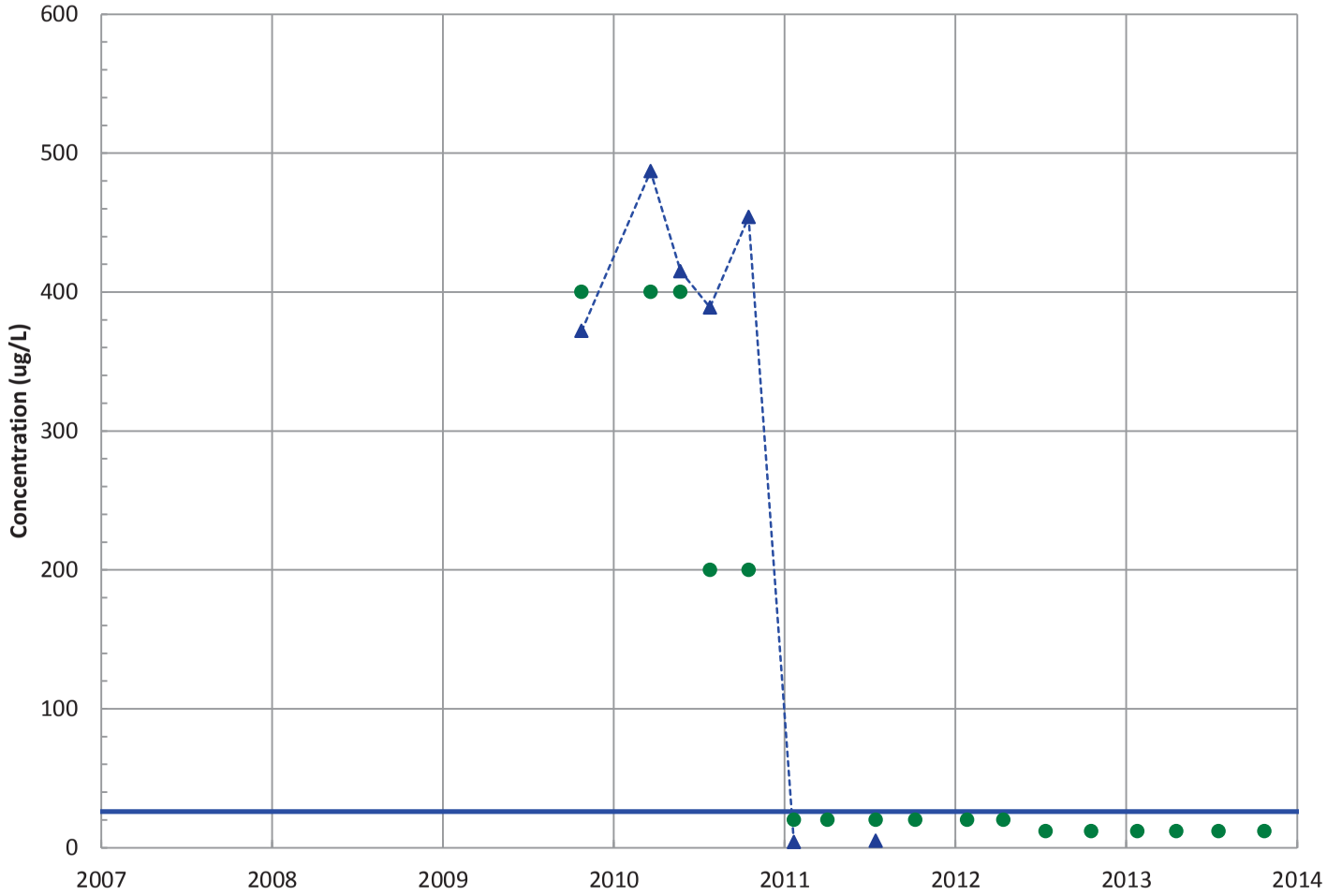
Well Location



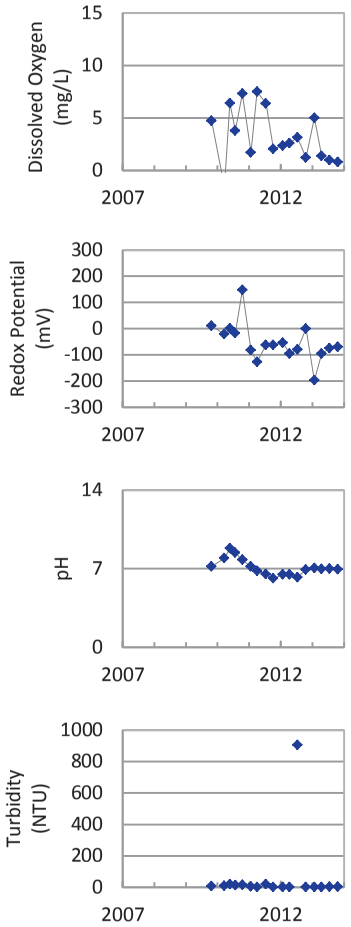
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1155
Perchlorate Trend in Perched Aquifer



Field Parameters



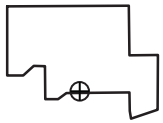
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Probably Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

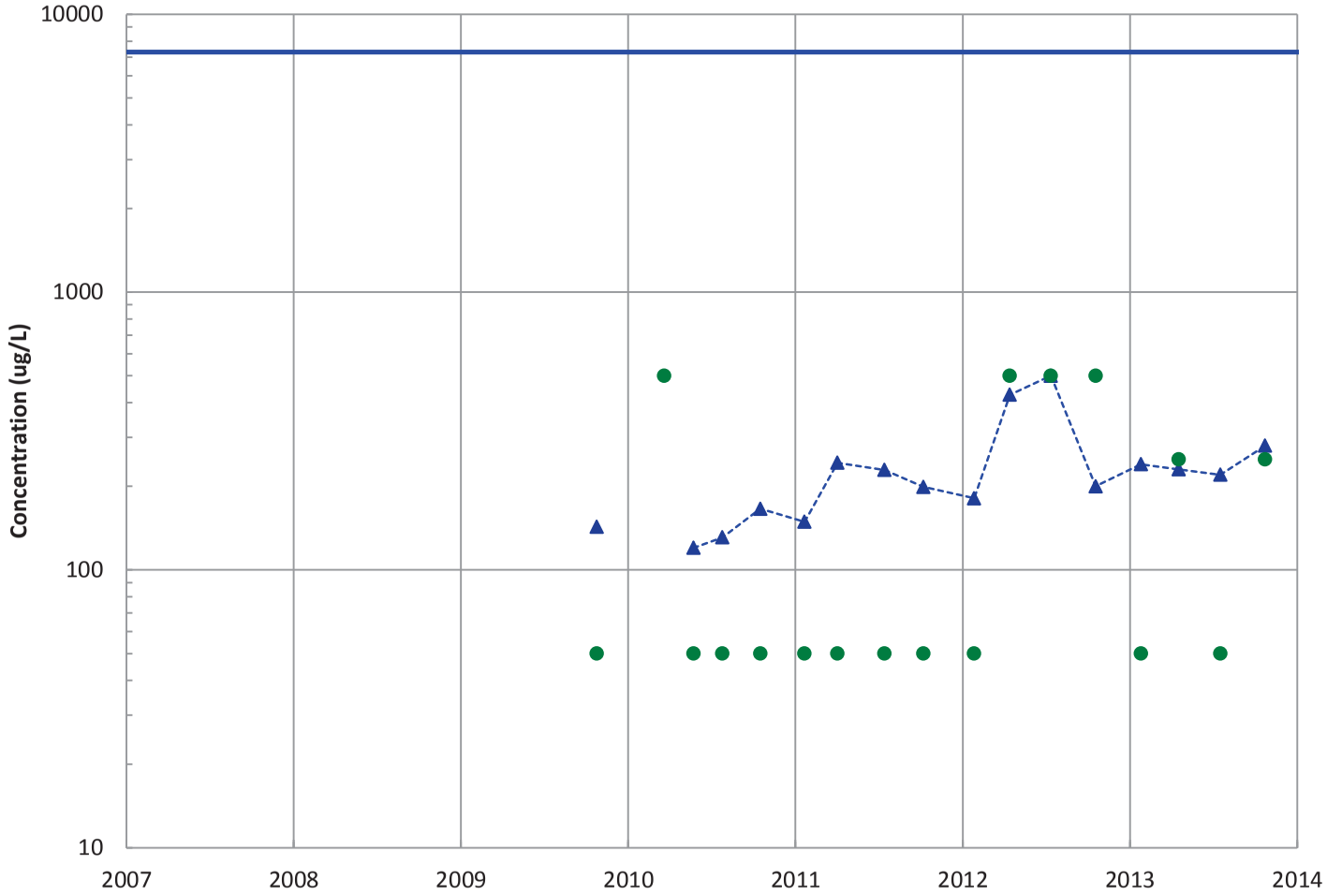
Well Location



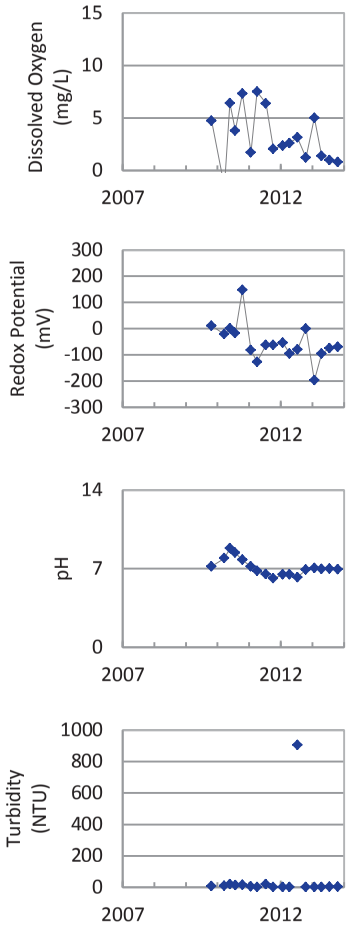
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1155
Boron Trend in Perched Aquifer



Field Parameters



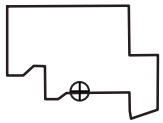
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Stable

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

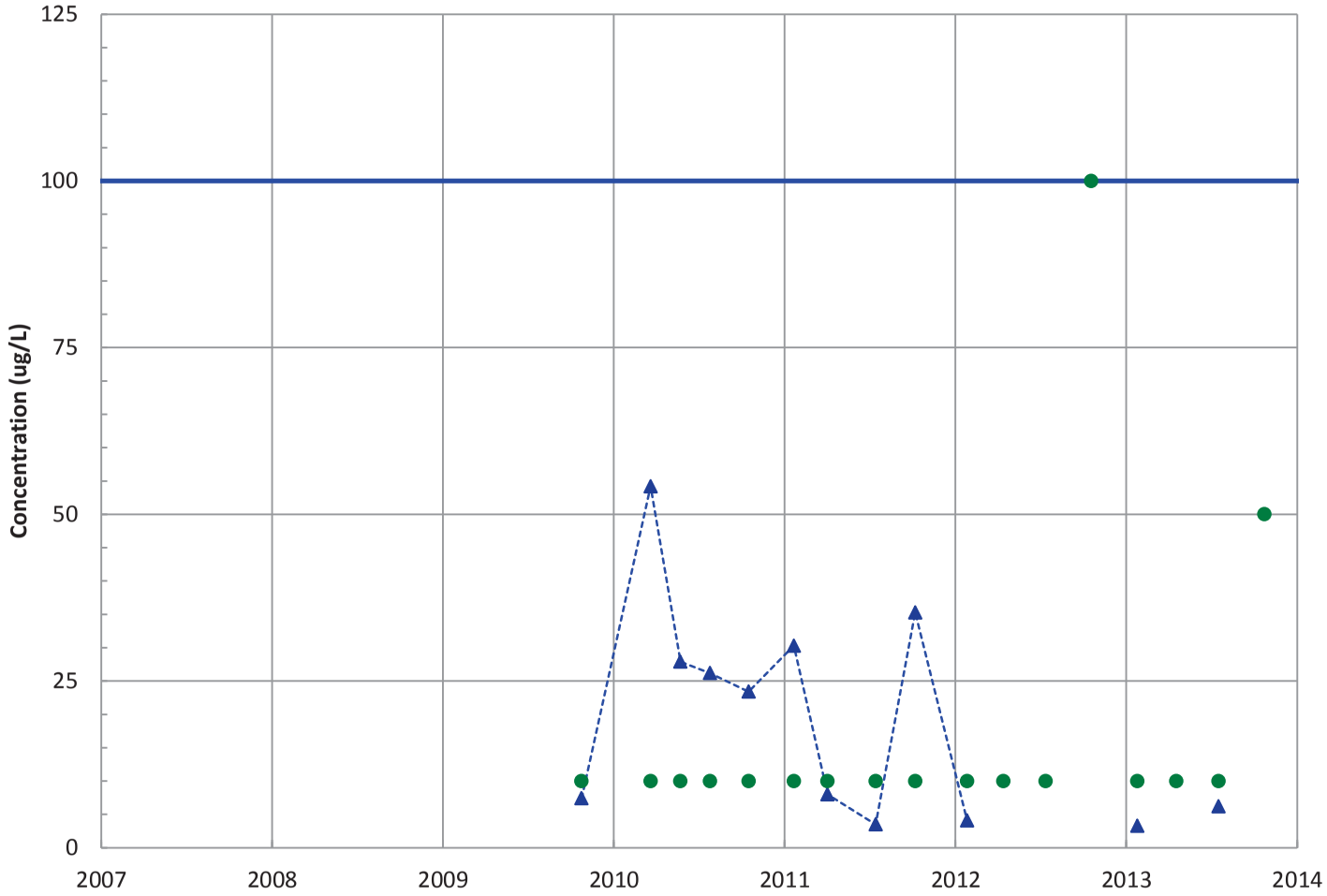
Well Location



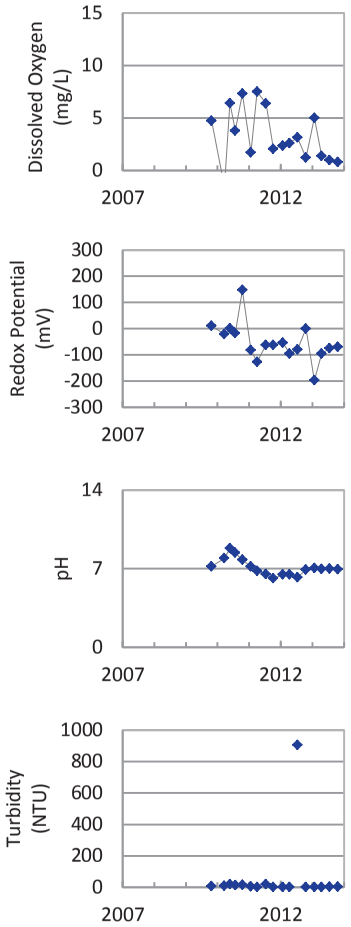
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1155
Chromium, Total Trend in Perched Aquifer



Field Parameters



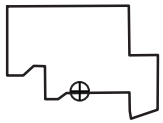
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Increasing

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Probably Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

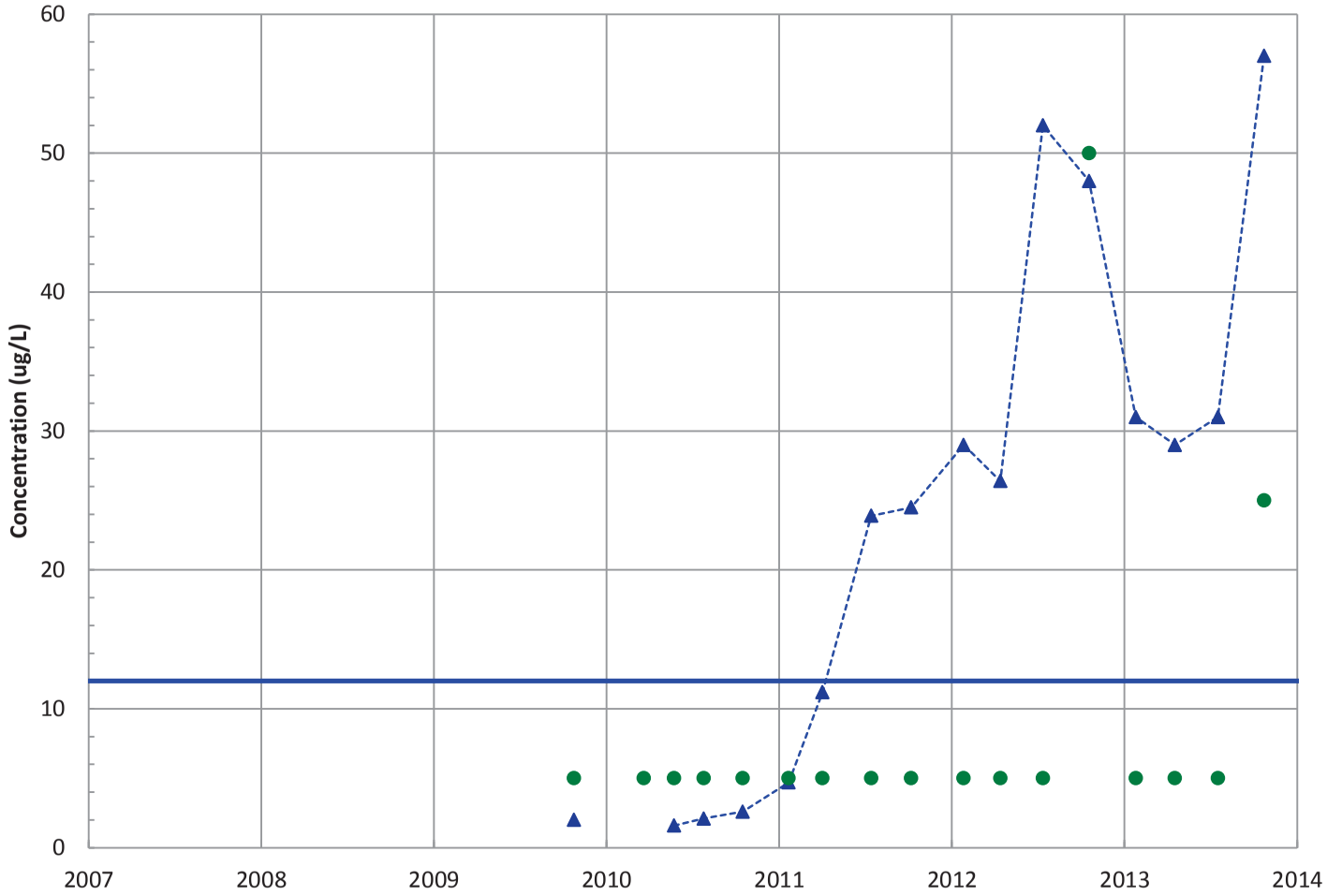
Well Location



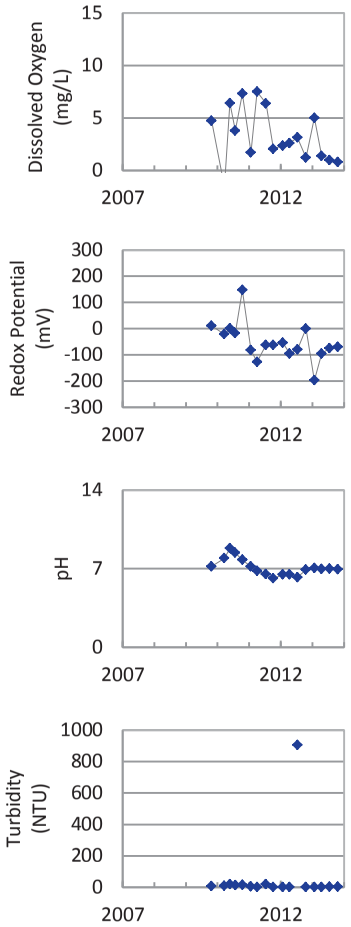
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1155
Arsenic Trend in Perched Aquifer



Field Parameters



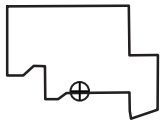
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

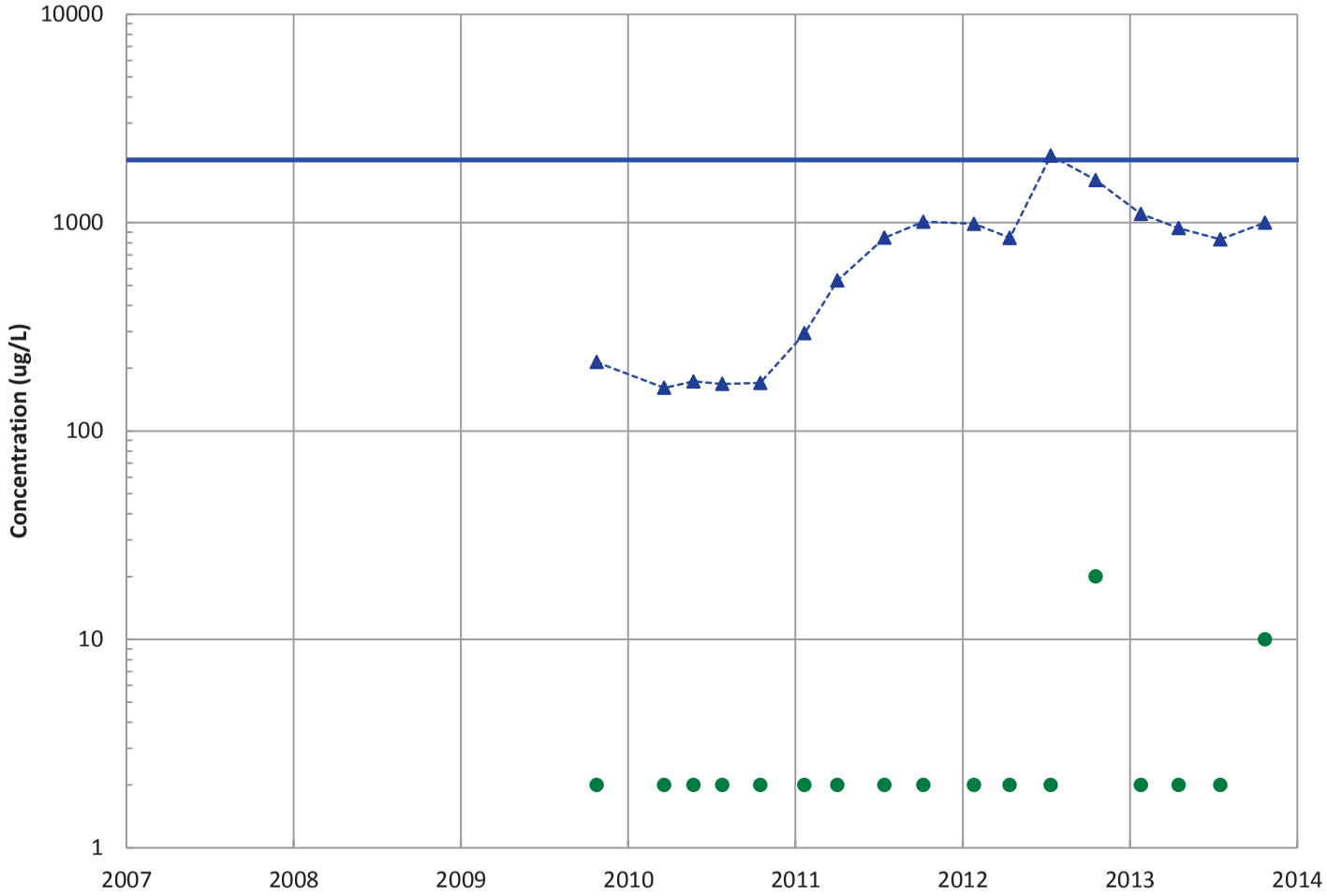
Well Location



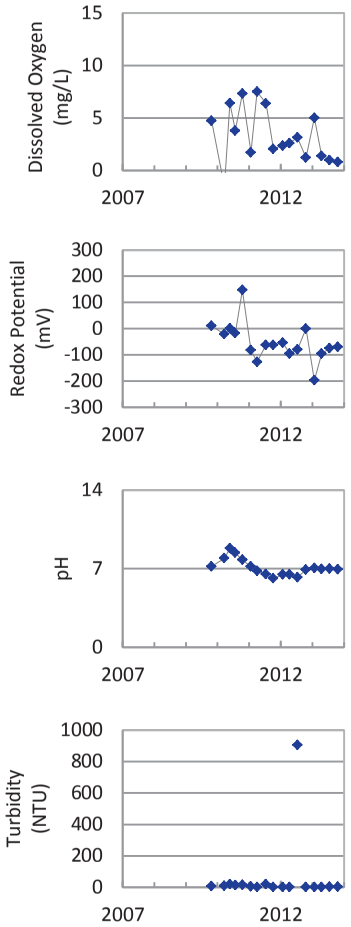
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1155
Barium Trend in Perched Aquifer



Field Parameters



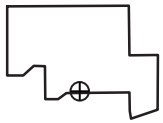
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

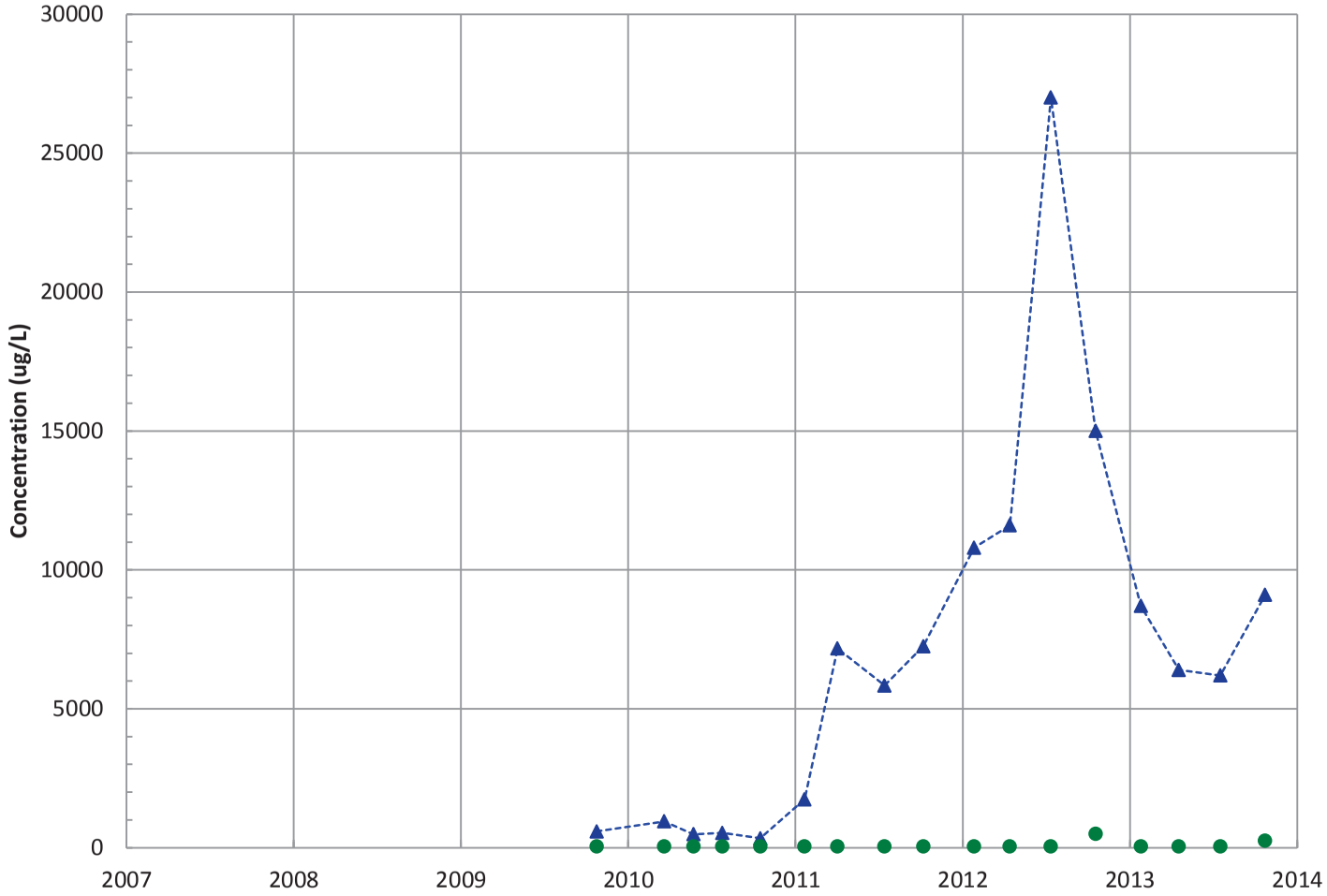
Well Location



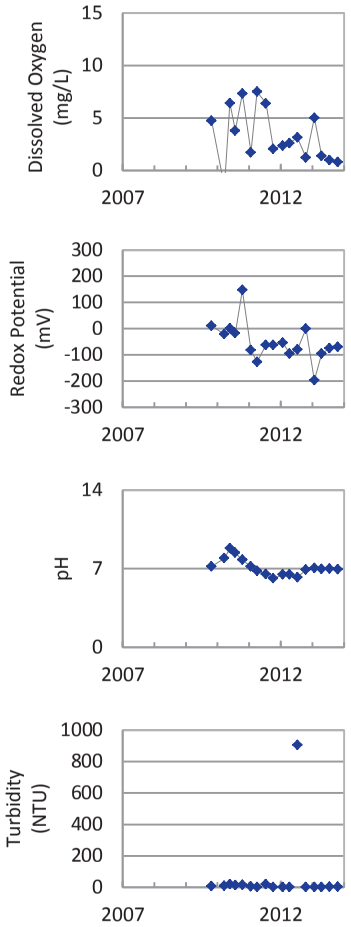
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1155
Iron Trend in Perched Aquifer



Field Parameters



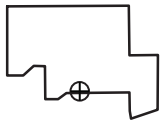
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Stable

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Stable

▲ Measured Value
● Sample Detection Limit
Concentration Trend
Injection Dates

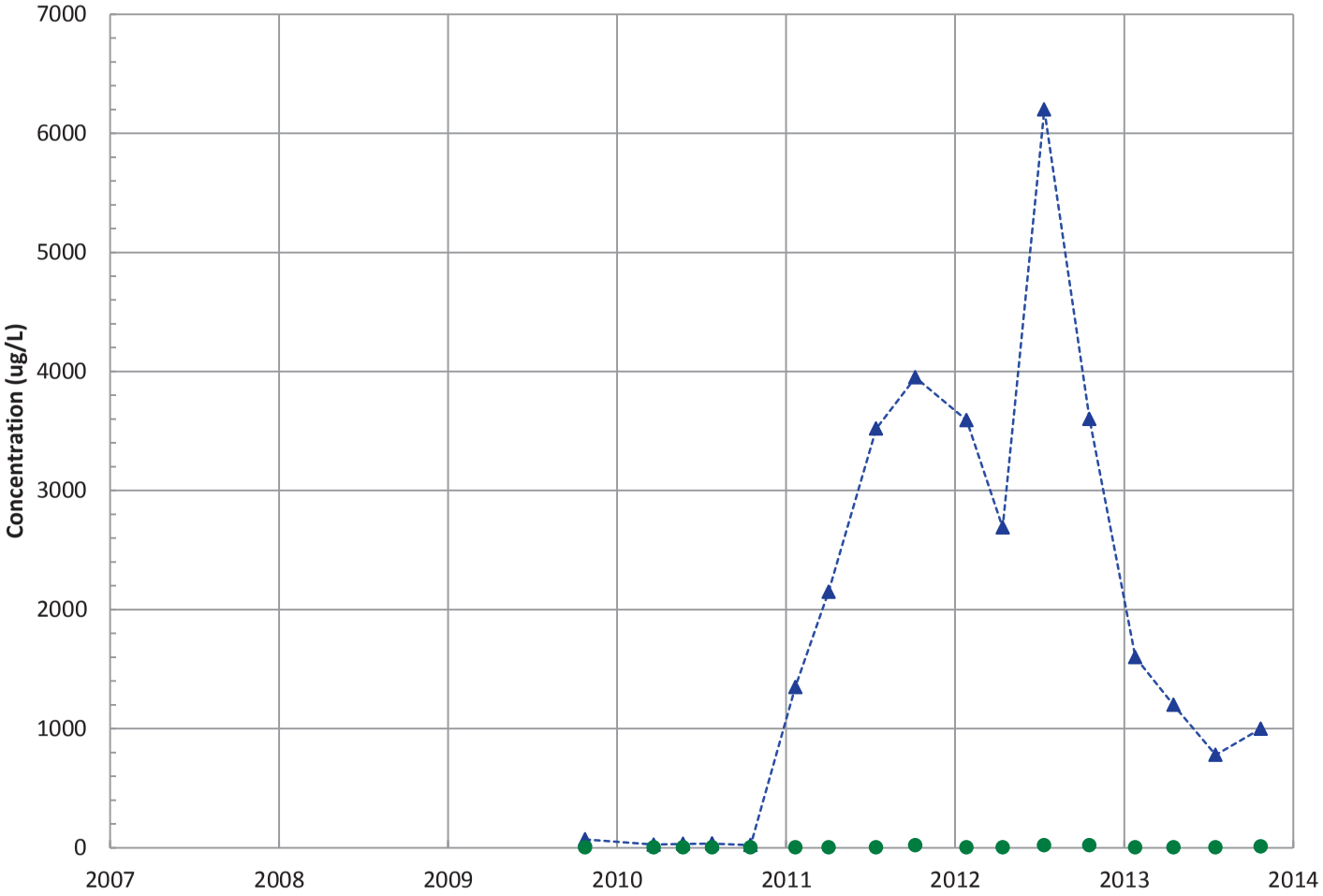
Well Location



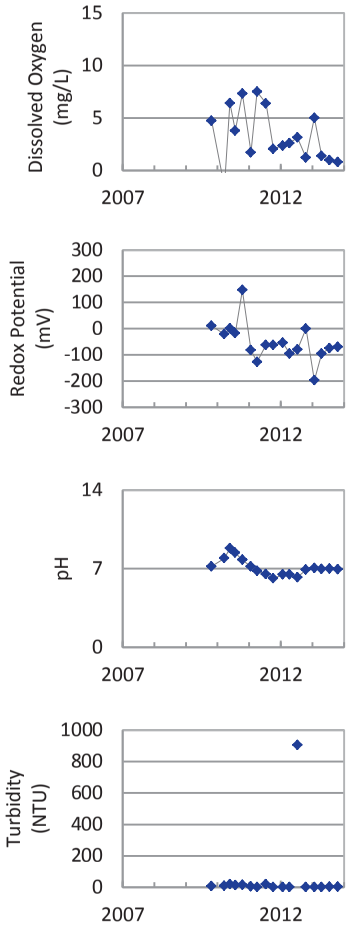
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1155
Manganese Trend in Perched Aquifer



Field Parameters



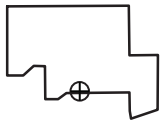
Concentration Trend

MAROS Mann-Kendall Method
All Data: Probably Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Probably Decreasing

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

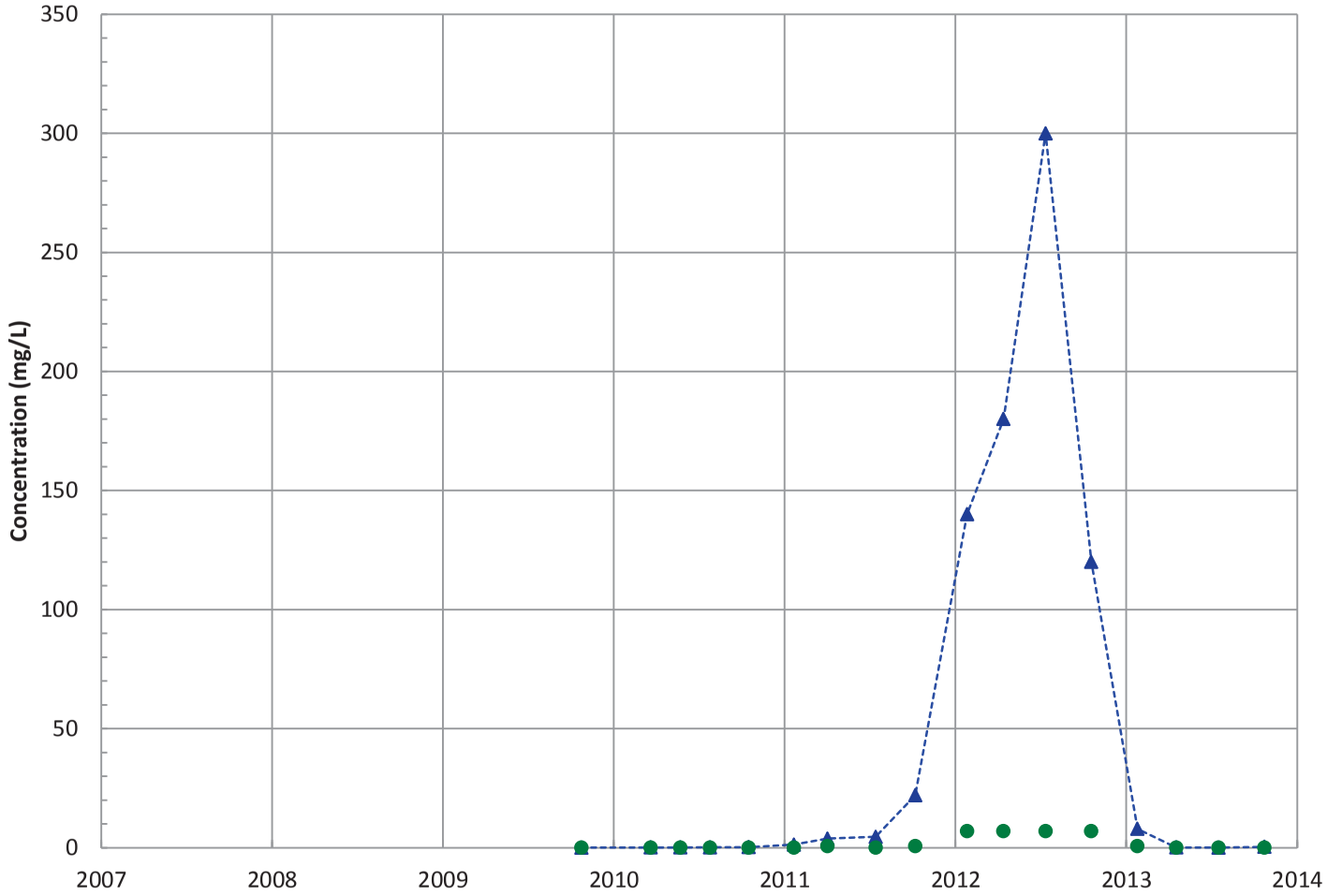
Well Location



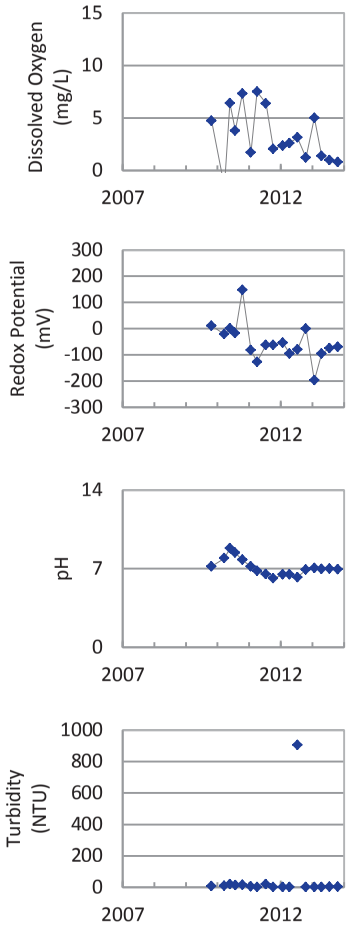
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1155
Acetic Acid Trend in Perched Aquifer



Field Parameters



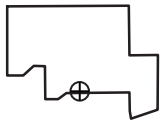
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Probably Increasing
Last 4 Samples: No Trend

▲ Measured Value
● Sample Detection Limit
Concentration Trend
Injection Dates

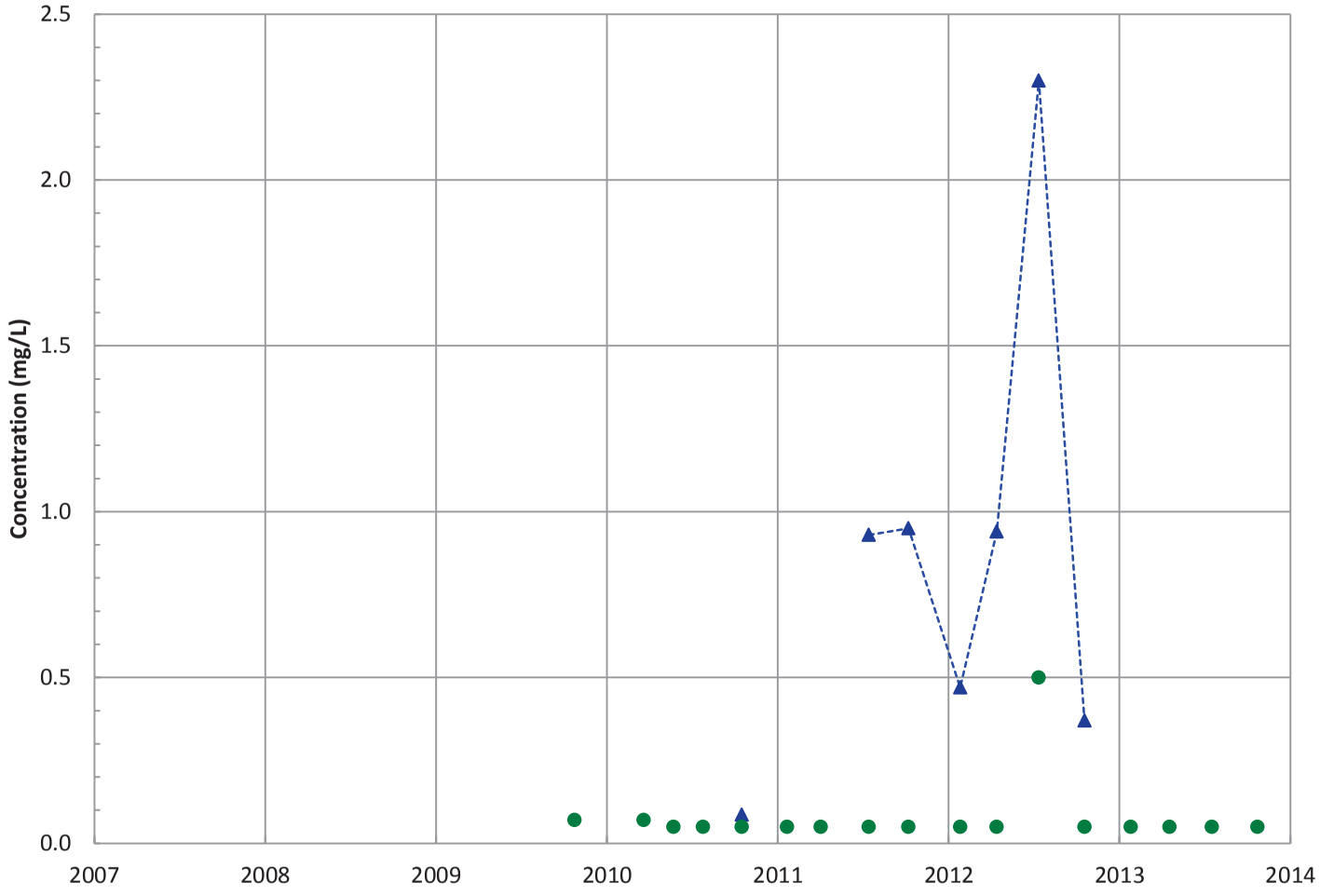
Well Location



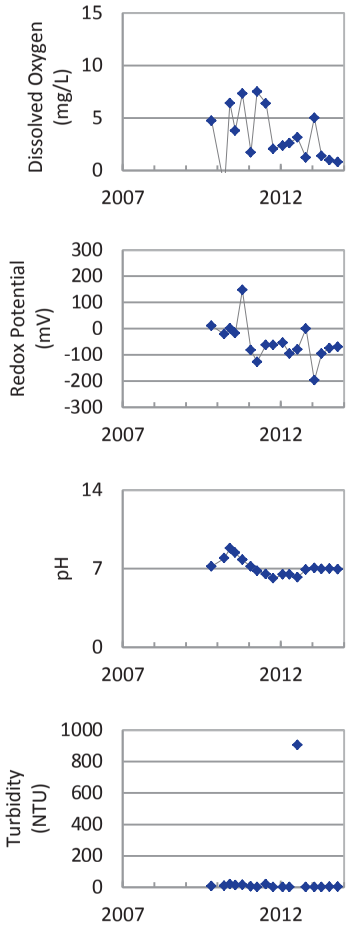
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1155
Butyric Acid Trend in Perched Aquifer



Field Parameters



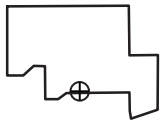
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: Probably Increasing
Last 4 Samples: No Trend

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

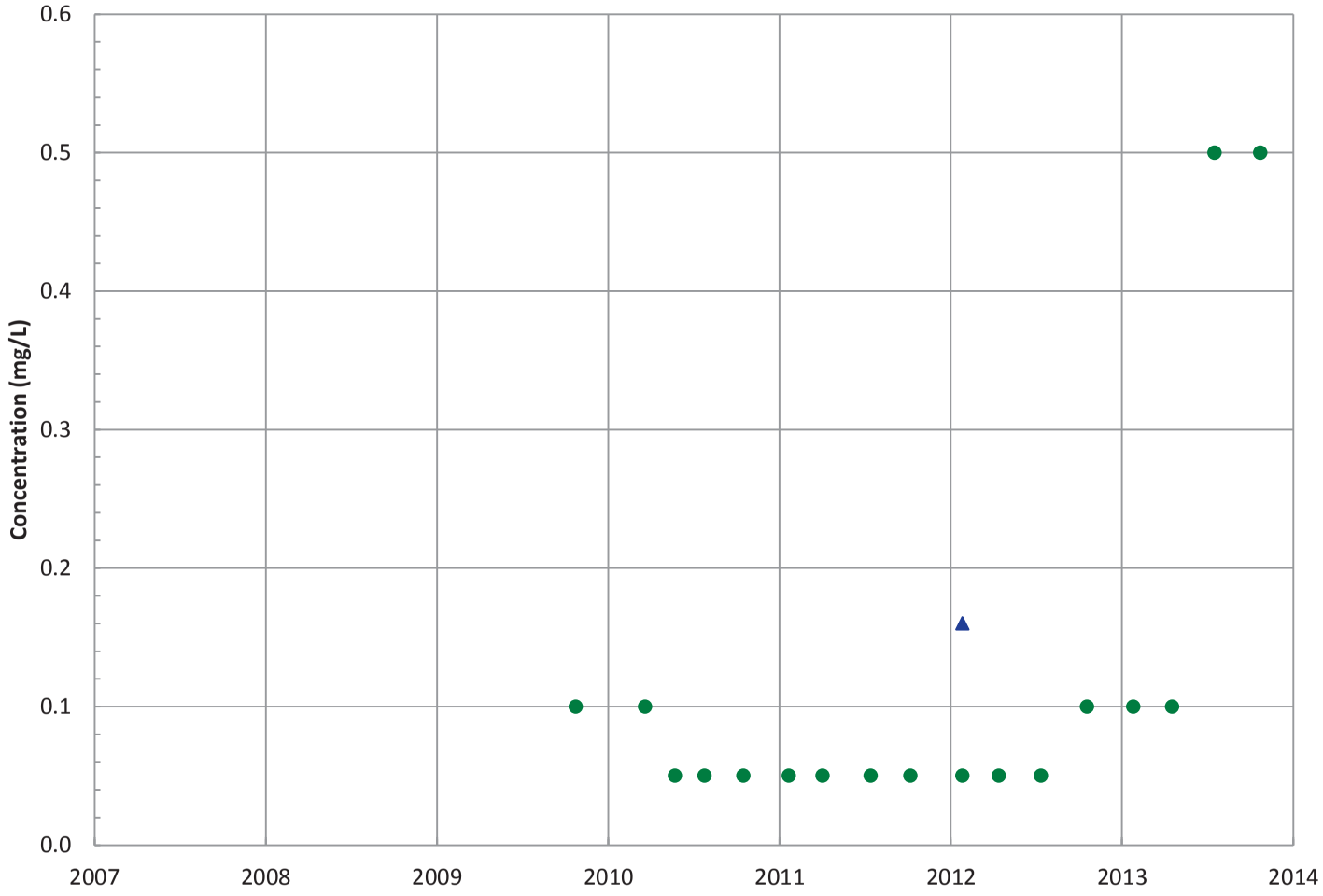
Well Location



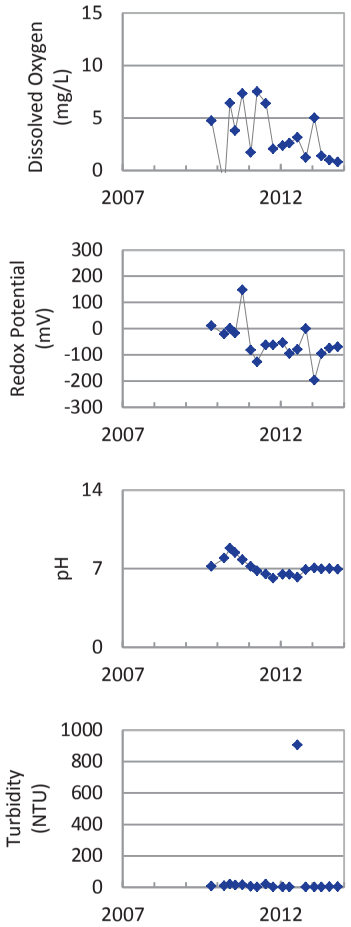
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1155
Hexanoic Acid Trend in Perched Aquifer



Field Parameters



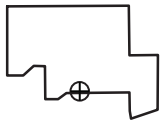
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
Injection Dates

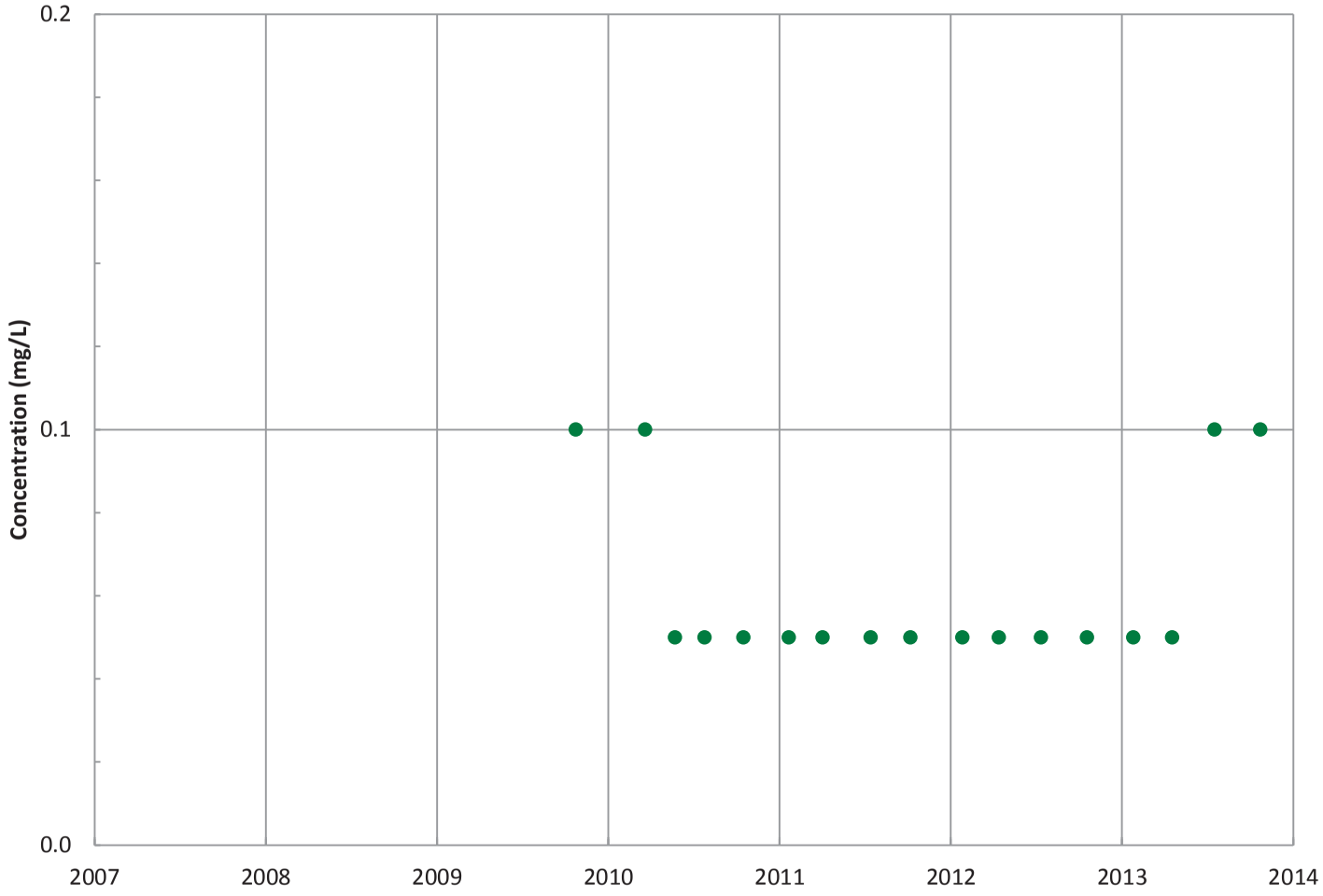
Well Location



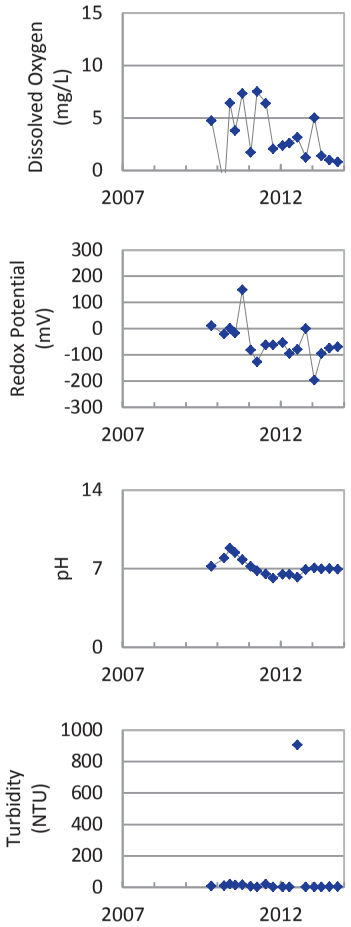
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1155
i-Hexanoic Acid Trend in Perched Aquifer



Field Parameters



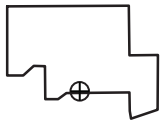
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Injection Dates

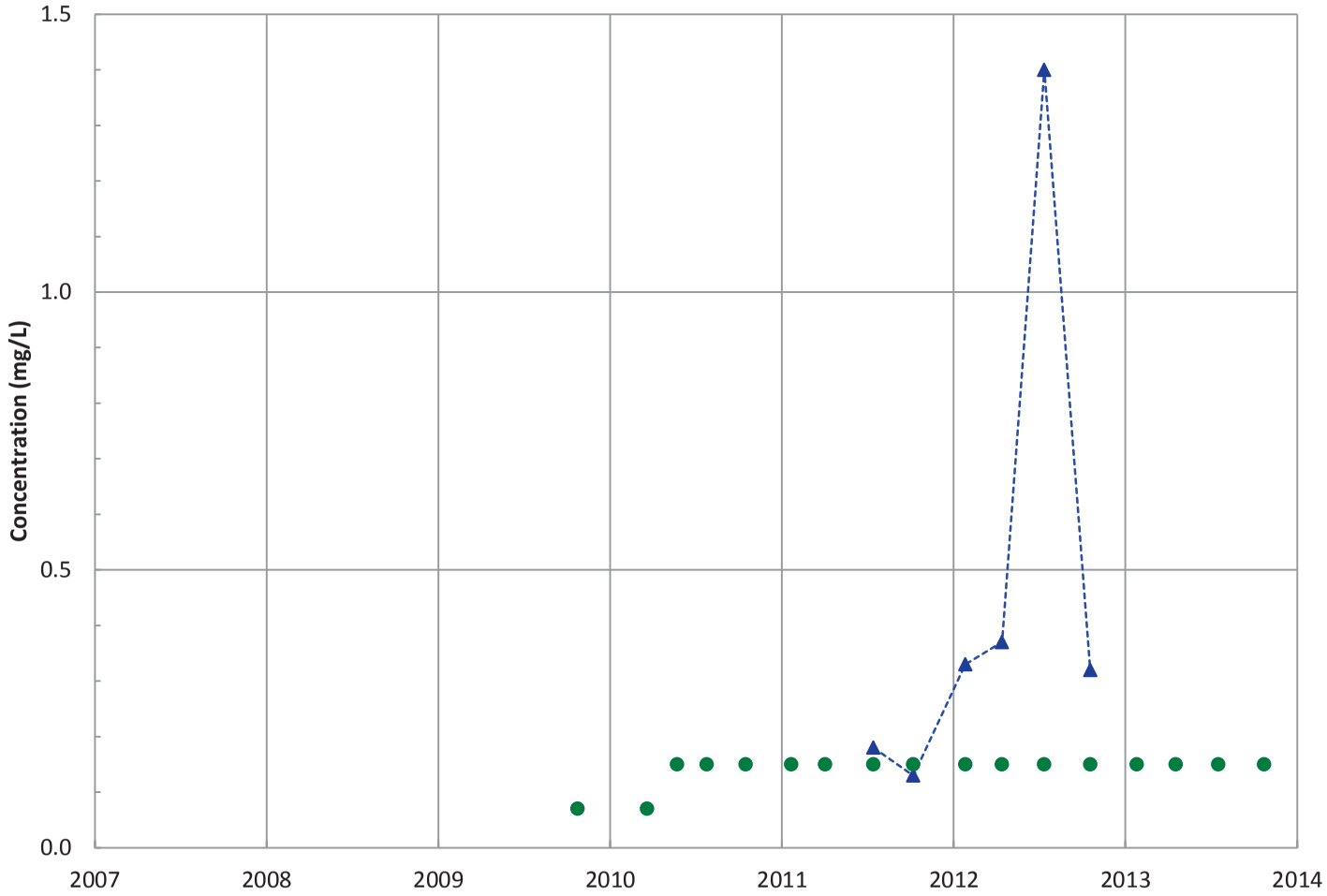
Well Location



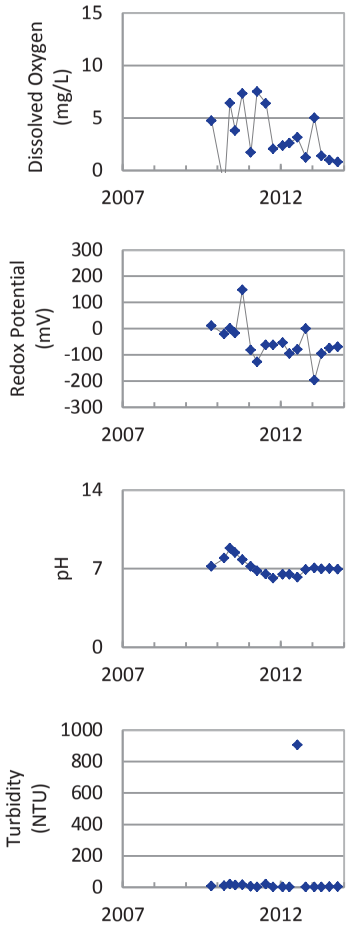
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1155
i-Pentanoic Acid Trend in Perched Aquifer



Field Parameters



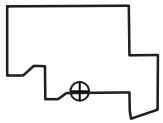
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: Probably Increasing
Last 4 Samples: No Trend

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Injection Dates

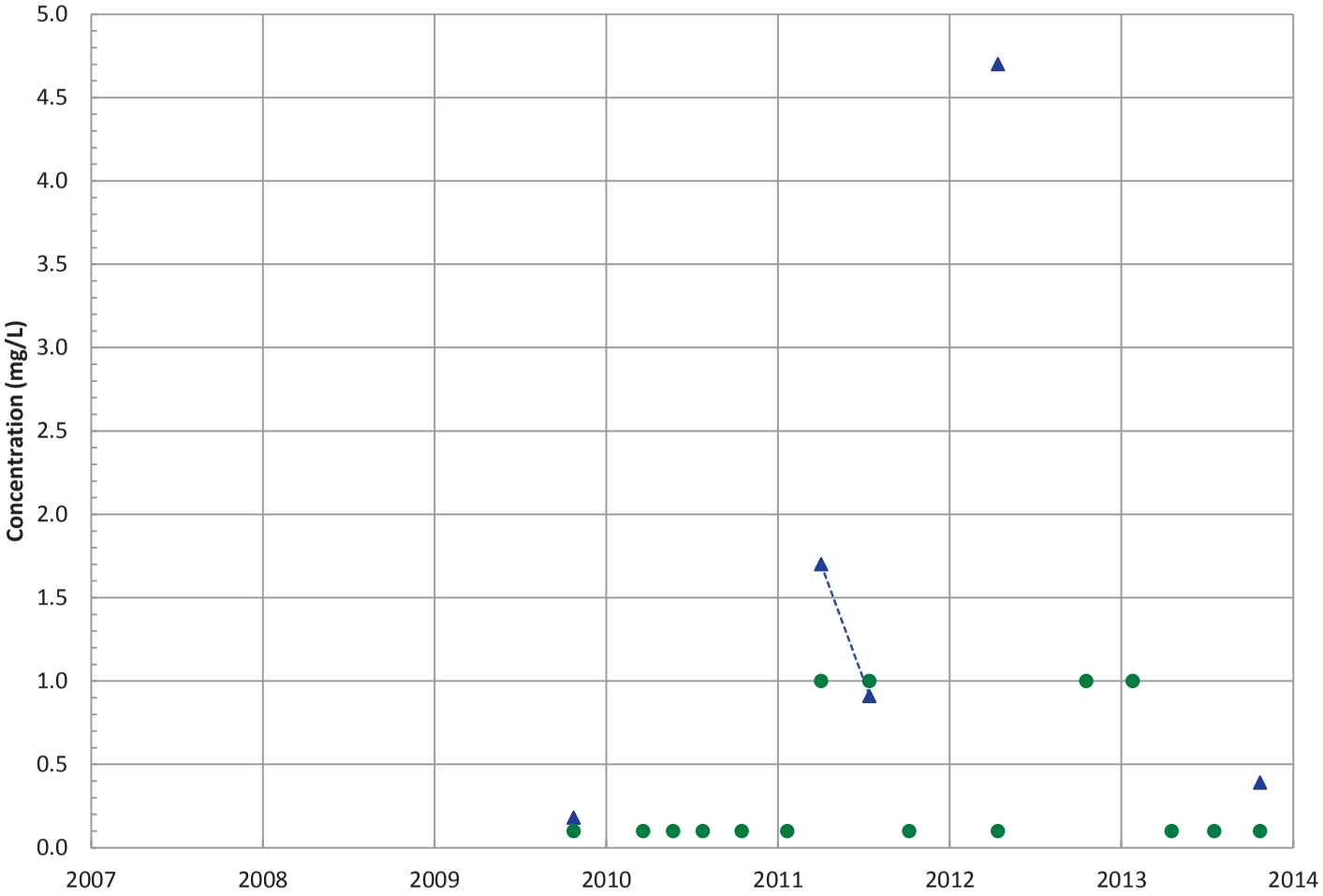
Well Location



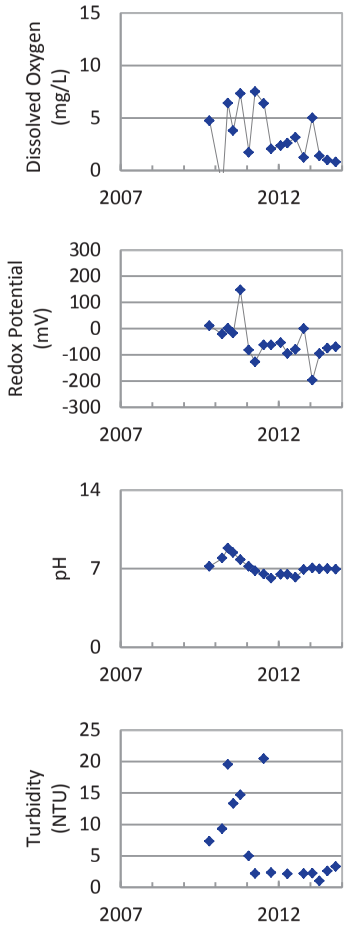
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1155
Lactic Acid and HIBA Trend in Perched Aquifer



Field Parameters



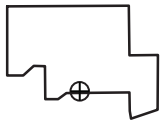
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Injection Dates

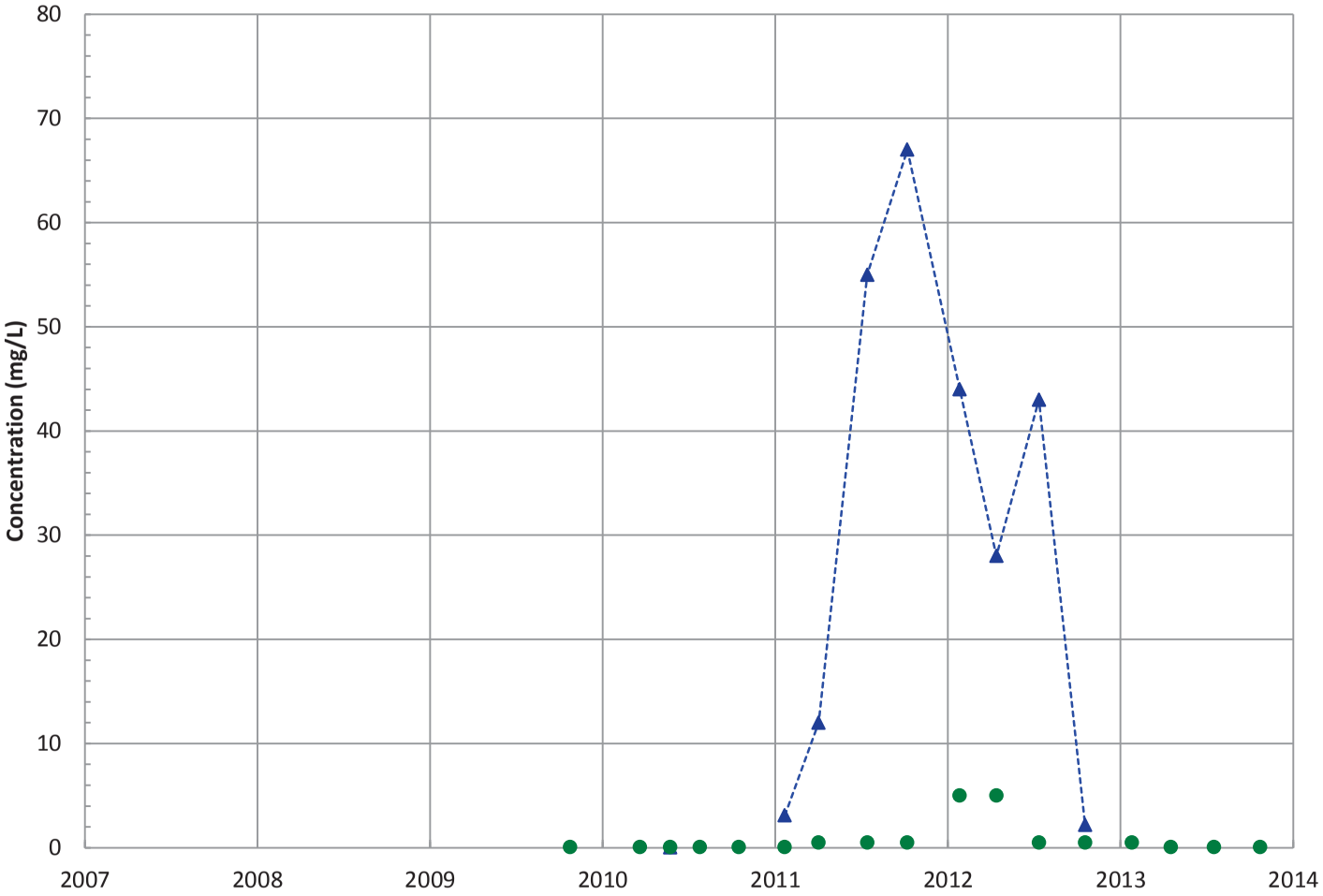
Well Location



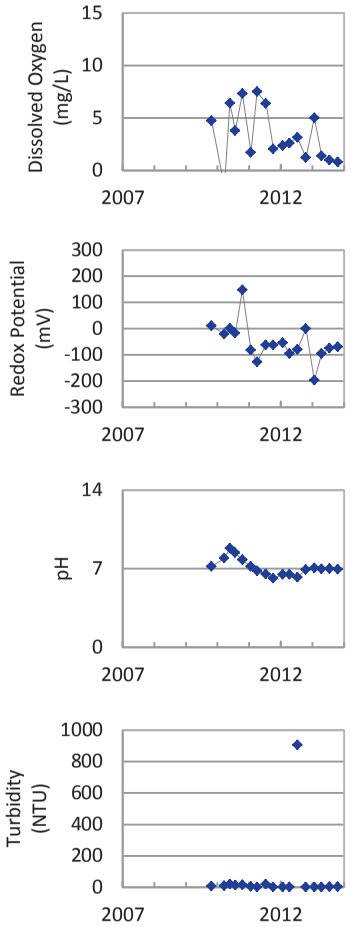
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1155
Propionic Acid Trend in Perched Aquifer



Field Parameters



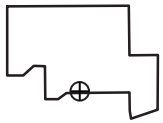
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: Probably Increasing
Last 4 Samples: Stable

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

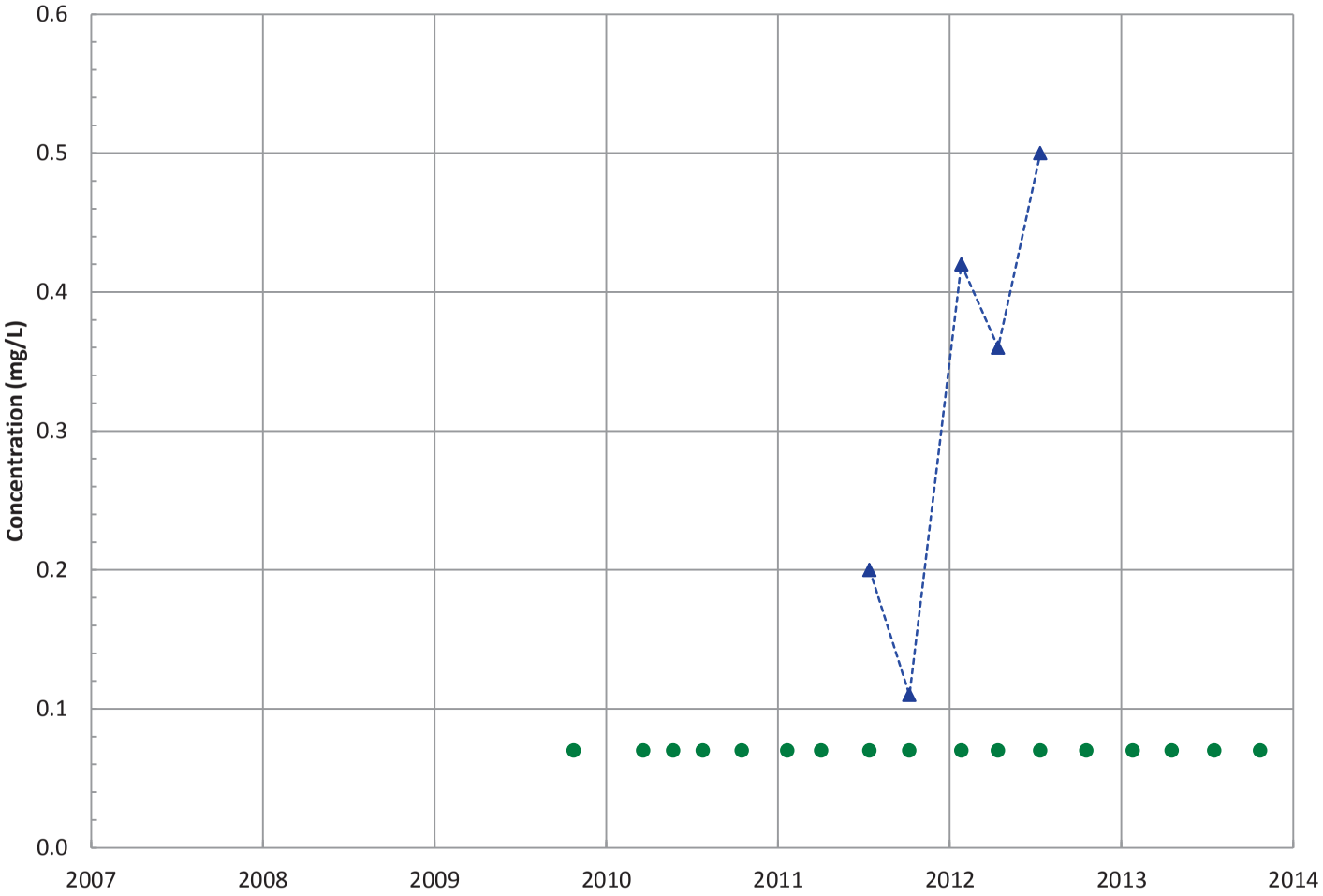
Well Location



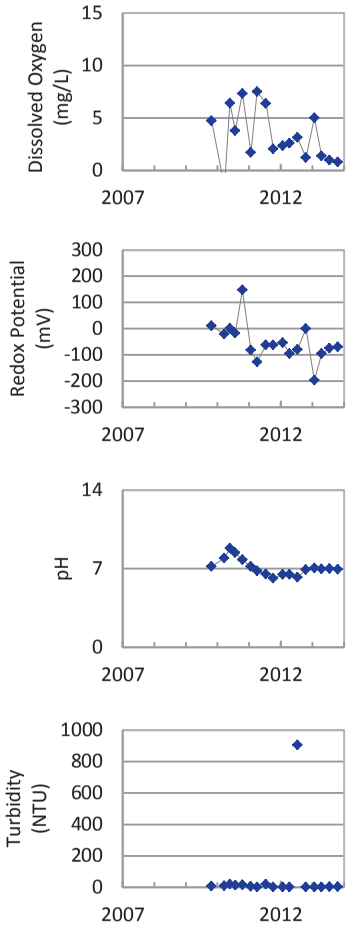
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1155
Pentanoic Acid Trend in Perched Aquifer



Field Parameters



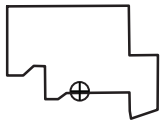
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: Probably Increasing
Last 4 Samples: Probably Increasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Injection Dates

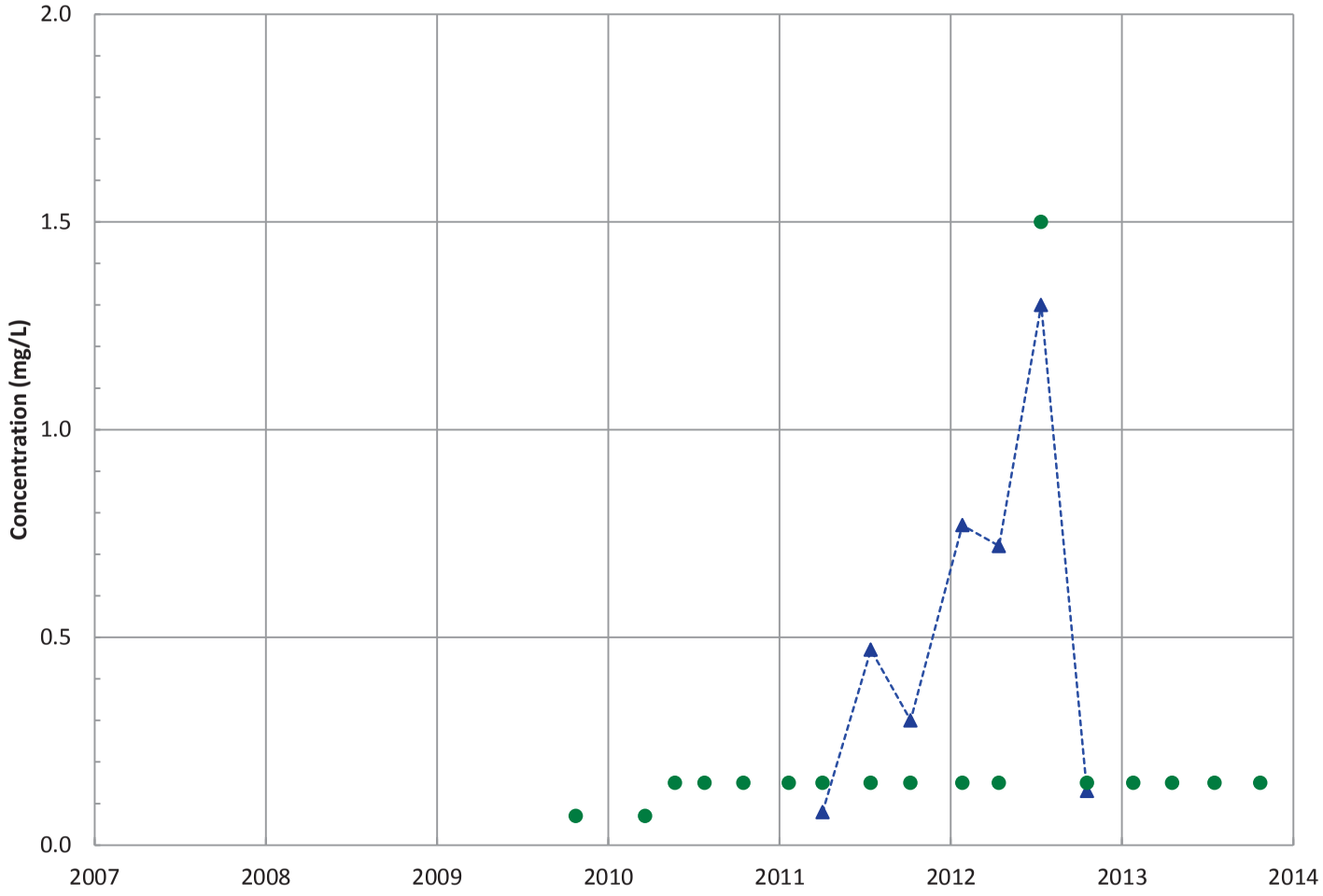
Well Location



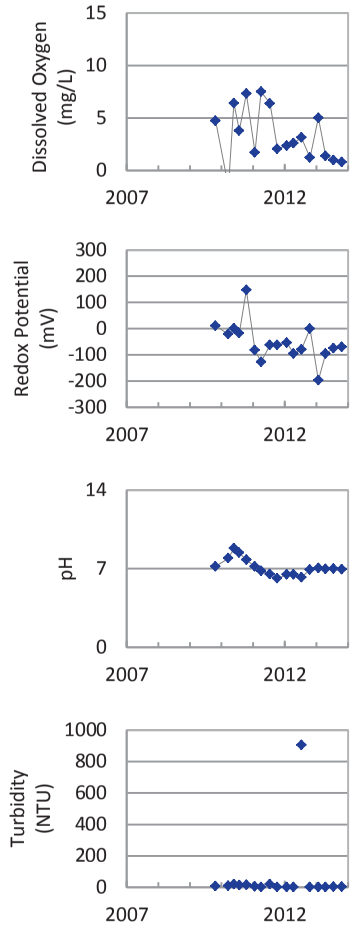
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1155
Pyruvic Acid Trend in Perched Aquifer



Field Parameters



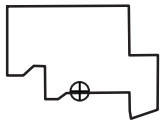
Concentration Trend

MAROS Mann-Kendall Method
All Data: Probably Increasing
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Stable

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

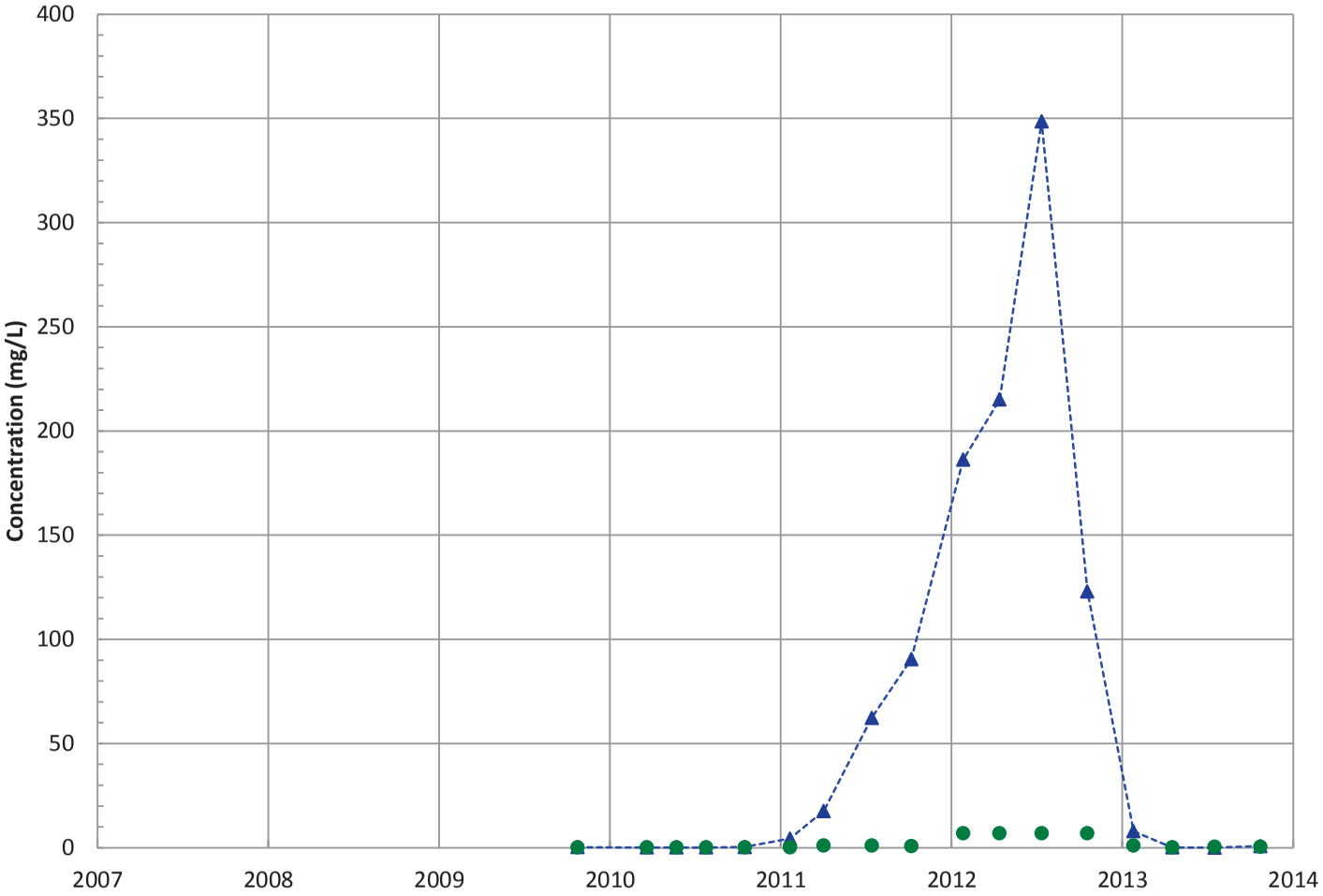
Well Location



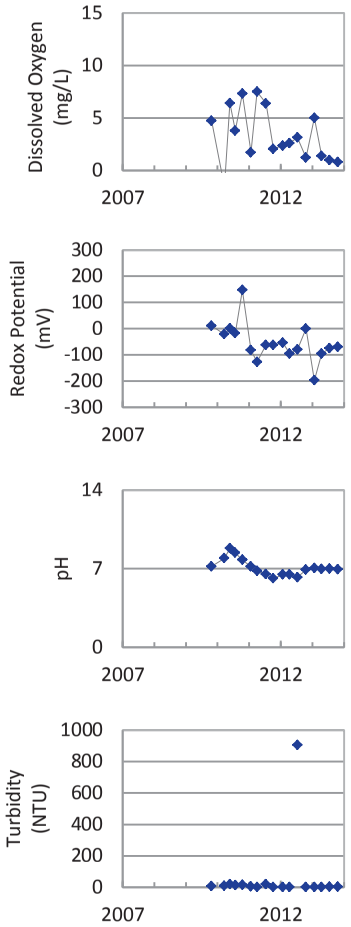
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1155
Total Volatile Fatty Acids Trend in Perched Aquifer



Field Parameters



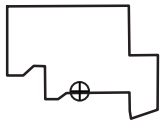
Concentration Trend

MAROS Mann-Kendall Method
All Data: Probably Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

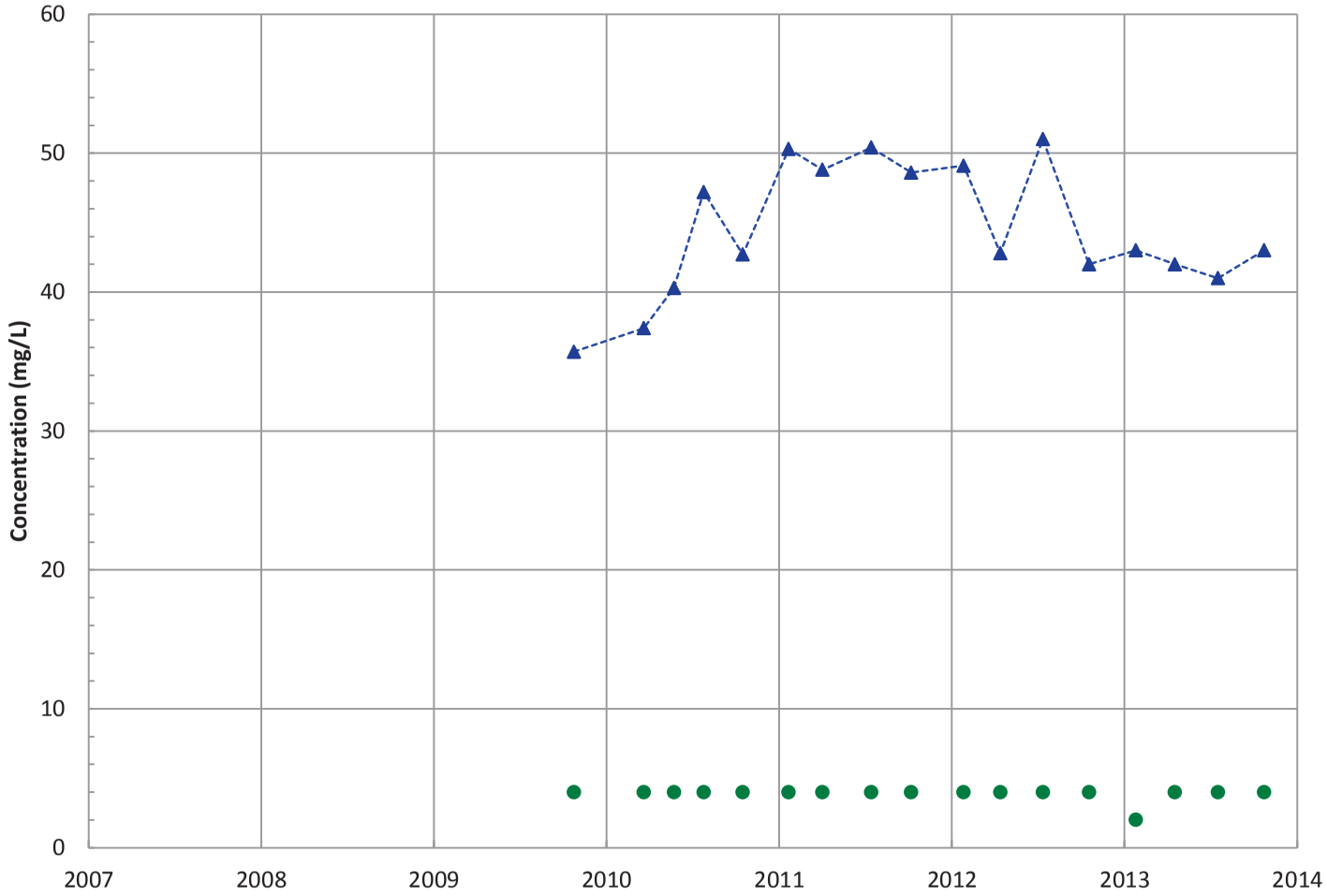
Well Location



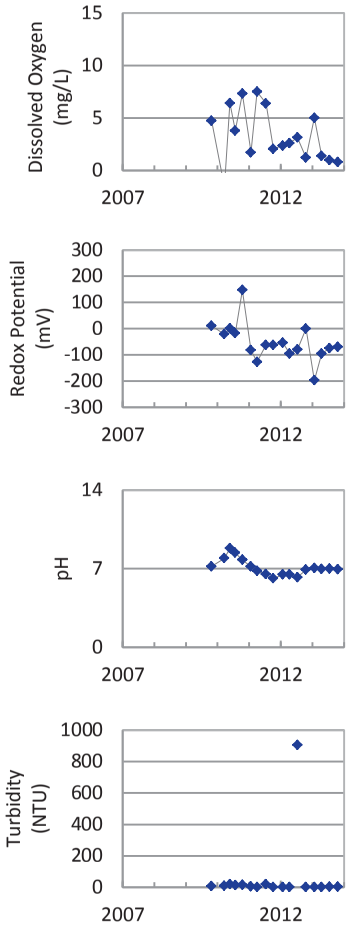
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1155
Chloride (as Cl) Trend in Perched Aquifer



Field Parameters



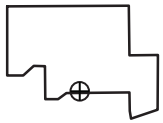
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Injection Dates

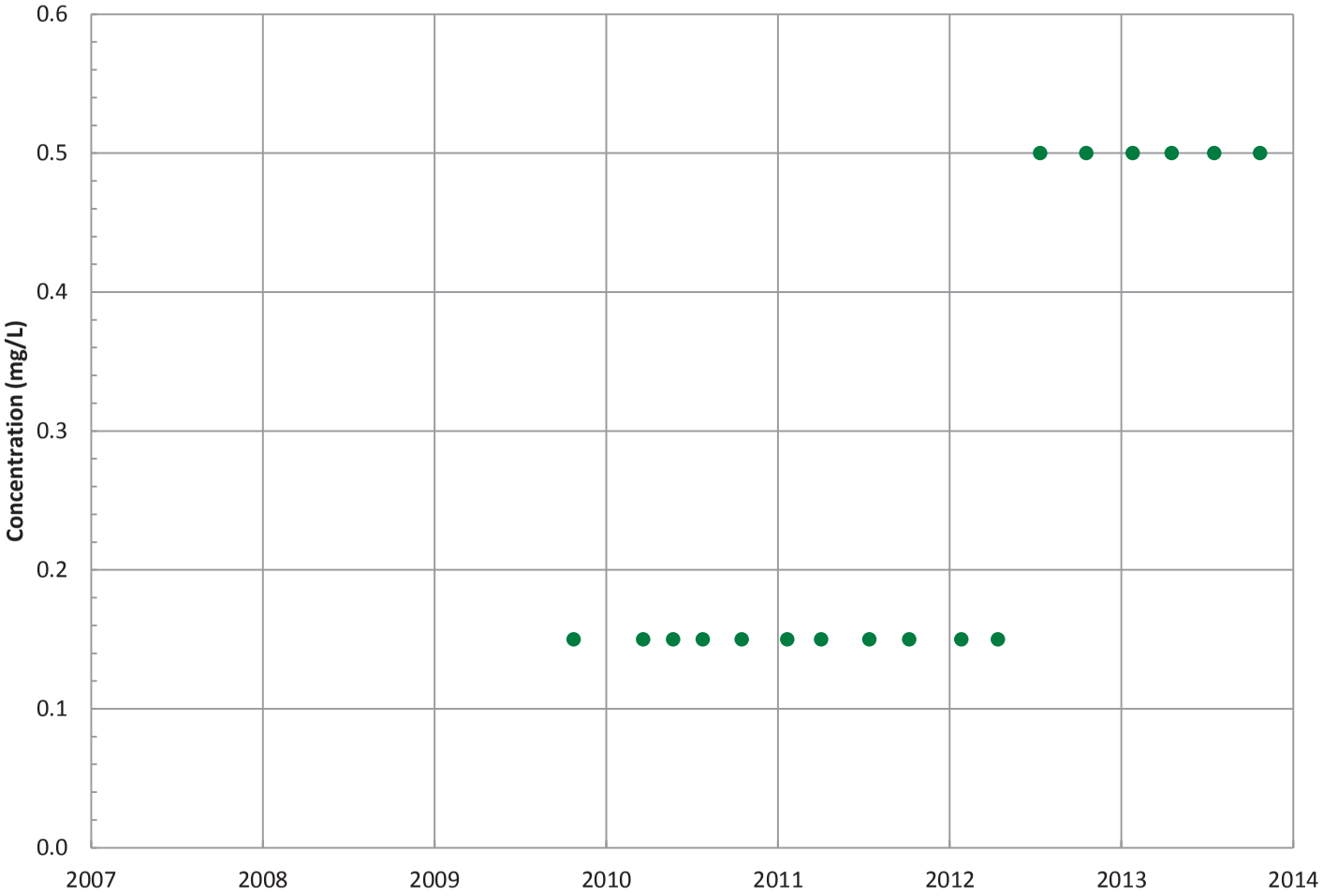
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1155
Chlorate Trend in Perched Aquifer



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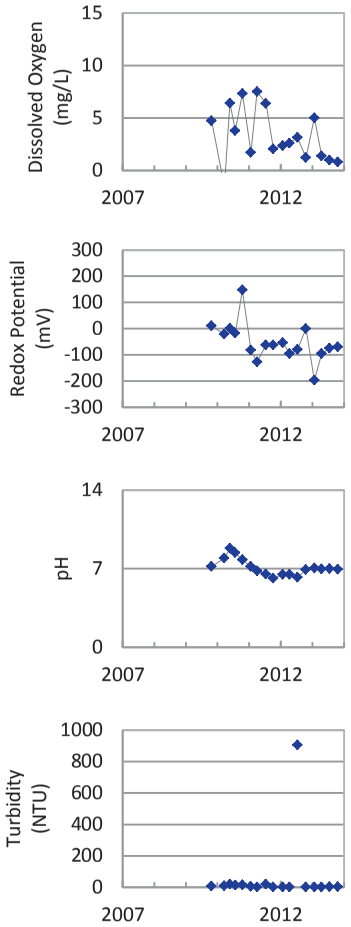


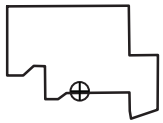
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
Injection Dates

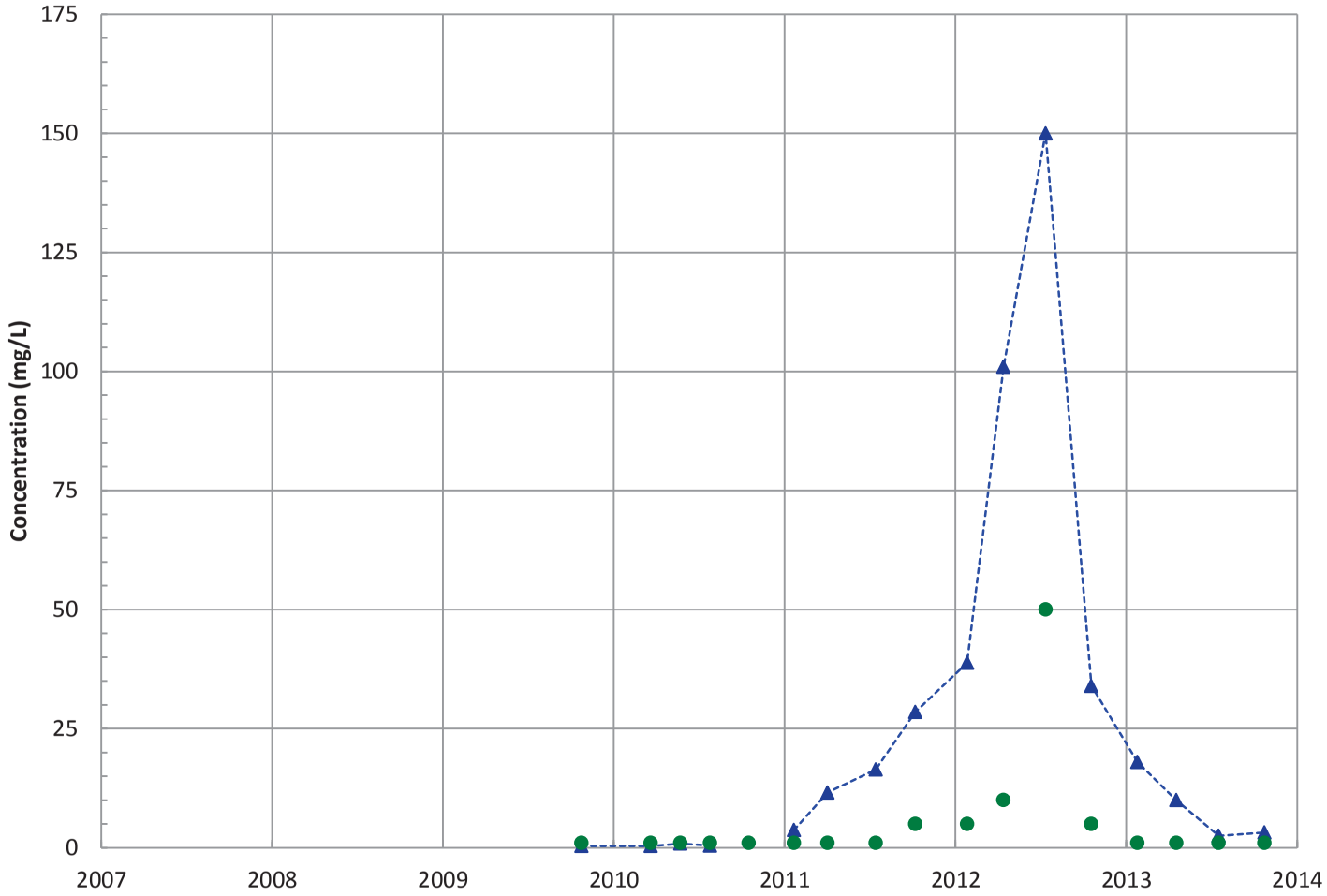
Well Location



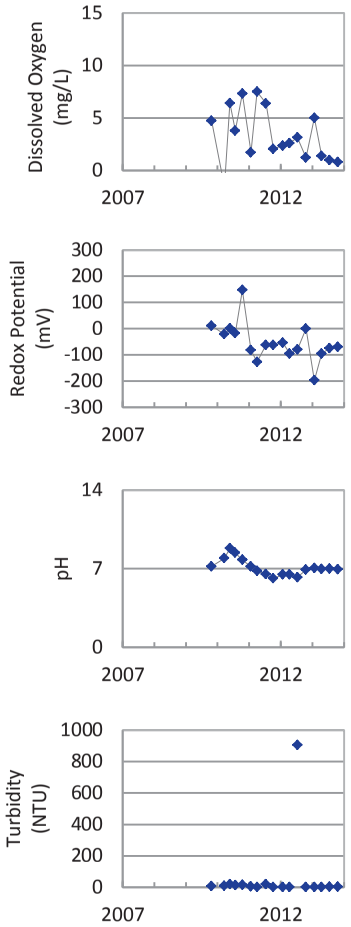
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1155
Total Organic Carbon Trend in Perched Aquifer



Field Parameters



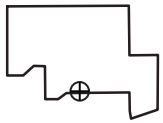
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Decreasing

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

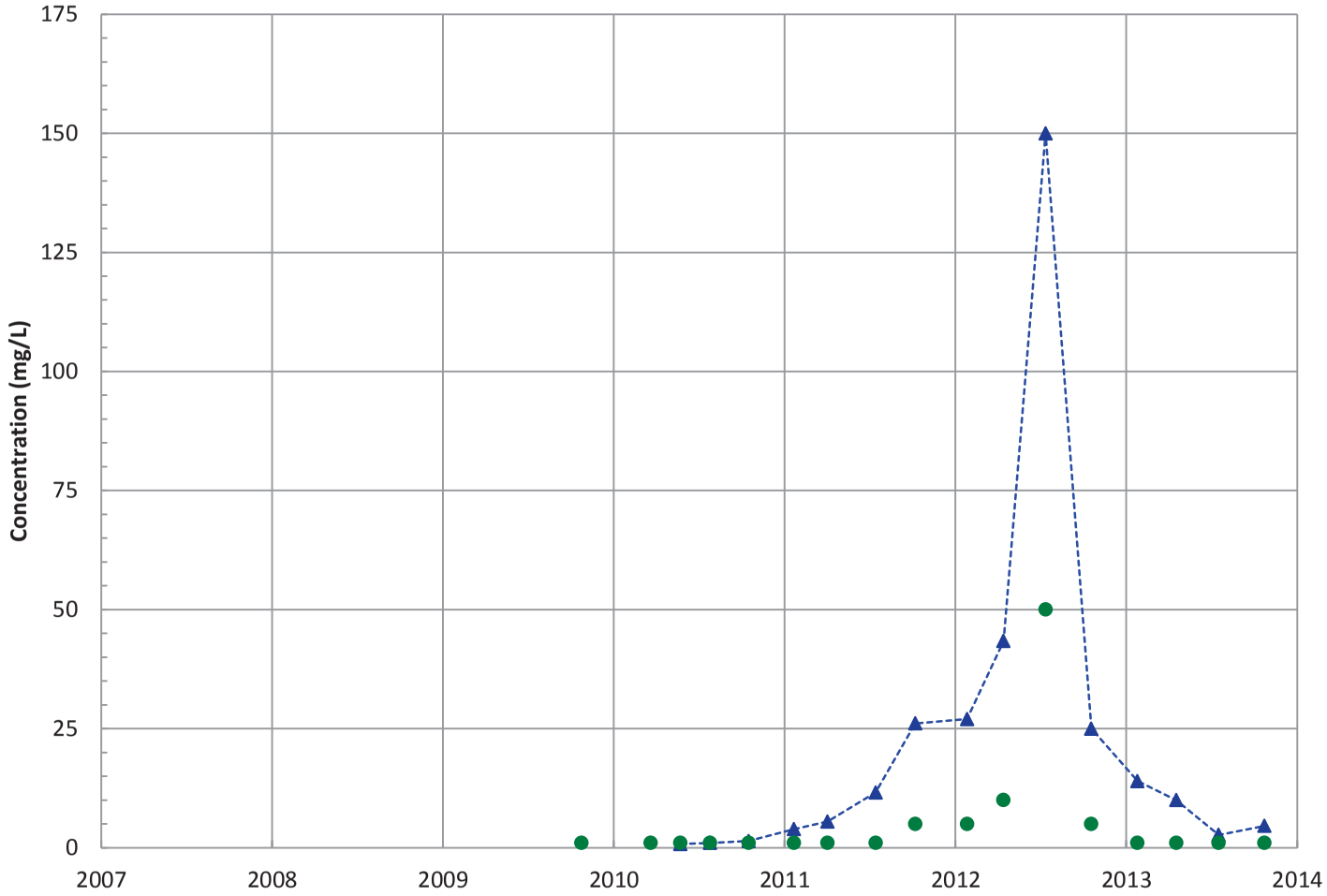
Well Location



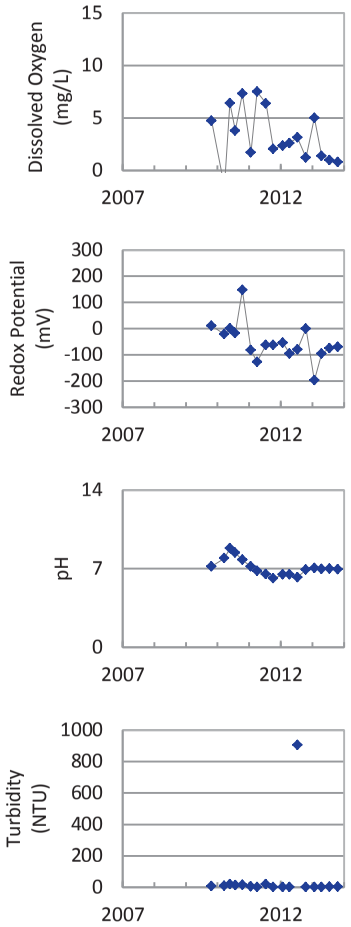
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1155
Dissolved Organic Carbon (DOC) Trend in Perched Aquifer



Field Parameters



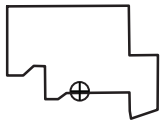
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Injection Dates

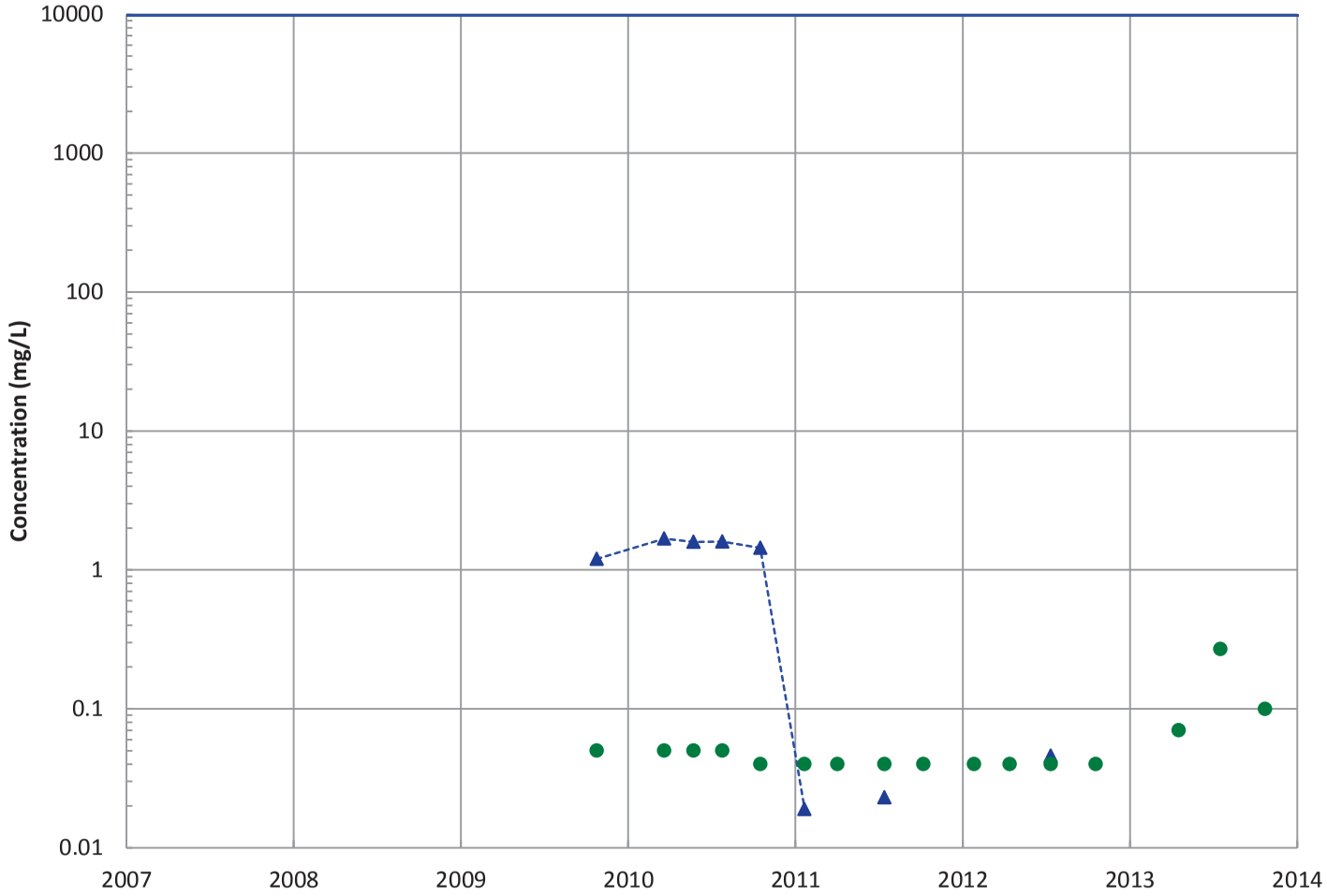
Well Location



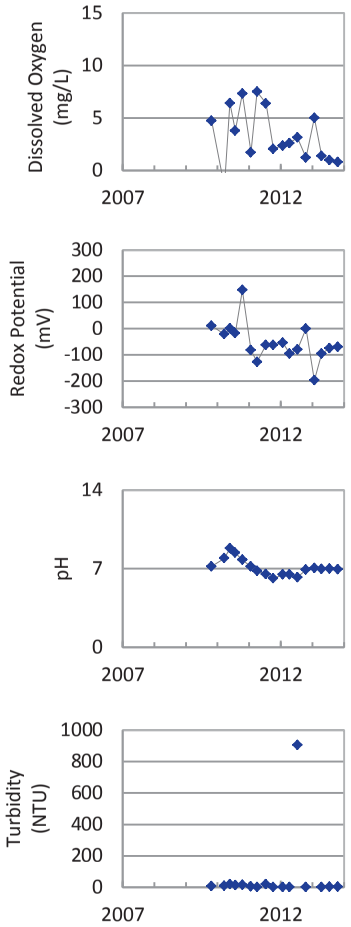
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1155
Nitrate as N Trend in Perched Aquifer



Field Parameters



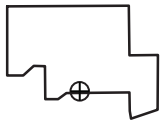
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Probably Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

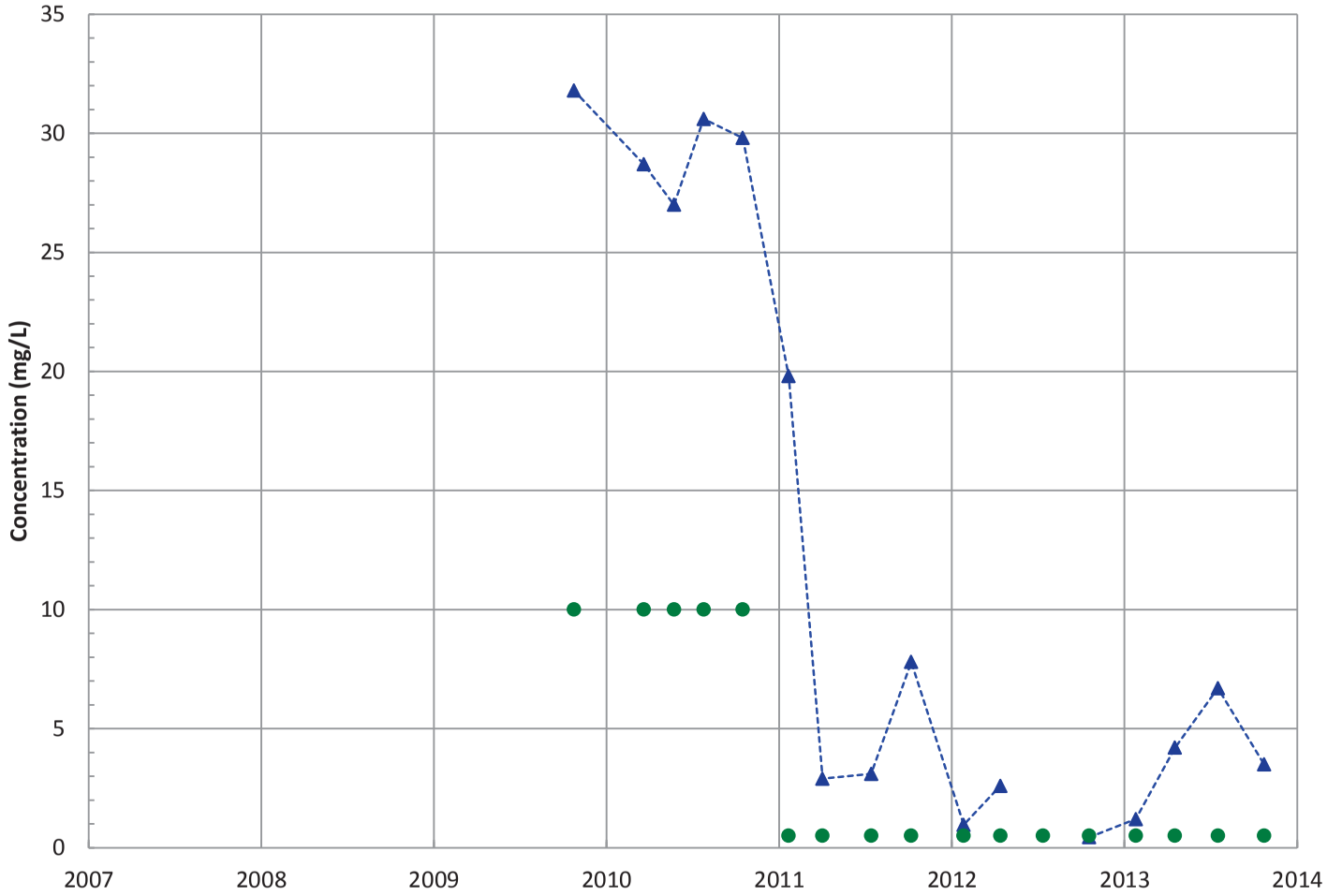
Well Location



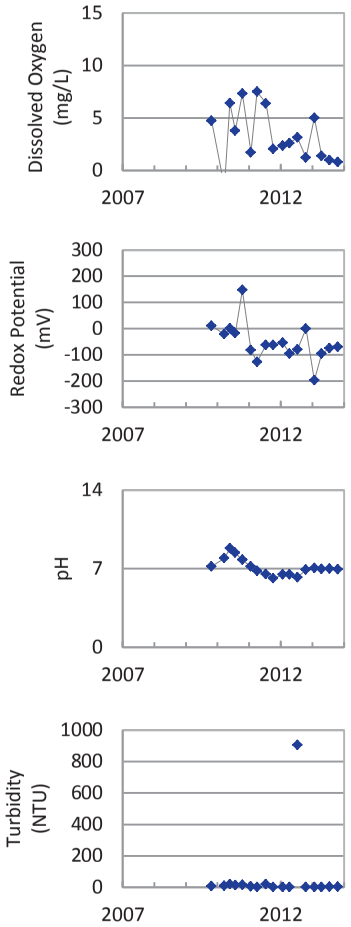
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1155
Sulfate (as SO4) Trend in Perched Aquifer



Field Parameters



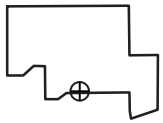
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

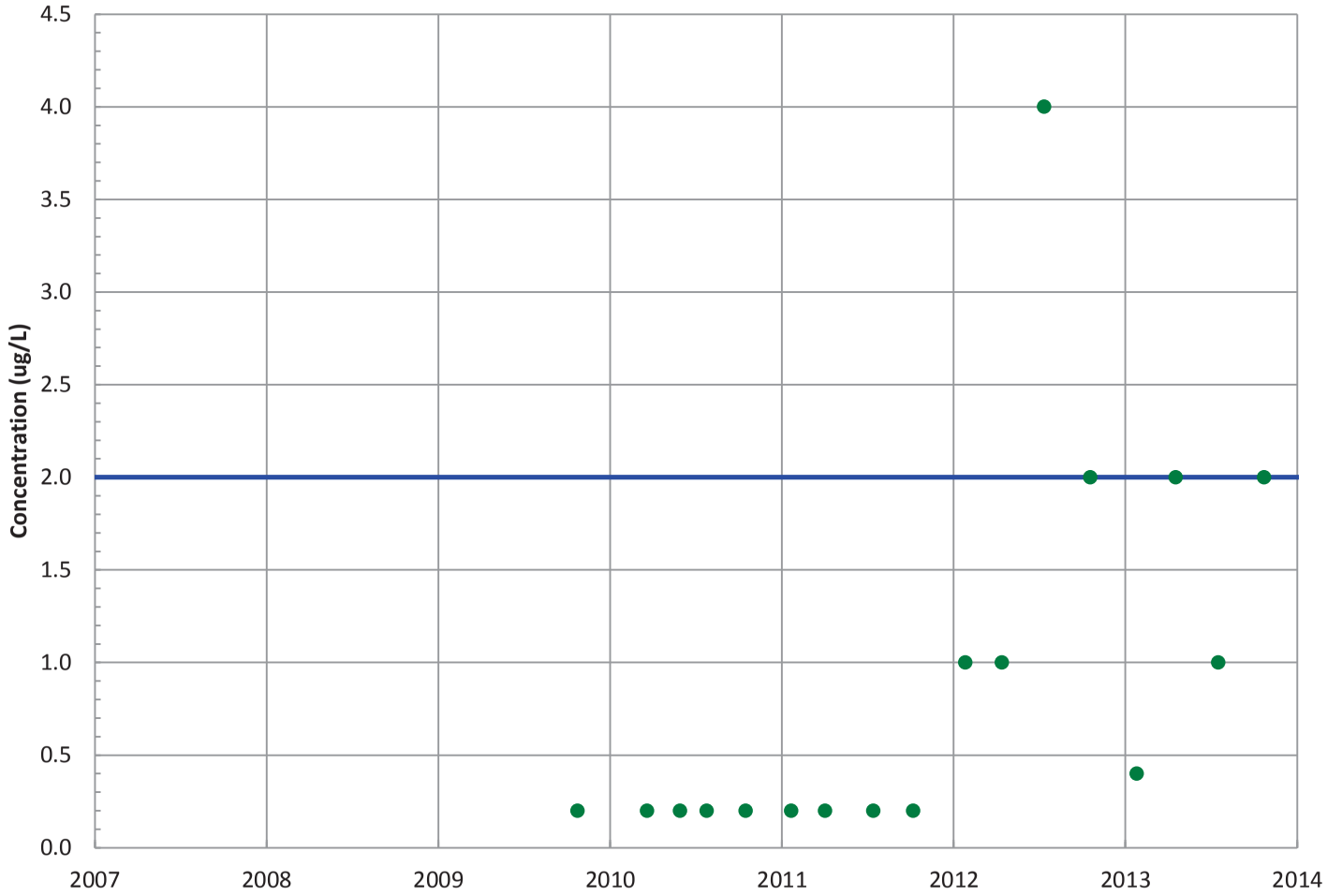
Well Location



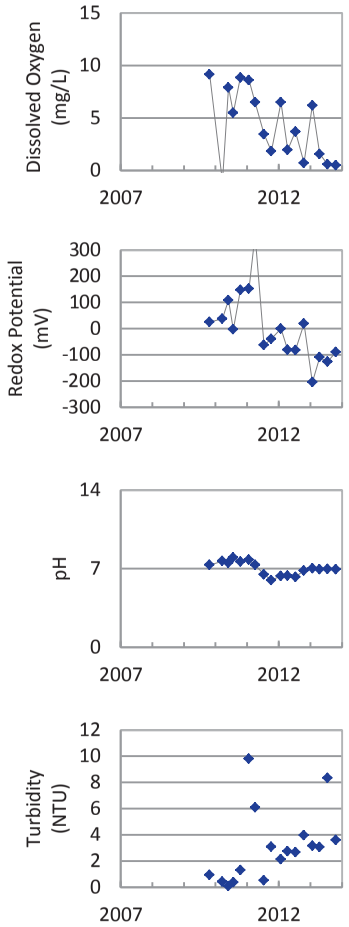
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1156
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



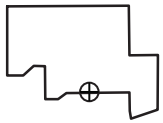
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

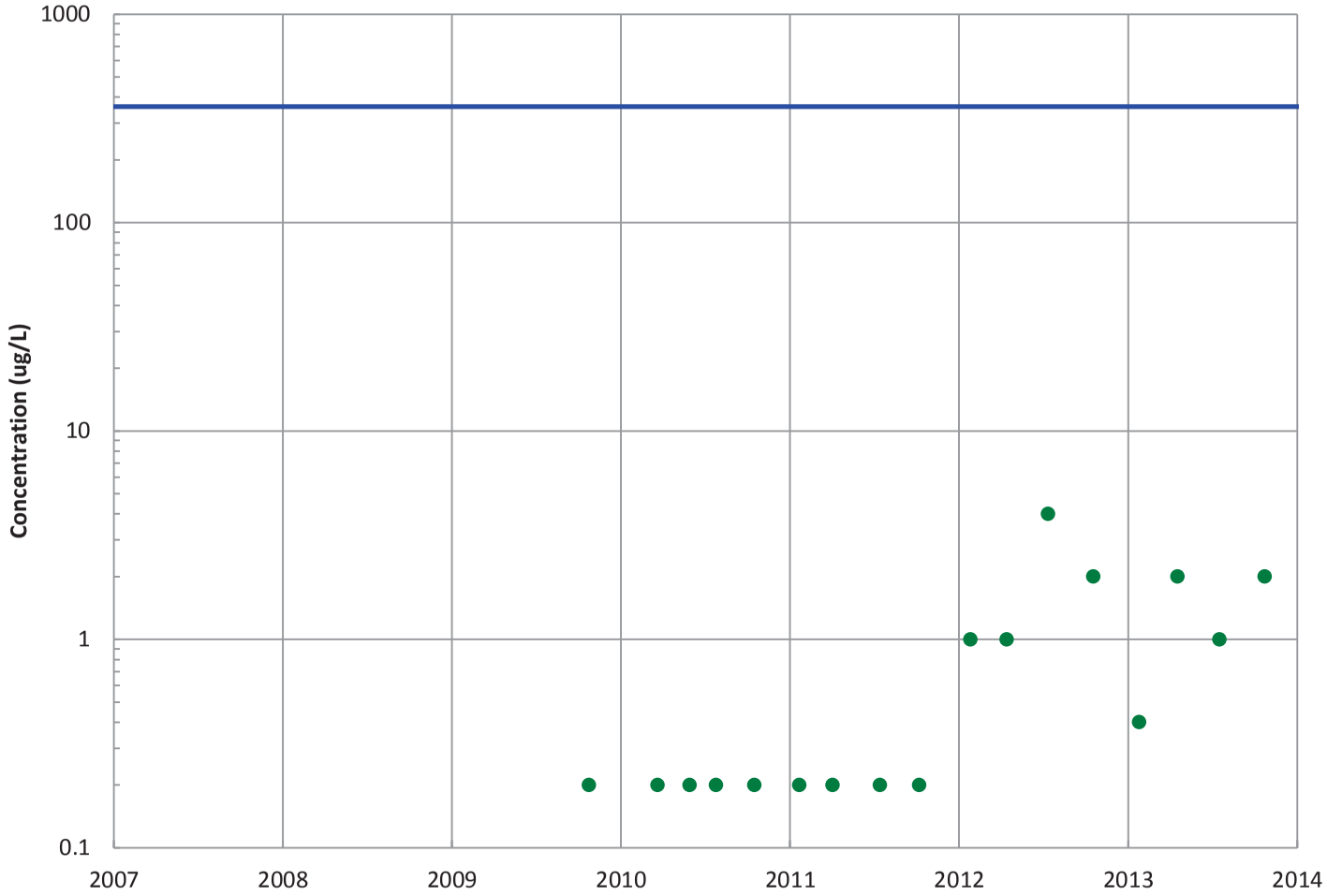
Well Location



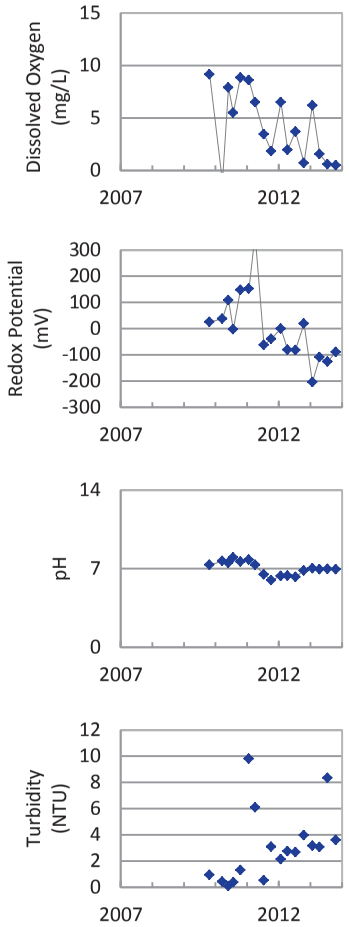
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1156
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



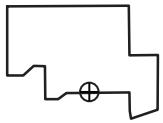
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

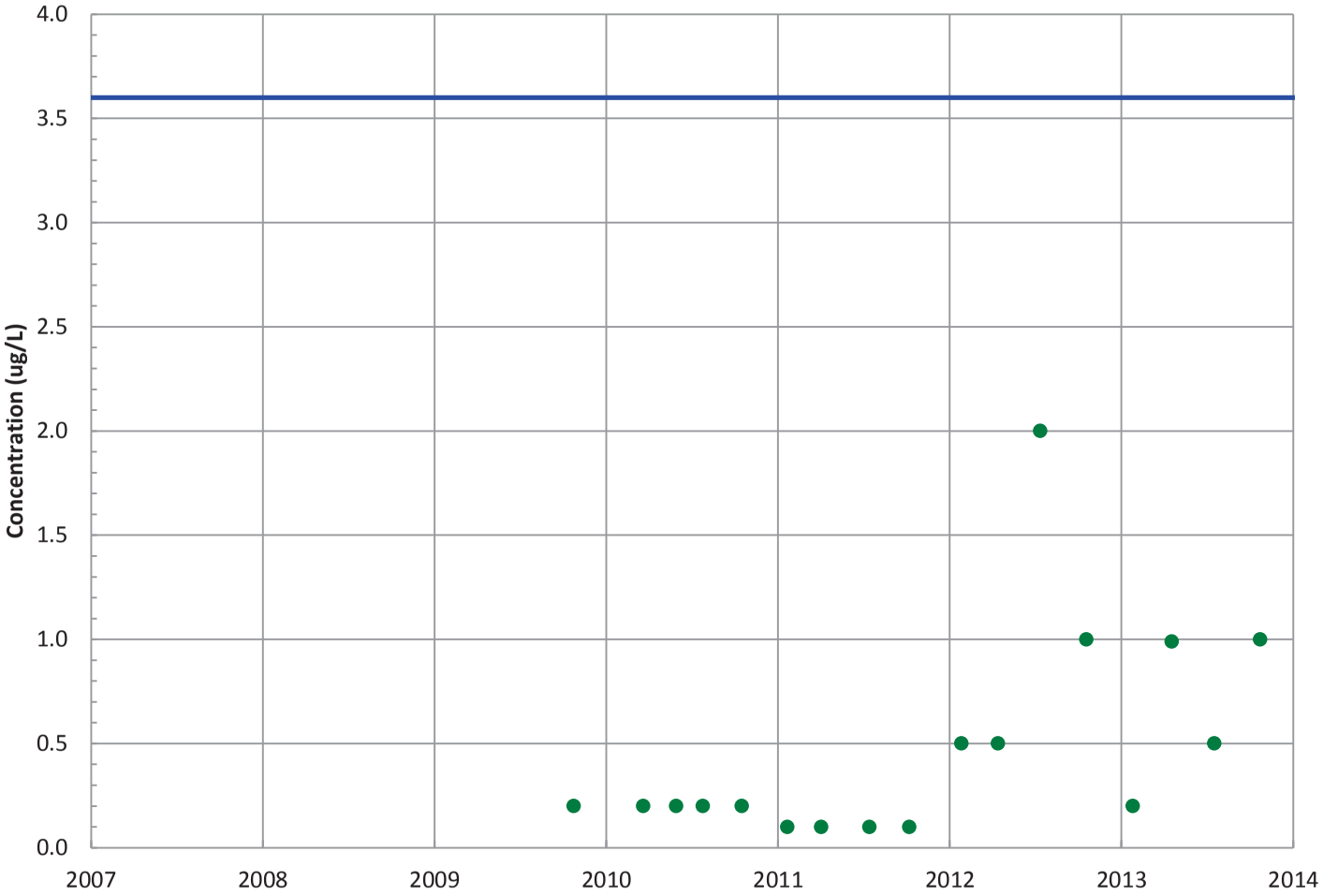
Well Location



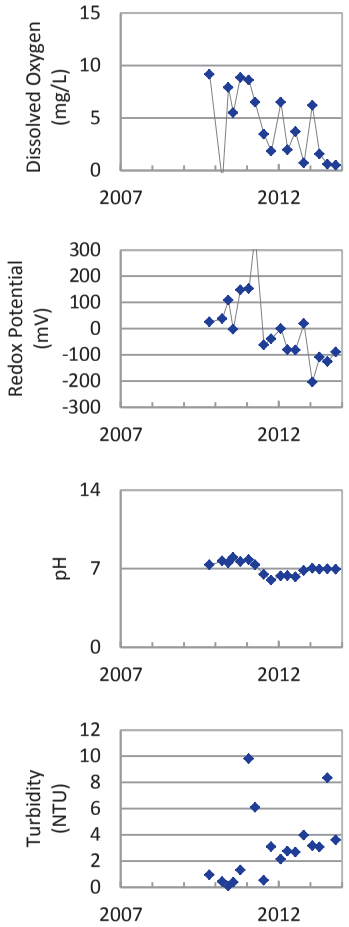
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1156
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



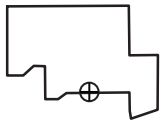
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

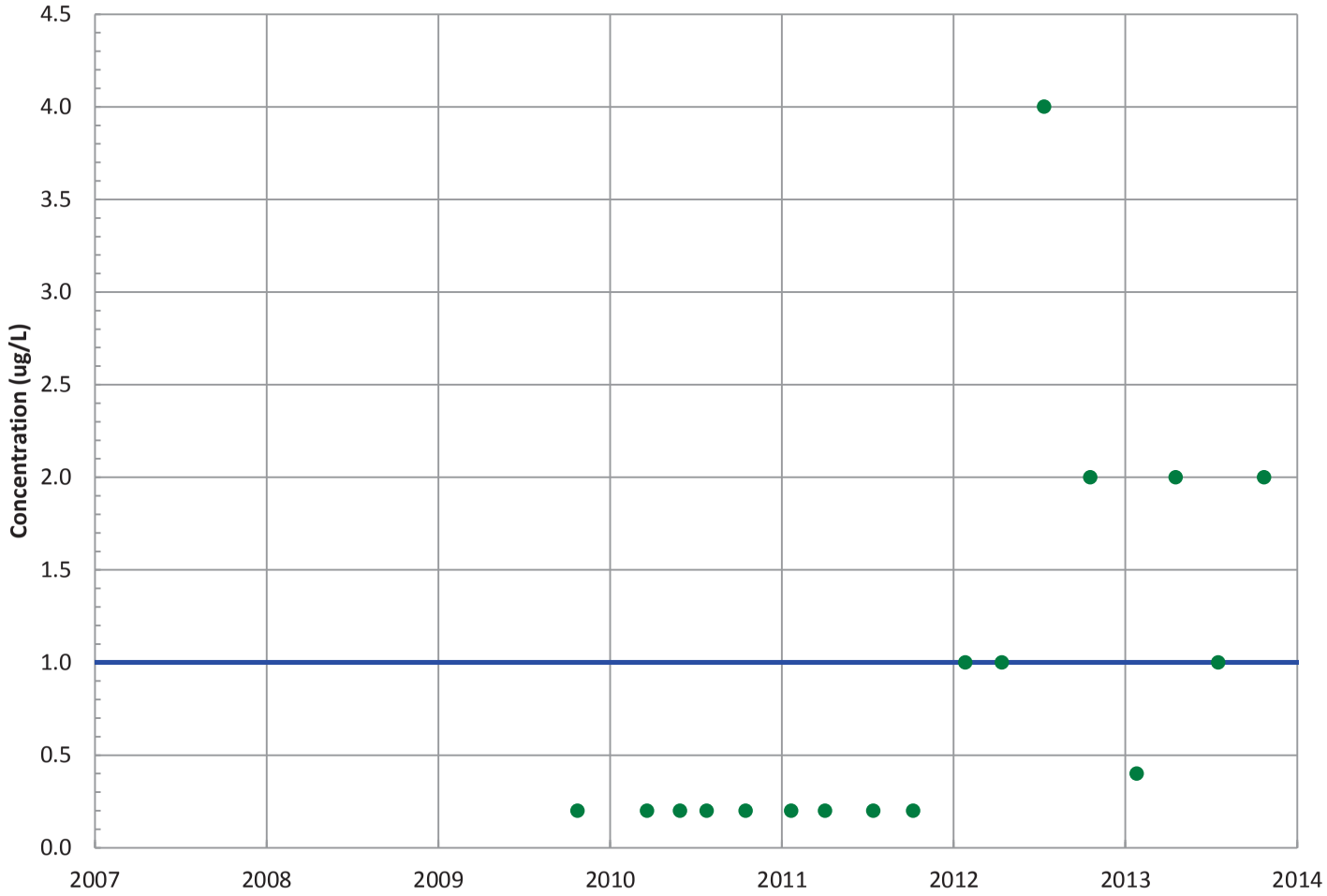
Well Location



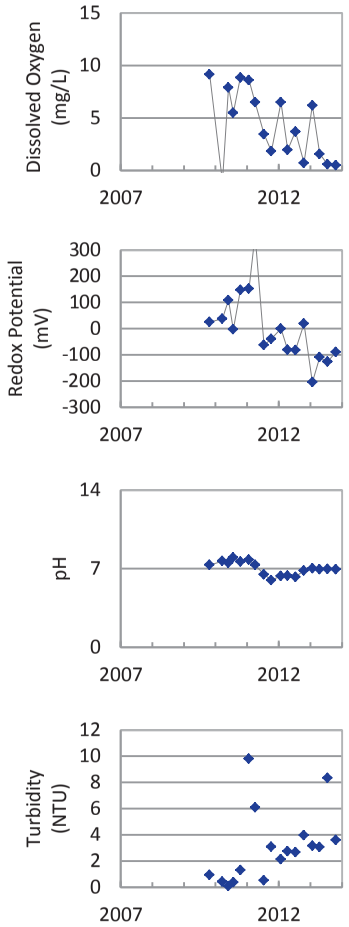
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1156
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



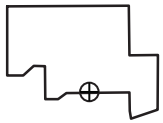
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

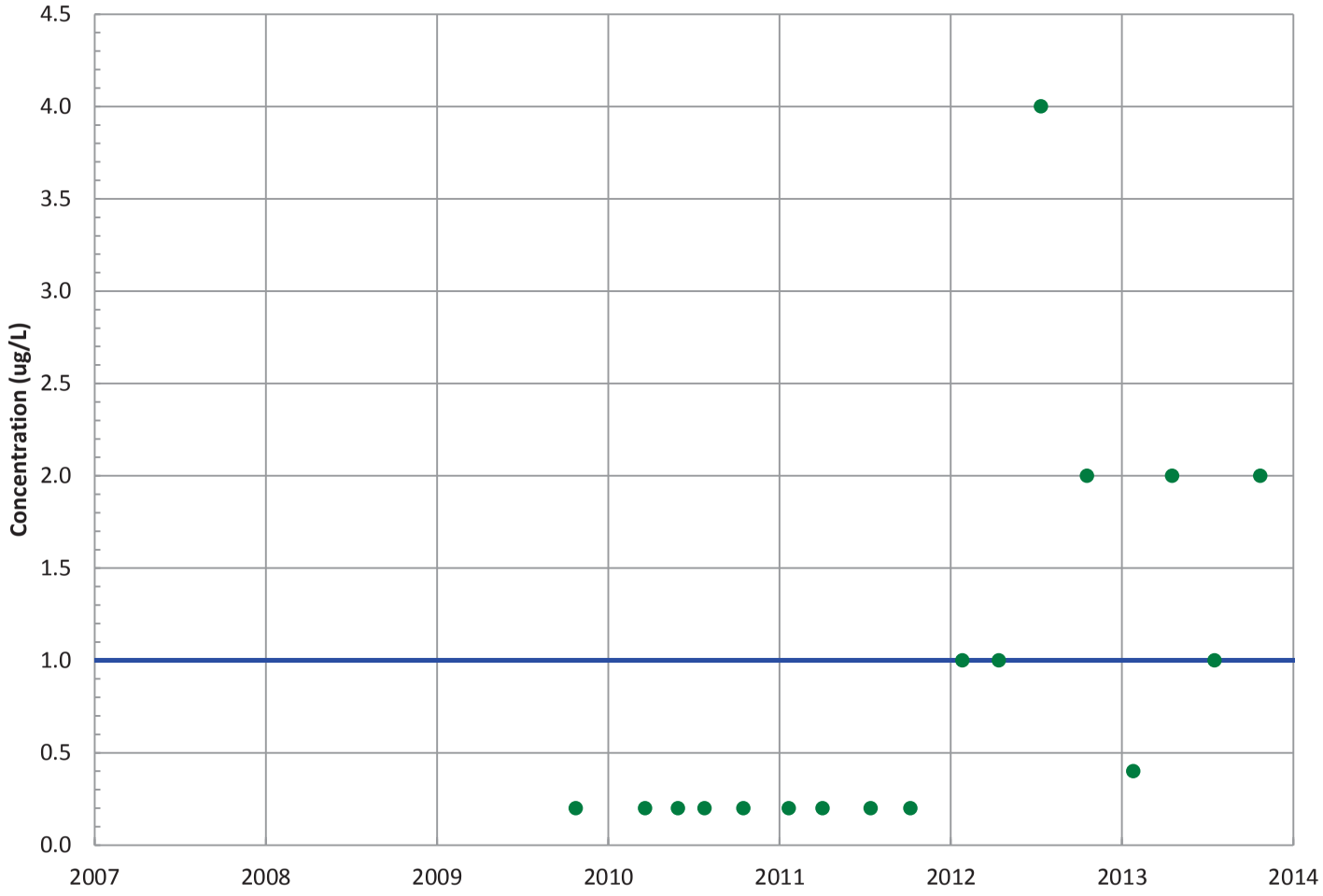
Well Location



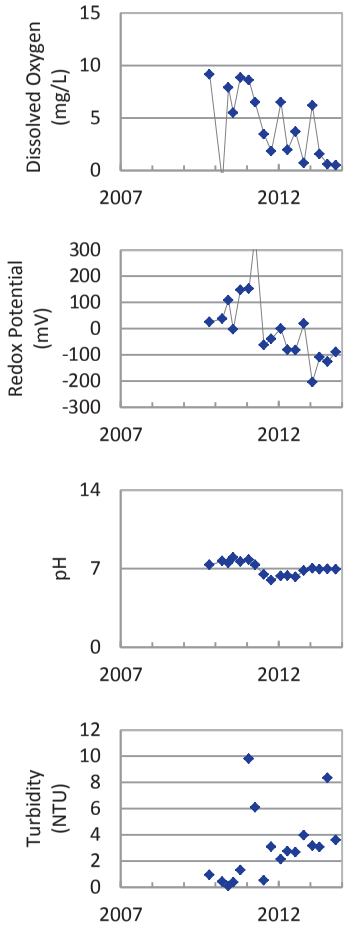
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1156
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



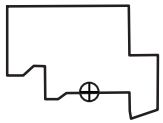
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

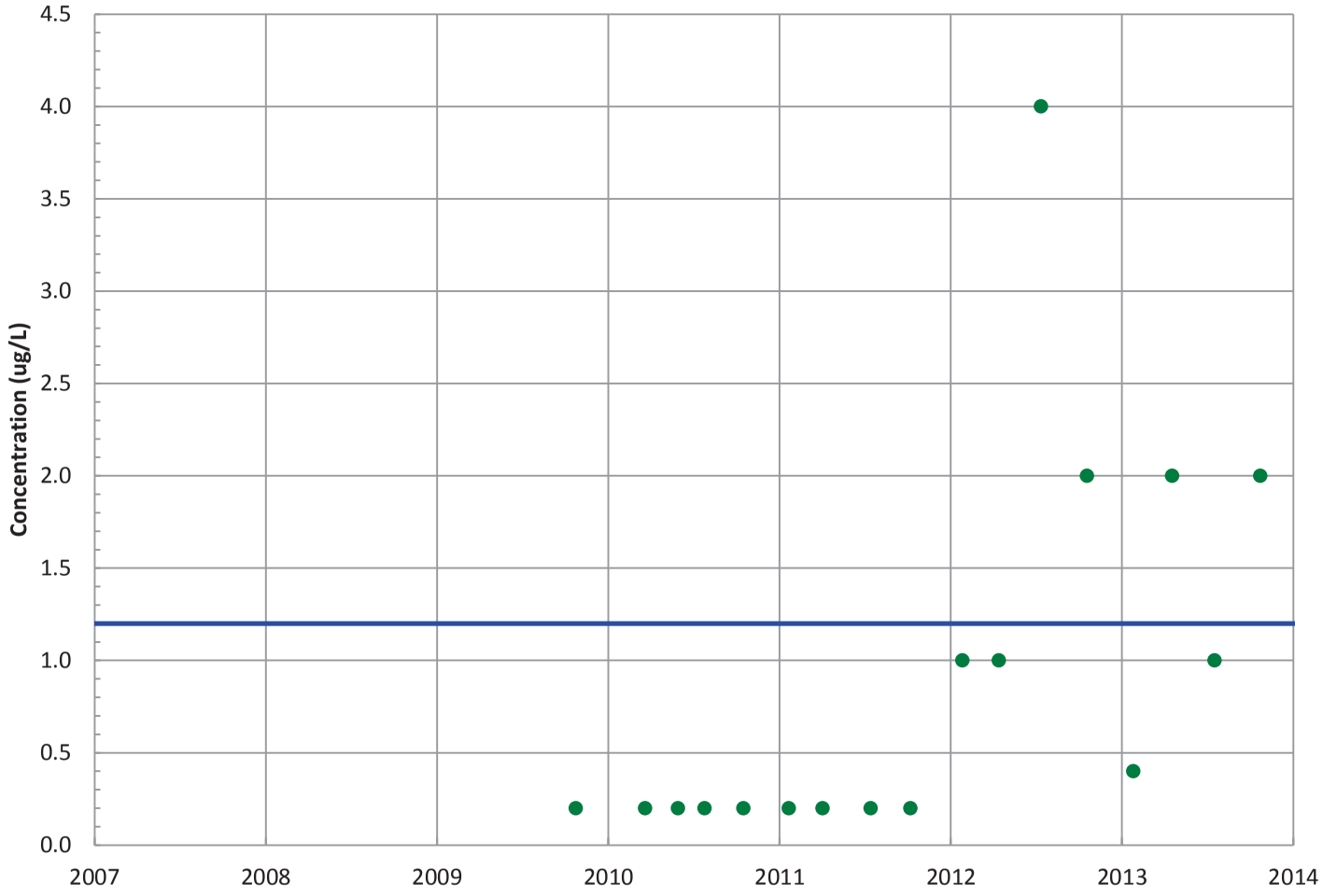
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1156
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



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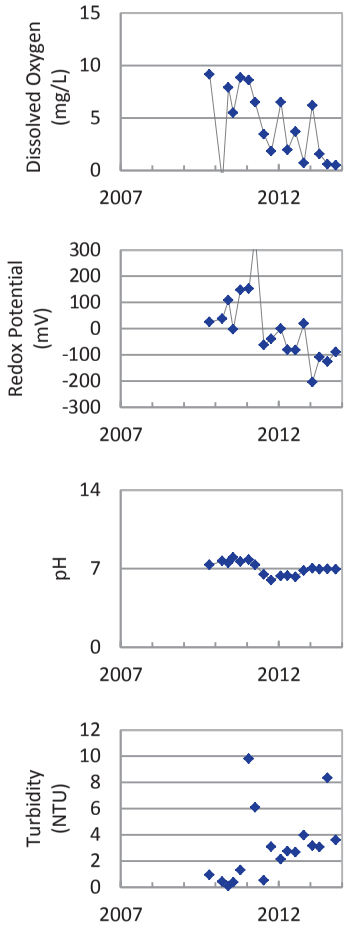


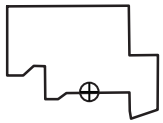
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

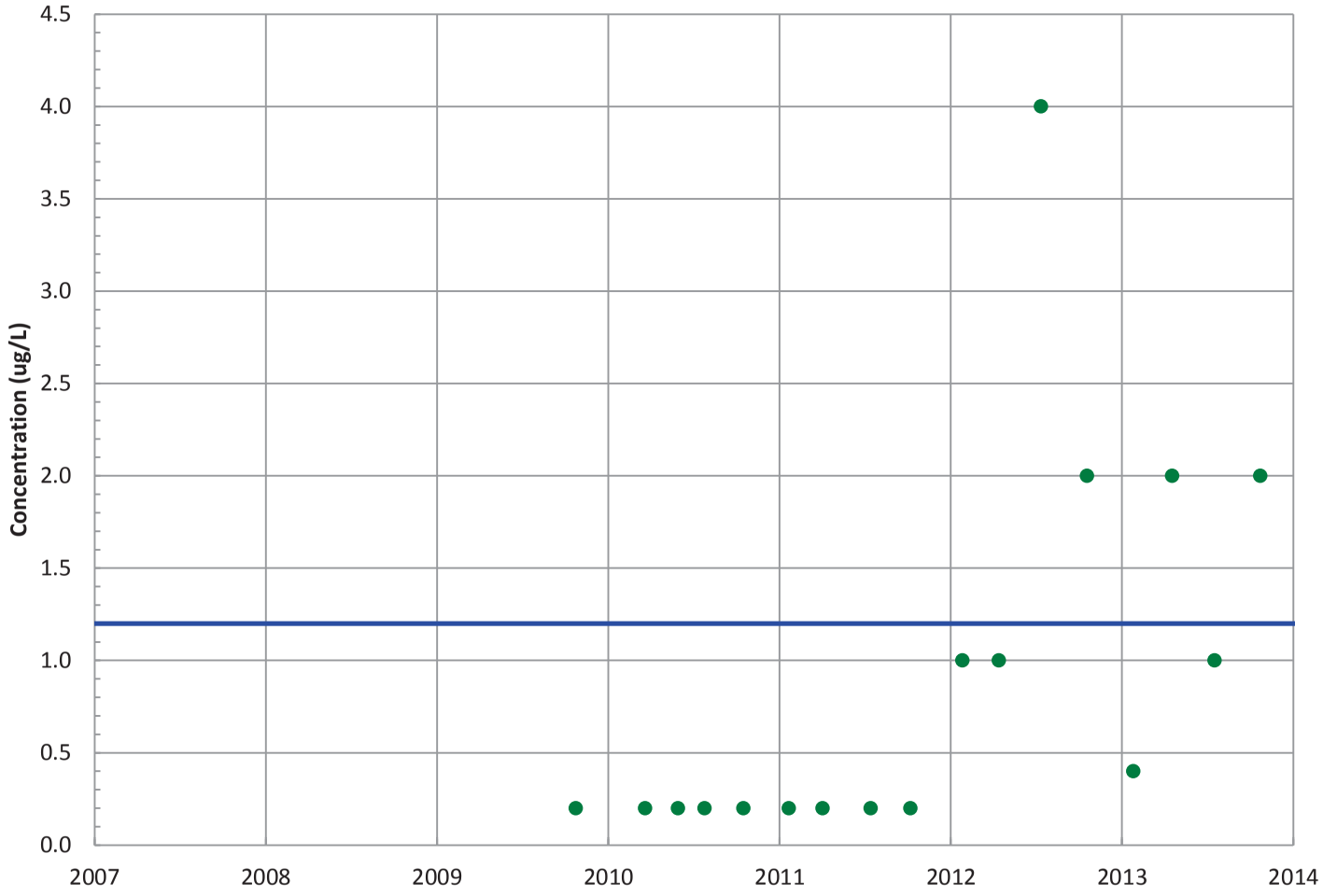
Well Location



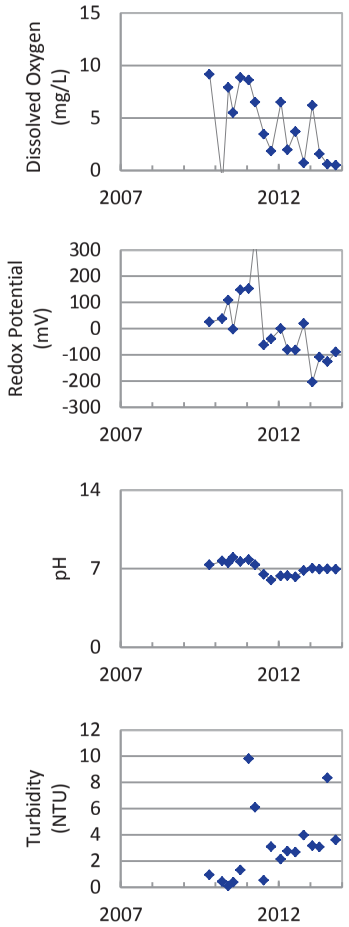
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1156
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



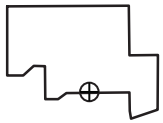
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

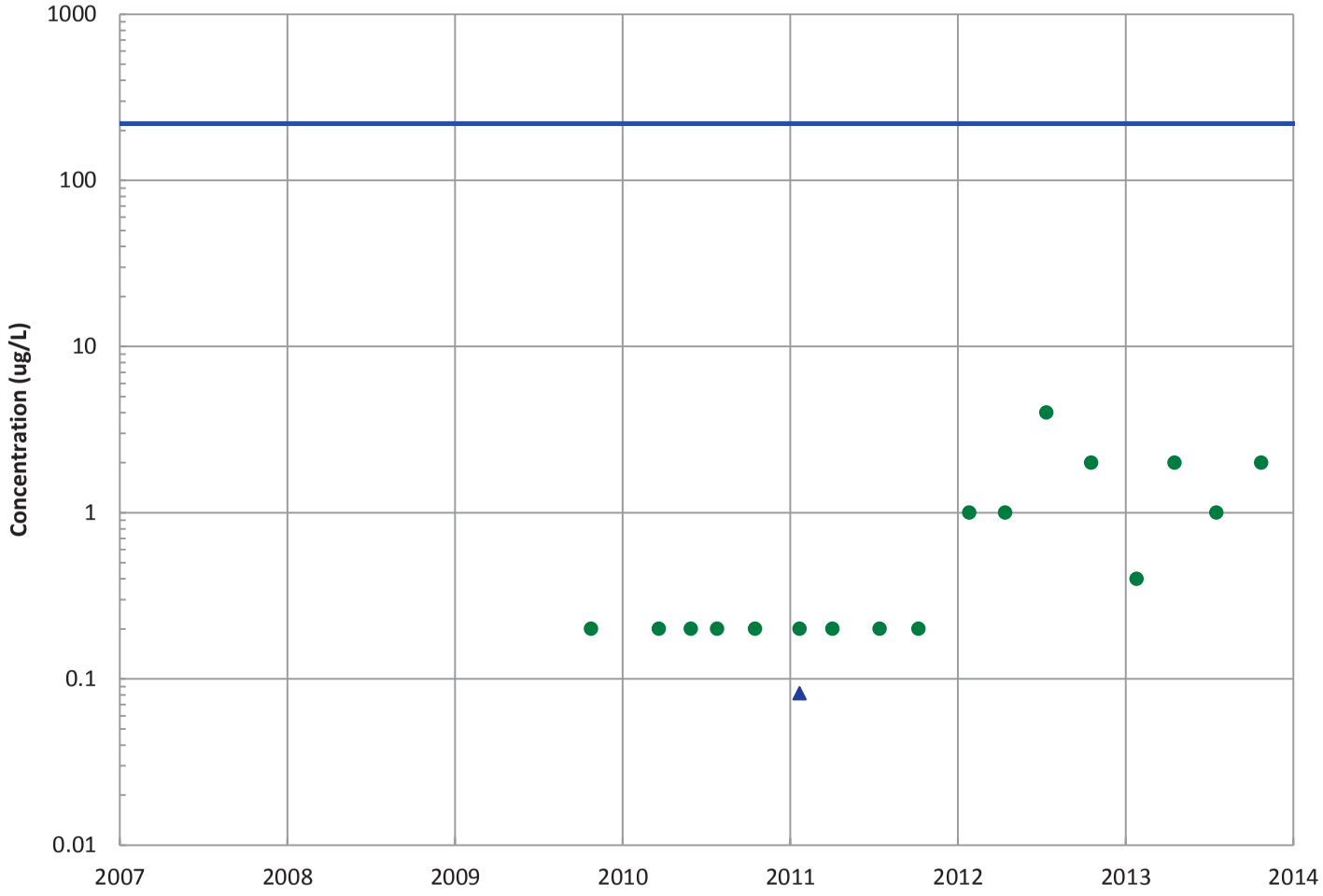
Well Location



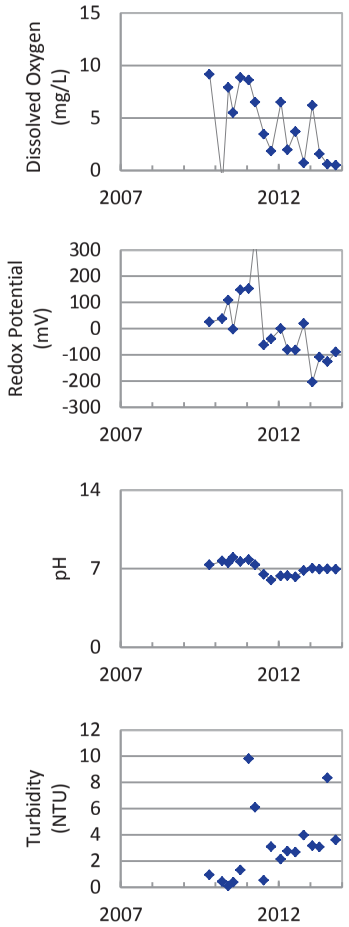
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1156
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



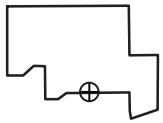
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

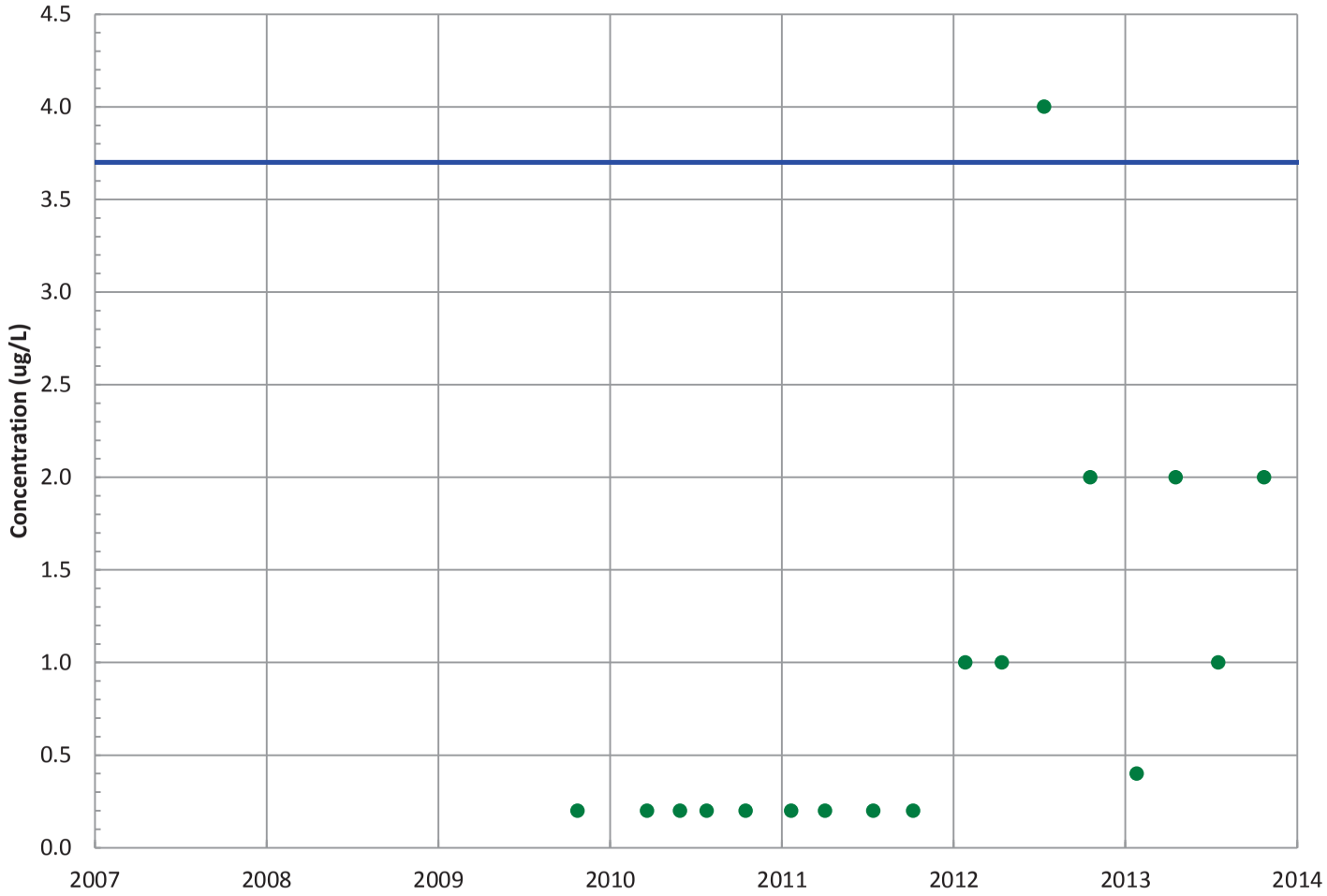
Well Location



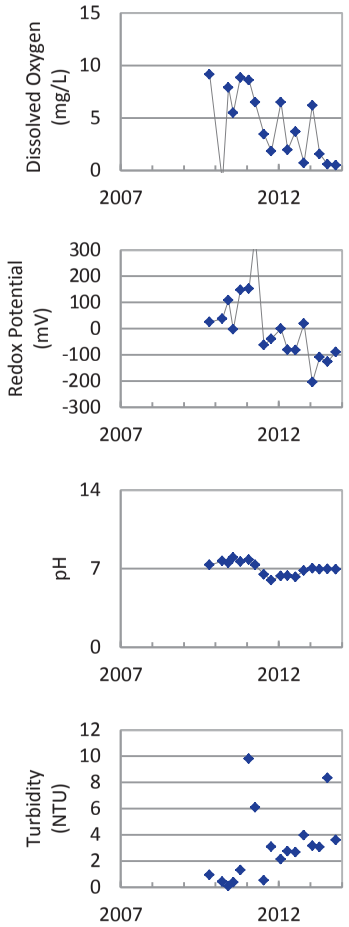
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1156
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



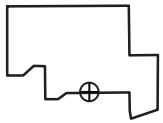
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

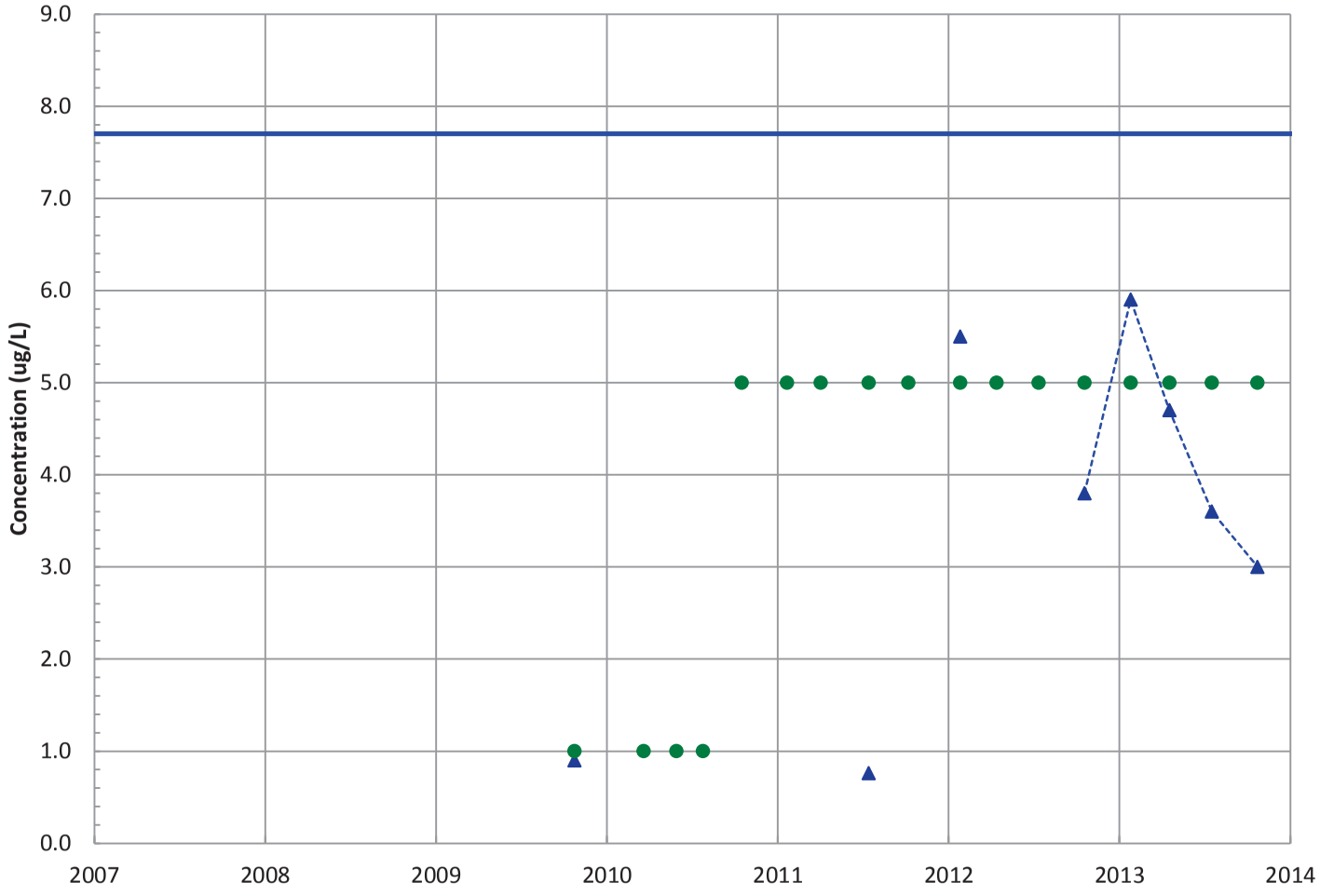
Well Location



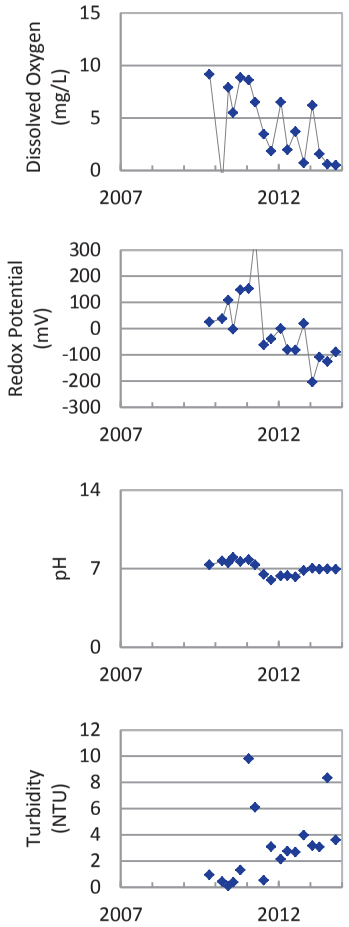
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1156
1,4-Dioxane (p-Dioxane) Trend in Perched Aquifer



Field Parameters



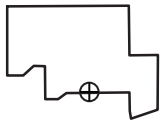
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

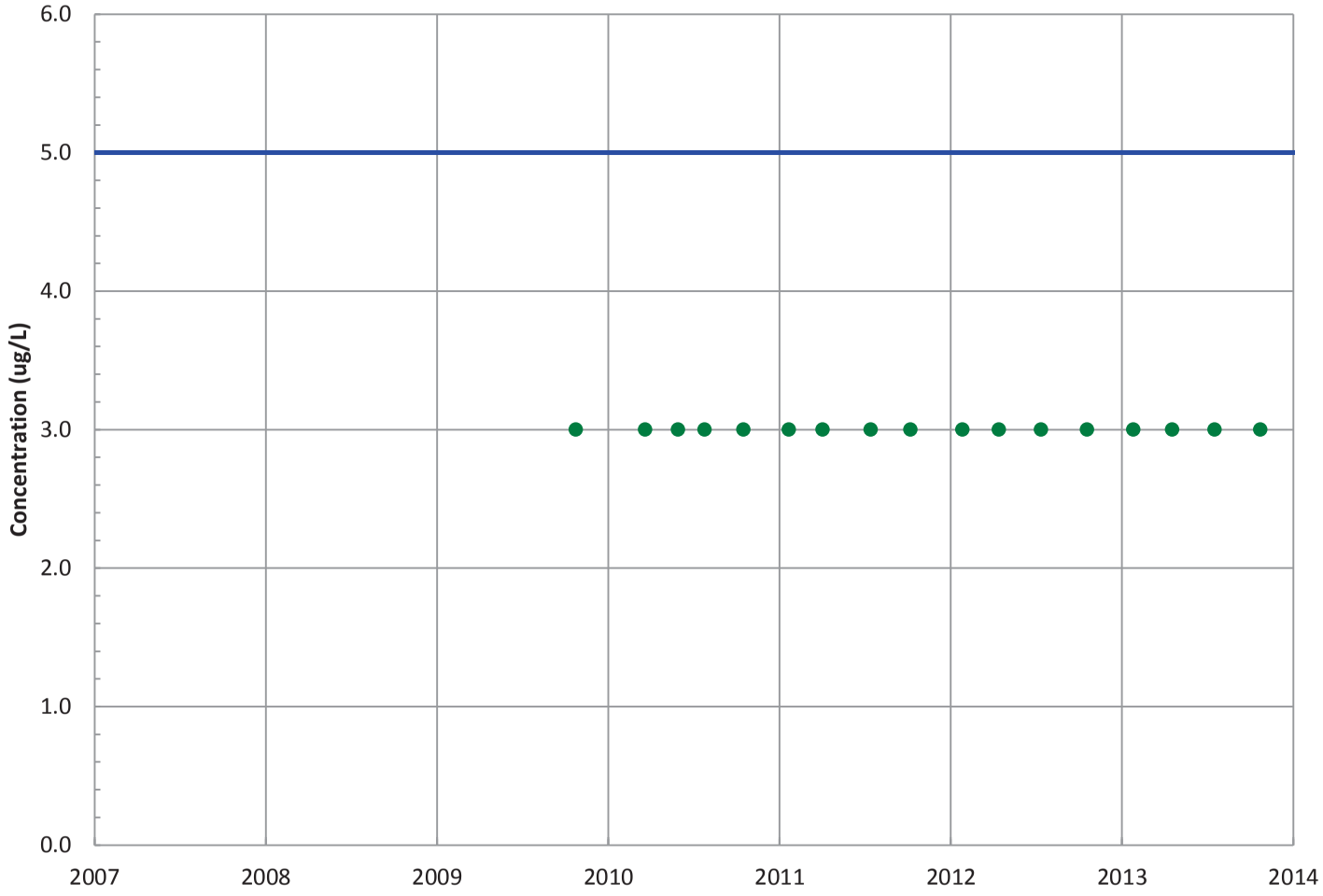
Well Location



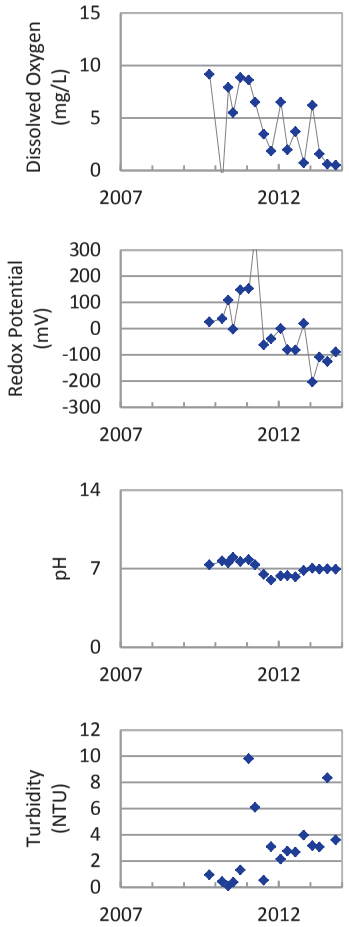
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1156
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



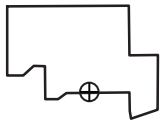
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

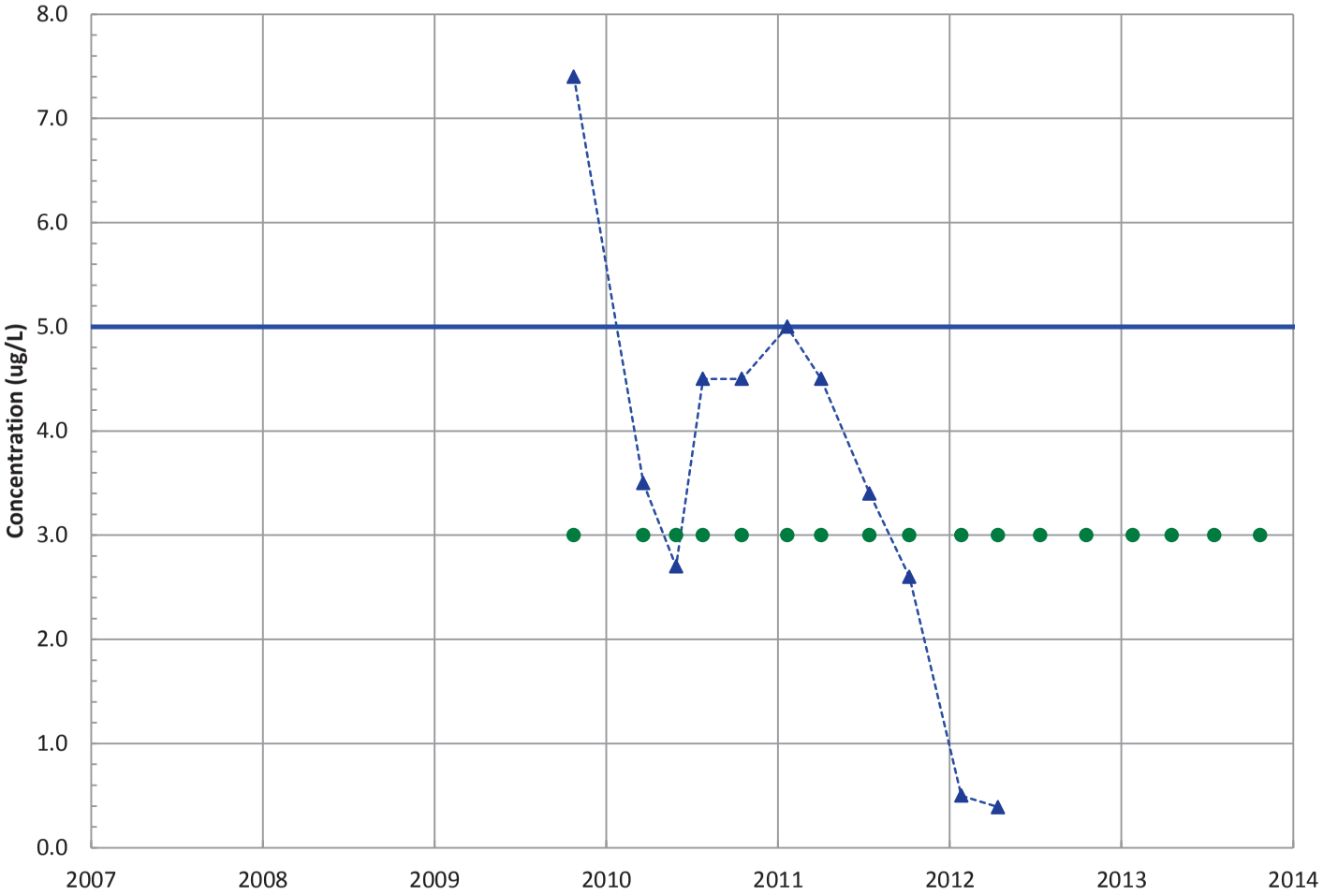
Well Location



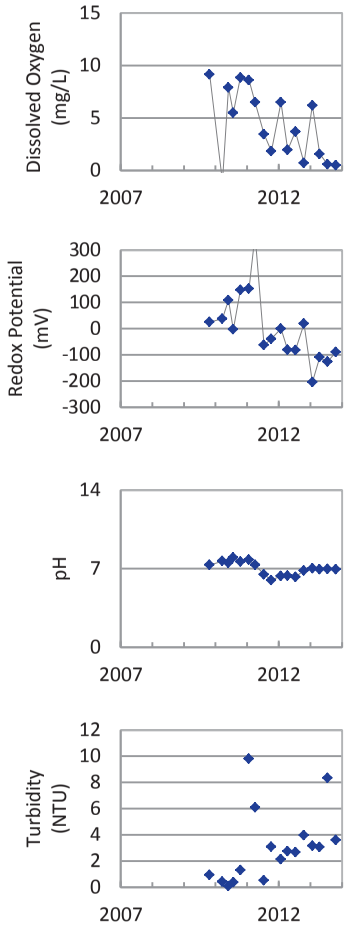
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1156
Trichloroethene Trend in Perched Aquifer



Field Parameters



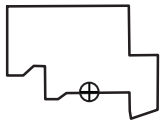
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Probably Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

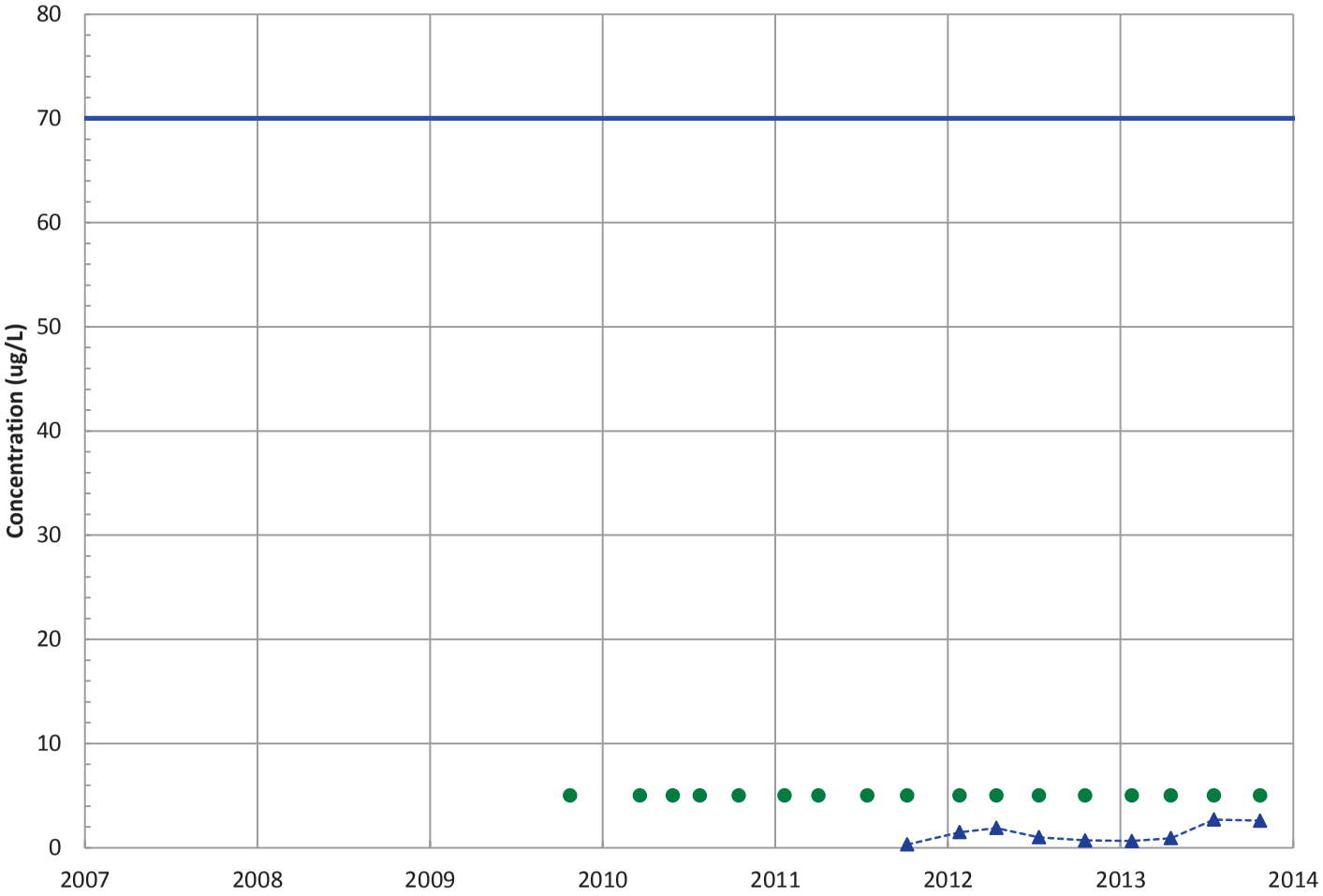
Well Location



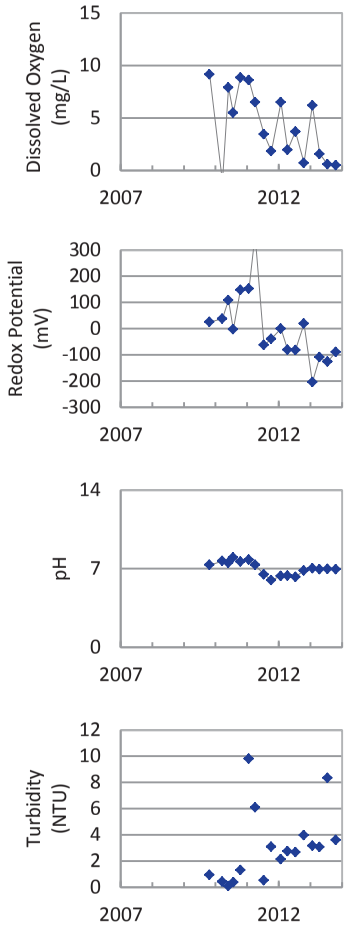
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1156
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



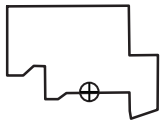
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Probably Increasing
Last 4 Samples: Increasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

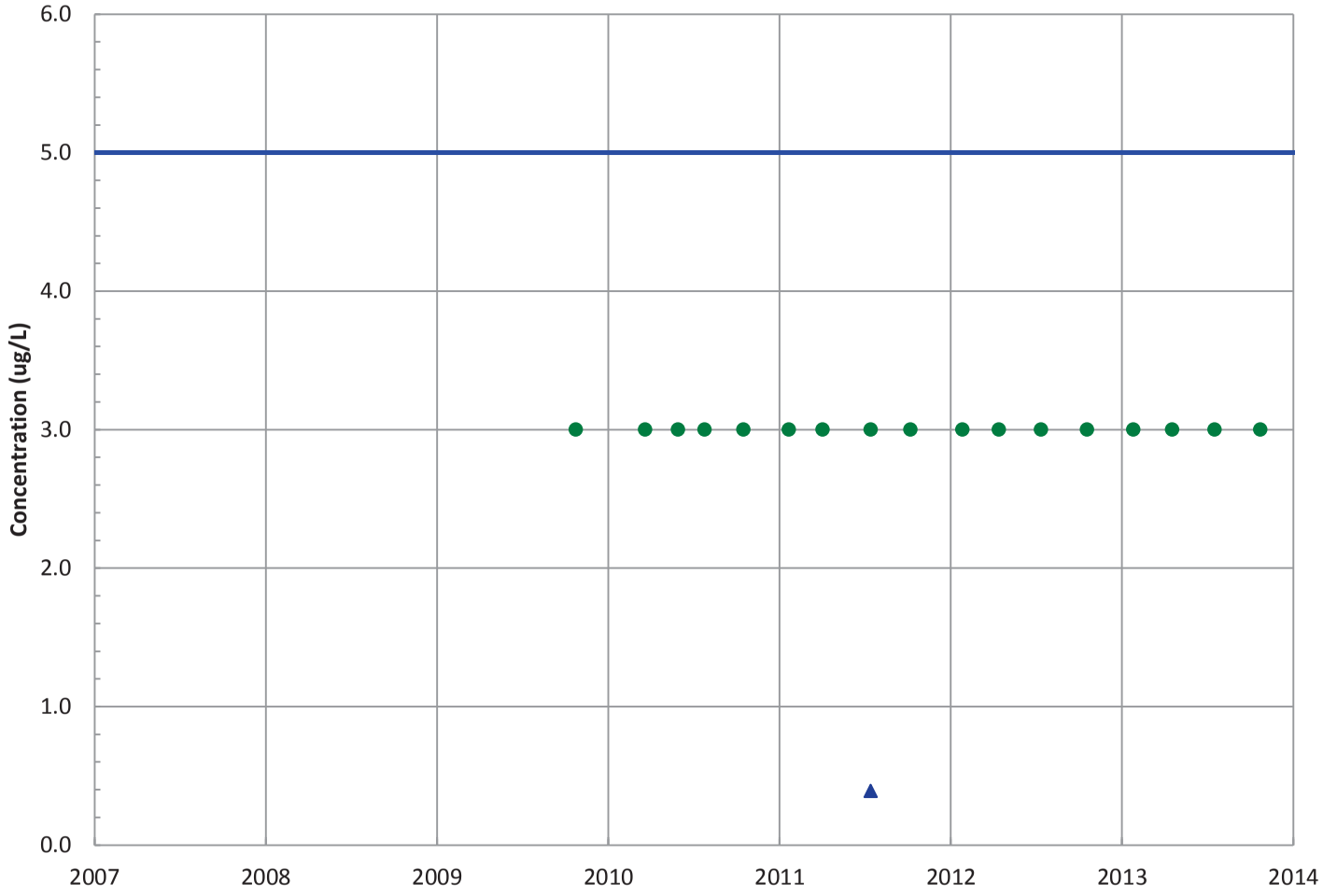
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1156
1,2-Dichloroethane Trend in Perched Aquifer



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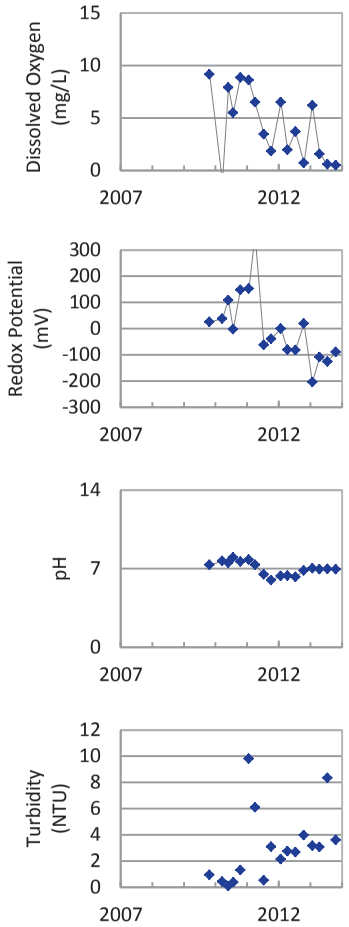


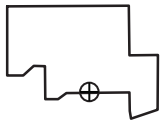
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

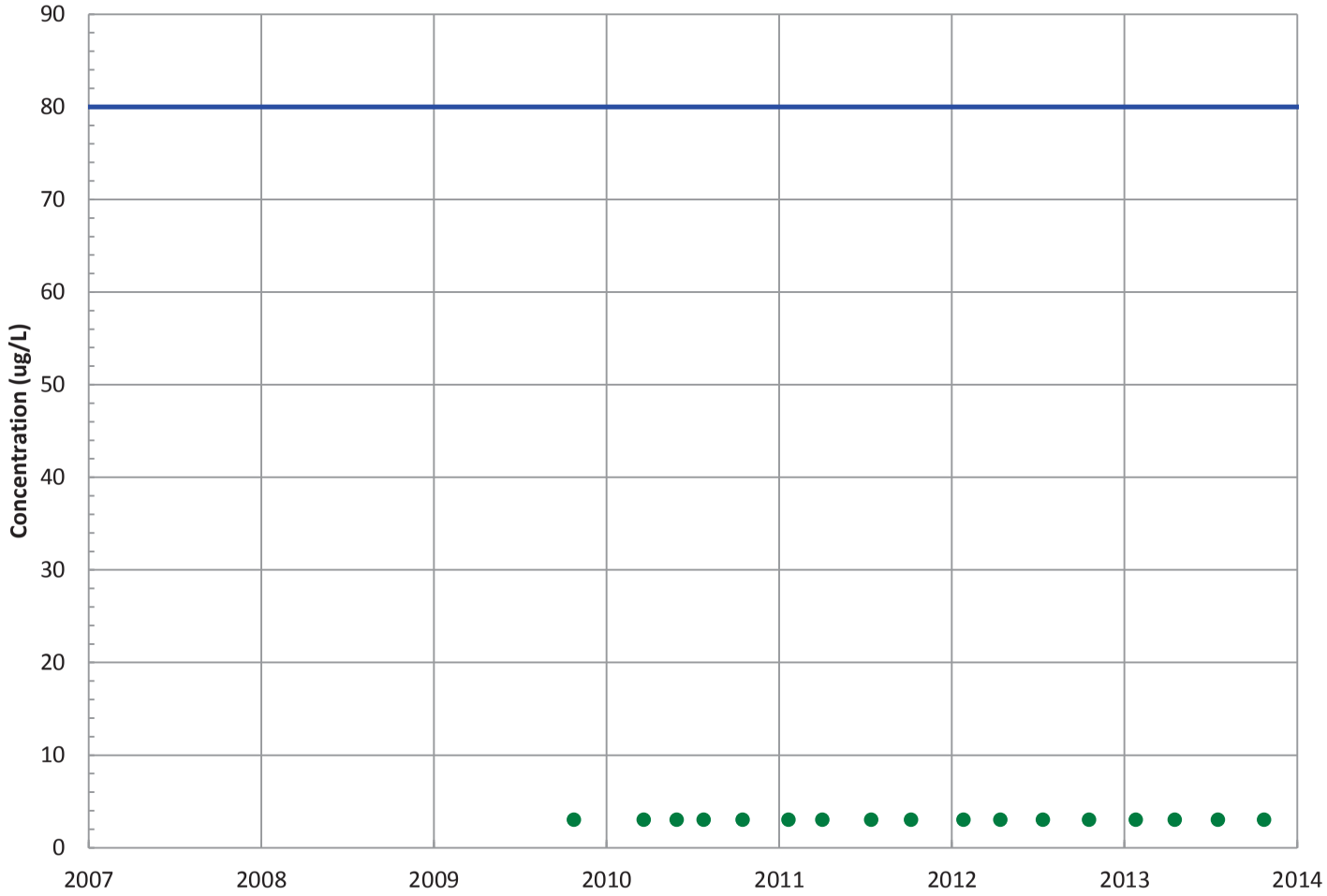
Well Location



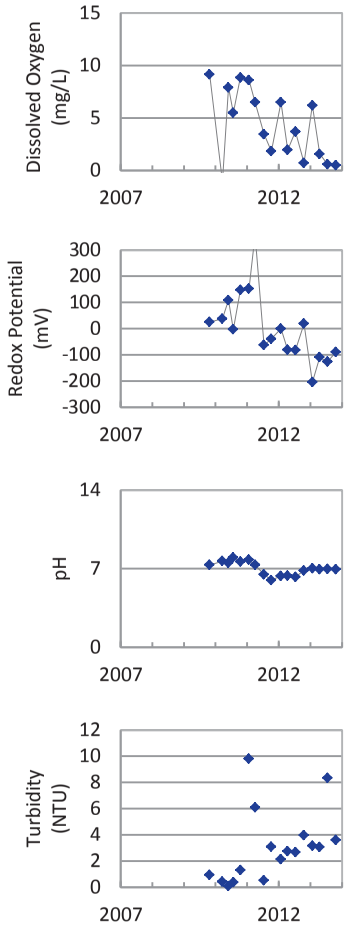
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1156
Chloroform Trend in Perched Aquifer



Field Parameters



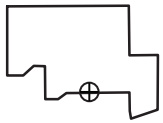
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

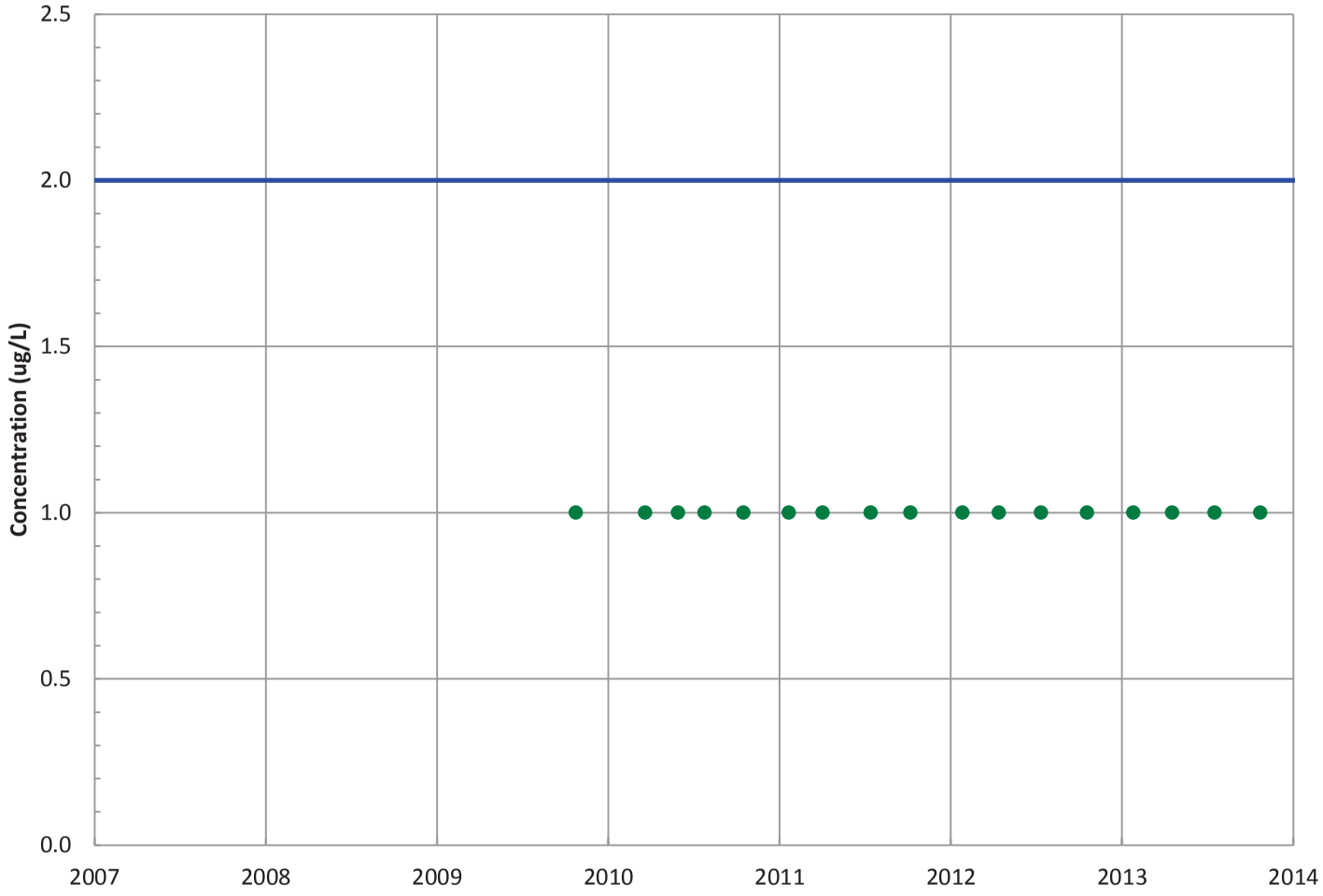
Well Location



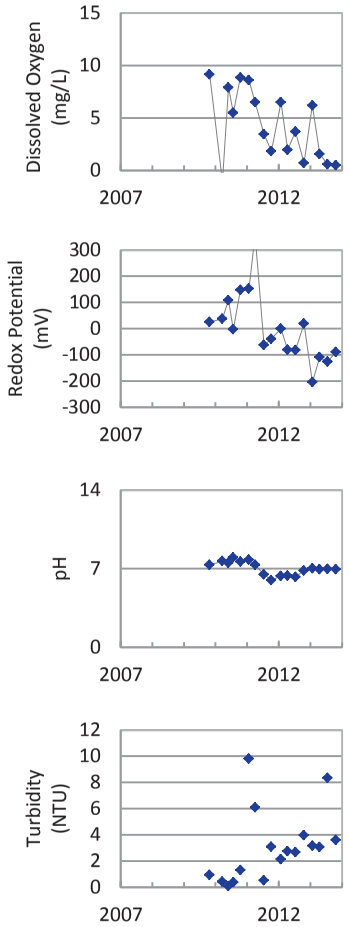
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1156
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



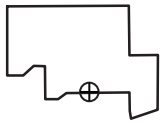
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

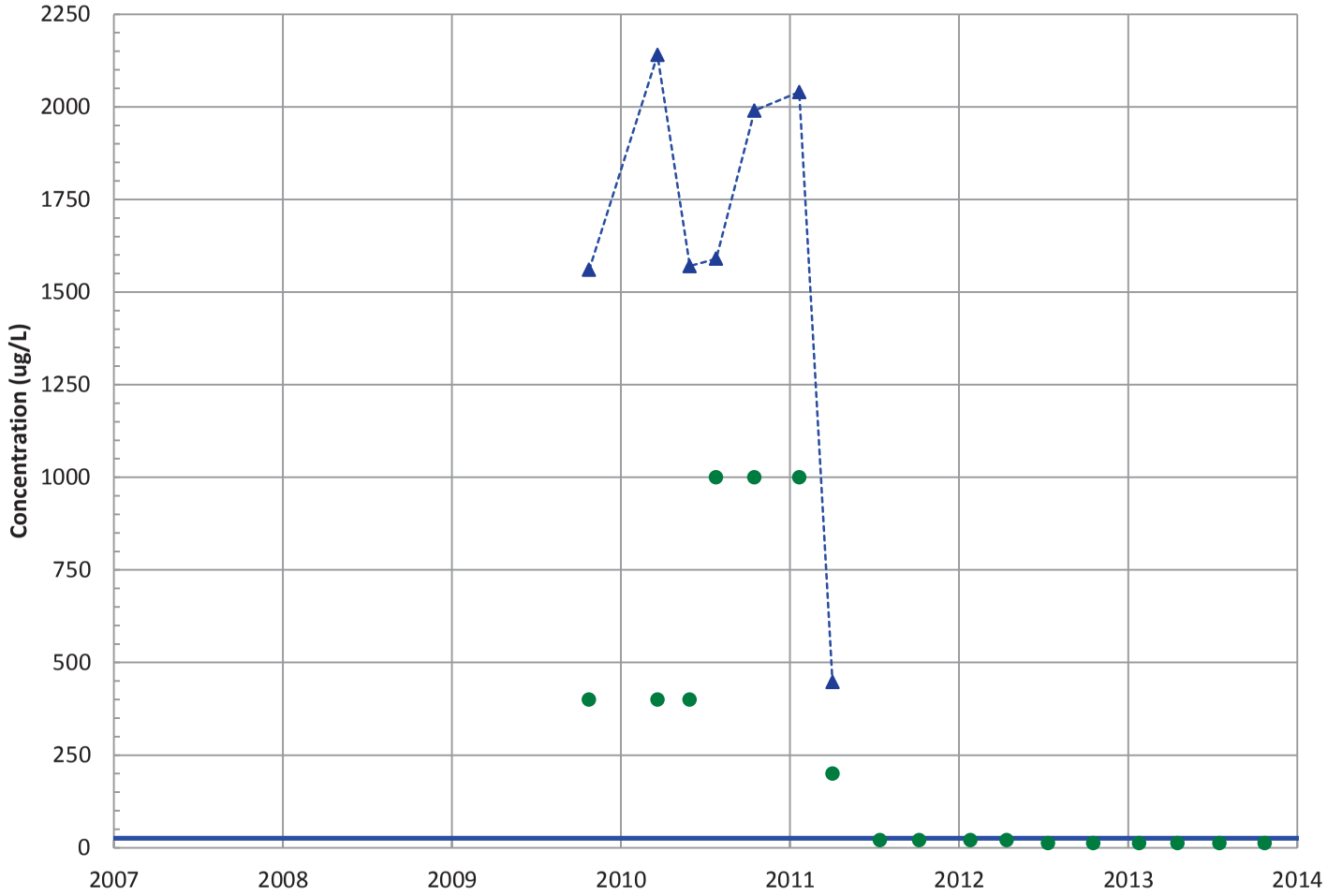
Well Location

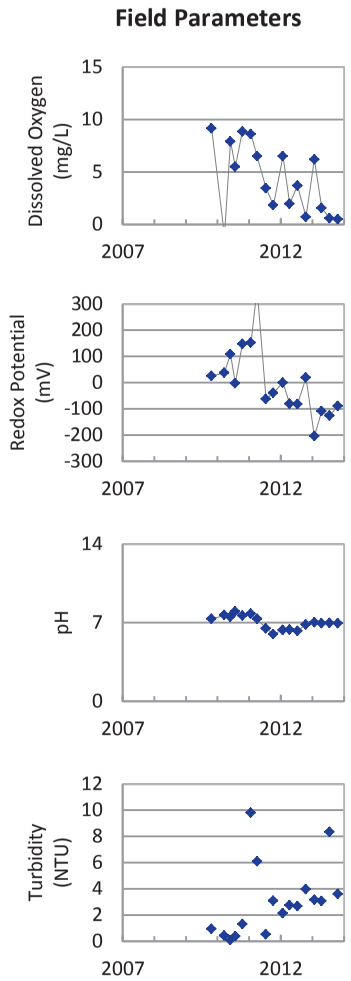


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1156
Perchlorate Trend in Perched Aquifer





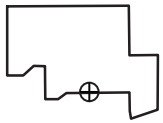
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

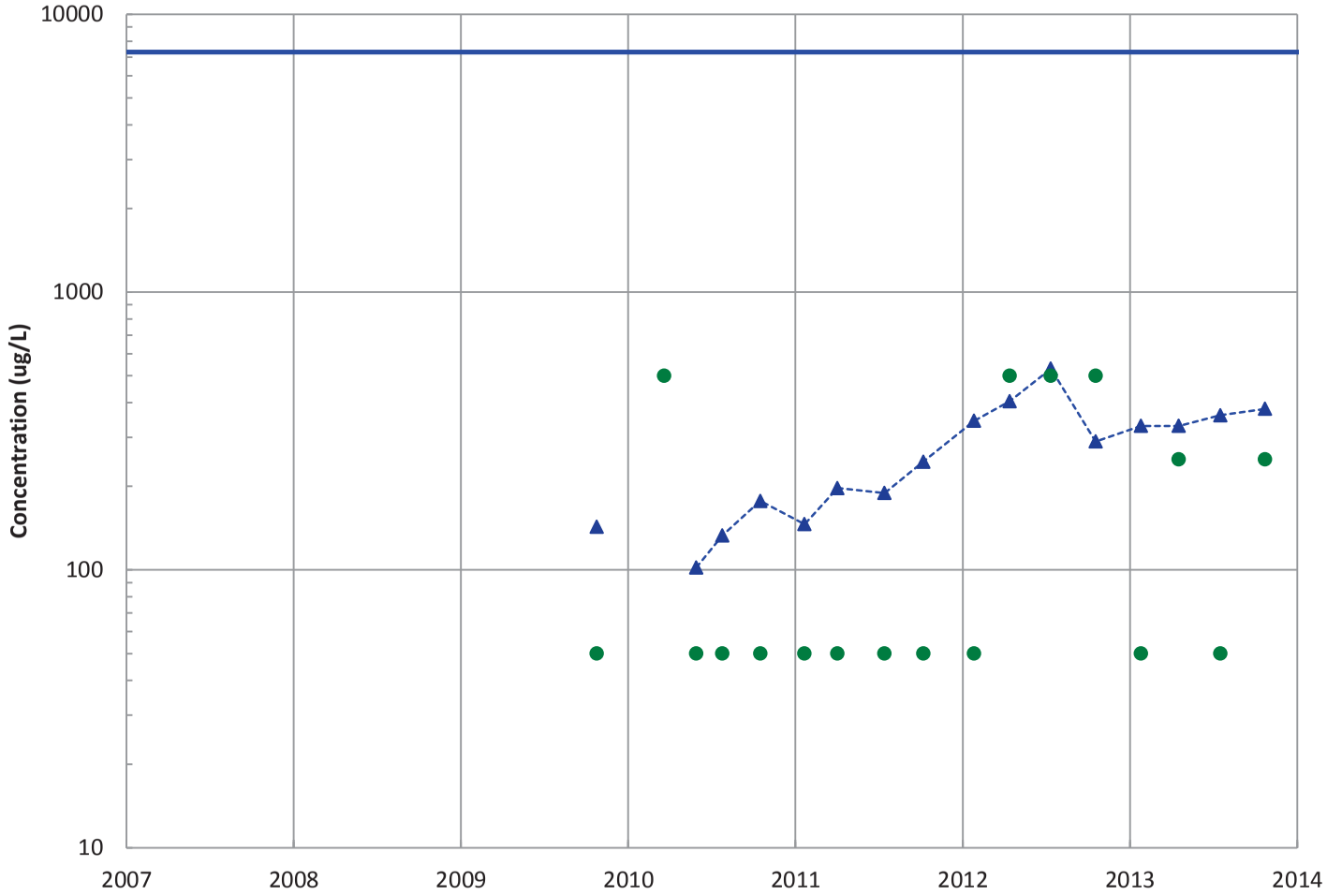
Well Location



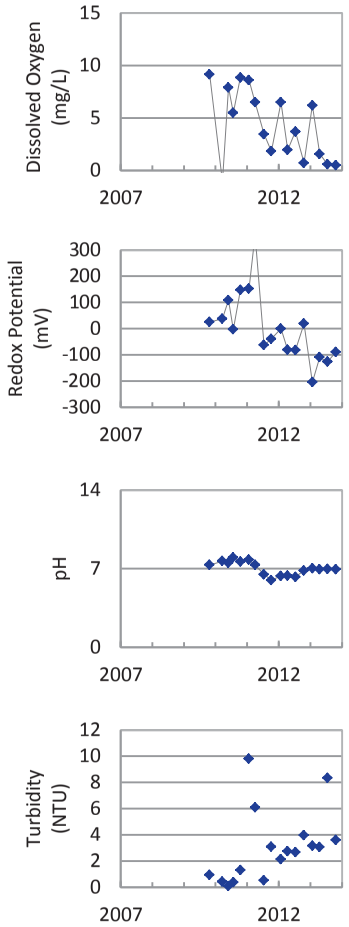
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1156
Boron Trend in Perched Aquifer



Field Parameters



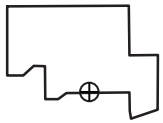
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Probably Increasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

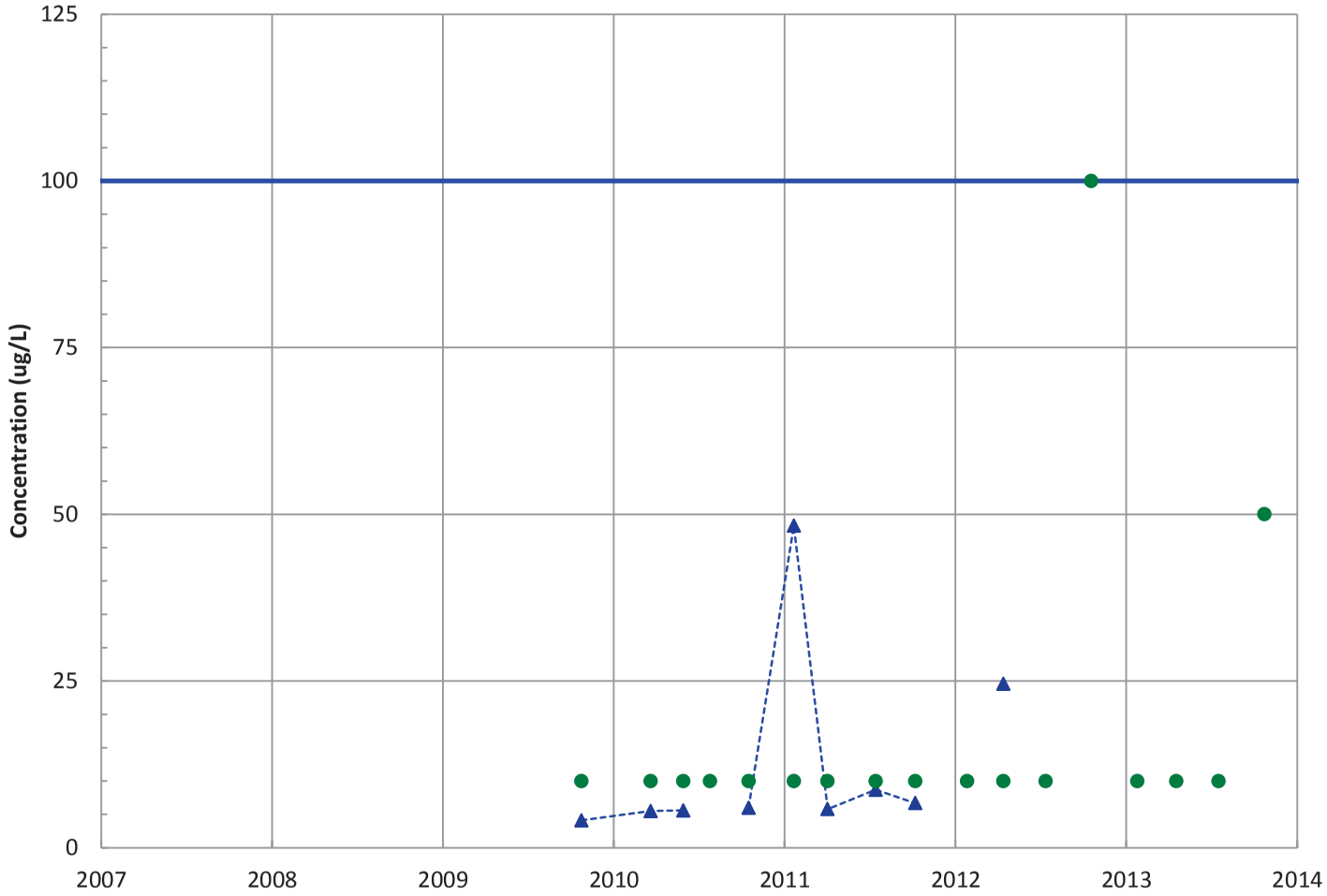
Well Location



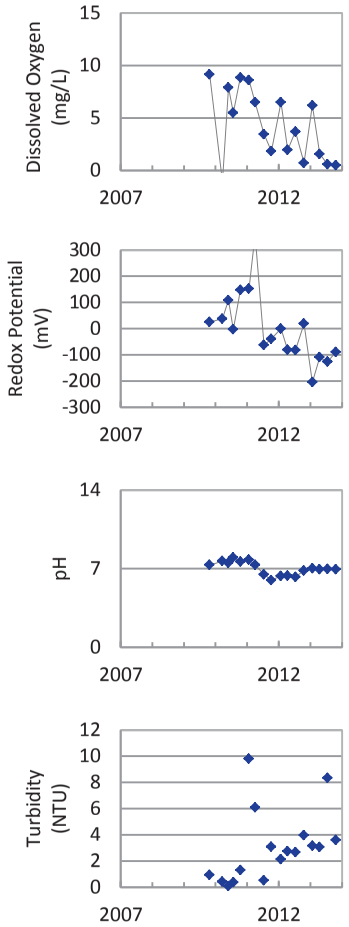
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1156
Chromium, Total Trend in Perched Aquifer



Field Parameters



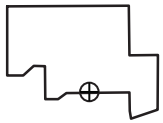
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: Probably Increasing
Last 4 Samples: Probably Increasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

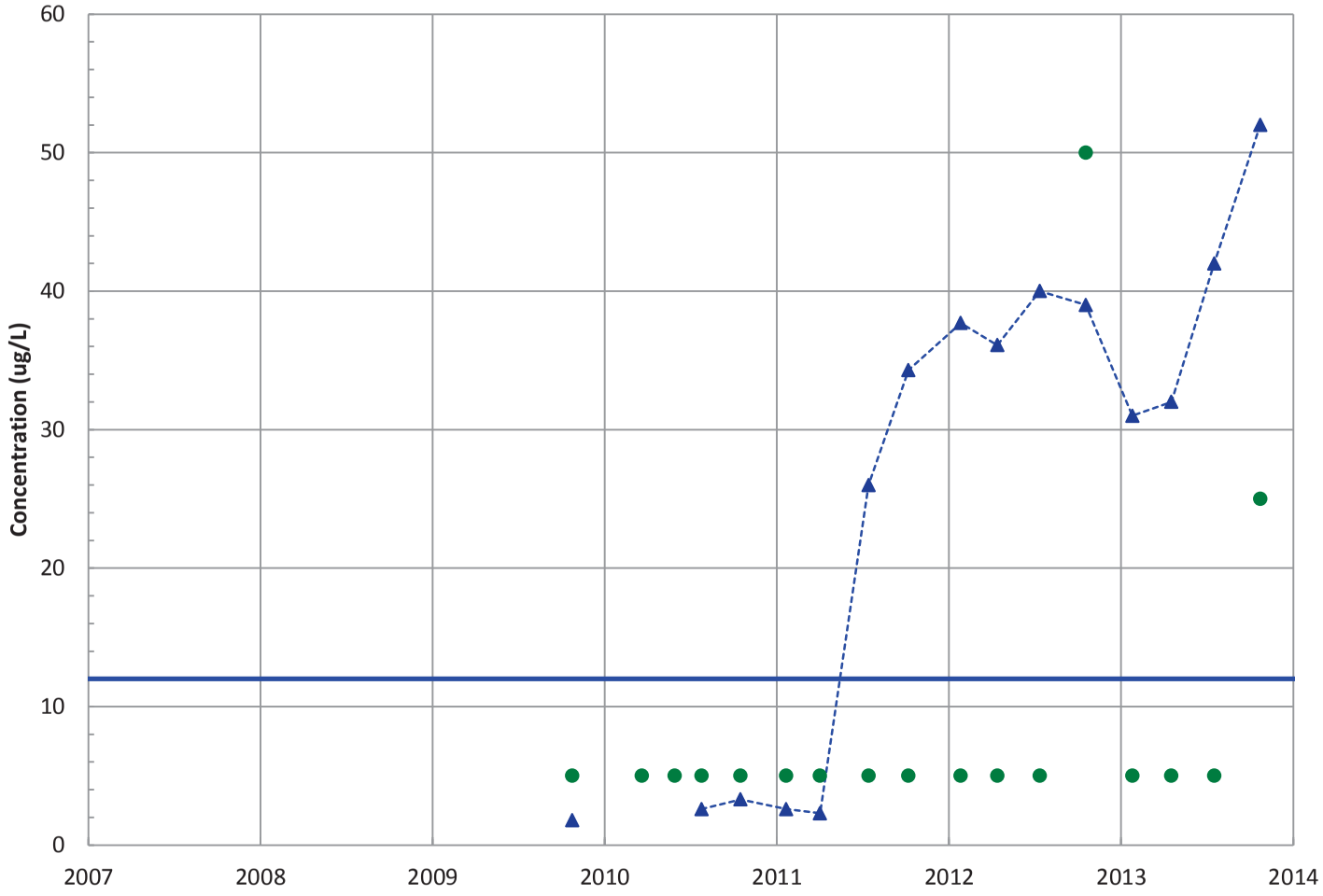
Well Location



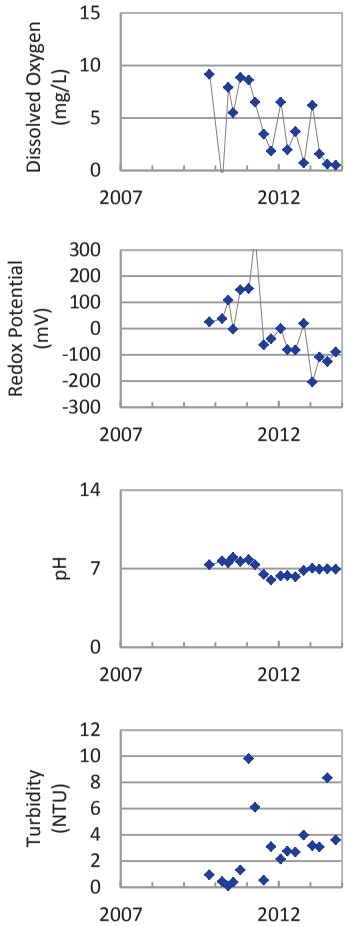
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1156
Arsenic Trend in Perched Aquifer



Field Parameters



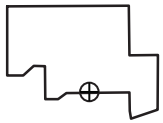
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Increasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Probably Increasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

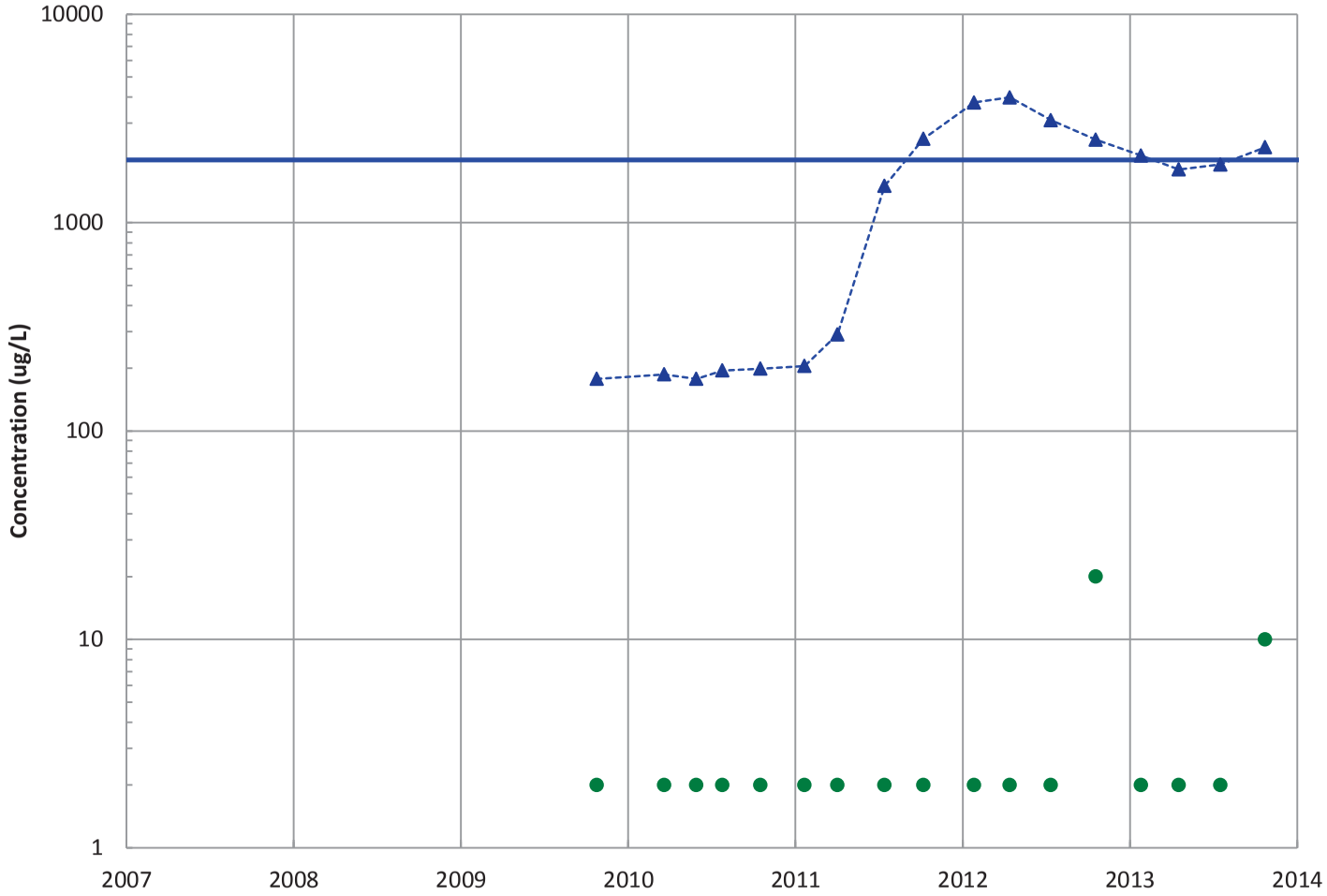
Well Location



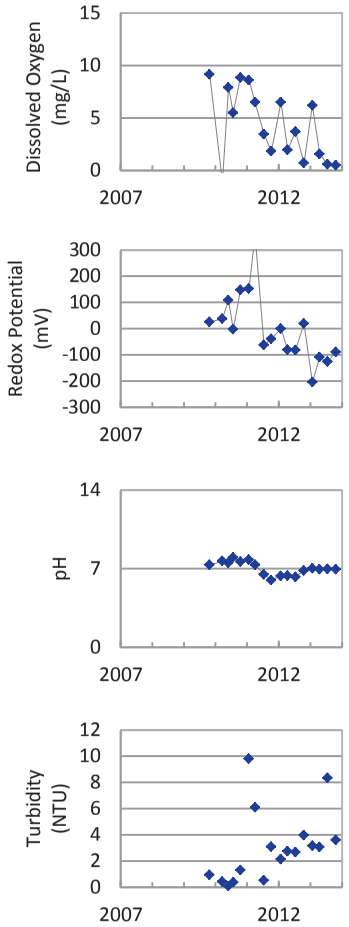
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1156
Barium Trend in Perched Aquifer



Field Parameters



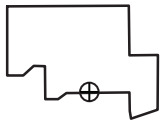
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

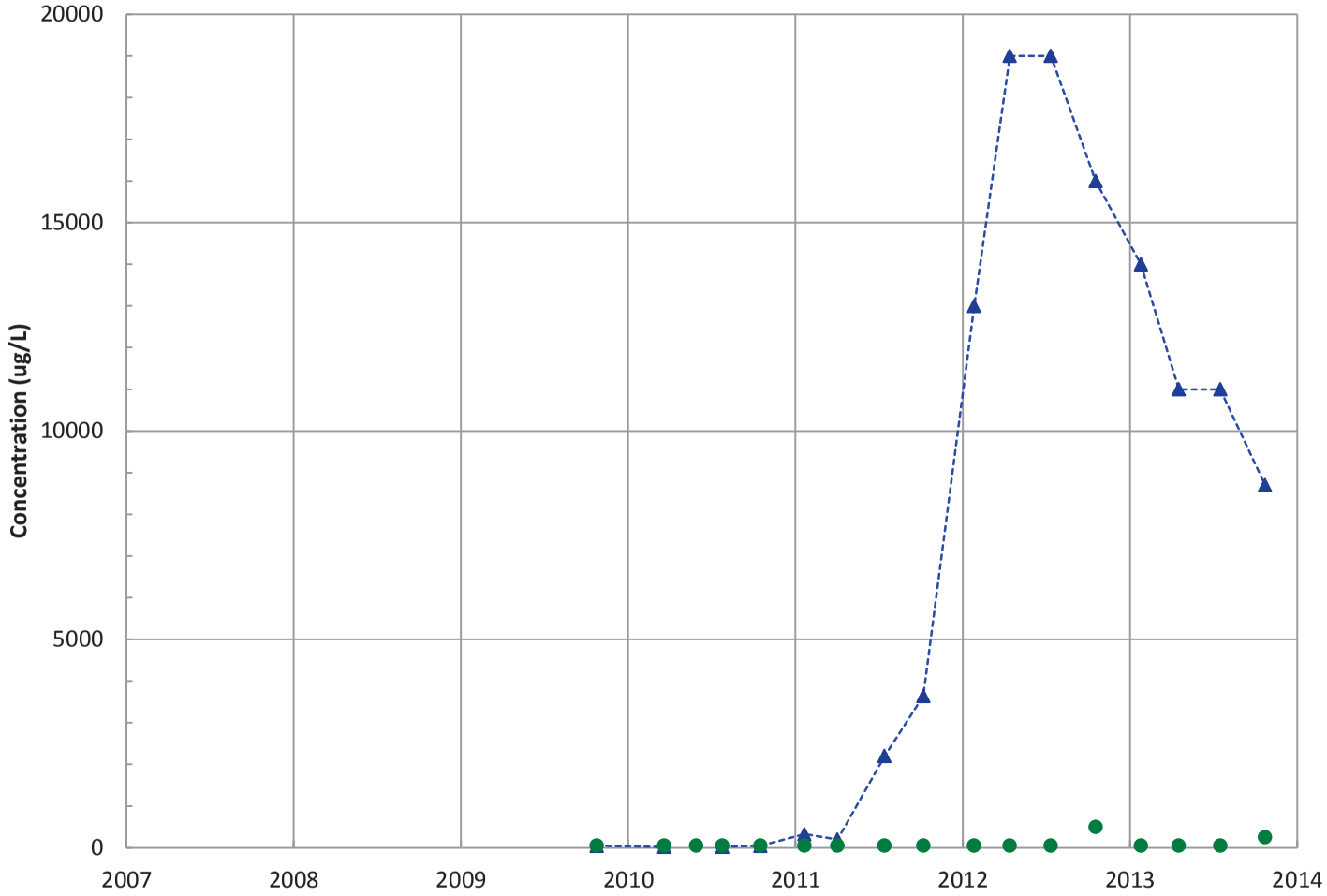
Well Location



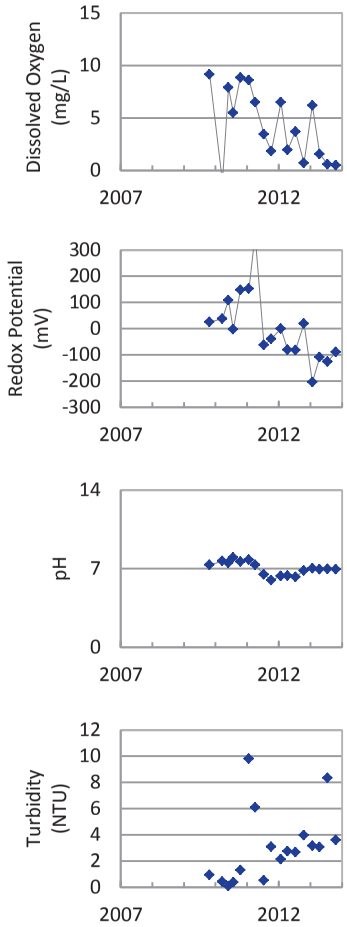
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1156
Iron Trend in Perched Aquifer



Field Parameters



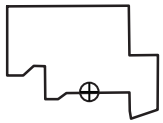
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Decreasing

▲ Measured Value
● Sample Detection Limit
Concentration Trend
Injection Dates

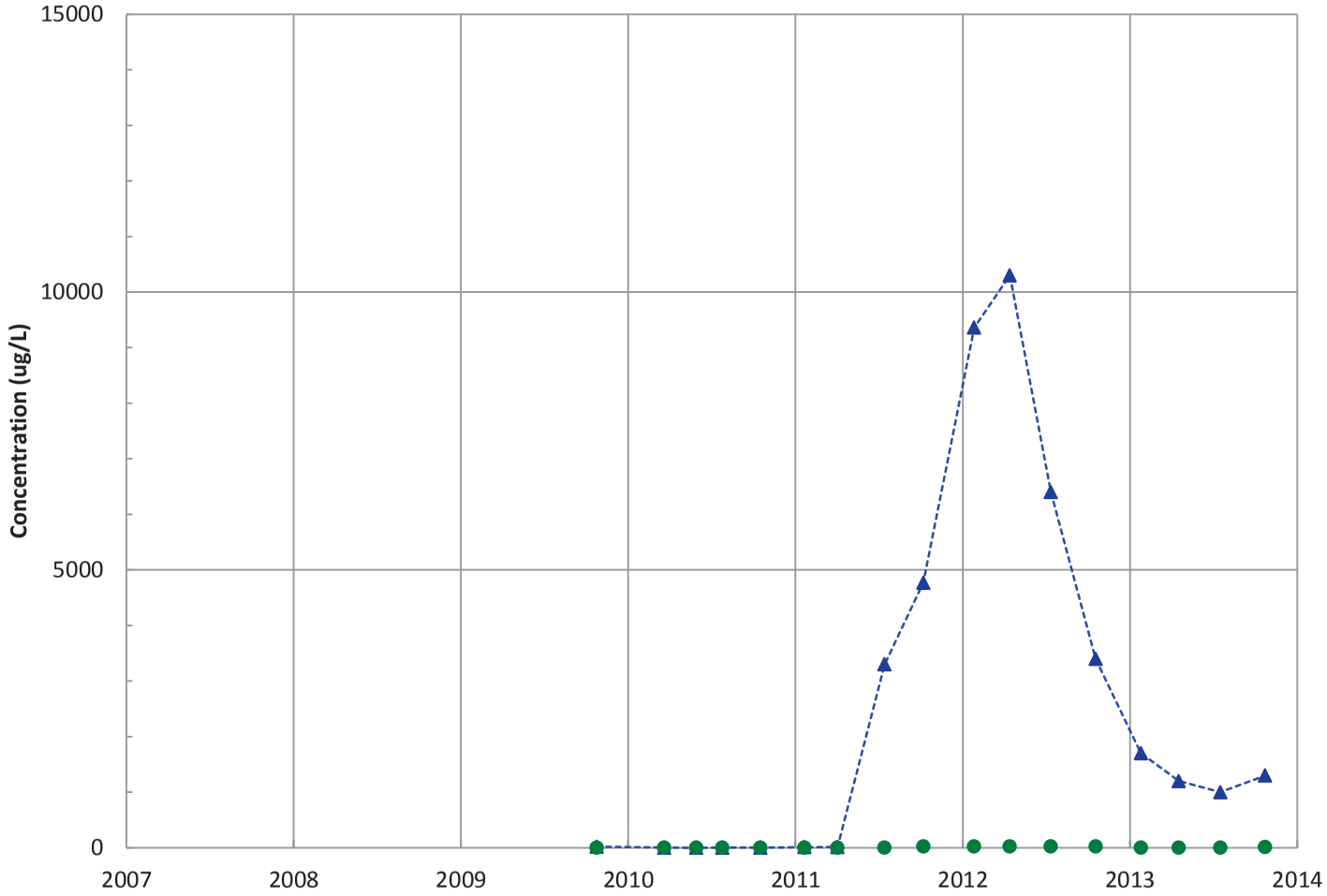
Well Location



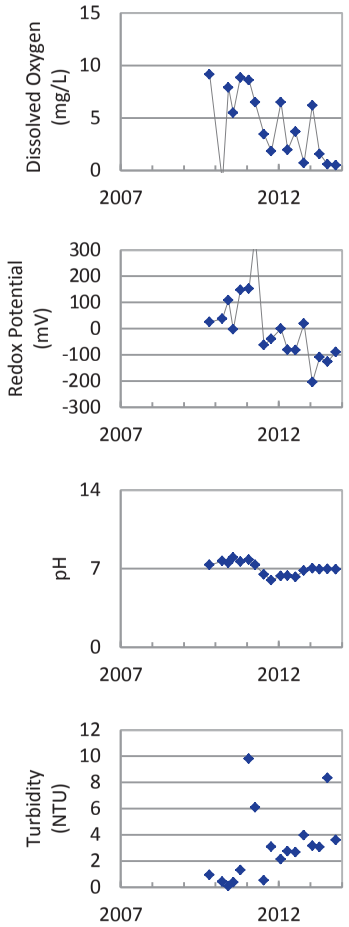
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1156
Manganese Trend in Perched Aquifer



Field Parameters



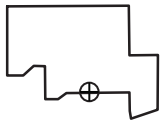
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Injection Dates

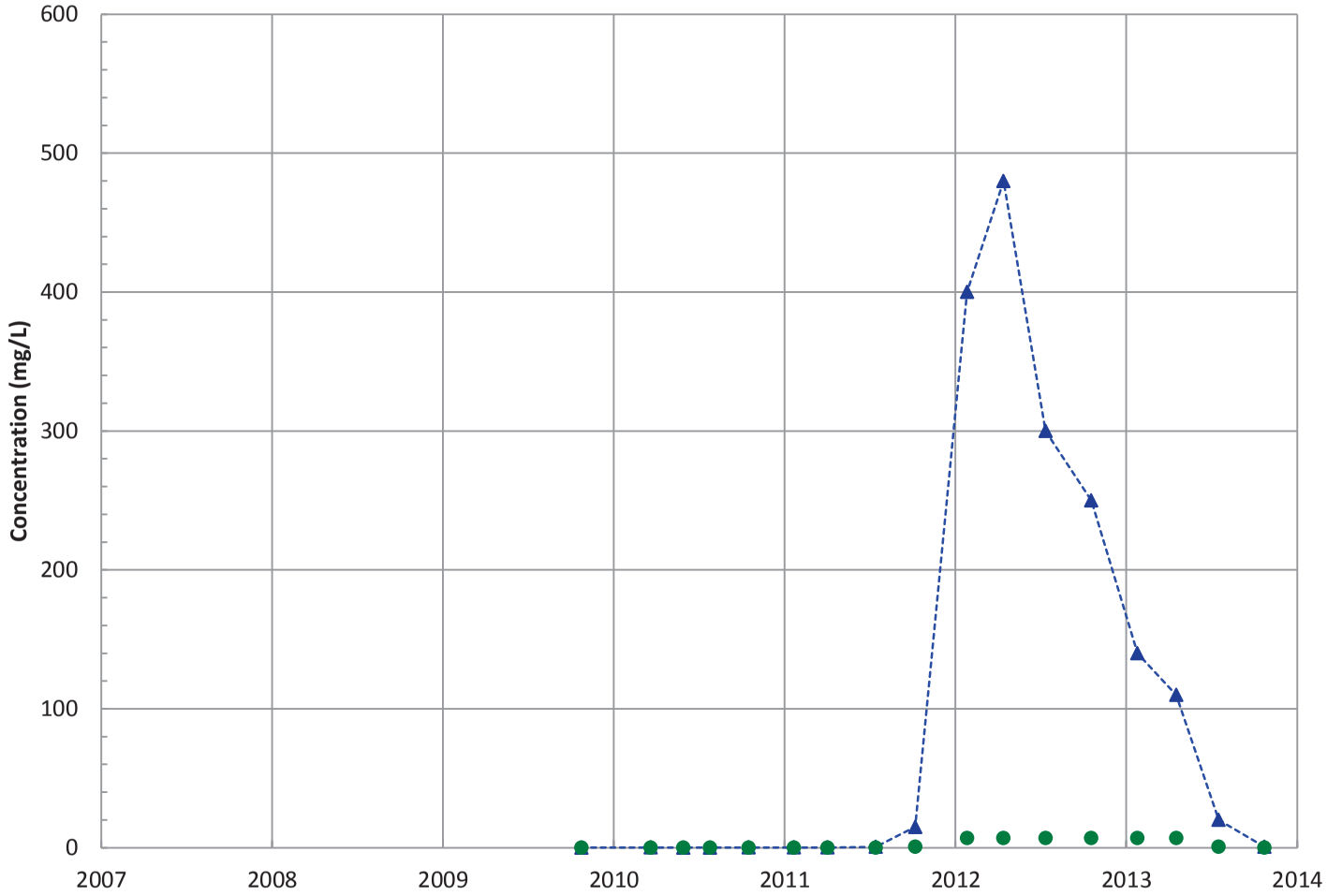
Well Location



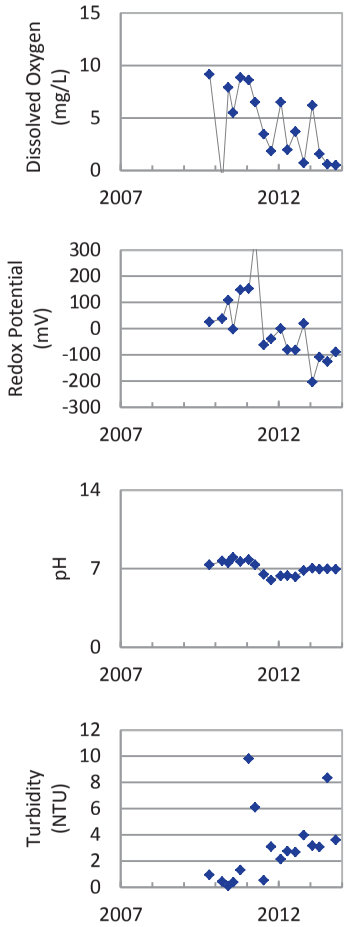
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1156
Acetic Acid Trend in Perched Aquifer



Field Parameters



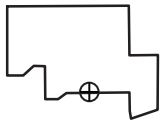
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Probably Decreasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Injection Dates

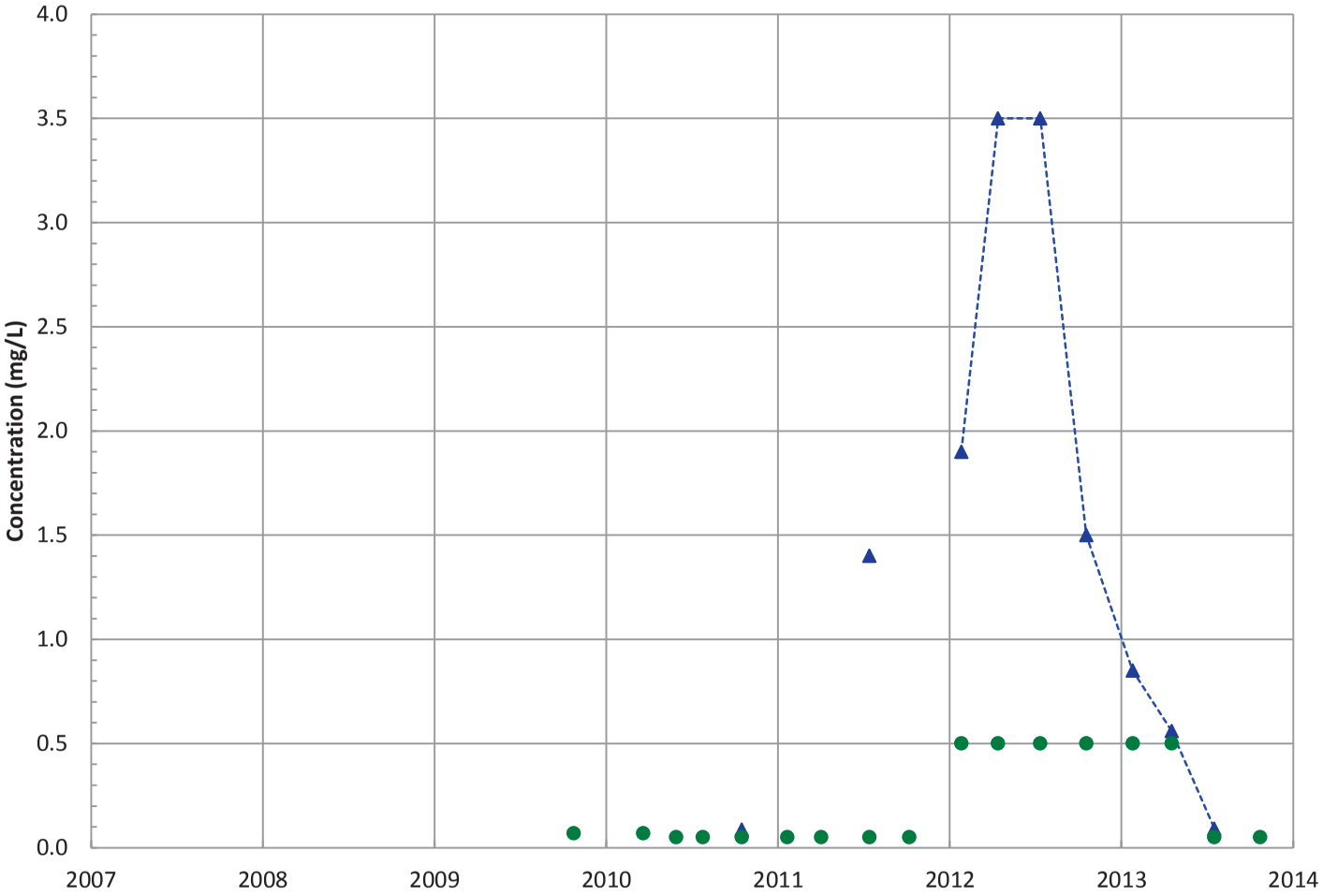
Well Location



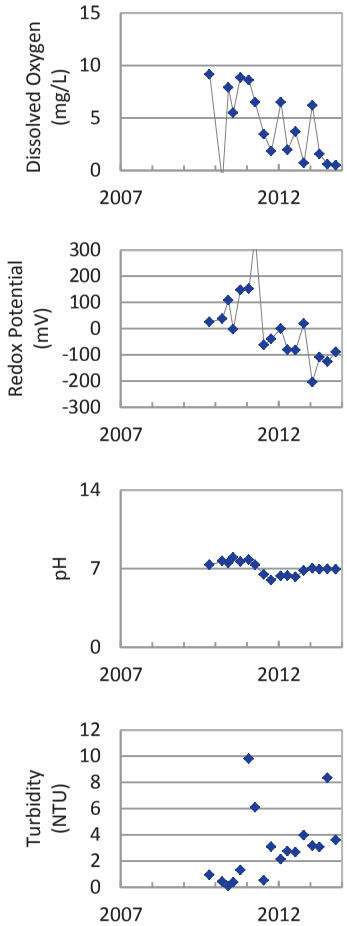
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1156
Butyric Acid Trend in Perched Aquifer



Field Parameters



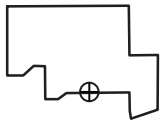
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Probably Decreasing

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

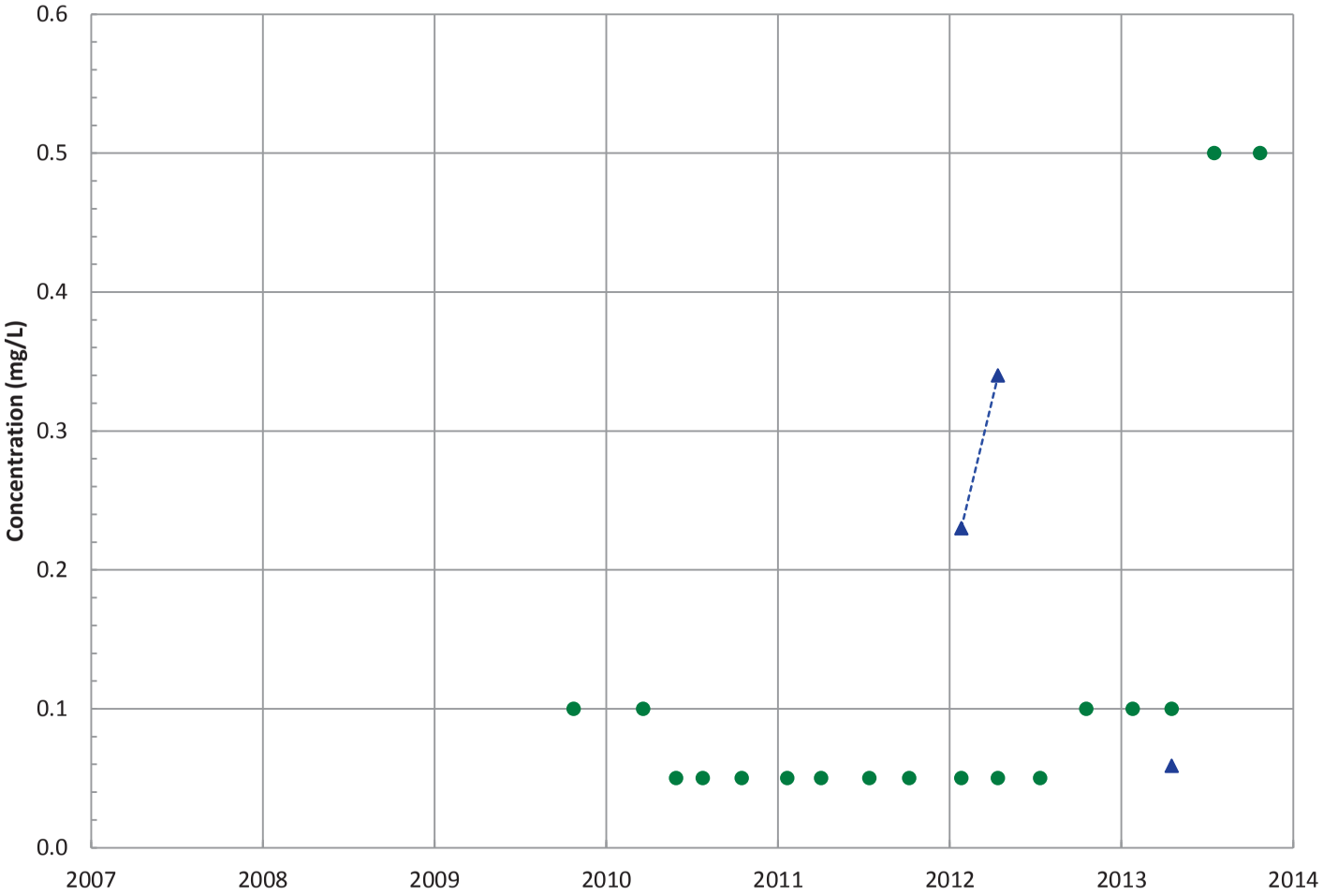
Well Location



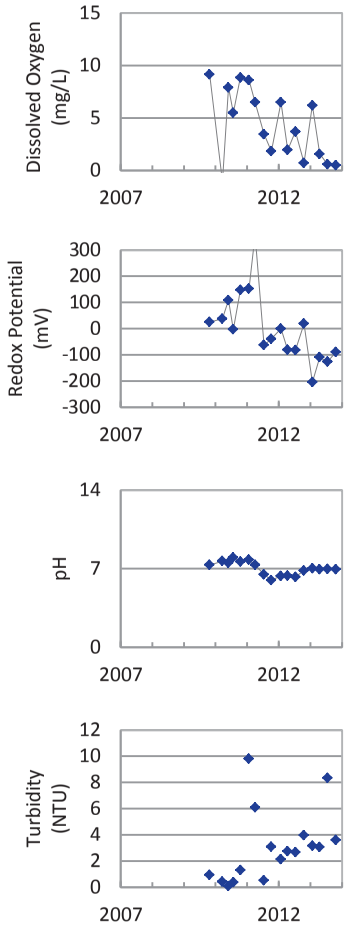
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1156
Hexanoic Acid Trend in Perched Aquifer



Field Parameters



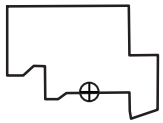
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Injection Dates

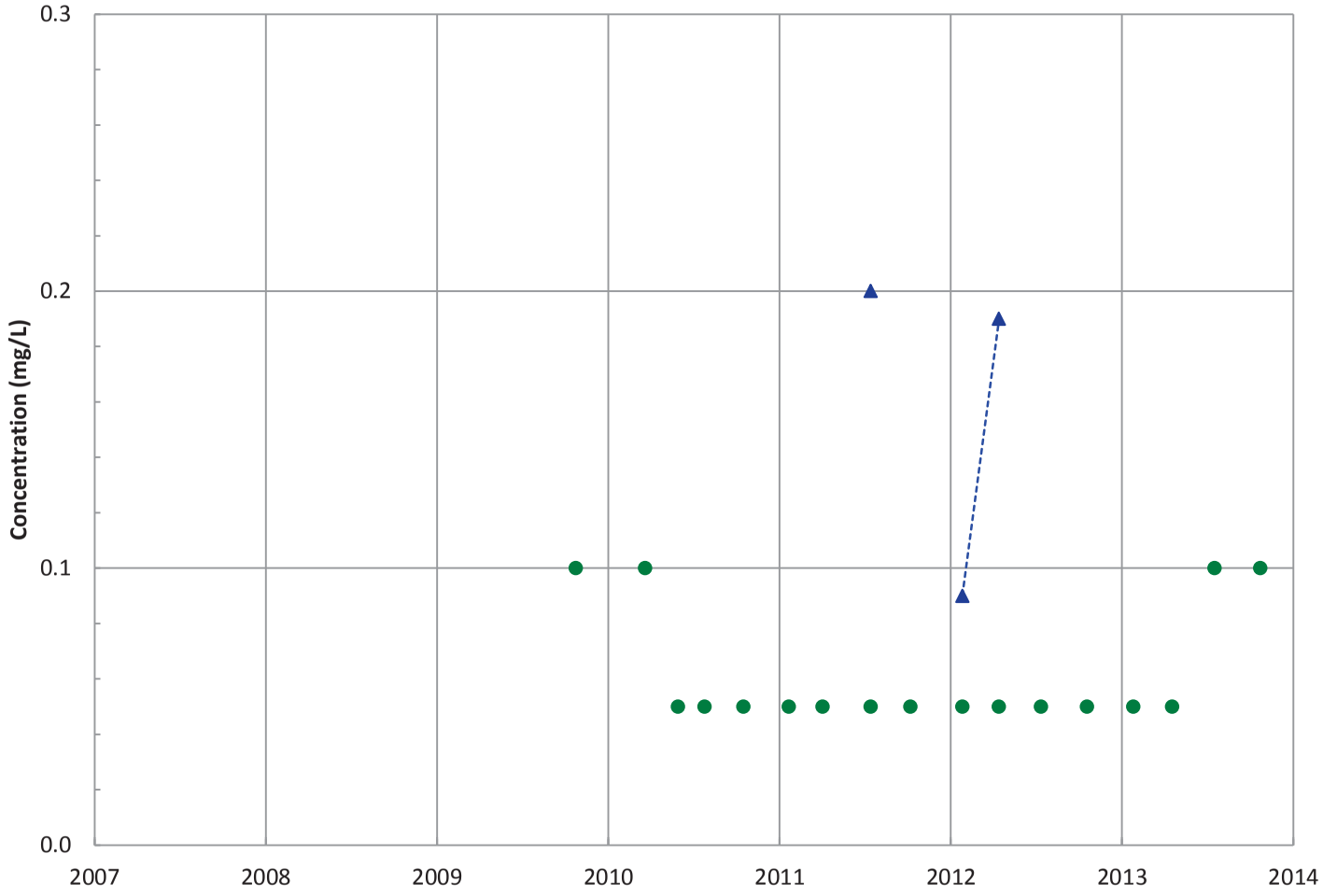
Well Location



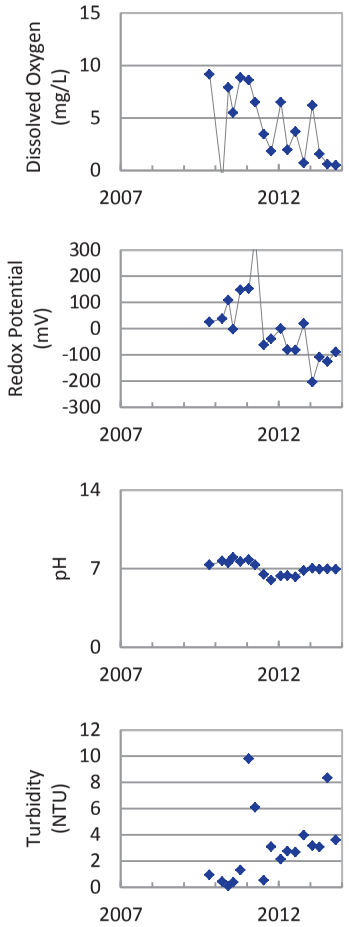
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1156
i-Hexanoic Acid Trend in Perched Aquifer



Field Parameters



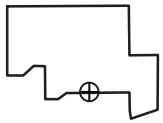
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Injection Dates

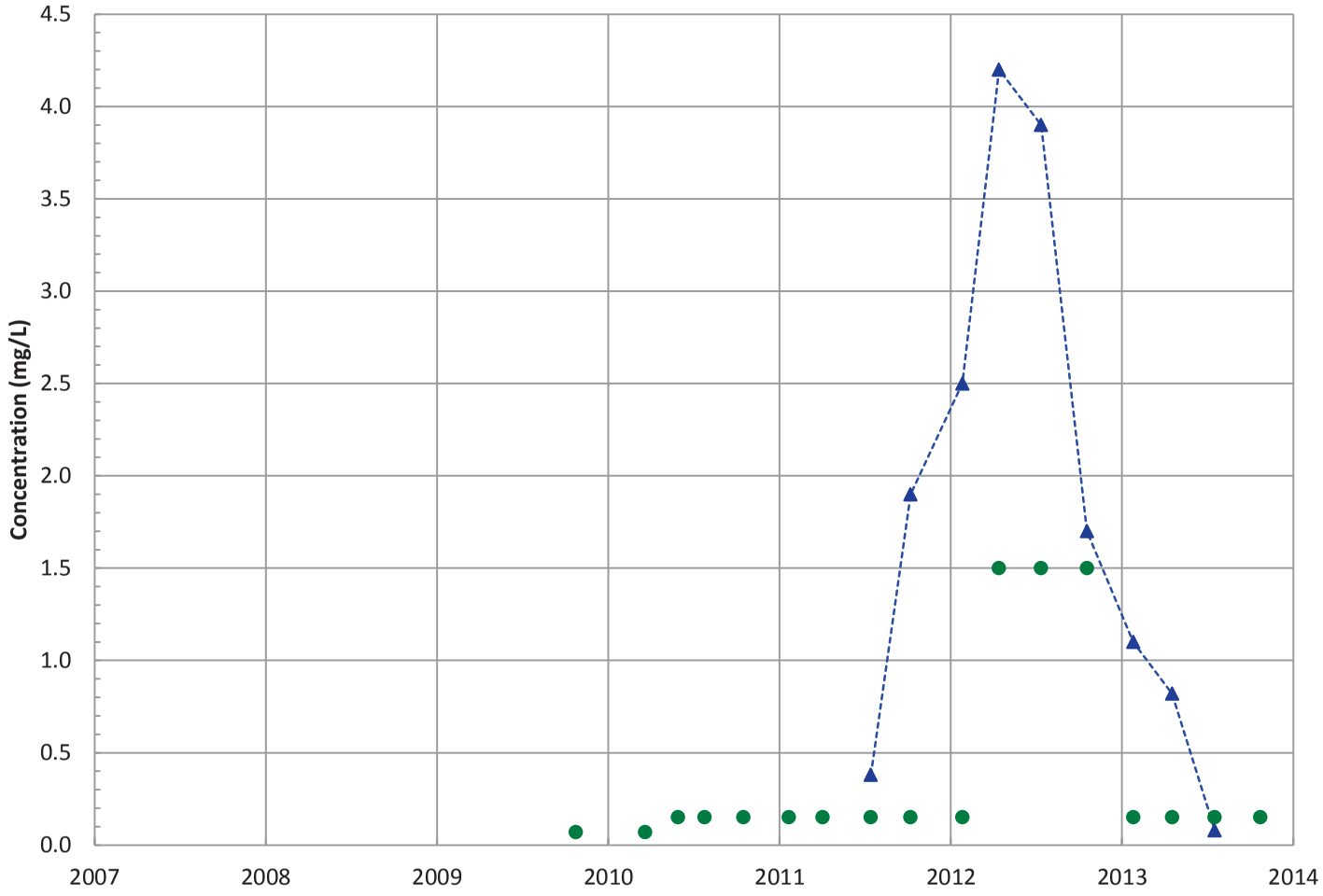
Well Location



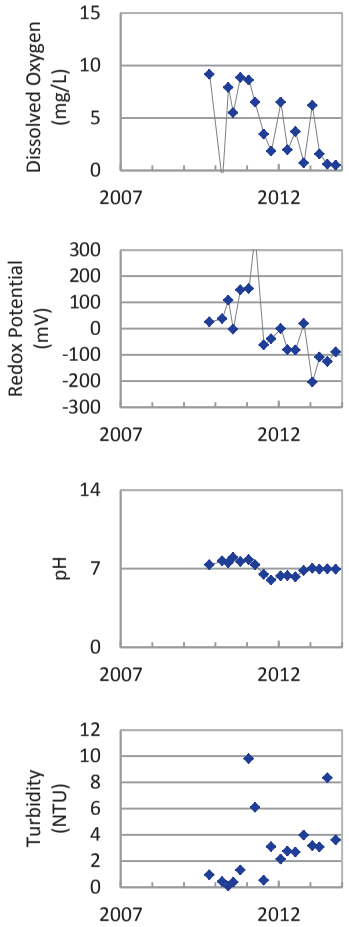
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1156
i-Pentanoic Acid Trend in Perched Aquifer



Field Parameters



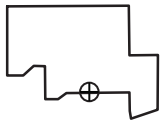
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: Probably Decreasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Injection Dates

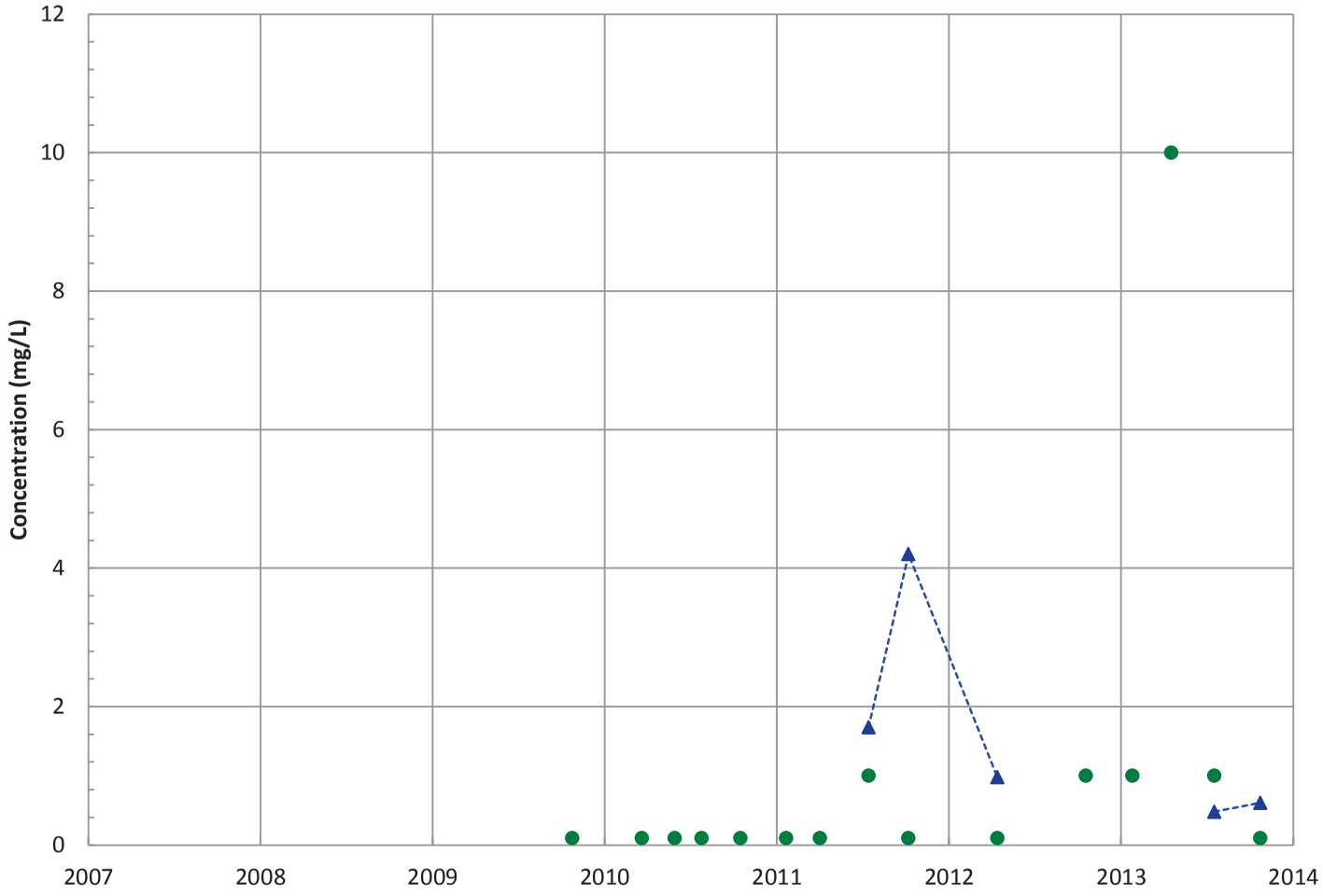
Well Location



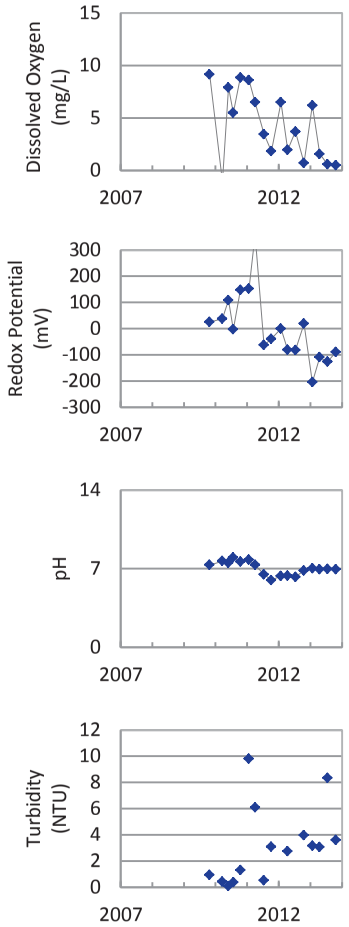
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1156
Lactic Acid and HIBA Trend in Perched Aquifer



Field Parameters



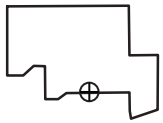
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Injection Dates

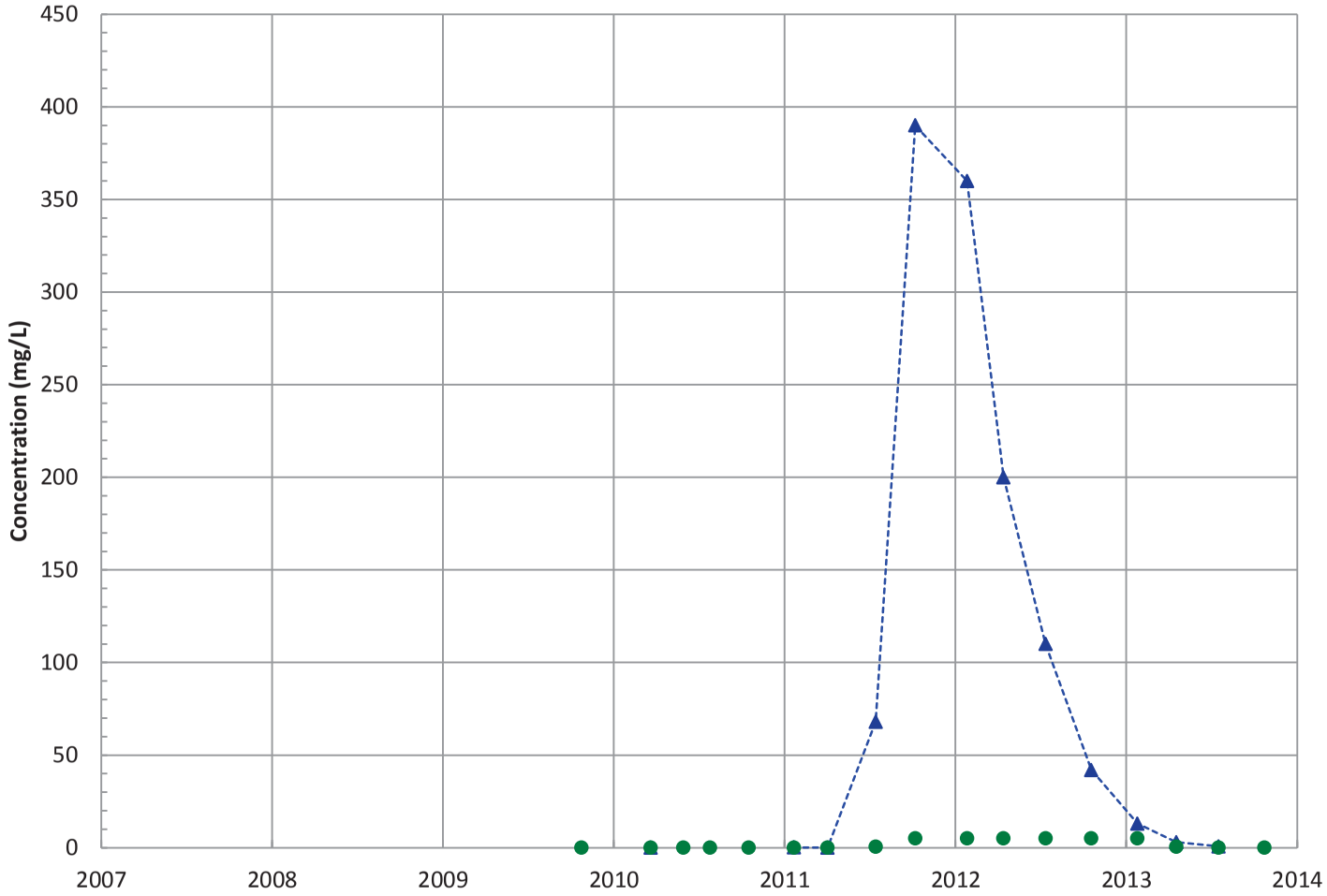
Well Location



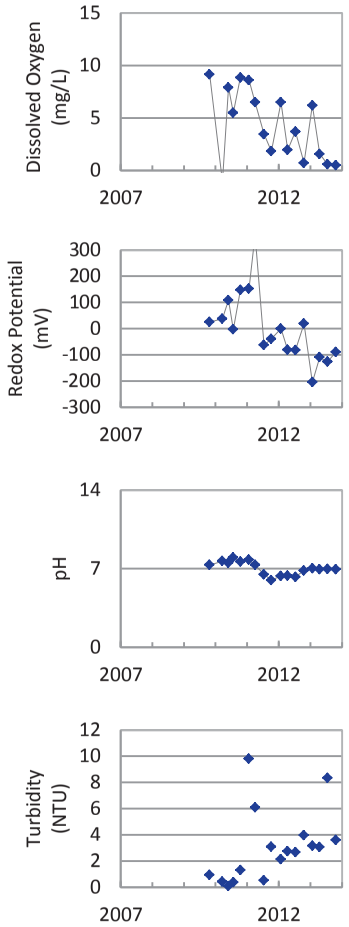
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1156
Propionic Acid Trend in Perched Aquifer



Field Parameters



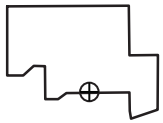
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Decreasing

▲ Measured Value
● Sample Detection Limit
Concentration Trend
Injection Dates

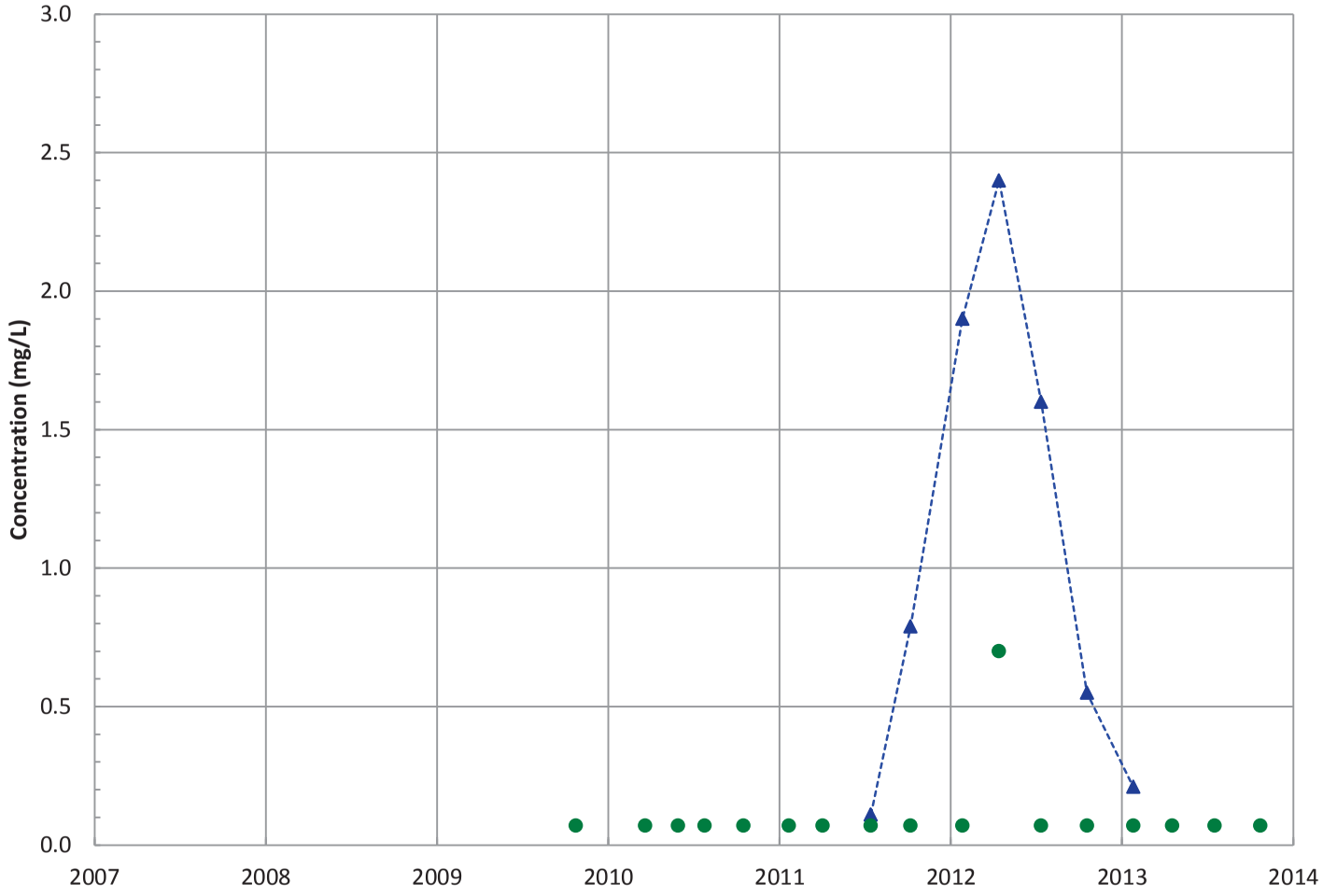
Well Location

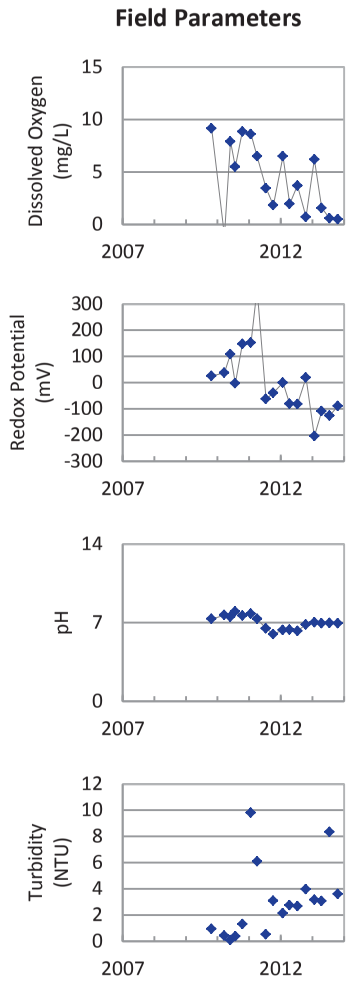


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1156
Pentanoic Acid Trend in Perched Aquifer





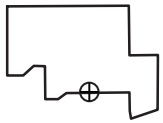
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Decreasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Injection Dates

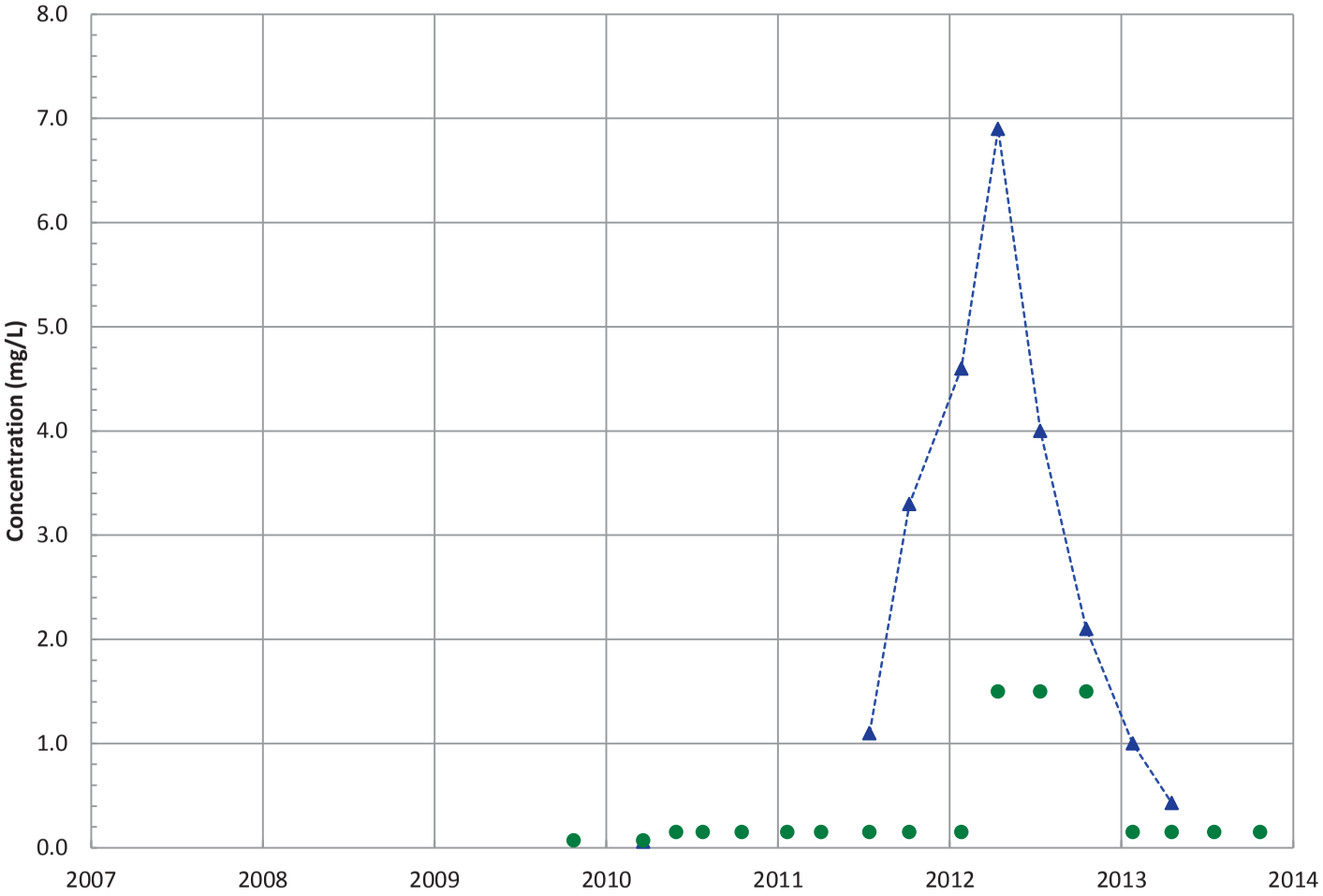
Well Location



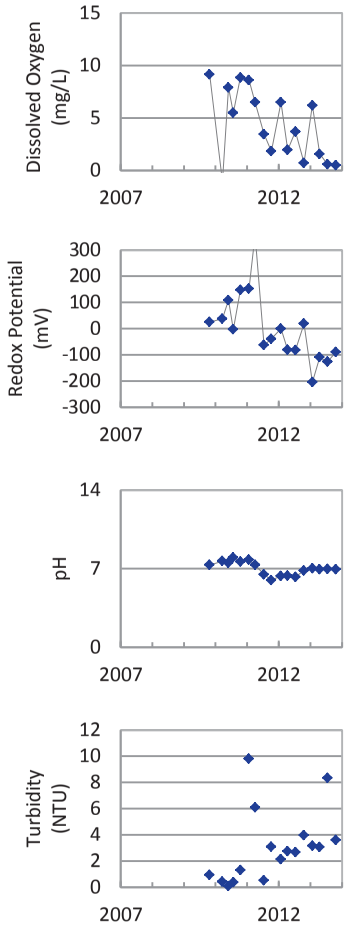
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1156
Pyruvic Acid Trend in Perched Aquifer



Field Parameters



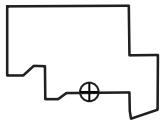
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Probably Decreasing

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

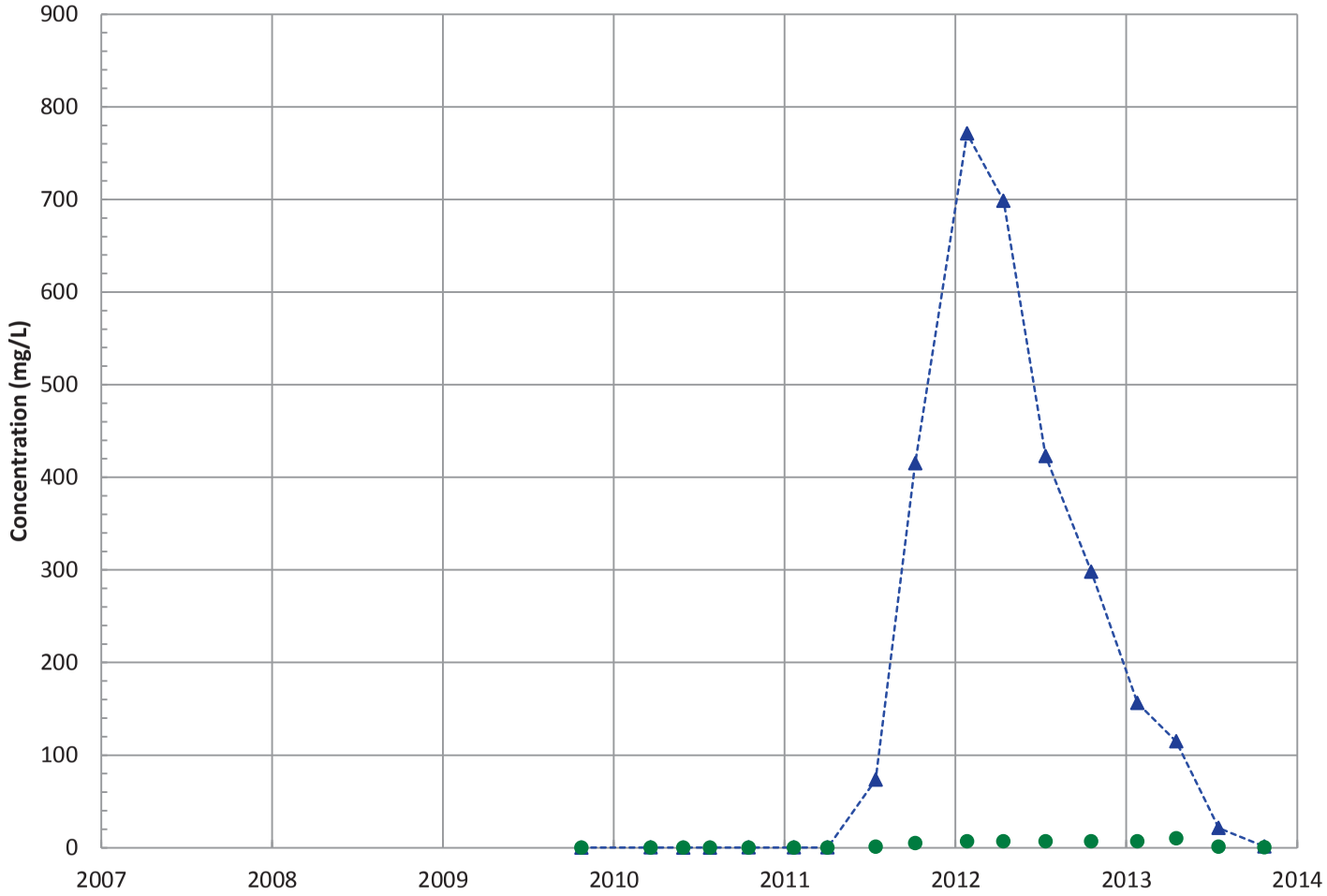
Well Location



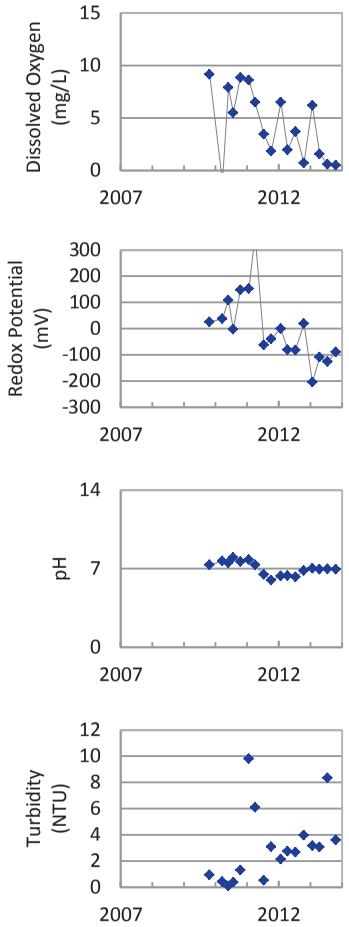
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1156
Total Volatile Fatty Acids Trend in Perched Aquifer



Field Parameters



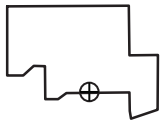
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Probably Decreasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Injection Dates

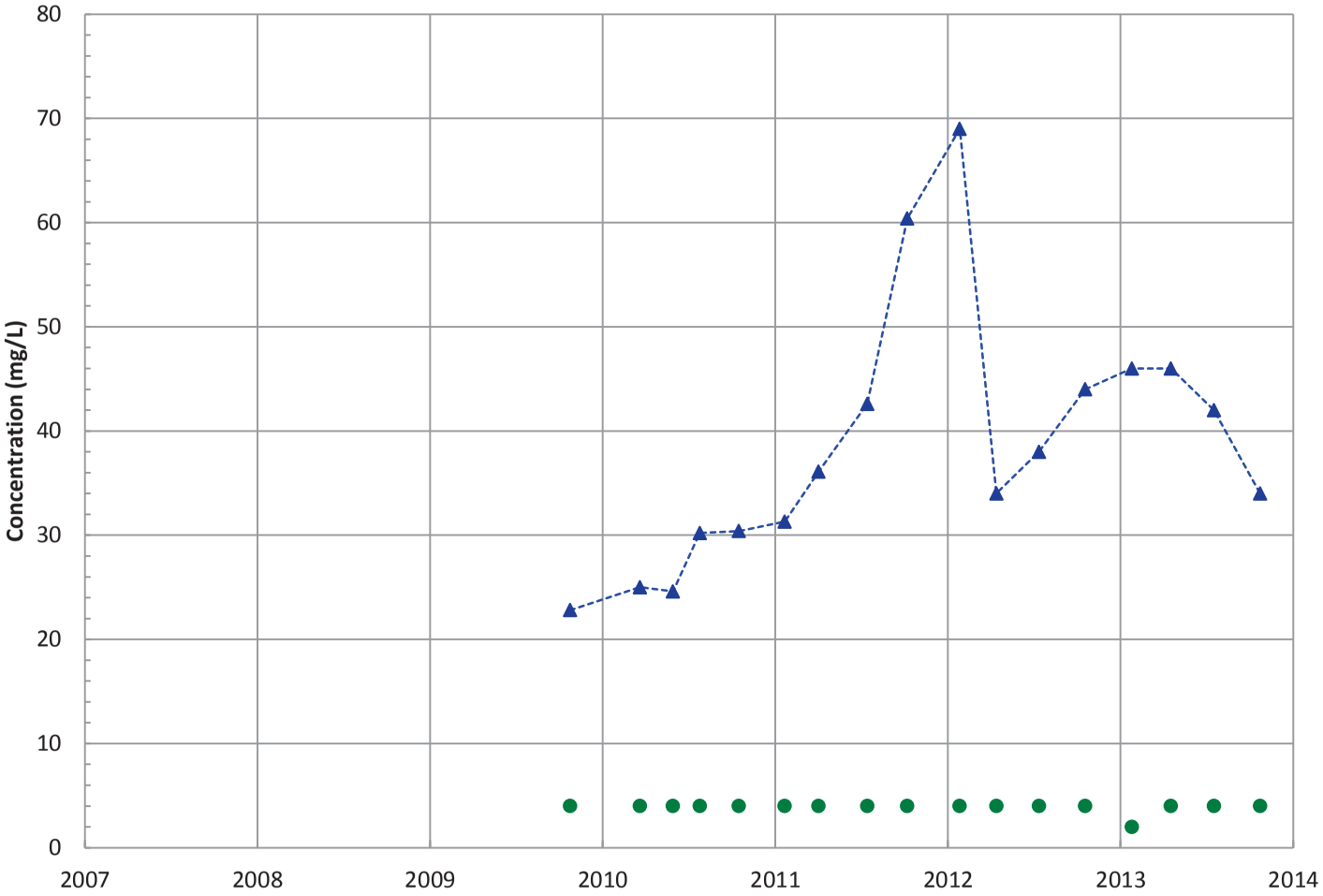
Well Location



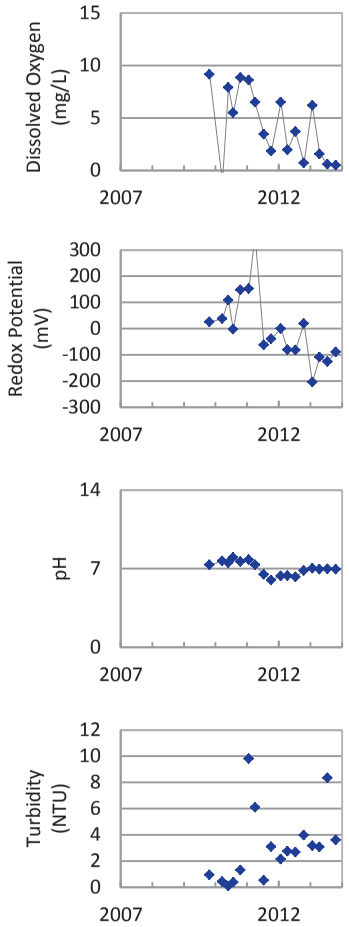
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1156
Chloride (as Cl) Trend in Perched Aquifer



Field Parameters



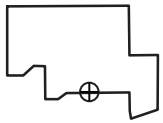
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Stable

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

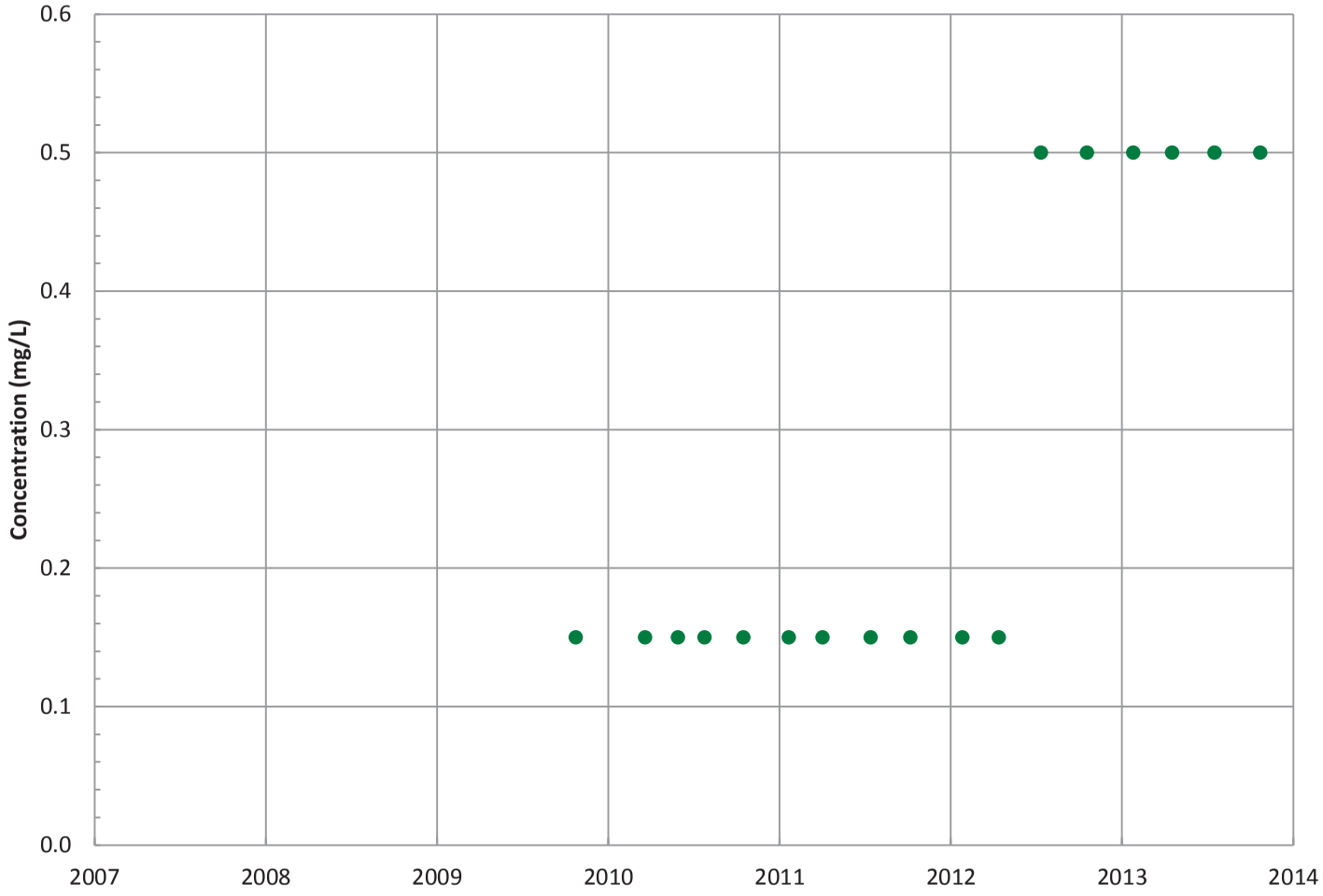
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1156
Chlorate Trend in Perched Aquifer



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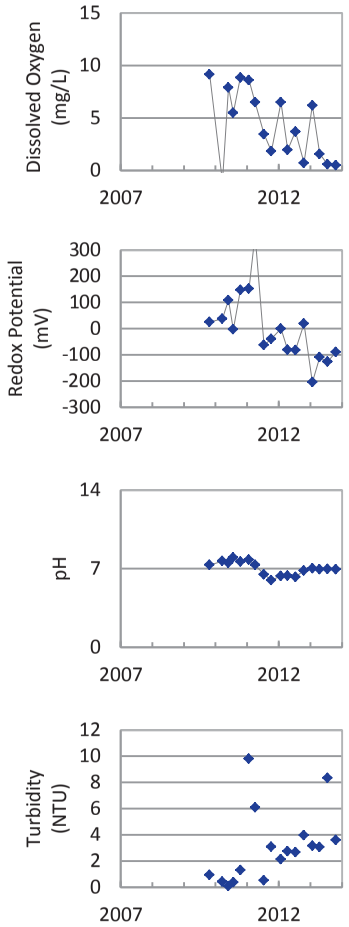


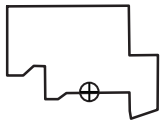
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Injection Dates

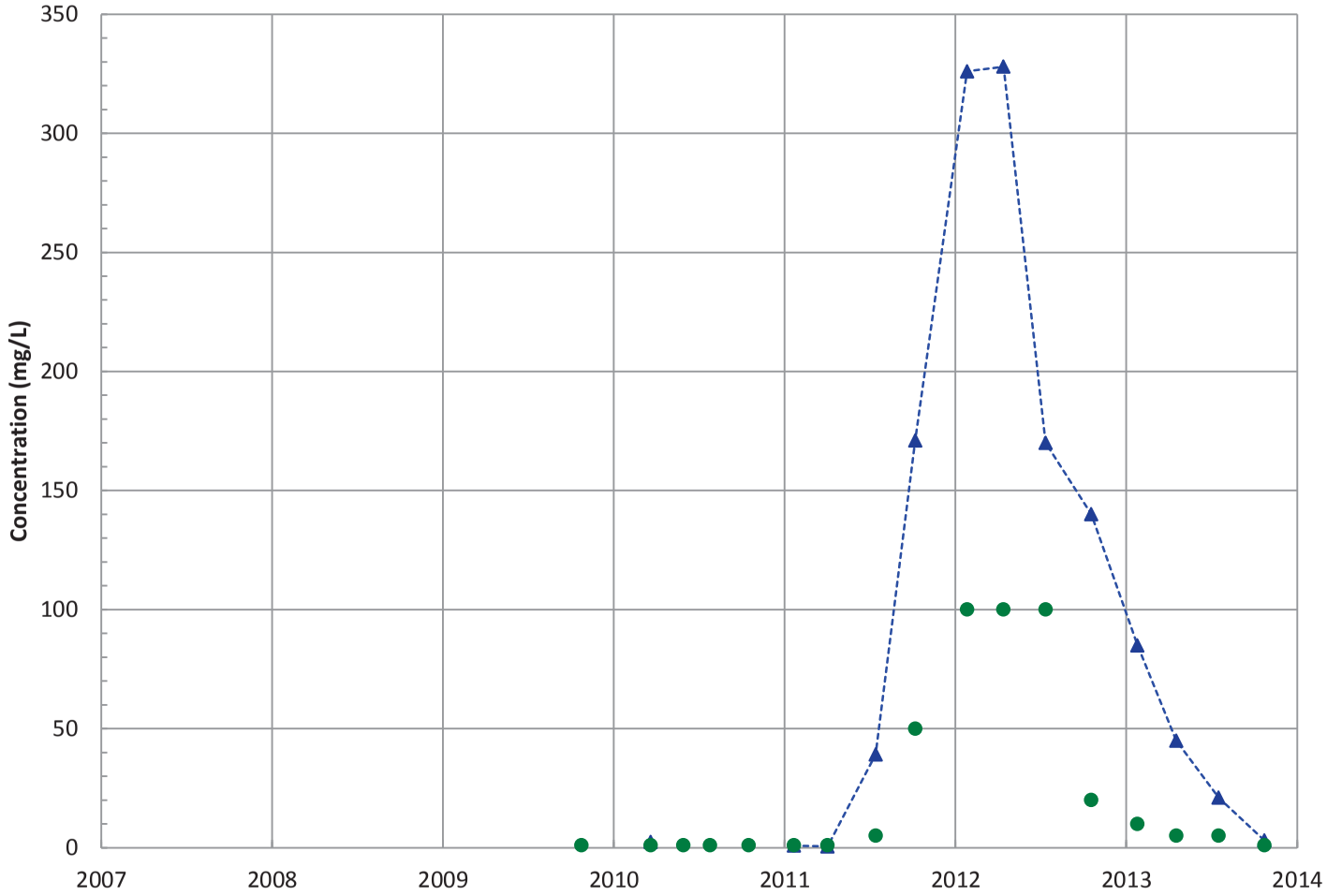
Well Location



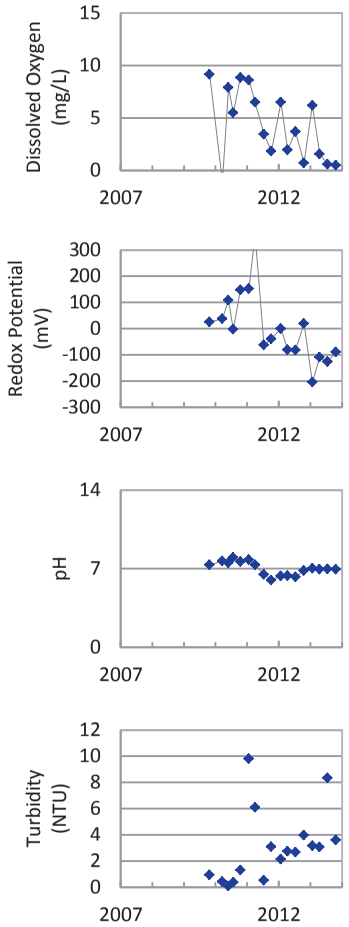
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1156
Total Organic Carbon Trend in Perched Aquifer



Field Parameters



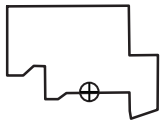
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Probably Decreasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Injection Dates

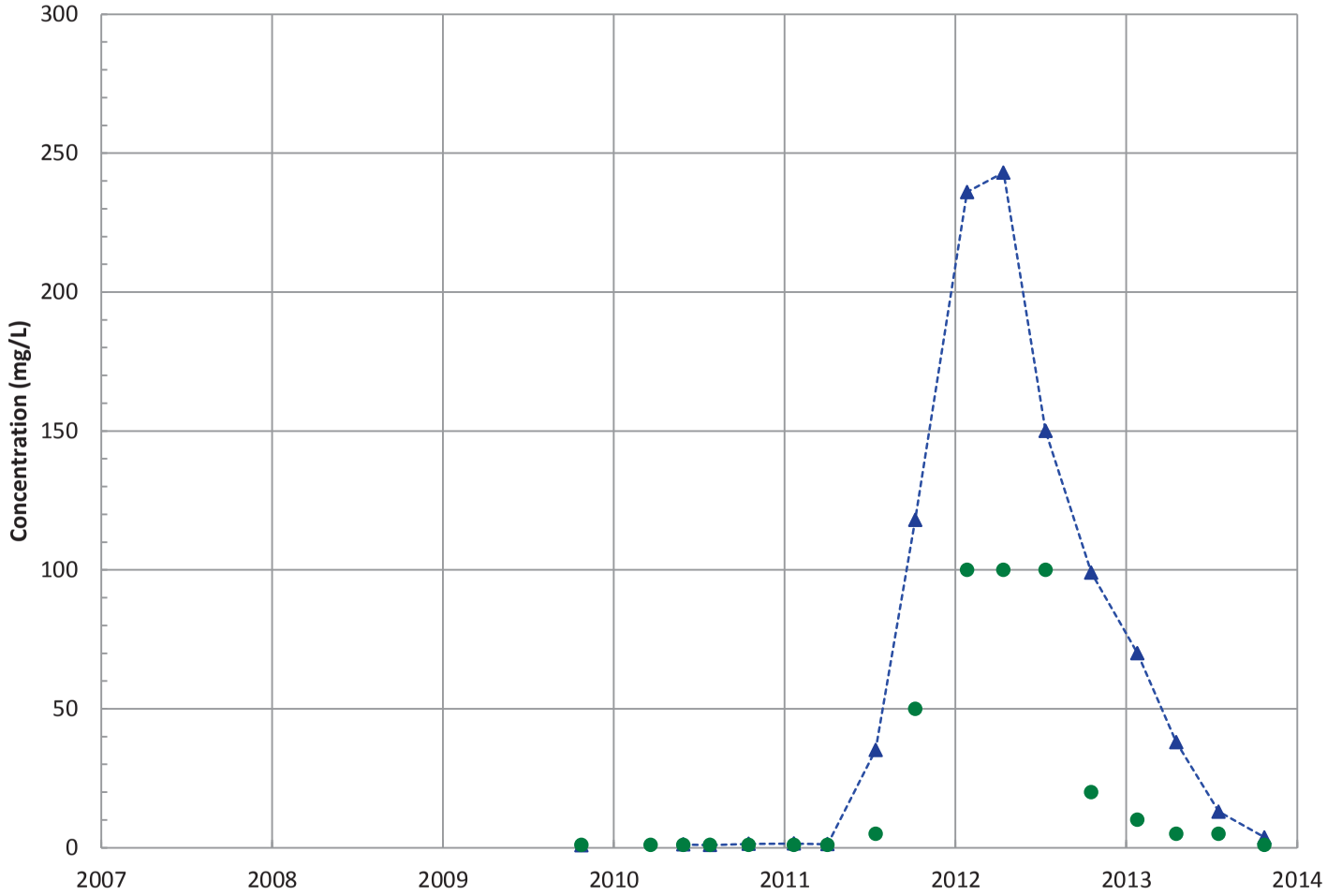
Well Location



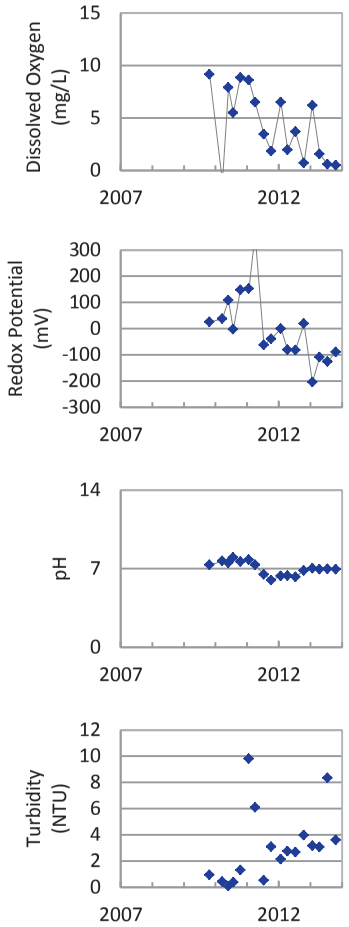
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1156
Dissolved Organic Carbon (DOC) Trend in Perched Aquifer



Field Parameters



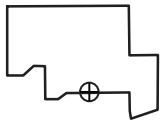
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Decreasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Injection Dates

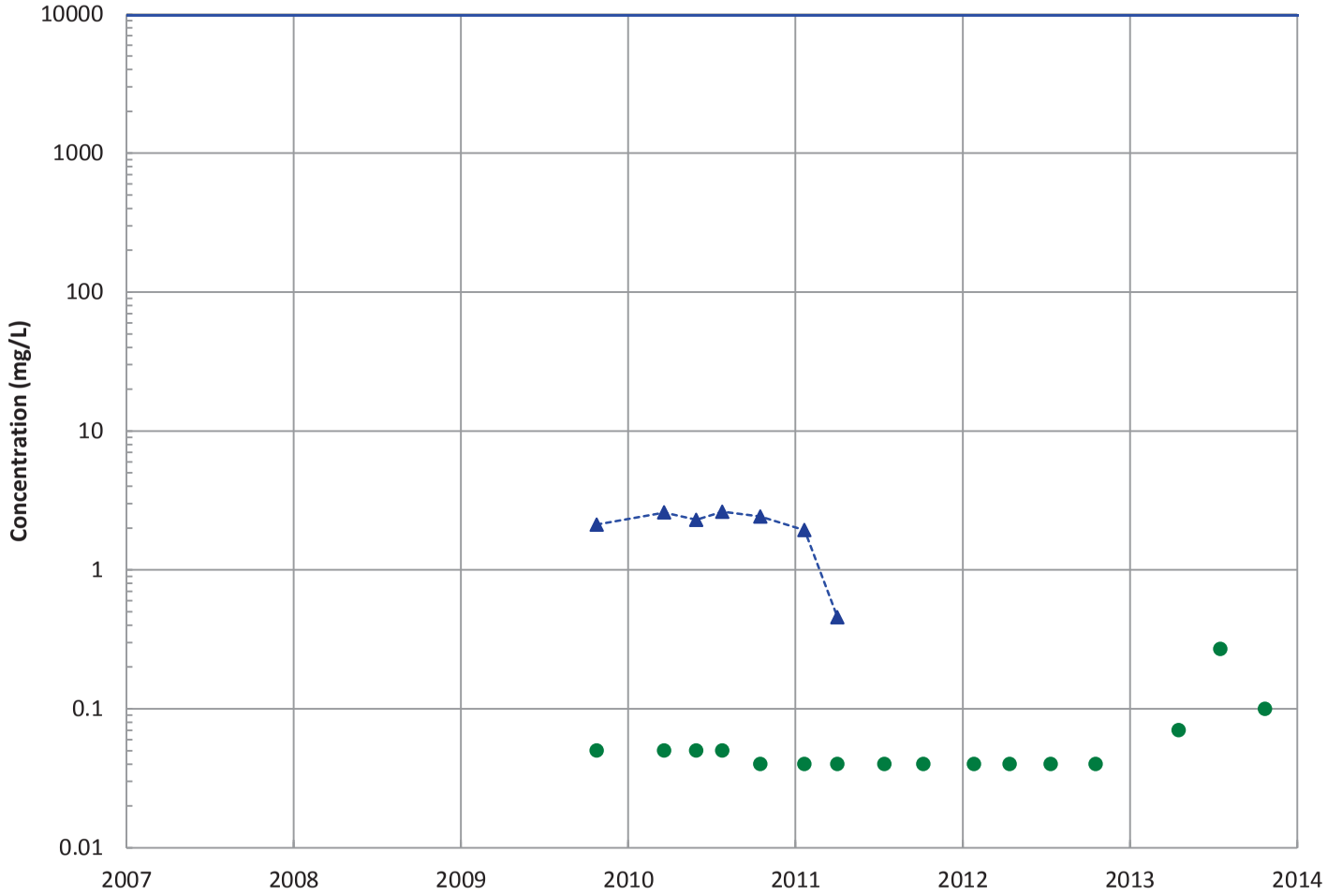
Well Location



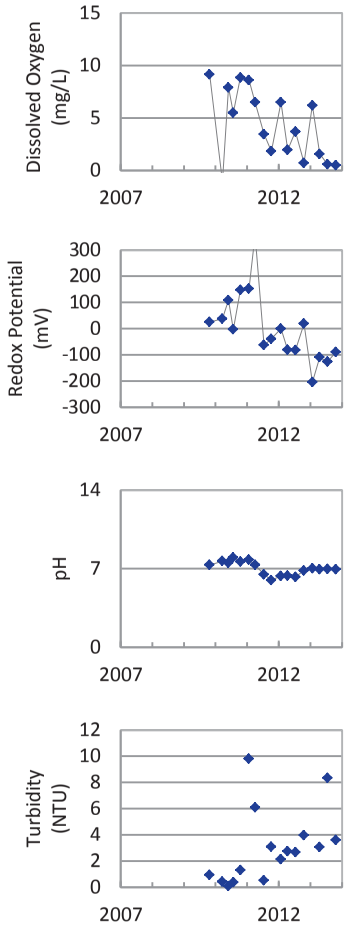
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1156
Nitrate as N Trend in Perched Aquifer



Field Parameters



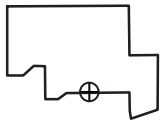
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: Probably Decreasing
Last 4 Samples: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

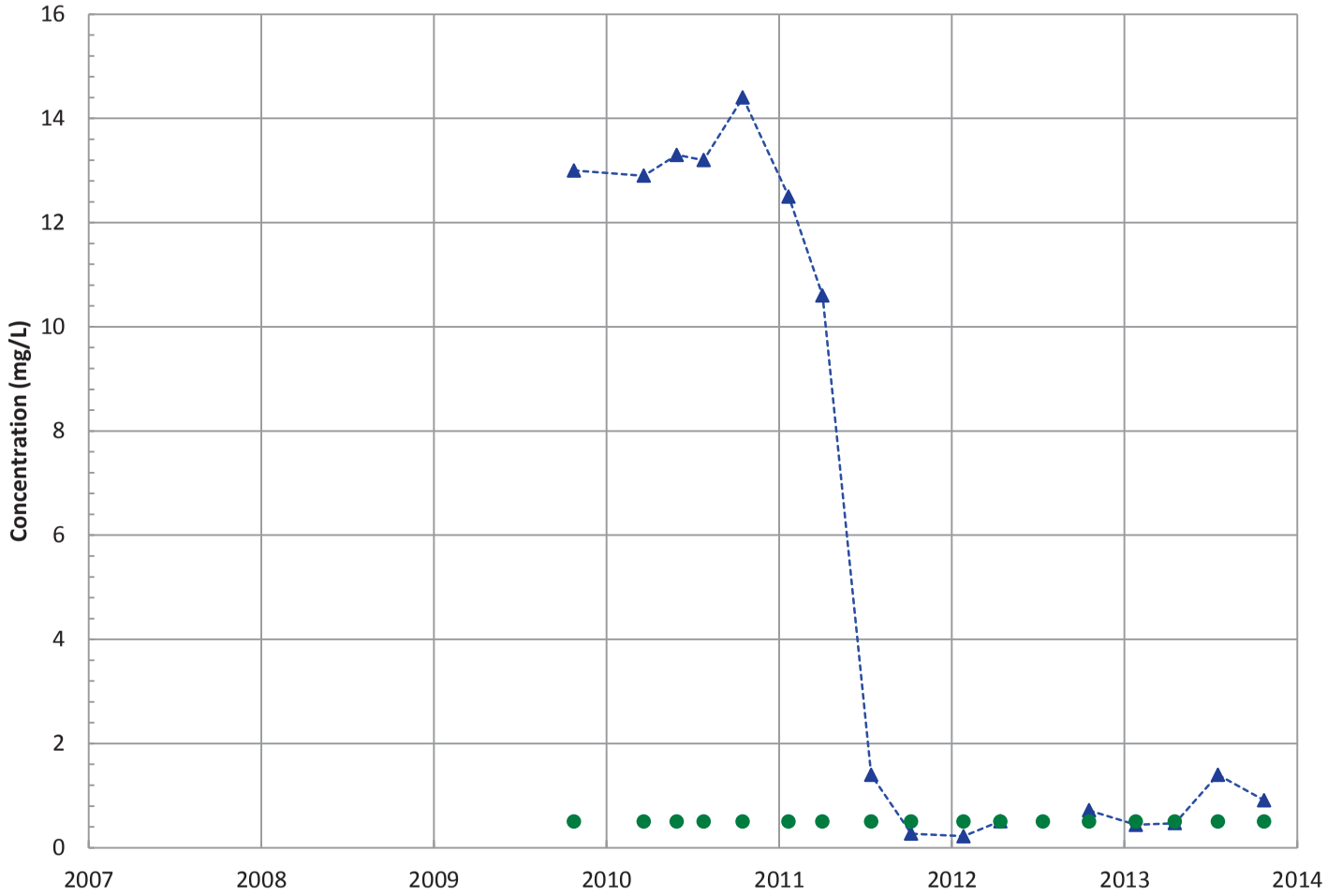
Well Location



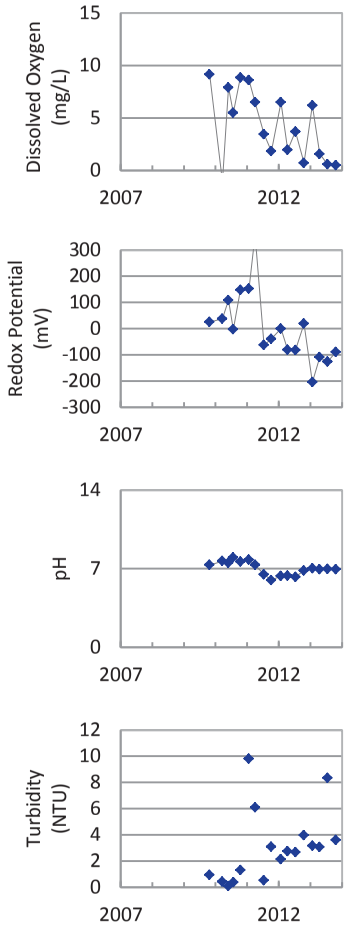
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX06-1156
Sulfate (as SO4) Trend in Perched Aquifer



Field Parameters



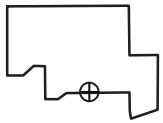
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

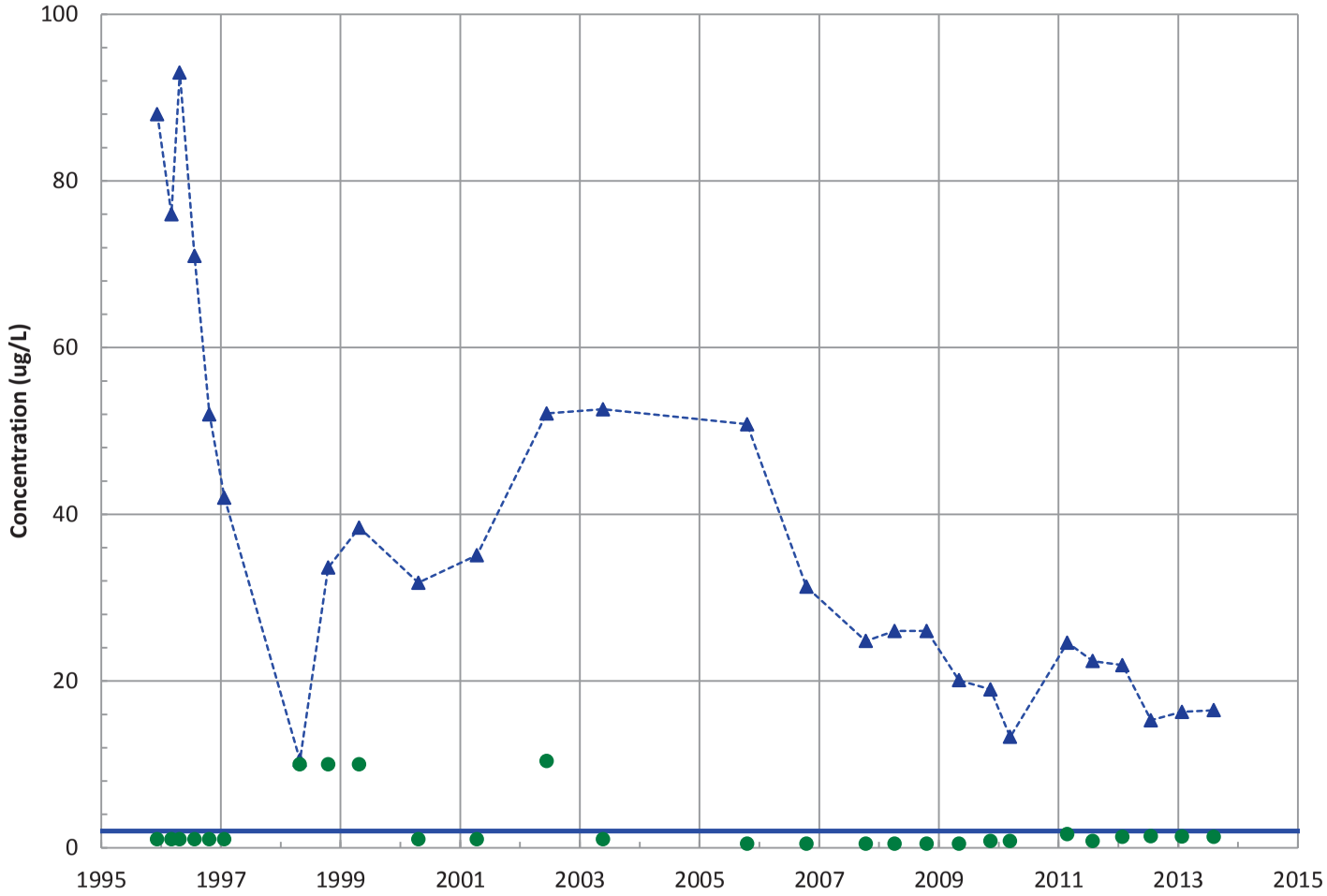
Well Location



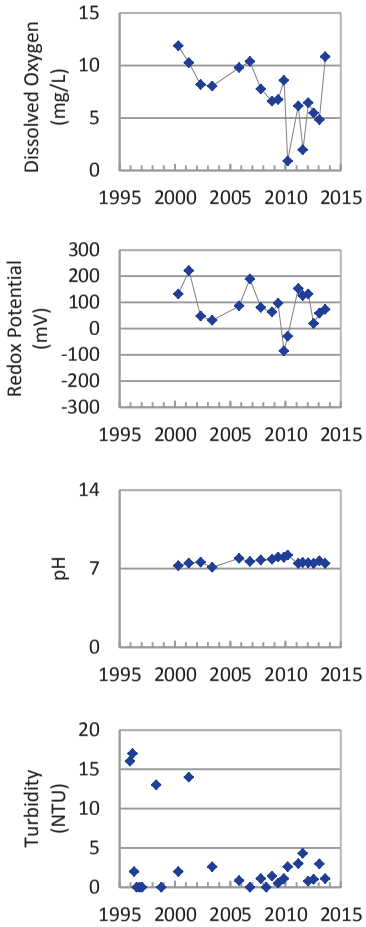
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/26/2009 to 10/28/2013
Analysis Date: 3/3/2014

B&W Pantex

PTX07-1O01
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



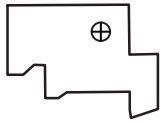
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

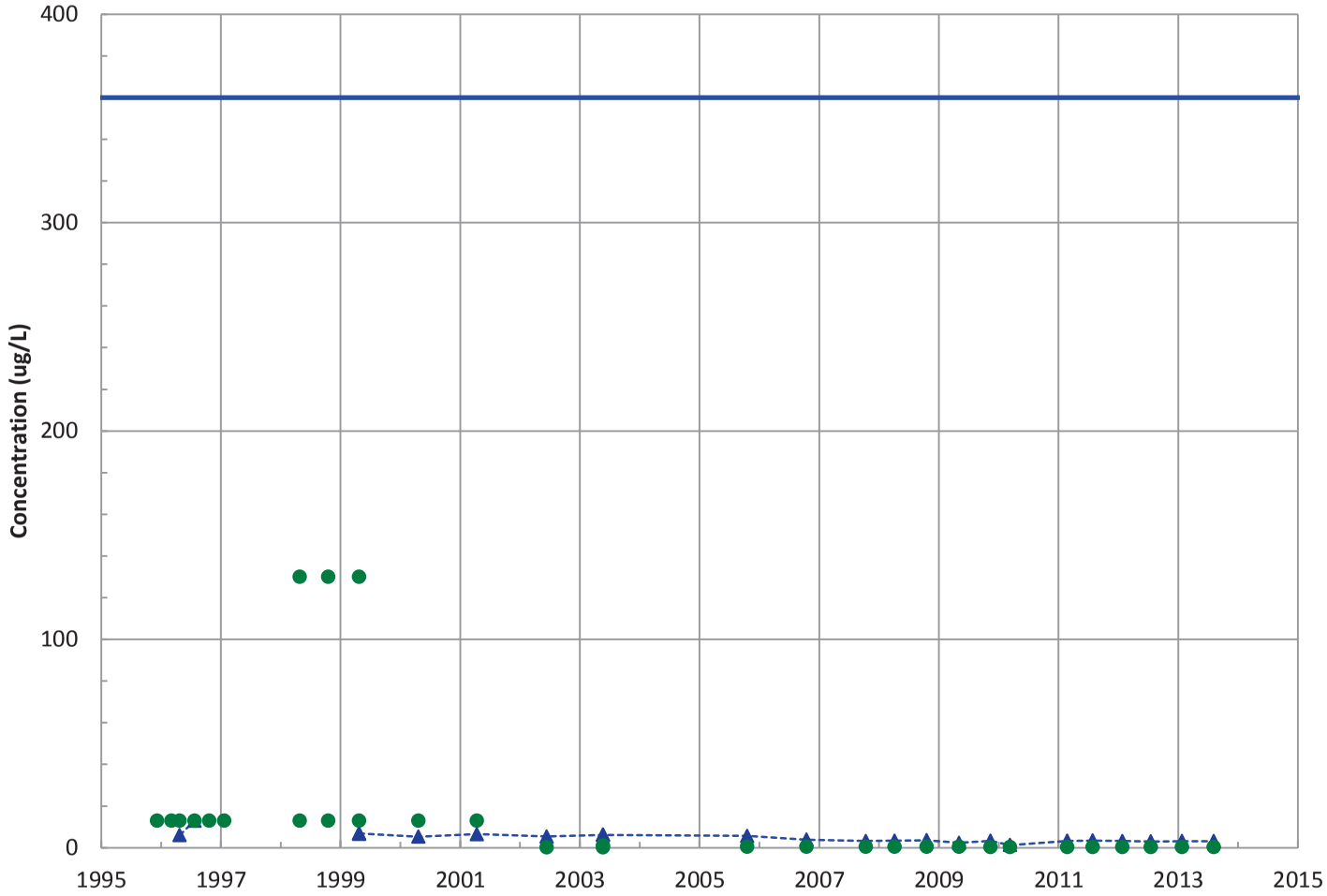
Well Location



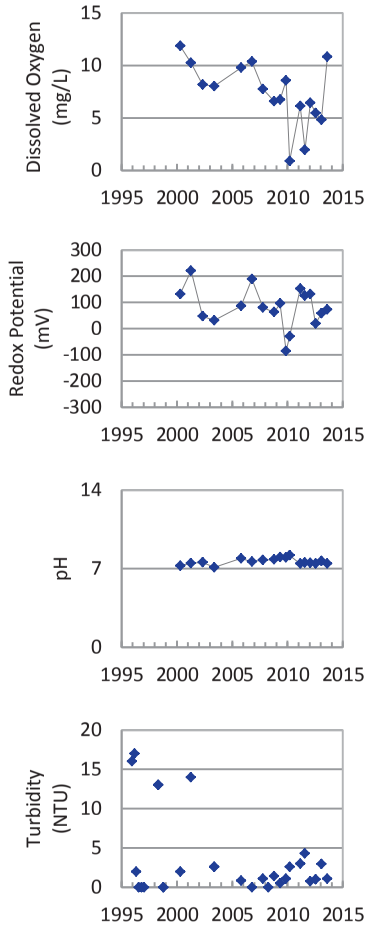
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/10/1995 to 8/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1O01
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



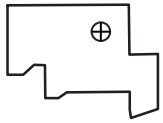
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

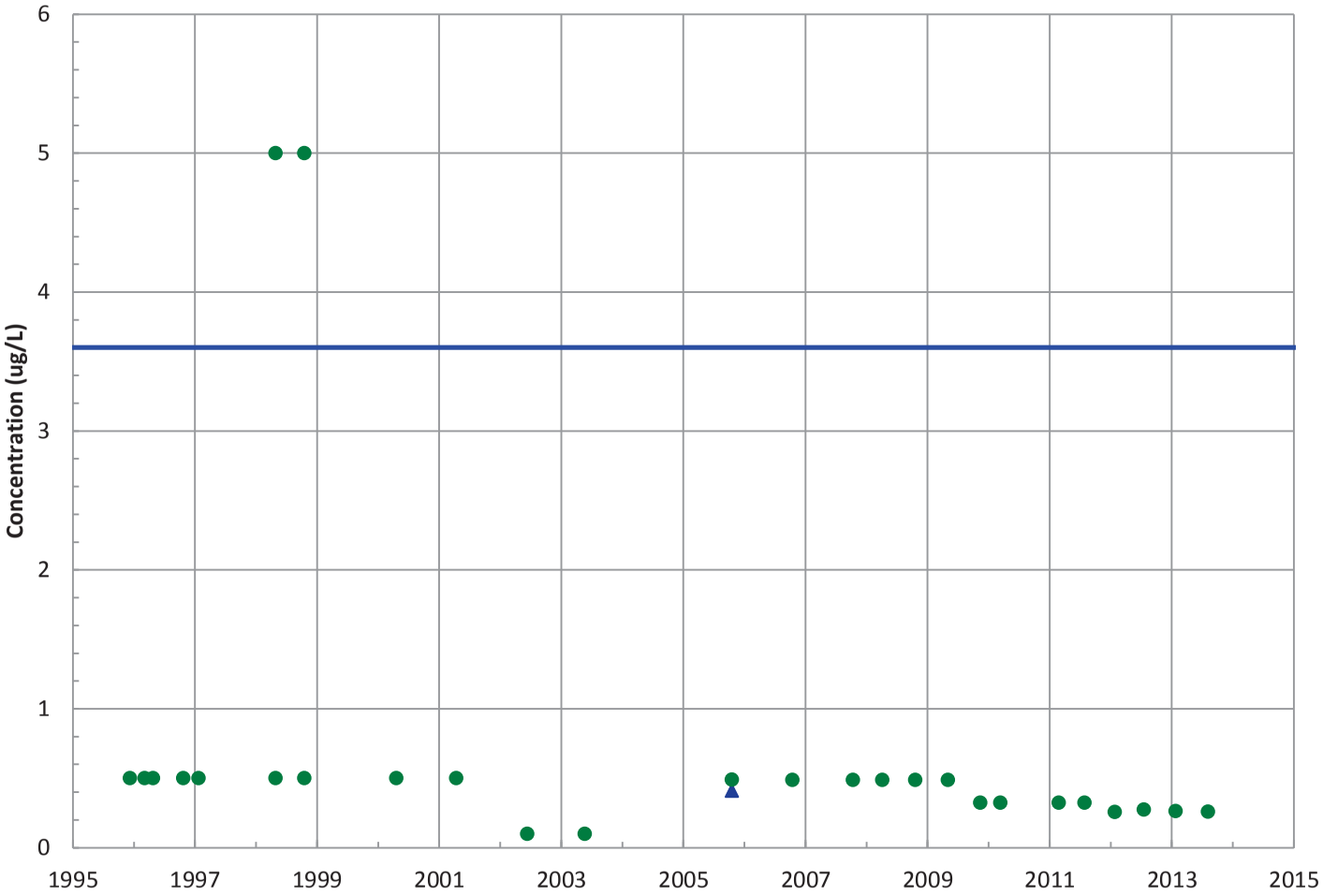
Well Location



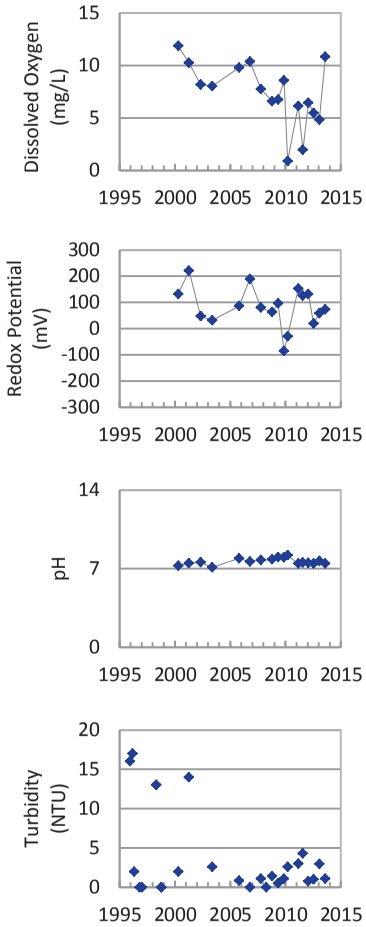
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/10/1995 to 8/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1O01
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



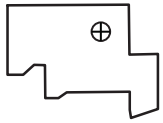
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

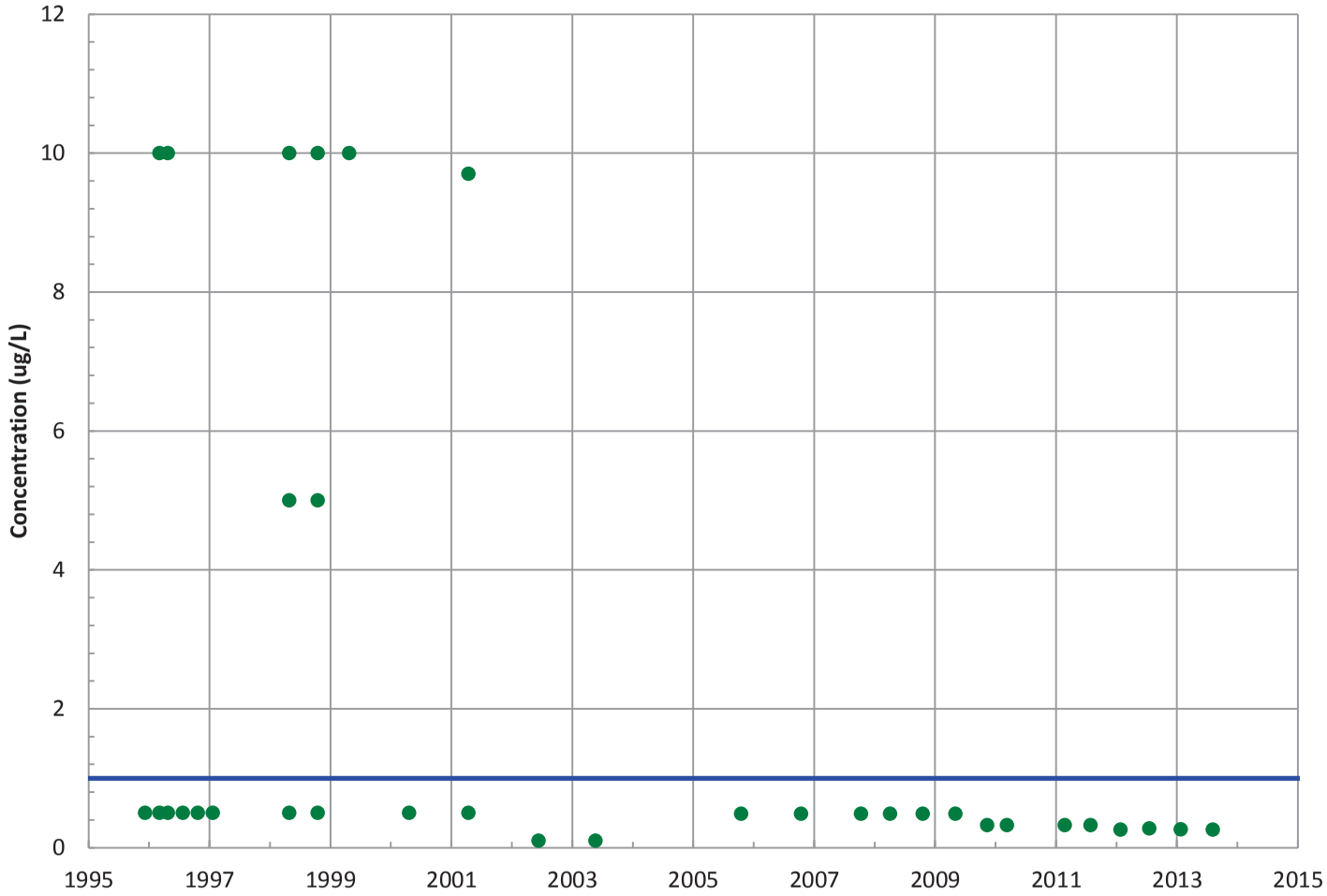
Well Location



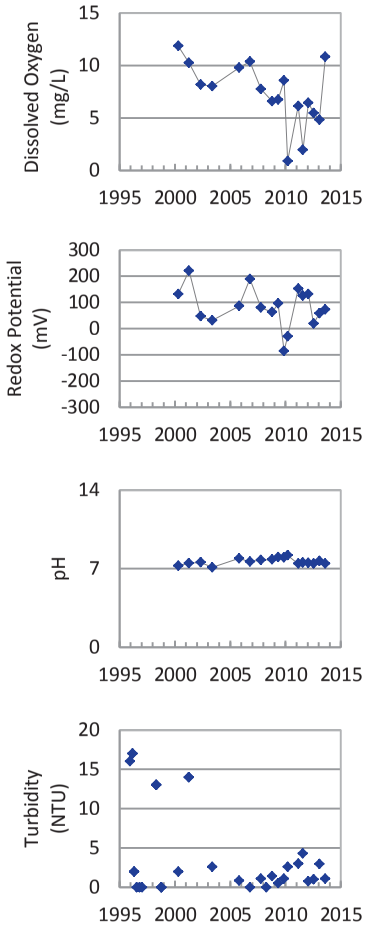
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/10/1995 to 8/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1O01
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



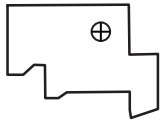
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

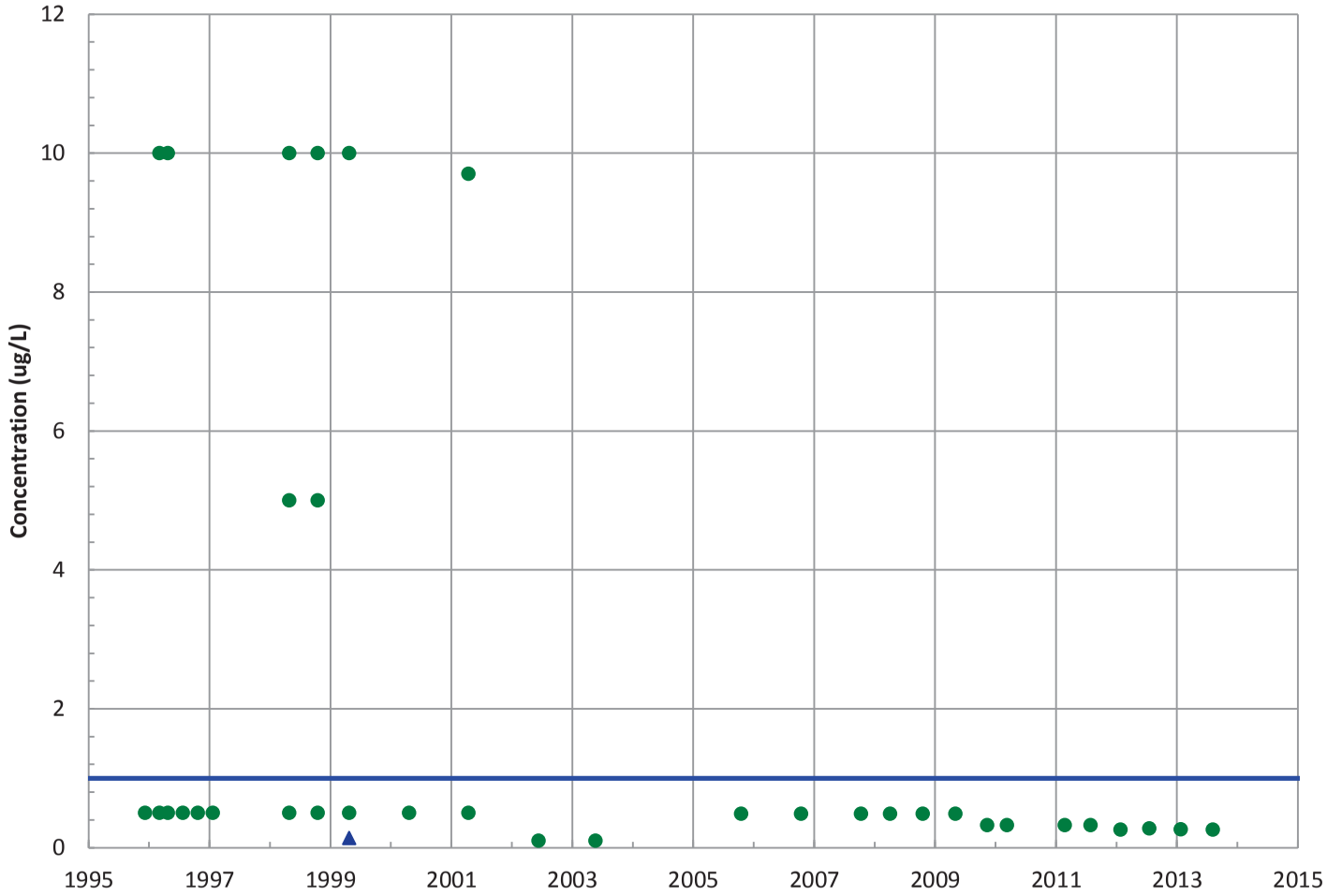
Well Location



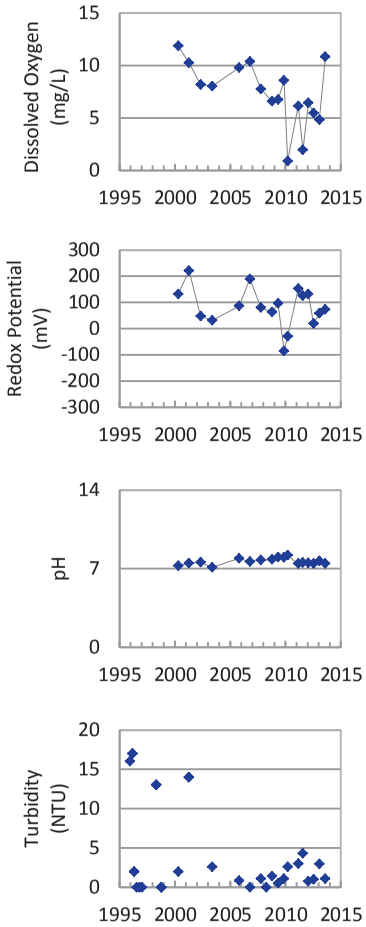
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/10/1995 to 8/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1O01
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



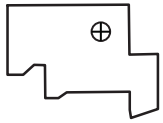
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

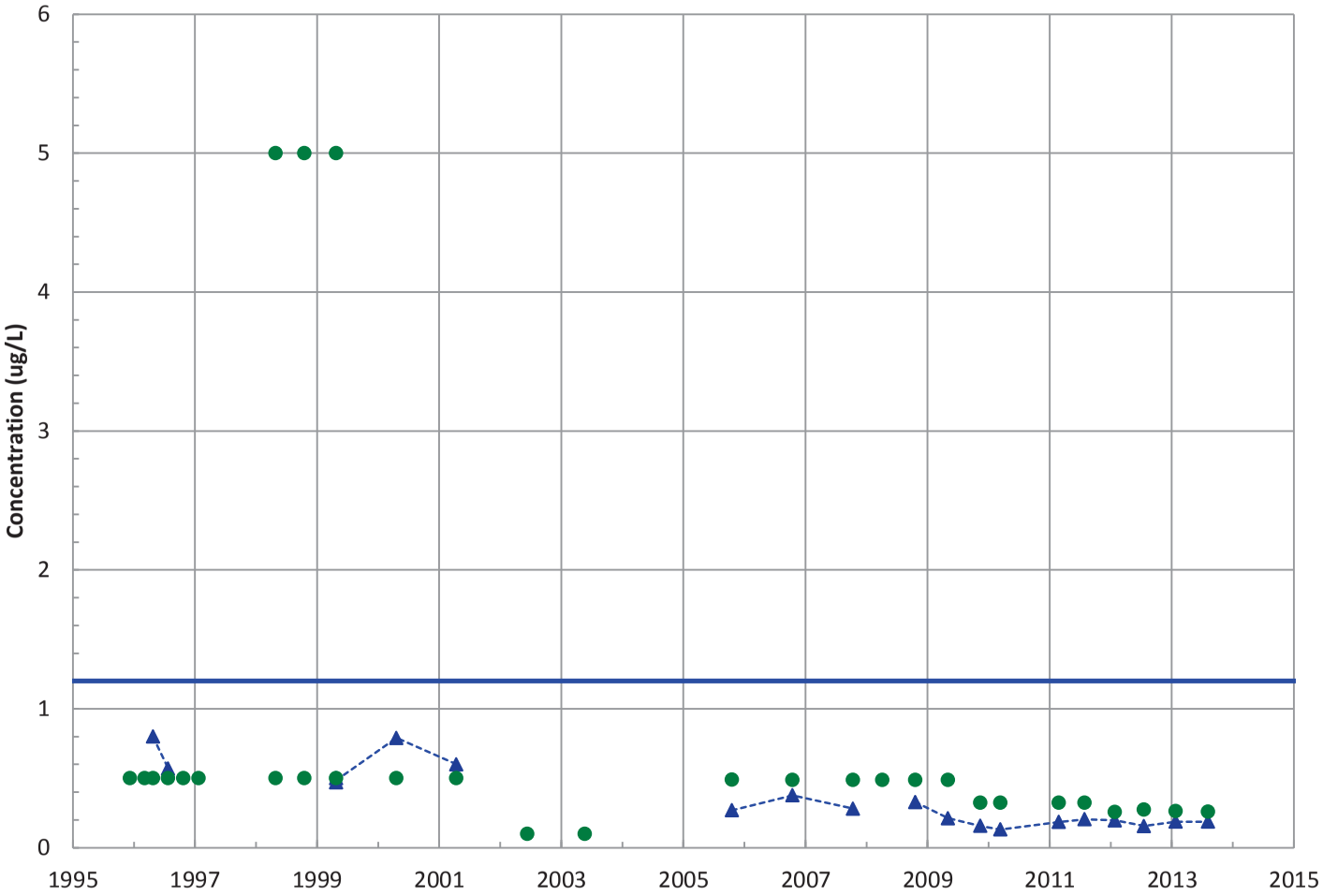
Well Location



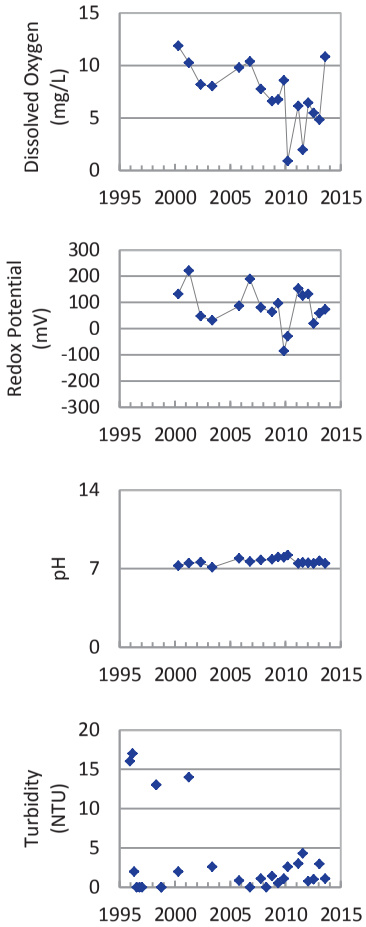
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/10/1995 to 8/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1O01
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



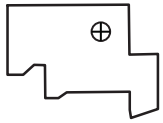
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Probably Increasing
2011 - 2013 Data: No Trend

Measured Value
Sample Detection Limit
Concentration Trend
Groundwater Protection Standard

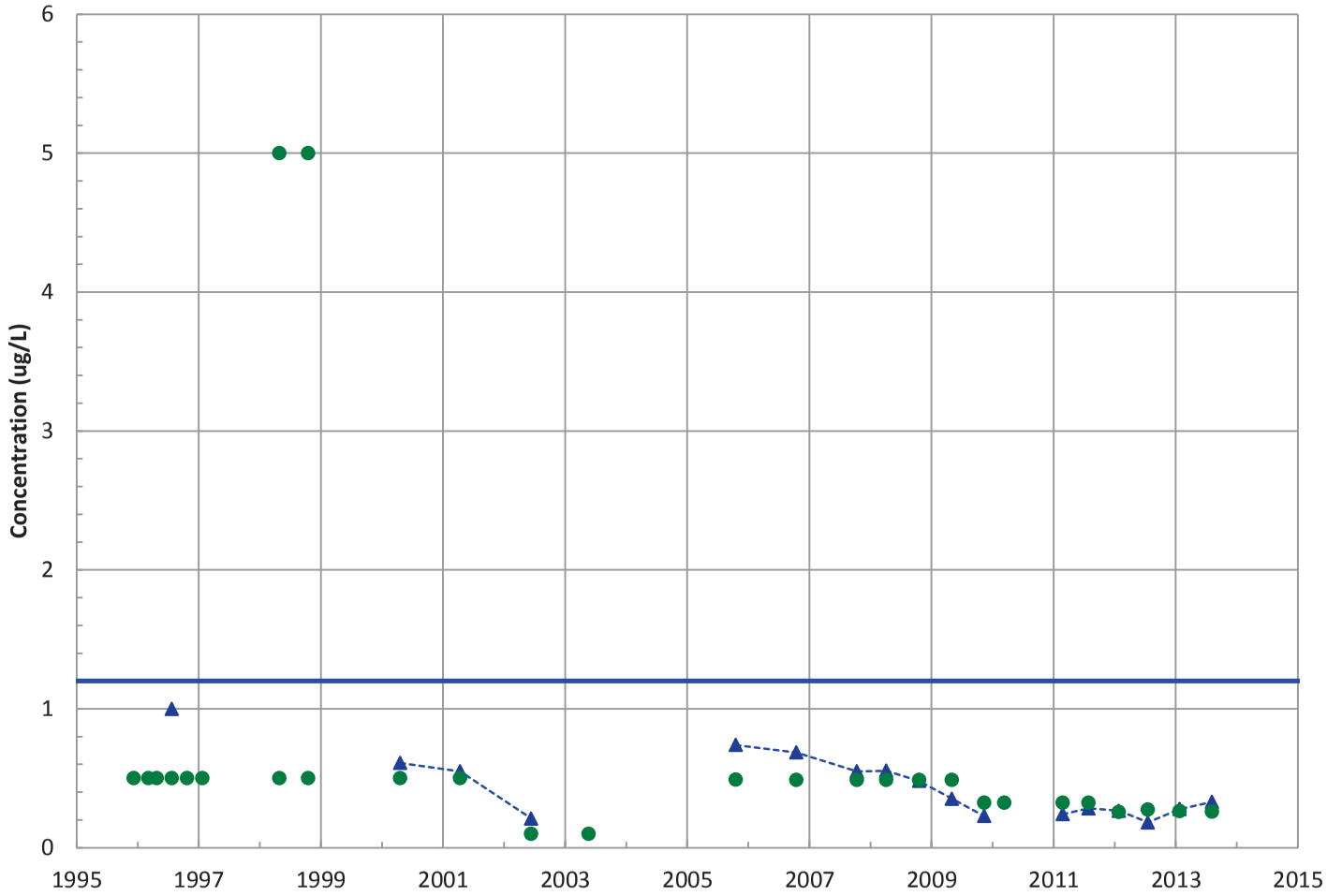
Well Location



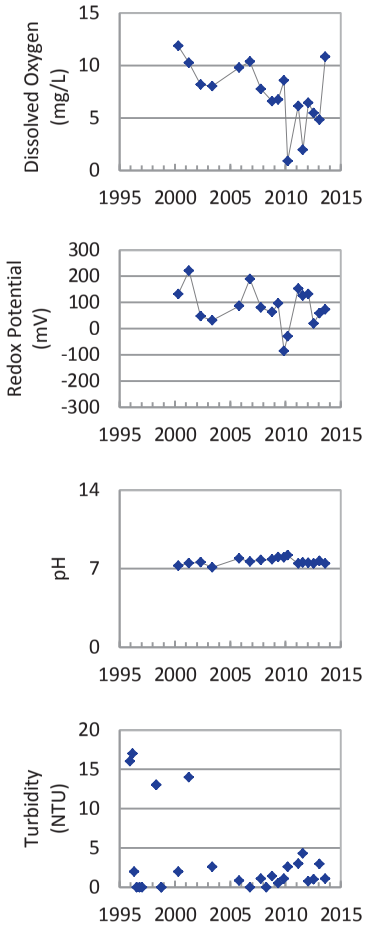
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/10/1995 to 8/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1O01
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Probably Increasing

2011 - 2013 Data: No Trend

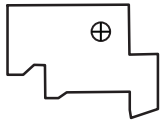
MAROS Linear Regression Method

Data (7/2009 - 12/2013): No Trend

2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location



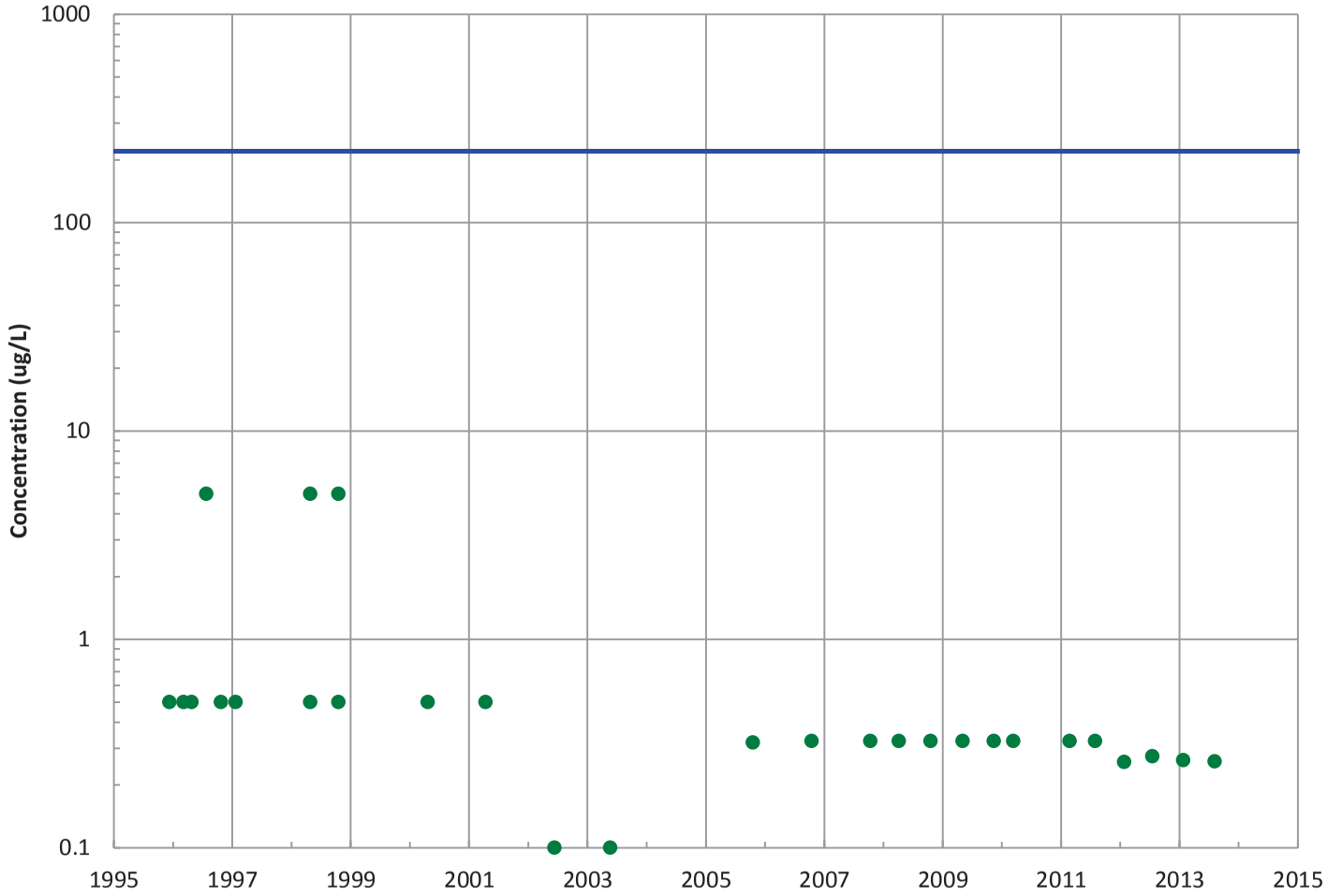
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 12/10/1995 to 8/19/2013

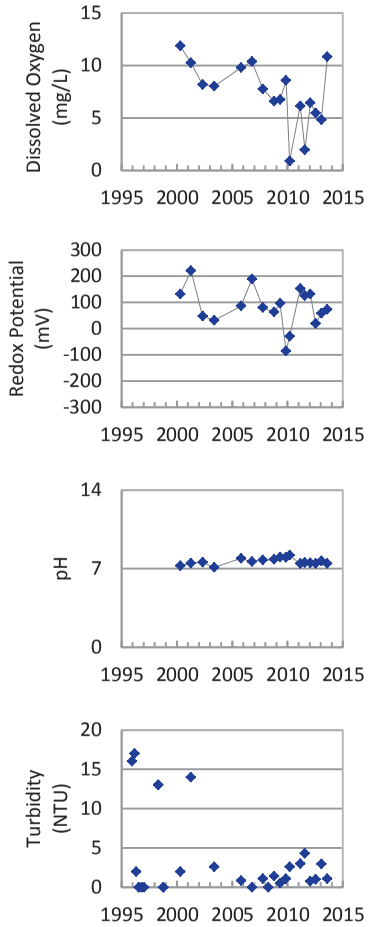
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1O01
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



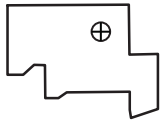
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

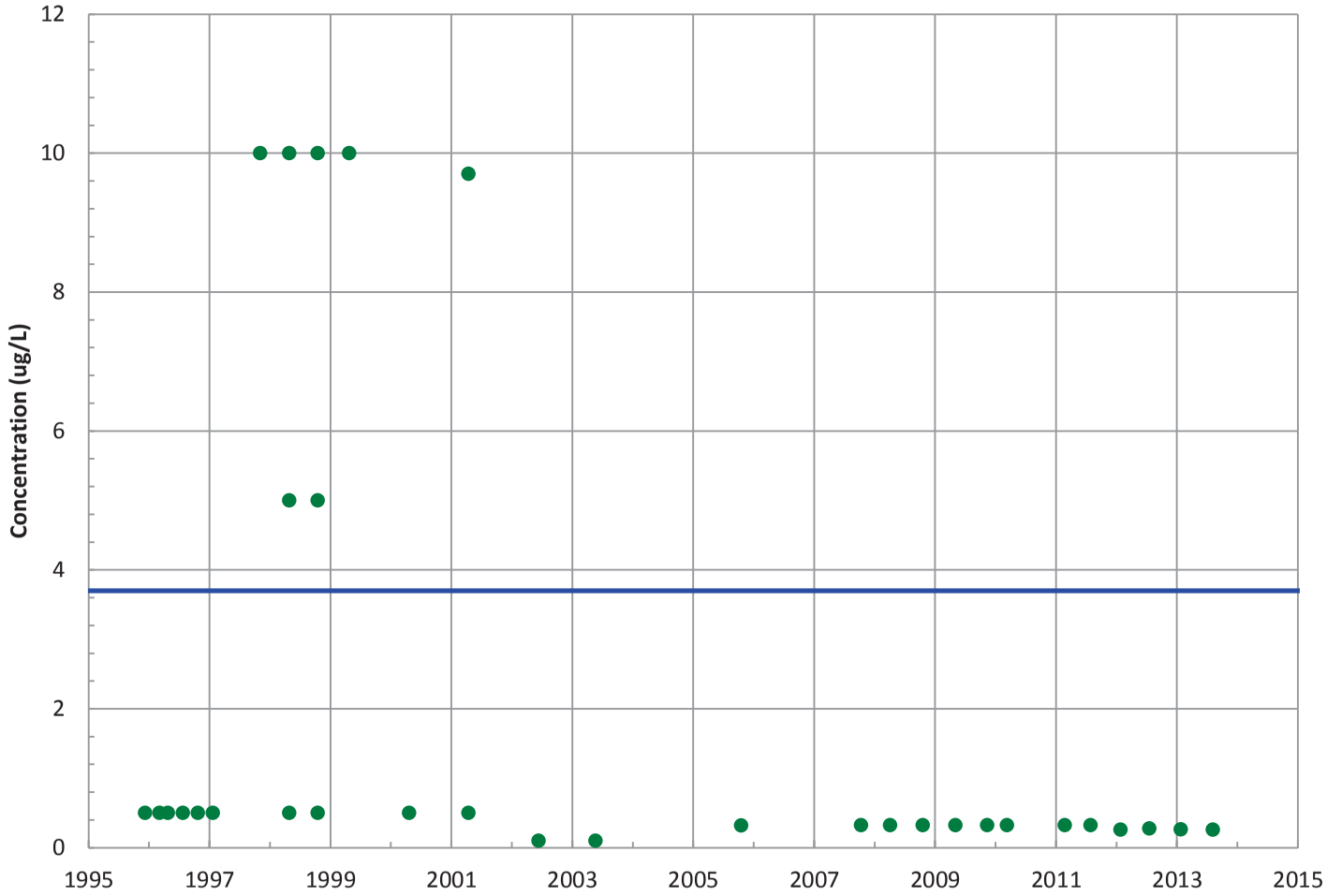
Well Location



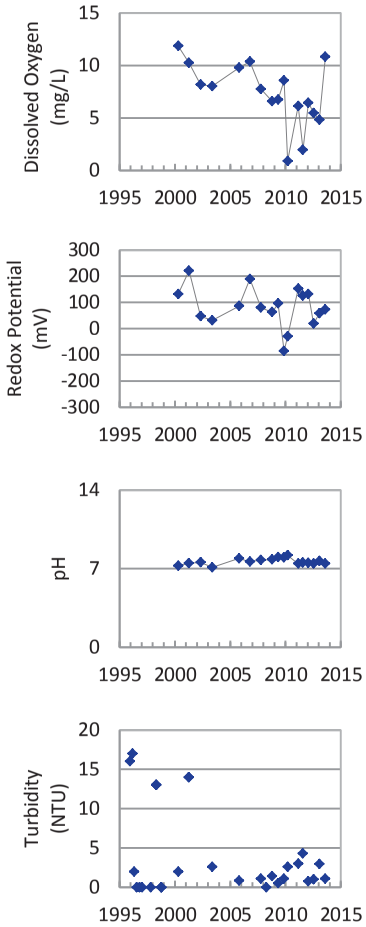
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/10/1995 to 8/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1O01
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



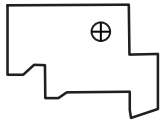
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

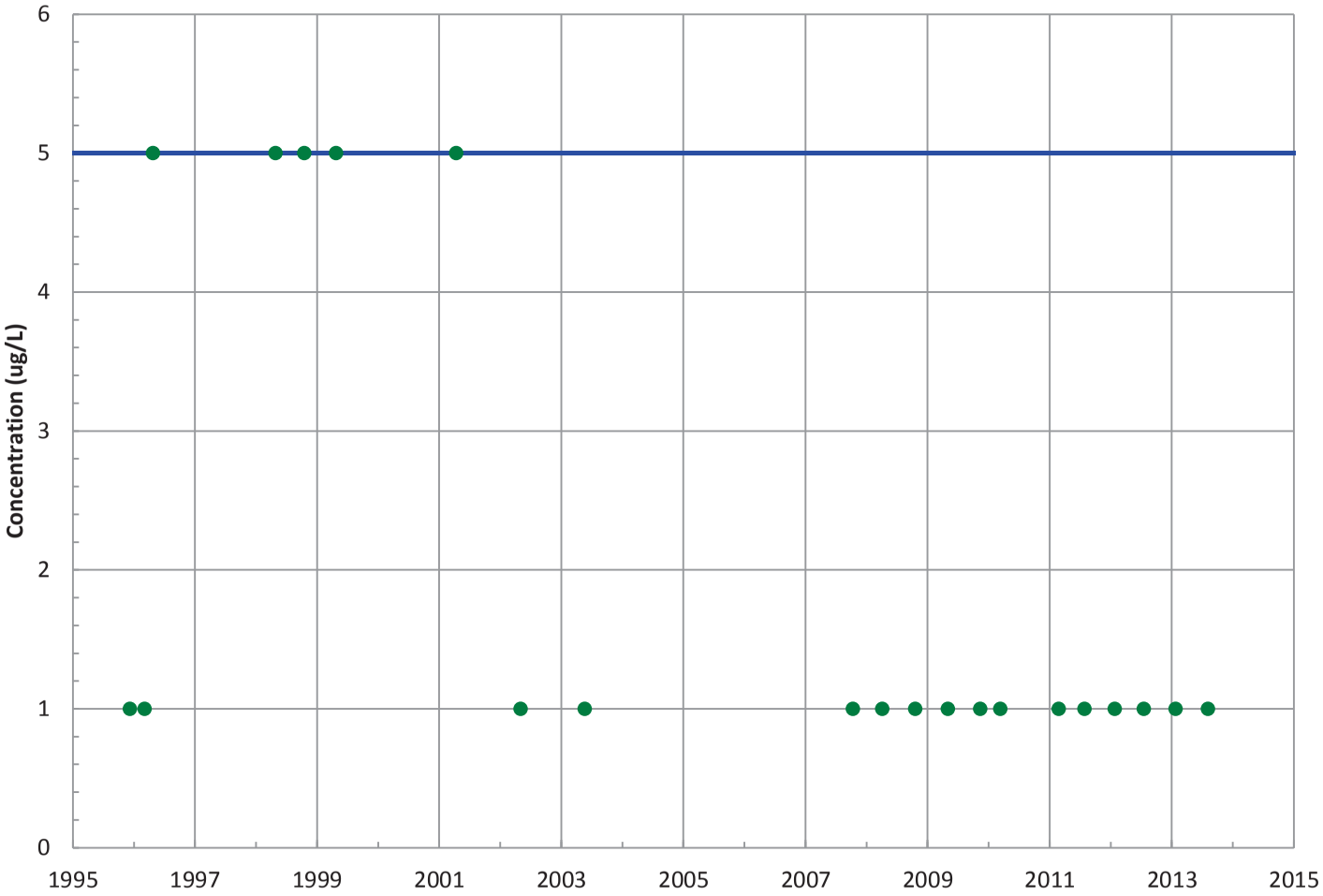
Well Location



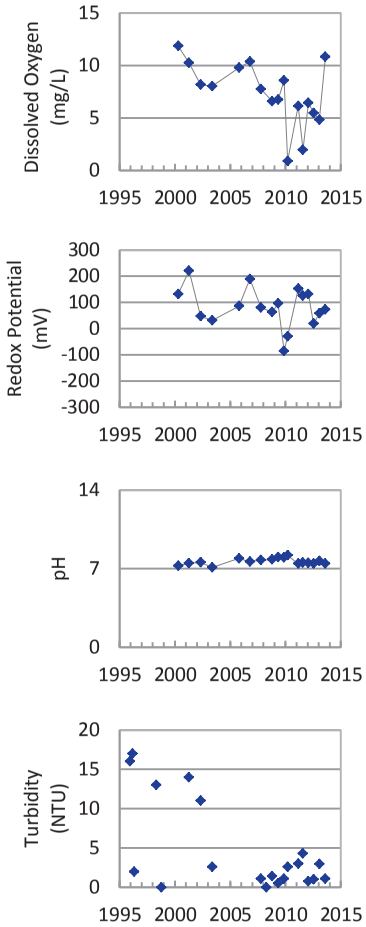
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/10/1995 to 8/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1O01
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



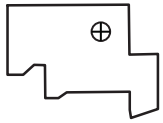
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

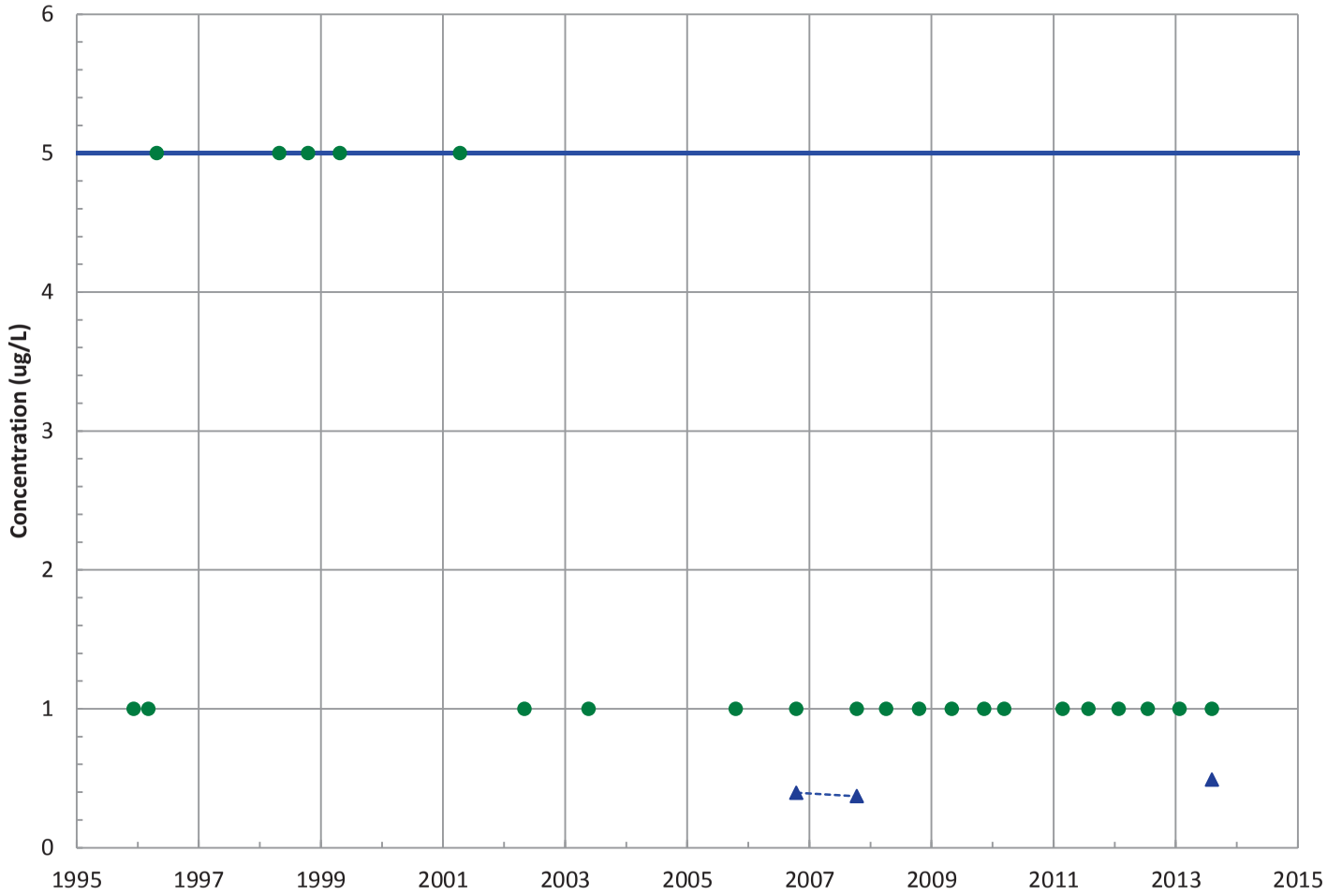
Well Location



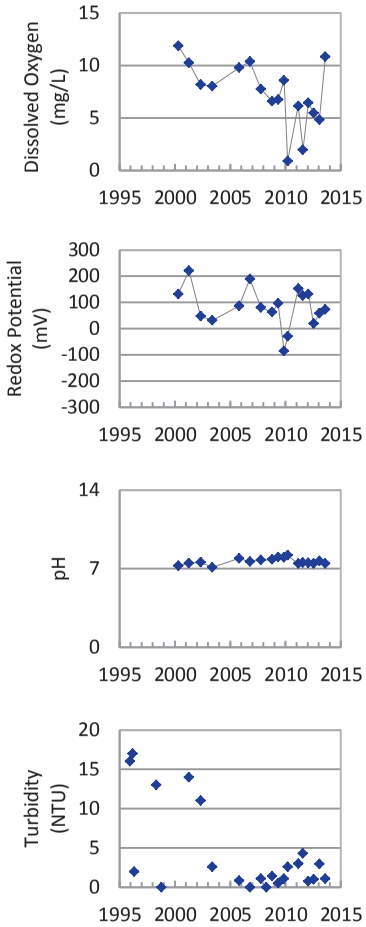
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/10/1995 to 8/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1O01
Trichloroethene Trend in Perched Aquifer



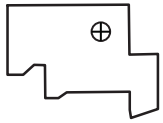
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

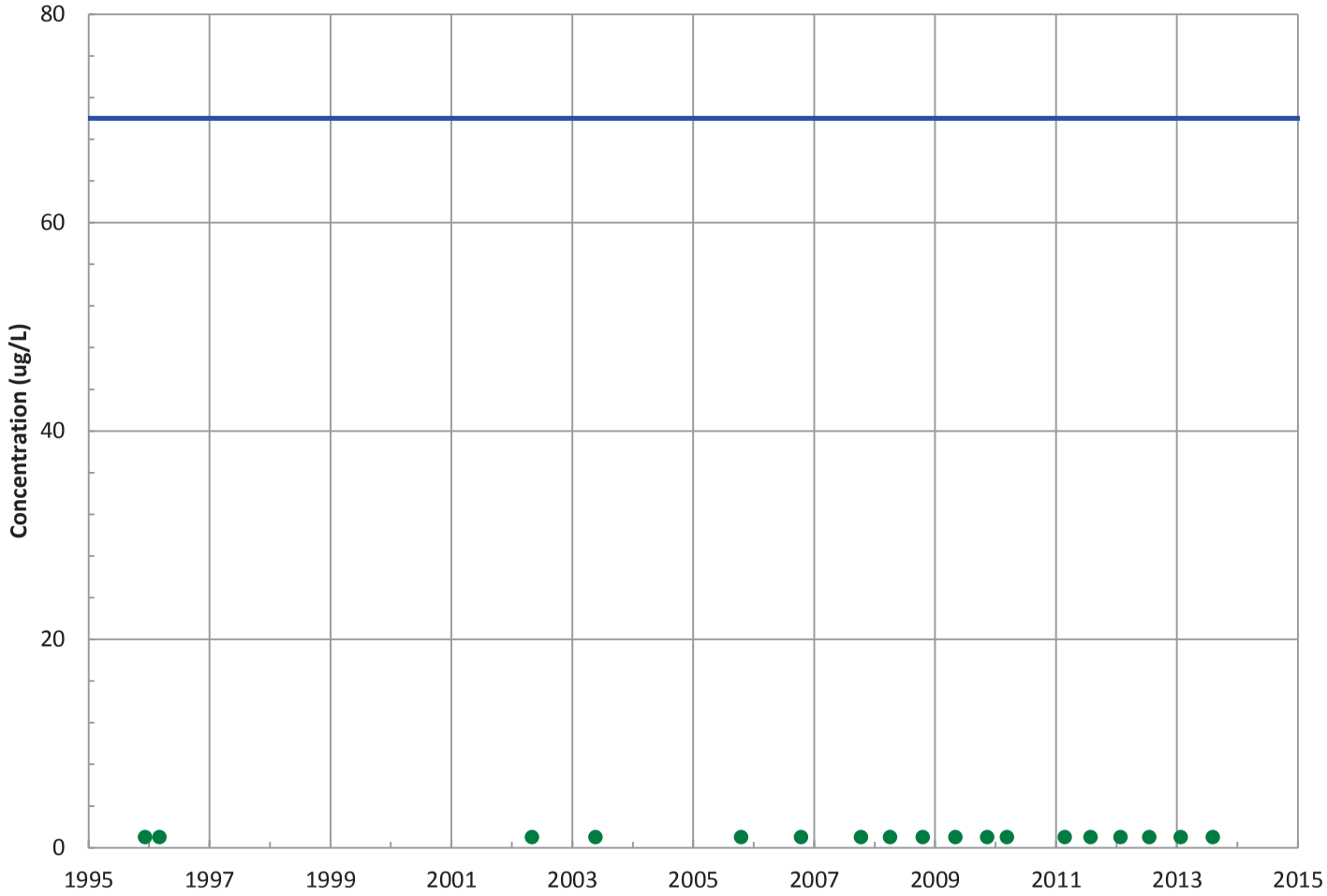
Well Location



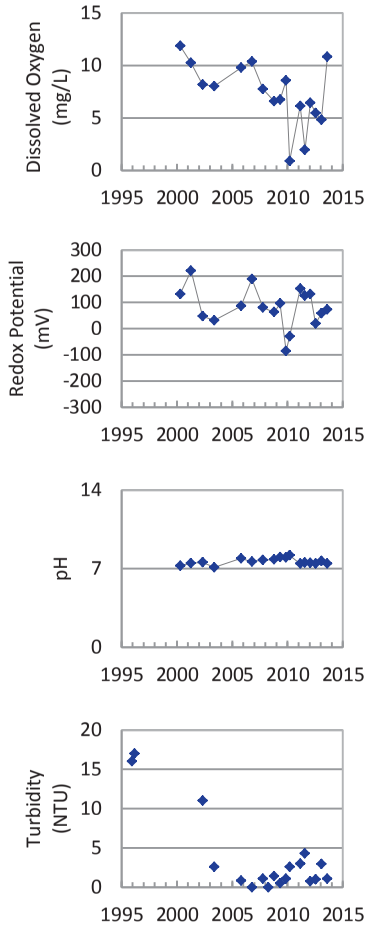
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/10/1995 to 8/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1O01
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



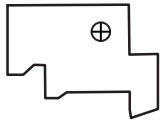
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

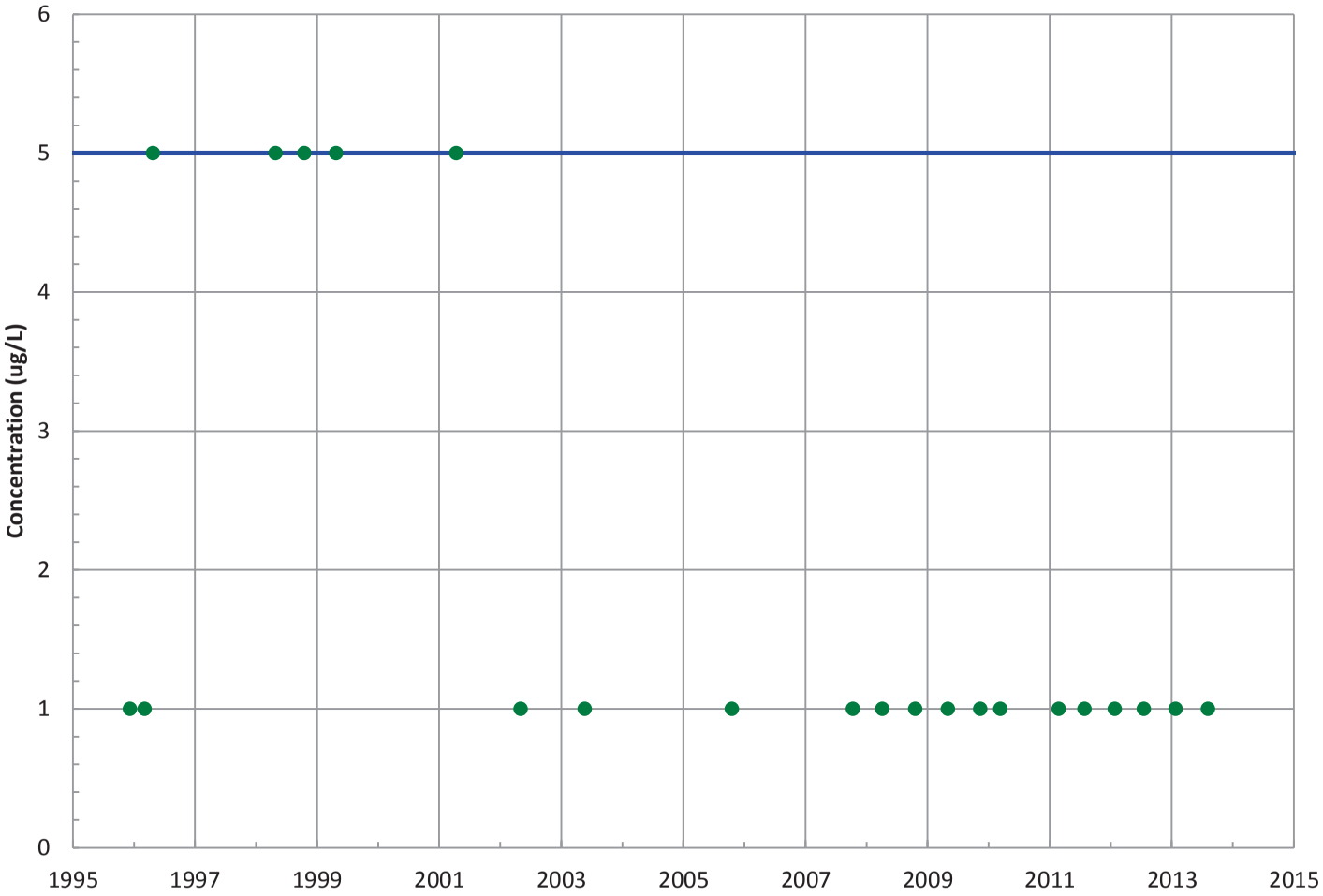
Well Location



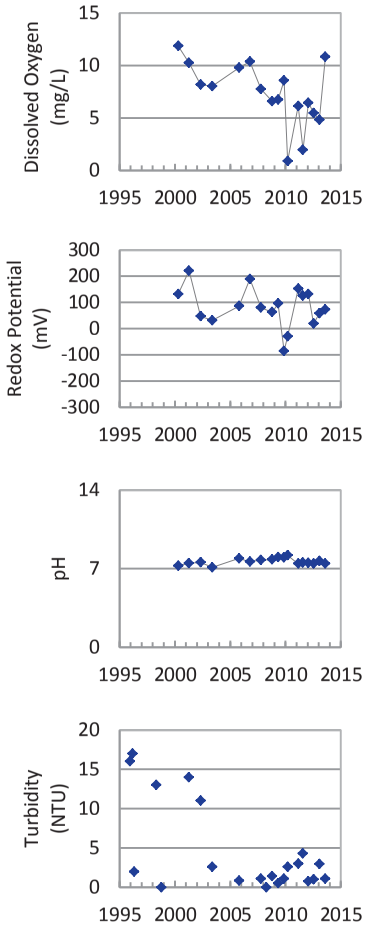
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/10/1995 to 8/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1O01
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



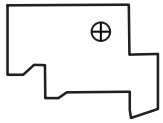
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

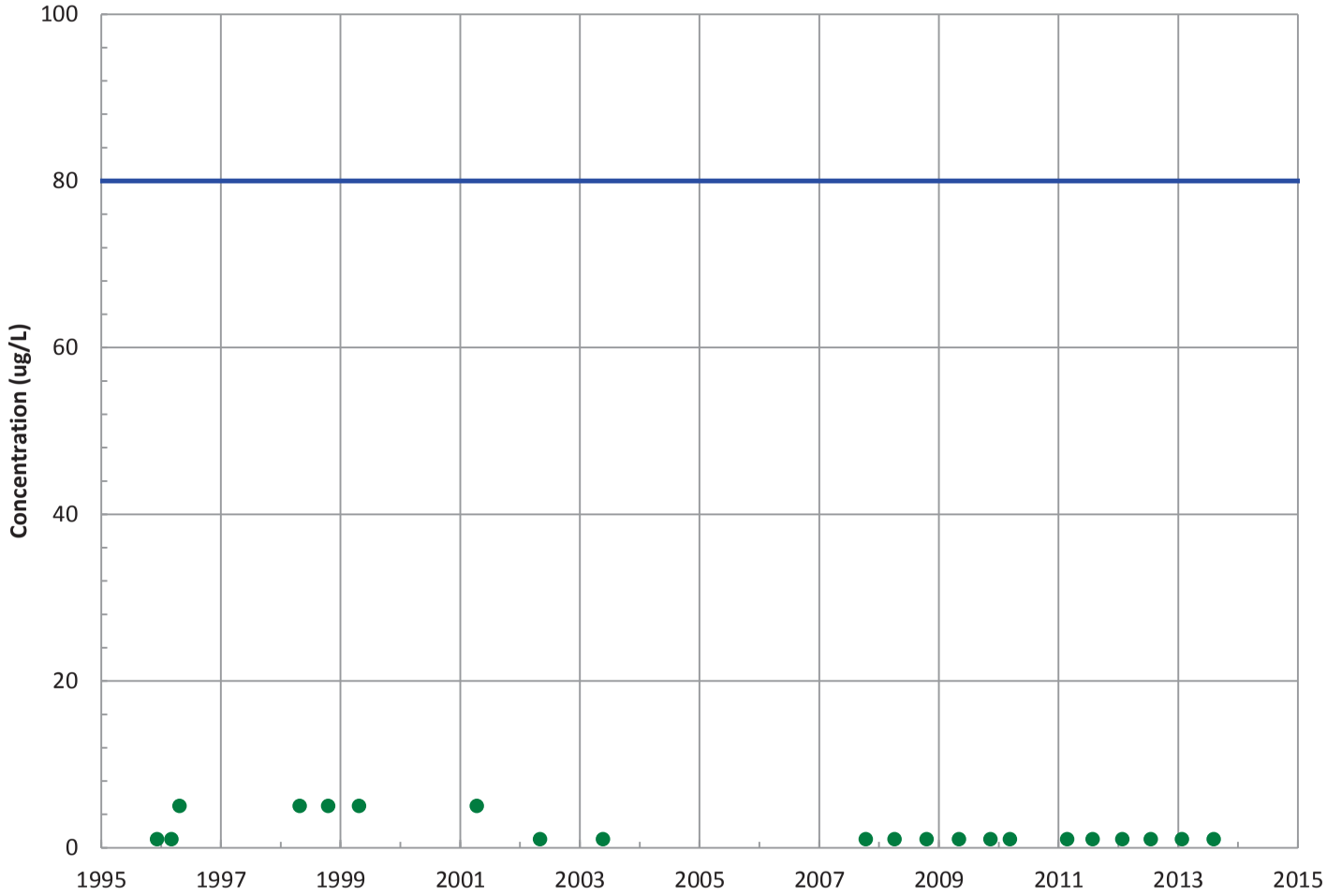
Well Location



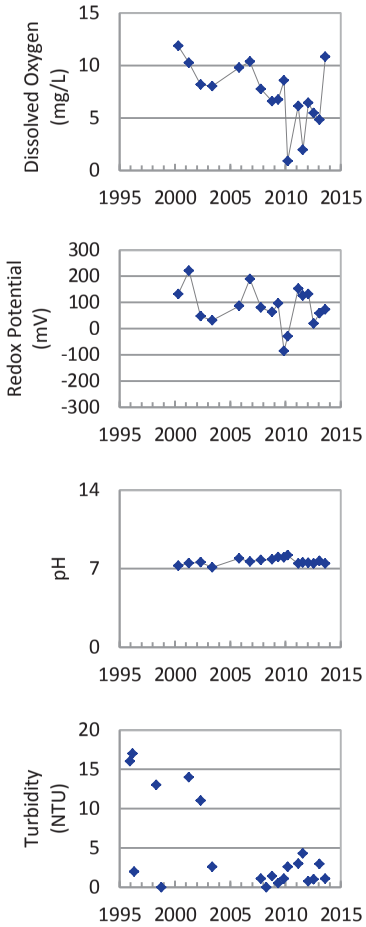
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/10/1995 to 8/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1O01
Chloroform Trend in Perched Aquifer



Field Parameters



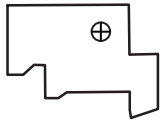
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

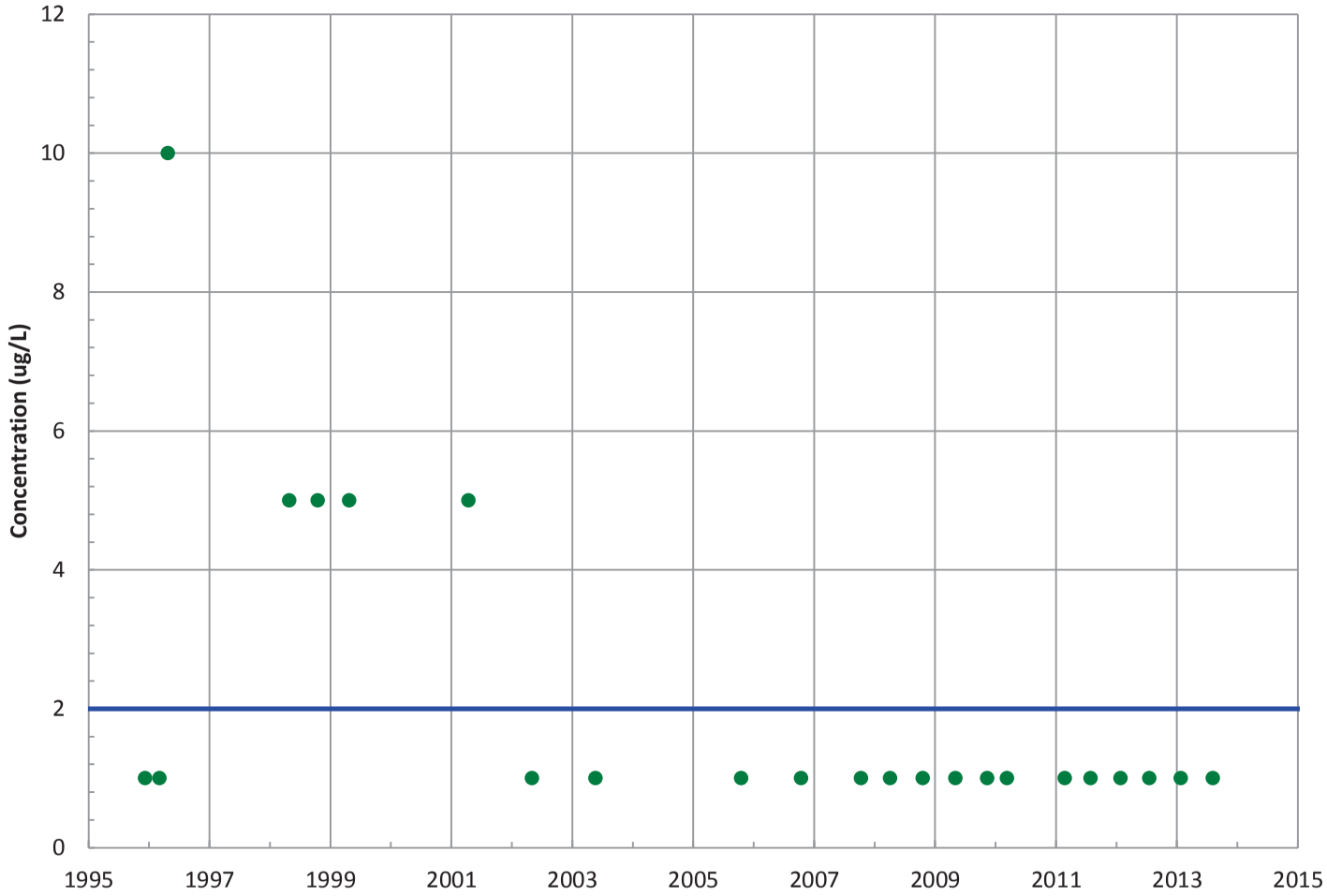
Well Location



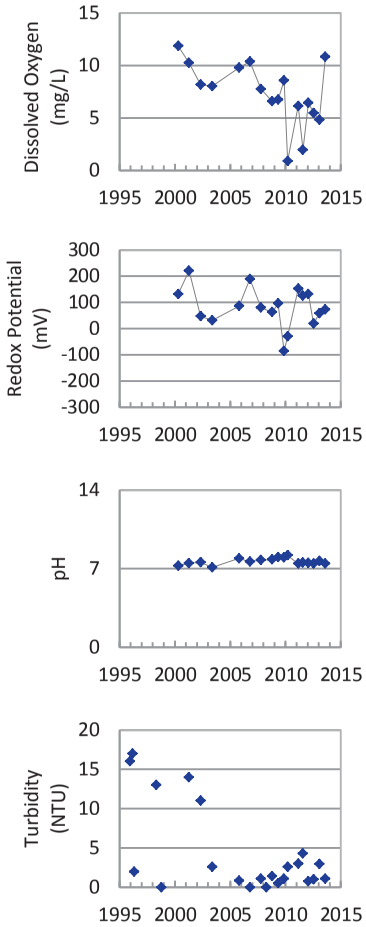
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/10/1995 to 8/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1O01
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



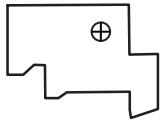
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

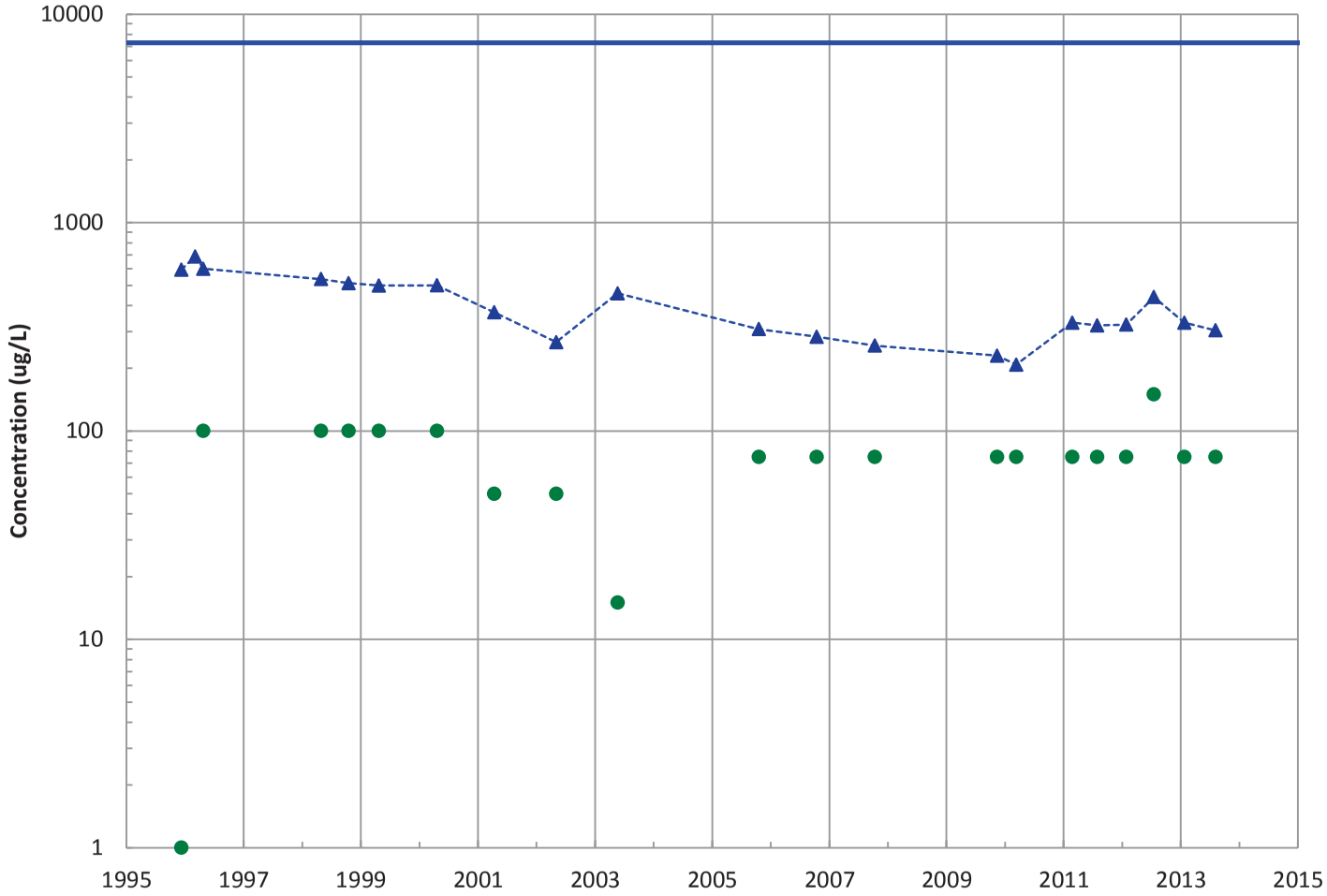
Well Location



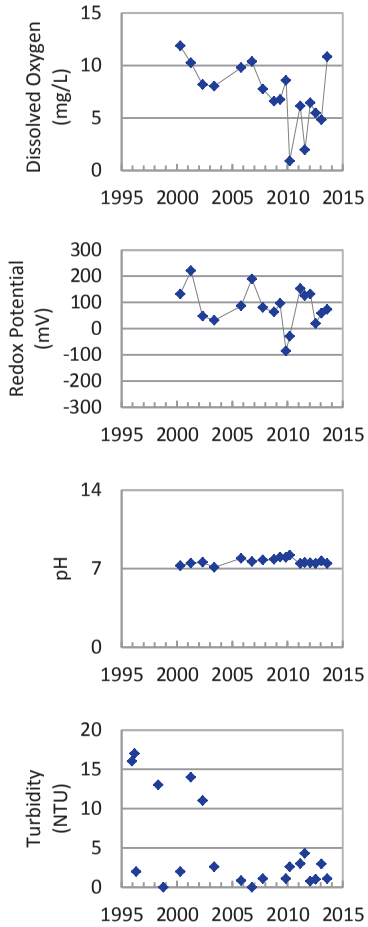
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/10/1995 to 8/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1O01
Boron Trend in Perched Aquifer



Field Parameters



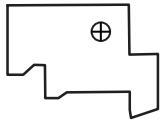
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

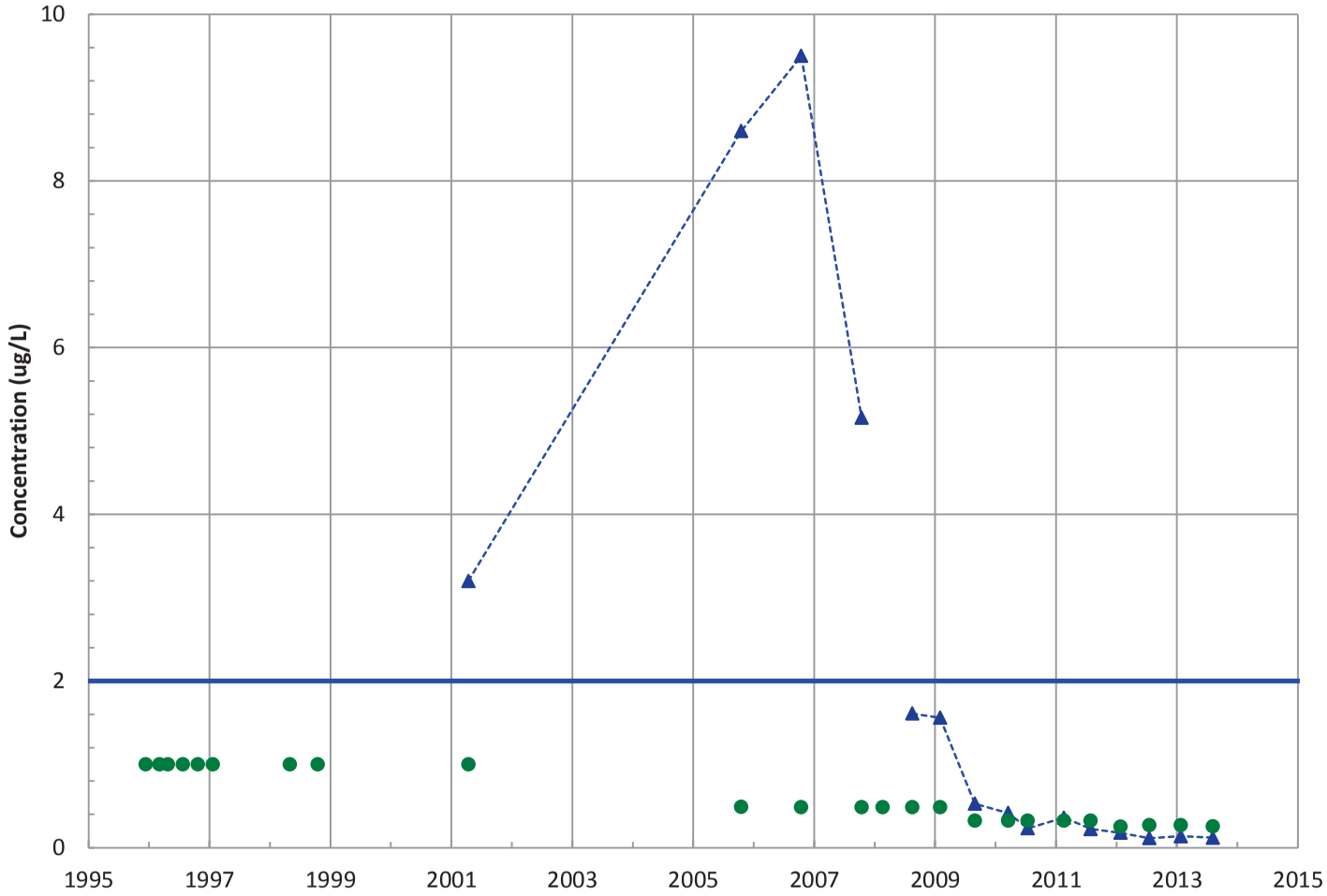
Well Location



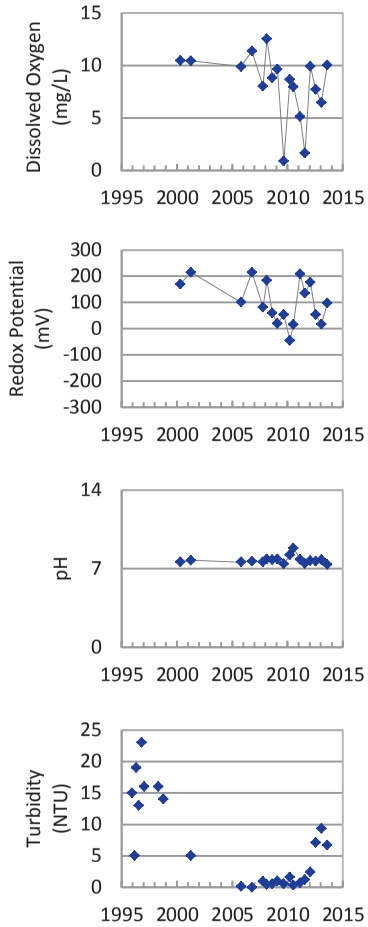
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/10/1995 to 8/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1O02
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



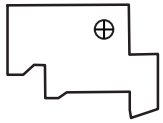
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Probably Decreasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

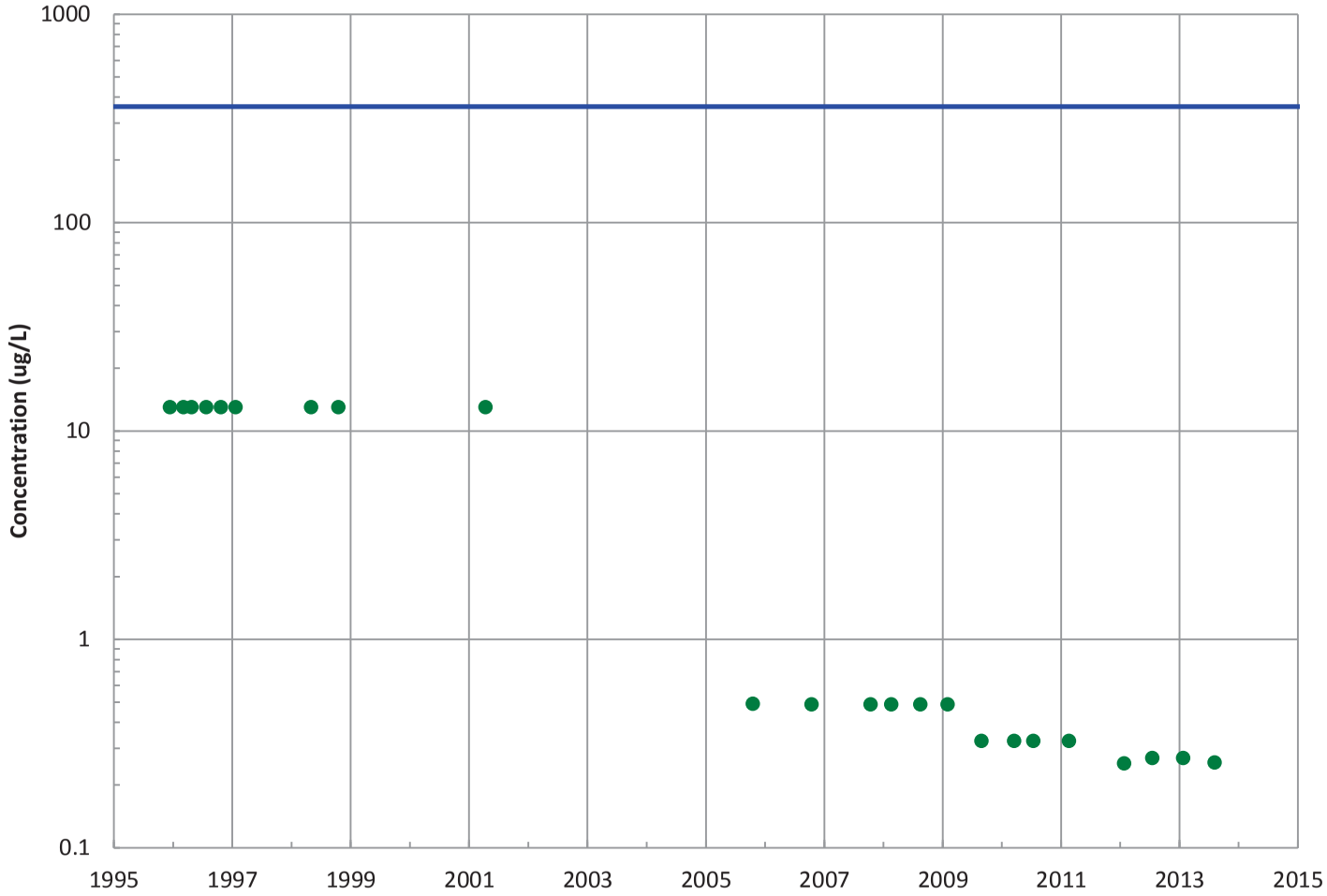
Well Location



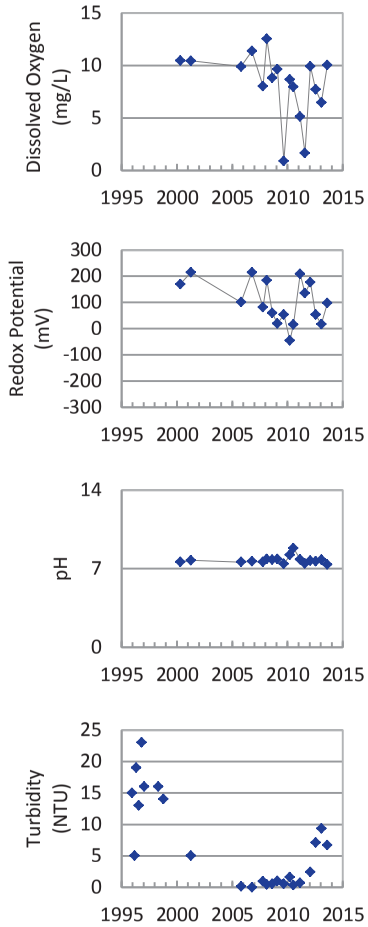
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/14/1995 to 8/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1O02
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



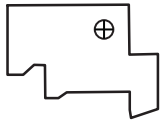
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

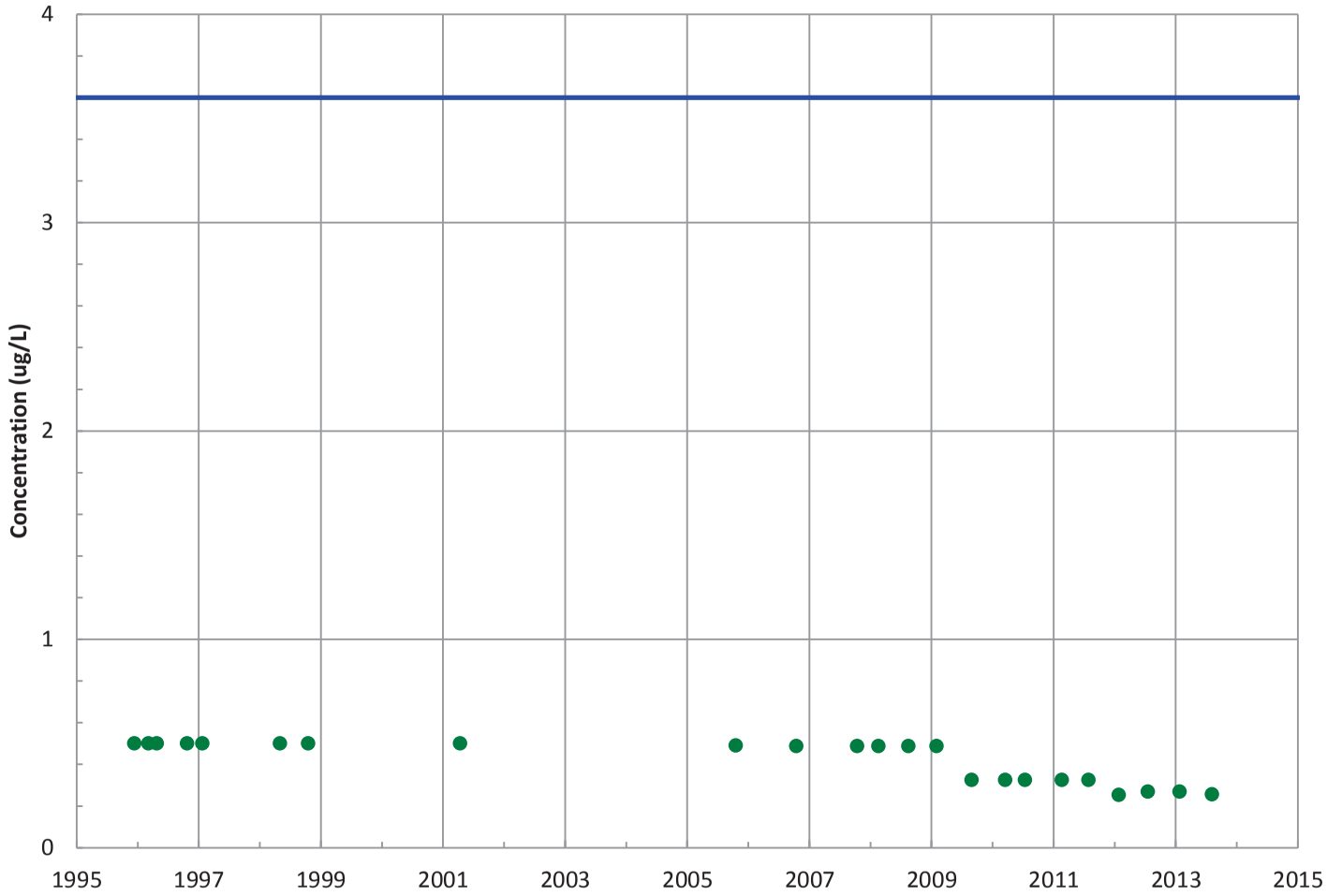
Well Location



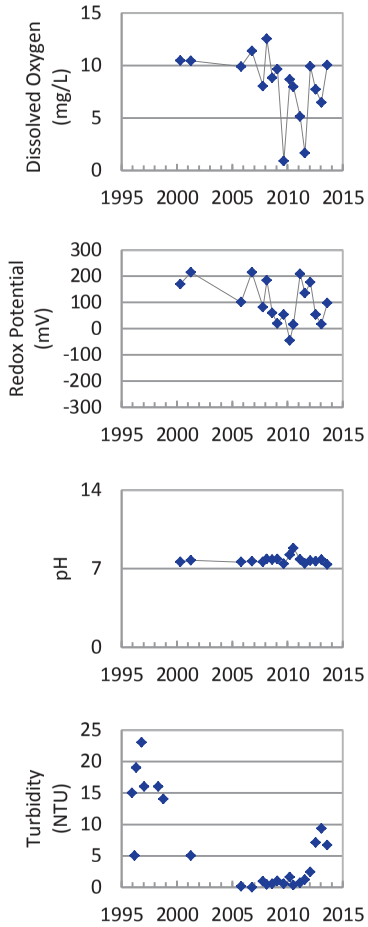
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/14/1995 to 8/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1O02
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



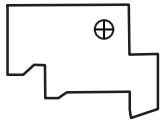
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

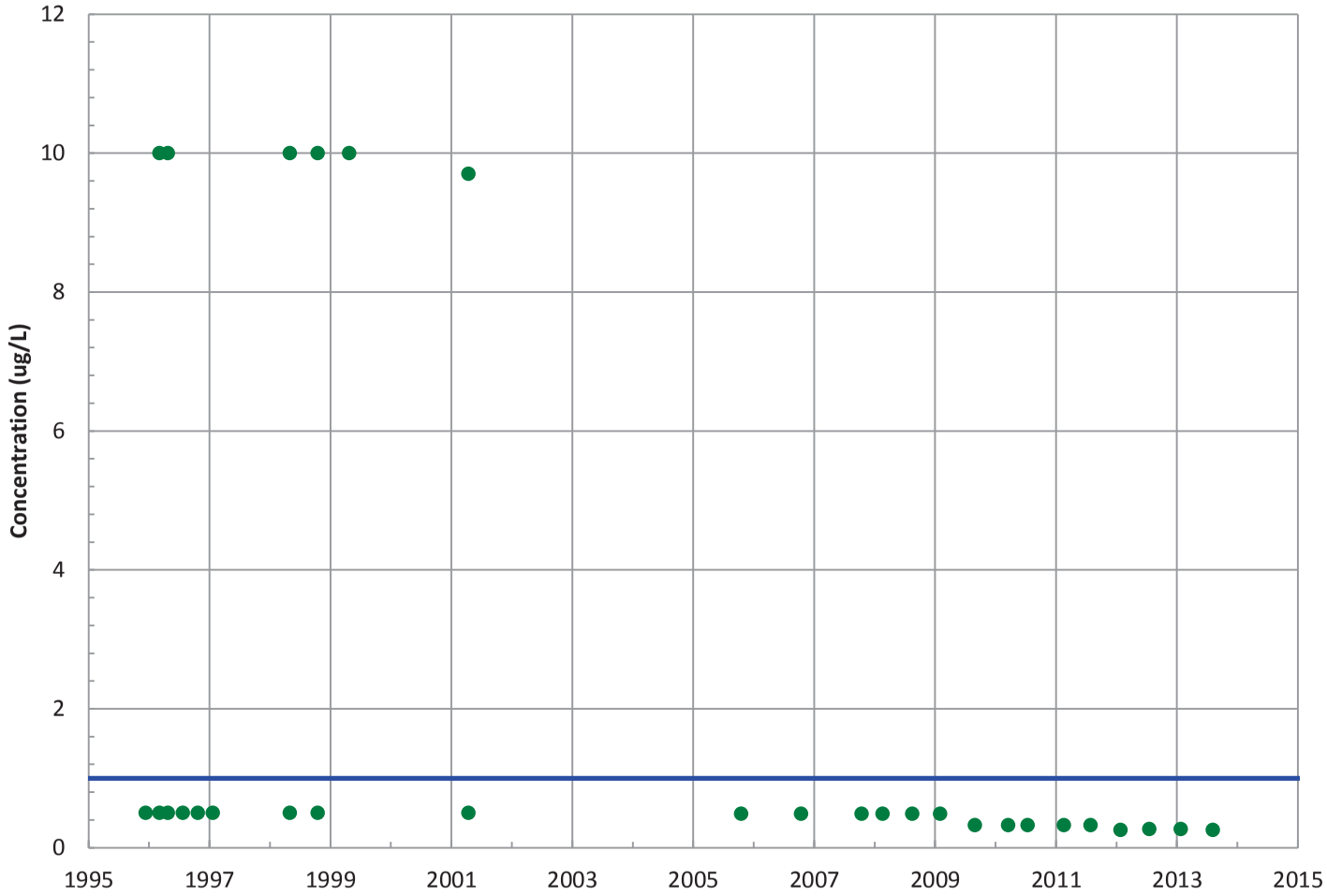
Well Location



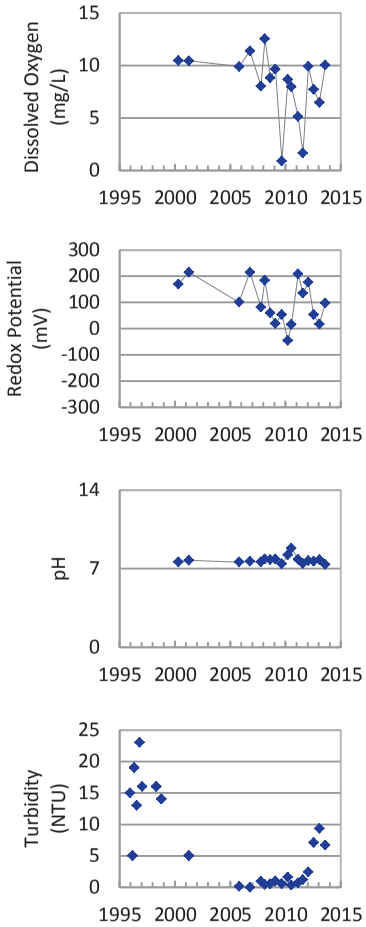
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/14/1995 to 8/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1O02
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



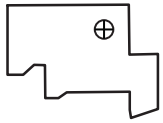
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

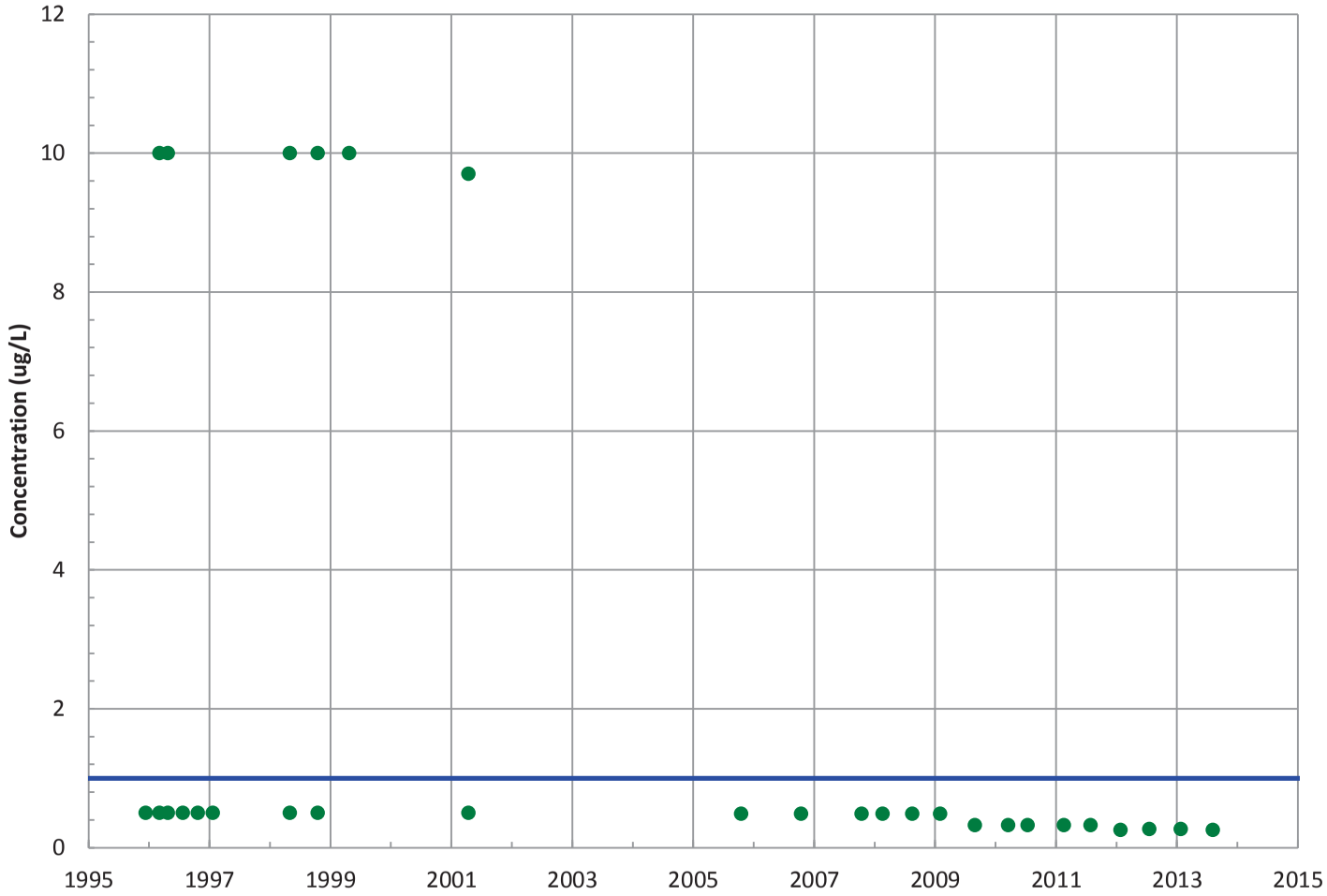
Well Location



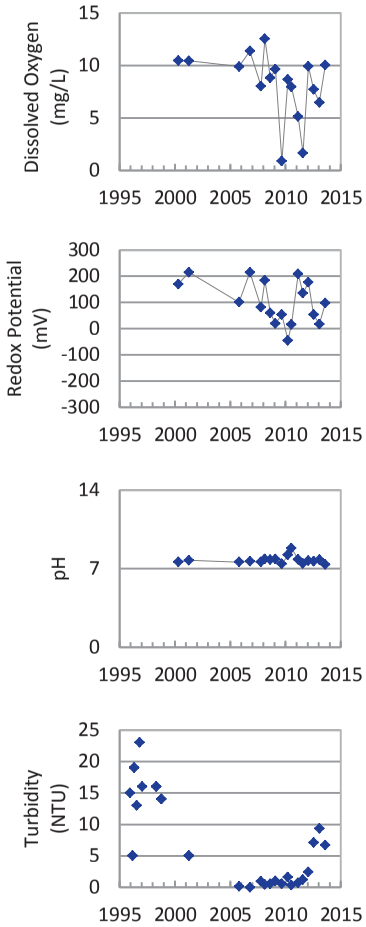
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/14/1995 to 8/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1O02
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



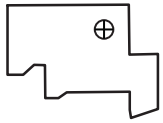
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

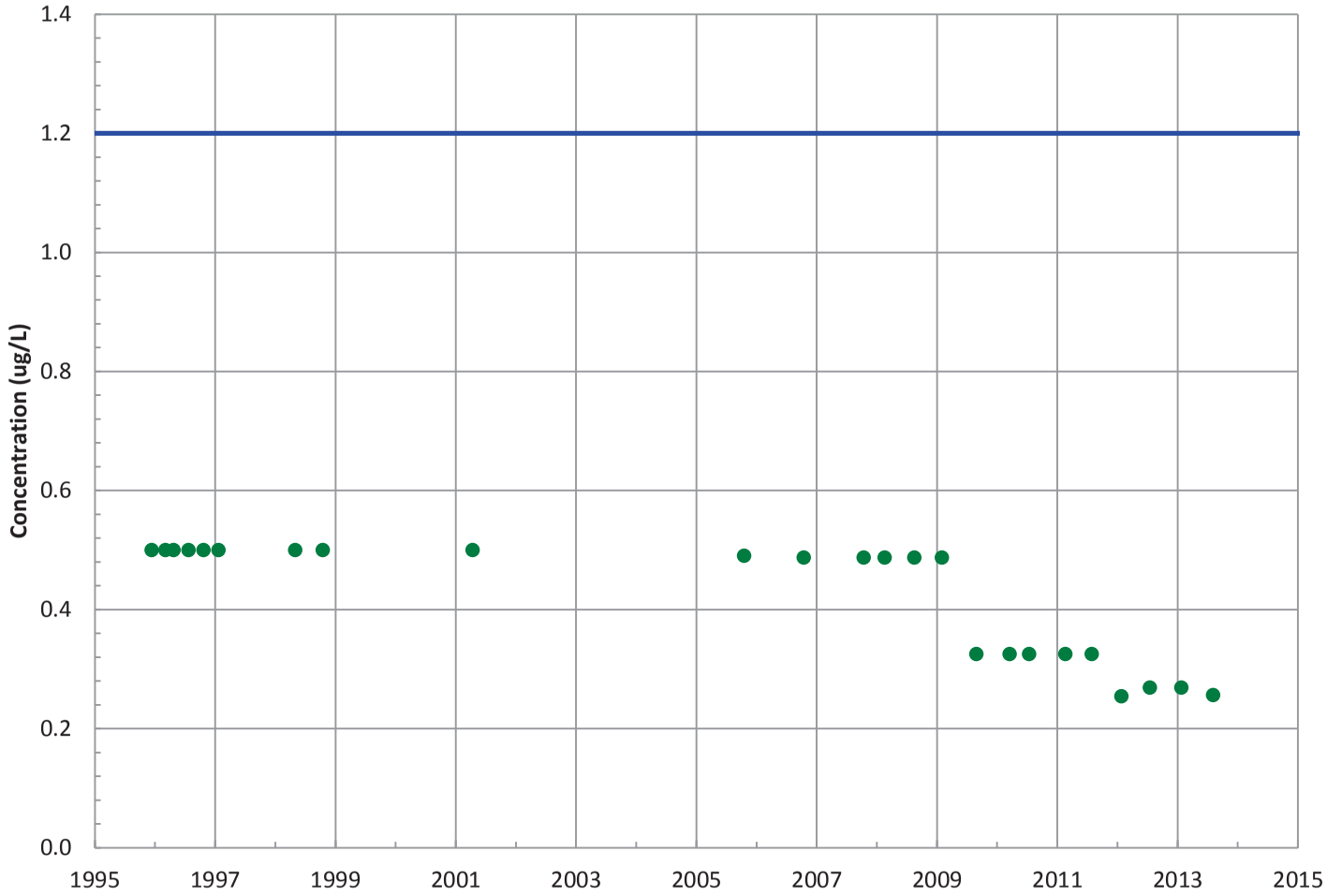
Well Location



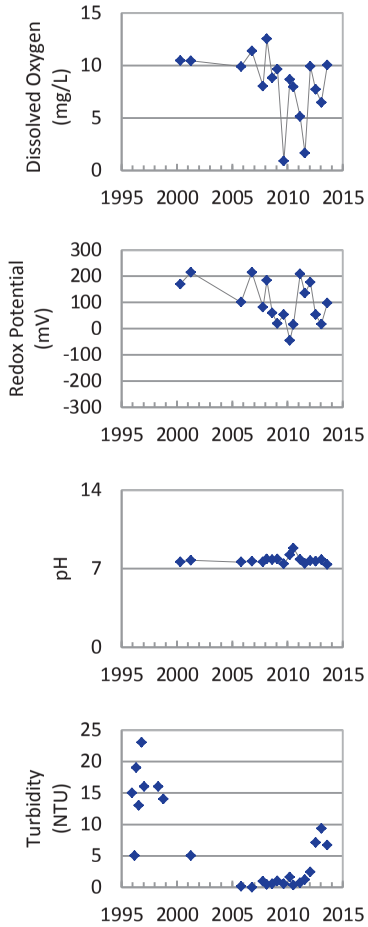
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/14/1995 to 8/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1O02
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



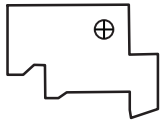
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

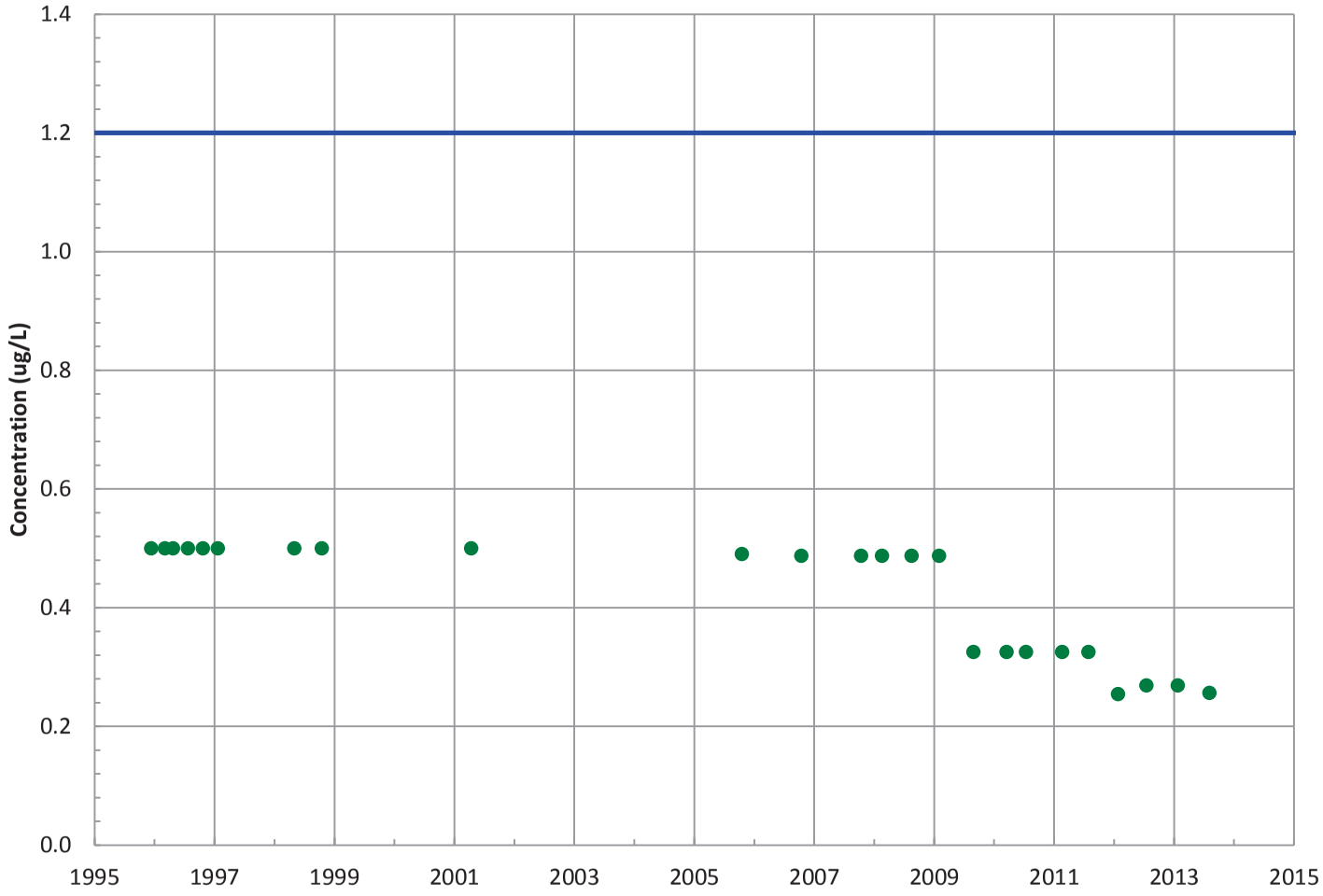
Well Location



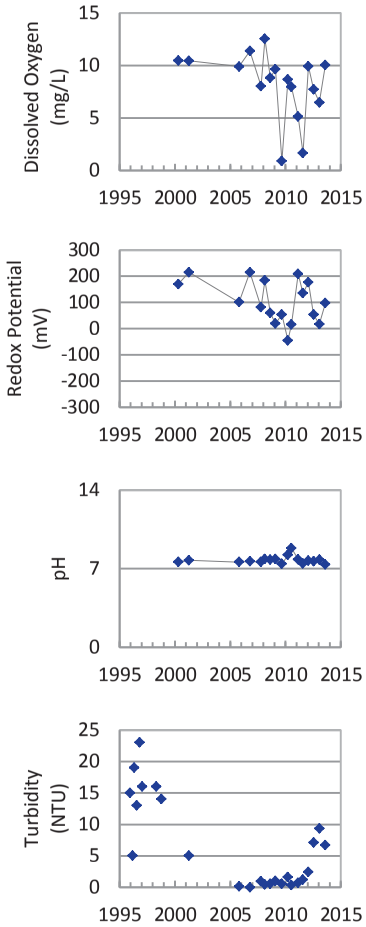
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/14/1995 to 8/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1O02
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



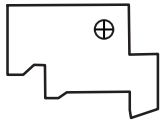
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

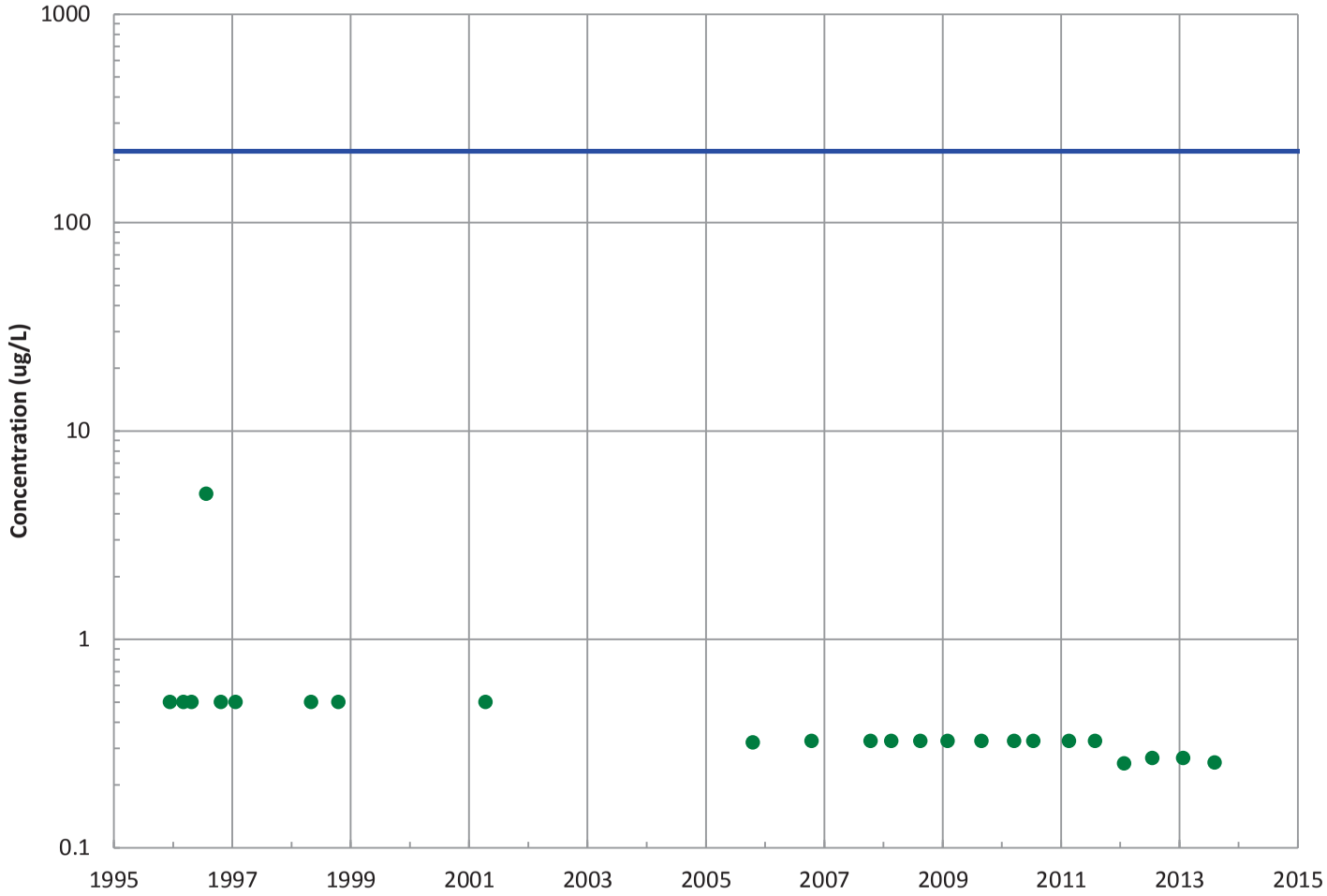
Well Location



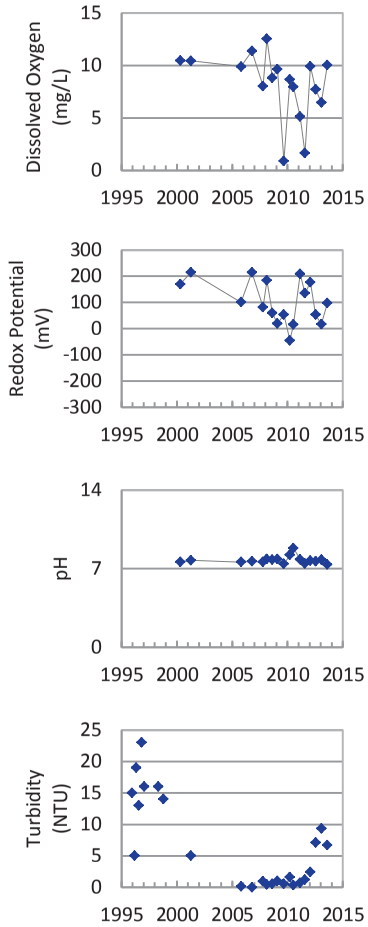
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/14/1995 to 8/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1O02
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



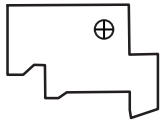
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

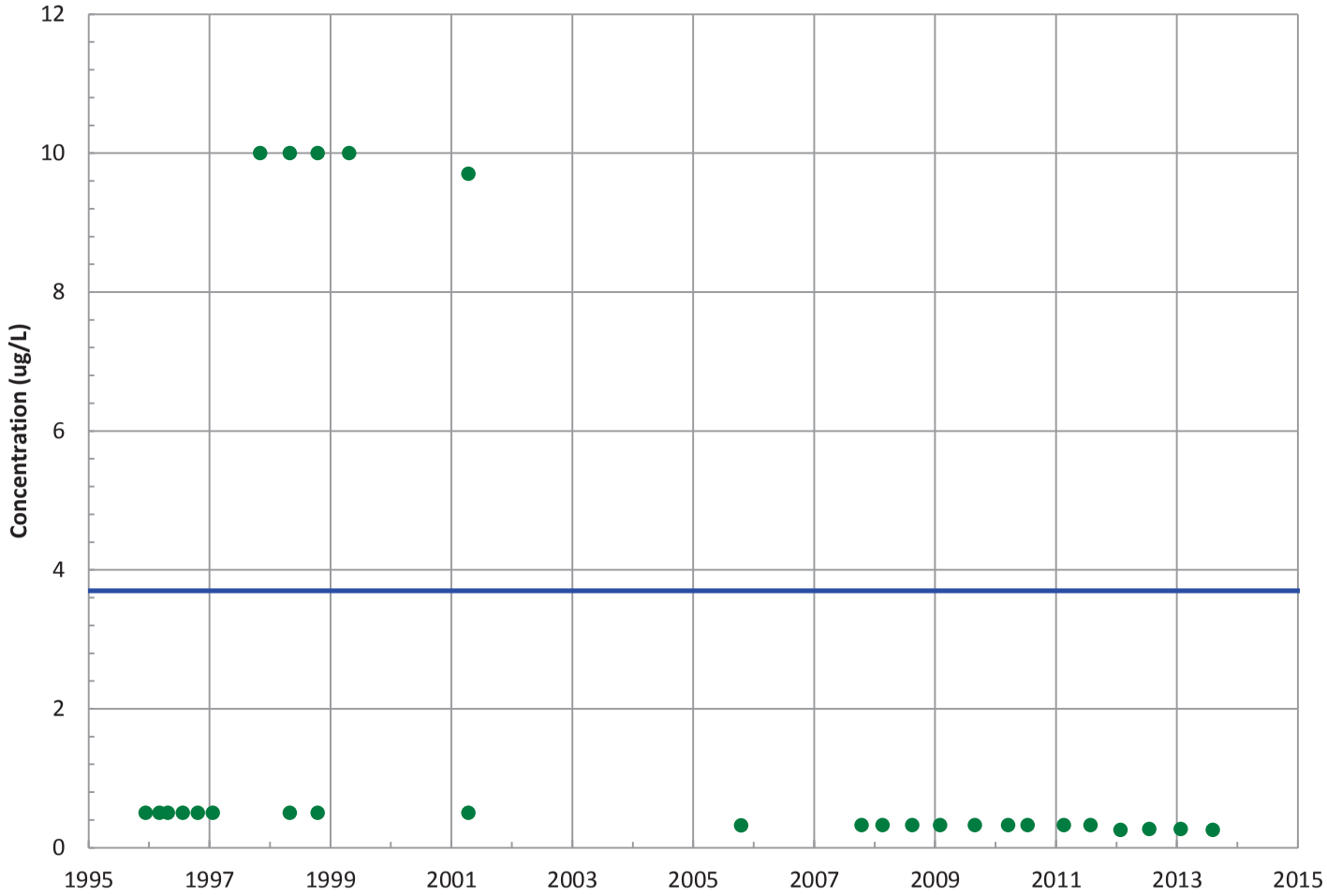
Well Location



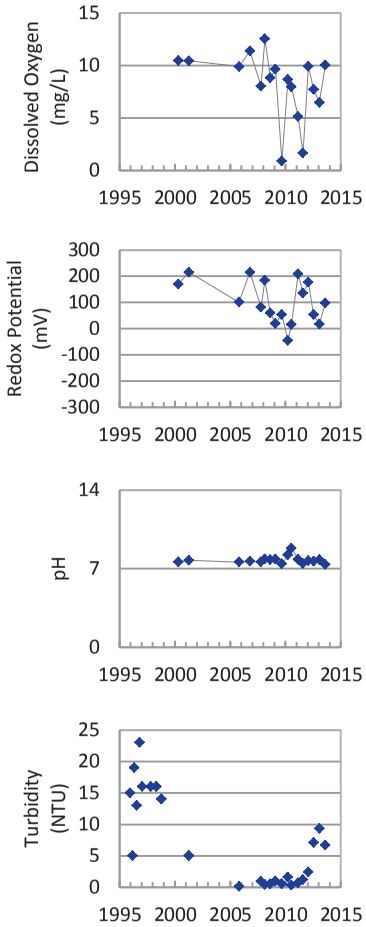
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/14/1995 to 8/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1O02
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



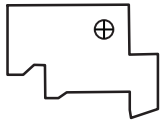
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

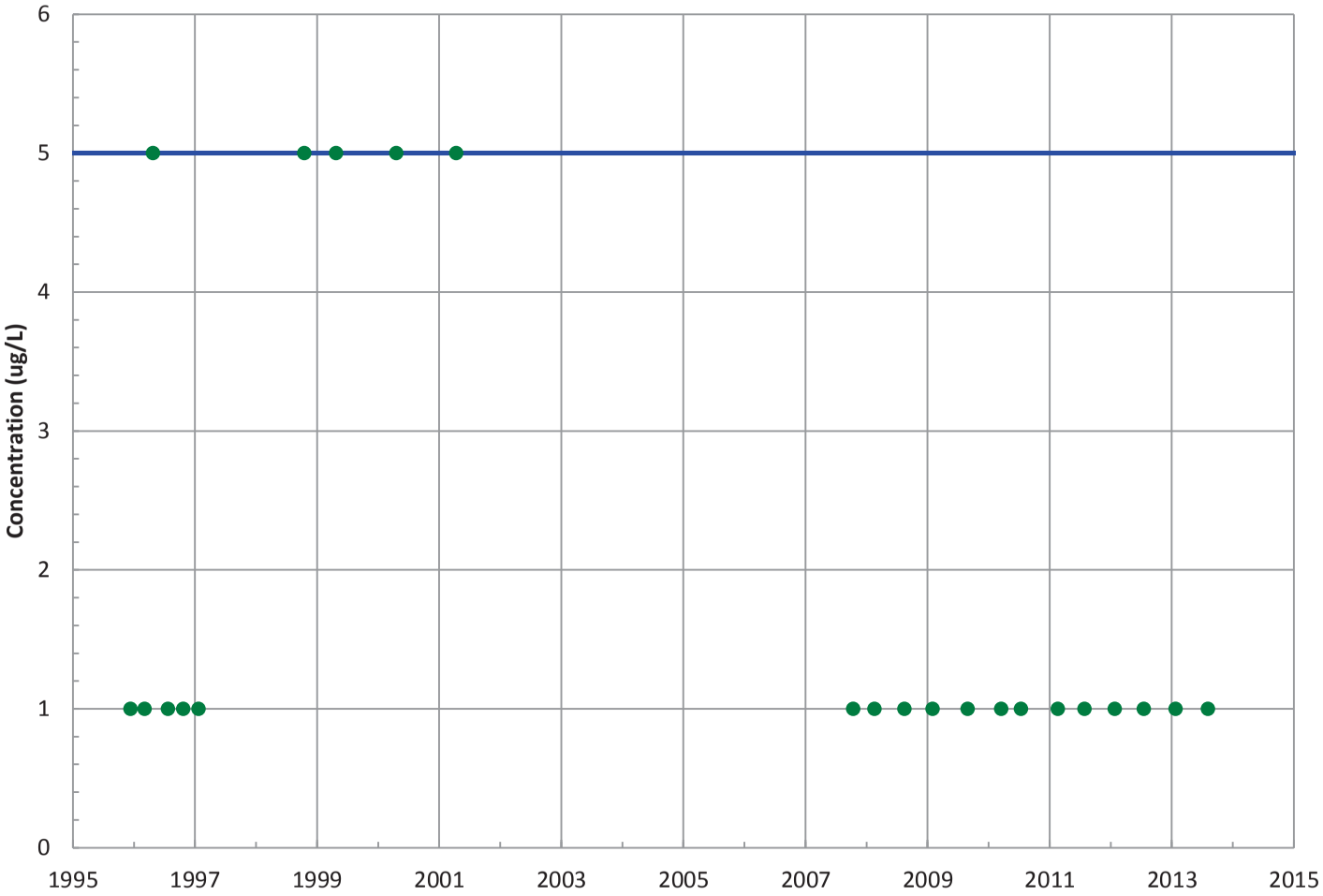
Well Location



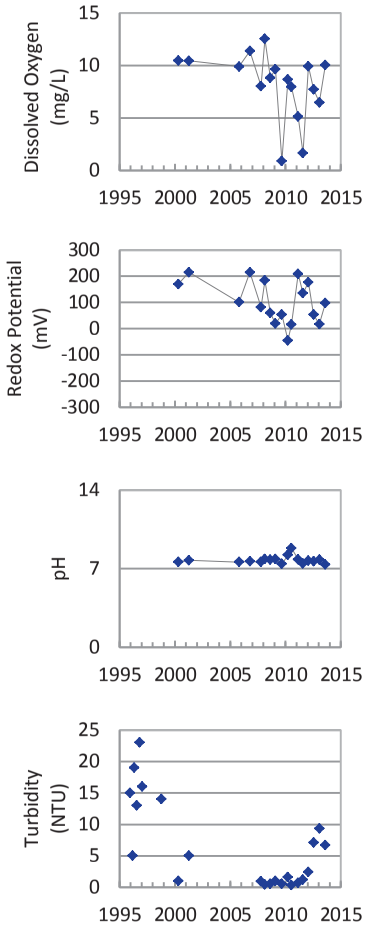
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/14/1995 to 8/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1O02
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



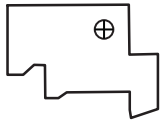
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

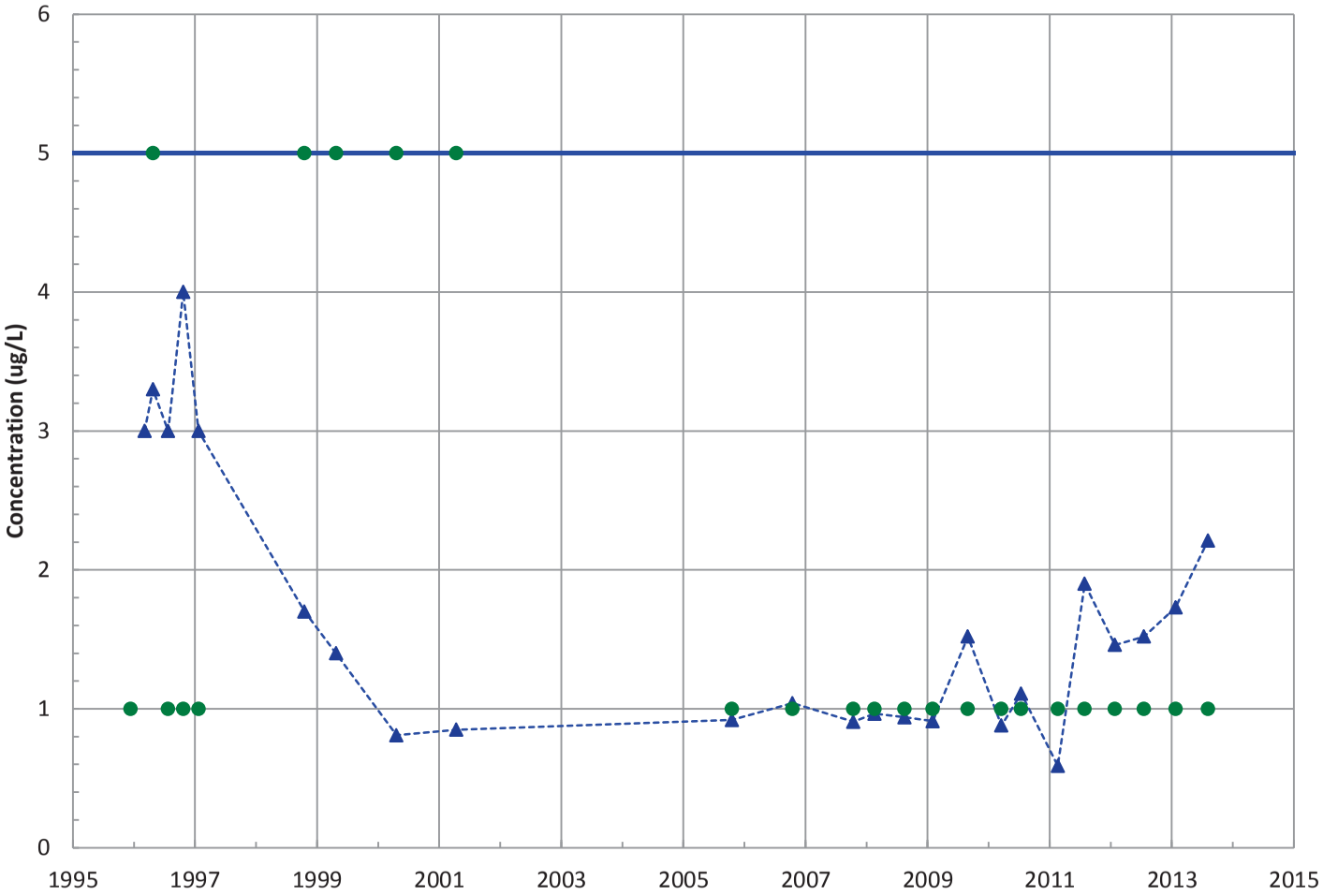
Well Location



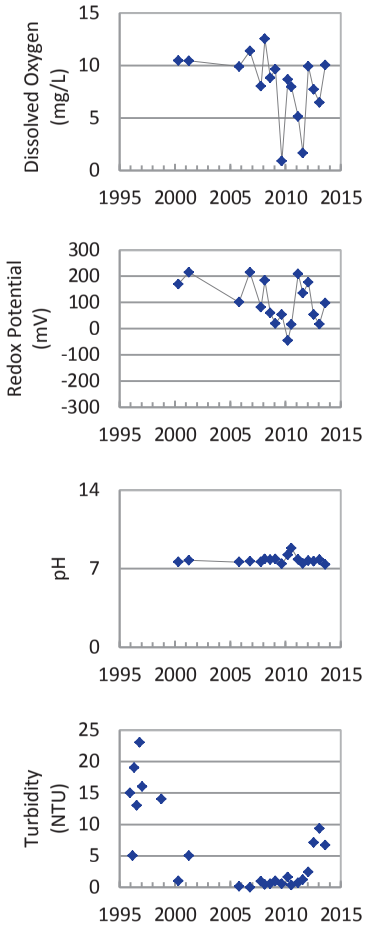
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/14/1995 to 8/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1O02
Trichloroethene Trend in Perched Aquifer



Field Parameters



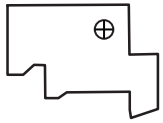
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Increasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Probably Increasing
2011 - 2013 Data: Increasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

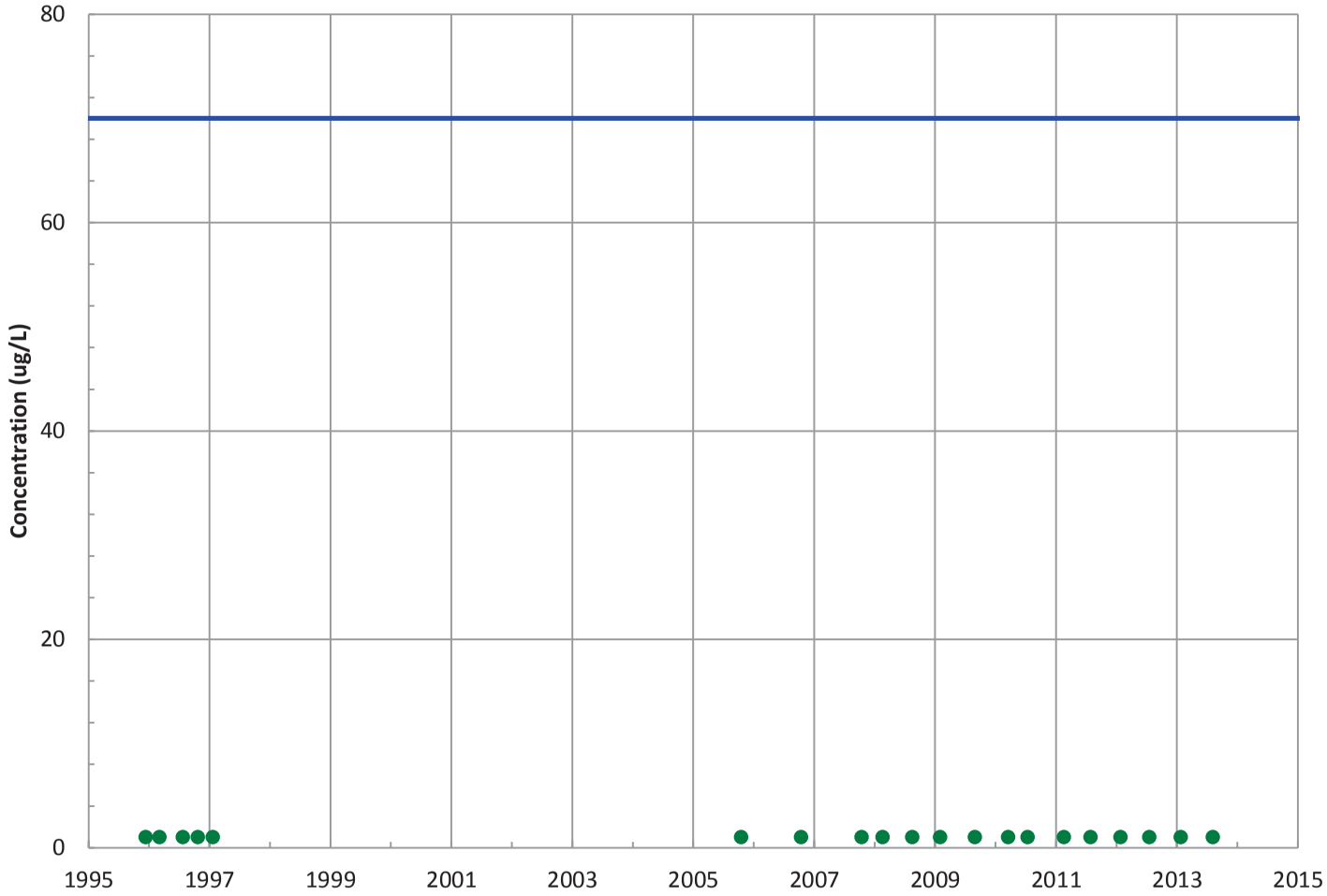
Well Location



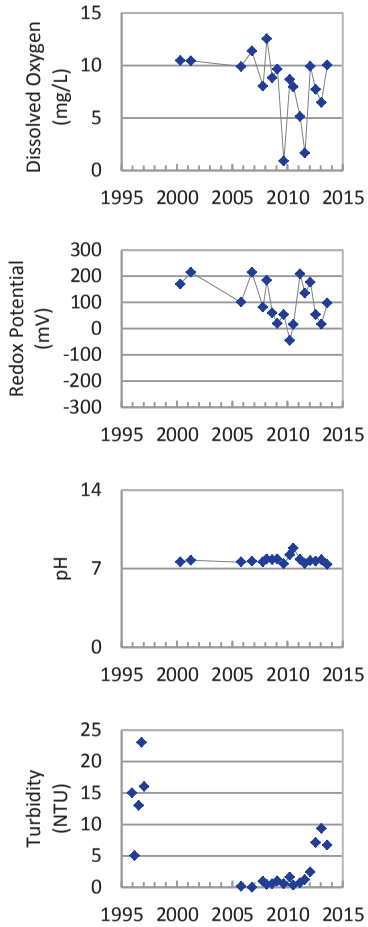
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/14/1995 to 8/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1O02
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



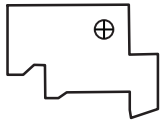
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

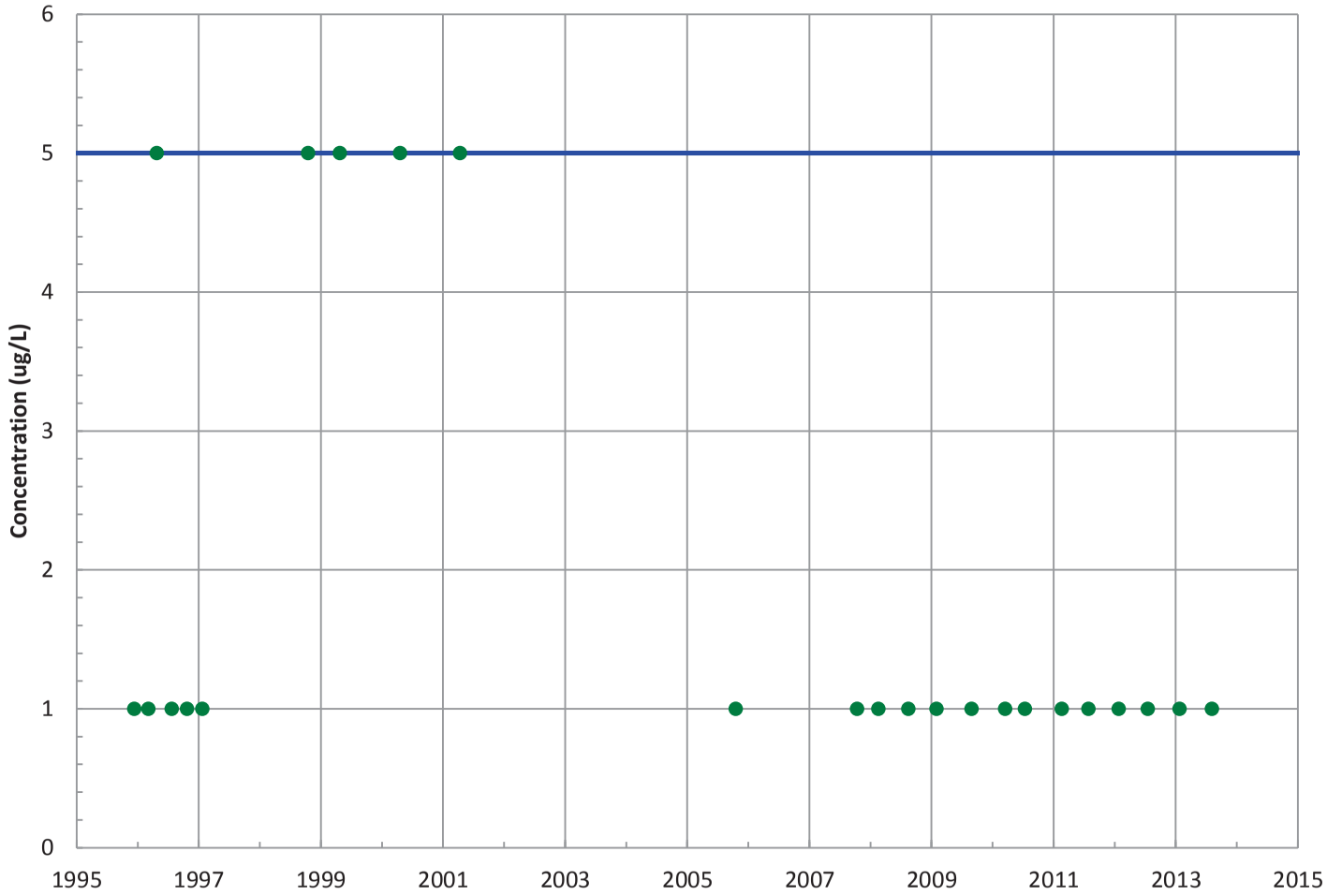
Well Location



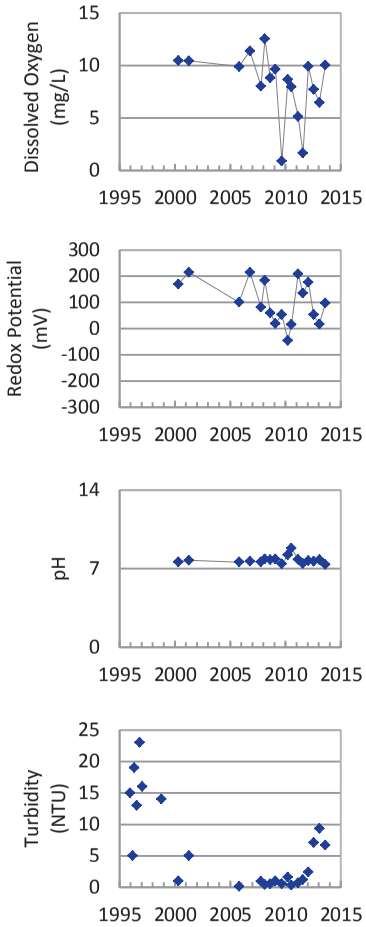
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/14/1995 to 8/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1O02
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



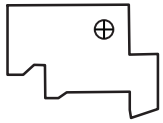
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

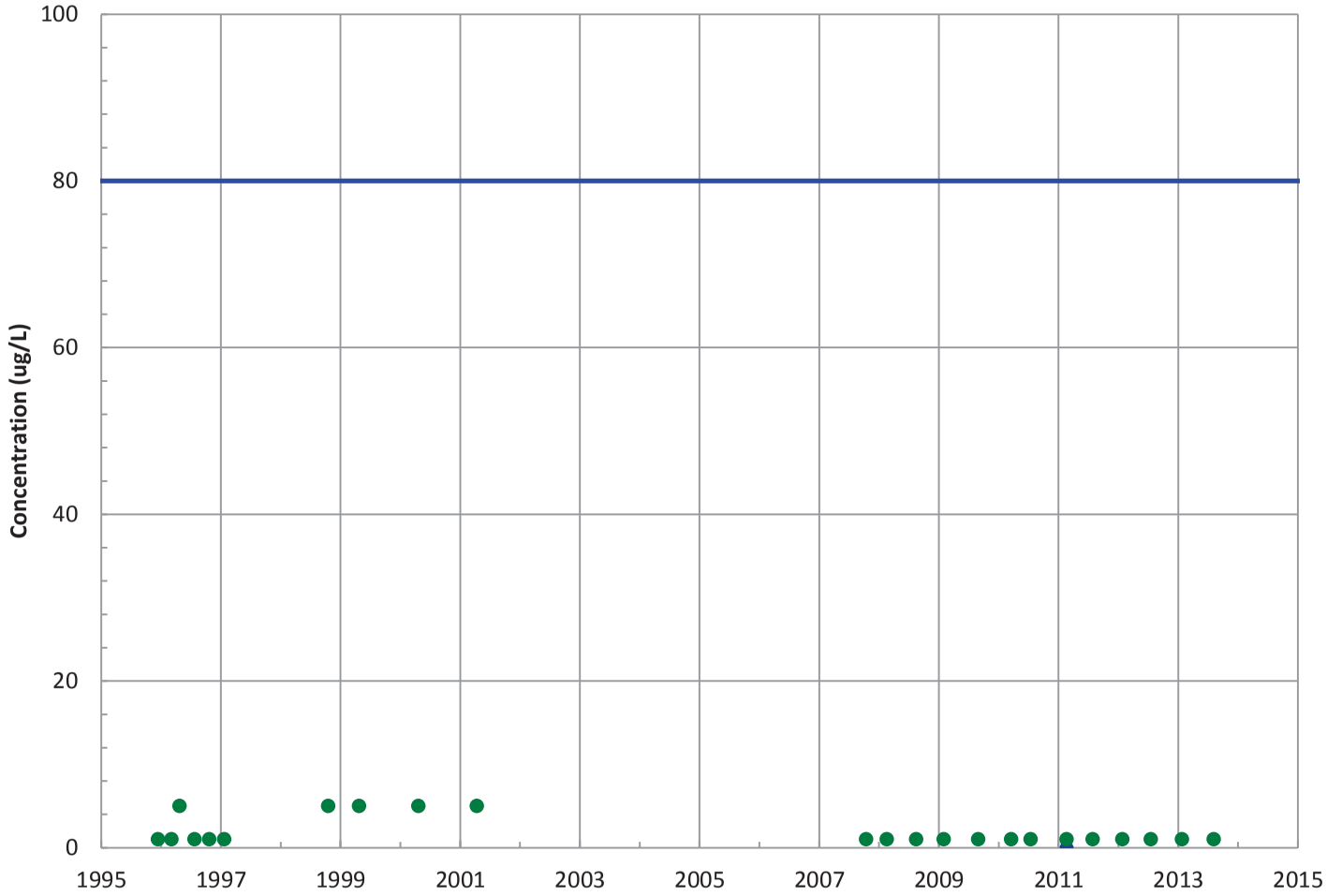
Well Location



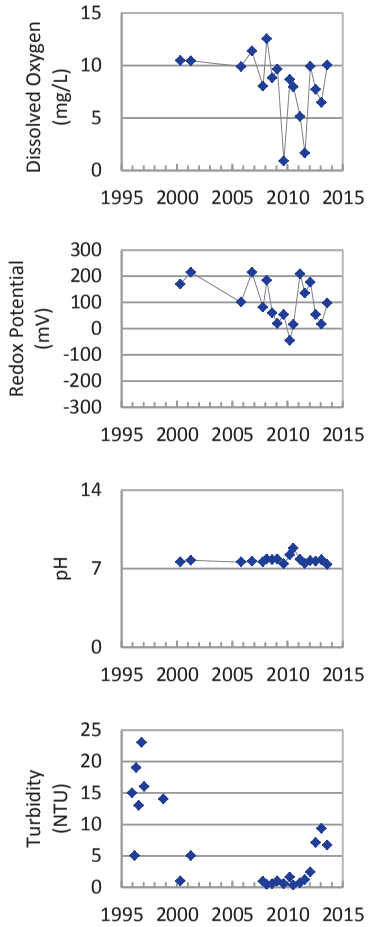
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/14/1995 to 8/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1O02
Chloroform Trend in Perched Aquifer



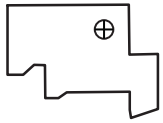
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: All Non-Detect
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

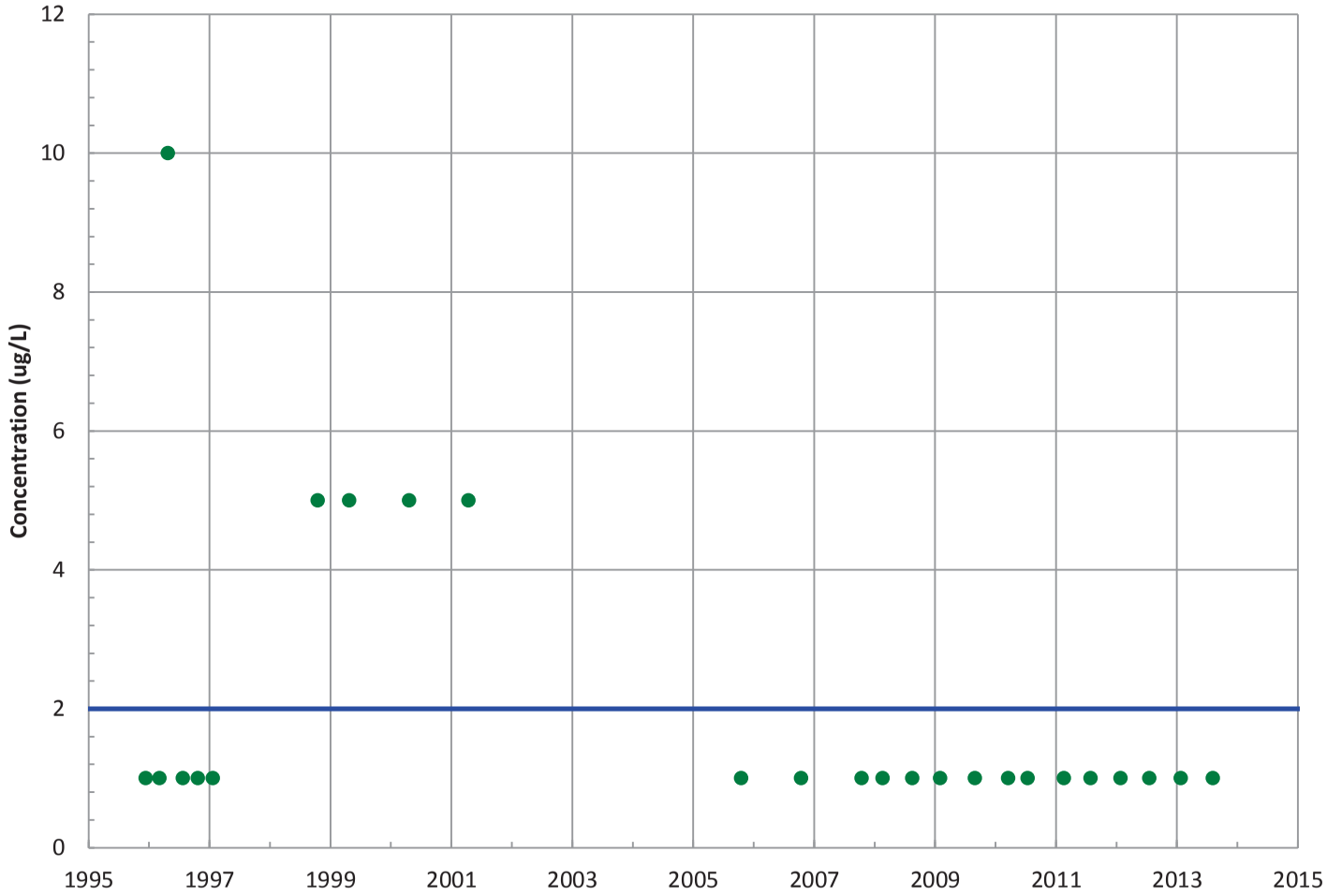
Well Location



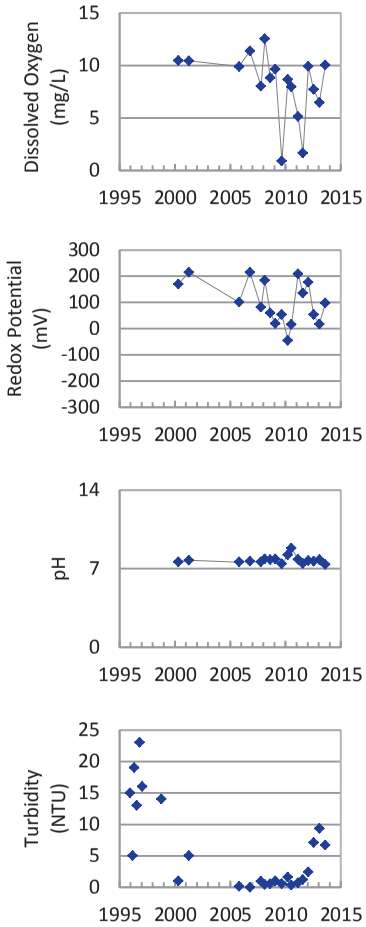
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/14/1995 to 8/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1O02
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



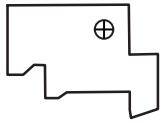
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

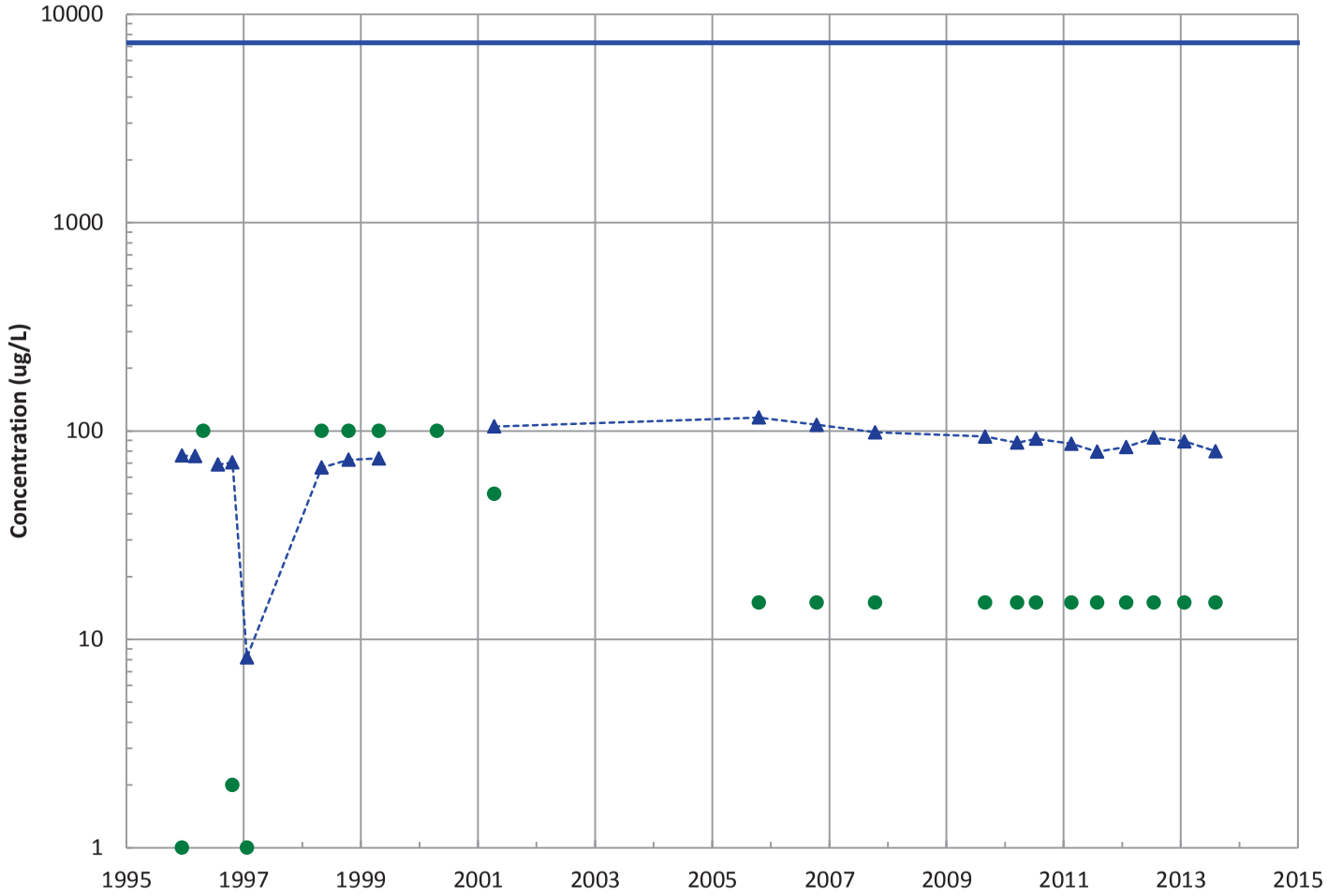
Well Location



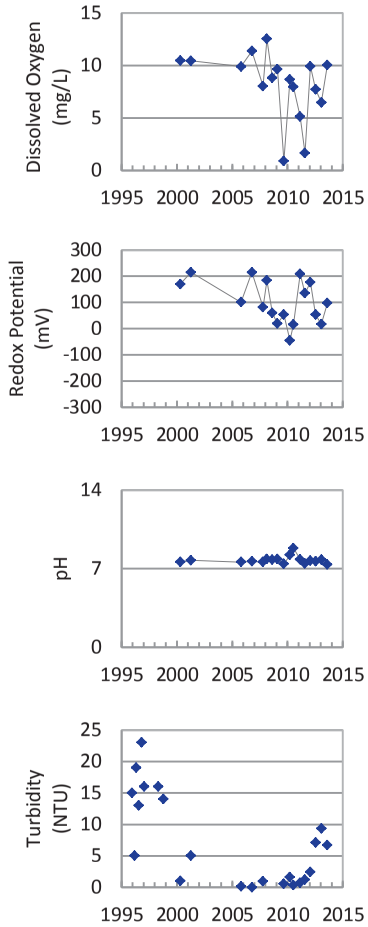
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/14/1995 to 8/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1O02
Boron Trend in Perched Aquifer



Field Parameters



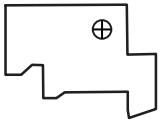
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

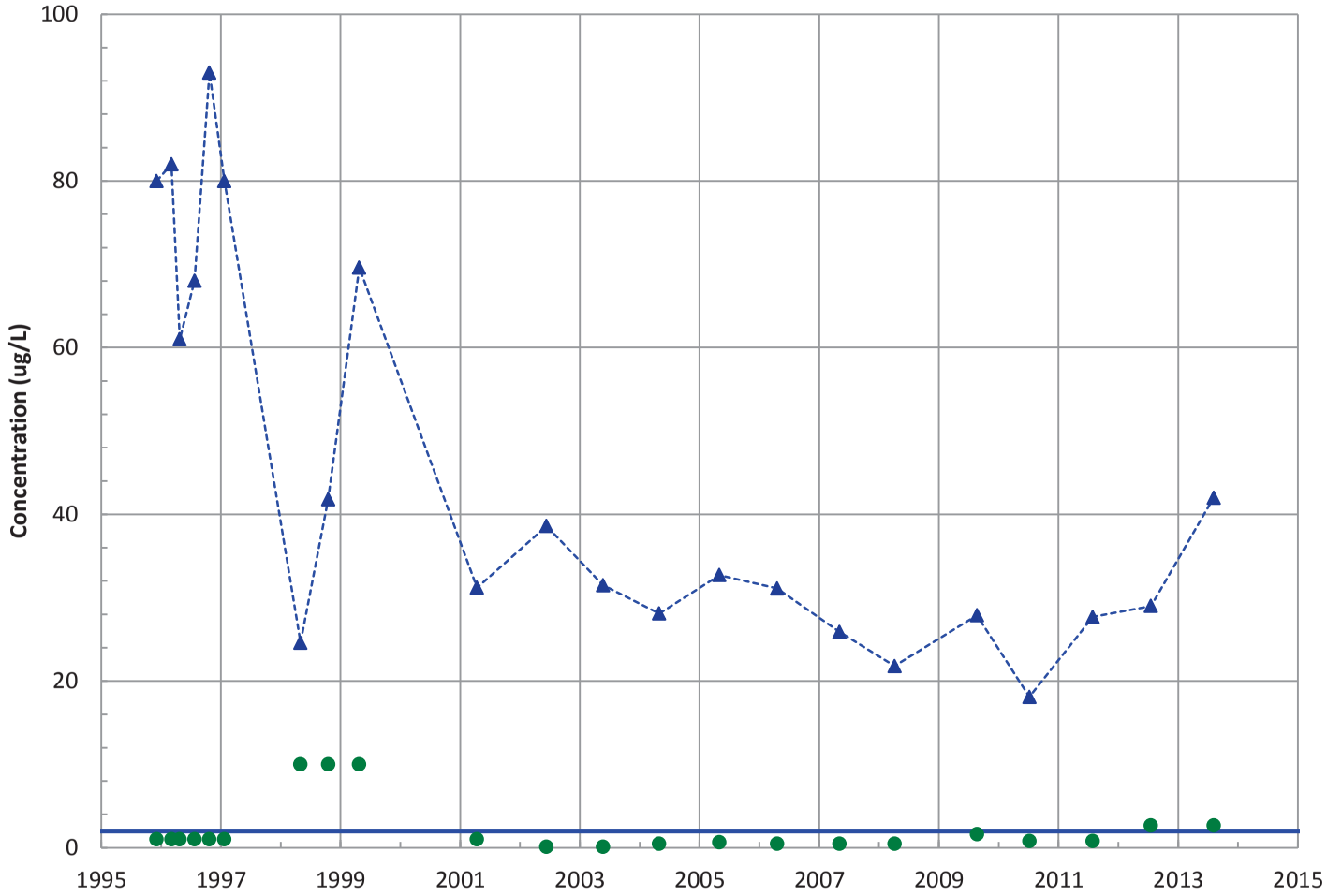
Well Location



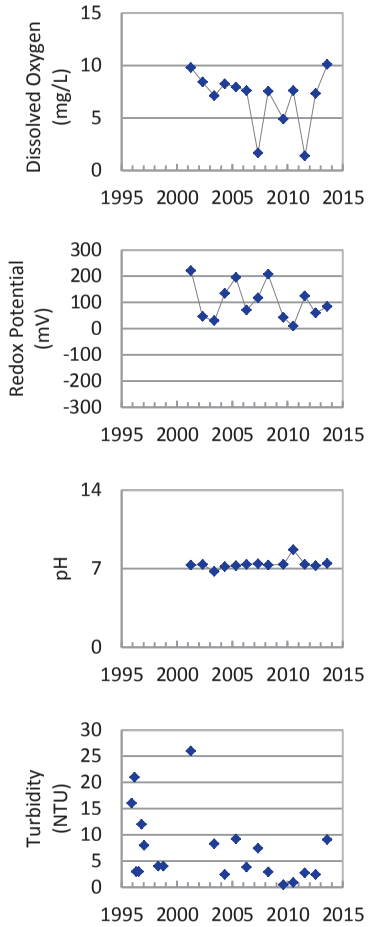
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/14/1995 to 8/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1O03
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



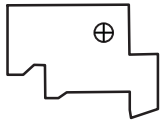
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Increasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Probably Increasing
2011 - 2013 Data: Increasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

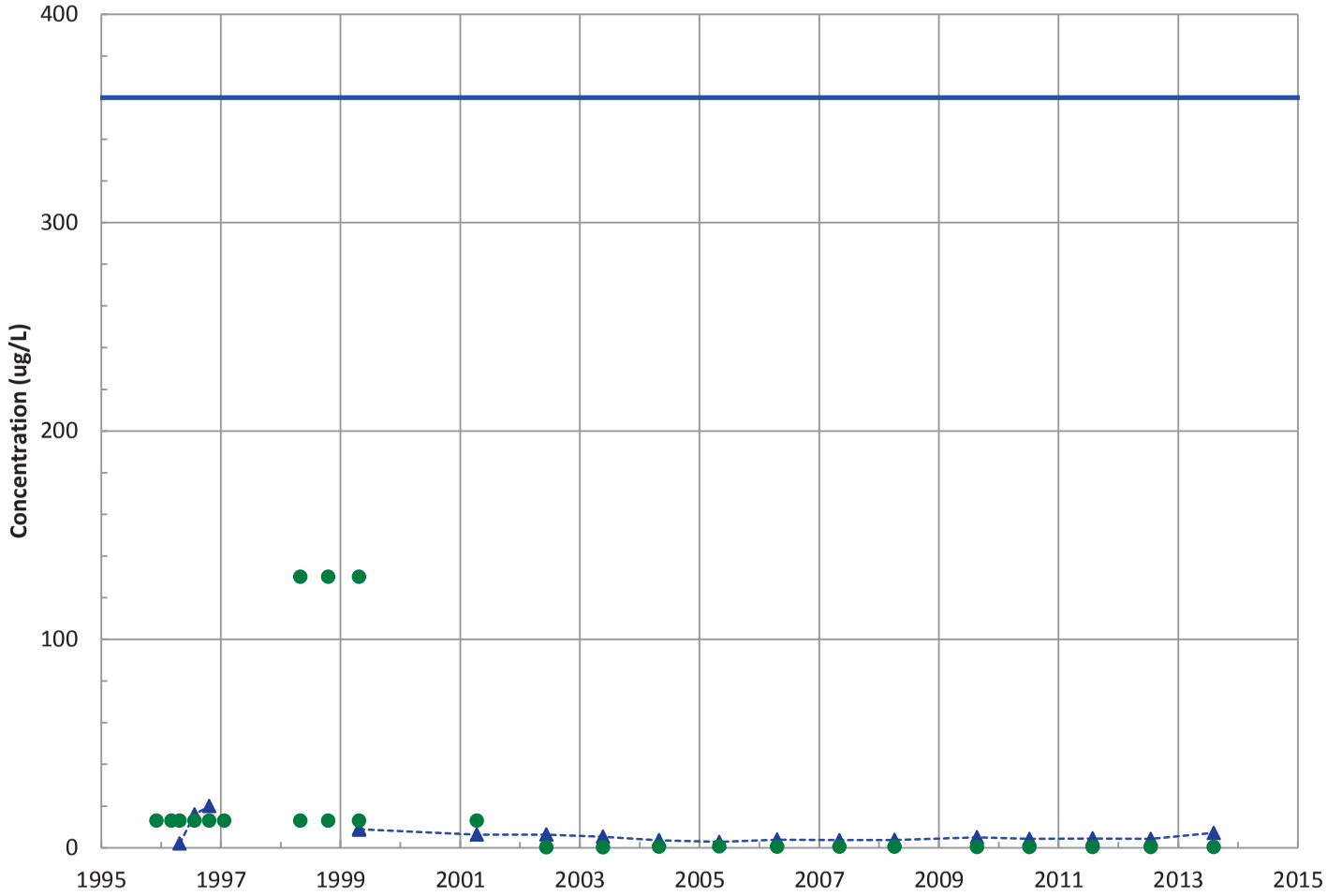
Well Location



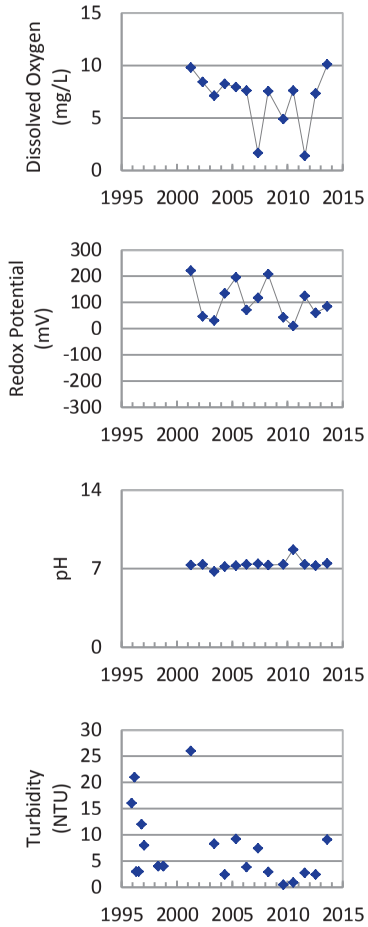
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/6/1995 to 8/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1O03
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



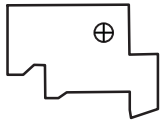
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Increasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

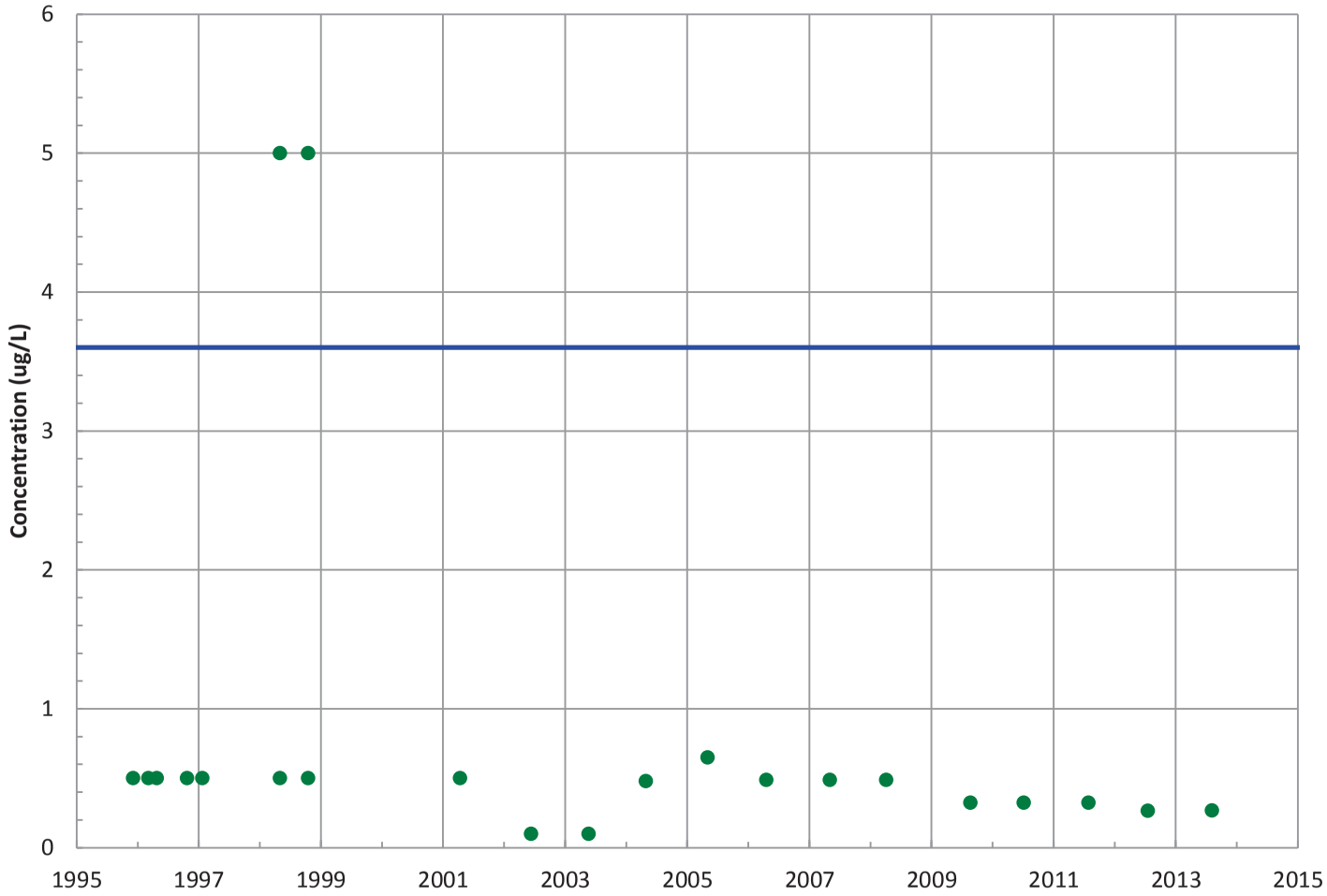
Well Location



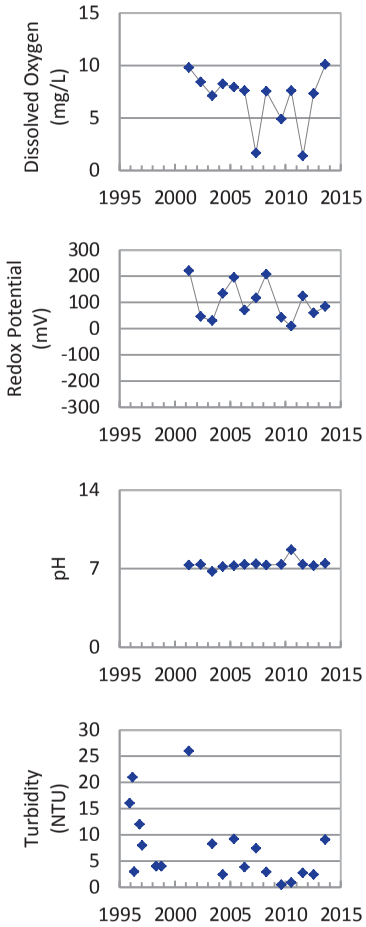
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/6/1995 to 8/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1O03
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



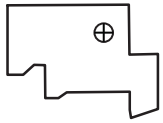
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

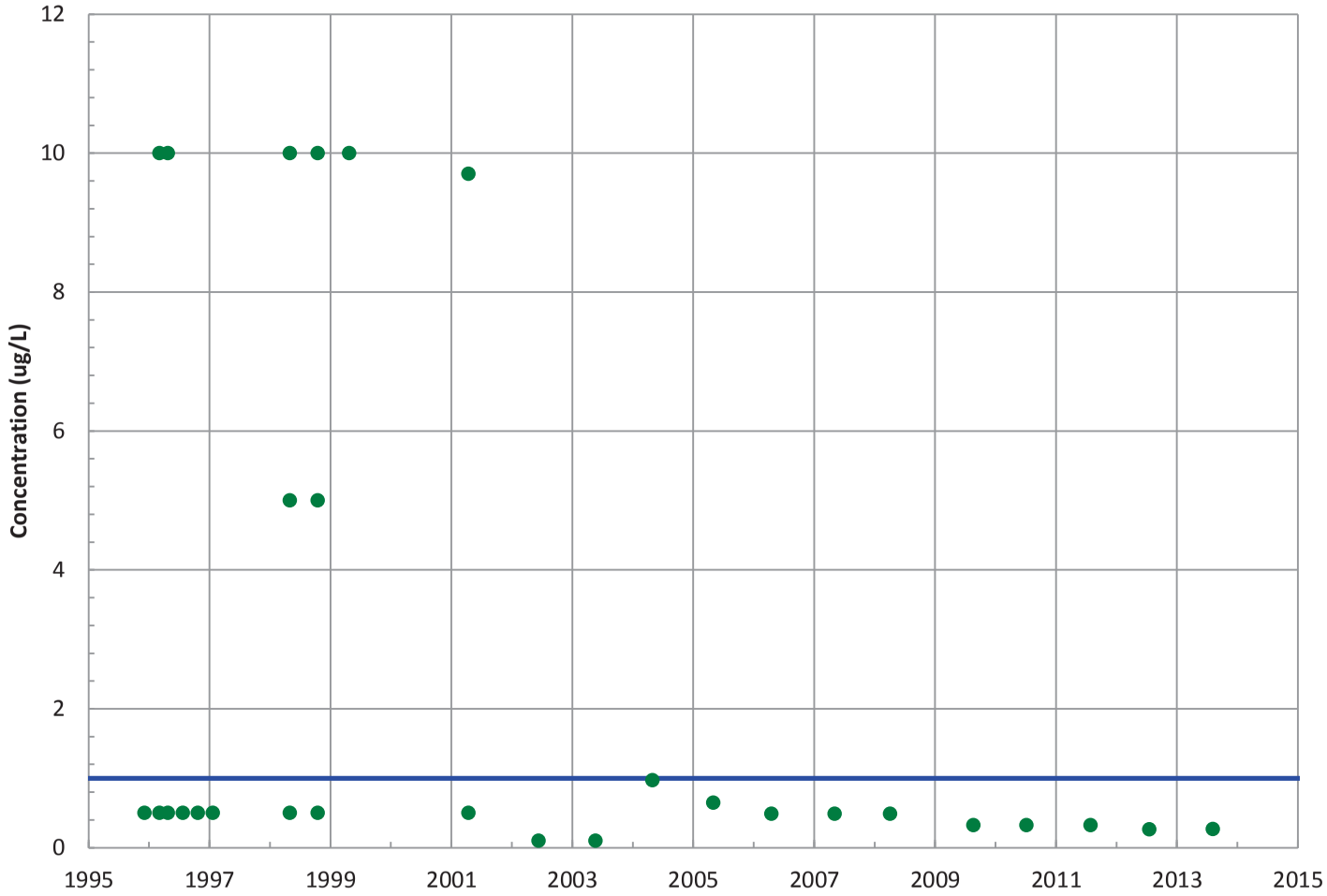
Well Location



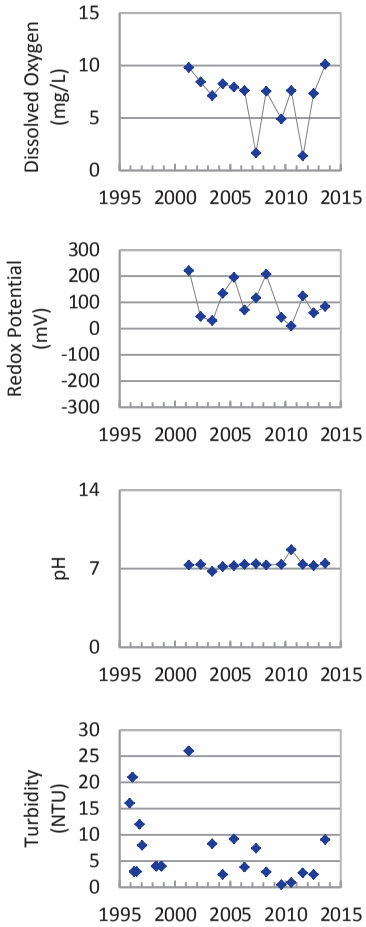
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/6/1995 to 8/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1O03
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



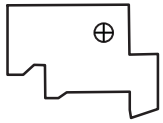
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

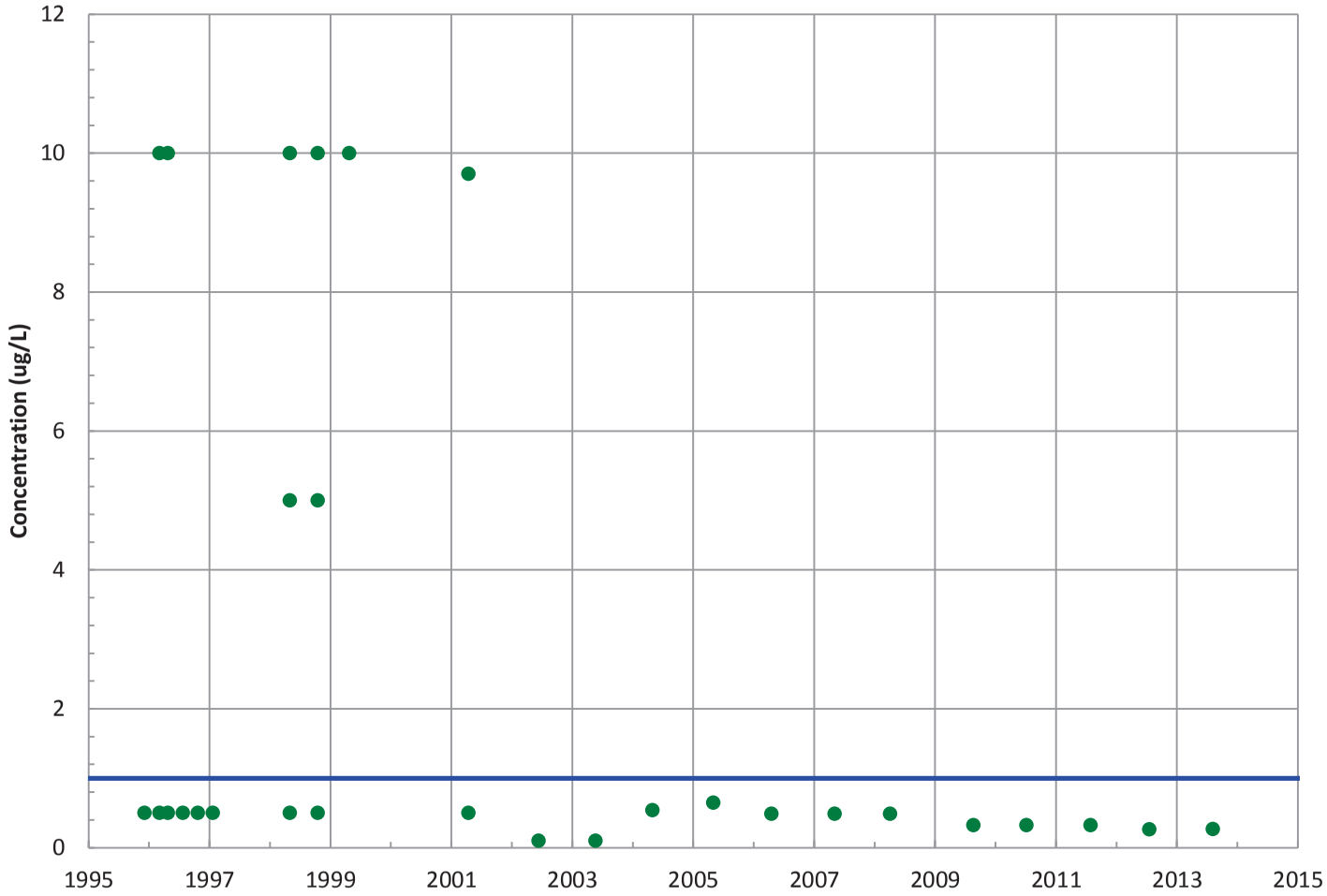
Well Location



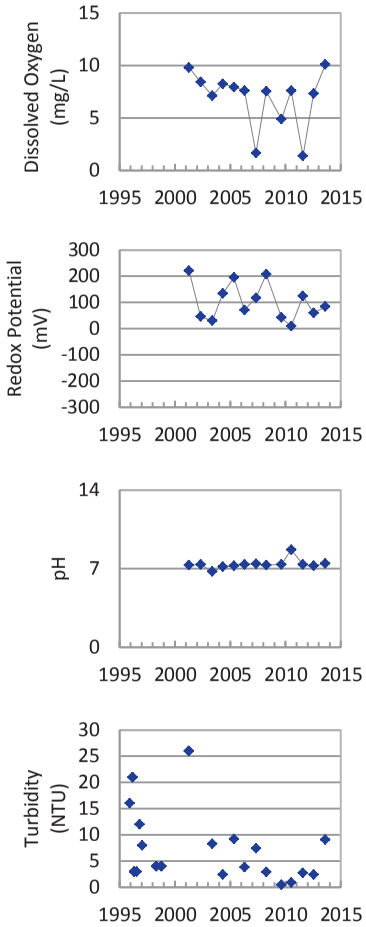
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/6/1995 to 8/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1O03
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



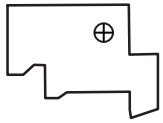
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

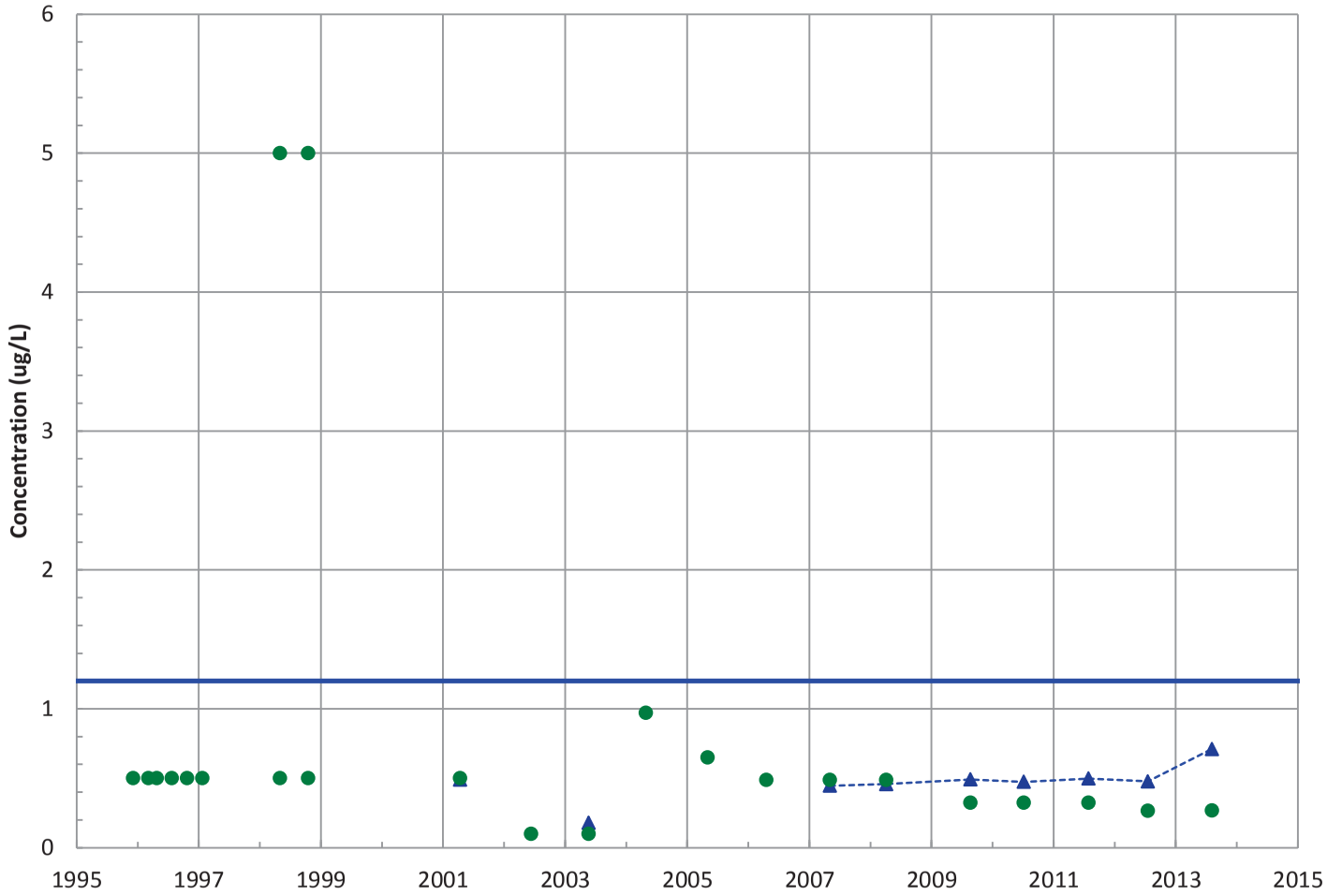
Well Location



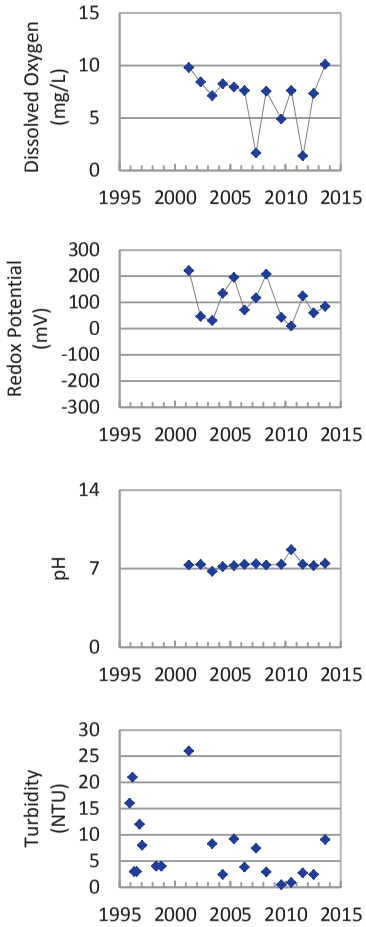
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/6/1995 to 8/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1O03
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



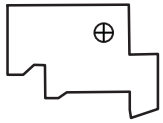
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Probably Increasing
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

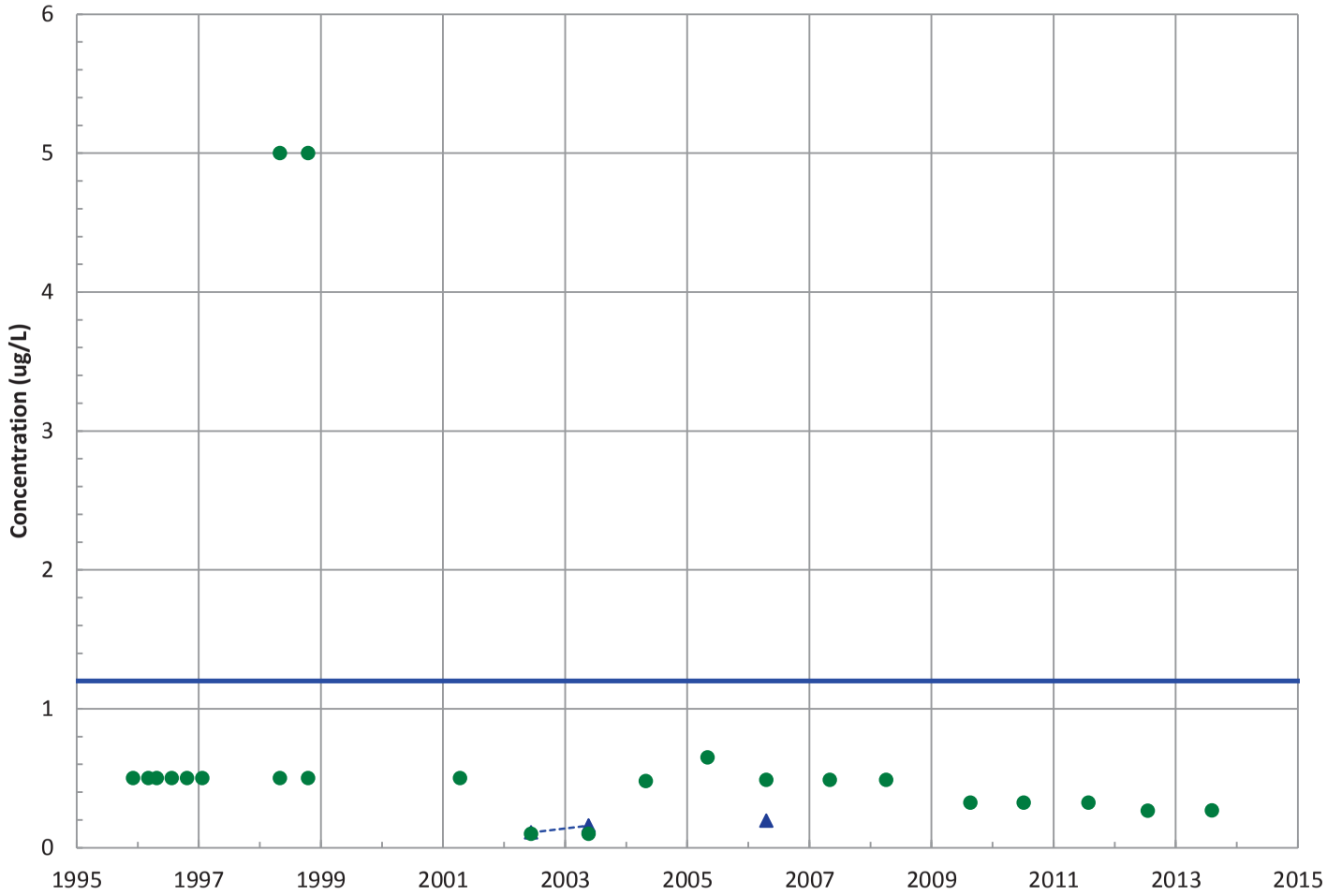
Well Location



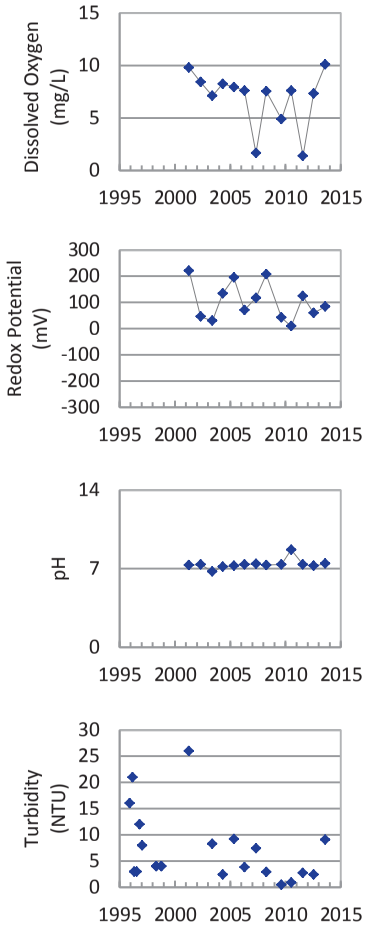
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/6/1995 to 8/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1O03
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): All Non-Detect

2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method

Data (7/2009 - 12/2013): All Non-Detect

2011 - 2013 Data: N/A (<4 Detections in Dataset)

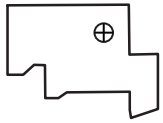
▲ Measured Value

● Sample Detection Limit

------- Concentration Trend

—— Groundwater Protection Standard

Well Location



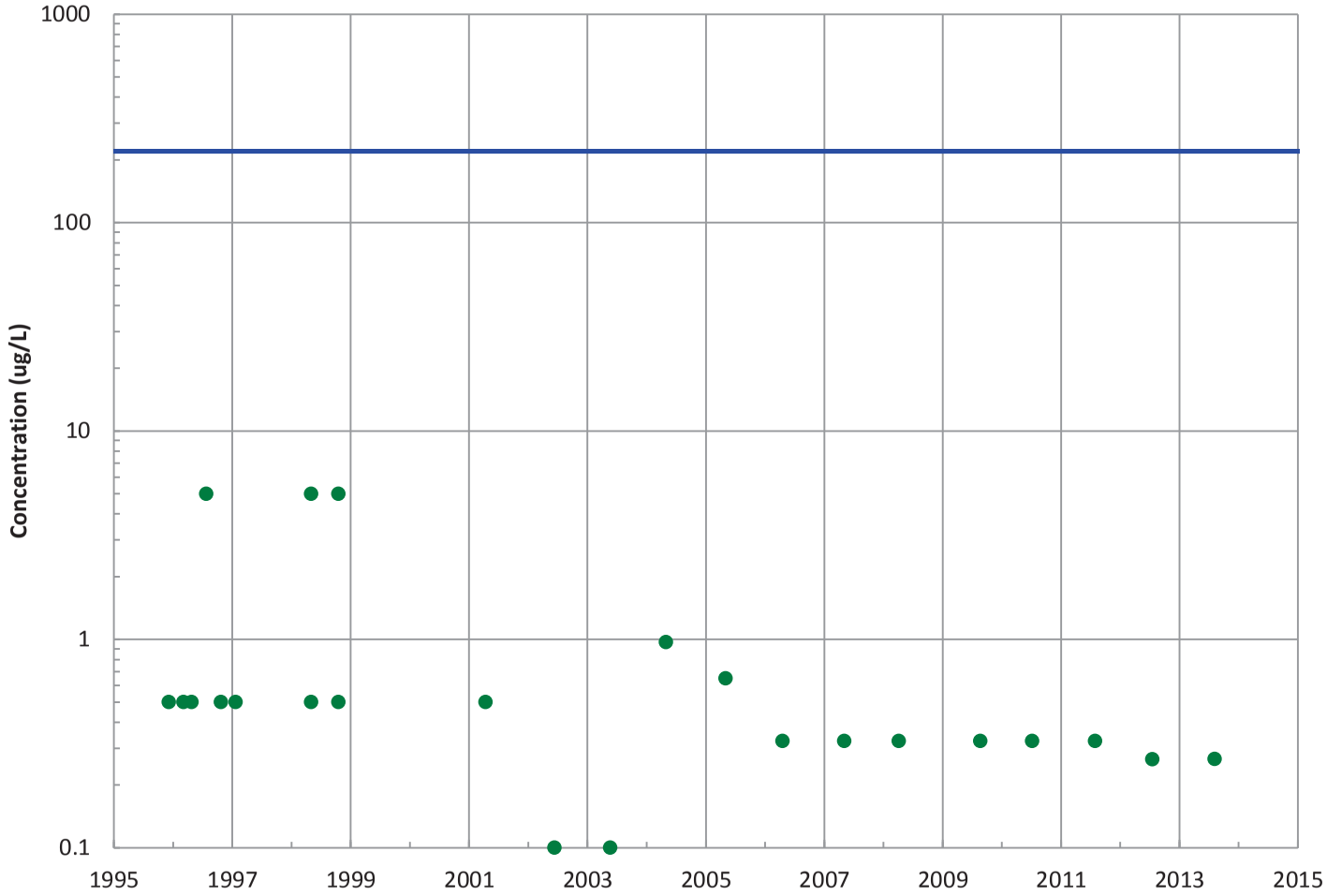
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 12/6/1995 to 8/19/2013

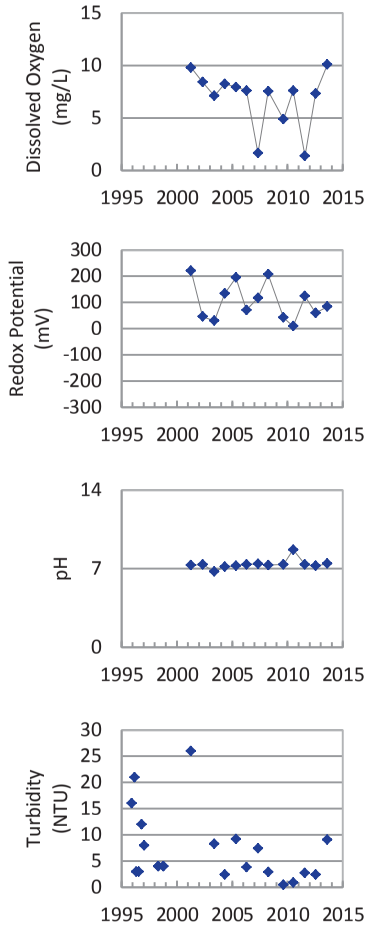
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1O03
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



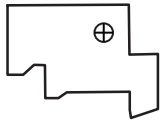
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

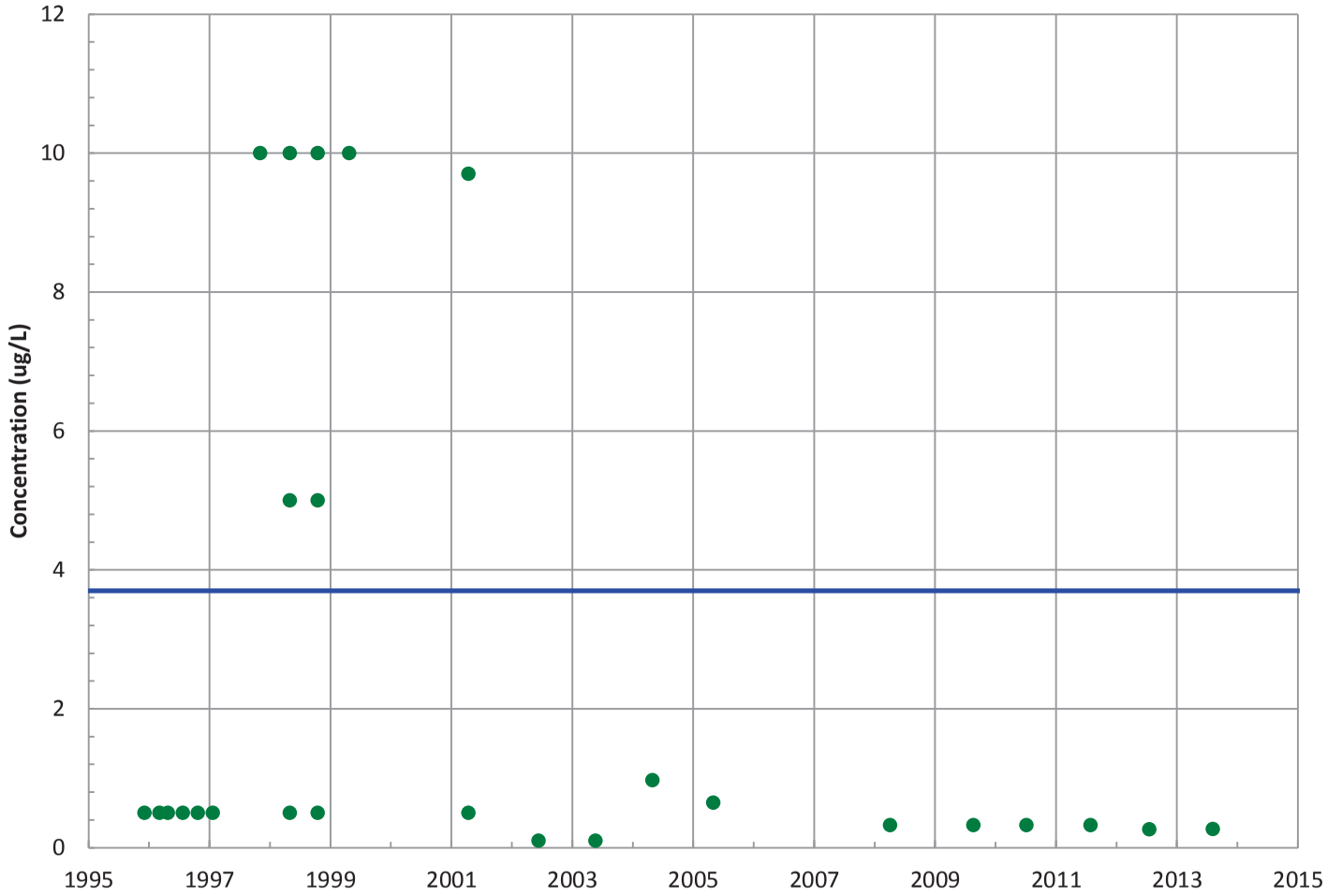
Well Location



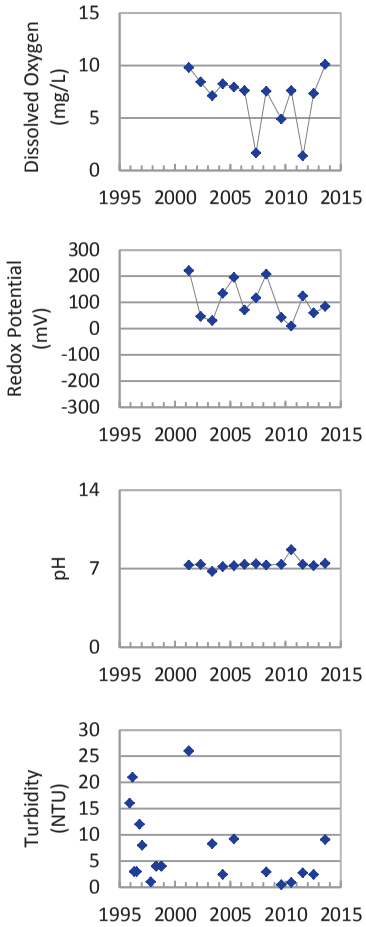
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/6/1995 to 8/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1O03
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



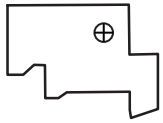
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

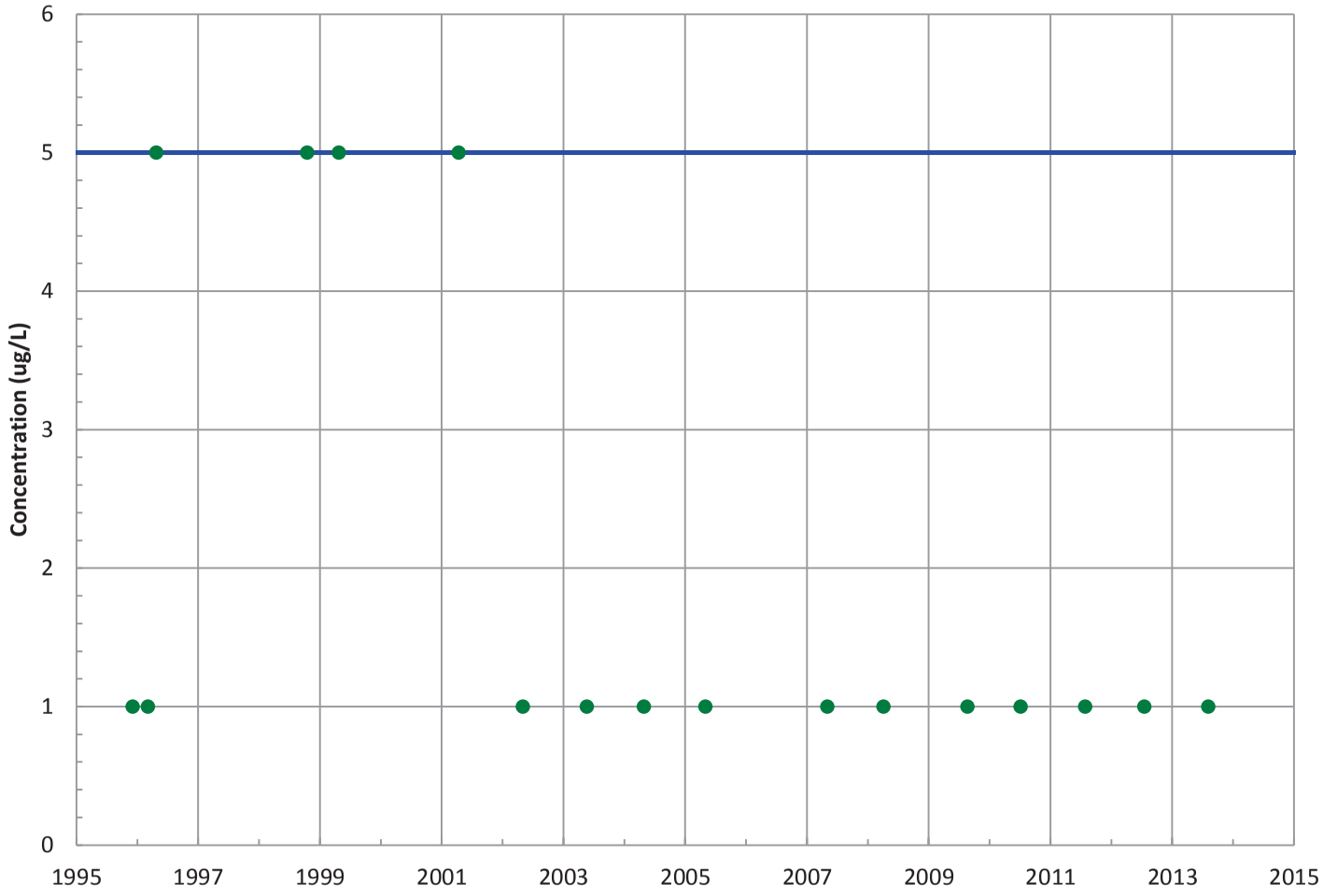
Well Location



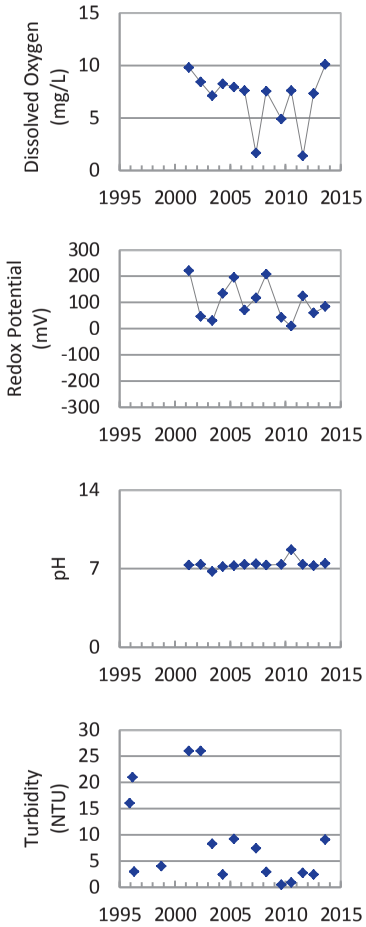
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/6/1995 to 8/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1O03
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



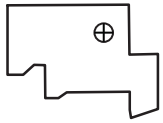
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

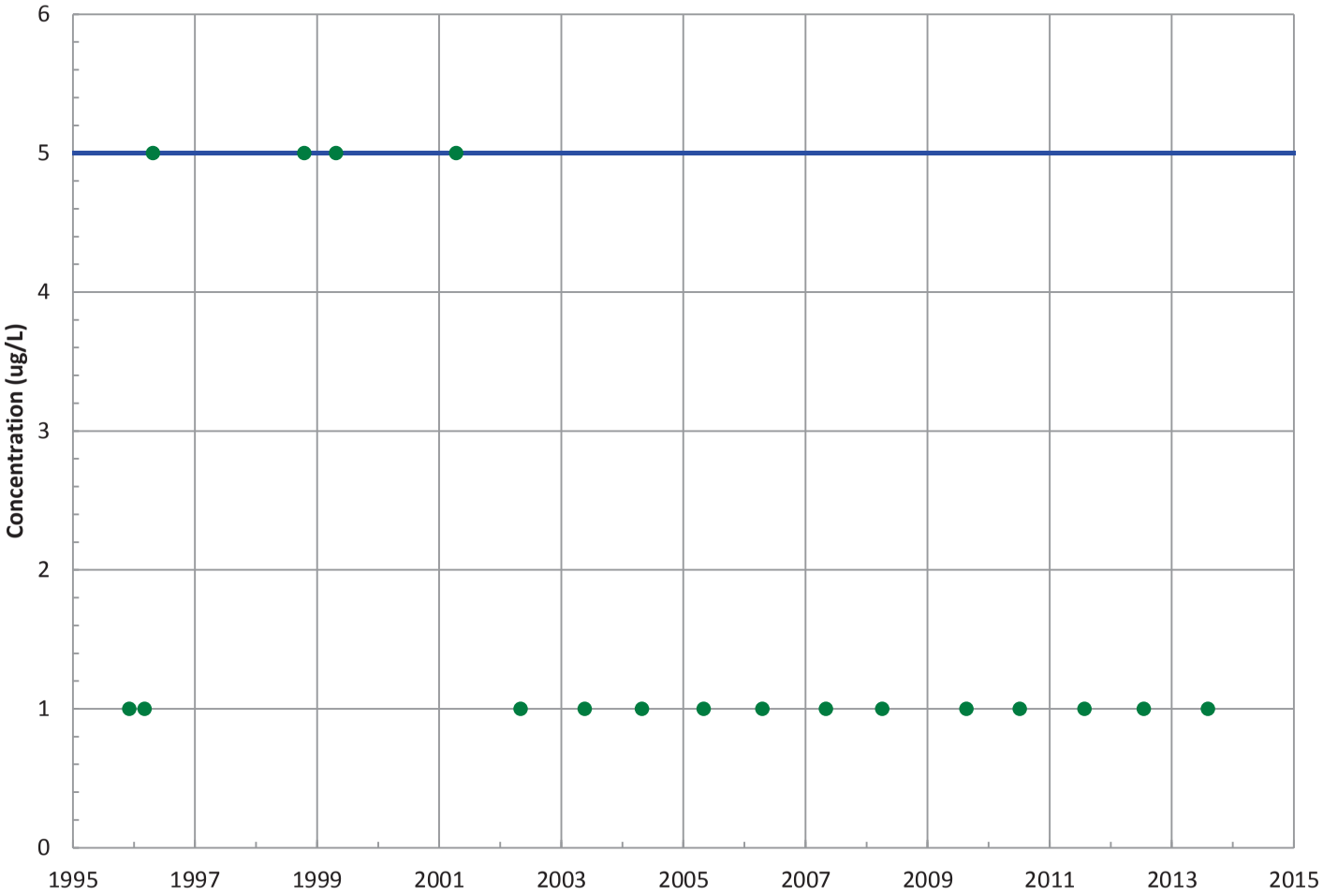
Well Location



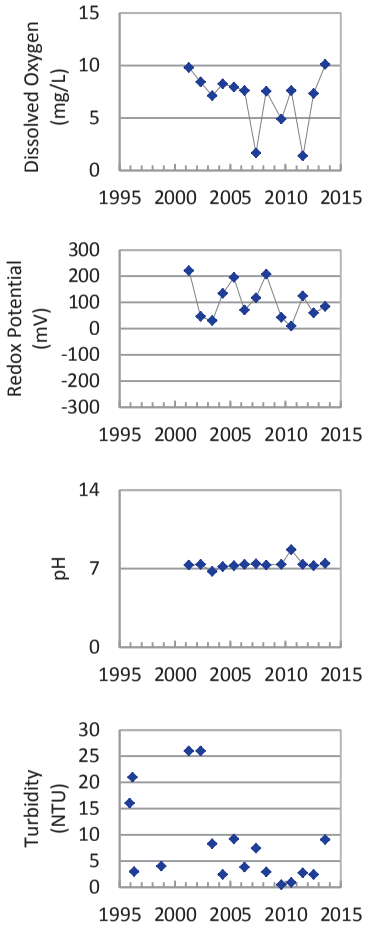
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/6/1995 to 8/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1O03
Trichloroethene Trend in Perched Aquifer



Field Parameters



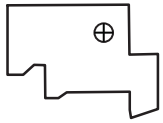
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

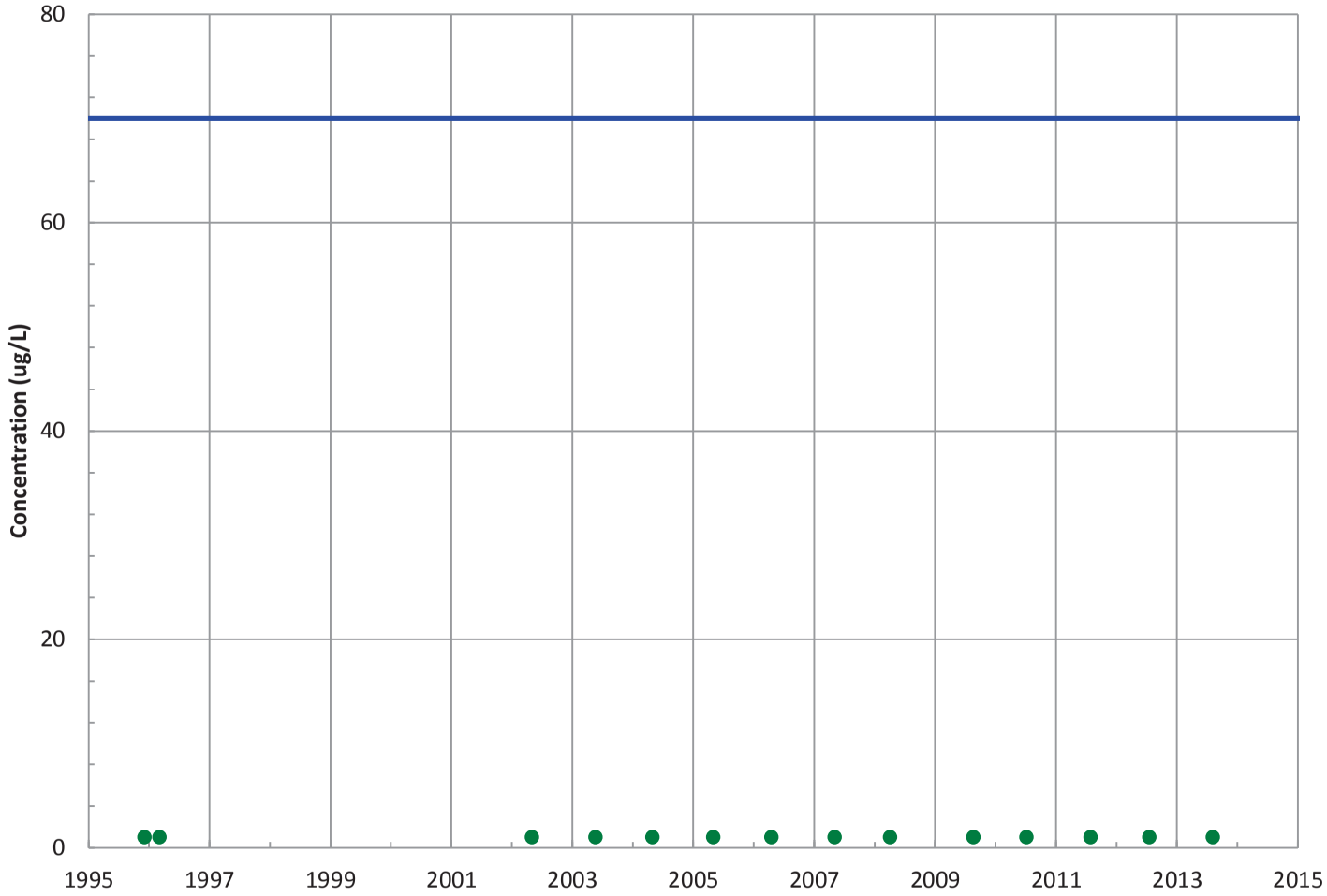
Well Location



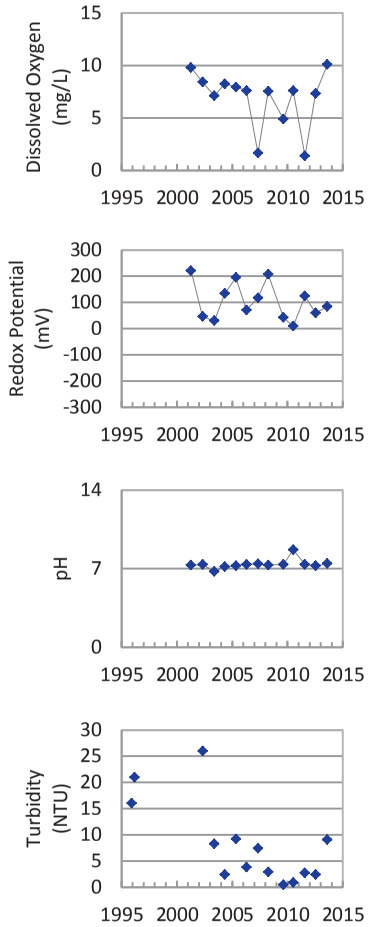
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/6/1995 to 8/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1O03
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



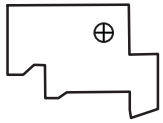
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

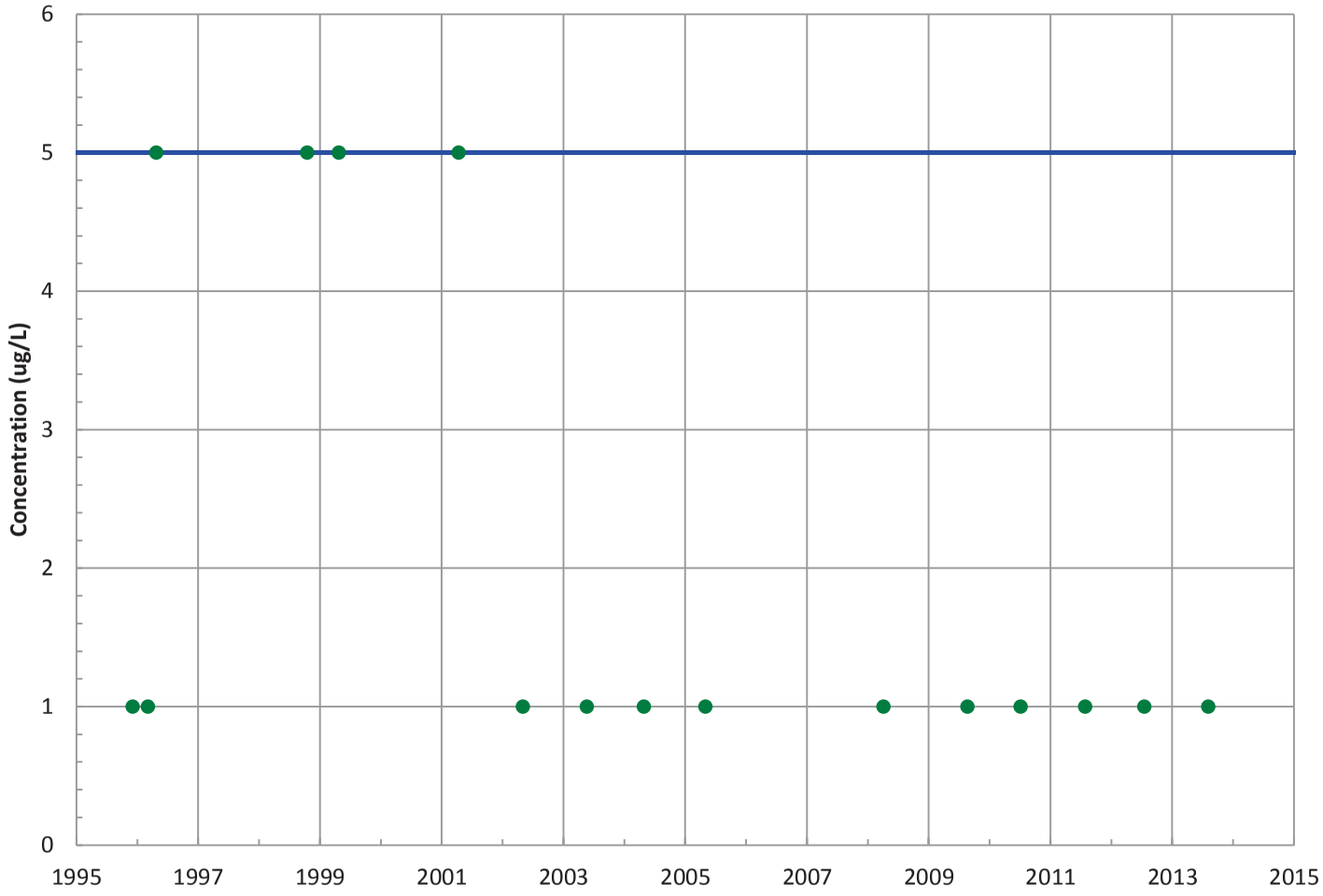
Well Location



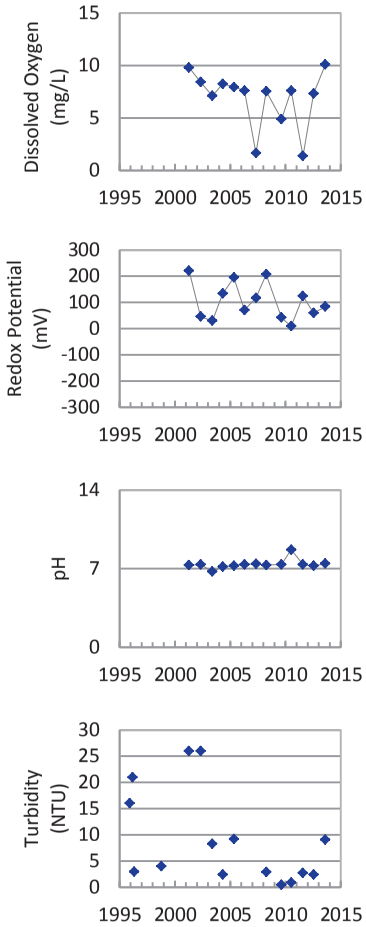
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/6/1995 to 8/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1O03
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



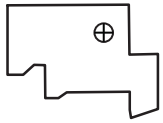
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

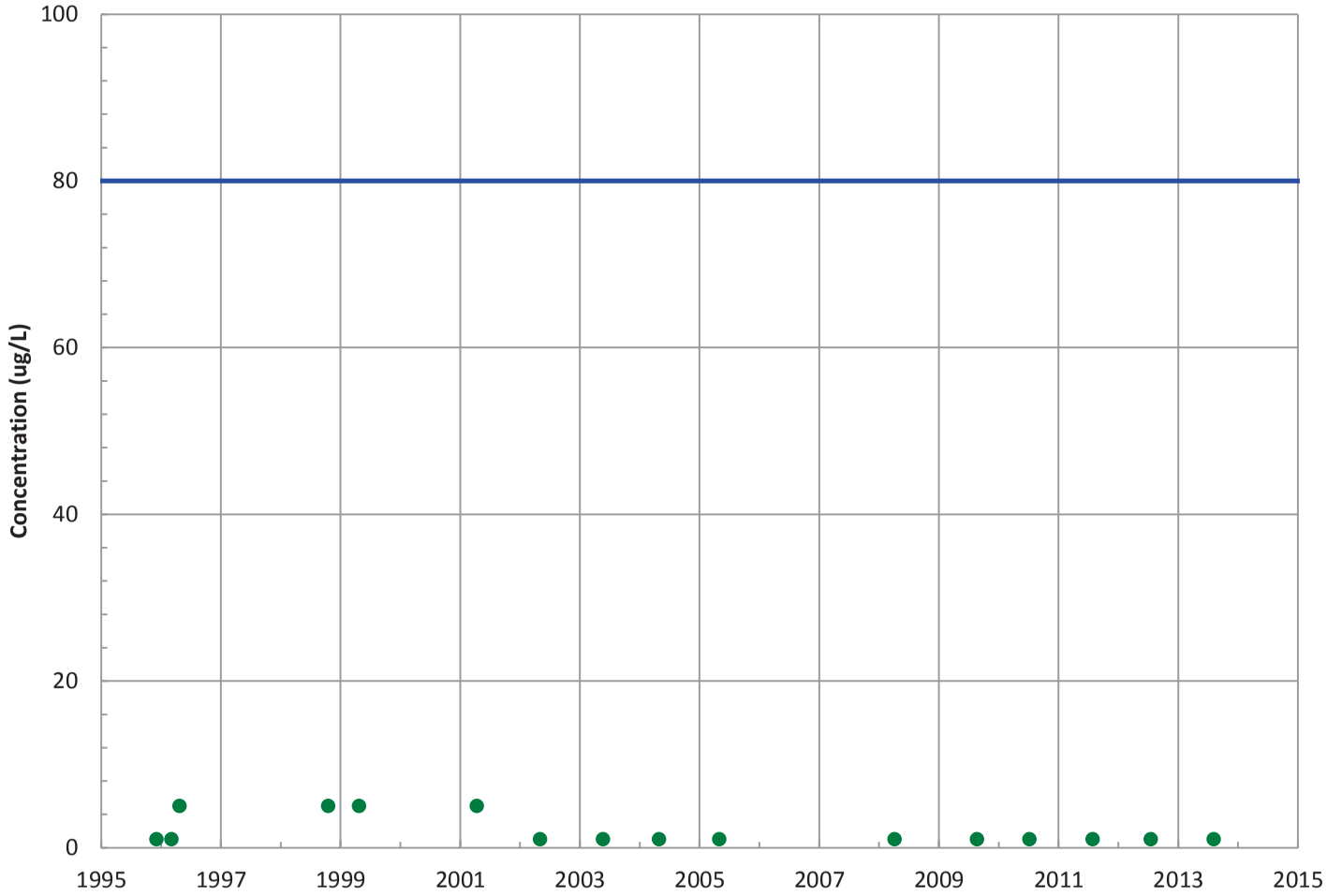
Well Location



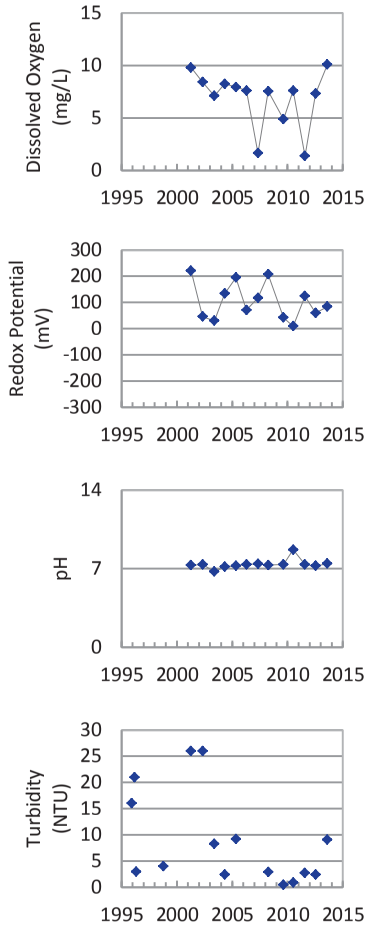
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/6/1995 to 8/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1O03
Chloroform Trend in Perched Aquifer



Field Parameters



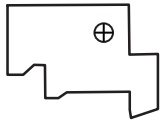
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

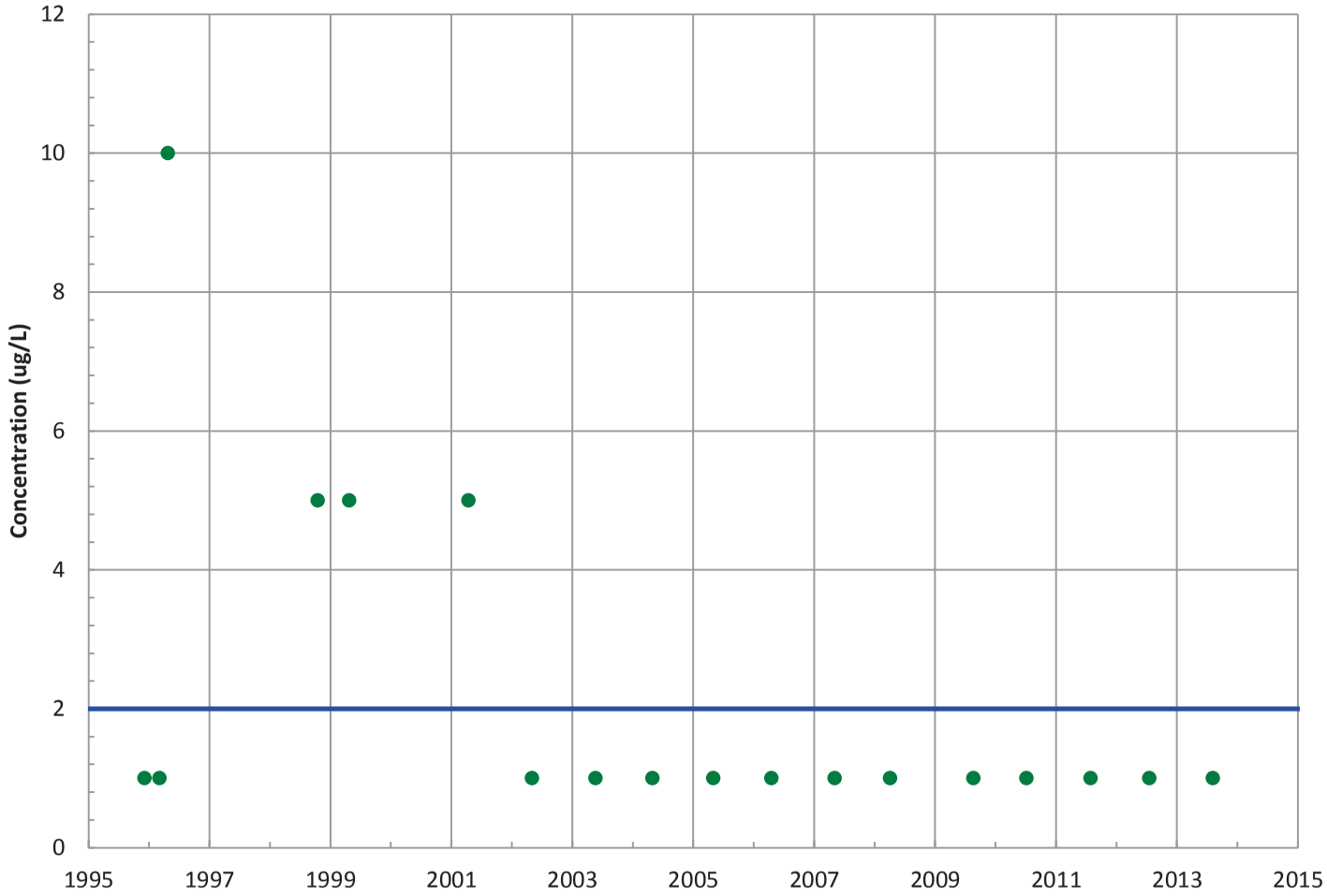
Well Location



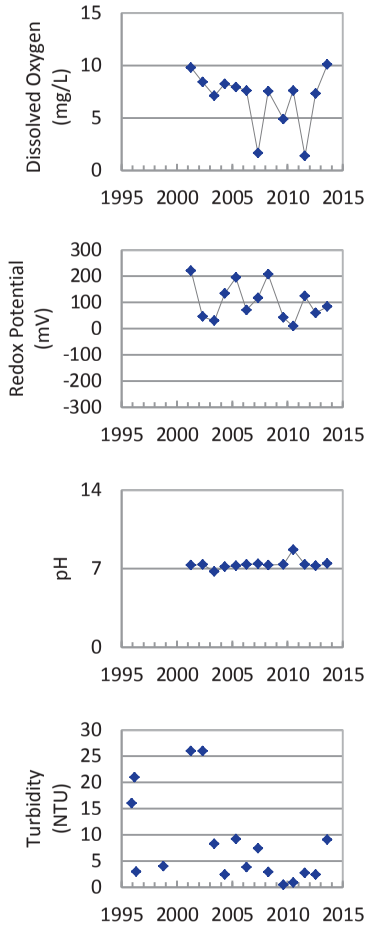
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/6/1995 to 8/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1O03
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



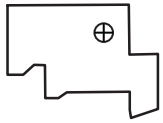
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

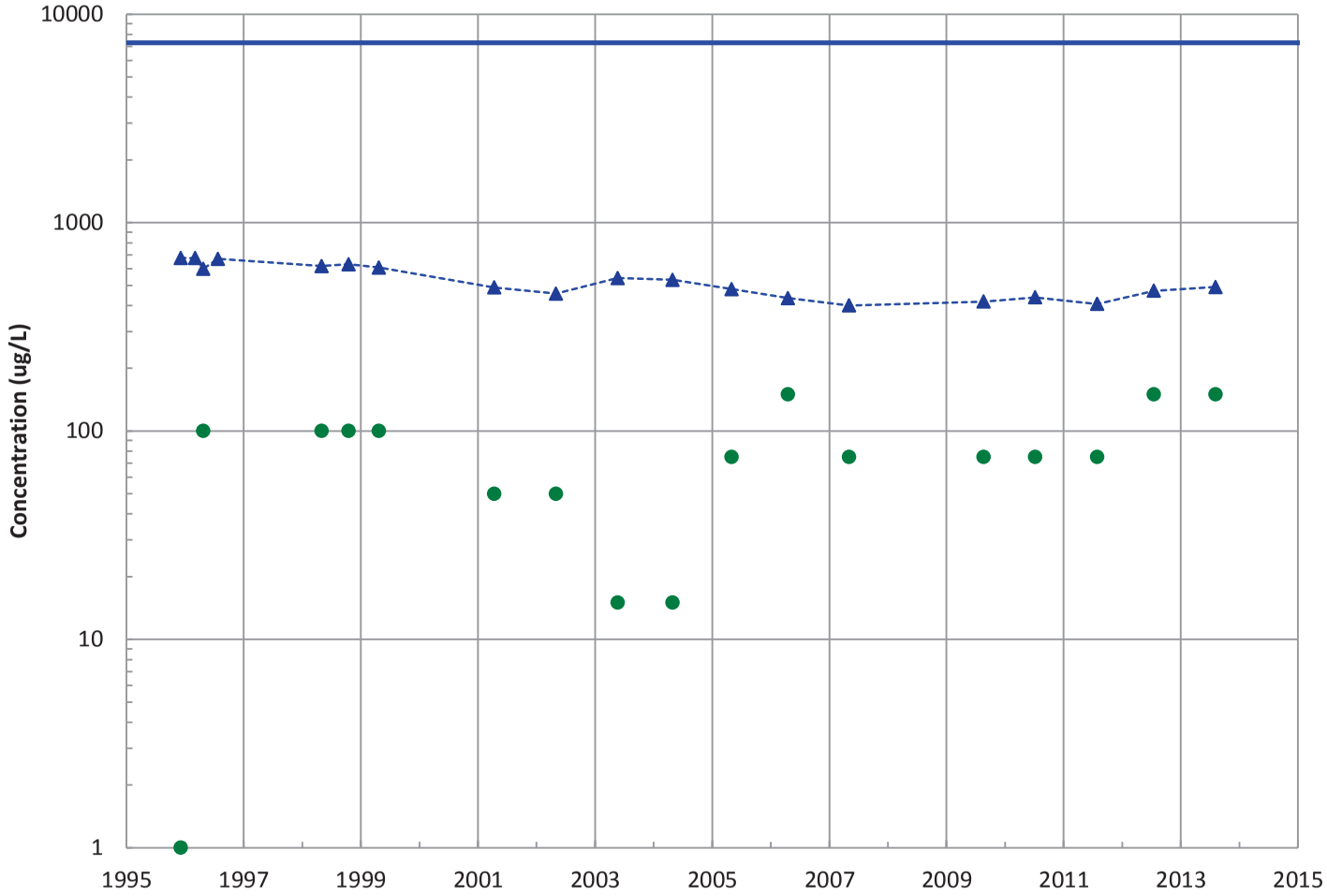
Well Location



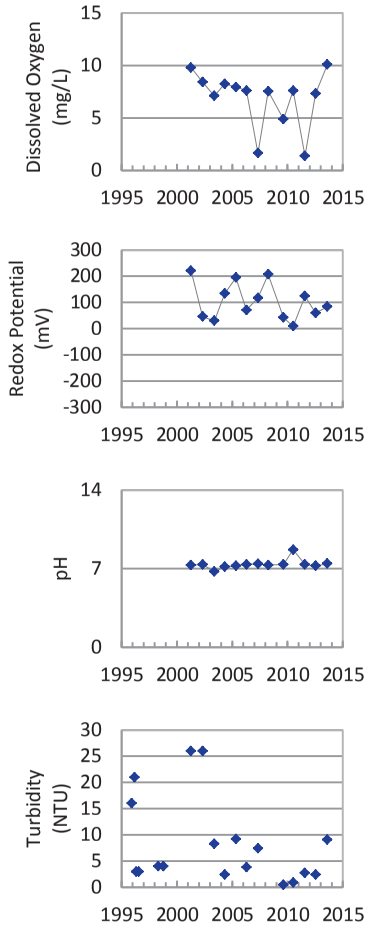
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/6/1995 to 8/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1O03
Boron Trend in Perched Aquifer



Field Parameters



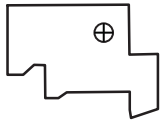
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Probably Increasing
2011 - 2013 Data: No Trend

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

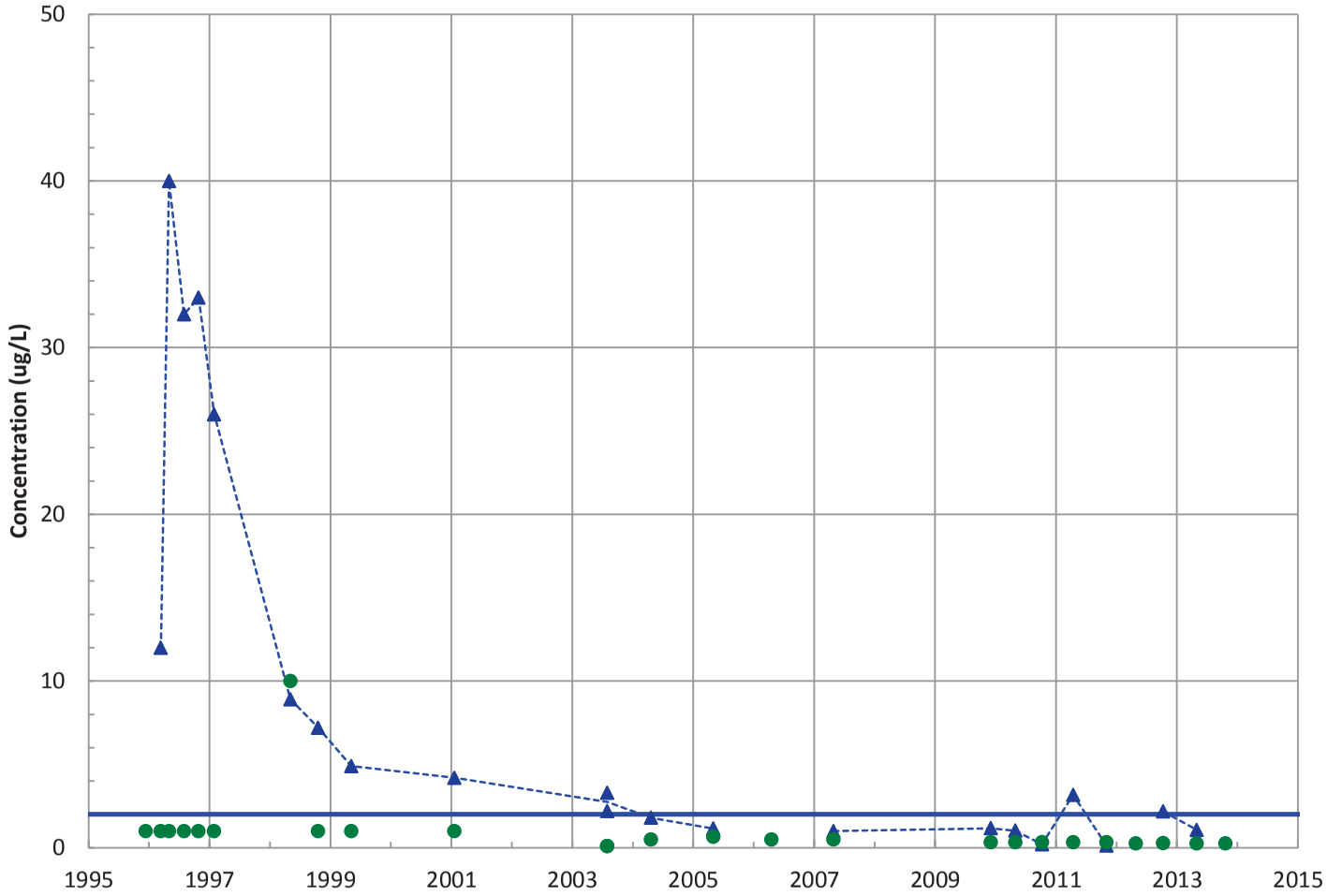
Well Location



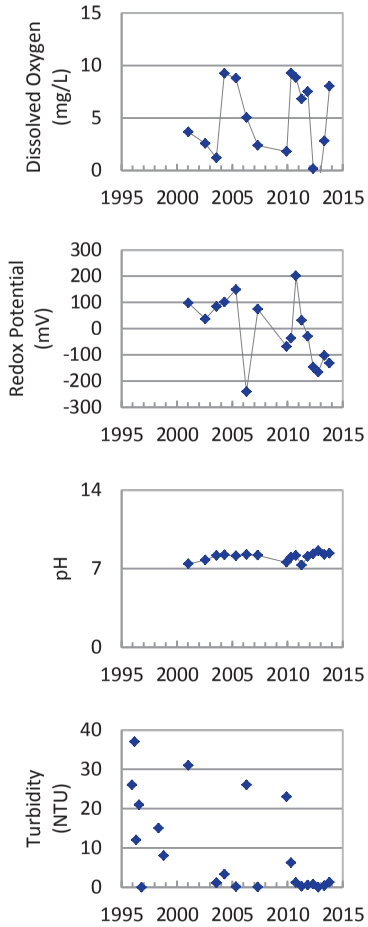
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/6/1995 to 8/19/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1P02
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Decreasing

2011 - 2013 Data: N/A (<4 Detections in Dataset)

MAROS Linear Regression Method

Data (7/2009 - 12/2013): No Trend

2011 - 2013 Data: No Trend

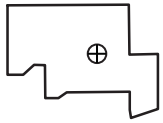
▲ Measured Value

● Sample Detection Limit

------ Concentration Trend

—— Groundwater Protection Standard

Well Location



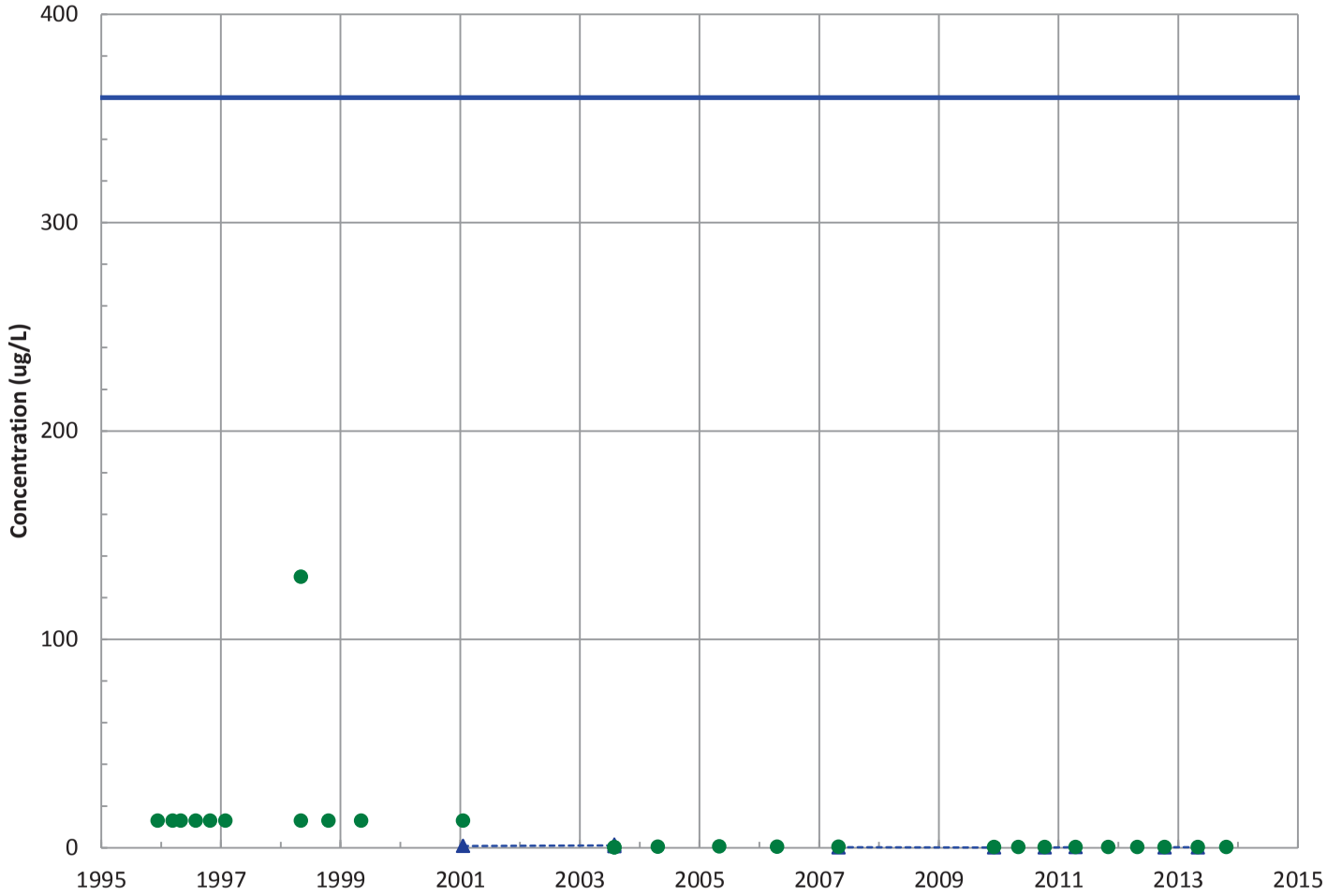
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 12/13/1995 to 11/4/2013

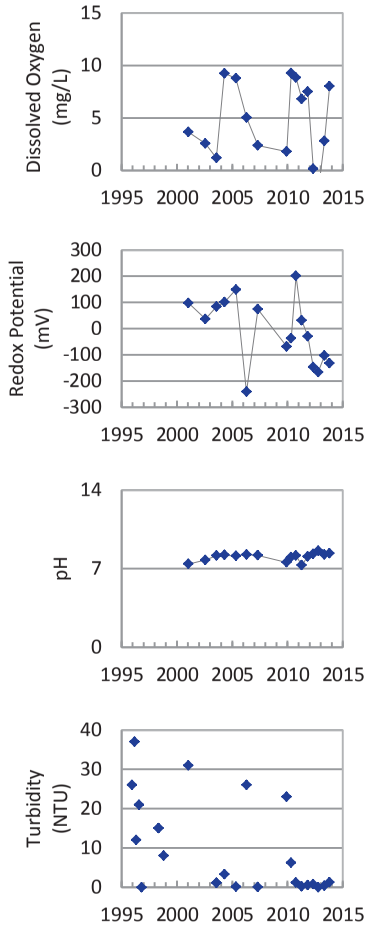
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1P02
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): No Trend

2011 - 2013 Data: N/A (<4 Detections in Dataset)

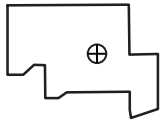
MAROS Linear Regression Method

Data (7/2009 - 12/2013): No Trend

2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location



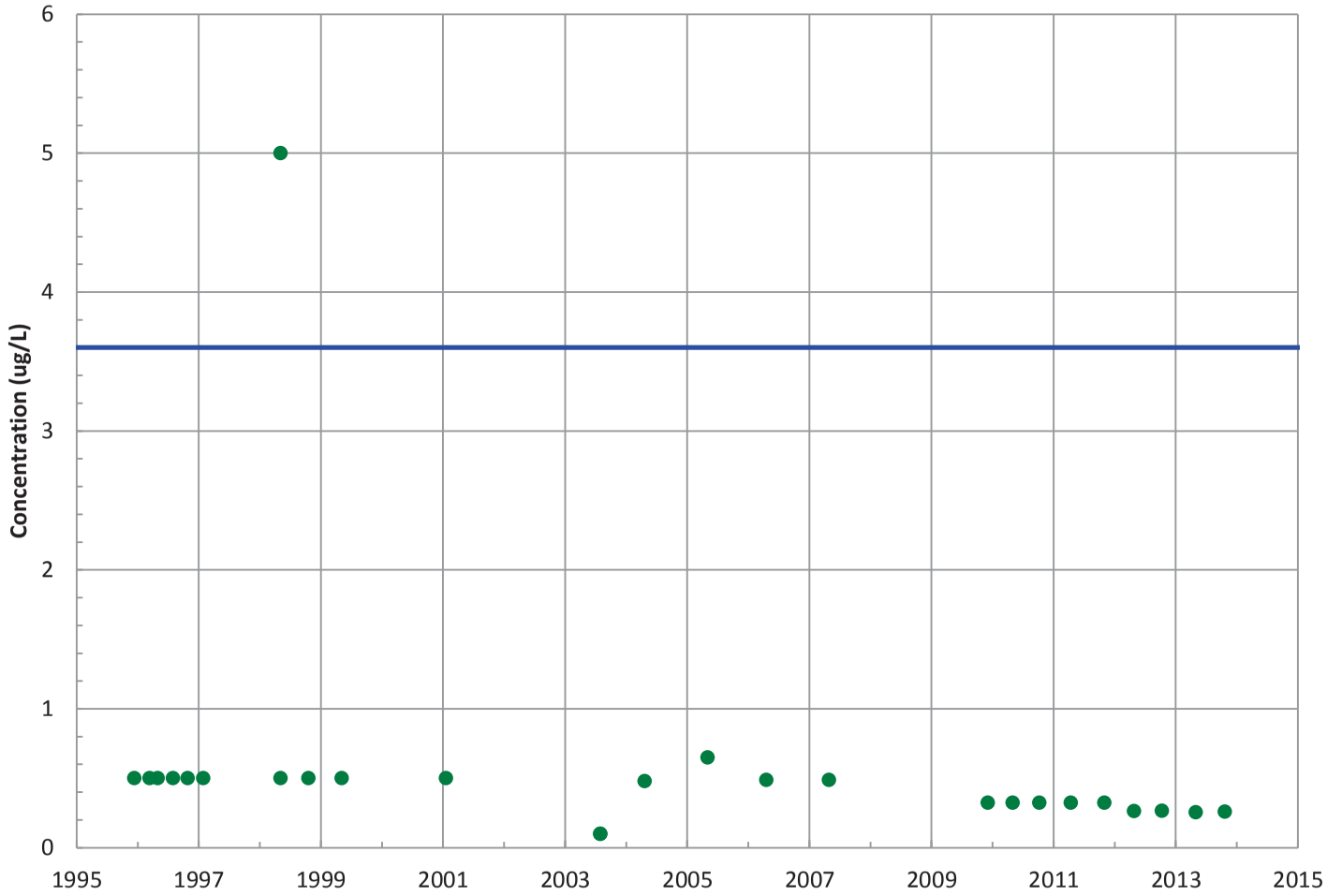
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 12/13/1995 to 11/4/2013

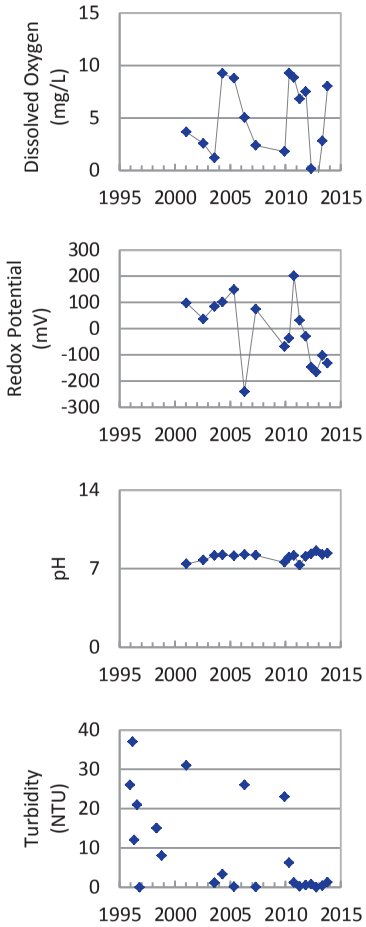
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1P02
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



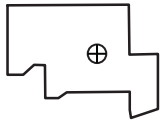
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

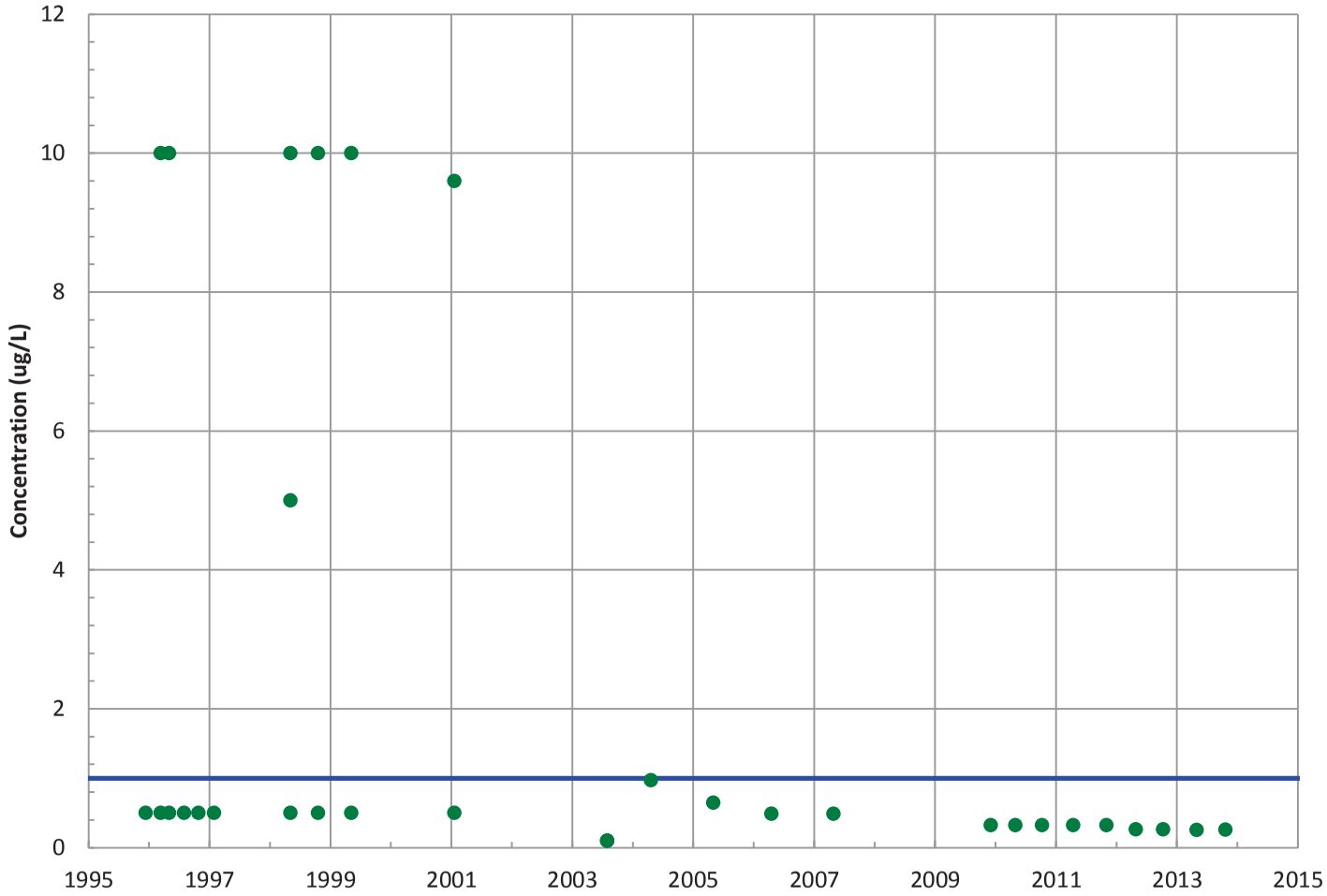
Well Location



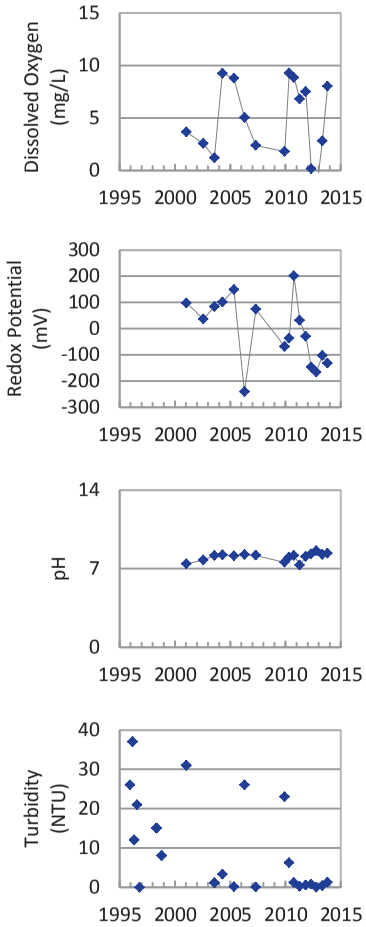
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/13/1995 to 11/4/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1P02
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



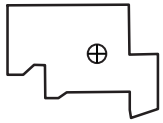
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

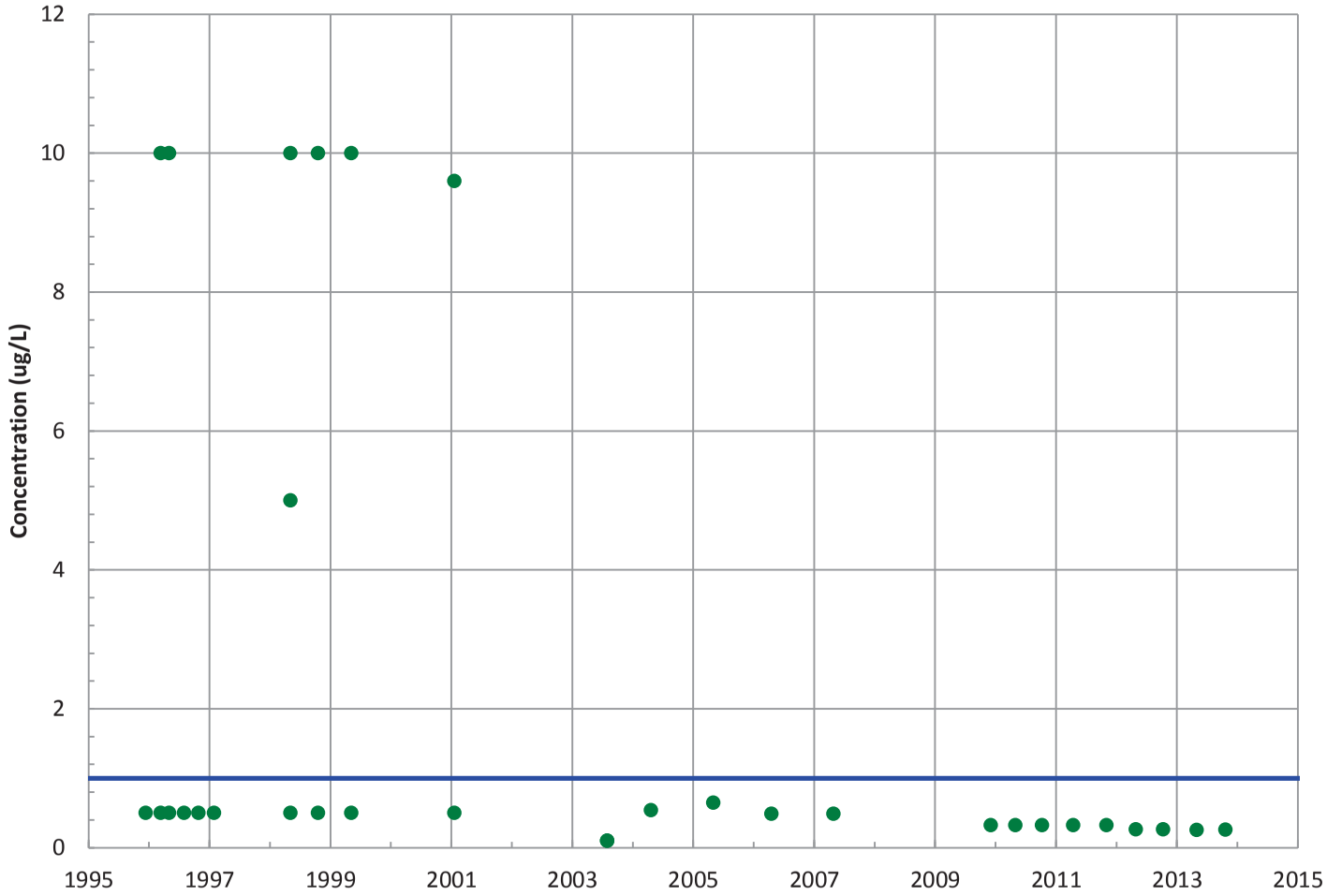
Well Location



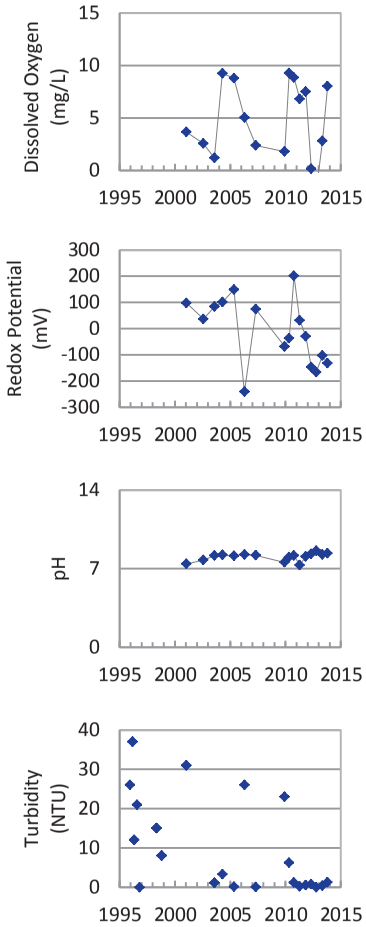
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/13/1995 to 11/4/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1P02
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



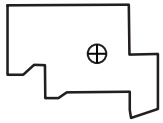
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

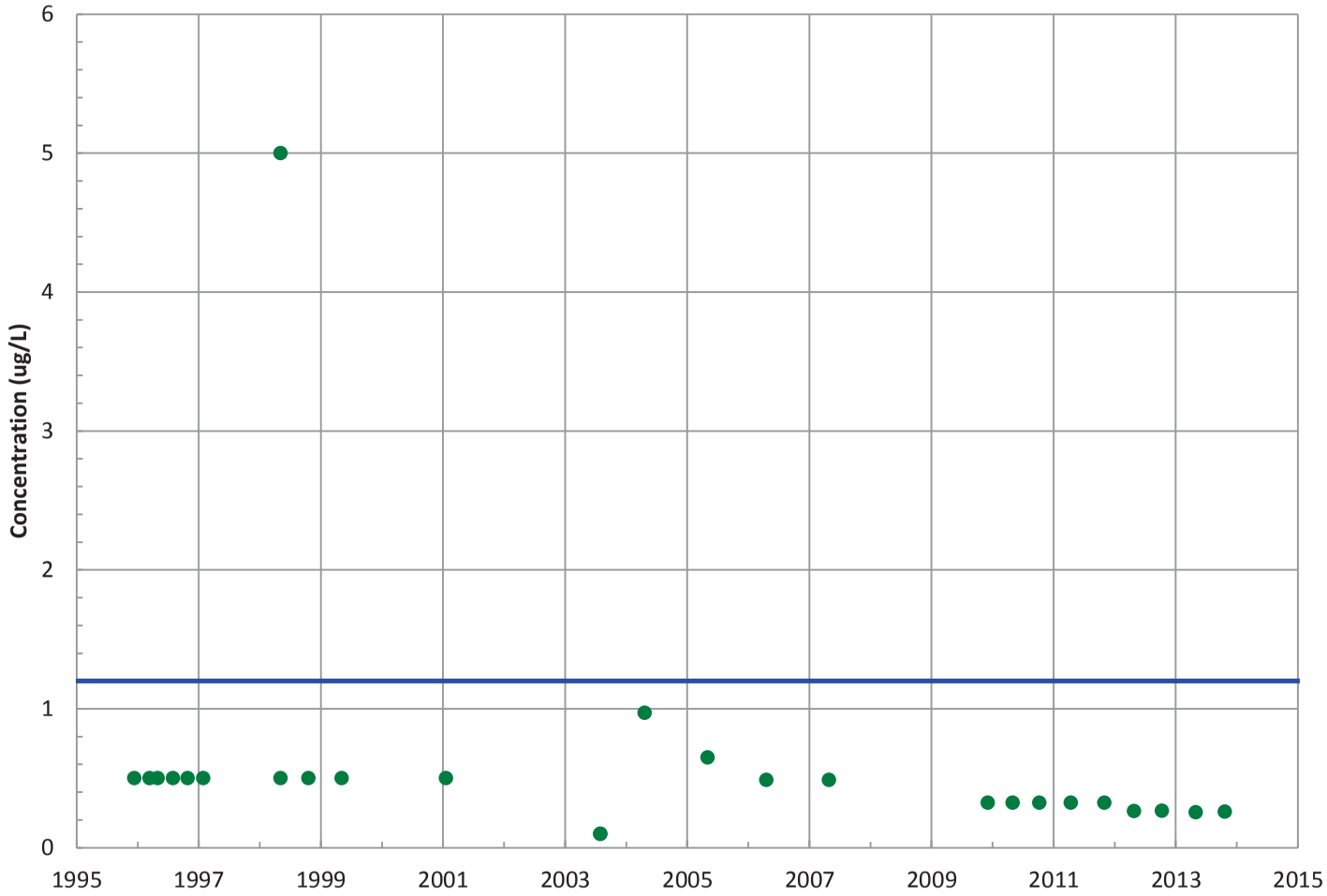
Well Location



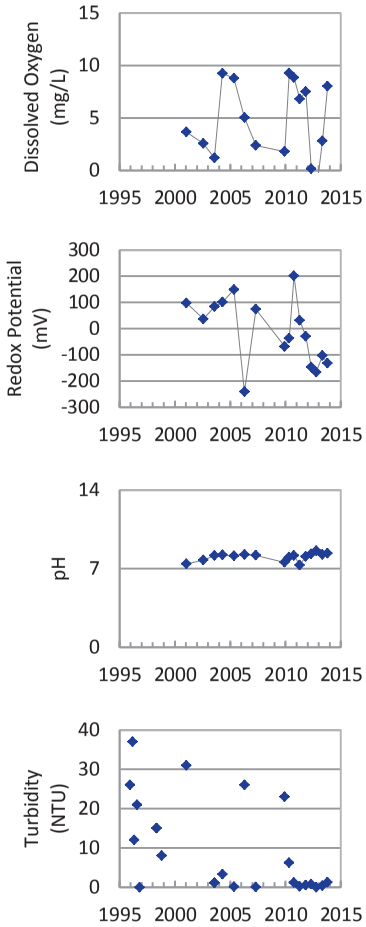
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/13/1995 to 11/4/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1P02
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



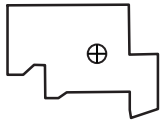
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

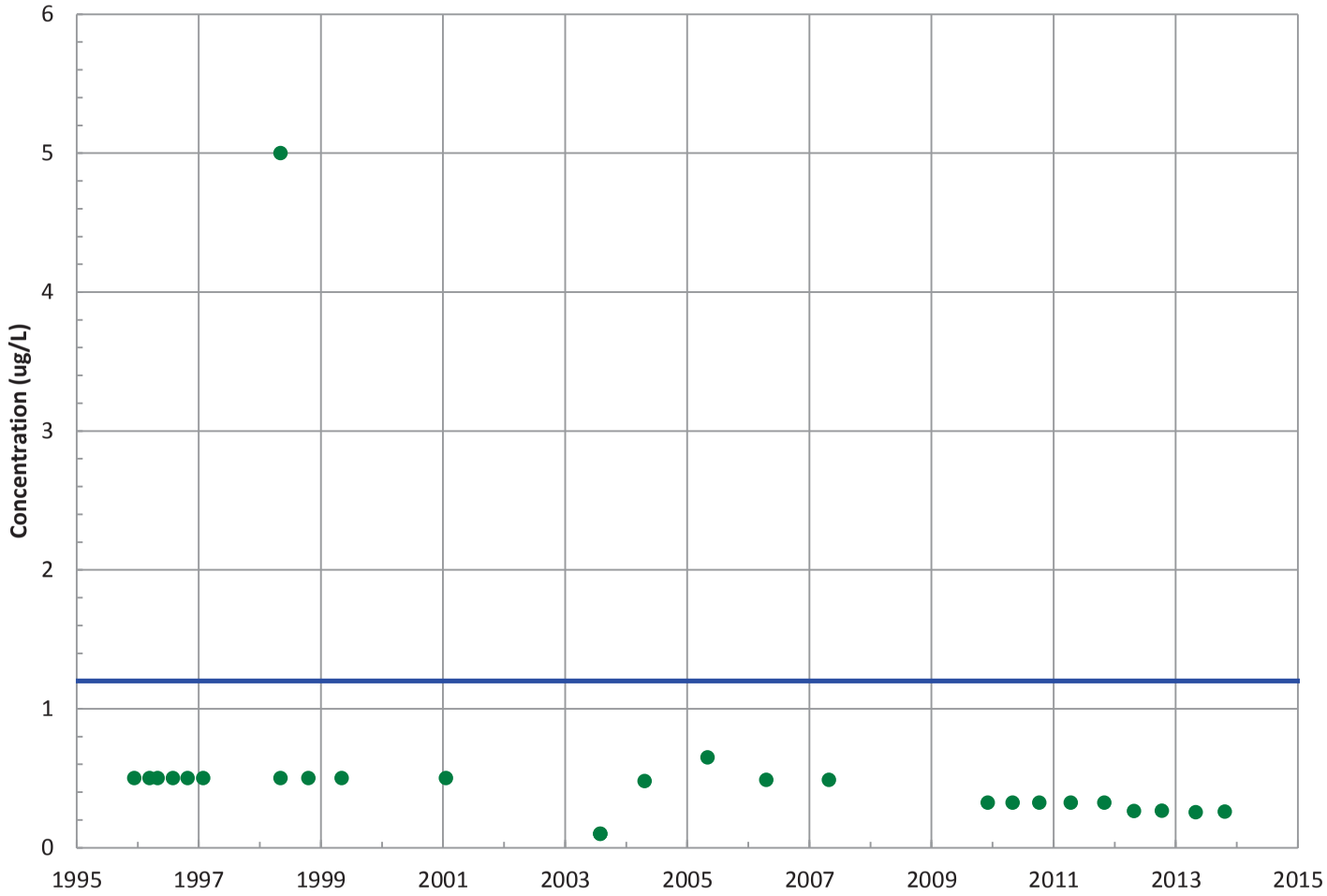
Well Location



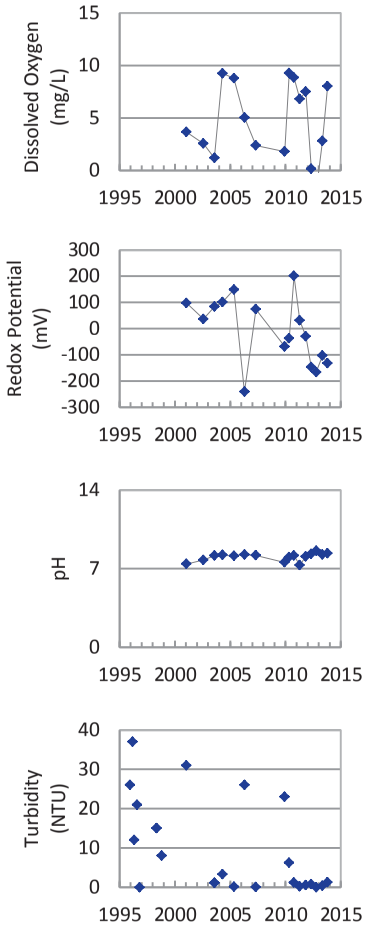
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/13/1995 to 11/4/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1P02
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



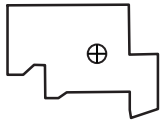
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

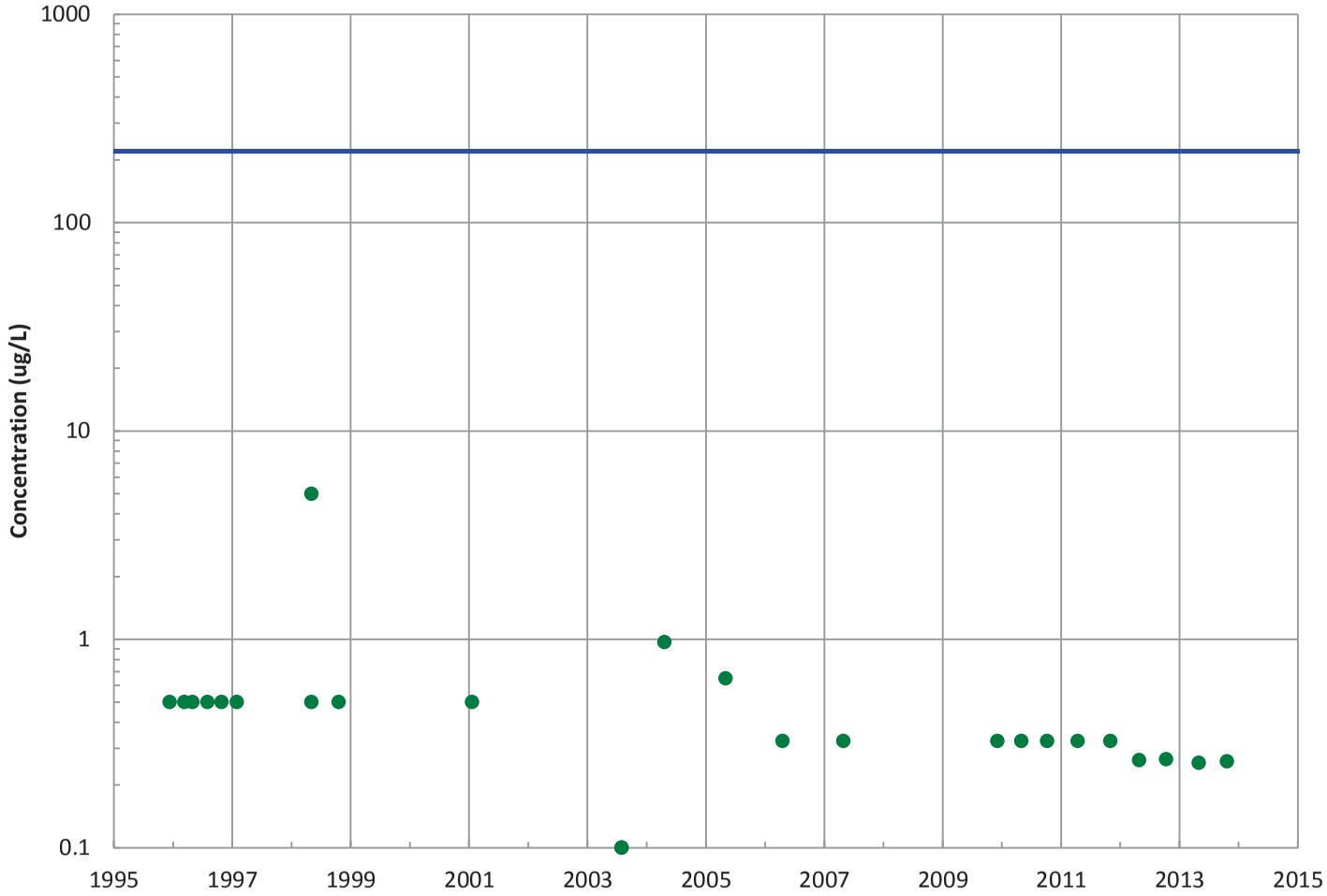
Well Location



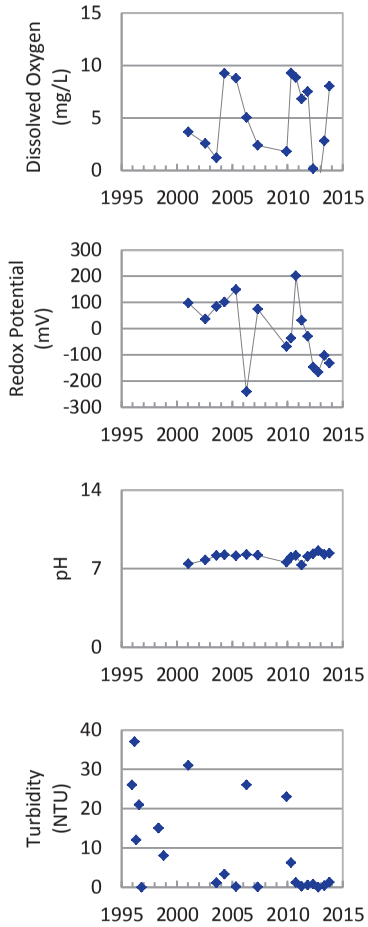
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/13/1995 to 11/4/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1P02
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



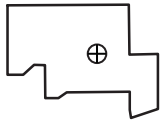
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

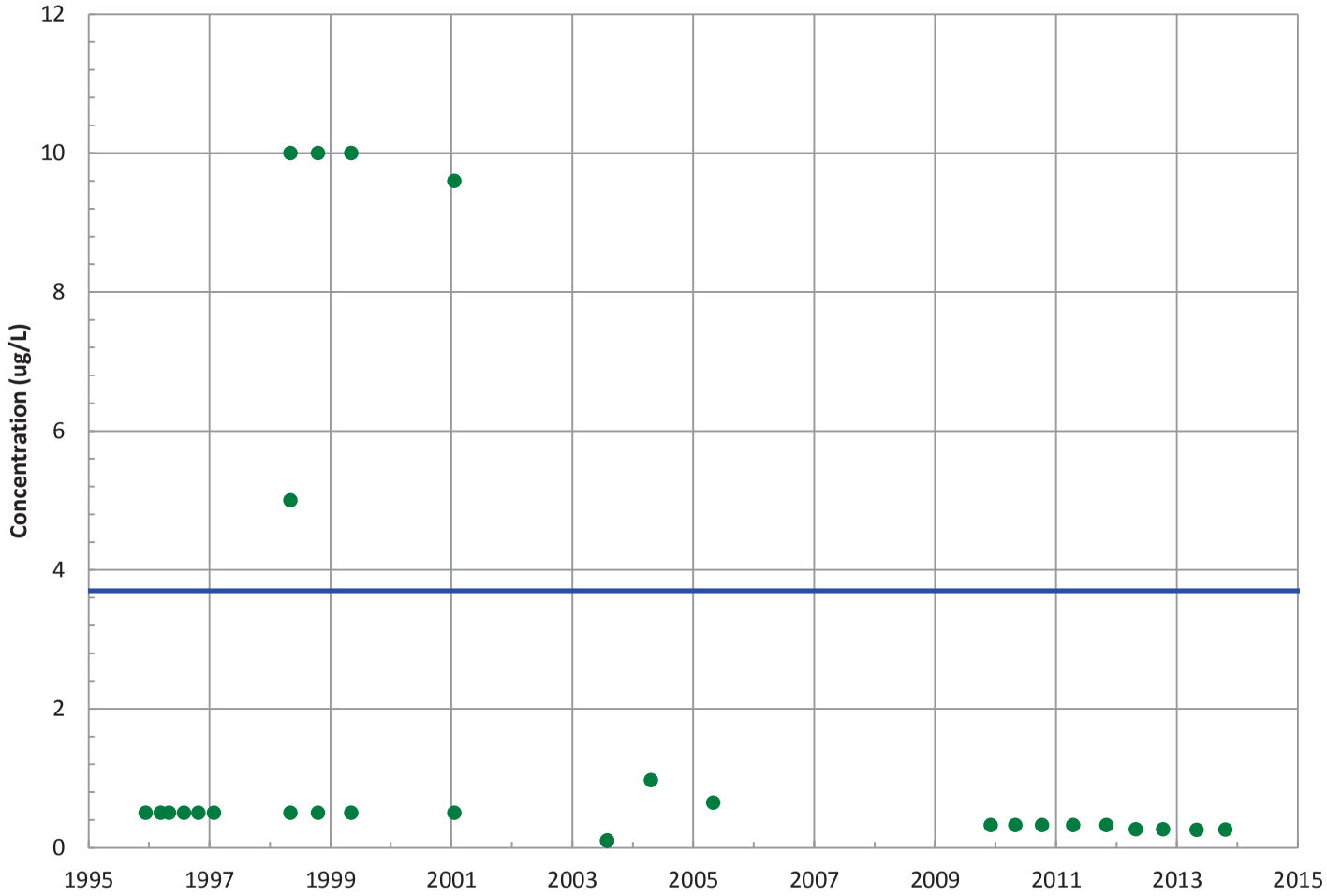
Well Location



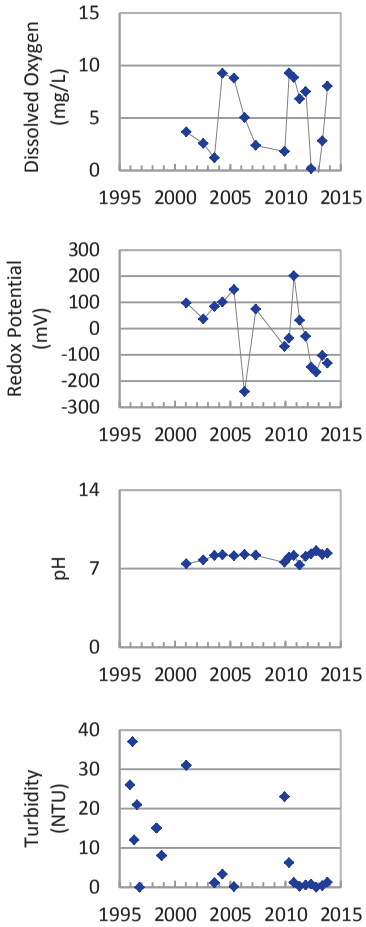
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/13/1995 to 11/4/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1P02
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



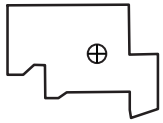
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

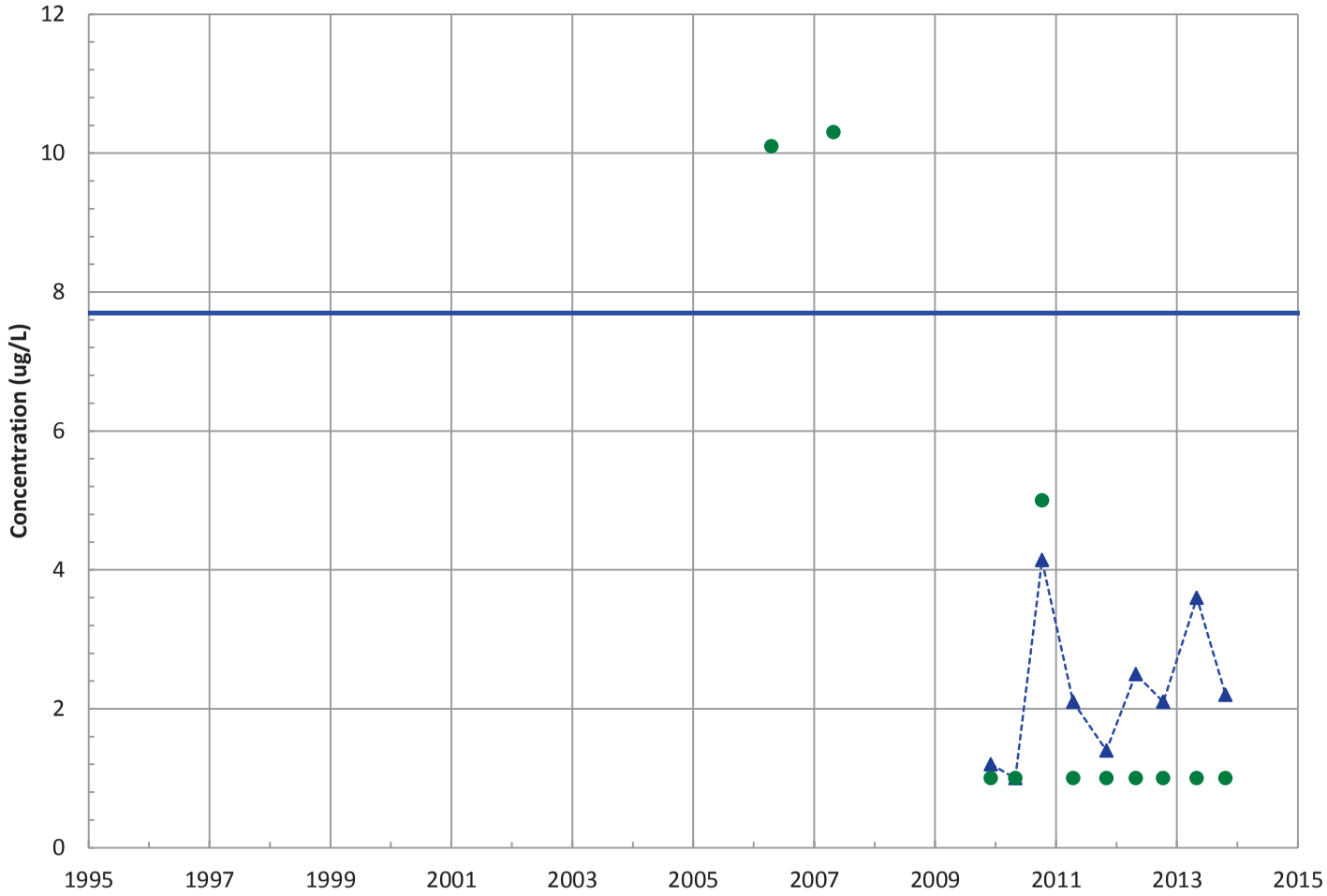
Well Location



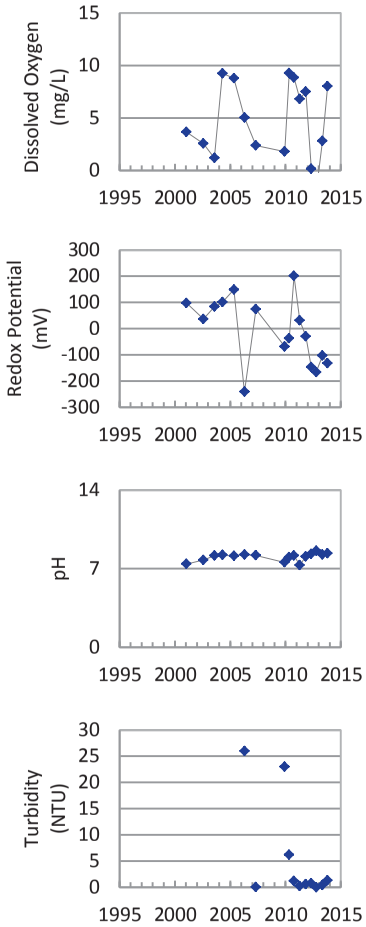
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/13/1995 to 11/4/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1P02
1,4-Dioxane (p-Dioxane) Trend in Perched Aquifer



Field Parameters



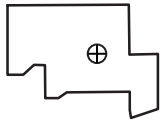
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Probably Increasing
2011 - 2013 Data: No Trend

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

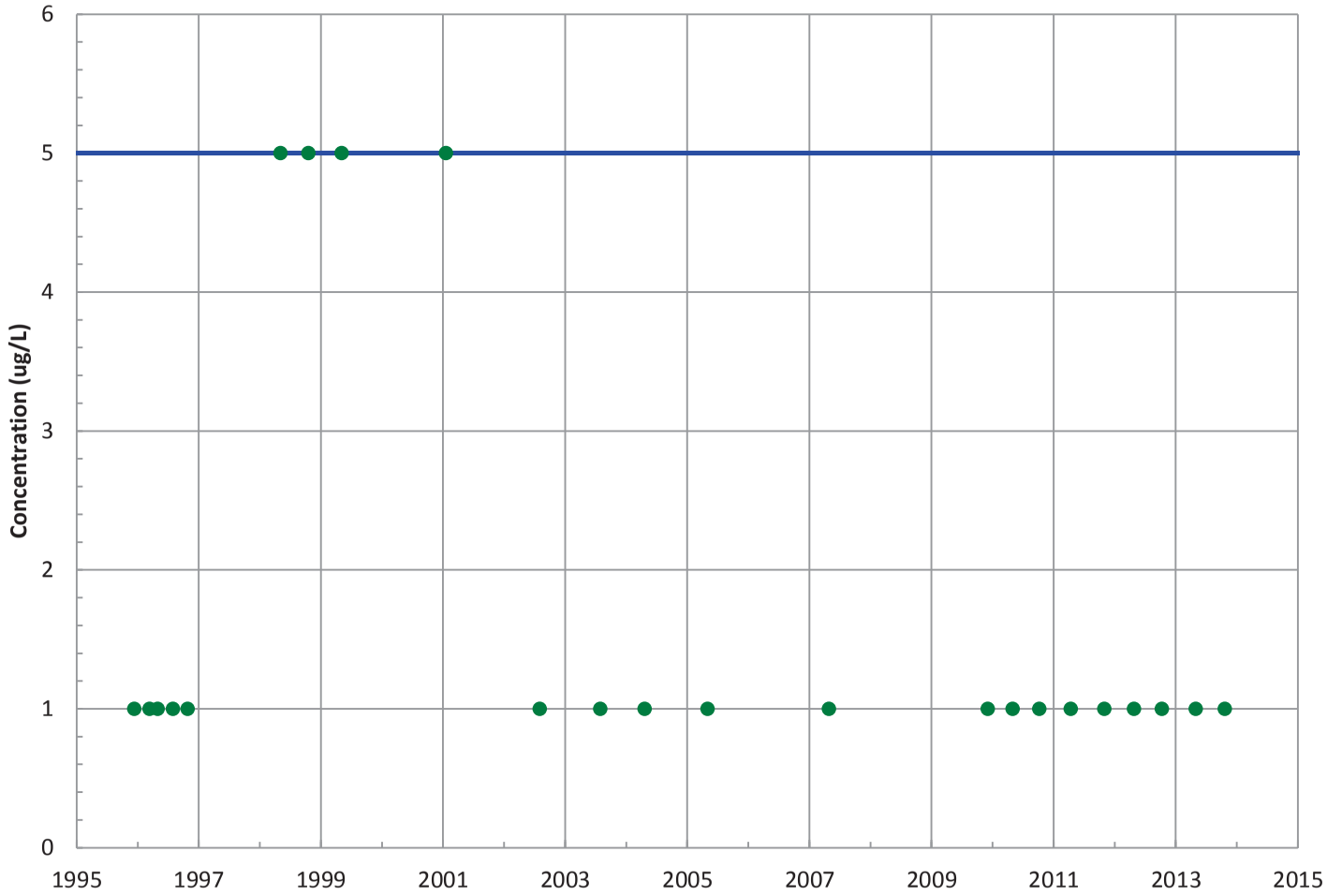
Well Location



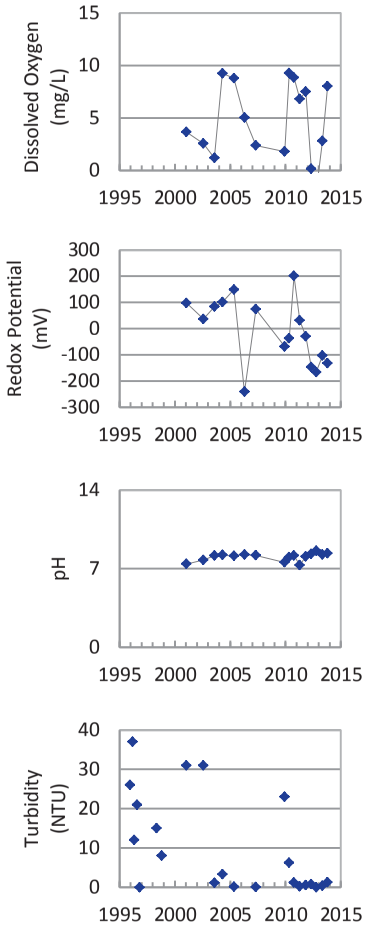
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/27/2006 to 11/4/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1P02
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



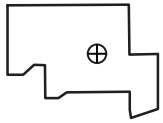
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

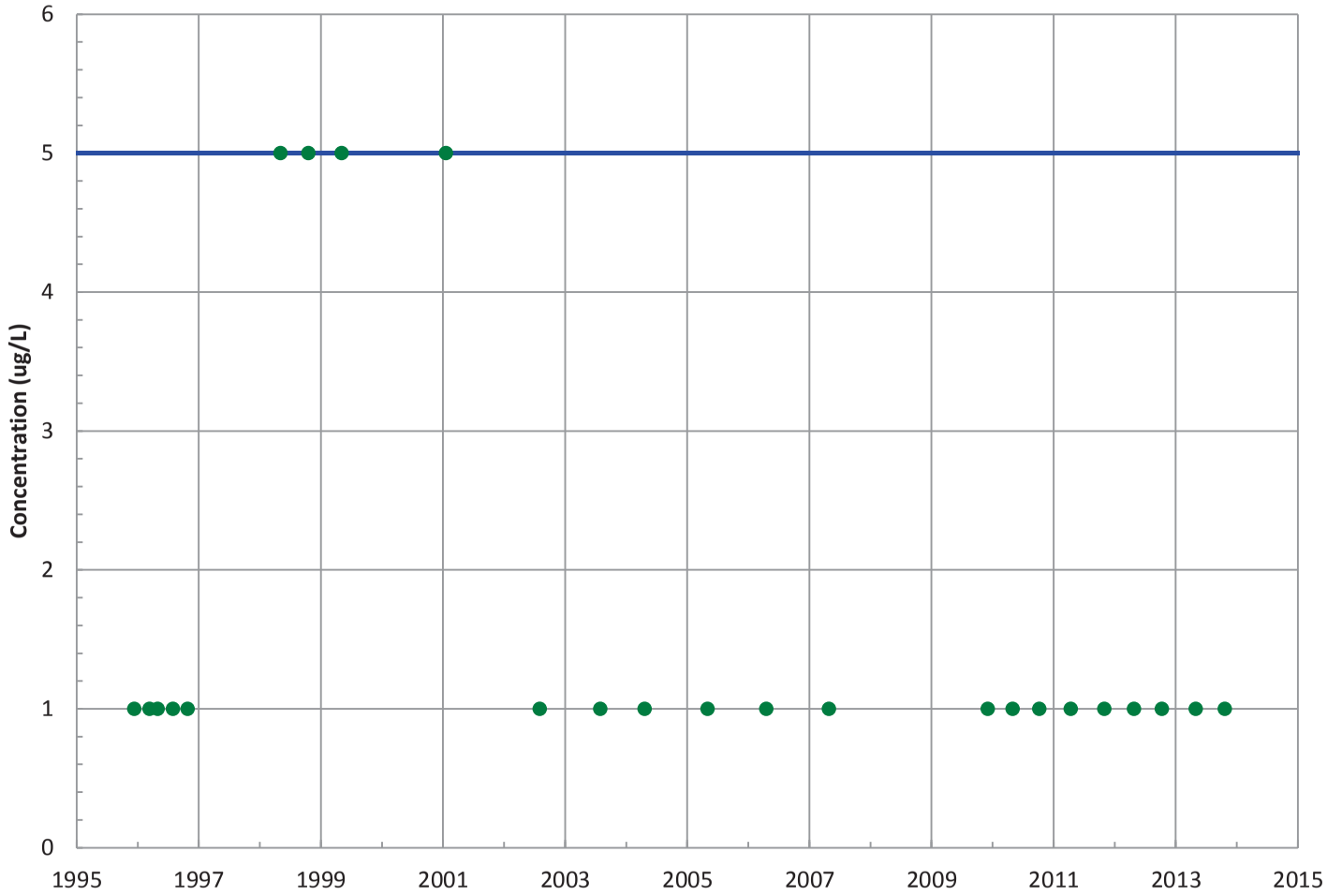
Well Location



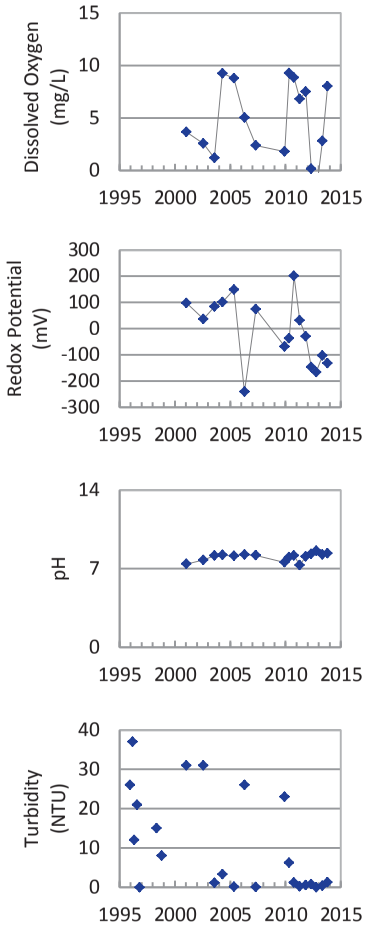
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/13/1995 to 11/4/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1P02
Trichloroethene Trend in Perched Aquifer



Field Parameters



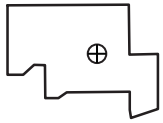
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

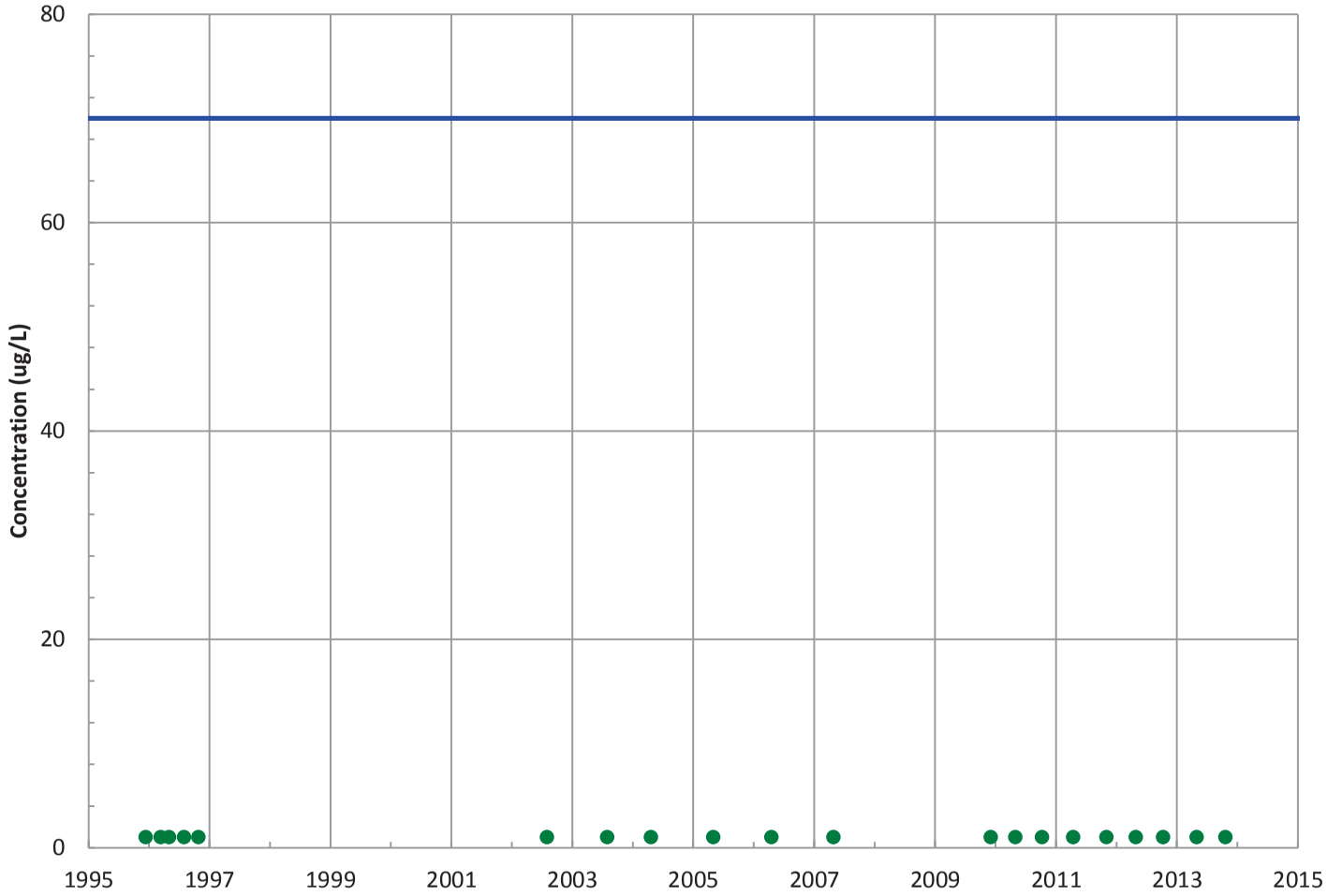
Well Location



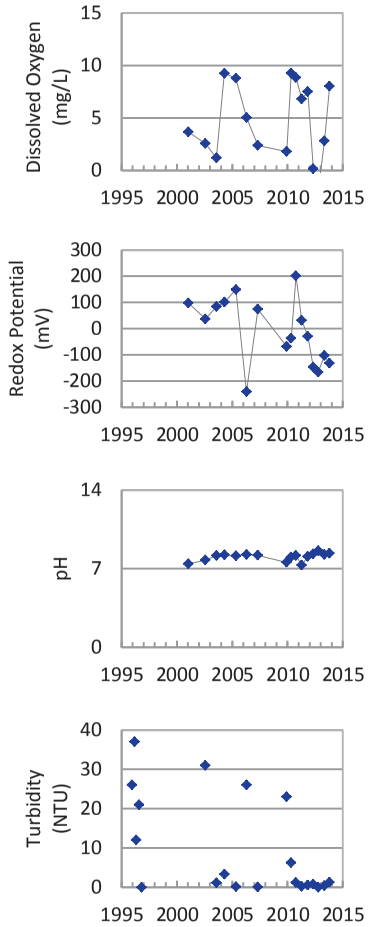
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/13/1995 to 11/4/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1P02
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



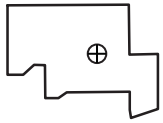
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

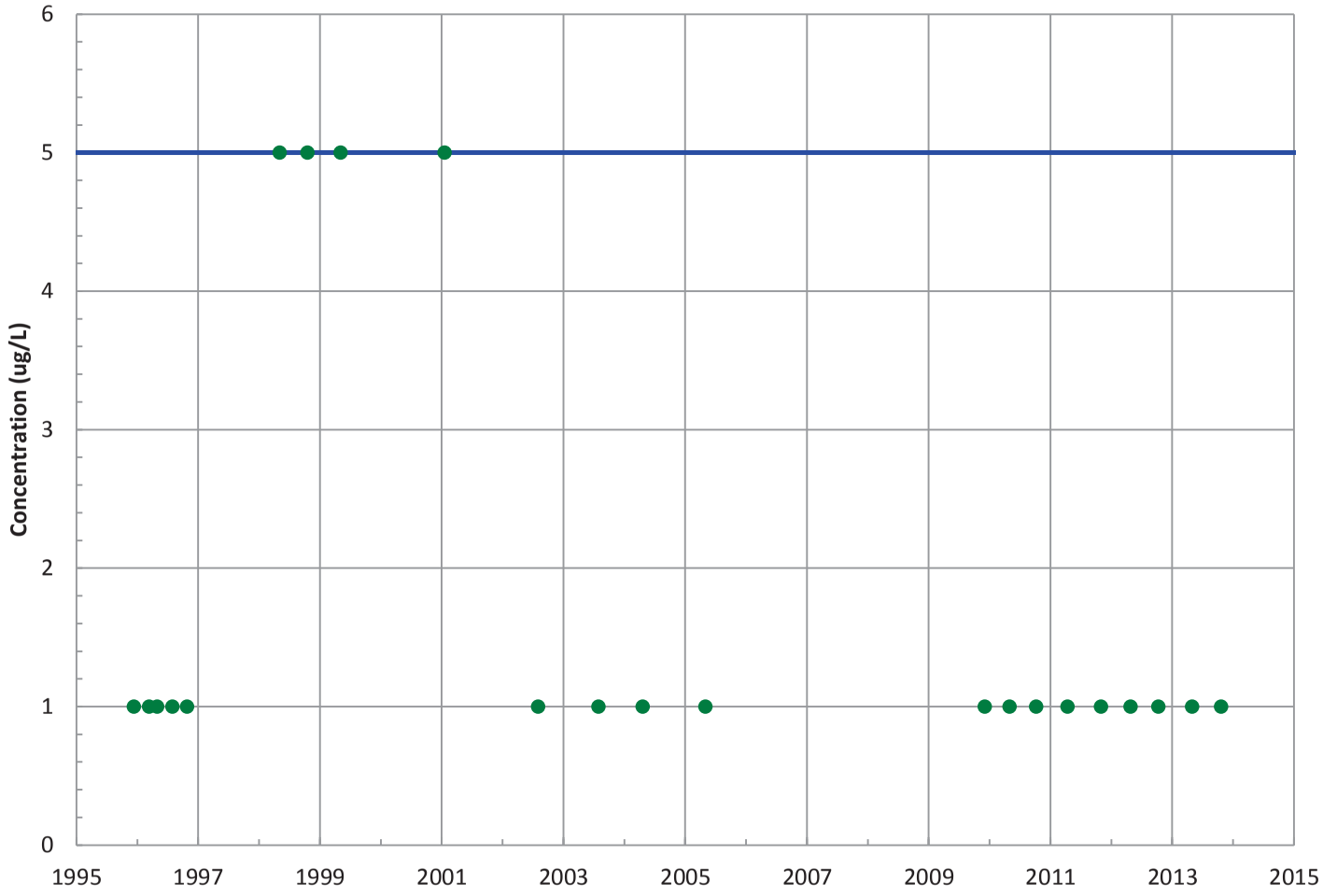
Well Location



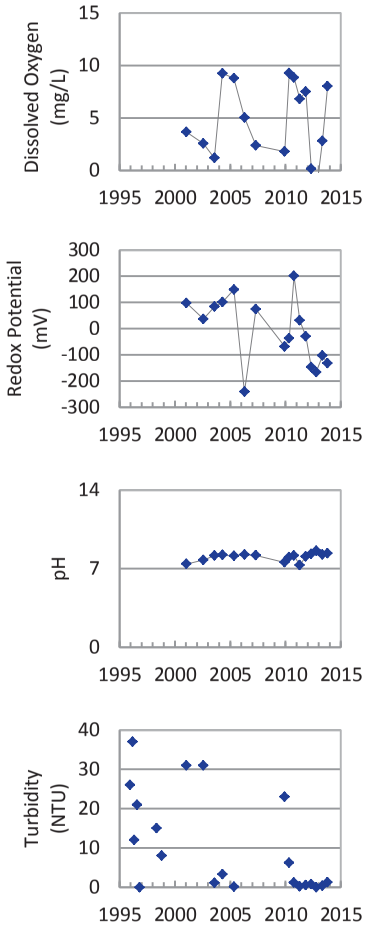
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/13/1995 to 11/4/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1P02
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



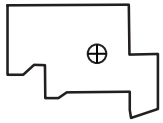
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

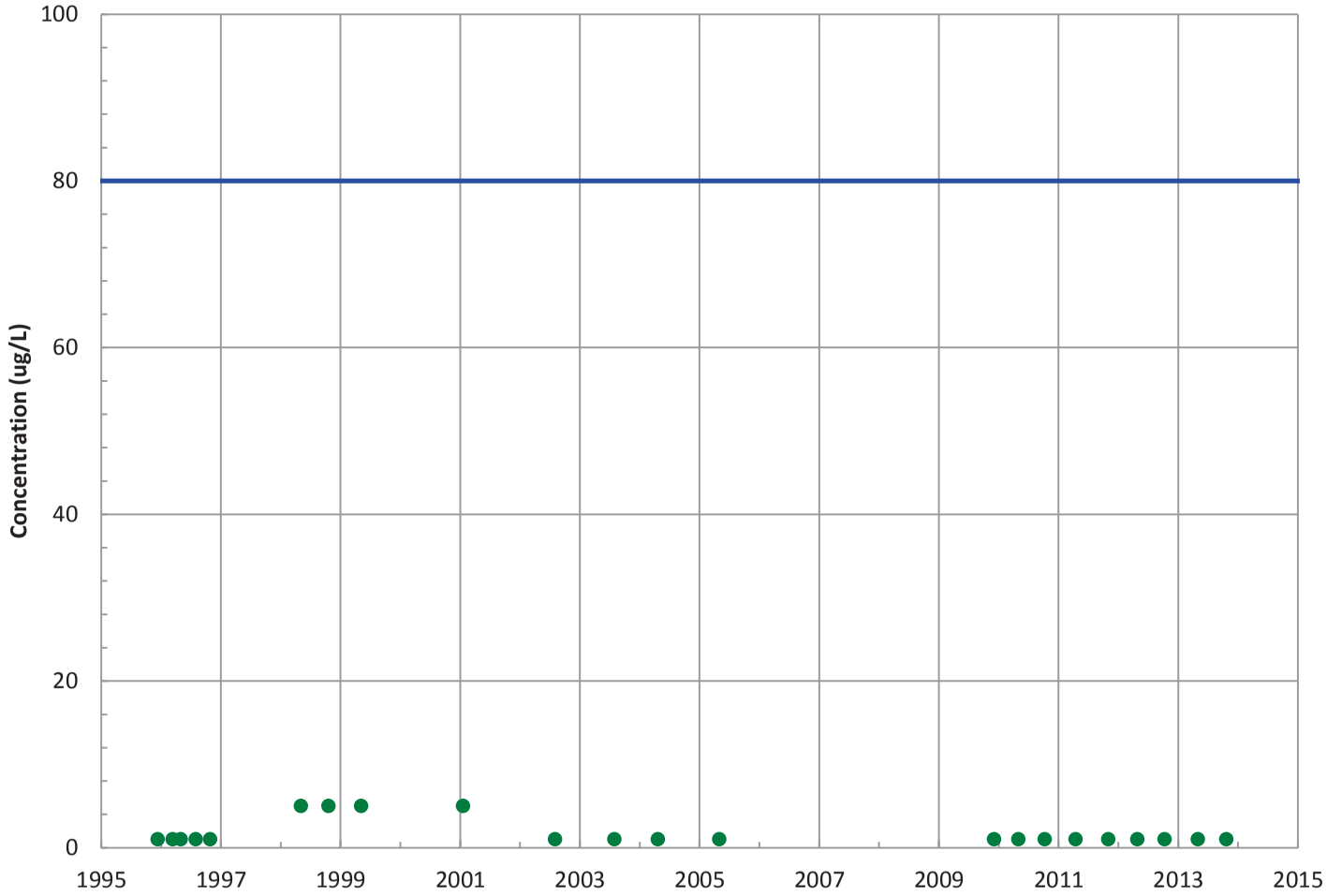
Well Location



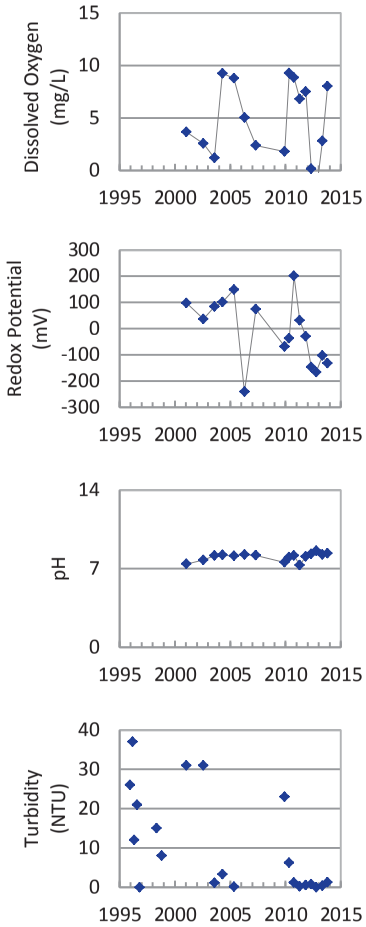
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/13/1995 to 11/4/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1P02
Chloroform Trend in Perched Aquifer



Field Parameters



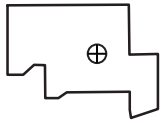
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

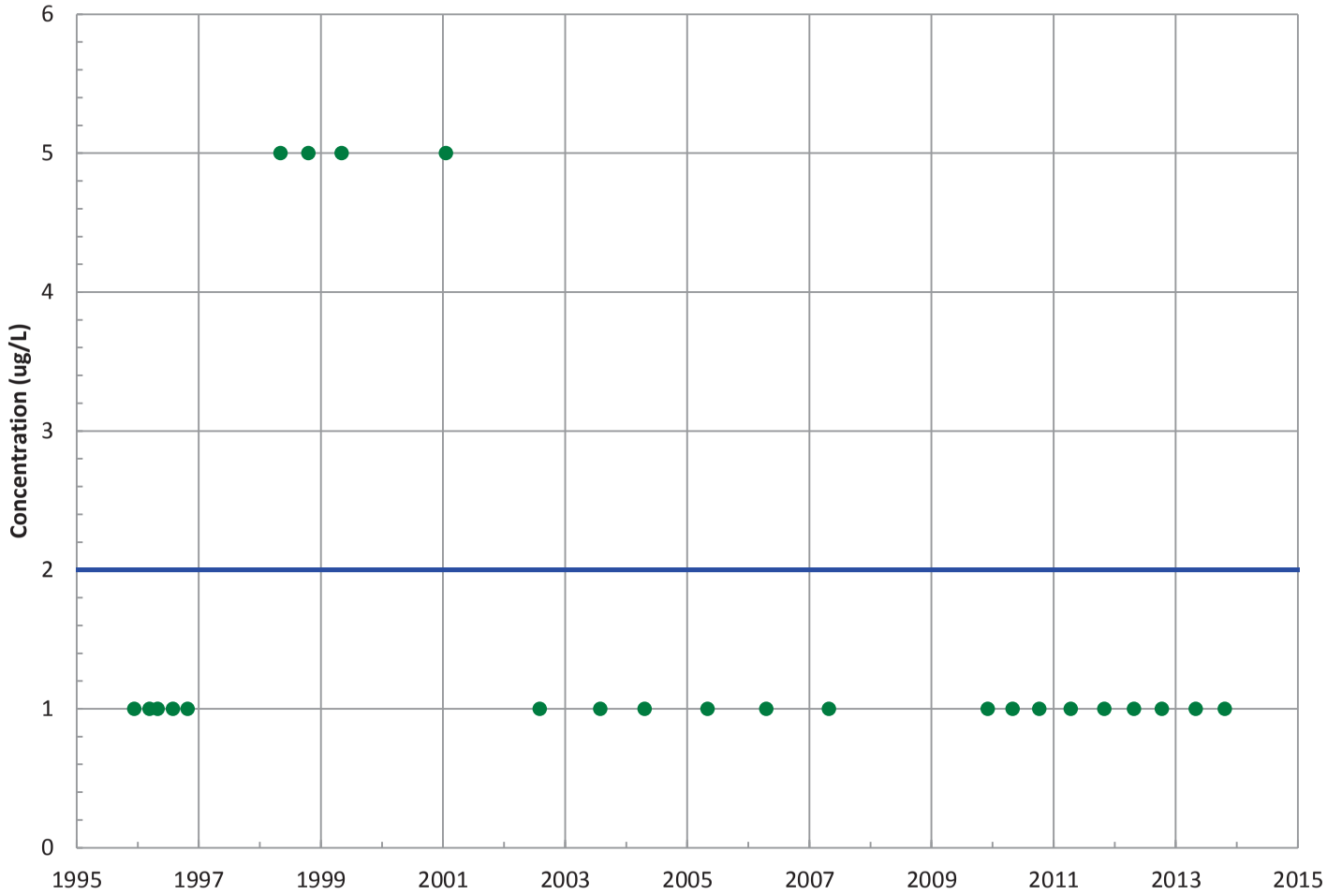
Well Location



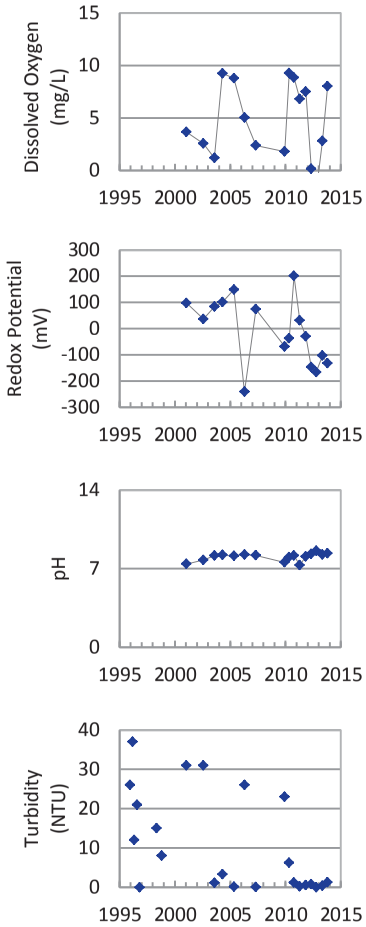
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/13/1995 to 11/4/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1P02
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



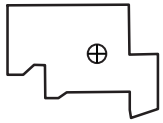
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

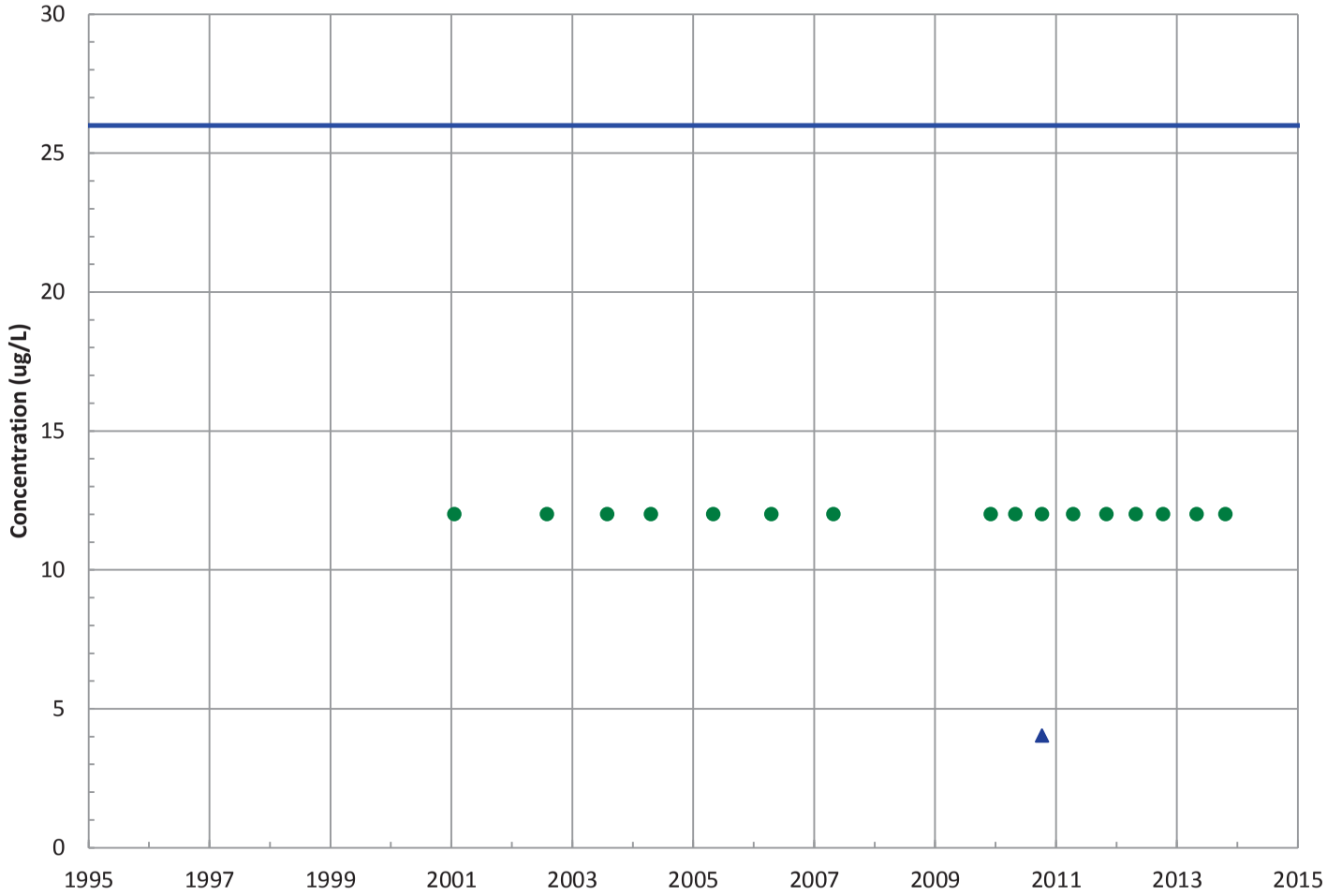
Well Location



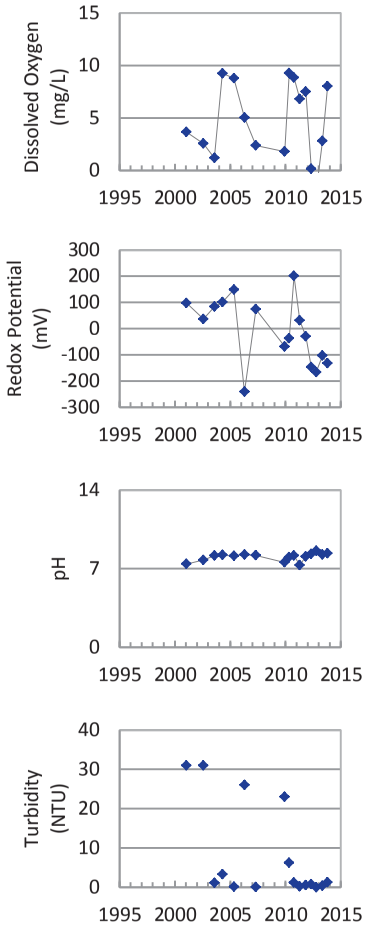
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/13/1995 to 11/4/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1P02
Perchlorate Trend in Perched Aquifer



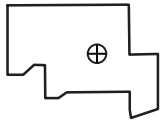
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: All Non-Detect
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

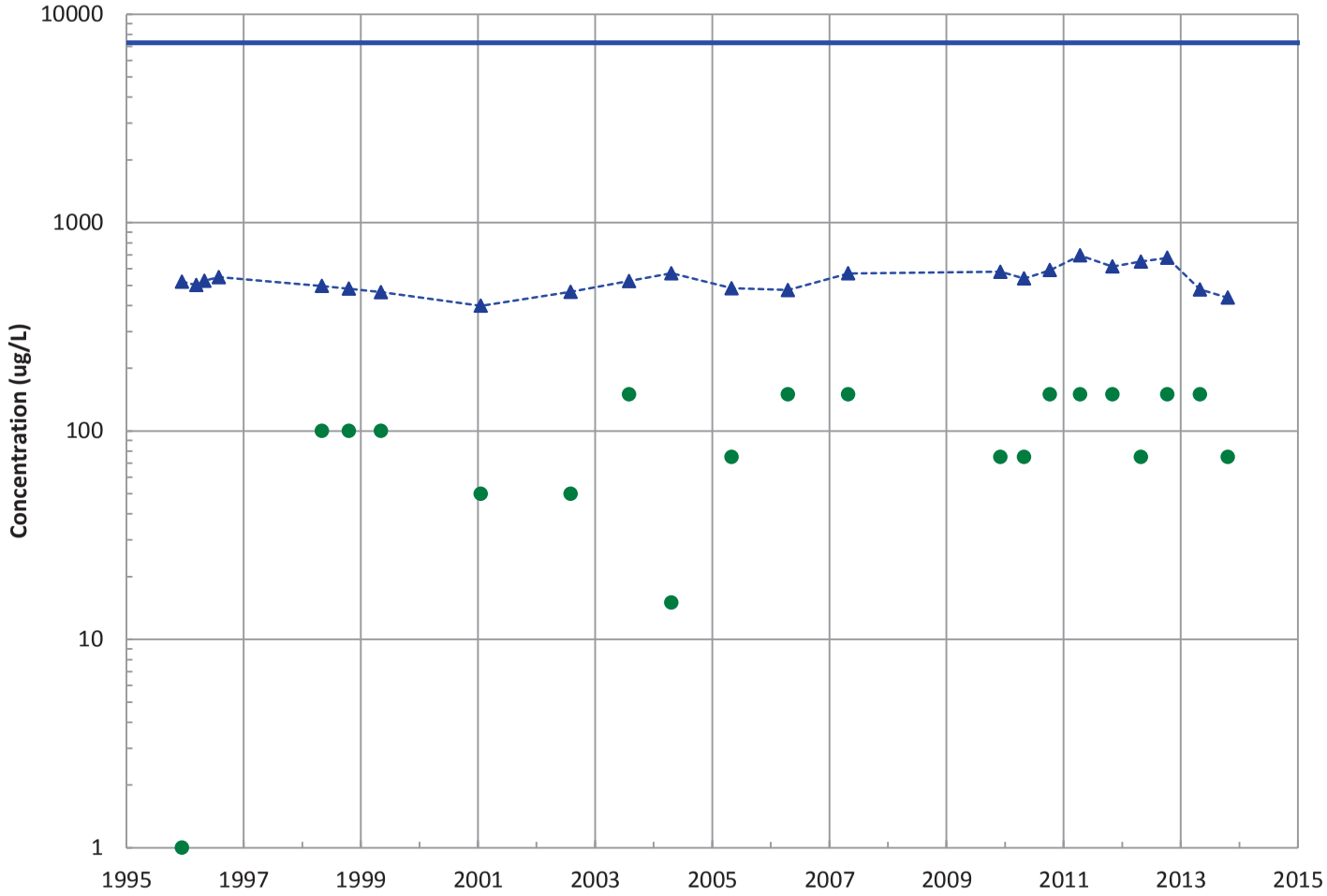
Well Location



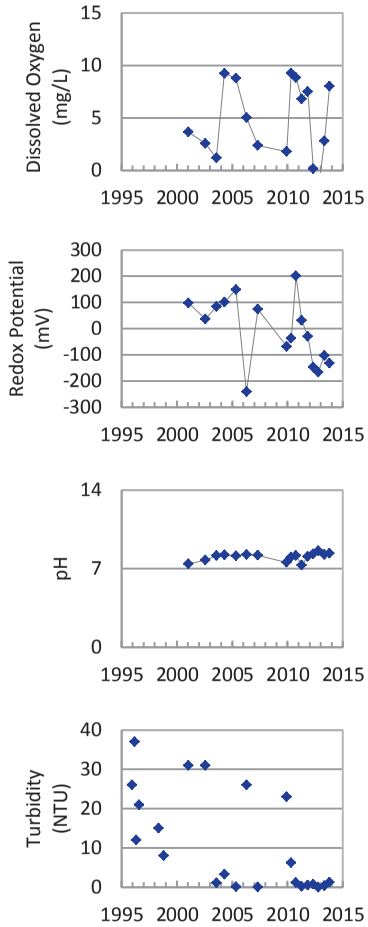
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 1/23/2001 to 11/4/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1P02
Boron Trend in Perched Aquifer



Field Parameters



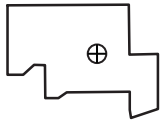
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Probably Decreasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

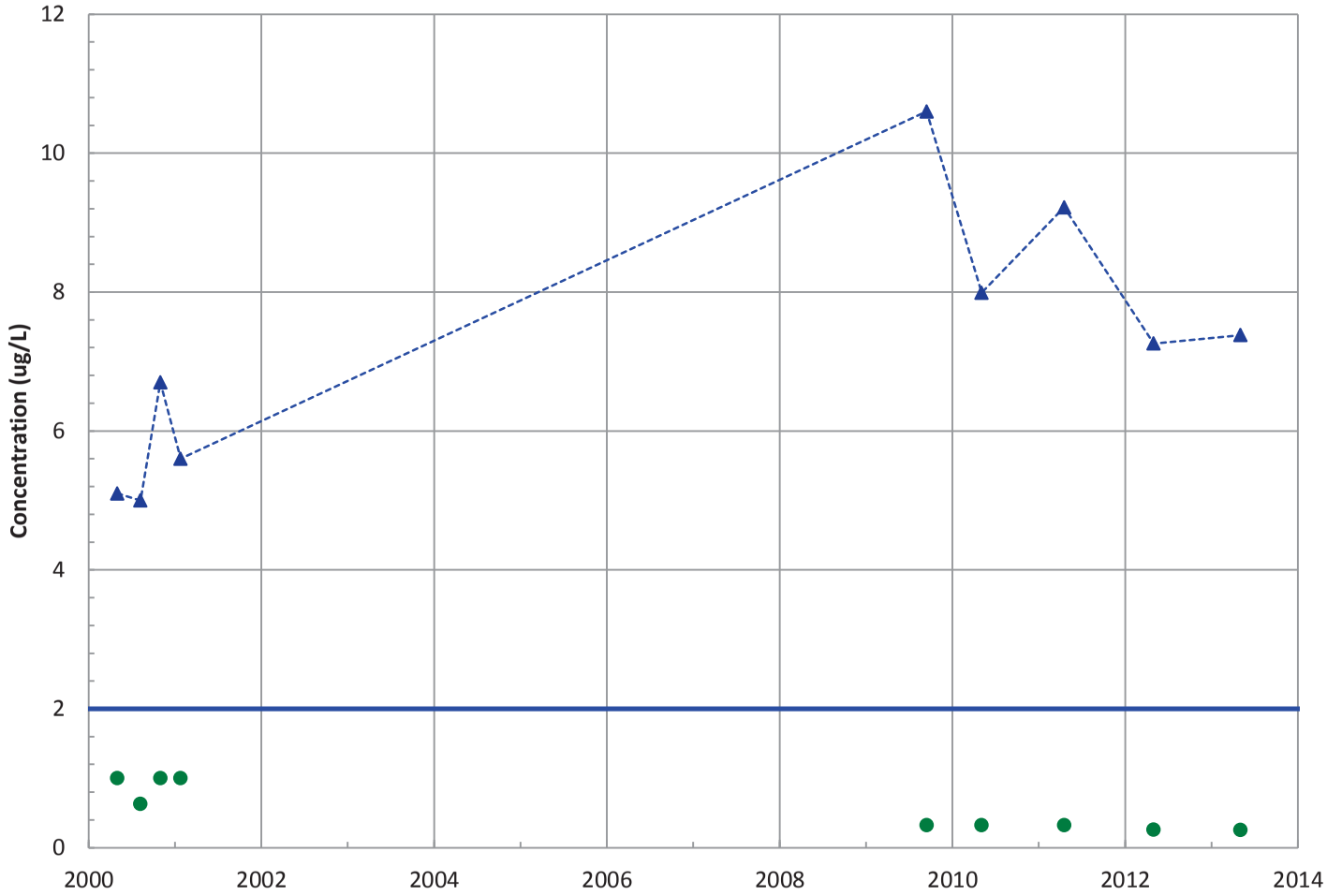
Well Location



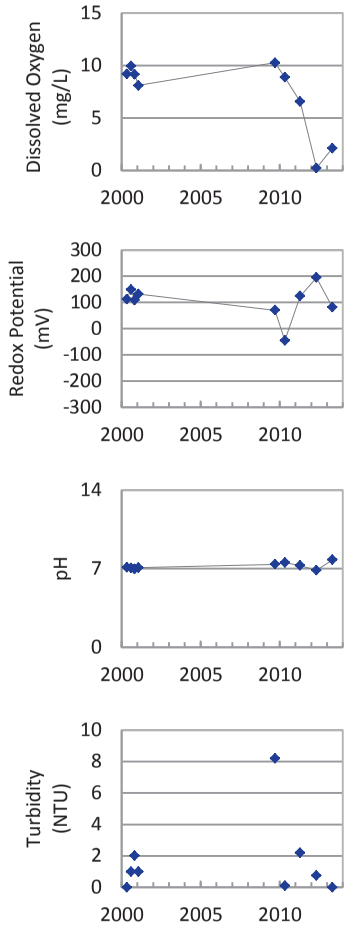
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/13/1995 to 11/4/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1P05
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



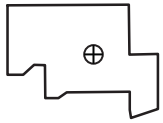
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Probably Decreasing
2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------ Concentration Trend
- ——— Groundwater Protection Standard

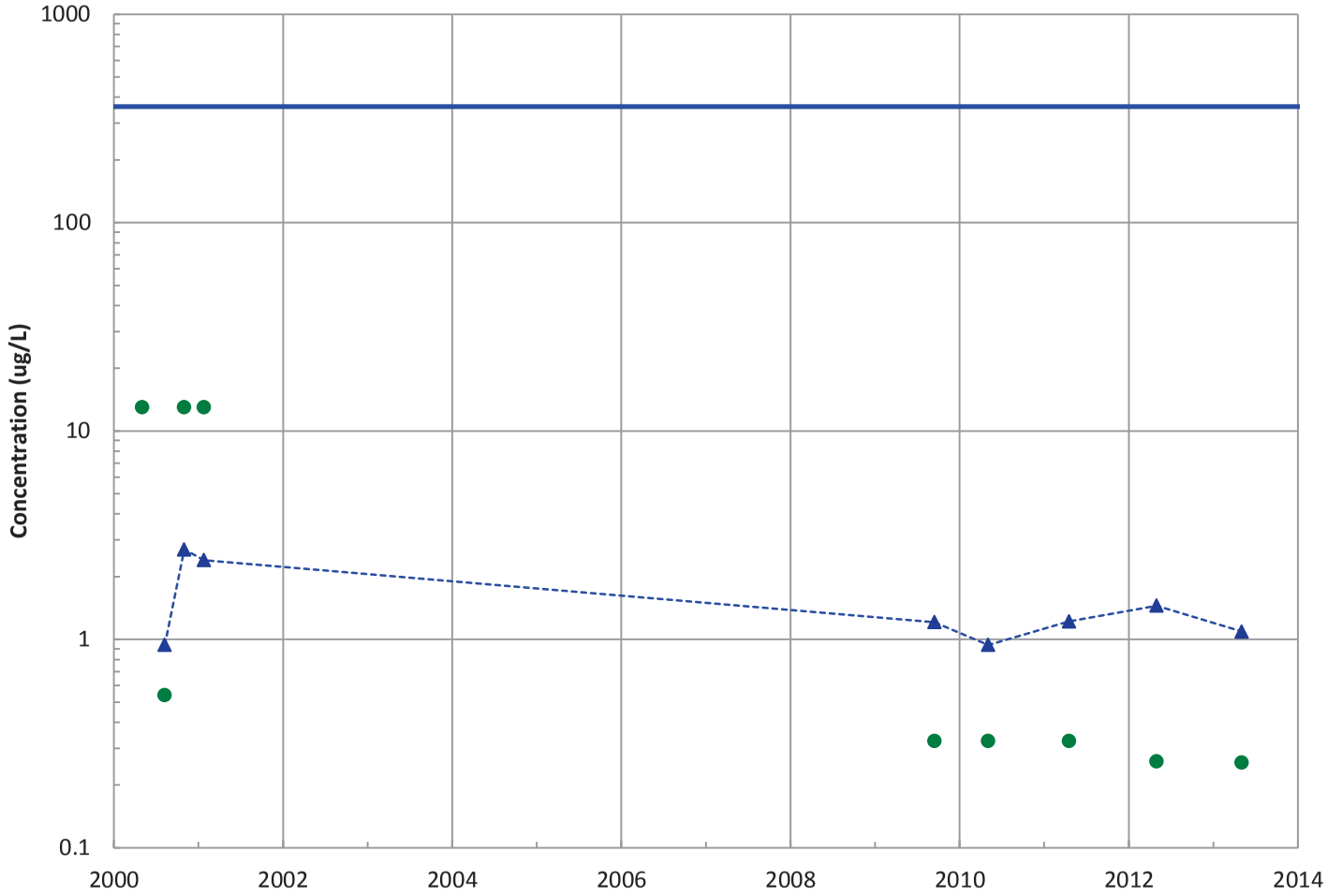
Well Location



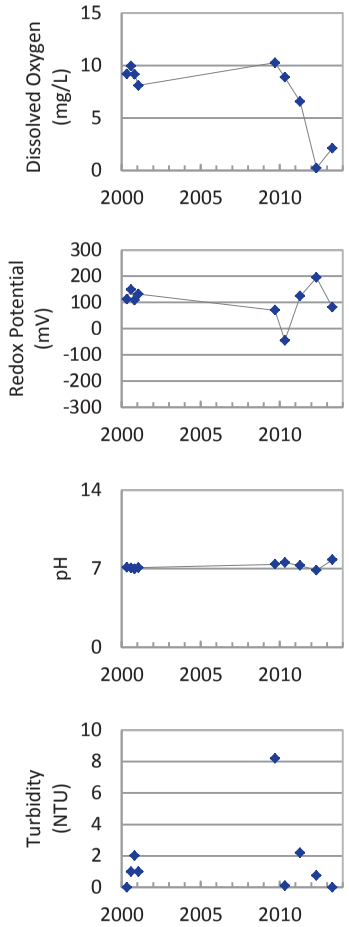
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/2/2000 to 5/13/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1P05
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



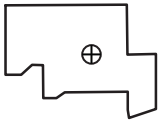
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

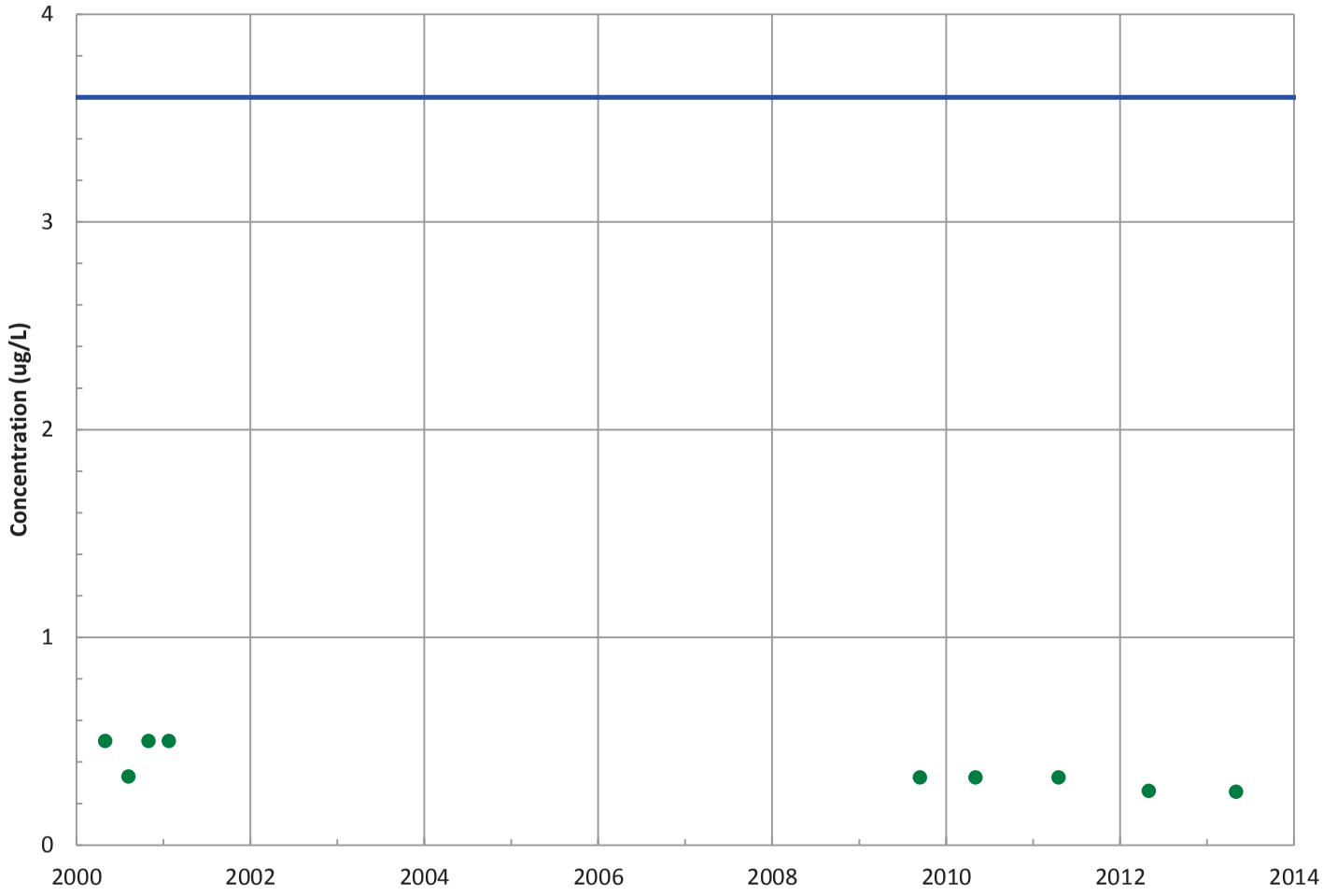
Well Location



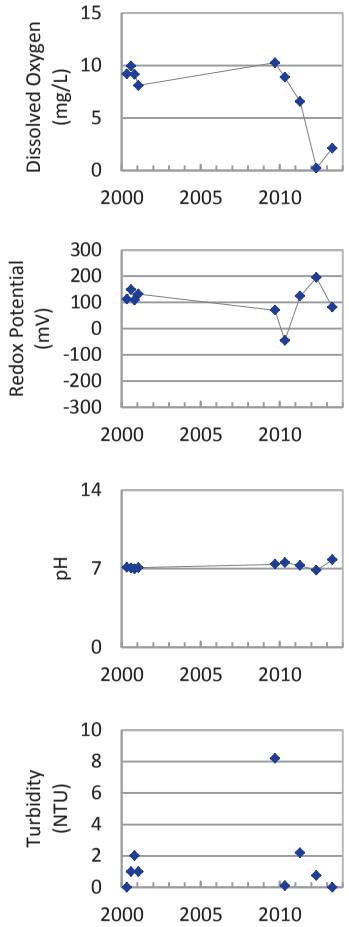
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/2/2000 to 5/13/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1P05
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



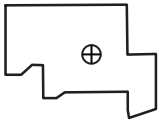
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

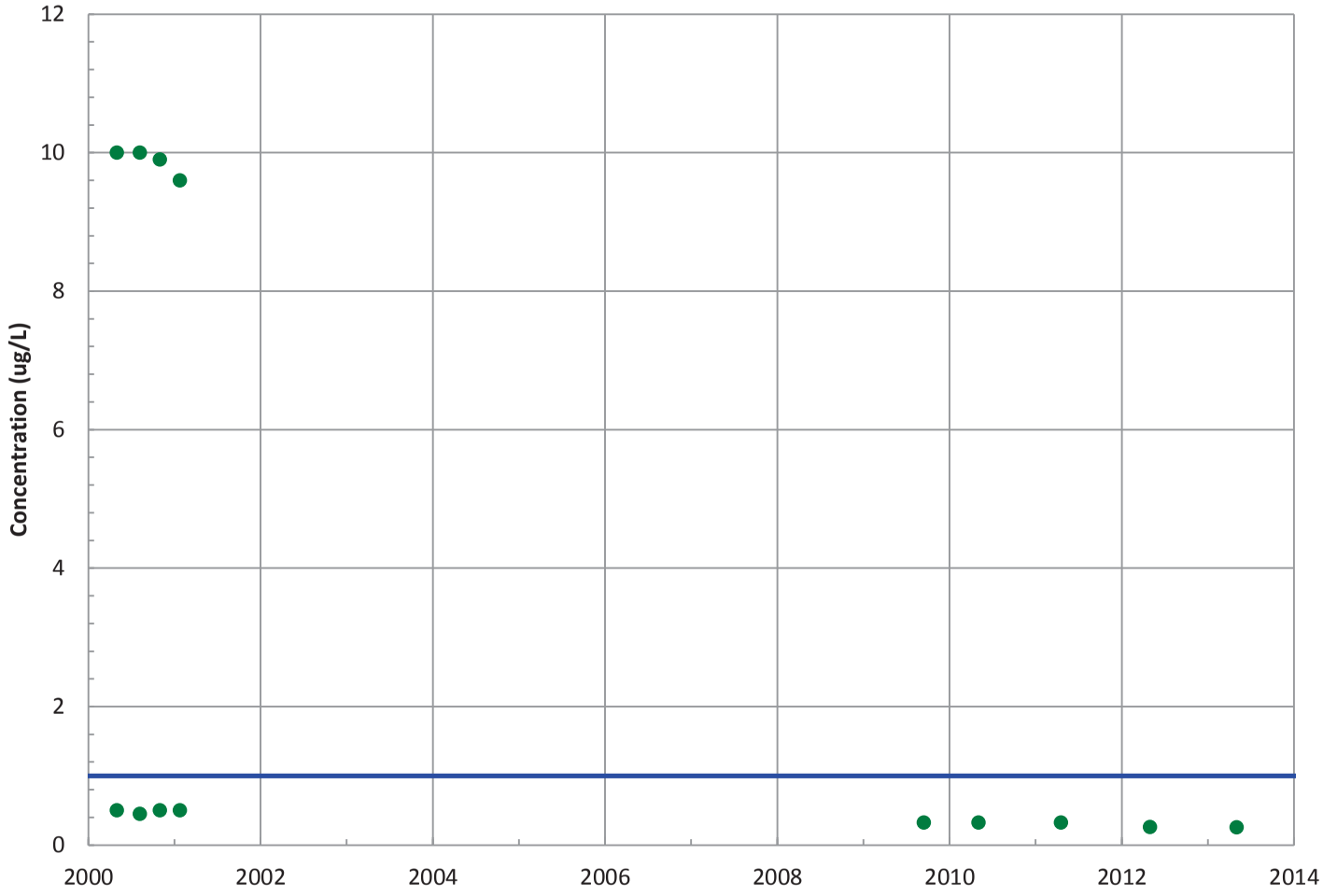
Well Location



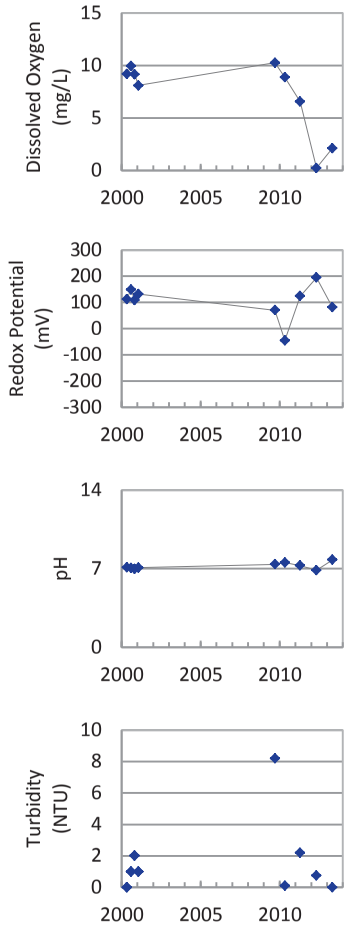
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/2/2000 to 5/13/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1P05
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



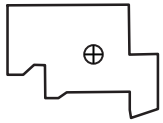
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

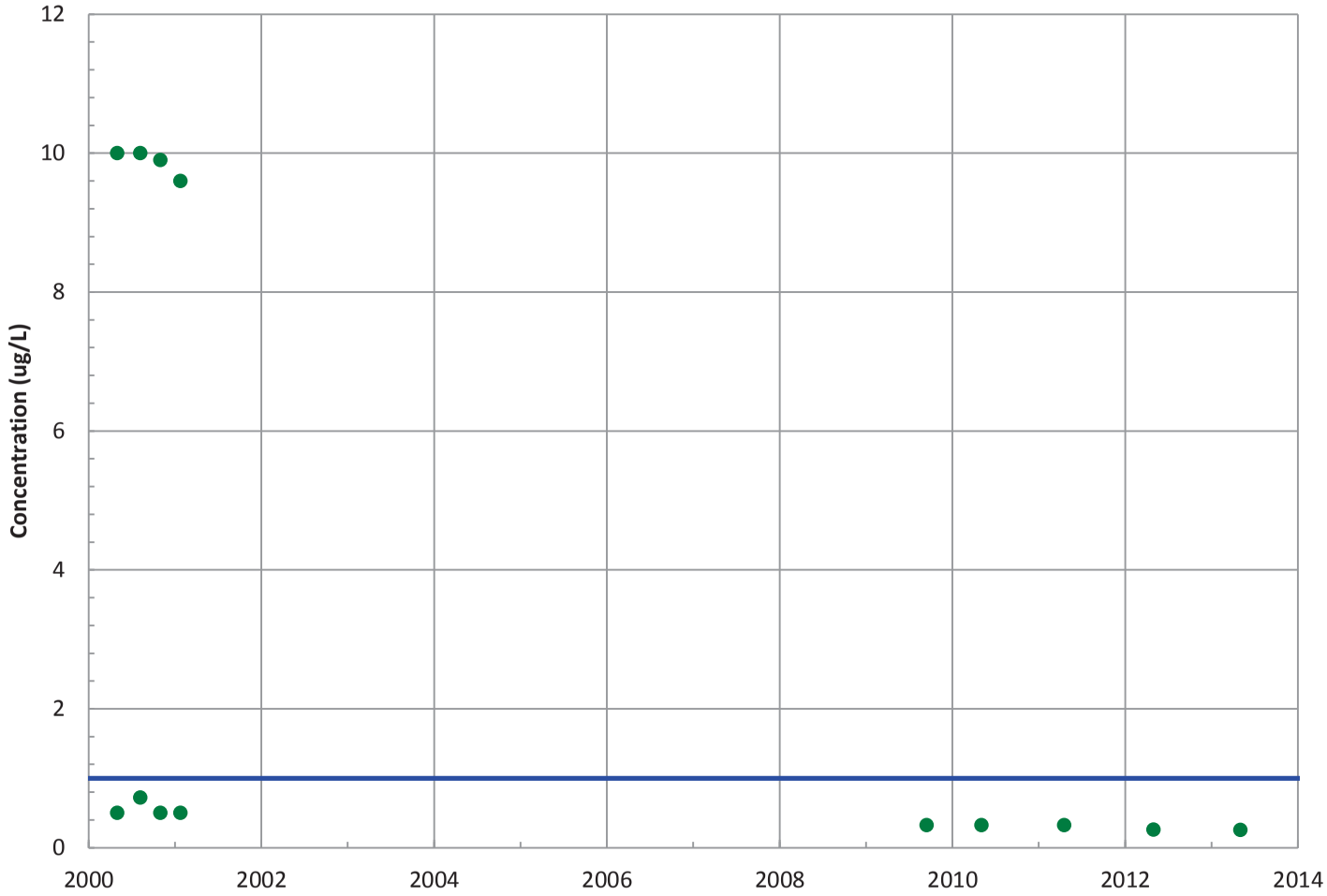
Well Location



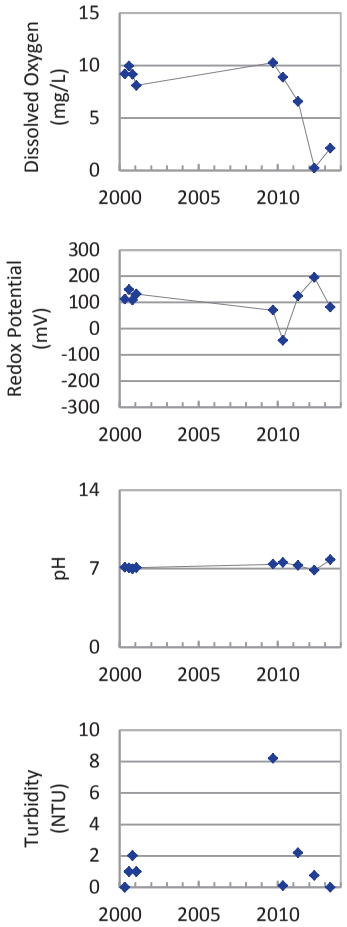
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/2/2000 to 5/13/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1P05
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



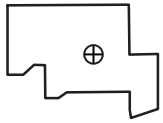
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

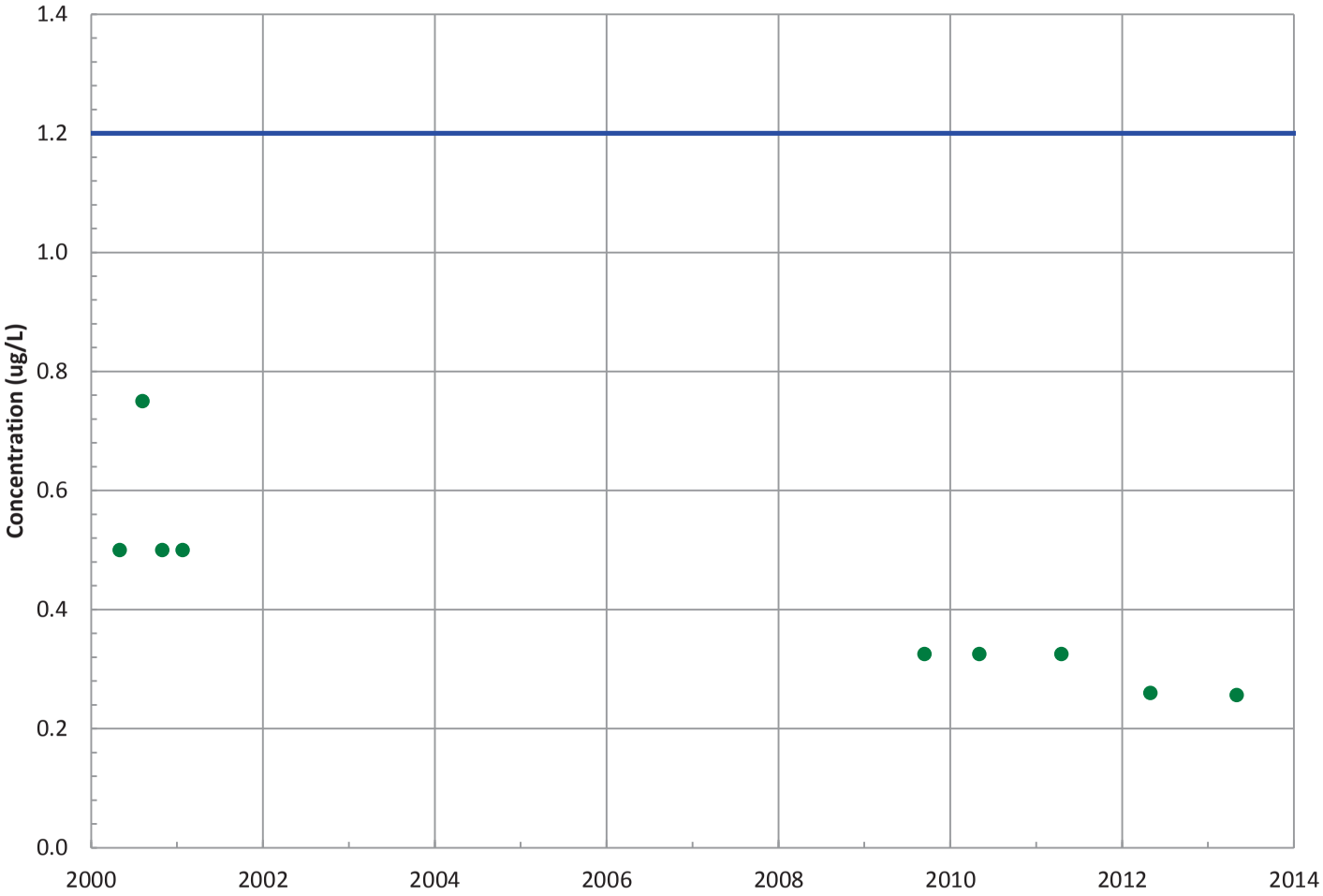
Well Location



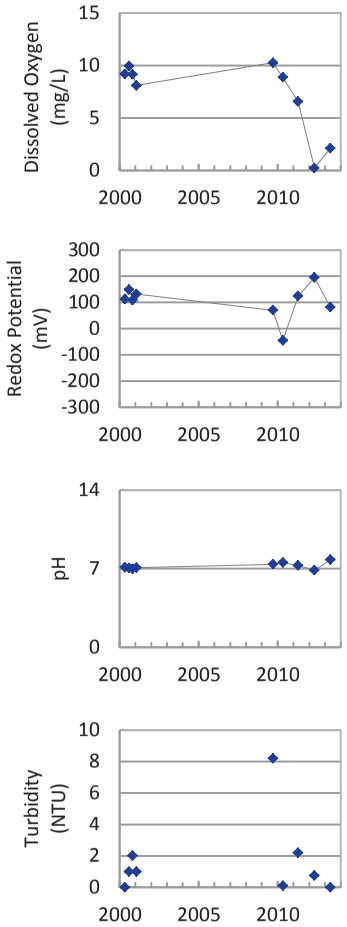
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/2/2000 to 5/13/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1P05
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



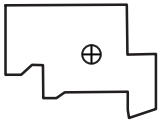
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

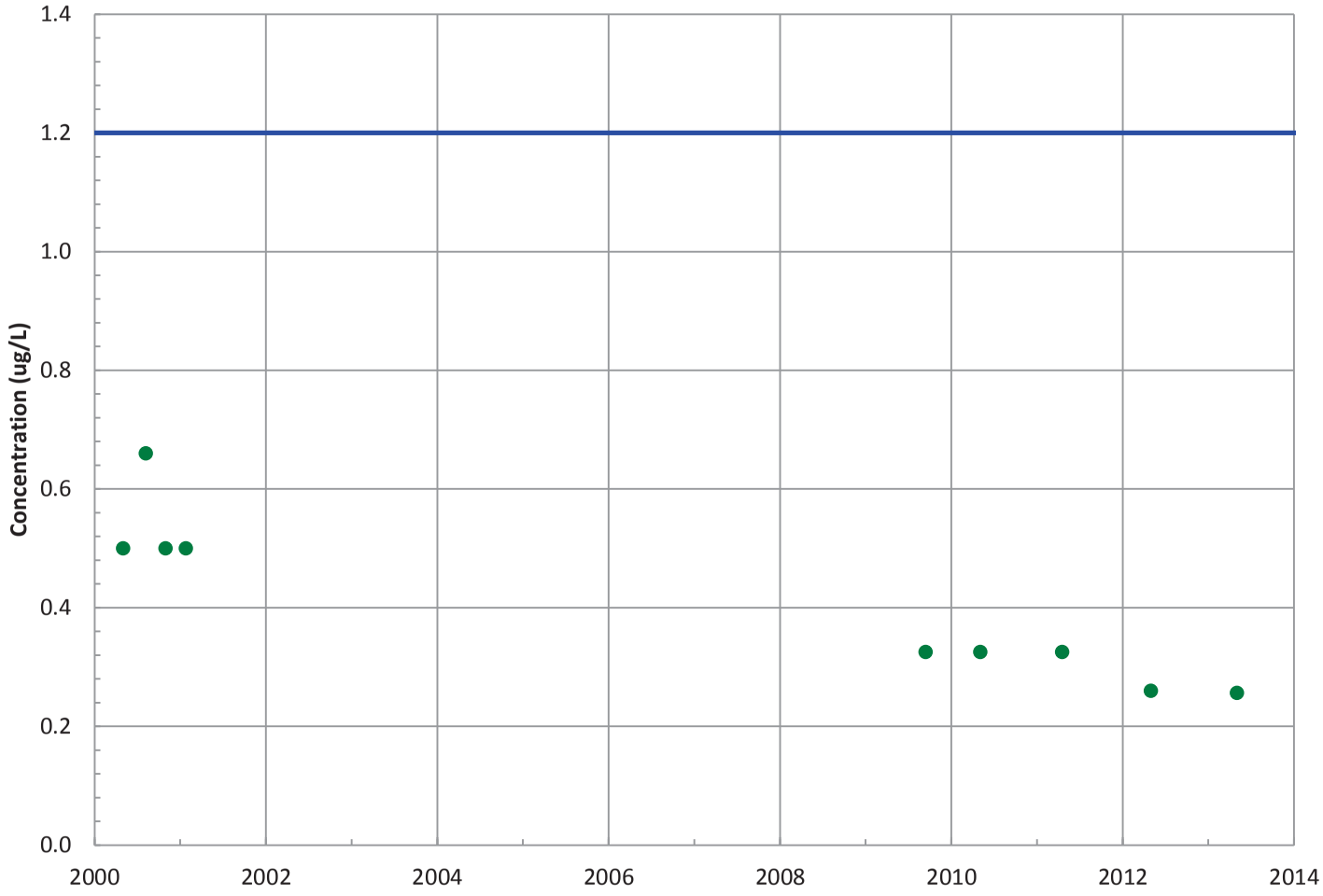
Well Location



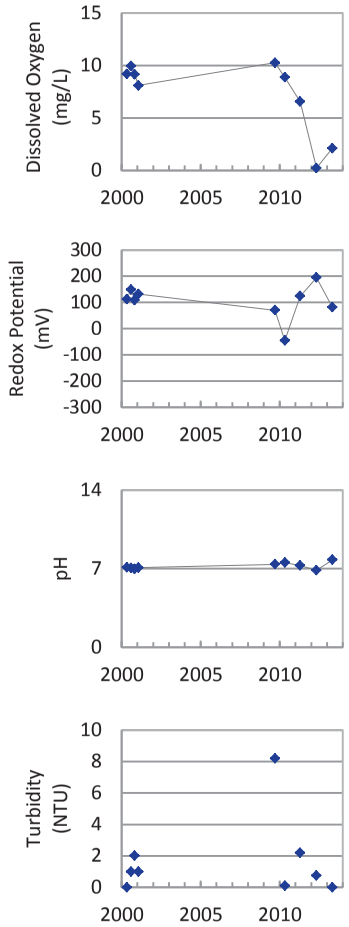
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/2/2000 to 5/13/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1P05
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



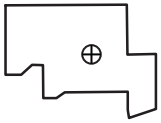
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

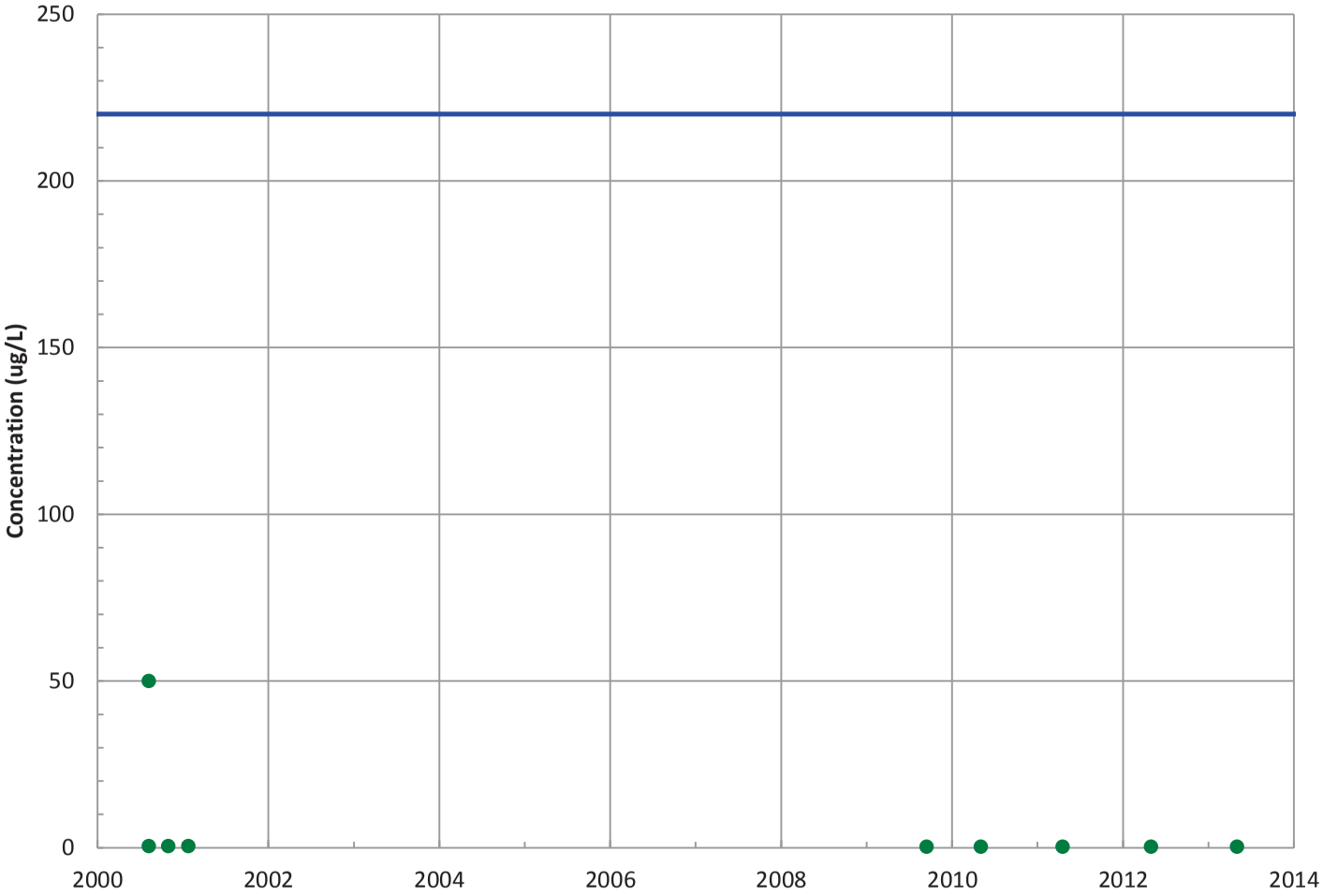
Well Location



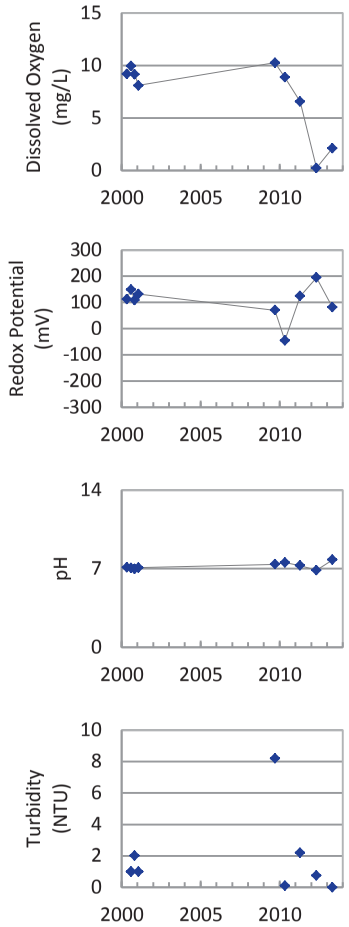
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/2/2000 to 5/13/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1P05
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



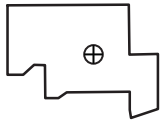
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

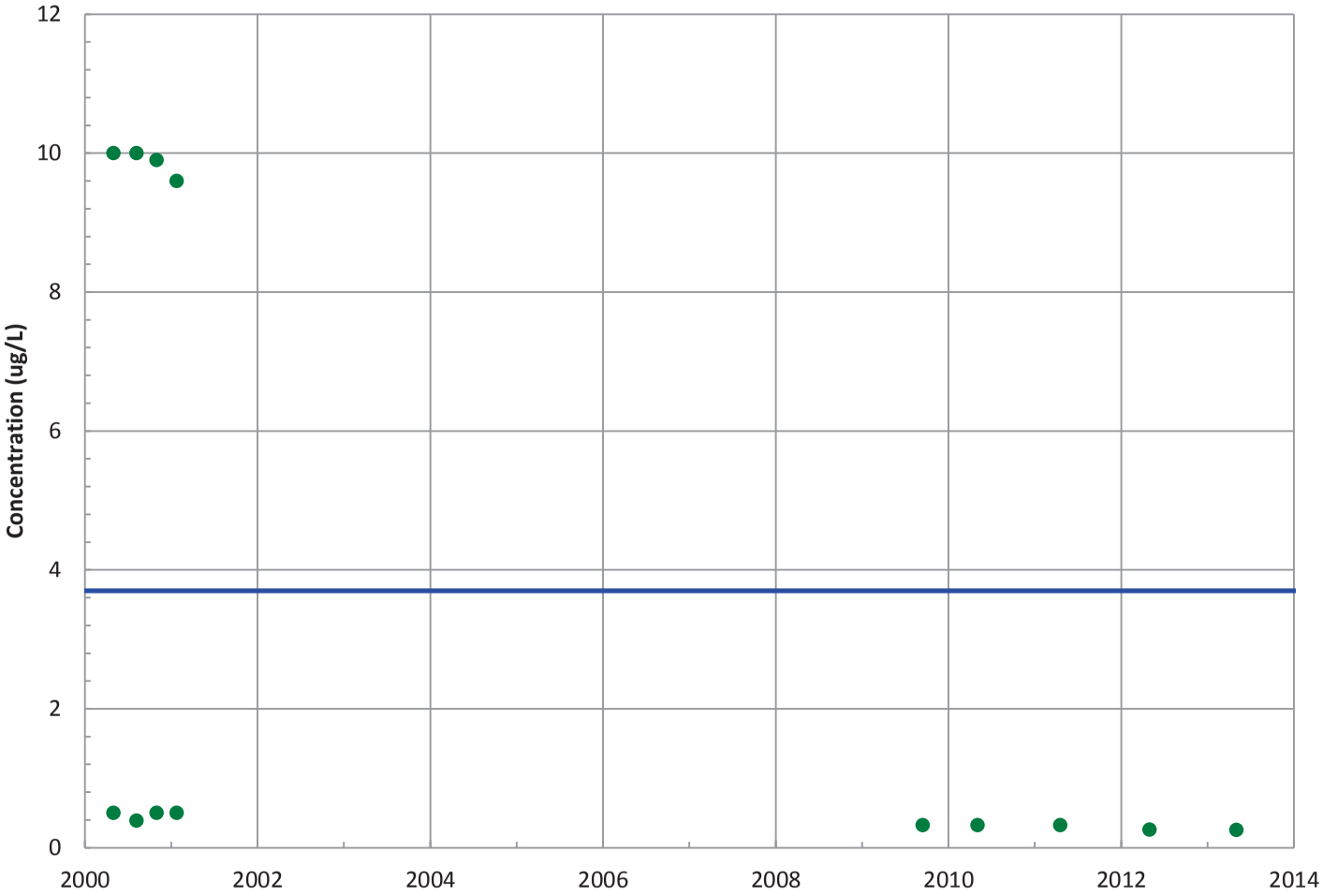
Well Location



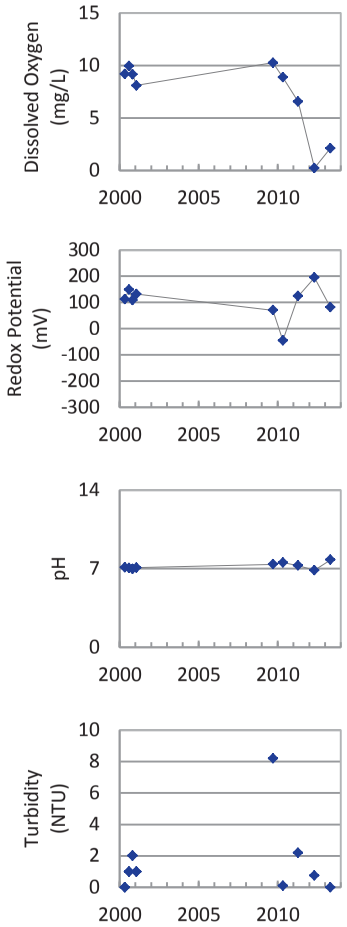
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/8/2000 to 5/13/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1P05
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



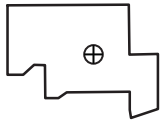
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

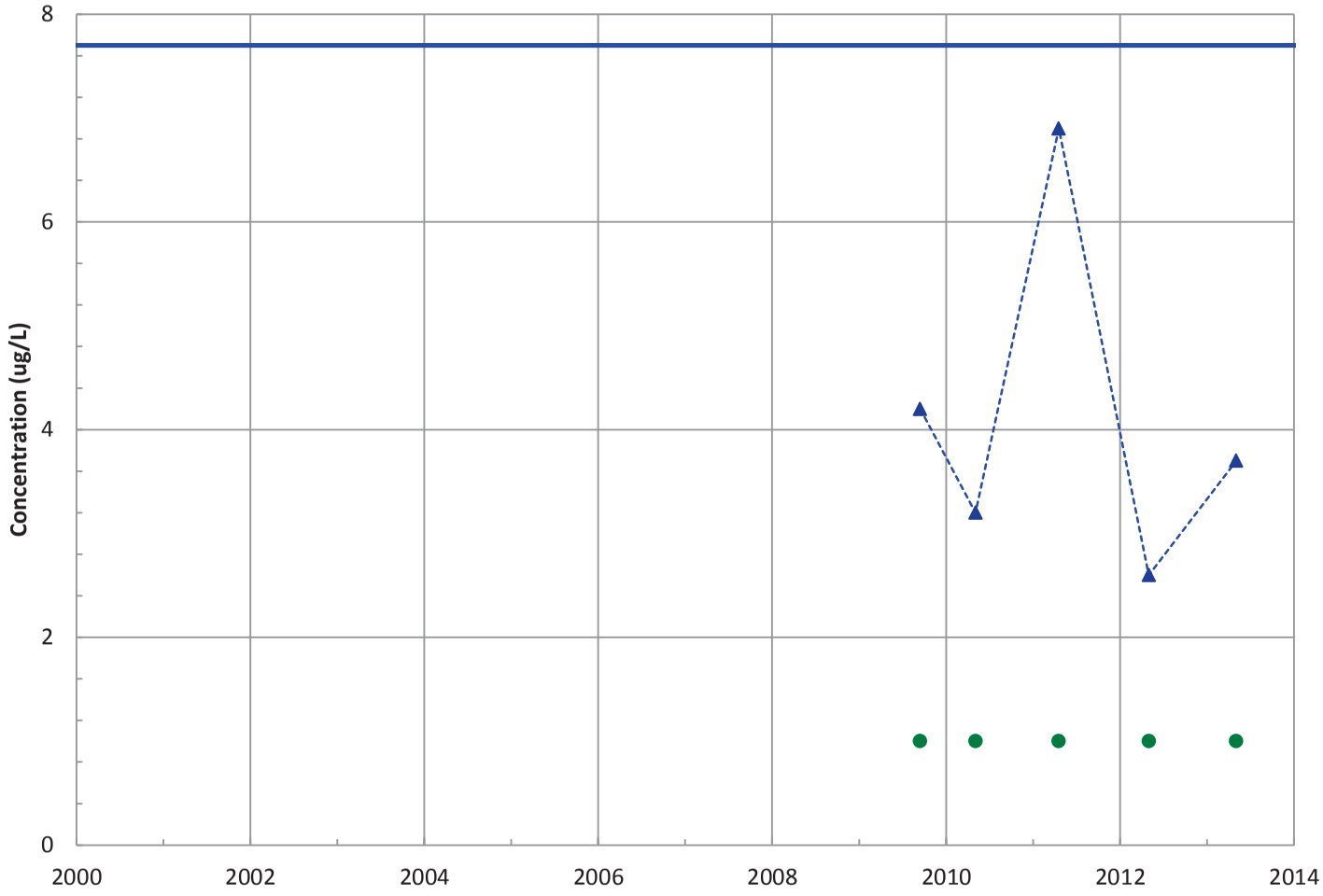
Well Location



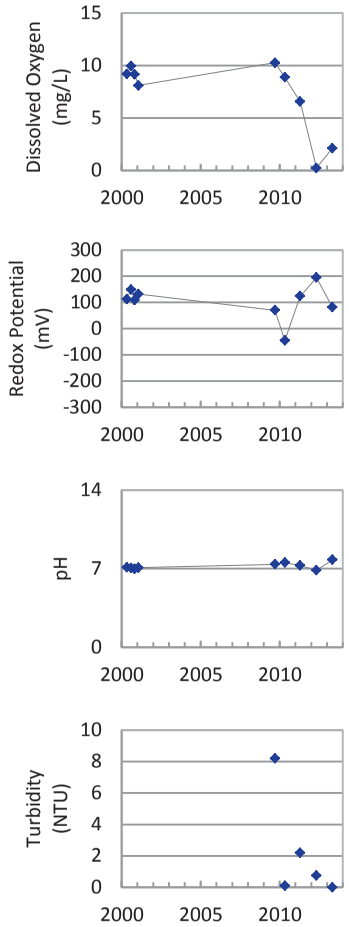
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/2/2000 to 5/13/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1P05
1,4-Dioxane (p-Dioxane) Trend in Perched Aquifer



Field Parameters



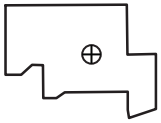
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

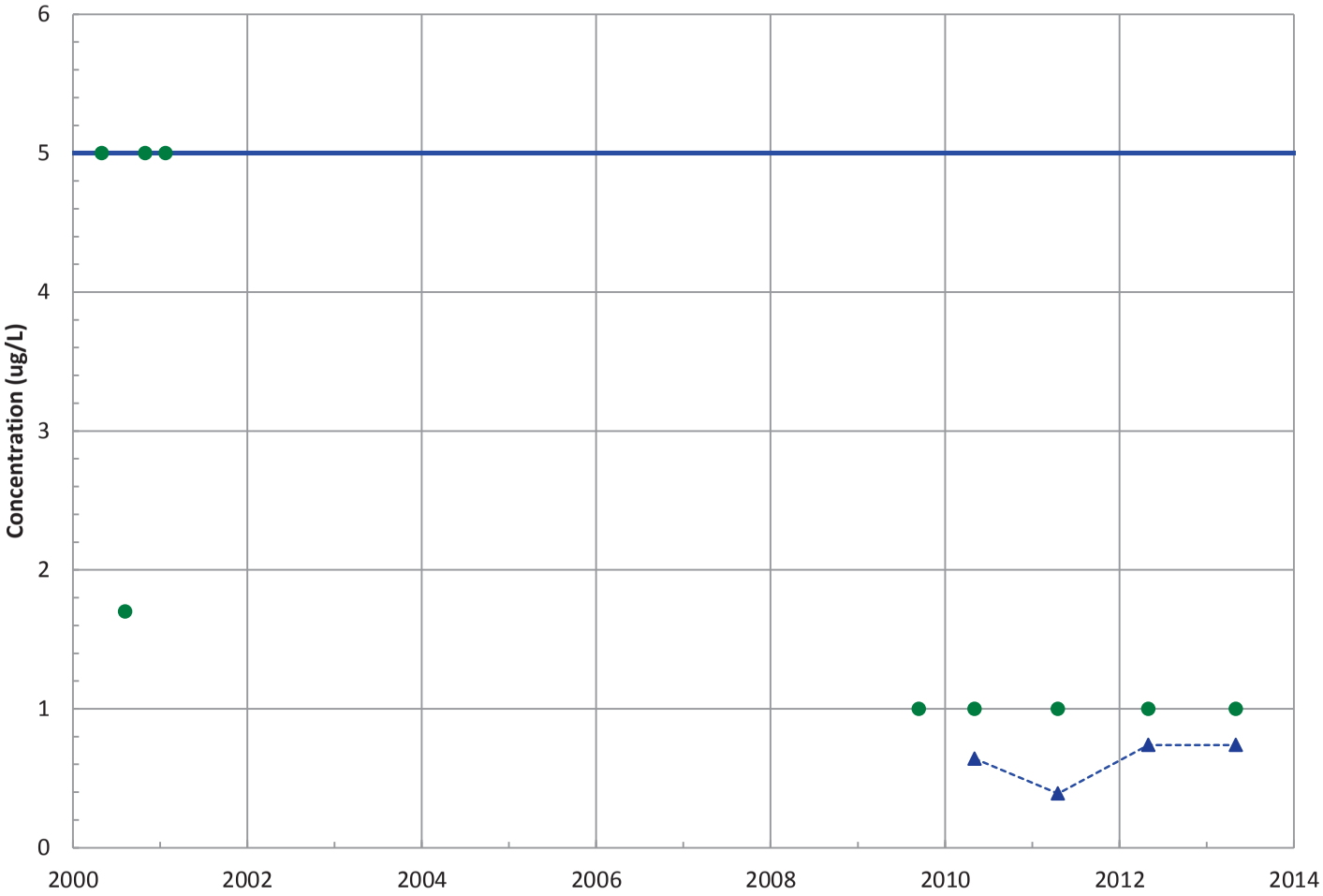
Well Location



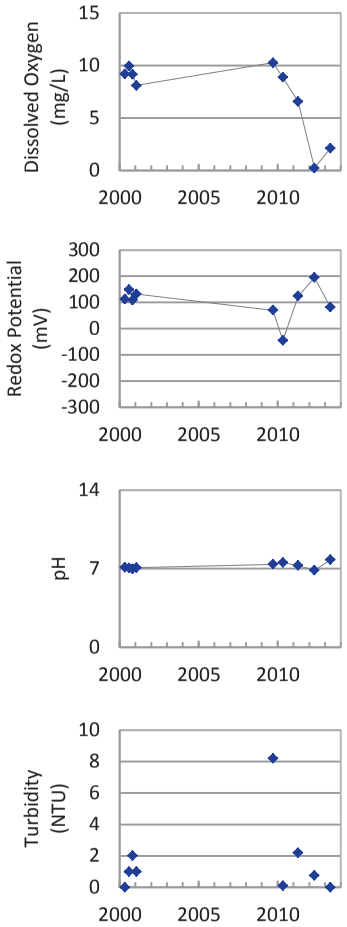
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/21/2009 to 5/13/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1P05
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



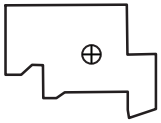
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

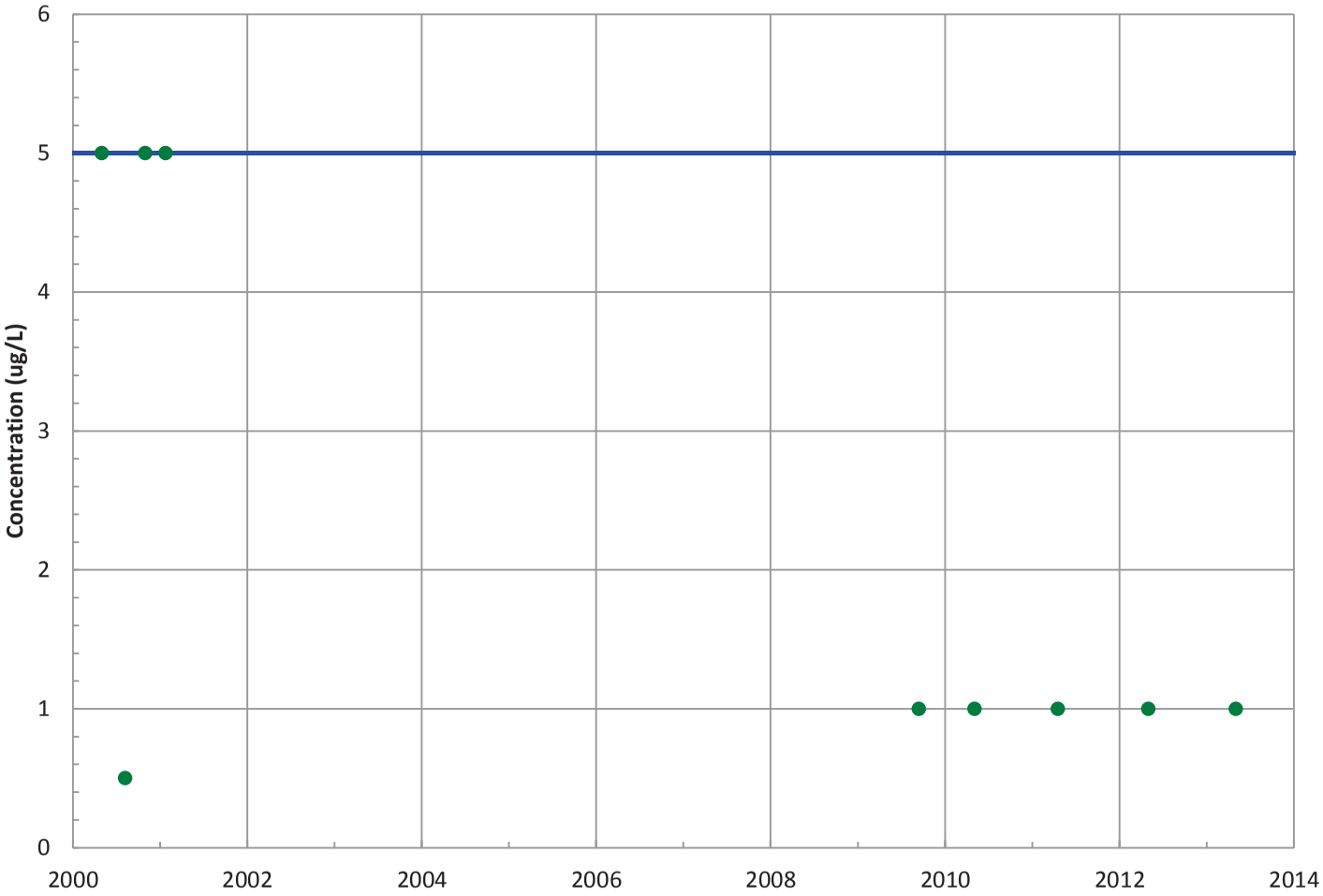
Well Location



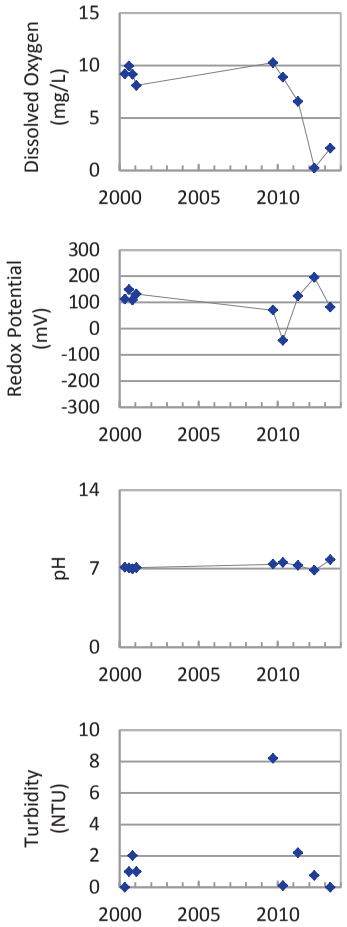
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/2/2000 to 5/13/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1P05
Trichloroethene Trend in Perched Aquifer



Field Parameters



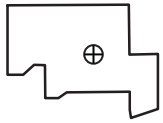
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

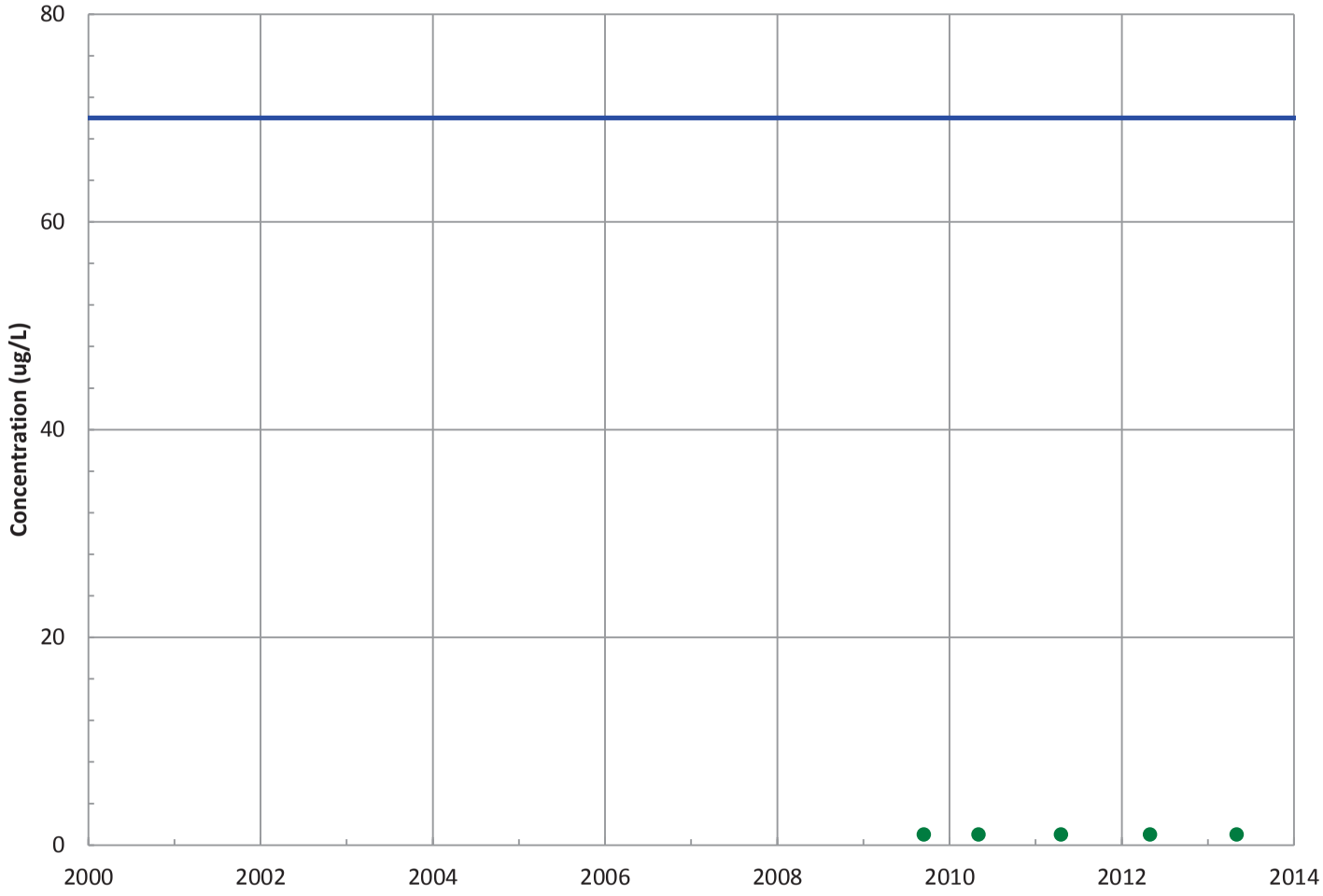
Well Location



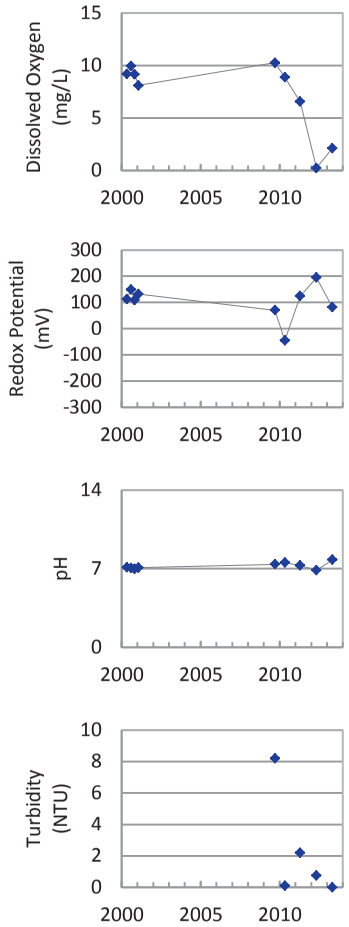
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/2/2000 to 5/13/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1P05
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



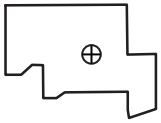
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

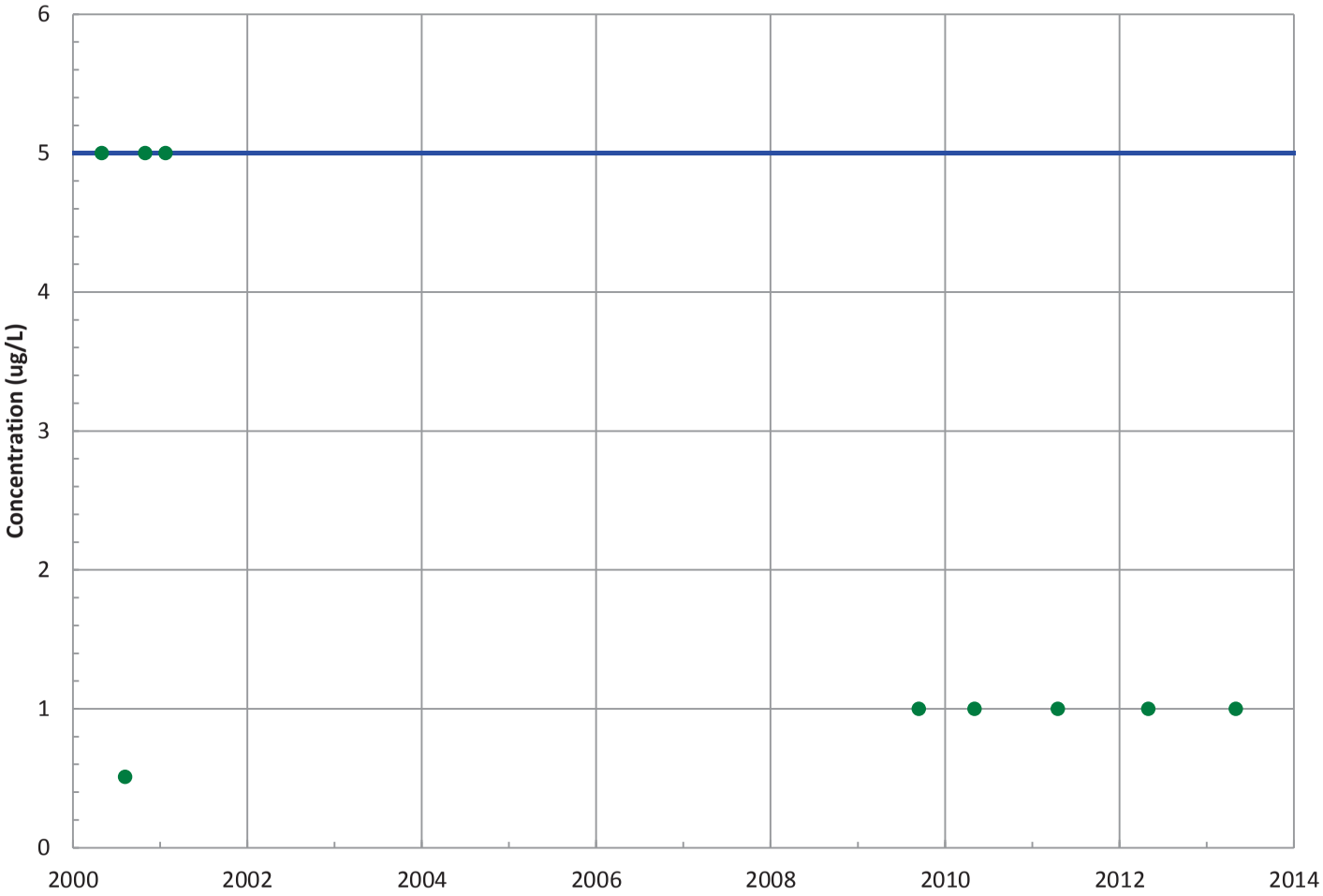
Well Location



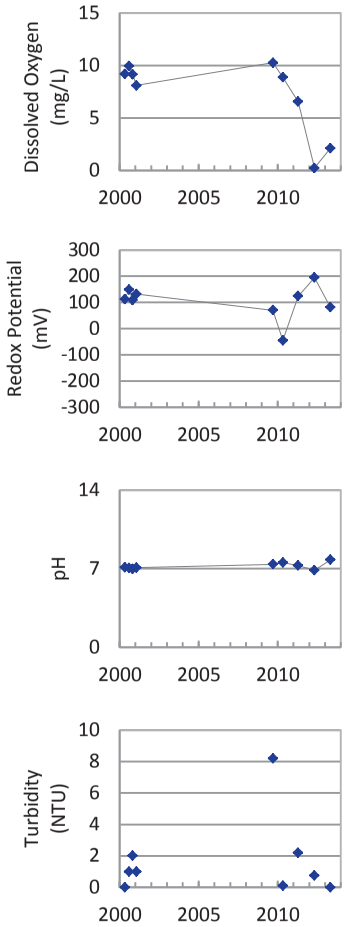
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/21/2009 to 5/13/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1P05
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



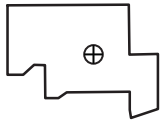
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

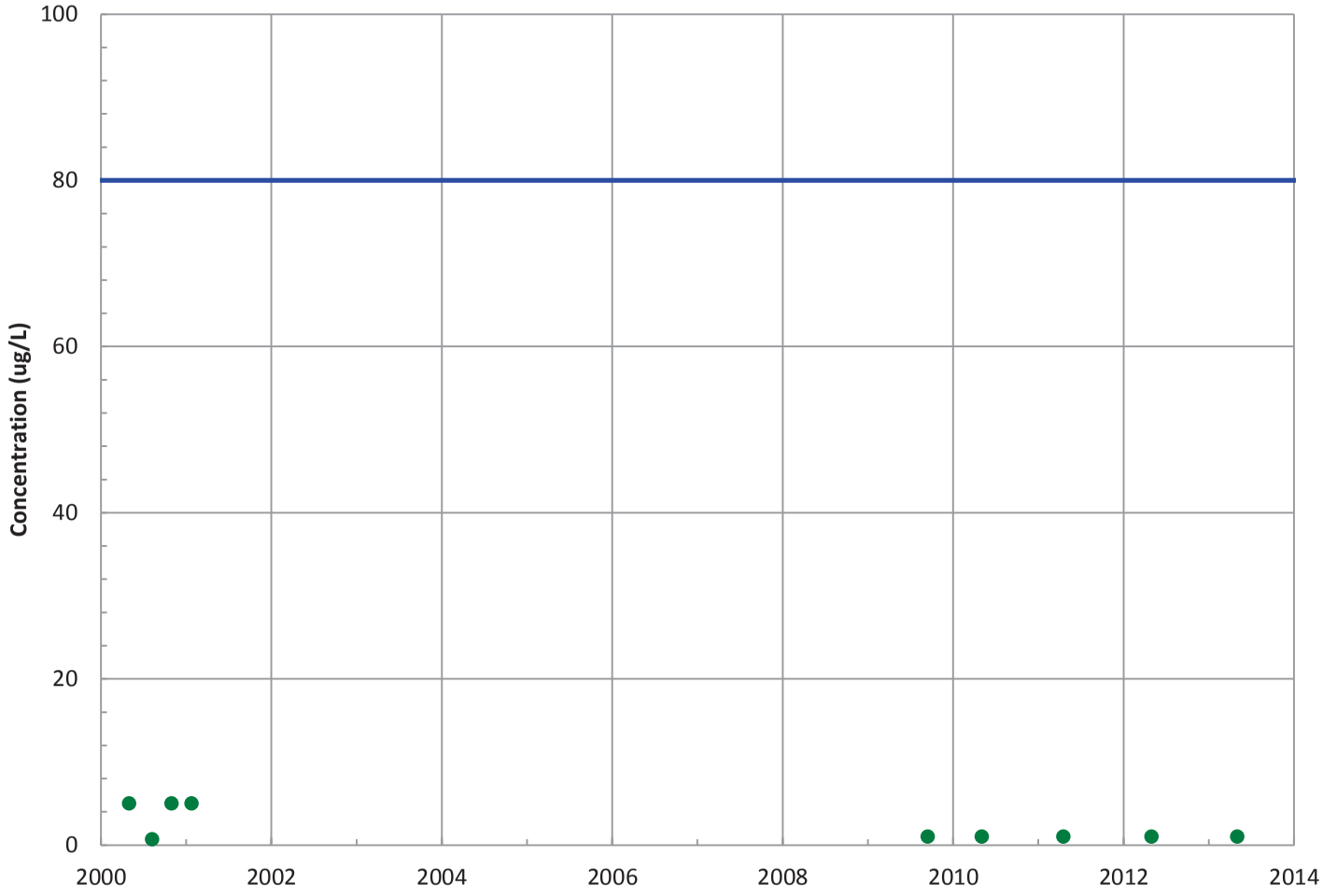
Well Location



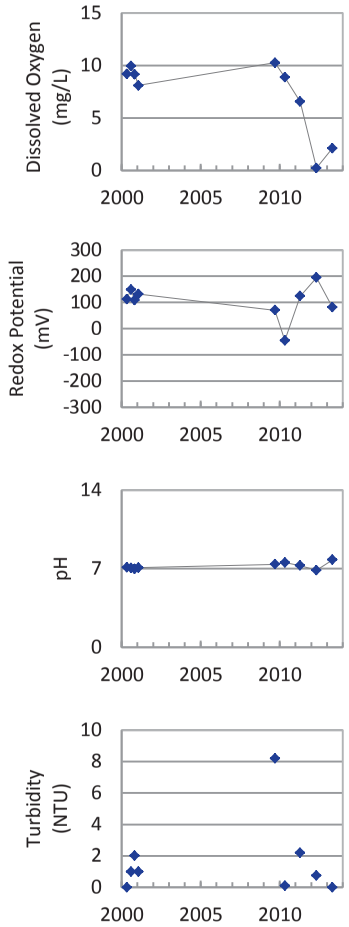
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/2/2000 to 5/13/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1P05
Chloroform Trend in Perched Aquifer



Field Parameters



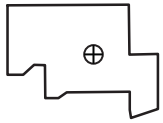
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

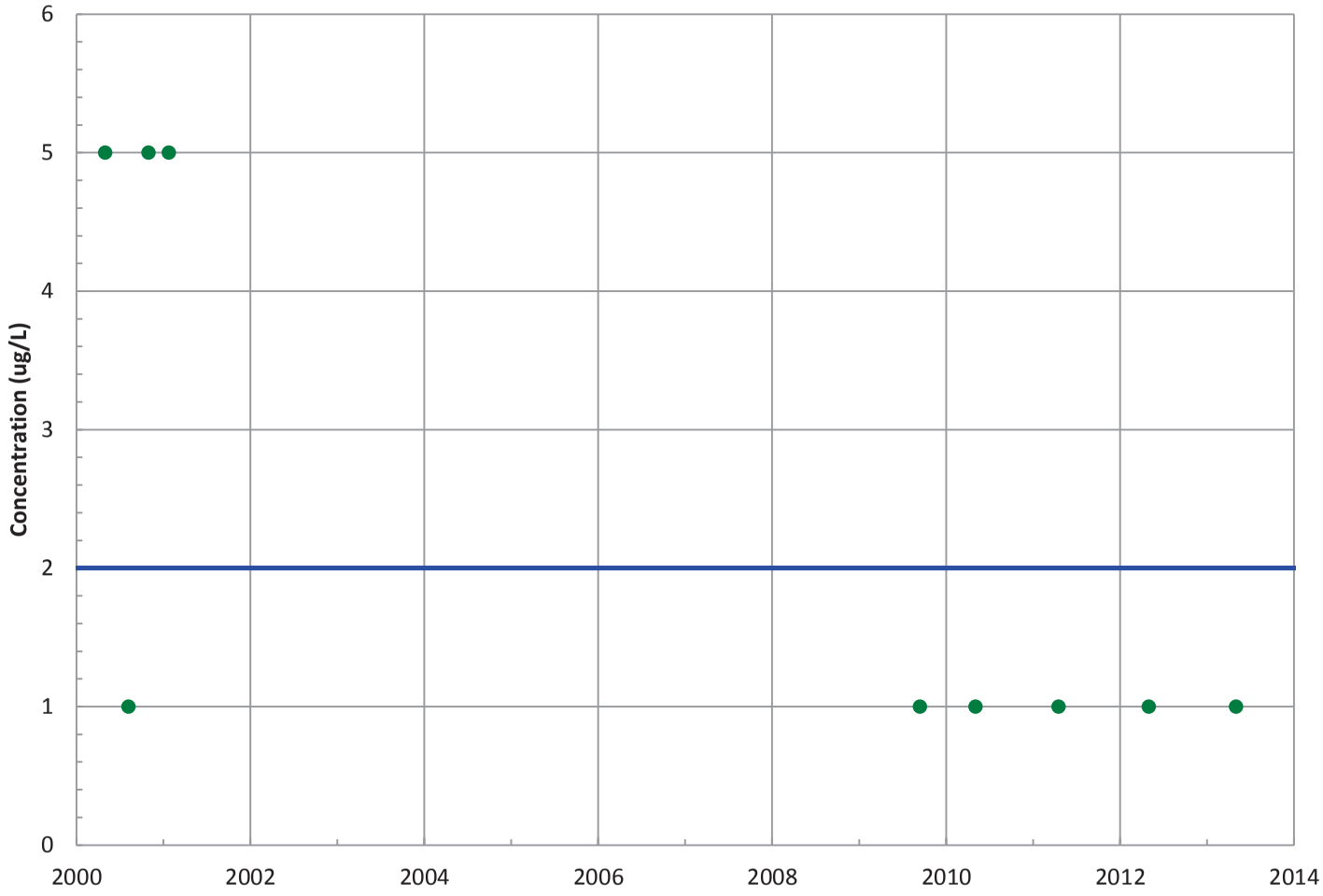
Well Location



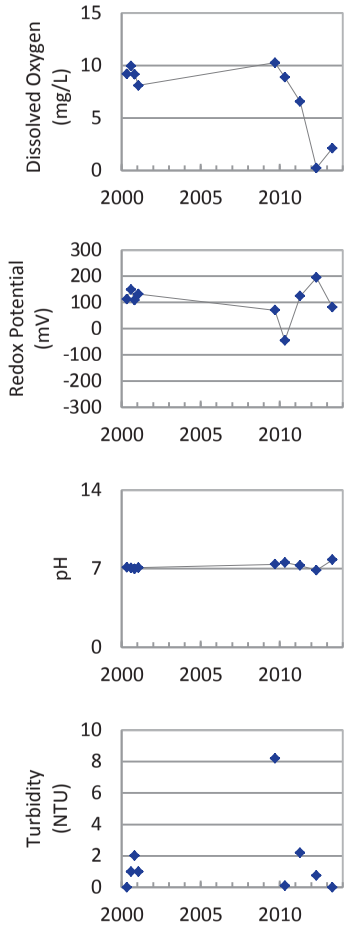
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/2/2000 to 5/13/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1P05
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



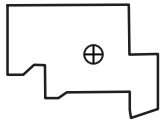
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

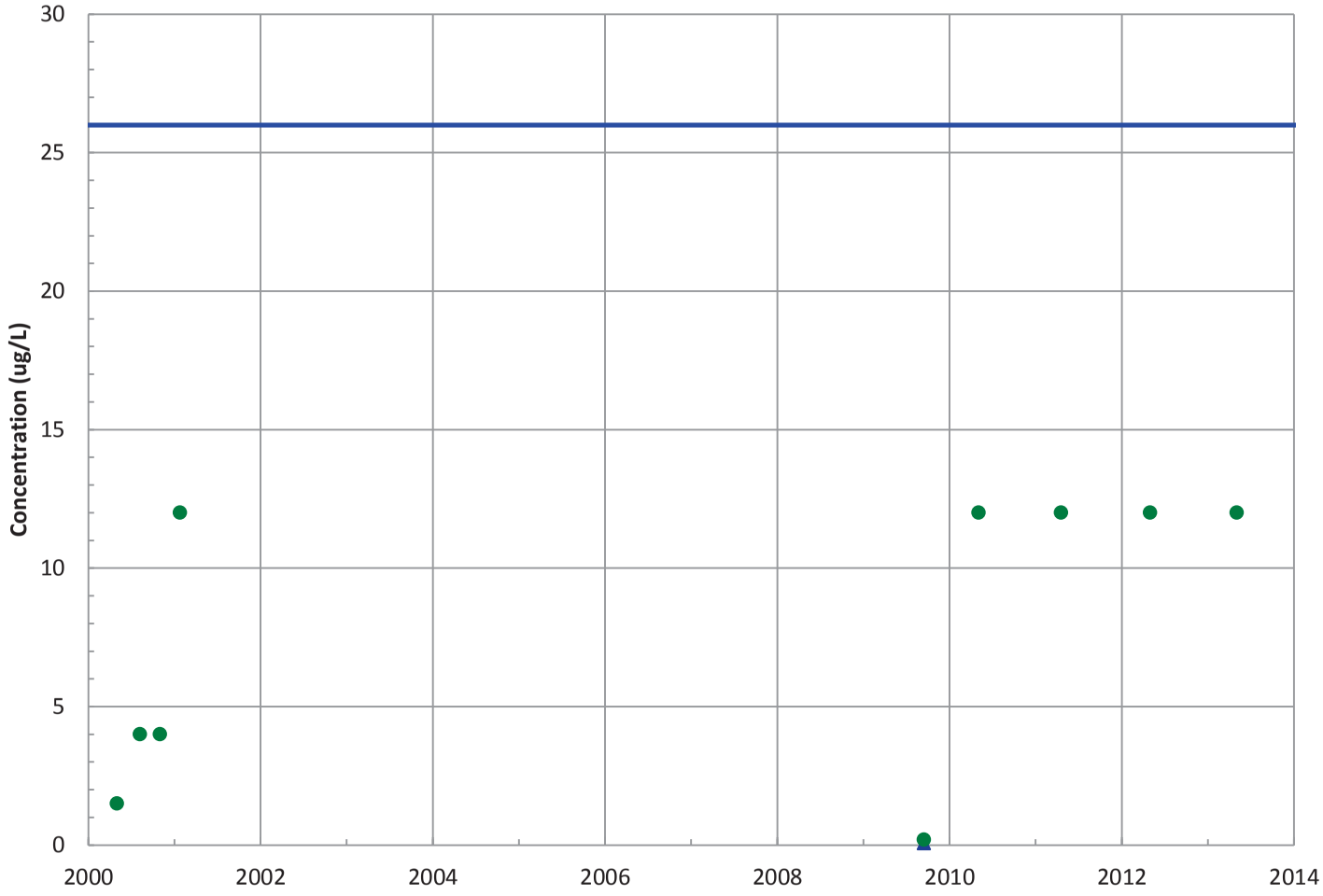
Well Location



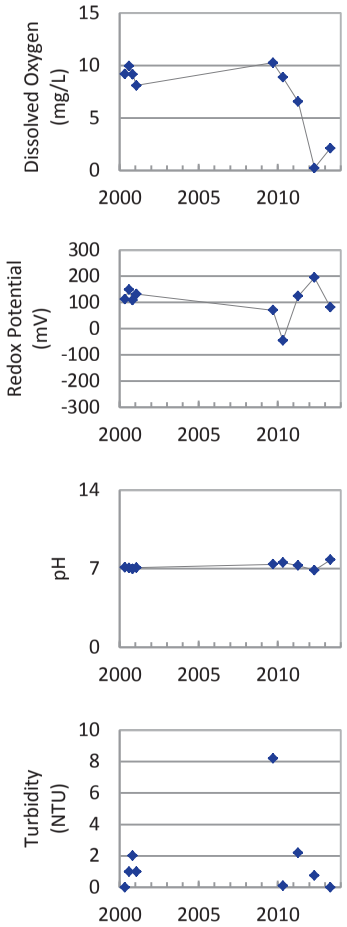
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/2/2000 to 5/13/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1P05
Perchlorate Trend in Perched Aquifer



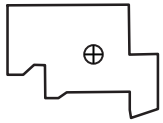
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: All Non-Detect
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

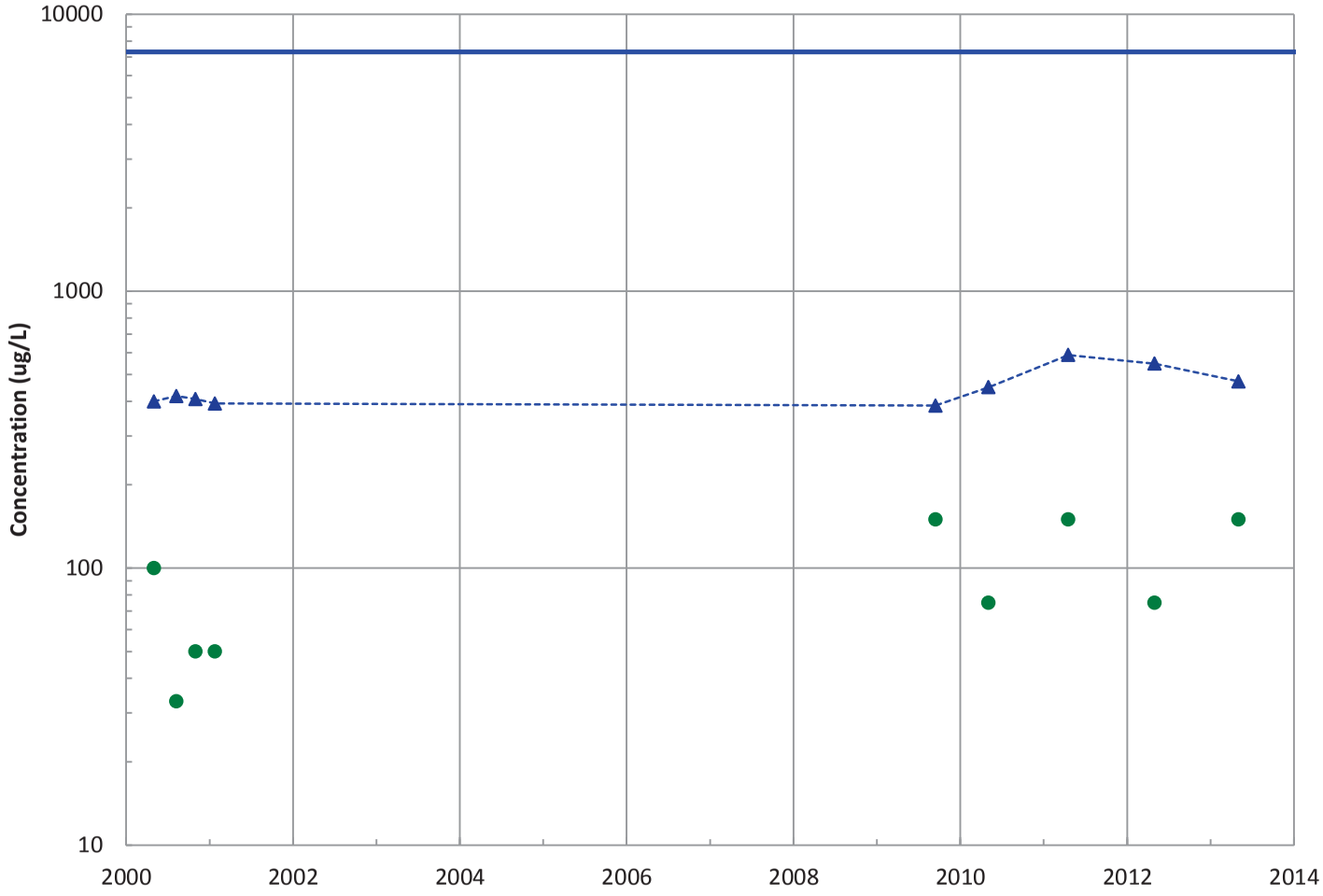
Well Location



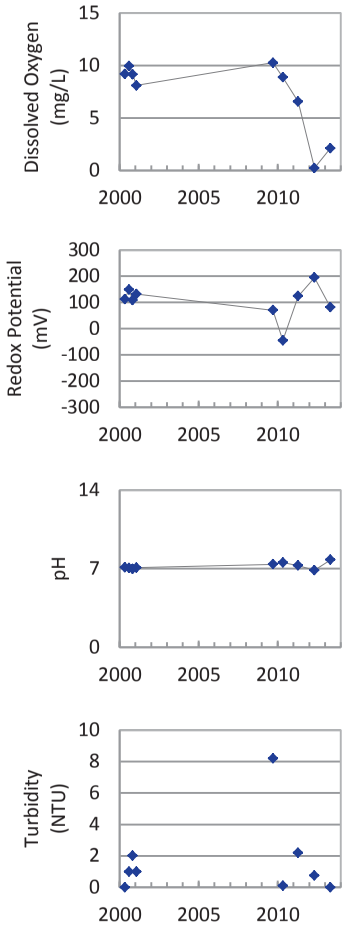
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/2/2000 to 5/13/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1P05
Boron Trend in Perched Aquifer



Field Parameters



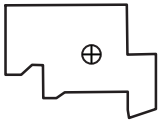
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

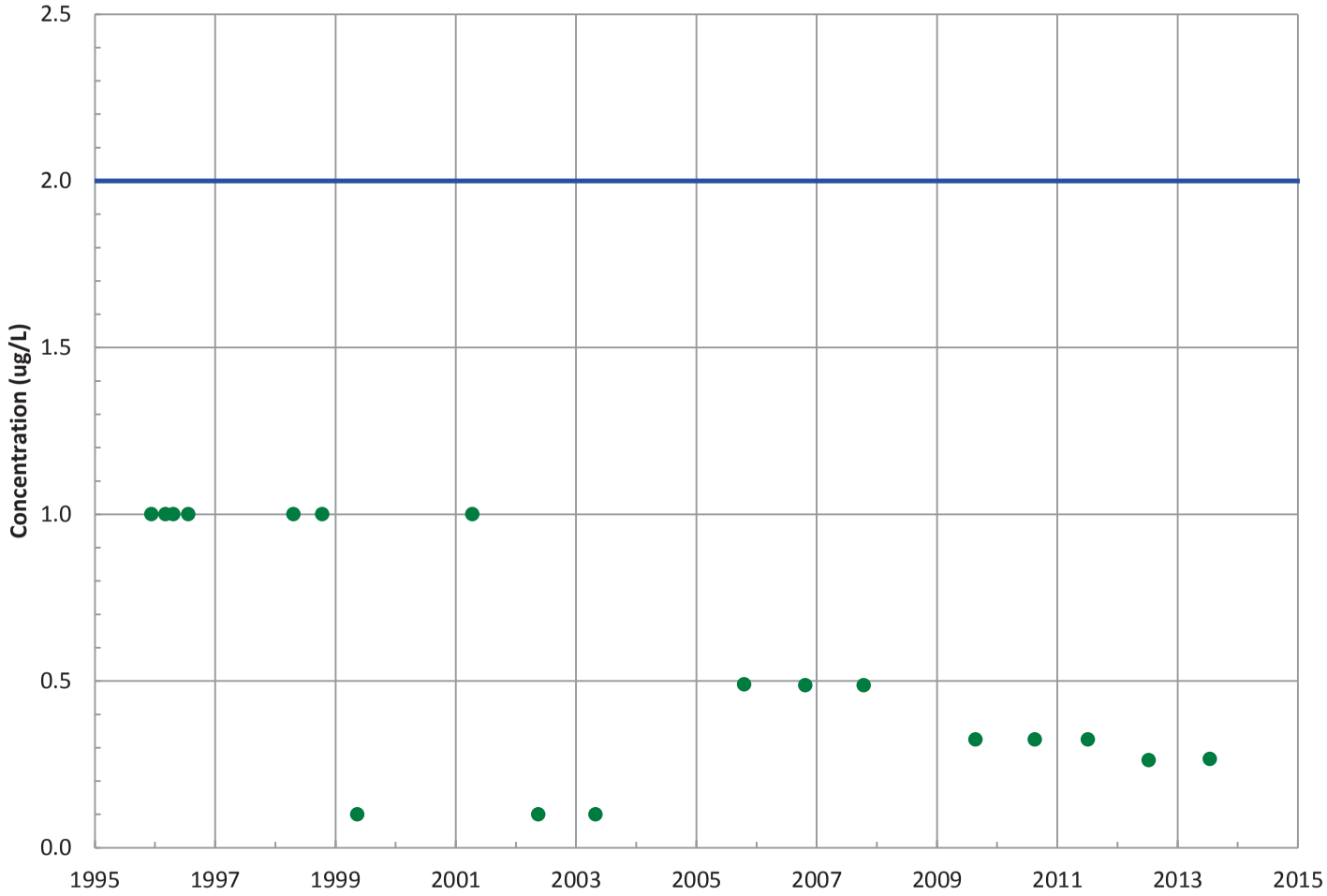
Well Location



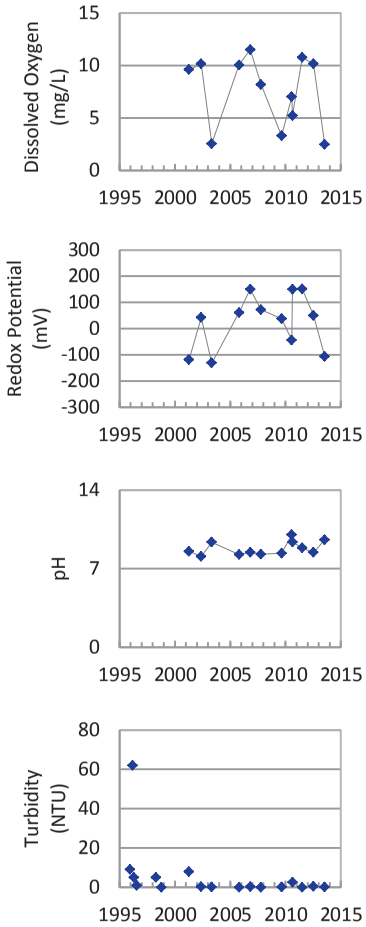
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/2/2000 to 5/13/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q01
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



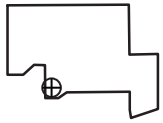
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

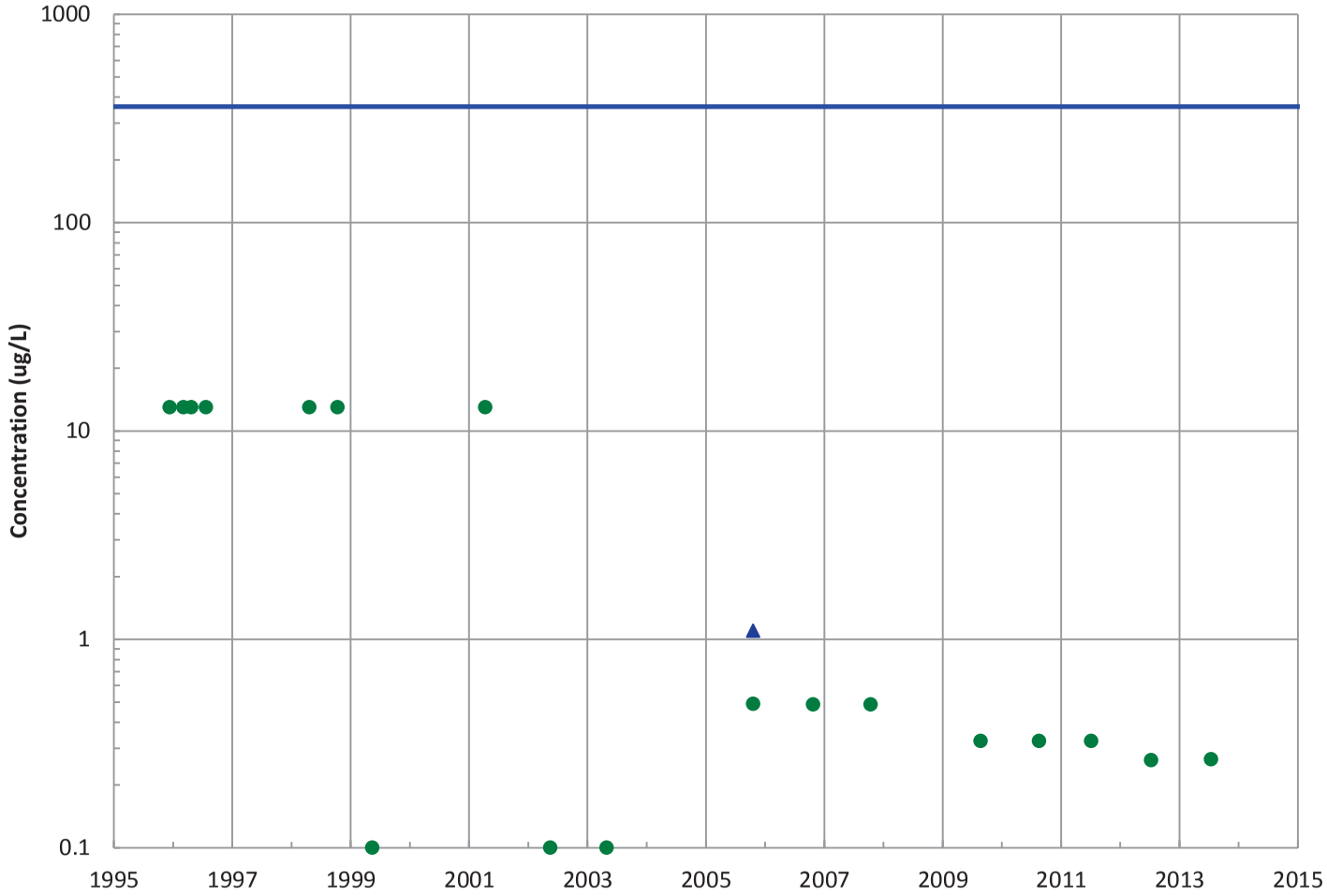
Well Location



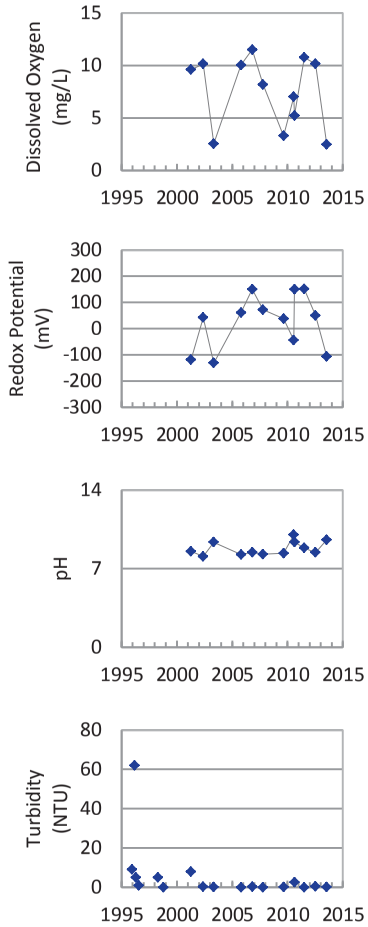
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/12/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q01
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



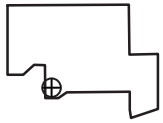
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

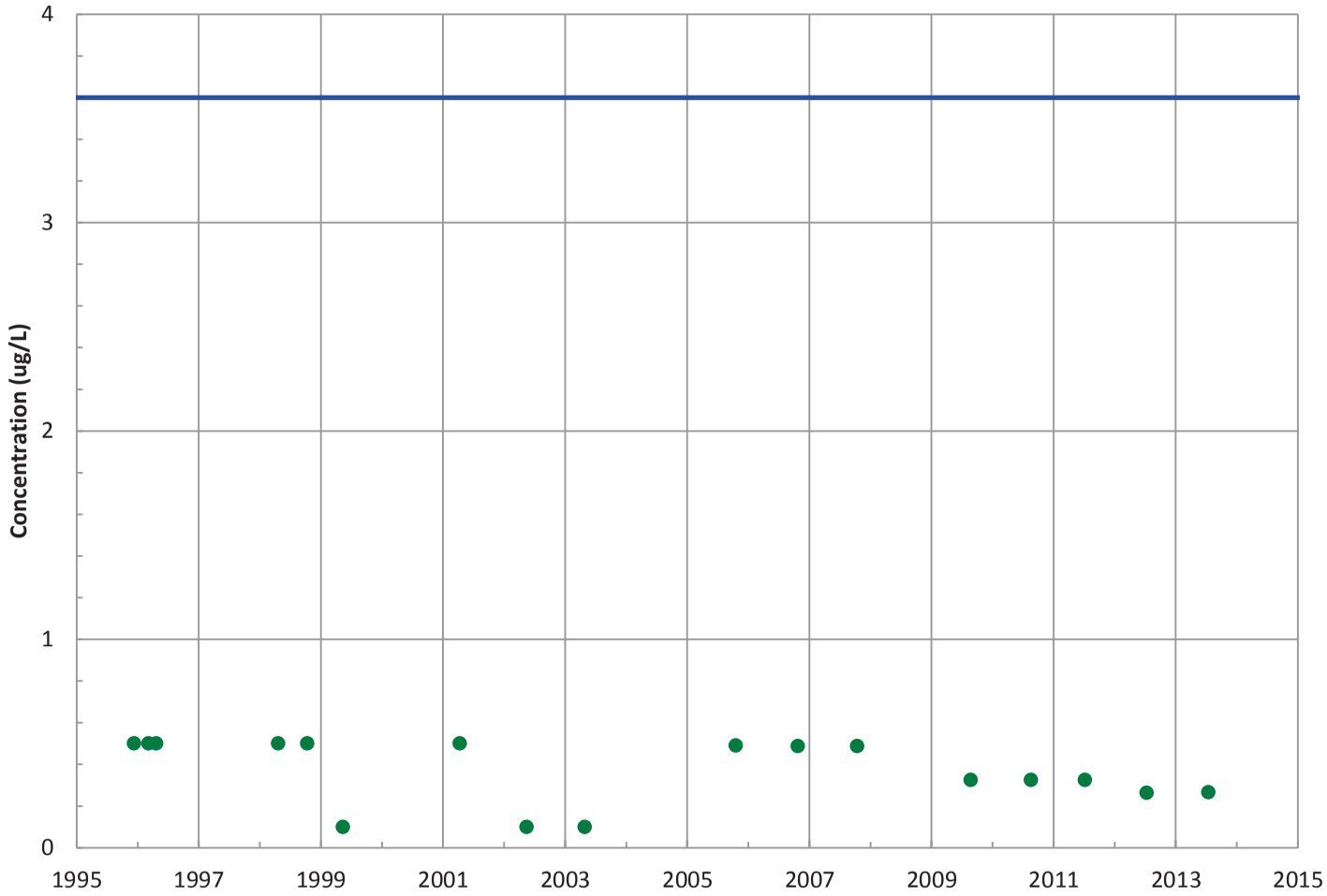
Well Location



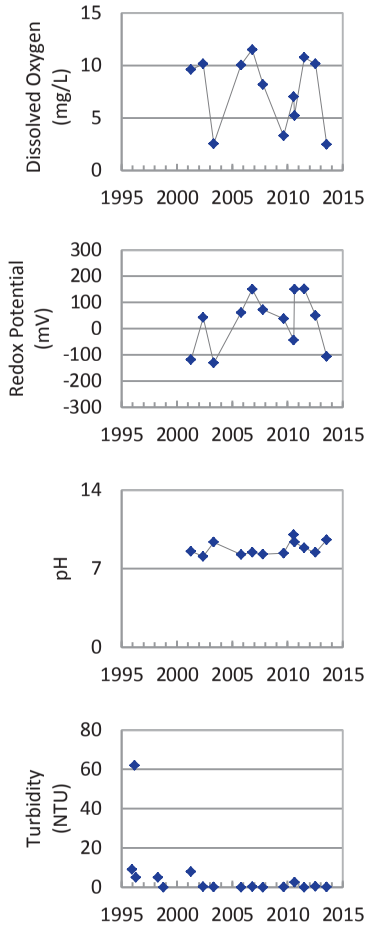
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/12/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q01
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



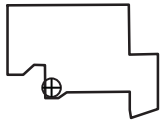
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

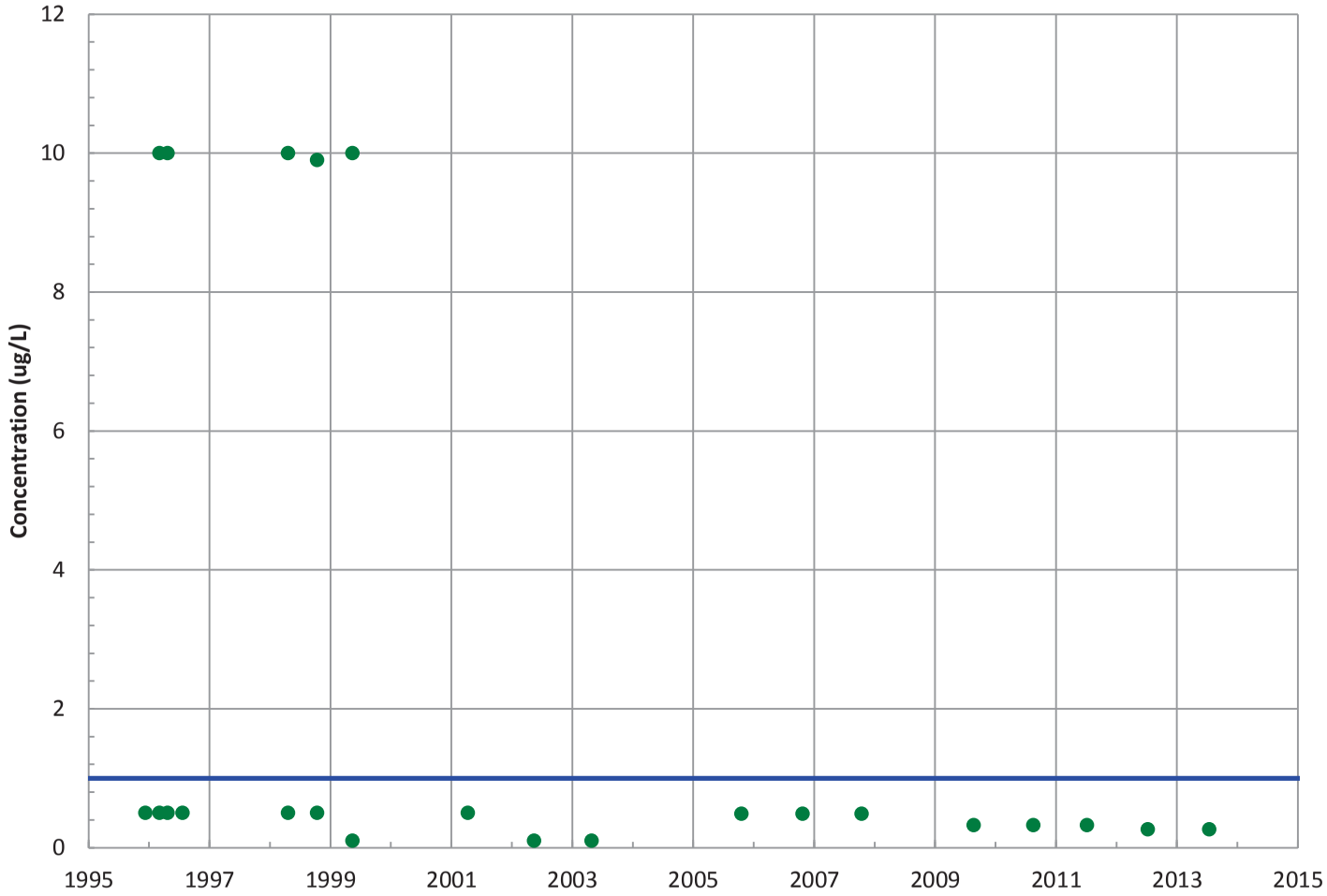
Well Location



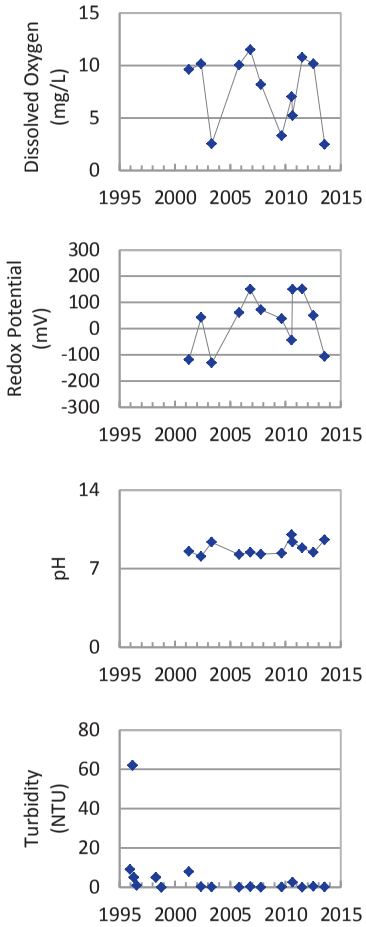
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/12/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q01
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



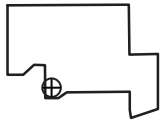
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

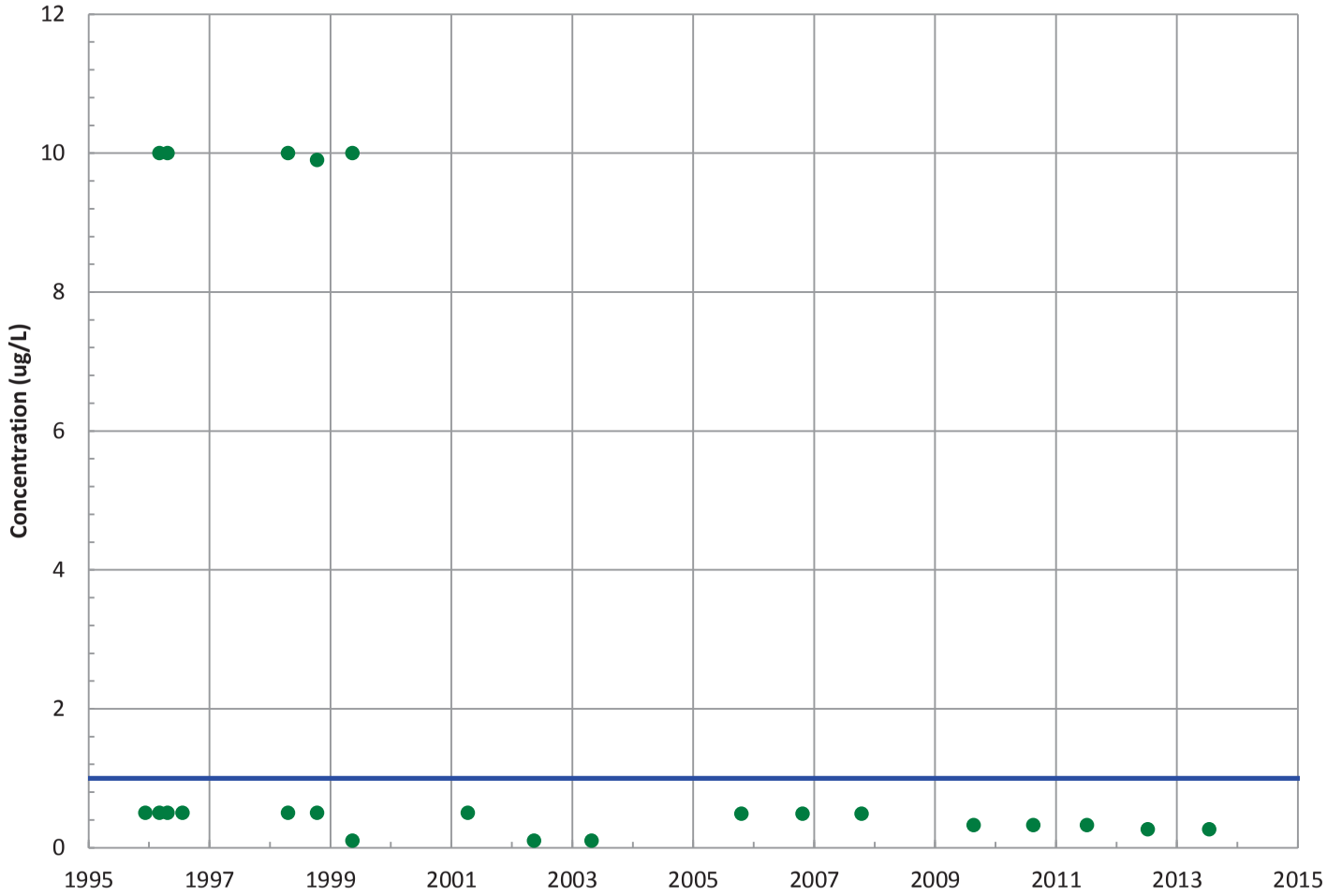
Well Location



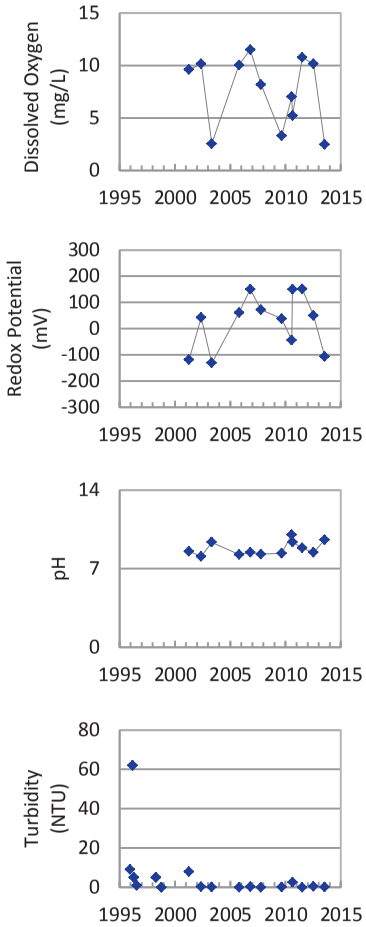
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/12/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q01
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



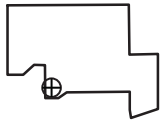
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

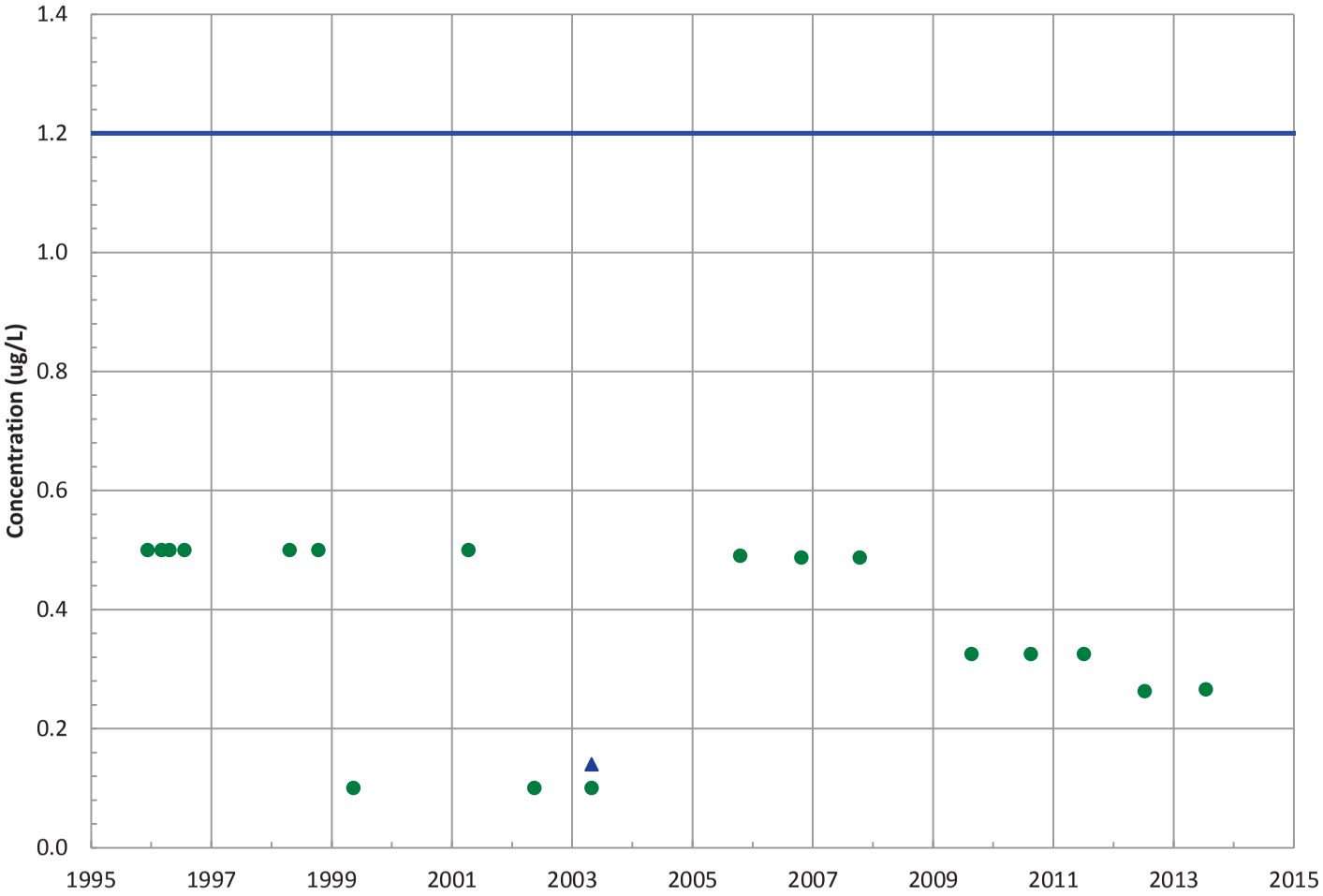
Well Location



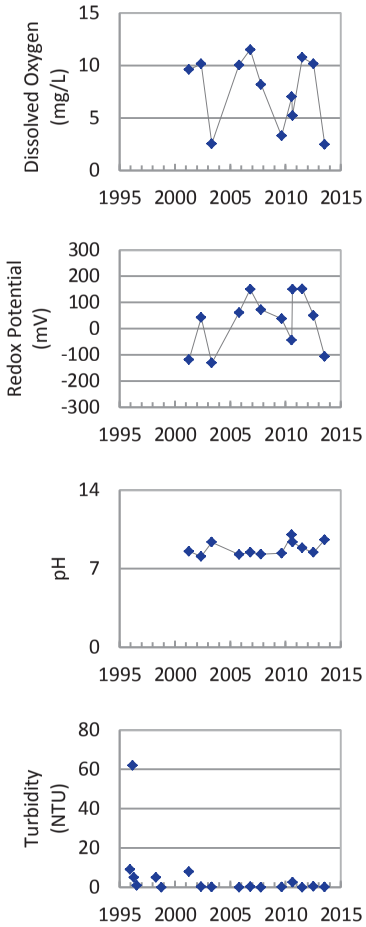
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/12/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q01
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



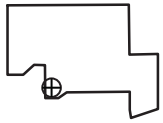
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

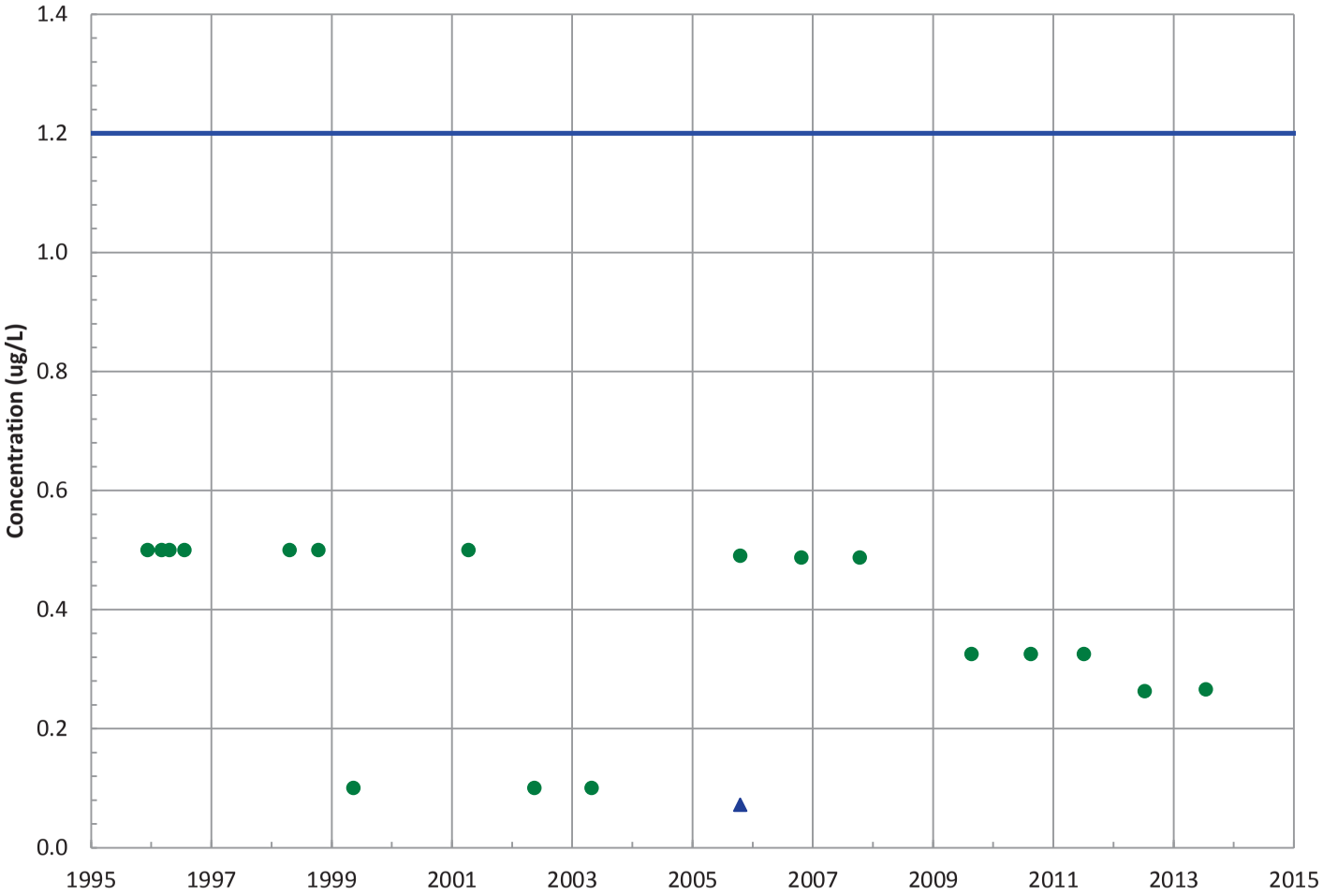
Well Location



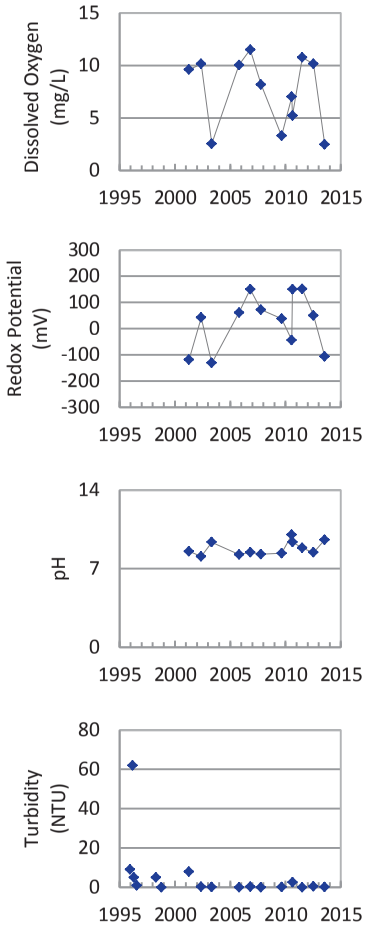
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/12/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q01
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



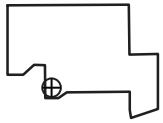
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

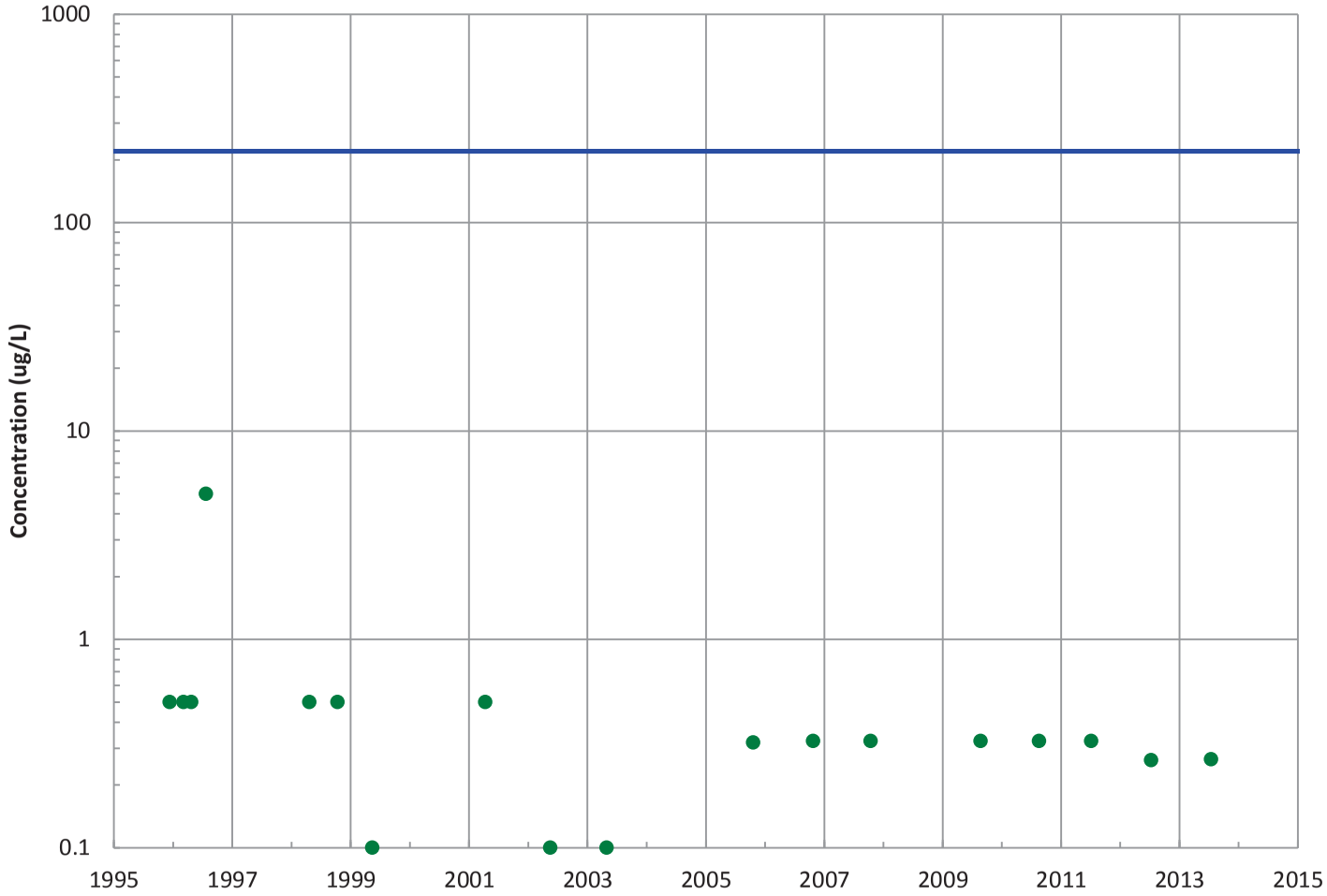
Well Location



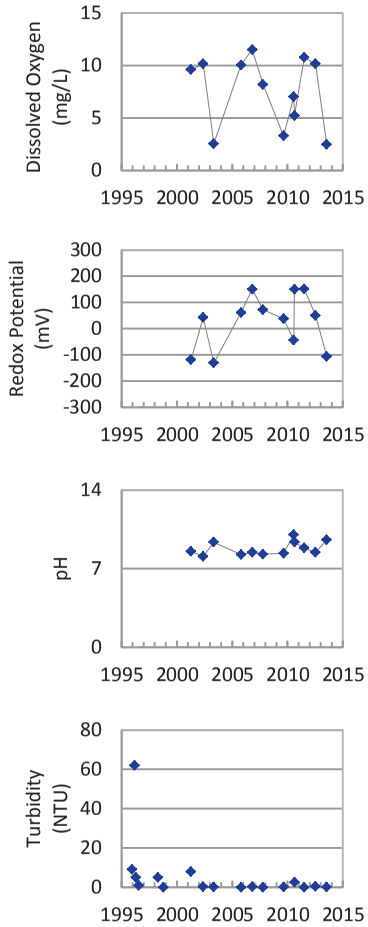
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/12/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q01
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



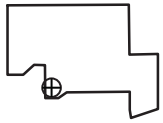
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

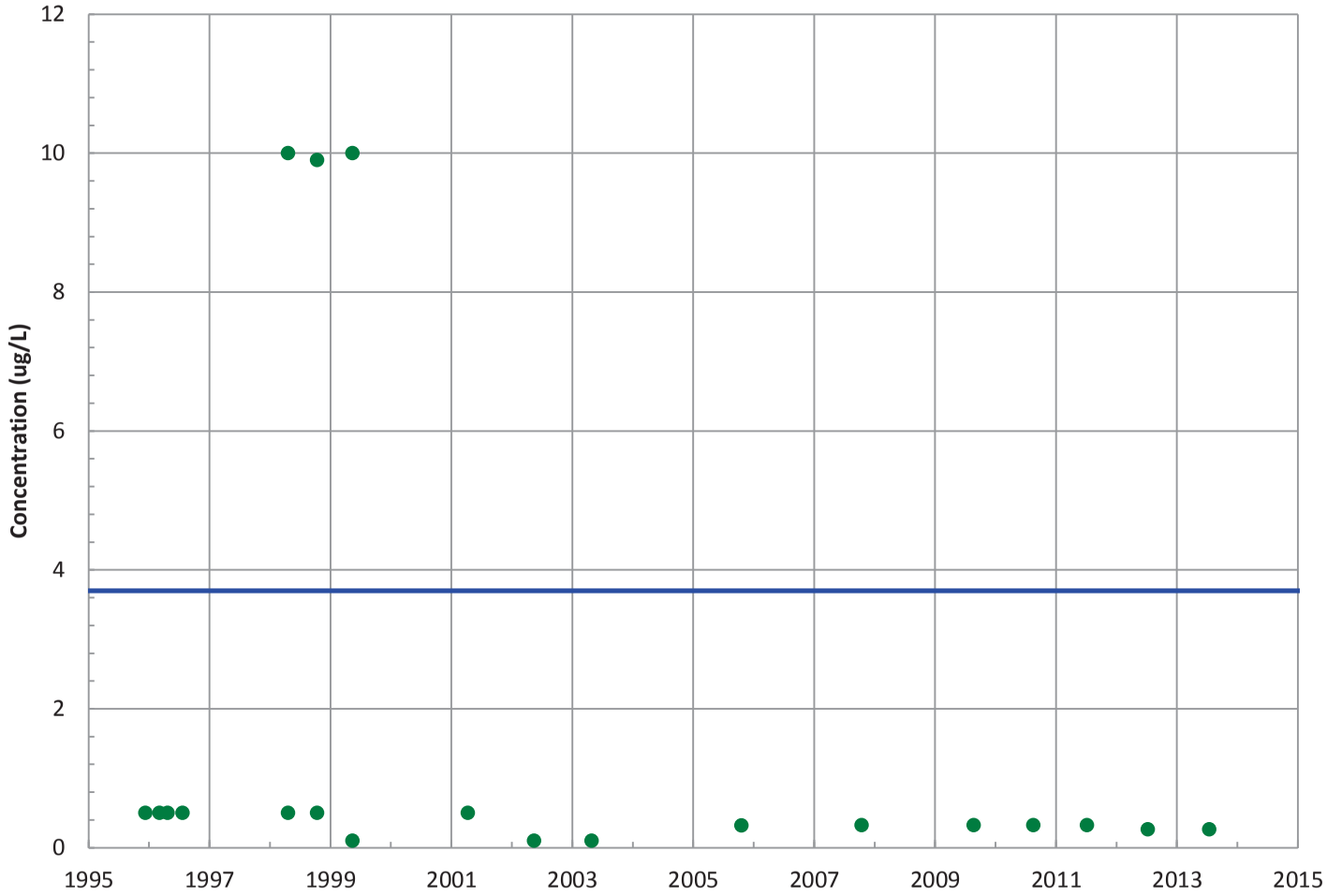
Well Location



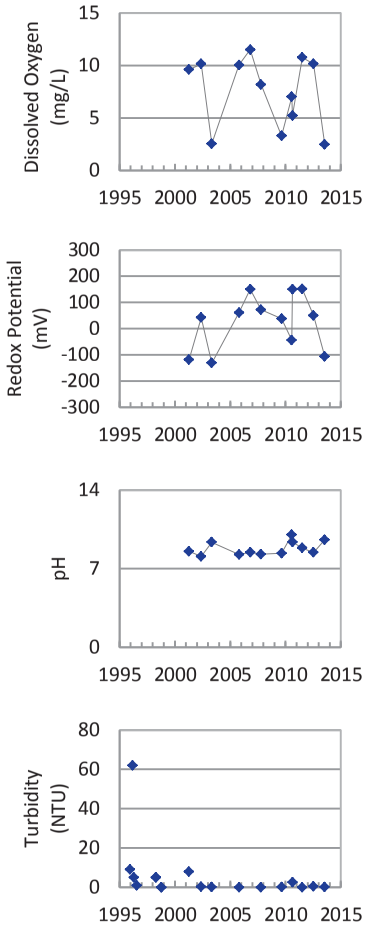
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/12/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q01
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



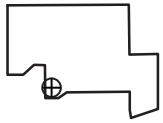
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

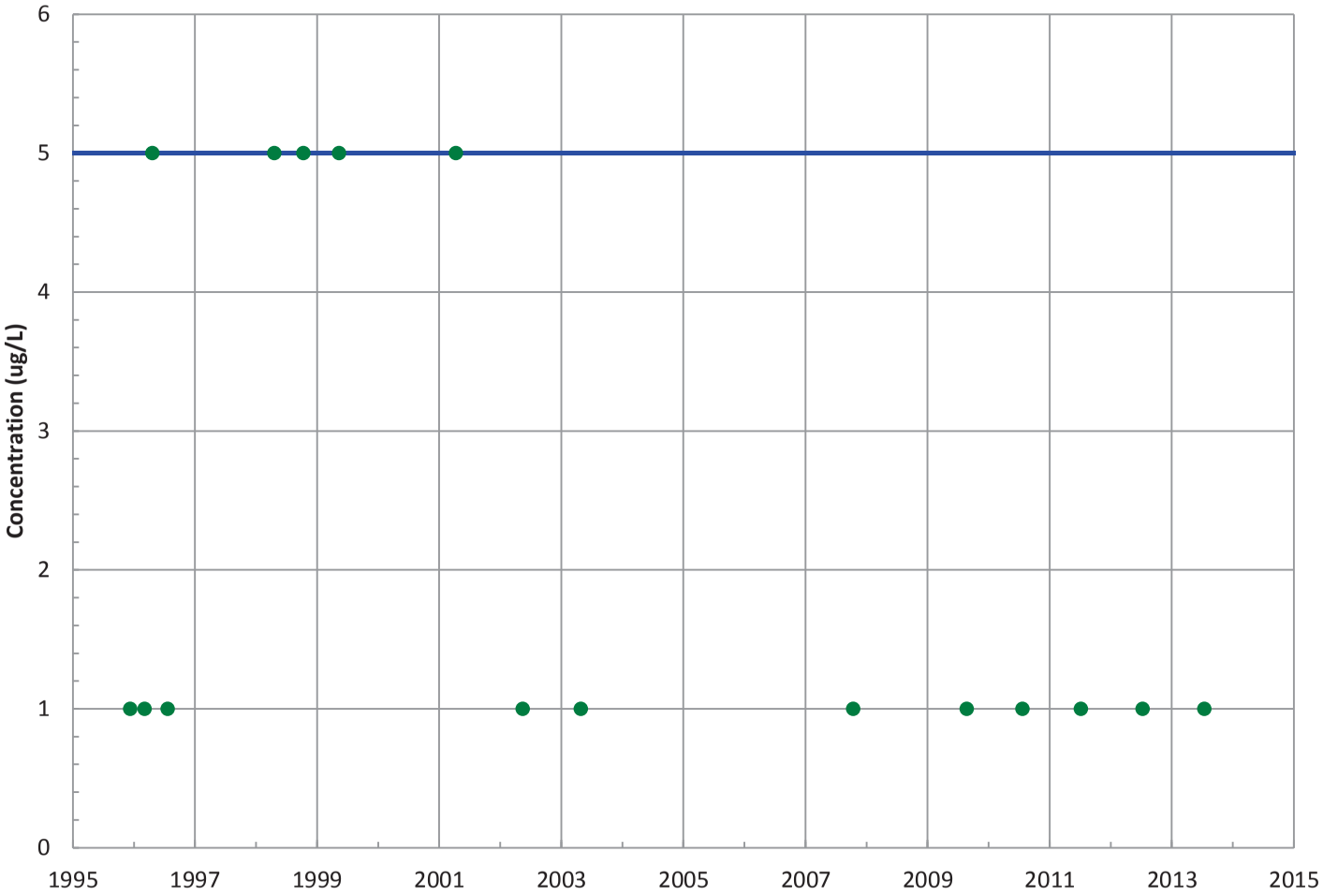
Well Location



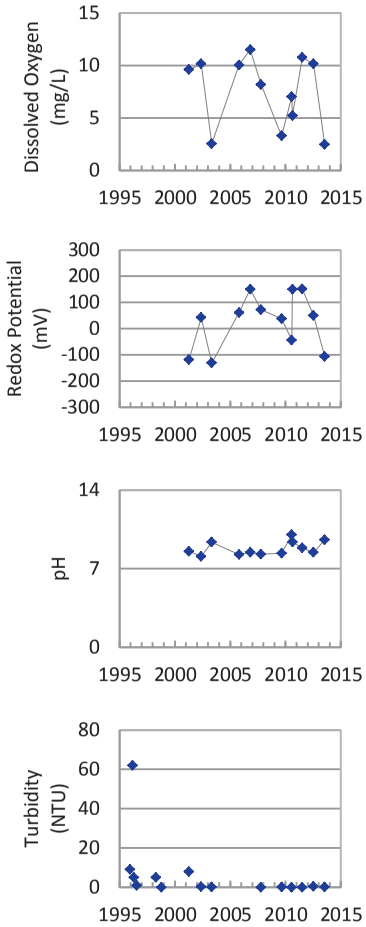
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/12/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q01
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



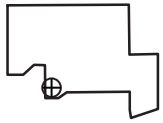
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

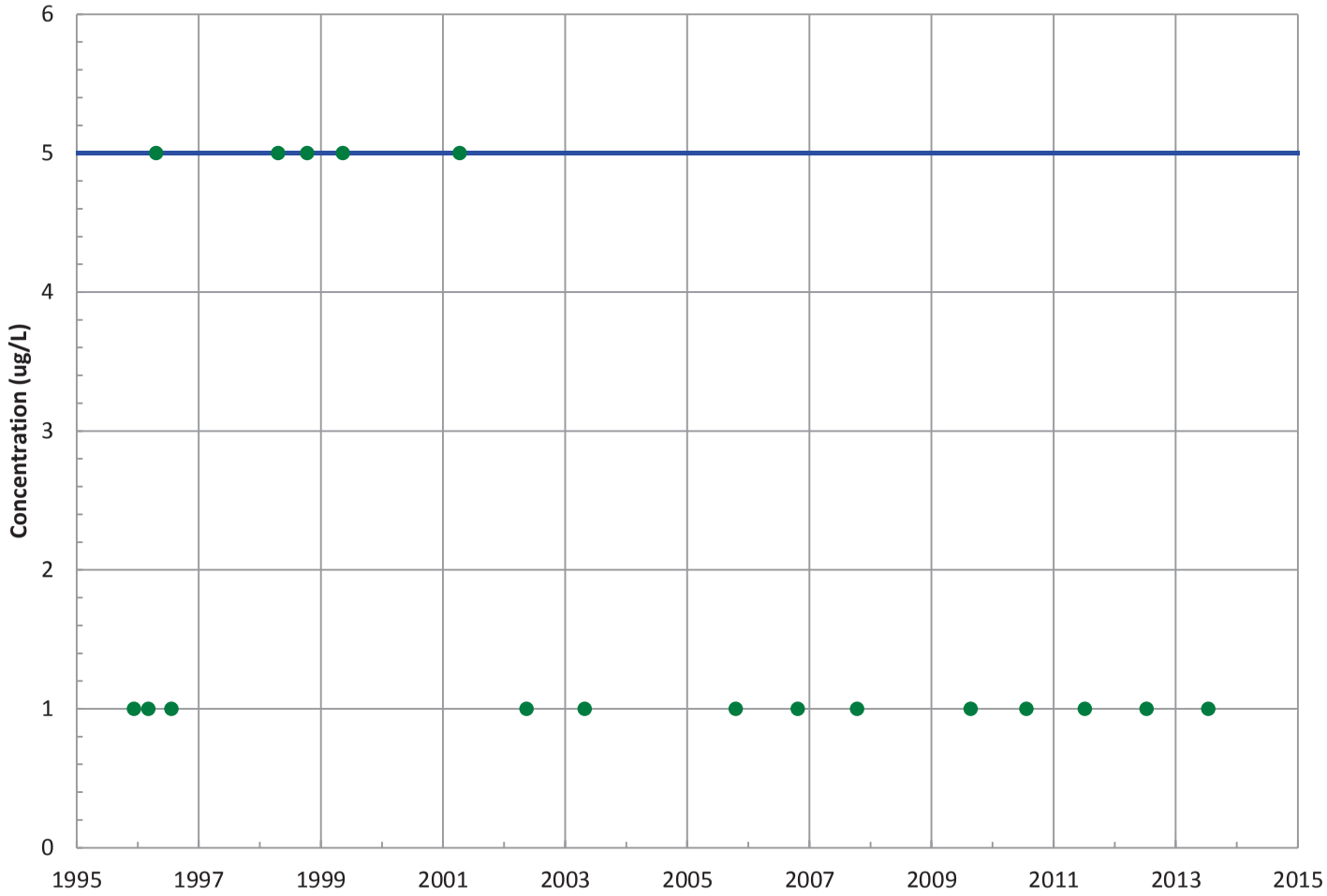
Well Location



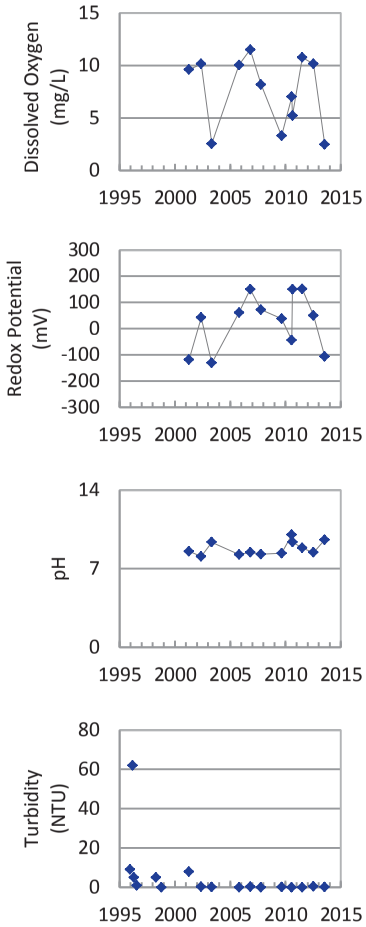
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/12/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q01
Trichloroethene Trend in Perched Aquifer



Field Parameters



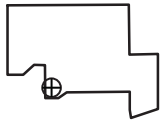
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

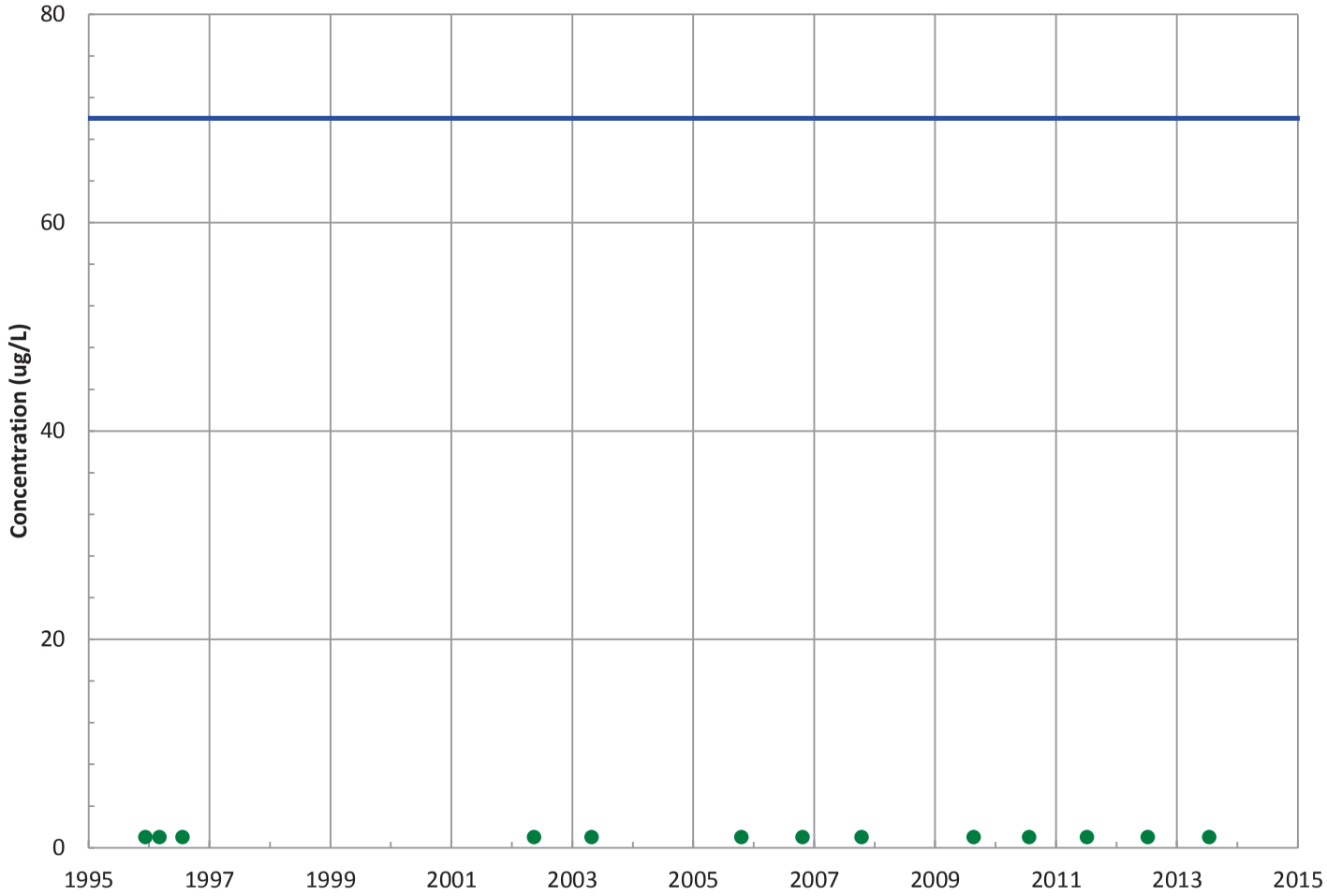
Well Location



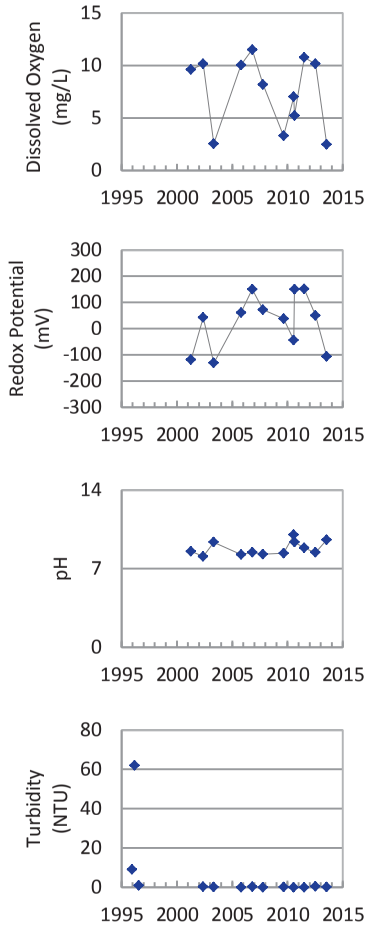
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/12/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q01
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



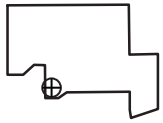
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

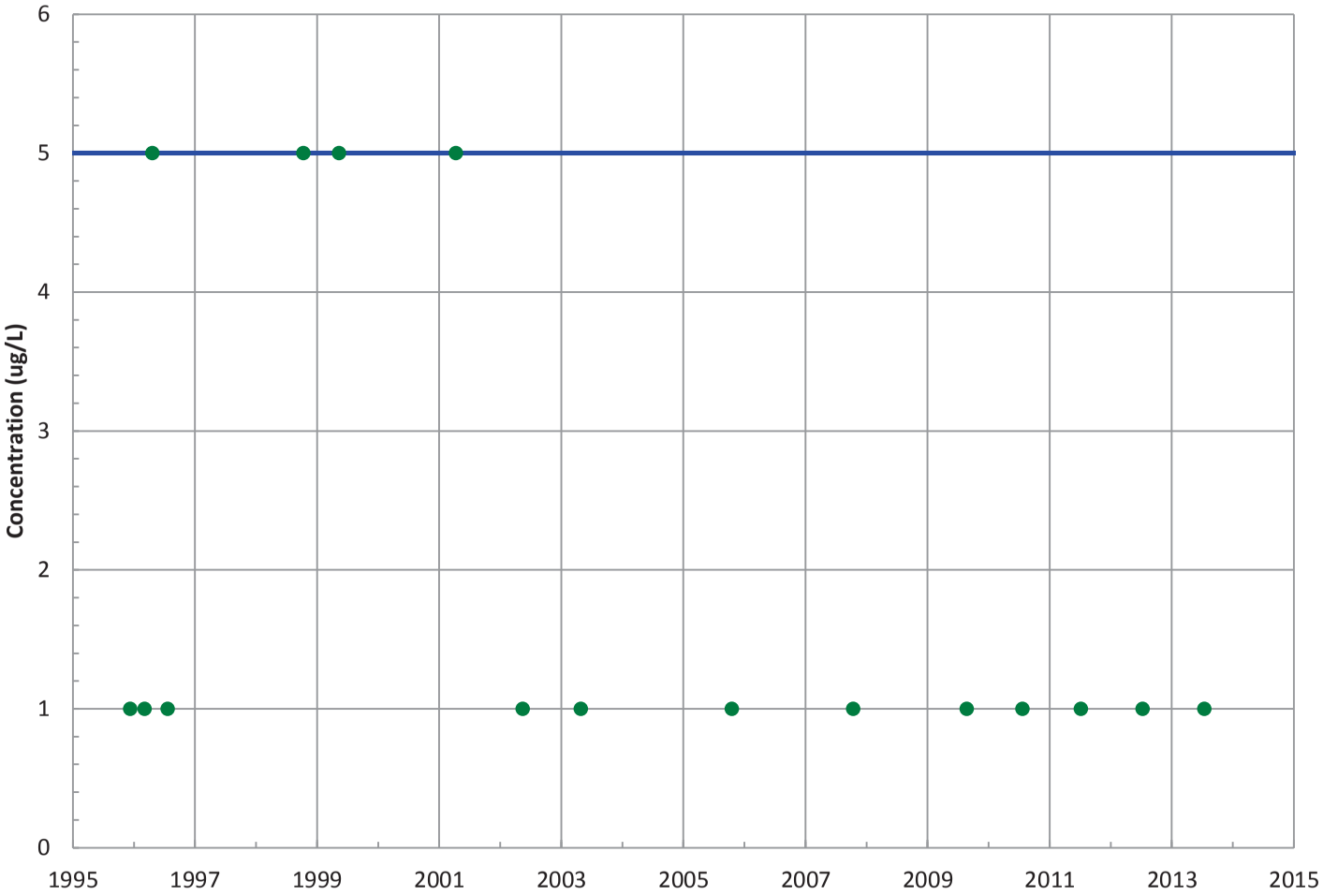
Well Location



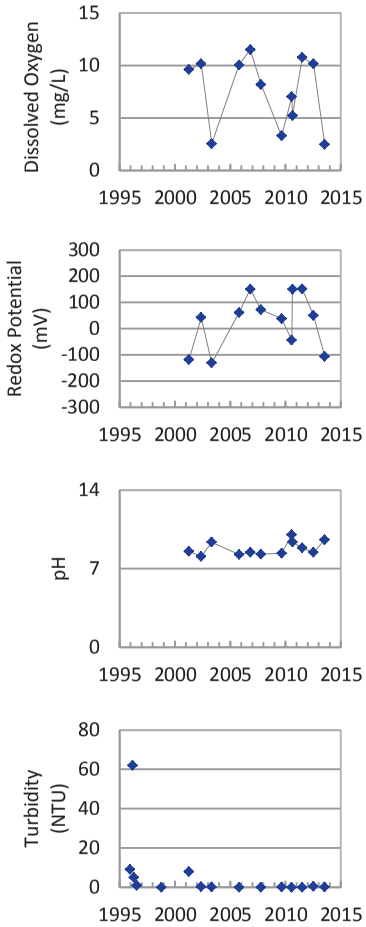
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/12/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q01
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



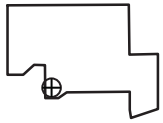
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

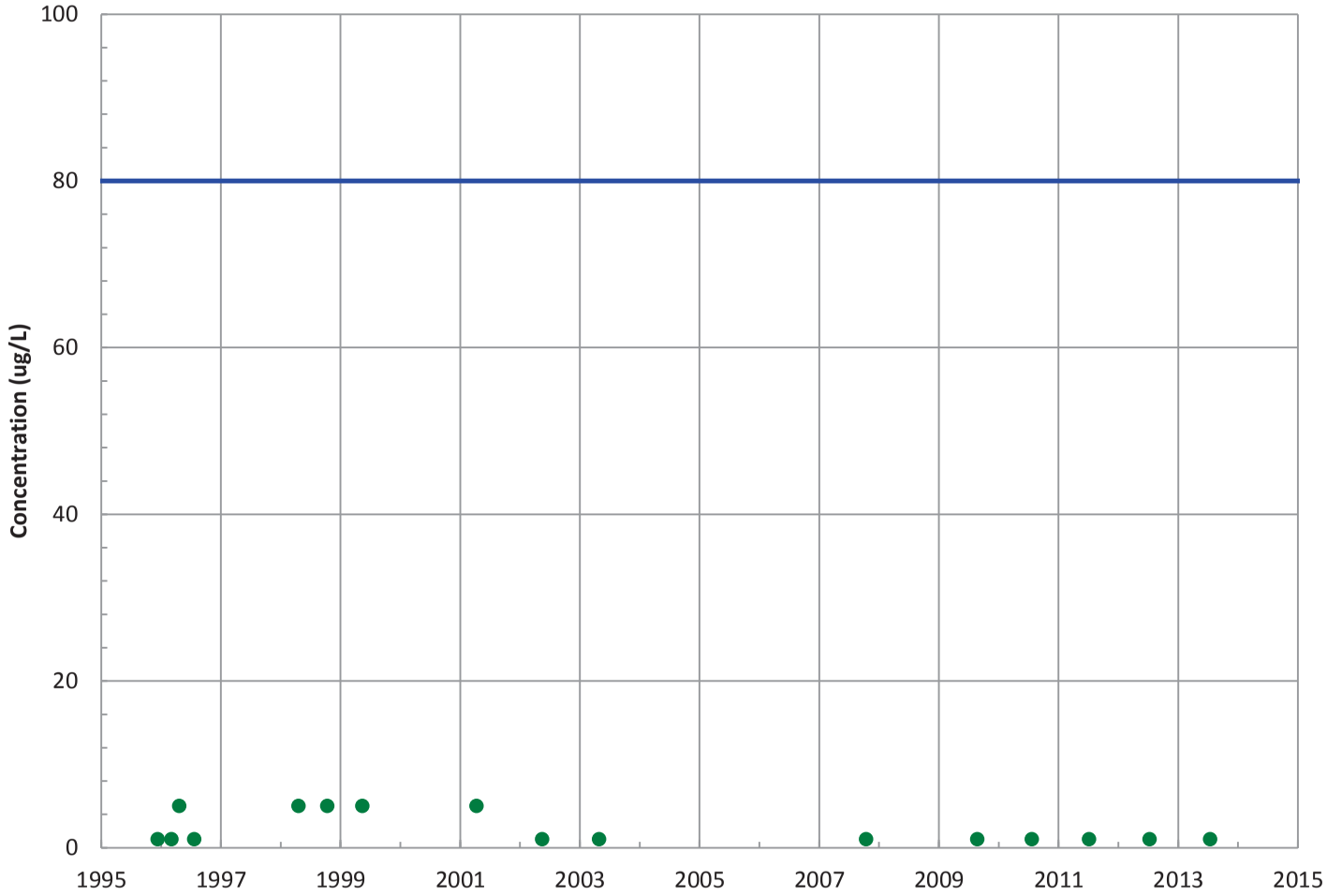
Well Location



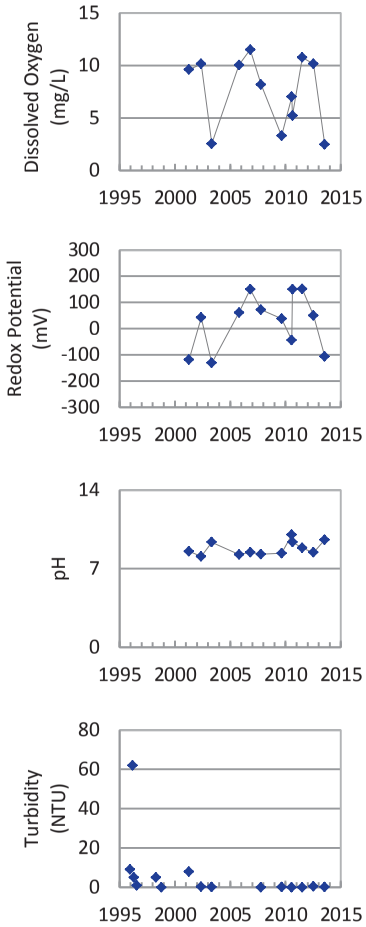
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/12/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q01
Chloroform Trend in Perched Aquifer



Field Parameters



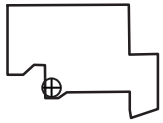
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

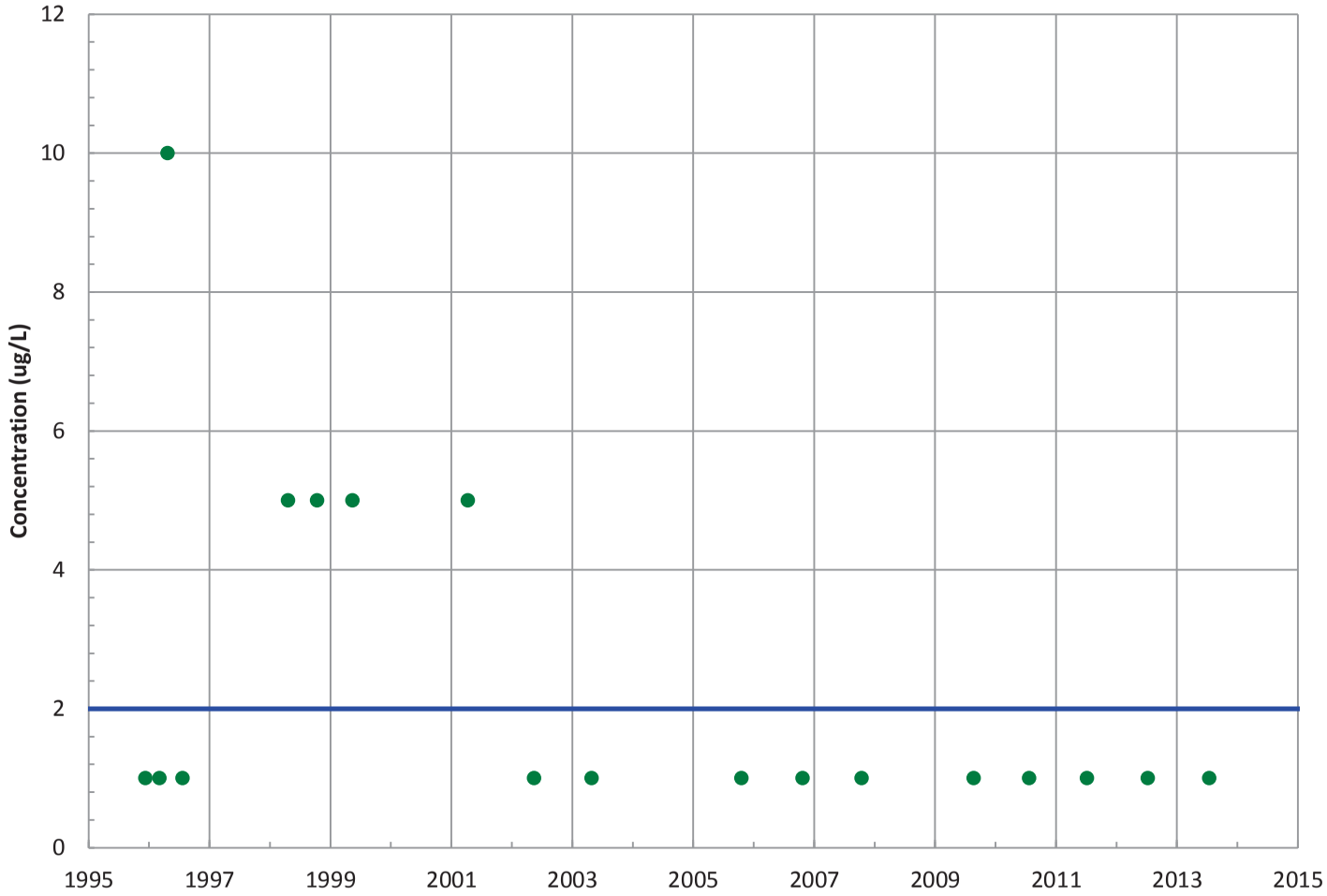
Well Location



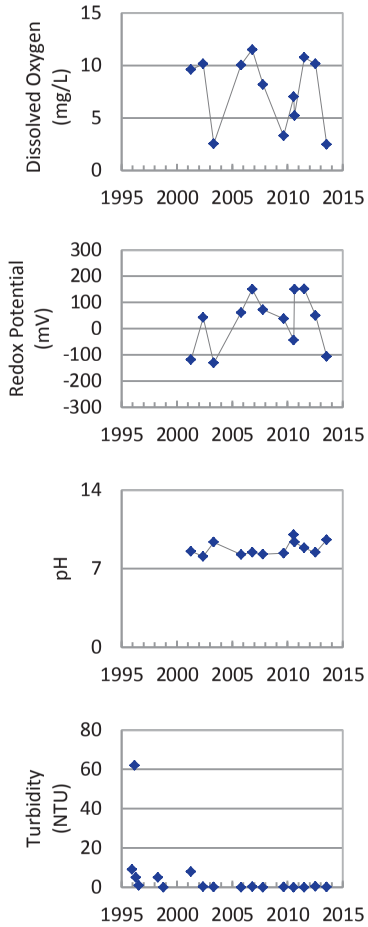
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/12/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q01
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



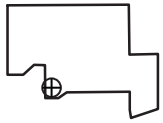
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

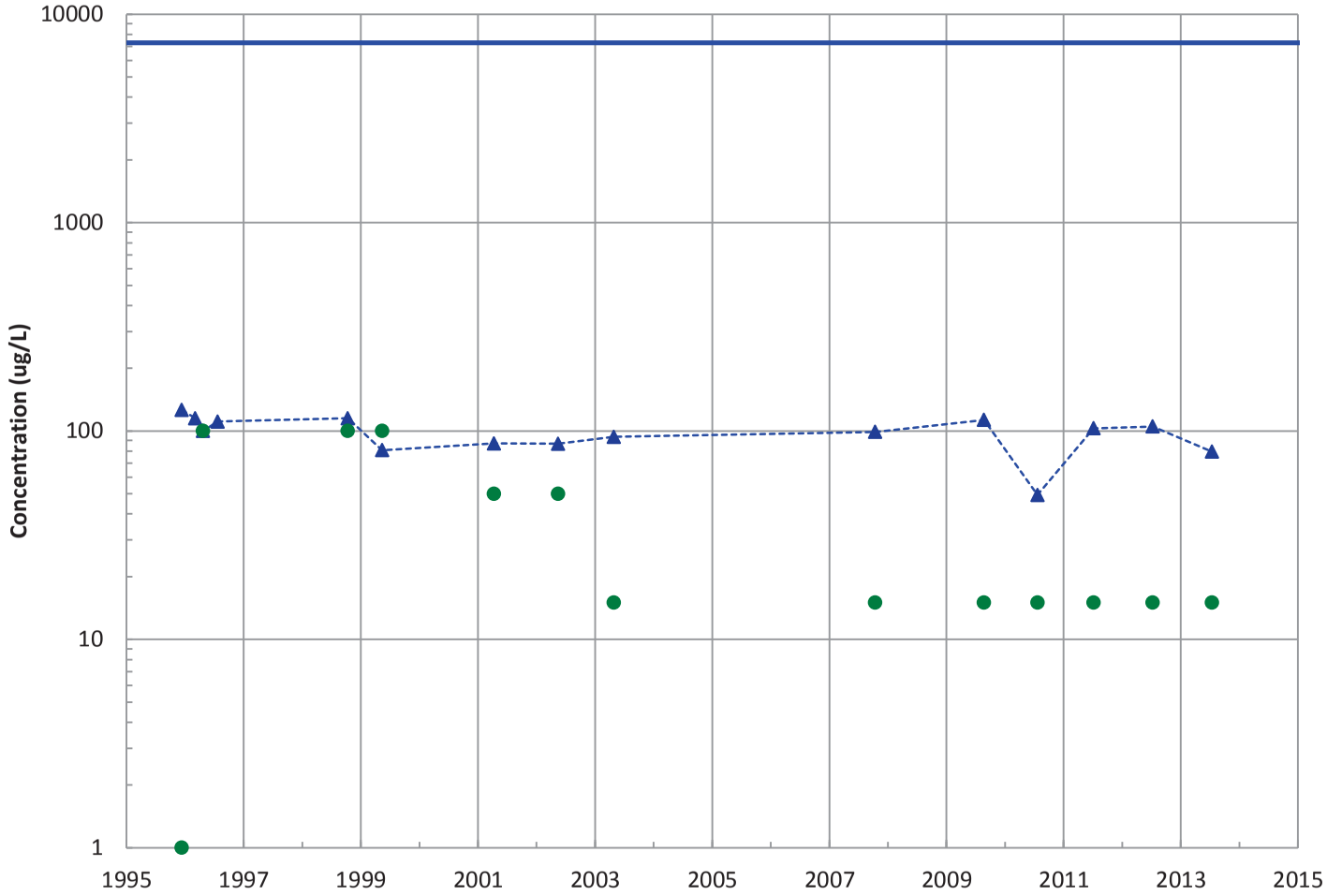
Well Location



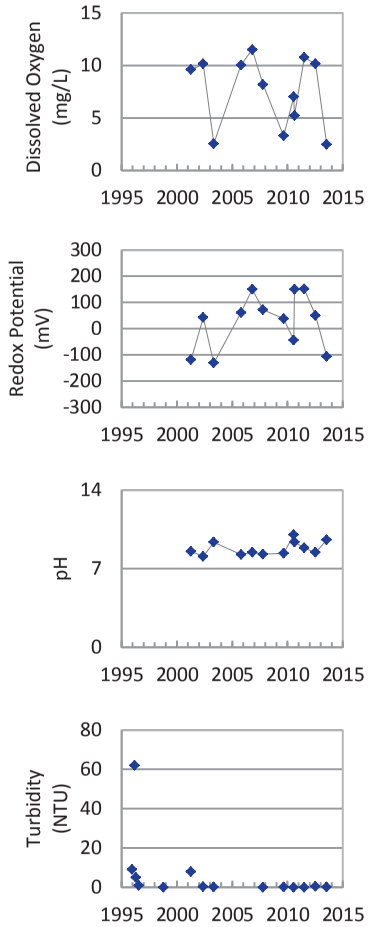
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/12/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q01
Boron Trend in Perched Aquifer



Field Parameters



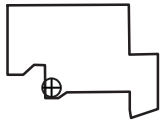
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

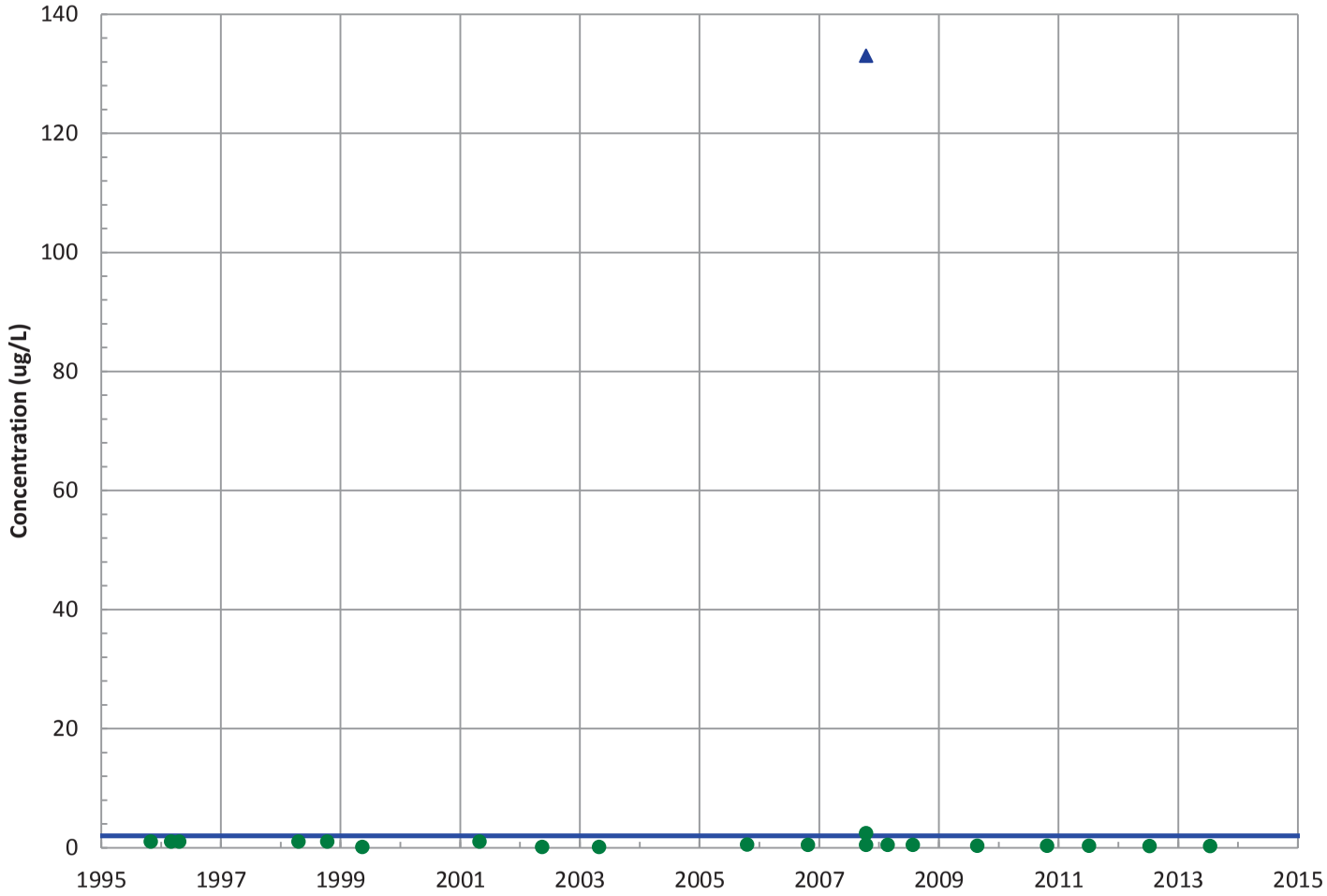
Well Location



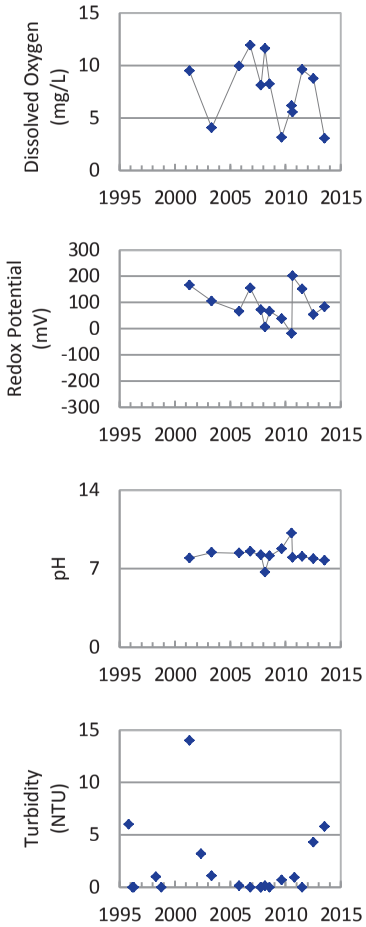
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/12/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q02
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



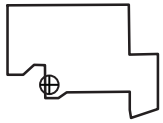
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

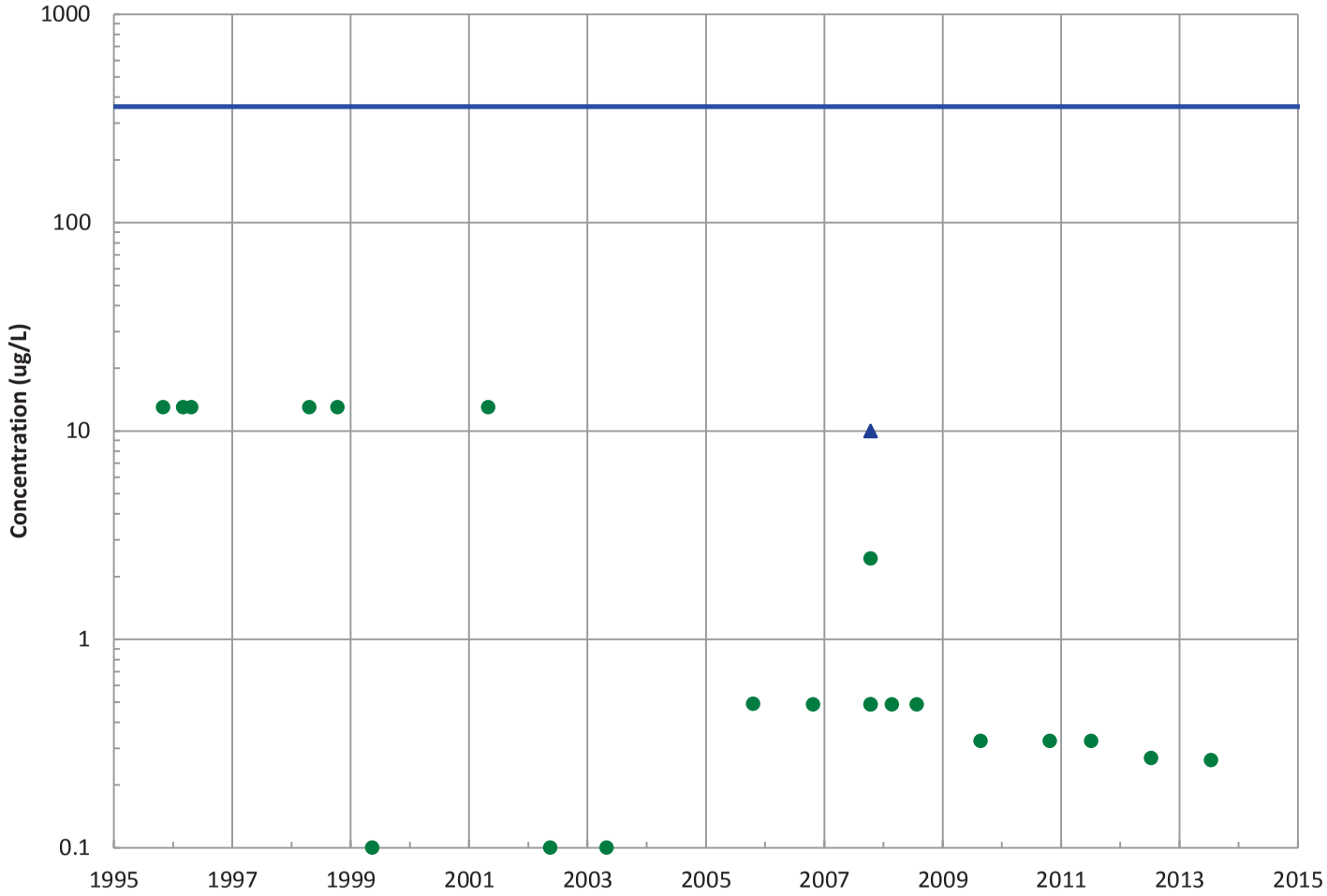
Well Location



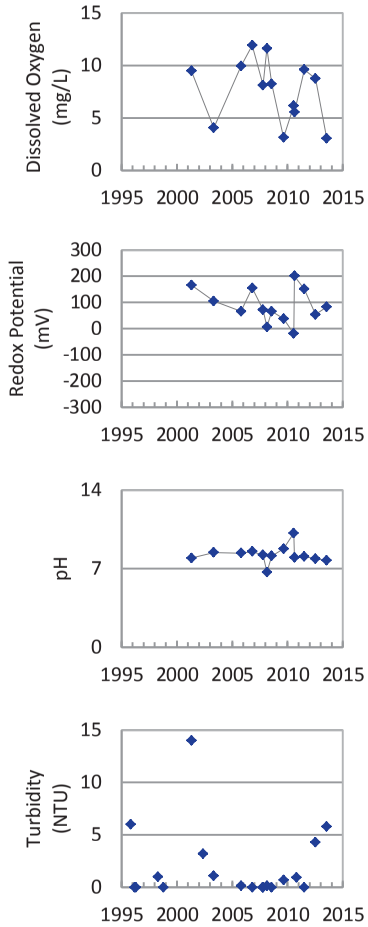
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/1/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q02
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



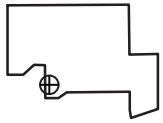
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

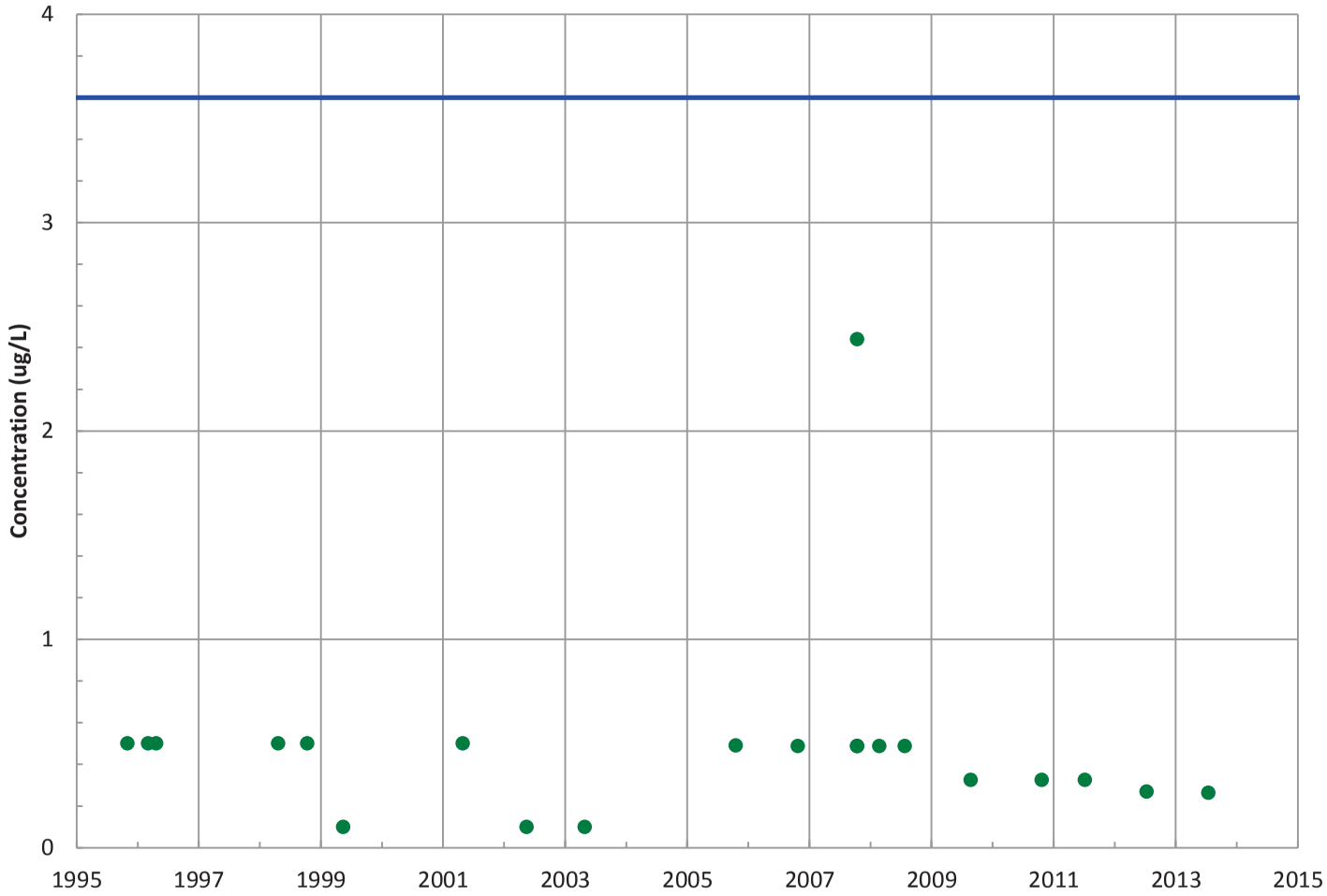
Well Location



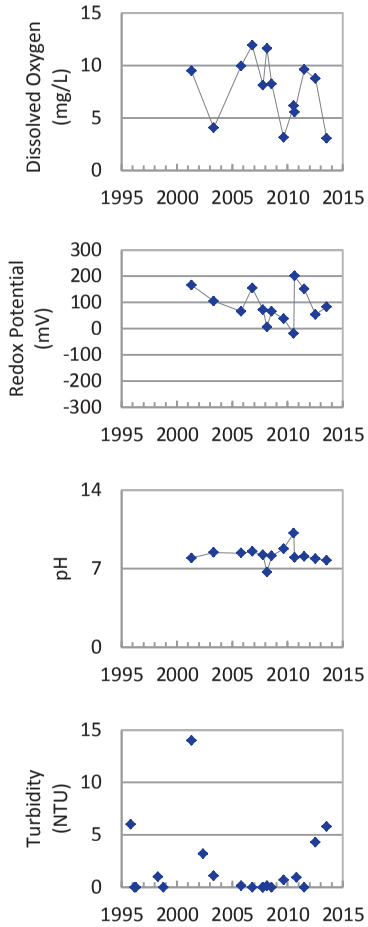
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/1/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q02
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



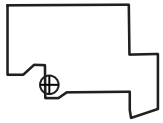
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

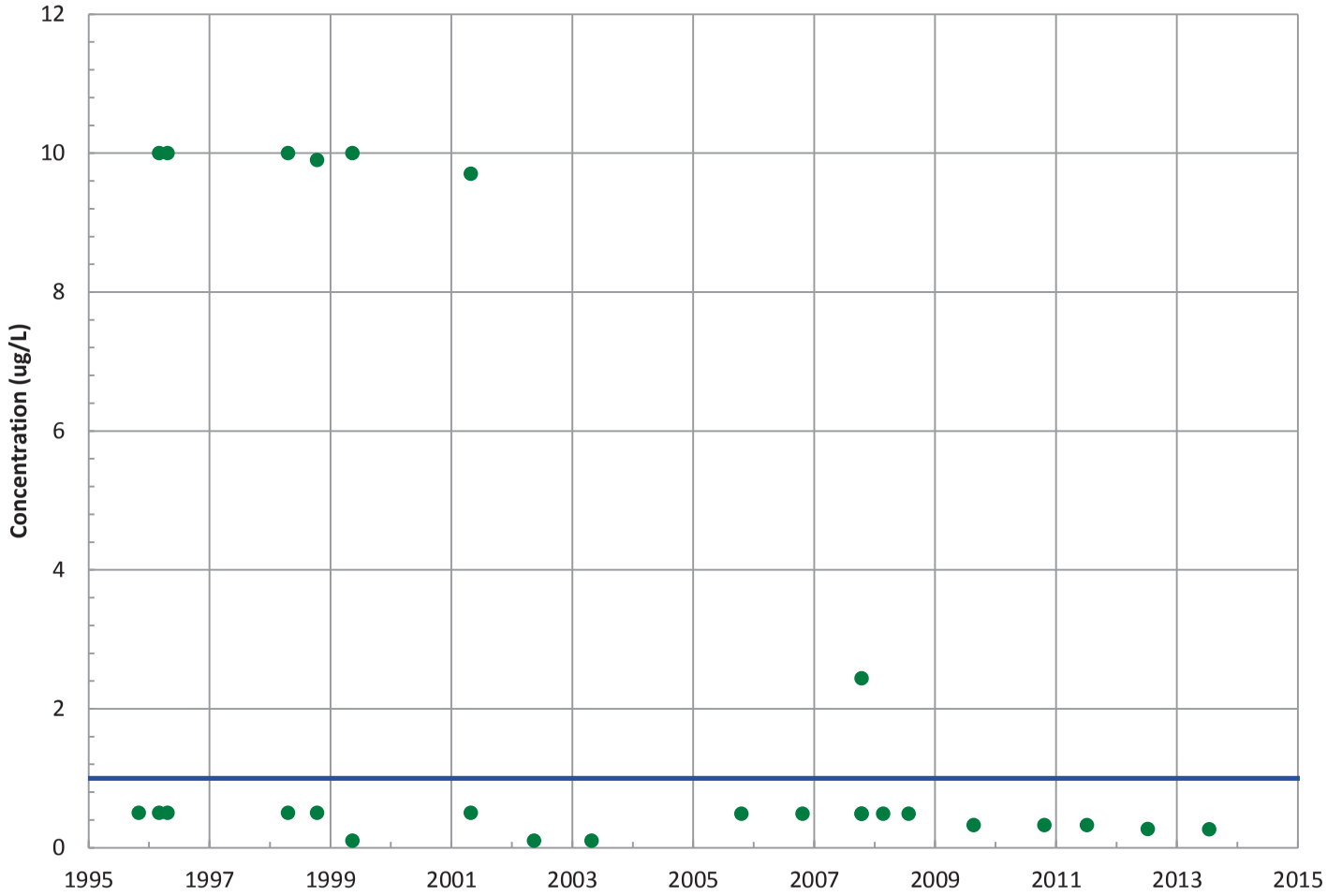
Well Location



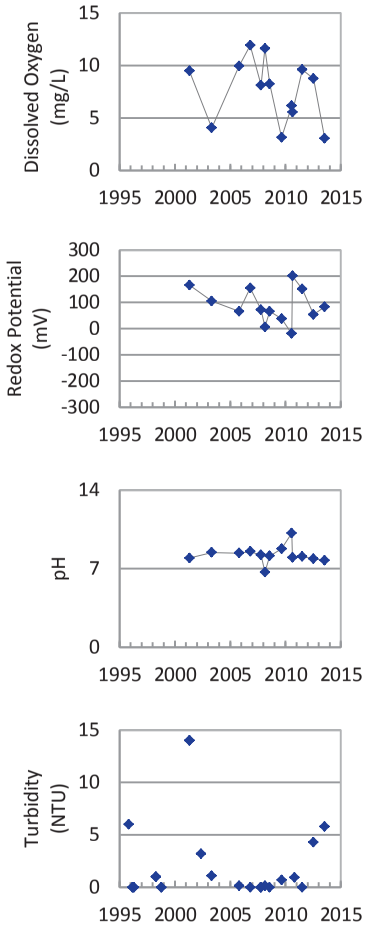
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/1/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q02
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



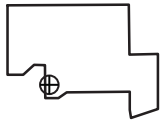
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

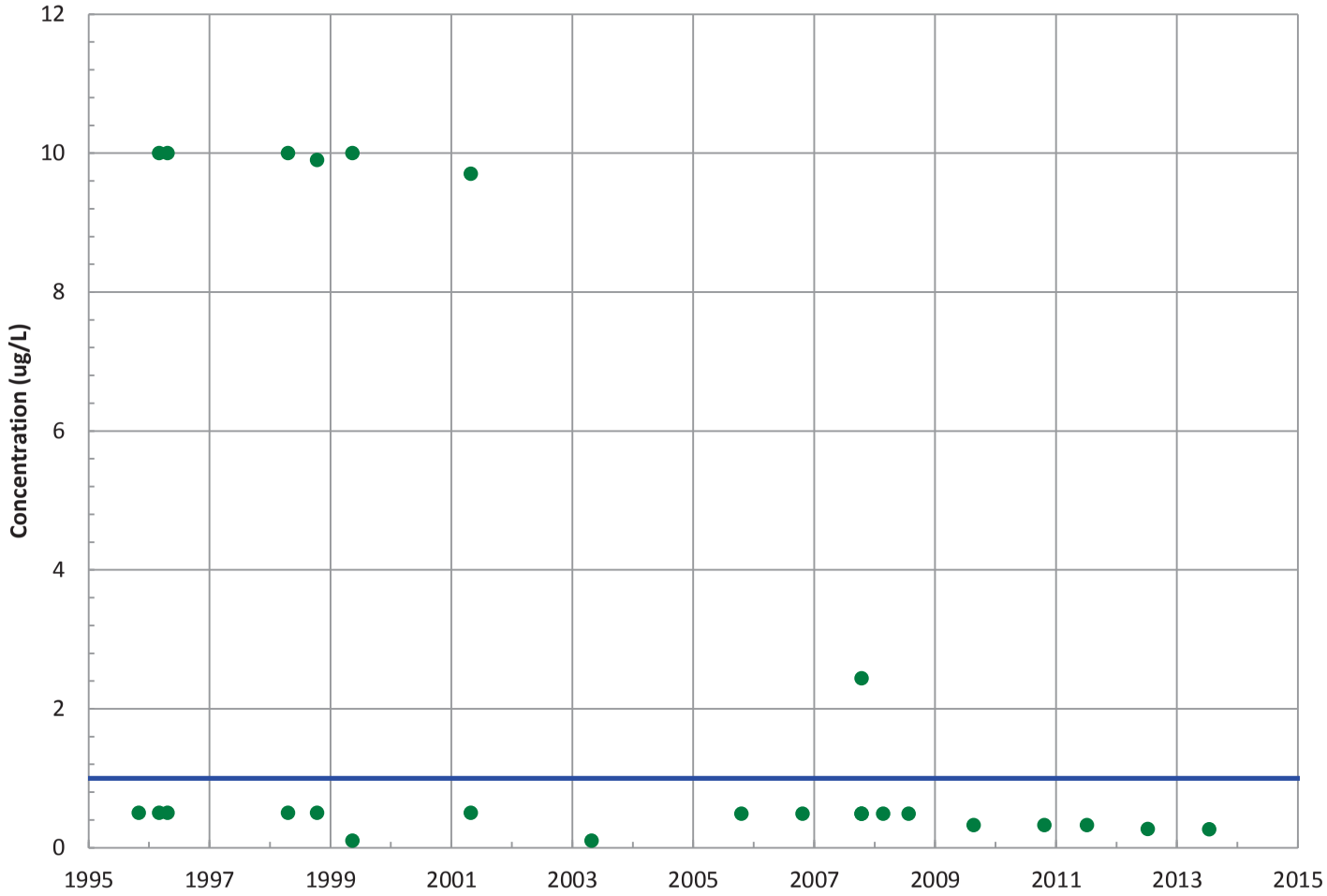
Well Location



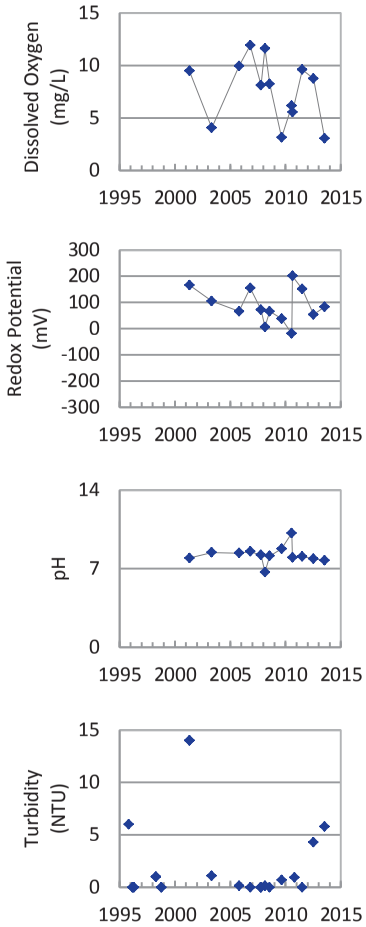
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/1/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q02
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



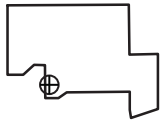
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

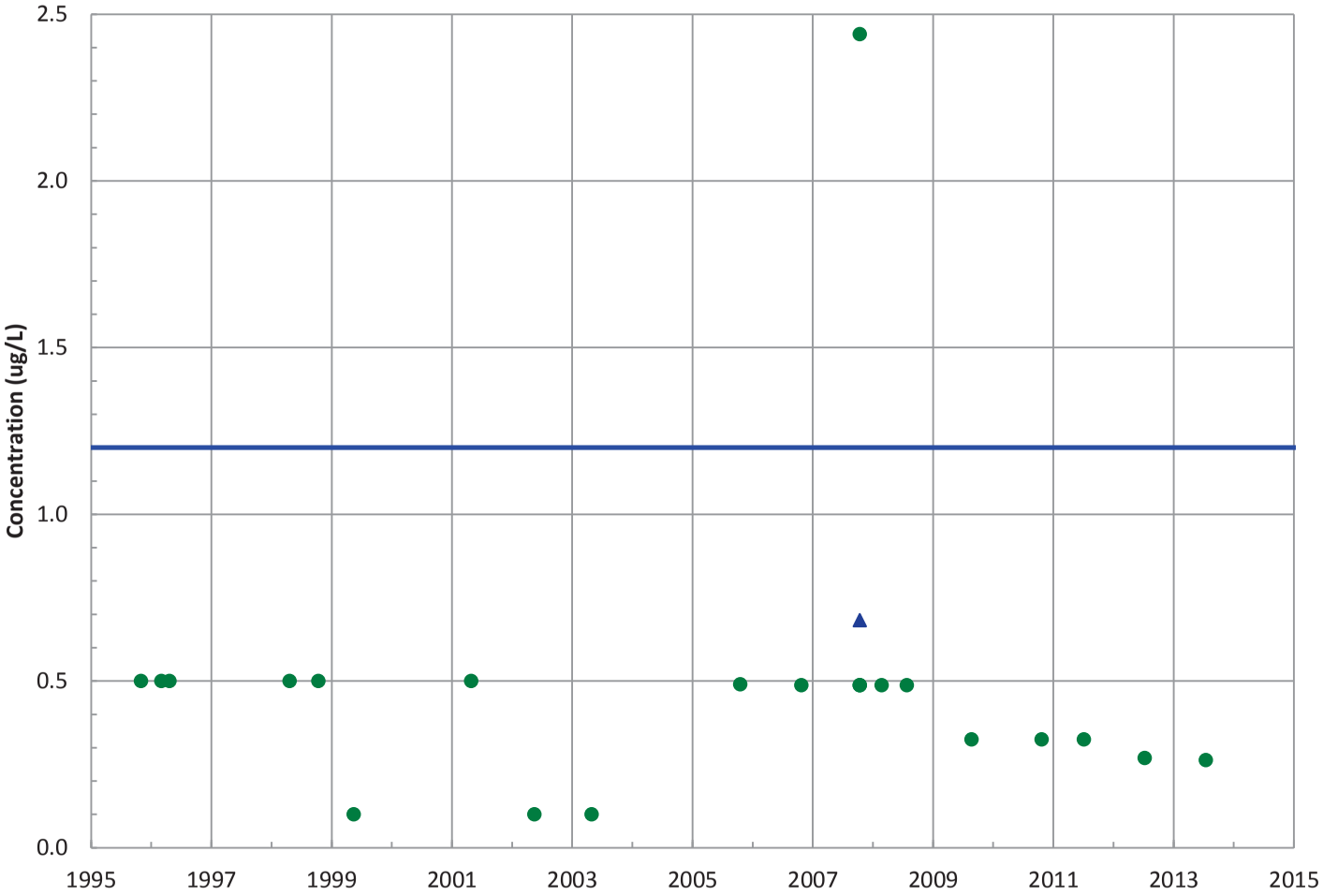
Well Location



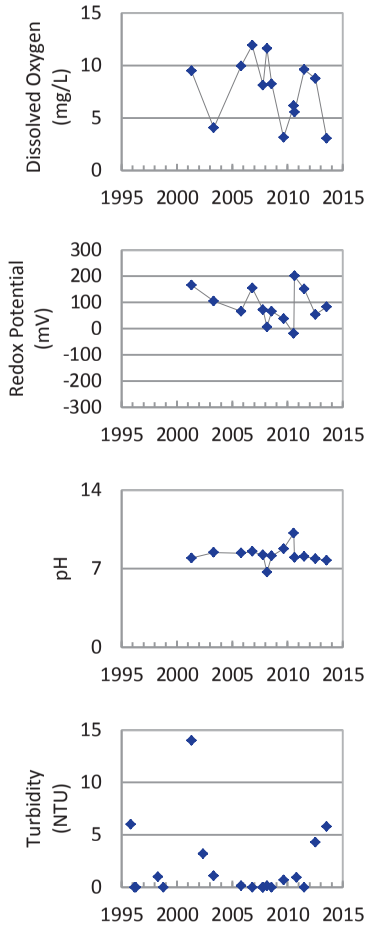
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/1/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q02
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



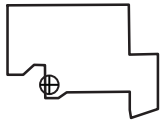
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

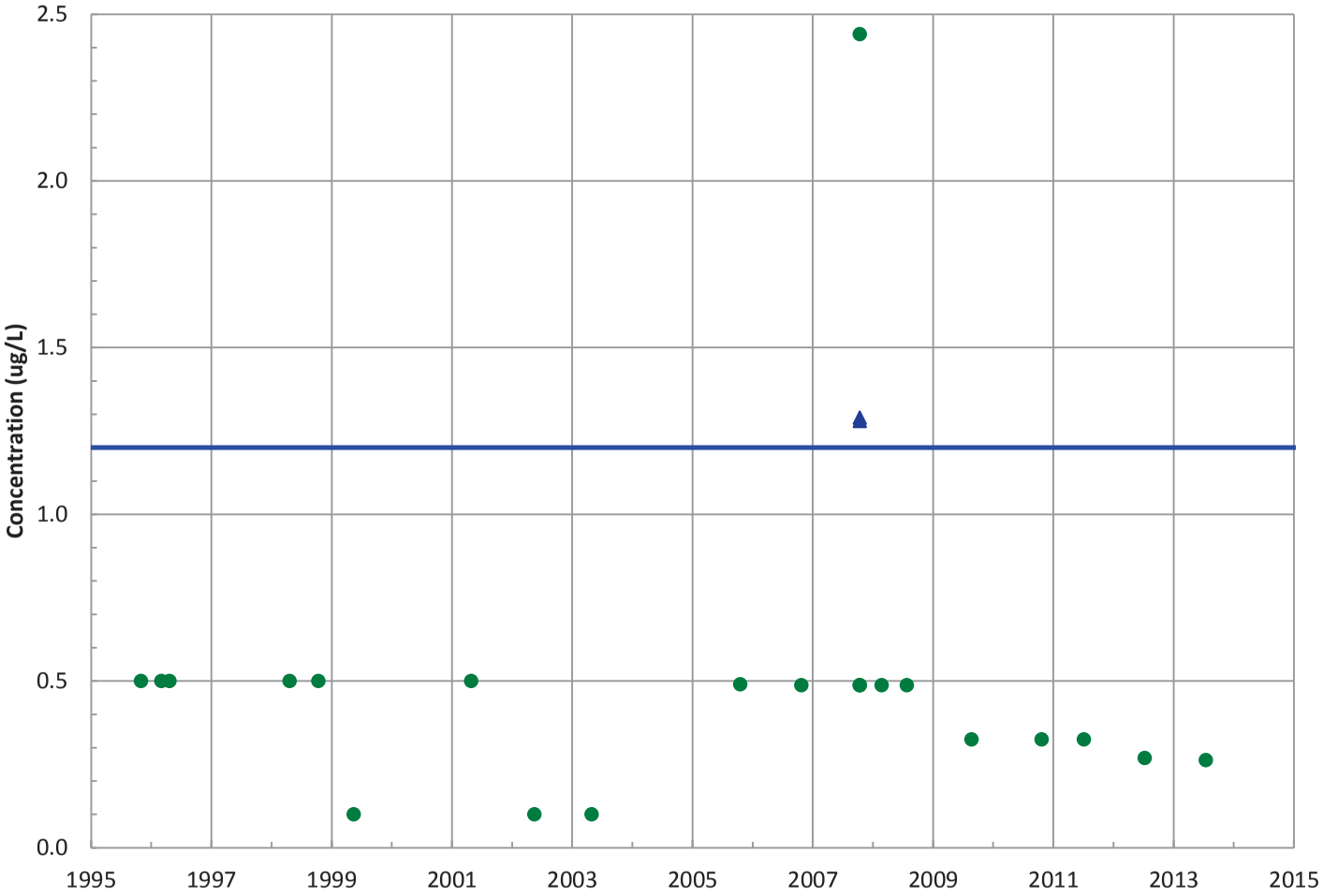
Well Location



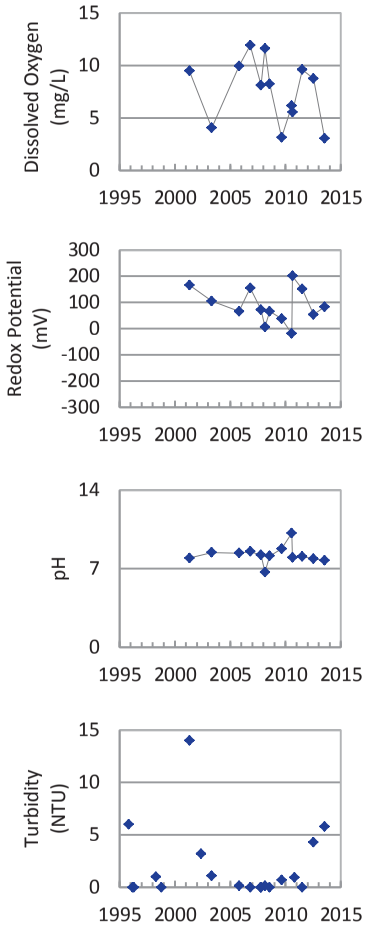
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/1/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q02
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



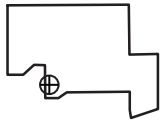
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

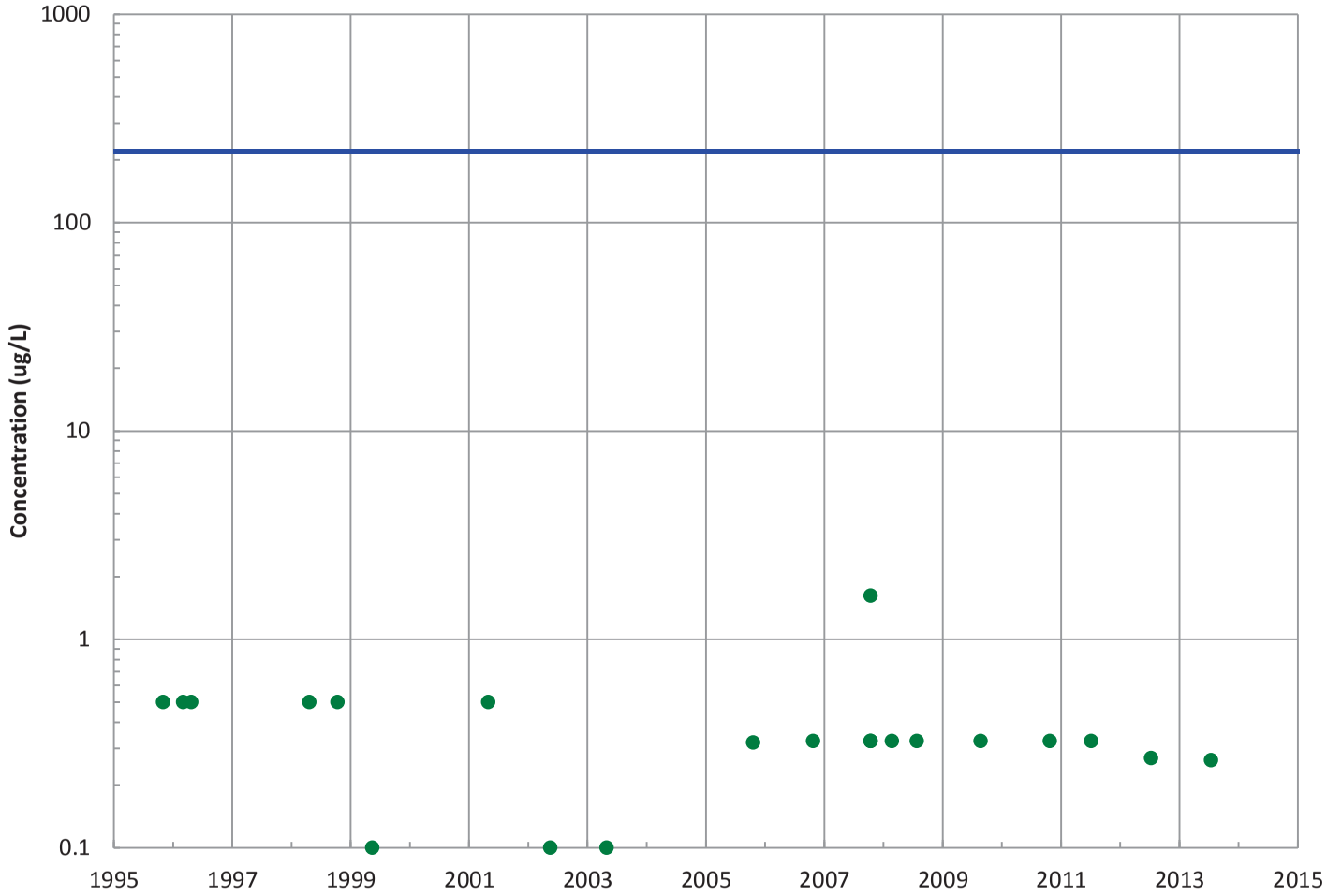
Well Location



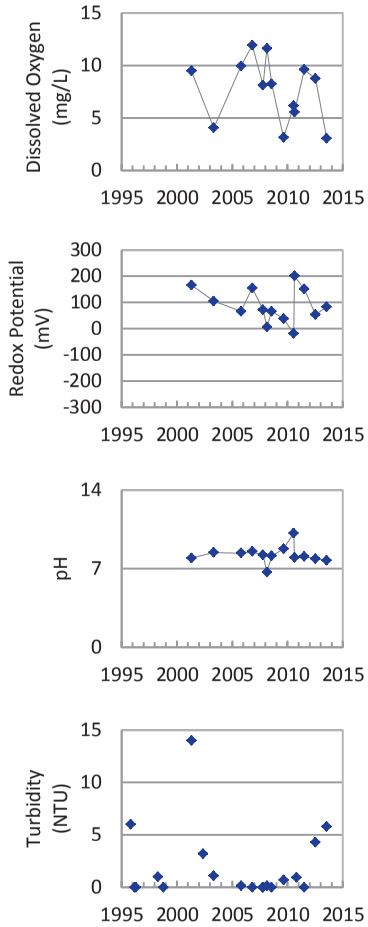
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/1/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q02
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



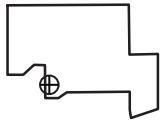
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

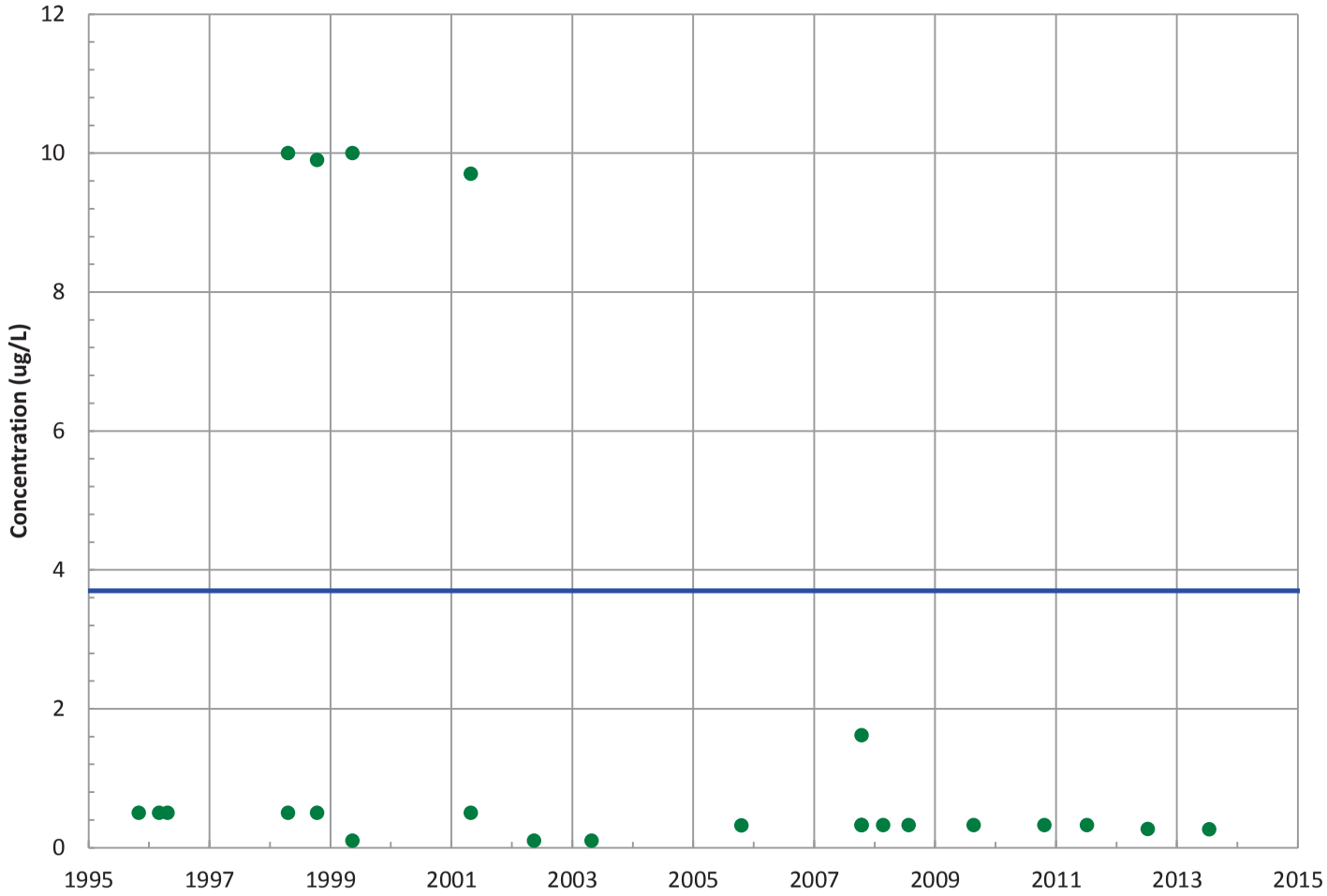
Well Location



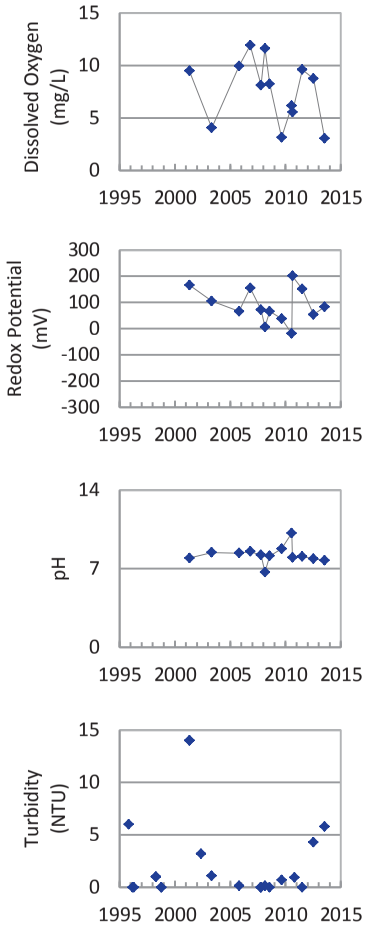
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/1/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q02
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



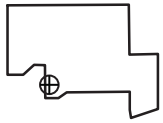
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

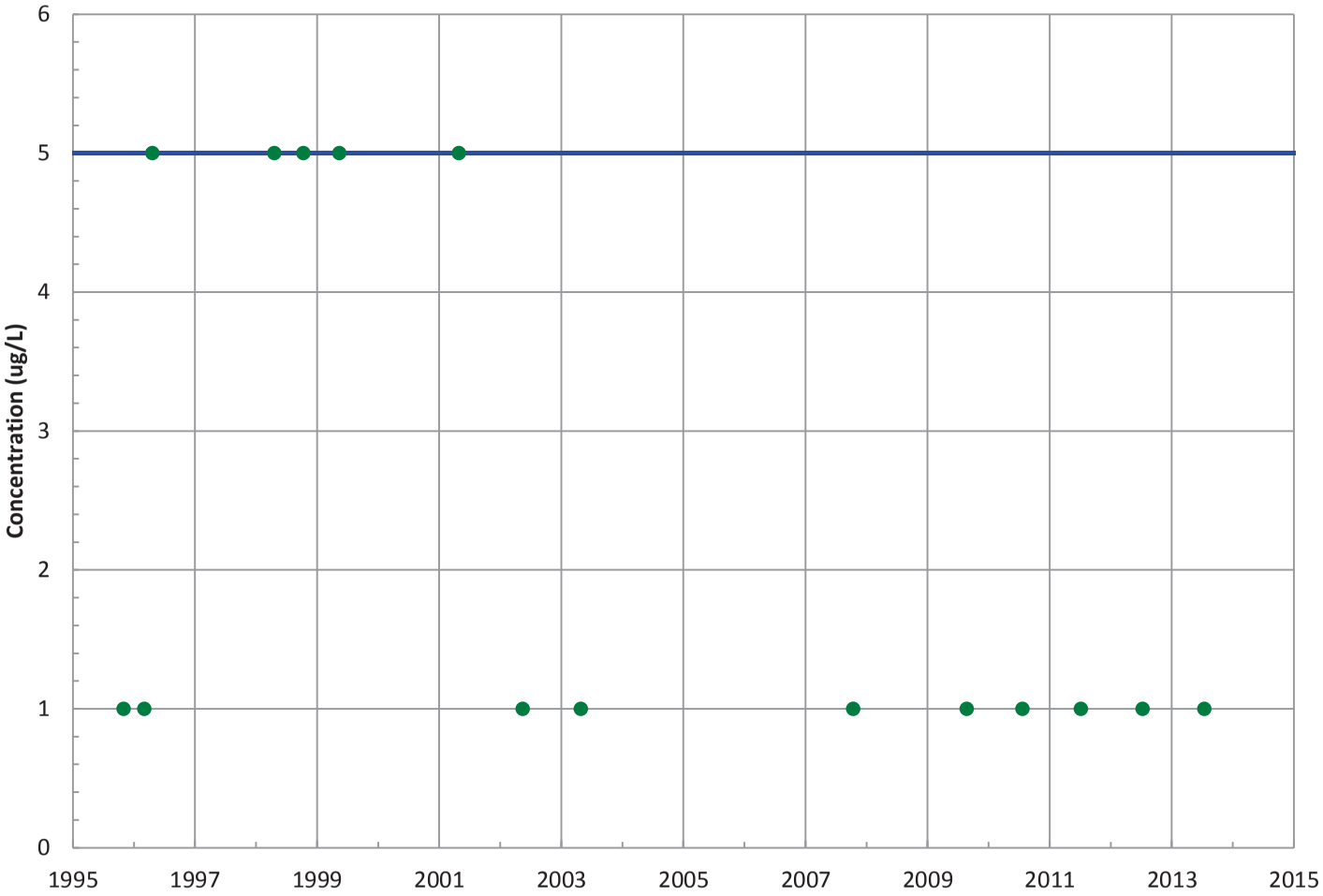
Well Location



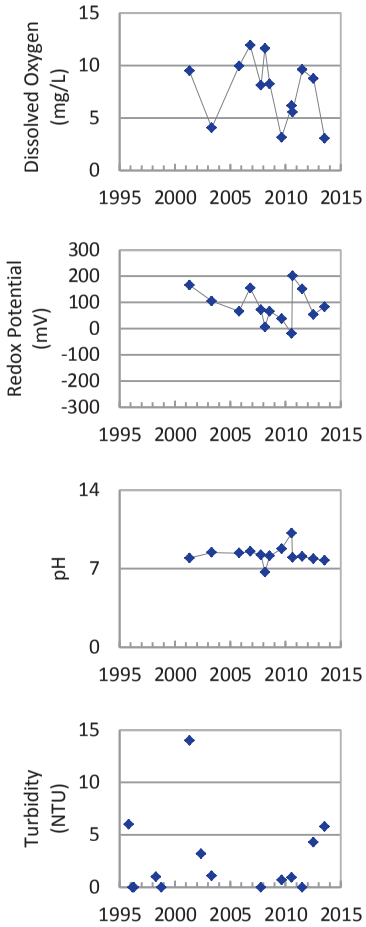
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/1/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q02
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



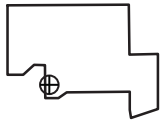
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

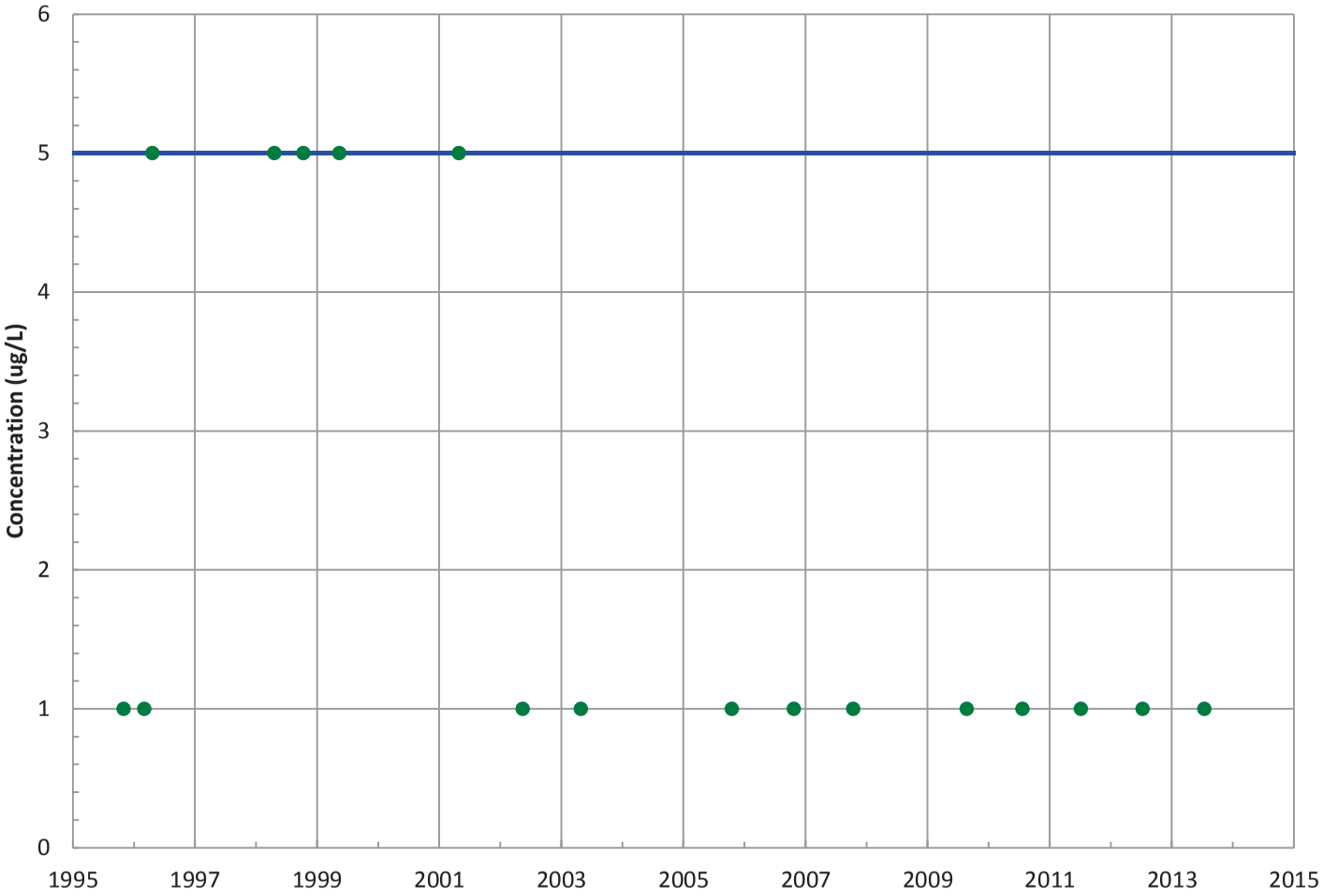
Well Location



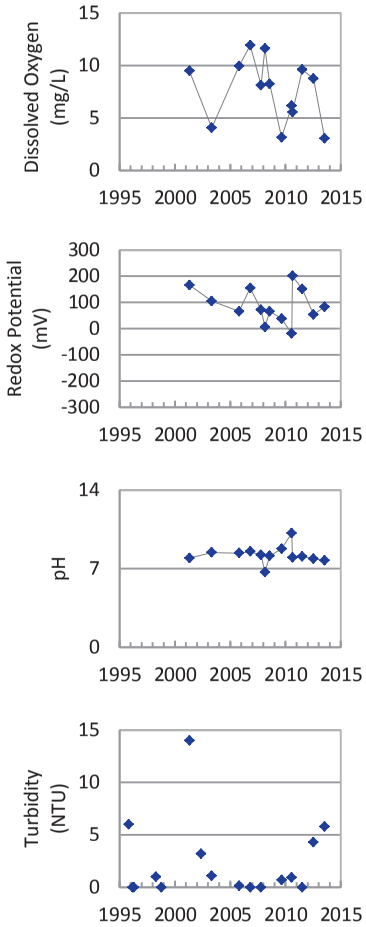
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/1/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q02
Trichloroethene Trend in Perched Aquifer



Field Parameters



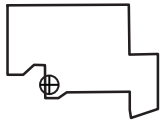
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

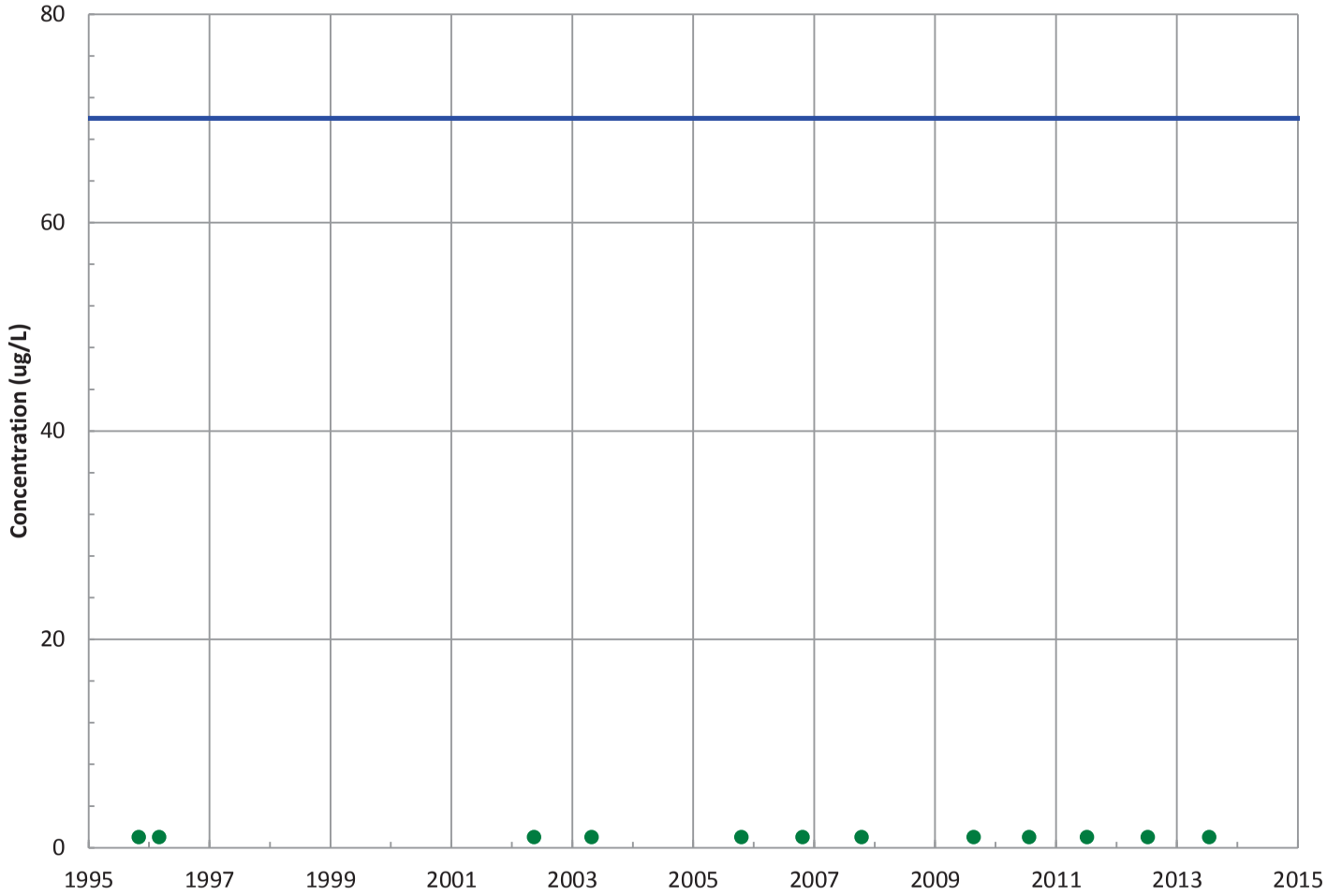
Well Location



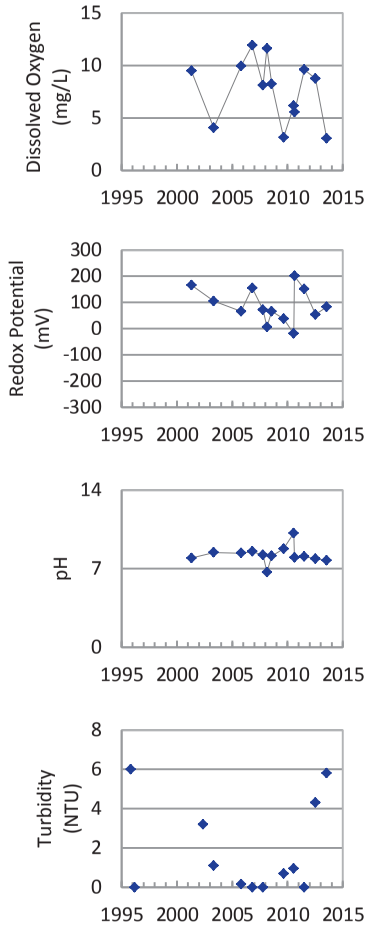
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/1/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q02
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



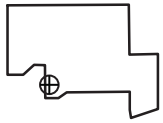
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

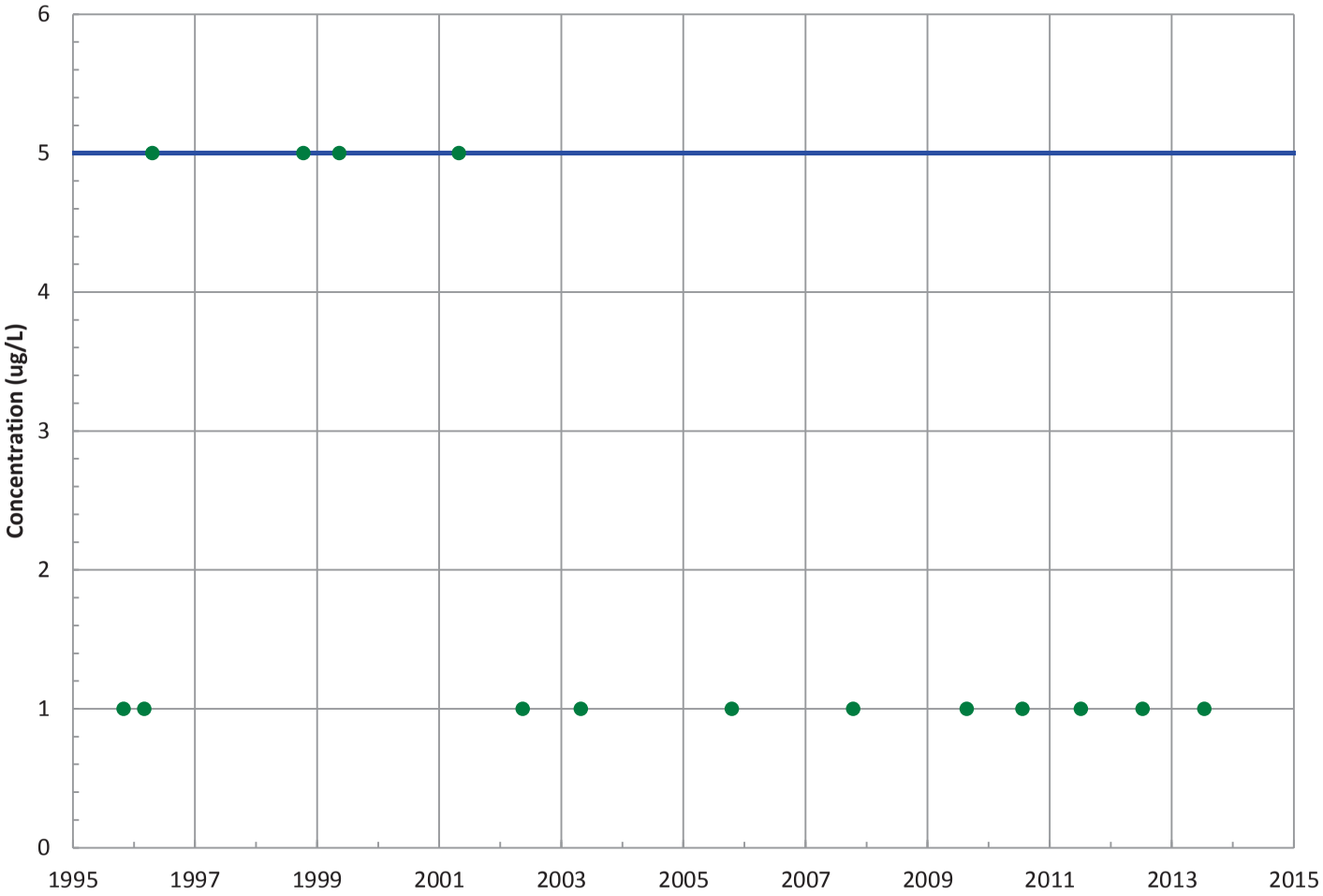
Well Location



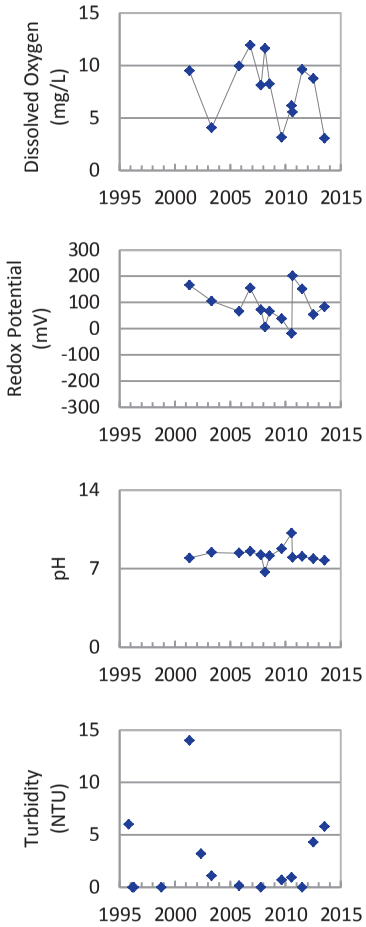
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/1/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q02
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



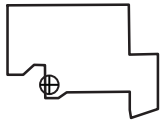
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

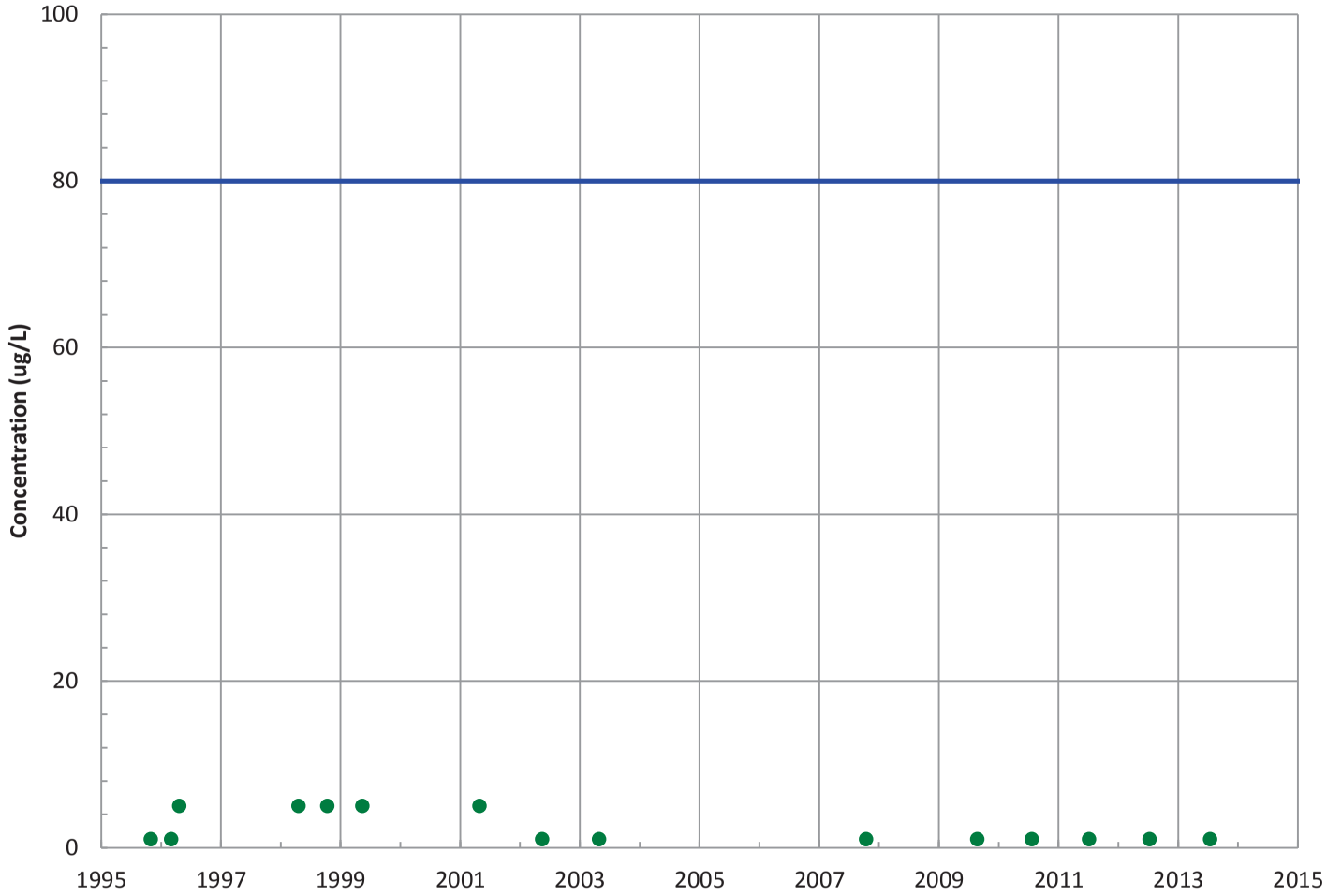
Well Location



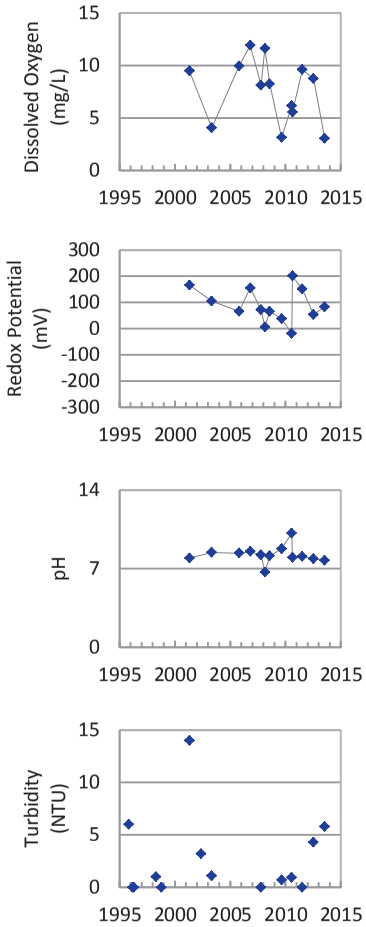
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/1/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q02
Chloroform Trend in Perched Aquifer



Field Parameters



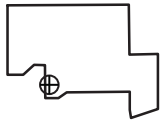
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

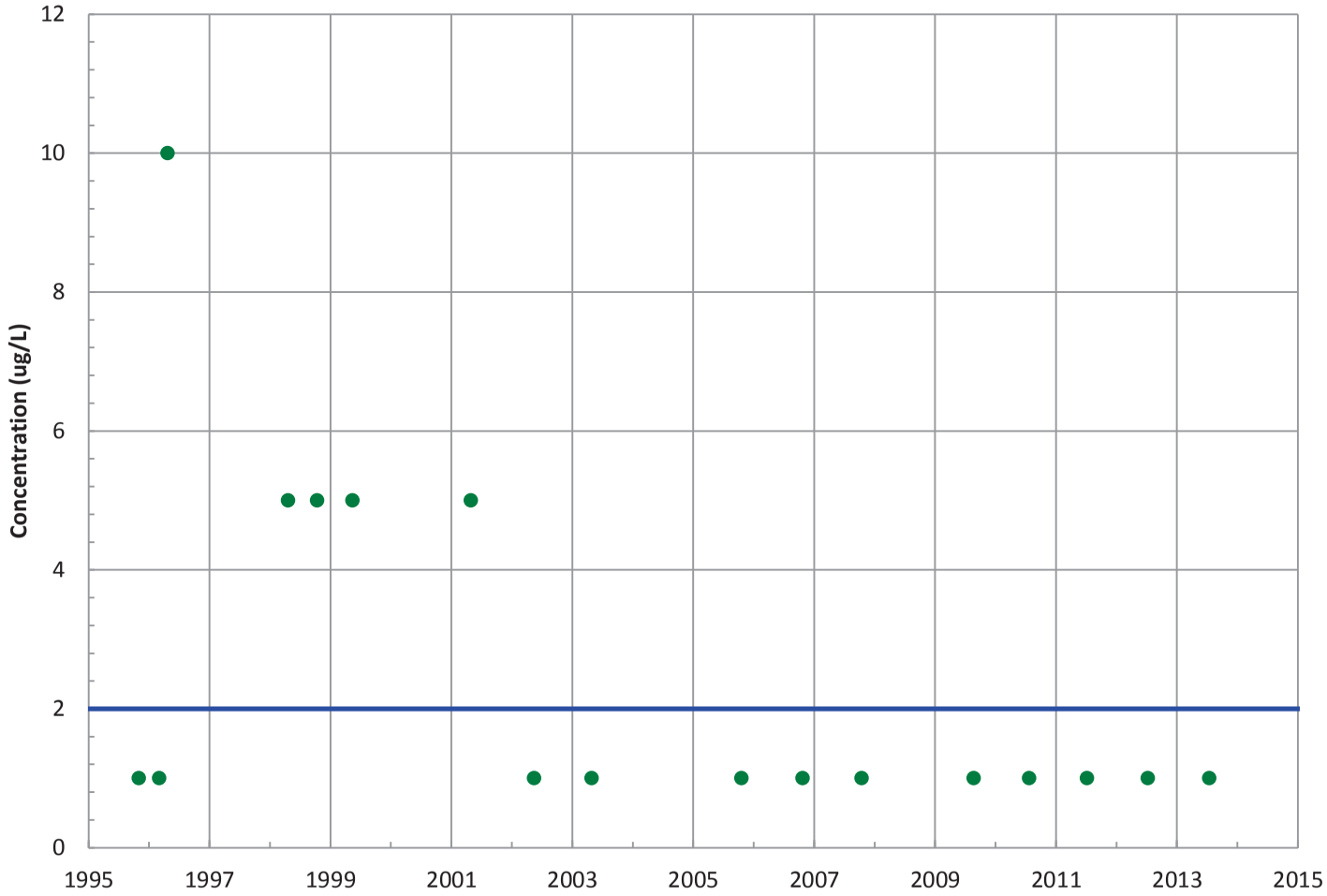
Well Location



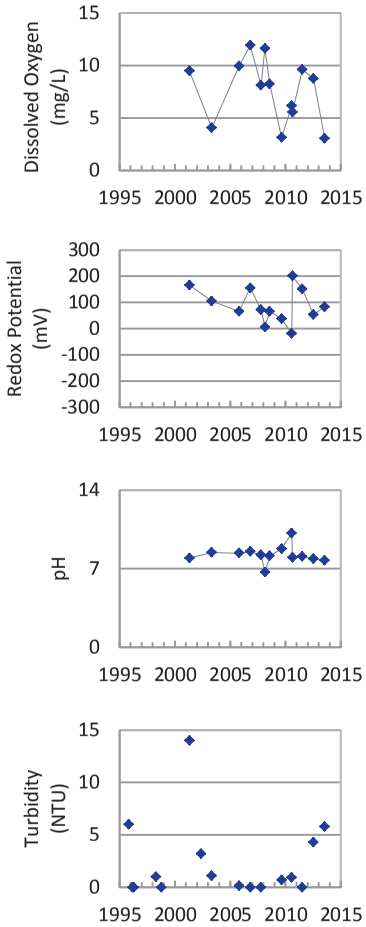
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/1/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q02
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



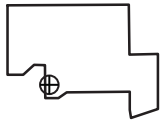
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

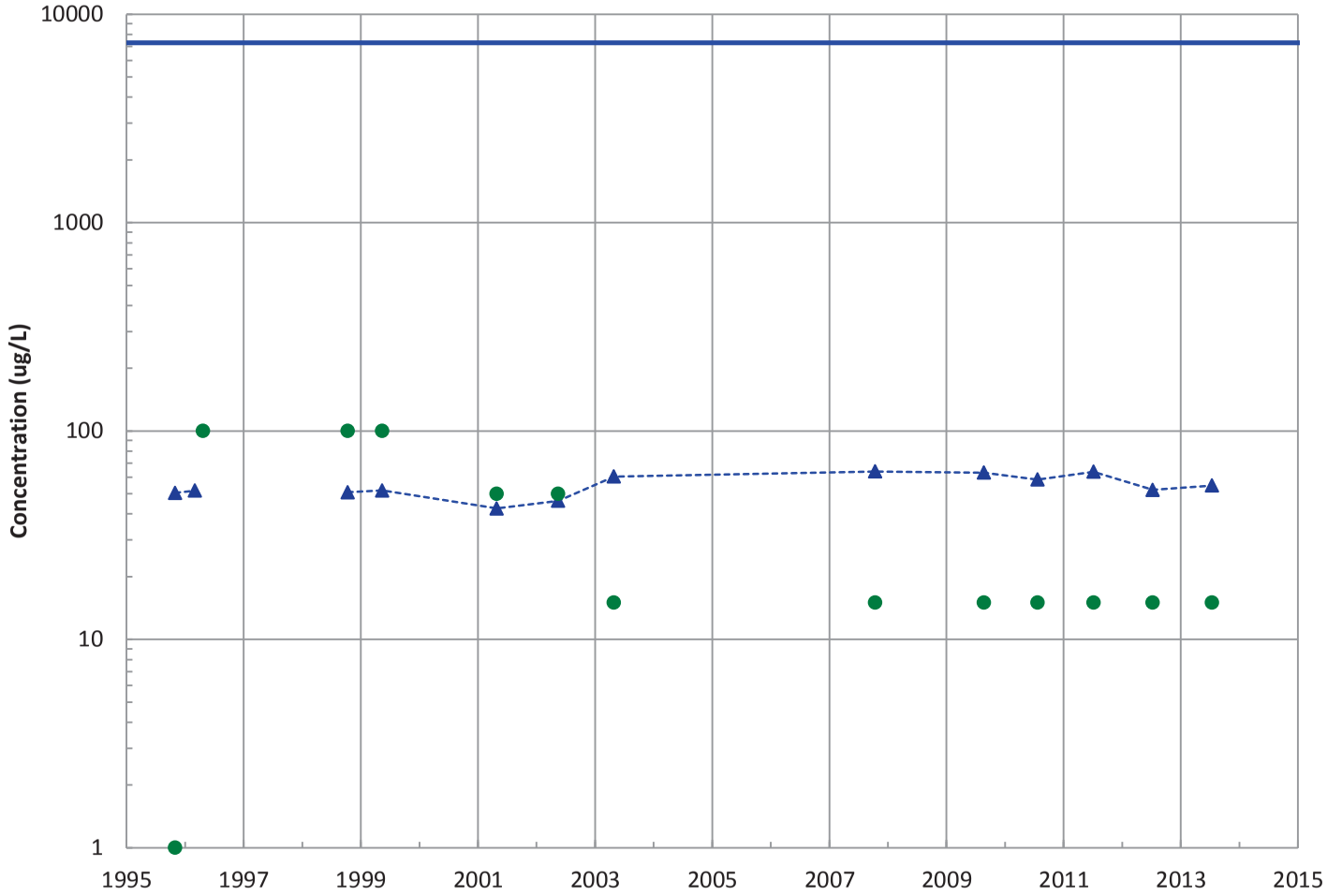
Well Location



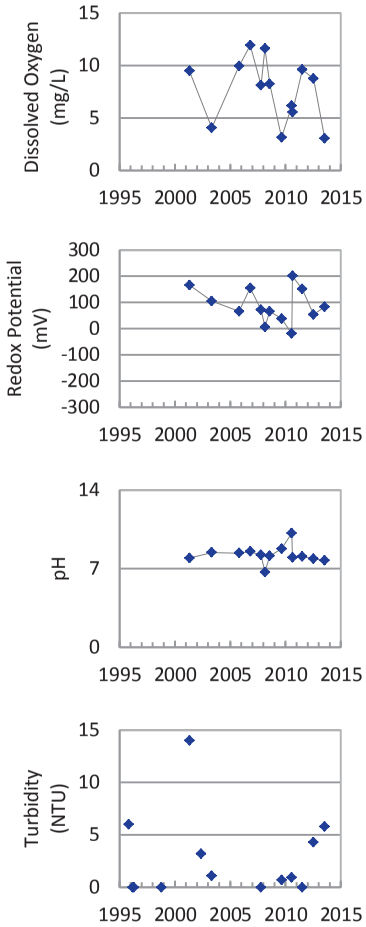
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/1/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q02
Boron Trend in Perched Aquifer



Field Parameters



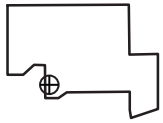
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Probably Decreasing
2011 - 2013 Data: Probably Decreasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

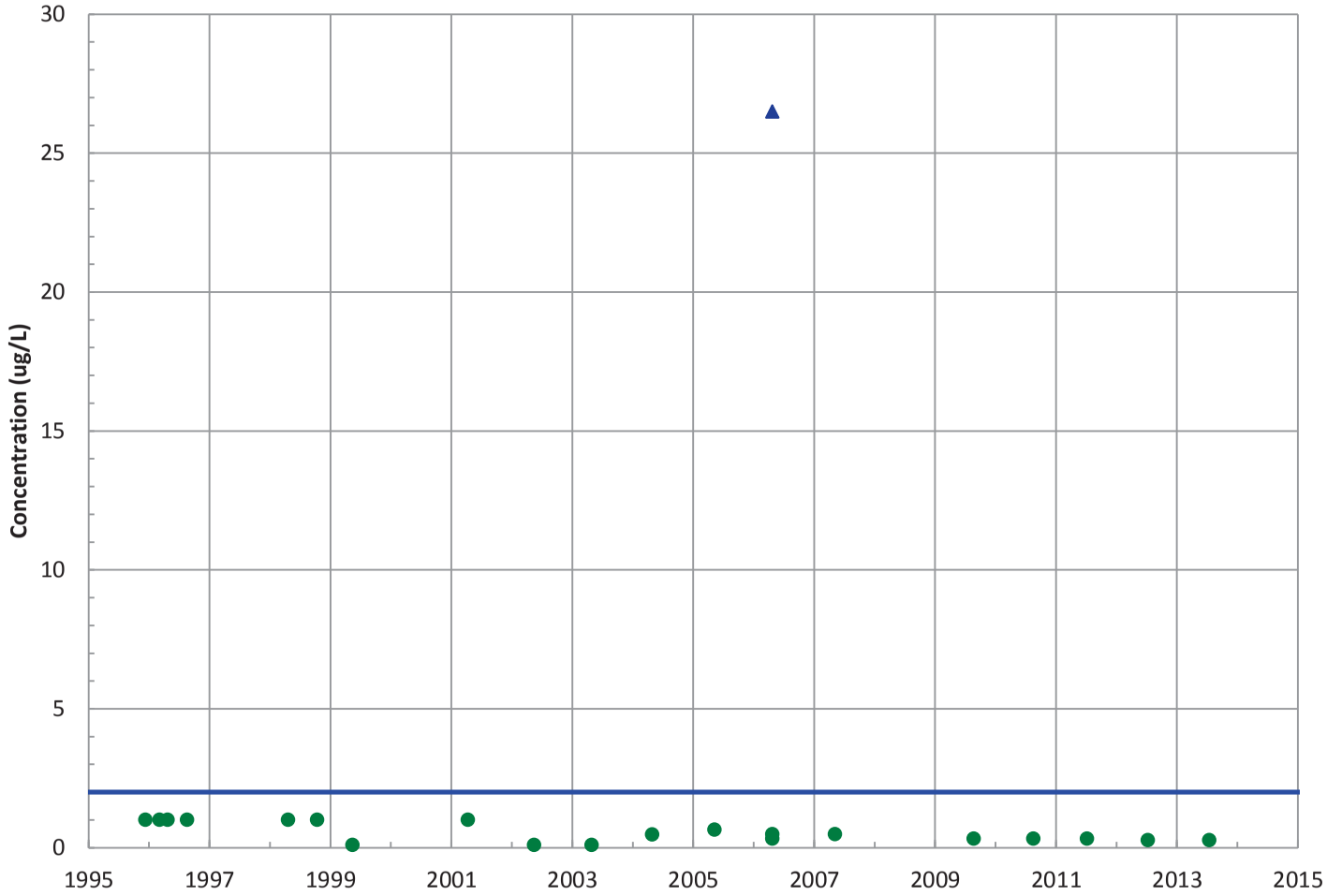
Well Location



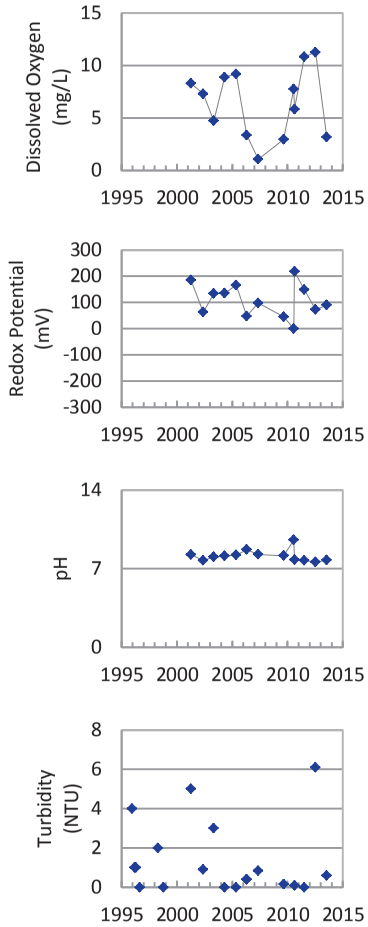
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/1/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q03
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



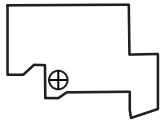
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

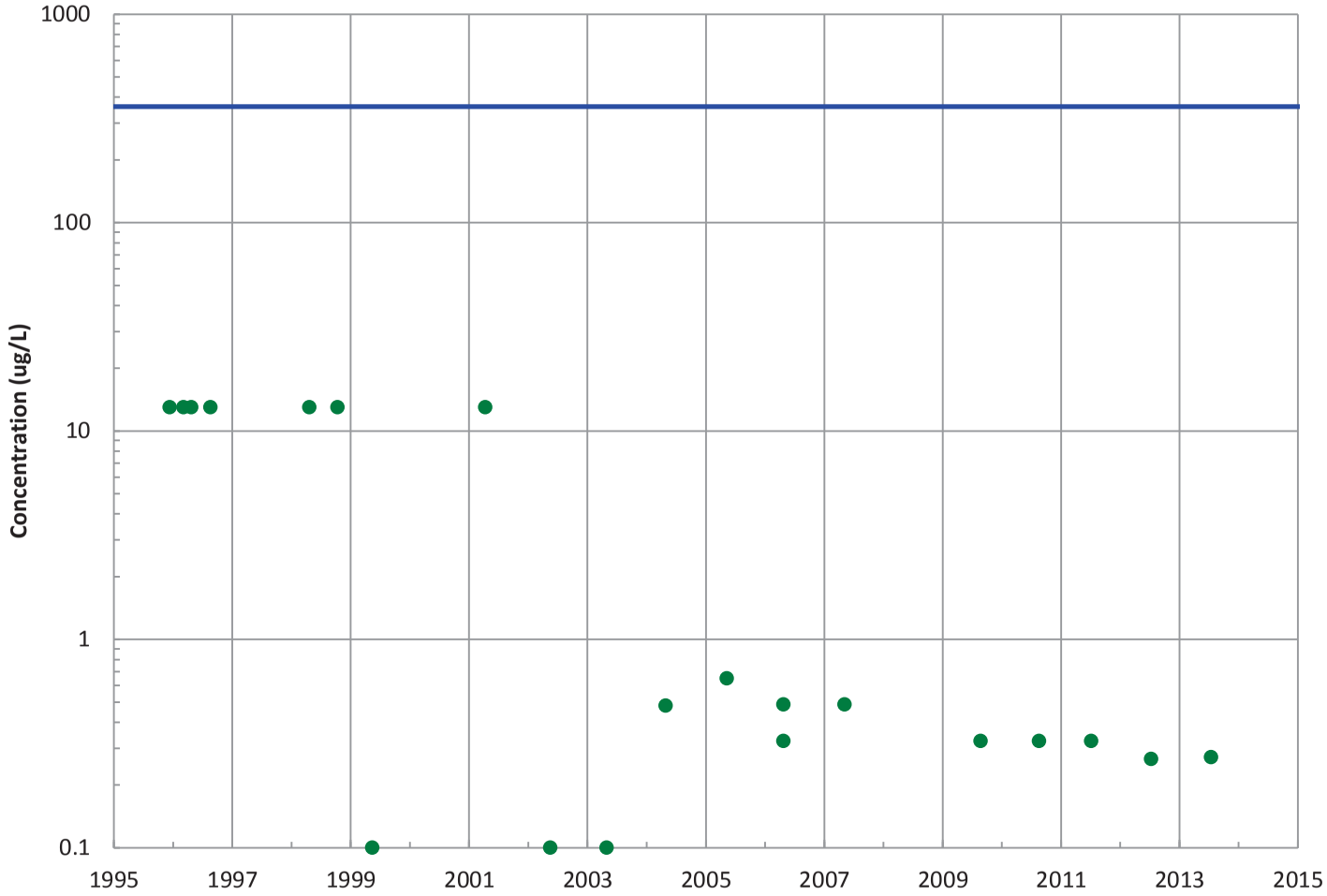
Well Location



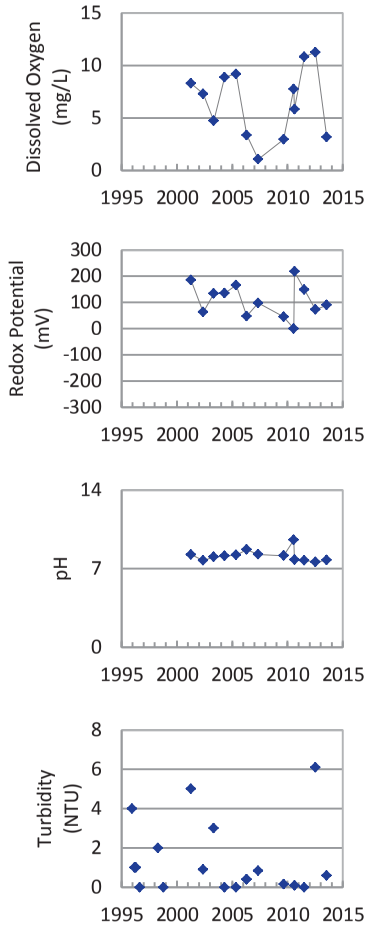
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/12/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q03
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



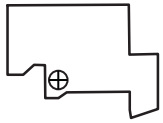
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

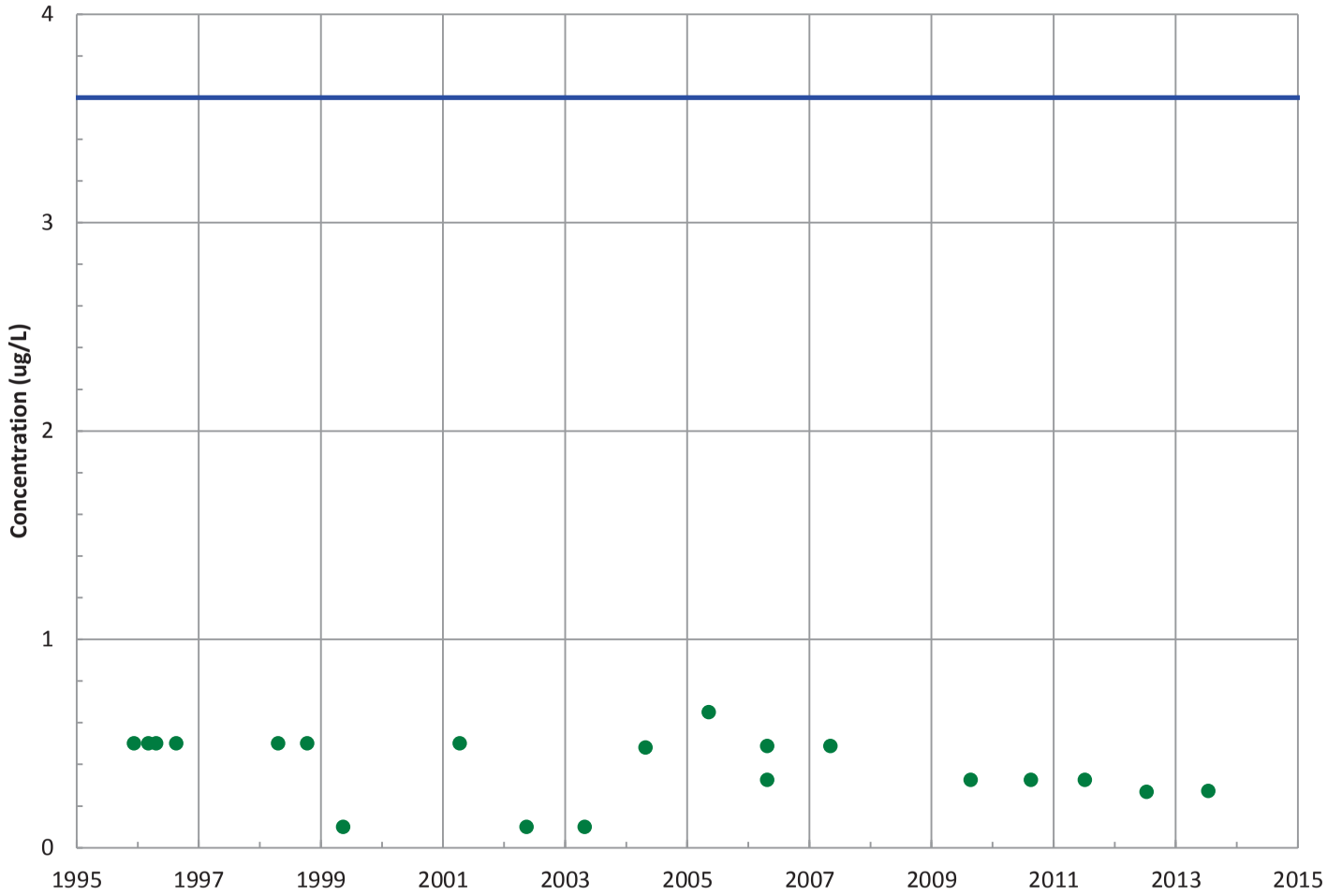
Well Location



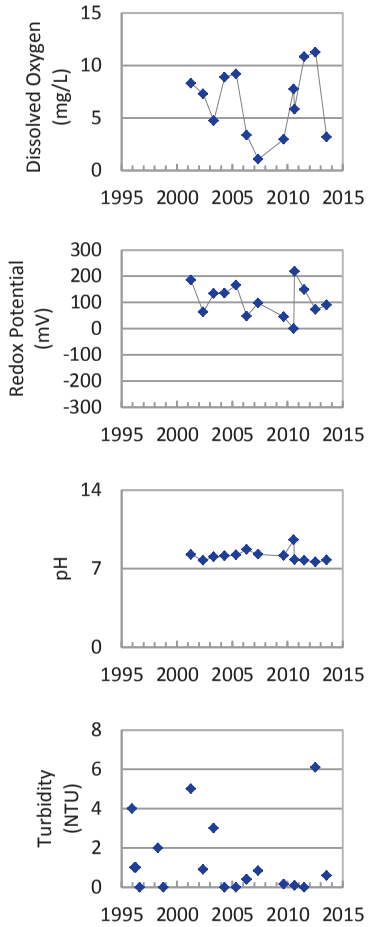
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/12/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q03
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



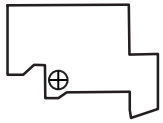
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

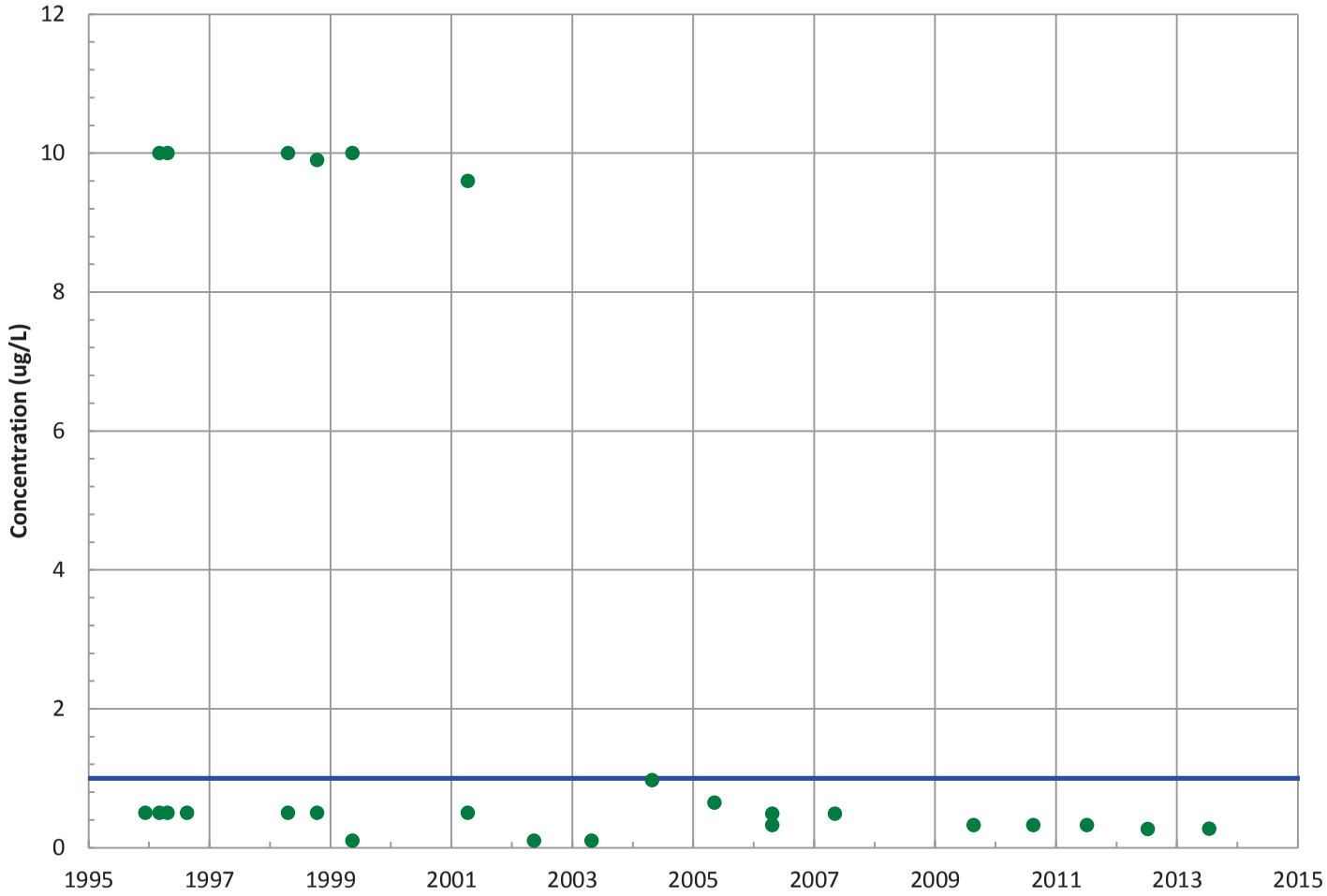
Well Location



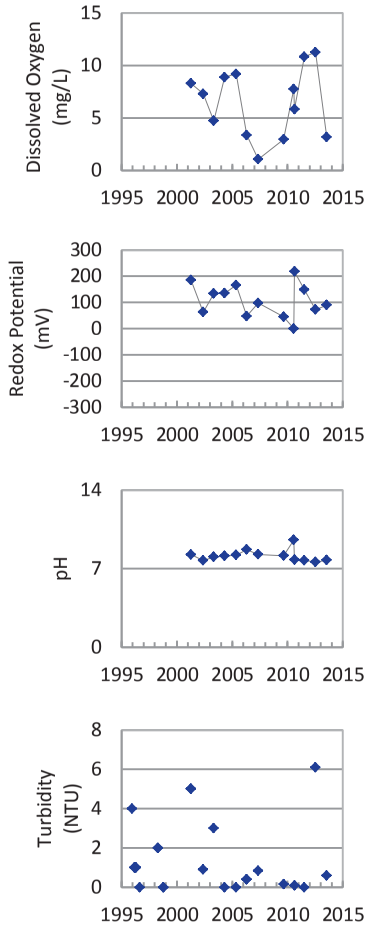
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/12/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q03
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



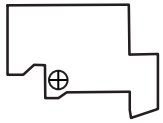
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

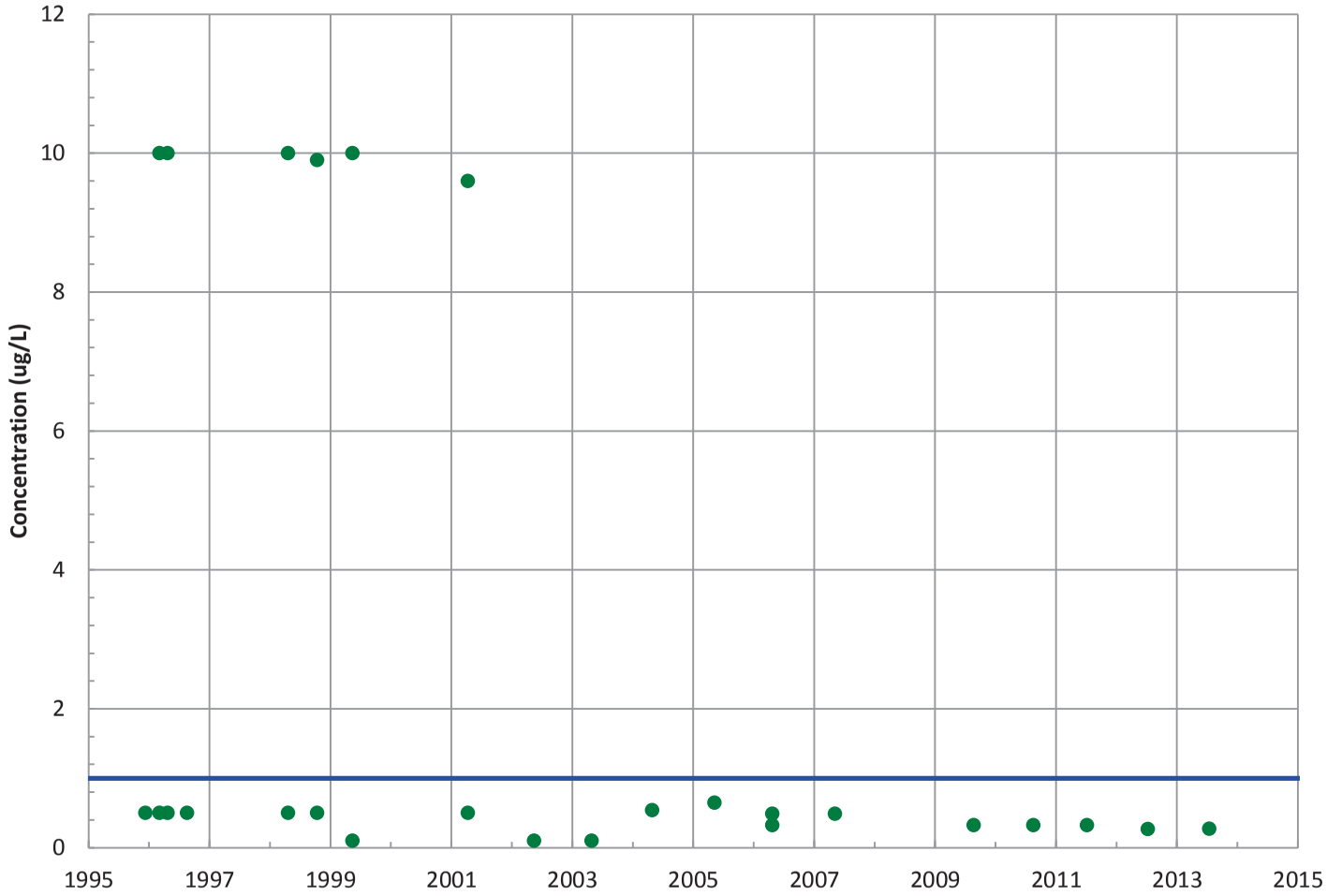
Well Location



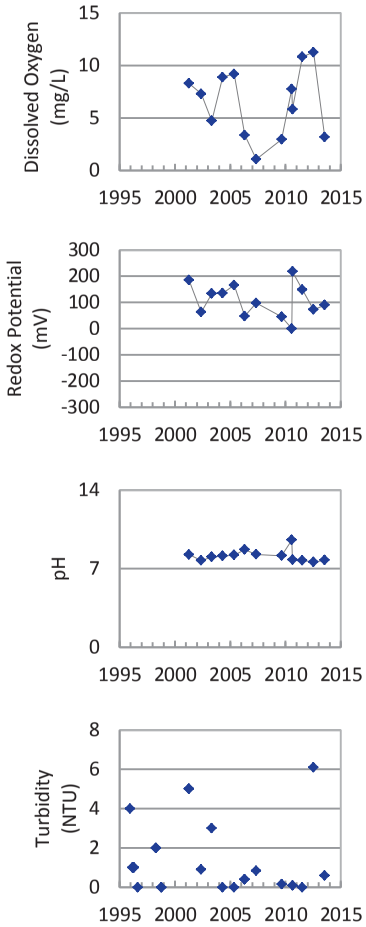
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/12/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q03
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



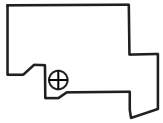
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

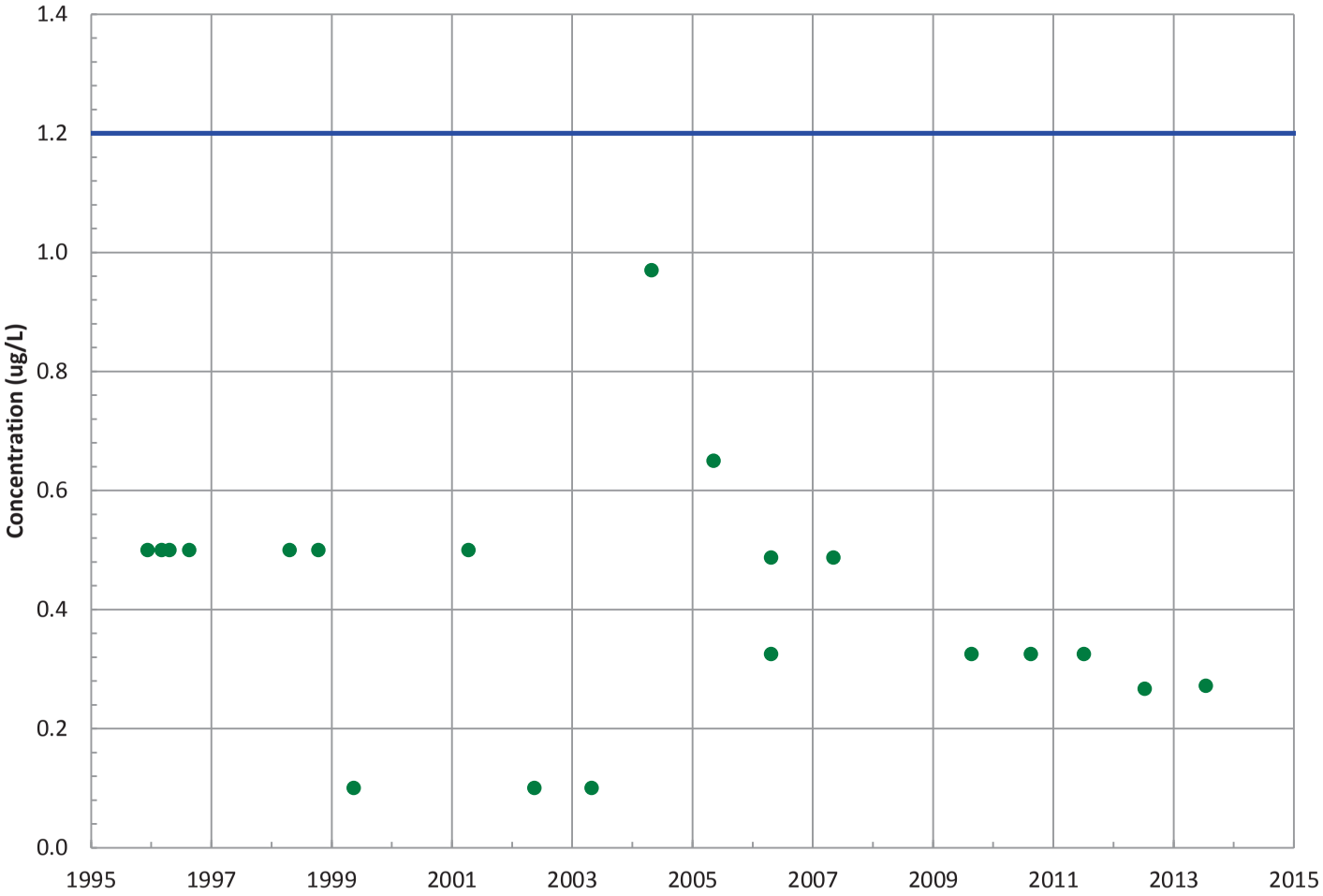
Well Location



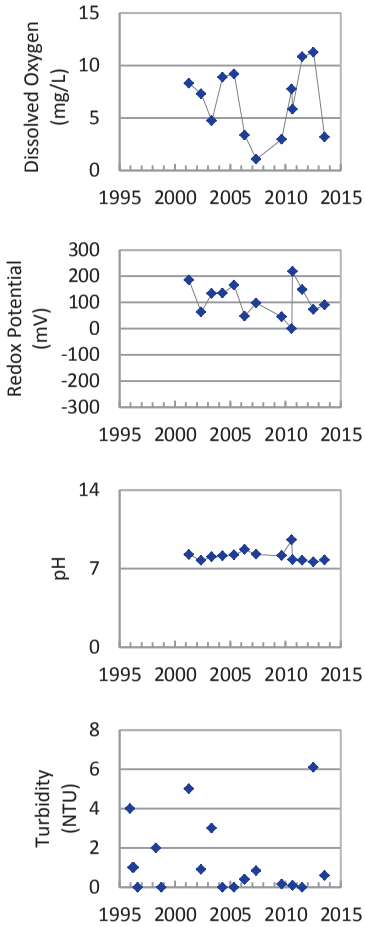
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/12/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q03
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



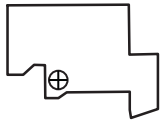
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

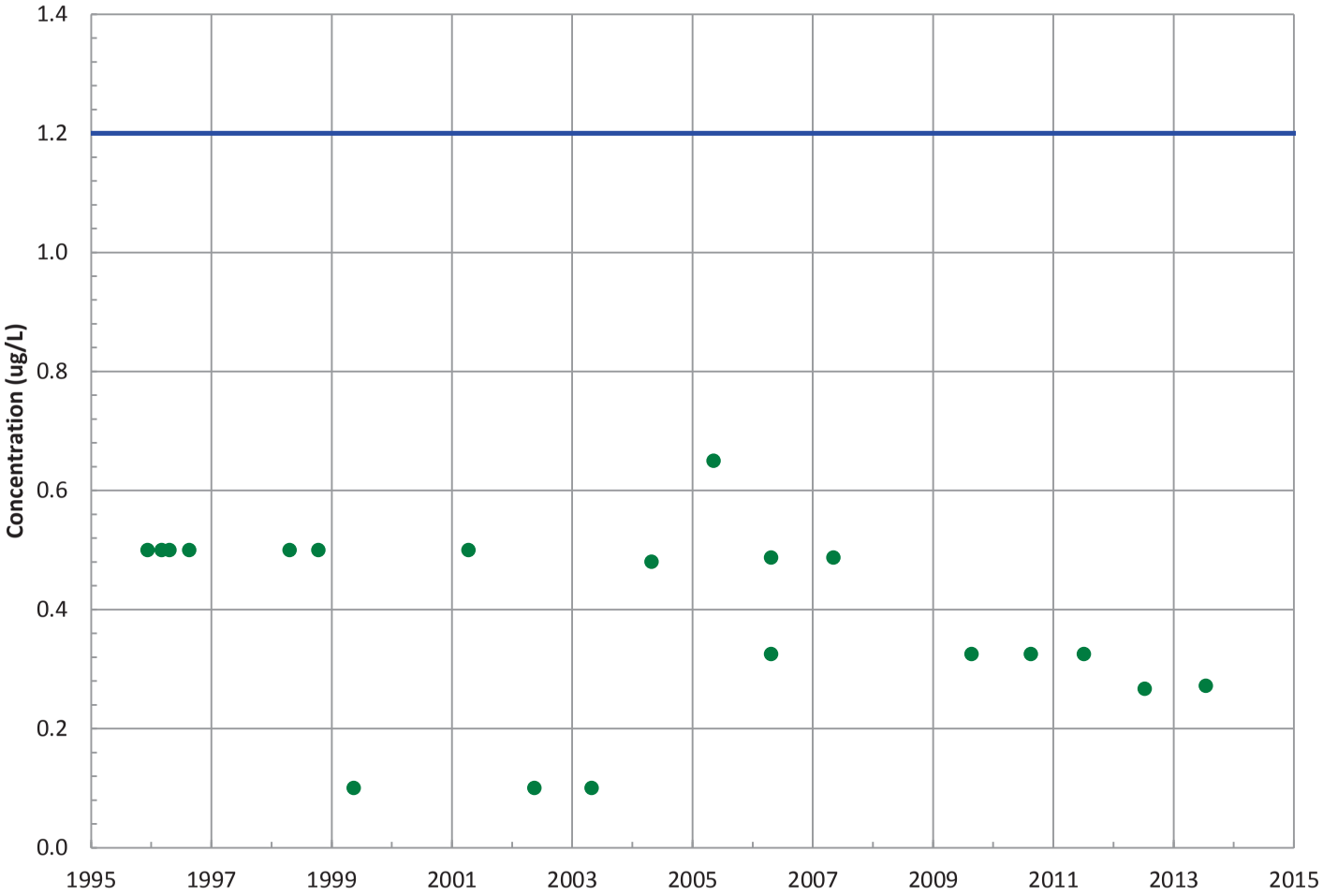
Well Location



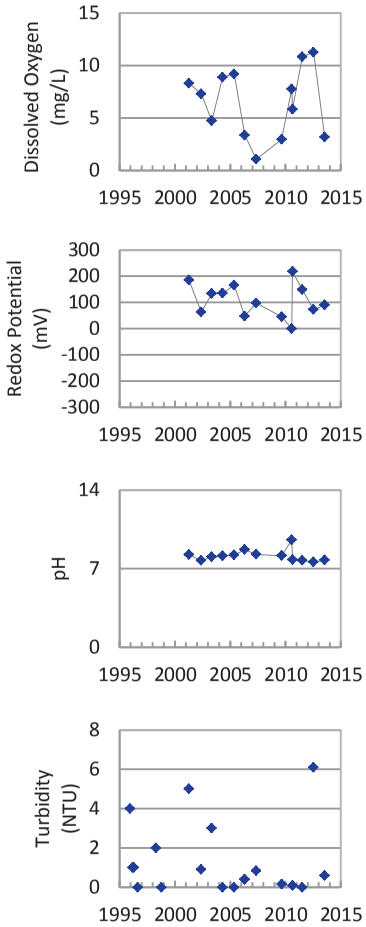
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/12/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q03
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



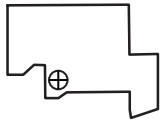
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

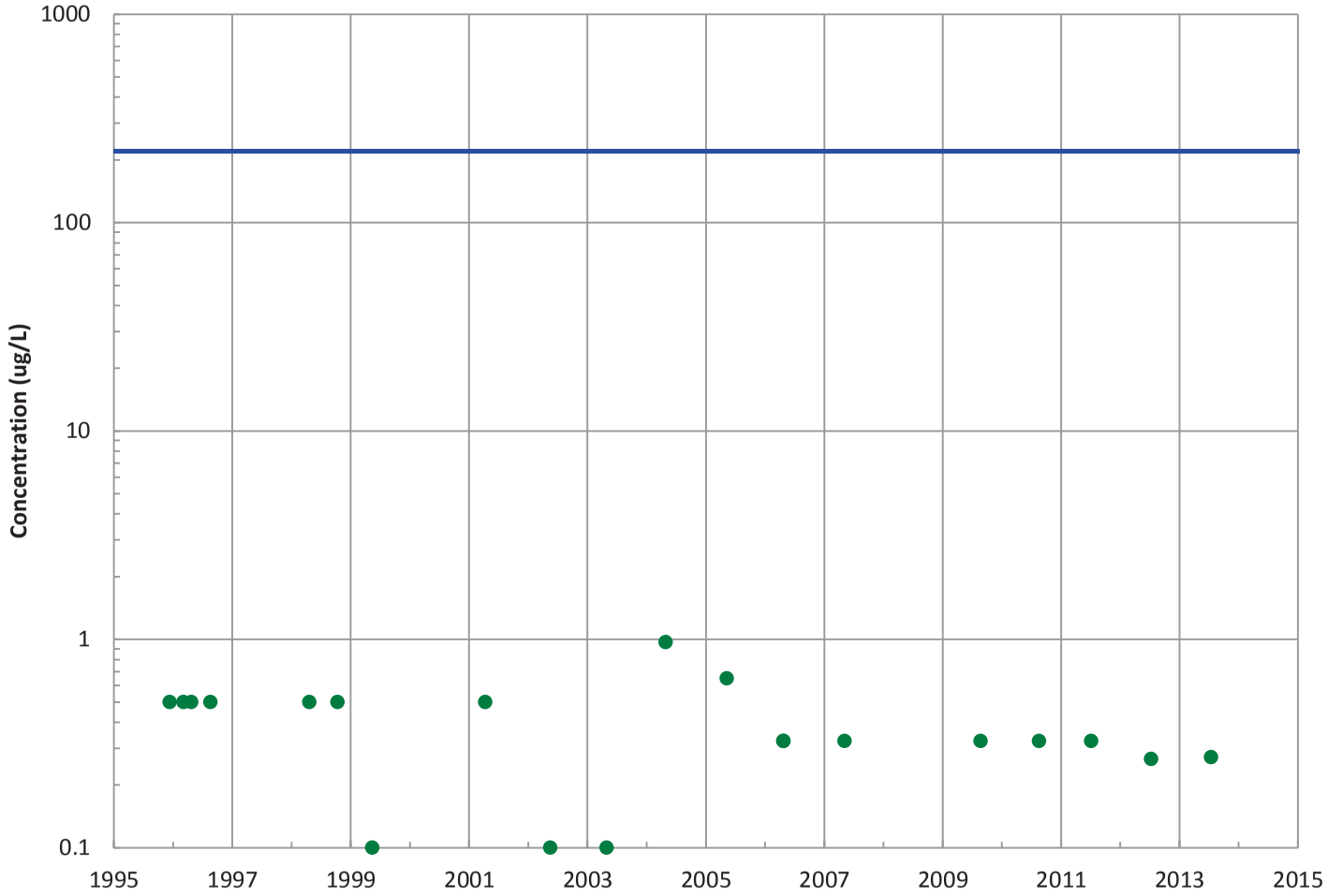
Well Location



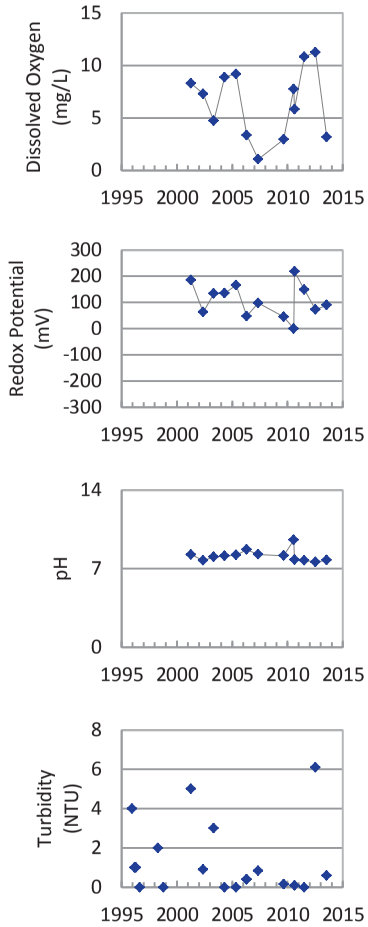
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/12/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q03
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



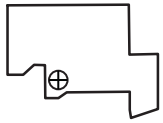
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

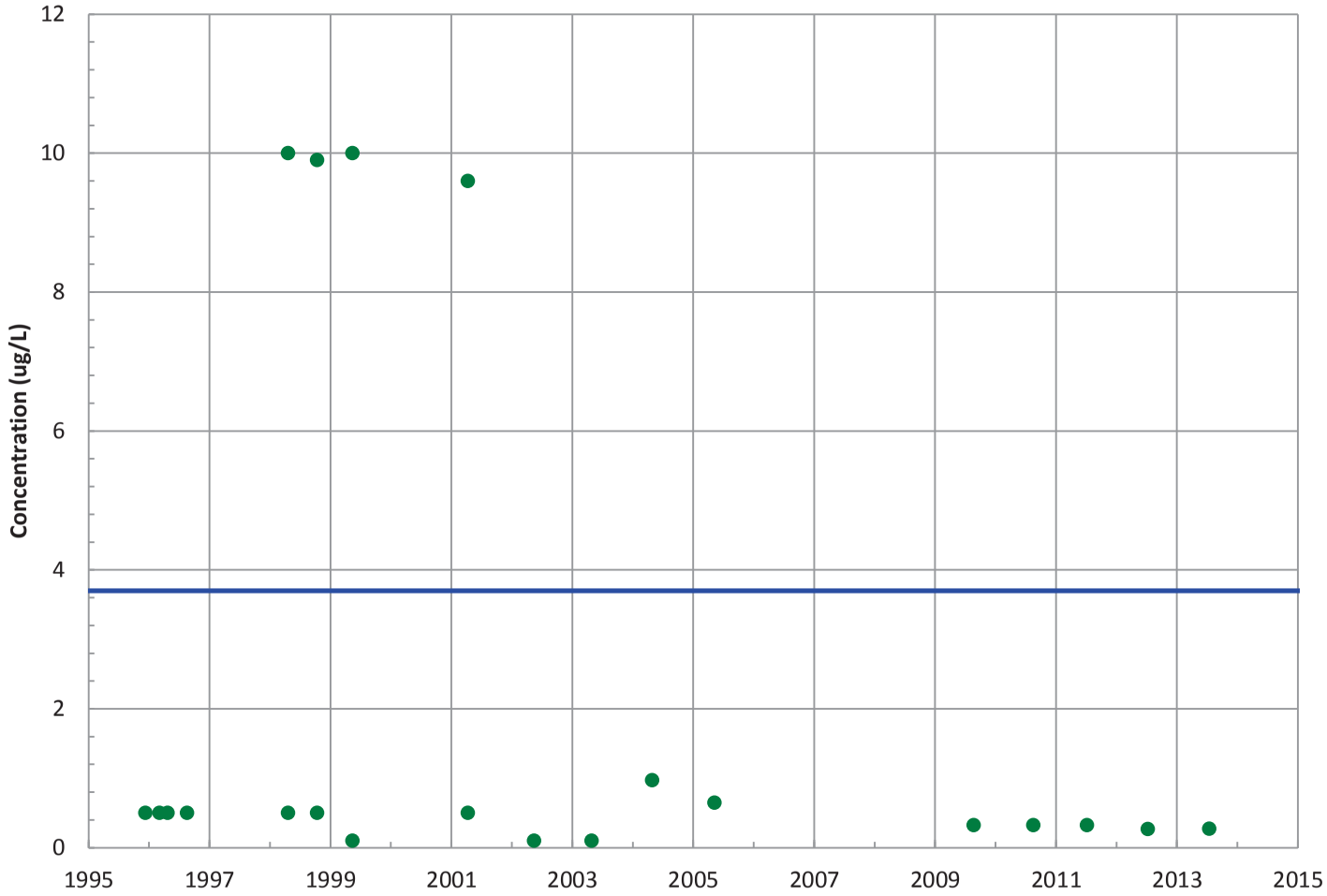
Well Location



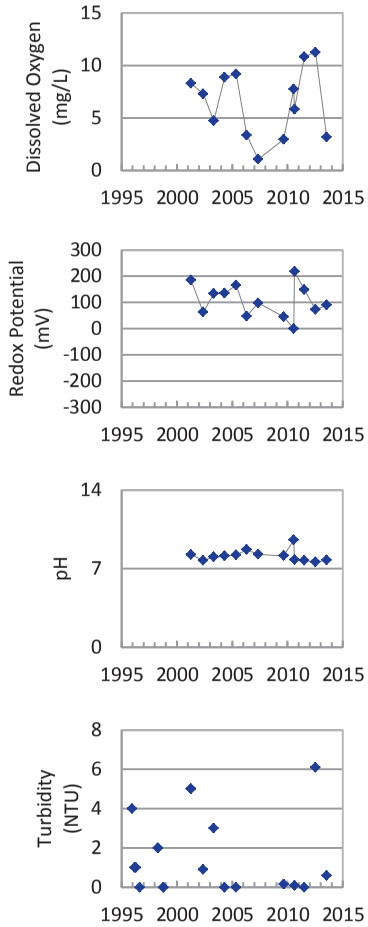
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/12/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q03
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



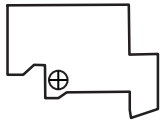
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

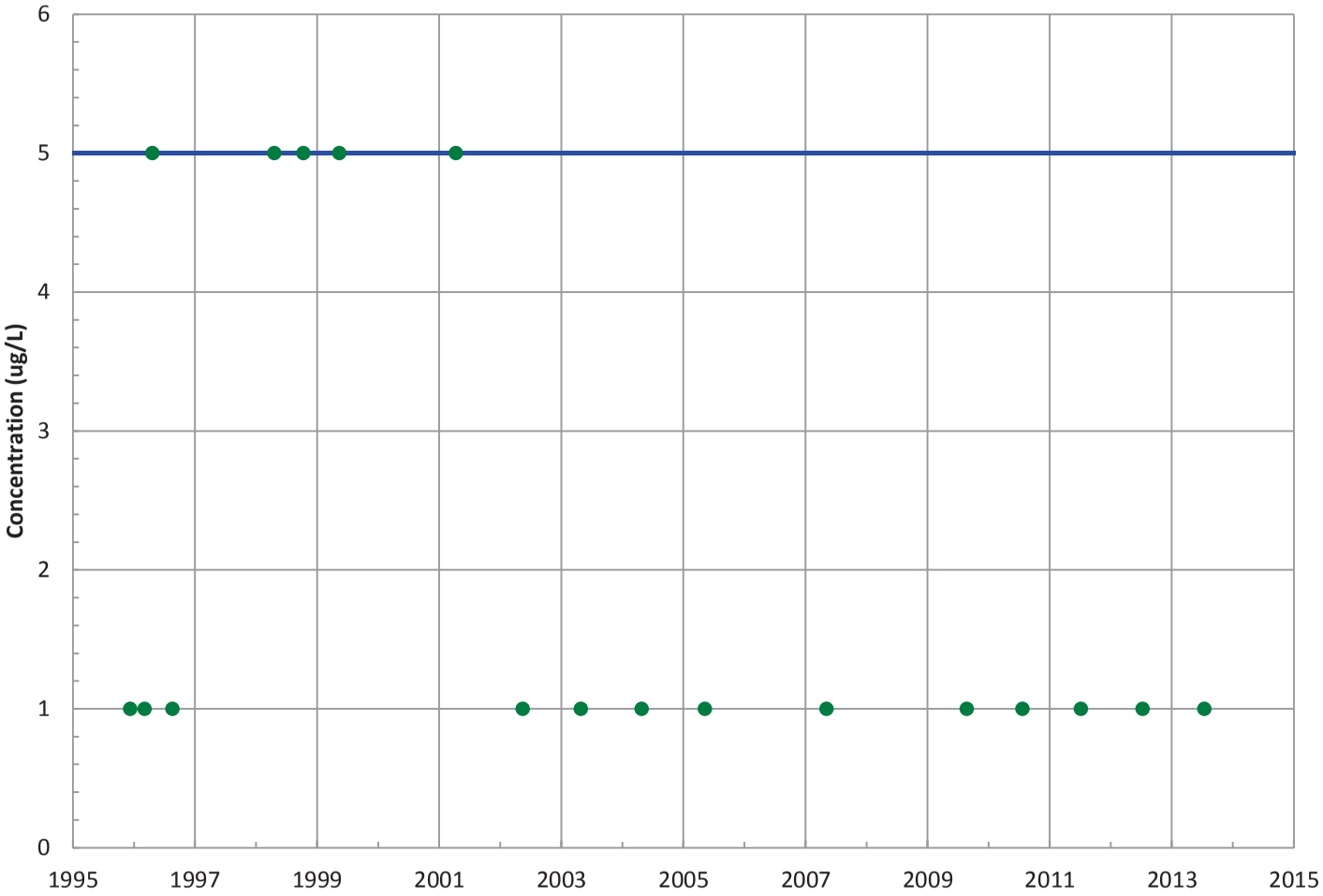
Well Location



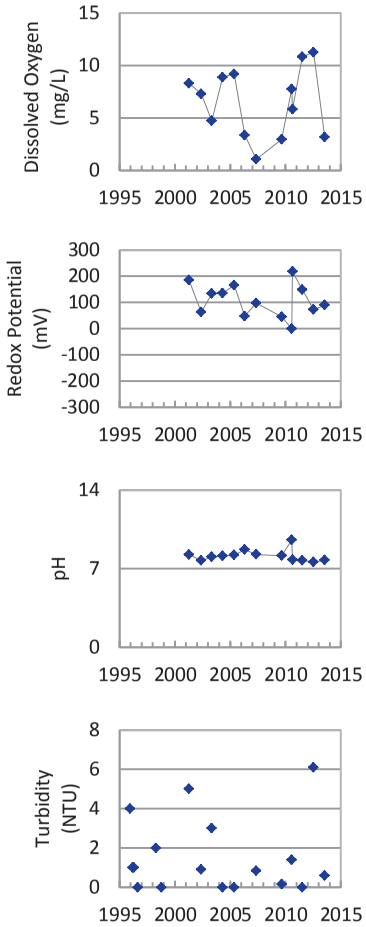
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/12/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q03
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



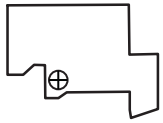
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

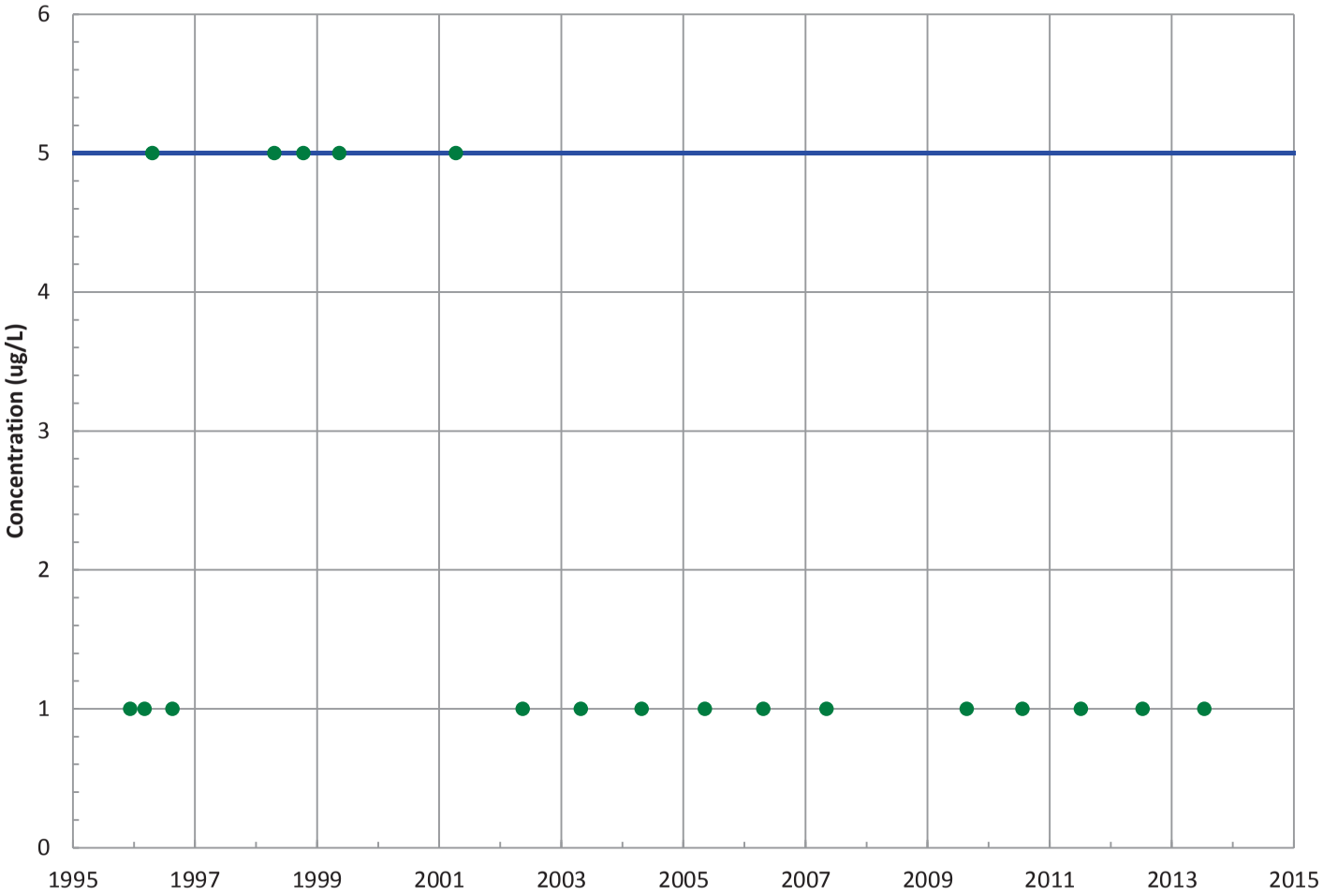
Well Location



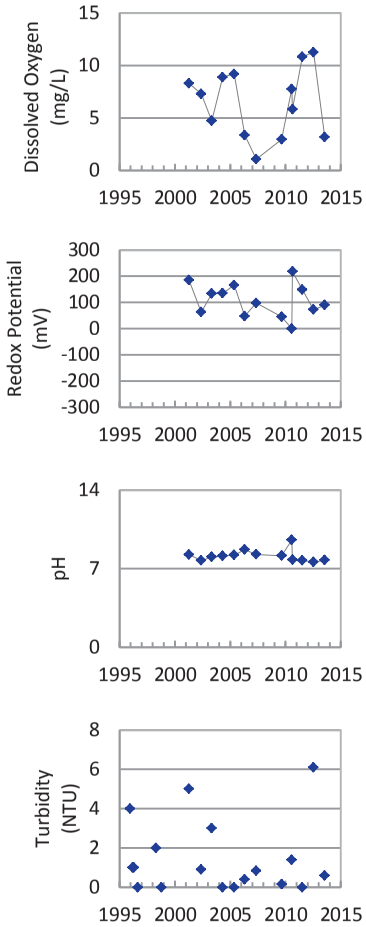
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/12/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q03
Trichloroethene Trend in Perched Aquifer



Field Parameters



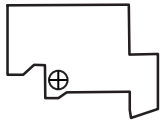
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

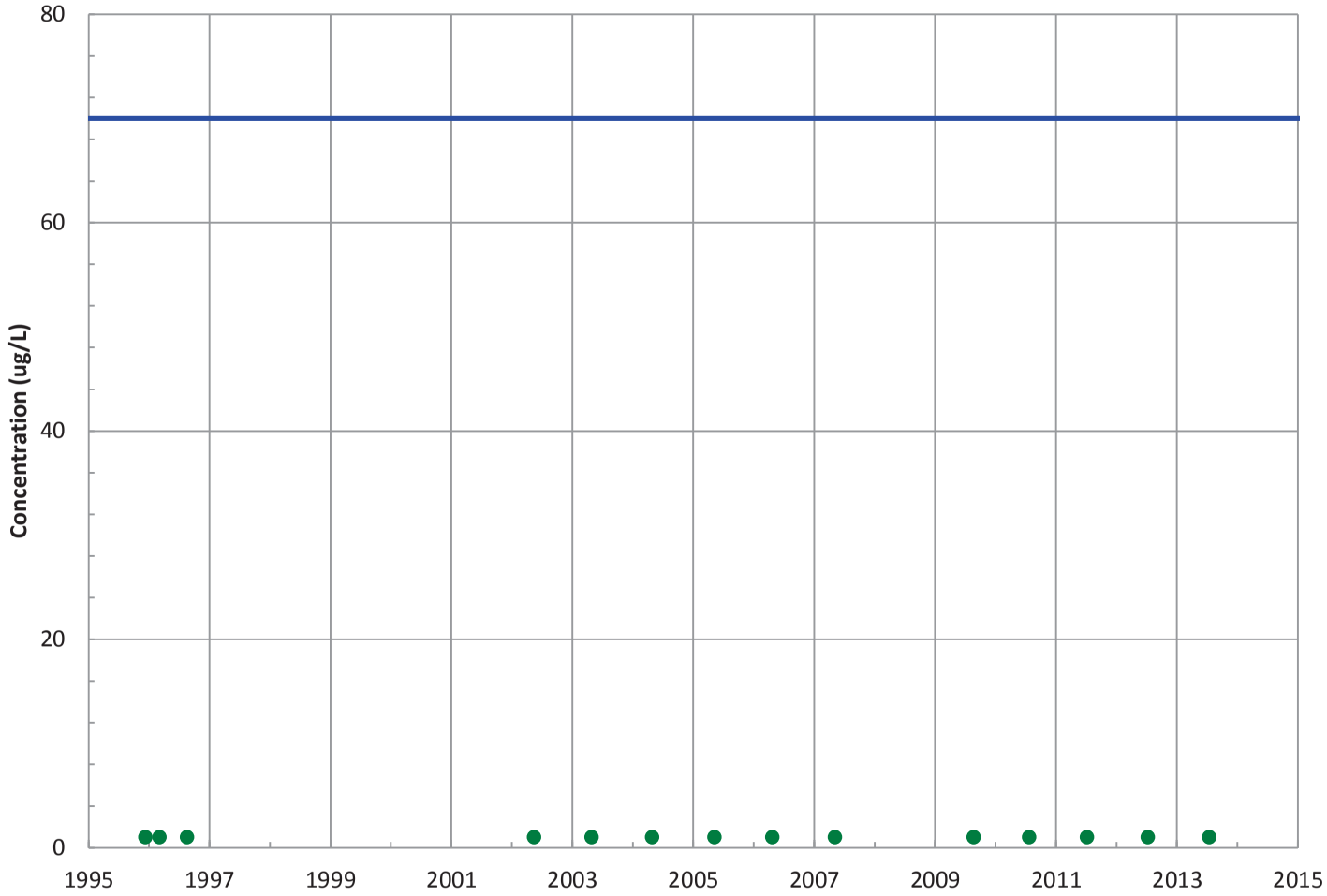
Well Location



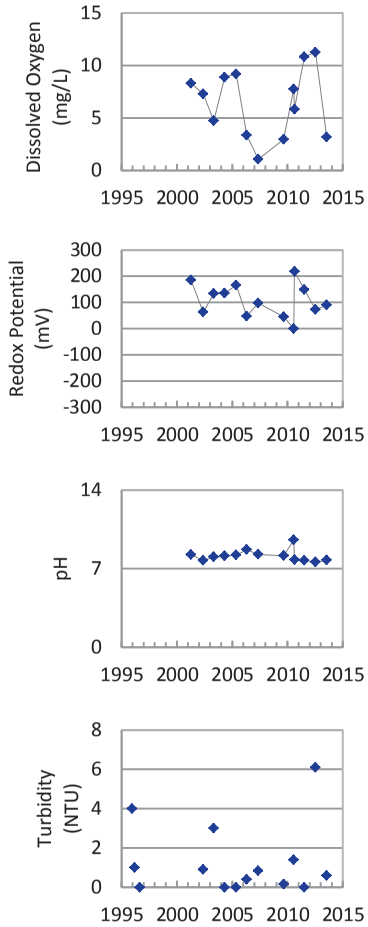
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/12/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q03
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



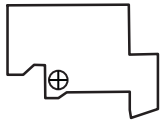
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

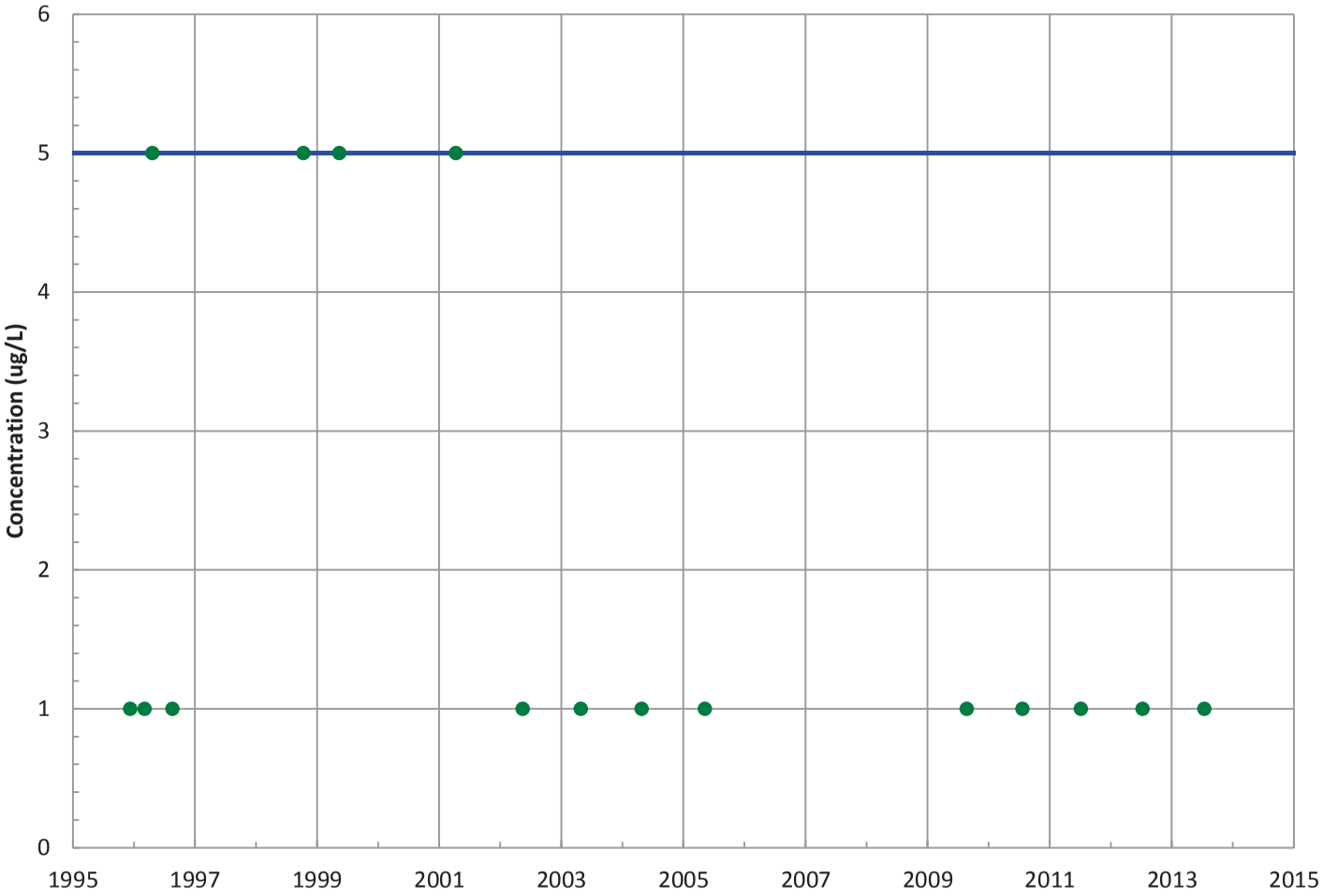
Well Location



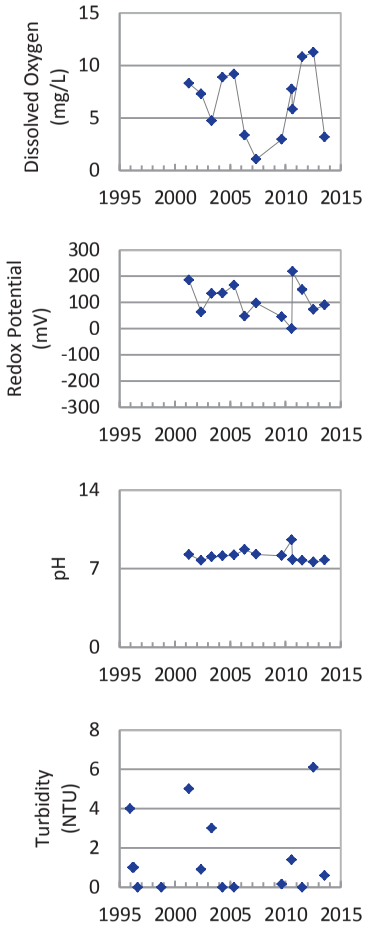
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/12/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q03
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



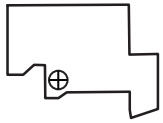
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

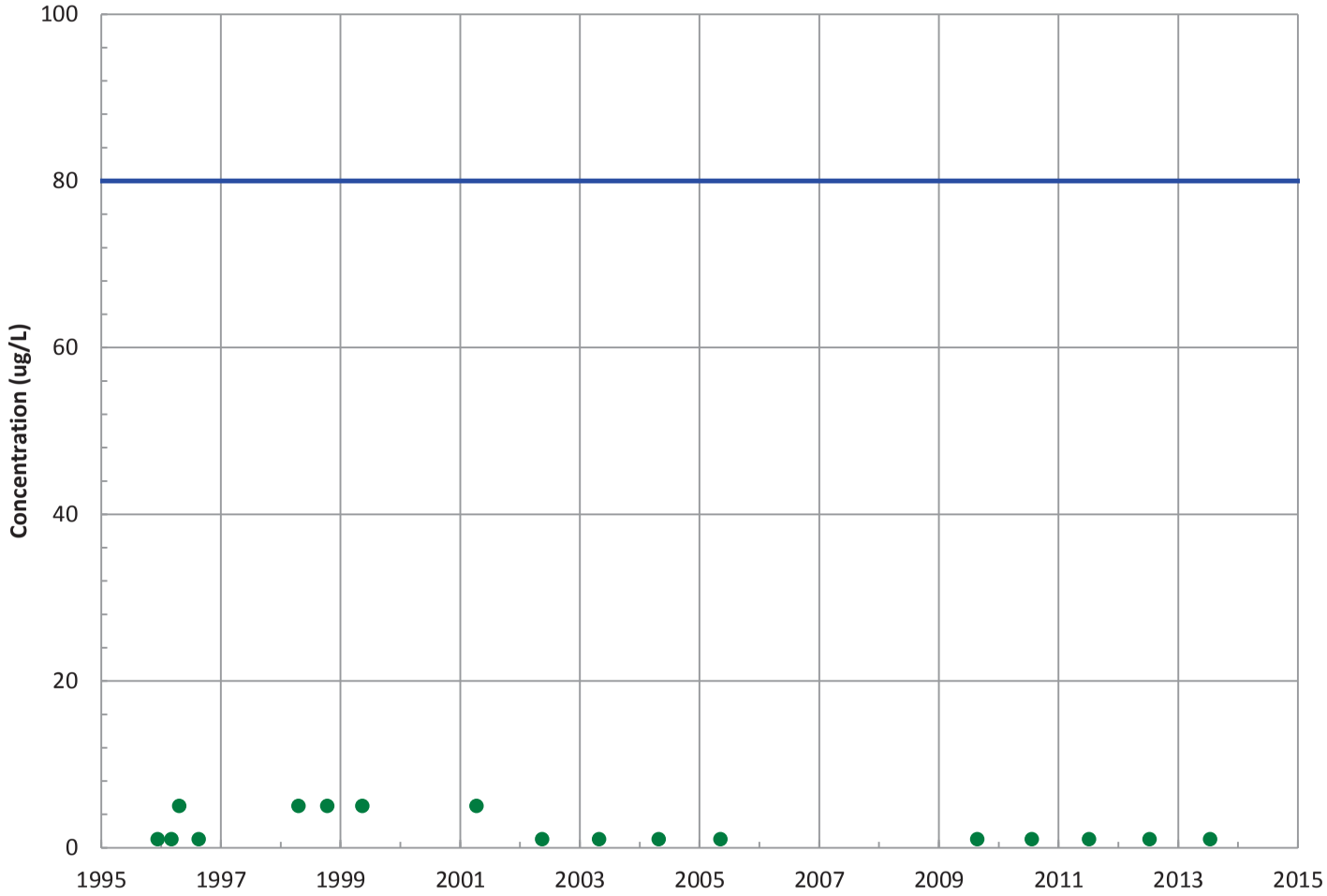
Well Location



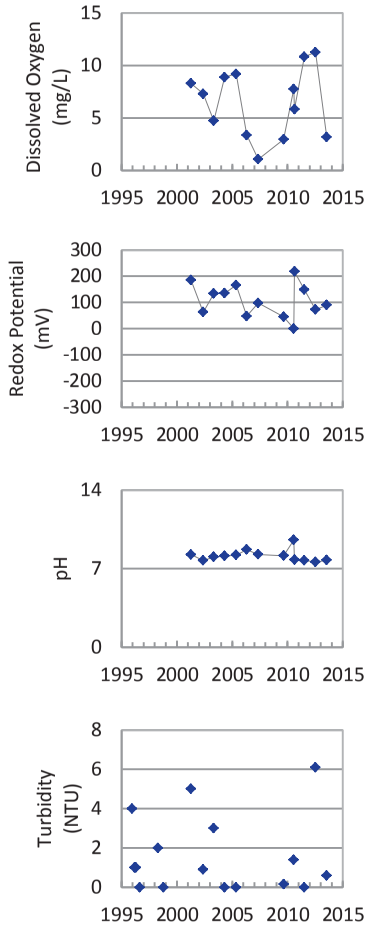
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/12/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q03
Chloroform Trend in Perched Aquifer



Field Parameters



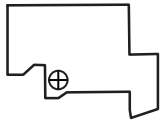
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

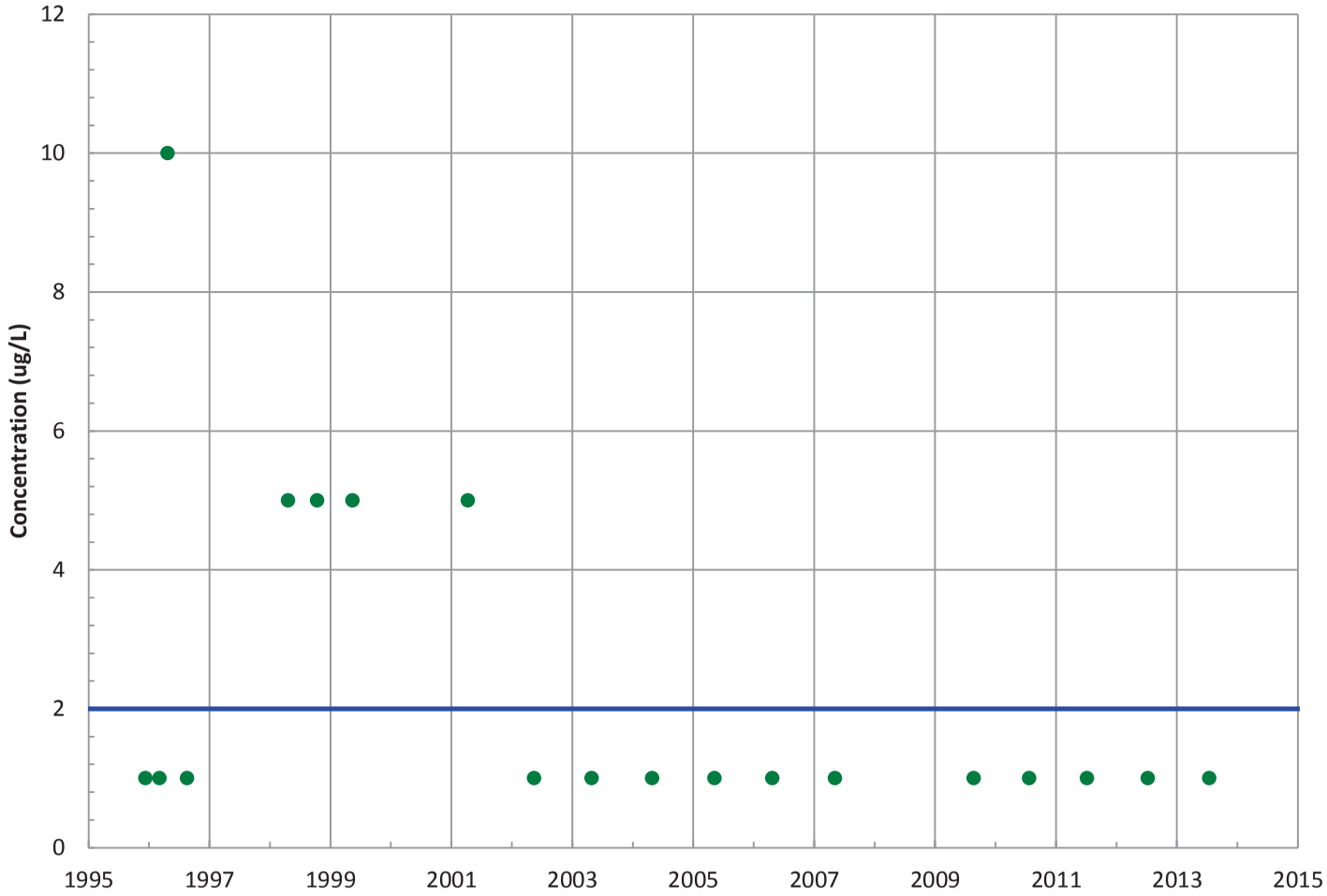
Well Location



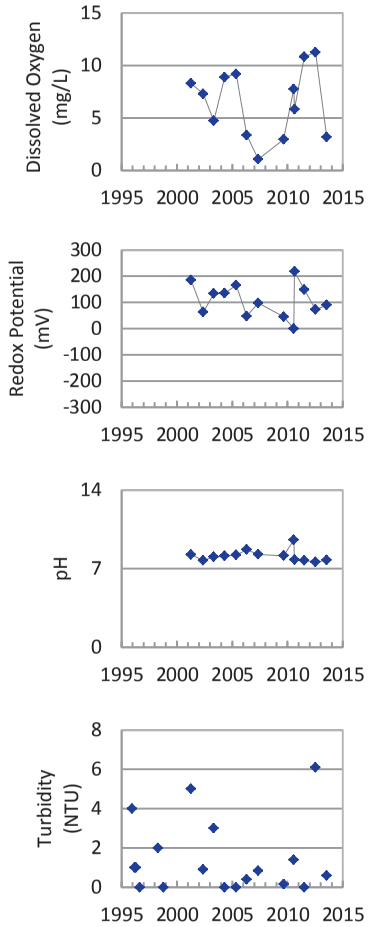
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/12/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q03
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



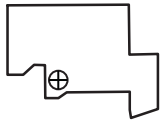
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

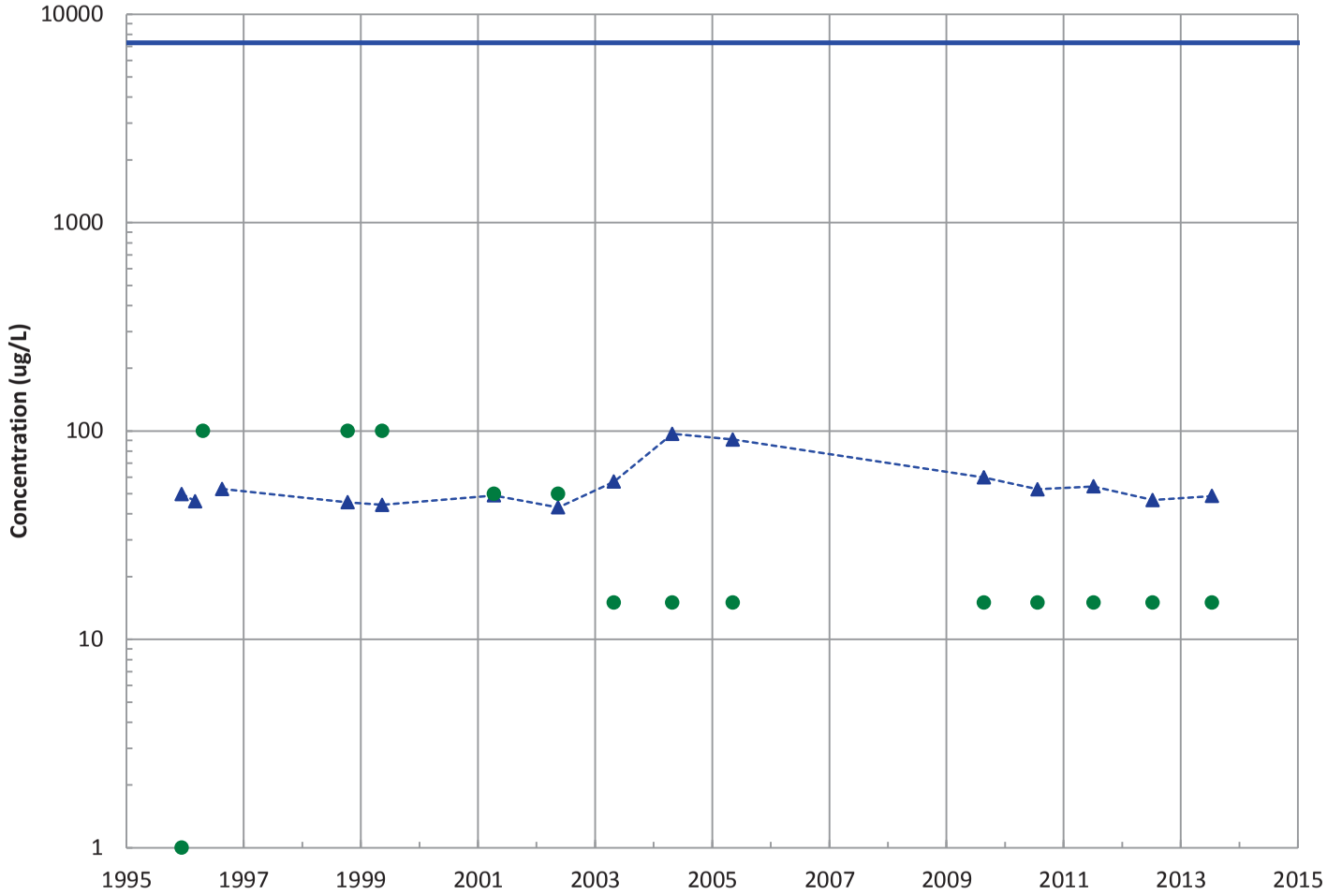
Well Location



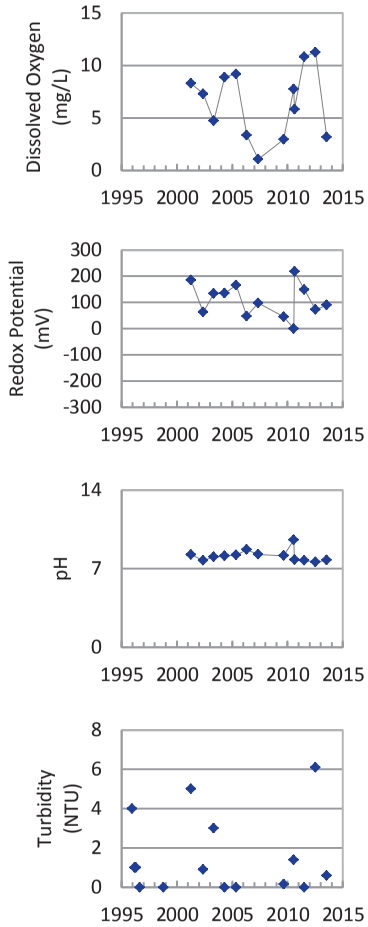
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/12/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX07-1Q03
Boron Trend in Perched Aquifer



Field Parameters



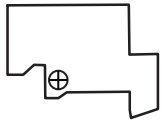
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------ Concentration Trend
- ——— Groundwater Protection Standard

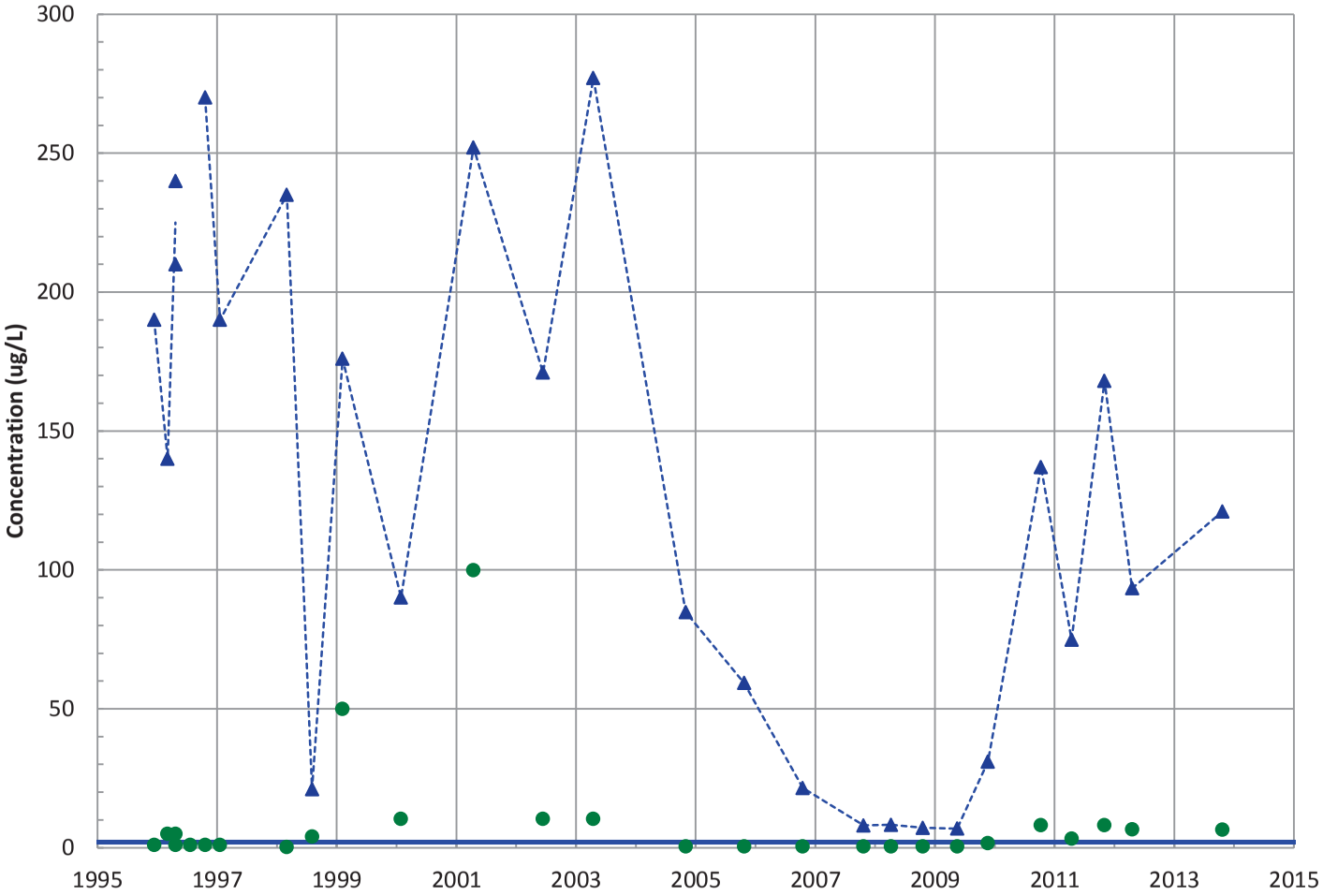
Well Location



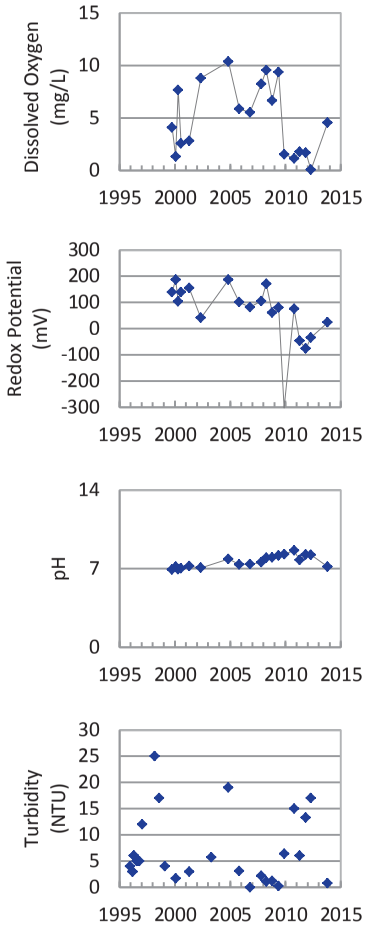
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/12/1995 to 7/29/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1002
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



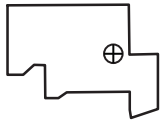
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

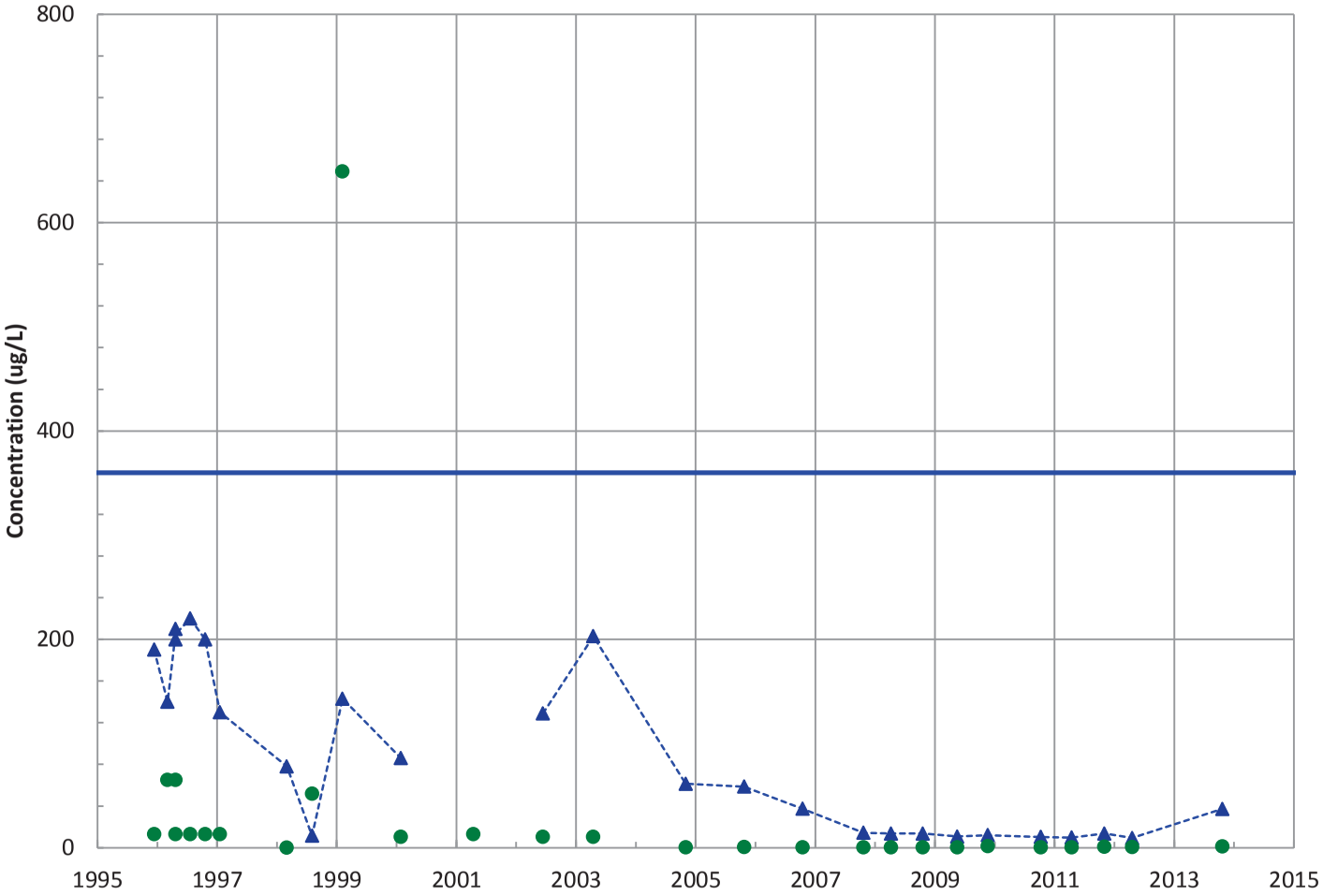
Well Location



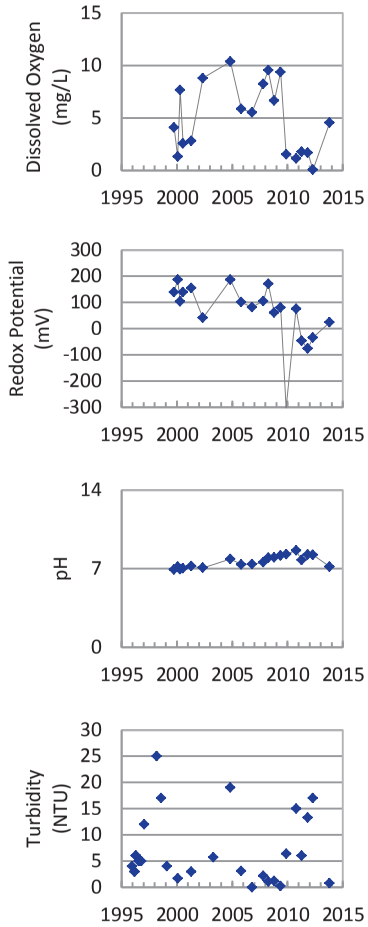
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/14/1995 to 11/4/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1002
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



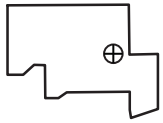
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Probably Increasing
2011 - 2013 Data: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

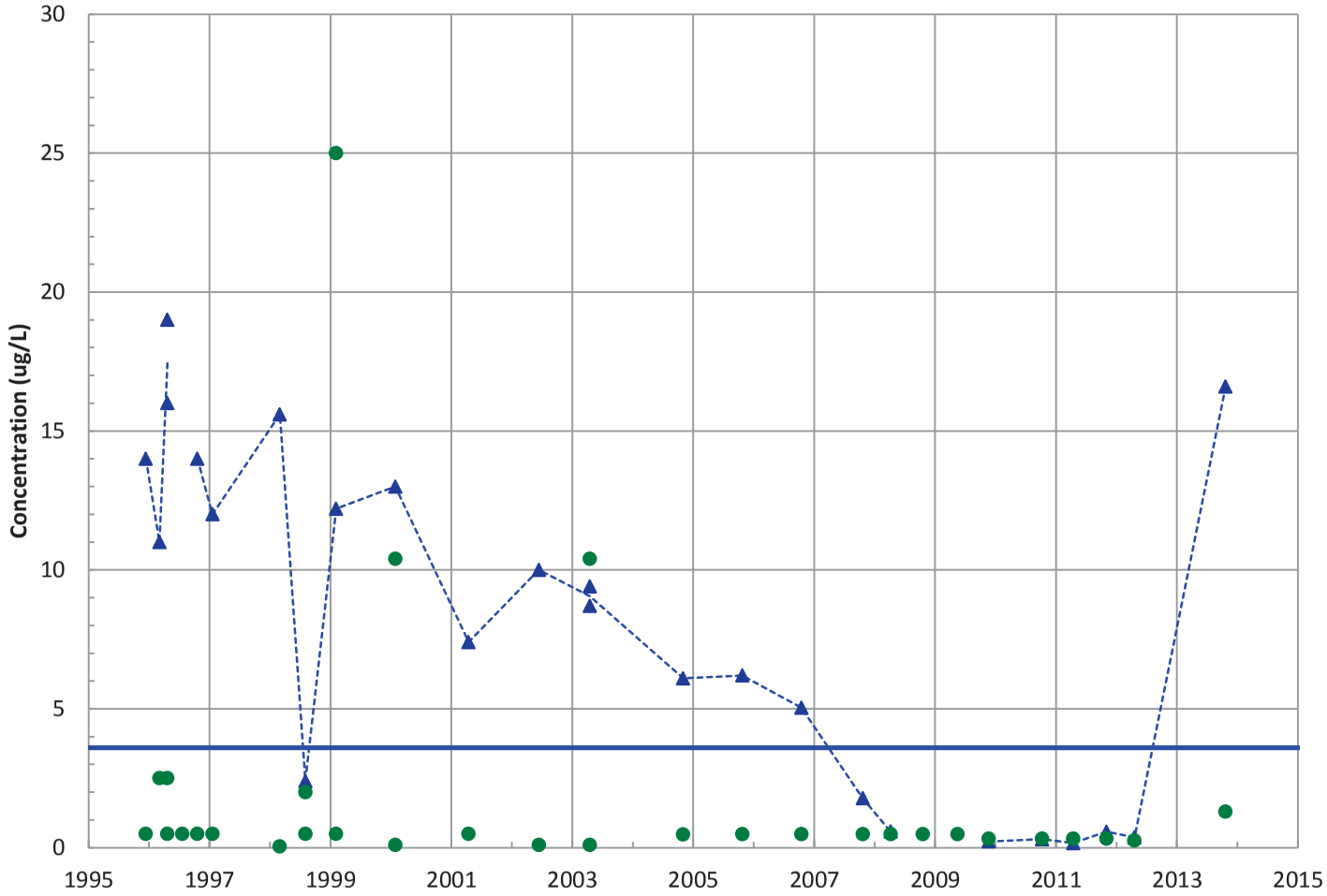
Well Location



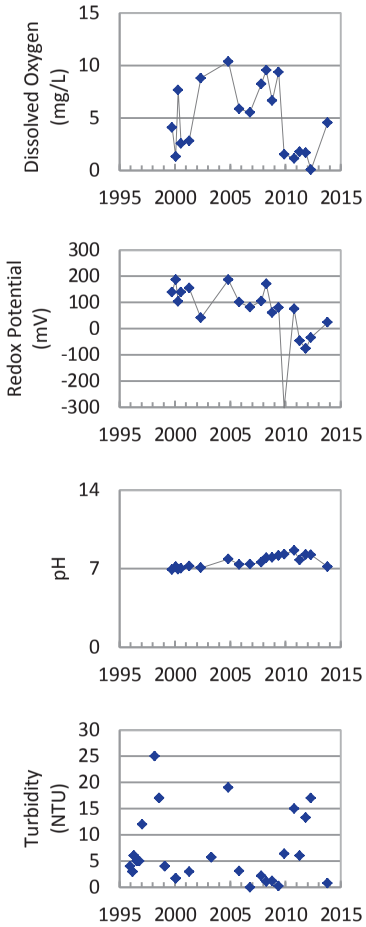
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/14/1995 to 11/4/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1002
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Probably Increasing

2011 - 2013 Data: No Trend

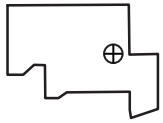
MAROS Linear Regression Method

Data (7/2009 - 12/2013): Increasing

2011 - 2013 Data: Increasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

Well Location



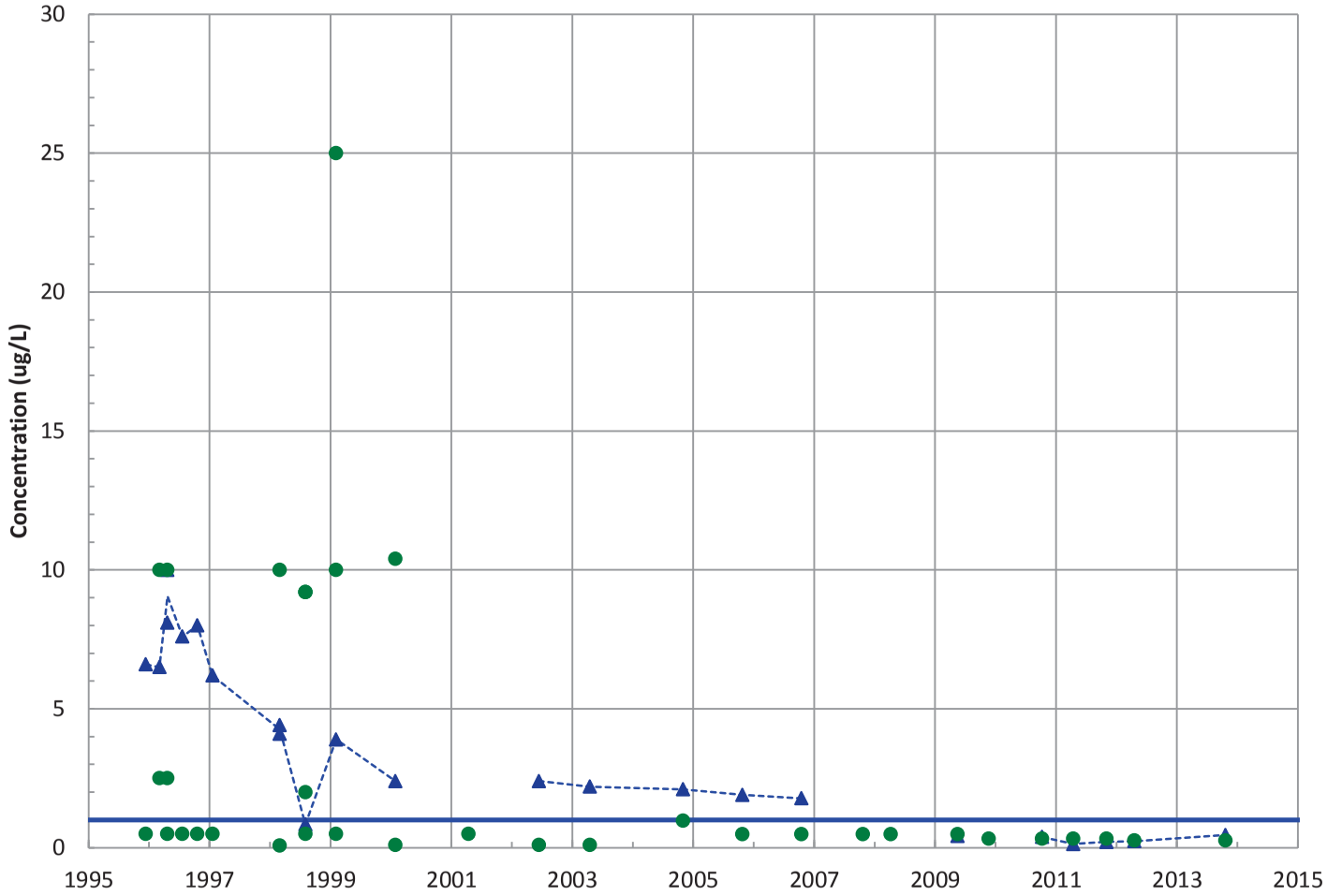
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 12/14/1995 to 11/4/2013

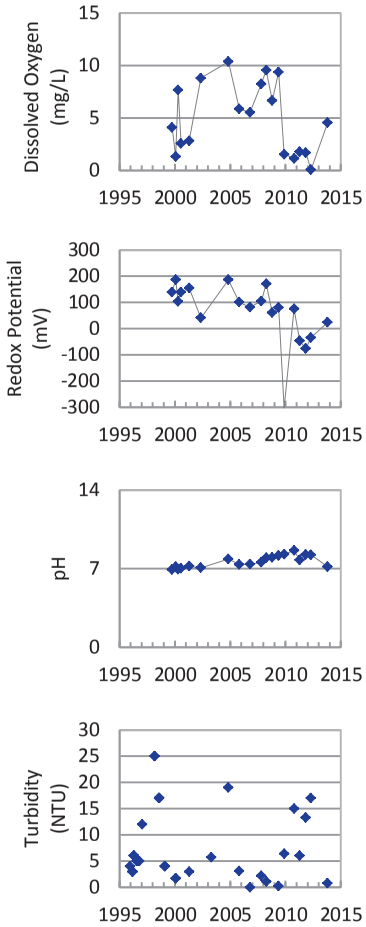
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1002
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



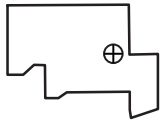
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Increasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Increasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------ Concentration Trend
- ——— Groundwater Protection Standard

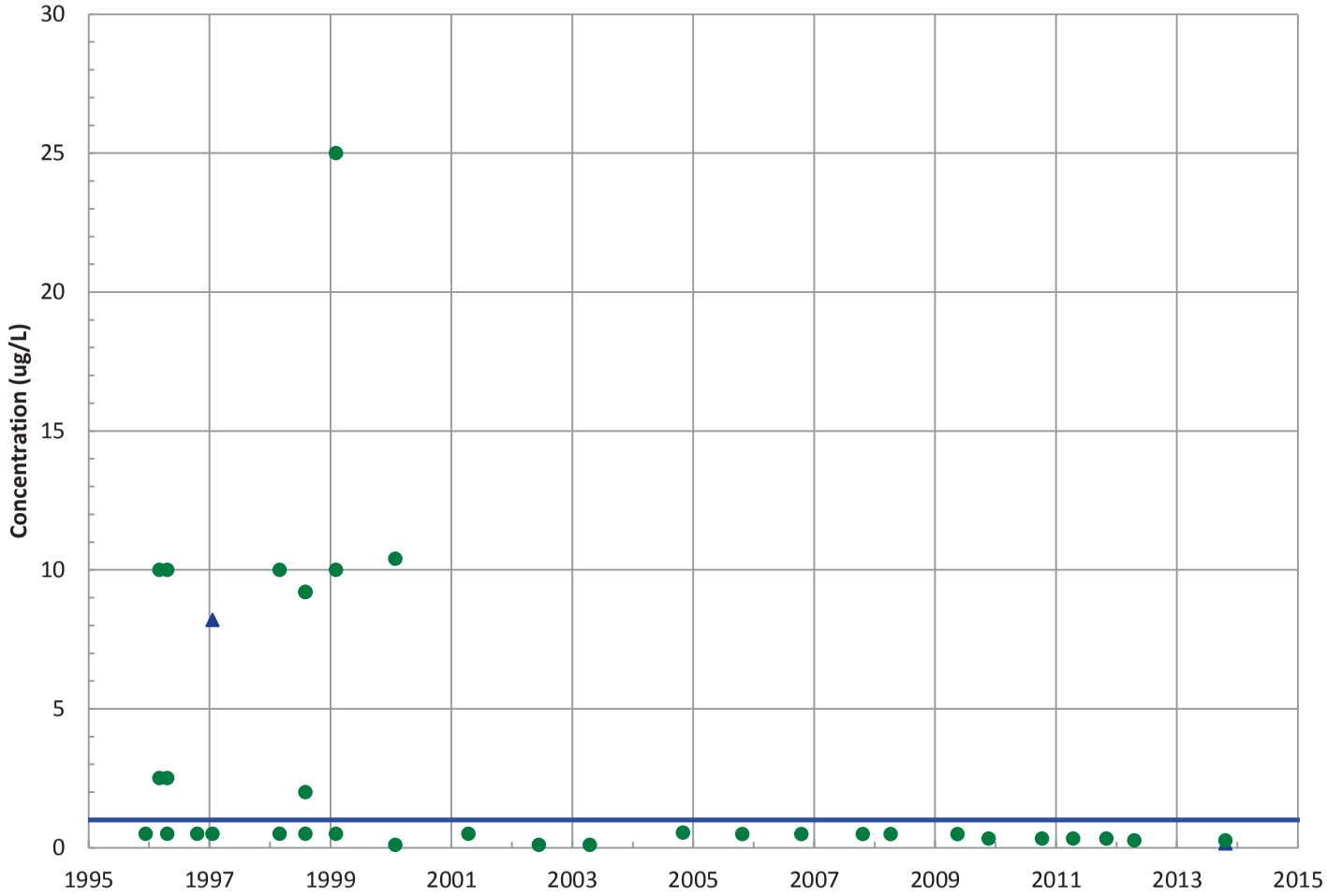
Well Location



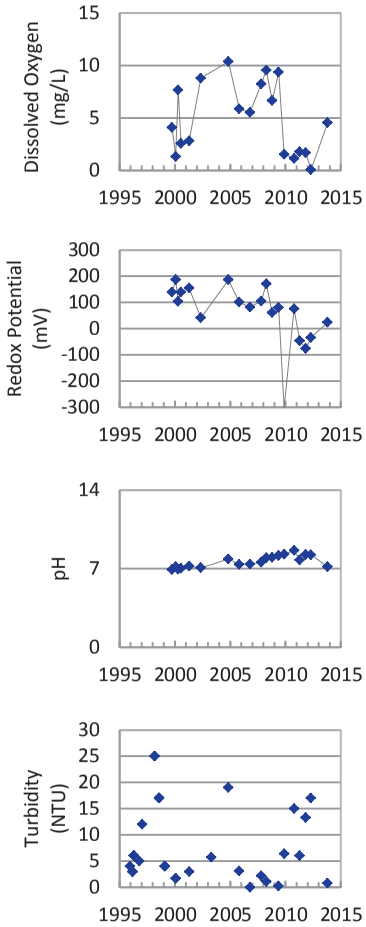
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/14/1995 to 11/4/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1002
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: N/A (<4 Detections in

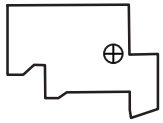
MAROS Linear Regression Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: N/A (<4 Detections in

- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

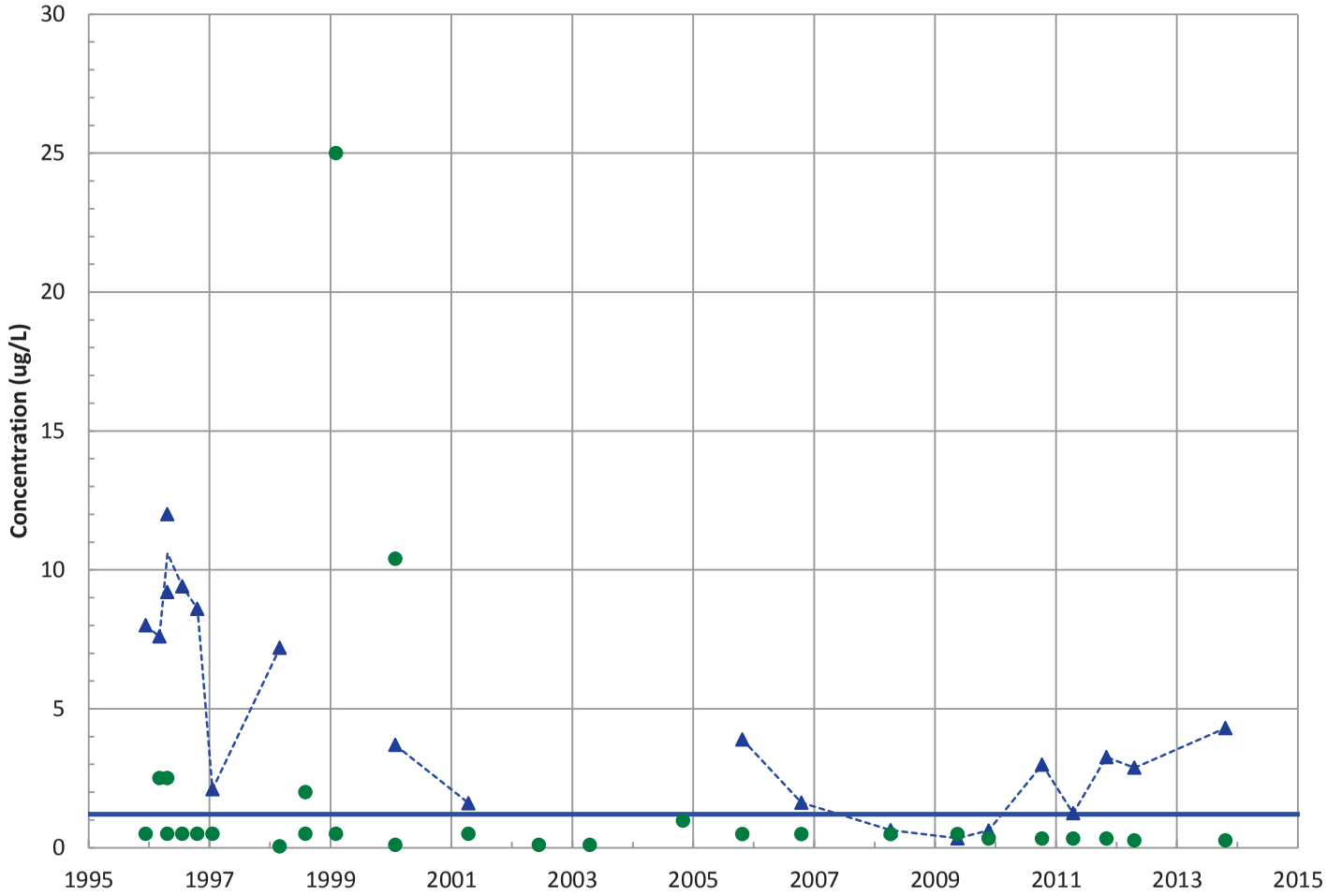
Well Location



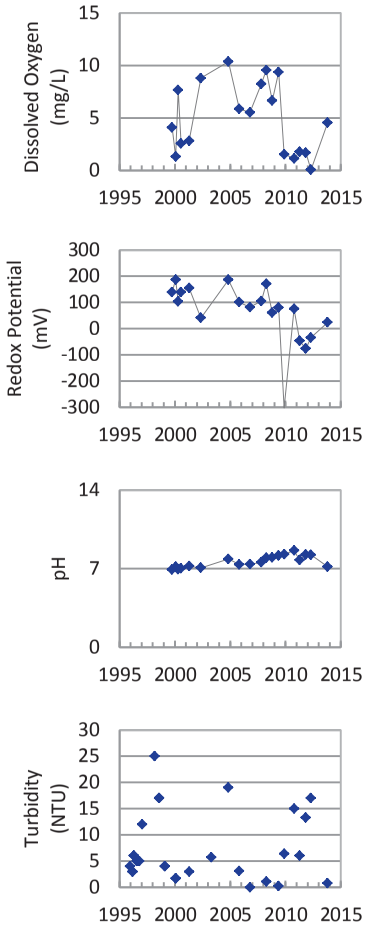
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/14/1995 to 11/4/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1002
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Probably Increasing

2011 - 2013 Data: No Trend

MAROS Linear Regression Method

Data (7/2009 - 12/2013): Increasing

2011 - 2013 Data: Probably Increasing

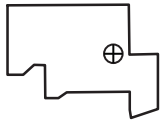
▲ Measured Value

● Sample Detection Limit

------- Concentration Trend

——— Groundwater Protection Standard

Well Location



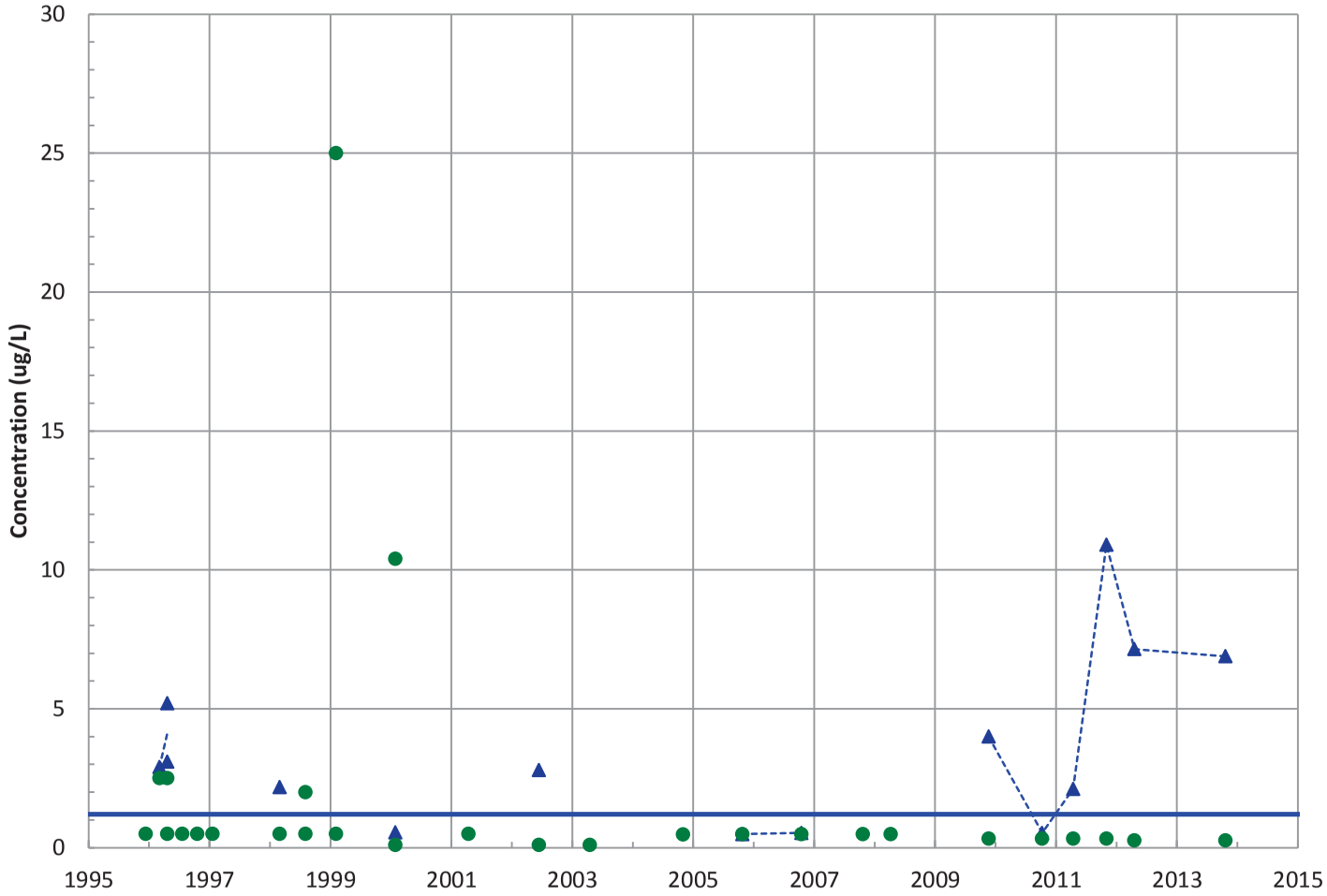
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 12/14/1995 to 11/4/2013

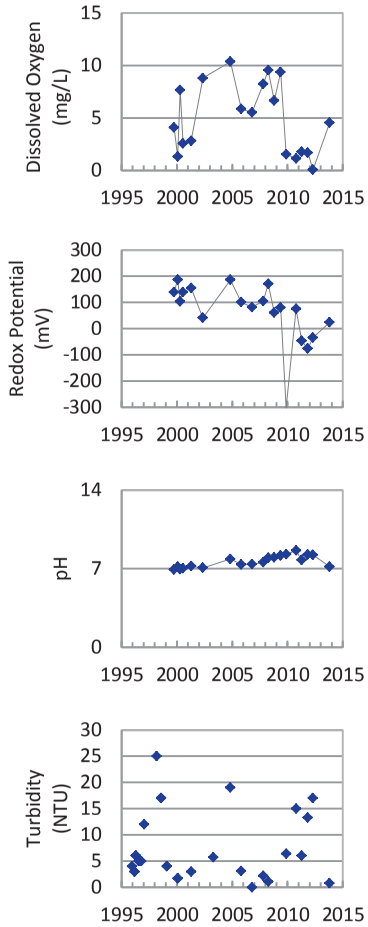
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1002
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



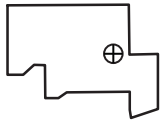
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

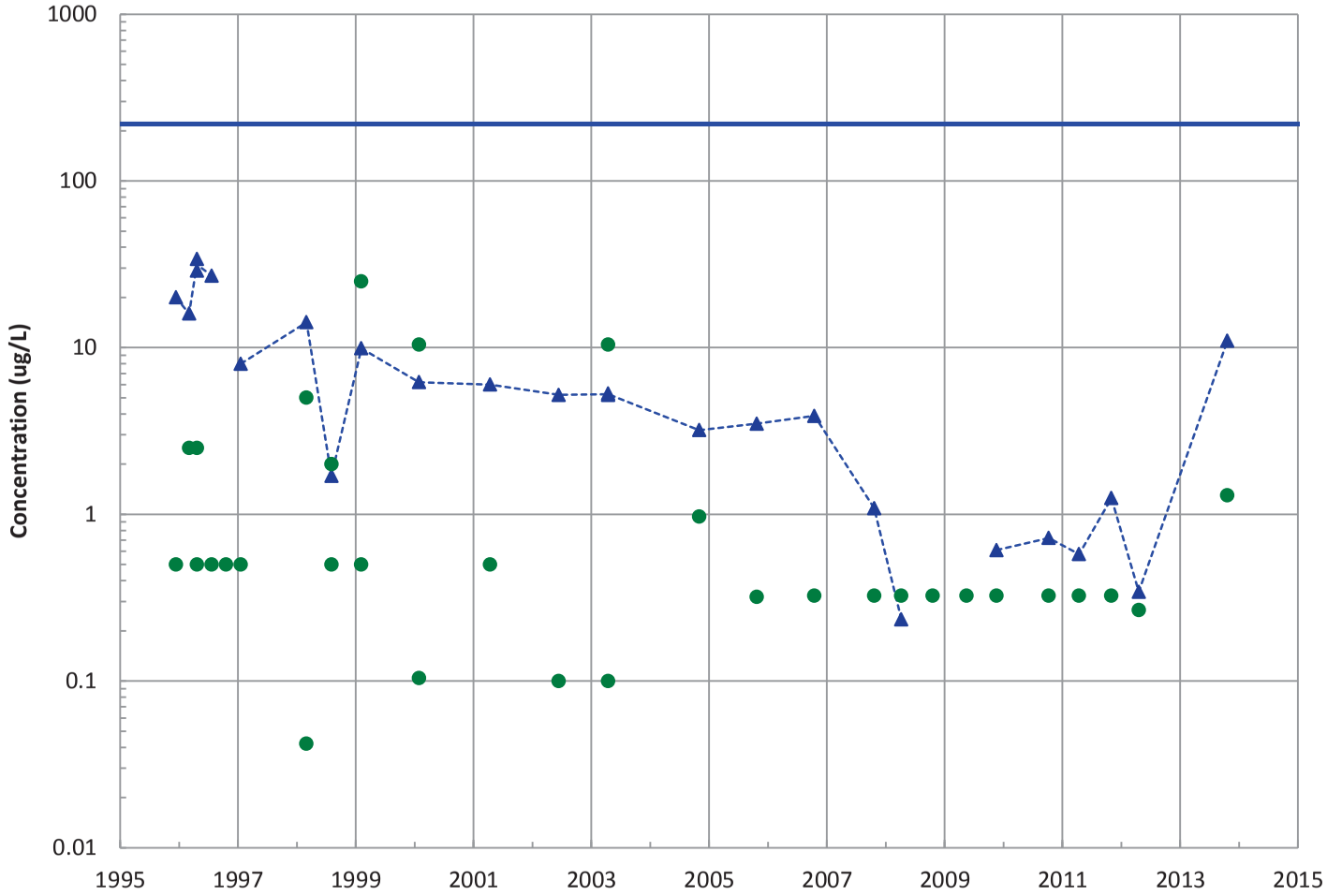
Well Location



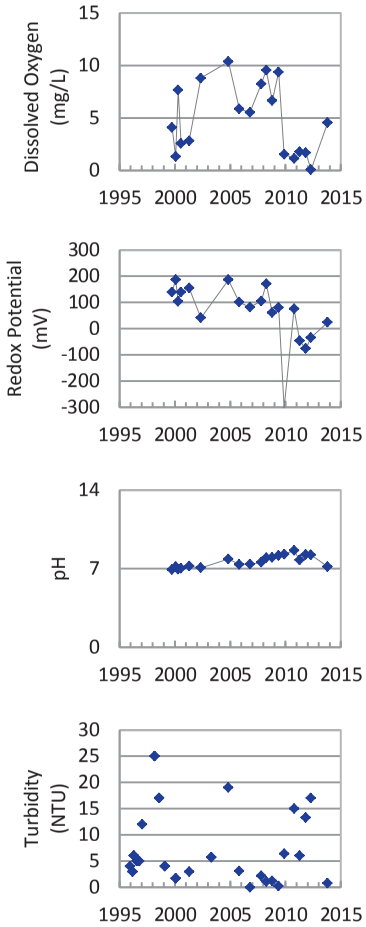
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/14/1995 to 11/4/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1002
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



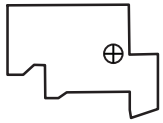
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Probably Increasing
2011 - 2013 Data: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

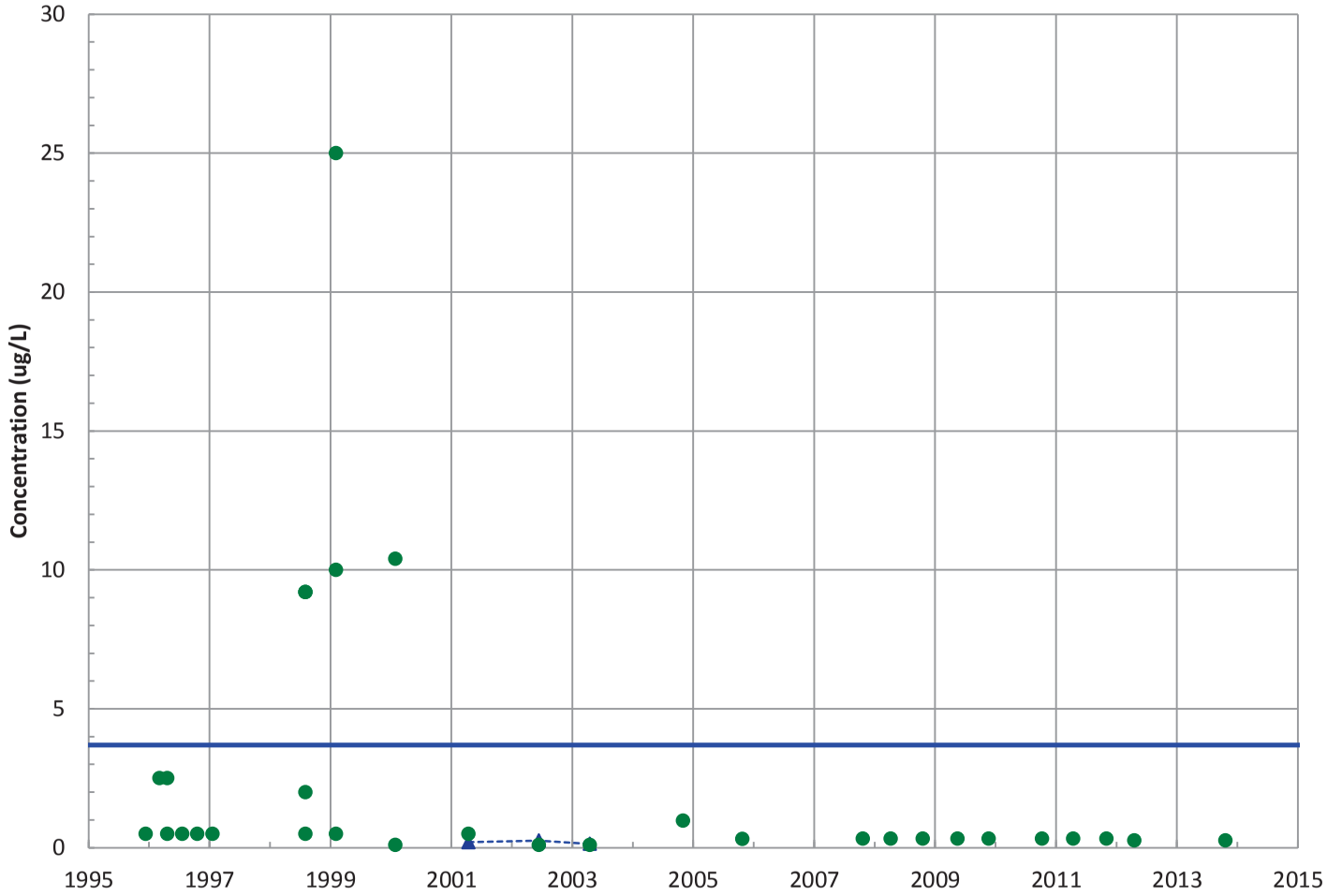
Well Location



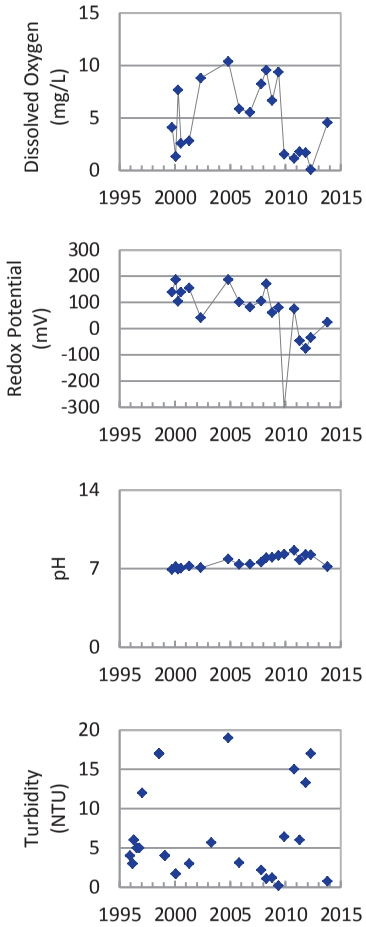
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/14/1995 to 11/4/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1002
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): All Non-Detect

2011 - 2013 Data: All Non-Detect

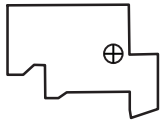
MAROS Linear Regression Method

Data (7/2009 - 12/2013): All Non-Detect

2011 - 2013 Data: N/A (<4 Detections in Dataset)

- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

Well Location



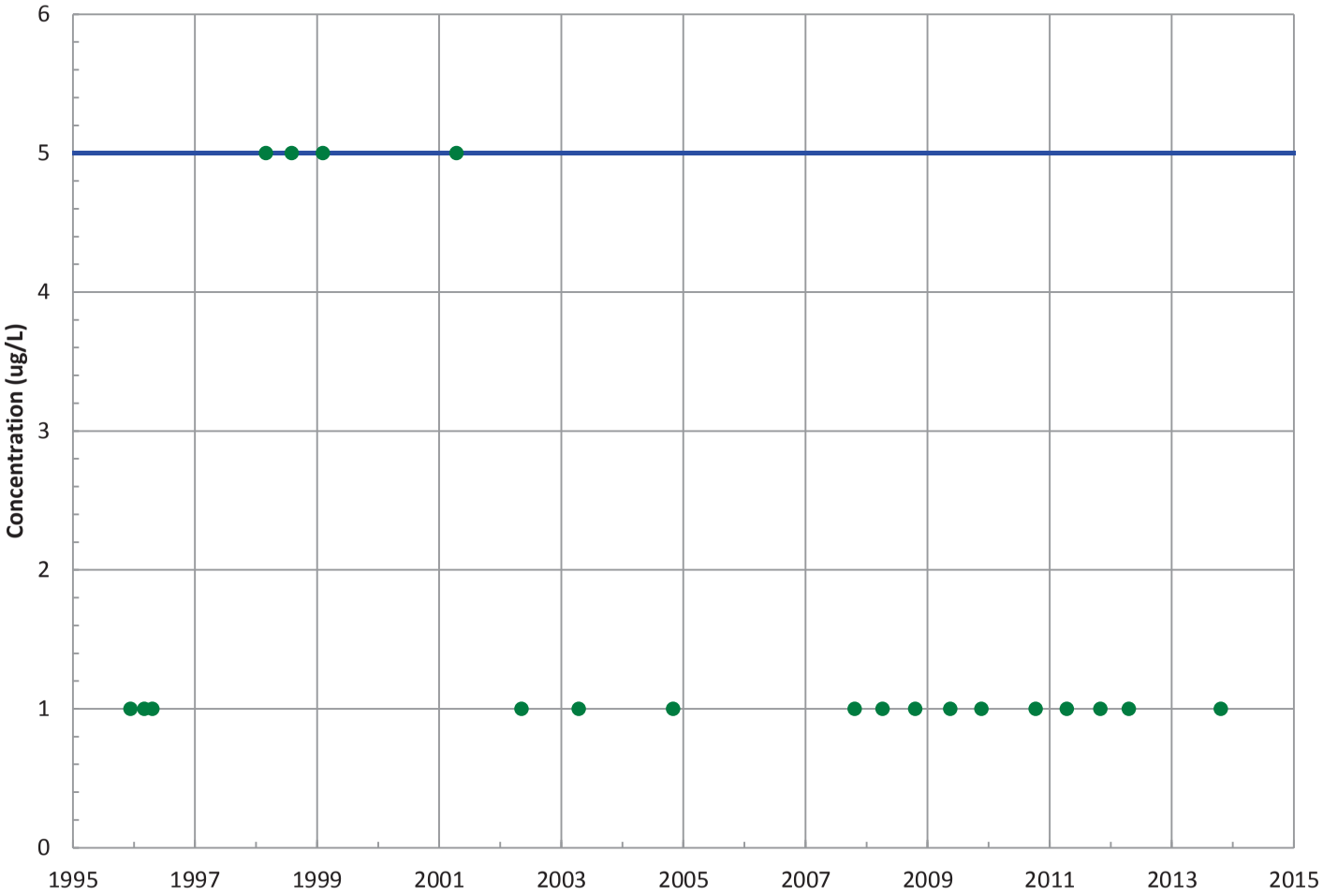
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 12/14/1995 to 11/4/2013

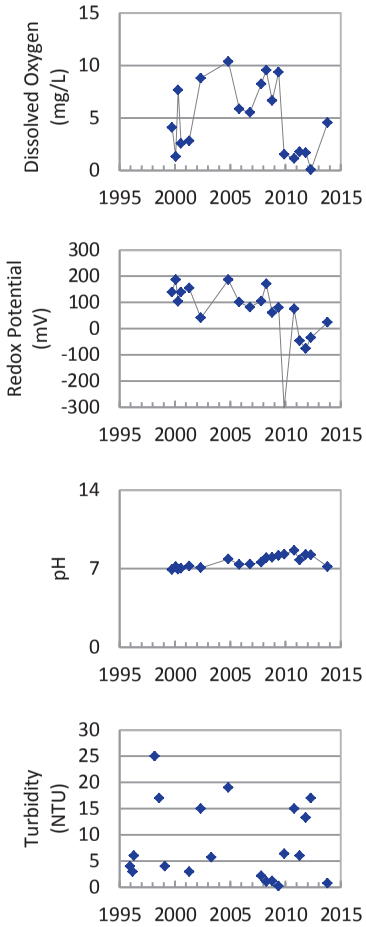
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1002
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



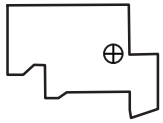
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

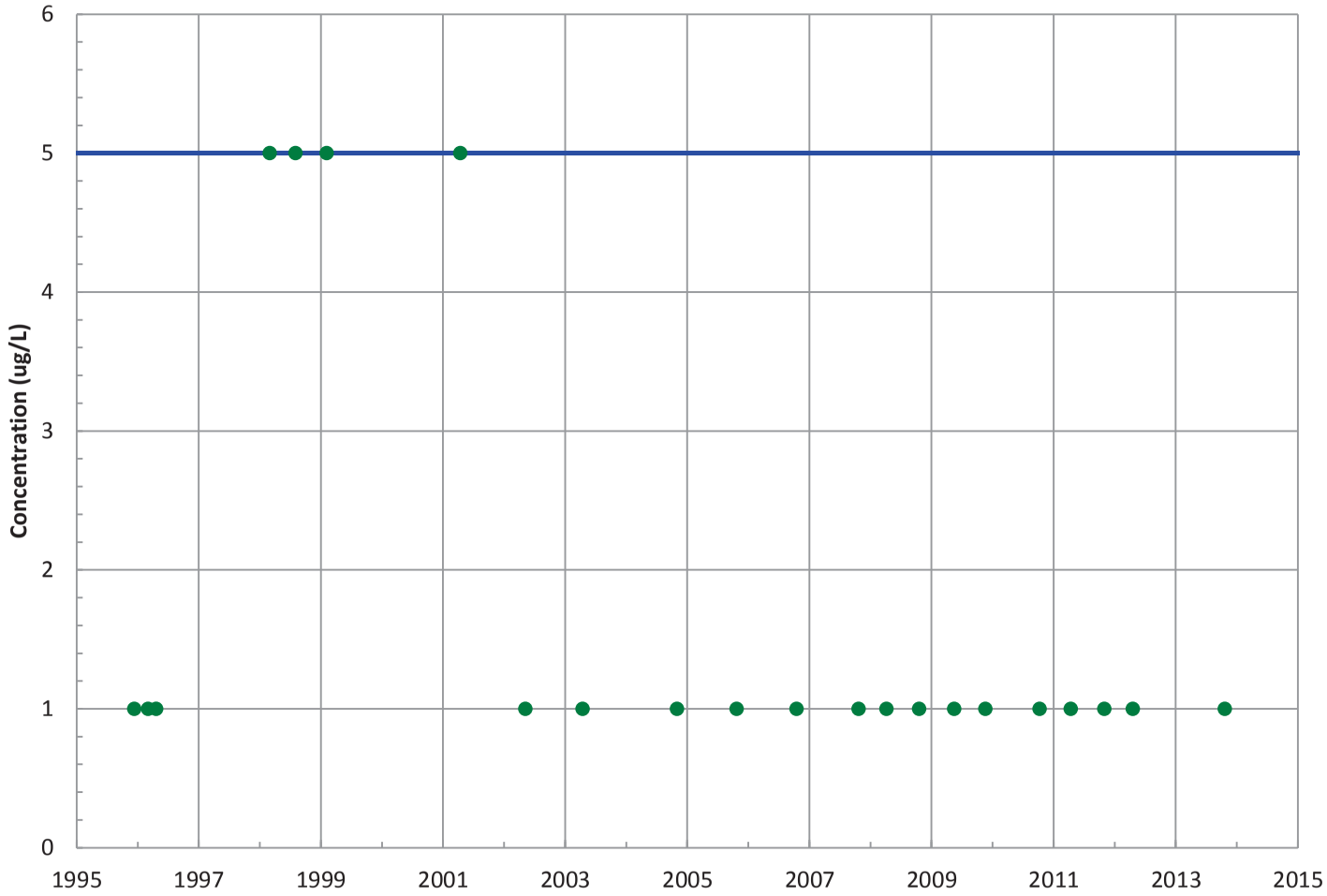
Well Location



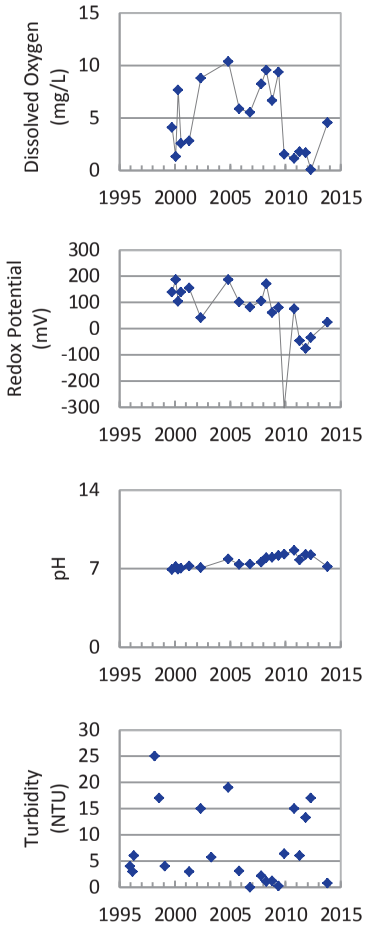
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/14/1995 to 11/4/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1002
Trichloroethene Trend in Perched Aquifer



Field Parameters



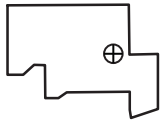
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

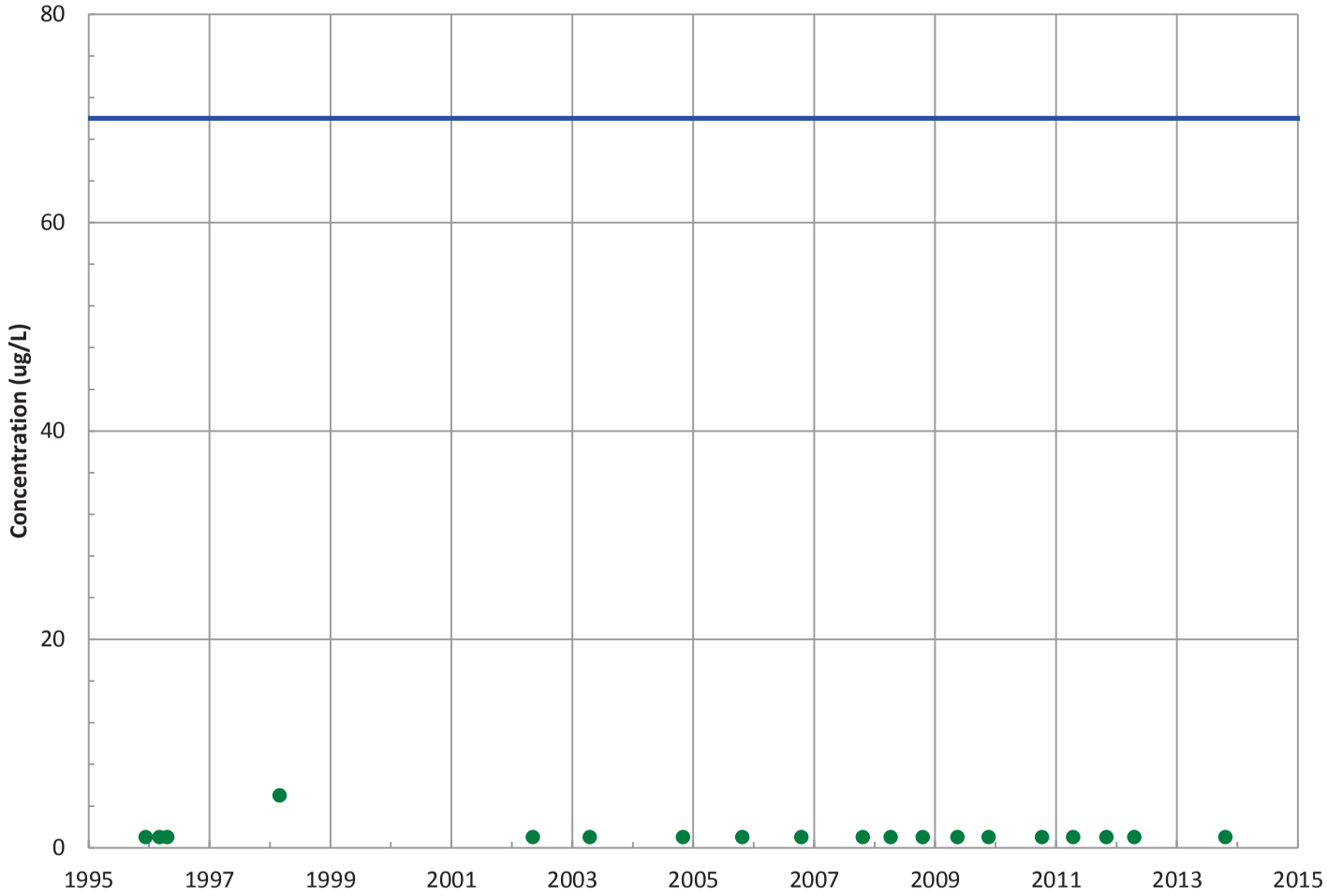
Well Location



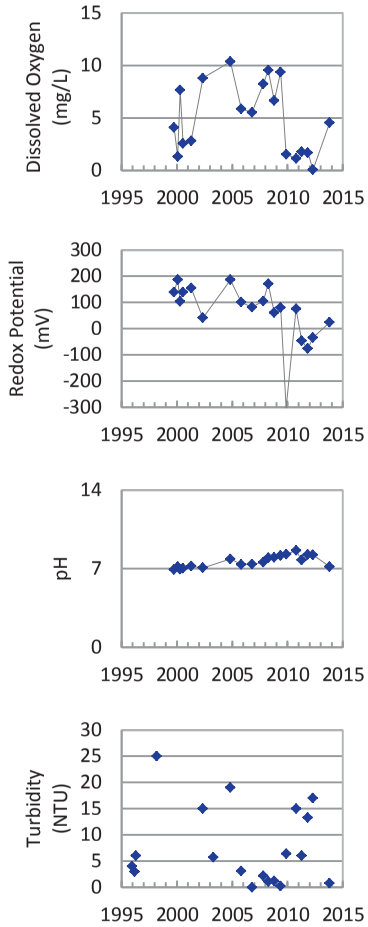
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/14/1995 to 11/4/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1002
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



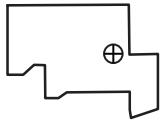
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

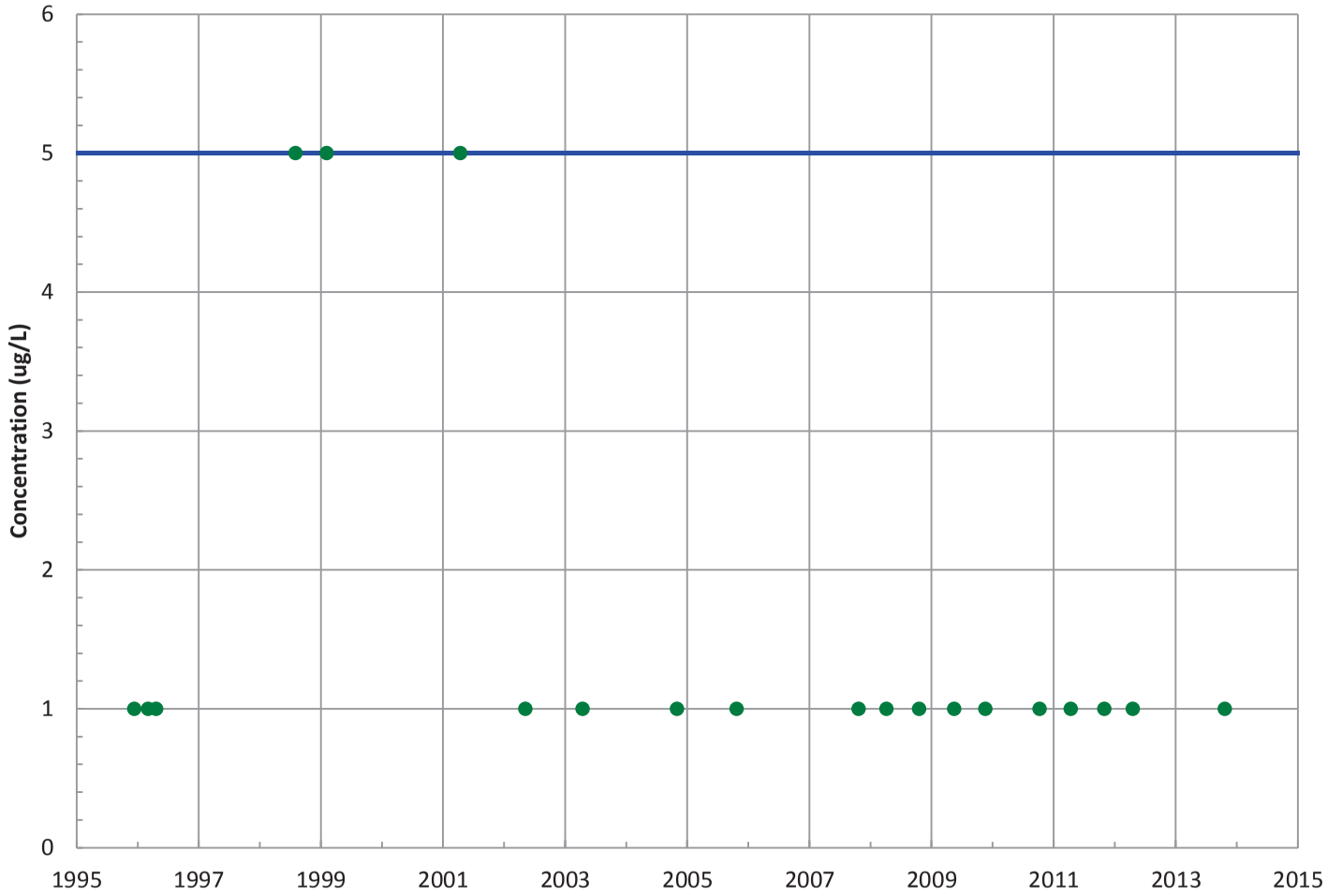
Well Location



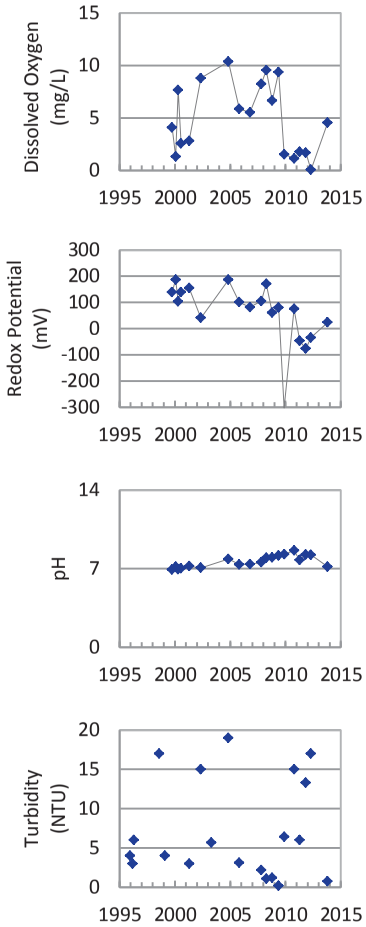
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/14/1995 to 11/4/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1002
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



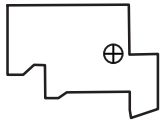
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

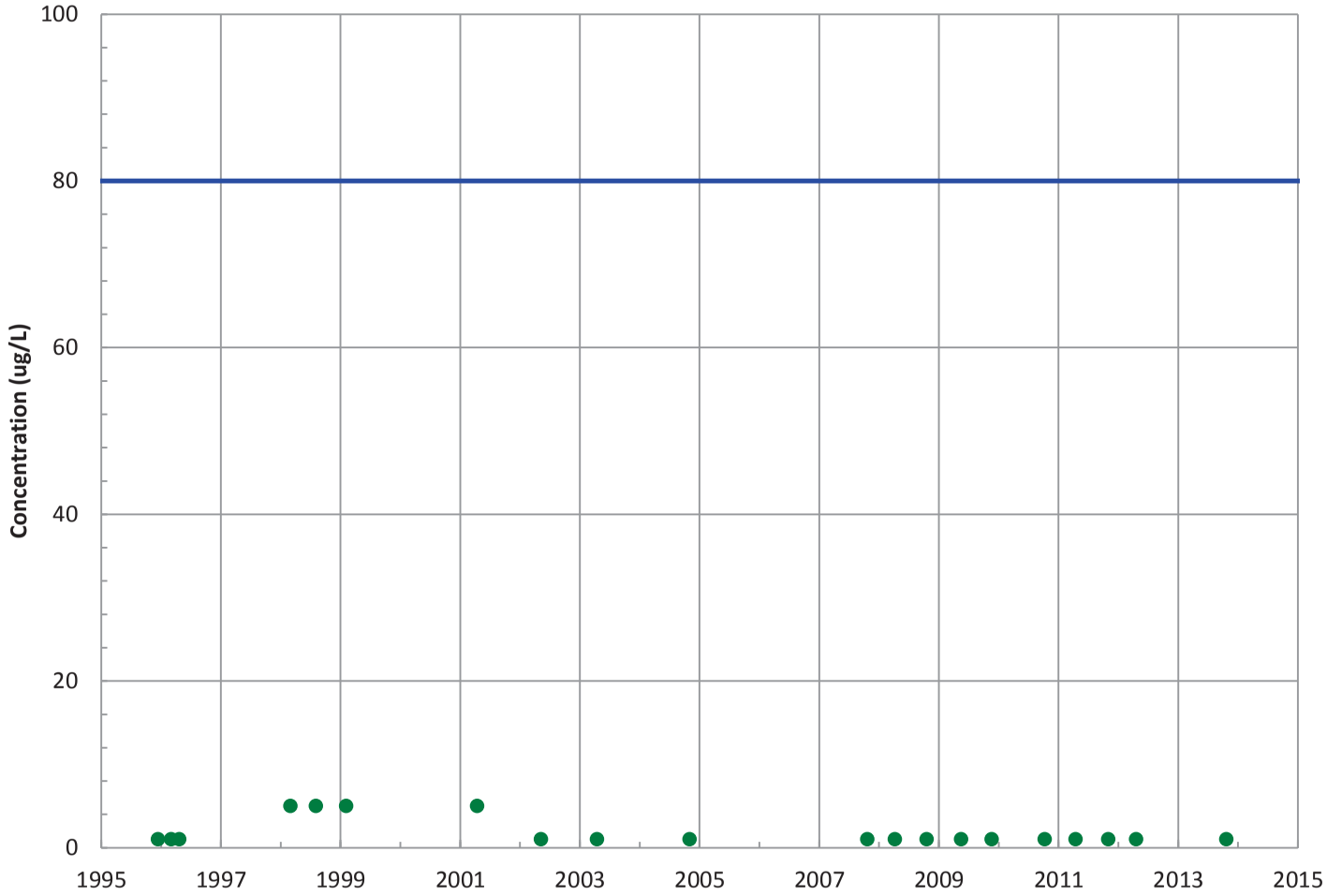
Well Location



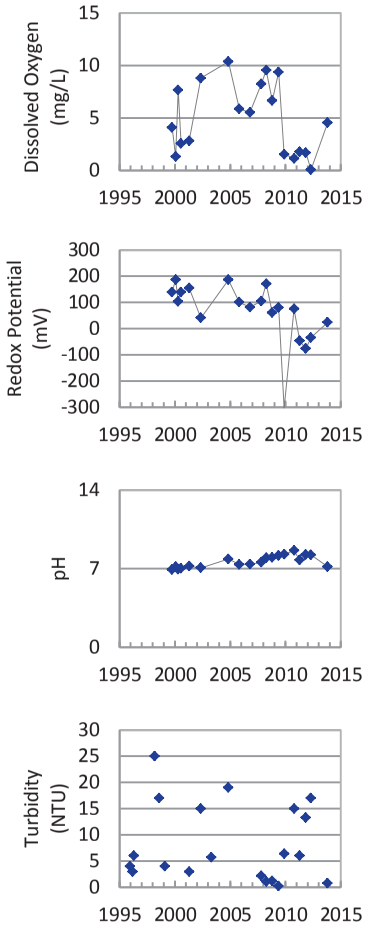
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/14/1995 to 11/4/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1002
Chloroform Trend in Perched Aquifer



Field Parameters



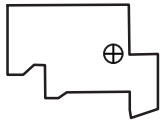
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

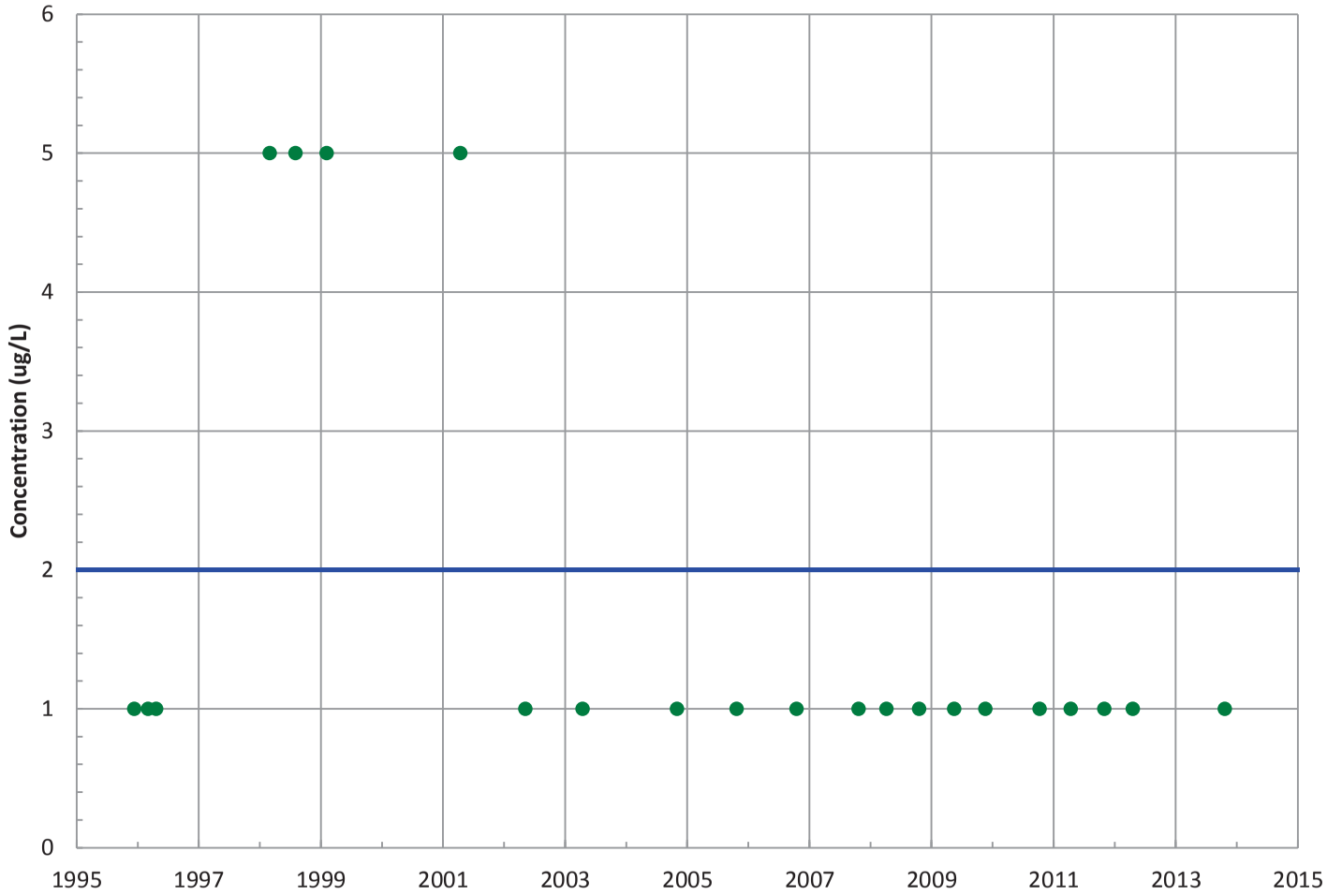
Well Location



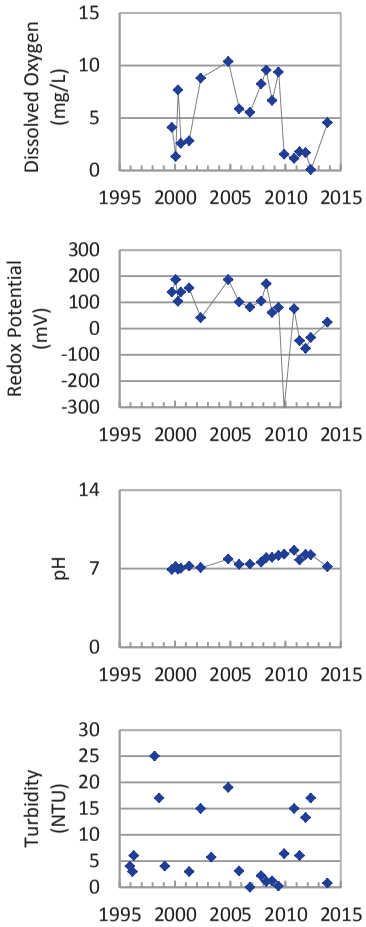
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/14/1995 to 11/4/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1002
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



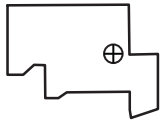
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

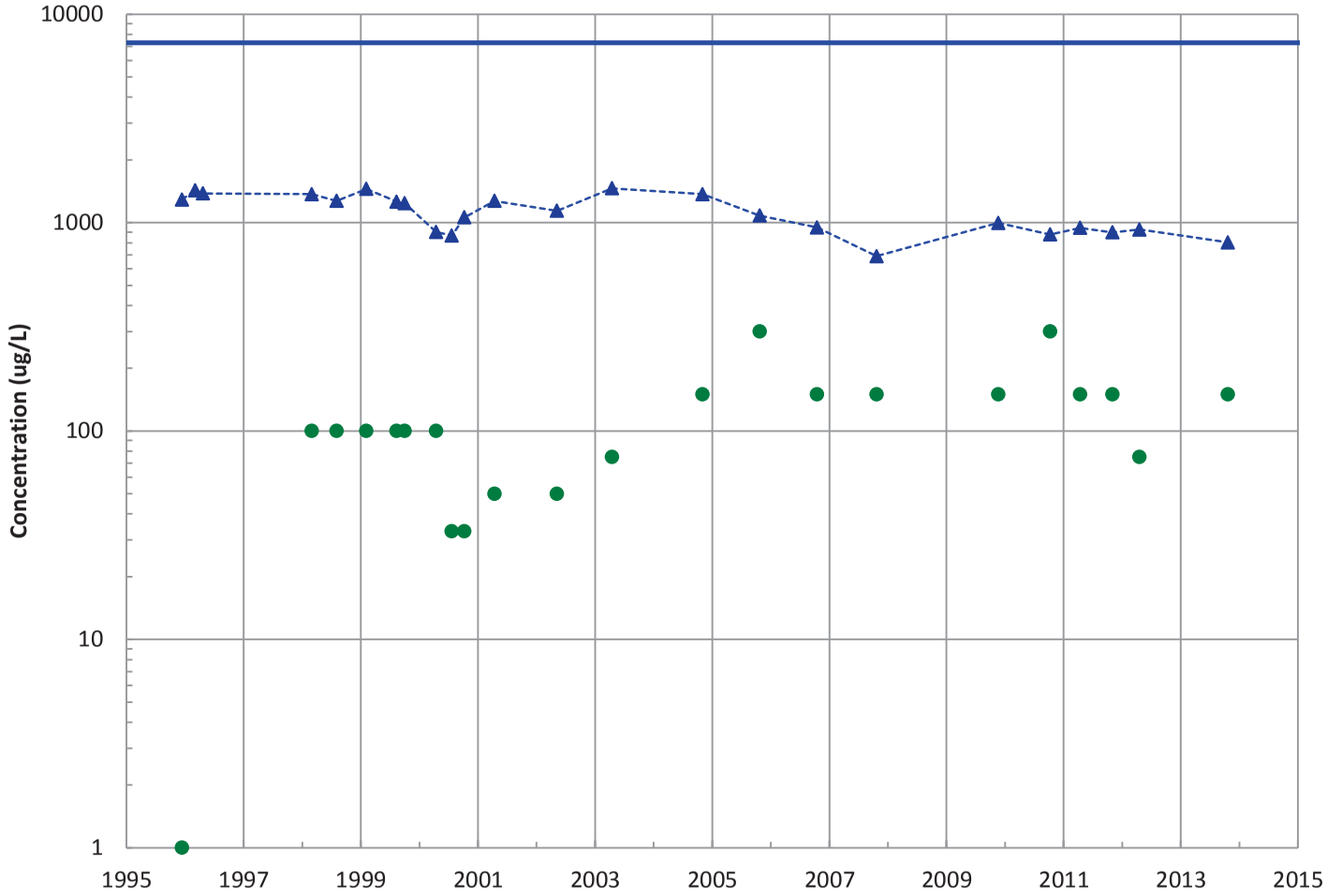
Well Location



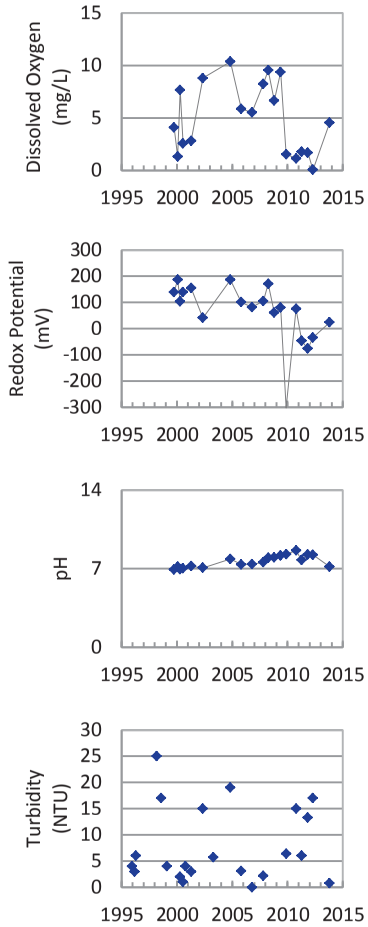
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/14/1995 to 11/4/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1002
Boron Trend in Perched Aquifer



Field Parameters



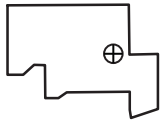
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

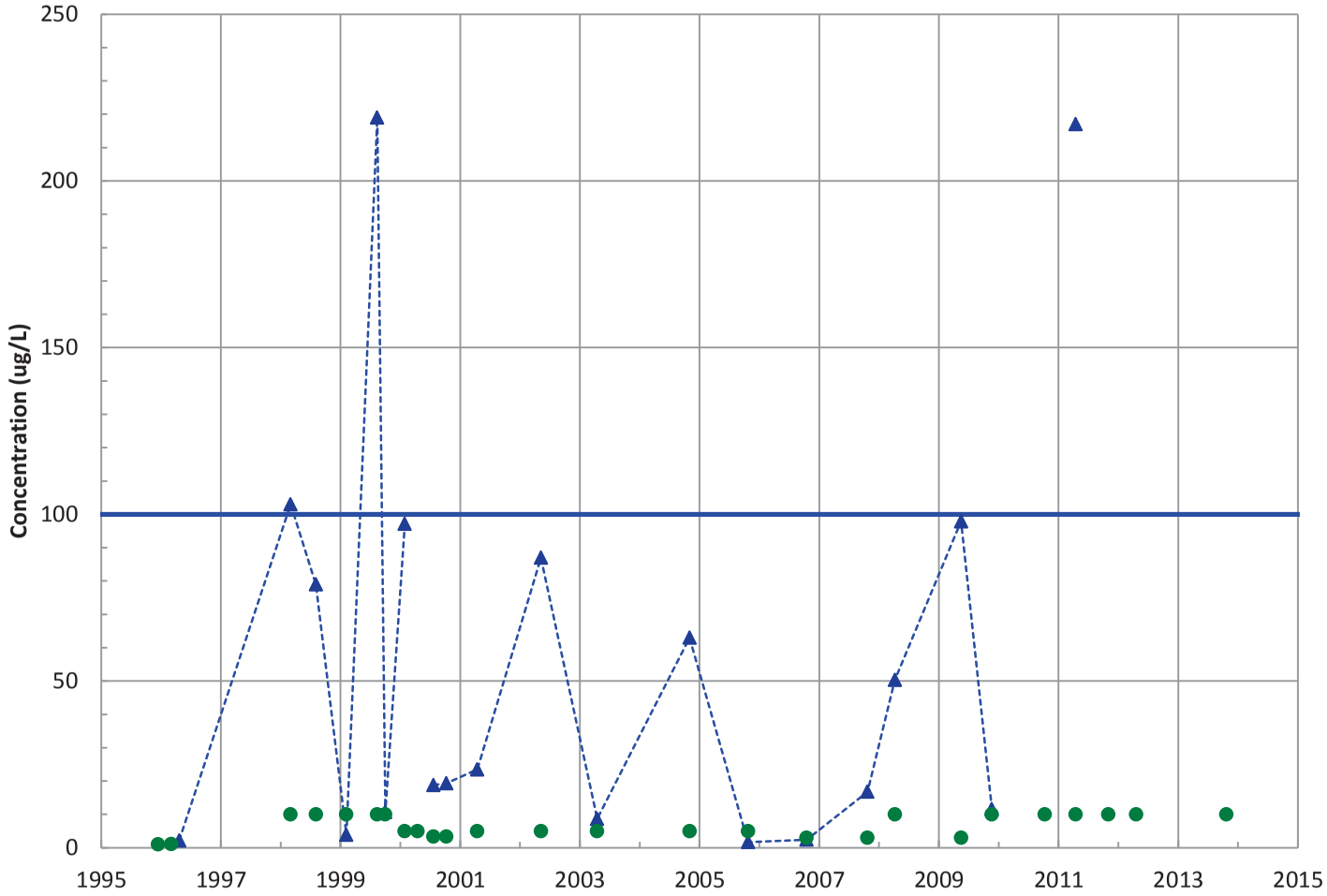
Well Location



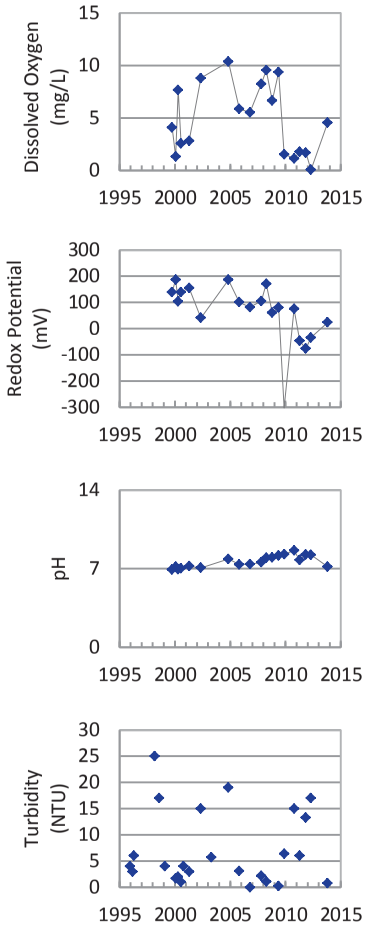
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/14/1995 to 11/4/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1002
Chromium, Total Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: N/A (<4 Detections in

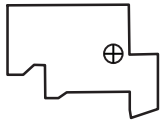
MAROS Linear Regression Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

Well Location



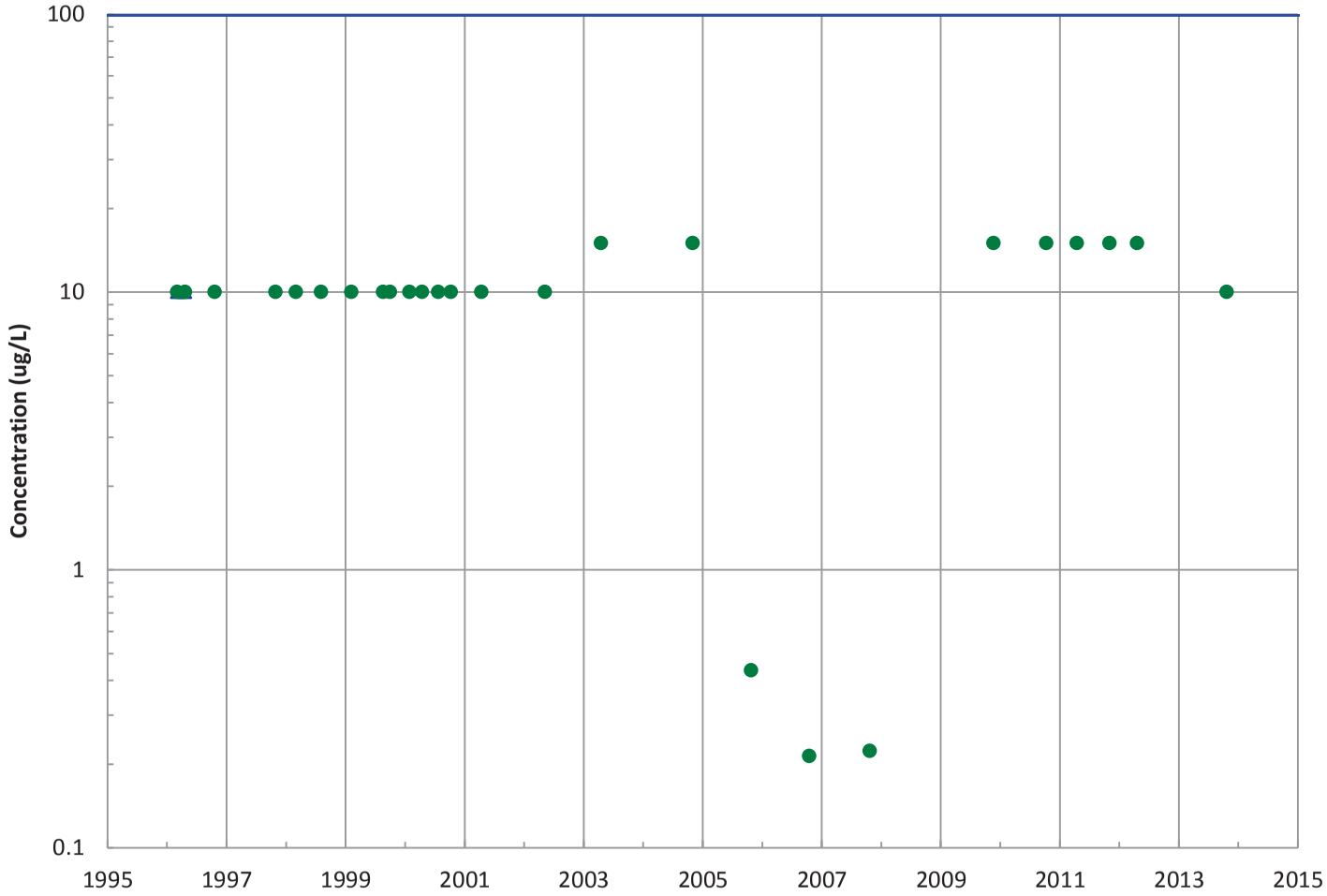
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 12/14/1995 to 11/4/2013

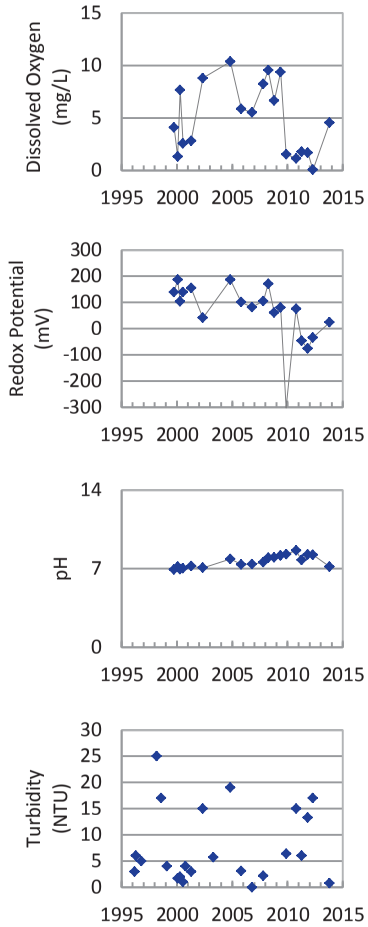
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1002
Chromium, Hexavalent Trend in Perched Aquifer



Field Parameters



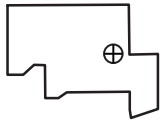
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

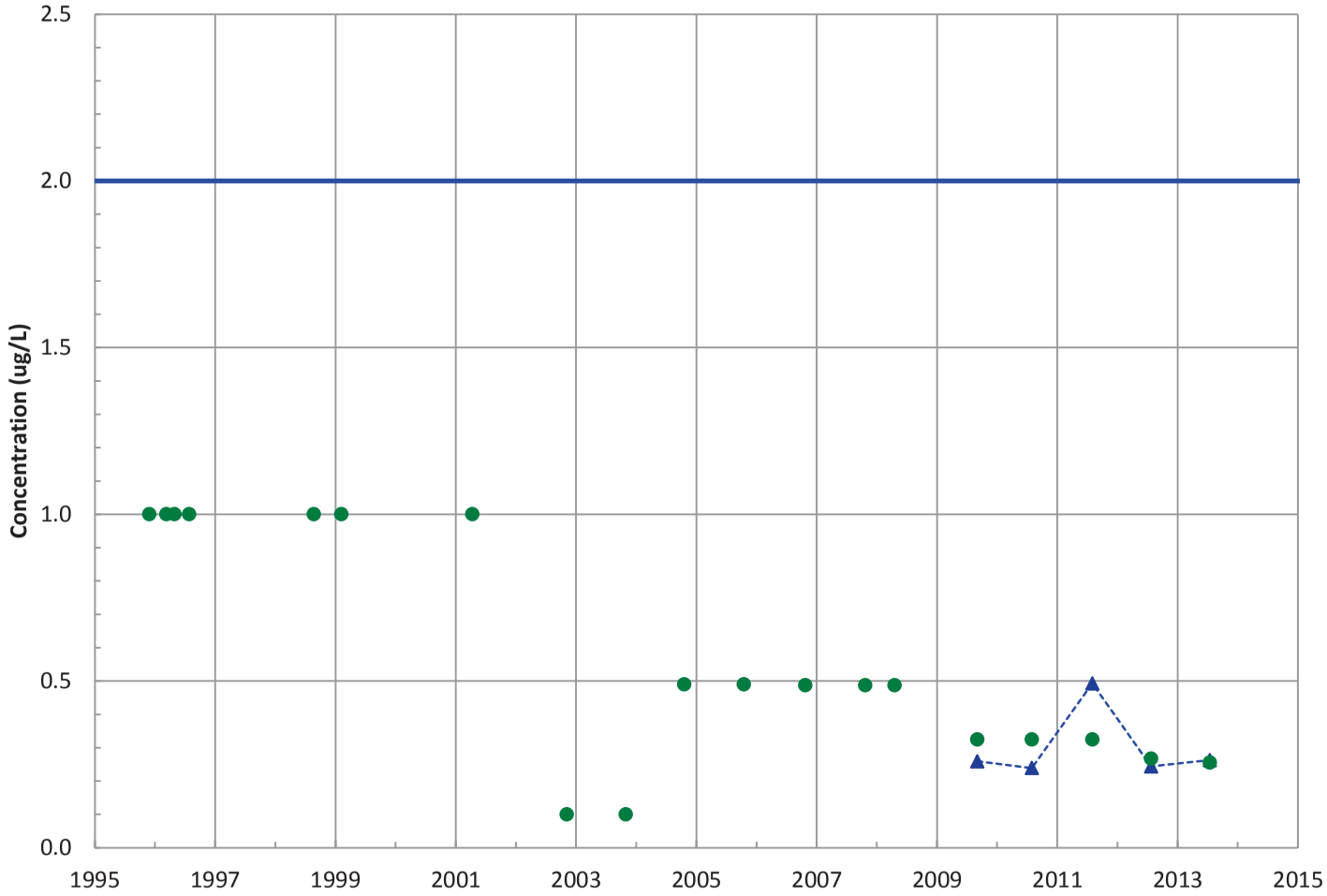
Well Location



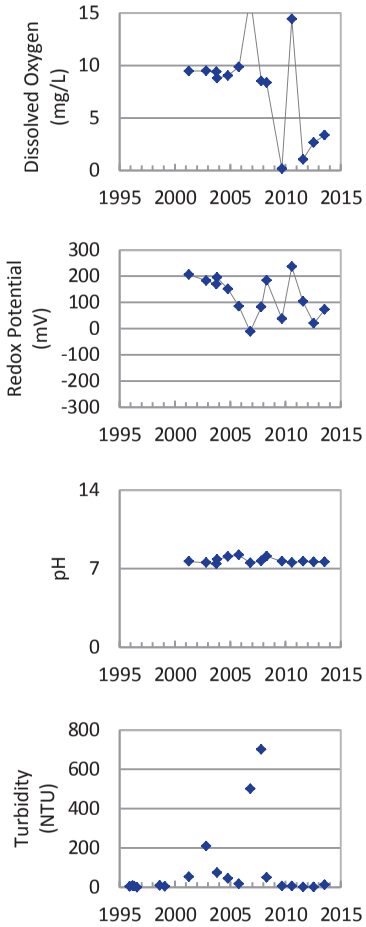
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/5/1996 to 11/4/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1003
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



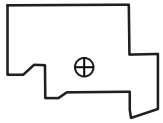
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

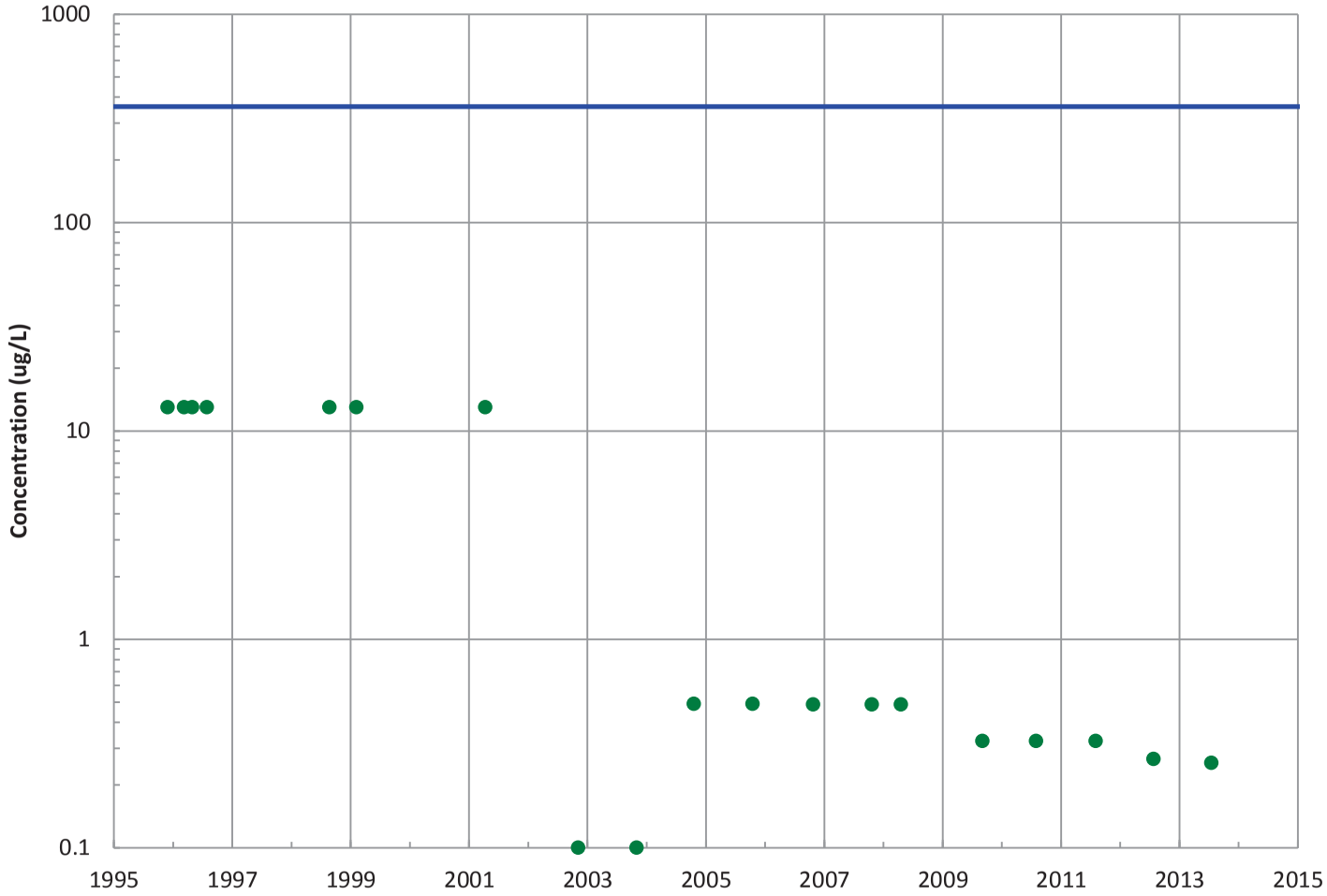
Well Location



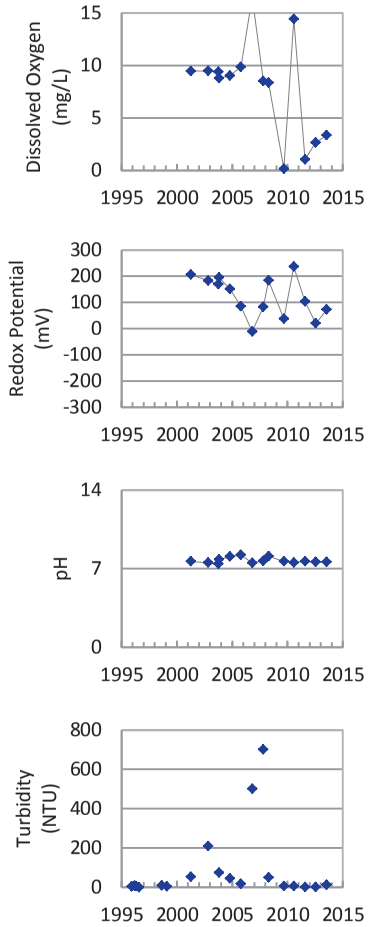
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/29/1995 to 7/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1003
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



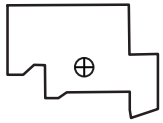
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

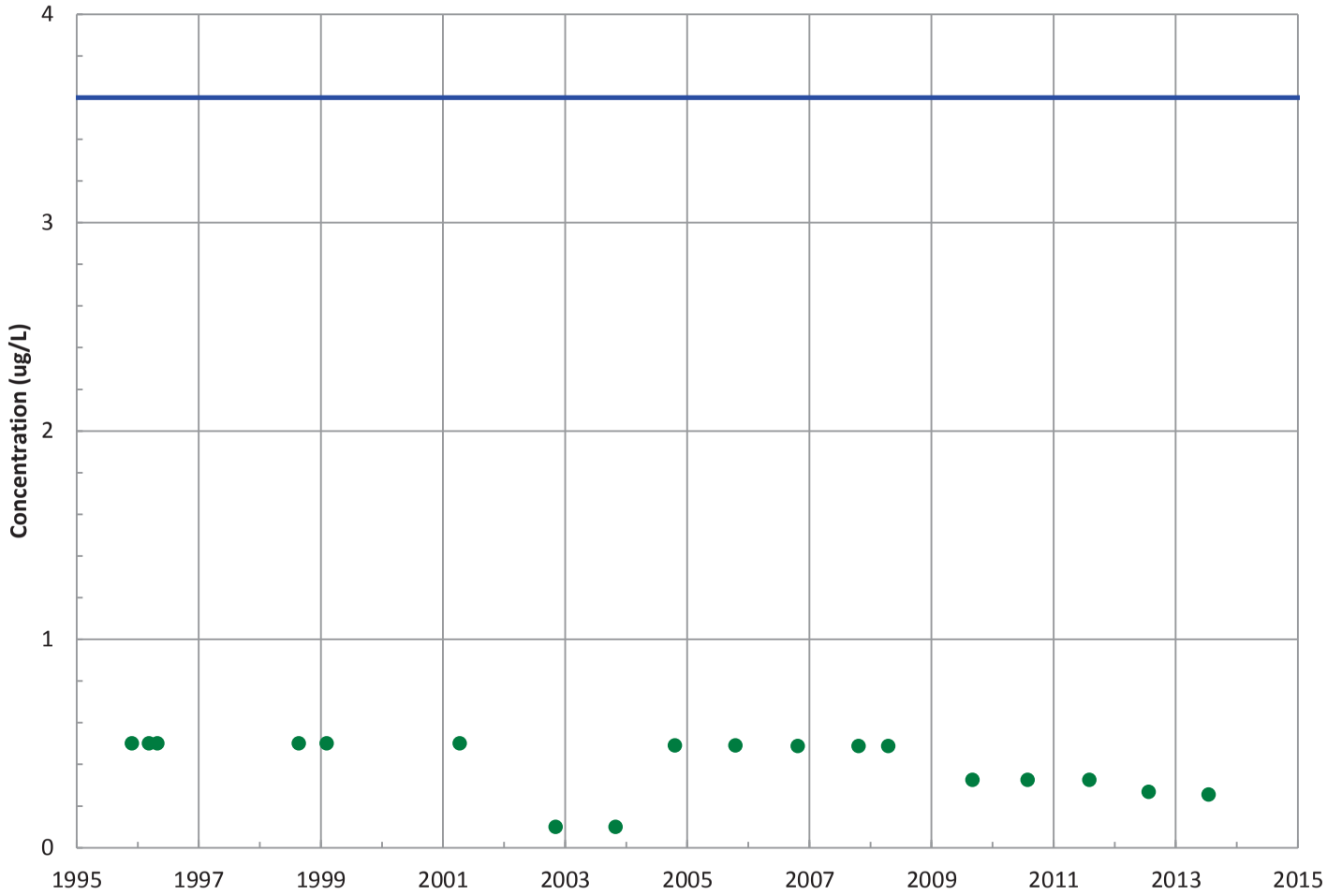
Well Location



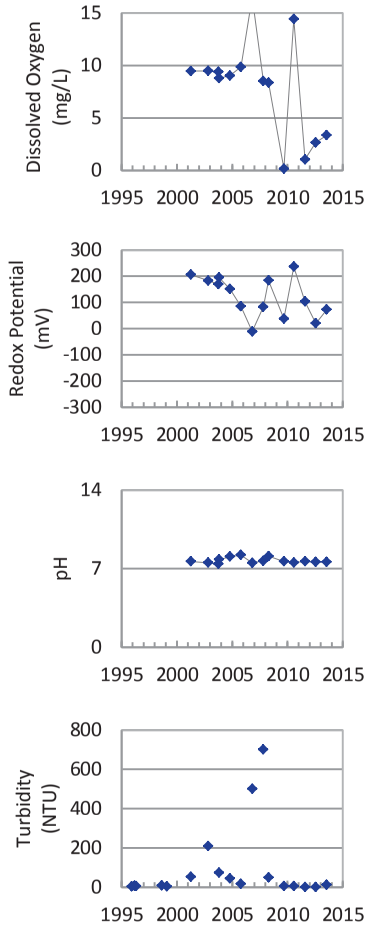
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/29/1995 to 7/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1003
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



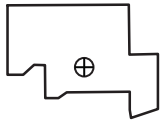
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

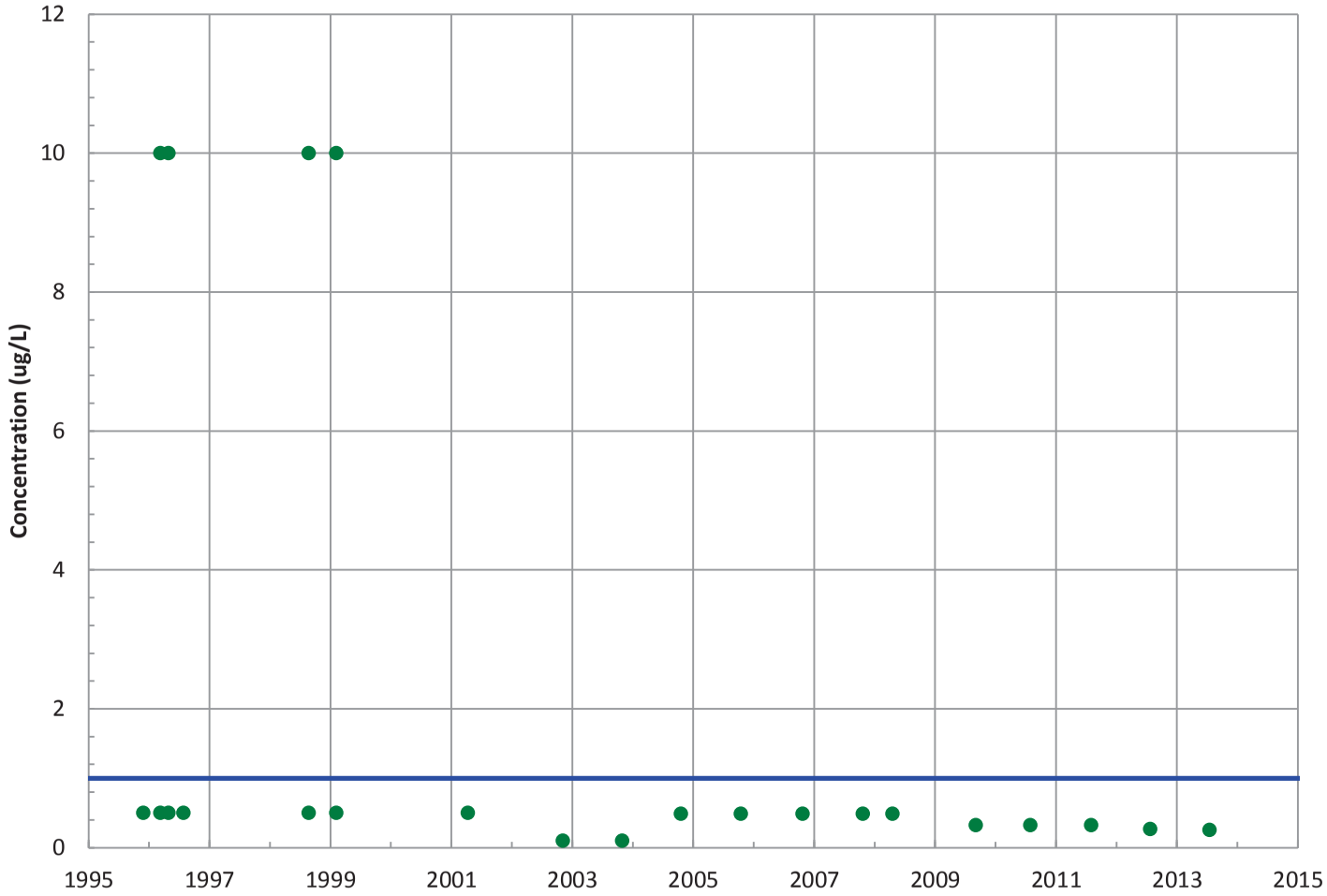
Well Location



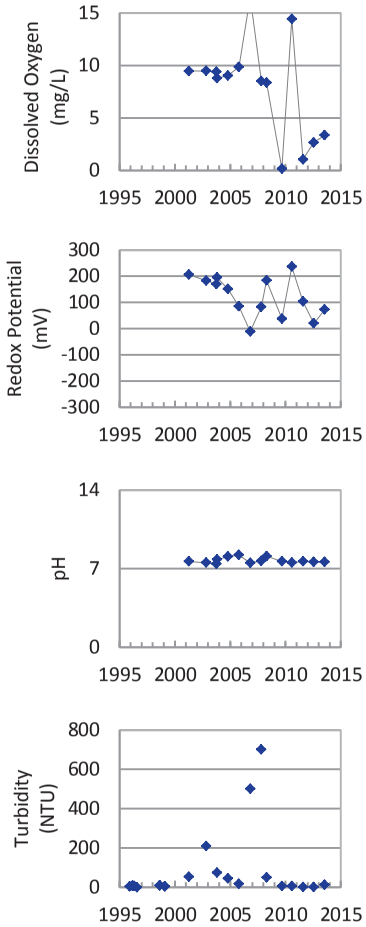
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/29/1995 to 7/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1003
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



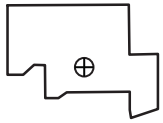
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

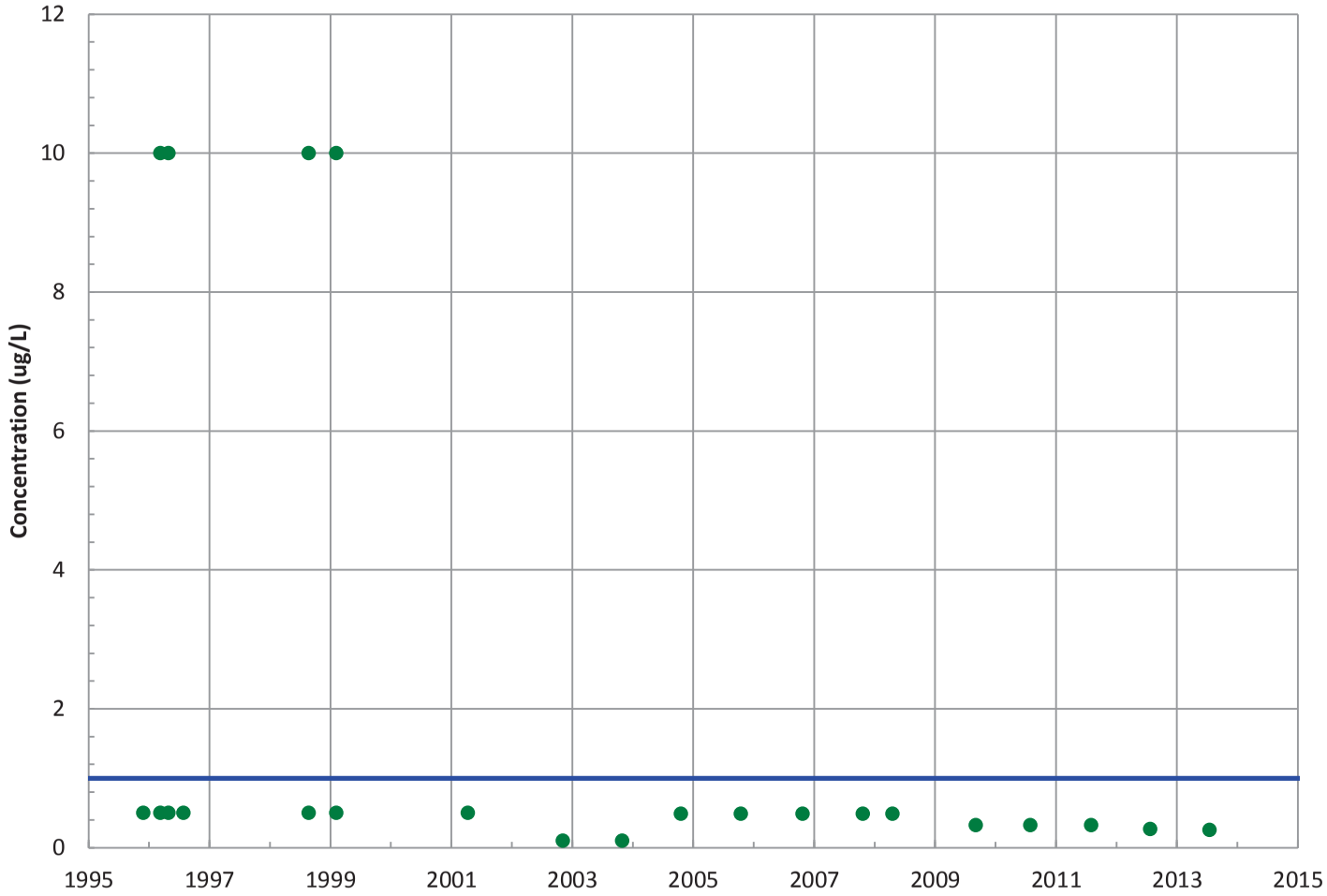
Well Location



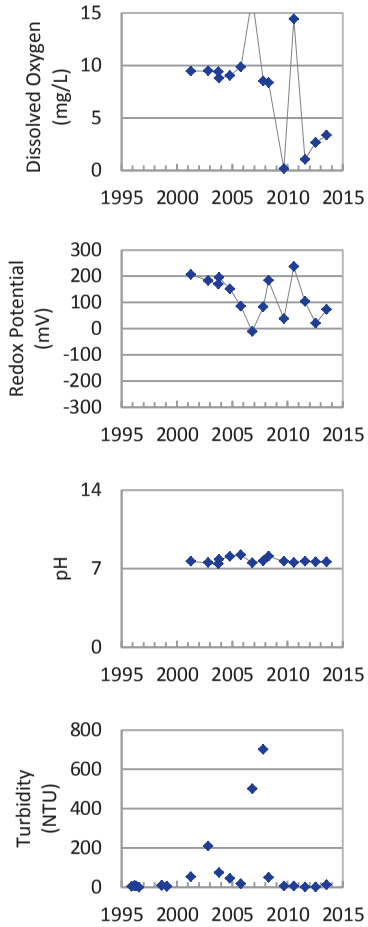
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/29/1995 to 7/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1003
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



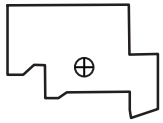
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

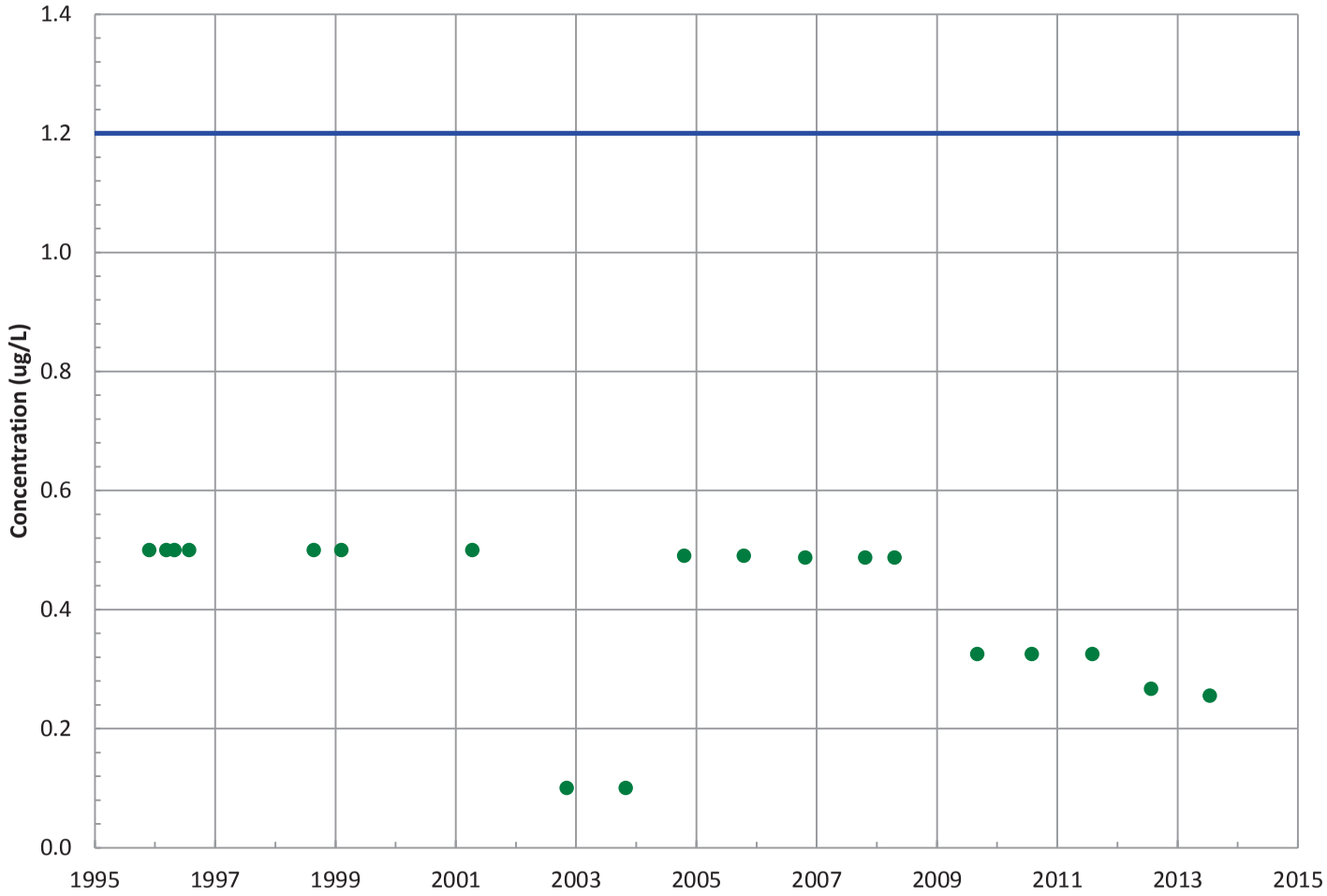
Well Location



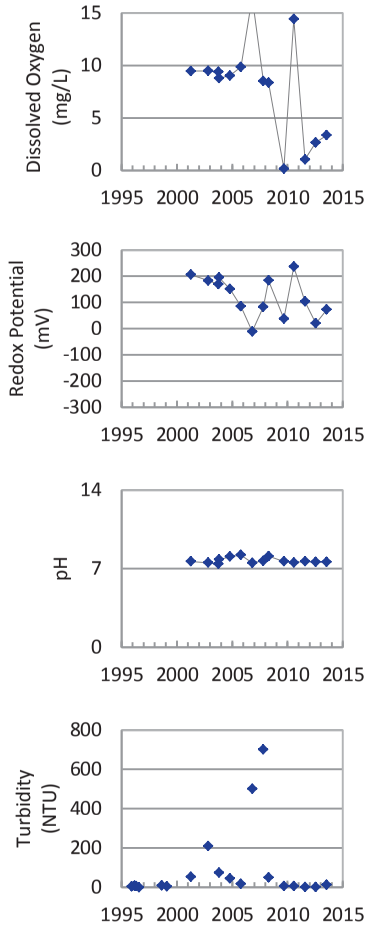
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/29/1995 to 7/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1003
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



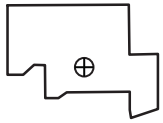
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

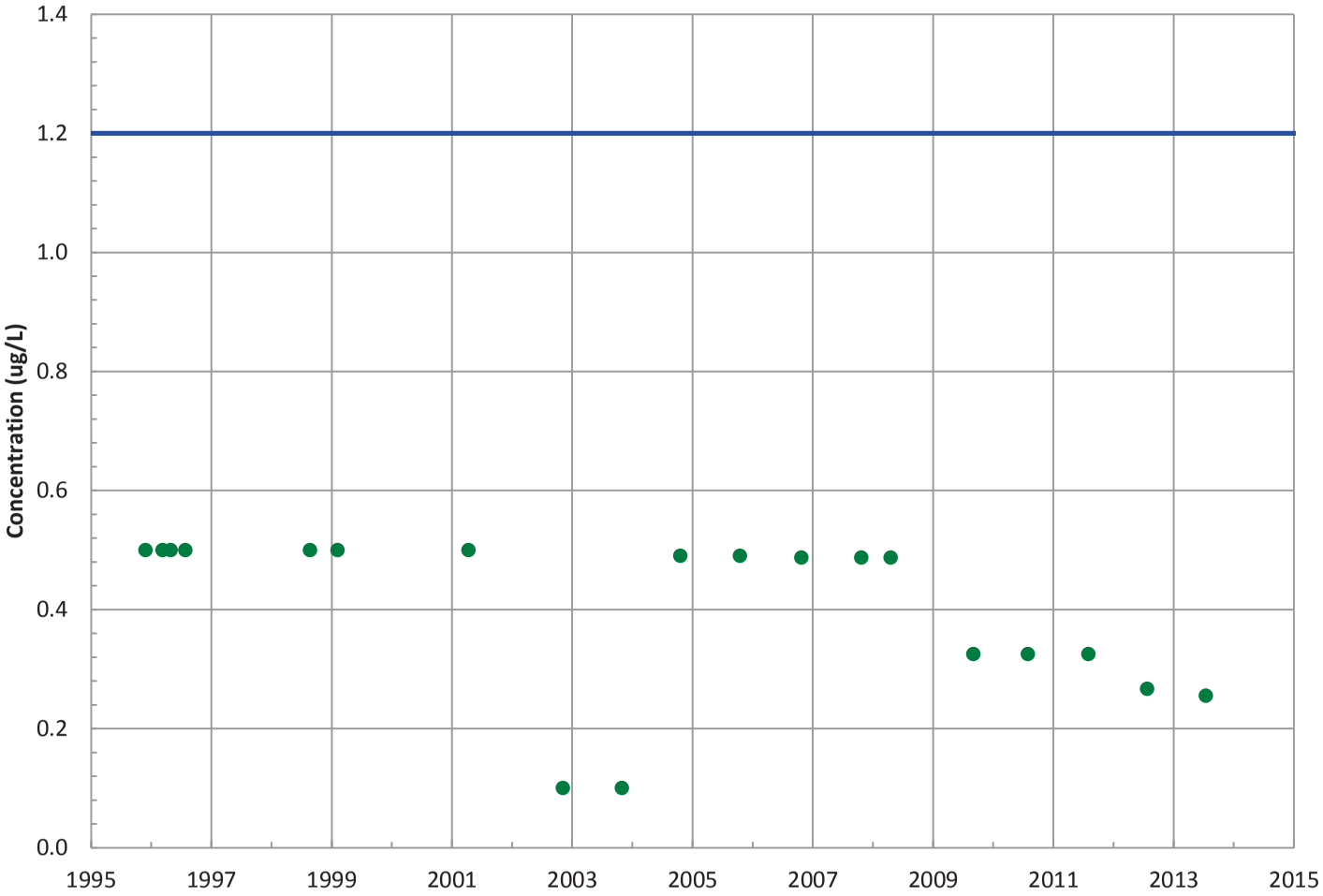
Well Location



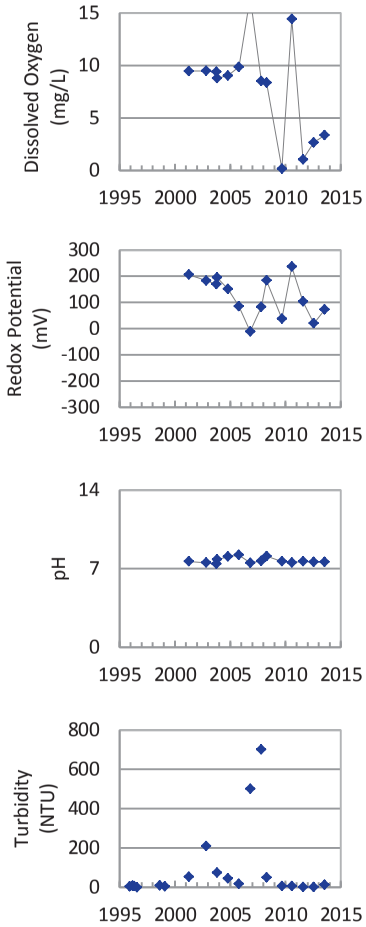
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/29/1995 to 7/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1003
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



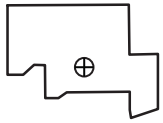
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

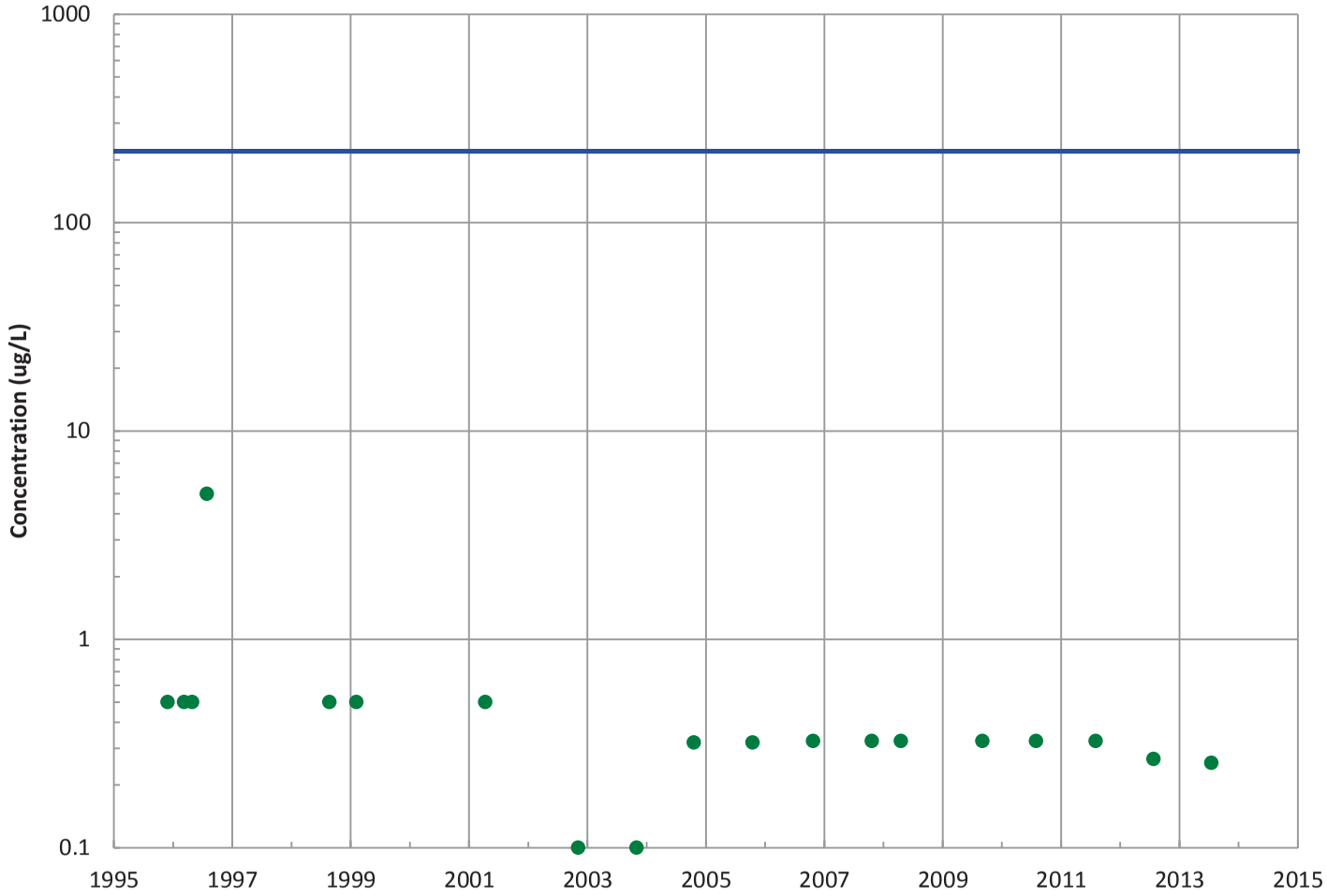
Well Location



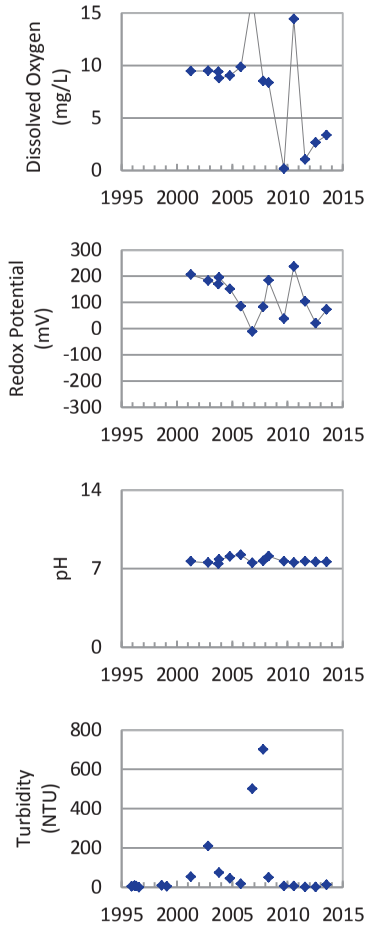
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/29/1995 to 7/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1003
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



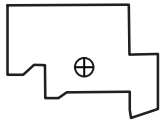
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

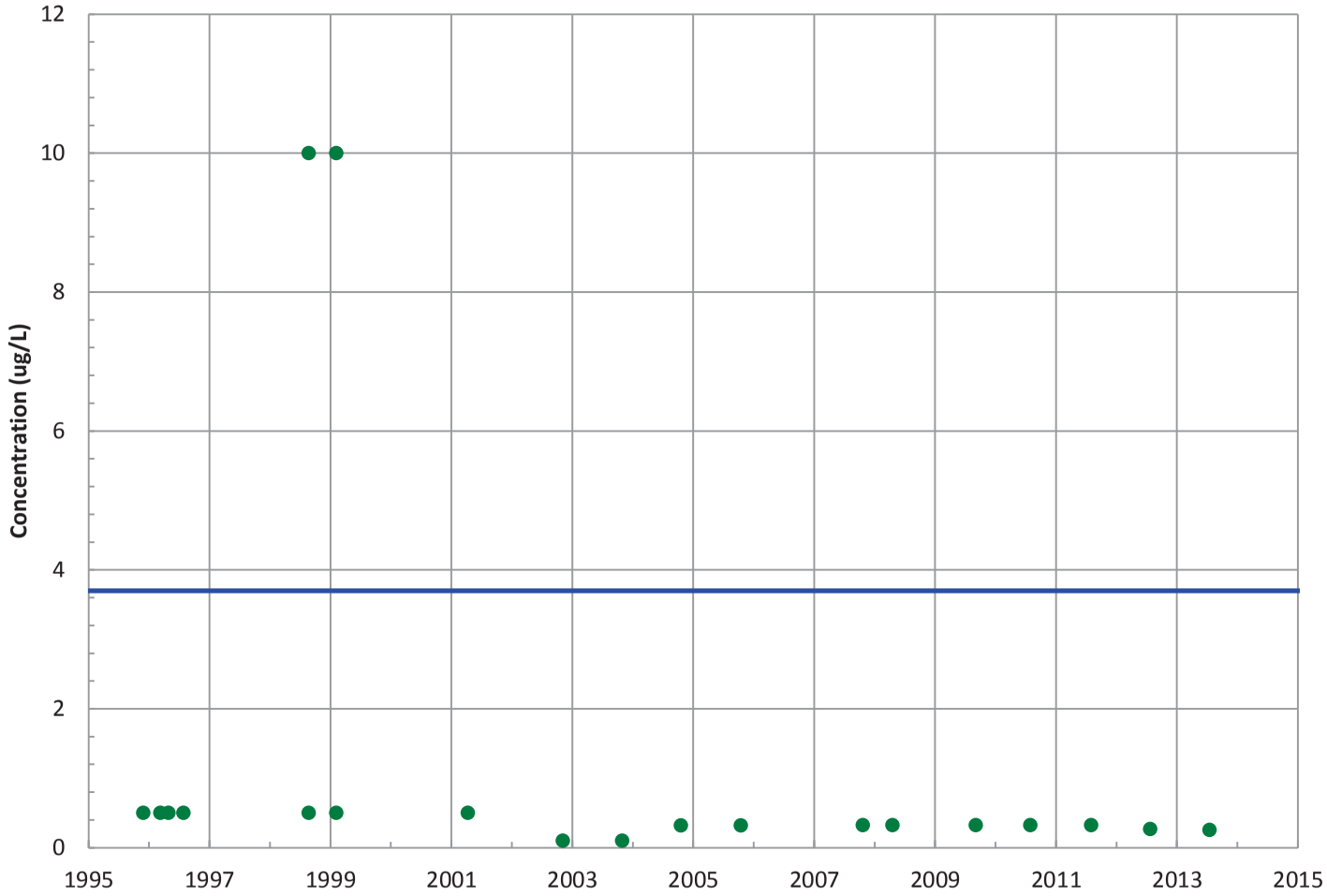
Well Location



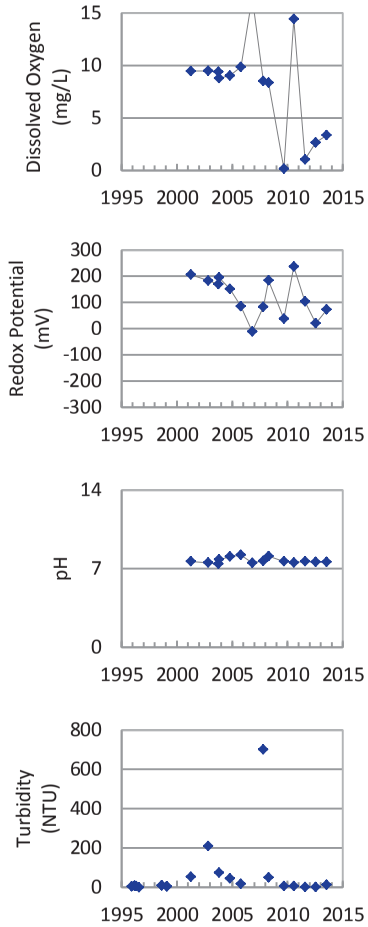
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/29/1995 to 7/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1003
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



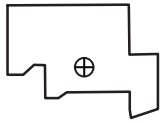
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

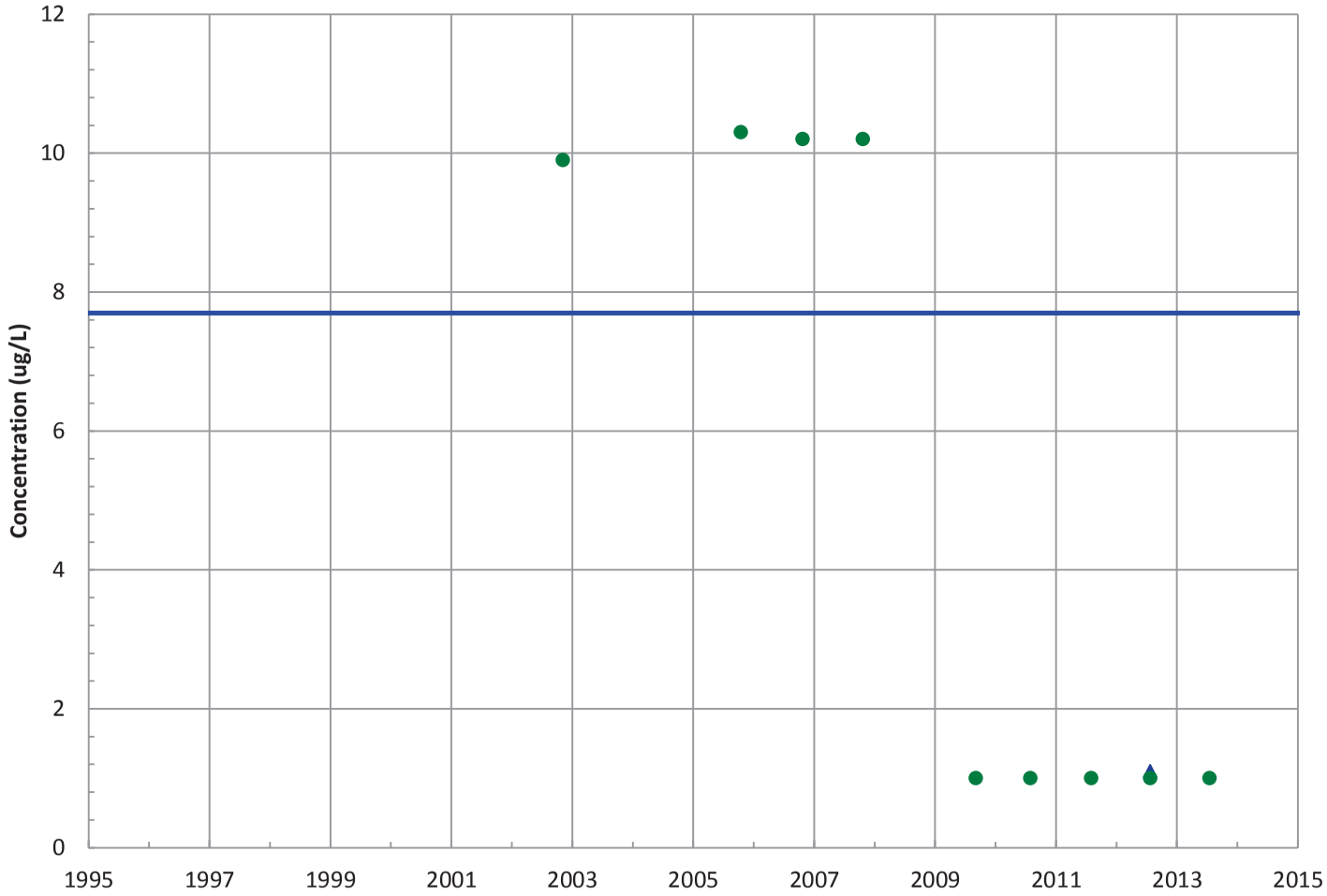
Well Location



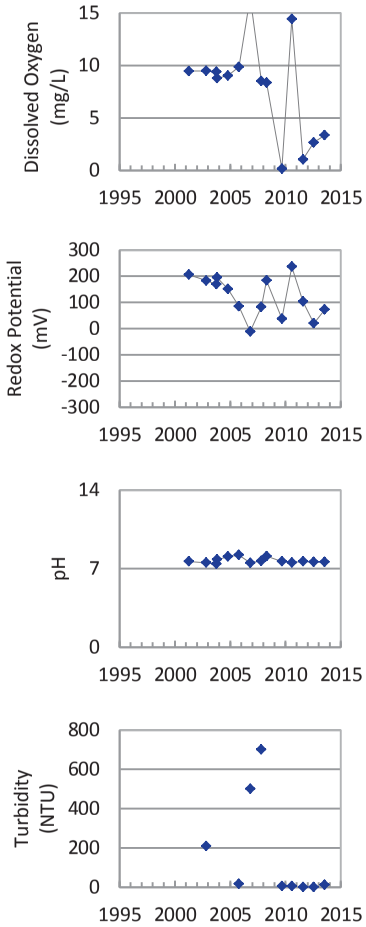
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/29/1995 to 7/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1003
1,4-Dioxane (p-Dioxane) Trend in Perched Aquifer



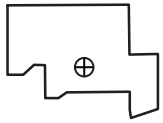
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

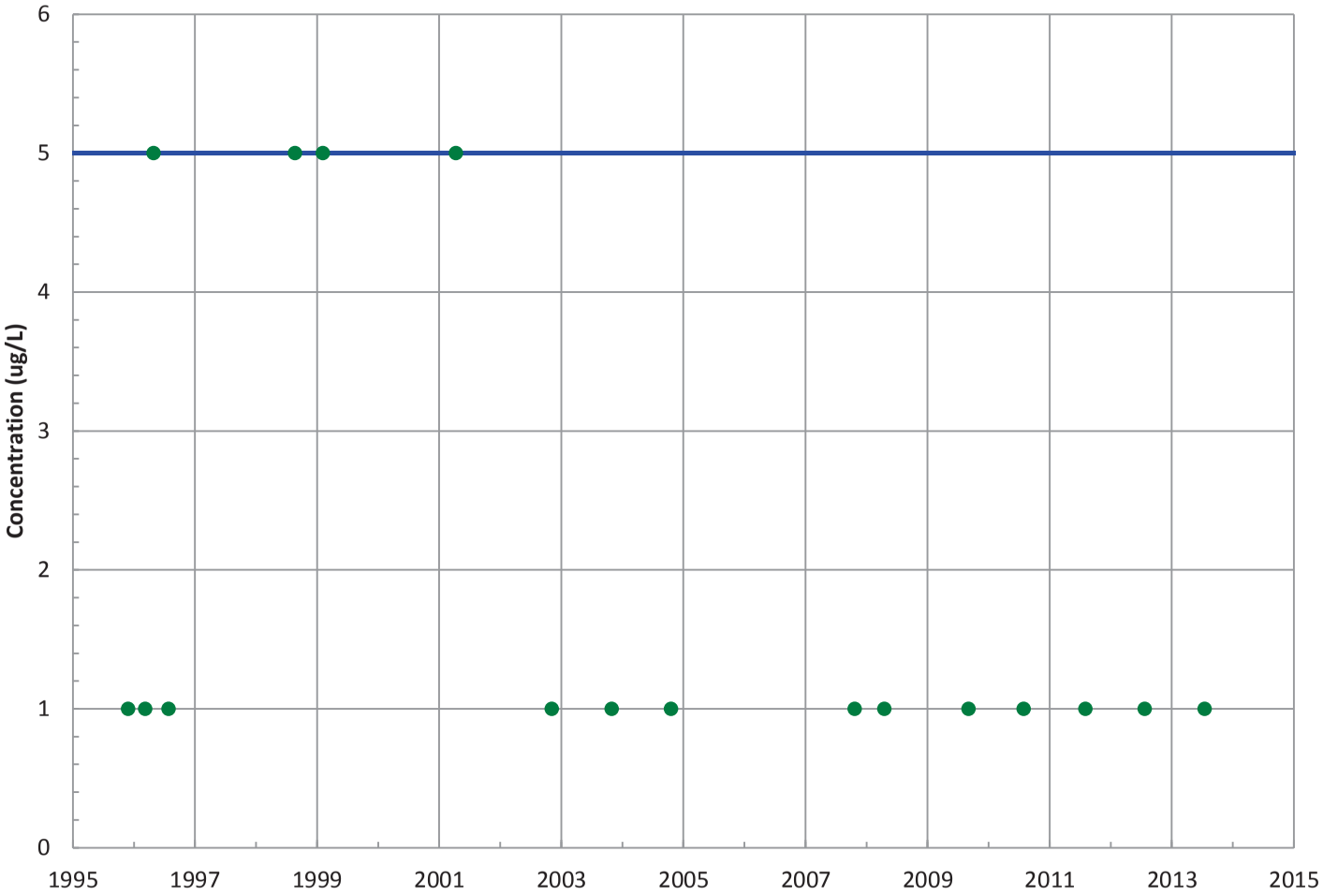
Well Location



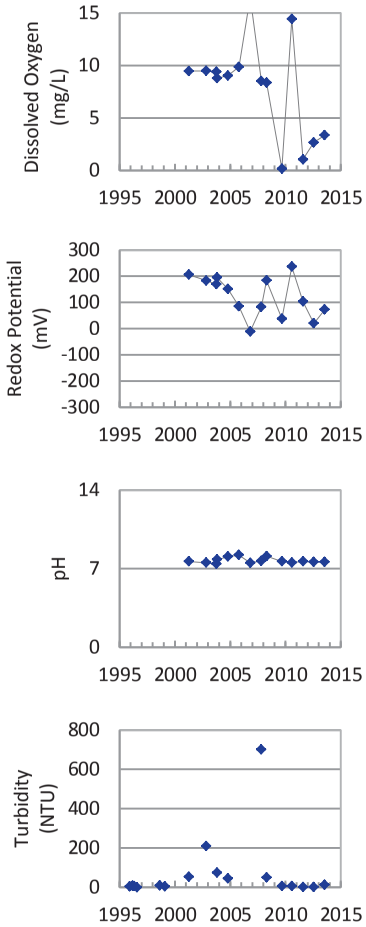
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/11/2002 to 7/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1003
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



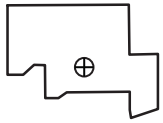
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

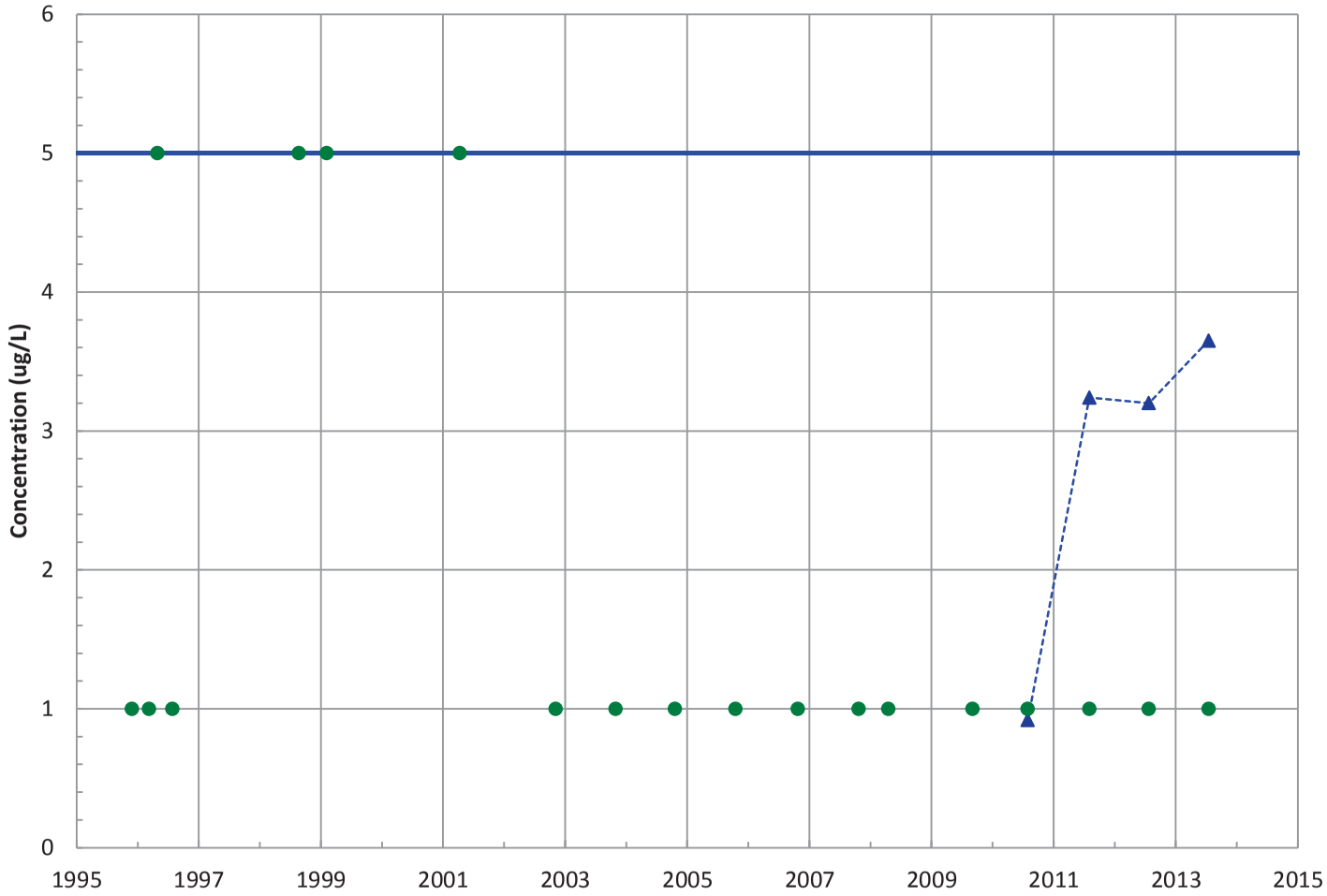
Well Location



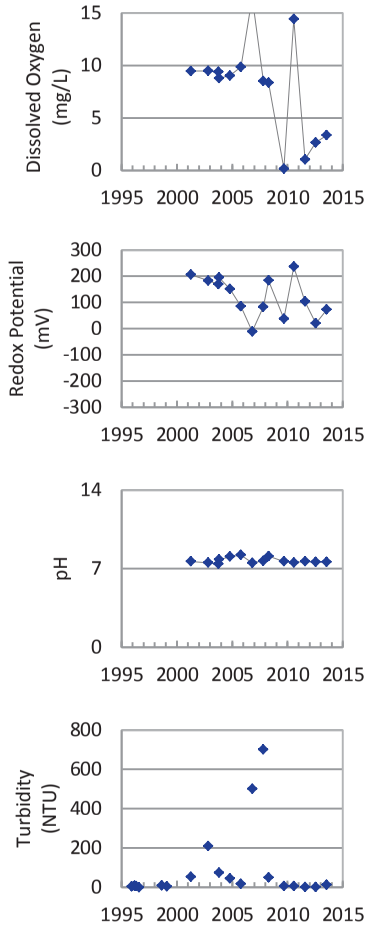
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/29/1995 to 7/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1003
Trichloroethene Trend in Perched Aquifer



Field Parameters



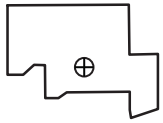
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Probably Increasing
2011 - 2013 Data: Probably Increasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

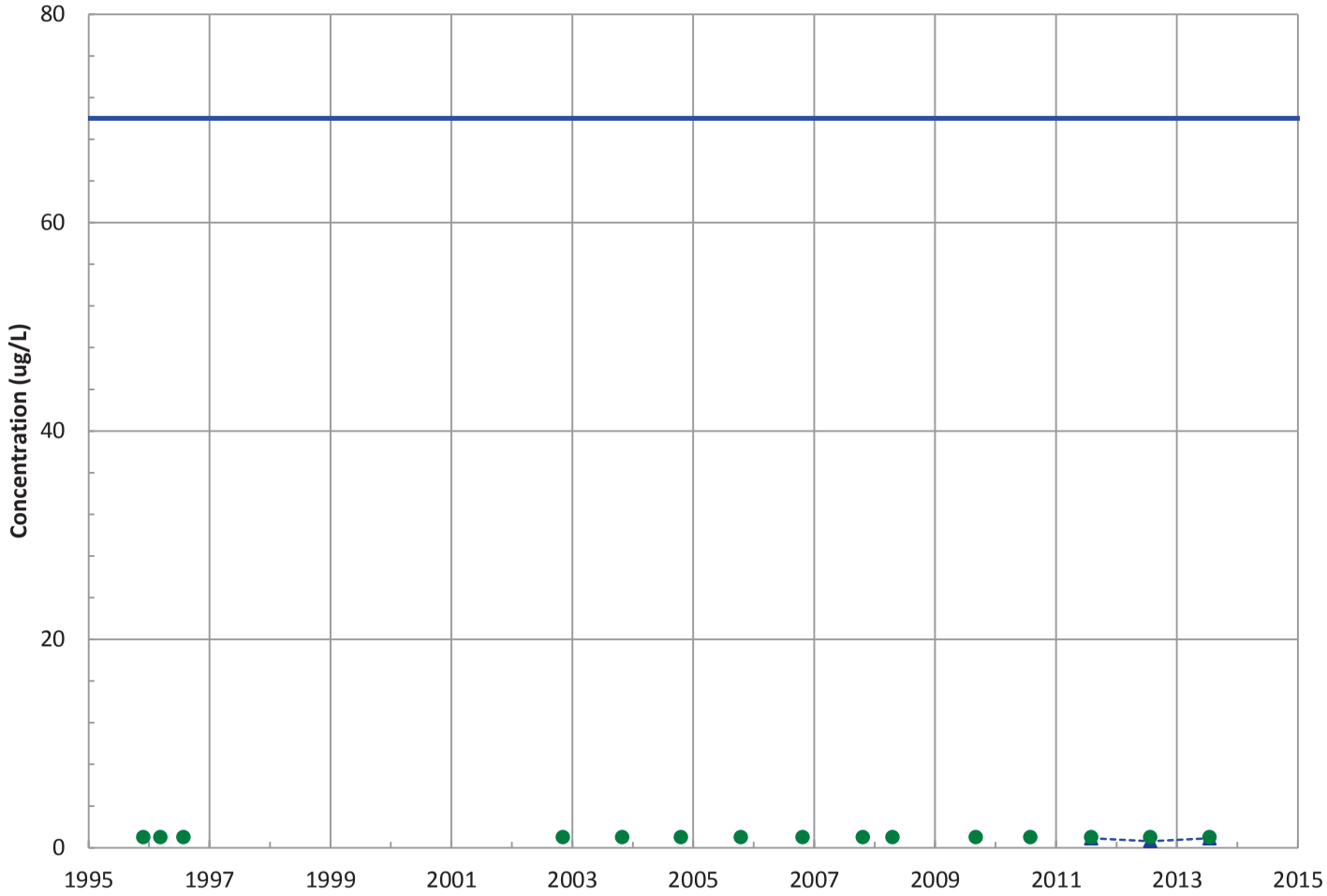
Well Location



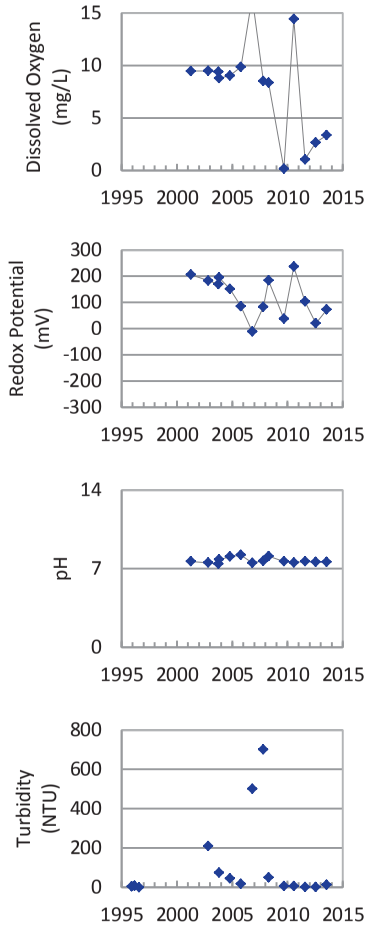
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/29/1995 to 7/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1003
cis-1,2-Dichloroethene Trend in Perched Aquifer



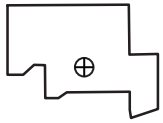
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

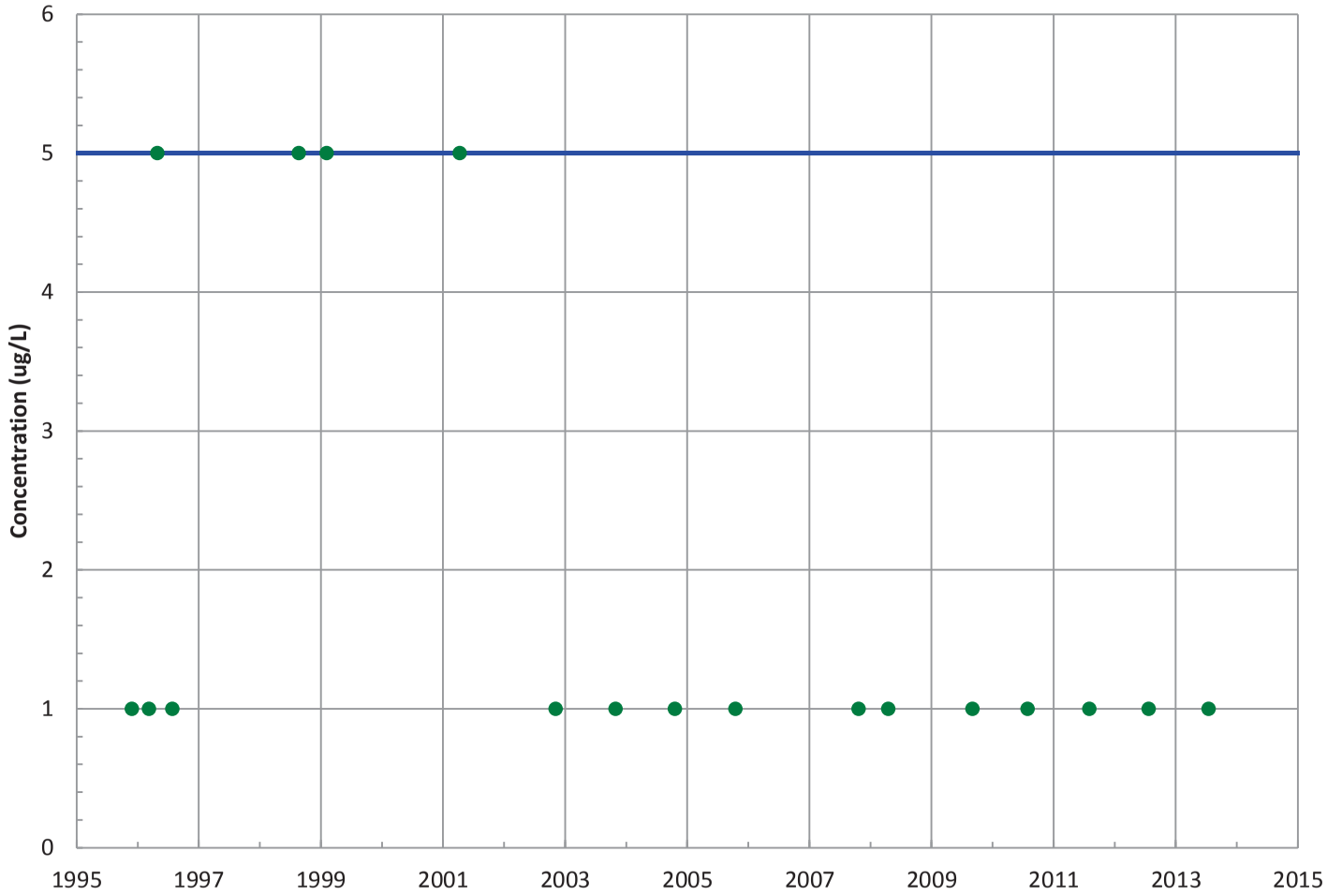
Well Location



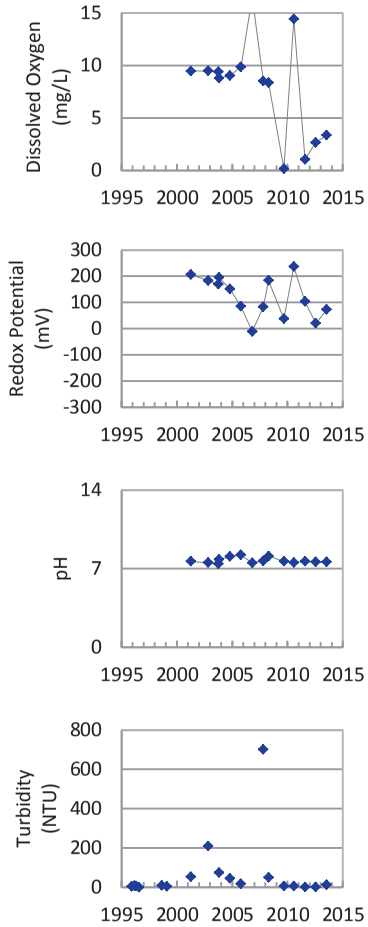
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/29/1995 to 7/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1003
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



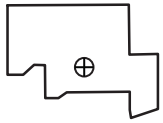
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

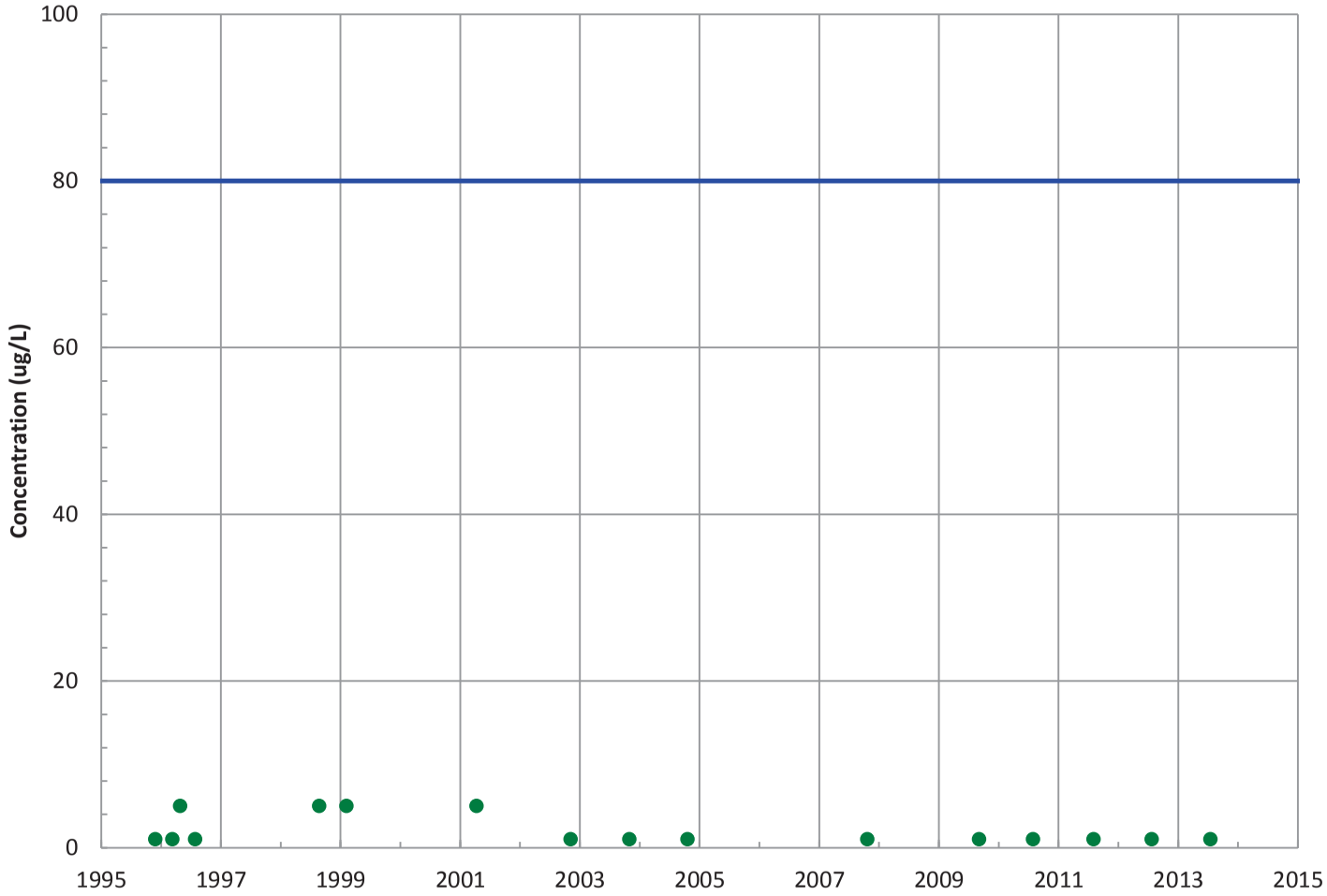
Well Location



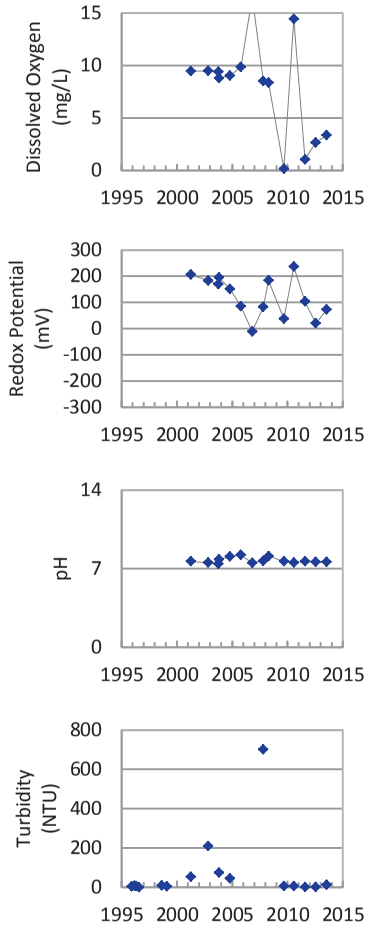
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/29/1995 to 7/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1003
Chloroform Trend in Perched Aquifer



Field Parameters



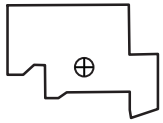
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

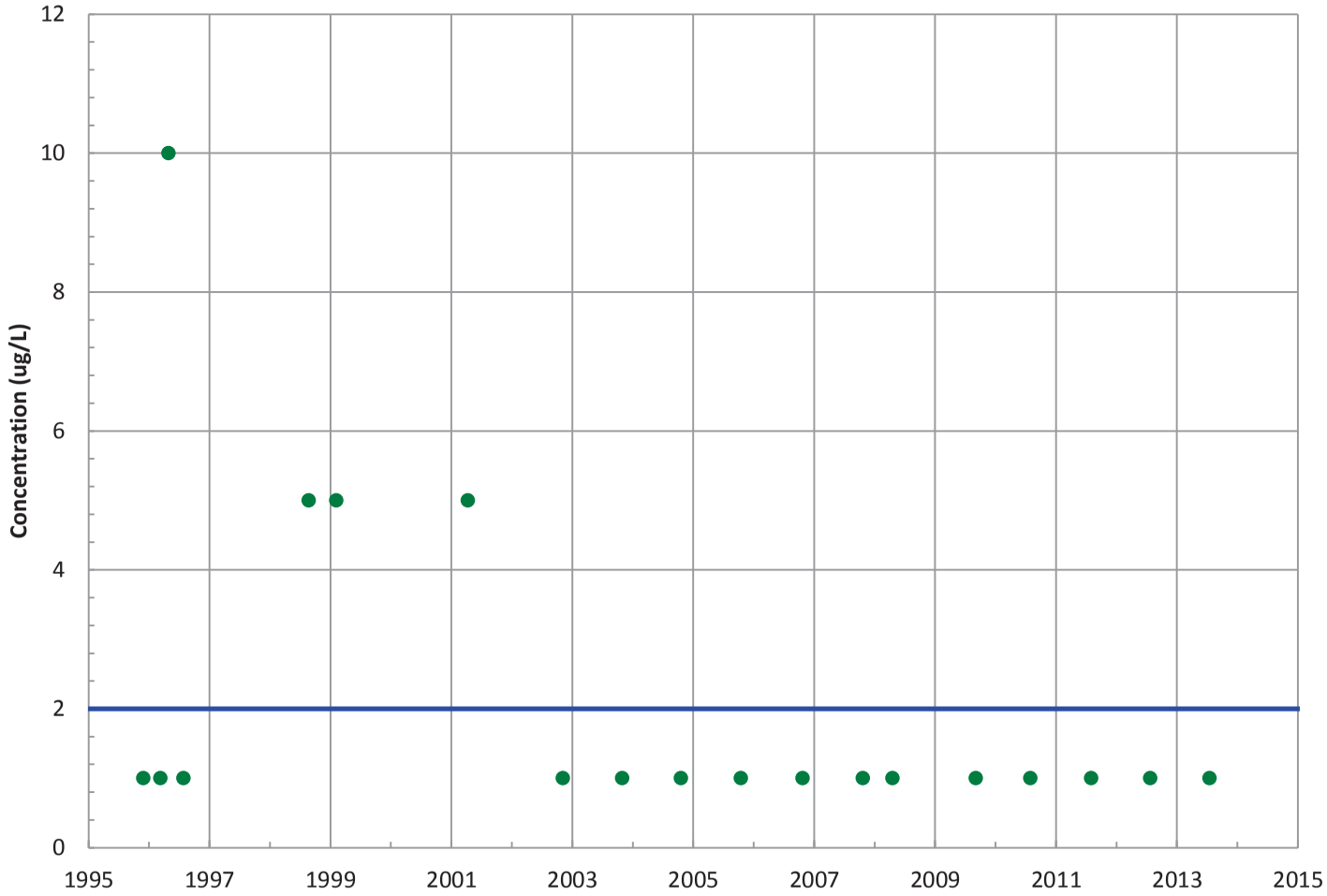
Well Location



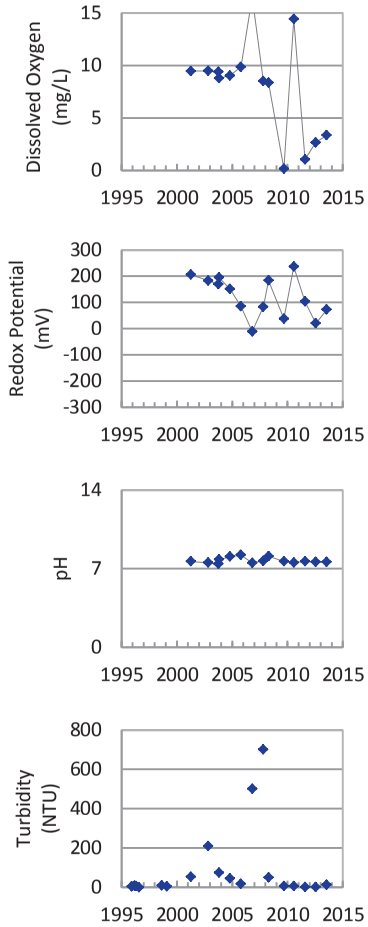
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/29/1995 to 7/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1003
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



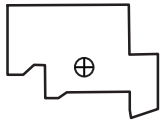
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

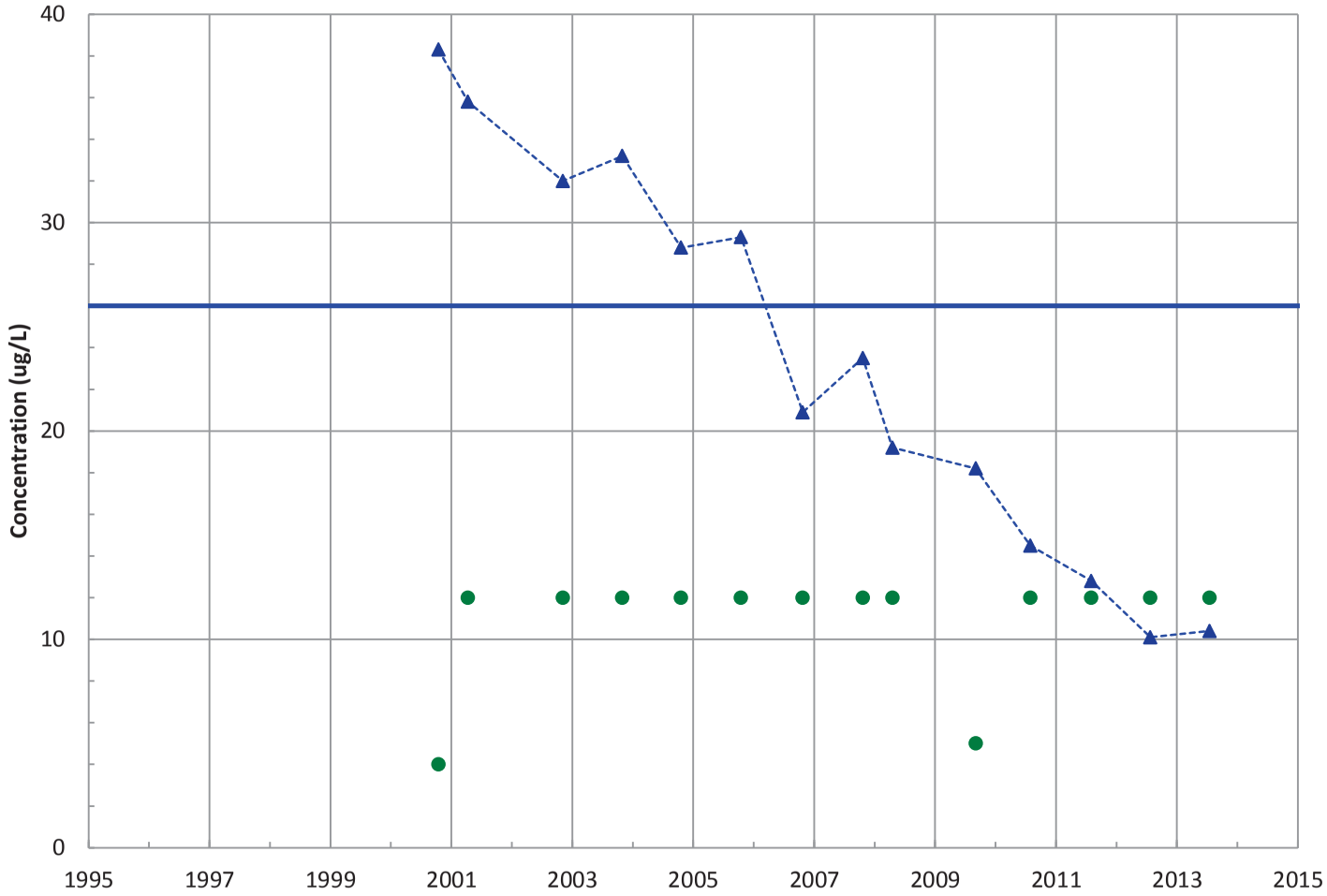
Well Location



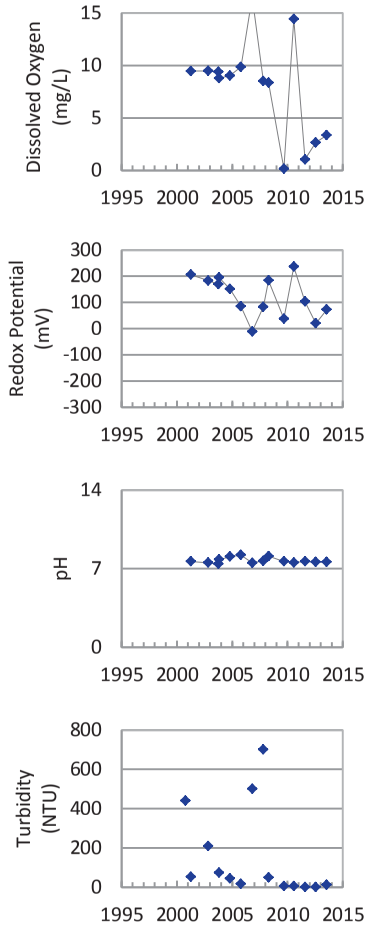
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/29/1995 to 7/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1003
Perchlorate Trend in Perched Aquifer



Field Parameters



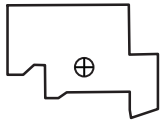
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

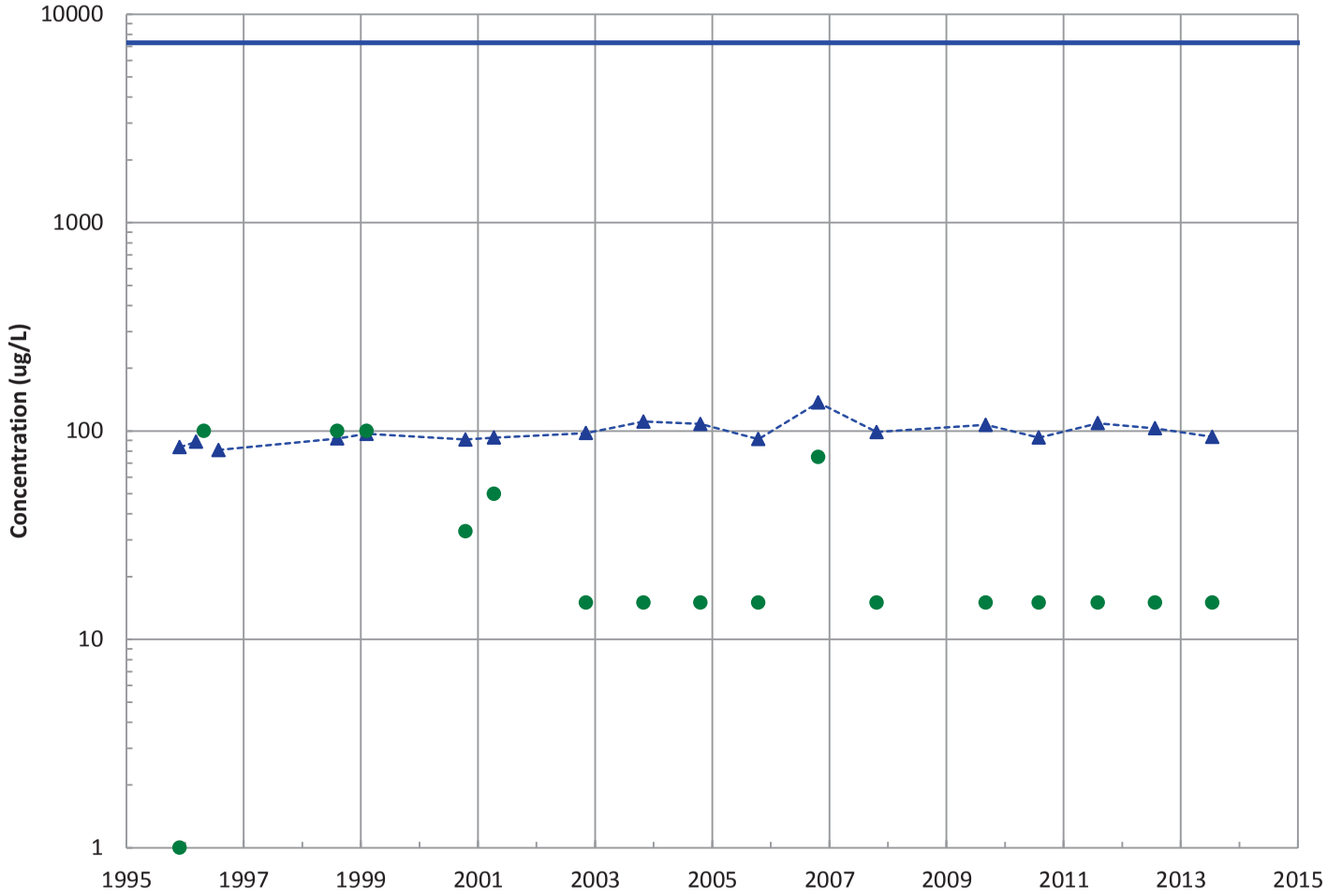
Well Location



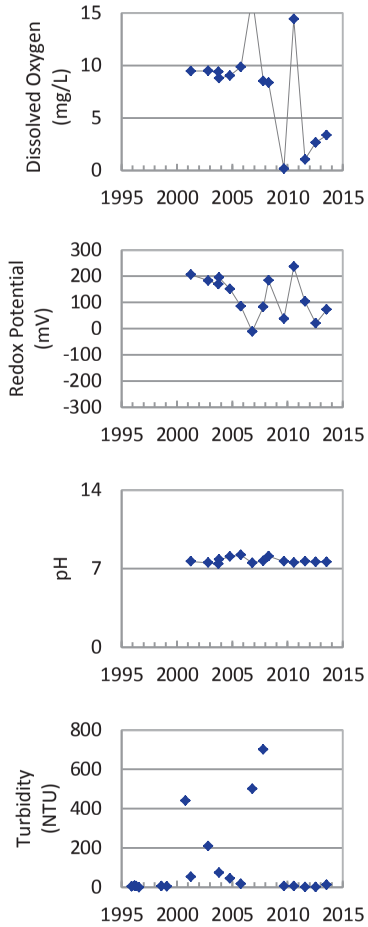
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/19/2000 to 7/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1003
Boron Trend in Perched Aquifer



Field Parameters



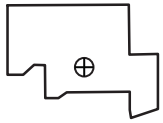
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

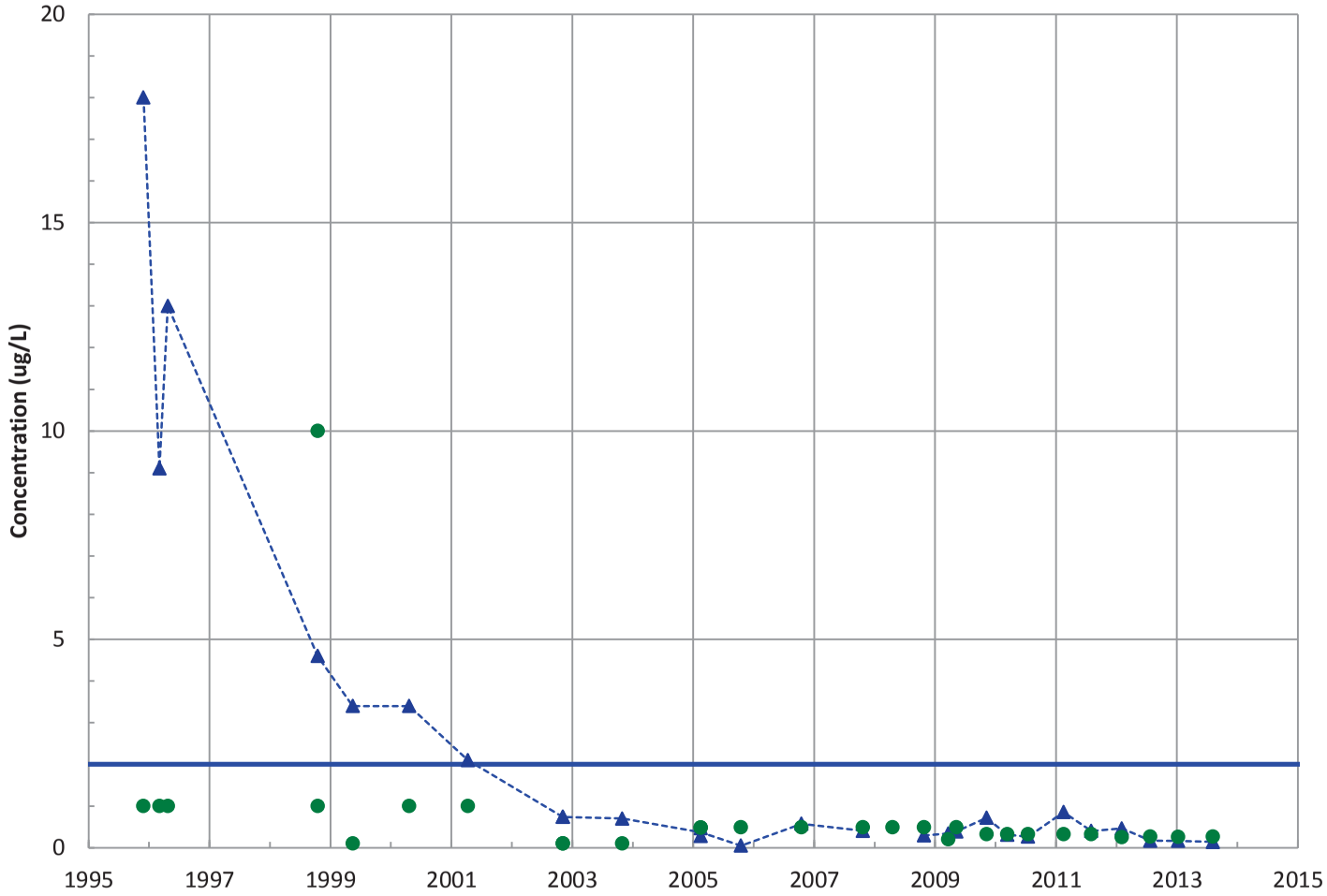
Well Location



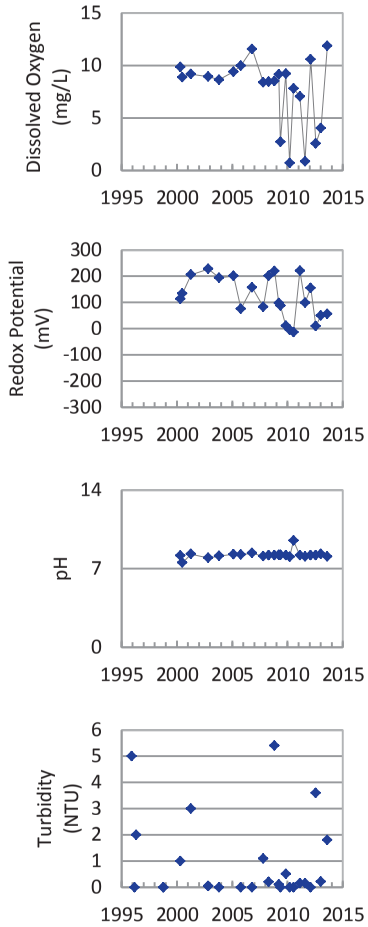
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/29/1995 to 7/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1005
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



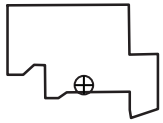
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

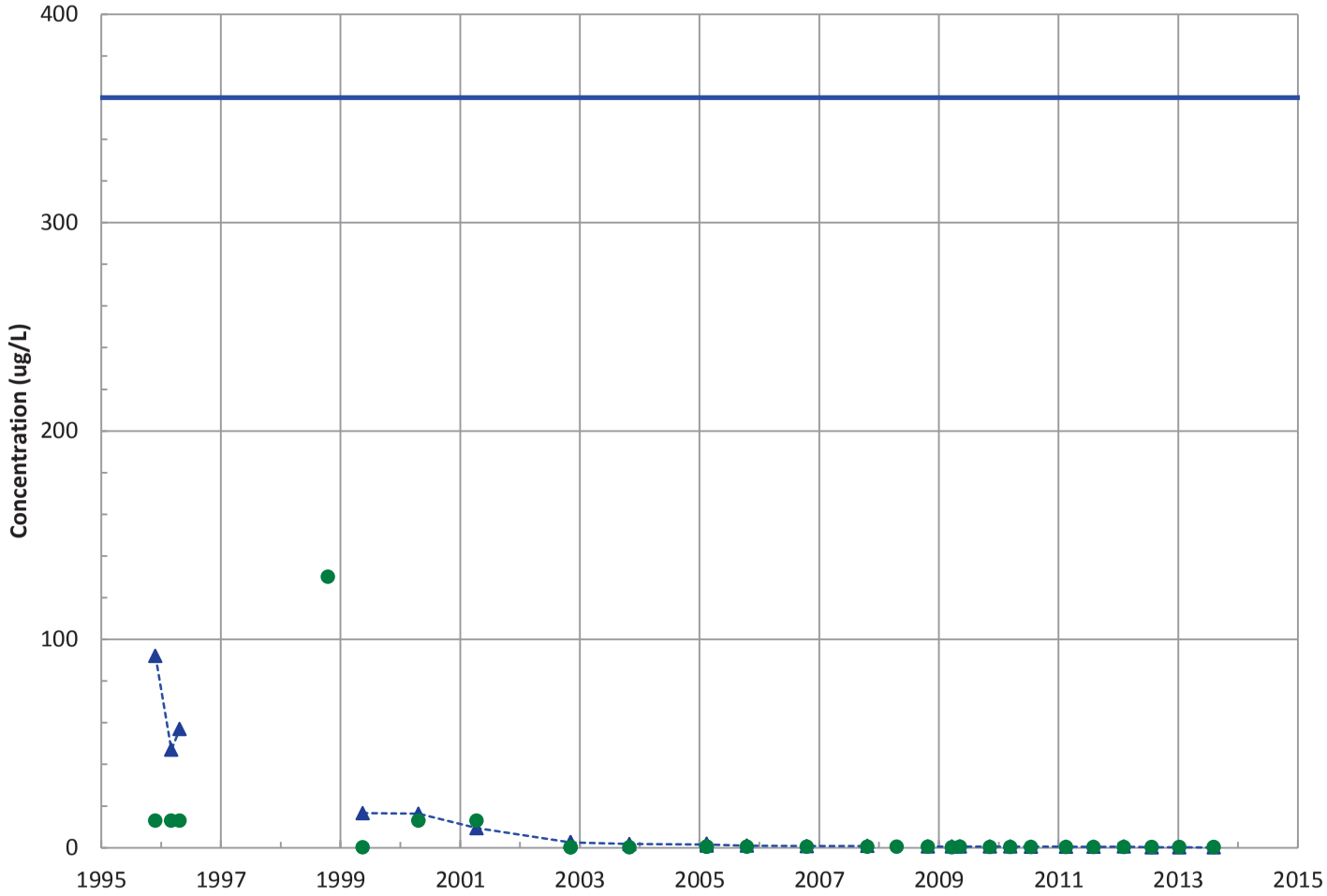
Well Location



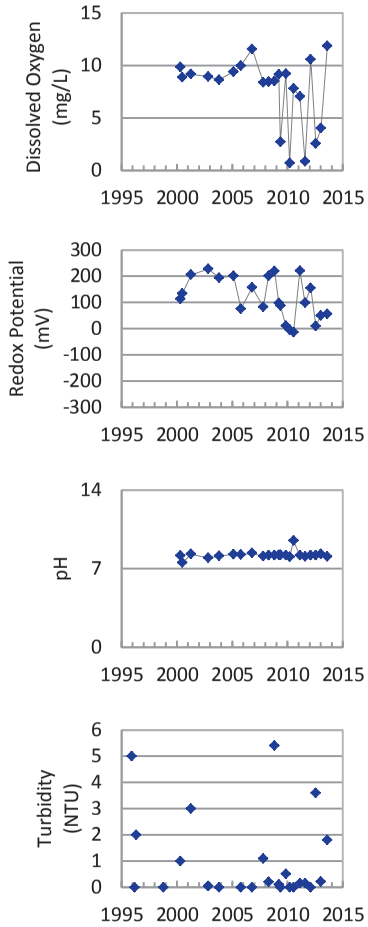
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/29/1995 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1005
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



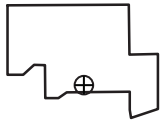
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

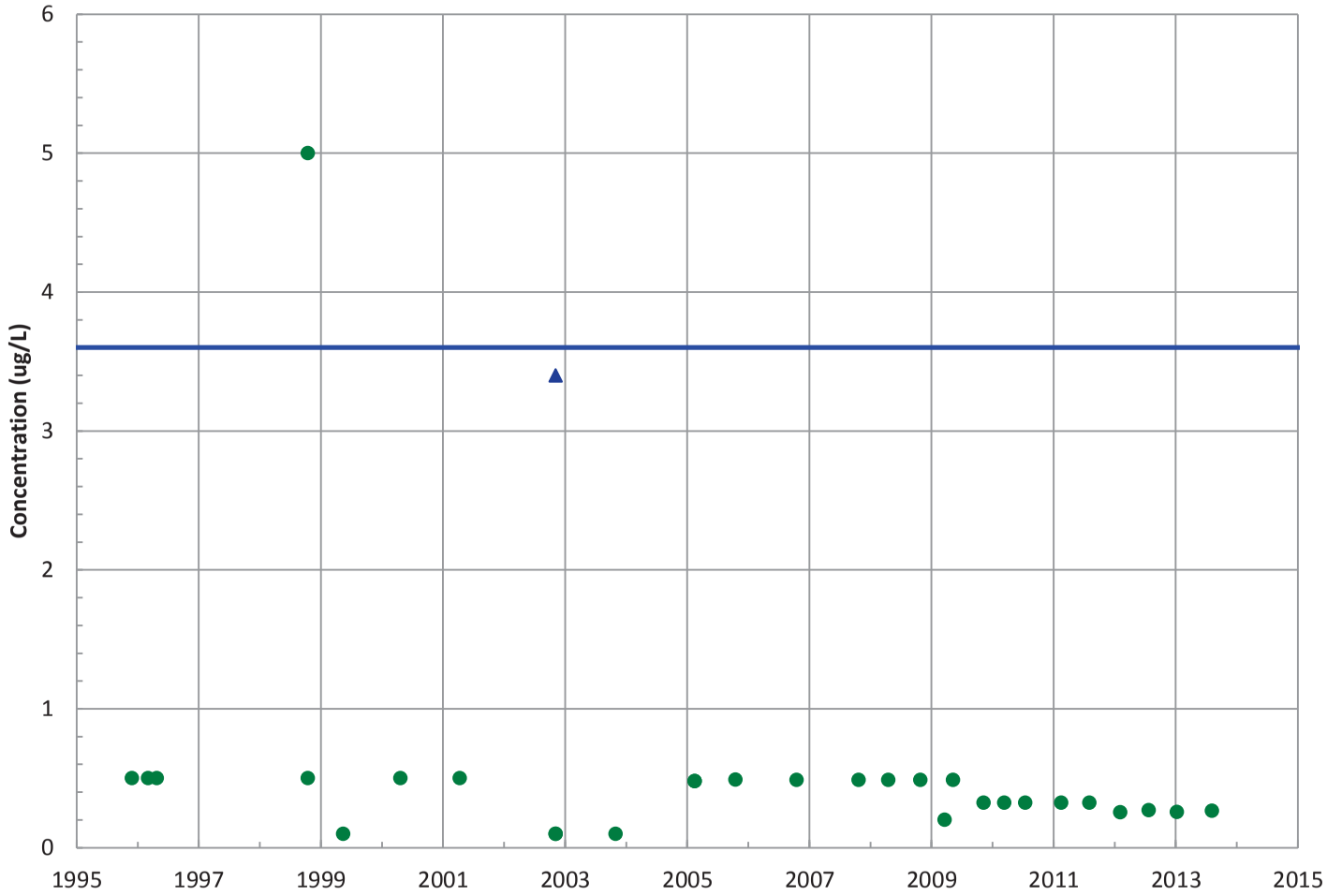
Well Location



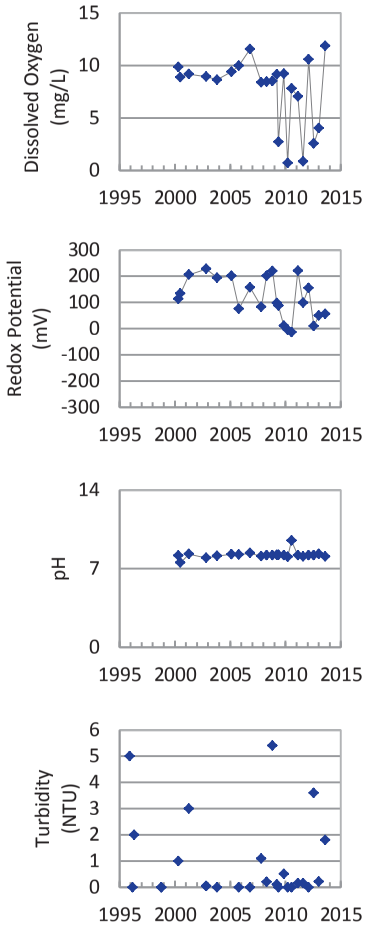
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/29/1995 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1005
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



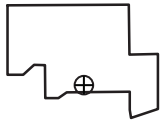
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

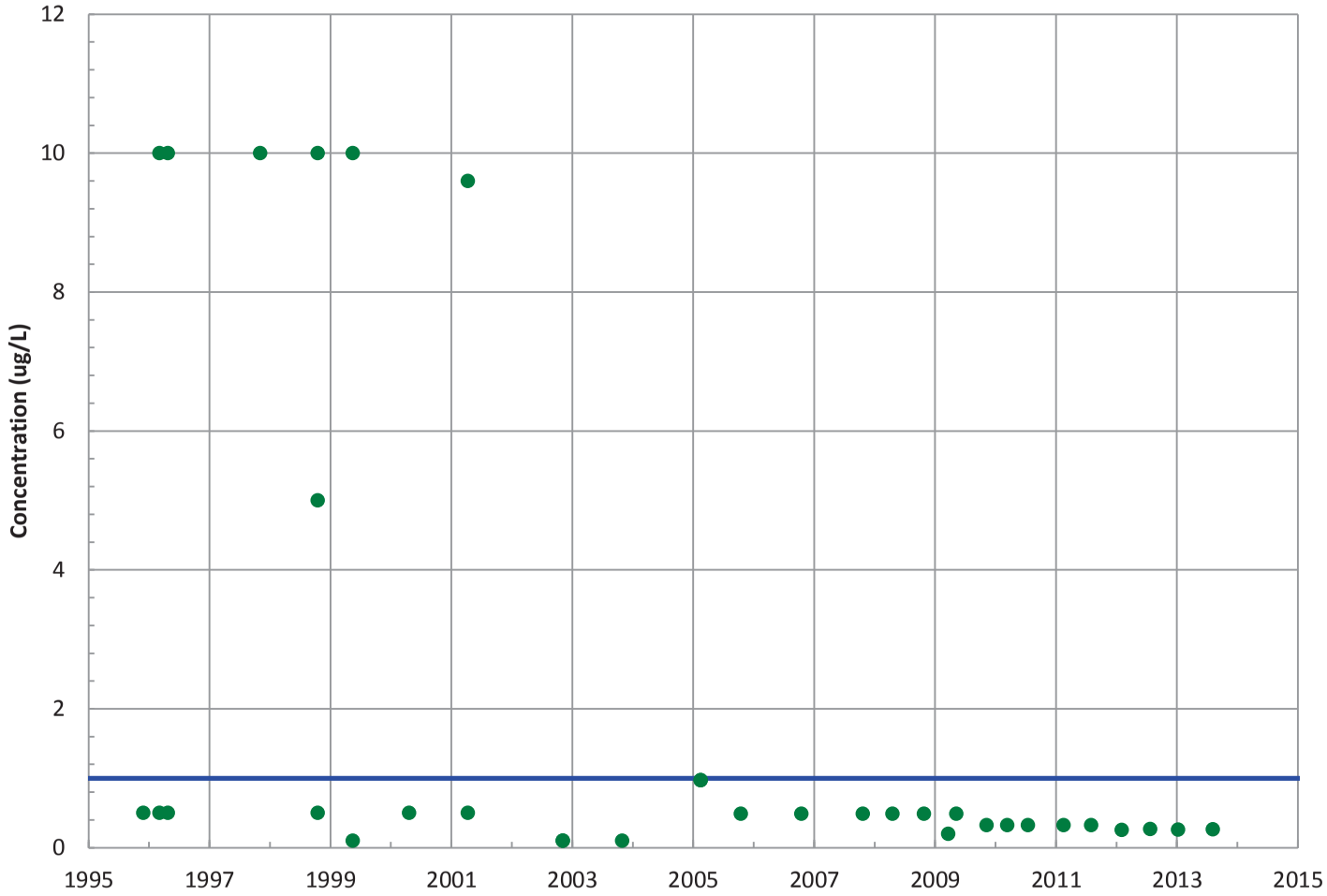
Well Location



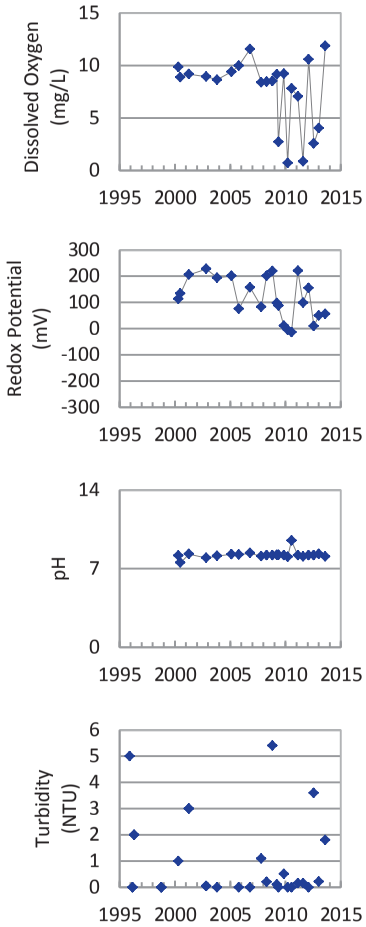
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/29/1995 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1005
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



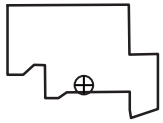
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

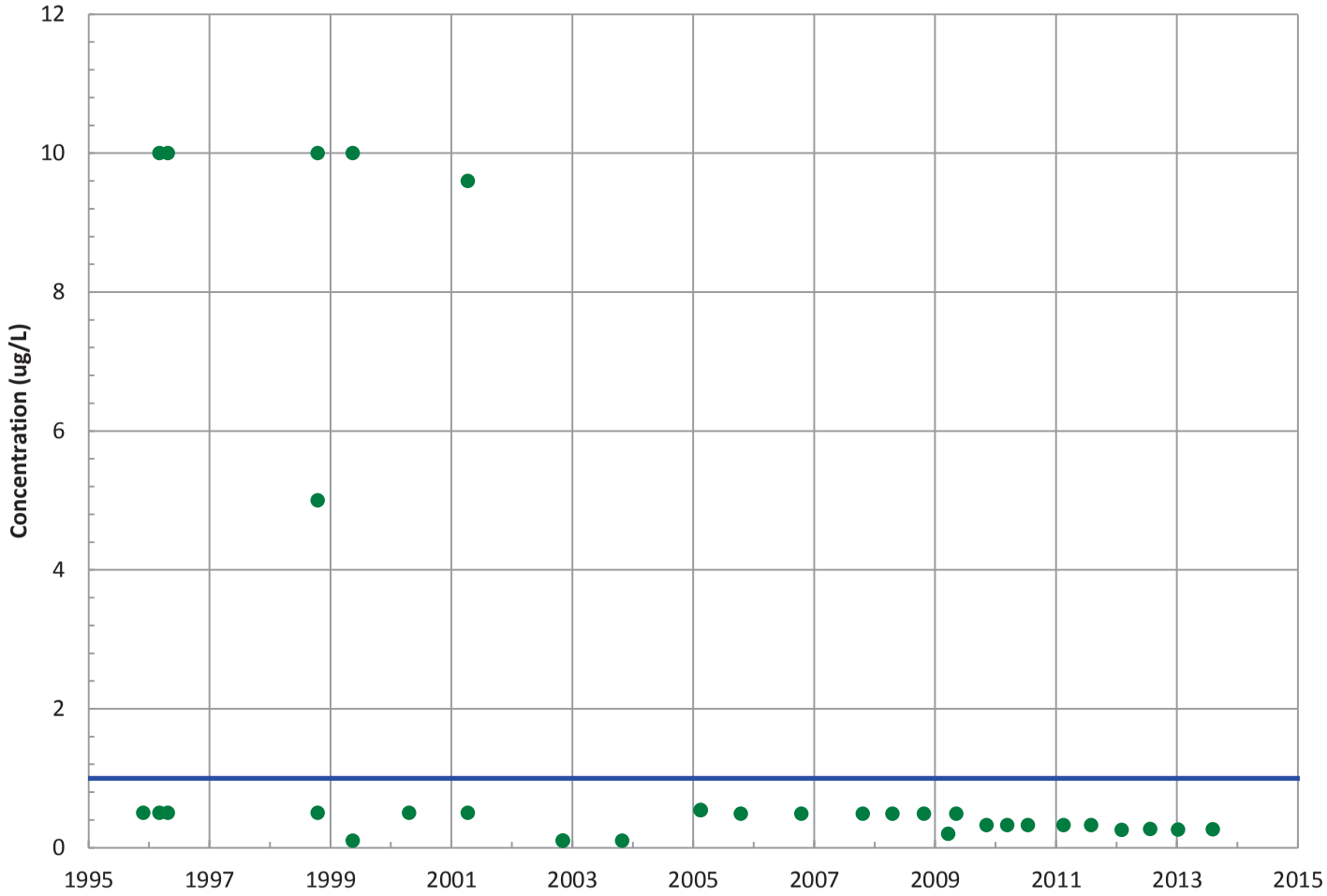
Well Location



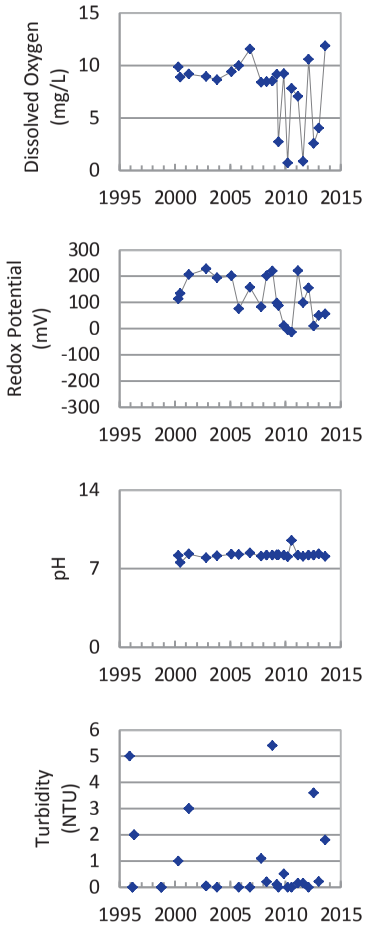
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/29/1995 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1005
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



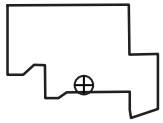
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

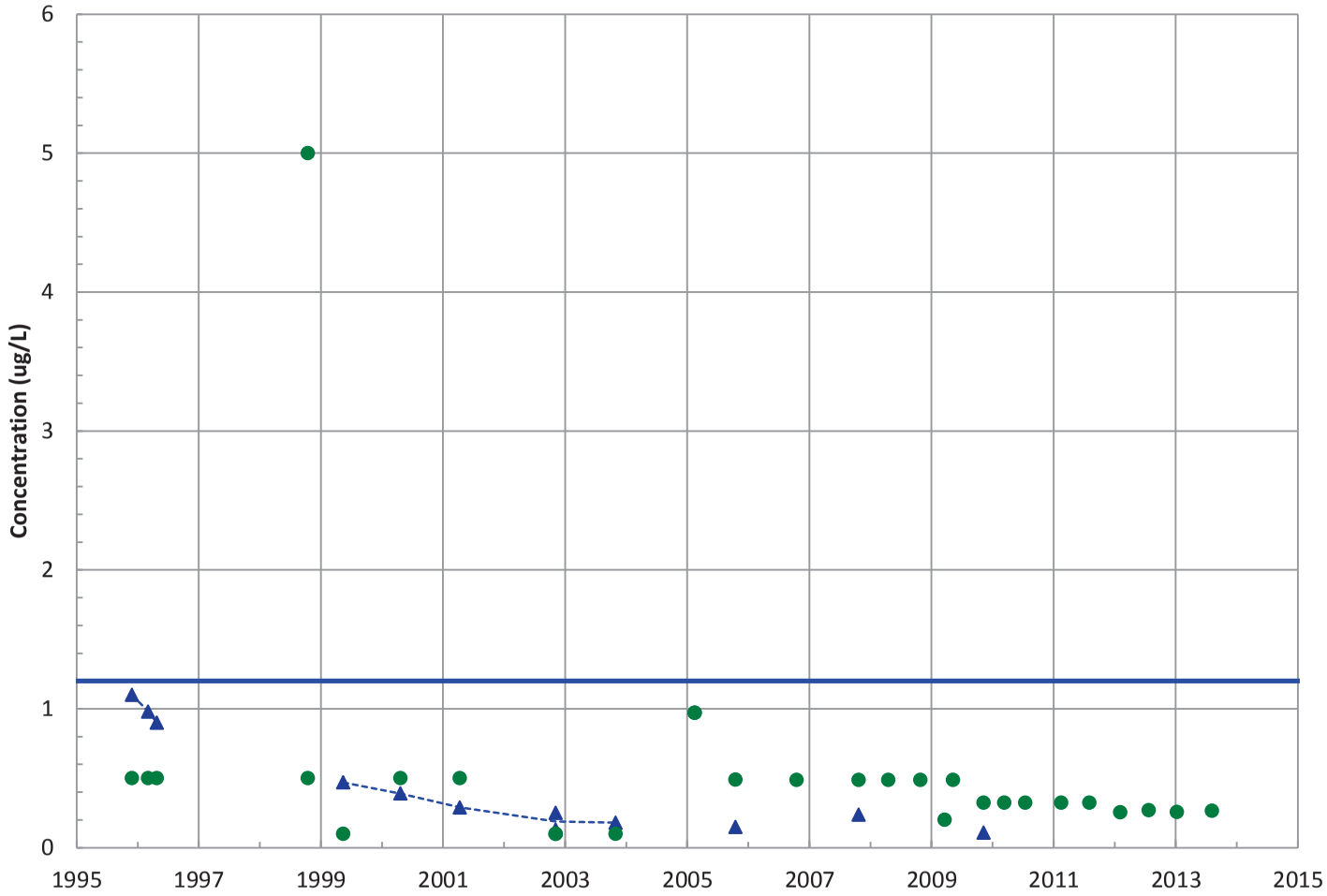
Well Location



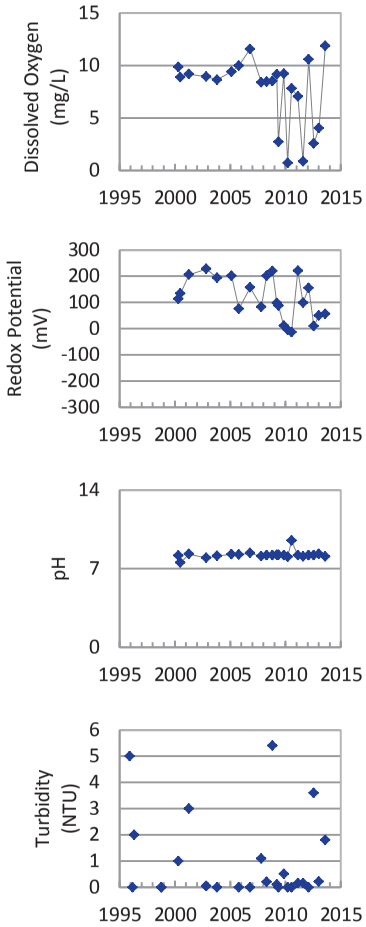
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/29/1995 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1005
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: All Non-Detect

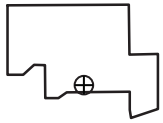
MAROS Linear Regression Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location



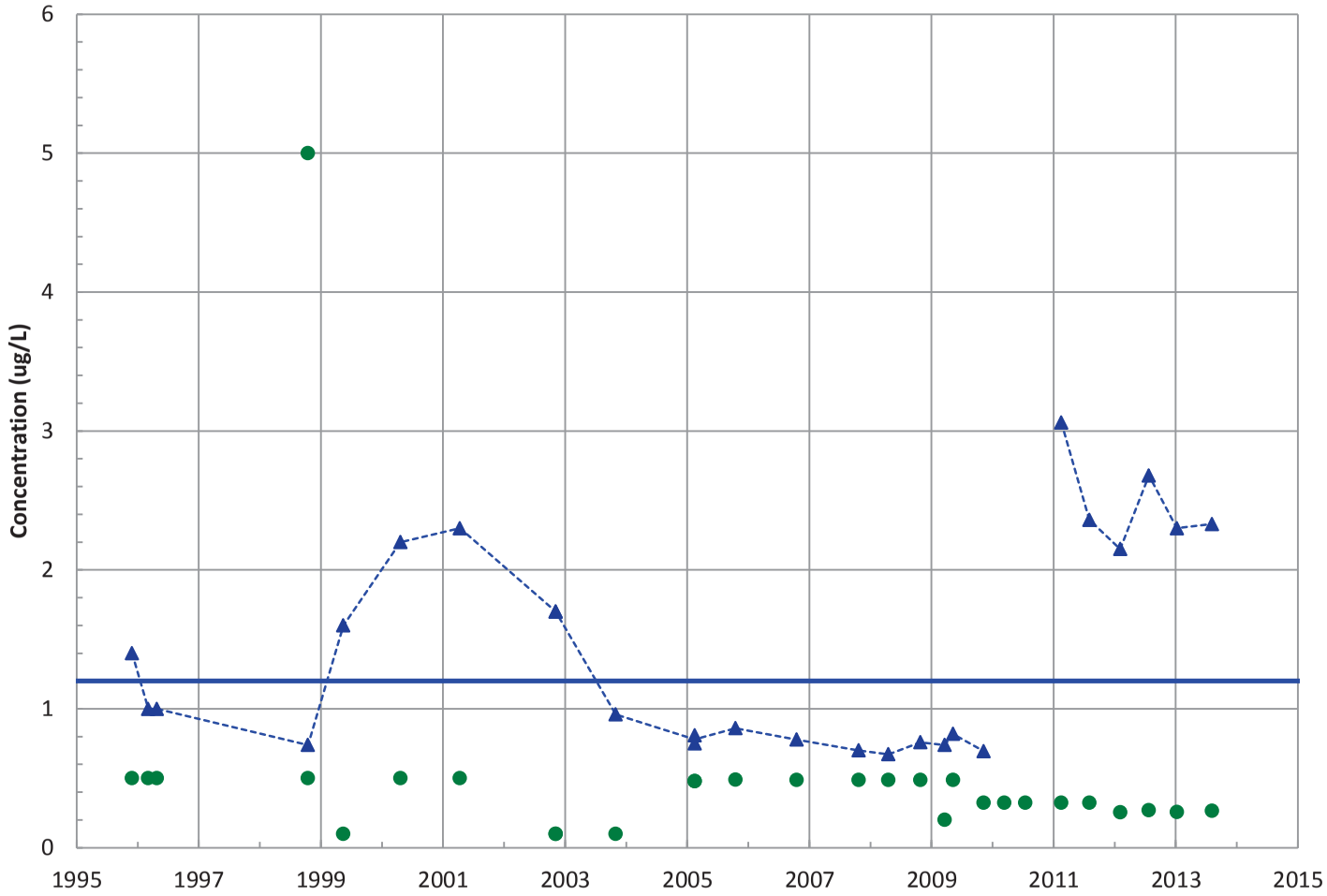
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 11/29/1995 to 8/20/2013

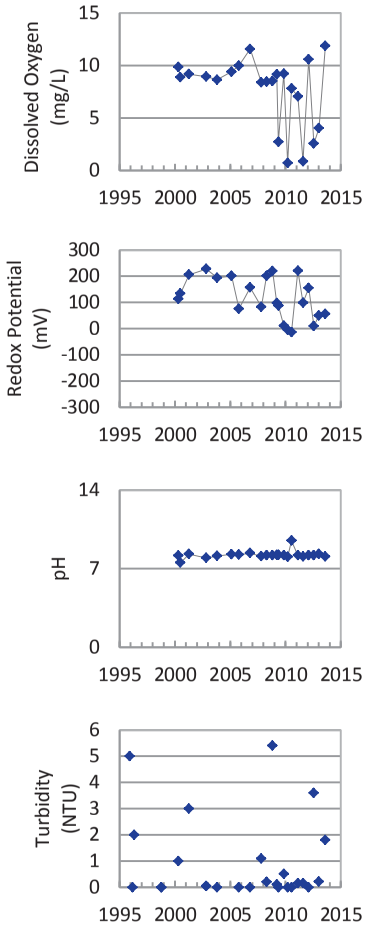
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1005
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



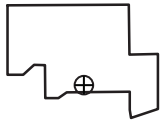
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Probably Increasing
2011 - 2013 Data: Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

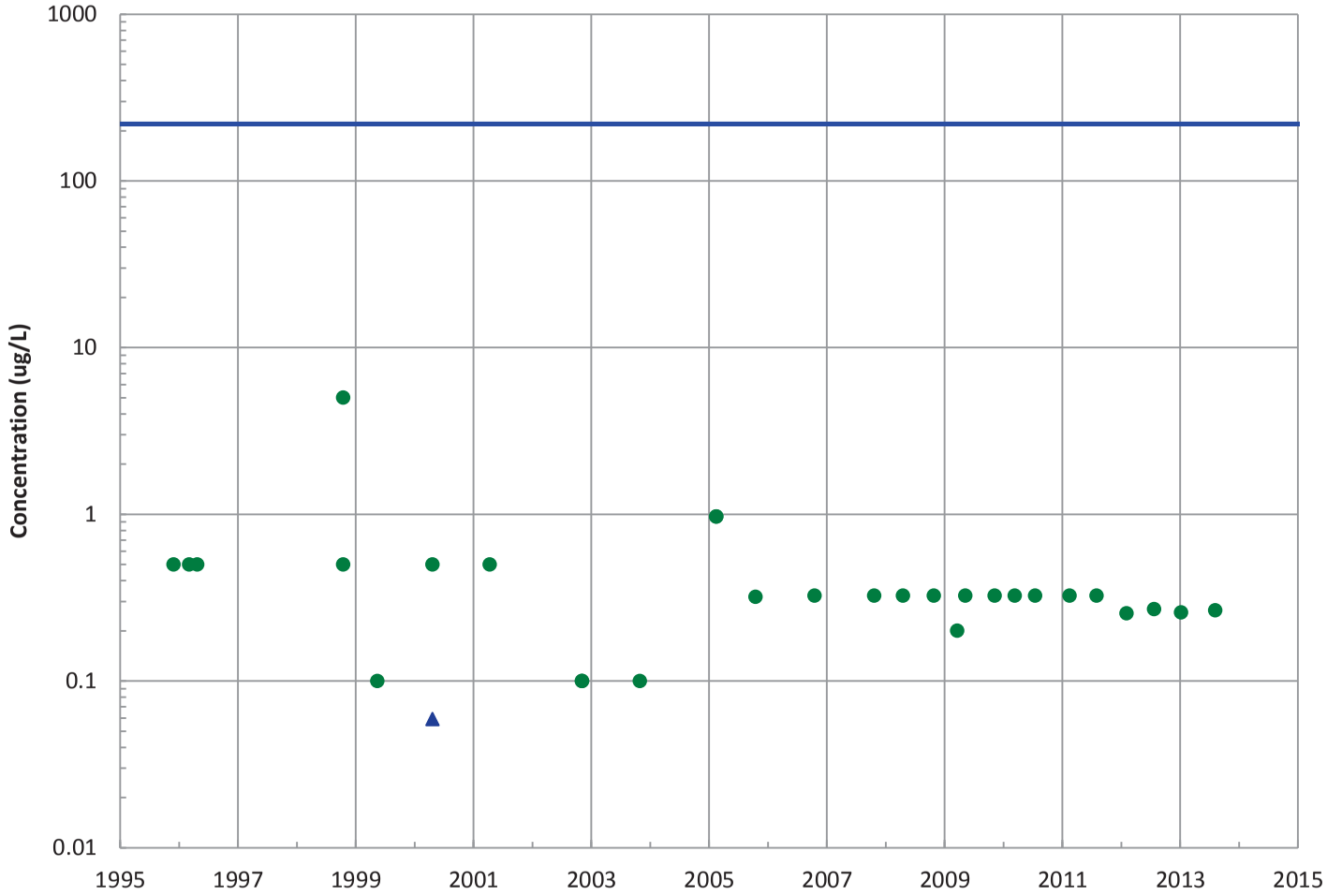
Well Location



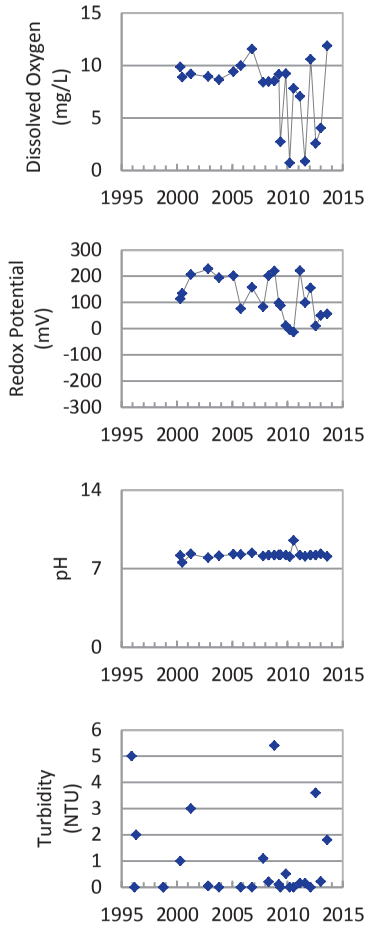
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/29/1995 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1005
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



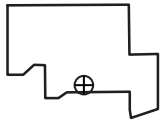
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

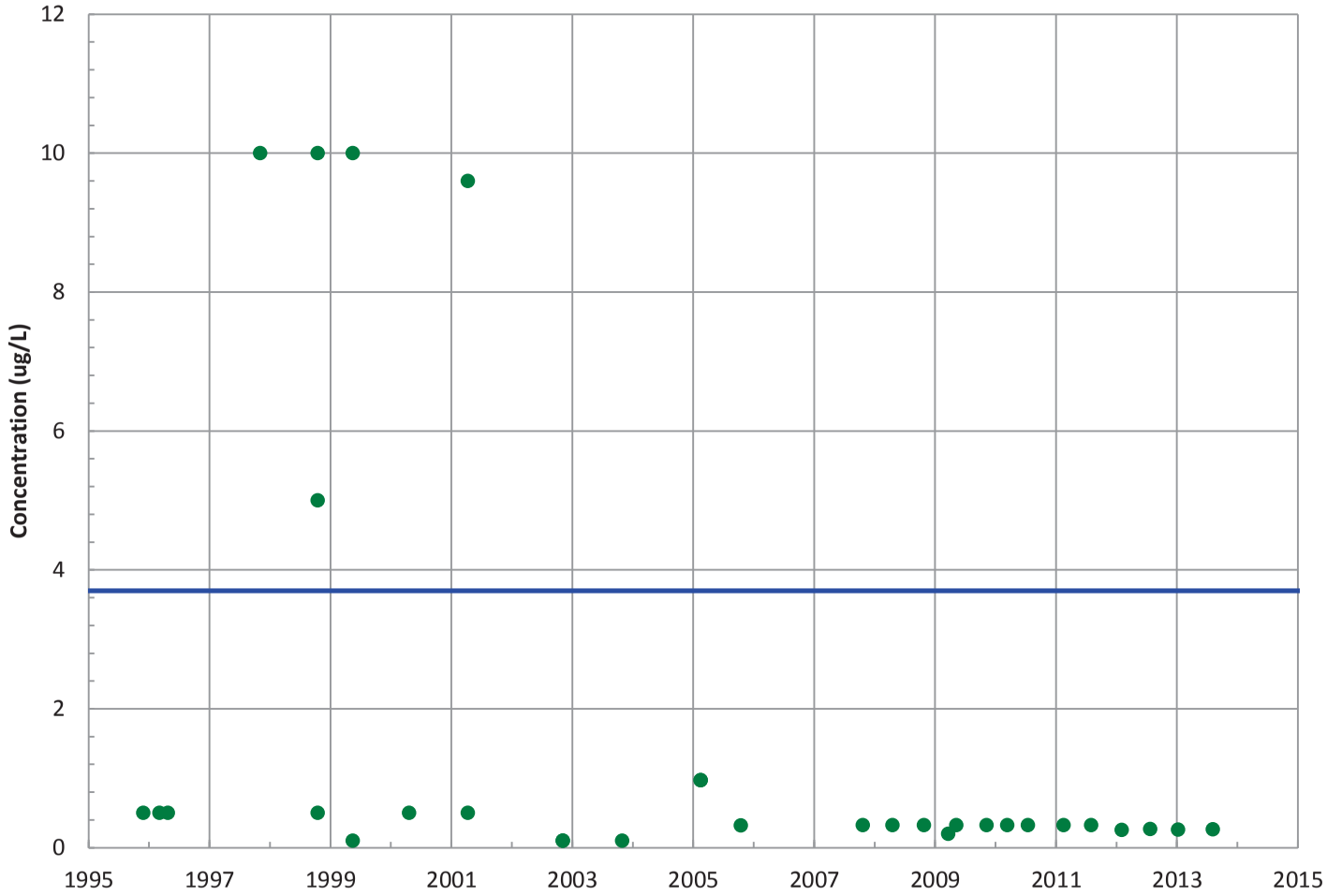
Well Location



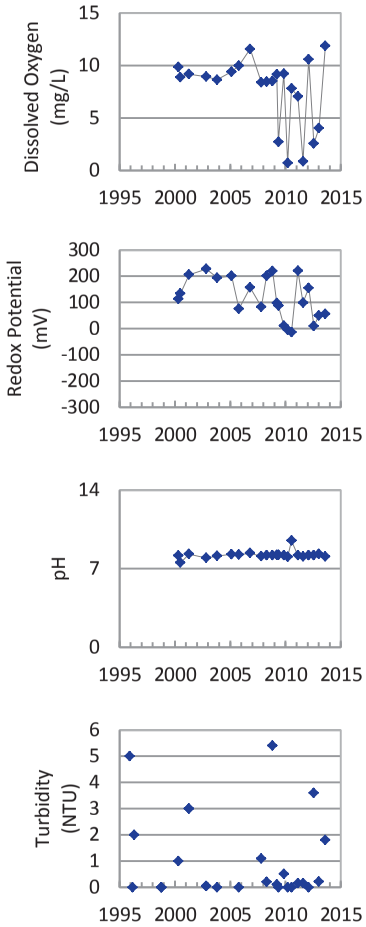
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/29/1995 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1005
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



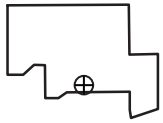
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

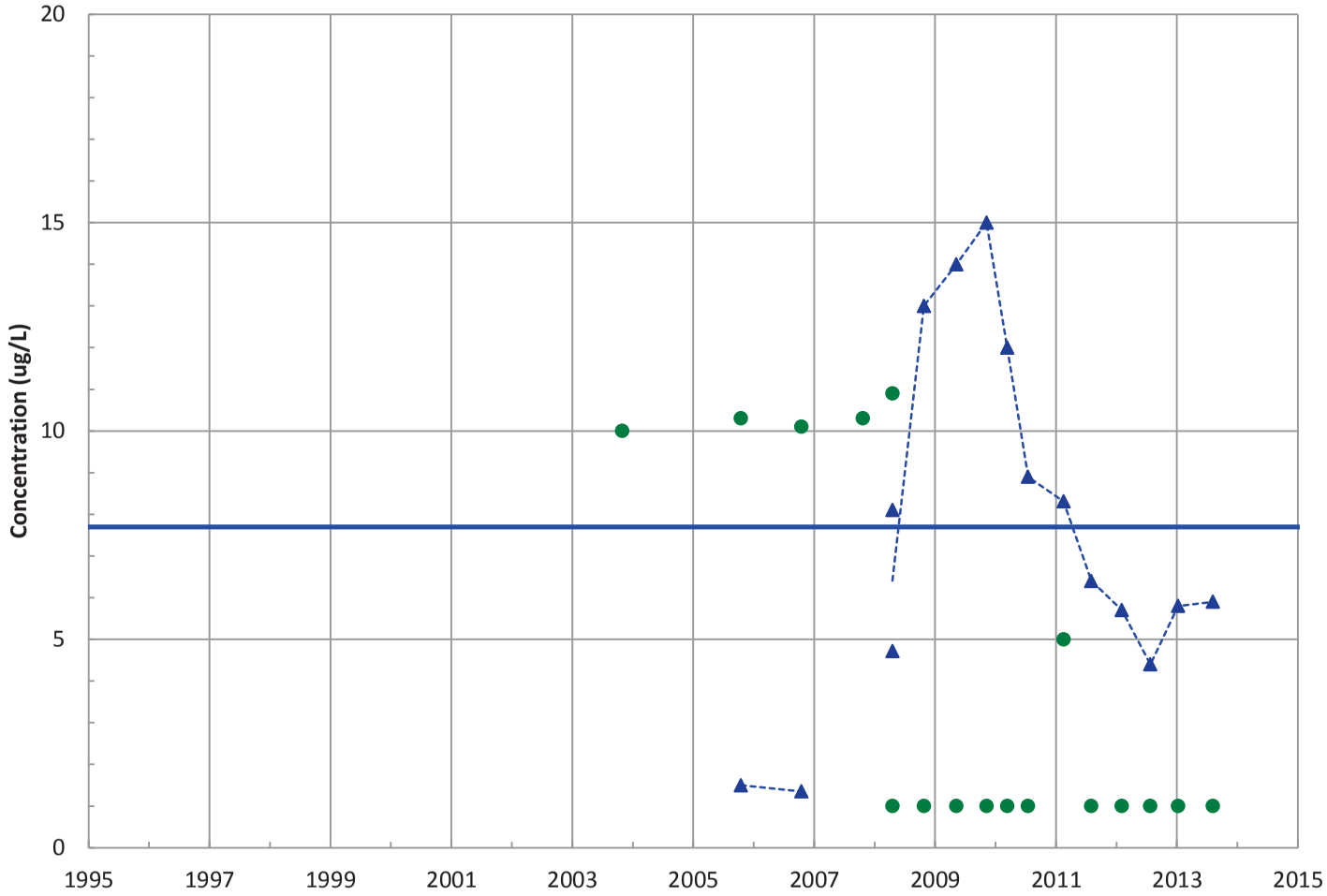
Well Location



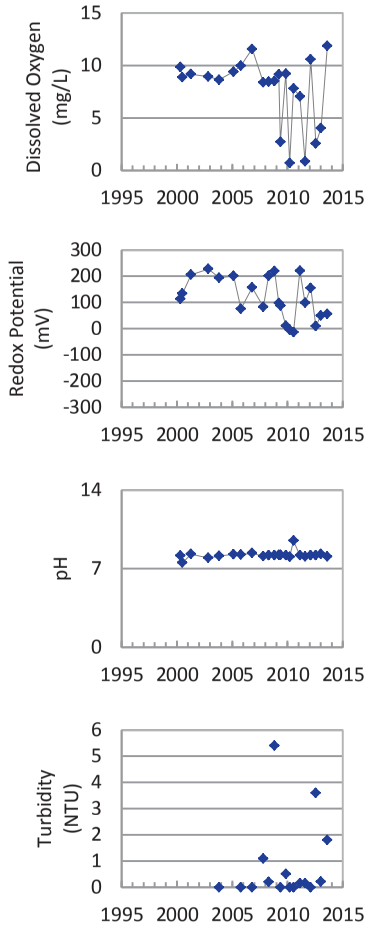
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/29/1995 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1005
1,4-Dioxane (p-Dioxane) Trend in Perched Aquifer



Field Parameters



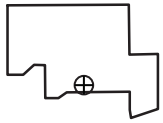
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

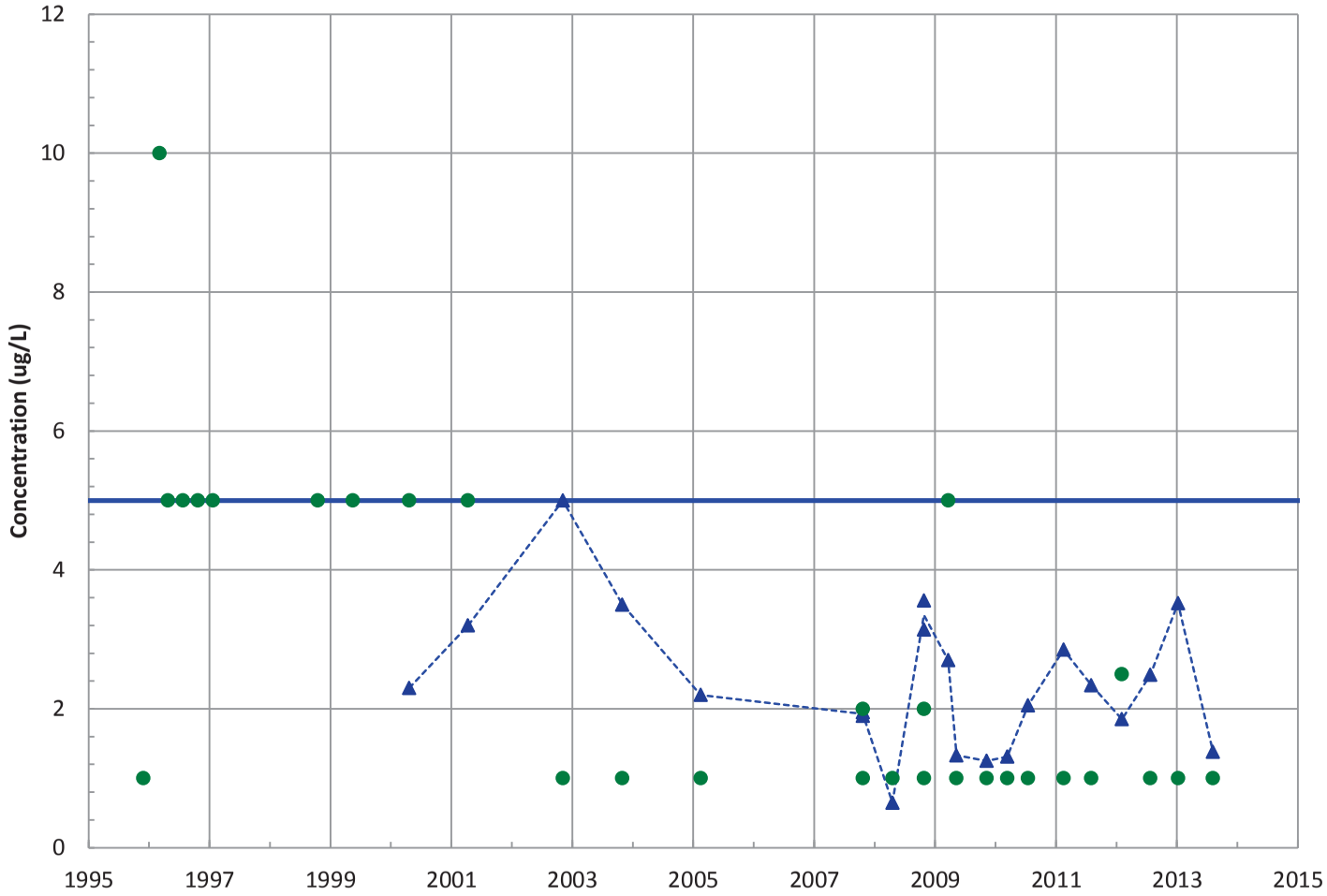
Well Location



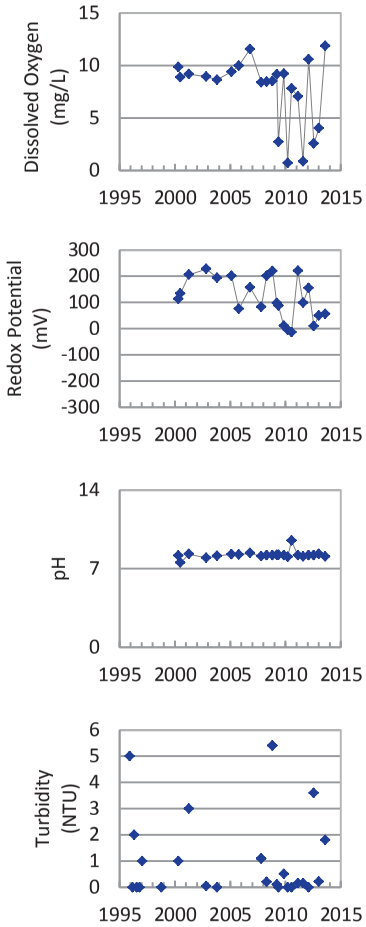
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/6/2003 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1005
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Probably Increasing

2011 - 2013 Data: Stable

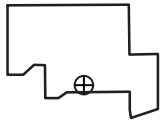
MAROS Linear Regression Method

Data (7/2009 - 12/2013): No Trend

2011 - 2013 Data: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

Well Location



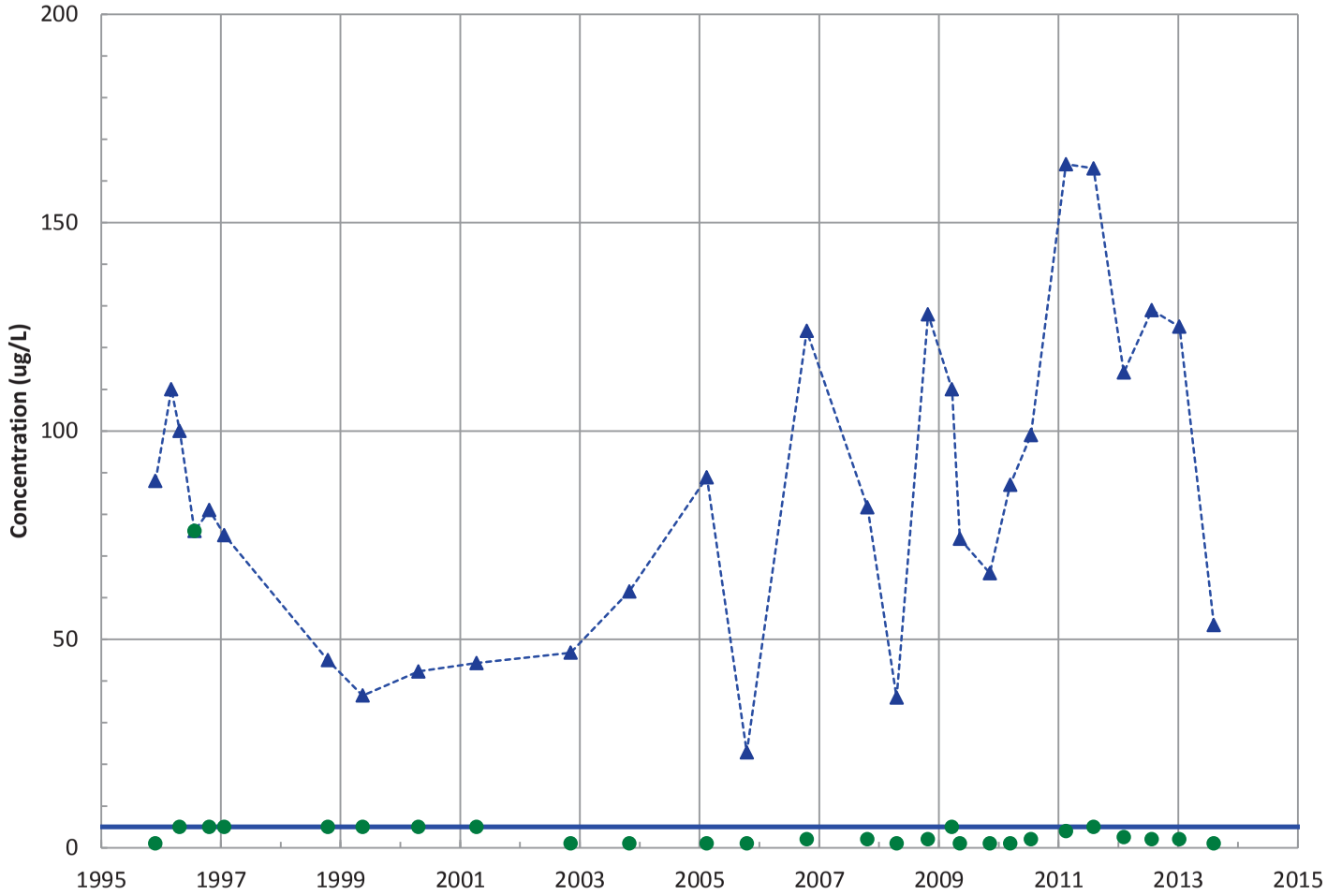
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 11/29/1995 to 8/20/2013

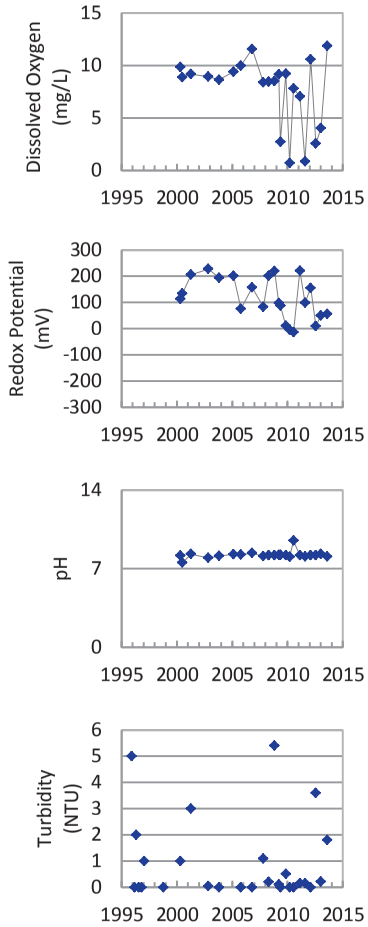
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1005
Trichloroethene Trend in Perched Aquifer



Field Parameters



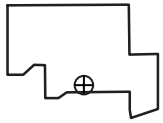
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------ Concentration Trend
- ——— Groundwater Protection Standard

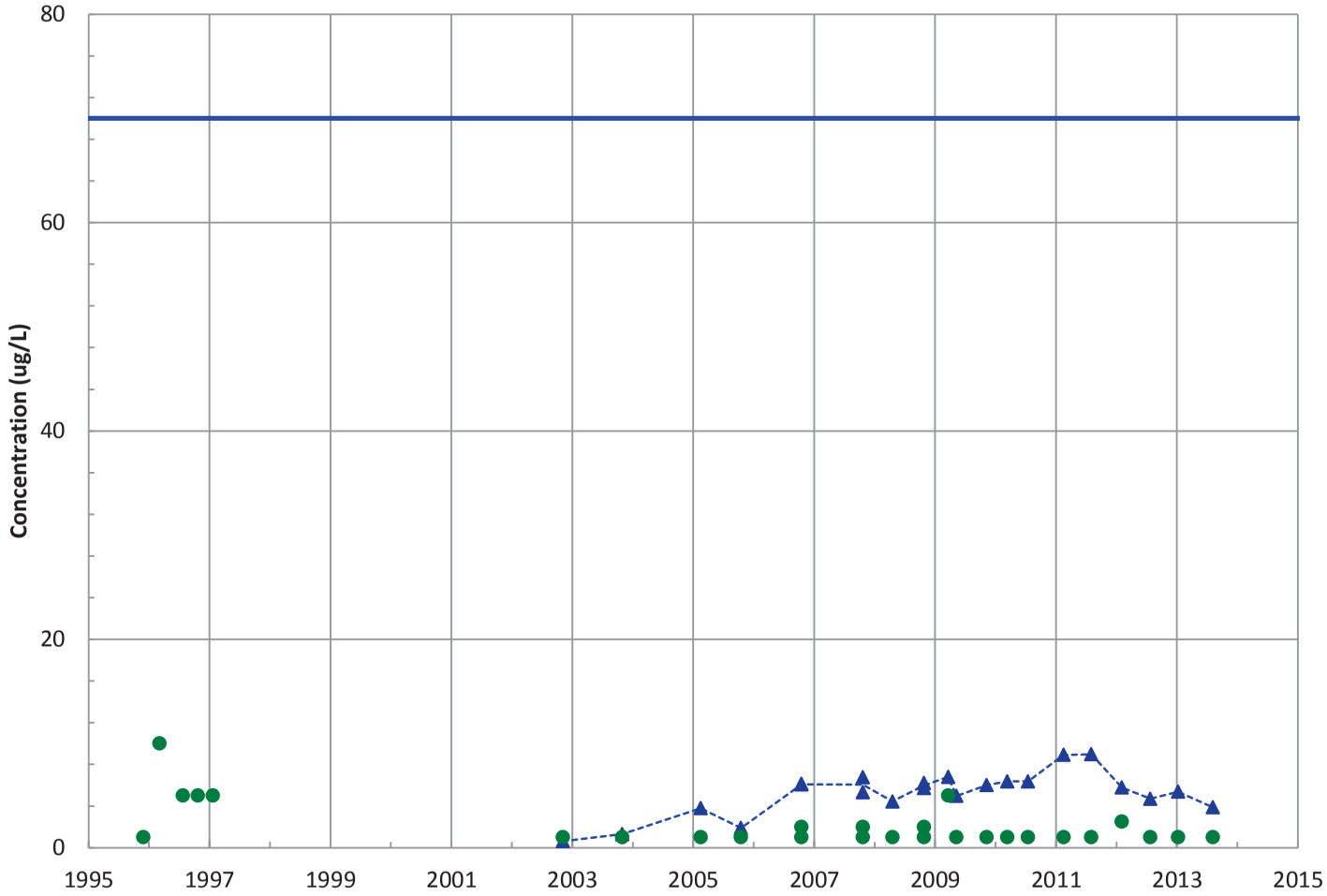
Well Location



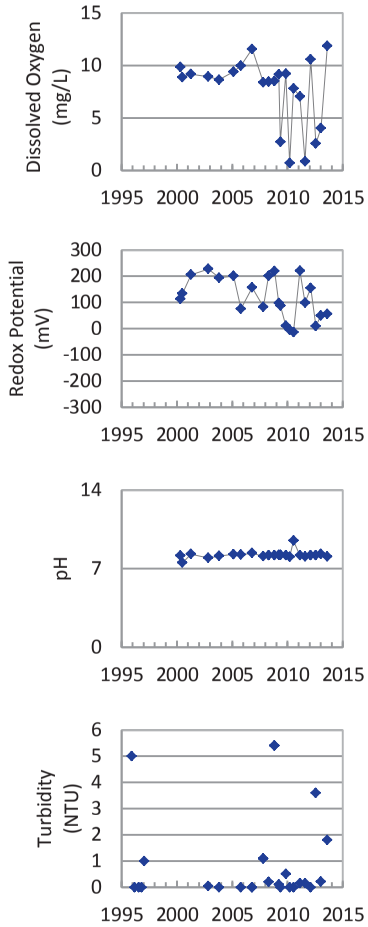
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/29/1995 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1005
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



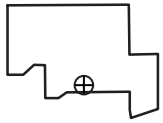
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Probably Decreasing
2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

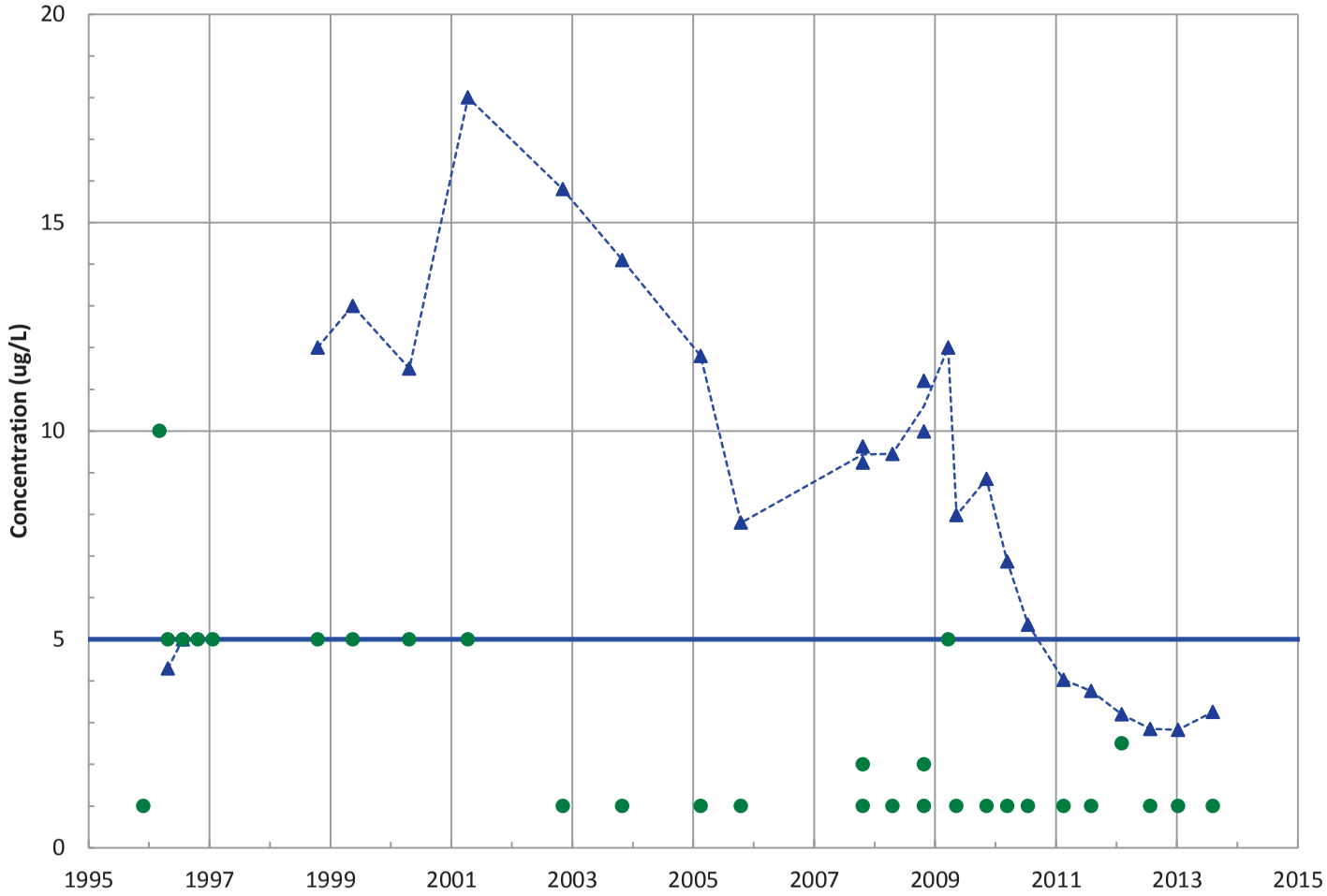
Well Location



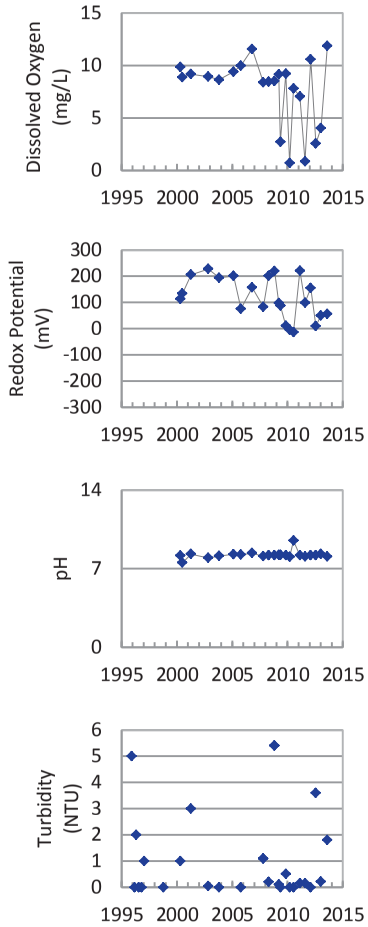
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/29/1995 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1005
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



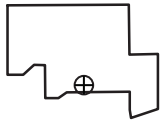
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------ Concentration Trend
- ——— Groundwater Protection Standard

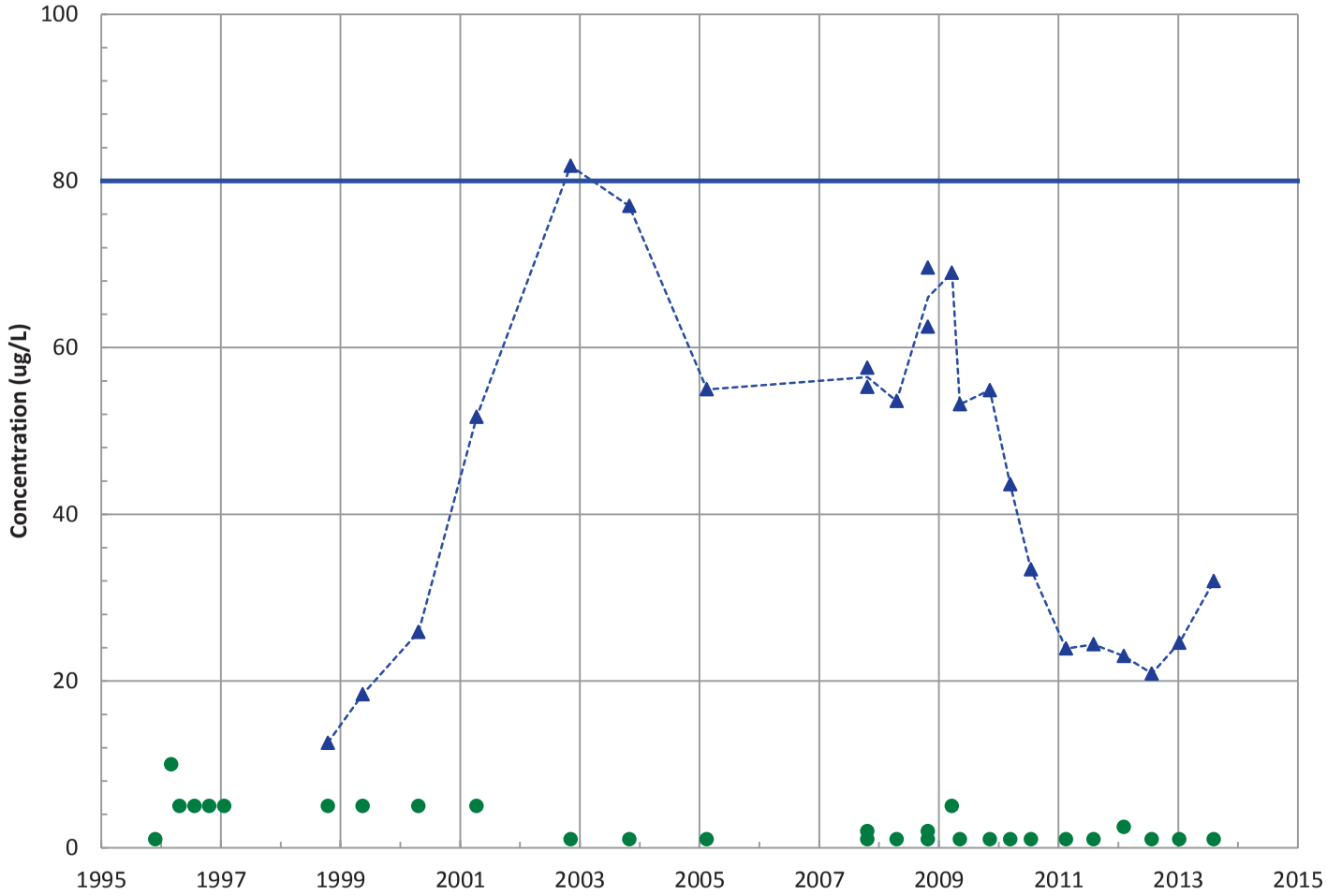
Well Location



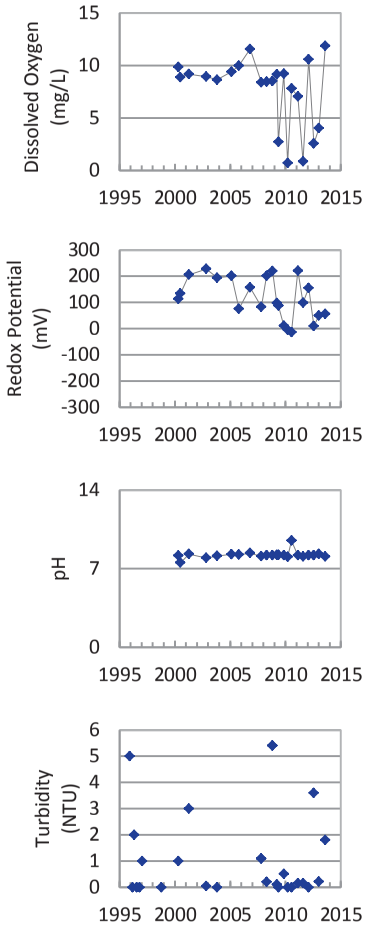
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/29/1995 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1005
Chloroform Trend in Perched Aquifer



Field Parameters



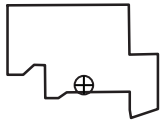
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Probably Increasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------ Concentration Trend
- ——— Groundwater Protection Standard

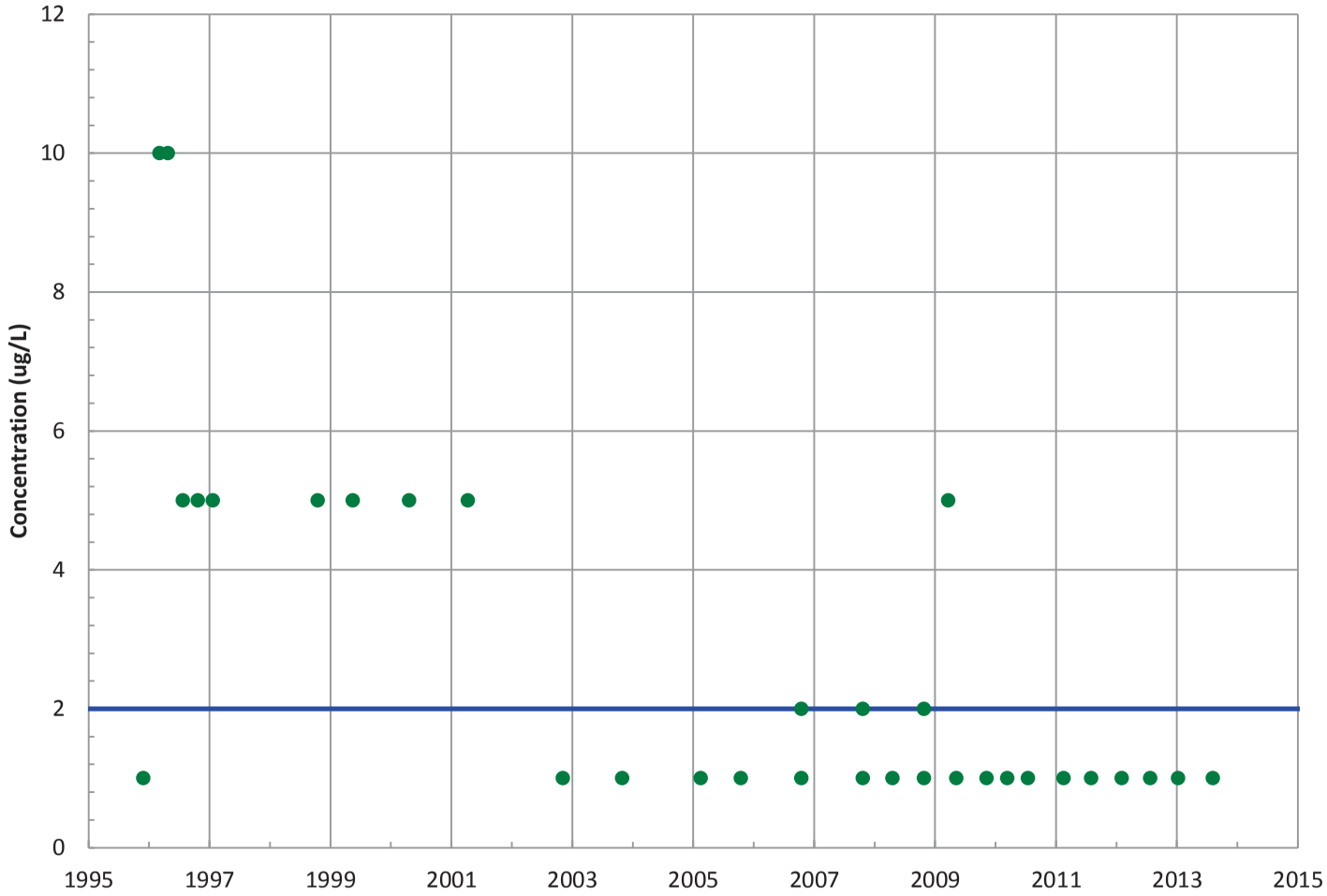
Well Location



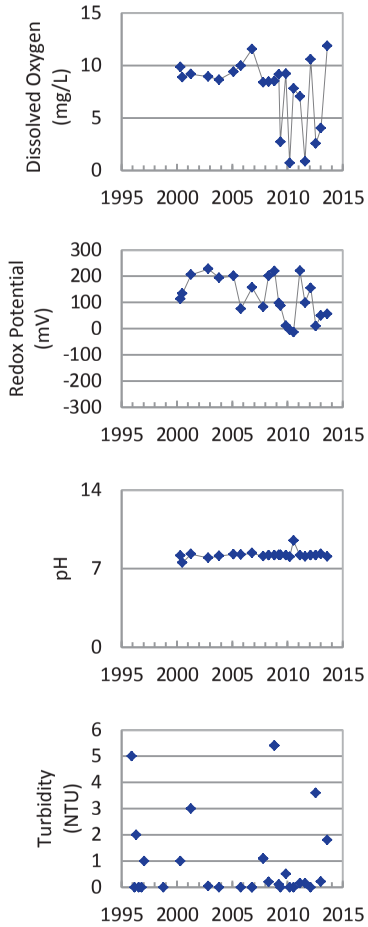
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/29/1995 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1005
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



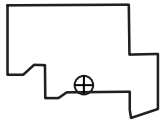
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

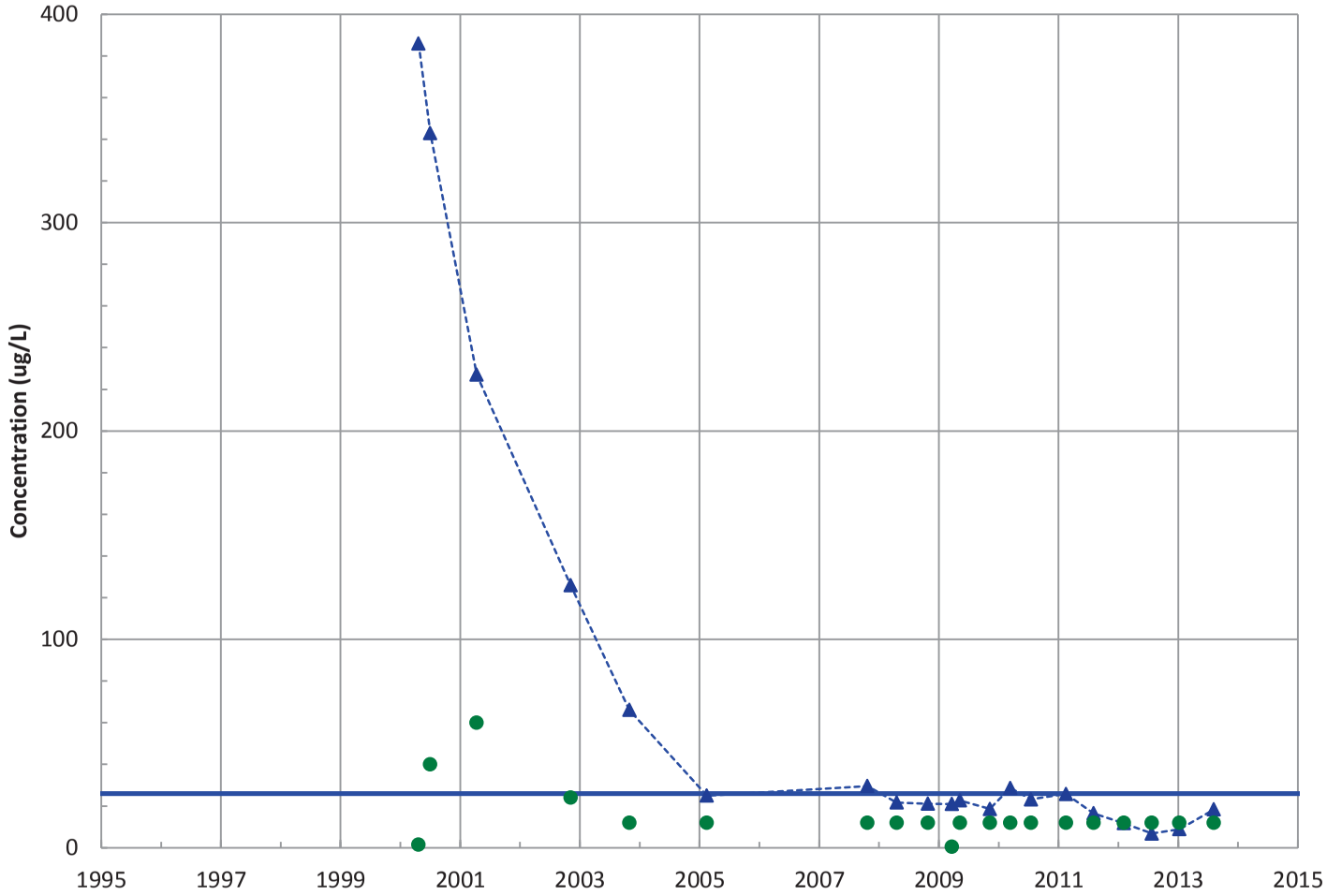
Well Location



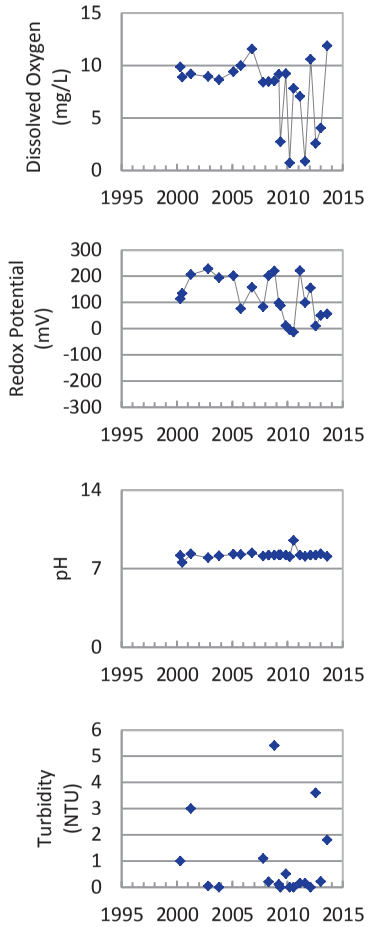
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/29/1995 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1005
Perchlorate Trend in Perched Aquifer



Field Parameters



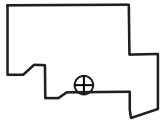
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

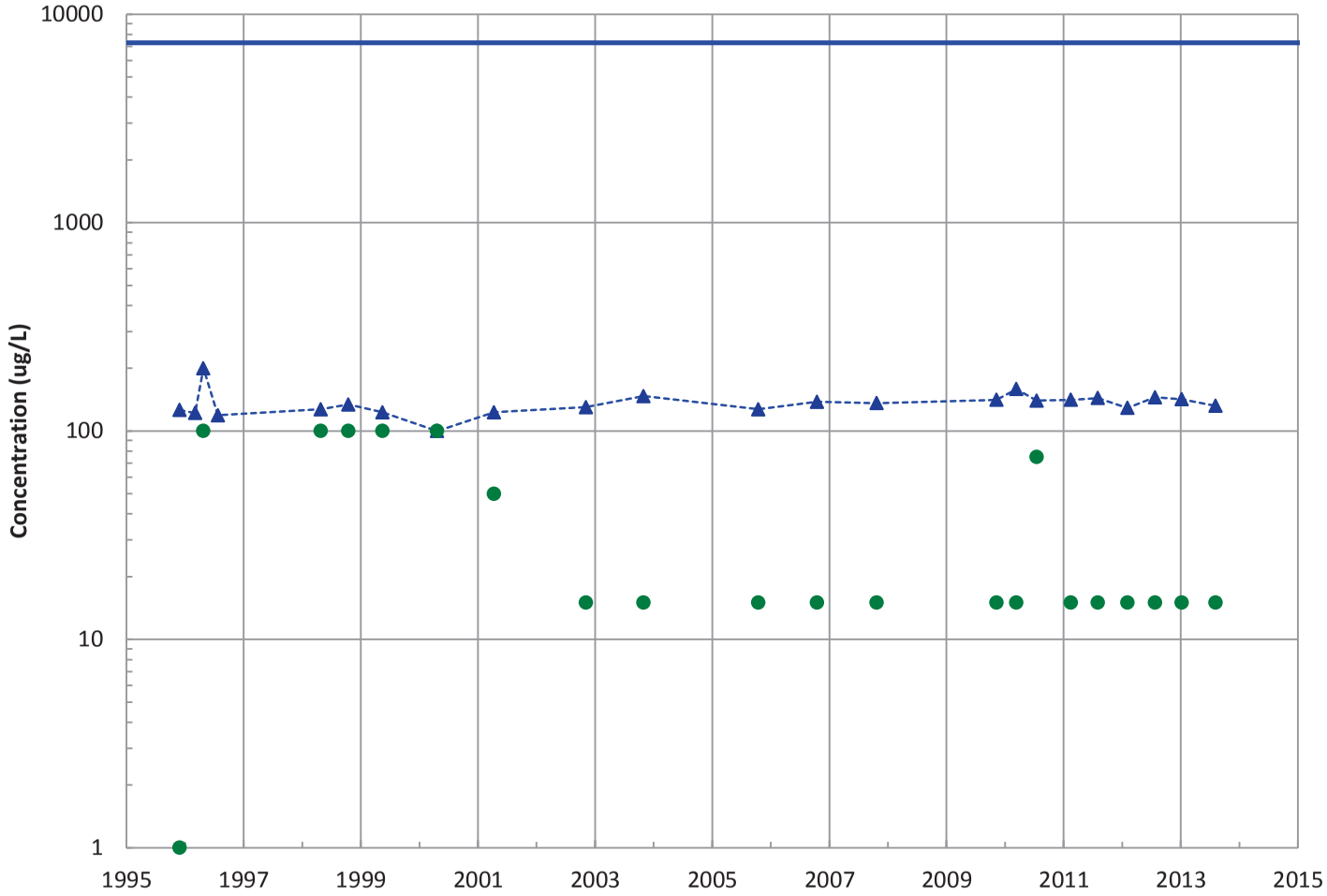
Well Location



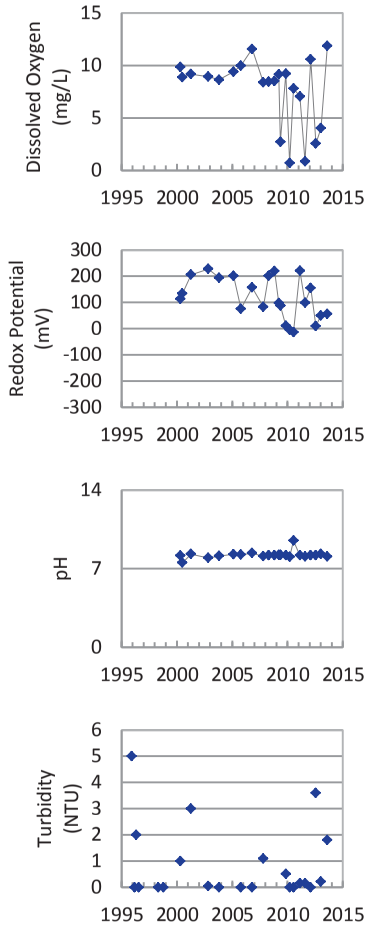
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/25/2000 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1005
Boron Trend in Perched Aquifer



Field Parameters



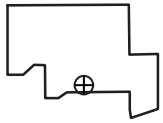
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Probably Decreasing
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

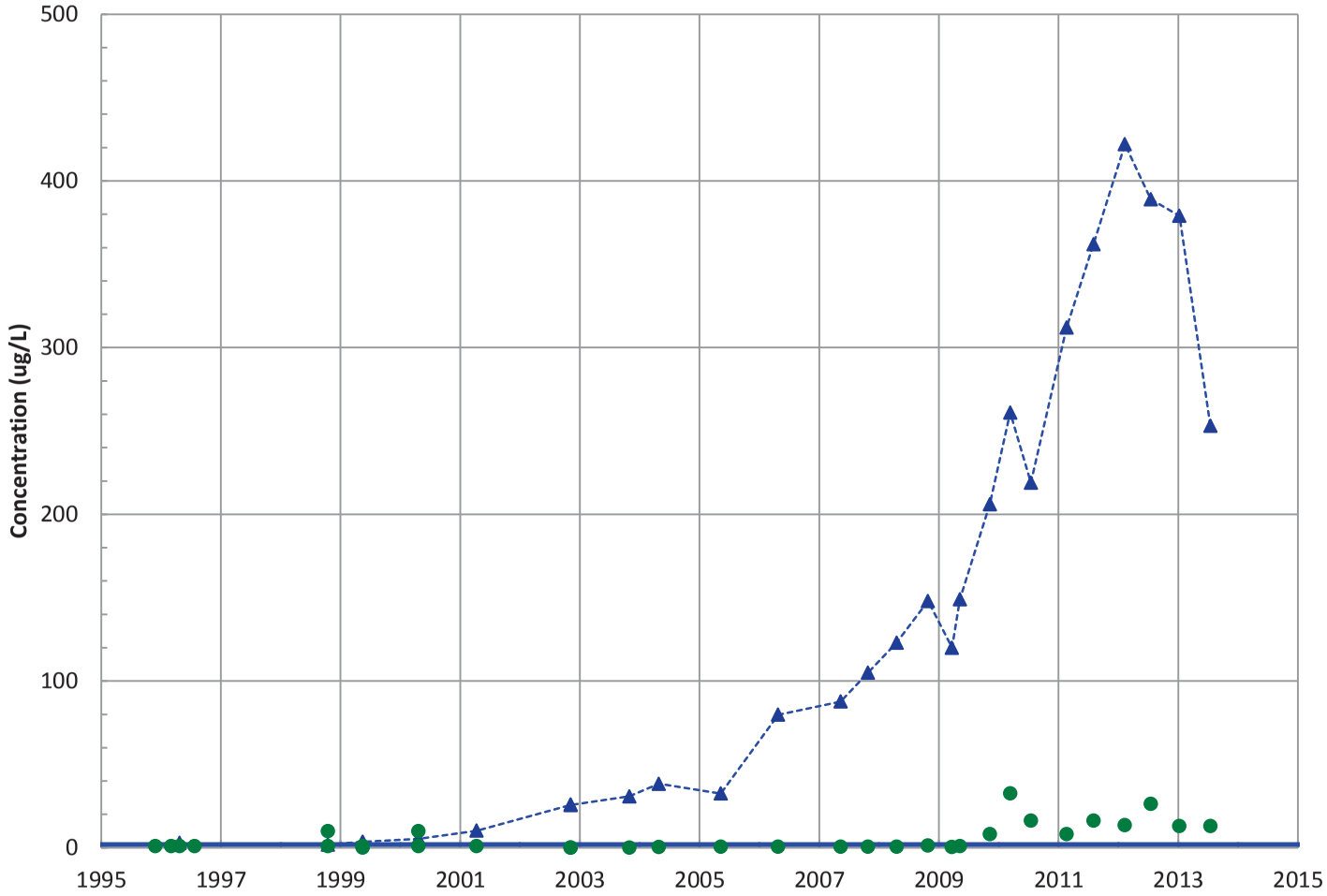
Well Location



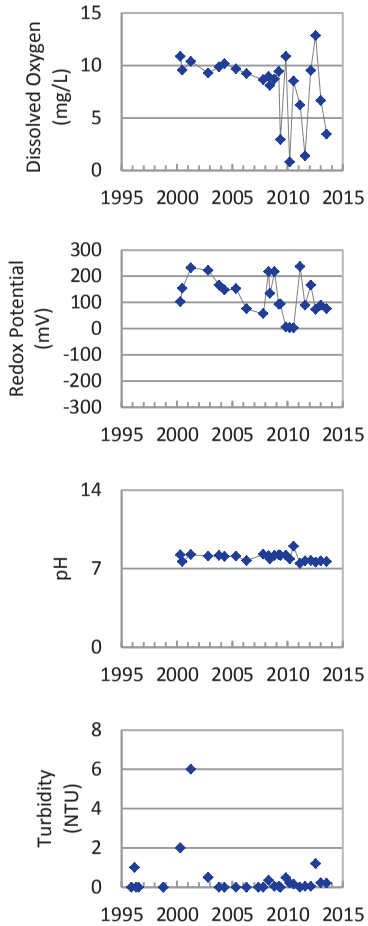
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/29/1995 to 8/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1006
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Probably Increasing

2011 - 2013 Data: Decreasing

MAROS Linear Regression Method

Data (7/2009 - 12/2013): Probably Increasing

2011 - 2013 Data: Stable

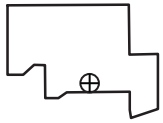
▲ Measured Value

● Sample Detection Limit

Concentration Trend

Groundwater Protection Standard

Well Location



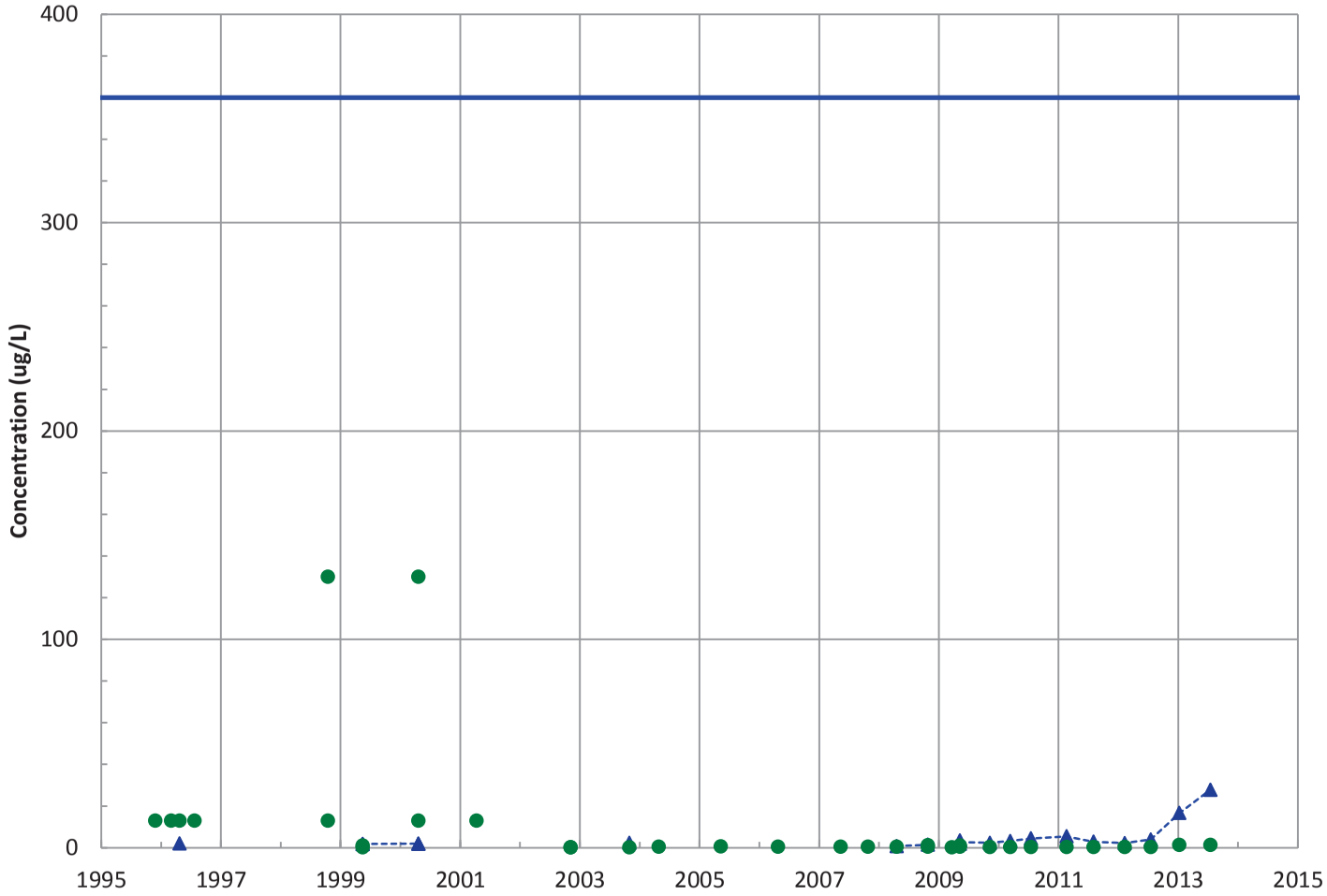
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 11/28/1995 to 7/30/2013

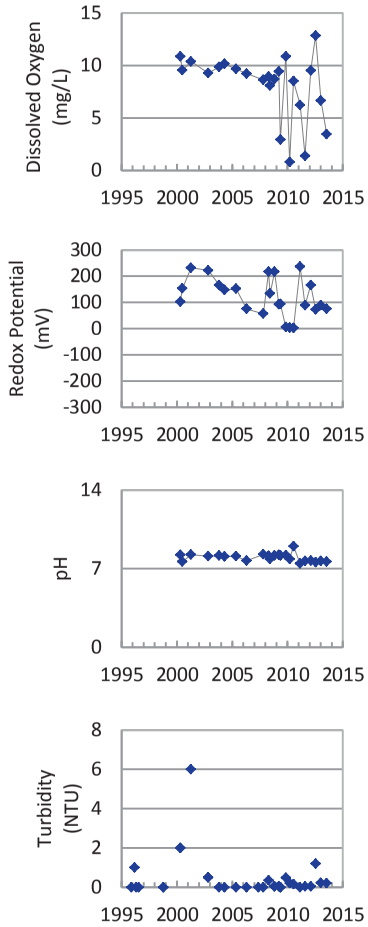
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1006
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Probably Increasing

2011 - 2013 Data: Increasing

MAROS Linear Regression Method

Data (7/2009 - 12/2013): Increasing

2011 - 2013 Data: Increasing

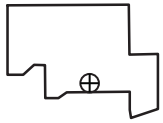
▲ Measured Value

● Sample Detection Limit

------- Concentration Trend

——— Groundwater Protection Standard

Well Location



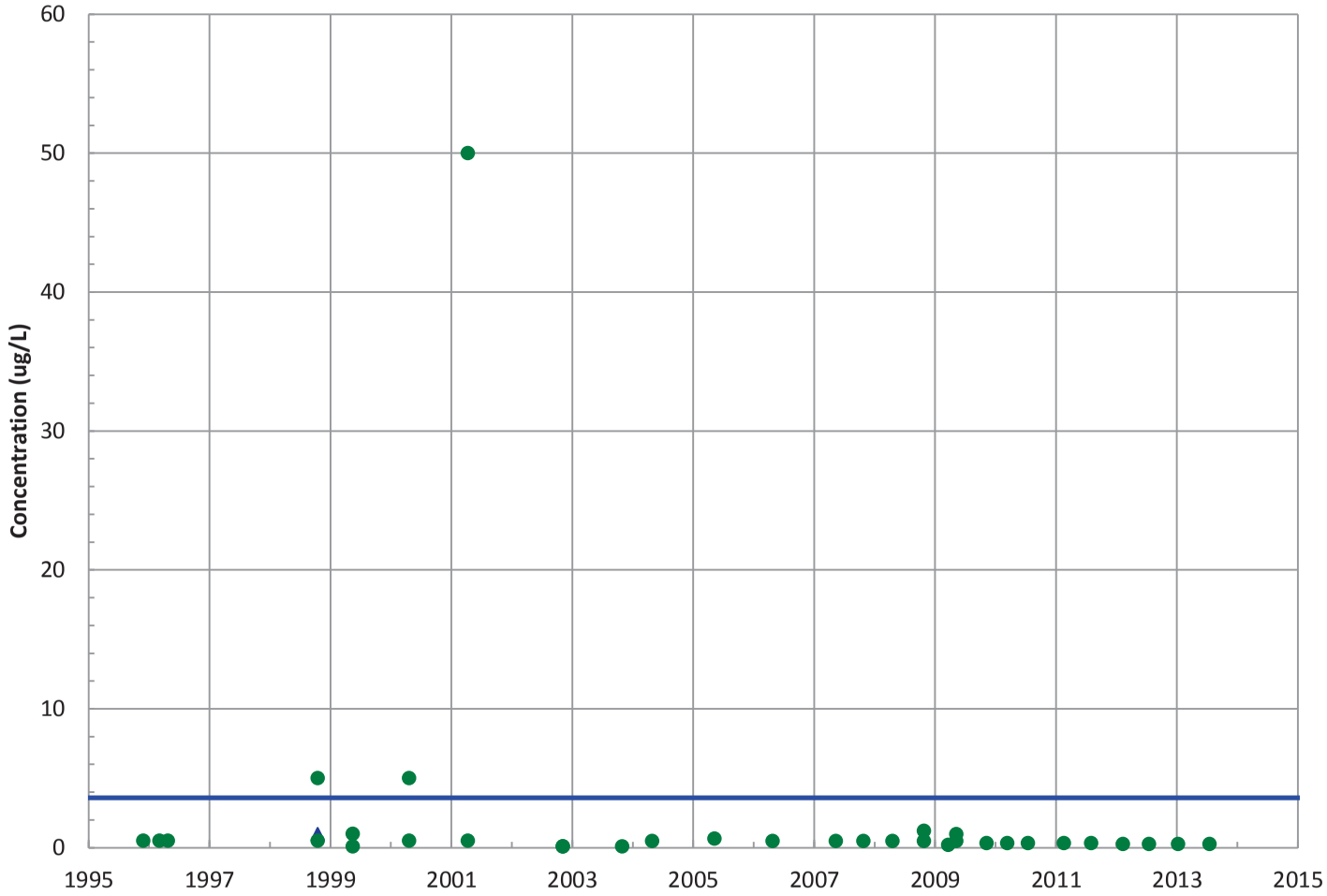
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 11/28/1995 to 7/30/2013

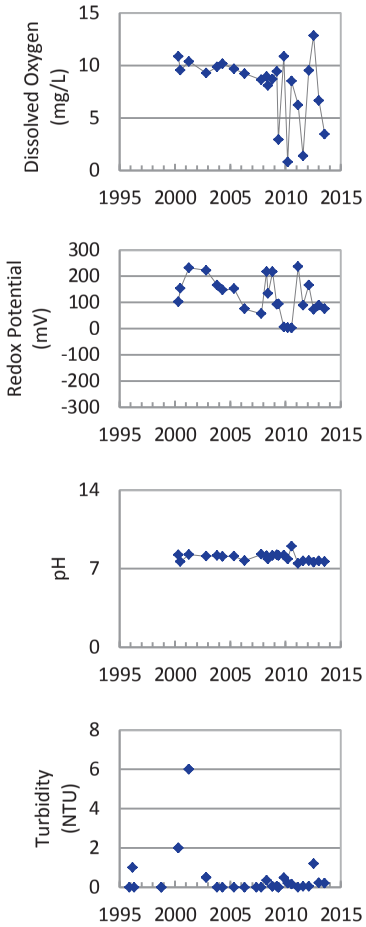
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1006
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



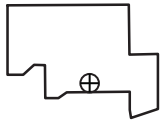
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

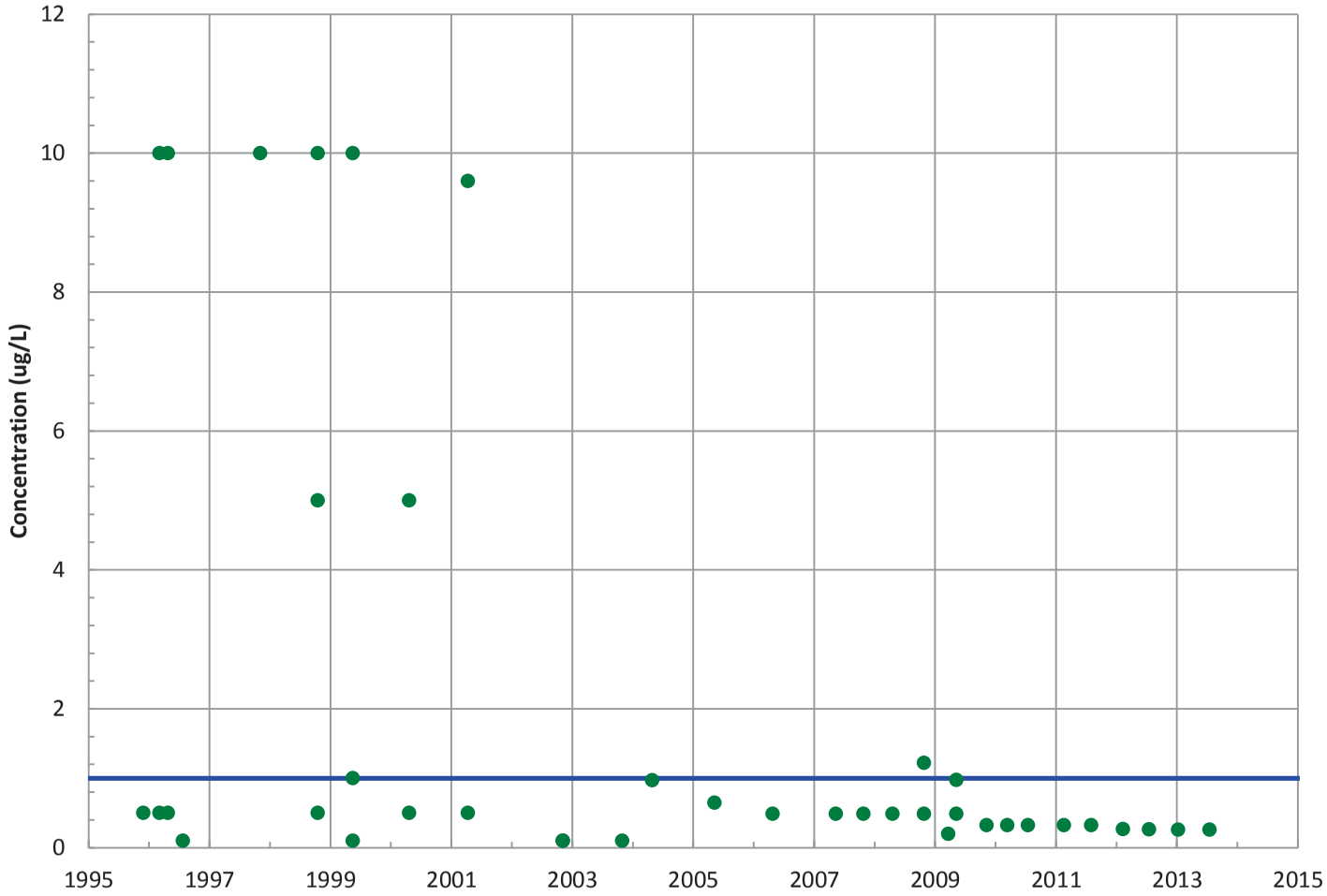
Well Location



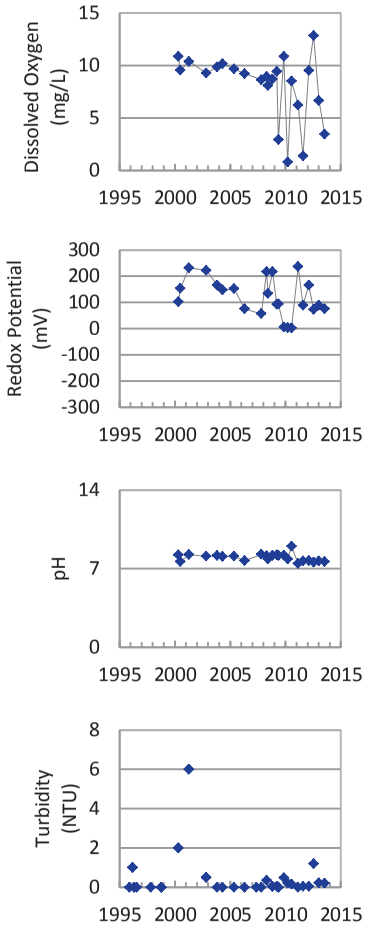
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/28/1995 to 7/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1006
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



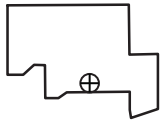
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

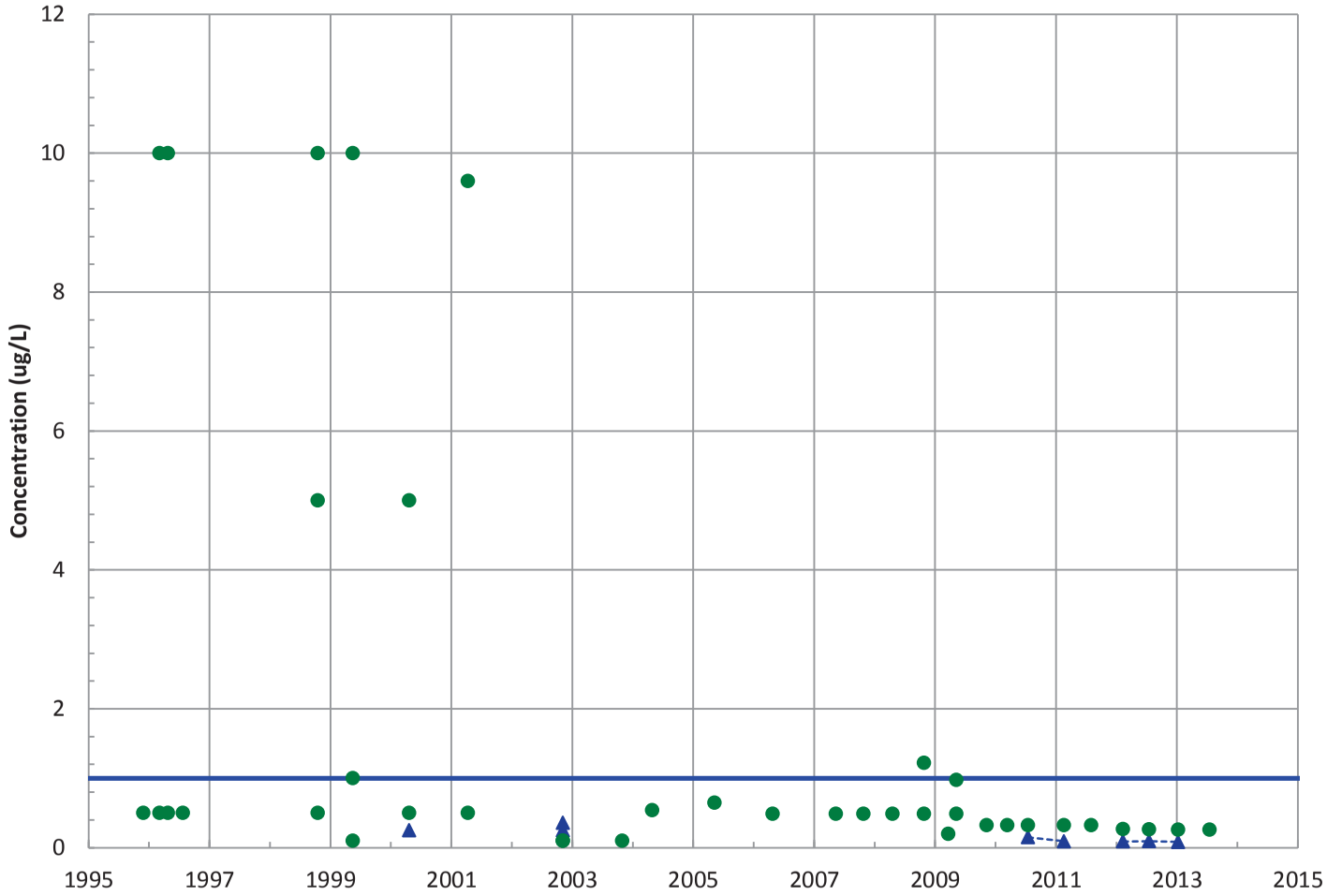
Well Location



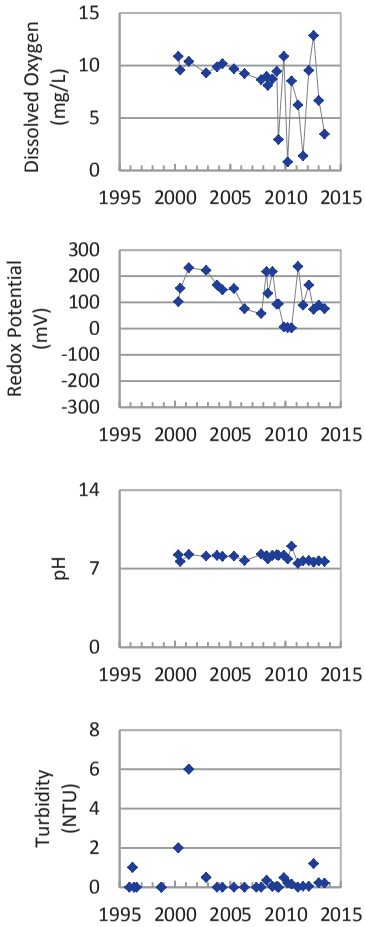
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/28/1995 to 7/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1006
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Decreasing

2011 - 2013 Data: N/A (<4 Detections in Dataset)

MAROS Linear Regression Method

Data (7/2009 - 12/2013): Probably Decreasing

2011 - 2013 Data: Decreasing

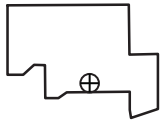
▲ Measured Value

● Sample Detection Limit

------- Concentration Trend

——— Groundwater Protection Standard

Well Location



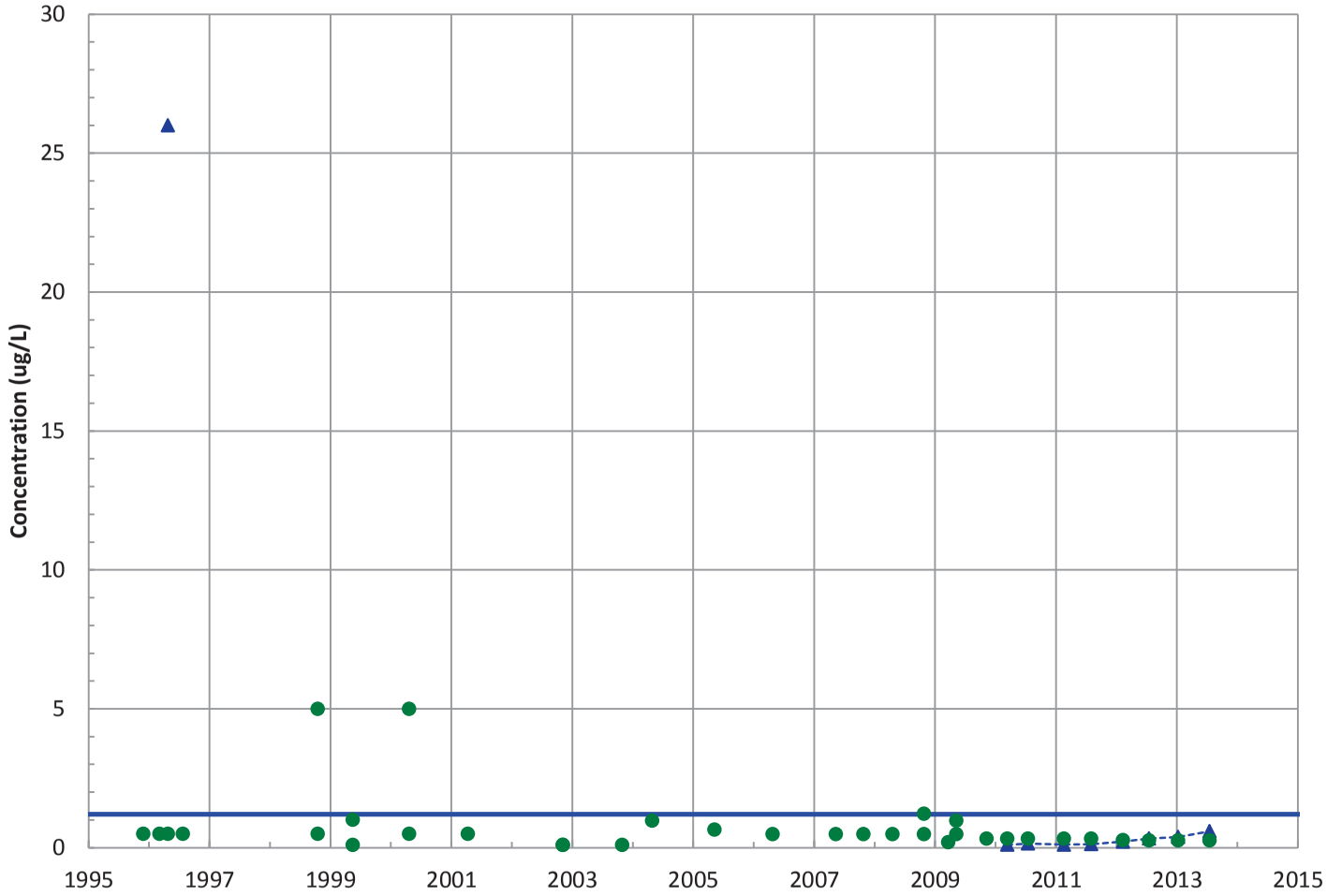
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 11/28/1995 to 7/30/2013

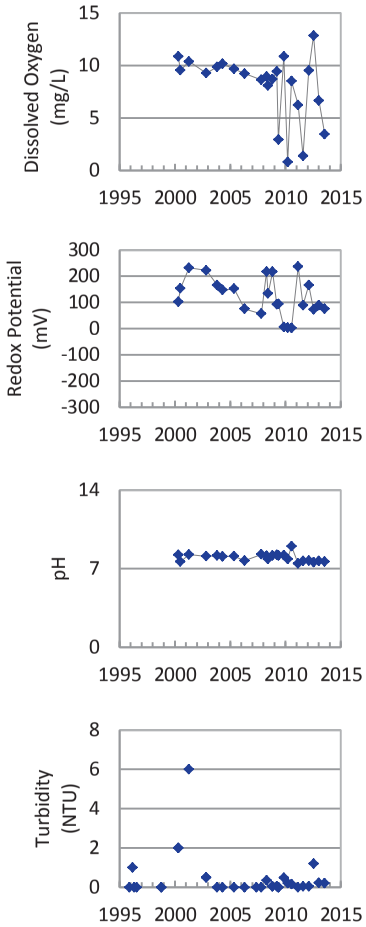
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1006
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



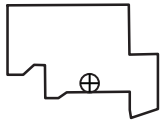
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Increasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Probably Increasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

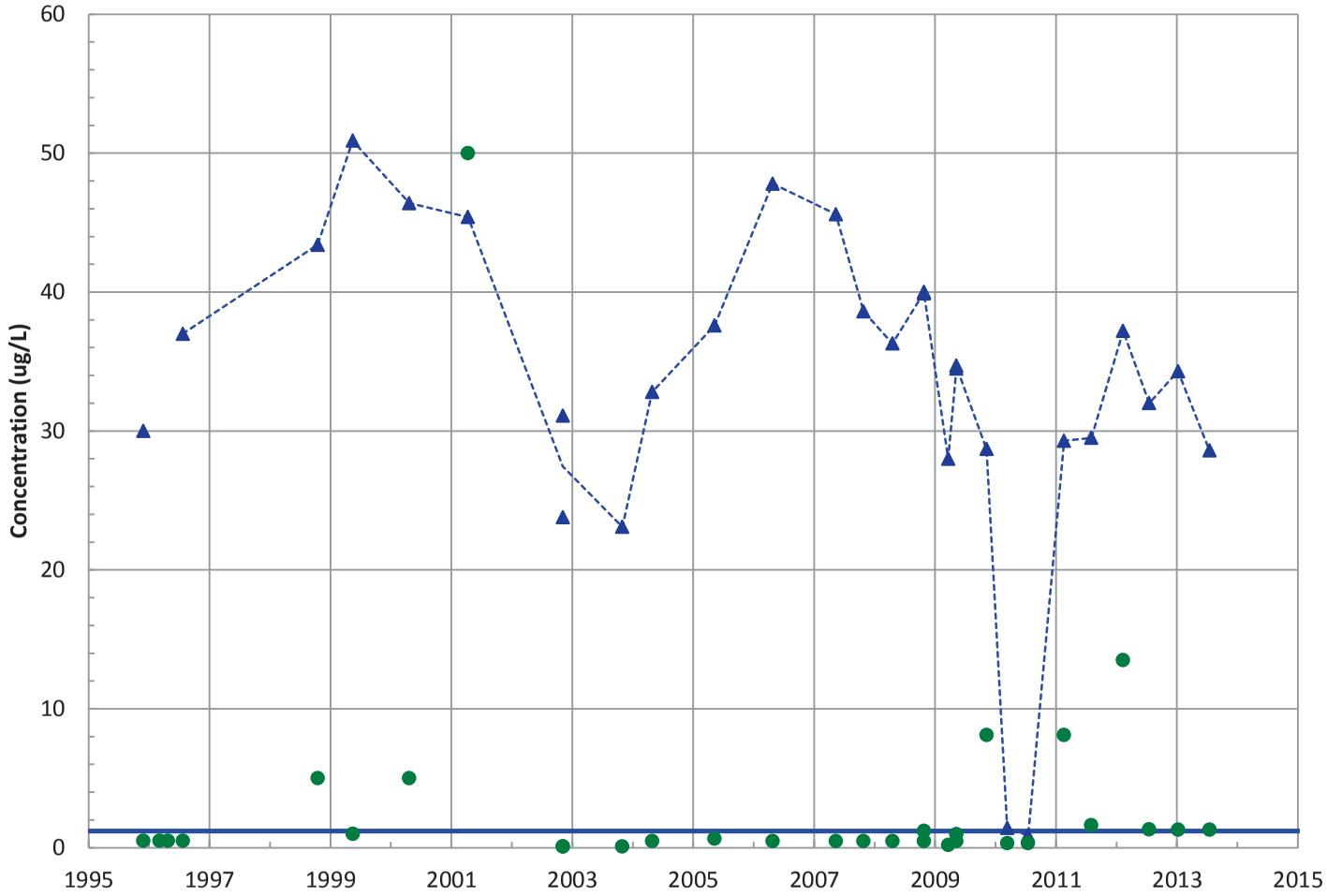
Well Location



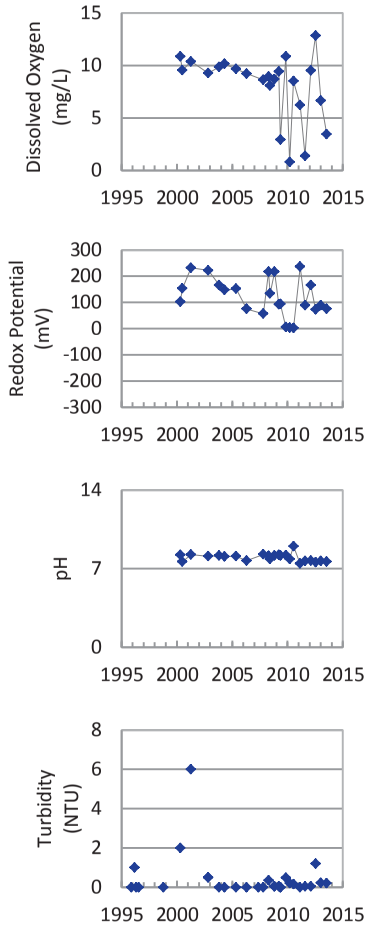
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/28/1995 to 7/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1006
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Probably Increasing

2011 - 2013 Data: Decreasing

MAROS Linear Regression Method

Data (7/2009 - 12/2013): Probably Increasing

2011 - 2013 Data: Stable

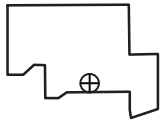
▲ Measured Value

● Sample Detection Limit

------- Concentration Trend

——— Groundwater Protection Standard

Well Location



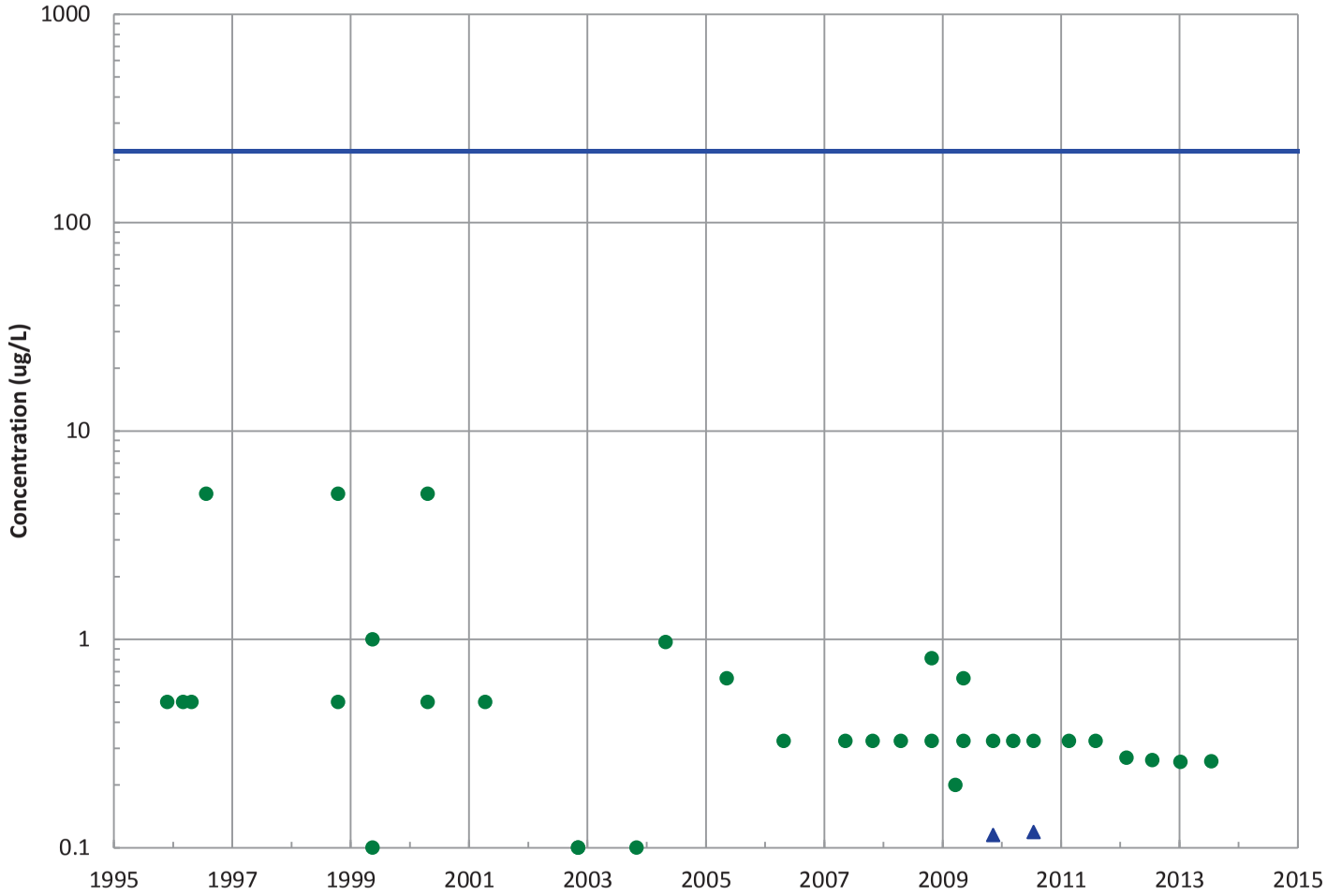
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 11/28/1995 to 7/30/2013

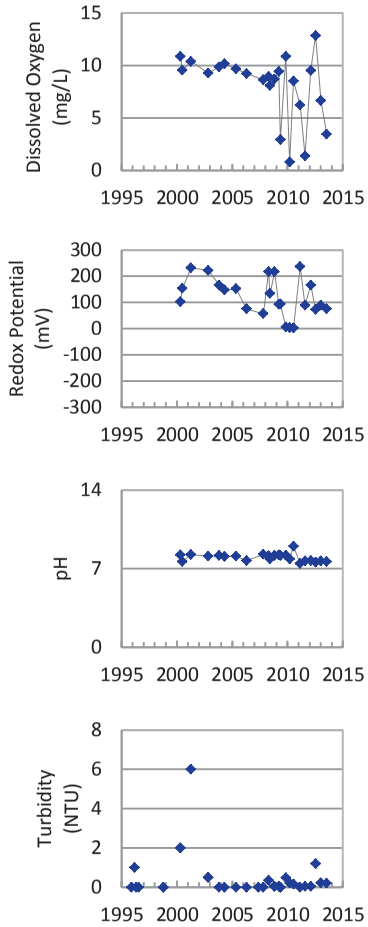
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1006
1,3,5-Trinitrobenzene Trend in Perched Aquifer



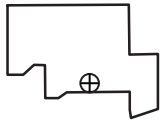
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: All Non-Detect
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
Groundwater Protection Standard

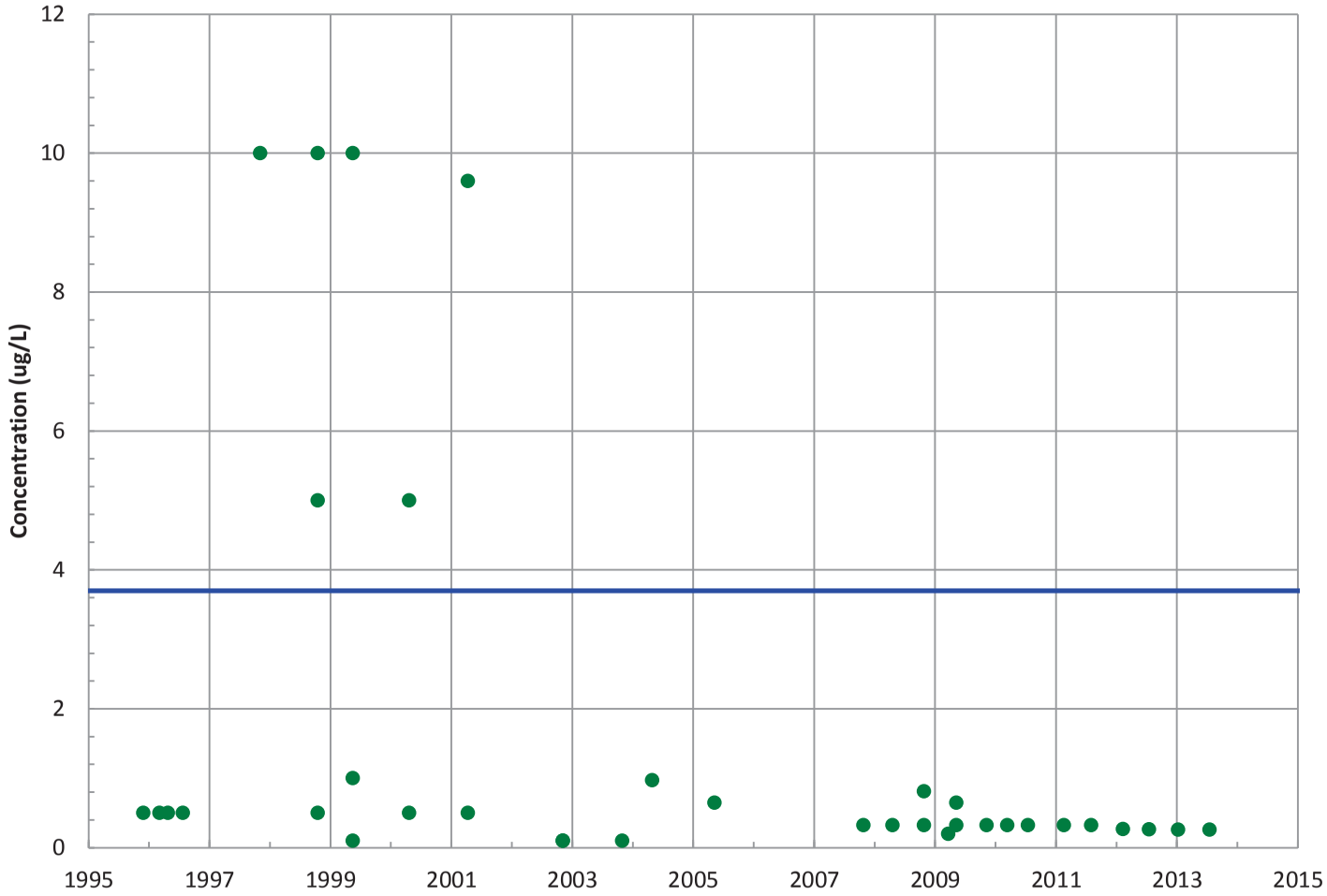
Well Location



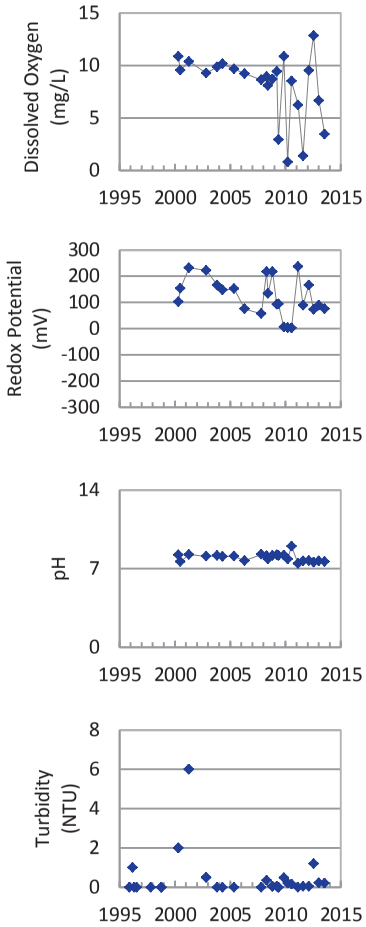
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/28/1995 to 7/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1006
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



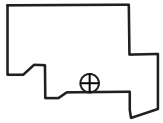
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

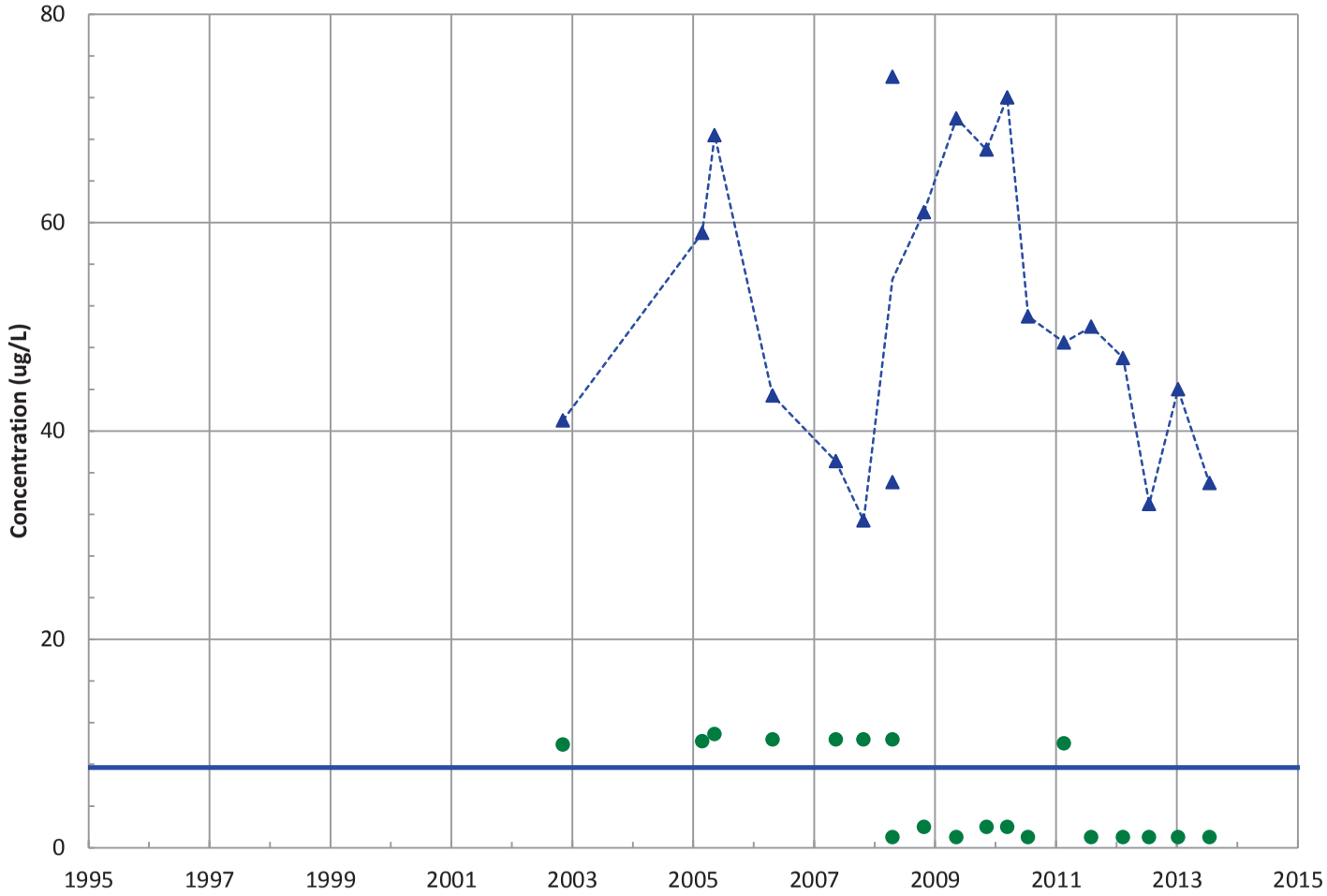
Well Location



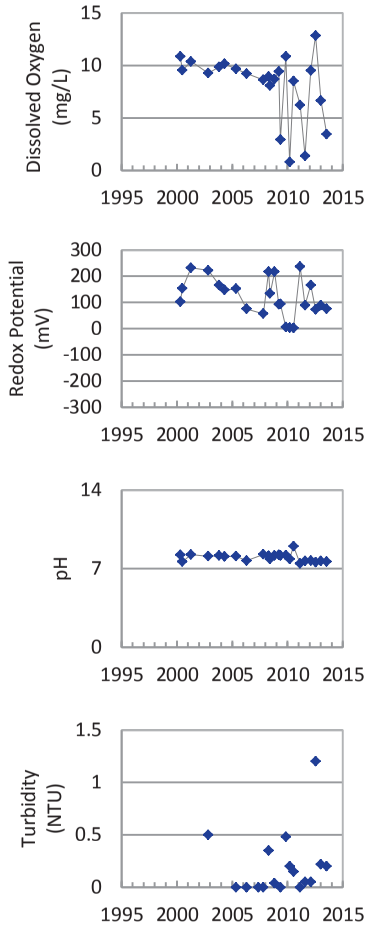
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/28/1995 to 7/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1006
1,4-Dioxane (p-Dioxane) Trend in Perched Aquifer



Field Parameters



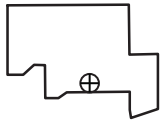
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

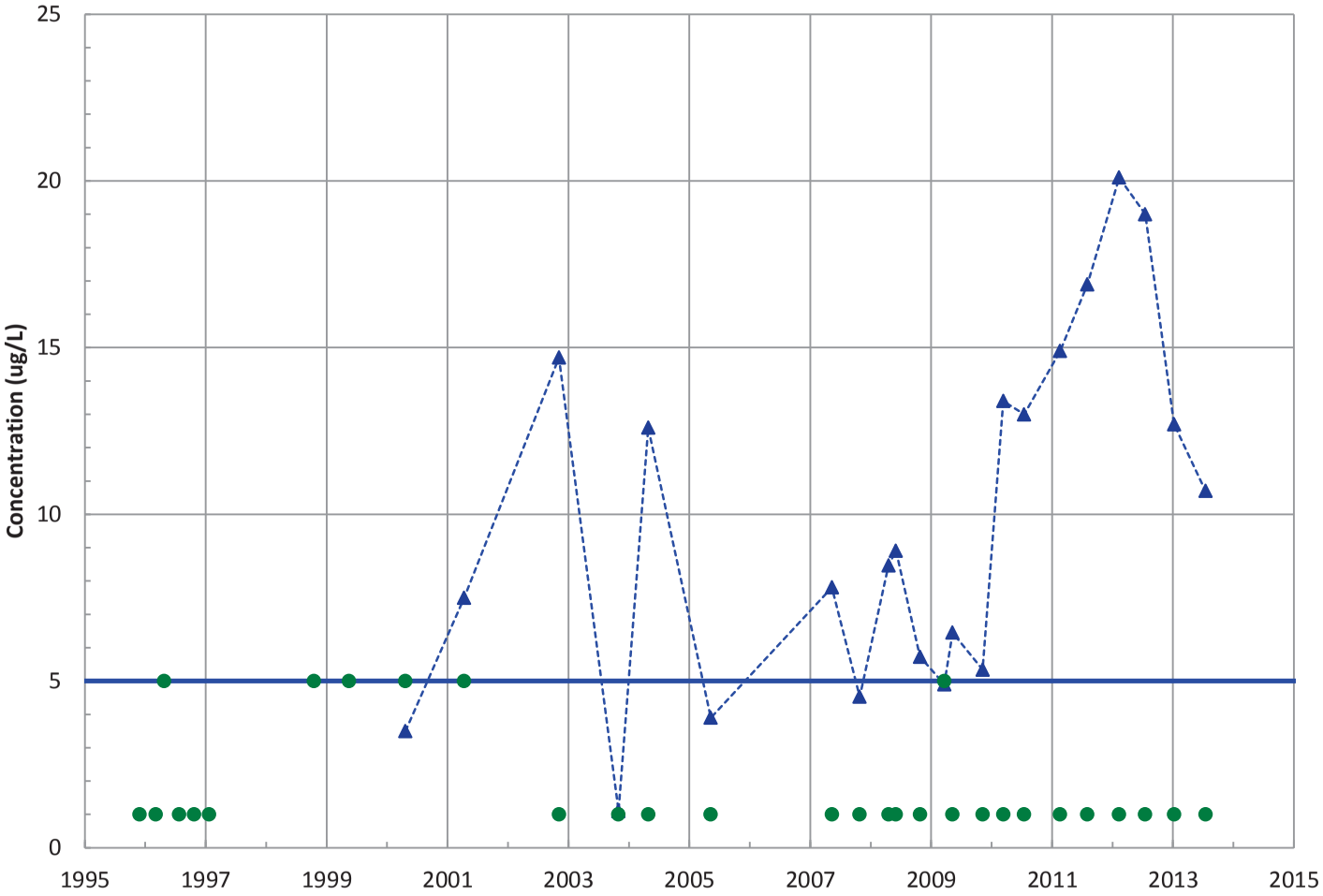
Well Location



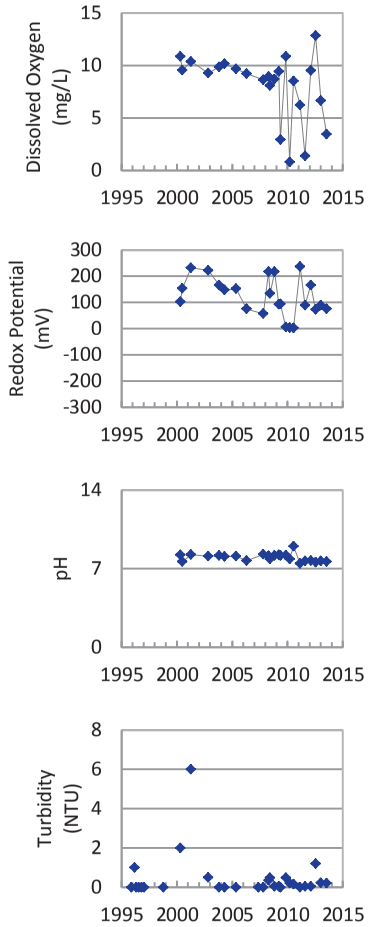
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/11/2002 to 7/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1006
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



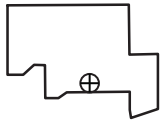
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Decreasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

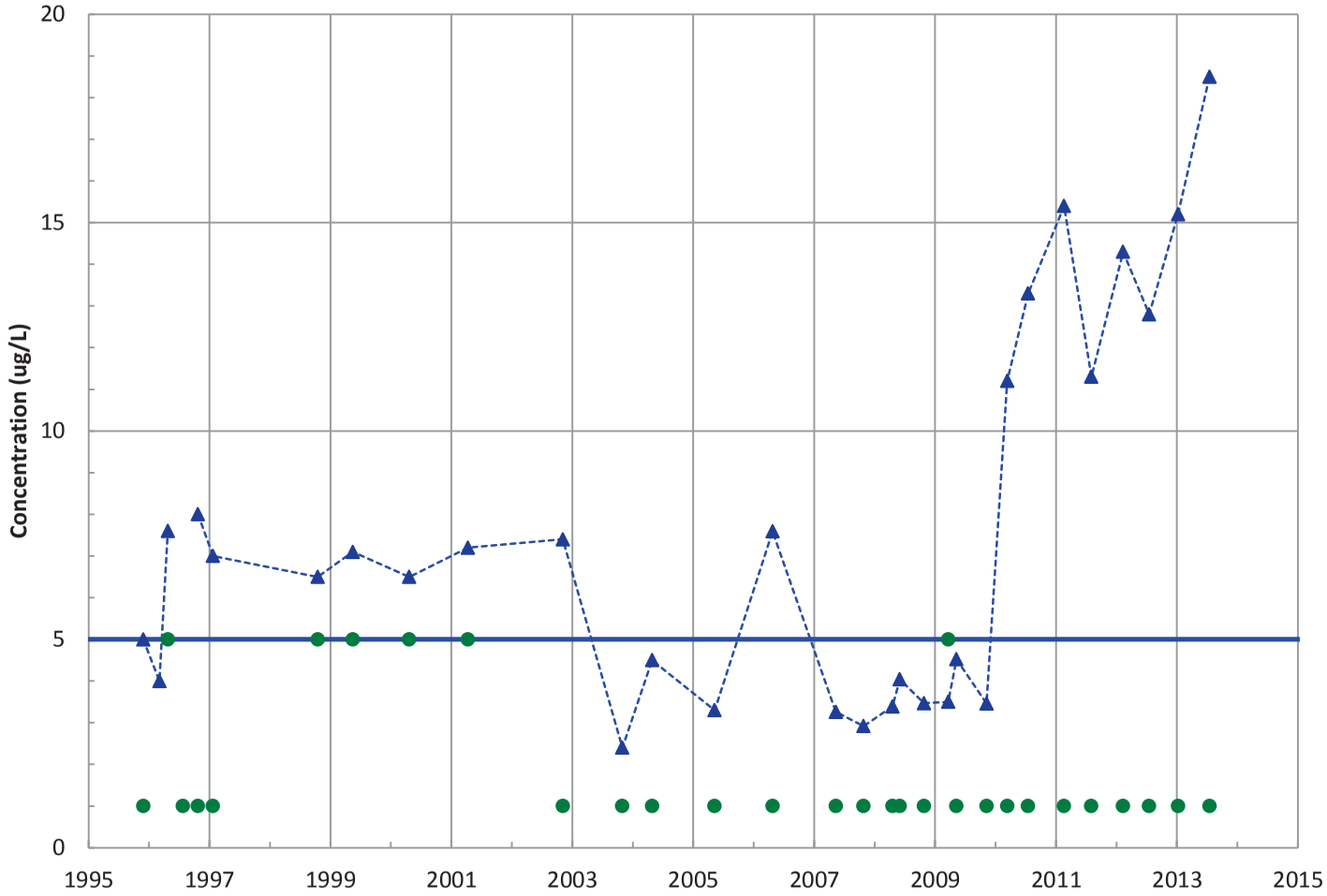
Well Location



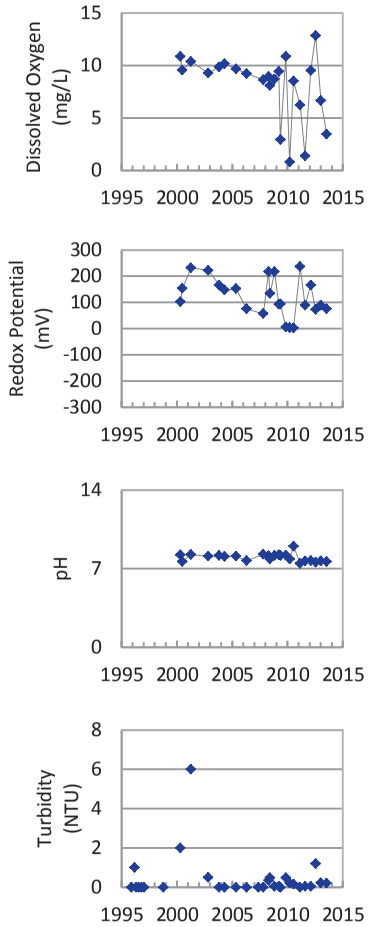
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/28/1995 to 7/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1006
Trichloroethene Trend in Perched Aquifer



Field Parameters



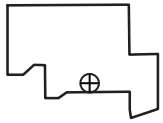
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Probably Increasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

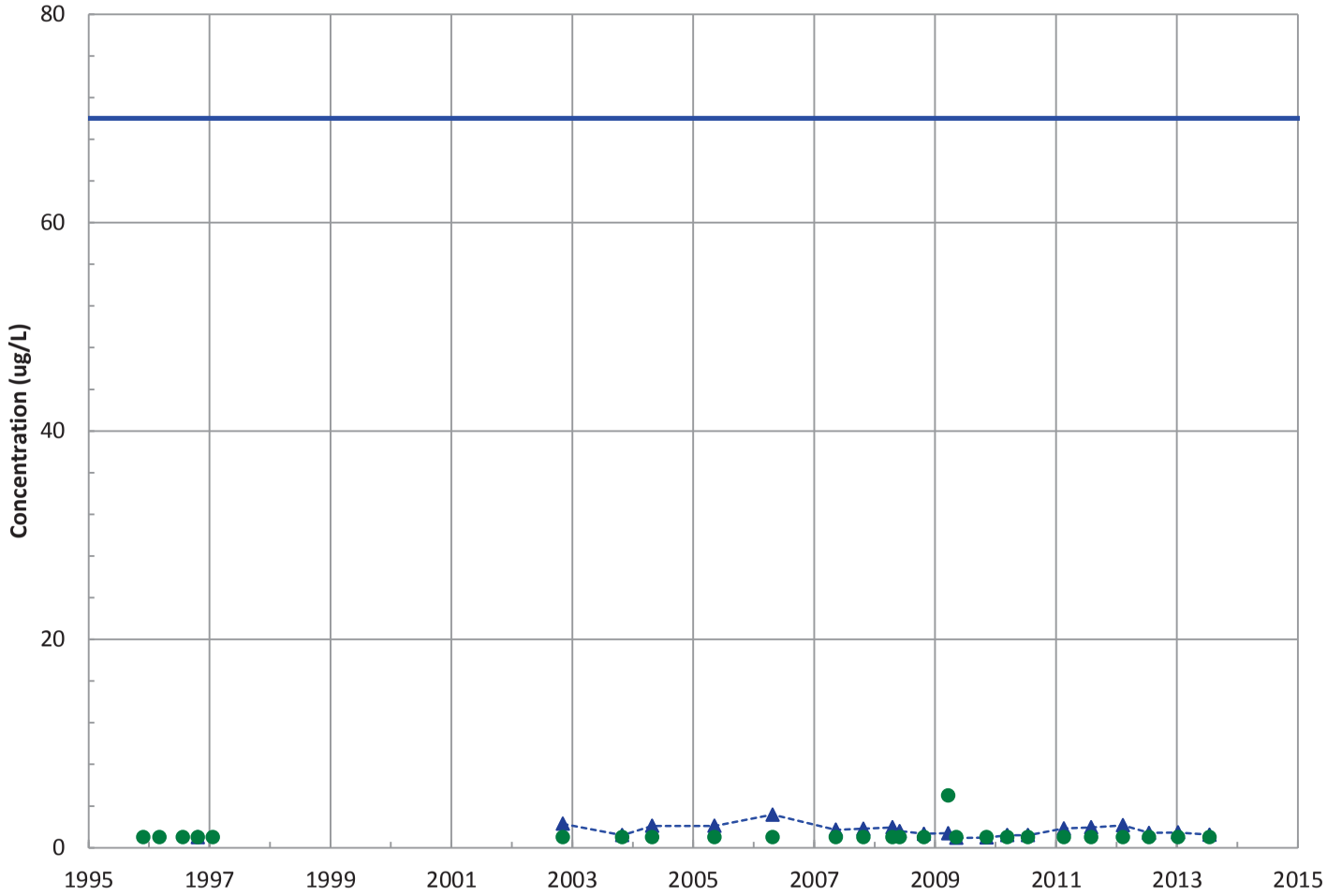
Well Location



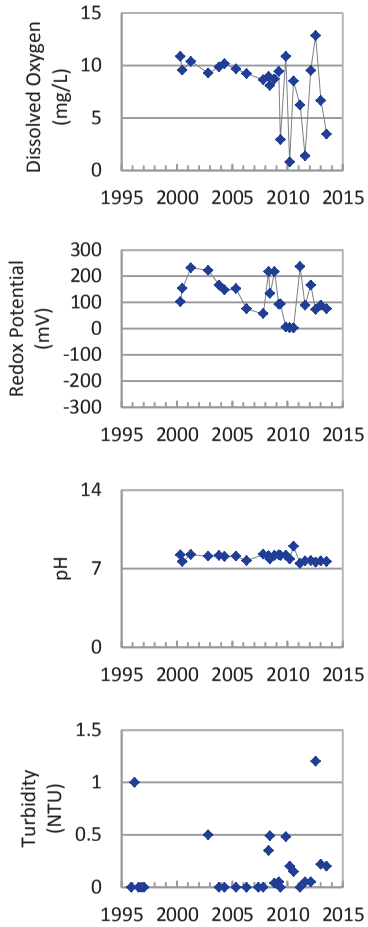
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/28/1995 to 7/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1006
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



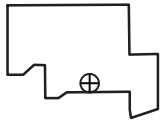
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Decreasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

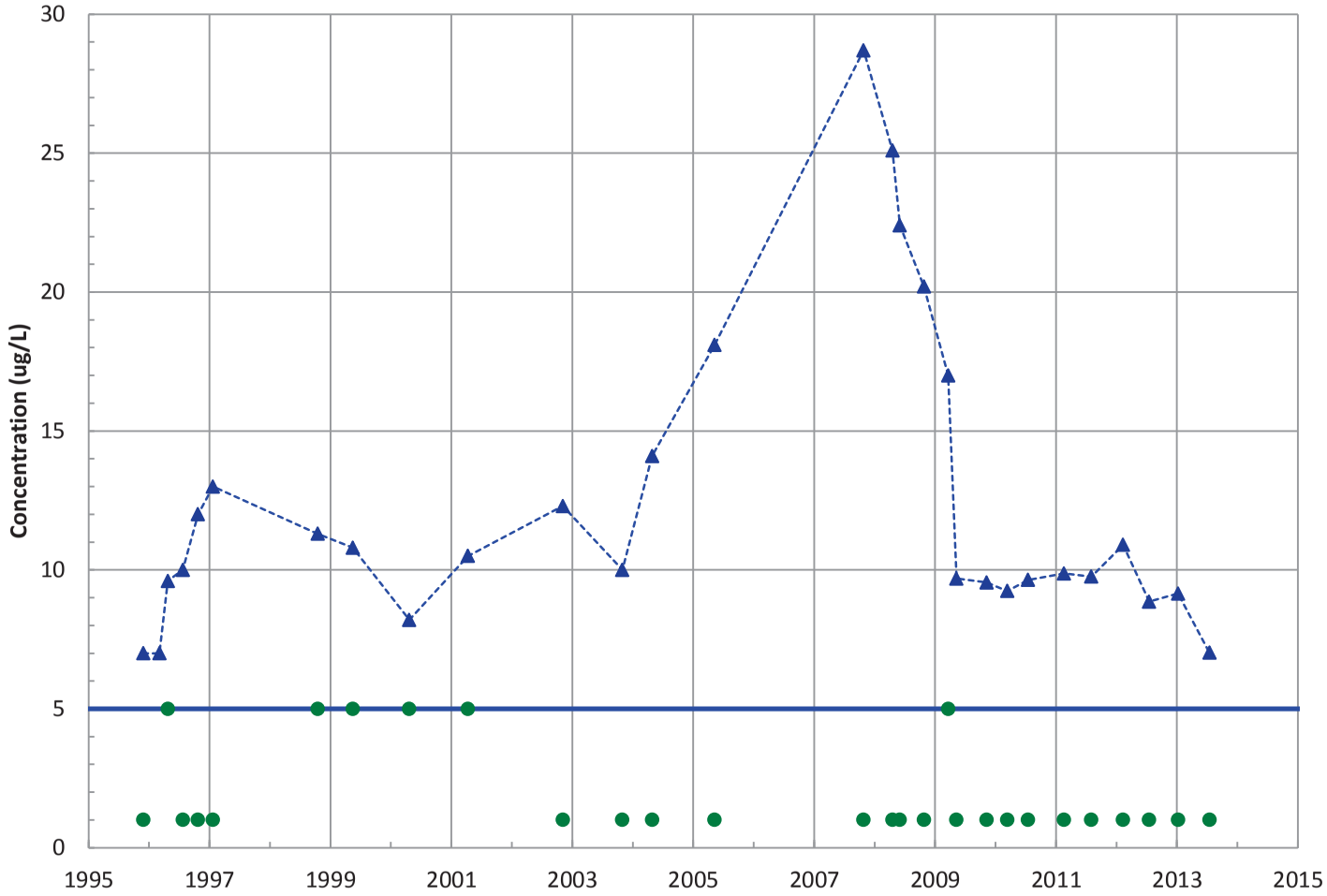
Well Location



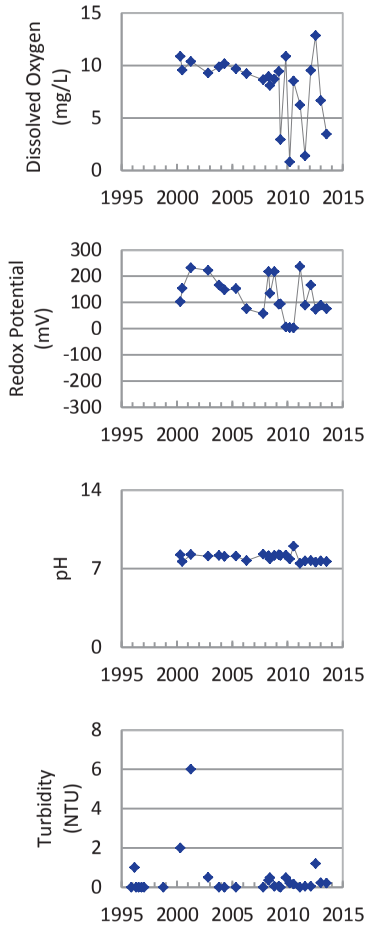
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/28/1995 to 7/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1006
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



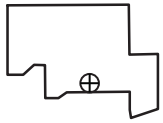
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Probably Decreasing
2011 - 2013 Data: Decreasing

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

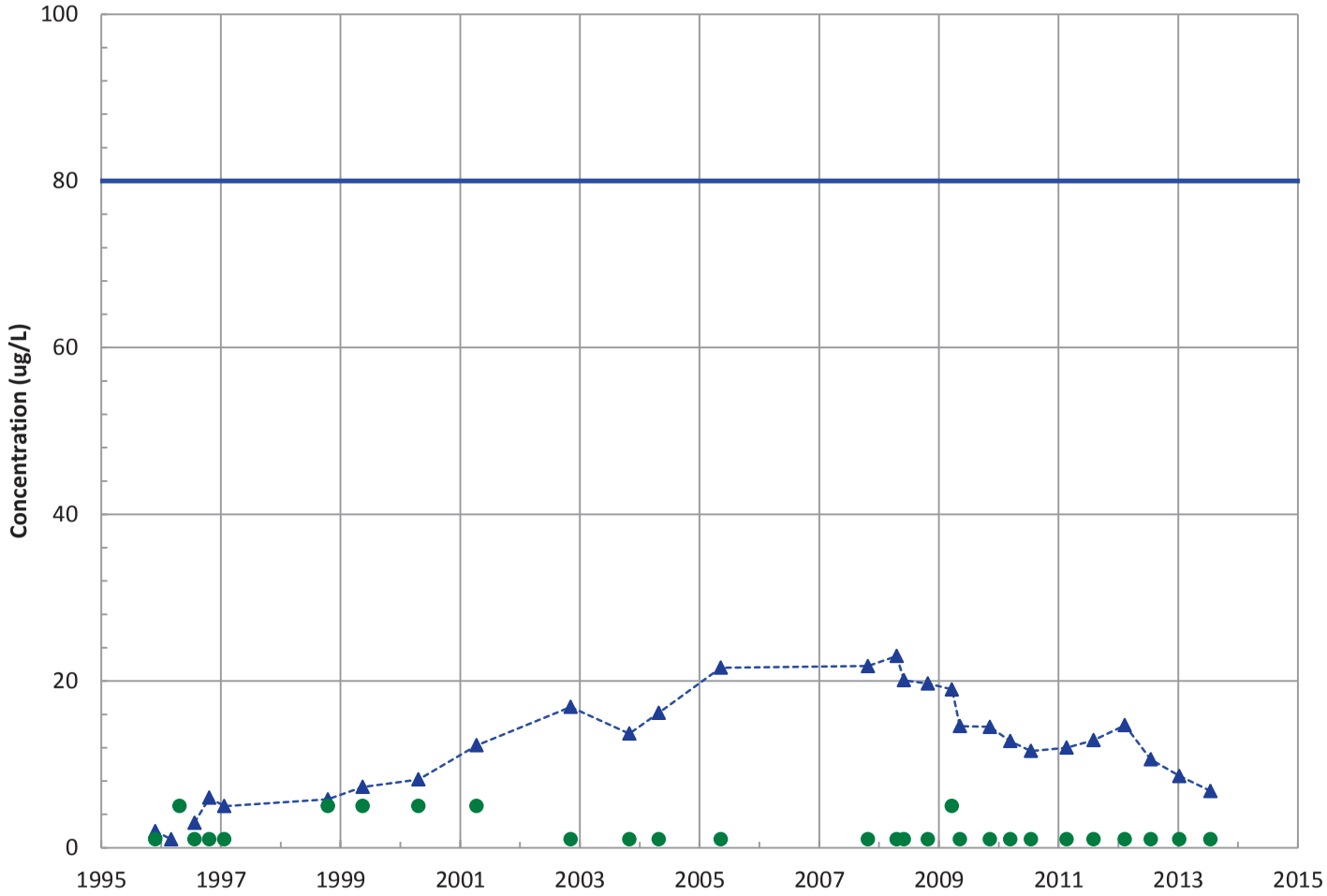
Well Location



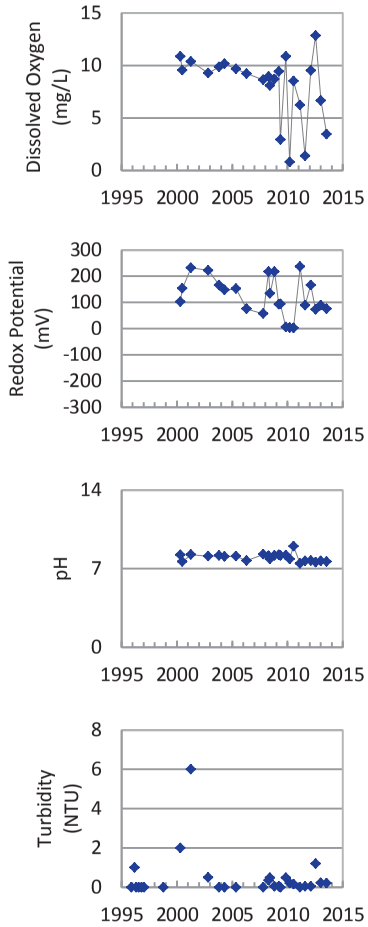
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/28/1995 to 7/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1006
Chloroform Trend in Perched Aquifer



Field Parameters



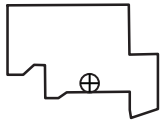
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------ Concentration Trend
- ——— Groundwater Protection Standard

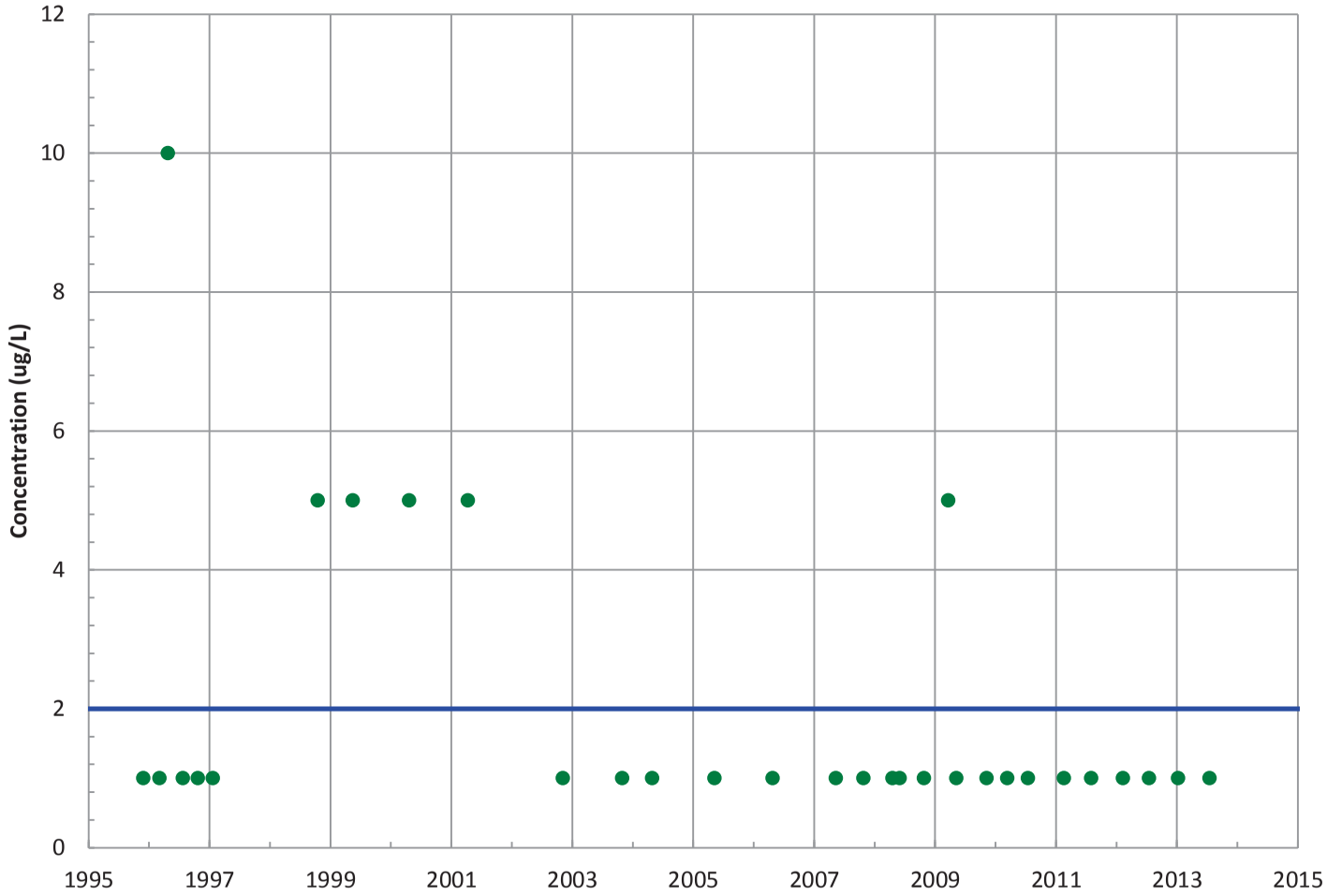
Well Location



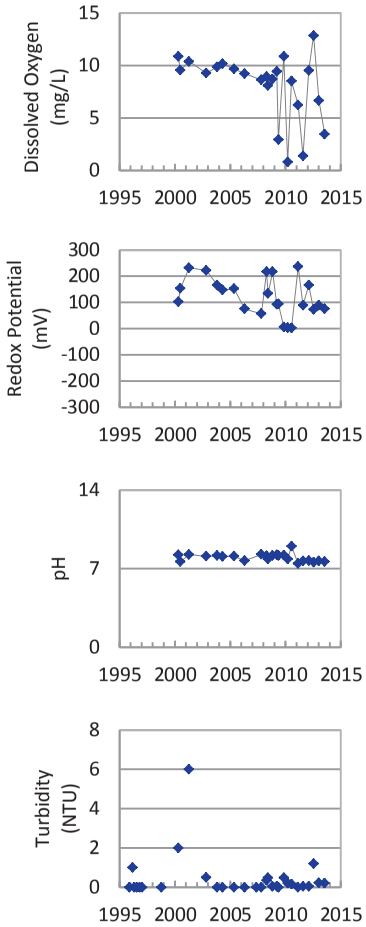
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/28/1995 to 7/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1006
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



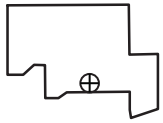
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

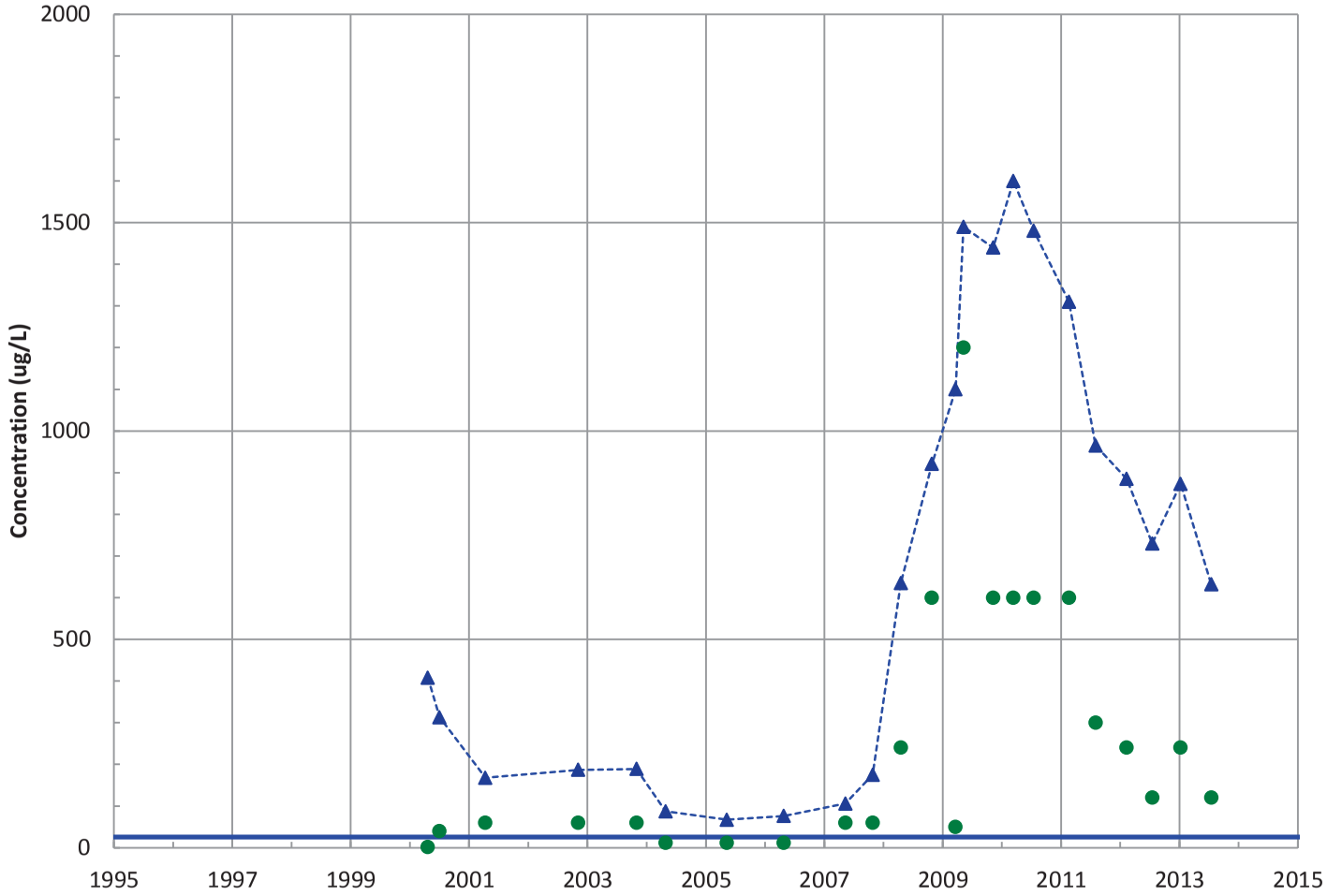
Well Location



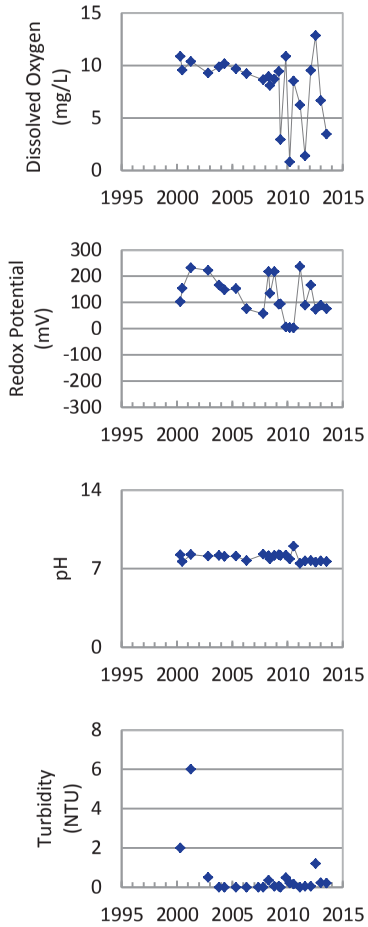
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/28/1995 to 7/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1006
Perchlorate Trend in Perched Aquifer



Field Parameters



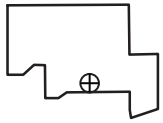
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

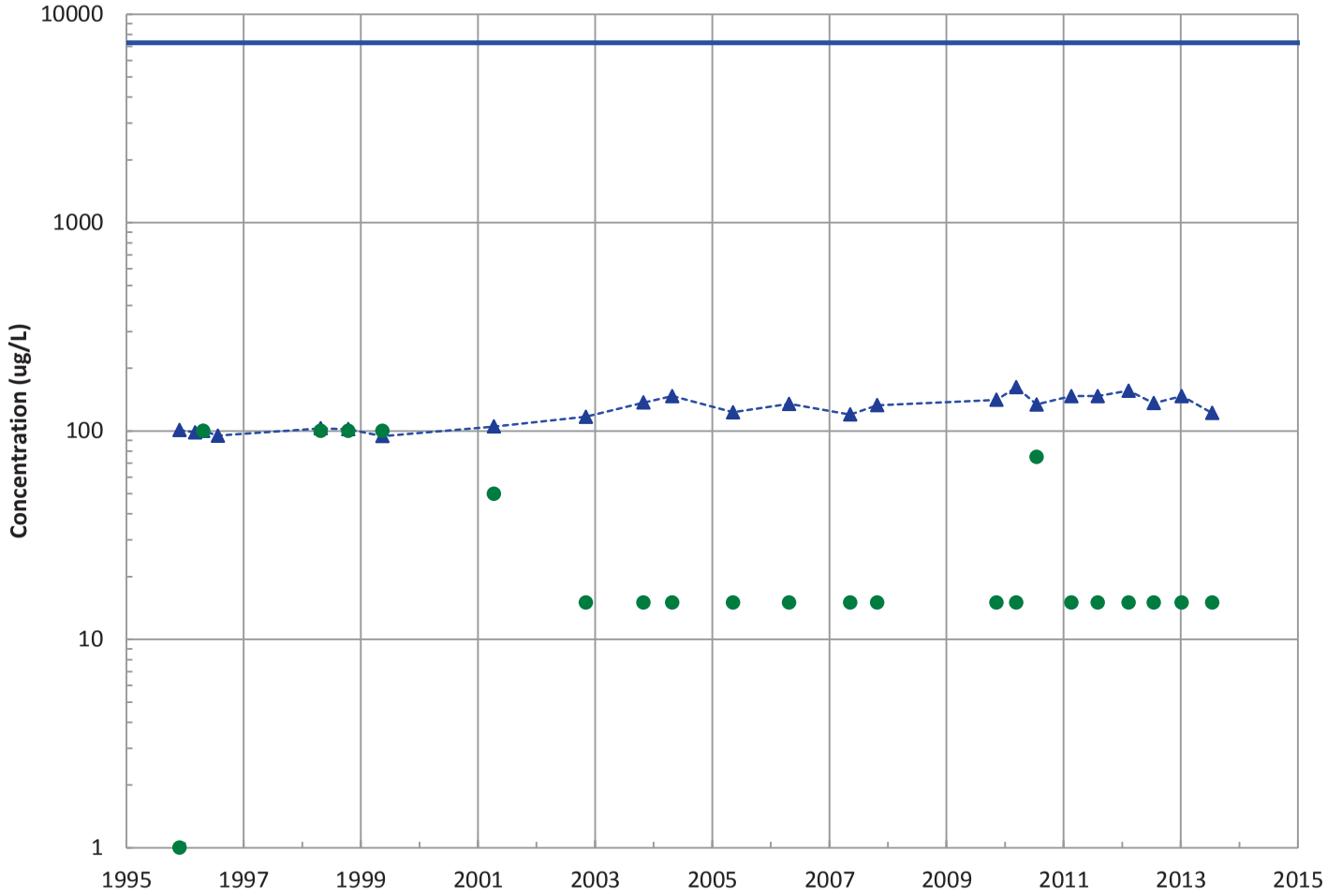
Well Location



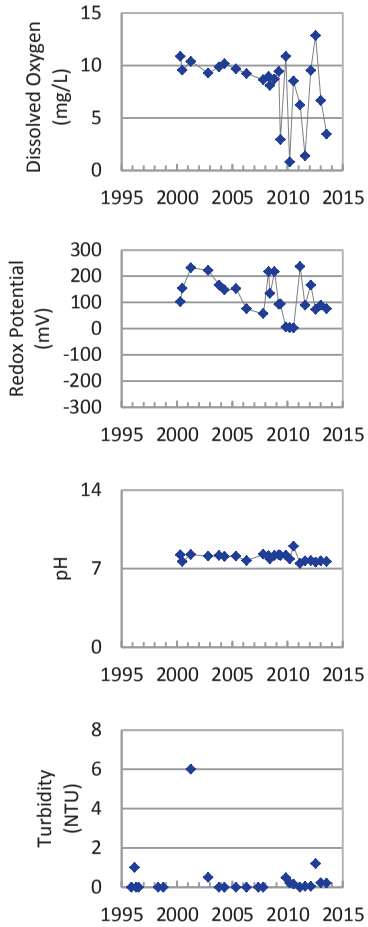
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/25/2000 to 7/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1006
Boron Trend in Perched Aquifer



Field Parameters



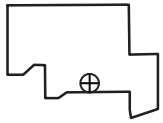
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Probably Decreasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

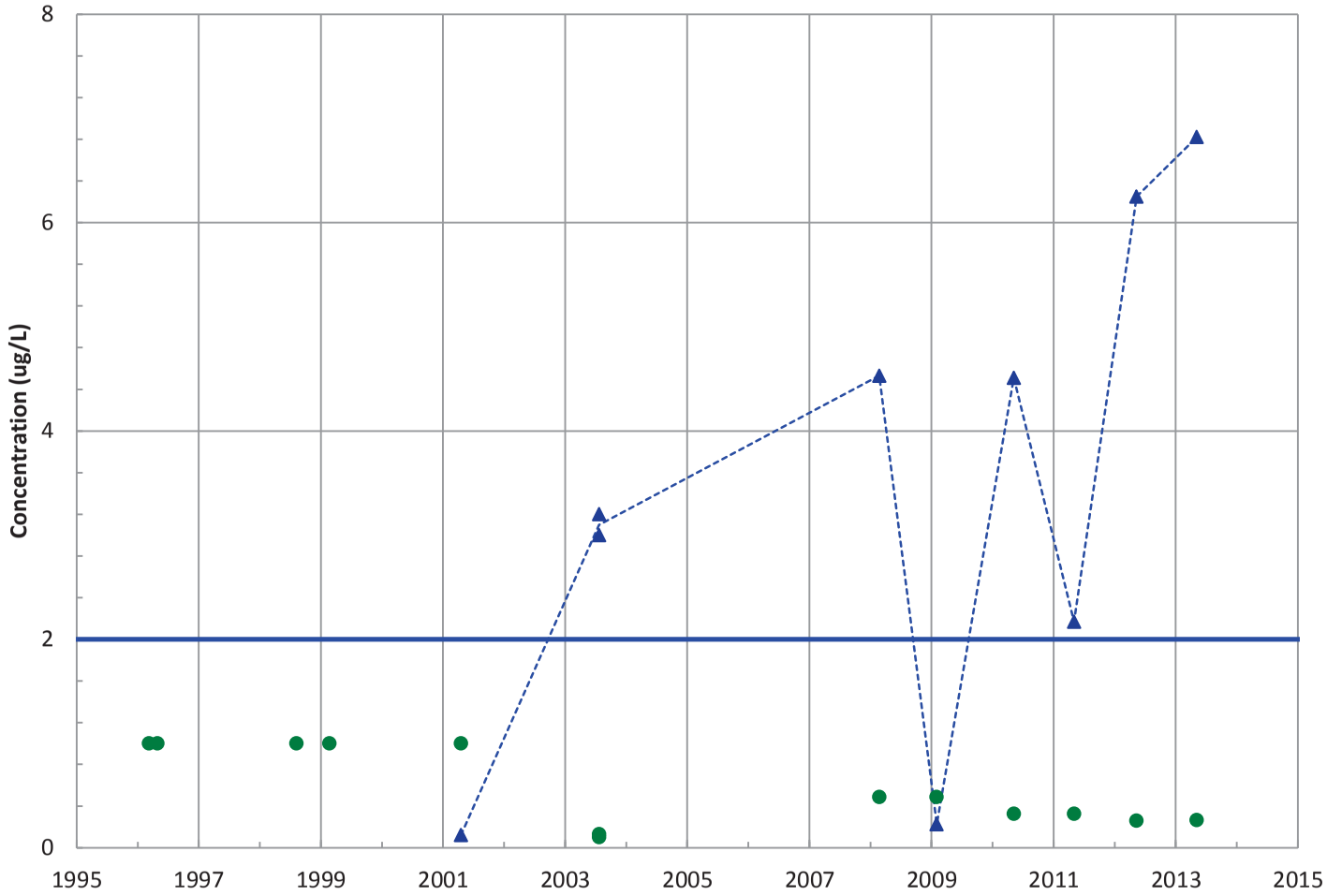
Well Location



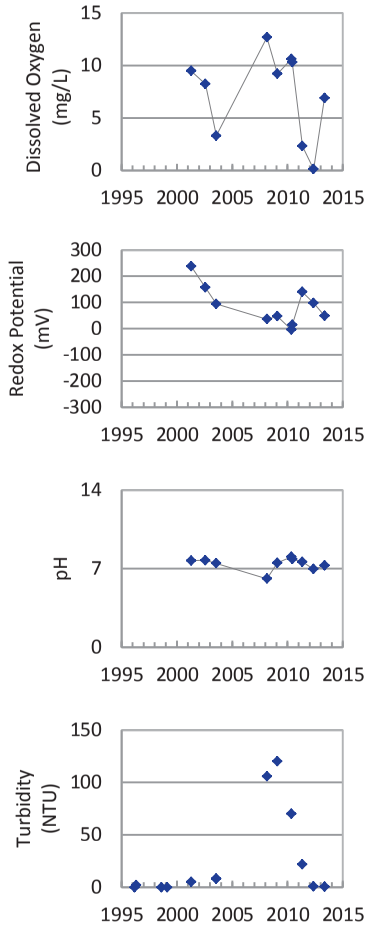
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/28/1995 to 7/30/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1007
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



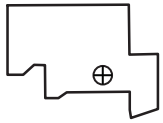
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

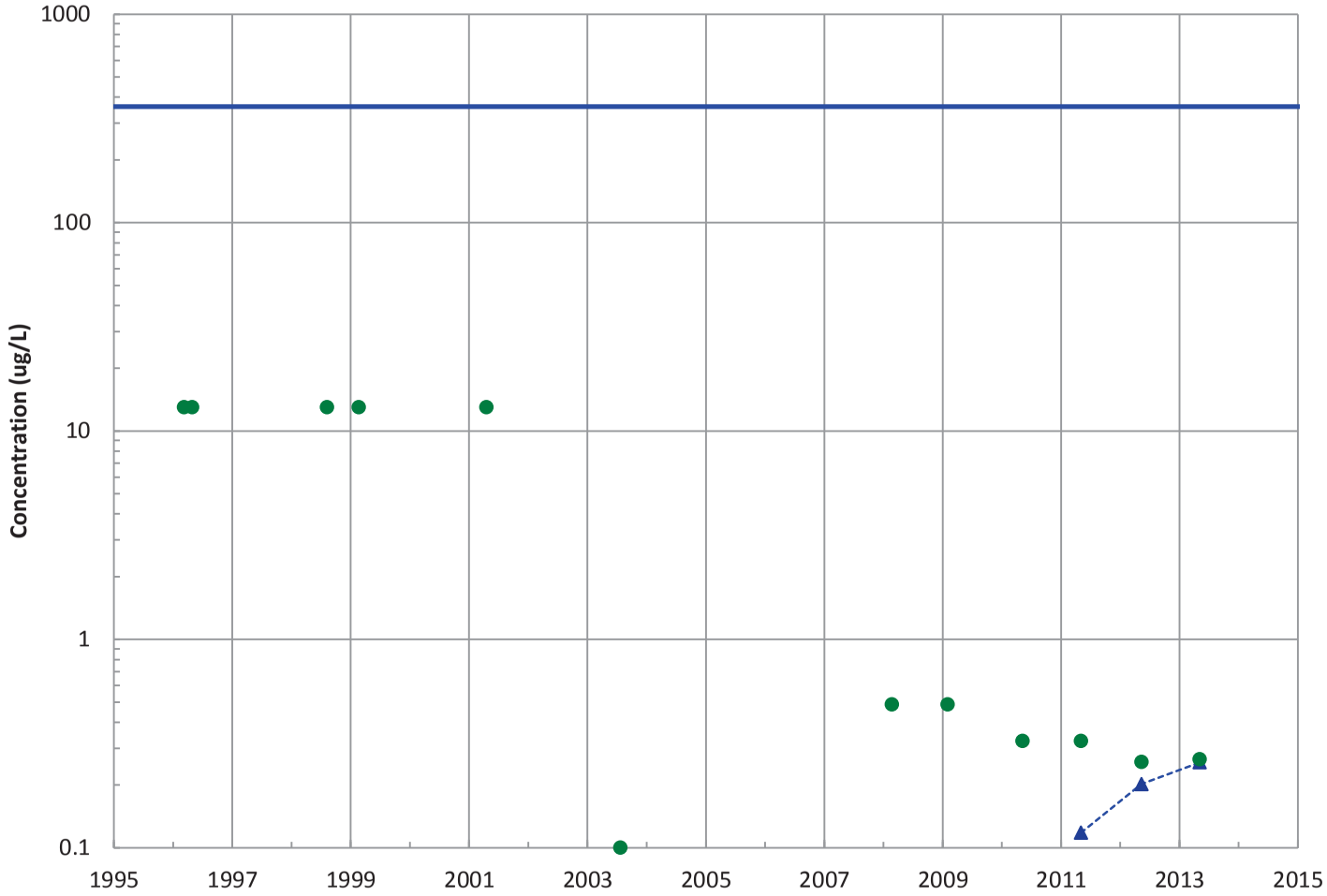
Well Location



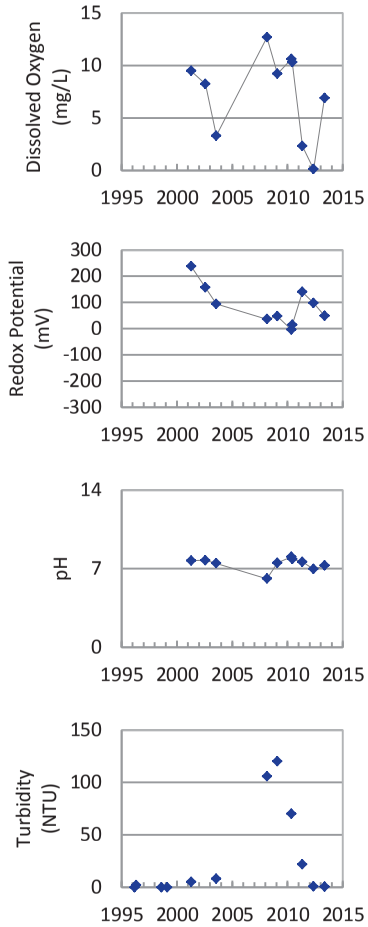
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/11/1996 to 5/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1007
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



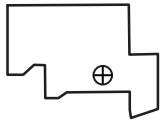
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

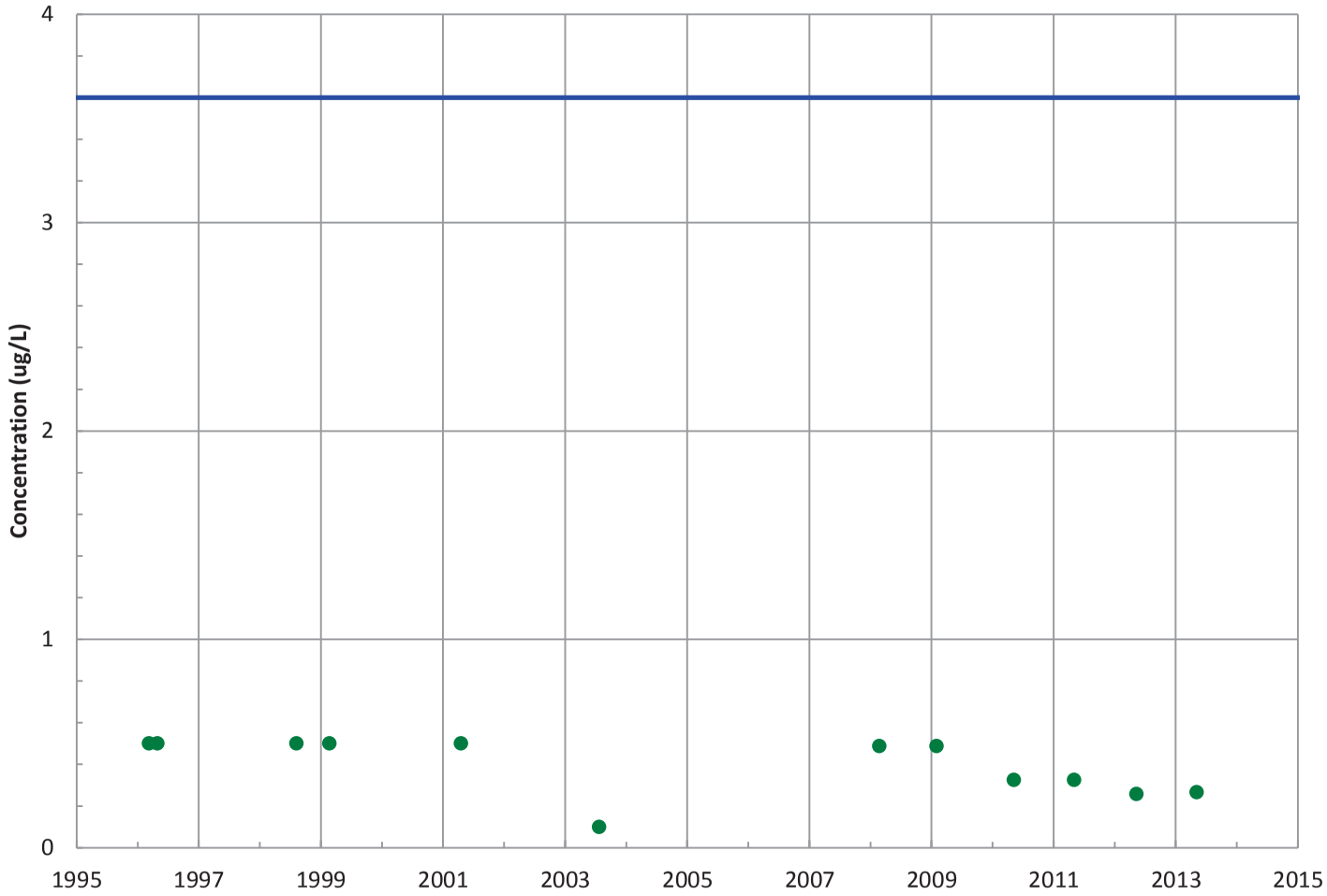
Well Location



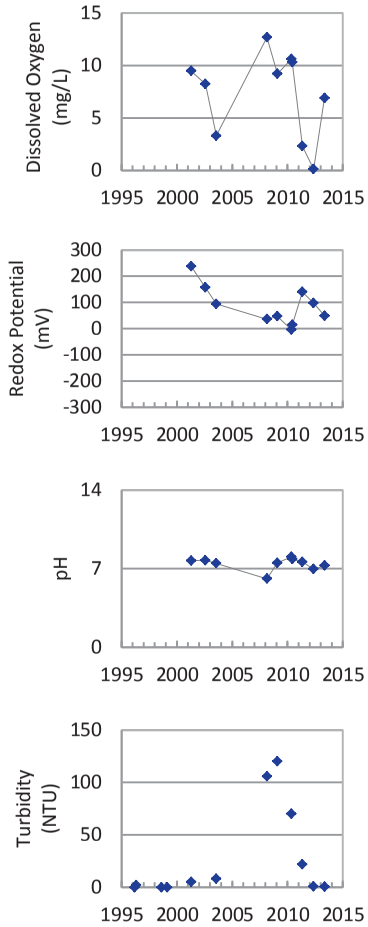
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/11/1996 to 5/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1007
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



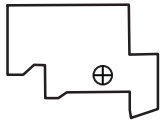
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

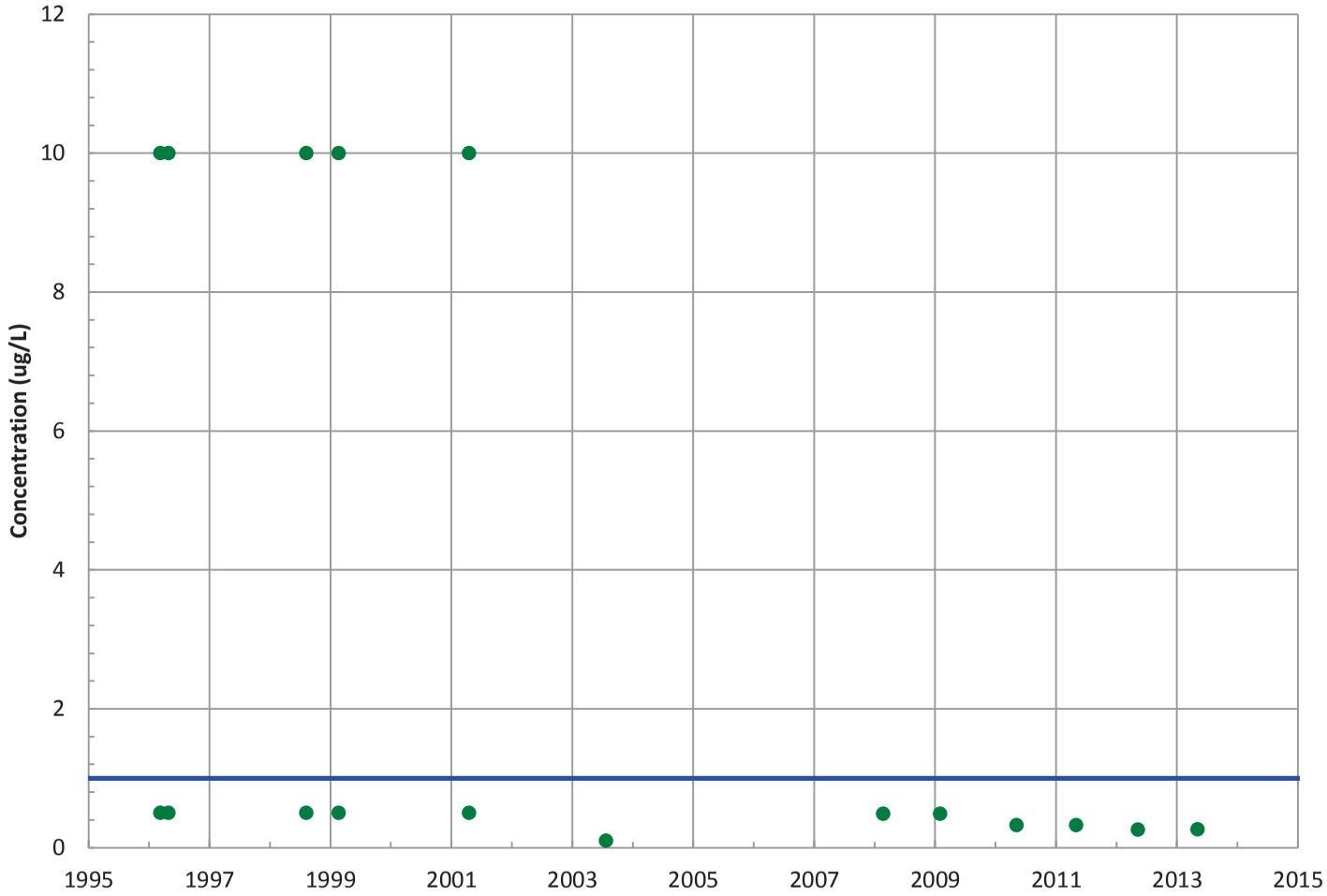
Well Location



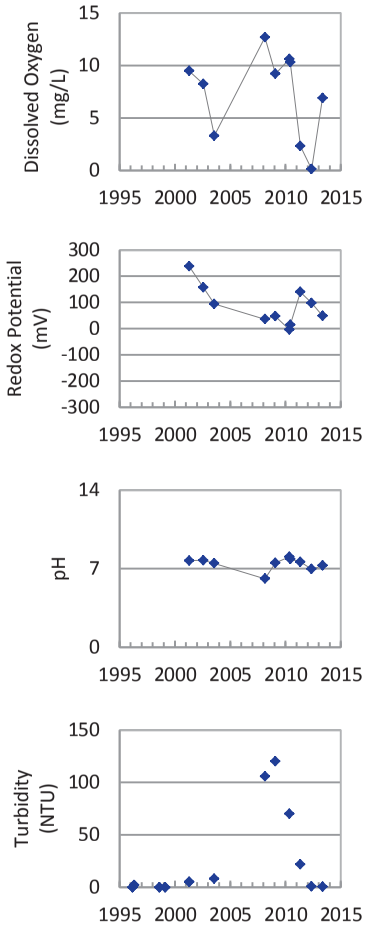
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/11/1996 to 5/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1007
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



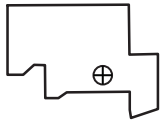
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

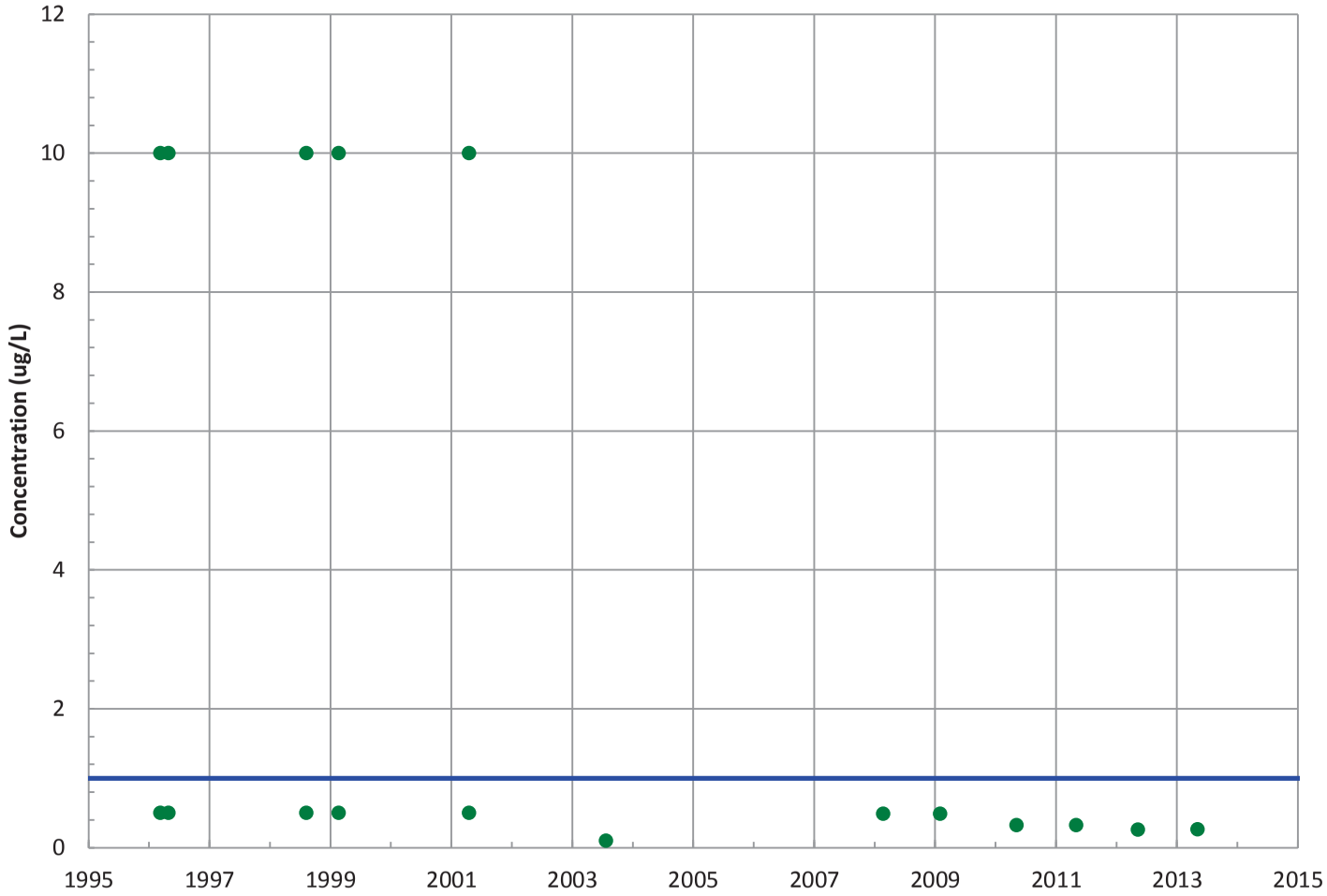
Well Location



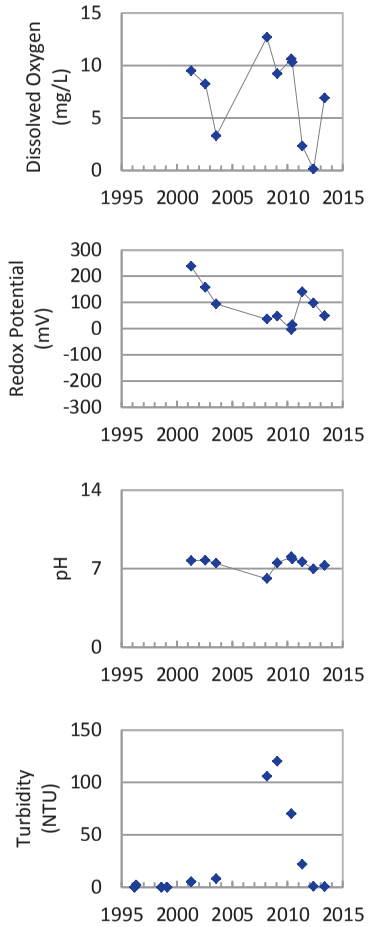
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/11/1996 to 5/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1007
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



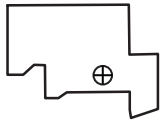
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

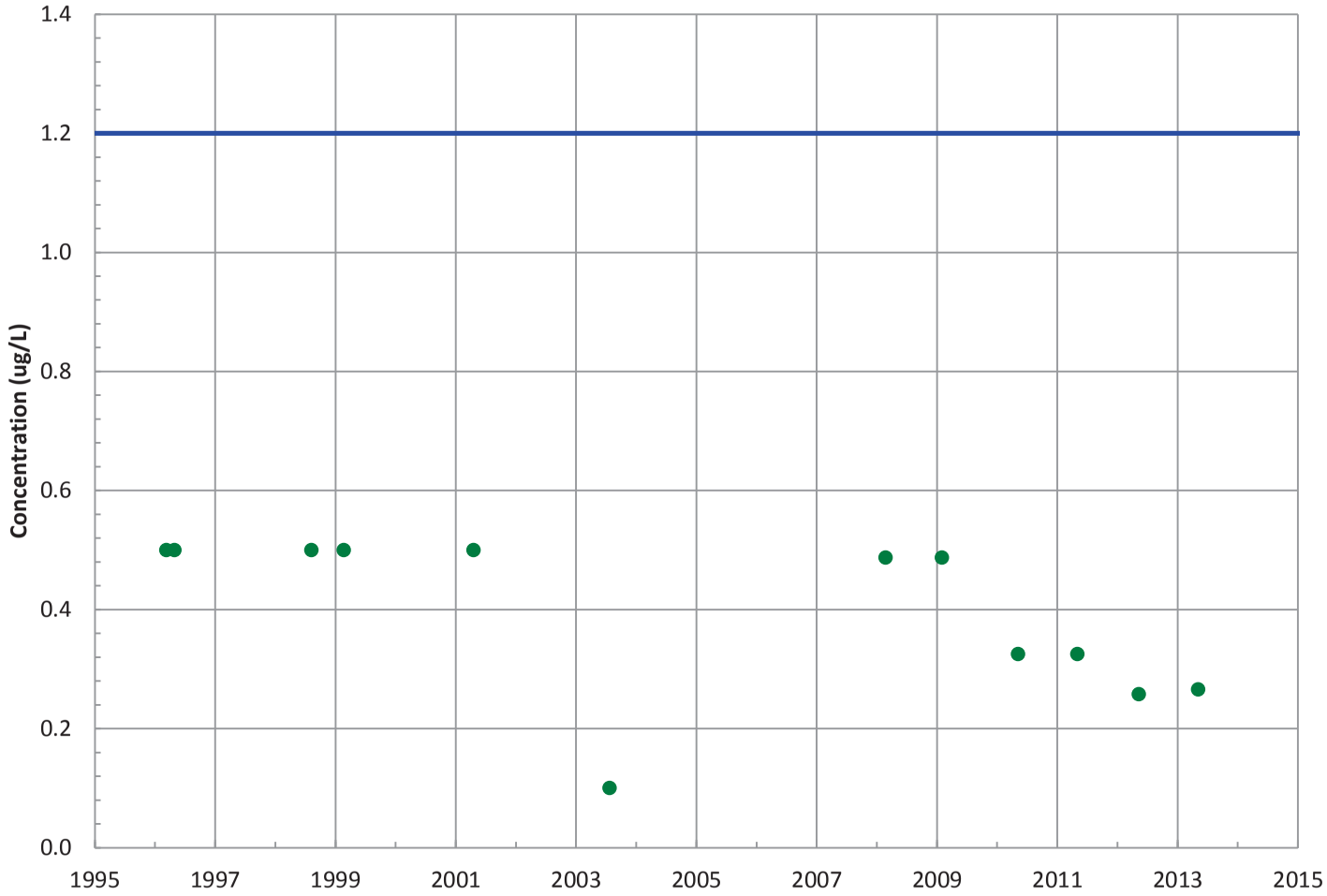
Well Location



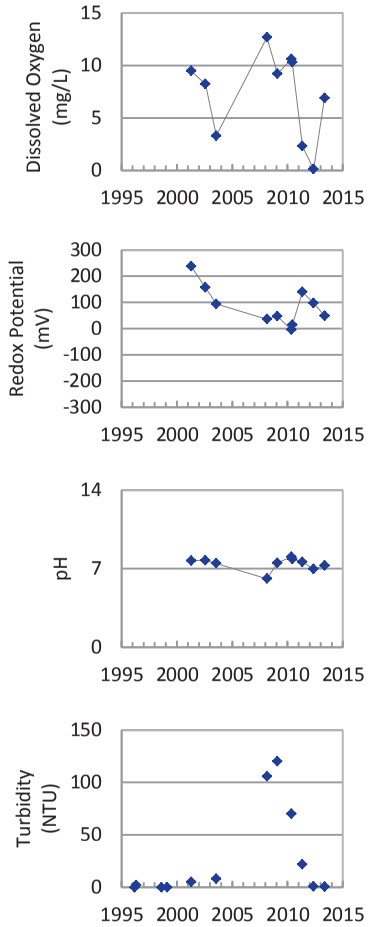
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/11/1996 to 5/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1007
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



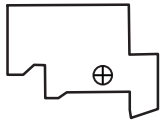
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

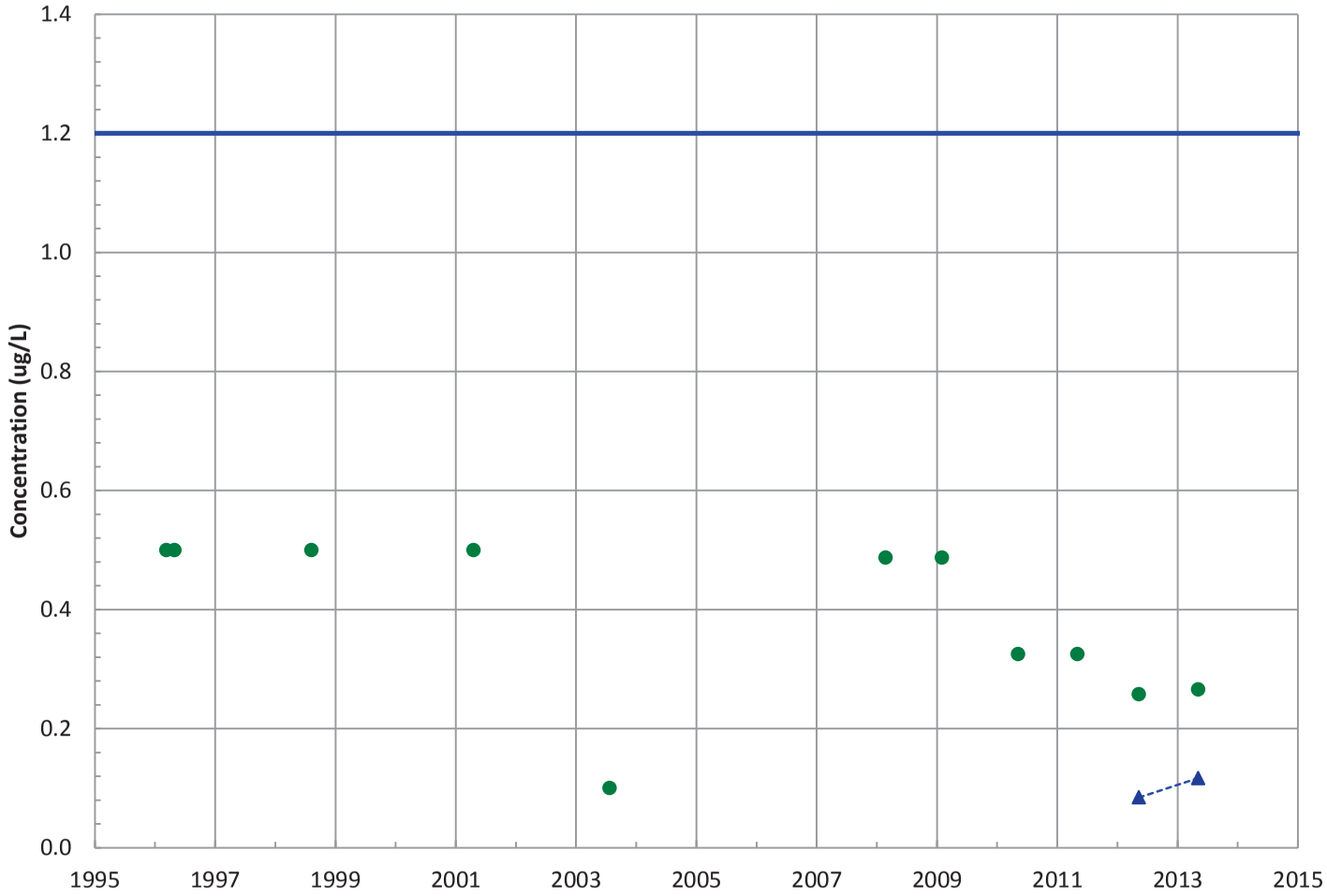
Well Location



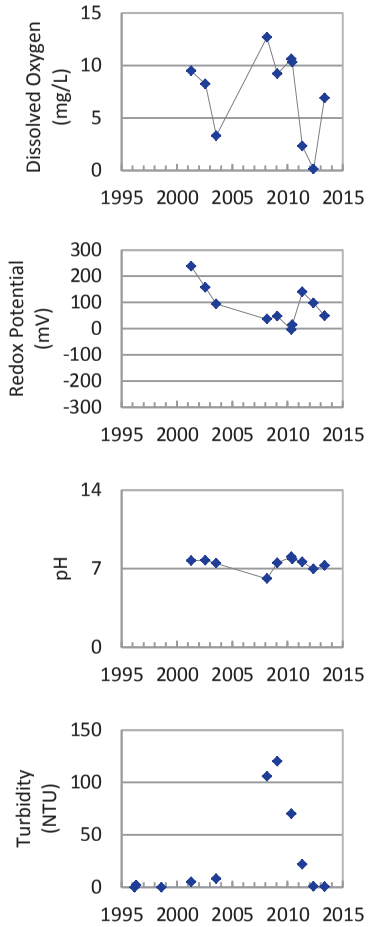
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/11/1996 to 5/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1007
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



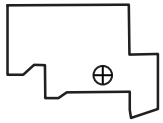
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

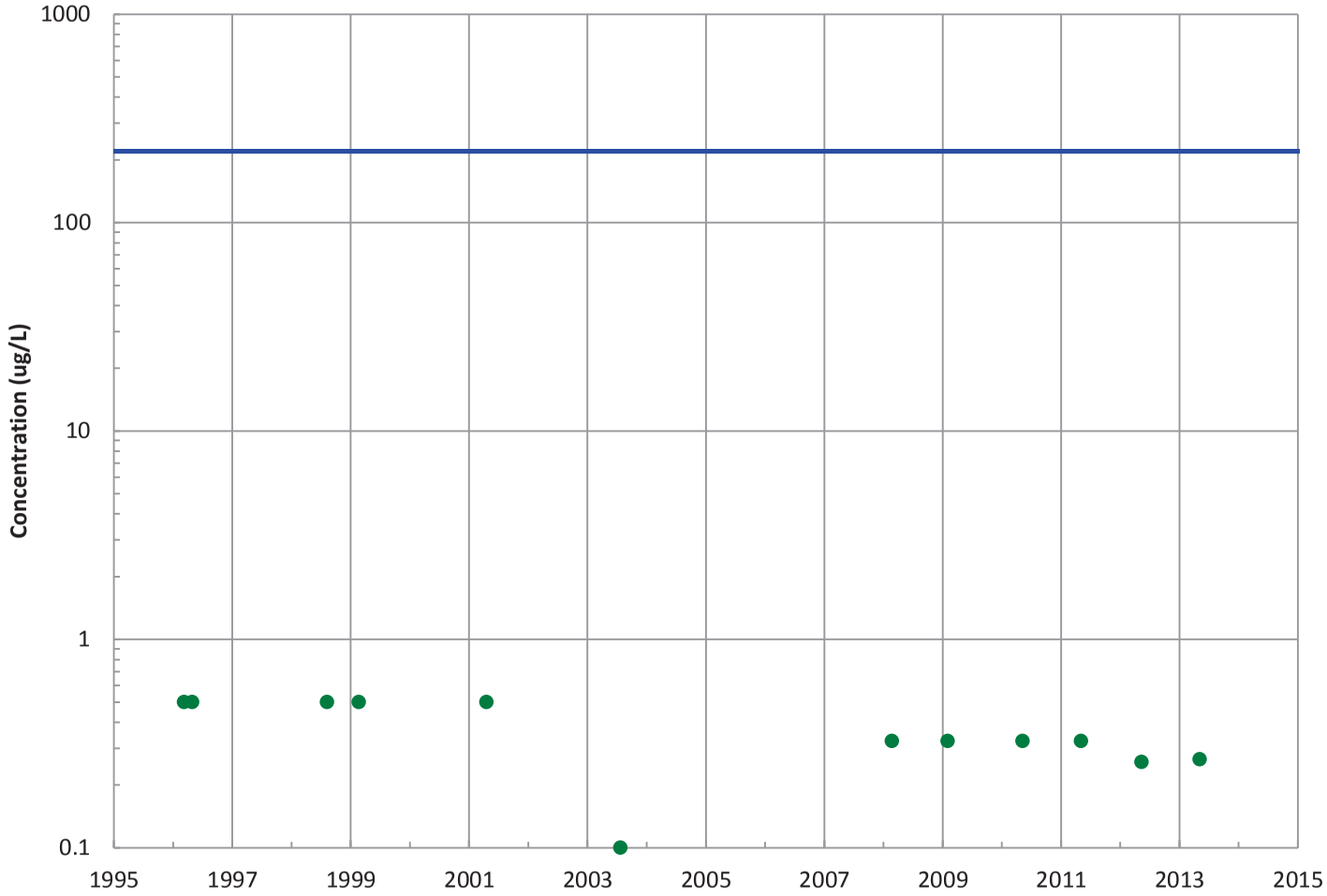
Well Location



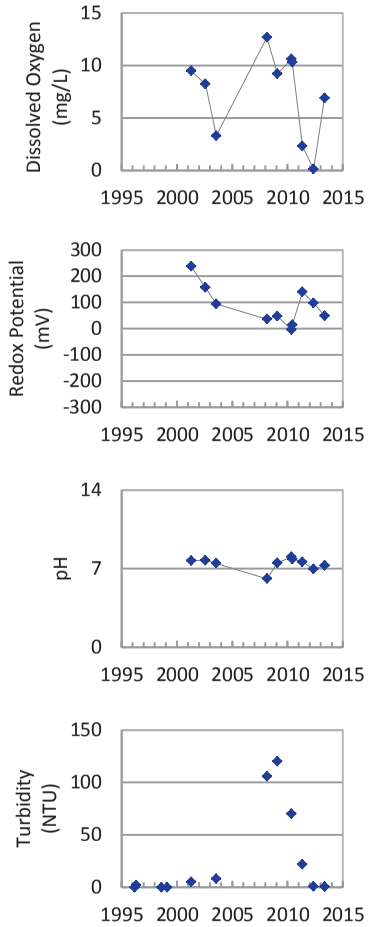
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/11/1996 to 5/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1007
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



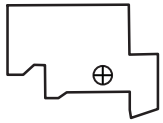
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

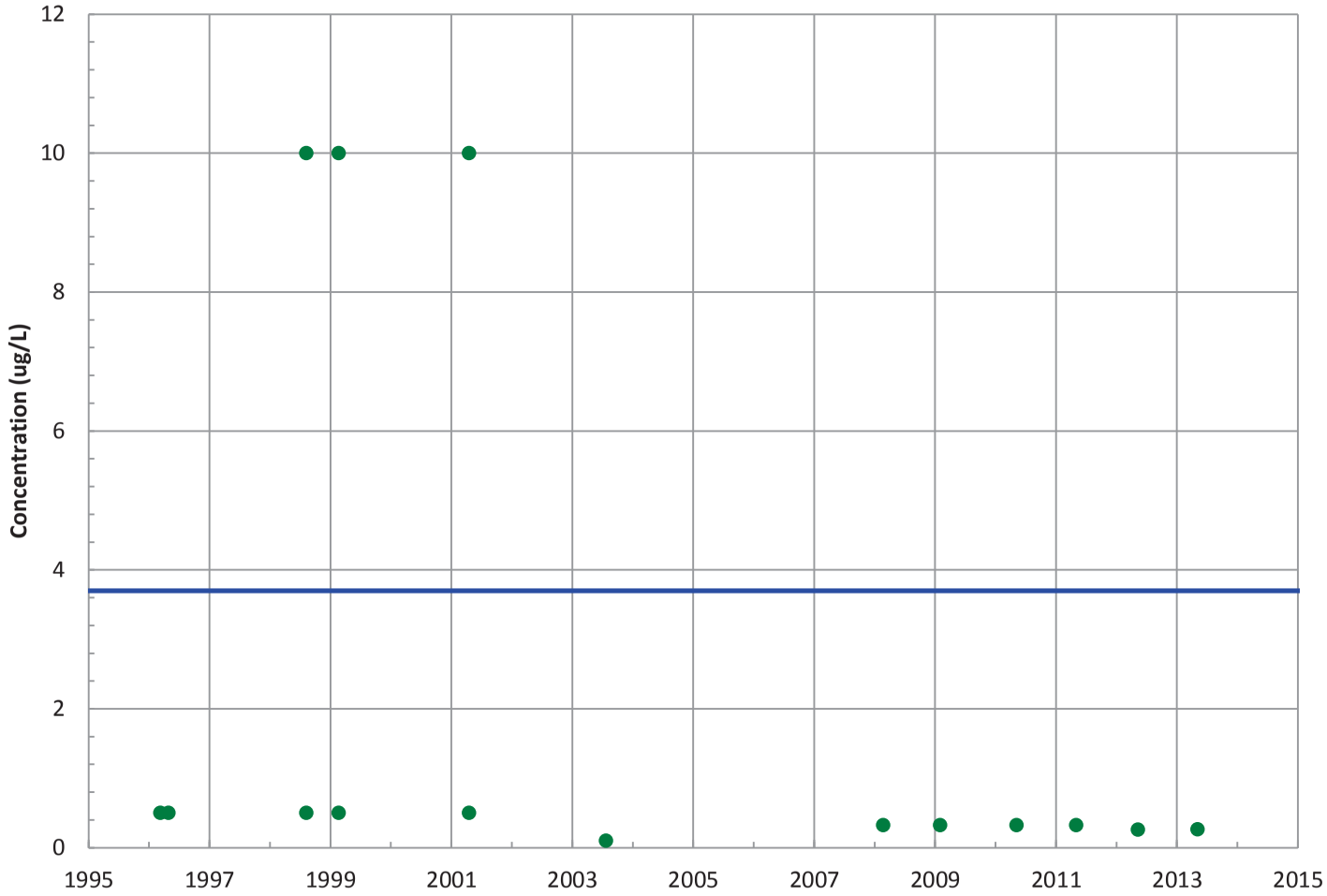
Well Location



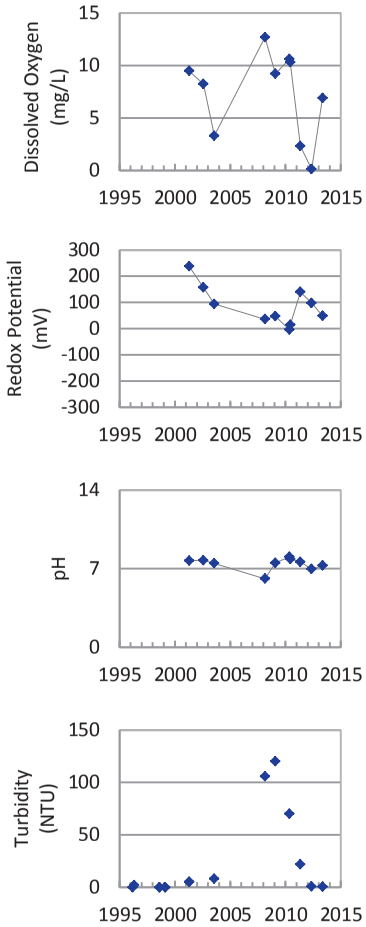
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/11/1996 to 5/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1007
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



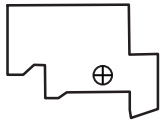
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

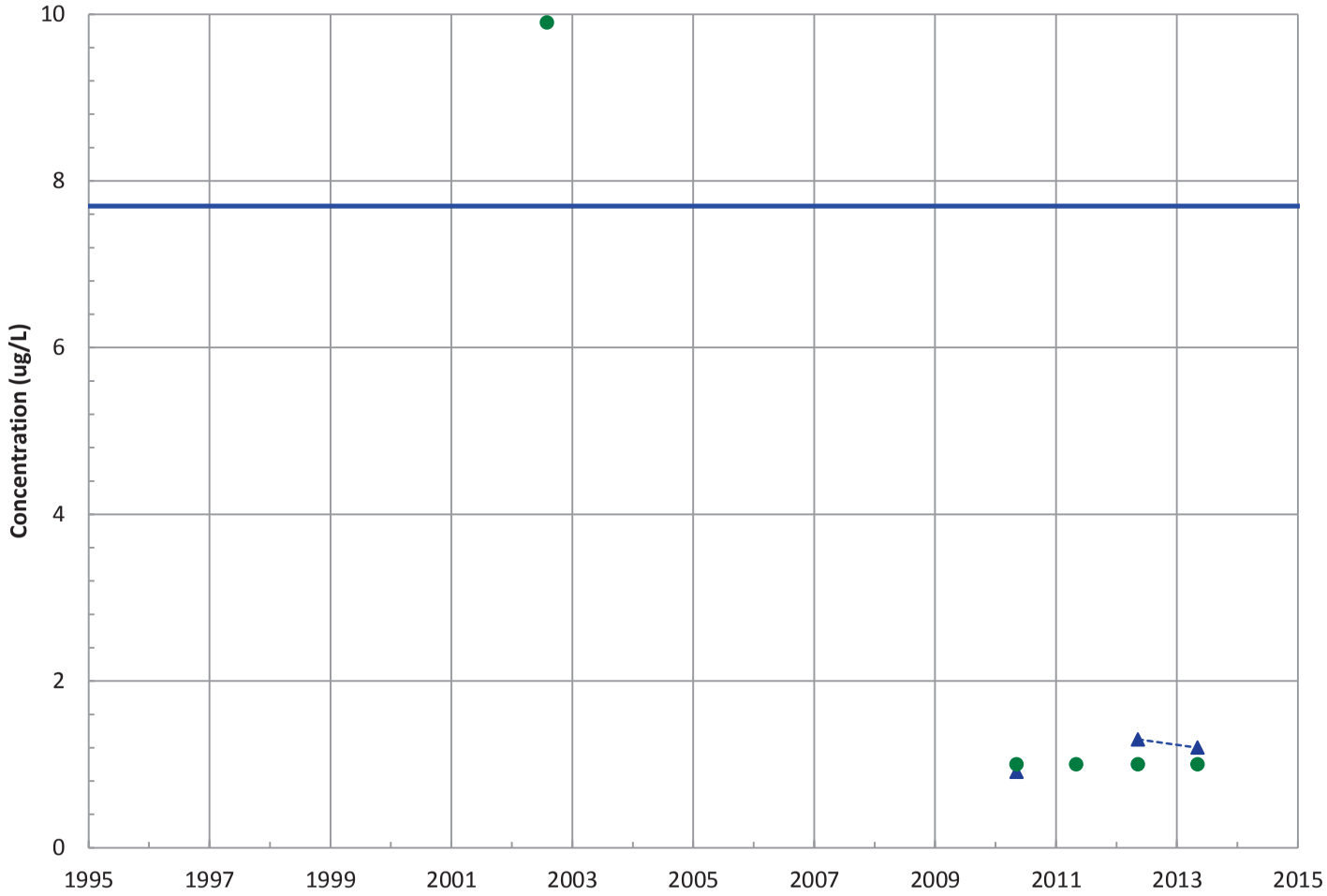
Well Location



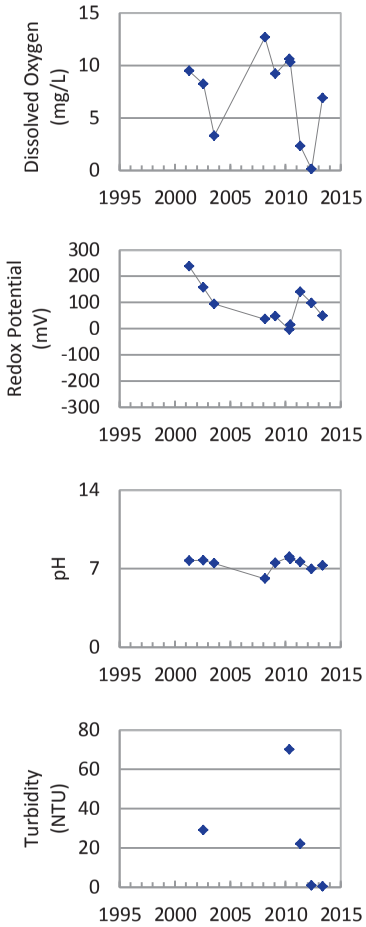
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/11/1996 to 5/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1007
1,4-Dioxane (p-Dioxane) Trend in Perched Aquifer



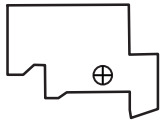
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in

- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

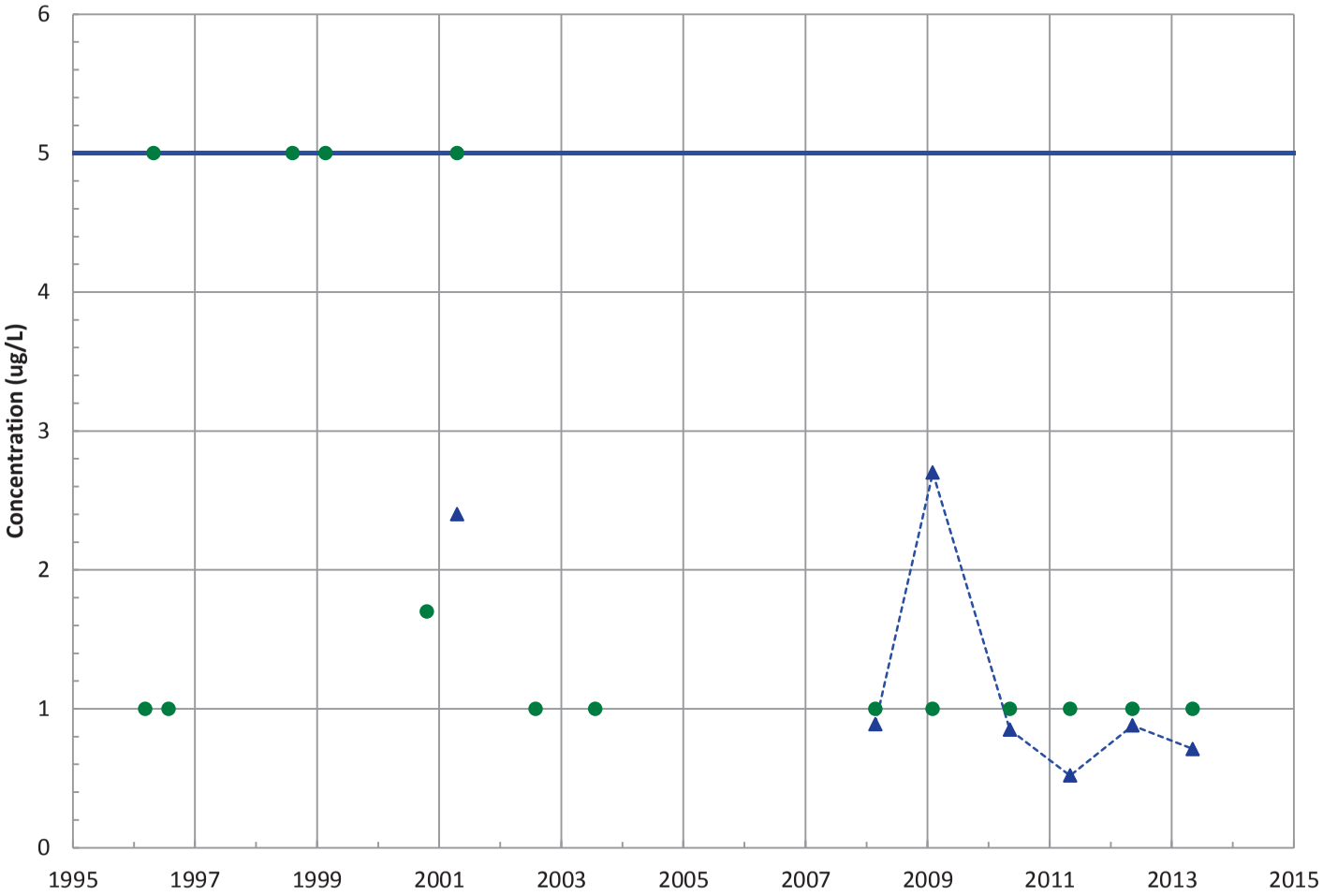
Well Location



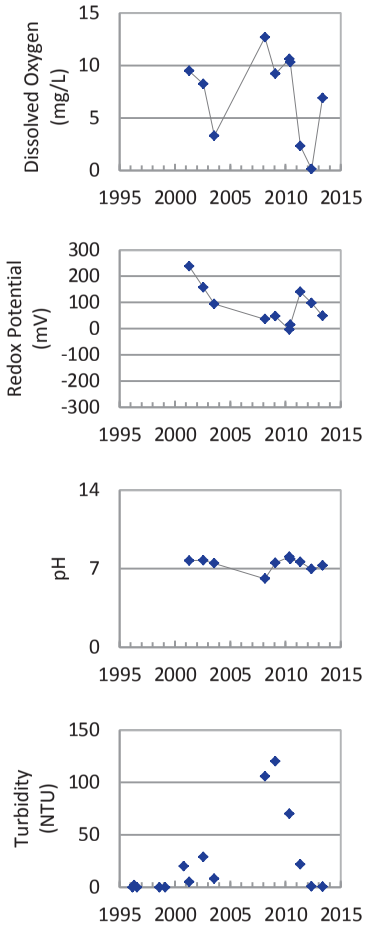
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/7/2002 to 5/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1007
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



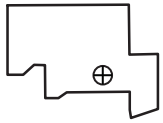
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

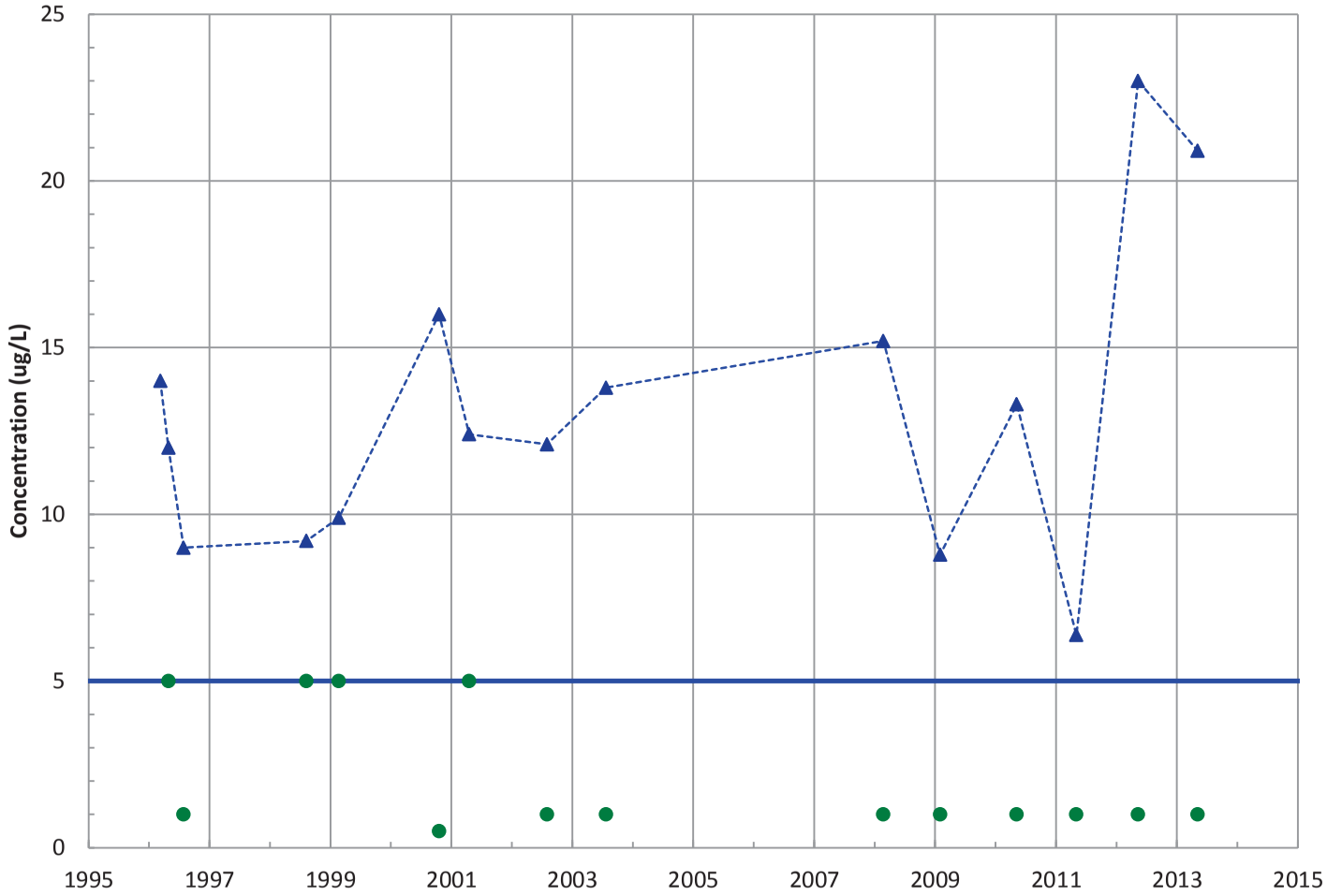
Well Location



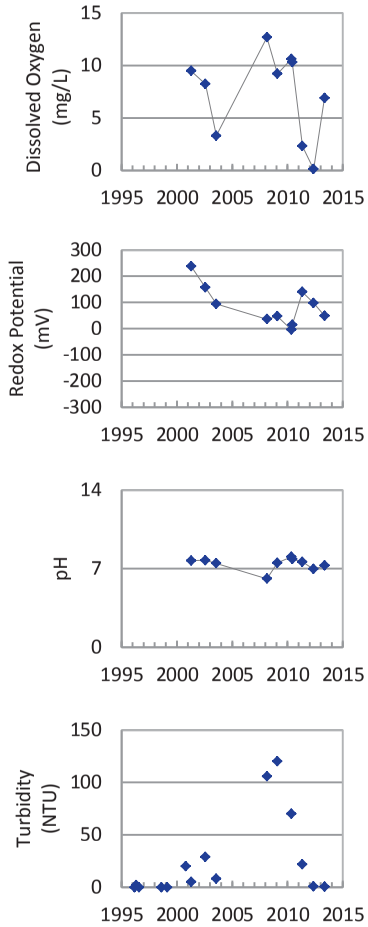
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/11/1996 to 5/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1007
Trichloroethene Trend in Perched Aquifer



Field Parameters



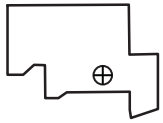
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

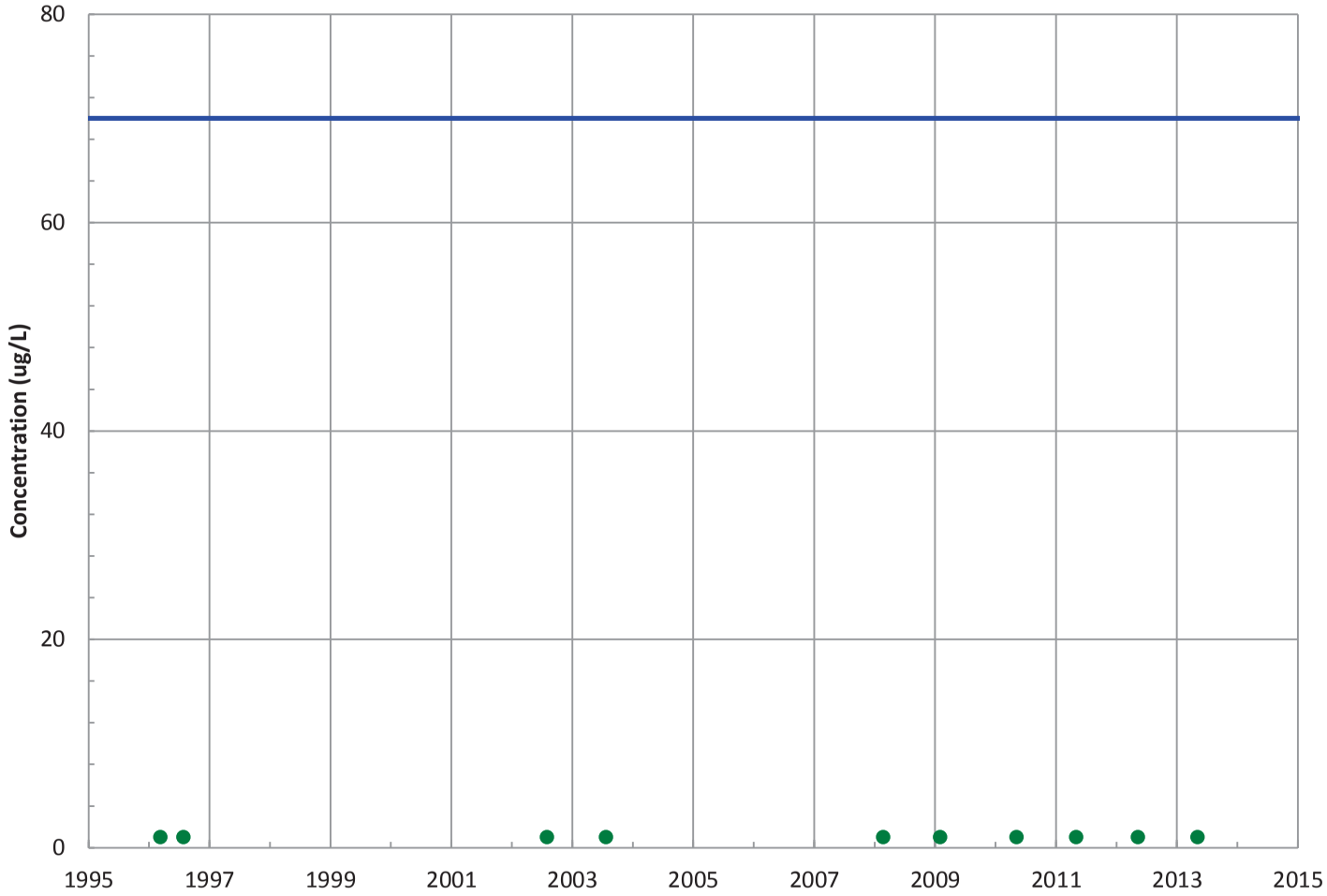
Well Location



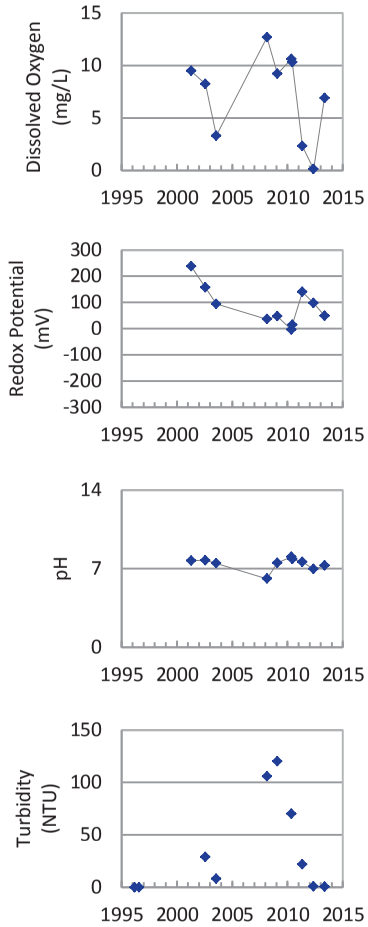
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/11/1996 to 5/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1007
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



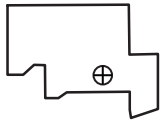
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

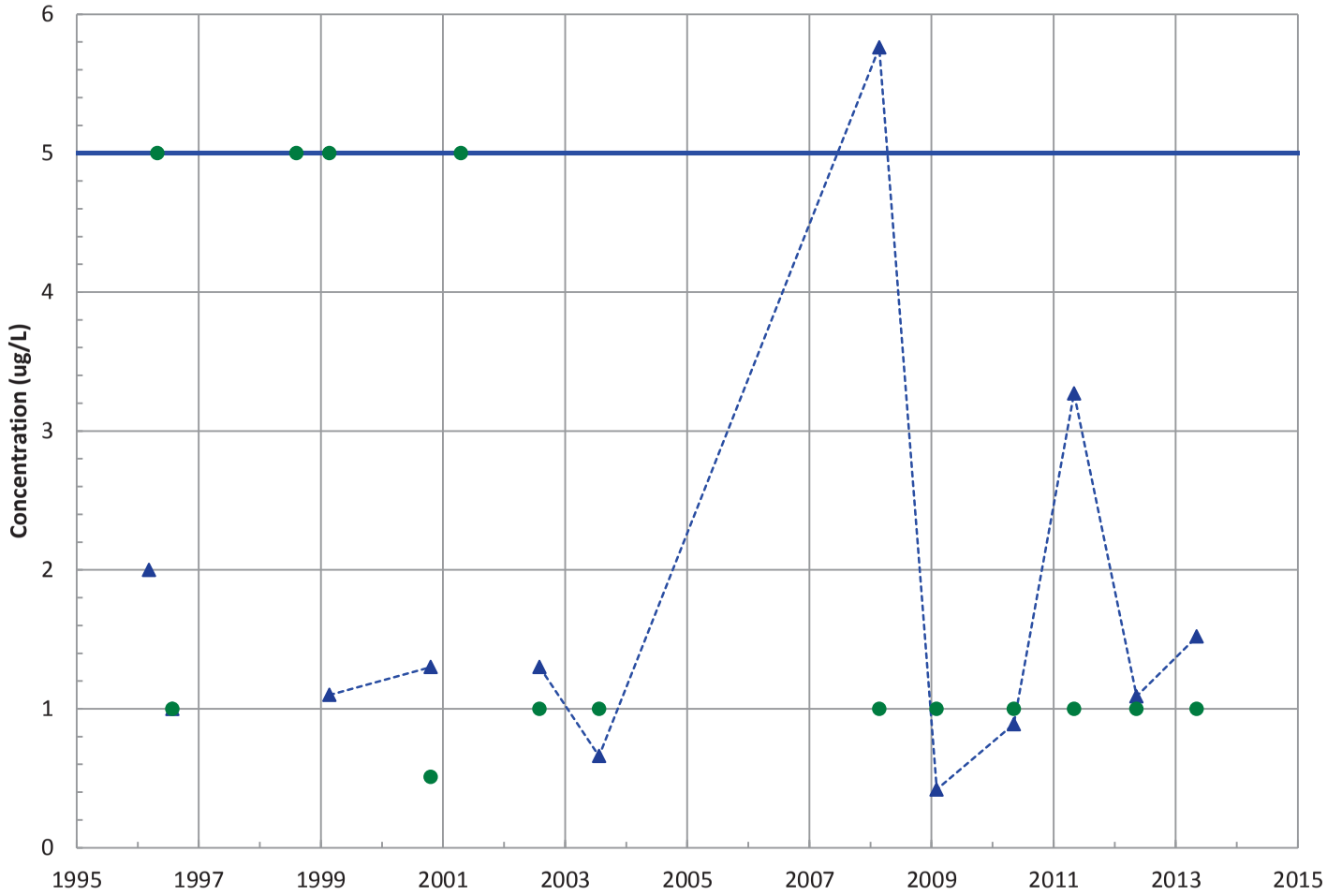
Well Location



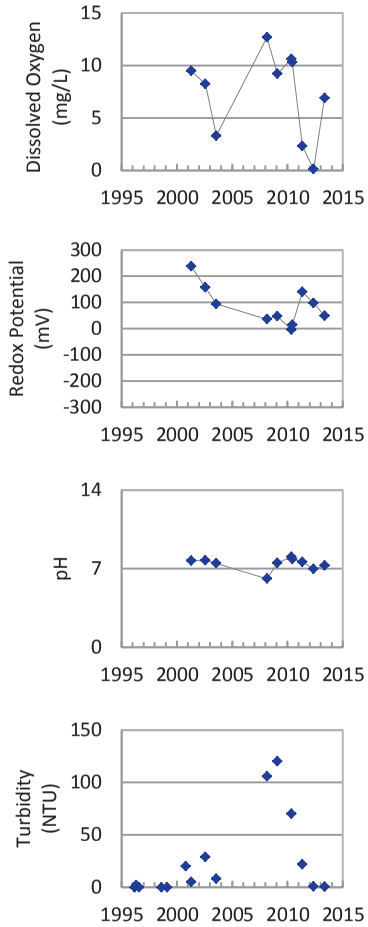
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/11/1996 to 5/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1007
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



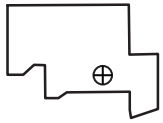
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

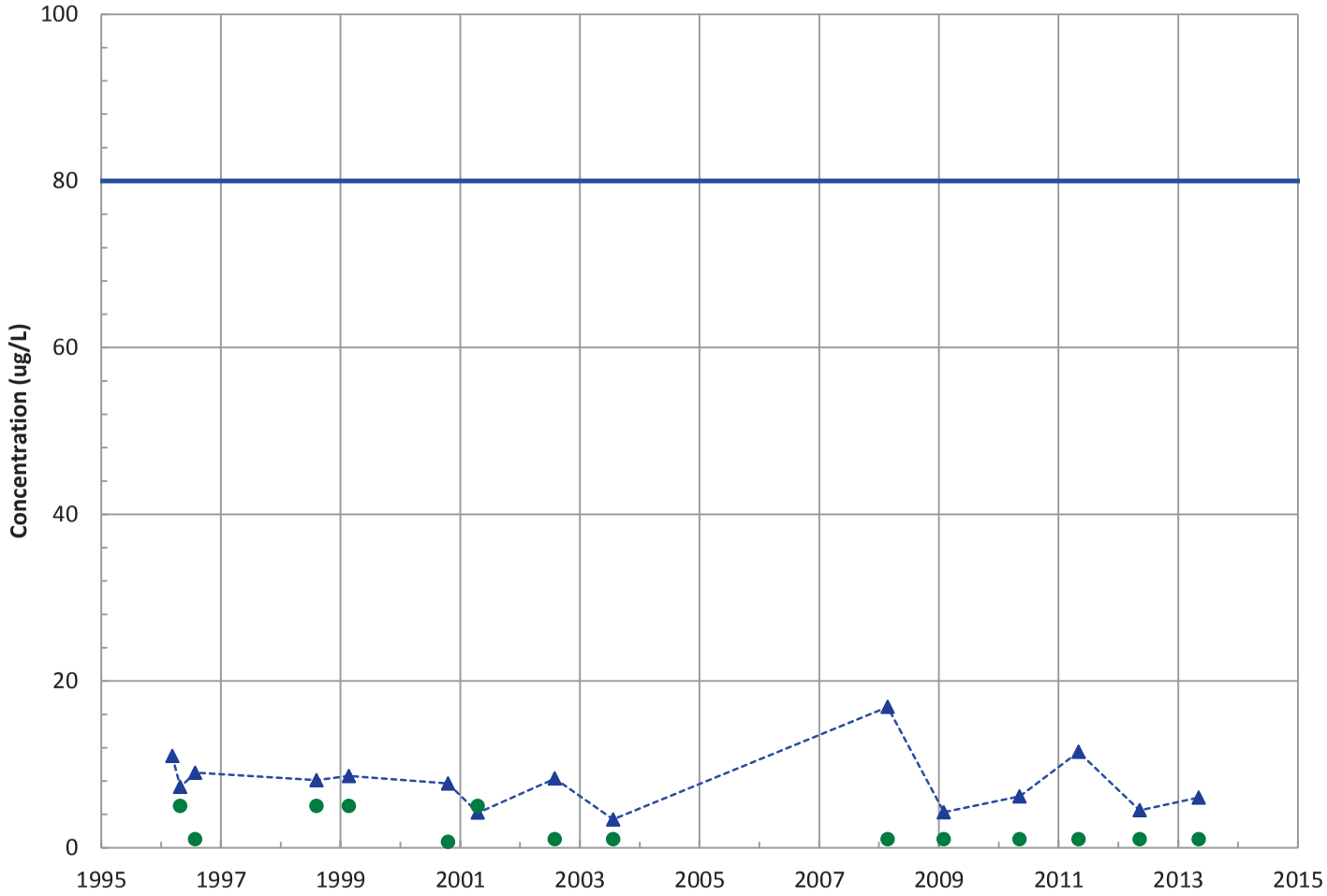
Well Location



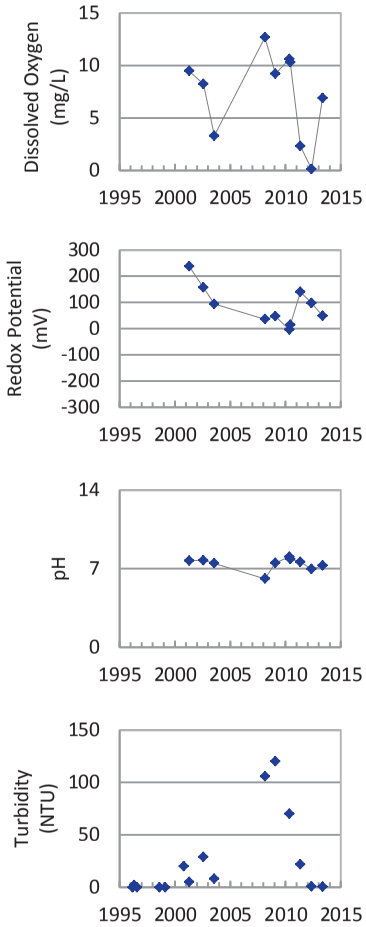
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/11/1996 to 5/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1007
Chloroform Trend in Perched Aquifer



Field Parameters



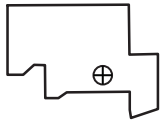
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

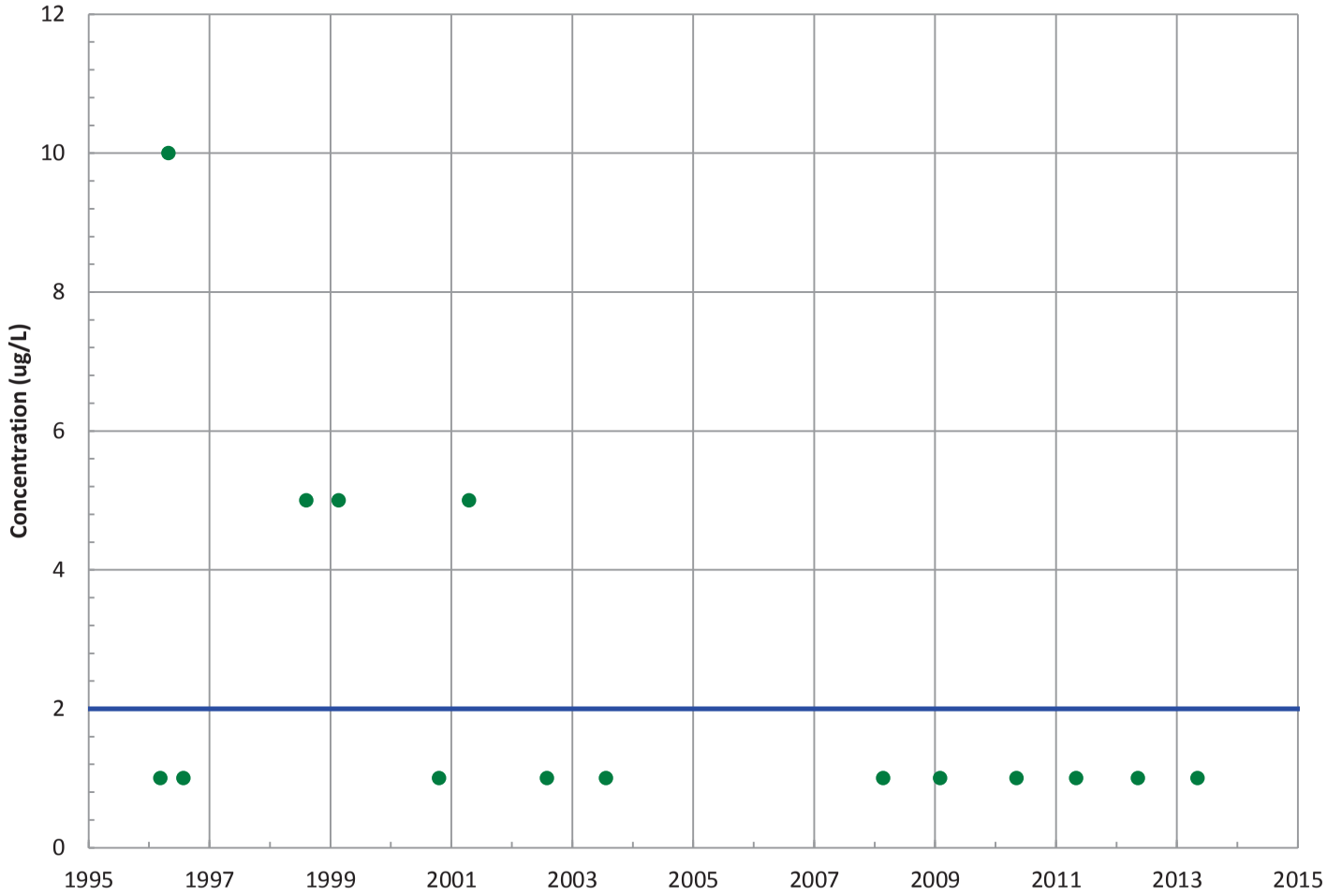
Well Location



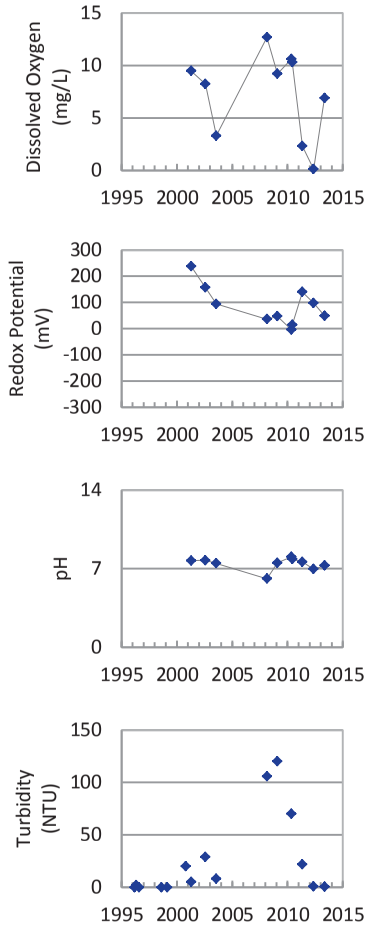
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/11/1996 to 5/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1007
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



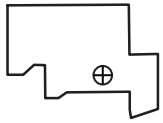
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

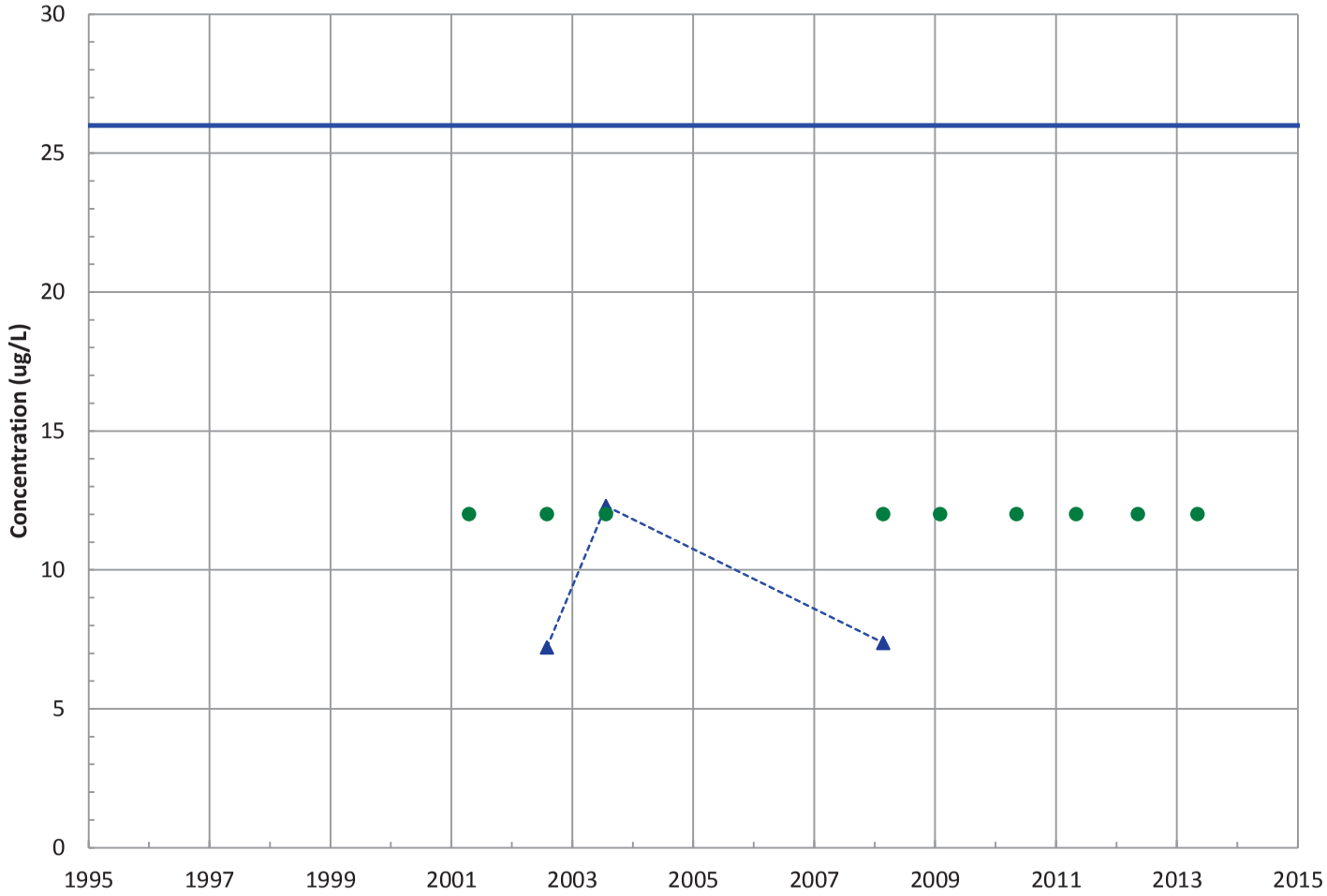
Well Location



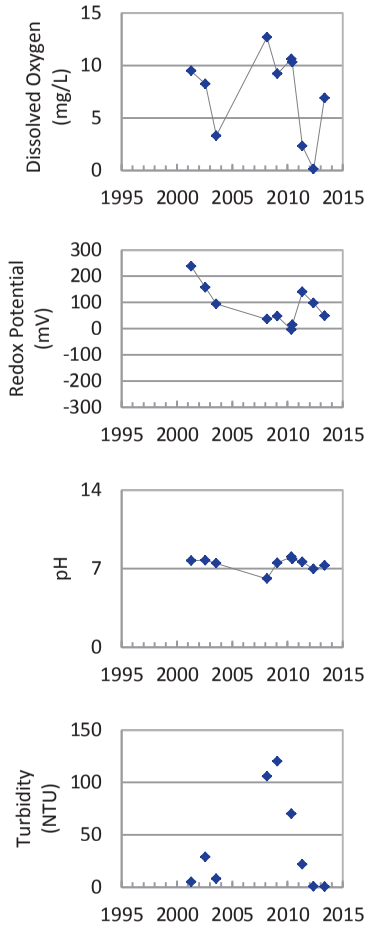
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/11/1996 to 5/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1007
Perchlorate Trend in Perched Aquifer



Field Parameters



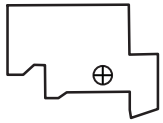
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

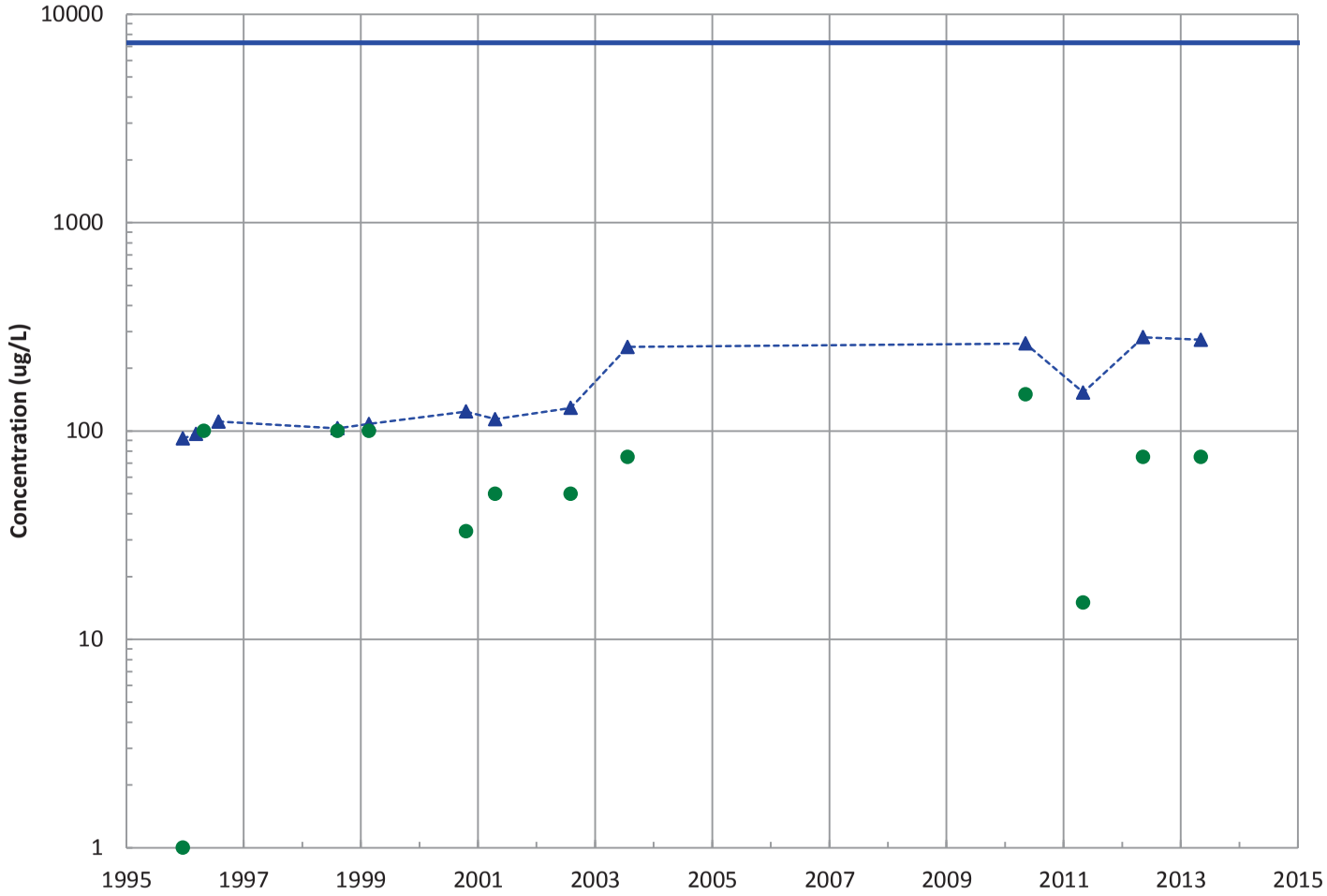
Well Location



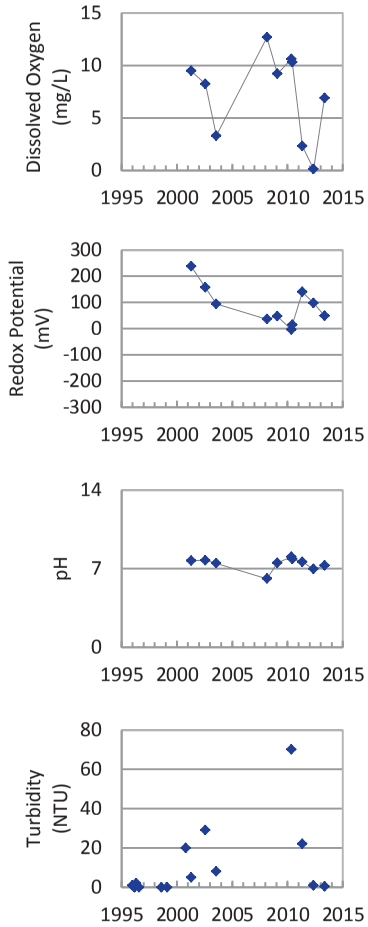
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/23/2001 to 5/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1007
Boron Trend in Perched Aquifer



Field Parameters



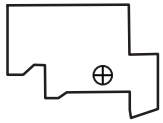
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

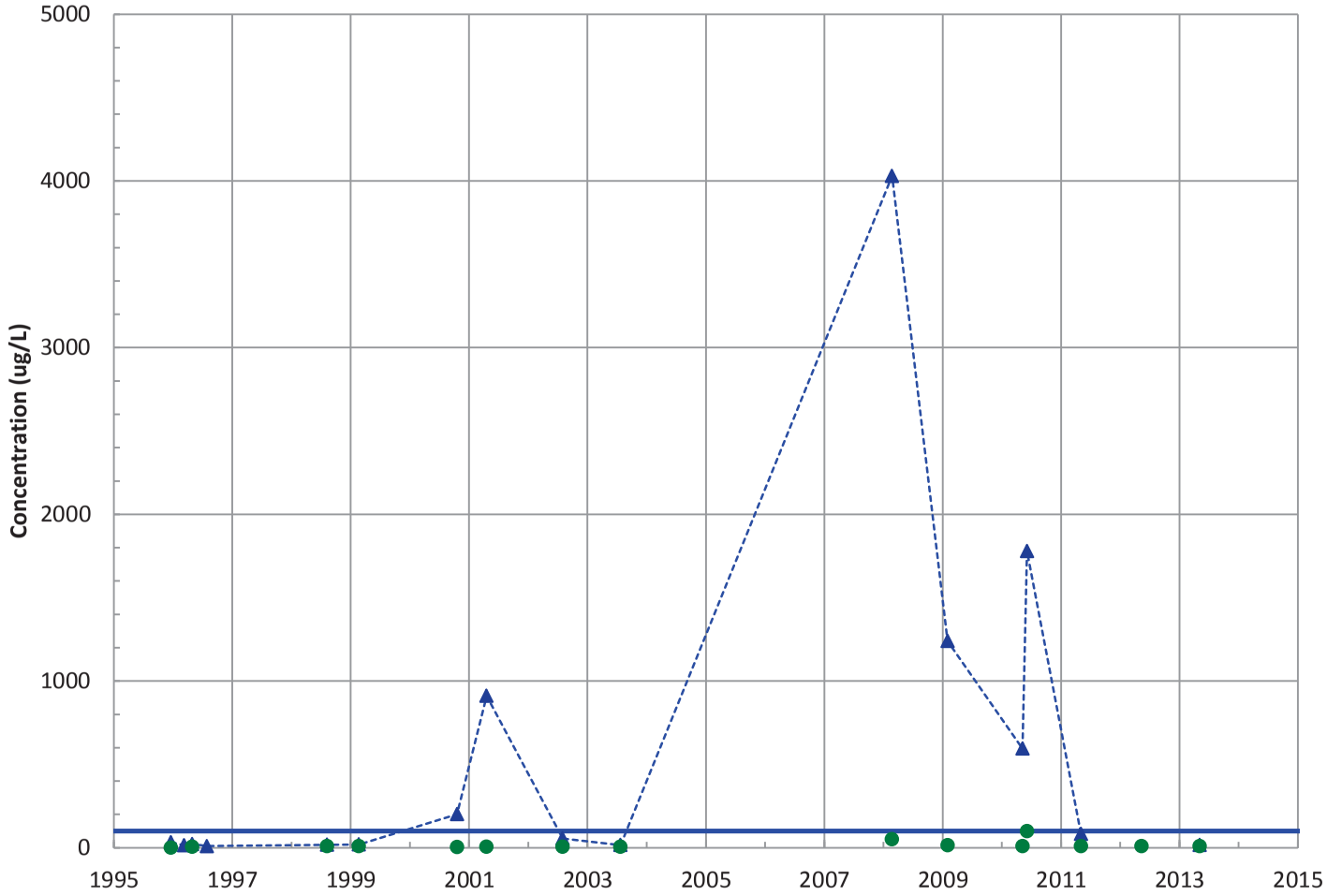
Well Location



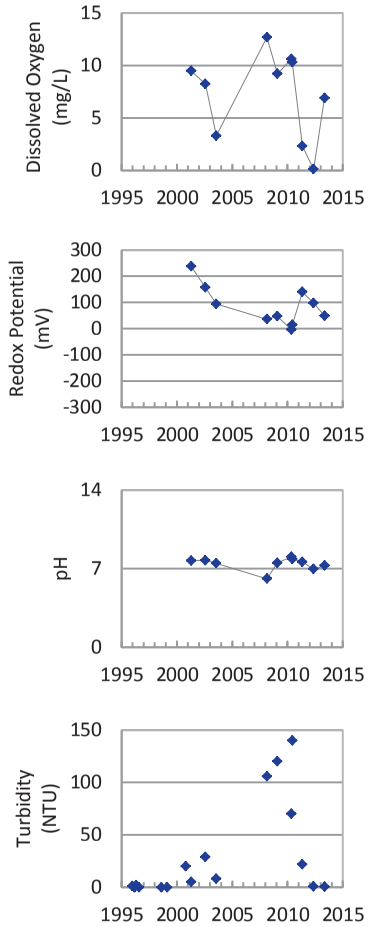
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/20/1995 to 5/20/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1007
Chromium, Total Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Decreasing

2011 - 2013 Data: N/A (<4 Detections in Dataset)

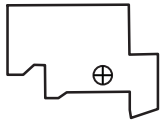
MAROS Linear Regression Method

Data (7/2009 - 12/2013): Decreasing

2011 - 2013 Data: Probably Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

Well Location



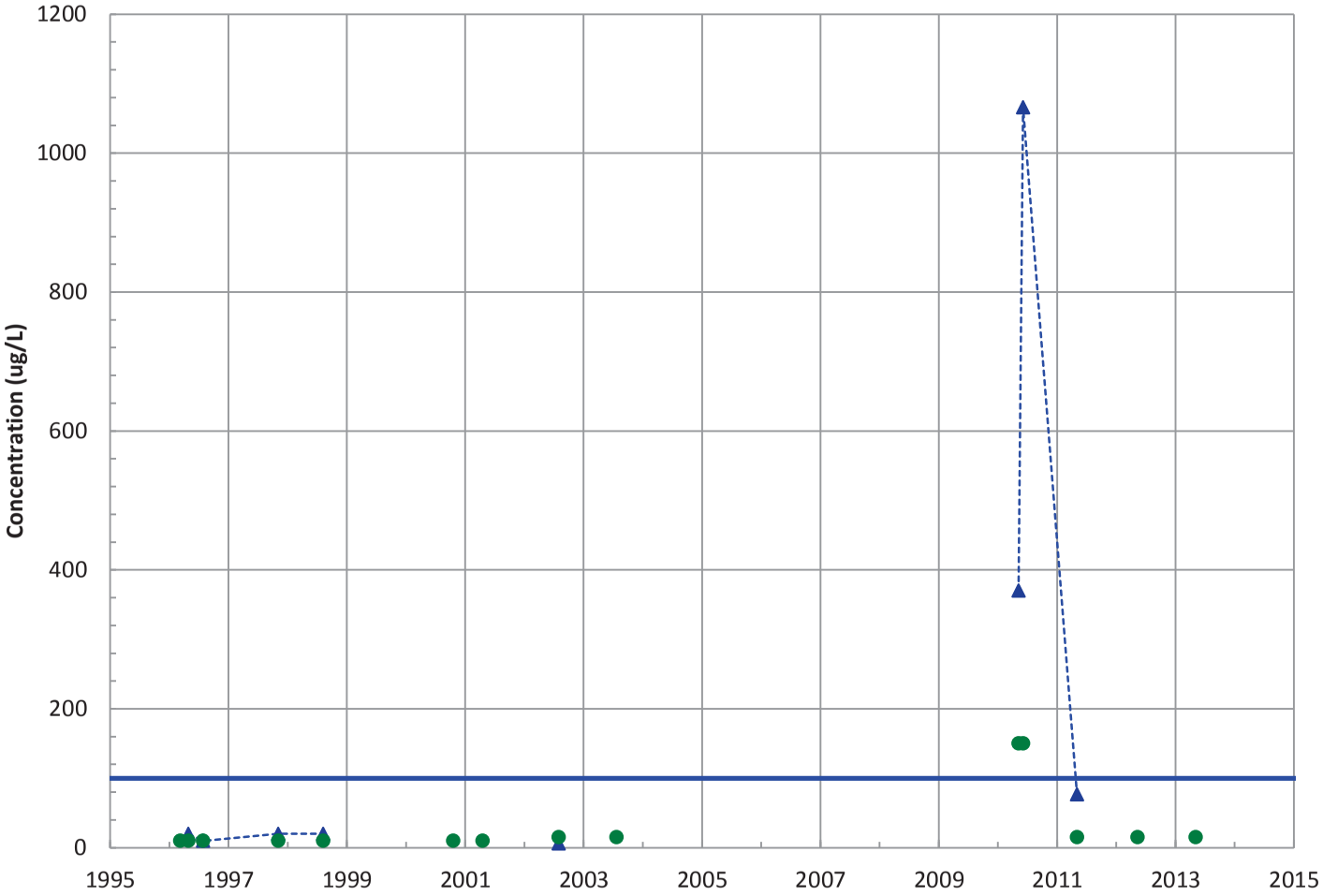
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 12/20/1995 to 5/20/2013

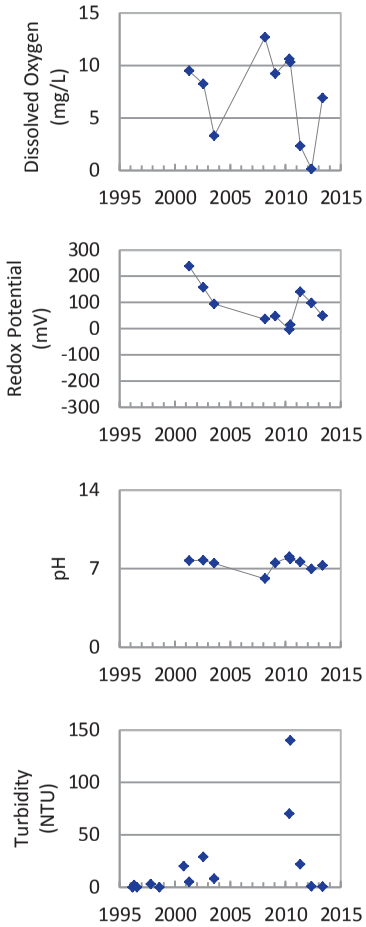
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1007
Chromium, Hexavalent Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: N/A (<4 Detections in

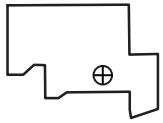
MAROS Linear Regression Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

Well Location



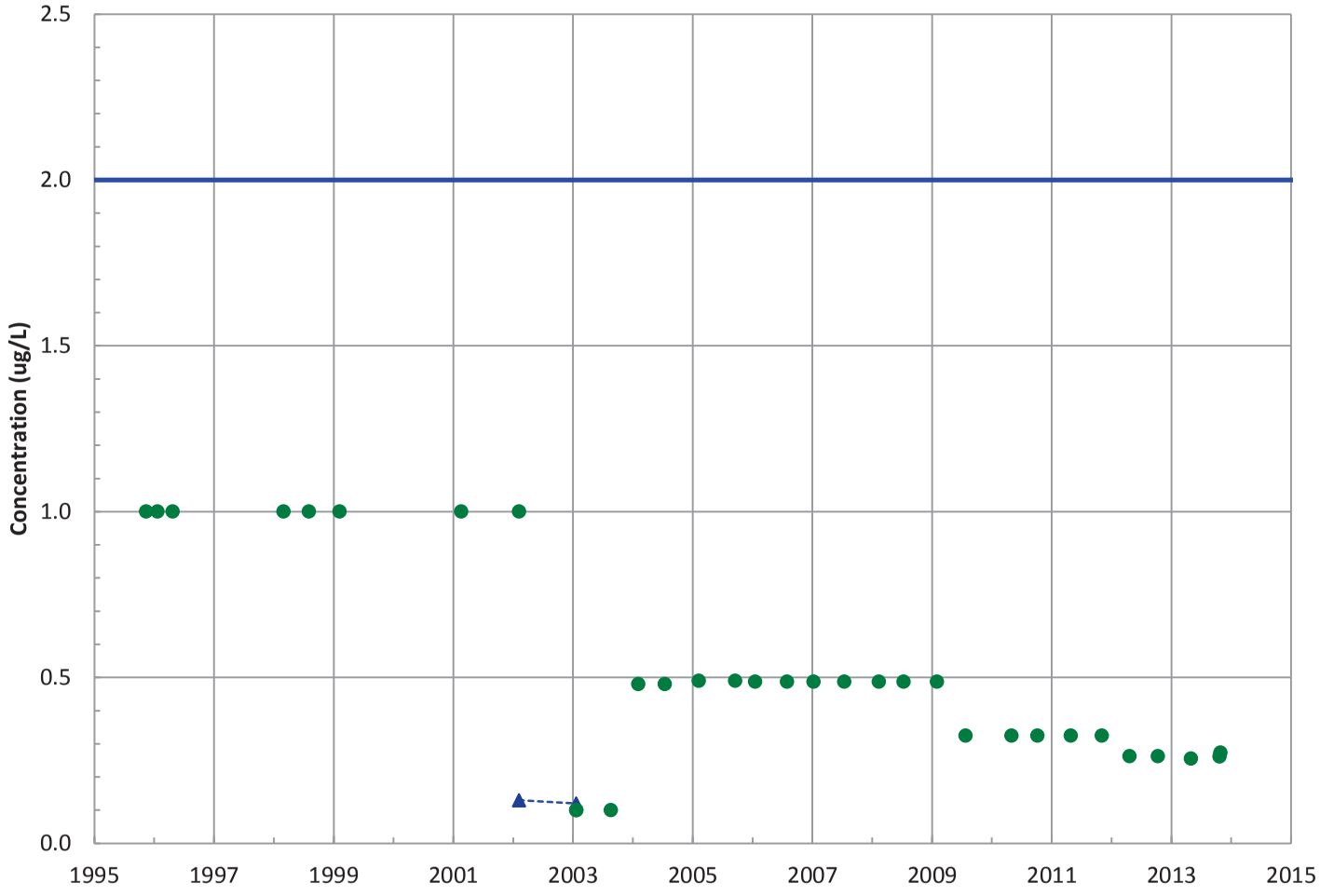
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 3/11/1996 to 5/20/2013

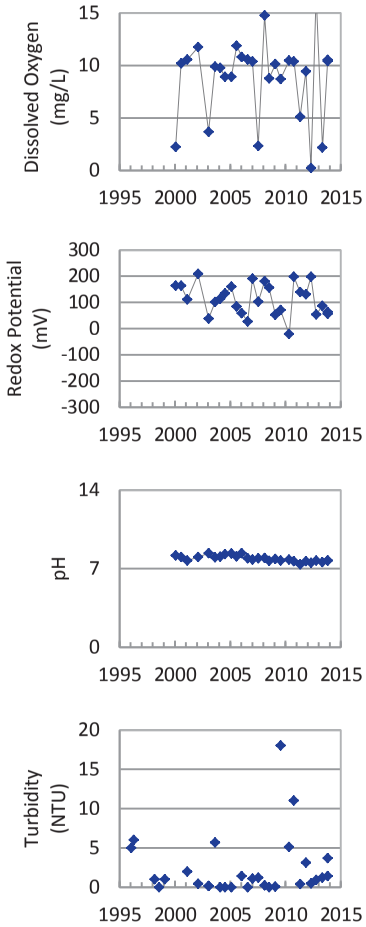
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1008
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



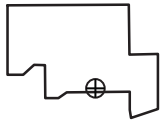
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

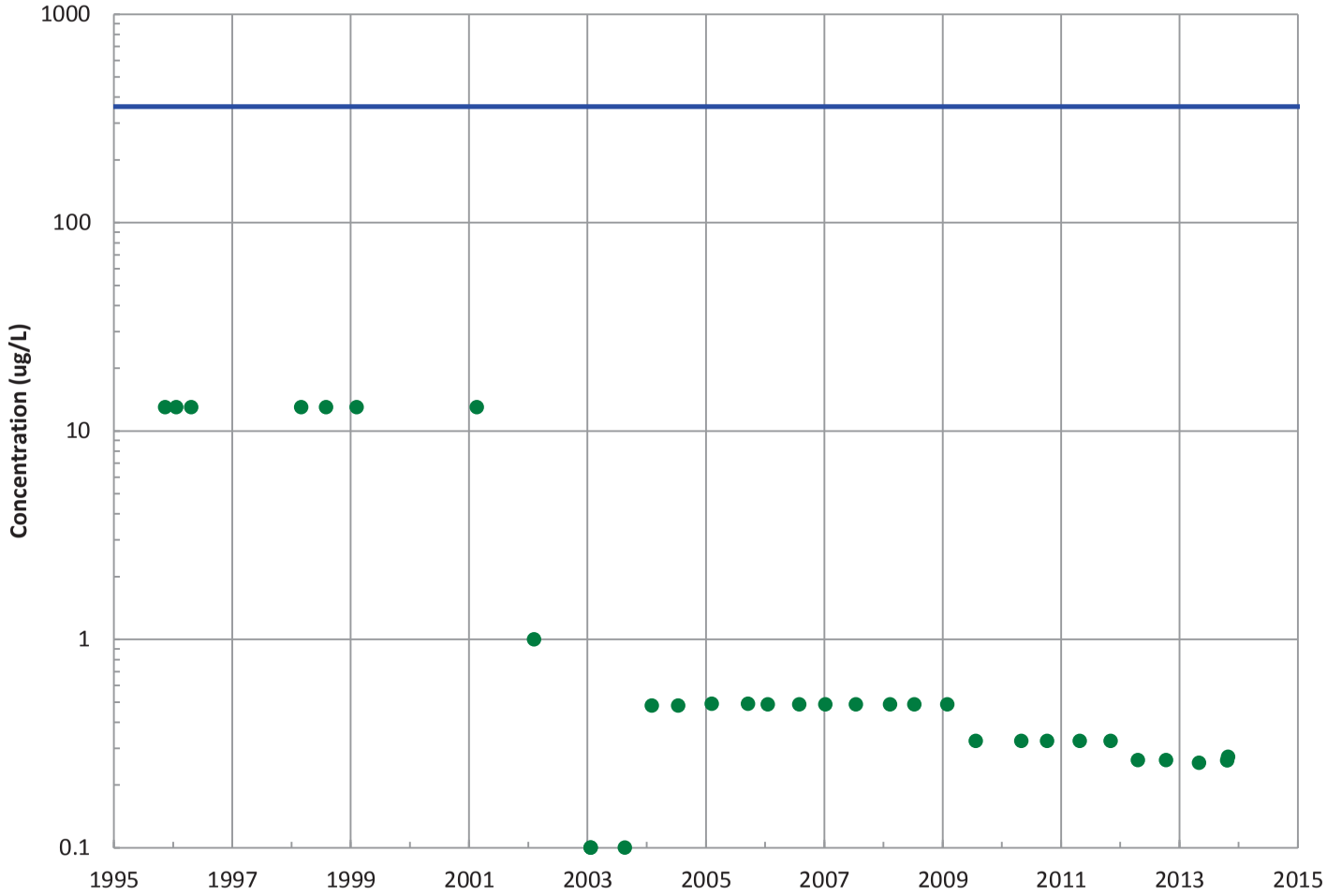
Well Location



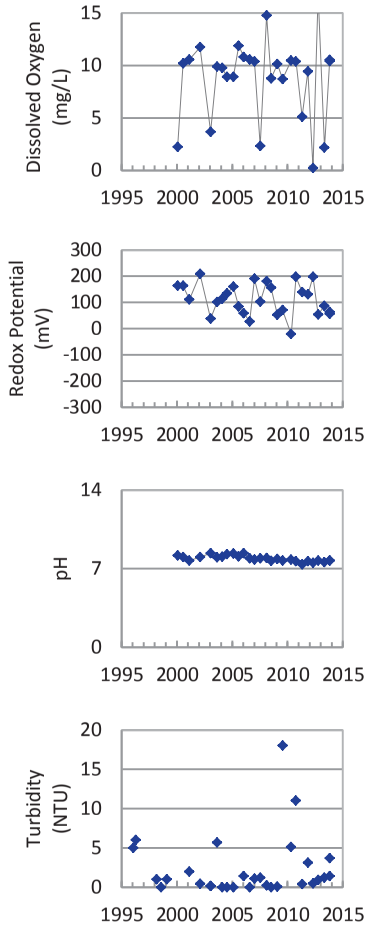
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 11/11/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1008
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



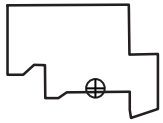
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

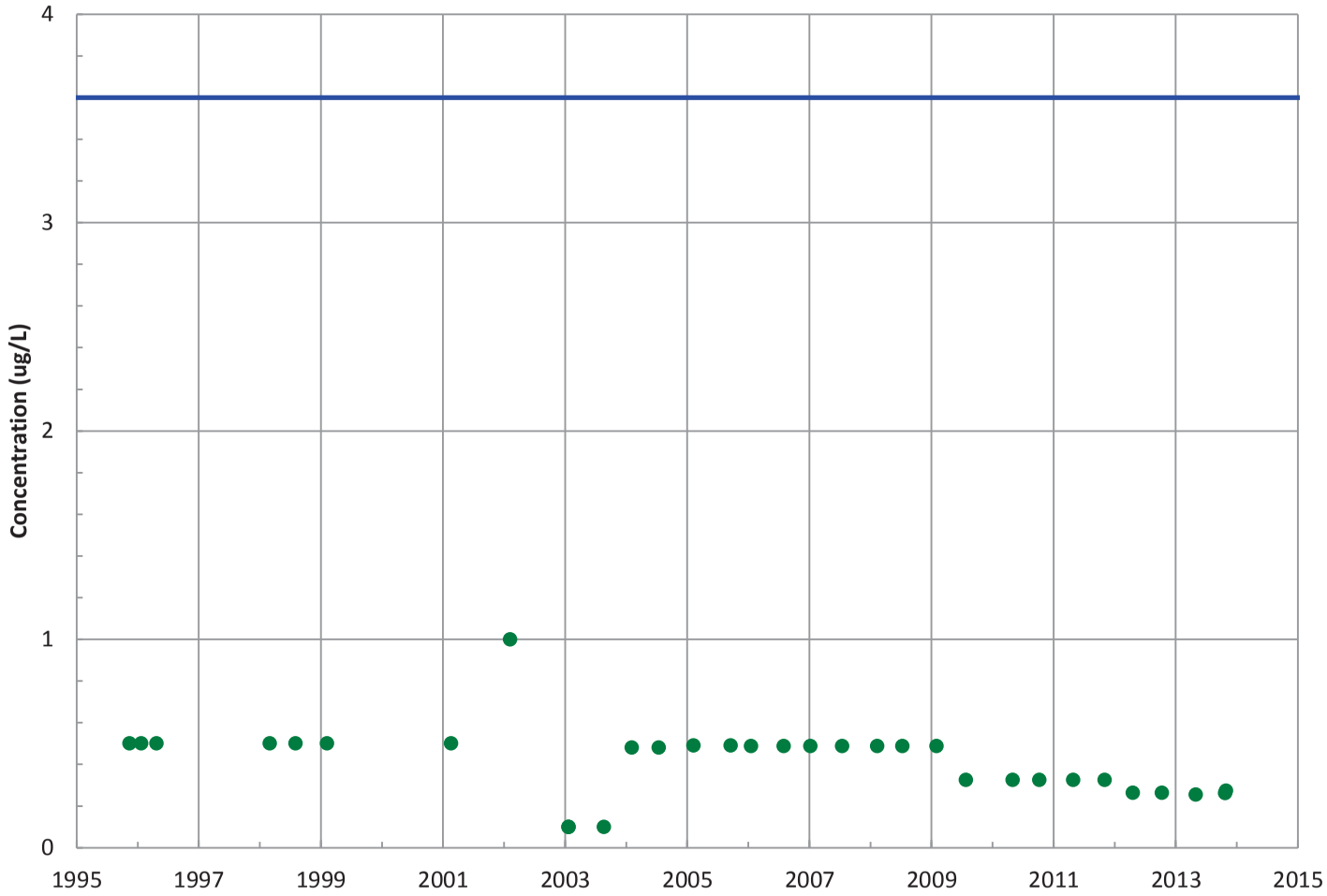
Well Location



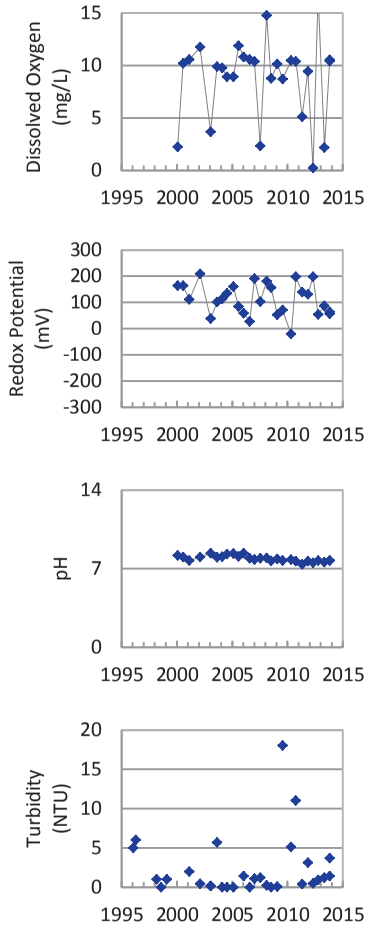
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 11/11/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1008
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



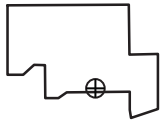
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

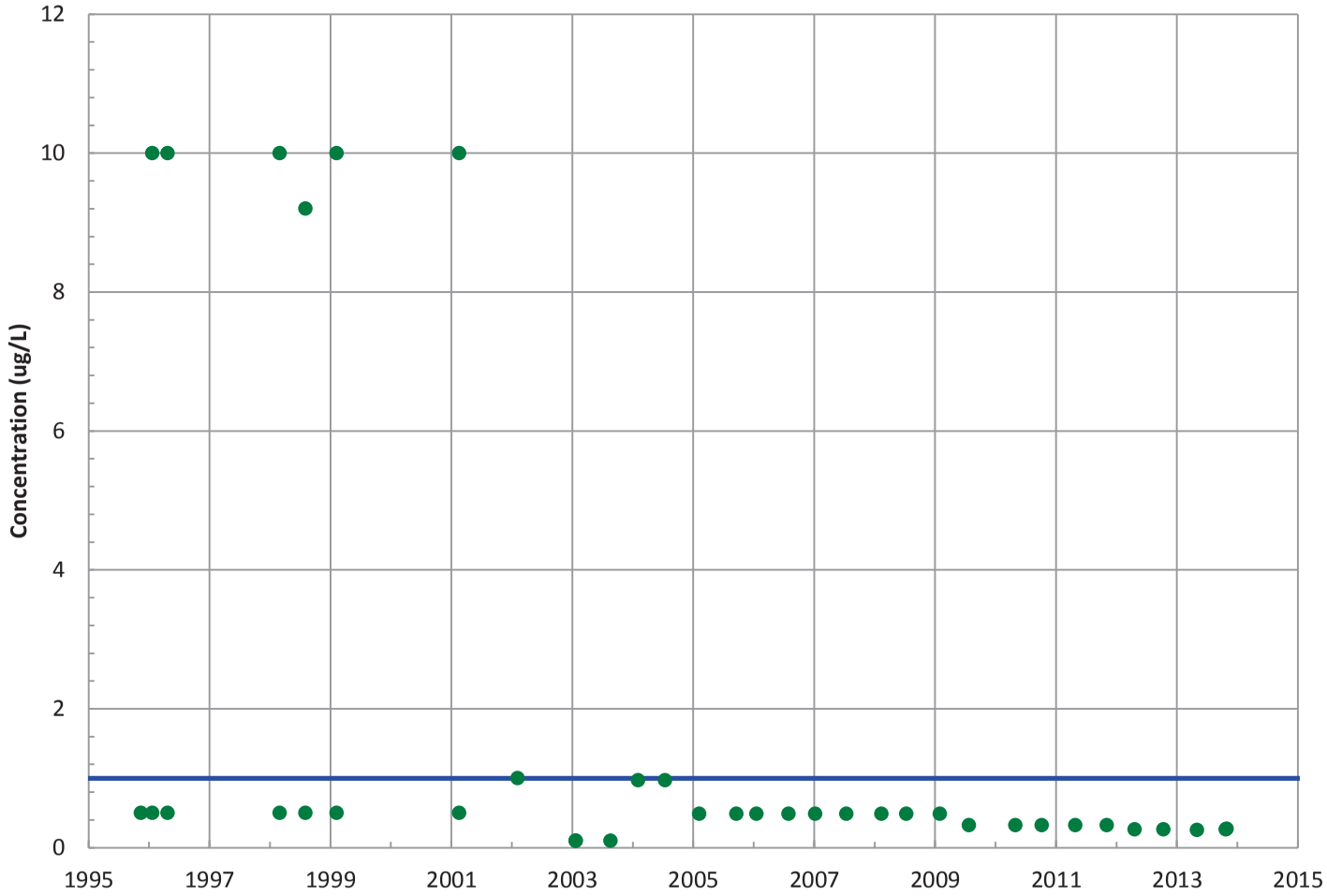
Well Location



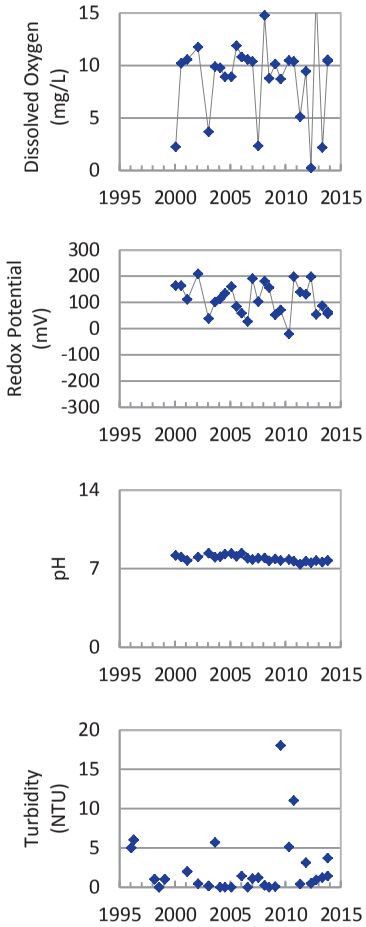
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 11/11/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1008
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



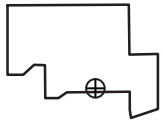
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

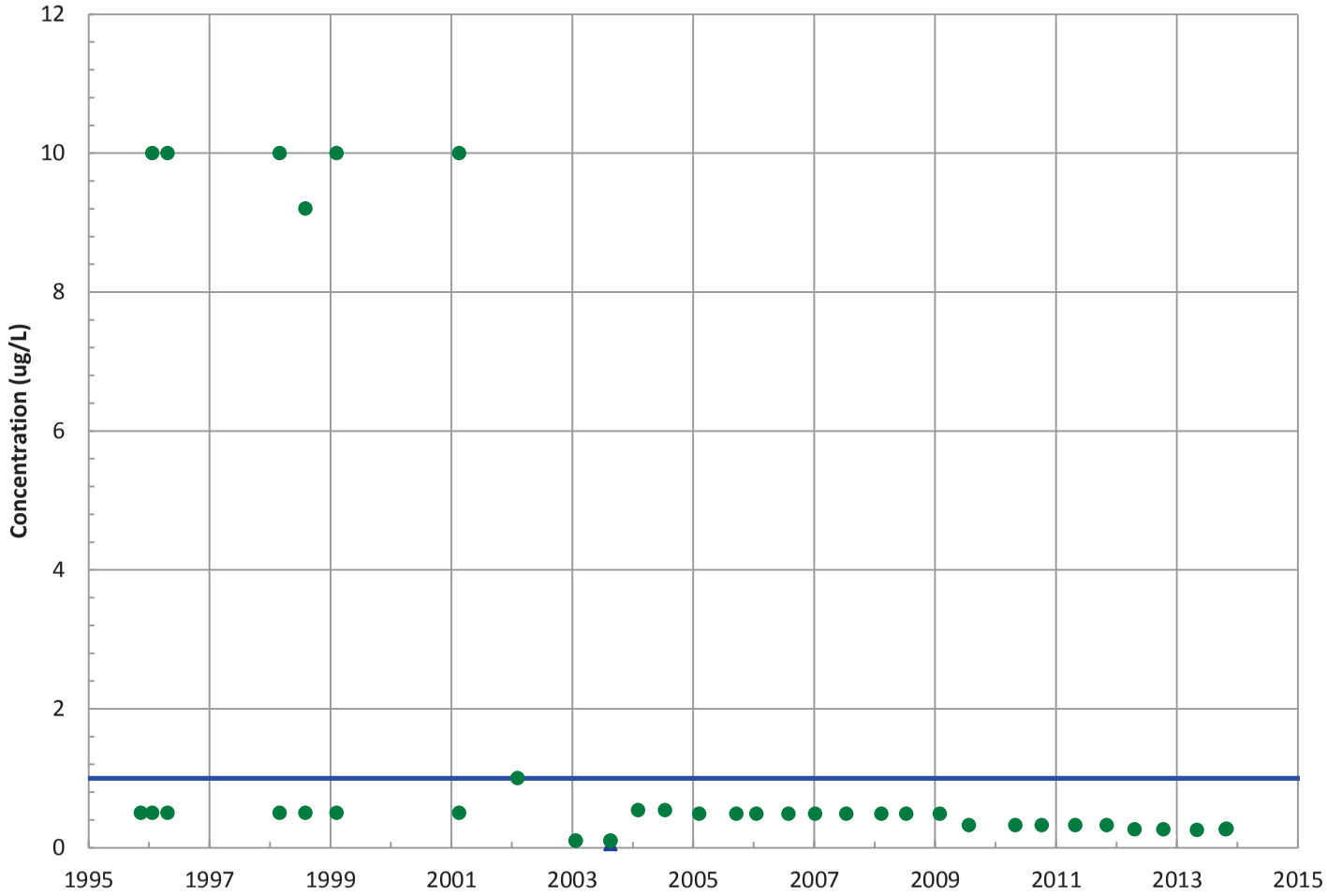
Well Location



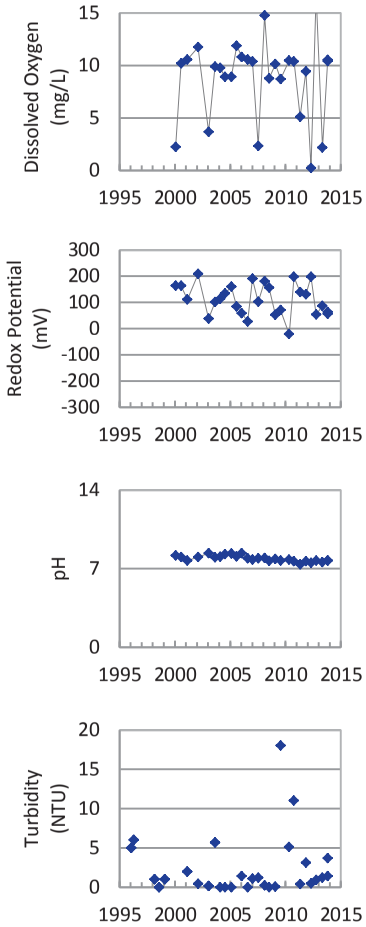
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 11/11/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1008
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



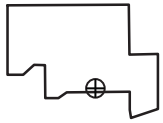
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

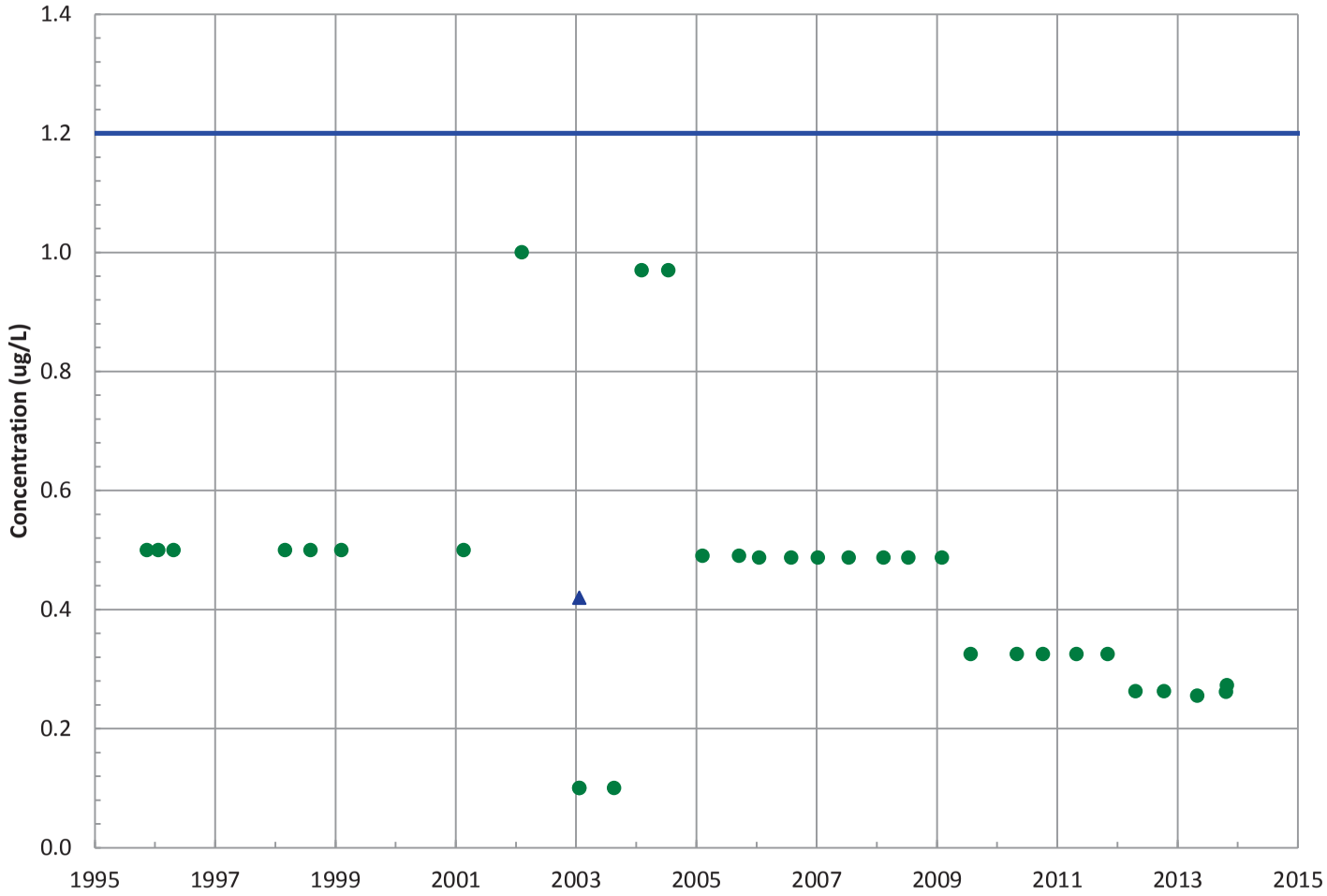
Well Location



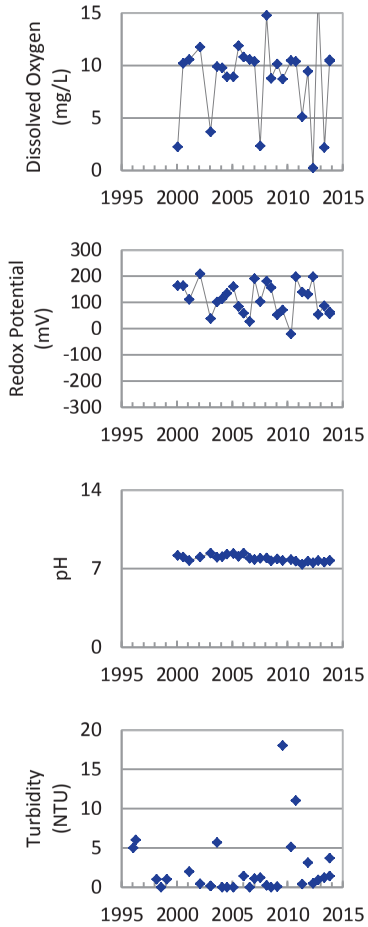
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 11/11/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1008
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



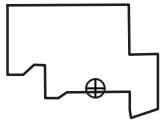
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

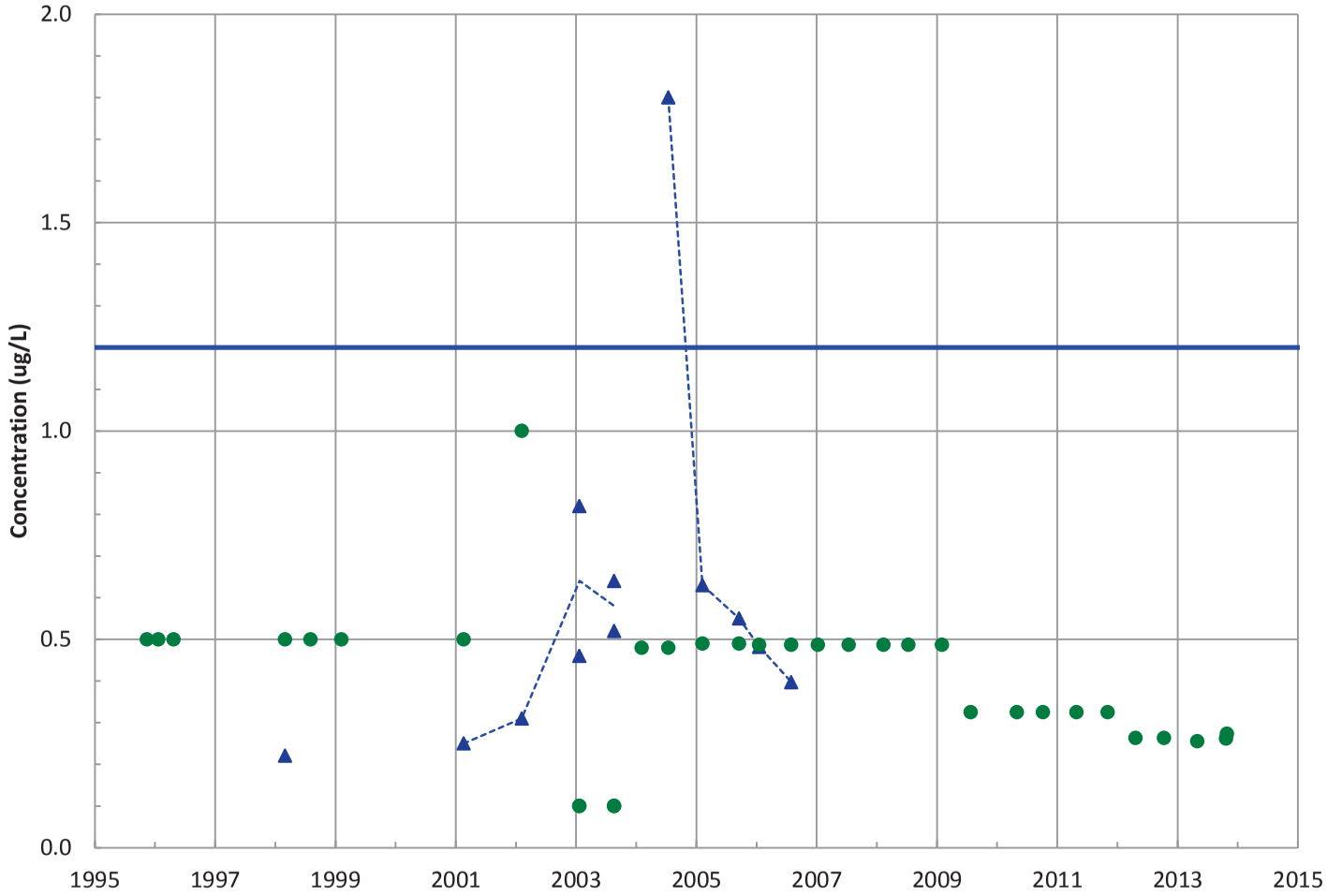
Well Location



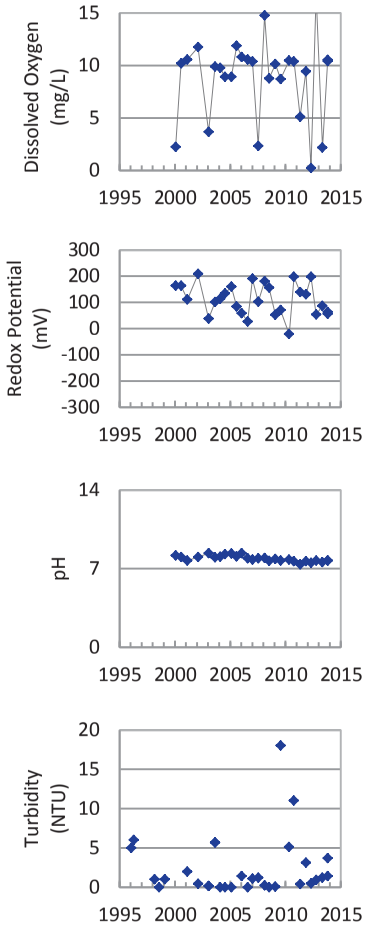
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 11/11/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1008
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



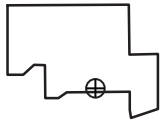
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: Decreasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

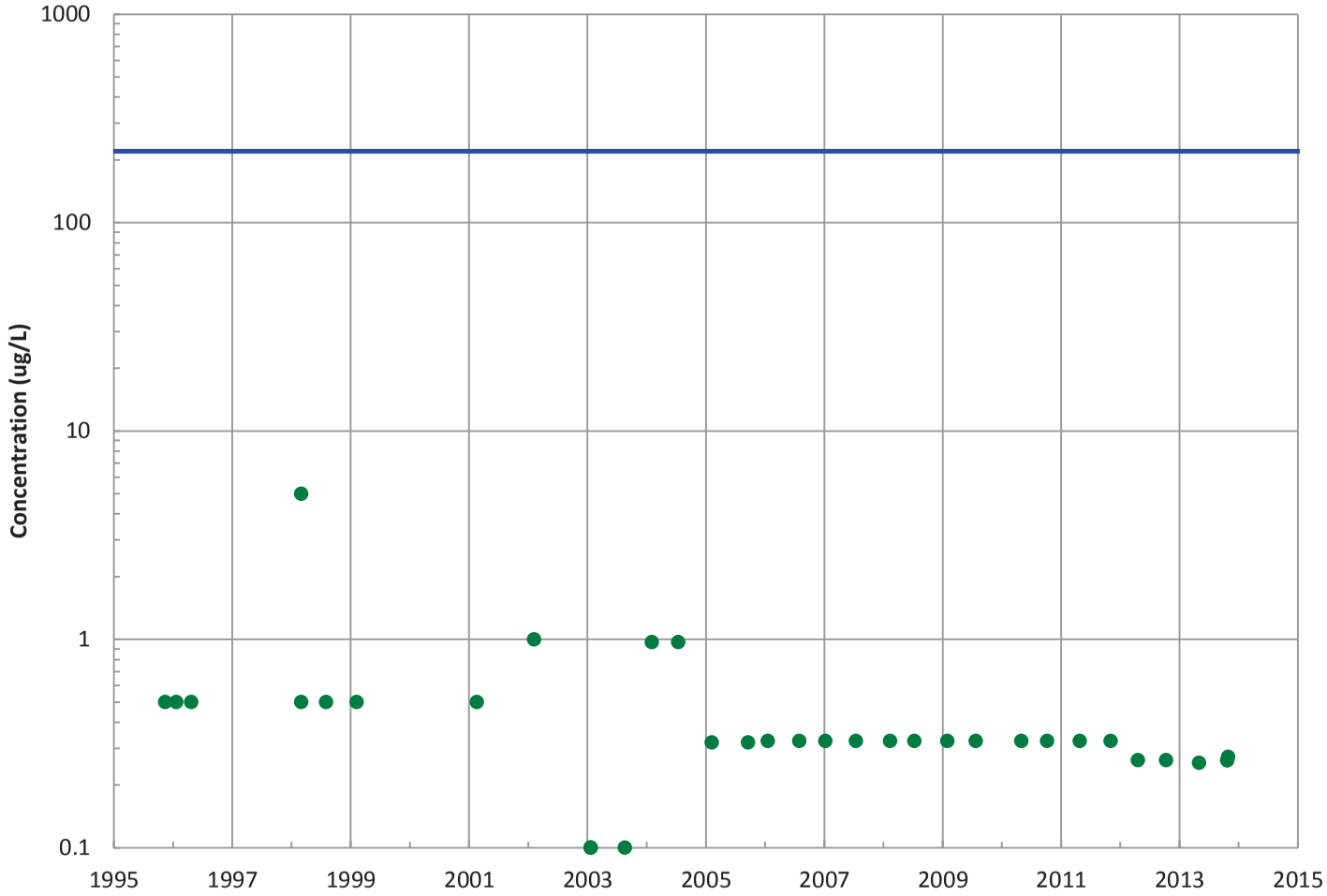
Well Location



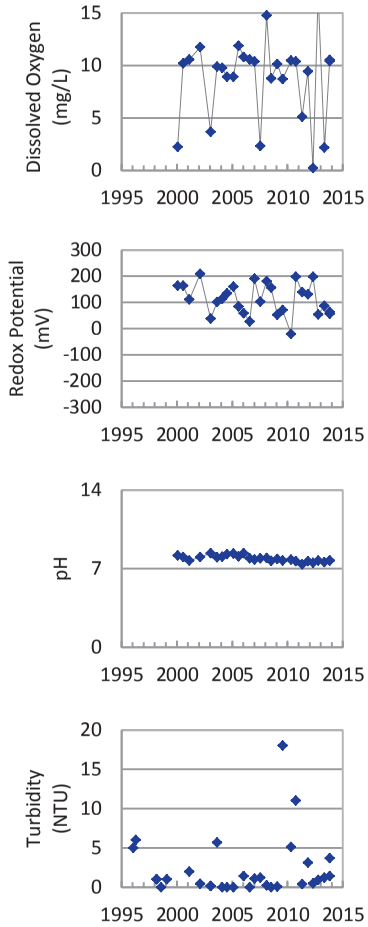
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 11/11/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1008
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



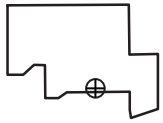
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

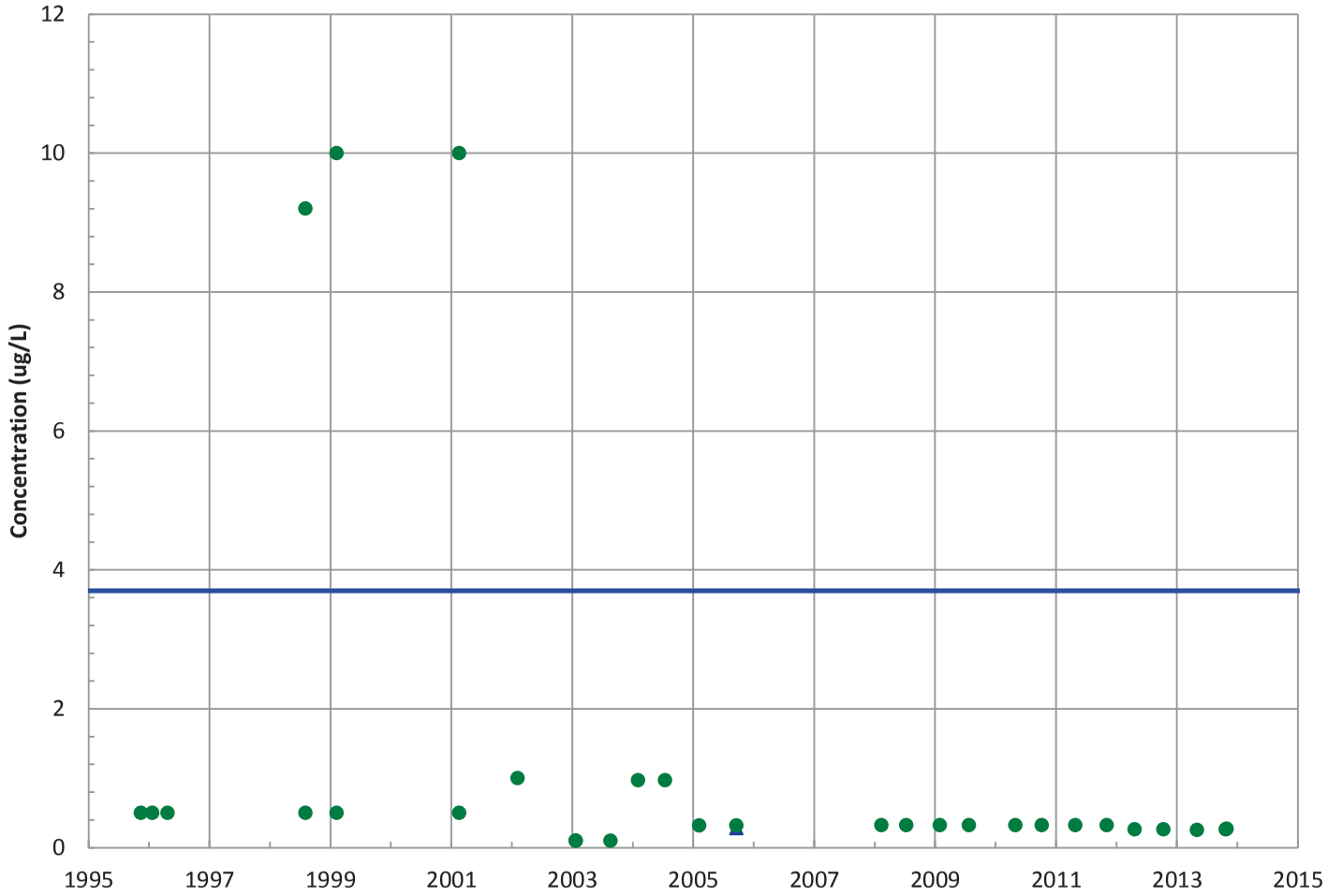
Well Location



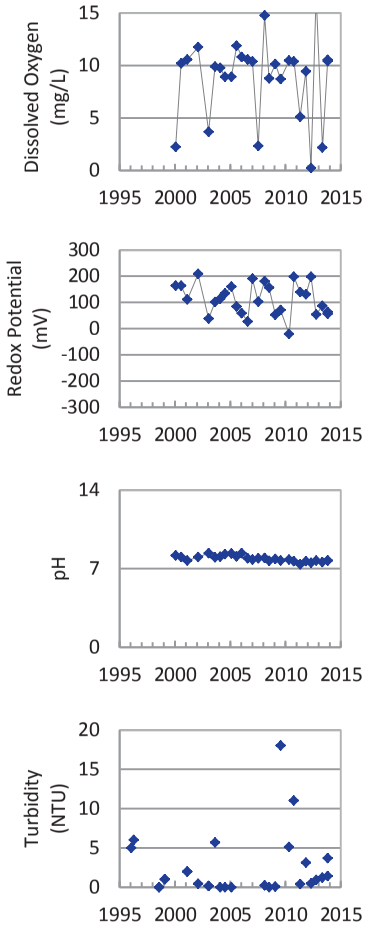
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 11/11/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1008
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



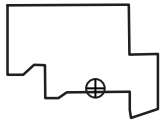
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Groundwater Protection Standard

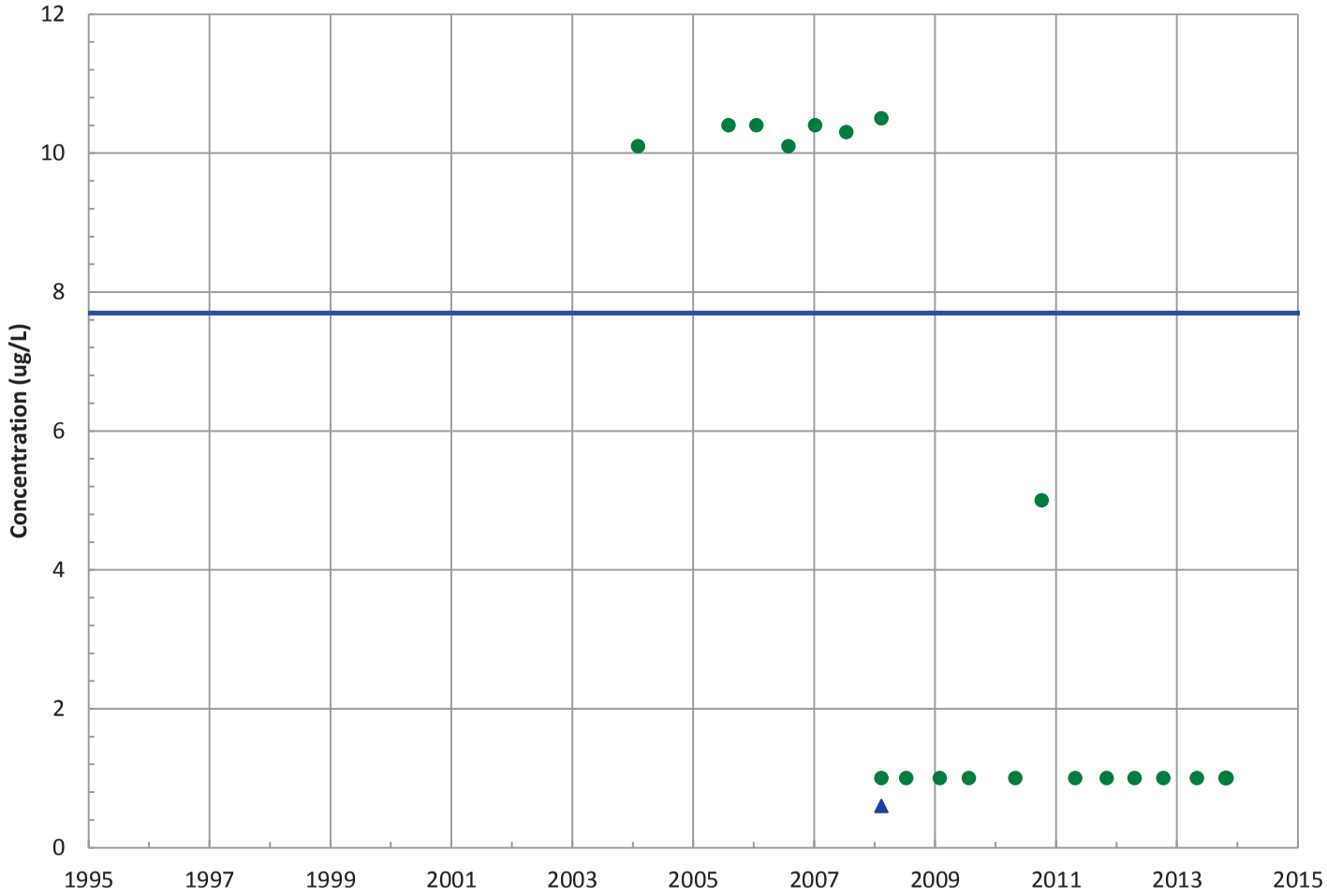
Well Location



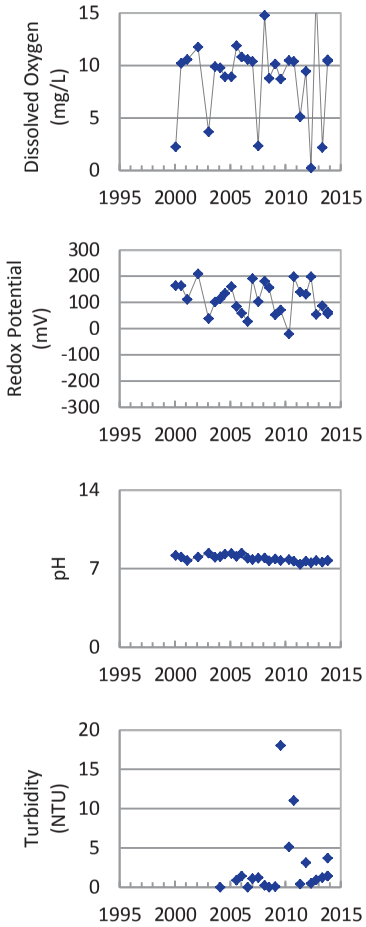
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 11/11/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1008
1,4-Dioxane (p-Dioxane) Trend in Perched Aquifer



Field Parameters



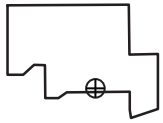
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

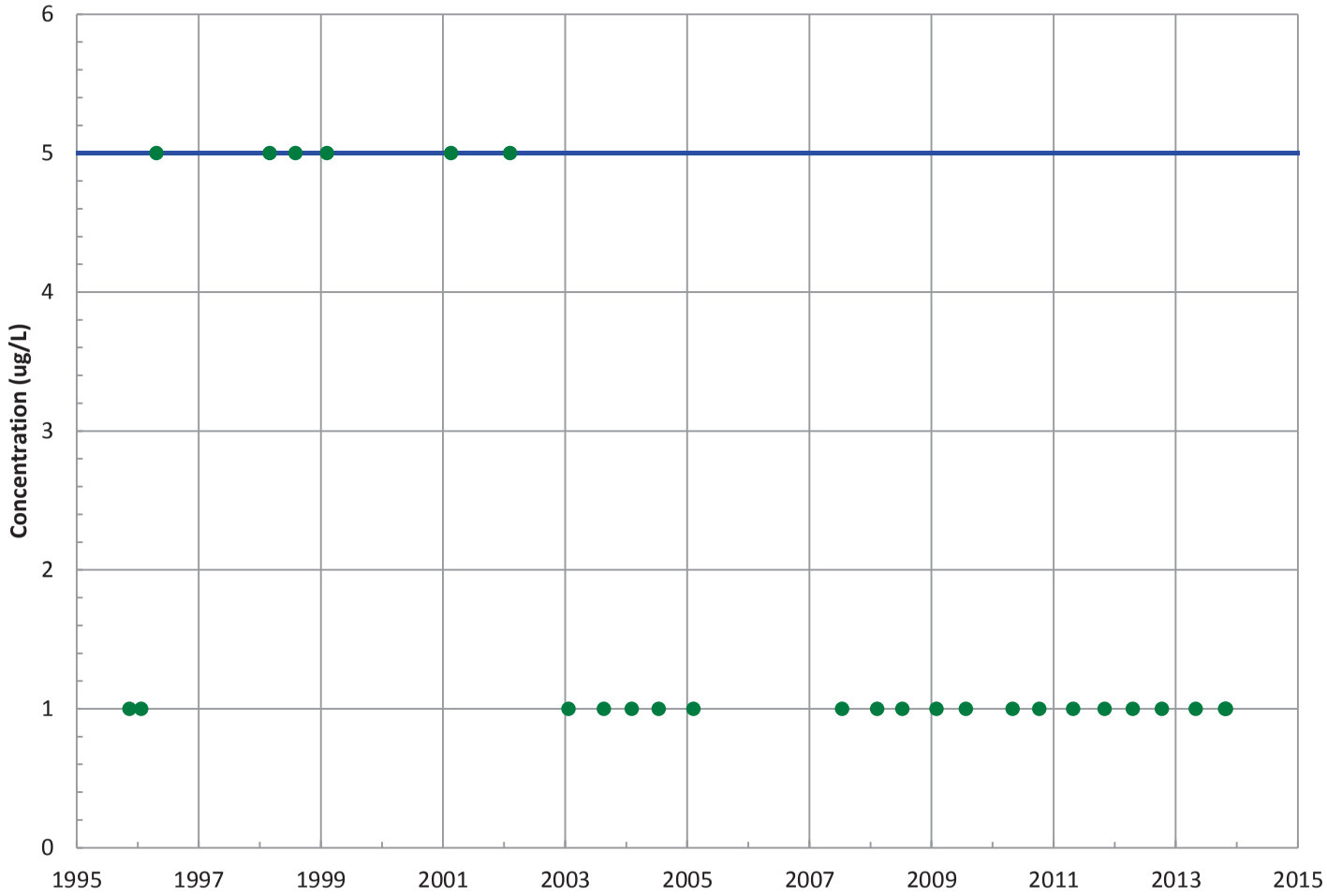
Well Location



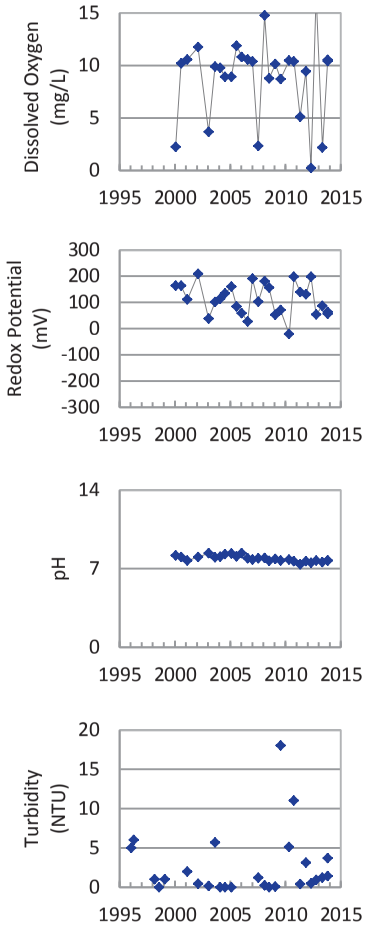
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/10/2004 to 11/11/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1008
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



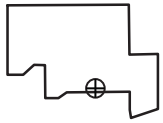
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

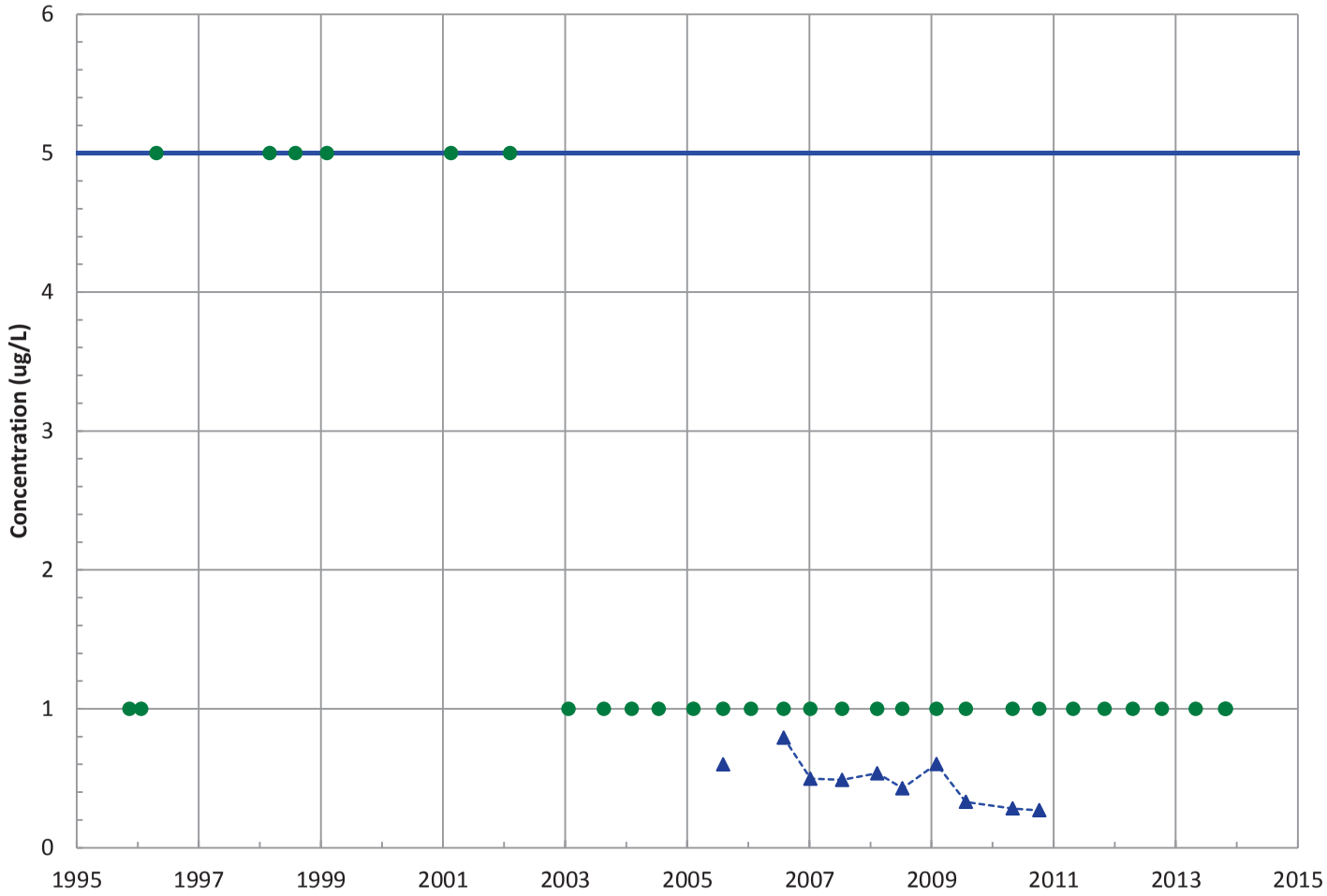
Well Location



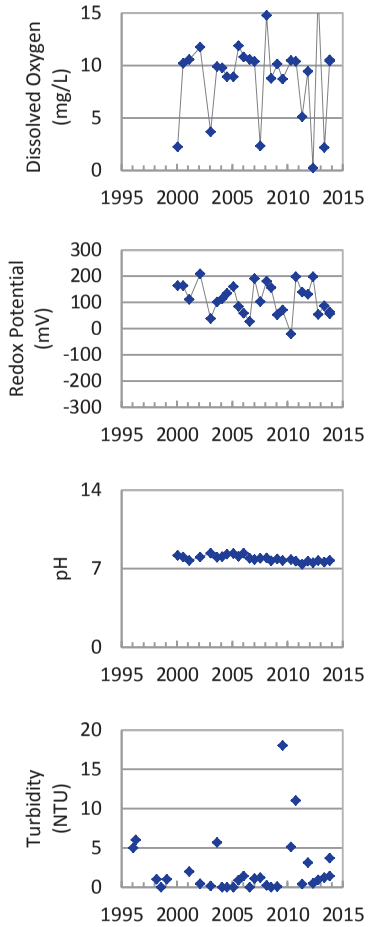
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 11/11/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1008
Trichloroethene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: All Non-Detect

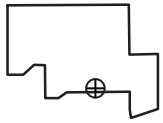
MAROS Linear Regression Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

Well Location



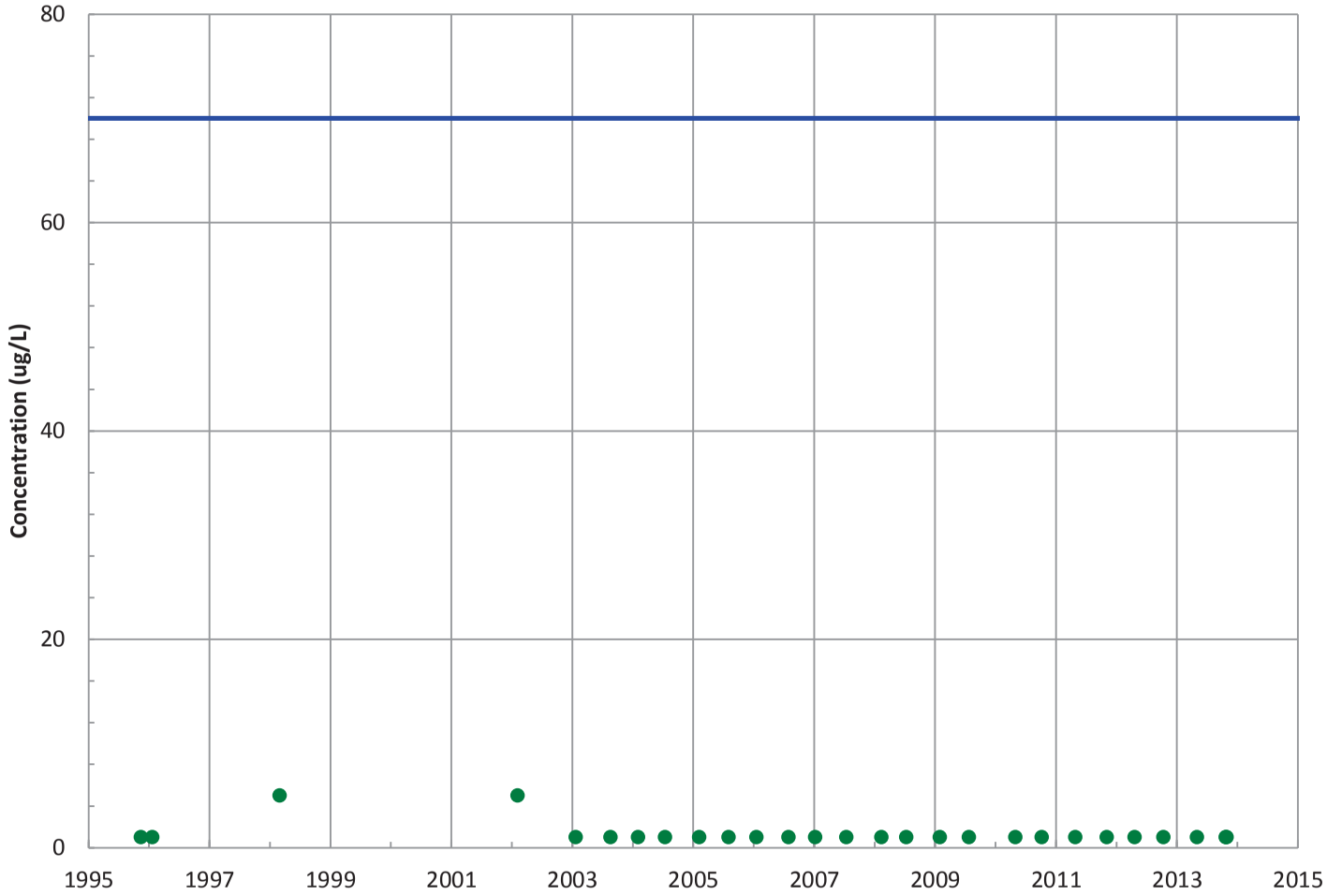
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 11/14/1995 to 11/11/2013

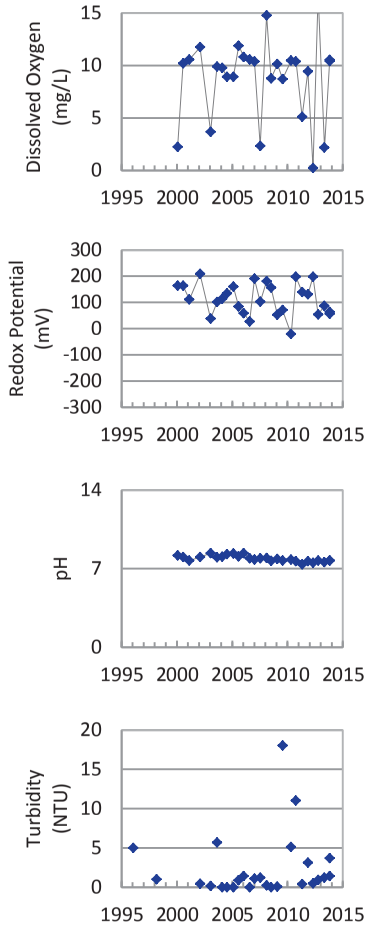
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1008
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



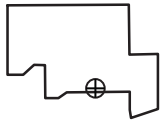
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

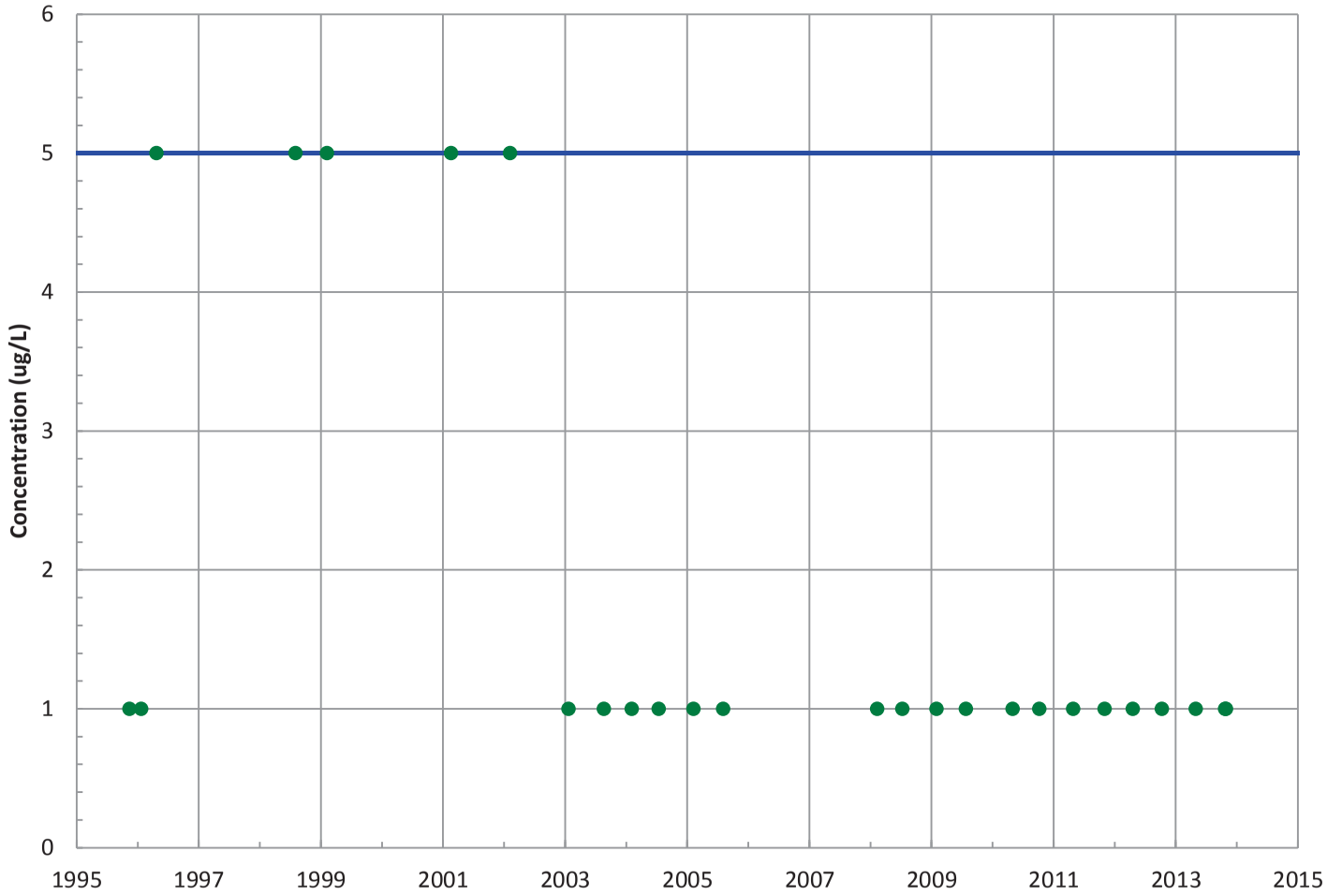
Well Location



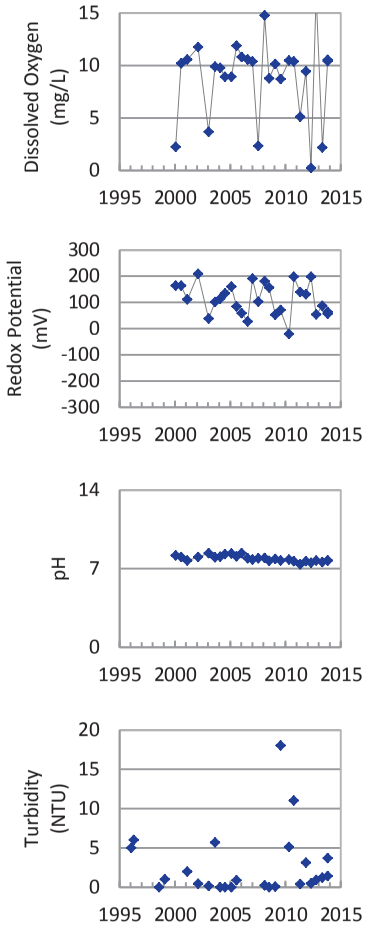
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 11/11/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1008
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



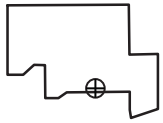
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

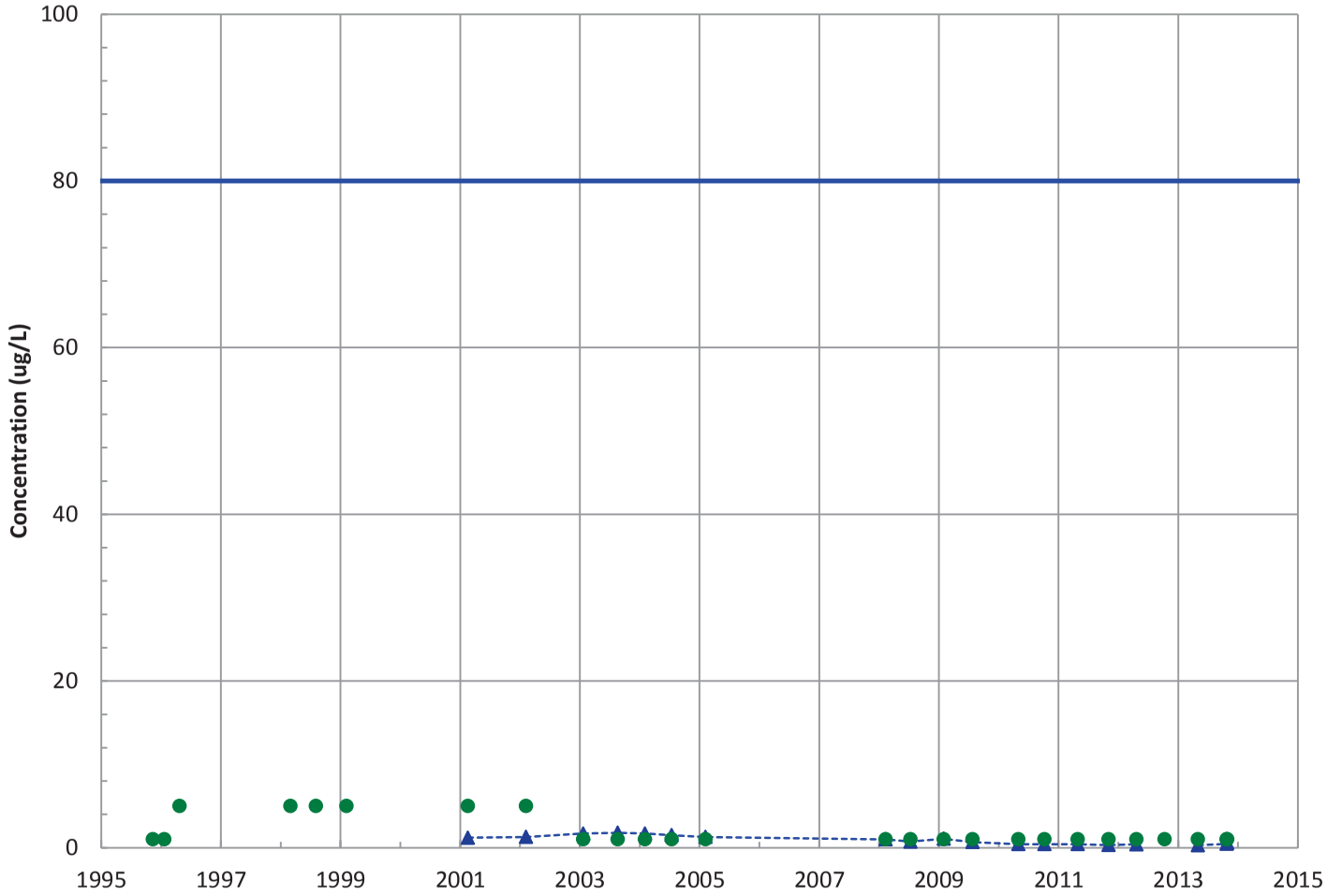
Well Location



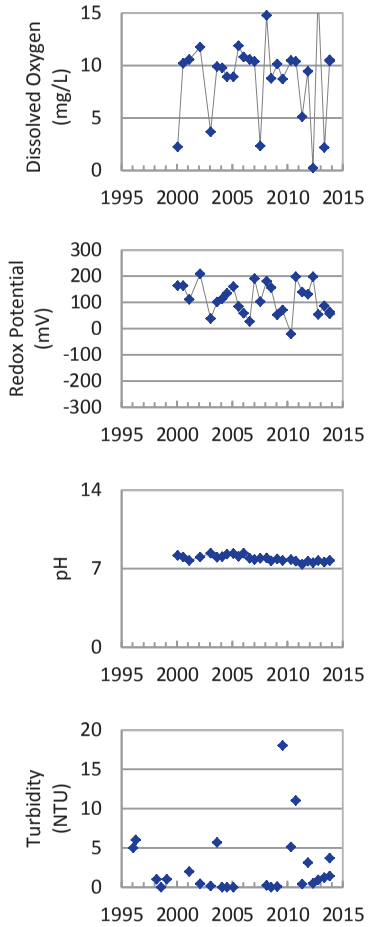
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 11/11/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1008
Chloroform Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Decreasing

2011 - 2013 Data: N/A (<4 Detections in Dataset)

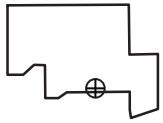
MAROS Linear Regression Method

Data (7/2009 - 12/2013): Stable

2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location



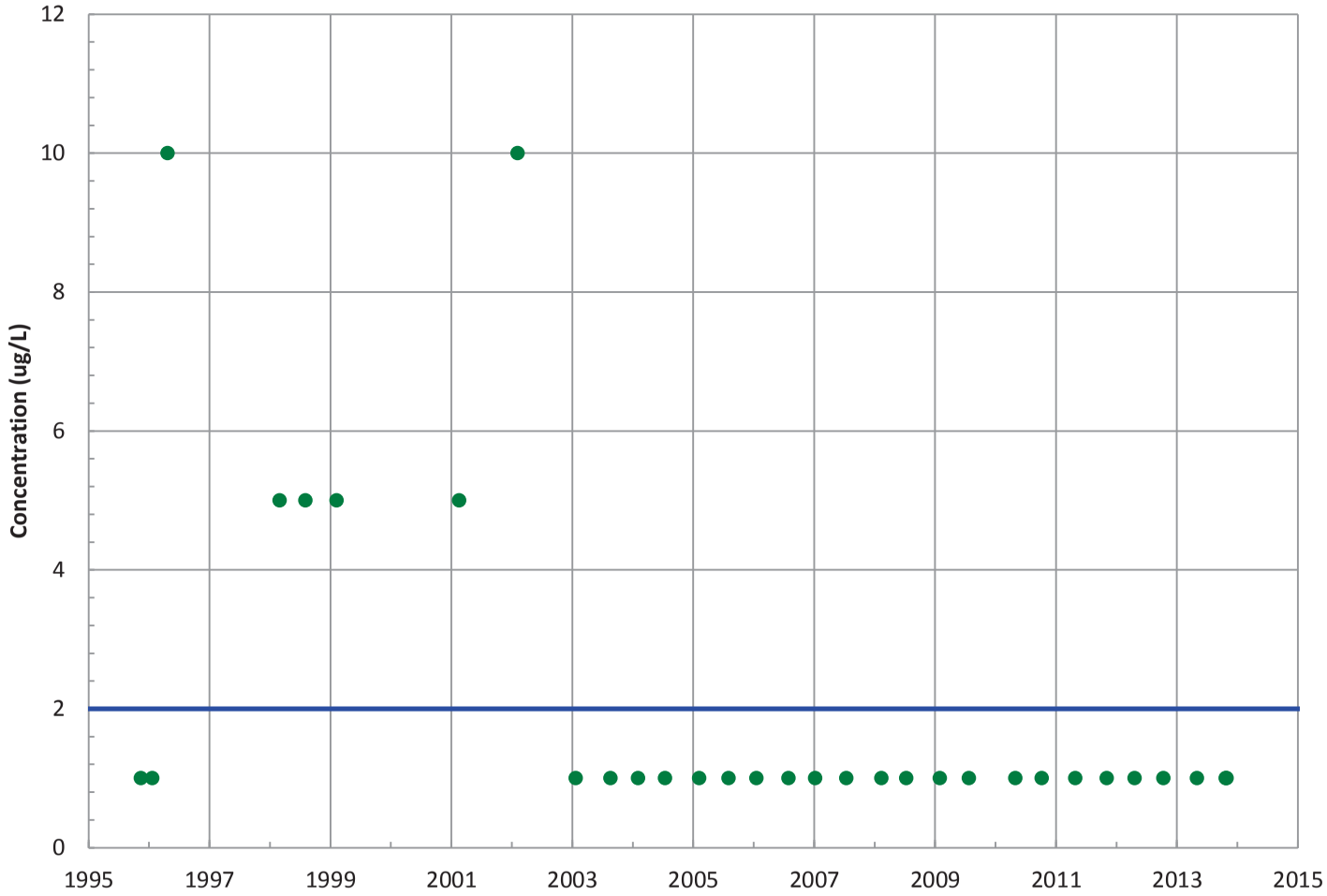
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 11/14/1995 to 11/11/2013

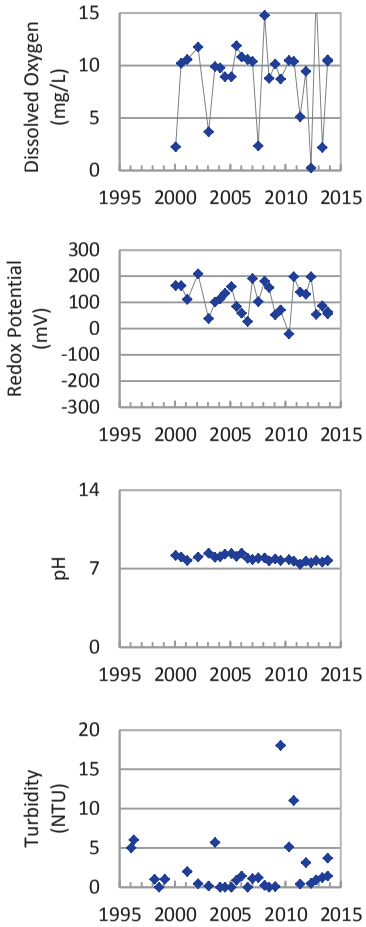
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1008
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



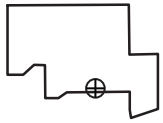
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

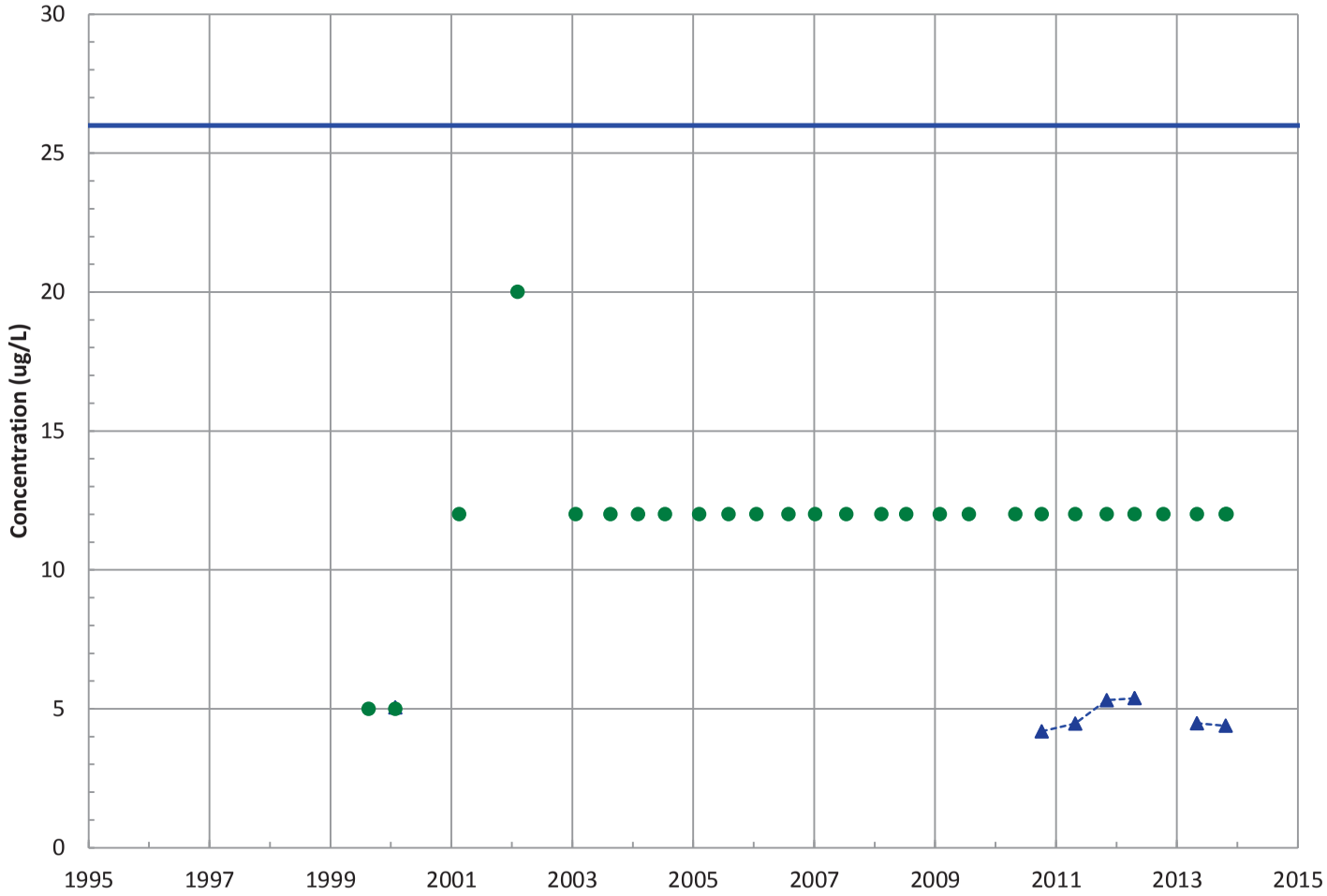
Well Location



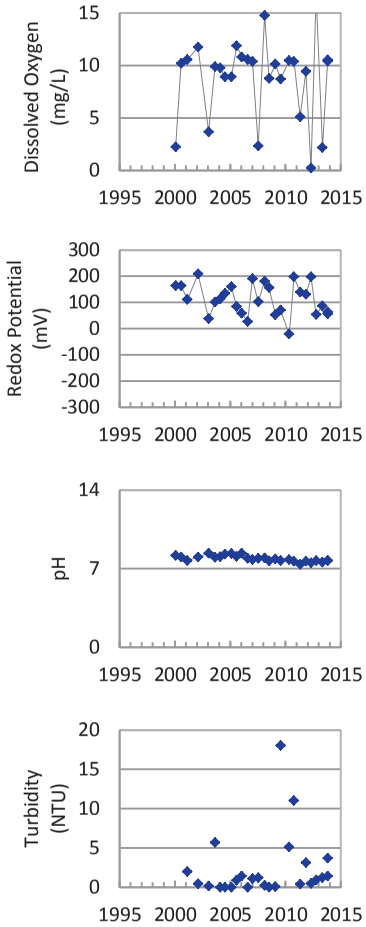
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 11/11/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1008
Perchlorate Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Decreasing

2011 - 2013 Data: N/A (<4 Detections in Dataset)

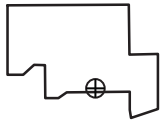
MAROS Linear Regression Method

Data (7/2009 - 12/2013): Increasing

2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location



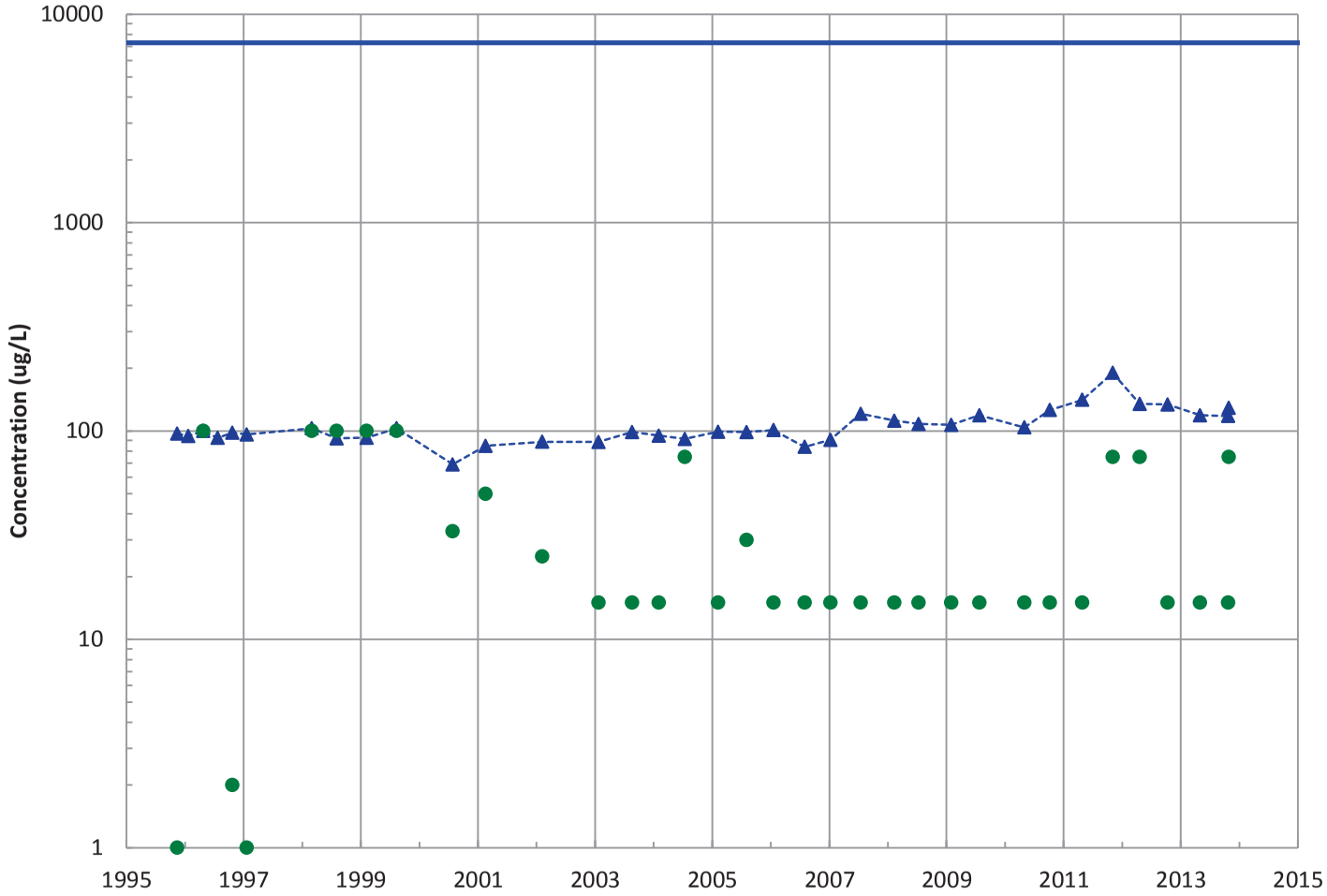
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 8/23/1999 to 11/11/2013

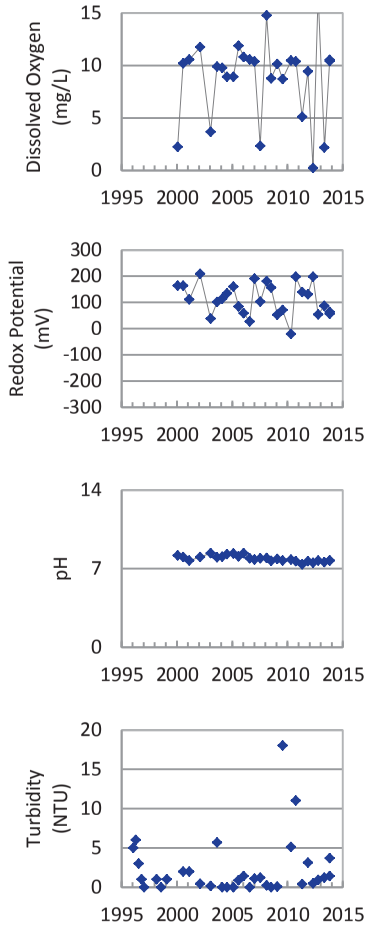
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1008
Boron Trend in Perched Aquifer



Field Parameters



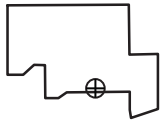
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

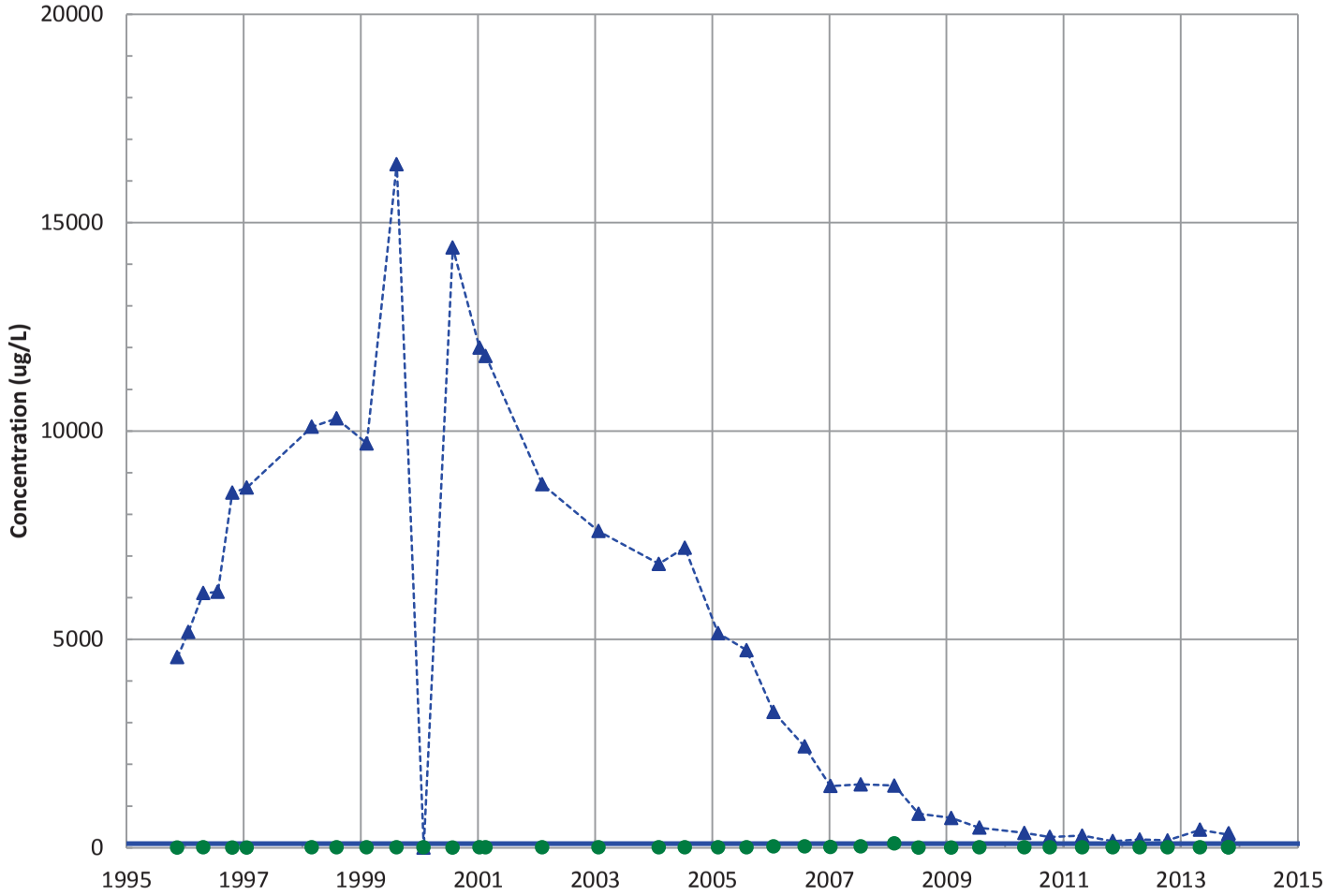
Well Location



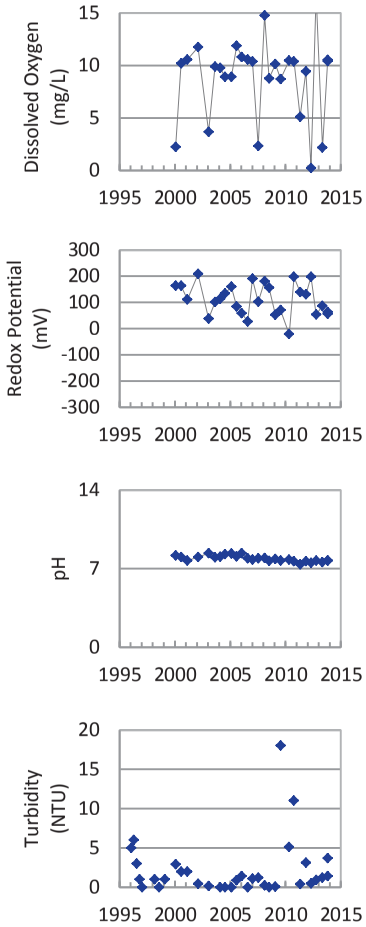
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 11/11/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1008
Chromium, Total Trend in Perched Aquifer



Field Parameters



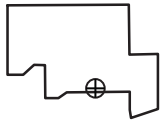
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

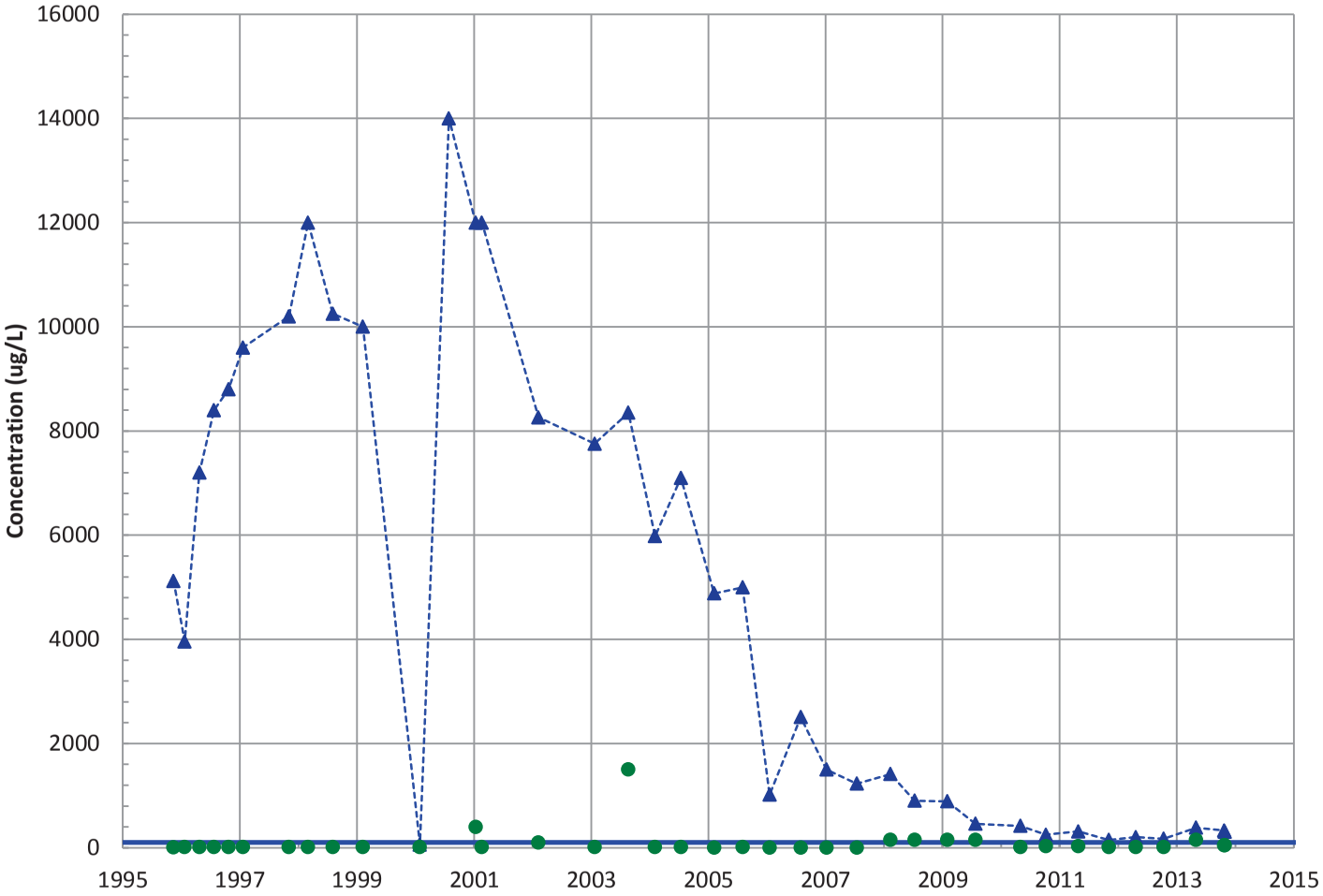
Well Location



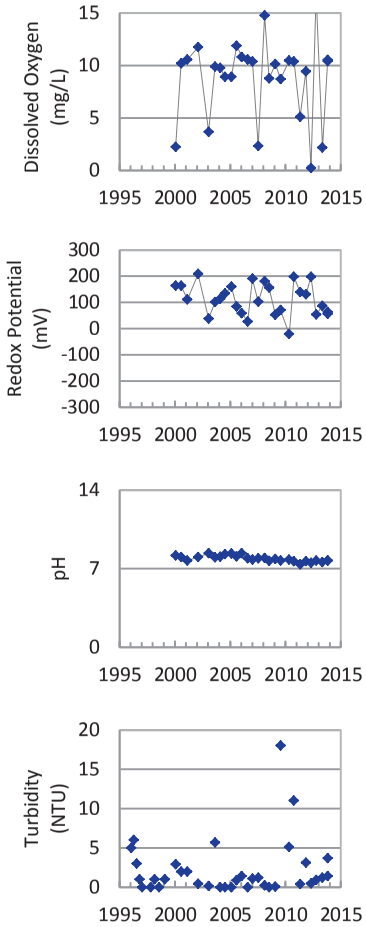
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 11/11/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1008
Chromium, Hexavalent Trend in Perched Aquifer



Field Parameters



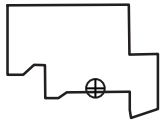
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

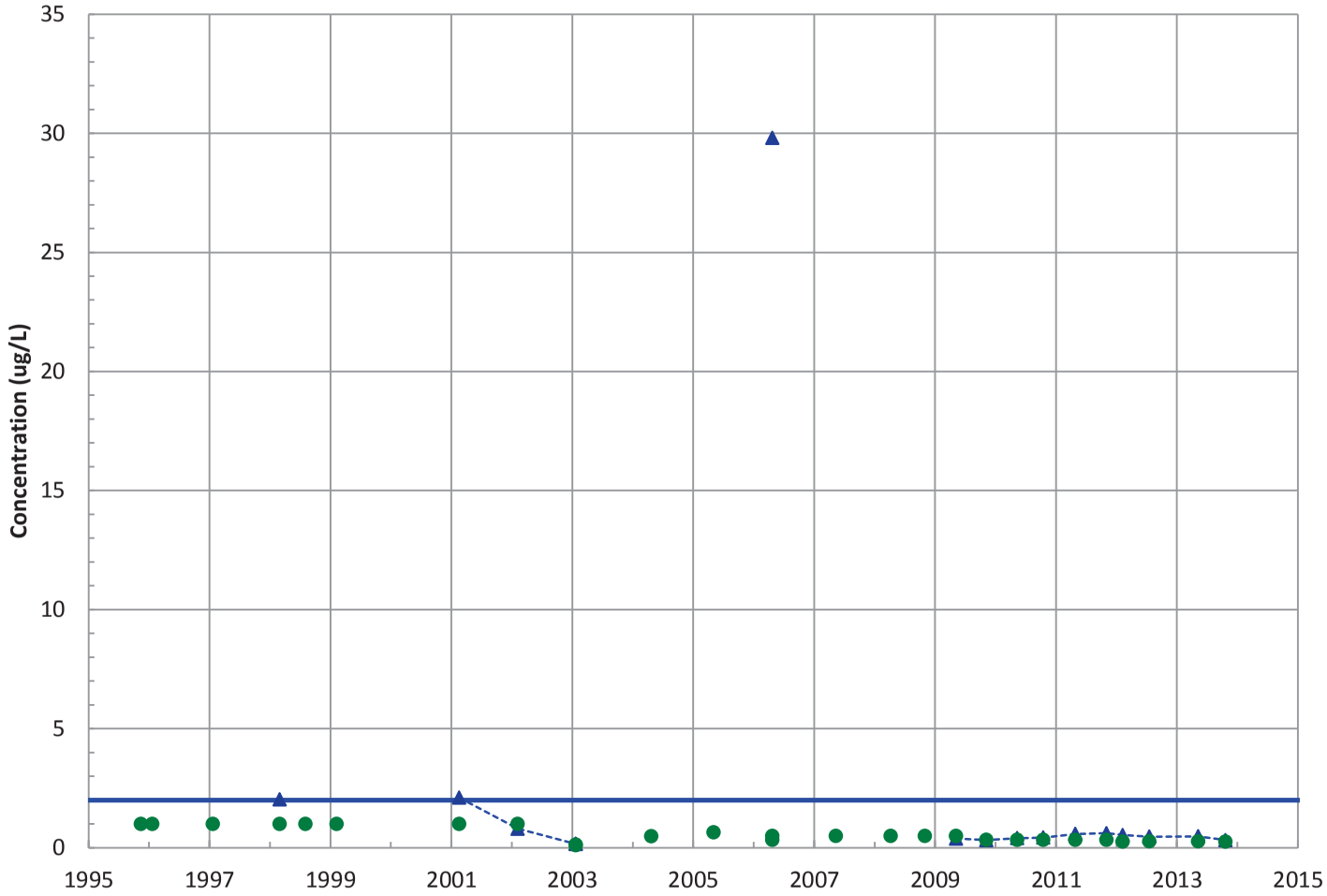
Well Location



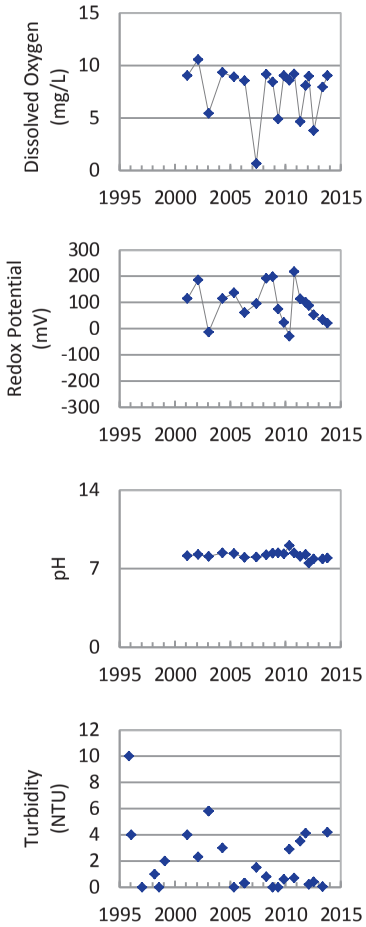
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 11/11/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1009
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



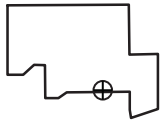
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

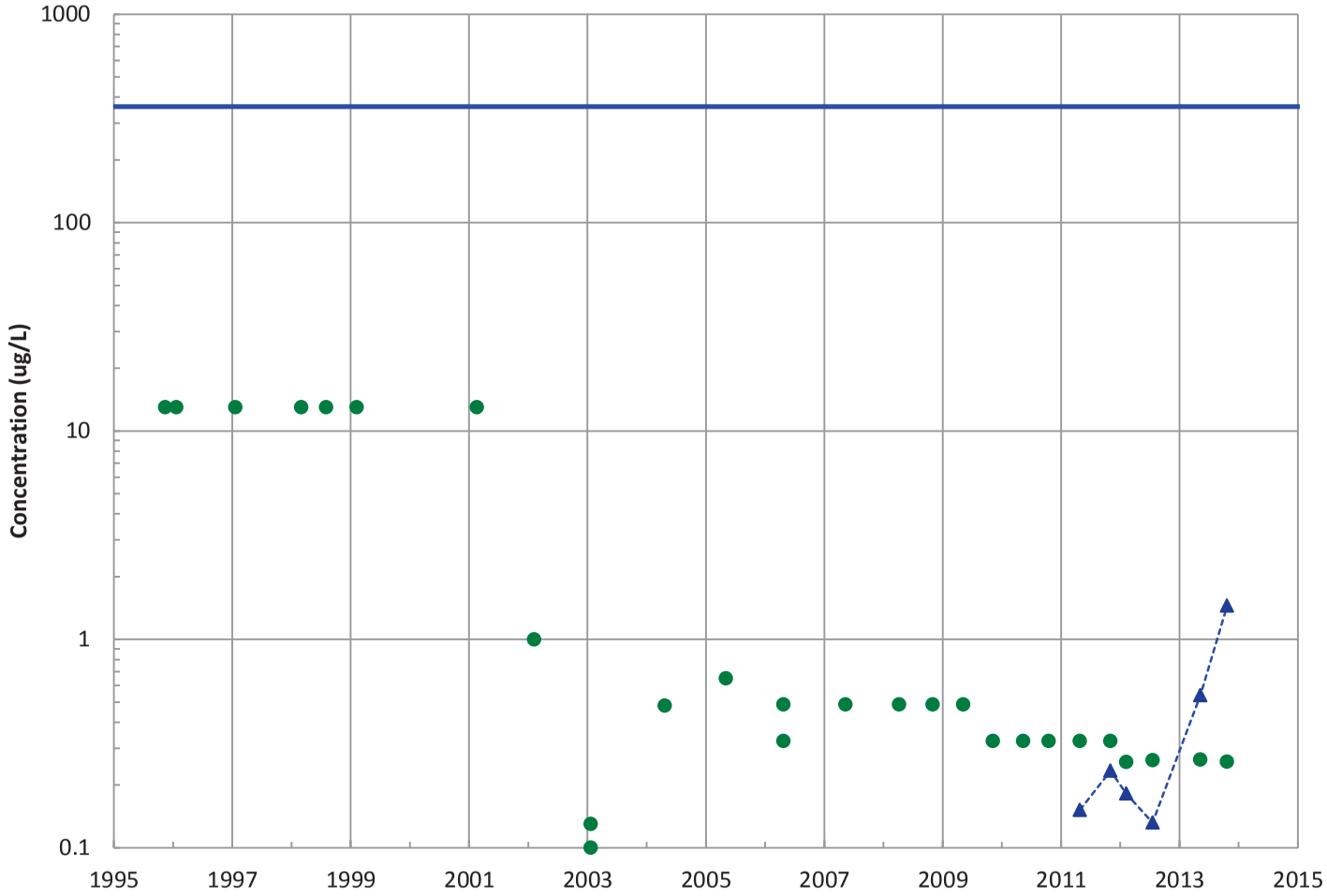
Well Location



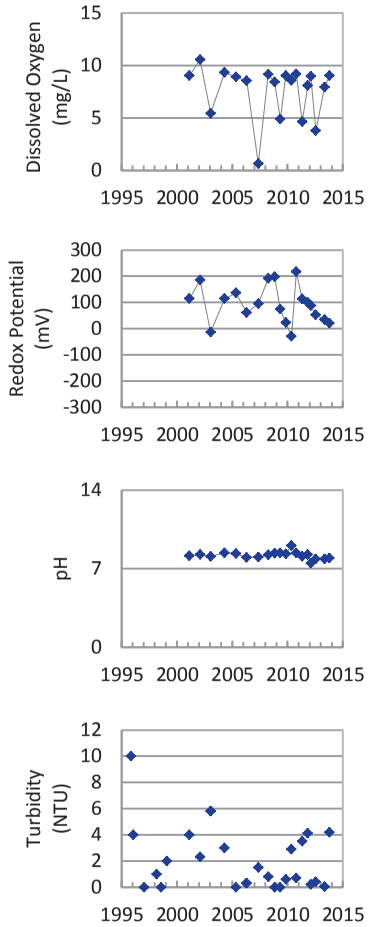
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 11/4/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1009
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



Field Parameters



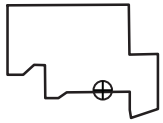
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Increasing
2011 - 2013 Data: Probably Increasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

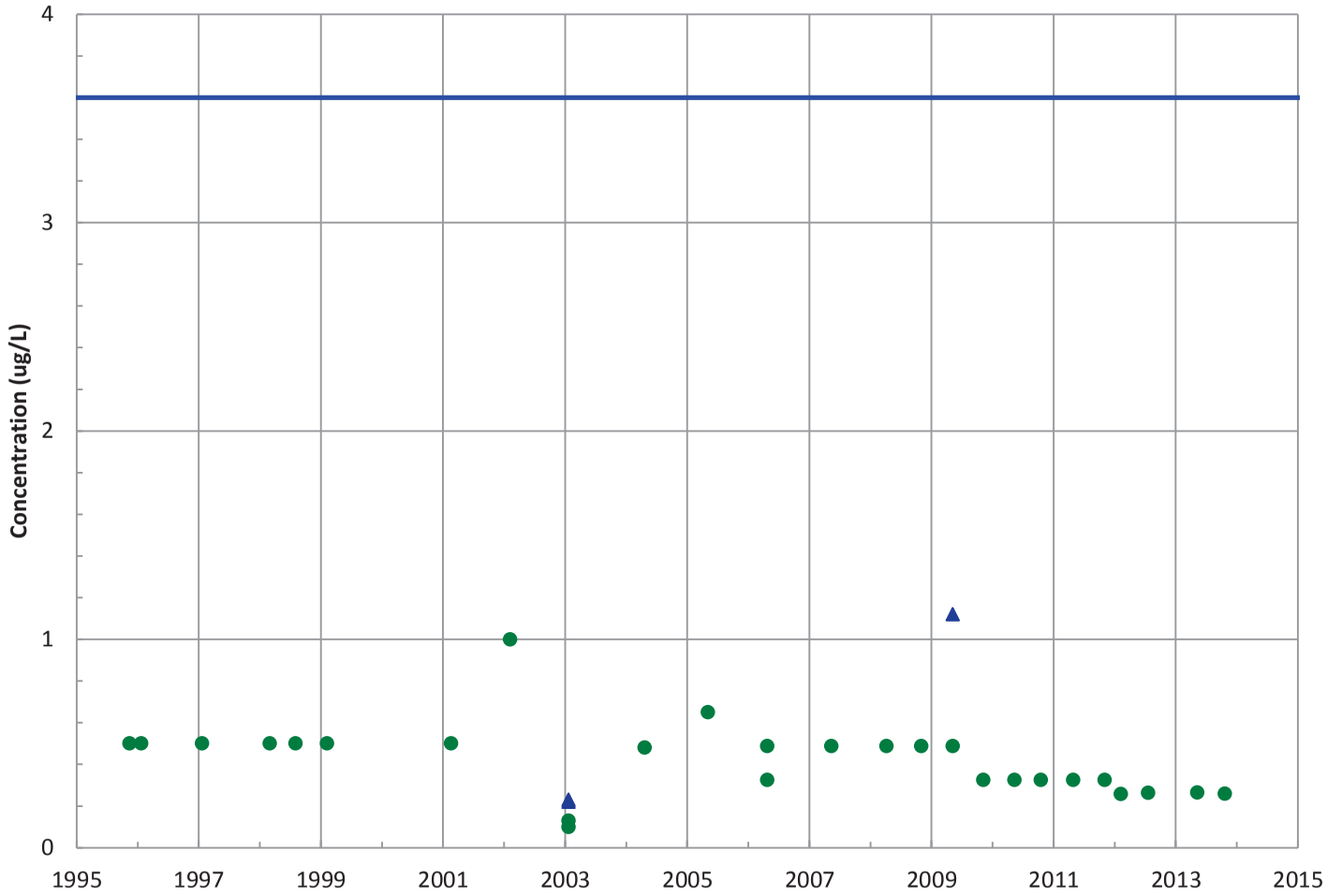
Well Location



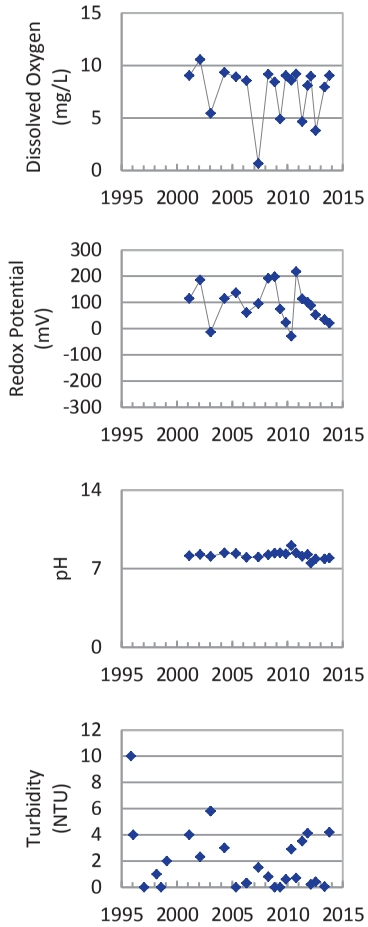
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 11/4/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1009
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



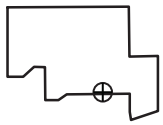
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

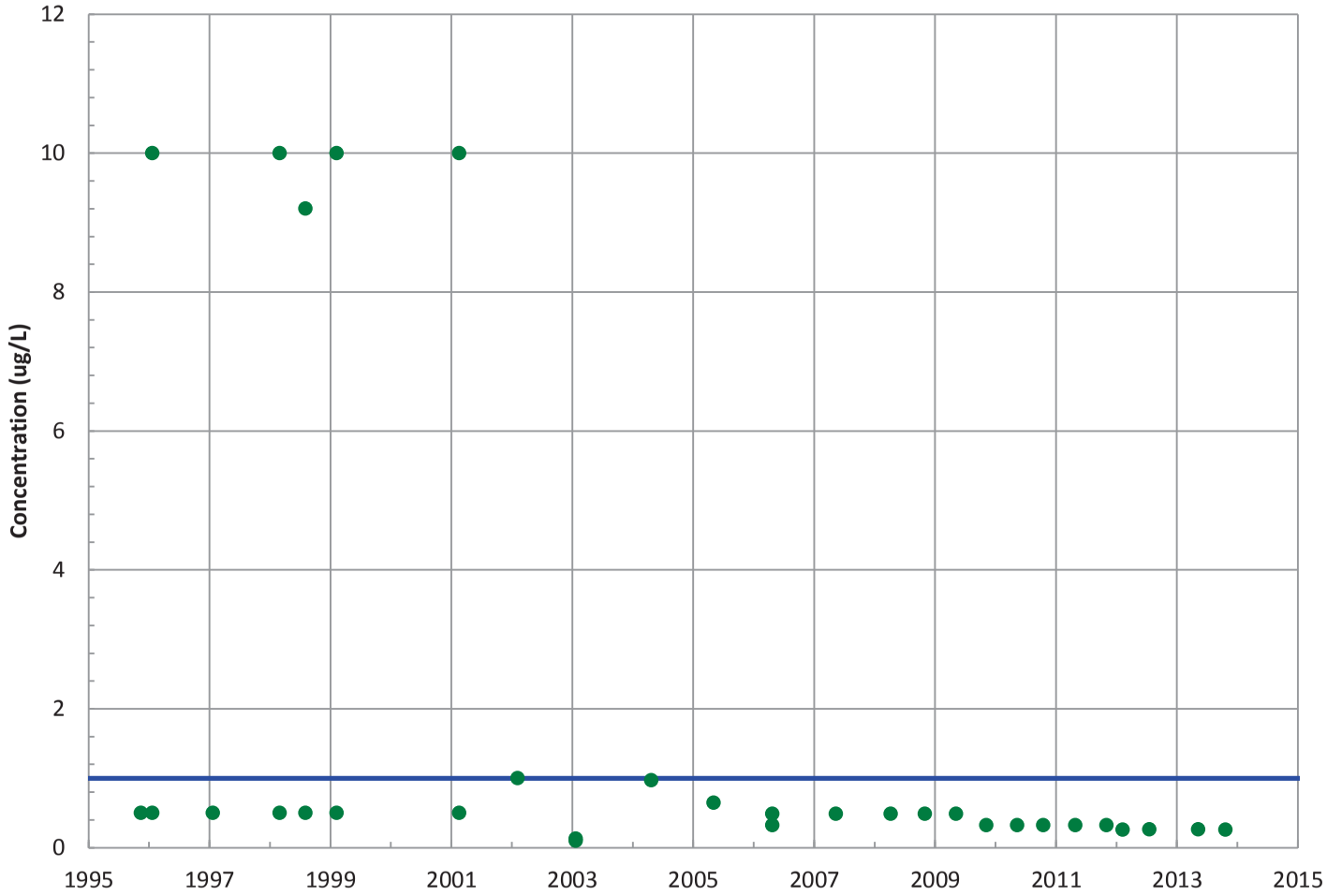
Well Location



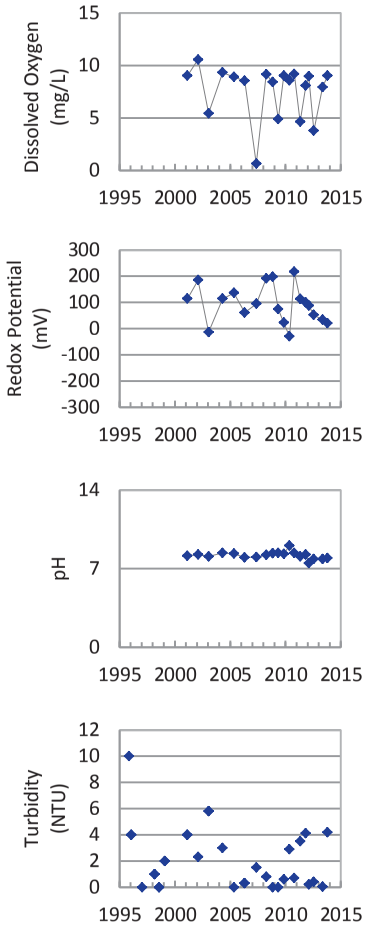
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 11/4/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1009
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



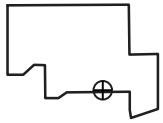
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

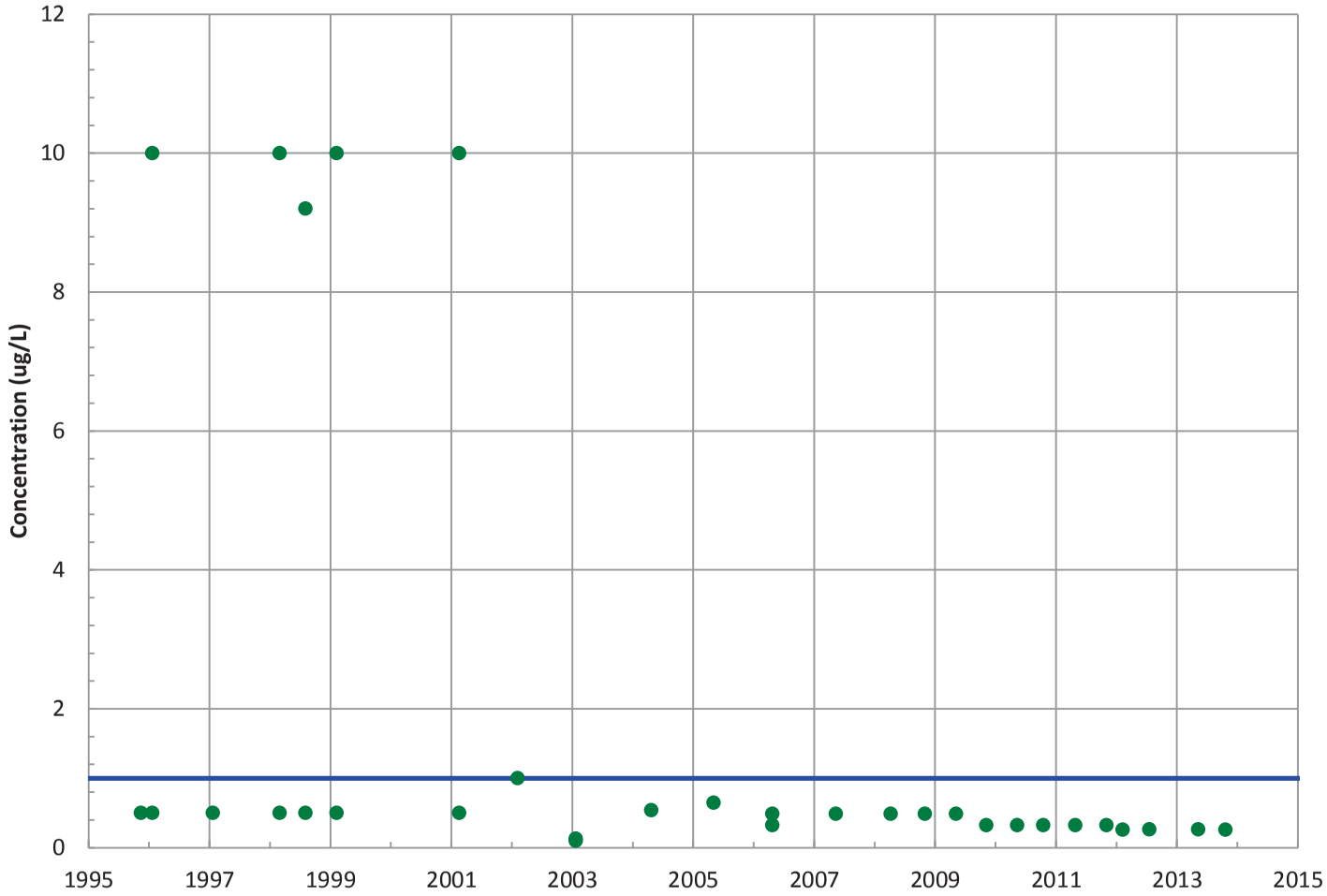
Well Location



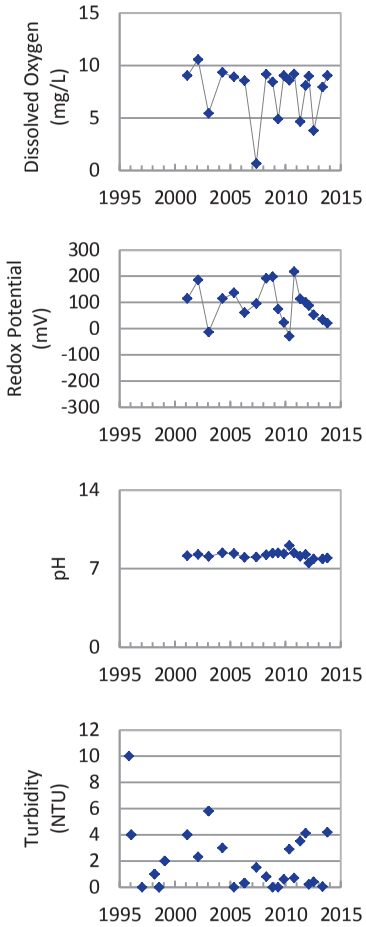
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 11/4/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1009
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



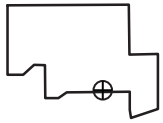
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

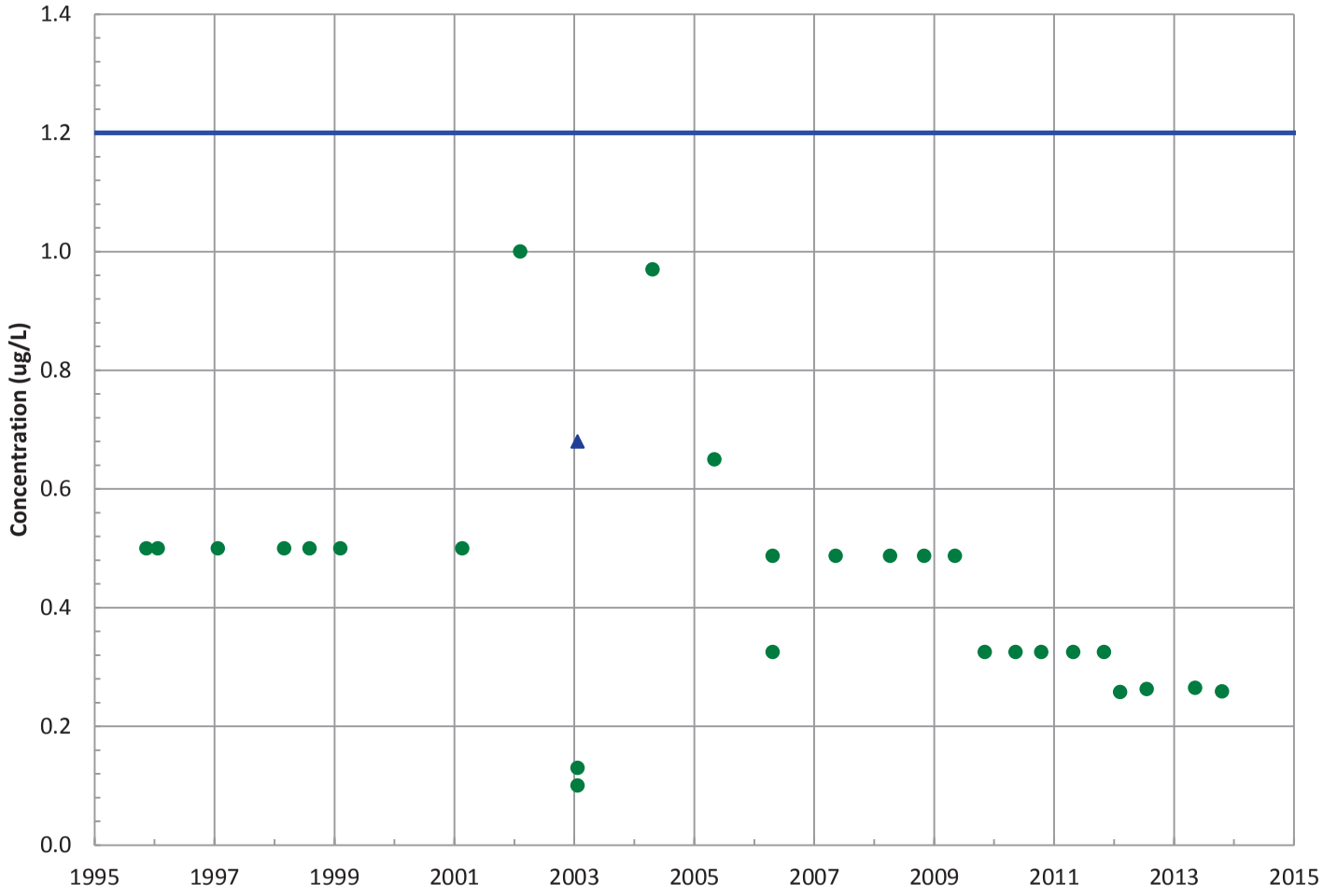
Well Location



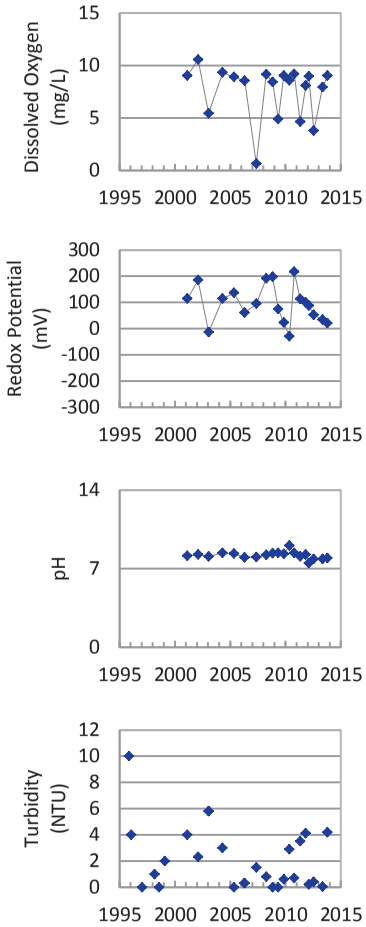
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 11/4/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1009
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



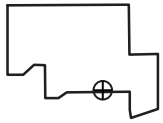
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

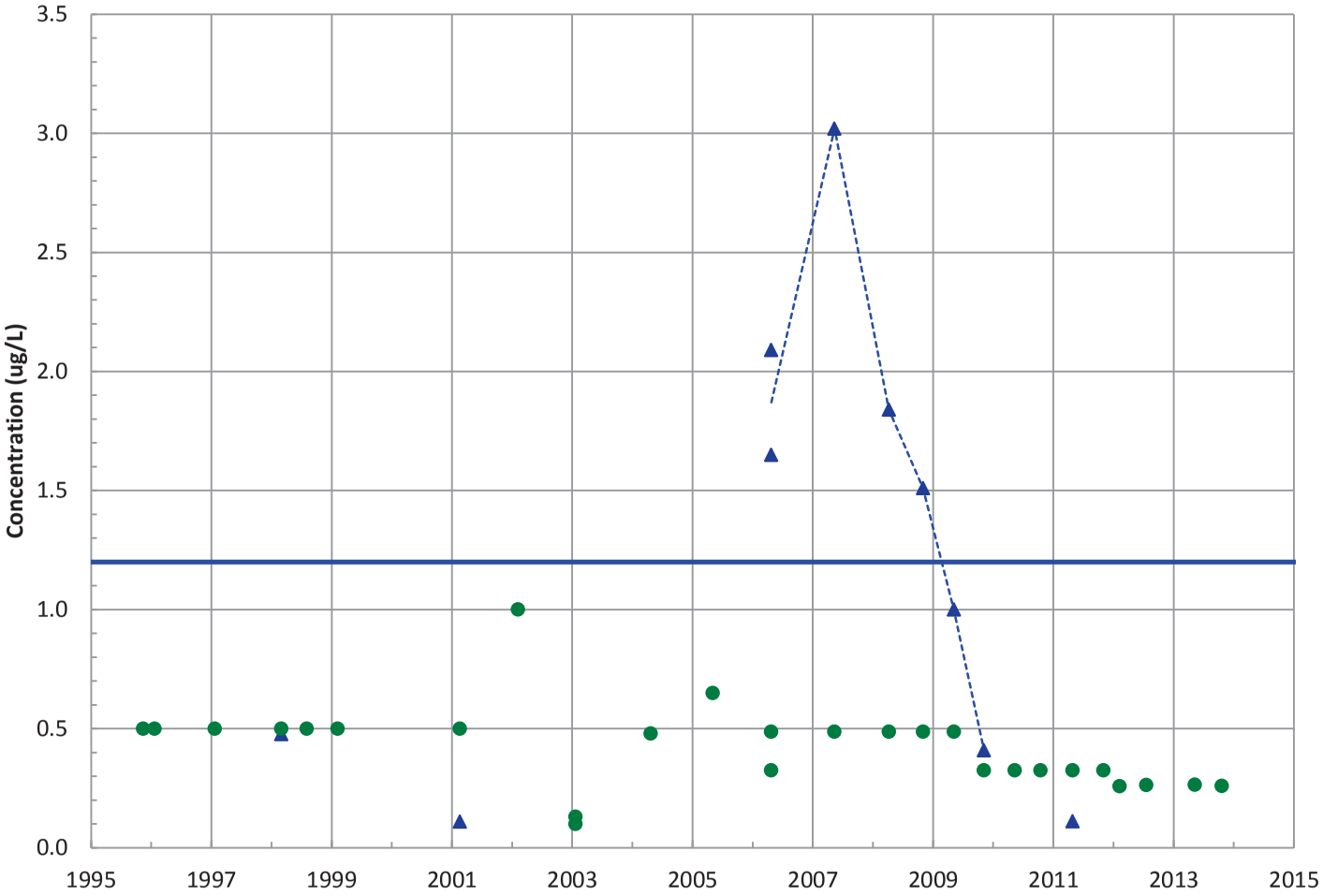
Well Location



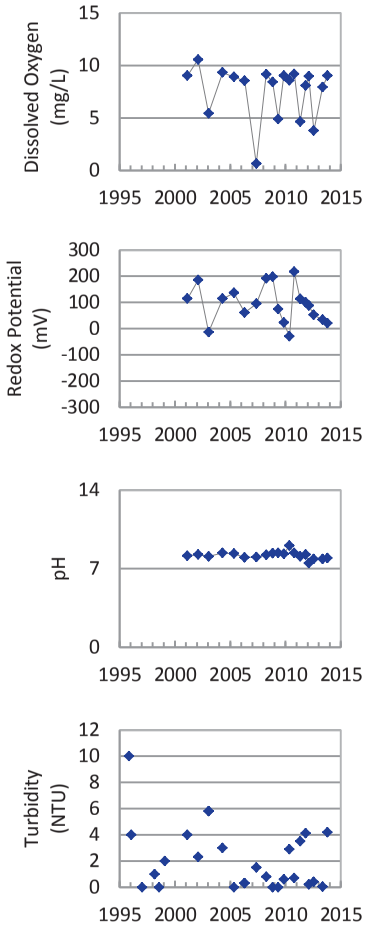
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 11/4/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1009
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: All Non-Detect

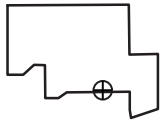
MAROS Linear Regression Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: Decreasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location



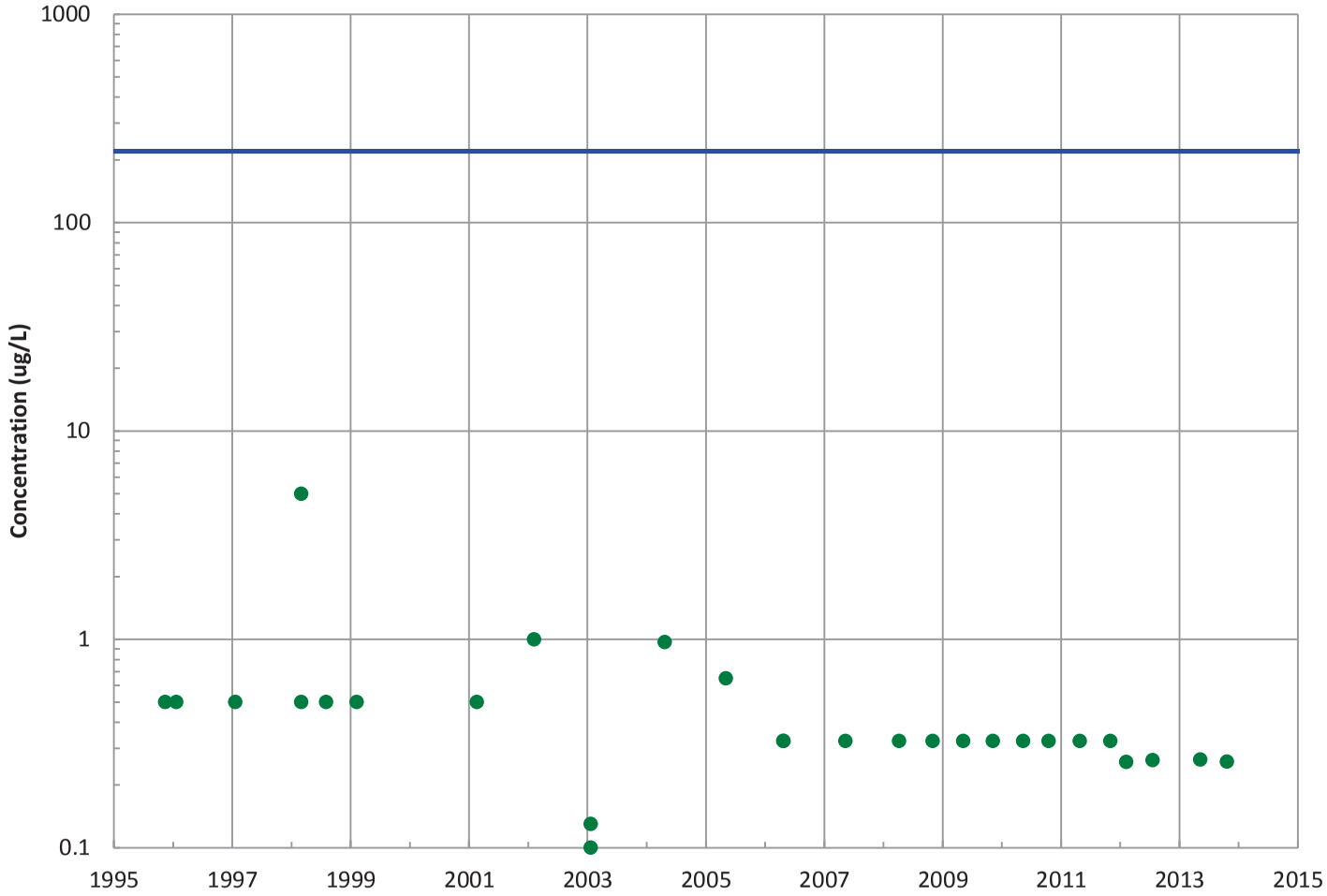
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 11/14/1995 to 11/4/2013

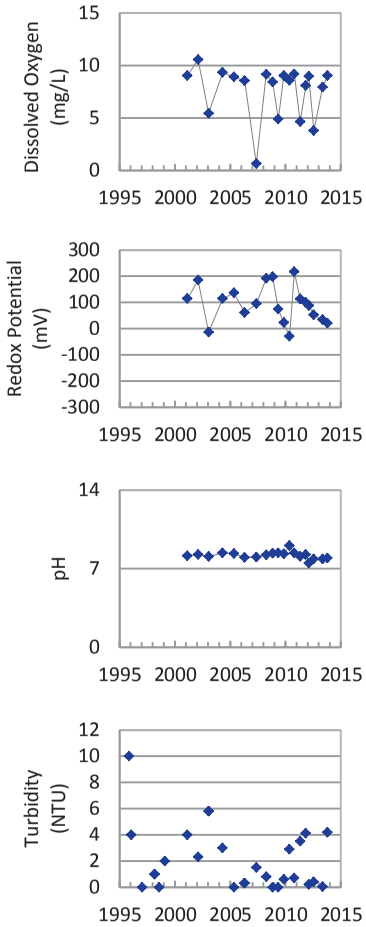
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1009
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



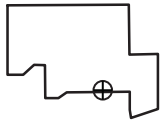
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

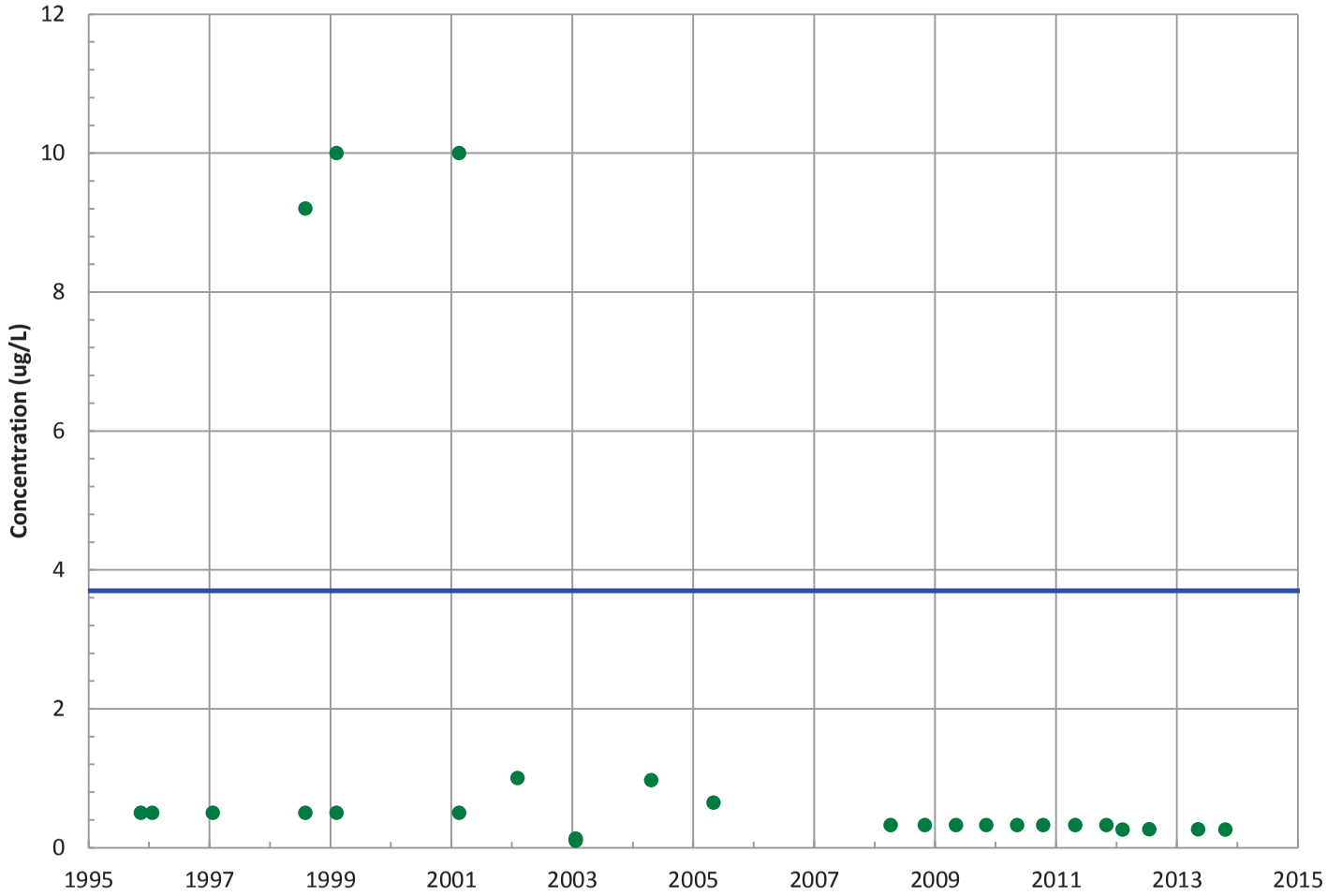
Well Location



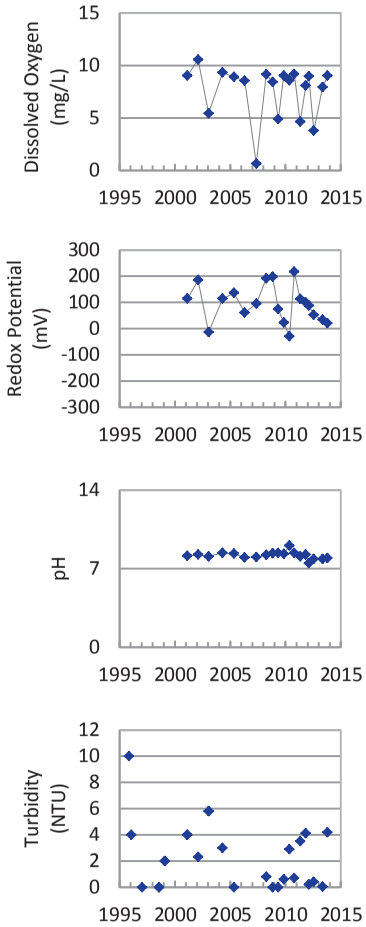
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 11/4/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1009
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



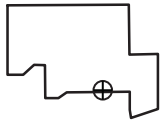
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

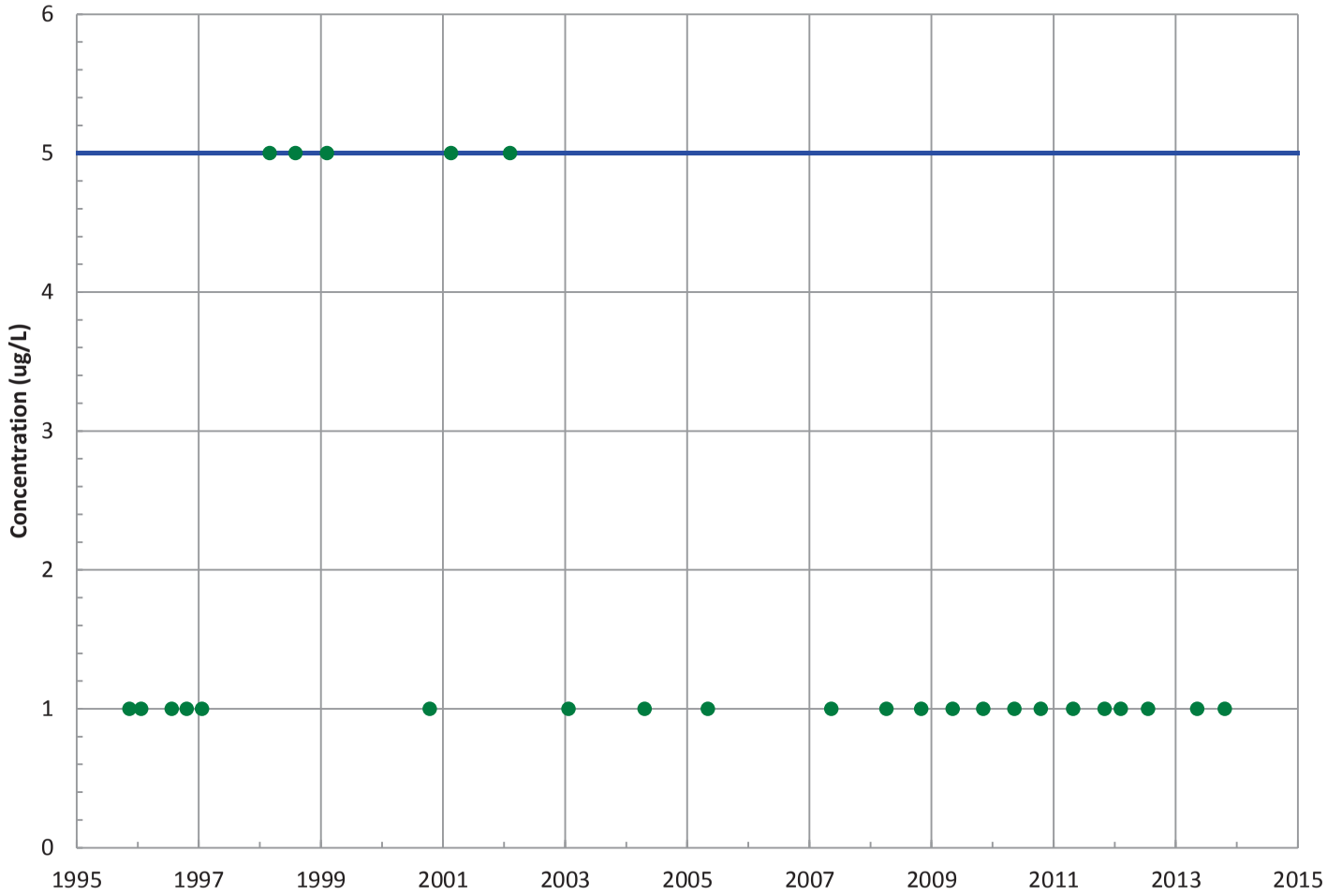
Well Location



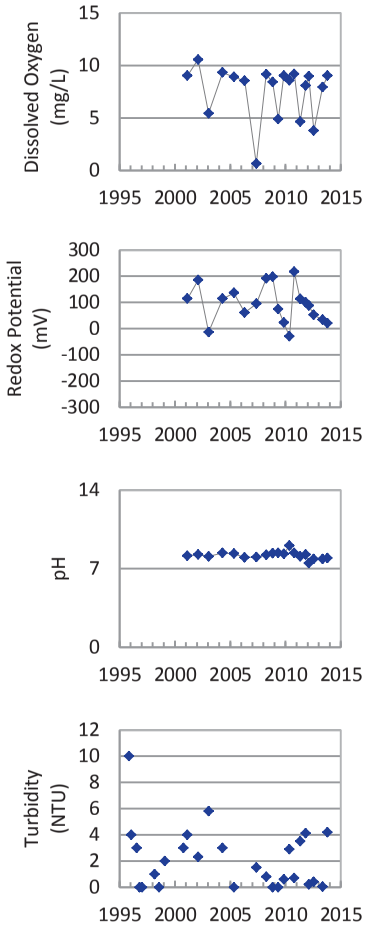
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 11/4/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1009
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



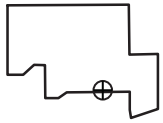
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

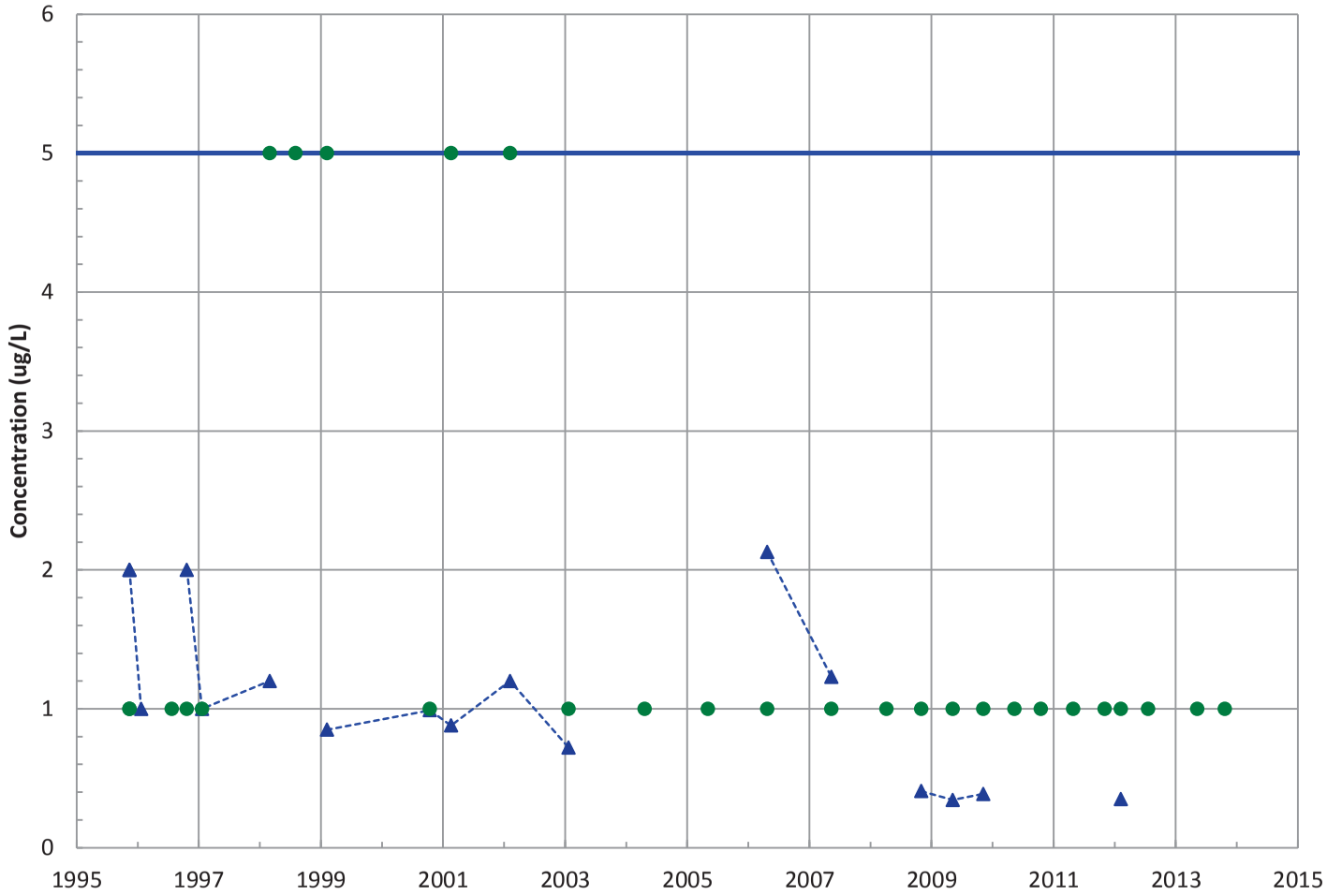
Well Location



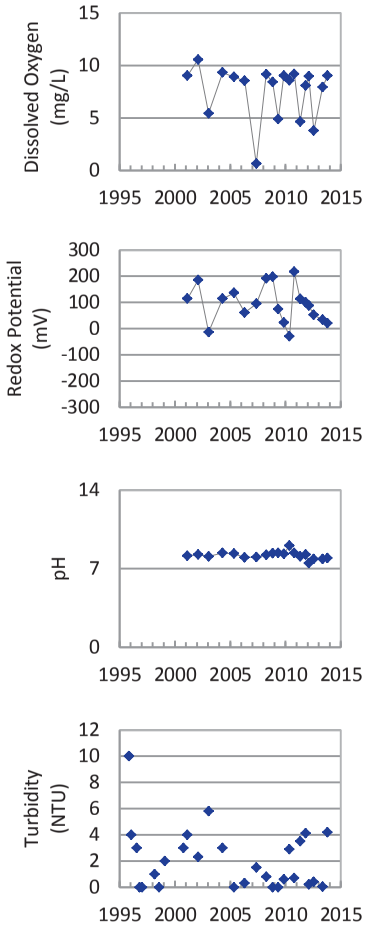
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 11/4/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1009
Trichloroethene Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: N/A (<4 Detections in

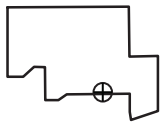
MAROS Linear Regression Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: Stable

- ▲ Measured Value
- ● Sample Detection Limit
- ------ Concentration Trend
- ——— Groundwater Protection Standard

Well Location



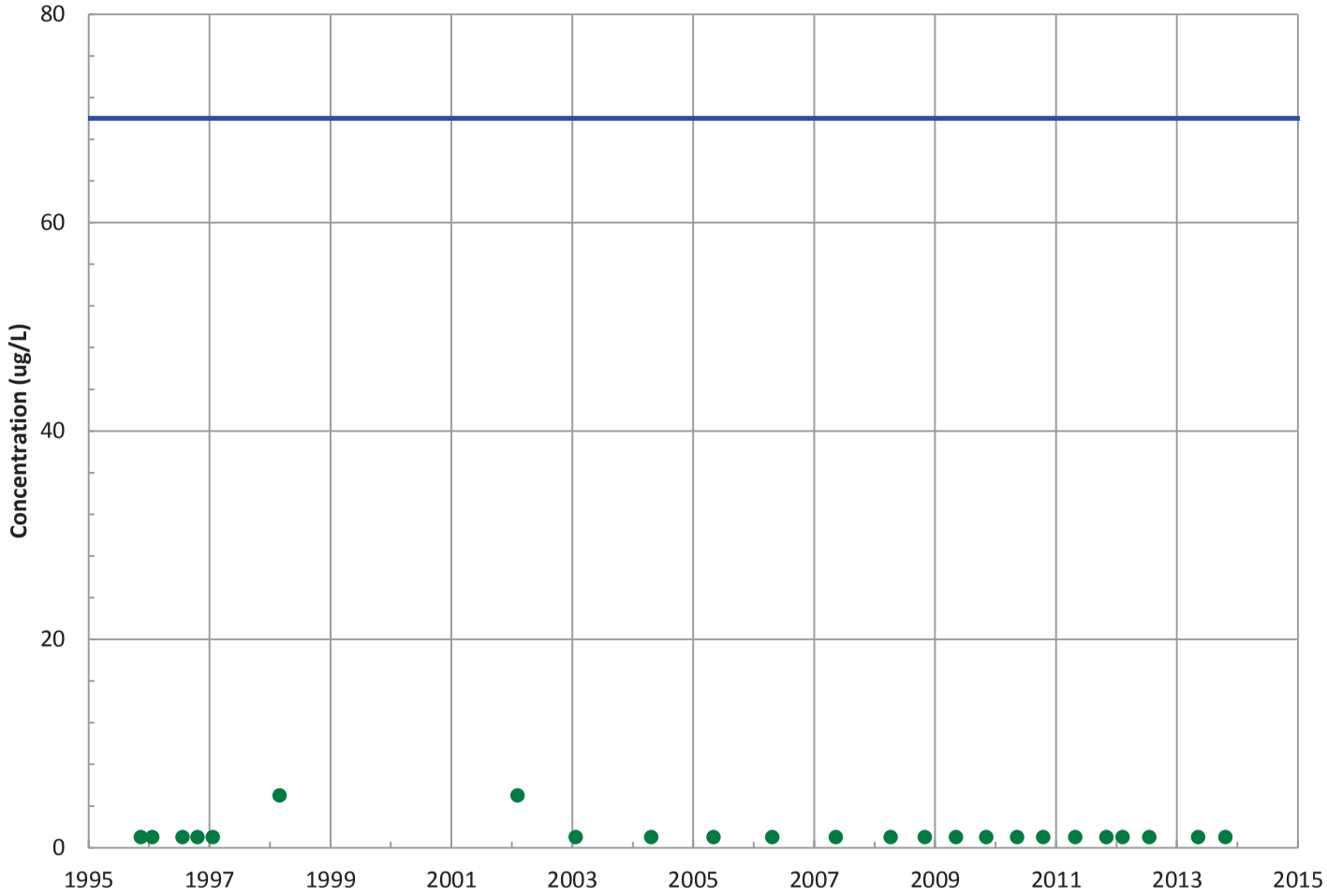
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 11/14/1995 to 11/4/2013

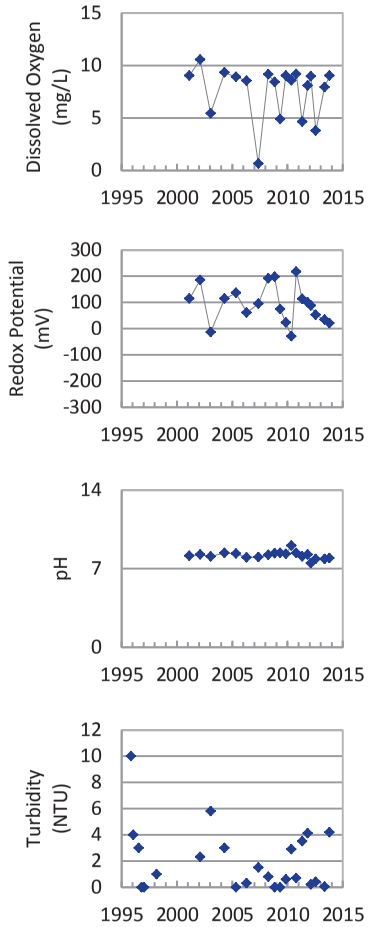
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1009
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



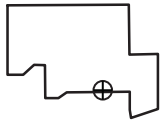
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

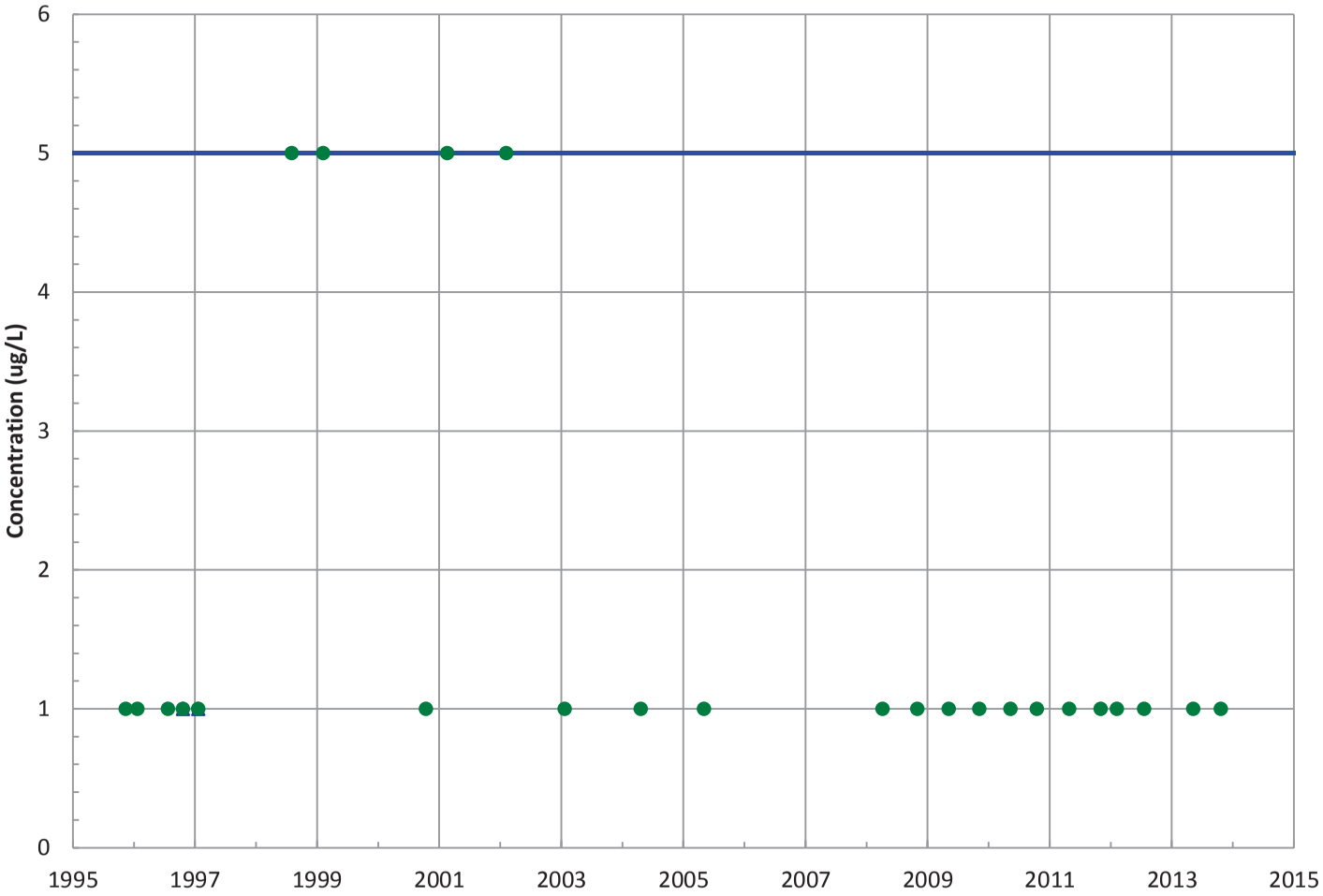
Well Location



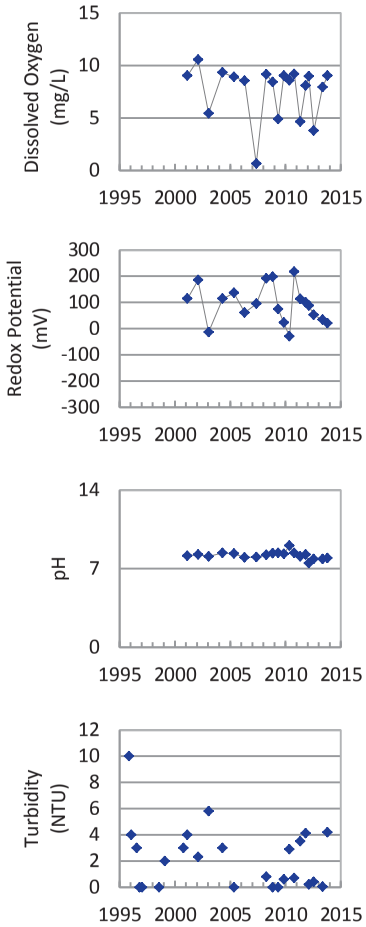
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 11/4/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1009
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): All Non-Detect

2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method

Data (7/2009 - 12/2013): All Non-Detect

2011 - 2013 Data: N/A (<4 Detections in Dataset)

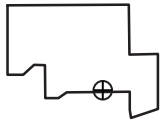
▲ Measured Value

● Sample Detection Limit

------- Concentration Trend

——— Groundwater Protection Standard

Well Location



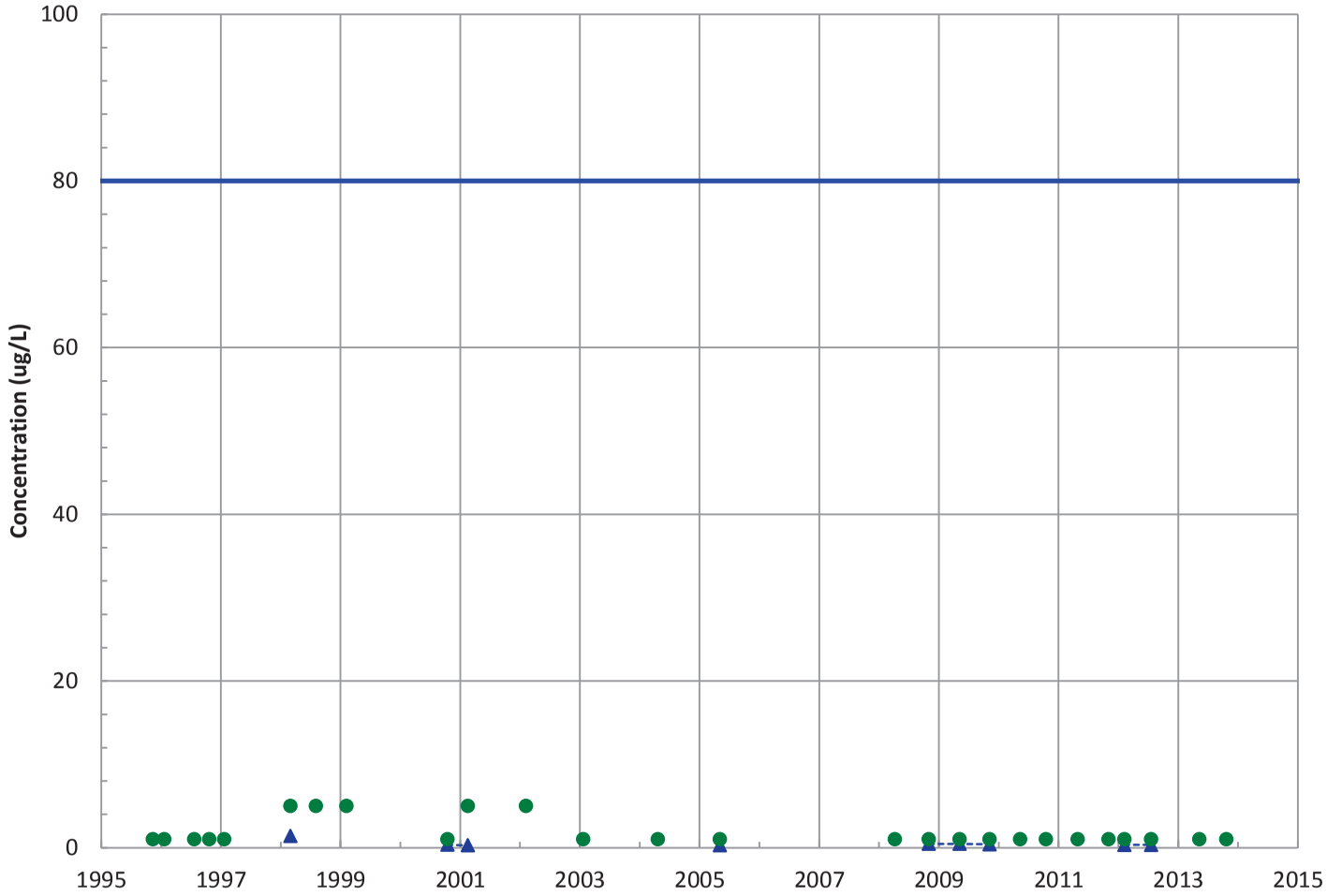
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 11/14/1995 to 11/4/2013

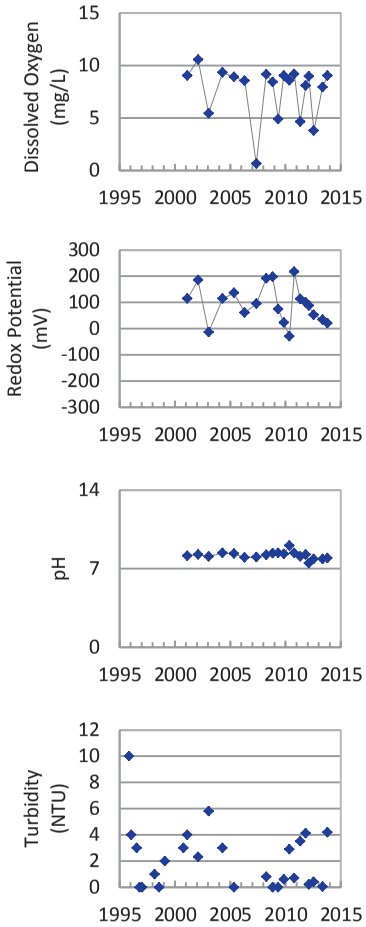
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1009
Chloroform Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: N/A (<4 Detections in

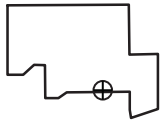
MAROS Linear Regression Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: Probably Decreasing

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

Well Location



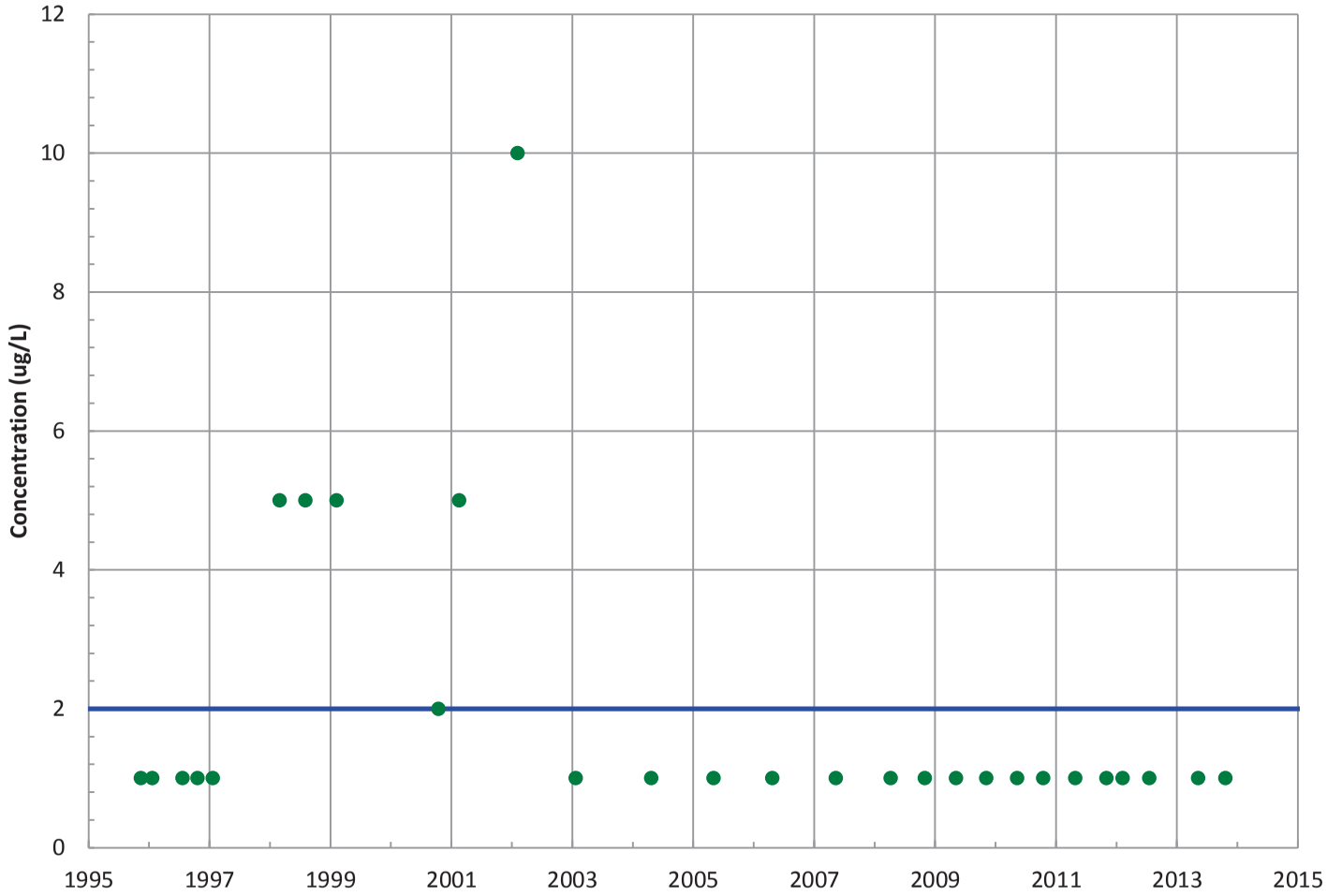
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 11/14/1995 to 11/4/2013

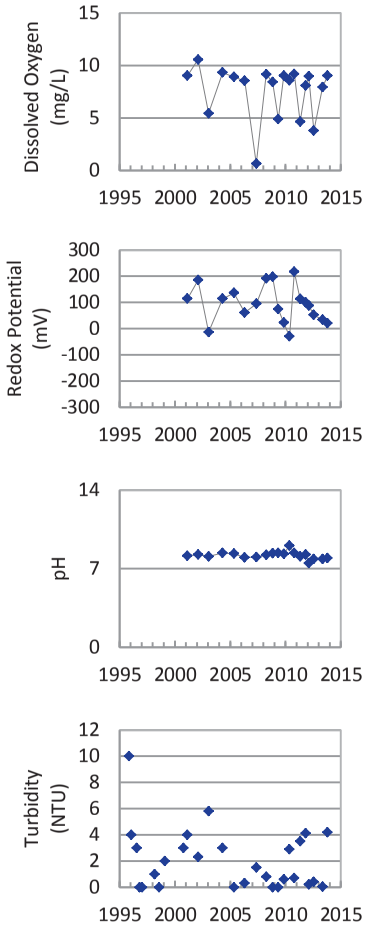
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1009
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



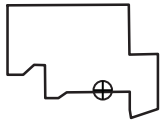
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

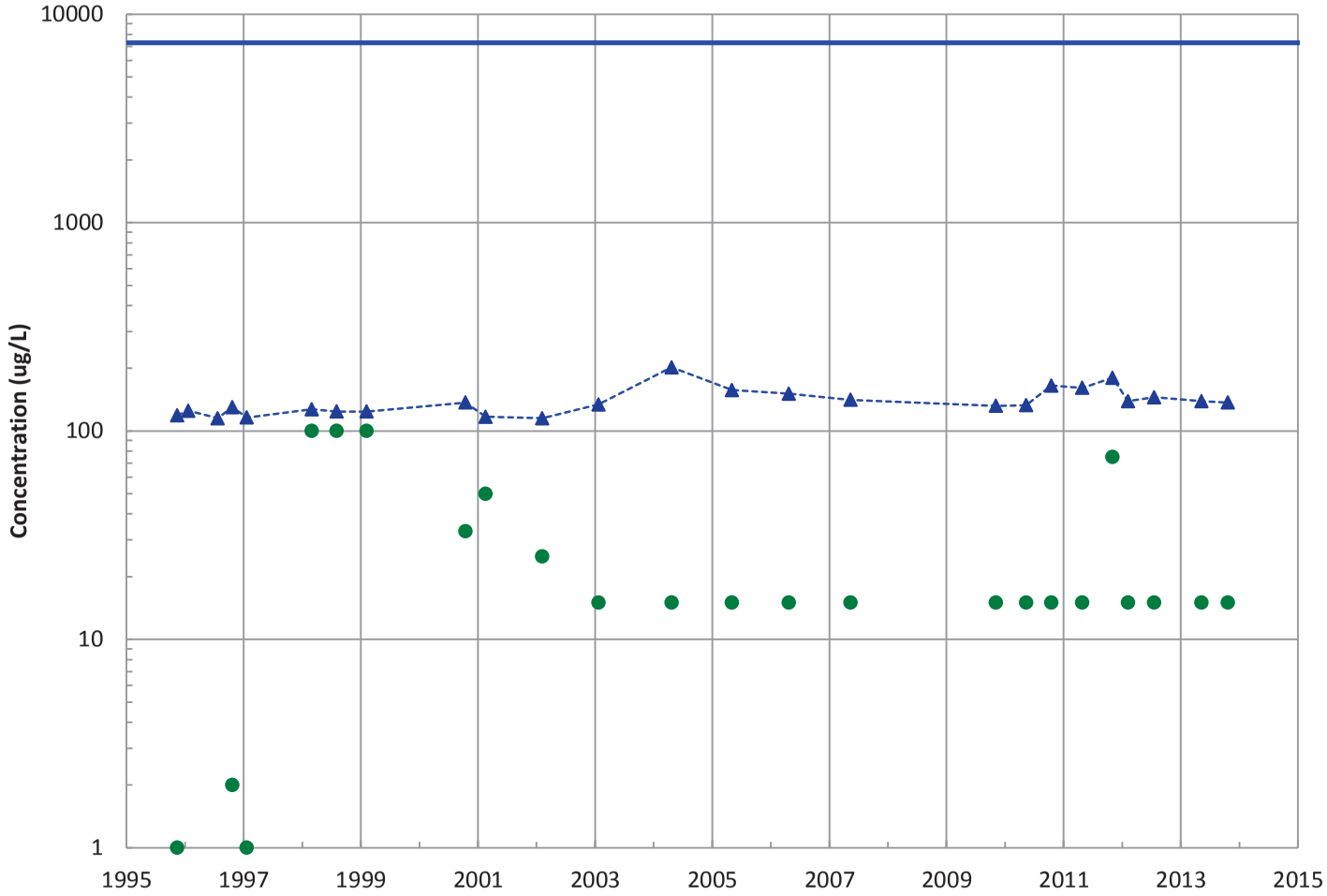
Well Location



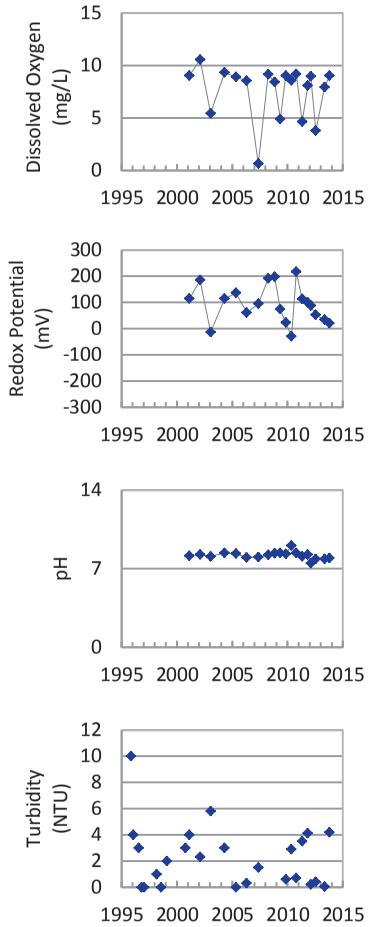
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 11/4/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1009
Boron Trend in Perched Aquifer



Field Parameters



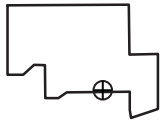
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

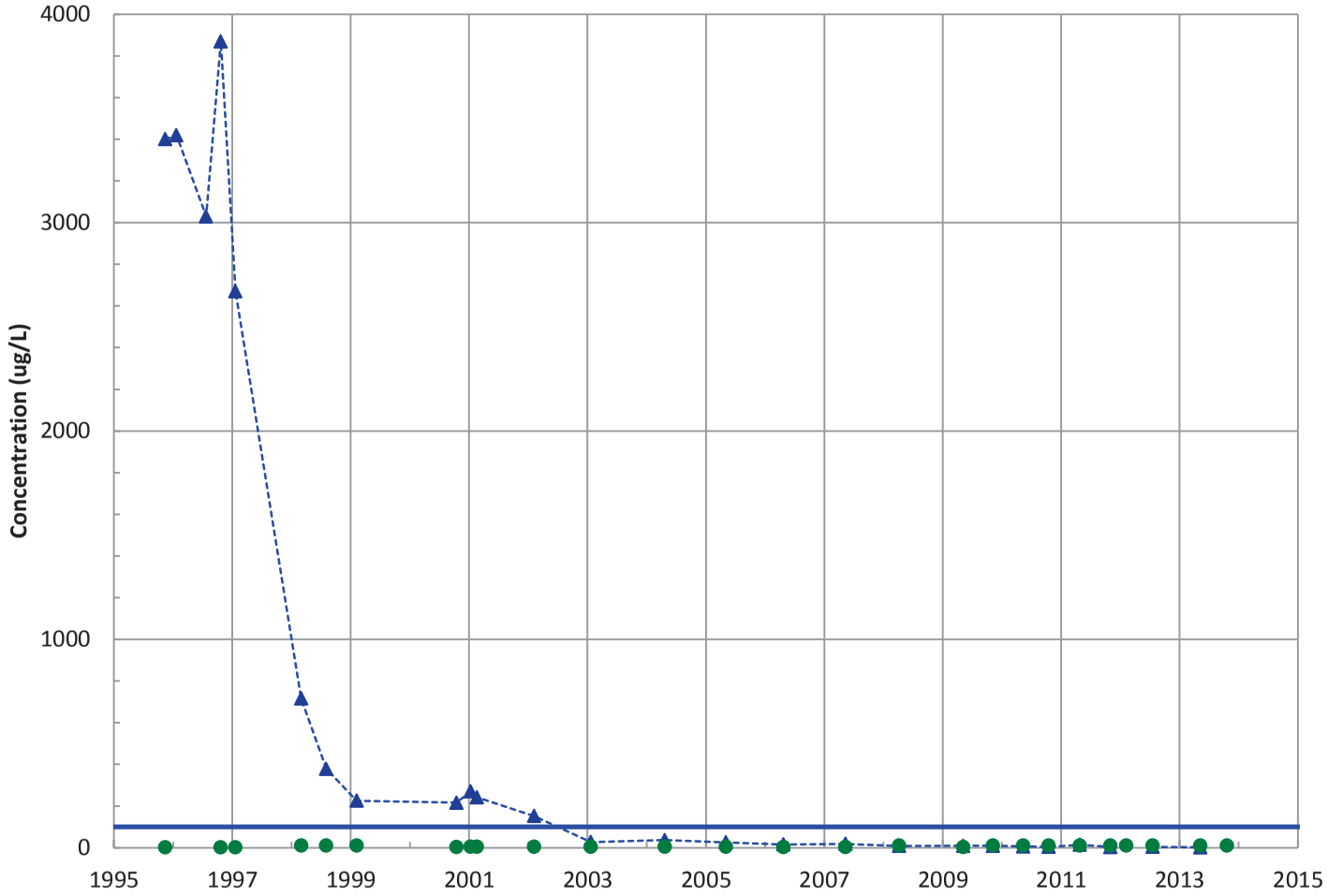
Well Location



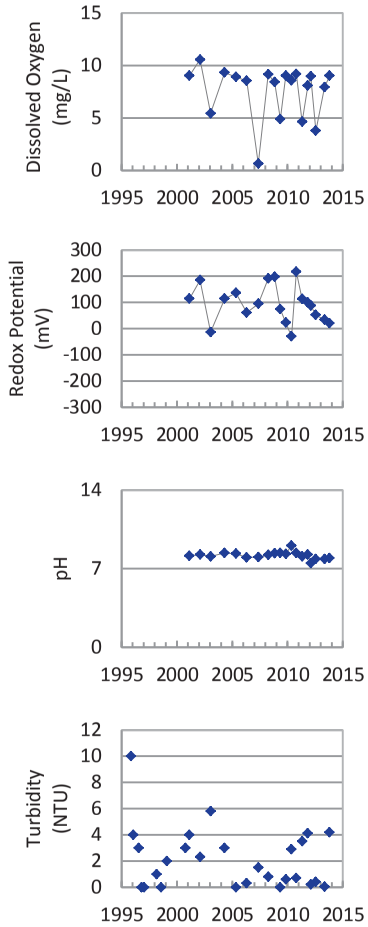
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 11/4/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1009
Chromium, Total Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): Decreasing

2011 - 2013 Data: N/A (<4 Detections in Dataset)

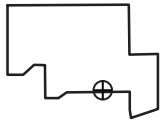
MAROS Linear Regression Method

Data (7/2009 - 12/2013): Decreasing

2011 - 2013 Data: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

Well Location



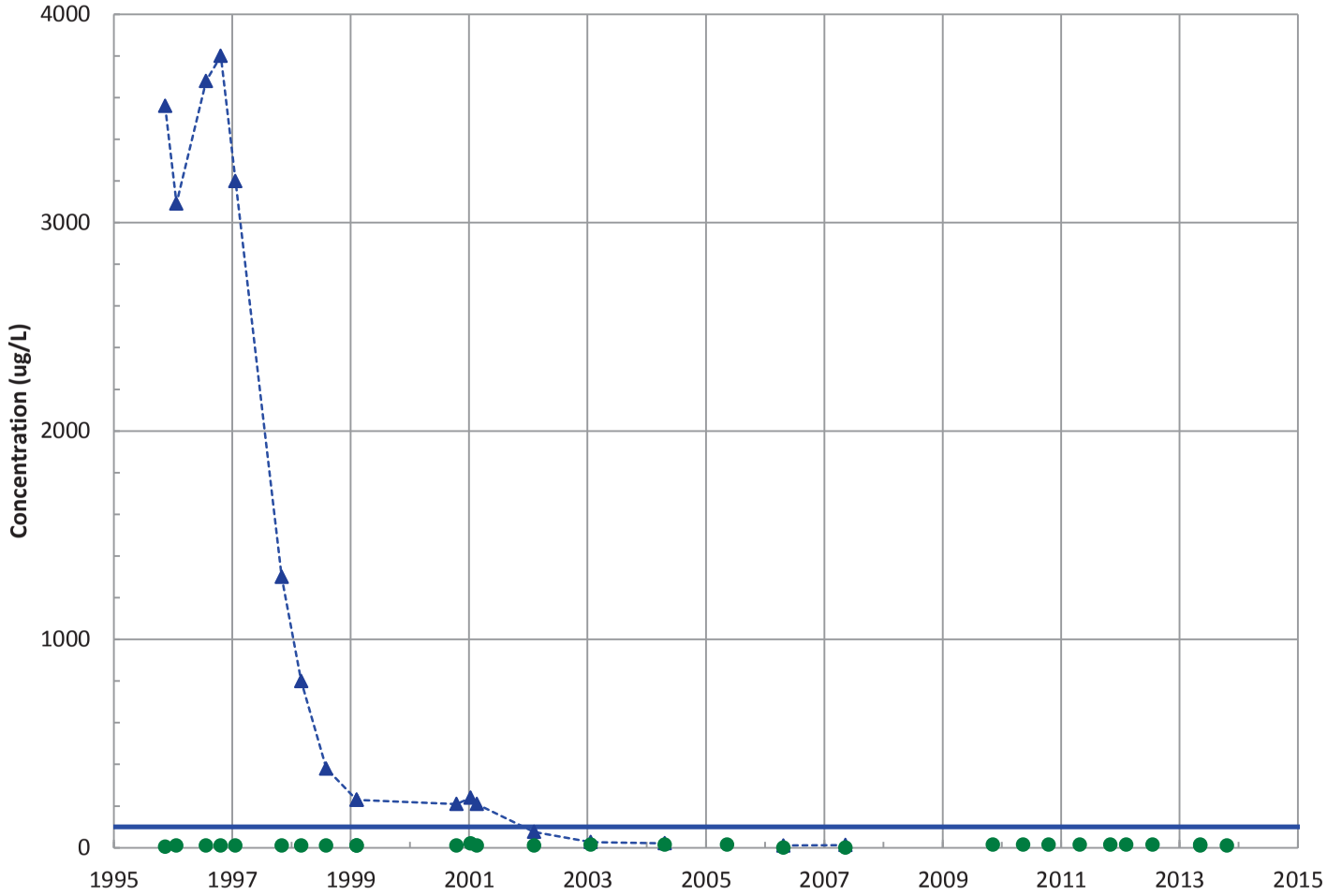
Query Date Range: 1/1/1992 to 12/31/2013

Data Date Range: 11/14/1995 to 11/4/2013

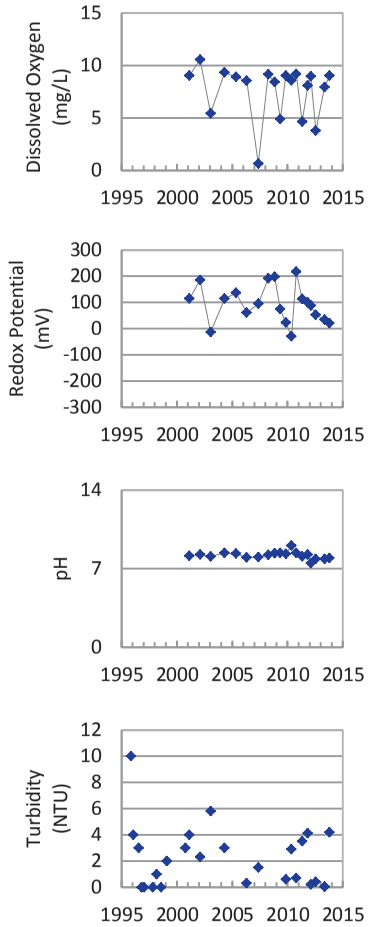
Analysis Date: 3/4/2014

B&W Pantex

PTX08-1009
Chromium, Hexavalent Trend in Perched Aquifer



Field Parameters



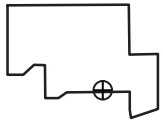
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: Decreasing

- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

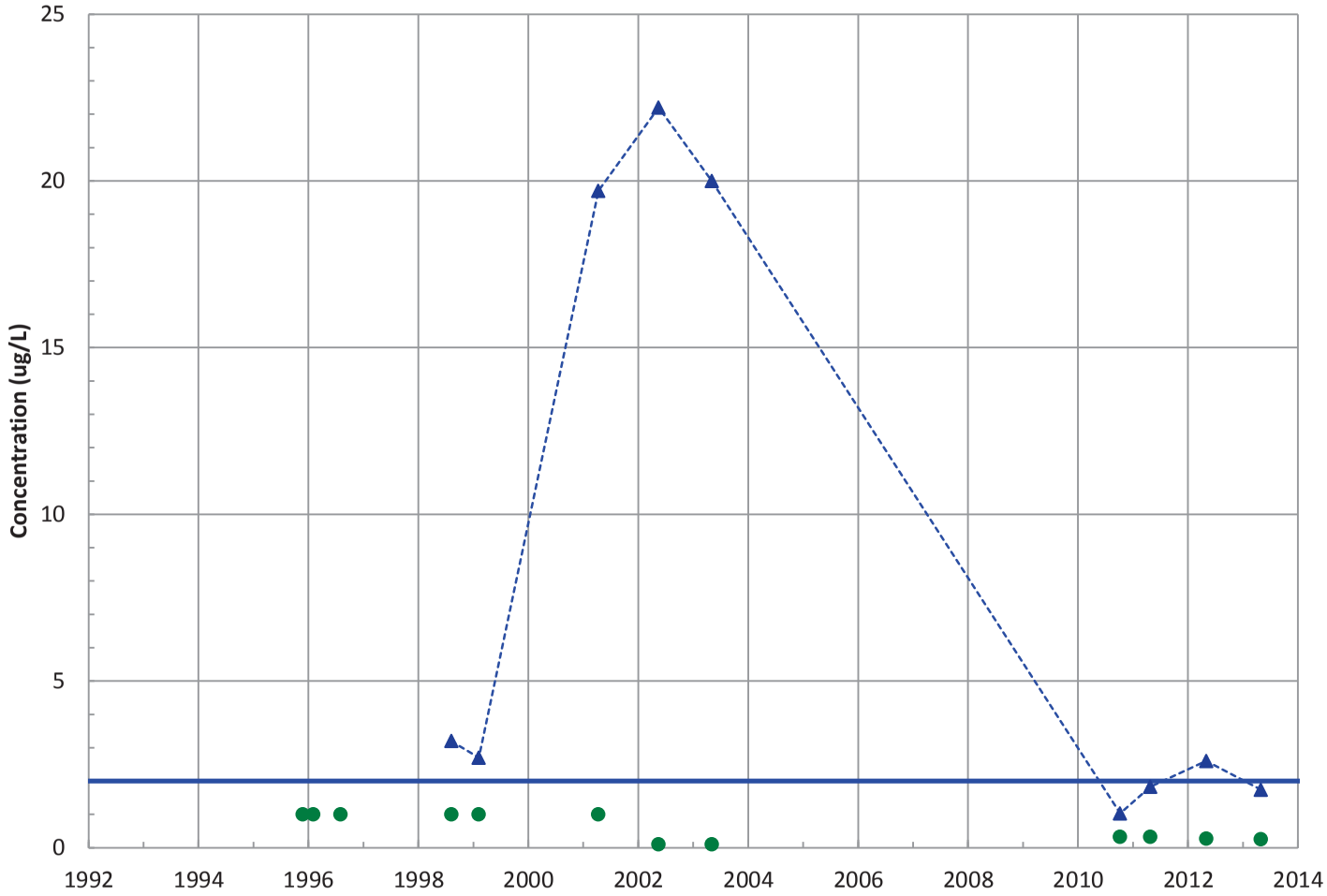
Well Location



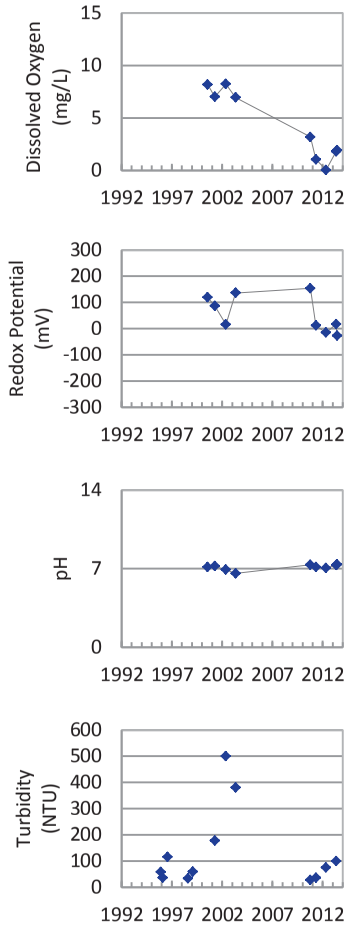
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/14/1995 to 11/4/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX10-1014
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



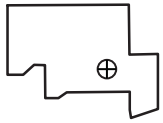
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

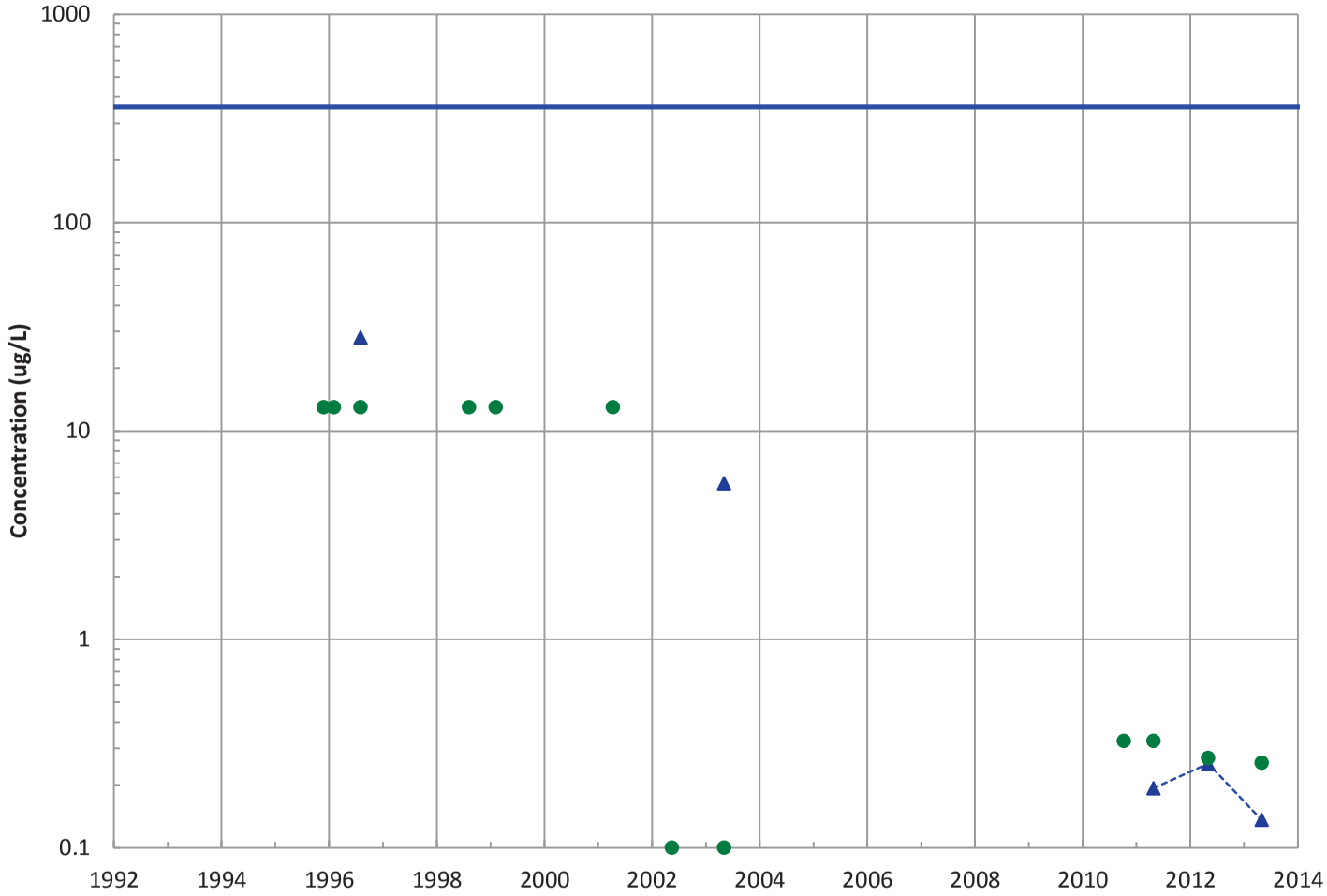
Well Location



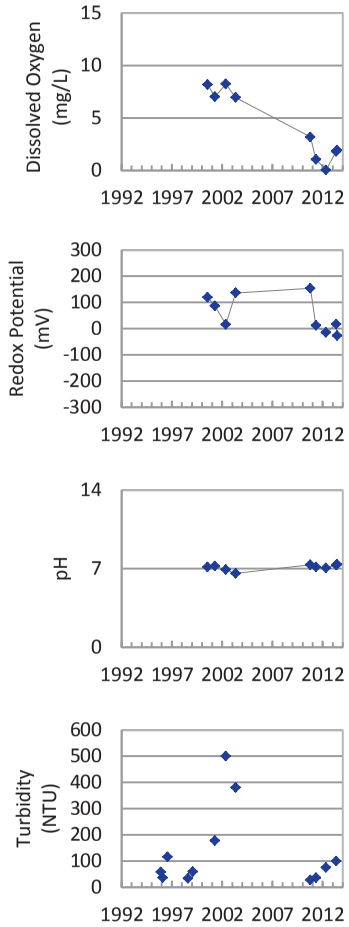
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/28/1995 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX10-1014
HMX (Octahydro-1,3,5,7-Tetranitro-1,3,5,7-Tetrazocine) Trend in Perched Aquifer



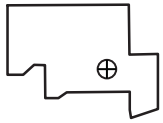
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: Probably Decreasing

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

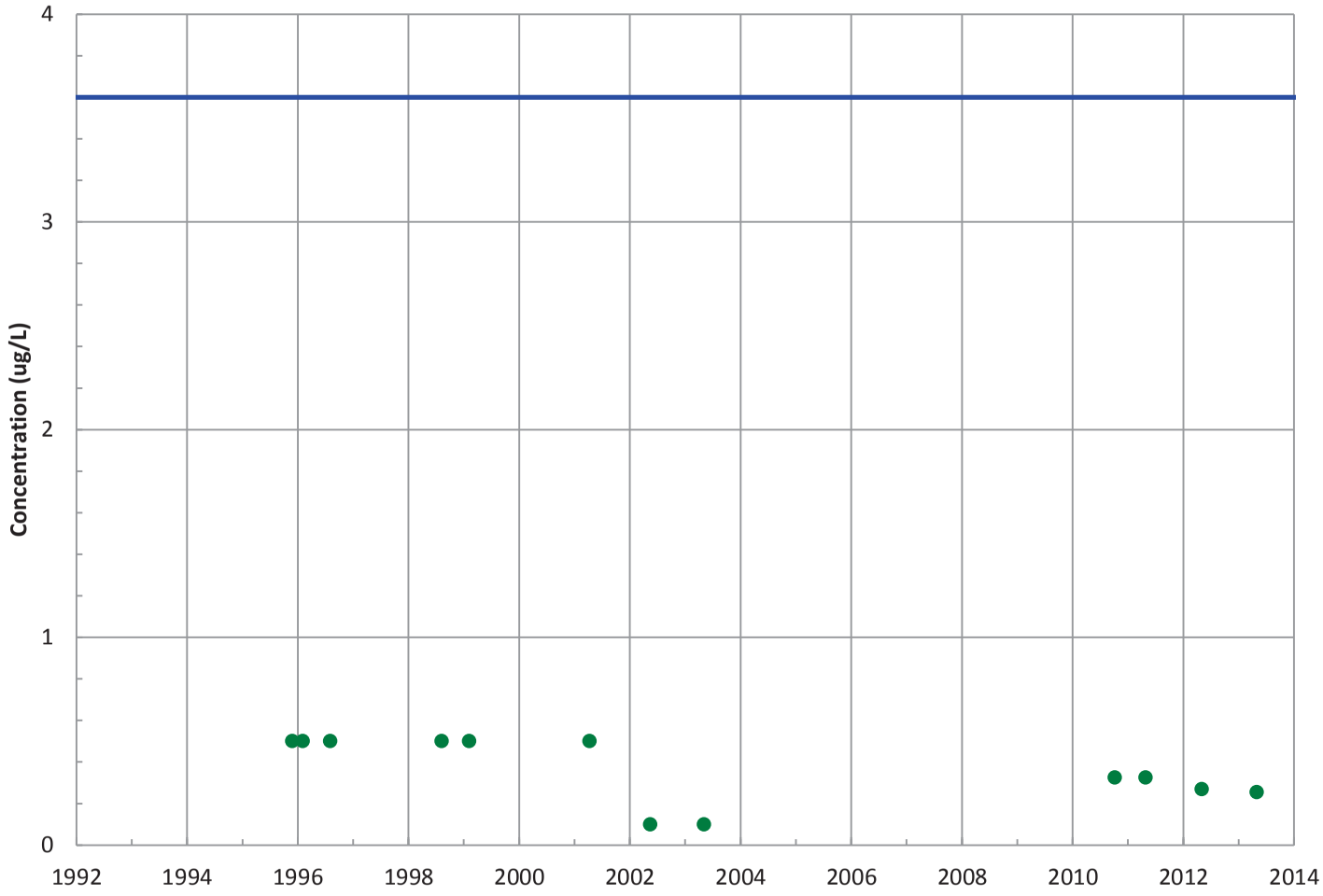
Well Location



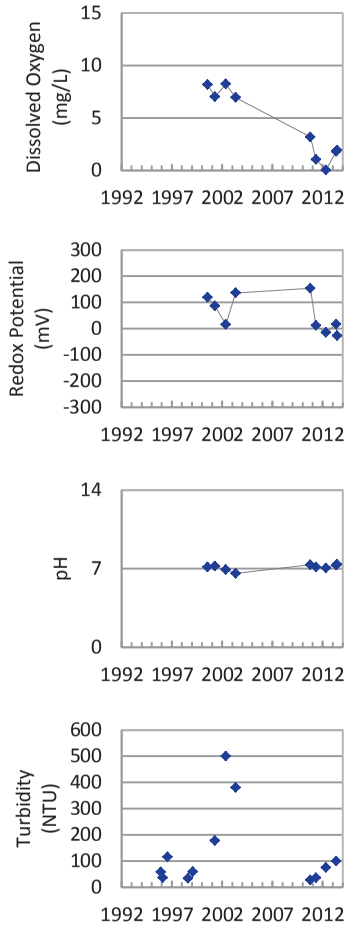
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/28/1995 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX10-1014
TNT (2,4,6-Trinitrotoluene) Trend in Perched Aquifer



Field Parameters



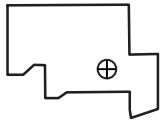
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

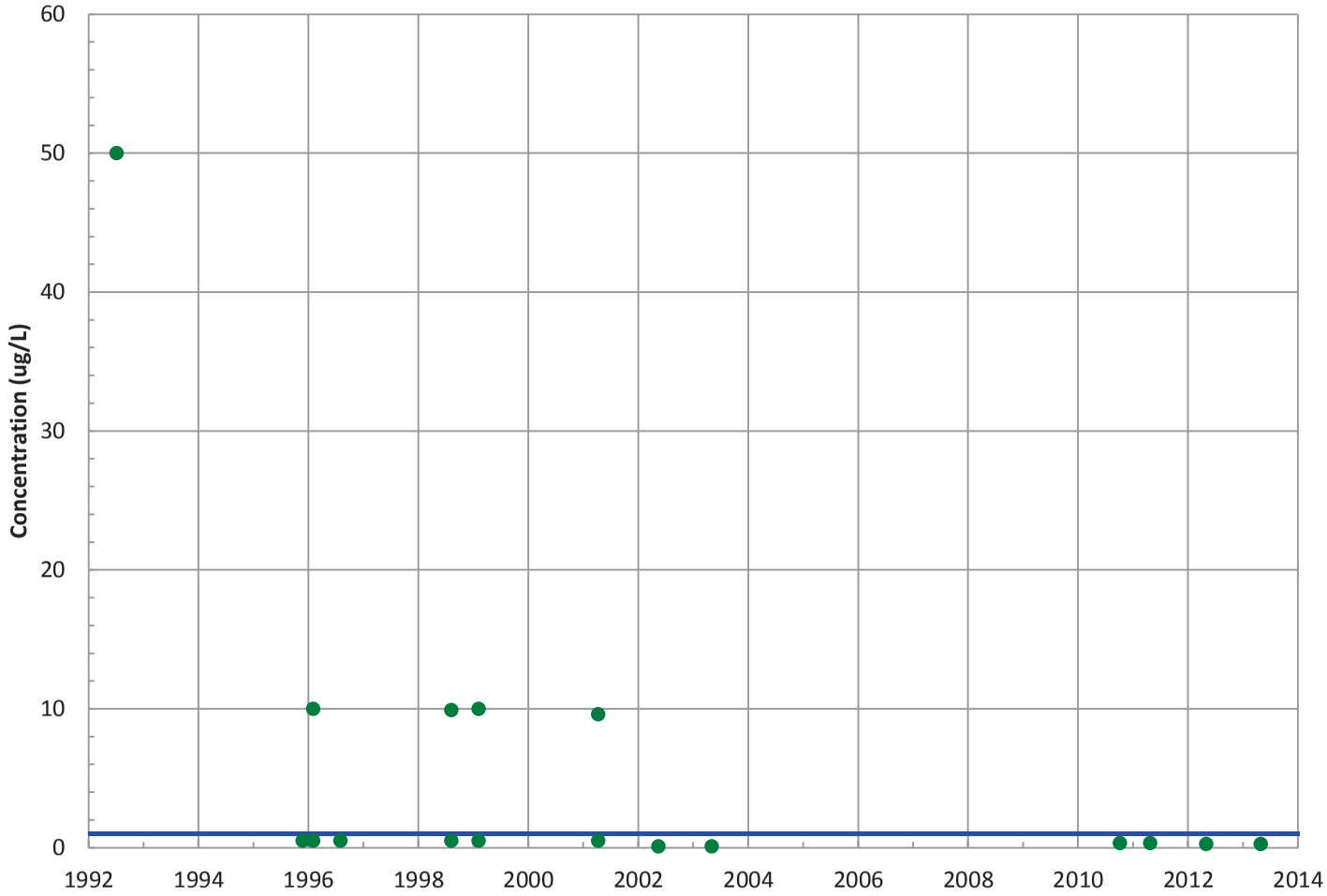
Well Location



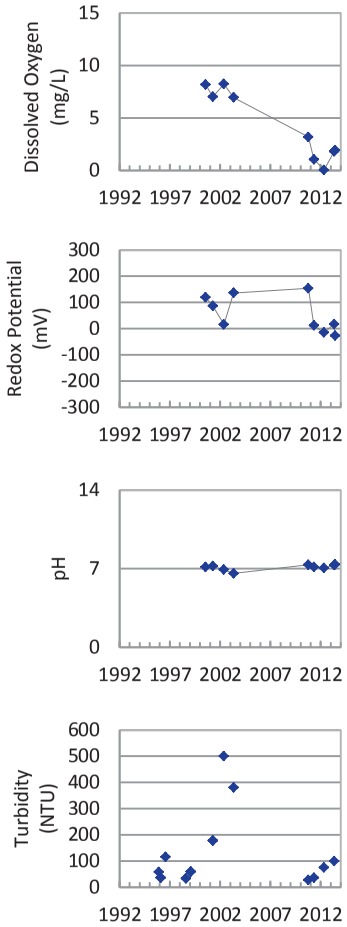
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/28/1995 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX10-1014
2,4-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



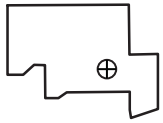
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

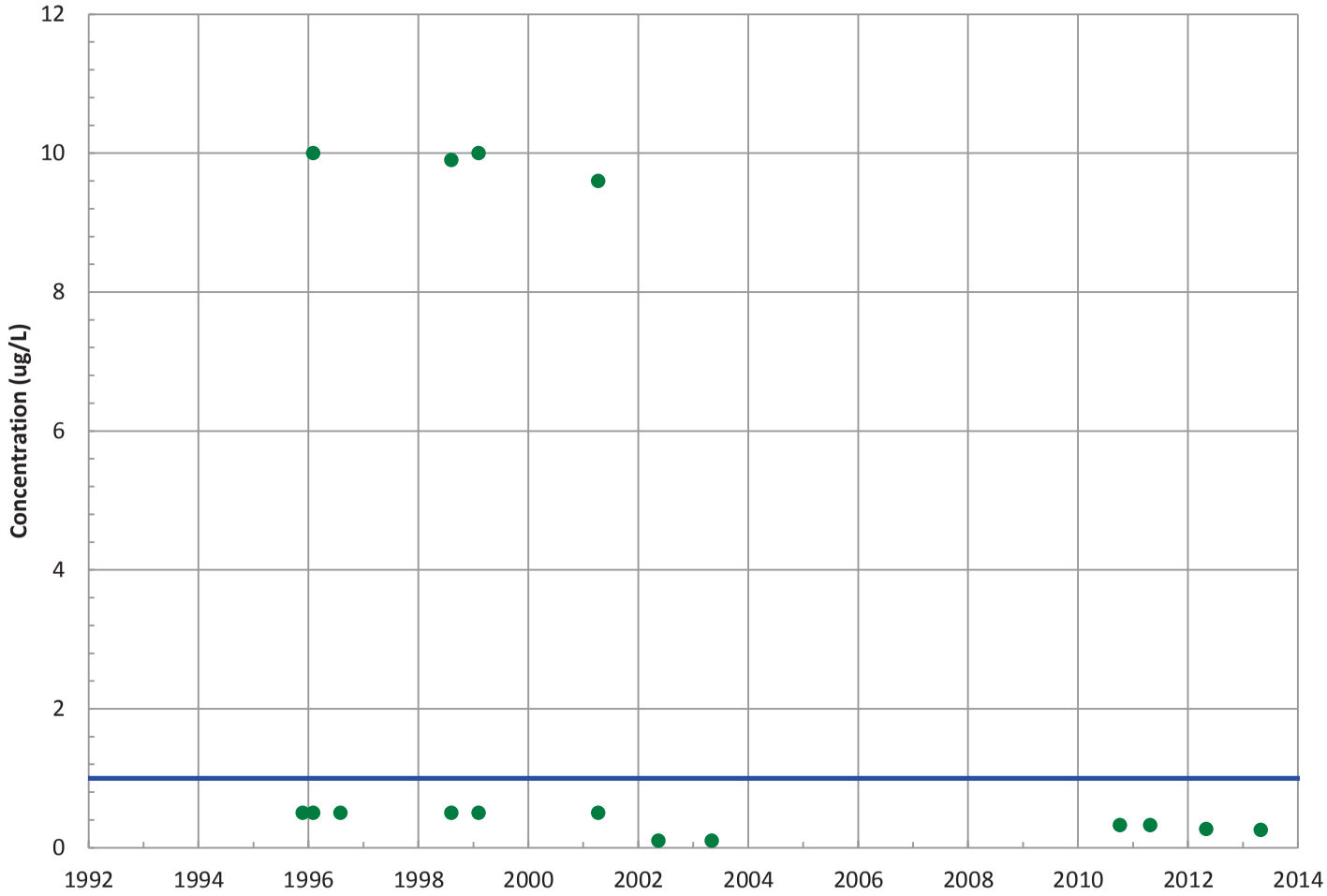
Well Location



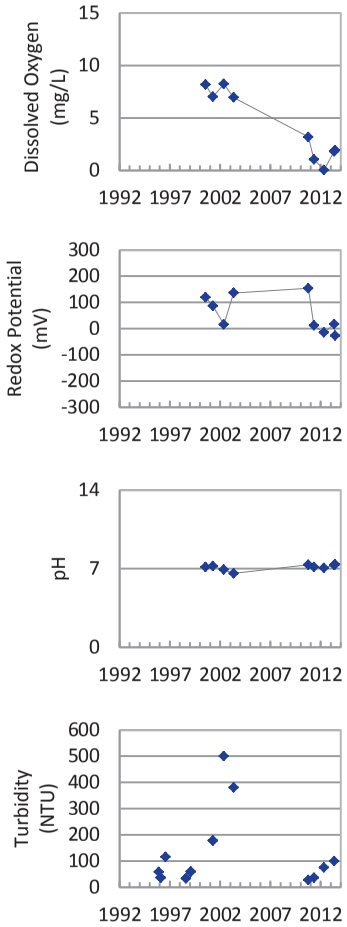
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 7/7/1992 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX10-1014
2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



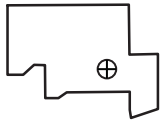
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

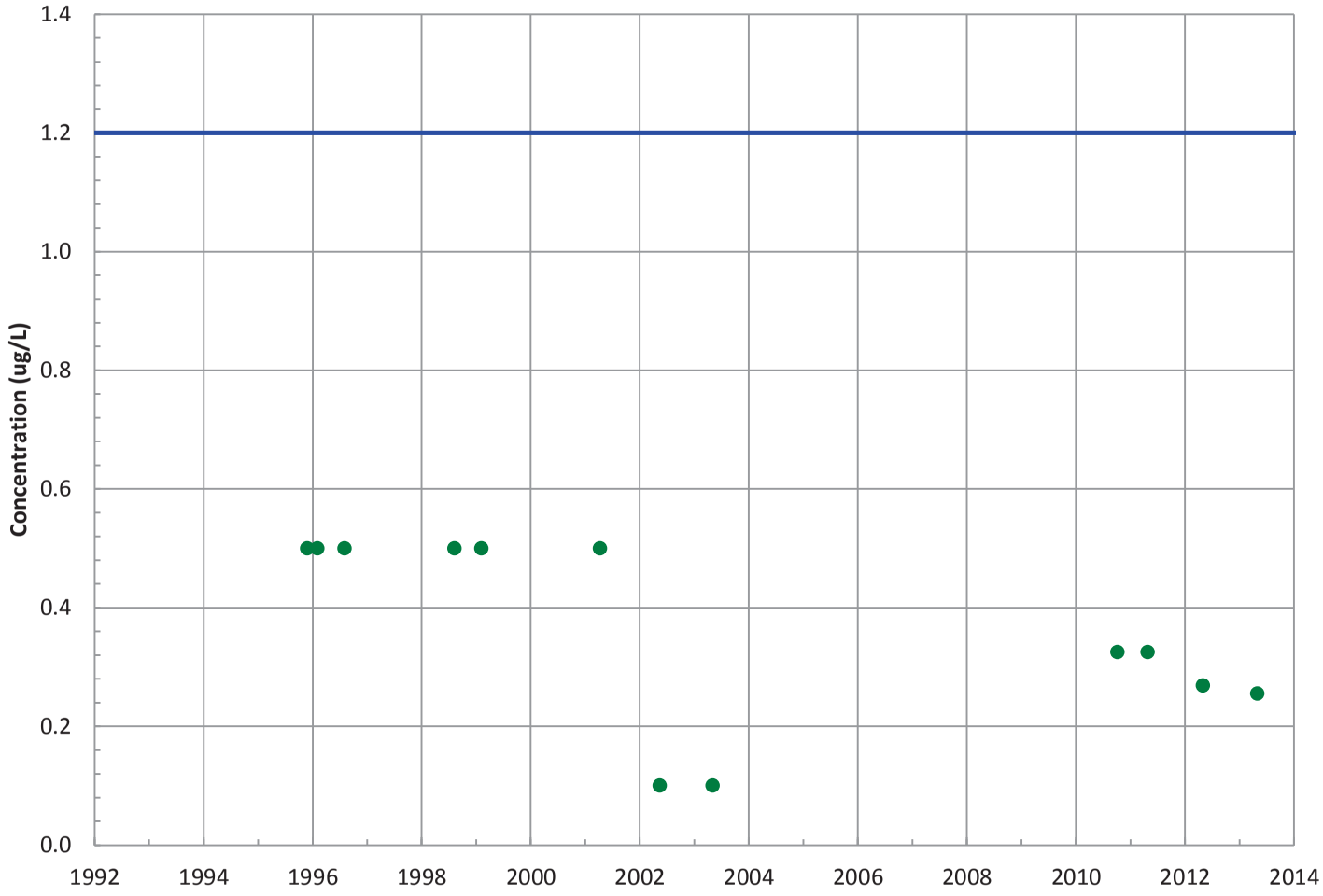
Well Location



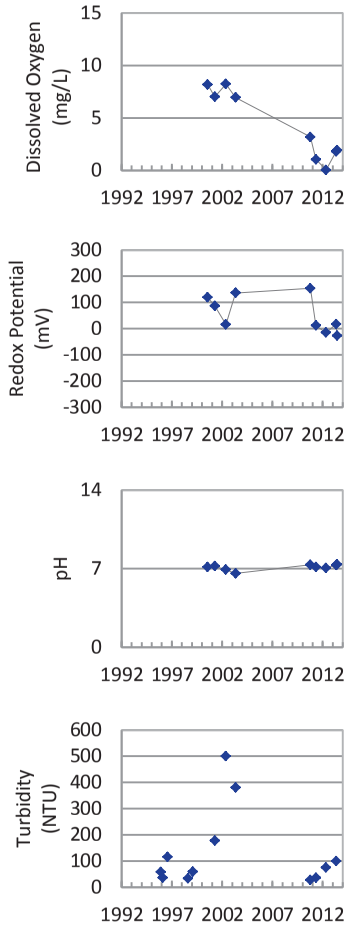
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/28/1995 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX10-1014
2-Amino-4,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



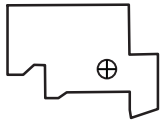
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

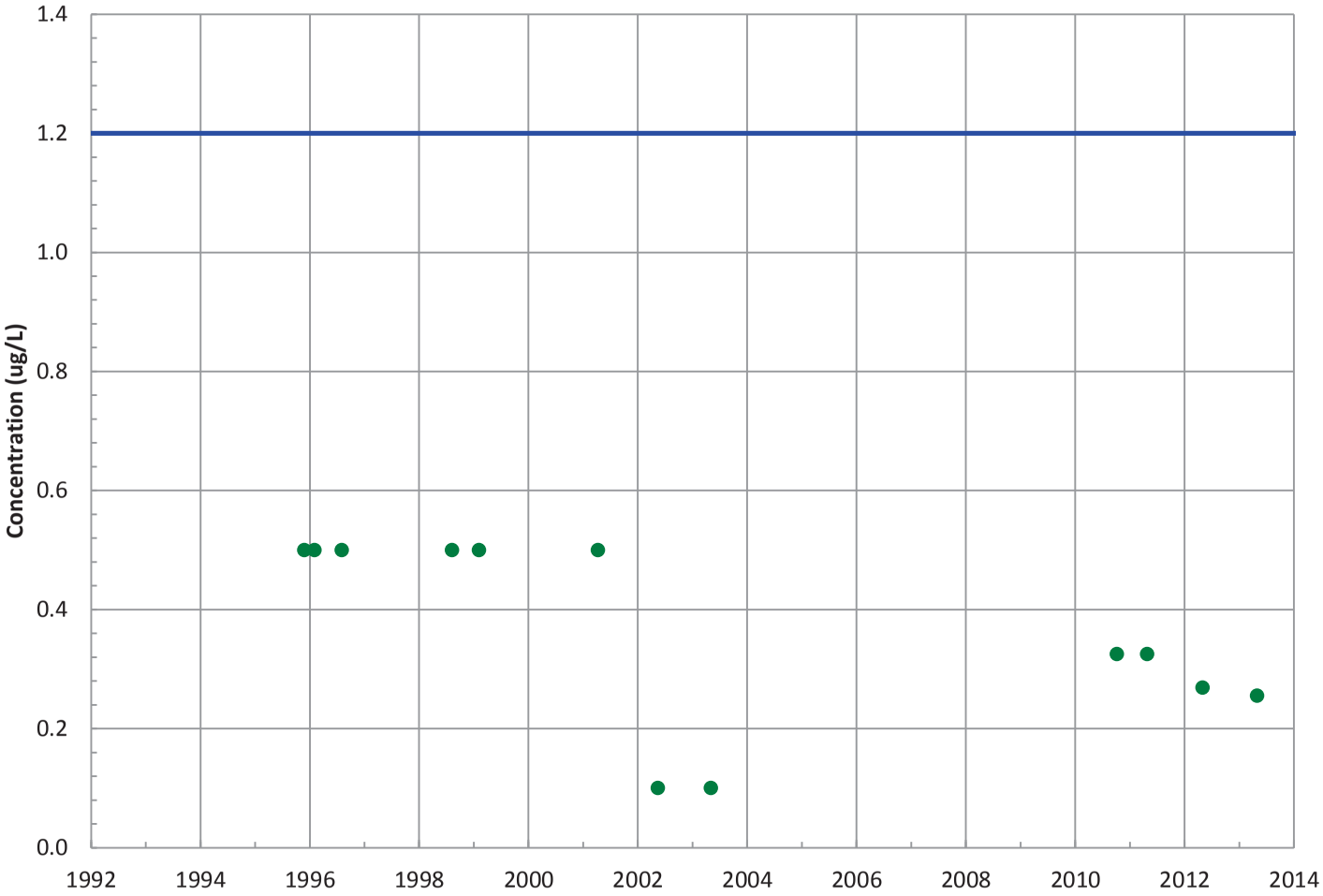
Well Location



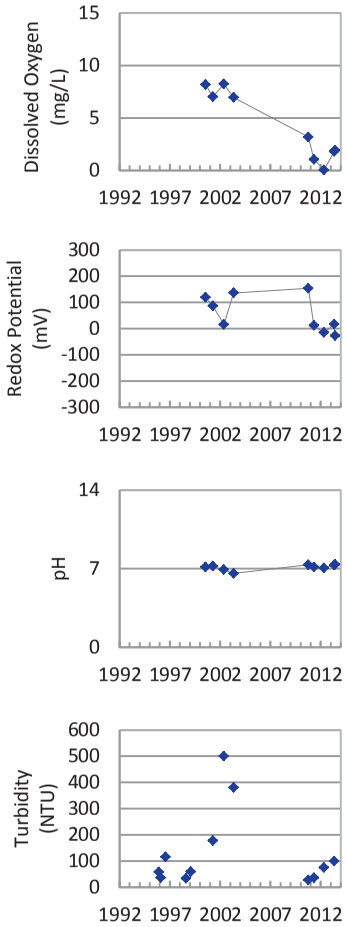
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/28/1995 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX10-1014
4-Amino-2,6-Dinitrotoluene Trend in Perched Aquifer



Field Parameters



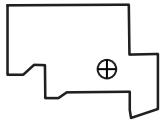
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

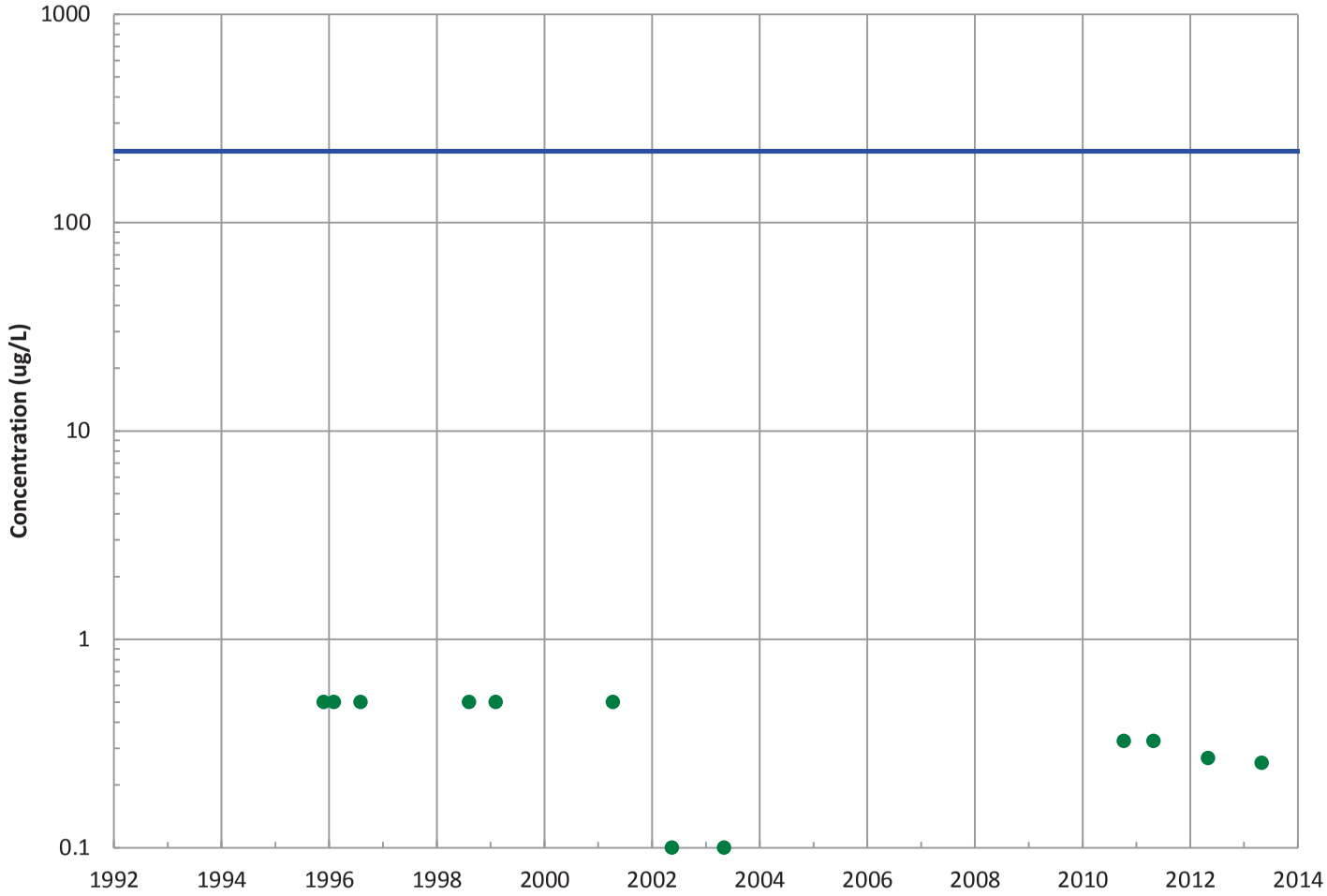
Well Location



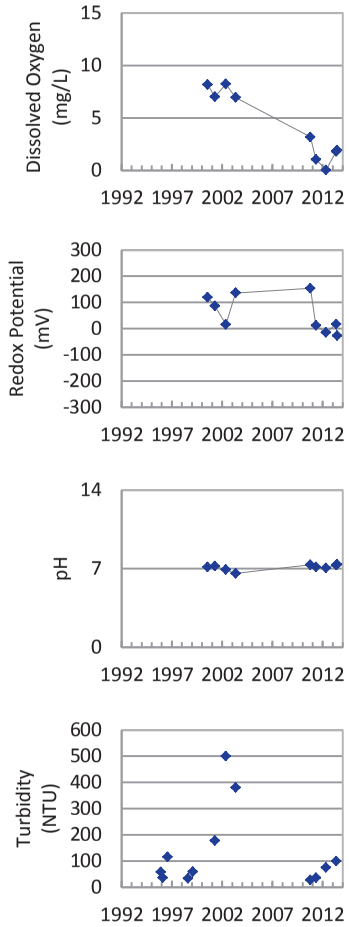
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/28/1995 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX10-1014
1,3,5-Trinitrobenzene Trend in Perched Aquifer



Field Parameters



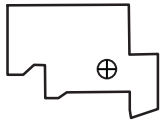
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

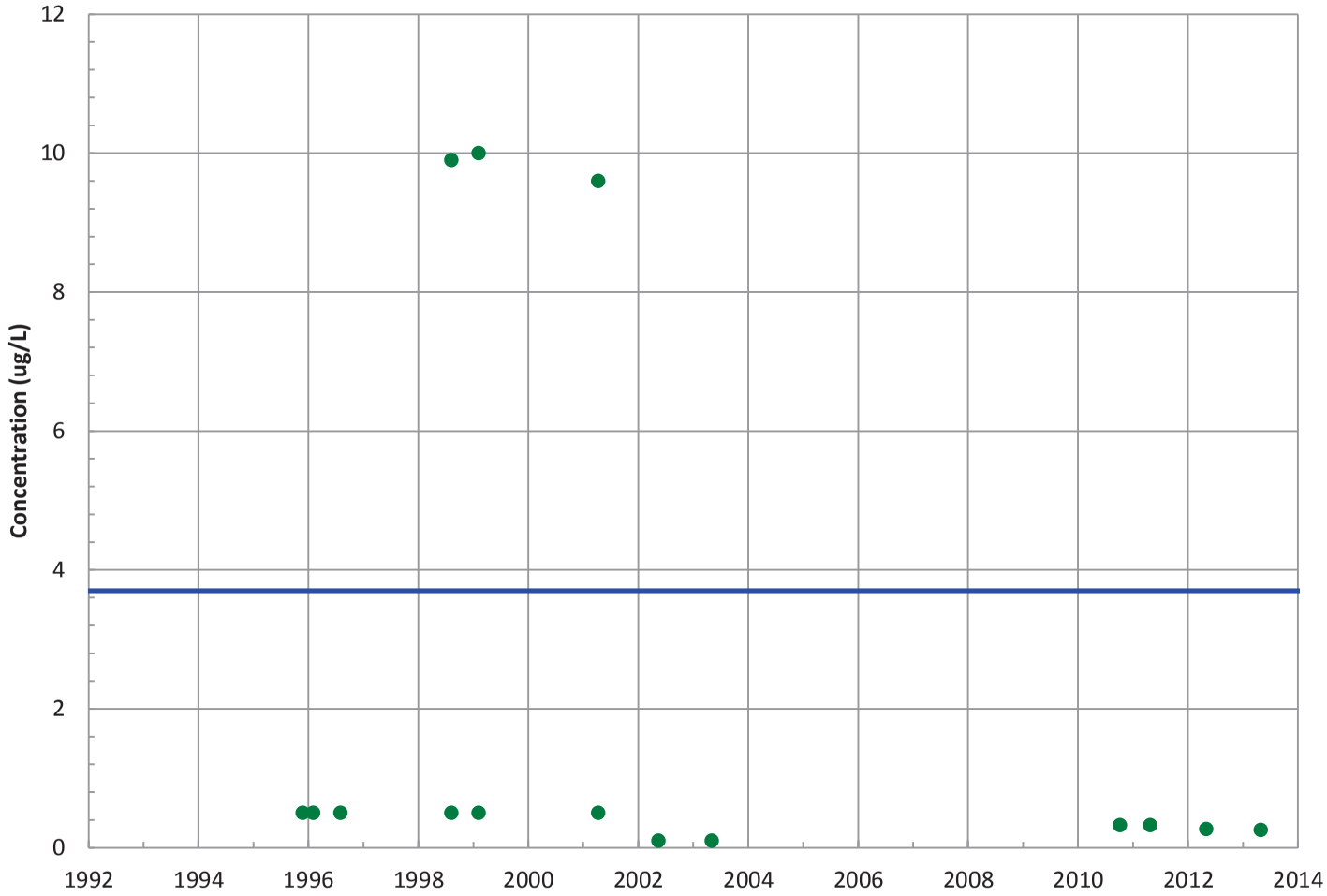
Well Location



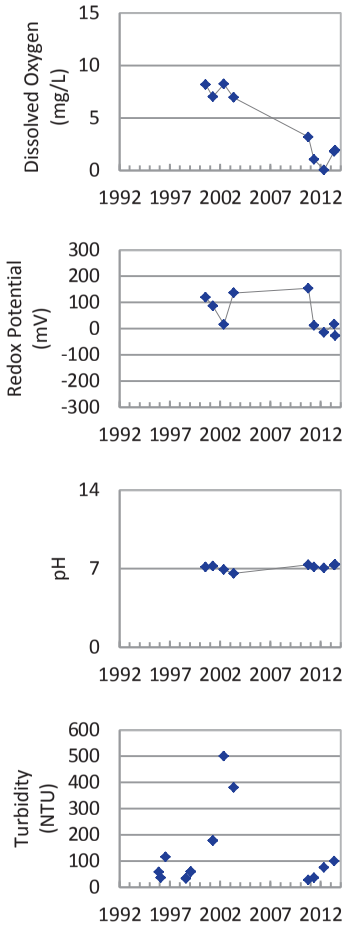
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/28/1995 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX10-1014
1,3-Dinitrobenzene Trend in Perched Aquifer



Field Parameters



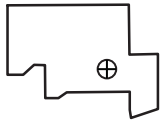
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

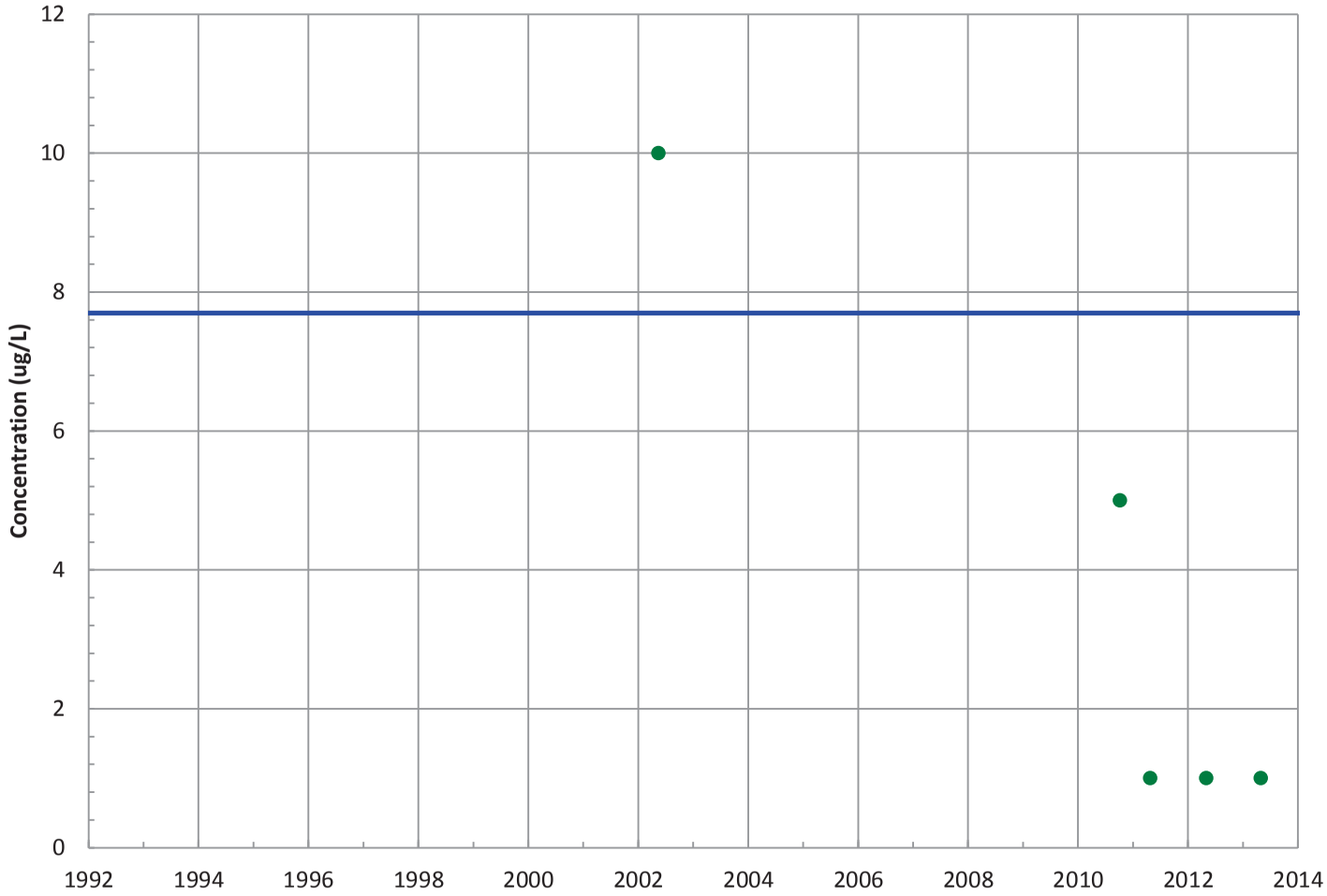
Well Location



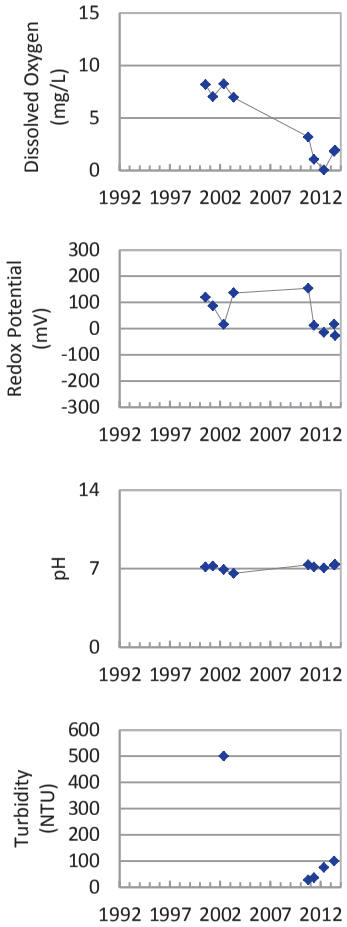
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/28/1995 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX10-1014
1,4-Dioxane (p-Dioxane) Trend in Perched Aquifer



Field Parameters



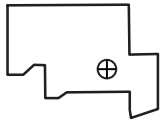
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

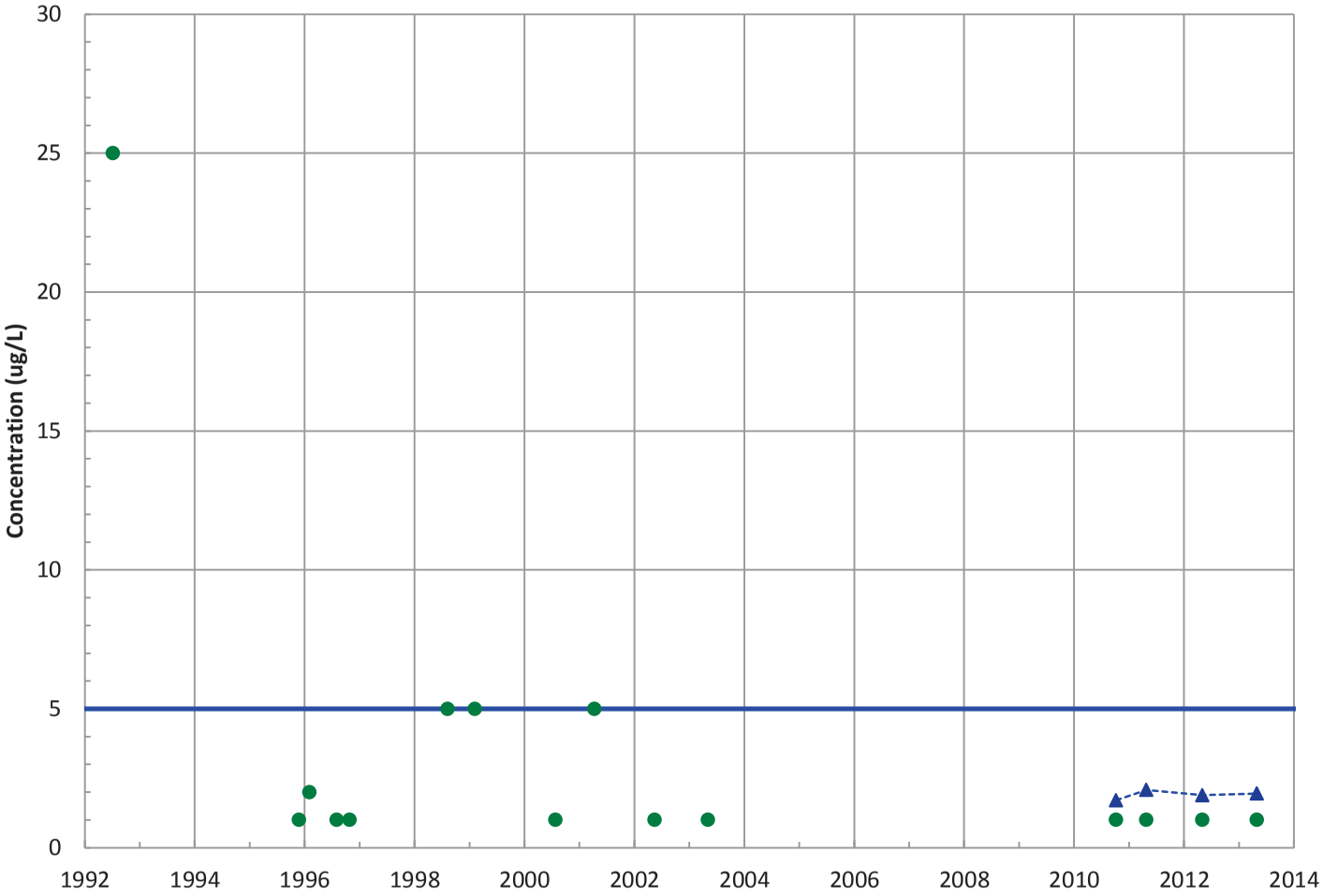
Well Location



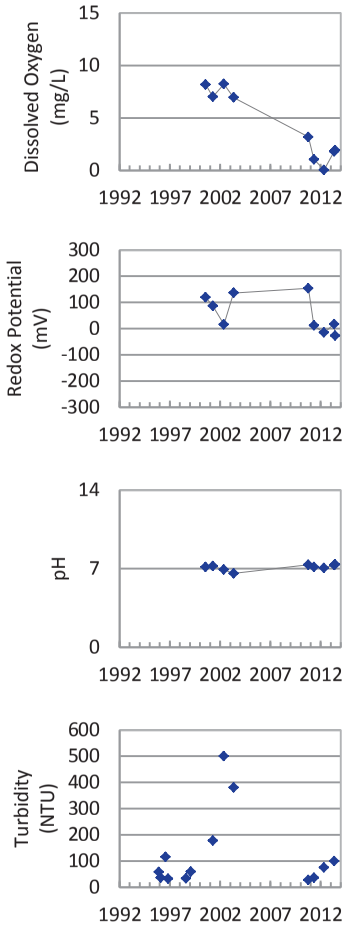
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/23/2002 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX10-1014
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



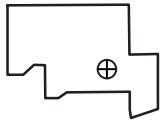
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

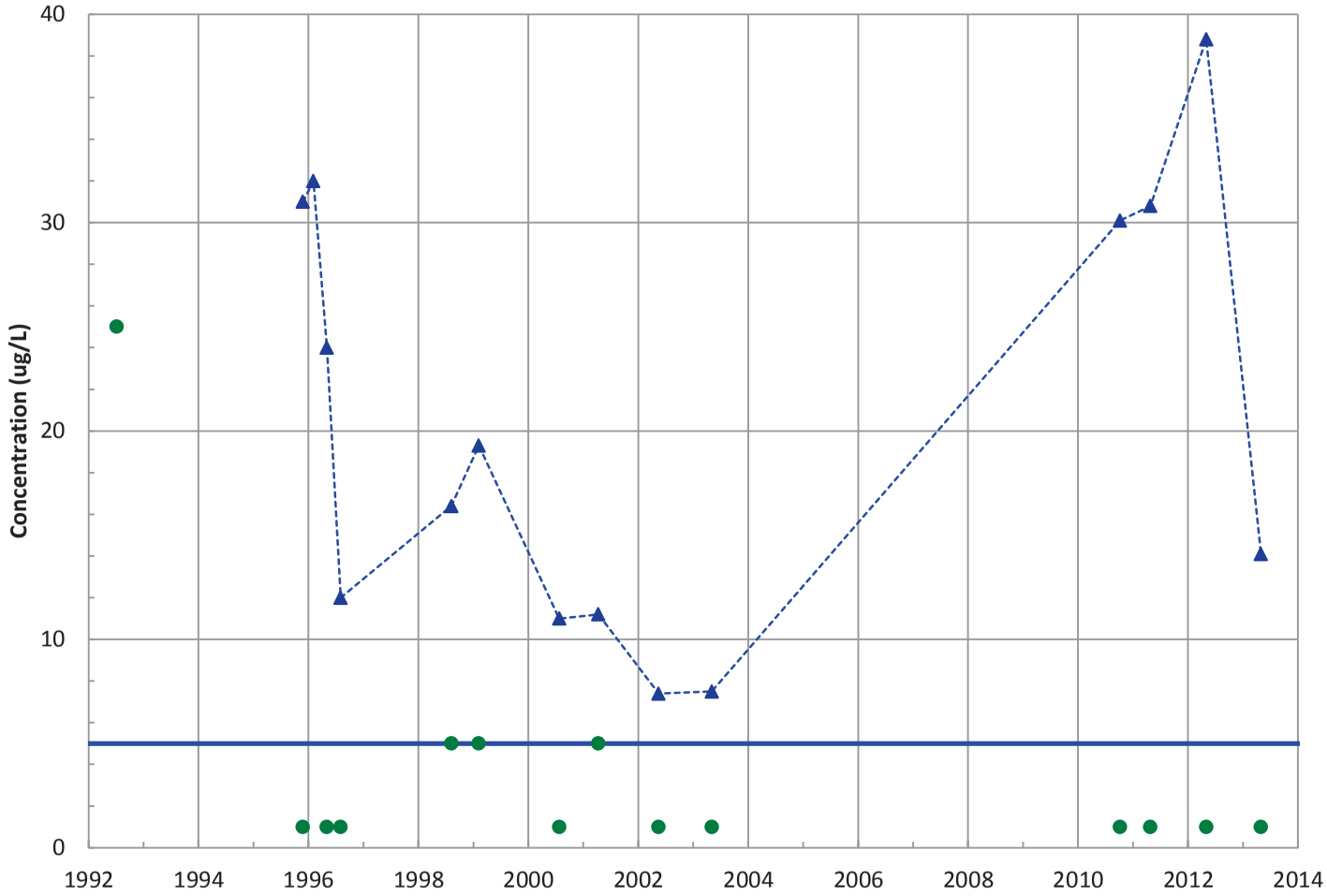
Well Location



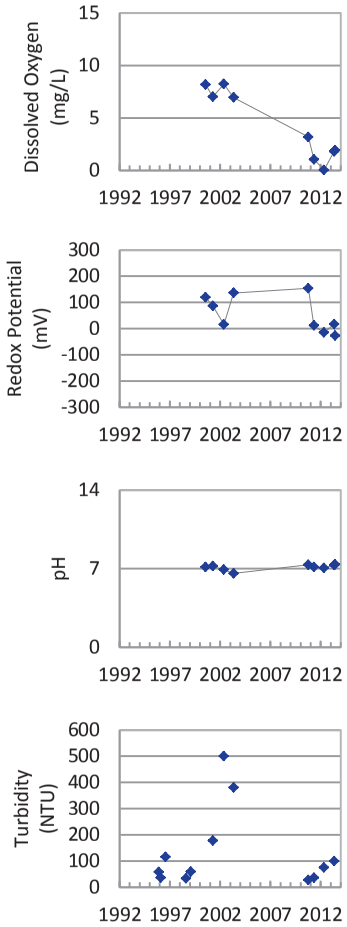
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 7/7/1992 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX10-1014
Trichloroethene Trend in Perched Aquifer



Field Parameters



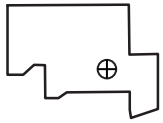
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Stable

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

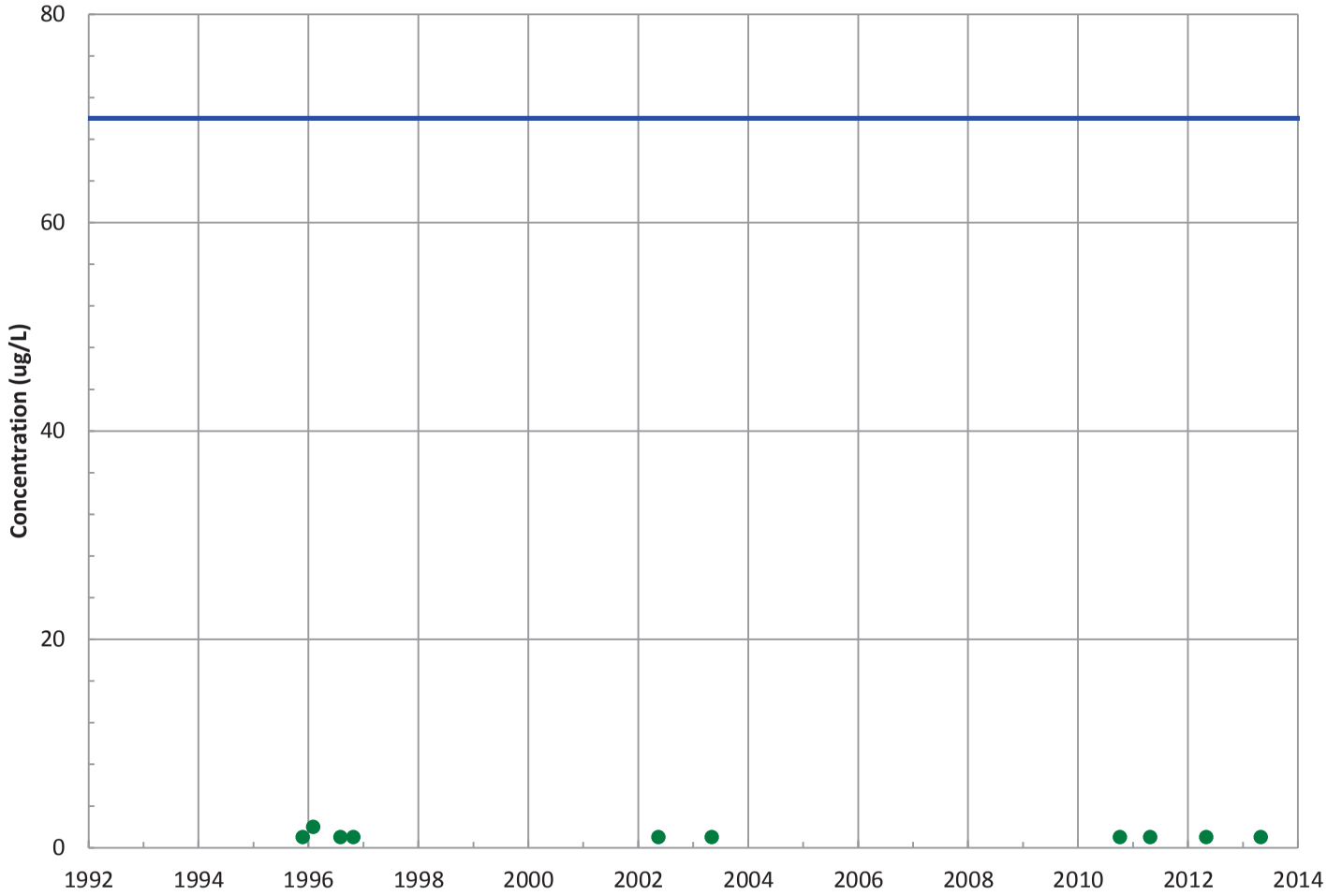
Well Location



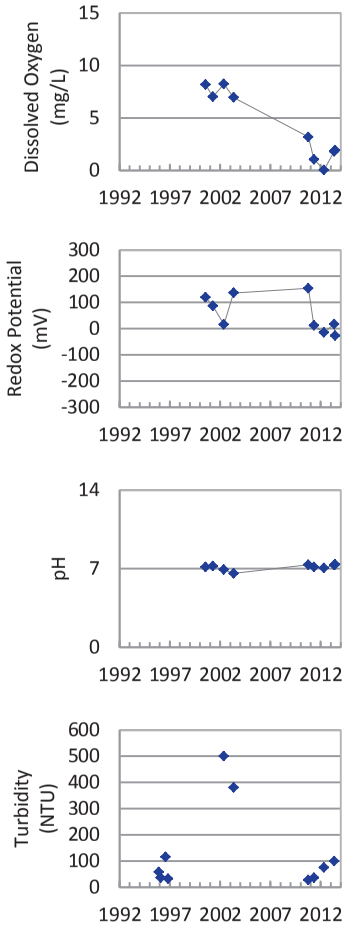
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 7/7/1992 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX10-1014
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



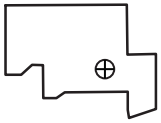
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

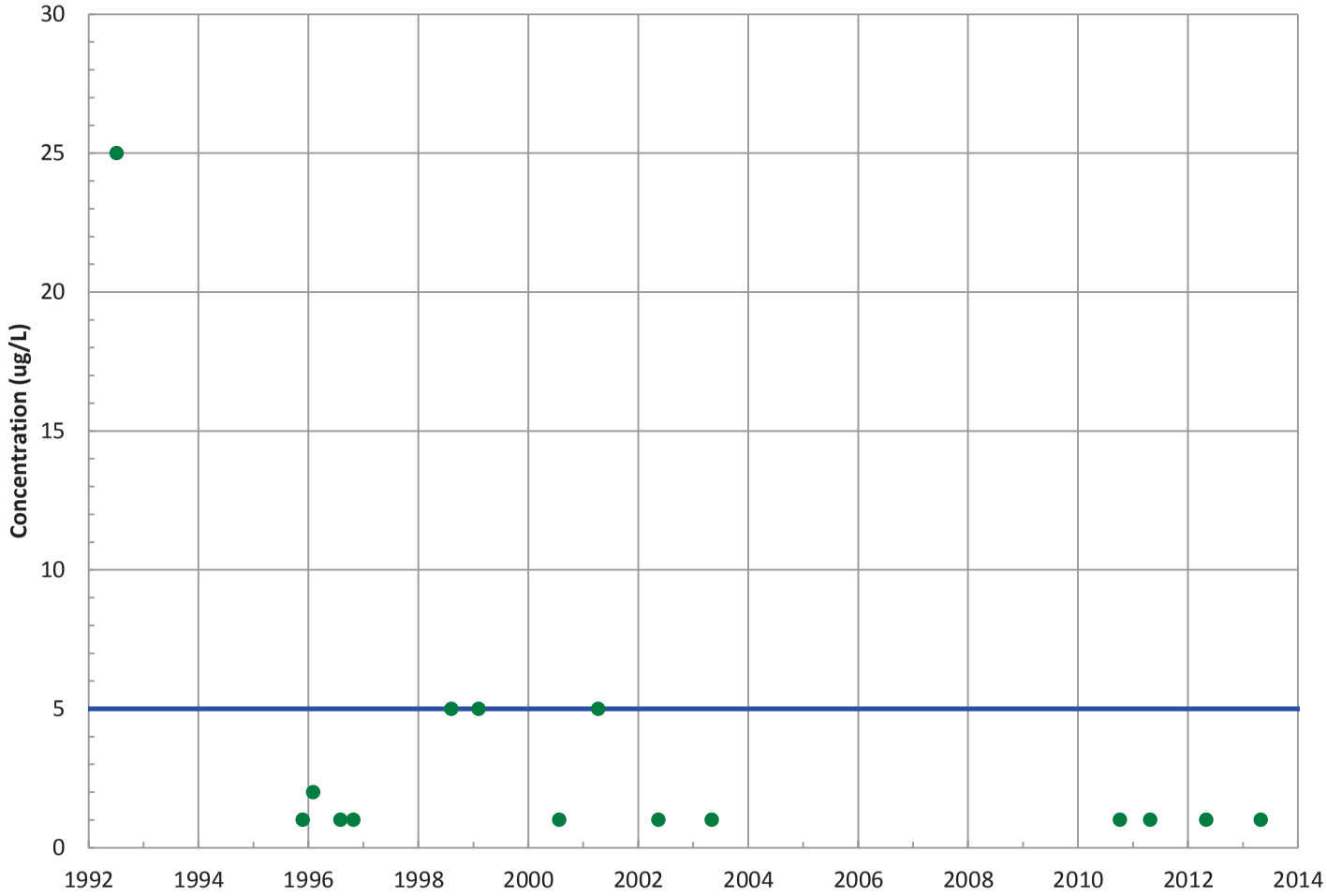
Well Location



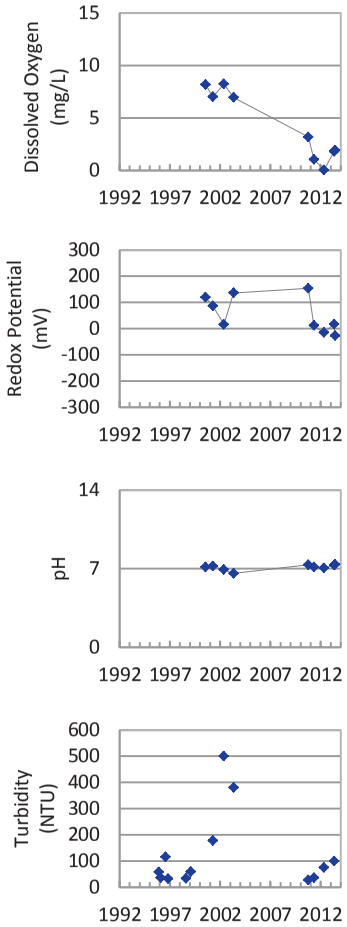
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/28/1995 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX10-1014
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



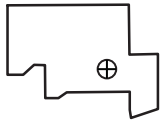
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

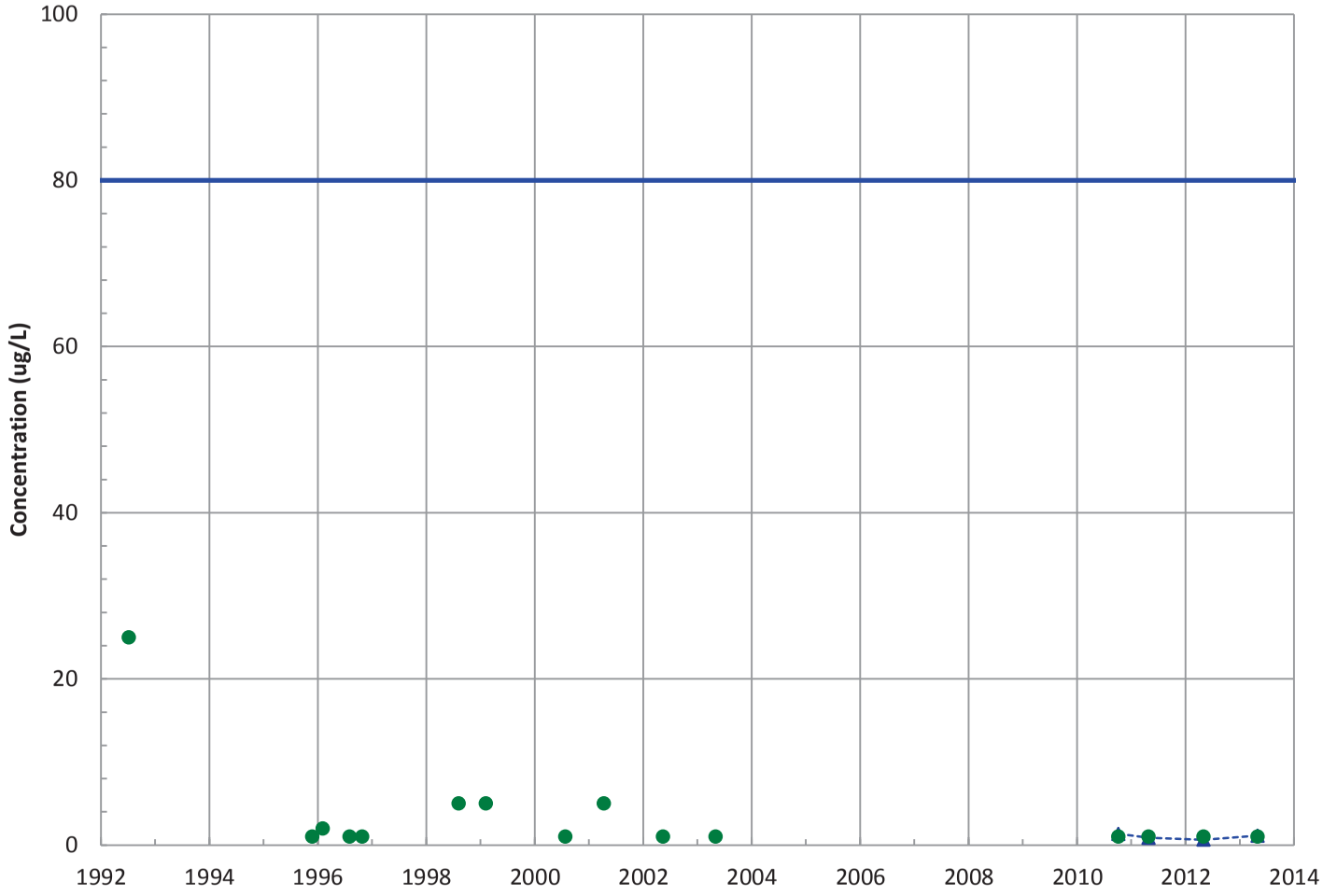
Well Location



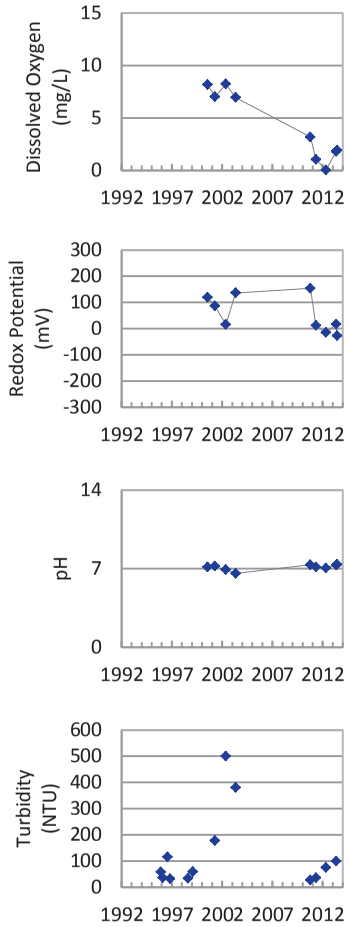
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 7/7/1992 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX10-1014
Chloroform Trend in Perched Aquifer



Field Parameters



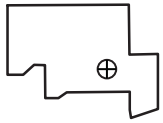
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): Decreasing
2011 - 2013 Data: Decreasing

MAROS Linear Regression Method
Data (7/2009 - 12/2013): Stable
2011 - 2013 Data: Stable

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

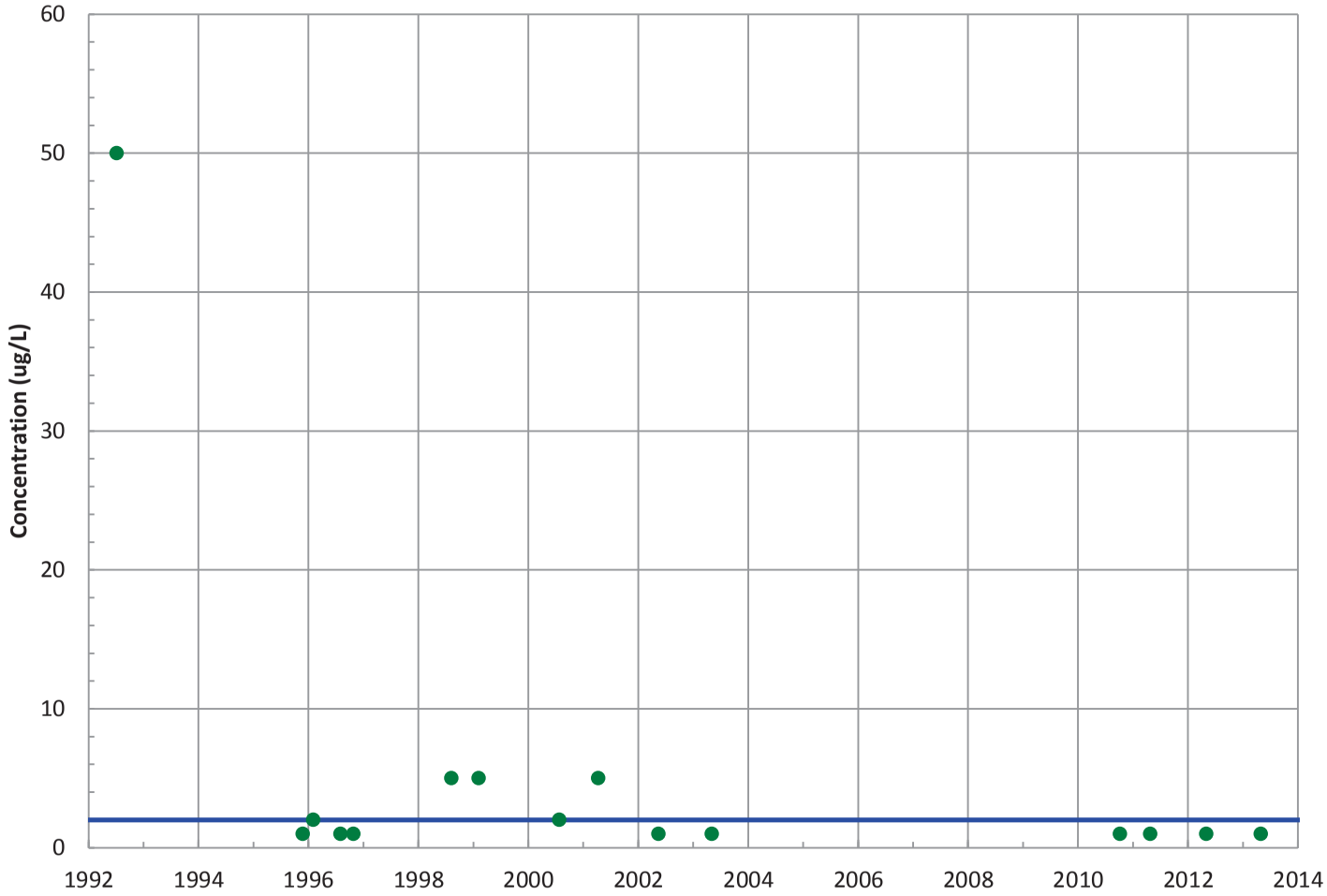
Well Location



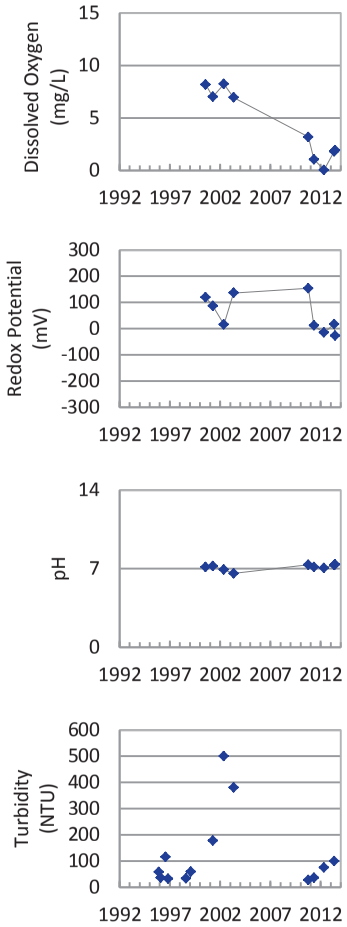
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 7/7/1992 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX10-1014
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



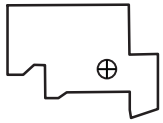
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

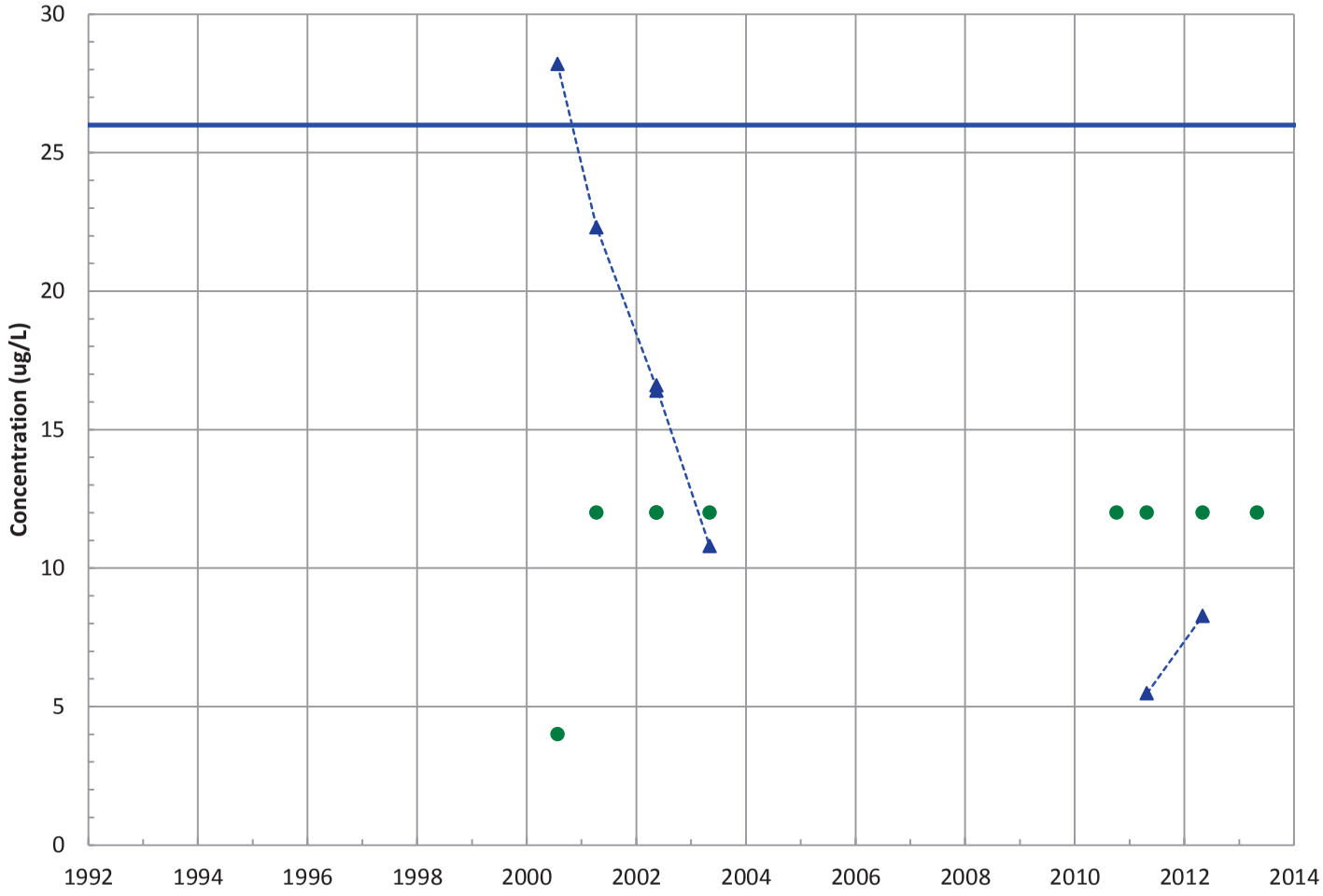
Well Location



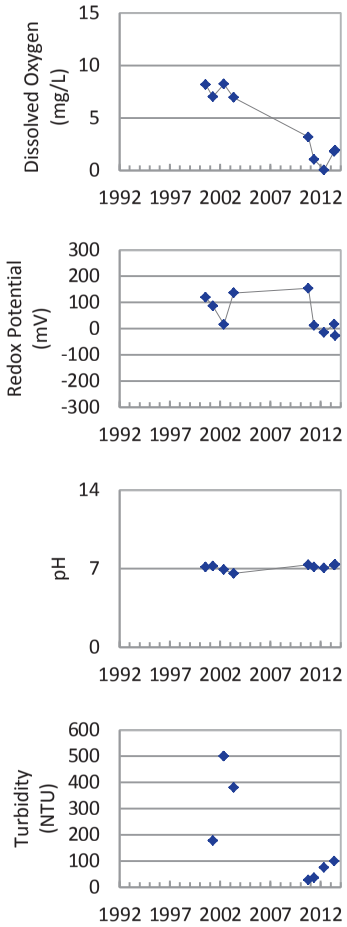
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 7/7/1992 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX10-1014
Perchlorate Trend in Perched Aquifer



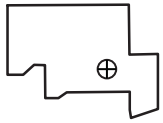
Field Parameters



Concentration Trend
MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: N/A (<4 Detections in
MAROS Linear Regression Method
Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)
2011 - 2013 Data: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard

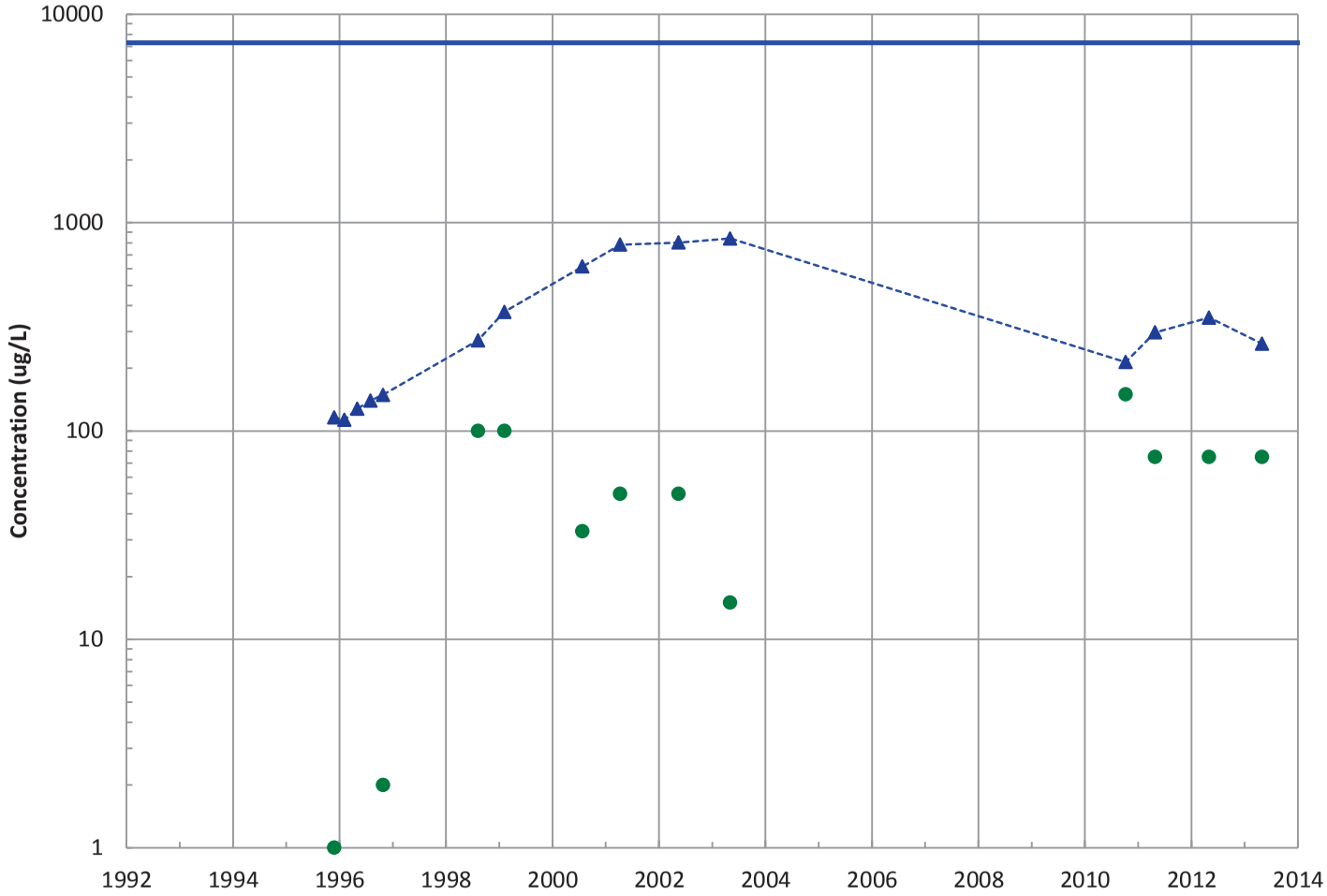
Well Location



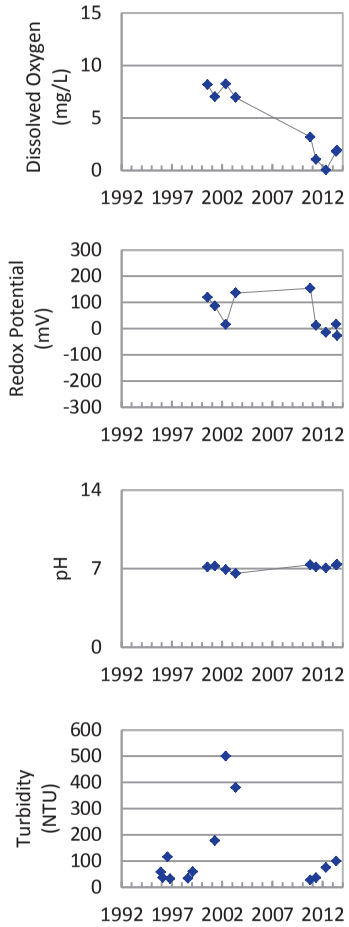
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 7/31/2000 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX10-1014
Boron Trend in Perched Aquifer



Field Parameters



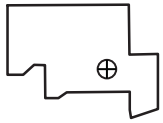
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

MAROS Linear Regression Method
Data (7/2009 - 12/2013): No Trend
2011 - 2013 Data: No Trend

▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
——— Groundwater Protection Standard

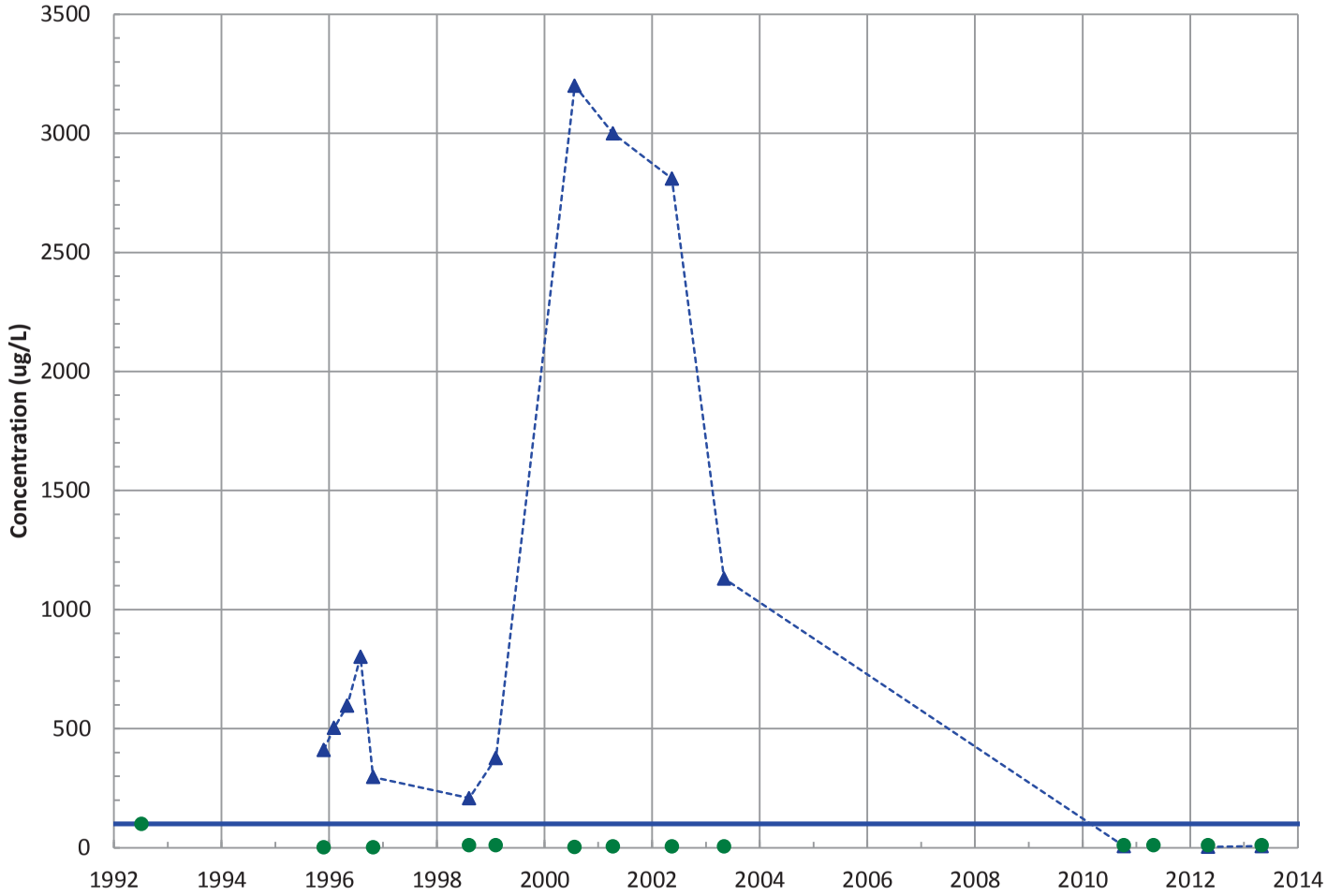
Well Location



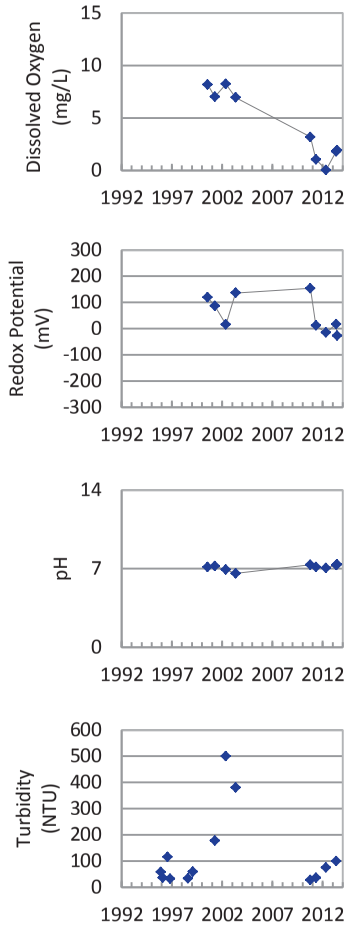
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/28/1995 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX10-1014
Chromium, Total Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: N/A (<4 Detections in

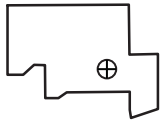
MAROS Linear Regression Method

Data (7/2009 - 12/2013): N/A (<4 Detections in Dataset)

2011 - 2013 Data: No Trend

- ▲ Measured Value
- ● Sample Detection Limit
- ------ Concentration Trend
- ——— Groundwater Protection Standard

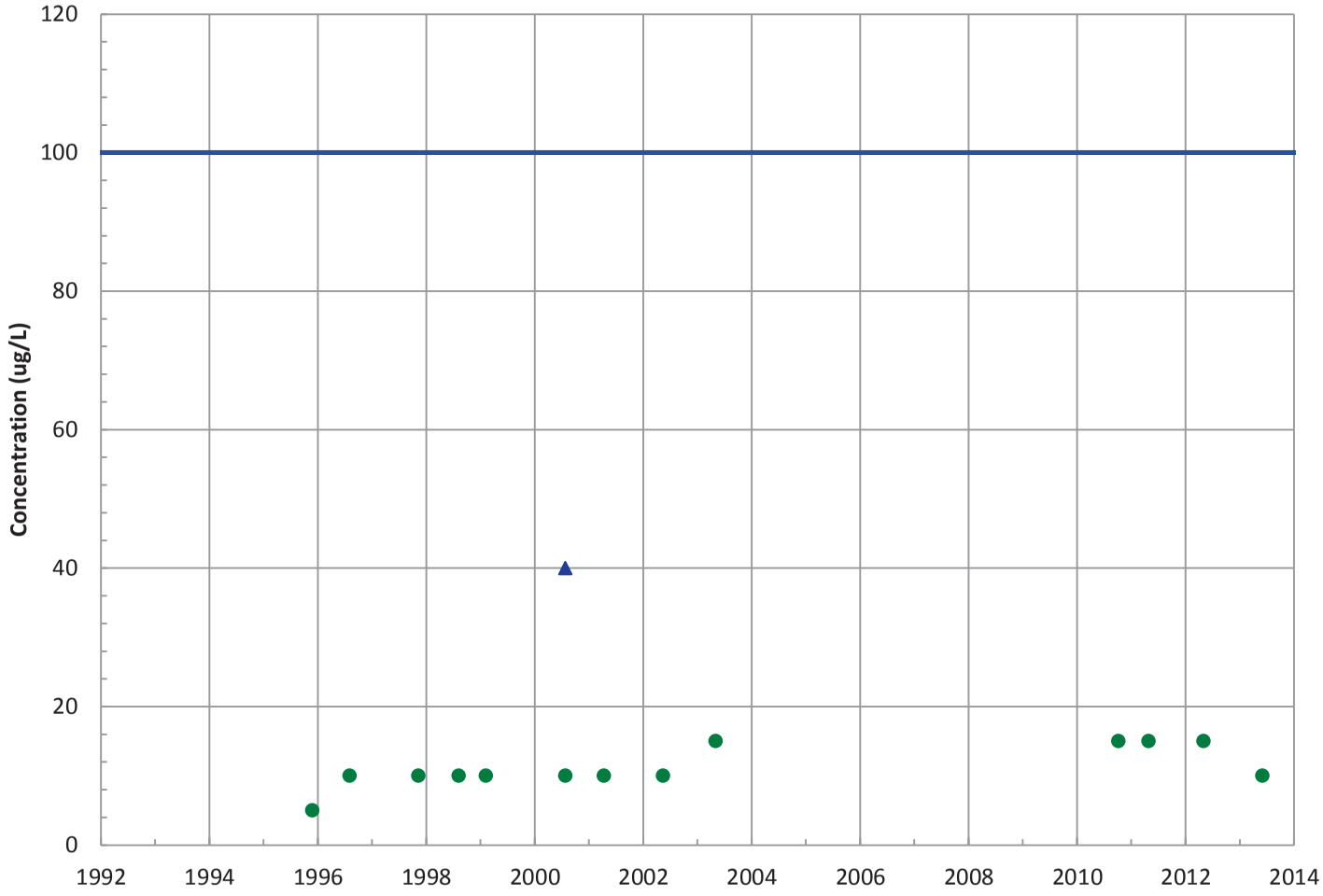
Well Location



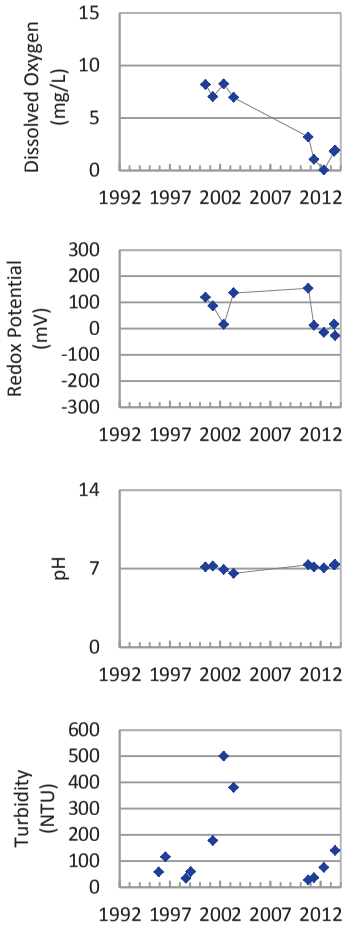
Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 7/7/1992 to 5/16/2013
Analysis Date: 3/4/2014

B&W Pantex

PTX10-1014
Chromium, Hexavalent Trend in Perched Aquifer



Field Parameters



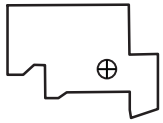
Concentration Trend

MAROS Mann-Kendall Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: All Non-Detect

MAROS Linear Regression Method
Data (7/2009 - 12/2013): All Non-Detect
2011 - 2013 Data: N/A (<4 Detections in Dataset)

- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ——— Groundwater Protection Standard

Well Location

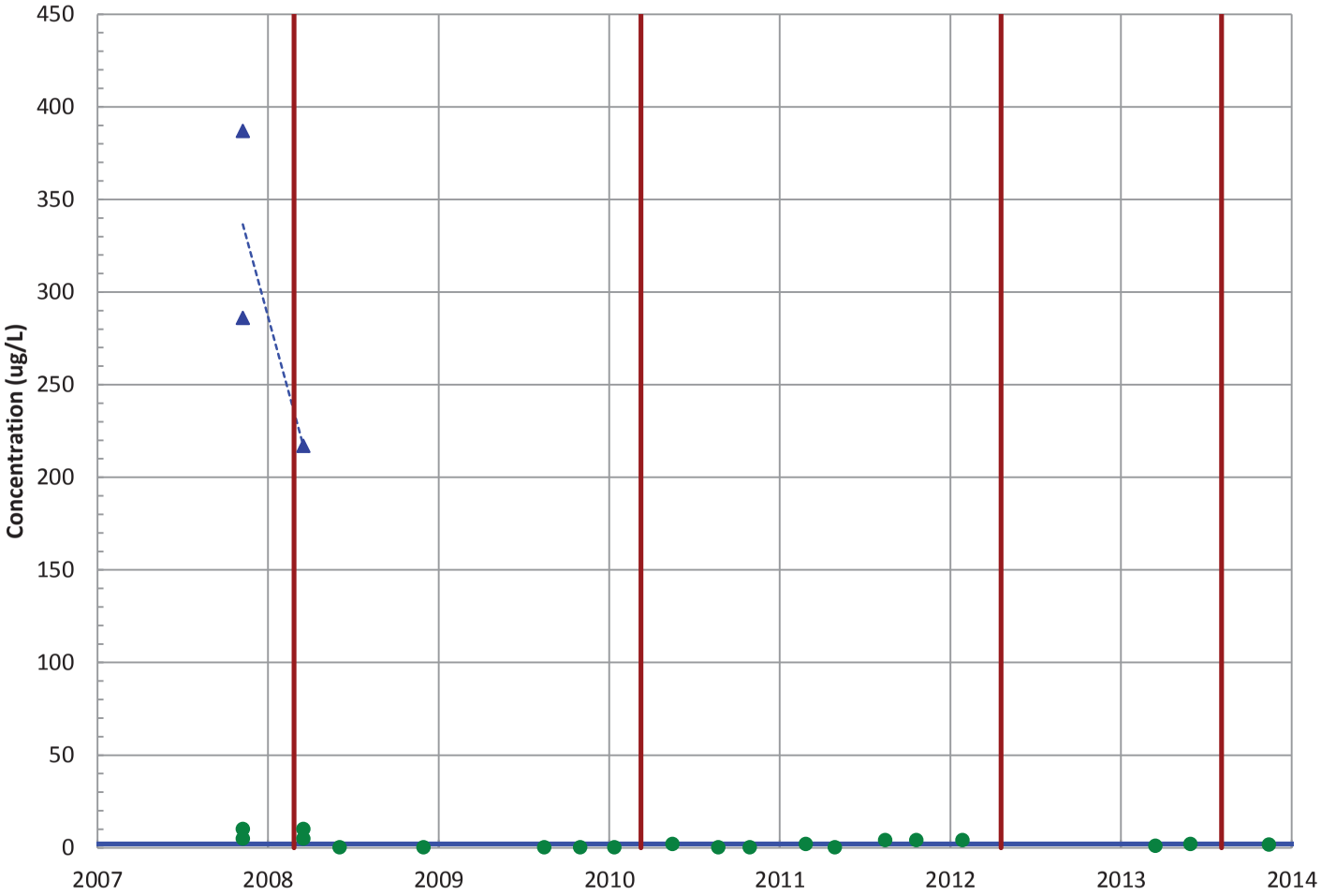


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/28/1995 to 6/18/2013
Analysis Date: 3/4/2014

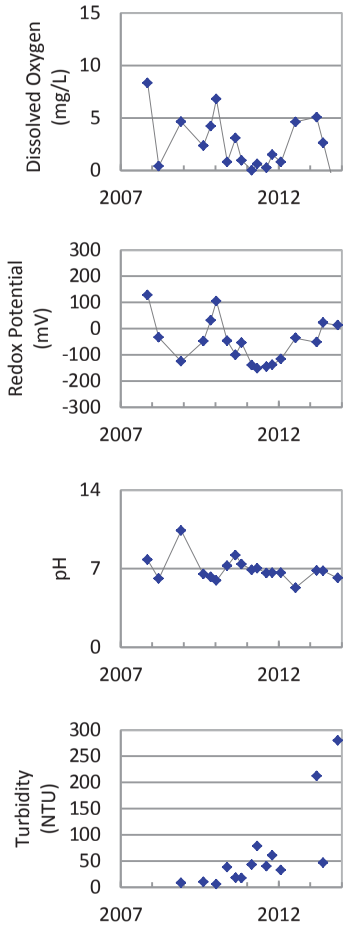
B&W Pantex

ISB Injection Well Concentration Trends

PTX06-ISB014
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



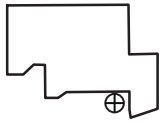
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

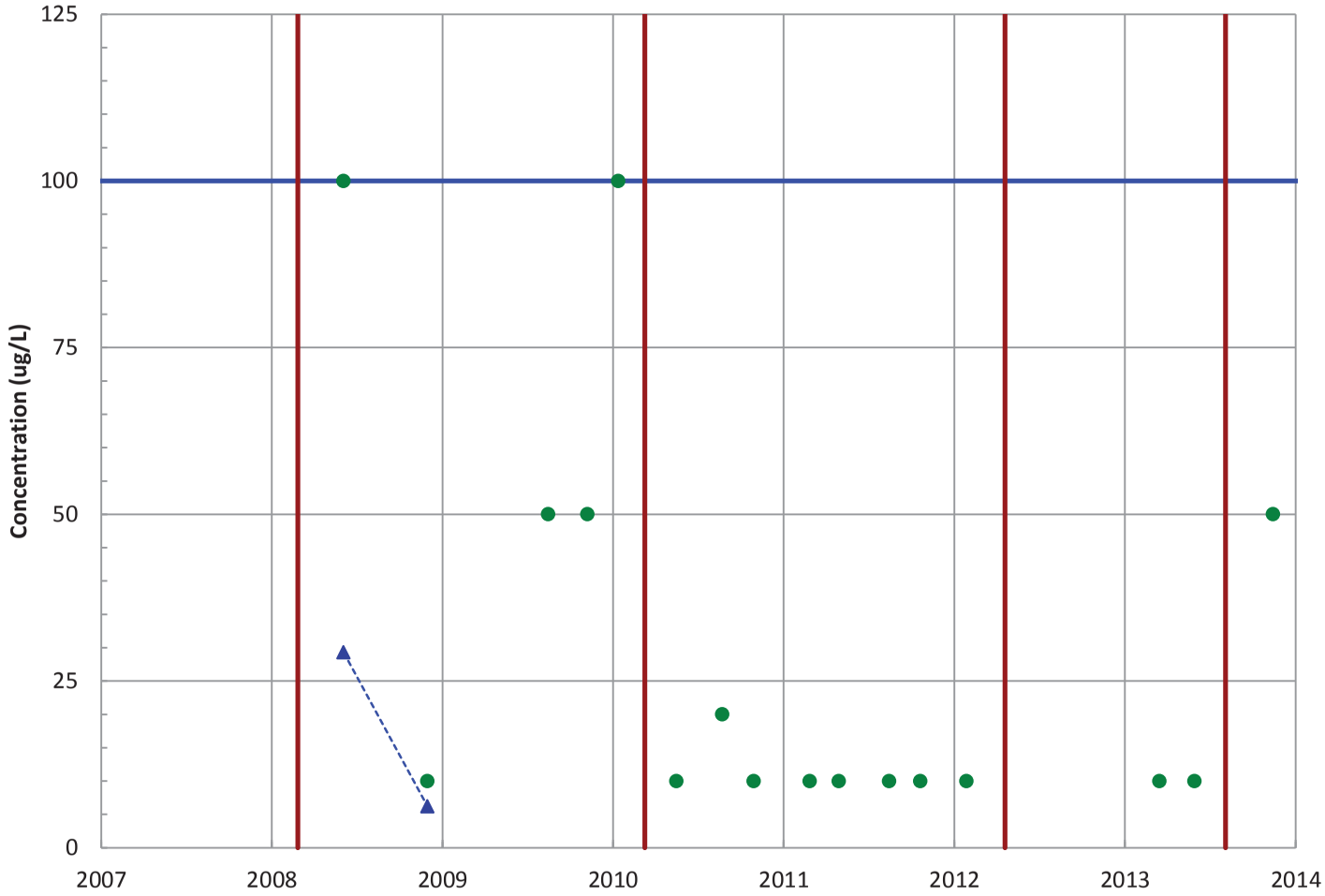
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

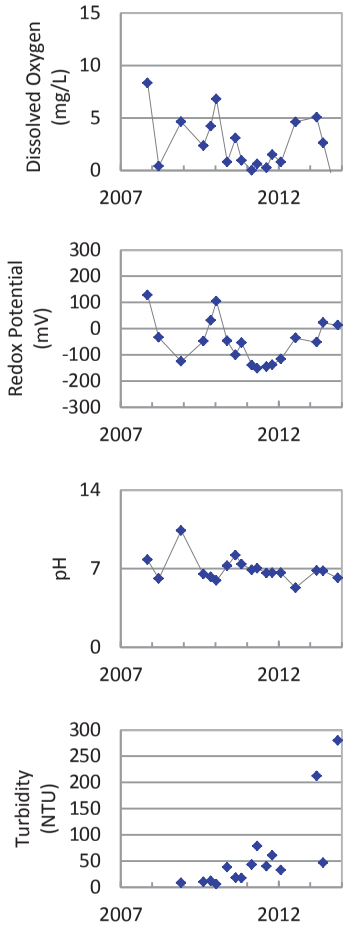


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/9/2007 to 11/19/2013
Analysis Date: 3/21/2014

PTX06-ISB014
Chromium, Total Trend in Perched Aquifer



Field Parameters



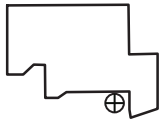
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

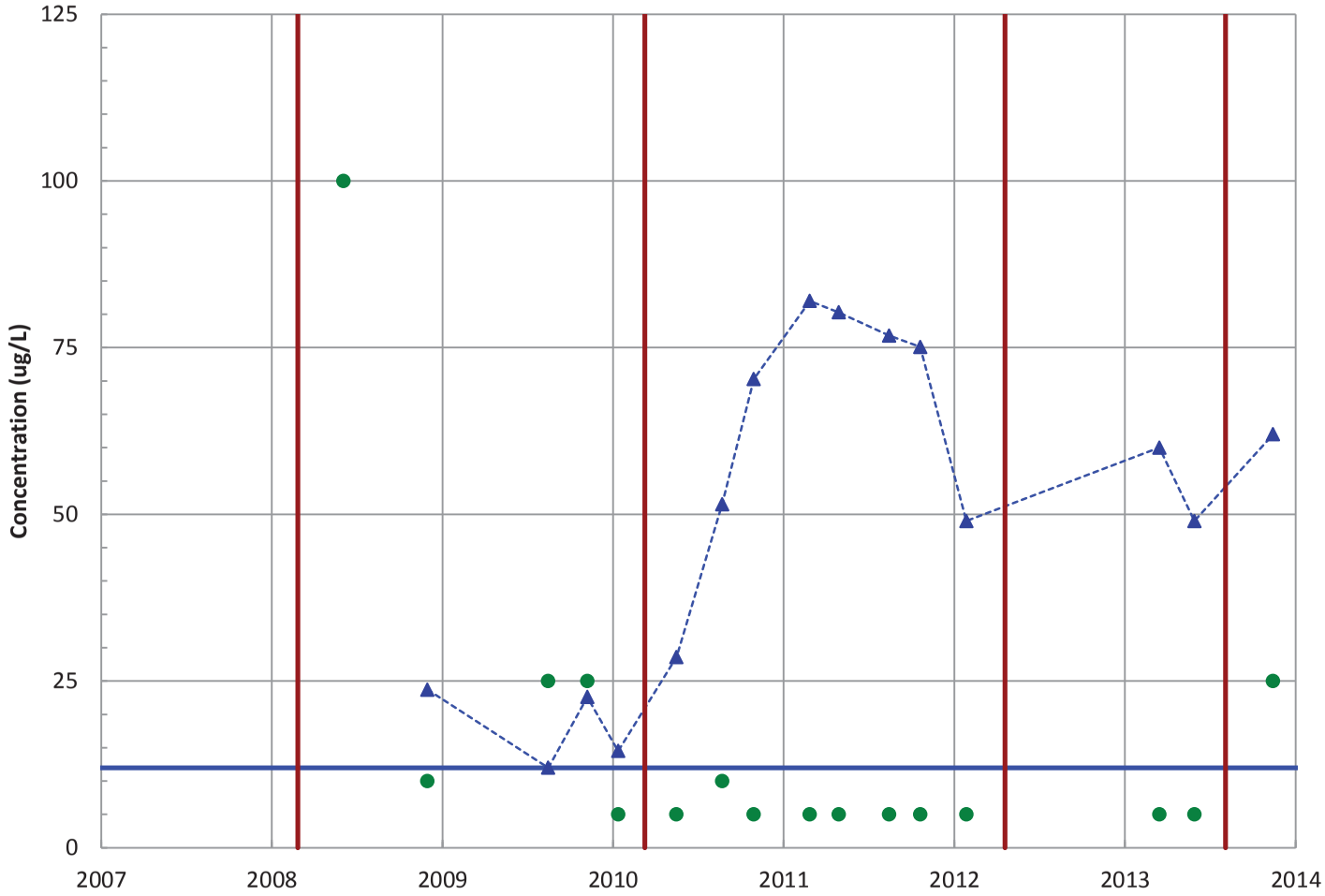
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

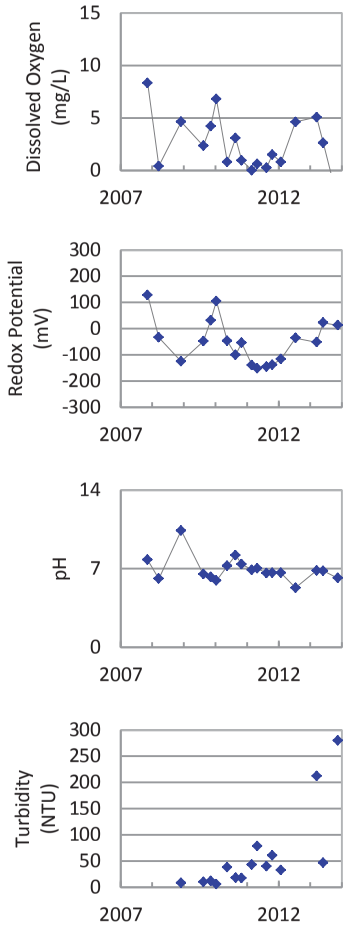


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/4/2008 to 11/19/2013
Analysis Date: 3/21/2014

PTX06-ISB014
Arsenic Trend in Perched Aquifer



Field Parameters



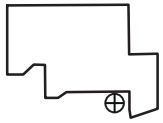
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: No Trend

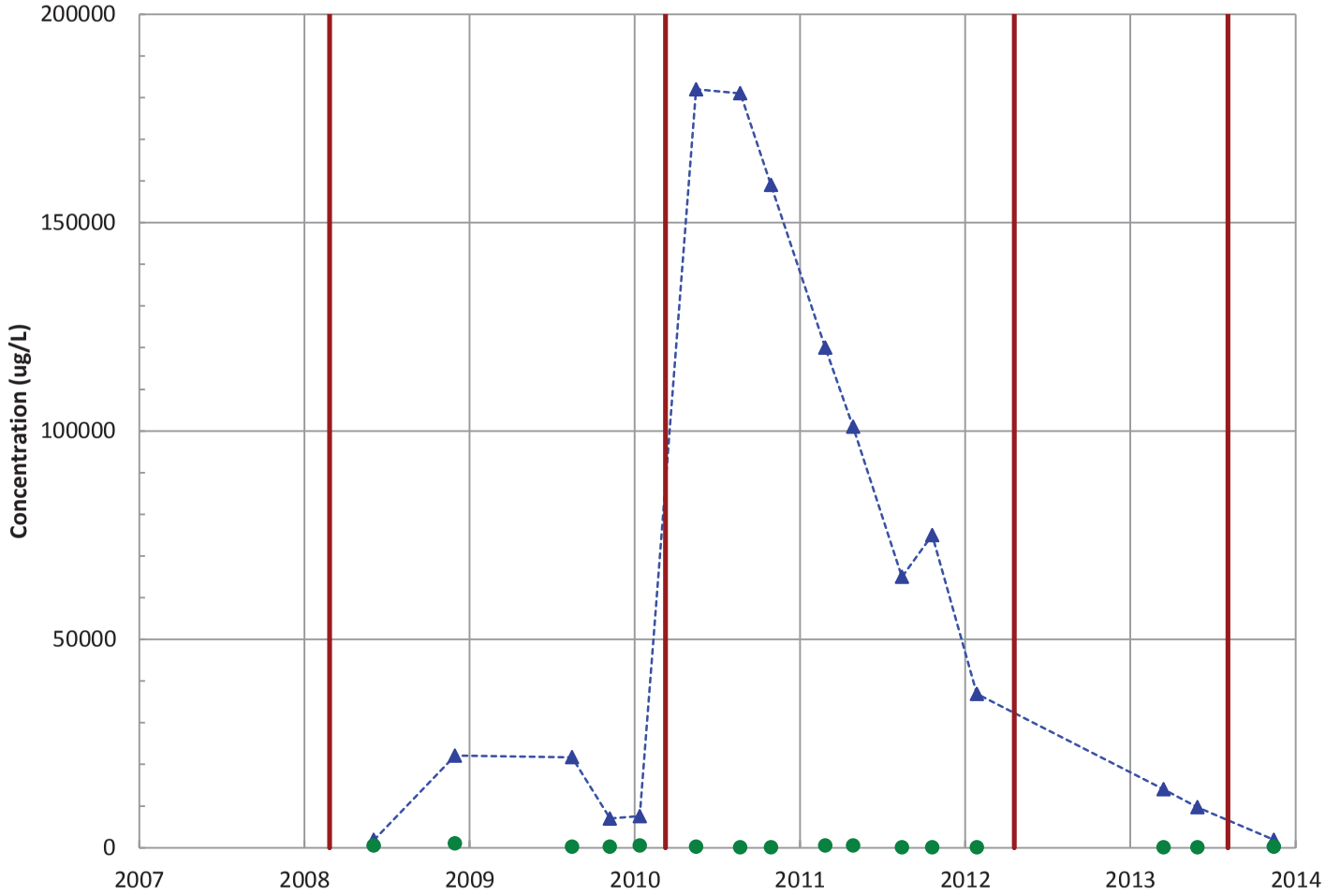
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

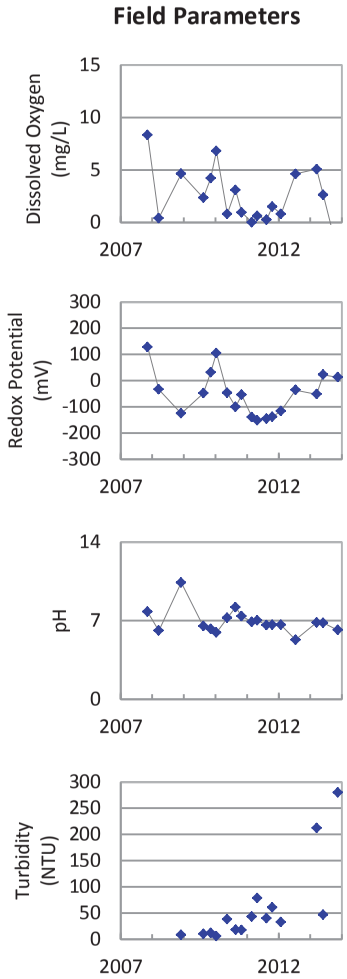
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/4/2008 to 11/19/2013
Analysis Date: 3/21/2014

PTX06-ISB014
Iron Trend in Perched Aquifer





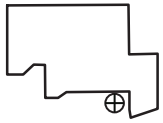
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Decreasing

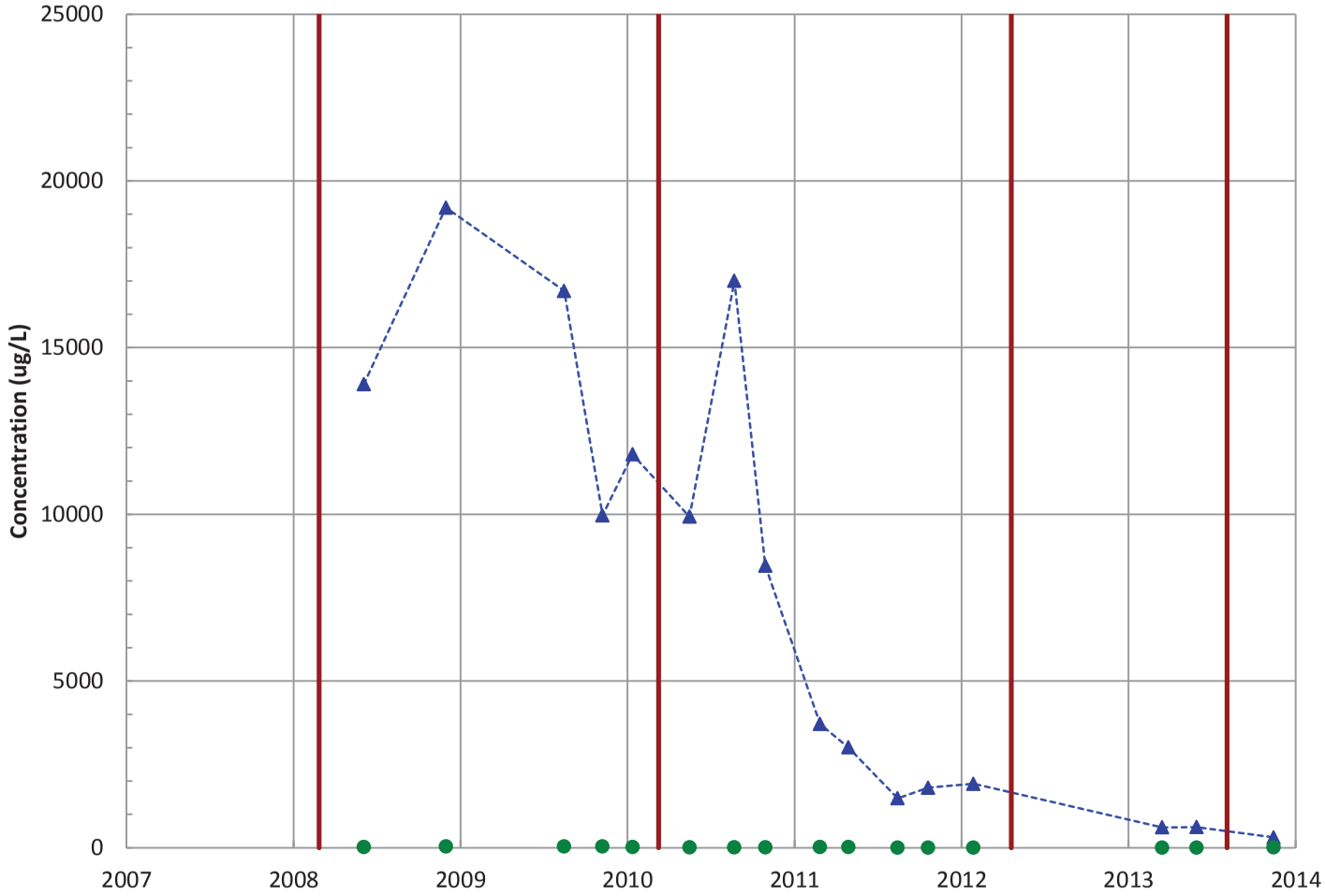
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

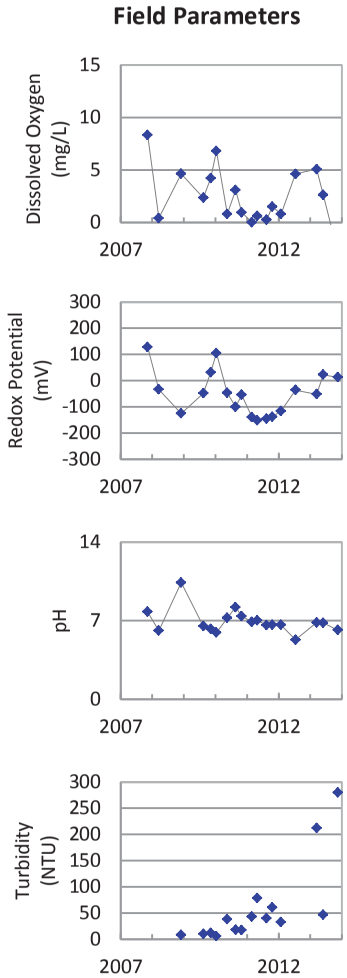
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/4/2008 to 11/19/2013
Analysis Date: 3/21/2014

PTX06-ISB014
Manganese Trend in Perched Aquifer





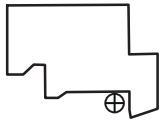
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Probably Decreasing

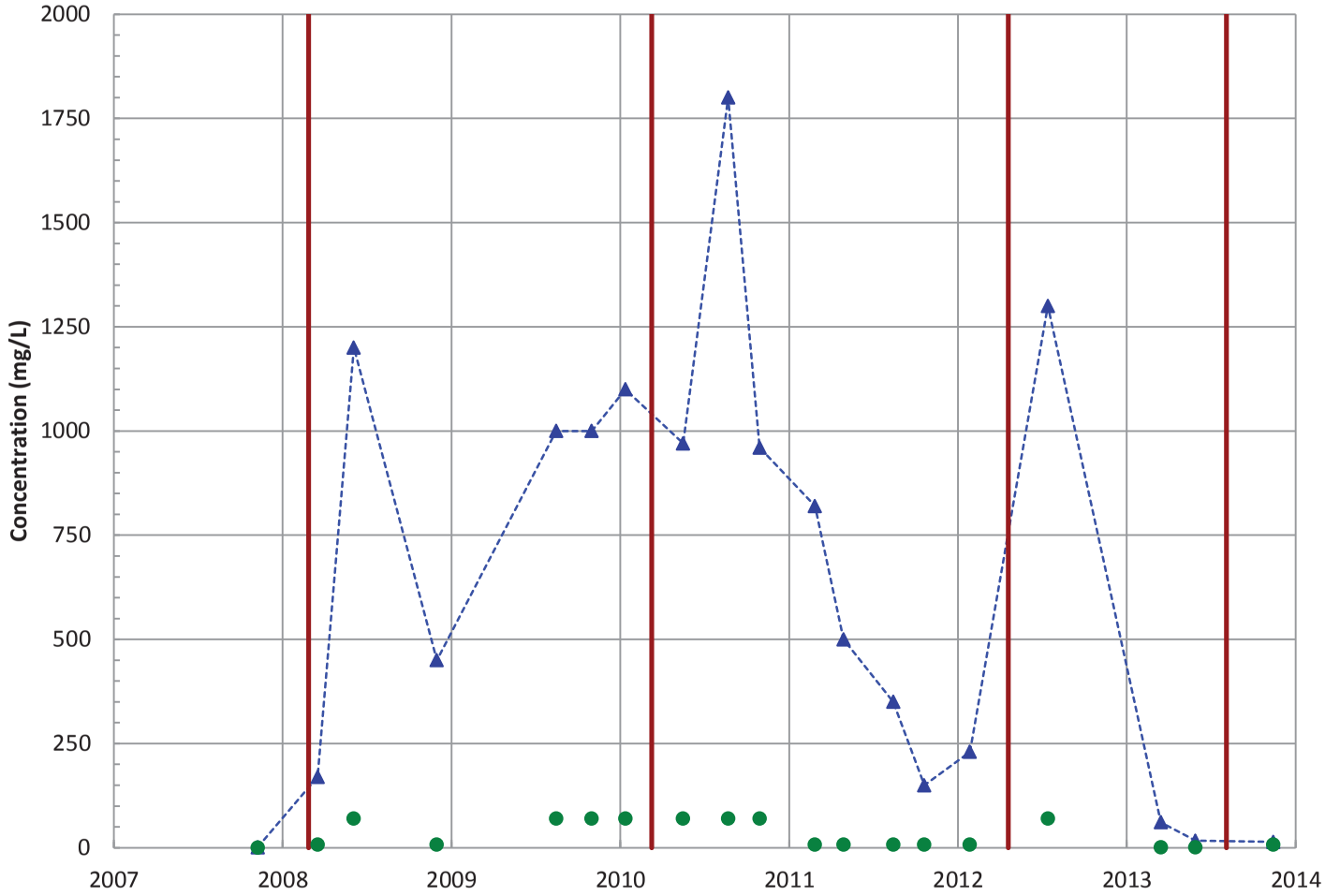
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

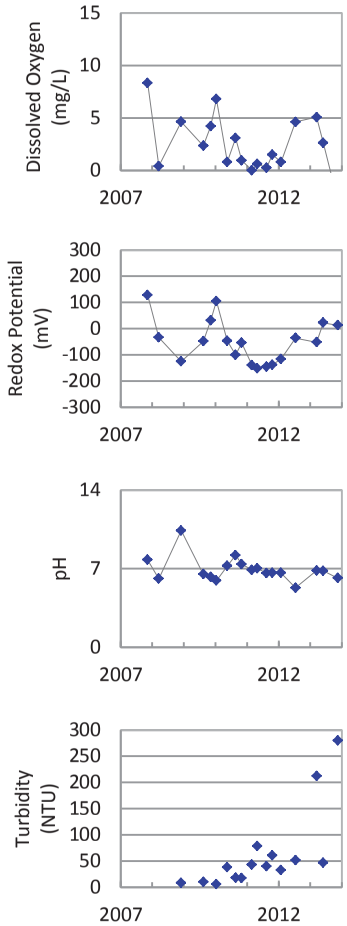


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/4/2008 to 11/19/2013
Analysis Date: 3/21/2014

PTX06-ISB014
Acetic Acid Trend in Perched Aquifer



Field Parameters



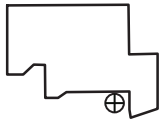
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: Probably Decreasing

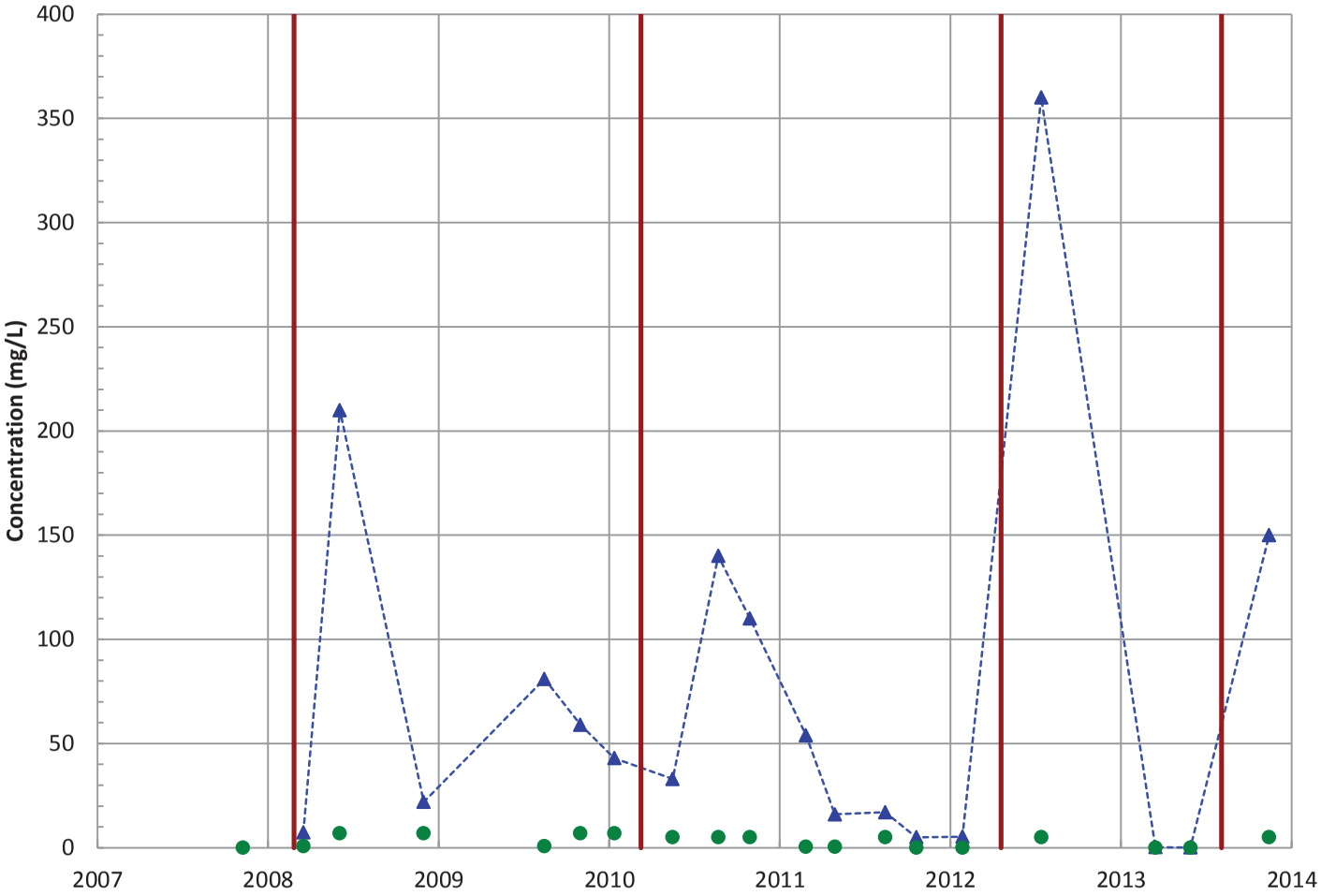
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

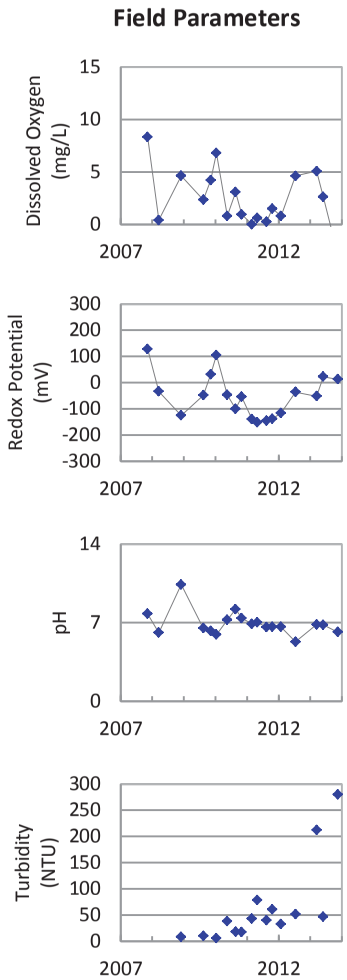
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/9/2007 to 11/19/2013
Analysis Date: 3/21/2014

PTX06-ISB014
Butyric Acid Trend in Perched Aquifer





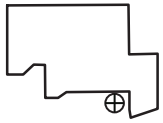
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Probably Decreasing
Last 4 Samples: No Trend

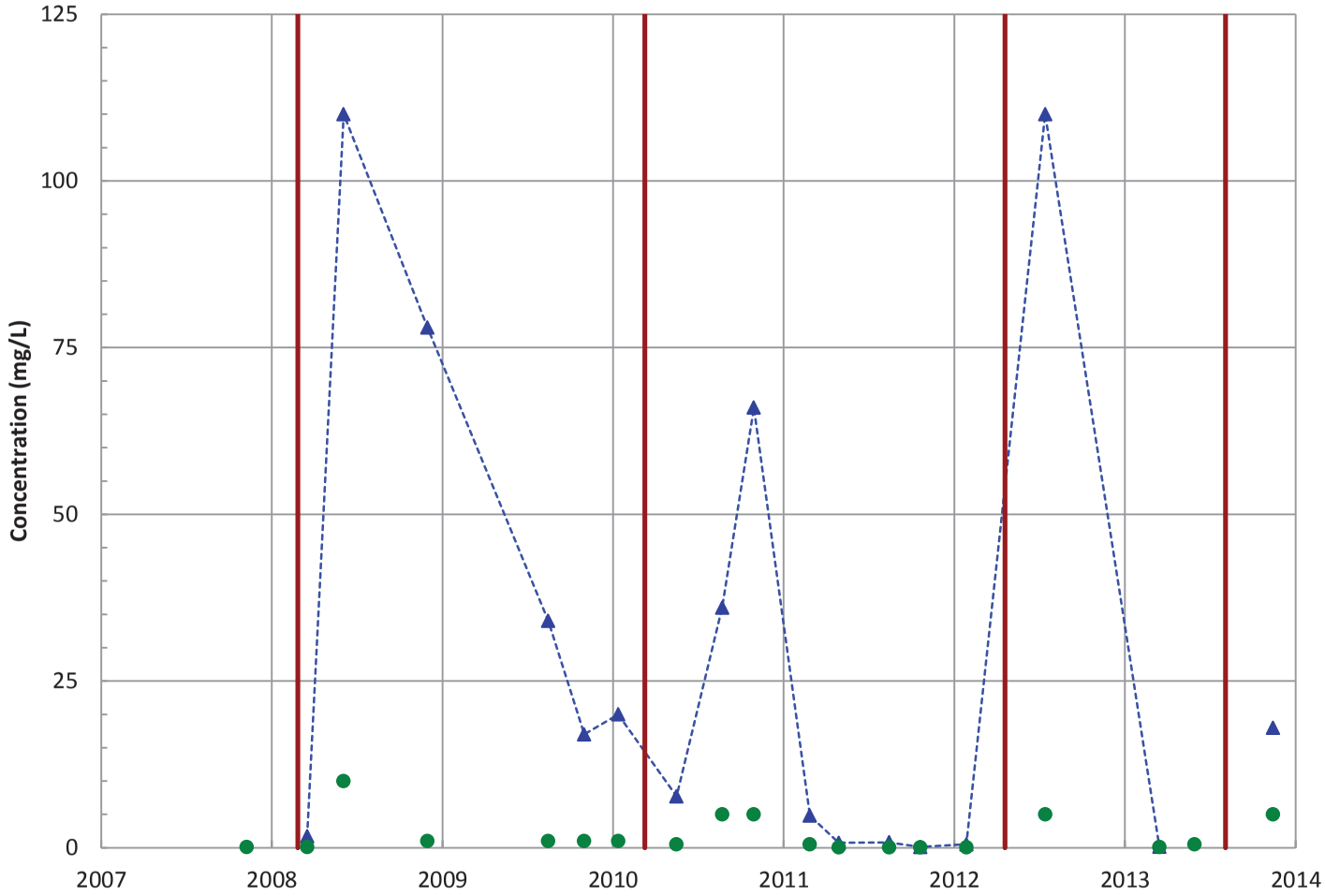
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

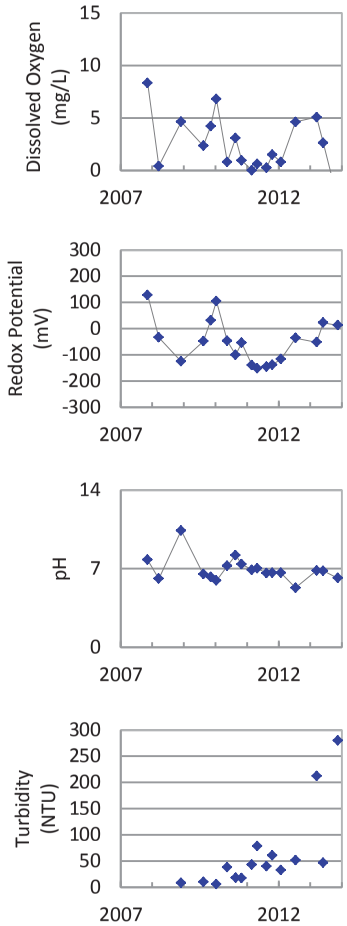


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/9/2007 to 11/19/2013
Analysis Date: 3/21/2014

PTX06-ISB014
Hexanoic Acid Trend in Perched Aquifer



Field Parameters



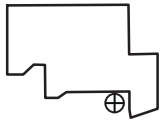
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Probably Decreasing
Last 4 Samples: No Trend

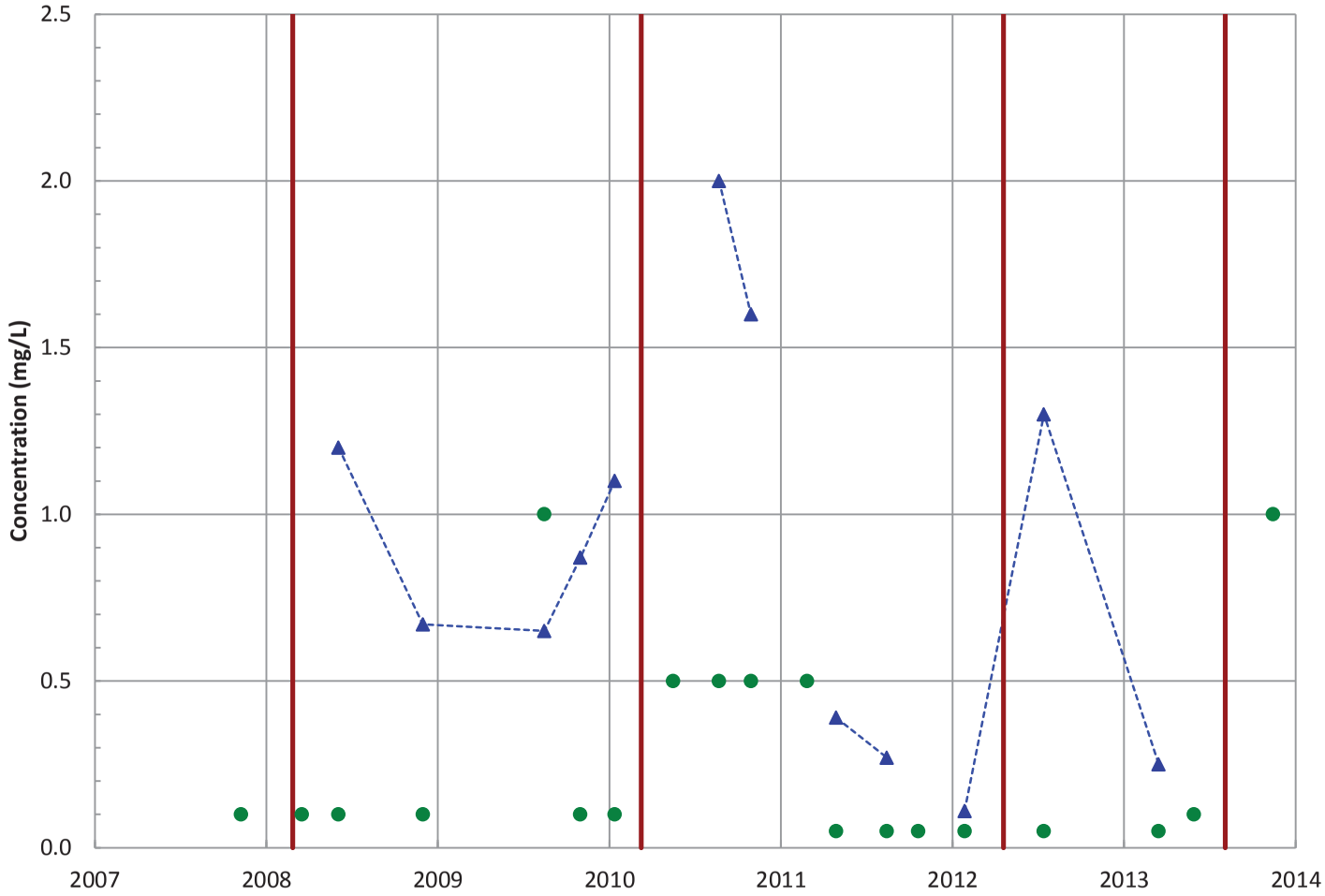
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

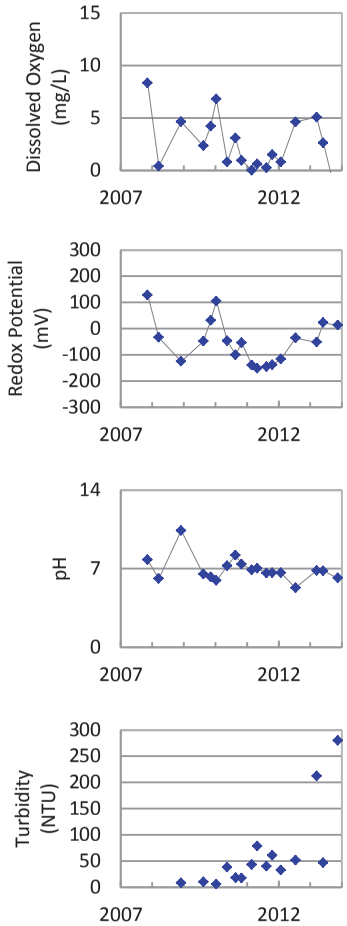


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/9/2007 to 11/19/2013
Analysis Date: 3/21/2014

PTX06-ISB014
i-Hexanoic Acid Trend in Perched Aquifer



Field Parameters



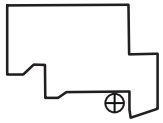
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Probably Decreasing
Last 4 Samples: No Trend

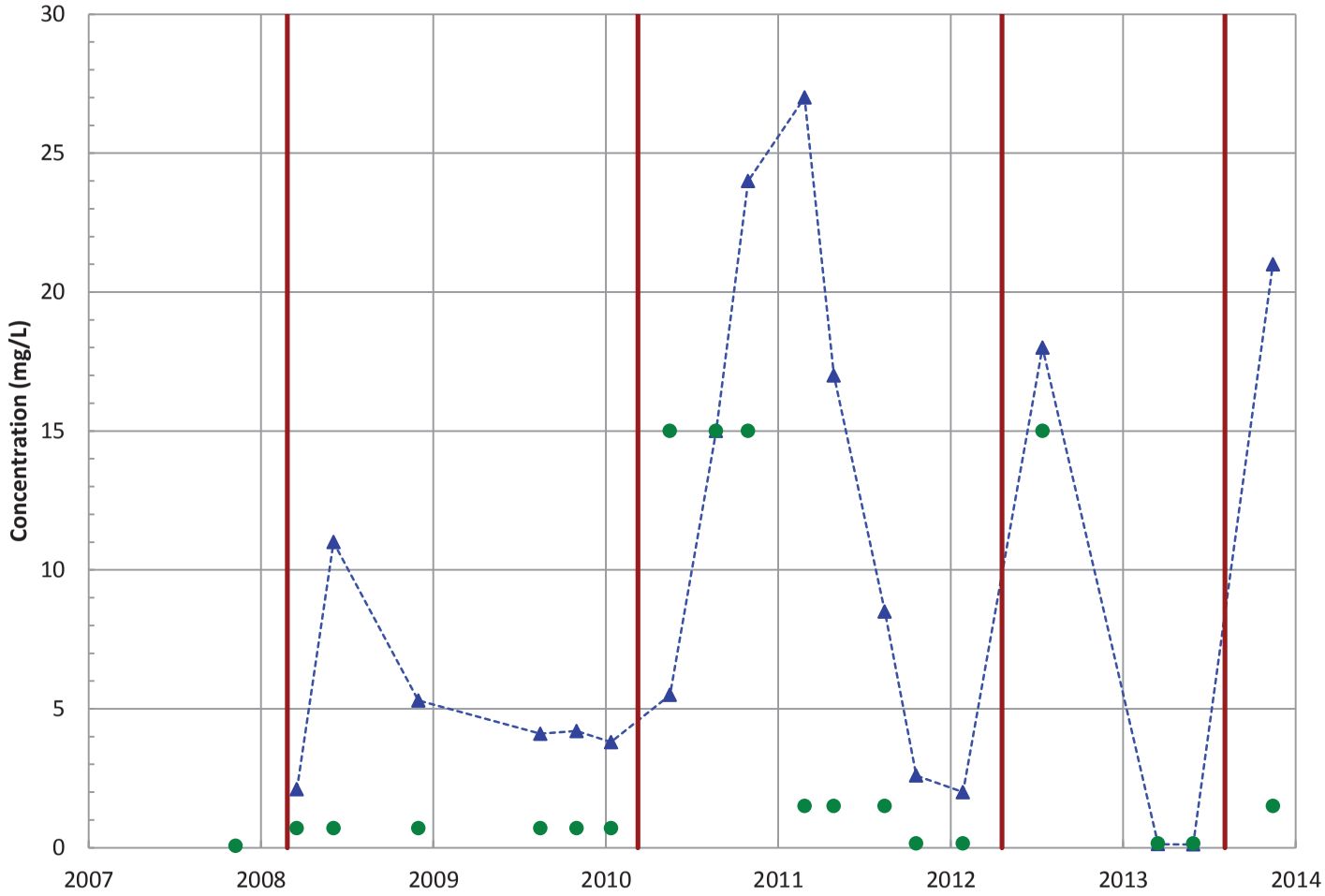
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

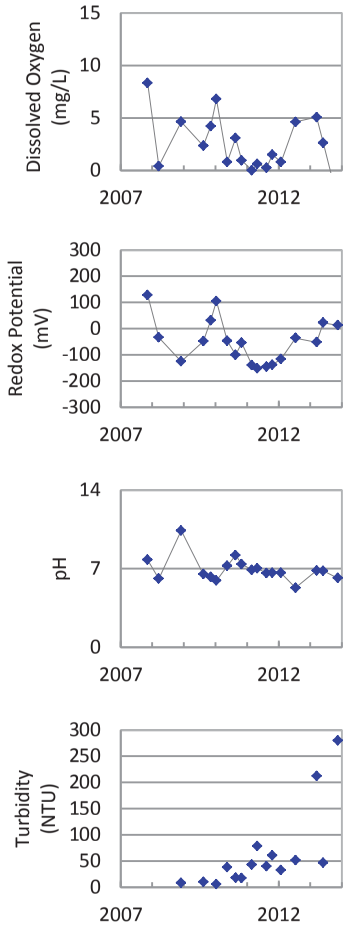


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/9/2007 to 11/19/2013
Analysis Date: 3/21/2014

PTX06-ISB014
i-Pentanoic Acid Trend in Perched Aquifer



Field Parameters



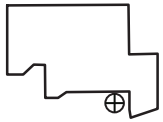
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: No Trend

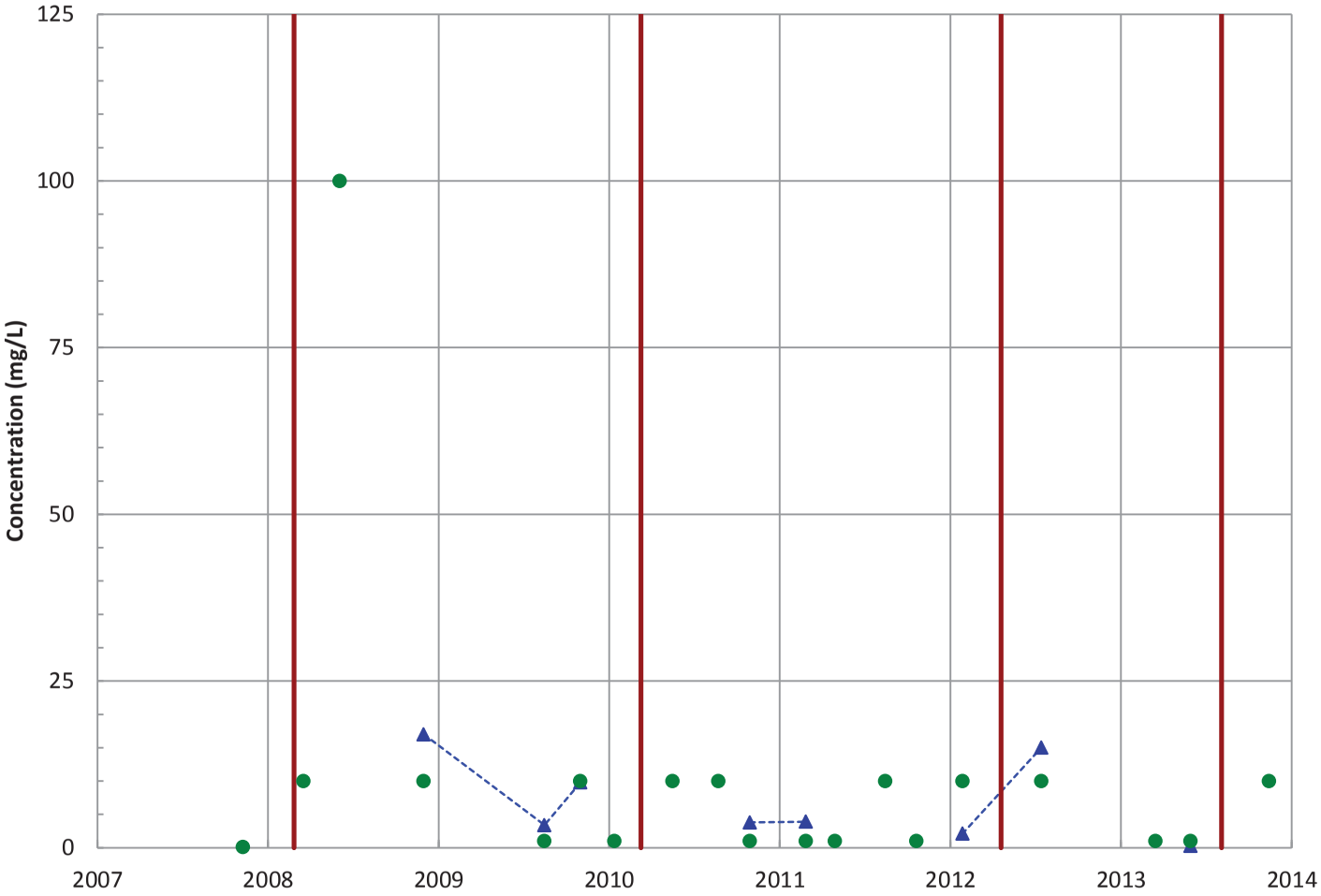
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

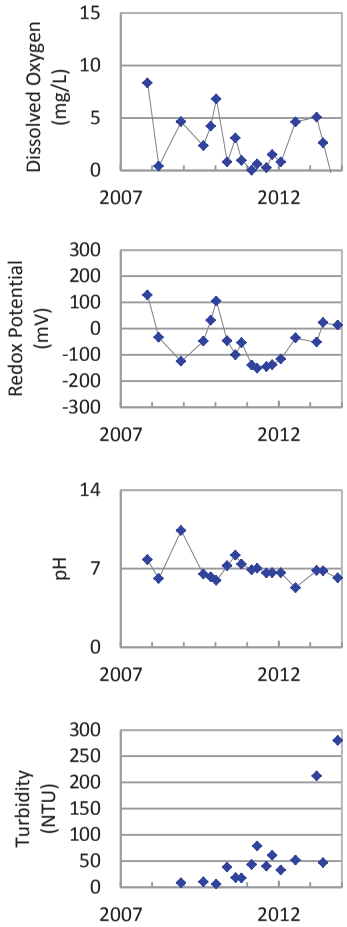


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/9/2007 to 11/19/2013
Analysis Date: 3/21/2014

PTX06-ISB014
Lactic Acid and HIBA Trend in Perched Aquifer



Field Parameters



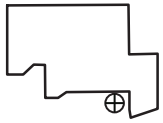
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Probably Decreasing
Last 4 Samples: No Trend

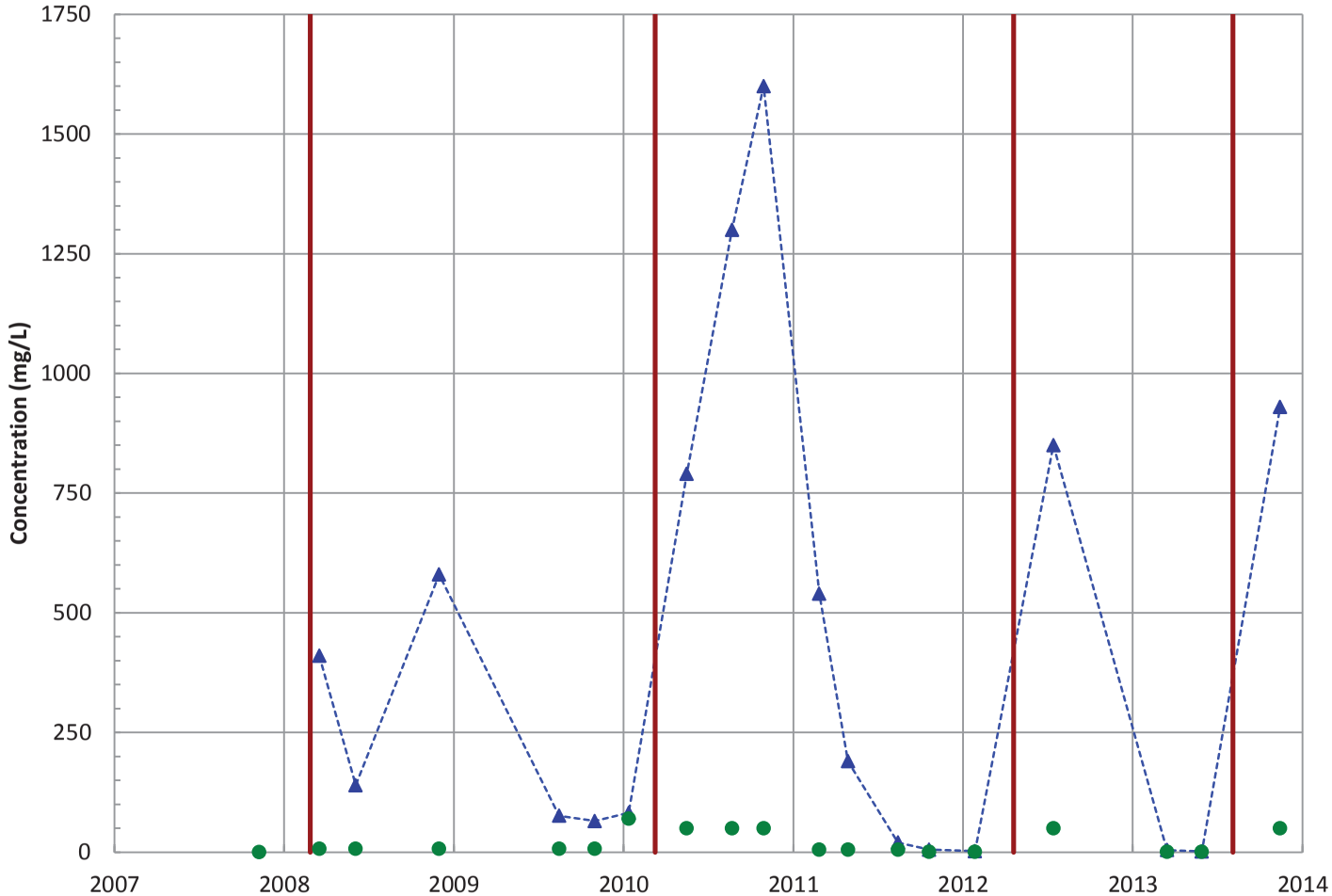
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

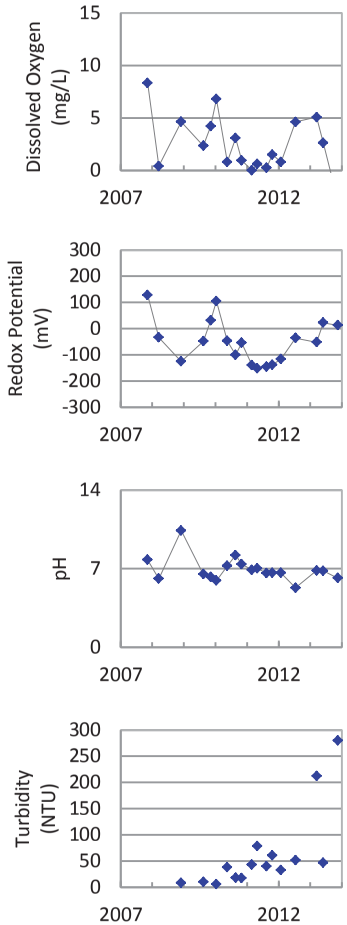


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/9/2007 to 11/19/2013
Analysis Date: 3/21/2014

PTX06-ISB014
Propionic Acid Trend in Perched Aquifer



Field Parameters



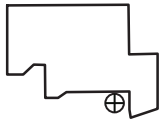
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Probably Decreasing
Last 4 Samples: No Trend

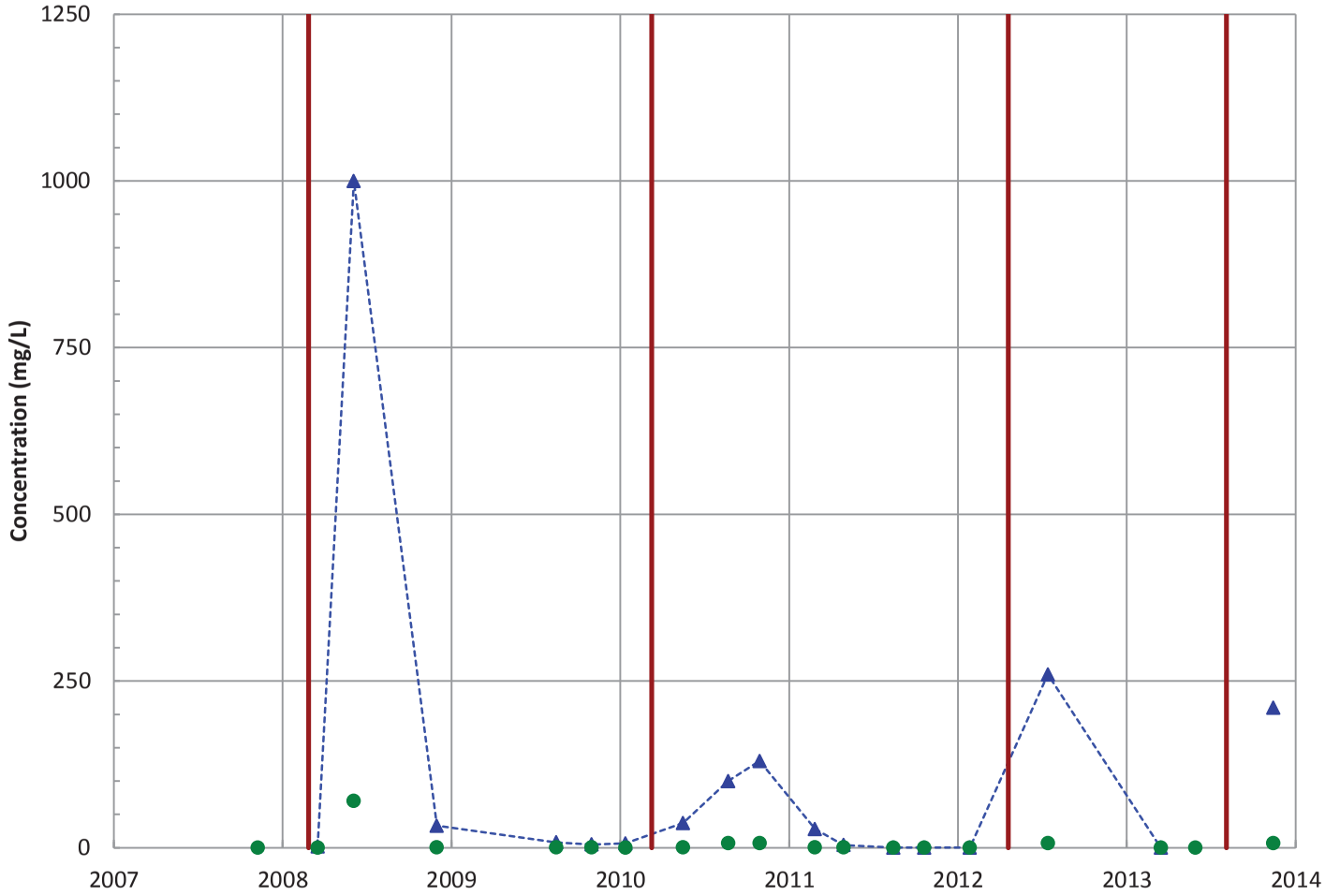
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

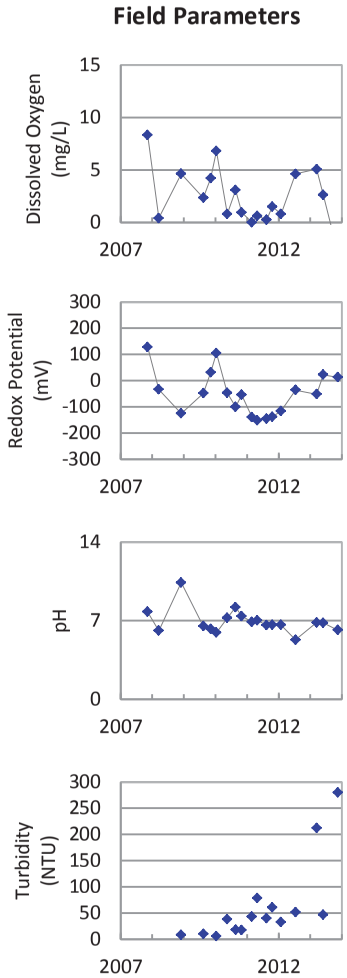
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/9/2007 to 11/19/2013
Analysis Date: 3/21/2014

PTX06-ISB014
Pentanoic Acid Trend in Perched Aquifer





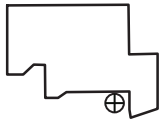
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

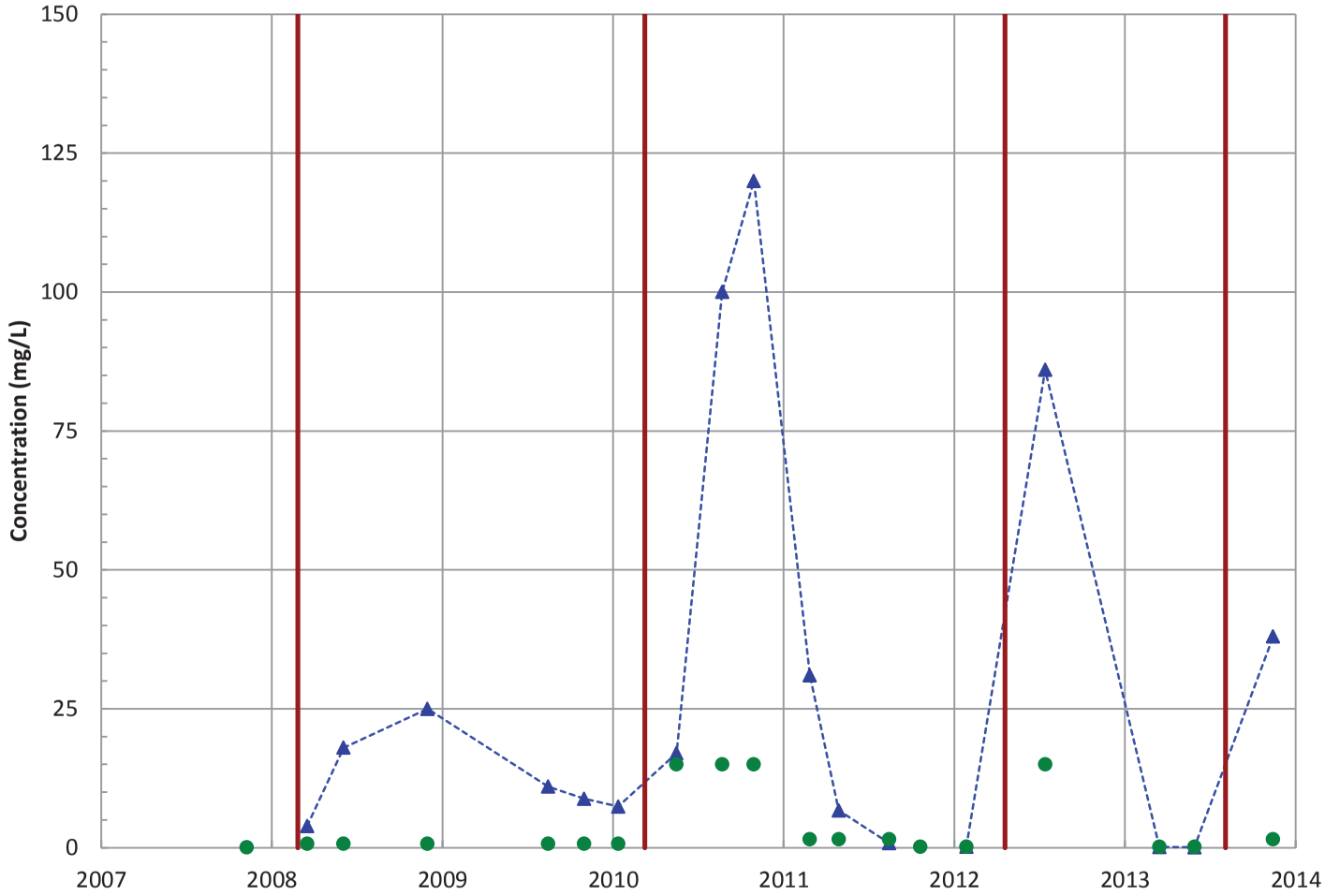
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

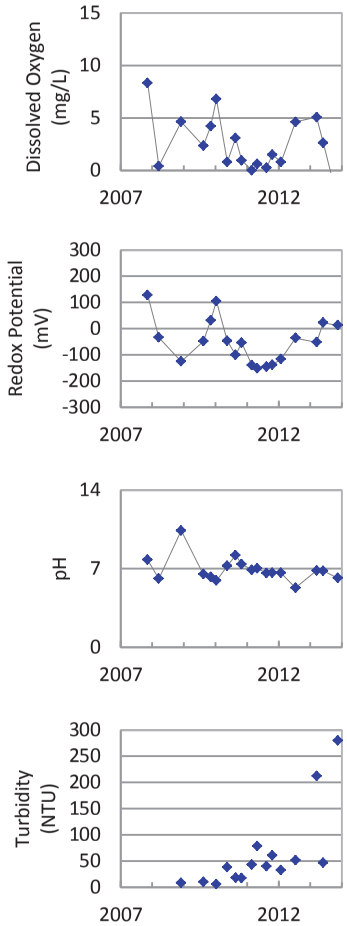


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/9/2007 to 11/19/2013
Analysis Date: 3/21/2014

PTX06-ISB014
Pyruvic Acid Trend in Perched Aquifer



Field Parameters



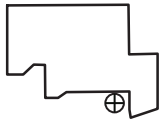
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Probably Decreasing
Last 4 Samples: No Trend

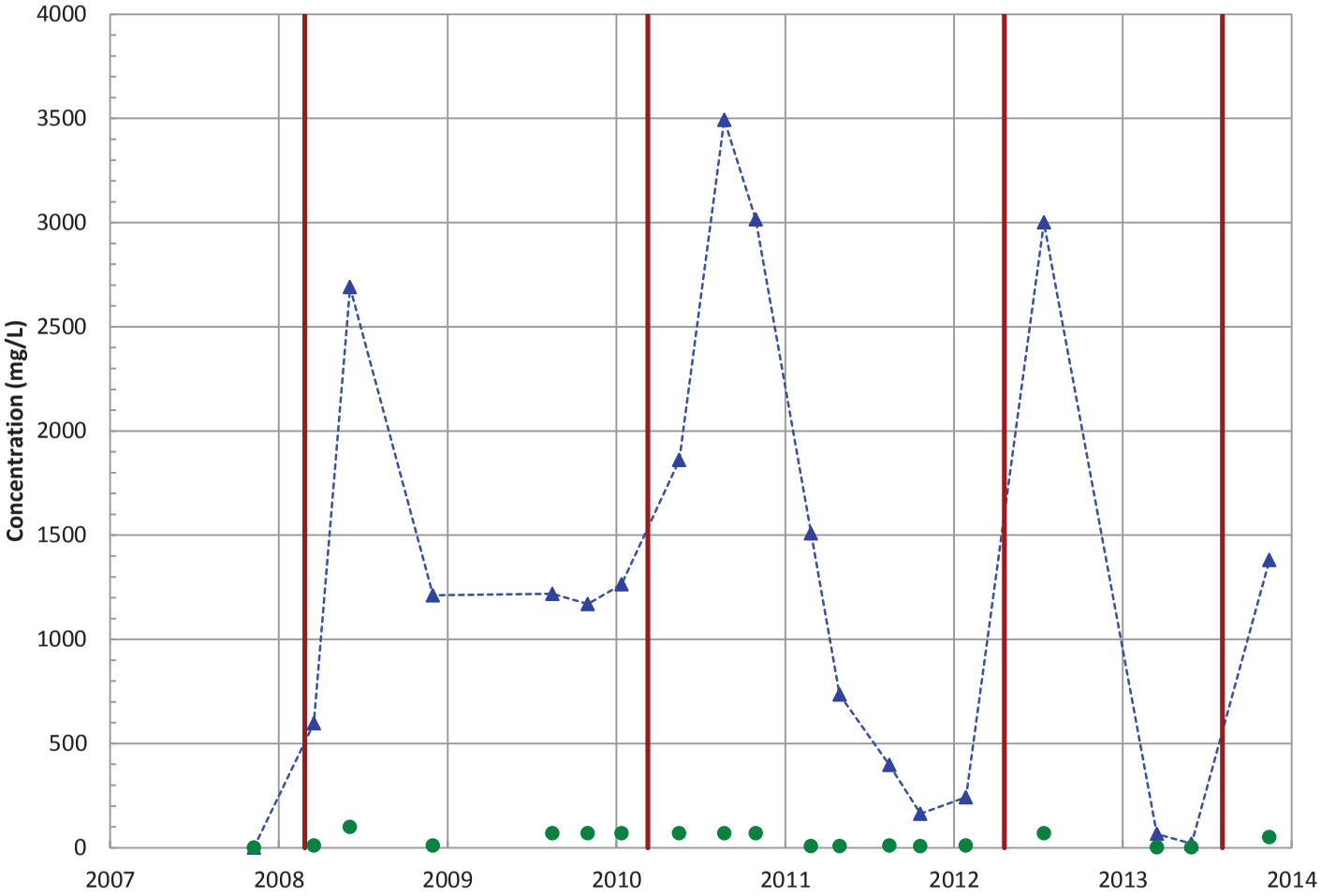
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Injection Dates

Well Location

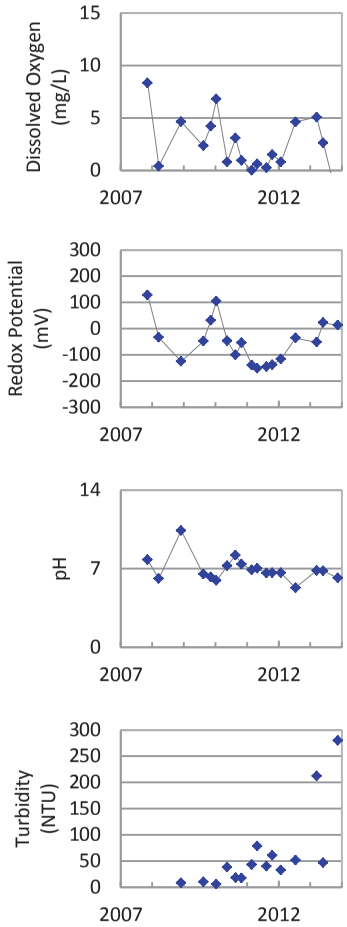


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/9/2007 to 11/19/2013
Analysis Date: 3/21/2014

PTX06-ISB014
Total Volatile Fatty Acids Trend in Perched Aquifer



Field Parameters



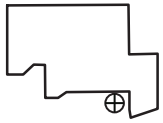
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: No Trend

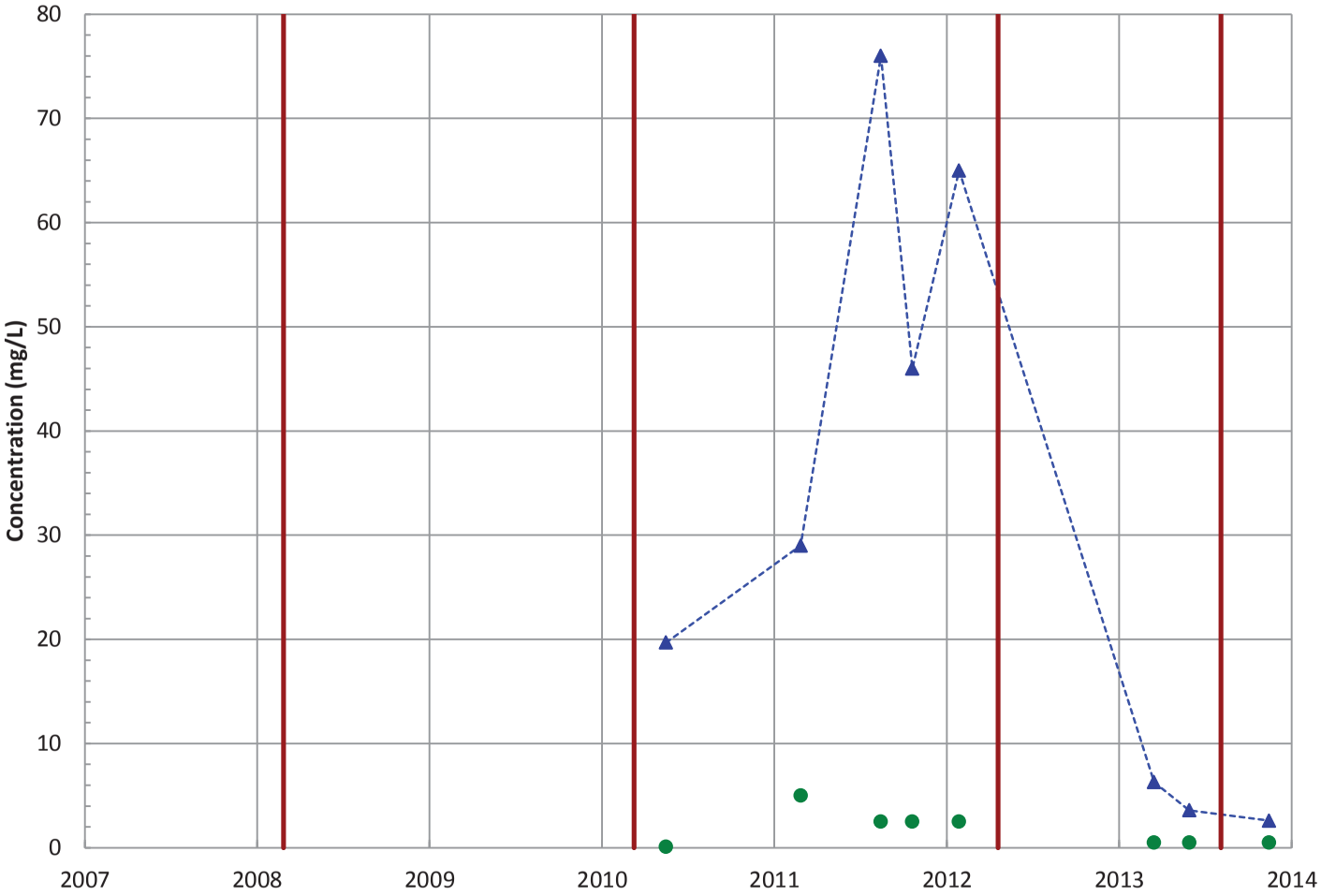
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Injection Dates

Well Location

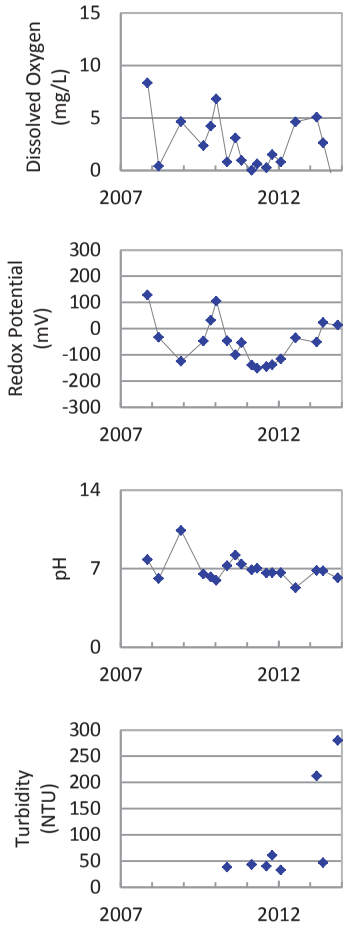


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/9/2007 to 11/19/2013
Analysis Date: 3/21/2014

PTX06-ISB014
Ferrous Iron Trend in Perched Aquifer



Field Parameters



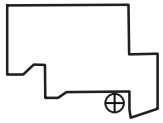
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Decreasing

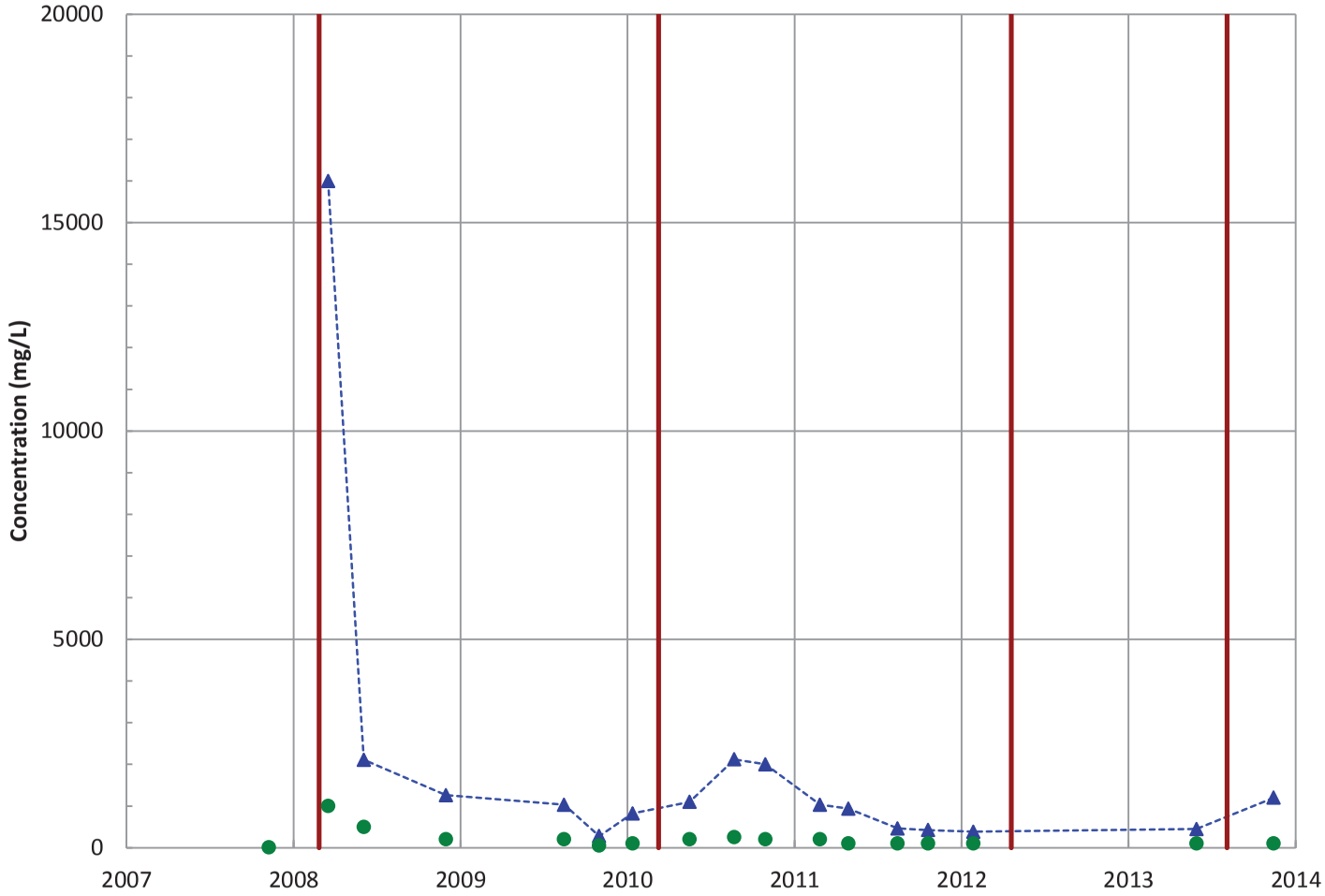
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

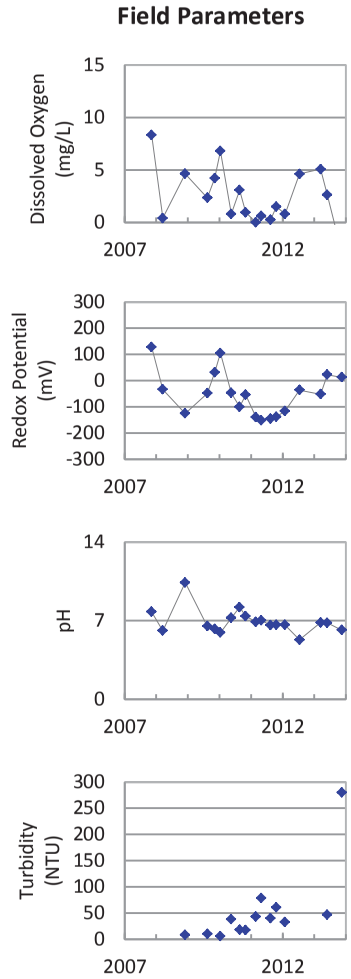
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/19/2010 to 11/19/2013
Analysis Date: 3/21/2014

PTX06-ISB014
Total Organic Carbon Trend in Perched Aquifer





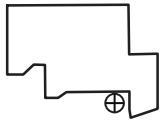
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Increasing

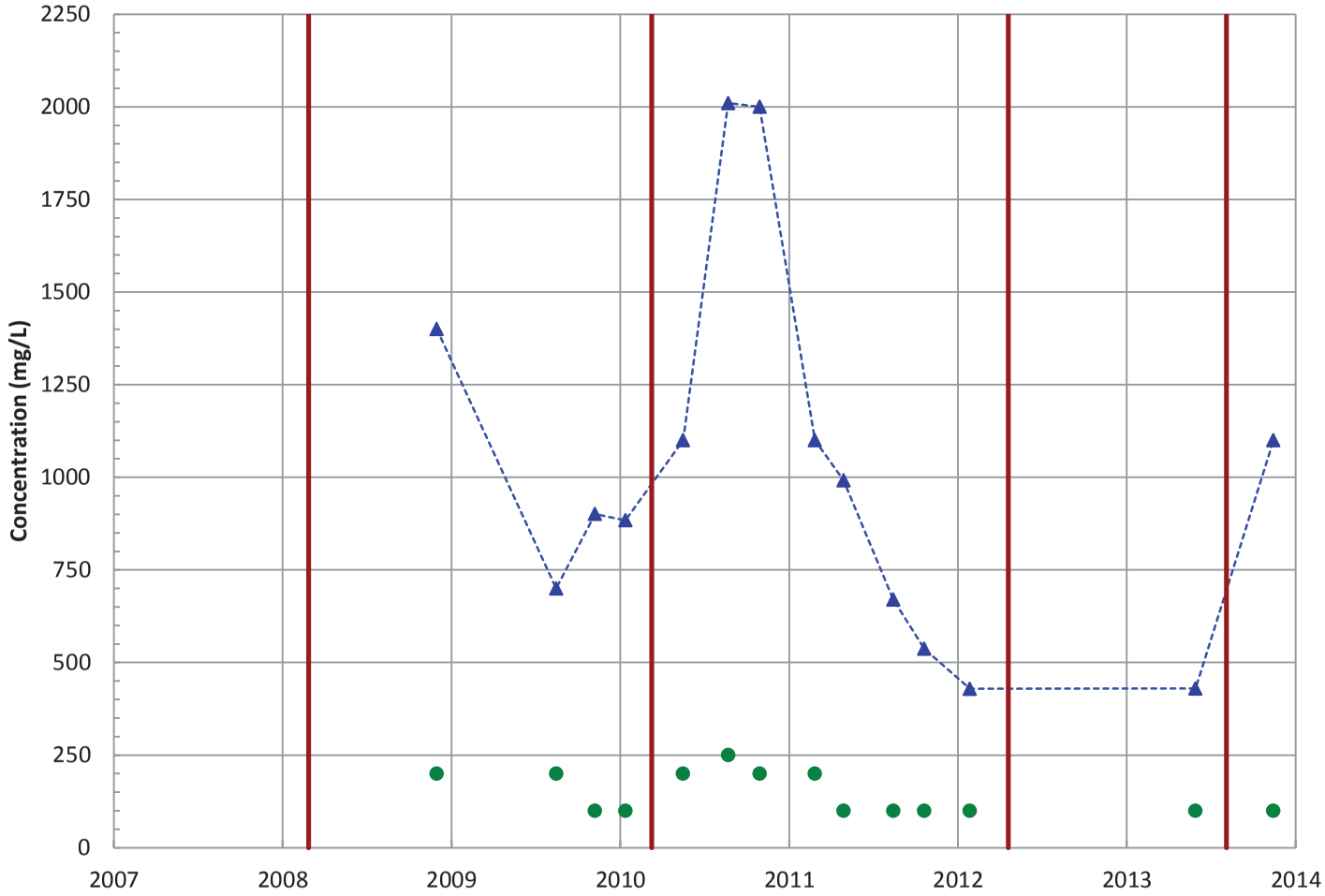
▲ Measured Value
● Sample Detection Limit
------ Concentration Trend
═══ Injection Dates

Well Location

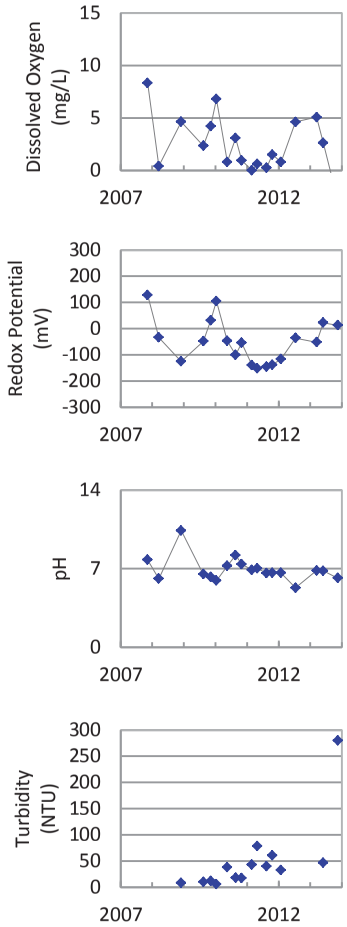


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/9/2007 to 11/19/2013
Analysis Date: 3/21/2014

PTX06-ISB014
Dissolved Organic Carbon (DOC) Trend in Perched Aquifer



Field Parameters



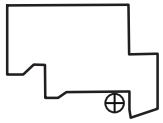
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Probably Decreasing
Last 4 Samples: No Trend

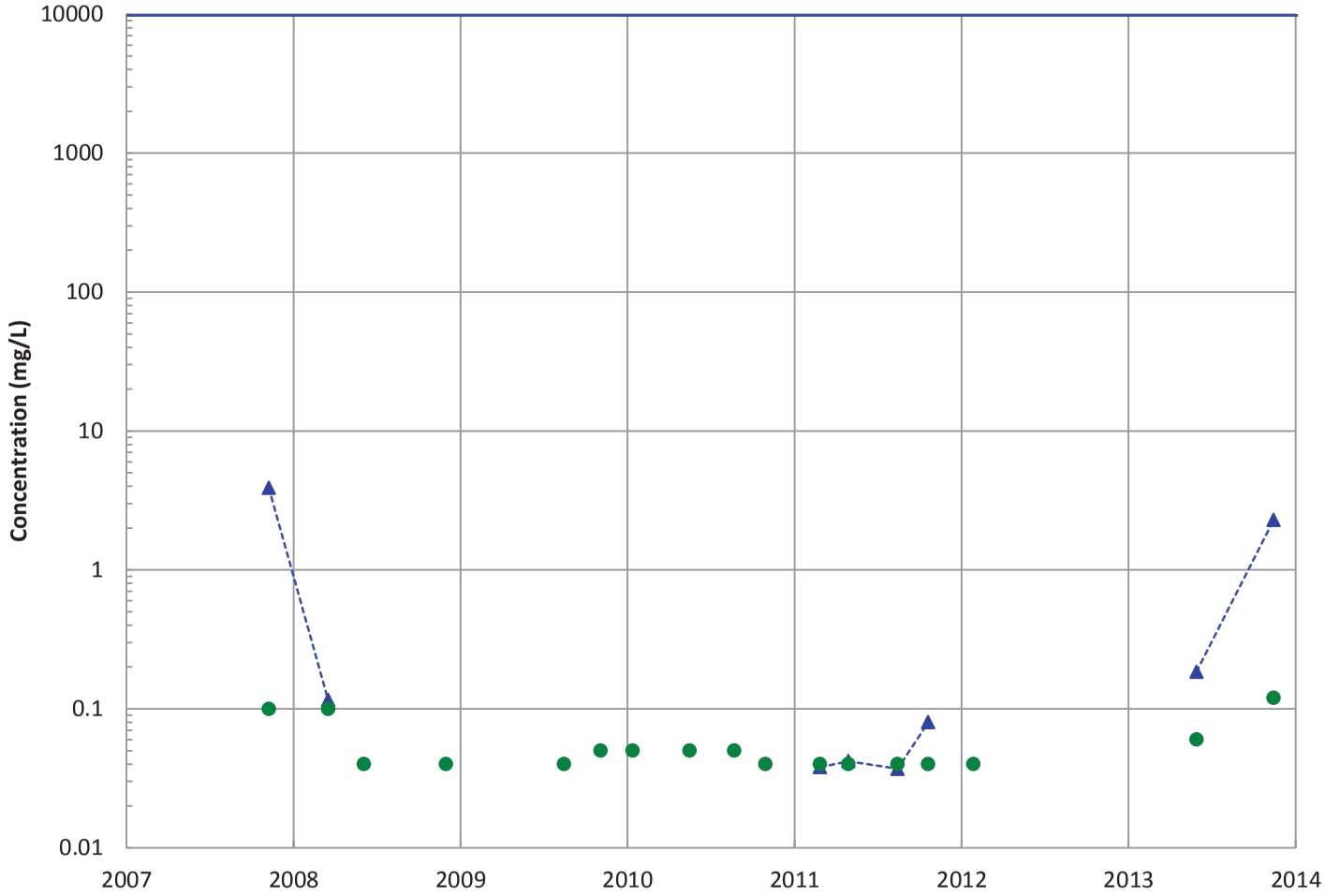
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

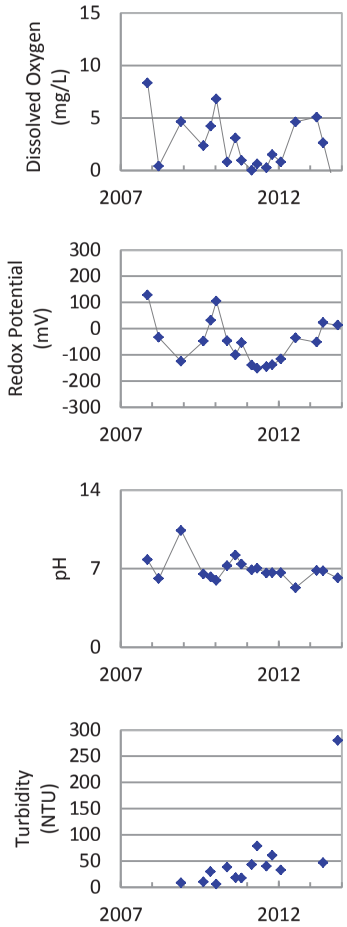


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/1/2008 to 11/19/2013
Analysis Date: 3/21/2014

PTX06-ISB014
Nitrate as N Trend in Perched Aquifer



Field Parameters



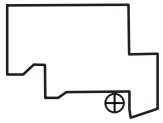
Concentration Trend

MAROS Mann-Kendall Method
All Data: Probably Increasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Probably Increasing

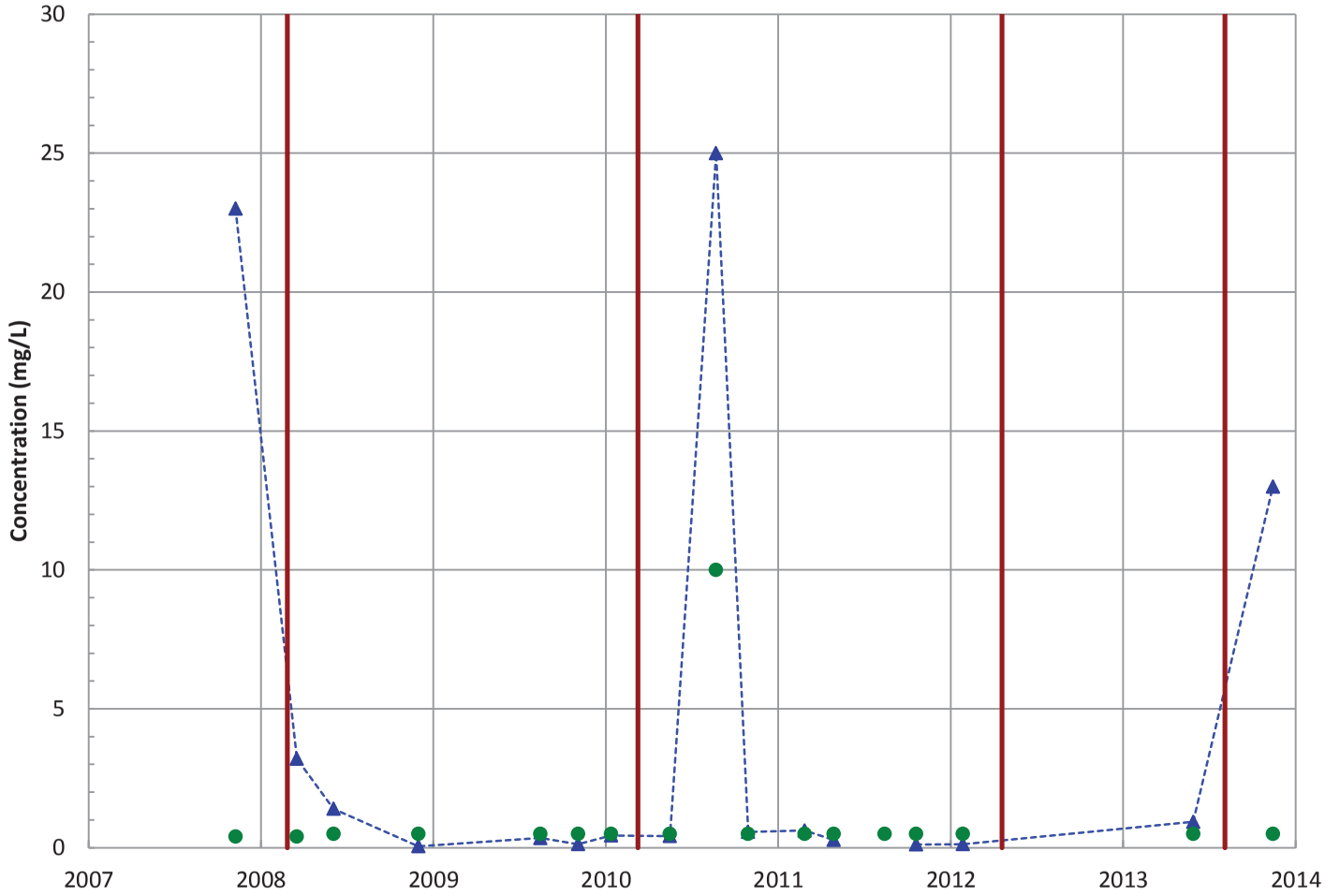
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

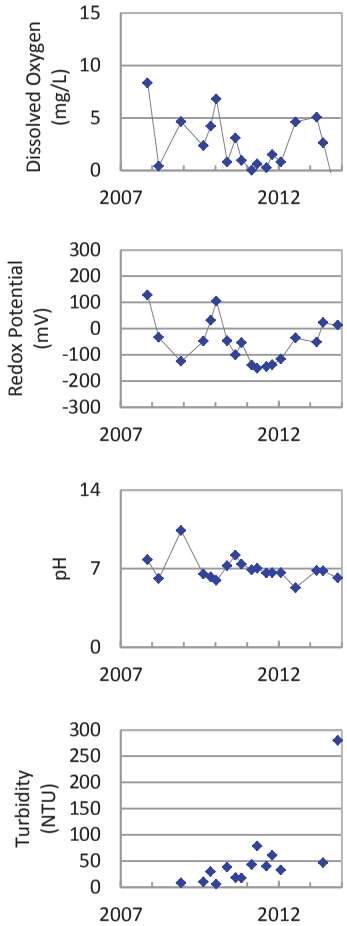


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/9/2007 to 11/19/2013
Analysis Date: 3/21/2014

PTX06-ISB014
Sulfate (as SO4) Trend in Perched Aquifer



Field Parameters



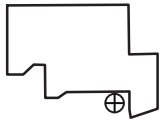
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Increasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Increasing

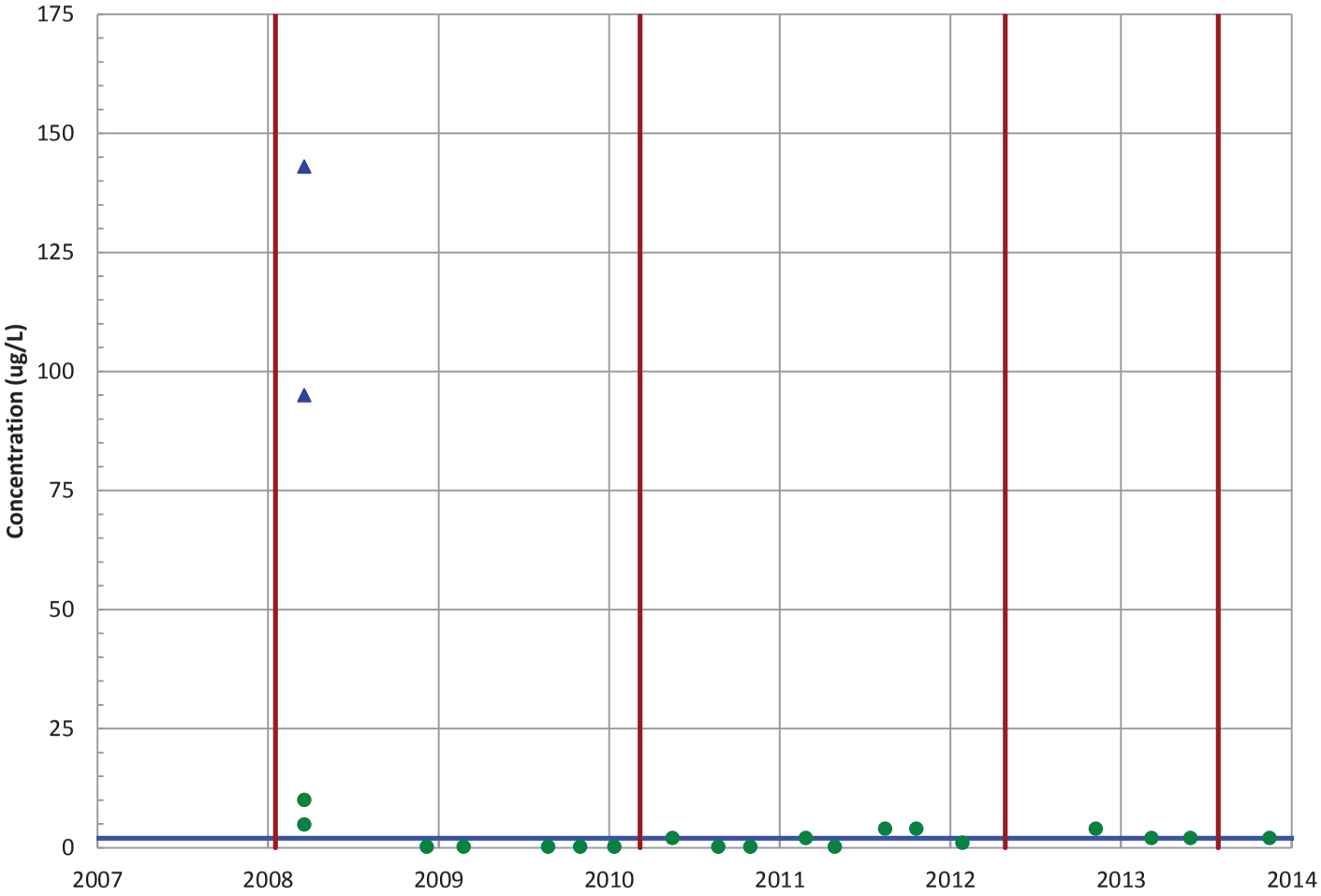
▲ Measured Value
● Sample Detection Limit
---- Concentration Trend
— Injection Dates

Well Location

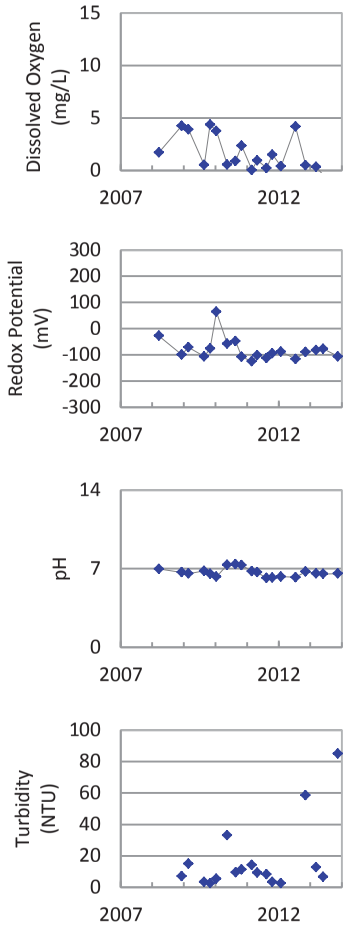


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/9/2007 to 11/19/2013
Analysis Date: 3/21/2014

PTX06-ISB019
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



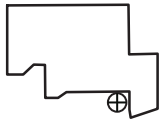
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

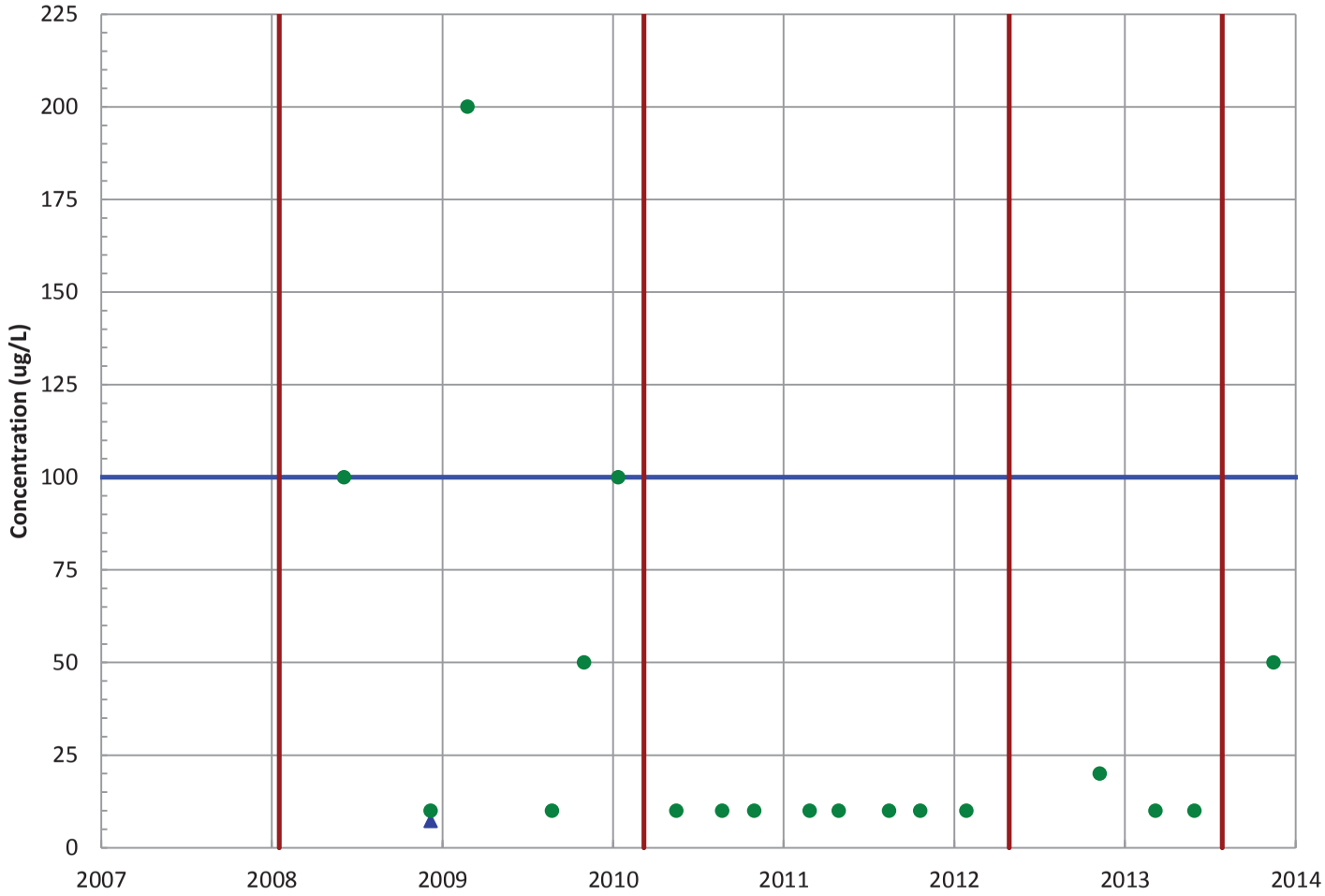
- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

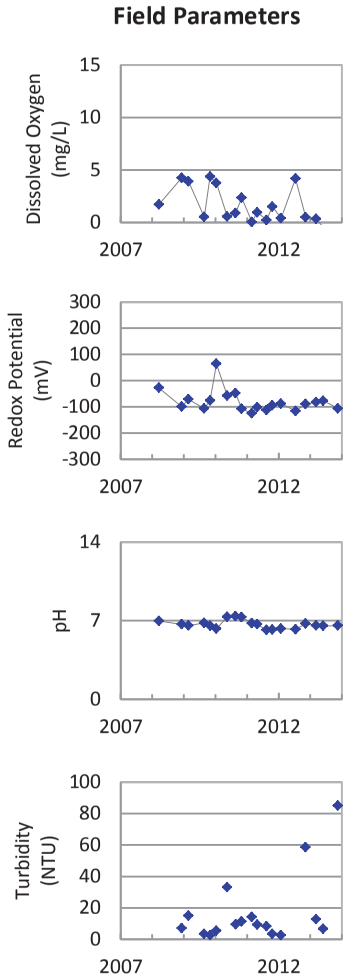
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/20/2008 to 11/20/2013
Analysis Date: 3/21/2014

PTX06-ISB019
Chromium, Total Trend in Perched Aquifer





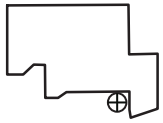
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

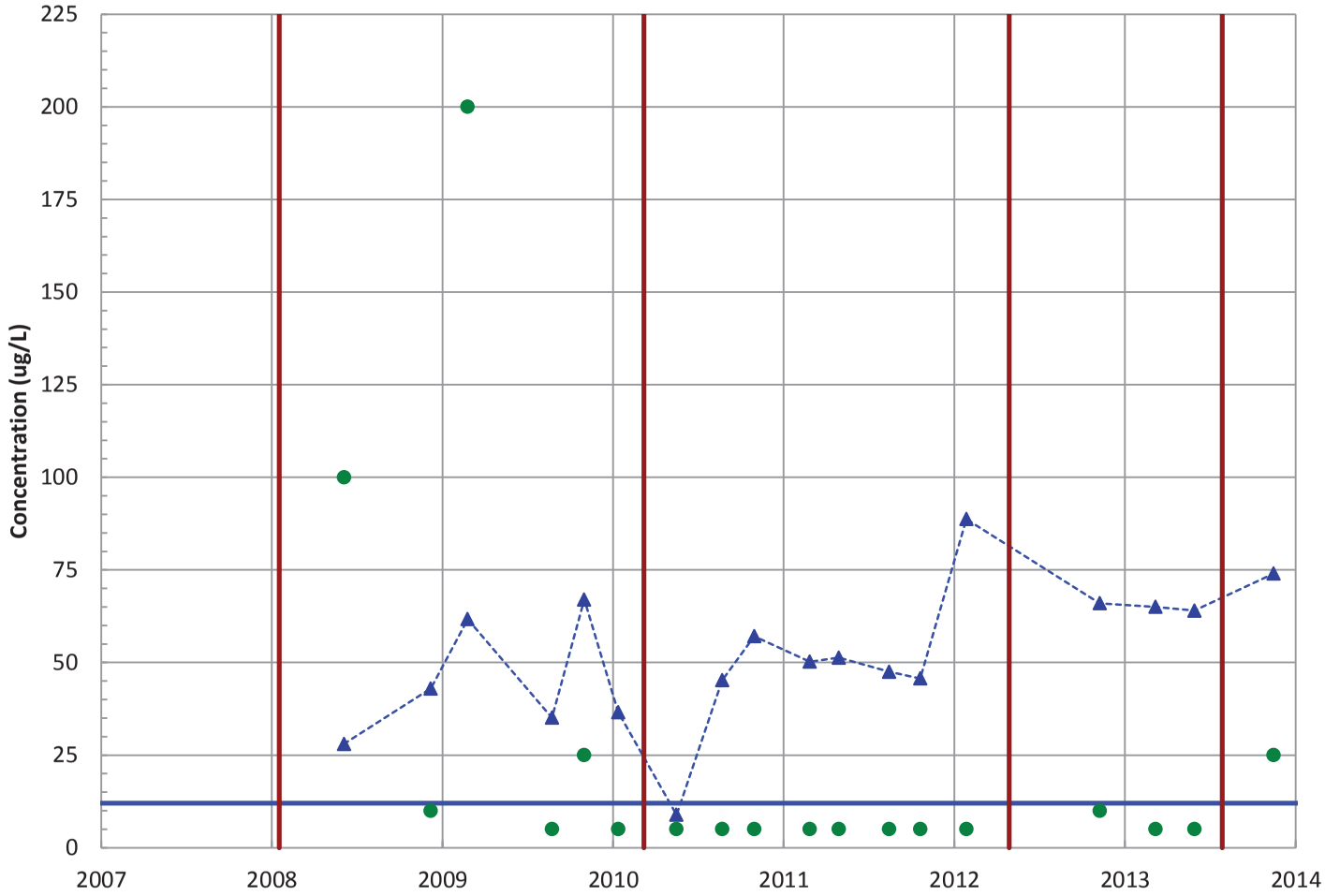
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

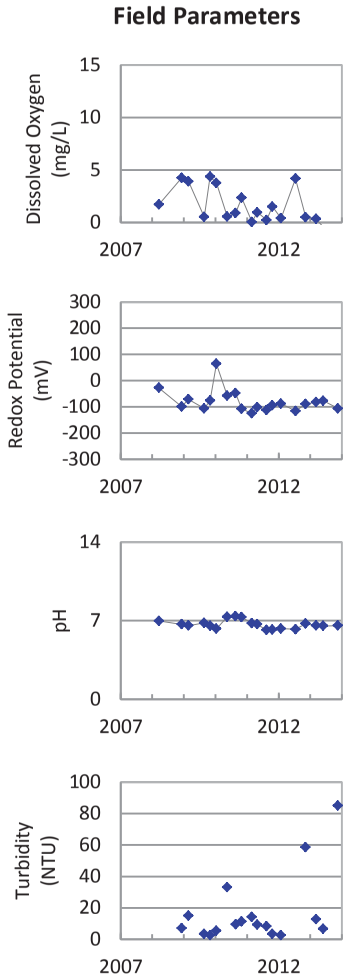
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/5/2008 to 11/20/2013
Analysis Date: 3/21/2014

PTX06-ISB019
Arsenic Trend in Perched Aquifer





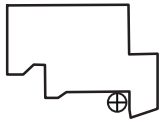
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Stable

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: No Trend

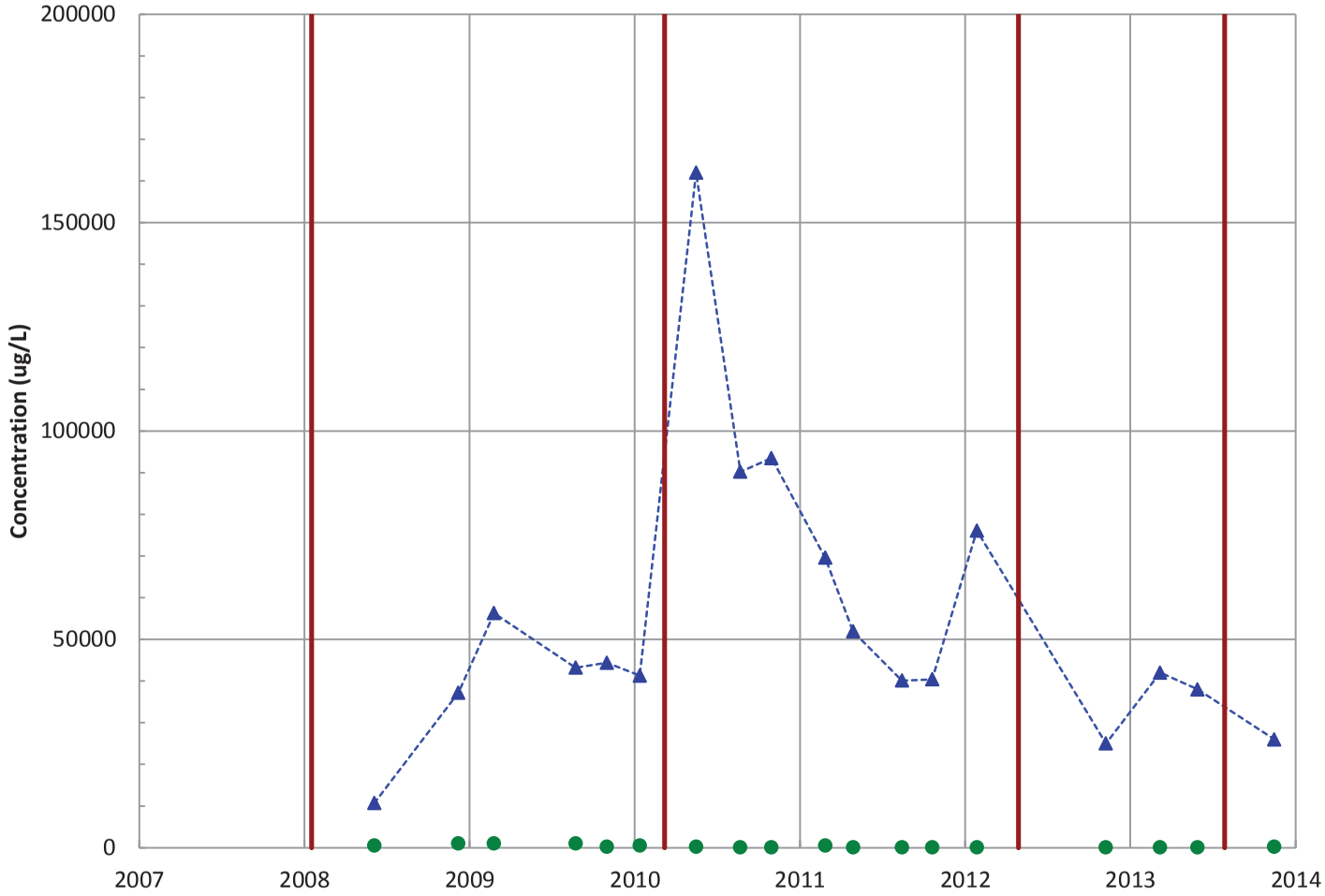
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

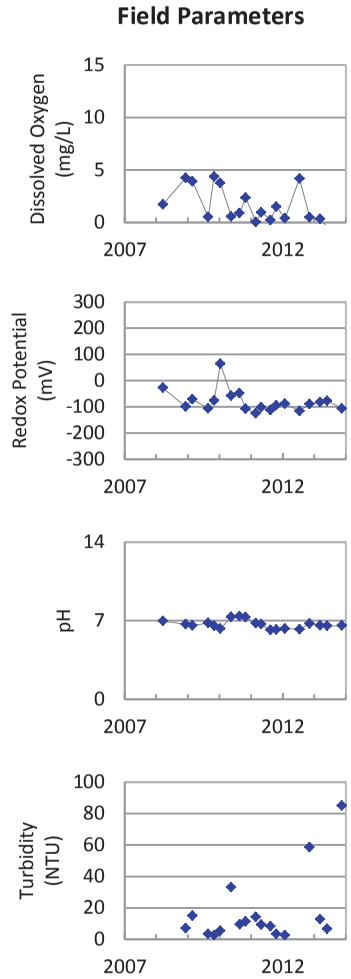
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/5/2008 to 11/20/2013
Analysis Date: 3/21/2014

PTX06-ISB019
Iron Trend in Perched Aquifer





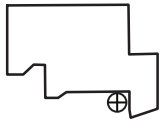
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Stable

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

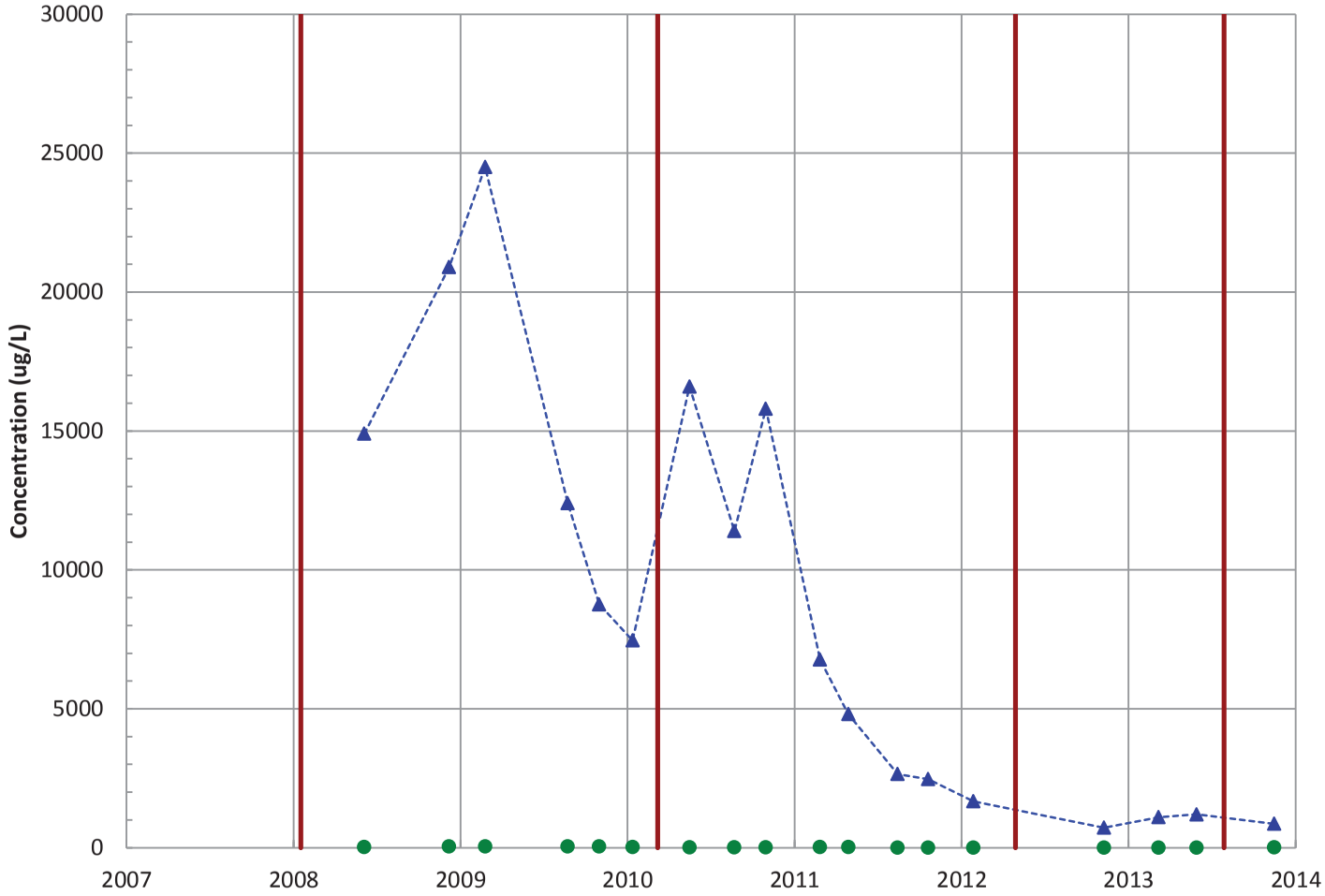
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

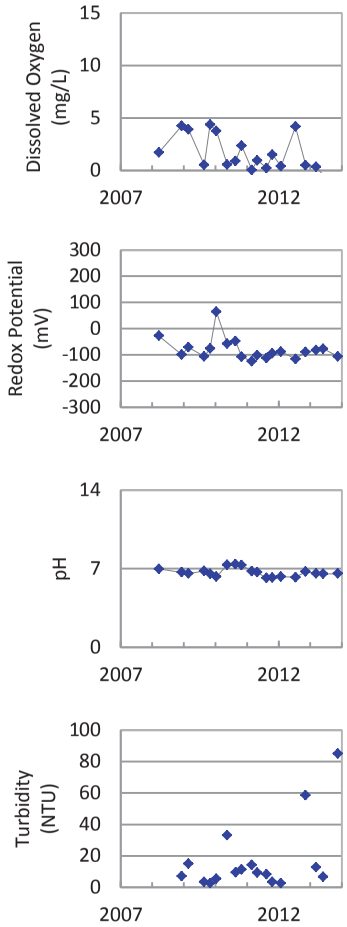


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/5/2008 to 11/20/2013
Analysis Date: 3/21/2014

PTX06-ISB019
Manganese Trend in Perched Aquifer



Field Parameters



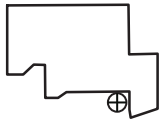
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

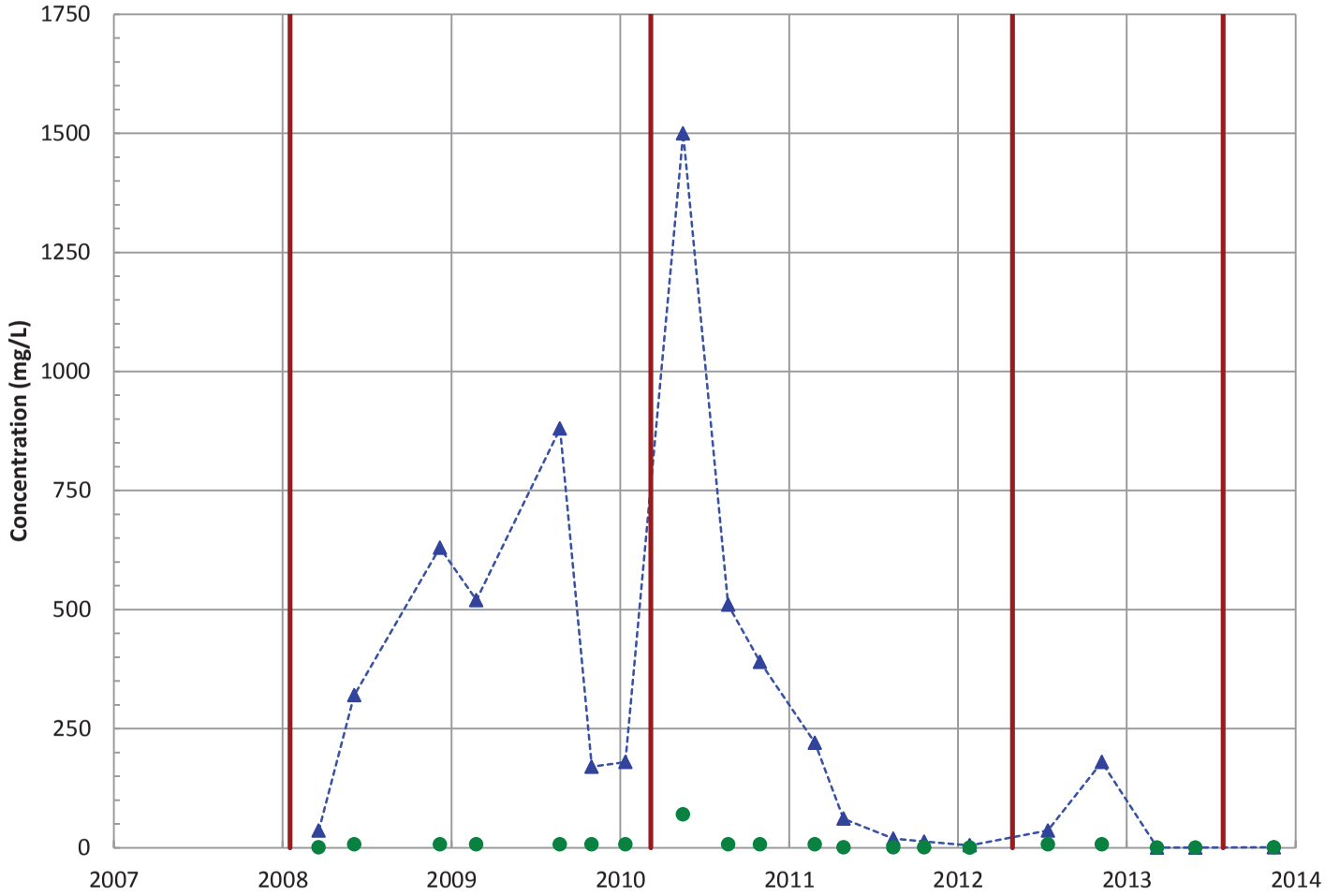
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

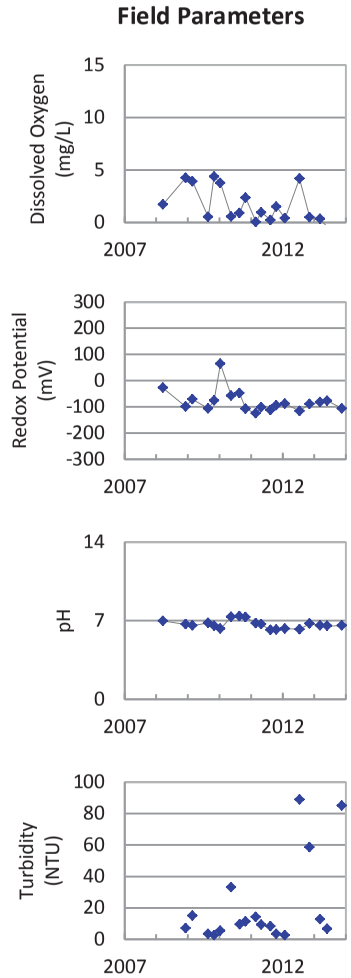
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/5/2008 to 11/20/2013
Analysis Date: 3/21/2014

PTX06-ISB019
Acetic Acid Trend in Perched Aquifer





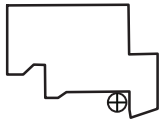
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

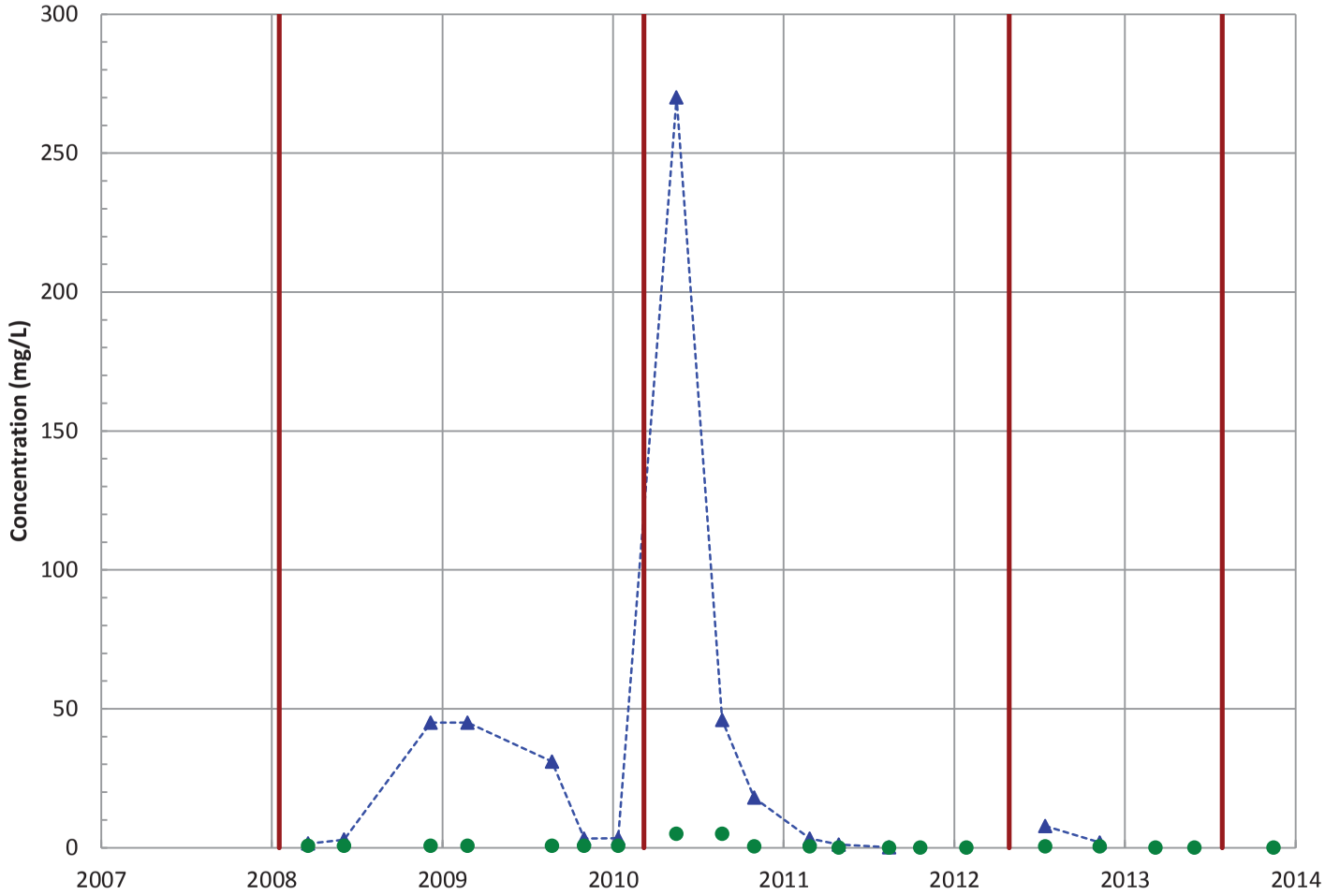
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

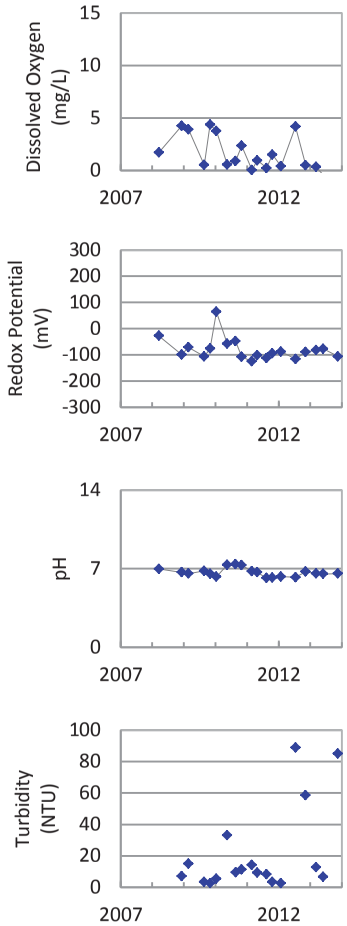


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/20/2008 to 11/20/2013
Analysis Date: 3/21/2014

PTX06-ISB019
Butyric Acid Trend in Perched Aquifer



Field Parameters



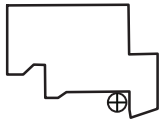
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

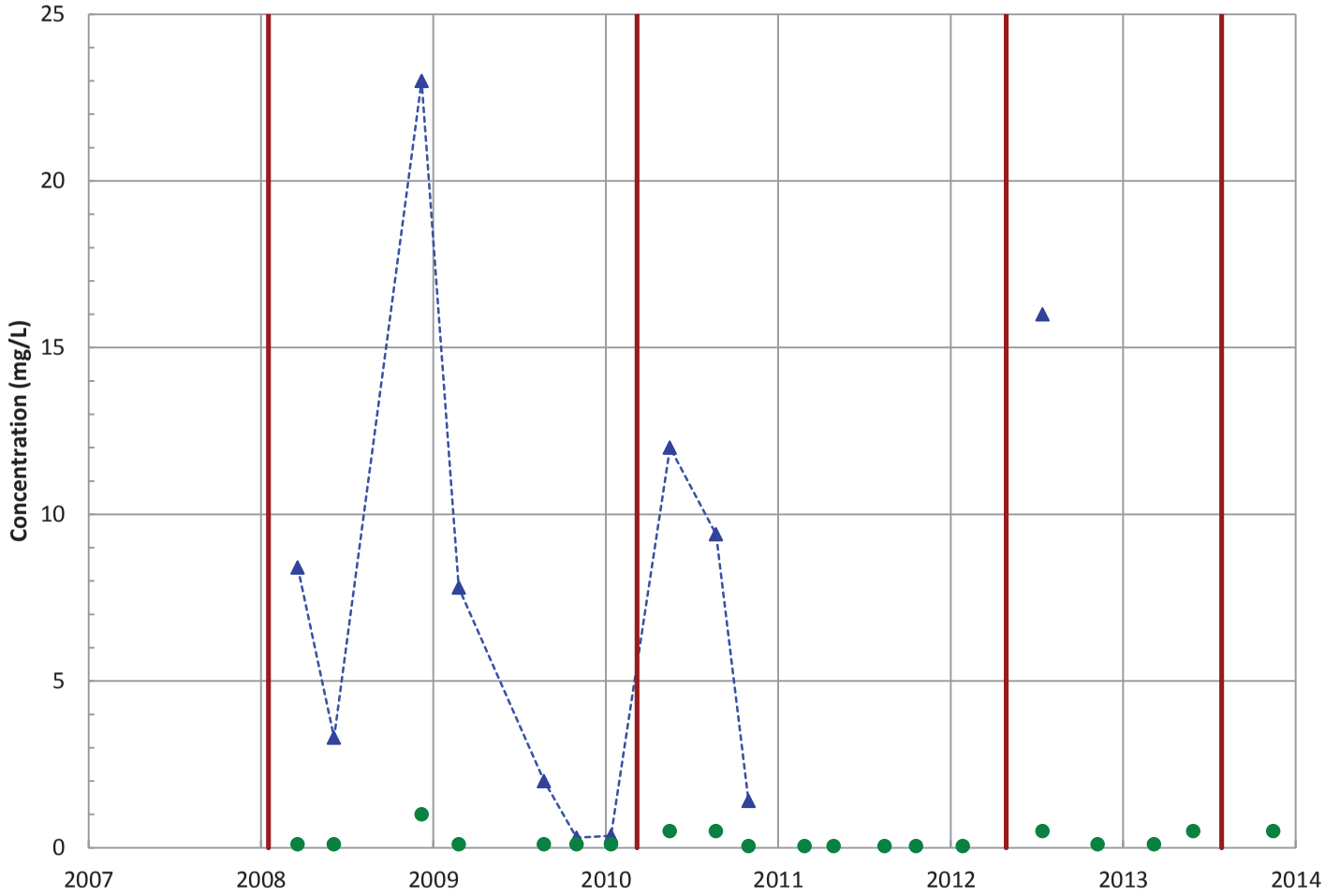
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

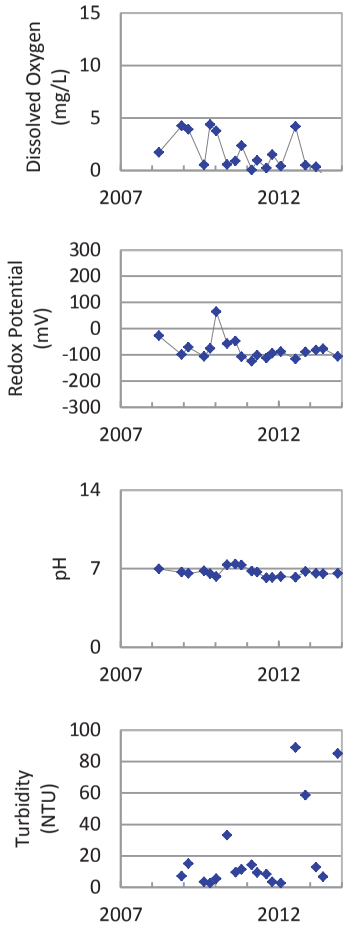


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/20/2008 to 11/20/2013
Analysis Date: 3/21/2014

PTX06-ISB019
Hexanoic Acid Trend in Perched Aquifer



Field Parameters



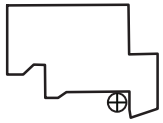
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Stable

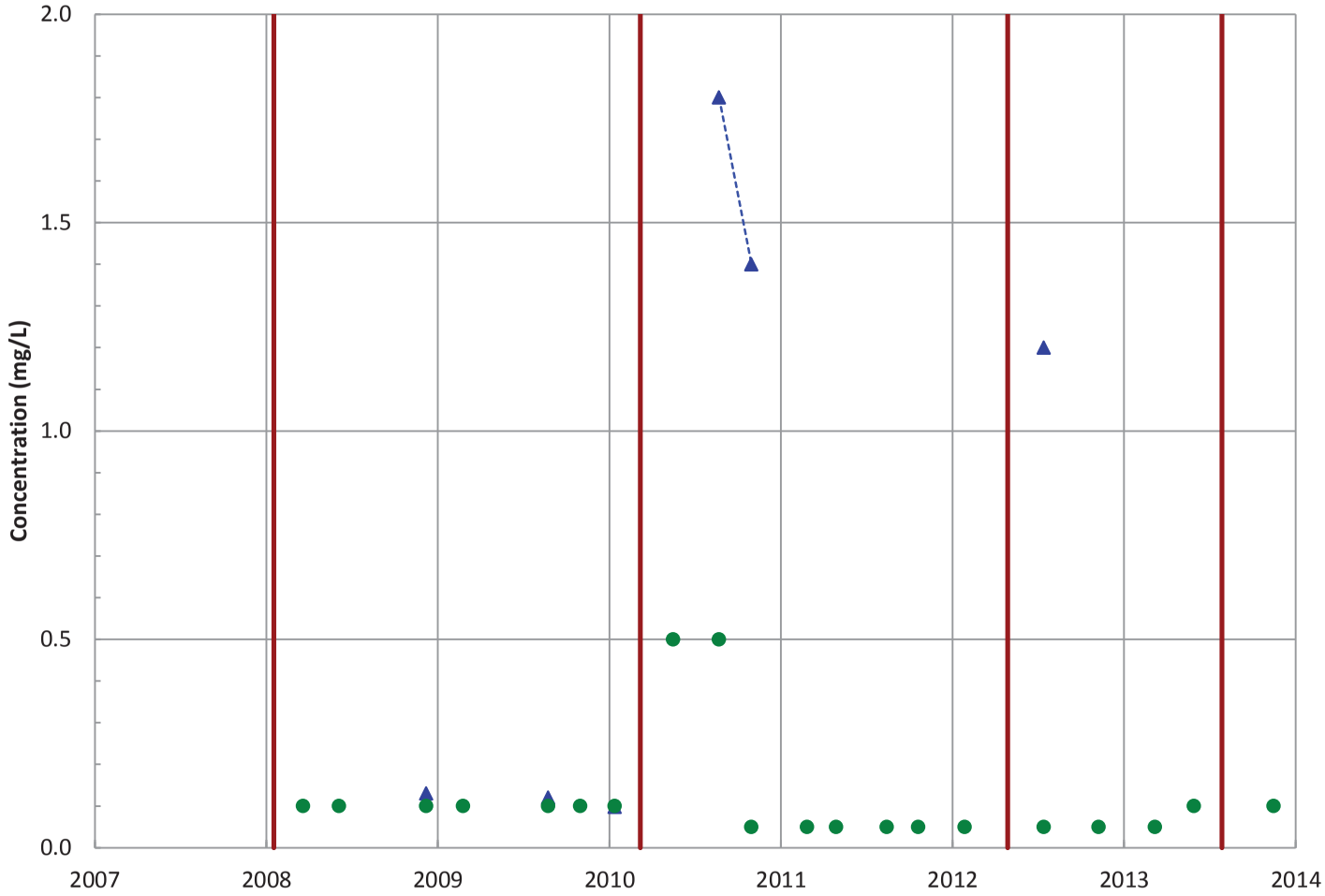
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

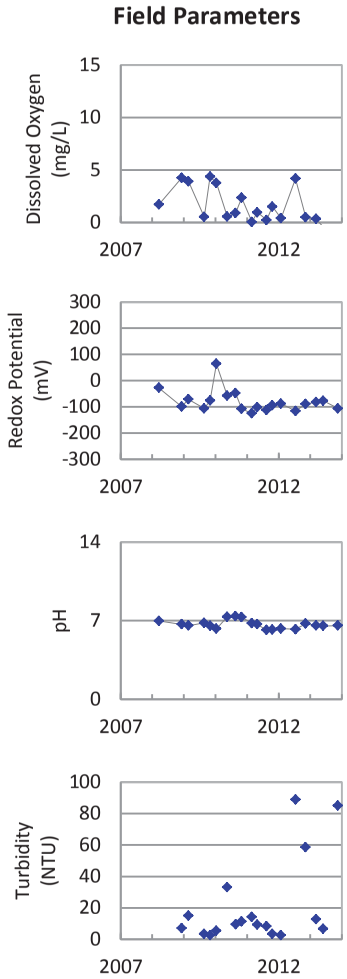
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/20/2008 to 11/20/2013
Analysis Date: 3/21/2014

PTX06-ISB019
i-Hexanoic Acid Trend in Perched Aquifer





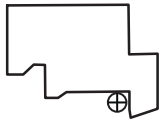
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: No Trend

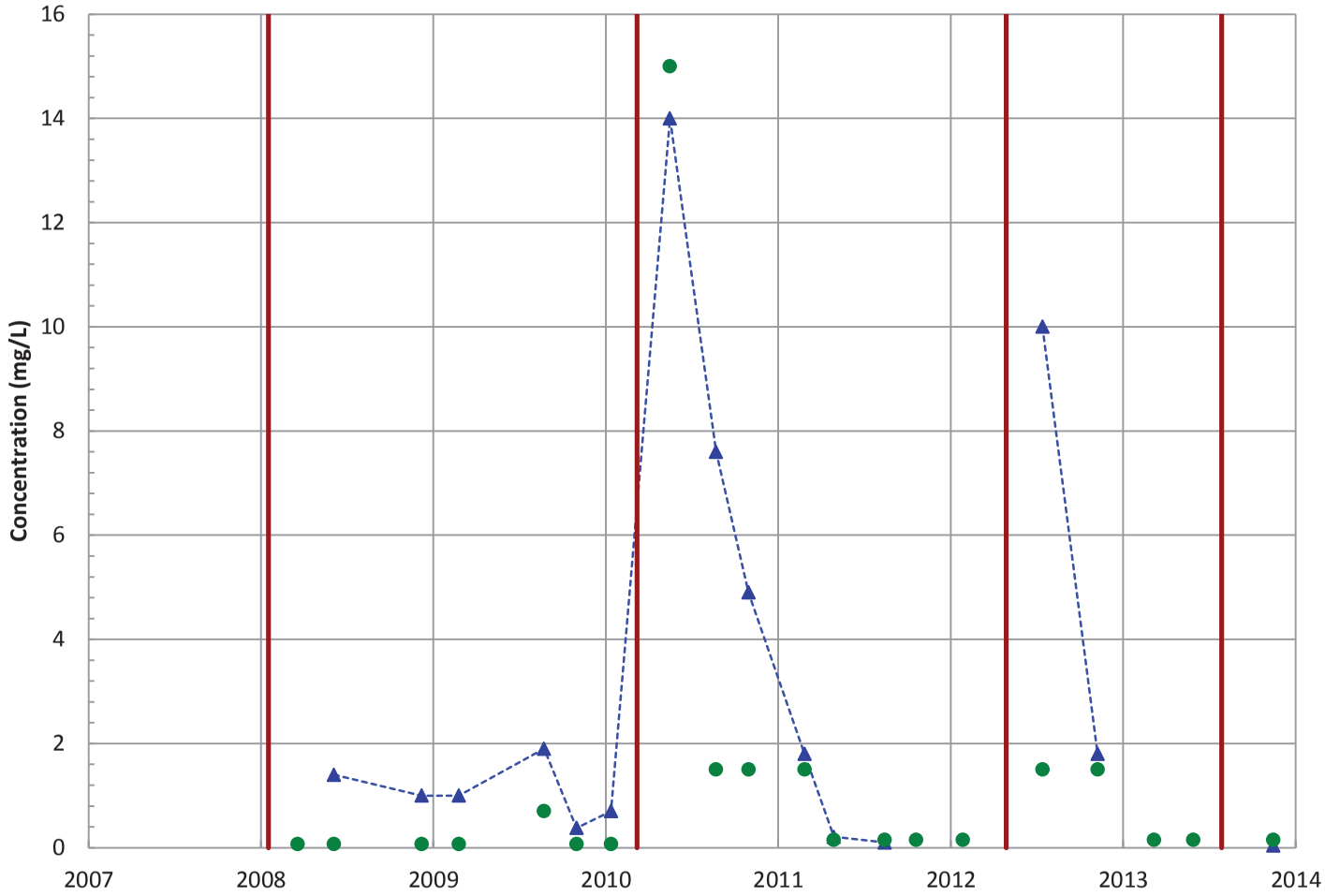
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

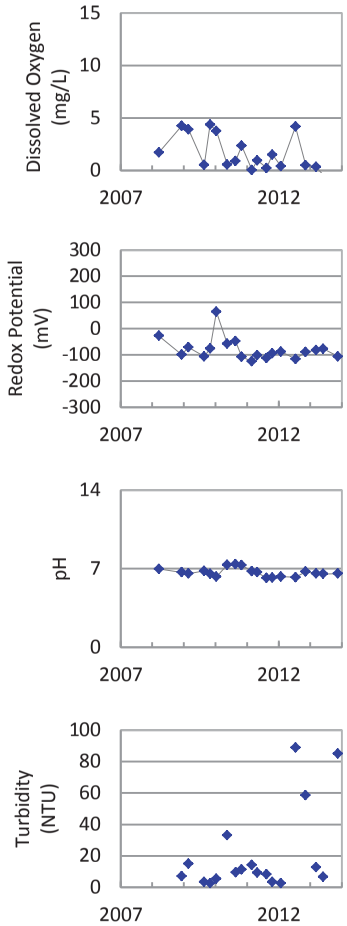


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/20/2008 to 11/20/2013
Analysis Date: 3/21/2014

PTX06-ISB019
i-Pentanoic Acid Trend in Perched Aquifer



Field Parameters



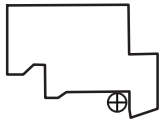
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

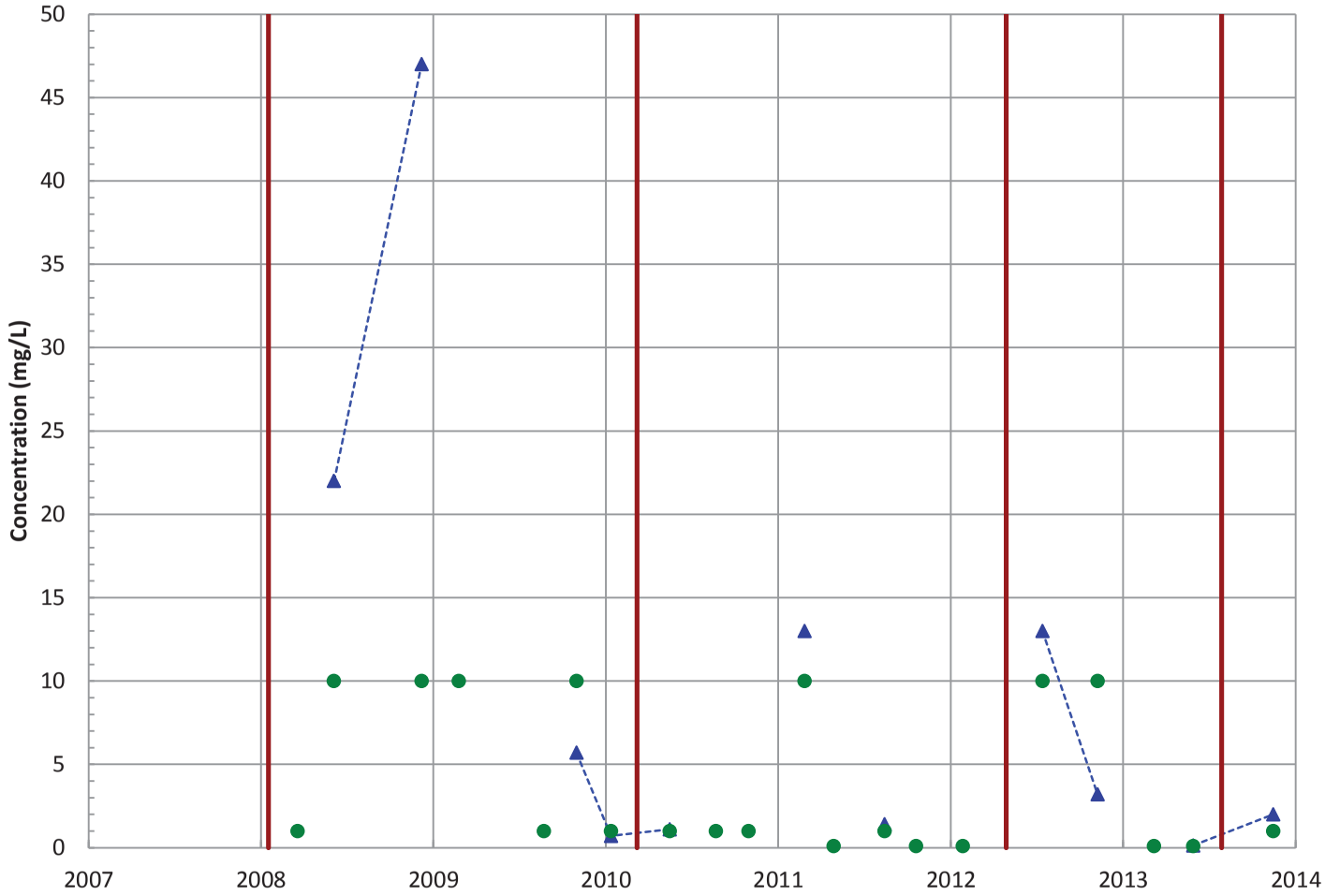
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Injection Dates

Well Location

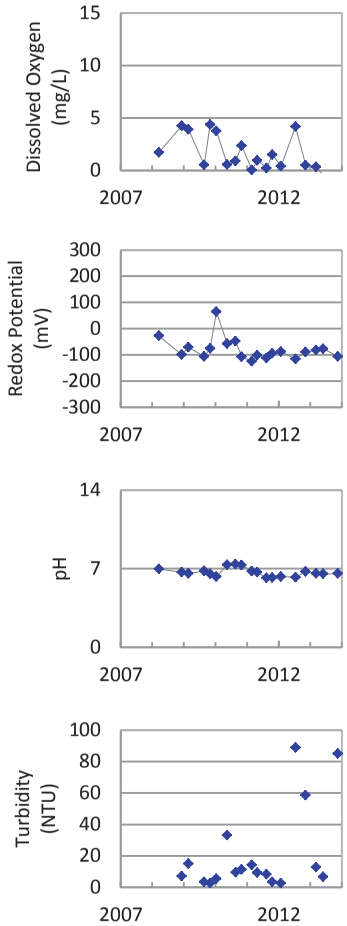


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/20/2008 to 11/20/2013
Analysis Date: 3/21/2014

PTX06-ISB019
Lactic Acid and HIBA Trend in Perched Aquifer



Field Parameters



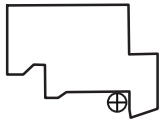
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

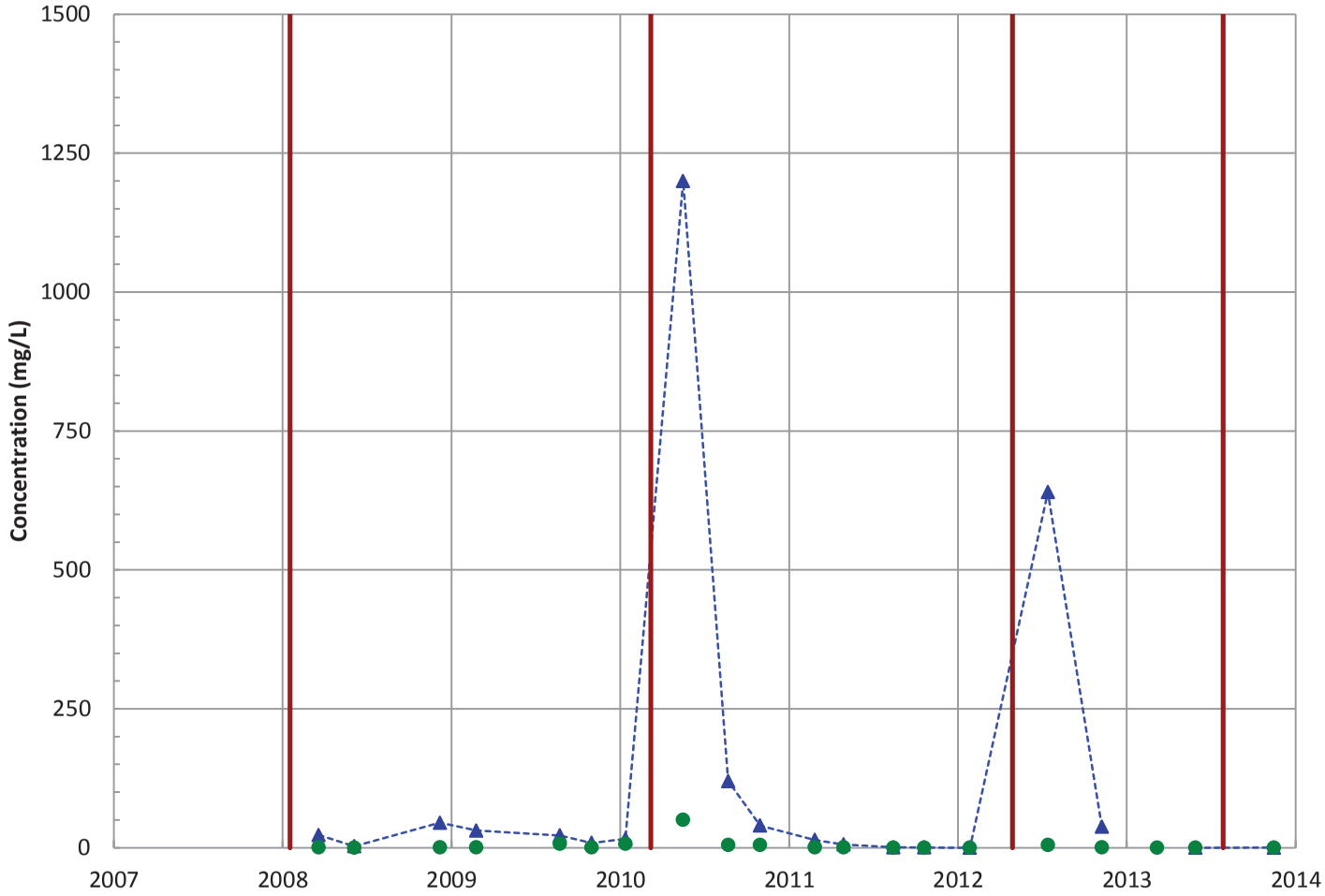
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

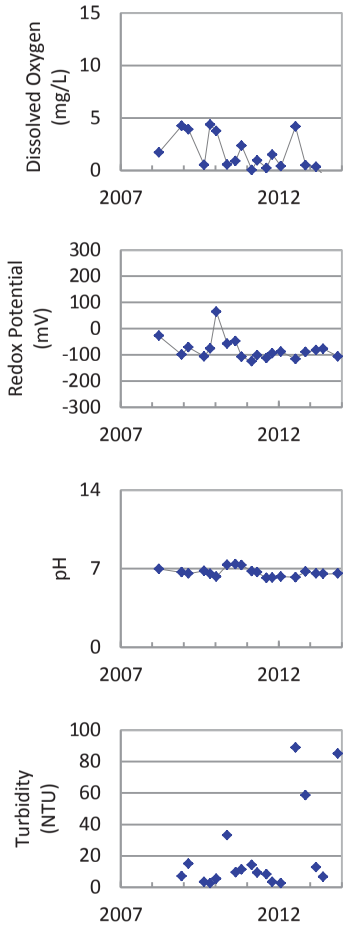


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/20/2008 to 11/20/2013
Analysis Date: 3/21/2014

PTX06-ISB019
Propionic Acid Trend in Perched Aquifer



Field Parameters



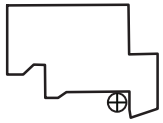
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Decreasing

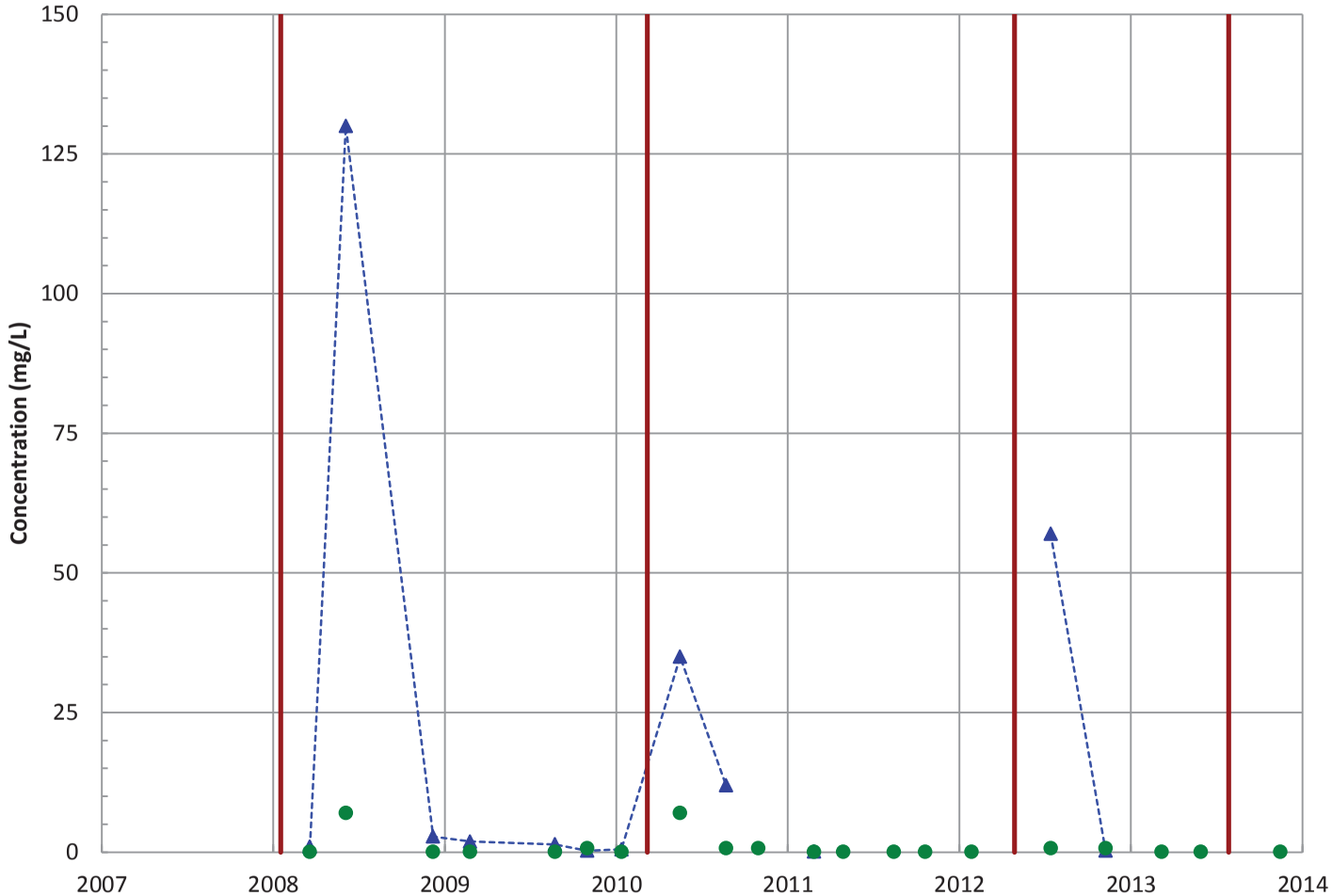
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

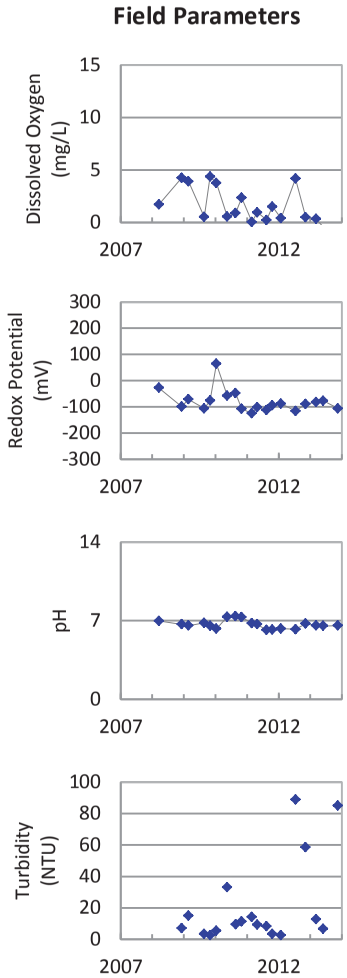
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/20/2008 to 11/20/2013
Analysis Date: 3/21/2014

PTX06-ISB019
Pentanoic Acid Trend in Perched Aquifer





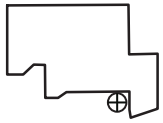
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

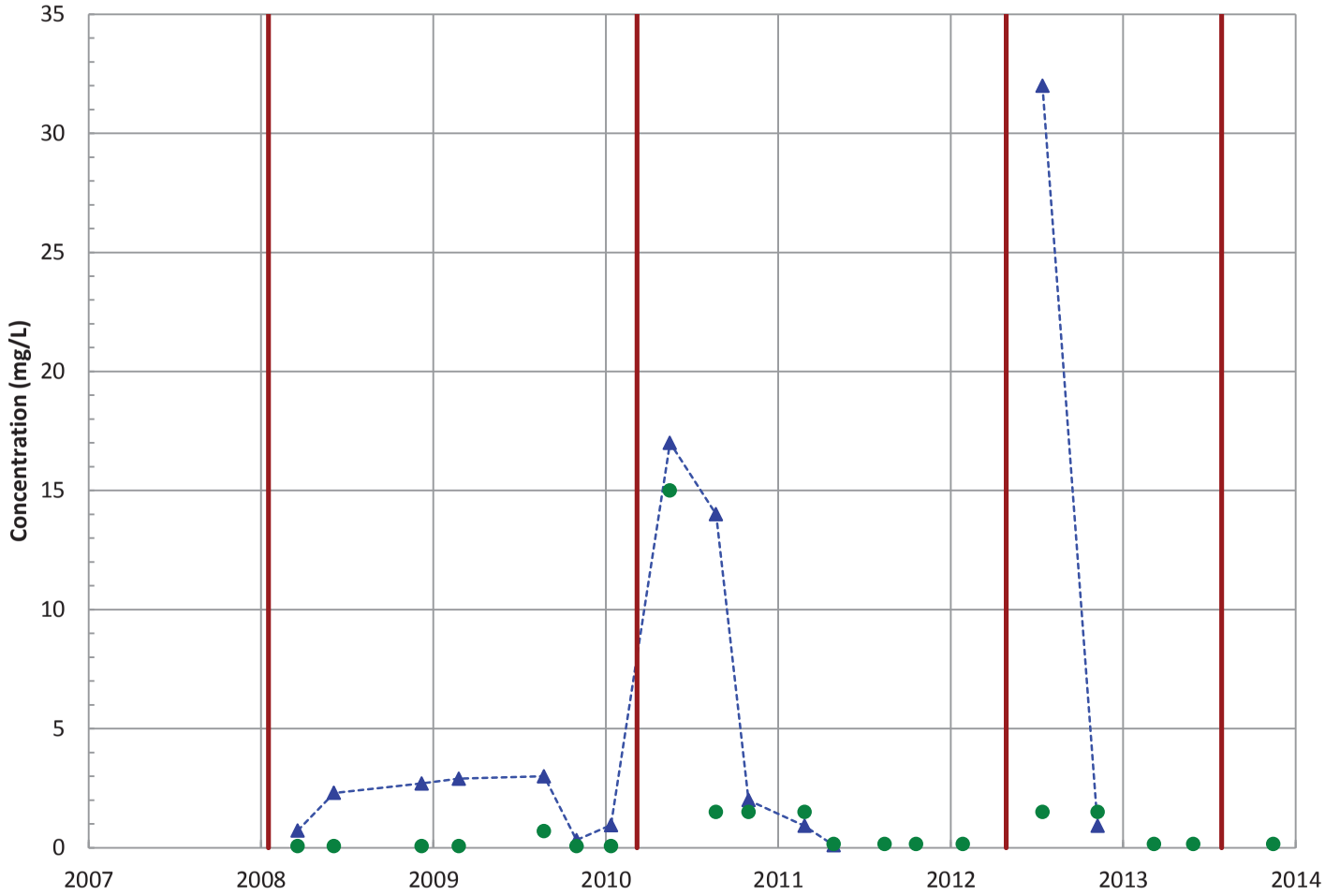
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

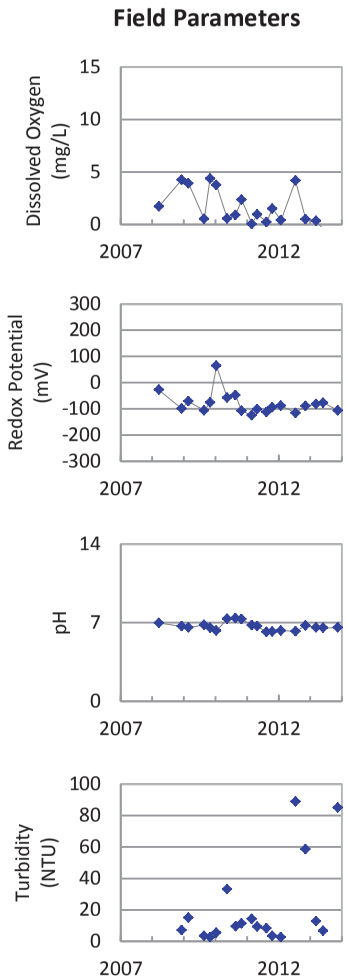
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/20/2008 to 11/20/2013
Analysis Date: 3/21/2014

PTX06-ISB019
Pyruvic Acid Trend in Perched Aquifer





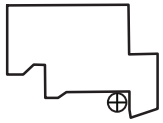
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

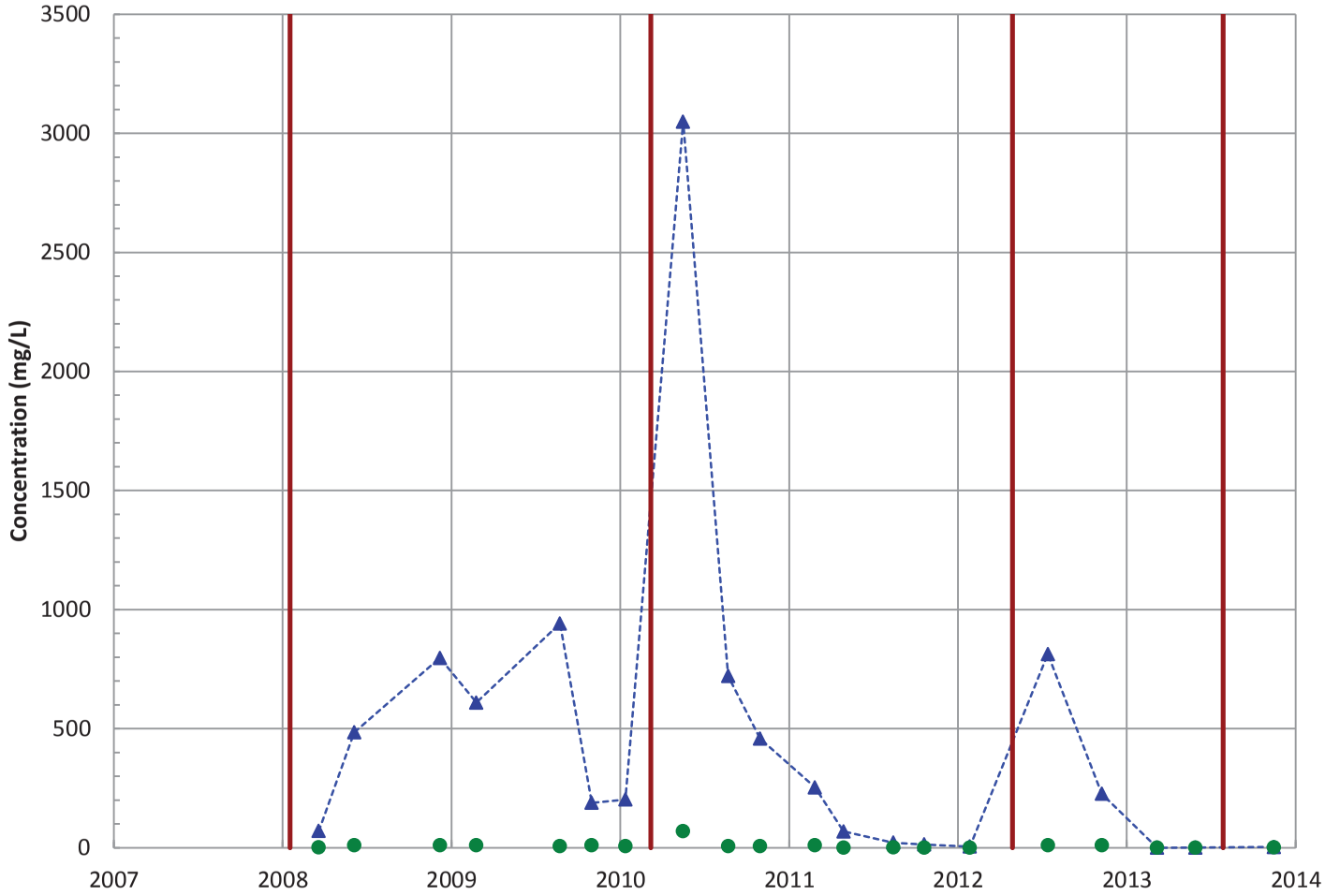
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

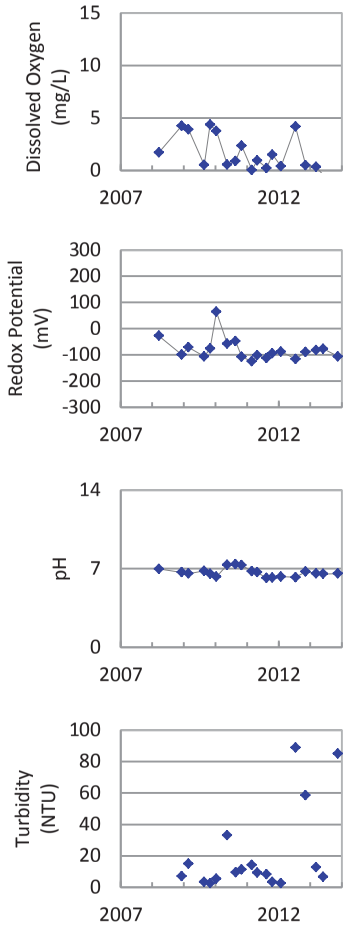


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/20/2008 to 11/20/2013
Analysis Date: 3/21/2014

PTX06-ISB019
Total Volatile Fatty Acids Trend in Perched Aquifer



Field Parameters



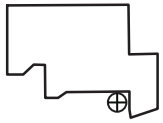
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

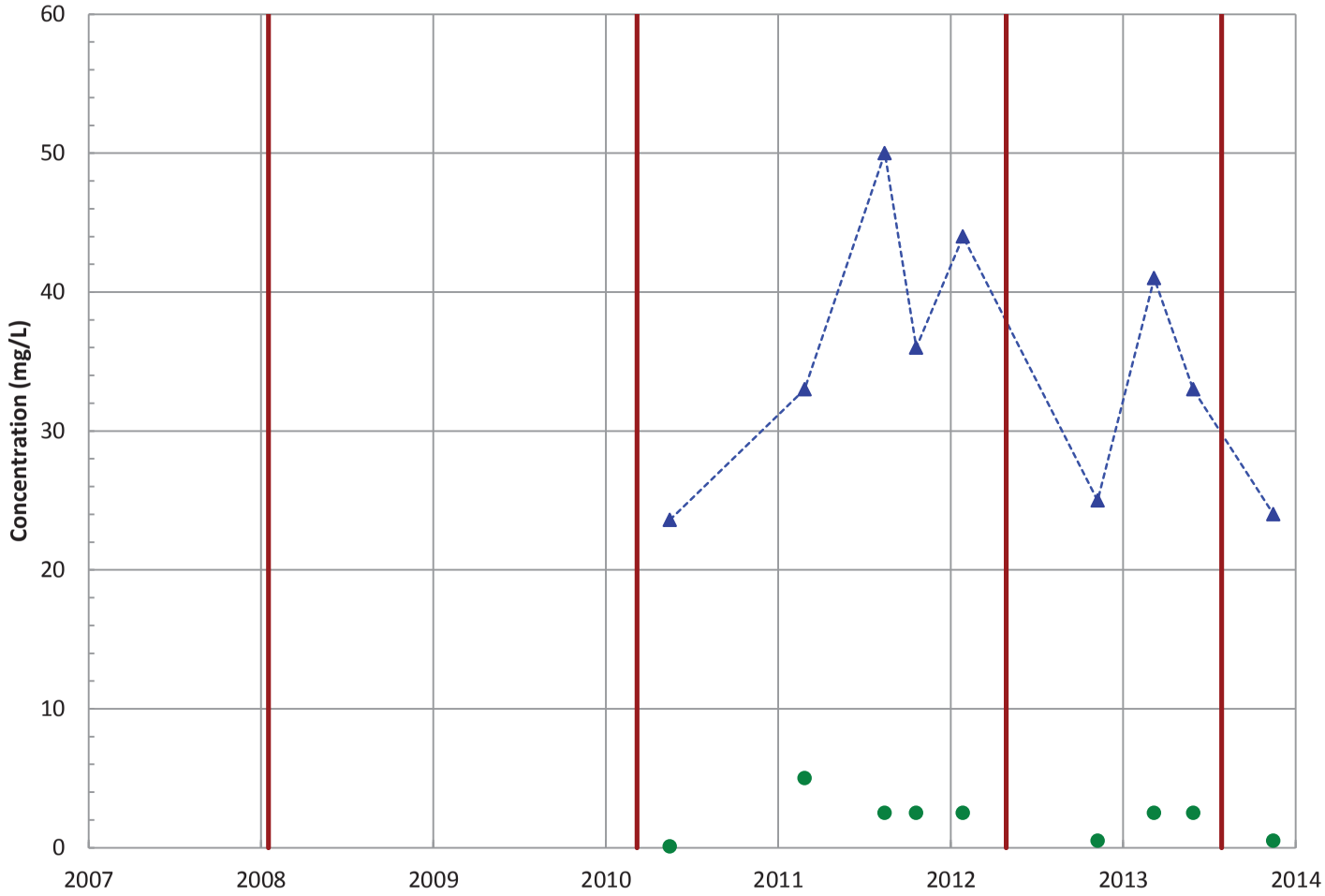
▲ Measured Value
● Sample Detection Limit
---- Concentration Trend
— Injection Dates

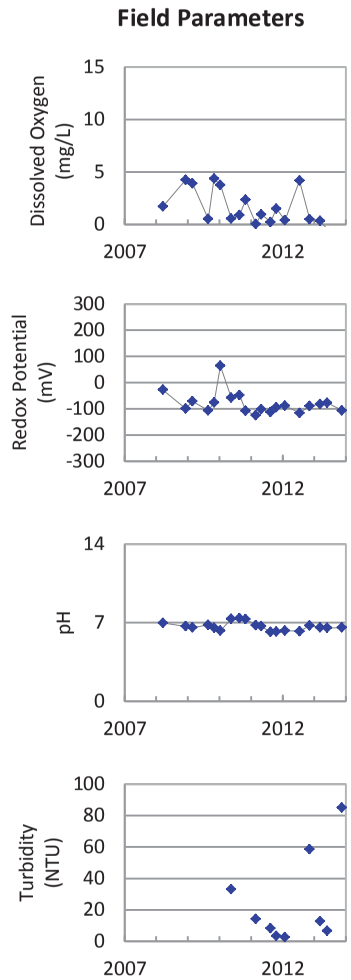
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/20/2008 to 11/20/2013
Analysis Date: 3/21/2014

PTX06-ISB019
Ferrous Iron Trend in Perched Aquifer





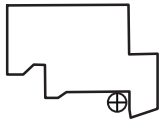
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: No Trend

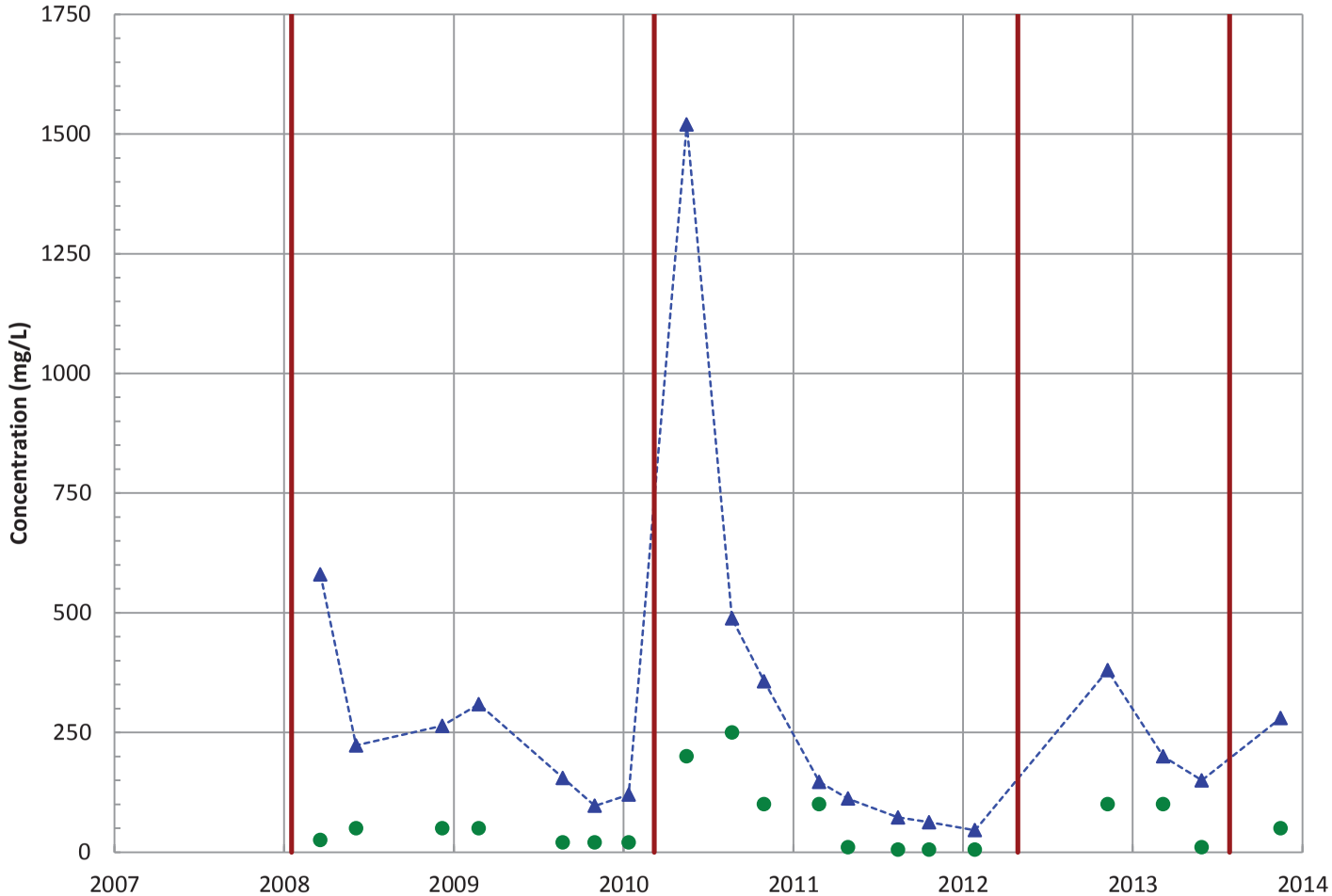
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

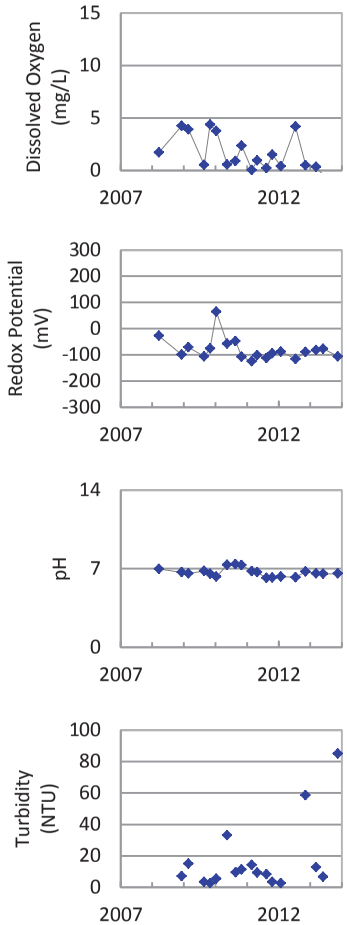


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/19/2010 to 11/20/2013
Analysis Date: 3/21/2014

PTX06-ISB019
Total Organic Carbon Trend in Perched Aquifer



Field Parameters



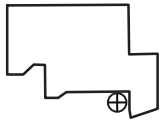
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Stable

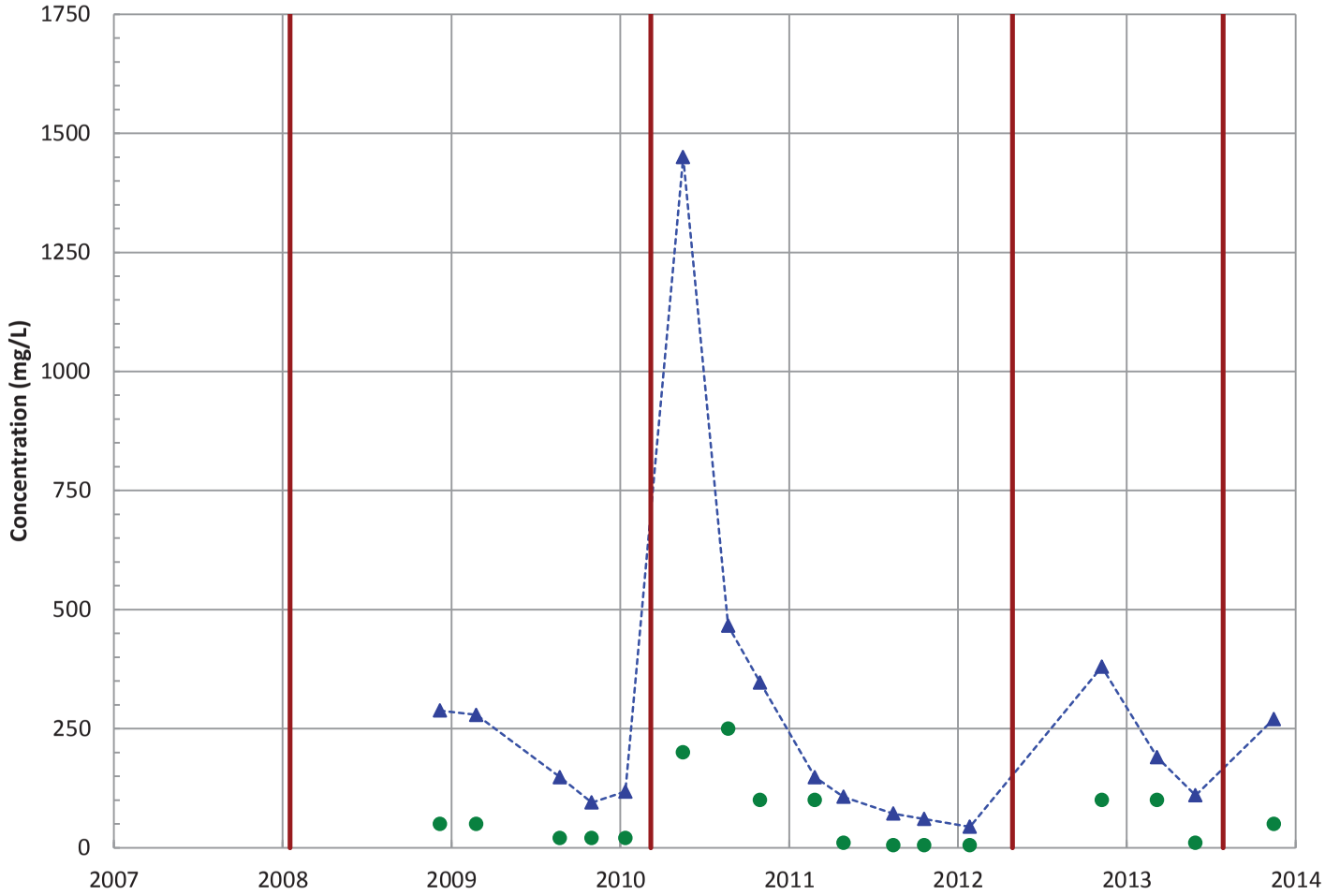
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

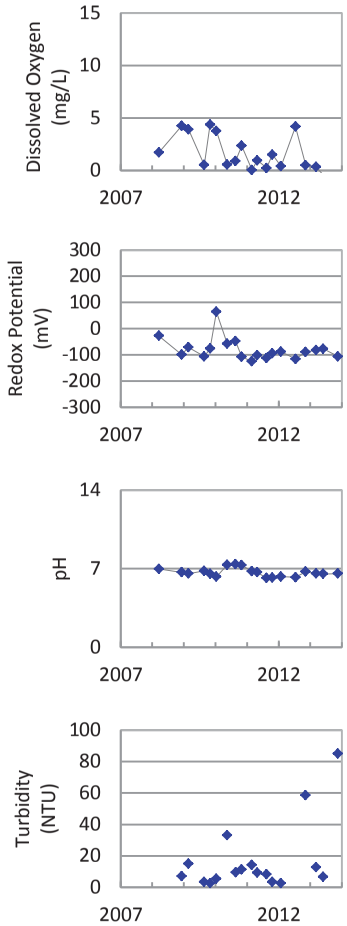


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/20/2008 to 11/20/2013
Analysis Date: 3/21/2014

PTX06-ISB019
Dissolved Organic Carbon (DOC) Trend in Perched Aquifer



Field Parameters



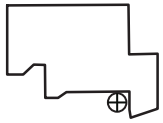
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Stable

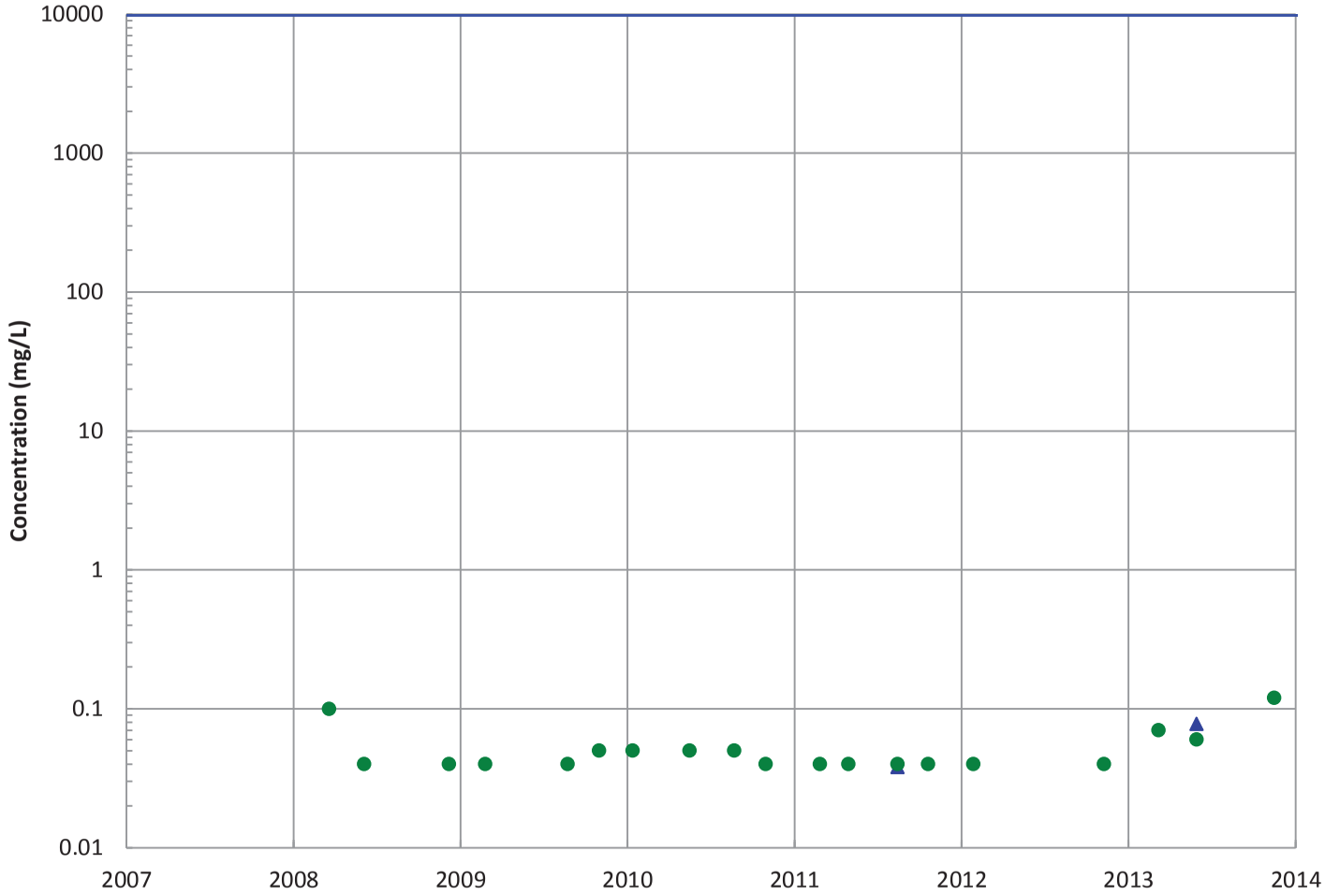
▲ Measured Value
● Sample Detection Limit
---- Concentration Trend
— Injection Dates

Well Location

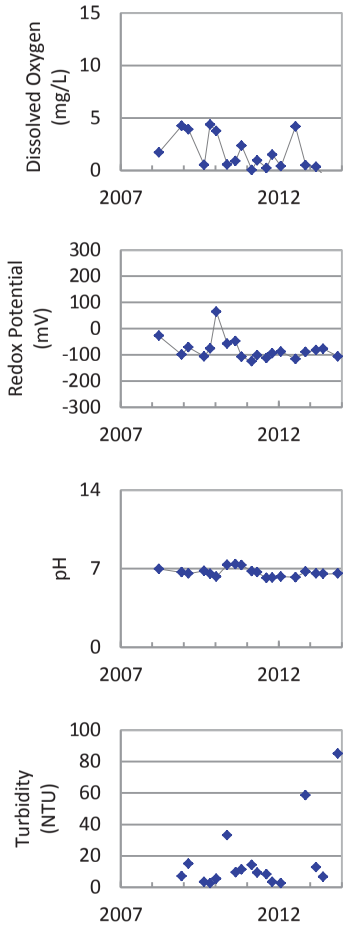


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/8/2008 to 11/20/2013
Analysis Date: 3/21/2014

PTX06-ISB019
Nitrate as N Trend in Perched Aquifer



Field Parameters



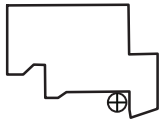
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

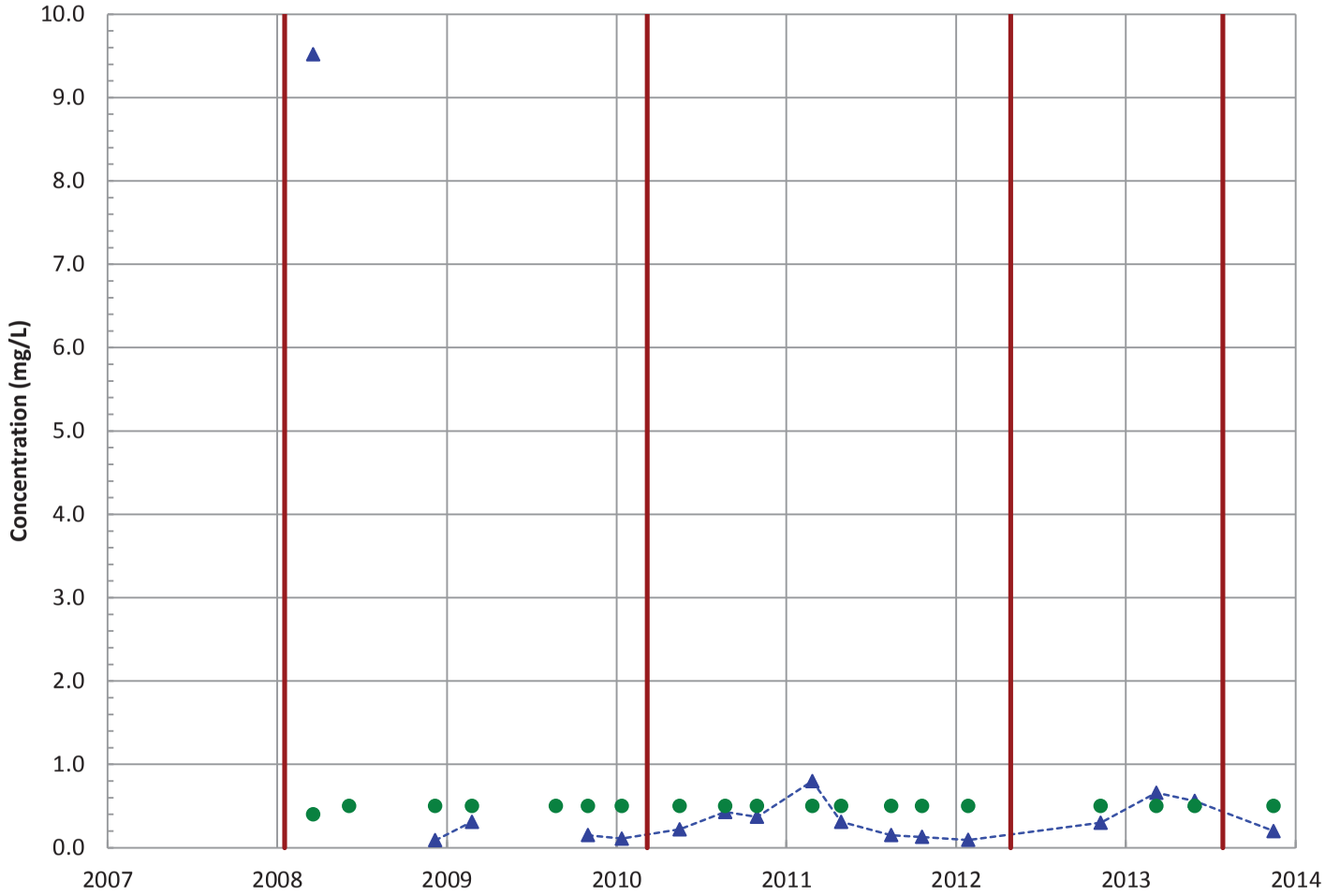
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

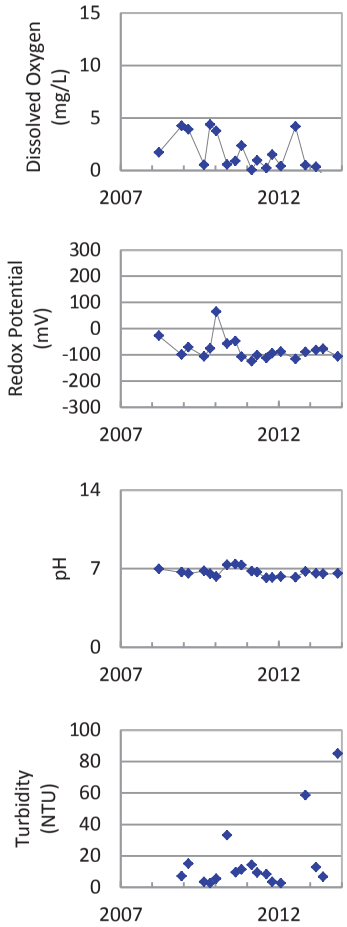


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/20/2008 to 11/20/2013
Analysis Date: 3/21/2014

PTX06-ISB019
Sulfate (as SO4) Trend in Perched Aquifer



Field Parameters



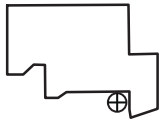
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Stable

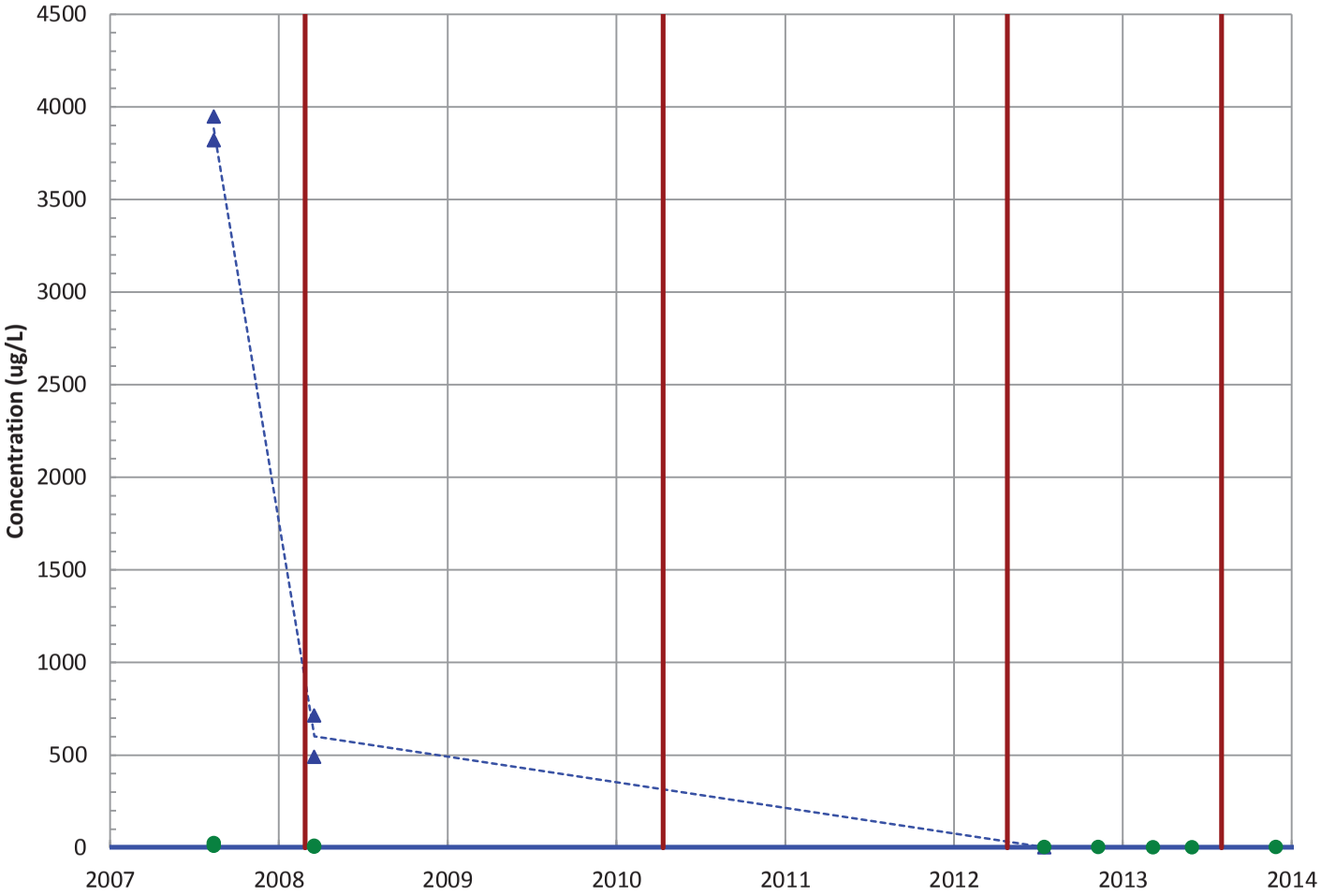
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

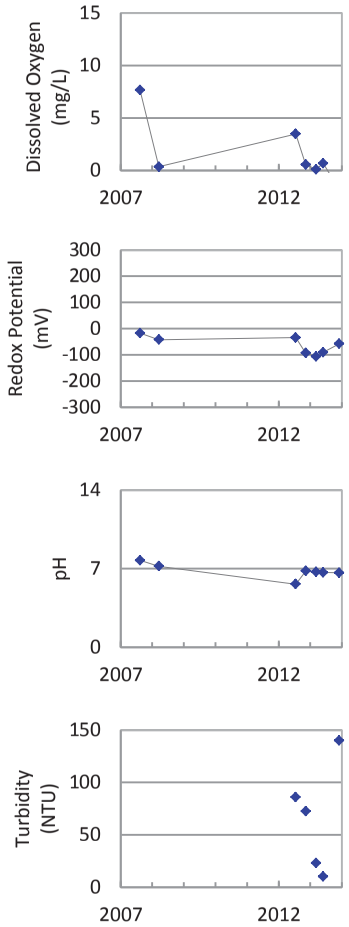


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/20/2008 to 11/20/2013
Analysis Date: 3/21/2014

PTX06-ISB024
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



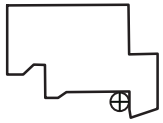
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

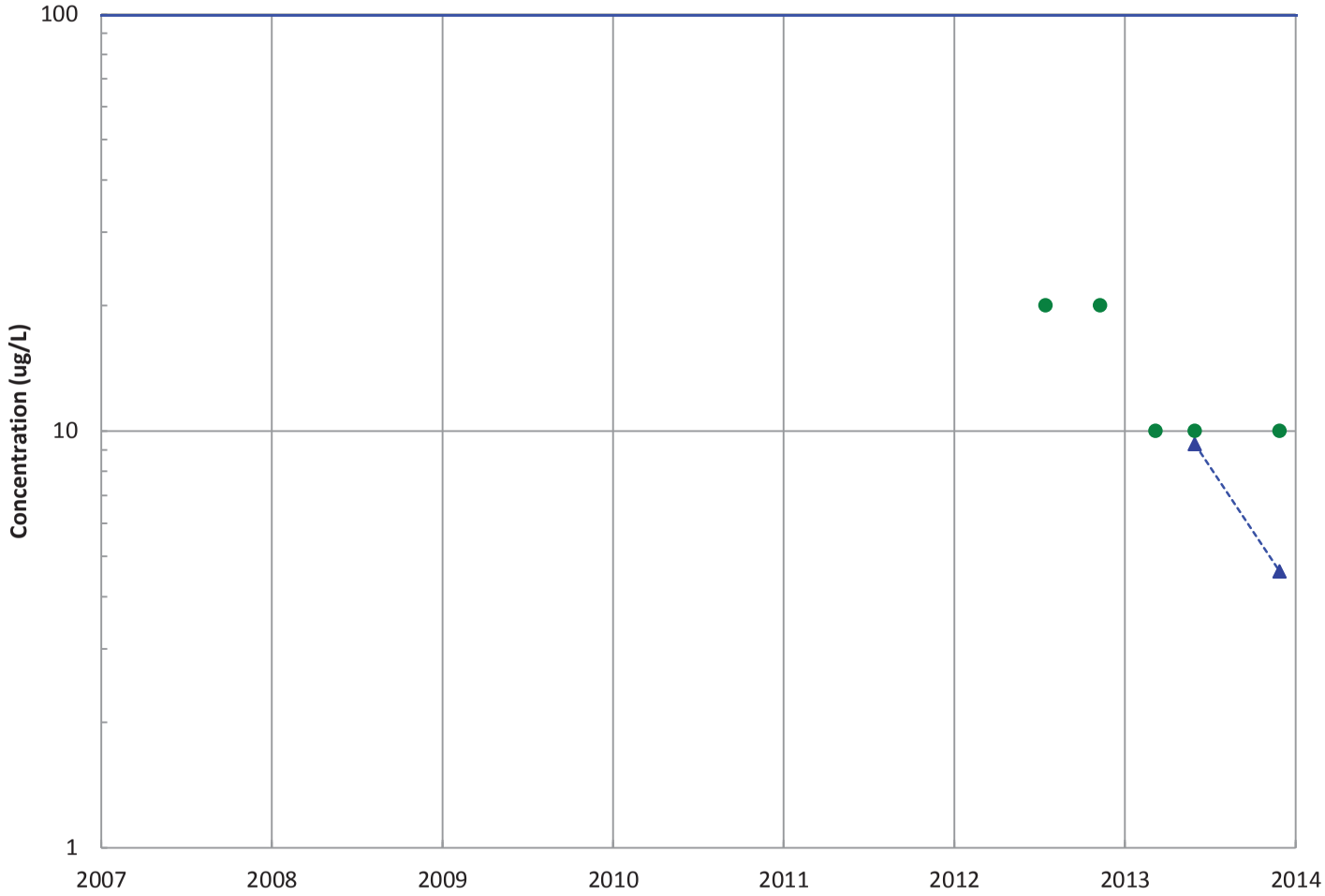
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

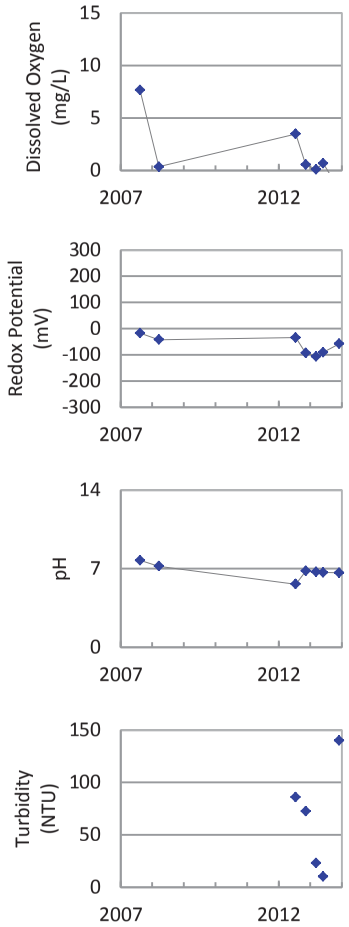


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/14/2007 to 12/3/2013
Analysis Date: 3/21/2014

PTX06-ISB024
Chromium, Total Trend in Perched Aquifer



Field Parameters



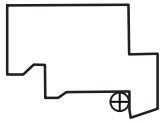
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

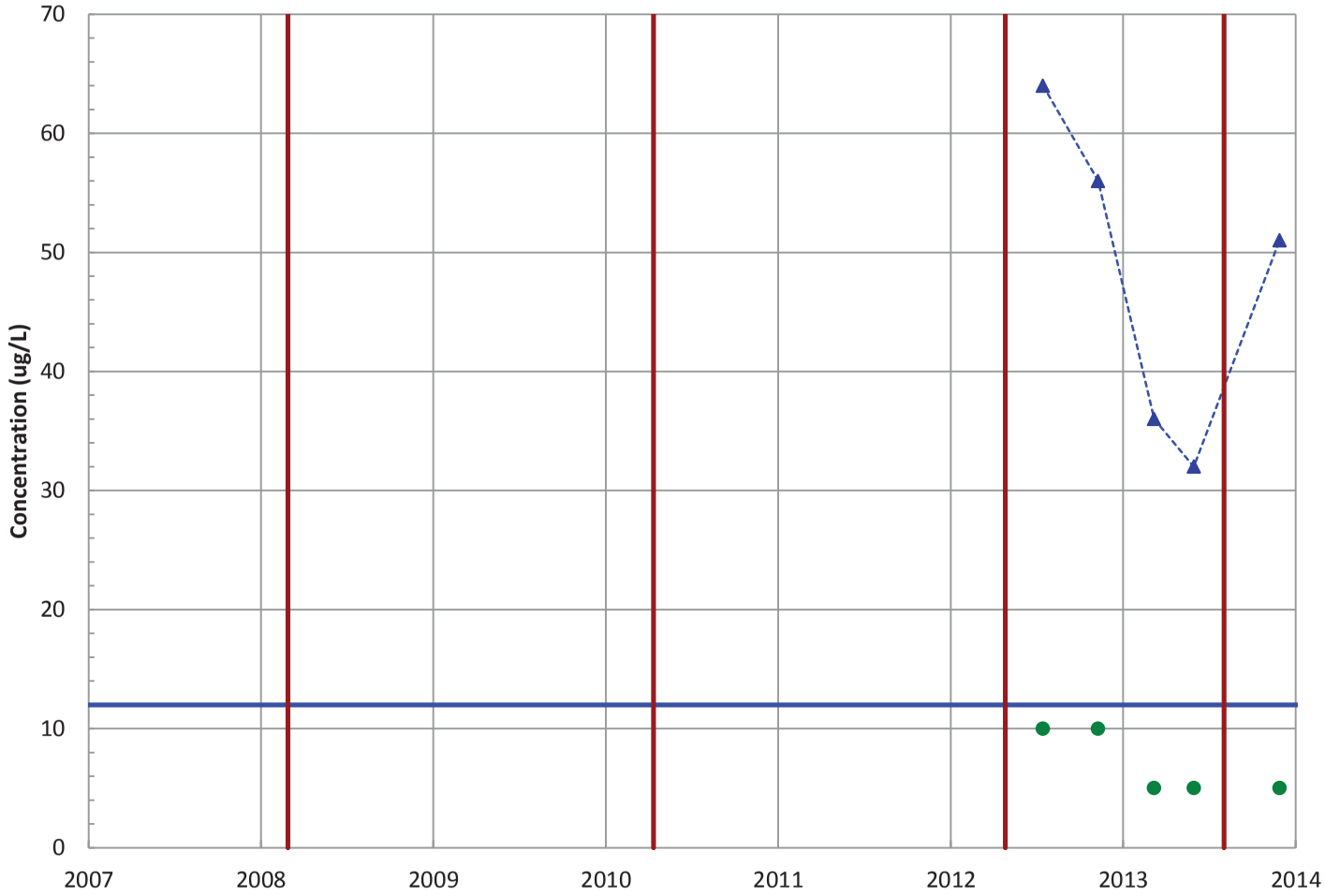
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

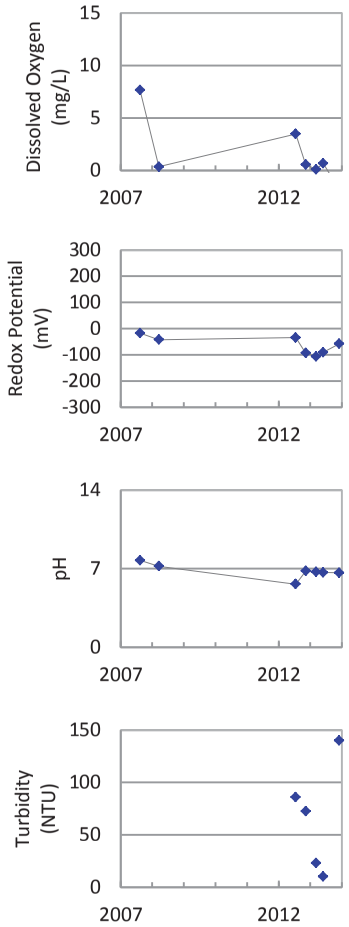


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 7/19/2012 to 12/3/2013
Analysis Date: 3/21/2014

PTX06-ISB024
Arsenic Trend in Perched Aquifer



Field Parameters



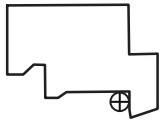
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: Stable

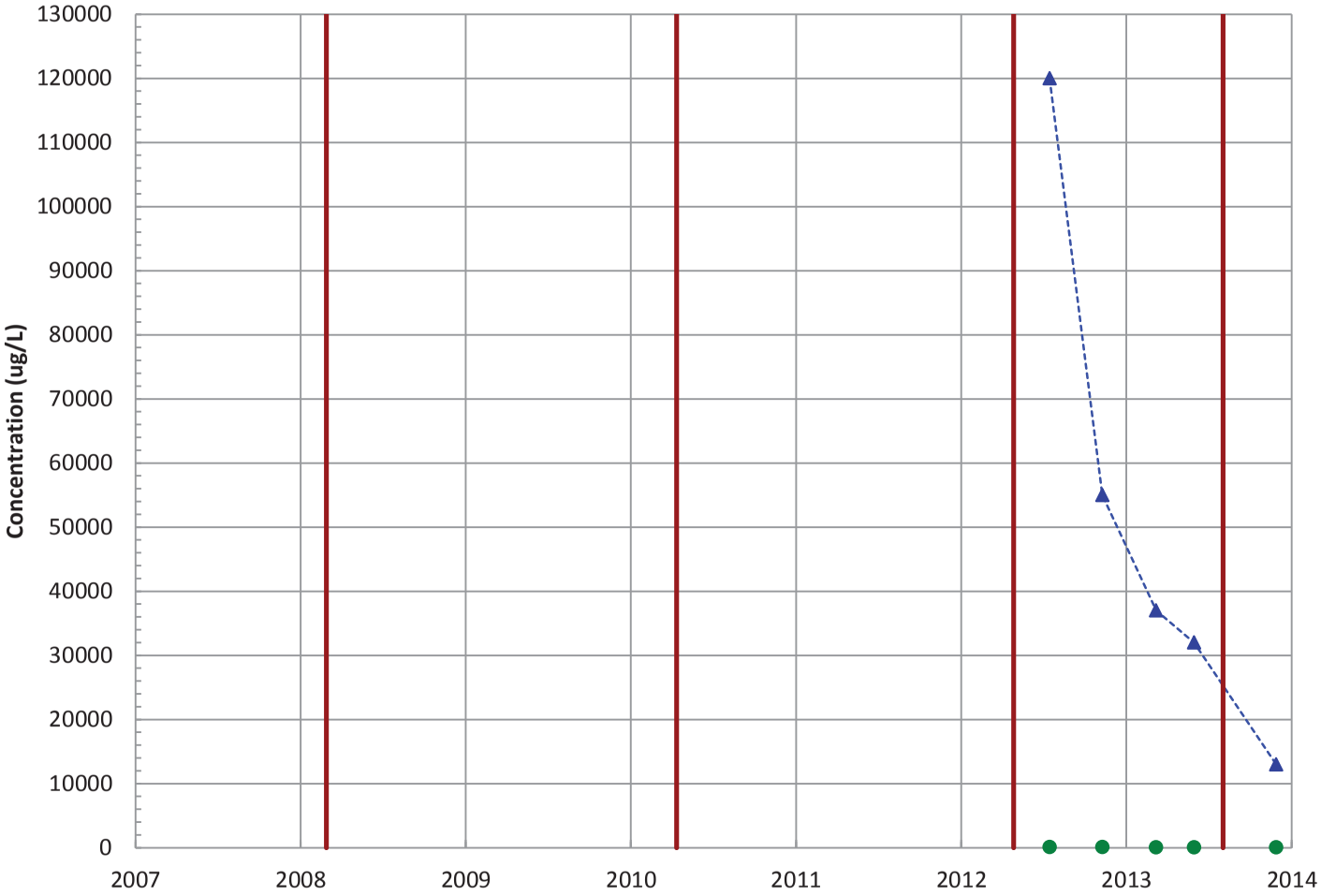
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

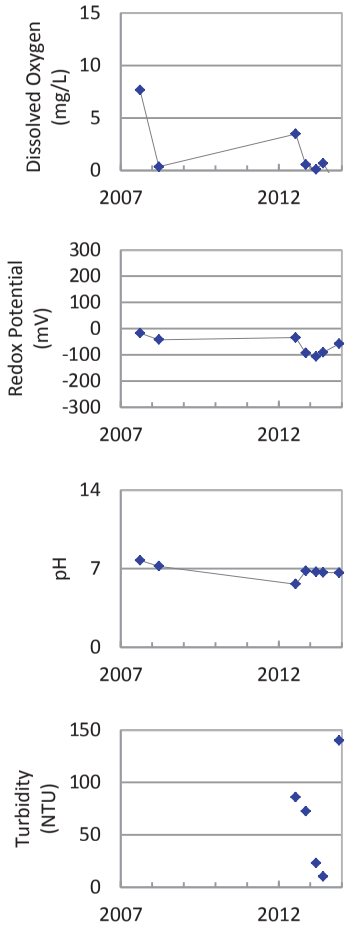


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 7/19/2012 to 12/3/2013
Analysis Date: 3/21/2014

PTX06-ISB024
Iron Trend in Perched Aquifer



Field Parameters



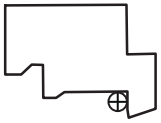
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Decreasing

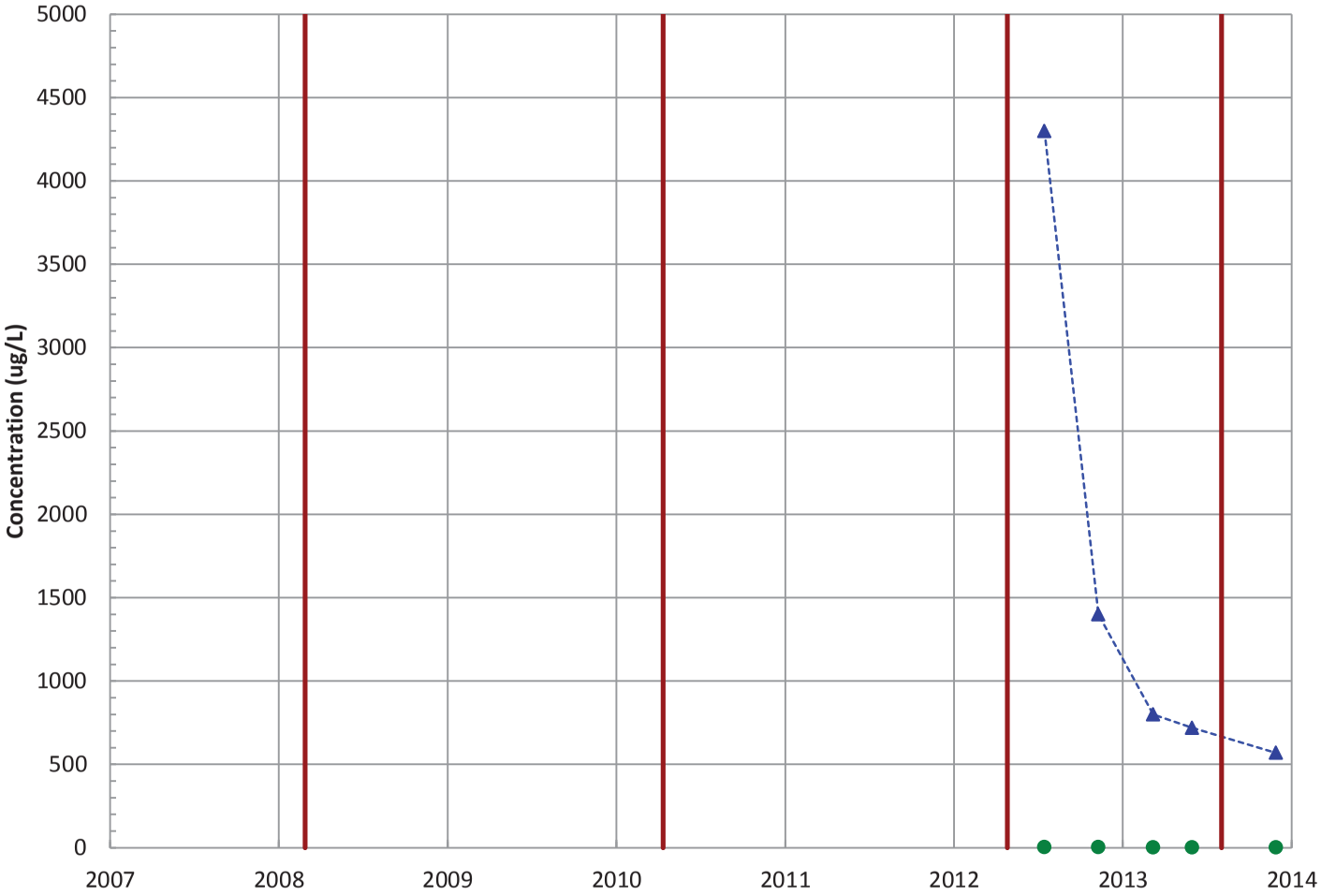
▲ Measured Value
● Sample Detection Limit
Concentration Trend
Injection Dates

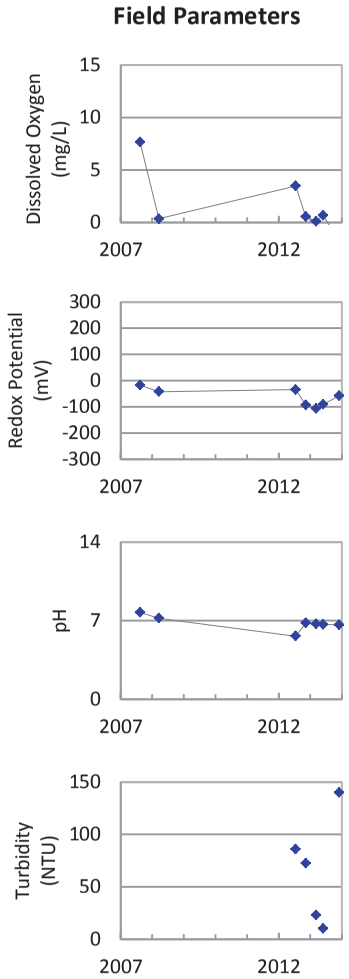
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 7/19/2012 to 12/3/2013
Analysis Date: 3/21/2014

PTX06-ISB024
Manganese Trend in Perched Aquifer





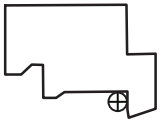
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Decreasing

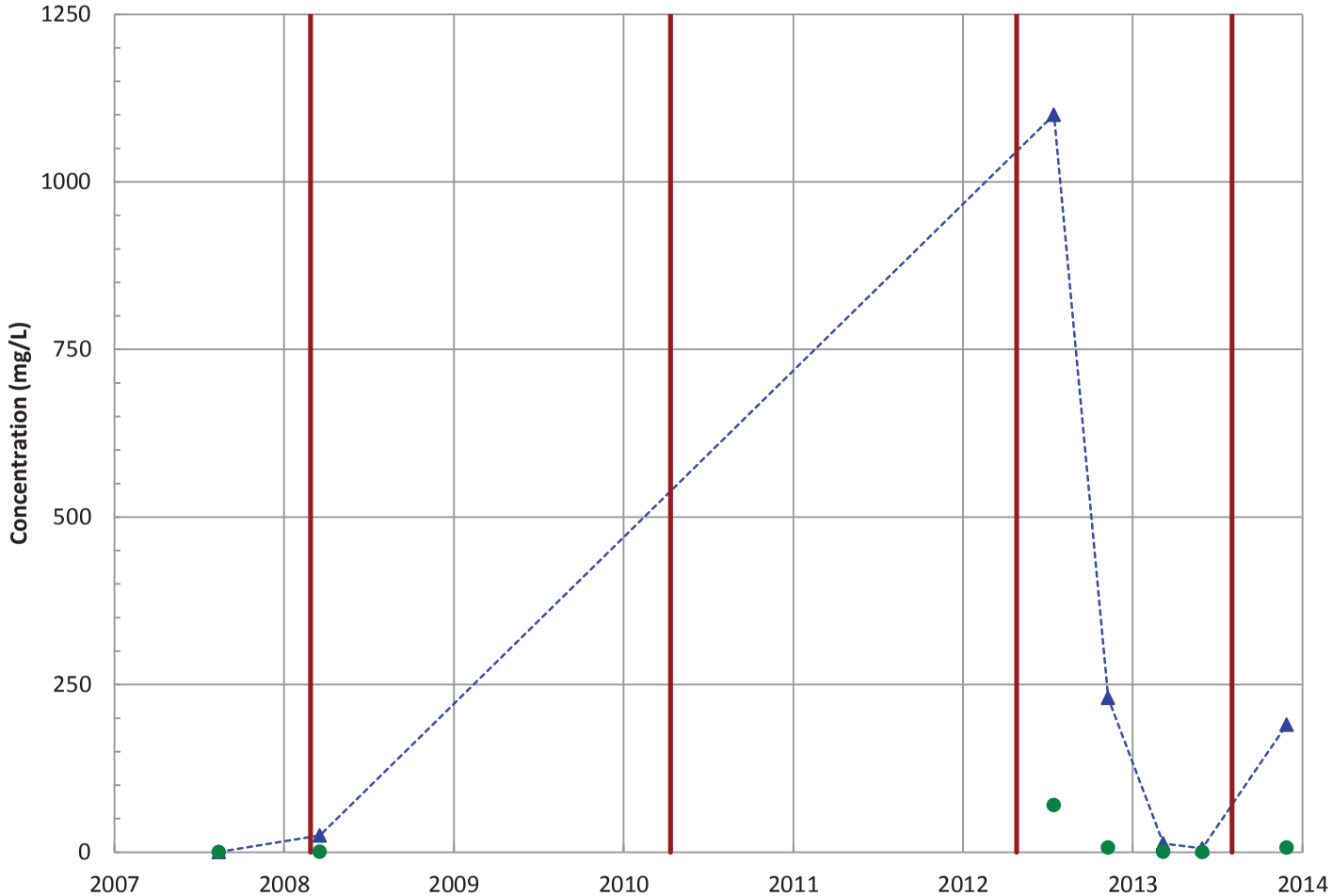
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

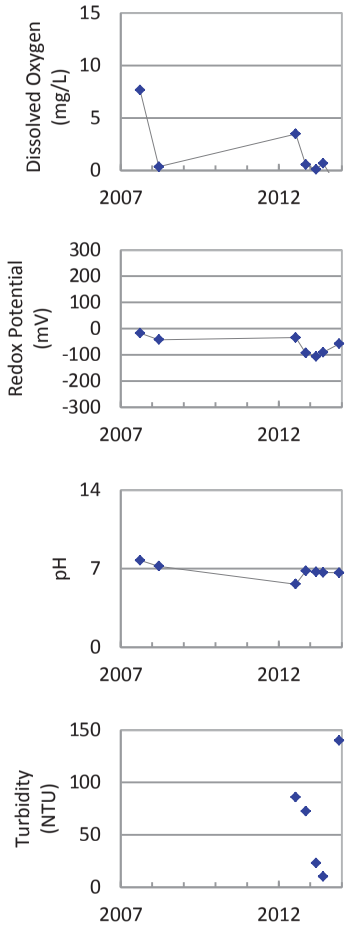


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 7/19/2012 to 12/3/2013
Analysis Date: 3/21/2014

PTX06-ISB024
Acetic Acid Trend in Perched Aquifer



Field Parameters



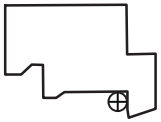
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Probably Increasing
Last 4 Samples: No Trend

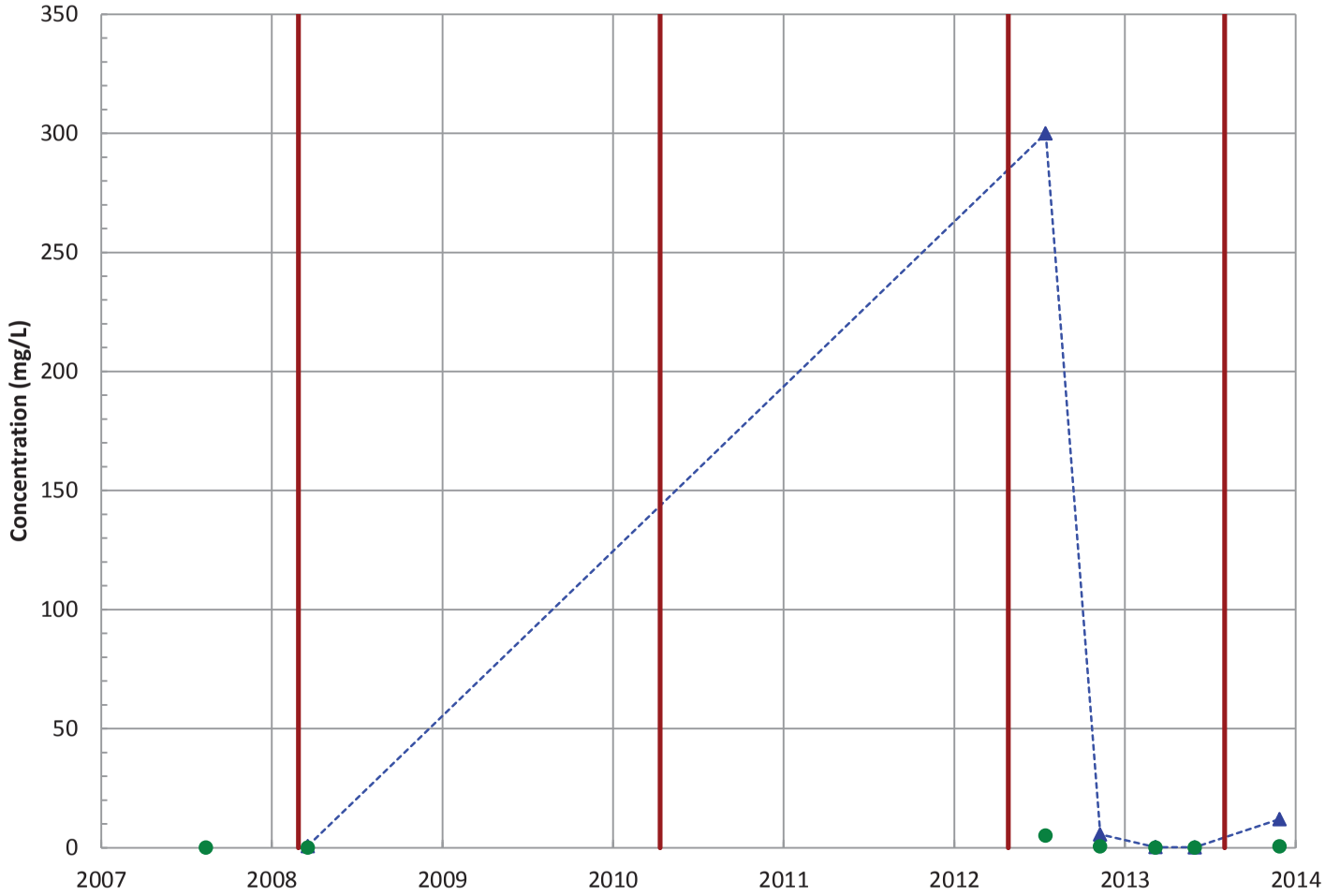
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

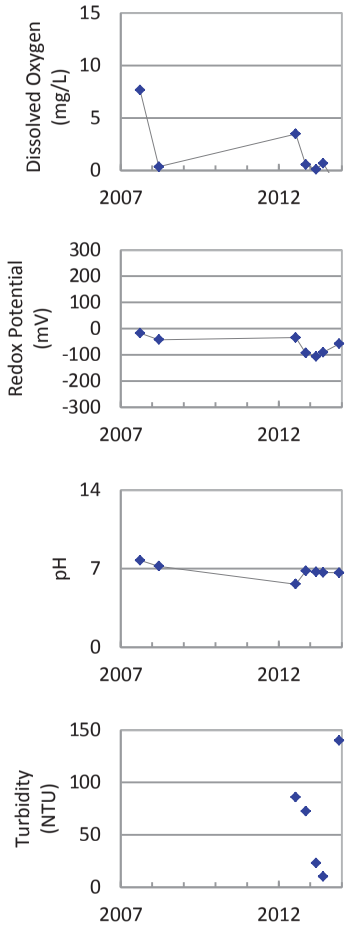


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/14/2007 to 12/3/2013
Analysis Date: 3/21/2014

PTX06-ISB024
Butyric Acid Trend in Perched Aquifer



Field Parameters



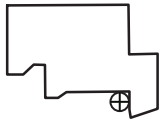
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

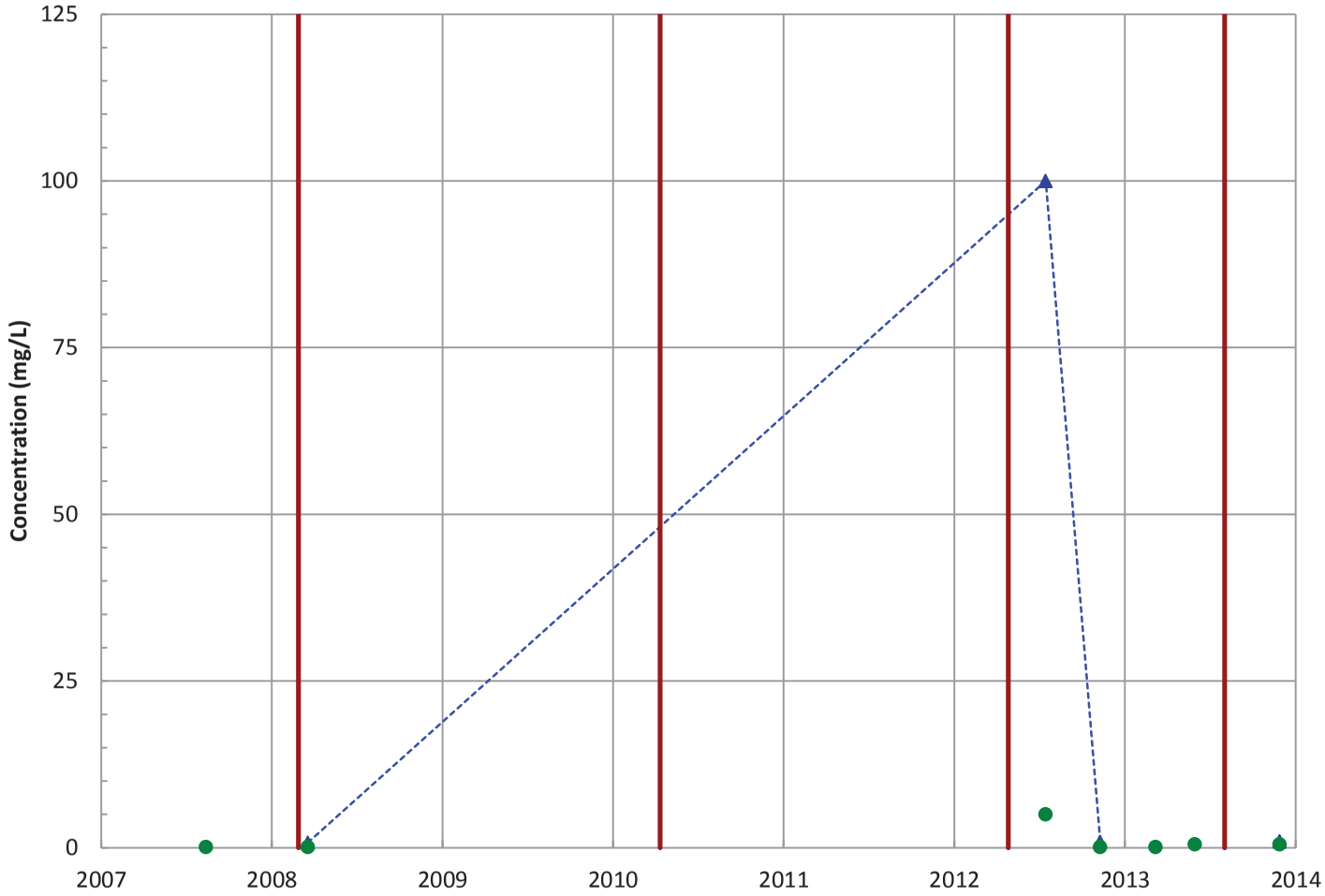
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

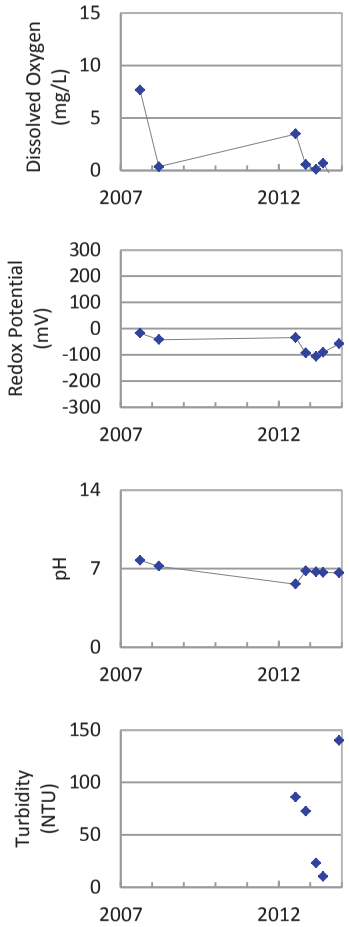


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/14/2007 to 12/3/2013
Analysis Date: 3/21/2014

PTX06-ISB024
Hexanoic Acid Trend in Perched Aquifer



Field Parameters



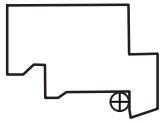
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

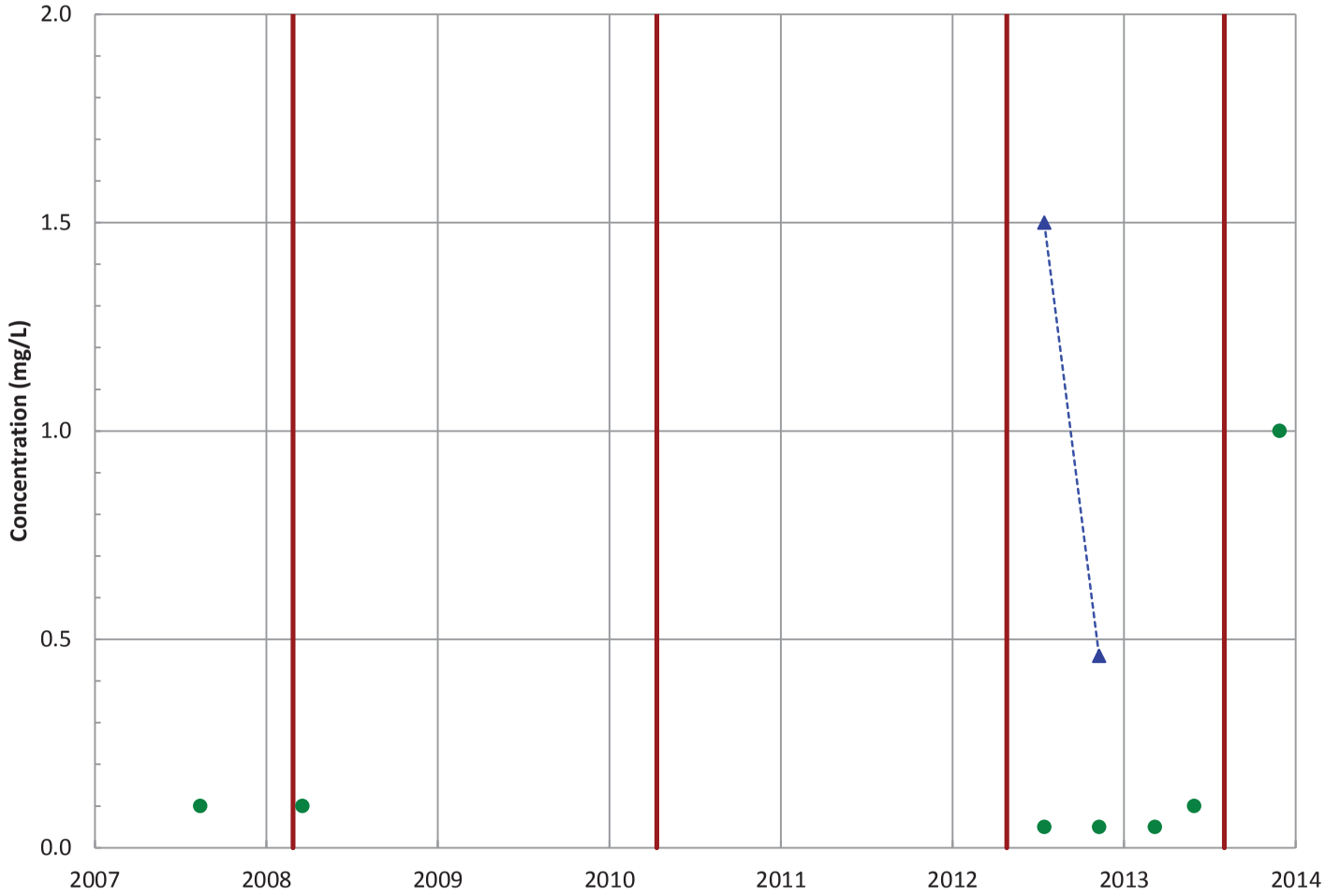
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

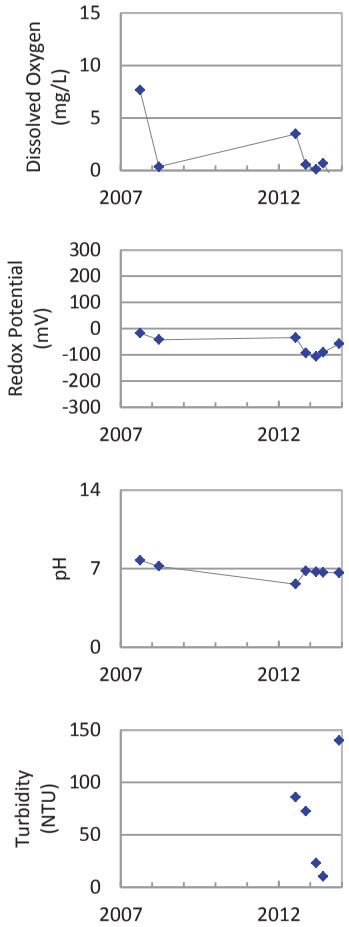


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/14/2007 to 12/3/2013
Analysis Date: 3/21/2014

PTX06-ISB024
i-Hexanoic Acid Trend in Perched Aquifer



Field Parameters



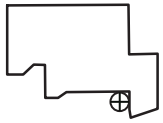
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

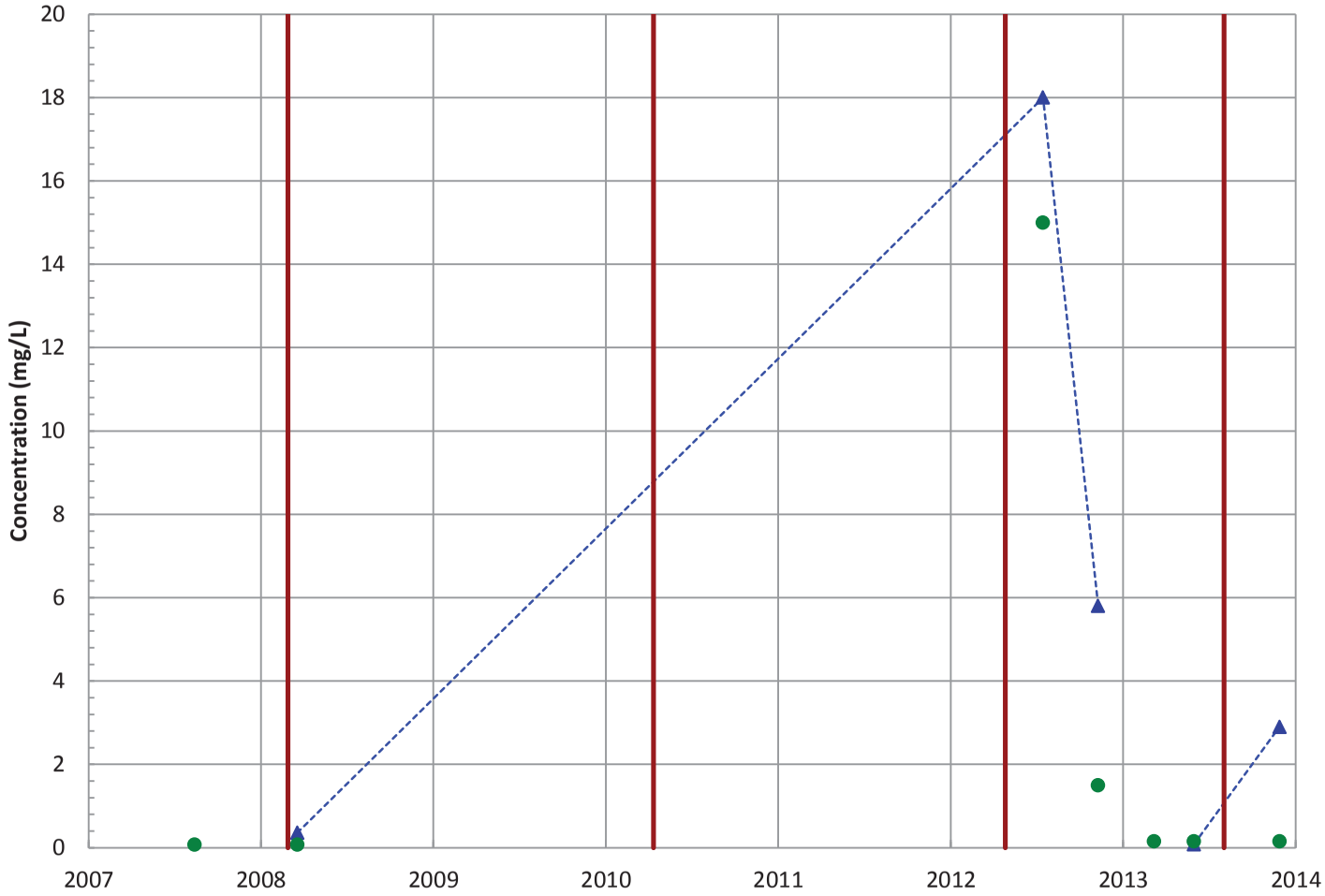
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
═══ Injection Dates

Well Location

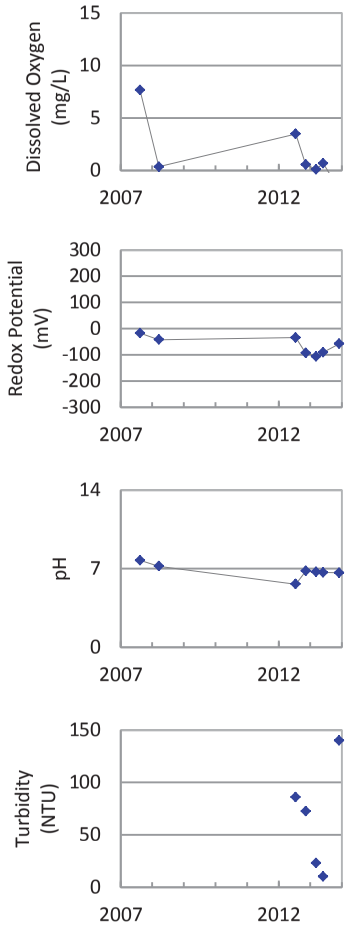


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/14/2007 to 12/3/2013
Analysis Date: 3/21/2014

PTX06-ISB024
i-Pentanoic Acid Trend in Perched Aquifer



Field Parameters



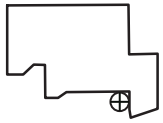
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

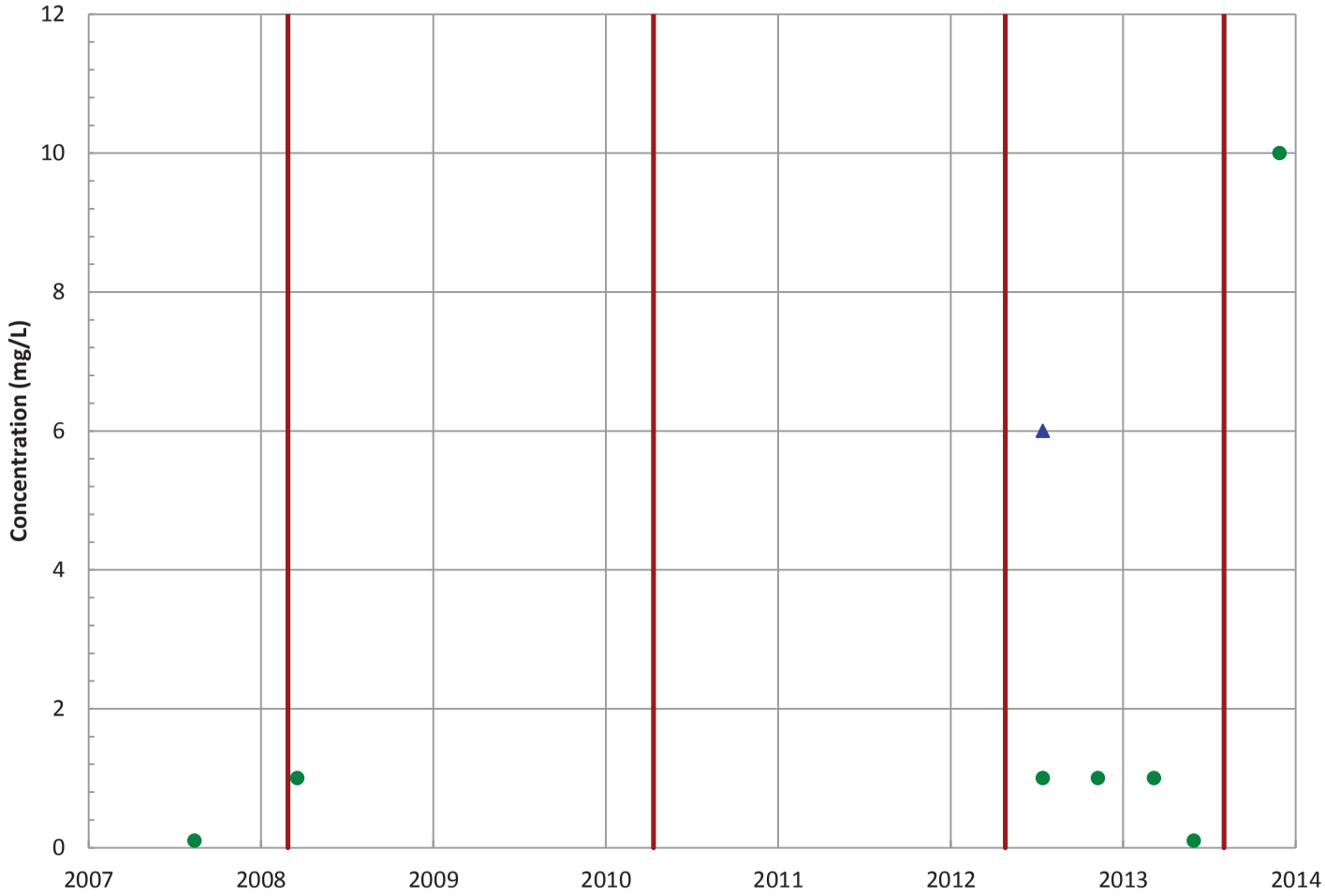
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

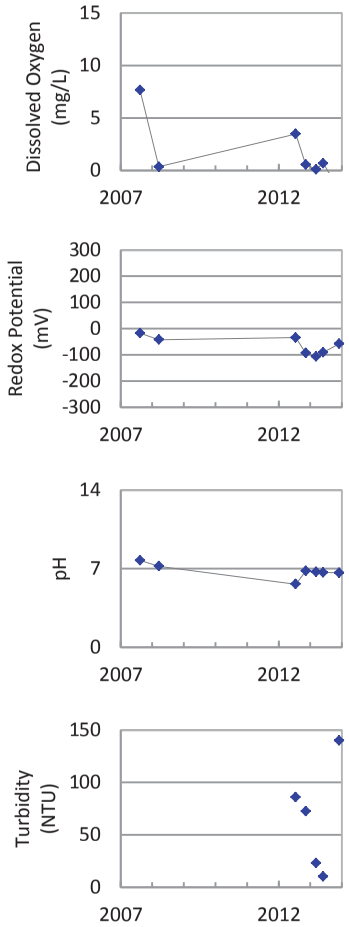


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/14/2007 to 12/3/2013
Analysis Date: 3/21/2014

PTX06-ISB024
Lactic Acid and HIBA Trend in Perched Aquifer



Field Parameters



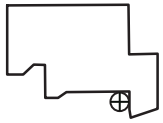
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

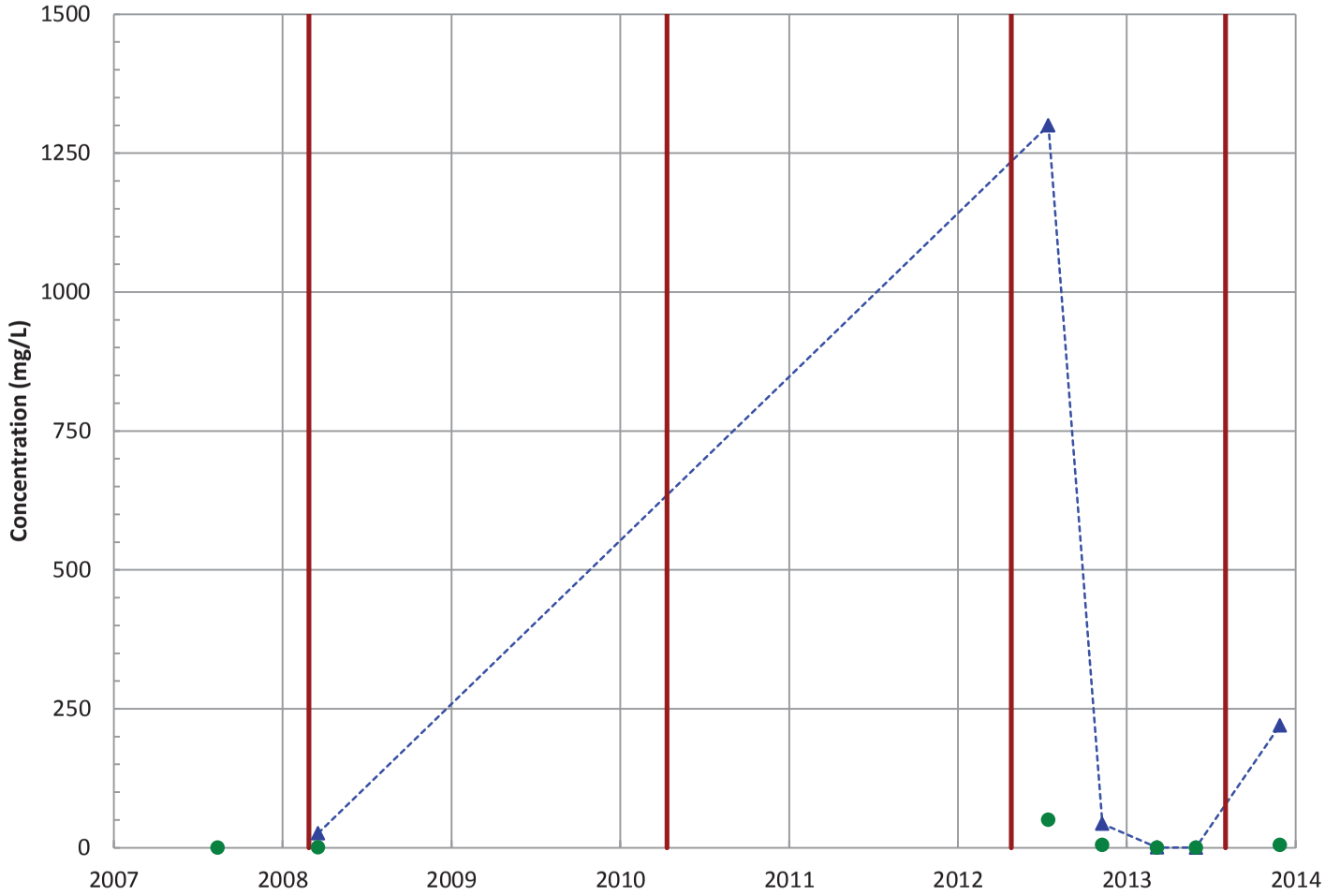
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
═══ Injection Dates

Well Location

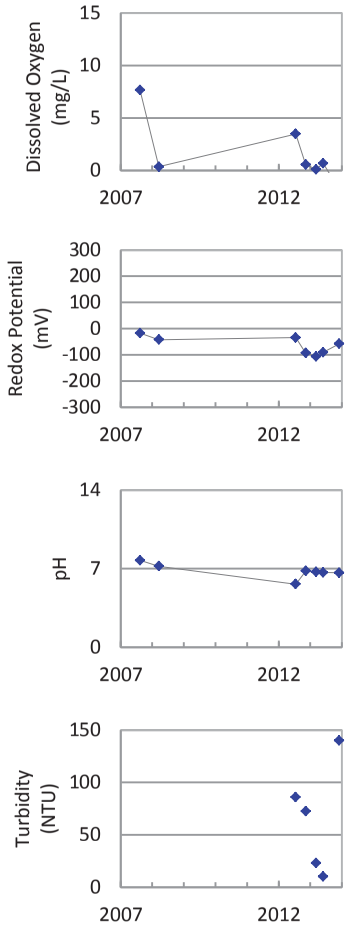


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/14/2007 to 12/3/2013
Analysis Date: 3/21/2014

PTX06-ISB024
Propionic Acid Trend in Perched Aquifer



Field Parameters

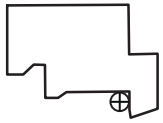


Concentration Trend
MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

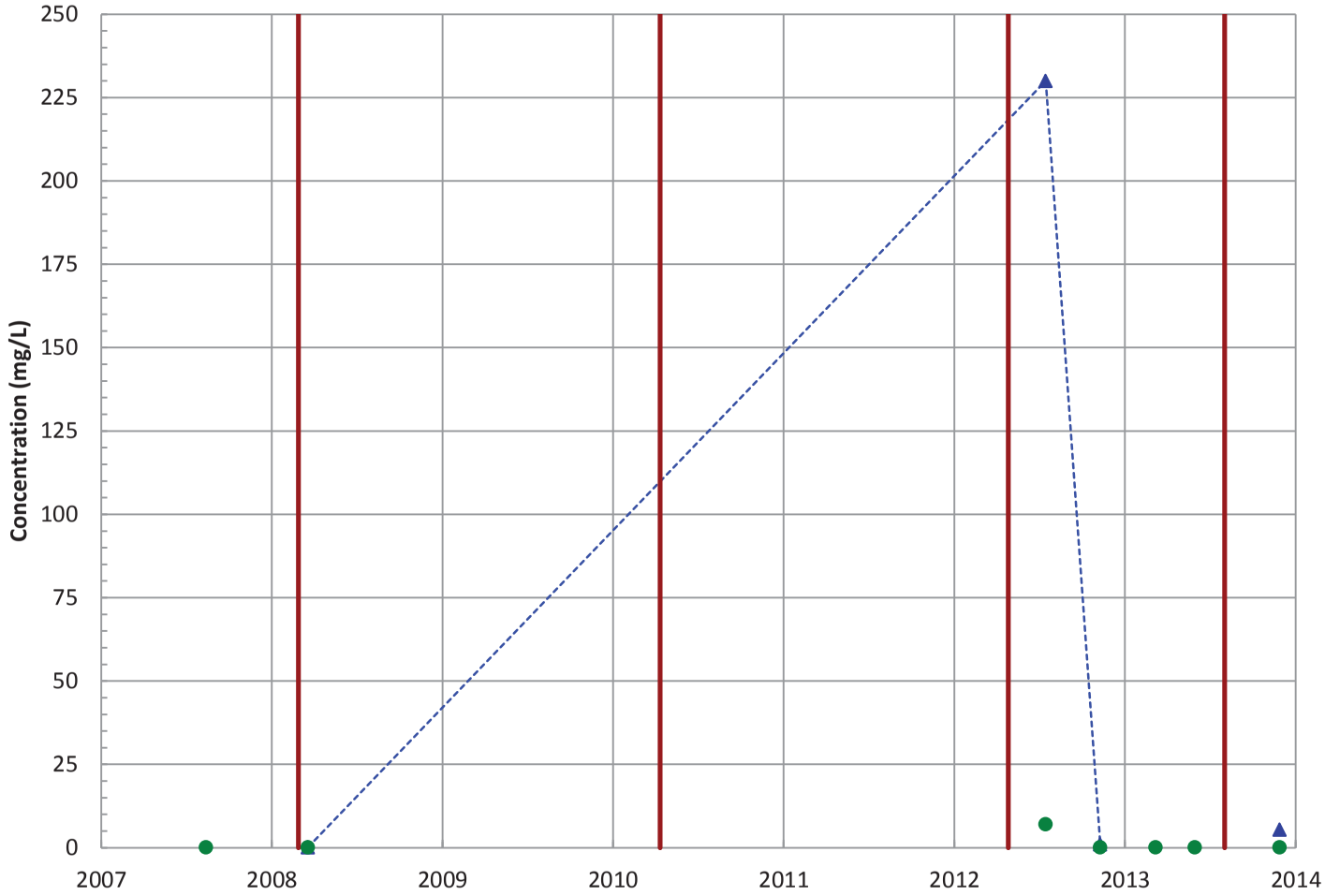
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

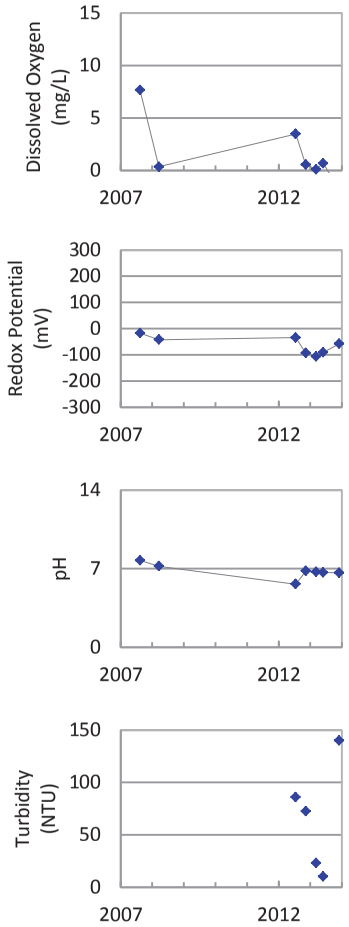


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/14/2007 to 12/3/2013
Analysis Date: 3/21/2014

PTX06-ISB024
Pentanoic Acid Trend in Perched Aquifer



Field Parameters



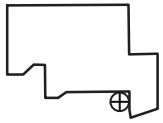
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

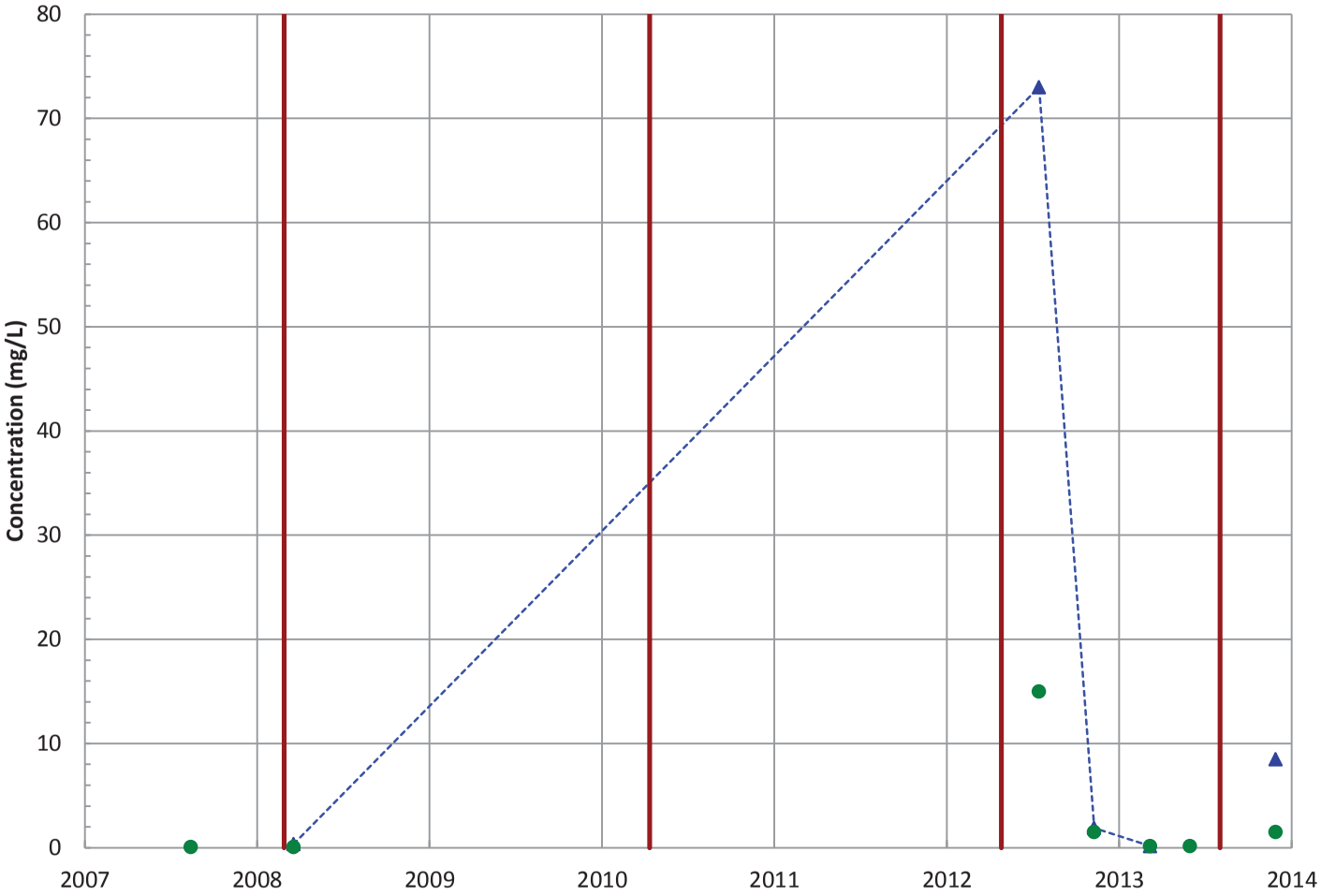
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

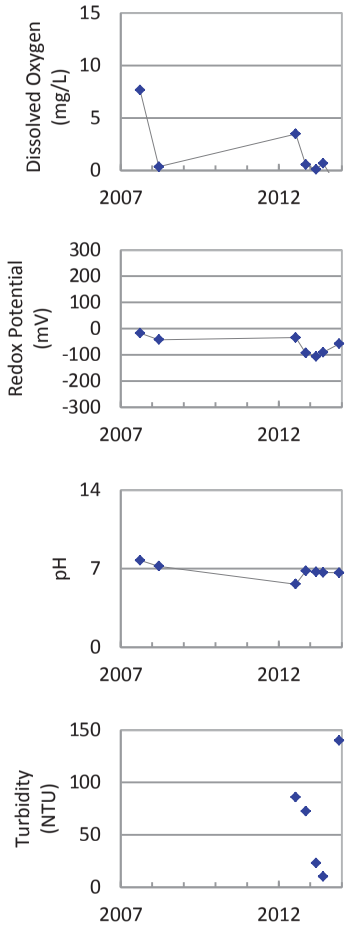


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/14/2007 to 12/3/2013
Analysis Date: 3/21/2014

PTX06-ISB024
Pyruvic Acid Trend in Perched Aquifer



Field Parameters



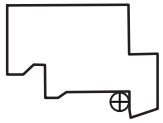
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

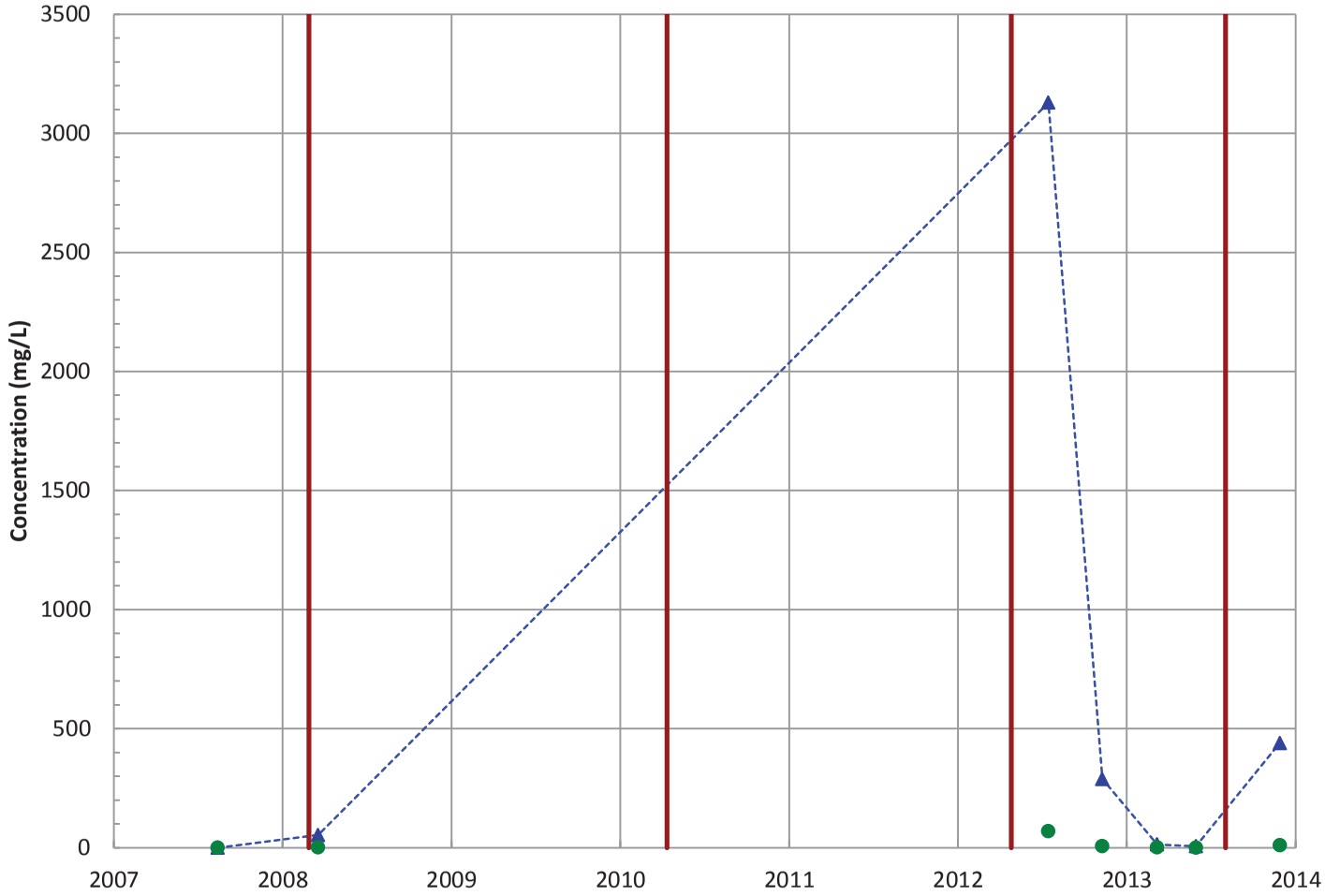
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

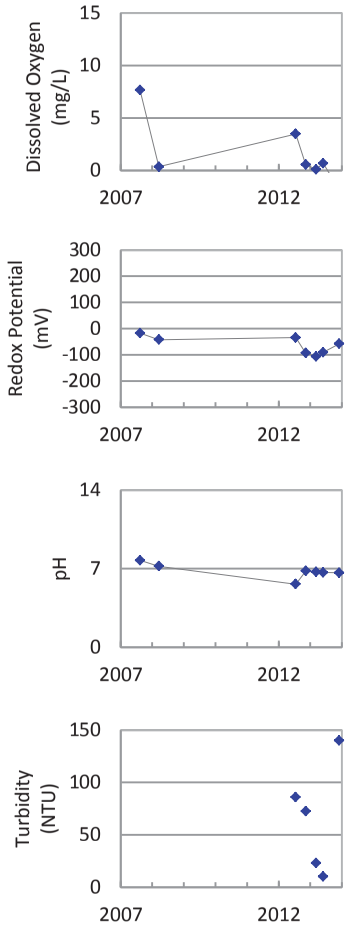


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/14/2007 to 12/3/2013
Analysis Date: 3/21/2014

PTX06-ISB024
Total Volatile Fatty Acids Trend in Perched Aquifer



Field Parameters

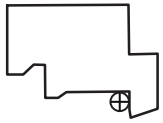


Concentration Trend
MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

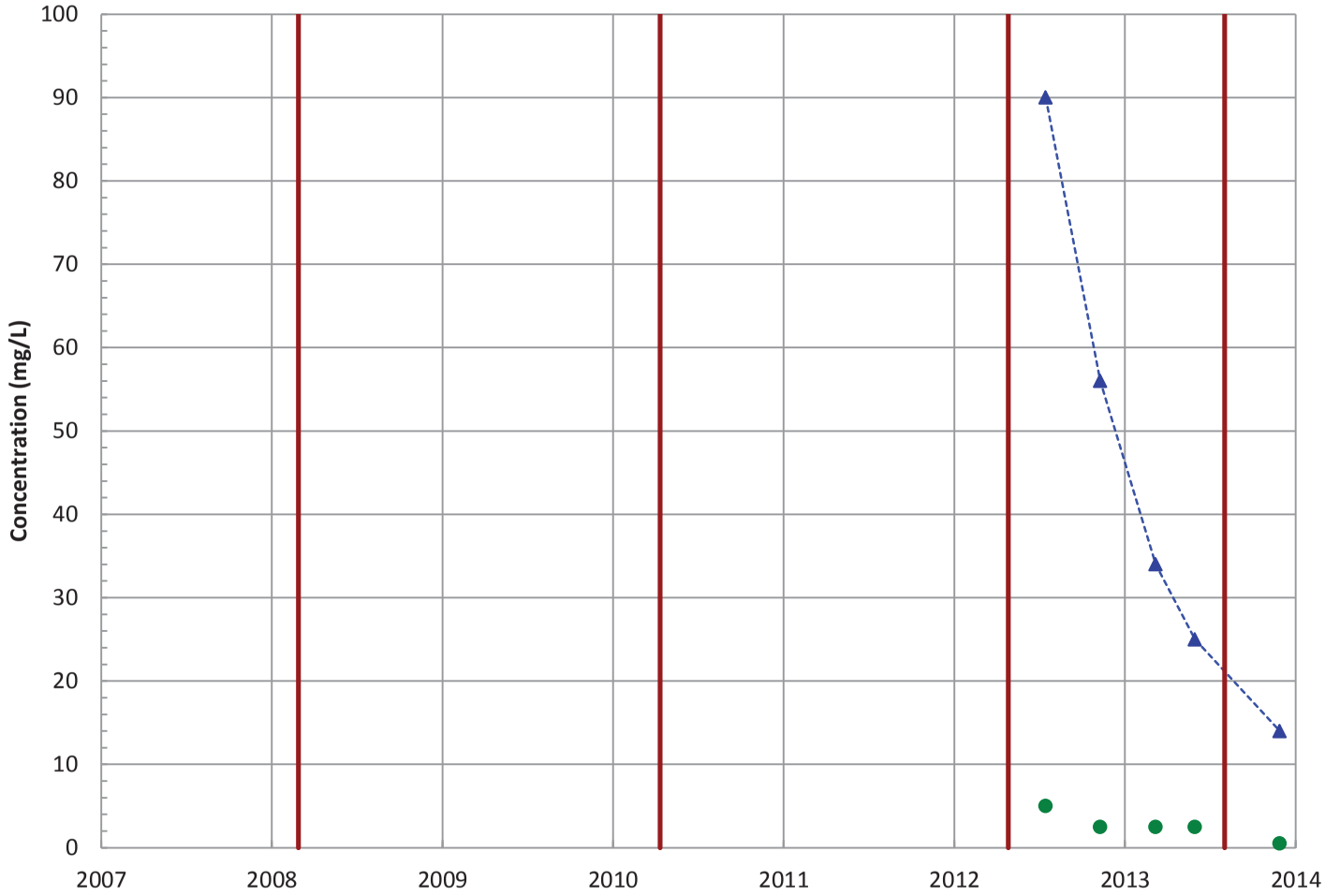
▲ Measured Value
● Sample Detection Limit
---- Concentration Trend
— Injection Dates

Well Location

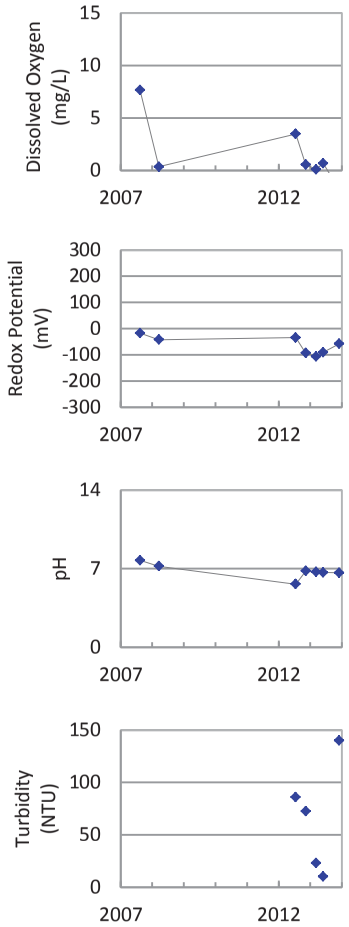


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/14/2007 to 12/3/2013
Analysis Date: 3/21/2014

PTX06-ISB024
Ferrous Iron Trend in Perched Aquifer



Field Parameters



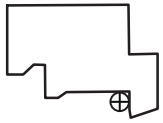
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Decreasing

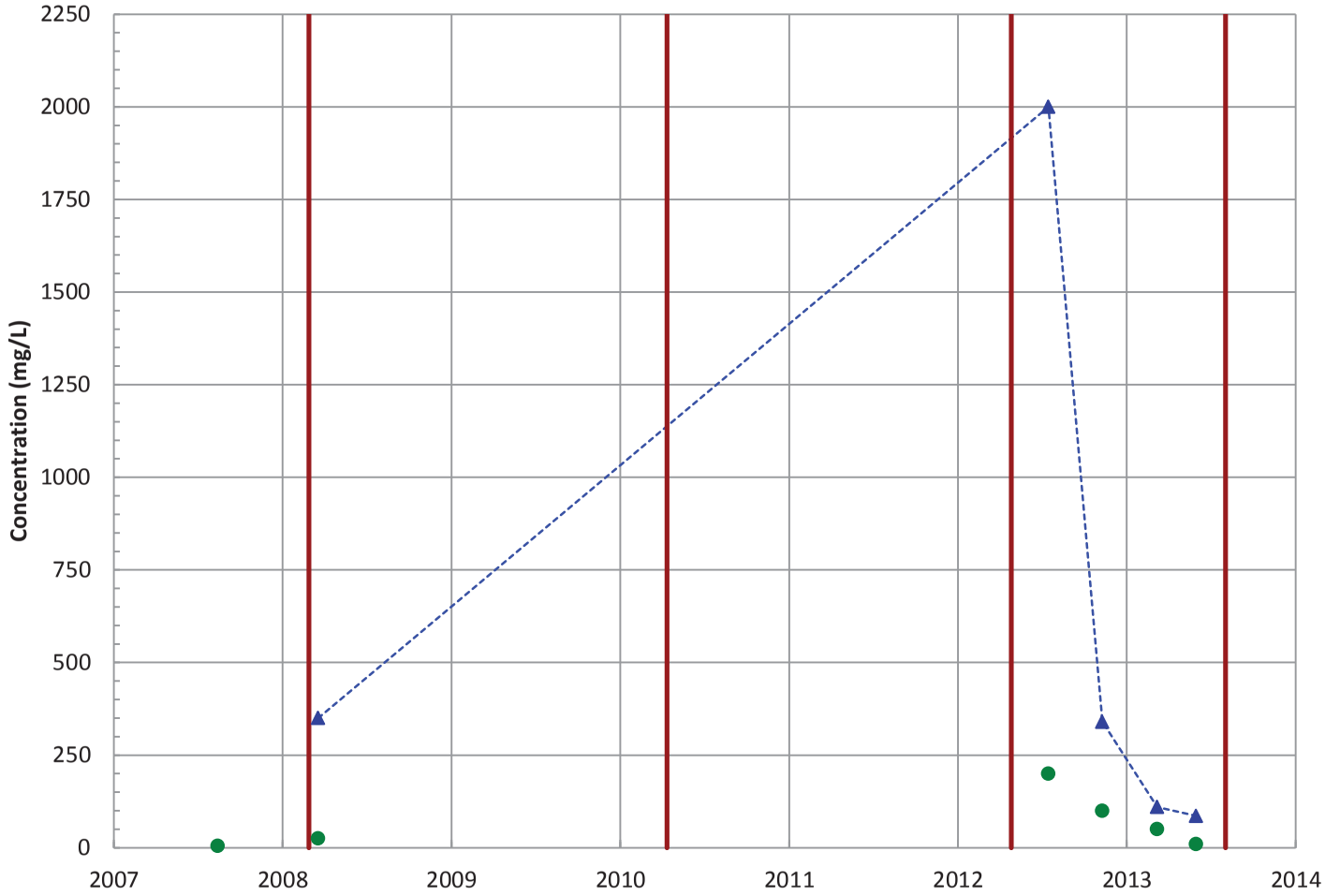
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

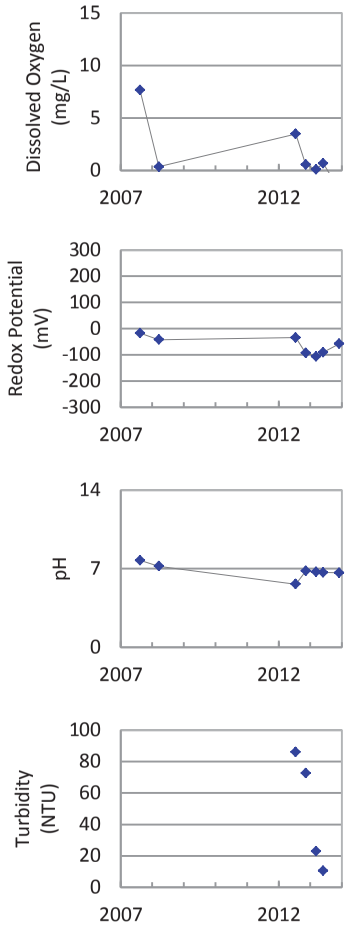


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 7/19/2012 to 12/3/2013
Analysis Date: 3/21/2014

PTX06-ISB024
Total Organic Carbon Trend in Perched Aquifer



Field Parameters



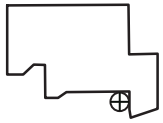
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Decreasing

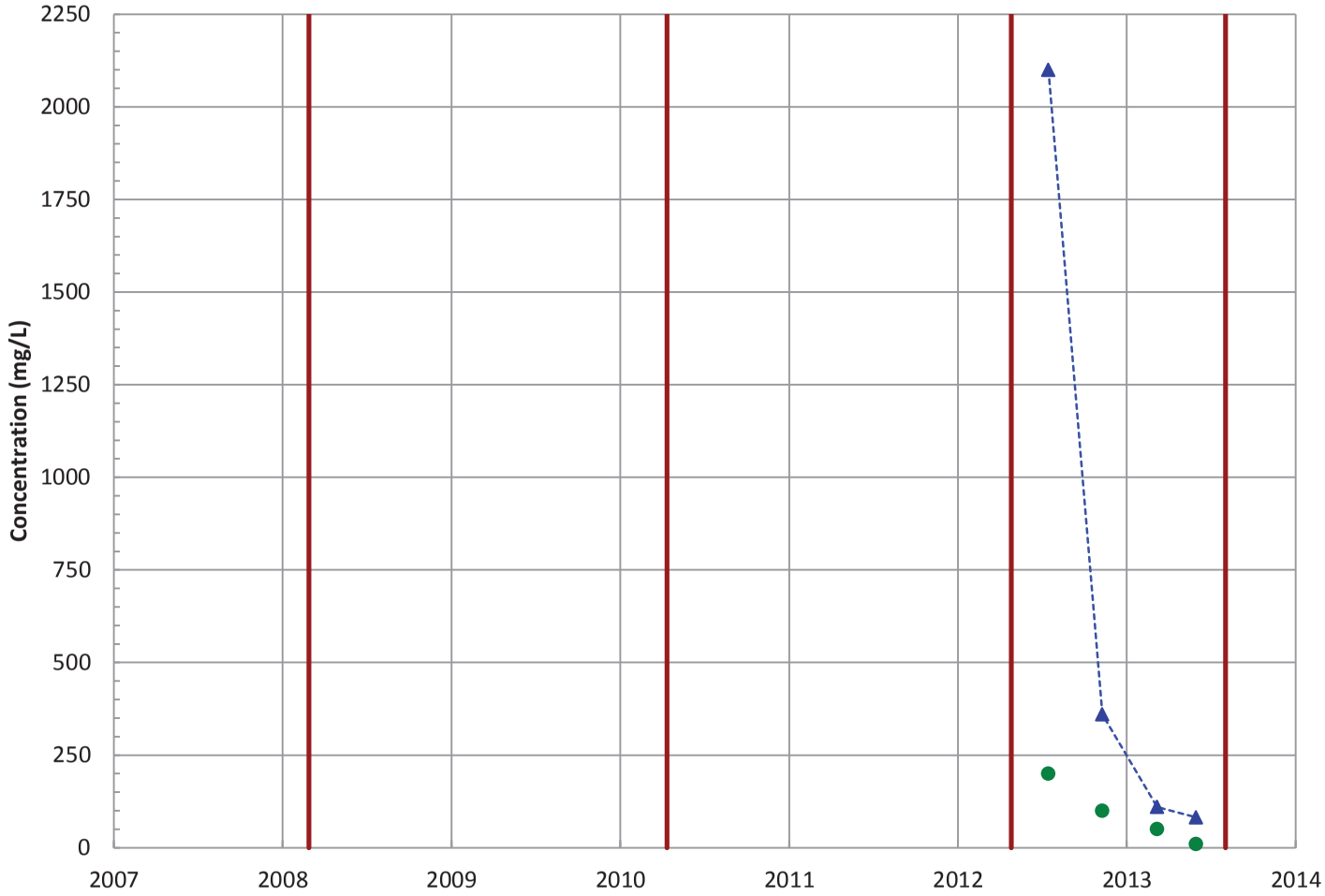
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

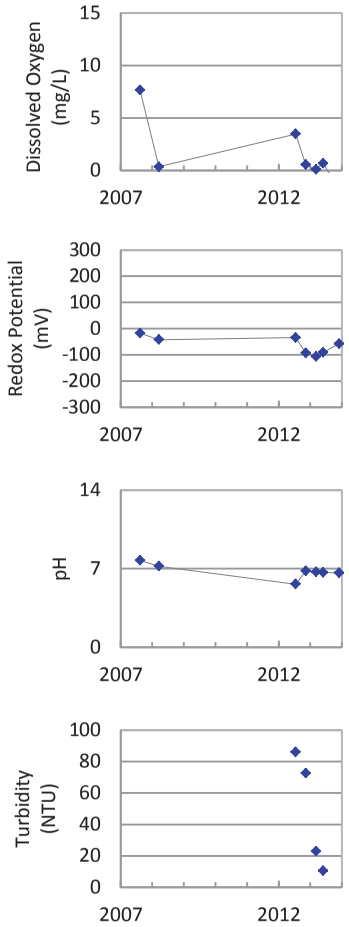


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/14/2007 to 6/4/2013
Analysis Date: 3/21/2014

PTX06-ISB024
Dissolved Organic Carbon (DOC) Trend in Perched Aquifer



Field Parameters



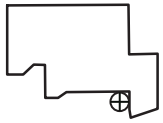
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Decreasing

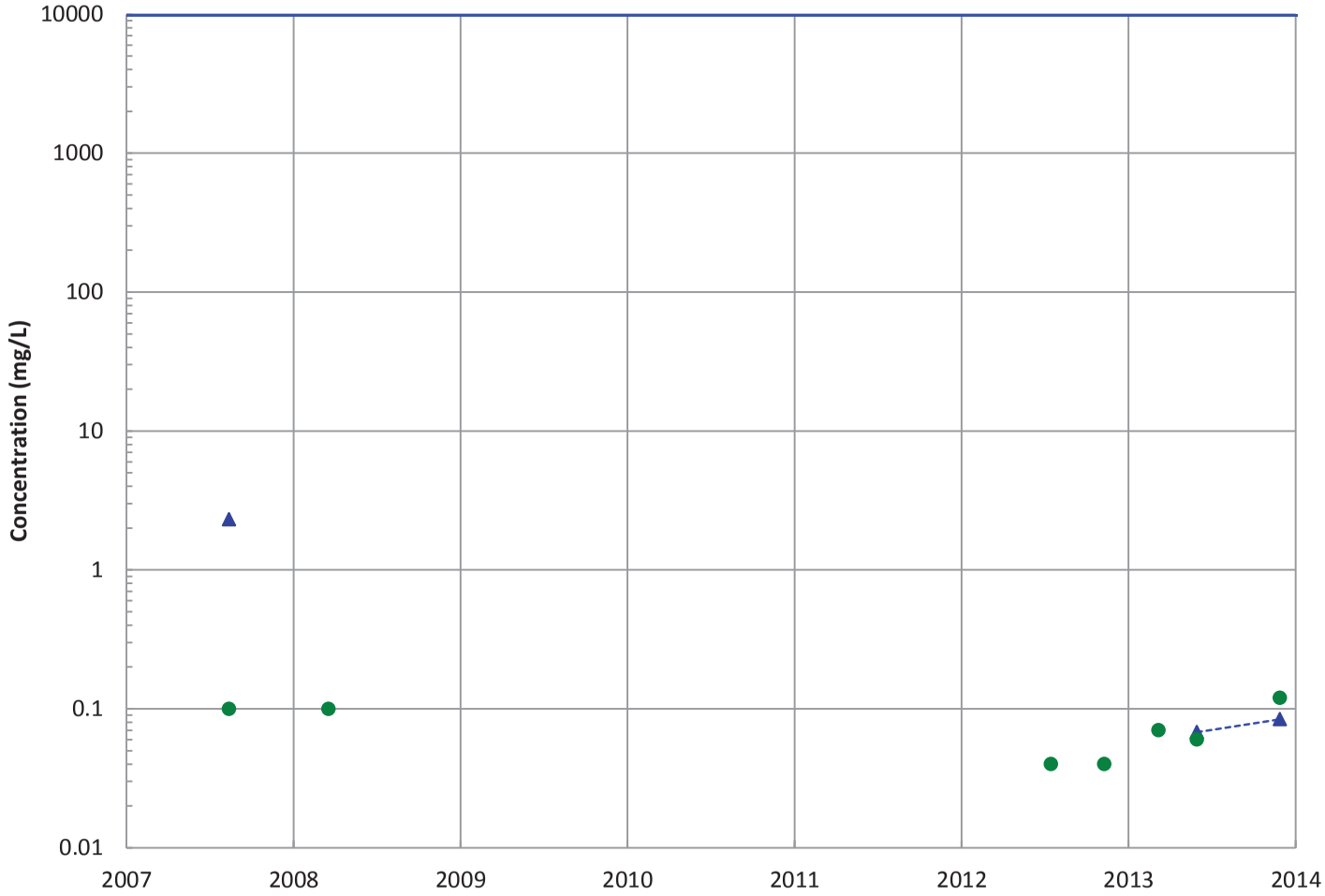
▲ Measured Value
● Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

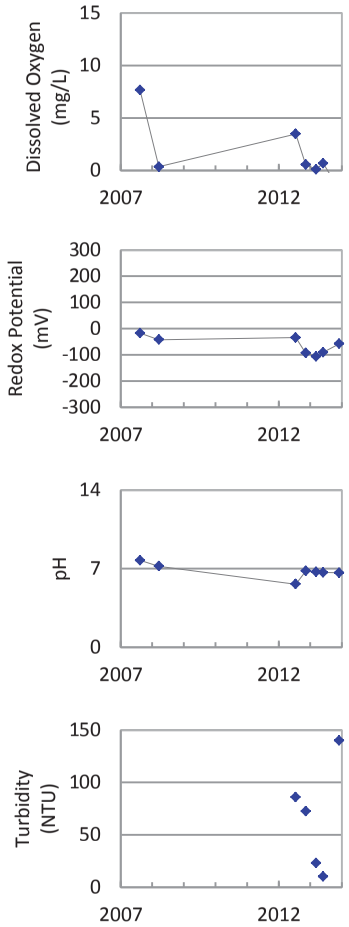


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 7/19/2012 to 6/4/2013
Analysis Date: 3/21/2014

PTX06-ISB024
Nitrate as N Trend in Perched Aquifer



Field Parameters



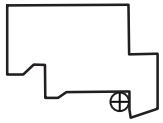
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: Increasing

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

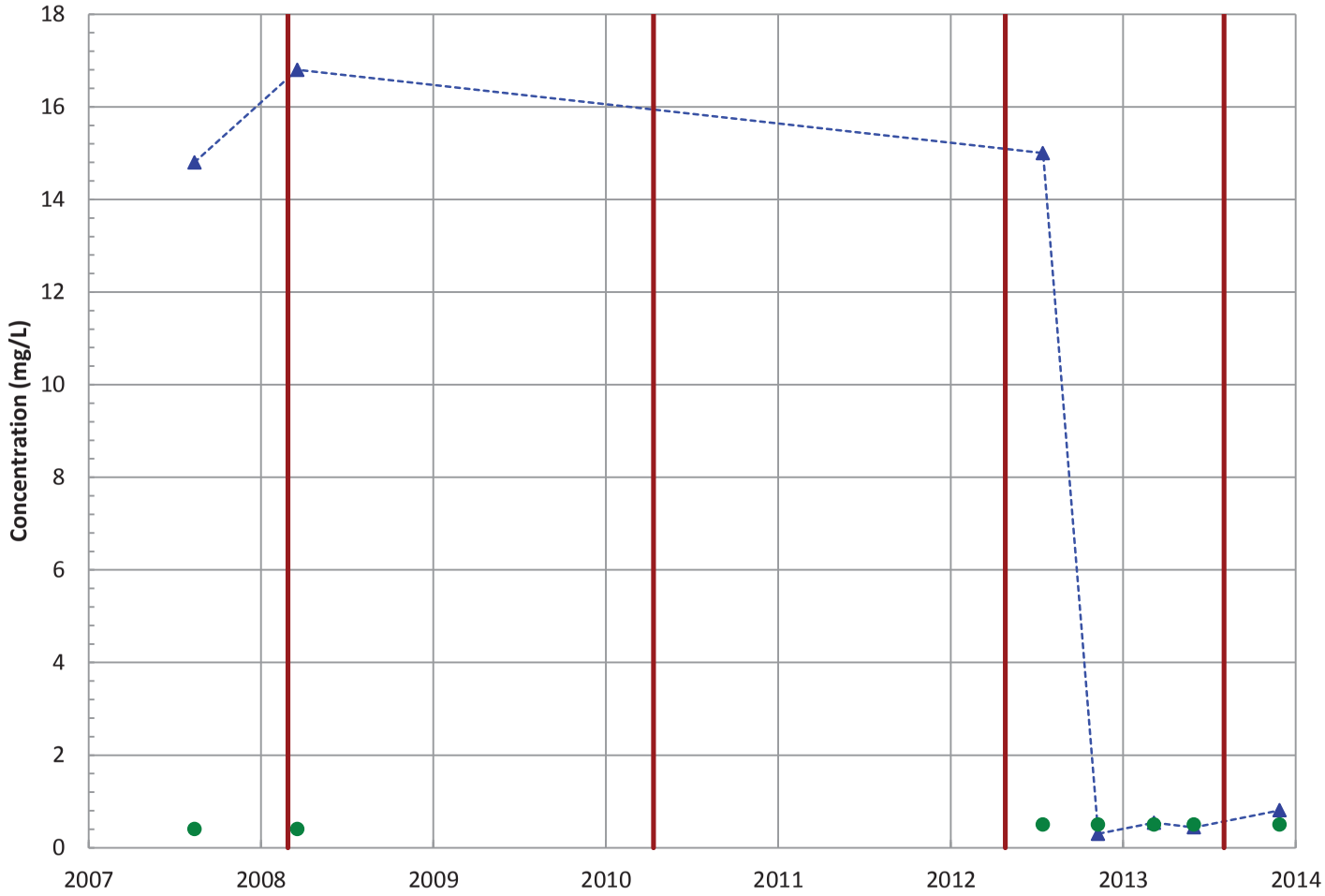
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

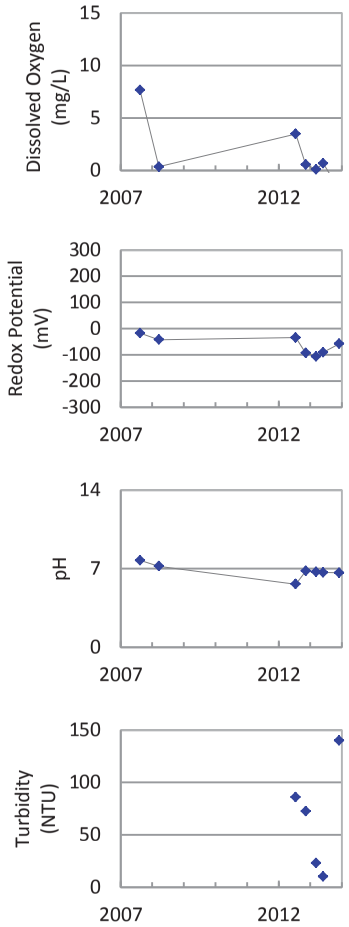


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/14/2007 to 12/3/2013
Analysis Date: 3/21/2014

PTX06-ISB024
Sulfate (as SO4) Trend in Perched Aquifer



Field Parameters



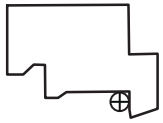
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

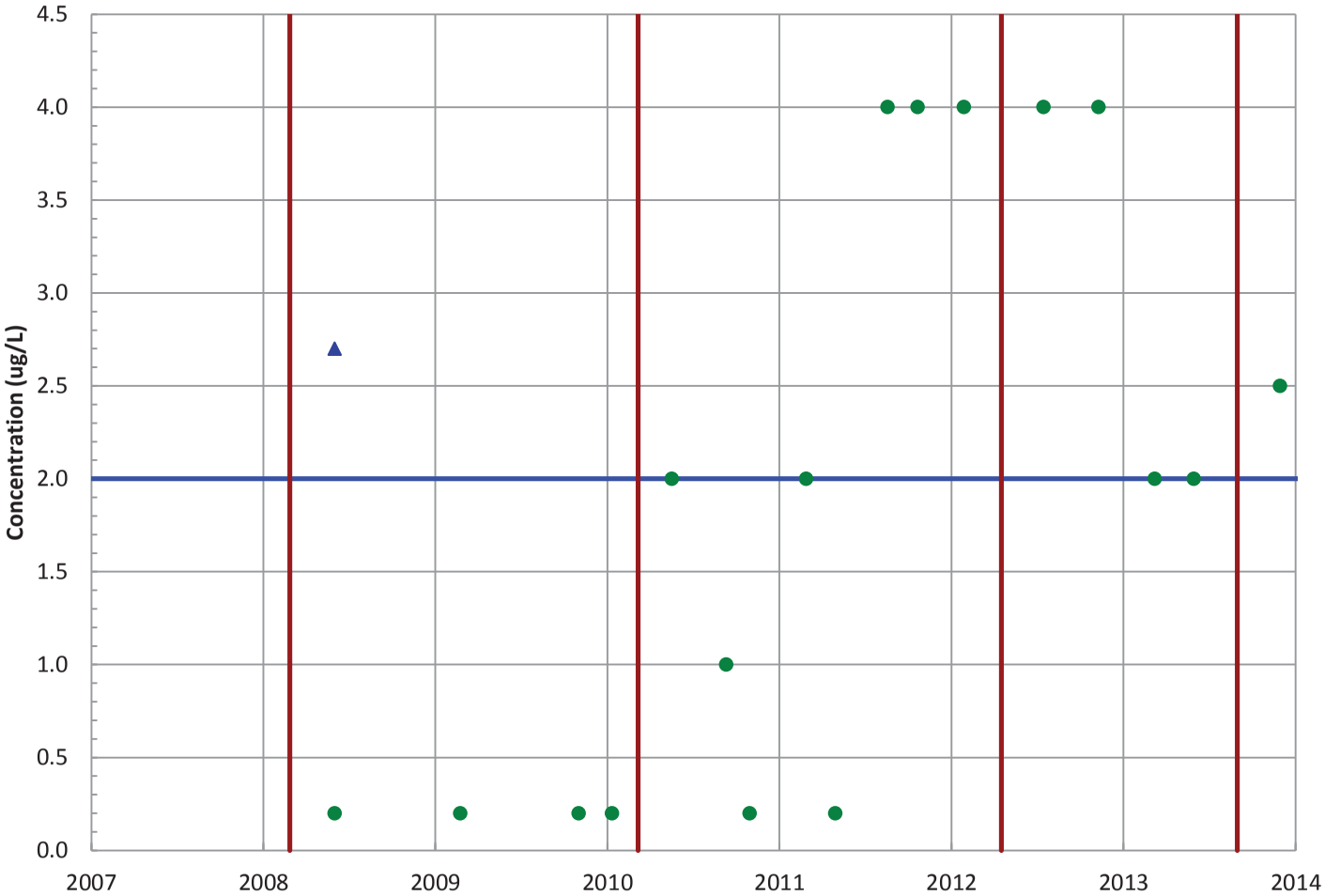
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

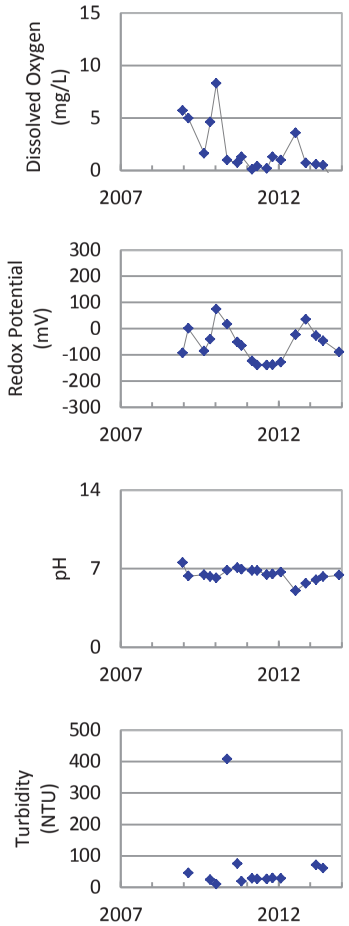


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/14/2007 to 12/3/2013
Analysis Date: 3/21/2014

PTX06-ISB030B
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



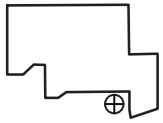
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

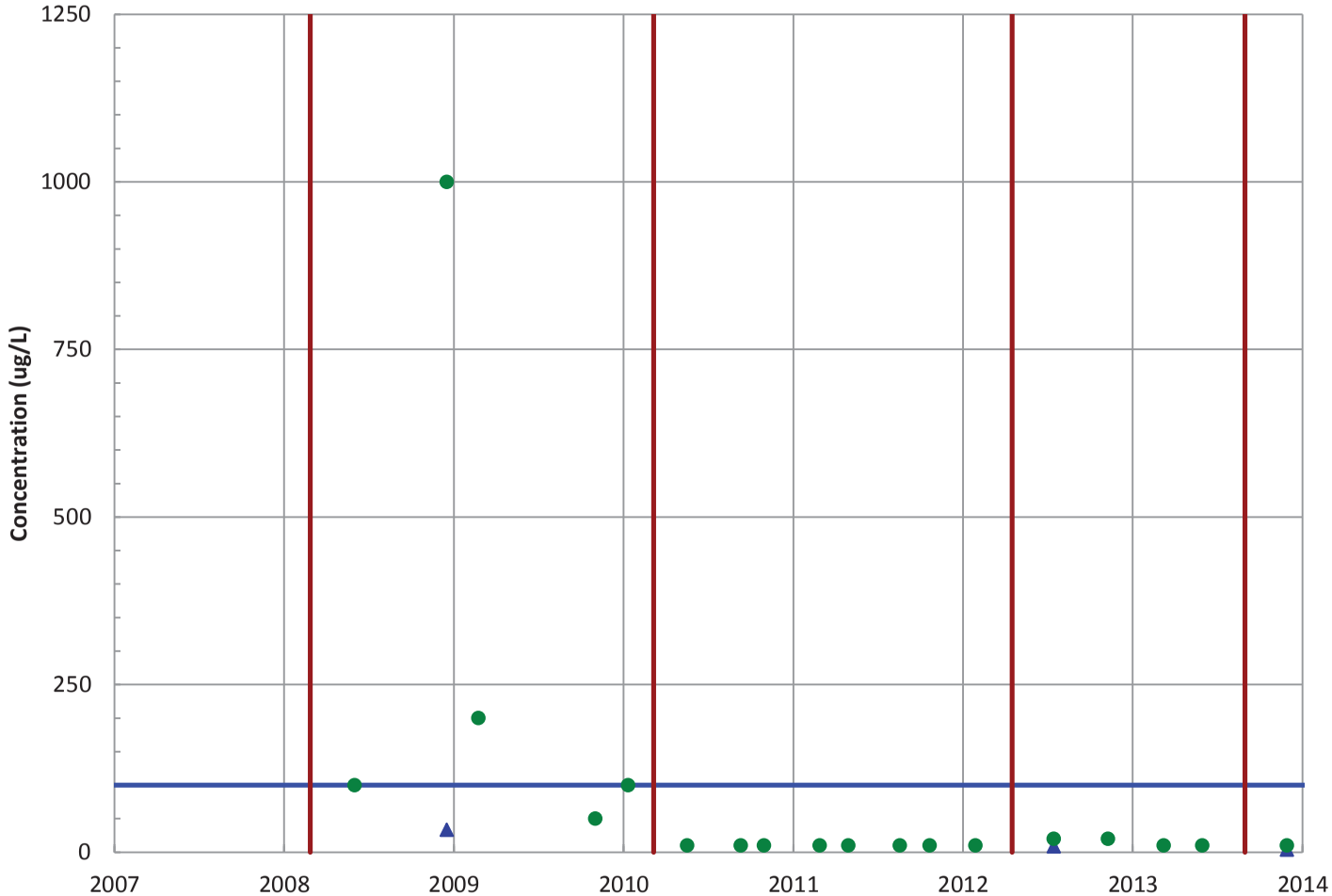
- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

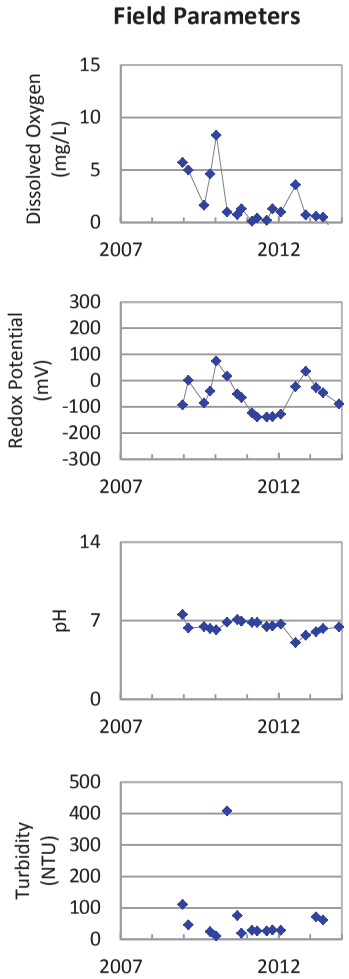
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/2/2008 to 12/4/2013
Analysis Date: 3/21/2014

PTX06-ISB030B
Chromium, Total Trend in Perched Aquifer





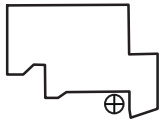
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

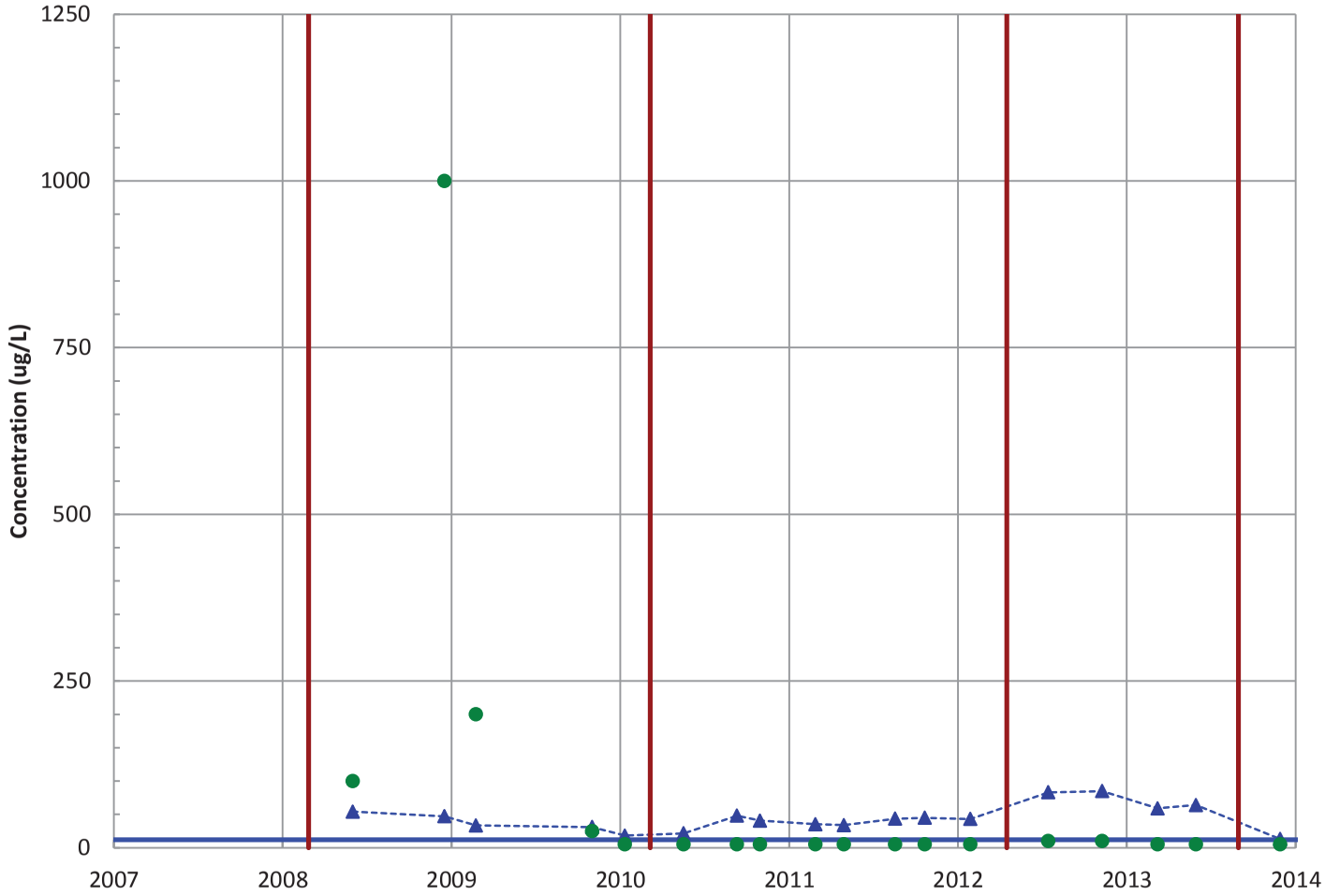
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

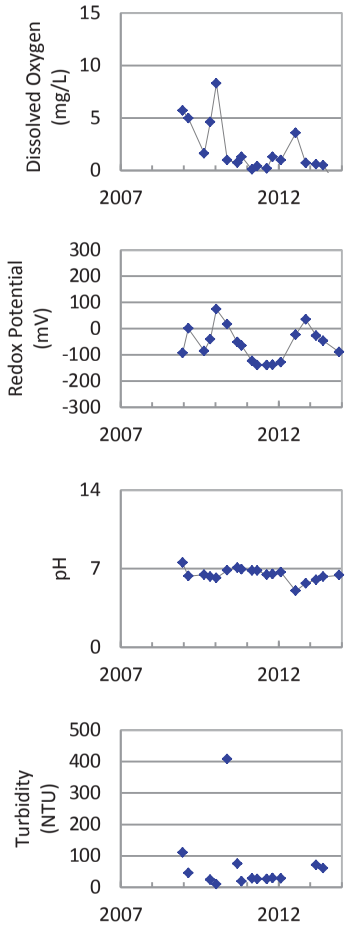


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/2/2008 to 12/4/2013
Analysis Date: 3/21/2014

PTX06-ISB030B
Arsenic Trend in Perched Aquifer



Field Parameters



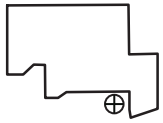
Concentration Trend

MAROS Mann-Kendall Method
All Data: Probably Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Decreasing

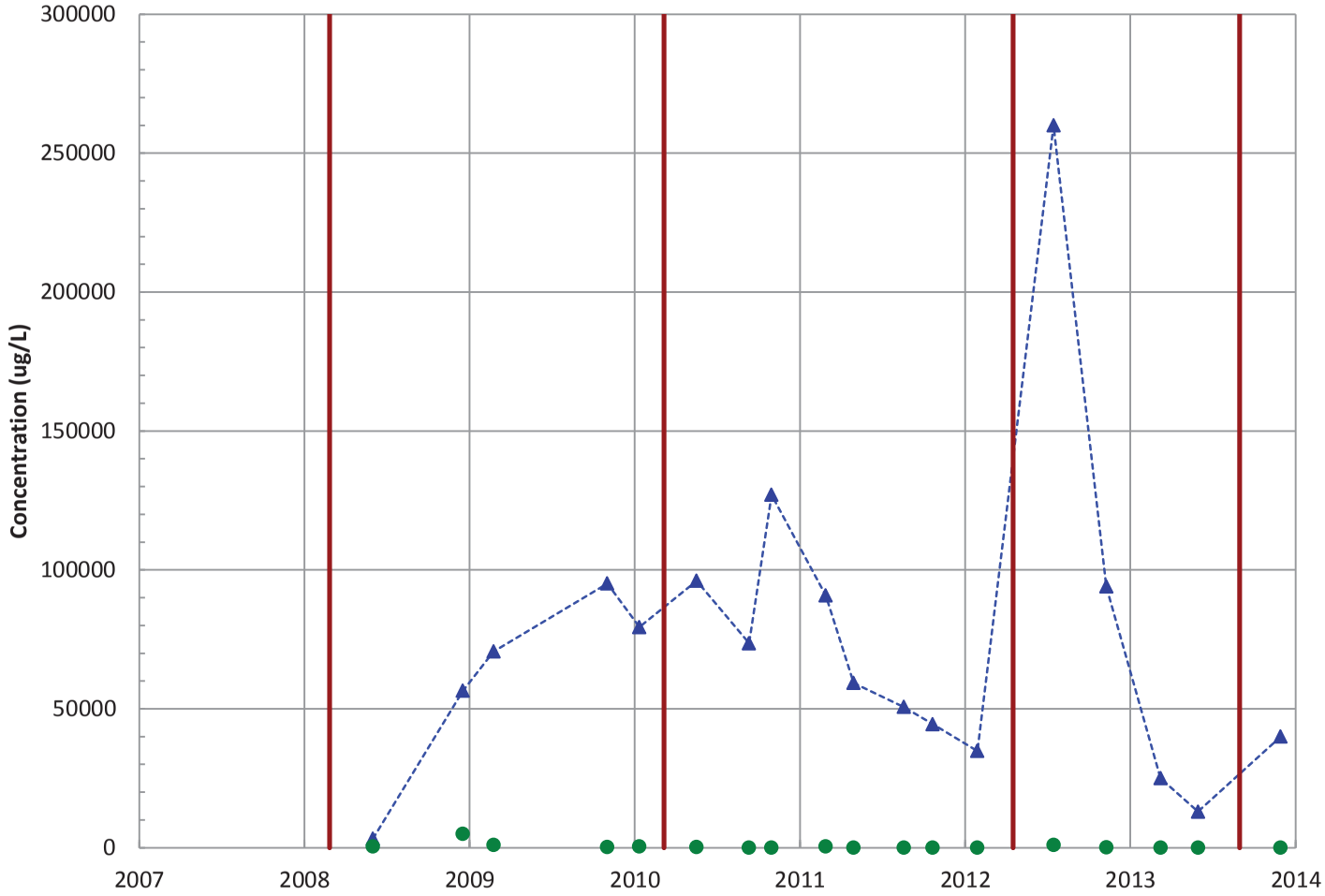
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

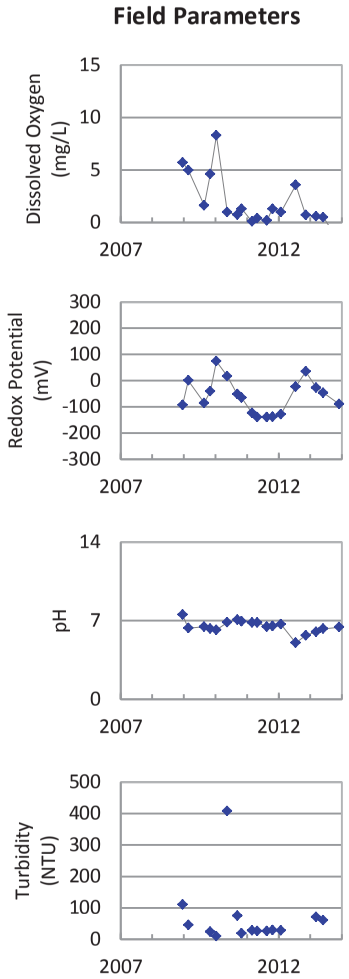
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/2/2008 to 12/4/2013
Analysis Date: 3/21/2014

PTX06-ISB030B
Iron Trend in Perched Aquifer





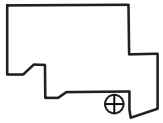
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Stable

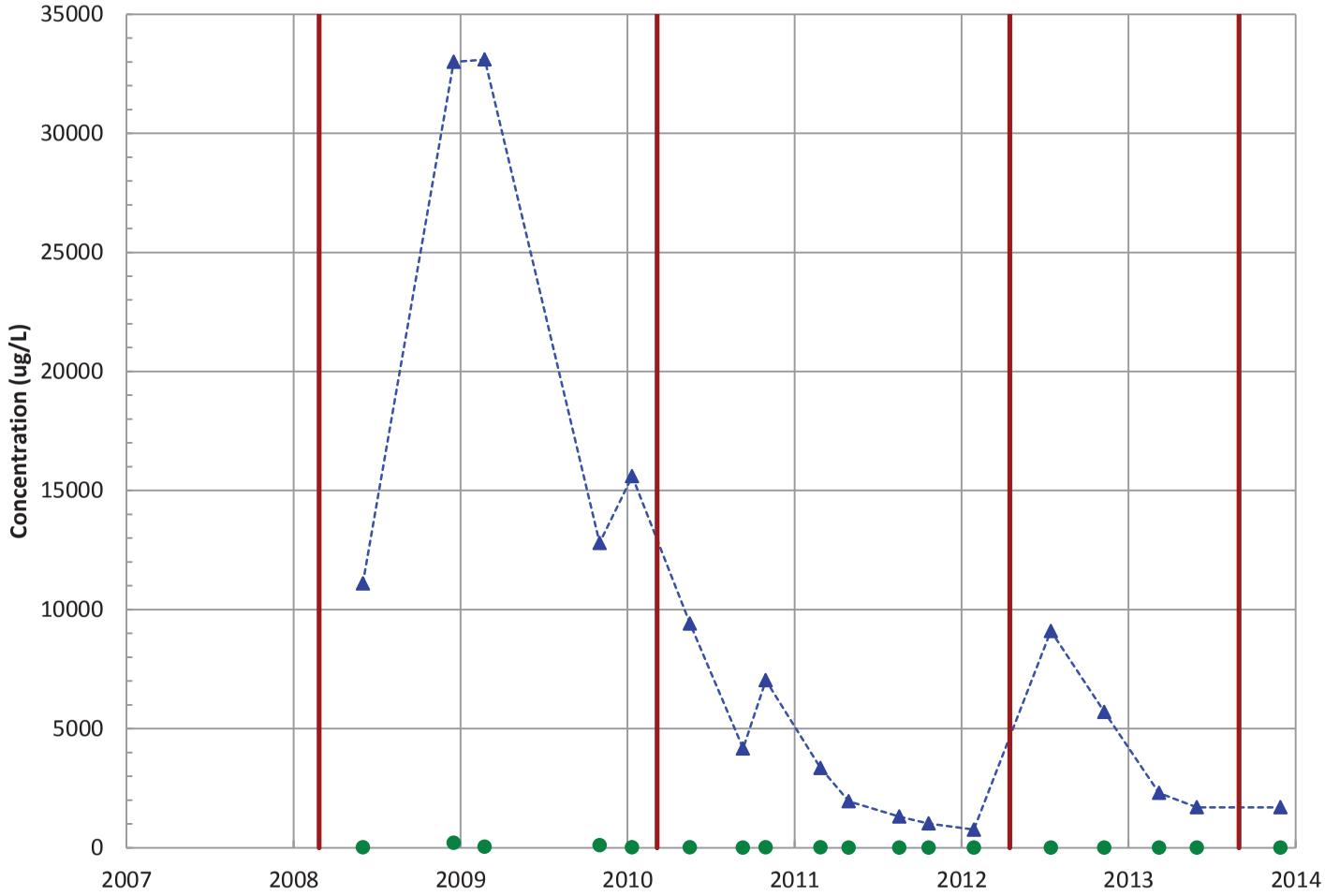
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

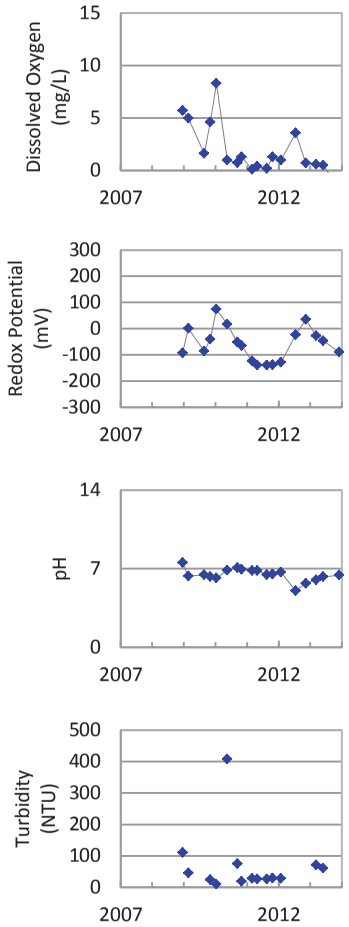


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/2/2008 to 12/4/2013
Analysis Date: 3/21/2014

PTX06-ISB030B
Manganese Trend in Perched Aquifer



Field Parameters



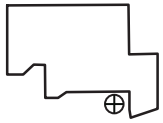
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Probably Decreasing

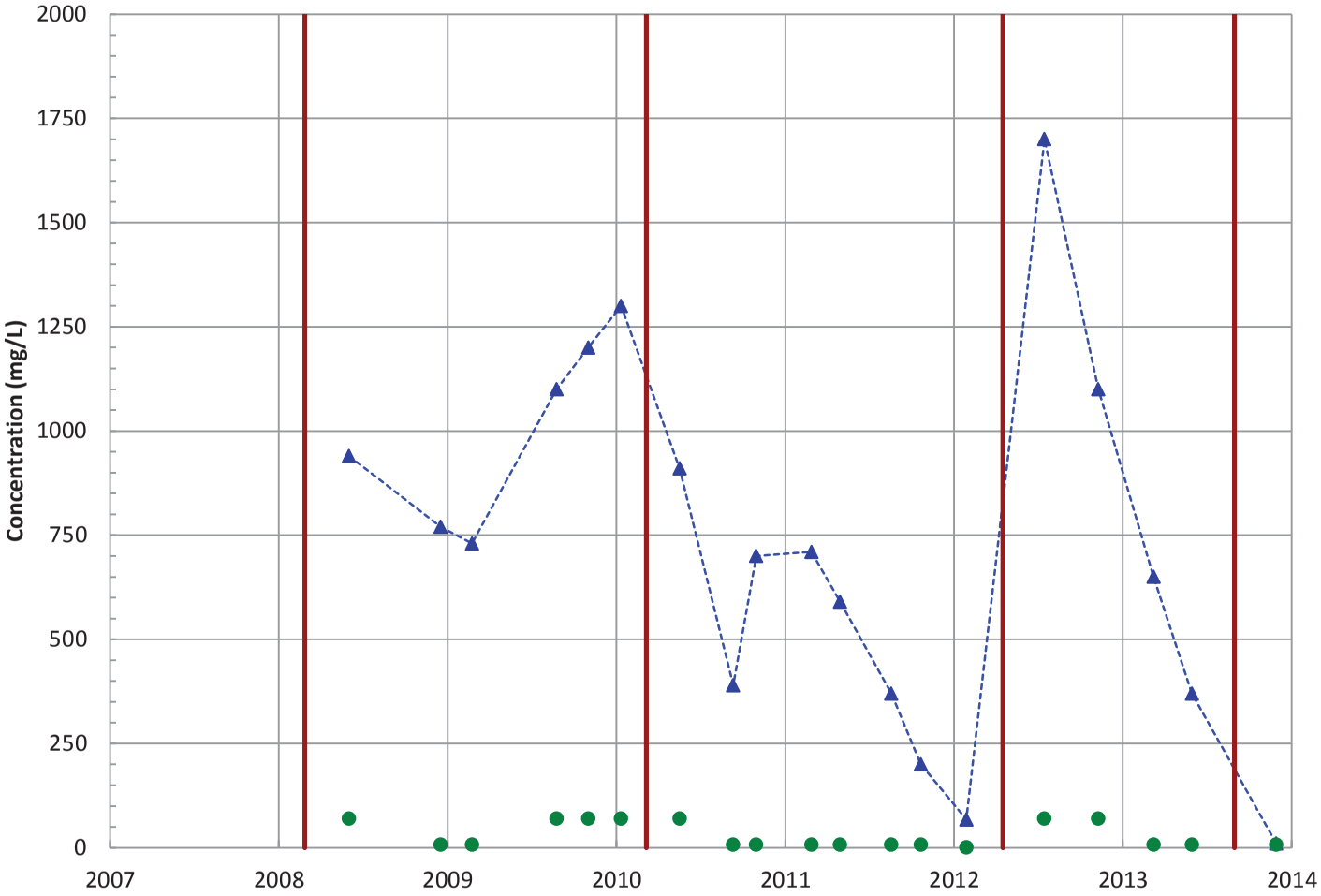
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

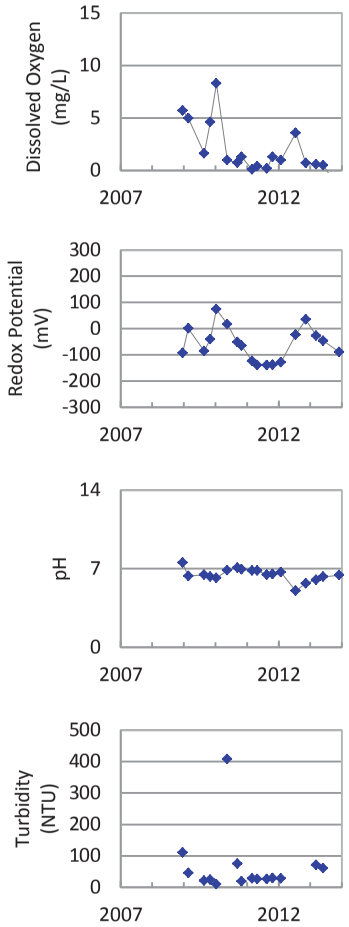


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/2/2008 to 12/4/2013
Analysis Date: 3/21/2014

PTX06-ISB030B
Acetic Acid Trend in Perched Aquifer



Field Parameters



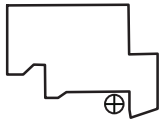
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Probably Decreasing

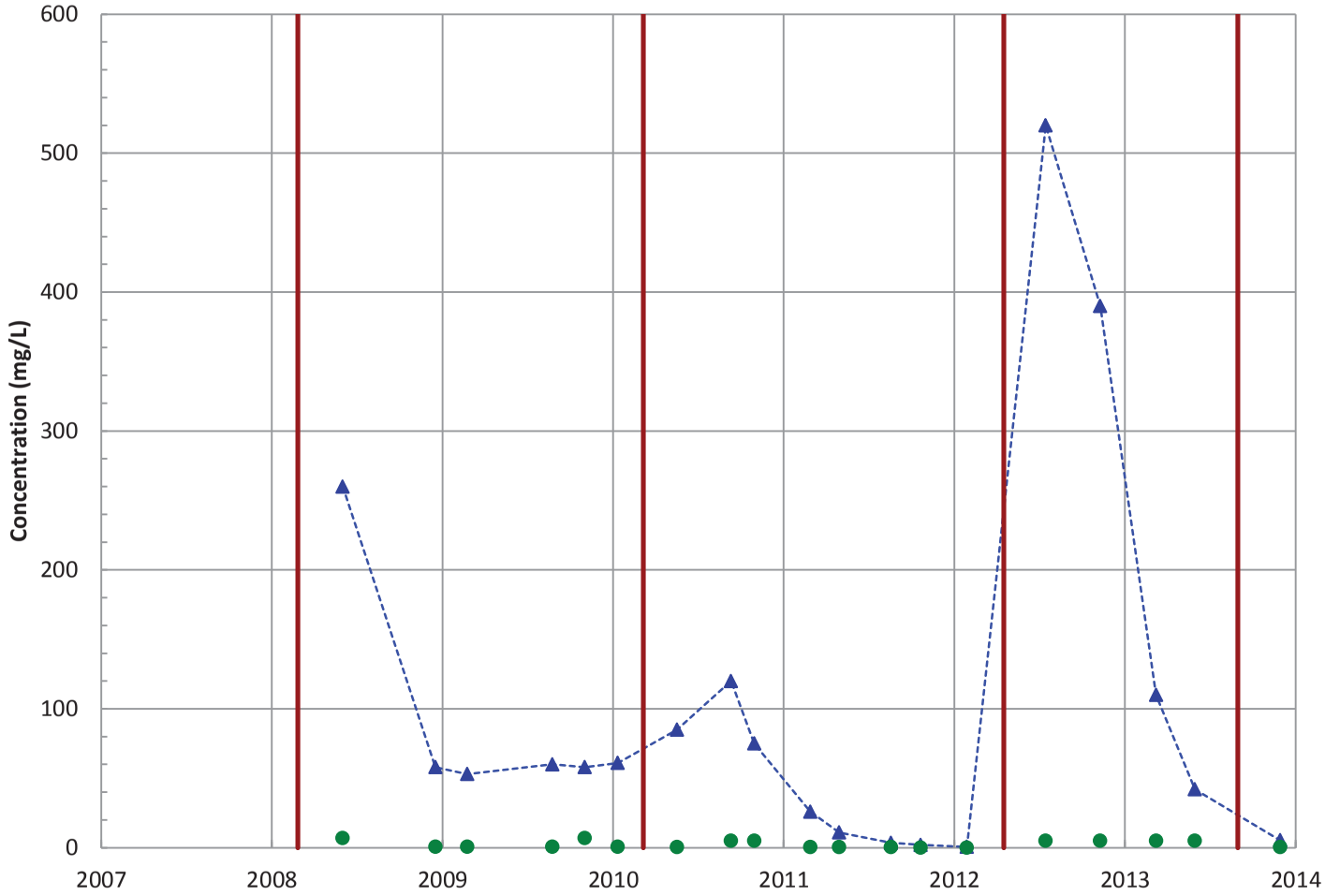
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

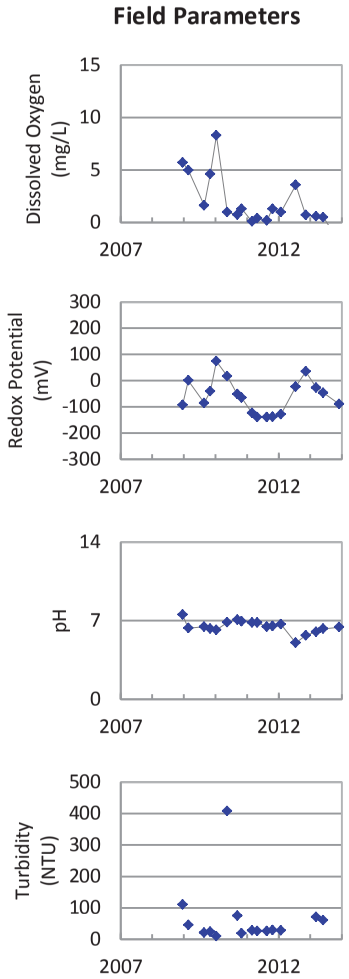
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/2/2008 to 12/4/2013
Analysis Date: 3/21/2014

PTX06-ISB030B
Butyric Acid Trend in Perched Aquifer





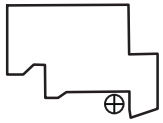
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Decreasing

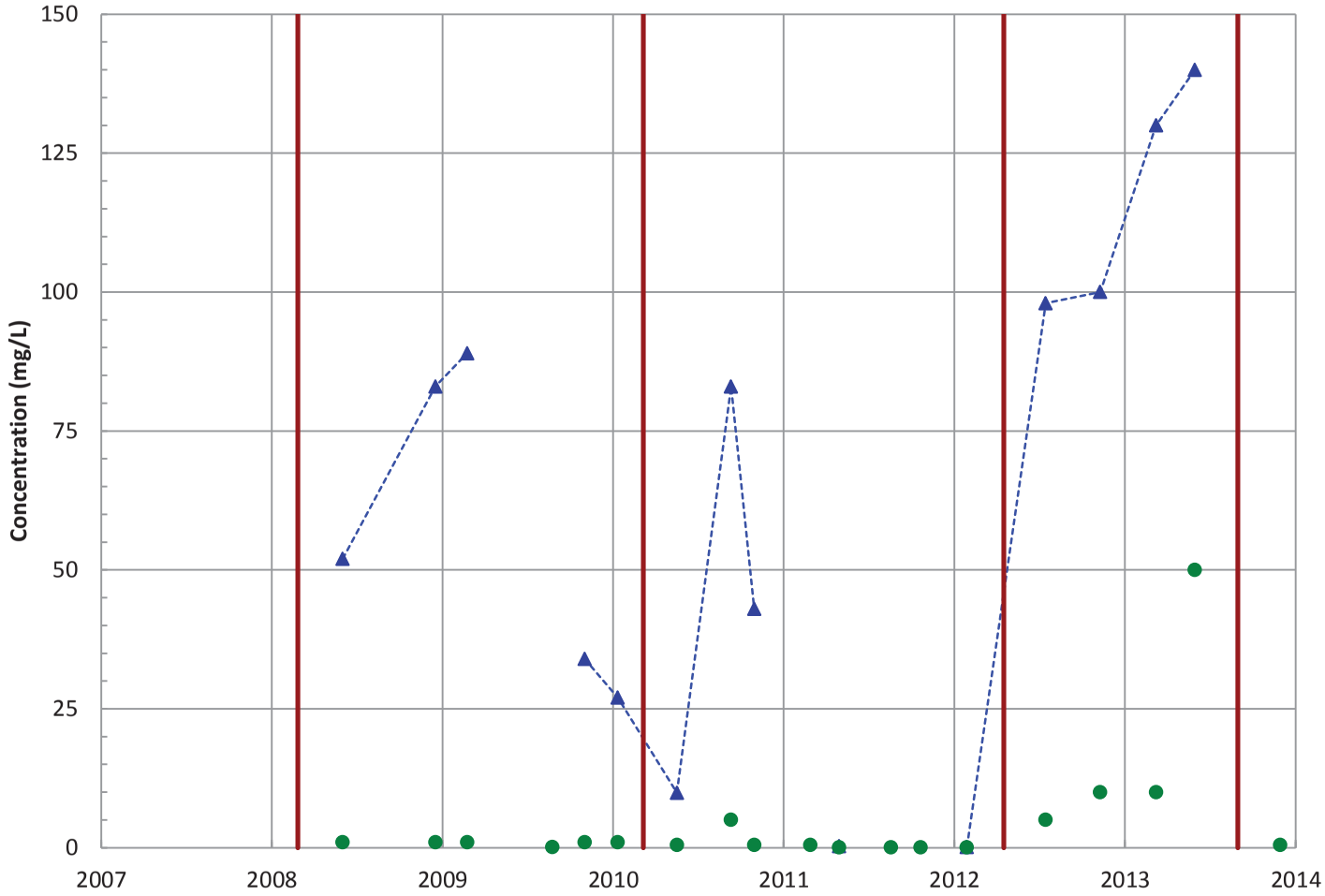
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

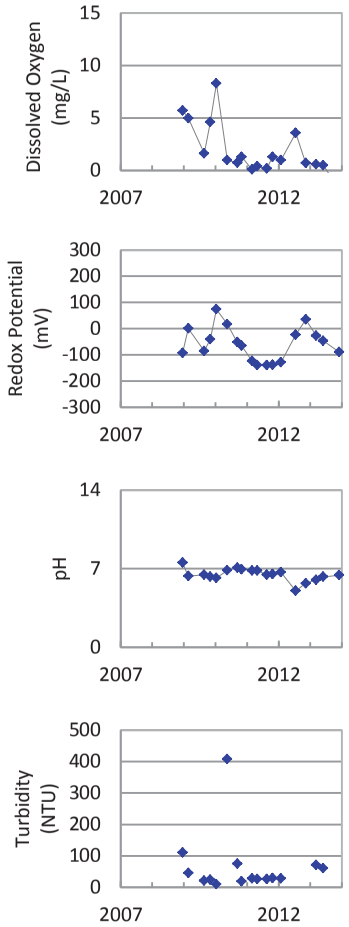


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/2/2008 to 12/4/2013
Analysis Date: 3/21/2014

PTX06-ISB030B
Hexanoic Acid Trend in Perched Aquifer



Field Parameters



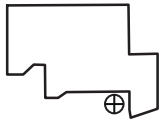
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Stable

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: Probably Increasing

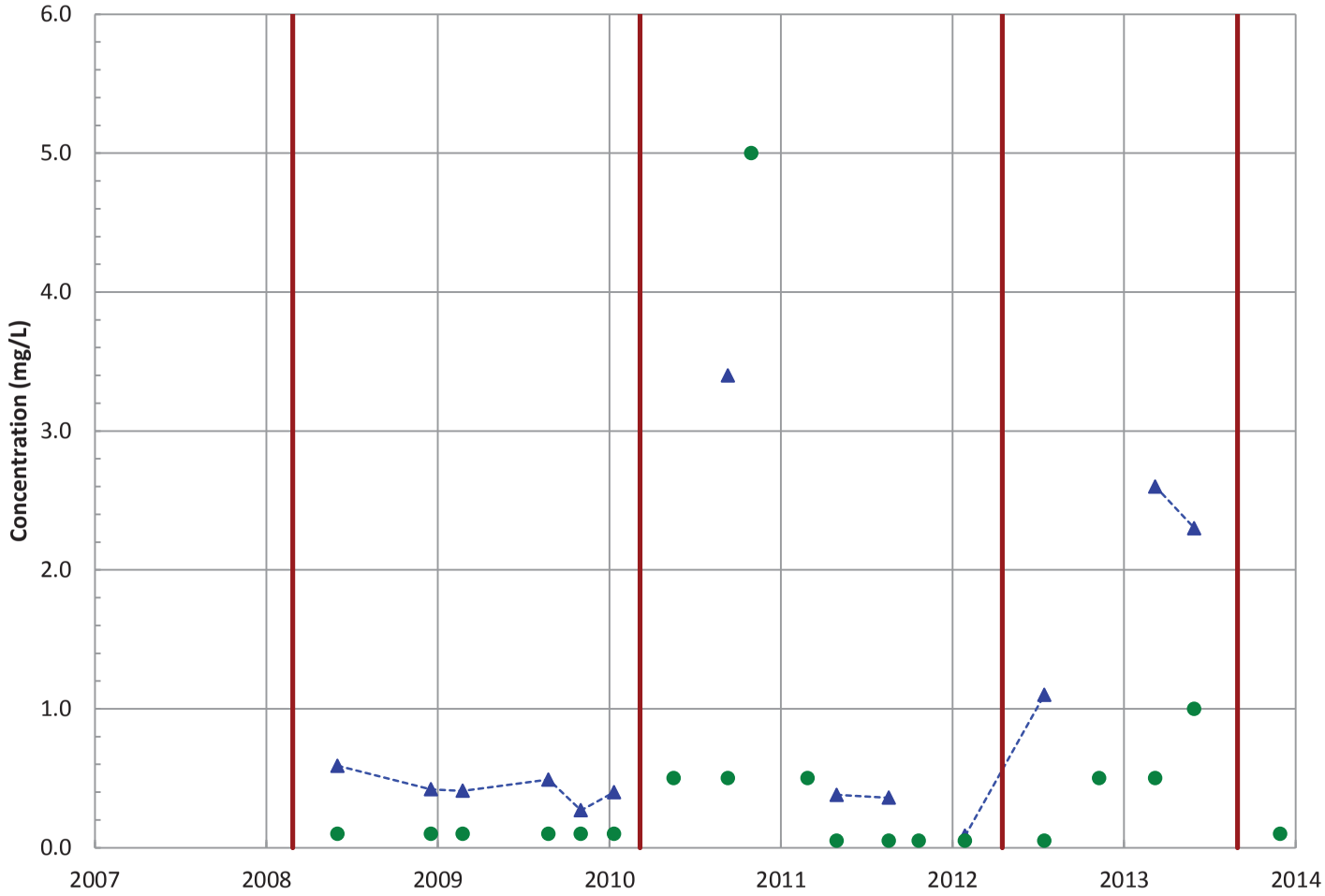
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

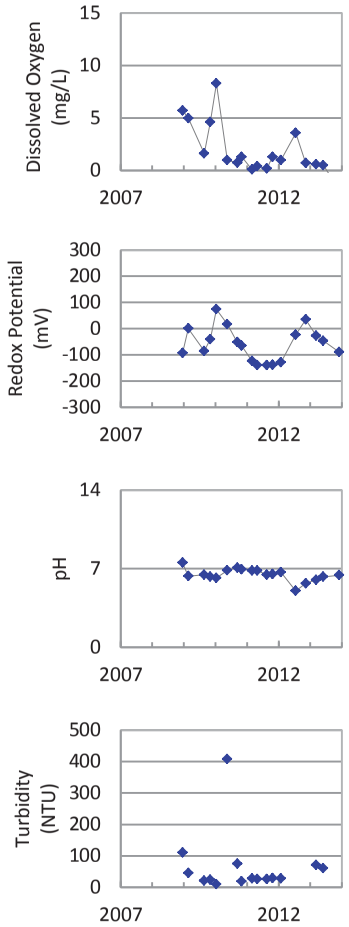


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/2/2008 to 12/4/2013
Analysis Date: 3/21/2014

PTX06-ISB030B
i-Hexanoic Acid Trend in Perched Aquifer



Field Parameters



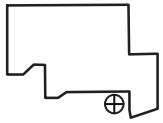
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Probably Increasing

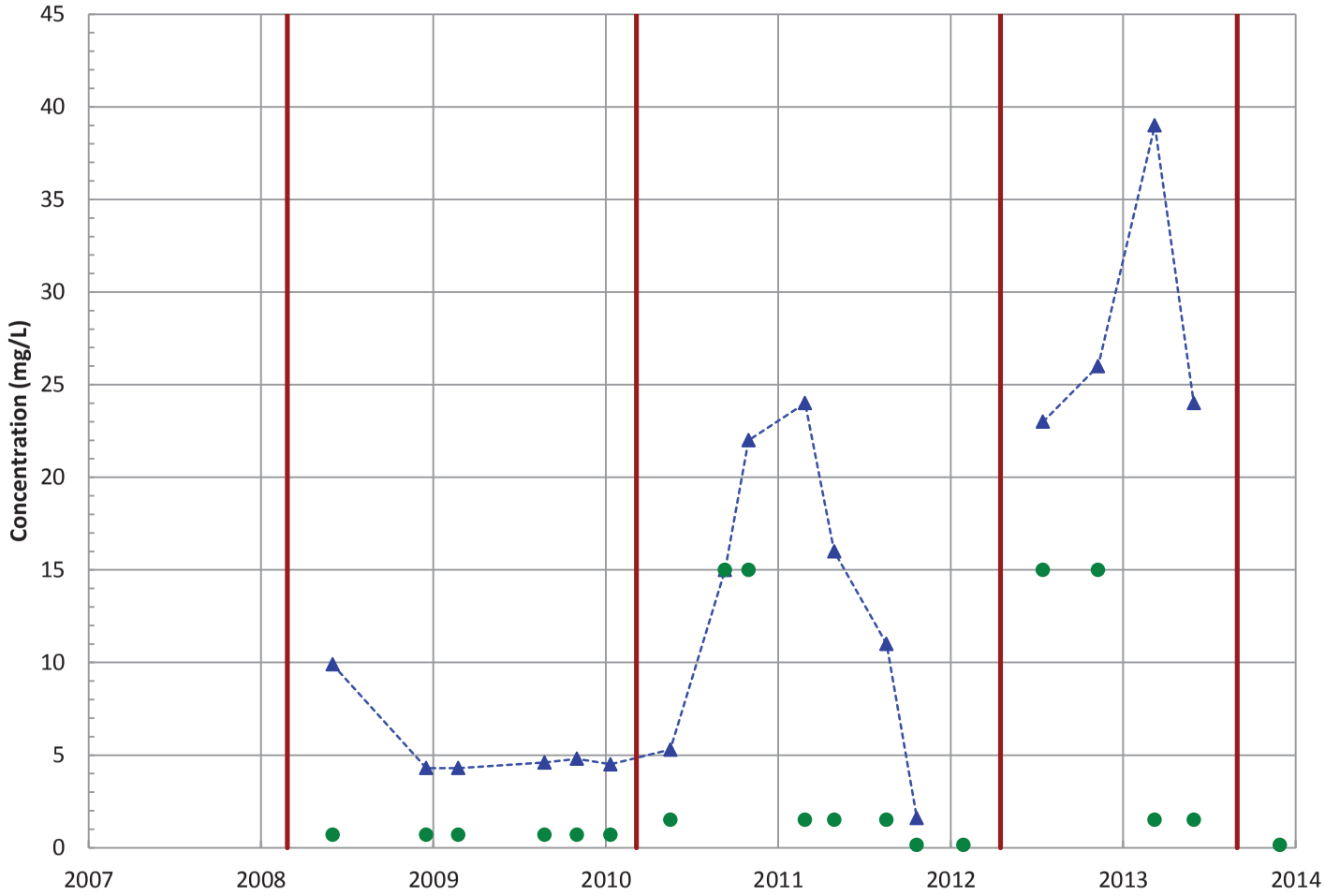
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

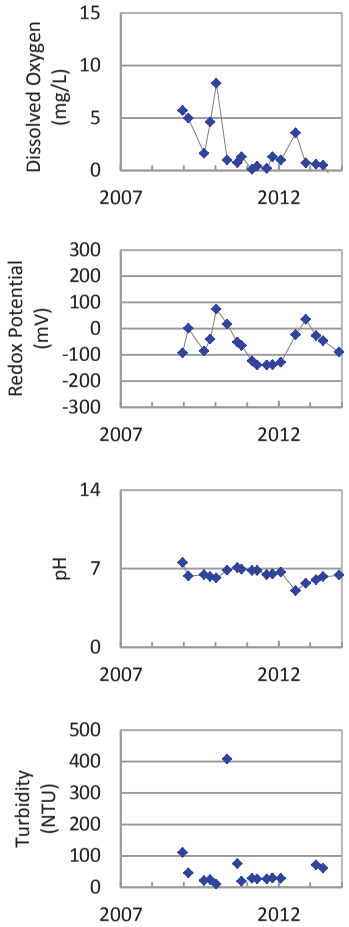


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/2/2008 to 12/4/2013
Analysis Date: 3/21/2014

PTX06-ISB030B
i-Pentanoic Acid Trend in Perched Aquifer



Field Parameters



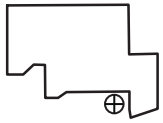
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: No Trend

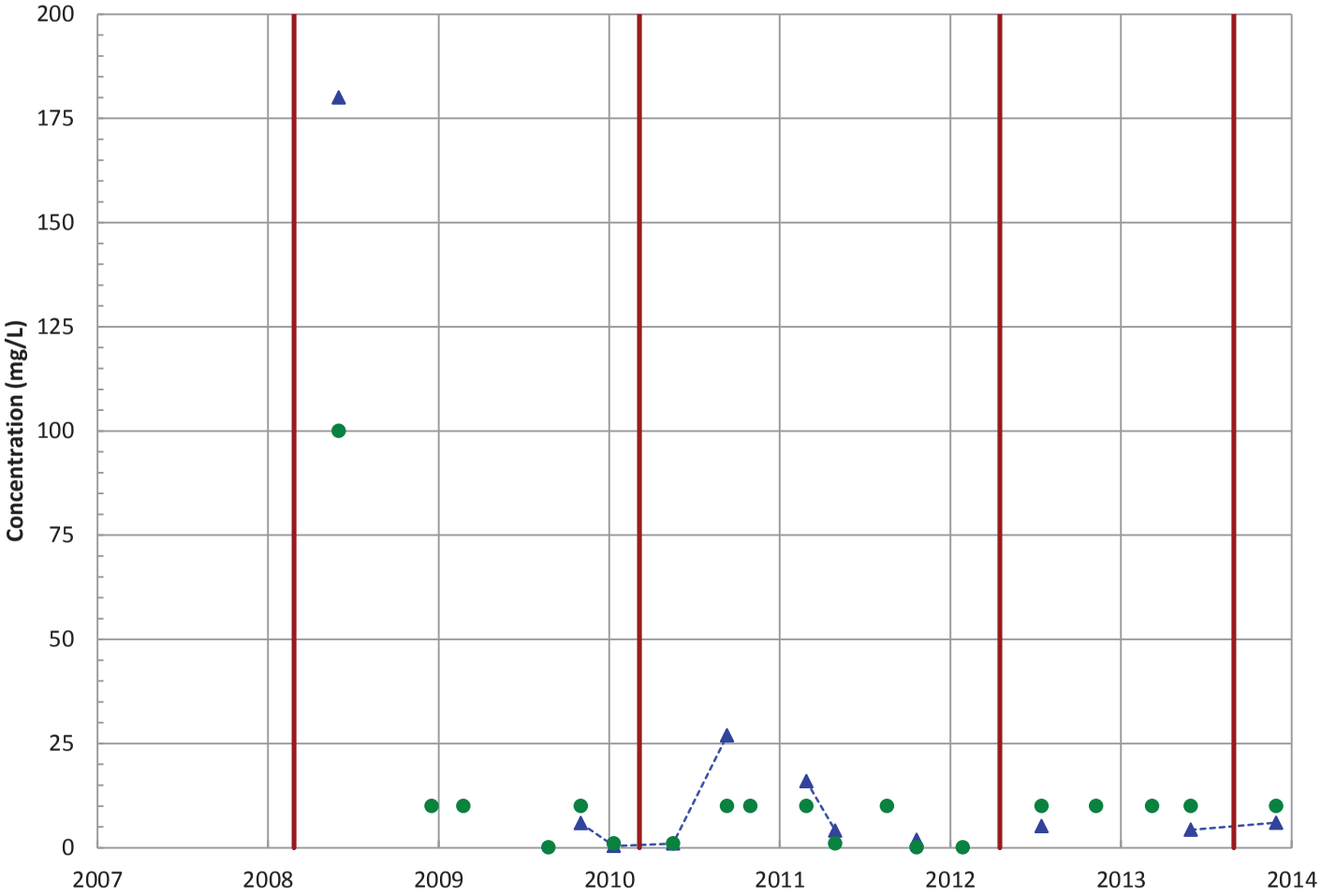
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

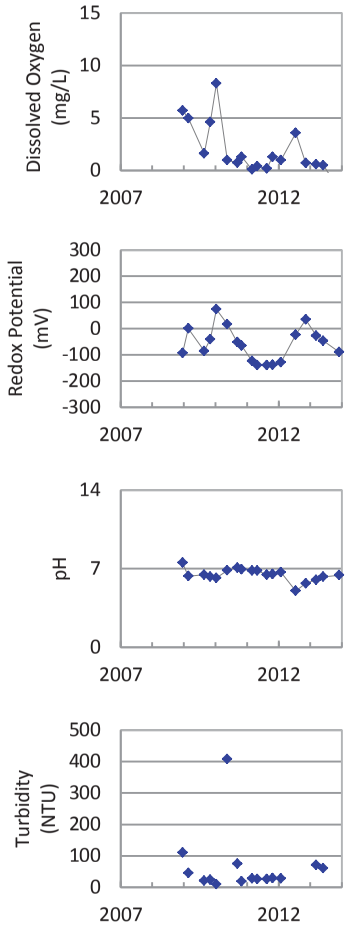


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/2/2008 to 12/4/2013
Analysis Date: 3/21/2014

PTX06-ISB030B
Lactic Acid and HIBA Trend in Perched Aquifer



Field Parameters



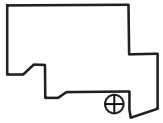
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Increasing

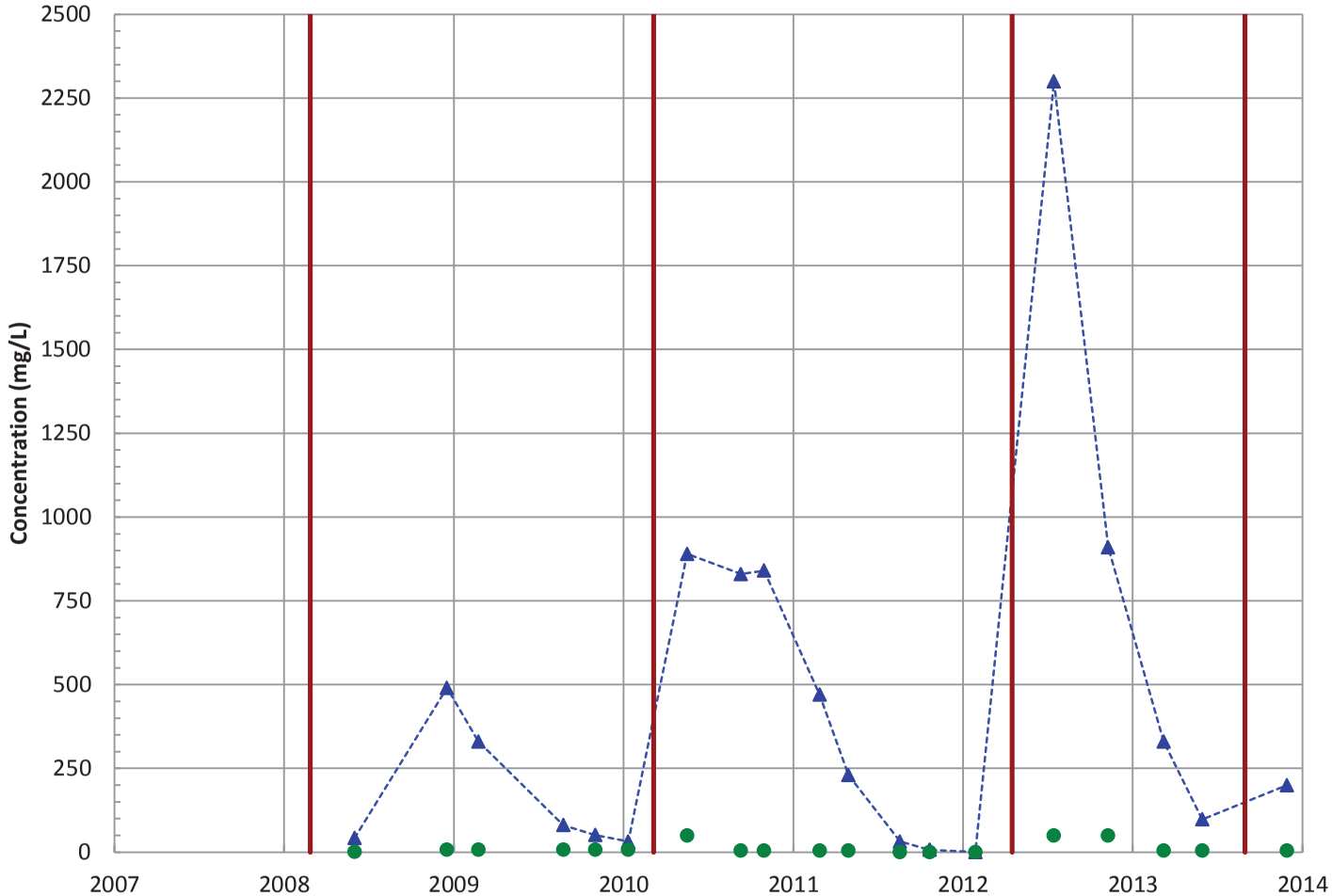
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

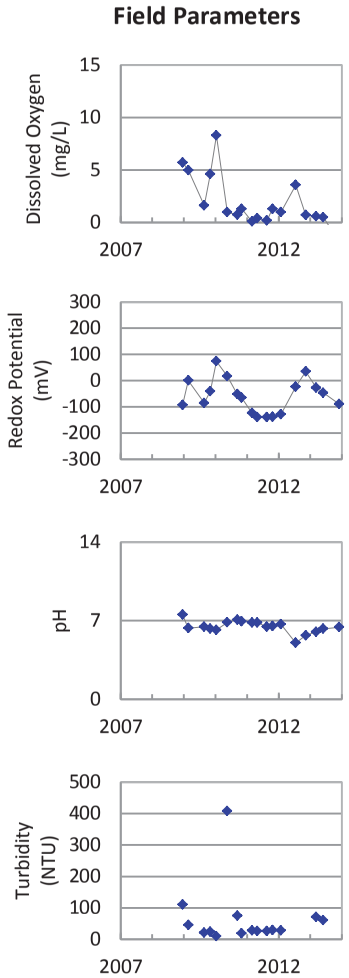
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/2/2008 to 12/4/2013
Analysis Date: 3/21/2014

PTX06-ISB030B
Propionic Acid Trend in Perched Aquifer





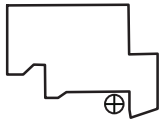
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Stable

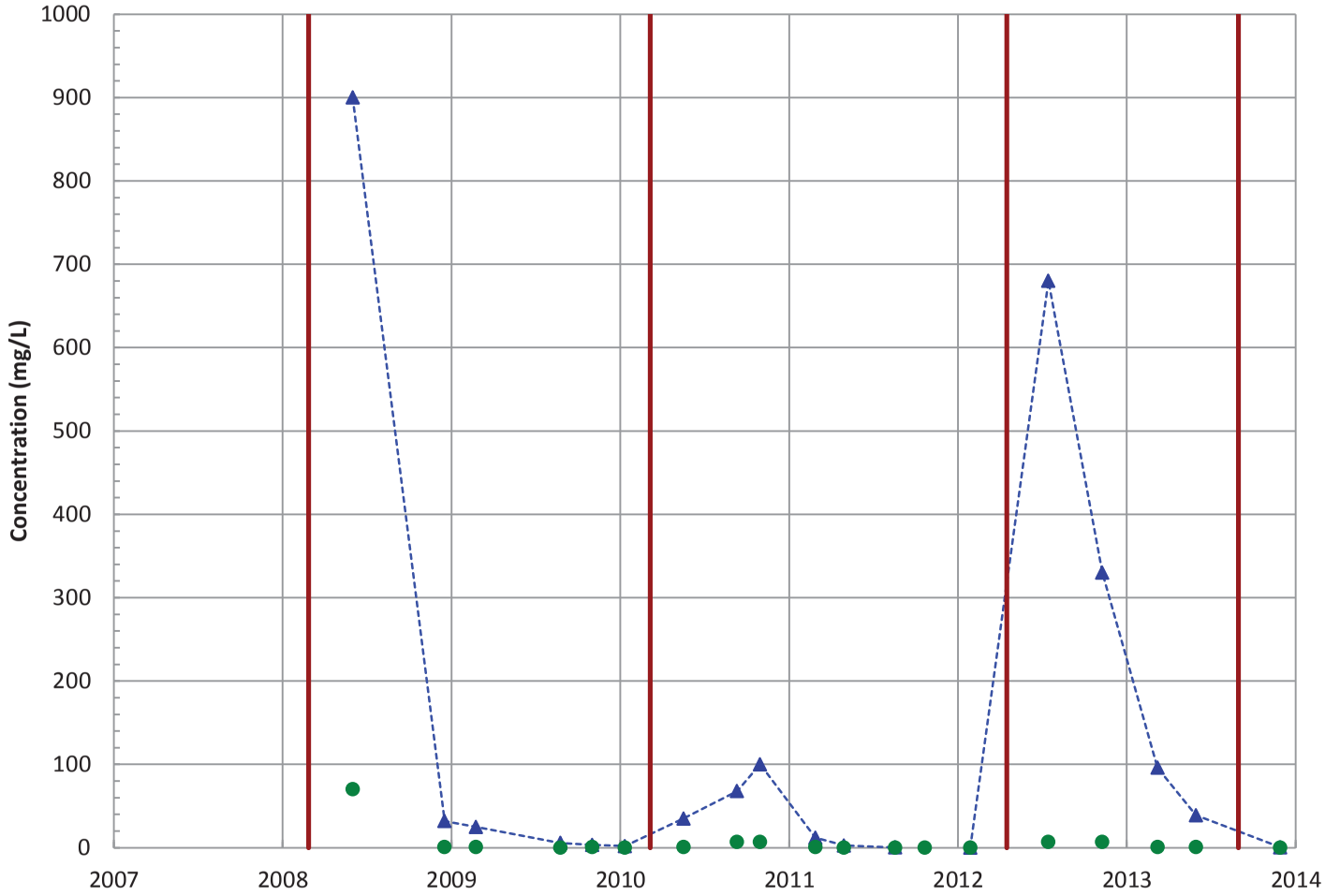
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

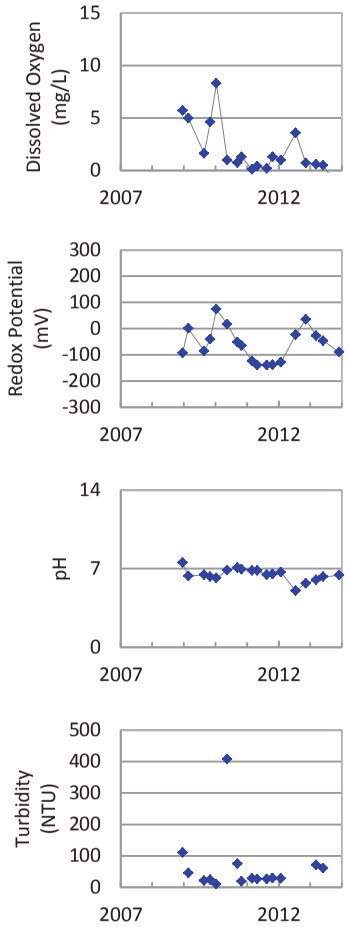


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/2/2008 to 12/4/2013
Analysis Date: 3/21/2014

PTX06-ISB030B
Pentanoic Acid Trend in Perched Aquifer



Field Parameters



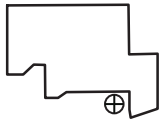
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Decreasing

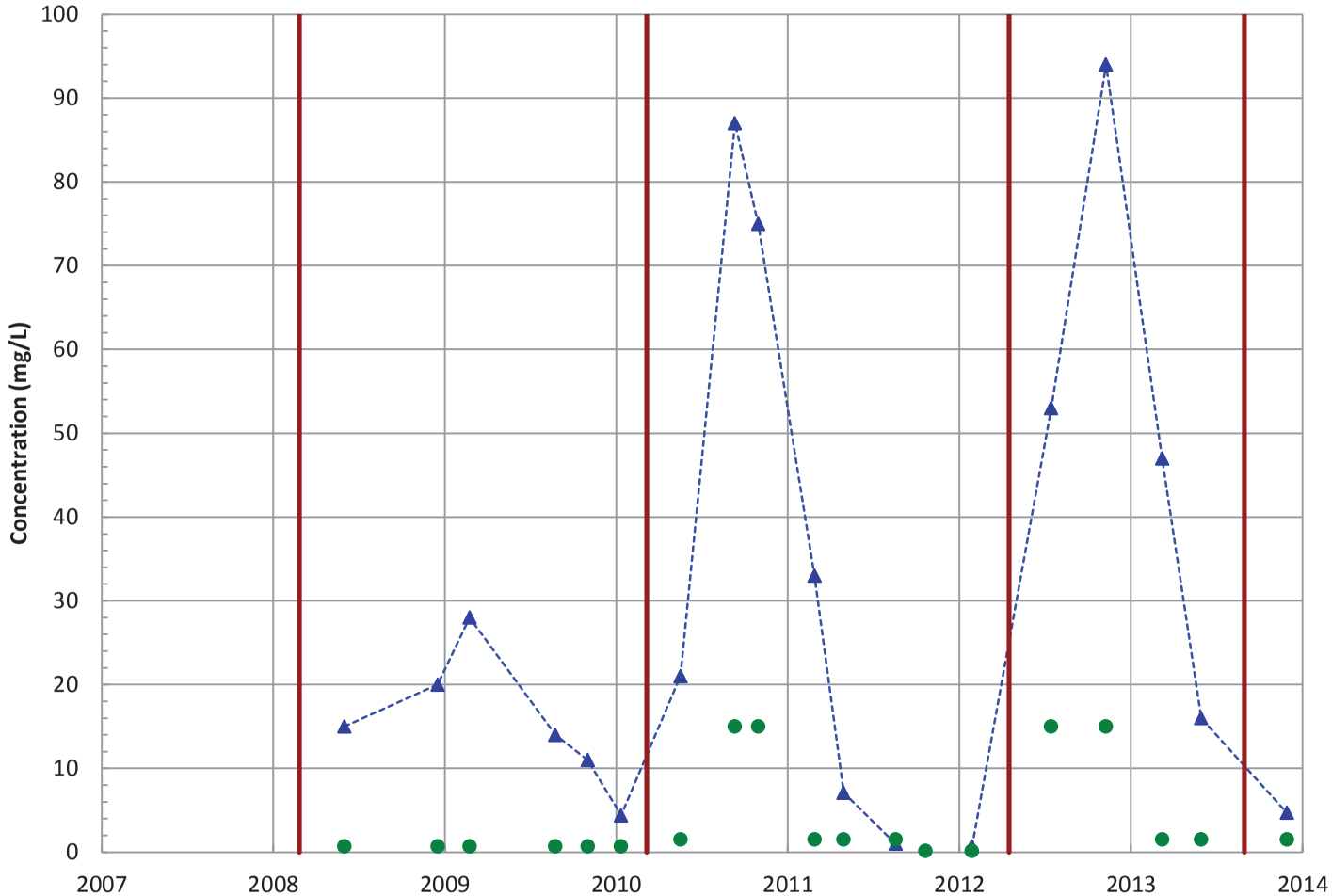
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

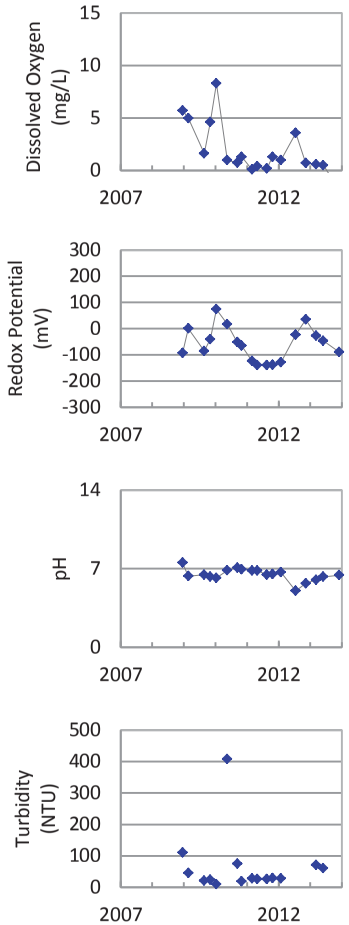


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/2/2008 to 12/4/2013
Analysis Date: 3/21/2014

PTX06-ISB030B
Pyruvic Acid Trend in Perched Aquifer



Field Parameters



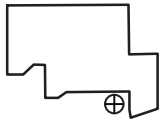
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Decreasing

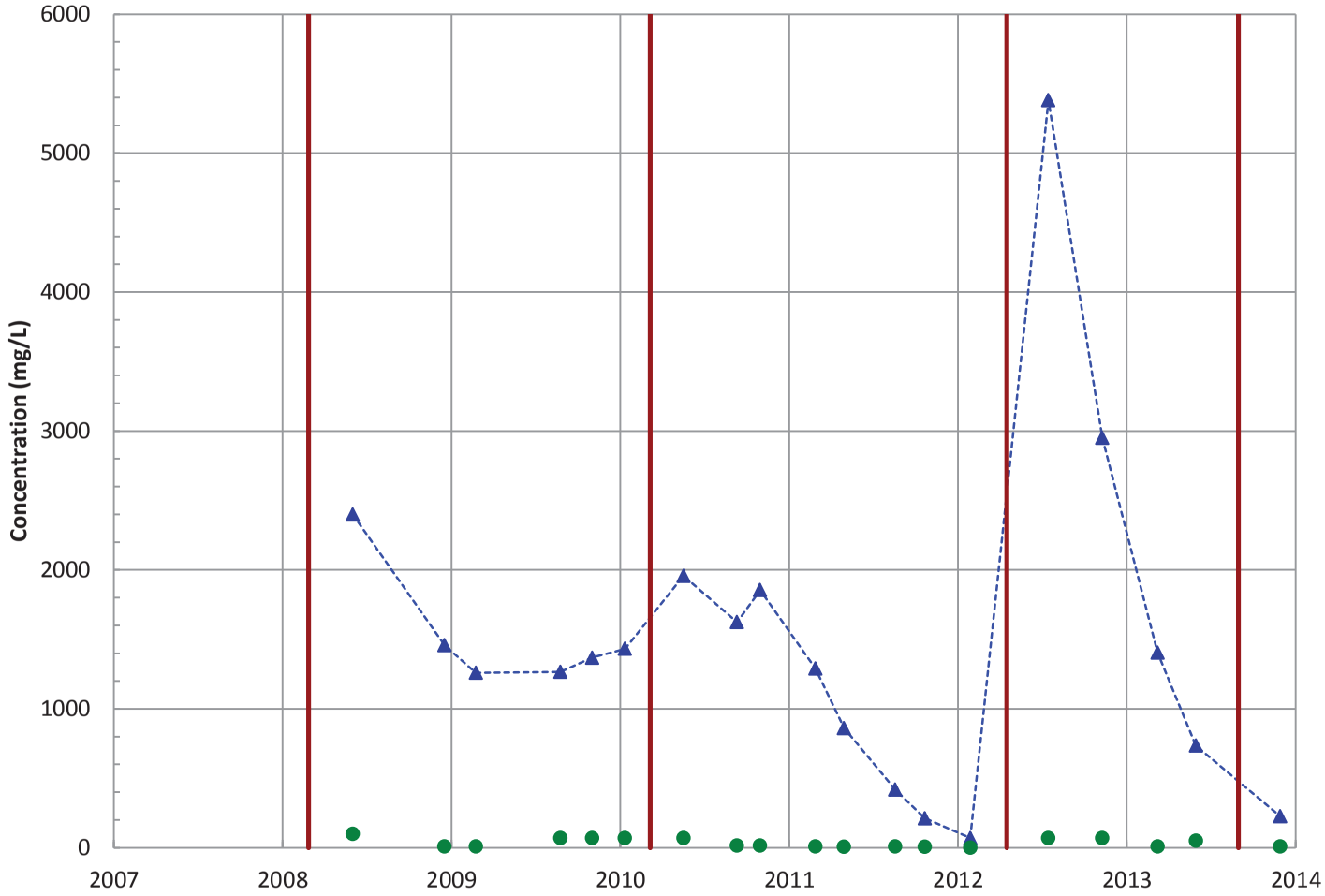
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

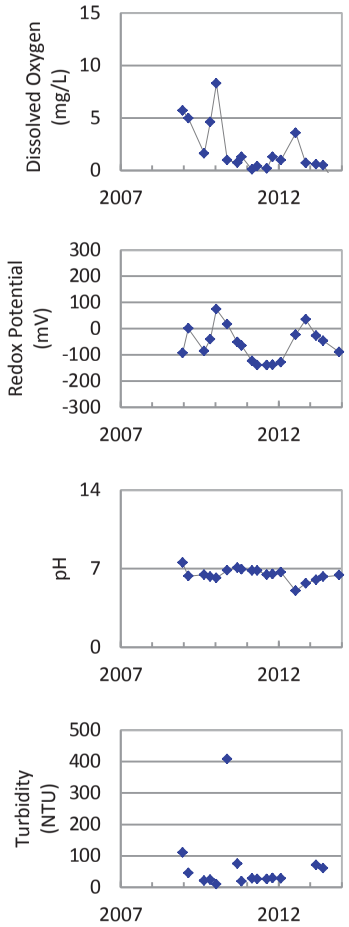


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/2/2008 to 12/4/2013
Analysis Date: 3/21/2014

PTX06-ISB030B
Total Volatile Fatty Acids Trend in Perched Aquifer



Field Parameters



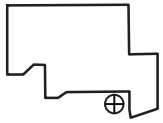
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Probably Decreasing
Last 4 Samples: Decreasing

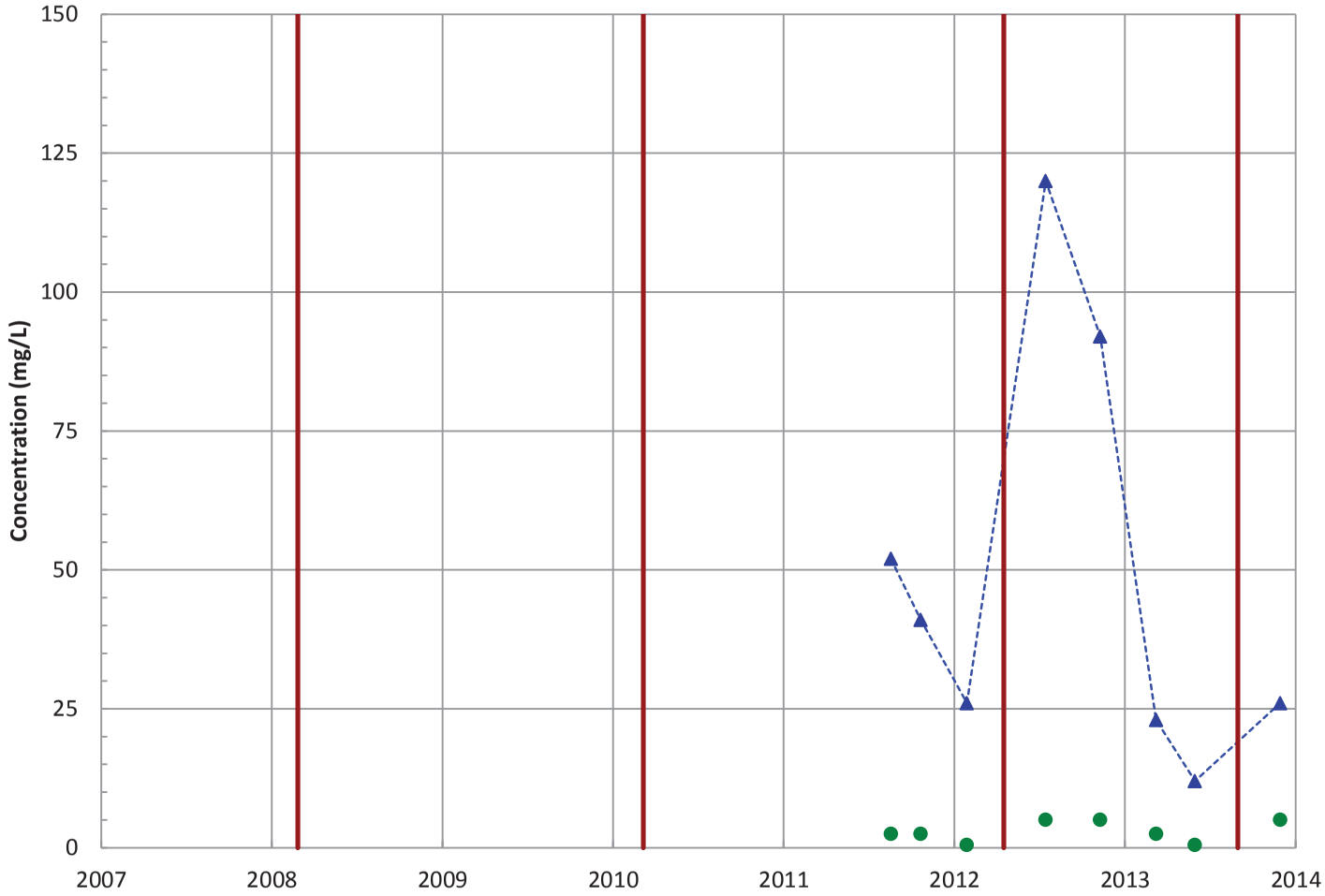
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Injection Dates

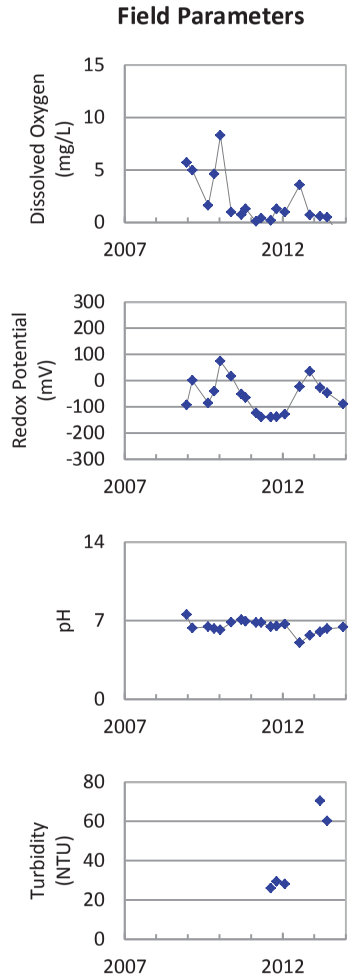
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/2/2008 to 12/4/2013
Analysis Date: 3/21/2014

PTX06-ISB030B
Ferrous Iron Trend in Perched Aquifer





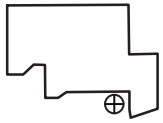
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: Stable

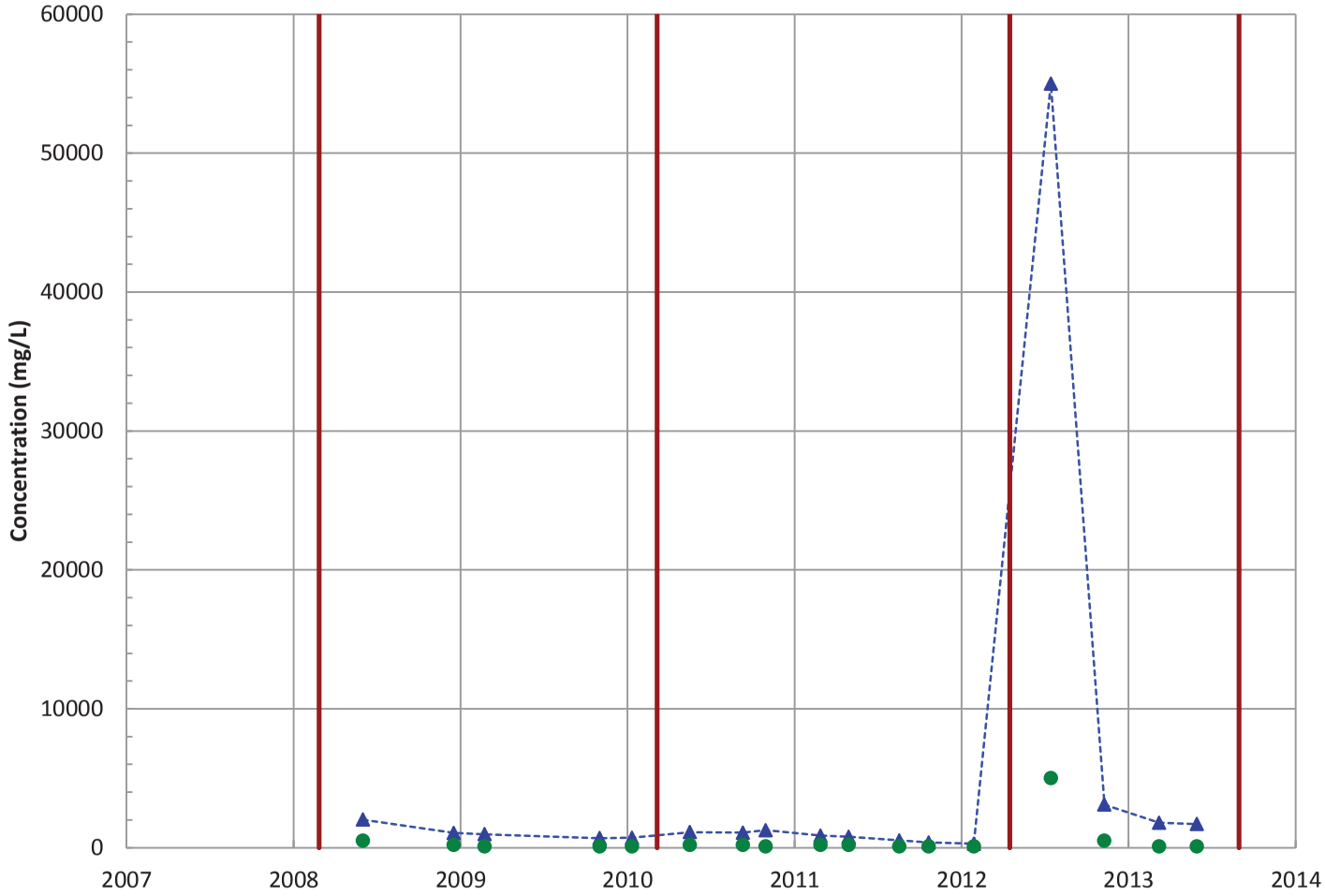
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

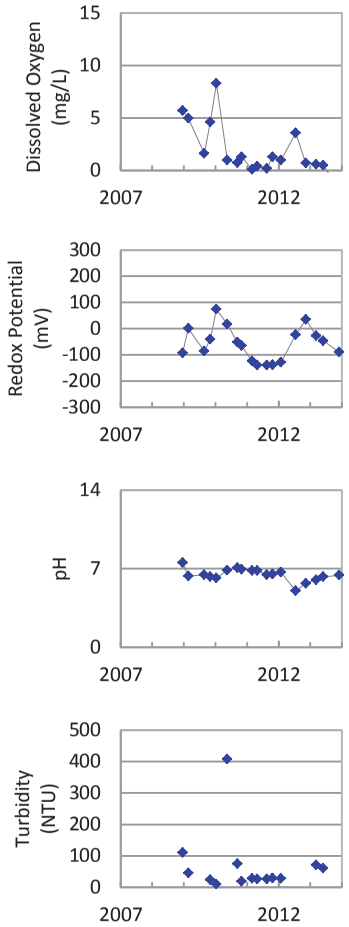


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/22/2011 to 12/4/2013
Analysis Date: 3/21/2014

PTX06-ISB030B
Total Organic Carbon Trend in Perched Aquifer



Field Parameters



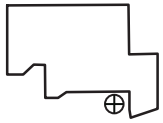
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Probably Decreasing

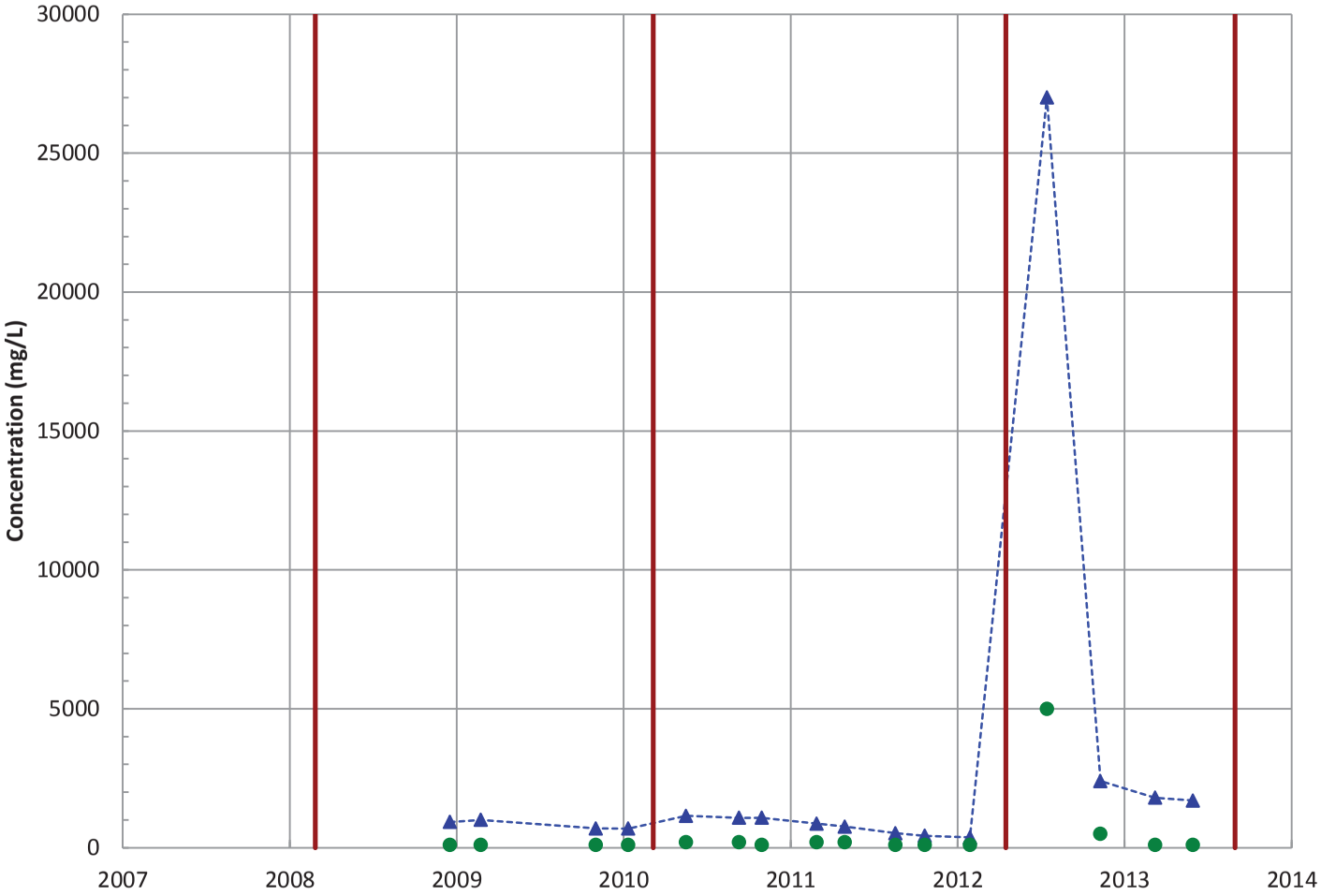
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
═══ Injection Dates

Well Location

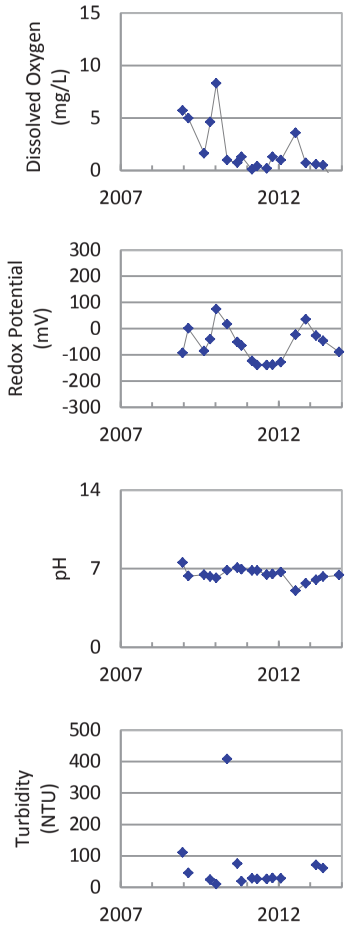


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/2/2008 to 6/4/2013
Analysis Date: 3/21/2014

PTX06-ISB030B
Dissolved Organic Carbon (DOC) Trend in Perched Aquifer



Field Parameters



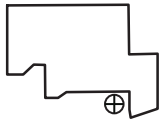
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Probably Increasing
Last 4 Samples: No Trend

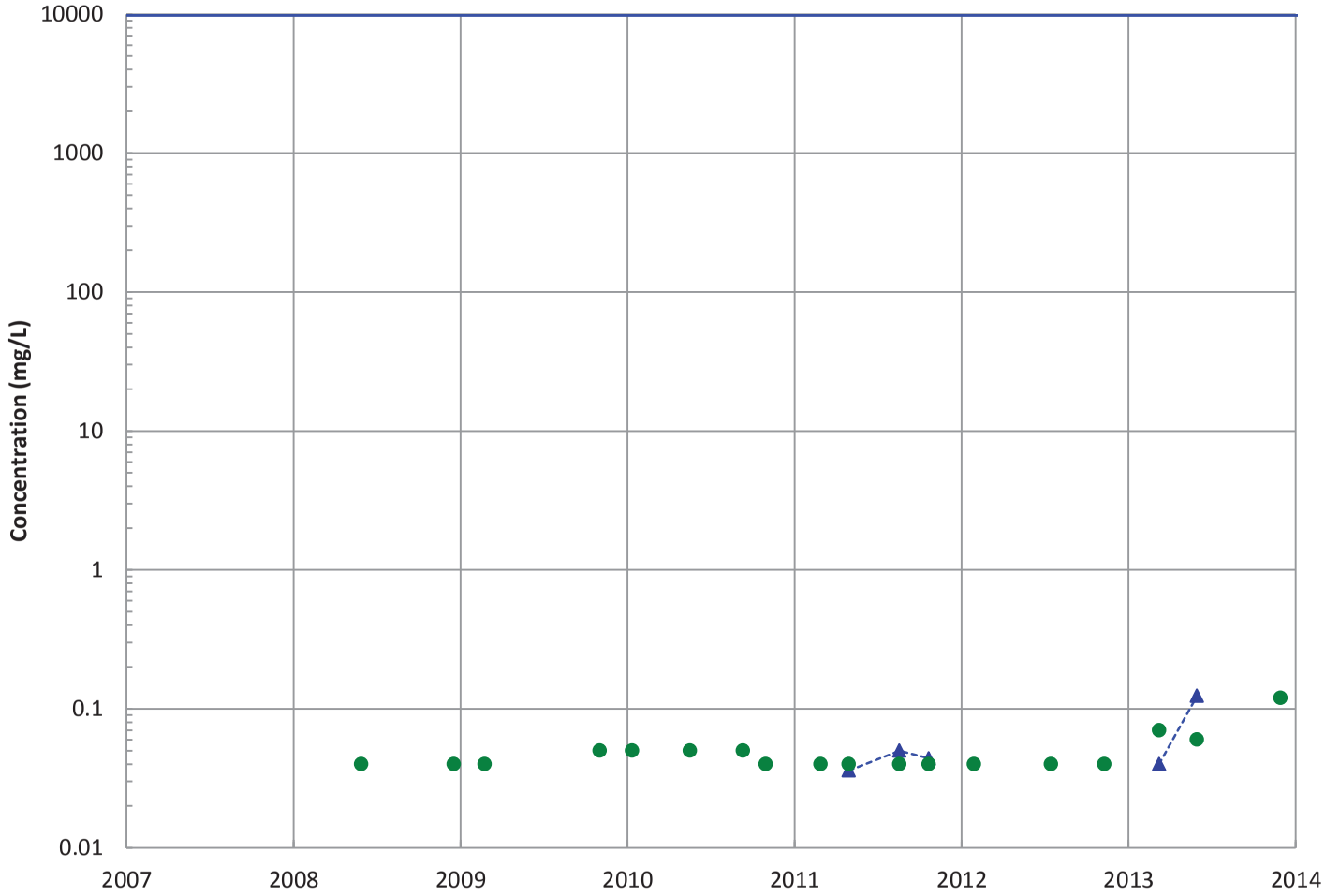
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
═══ Injection Dates

Well Location

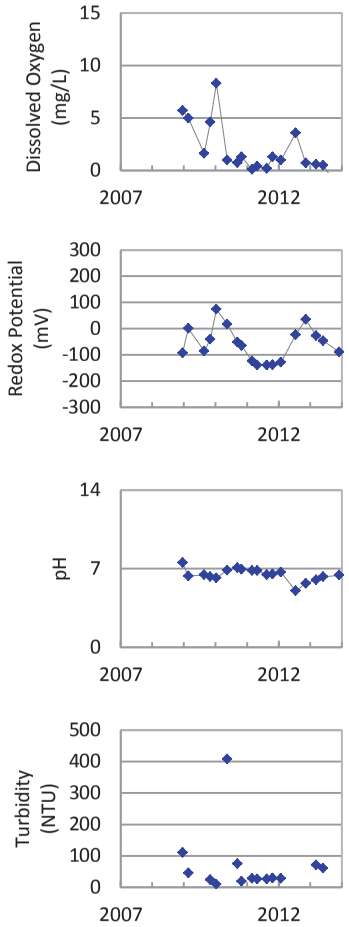


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/18/2008 to 6/4/2013
Analysis Date: 3/21/2014

PTX06-ISB030B
Nitrate as N Trend in Perched Aquifer



Field Parameters



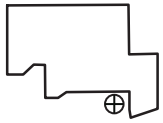
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Increasing

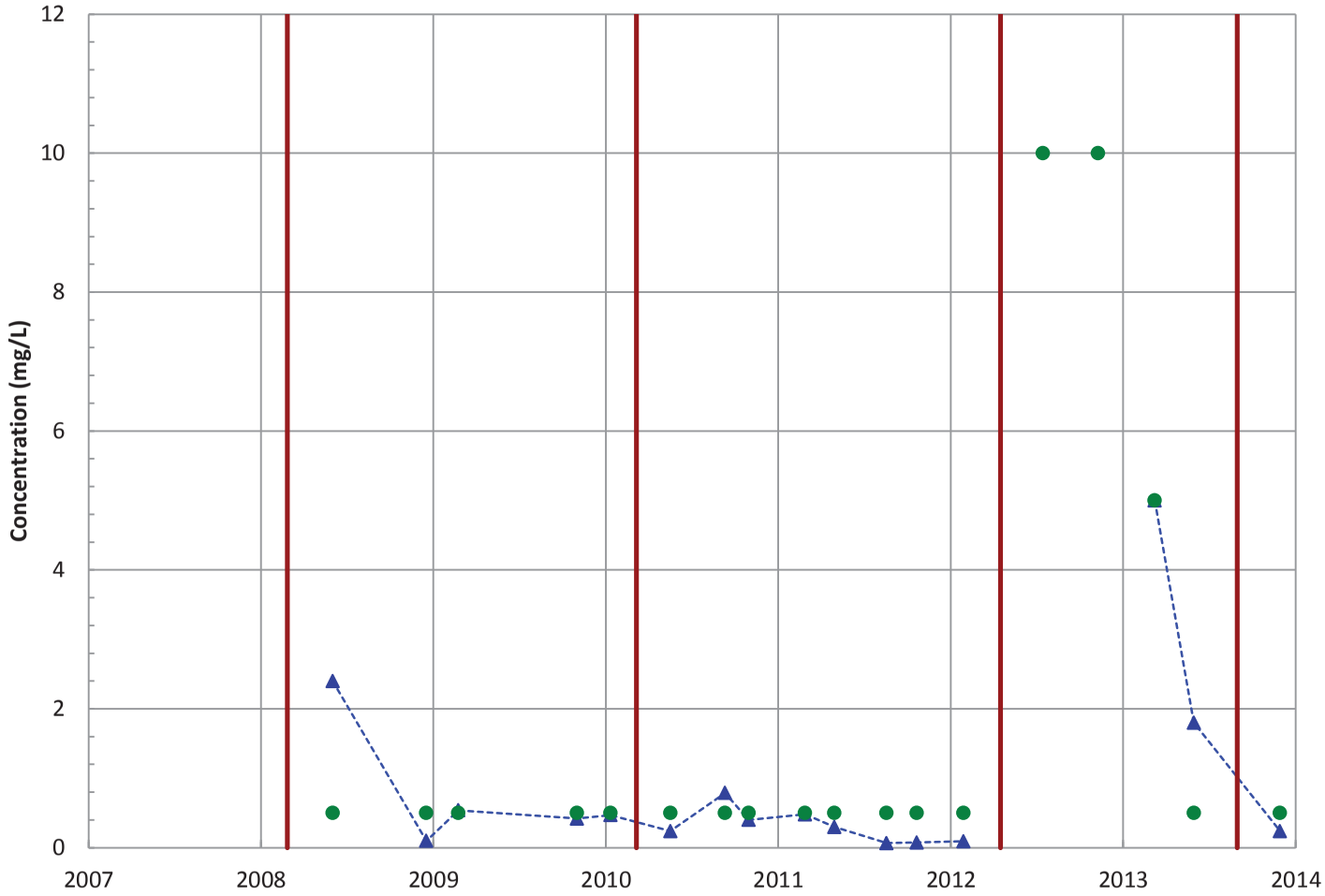
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

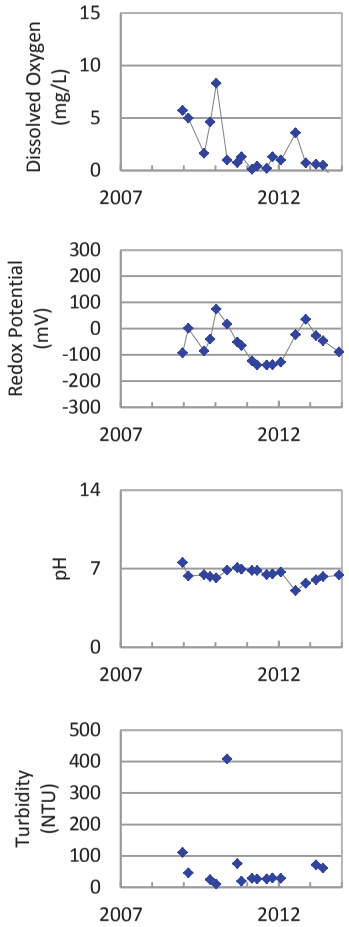


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/29/2008 to 12/4/2013
Analysis Date: 3/21/2014

PTX06-ISB030B
Sulfate (as SO4) Trend in Perched Aquifer



Field Parameters



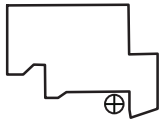
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

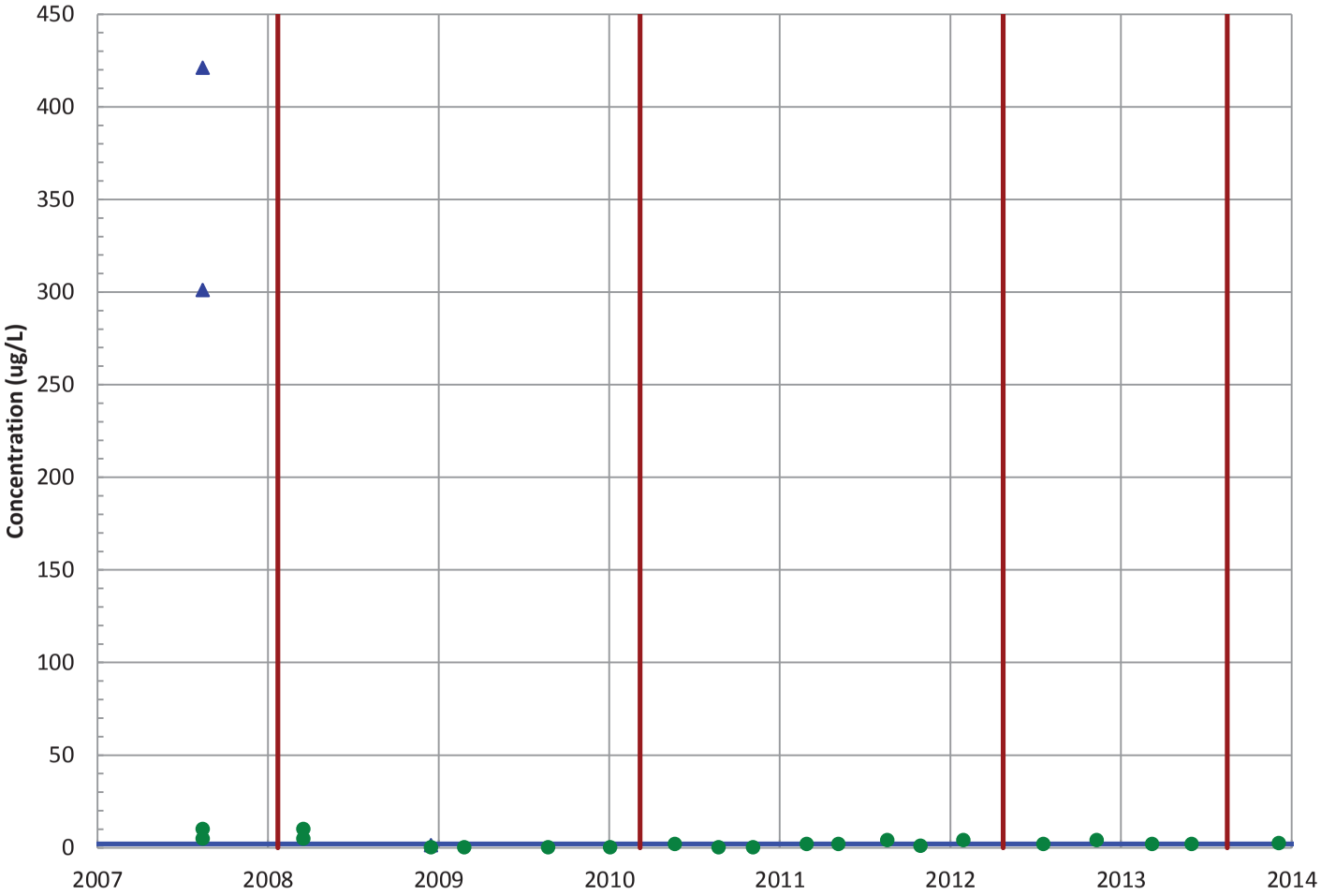
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

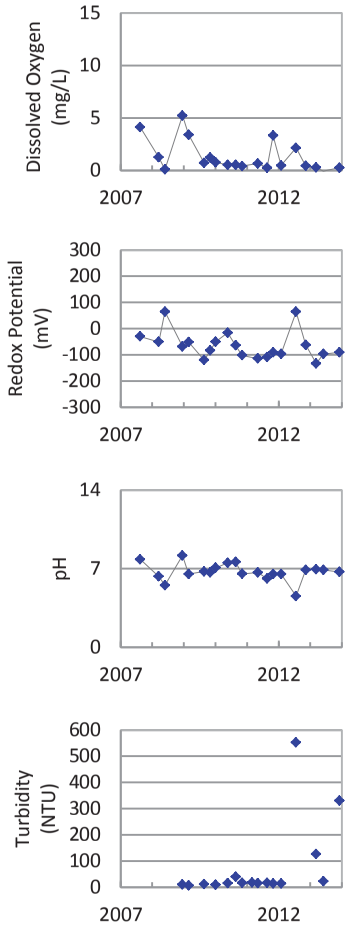


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/2/2008 to 12/4/2013
Analysis Date: 3/21/2014

PTX06-ISB038
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



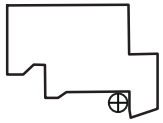
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

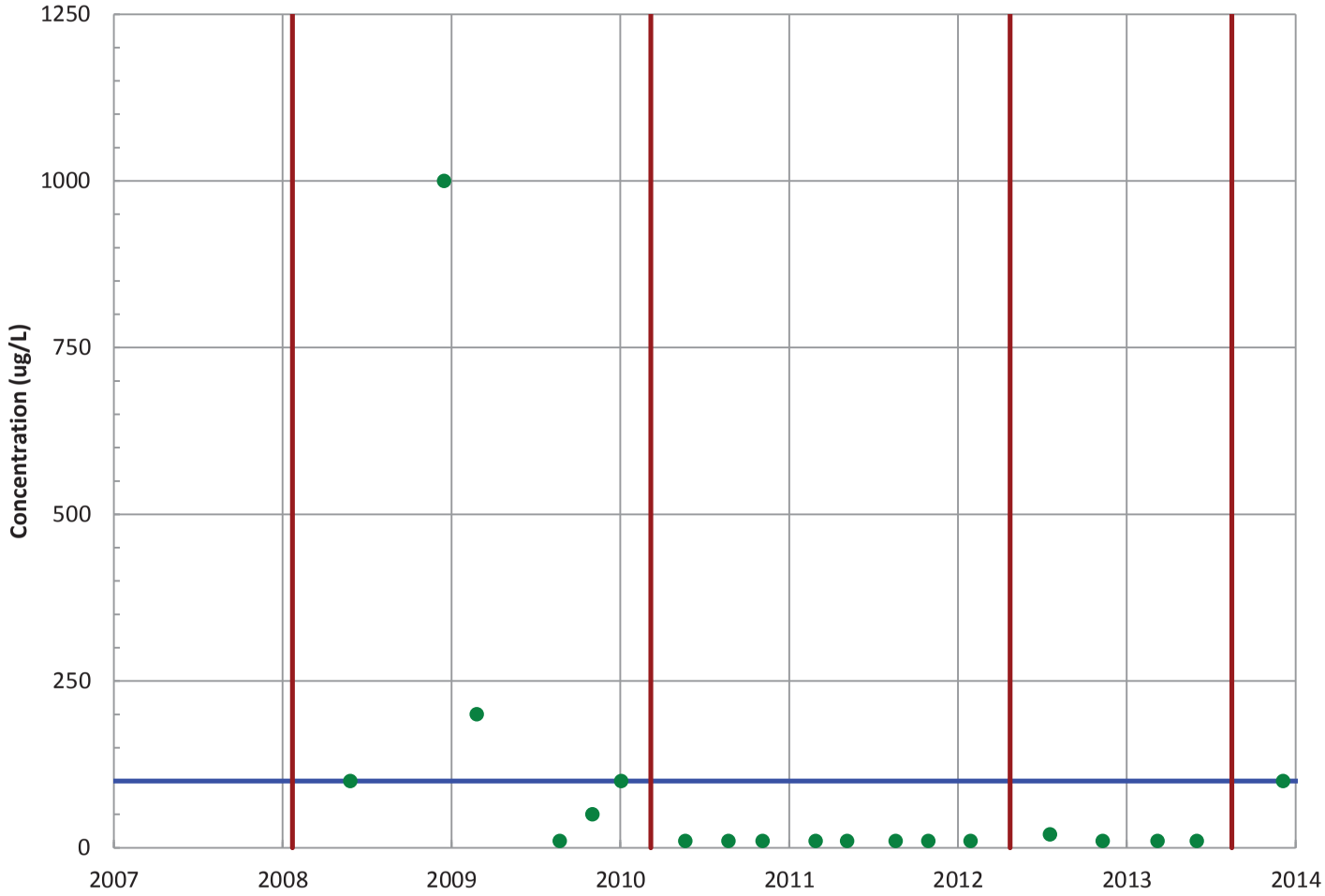
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

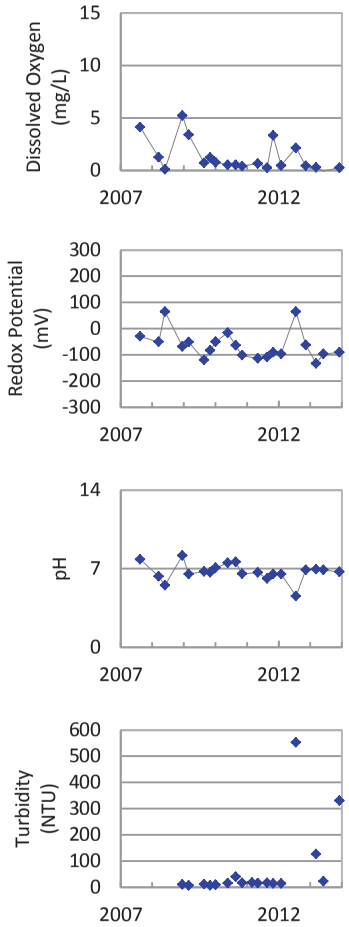


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/15/2007 to 12/10/2013
Analysis Date: 3/21/2014

PTX06-ISB038
Chromium, Total Trend in Perched Aquifer



Field Parameters



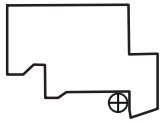
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

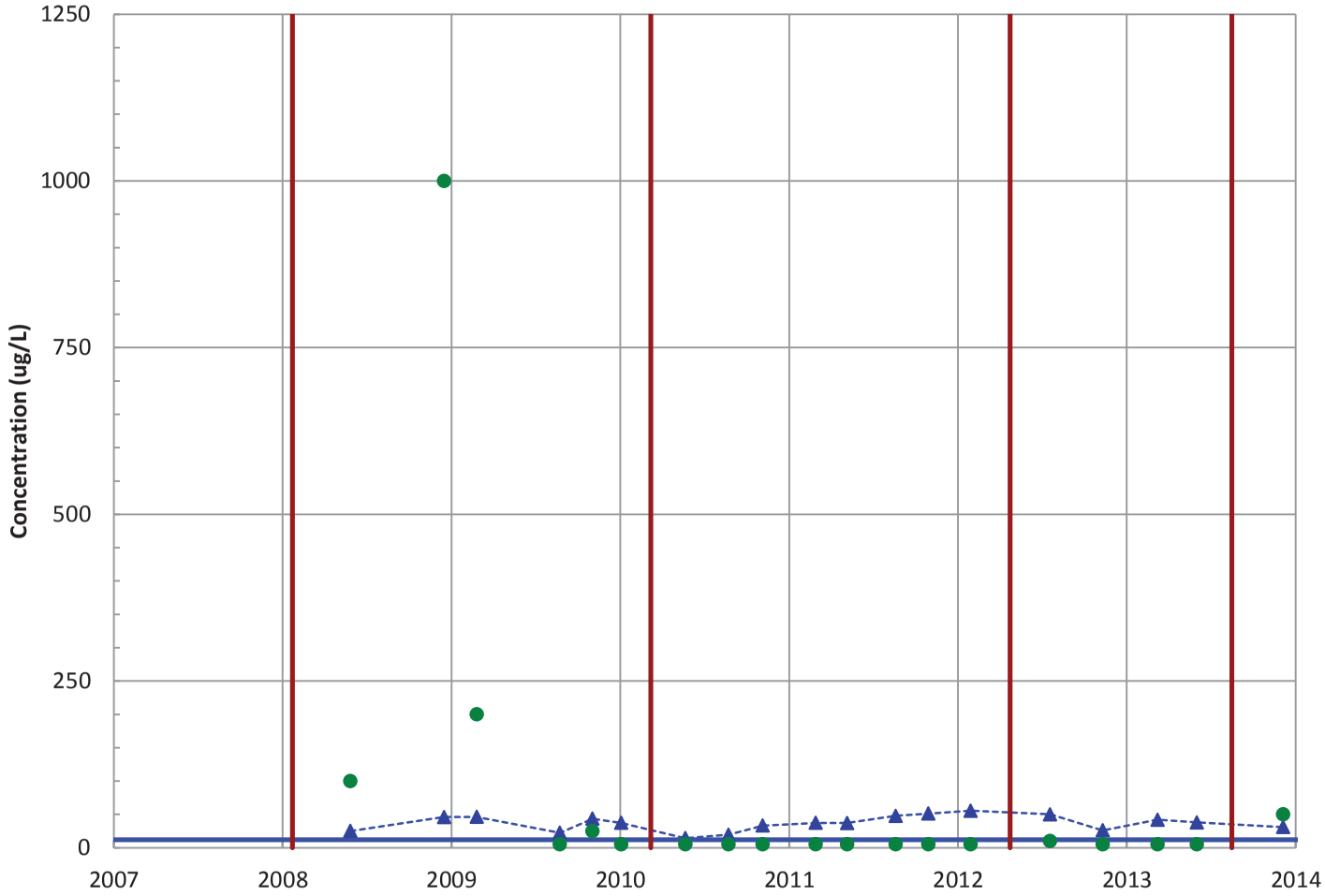
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

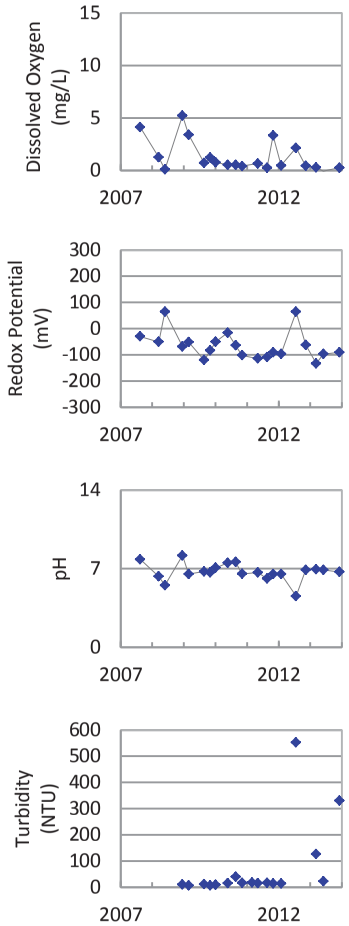


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/28/2008 to 12/10/2013
Analysis Date: 3/21/2014

PTX06-ISB038
Arsenic Trend in Perched Aquifer



Field Parameters



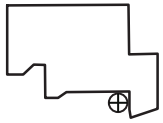
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Stable

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

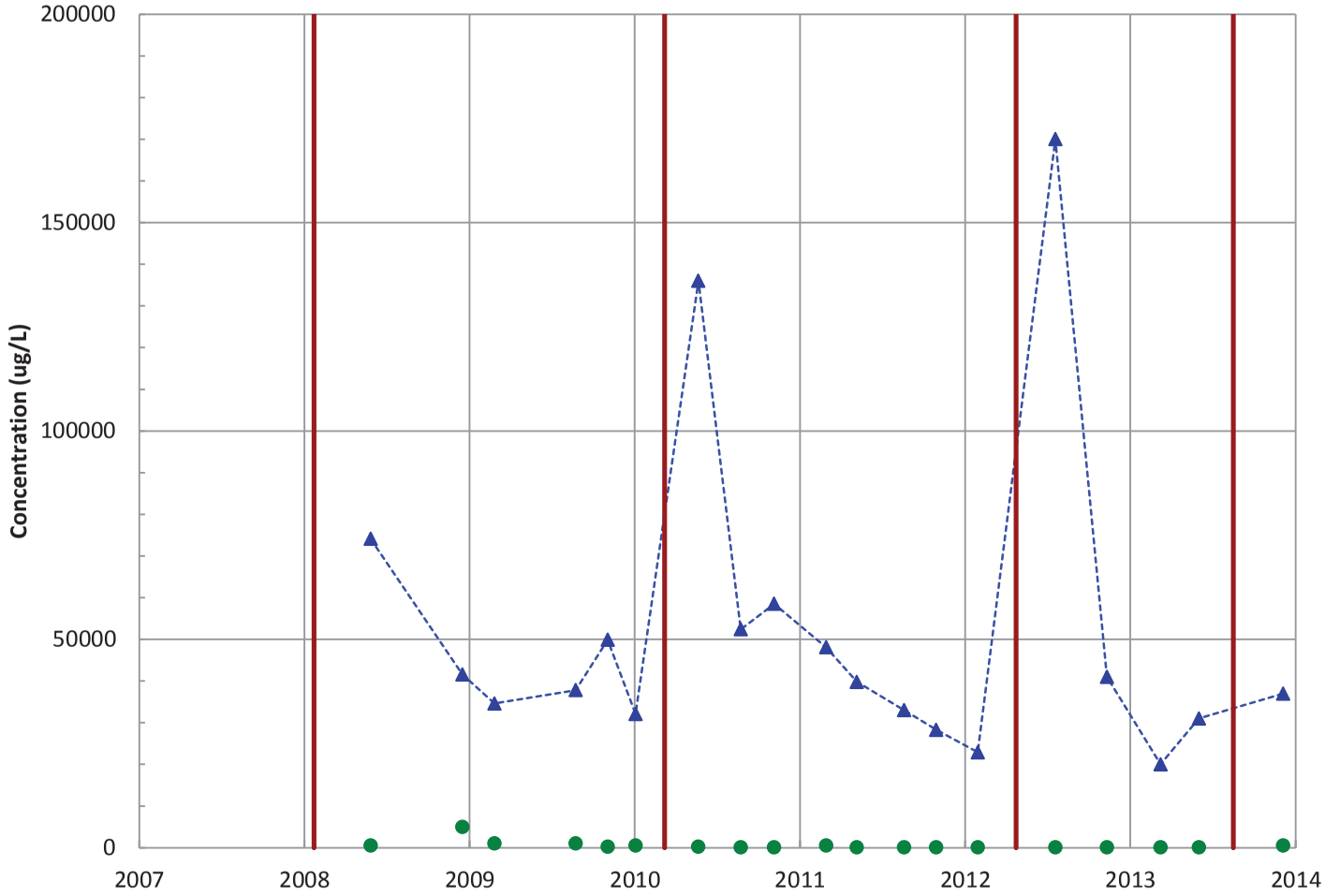
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

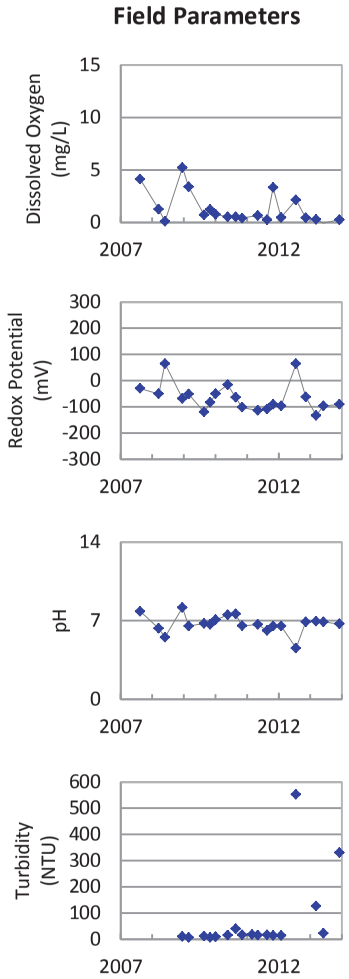
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/28/2008 to 12/10/2013
Analysis Date: 3/21/2014

PTX06-ISB038
Iron Trend in Perched Aquifer





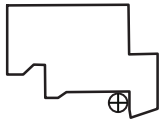
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Stable

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: Stable

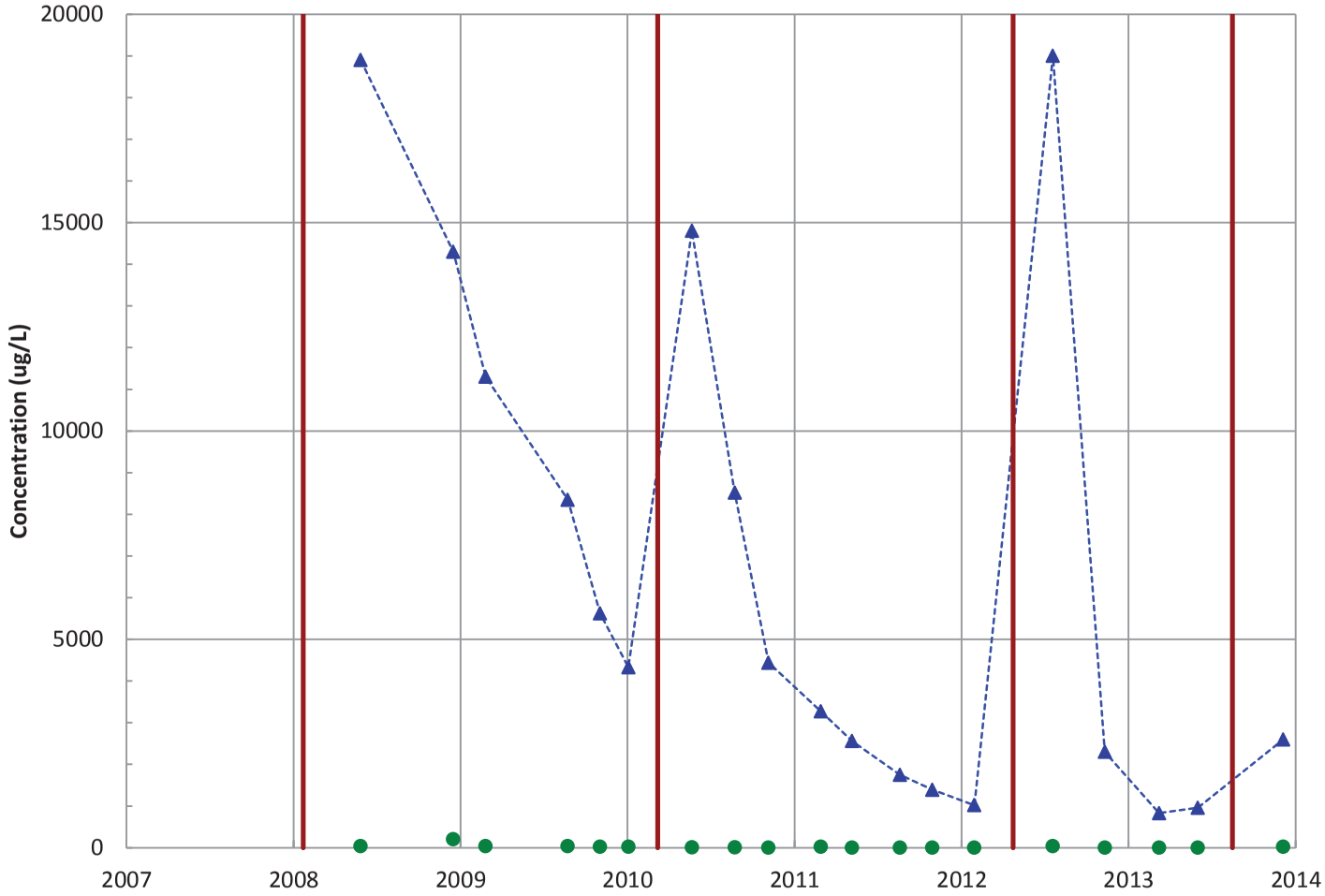
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

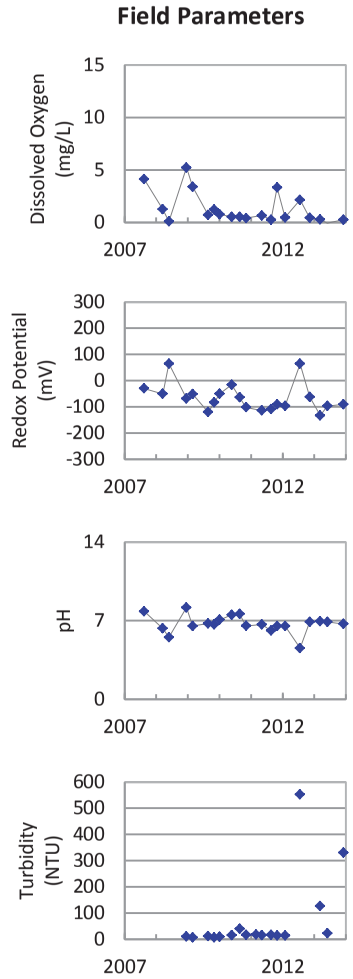
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/28/2008 to 12/10/2013
Analysis Date: 3/21/2014

PTX06-ISB038
Manganese Trend in Perched Aquifer





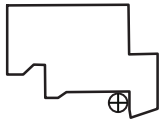
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

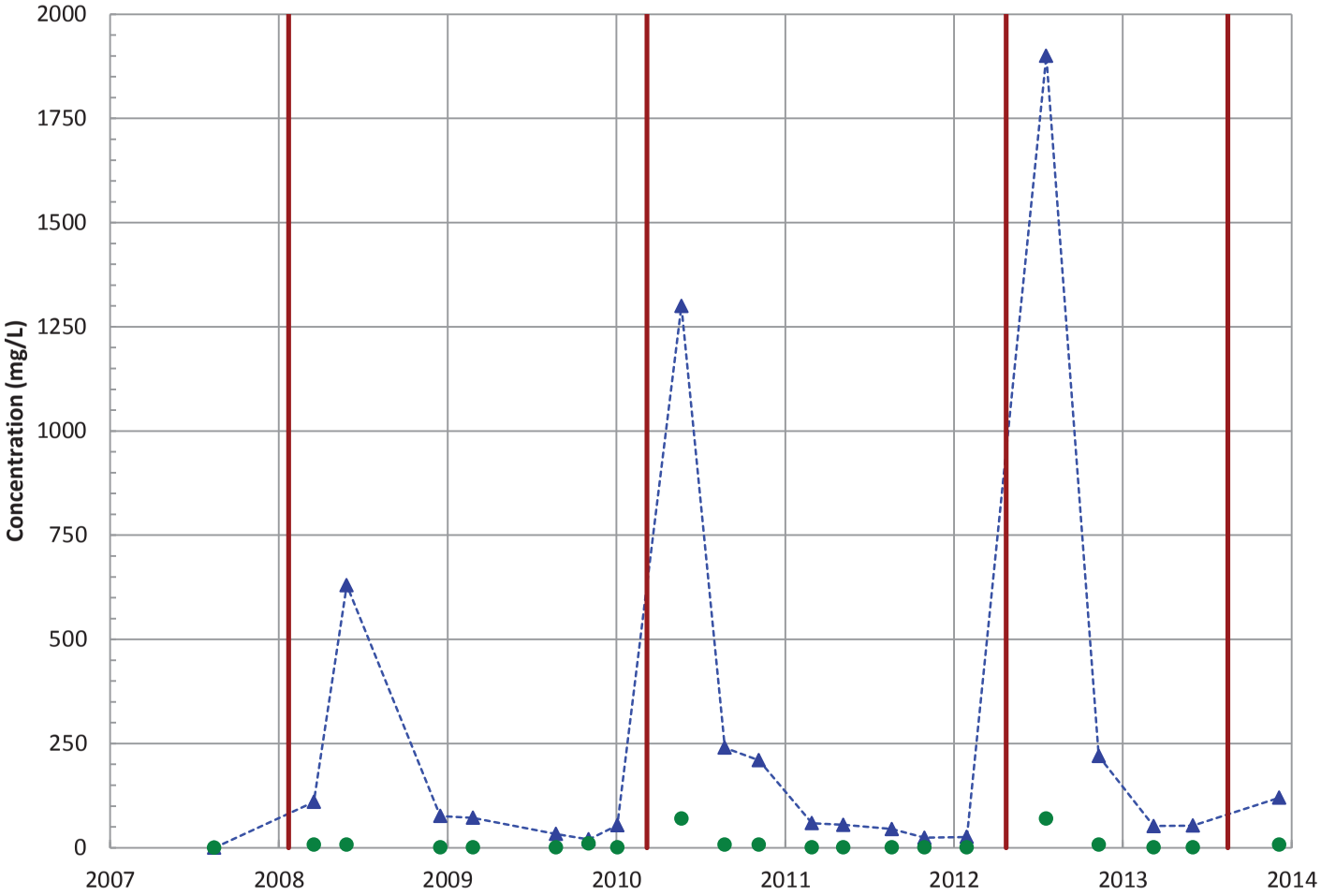
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

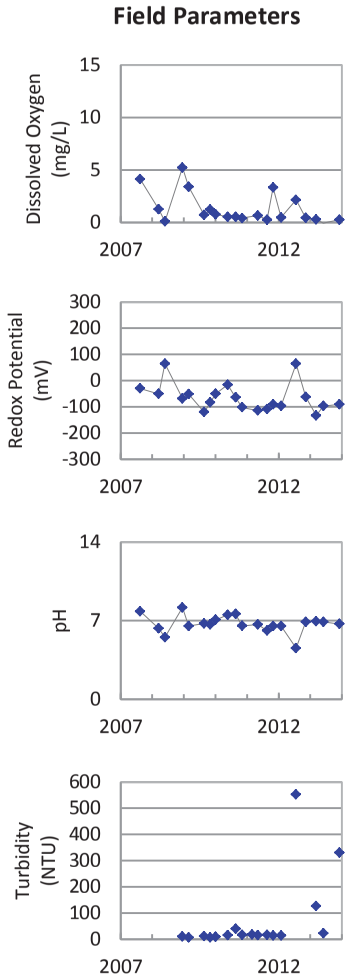
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/28/2008 to 12/10/2013
Analysis Date: 3/21/2014

PTX06-ISB038
Acetic Acid Trend in Perched Aquifer





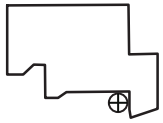
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Stable

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Stable

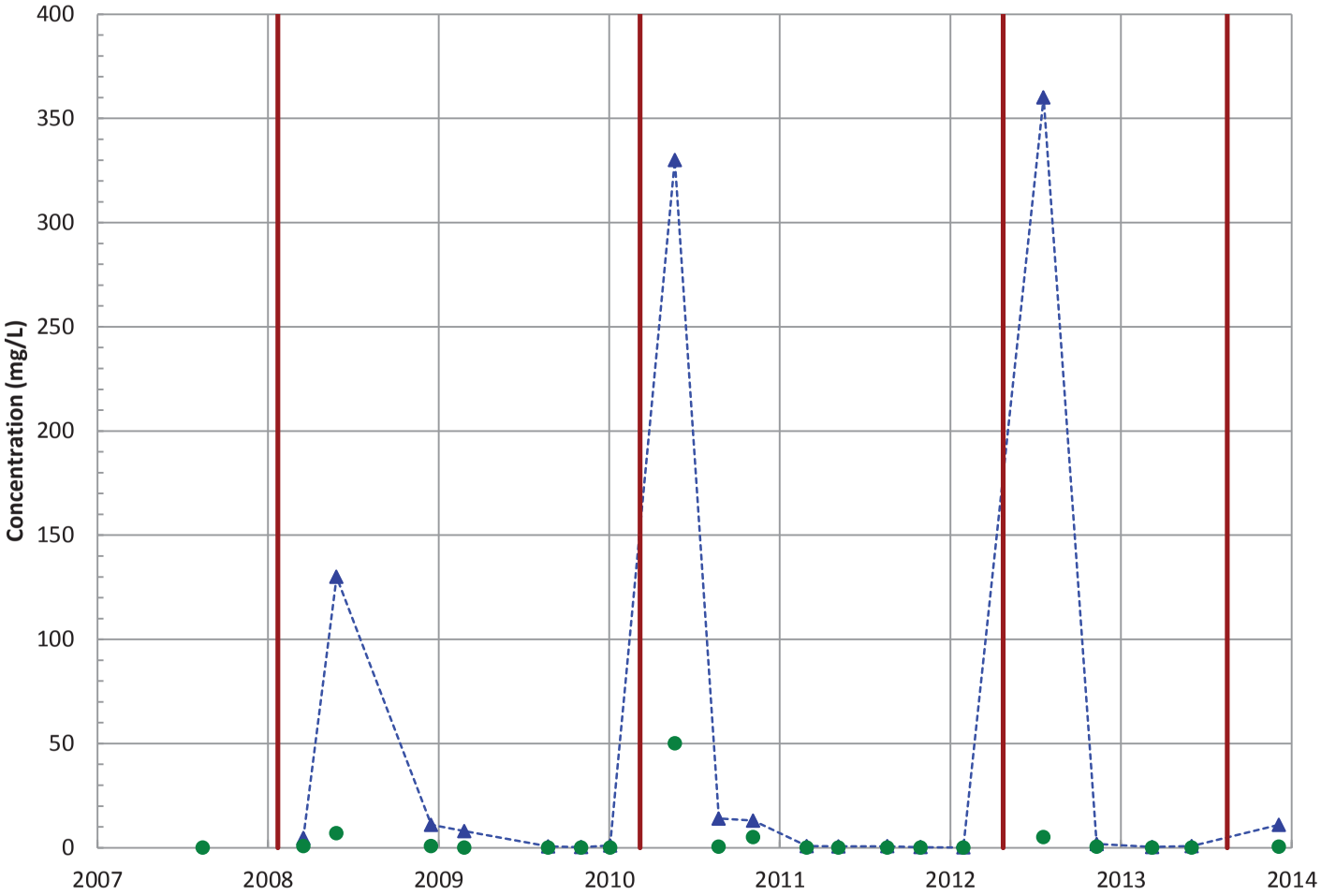
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

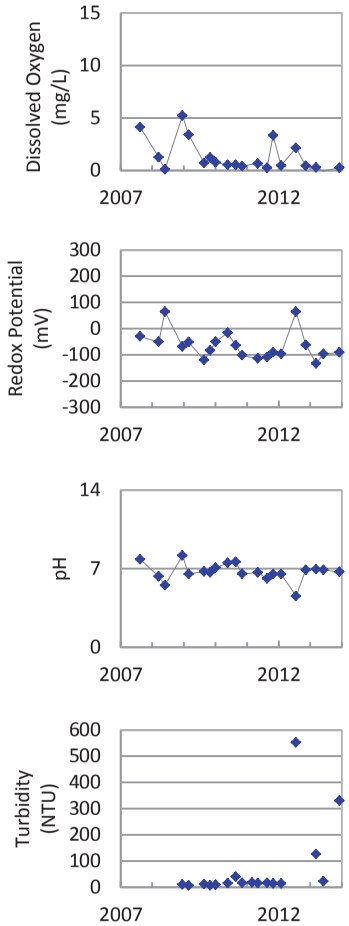


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/15/2007 to 12/10/2013
Analysis Date: 3/21/2014

PTX06-ISB038
Butyric Acid Trend in Perched Aquifer



Field Parameters



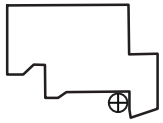
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

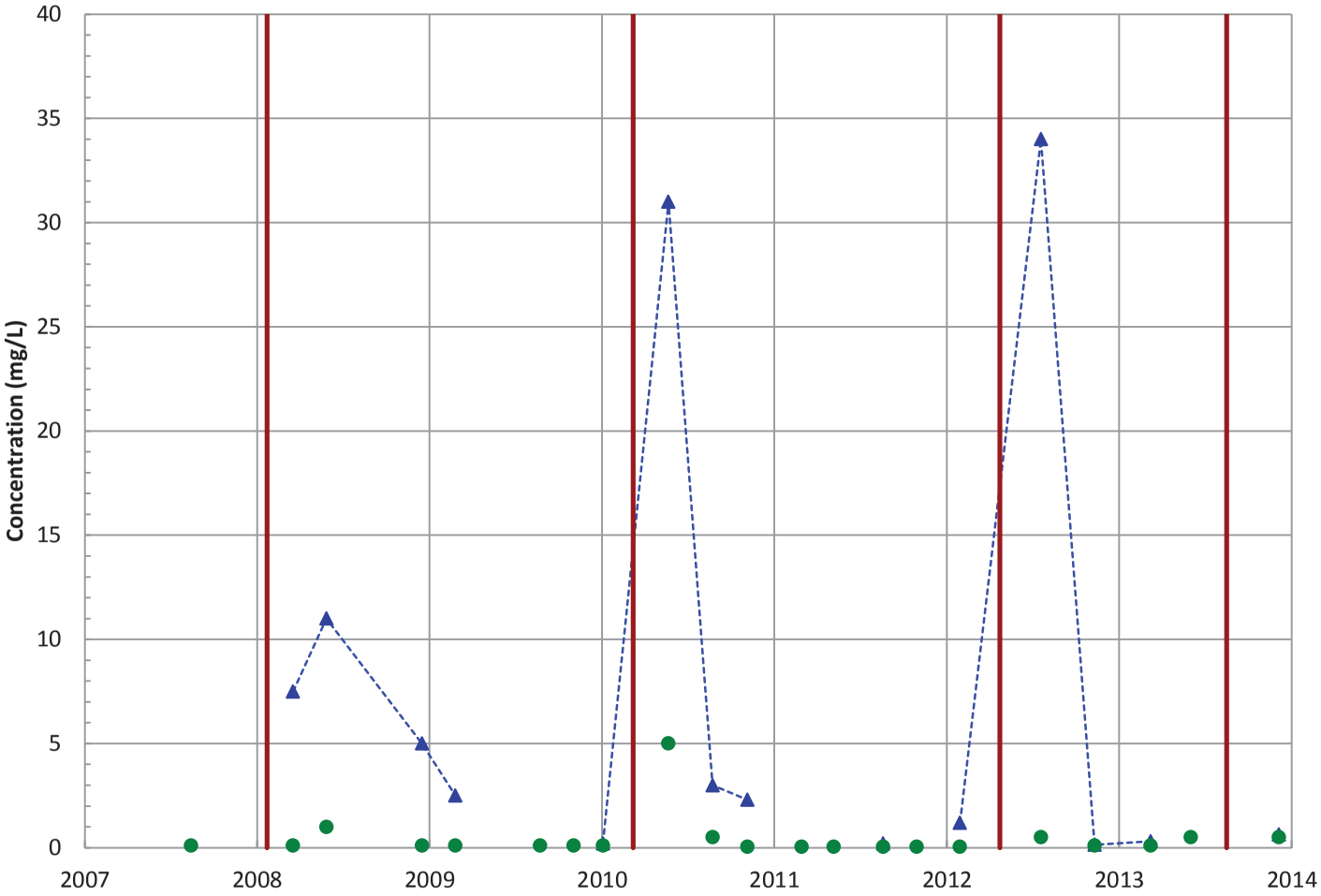
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

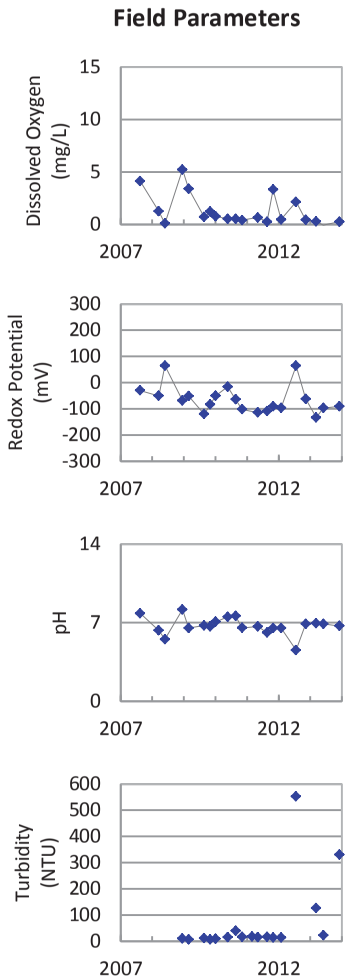
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/15/2007 to 12/10/2013
Analysis Date: 3/21/2014

PTX06-ISB038
Hexanoic Acid Trend in Perched Aquifer





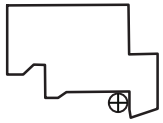
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Probably Decreasing
Last 4 Samples: No Trend

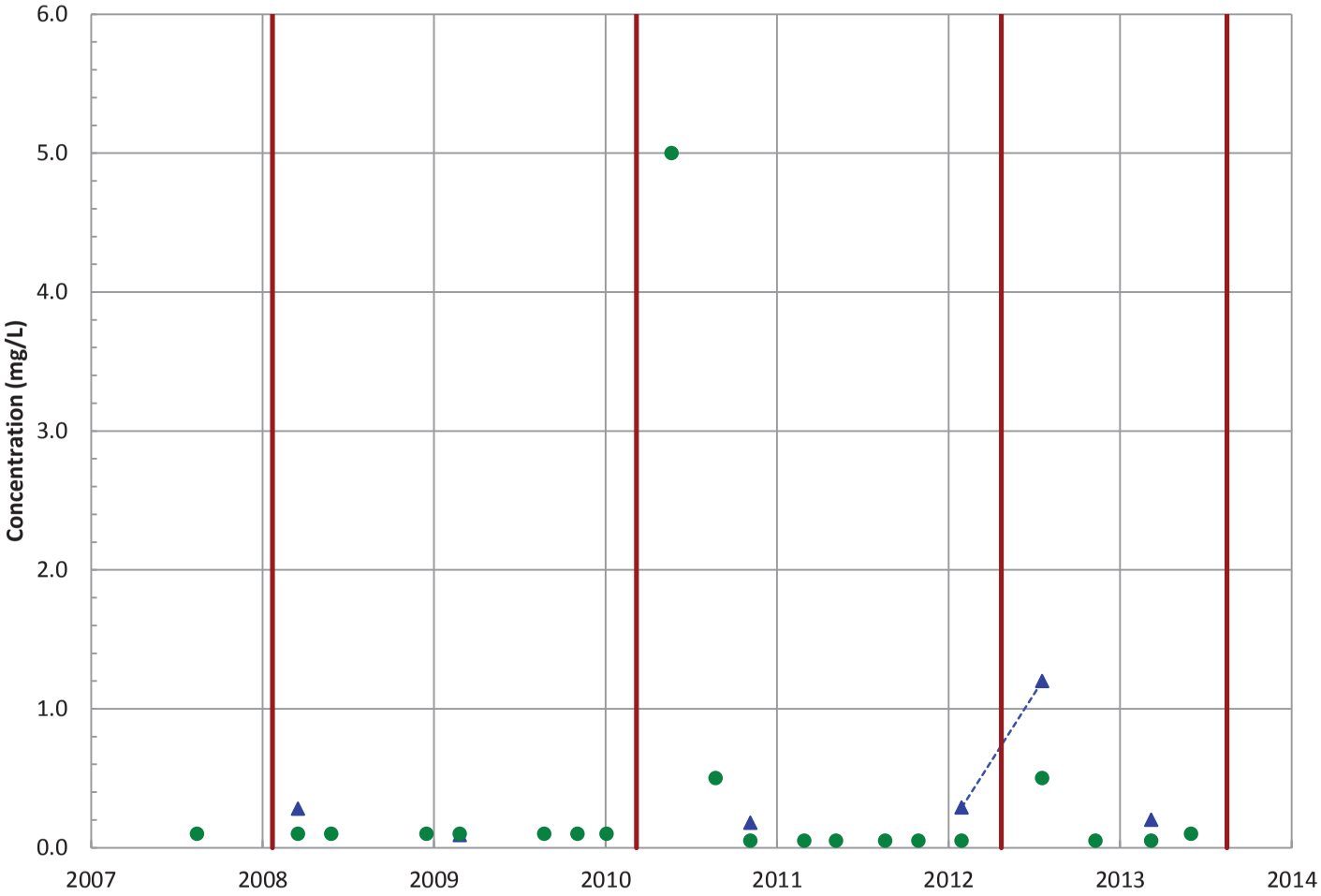
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

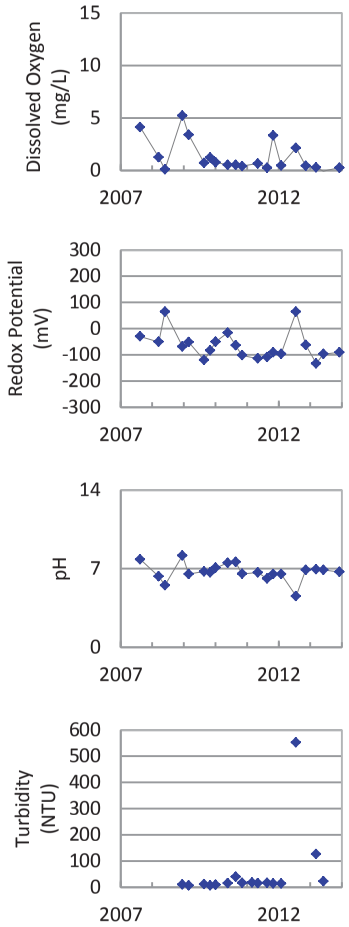


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/15/2007 to 12/10/2013
Analysis Date: 3/21/2014

PTX06-ISB038
i-Hexanoic Acid Trend in Perched Aquifer



Field Parameters



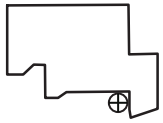
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

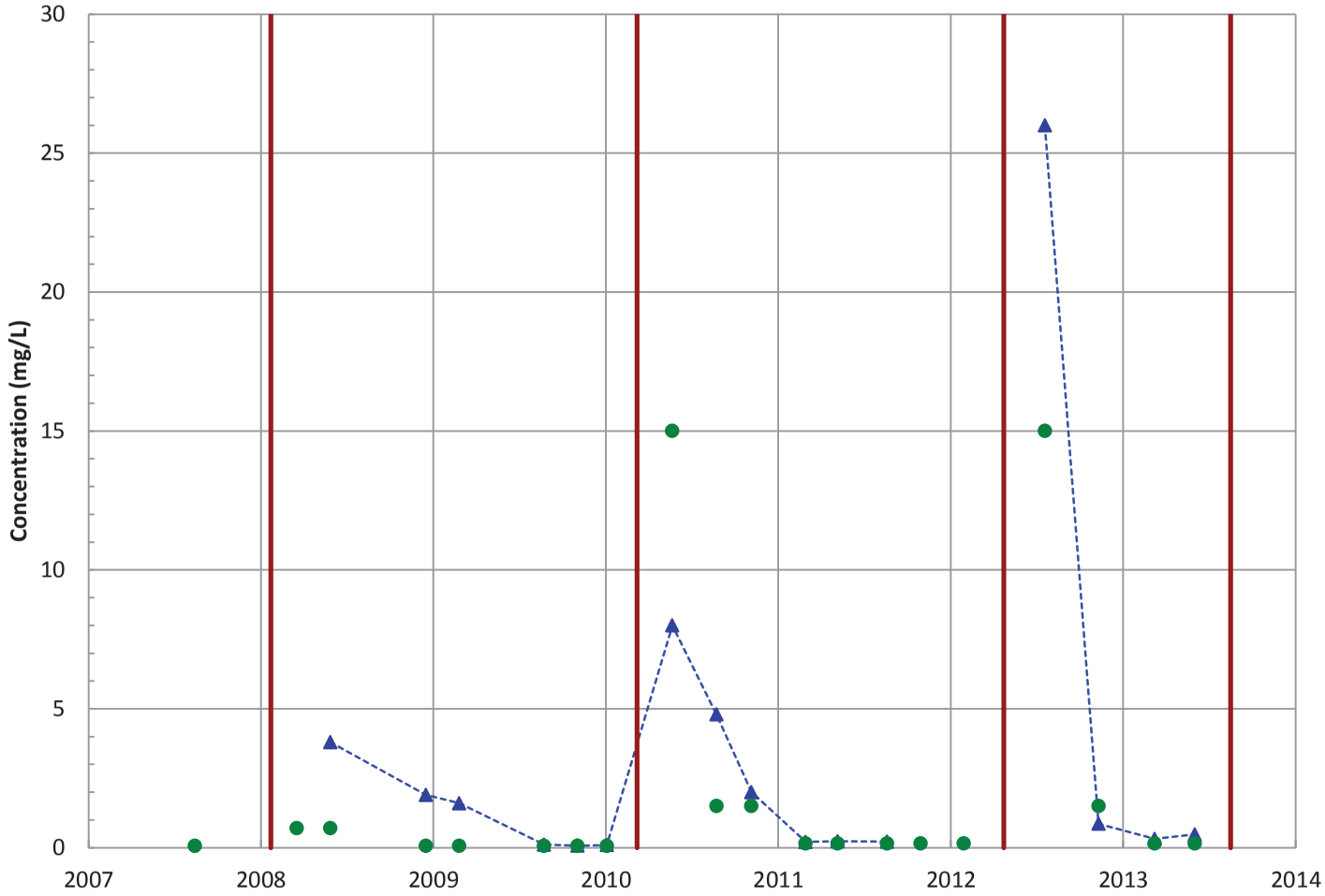
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
═══ Injection Dates

Well Location

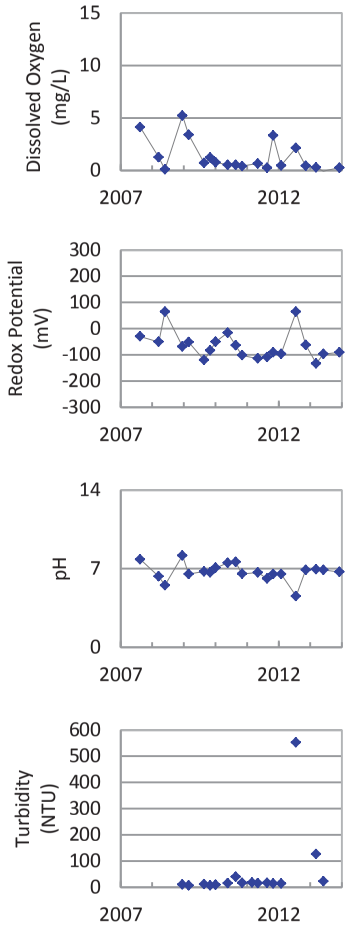


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/15/2007 to 6/6/2013
Analysis Date: 3/21/2014

PTX06-ISB038
i-Pentanoic Acid Trend in Perched Aquifer



Field Parameters



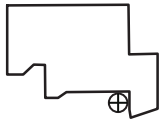
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Probably Decreasing

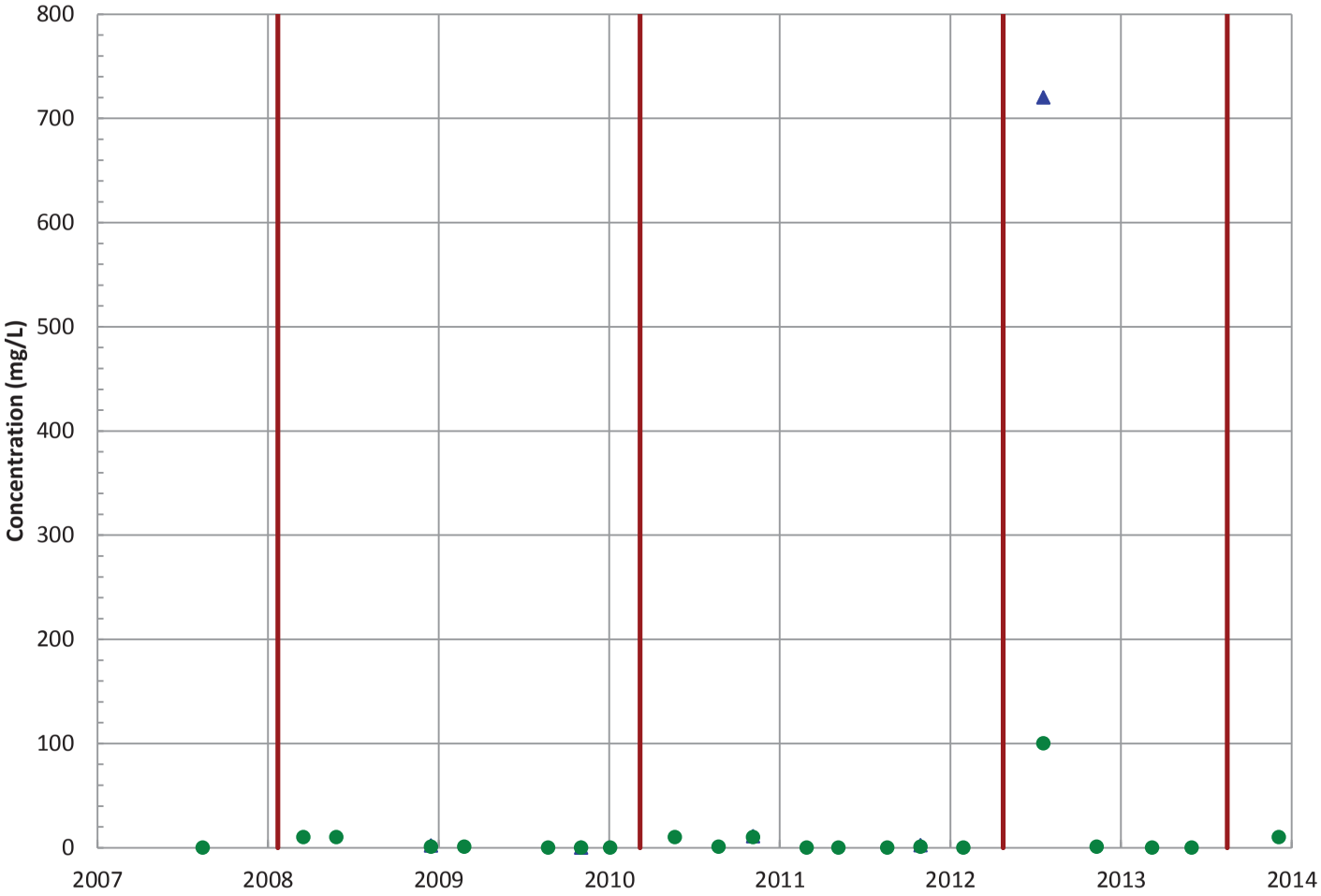
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Injection Dates

Well Location

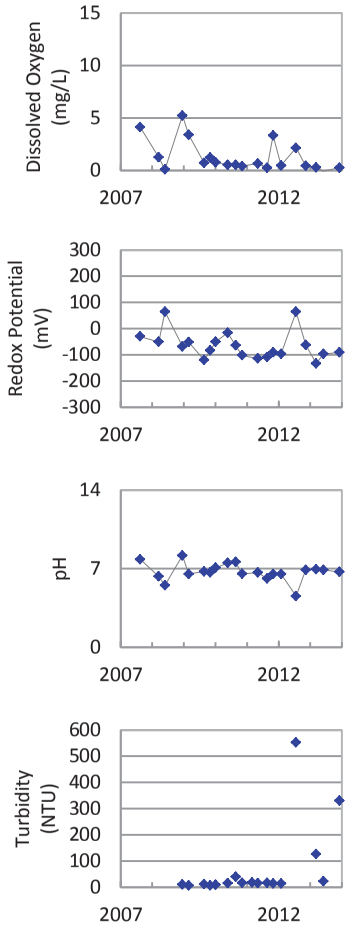


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/15/2007 to 6/6/2013
Analysis Date: 3/21/2014

PTX06-ISB038
Lactic Acid and HIBA Trend in Perched Aquifer



Field Parameters



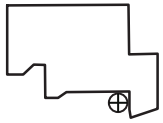
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: Probably Increasing
Last 4 Samples: Probably Increasing

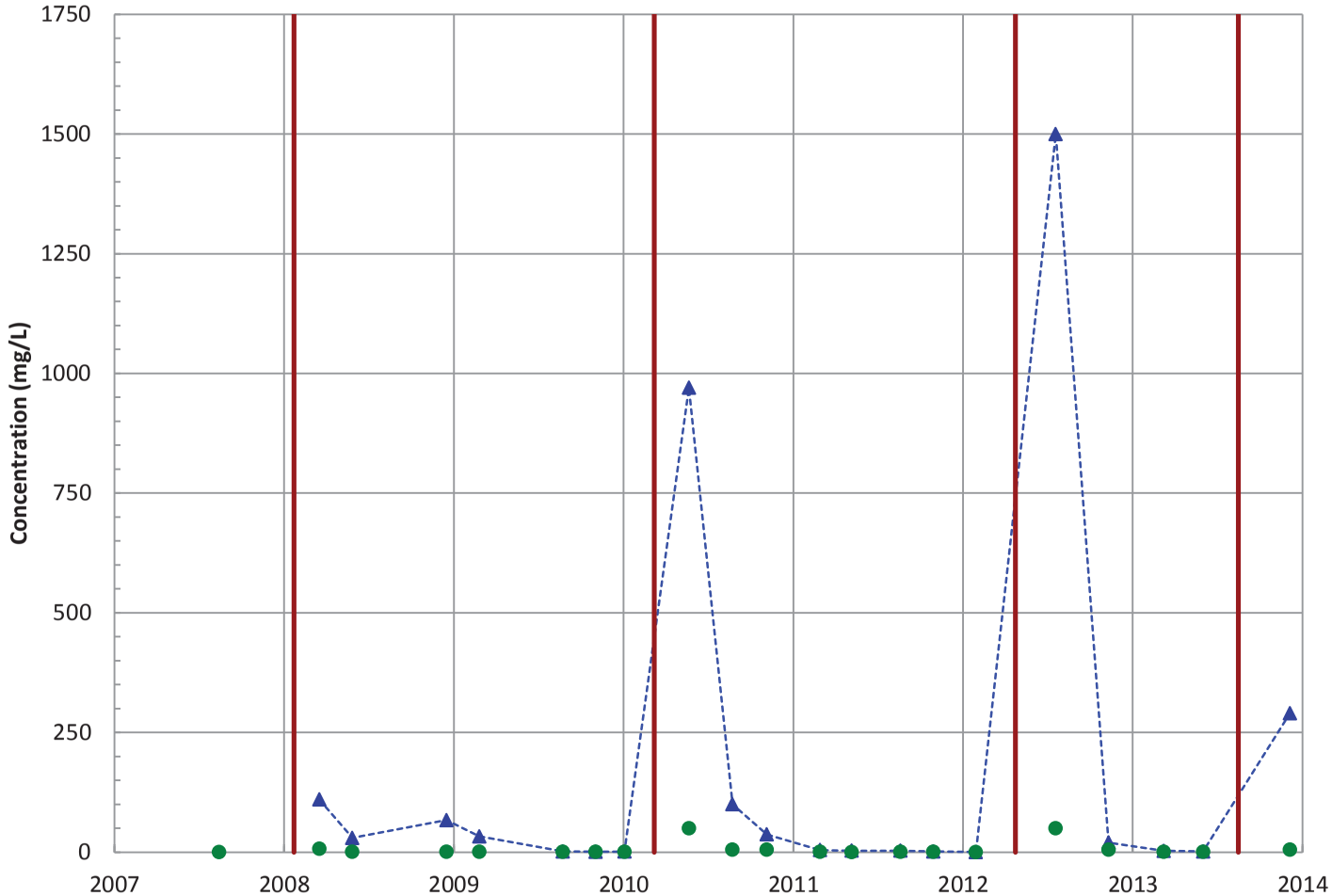
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

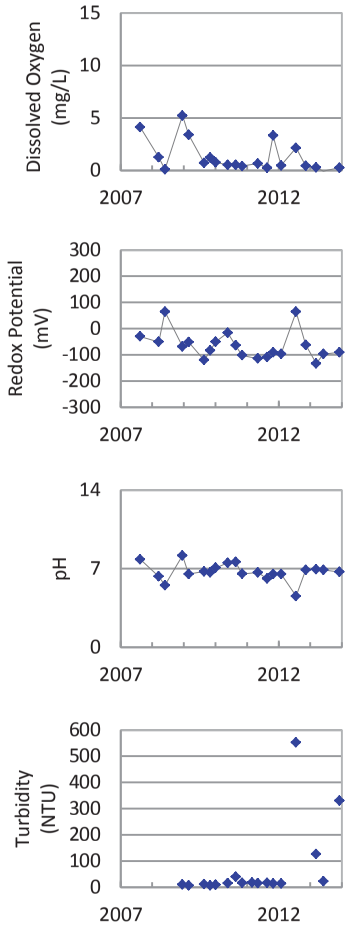


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/15/2007 to 12/10/2013
Analysis Date: 3/21/2014

PTX06-ISB038
Propionic Acid Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

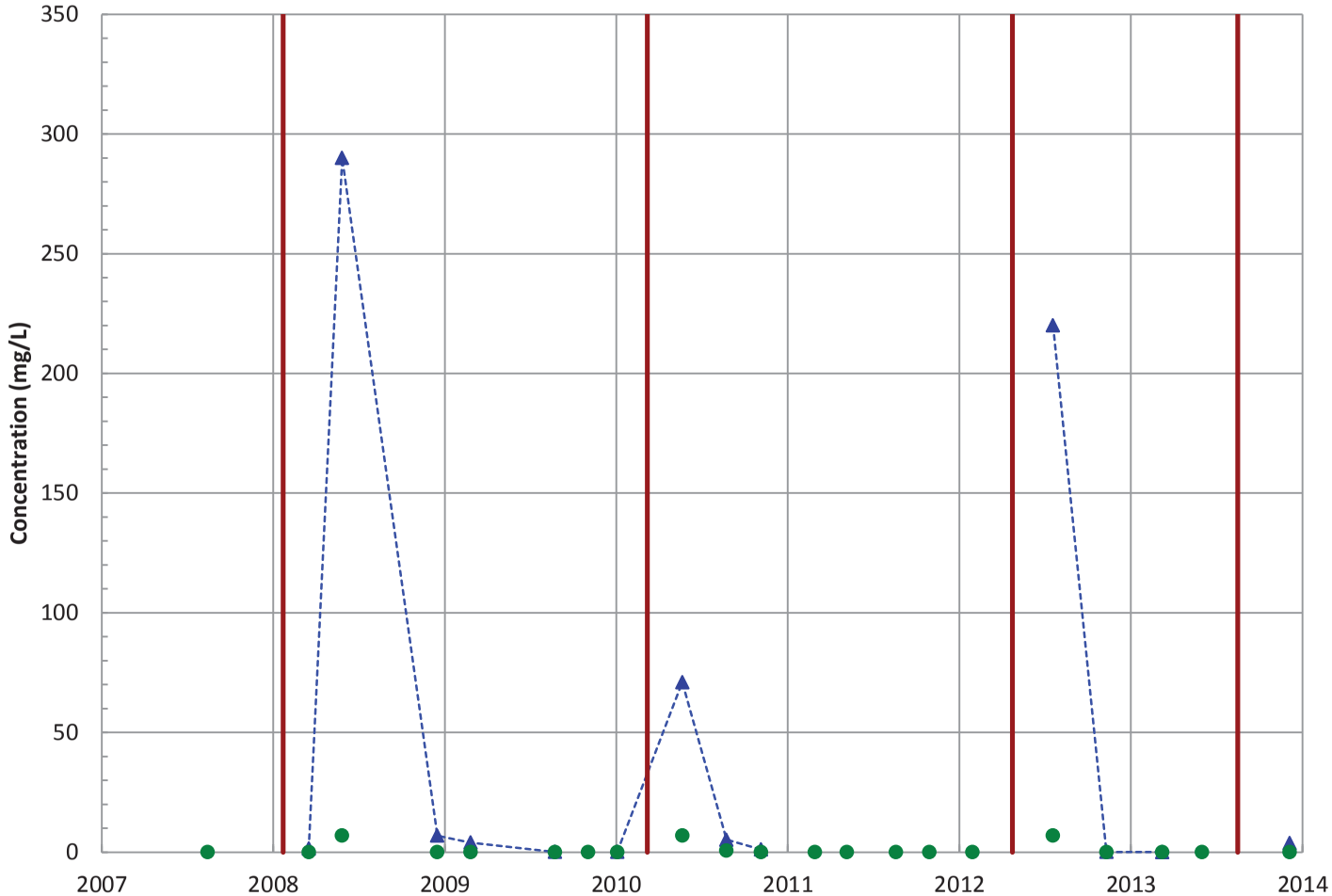
MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

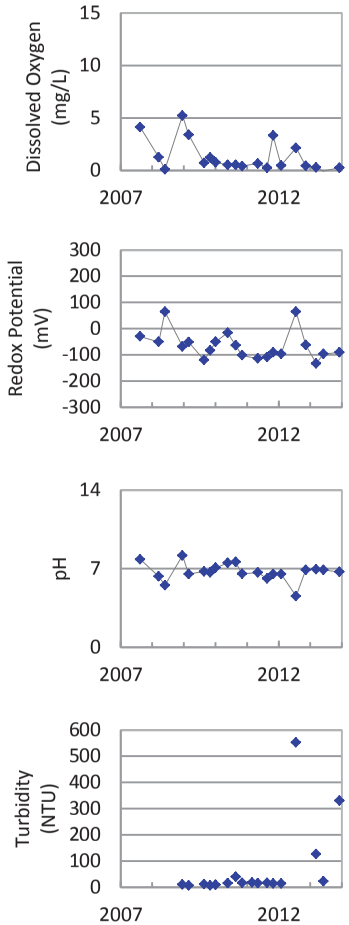
Well Location

Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/15/2007 to 12/10/2013
Analysis Date: 3/21/2014

PTX06-ISB038
Pentanoic Acid Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

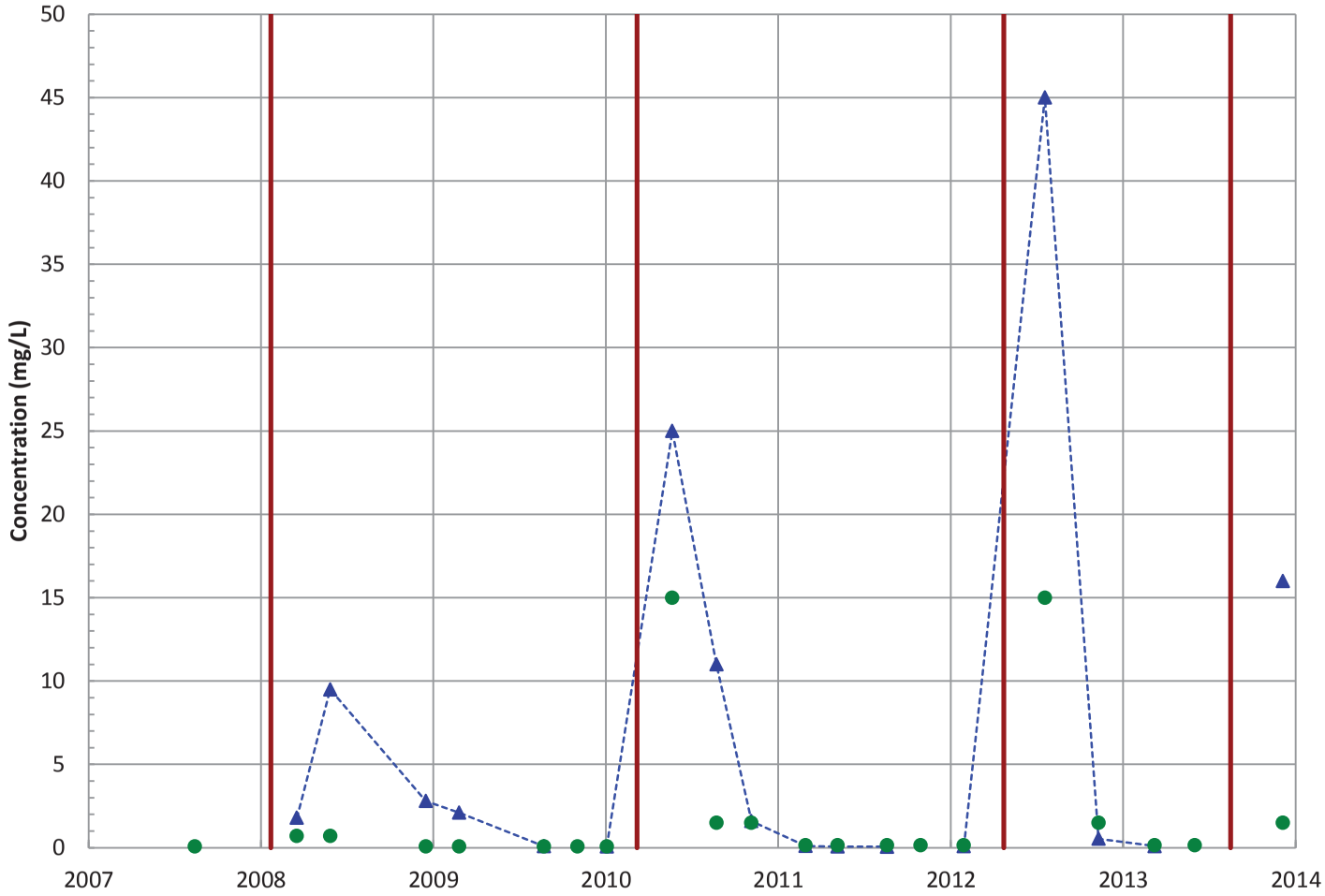
MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

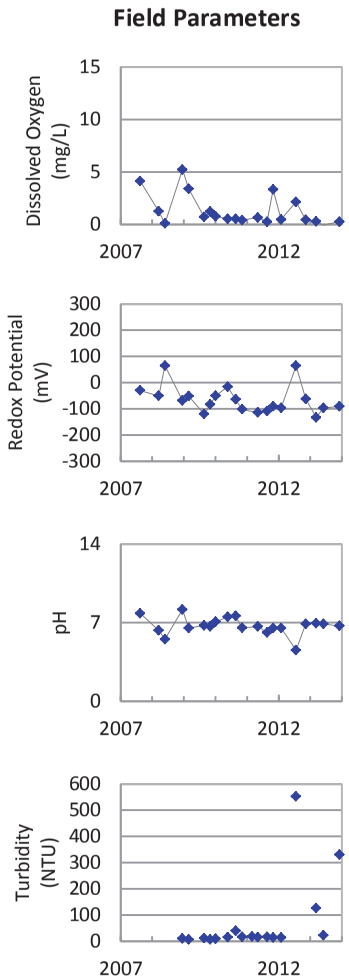
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/15/2007 to 12/10/2013
Analysis Date: 3/21/2014

PTX06-ISB038
Pyruvic Acid Trend in Perched Aquifer





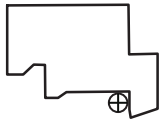
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

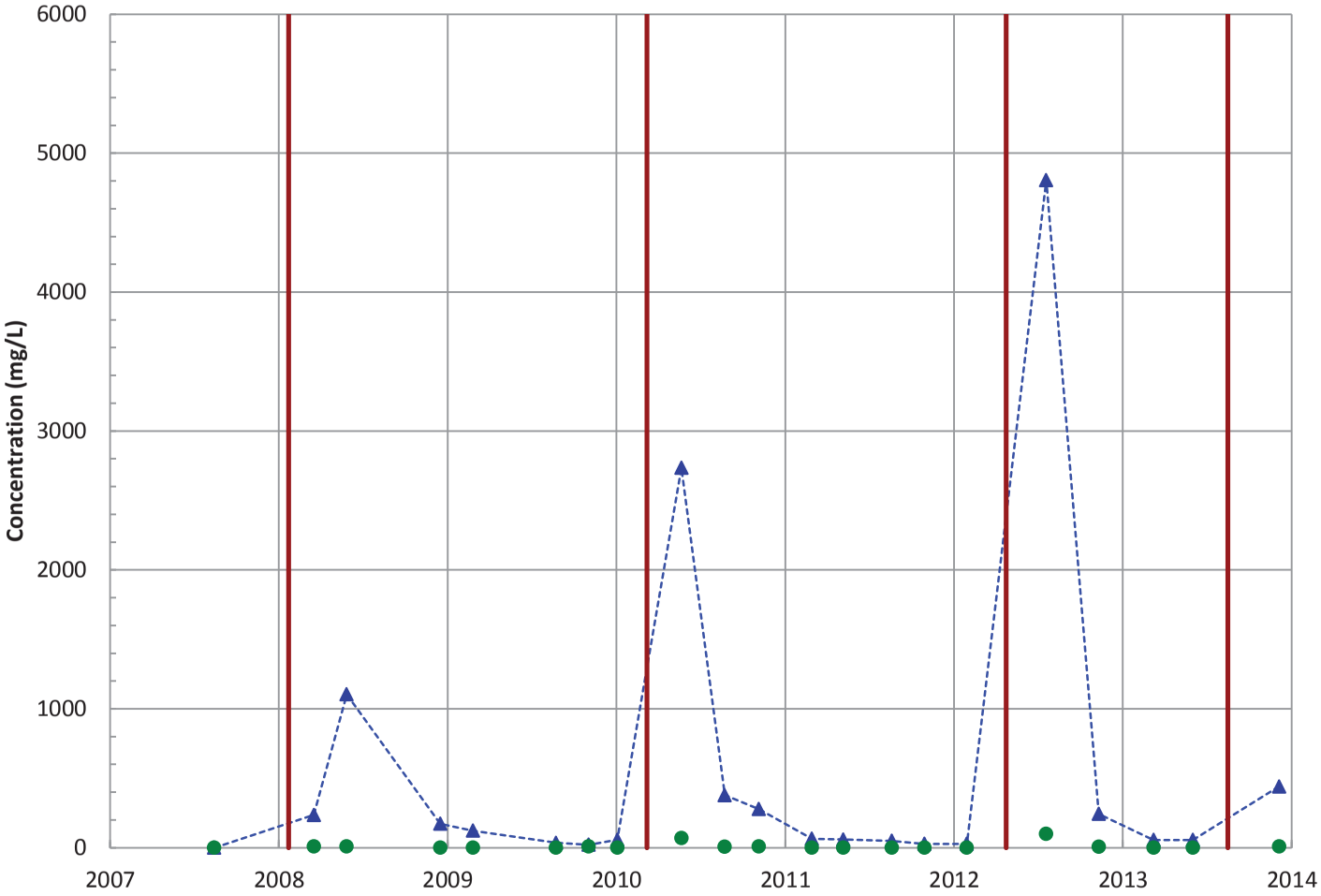
▲ Measured Value
● Sample Detection Limit
---- Concentration Trend
— Injection Dates

Well Location

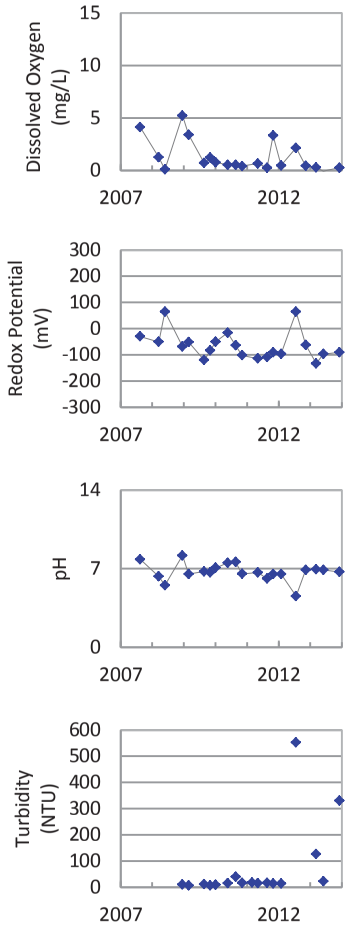


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/15/2007 to 12/10/2013
Analysis Date: 3/21/2014

PTX06-ISB038
Total Volatile Fatty Acids Trend in Perched Aquifer



Field Parameters



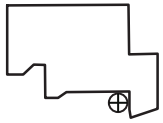
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Stable

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

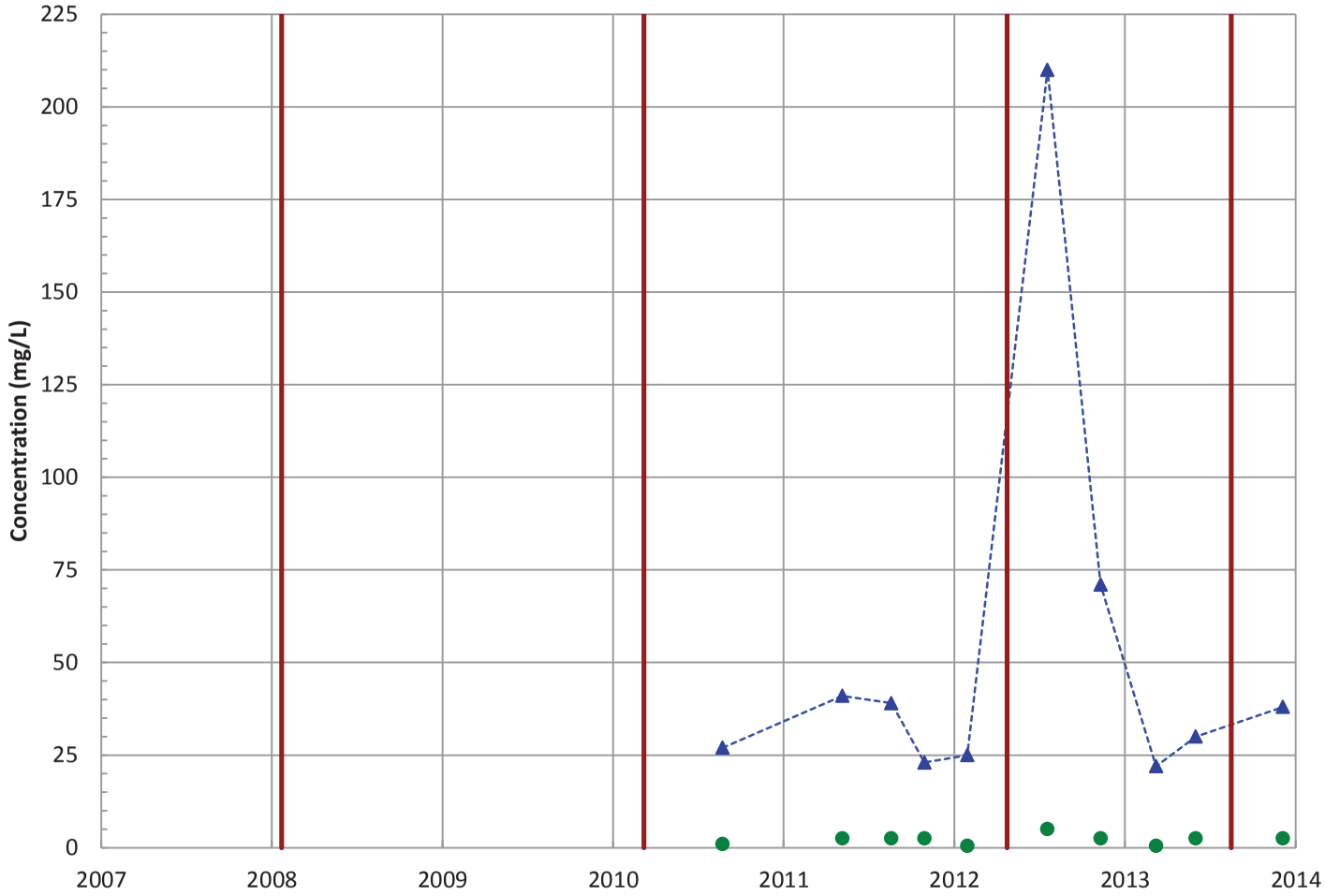
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

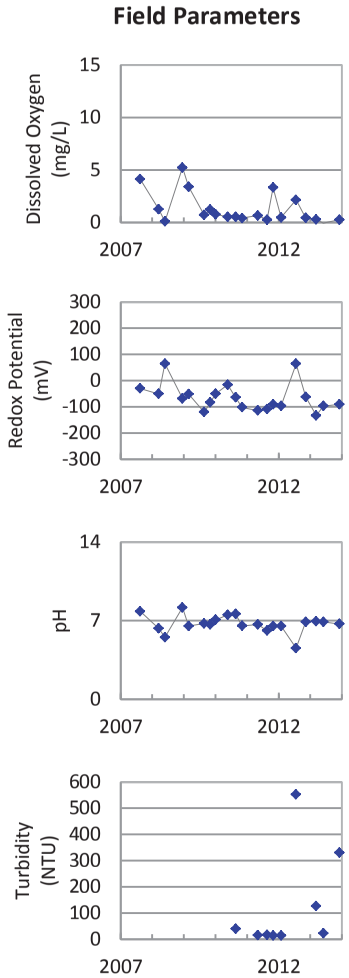
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/15/2007 to 12/10/2013
Analysis Date: 3/21/2014

PTX06-ISB038
Ferrous Iron Trend in Perched Aquifer





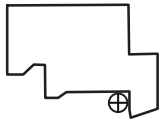
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Stable

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Stable

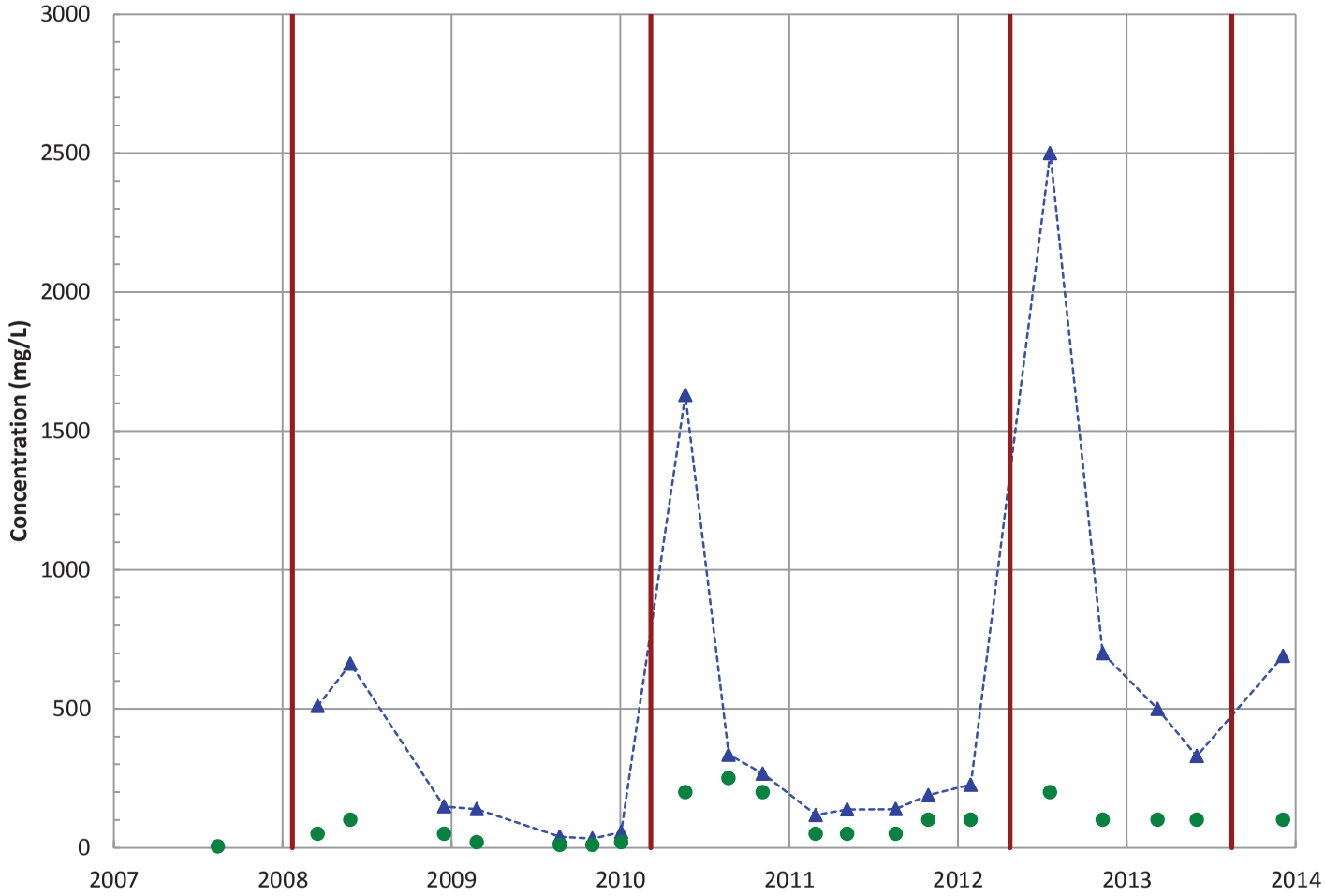
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

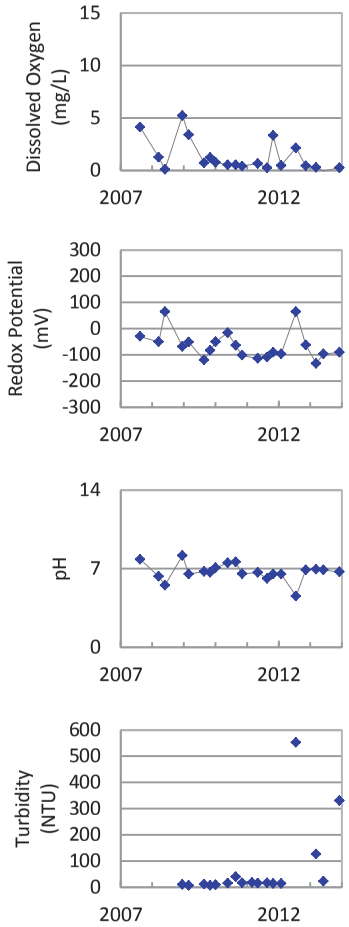


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/26/2010 to 12/10/2013
Analysis Date: 3/21/2014

PTX06-ISB038
Total Organic Carbon Trend in Perched Aquifer



Field Parameters



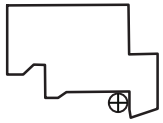
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Probably Increasing
Last 4 Samples: Stable

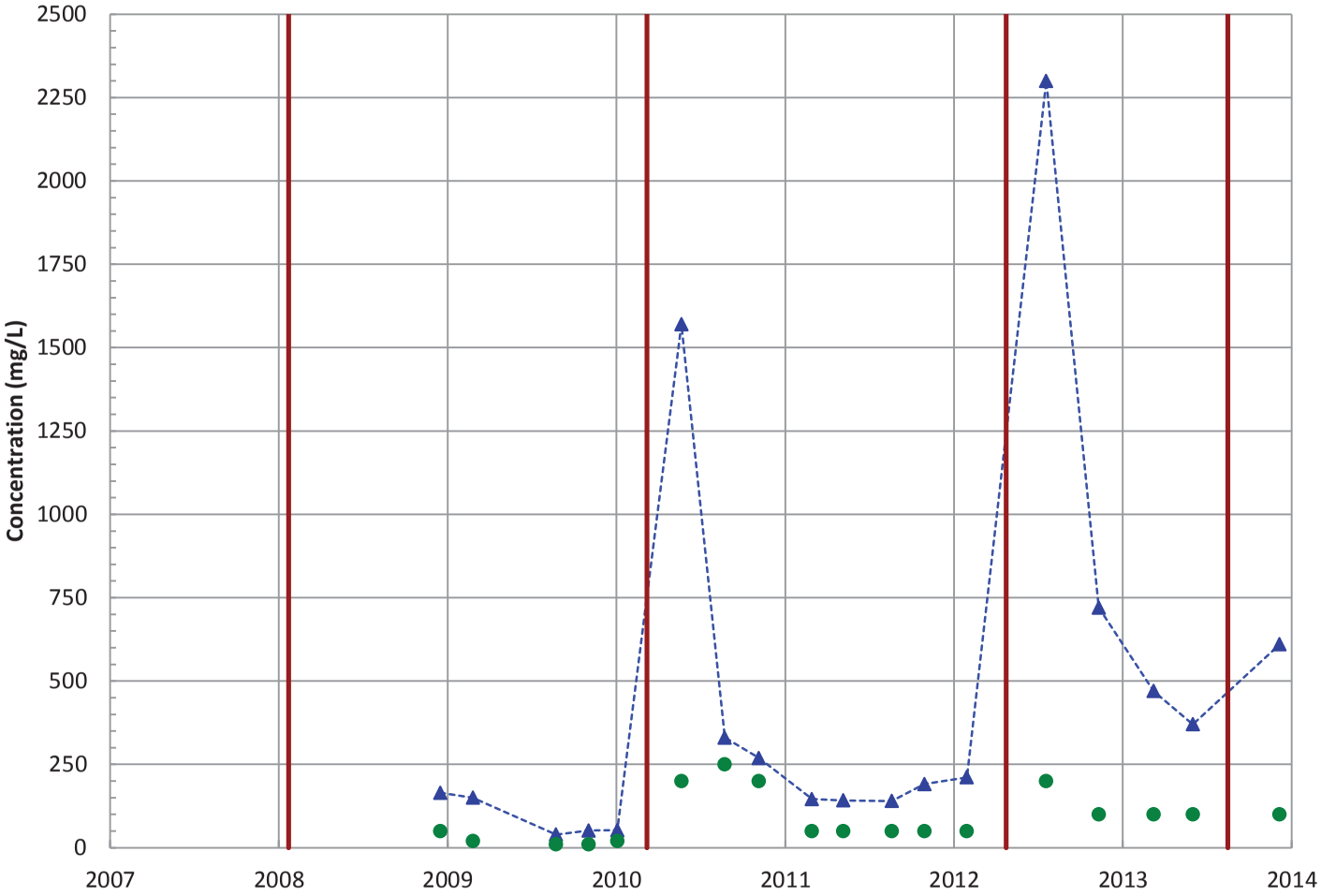
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

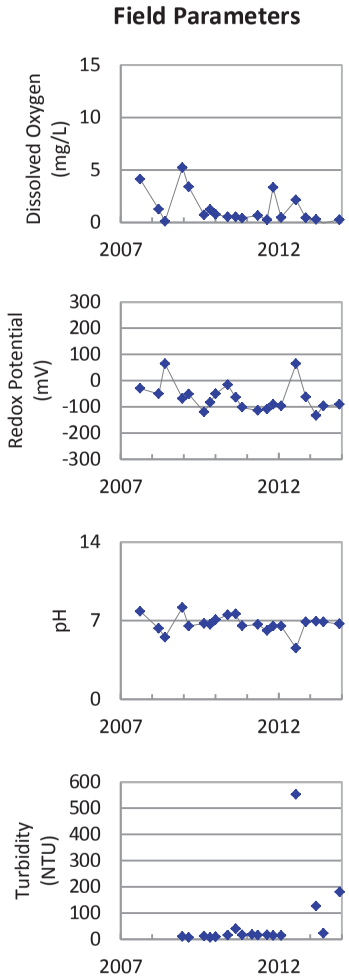
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/15/2007 to 12/10/2013
Analysis Date: 3/21/2014

PTX06-ISB038
Dissolved Organic Carbon (DOC) Trend in Perched Aquifer





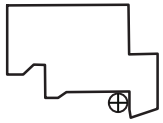
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Stable

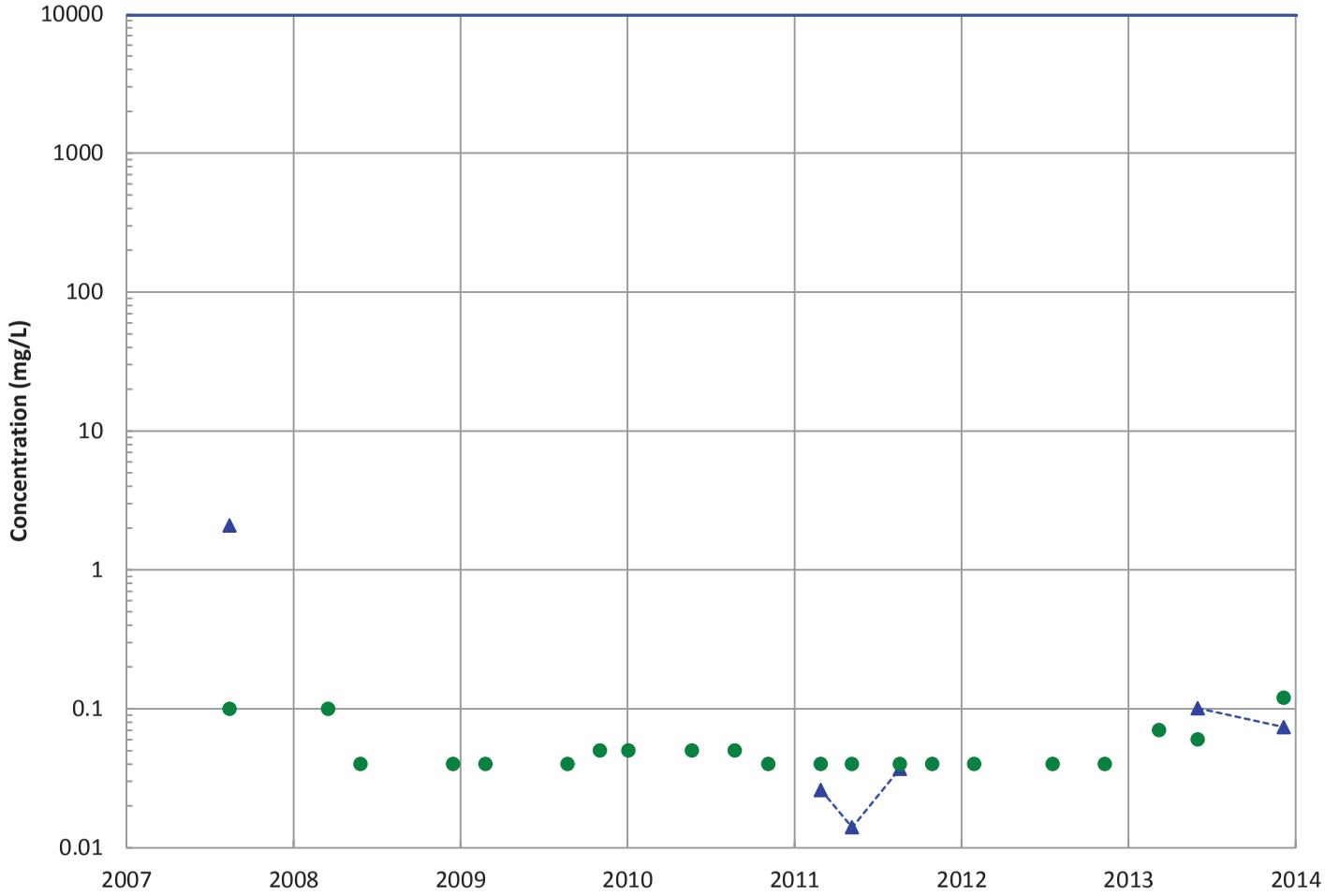
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

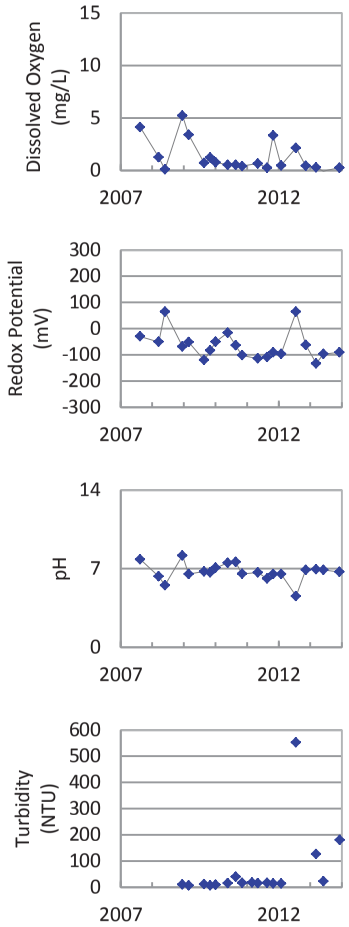


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/17/2008 to 12/11/2013
Analysis Date: 3/21/2014

PTX06-ISB038
Nitrate as N Trend in Perched Aquifer



Field Parameters



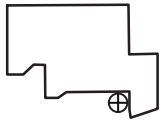
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Increasing

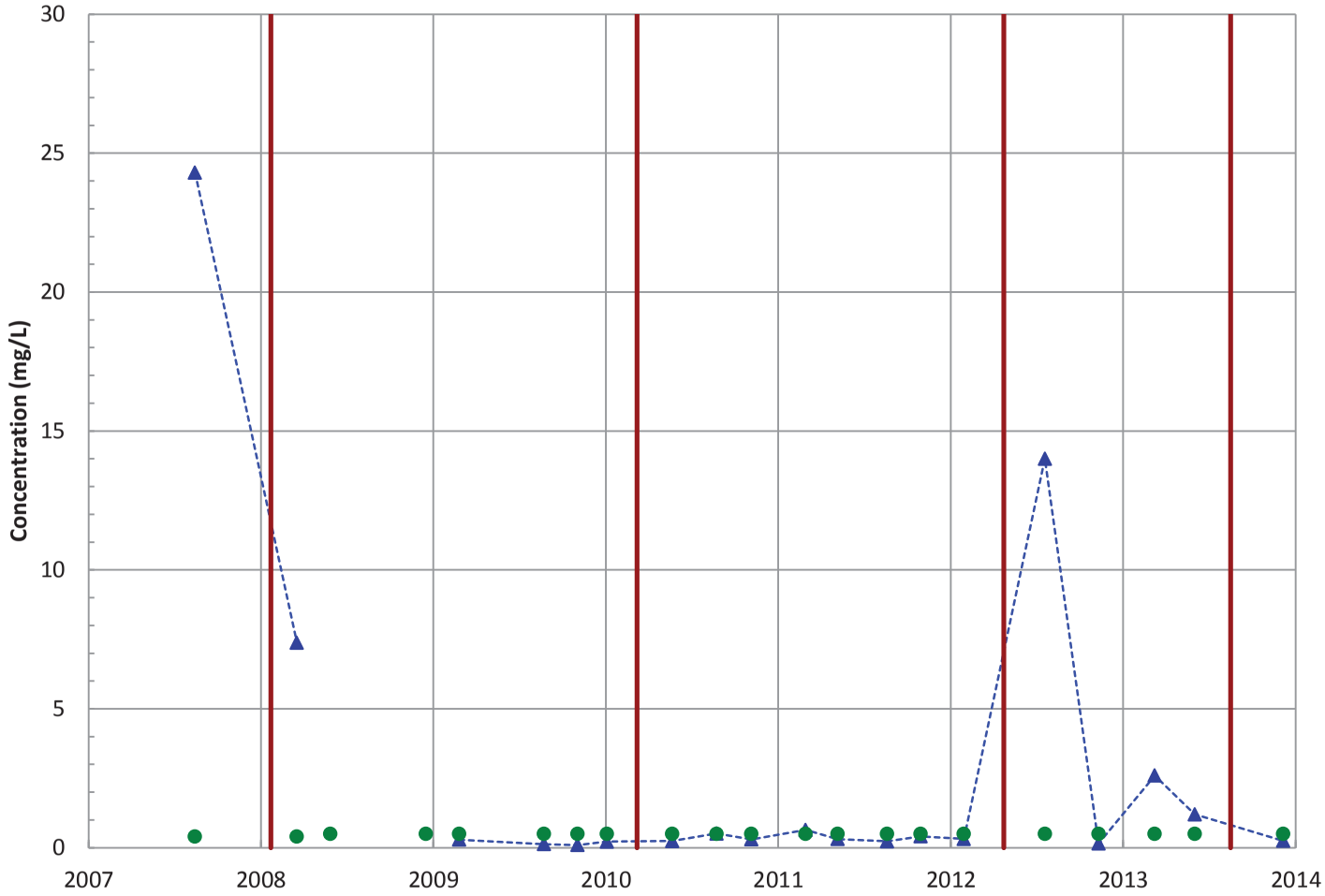
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

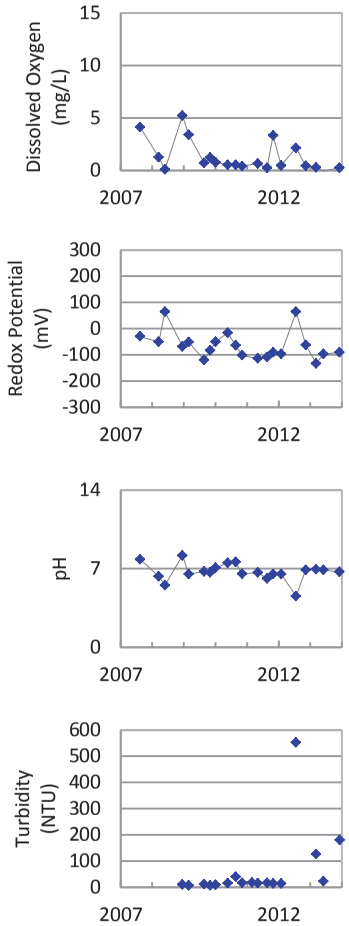


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/15/2007 to 12/11/2013
Analysis Date: 3/21/2014

PTX06-ISB038
Sulfate (as SO4) Trend in Perched Aquifer



Field Parameters



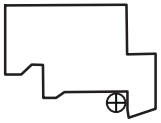
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

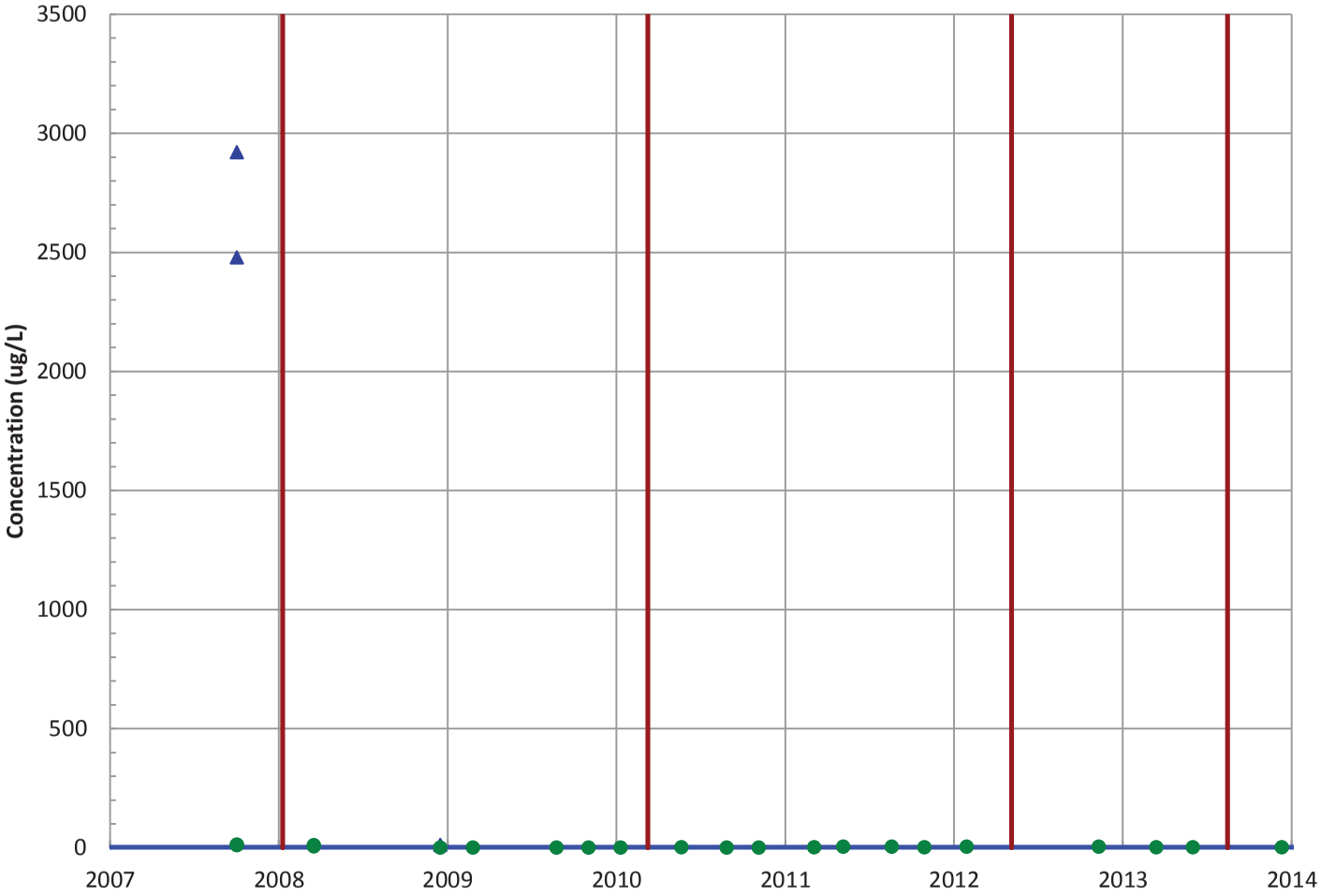
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

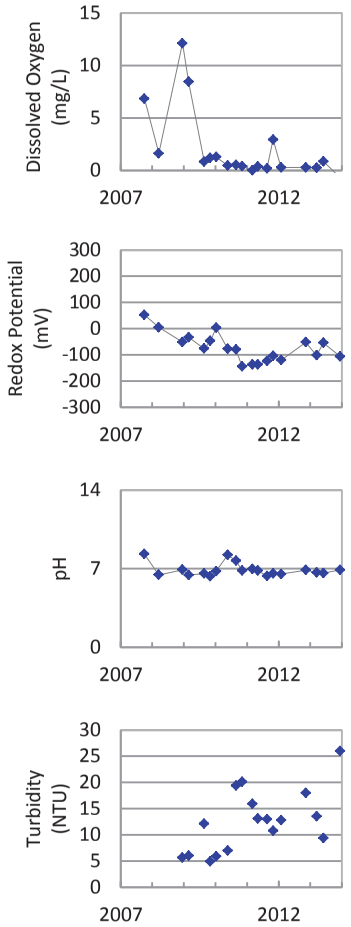


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 8/15/2007 to 12/11/2013
Analysis Date: 3/21/2014

PTX06-ISB042
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

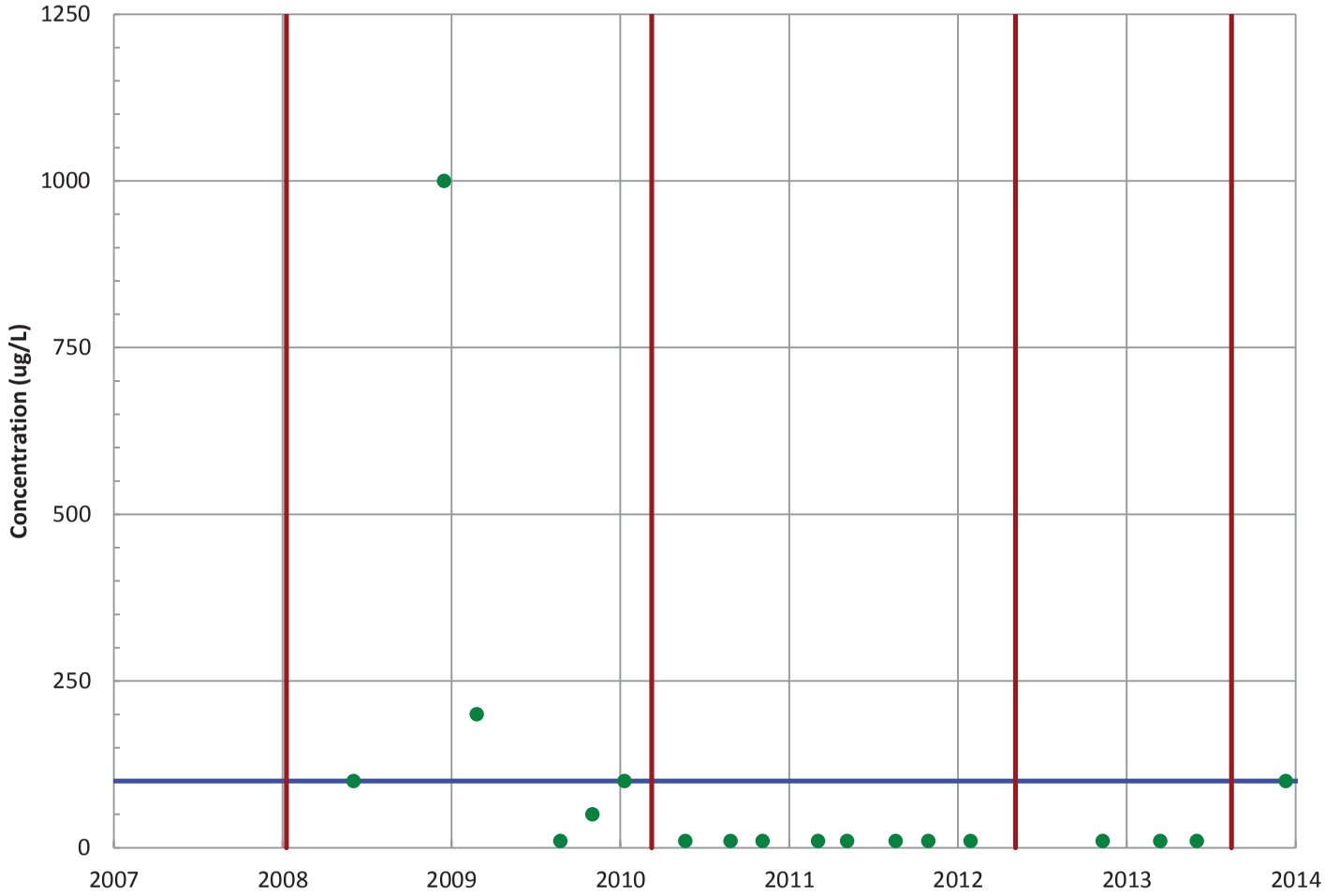
MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

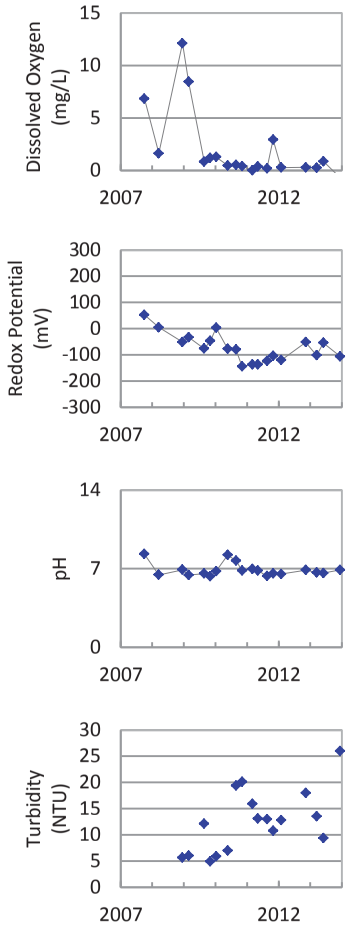
Well Location

Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/3/2007 to 12/16/2013
Analysis Date: 3/21/2014

PTX06-ISB042
Chromium, Total Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

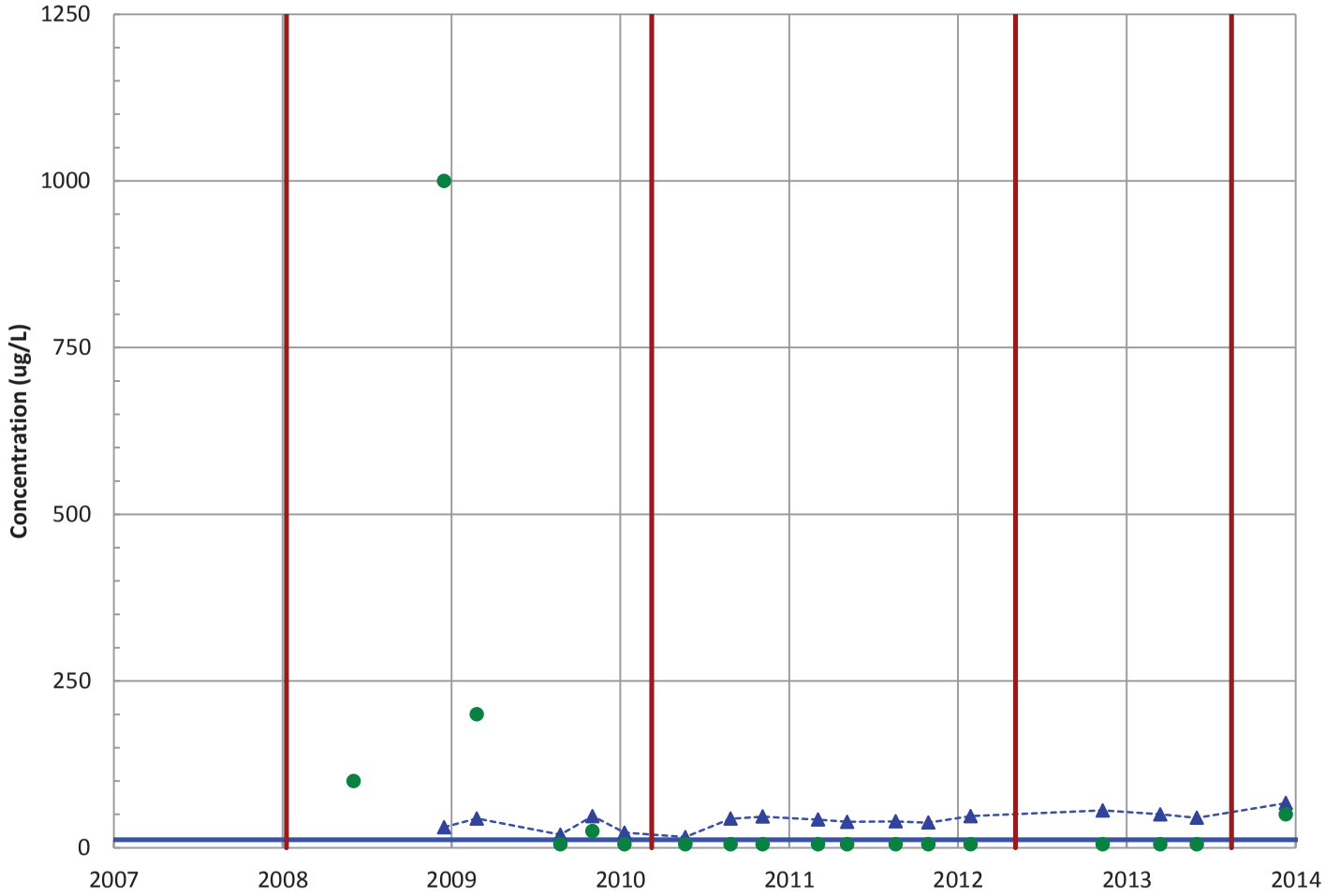
MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

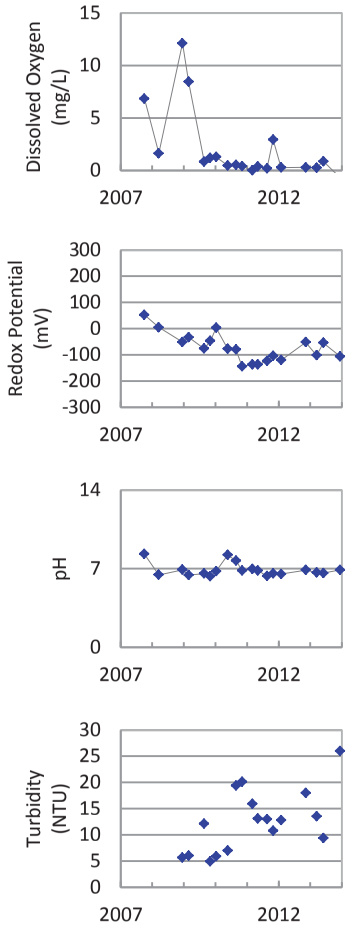
Well Location

Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/4/2008 to 12/16/2013
Analysis Date: 3/21/2014

PTX06-ISB042
Arsenic Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Probably Increasing
Last 4 Samples: Stable

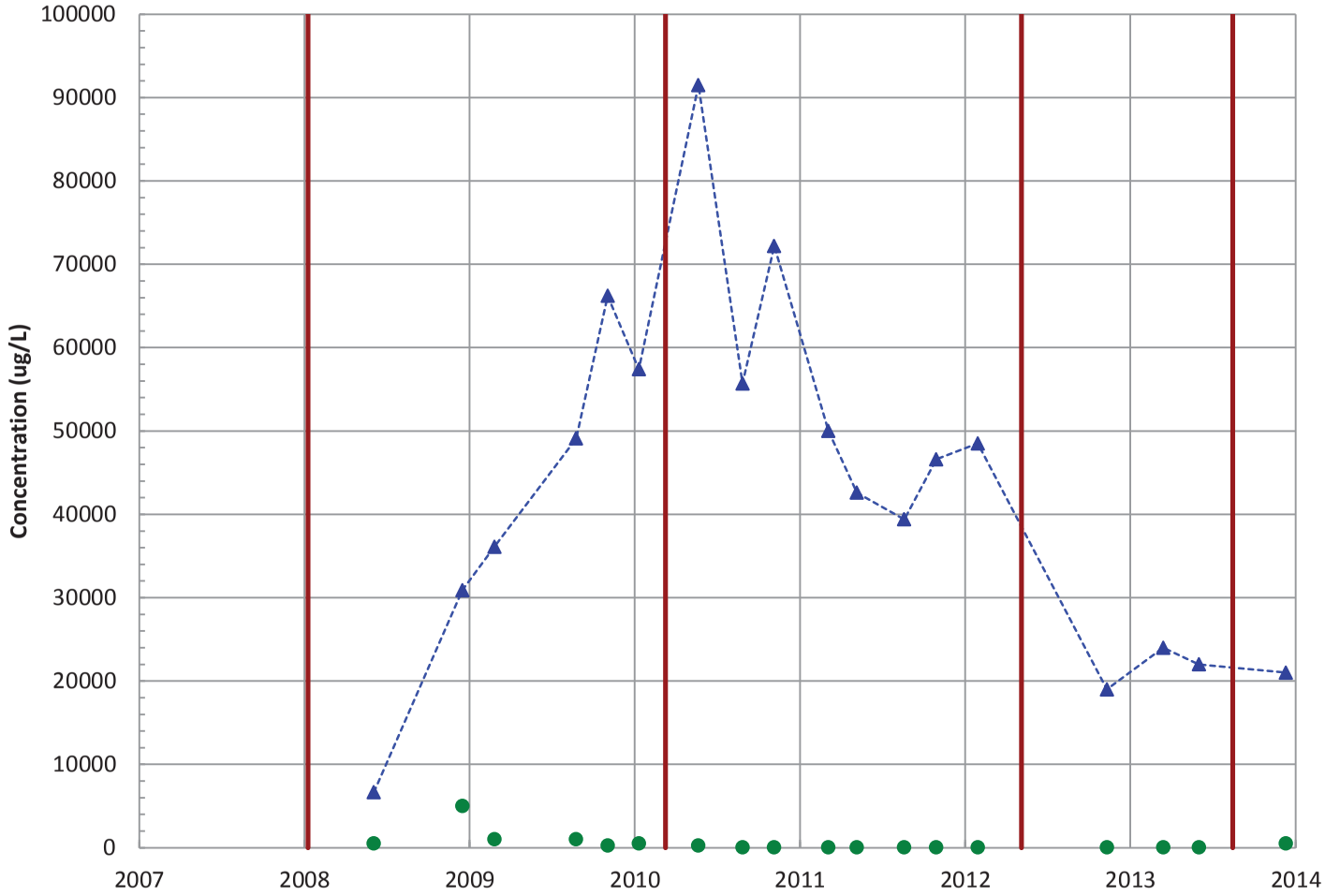
MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: No Trend

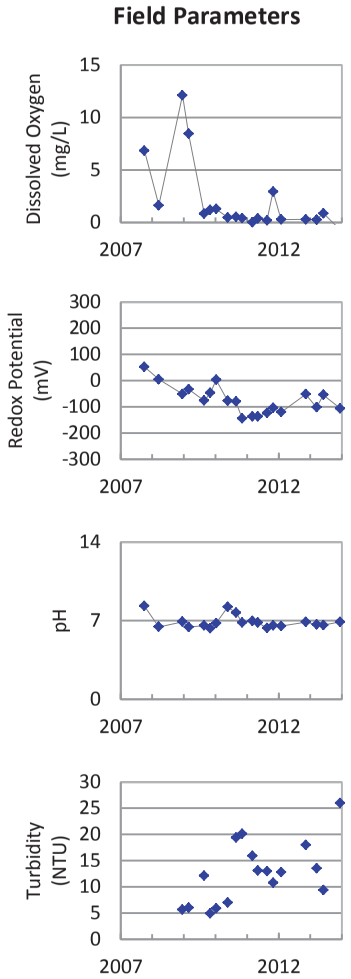
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/4/2008 to 12/16/2013
Analysis Date: 3/21/2014

PTX06-ISB042
Iron Trend in Perched Aquifer





Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Stable

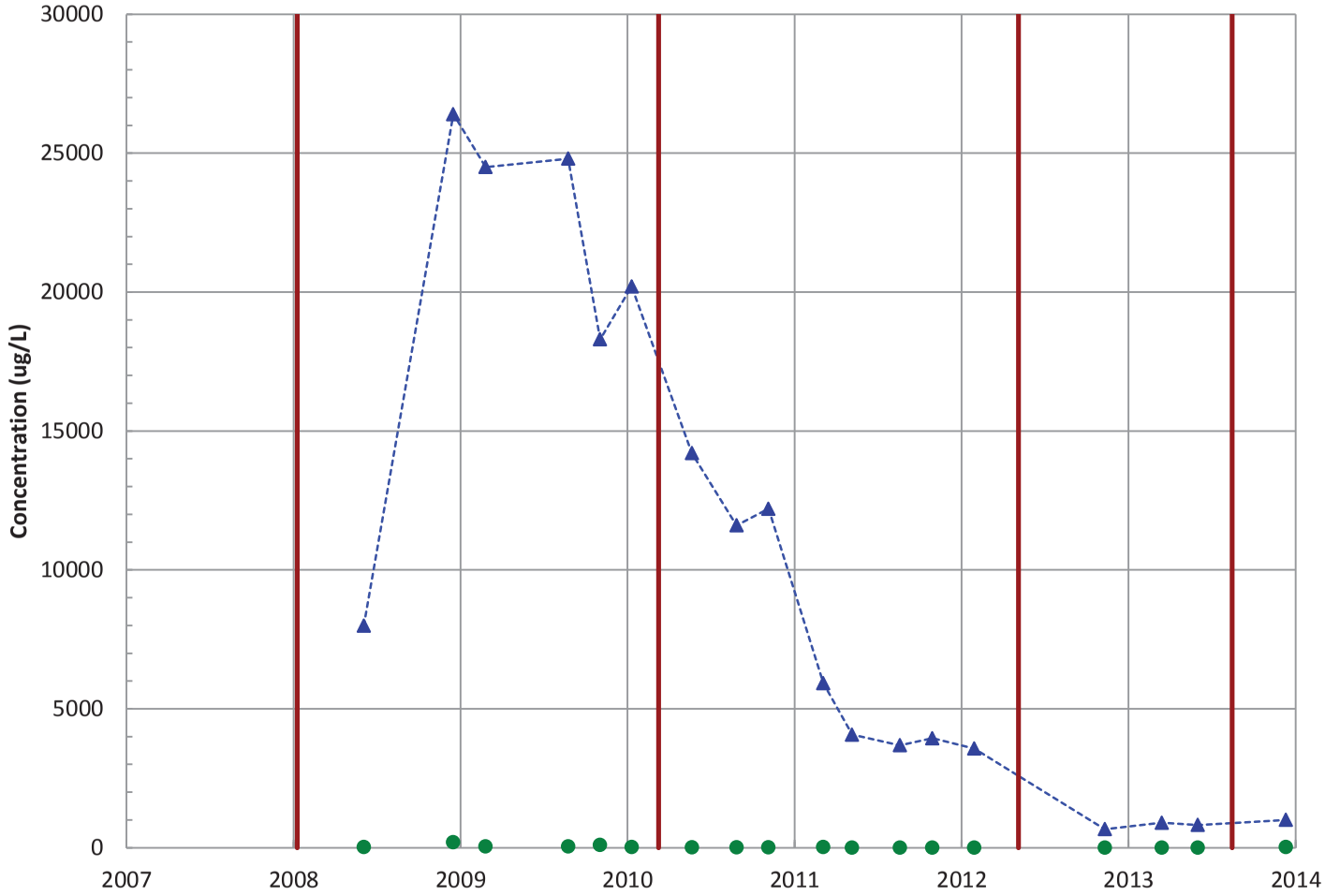
MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: No Trend

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

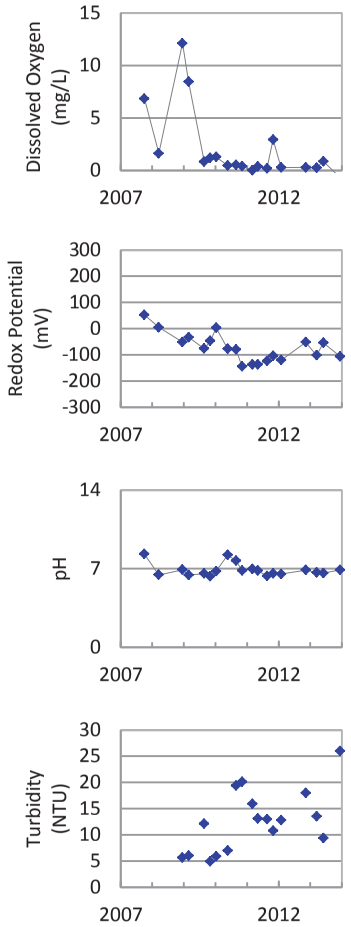
Well Location

Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/4/2008 to 12/16/2013
Analysis Date: 3/21/2014

PTX06-ISB042
Manganese Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

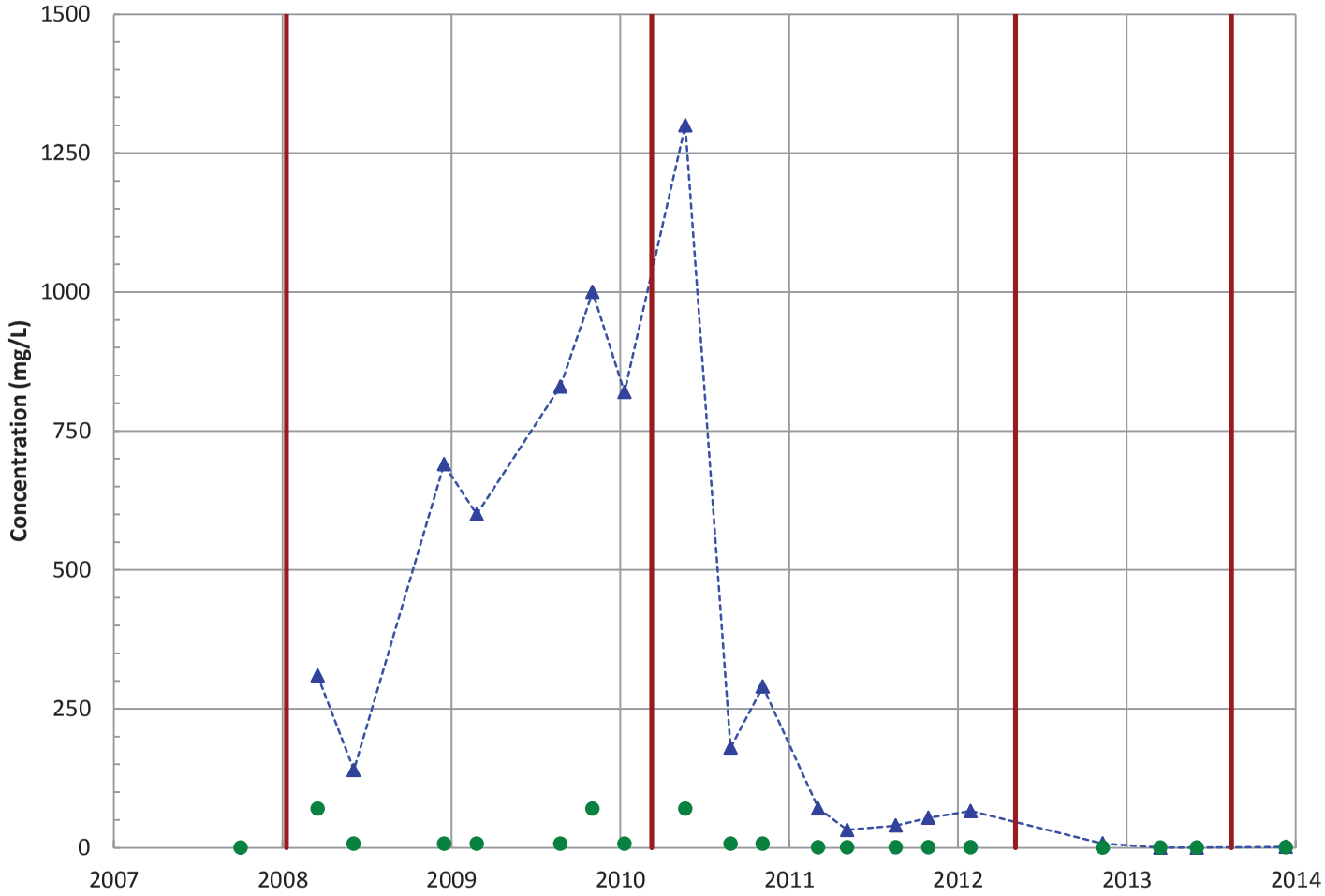
MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Increasing

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

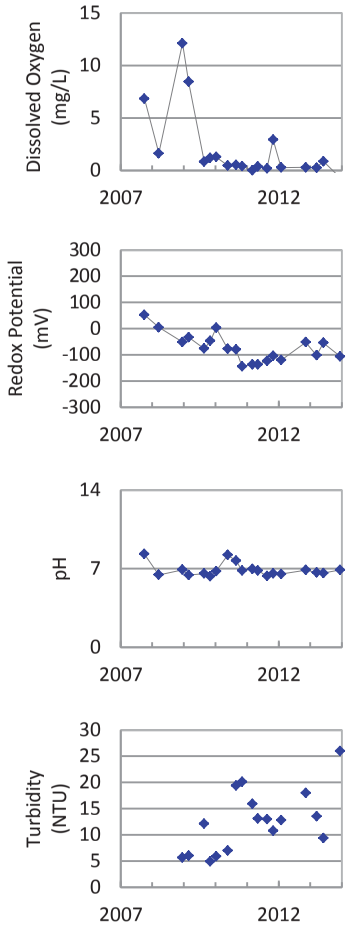
Well Location

Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/4/2008 to 12/16/2013
Analysis Date: 3/21/2014

PTX06-ISB042
Acetic Acid Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

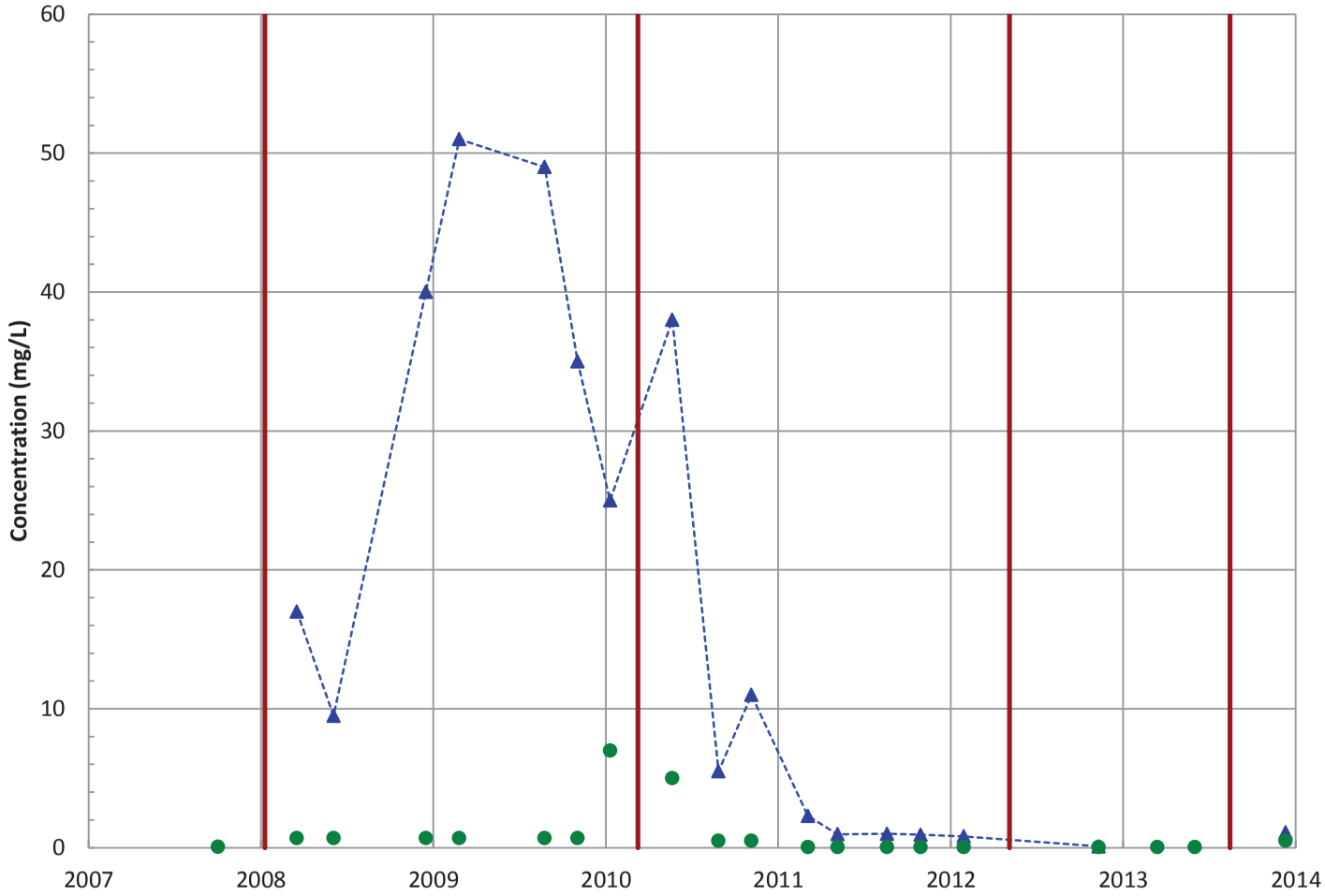
MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Injection Dates

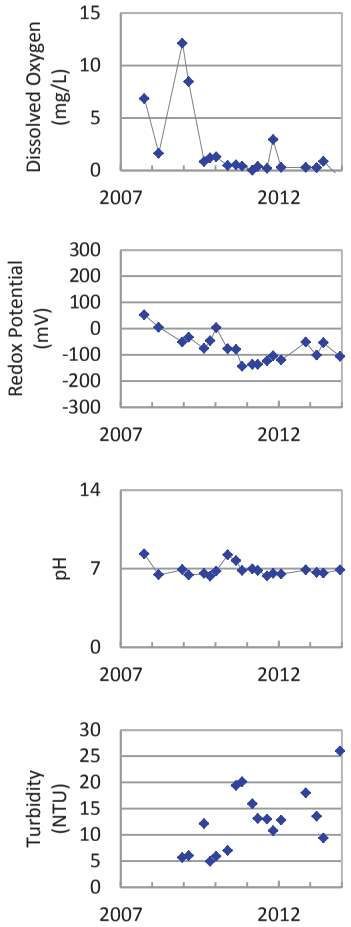
Well Location

Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/3/2007 to 12/16/2013
Analysis Date: 3/21/2014

PTX06-ISB042
Butyric Acid Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

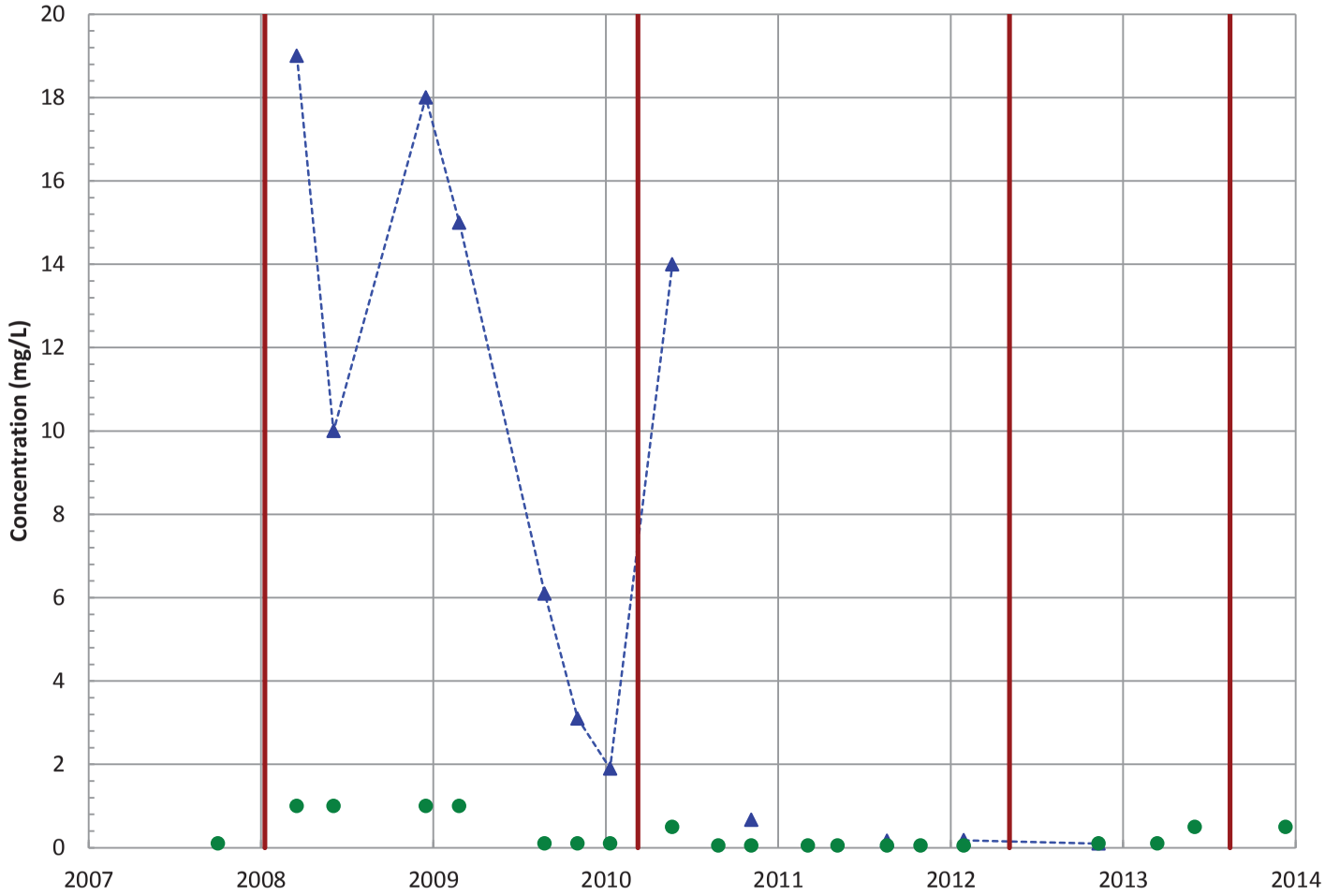
MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Stable

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

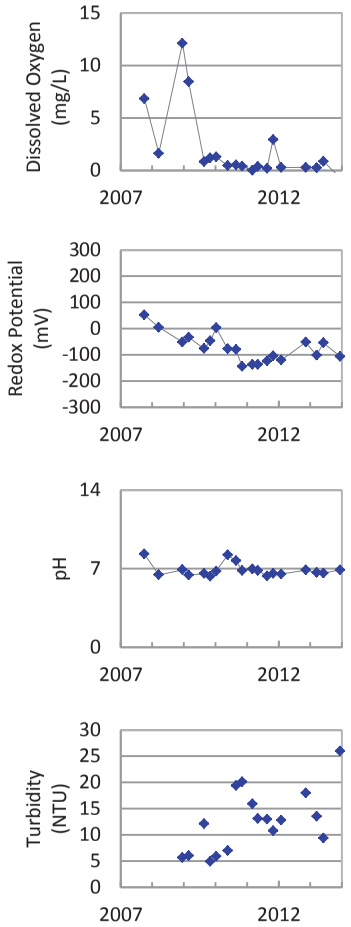
Well Location

Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/3/2007 to 12/16/2013
Analysis Date: 3/21/2014

PTX06-ISB042
Hexanoic Acid Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: N/A (<2 Detections in Dataset)

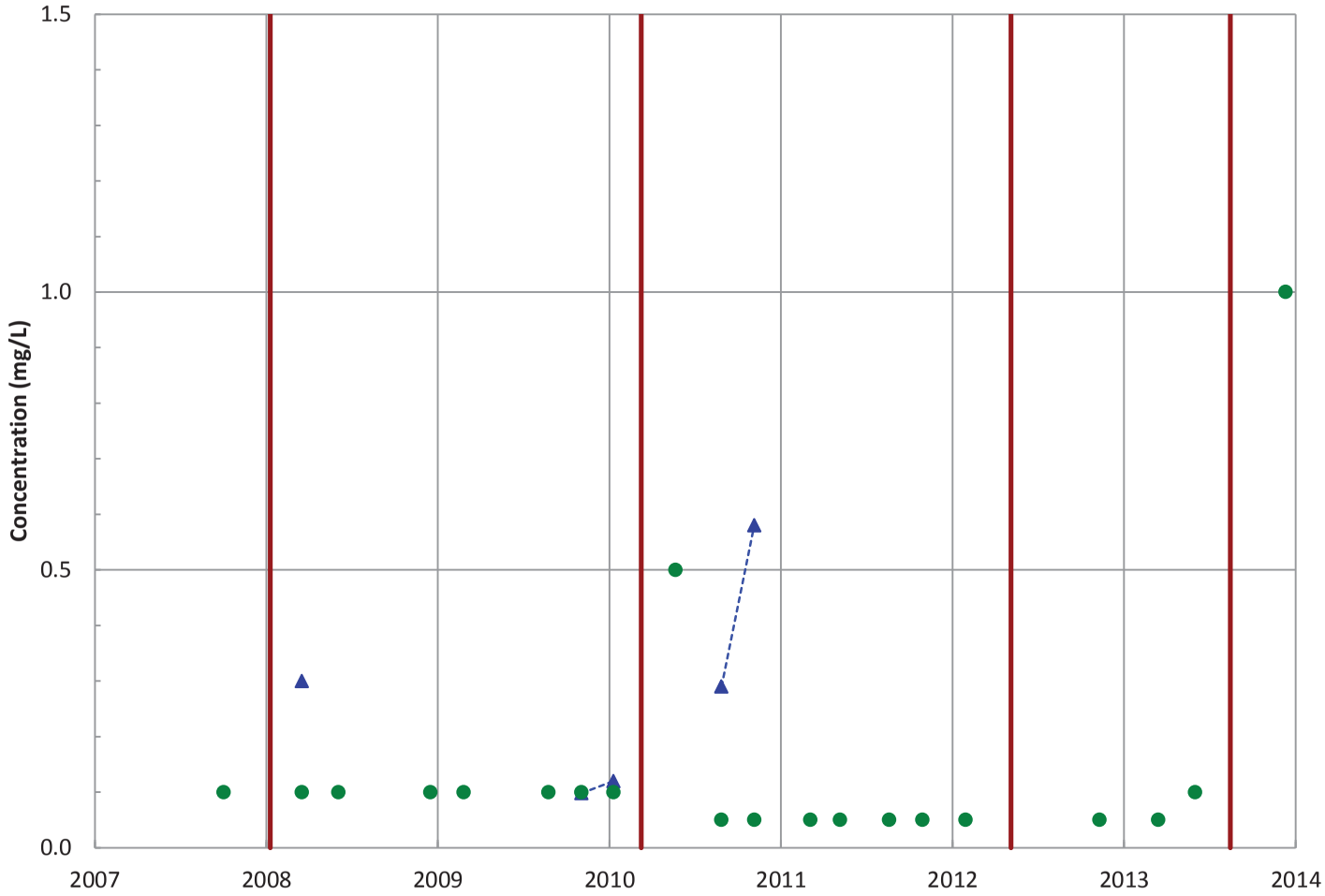
MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Probably Decreasing

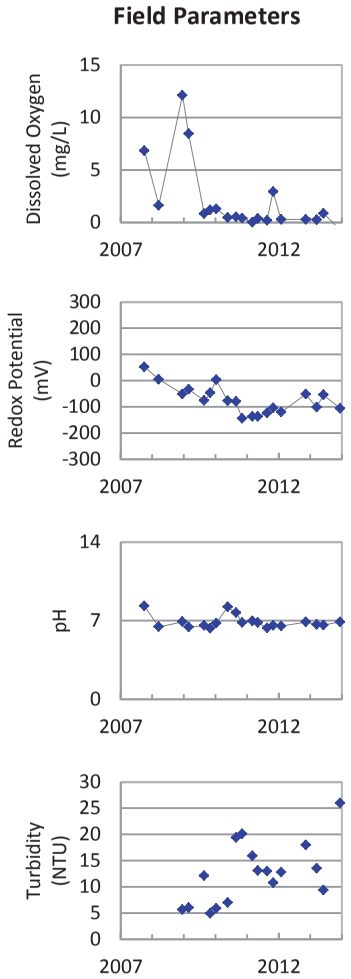
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/3/2007 to 12/16/2013
Analysis Date: 3/21/2014

PTX06-ISB042
i-Hexanoic Acid Trend in Perched Aquifer





Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: All Non-Detect

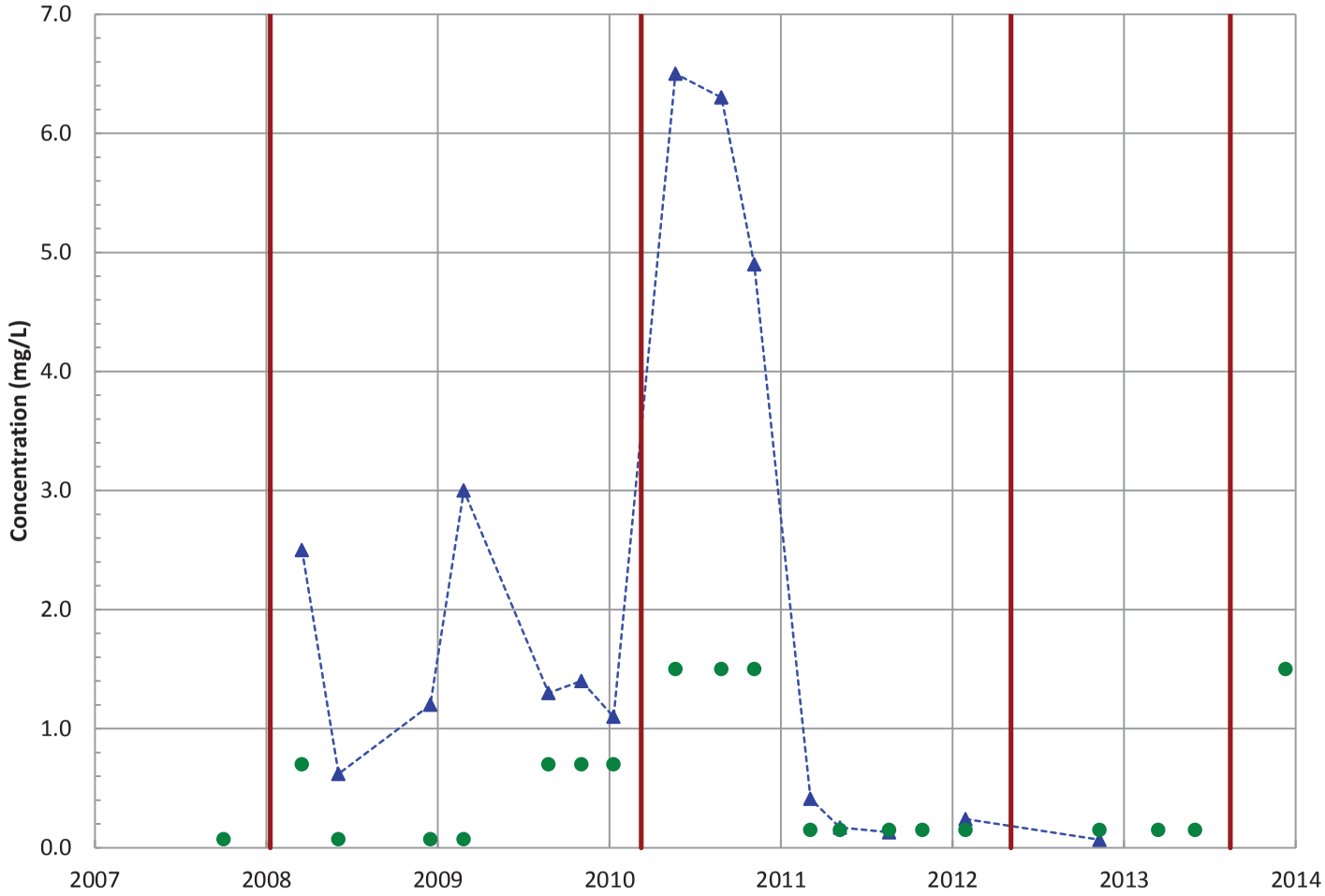
MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Probably Increasing

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

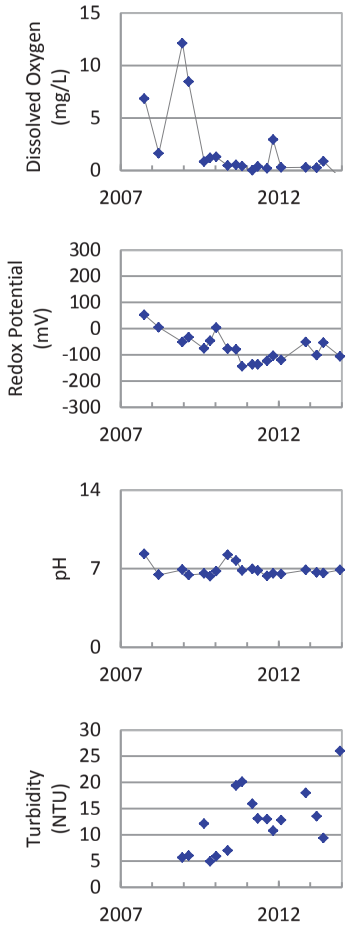
Well Location

Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/3/2007 to 12/16/2013
Analysis Date: 3/21/2014

PTX06-ISB042
i-Pentanoic Acid Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: N/A (<2 Detections in Dataset)

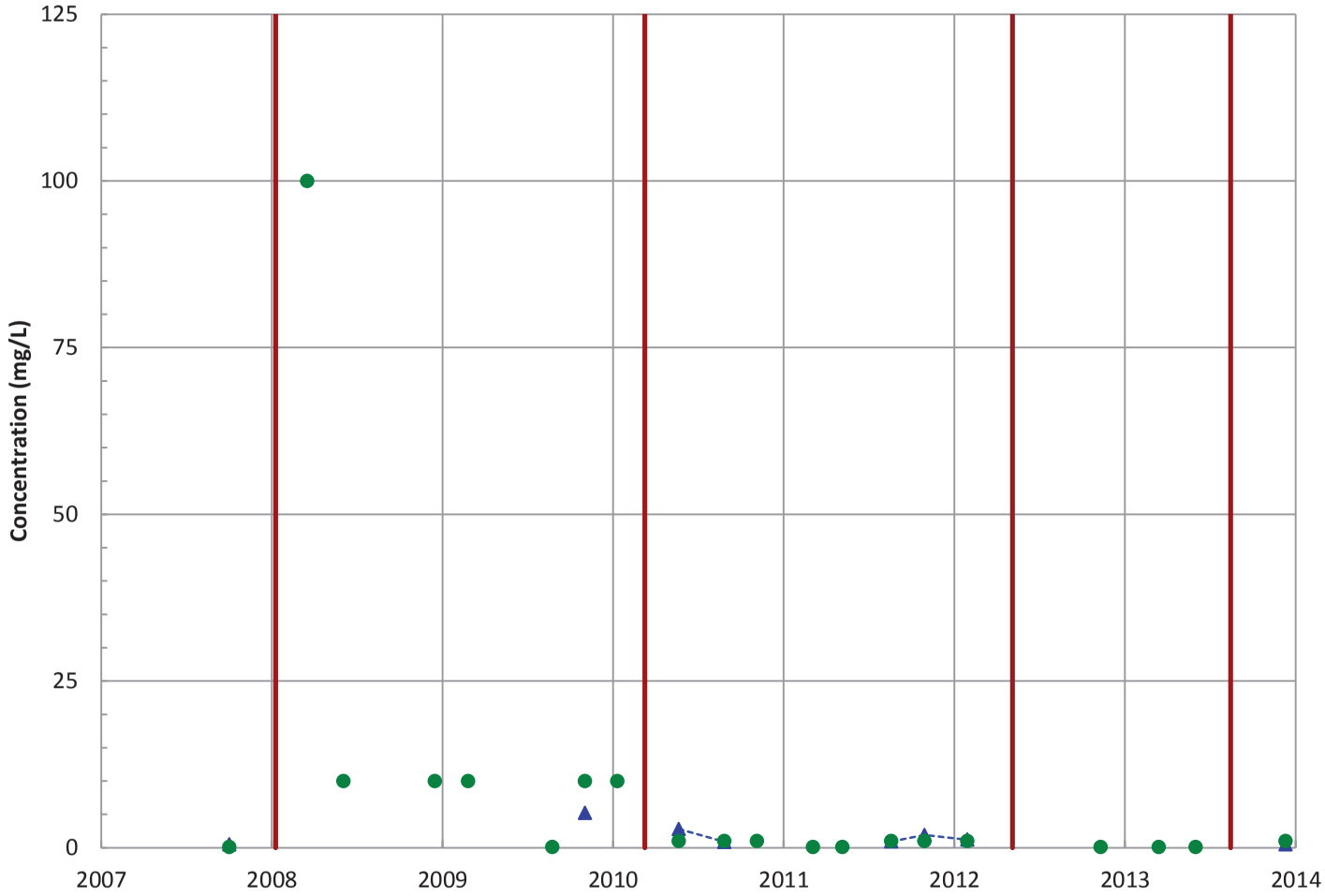
MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Stable

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

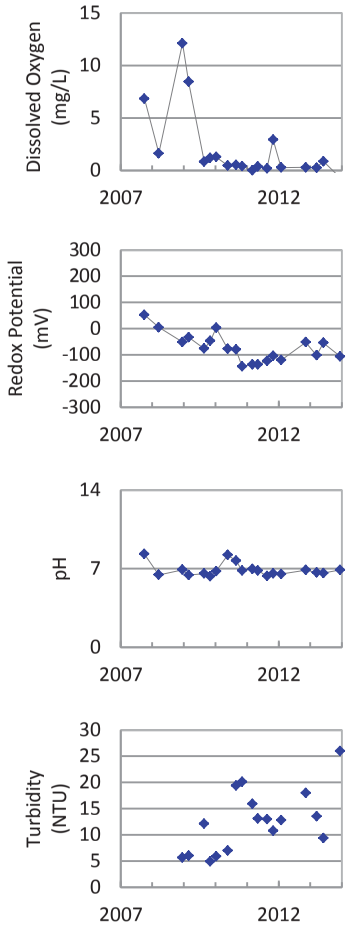
Well Location

Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/3/2007 to 12/16/2013
Analysis Date: 3/21/2014

PTX06-ISB042
Lactic Acid and HIBA Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: N/A (<2 Detections in Dataset)

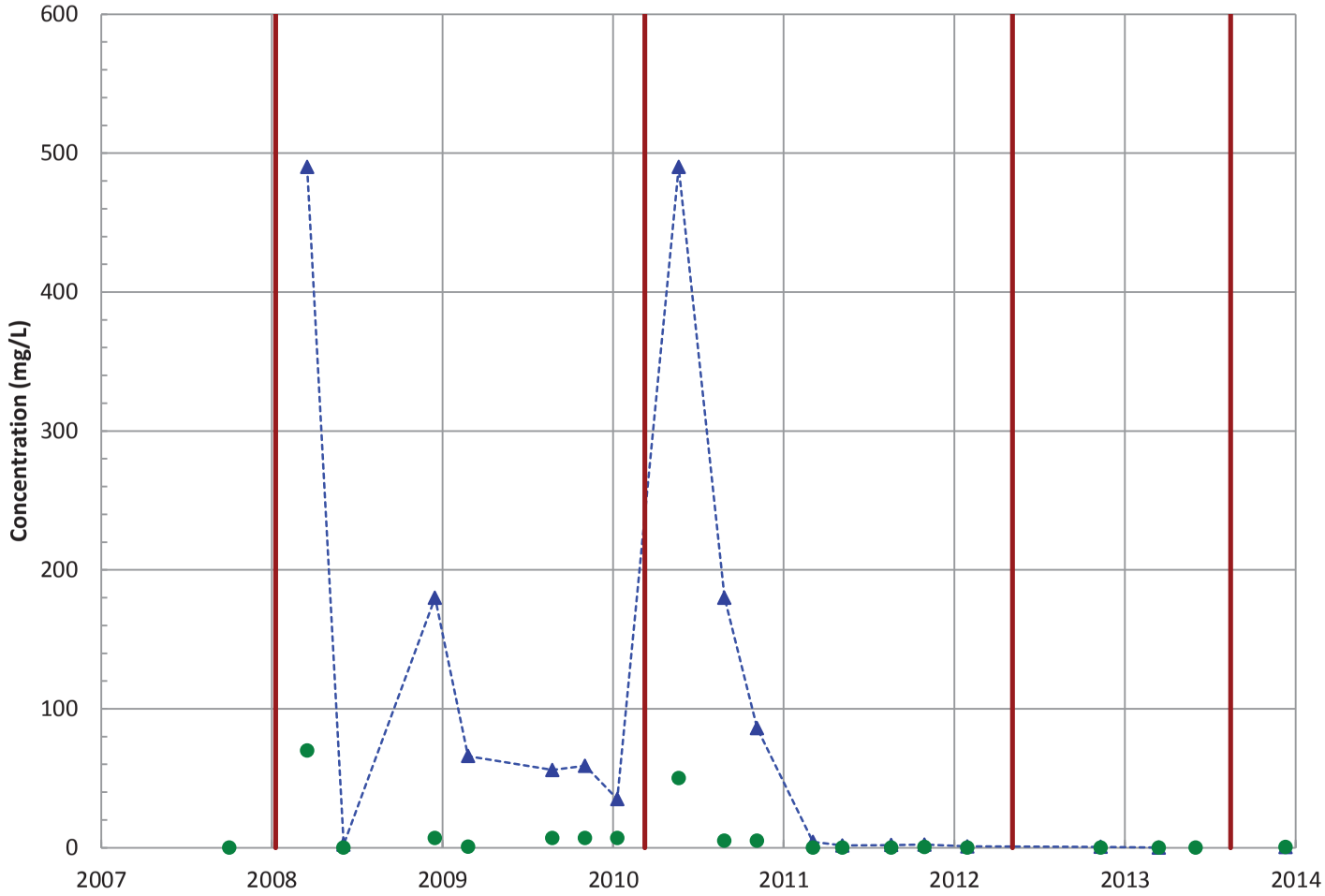
MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: Stable

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

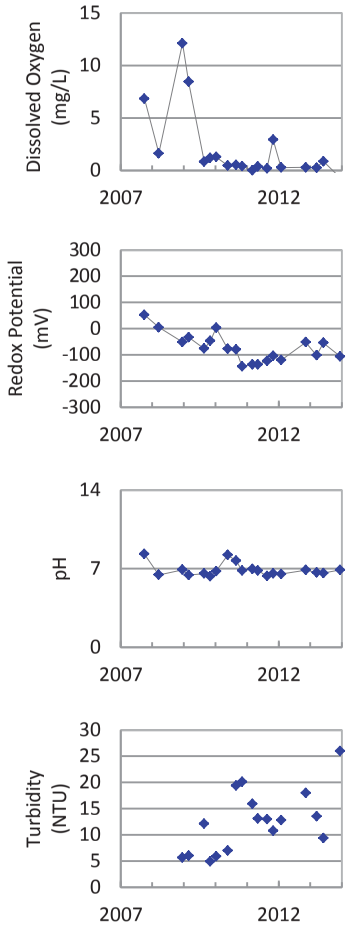
Well Location

Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/3/2007 to 12/16/2013
Analysis Date: 3/21/2014

PTX06-ISB042
Propionic Acid Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

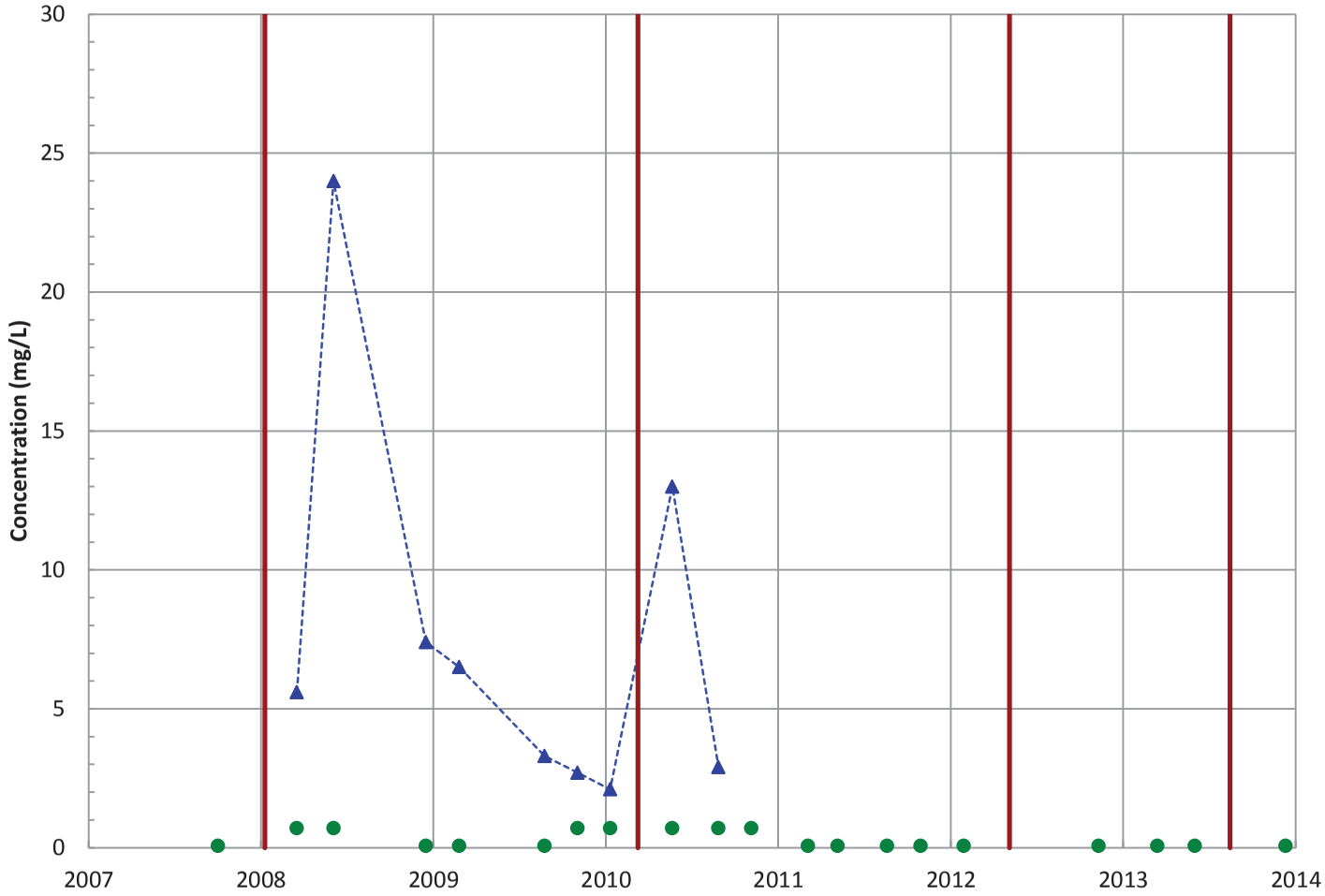
MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Stable

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

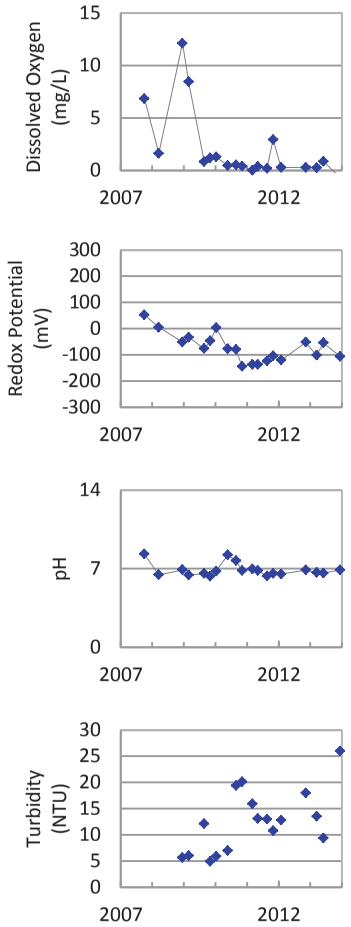
Well Location

Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/3/2007 to 12/16/2013
Analysis Date: 3/21/2014

PTX06-ISB042
Pentanoic Acid Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: All Non-Detect

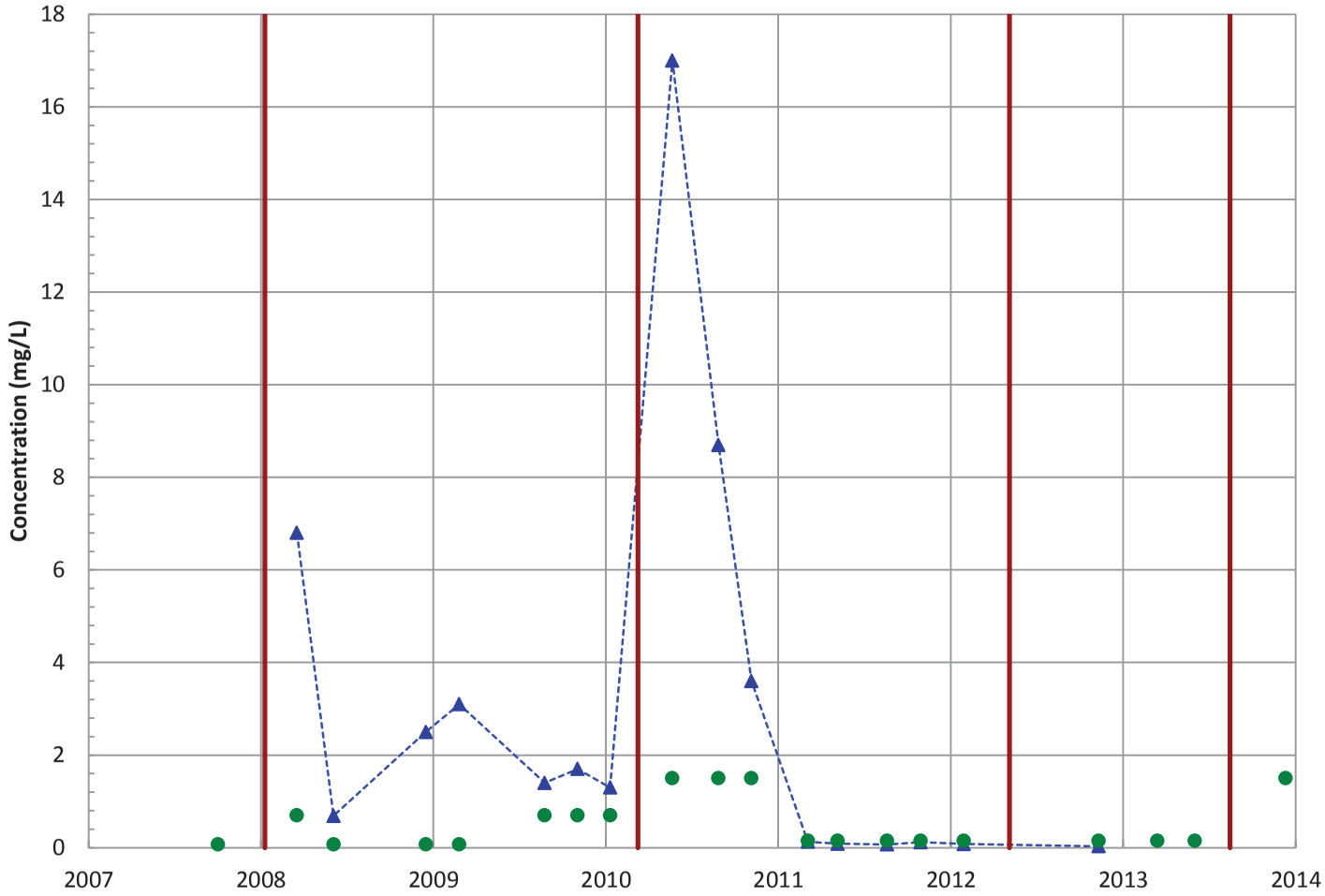
MAROS Linear Regression Method
All Data: Probably Decreasing
Last 4 Samples: No Trend

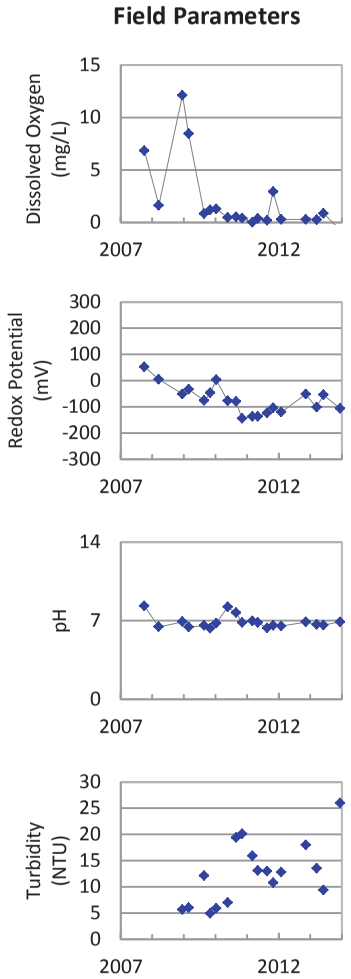
- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Injection Dates

Well Location

Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/3/2007 to 12/16/2013
Analysis Date: 3/21/2014

PTX06-ISB042
Pyruvic Acid Trend in Perched Aquifer





Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: N/A (<2 Detections in Dataset)

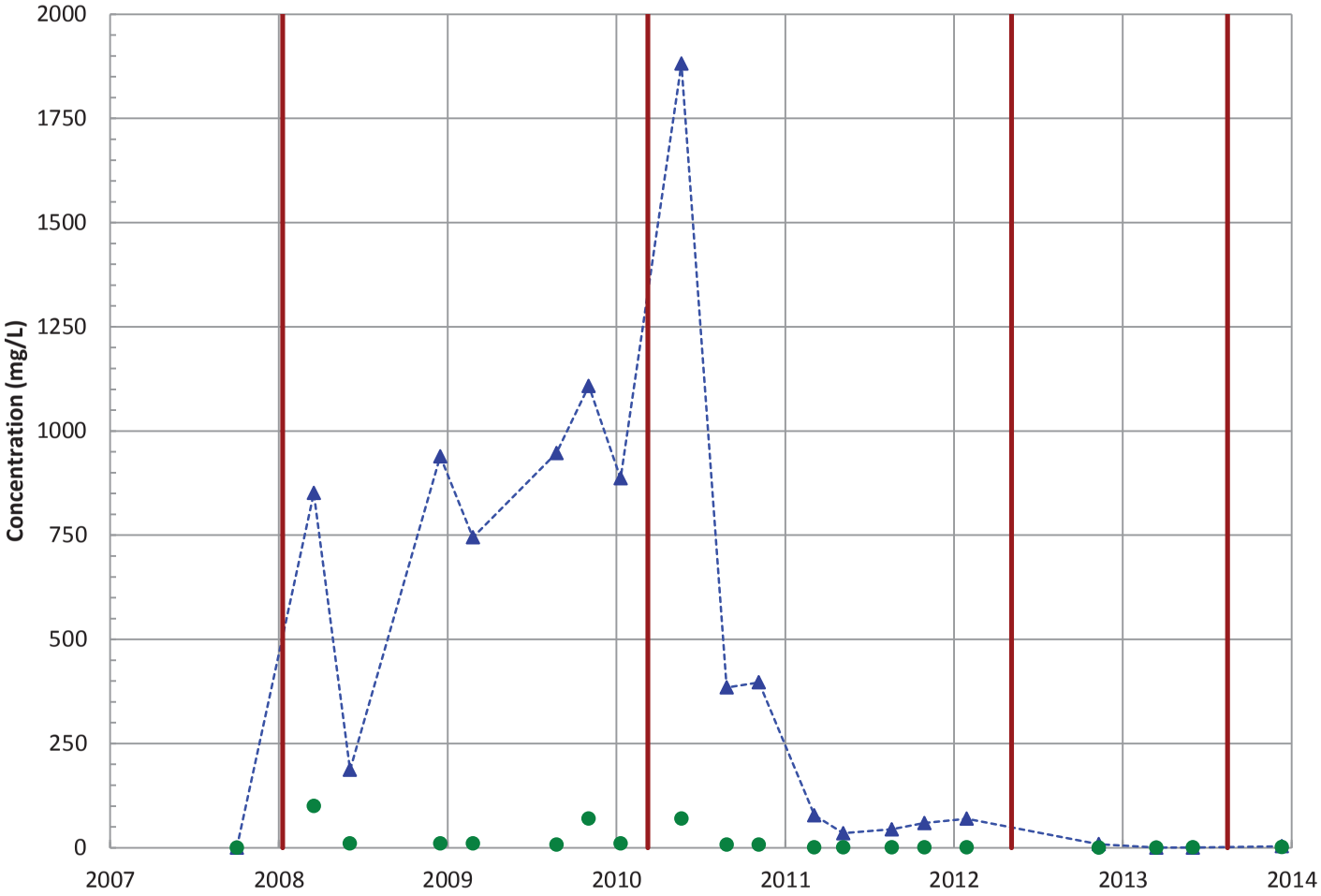
MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Stable

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

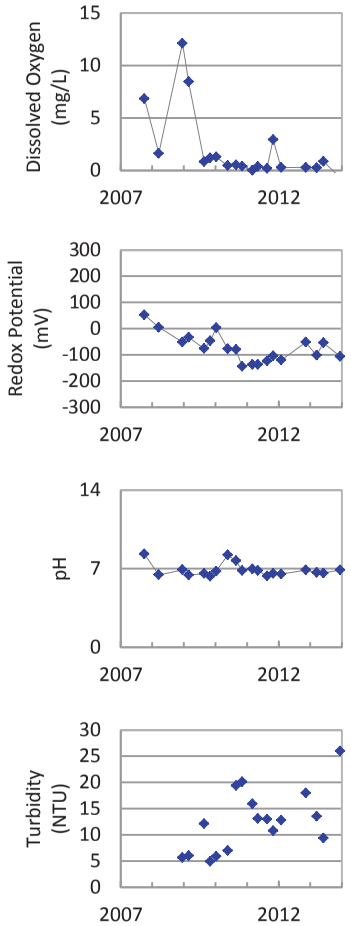
Well Location

Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/3/2007 to 12/16/2013
Analysis Date: 3/21/2014

PTX06-ISB042
Total Volatile Fatty Acids Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

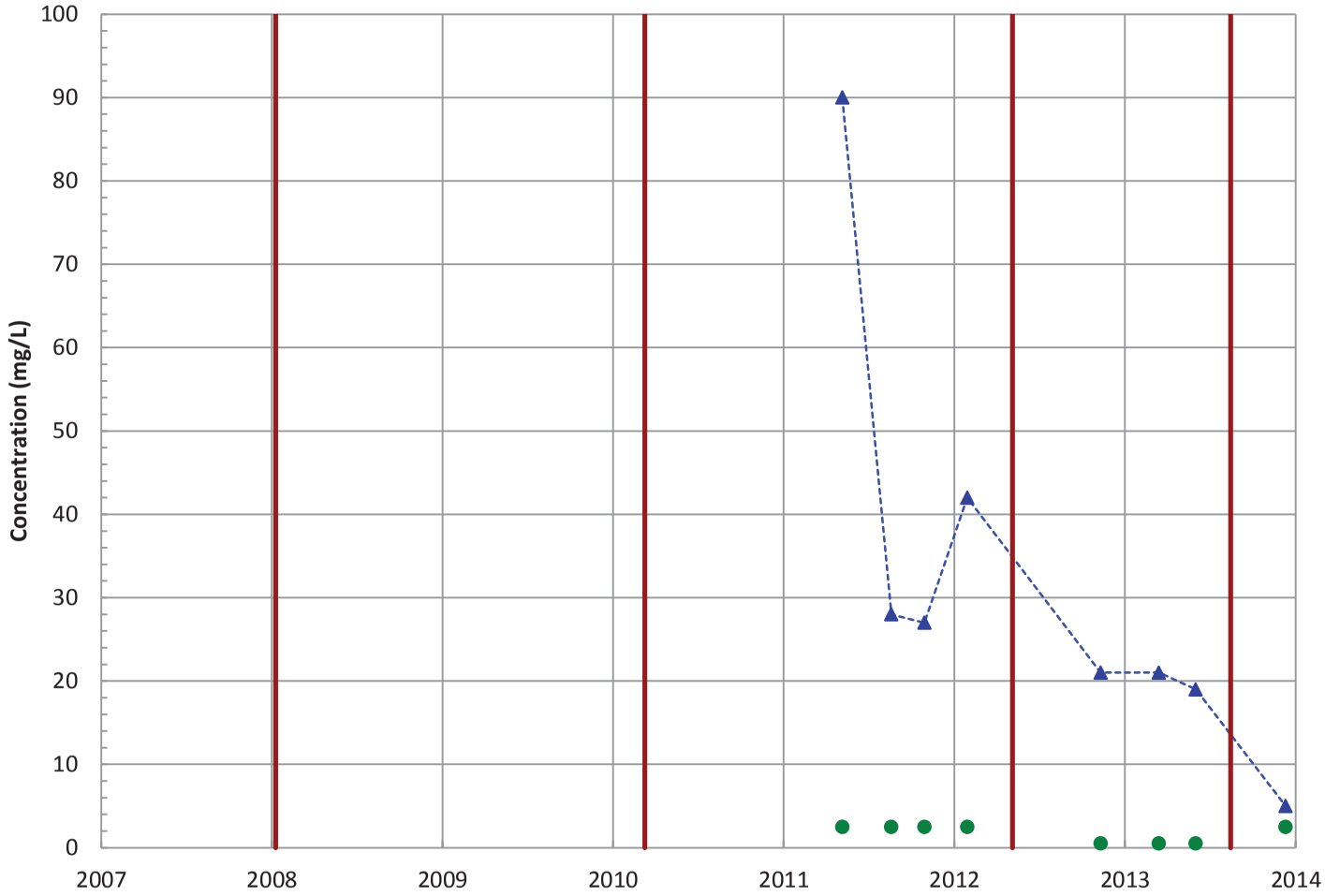
MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

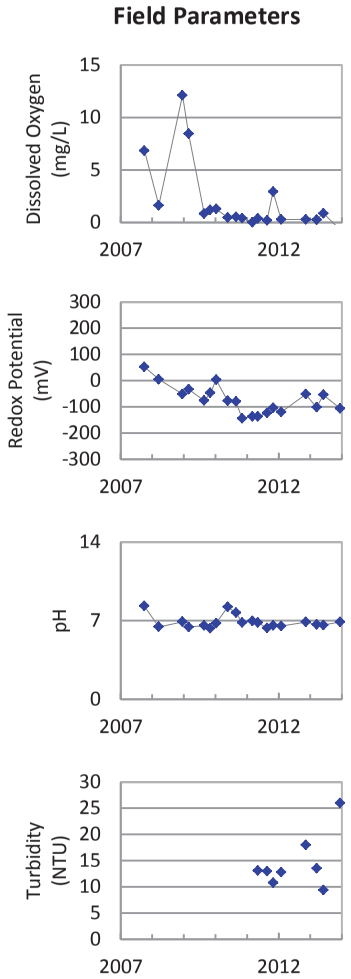
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Injection Dates

Well Location

Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/3/2007 to 12/16/2013
Analysis Date: 3/21/2014

PTX06-ISB042
Ferrous Iron Trend in Perched Aquifer





Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

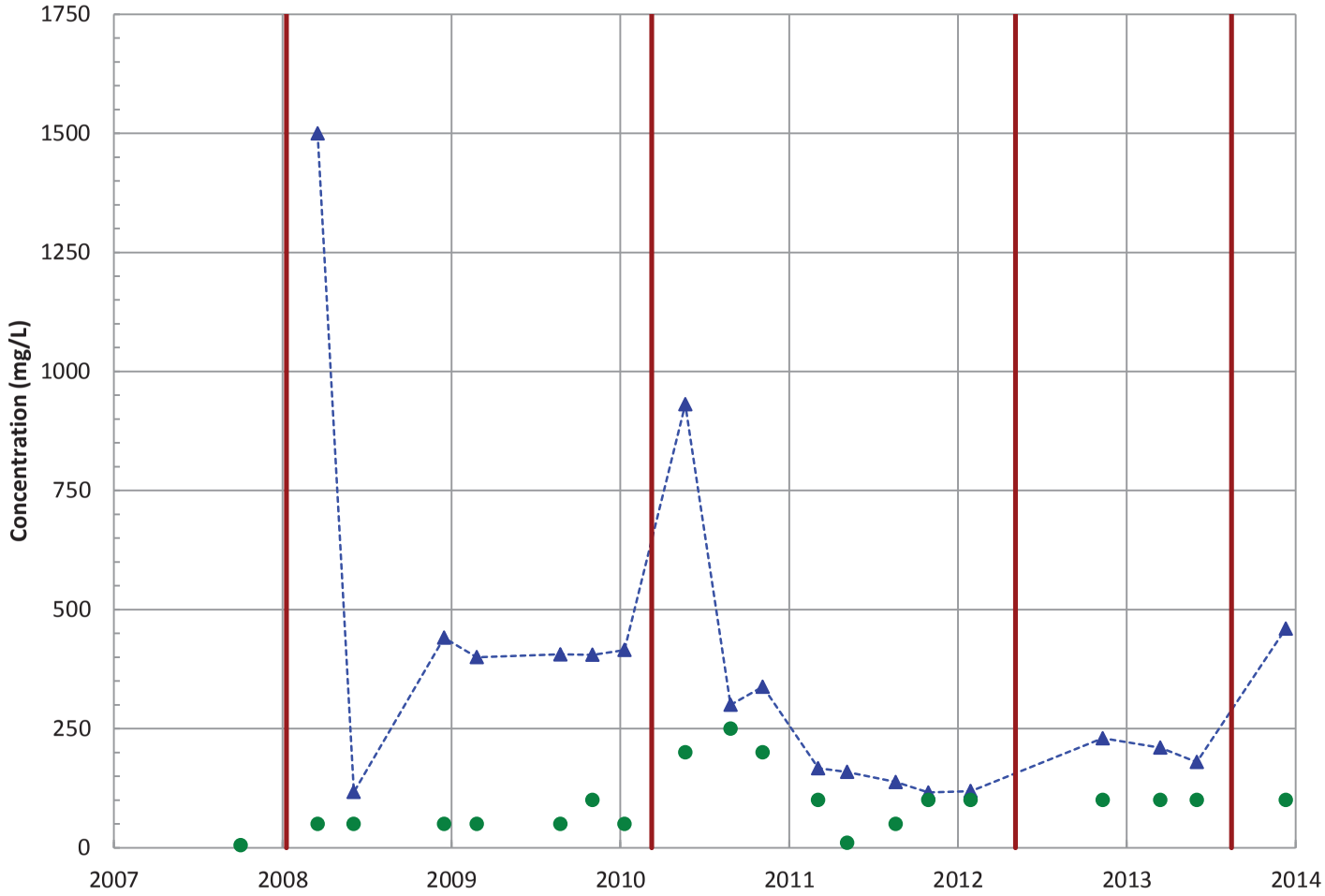
MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Probably Decreasing

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

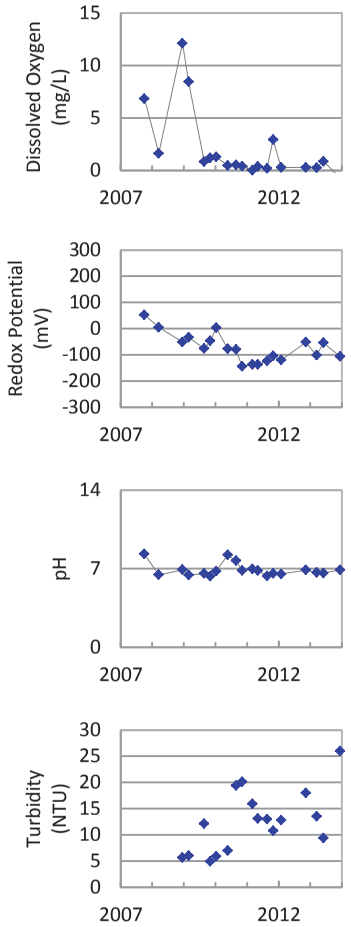
Well Location

Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/10/2011 to 12/16/2013
Analysis Date: 3/21/2014

PTX06-ISB042
Total Organic Carbon Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Stable

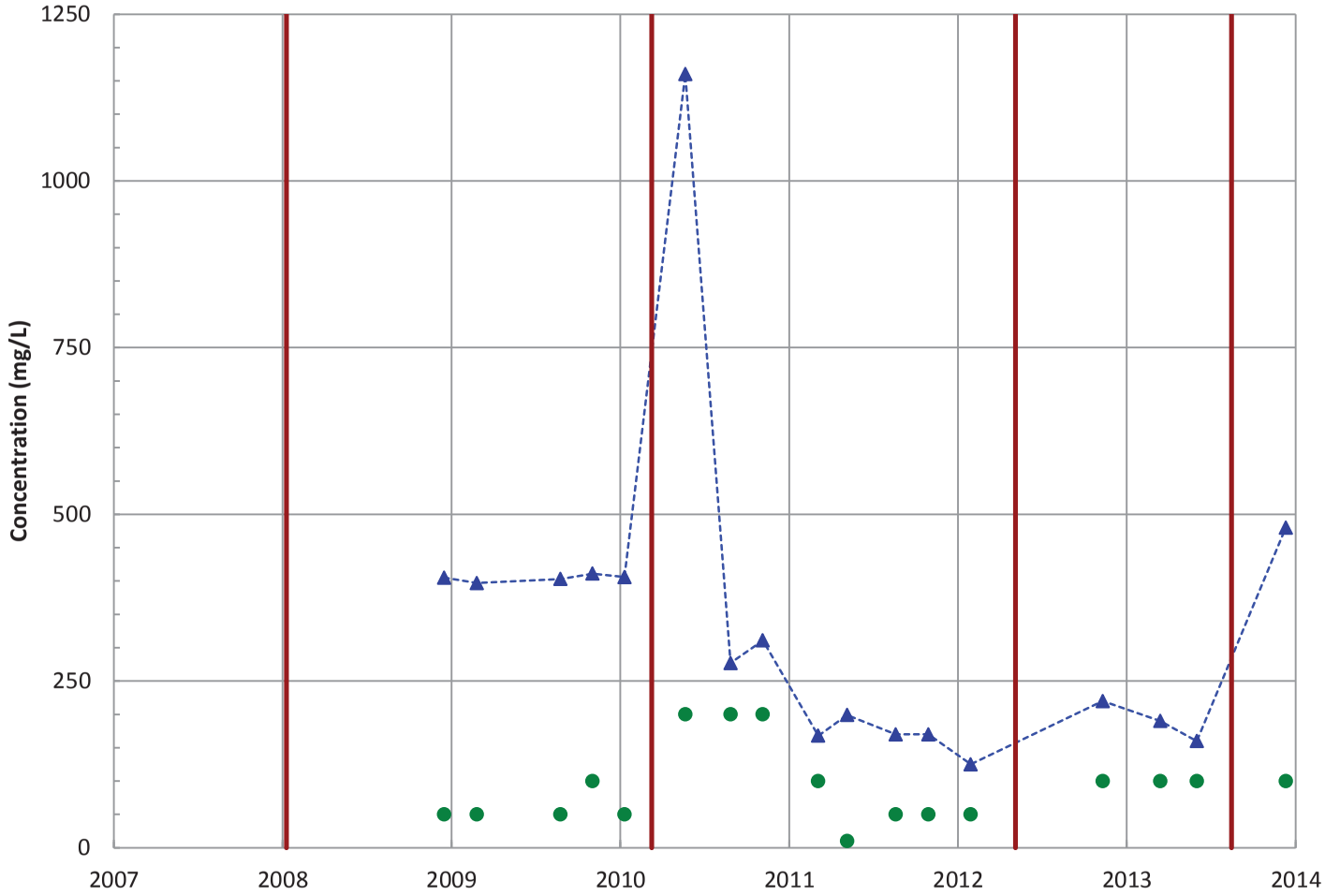
MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

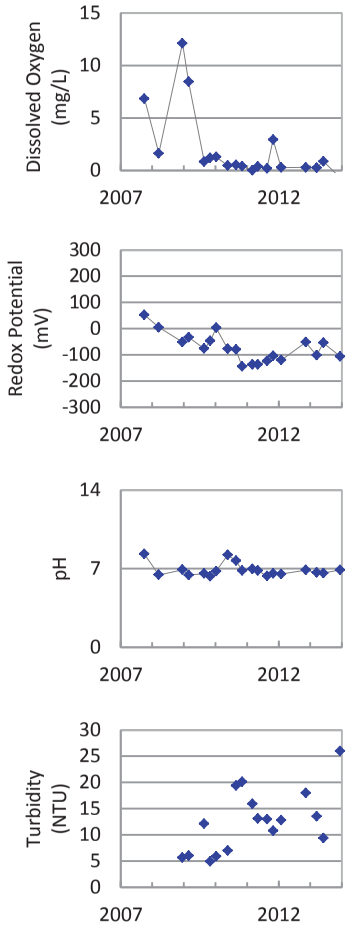
Well Location

Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/3/2007 to 12/16/2013
Analysis Date: 3/21/2014

PTX06-ISB042
Dissolved Organic Carbon (DOC) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Stable

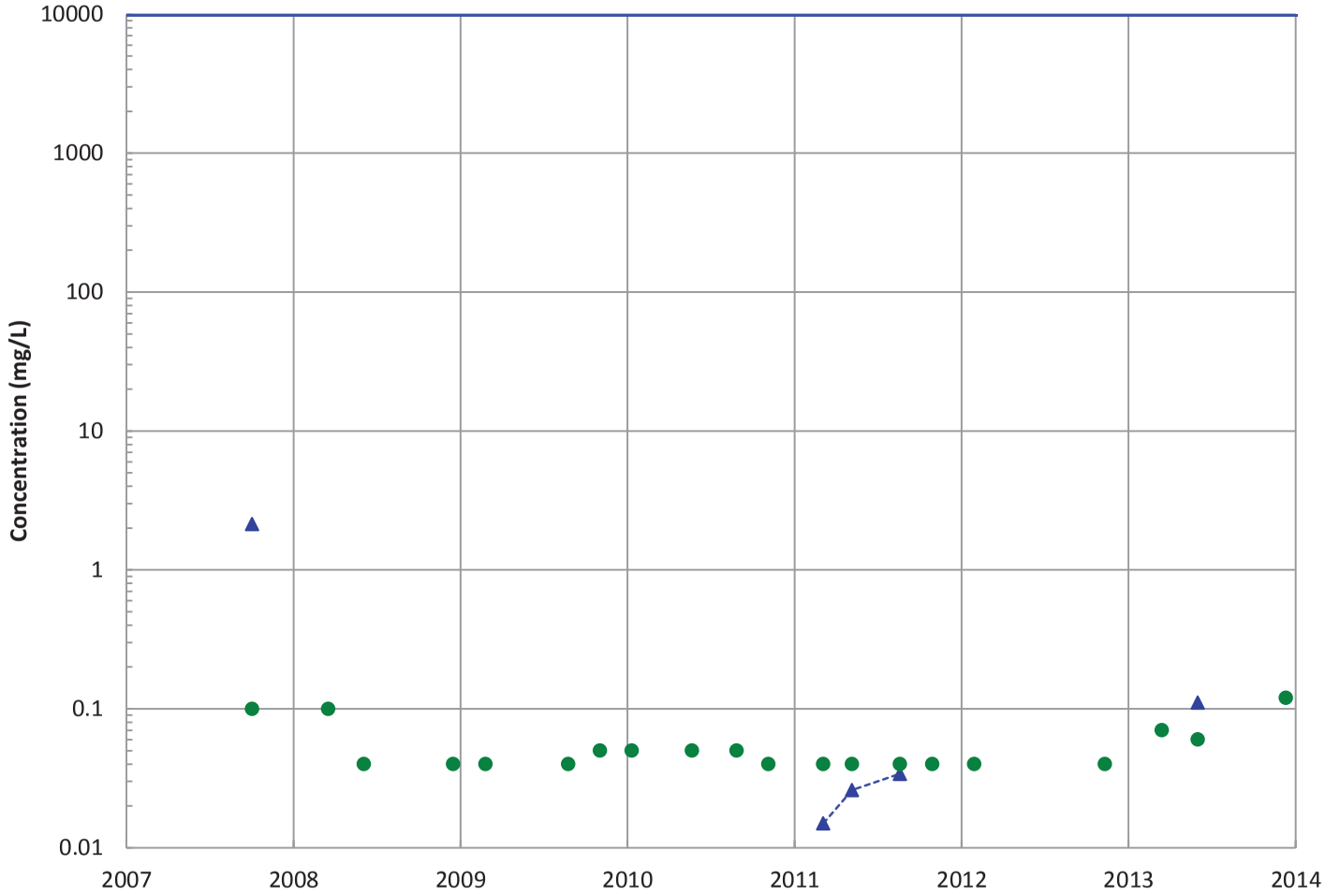
MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

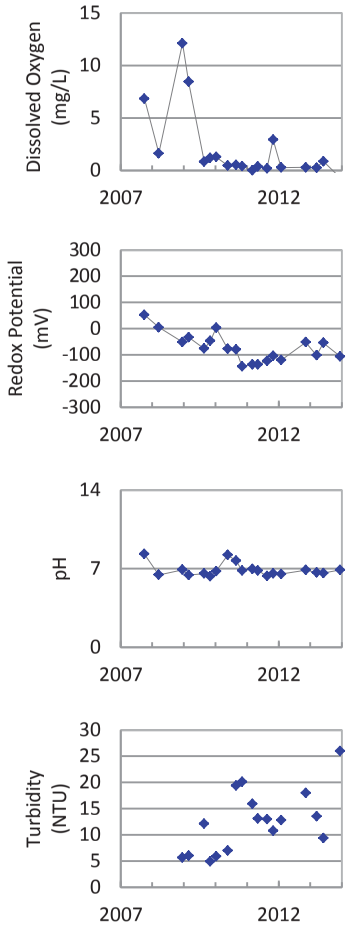
Well Location

Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/17/2008 to 12/16/2013
Analysis Date: 3/21/2014

PTX06-ISB042
Nitrate as N Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: N/A (<2 Detections in Dataset)

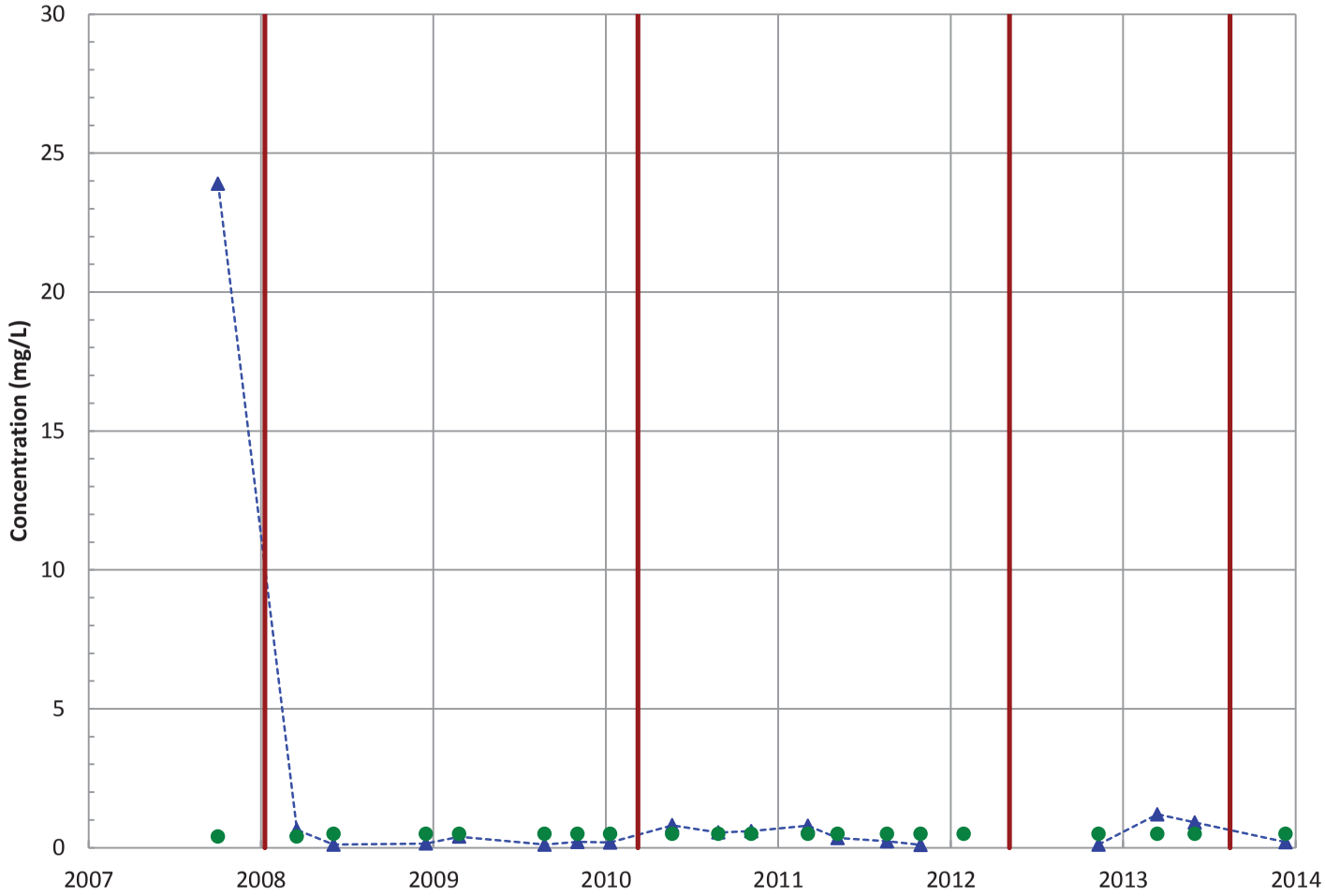
MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

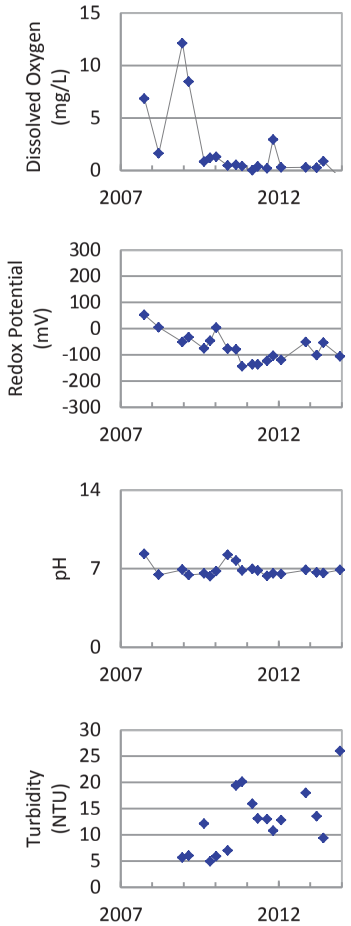
Well Location

Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/3/2007 to 12/16/2013
Analysis Date: 3/21/2014

PTX06-ISB042
Sulfate (as SO4) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Stable

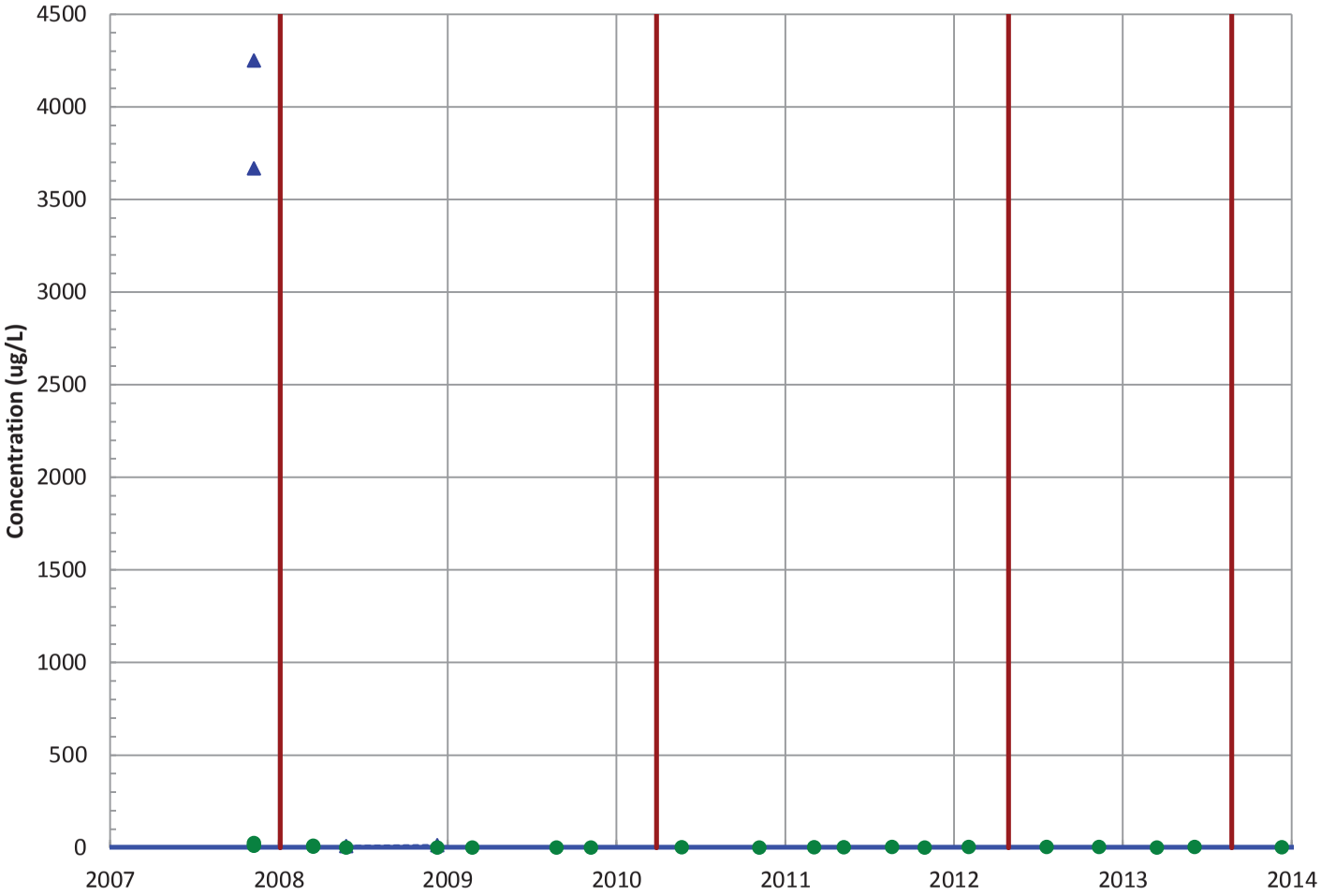
MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

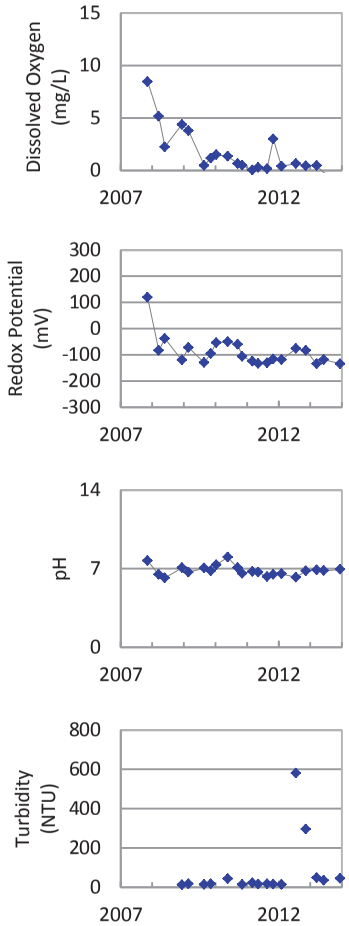
Well Location

Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/3/2007 to 12/16/2013
Analysis Date: 3/21/2014

PTX06-ISB046
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

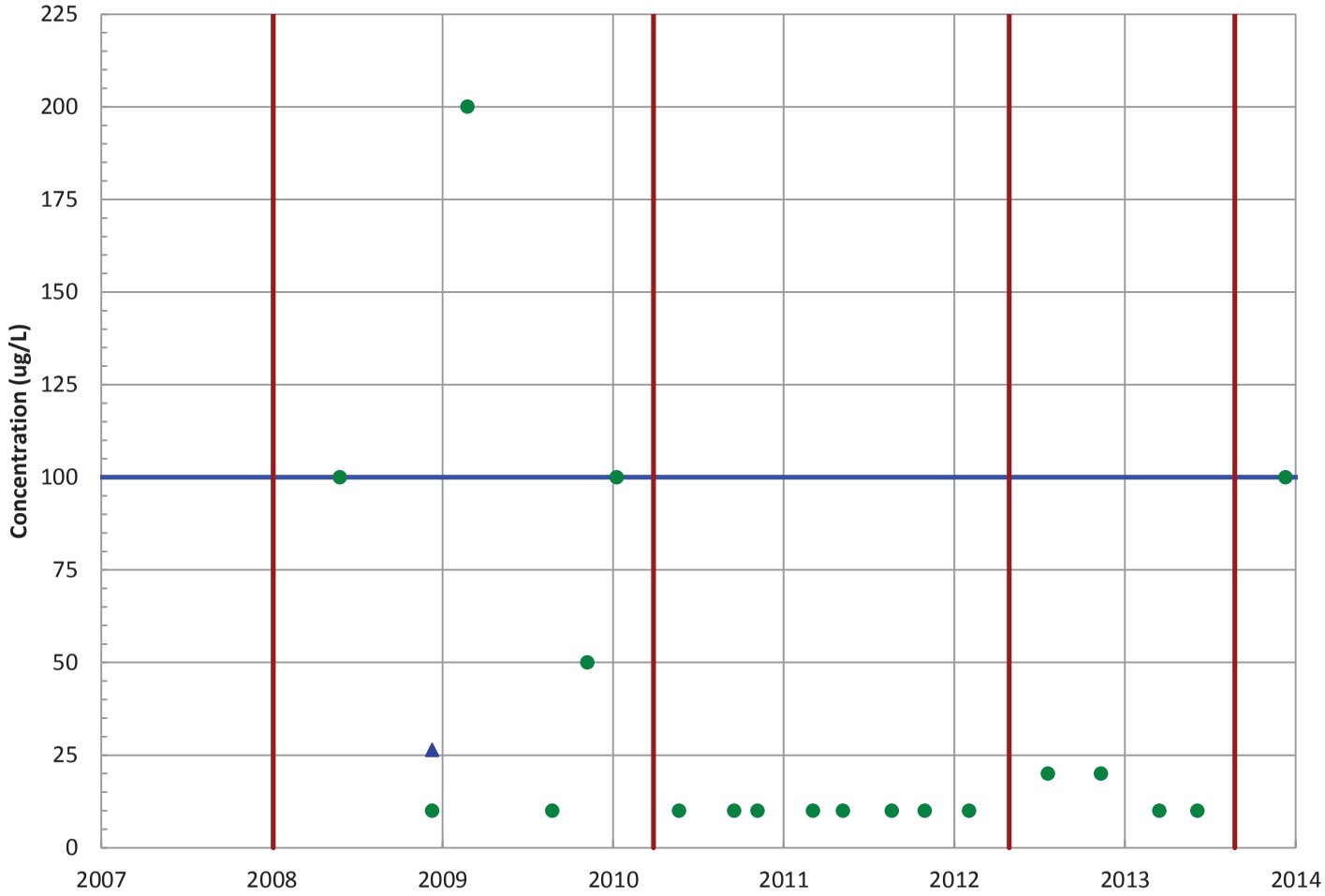
MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

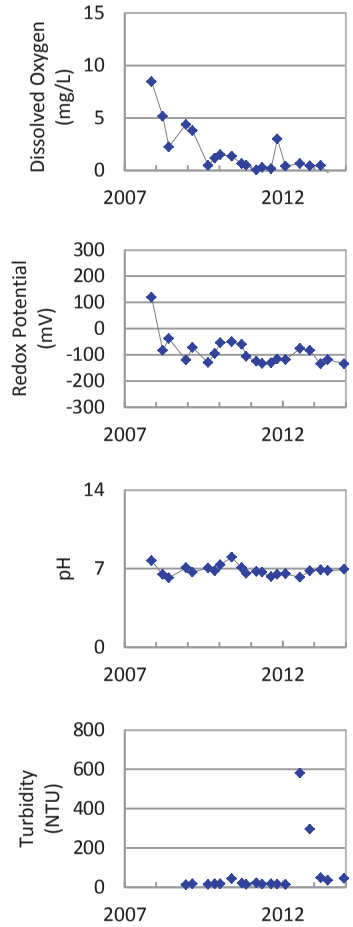
Well Location

Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/9/2007 to 12/16/2013
Analysis Date: 3/21/2014

PTX06-ISB046
Chromium, Total Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

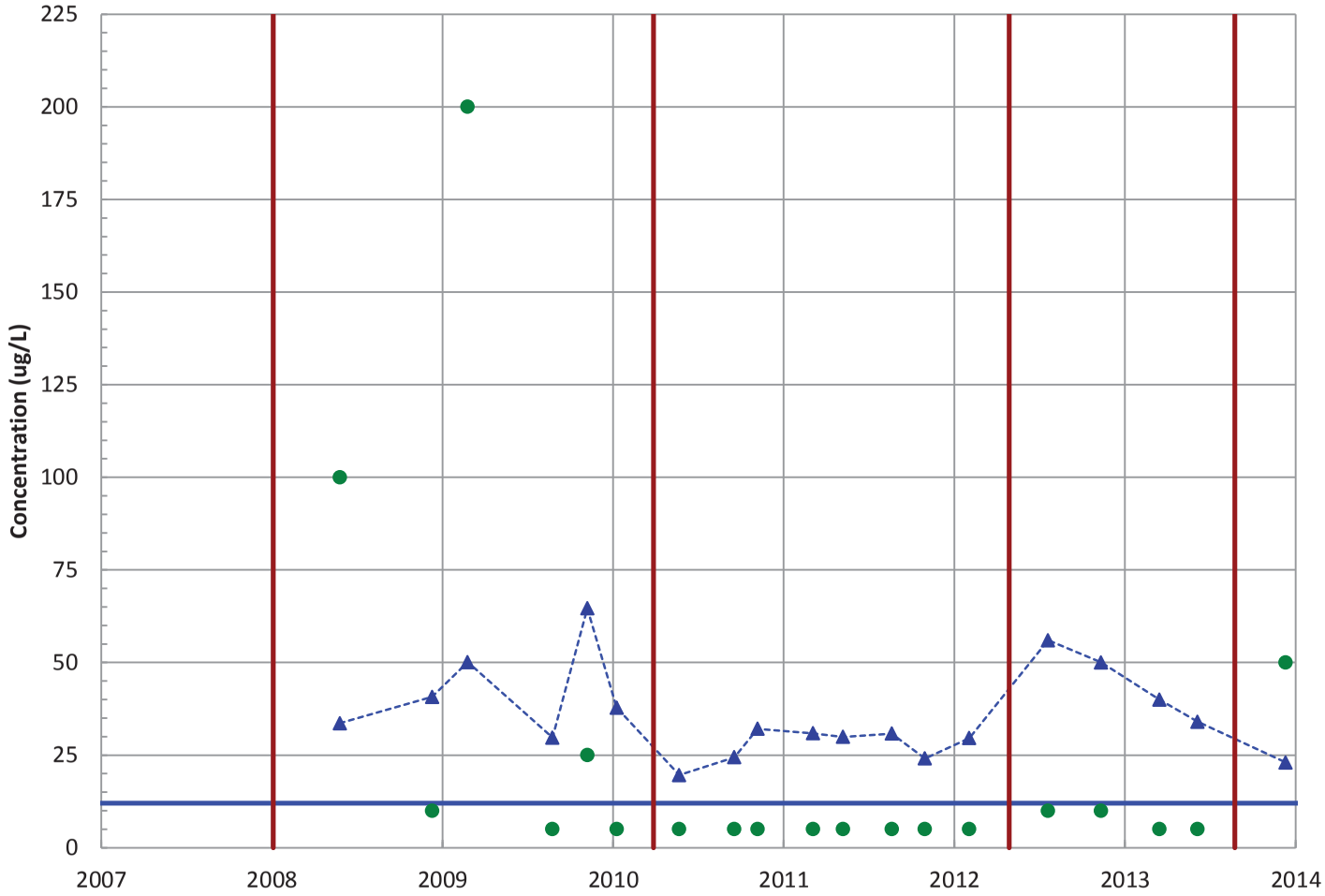
MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

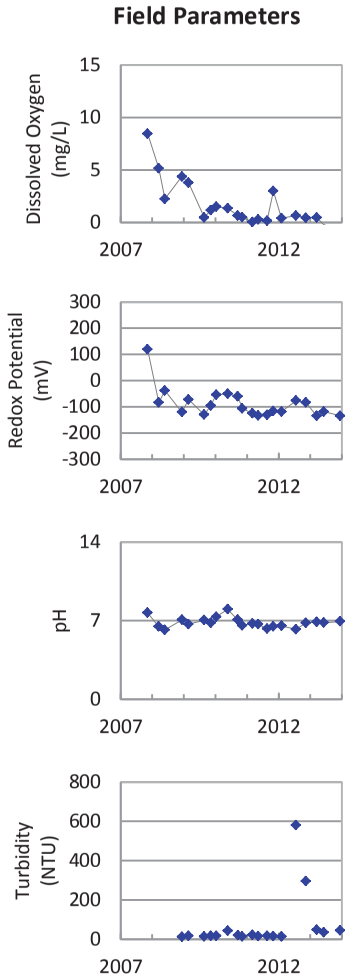
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2008 to 12/16/2013
Analysis Date: 3/21/2014

PTX06-ISB046
Arsenic Trend in Perched Aquifer





Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

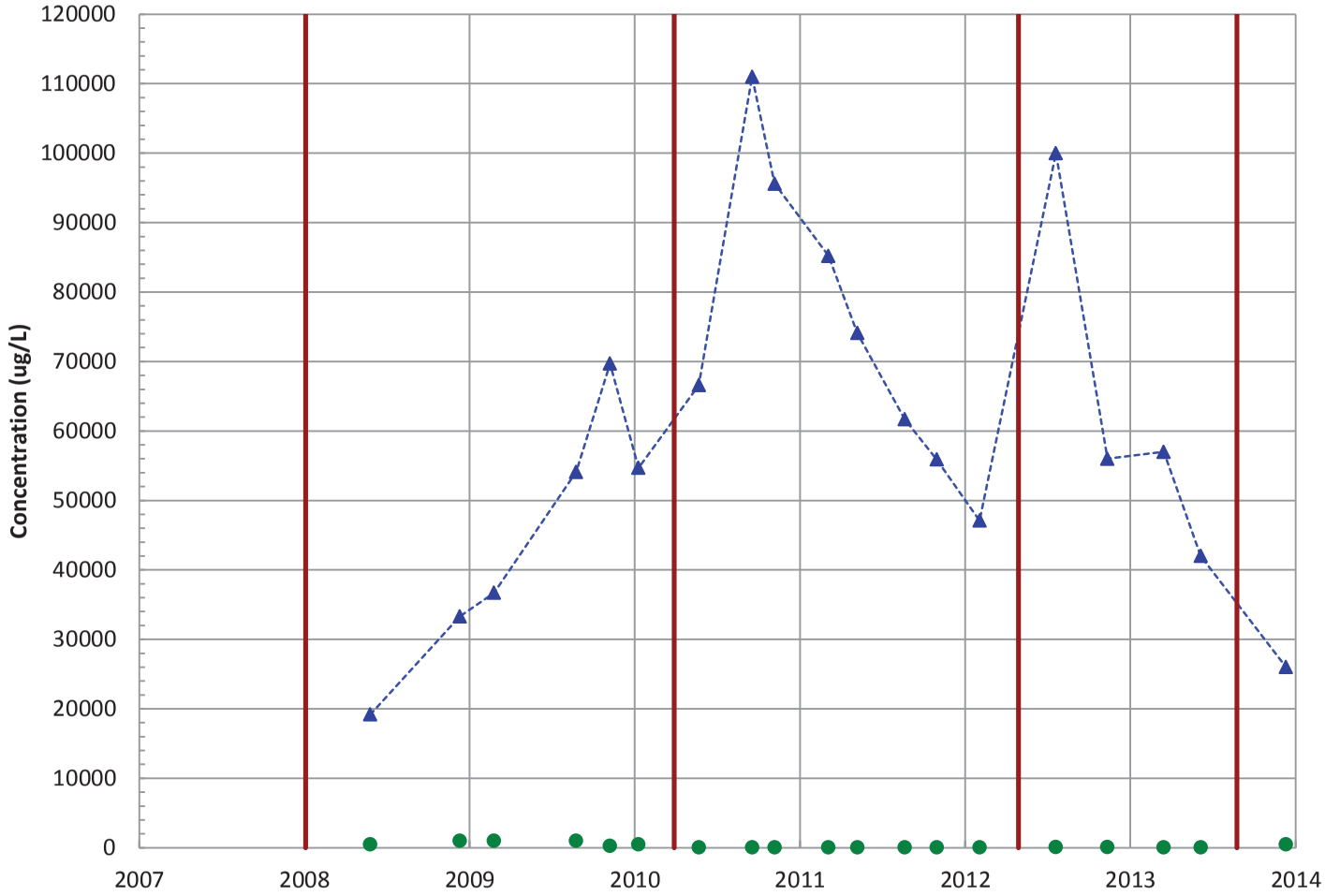
MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: Decreasing

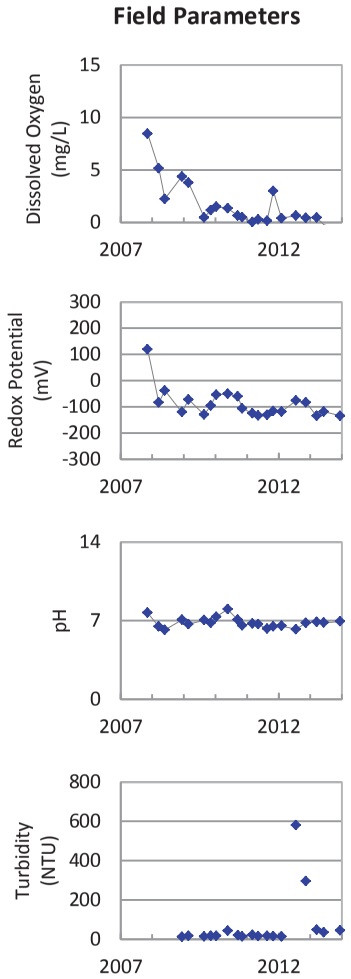
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2008 to 12/16/2013
Analysis Date: 3/21/2014

PTX06-ISB046
Iron Trend in Perched Aquifer





Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Decreasing

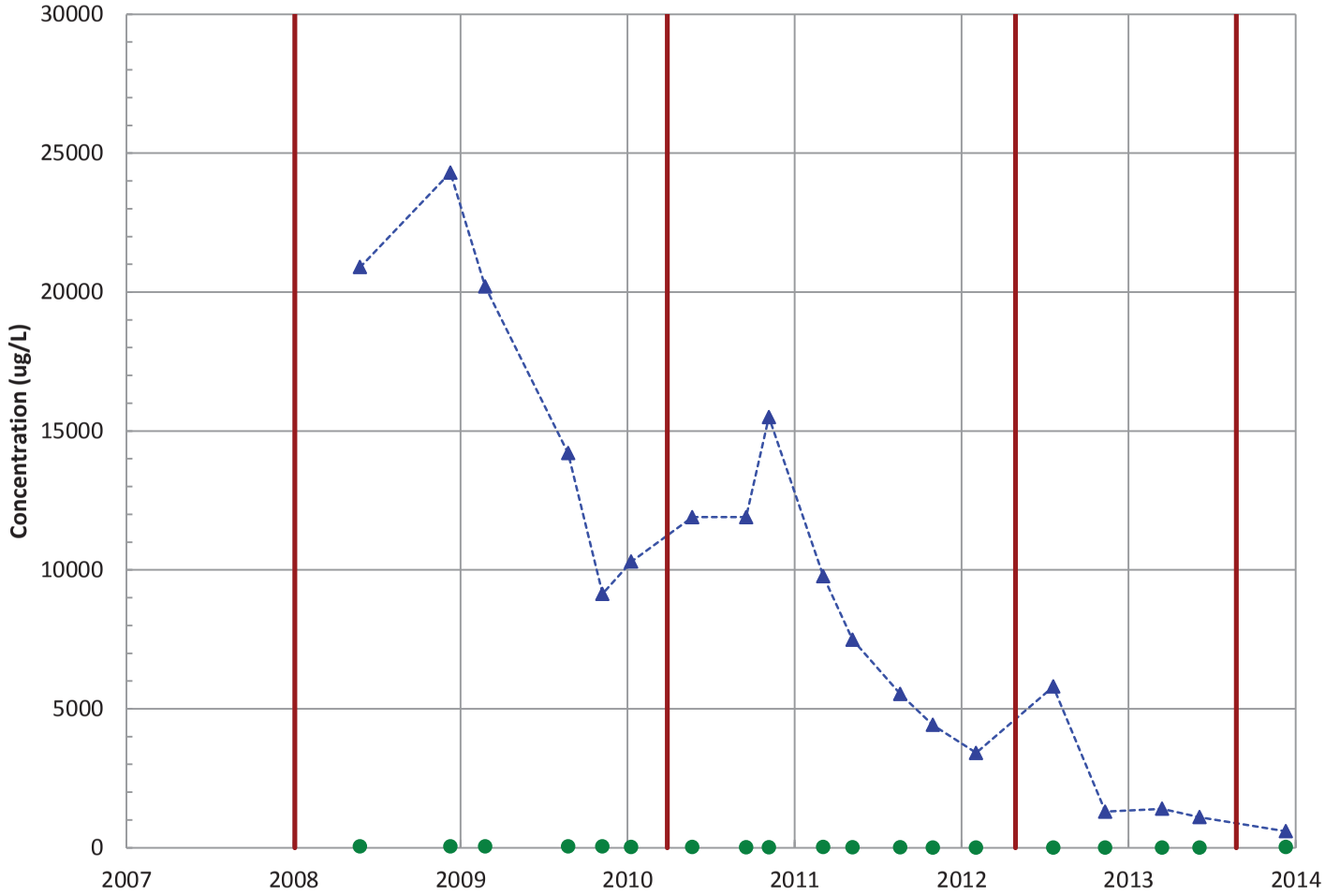
MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Probably Decreasing

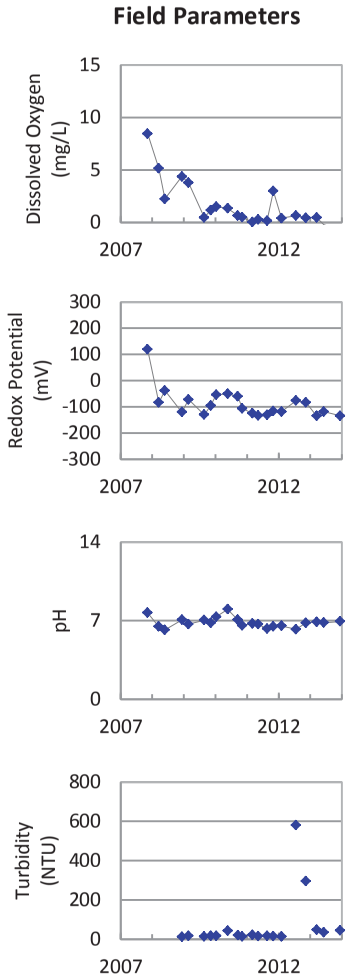
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2008 to 12/16/2013
Analysis Date: 3/21/2014

PTX06-ISB046
Manganese Trend in Perched Aquifer





Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

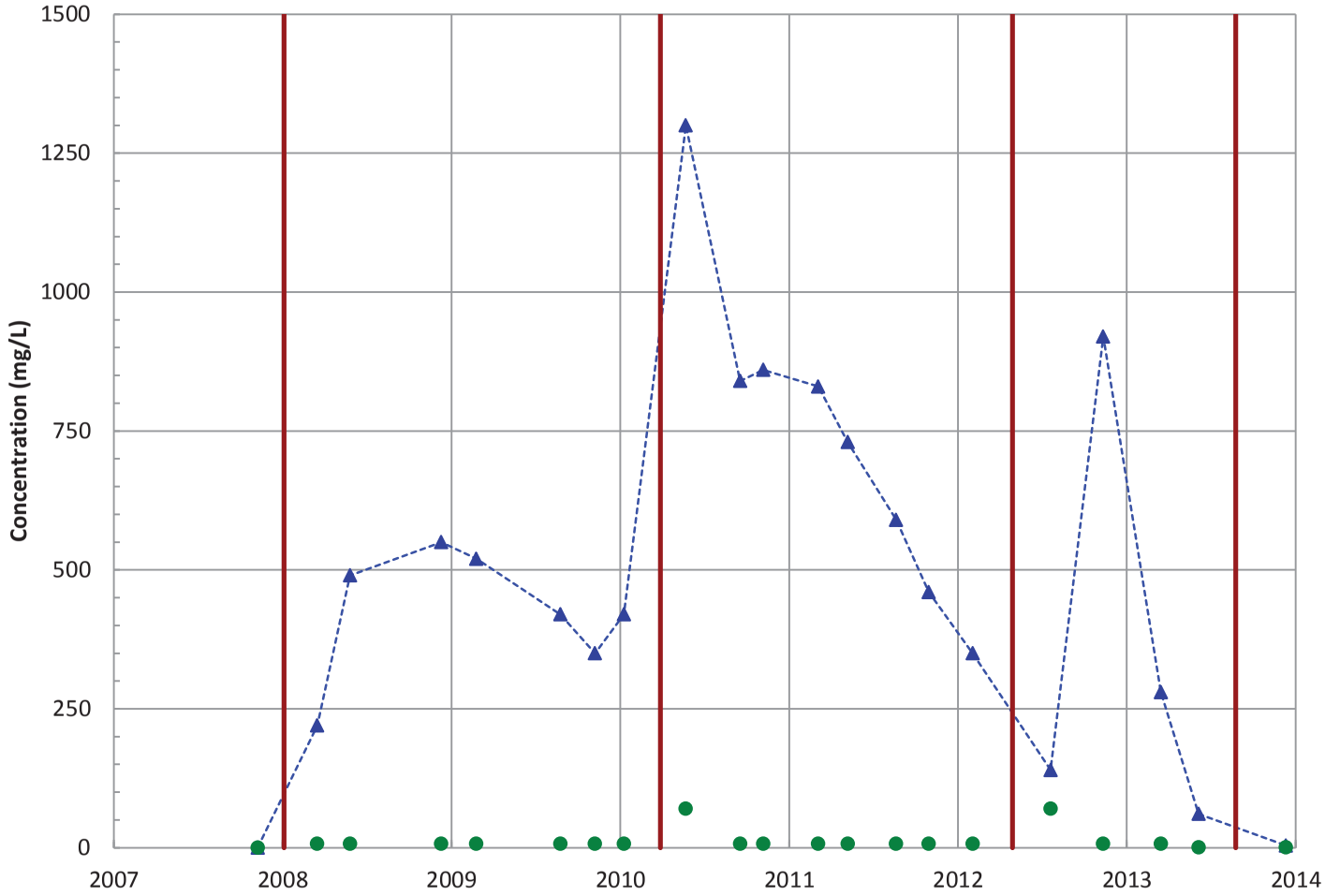
MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Probably Decreasing

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

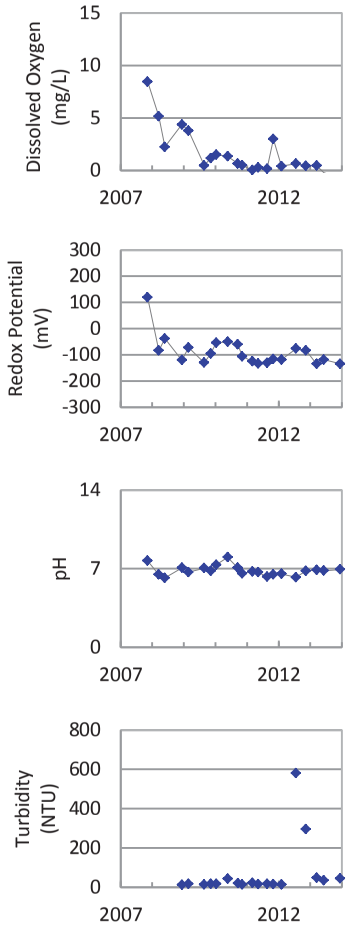
Well Location

Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2008 to 12/16/2013
Analysis Date: 3/21/2014

PTX06-ISB046
Acetic Acid Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

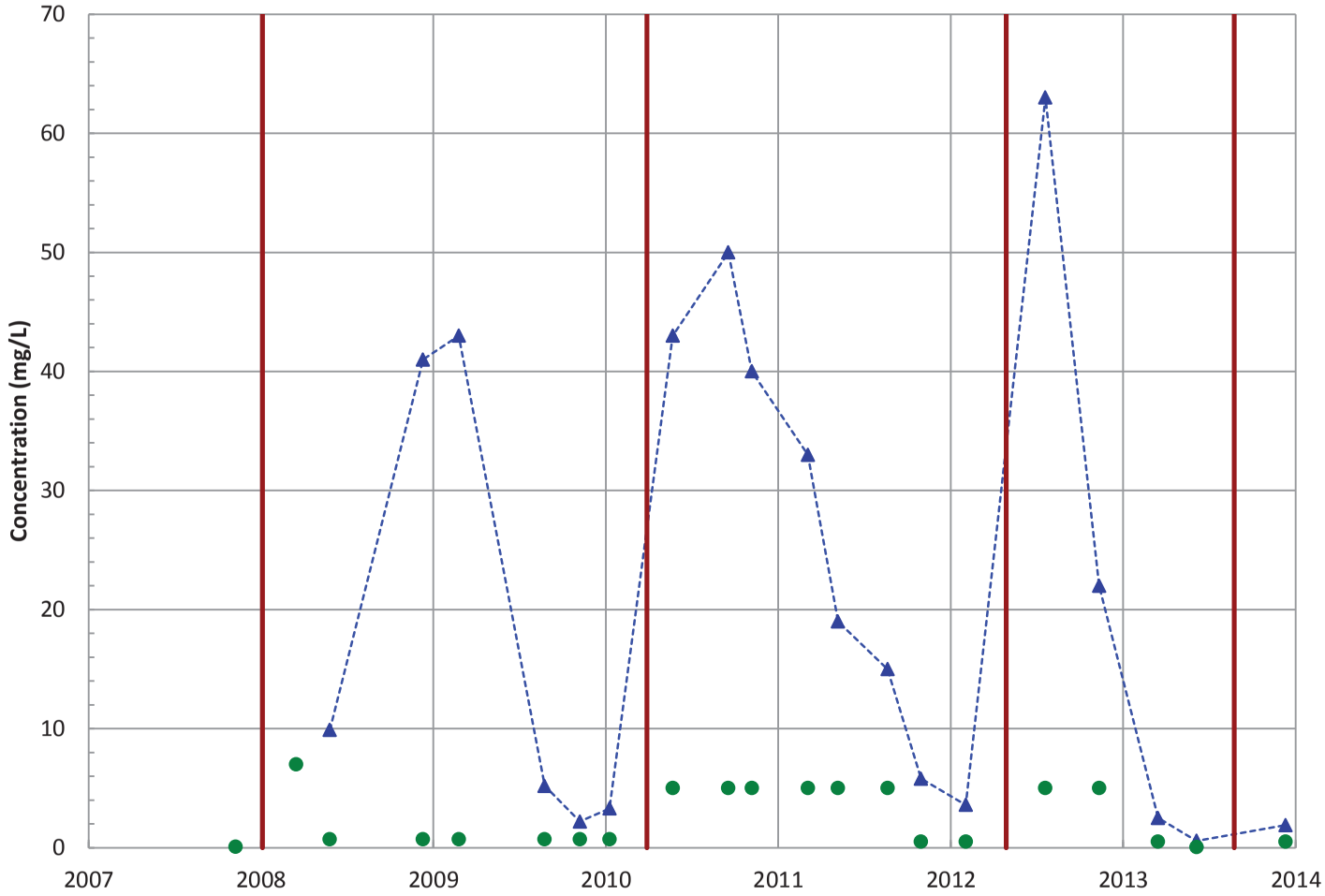
MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Decreasing

▲ Measured Value
● Sample Detection Limit
---- Concentration Trend
— Injection Dates

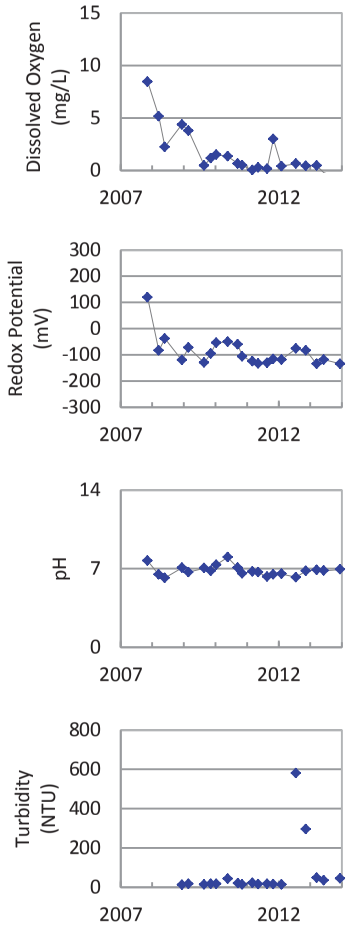
Well Location

Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/9/2007 to 12/16/2013
Analysis Date: 3/21/2014

PTX06-ISB046
Butyric Acid Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

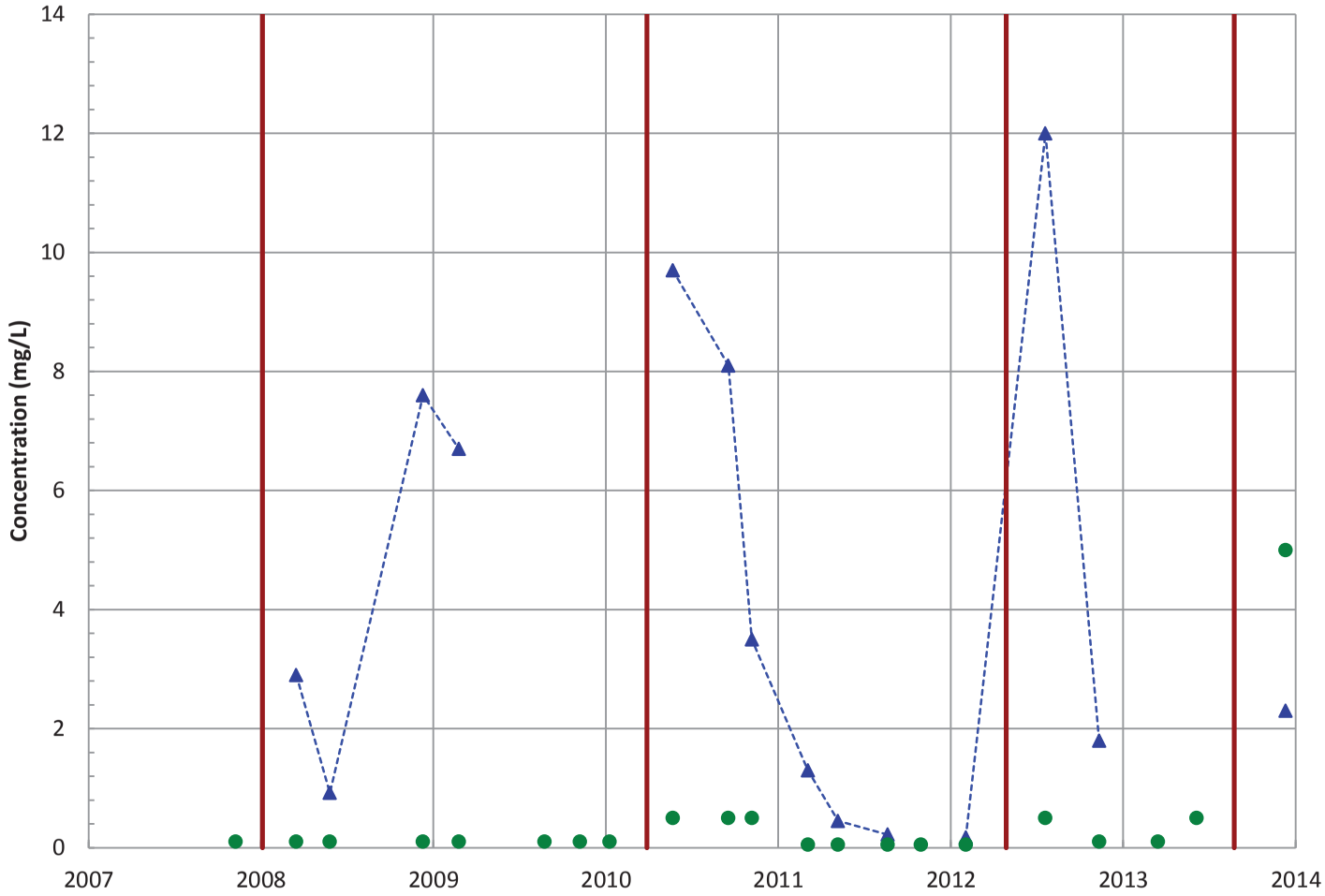
MAROS Linear Regression Method
All Data: Probably Decreasing
Last 4 Samples: No Trend

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

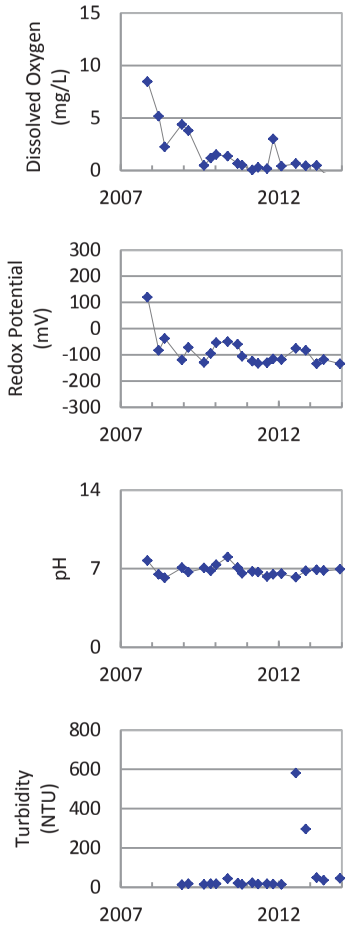
Well Location

Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/9/2007 to 12/16/2013
Analysis Date: 3/21/2014

PTX06-ISB046
Hexanoic Acid Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

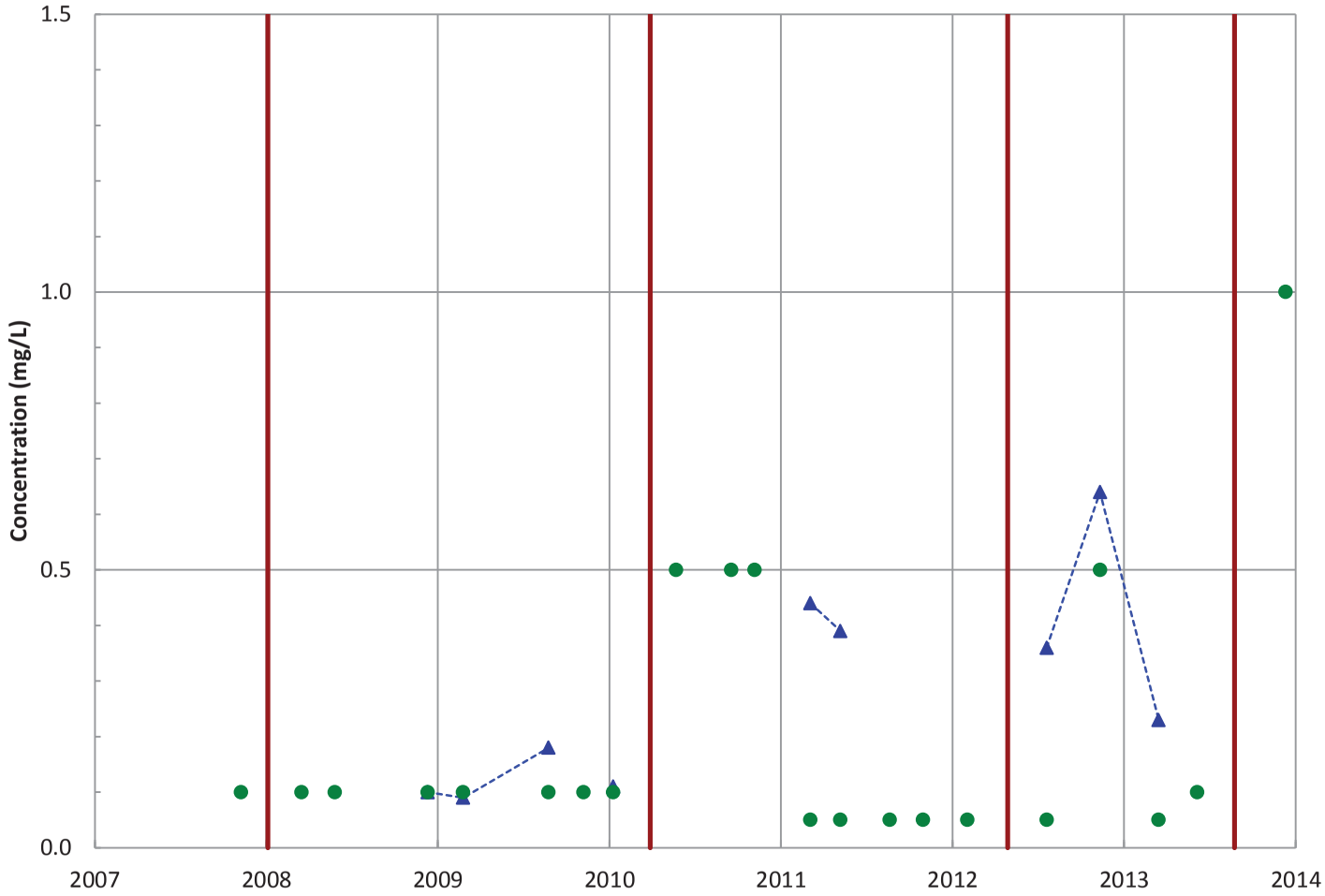
MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: No Trend

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

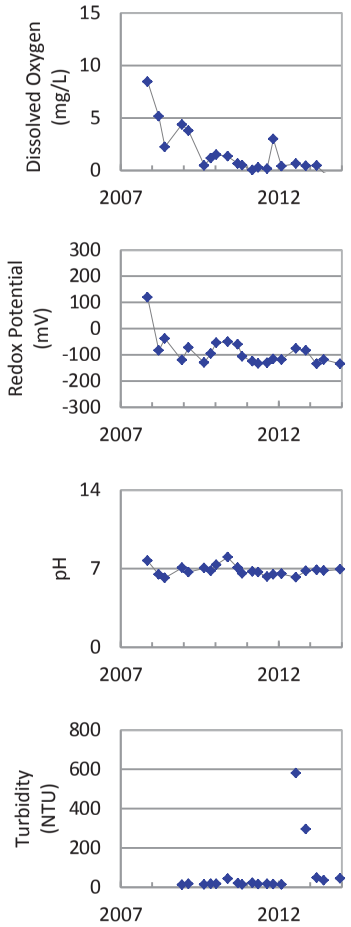
Well Location

Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/9/2007 to 12/16/2013
Analysis Date: 3/21/2014

PTX06-ISB046
i-Hexanoic Acid Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Decreasing

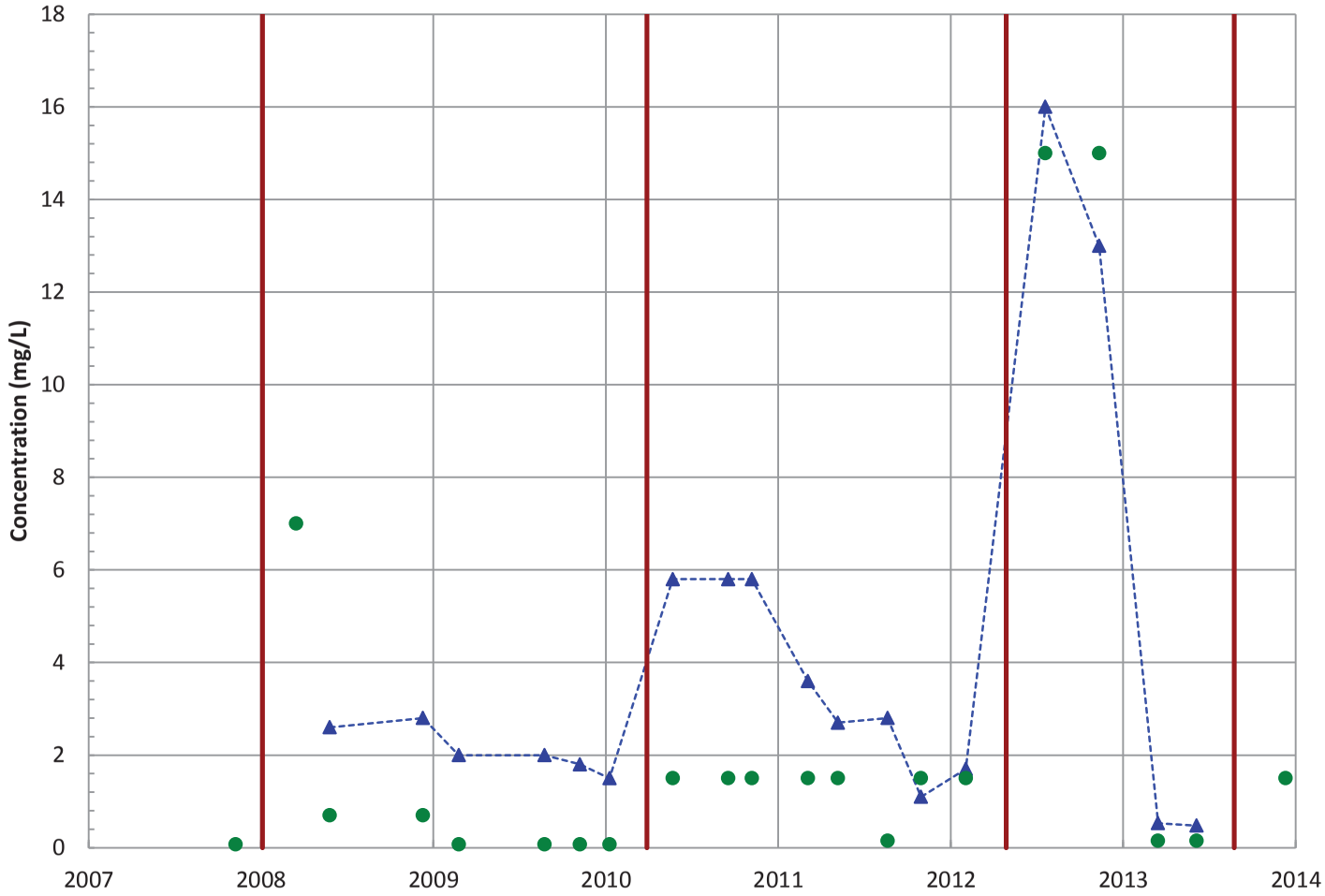
MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Stable

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

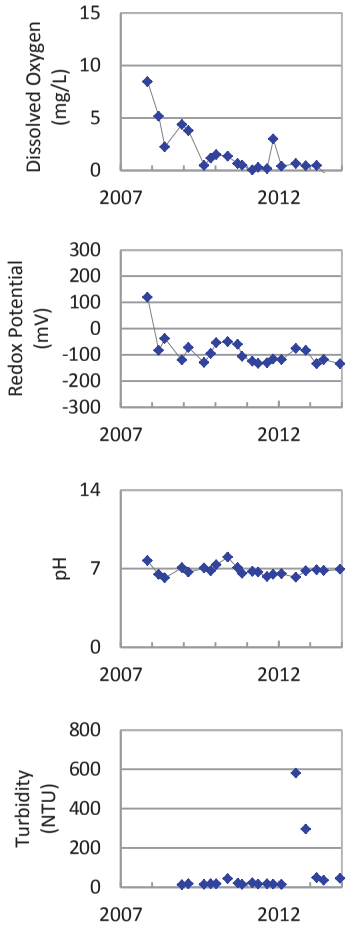
Well Location

Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/9/2007 to 12/16/2013
Analysis Date: 3/21/2014

PTX06-ISB046
i-Pentanoic Acid Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

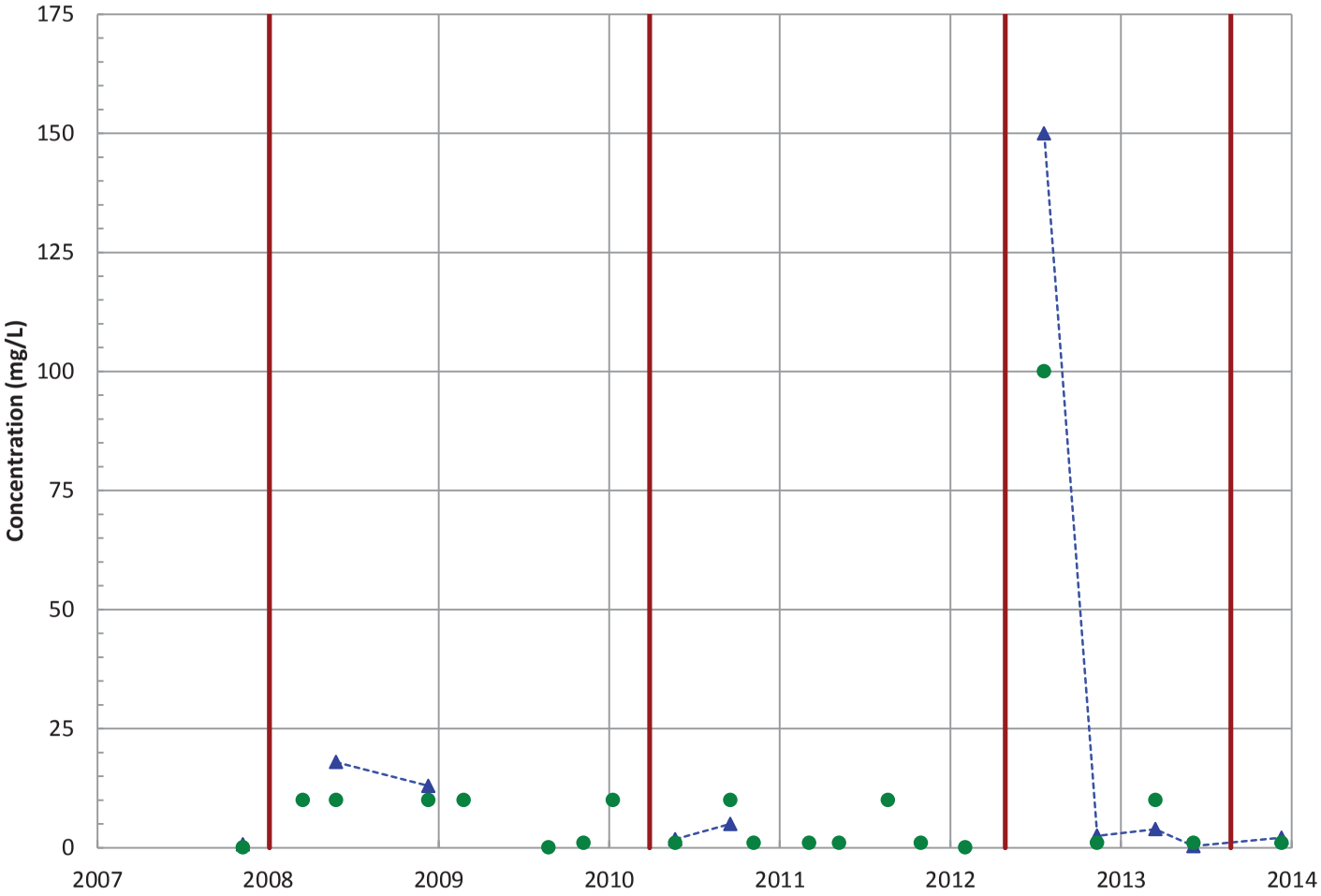
MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Probably Decreasing

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

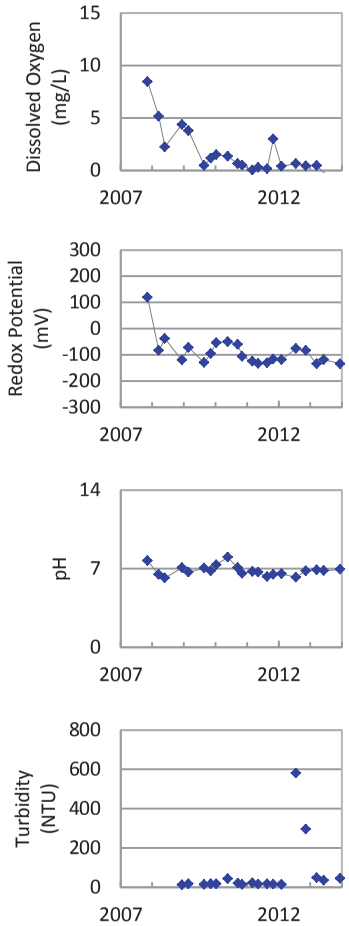
Well Location

Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/9/2007 to 12/16/2013
Analysis Date: 3/21/2014

PTX06-ISB046
Lactic Acid and HIBA Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

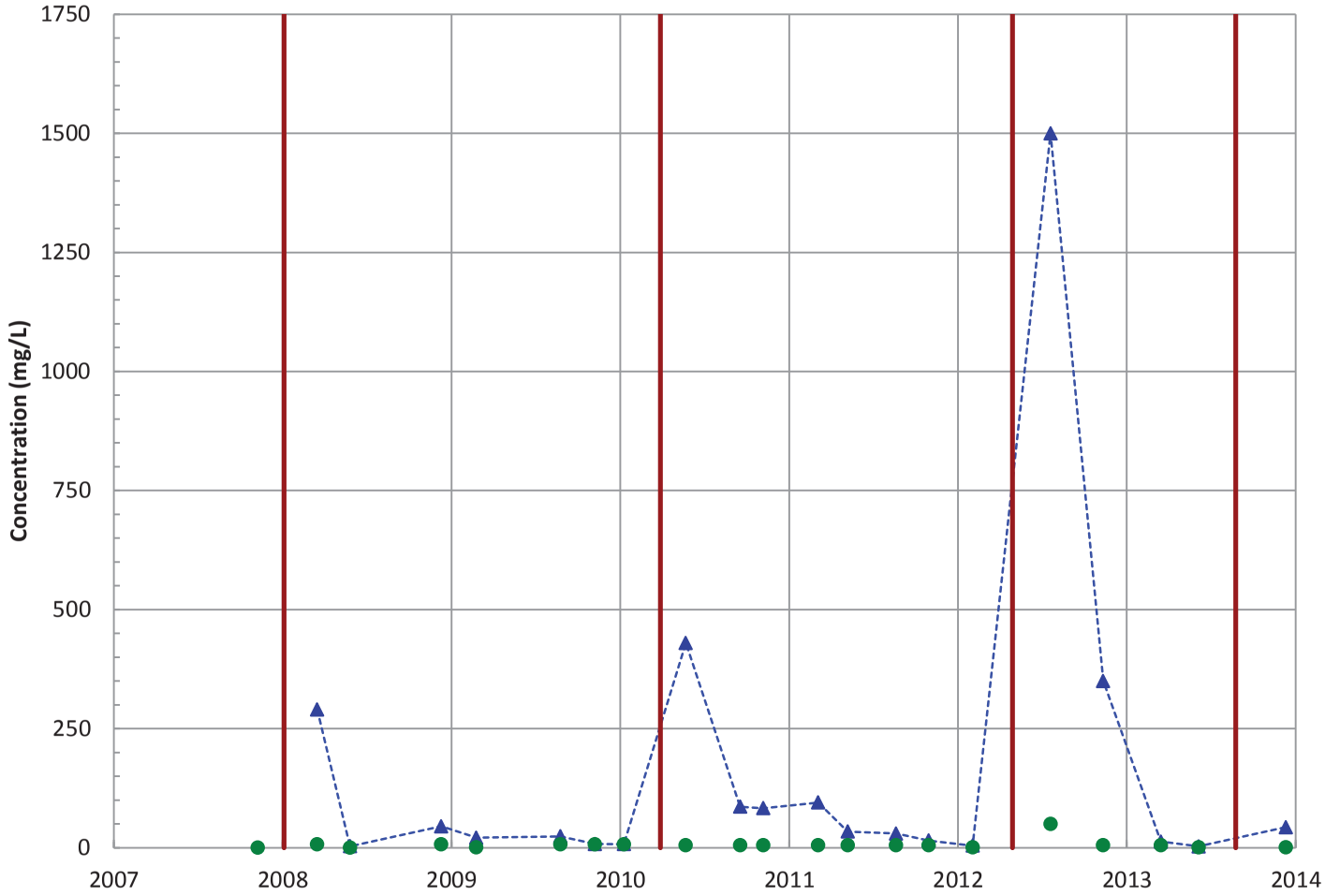
MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Stable

- Measured Value
- Sample Detection Limit
- Concentration Trend
- Injection Dates

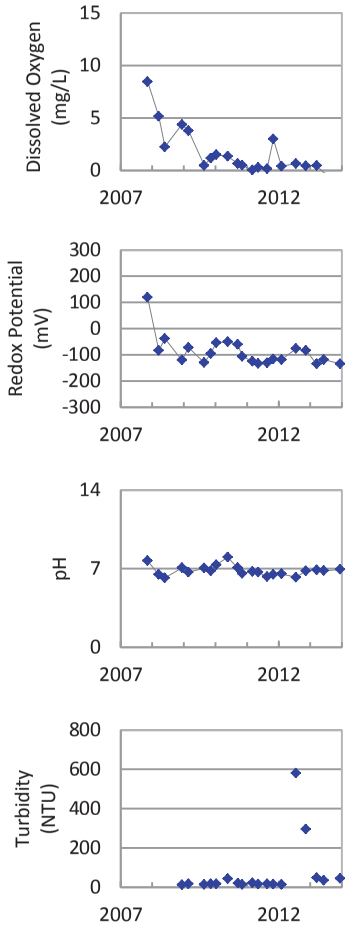
Well Location

Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/9/2007 to 12/16/2013
Analysis Date: 3/21/2014

PTX06-ISB046
Propionic Acid Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Decreasing

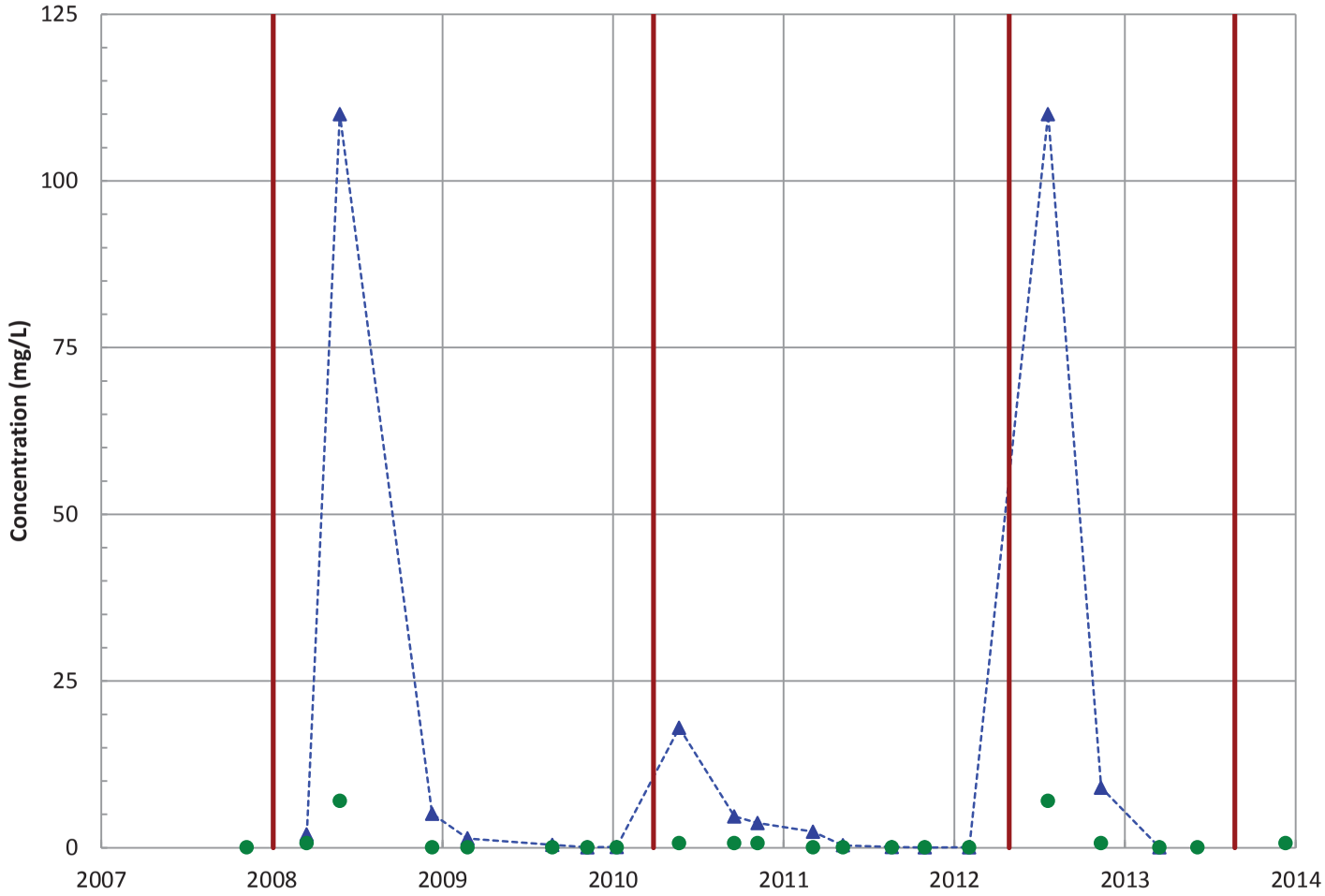
MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

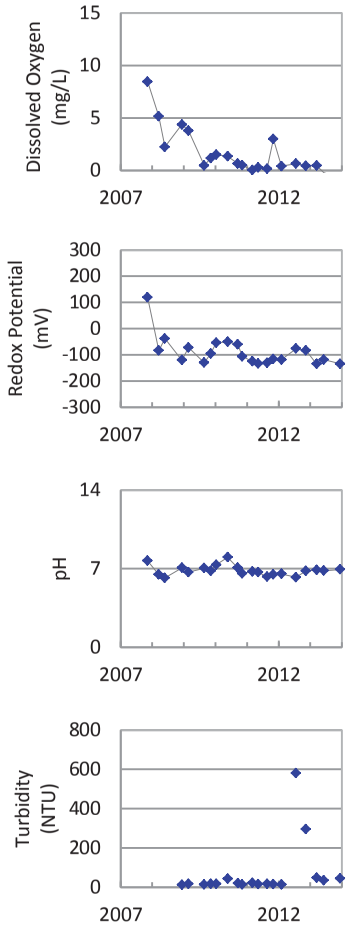
Well Location

Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/9/2007 to 12/16/2013
Analysis Date: 3/21/2014

PTX06-ISB046
Pentanoic Acid Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

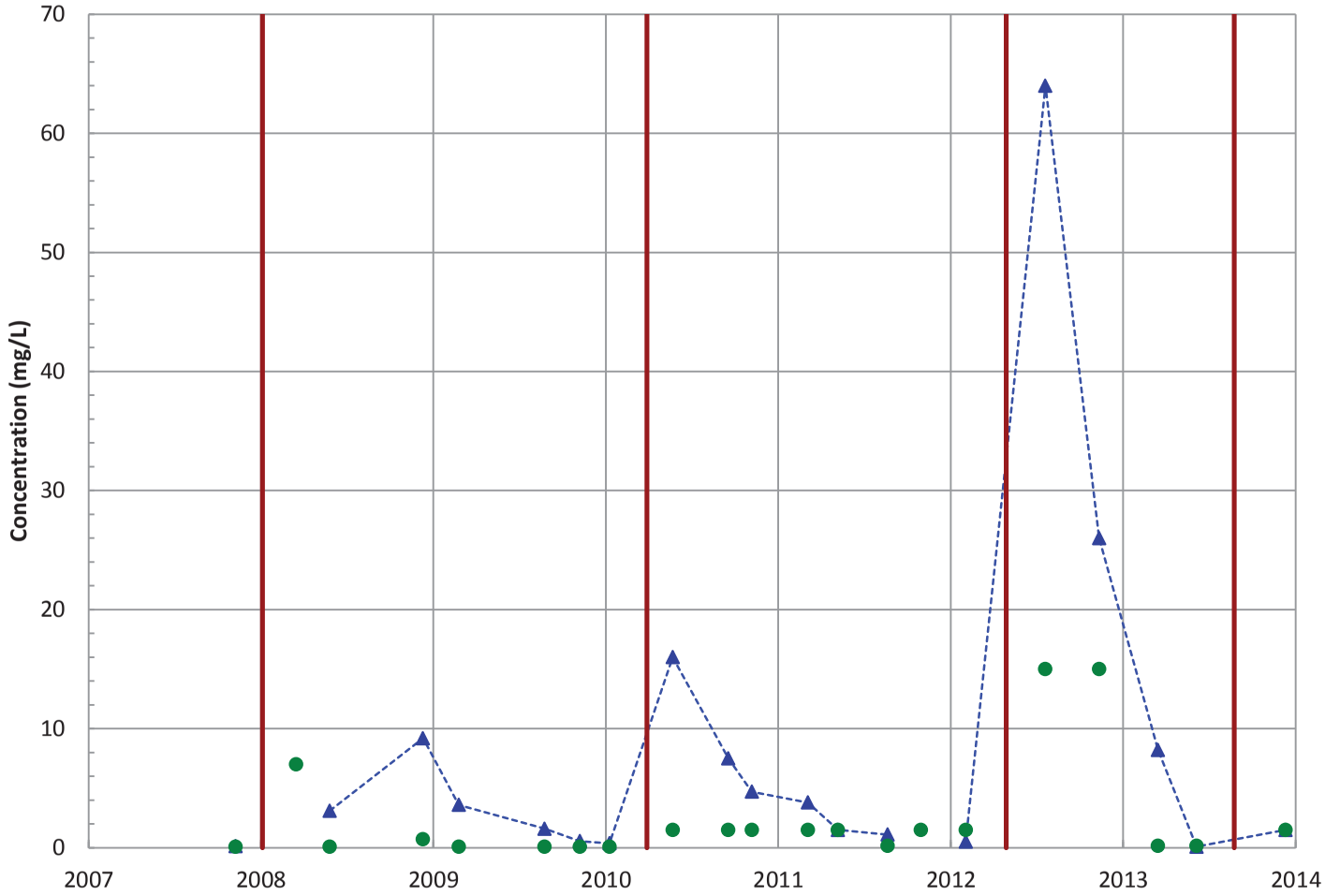
MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

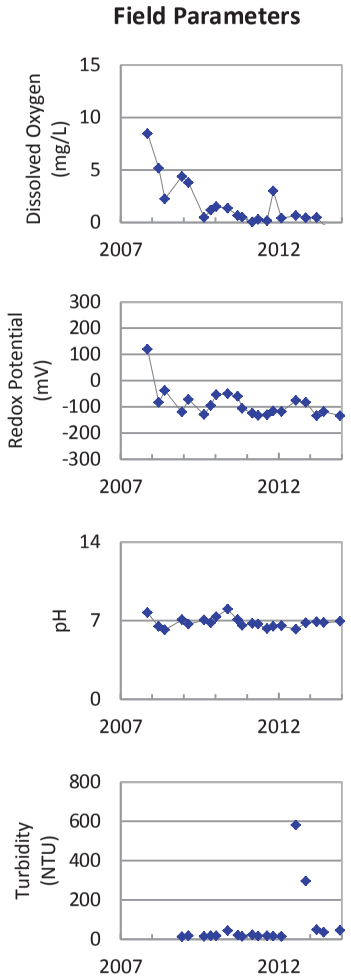
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Injection Dates

Well Location

Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/9/2007 to 12/16/2013
Analysis Date: 3/21/2014

PTX06-ISB046
Pyruvic Acid Trend in Perched Aquifer





Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

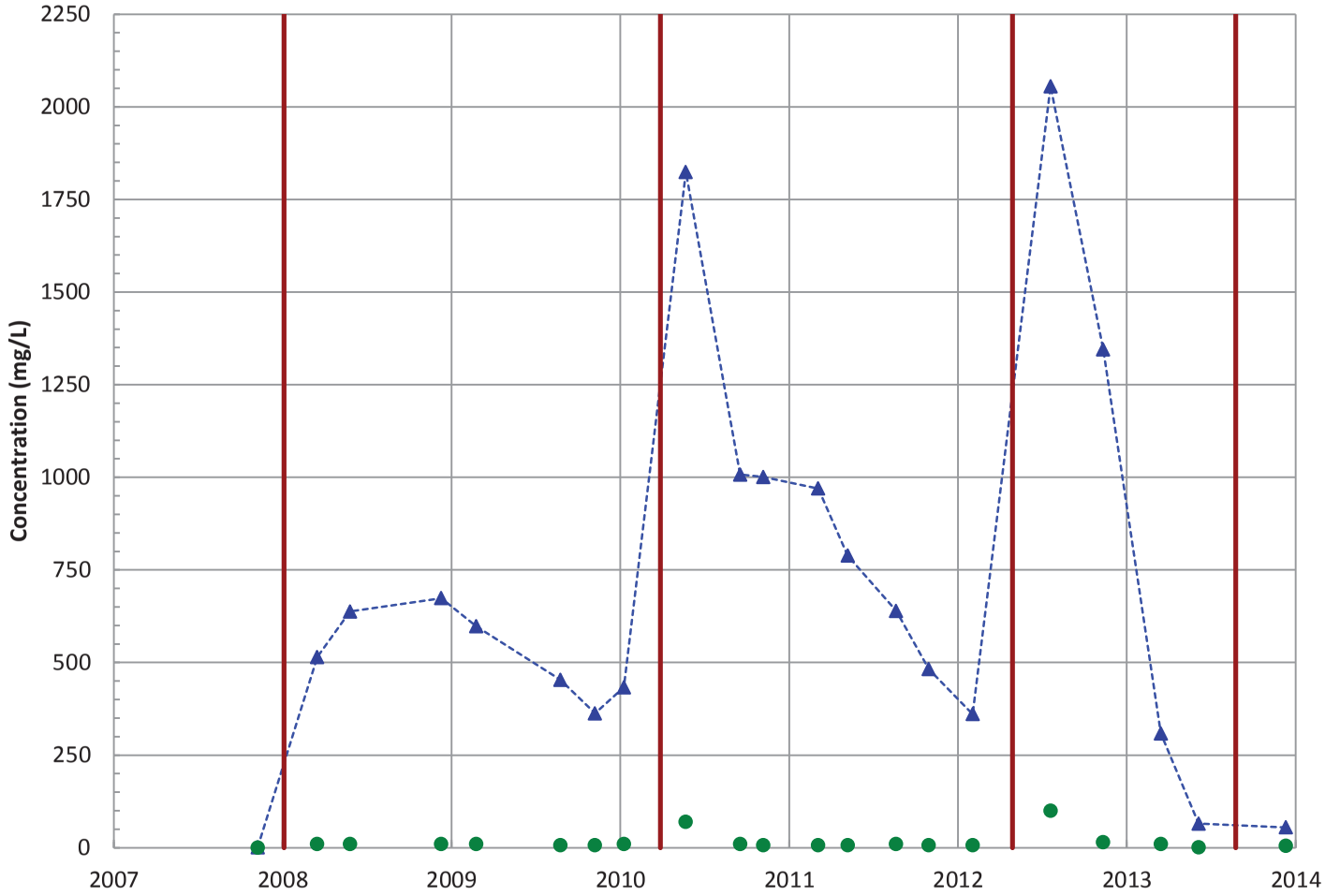
MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

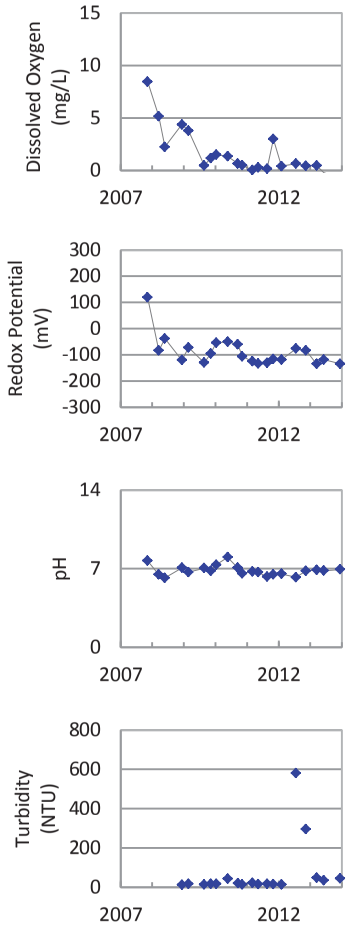
Well Location

Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/9/2007 to 12/16/2013
Analysis Date: 3/21/2014

PTX06-ISB046
Total Volatile Fatty Acids Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

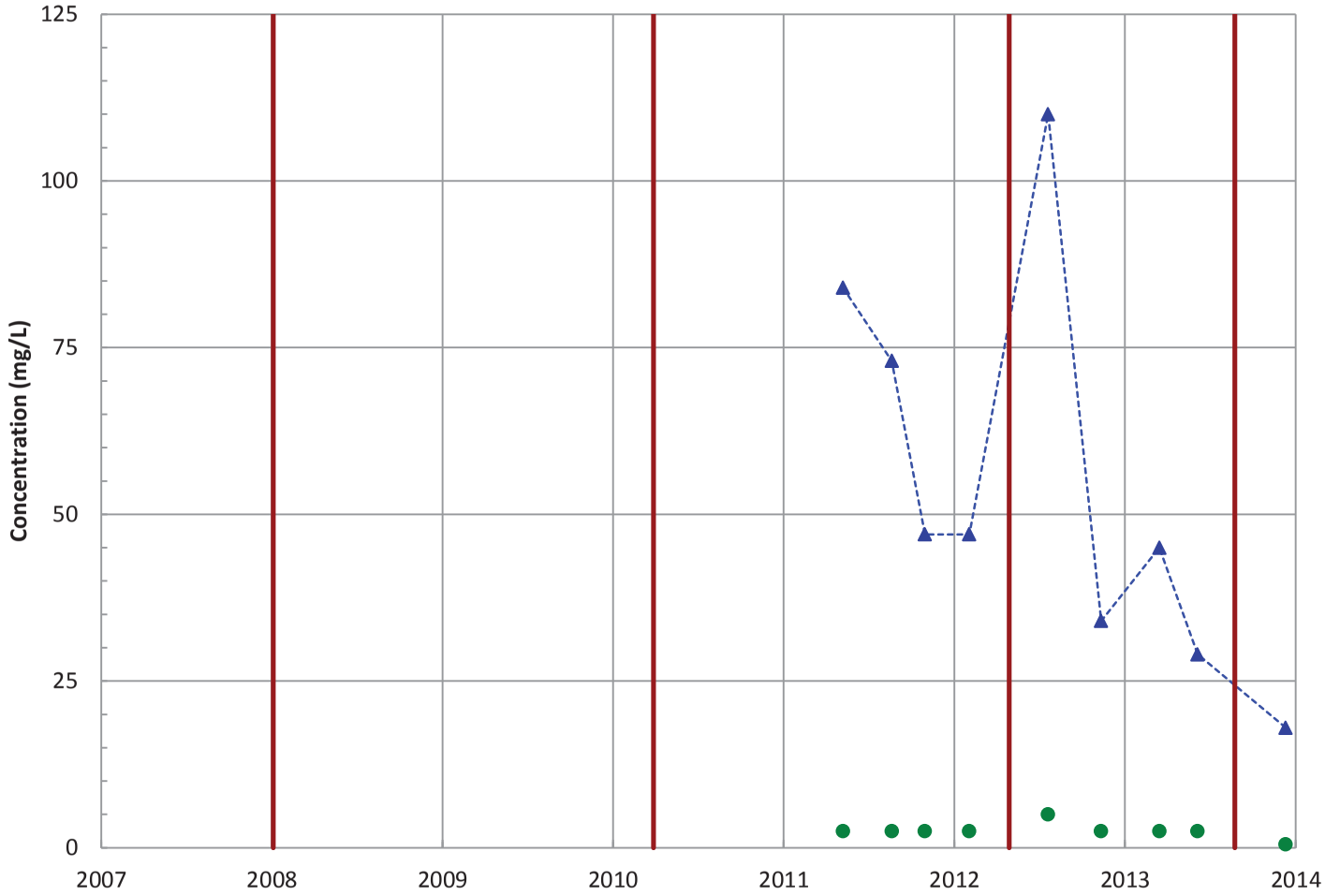
MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Probably Decreasing

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

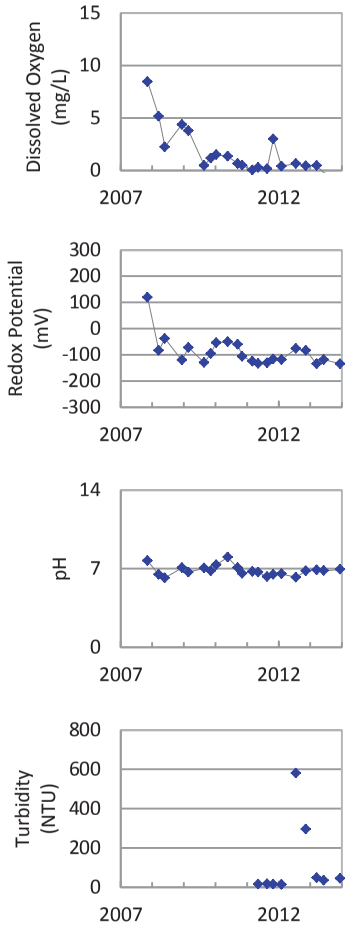
Well Location

Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/9/2007 to 12/16/2013
Analysis Date: 3/21/2014

PTX06-ISB046
Ferrous Iron Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

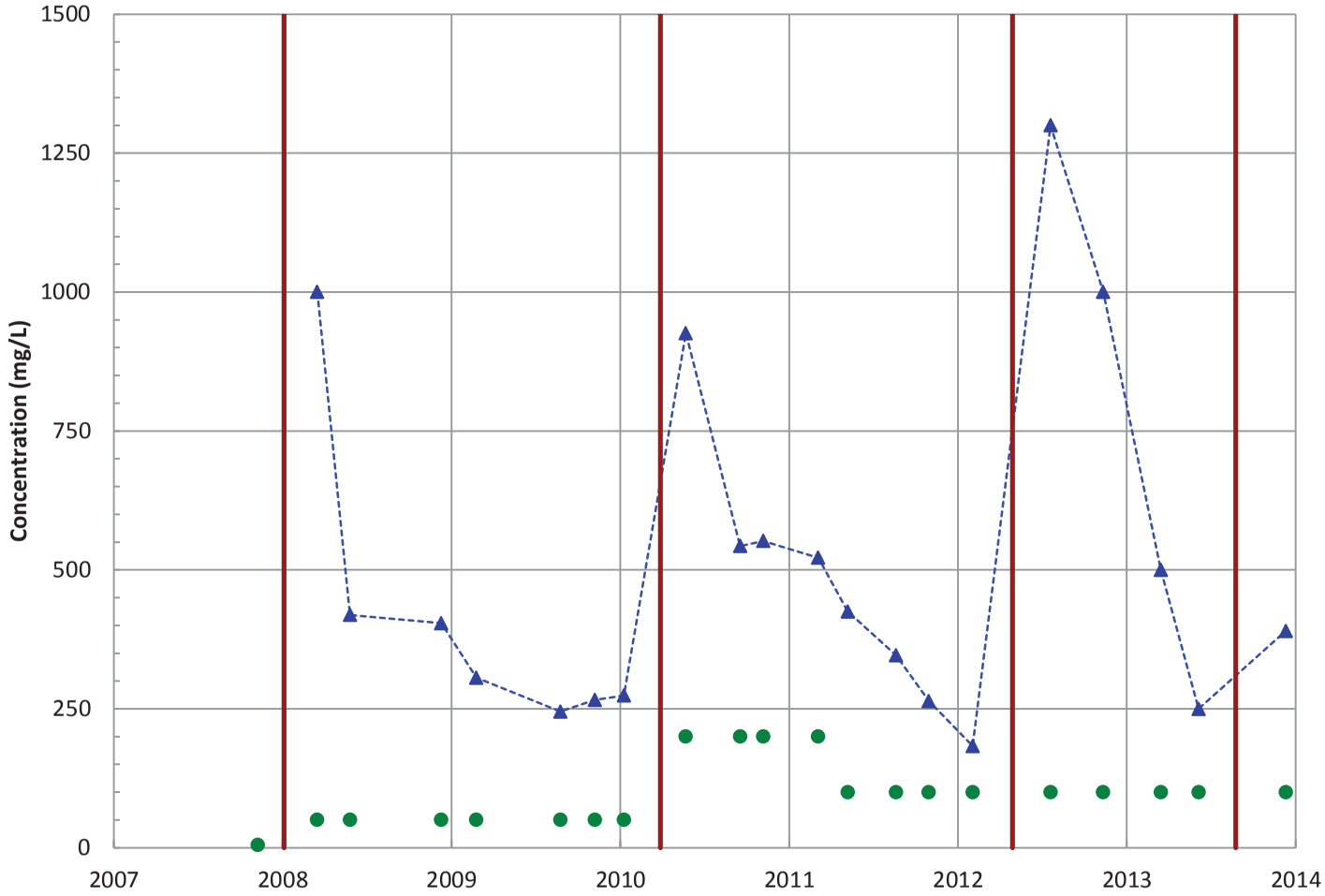
MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Stable

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

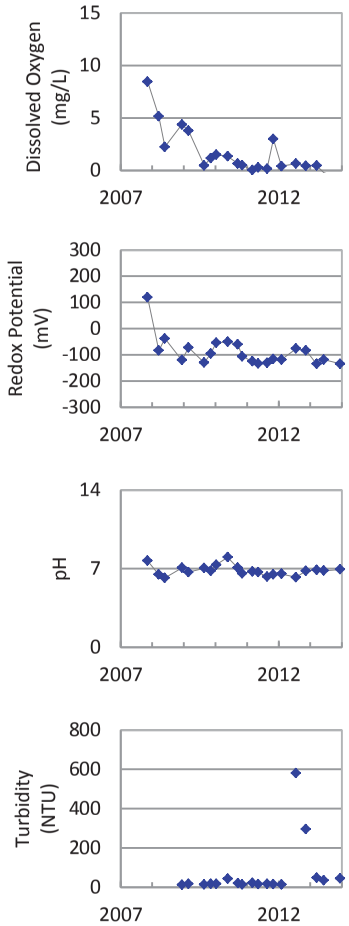
Well Location

Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/11/2011 to 12/16/2013
Analysis Date: 3/21/2014

PTX06-ISB046
Total Organic Carbon Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Decreasing

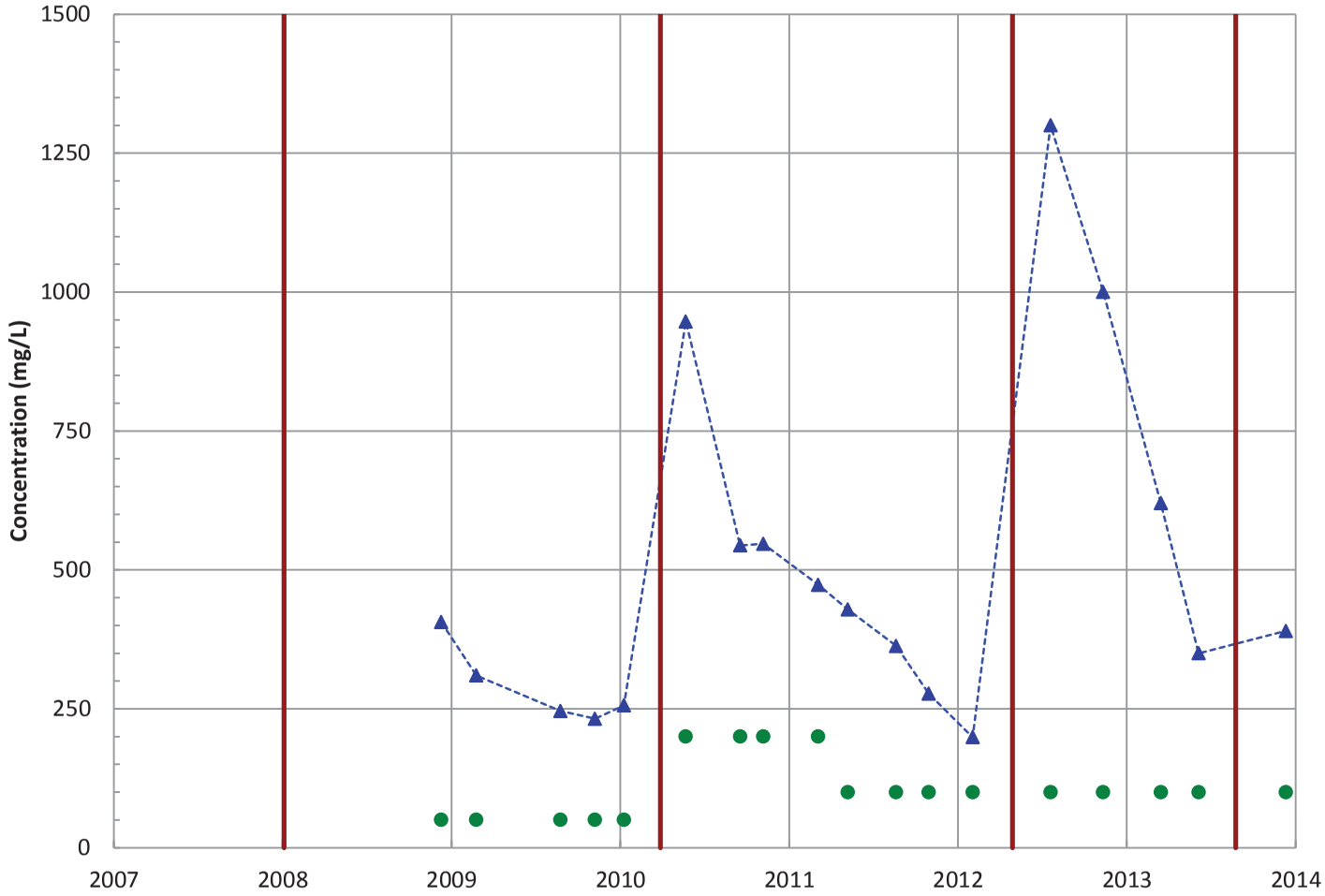
MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Probably Decreasing

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

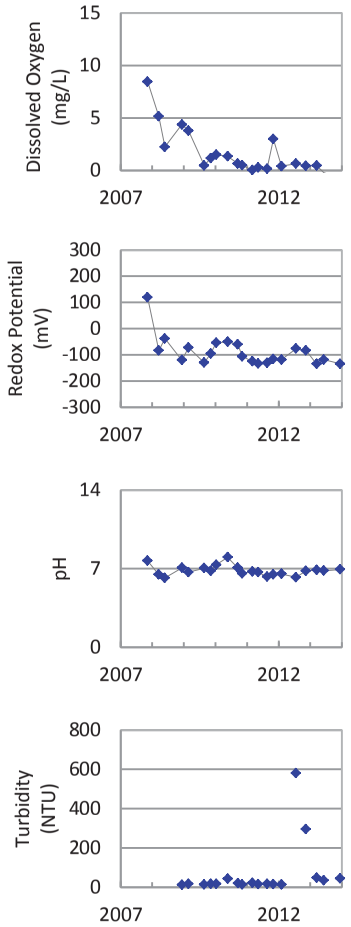
Well Location

Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/9/2007 to 12/16/2013
Analysis Date: 3/21/2014

PTX06-ISB046
Dissolved Organic Carbon (DOC) Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Decreasing

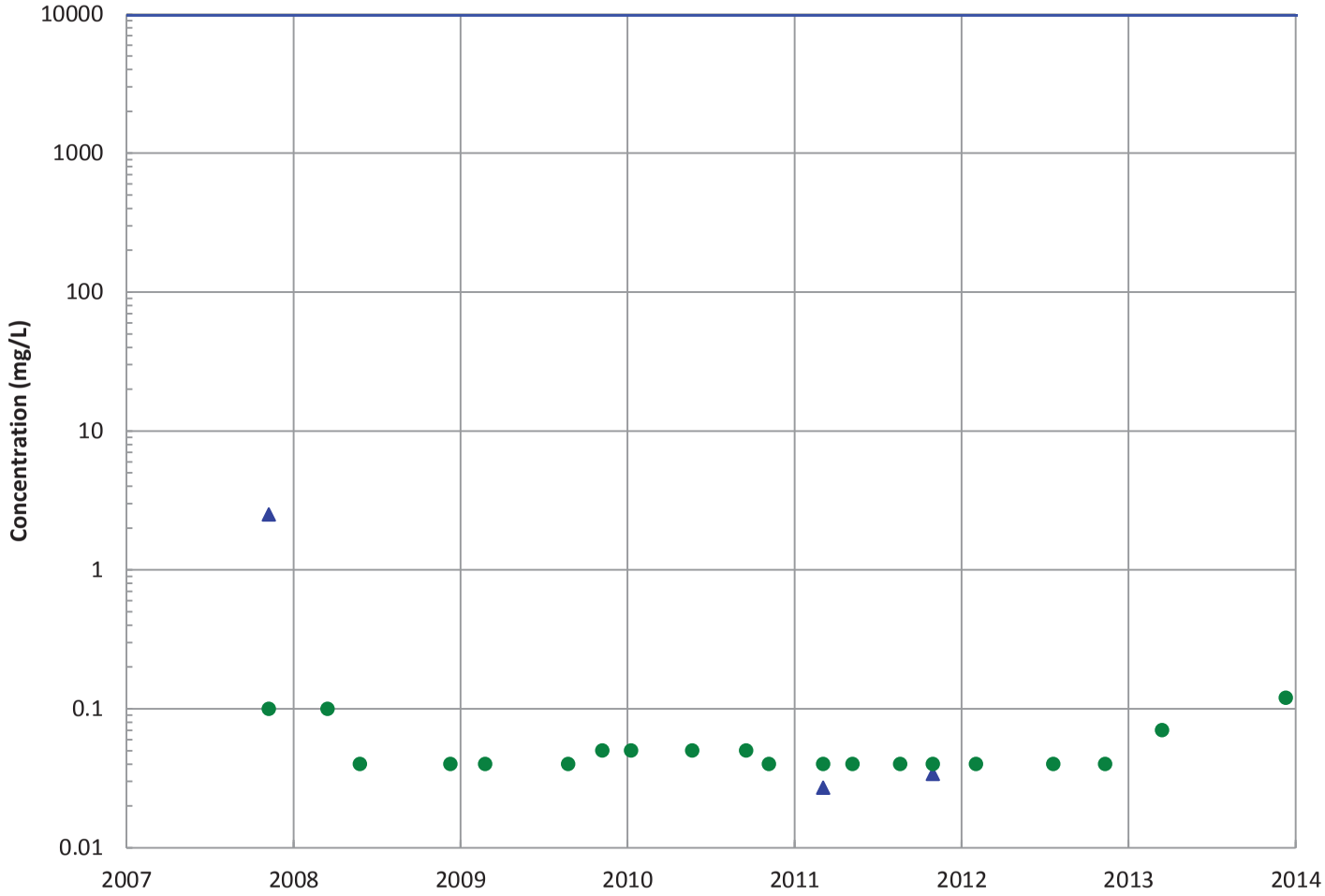
MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Decreasing

▲ Measured Value
● Sample Detection Limit
Concentration Trend
Injection Dates

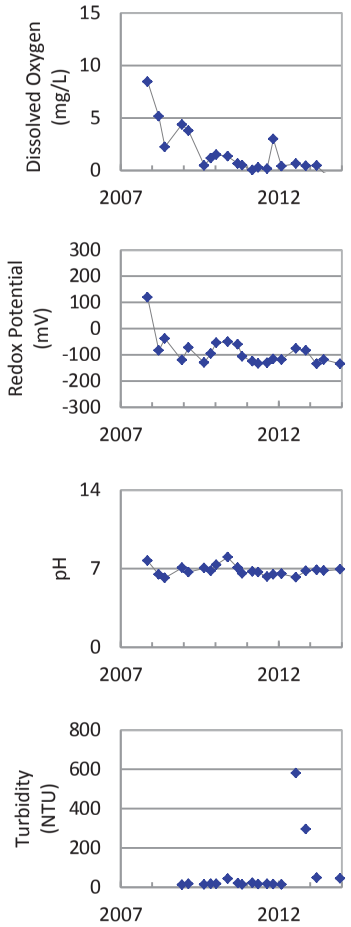
Well Location

Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 12/11/2008 to 12/16/2013
Analysis Date: 3/21/2014

PTX06-ISB046
Nitrate as N Trend in Perched Aquifer



Field Parameters



Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

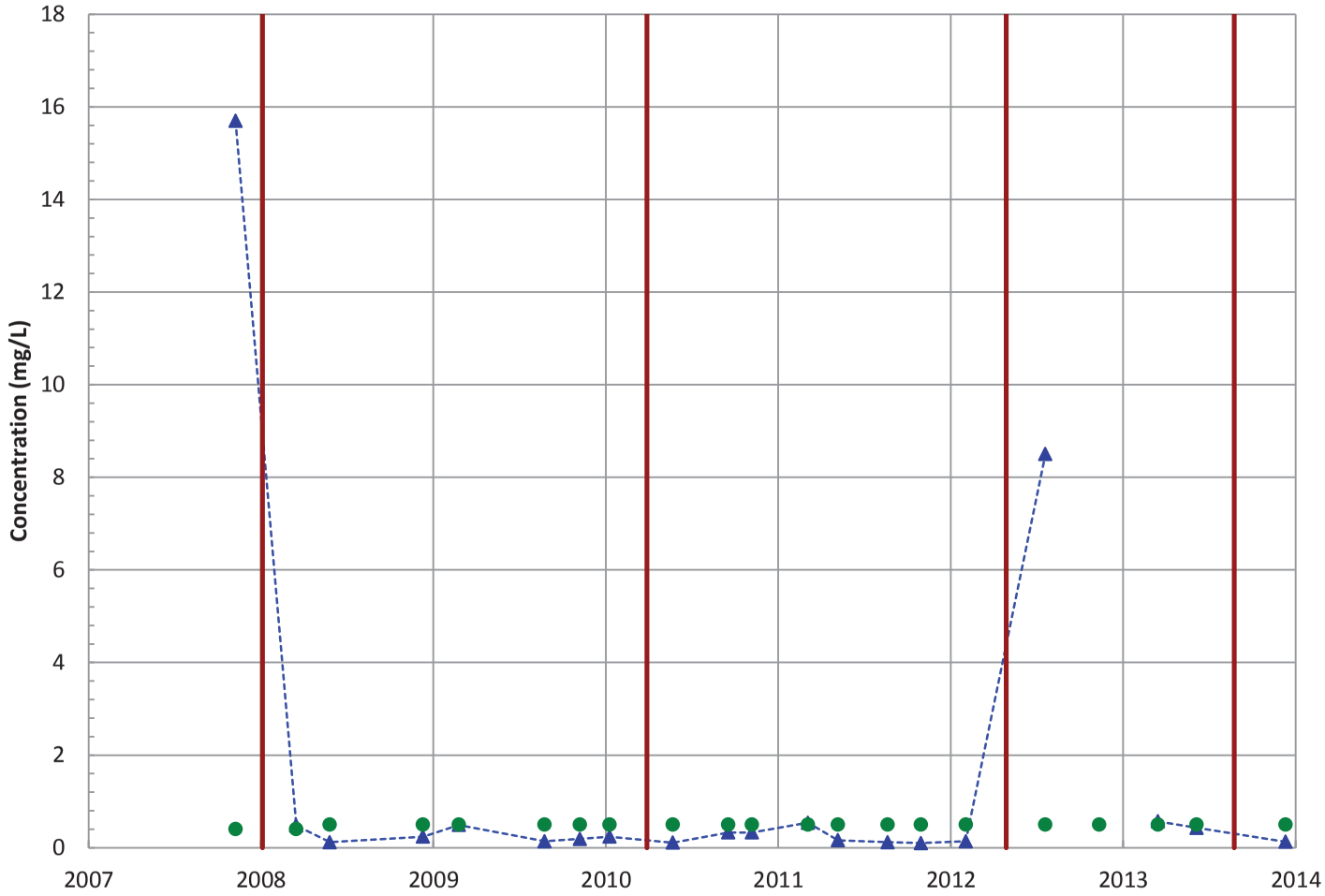
MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

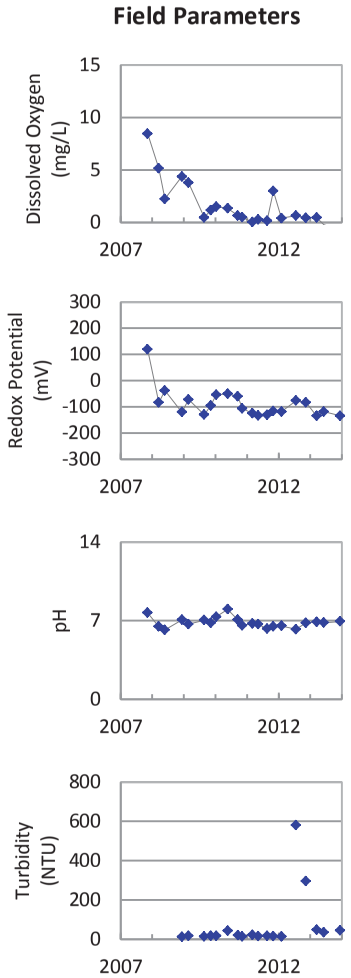
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/9/2007 to 12/16/2013
Analysis Date: 3/21/2014

PTX06-ISB046
Sulfate (as SO4) Trend in Perched Aquifer





Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

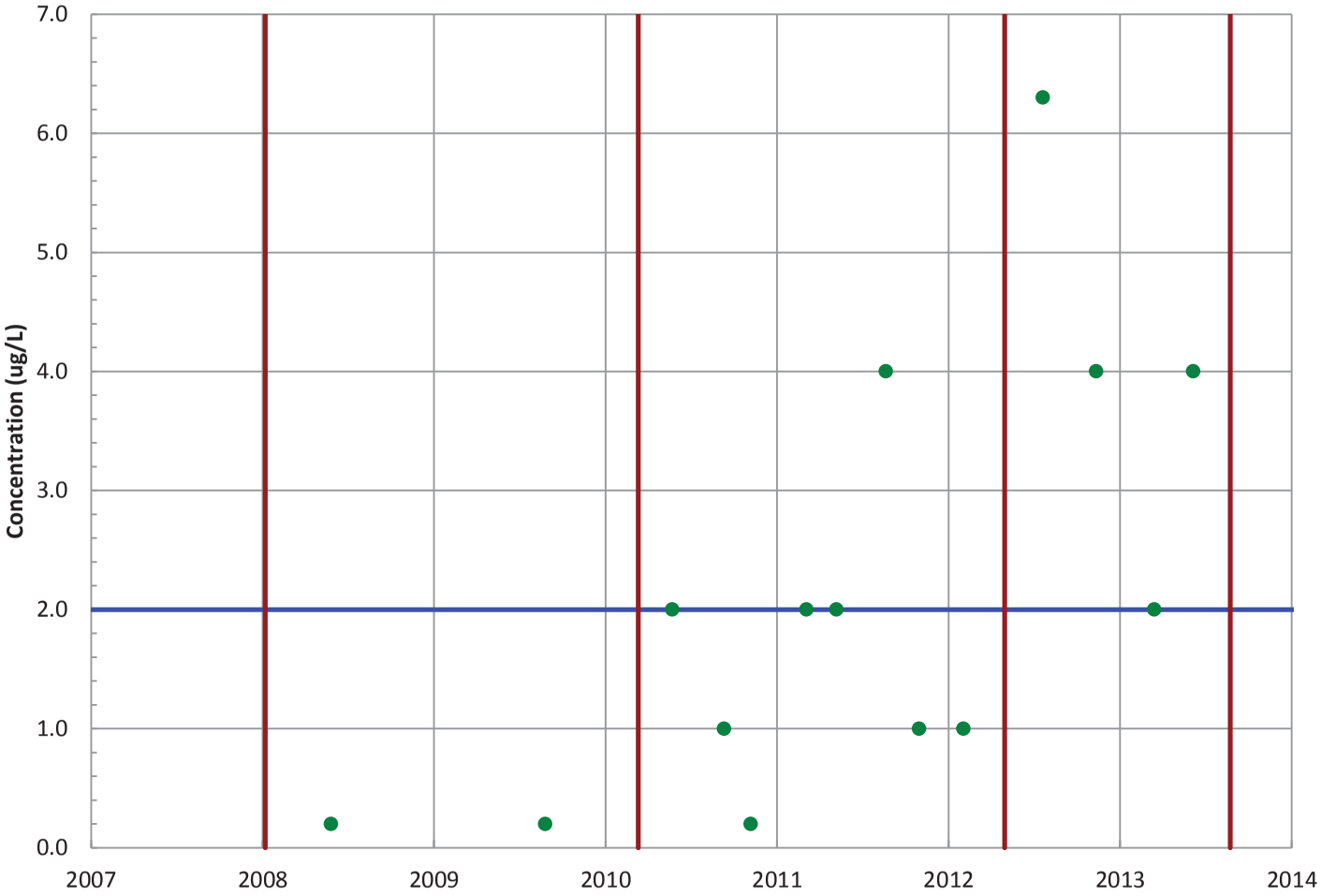
MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Decreasing

▲ Measured Value
● Sample Detection Limit
---- Concentration Trend
— Injection Dates

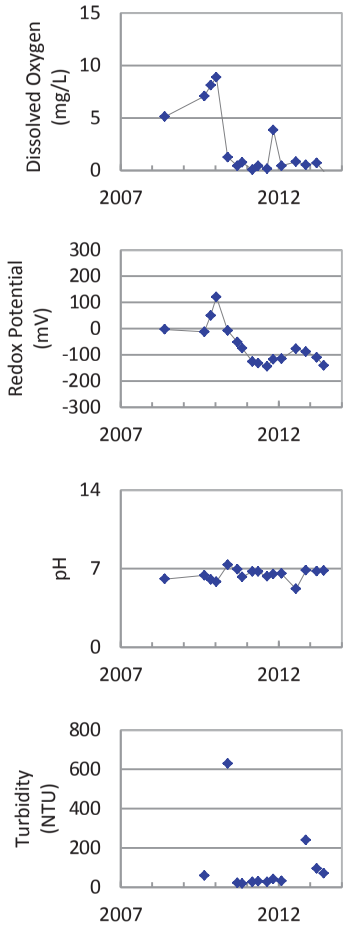
Well Location

Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/9/2007 to 12/16/2013
Analysis Date: 3/21/2014

PTX06-ISB048
RDX (Hexahydro-1,3,5-Trinitro-1,3,5-Triazine) Trend in Perched Aquifer



Field Parameters



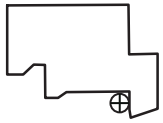
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

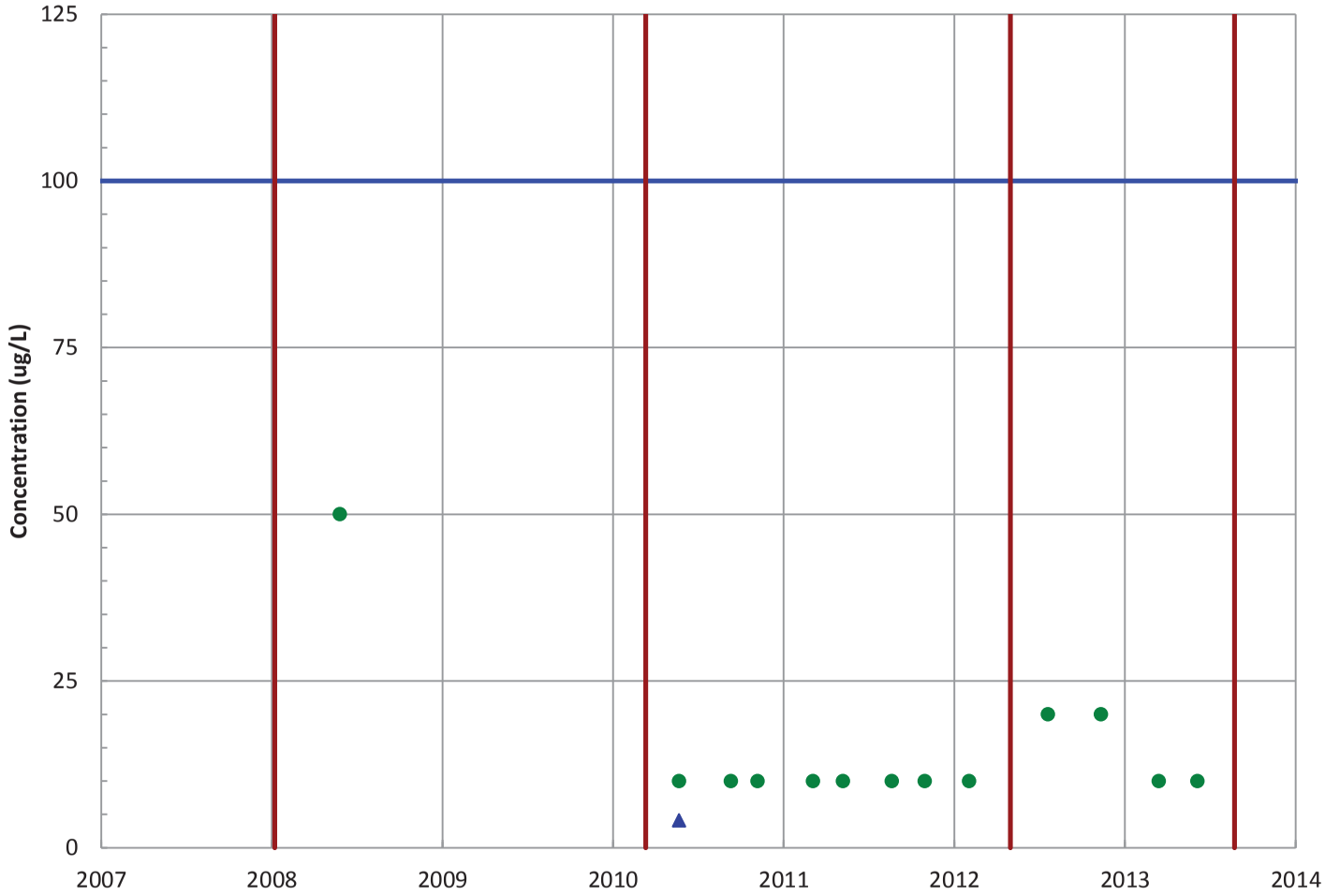
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

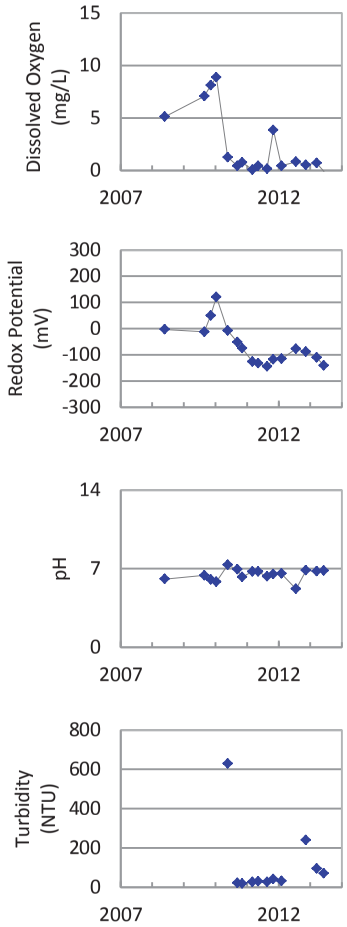


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2008 to 6/10/2013
Analysis Date: 3/21/2014

PTX06-ISB048
Chromium, Total Trend in Perched Aquifer



Field Parameters



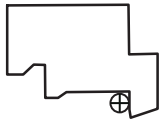
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

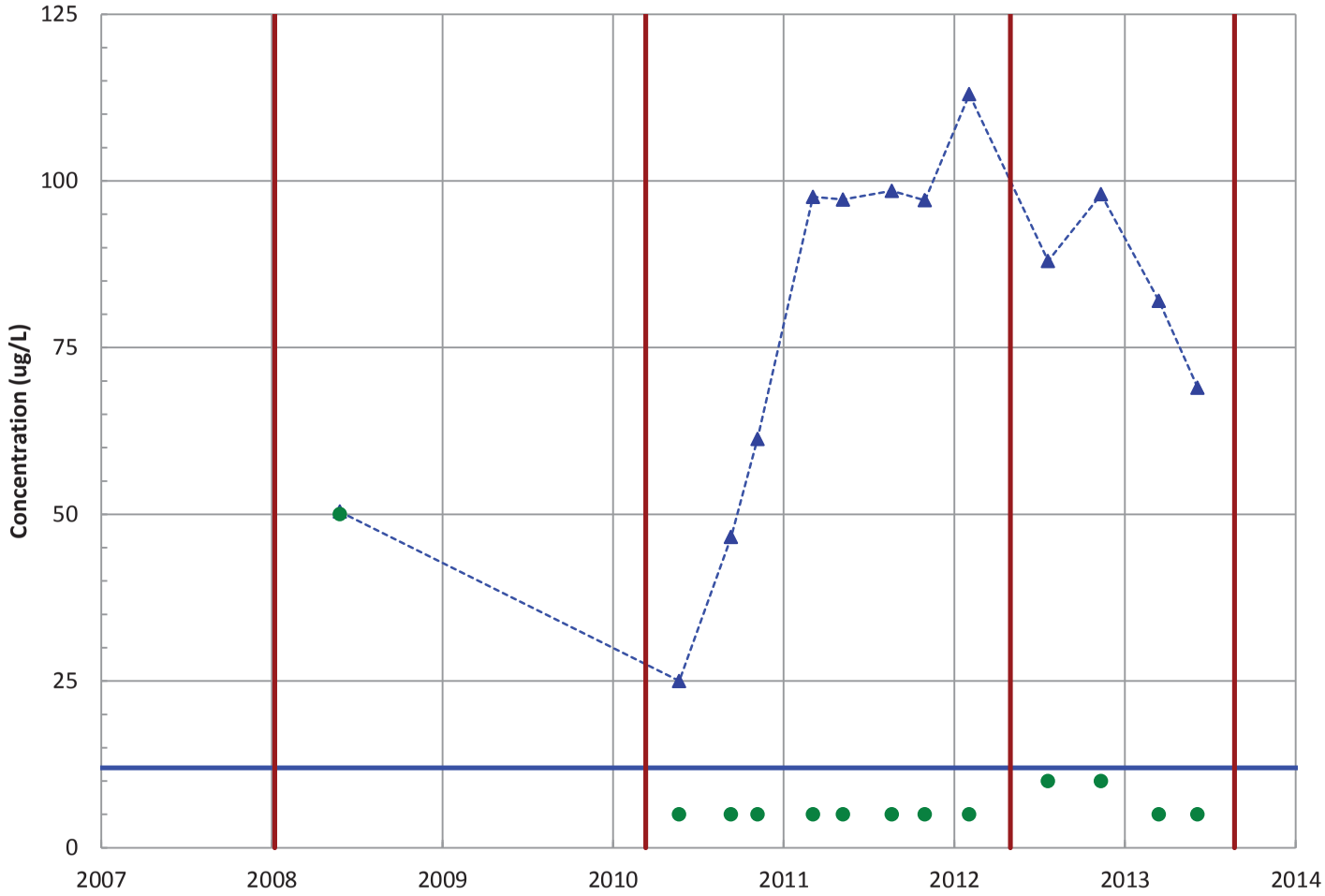
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

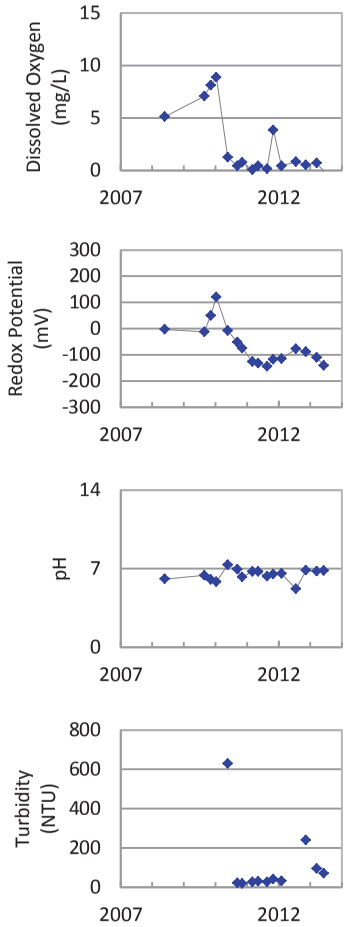


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2008 to 6/10/2013
Analysis Date: 3/21/2014

PTX06-ISB048
Arsenic Trend in Perched Aquifer



Field Parameters



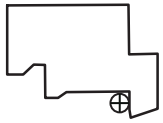
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Stable

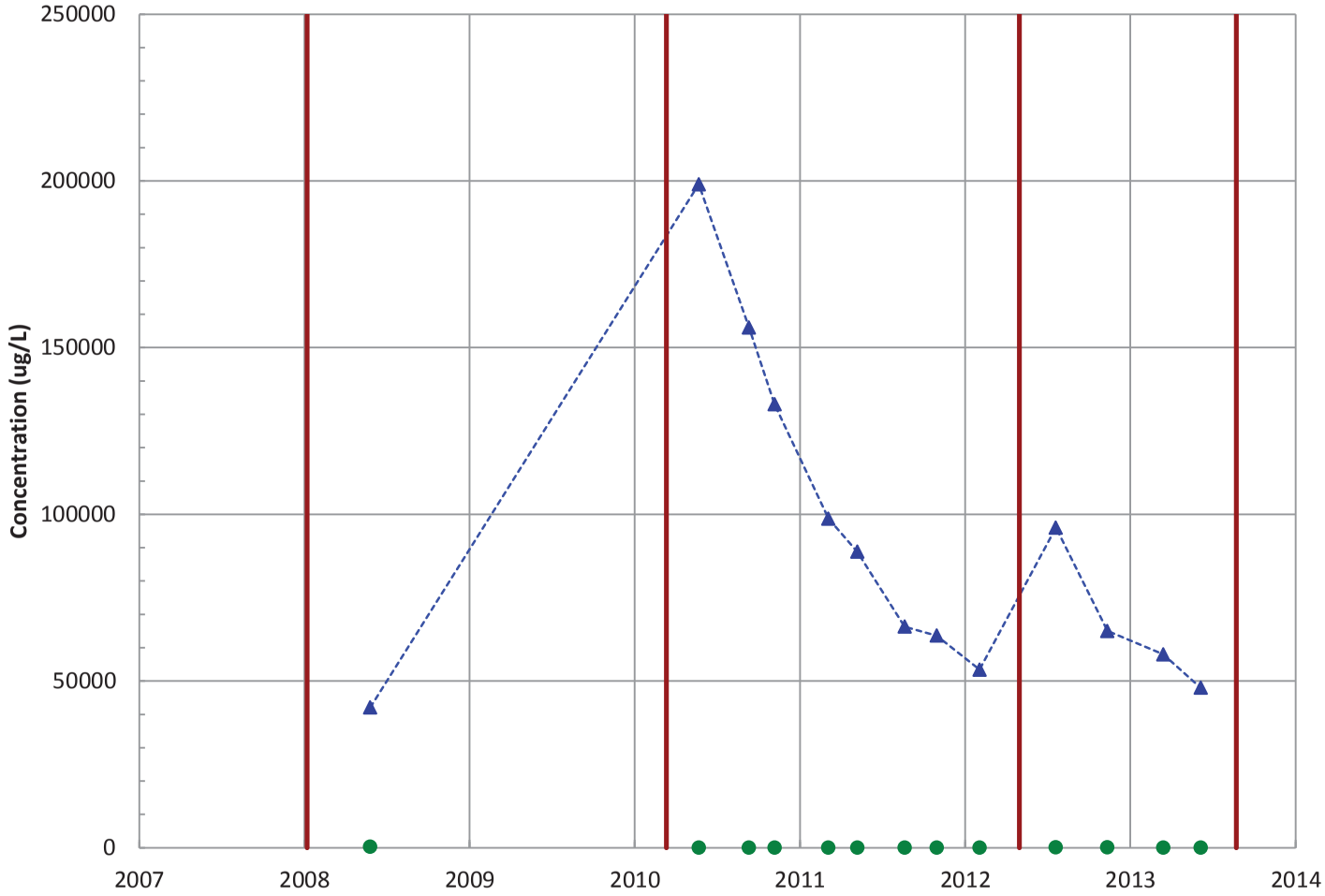
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

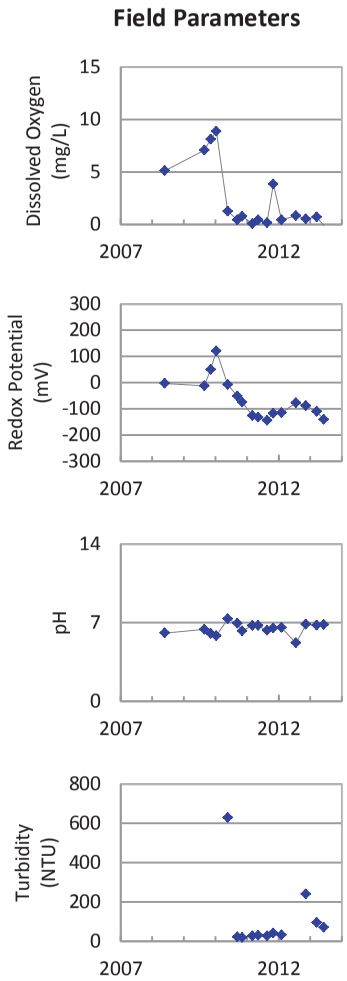
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2008 to 6/10/2013
Analysis Date: 3/21/2014

PTX06-ISB048
Iron Trend in Perched Aquifer





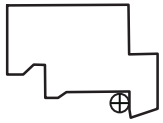
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: Decreasing

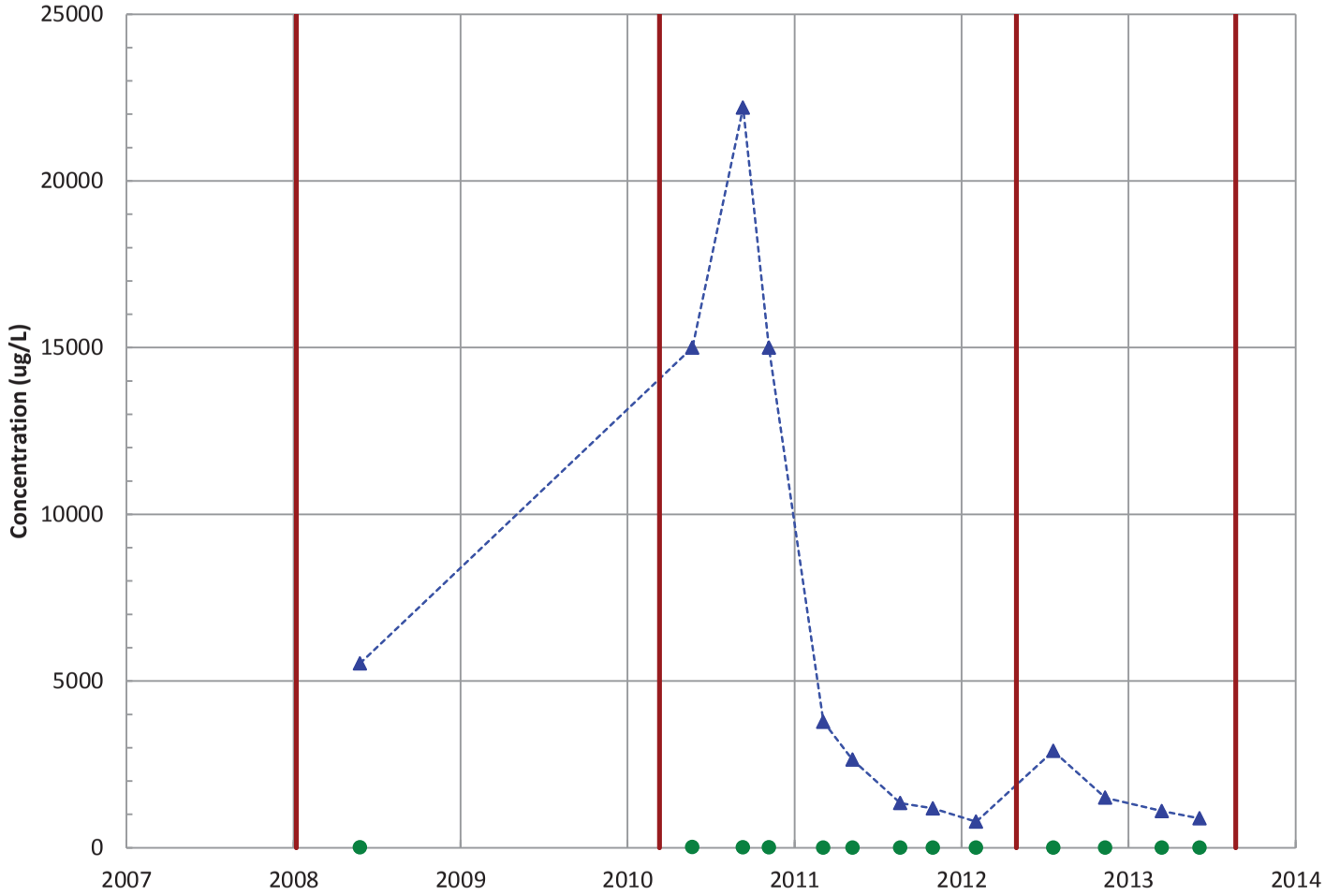
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
═══ Injection Dates

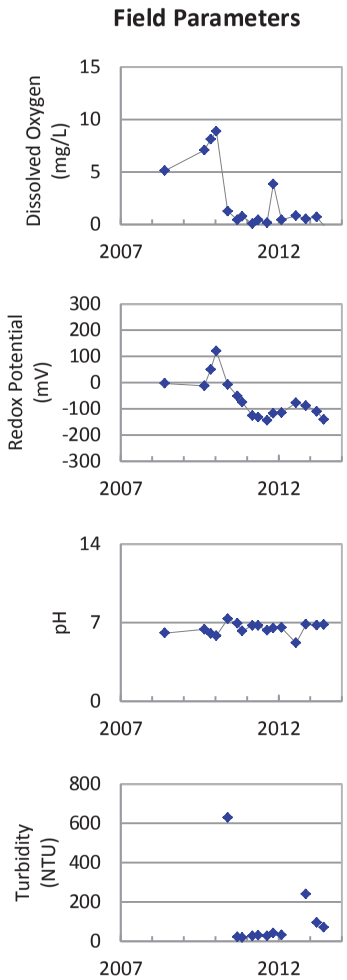
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2008 to 6/10/2013
Analysis Date: 3/21/2014

PTX06-ISB048
Manganese Trend in Perched Aquifer





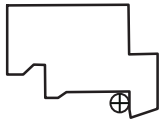
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Decreasing

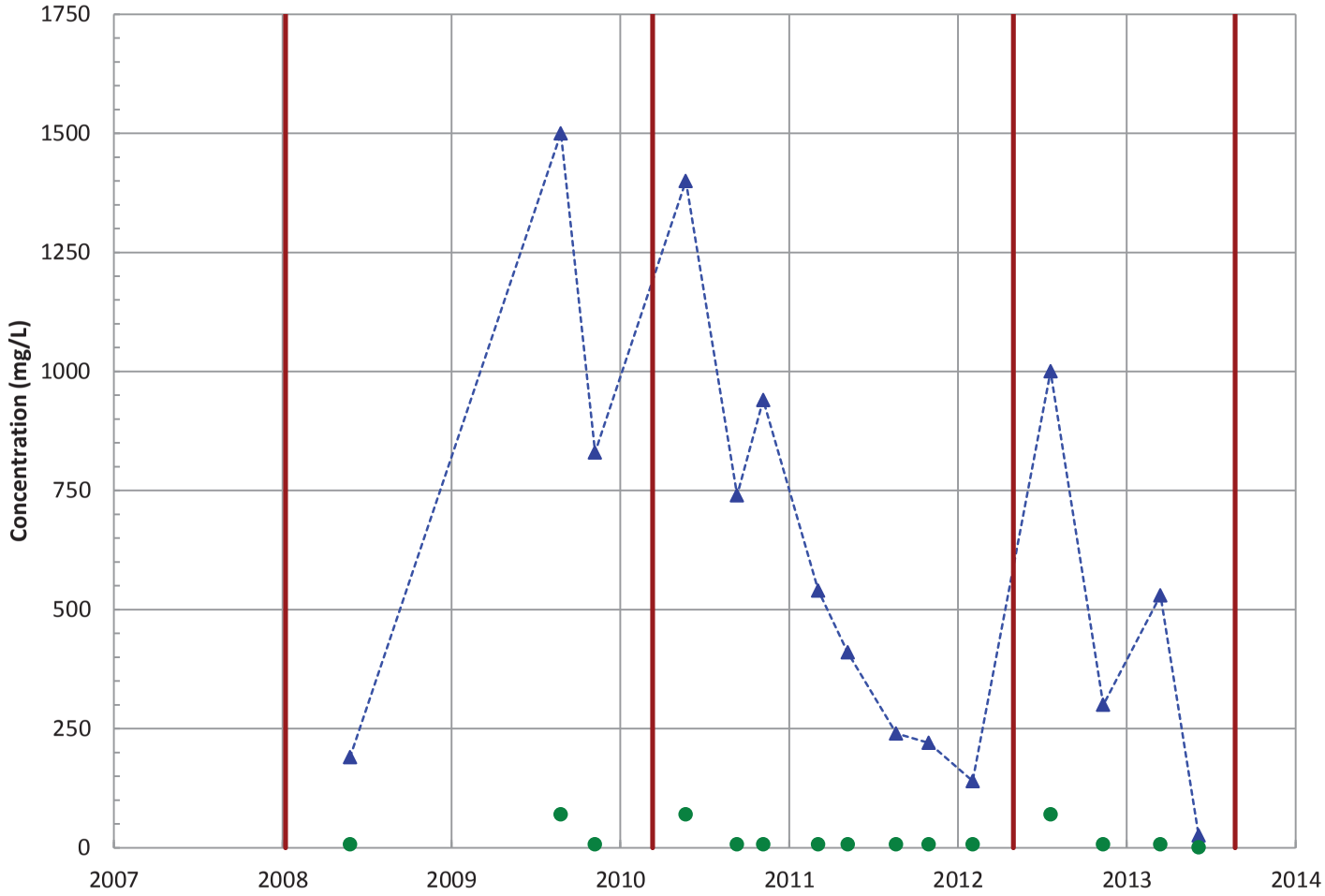
▲ Measured Value
● Sample Detection Limit
---- Concentration Trend
— Injection Dates

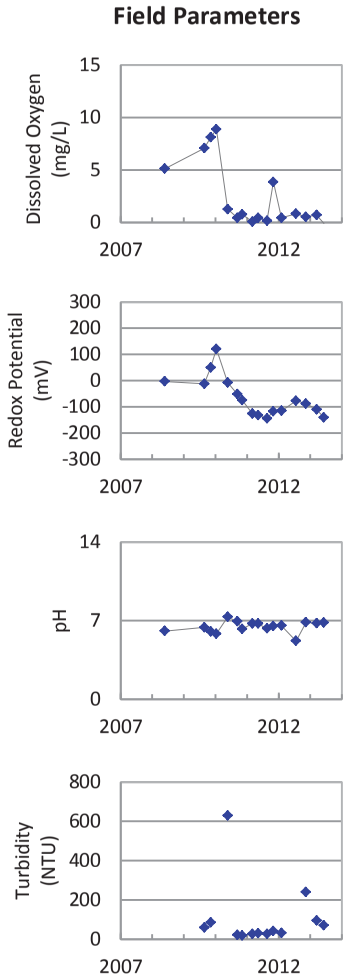
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2008 to 6/10/2013
Analysis Date: 3/21/2014

PTX06-ISB048
Acetic Acid Trend in Perched Aquifer





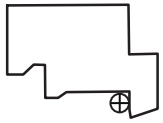
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Probably Decreasing
Last 4 Samples: Probably Decreasing

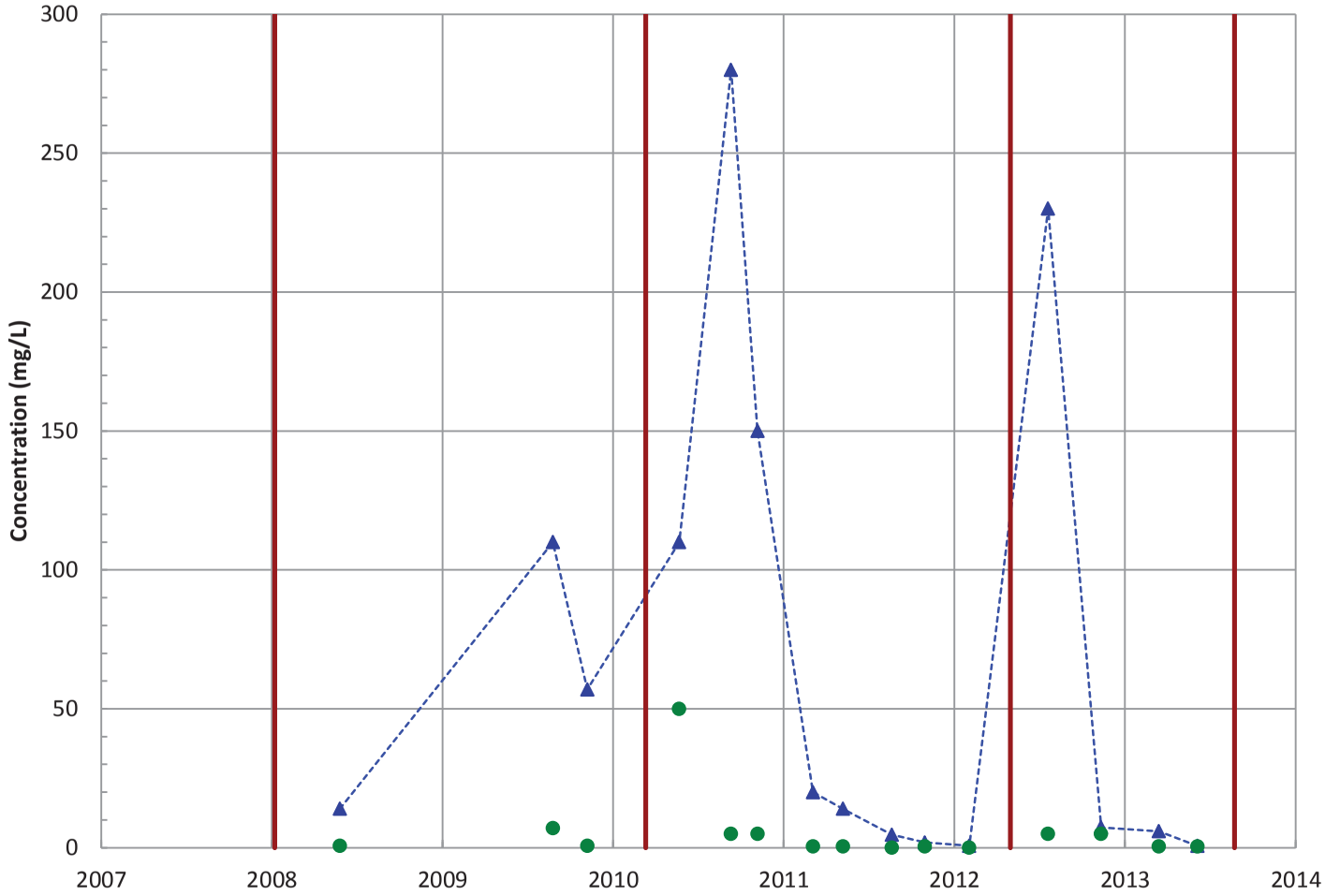
▲ Measured Value
● Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

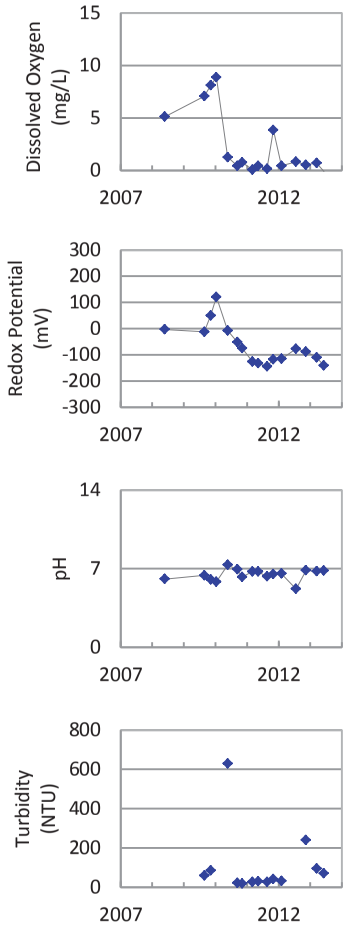


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2008 to 6/10/2013
Analysis Date: 3/21/2014

PTX06-ISB048
Butyric Acid Trend in Perched Aquifer



Field Parameters



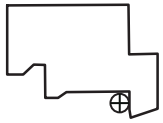
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Decreasing

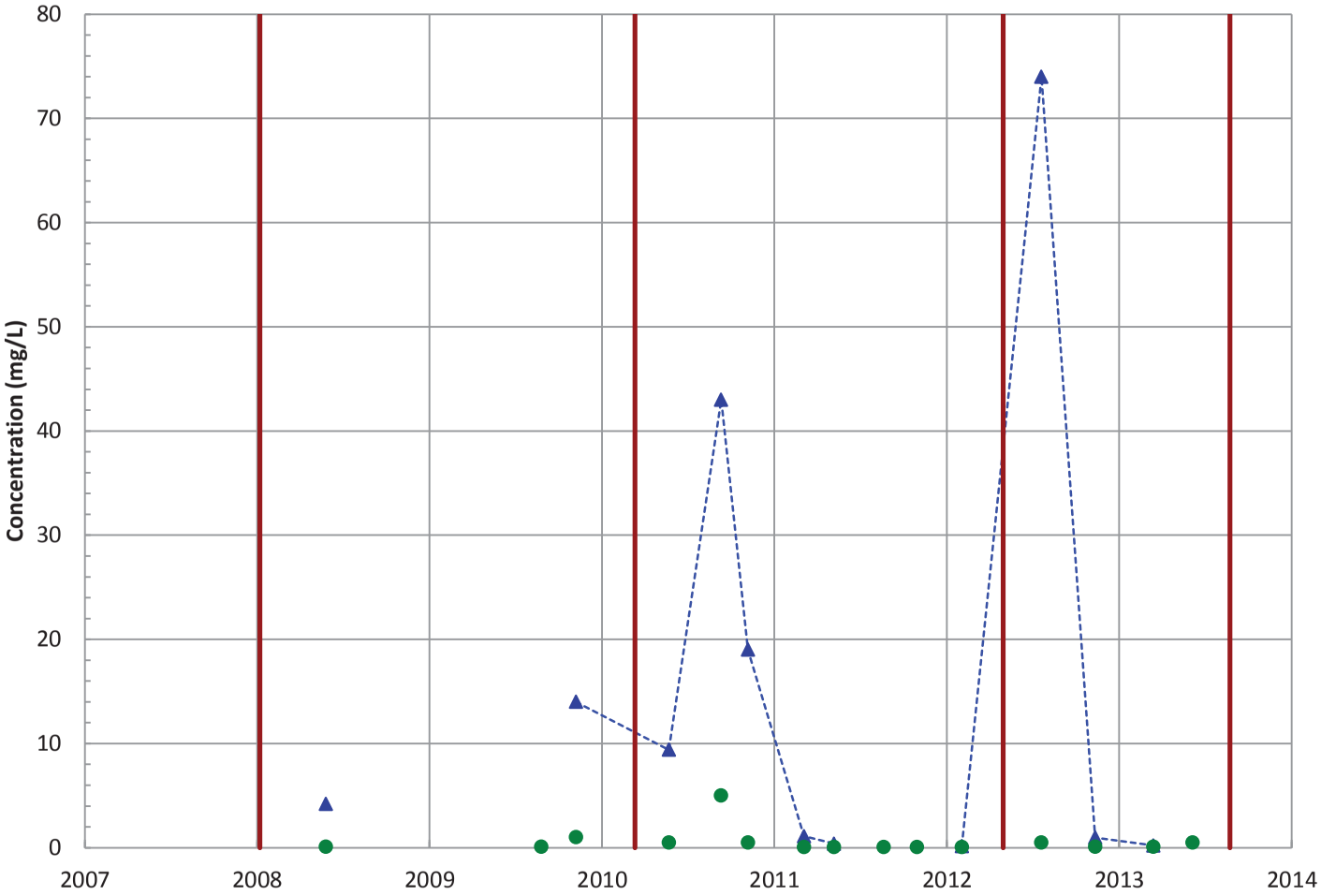
▲ Measured Value
● Sample Detection Limit
---- Concentration Trend
— Injection Dates

Well Location

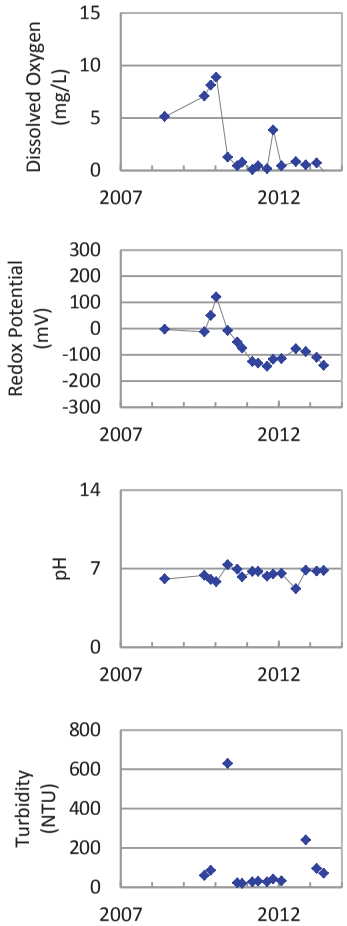


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2008 to 6/10/2013
Analysis Date: 3/21/2014

PTX06-ISB048
Hexanoic Acid Trend in Perched Aquifer



Field Parameters



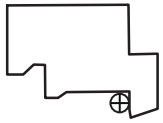
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

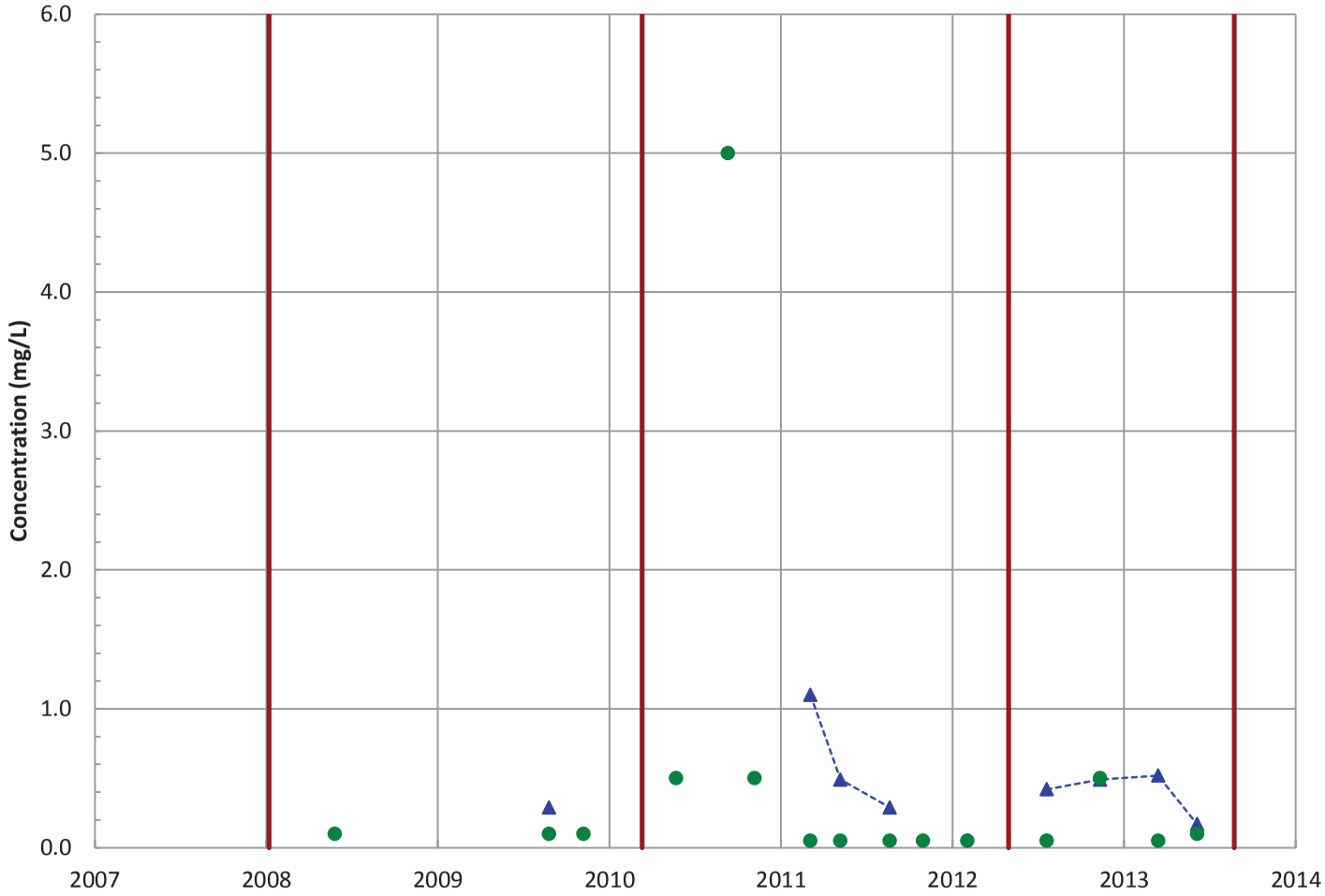
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Injection Dates

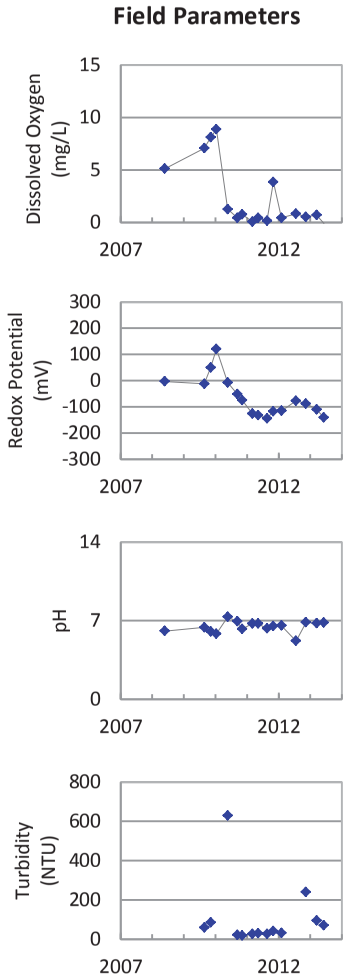
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2008 to 6/10/2013
Analysis Date: 3/21/2014

PTX06-ISB048
i-Hexanoic Acid Trend in Perched Aquifer





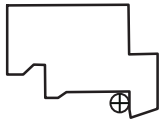
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Stable

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: Stable

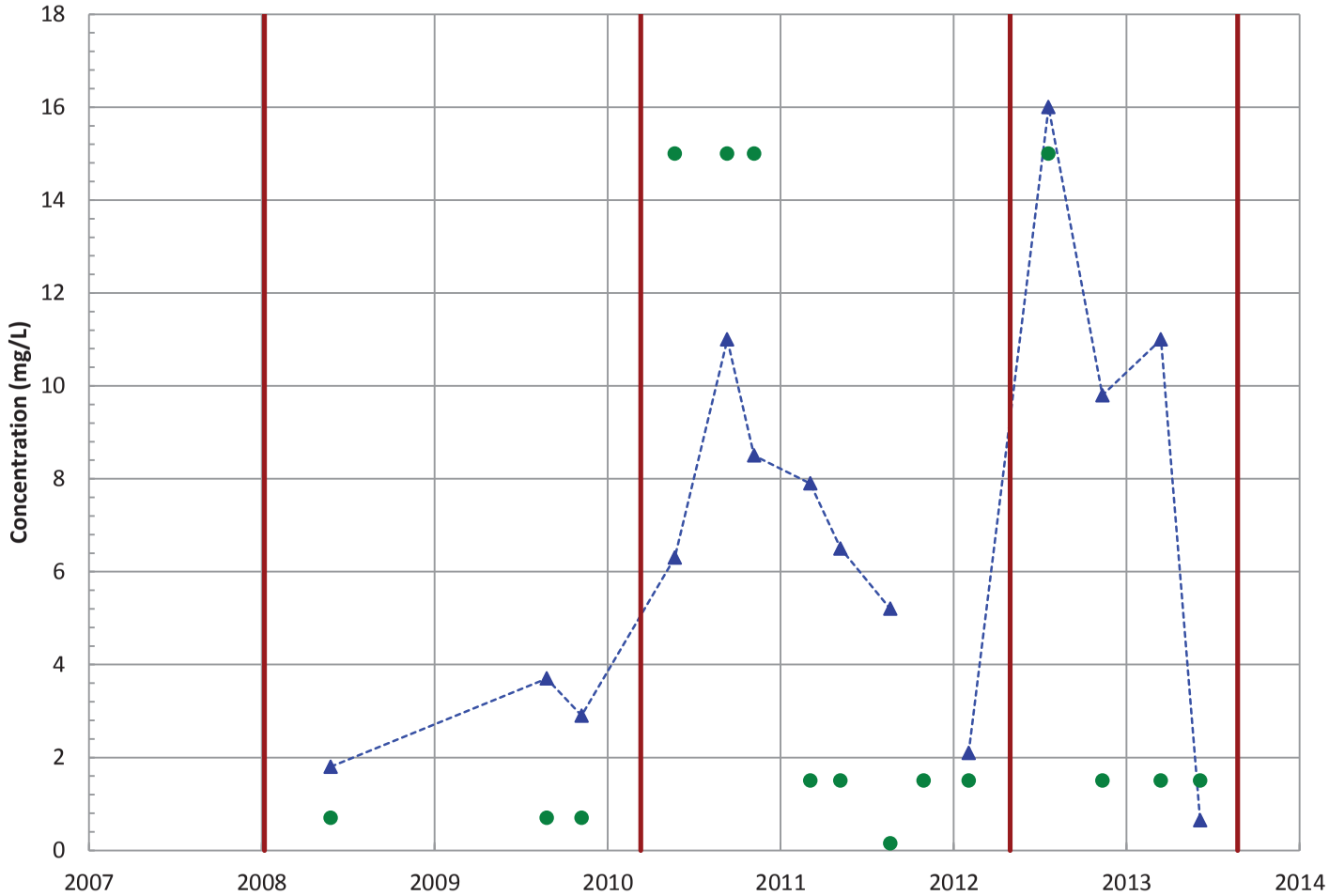
▲ Measured Value
● Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

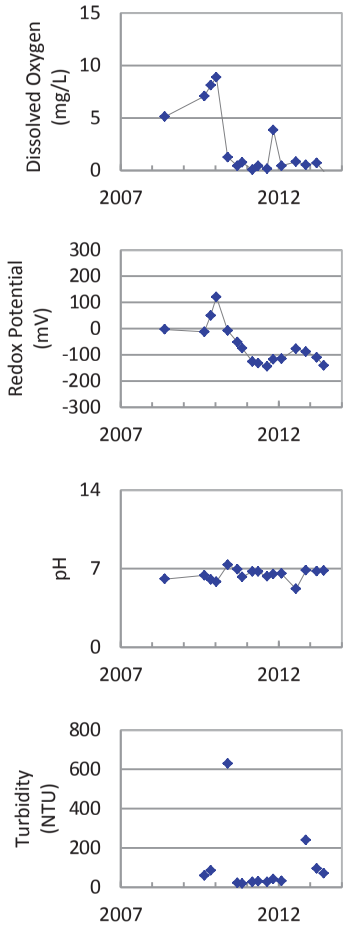


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2008 to 6/10/2013
Analysis Date: 3/21/2014

PTX06-ISB048
i-Pentanoic Acid Trend in Perched Aquifer



Field Parameters



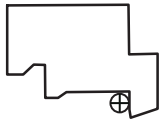
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Stable

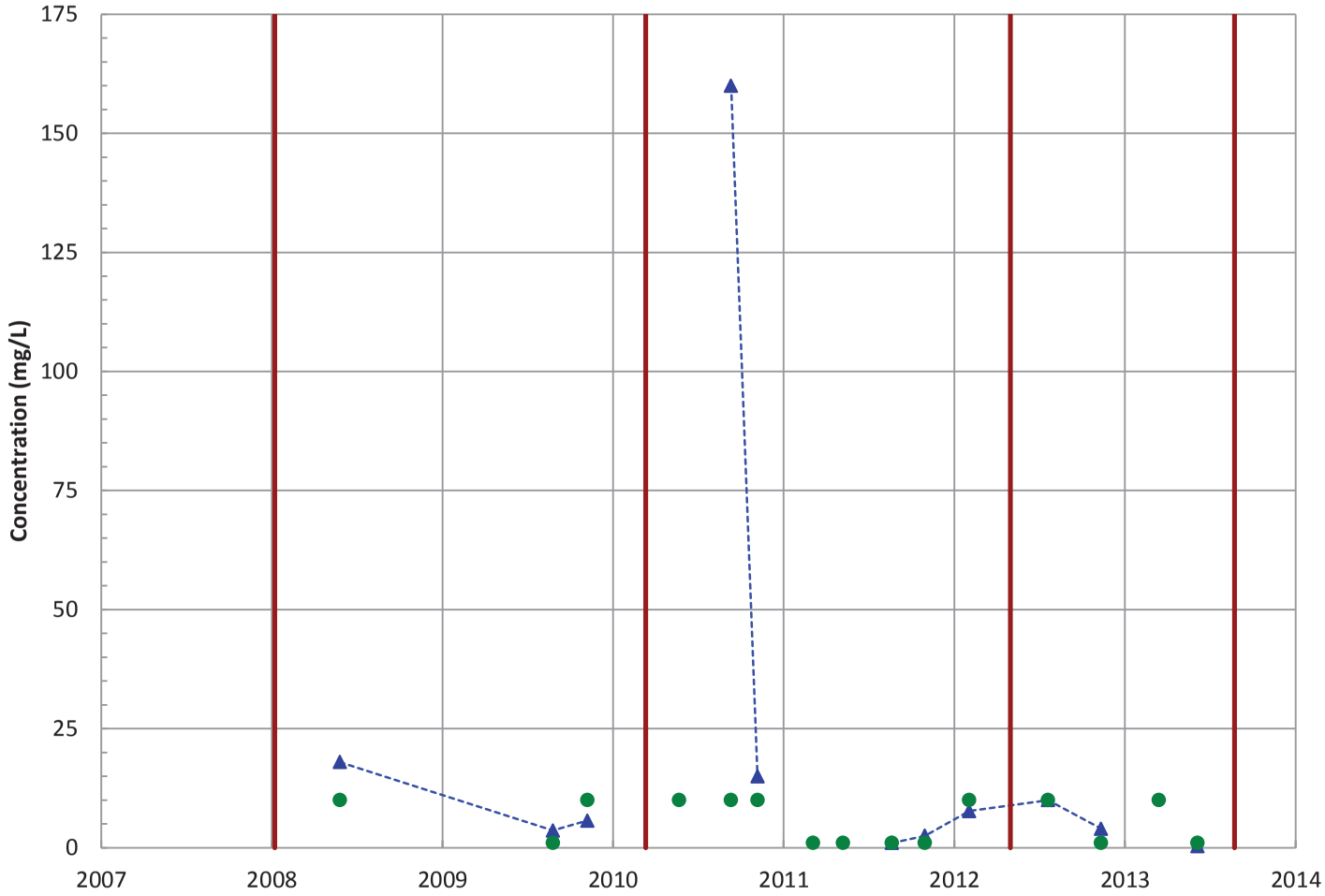
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

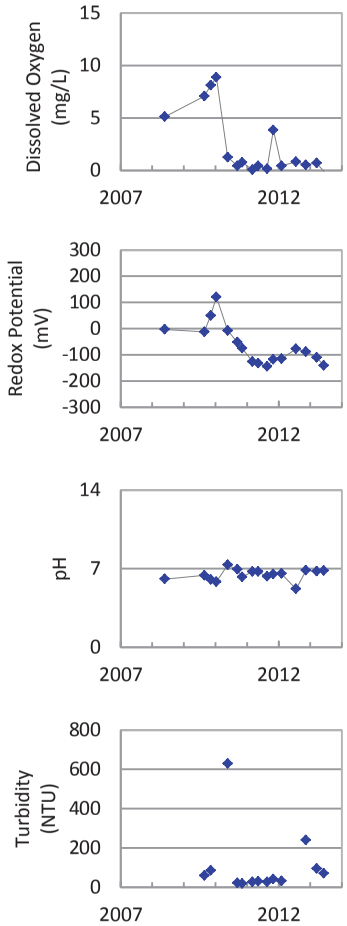


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2008 to 6/10/2013
Analysis Date: 3/21/2014

PTX06-ISB048
Lactic Acid and HIBA Trend in Perched Aquifer



Field Parameters



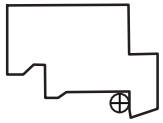
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Probably Decreasing
Last 4 Samples: Stable

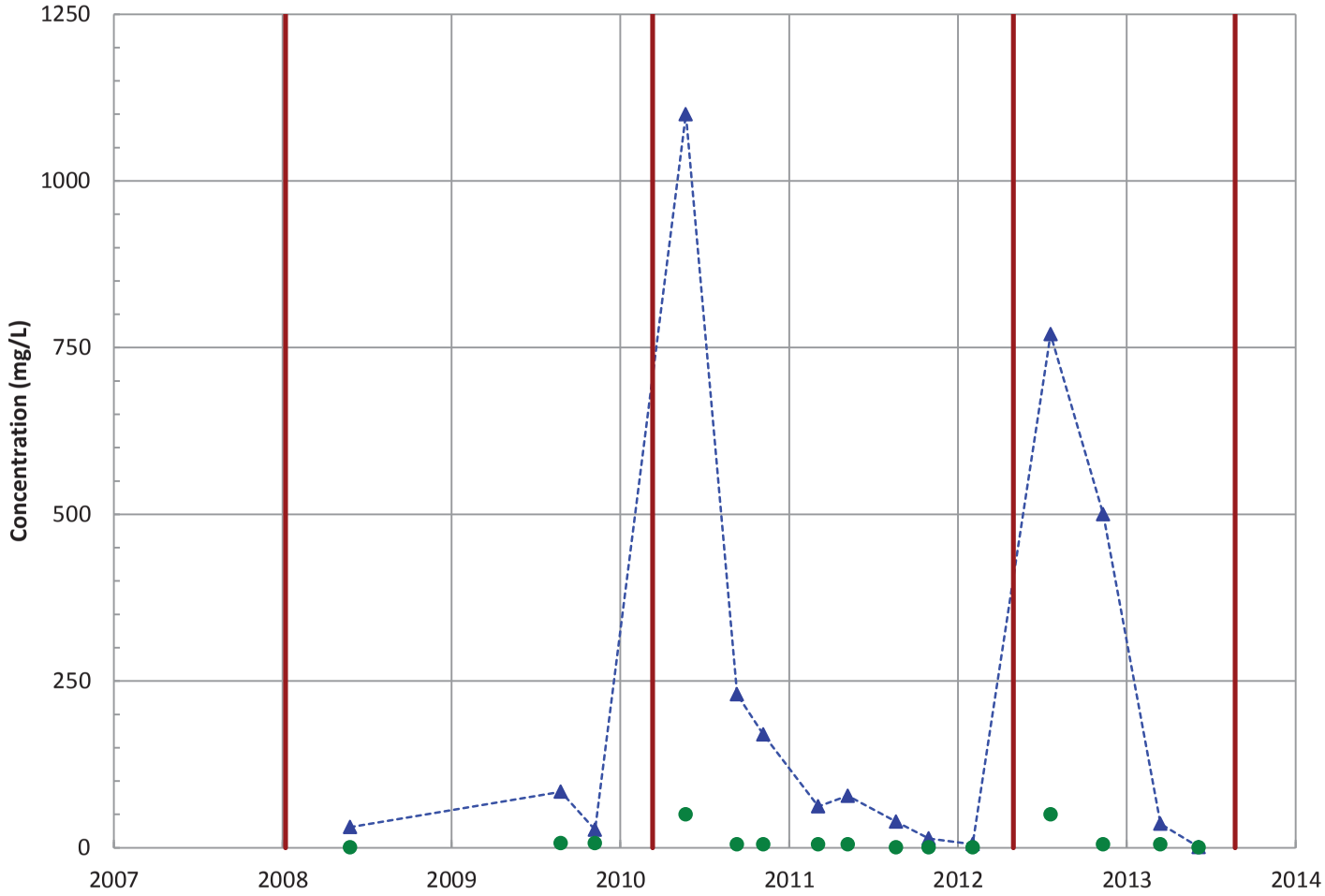
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

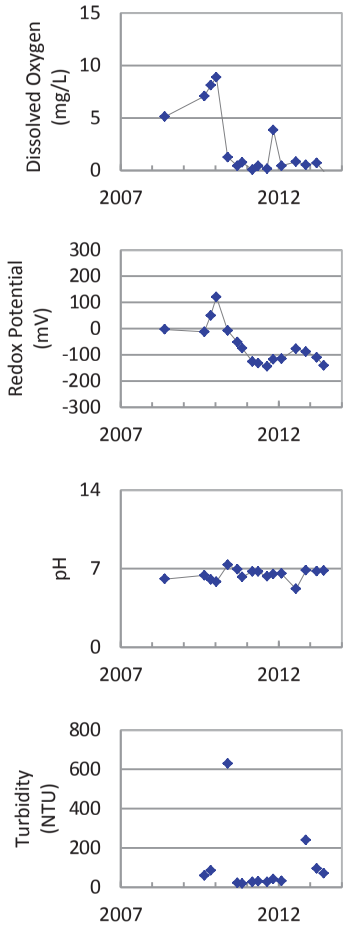


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2008 to 6/10/2013
Analysis Date: 3/21/2014

PTX06-ISB048
Propionic Acid Trend in Perched Aquifer



Field Parameters



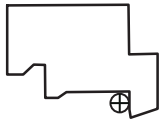
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Probably Decreasing

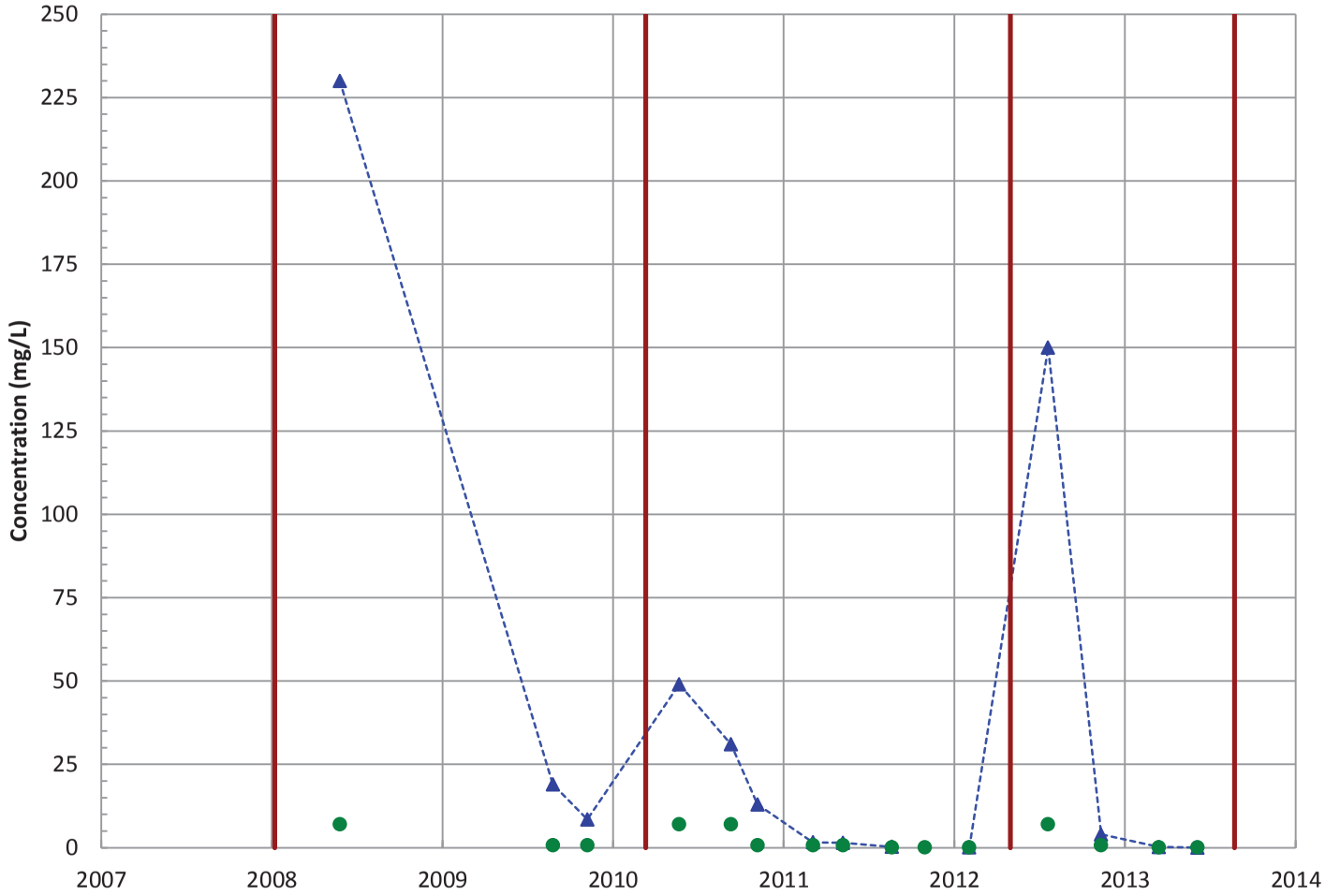
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

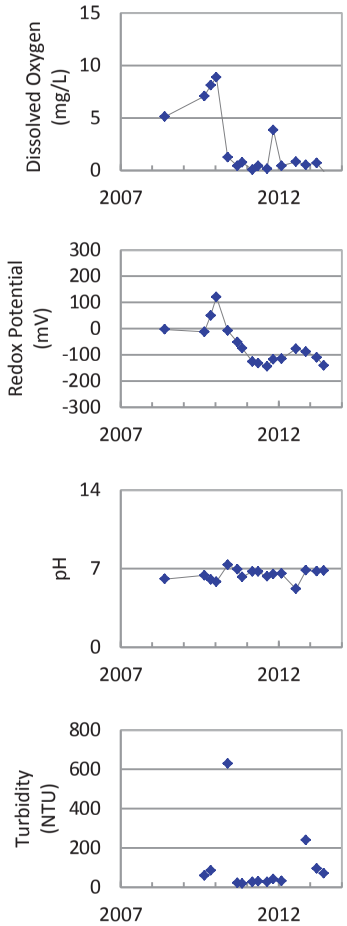


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2008 to 6/10/2013
Analysis Date: 3/21/2014

PTX06-ISB048
Pentanoic Acid Trend in Perched Aquifer



Field Parameters



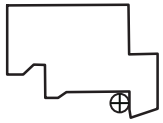
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Decreasing

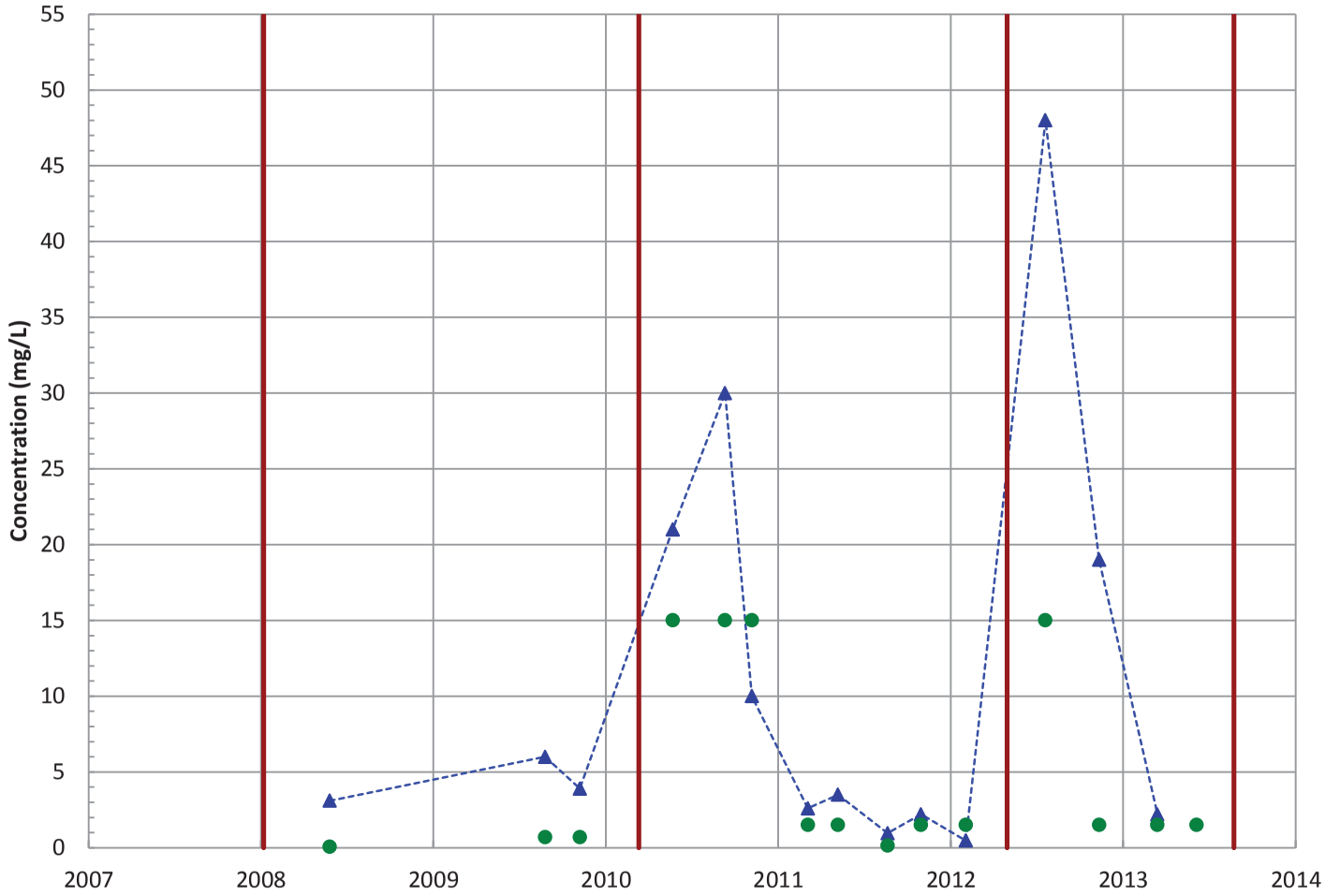
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

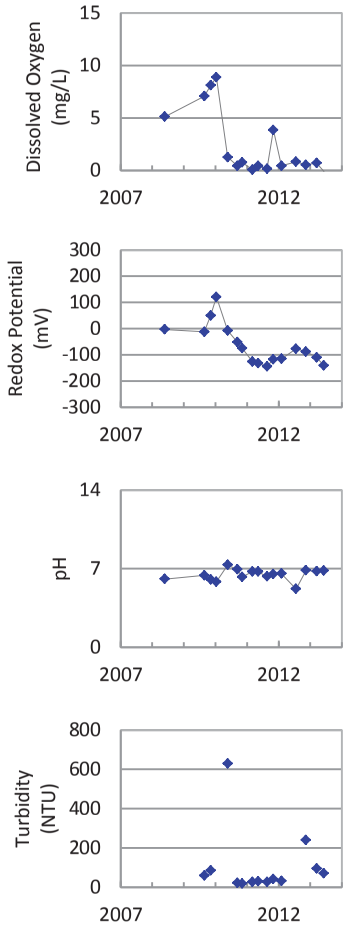


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2008 to 6/10/2013
Analysis Date: 3/21/2014

PTX06-ISB048
Pyruvic Acid Trend in Perched Aquifer



Field Parameters



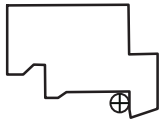
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

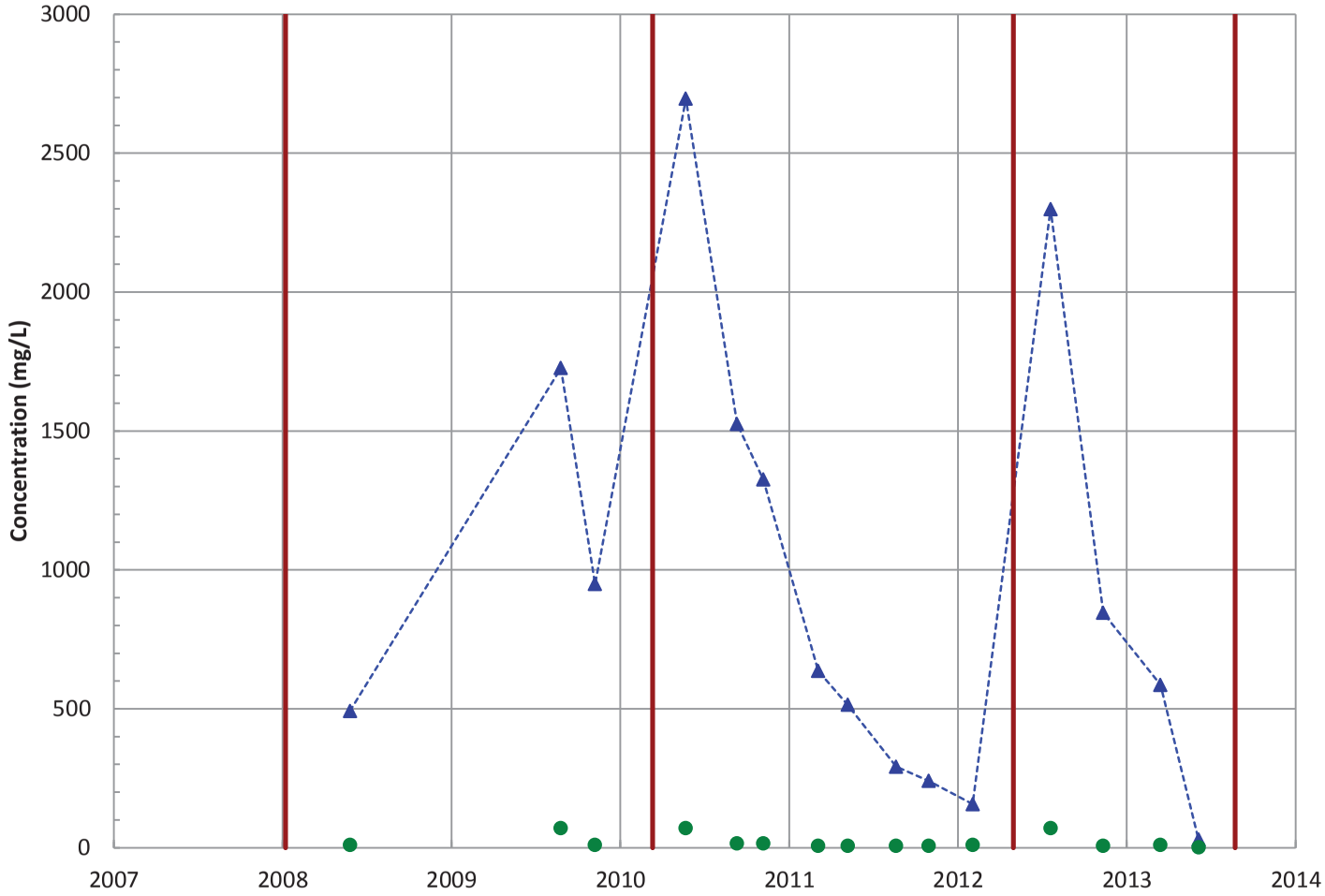
▲ Measured Value
● Sample Detection Limit
---- Concentration Trend
— Injection Dates

Well Location

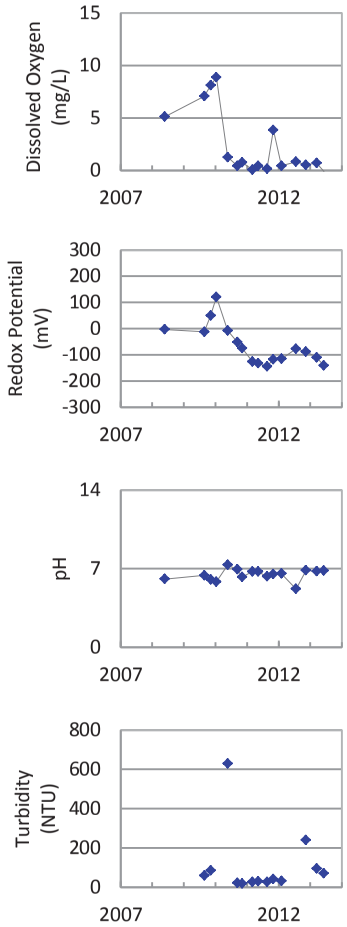


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2008 to 6/10/2013
Analysis Date: 3/21/2014

PTX06-ISB048
Total Volatile Fatty Acids Trend in Perched Aquifer



Field Parameters



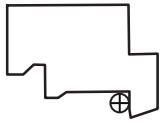
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Probably Decreasing
Last 4 Samples: Probably Decreasing

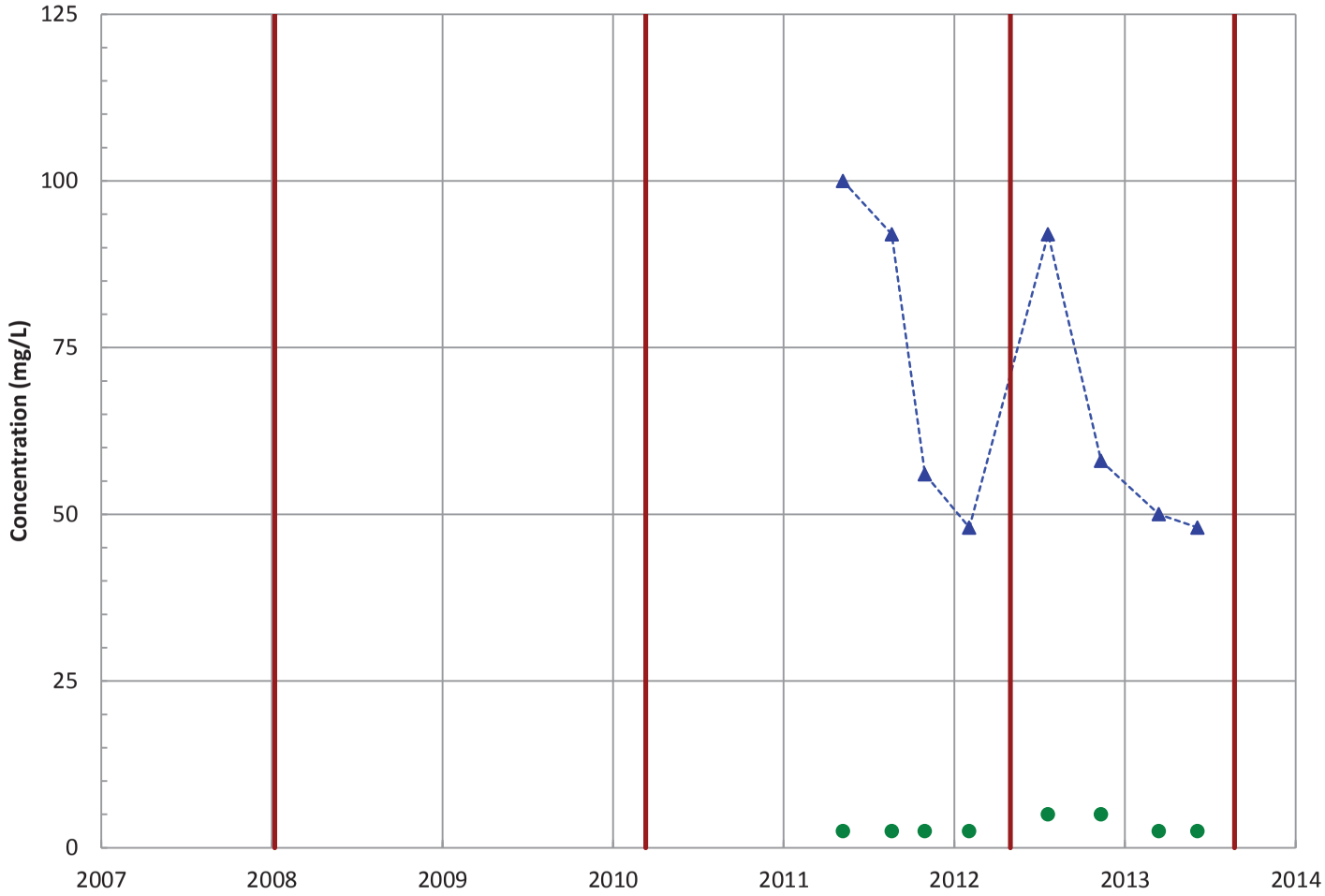
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Injection Dates

Well Location

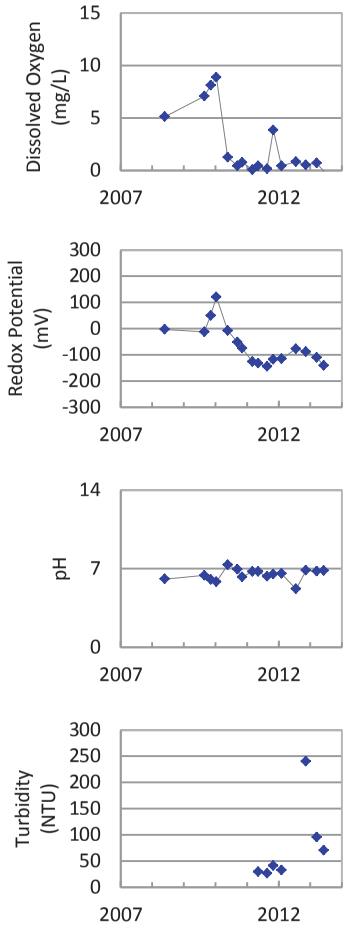


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2008 to 6/10/2013
Analysis Date: 3/21/2014

PTX06-ISB048
Ferrous Iron Trend in Perched Aquifer



Field Parameters



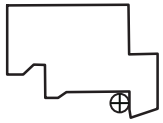
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Decreasing

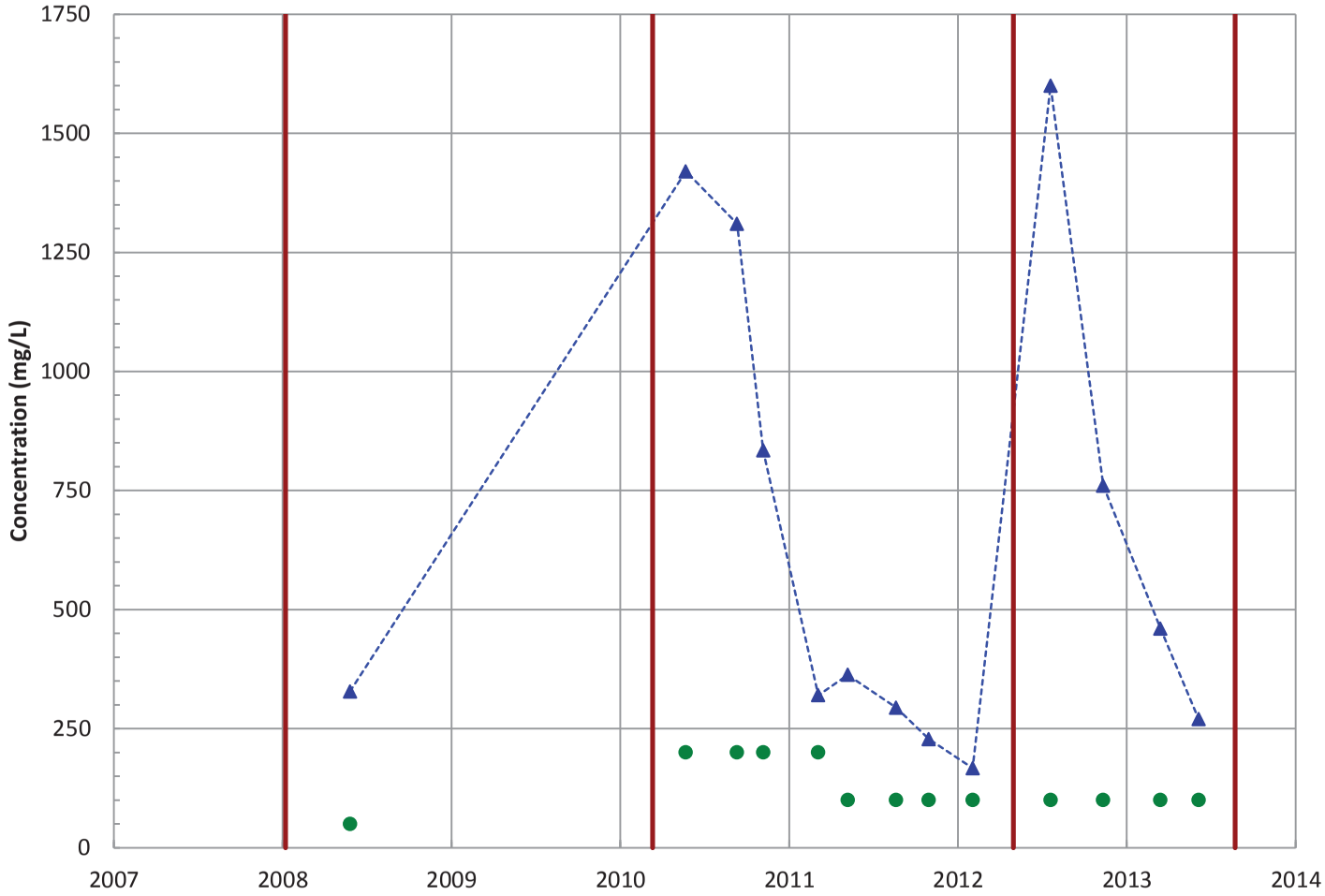
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

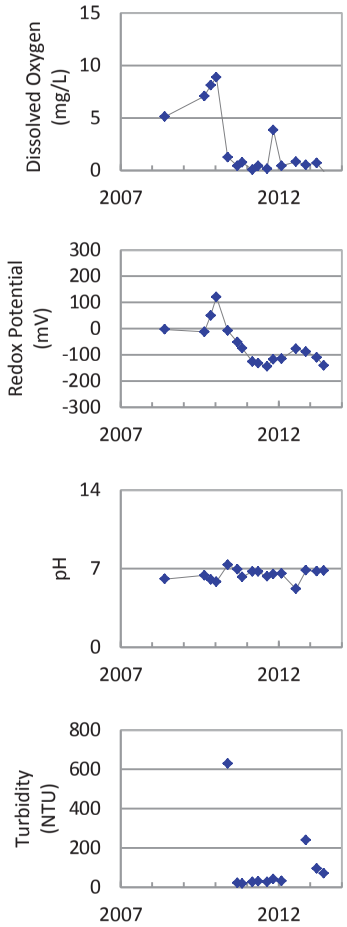


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/11/2011 to 6/10/2013
Analysis Date: 3/21/2014

PTX06-ISB048
Total Organic Carbon Trend in Perched Aquifer



Field Parameters



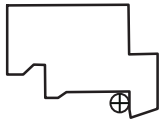
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: Decreasing

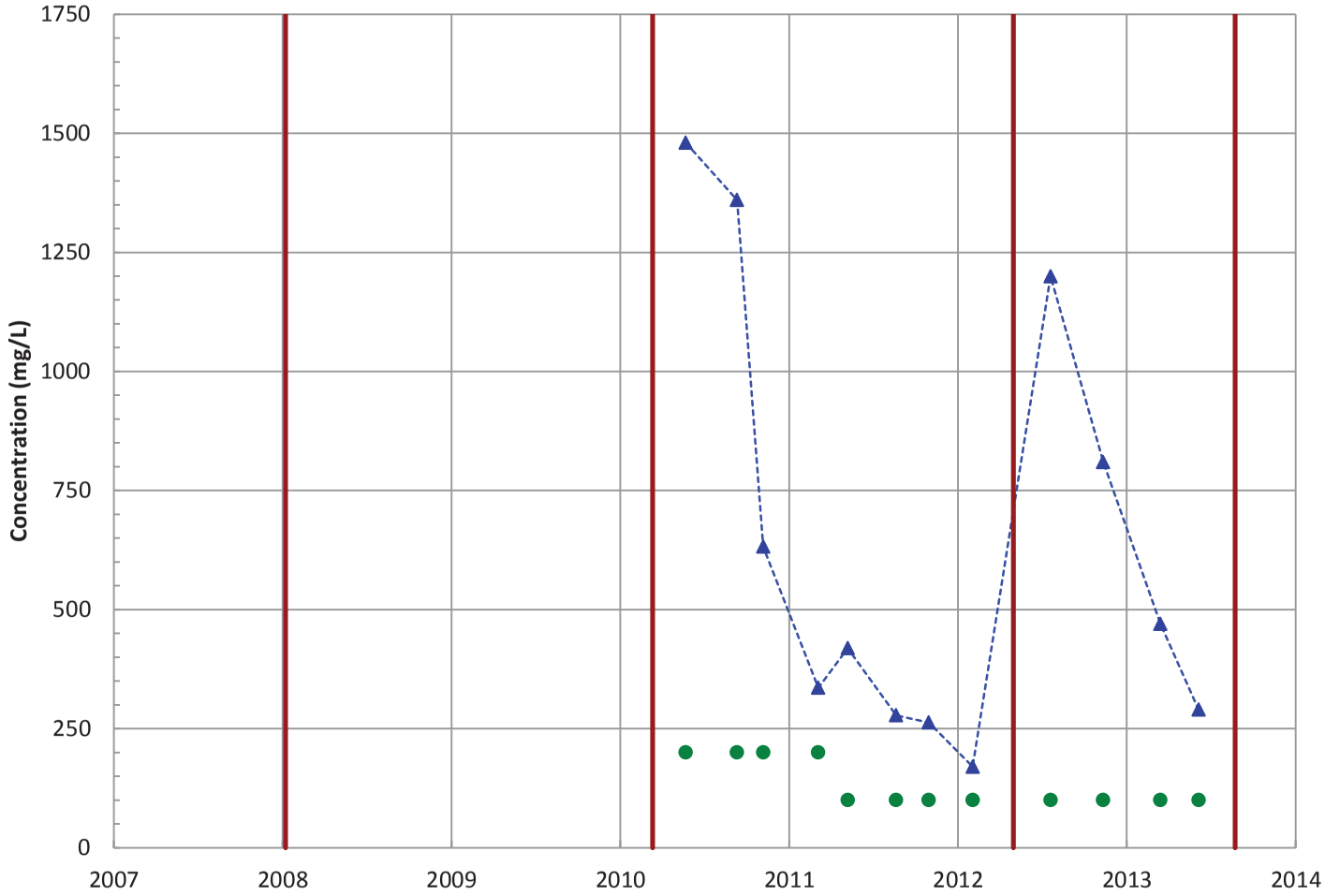
▲ Measured Value
● Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

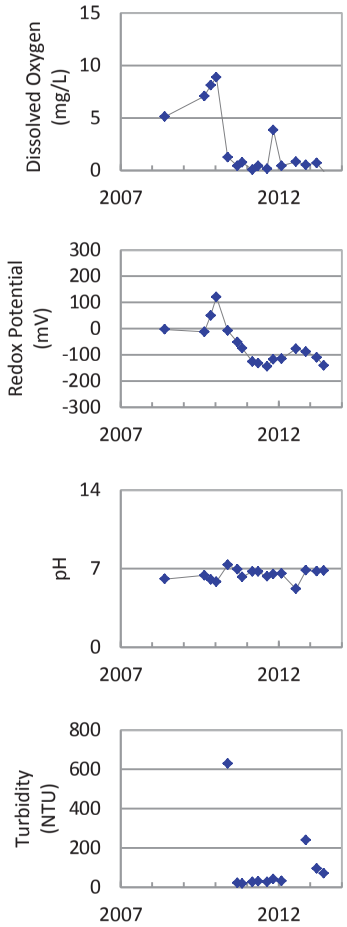


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2008 to 6/10/2013
Analysis Date: 3/21/2014

PTX06-ISB048
Dissolved Organic Carbon (DOC) Trend in Perched Aquifer



Field Parameters



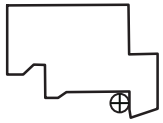
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: Decreasing

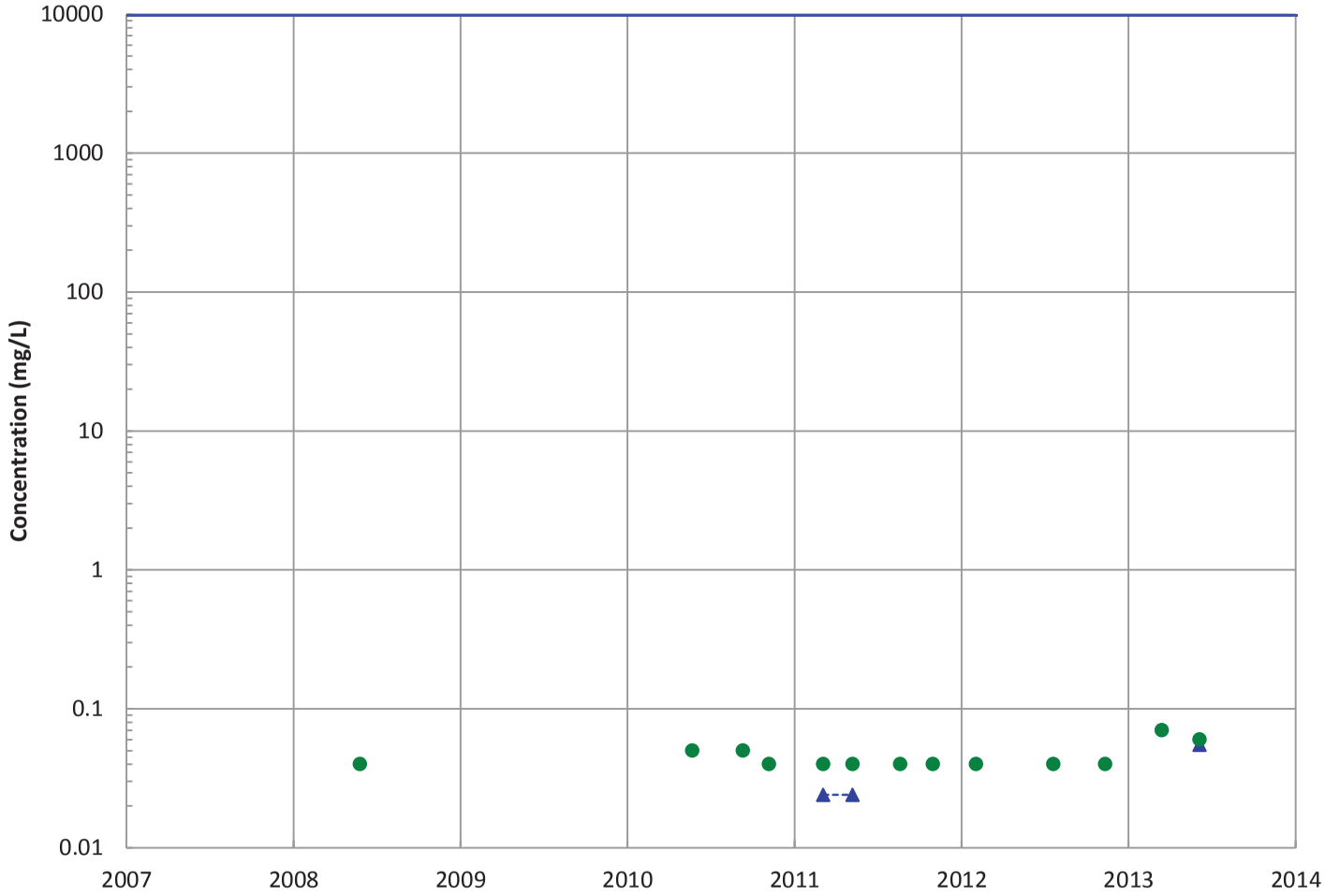
▲ Measured Value
● Sample Detection Limit
Concentration Trend
Injection Dates

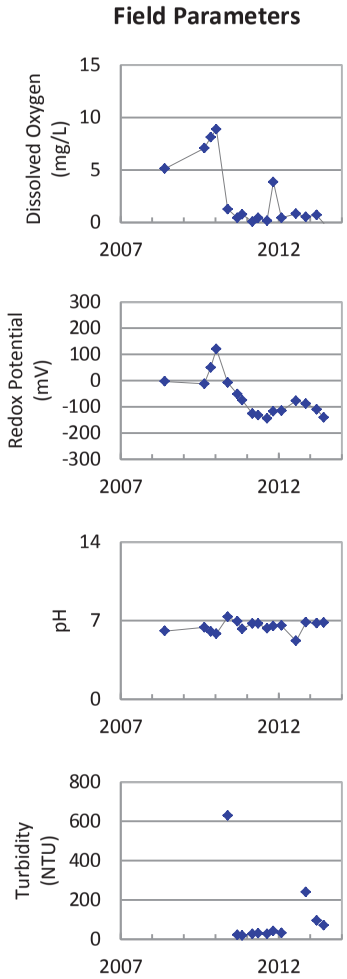
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/25/2010 to 6/10/2013
Analysis Date: 3/21/2014

PTX06-ISB048
Nitrate as N Trend in Perched Aquifer





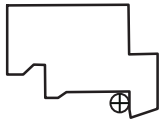
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

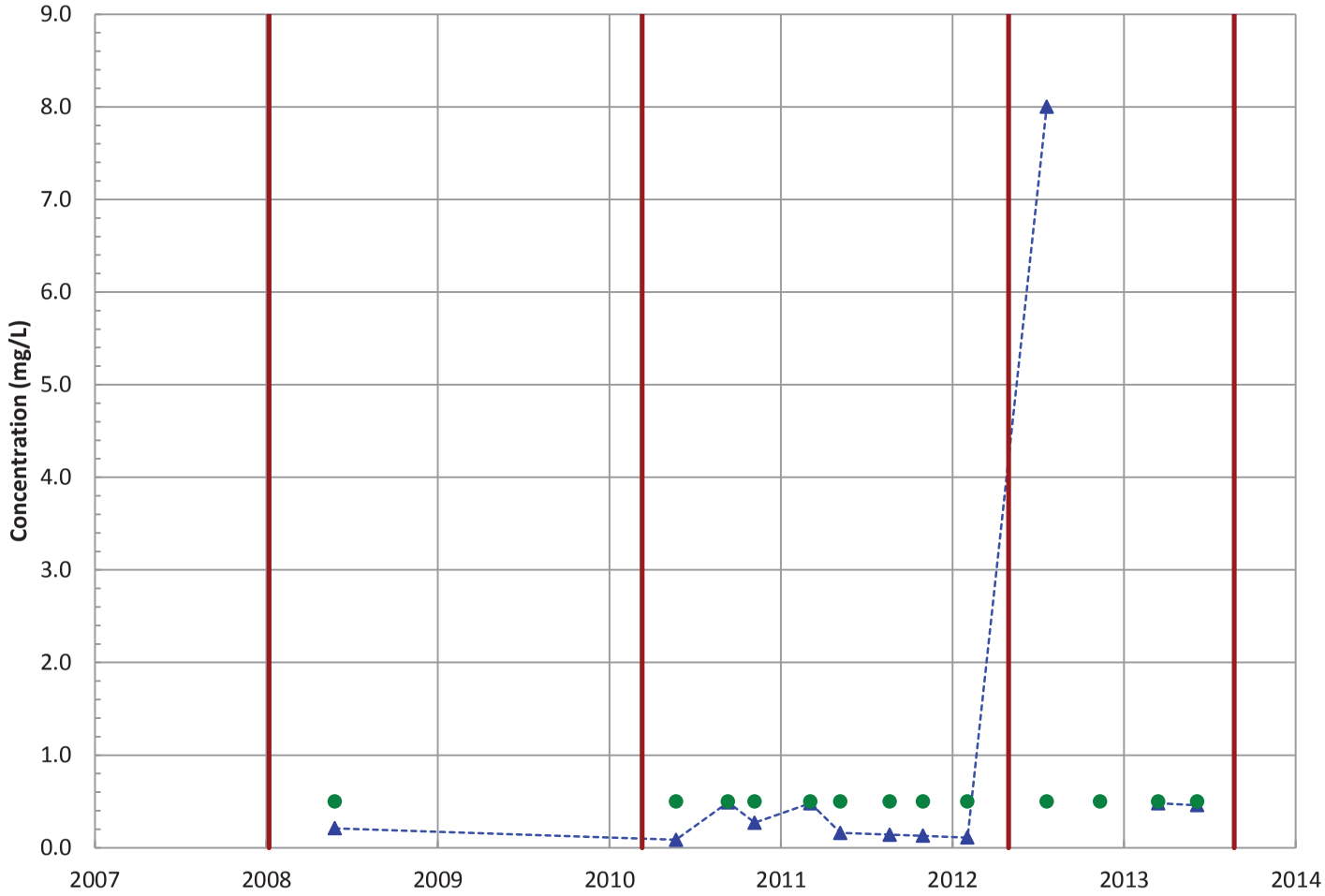
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

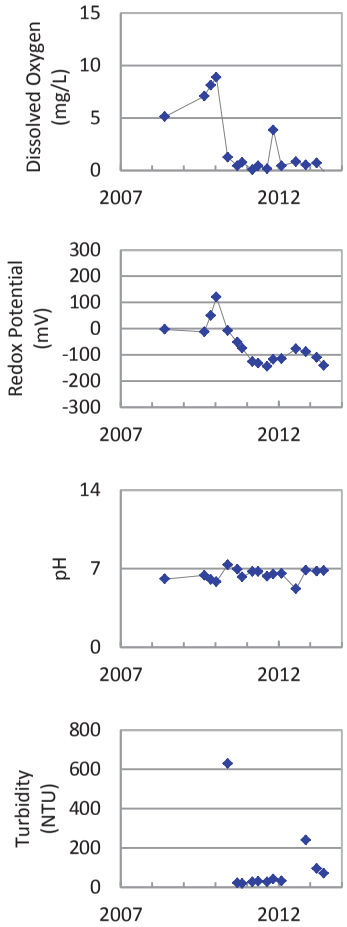


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2008 to 6/10/2013
Analysis Date: 3/21/2014

PTX06-ISB048
Sulfate (as SO4) Trend in Perched Aquifer



Field Parameters



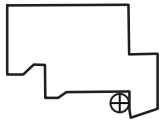
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

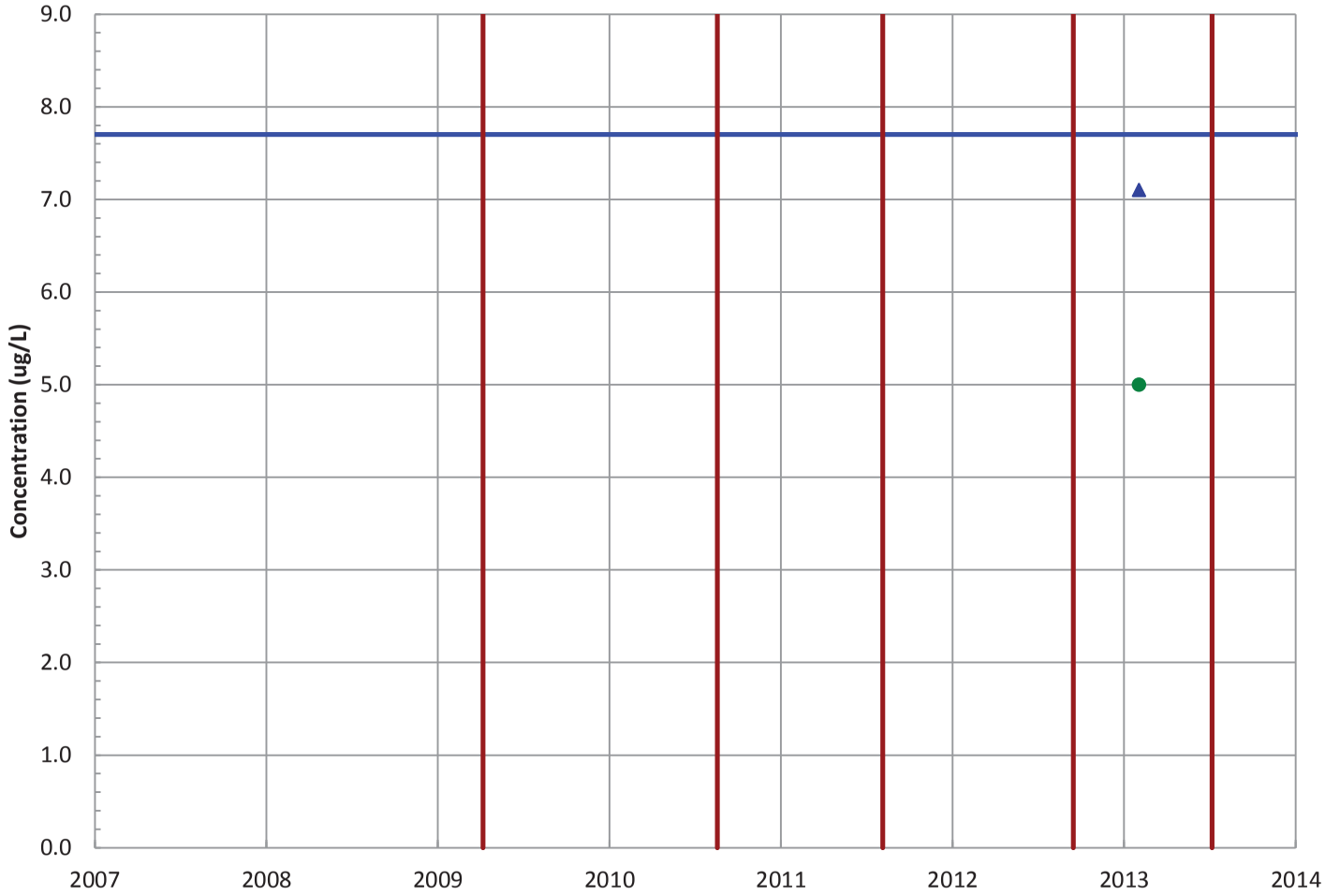
▲ Measured Value
● Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

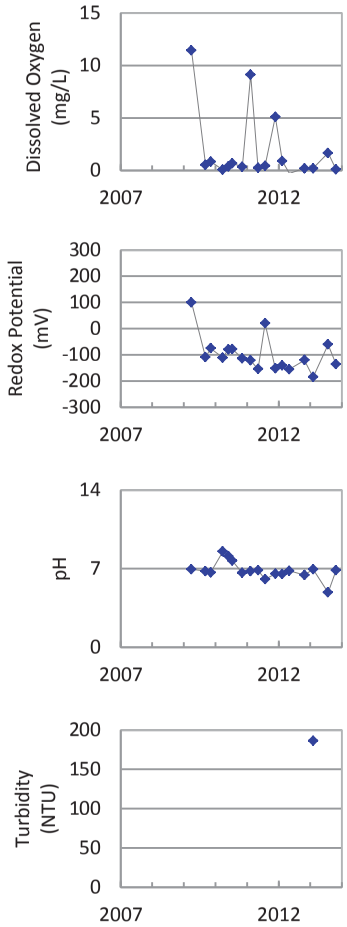


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/27/2008 to 6/10/2013
Analysis Date: 3/21/2014

PTX06-ISB055
1,4-Dioxane (p-Dioxane) Trend in Perched Aquifer



Field Parameters



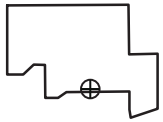
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Samples in Dataset)
Last 4 Samples: N/A (<4 Samples in Dataset)

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

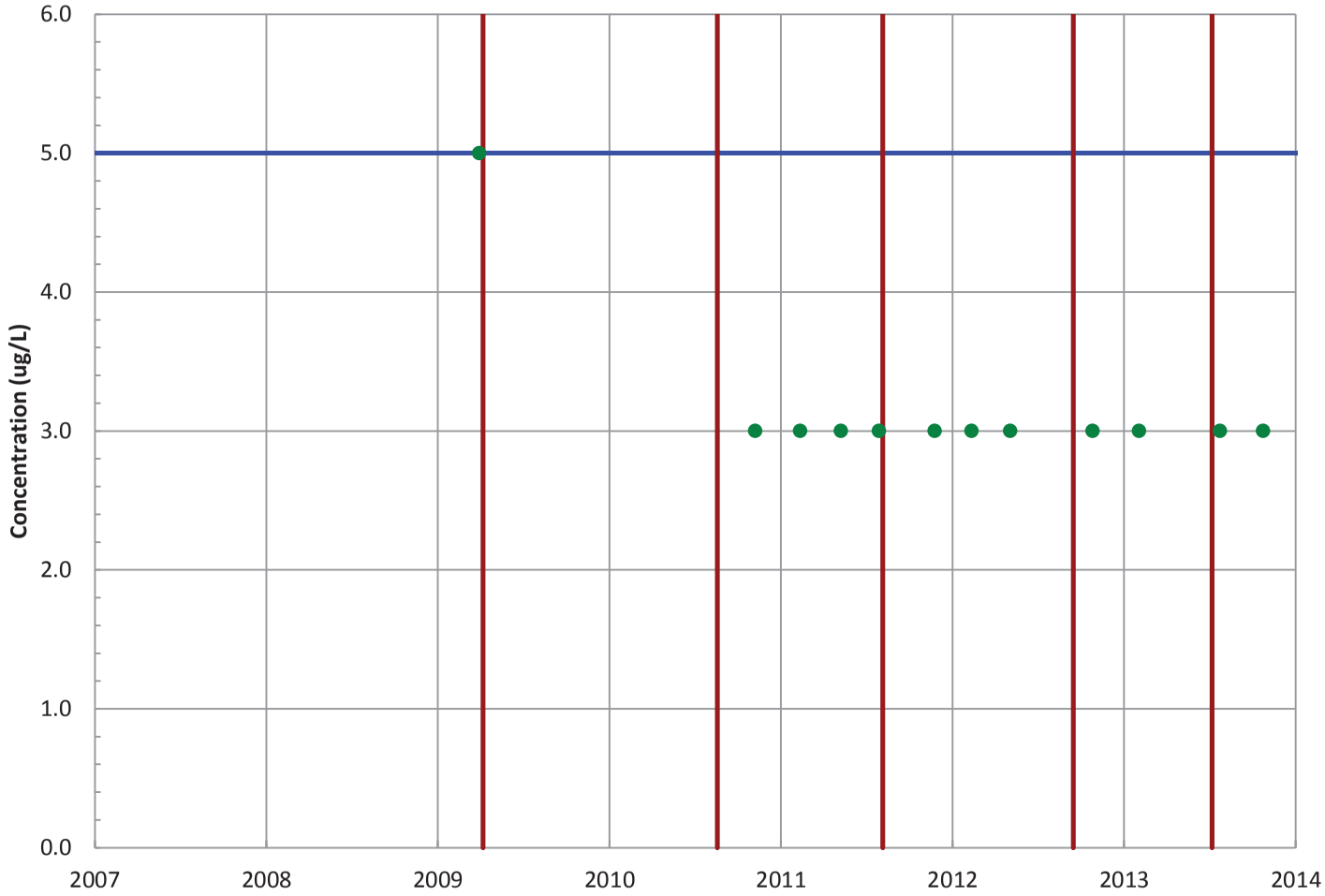
- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

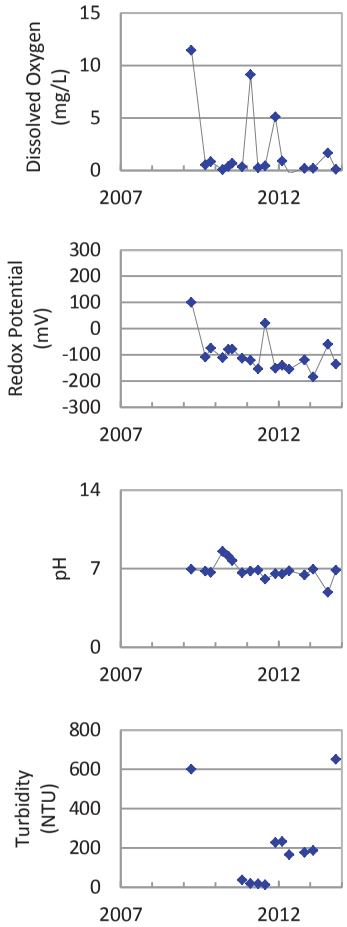


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/6/2013 to 2/6/2013
Analysis Date: 3/21/2014

PTX06-ISB055
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



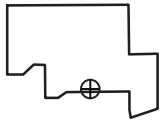
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

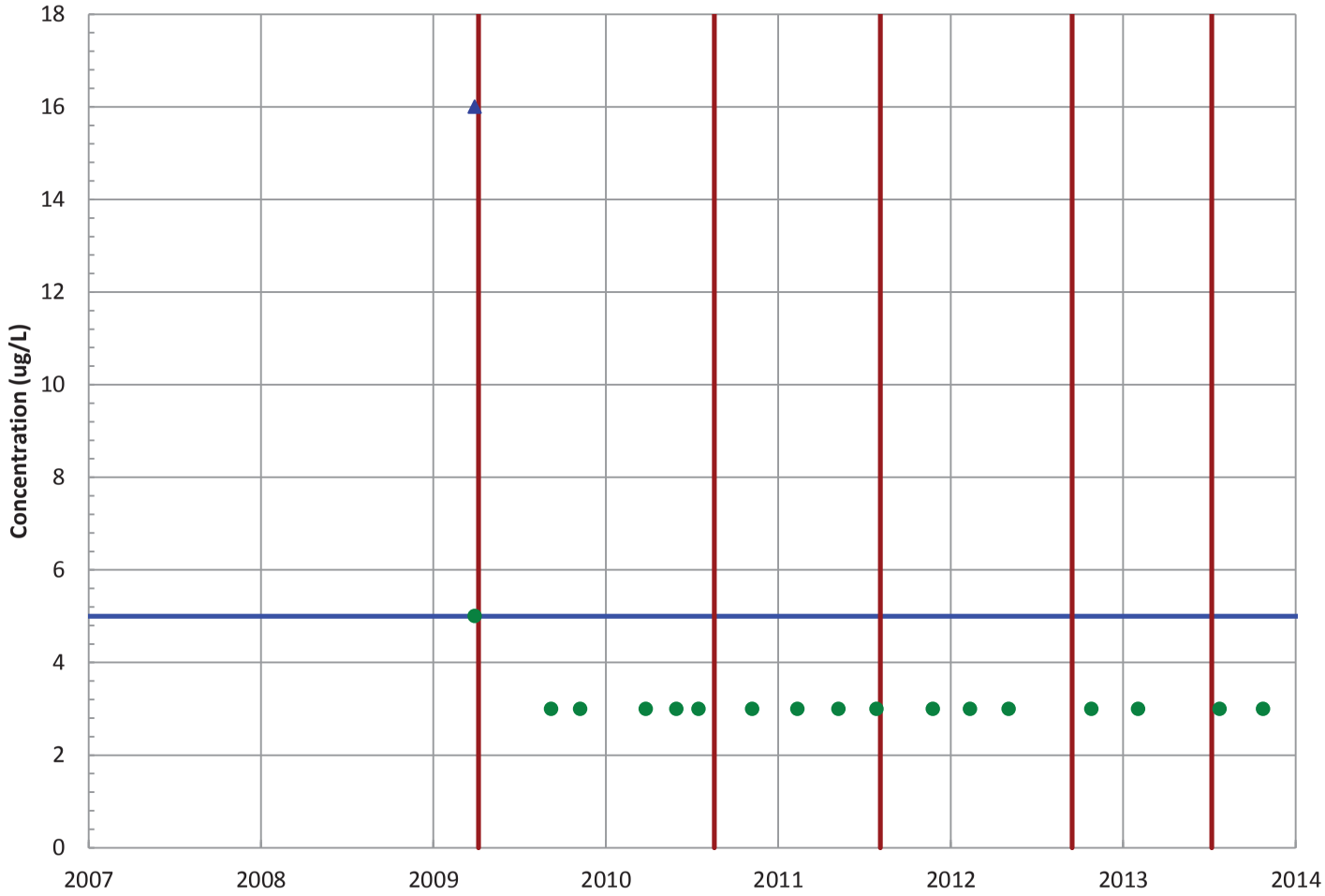
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

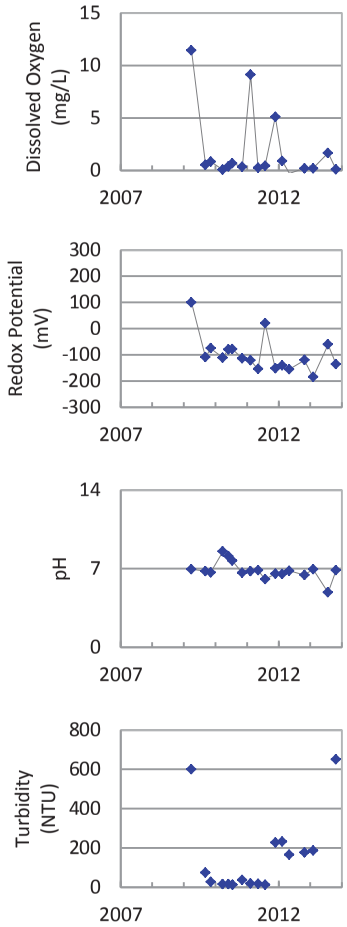


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 10/29/2013
Analysis Date: 3/21/2014

PTX06-ISB055
Trichloroethene Trend in Perched Aquifer



Field Parameters



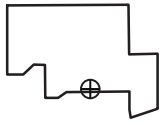
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

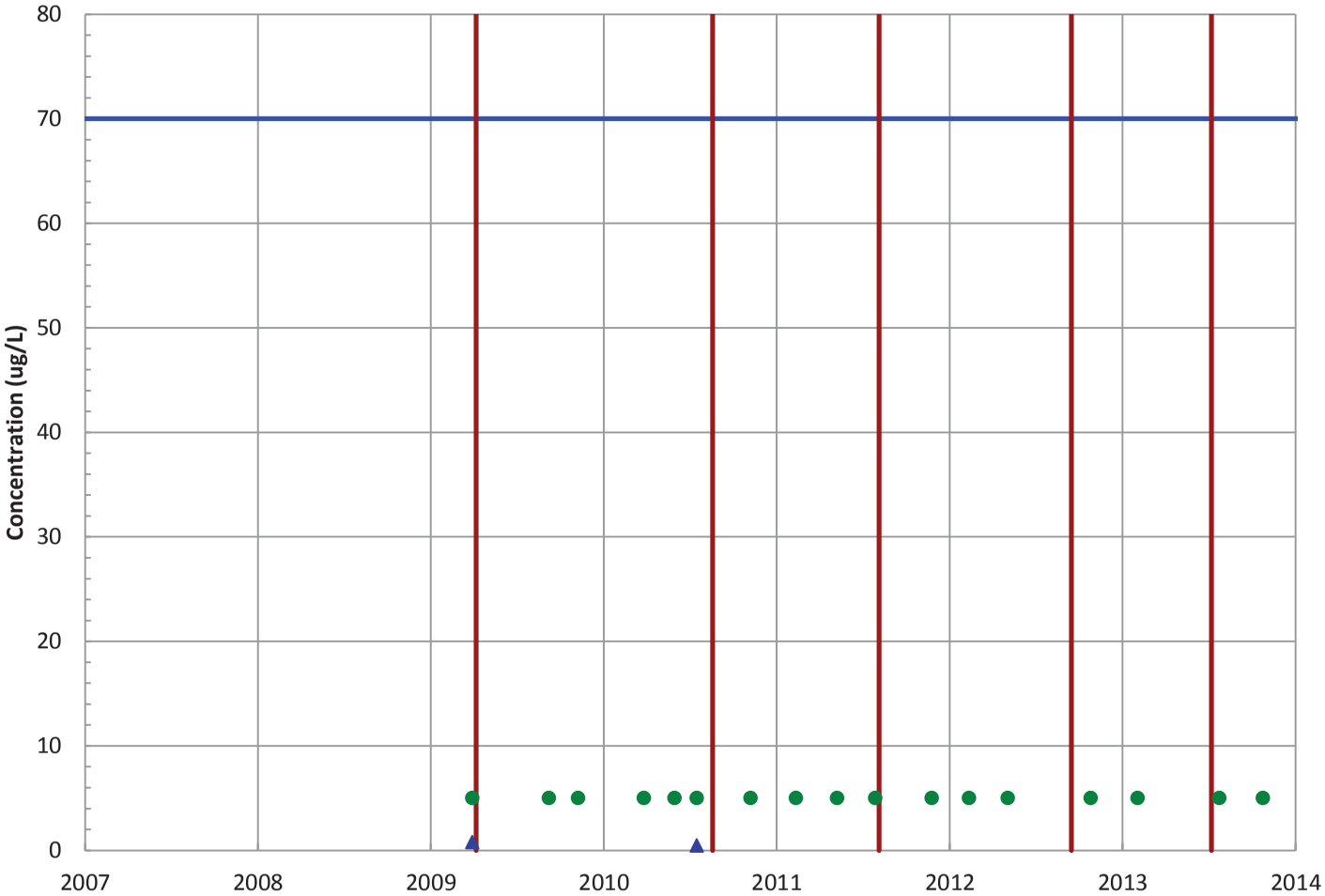
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

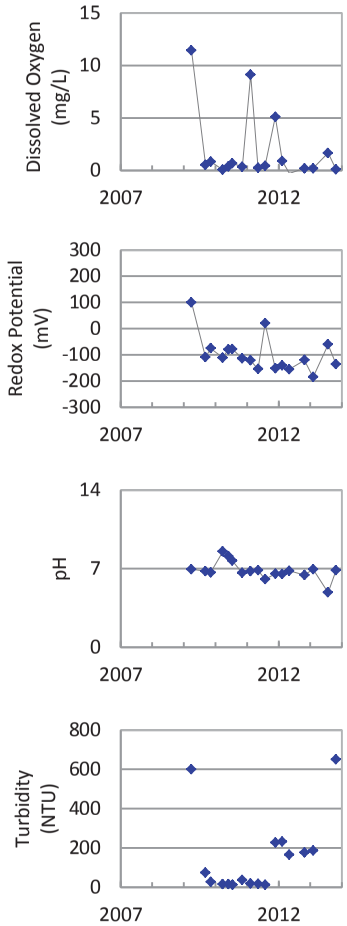


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 10/29/2013
Analysis Date: 3/21/2014

PTX06-ISB055
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



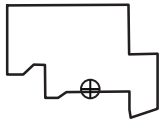
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

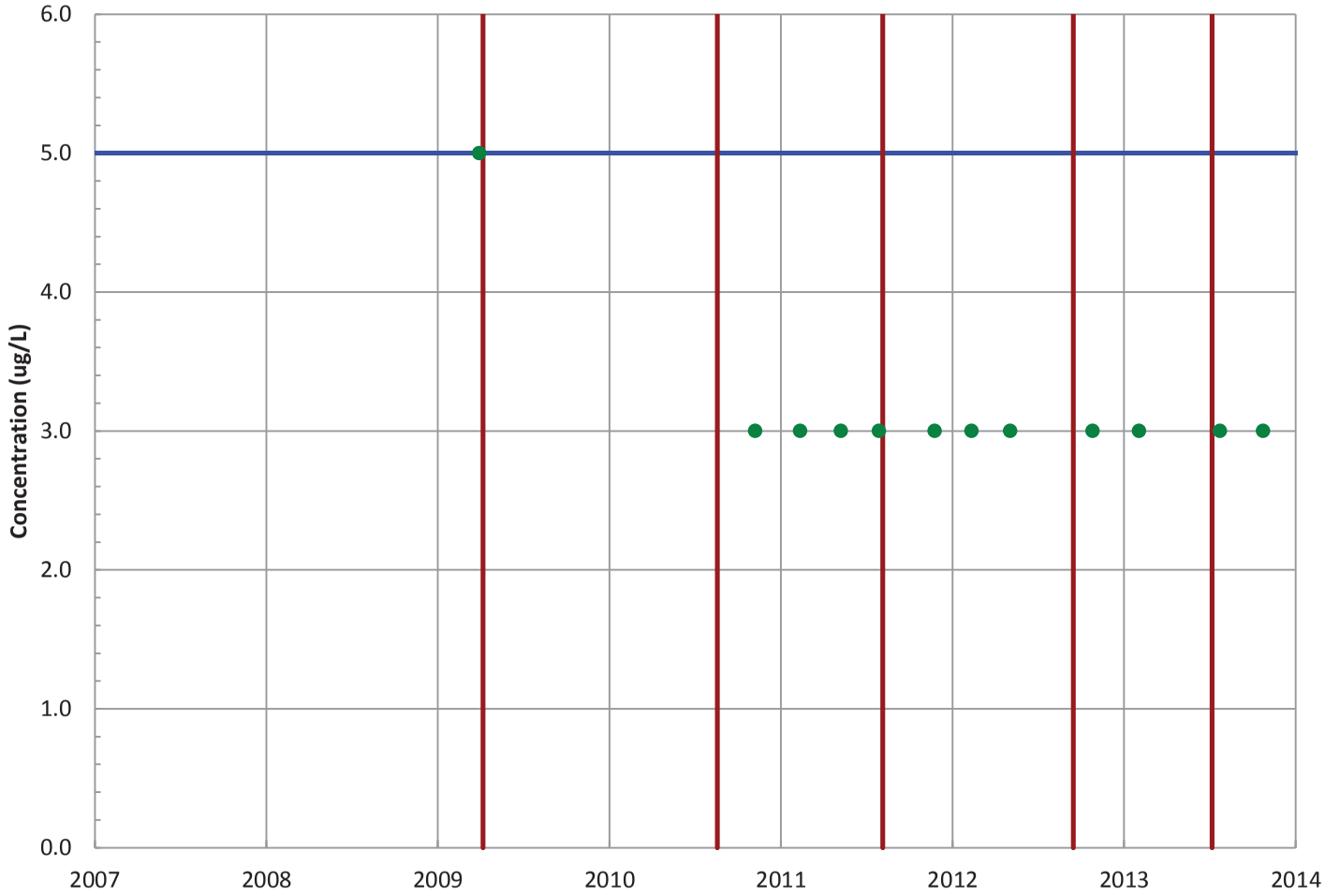
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

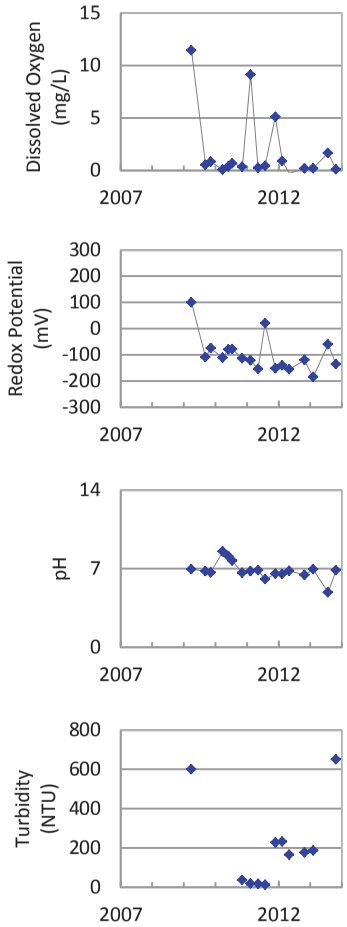


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 10/29/2013
Analysis Date: 3/21/2014

PTX06-ISB055
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



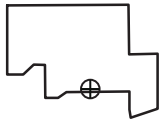
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

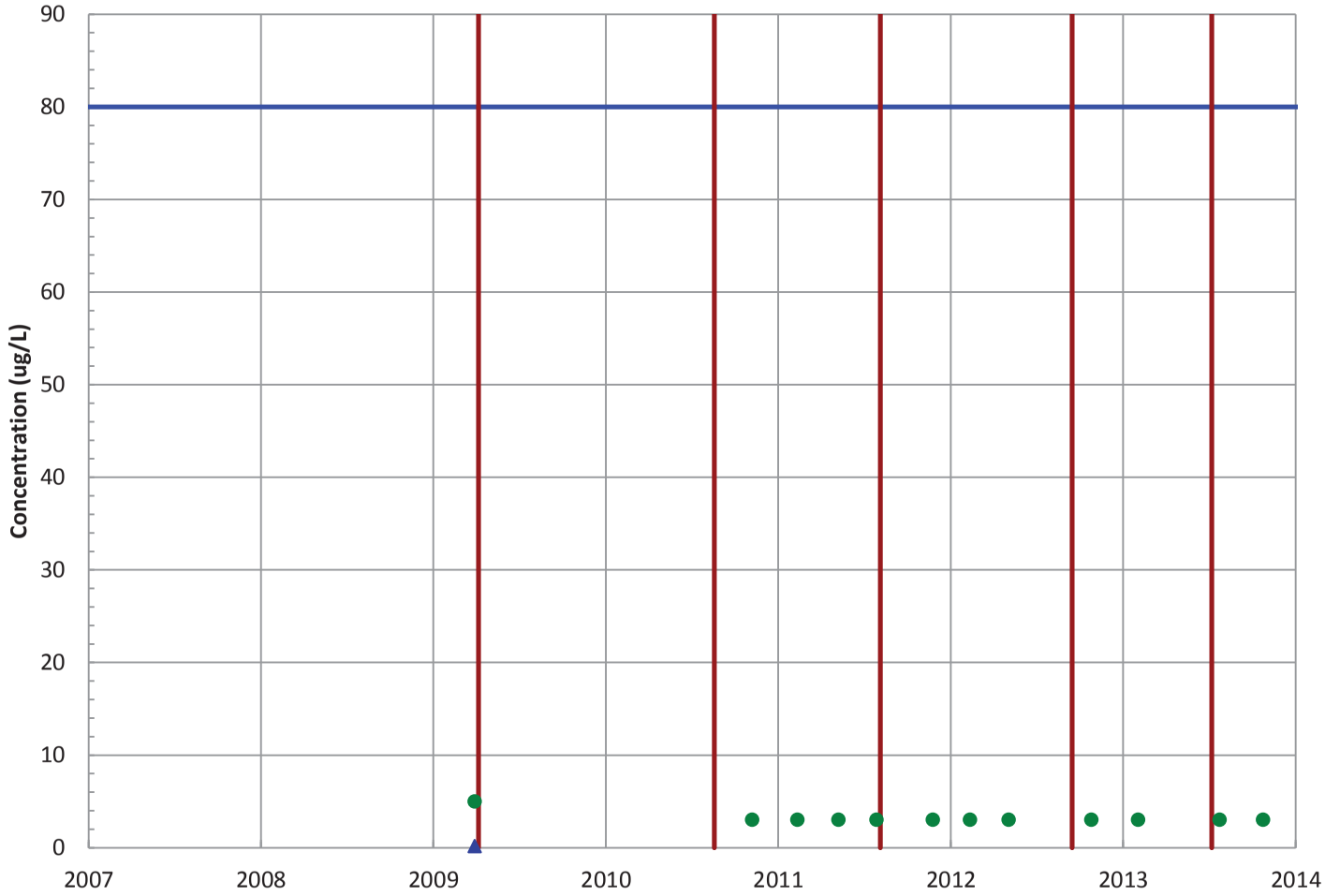
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

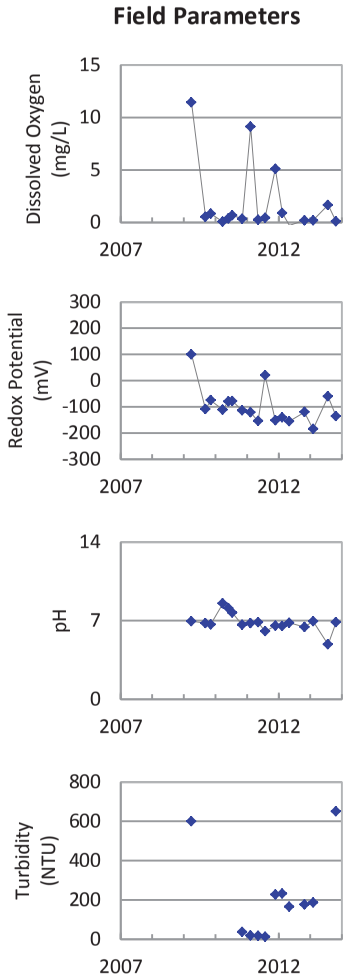
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 10/29/2013
Analysis Date: 3/21/2014

PTX06-ISB055
Chloroform Trend in Perched Aquifer





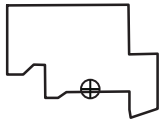
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

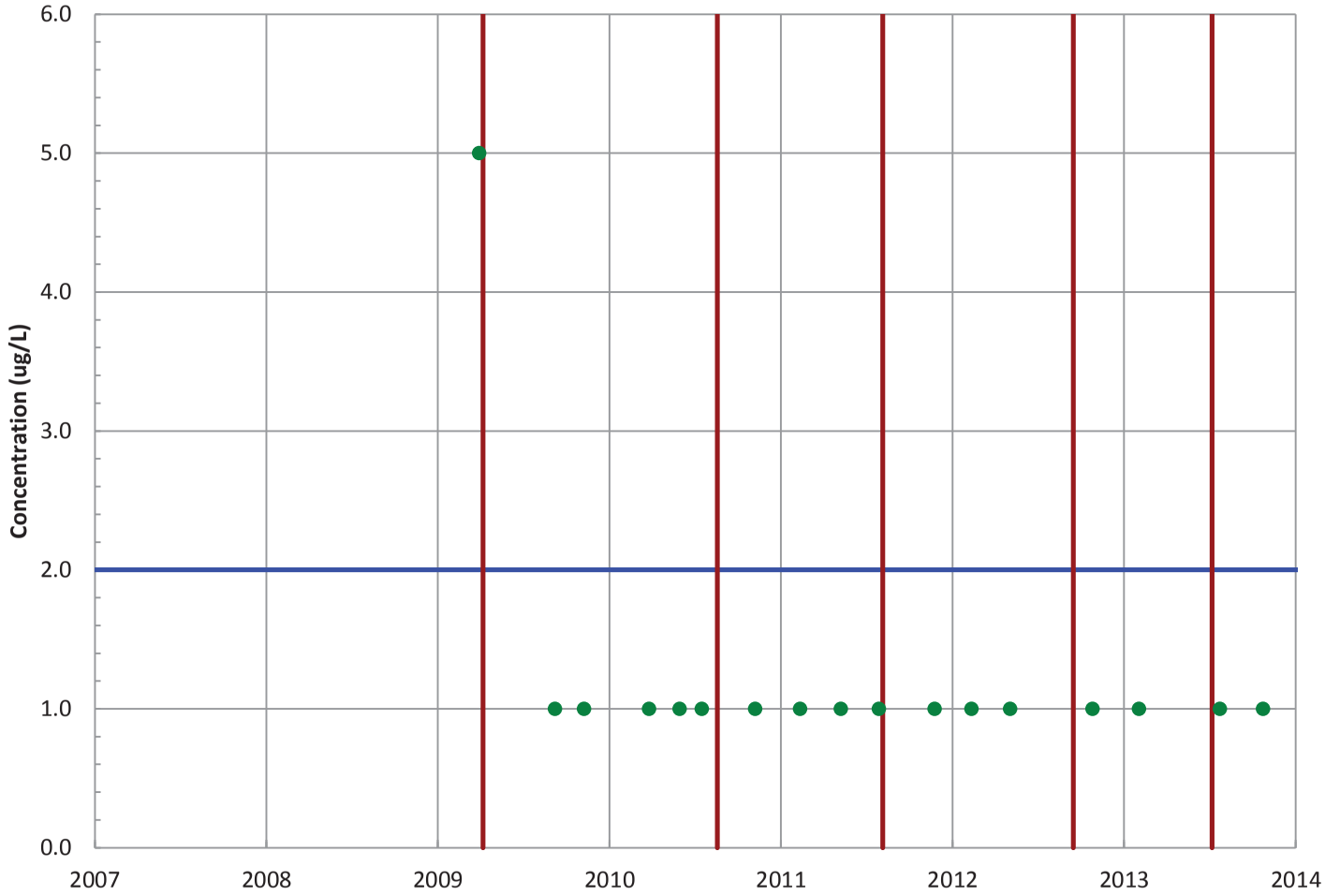
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

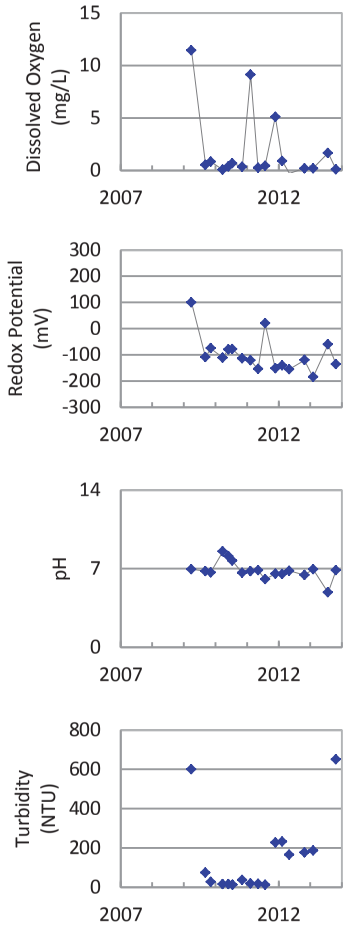


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 10/29/2013
Analysis Date: 3/21/2014

PTX06-ISB055
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



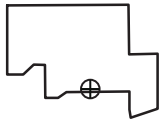
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

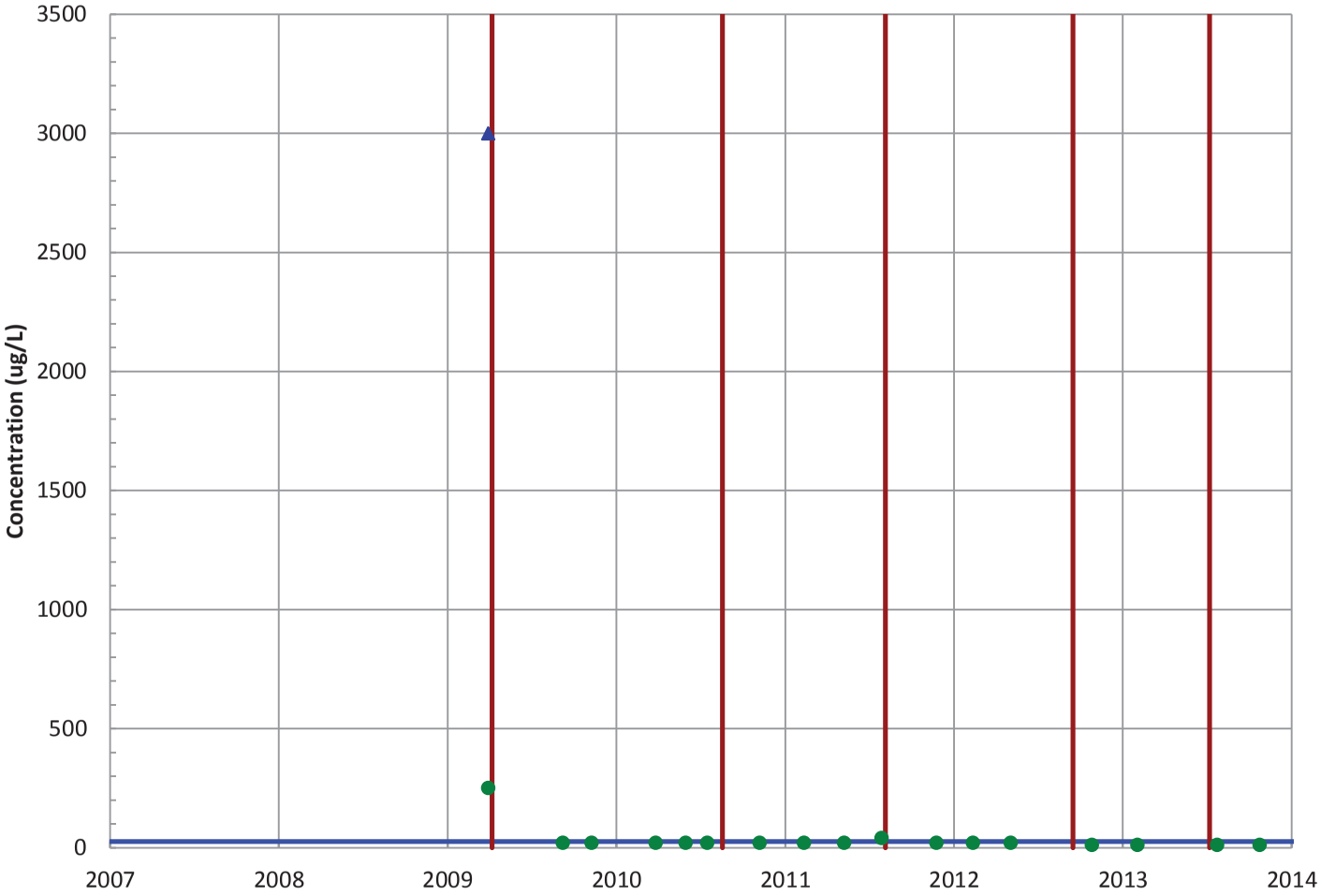
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

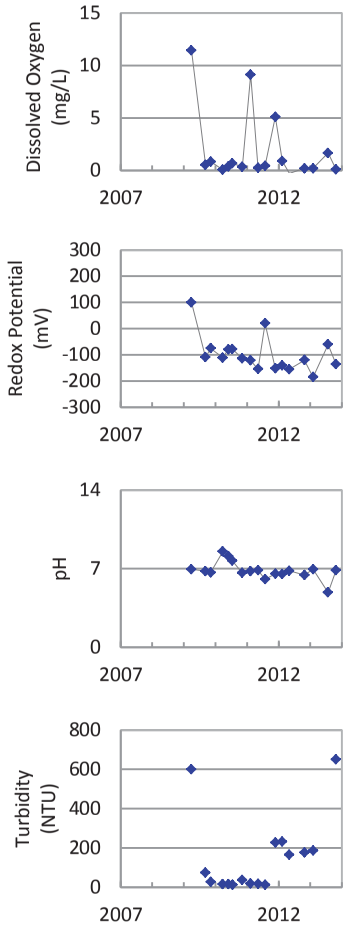


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 10/29/2013
Analysis Date: 3/21/2014

PTX06-ISB055
Perchlorate Trend in Perched Aquifer



Field Parameters



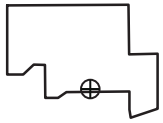
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

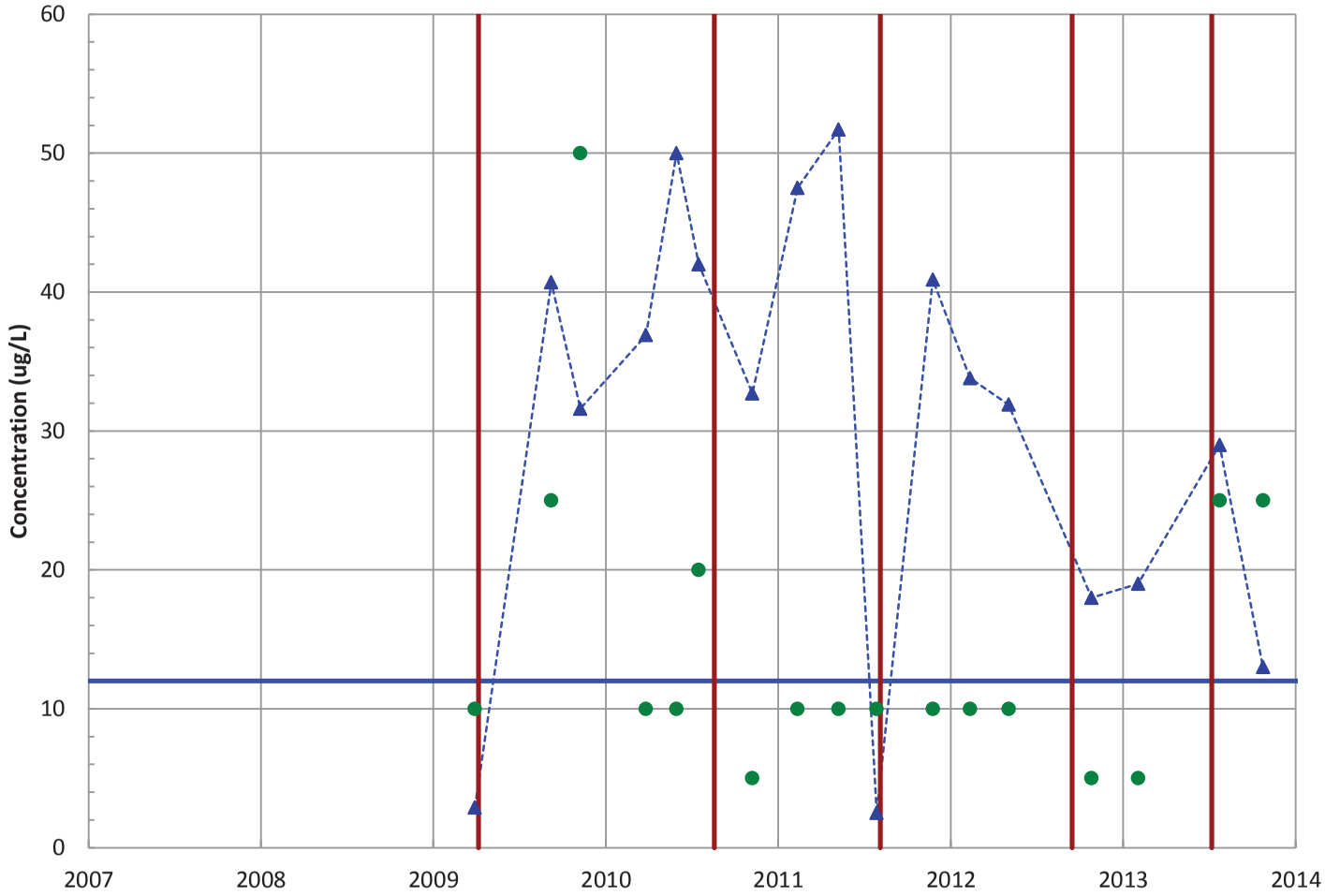
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

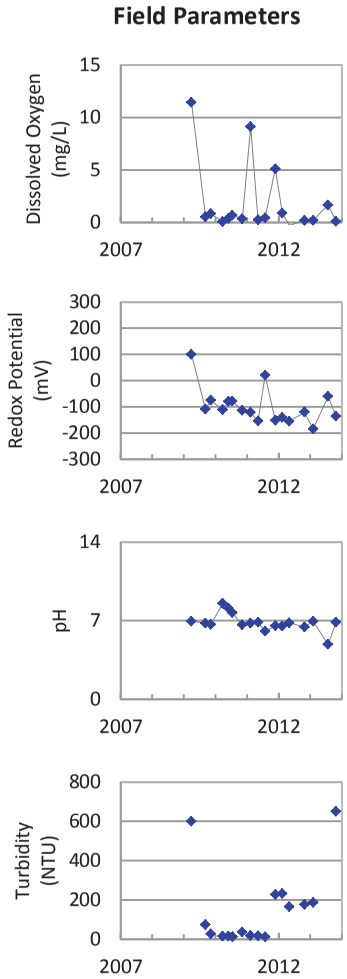
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 10/29/2013
Analysis Date: 3/21/2014

PTX06-ISB055
Arsenic Trend in Perched Aquifer





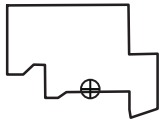
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Stable

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: Stable

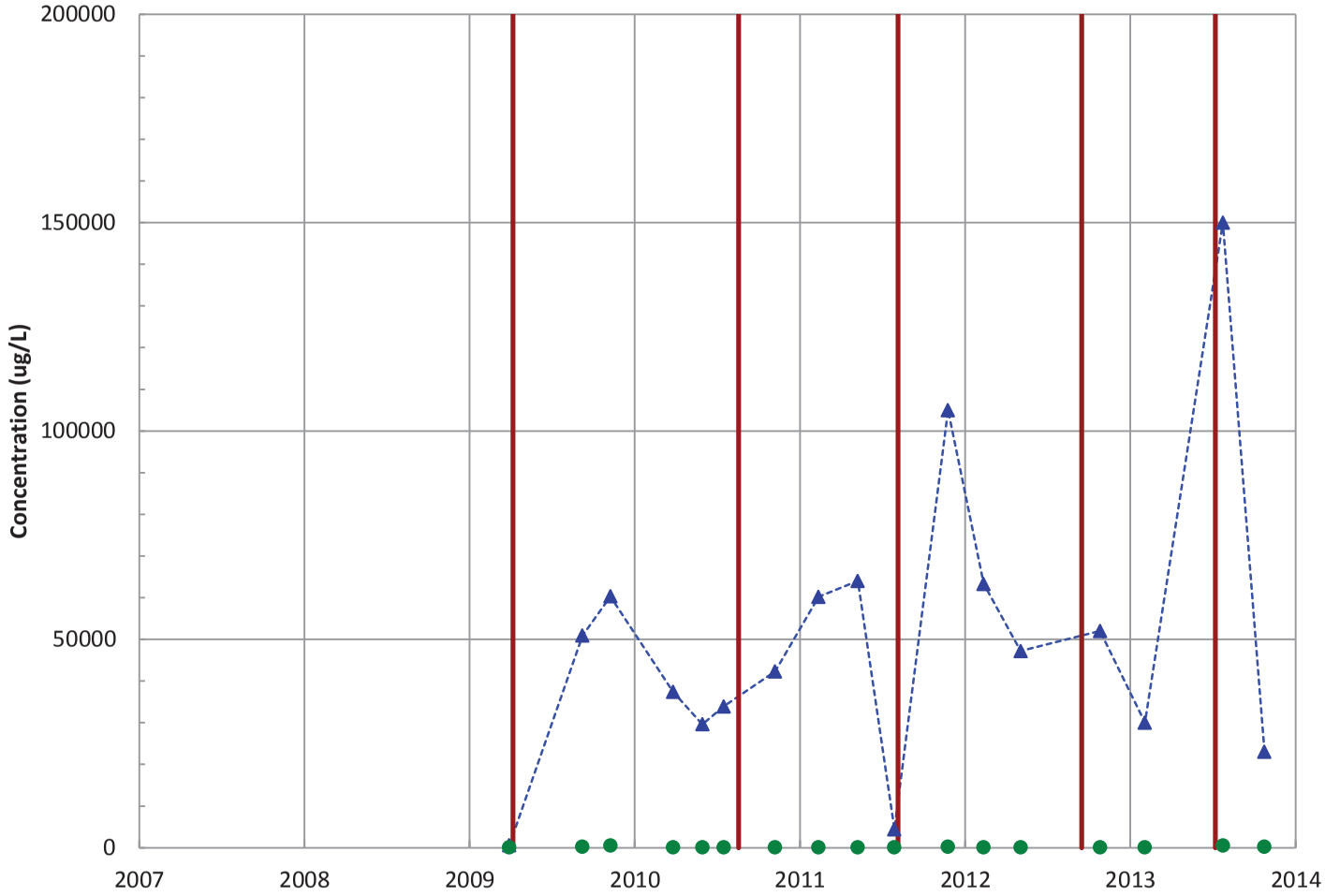
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

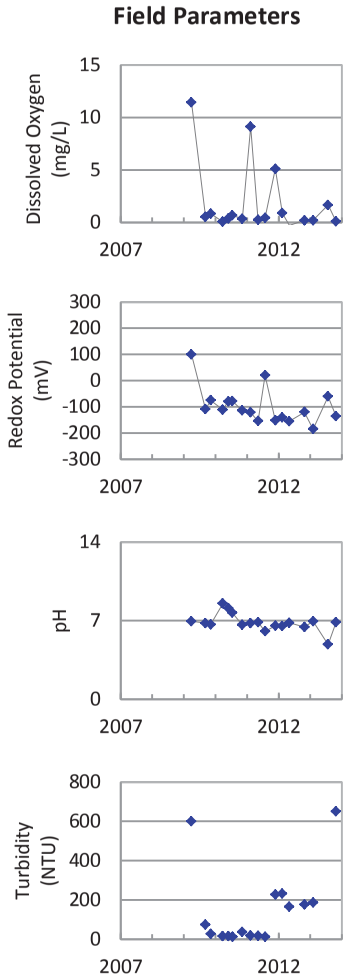
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 10/29/2013
Analysis Date: 3/21/2014

PTX06-ISB055
Iron Trend in Perched Aquifer





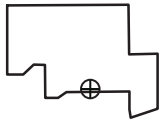
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Probably Increasing
Last 4 Samples: Stable

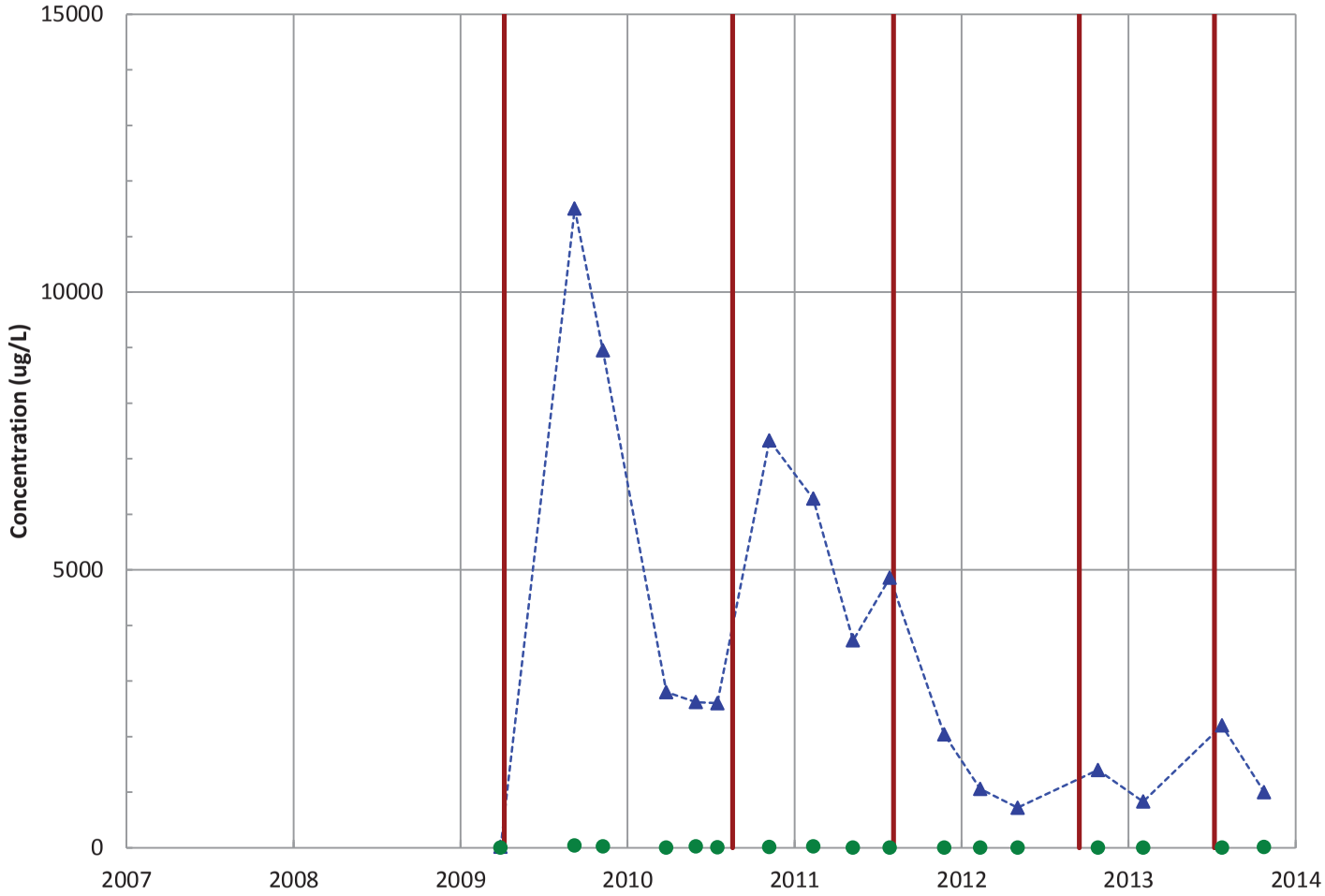
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

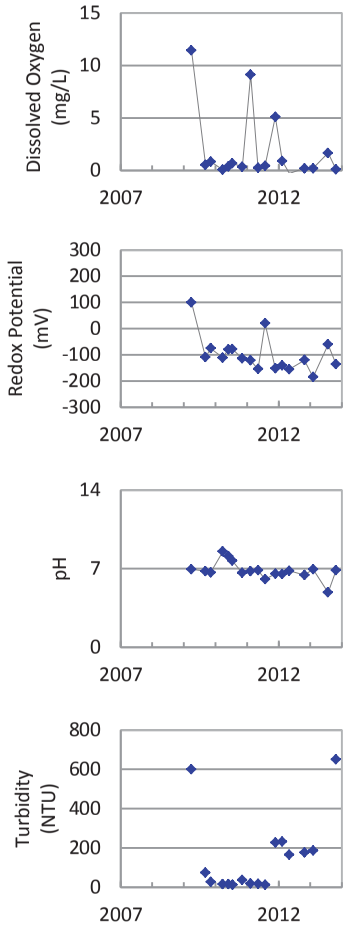


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 10/29/2013
Analysis Date: 3/21/2014

PTX06-ISB055
Manganese Trend in Perched Aquifer



Field Parameters



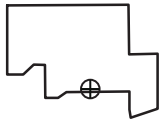
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Stable

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: Stable

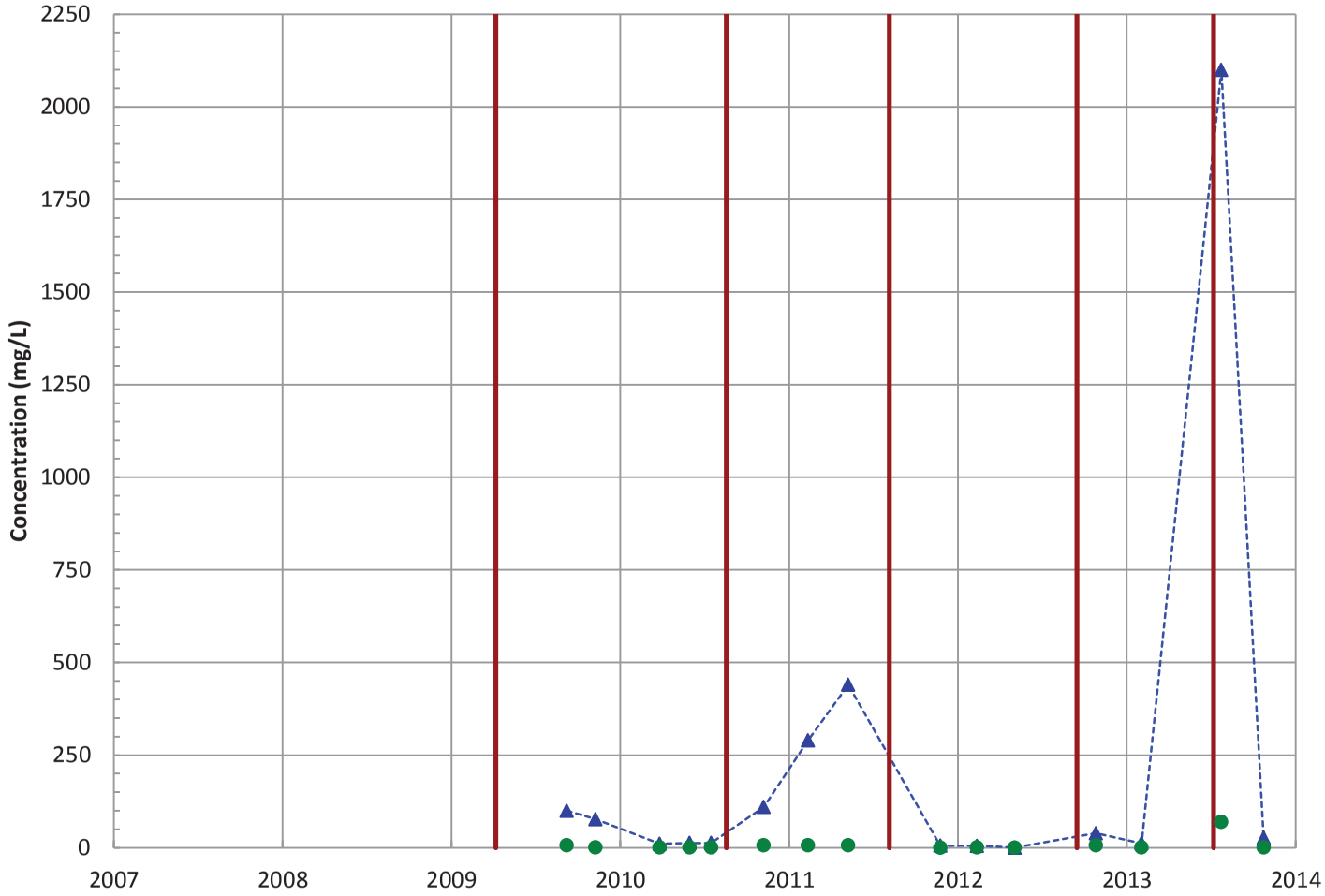
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

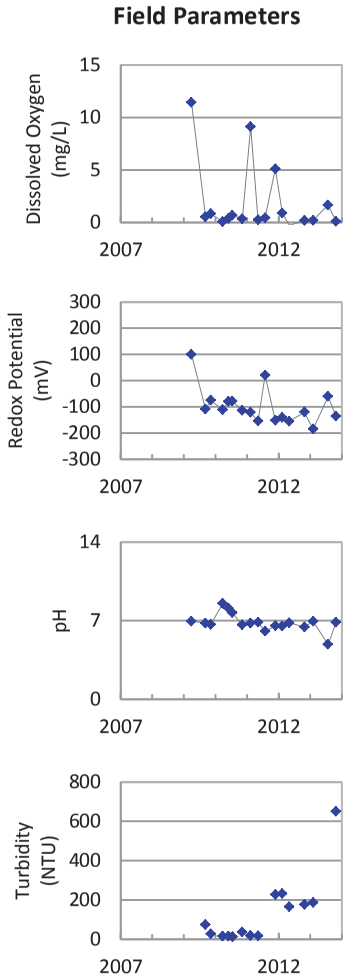
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 10/29/2013
Analysis Date: 3/21/2014

PTX06-ISB055
Acetic Acid Trend in Perched Aquifer





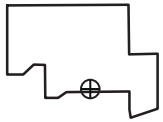
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

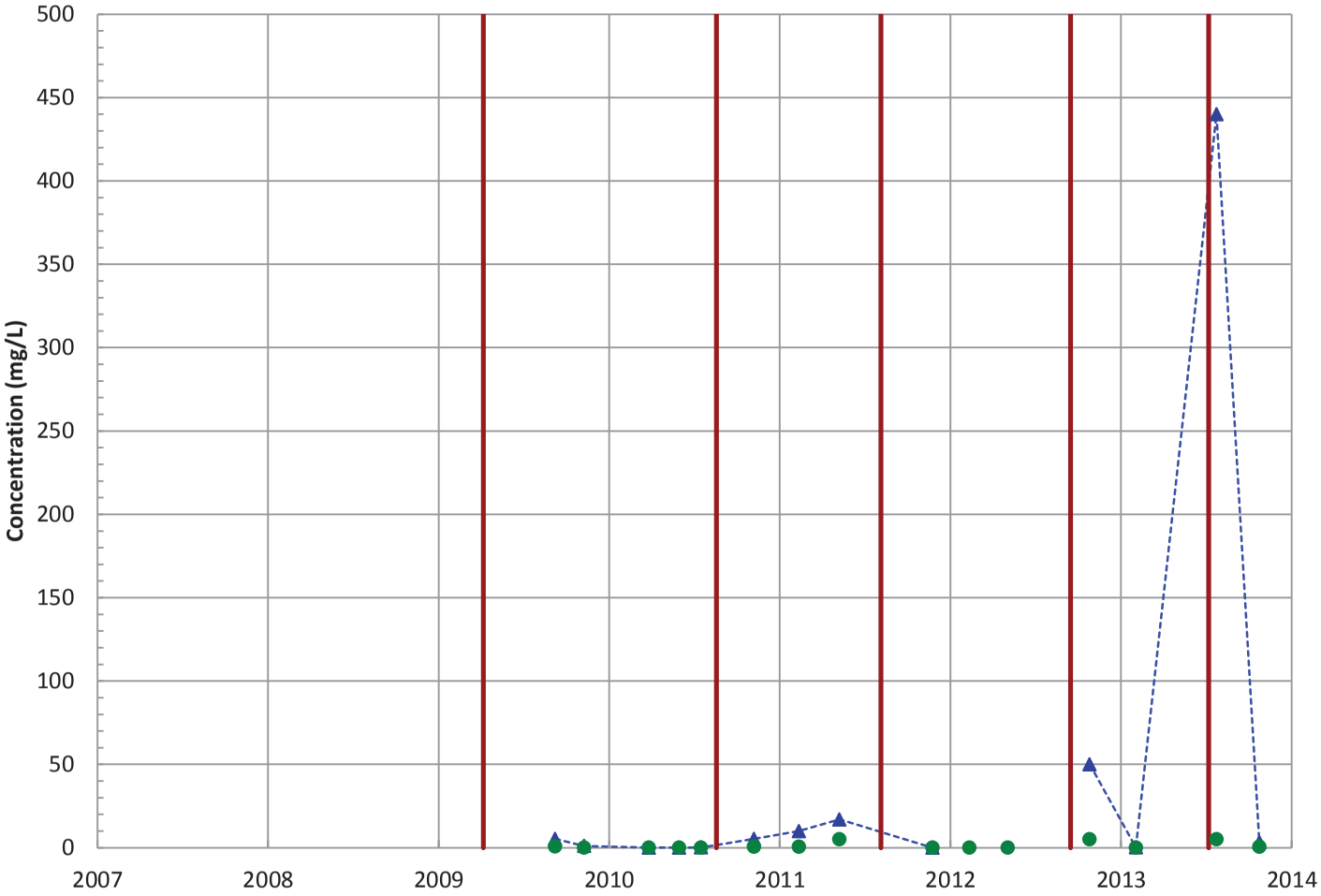
▲ Measured Value
● Sample Detection Limit
---- Concentration Trend
— Injection Dates

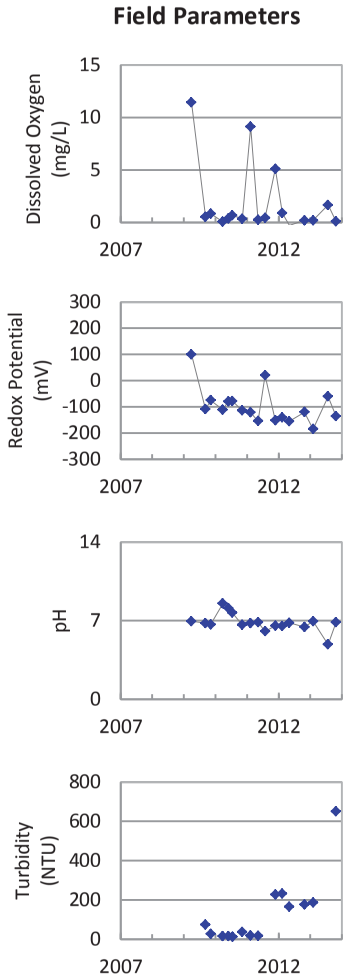
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/9/2009 to 10/29/2013
Analysis Date: 3/21/2014

PTX06-ISB055
Butyric Acid Trend in Perched Aquifer





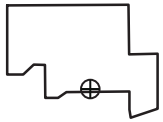
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Probably Increasing
Last 4 Samples: No Trend

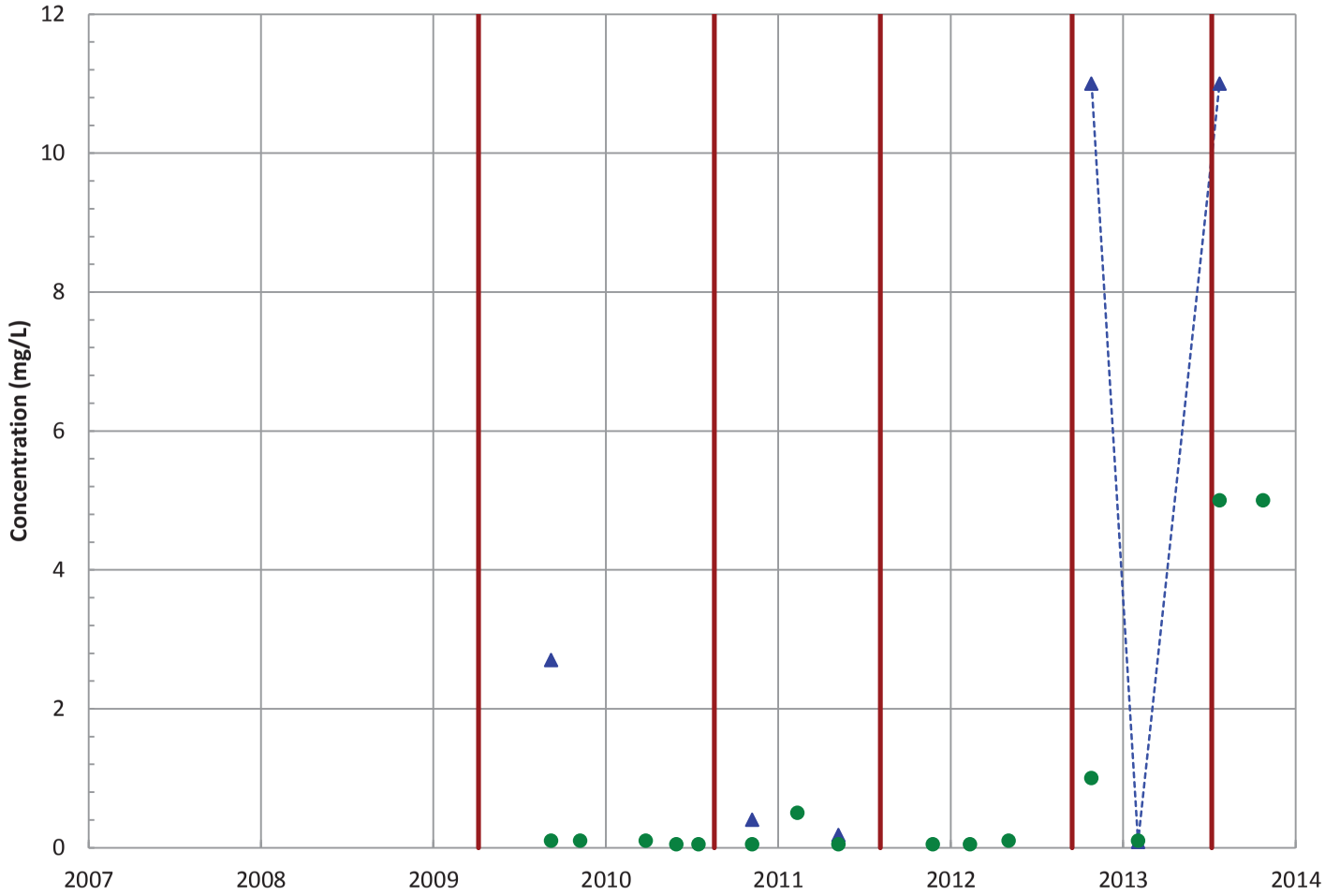
▲ Measured Value
● Sample Detection Limit
---- Concentration Trend
— Injection Dates

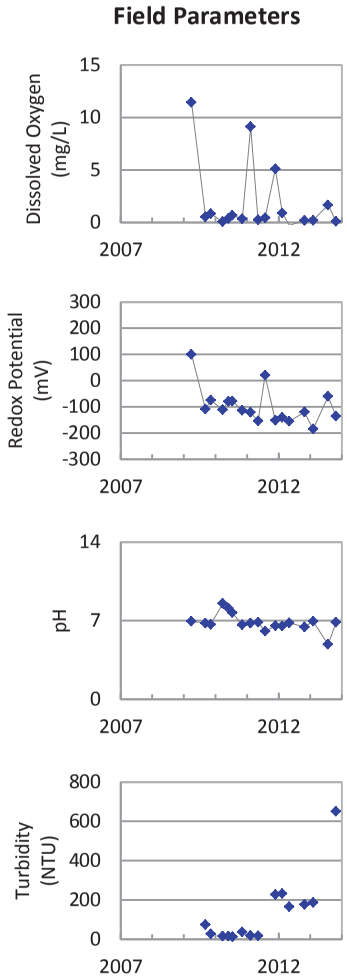
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/9/2009 to 10/29/2013
Analysis Date: 3/21/2014

PTX06-ISB055
Hexanoic Acid Trend in Perched Aquifer





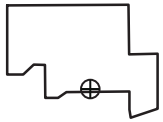
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

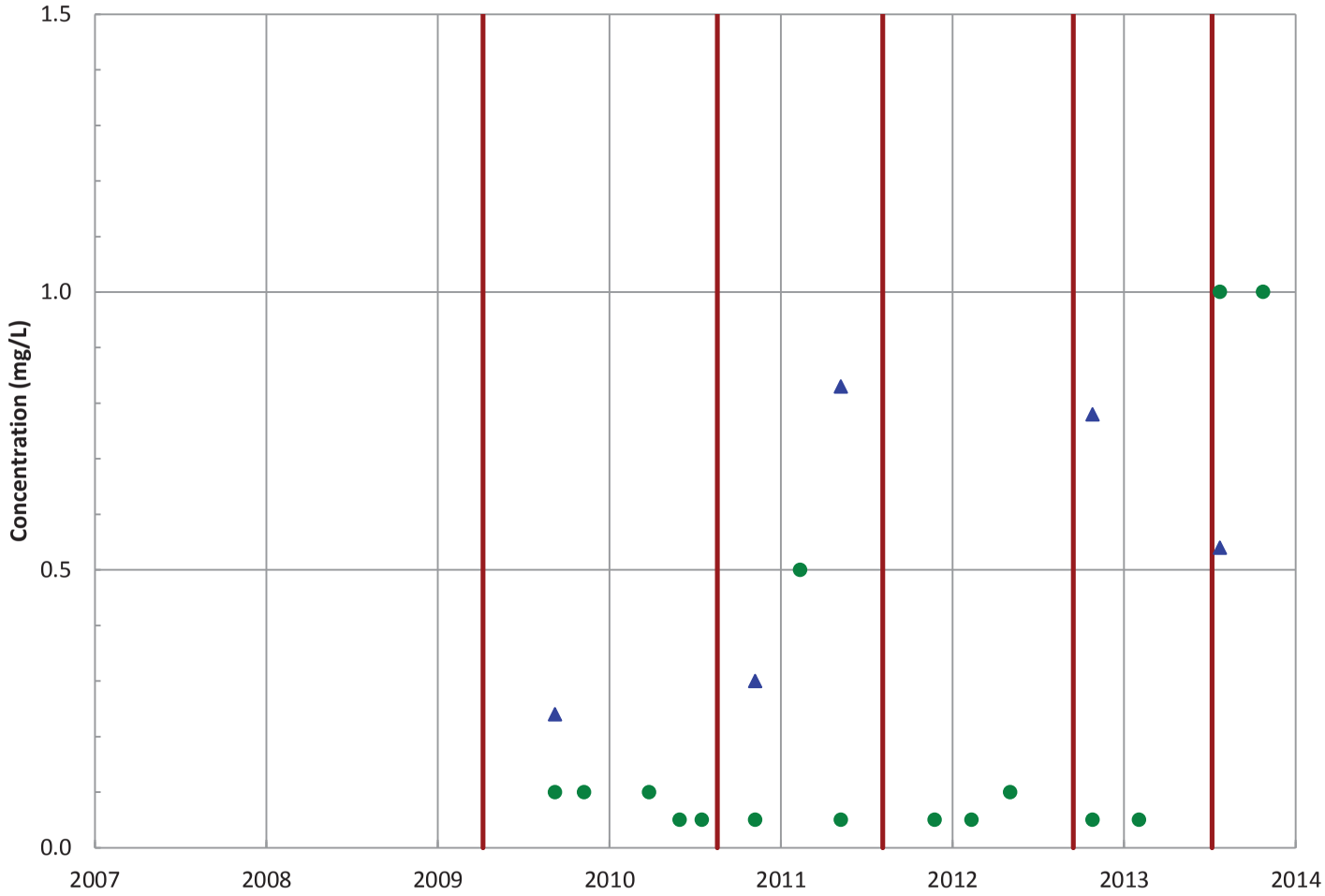
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

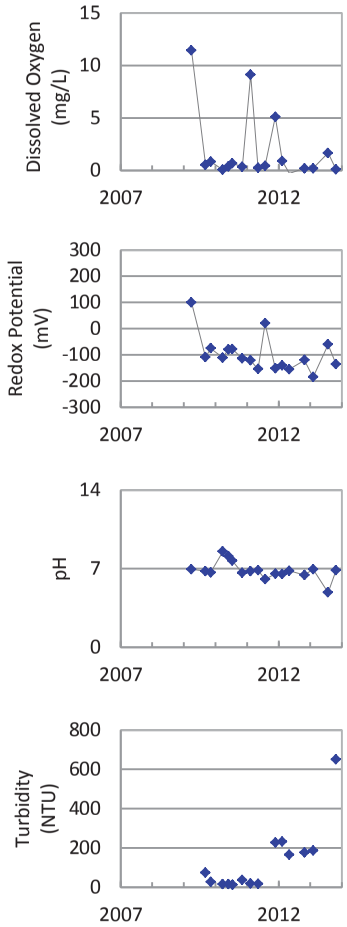


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/9/2009 to 10/29/2013
Analysis Date: 3/21/2014

PTX06-ISB055
i-Hexanoic Acid Trend in Perched Aquifer



Field Parameters



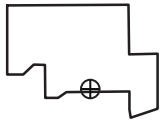
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

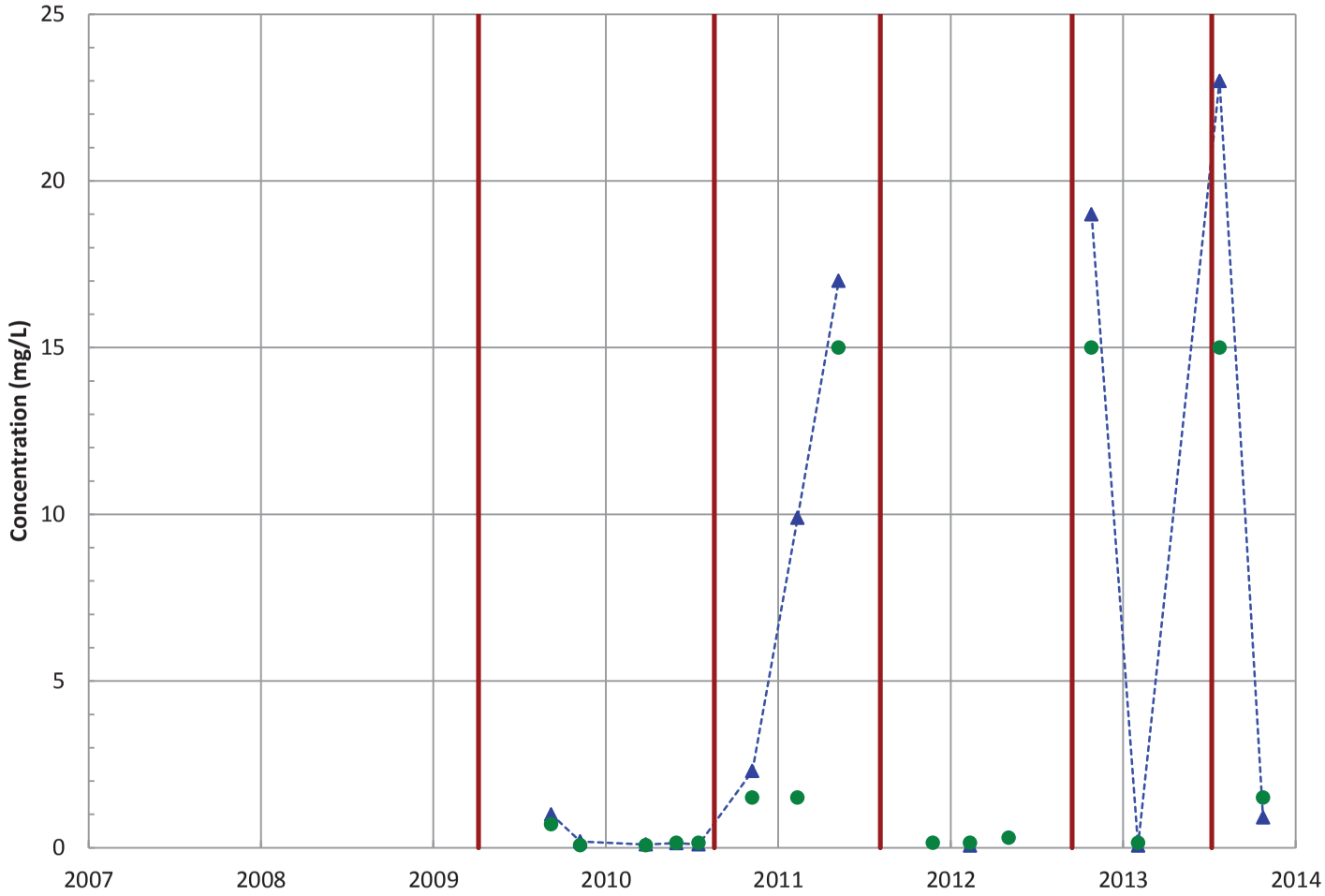
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

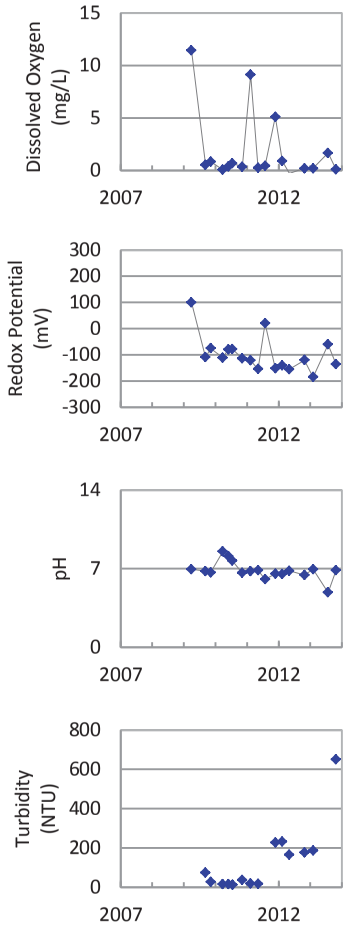


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/9/2009 to 10/29/2013
Analysis Date: 3/21/2014

PTX06-ISB055
i-Pentanoic Acid Trend in Perched Aquifer



Field Parameters



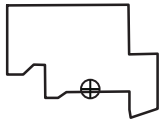
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

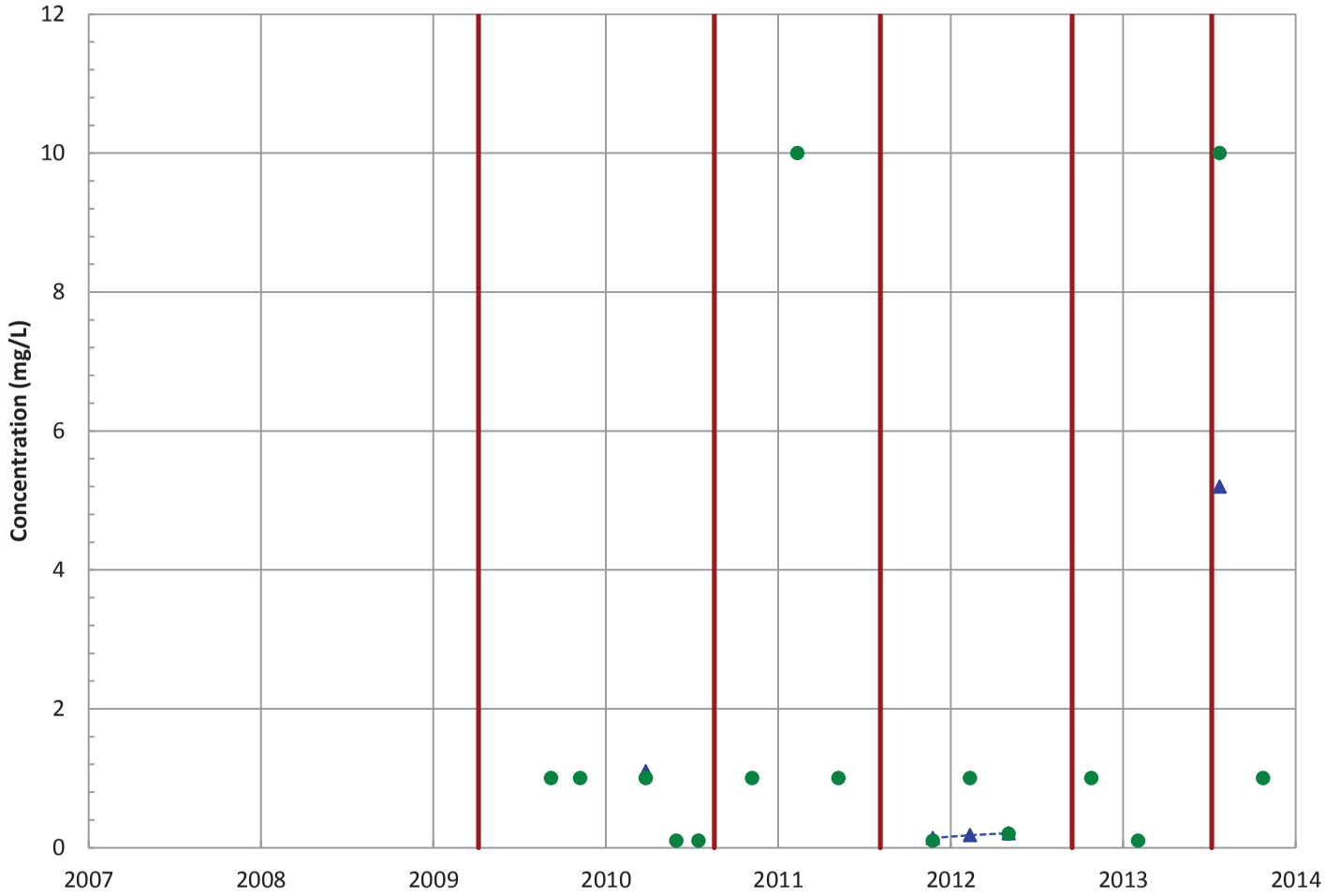
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

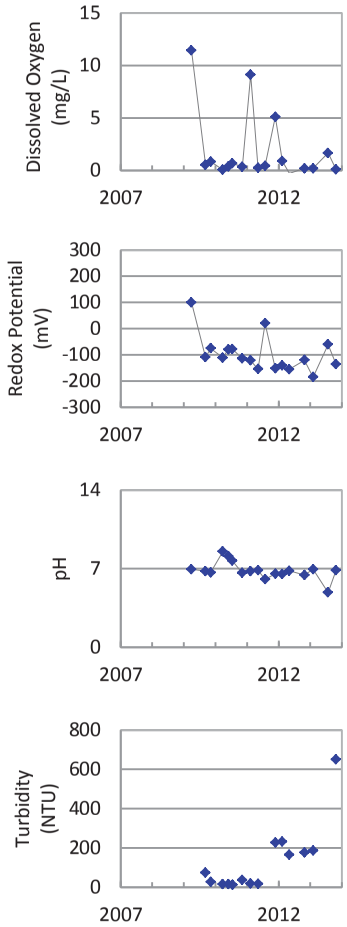


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/9/2009 to 10/29/2013
Analysis Date: 3/21/2014

PTX06-ISB055
Lactic Acid and HIBA Trend in Perched Aquifer



Field Parameters



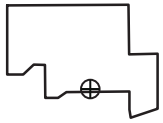
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

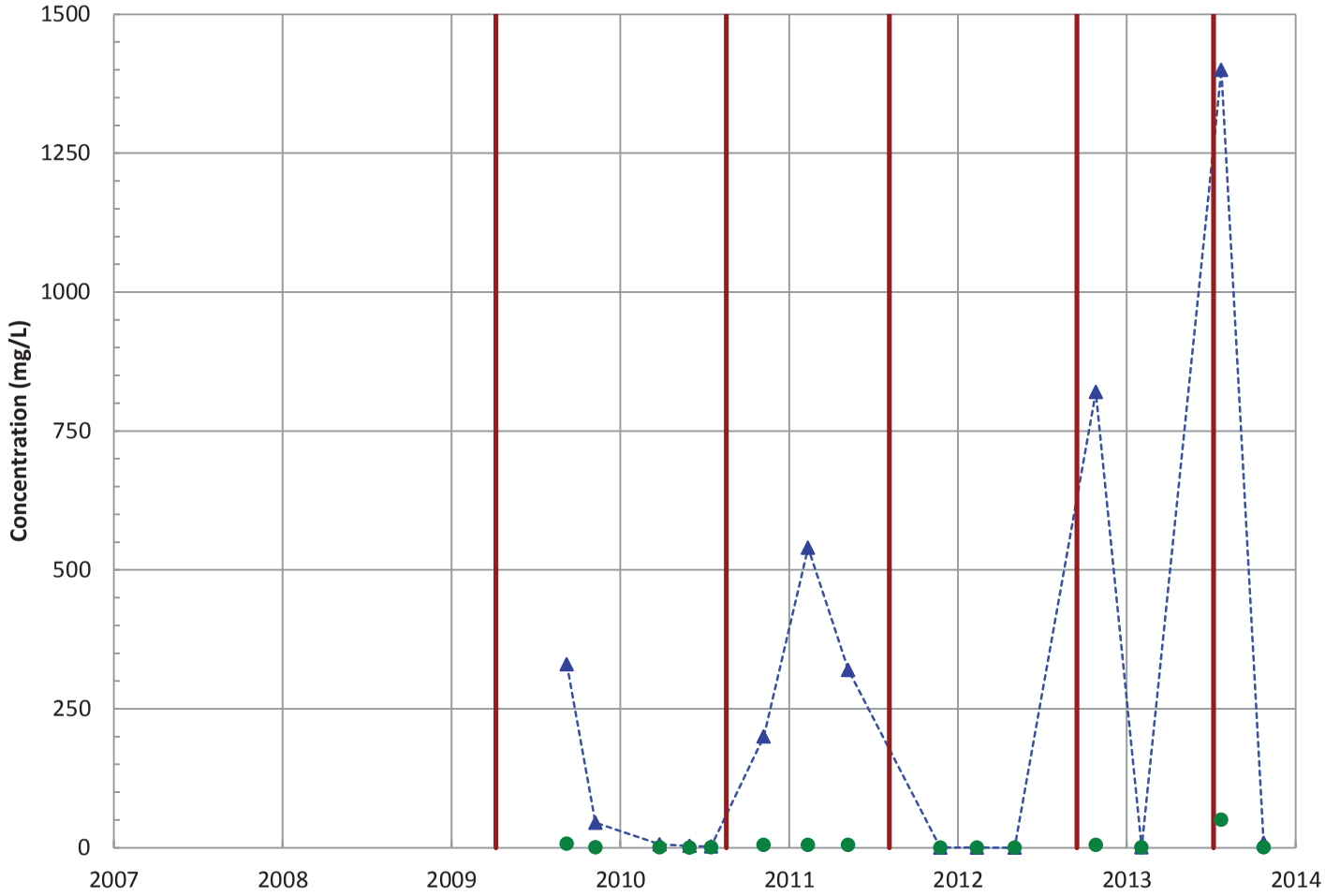
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
═══ Injection Dates

Well Location

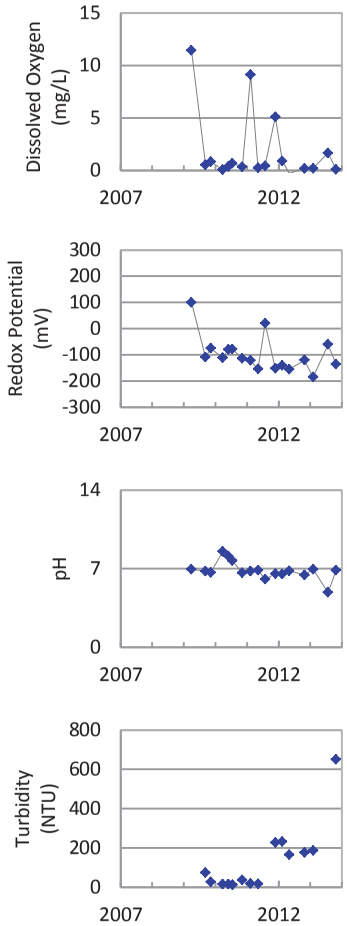


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/9/2009 to 10/29/2013
Analysis Date: 3/21/2014

PTX06-ISB055
Propionic Acid Trend in Perched Aquifer



Field Parameters



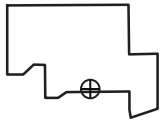
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

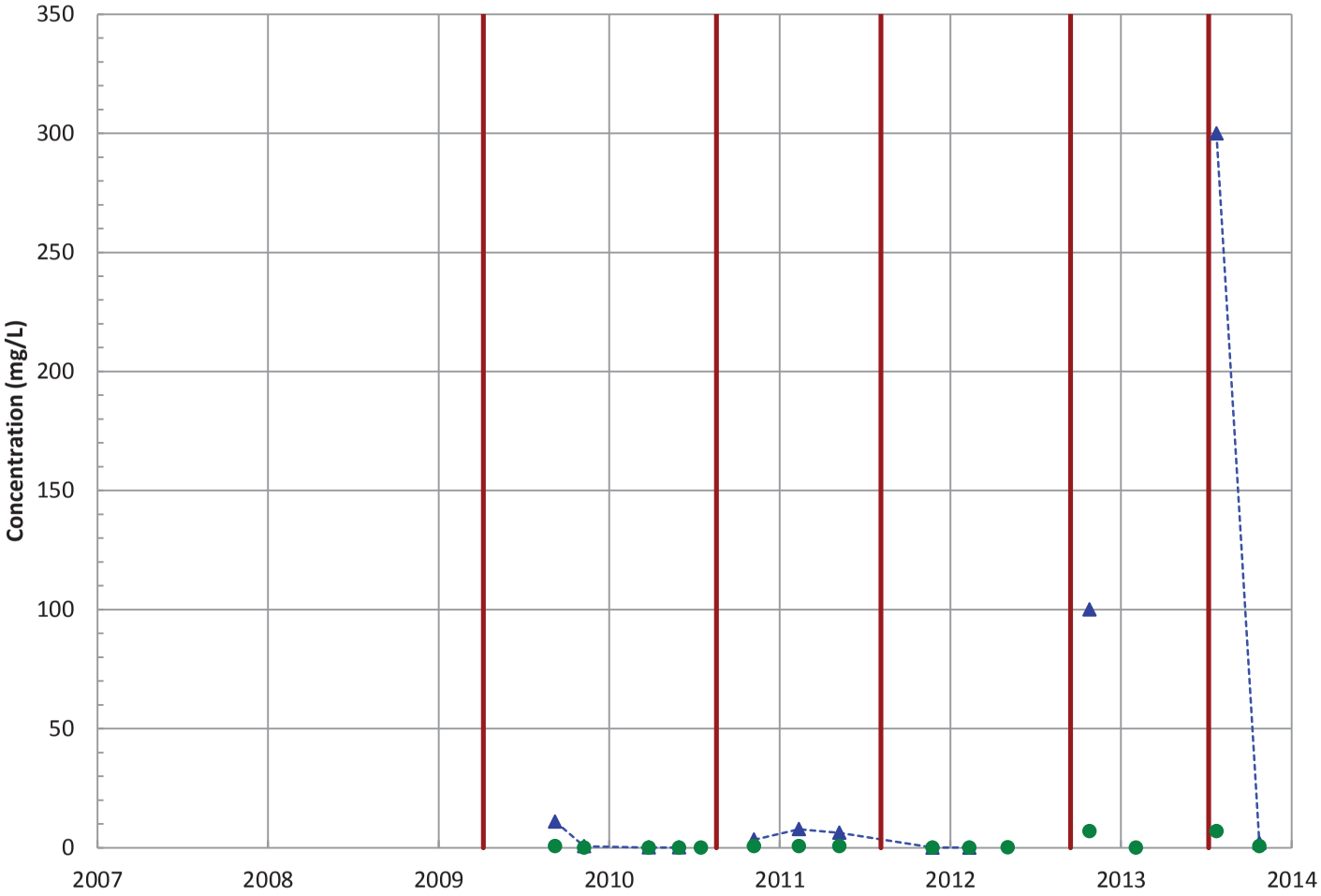
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

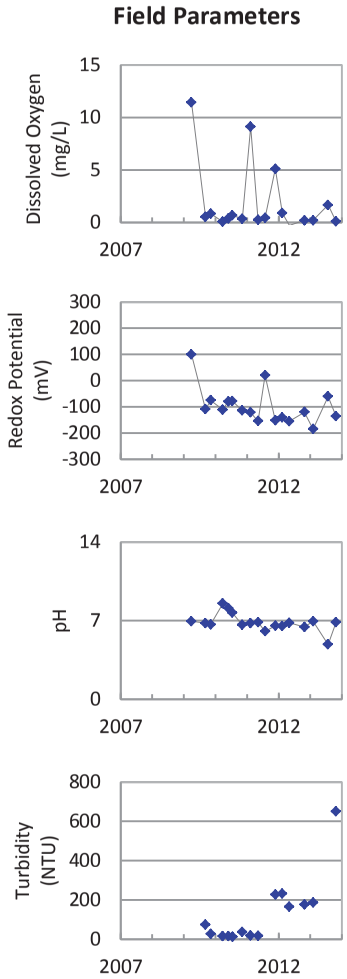
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/9/2009 to 10/29/2013
Analysis Date: 3/21/2014

PTX06-ISB055
Pentanoic Acid Trend in Perched Aquifer





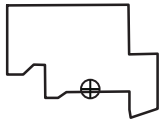
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

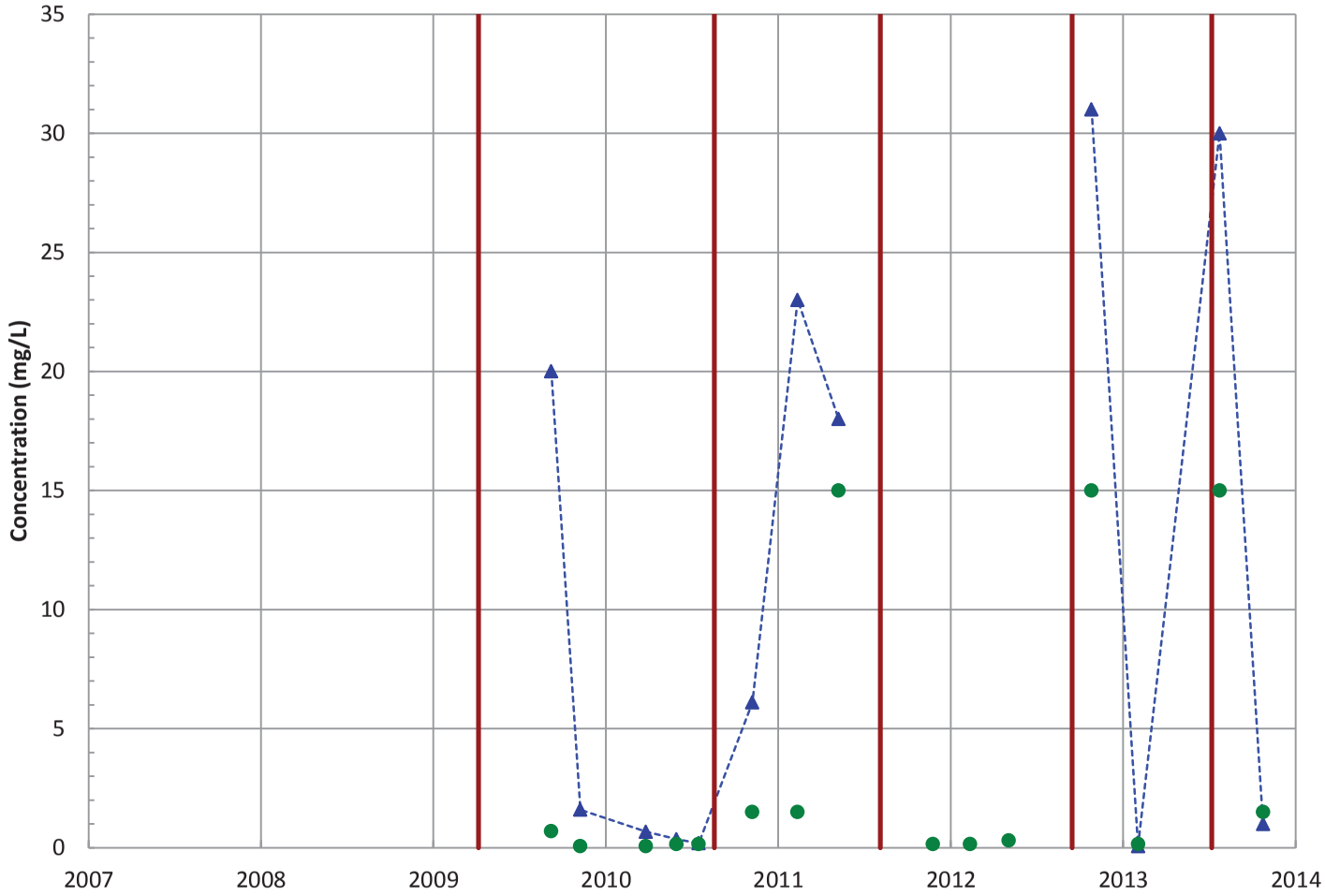
▲ Measured Value
● Sample Detection Limit
---- Concentration Trend
— Injection Dates

Well Location

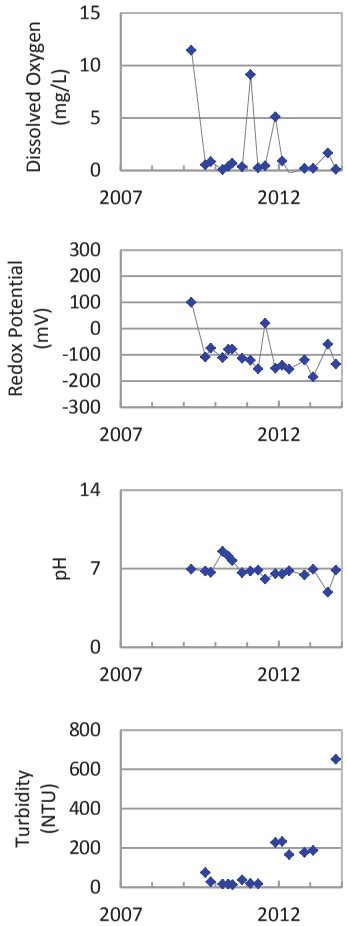


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/9/2009 to 10/29/2013
Analysis Date: 3/21/2014

PTX06-ISB055
Pyruvic Acid Trend in Perched Aquifer



Field Parameters



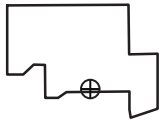
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

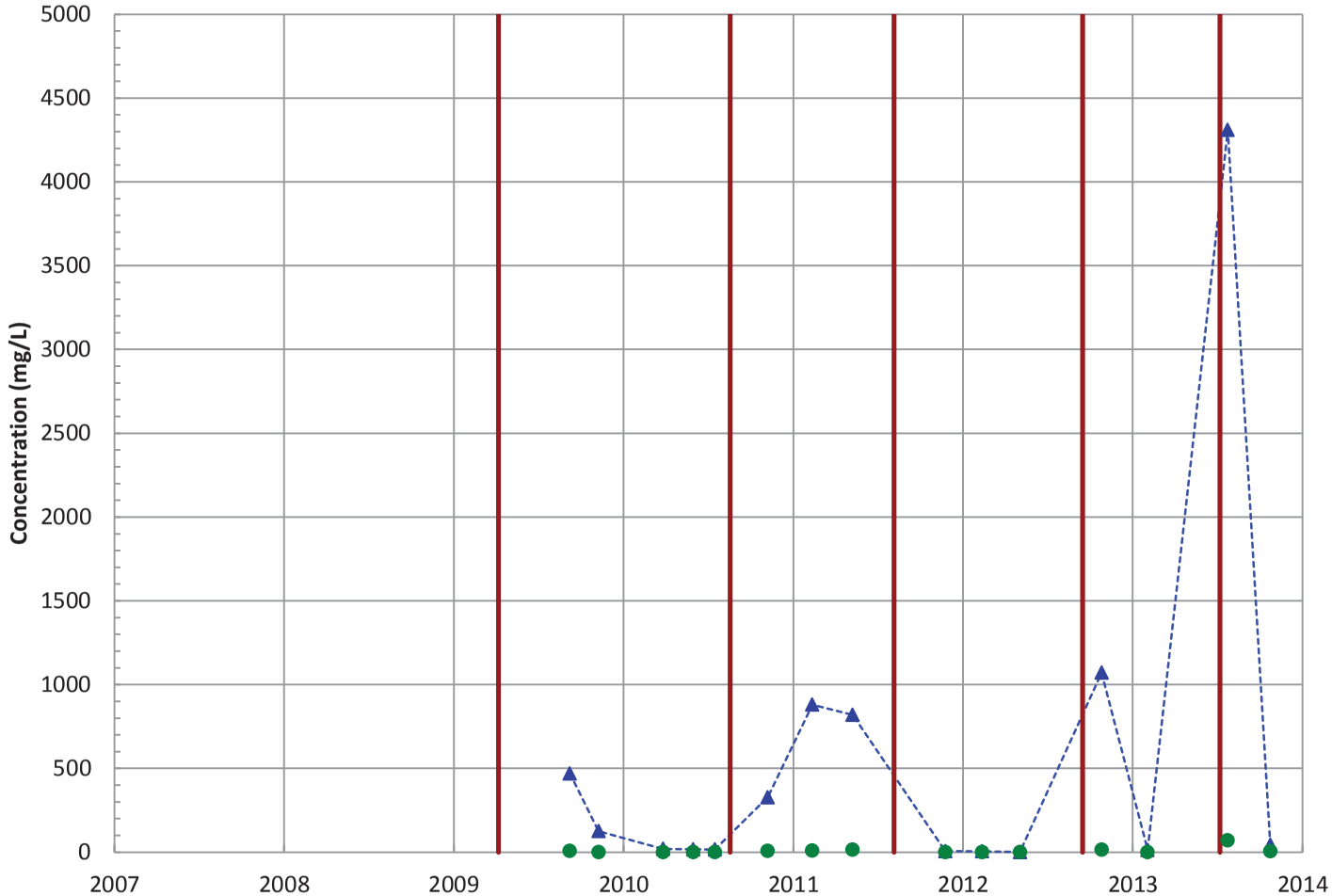
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

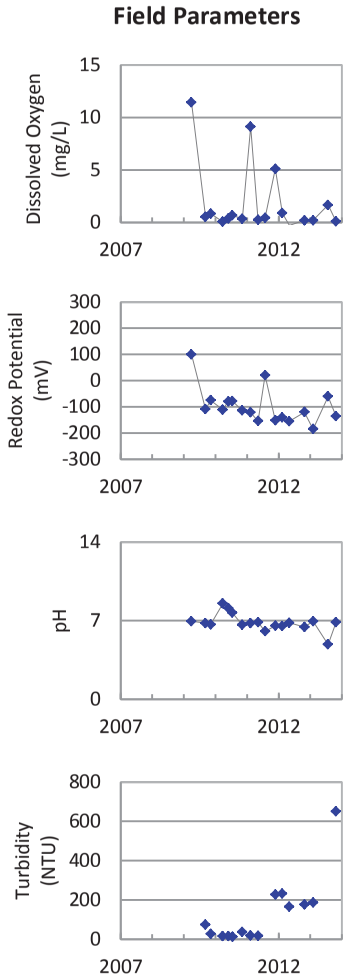
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/9/2009 to 10/29/2013
Analysis Date: 3/21/2014

PTX06-ISB055
Total Volatile Fatty Acids Trend in Perched Aquifer





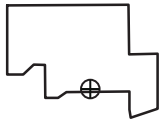
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

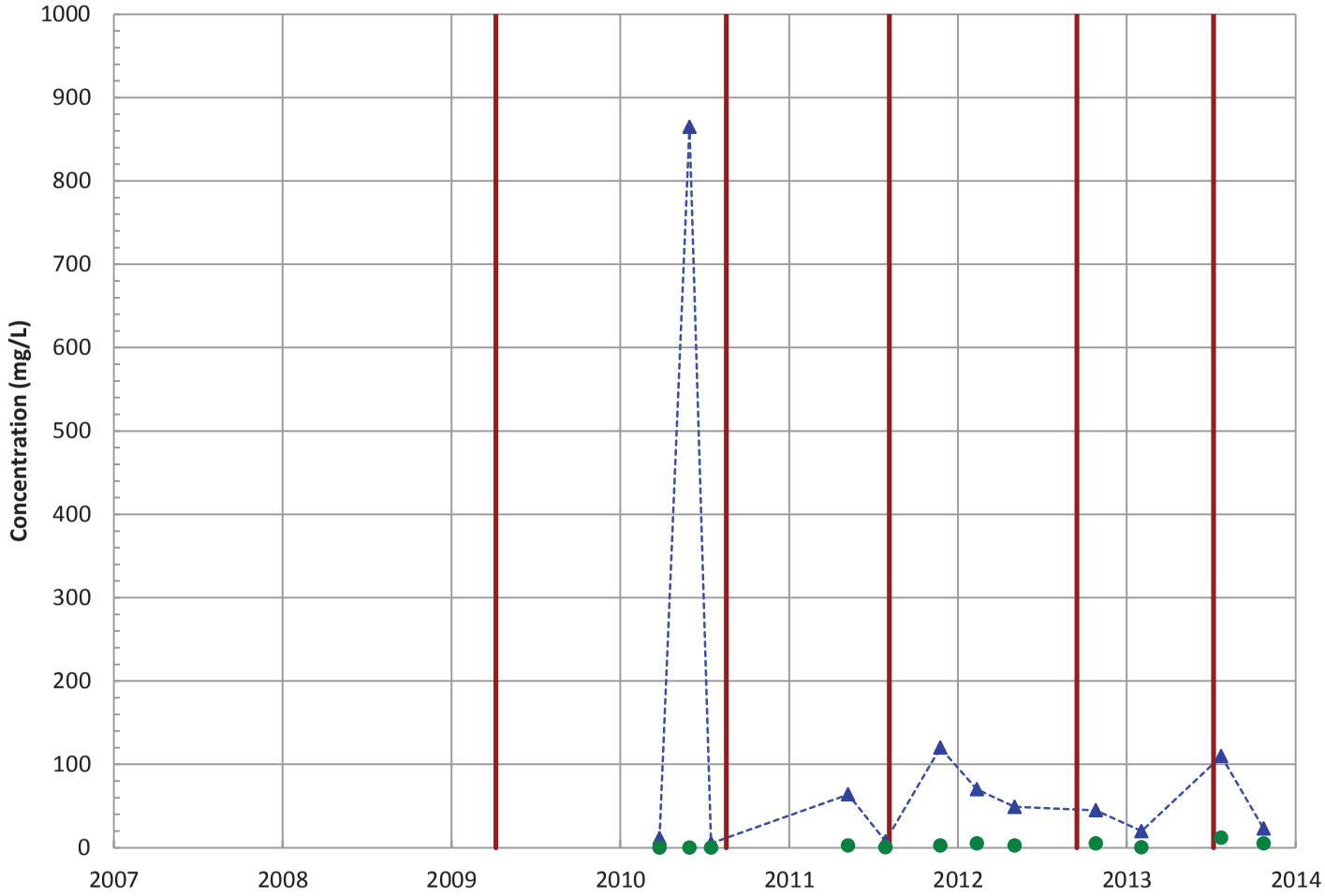
▲ Measured Value
● Sample Detection Limit
---- Concentration Trend
— Injection Dates

Well Location

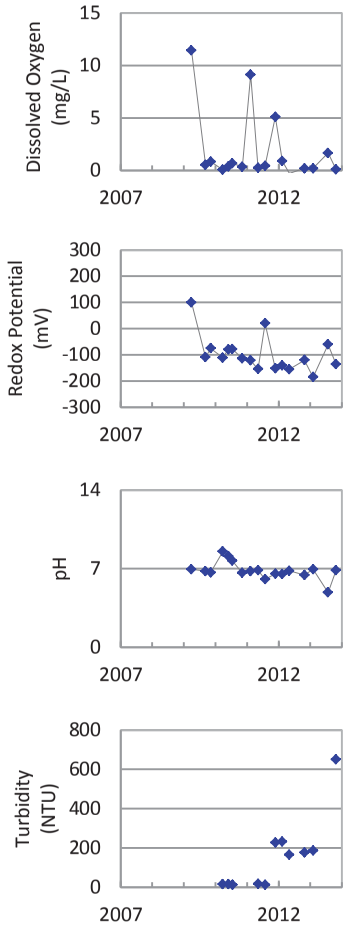


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/9/2009 to 10/29/2013
Analysis Date: 3/21/2014

PTX06-ISB055
Ferrous Iron Trend in Perched Aquifer



Field Parameters



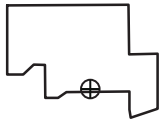
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Stable

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Stable

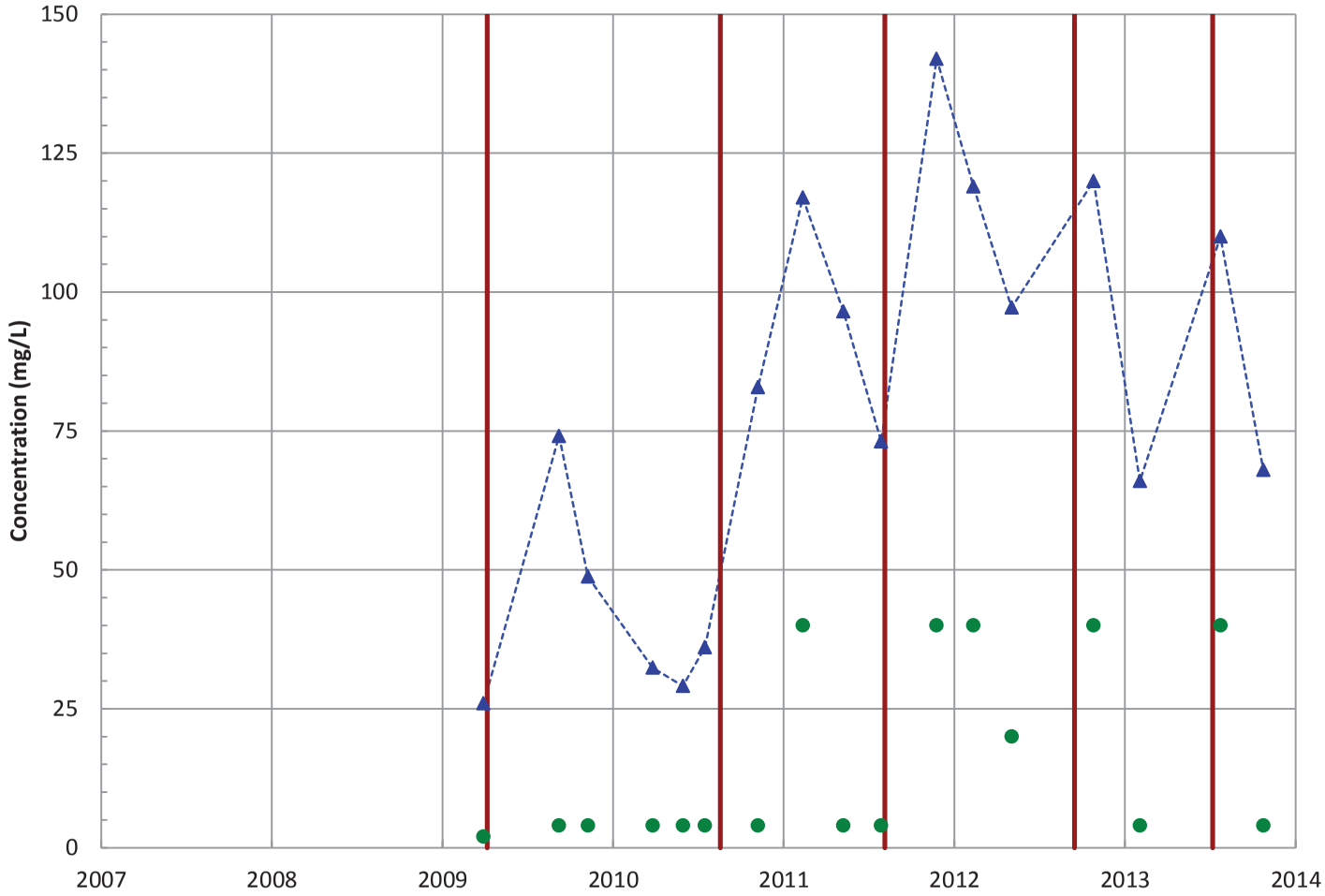
▲ Measured Value
● Sample Detection Limit
---- Concentration Trend
— Injection Dates

Well Location

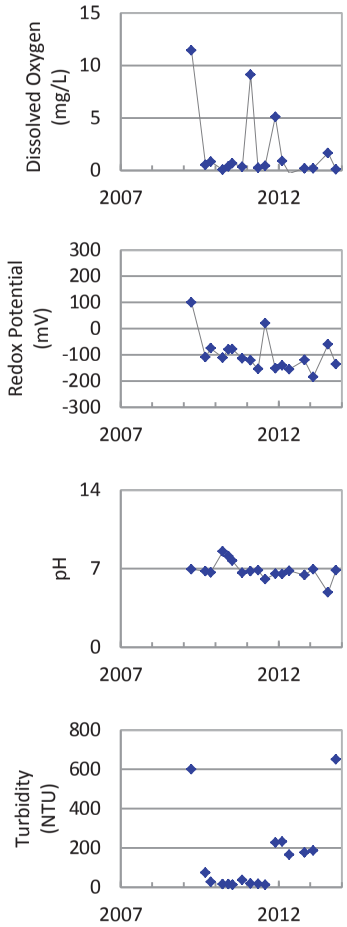


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/29/2010 to 10/29/2013
Analysis Date: 3/21/2014

PTX06-ISB055
Chloride (as Cl) Trend in Perched Aquifer



Field Parameters



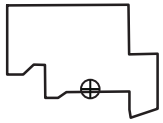
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Stable

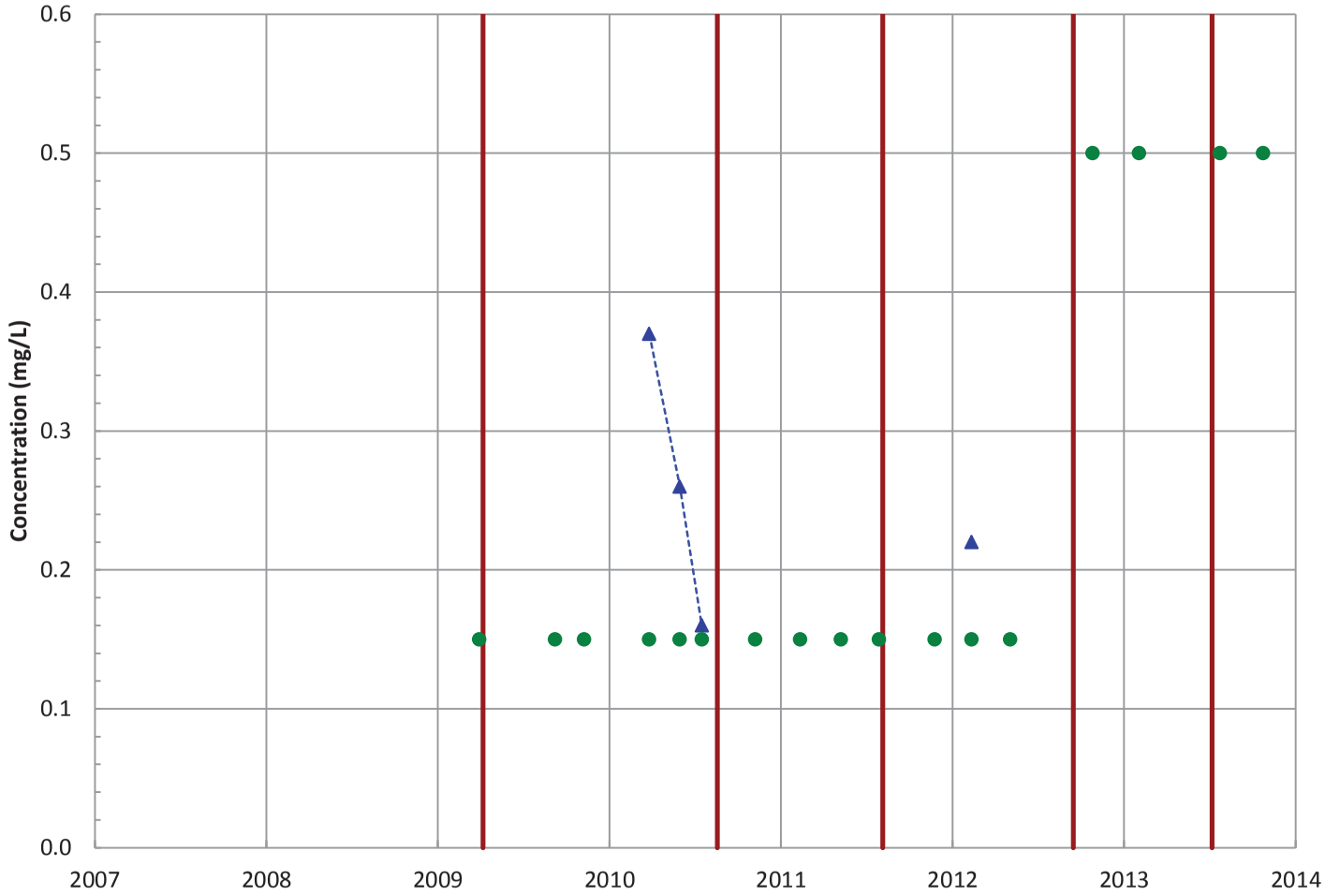
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

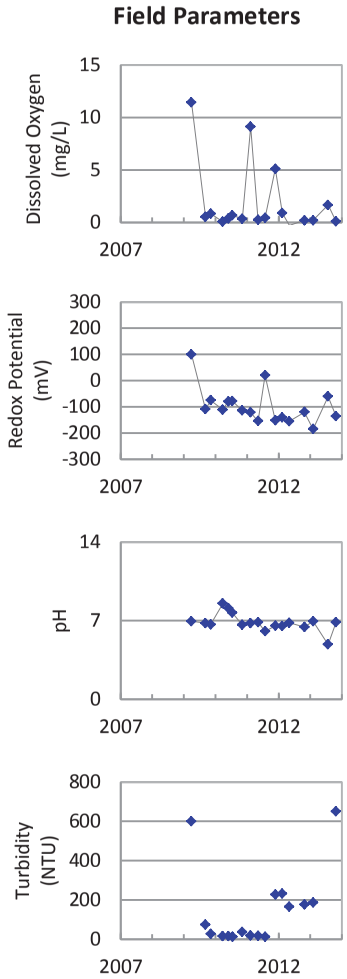
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 10/29/2013
Analysis Date: 3/21/2014

PTX06-ISB055
Chlorate Trend in Perched Aquifer





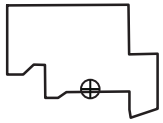
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: Stable

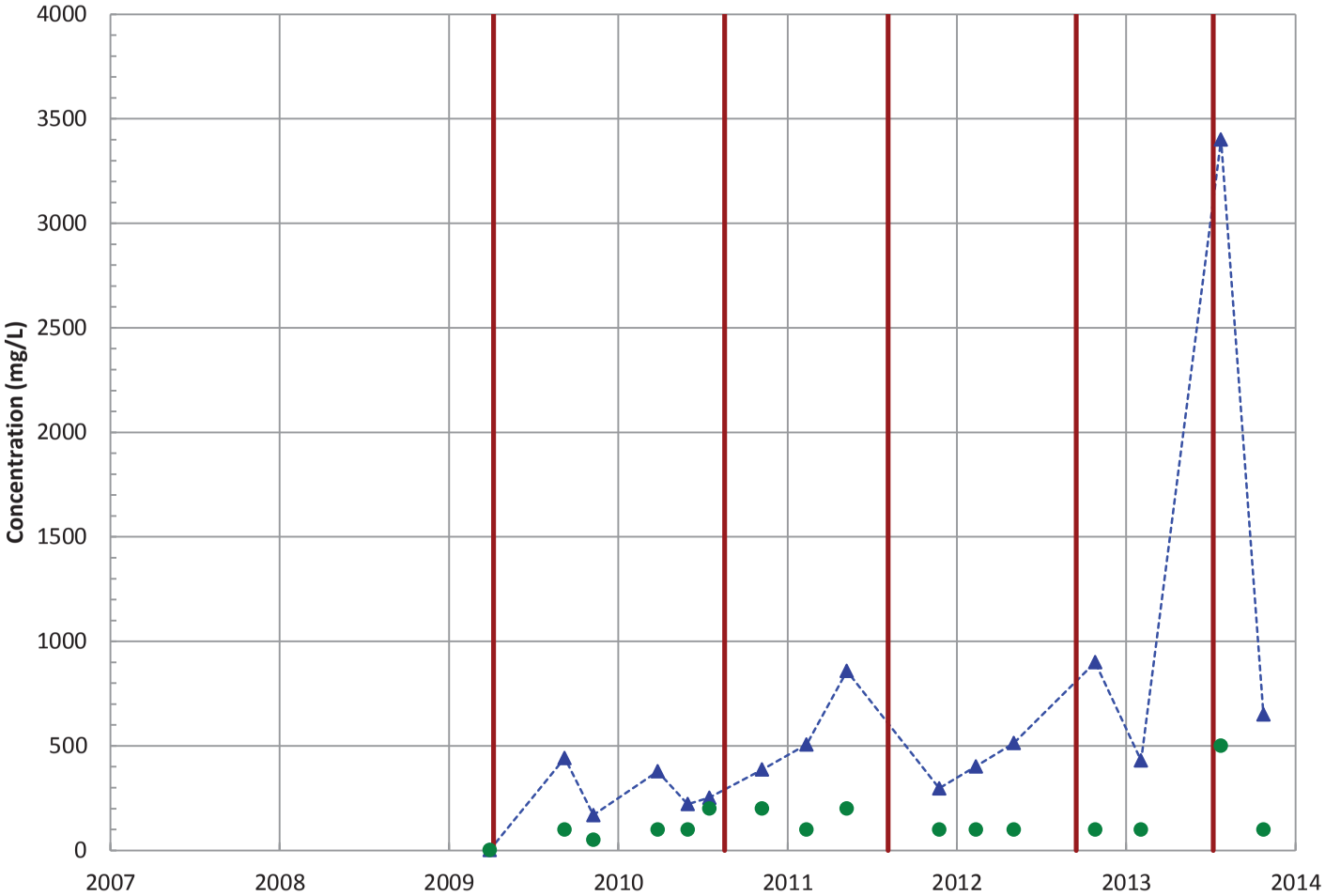
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
═══ Injection Dates

Well Location

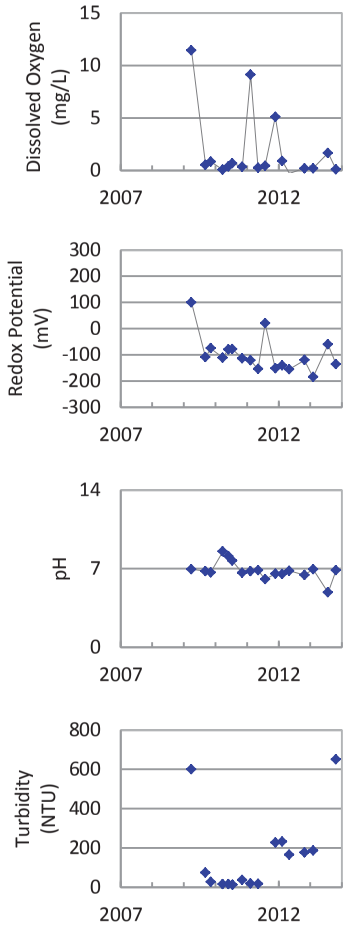


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 10/29/2013
Analysis Date: 3/21/2014

PTX06-ISB055
Total Organic Carbon Trend in Perched Aquifer



Field Parameters



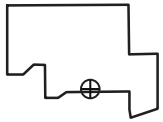
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: No Trend

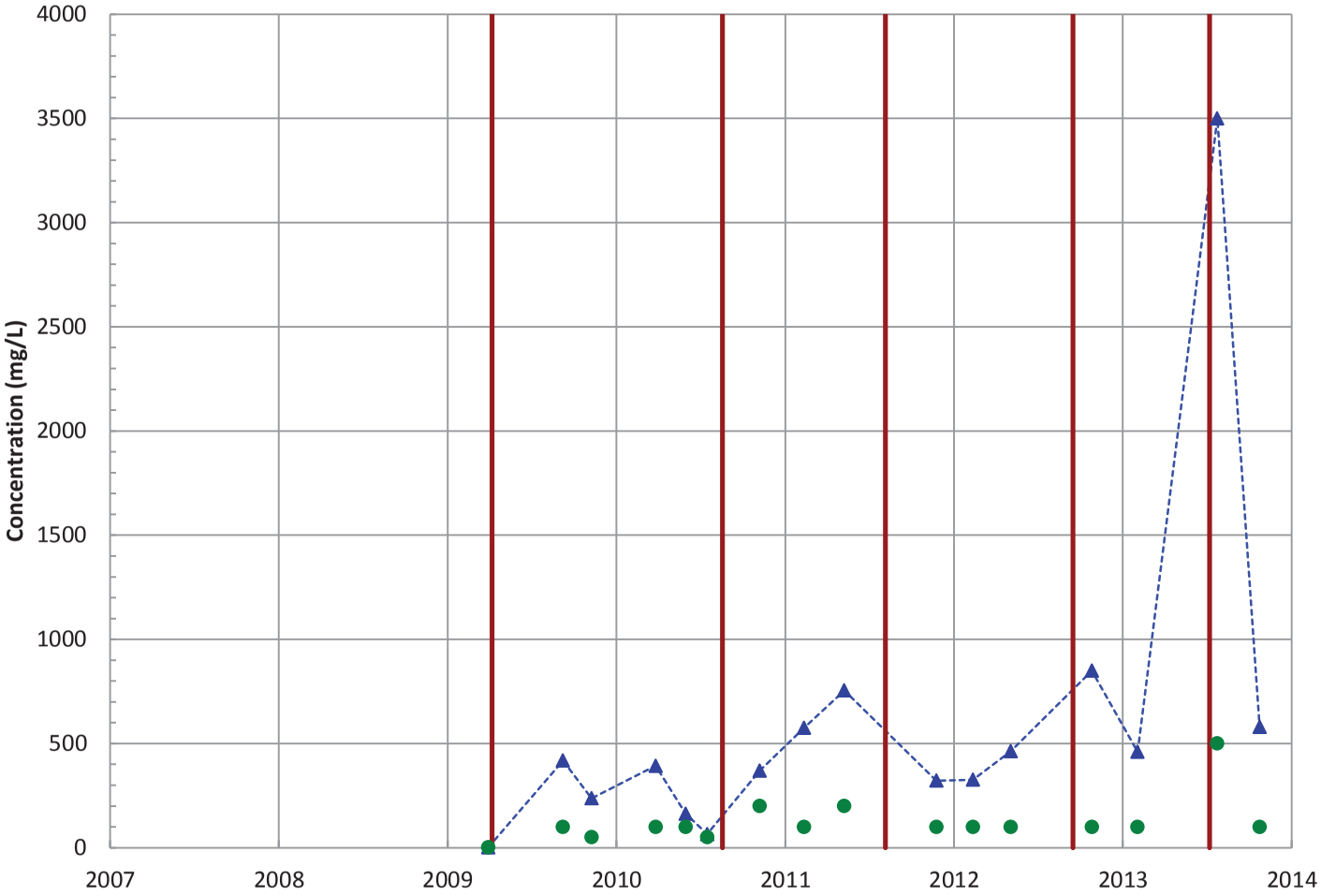
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

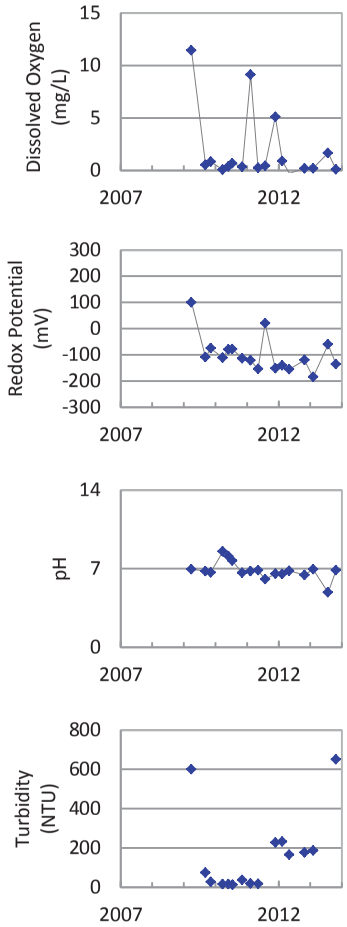


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 10/29/2013
Analysis Date: 3/21/2014

PTX06-ISB055
Dissolved Organic Carbon (DOC) Trend in Perched Aquifer



Field Parameters



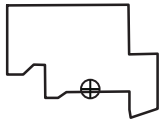
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Increasing

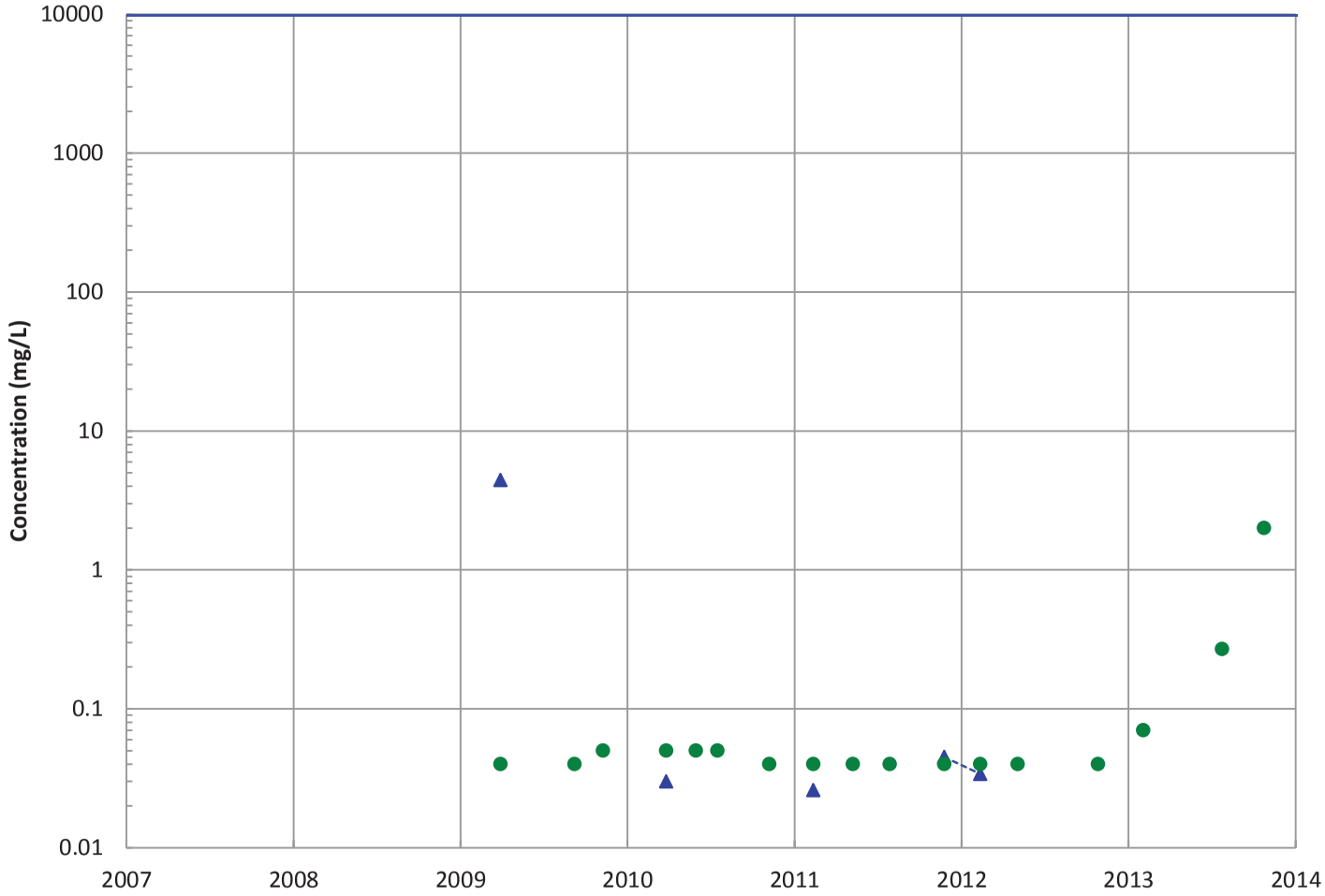
▲ Measured Value
● Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

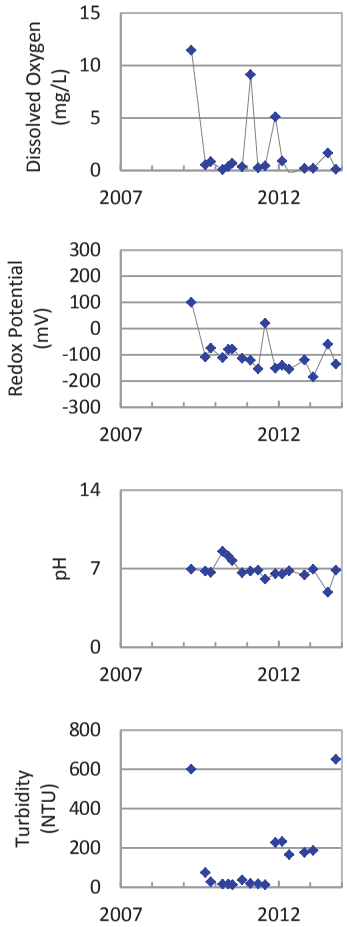


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 10/29/2013
Analysis Date: 3/21/2014

PTX06-ISB055
Nitrate as N Trend in Perched Aquifer



Field Parameters



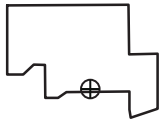
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: Probably Decreasing
Last 4 Samples: No Trend

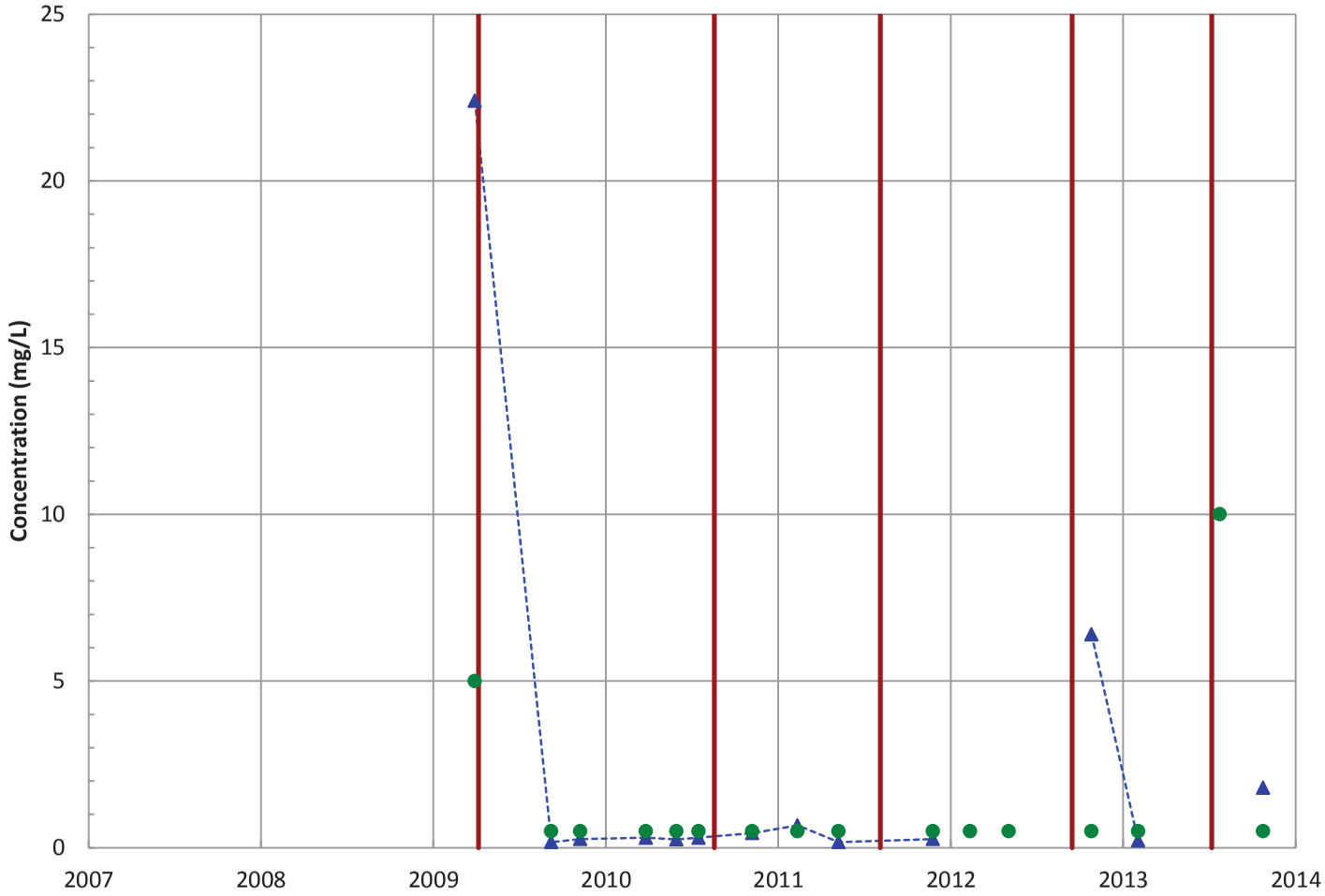
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

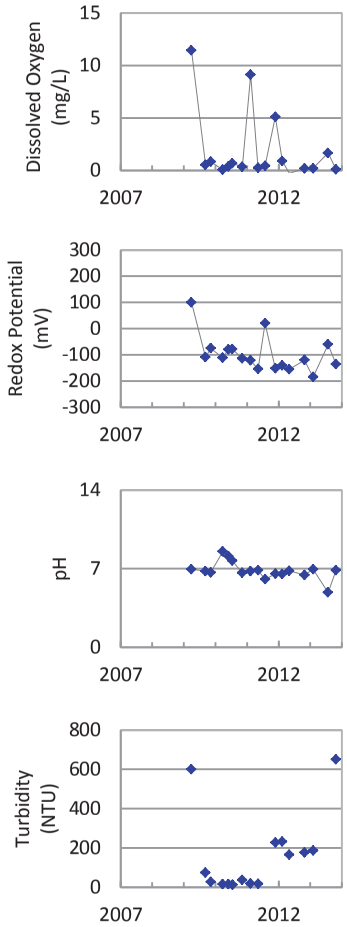


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 10/29/2013
Analysis Date: 3/21/2014

PTX06-ISB055
Sulfate (as SO4) Trend in Perched Aquifer



Field Parameters



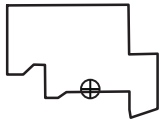
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

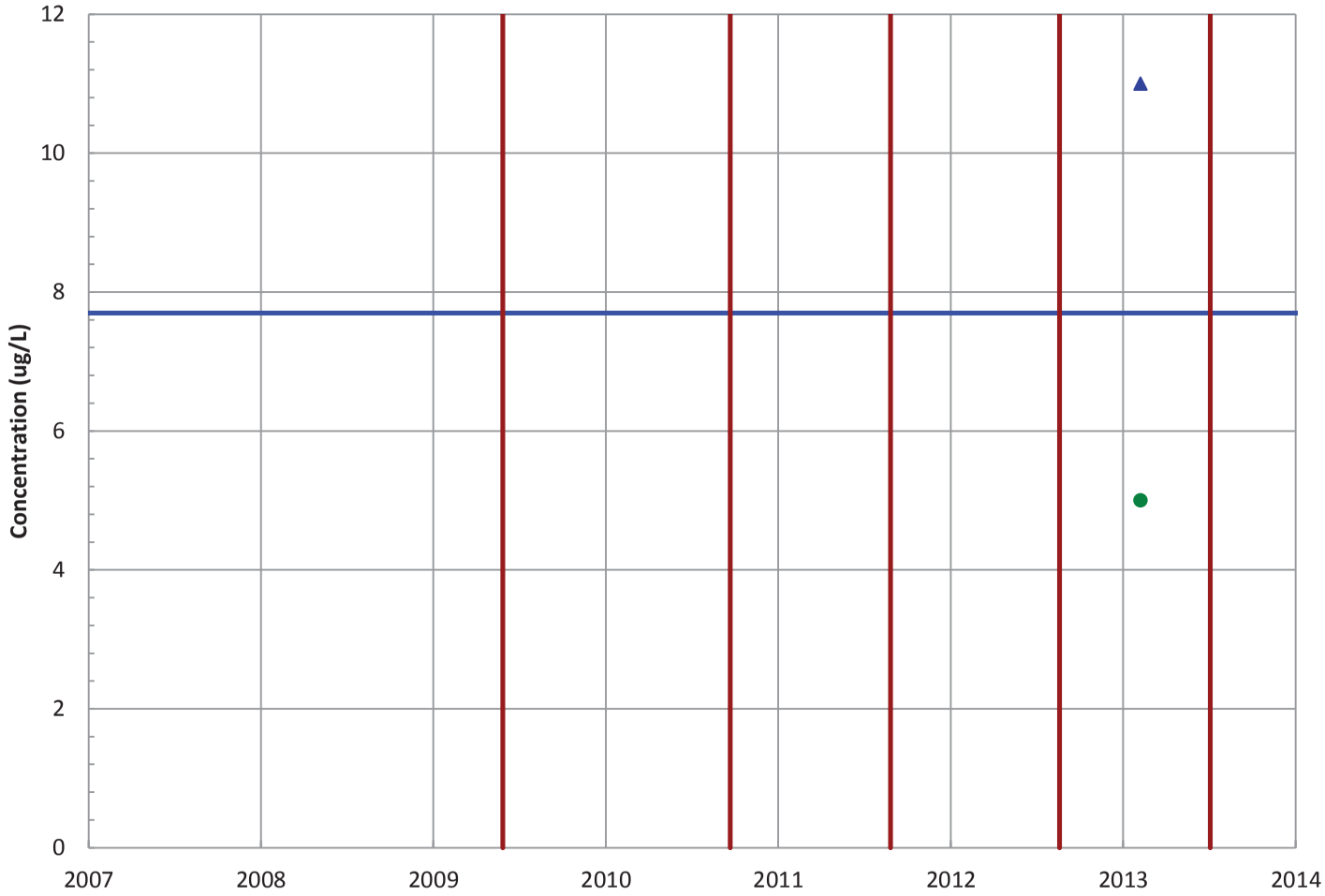
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

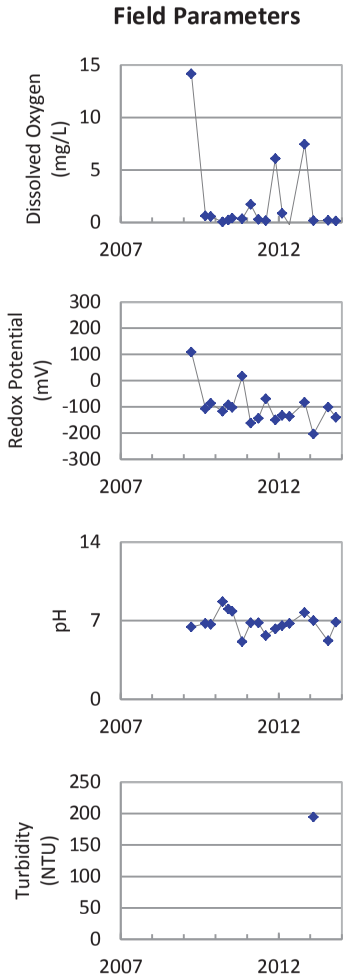
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 10/29/2013
Analysis Date: 3/21/2014

PTX06-ISB059
1,4-Dioxane (p-Dioxane) Trend in Perched Aquifer





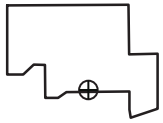
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Samples in Dataset)
Last 4 Samples: N/A (<4 Samples in Dataset)

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

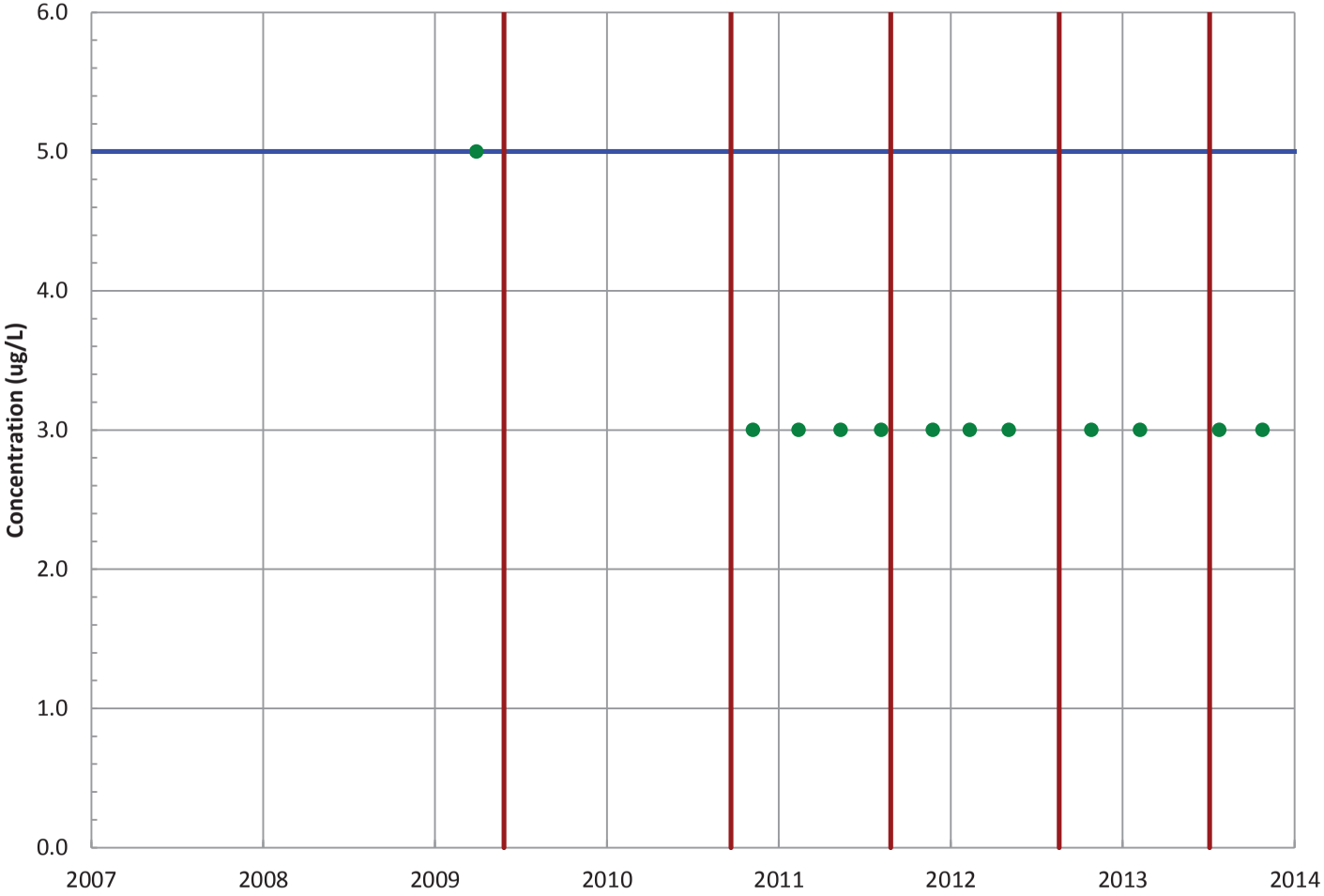
- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

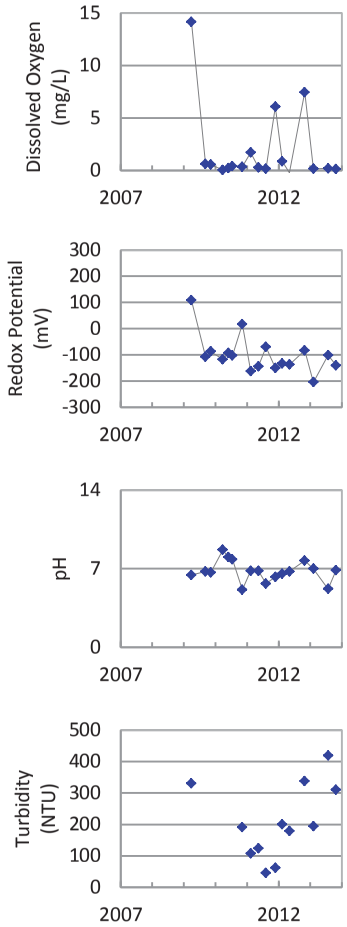


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/11/2013 to 2/11/2013
Analysis Date: 3/21/2014

PTX06-ISB059
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



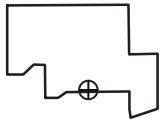
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

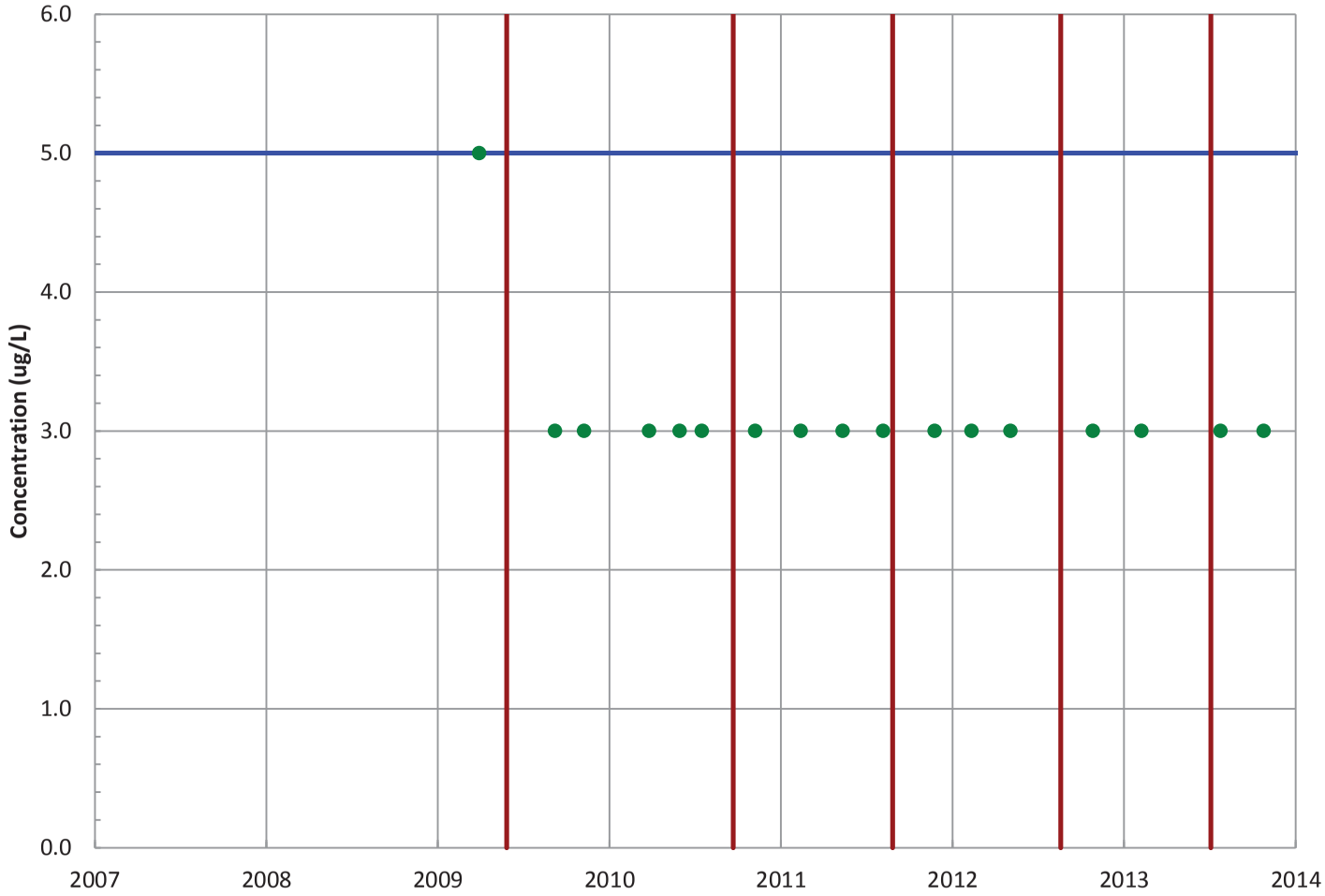
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

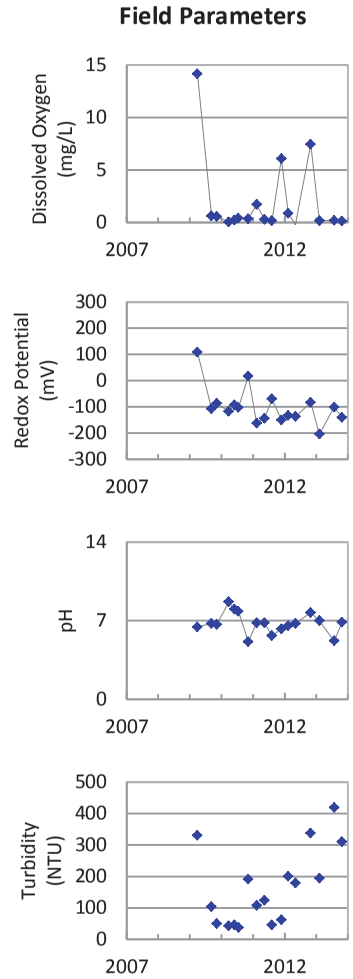
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 10/30/2013
Analysis Date: 3/21/2014

PTX06-ISB059
Trichloroethene Trend in Perched Aquifer





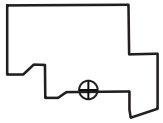
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

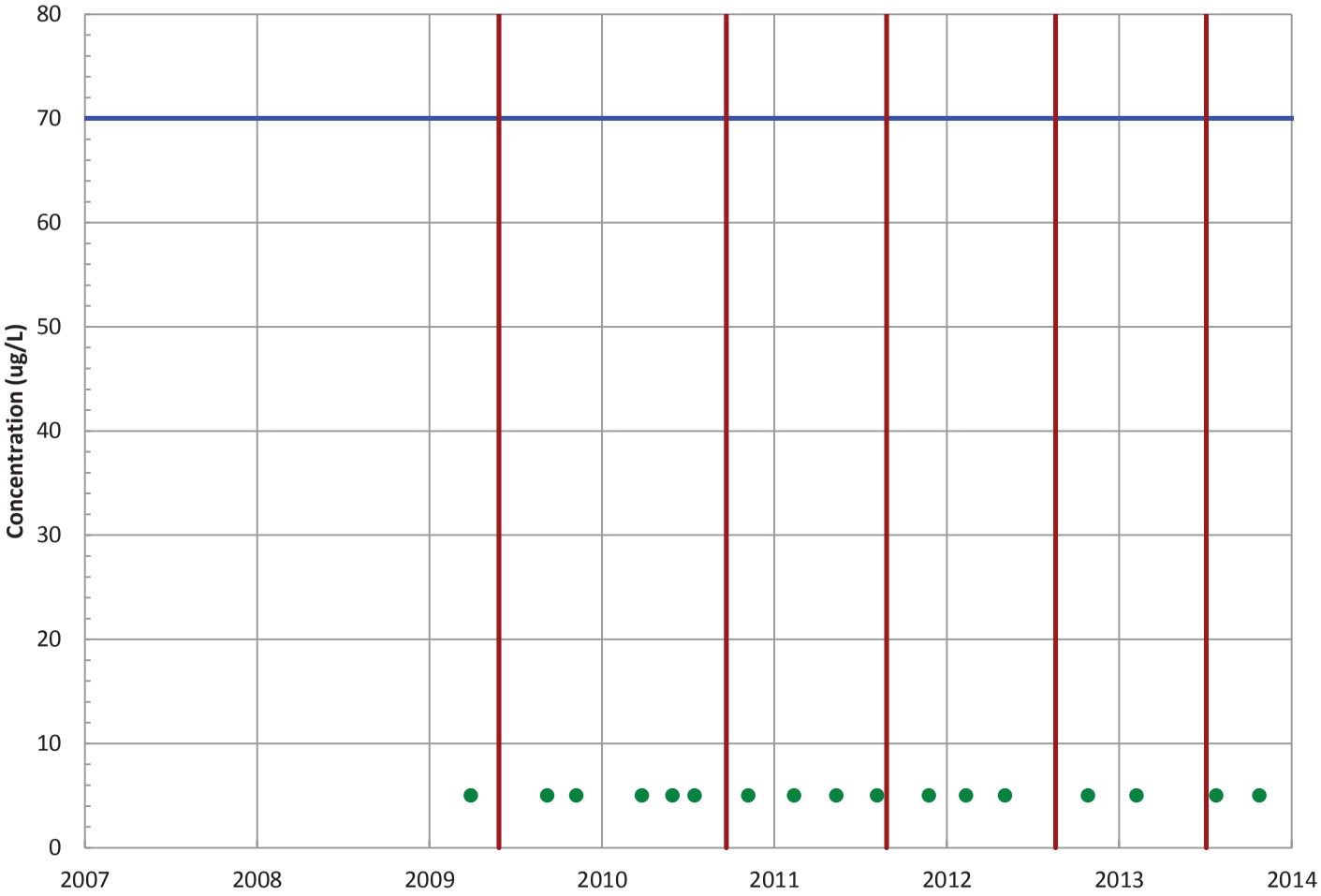
- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

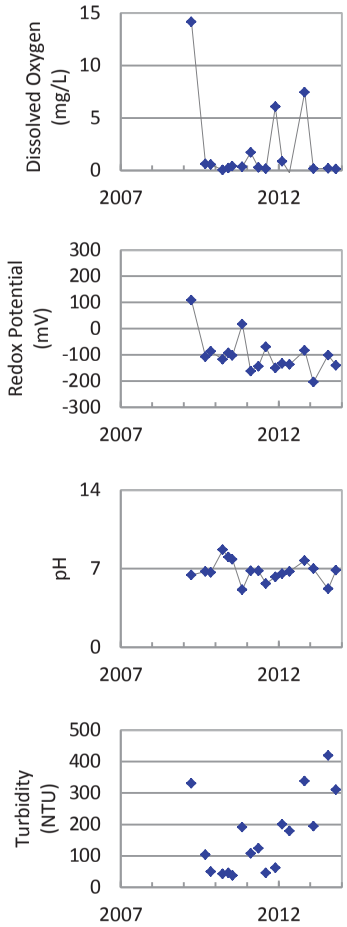


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 10/30/2013
Analysis Date: 3/21/2014

PTX06-ISB059
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



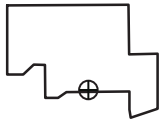
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

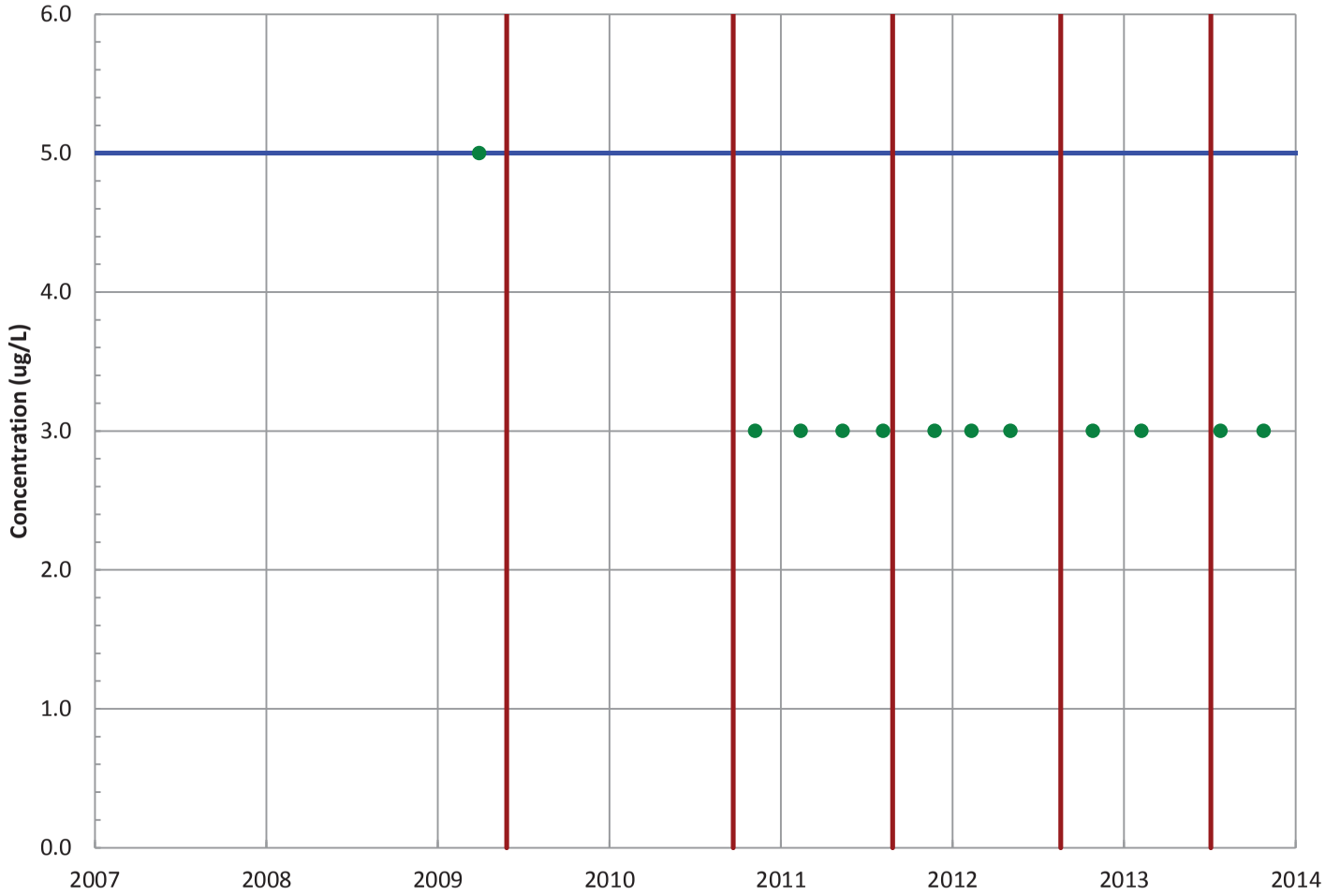
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

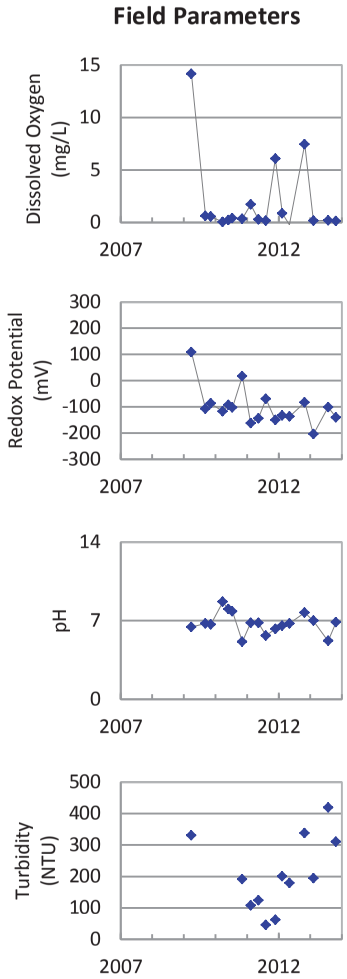
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 10/30/2013
Analysis Date: 3/21/2014

PTX06-ISB059
1,2-Dichloroethane Trend in Perched Aquifer





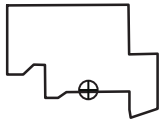
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

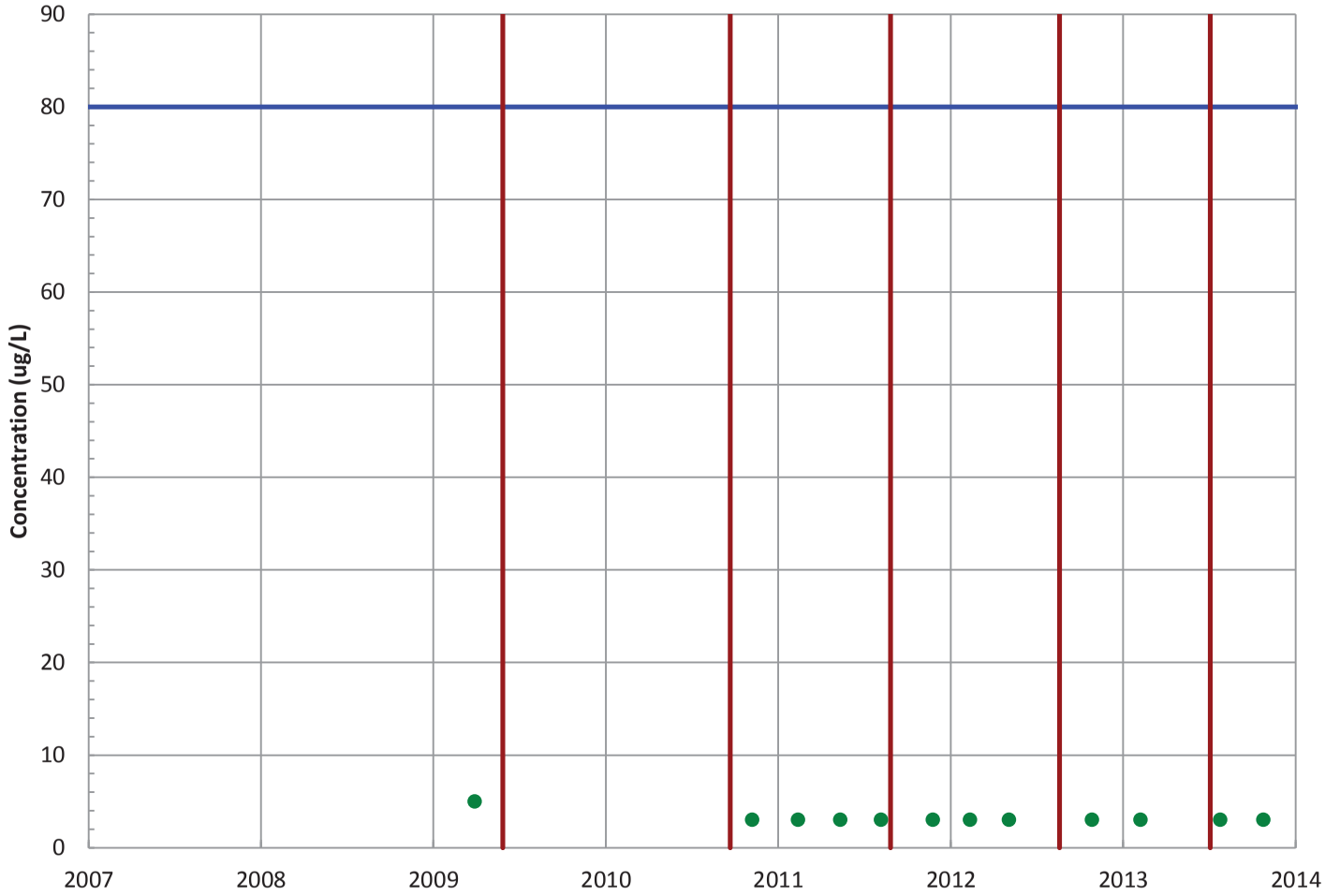
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

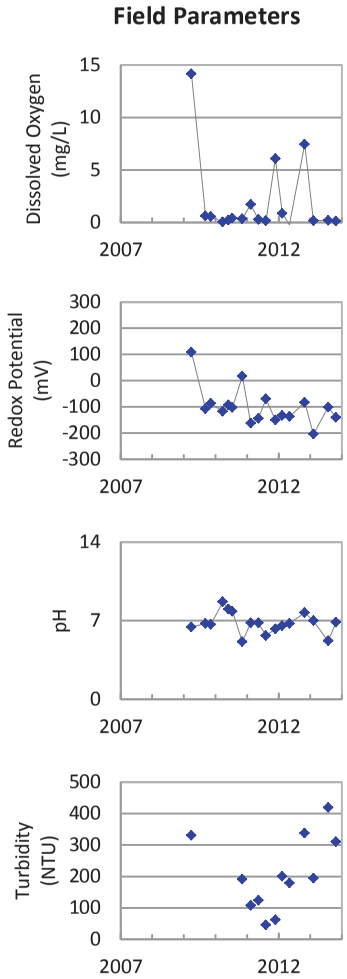
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 10/30/2013
Analysis Date: 3/21/2014

PTX06-ISB059
Chloroform Trend in Perched Aquifer





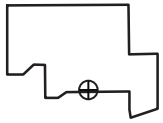
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

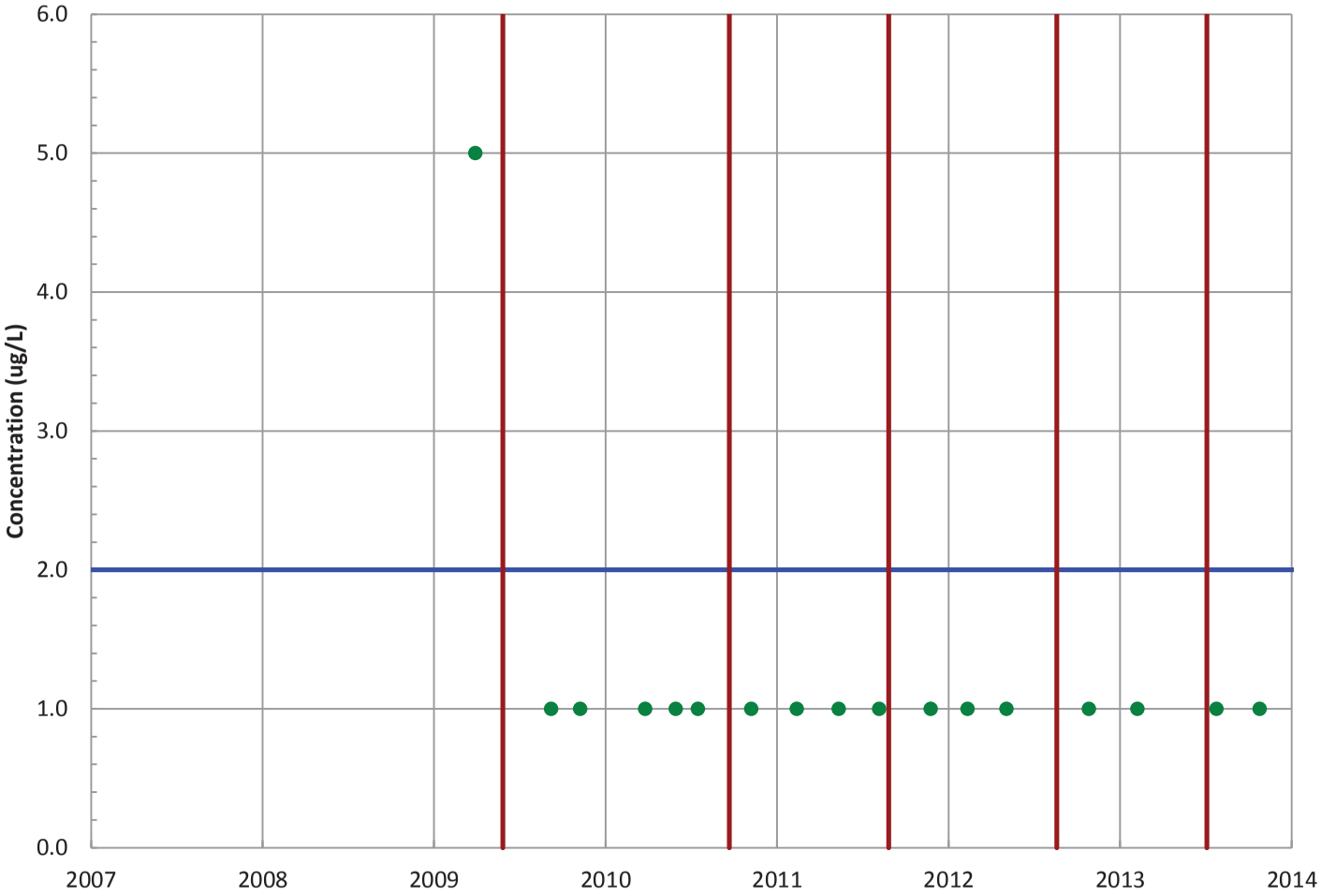
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

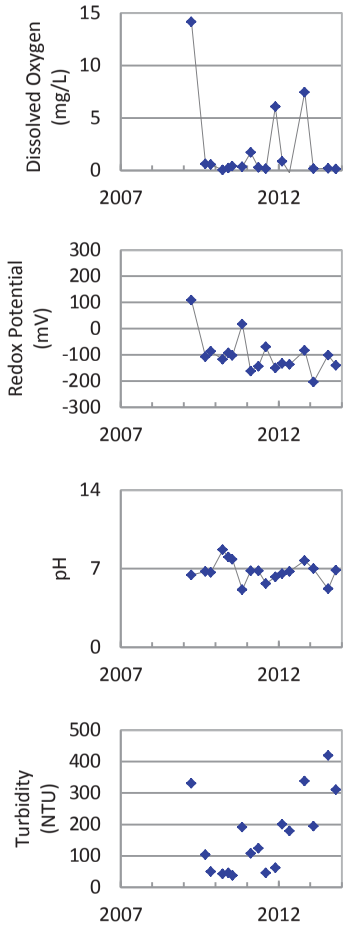


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 10/30/2013
Analysis Date: 3/21/2014

PTX06-ISB059
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



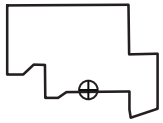
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

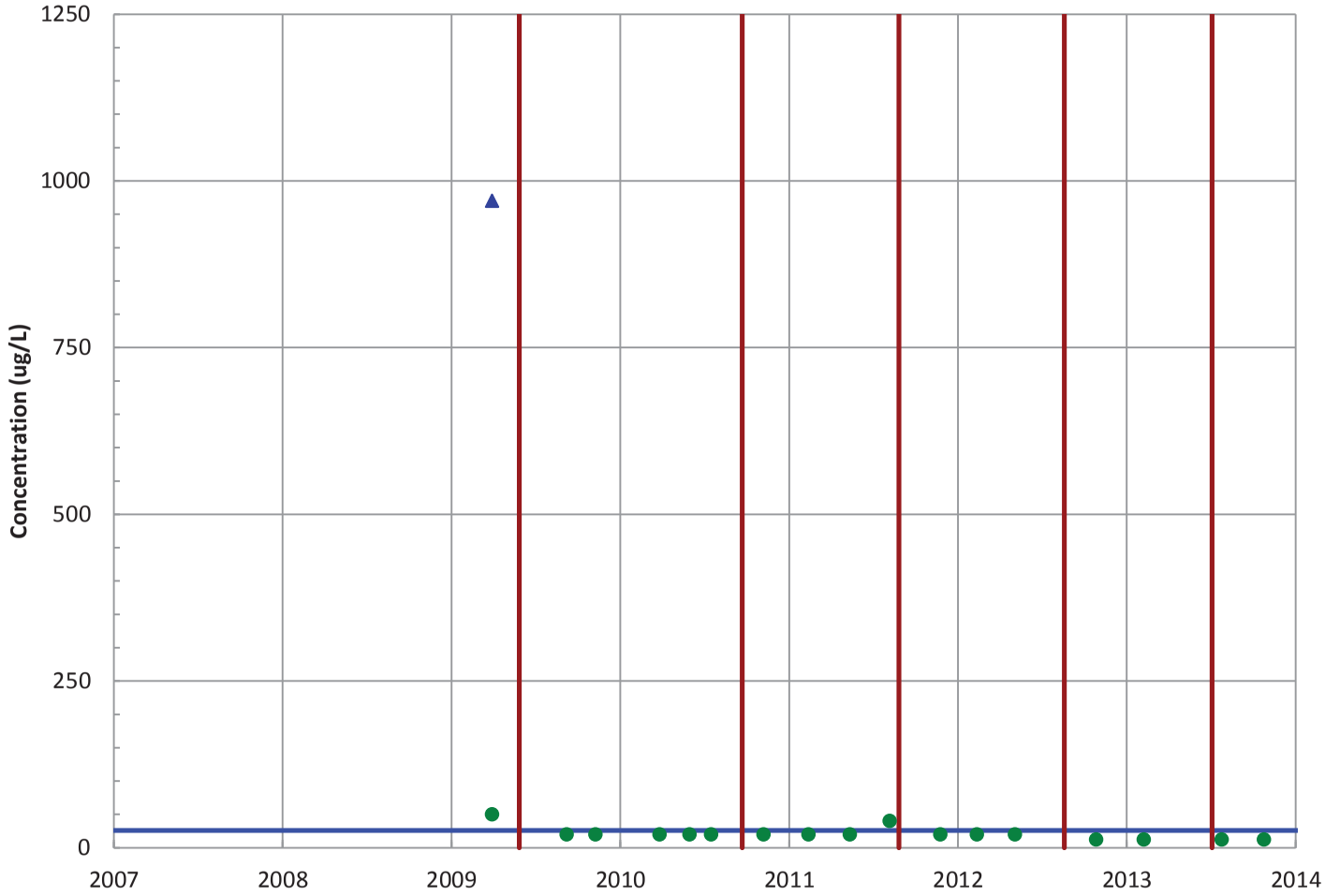
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

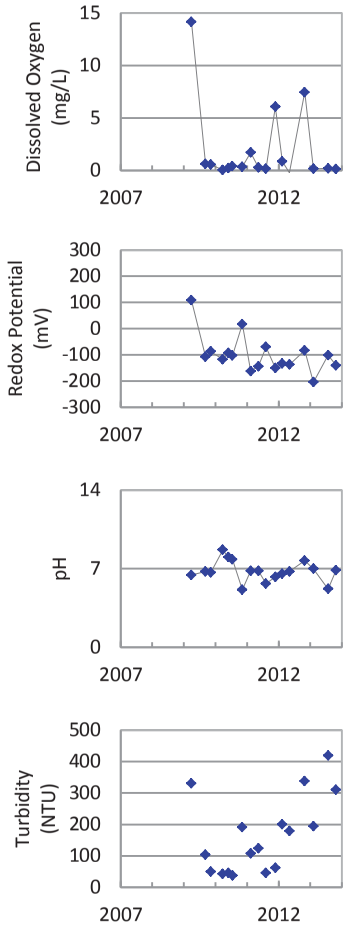


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 10/30/2013
Analysis Date: 3/21/2014

PTX06-ISB059
Perchlorate Trend in Perched Aquifer



Field Parameters



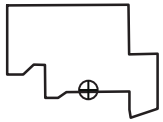
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

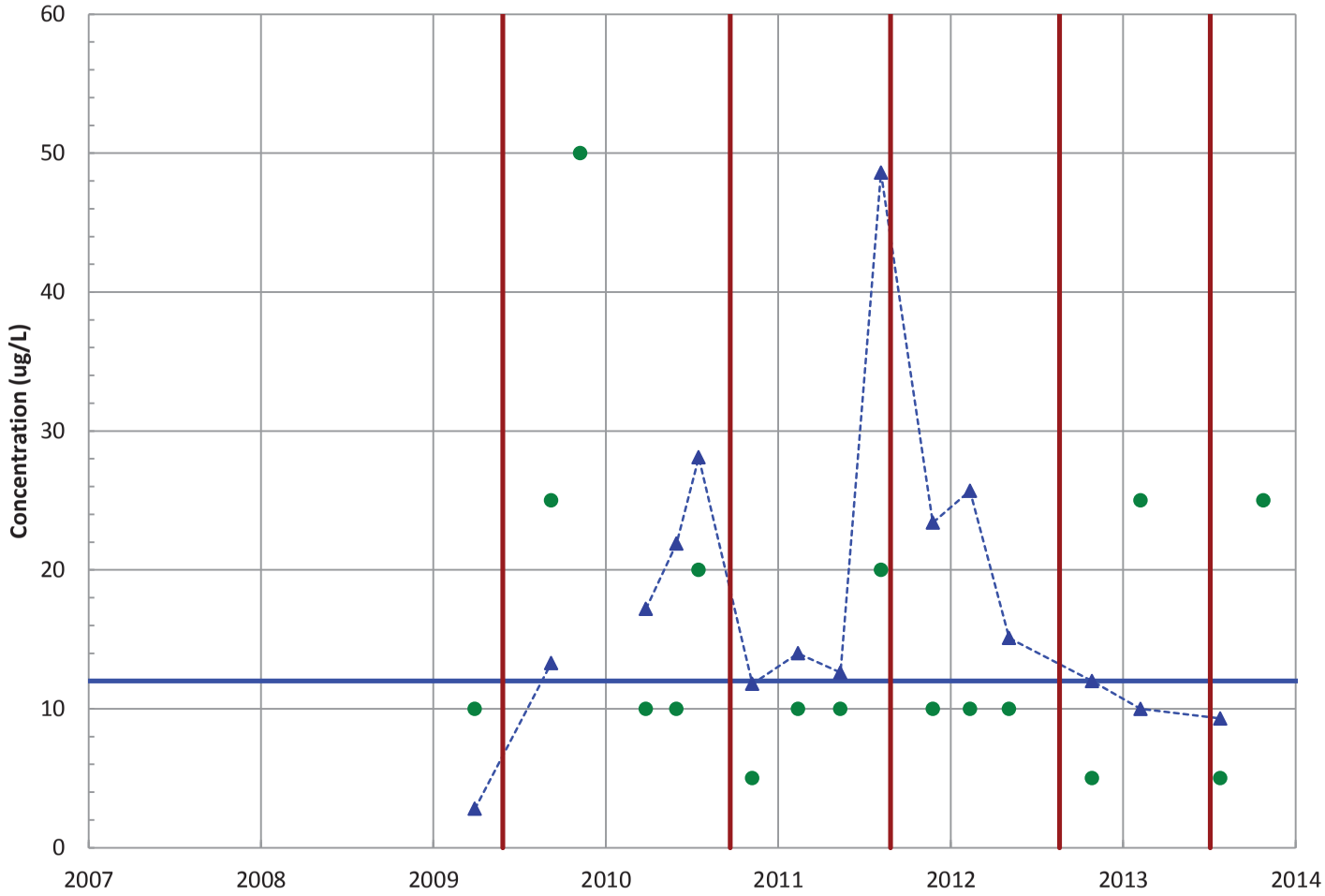
- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

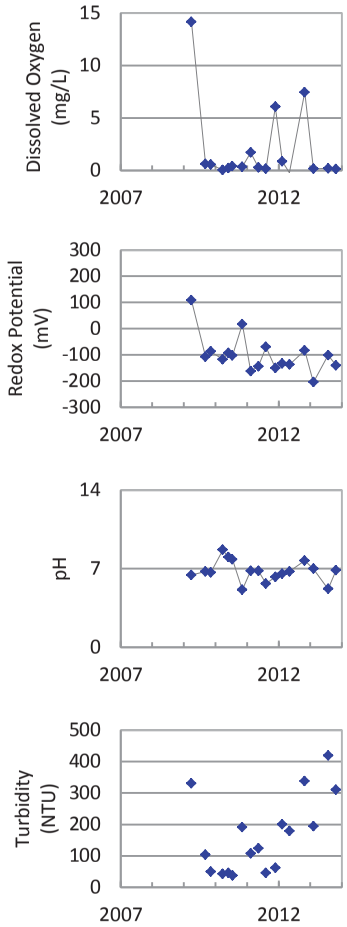


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 10/30/2013
Analysis Date: 3/21/2014

PTX06-ISB059
Arsenic Trend in Perched Aquifer



Field Parameters



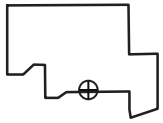
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Stable

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Decreasing

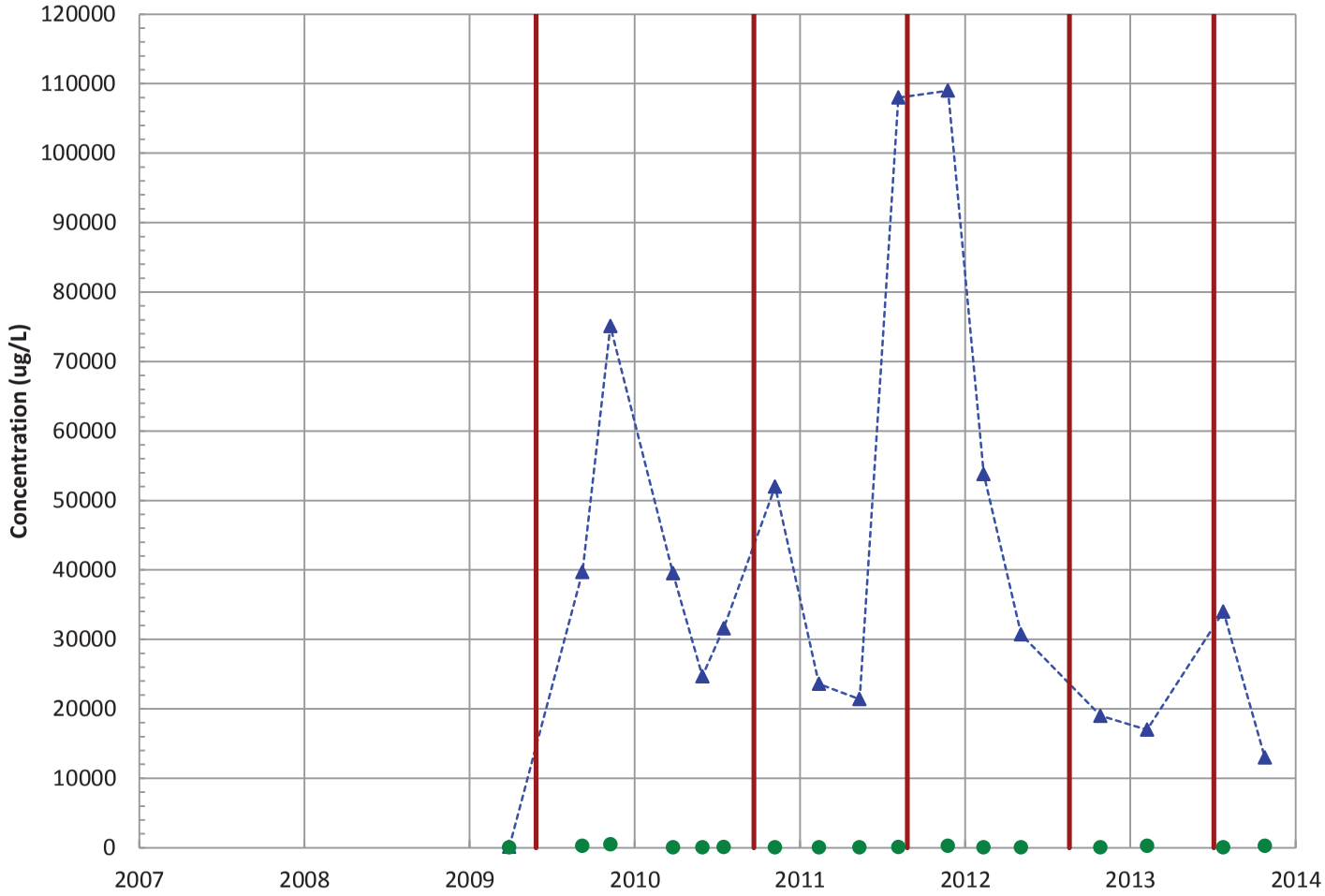
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

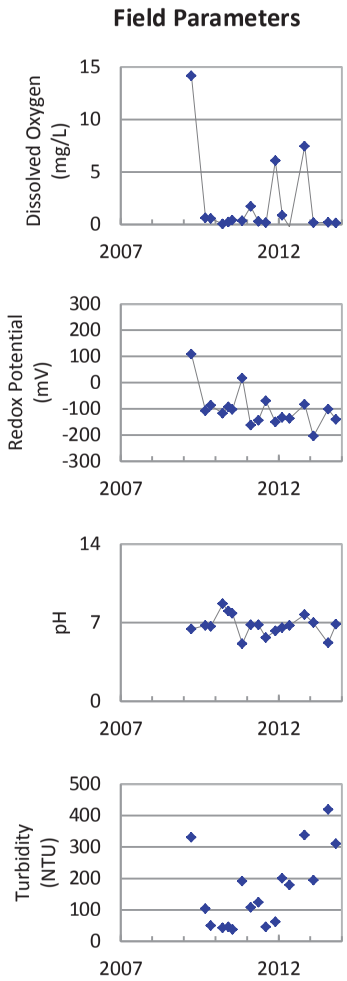
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 10/30/2013
Analysis Date: 3/21/2014

PTX06-ISB059
Iron Trend in Perched Aquifer





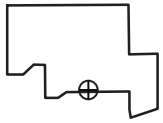
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Stable

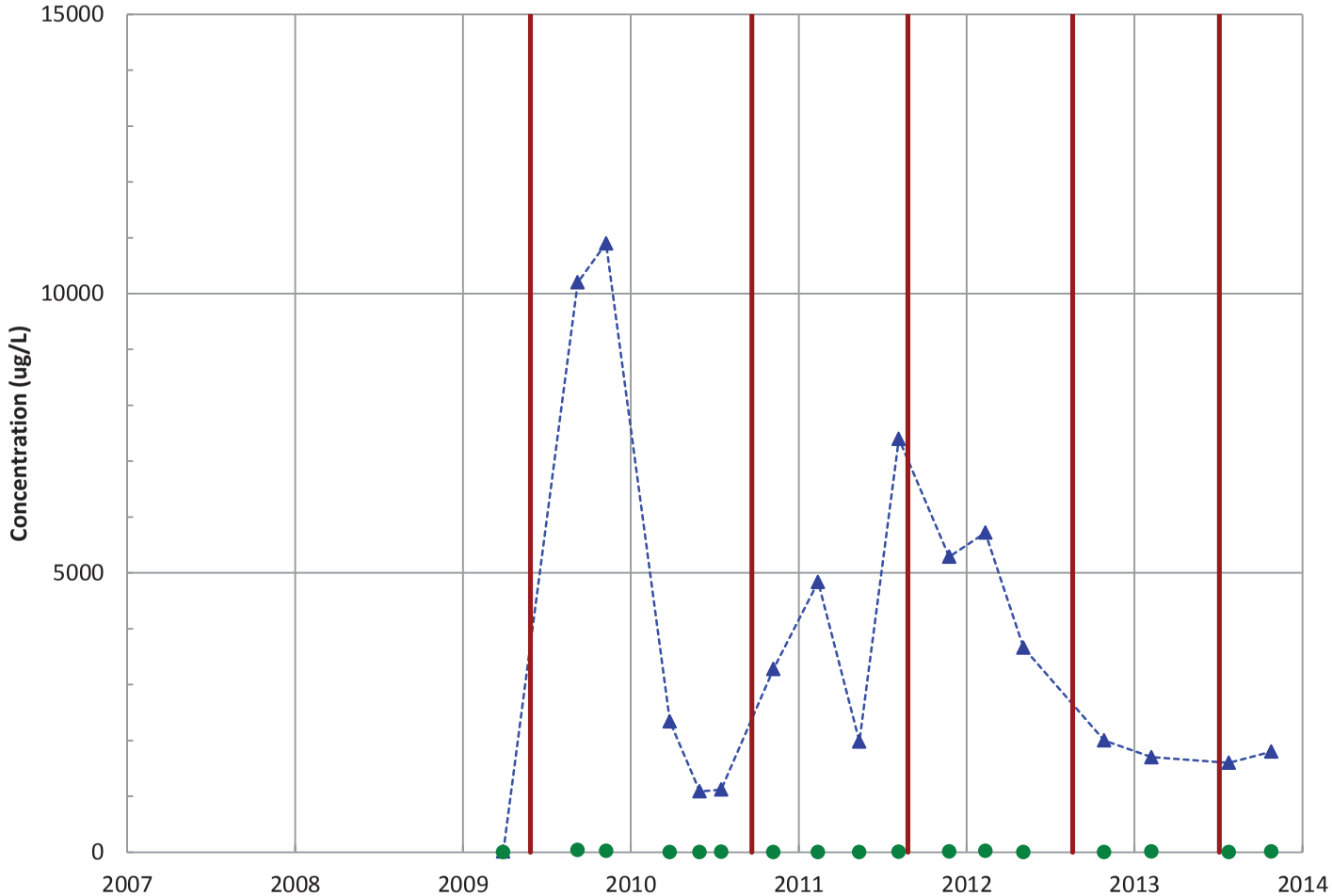
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

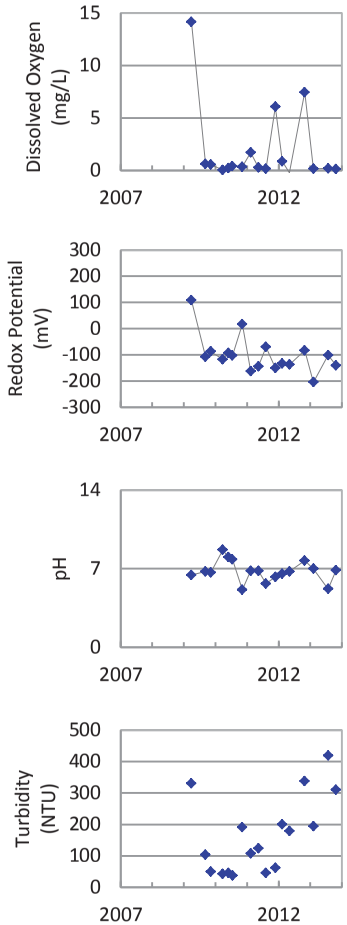


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 10/30/2013
Analysis Date: 3/21/2014

PTX06-ISB059
Manganese Trend in Perched Aquifer



Field Parameters



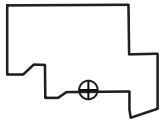
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Stable

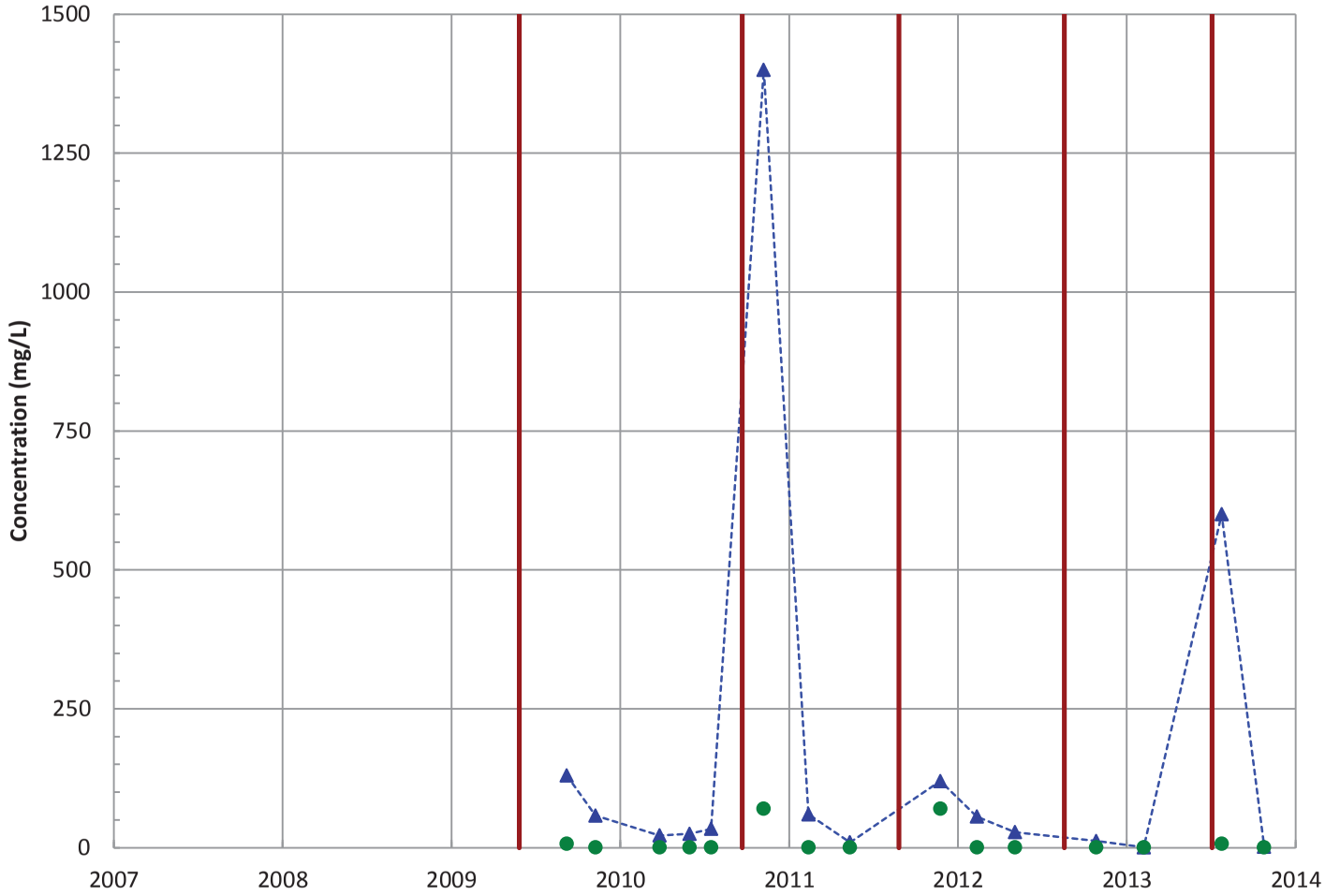
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

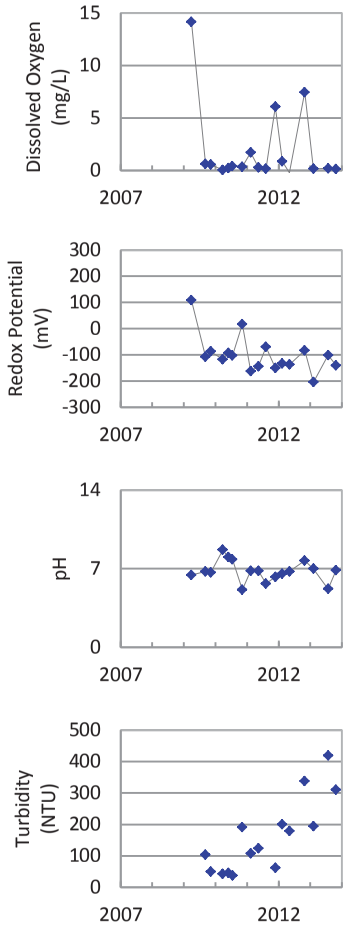


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 10/30/2013
Analysis Date: 3/21/2014

PTX06-ISB059
Acetic Acid Trend in Perched Aquifer



Field Parameters



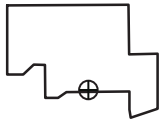
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Probably Decreasing
Last 4 Samples: No Trend

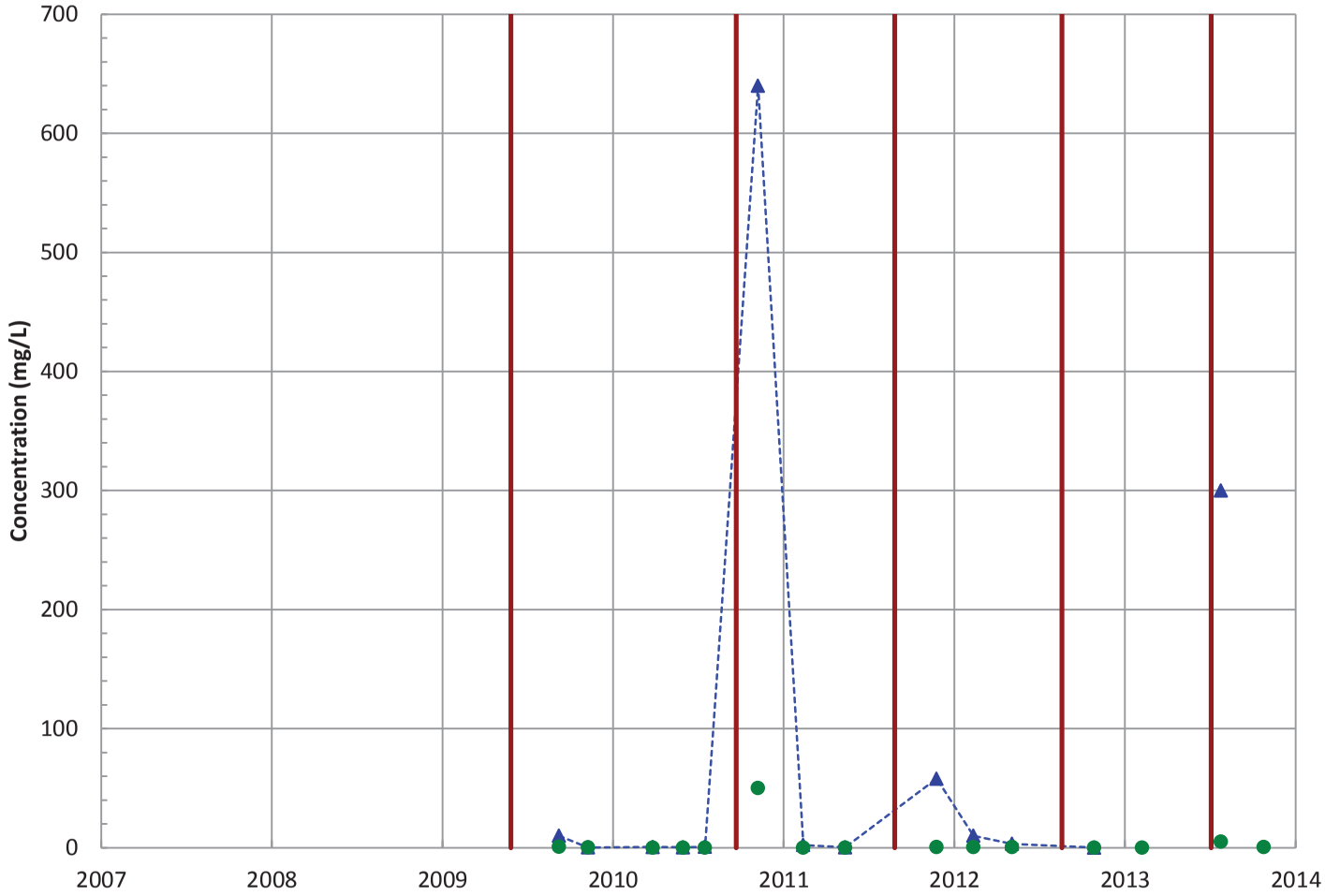
▲ Measured Value
● Sample Detection Limit
---- Concentration Trend
— Injection Dates

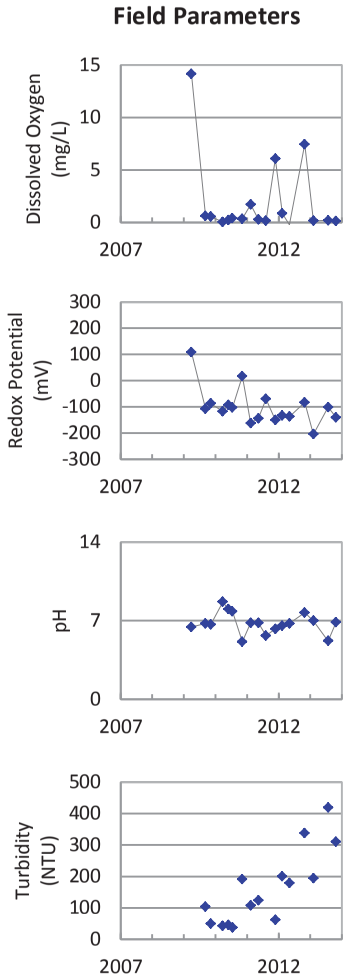
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/9/2009 to 10/30/2013
Analysis Date: 3/21/2014

PTX06-ISB059
Butyric Acid Trend in Perched Aquifer





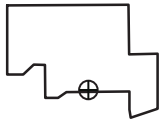
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

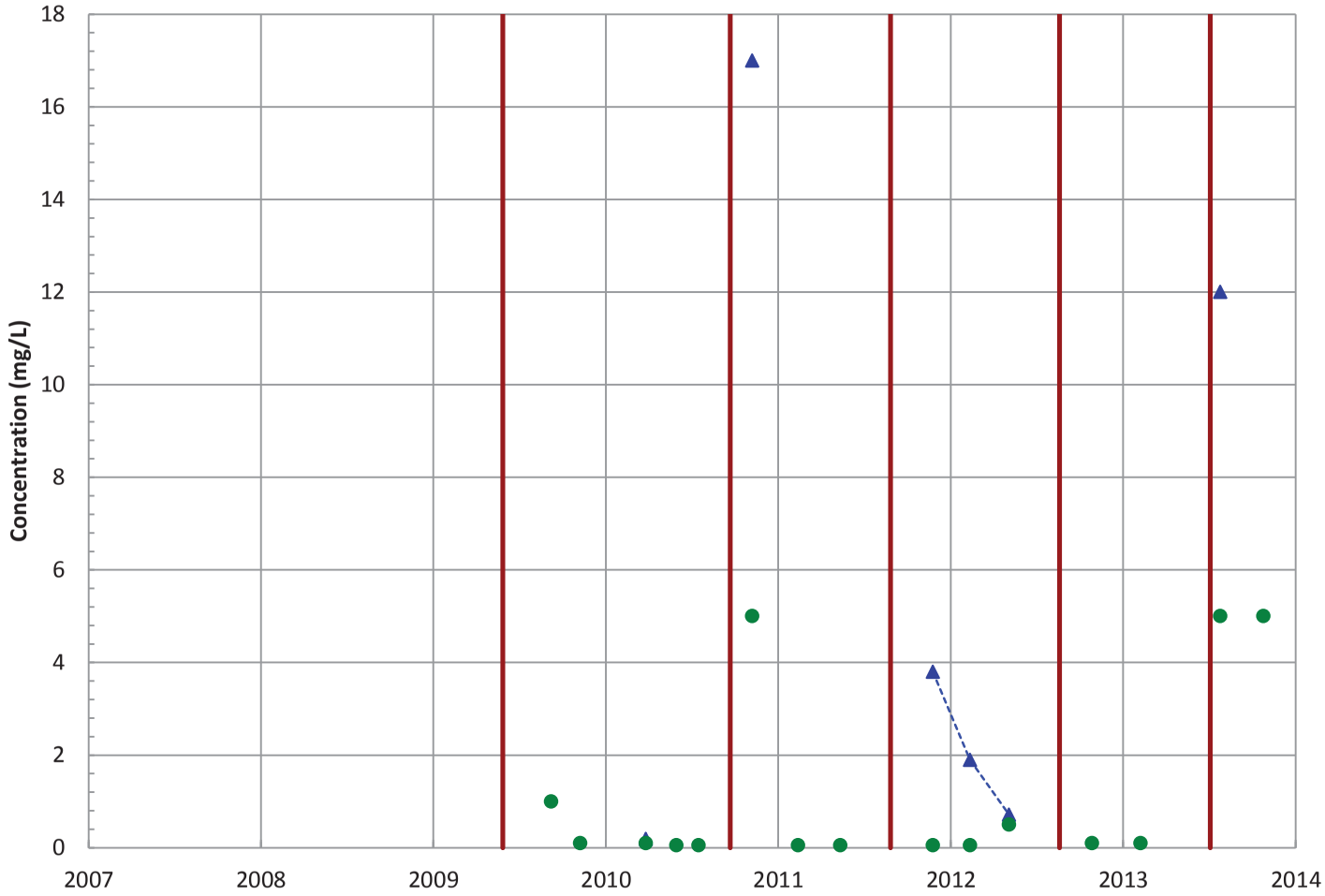
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

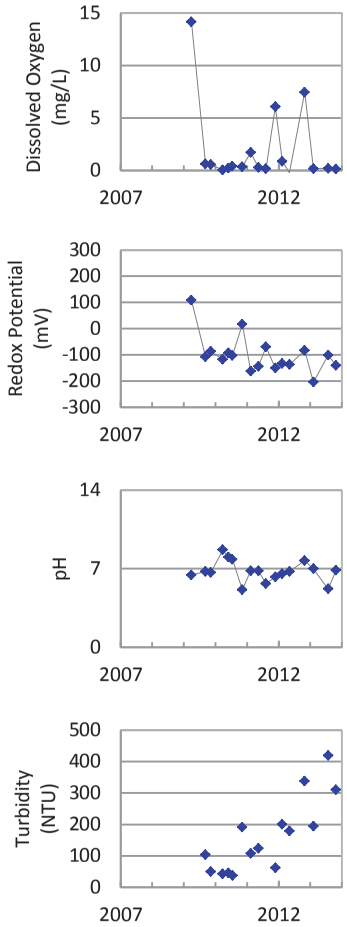


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/9/2009 to 10/30/2013
Analysis Date: 3/21/2014

PTX06-ISB059
Hexanoic Acid Trend in Perched Aquifer



Field Parameters



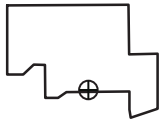
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

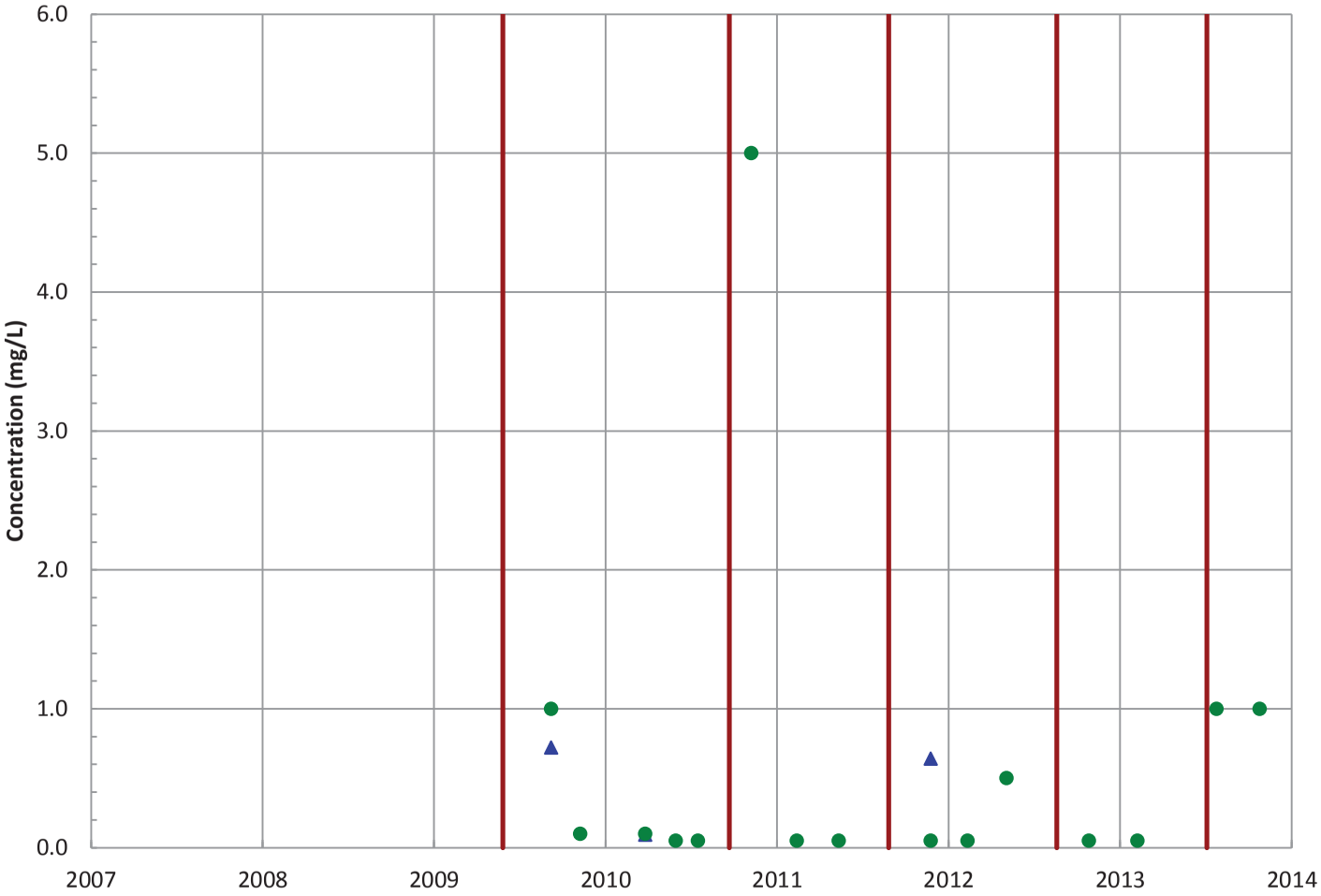
▲ Measured Value
● Sample Detection Limit
- - - Concentration Trend
— Injection Dates

Well Location

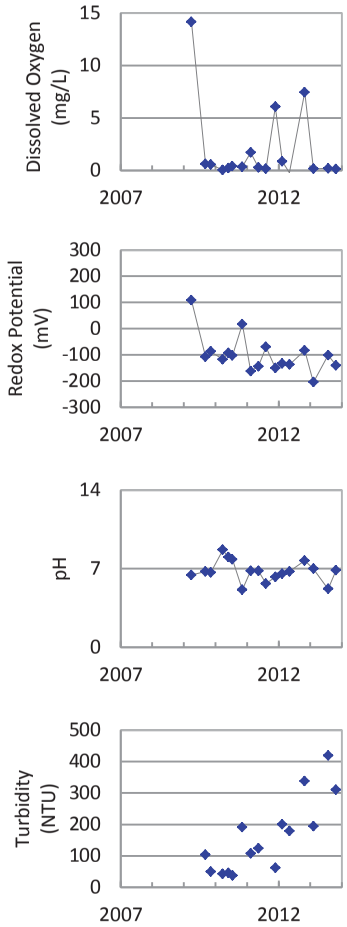


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/9/2009 to 10/30/2013
Analysis Date: 3/21/2014

PTX06-ISB059
i-Hexanoic Acid Trend in Perched Aquifer



Field Parameters



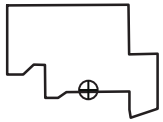
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

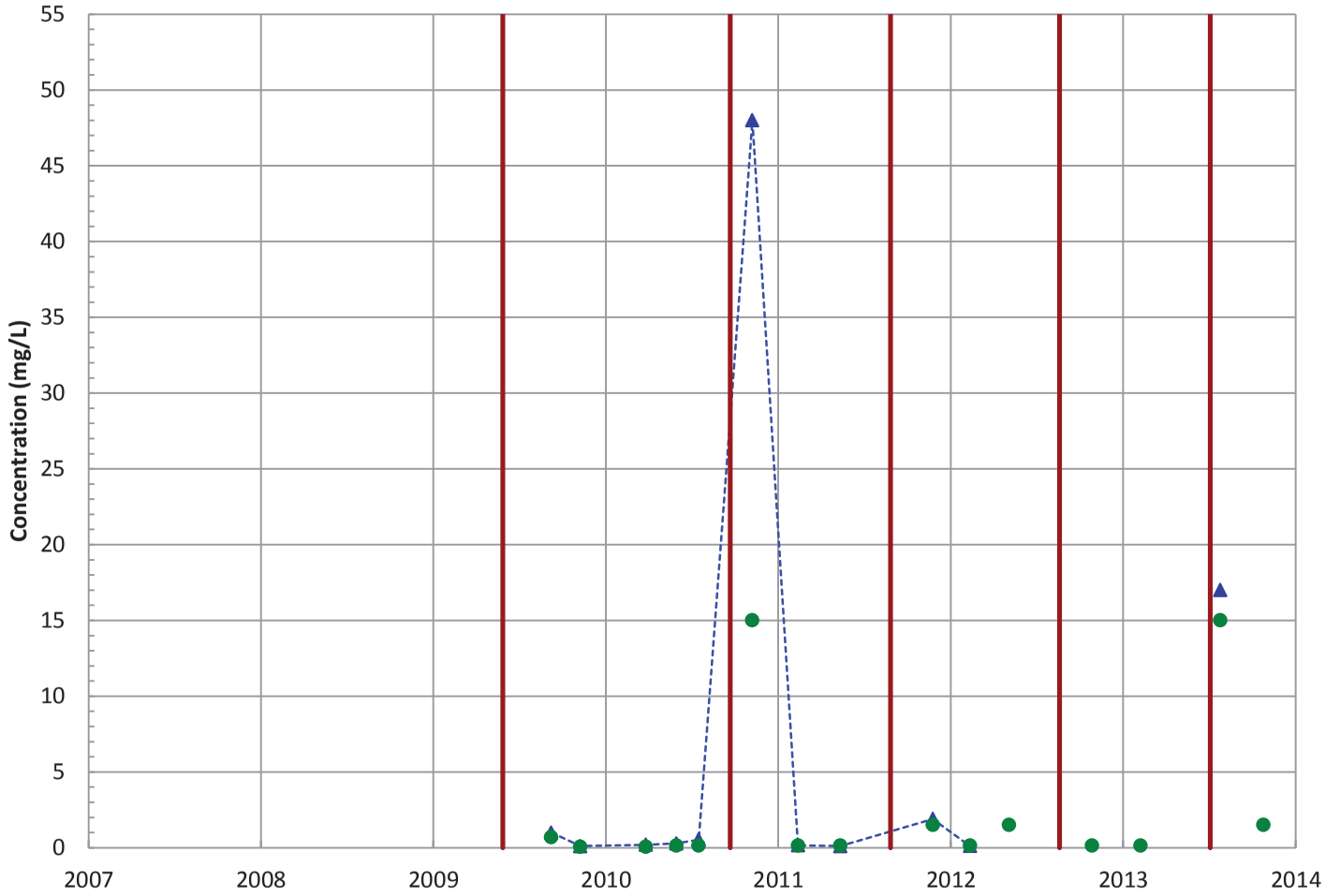
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
═══ Injection Dates

Well Location

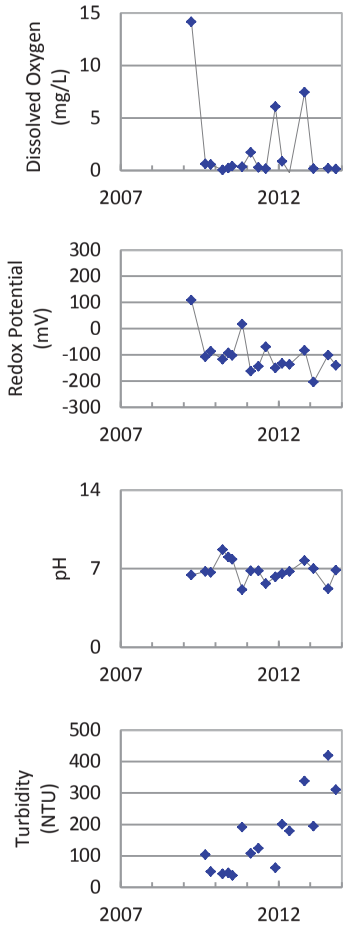


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/9/2009 to 10/30/2013
Analysis Date: 3/21/2014

PTX06-ISB059
i-Pentanoic Acid Trend in Perched Aquifer



Field Parameters



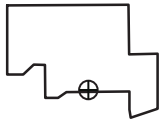
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

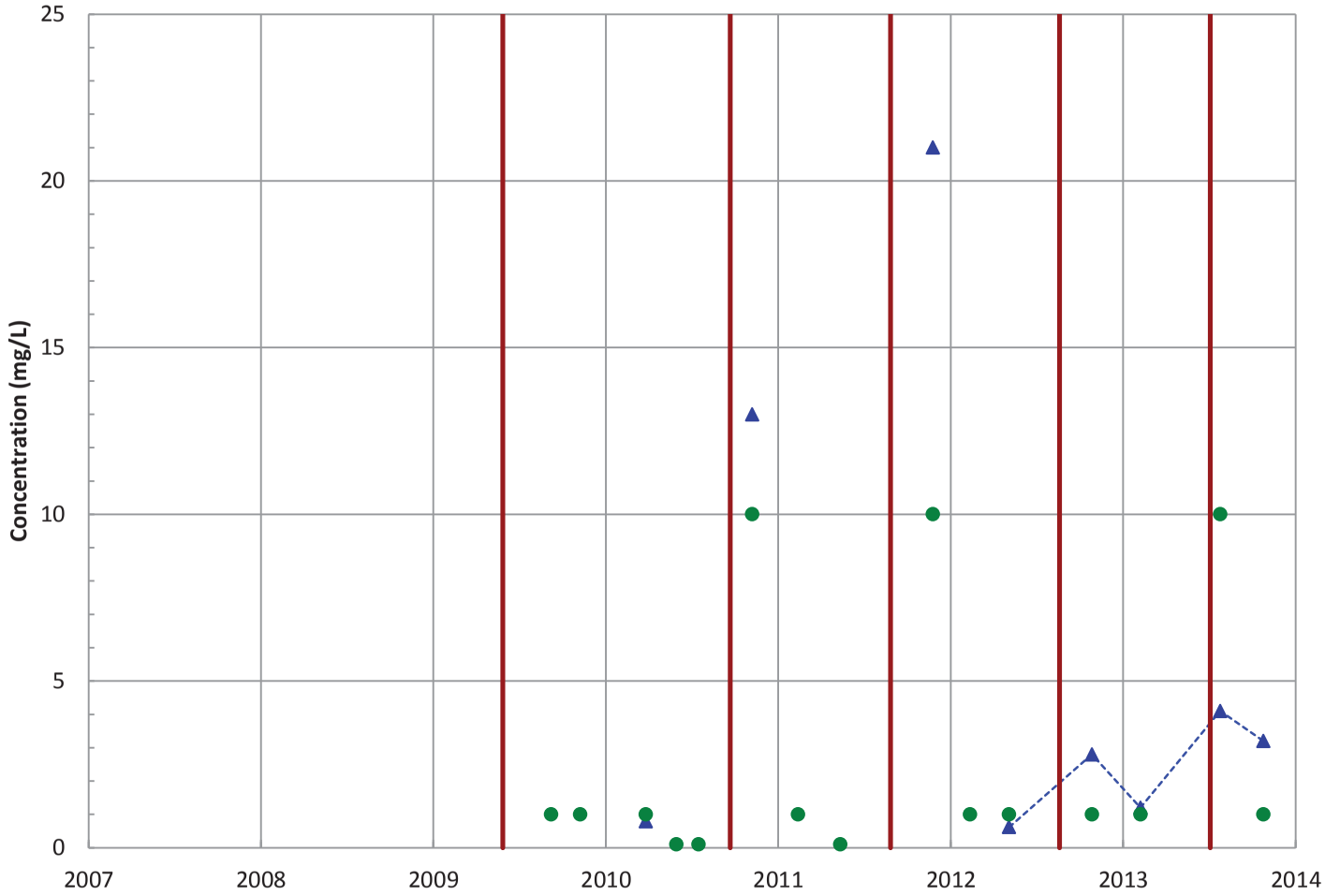
▲ Measured Value
● Sample Detection Limit
---- Concentration Trend
— Injection Dates

Well Location

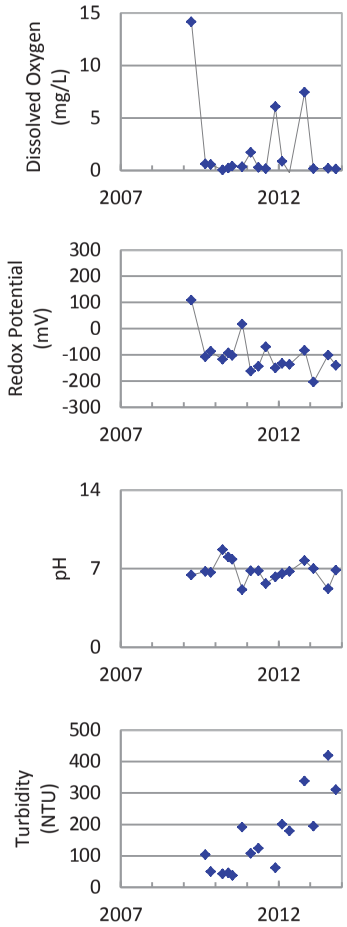


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/9/2009 to 10/30/2013
Analysis Date: 3/21/2014

PTX06-ISB059
Lactic Acid and HIBA Trend in Perched Aquifer



Field Parameters



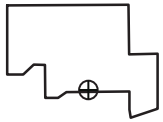
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

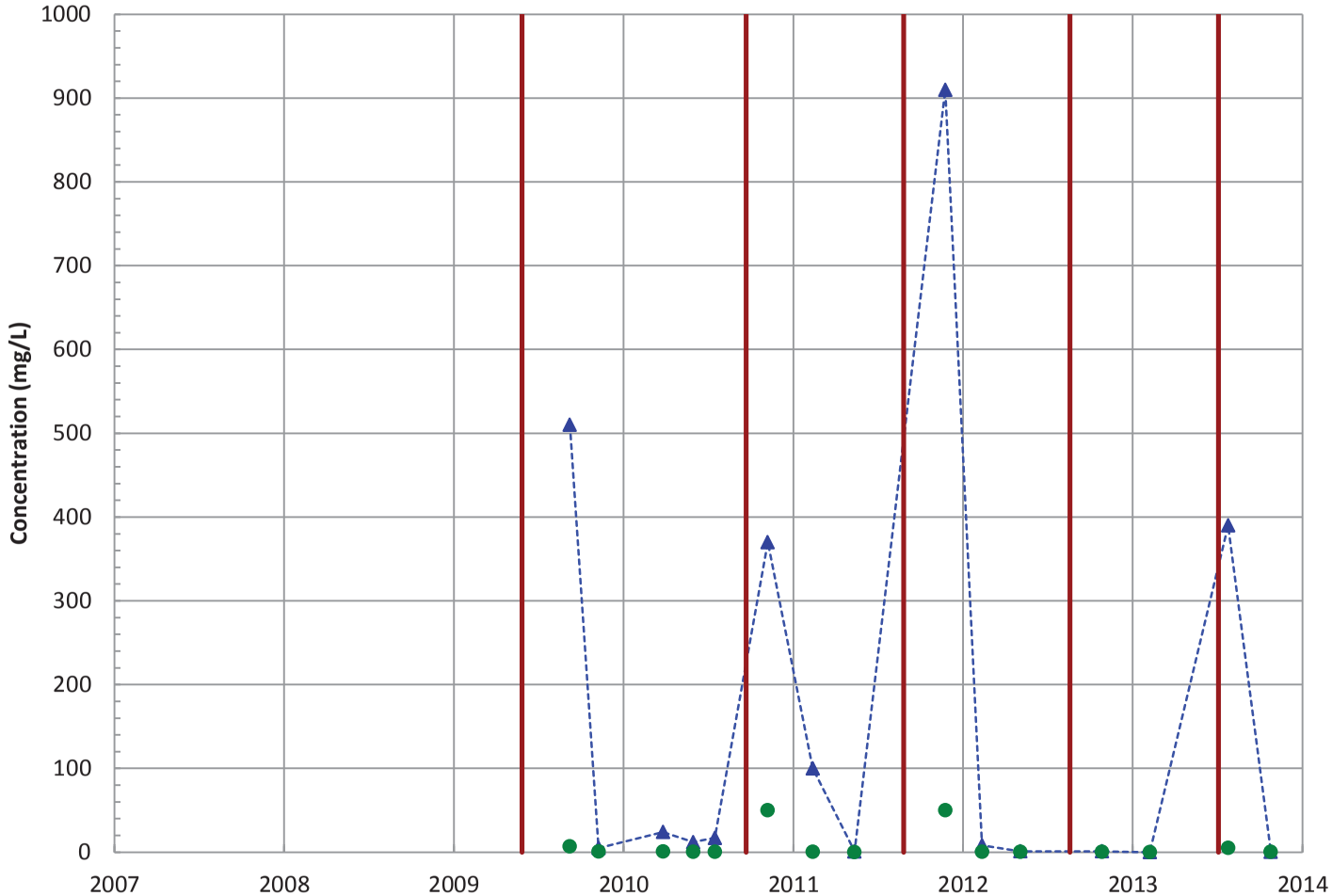
▲ Measured Value
● Sample Detection Limit
Concentration Trend
Injection Dates

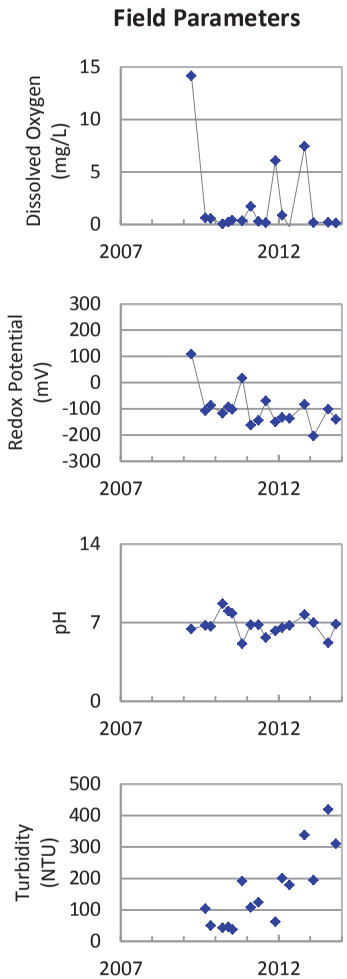
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/9/2009 to 10/30/2013
Analysis Date: 3/21/2014

PTX06-ISB059
Propionic Acid Trend in Perched Aquifer





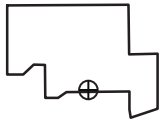
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Probably Decreasing
Last 4 Samples: No Trend

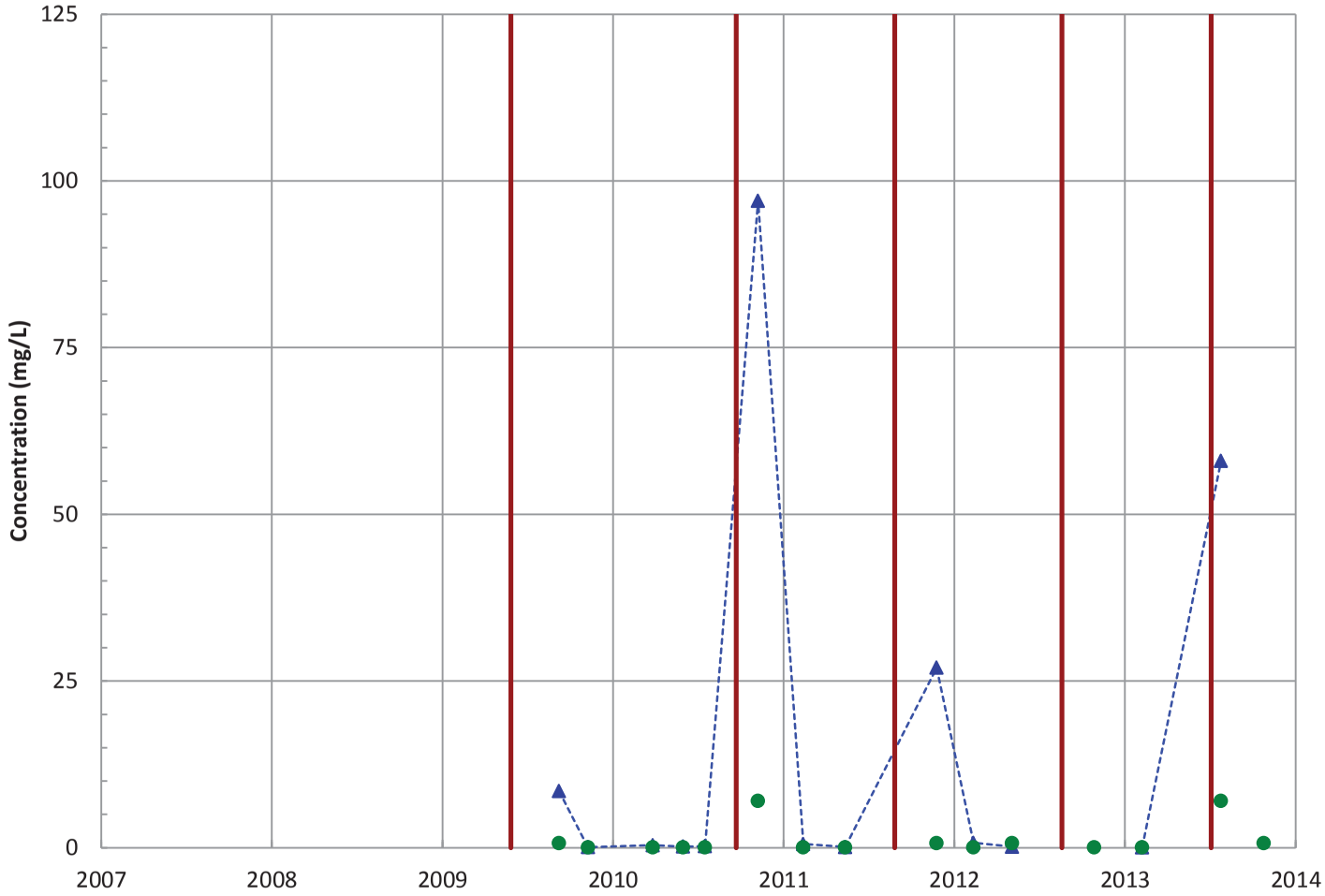
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

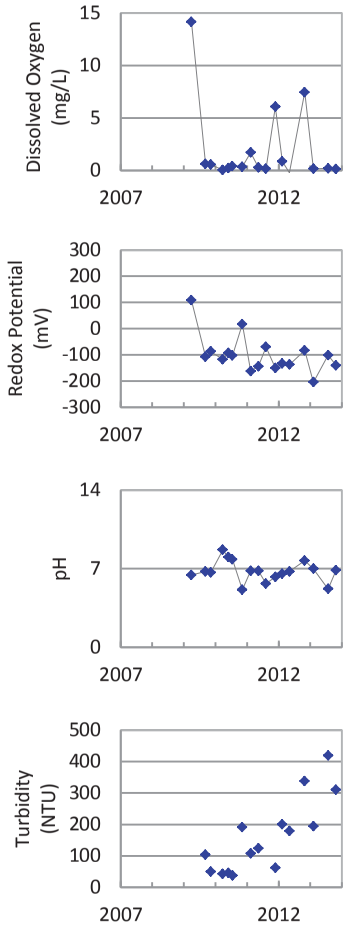


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/9/2009 to 10/30/2013
Analysis Date: 3/21/2014

PTX06-ISB059
Pentanoic Acid Trend in Perched Aquifer



Field Parameters



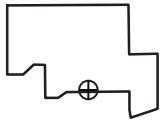
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

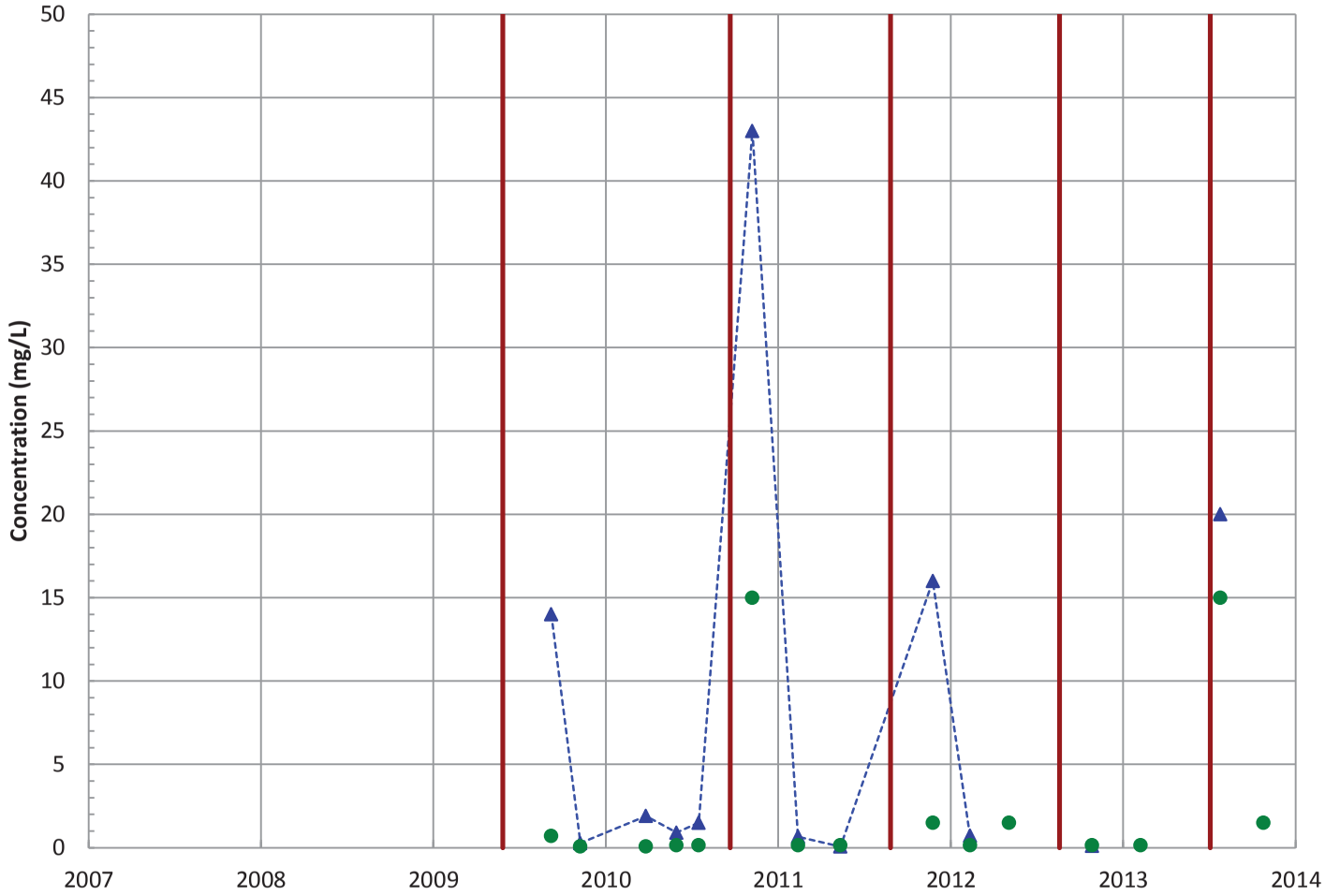
▲ Measured Value
● Sample Detection Limit
---- Concentration Trend
— Injection Dates

Well Location

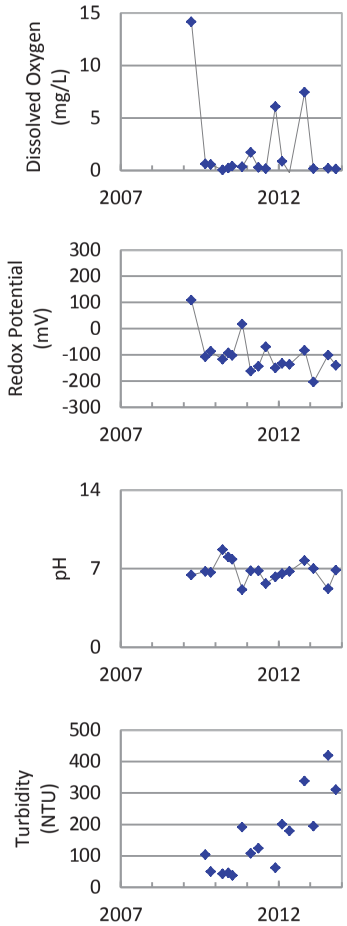


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/9/2009 to 10/30/2013
Analysis Date: 3/21/2014

PTX06-ISB059
Pyruvic Acid Trend in Perched Aquifer



Field Parameters



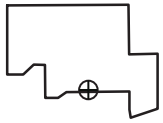
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

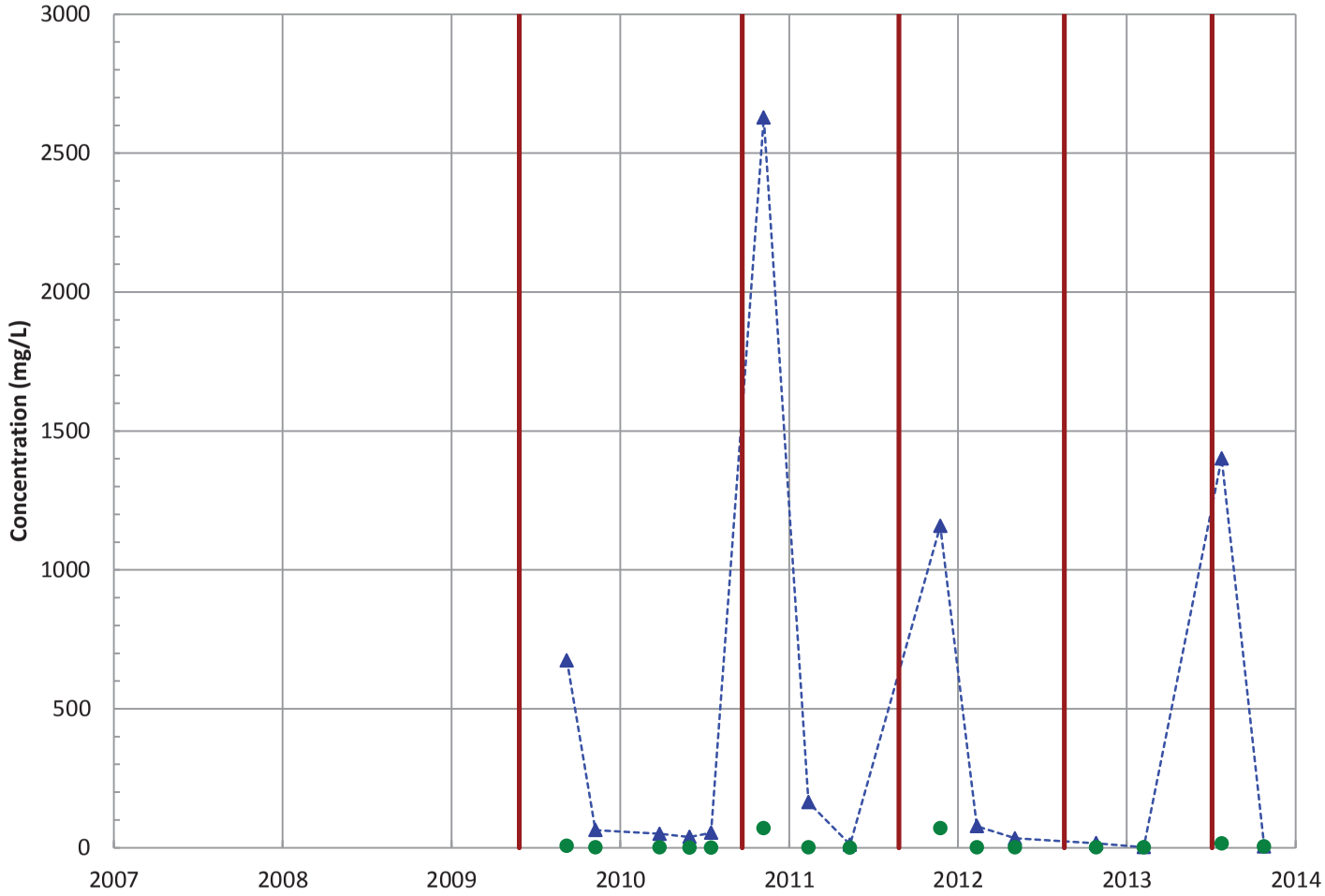
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

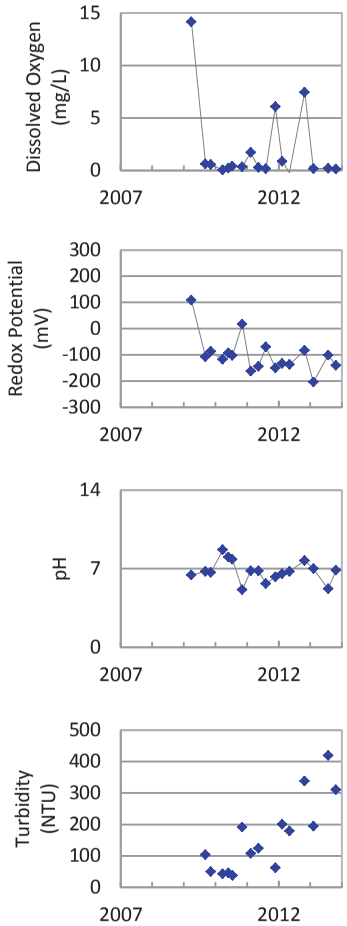


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/9/2009 to 10/30/2013
Analysis Date: 3/21/2014

PTX06-ISB059
Total Volatile Fatty Acids Trend in Perched Aquifer



Field Parameters



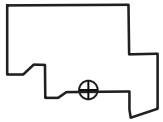
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

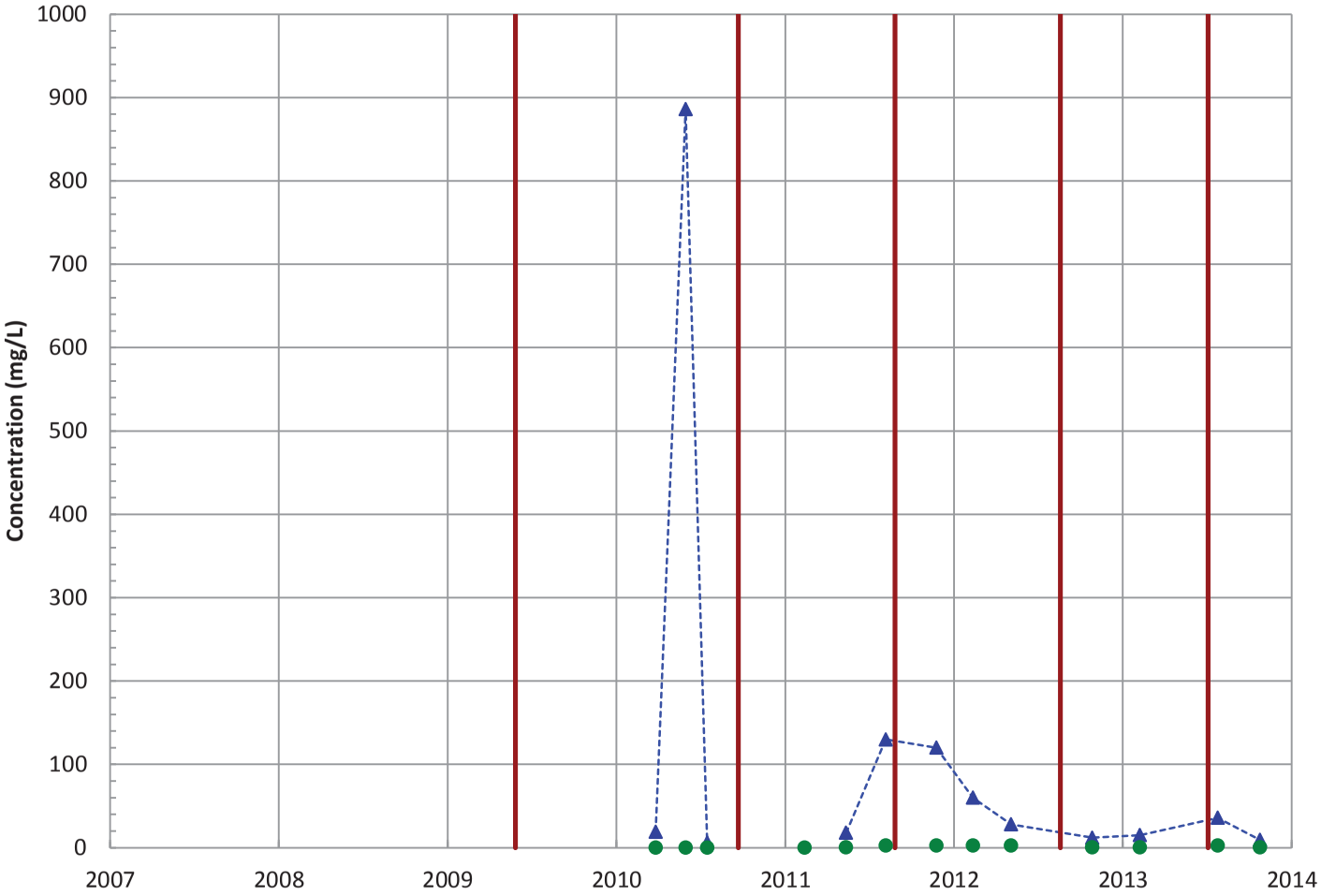
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

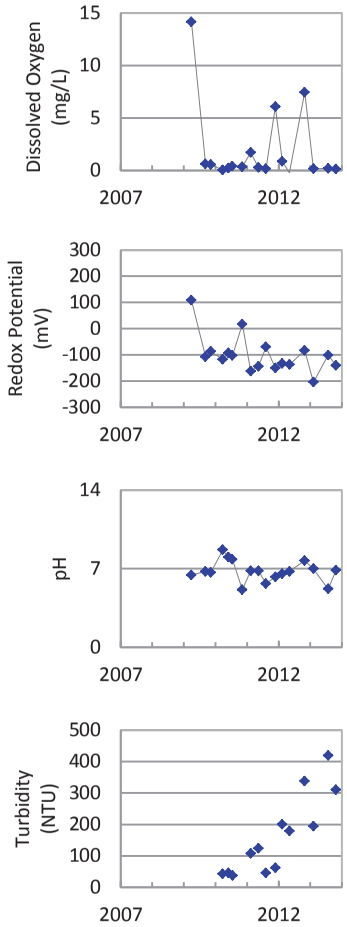


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/9/2009 to 10/30/2013
Analysis Date: 3/21/2014

PTX06-ISB059
Ferrous Iron Trend in Perched Aquifer



Field Parameters



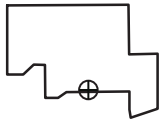
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Stable

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Stable

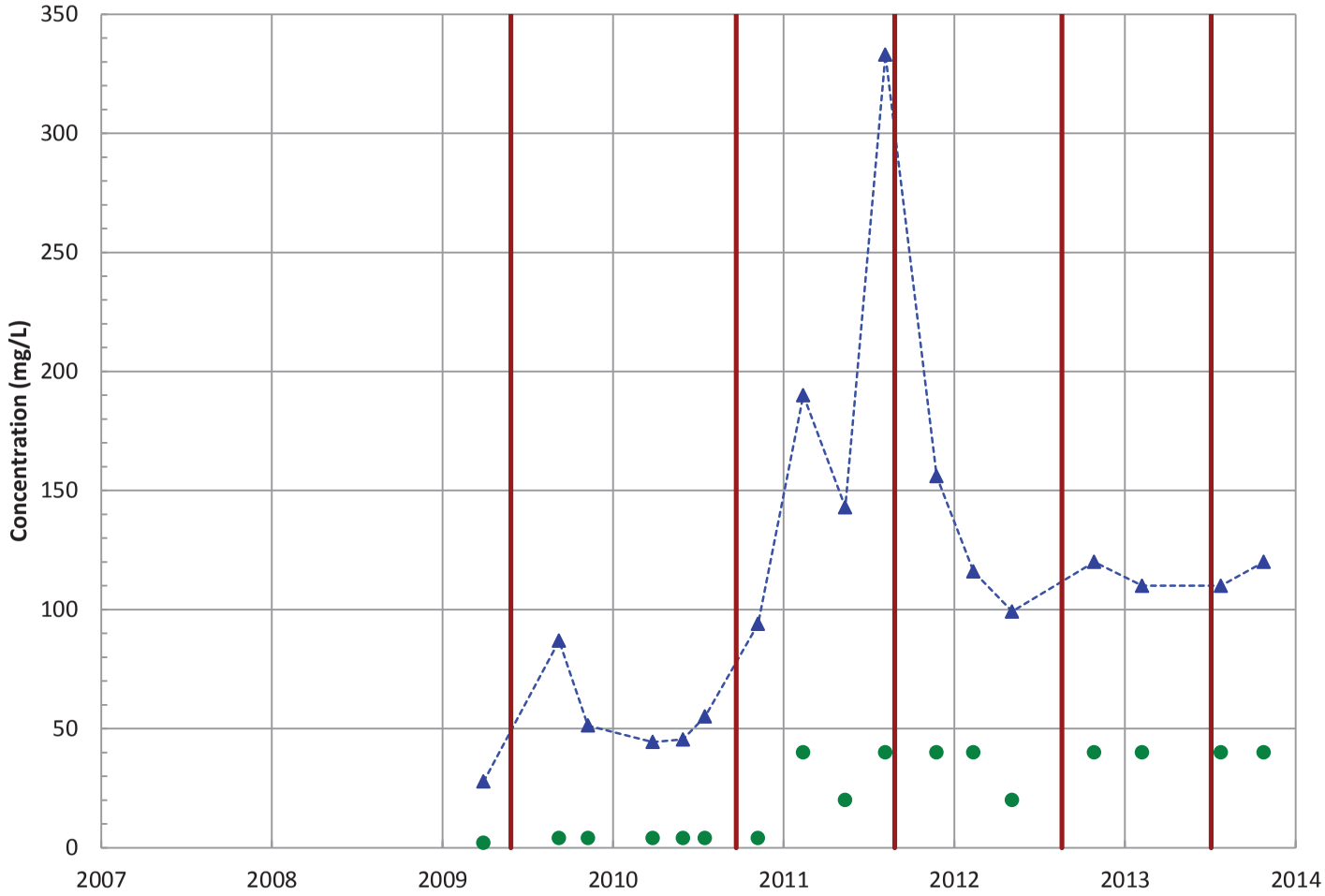
▲ Measured Value
● Sample Detection Limit
---- Concentration Trend
— Injection Dates

Well Location

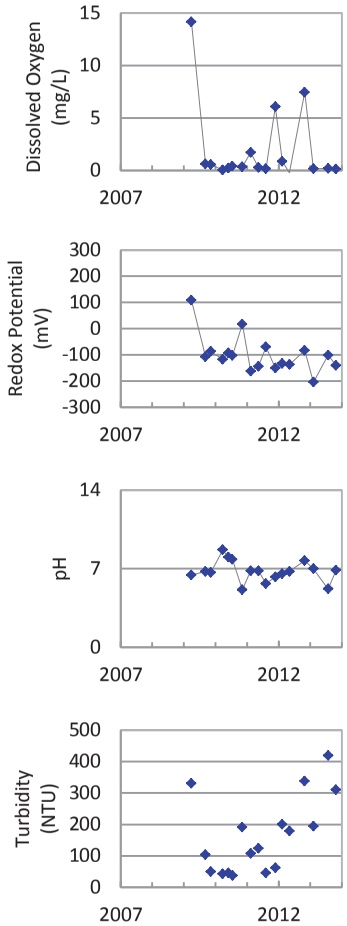


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/29/2010 to 10/30/2013
Analysis Date: 3/21/2014

PTX06-ISB059
Chloride (as Cl) Trend in Perched Aquifer



Field Parameters



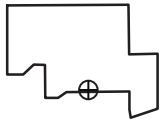
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Stable

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Stable

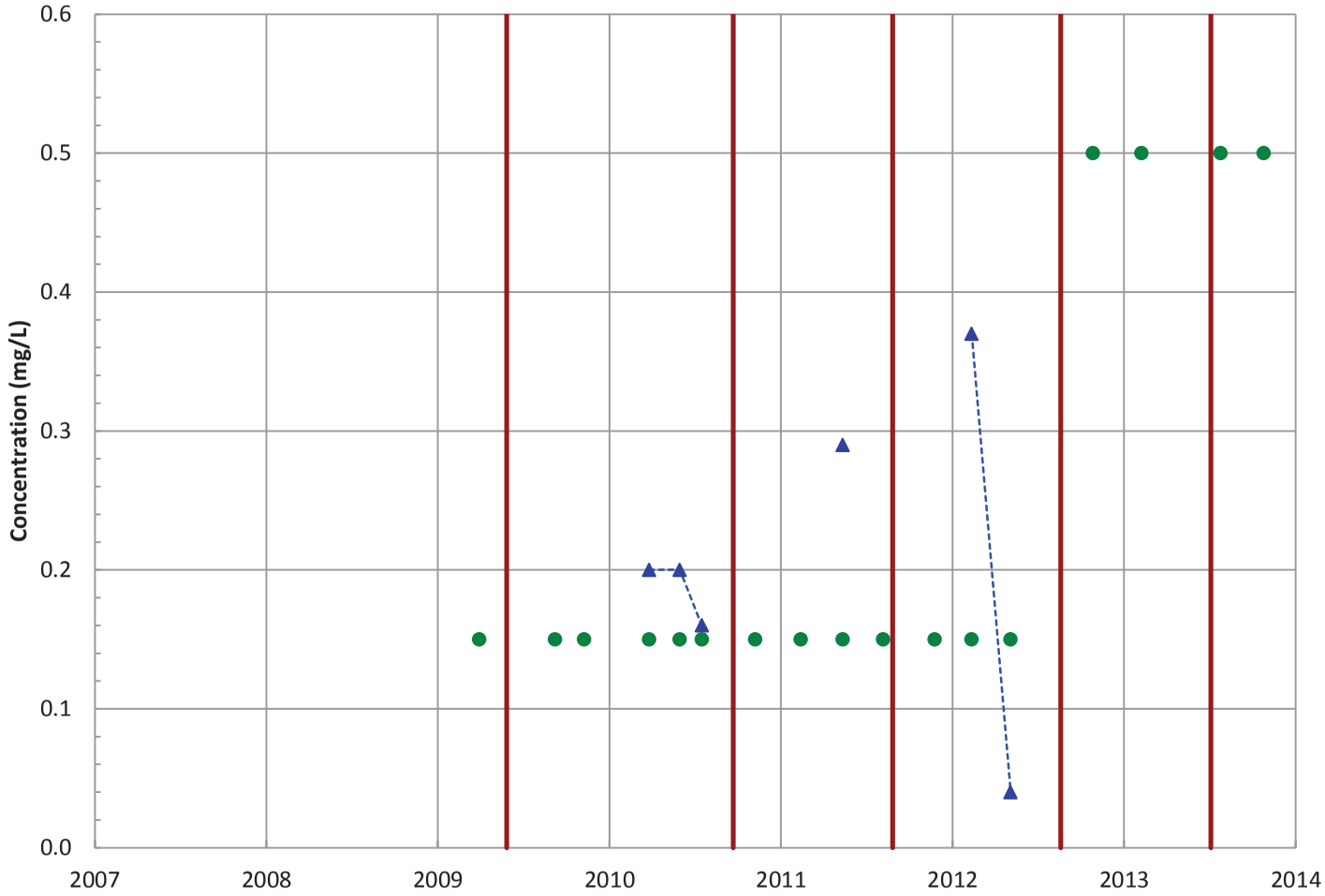
▲ Measured Value
● Sample Detection Limit
---- Concentration Trend
— Injection Dates

Well Location

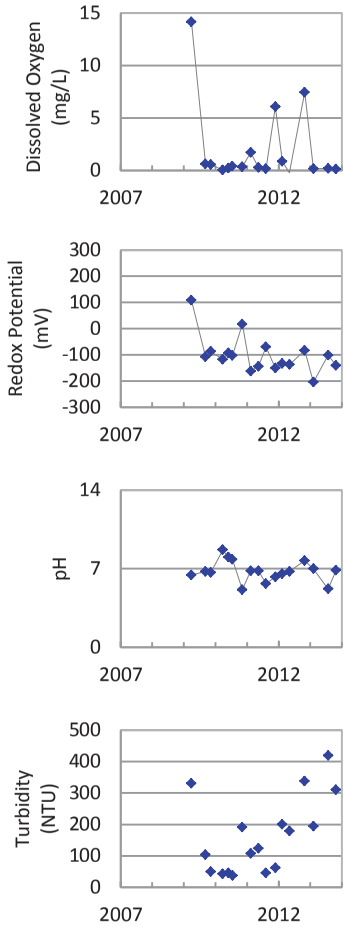


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 10/30/2013
Analysis Date: 3/21/2014

PTX06-ISB059
Chlorate Trend in Perched Aquifer



Field Parameters



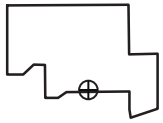
Concentration Trend

MAROS Mann-Kendall Method
All Data: Probably Increasing
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: Probably Decreasing

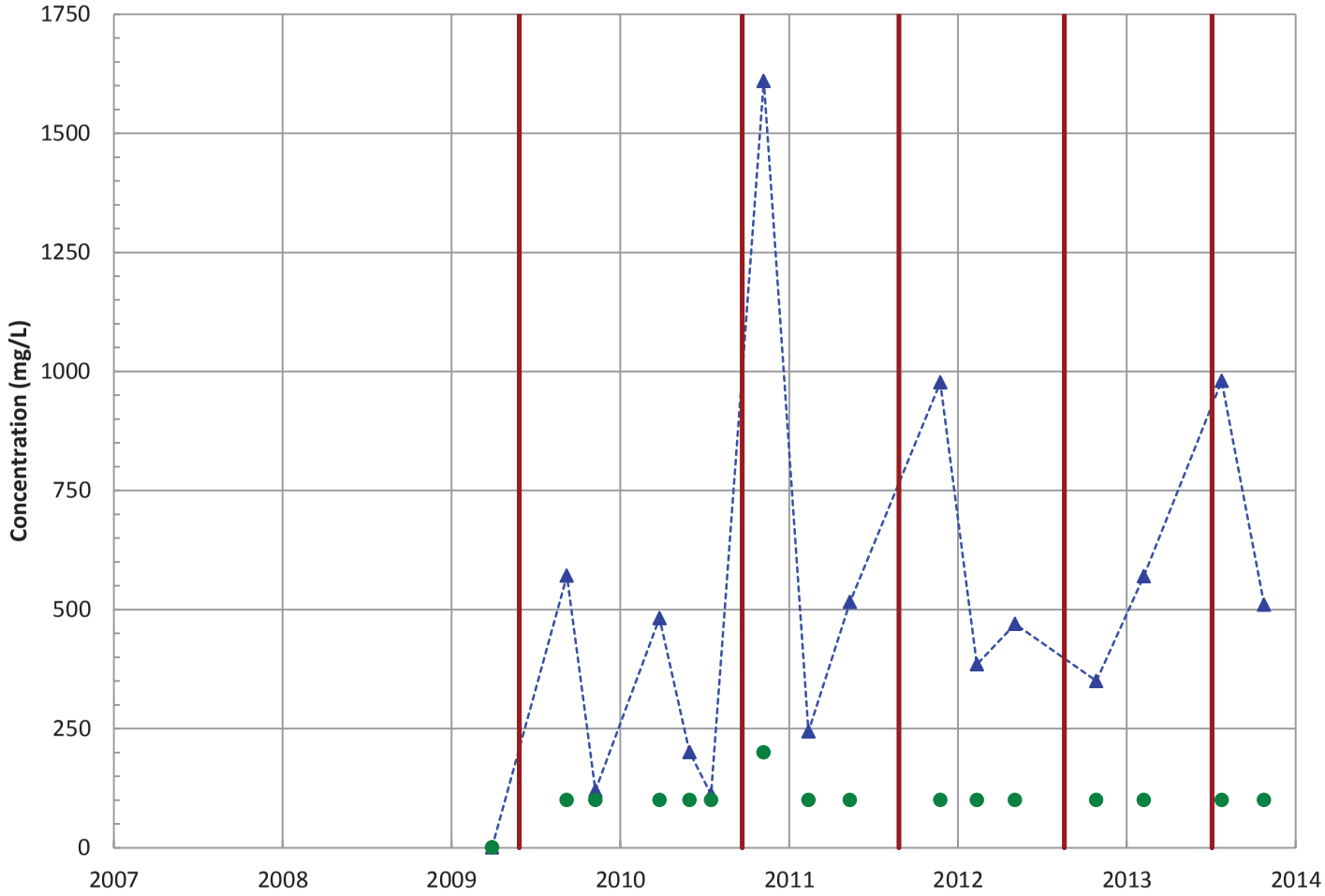
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

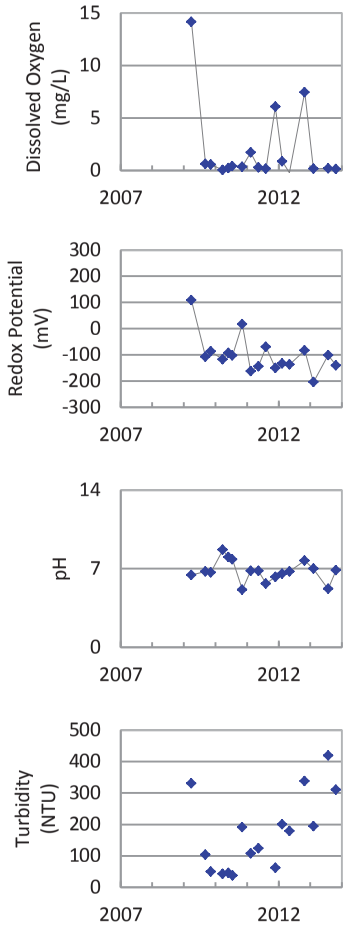


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 10/30/2013
Analysis Date: 3/21/2014

PTX06-ISB059
Total Organic Carbon Trend in Perched Aquifer



Field Parameters



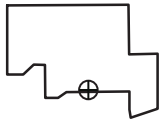
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: No Trend

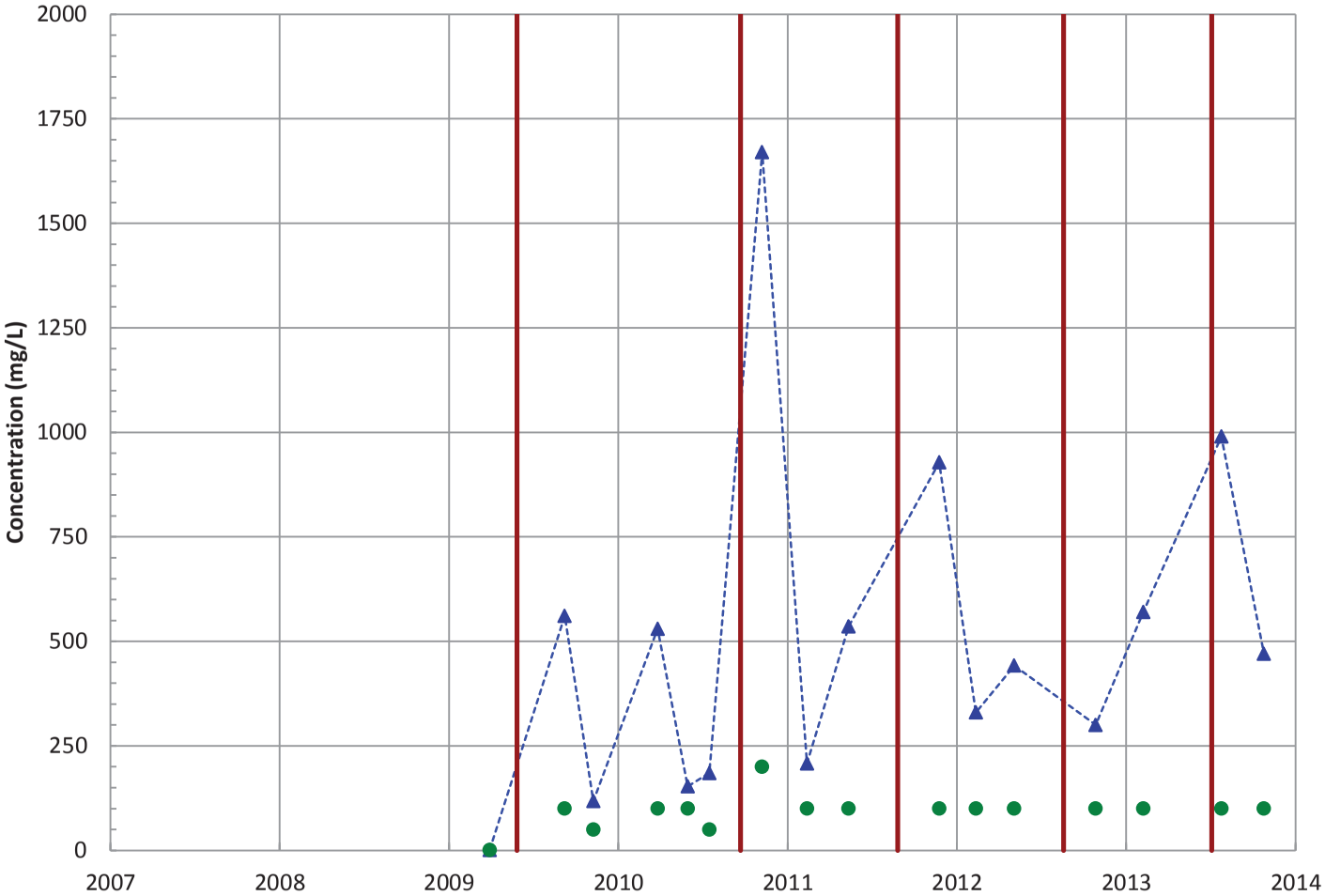
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Injection Dates

Well Location

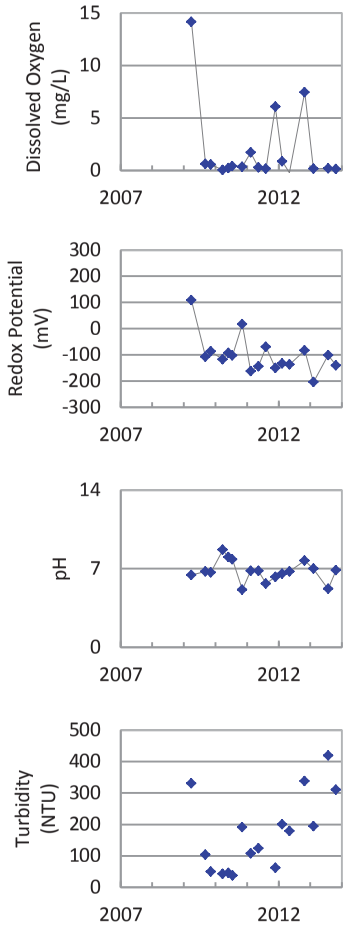


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 10/30/2013
Analysis Date: 3/21/2014

PTX06-ISB059
Dissolved Organic Carbon (DOC) Trend in Perched Aquifer



Field Parameters



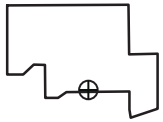
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: No Trend

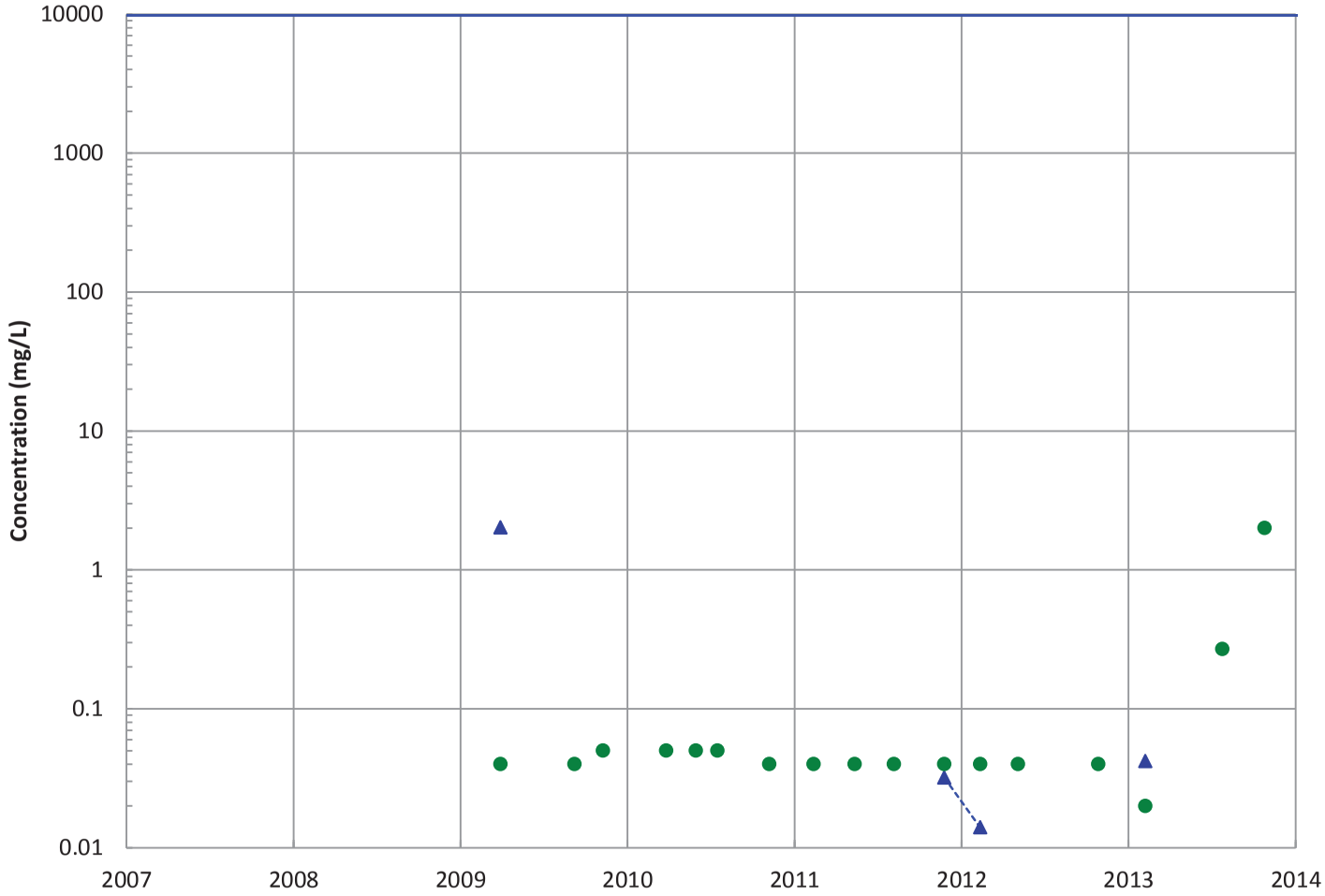
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

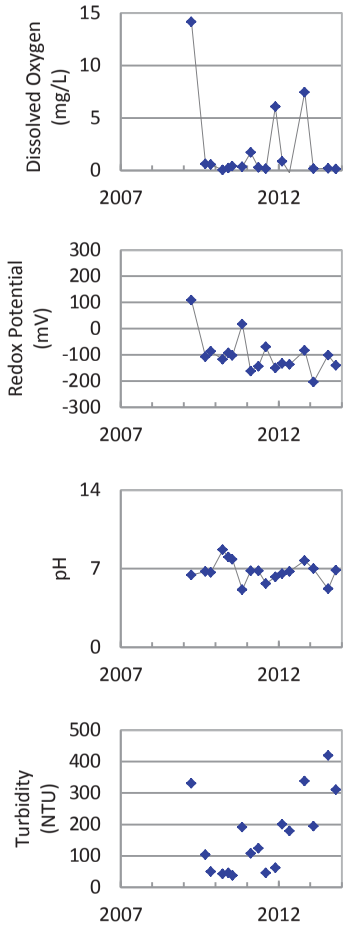


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 10/30/2013
Analysis Date: 3/21/2014

PTX06-ISB059
Nitrate as N Trend in Perched Aquifer



Field Parameters



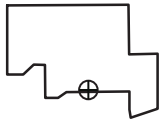
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: Probably Decreasing
Last 4 Samples: Probably Decreasing

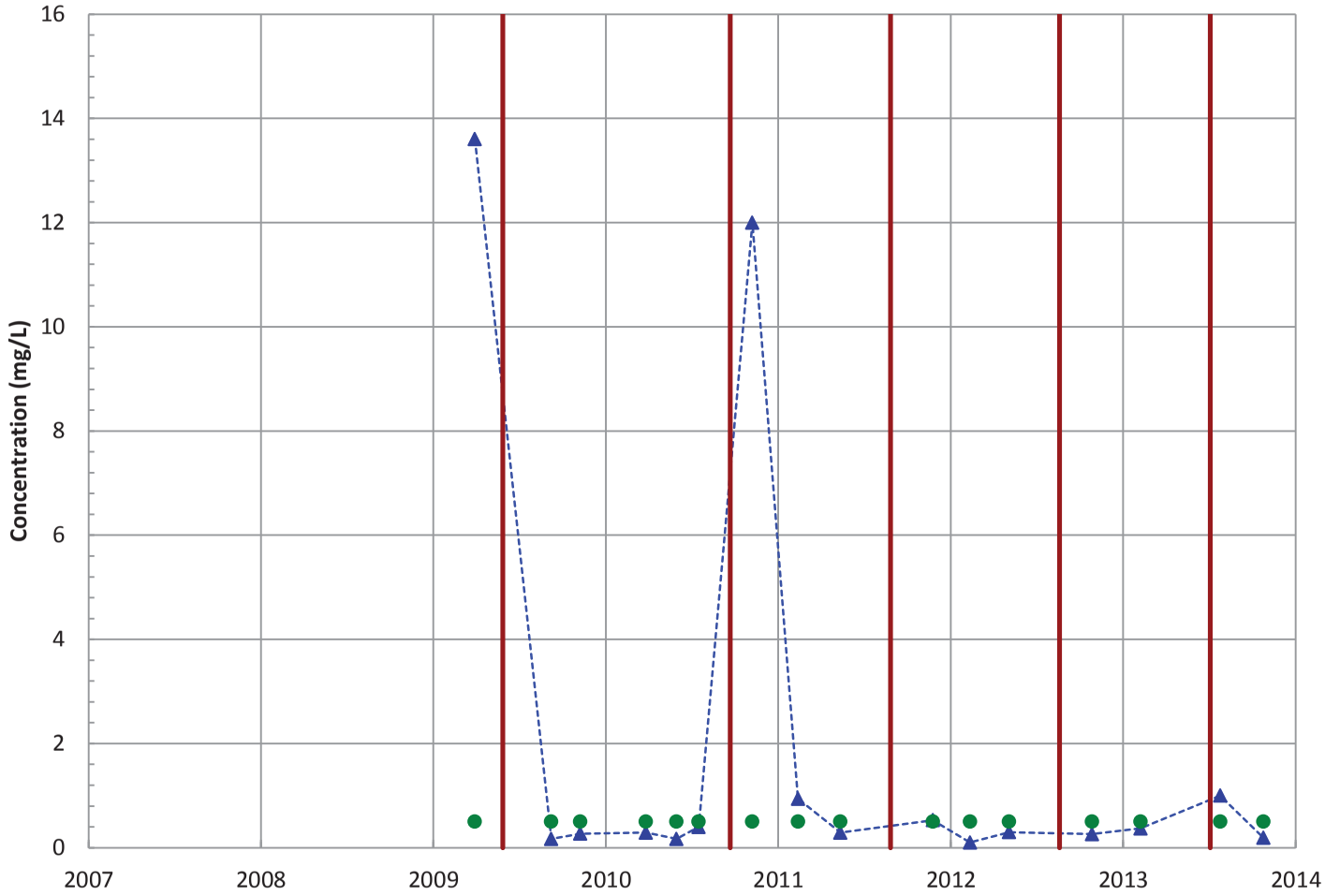
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

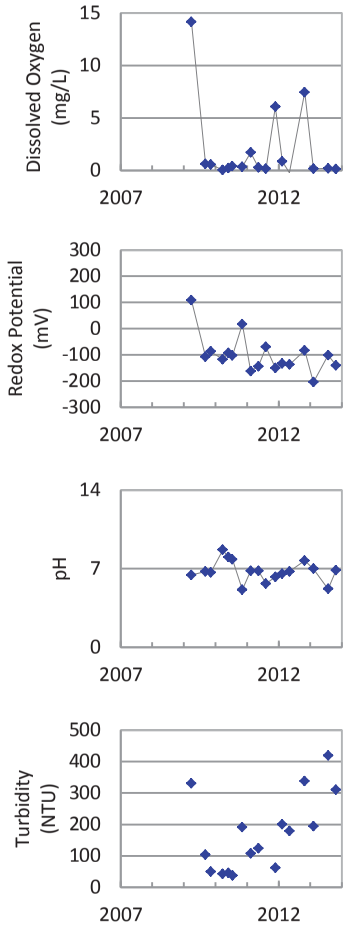


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 10/30/2013
Analysis Date: 3/21/2014

PTX06-ISB059
Sulfate (as SO4) Trend in Perched Aquifer



Field Parameters



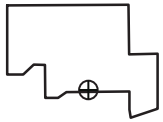
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Stable

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Stable

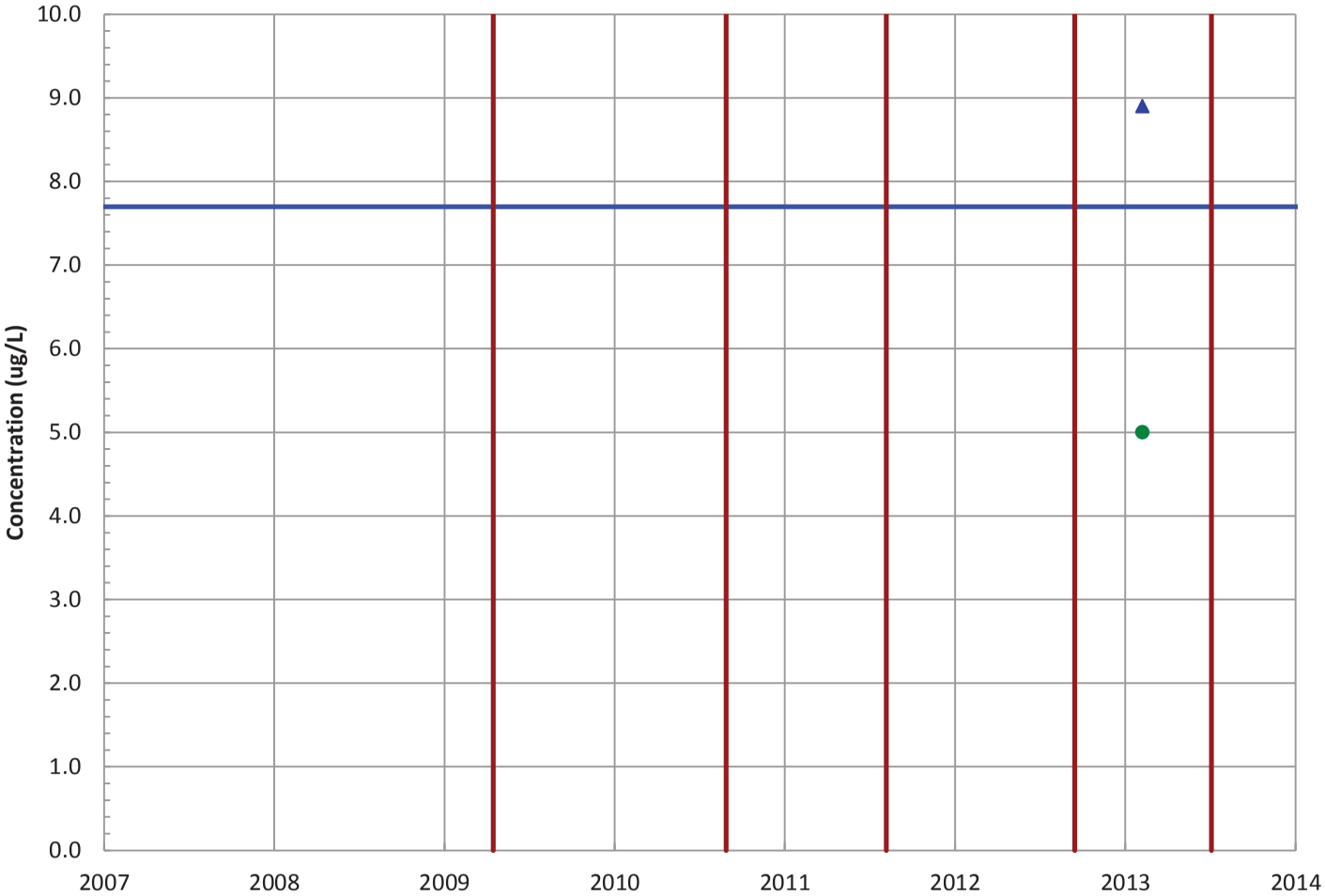
▲ Measured Value
● Sample Detection Limit
---- Concentration Trend
— Injection Dates

Well Location

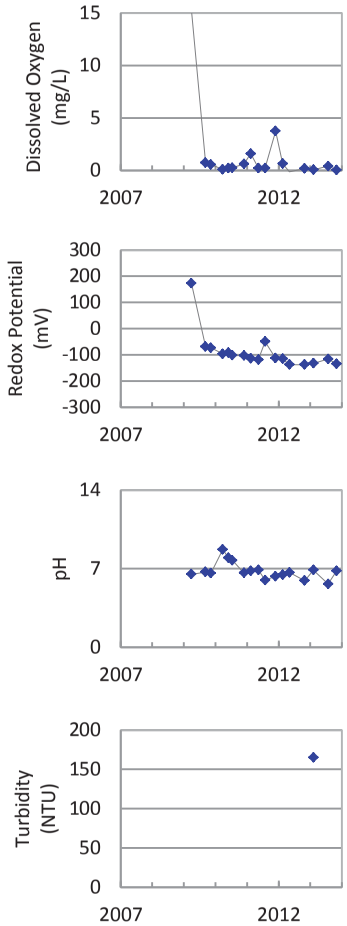


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 10/30/2013
Analysis Date: 3/21/2014

PTX06-ISB063
1,4-Dioxane (p-Dioxane) Trend in Perched Aquifer



Field Parameters



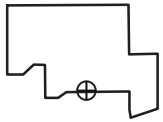
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Samples in Dataset)
Last 4 Samples: N/A (<4 Samples in Dataset)

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

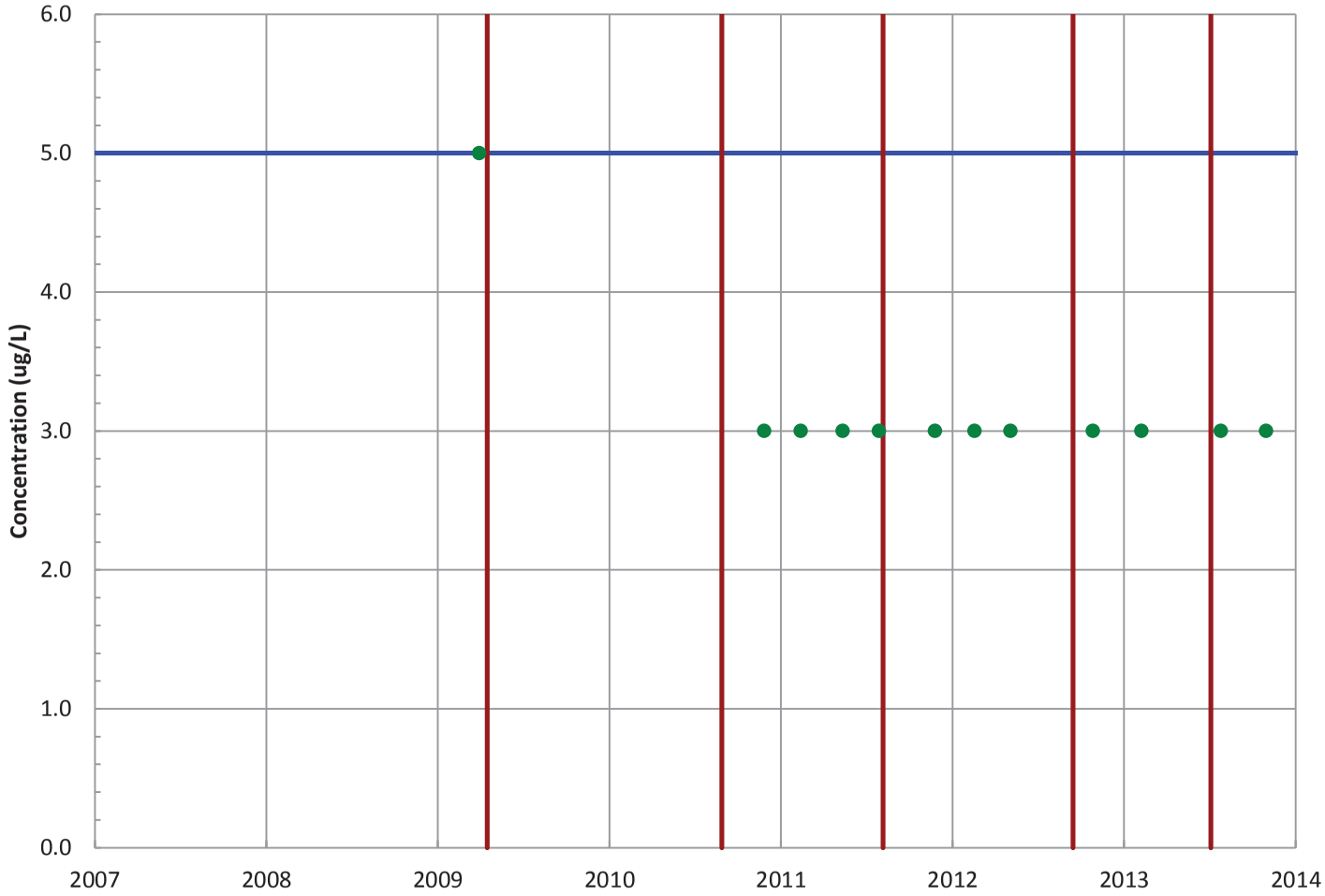
- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

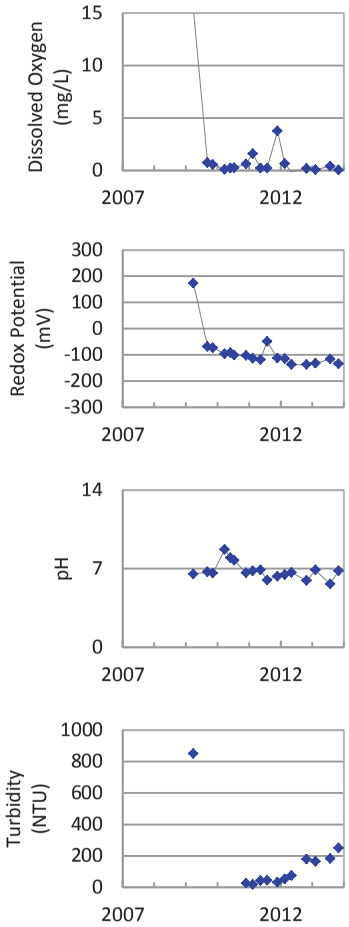


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/11/2013 to 2/11/2013
Analysis Date: 3/21/2014

PTX06-ISB063
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



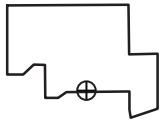
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

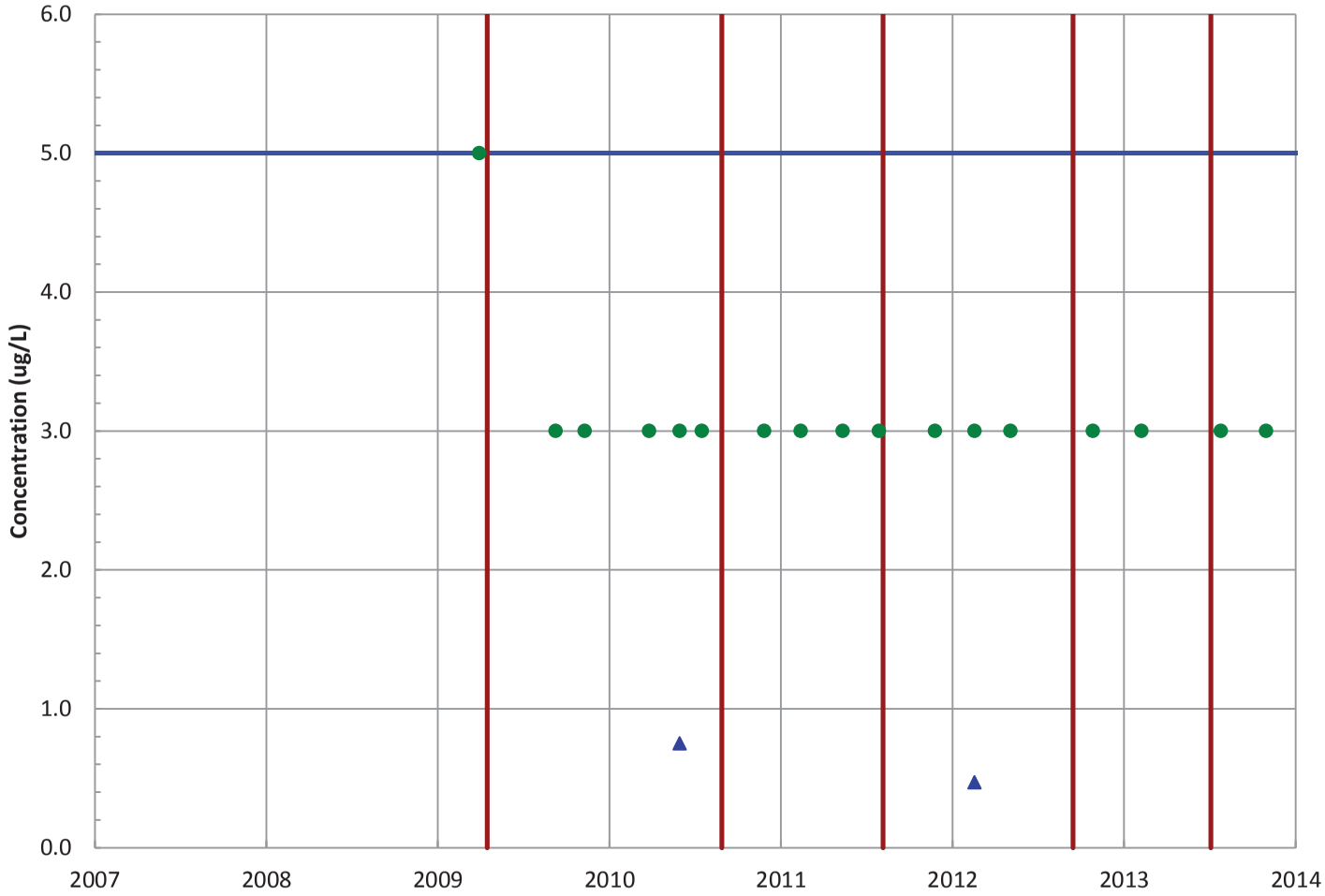
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

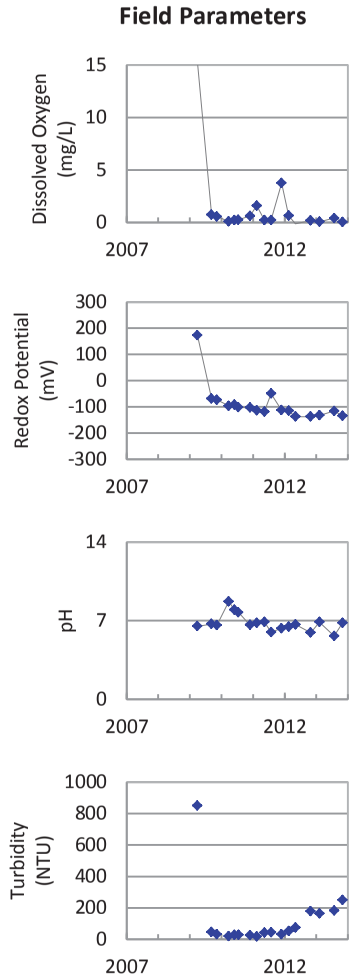
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 11/4/2013
Analysis Date: 3/21/2014

PTX06-ISB063
Trichloroethene Trend in Perched Aquifer





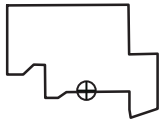
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

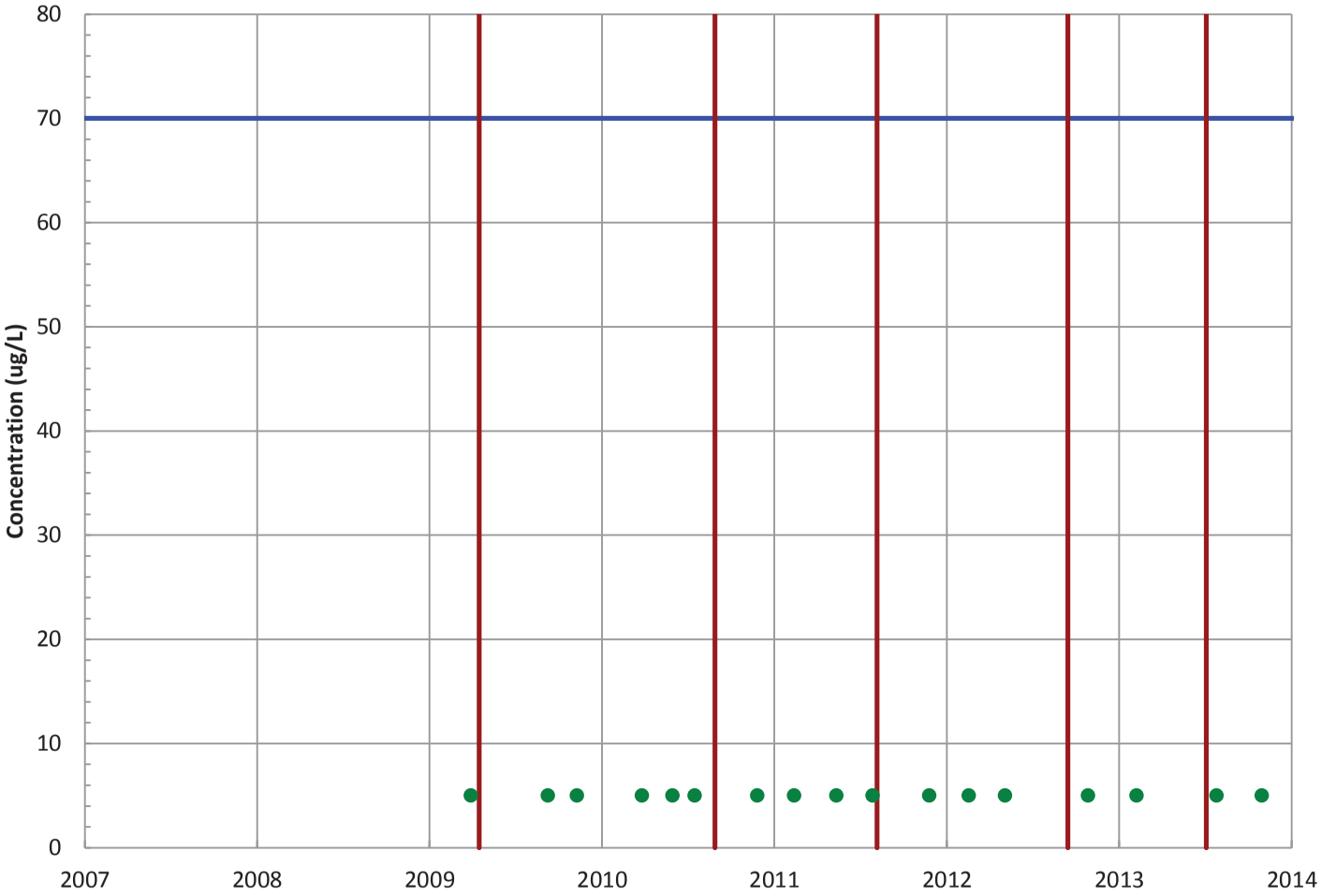
- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

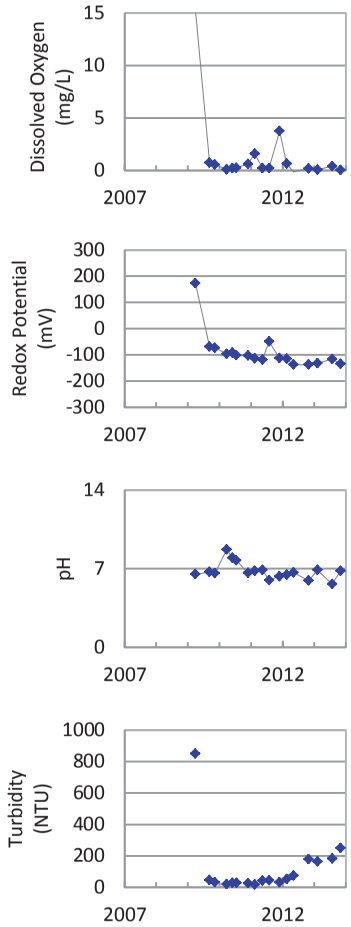


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 11/4/2013
Analysis Date: 3/21/2014

PTX06-ISB063
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



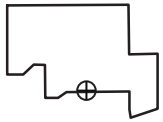
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

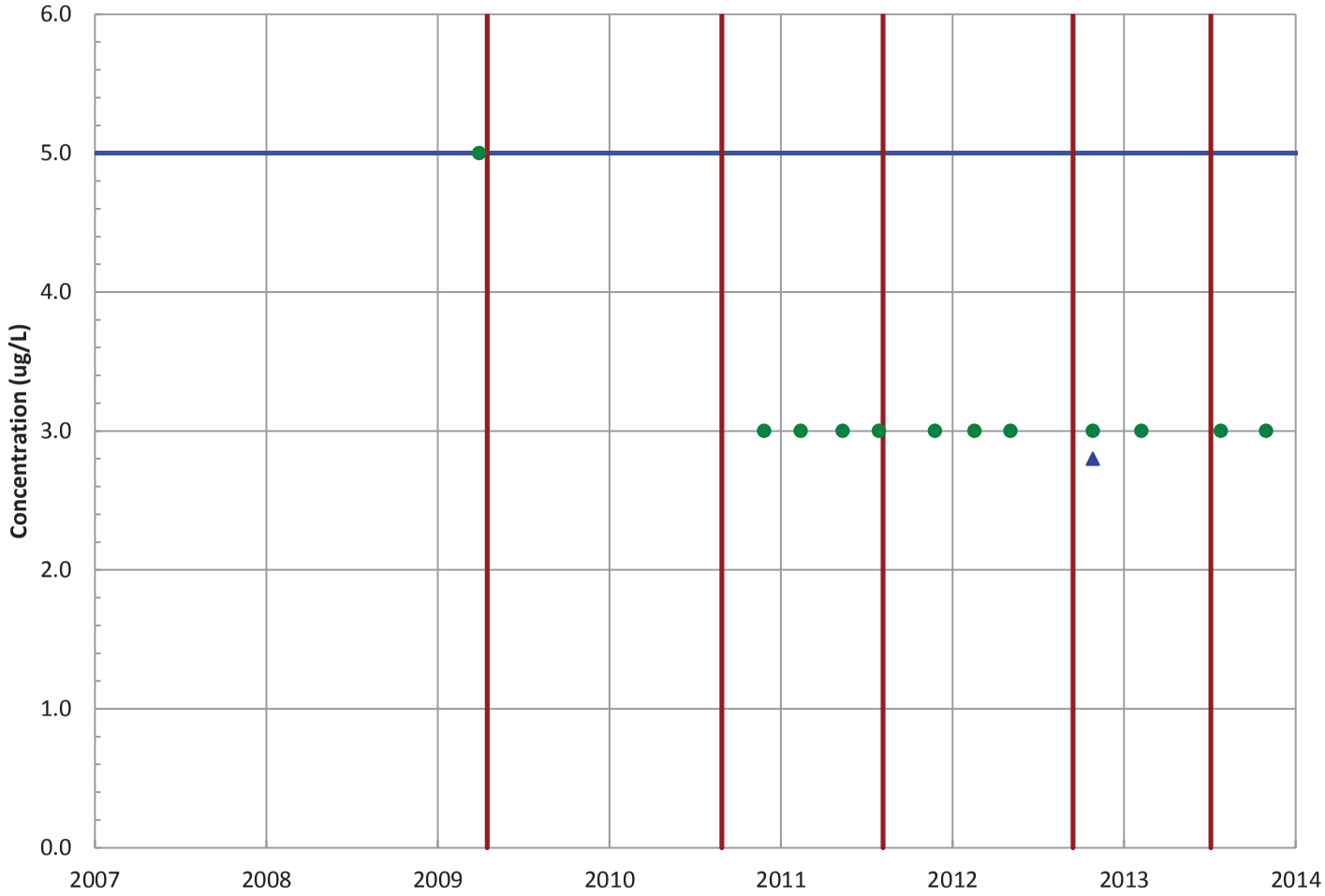
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

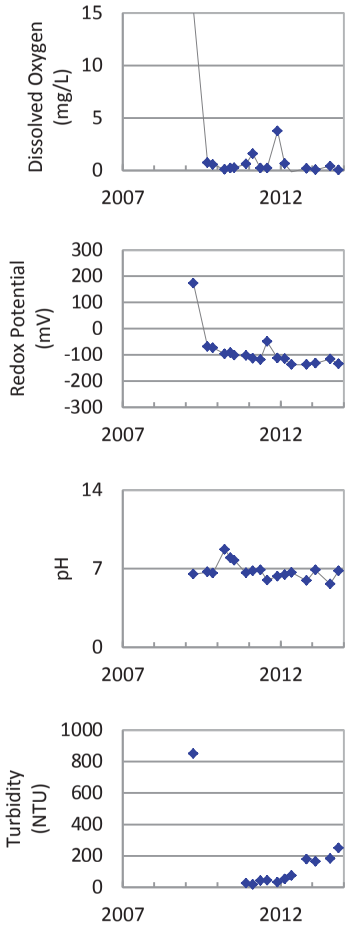


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 11/4/2013
Analysis Date: 3/21/2014

PTX06-ISB063
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



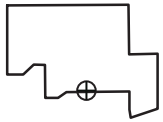
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

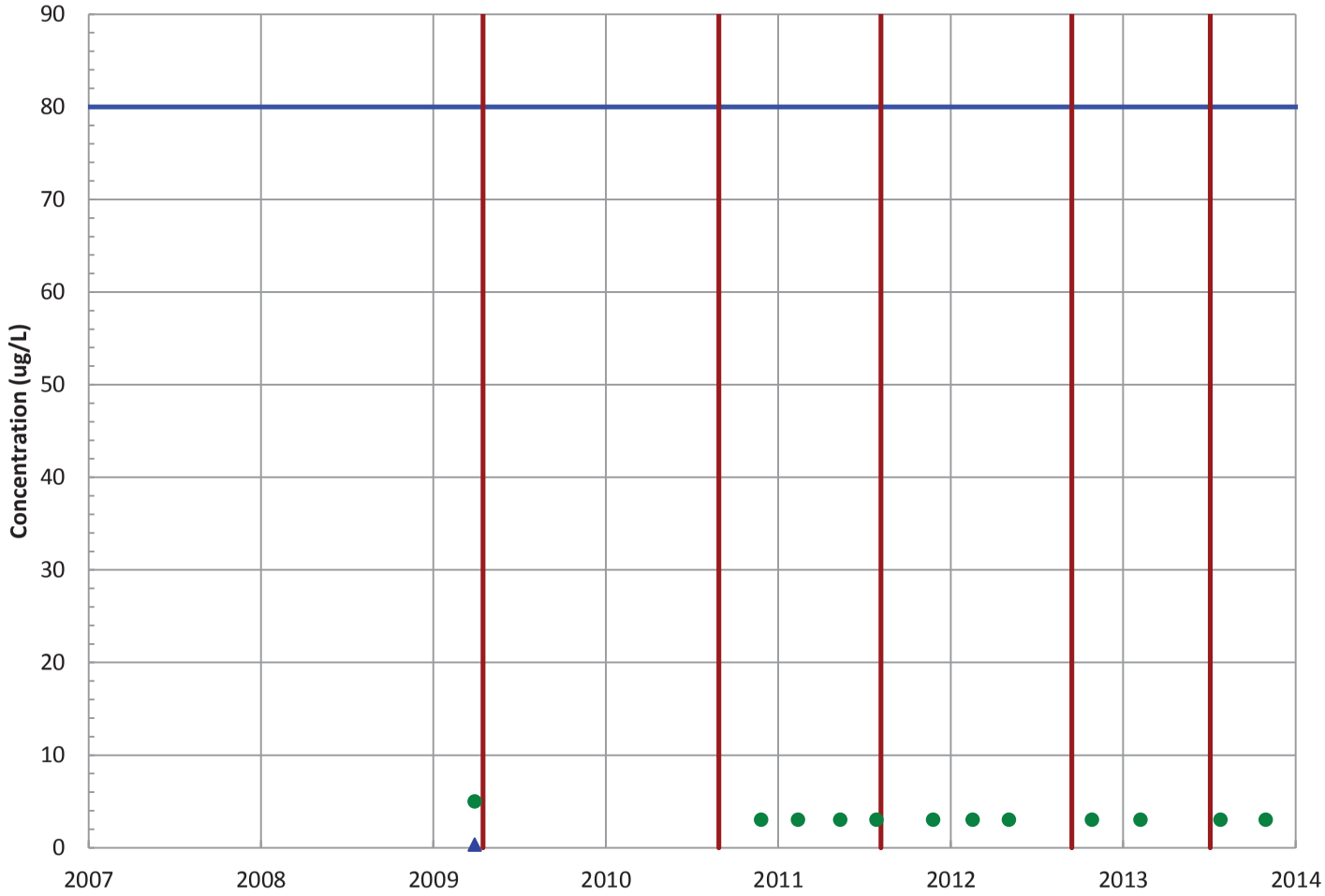
- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

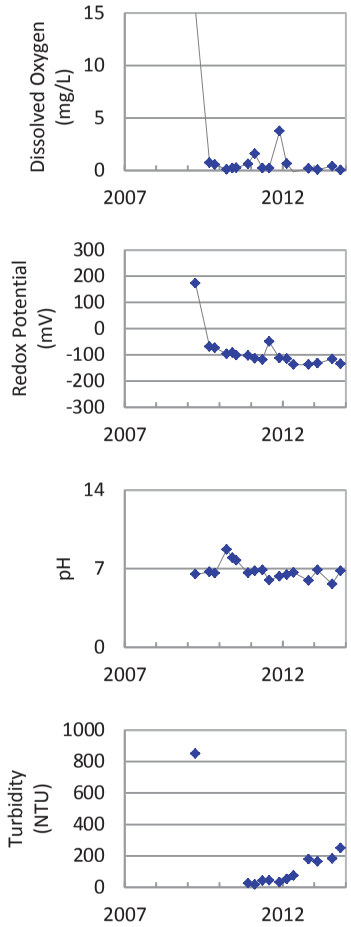


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 11/4/2013
Analysis Date: 3/21/2014

PTX06-ISB063
Chloroform Trend in Perched Aquifer



Field Parameters



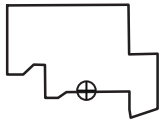
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

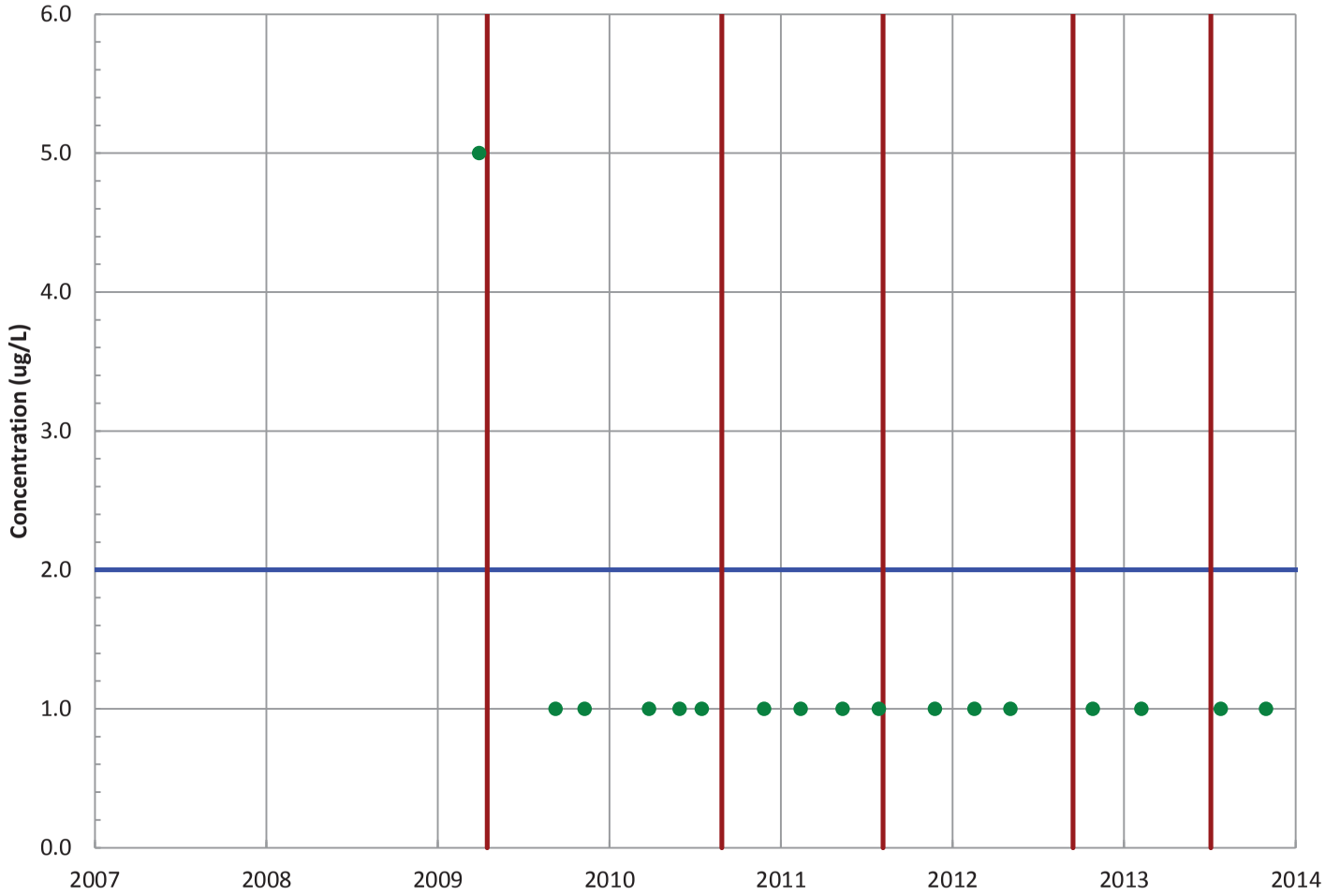
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

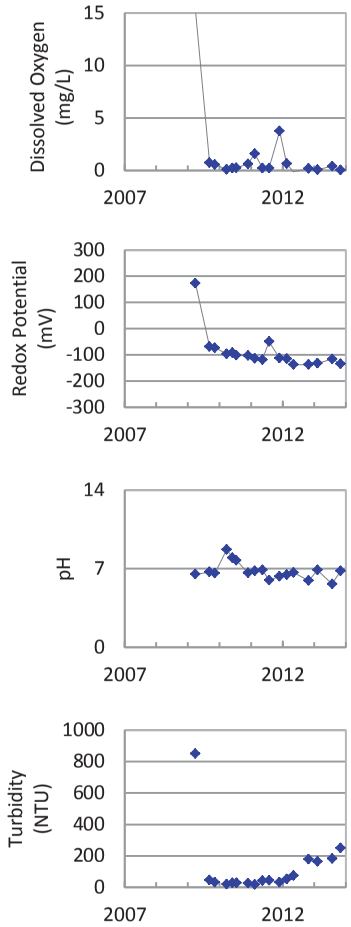


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 11/4/2013
Analysis Date: 3/21/2014

PTX06-ISB063
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



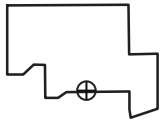
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

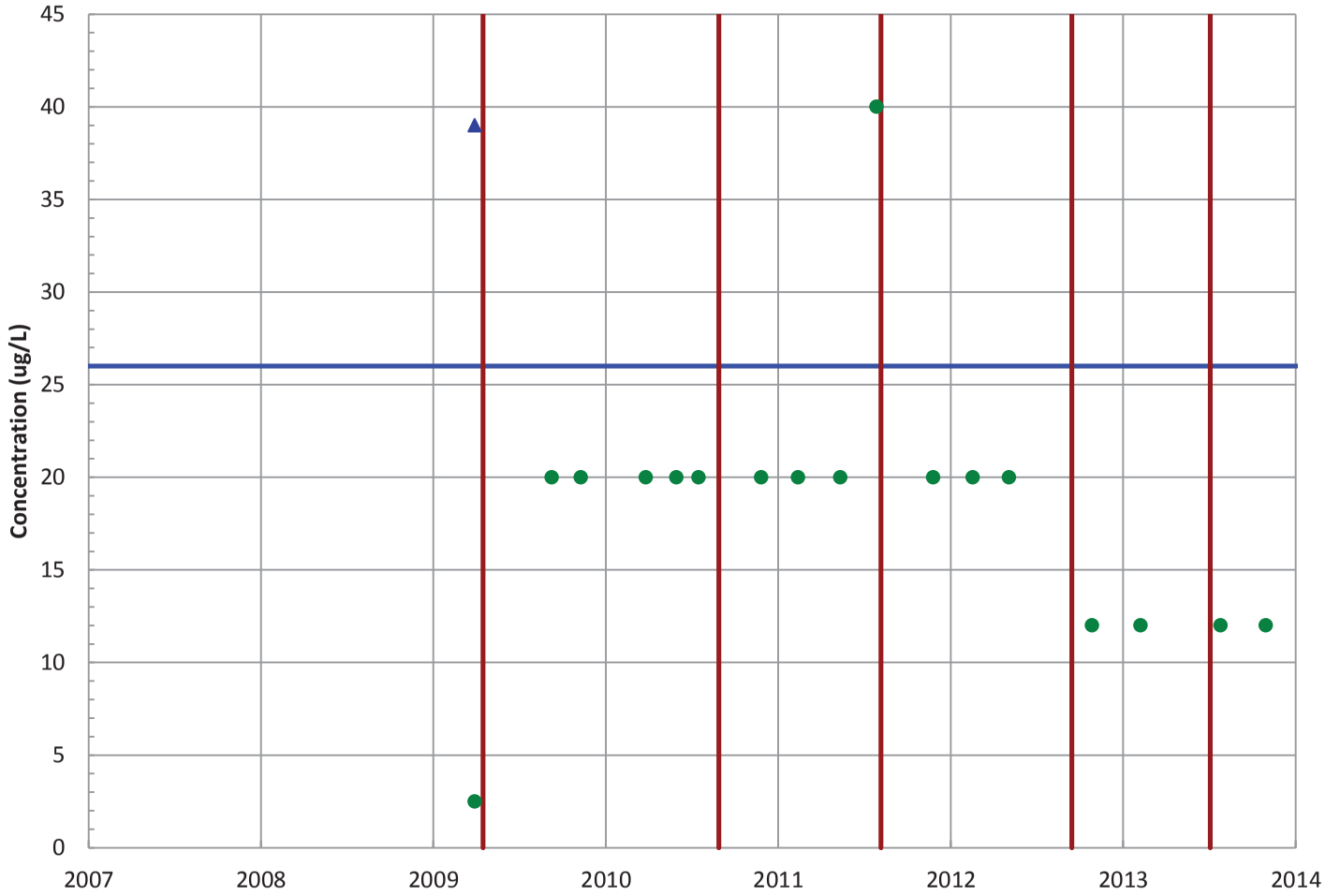
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

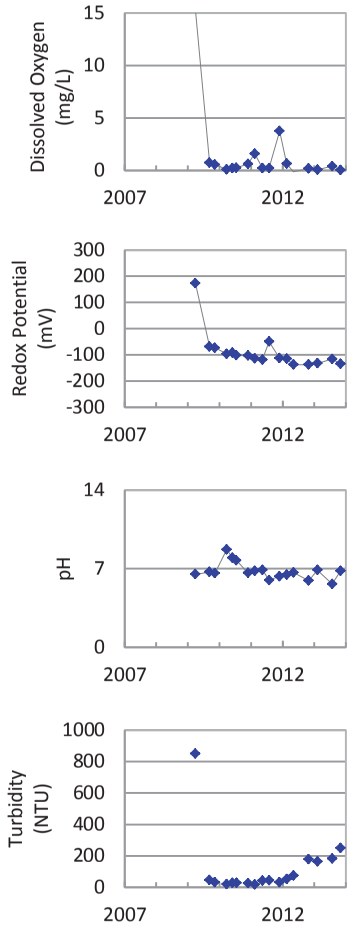


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 11/4/2013
Analysis Date: 3/21/2014

PTX06-ISB063
Perchlorate Trend in Perched Aquifer



Field Parameters



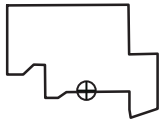
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

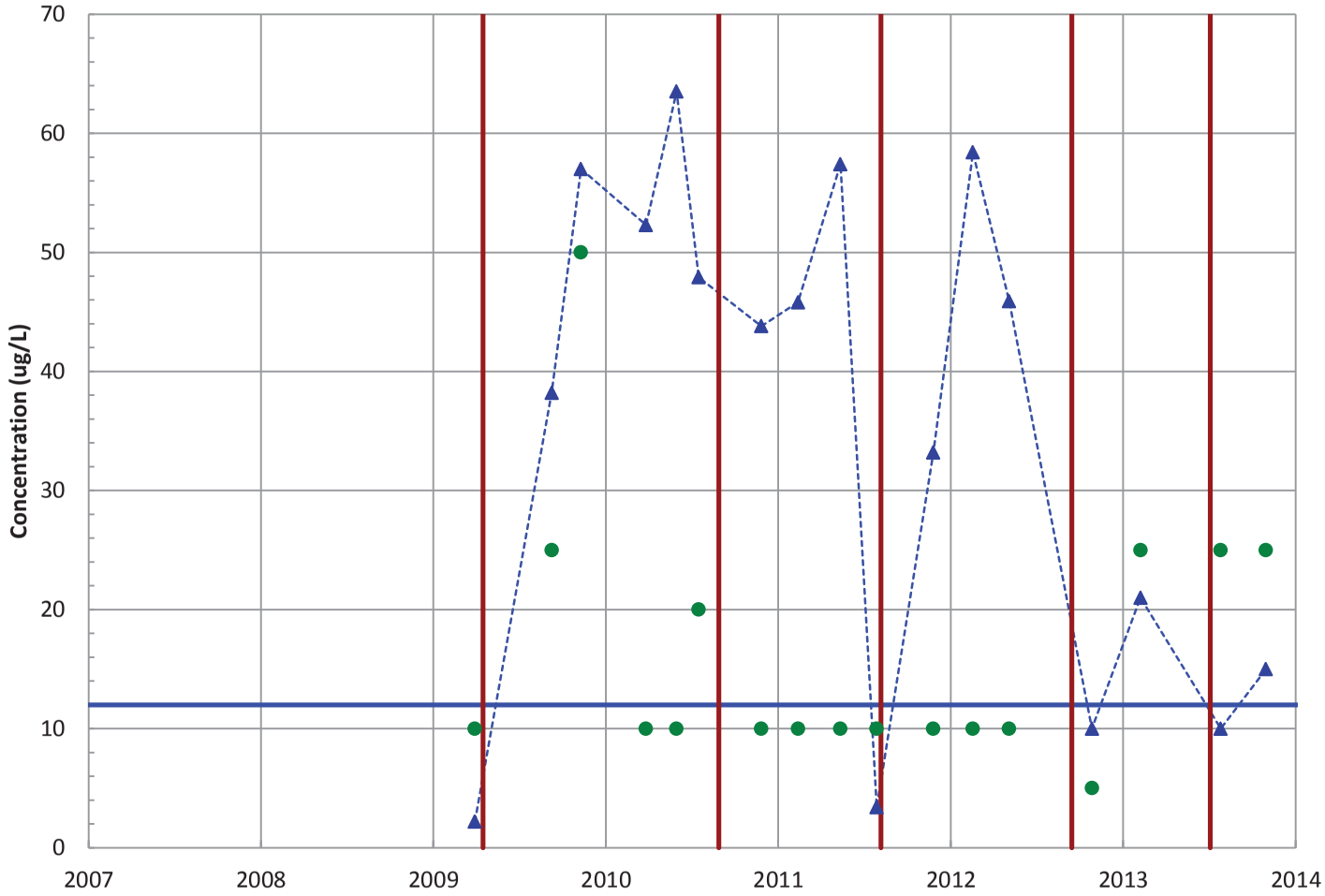
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

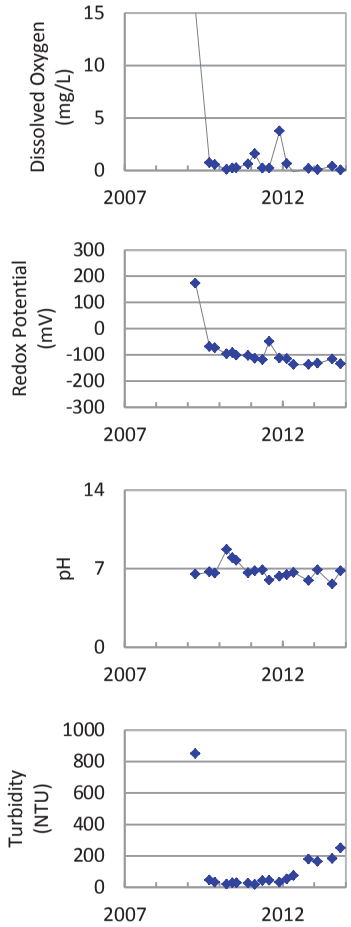


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 11/4/2013
Analysis Date: 3/21/2014

PTX06-ISB063
Arsenic Trend in Perched Aquifer



Field Parameters



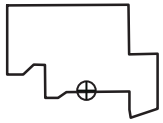
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: No Trend

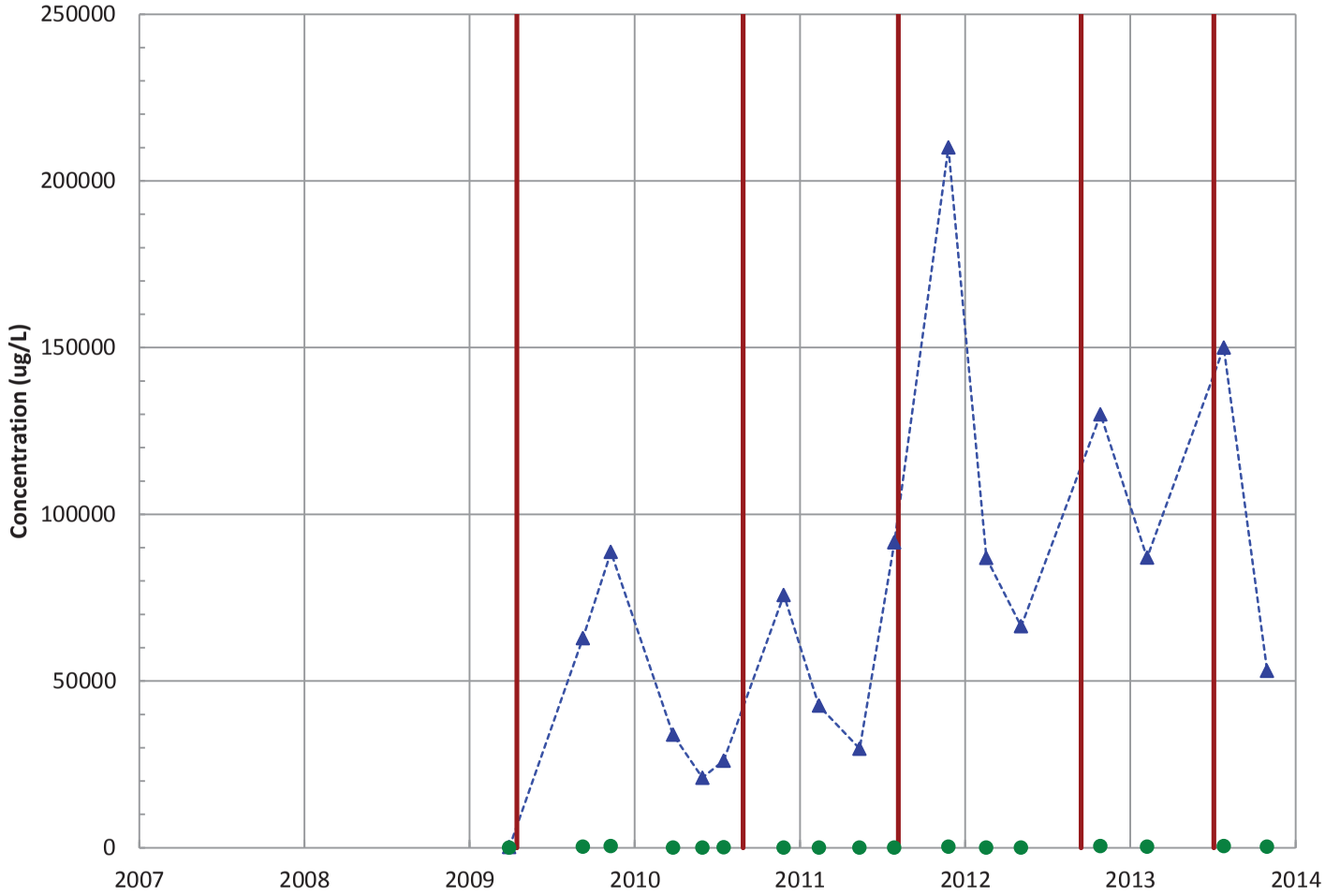
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

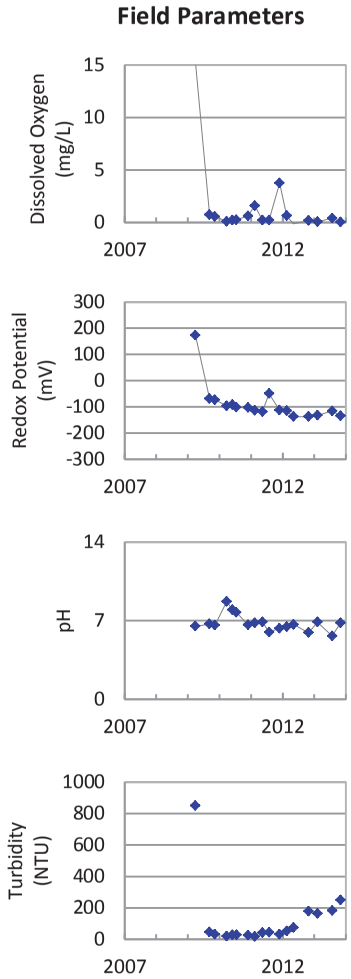
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 11/4/2013
Analysis Date: 3/21/2014

PTX06-ISB063
Iron Trend in Perched Aquifer





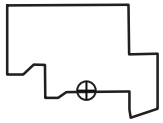
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Stable

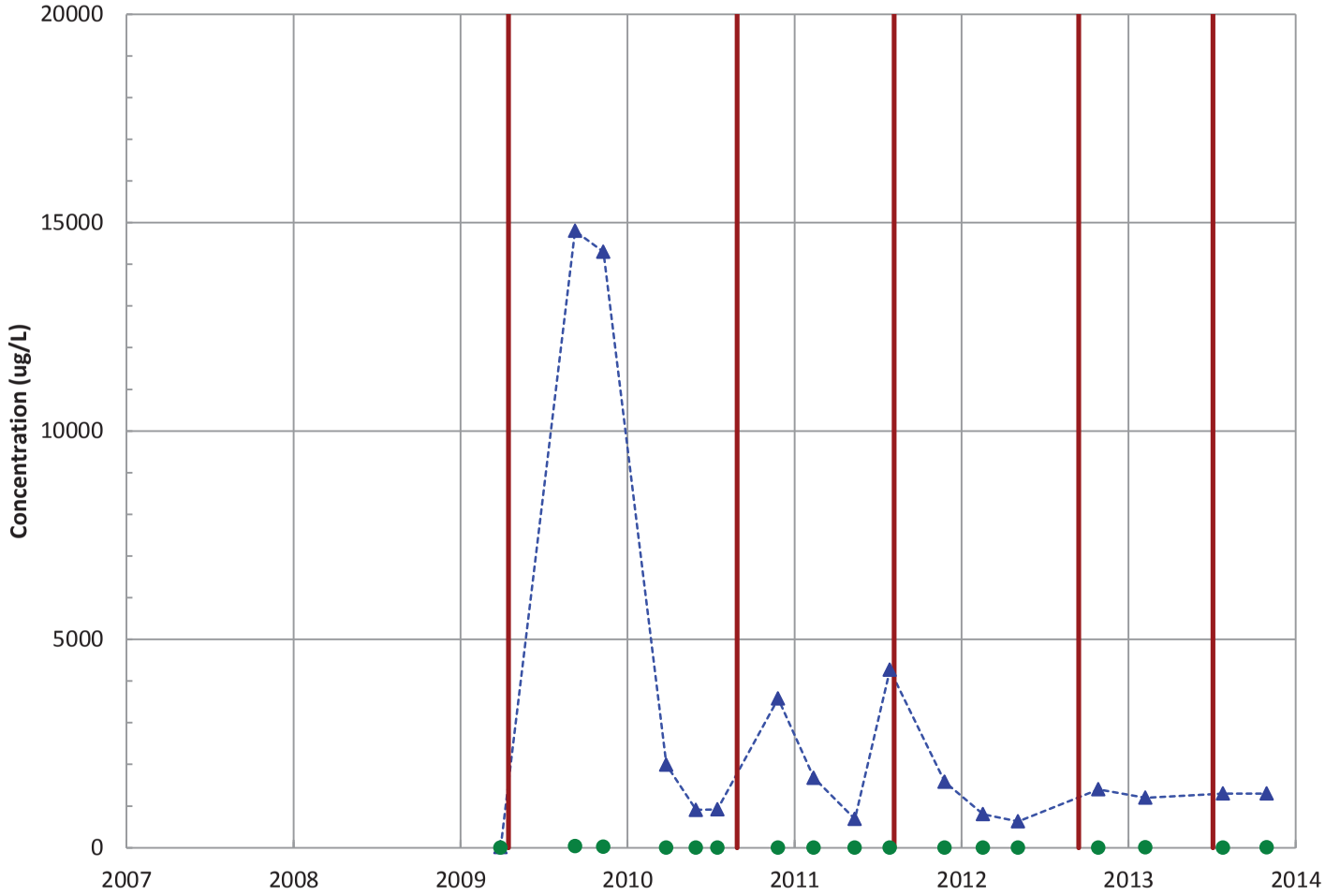
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

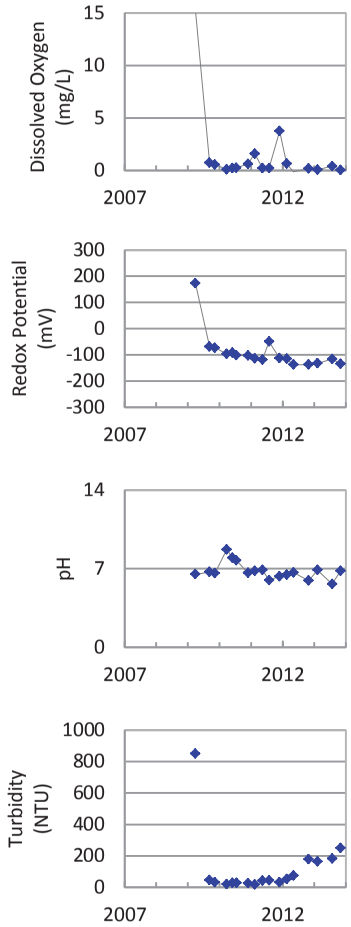


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 11/4/2013
Analysis Date: 3/21/2014

PTX06-ISB063
Manganese Trend in Perched Aquifer



Field Parameters



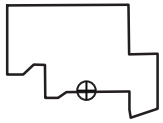
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Stable

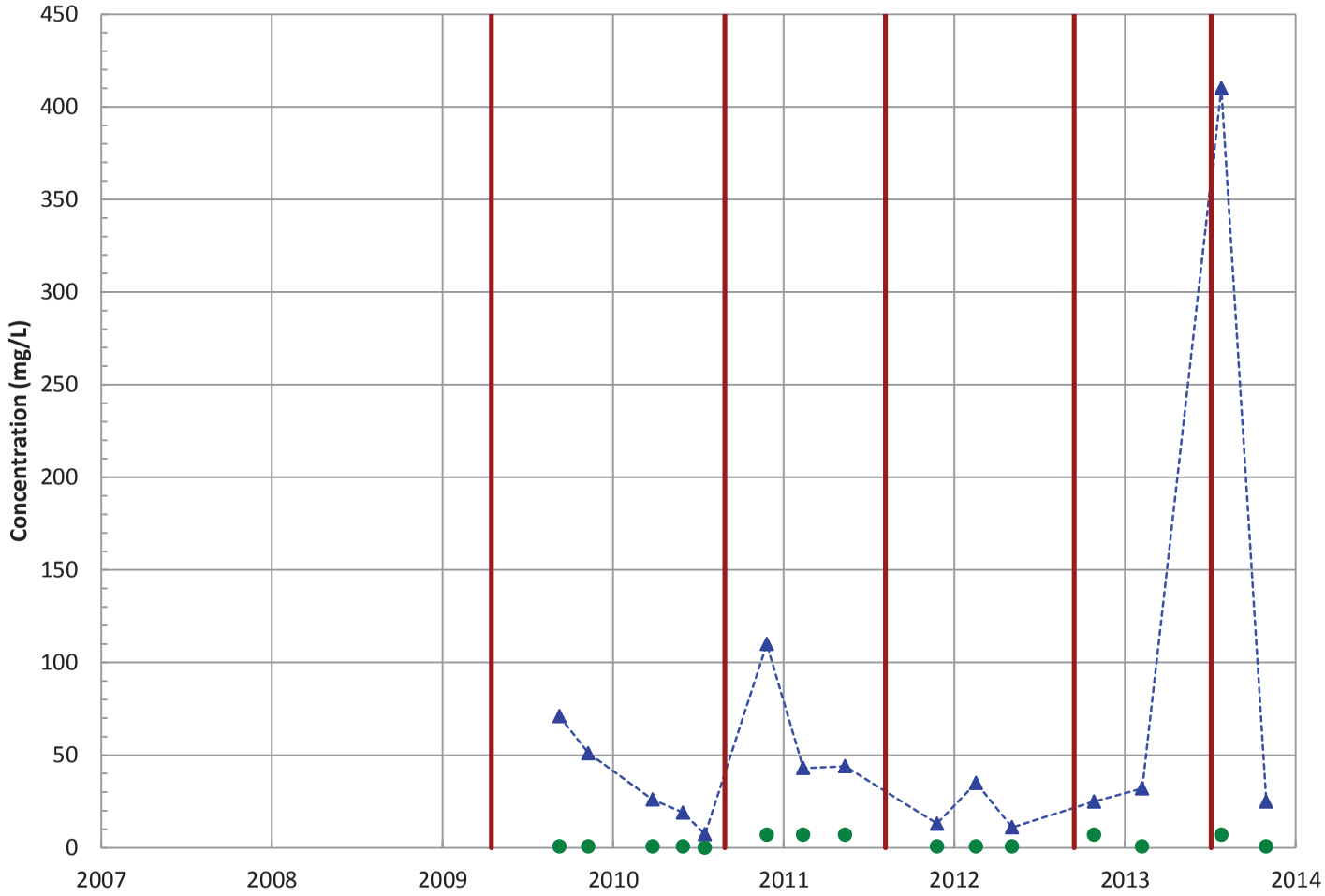
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

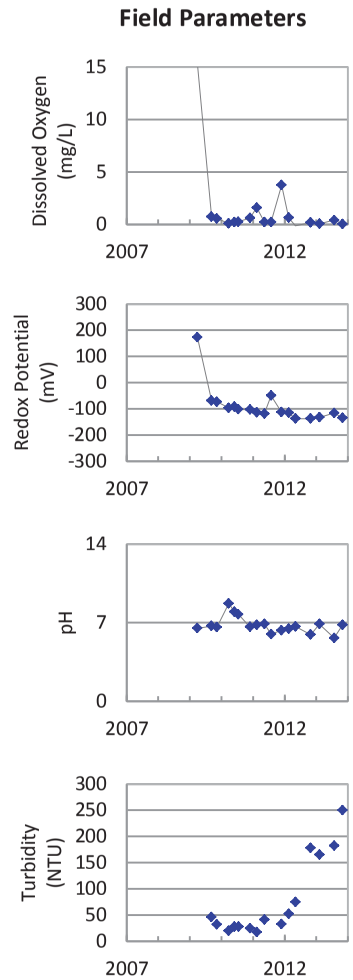
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 11/4/2013
Analysis Date: 3/21/2014

PTX06-ISB063
Acetic Acid Trend in Perched Aquifer





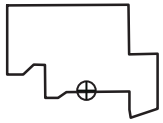
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

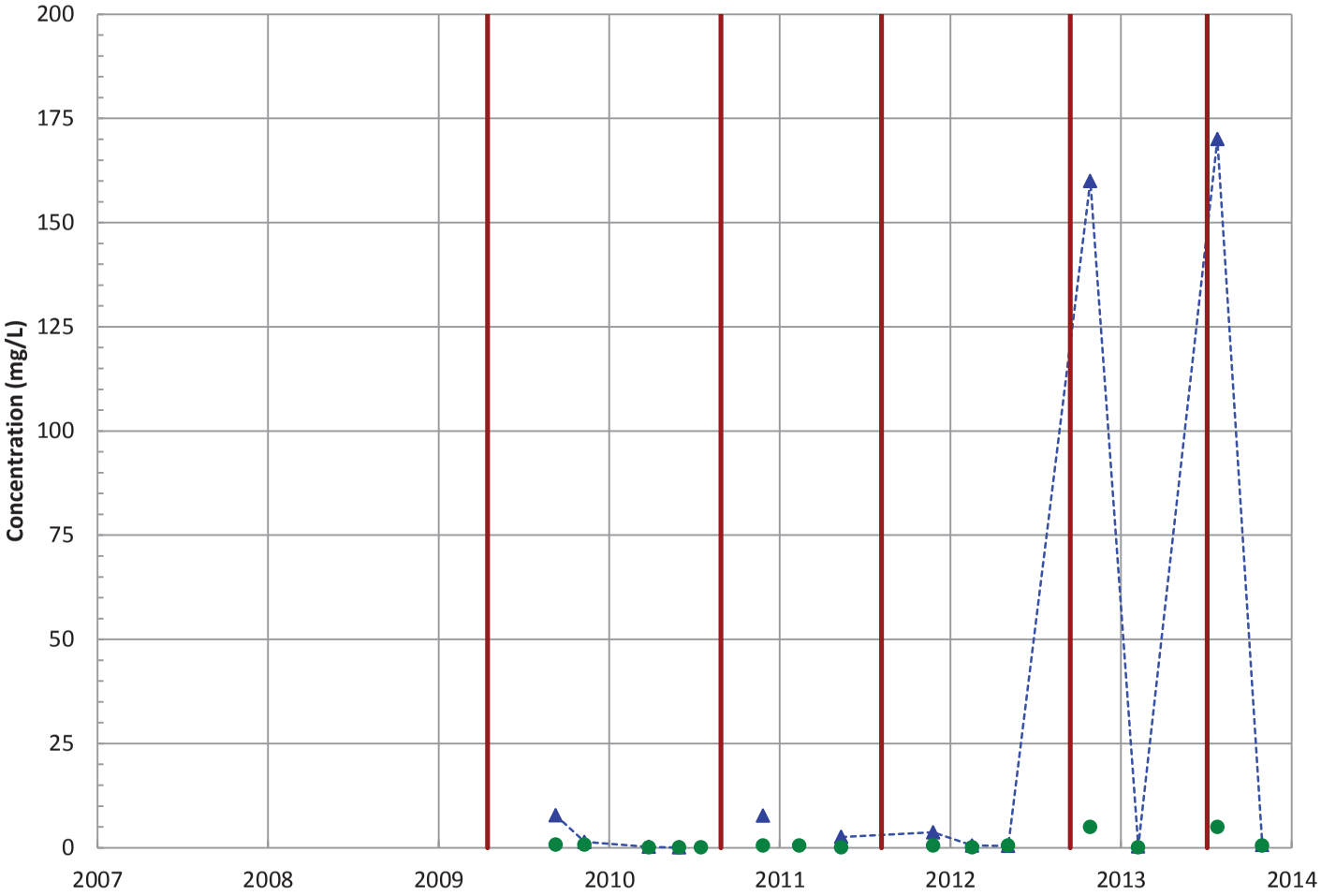
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

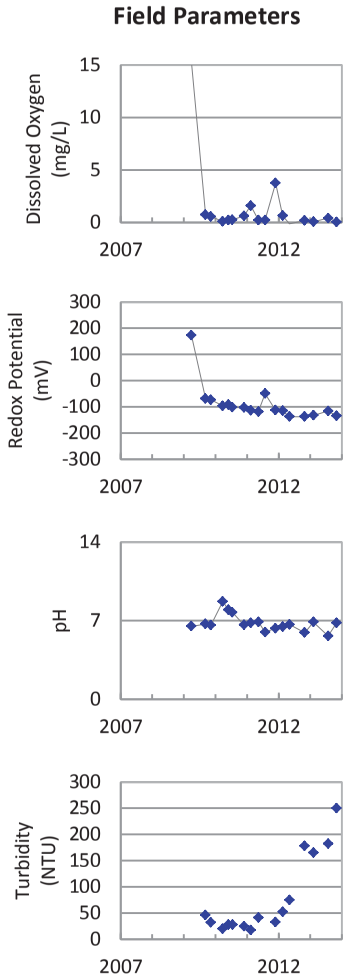
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/10/2009 to 11/4/2013
Analysis Date: 3/21/2014

PTX06-ISB063
Butyric Acid Trend in Perched Aquifer





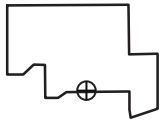
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

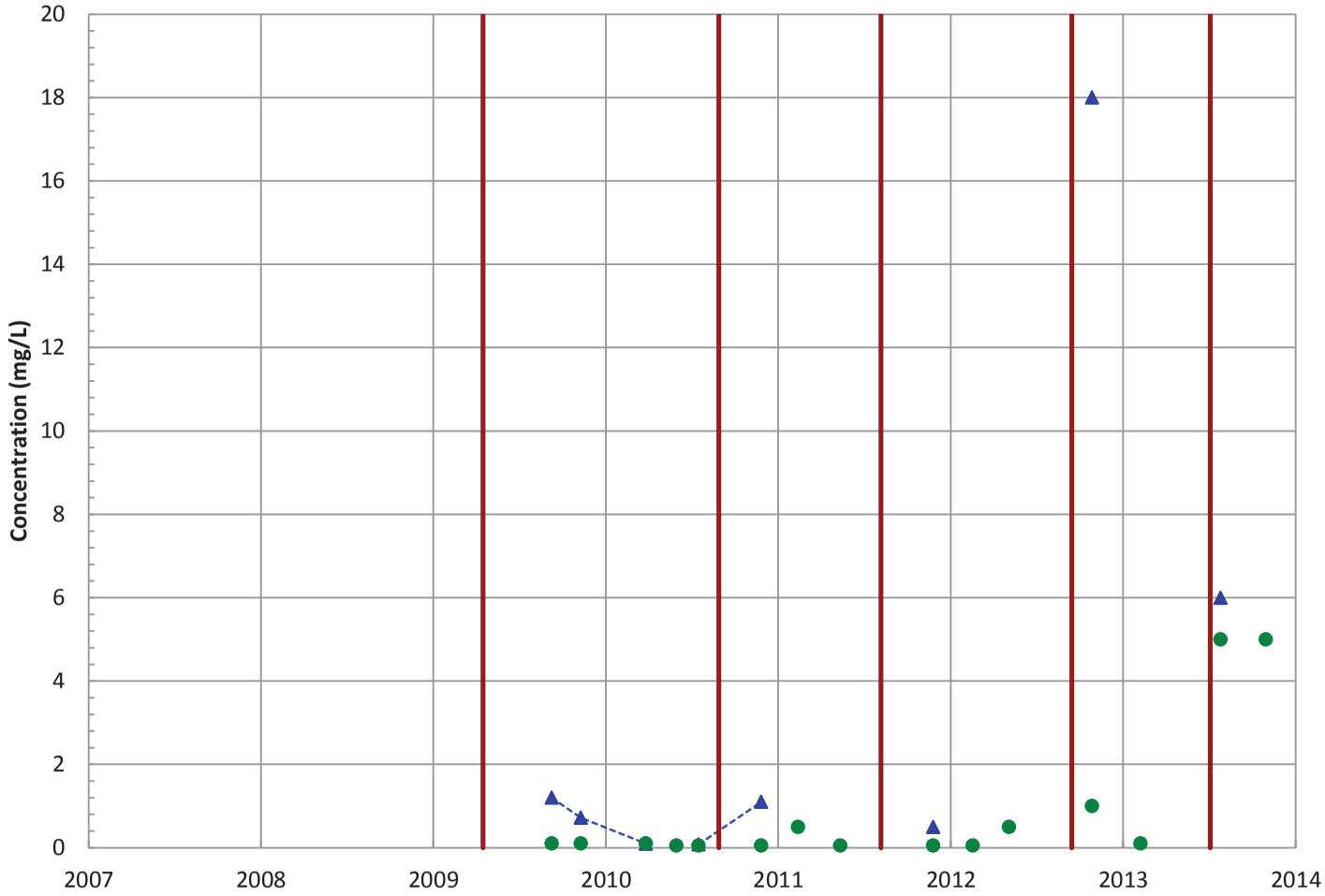
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

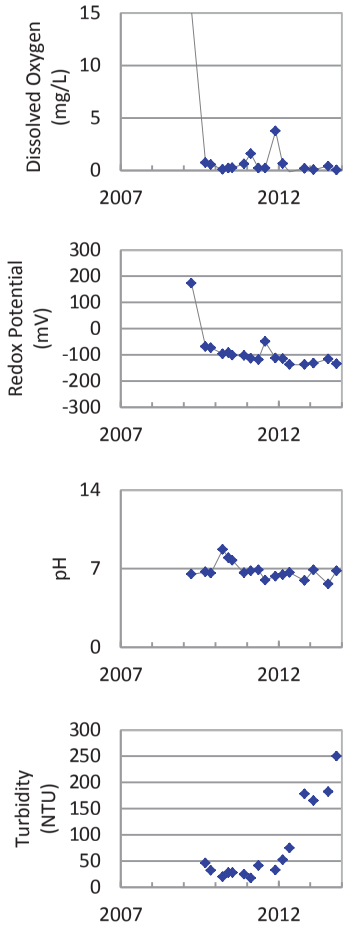


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/10/2009 to 11/4/2013
Analysis Date: 3/21/2014

PTX06-ISB063
Hexanoic Acid Trend in Perched Aquifer



Field Parameters



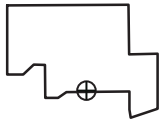
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: No Trend

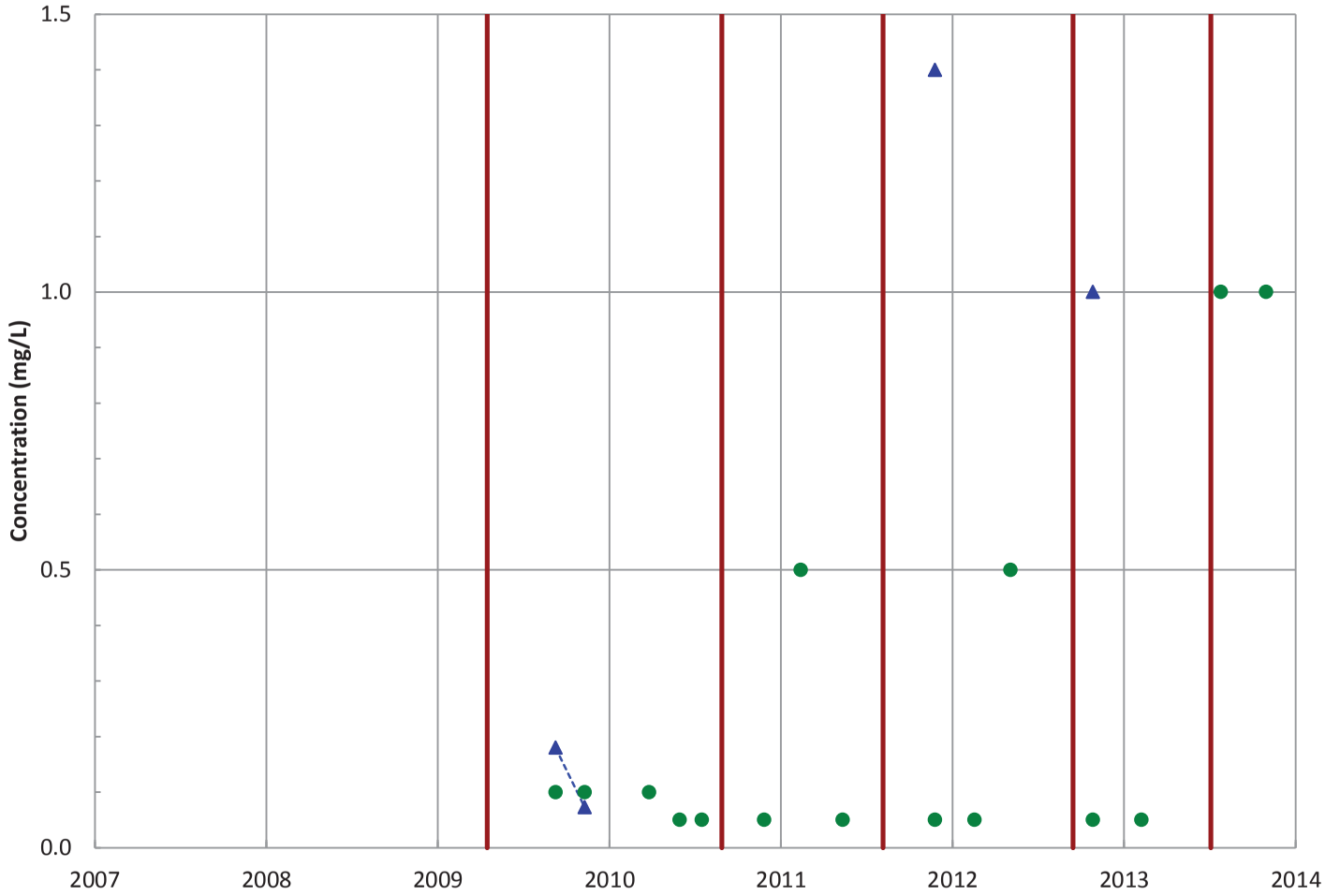
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

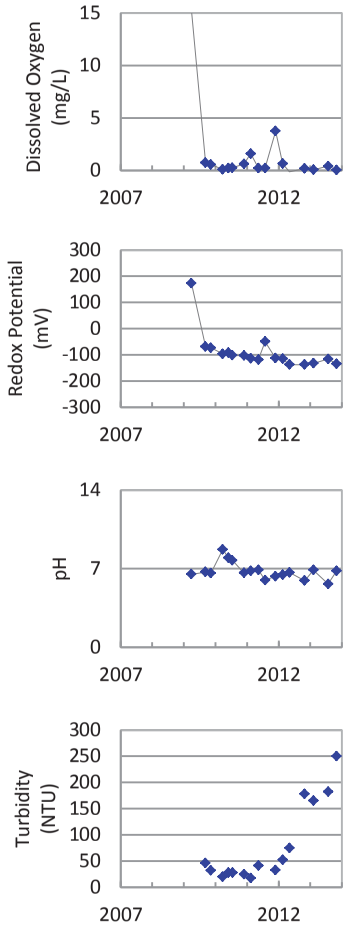


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/10/2009 to 11/4/2013
Analysis Date: 3/21/2014

PTX06-ISB063
i-Hexanoic Acid Trend in Perched Aquifer



Field Parameters



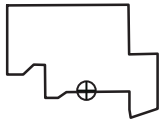
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: Probably Increasing
Last 4 Samples: Probably Increasing

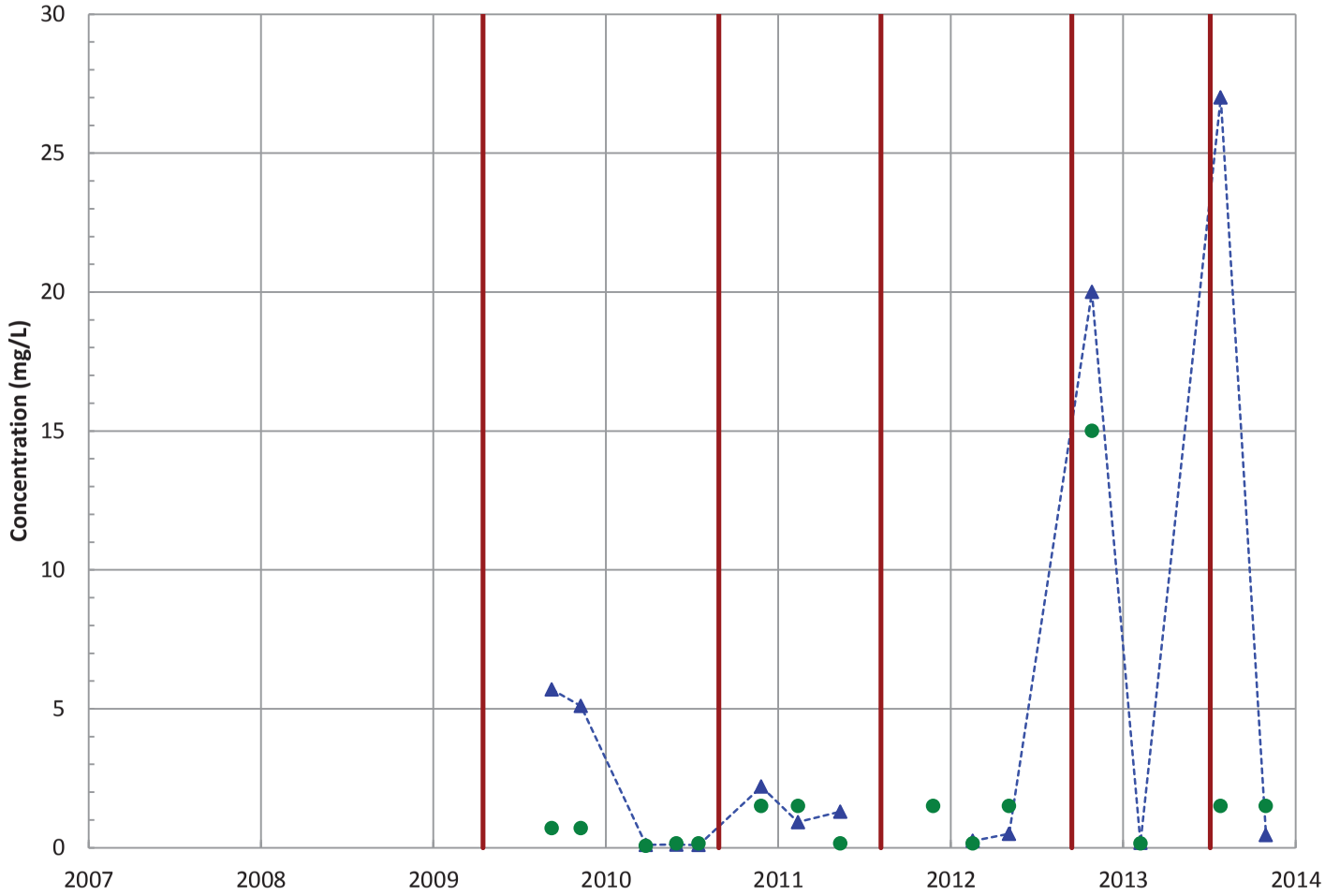
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
═══ Injection Dates

Well Location

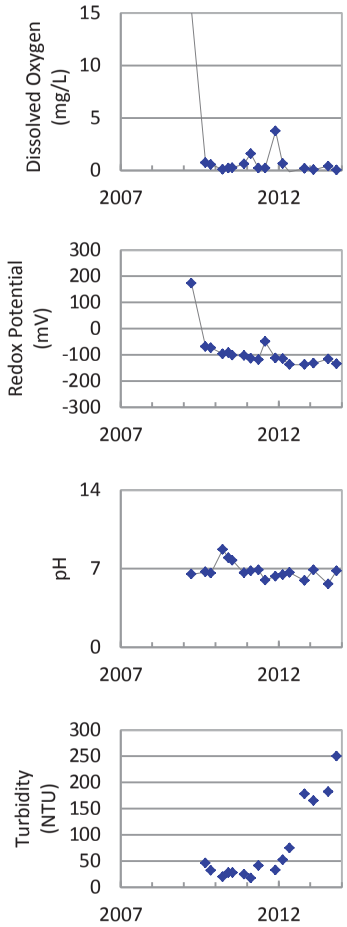


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/10/2009 to 11/4/2013
Analysis Date: 3/21/2014

PTX06-ISB063
i-Pentanoic Acid Trend in Perched Aquifer



Field Parameters



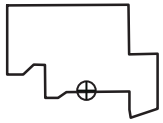
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

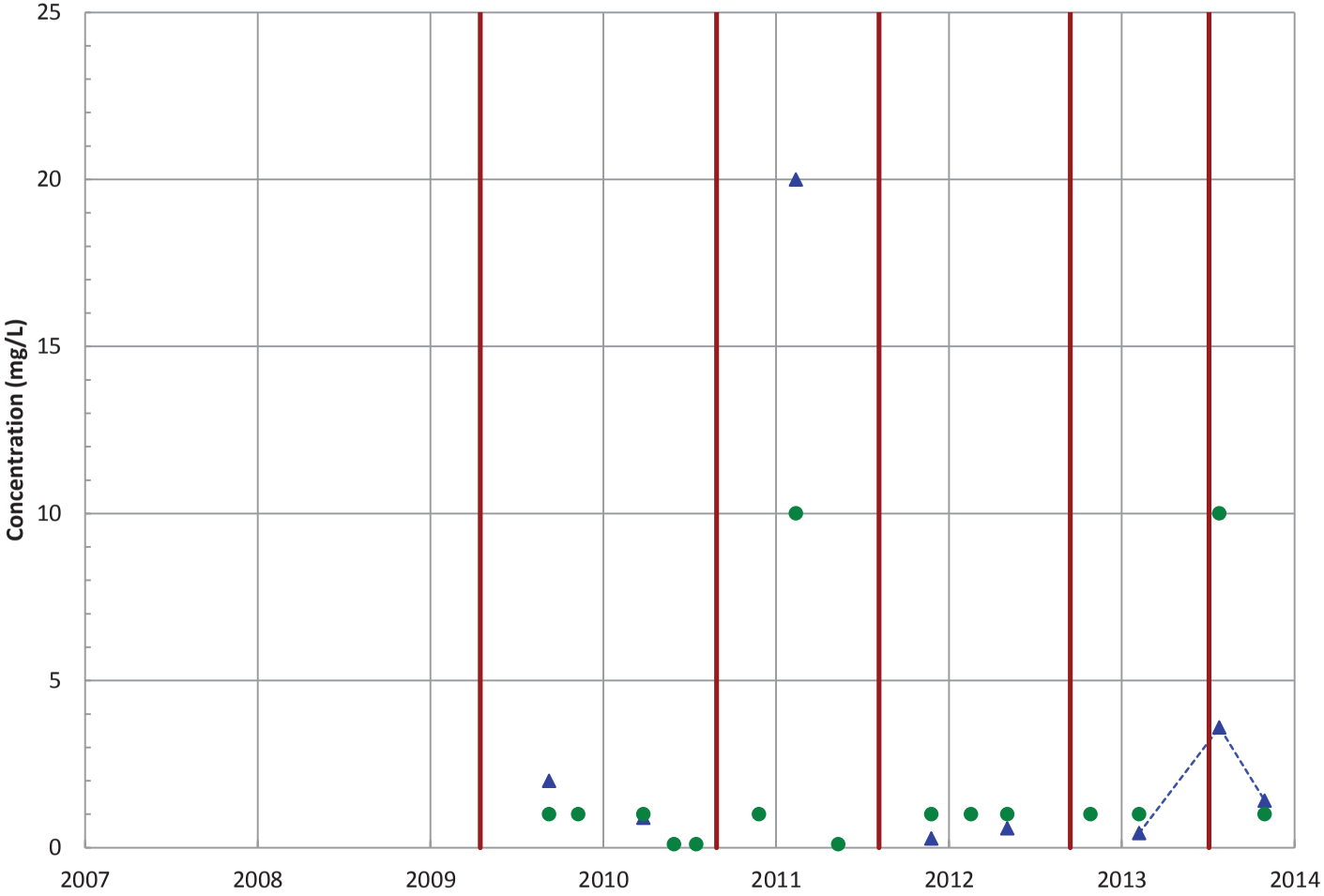
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

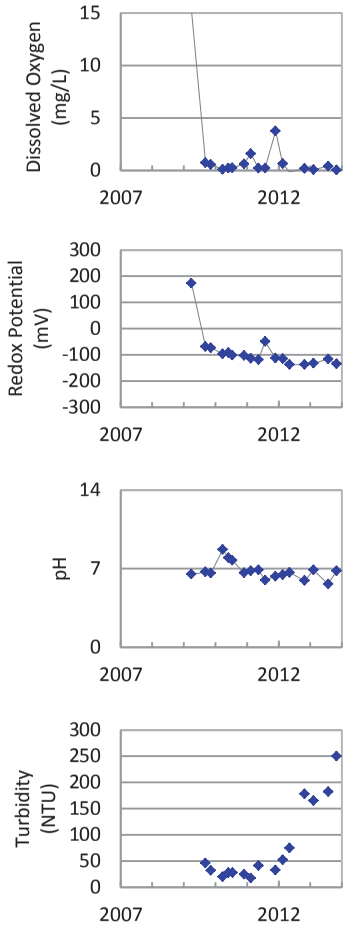


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/10/2009 to 11/4/2013
Analysis Date: 3/21/2014

PTX06-ISB063
Lactic Acid and HIBA Trend in Perched Aquifer



Field Parameters



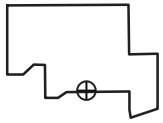
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

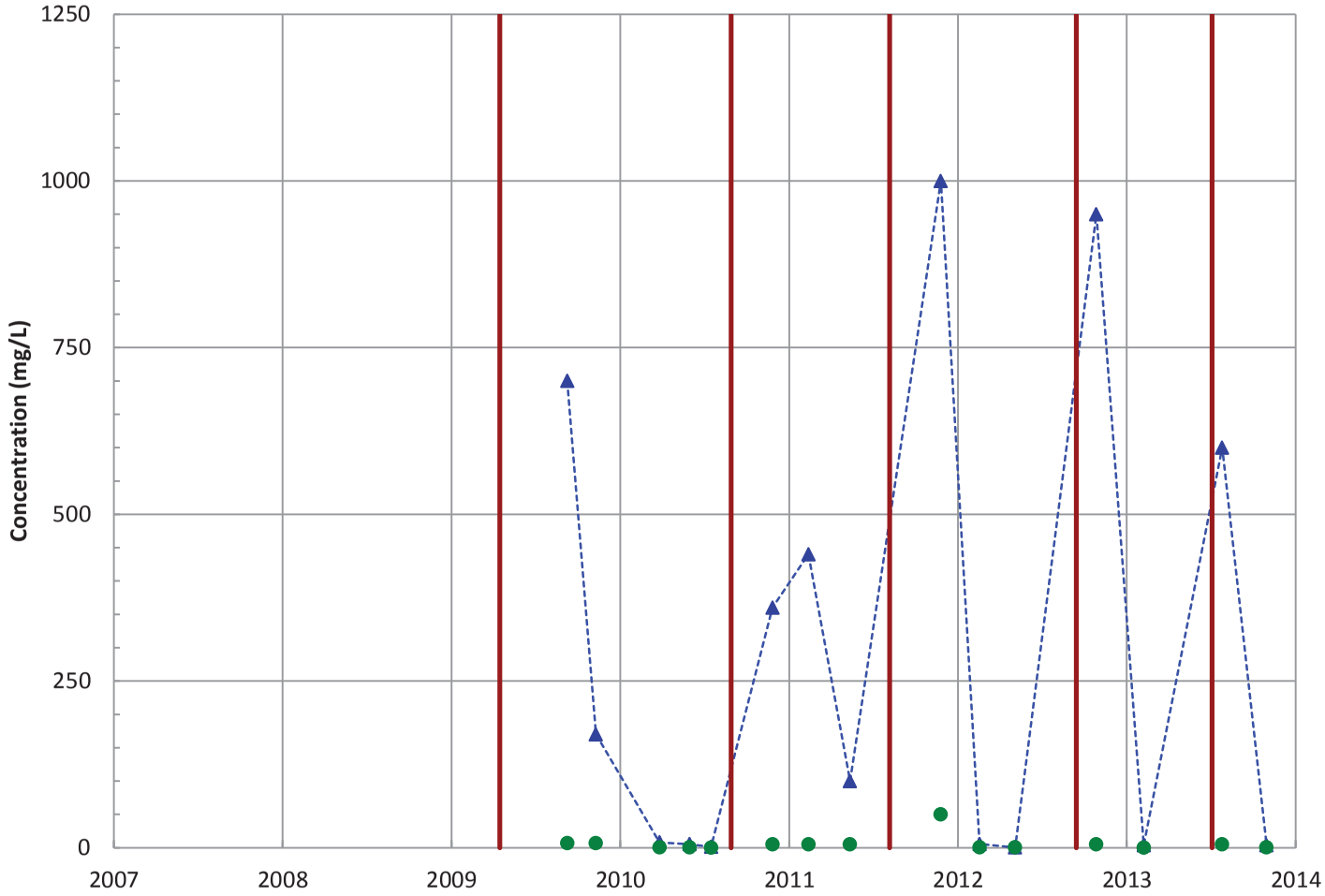
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

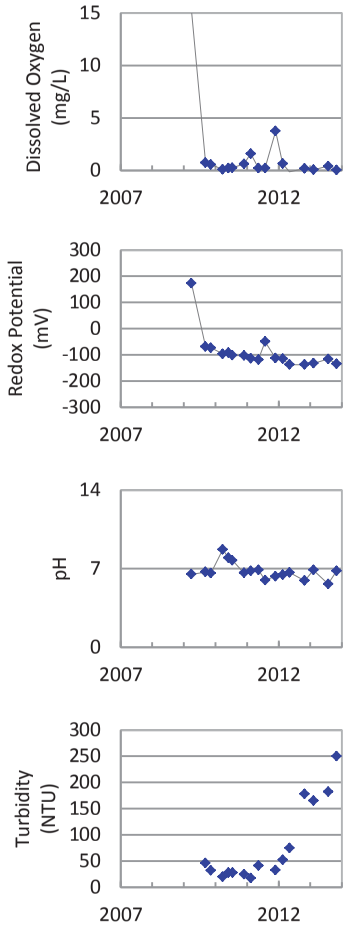


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/10/2009 to 11/4/2013
Analysis Date: 3/21/2014

PTX06-ISB063
Propionic Acid Trend in Perched Aquifer



Field Parameters



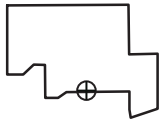
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

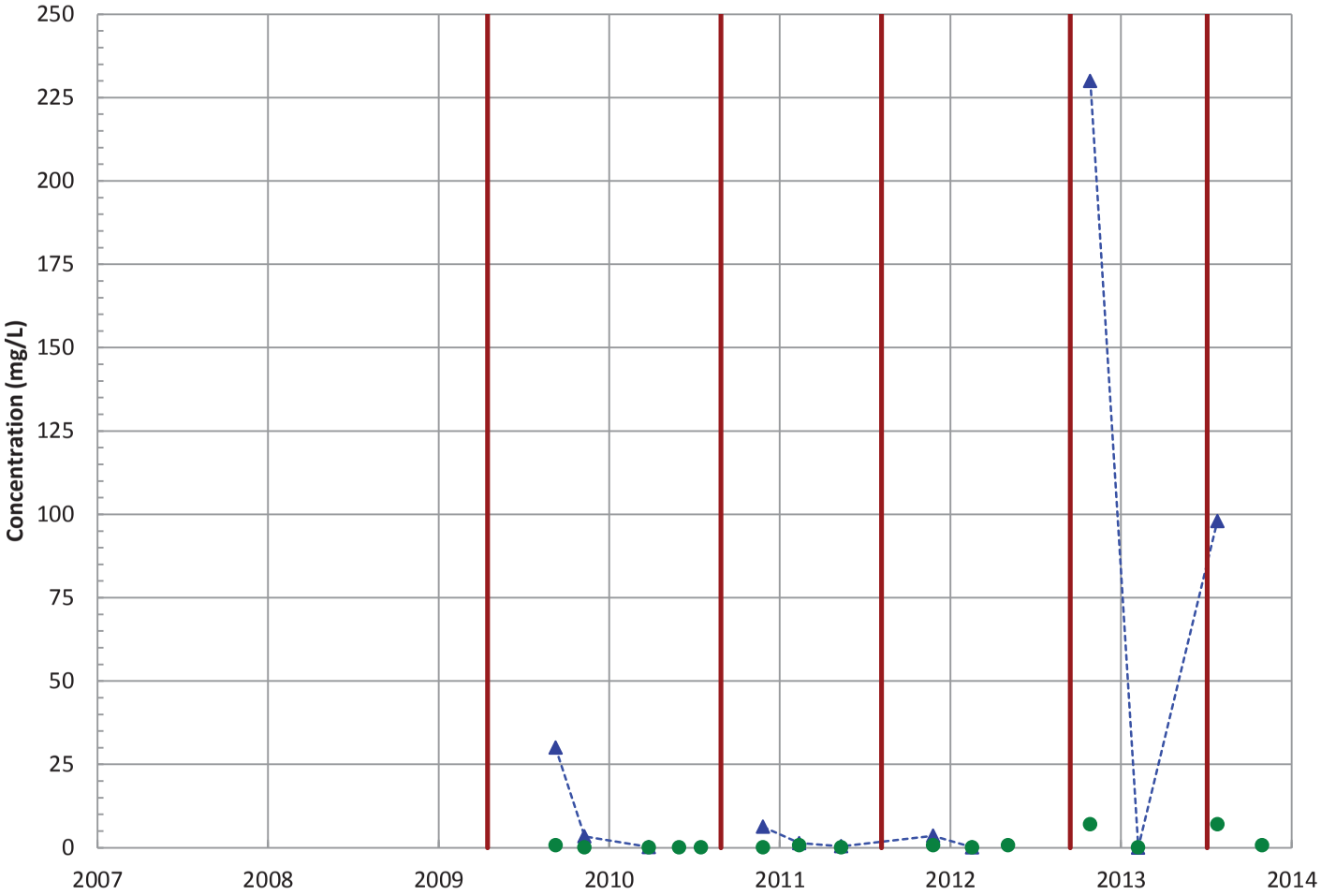
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

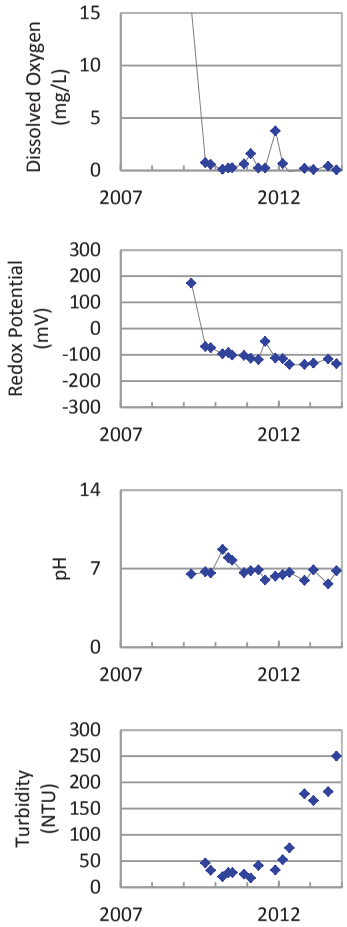


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/10/2009 to 11/4/2013
Analysis Date: 3/21/2014

PTX06-ISB063
Pentanoic Acid Trend in Perched Aquifer



Field Parameters



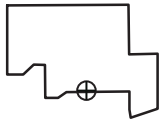
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

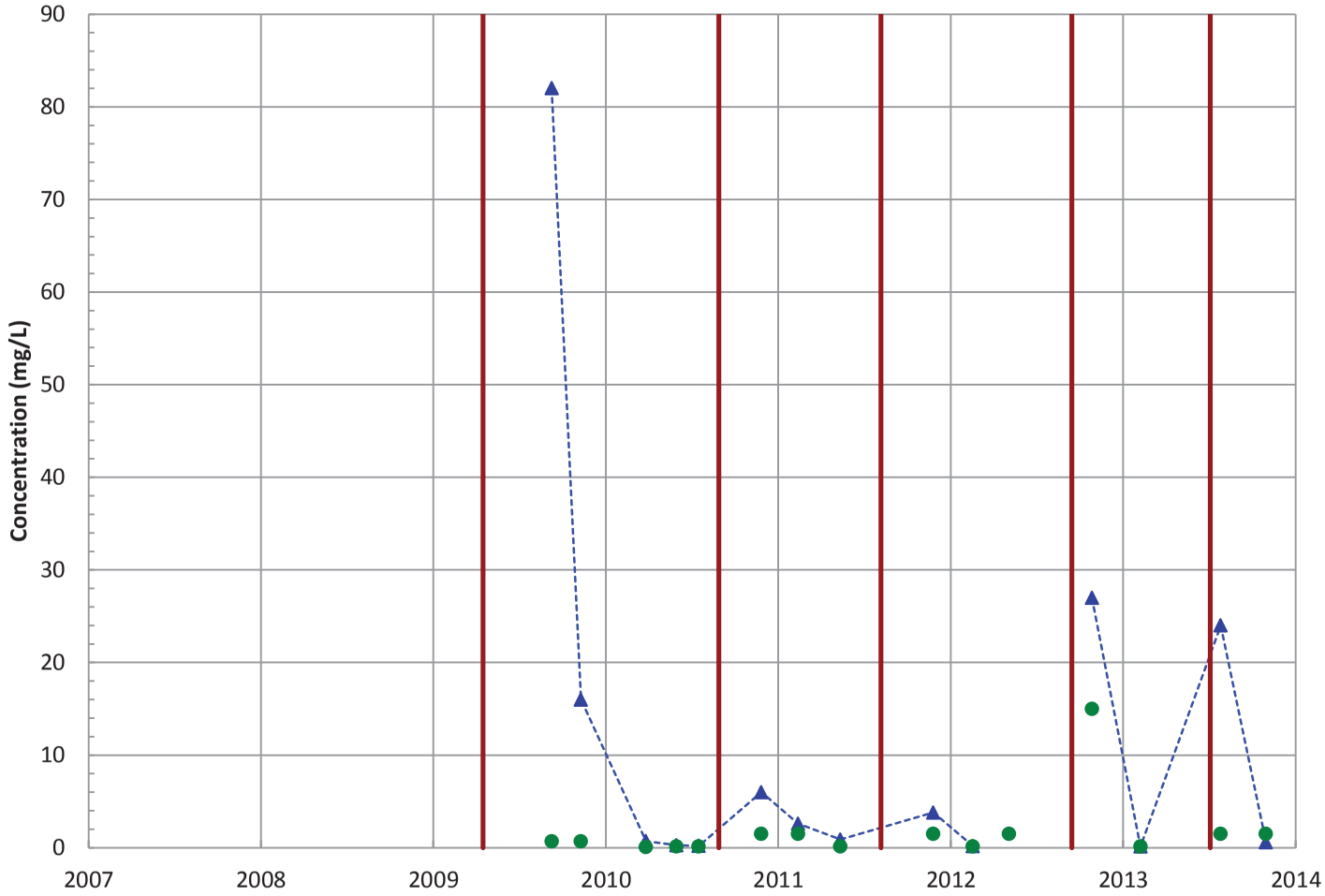
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

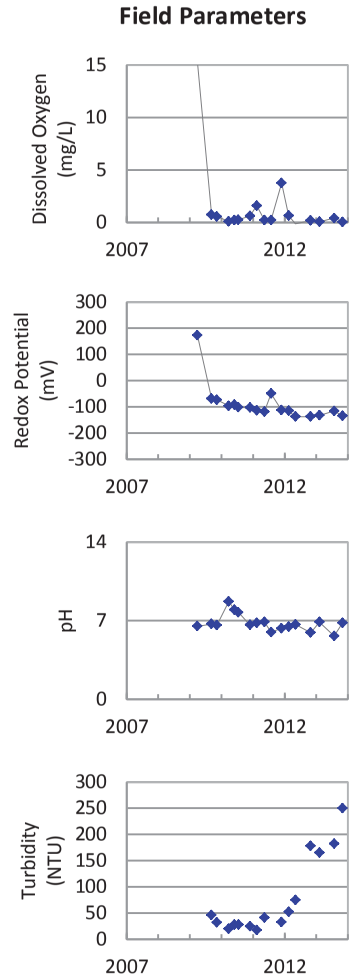
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/10/2009 to 11/4/2013
Analysis Date: 3/21/2014

PTX06-ISB063
Pyruvic Acid Trend in Perched Aquifer





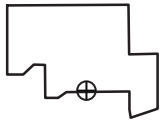
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

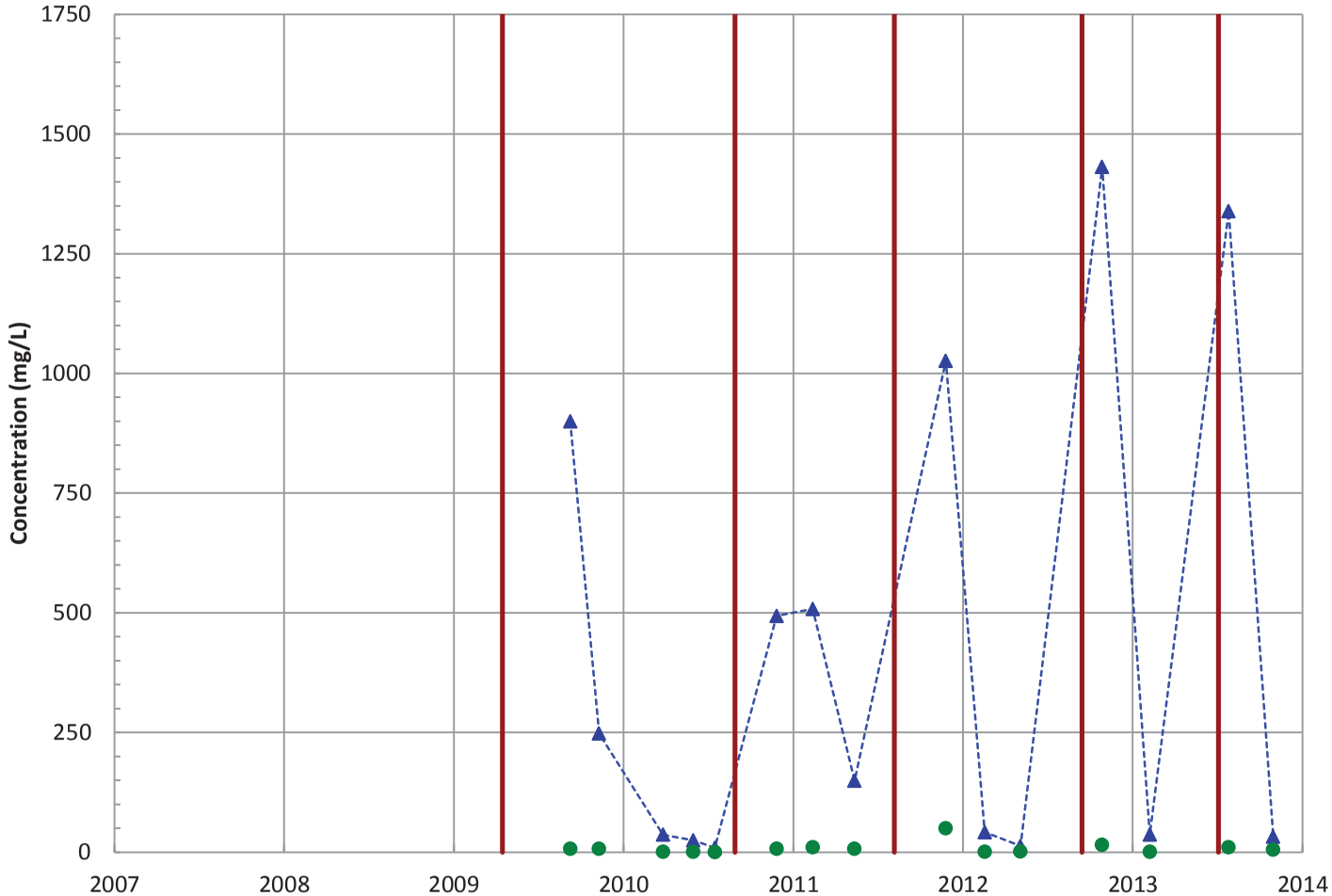
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Injection Dates

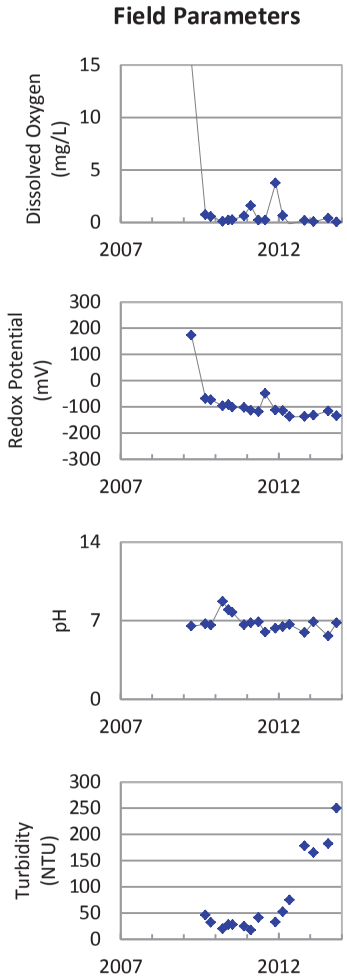
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/10/2009 to 11/4/2013
Analysis Date: 3/21/2014

PTX06-ISB063
Total Volatile Fatty Acids Trend in Perched Aquifer





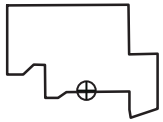
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

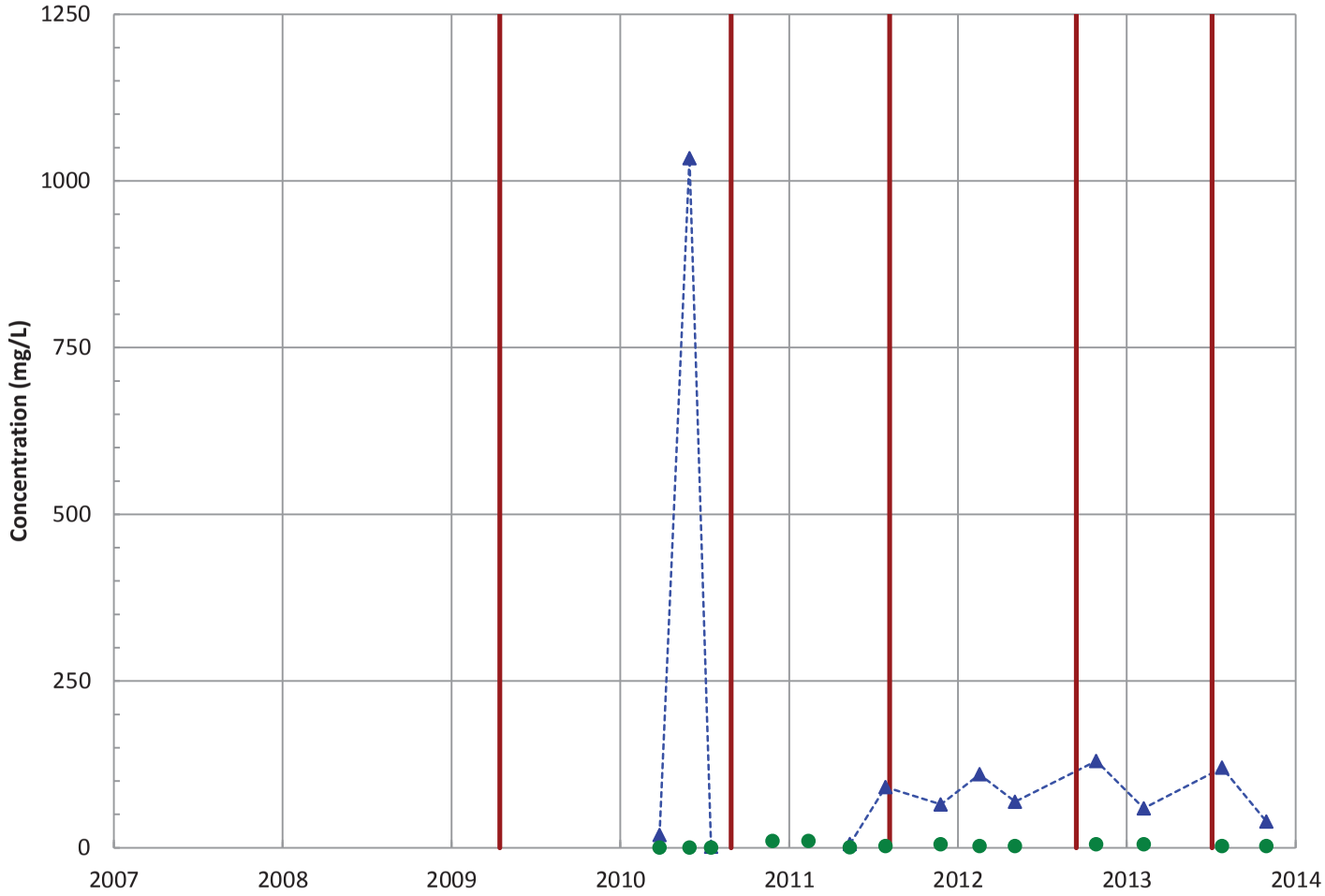
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

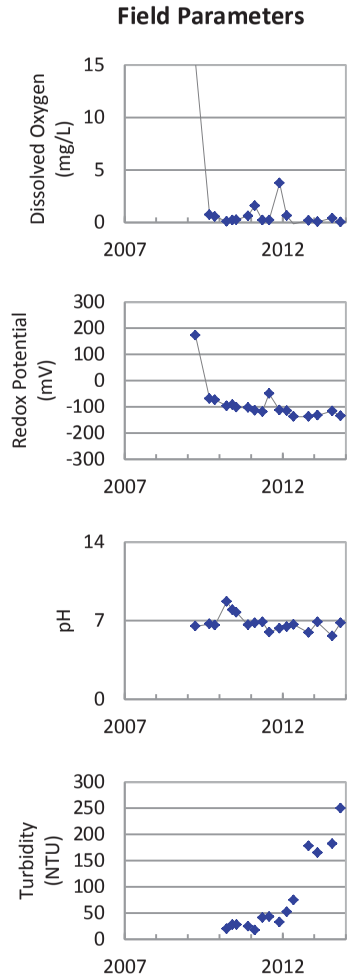
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/10/2009 to 11/4/2013
Analysis Date: 3/21/2014

PTX06-ISB063
Ferrous Iron Trend in Perched Aquifer





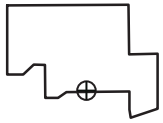
Concentration Trend

MAROS Mann-Kendall Method
All Data: Probably Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Stable

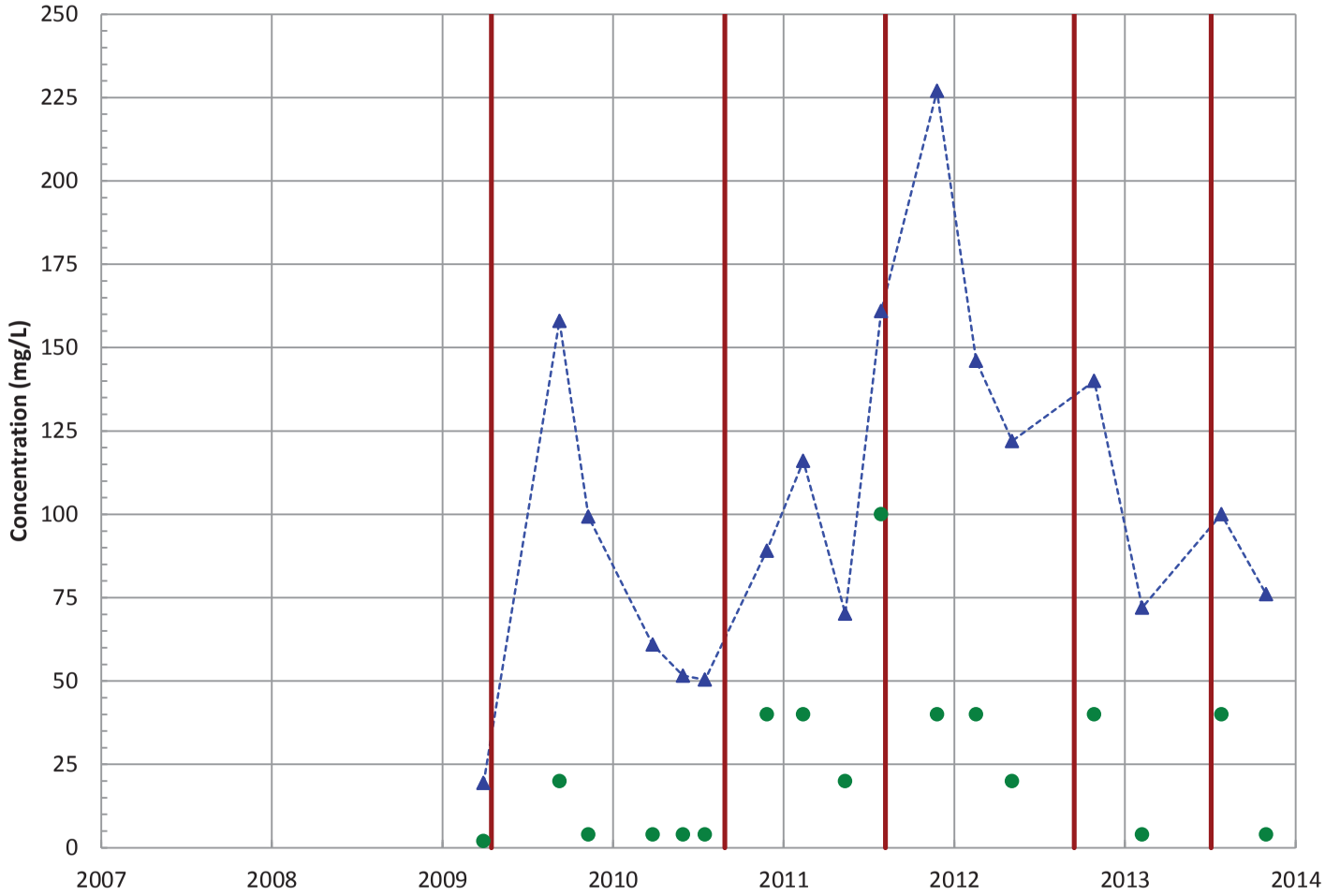
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

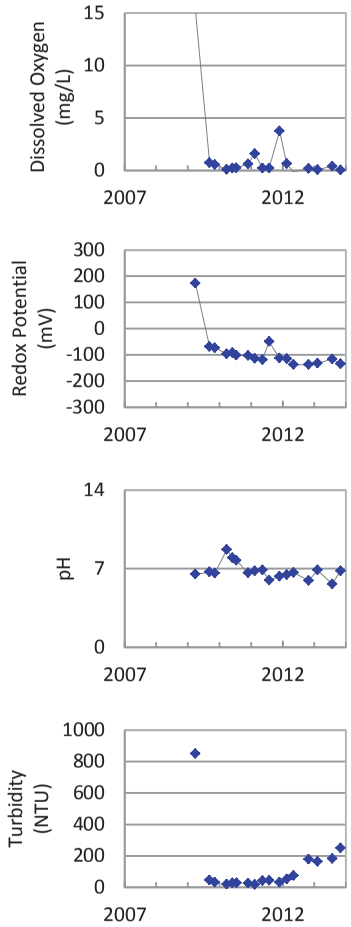


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/29/2010 to 11/4/2013
Analysis Date: 3/21/2014

PTX06-ISB063
Chloride (as Cl) Trend in Perched Aquifer



Field Parameters



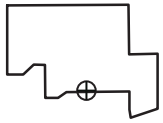
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Probably Increasing
Last 4 Samples: Stable

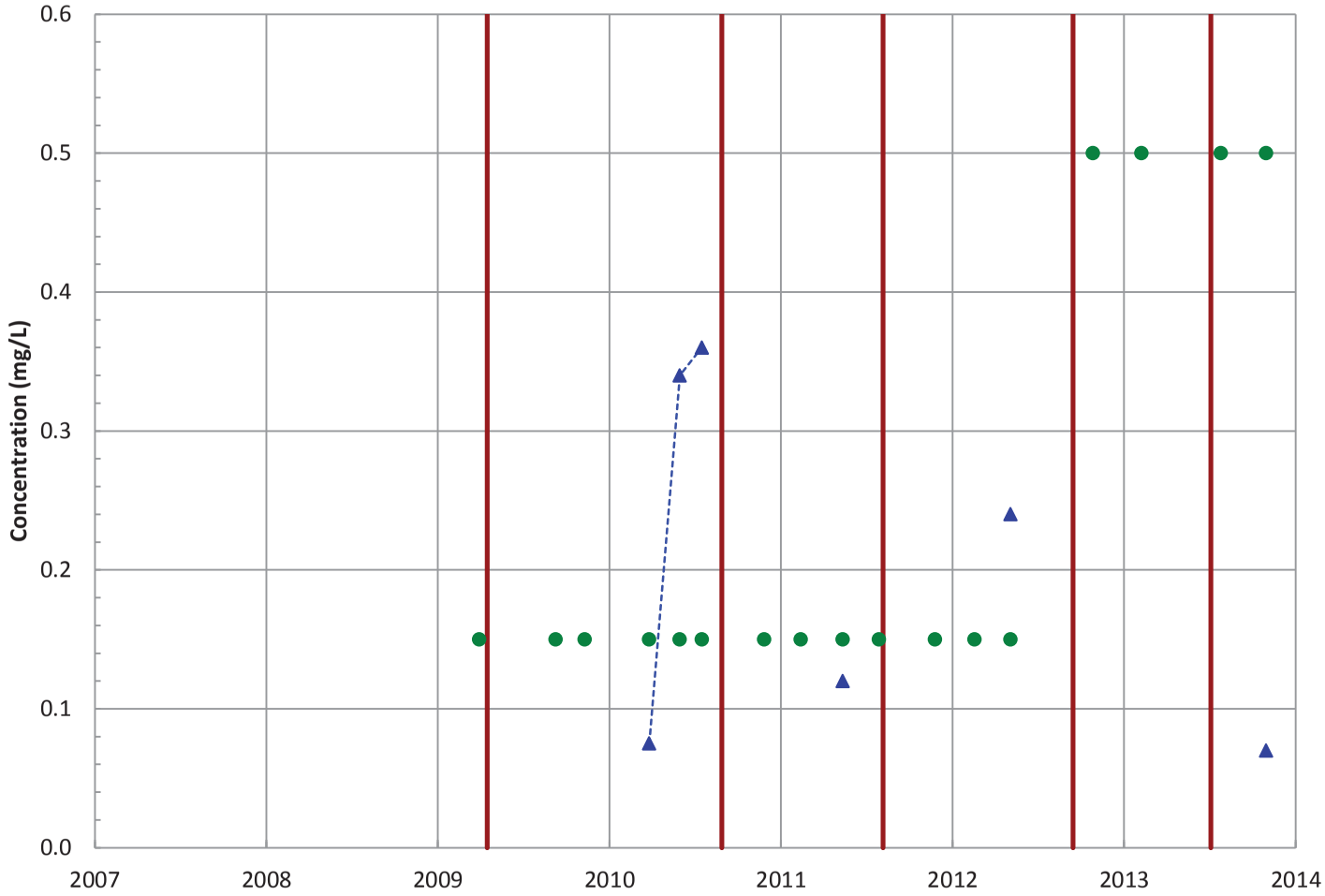
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

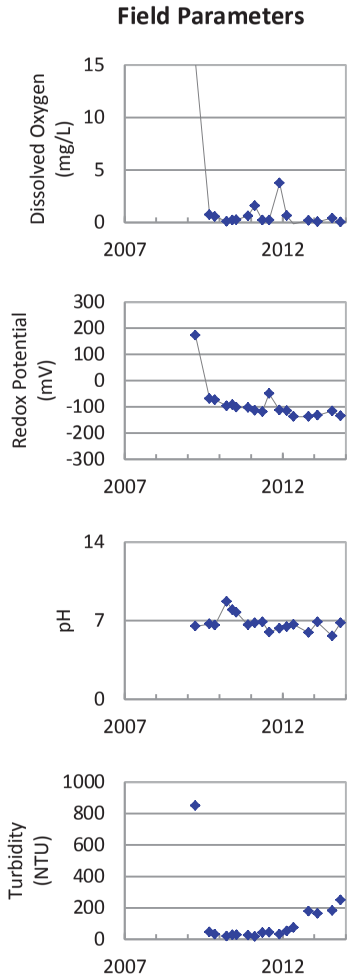
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 11/4/2013
Analysis Date: 3/21/2014

PTX06-ISB063
Chlorate Trend in Perched Aquifer





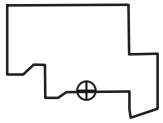
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: Probably Decreasing

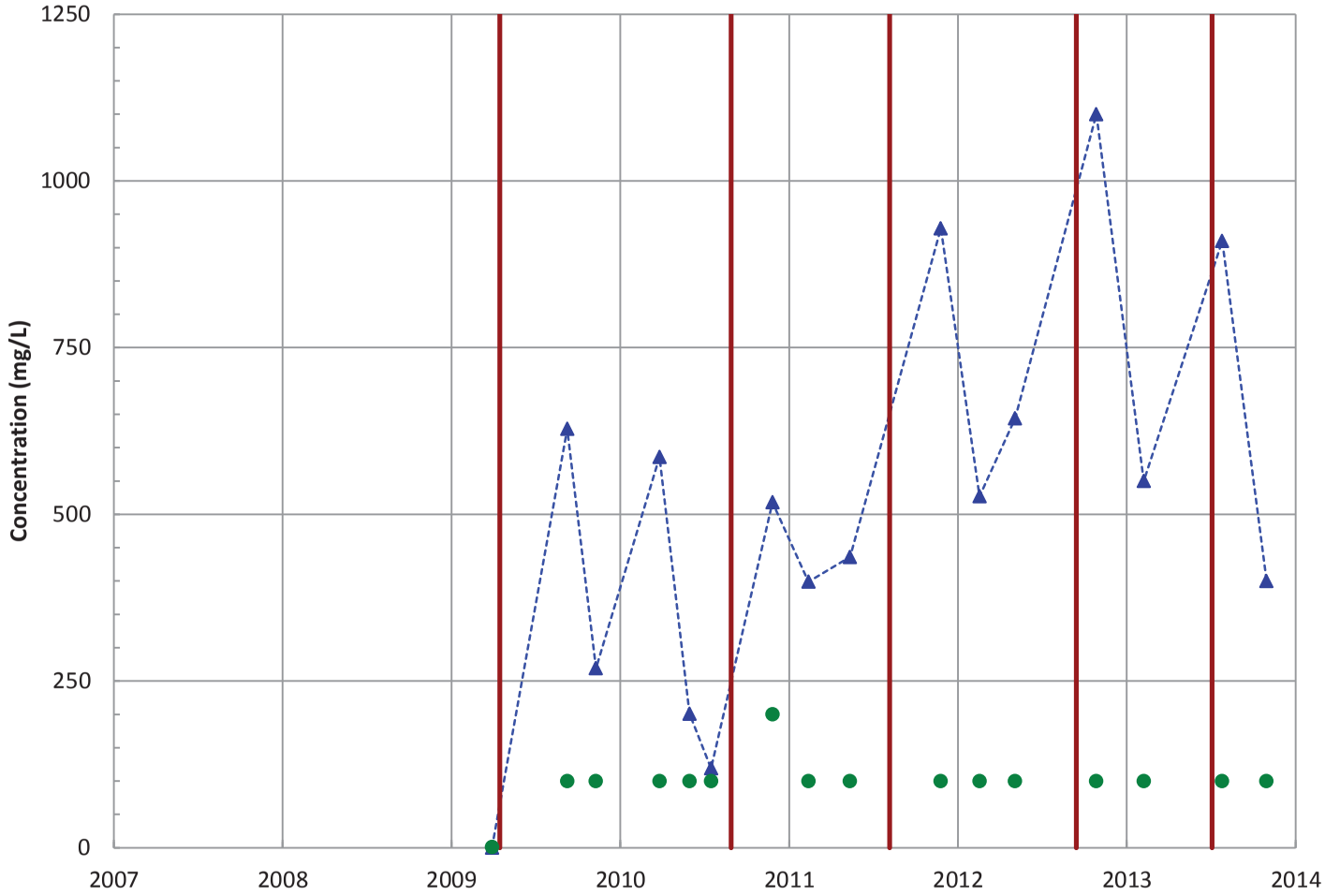
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
═══ Injection Dates

Well Location

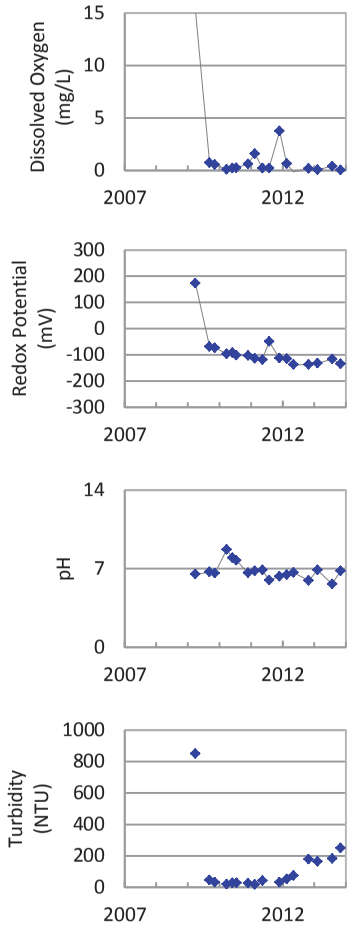


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 11/4/2013
Analysis Date: 3/21/2014

PTX06-ISB063
Total Organic Carbon Trend in Perched Aquifer



Field Parameters



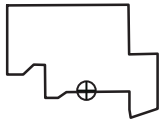
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Probably Decreasing

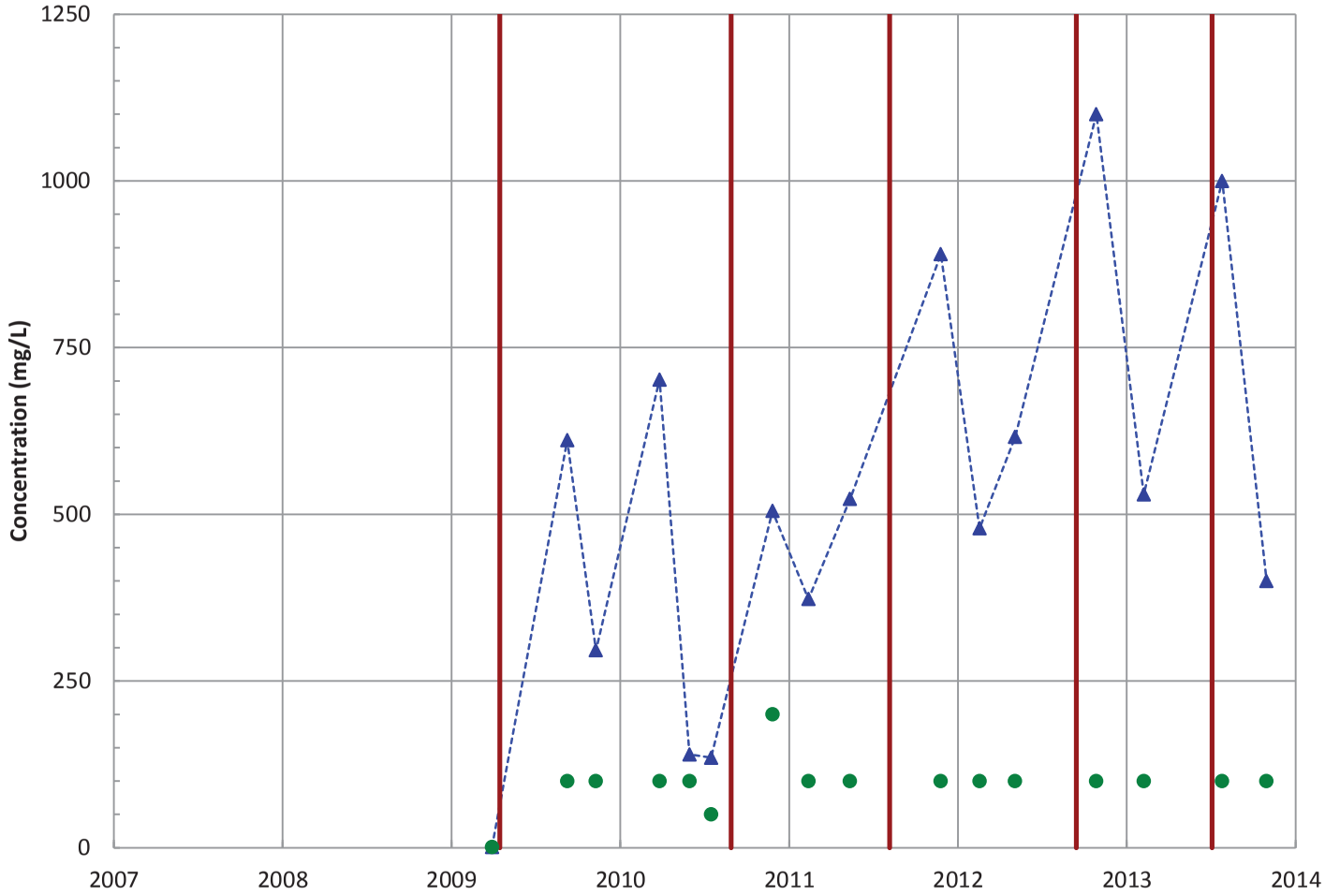
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

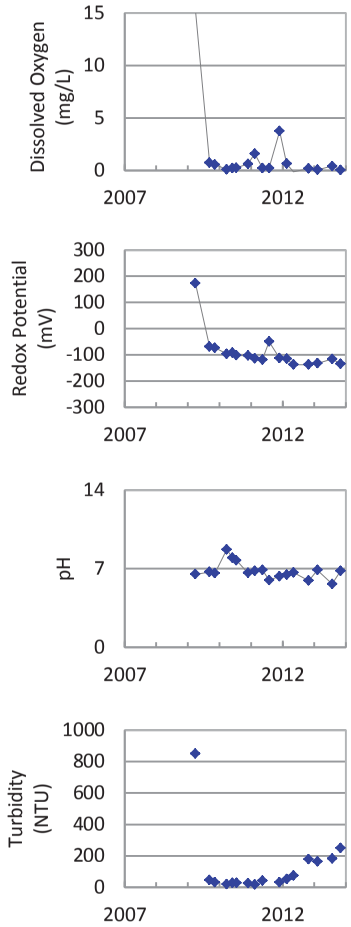


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 11/4/2013
Analysis Date: 3/21/2014

PTX06-ISB063
Dissolved Organic Carbon (DOC) Trend in Perched Aquifer



Field Parameters



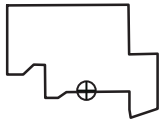
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Stable

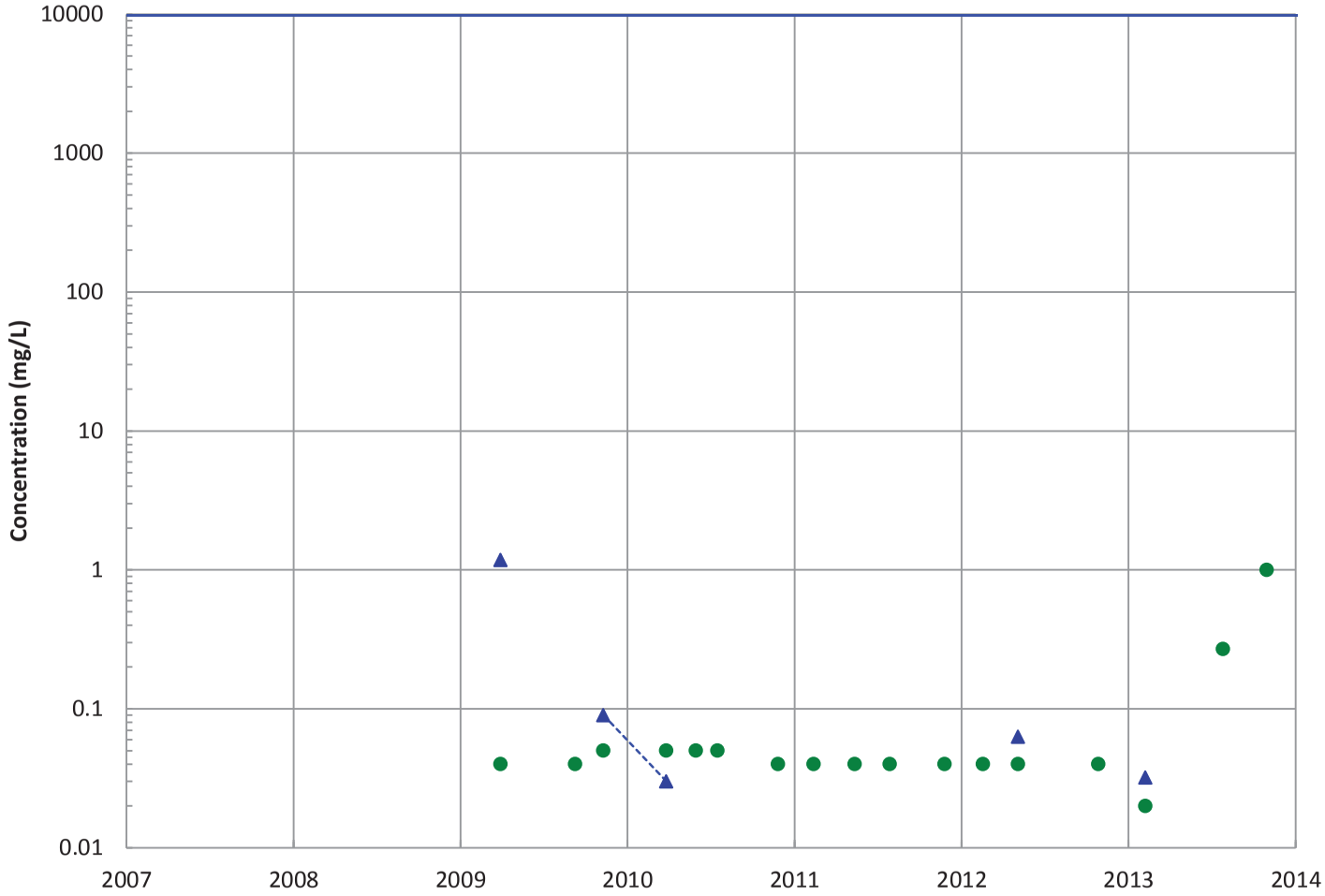
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

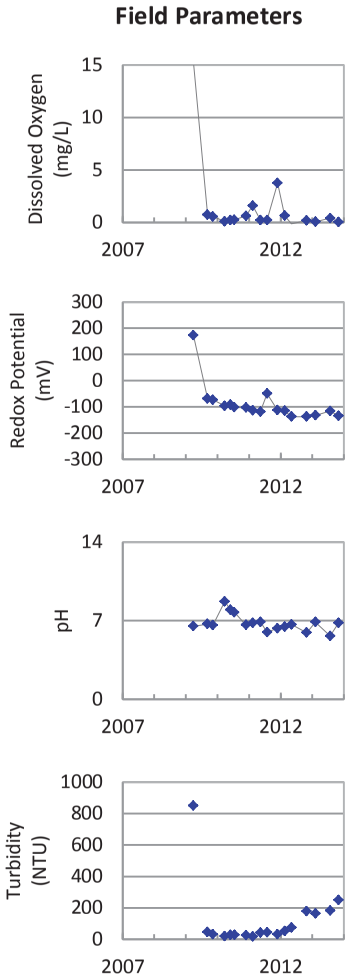
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 11/4/2013
Analysis Date: 3/21/2014

PTX06-ISB063
Nitrate as N Trend in Perched Aquifer





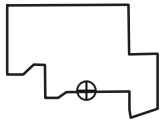
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Stable

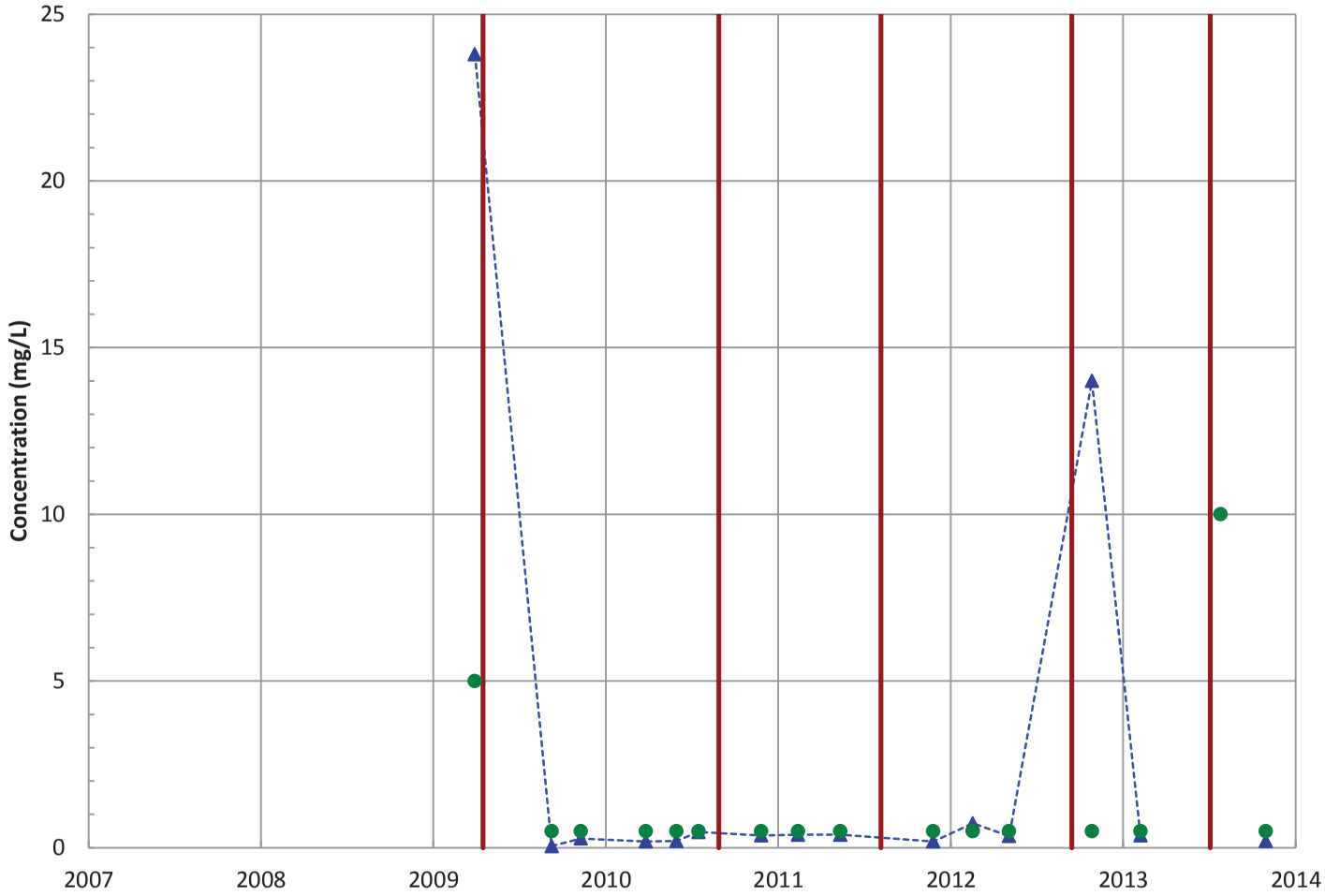
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

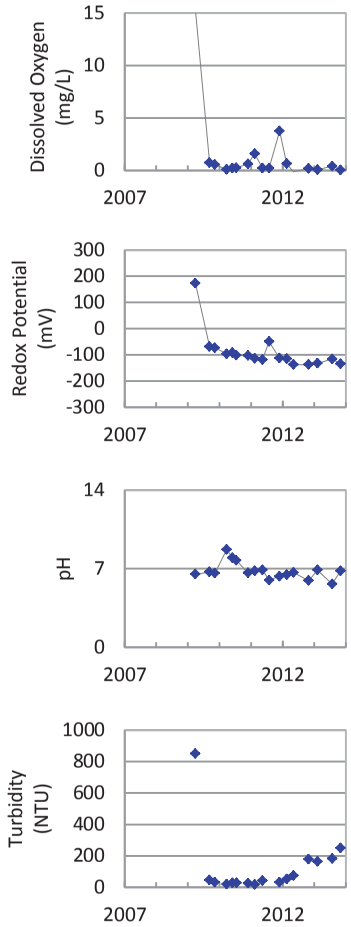


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 11/4/2013
Analysis Date: 3/21/2014

PTX06-ISB063
Sulfate (as SO4) Trend in Perched Aquifer



Field Parameters



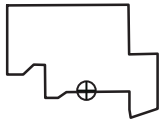
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

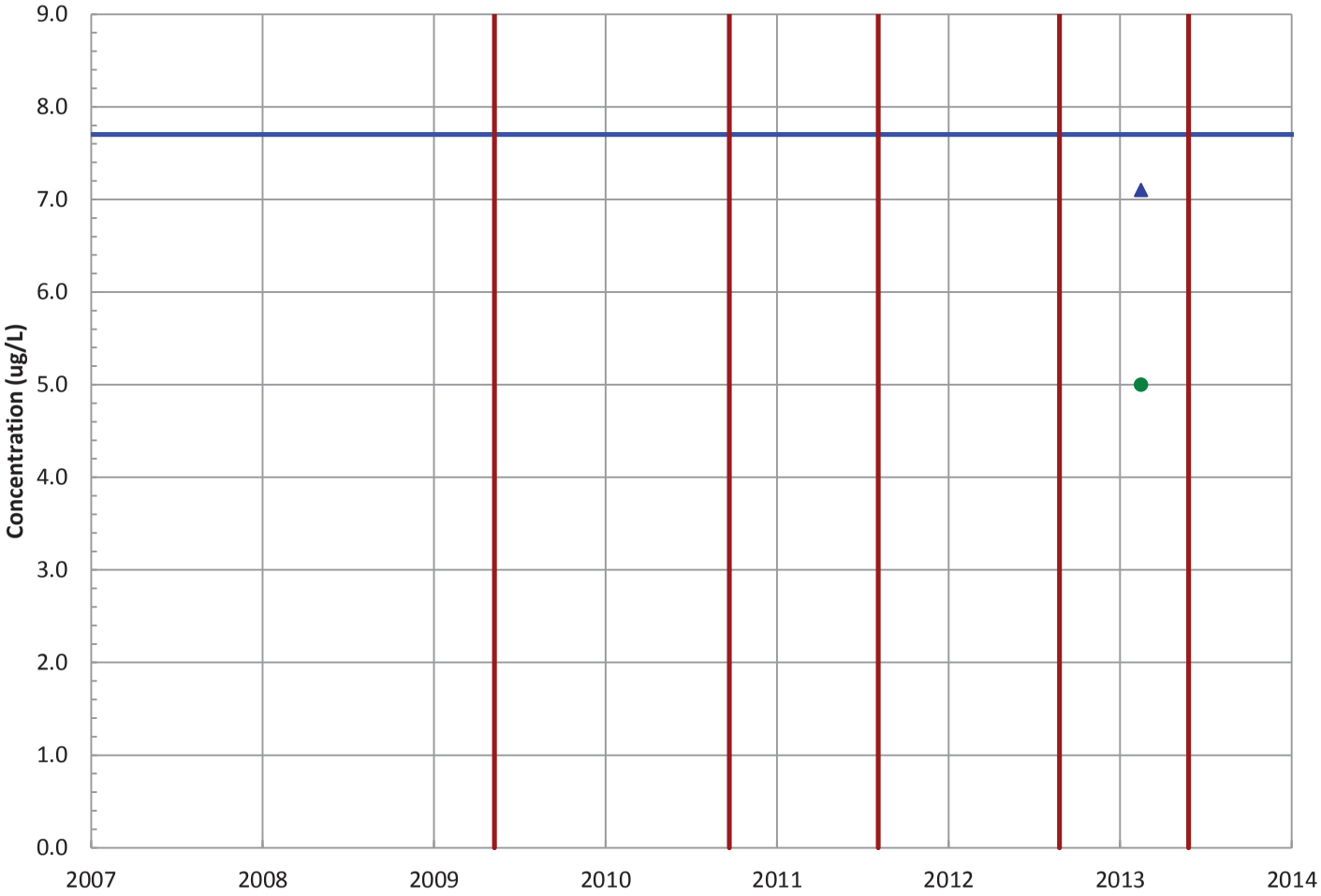
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Injection Dates

Well Location

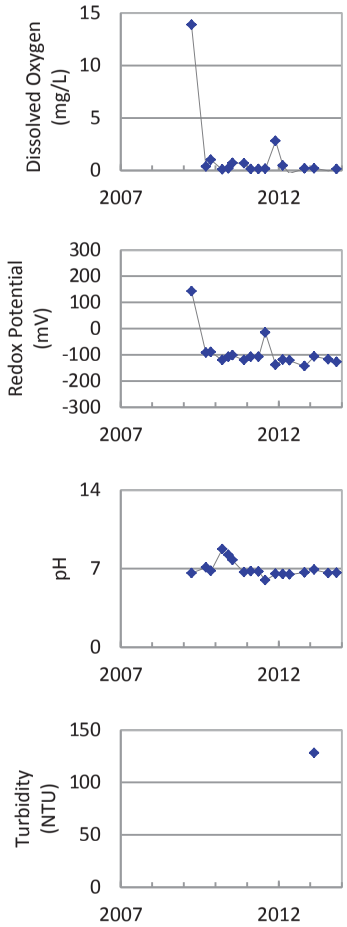


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/31/2009 to 11/4/2013
Analysis Date: 3/21/2014

PTX06-ISB069A
1,4-Dioxane (p-Dioxane) Trend in Perched Aquifer



Field Parameters



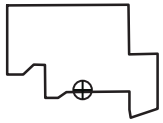
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Samples in Dataset)
Last 4 Samples: N/A (<4 Samples in Dataset)

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

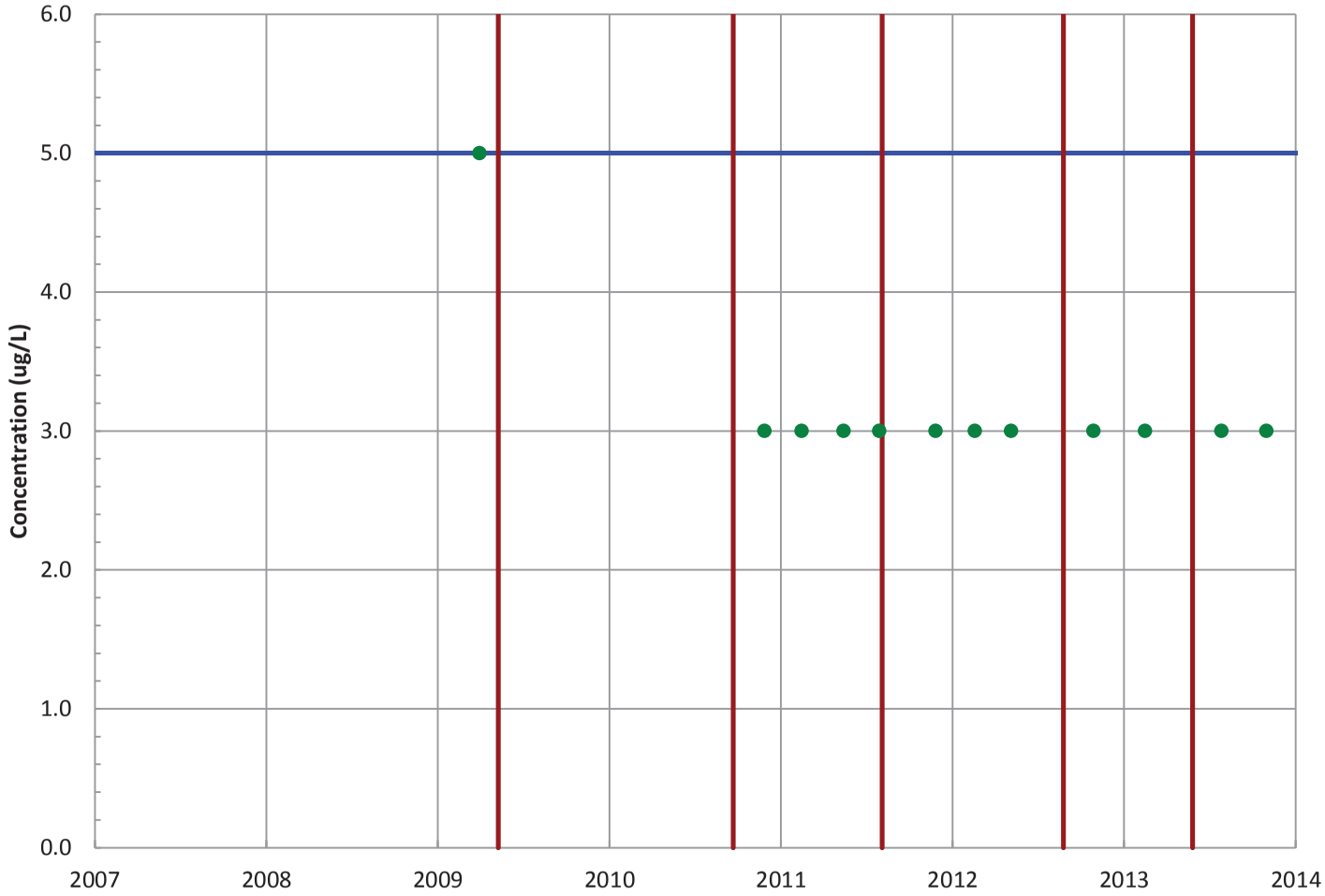
- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

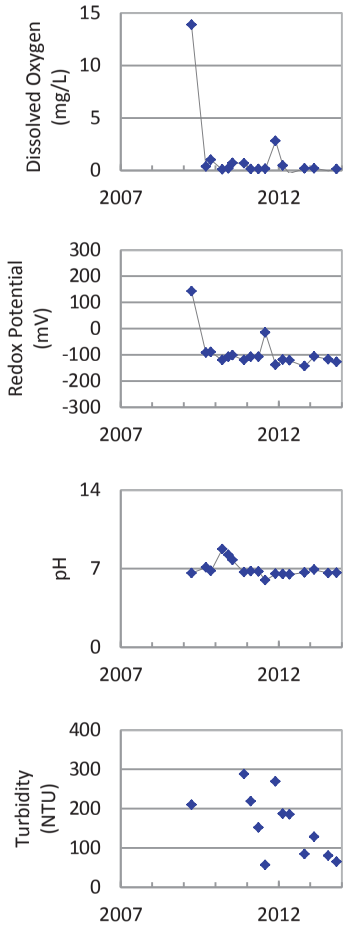


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/19/2013 to 2/19/2013
Analysis Date: 3/21/2014

PTX06-ISB069A
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



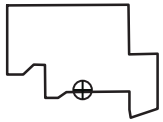
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

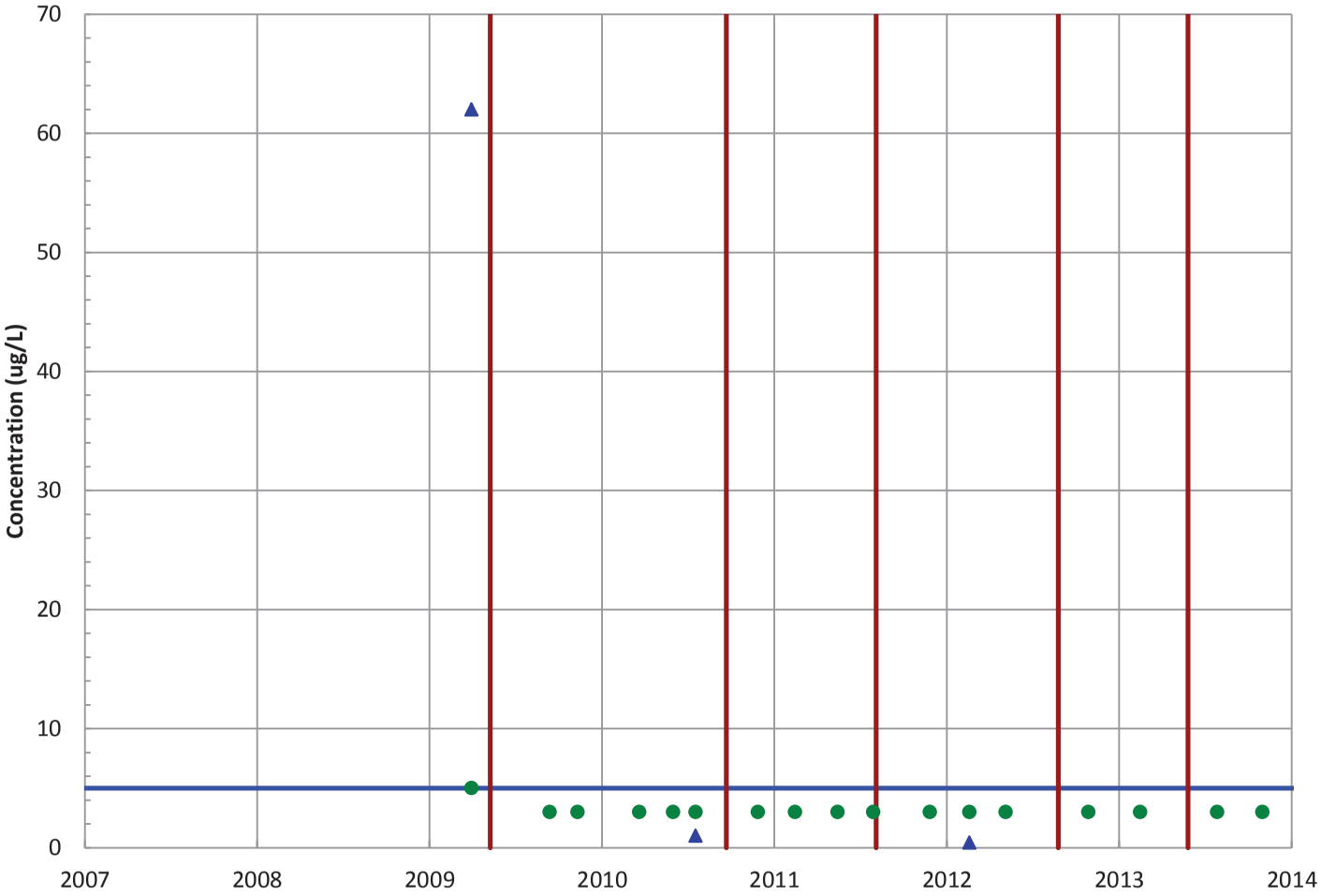
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

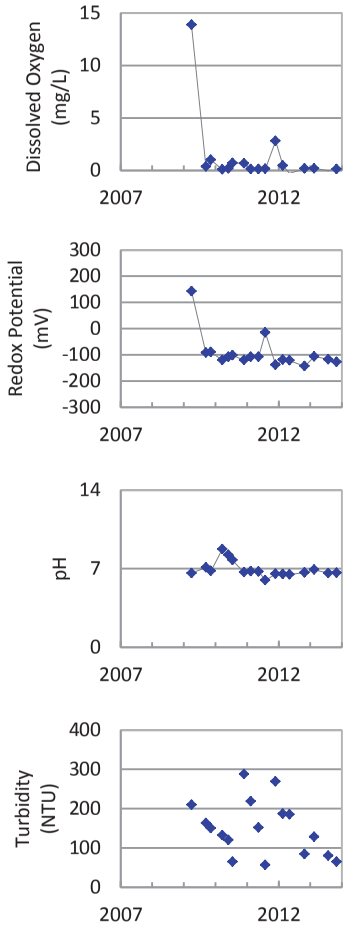


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/1/2009 to 11/5/2013
Analysis Date: 3/21/2014

PTX06-ISB069A
Trichloroethene Trend in Perched Aquifer



Field Parameters



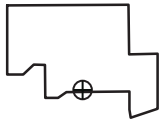
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

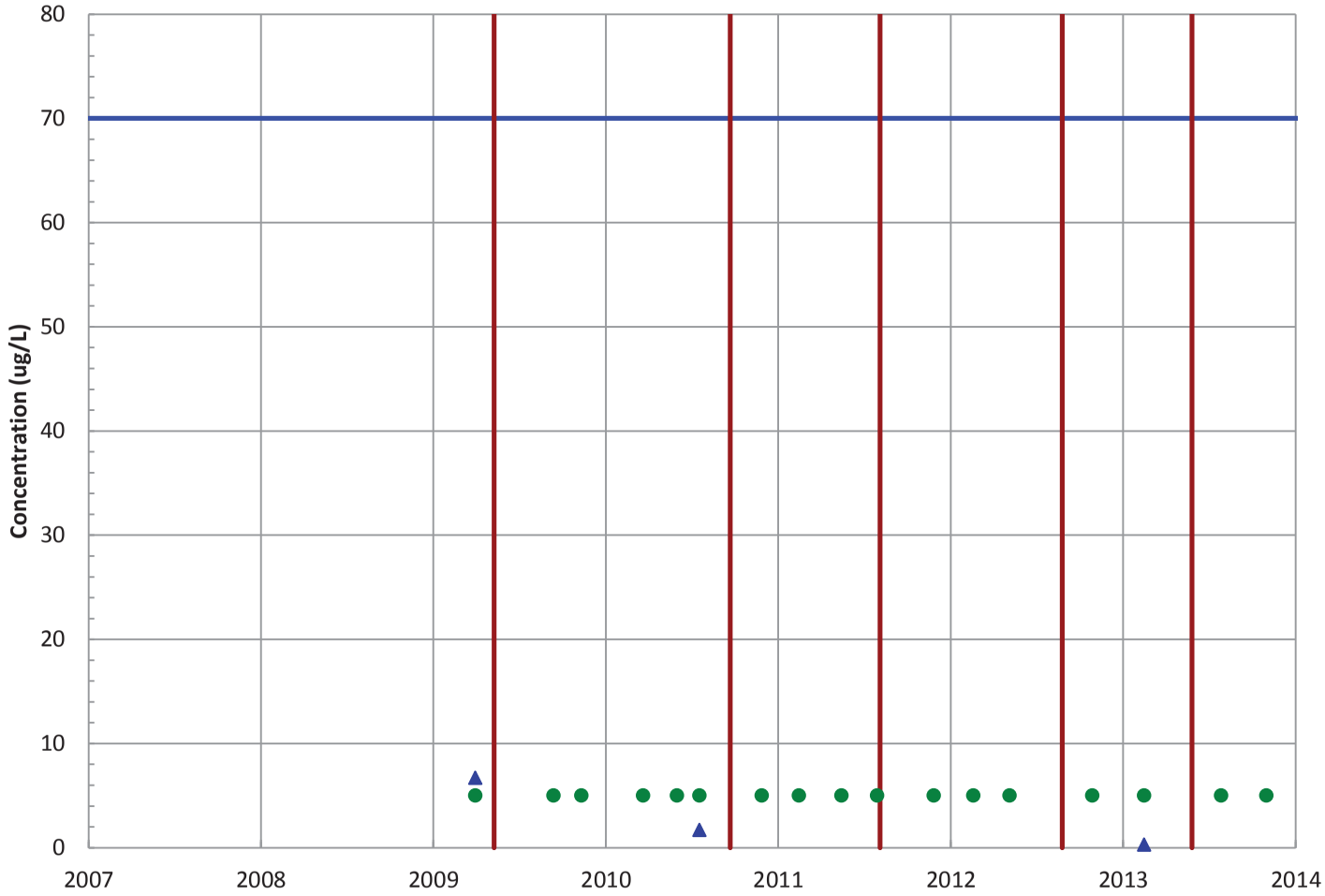
- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

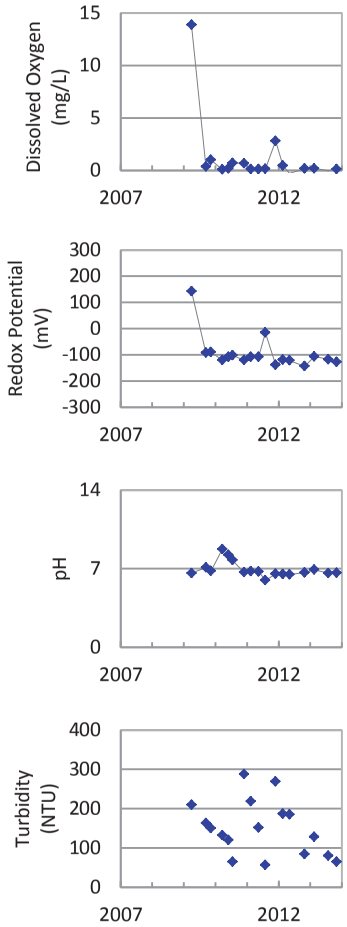


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/1/2009 to 11/5/2013
Analysis Date: 3/21/2014

PTX06-ISB069A
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



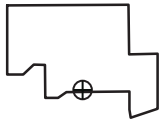
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

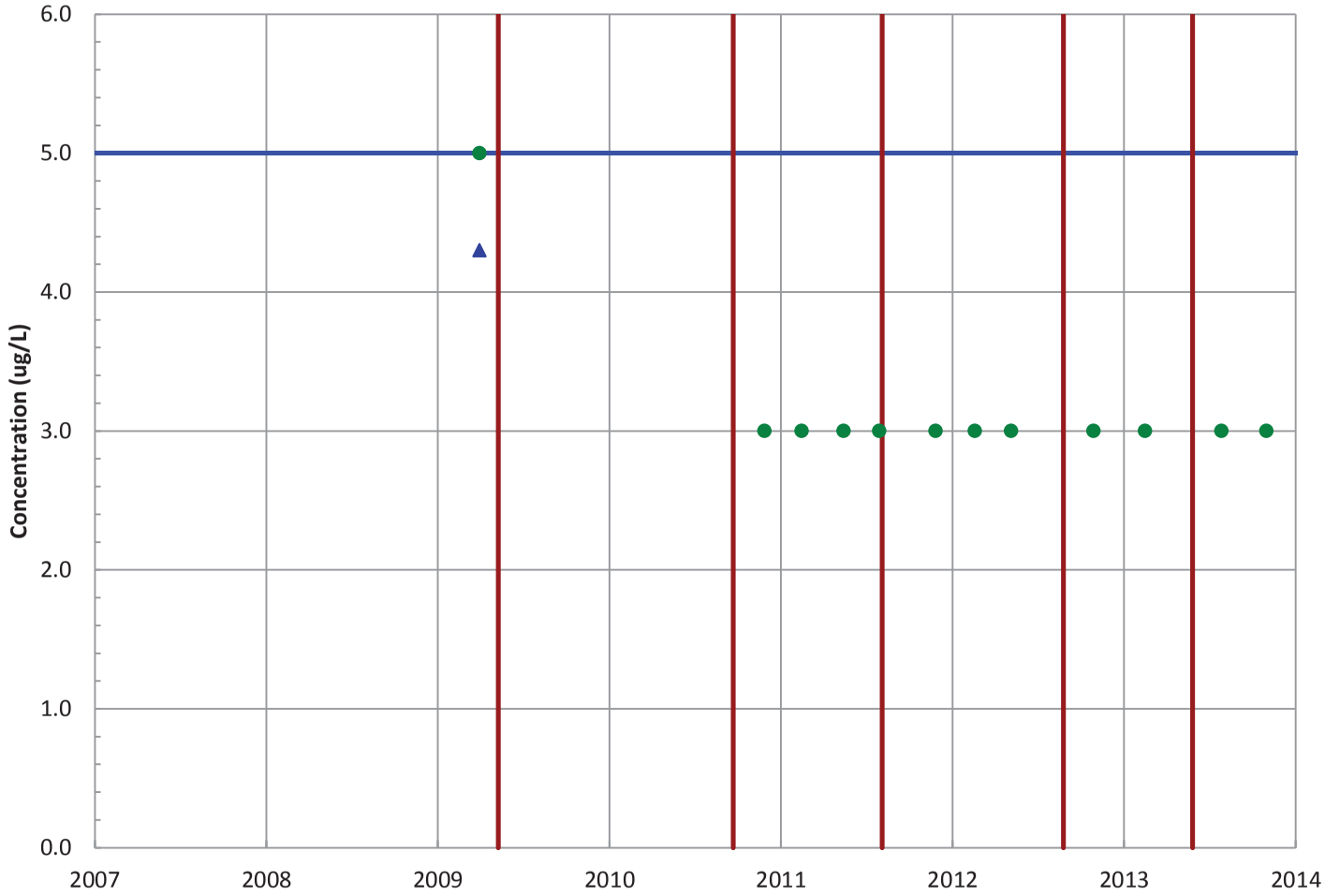
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

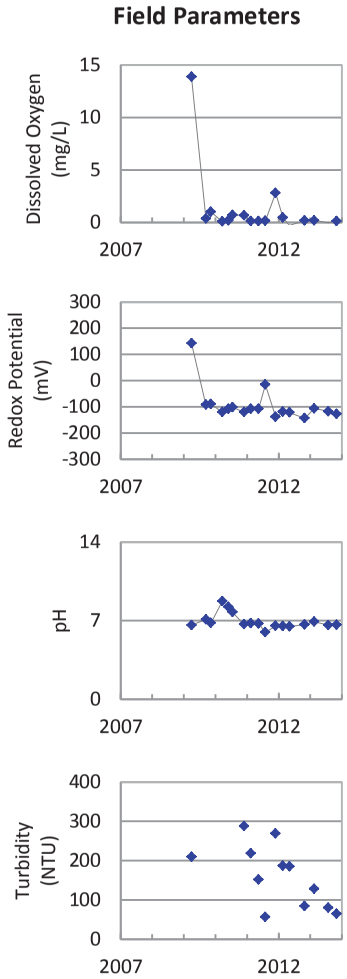
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/1/2009 to 11/5/2013
Analysis Date: 3/21/2014

PTX06-ISB069A
1,2-Dichloroethane Trend in Perched Aquifer





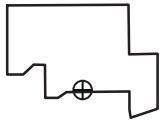
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

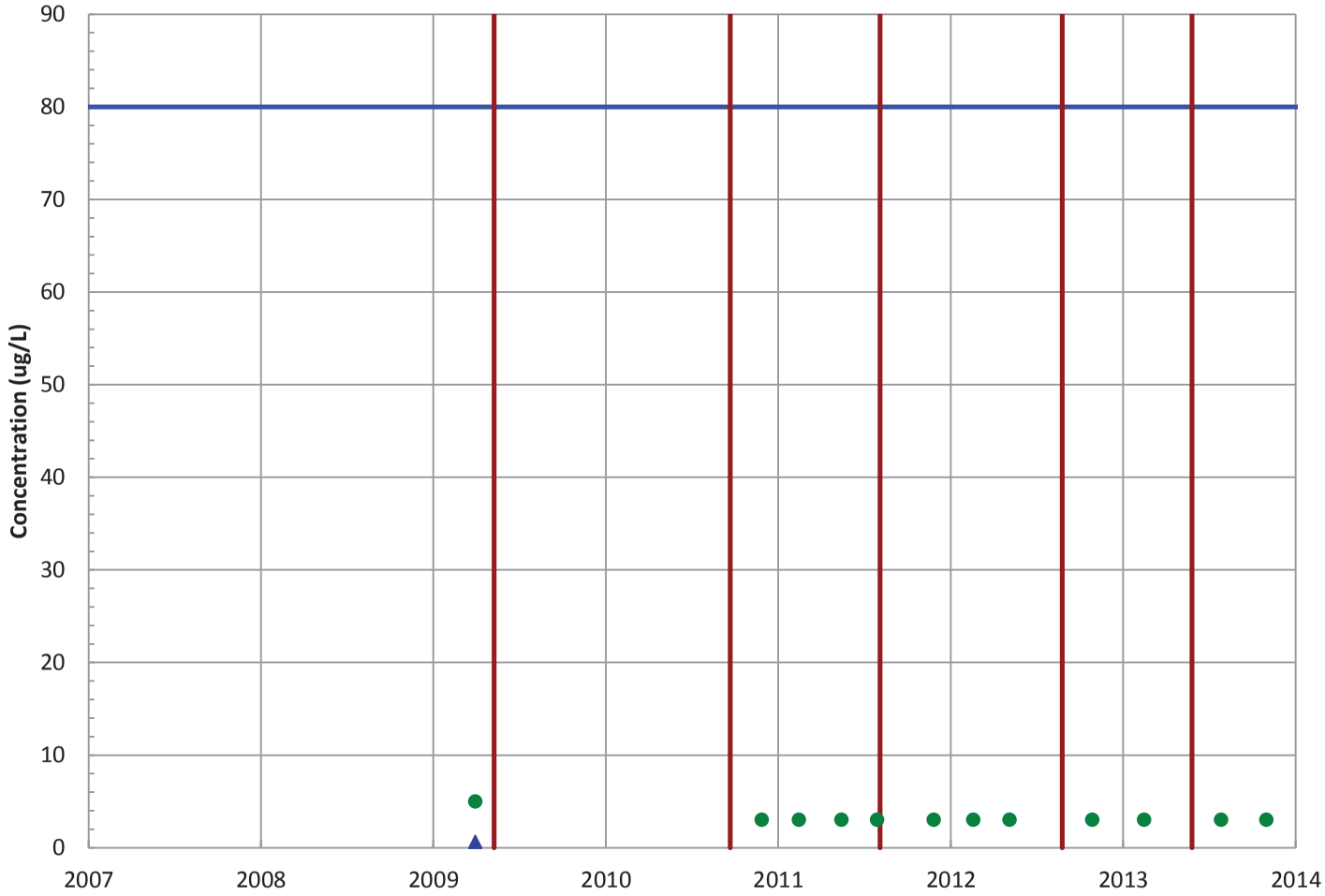
- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

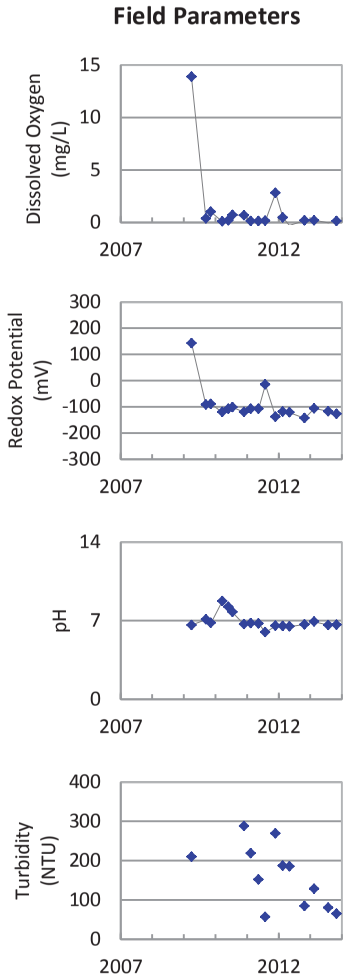
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/1/2009 to 11/5/2013
Analysis Date: 3/21/2014

PTX06-ISB069A
Chloroform Trend in Perched Aquifer





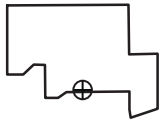
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

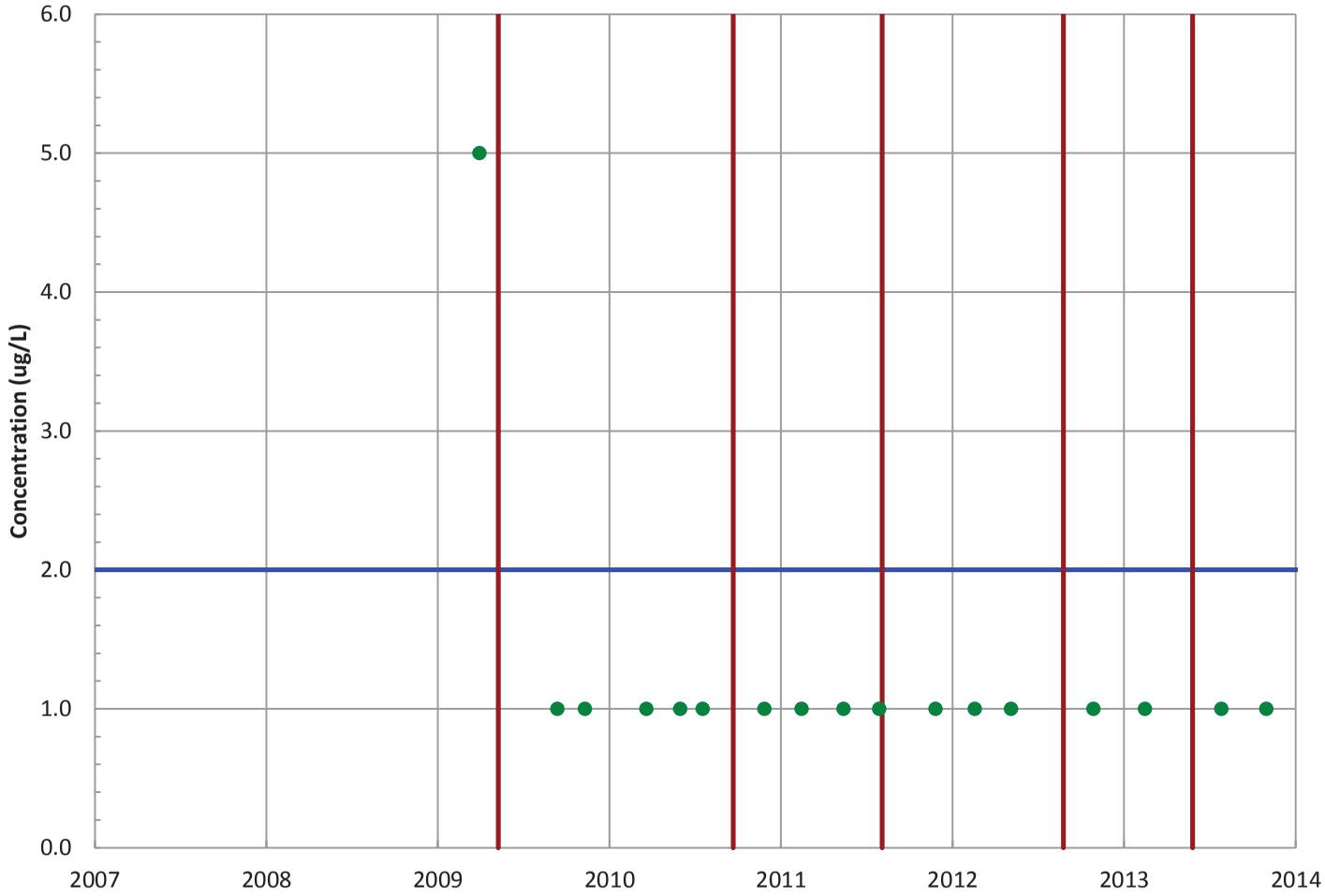
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

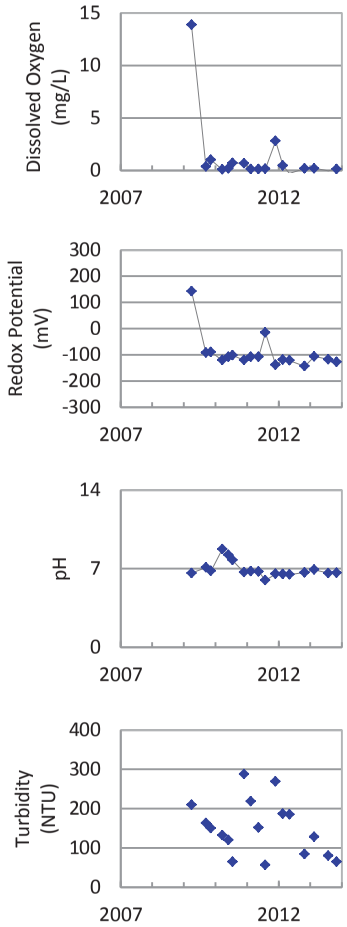


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/1/2009 to 11/5/2013
Analysis Date: 3/21/2014

PTX06-ISB069A
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



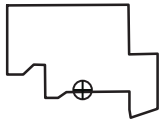
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

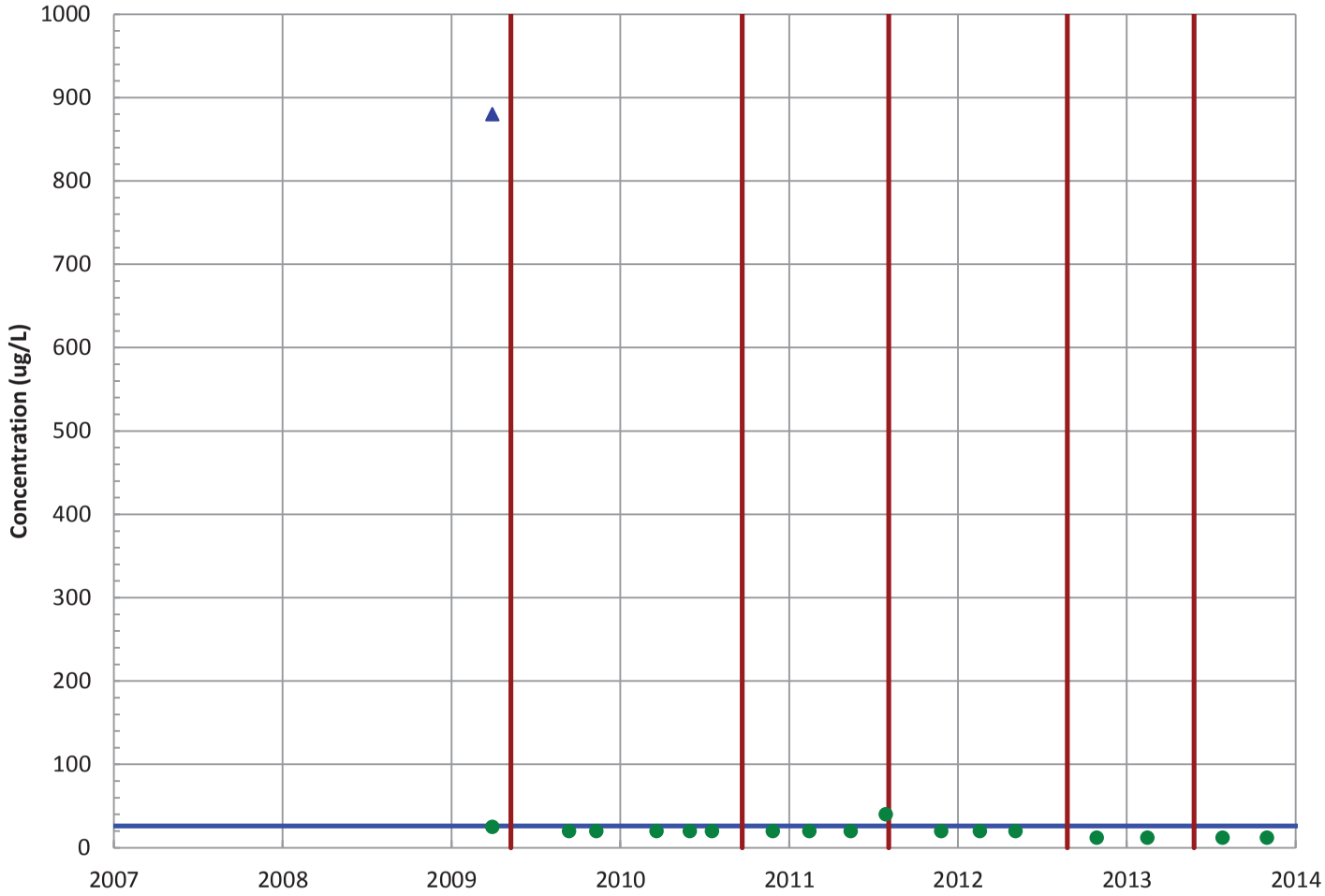
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

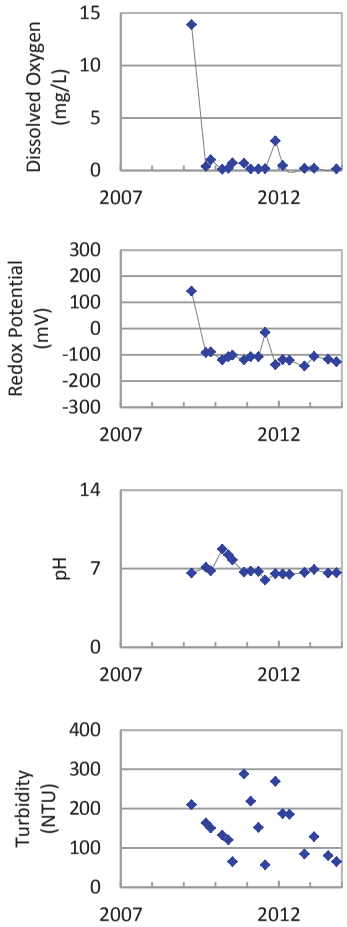


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/1/2009 to 11/5/2013
Analysis Date: 3/21/2014

PTX06-ISB069A
Perchlorate Trend in Perched Aquifer



Field Parameters



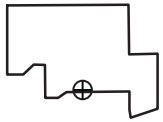
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

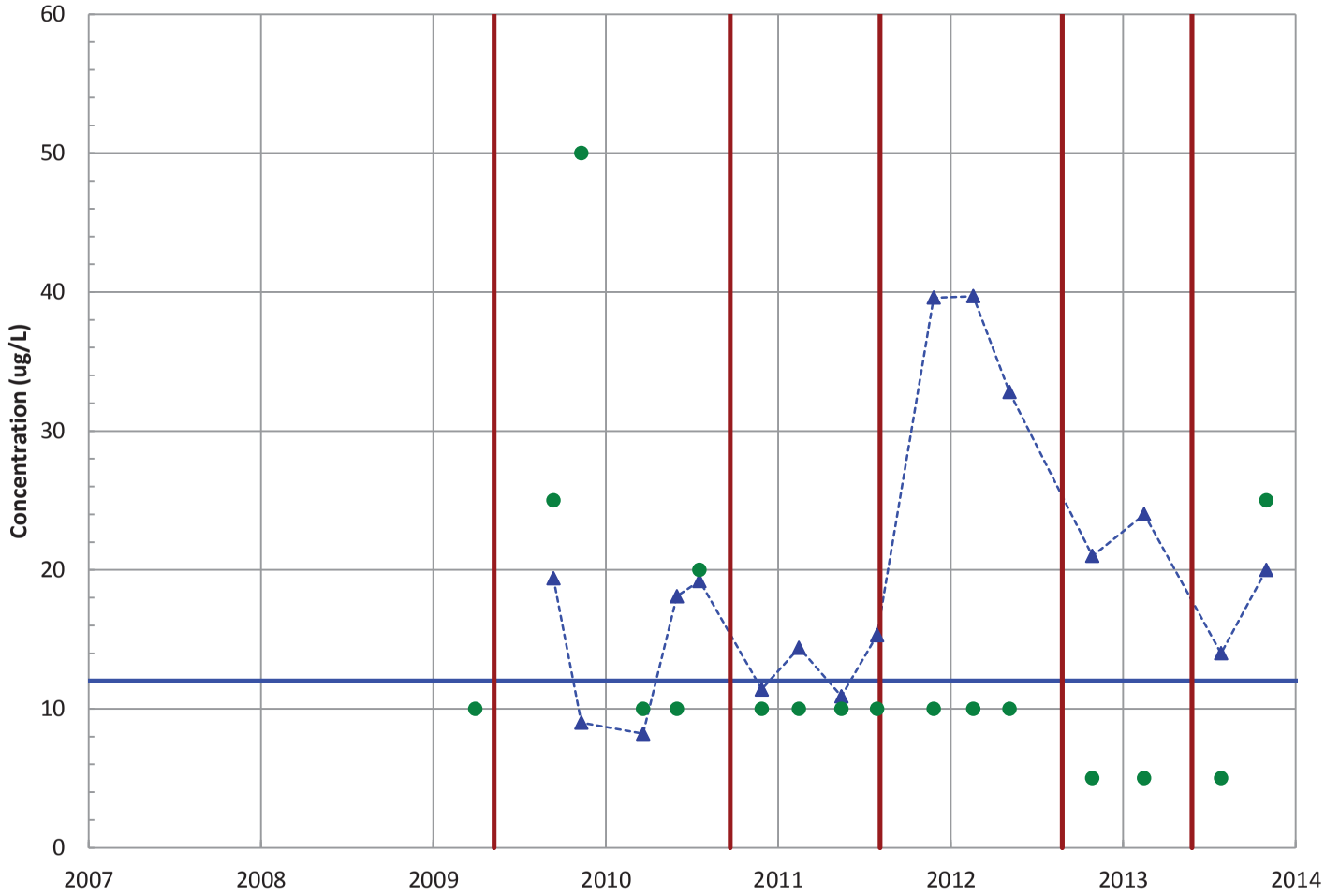
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

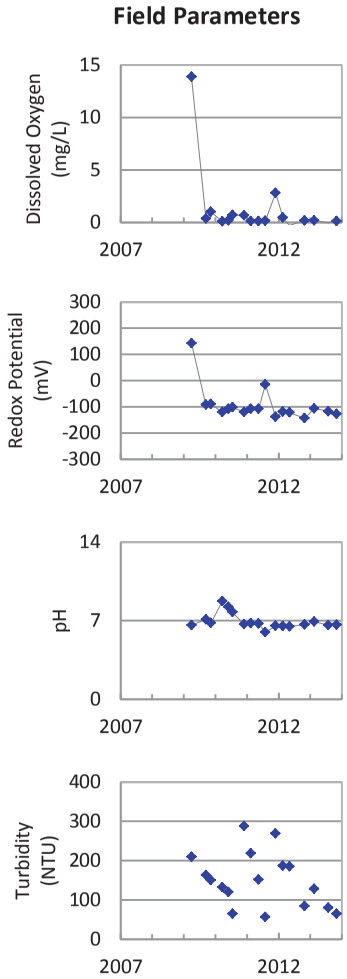
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/1/2009 to 11/5/2013
Analysis Date: 3/21/2014

PTX06-ISB069A
Arsenic Trend in Perched Aquifer





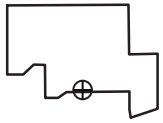
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Stable

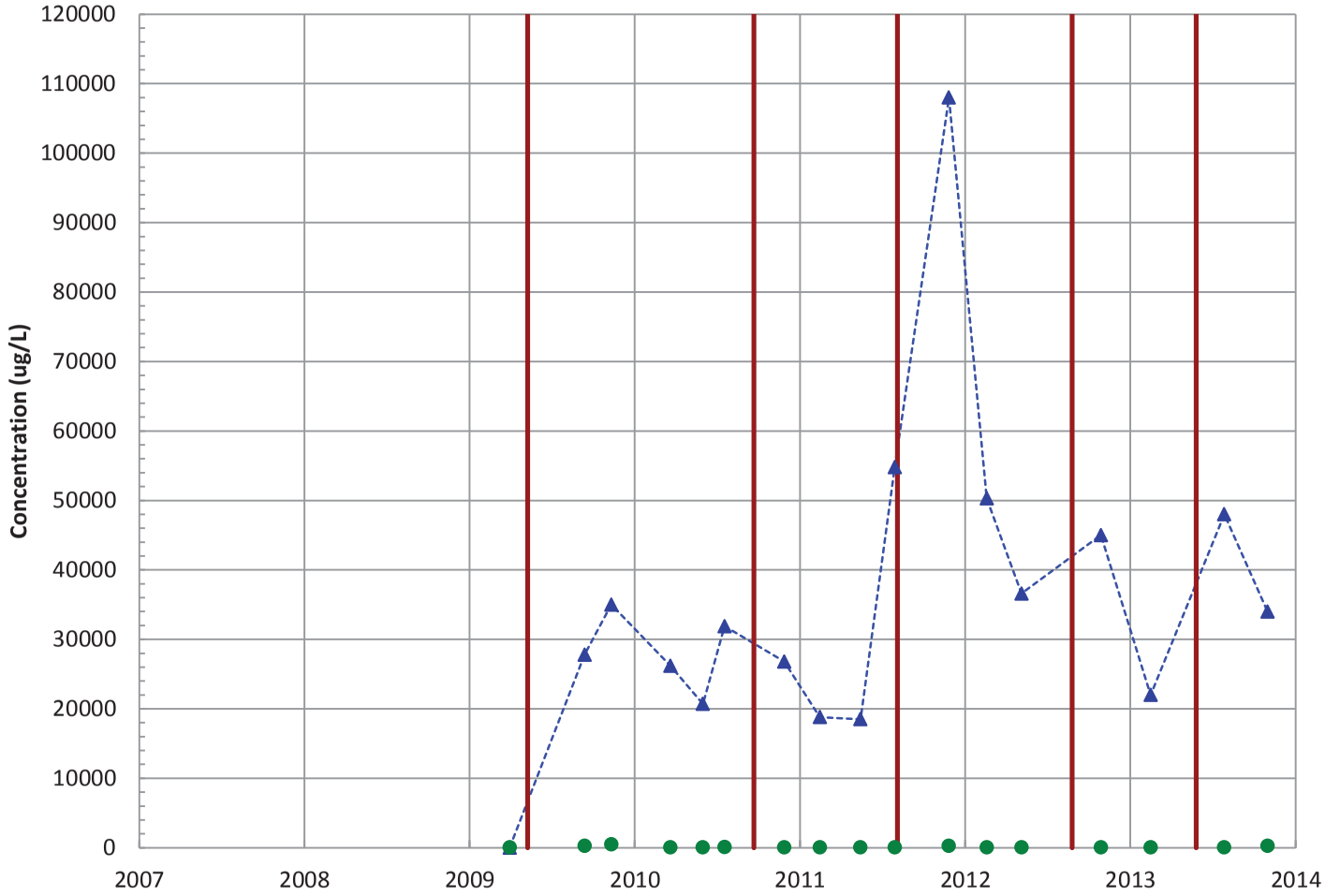
Measured Value
Sample Detection Limit
Concentration Trend
Groundwater Protection Standard
Injection Dates

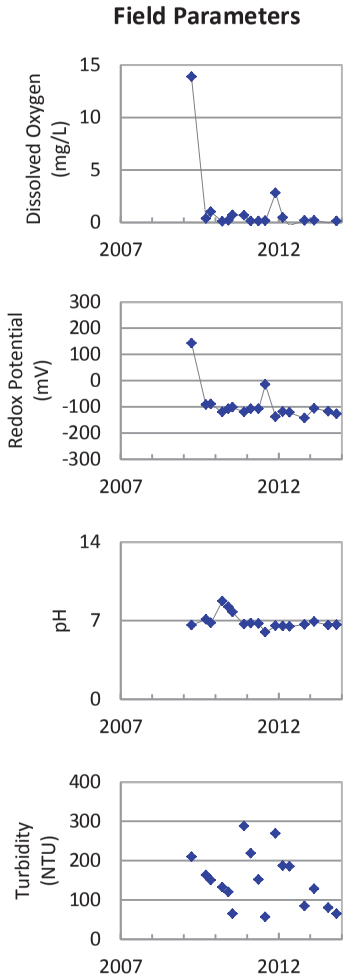
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/1/2009 to 11/5/2013
Analysis Date: 3/21/2014

PTX06-ISB069A
Iron Trend in Perched Aquifer





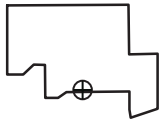
Concentration Trend

MAROS Mann-Kendall Method
All Data: Probably Increasing
Last 4 Samples: Stable

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Stable

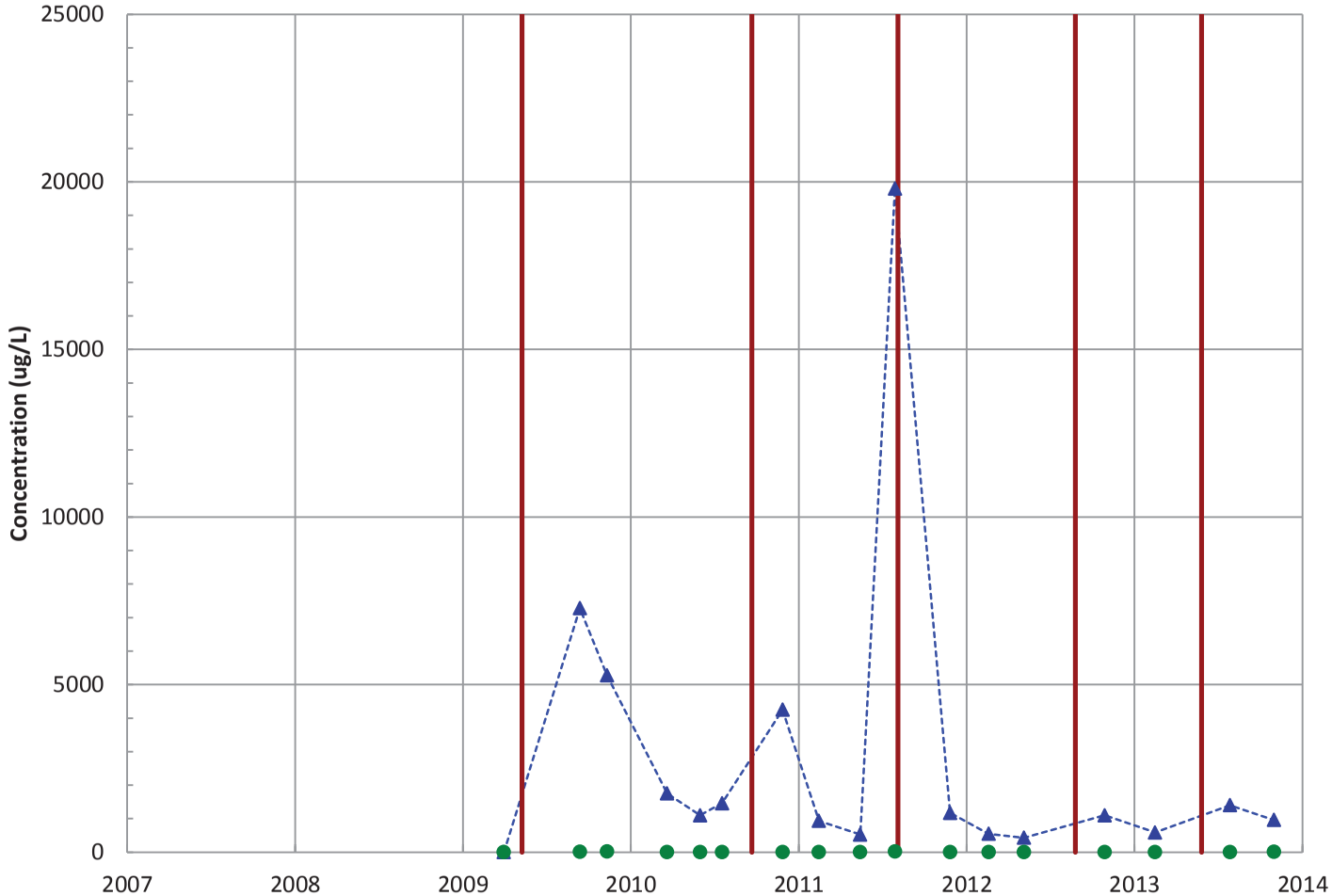
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

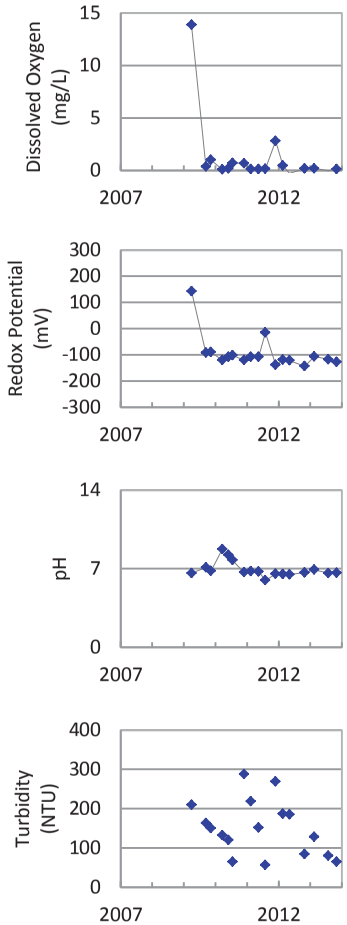


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/1/2009 to 11/5/2013
Analysis Date: 3/21/2014

PTX06-ISB069A
Manganese Trend in Perched Aquifer



Field Parameters



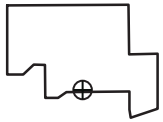
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Stable

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Stable

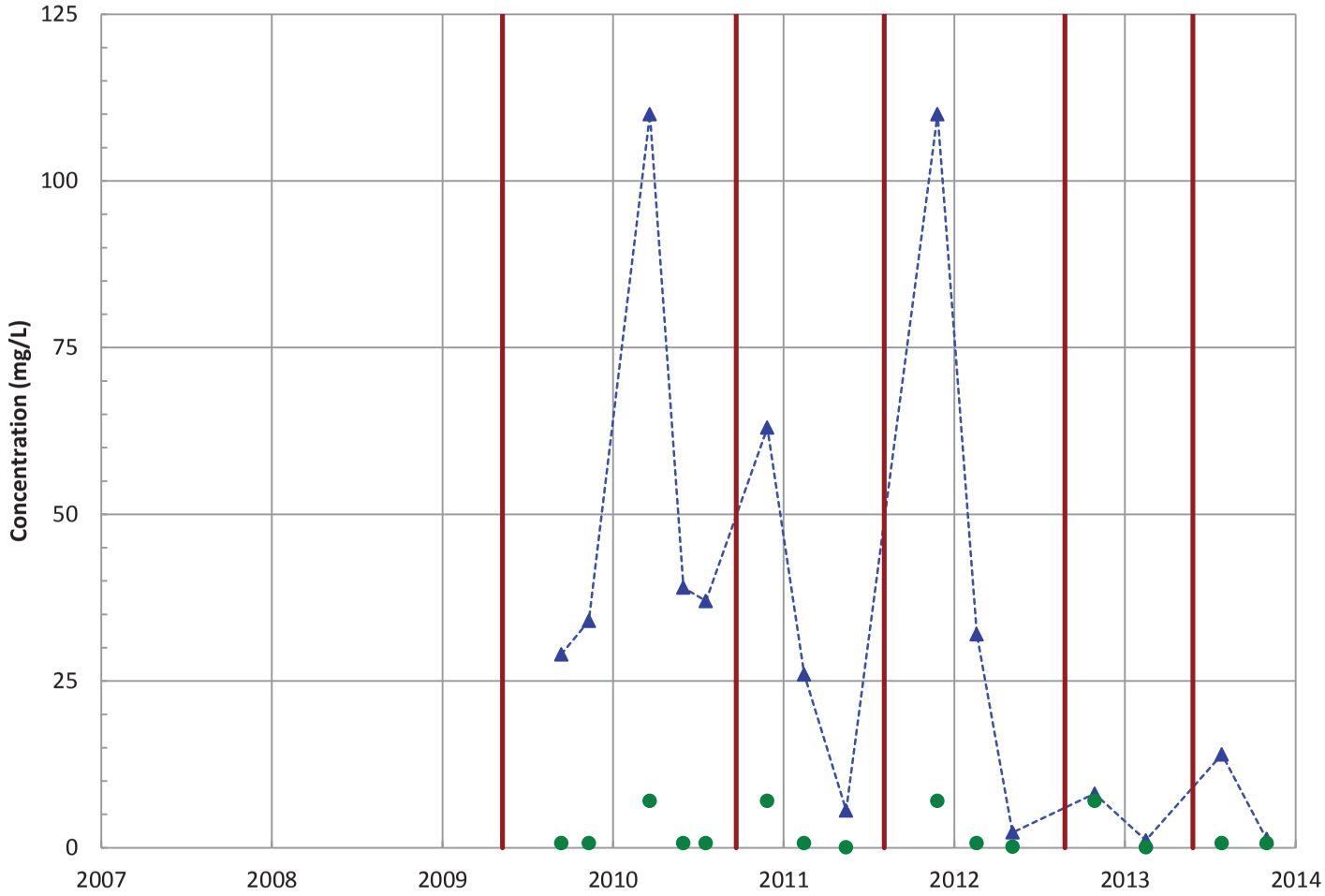
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

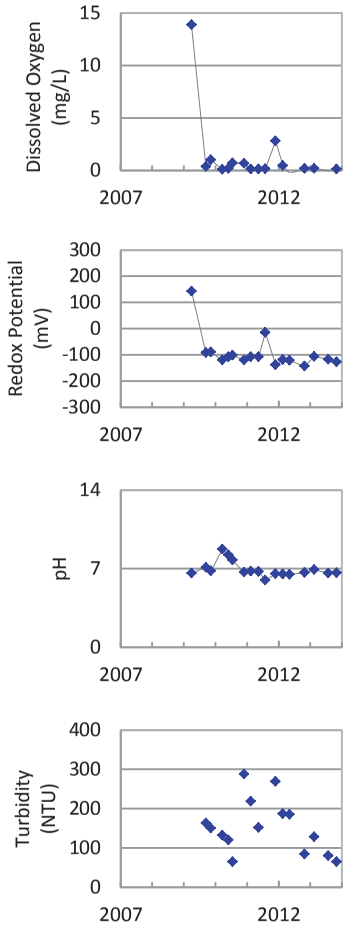


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/1/2009 to 11/5/2013
Analysis Date: 3/21/2014

PTX06-ISB069A
Acetic Acid Trend in Perched Aquifer



Field Parameters



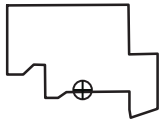
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

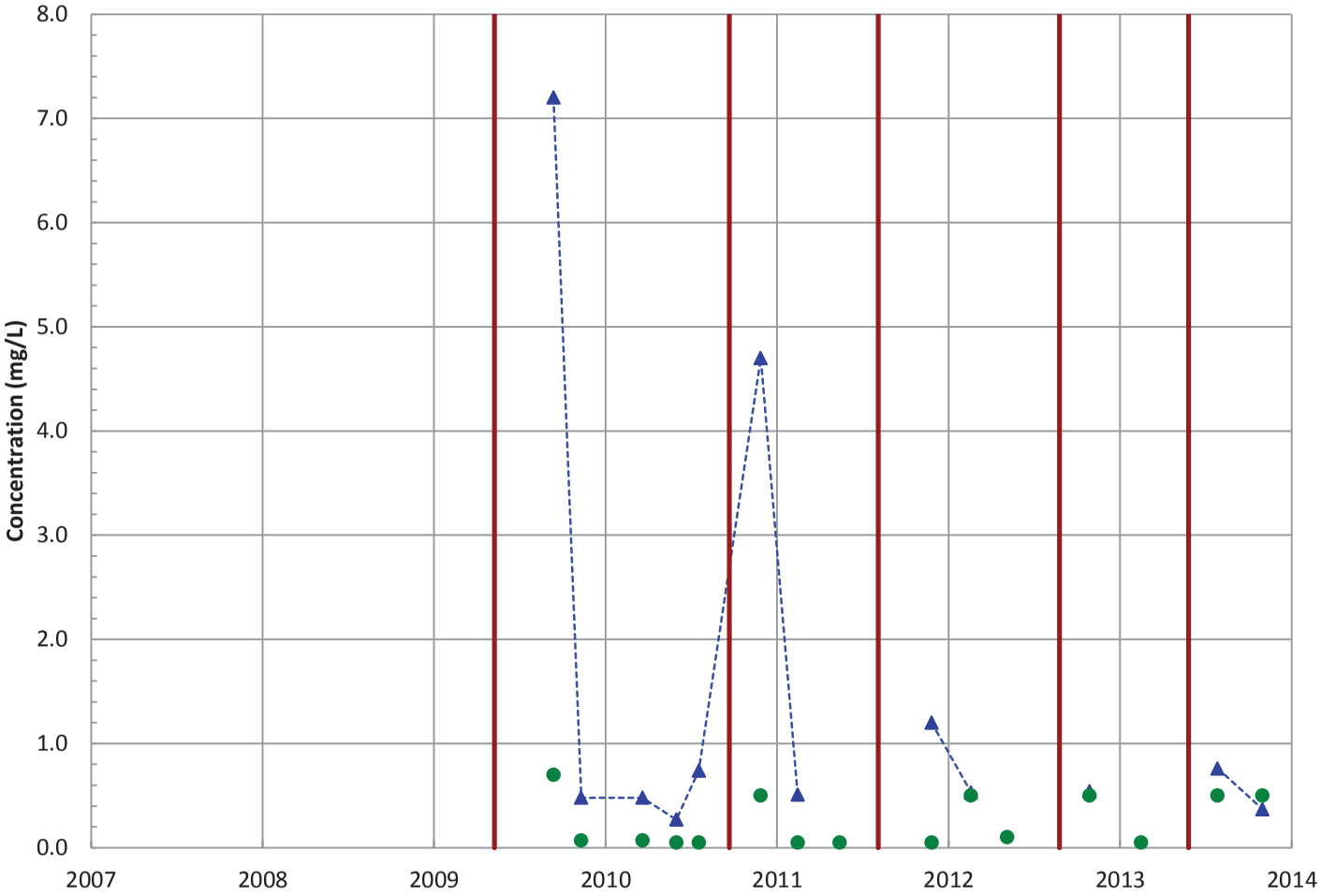
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

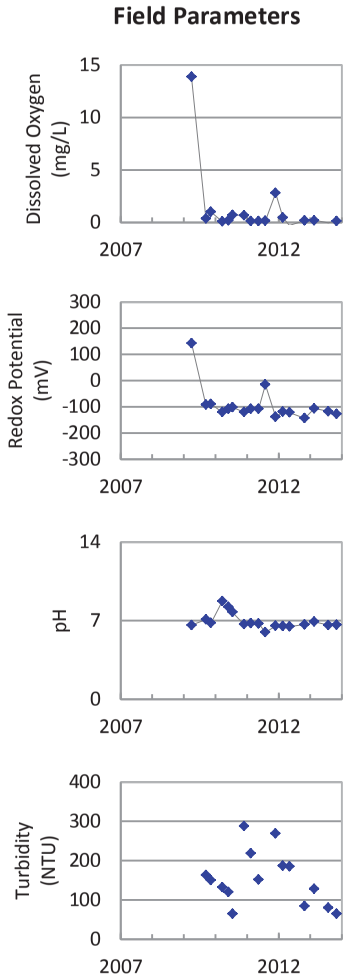
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/5/2013
Analysis Date: 3/21/2014

PTX06-ISB069A
Butyric Acid Trend in Perched Aquifer





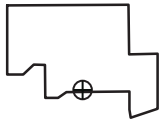
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Stable

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Stable

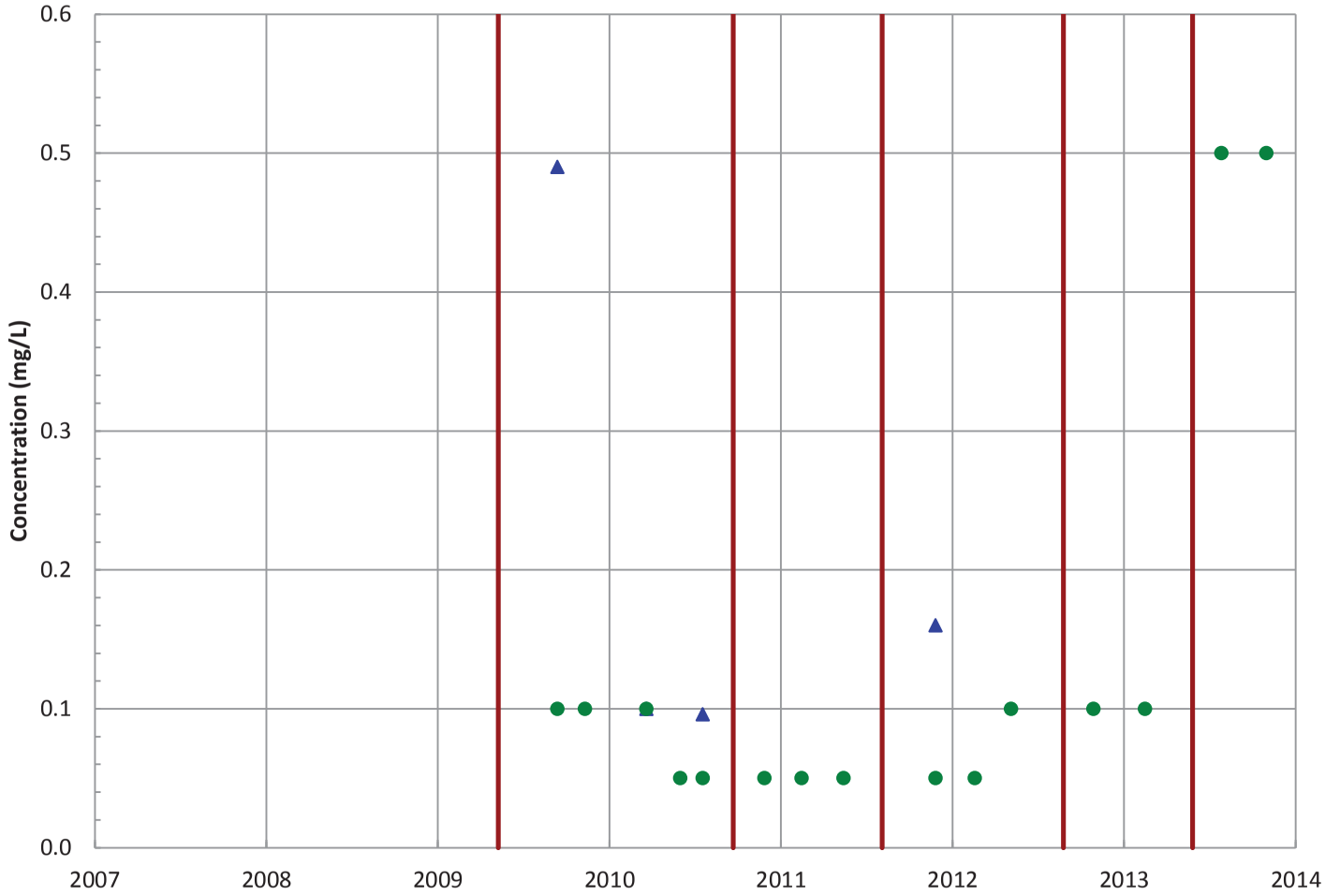
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

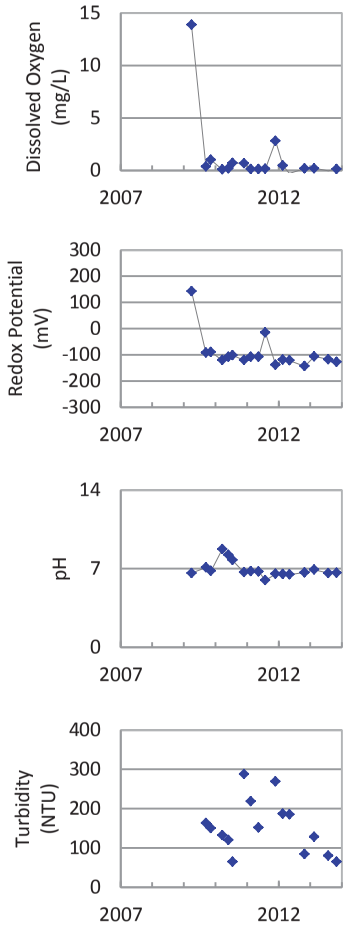


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/5/2013
Analysis Date: 3/21/2014

PTX06-ISB069A
Hexanoic Acid Trend in Perched Aquifer



Field Parameters



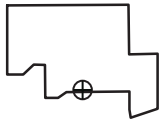
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: Stable

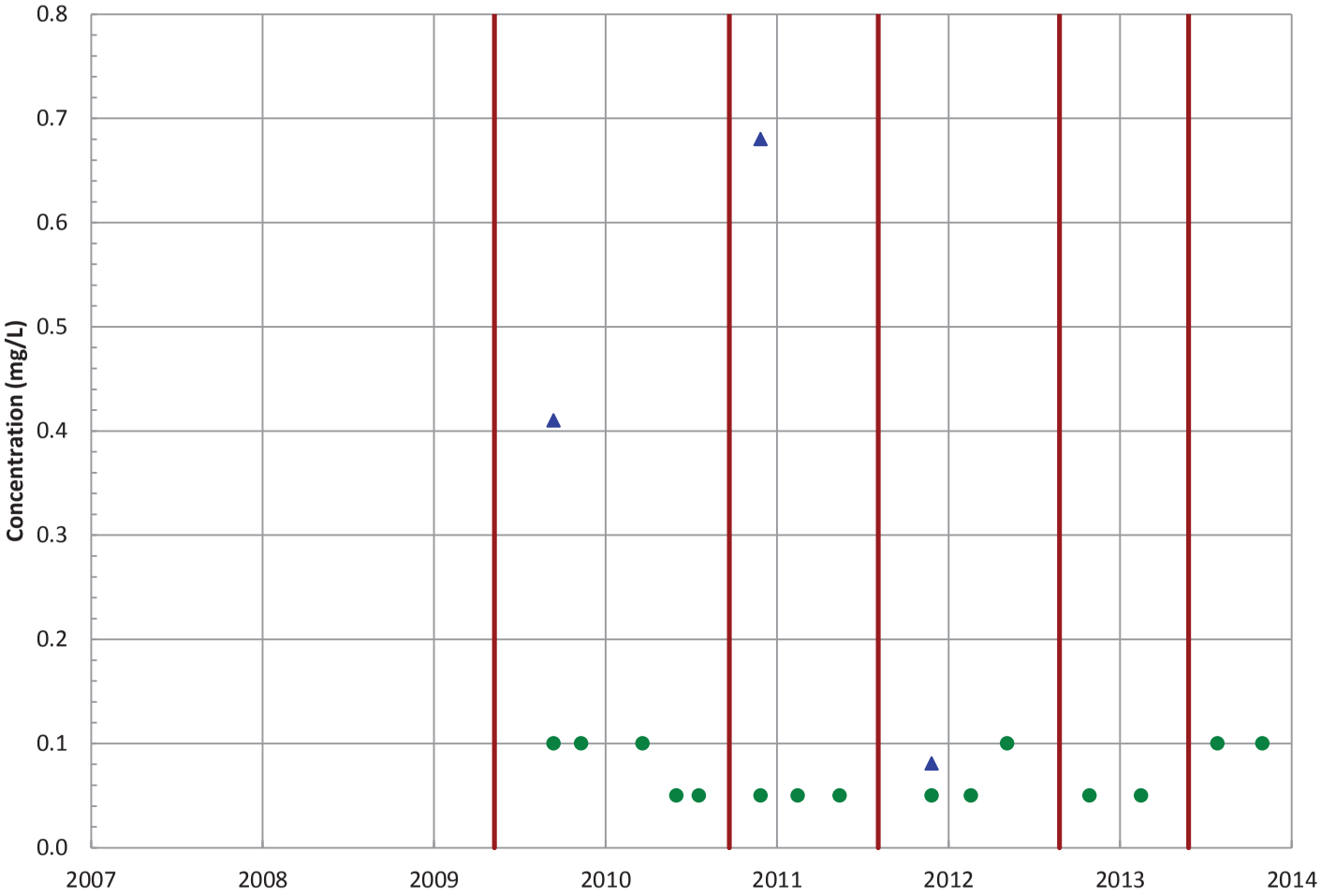
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

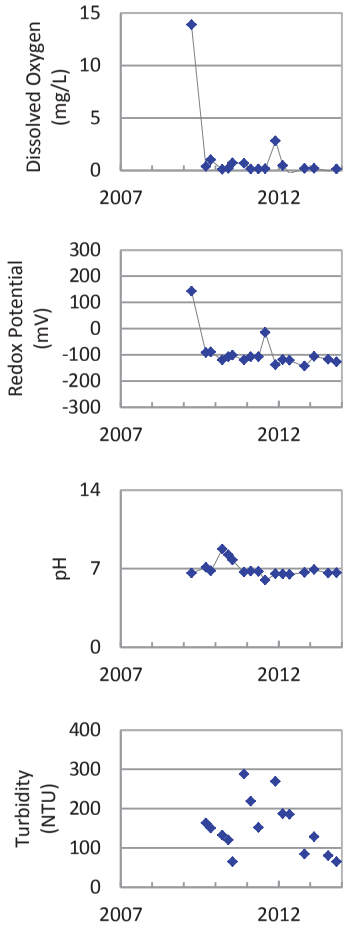


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/5/2013
Analysis Date: 3/21/2014

PTX06-ISB069A
i-Hexanoic Acid Trend in Perched Aquifer



Field Parameters



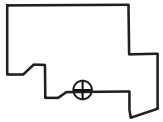
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

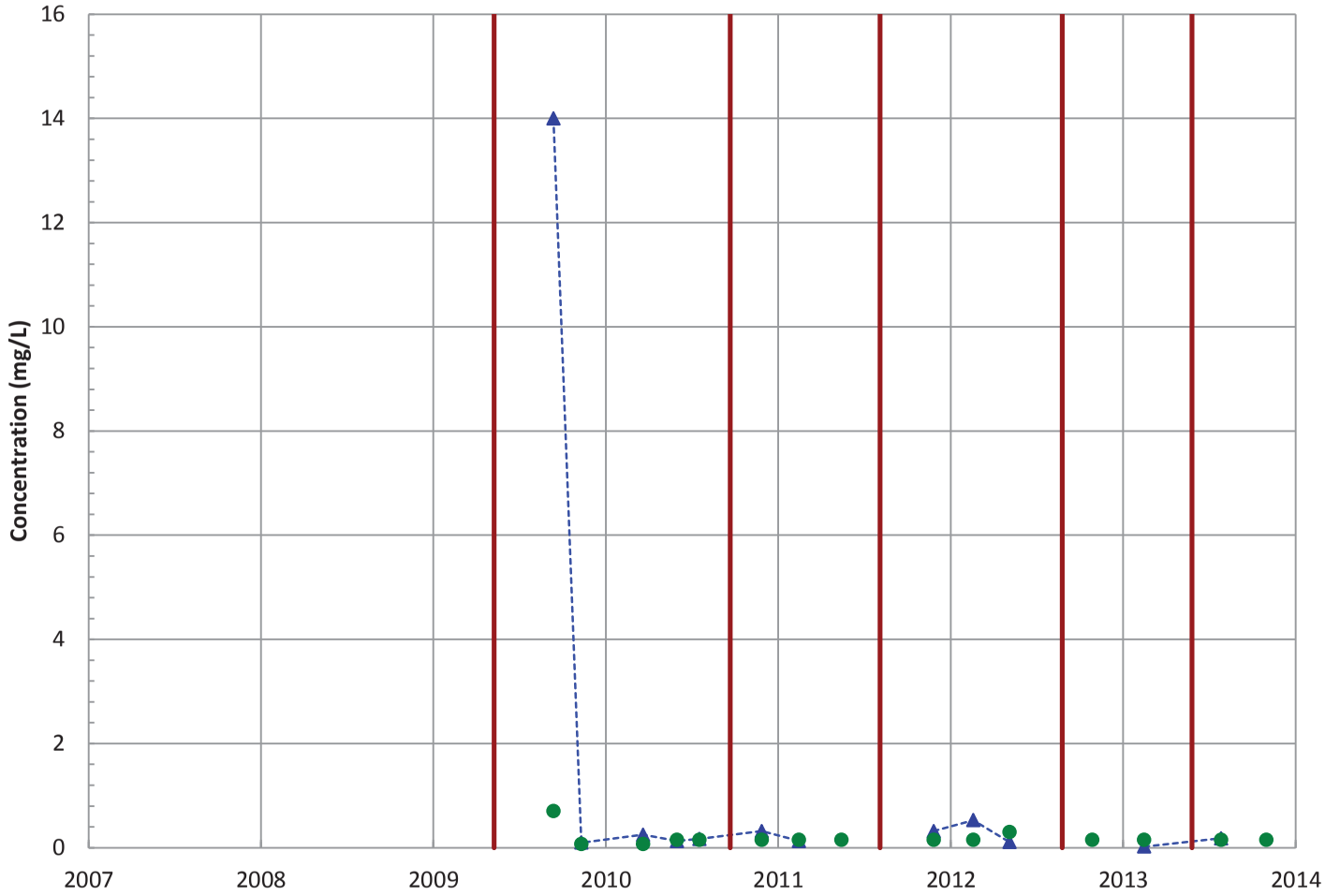
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
═══ Injection Dates

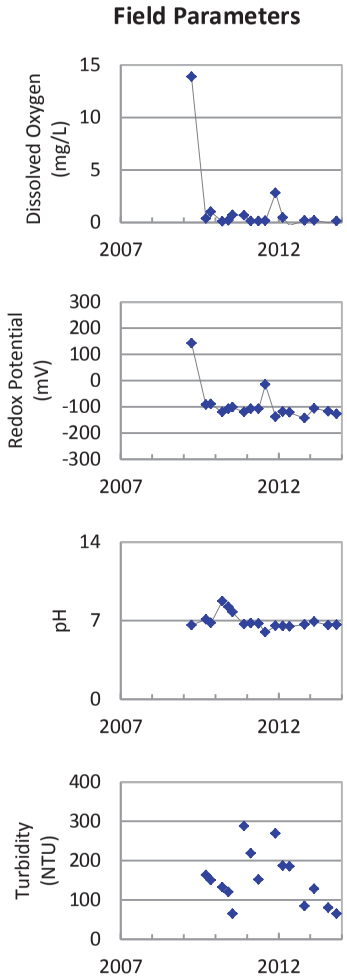
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/5/2013
Analysis Date: 3/21/2014

PTX06-ISB069A
i-Pentanoic Acid Trend in Perched Aquifer





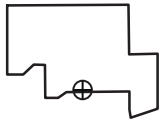
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Probably Decreasing
Last 4 Samples: No Trend

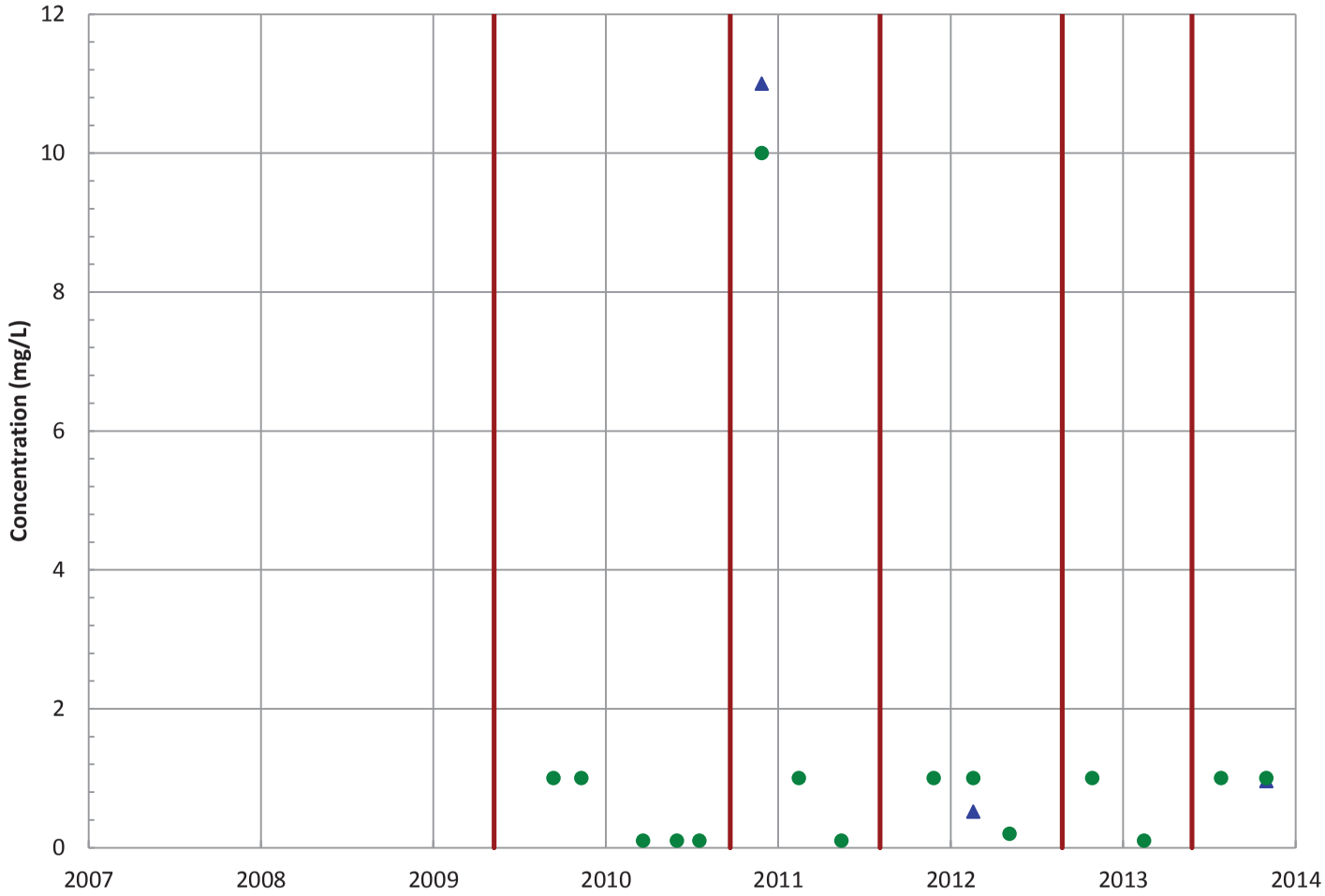
▲ Measured Value
● Sample Detection Limit
---- Concentration Trend
— Injection Dates

Well Location

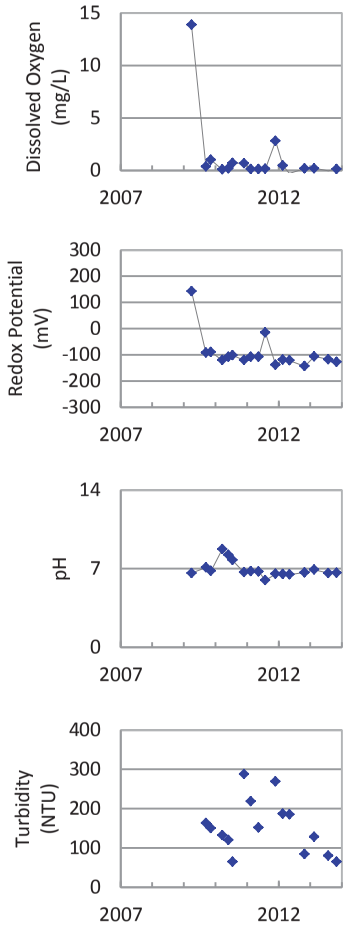


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/5/2013
Analysis Date: 3/21/2014

PTX06-ISB069A
Lactic Acid and HIBA Trend in Perched Aquifer



Field Parameters



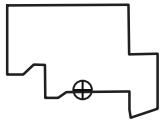
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

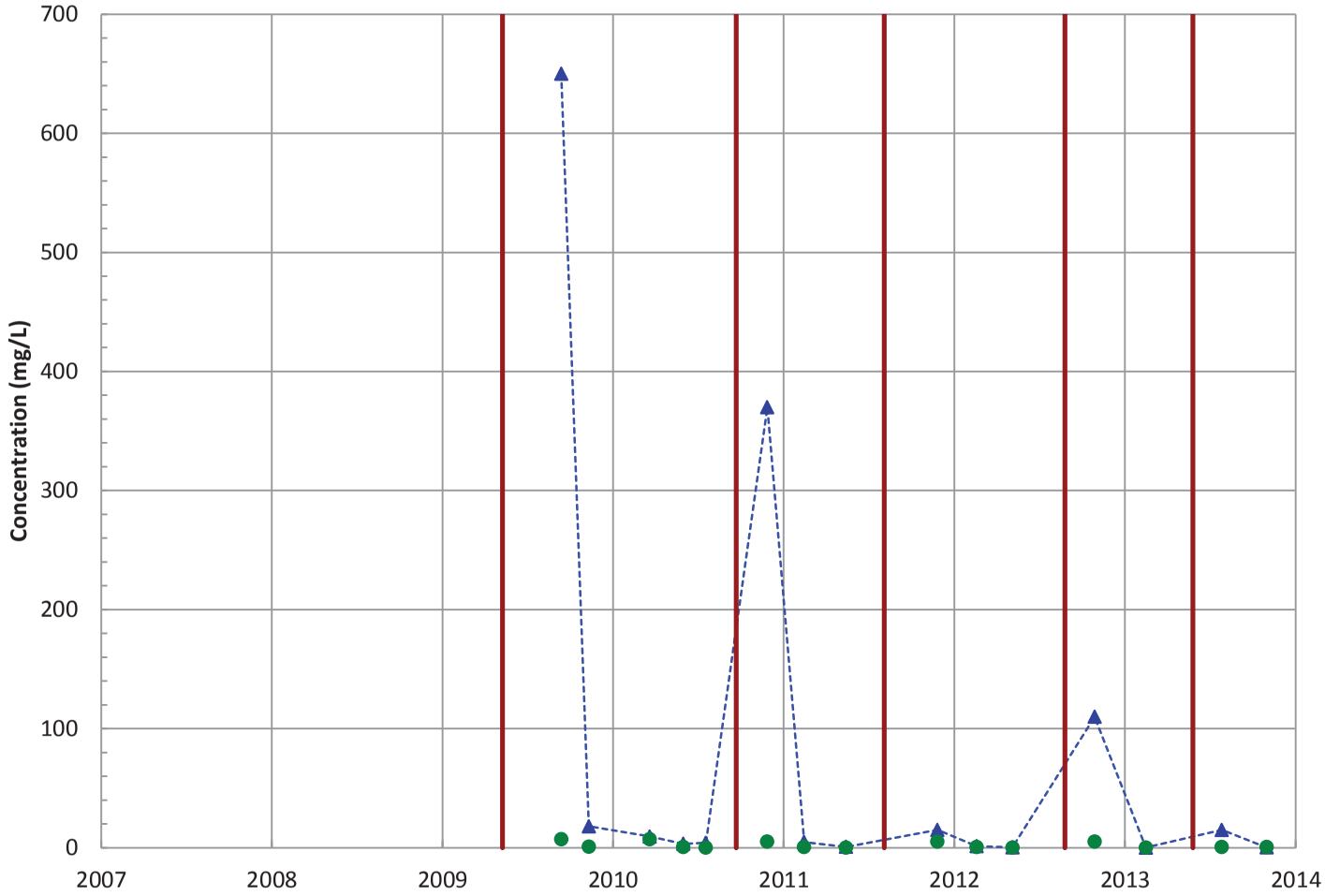
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Injection Dates

Well Location

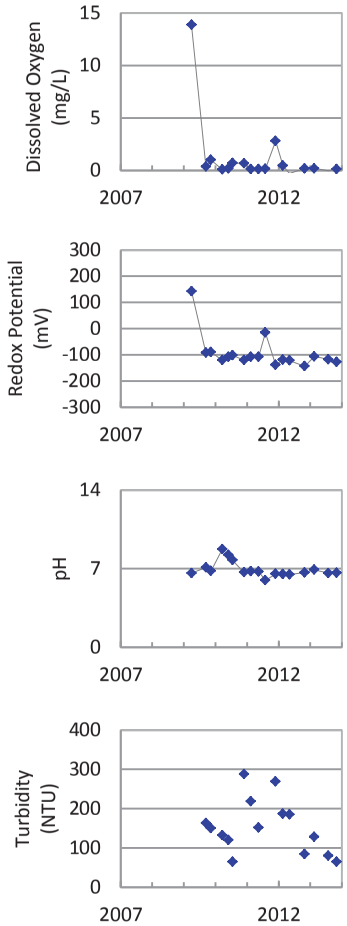


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/5/2013
Analysis Date: 3/21/2014

PTX06-ISB069A
Propionic Acid Trend in Perched Aquifer



Field Parameters



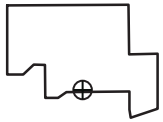
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

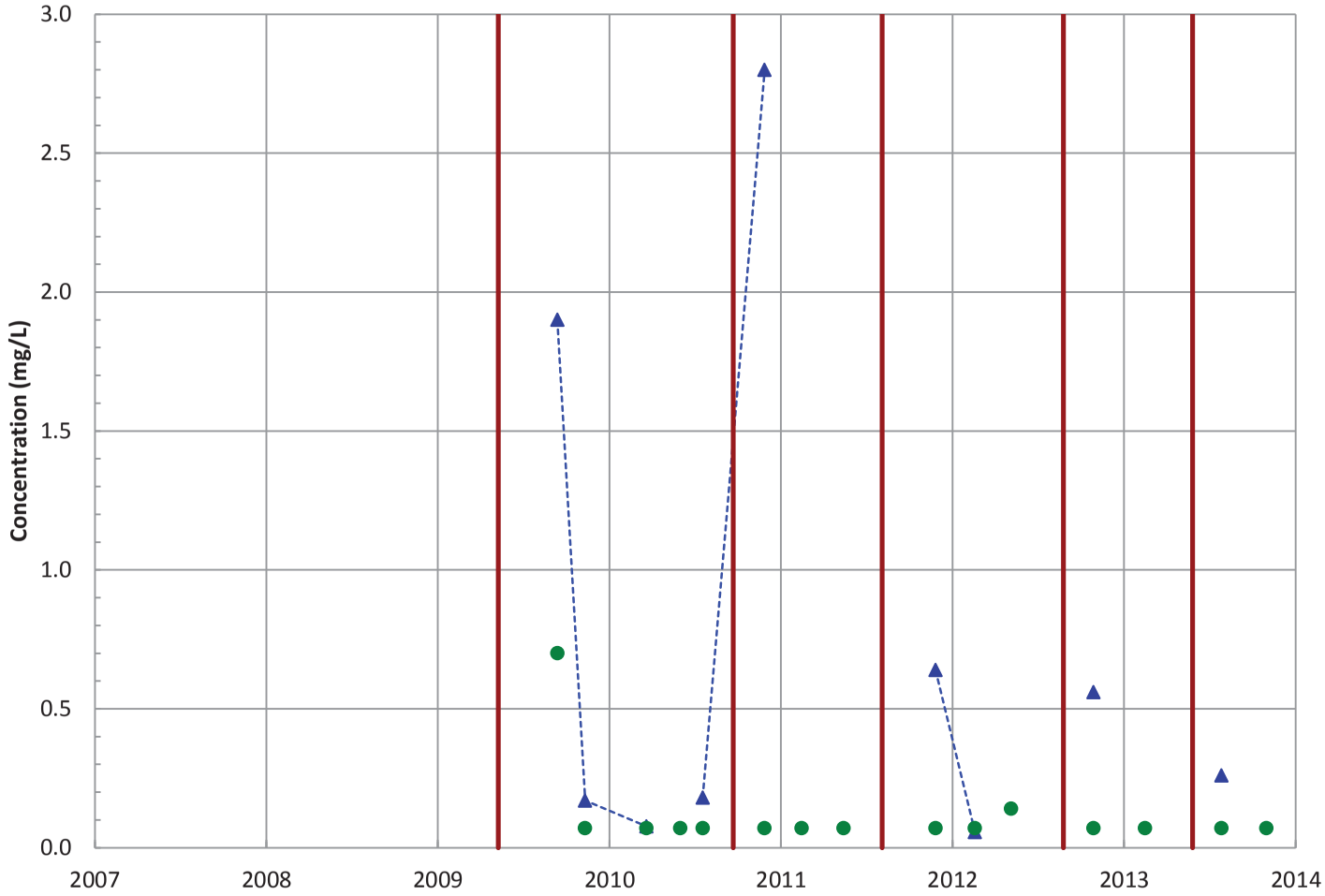
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

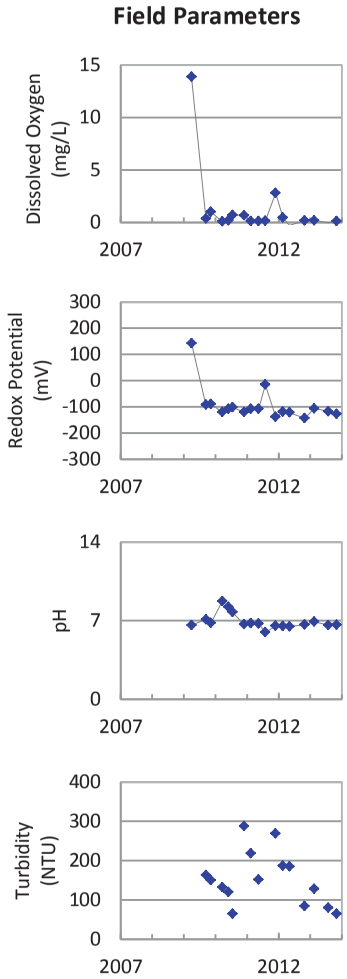
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/5/2013
Analysis Date: 3/21/2014

PTX06-ISB069A
Pentanoic Acid Trend in Perched Aquifer





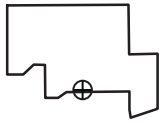
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

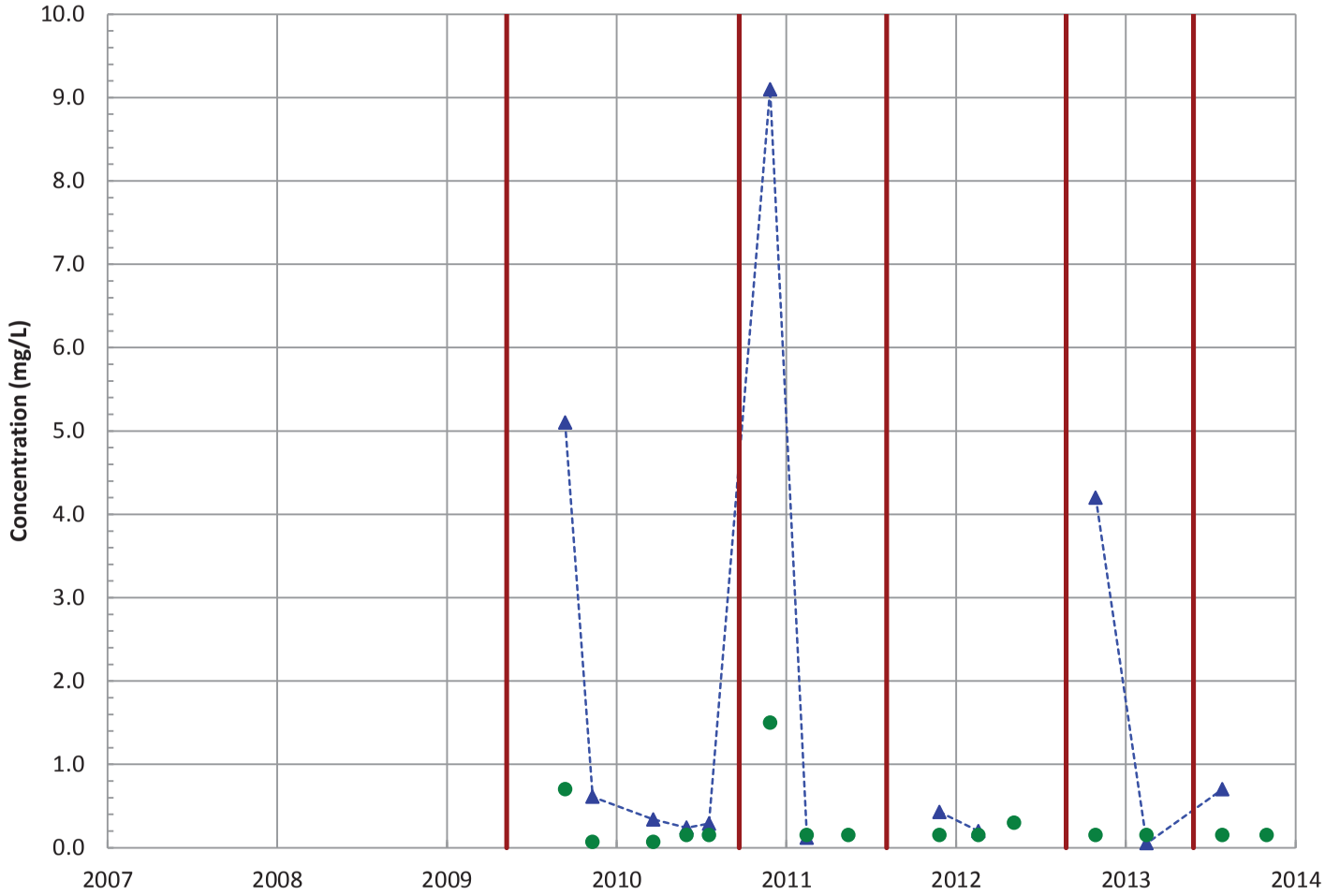
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

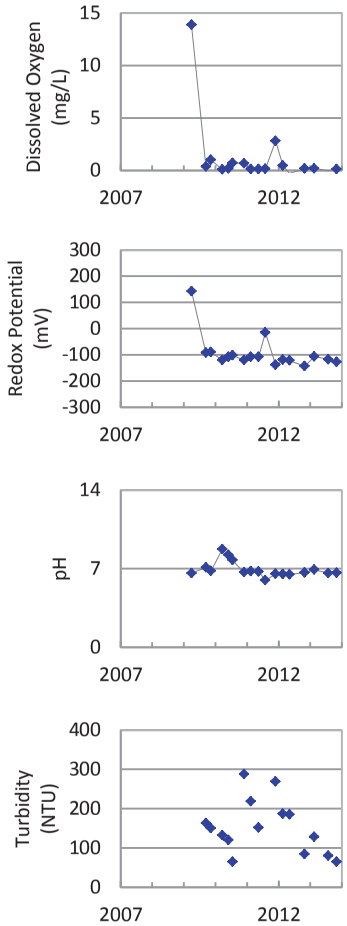


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/5/2013
Analysis Date: 3/21/2014

PTX06-ISB069A
Pyruvic Acid Trend in Perched Aquifer



Field Parameters



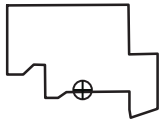
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

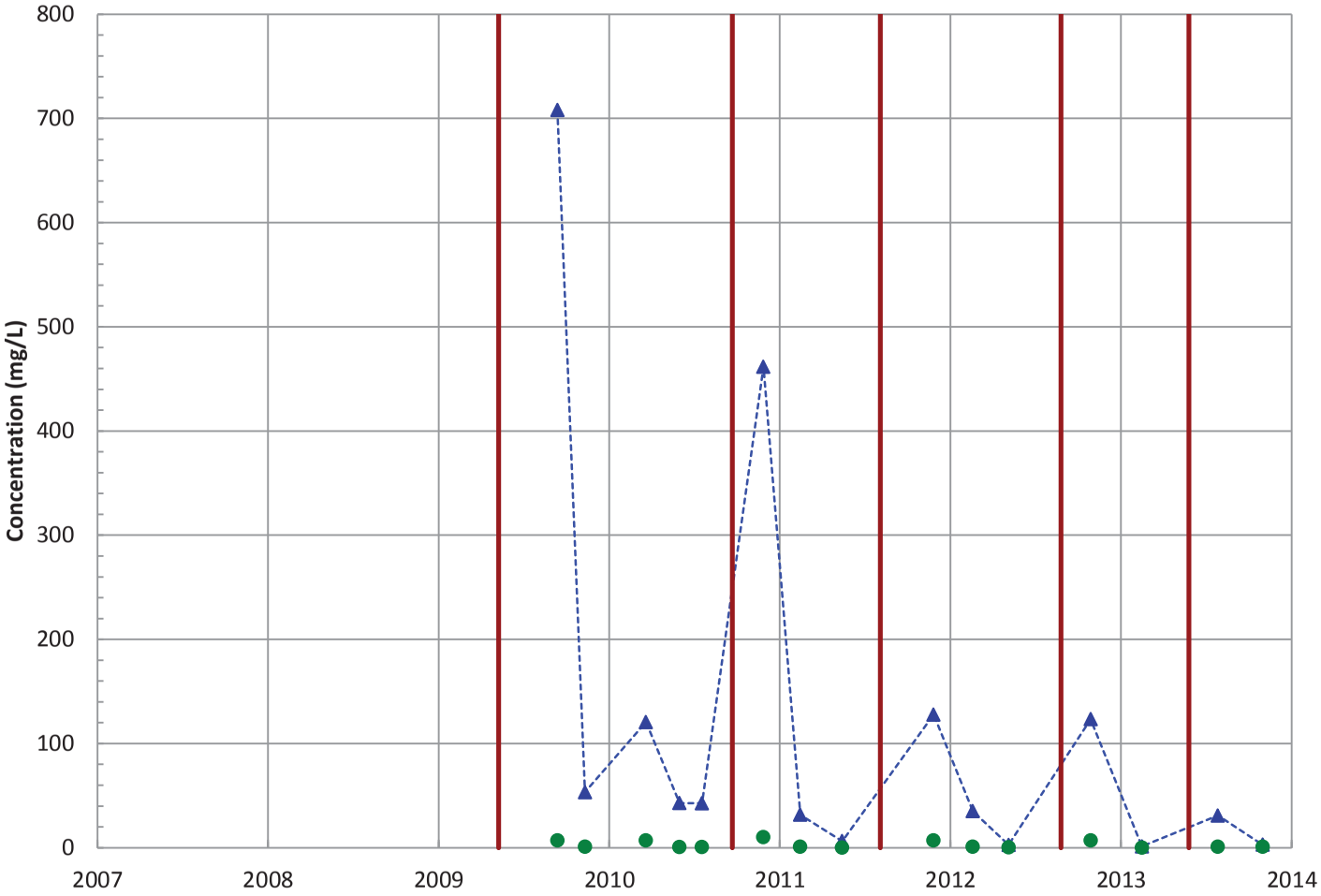
▲ Measured Value
● Sample Detection Limit
---- Concentration Trend
— Injection Dates

Well Location

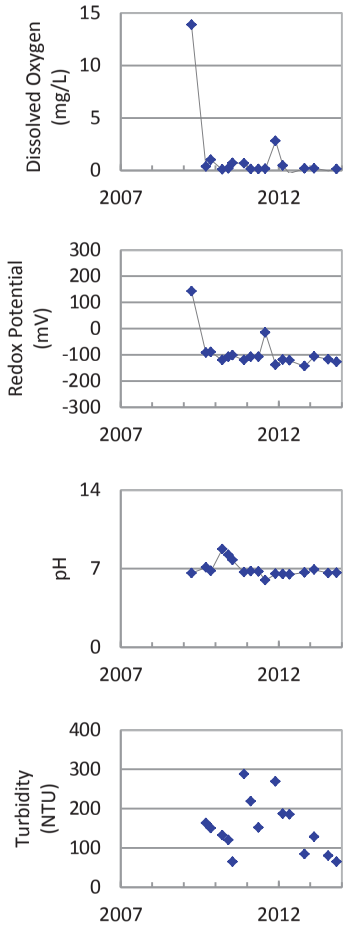


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/5/2013
Analysis Date: 3/21/2014

PTX06-ISB069A
Total Volatile Fatty Acids Trend in Perched Aquifer



Field Parameters



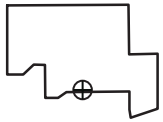
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

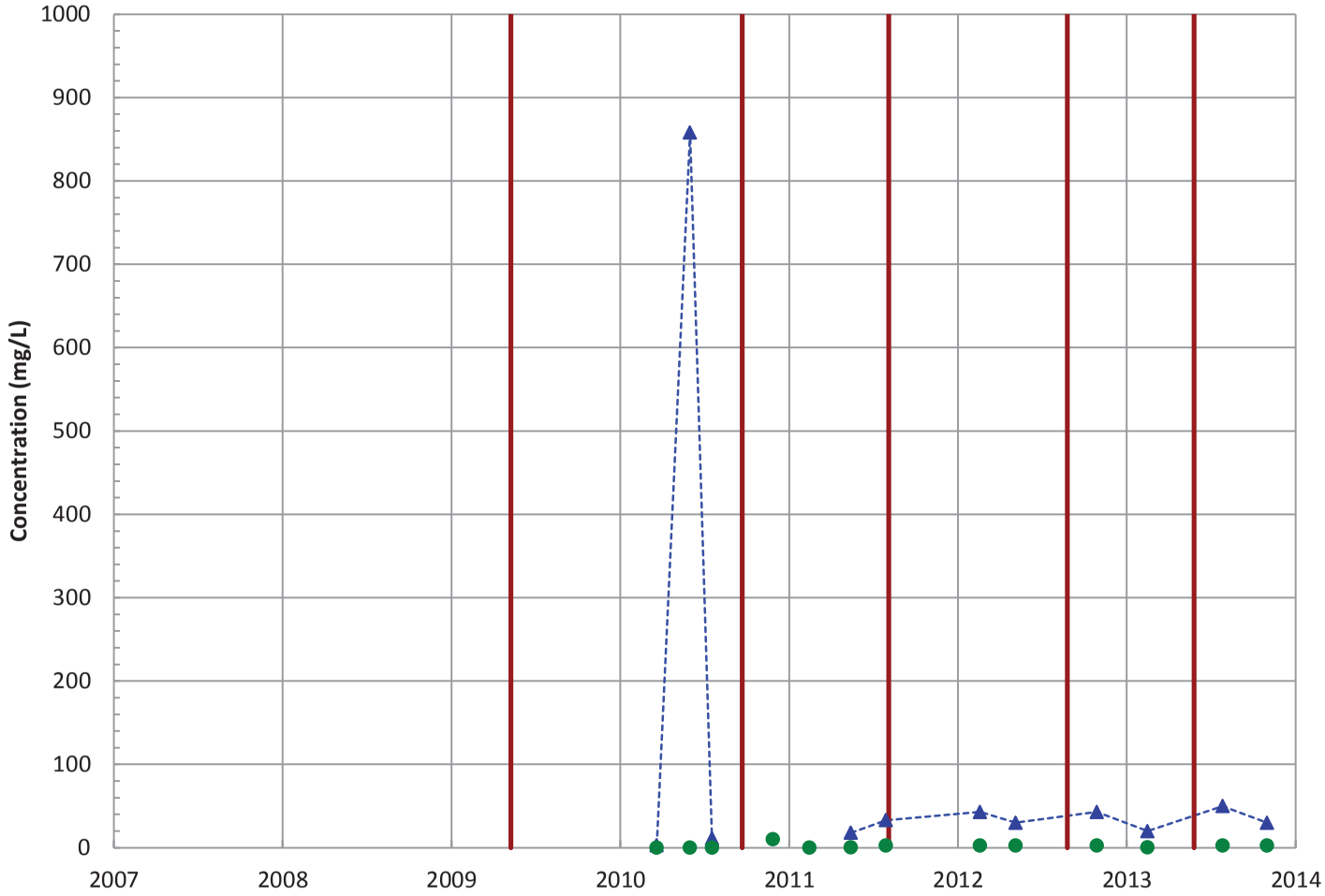
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

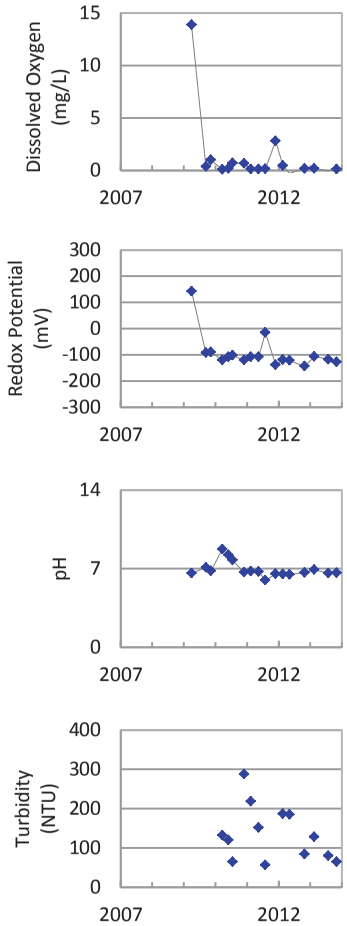


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/5/2013
Analysis Date: 3/21/2014

PTX06-ISB069A
Ferrous Iron Trend in Perched Aquifer



Field Parameters



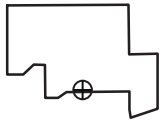
Concentration Trend

MAROS Mann-Kendall Method
All Data: Probably Increasing
Last 4 Samples: Stable

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Stable

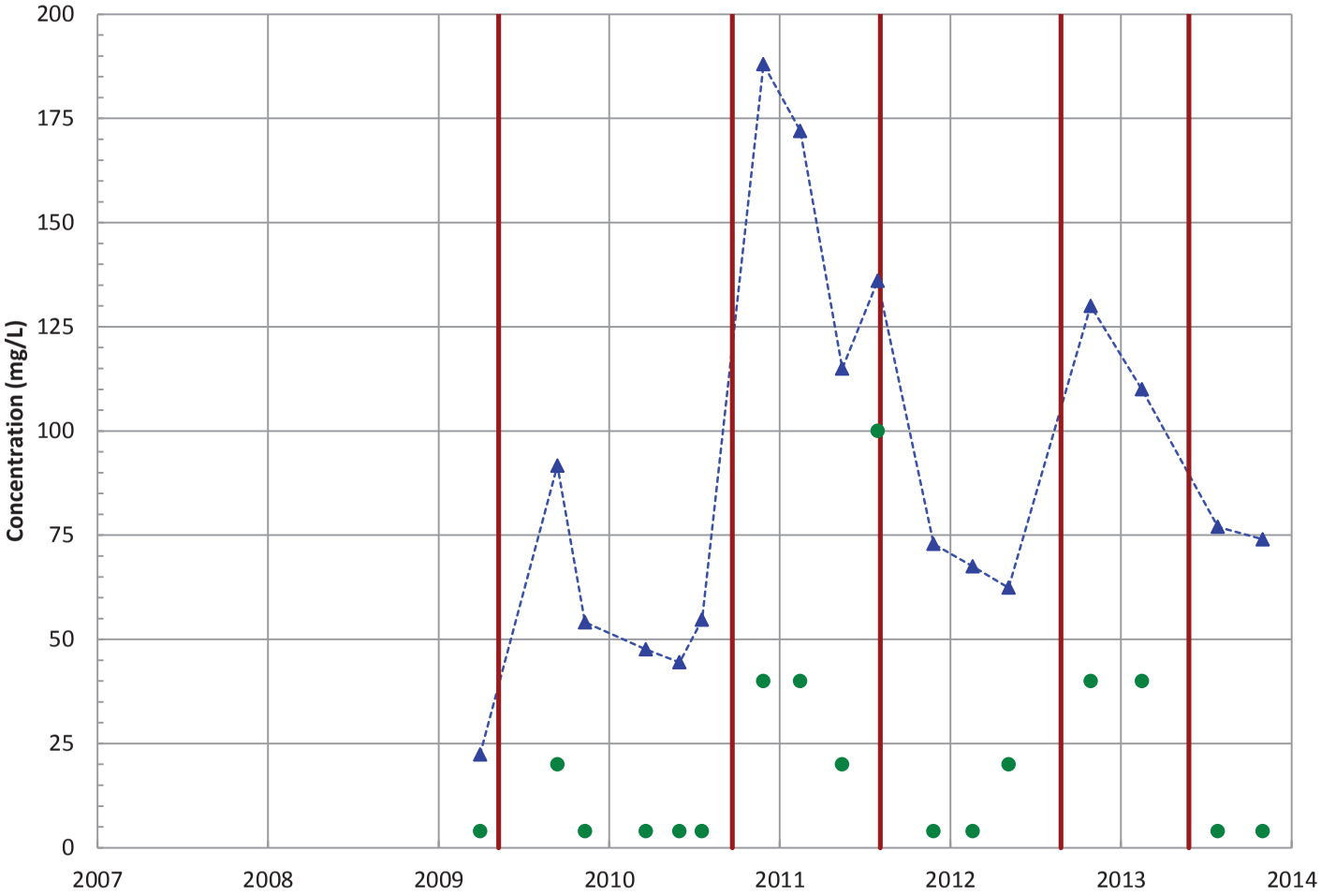
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

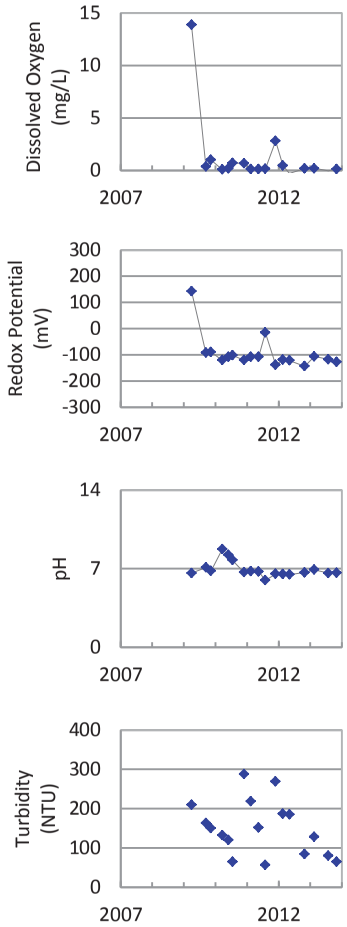


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/23/2010 to 11/5/2013
Analysis Date: 3/21/2014

PTX06-ISB069A
Chloride (as Cl) Trend in Perched Aquifer



Field Parameters



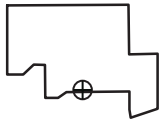
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Probably Increasing
Last 4 Samples: Decreasing

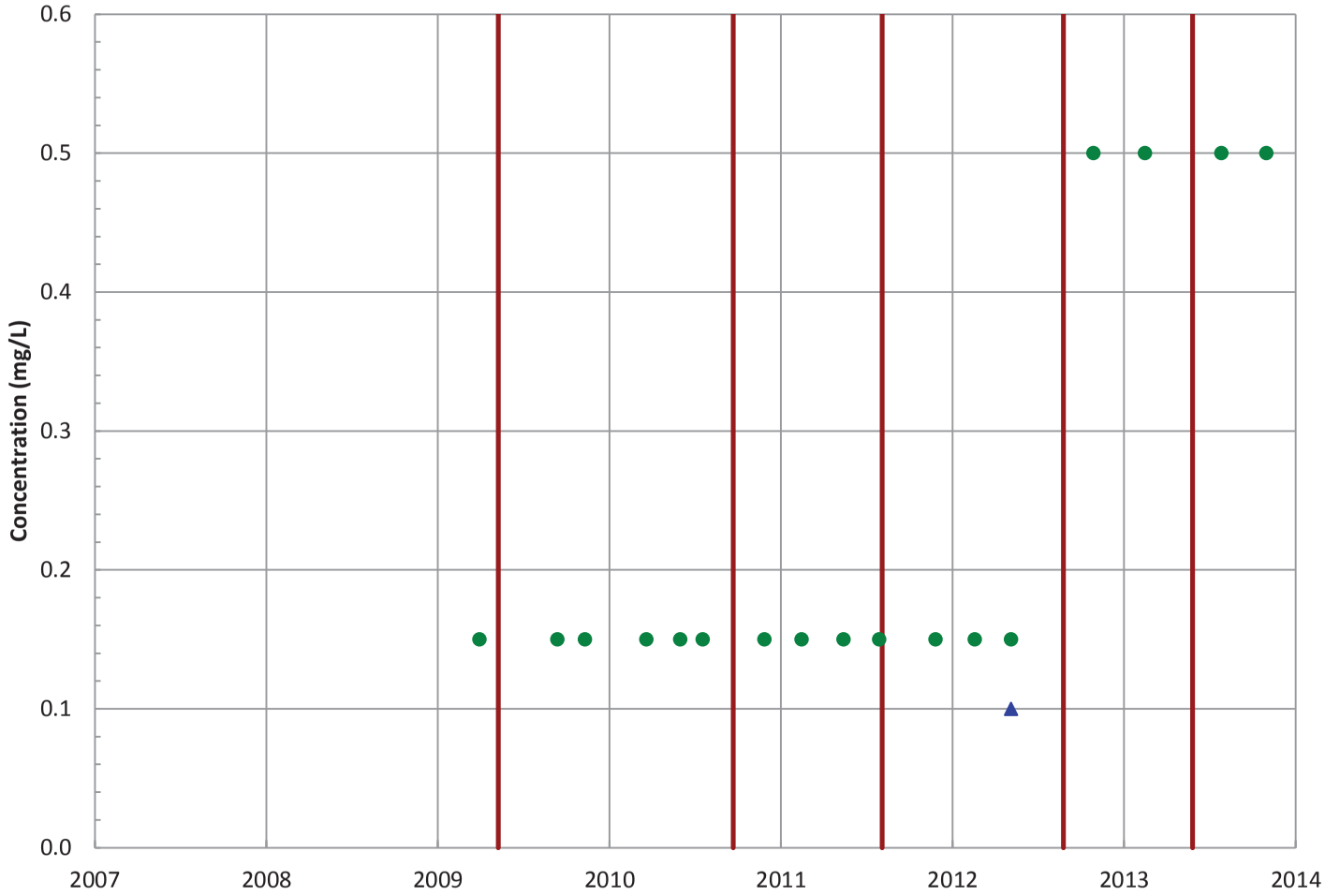
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

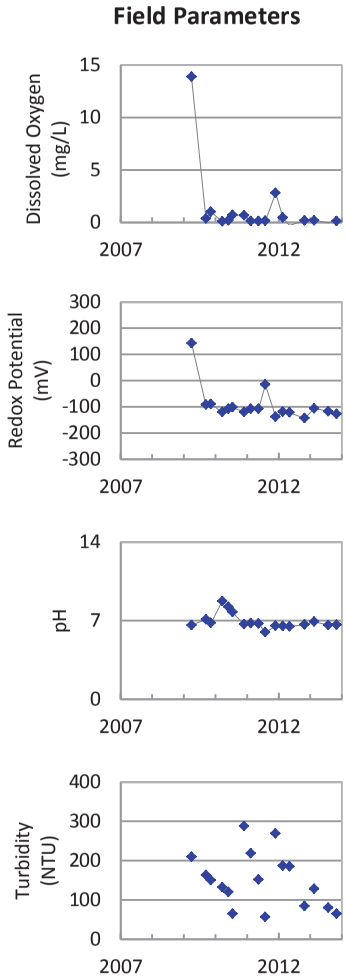
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/1/2009 to 11/5/2013
Analysis Date: 3/21/2014

PTX06-ISB069A
Chlorate Trend in Perched Aquifer





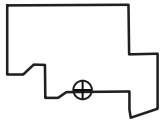
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

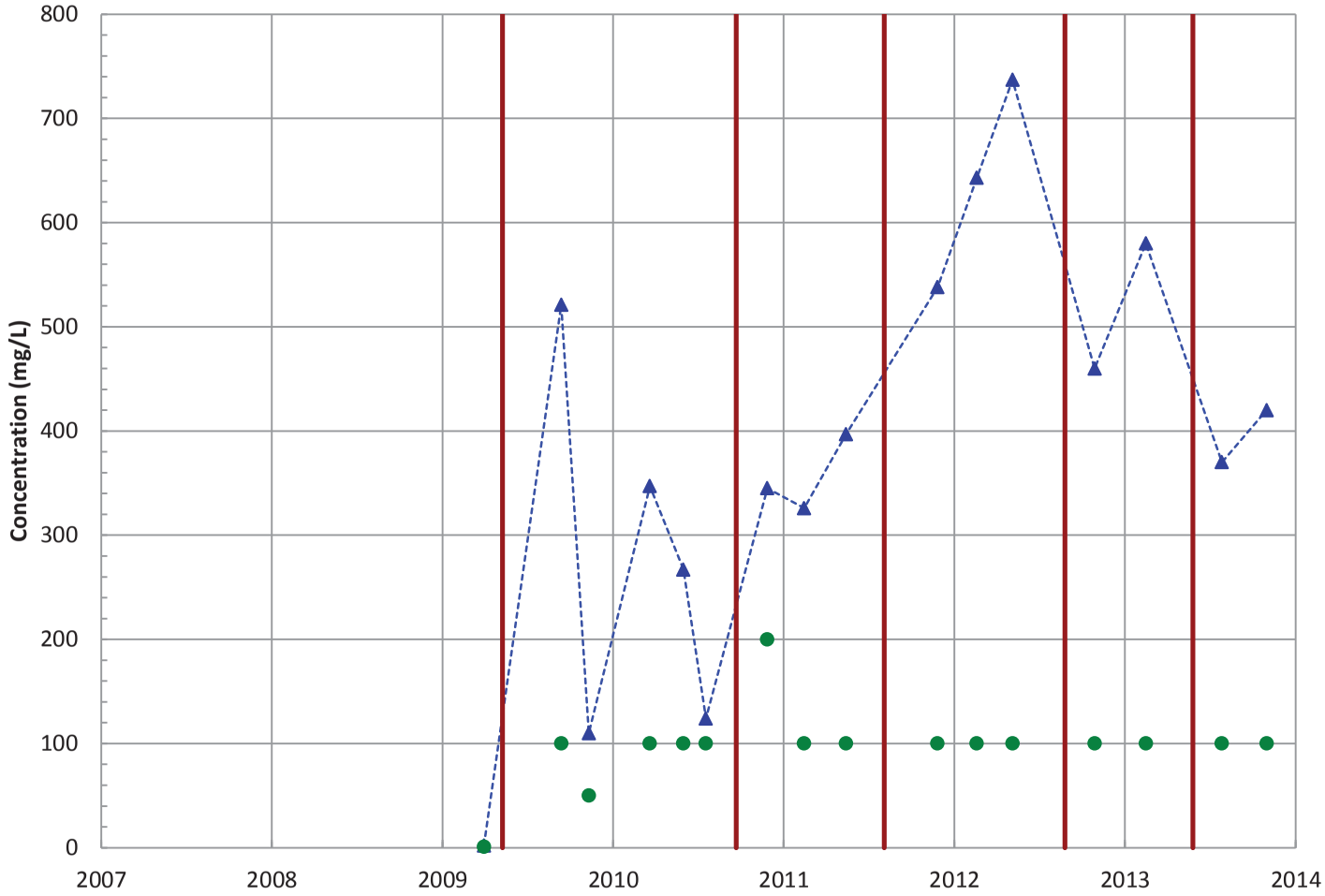
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
═══ Injection Dates

Well Location

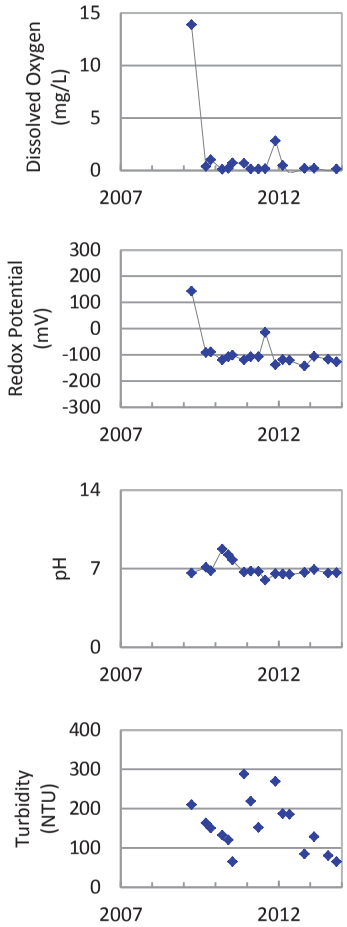


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/1/2009 to 11/5/2013
Analysis Date: 3/21/2014

PTX06-ISB069A
Total Organic Carbon Trend in Perched Aquifer



Field Parameters



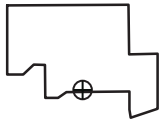
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Stable

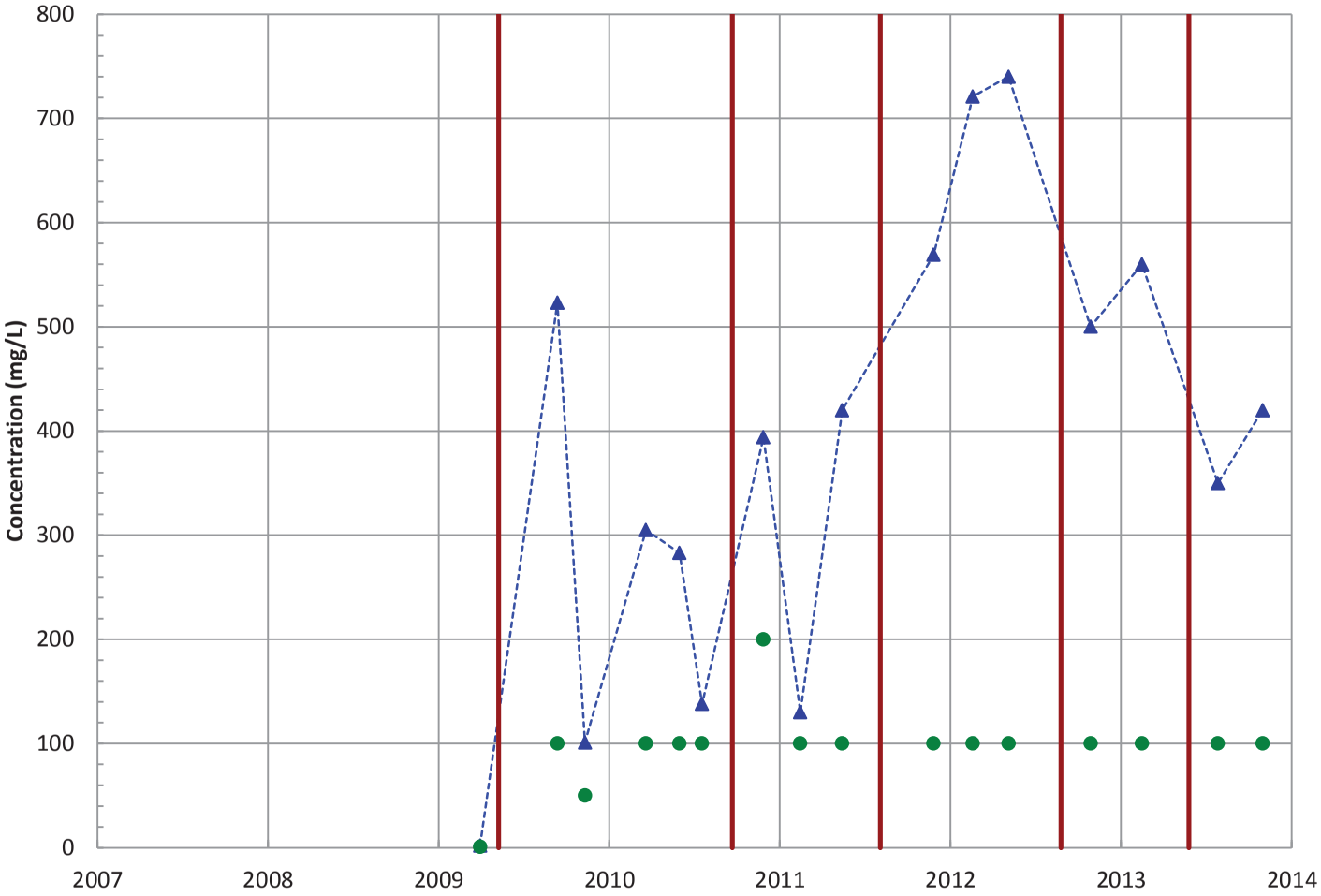
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

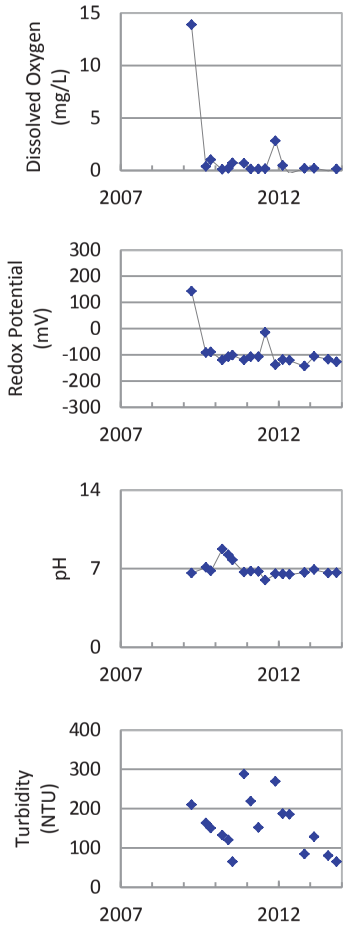


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/1/2009 to 11/5/2013
Analysis Date: 3/21/2014

PTX06-ISB069A
Dissolved Organic Carbon (DOC) Trend in Perched Aquifer



Field Parameters



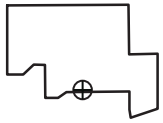
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Stable

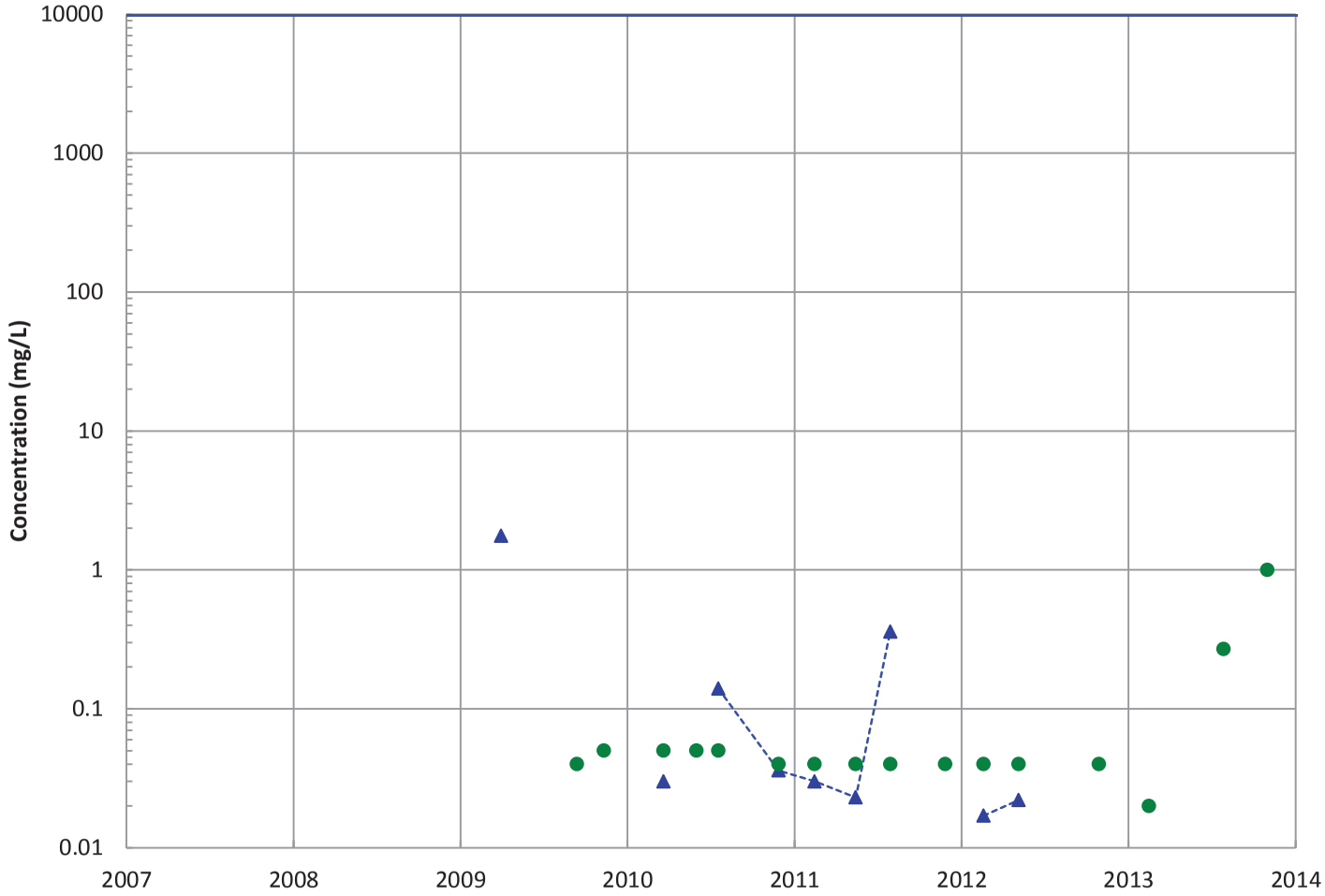
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

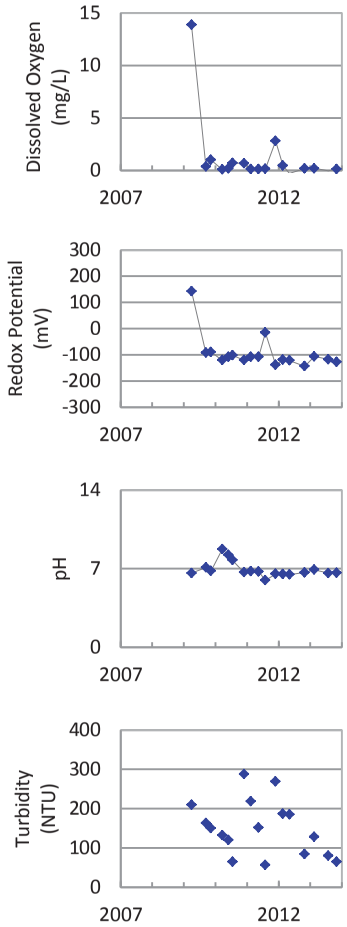


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/1/2009 to 11/5/2013
Analysis Date: 3/21/2014

PTX06-ISB069A
Nitrate as N Trend in Perched Aquifer



Field Parameters



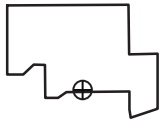
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

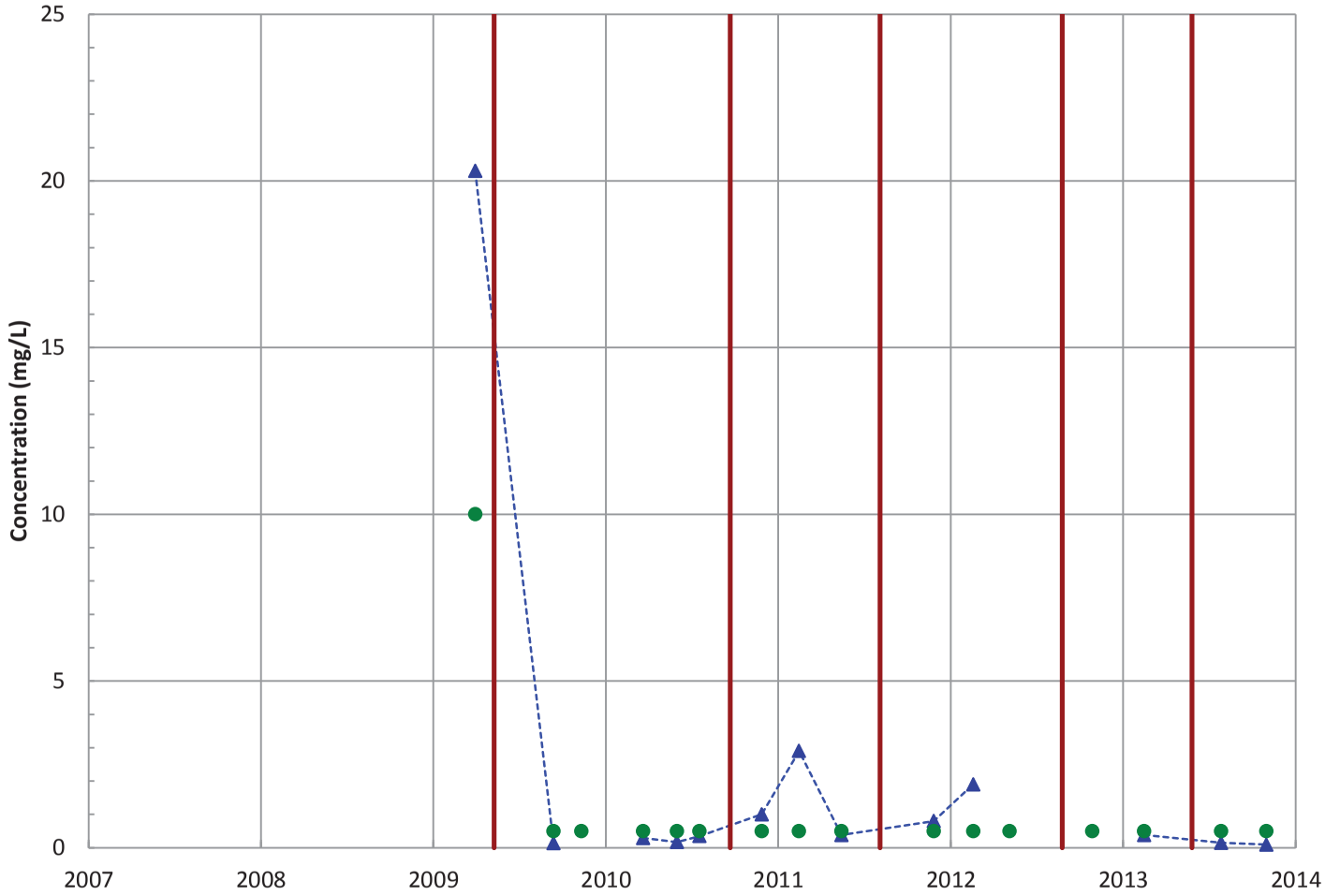
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

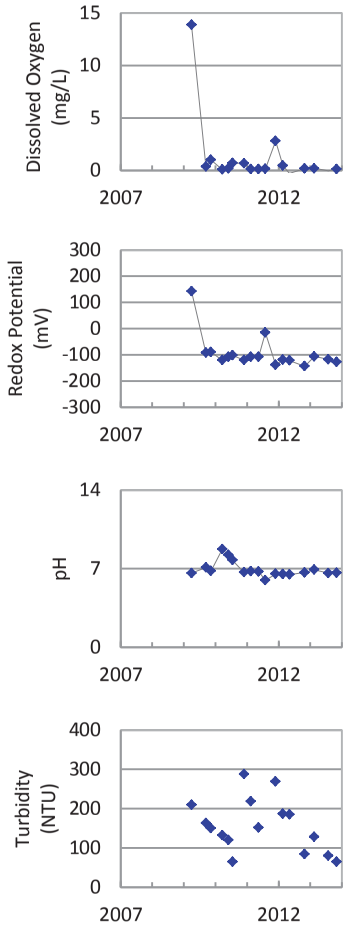


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/1/2009 to 11/5/2013
Analysis Date: 3/21/2014

PTX06-ISB069A
Sulfate (as SO4) Trend in Perched Aquifer



Field Parameters



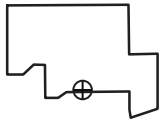
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Probably Decreasing
Last 4 Samples: Decreasing

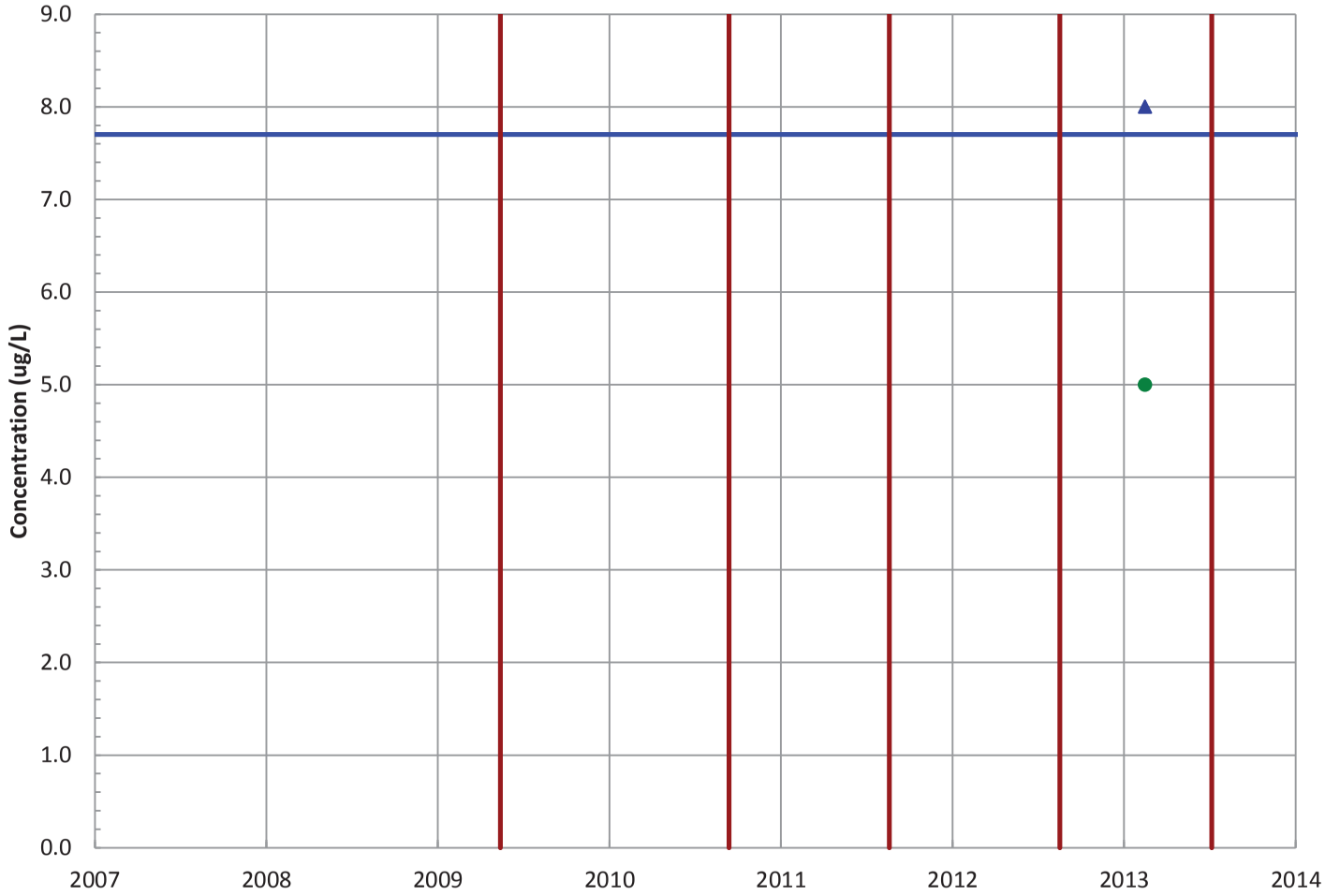
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

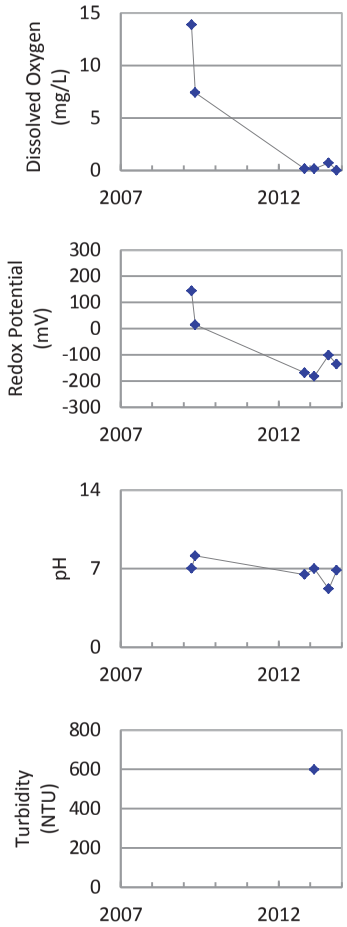


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/1/2009 to 11/5/2013
Analysis Date: 3/21/2014

PTX06-ISB071
1,4-Dioxane (p-Dioxane) Trend in Perched Aquifer



Field Parameters



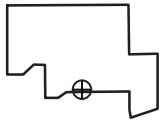
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Samples in Dataset)
Last 4 Samples: N/A (<4 Samples in Dataset)

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

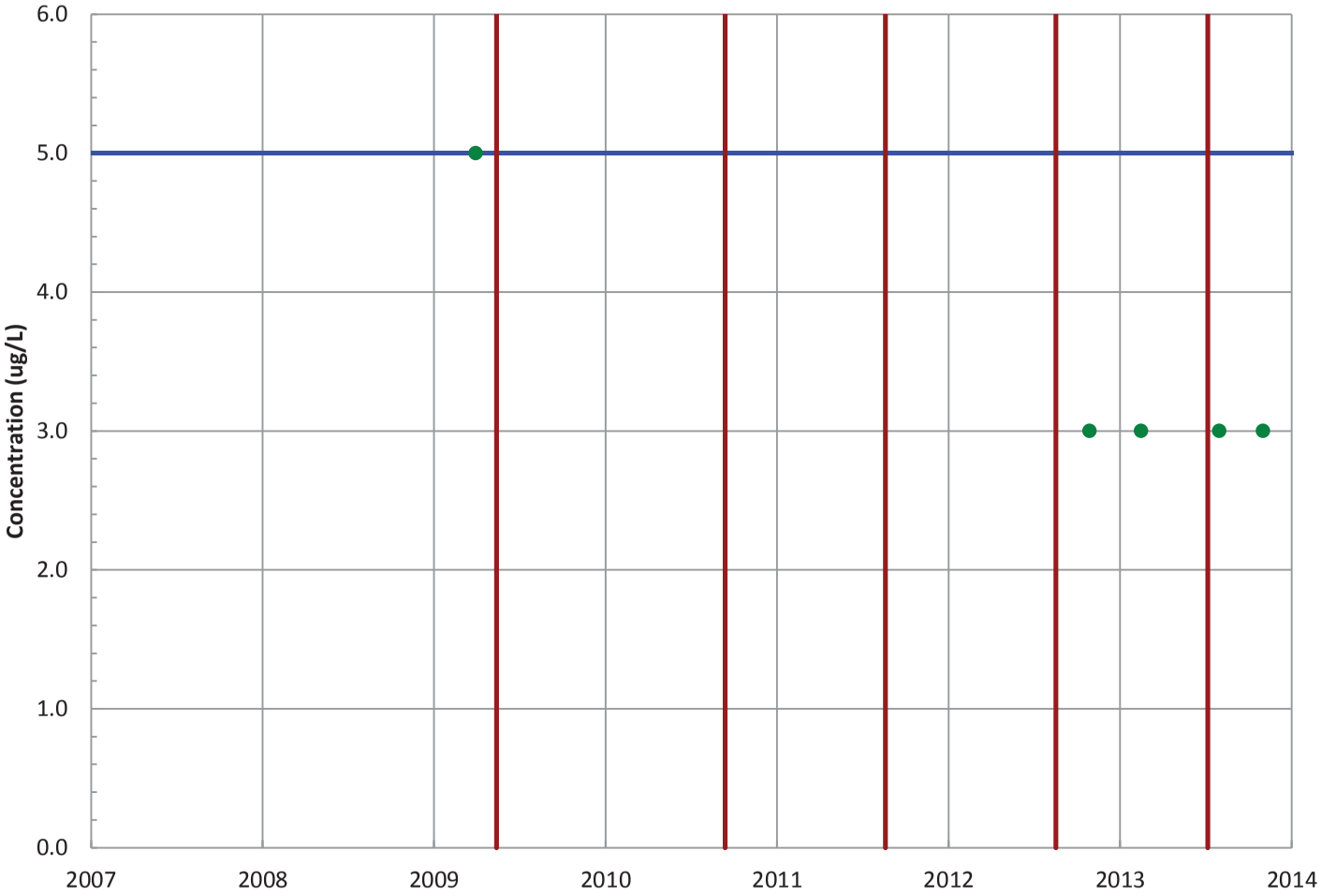
- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

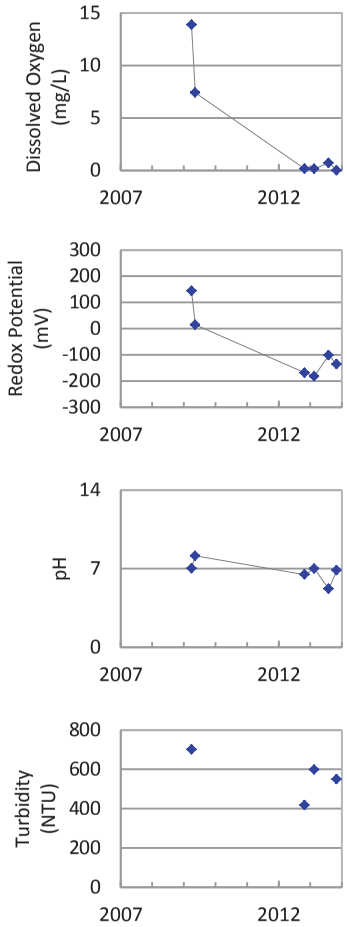


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/19/2013 to 2/19/2013
Analysis Date: 3/21/2014

PTX06-ISB071
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



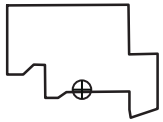
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

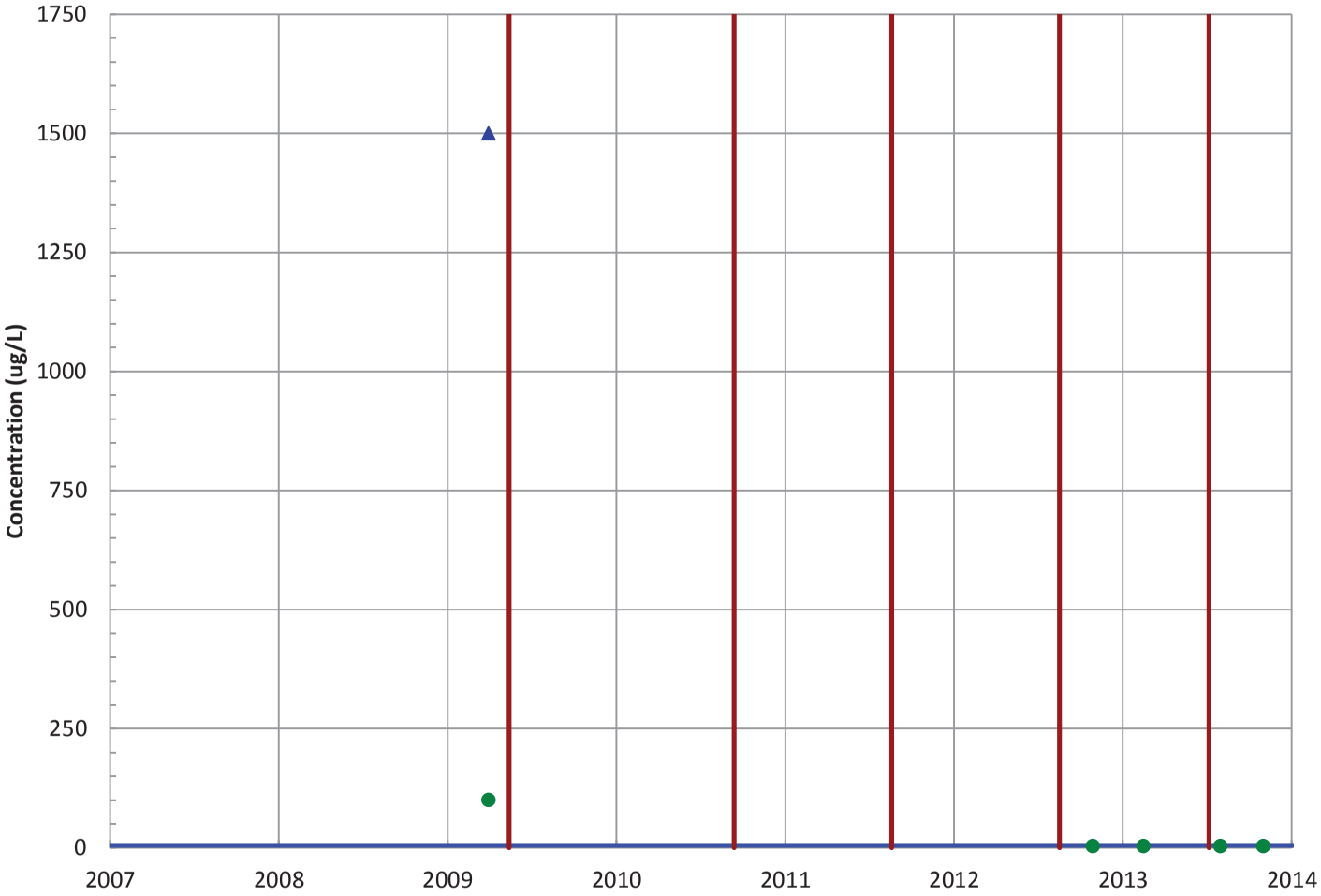
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

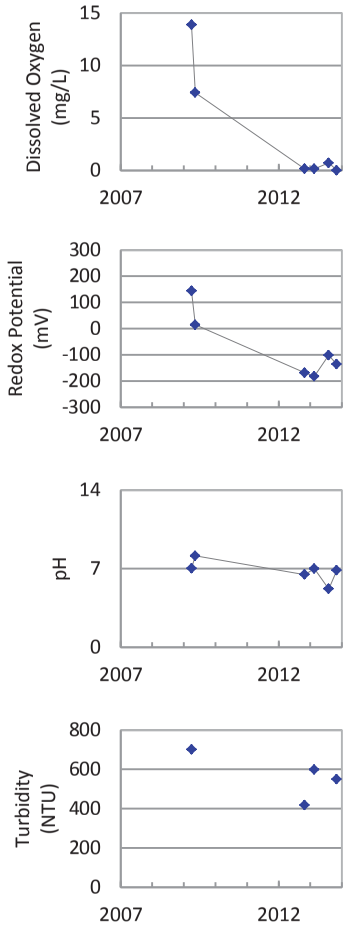


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/1/2009 to 11/6/2013
Analysis Date: 3/21/2014

PTX06-ISB071
Trichloroethene Trend in Perched Aquifer



Field Parameters



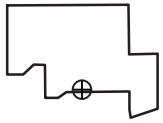
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

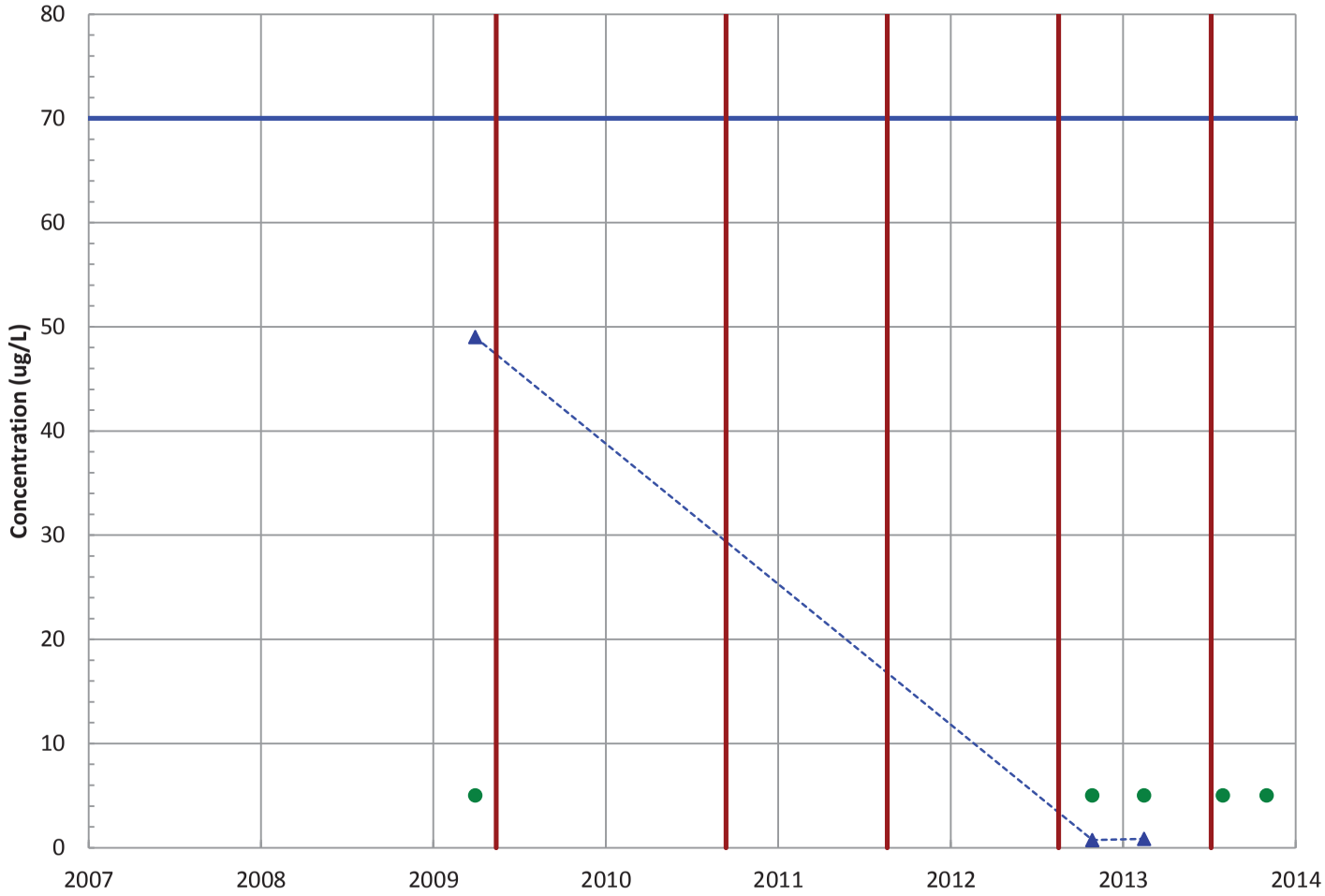
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

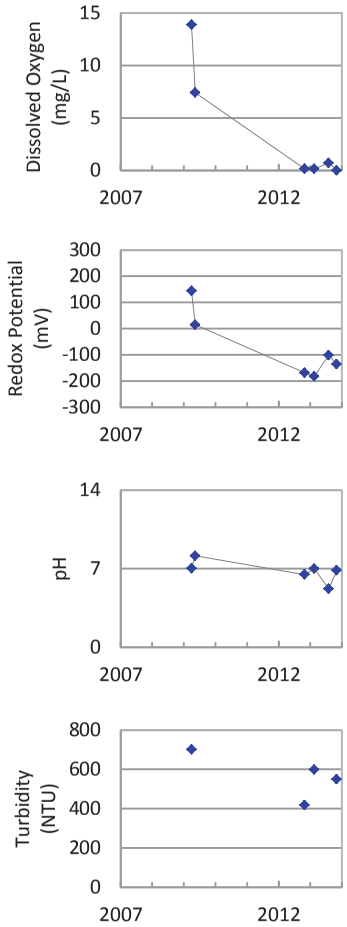


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/1/2009 to 11/6/2013
Analysis Date: 3/21/2014

PTX06-ISB071
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



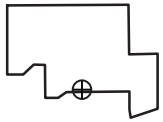
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

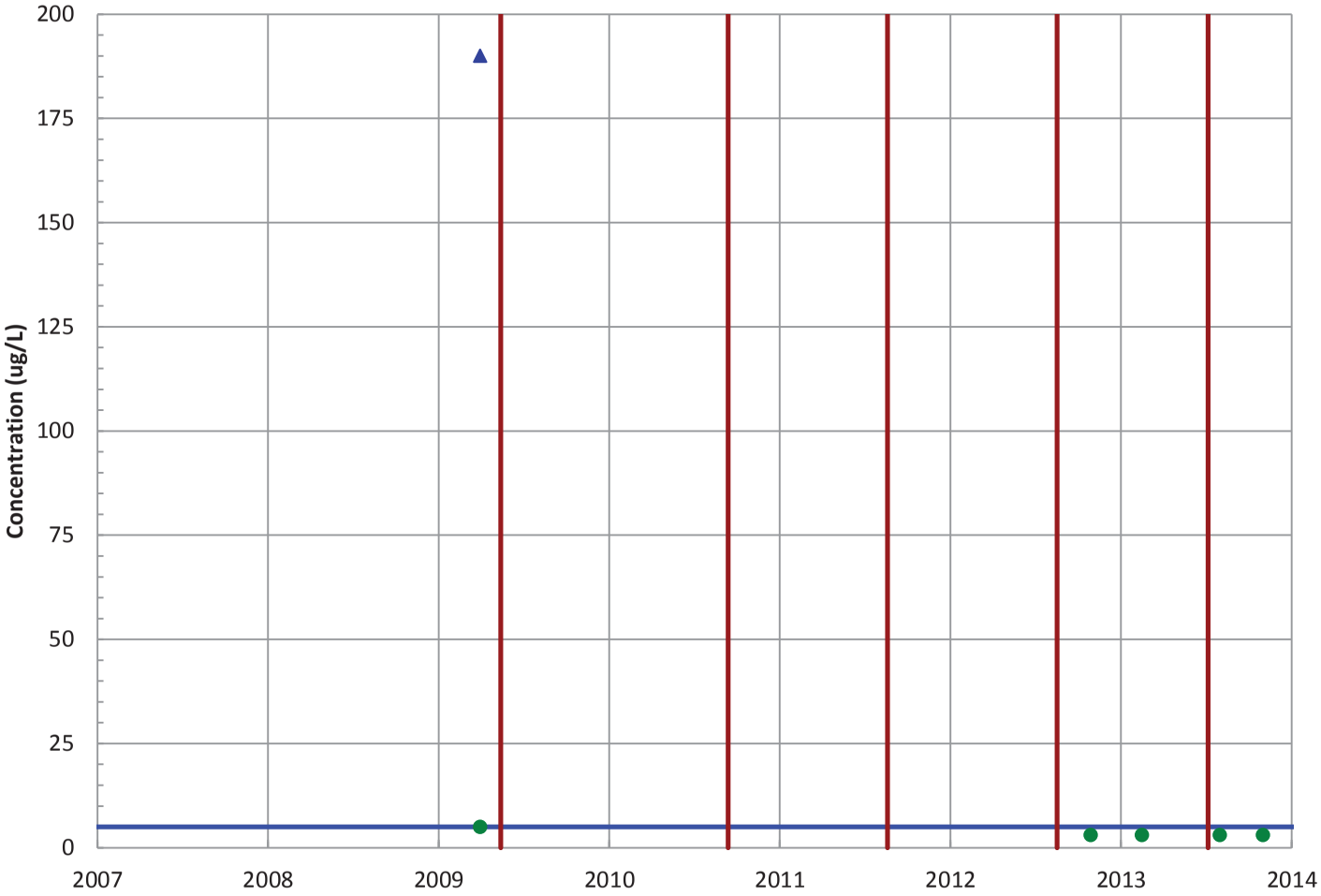
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

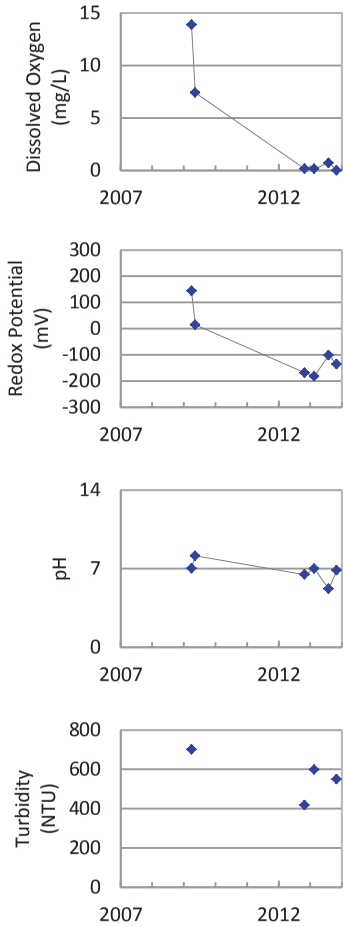


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/1/2009 to 11/6/2013
Analysis Date: 3/21/2014

PTX06-ISB071
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



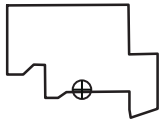
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

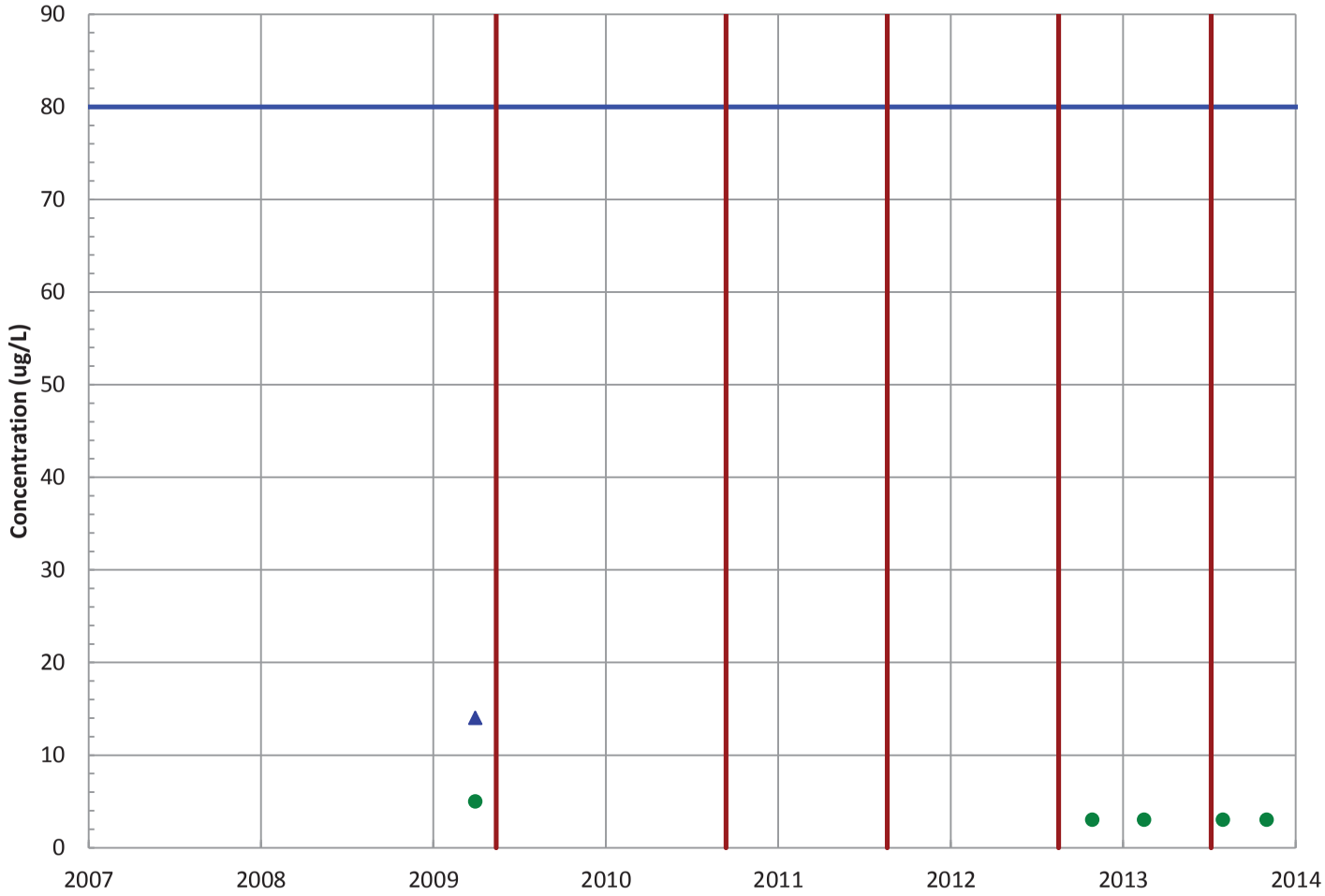
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

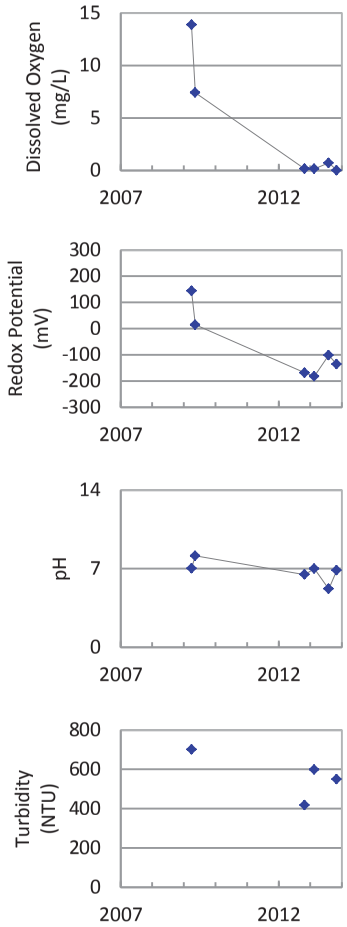


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/1/2009 to 11/6/2013
Analysis Date: 3/21/2014

PTX06-ISB071
Chloroform Trend in Perched Aquifer



Field Parameters



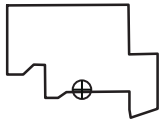
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

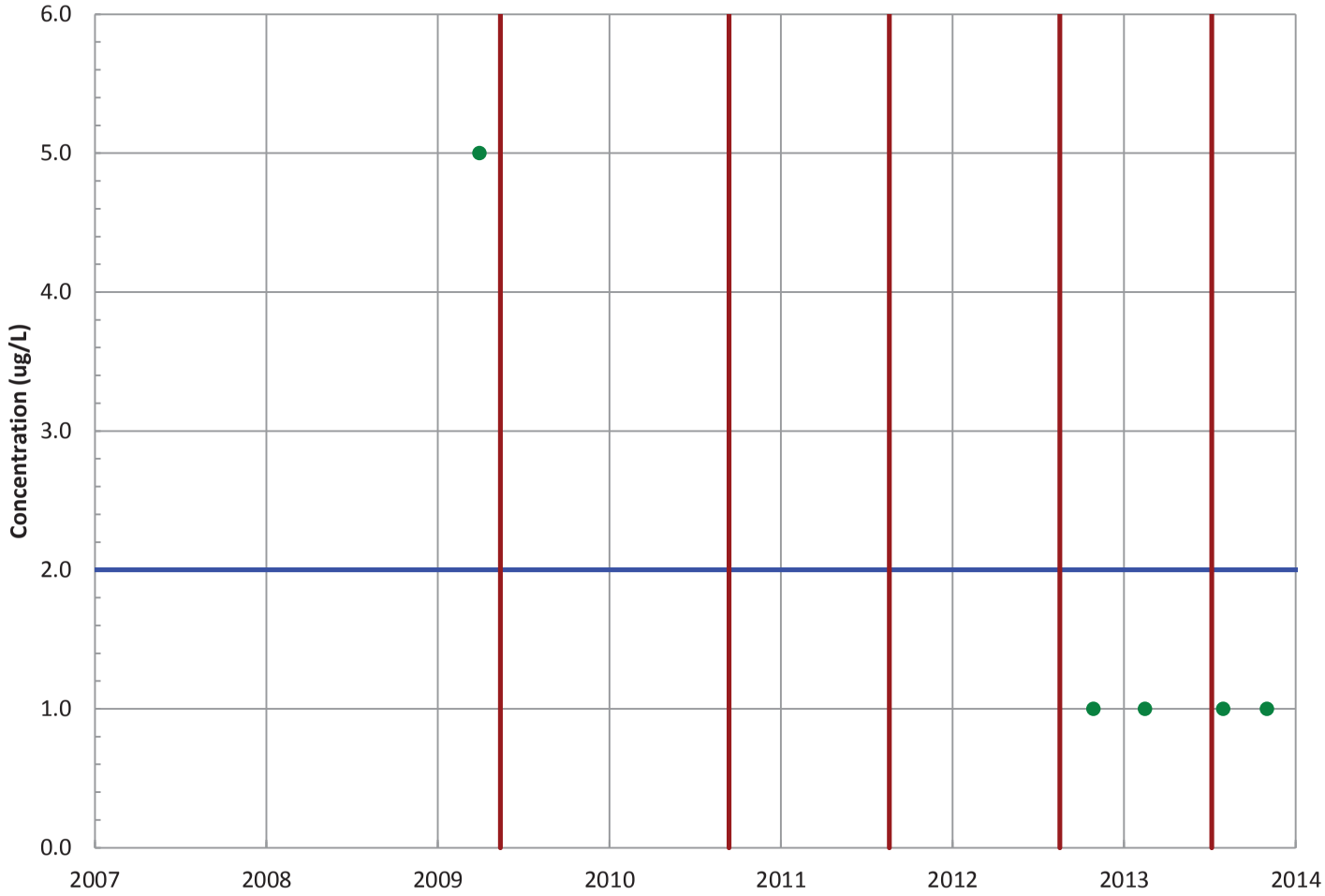
- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

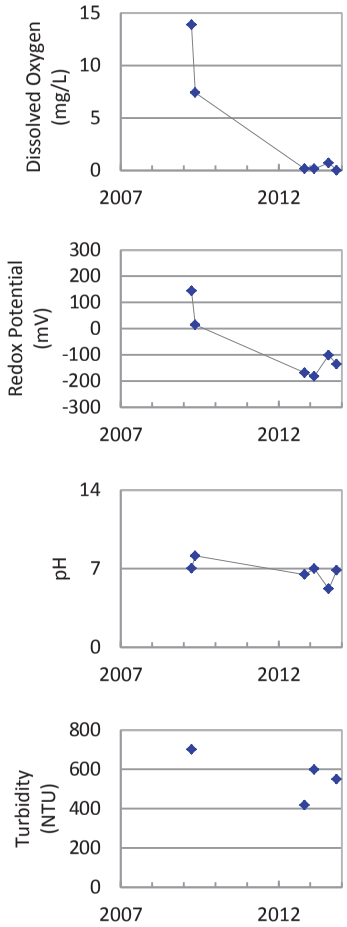


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/1/2009 to 11/6/2013
Analysis Date: 3/21/2014

PTX06-ISB071
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



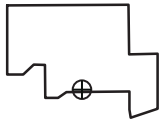
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

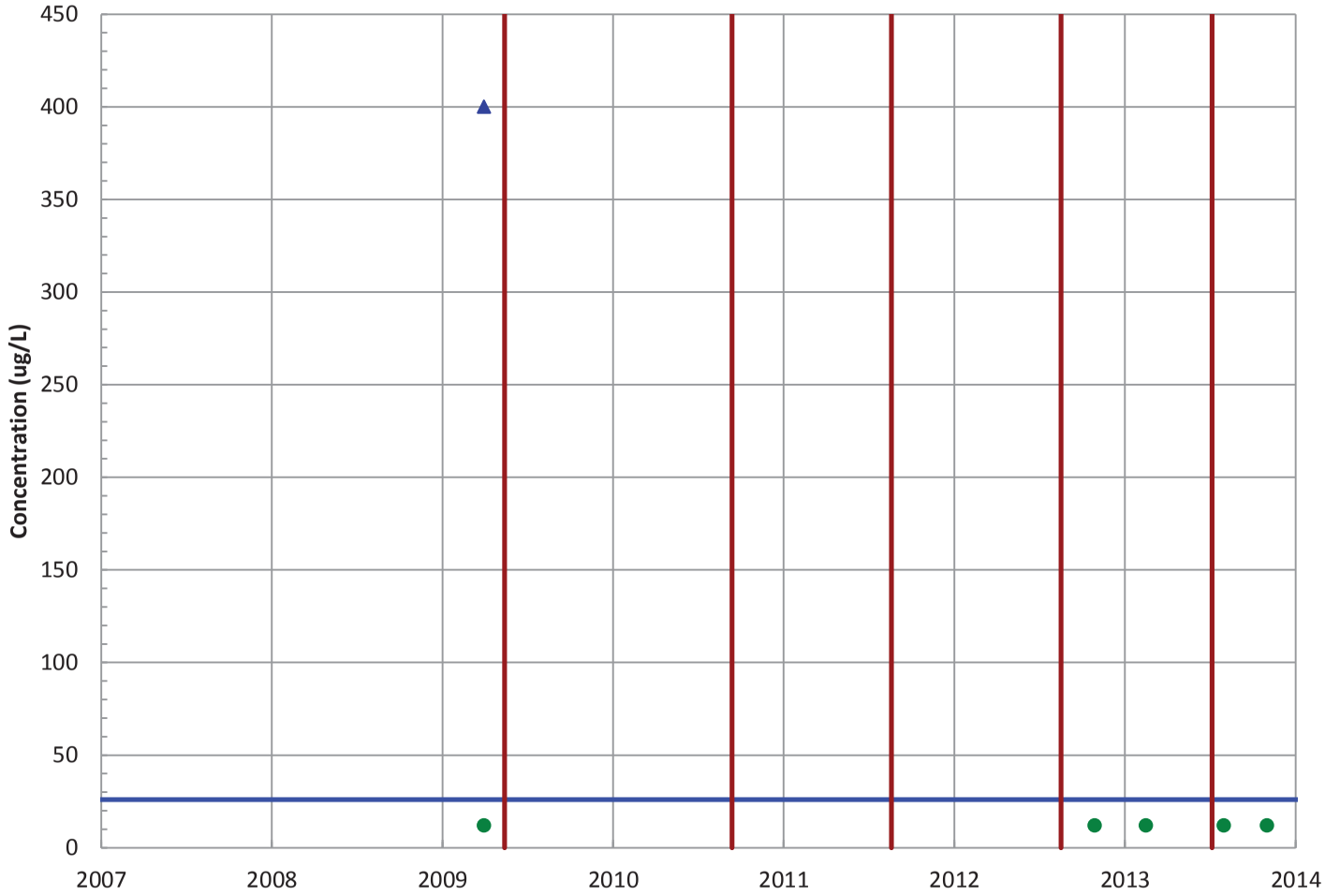
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

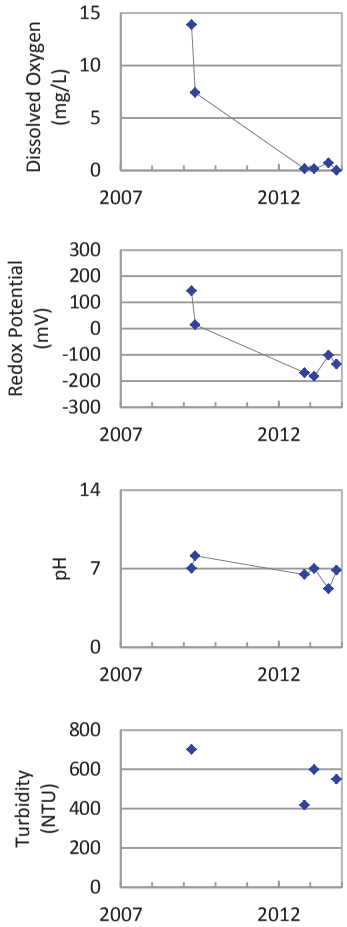


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/1/2009 to 11/6/2013
Analysis Date: 3/21/2014

PTX06-ISB071
Perchlorate Trend in Perched Aquifer



Field Parameters



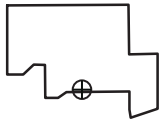
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

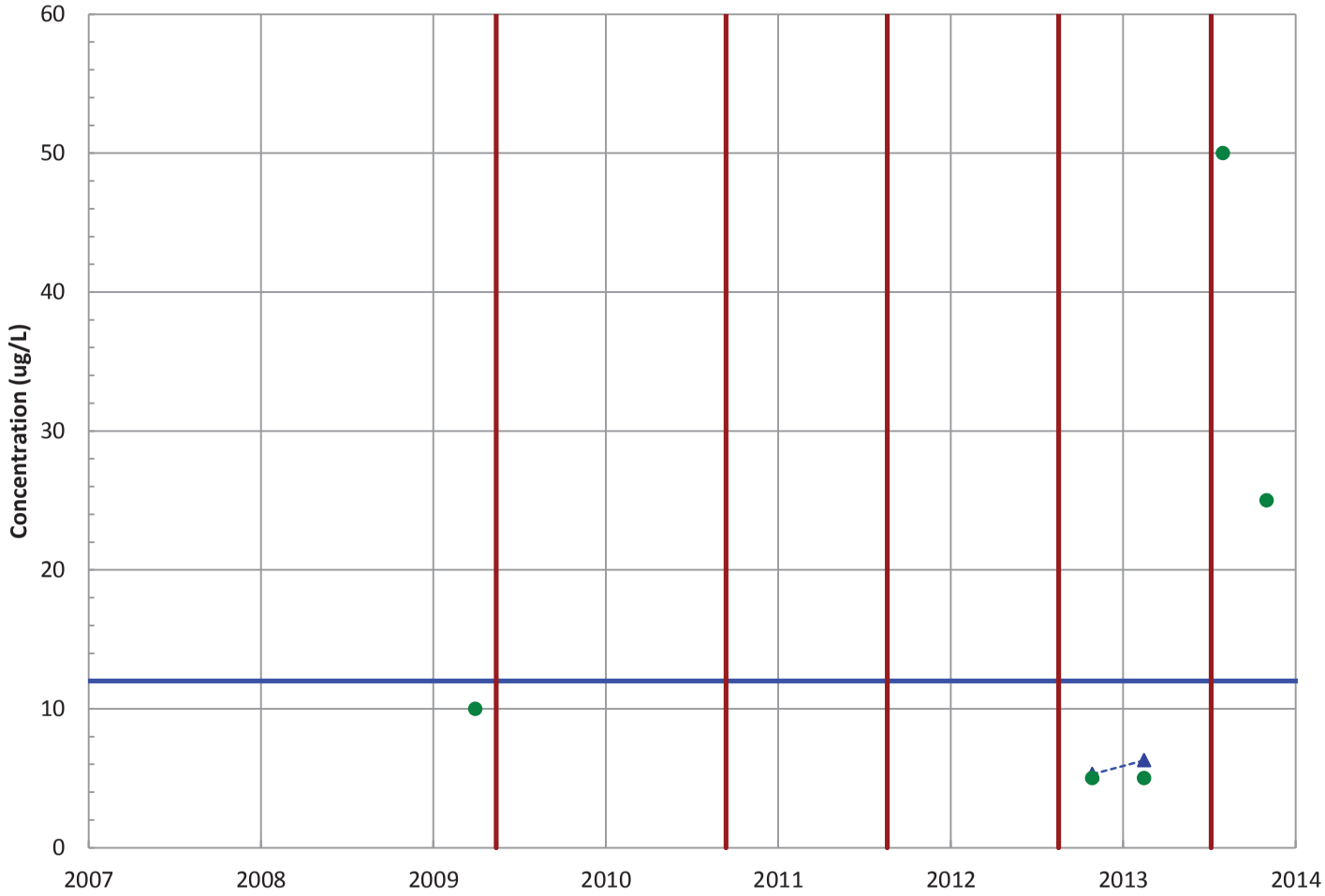
- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

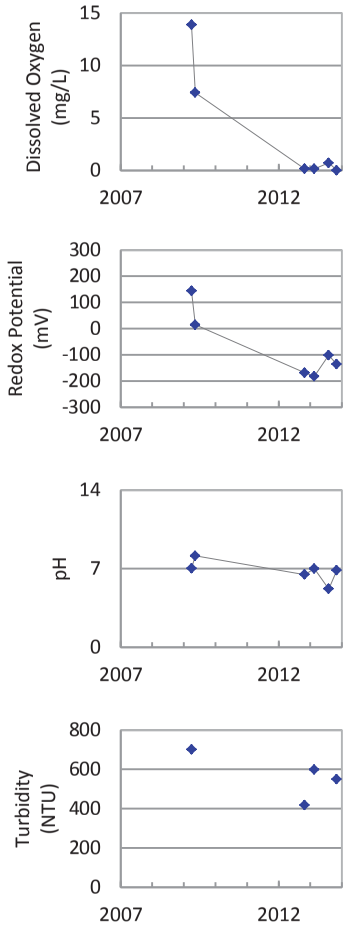


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/1/2009 to 11/6/2013
Analysis Date: 3/21/2014

PTX06-ISB071
Arsenic Trend in Perched Aquifer



Field Parameters



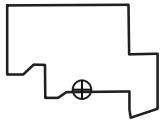
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

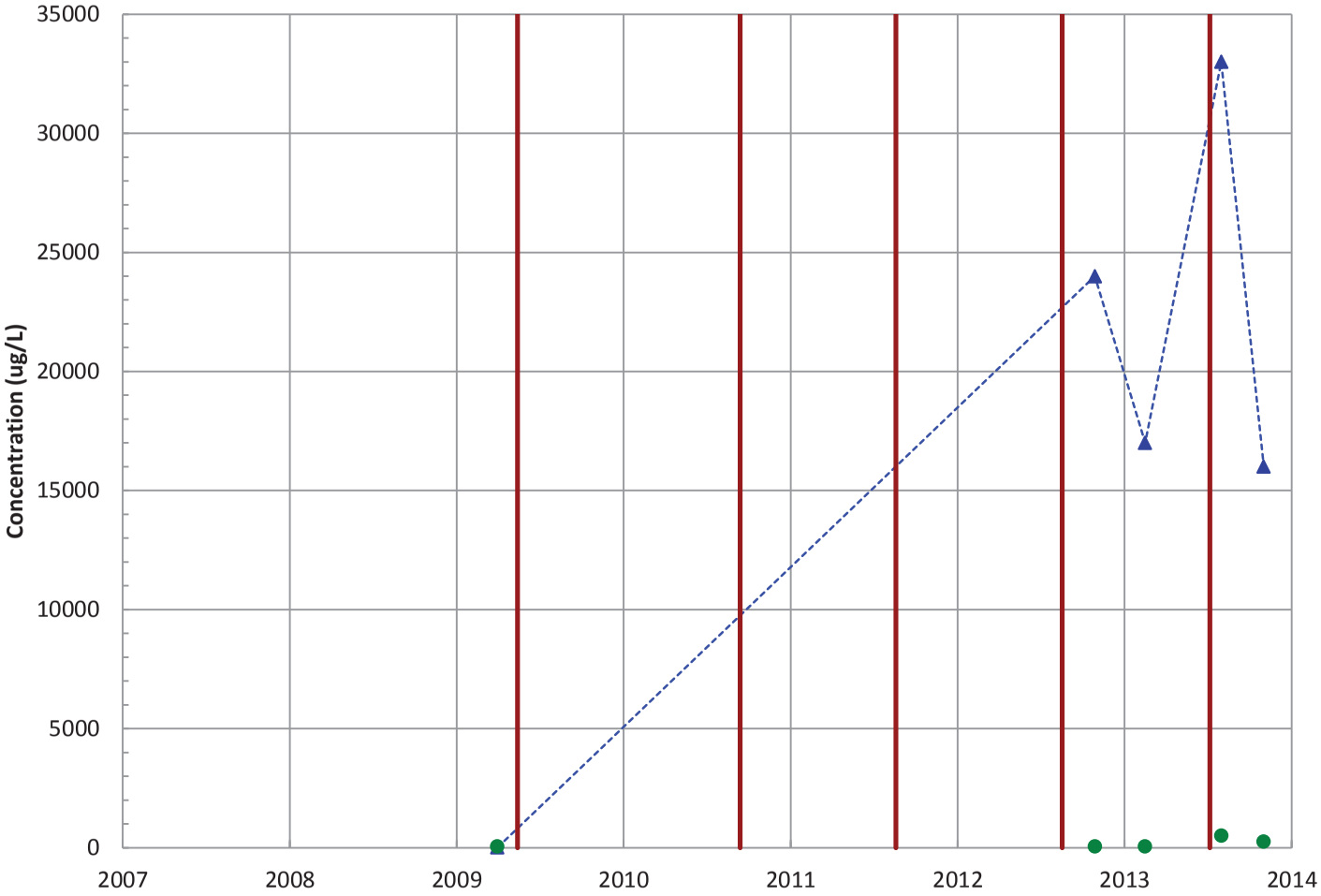
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

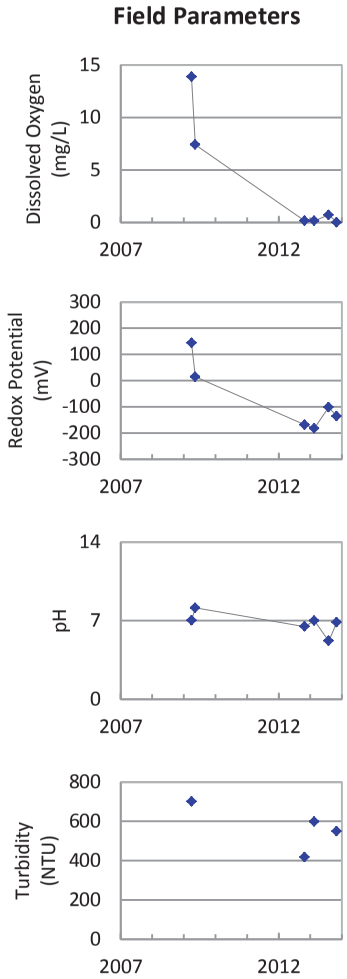
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/1/2009 to 11/6/2013
Analysis Date: 3/21/2014

PTX06-ISB071
Iron Trend in Perched Aquifer





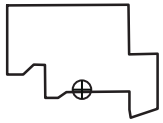
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Stable

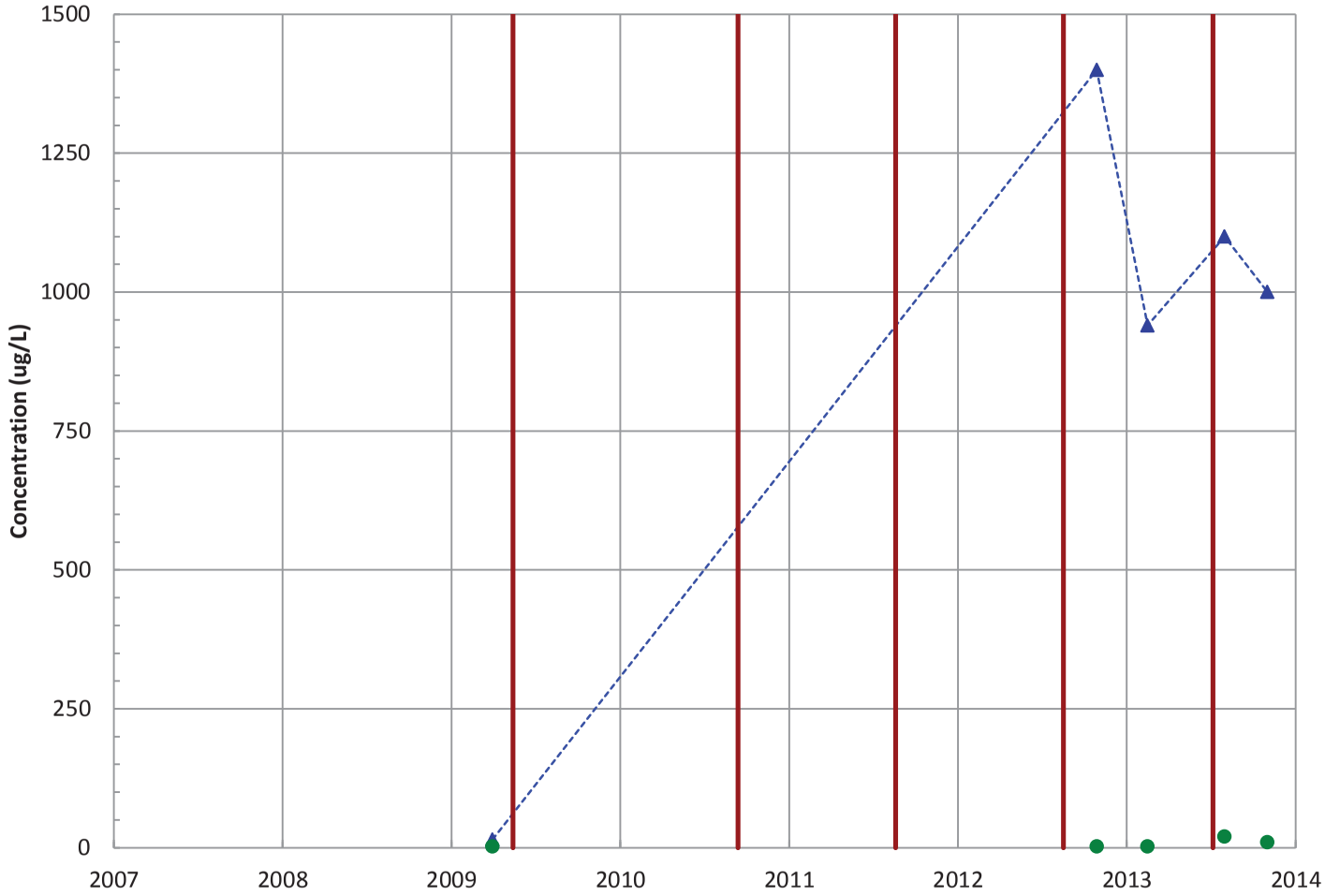
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

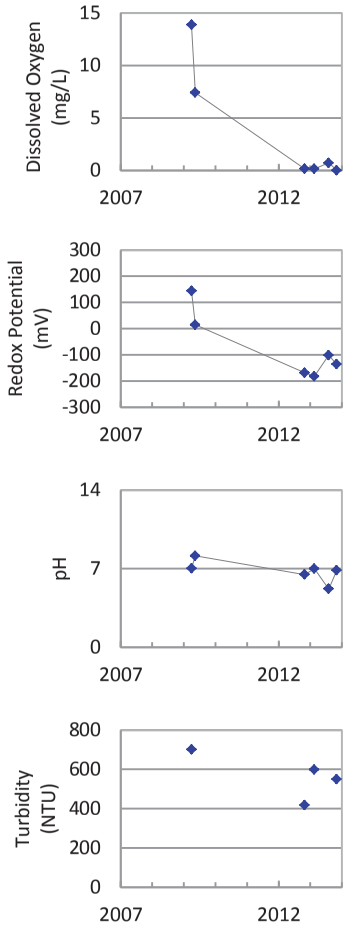


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/1/2009 to 11/6/2013
Analysis Date: 3/21/2014

PTX06-ISB071
Manganese Trend in Perched Aquifer



Field Parameters



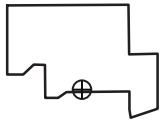
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Decreasing

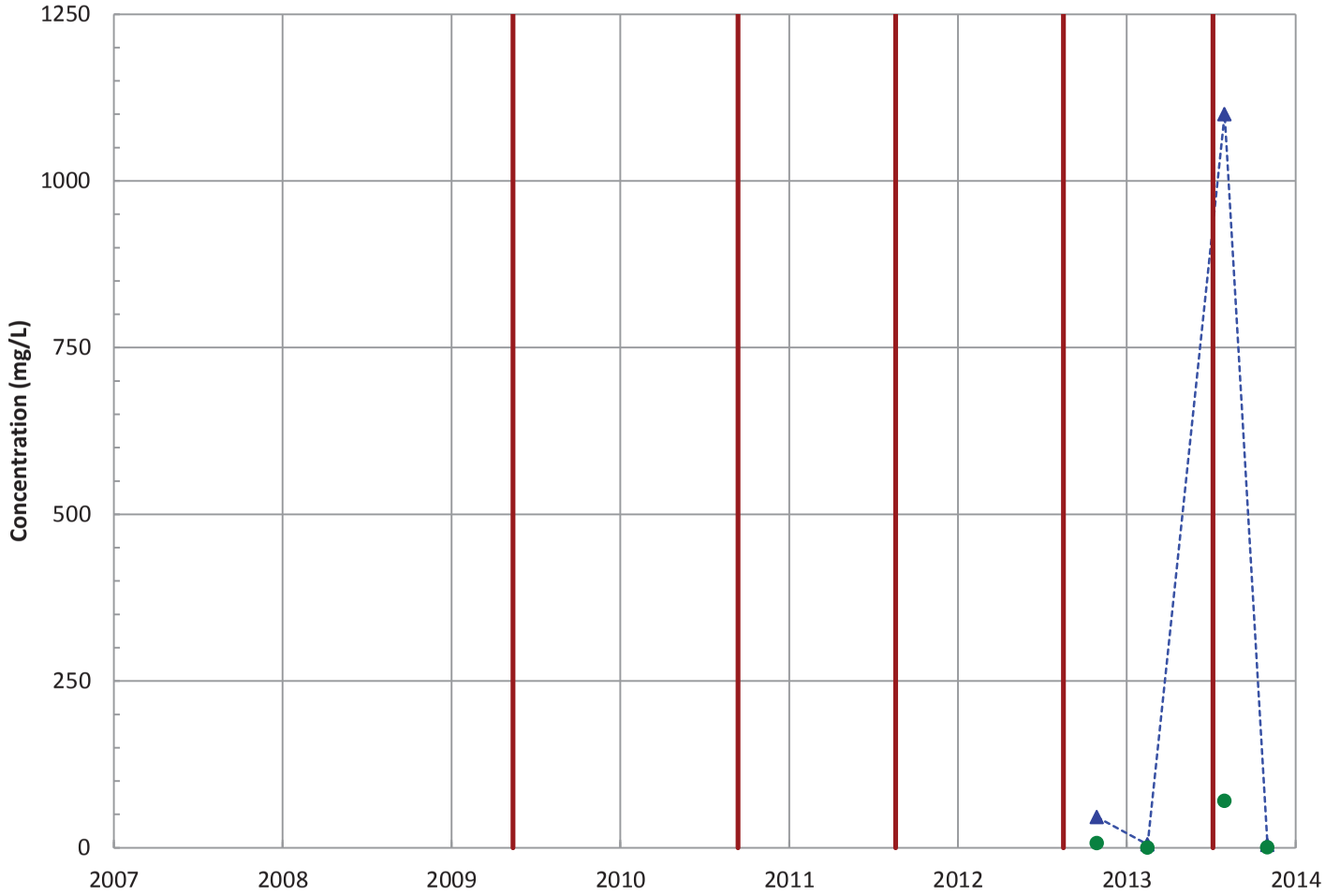
▲ Measured Value
● Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

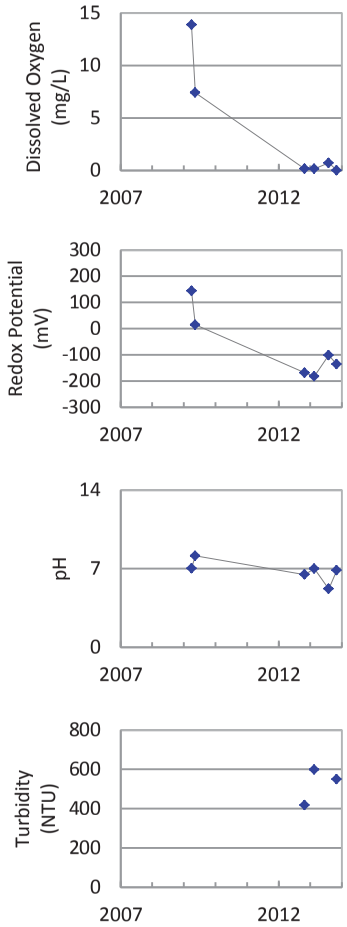


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/1/2009 to 11/6/2013
Analysis Date: 3/21/2014

PTX06-ISB071
Acetic Acid Trend in Perched Aquifer



Field Parameters



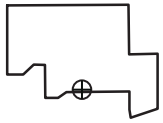
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

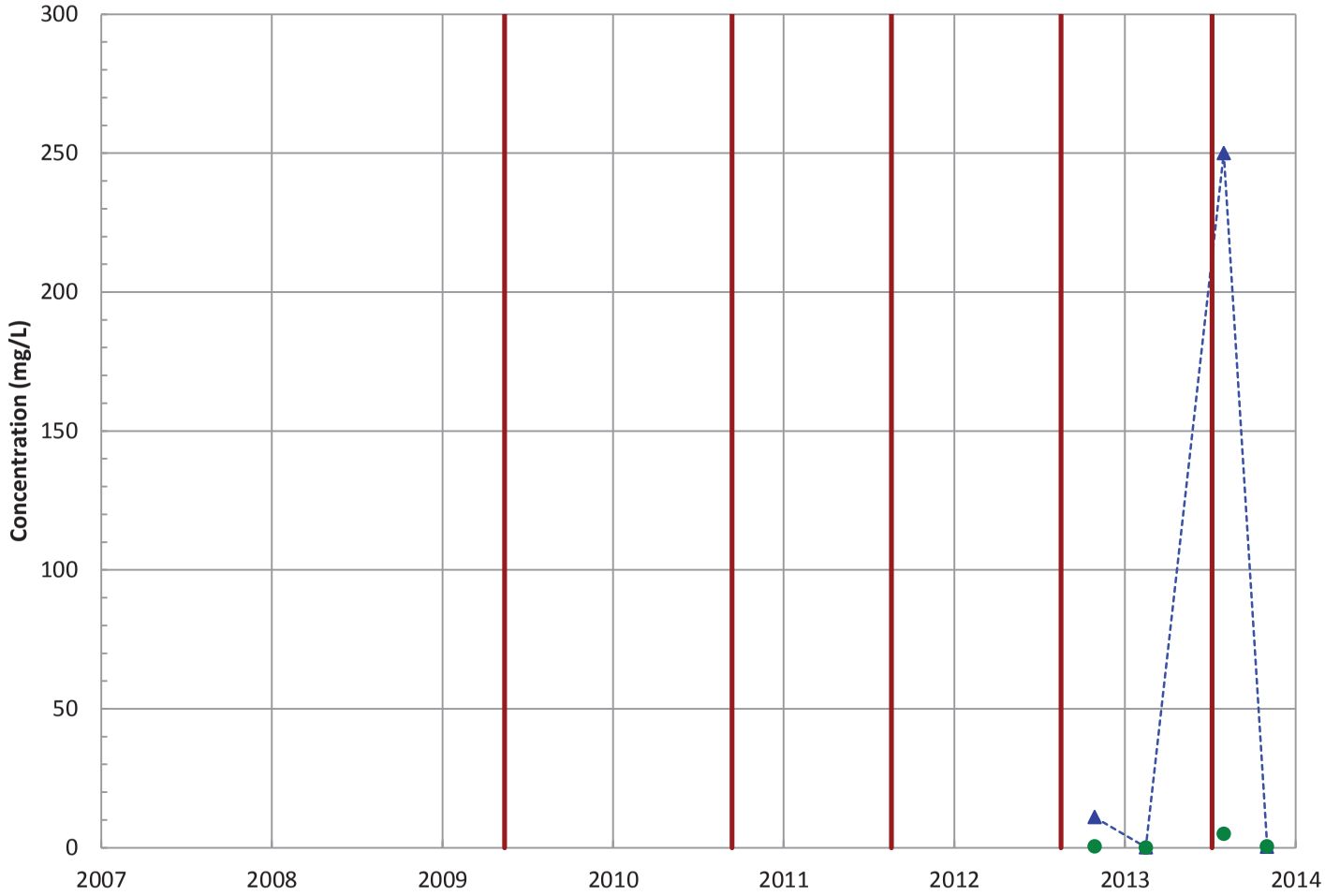
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Injection Dates

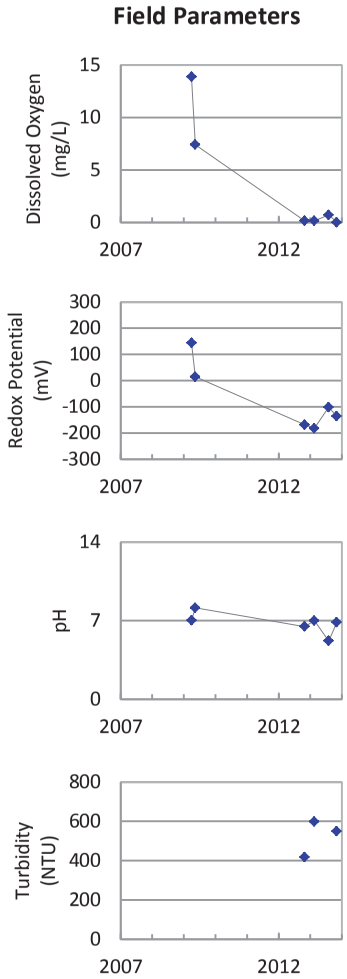
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/1/2012 to 11/6/2013
Analysis Date: 3/21/2014

PTX06-ISB071
Butyric Acid Trend in Perched Aquifer





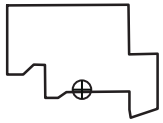
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

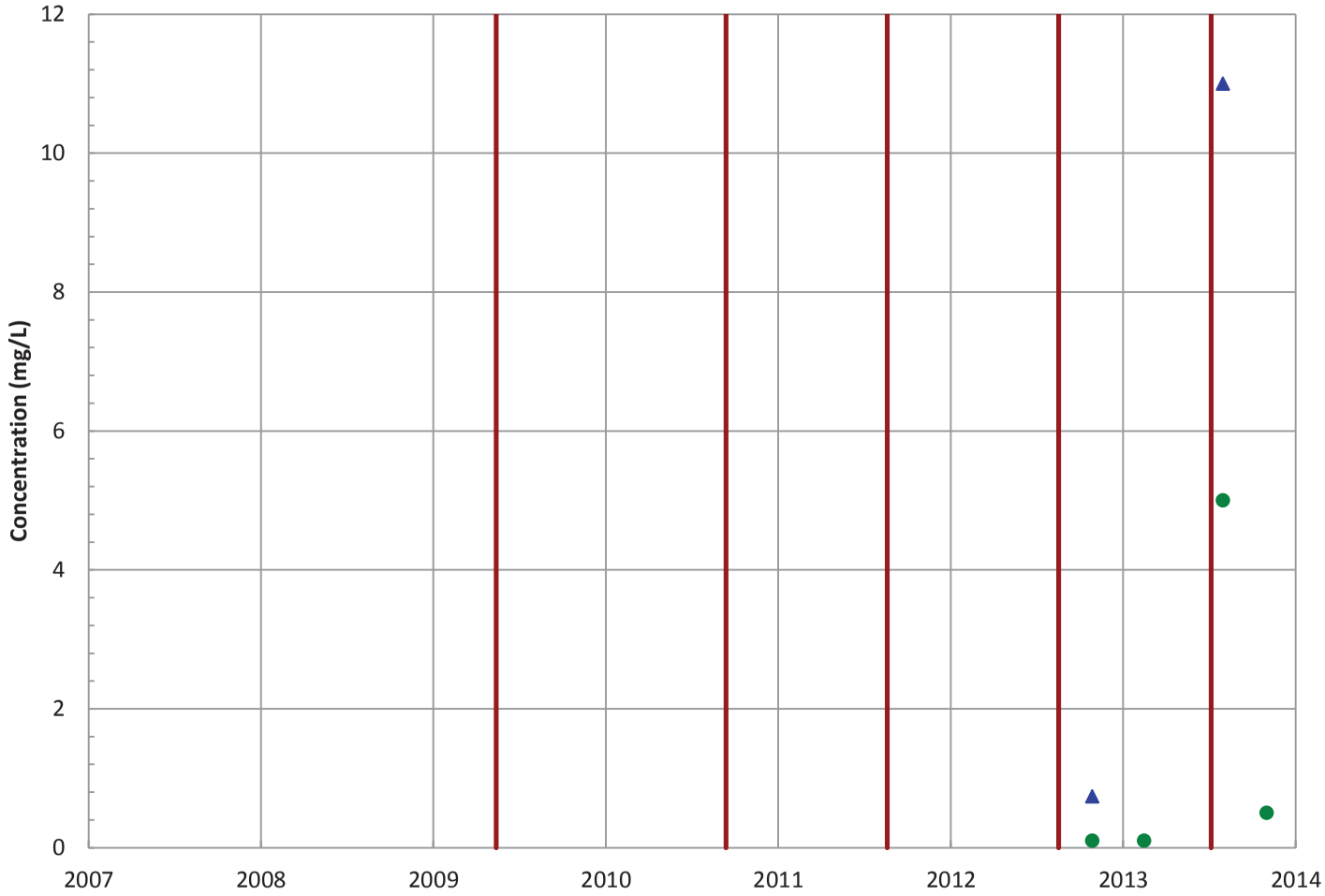
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
═══ Injection Dates

Well Location

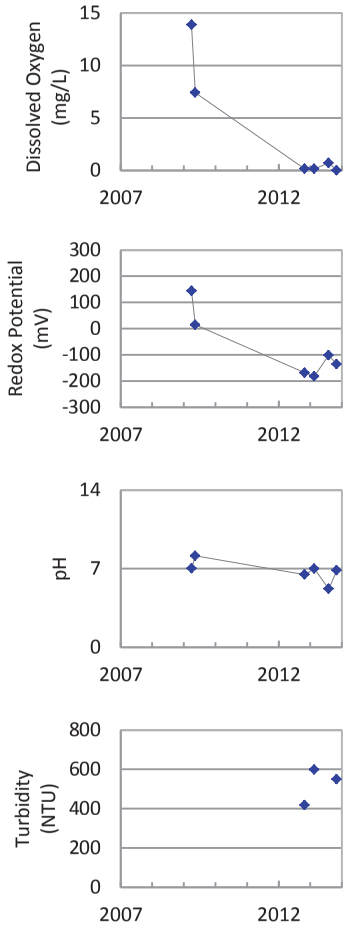


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/1/2012 to 11/6/2013
Analysis Date: 3/21/2014

PTX06-ISB071
Hexanoic Acid Trend in Perched Aquifer



Field Parameters



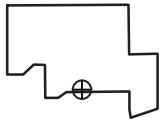
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

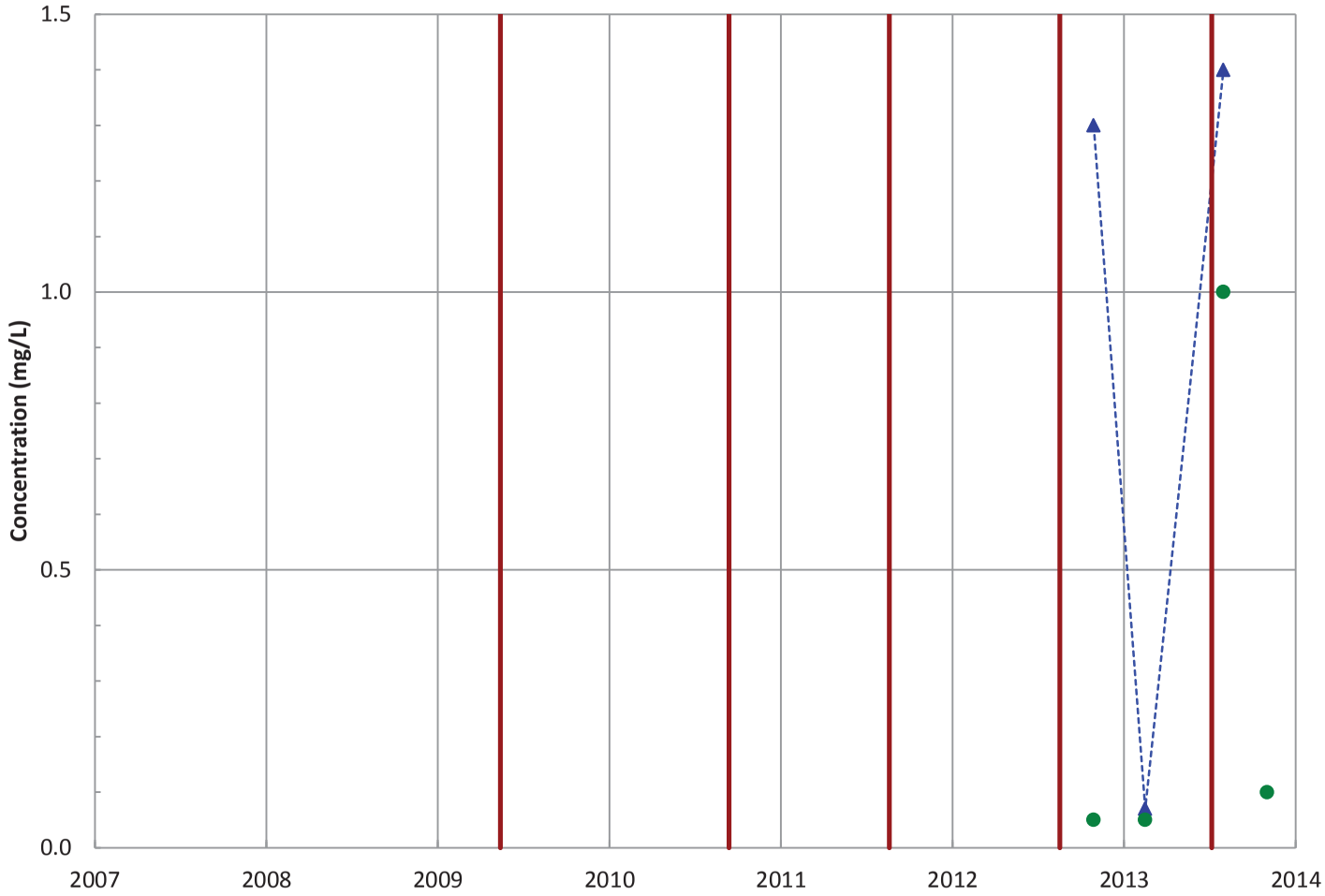
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
═══ Injection Dates

Well Location

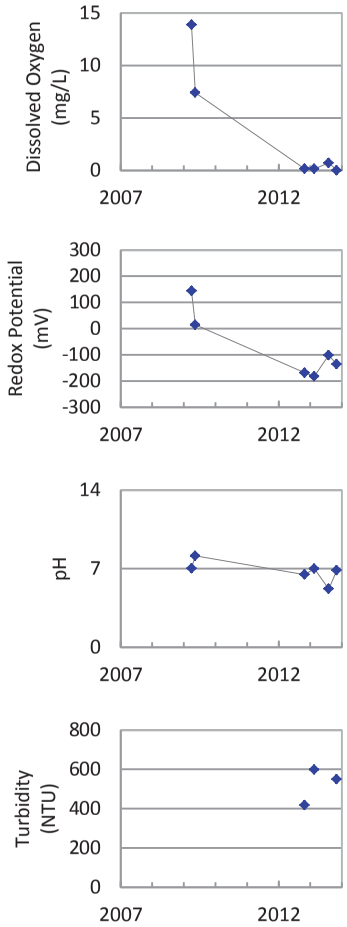


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/1/2012 to 11/6/2013
Analysis Date: 3/21/2014

PTX06-ISB071
i-Hexanoic Acid Trend in Perched Aquifer



Field Parameters



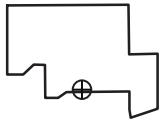
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

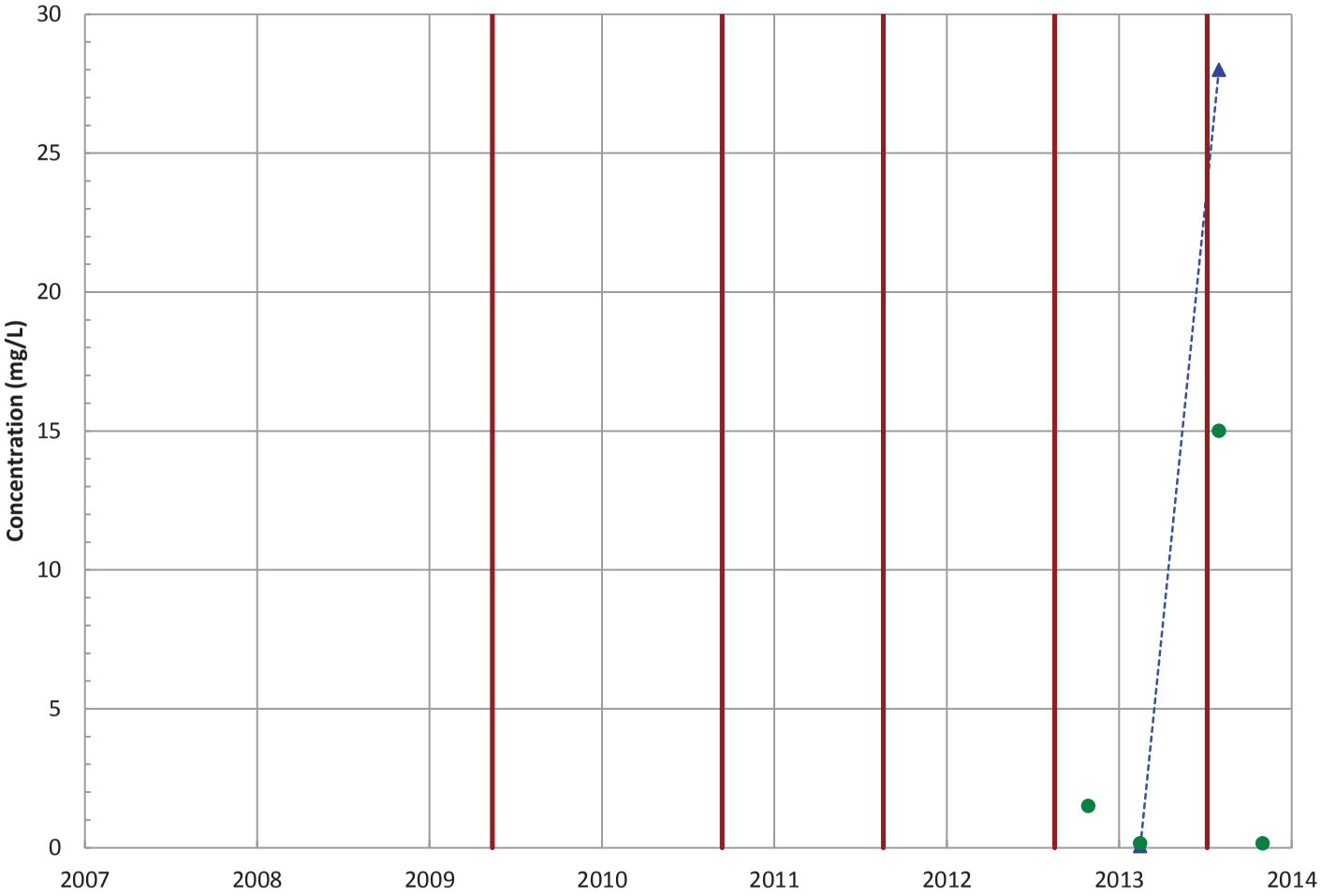
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

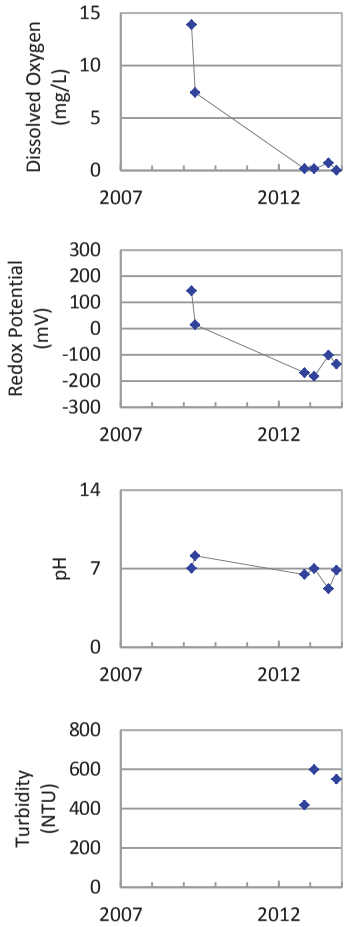


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/1/2012 to 11/6/2013
Analysis Date: 3/21/2014

PTX06-ISB071
i-Pentanoic Acid Trend in Perched Aquifer



Field Parameters



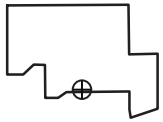
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

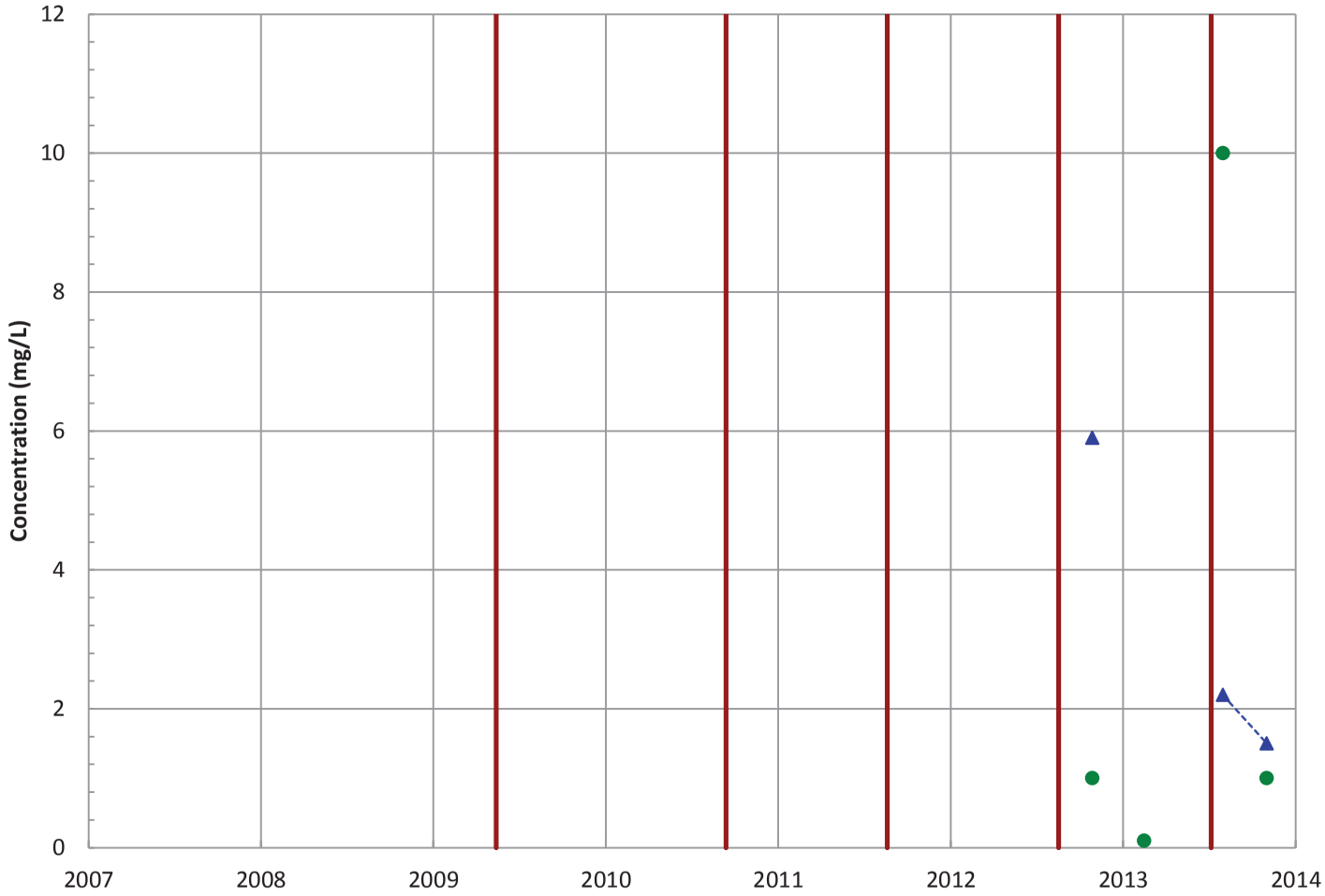
- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Injection Dates

Well Location

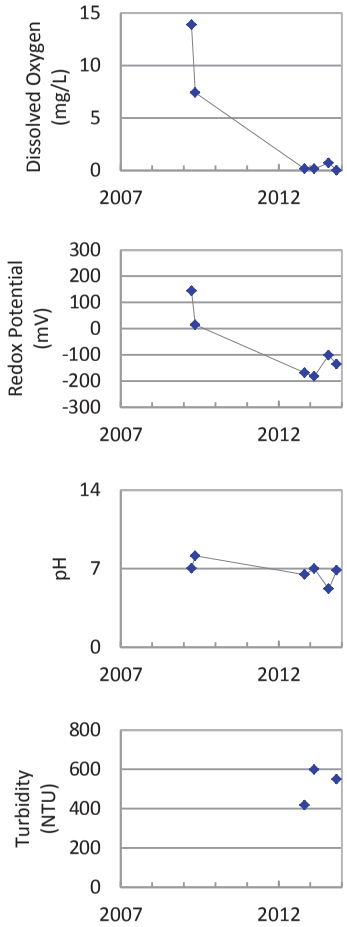


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/1/2012 to 11/6/2013
Analysis Date: 3/21/2014

PTX06-ISB071
Lactic Acid and HIBA Trend in Perched Aquifer



Field Parameters



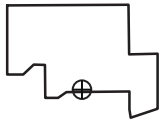
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

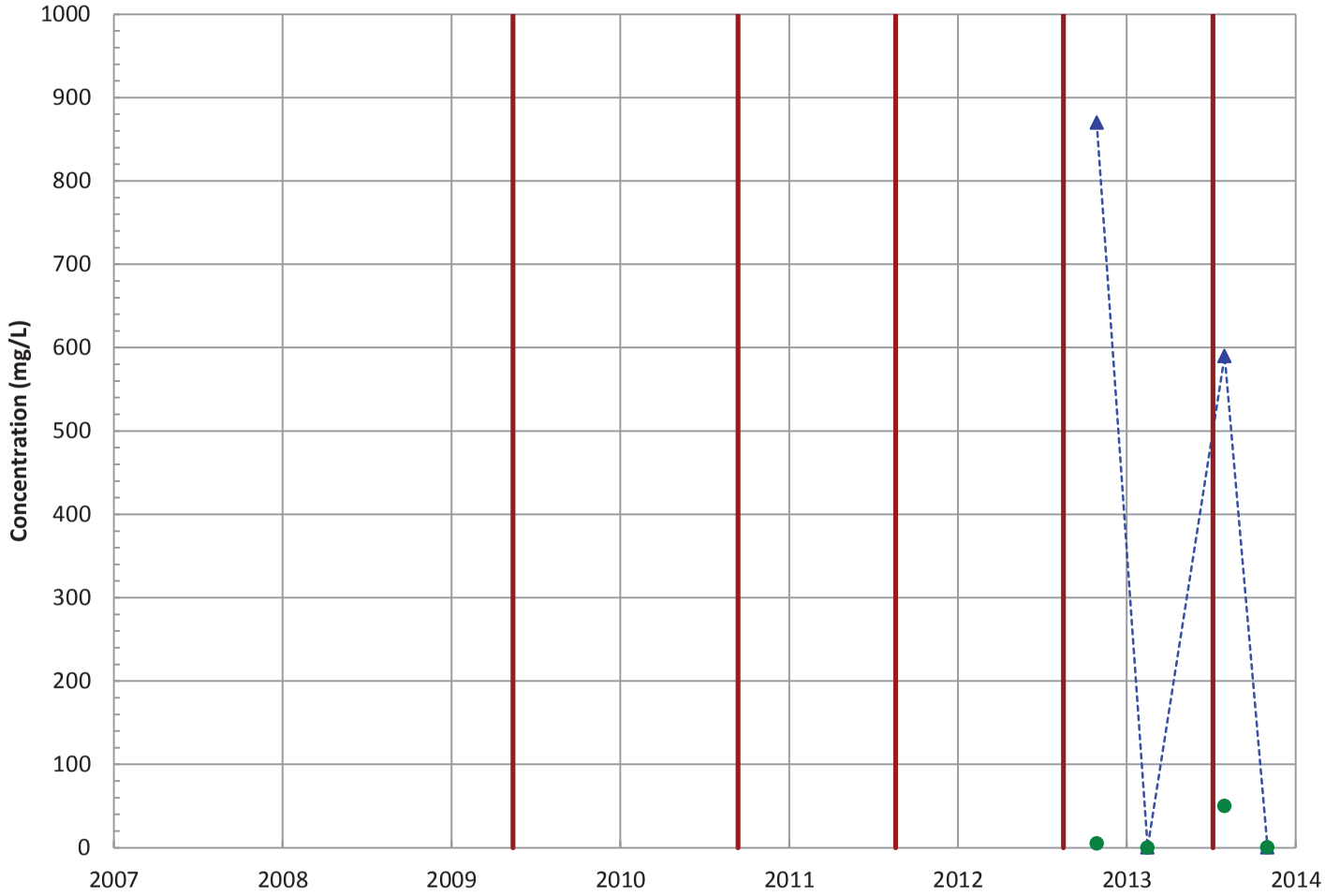
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
═══ Injection Dates

Well Location

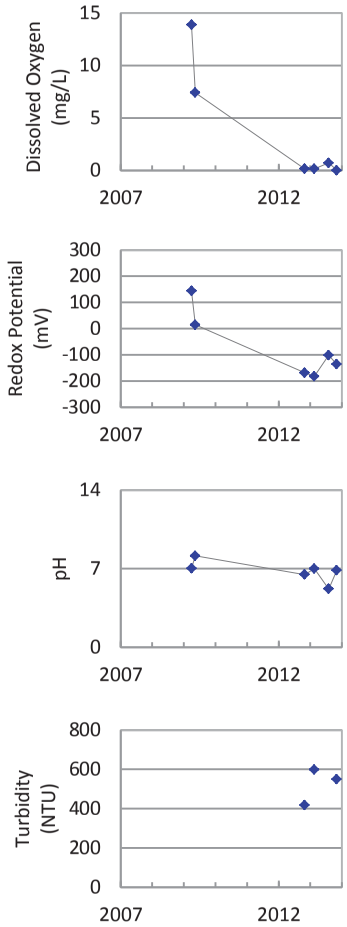


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/1/2012 to 11/6/2013
Analysis Date: 3/21/2014

PTX06-ISB071
Propionic Acid Trend in Perched Aquifer



Field Parameters



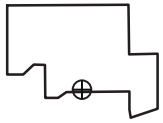
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

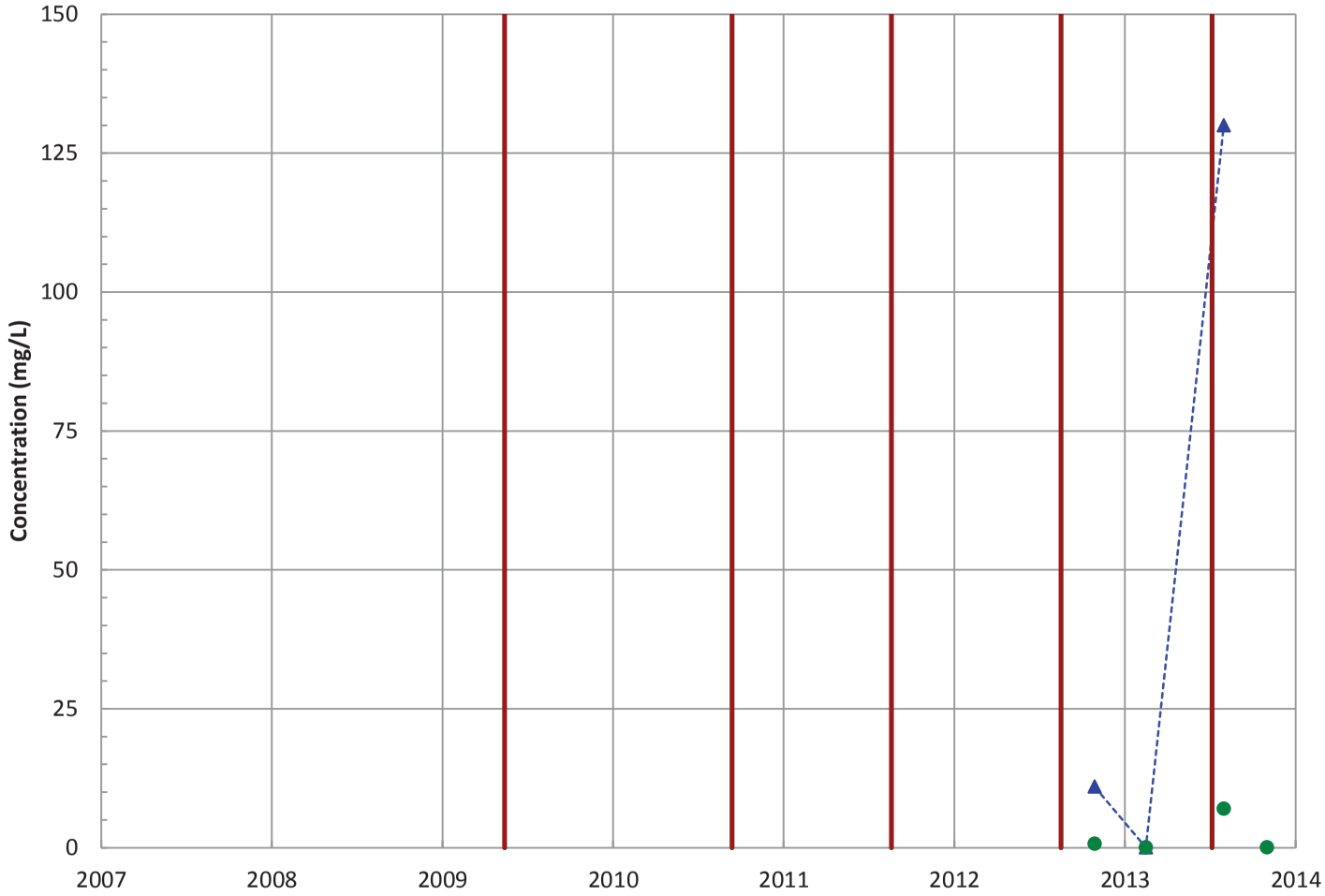
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Injection Dates

Well Location

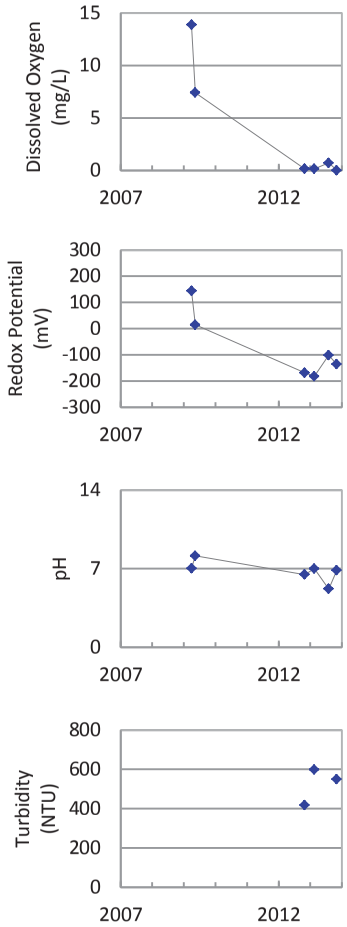


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/1/2012 to 11/6/2013
Analysis Date: 3/21/2014

PTX06-ISB071
Pentanoic Acid Trend in Perched Aquifer



Field Parameters



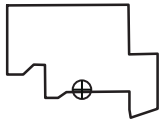
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

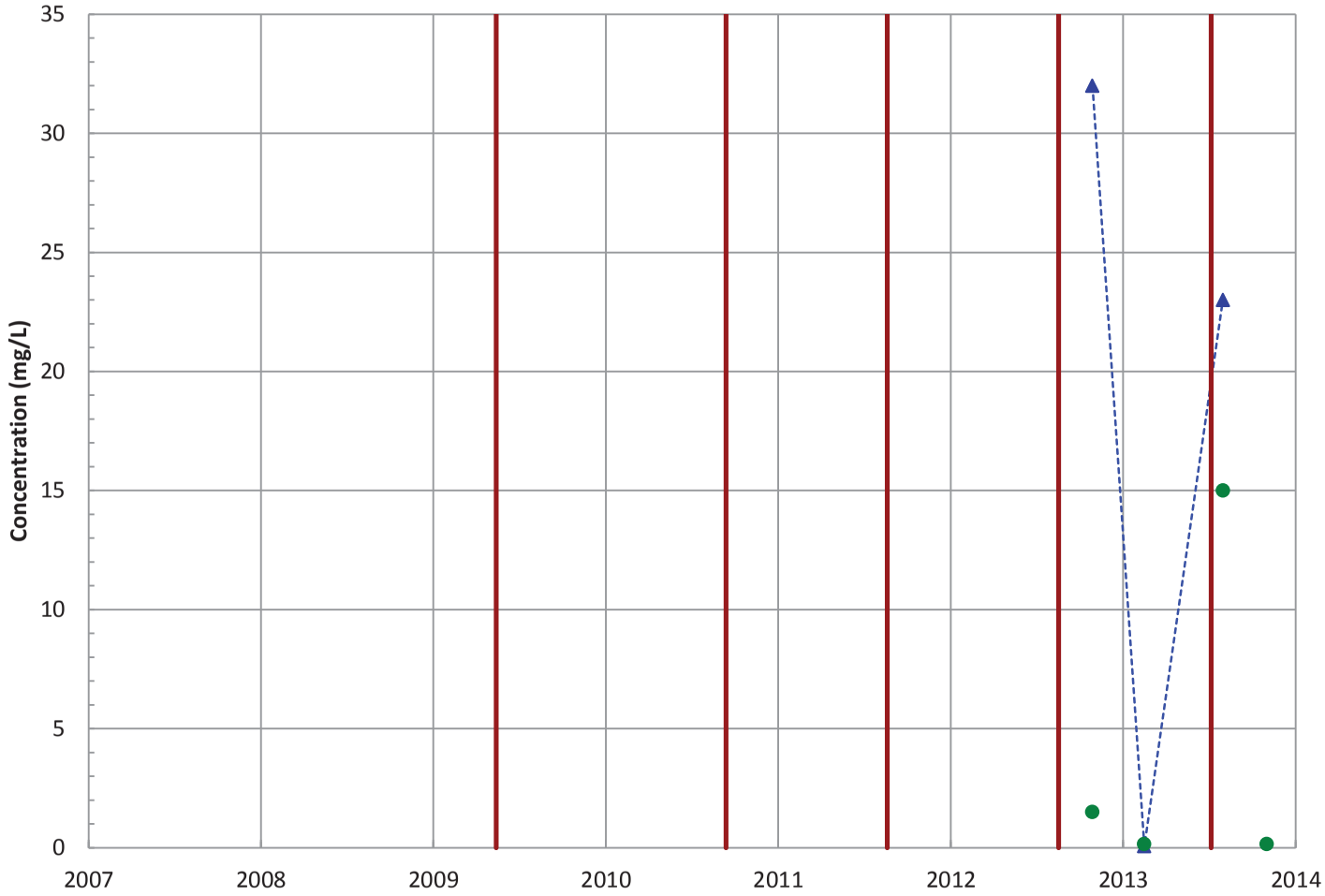
▲ Measured Value
● Sample Detection Limit
- - - Concentration Trend
— Injection Dates

Well Location

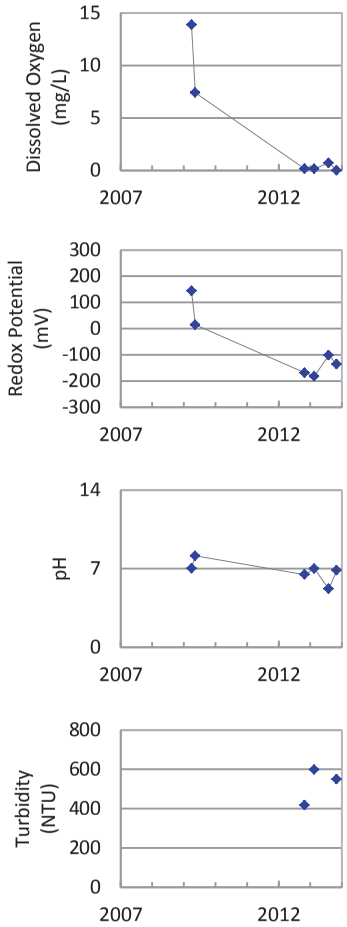


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/1/2012 to 11/6/2013
Analysis Date: 3/21/2014

PTX06-ISB071
Pyruvic Acid Trend in Perched Aquifer



Field Parameters



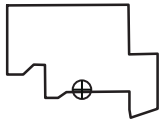
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

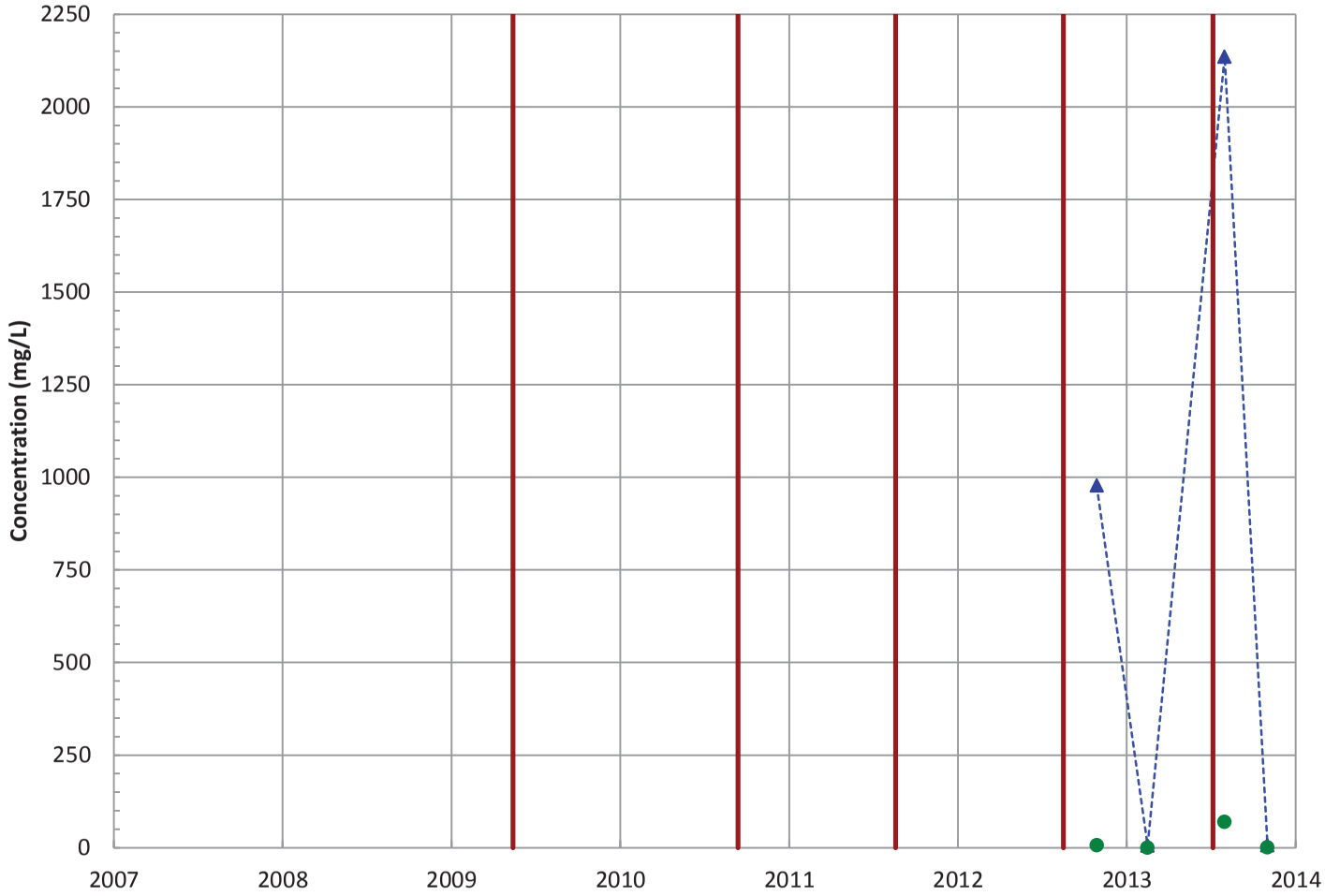
▲ Measured Value
● Sample Detection Limit
- - - Concentration Trend
— Injection Dates

Well Location

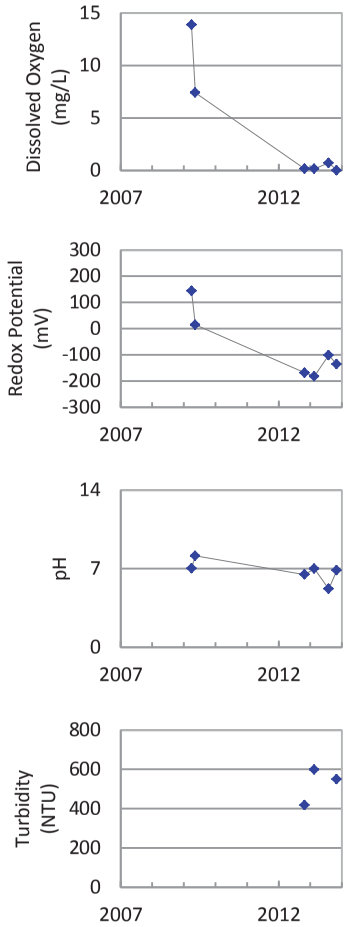


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/1/2012 to 11/6/2013
Analysis Date: 3/21/2014

PTX06-ISB071
Total Volatile Fatty Acids Trend in Perched Aquifer



Field Parameters



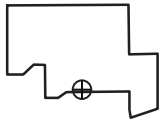
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

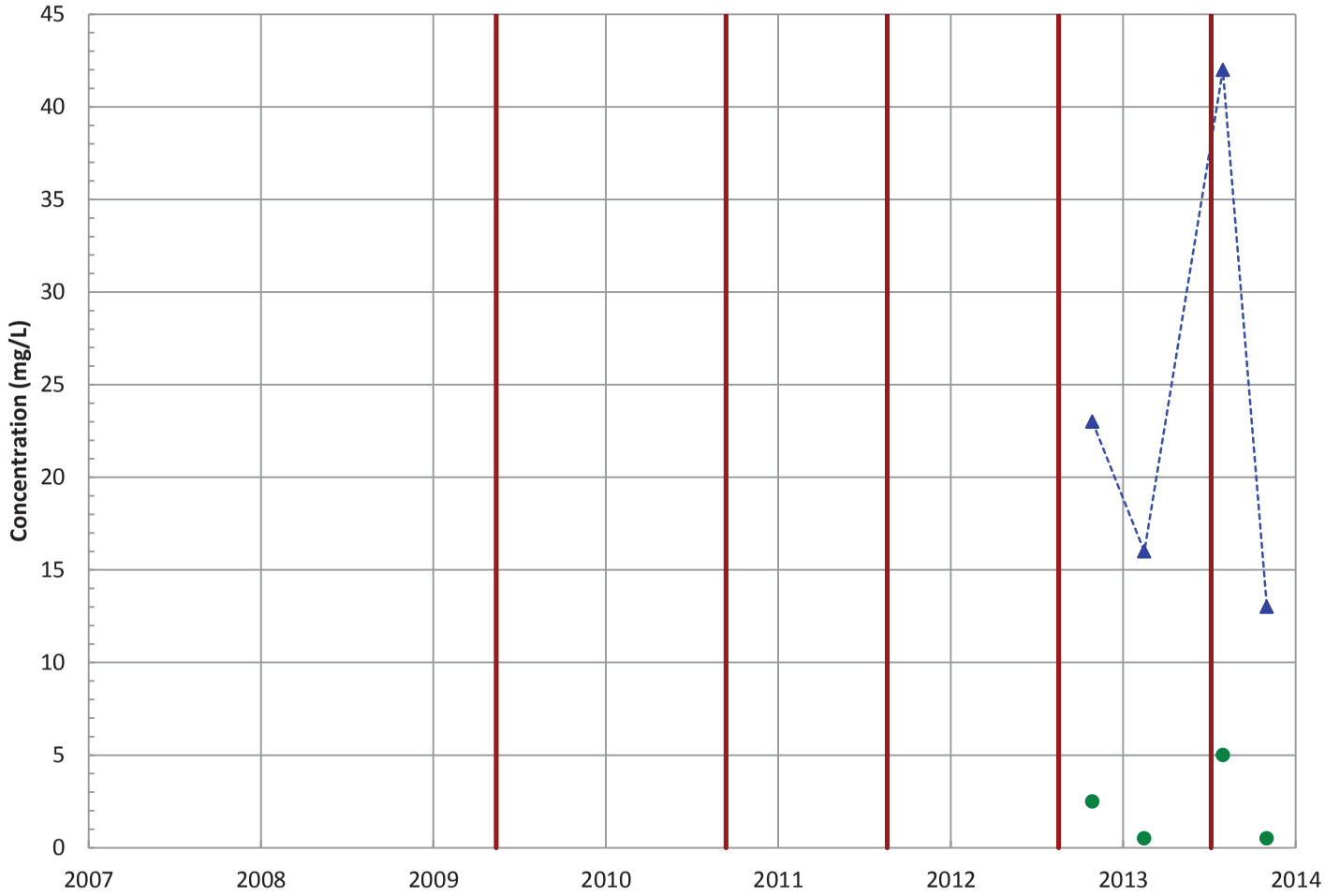
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
═══ Injection Dates

Well Location

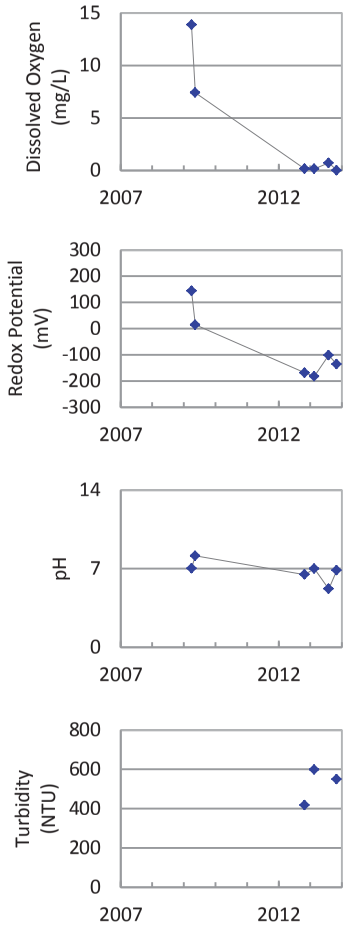


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/1/2012 to 11/6/2013
Analysis Date: 3/21/2014

PTX06-ISB071
Ferrous Iron Trend in Perched Aquifer



Field Parameters



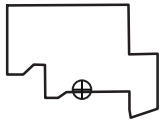
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: Stable

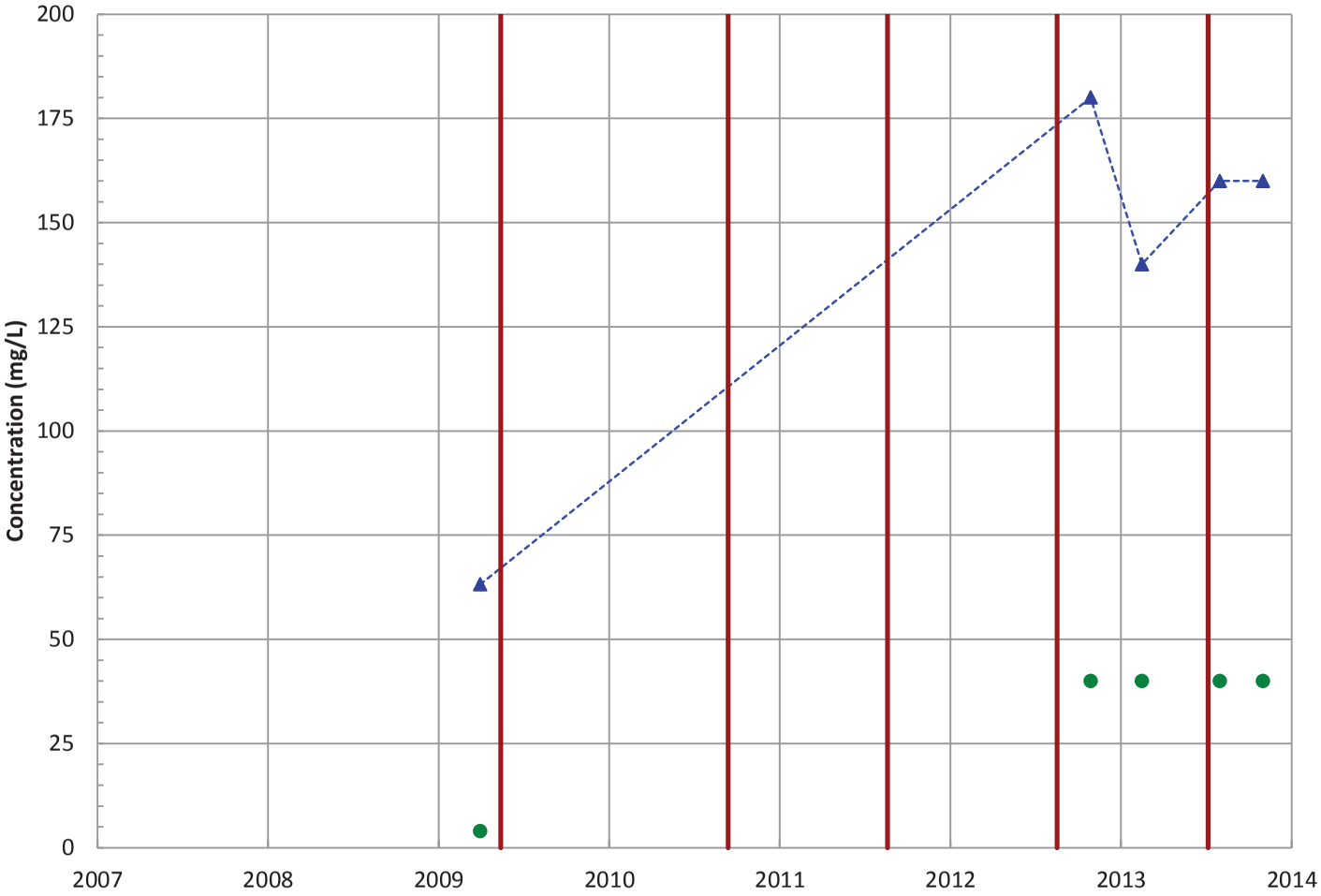
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
═══ Injection Dates

Well Location

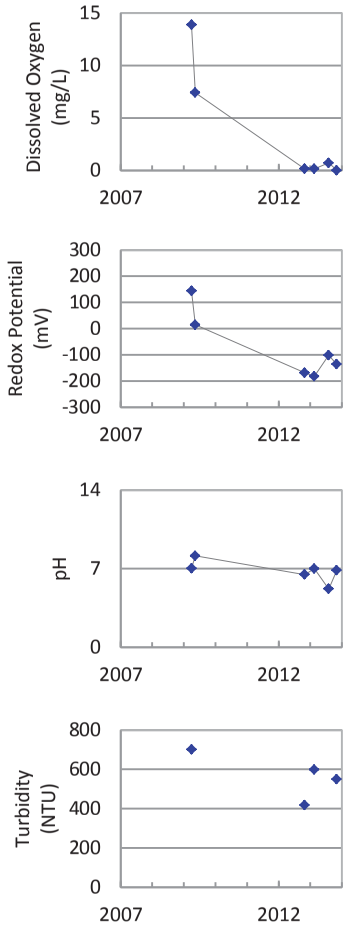


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 11/1/2012 to 11/6/2013
Analysis Date: 3/21/2014

PTX06-ISB071
Chloride (as Cl) Trend in Perched Aquifer



Field Parameters



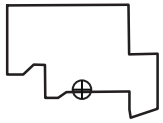
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Stable

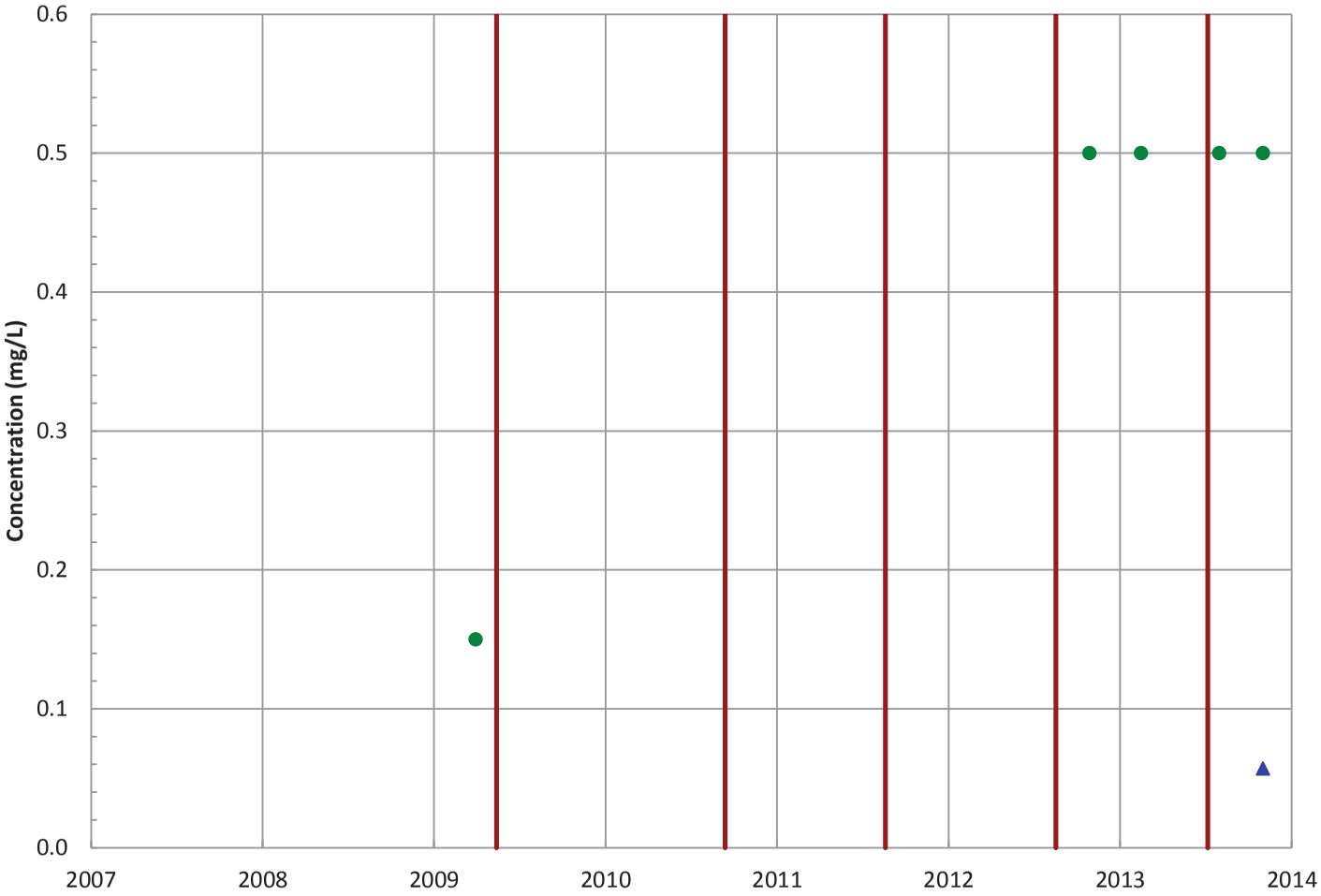
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

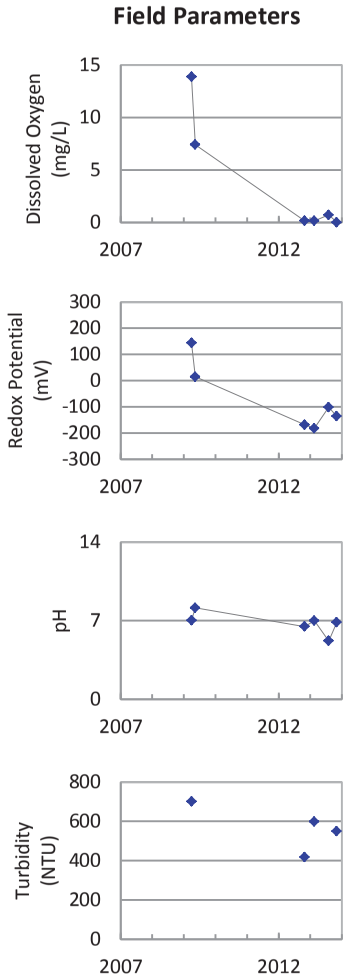
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/1/2009 to 11/6/2013
Analysis Date: 3/21/2014

PTX06-ISB071
Chlorate Trend in Perched Aquifer





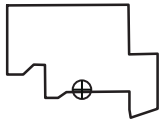
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

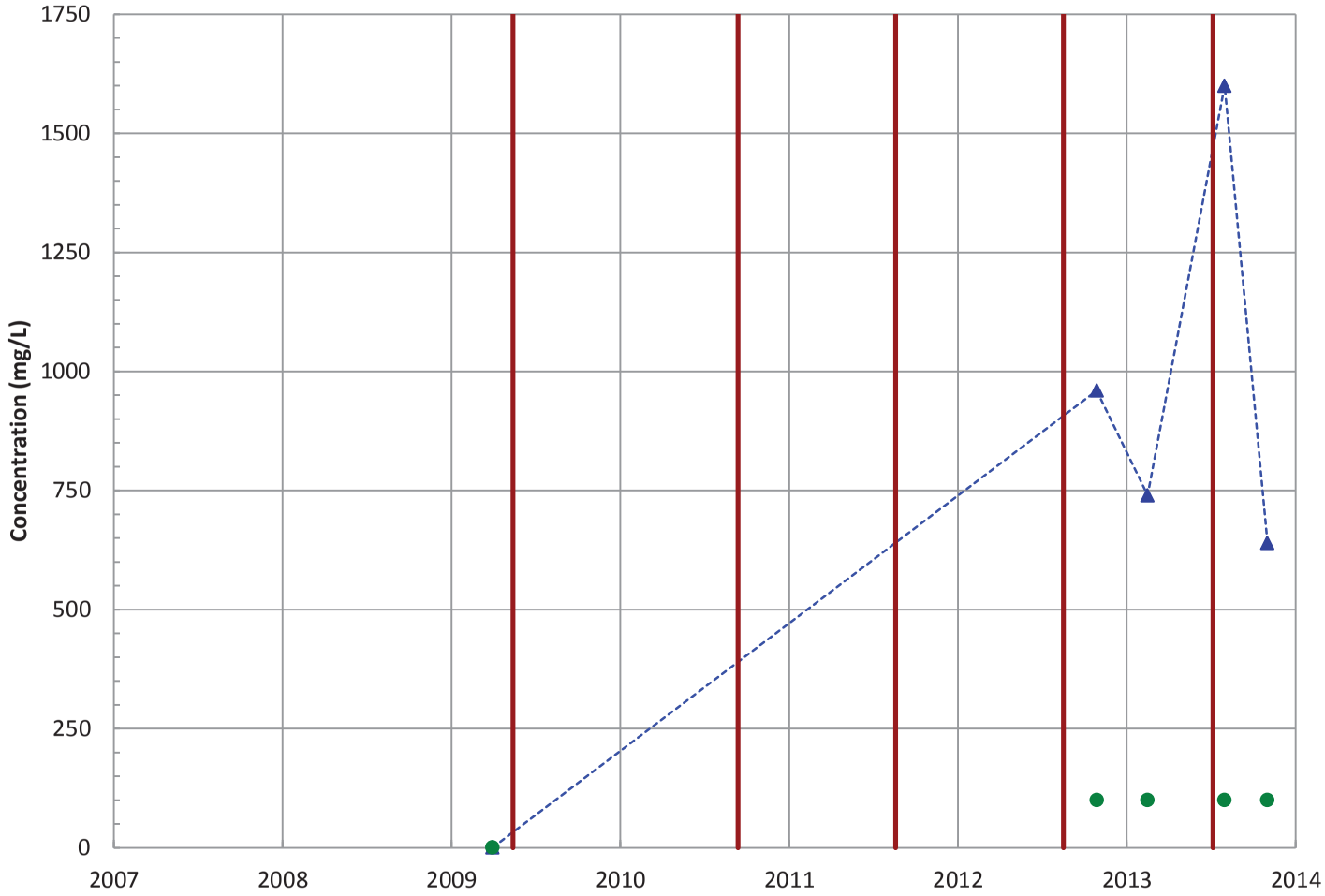
- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ═══ Injection Dates

Well Location

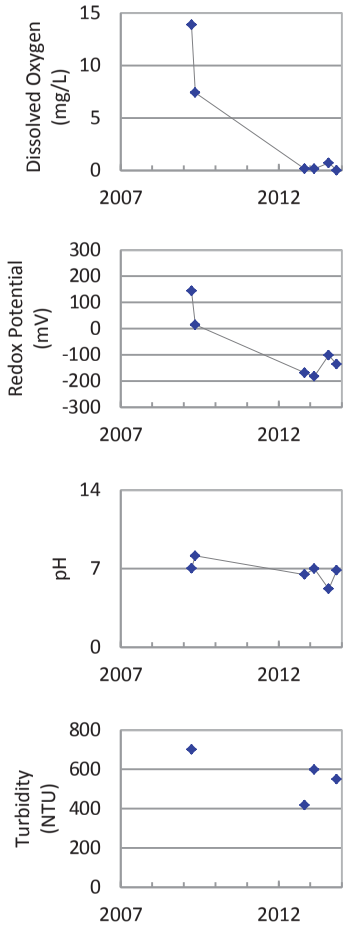


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/1/2009 to 11/6/2013
Analysis Date: 3/21/2014

PTX06-ISB071
Total Organic Carbon Trend in Perched Aquifer



Field Parameters



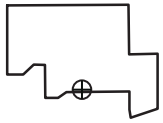
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Stable

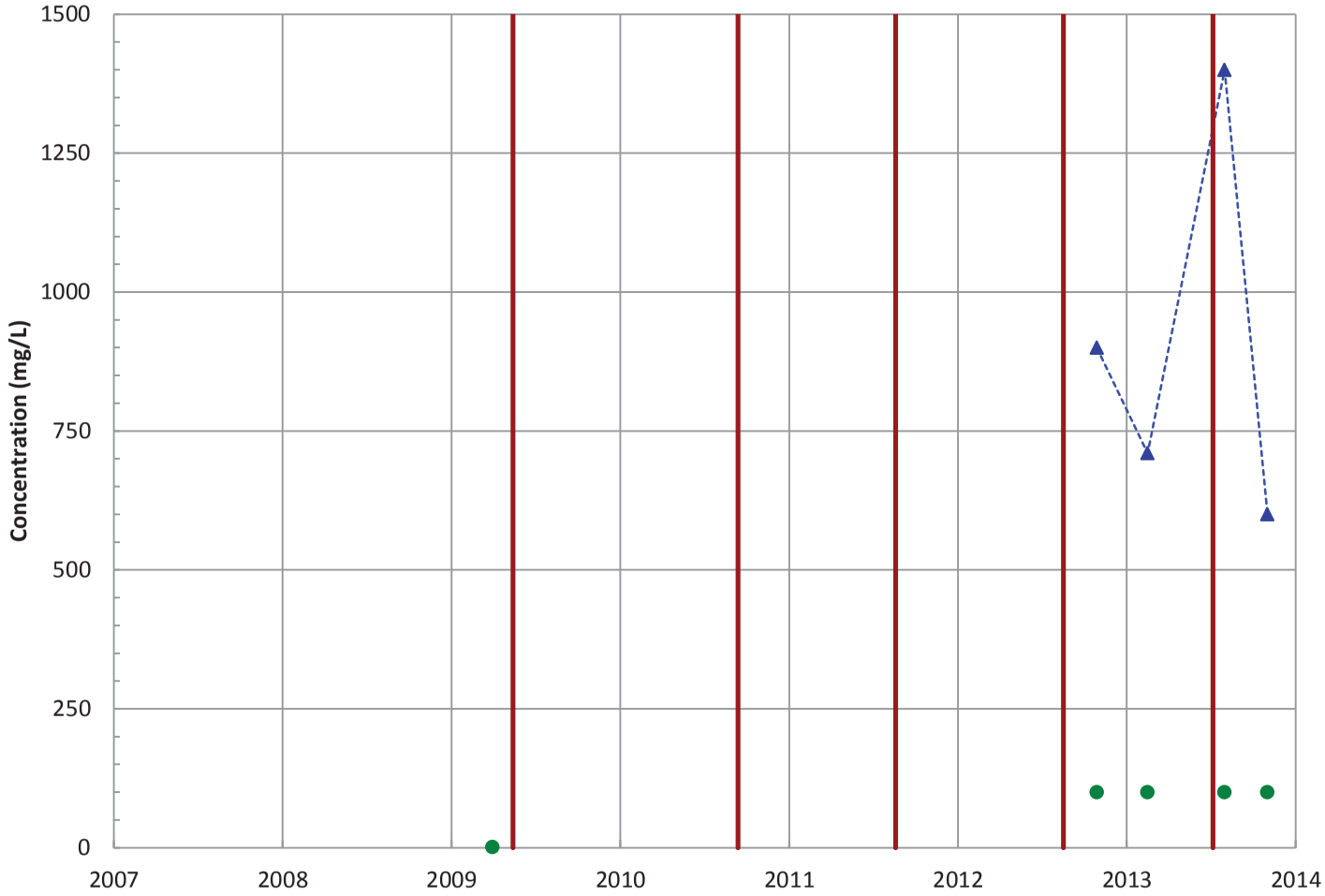
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

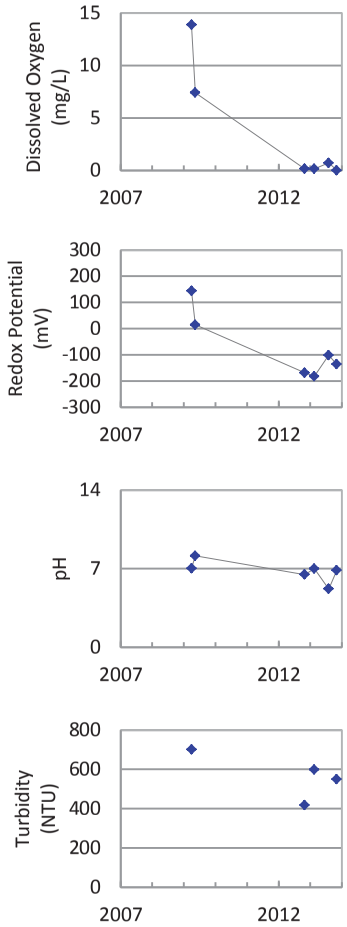


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/1/2009 to 11/6/2013
Analysis Date: 3/21/2014

PTX06-ISB071
Dissolved Organic Carbon (DOC) Trend in Perched Aquifer



Field Parameters



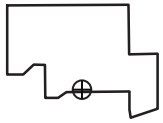
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: Stable

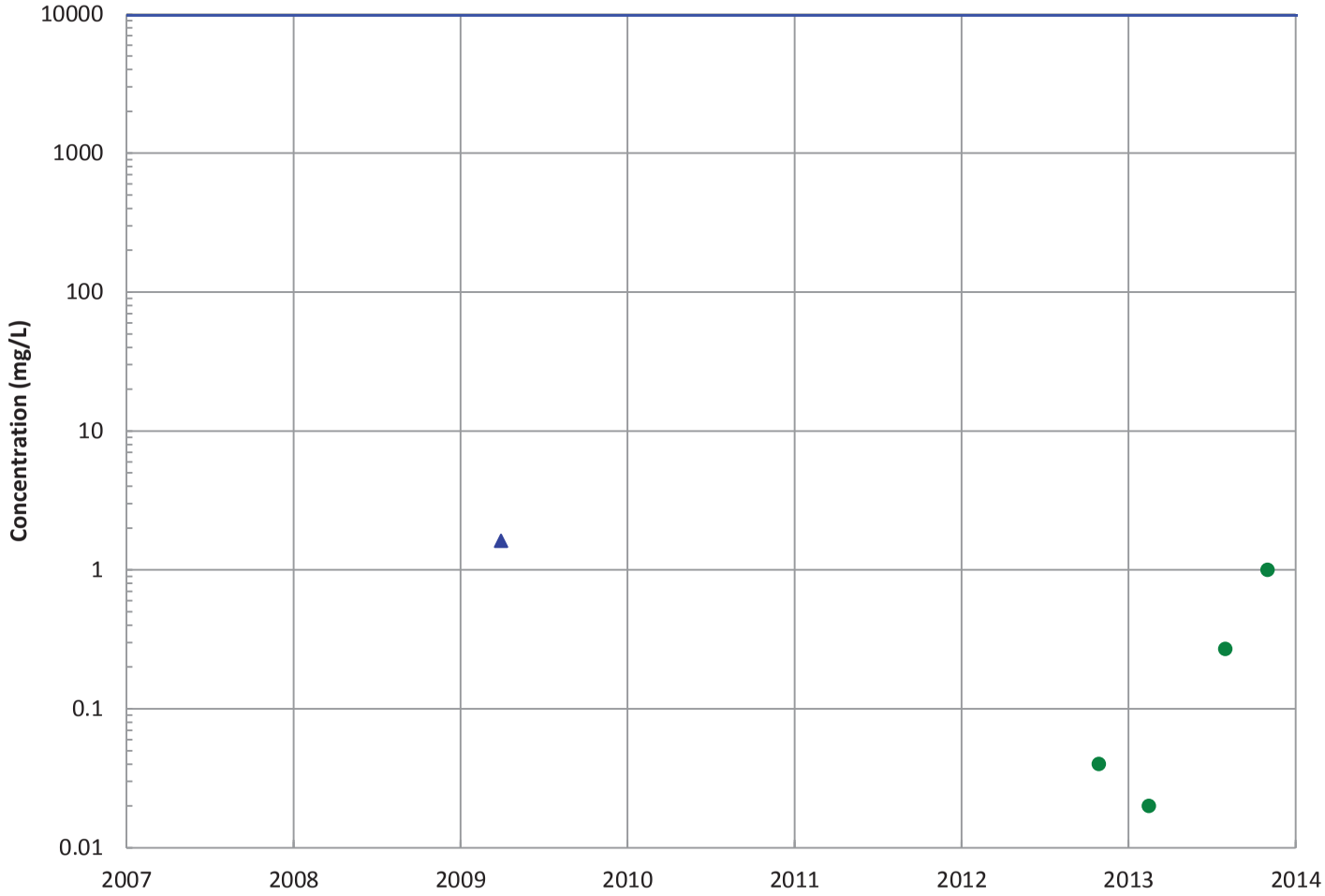
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

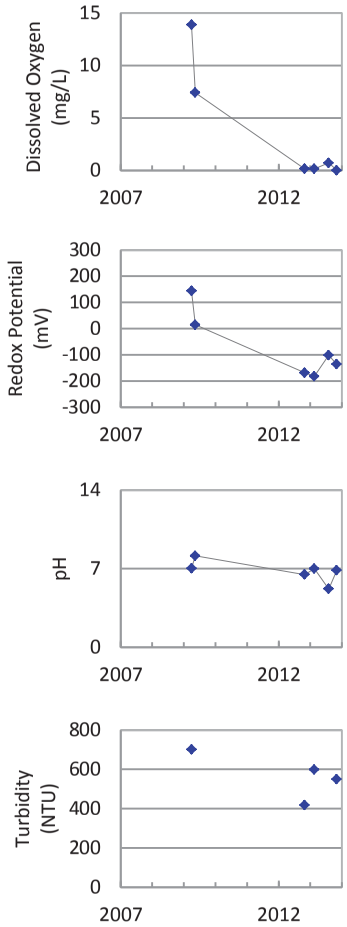


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/1/2009 to 11/6/2013
Analysis Date: 3/21/2014

PTX06-ISB071
Nitrate as N Trend in Perched Aquifer



Field Parameters



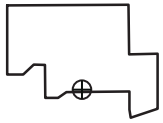
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

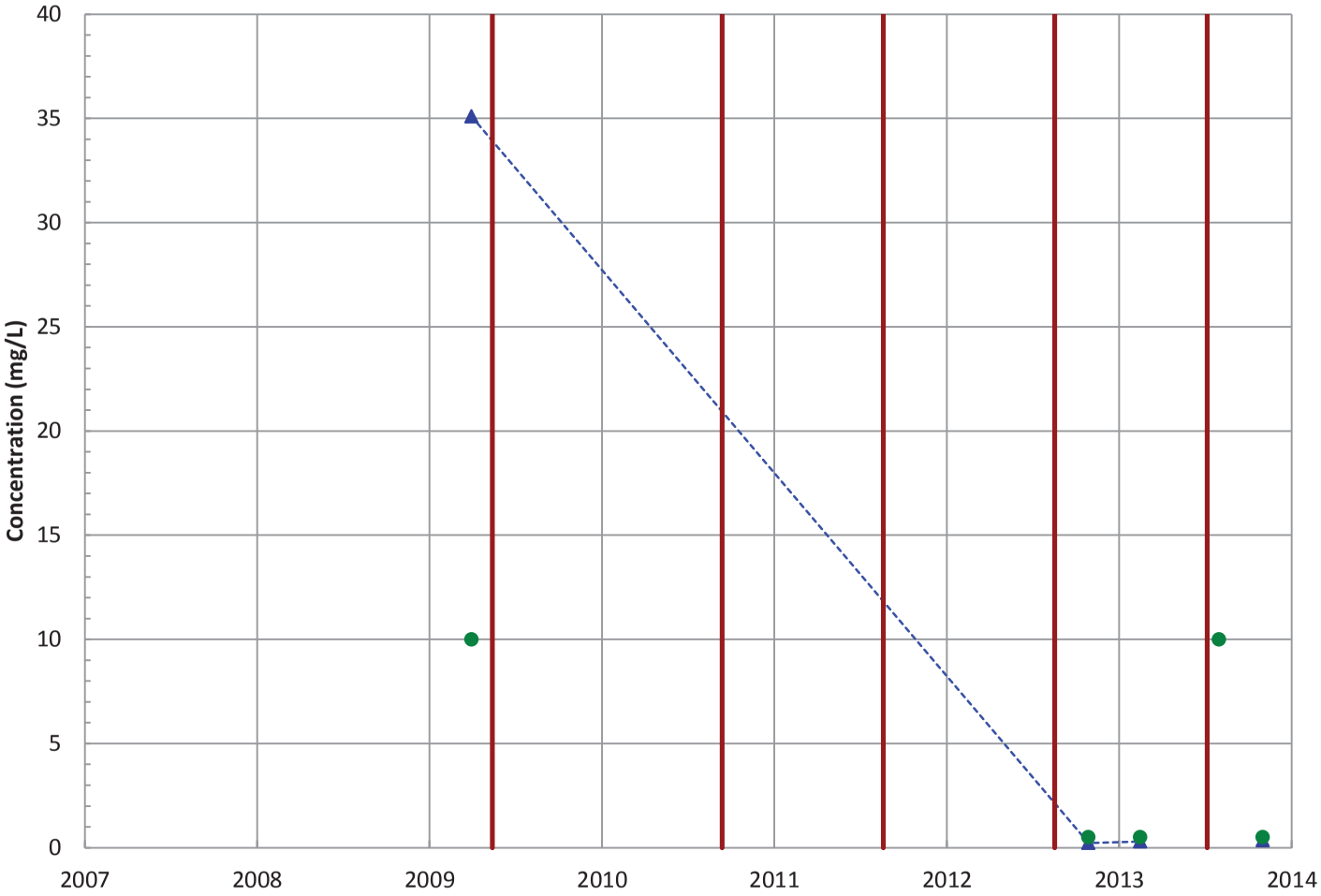
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

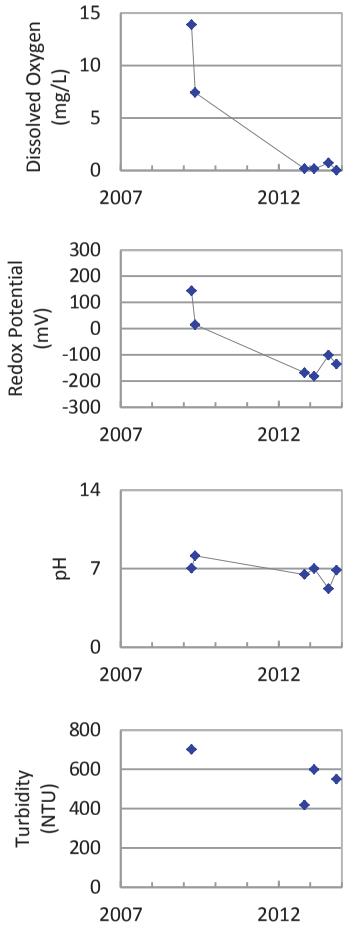


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/1/2009 to 11/6/2013
Analysis Date: 3/21/2014

PTX06-ISB071
Sulfate (as SO4) Trend in Perched Aquifer



Field Parameters



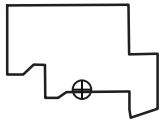
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Decreasing

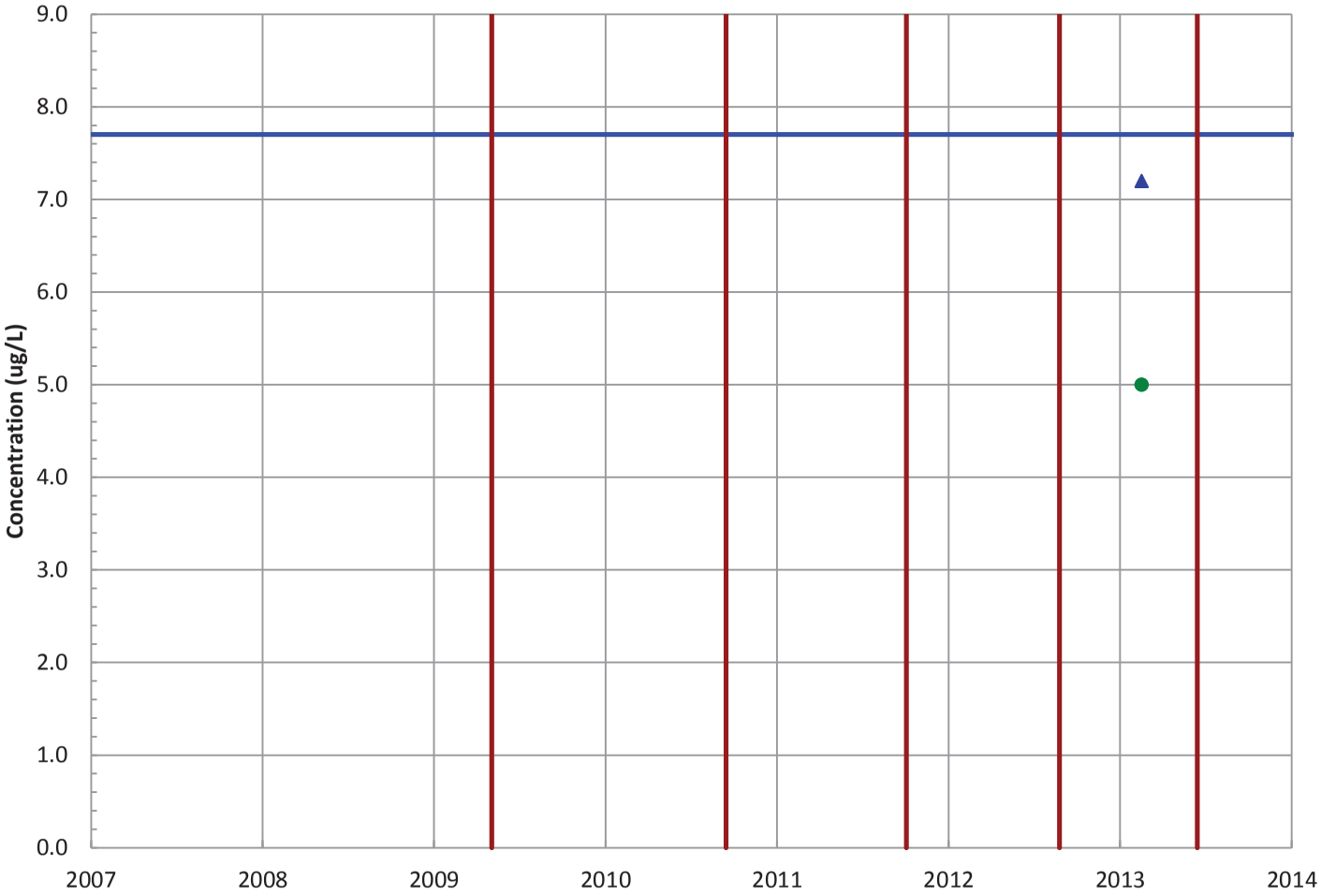
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

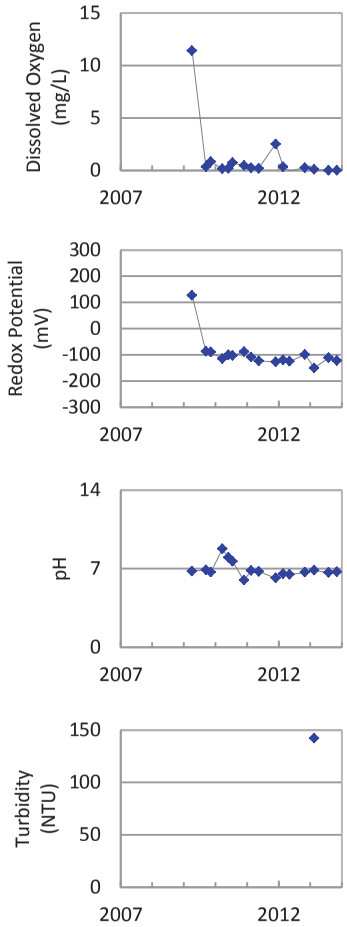


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/1/2009 to 11/6/2013
Analysis Date: 3/21/2014

PTX06-ISB073
1,4-Dioxane (p-Dioxane) Trend in Perched Aquifer



Field Parameters



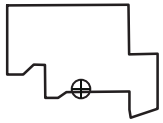
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Samples in Dataset)
Last 4 Samples: N/A (<4 Samples in Dataset)

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

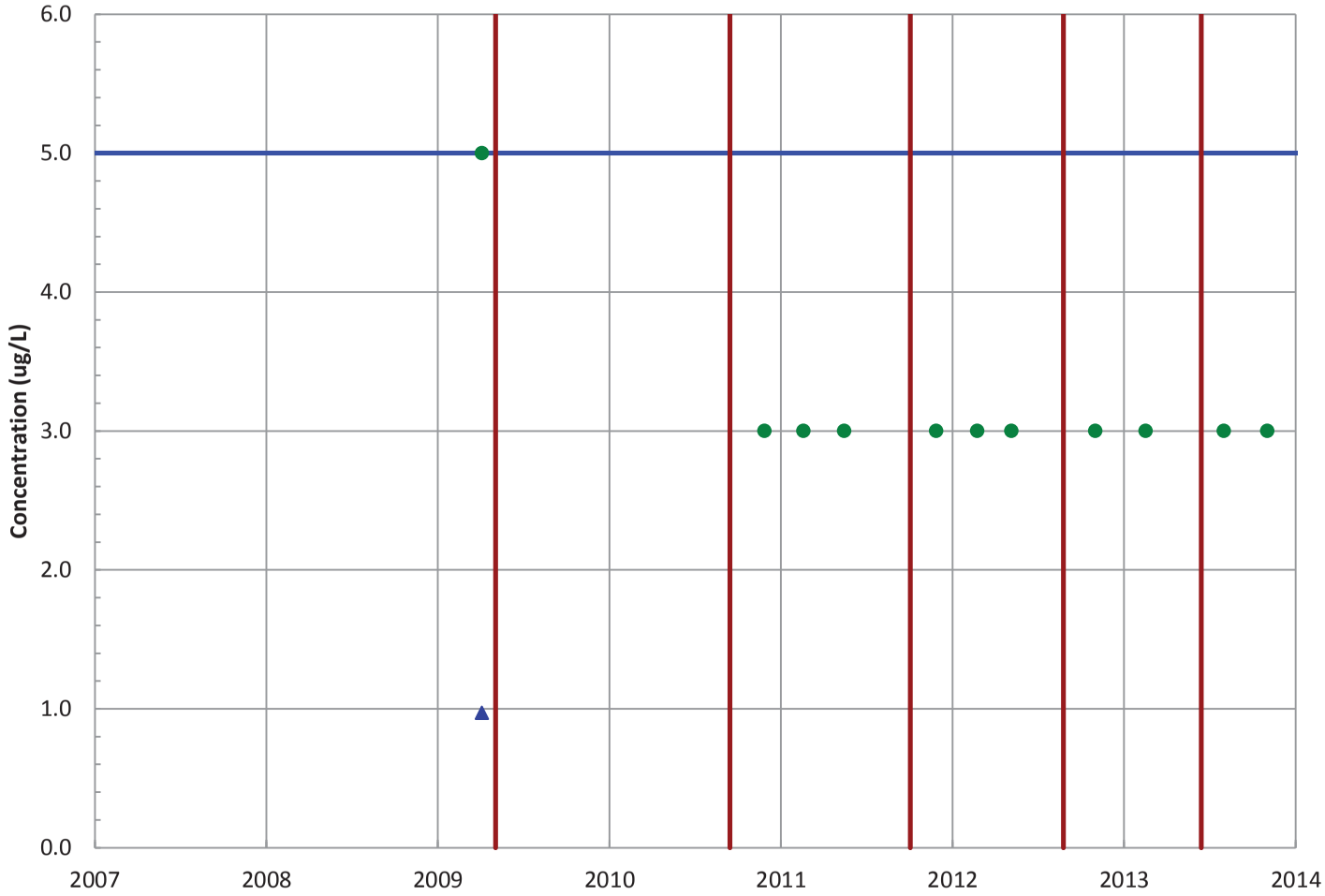
- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

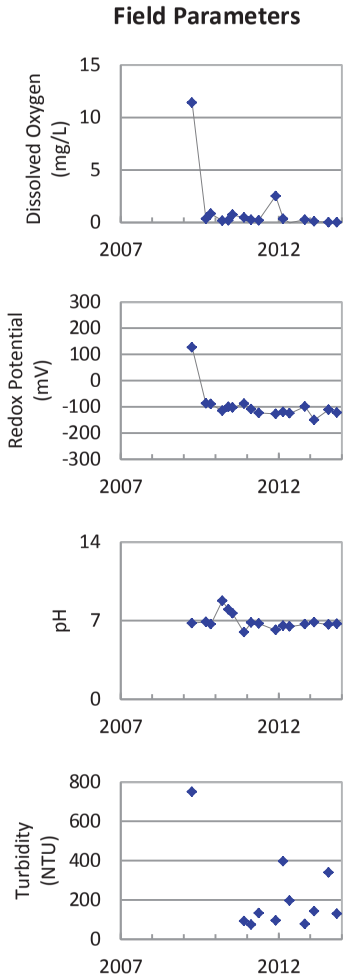
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 2/20/2013 to 2/20/2013
Analysis Date: 3/21/2014

PTX06-ISB073
Tetrachloroethylene (PCE) Trend in Perched Aquifer





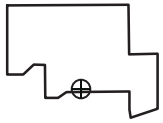
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

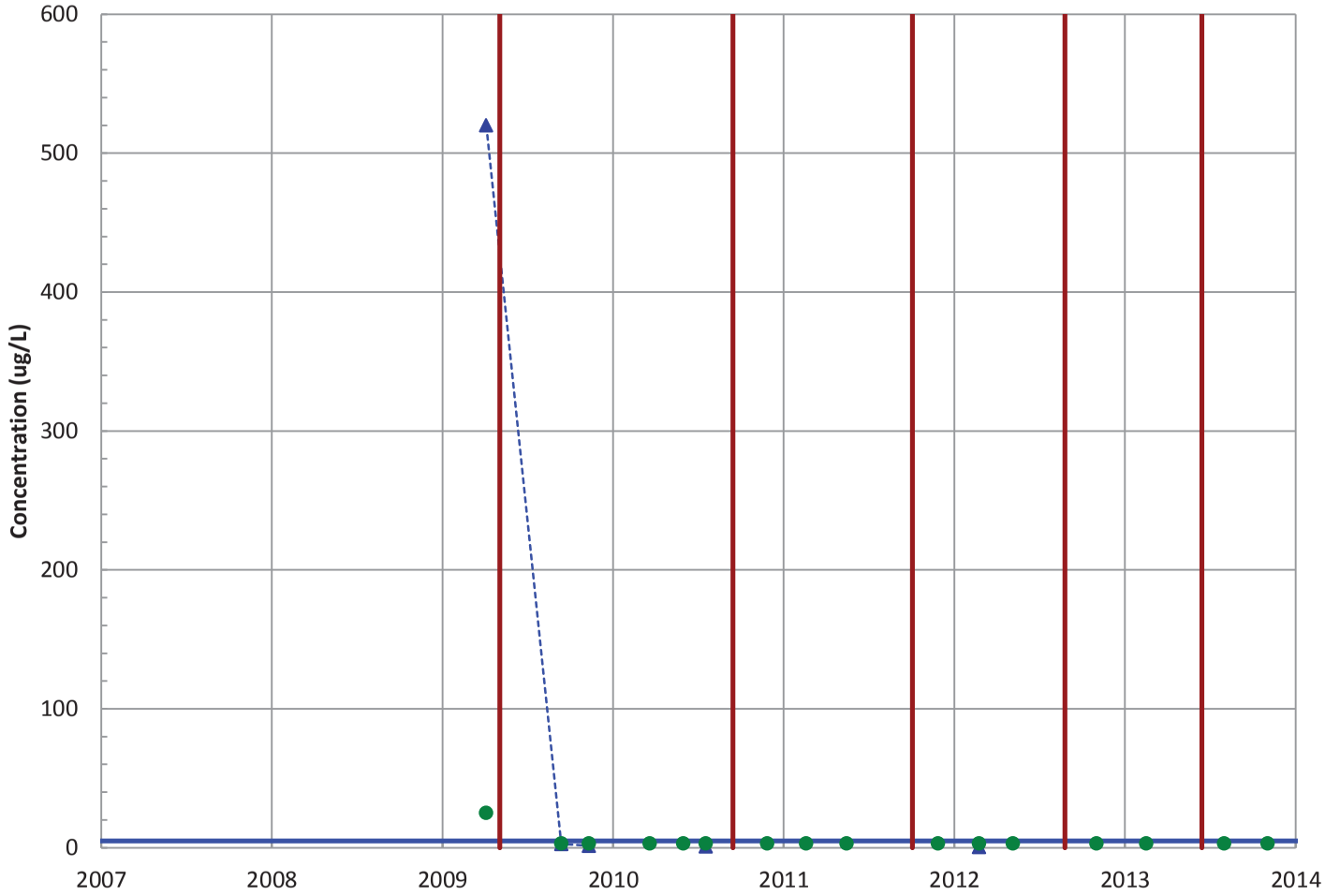
- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

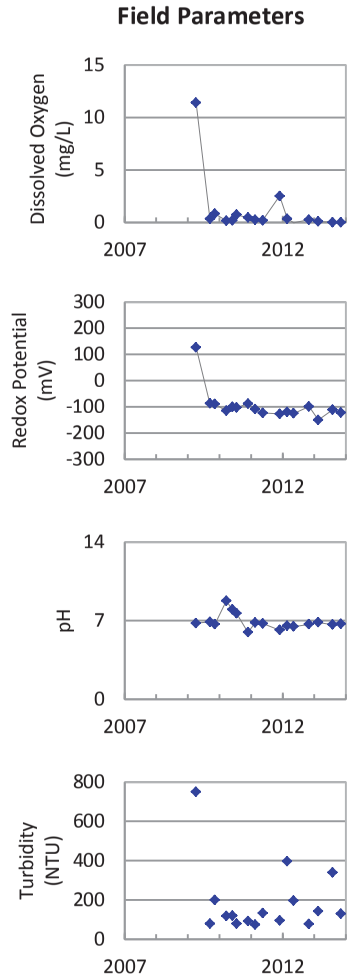
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/6/2009 to 11/7/2013
Analysis Date: 3/21/2014

PTX06-ISB073
Trichloroethene Trend in Perched Aquifer





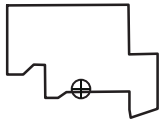
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Decreasing

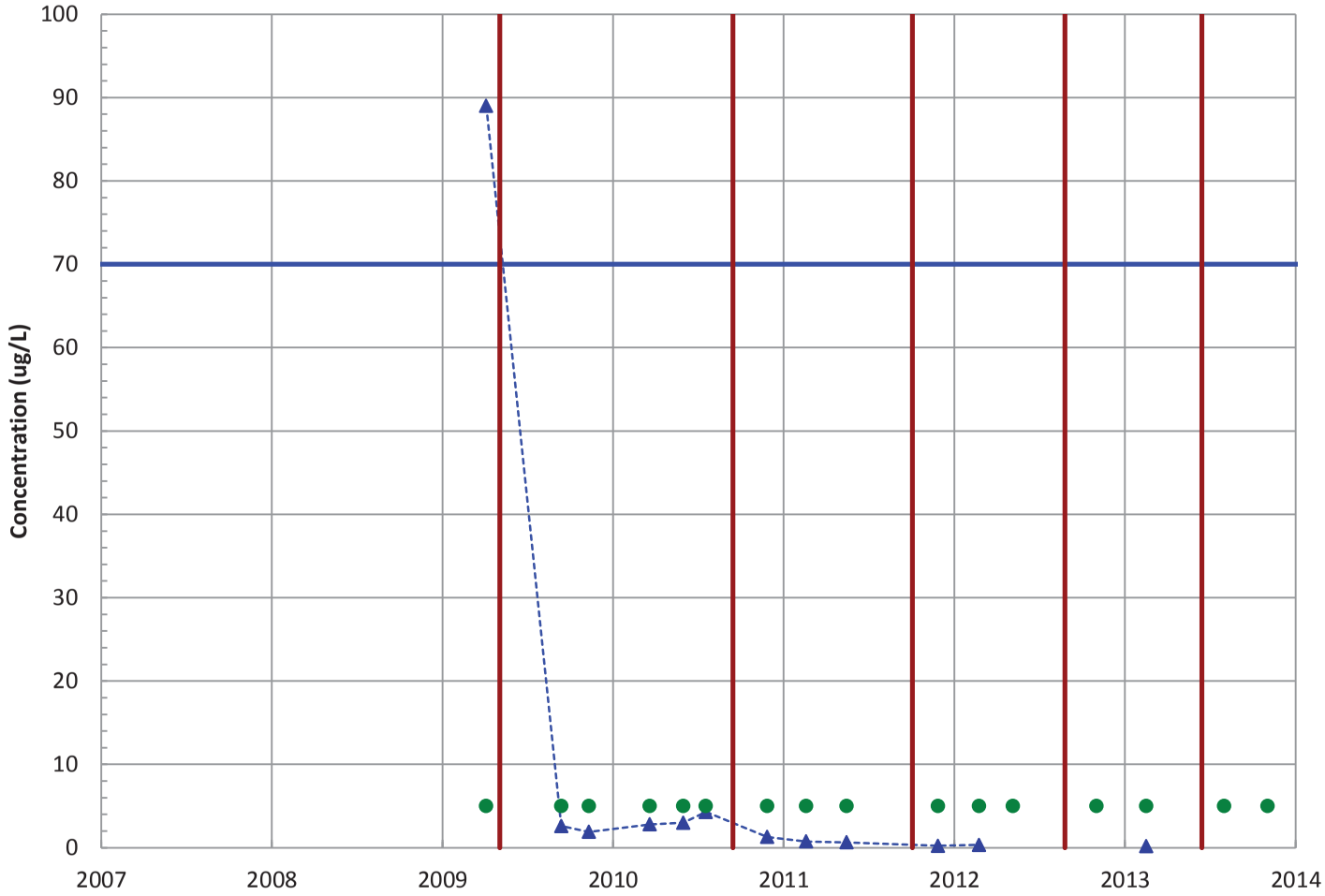
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

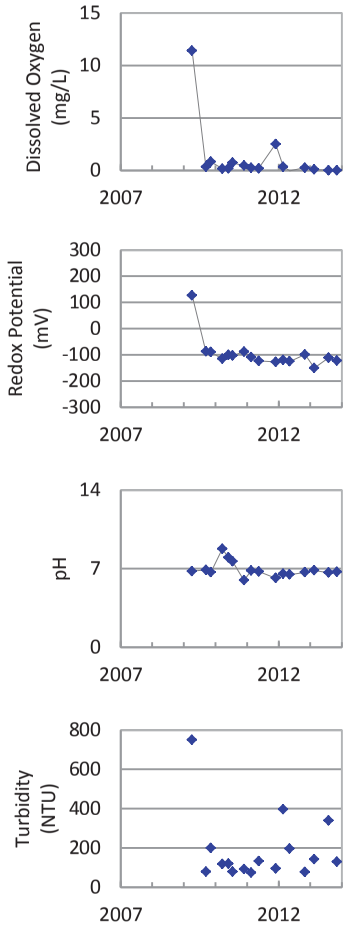


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/6/2009 to 11/7/2013
Analysis Date: 3/21/2014

PTX06-ISB073
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



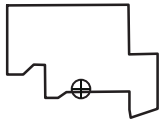
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Probably Decreasing

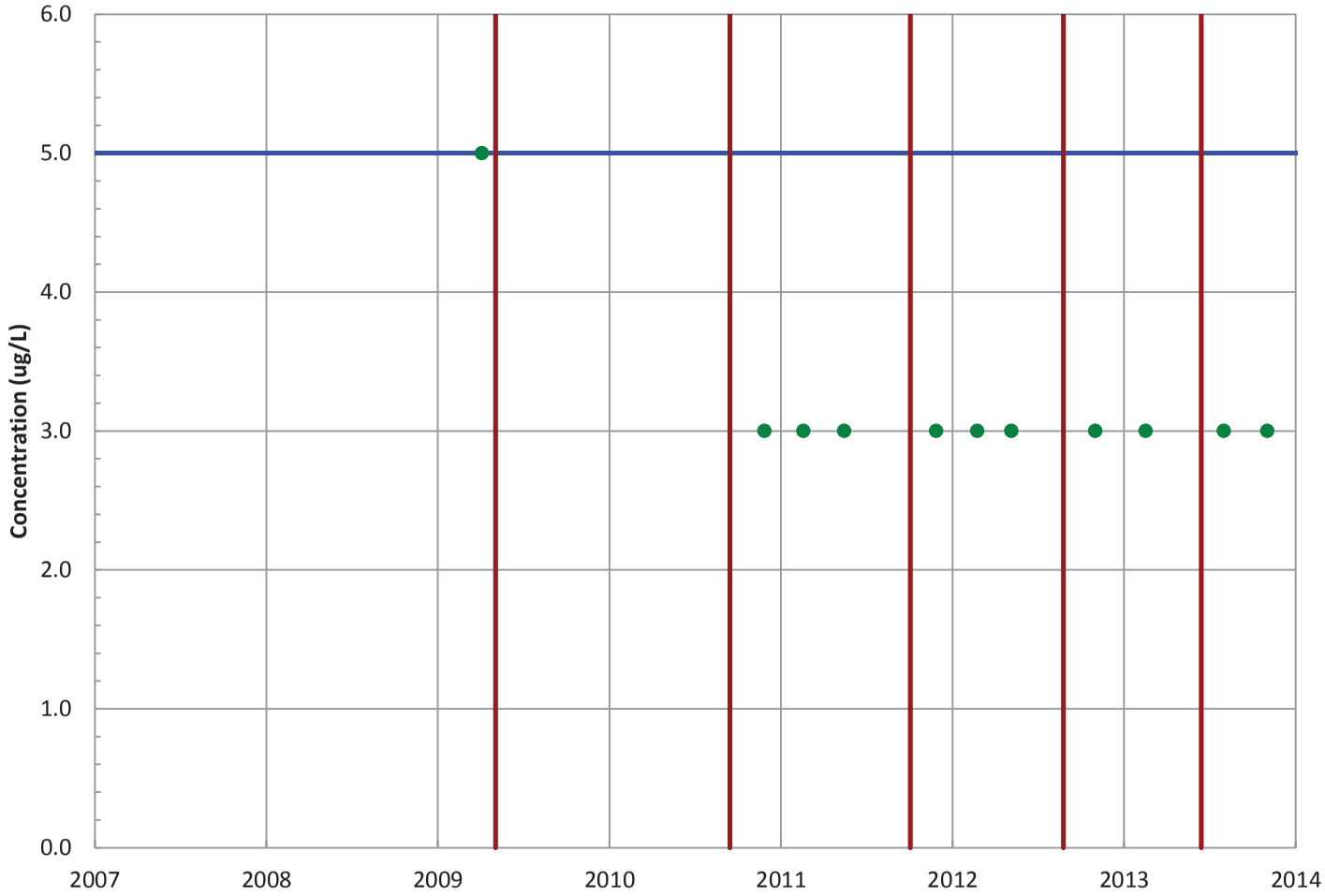
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

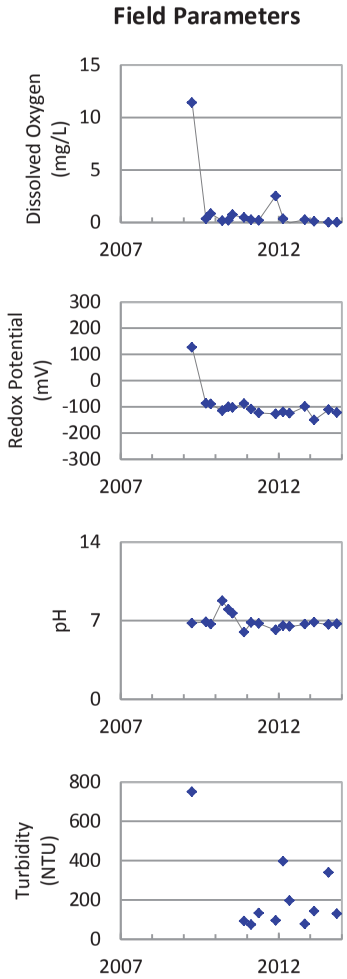
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/6/2009 to 11/7/2013
Analysis Date: 3/21/2014

PTX06-ISB073
1,2-Dichloroethane Trend in Perched Aquifer





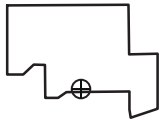
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

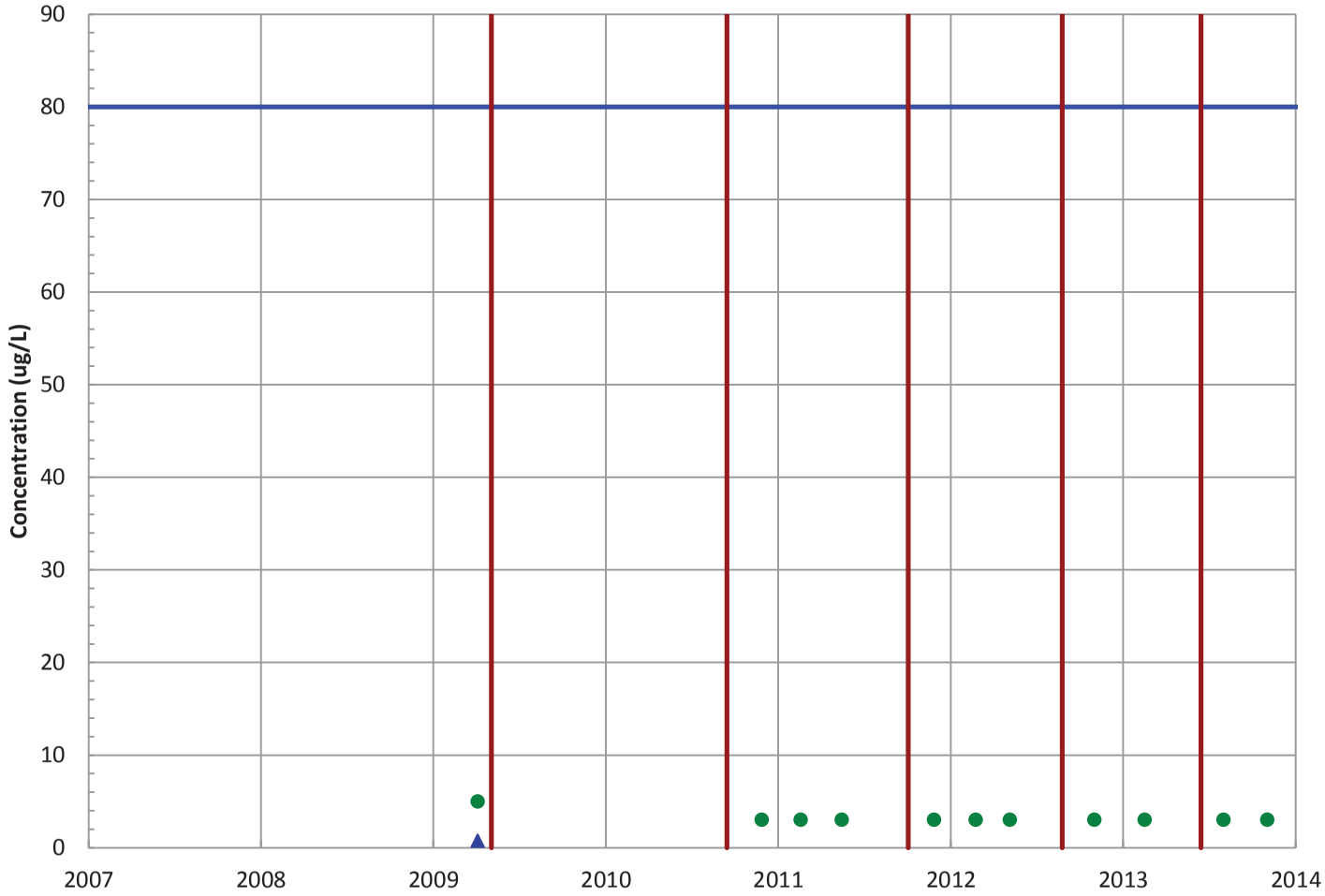
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

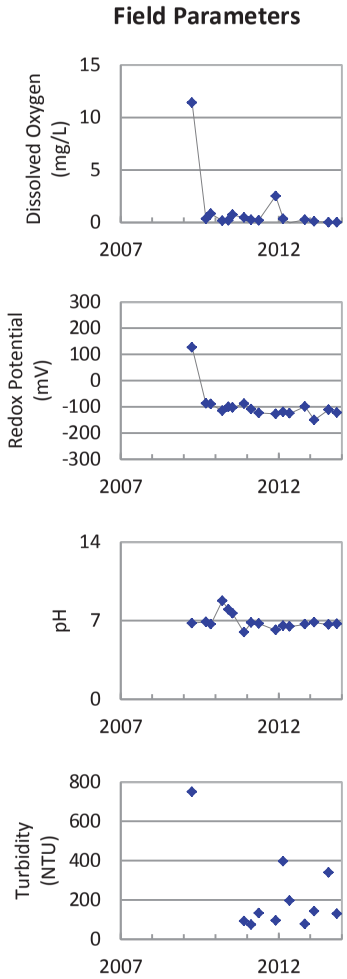
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/6/2009 to 11/7/2013
Analysis Date: 3/21/2014

PTX06-ISB073
Chloroform Trend in Perched Aquifer





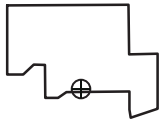
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

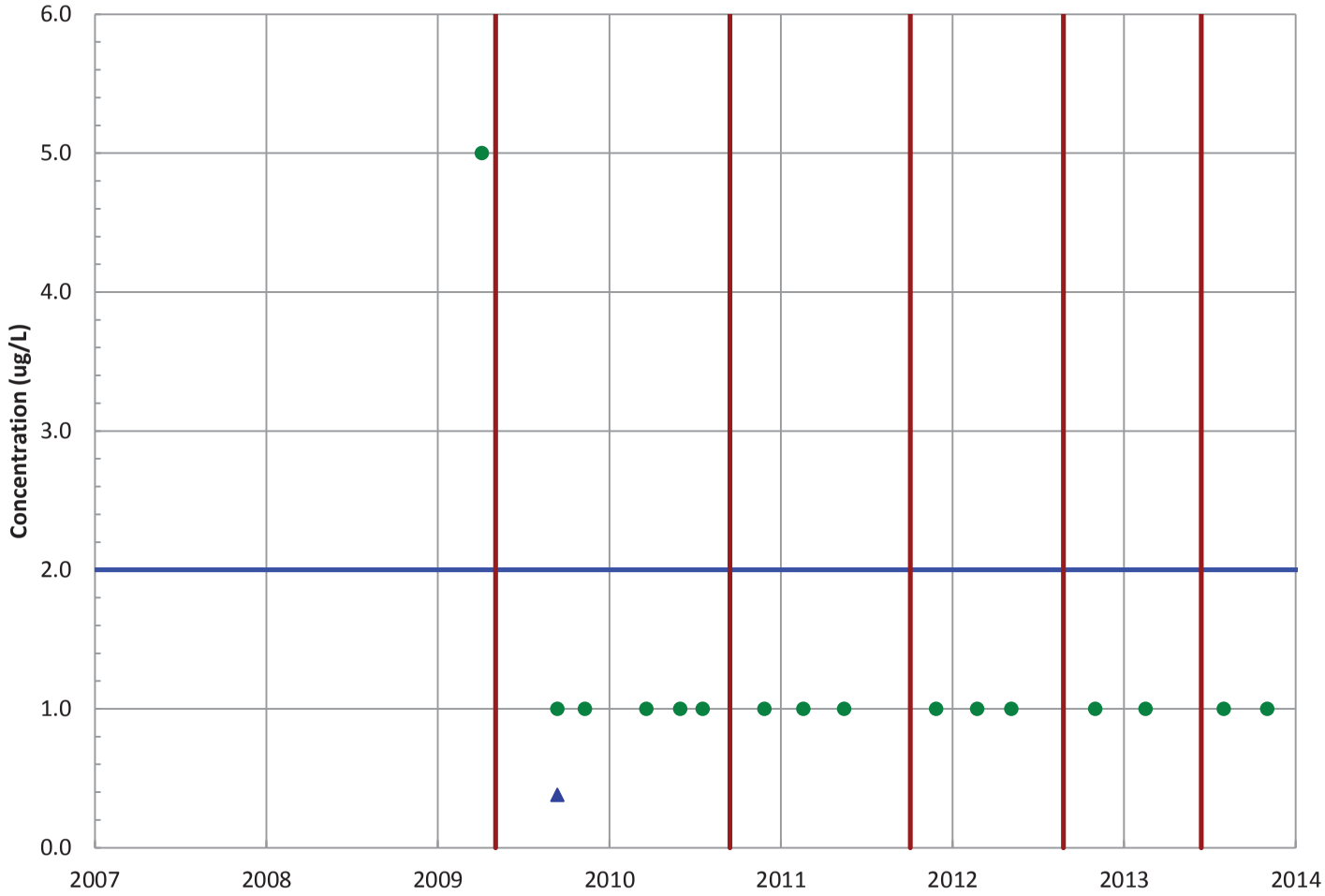
- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

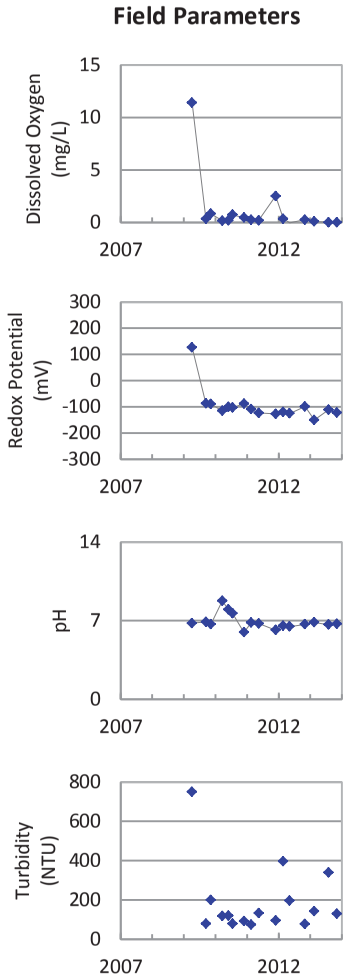
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/6/2009 to 11/7/2013
Analysis Date: 3/21/2014

PTX06-ISB073
Vinyl Chloride Trend in Perched Aquifer





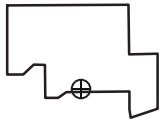
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

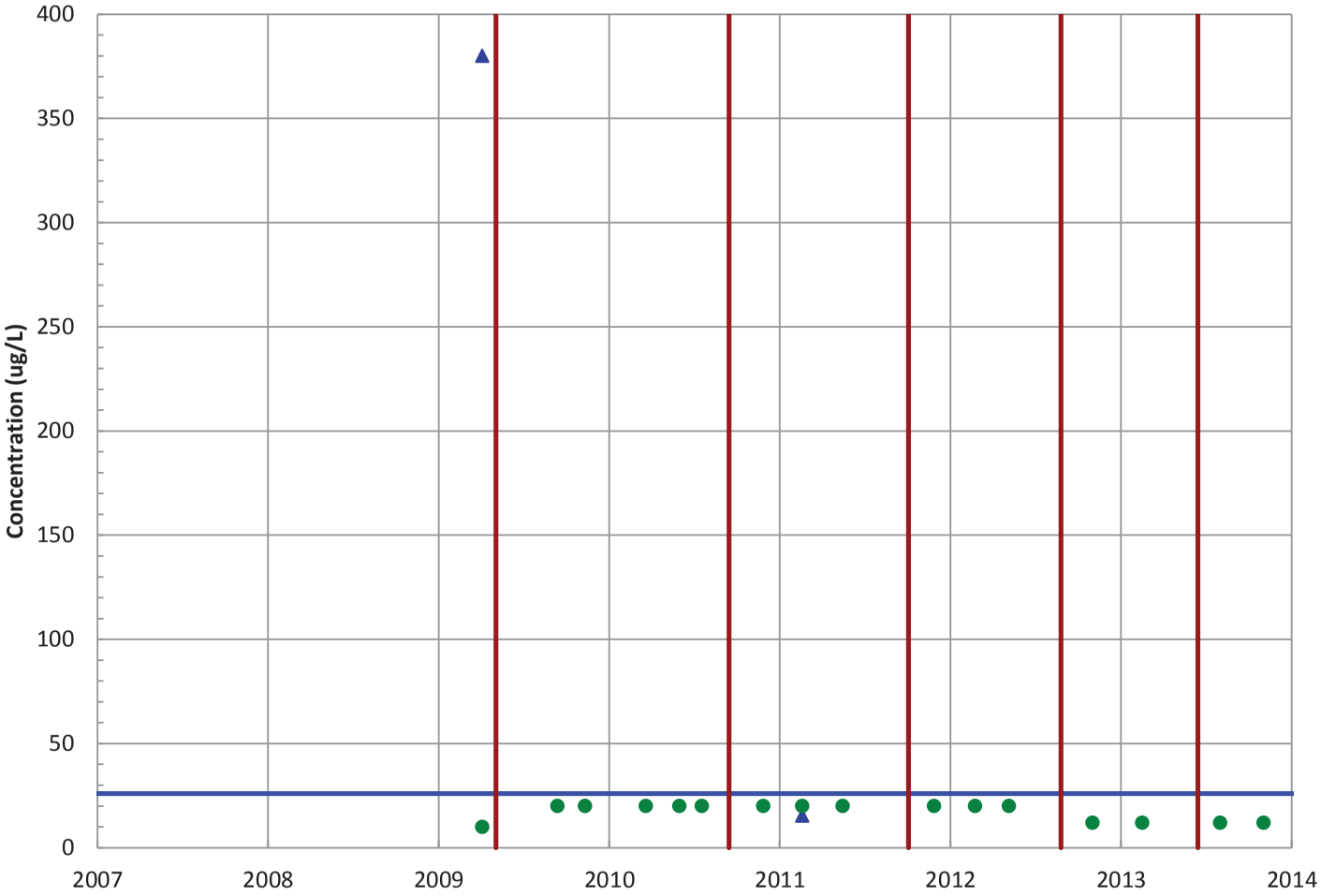
- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

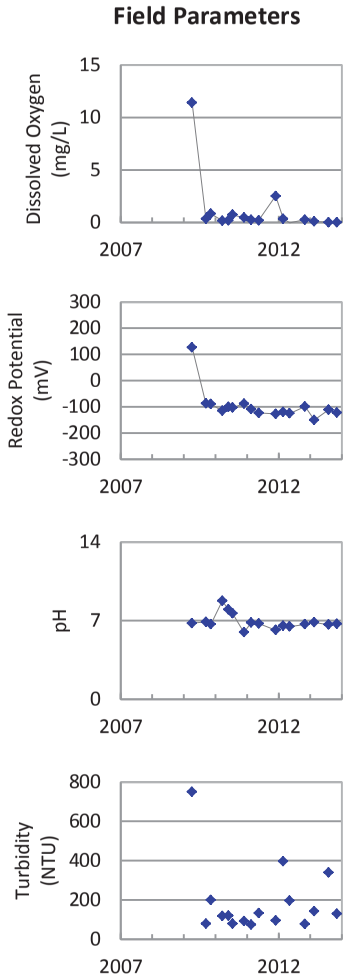
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/6/2009 to 11/7/2013
Analysis Date: 3/21/2014

PTX06-ISB073
Perchlorate Trend in Perched Aquifer





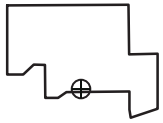
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

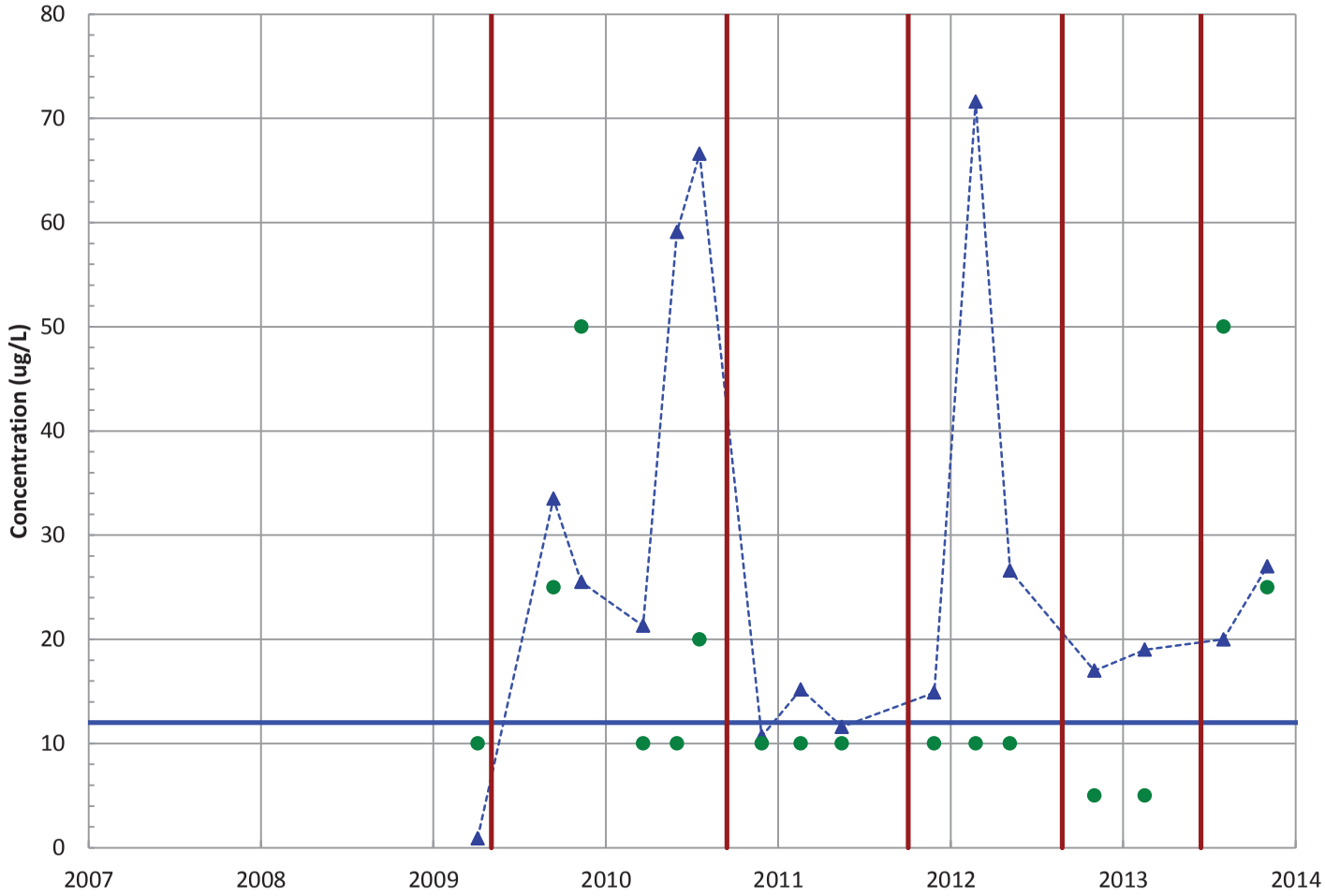
- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

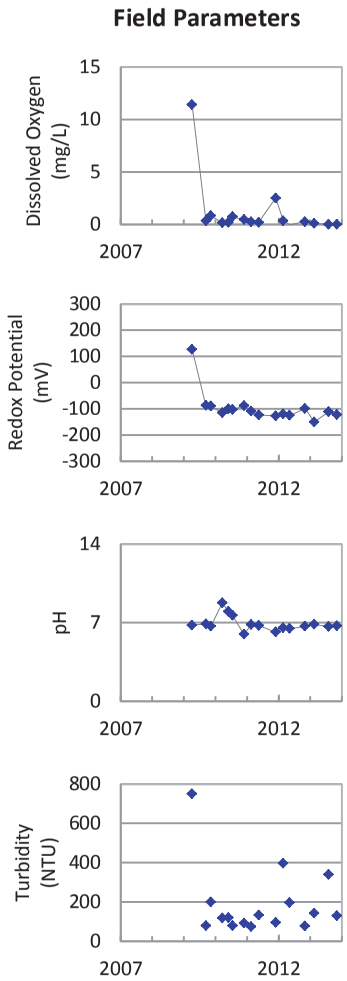
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/6/2009 to 11/7/2013
Analysis Date: 3/21/2014

PTX06-ISB073
Arsenic Trend in Perched Aquifer





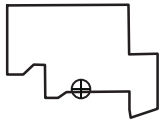
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Increasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Increasing

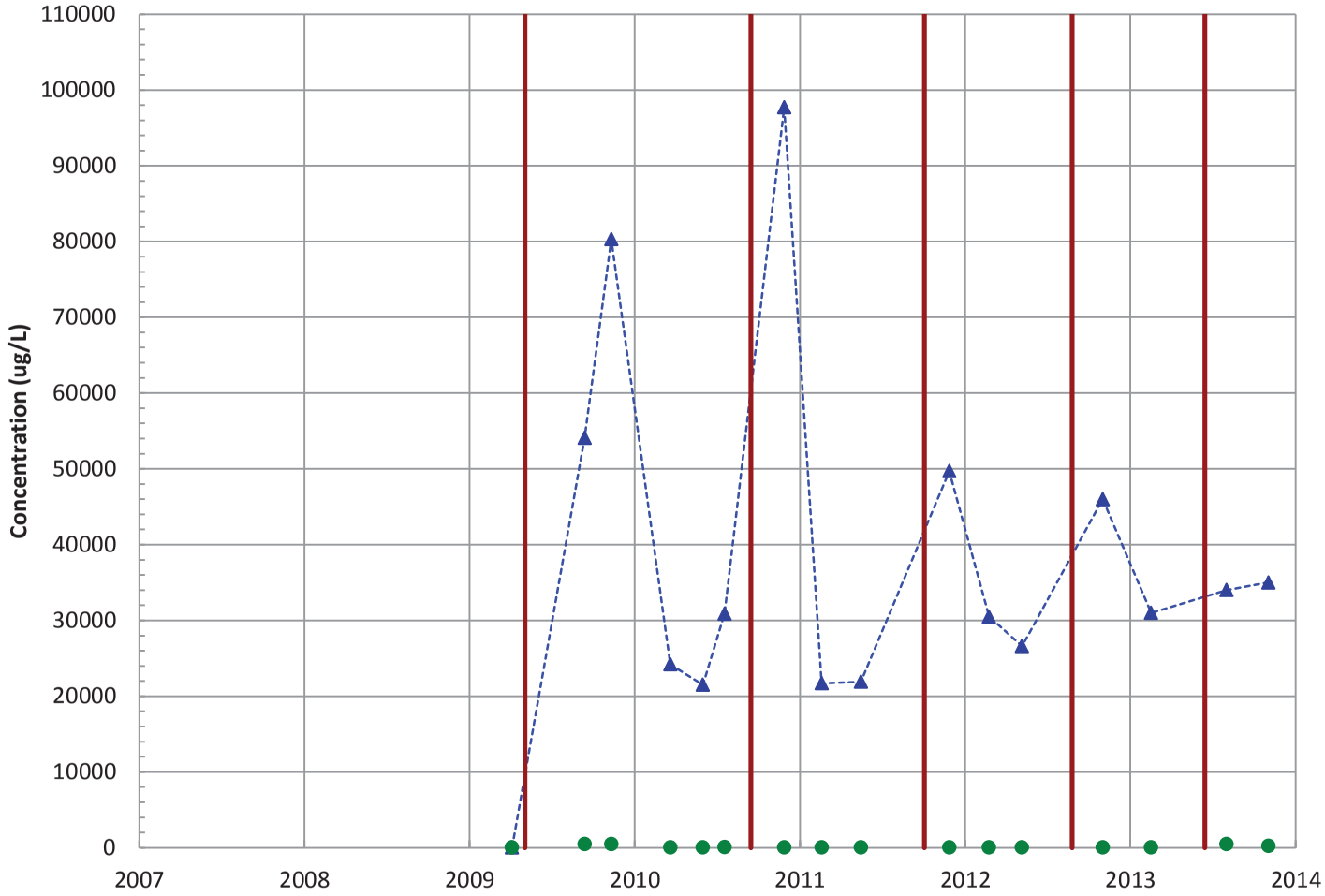
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

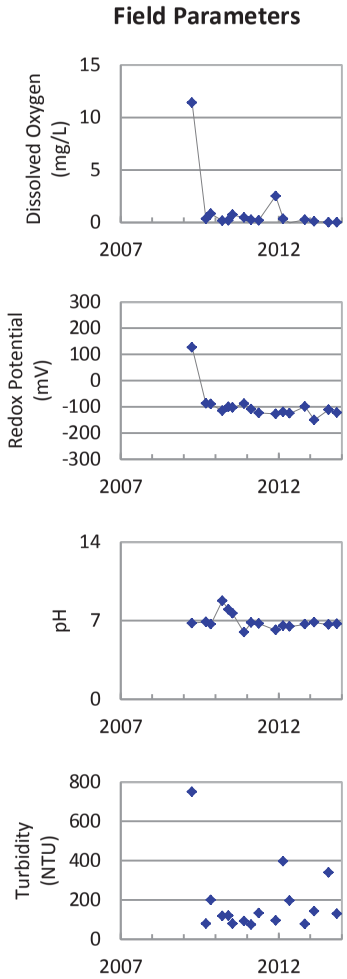
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/6/2009 to 11/7/2013
Analysis Date: 3/21/2014

PTX06-ISB073
Iron Trend in Perched Aquifer





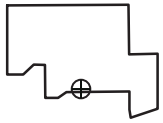
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Stable

MAROS Linear Regression Method
All Data: Probably Increasing
Last 4 Samples: Stable

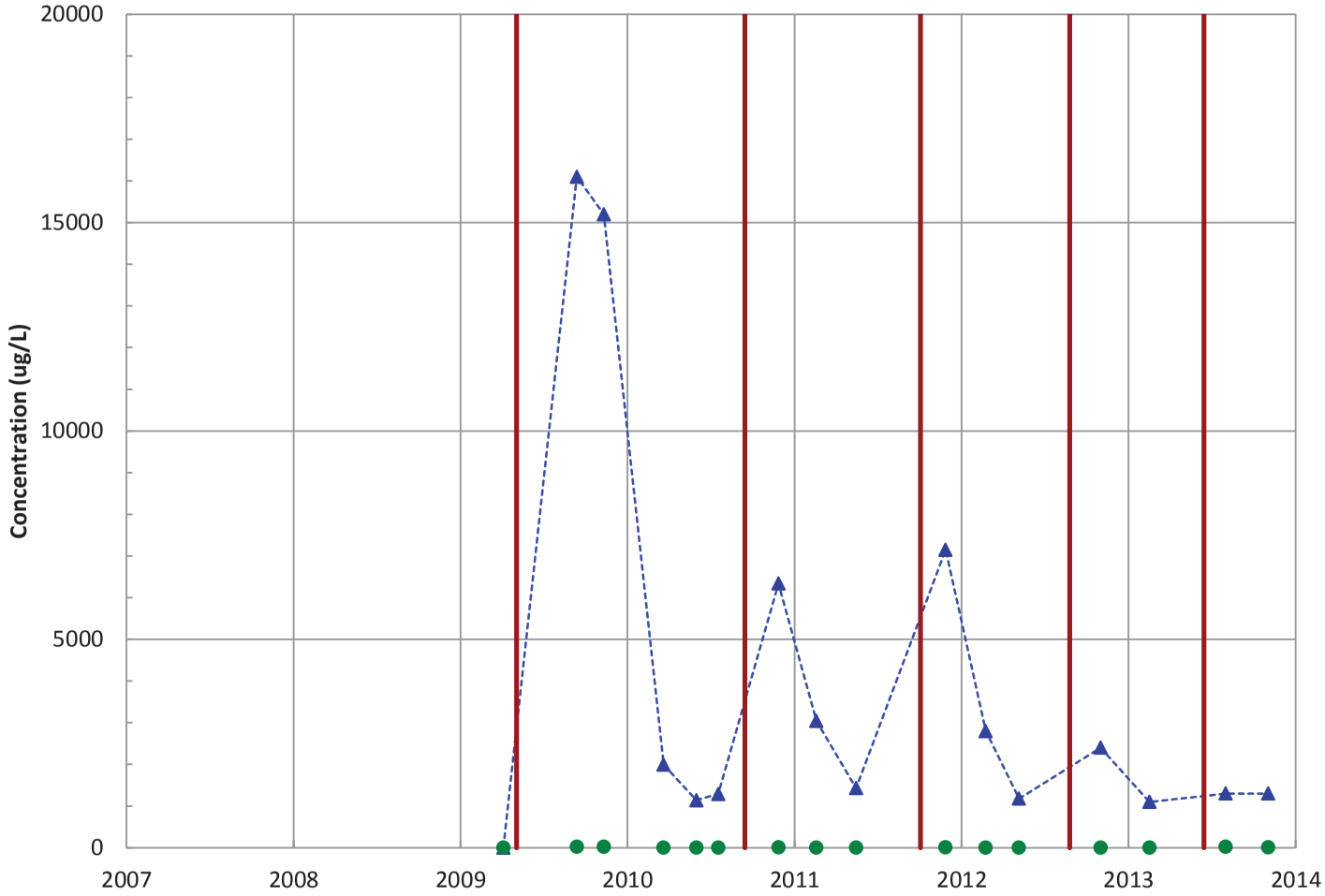
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

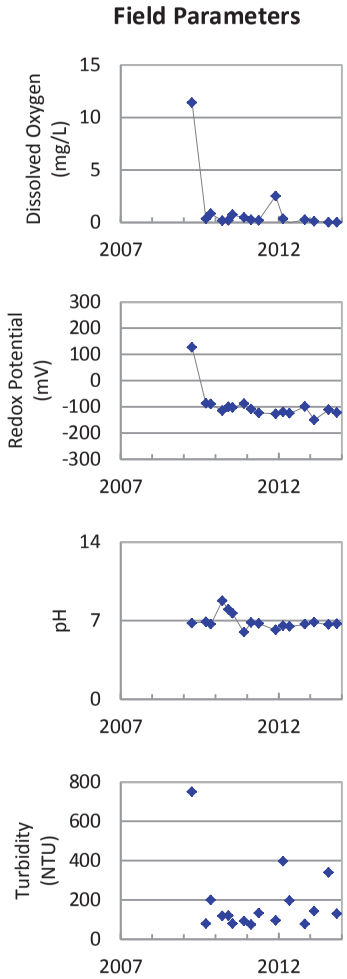
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/6/2009 to 11/7/2013
Analysis Date: 3/21/2014

PTX06-ISB073
Manganese Trend in Perched Aquifer





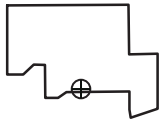
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Stable

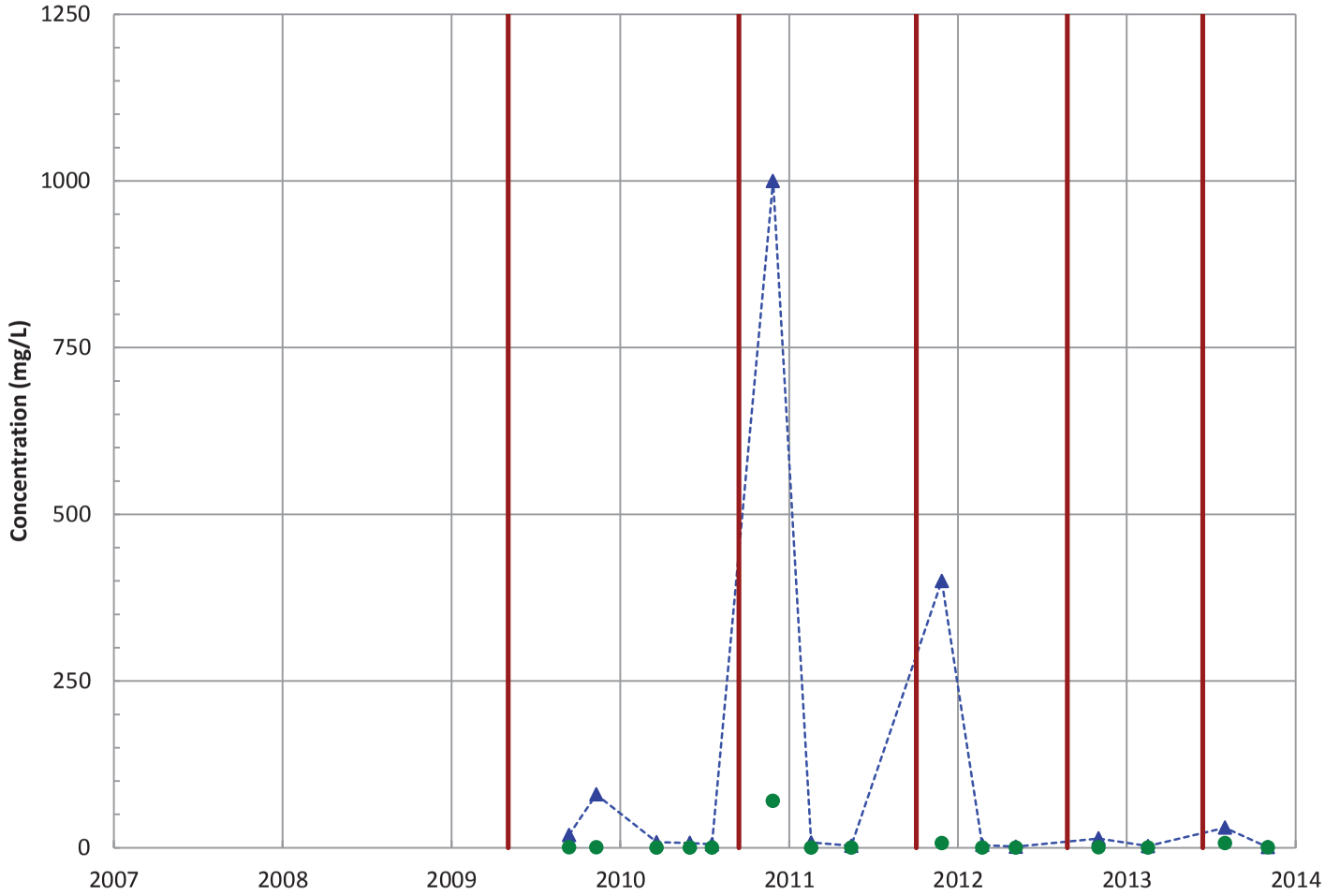
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

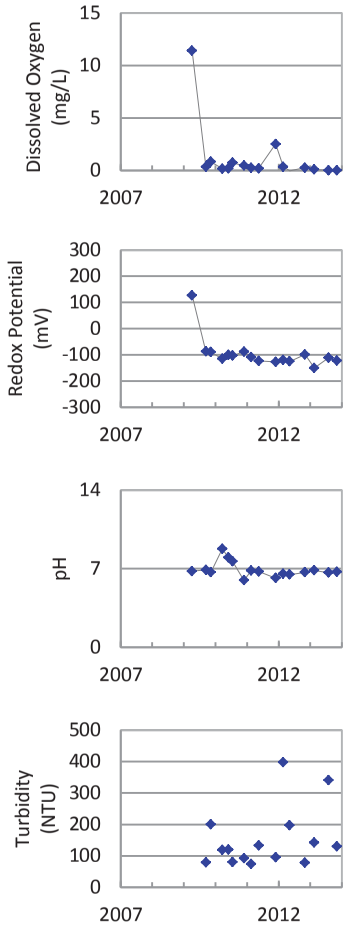


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/6/2009 to 11/7/2013
Analysis Date: 3/21/2014

PTX06-ISB073
Acetic Acid Trend in Perched Aquifer



Field Parameters



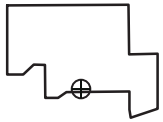
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

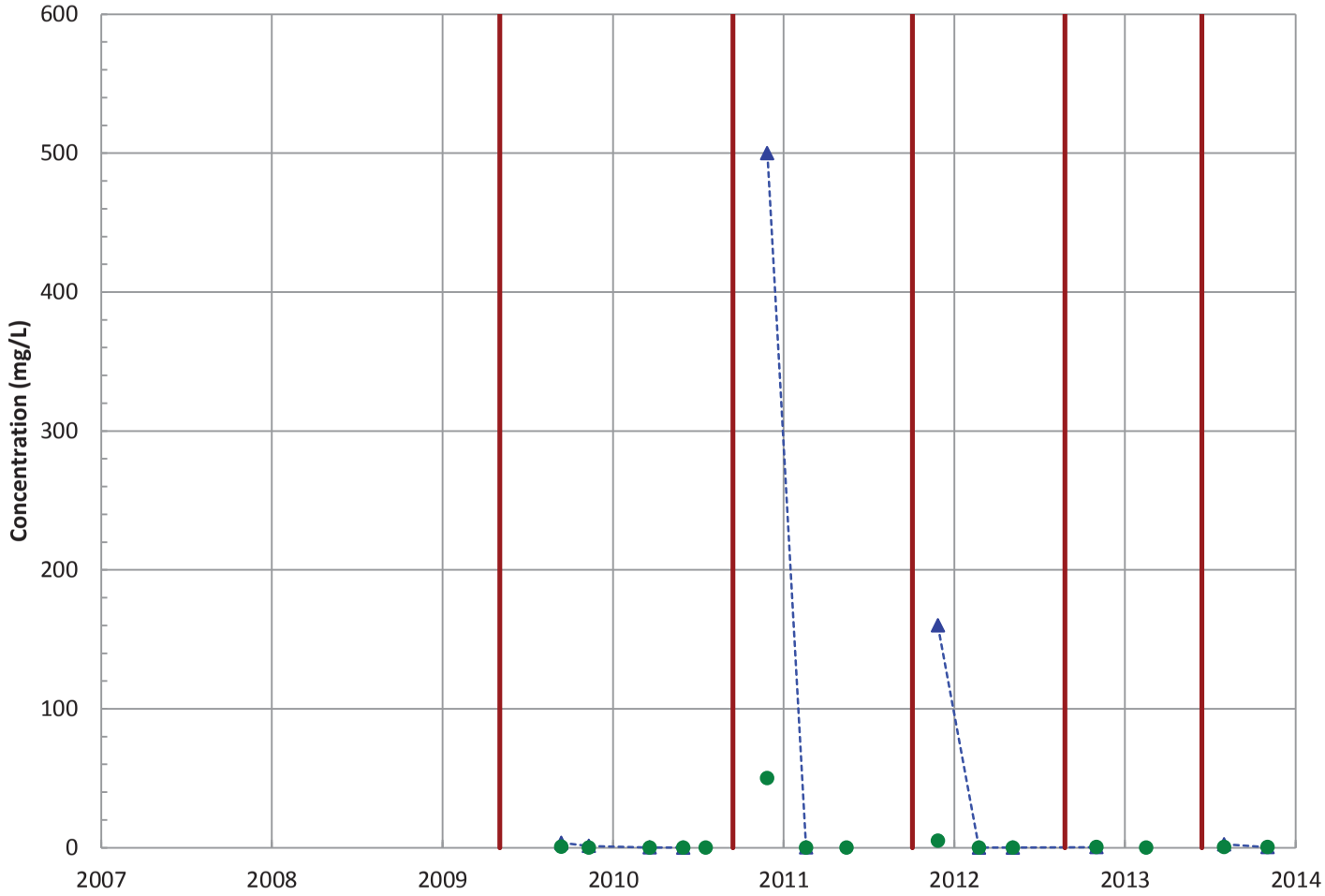
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

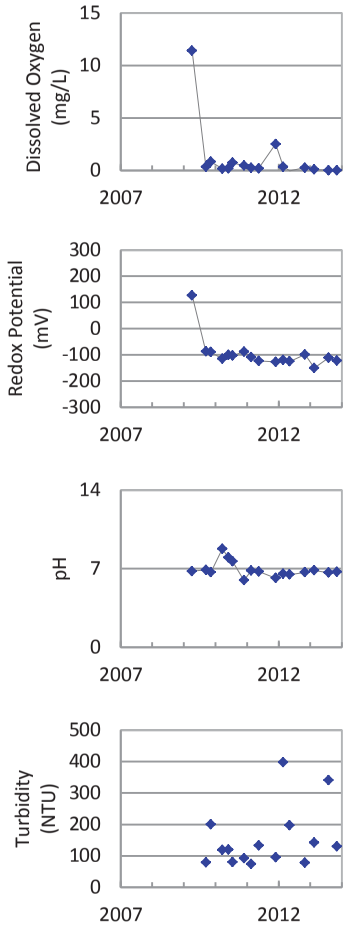


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/7/2013
Analysis Date: 3/21/2014

PTX06-ISB073
Butyric Acid Trend in Perched Aquifer



Field Parameters



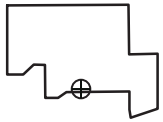
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

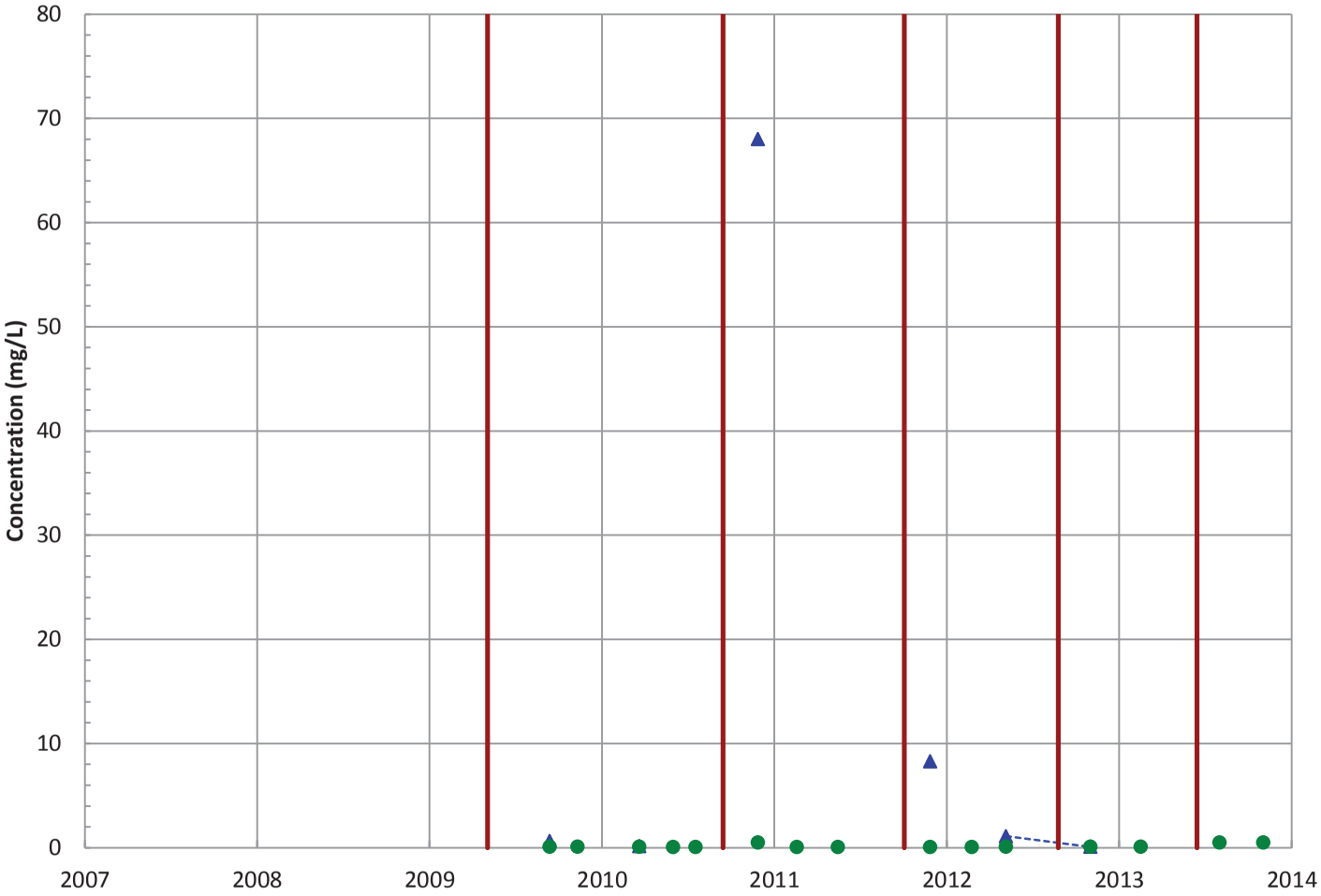
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

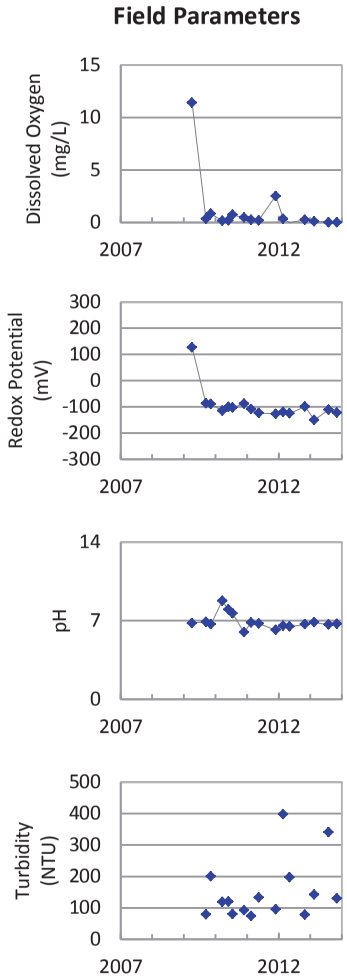
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/7/2013
Analysis Date: 3/21/2014

PTX06-ISB073
Hexanoic Acid Trend in Perched Aquifer





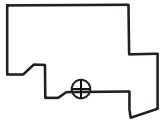
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Decreasing

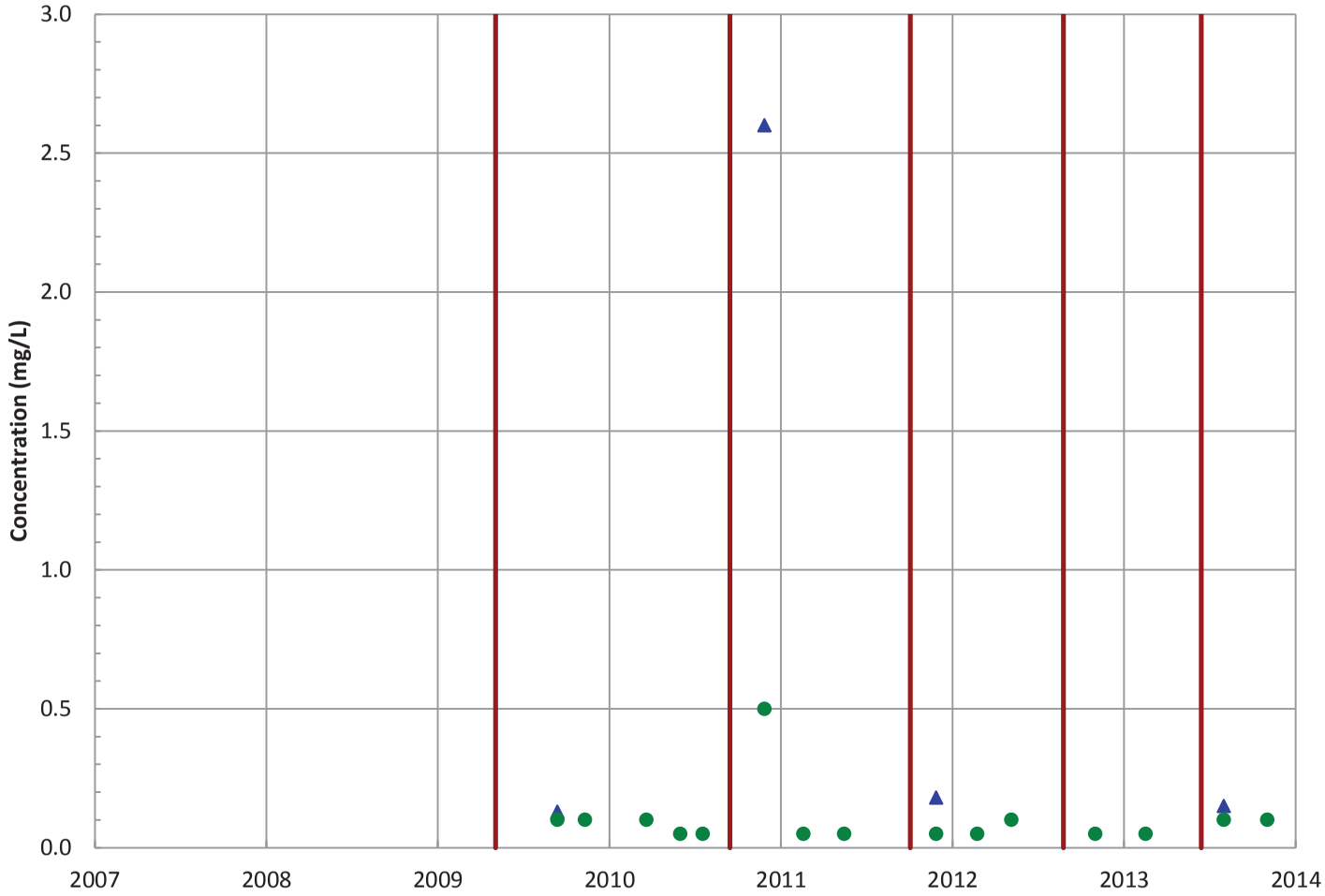
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
═══ Injection Dates

Well Location

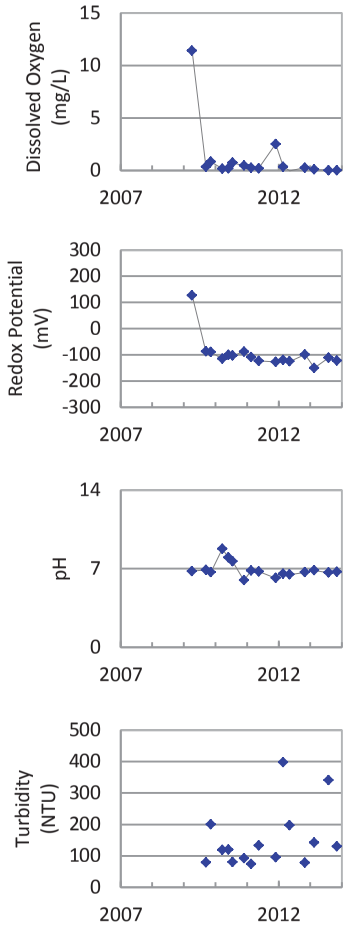


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/7/2013
Analysis Date: 3/21/2014

PTX06-ISB073
i-Hexanoic Acid Trend in Perched Aquifer



Field Parameters



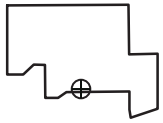
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

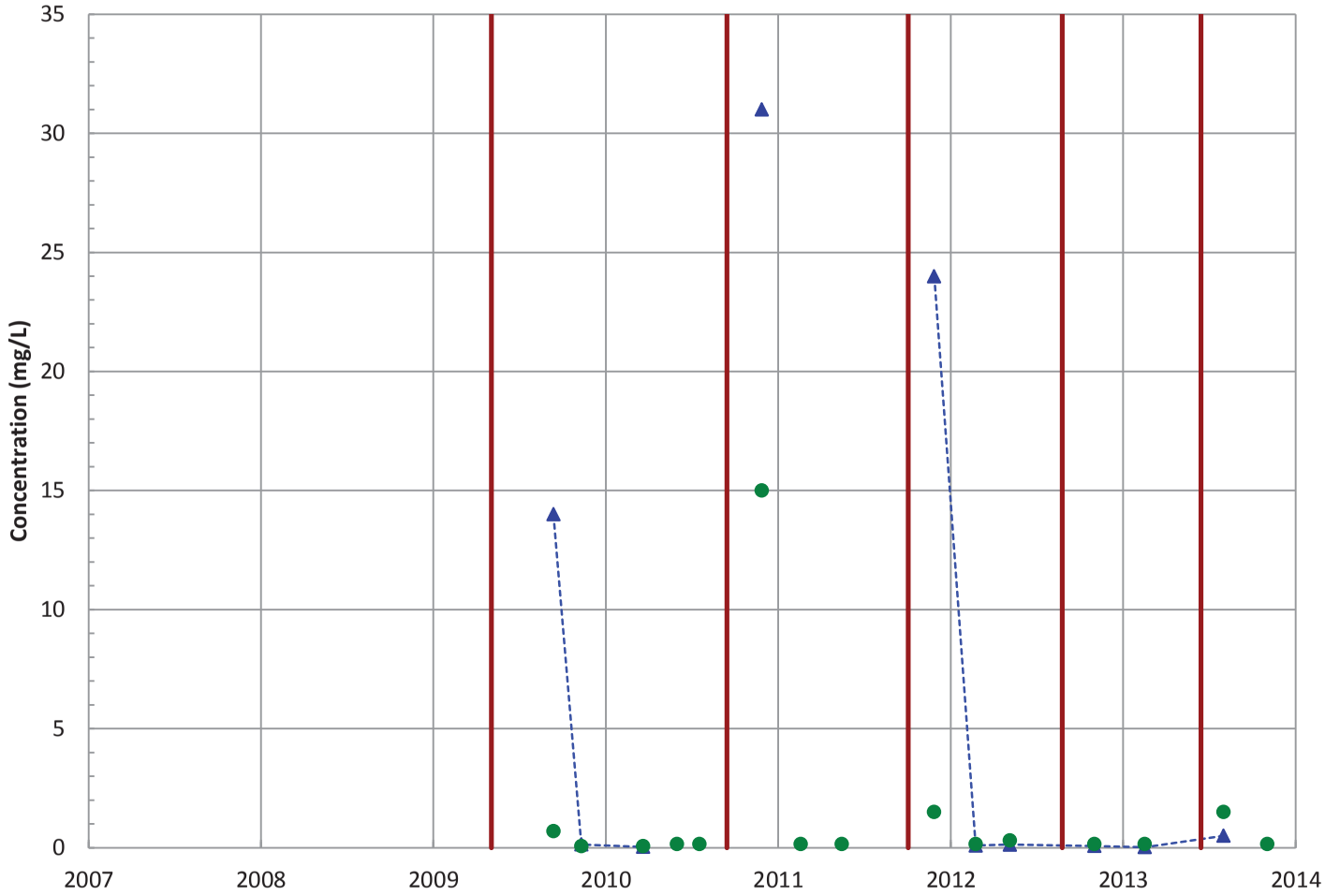
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
═══ Injection Dates

Well Location

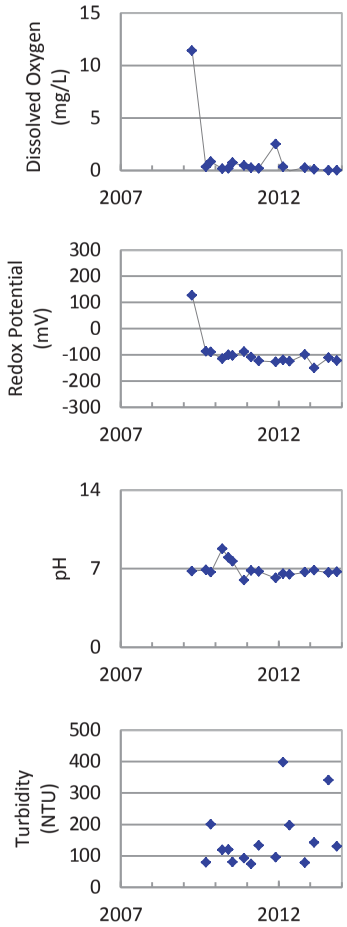


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/7/2013
Analysis Date: 3/21/2014

PTX06-ISB073
i-Pentanoic Acid Trend in Perched Aquifer



Field Parameters



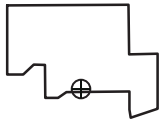
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

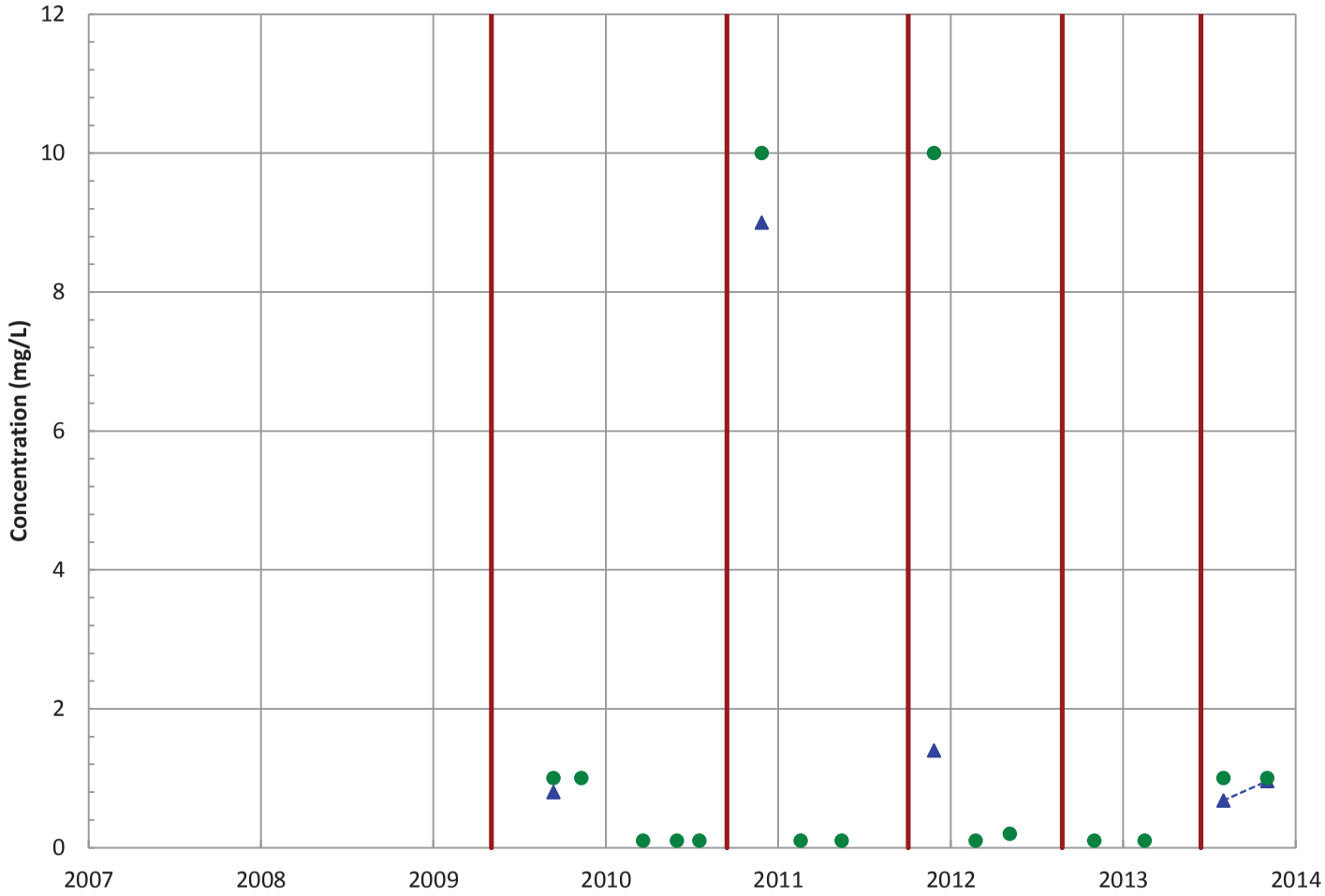
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

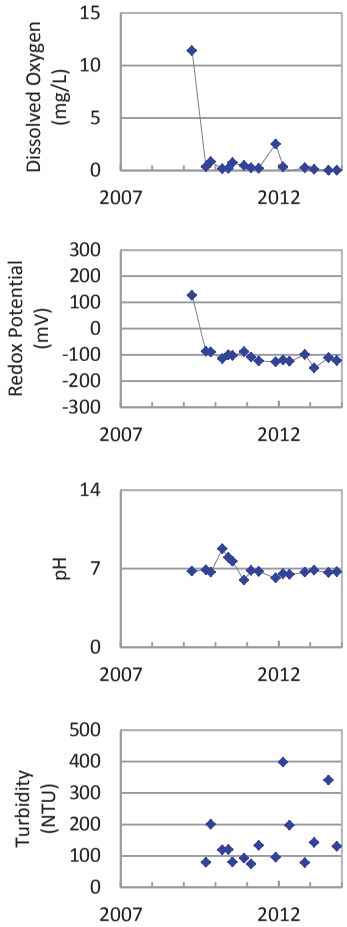


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/7/2013
Analysis Date: 3/21/2014

PTX06-ISB073
Lactic Acid and HIBA Trend in Perched Aquifer



Field Parameters



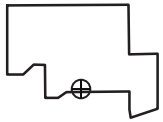
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

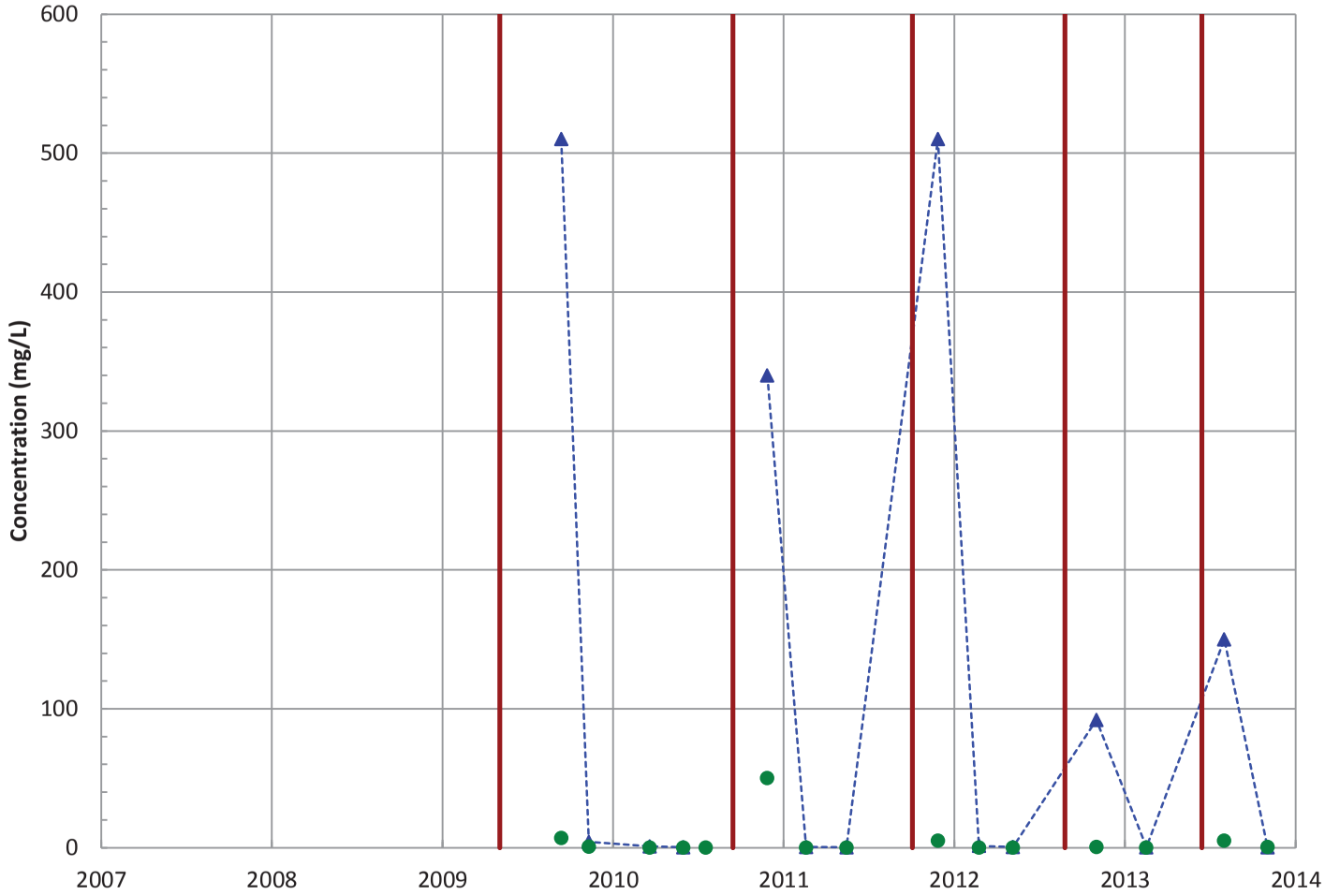
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
═══ Injection Dates

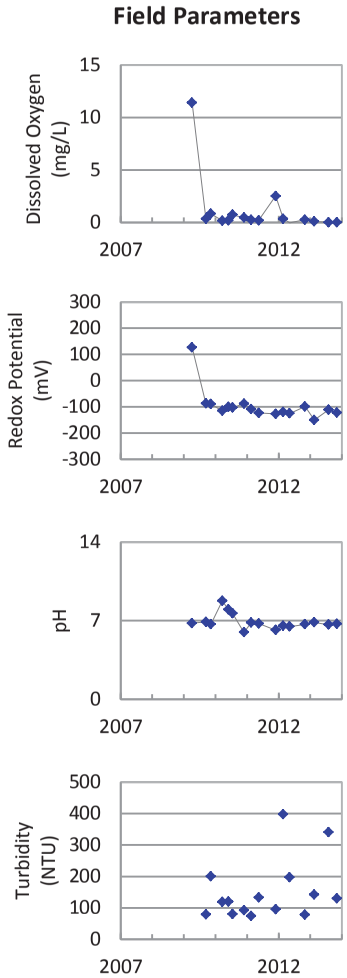
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/7/2013
Analysis Date: 3/21/2014

PTX06-ISB073
Propionic Acid Trend in Perched Aquifer





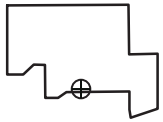
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

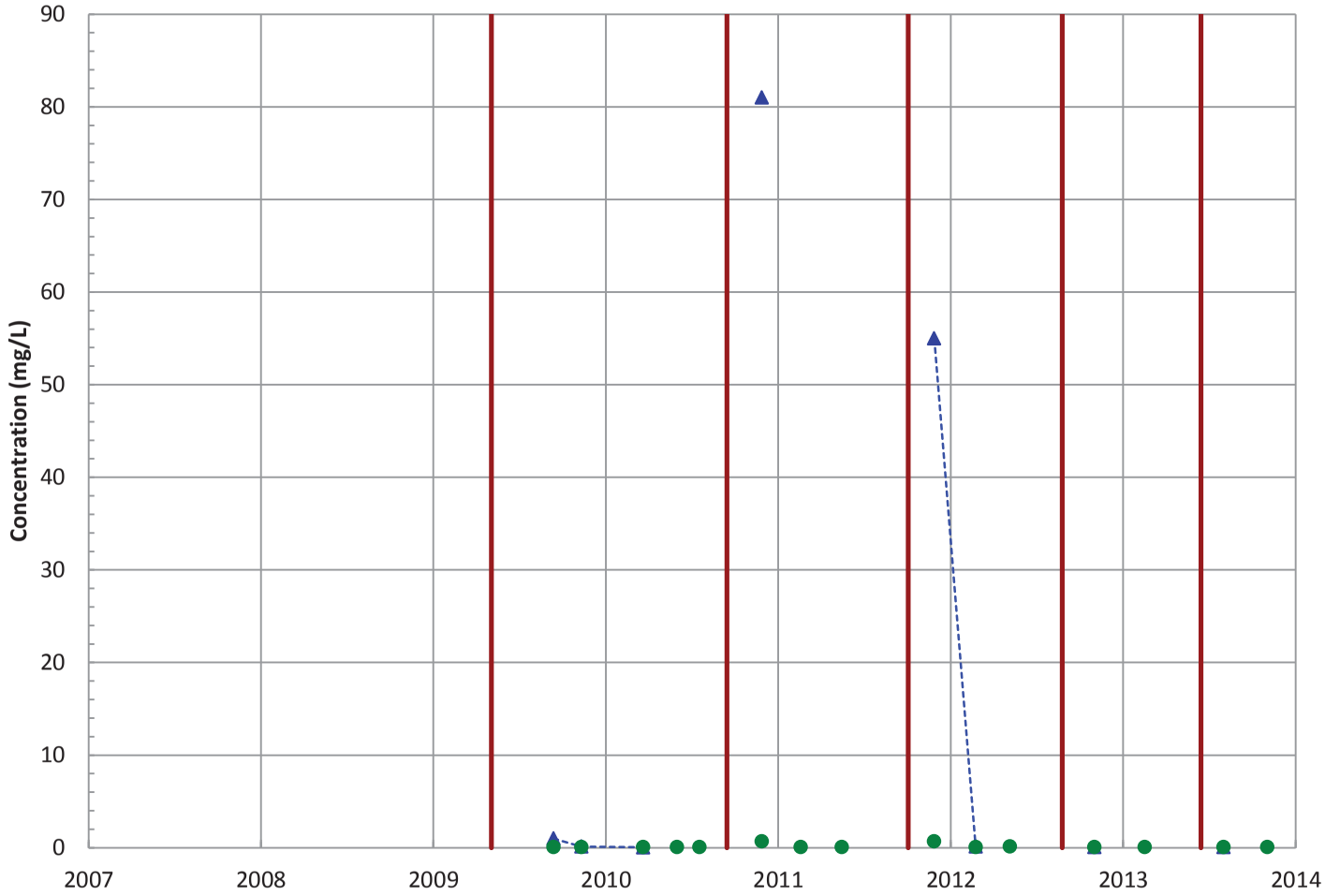
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

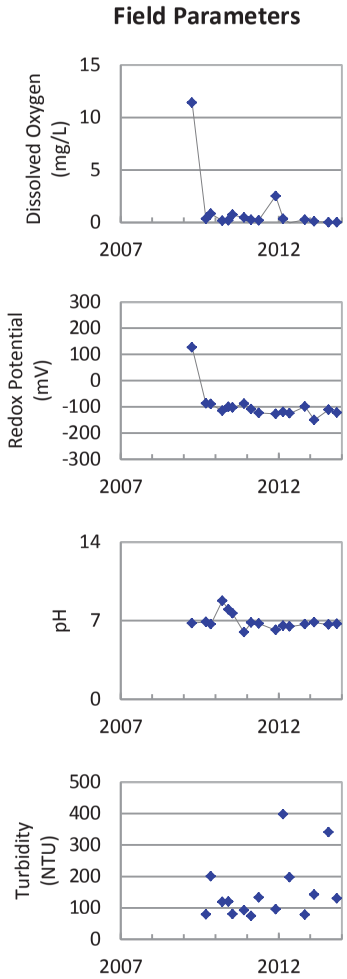
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/7/2013
Analysis Date: 3/21/2014

PTX06-ISB073
Pentanoic Acid Trend in Perched Aquifer





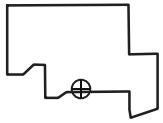
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

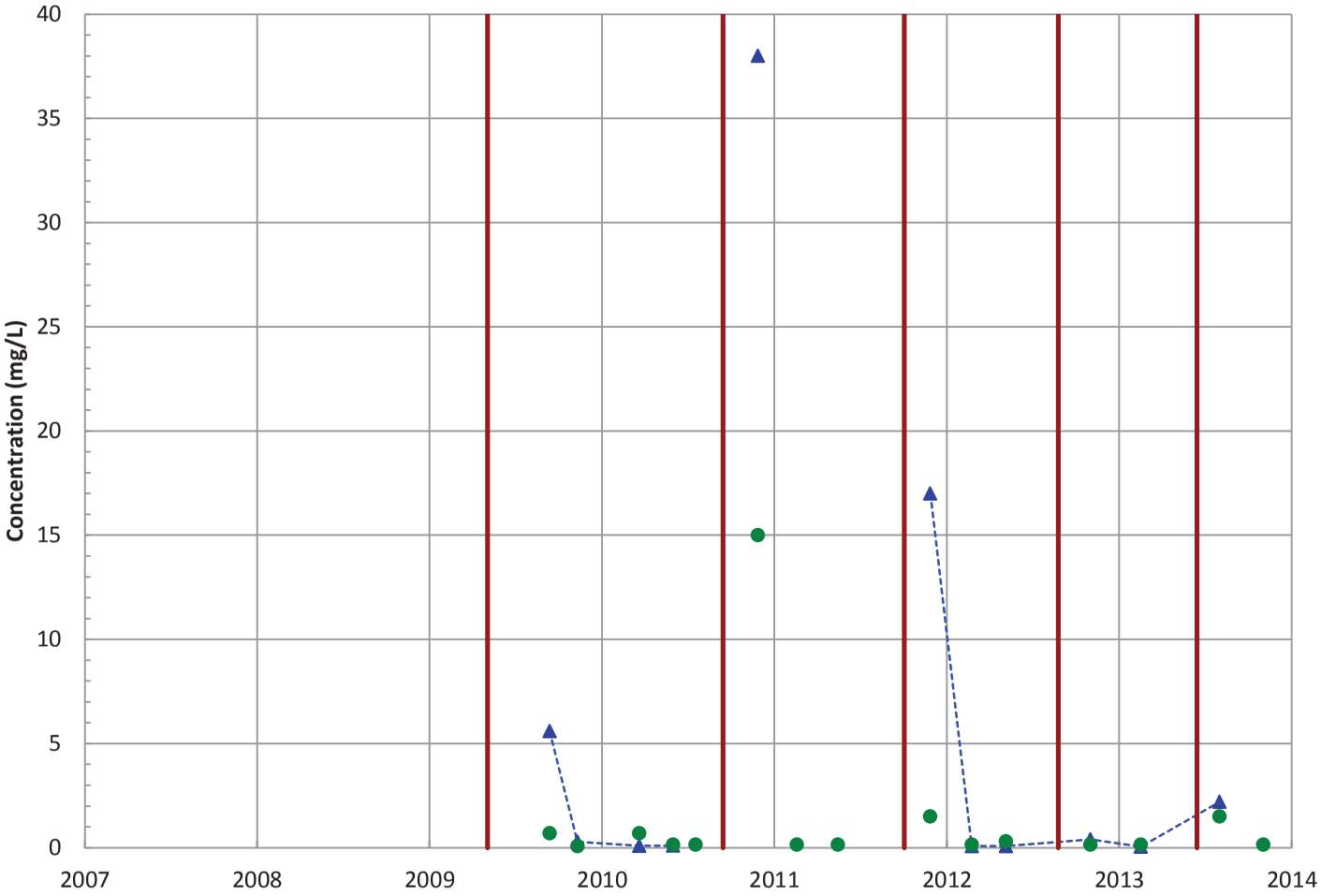
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

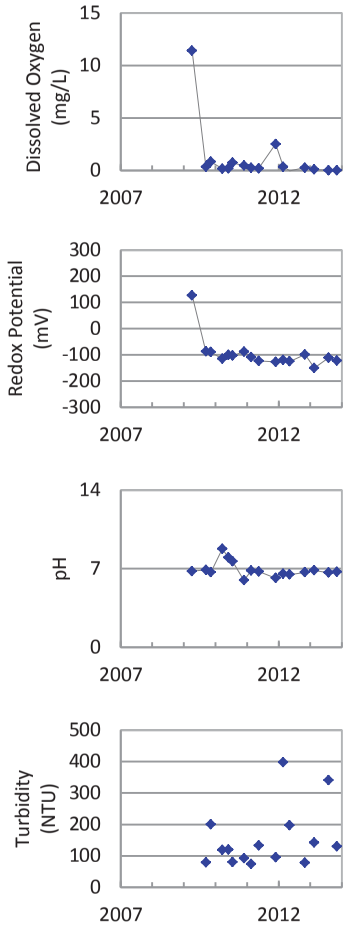


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/7/2013
Analysis Date: 3/21/2014

PTX06-ISB073
Pyruvic Acid Trend in Perched Aquifer



Field Parameters



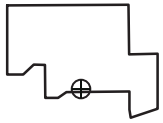
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

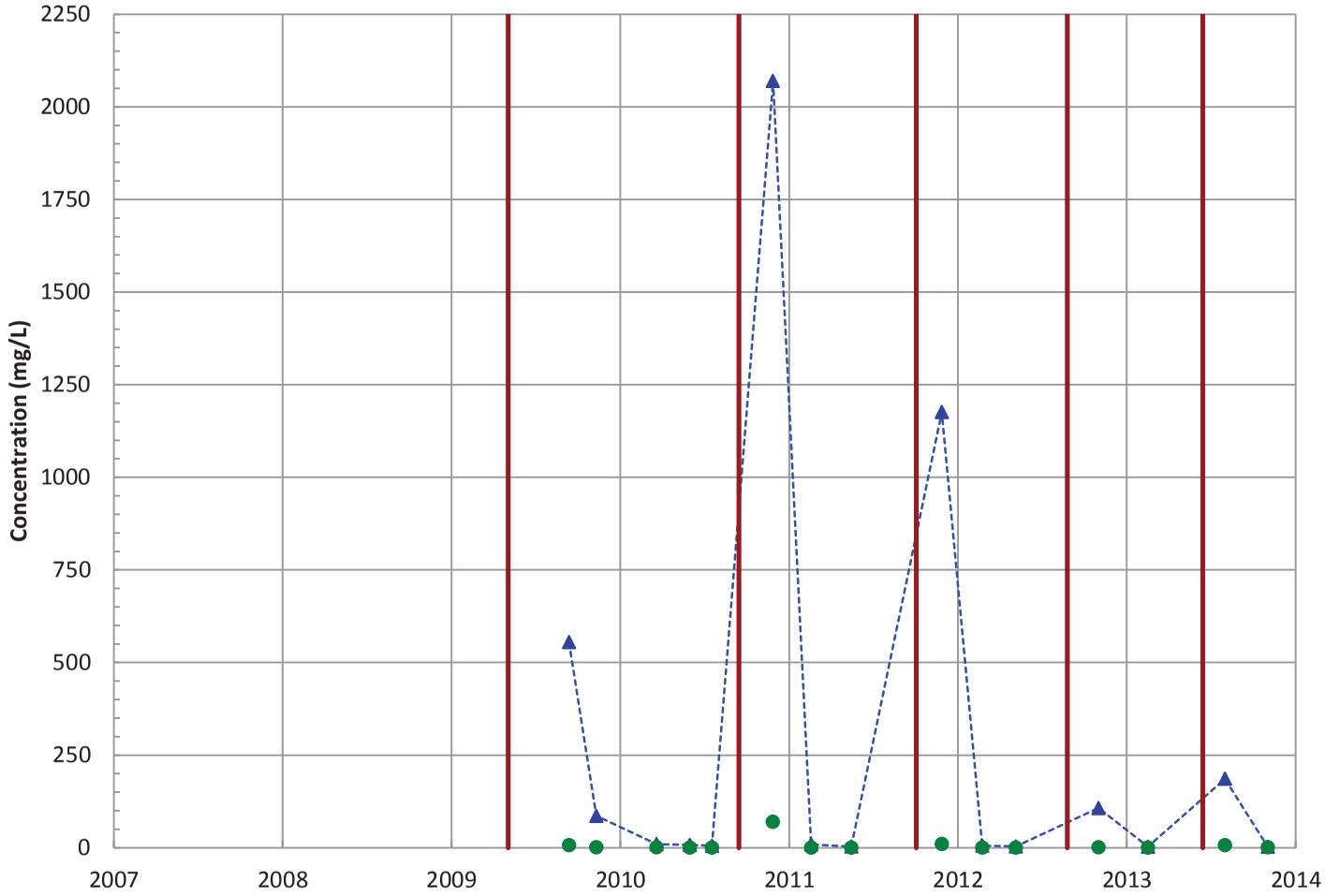
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

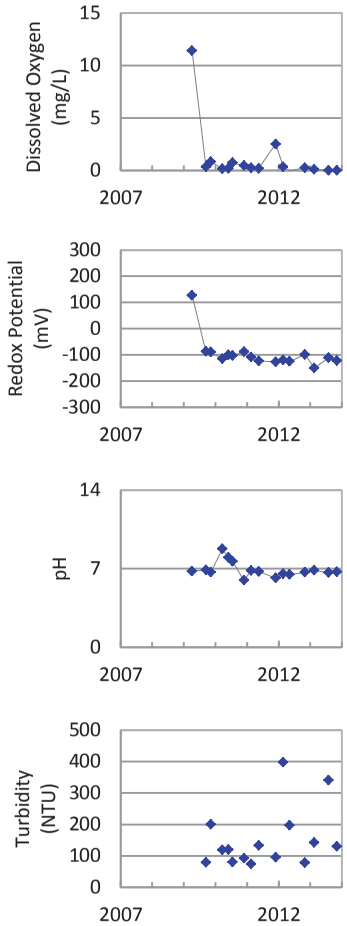


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/7/2013
Analysis Date: 3/21/2014

PTX06-ISB073
Total Volatile Fatty Acids Trend in Perched Aquifer



Field Parameters



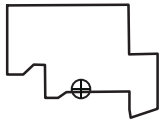
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

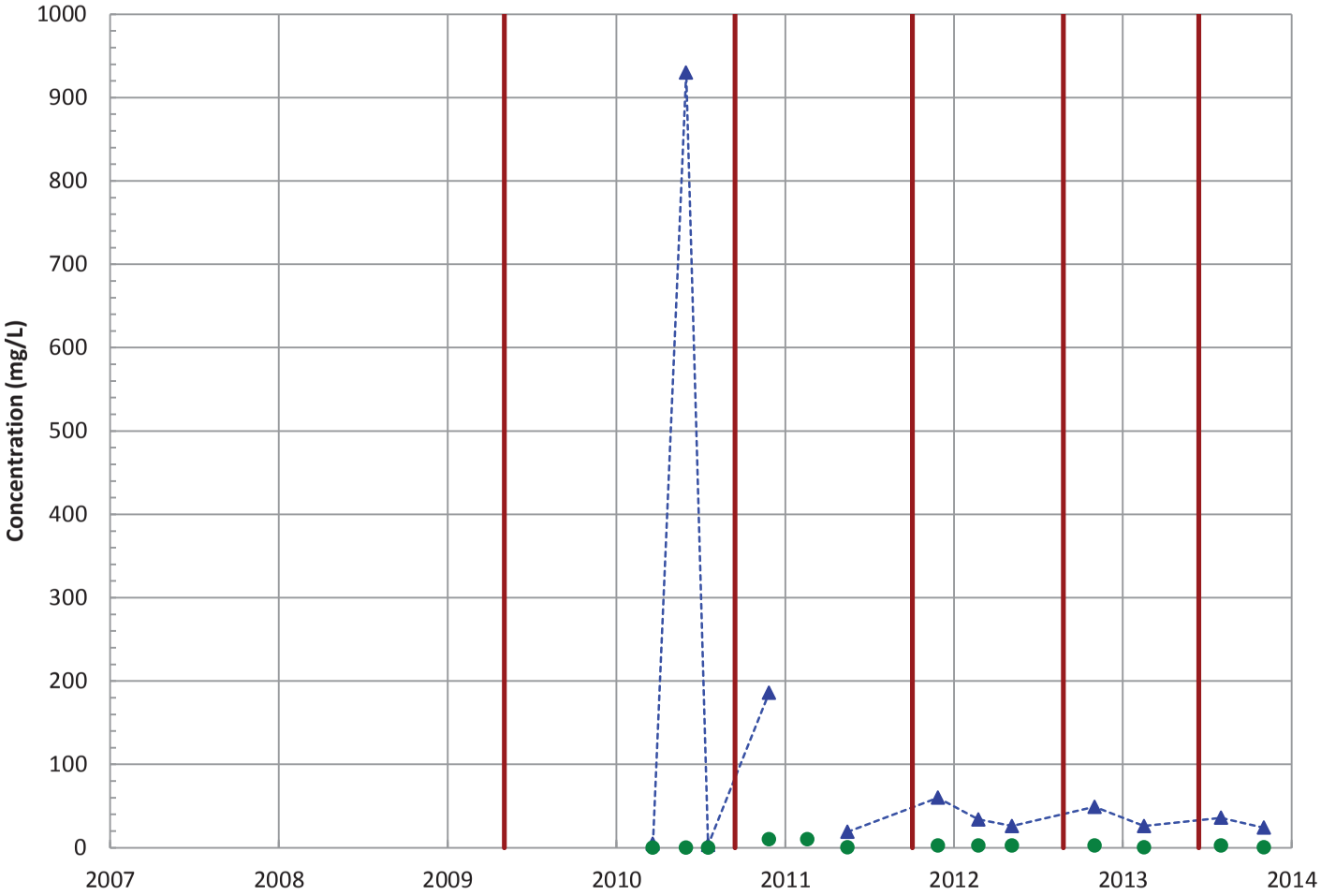
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

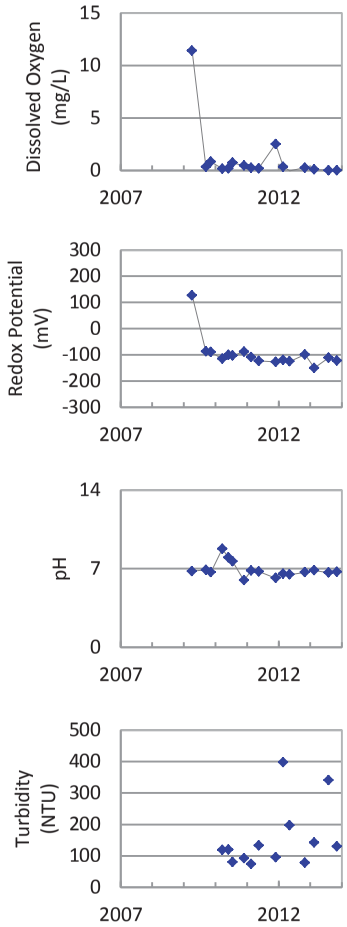


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/7/2013
Analysis Date: 3/21/2014

PTX06-ISB073
Ferrous Iron Trend in Perched Aquifer



Field Parameters



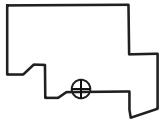
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Stable

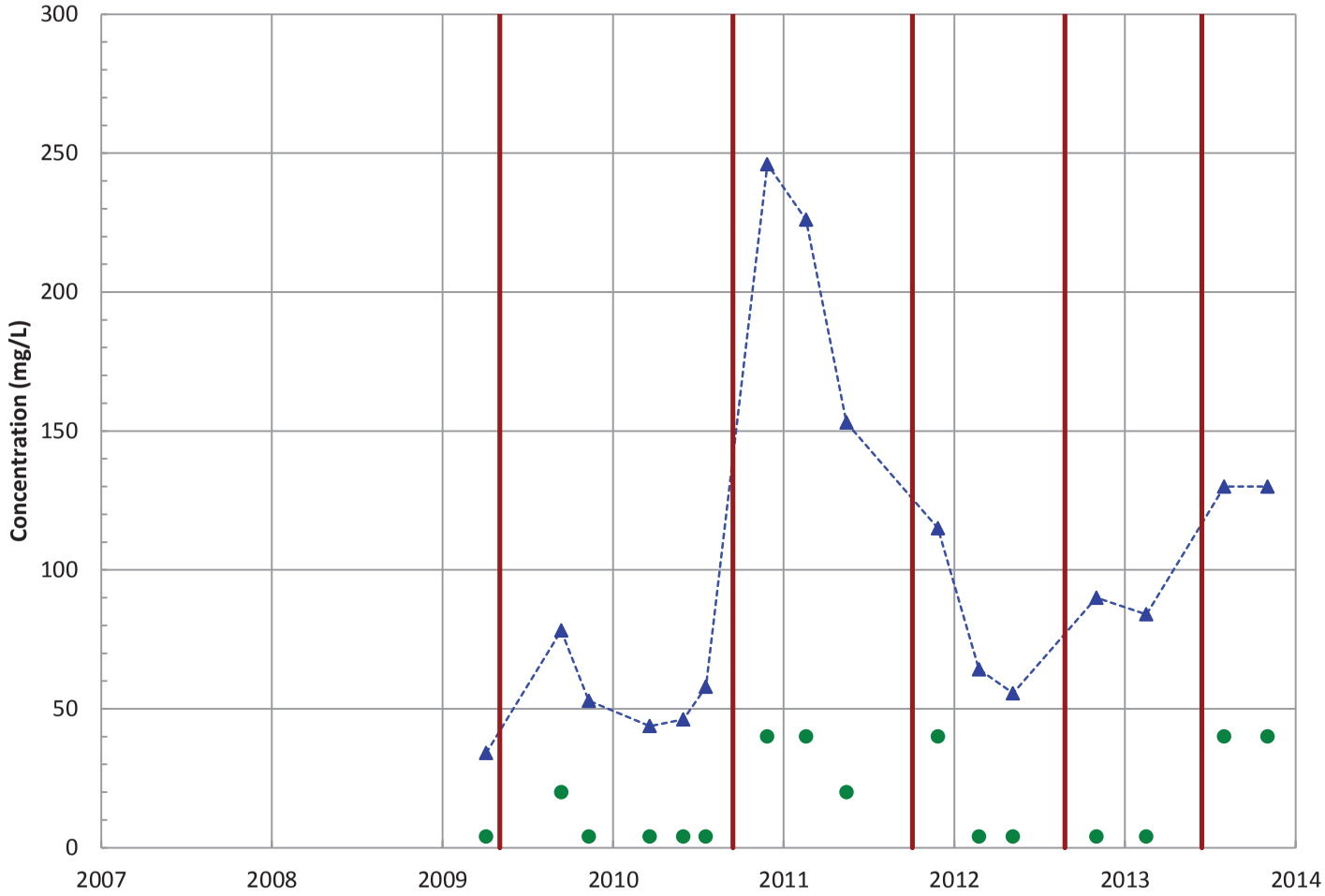
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

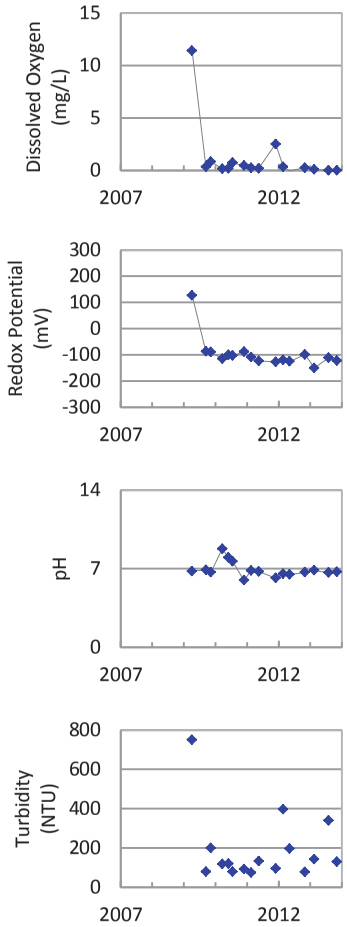


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/23/2010 to 11/7/2013
Analysis Date: 3/21/2014

PTX06-ISB073
Chloride (as Cl) Trend in Perched Aquifer



Field Parameters



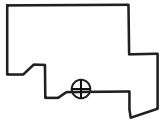
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Probably Increasing
Last 4 Samples: No Trend

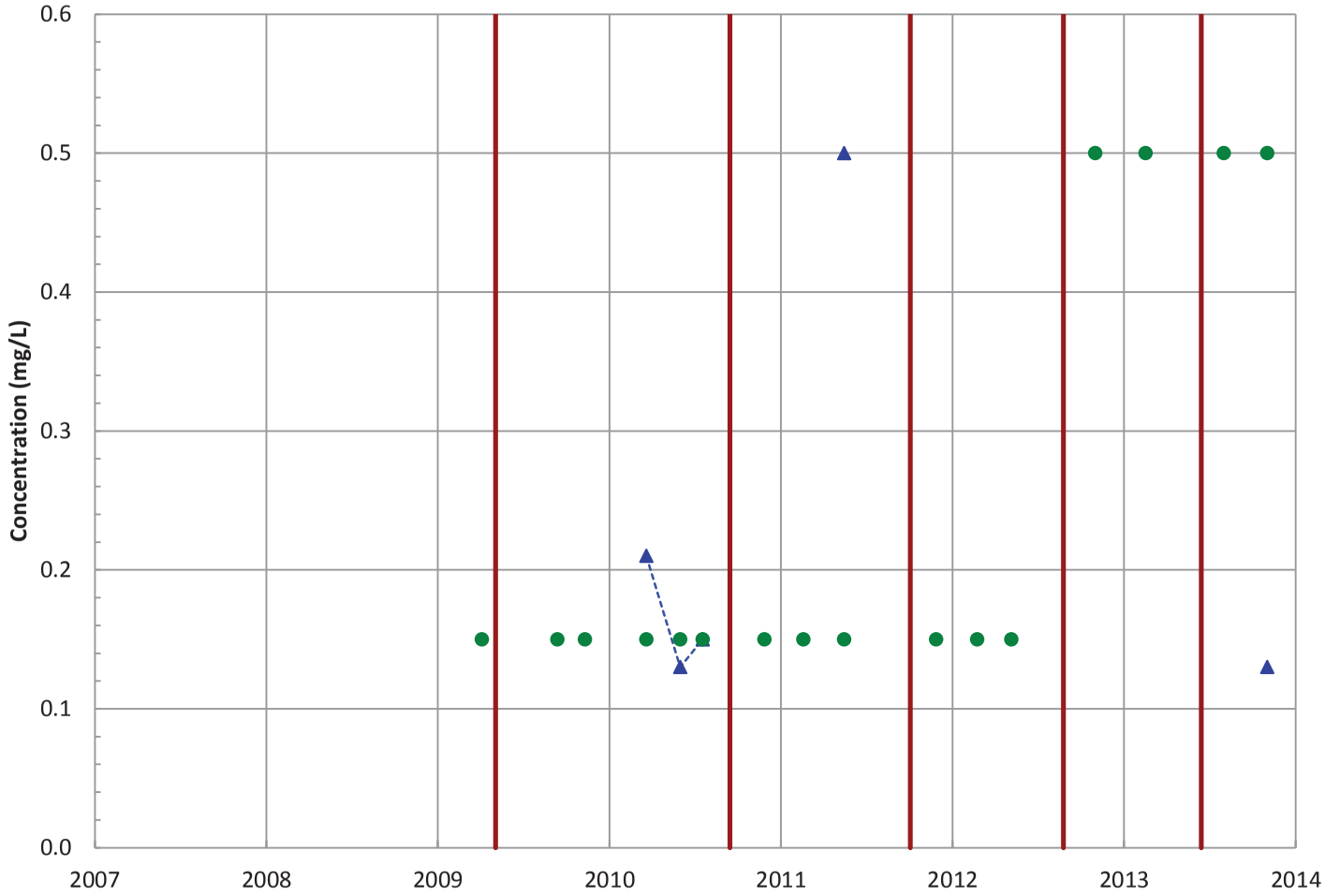
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

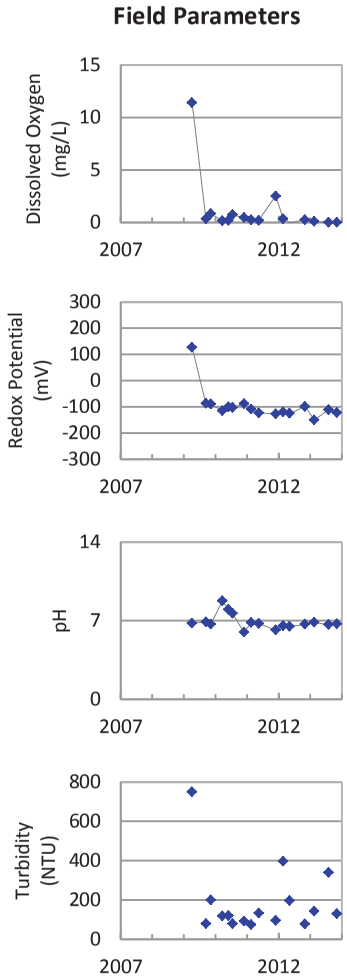
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/6/2009 to 11/7/2013
Analysis Date: 3/21/2014

PTX06-ISB073
Chlorate Trend in Perched Aquifer





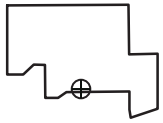
Concentration Trend

MAROS Mann-Kendall Method
All Data: Probably Increasing
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: Stable

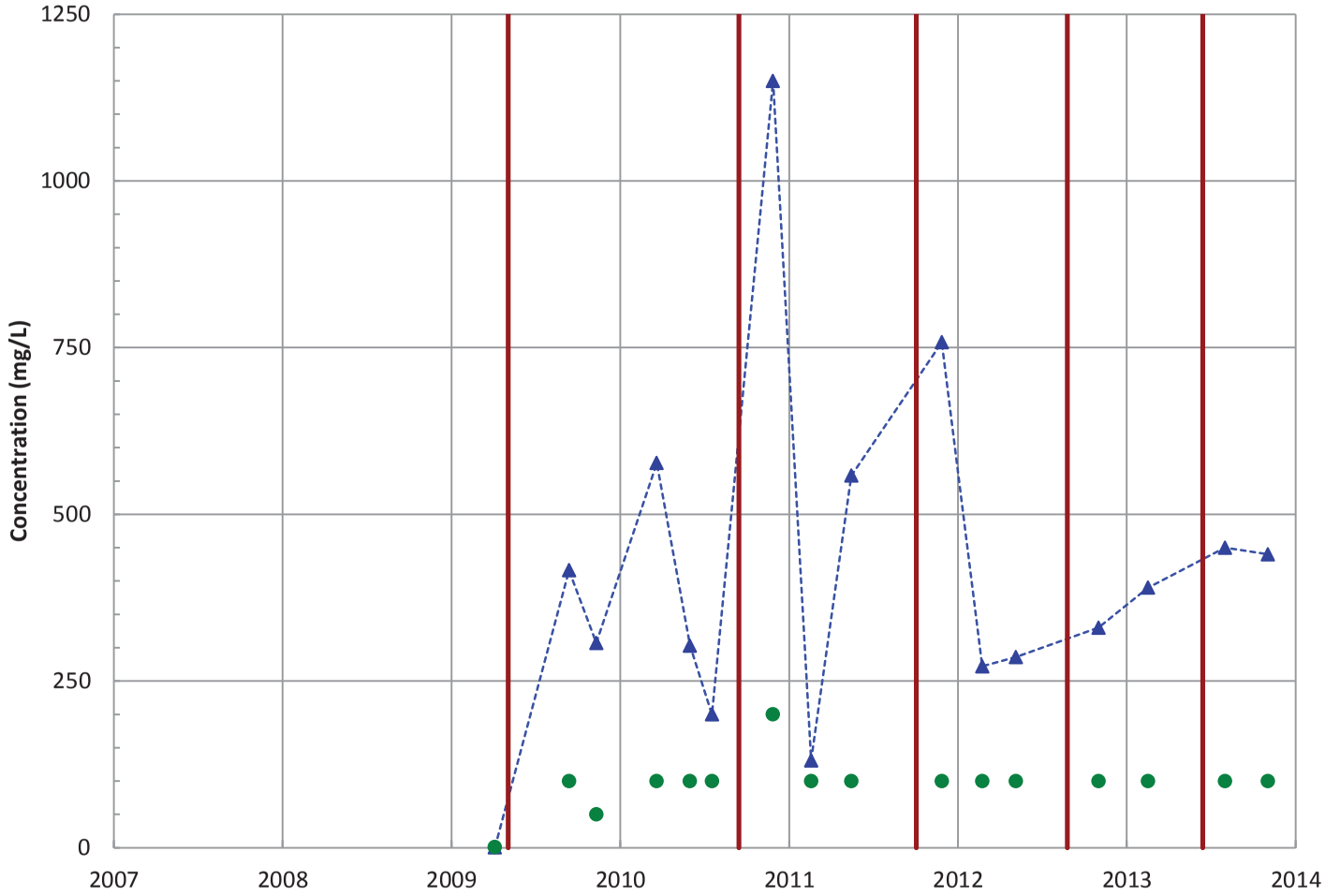
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

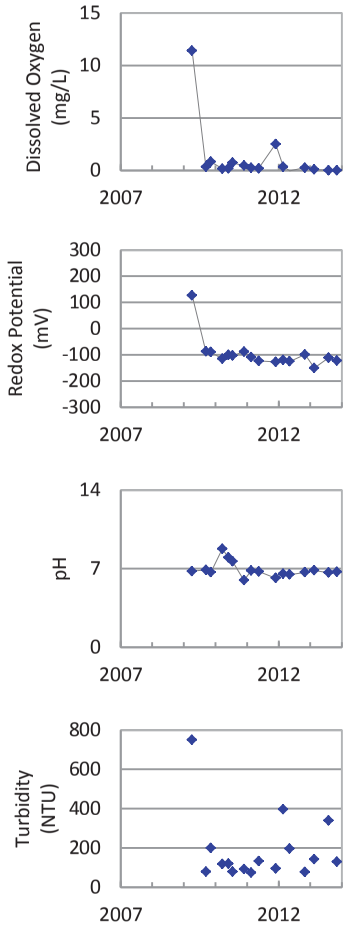


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/6/2009 to 11/7/2013
Analysis Date: 3/21/2014

PTX06-ISB073
Total Organic Carbon Trend in Perched Aquifer



Field Parameters



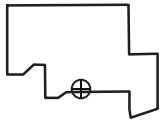
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Probably Increasing
Last 4 Samples: Increasing

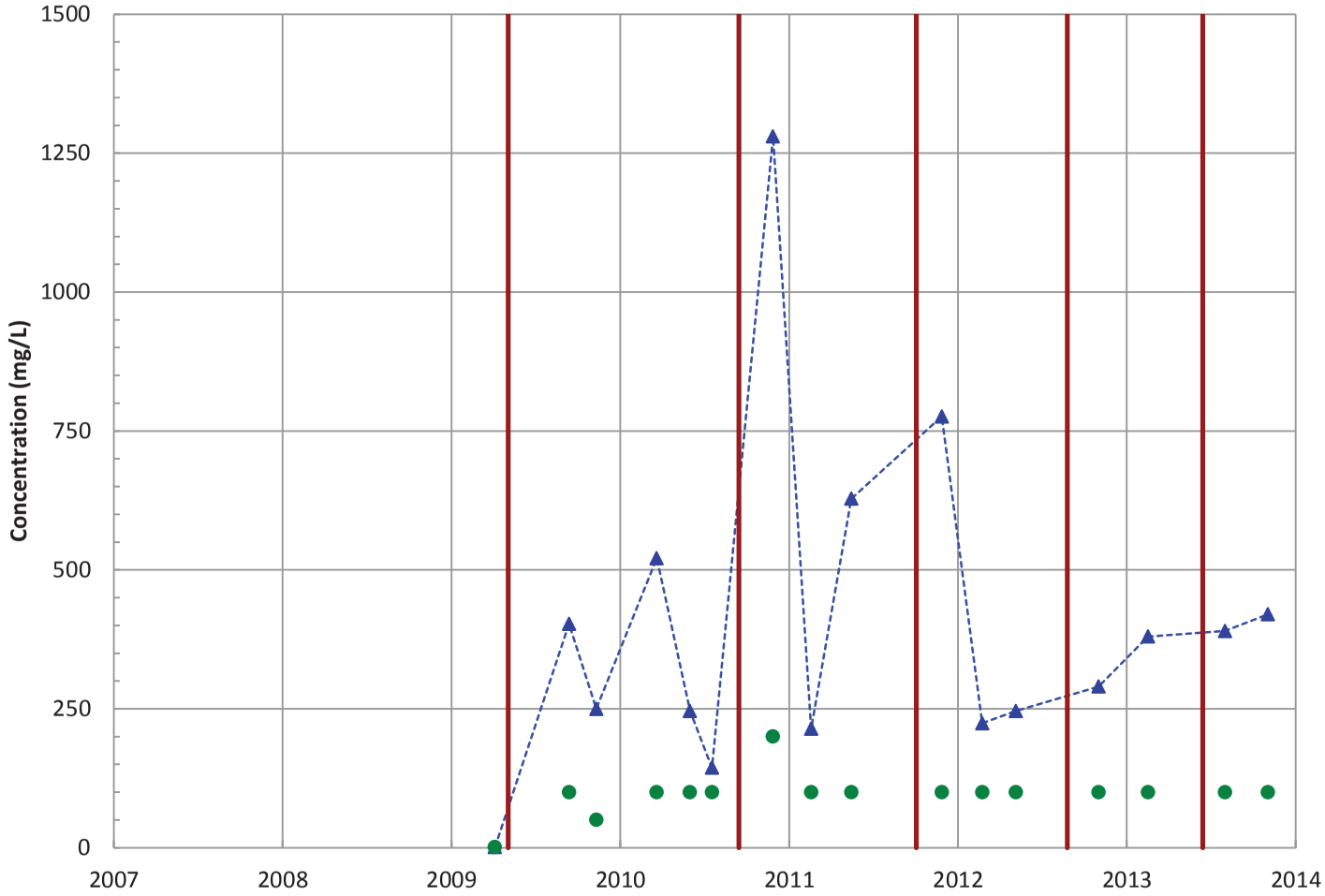
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

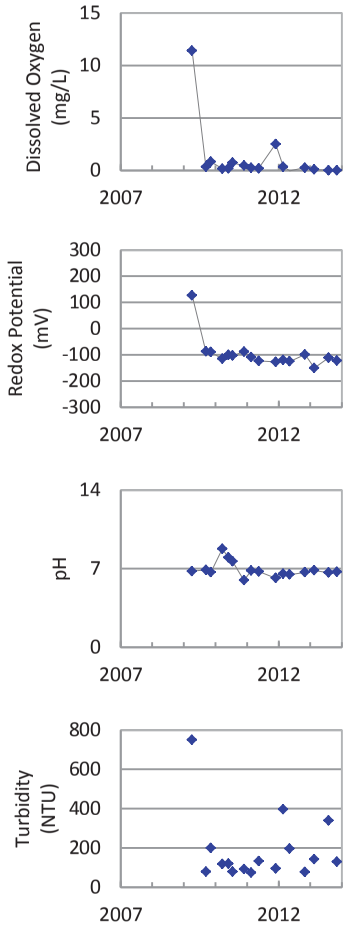


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/6/2009 to 11/7/2013
Analysis Date: 3/21/2014

PTX06-ISB073
Dissolved Organic Carbon (DOC) Trend in Perched Aquifer



Field Parameters



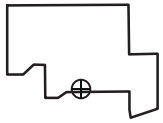
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Increasing

MAROS Linear Regression Method
All Data: Probably Increasing
Last 4 Samples: Increasing

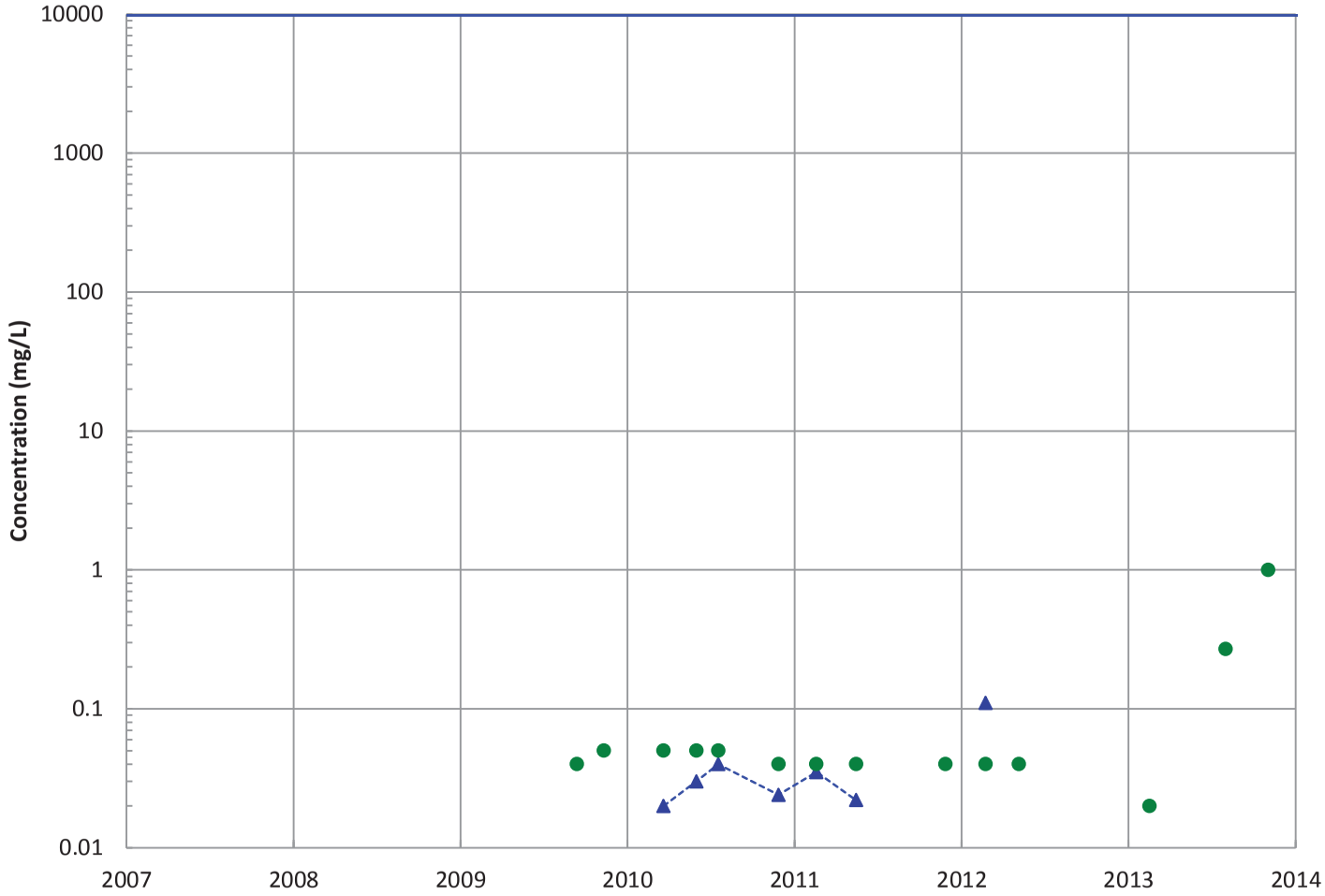
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

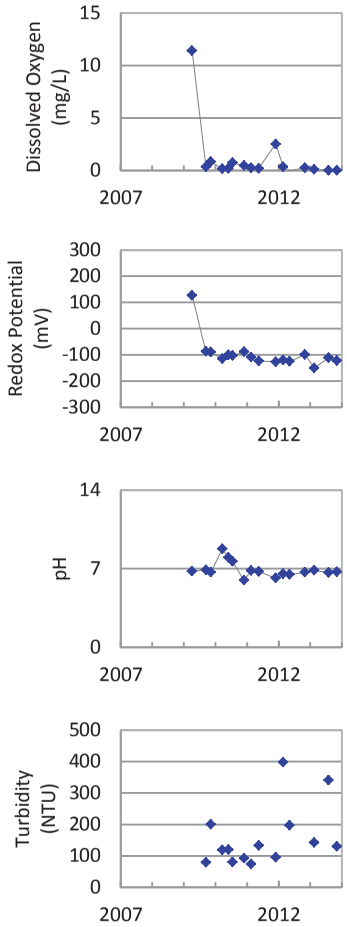


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/6/2009 to 11/7/2013
Analysis Date: 3/21/2014

PTX06-ISB073
Nitrate as N Trend in Perched Aquifer



Field Parameters



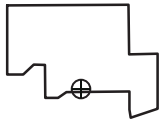
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Probably Increasing

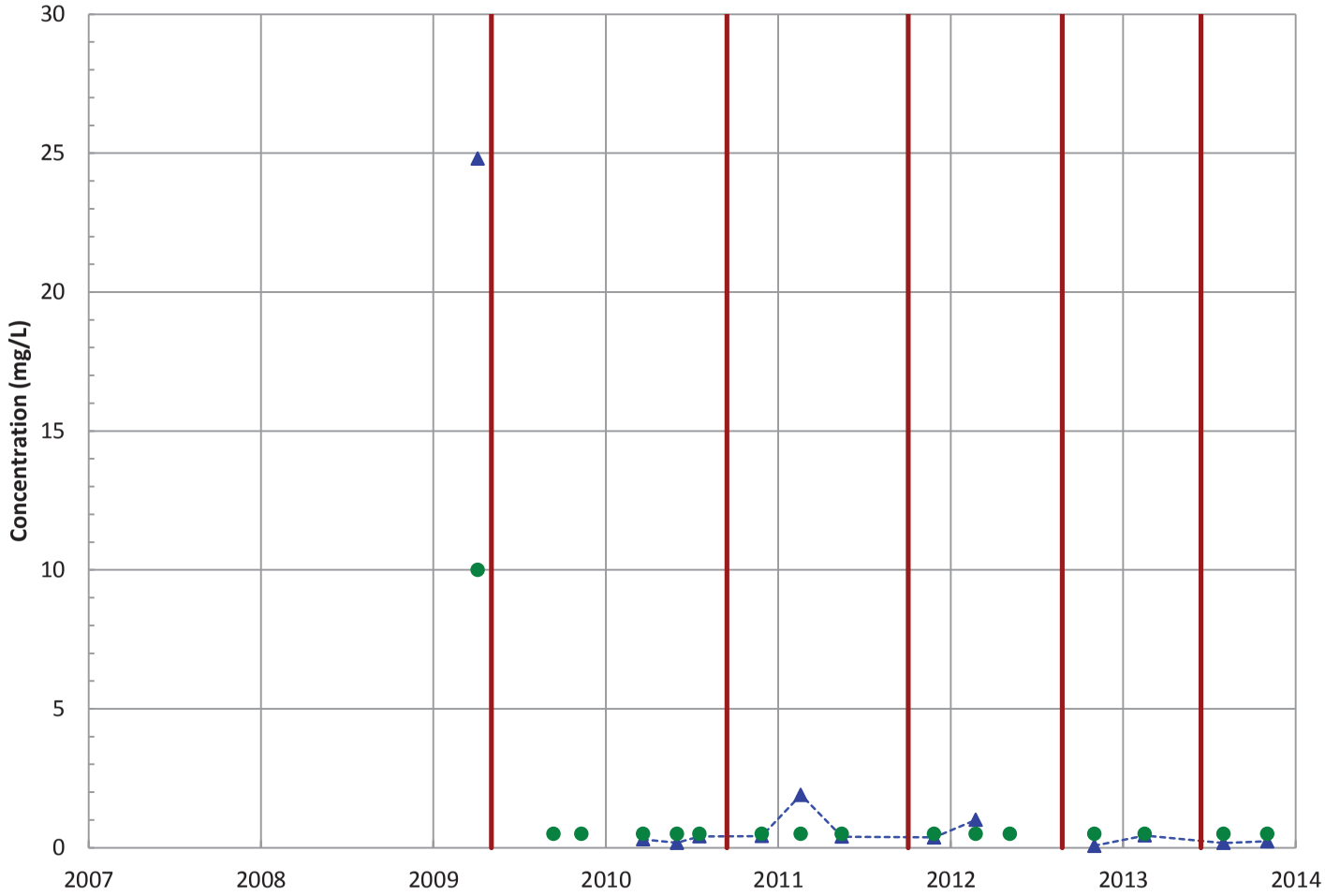
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

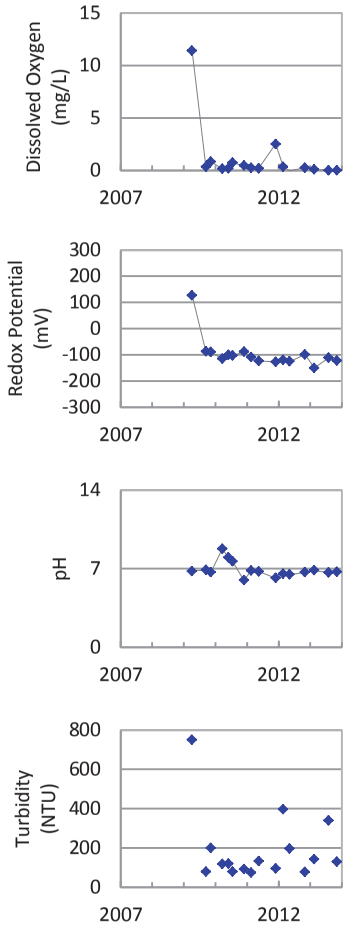


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/14/2009 to 11/7/2013
Analysis Date: 3/21/2014

PTX06-ISB073
Sulfate (as SO4) Trend in Perched Aquifer



Field Parameters



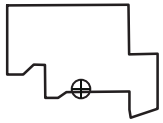
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

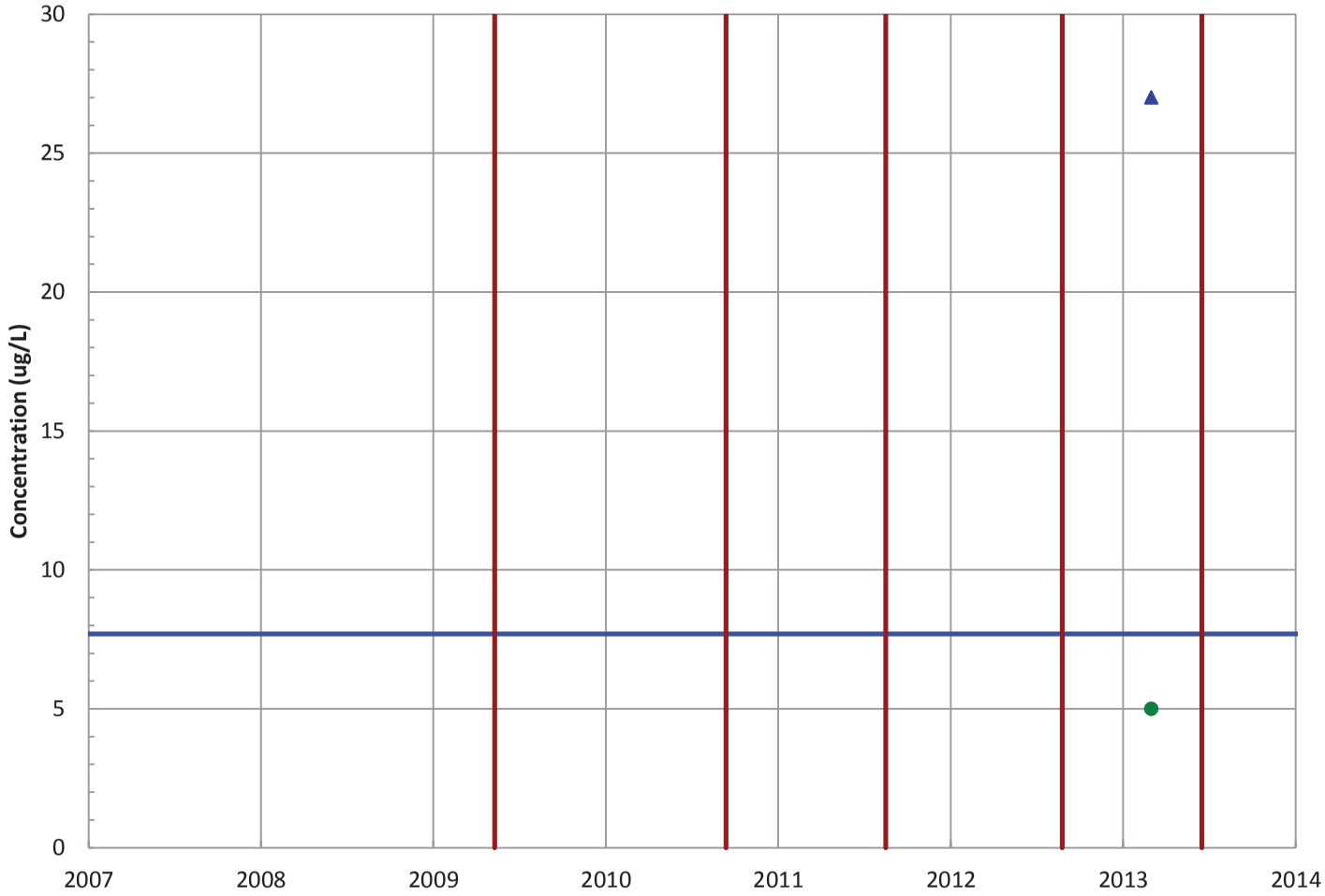
▲ Measured Value
● Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

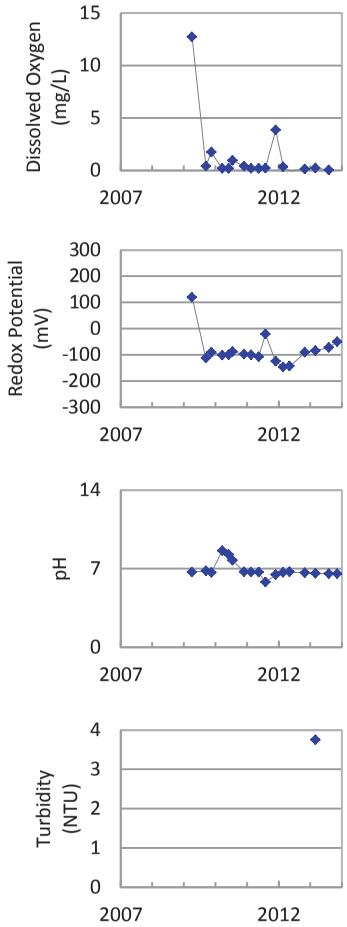


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/6/2009 to 11/7/2013
Analysis Date: 3/21/2014

PTX06-ISB075
1,4-Dioxane (p-Dioxane) Trend in Perched Aquifer



Field Parameters



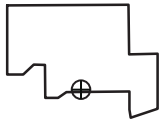
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Samples in Dataset)
Last 4 Samples: N/A (<4 Samples in Dataset)

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

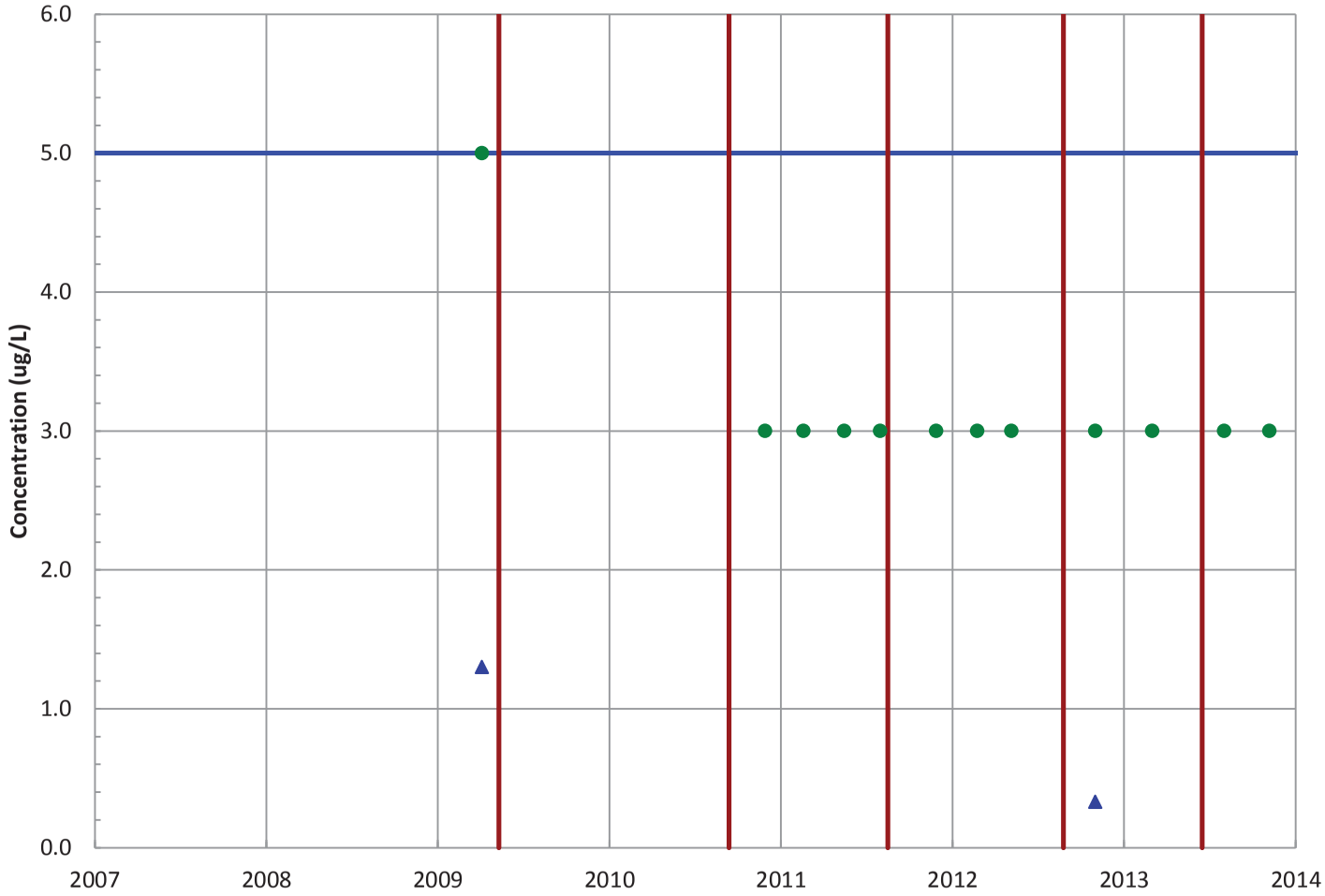
- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

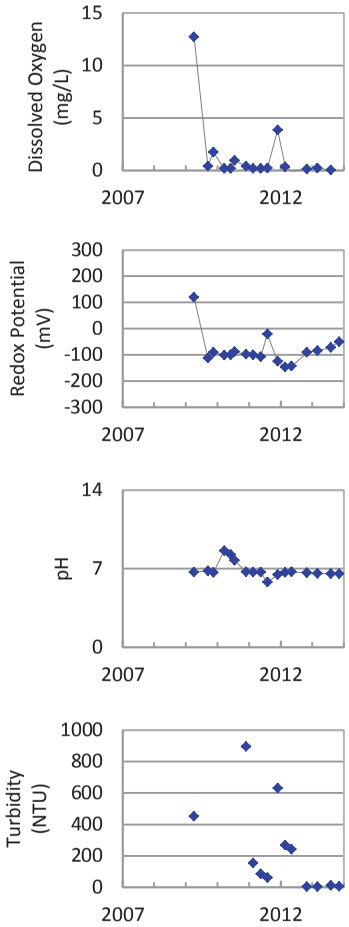


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/6/2013 to 3/6/2013
Analysis Date: 3/21/2014

PTX06-ISB075
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



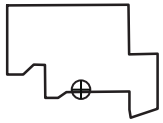
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

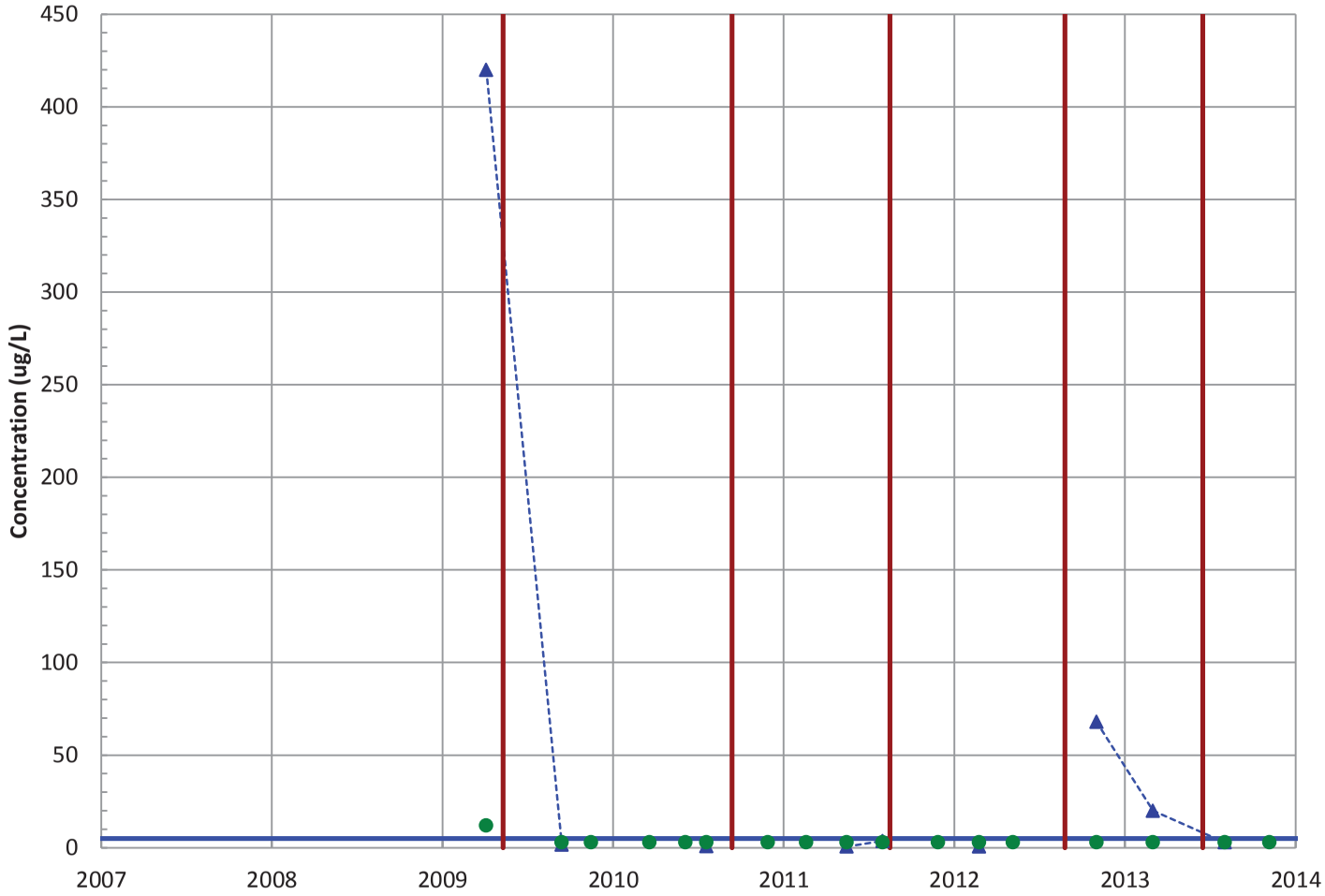
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

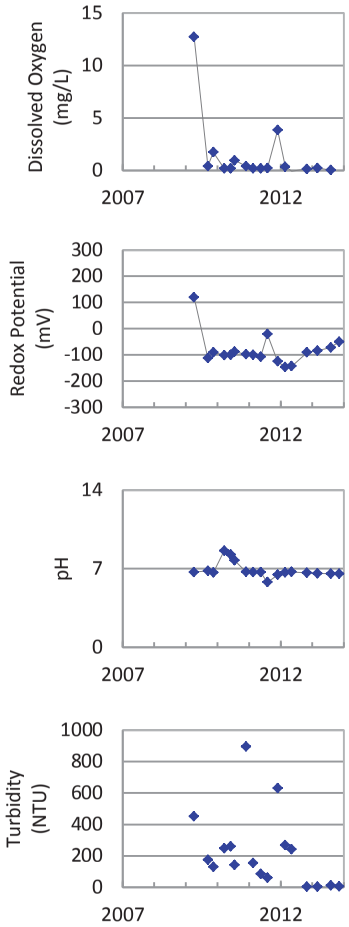


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/6/2009 to 11/11/2013
Analysis Date: 3/21/2014

PTX06-ISB075
Trichloroethene Trend in Perched Aquifer



Field Parameters



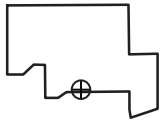
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

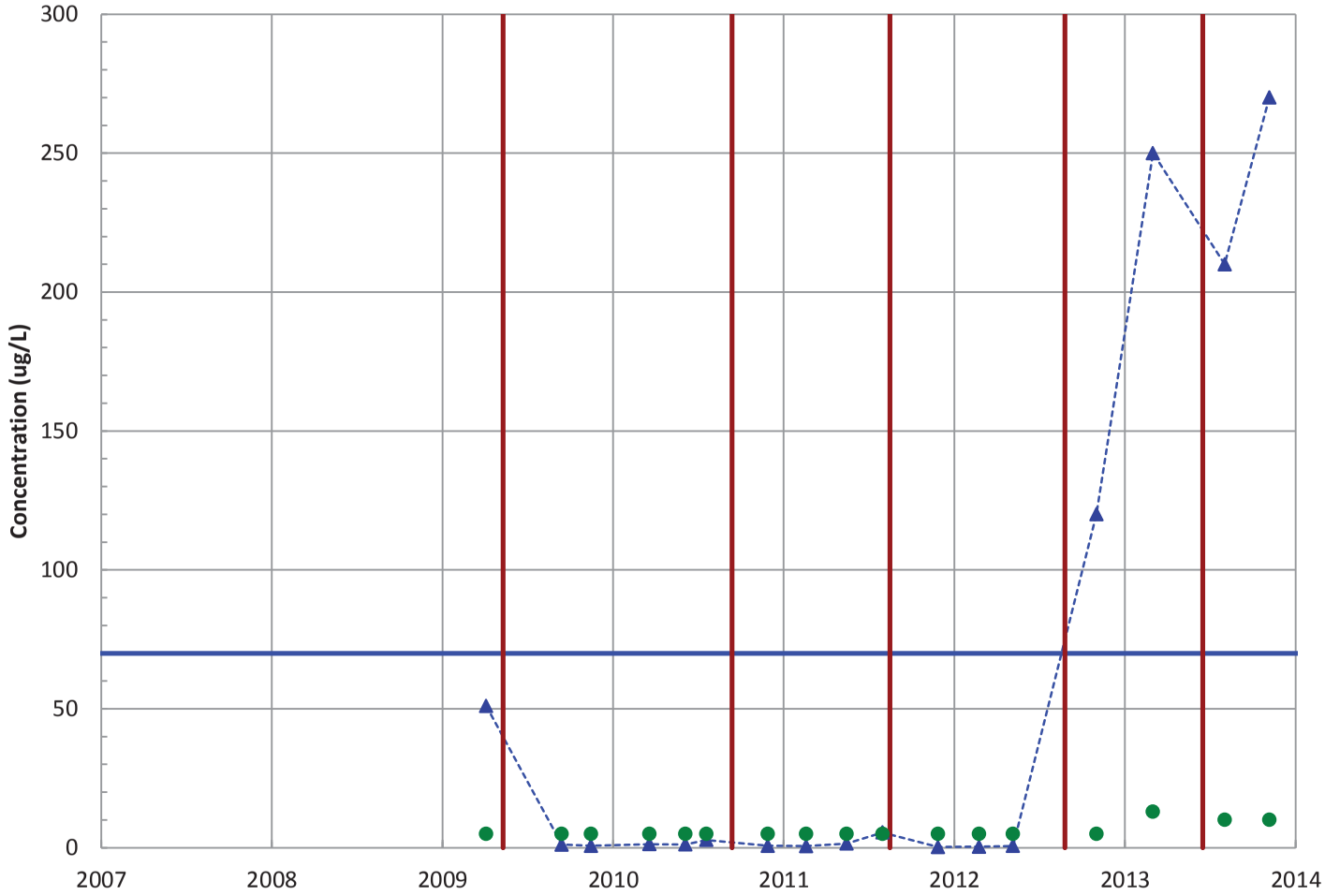
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

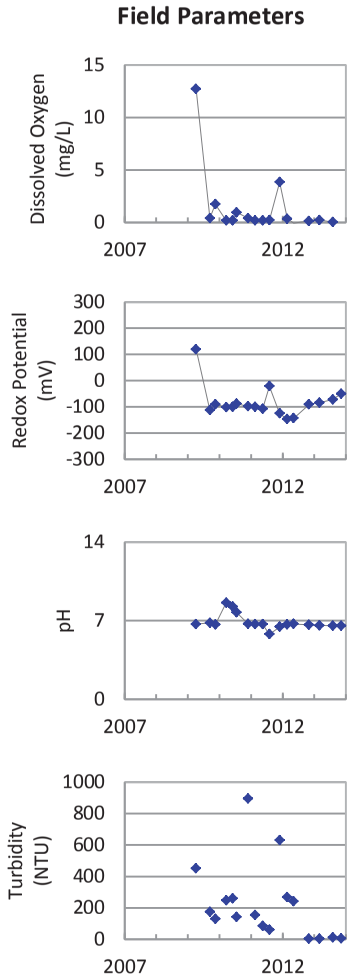
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/6/2009 to 11/11/2013
Analysis Date: 3/21/2014

PTX06-ISB075
cis-1,2-Dichloroethene Trend in Perched Aquifer





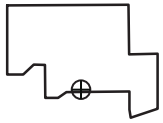
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Probably Increasing

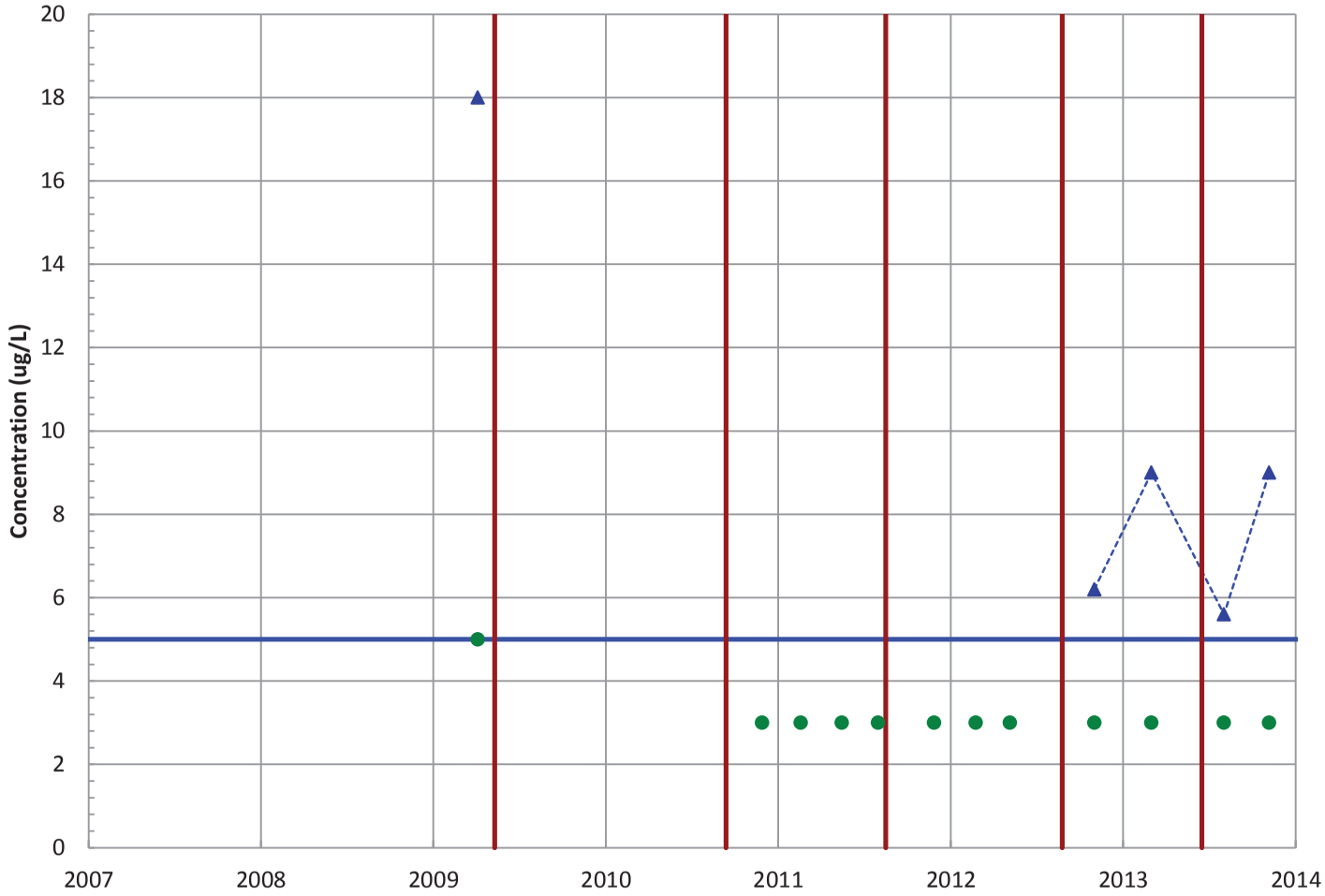
Measured Value
Sample Detection Limit
Concentration Trend
Groundwater Protection Standard
Injection Dates

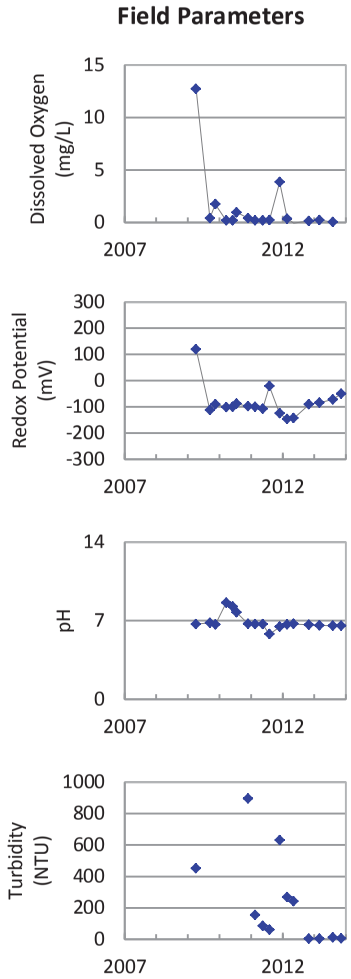
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/6/2009 to 11/11/2013
Analysis Date: 3/21/2014

PTX06-ISB075
1,2-Dichloroethane Trend in Perched Aquifer





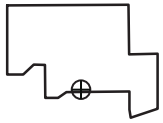
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

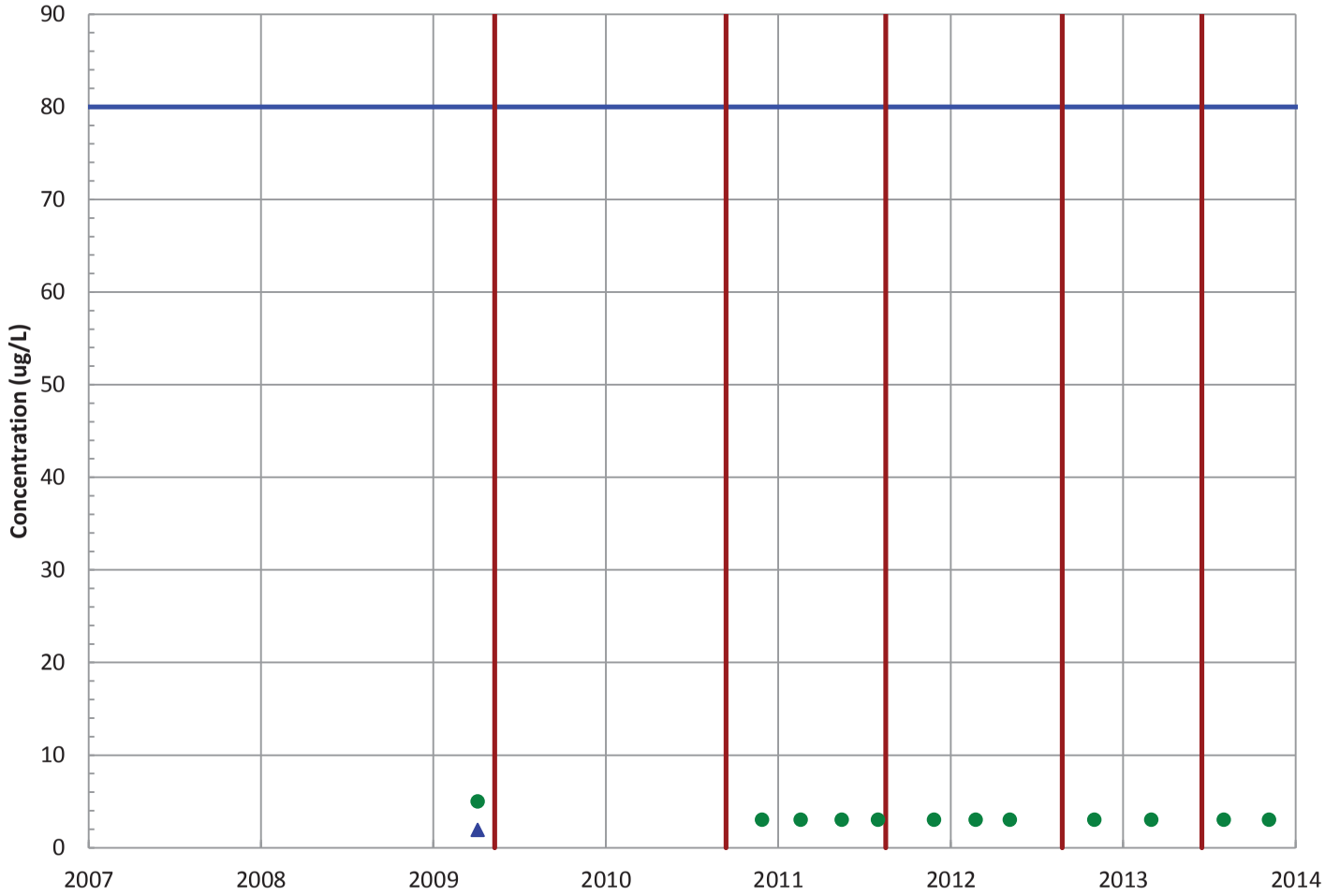
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

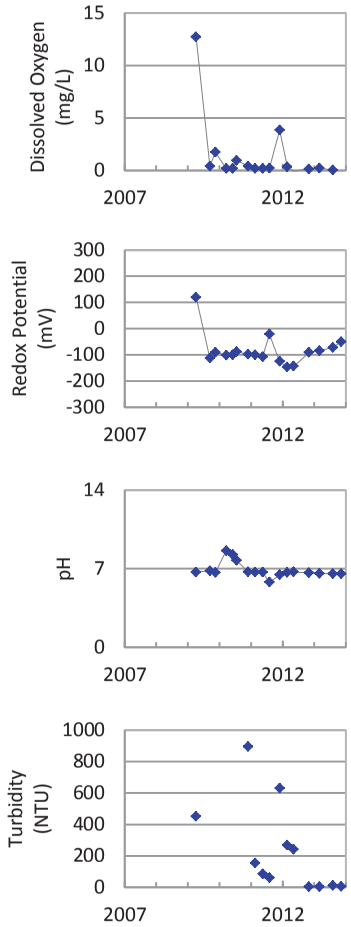


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/6/2009 to 11/11/2013
Analysis Date: 3/21/2014

PTX06-ISB075
Chloroform Trend in Perched Aquifer



Field Parameters



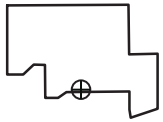
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

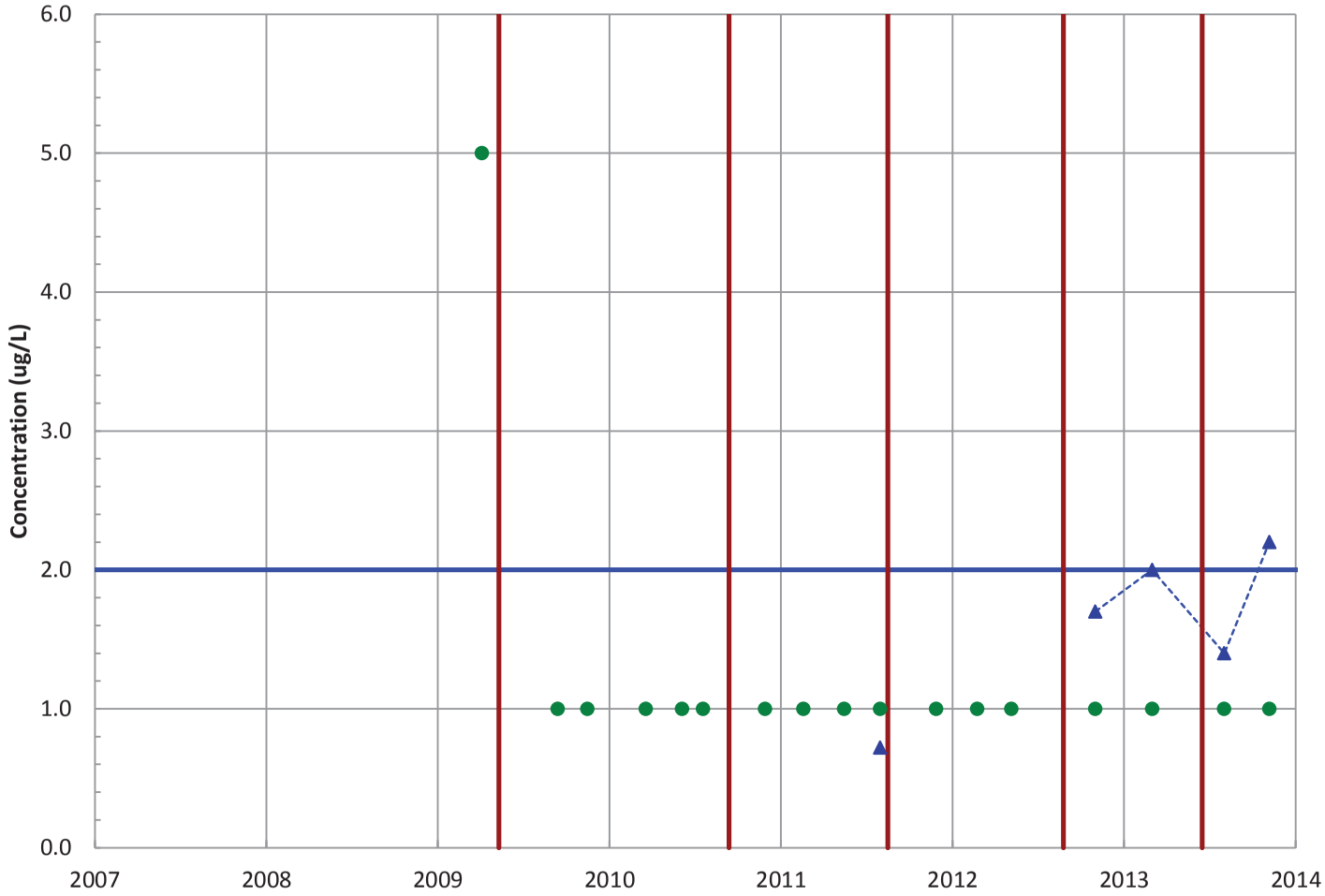
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

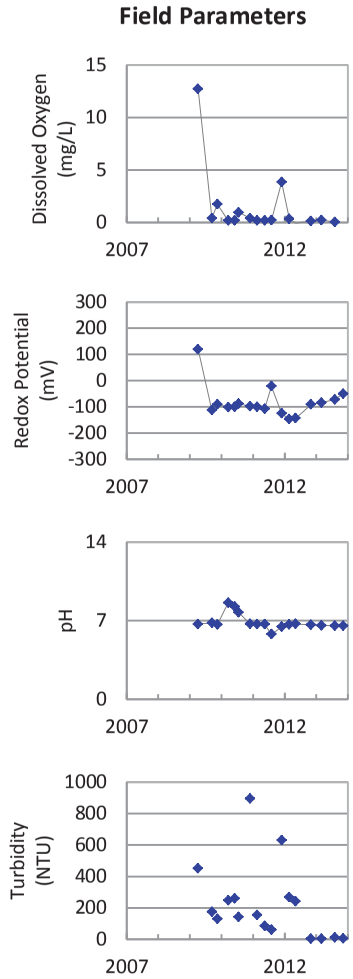
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/6/2009 to 11/11/2013
Analysis Date: 3/21/2014

PTX06-ISB075
Vinyl Chloride Trend in Perched Aquifer





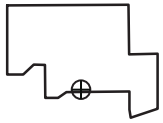
Concentration Trend

MAROS Mann-Kendall Method
All Data: Probably Increasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: No Trend

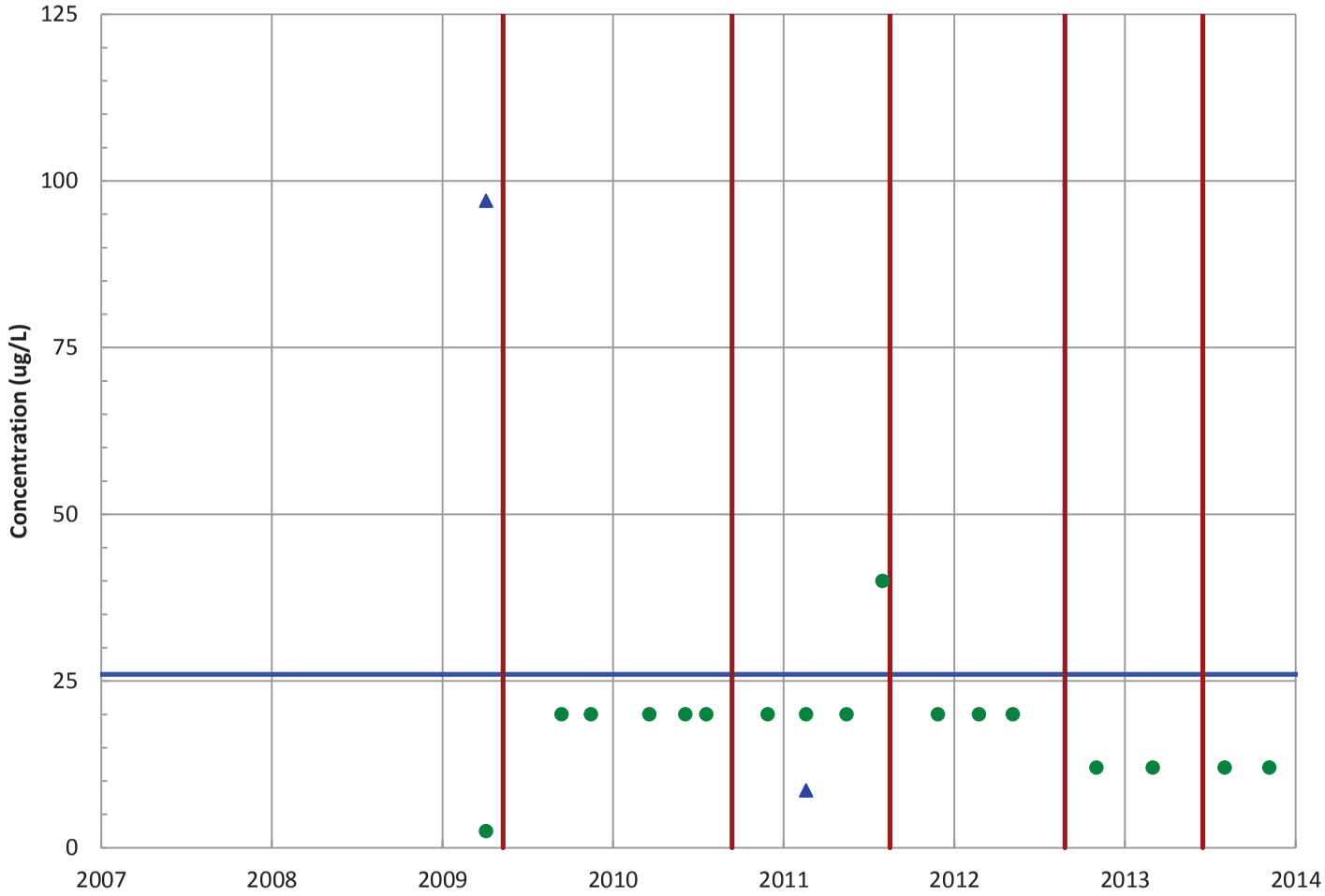
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

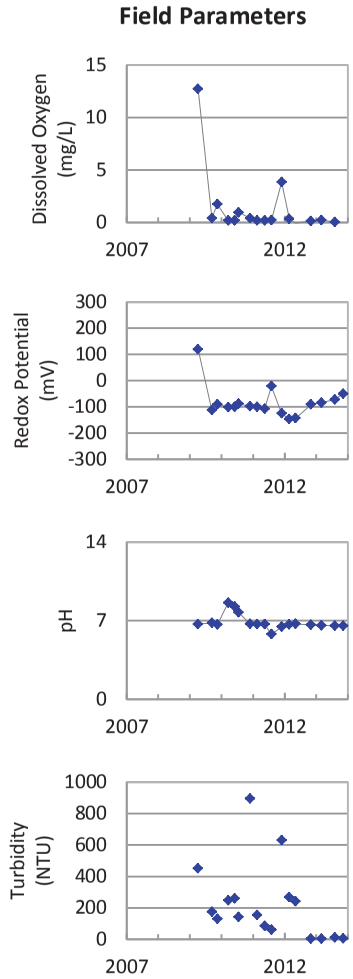
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/6/2009 to 11/11/2013
Analysis Date: 3/21/2014

PTX06-ISB075
Perchlorate Trend in Perched Aquifer





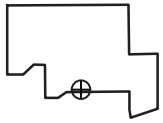
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

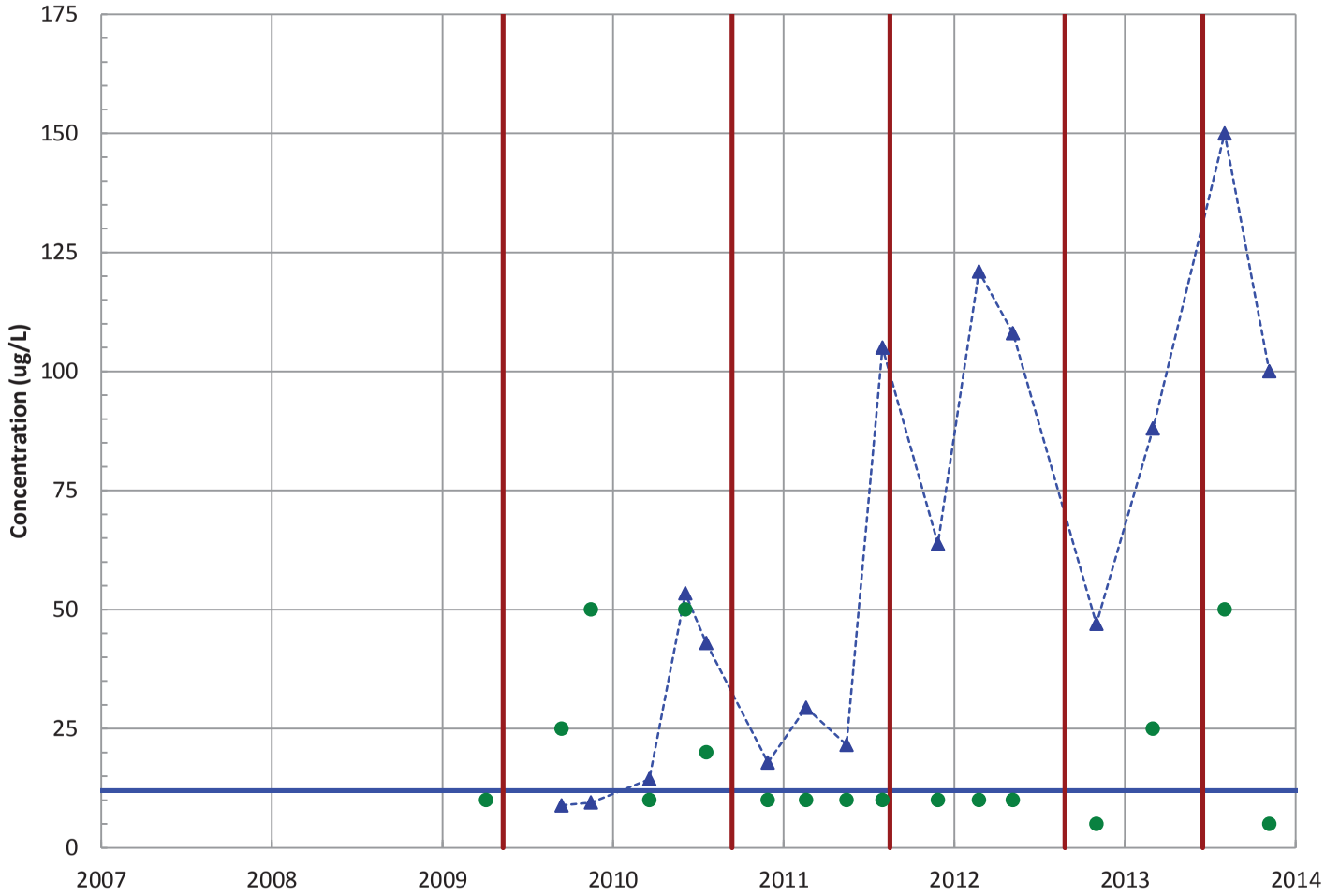
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

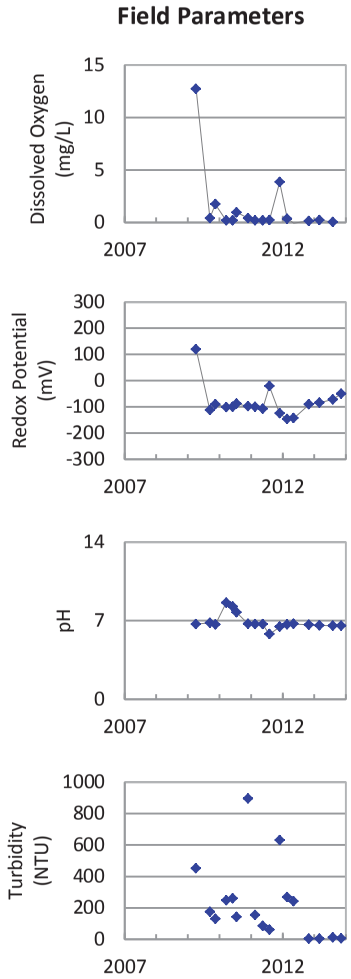
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/6/2009 to 11/11/2013
Analysis Date: 3/21/2014

PTX06-ISB075
Arsenic Trend in Perched Aquifer





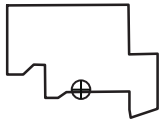
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: No Trend

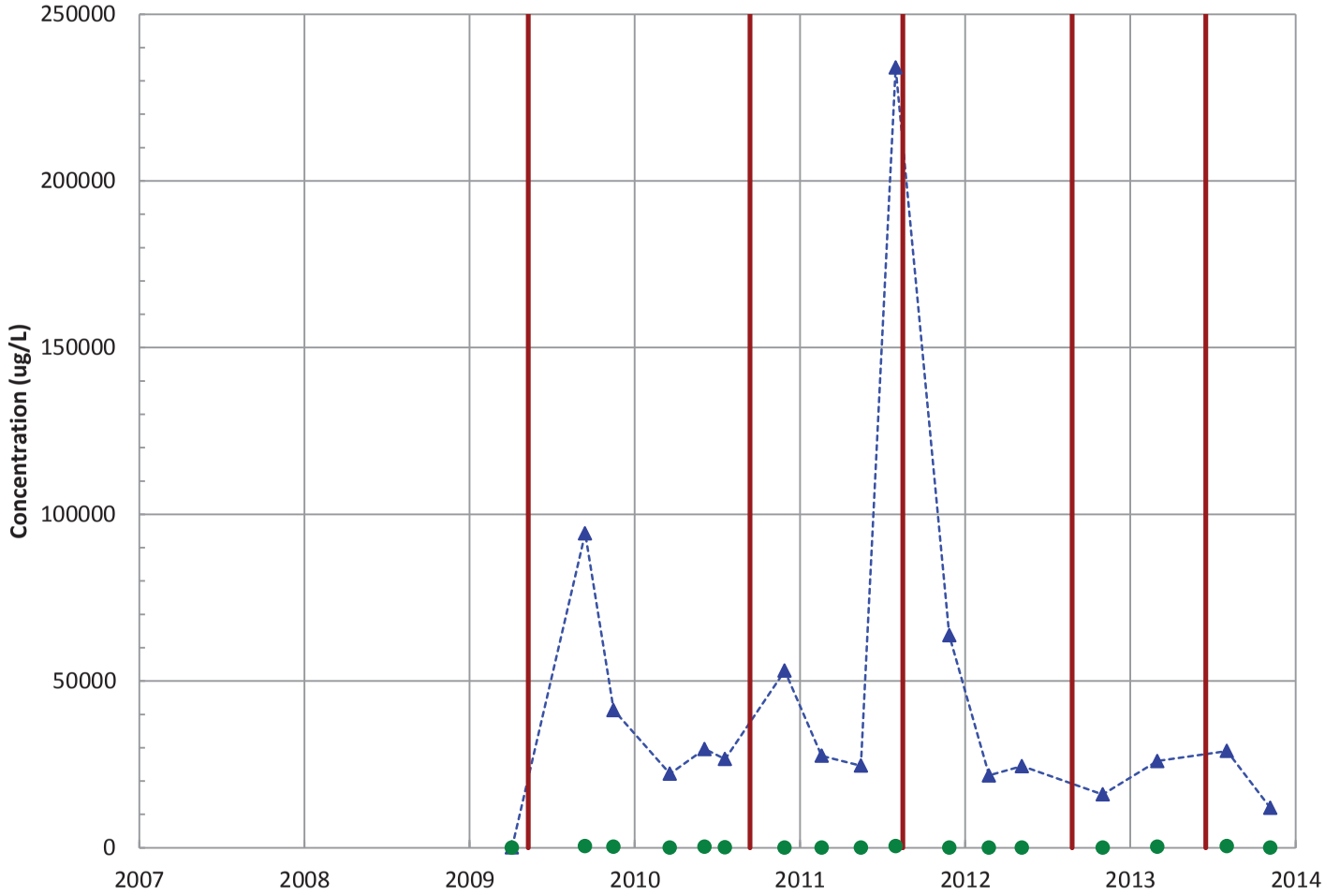
Measured Value
Sample Detection Limit
Concentration Trend
Groundwater Protection Standard
Injection Dates

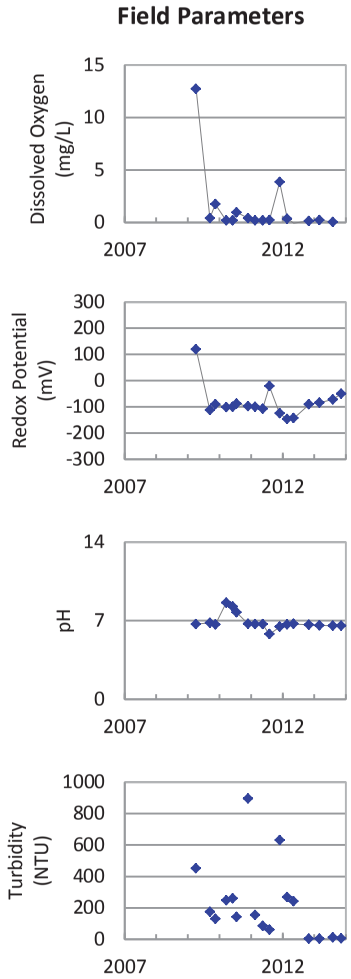
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/6/2009 to 11/11/2013
Analysis Date: 3/21/2014

PTX06-ISB075
Iron Trend in Perched Aquifer





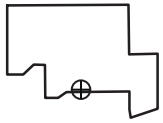
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Stable

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Stable

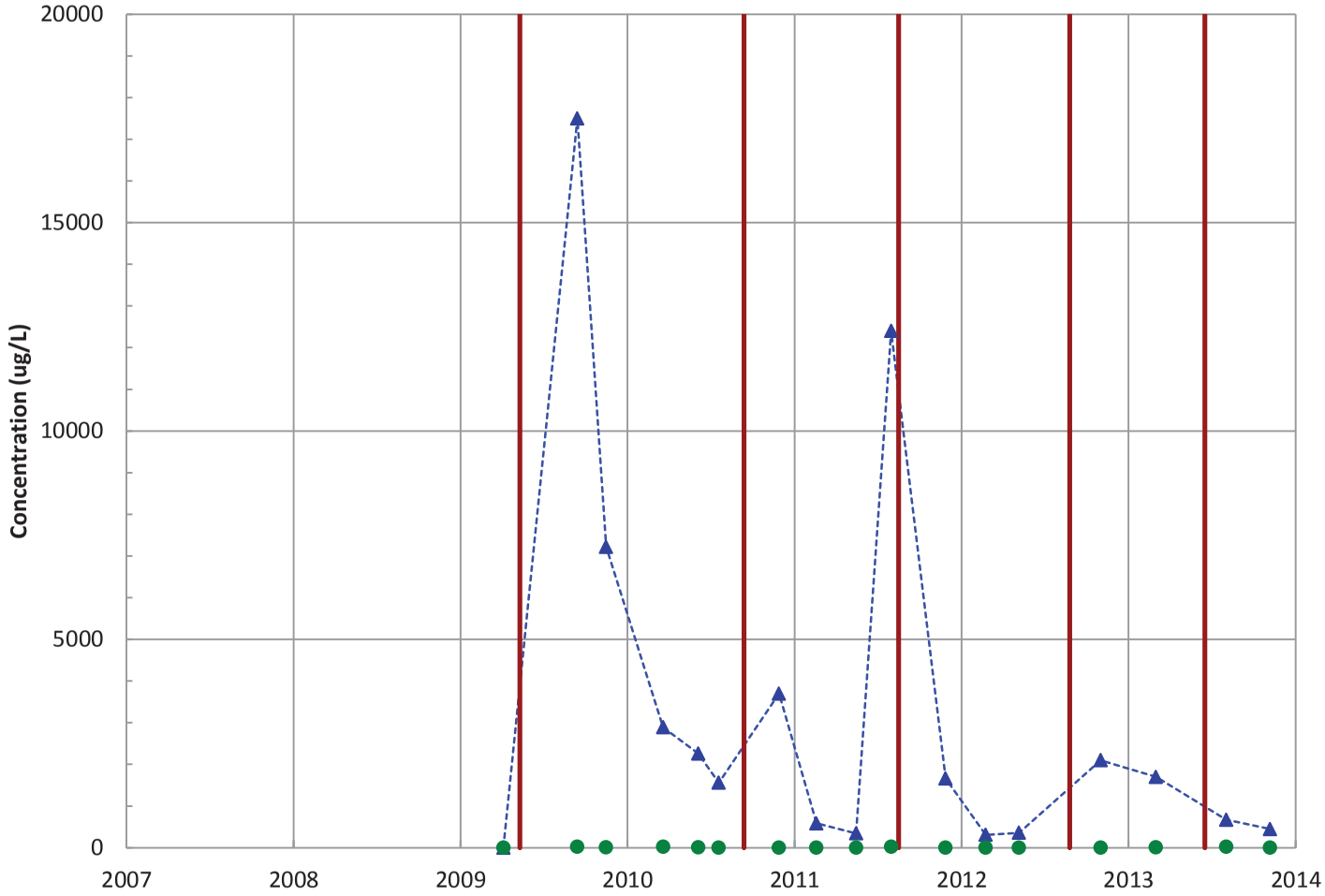
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

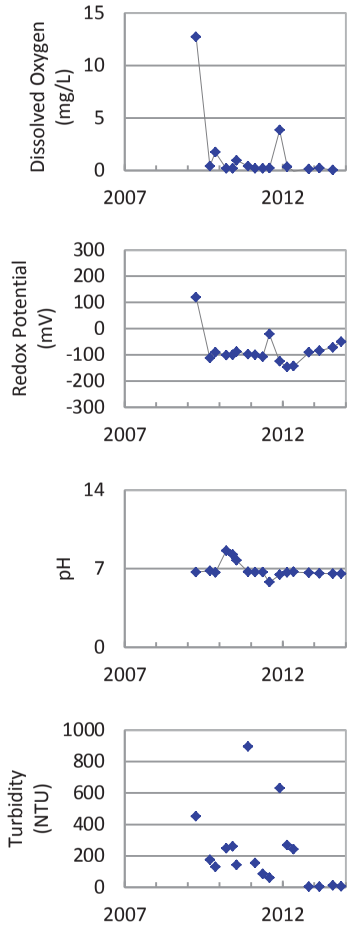


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/6/2009 to 11/11/2013
Analysis Date: 3/21/2014

PTX06-ISB075
Manganese Trend in Perched Aquifer



Field Parameters



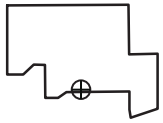
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Decreasing

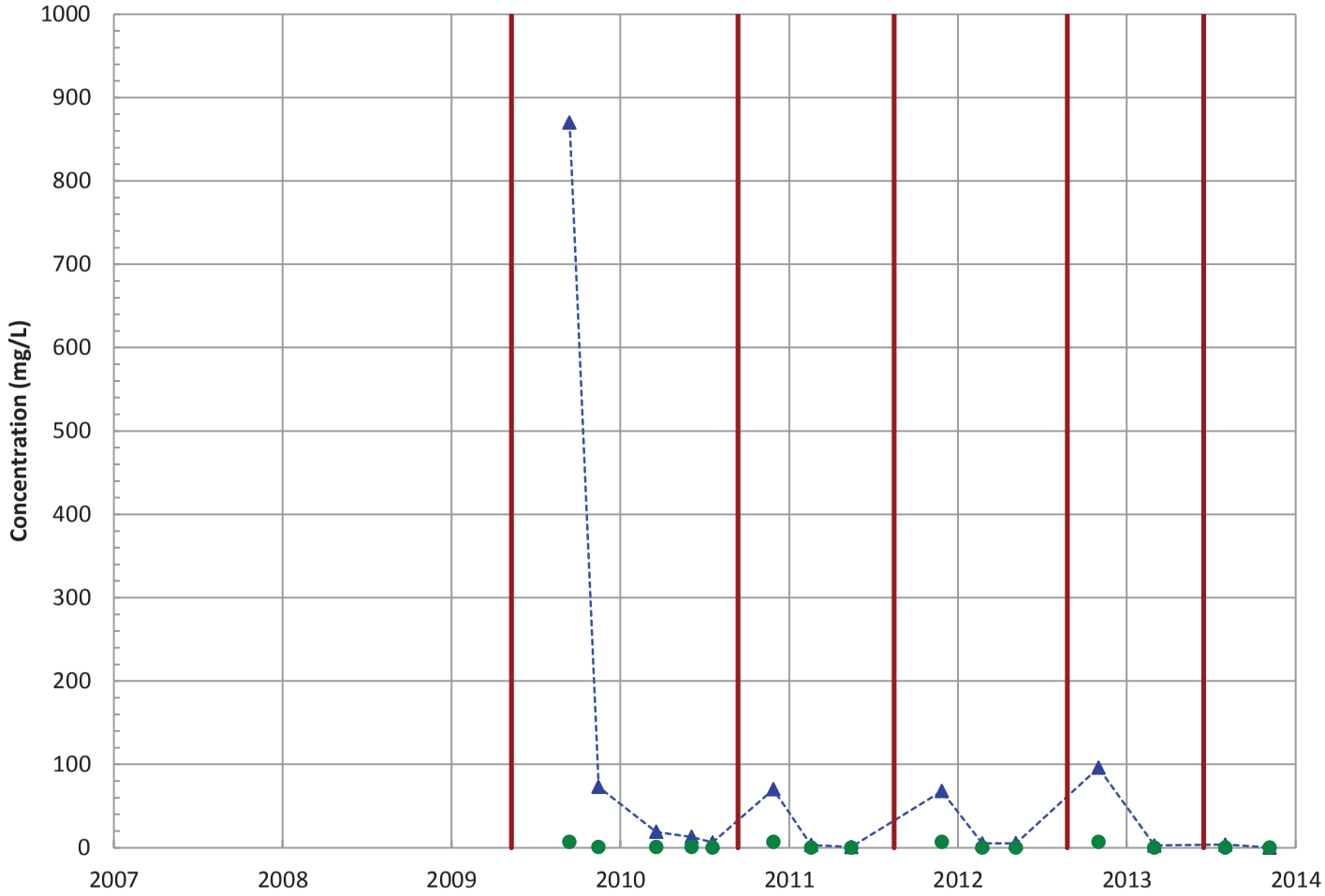
▲ Measured Value
● Sample Detection Limit
---- Concentration Trend
— Injection Dates

Well Location

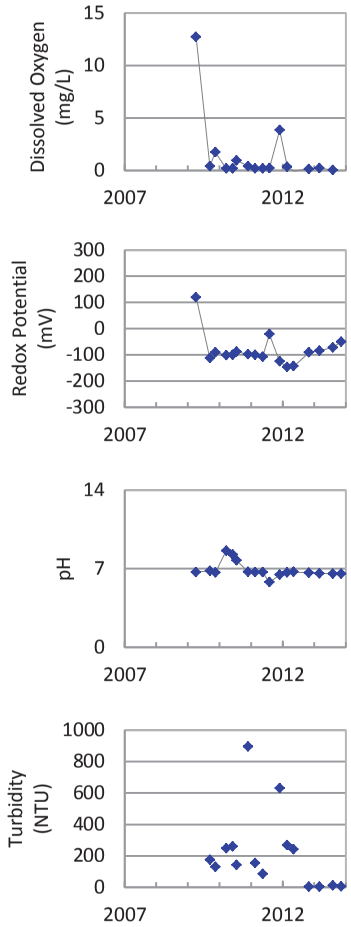


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/6/2009 to 11/11/2013
Analysis Date: 3/21/2014

PTX06-ISB075
Acetic Acid Trend in Perched Aquifer



Field Parameters



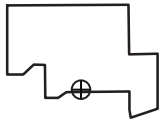
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Probably Decreasing

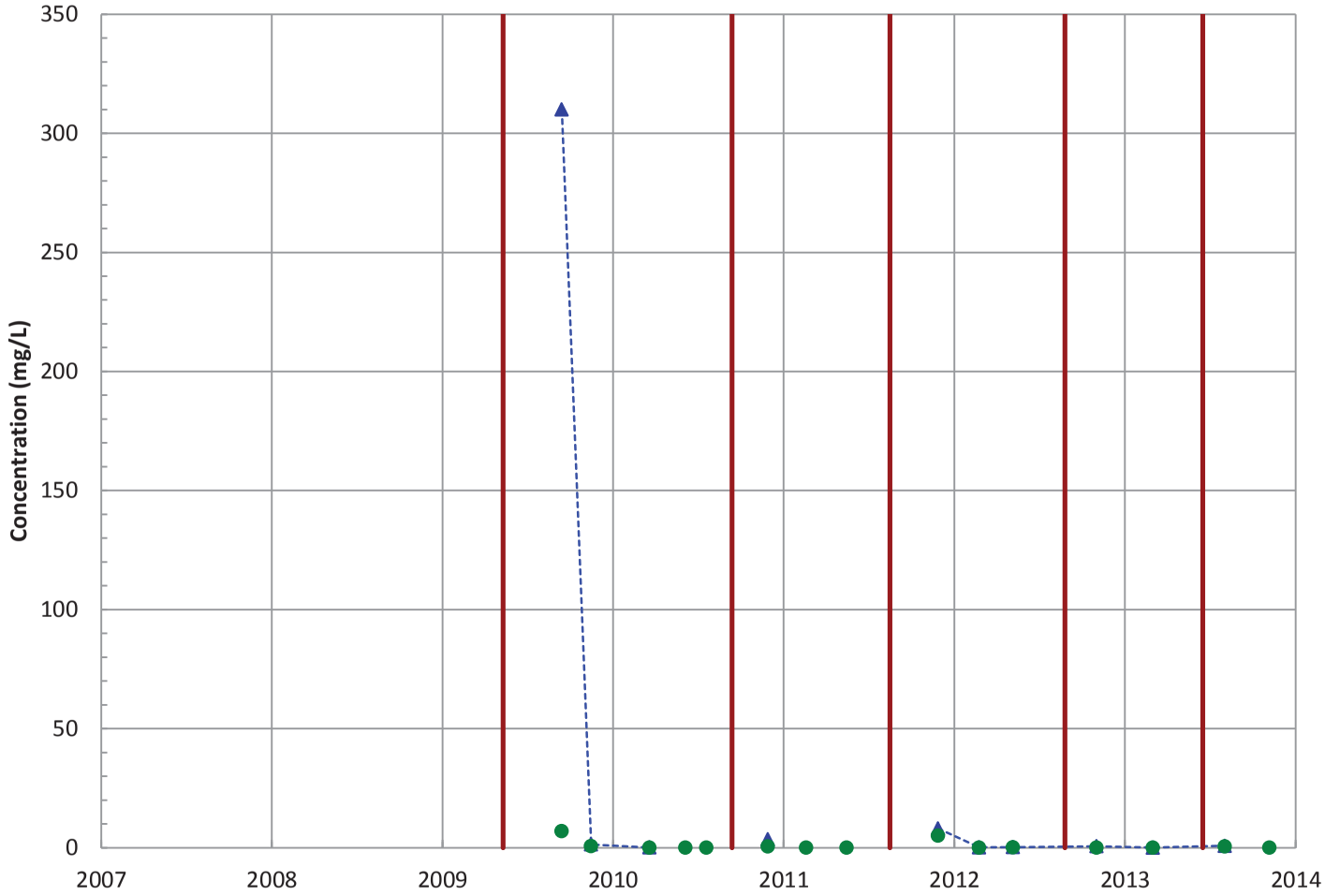
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Injection Dates

Well Location

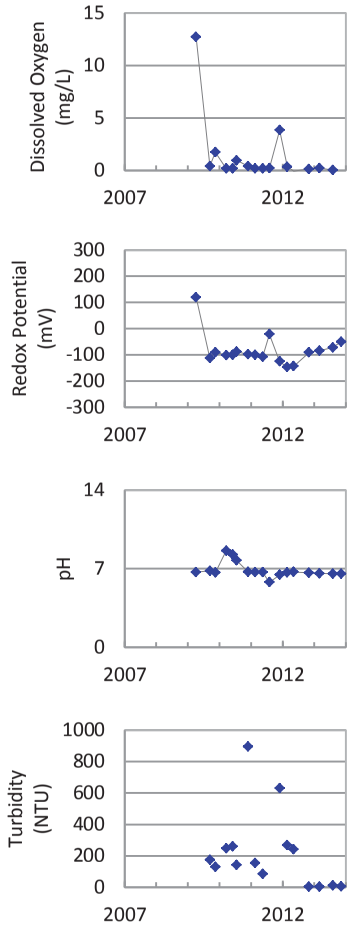


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/15/2009 to 11/11/2013
Analysis Date: 3/21/2014

PTX06-ISB075
Butyric Acid Trend in Perched Aquifer



Field Parameters



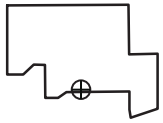
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Probably Decreasing
Last 4 Samples: No Trend

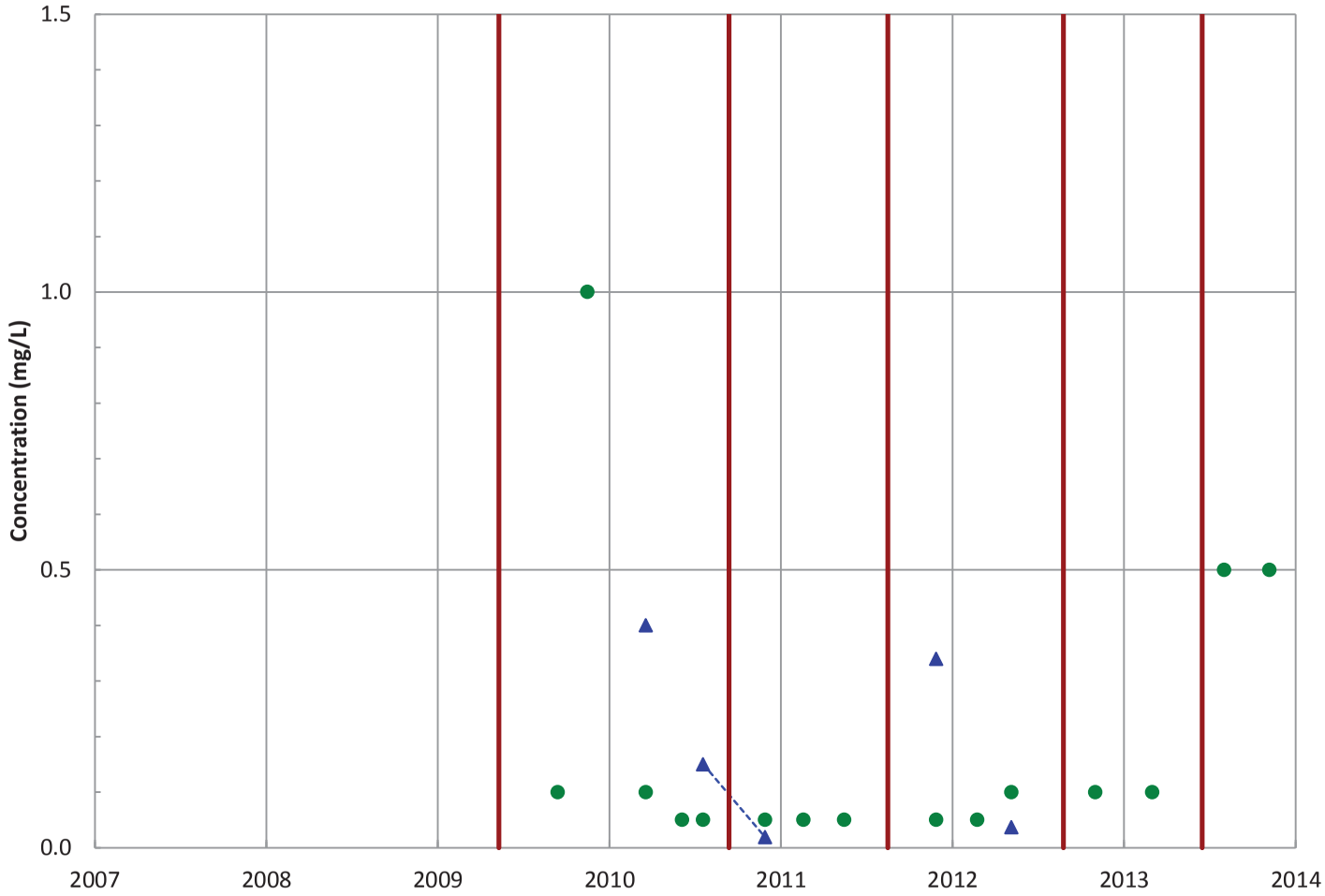
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

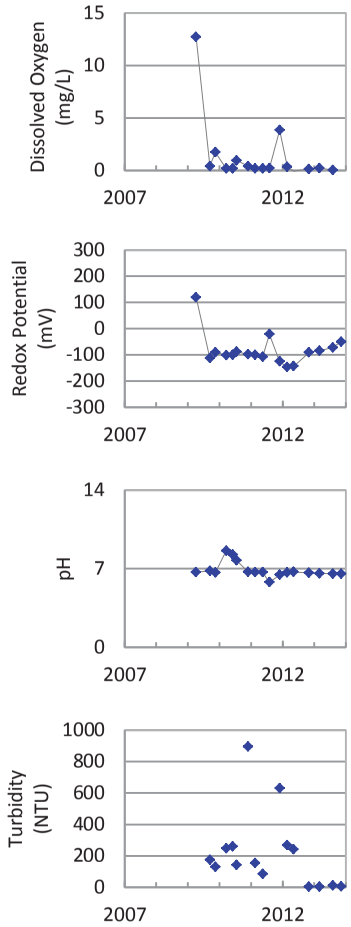


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/15/2009 to 11/11/2013
Analysis Date: 3/21/2014

PTX06-ISB075
Hexanoic Acid Trend in Perched Aquifer



Field Parameters



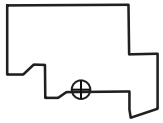
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: No Trend

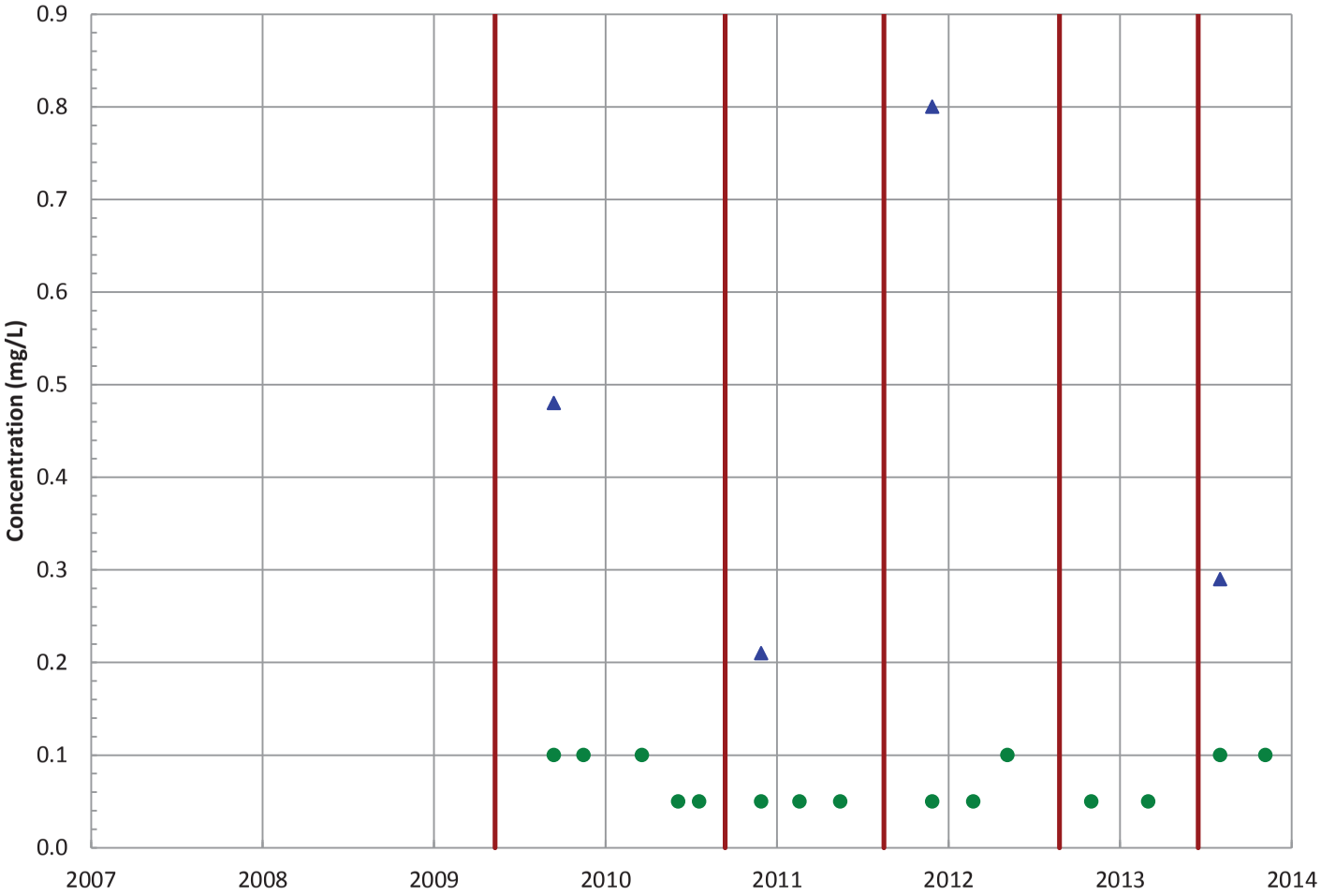
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

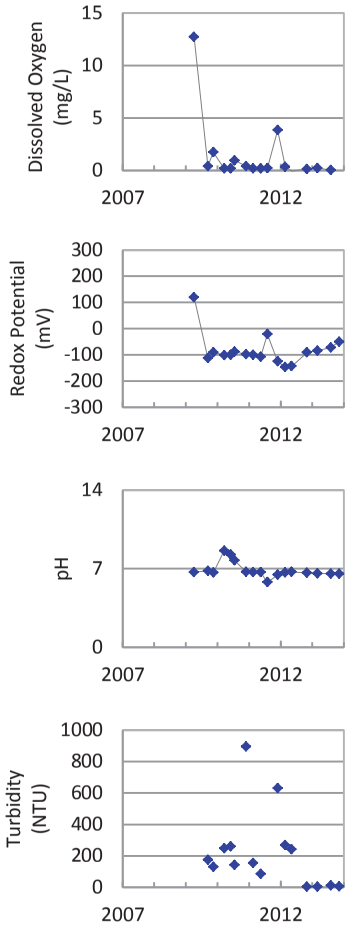


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/15/2009 to 11/11/2013
Analysis Date: 3/21/2014

PTX06-ISB075
i-Hexanoic Acid Trend in Perched Aquifer



Field Parameters



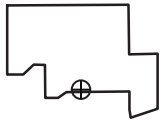
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: Stable

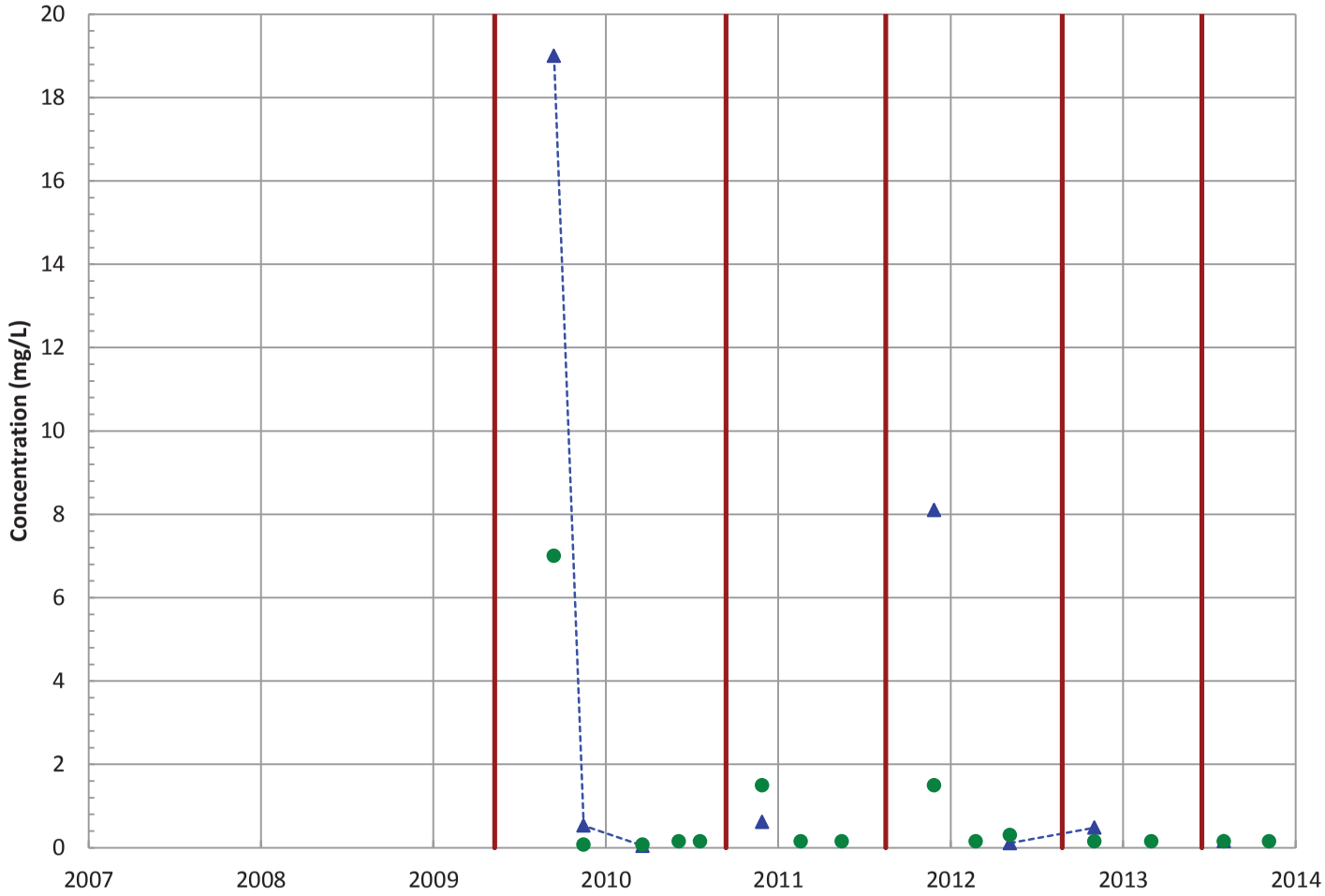
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
═══ Injection Dates

Well Location

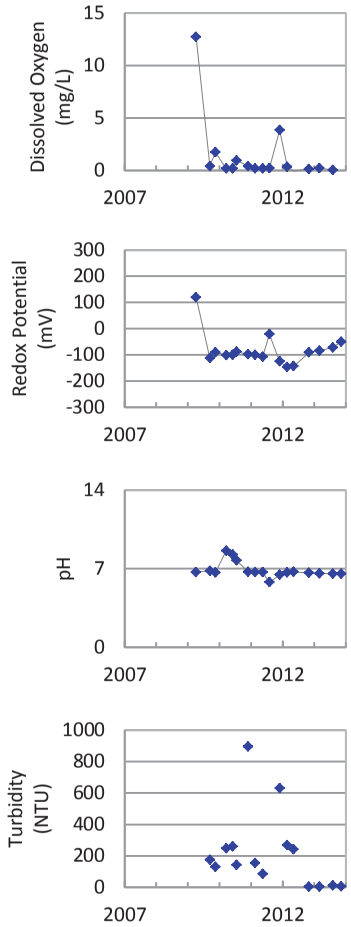


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/15/2009 to 11/11/2013
Analysis Date: 3/21/2014

PTX06-ISB075
i-Pentanoic Acid Trend in Perched Aquifer



Field Parameters



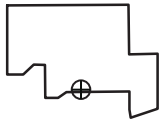
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

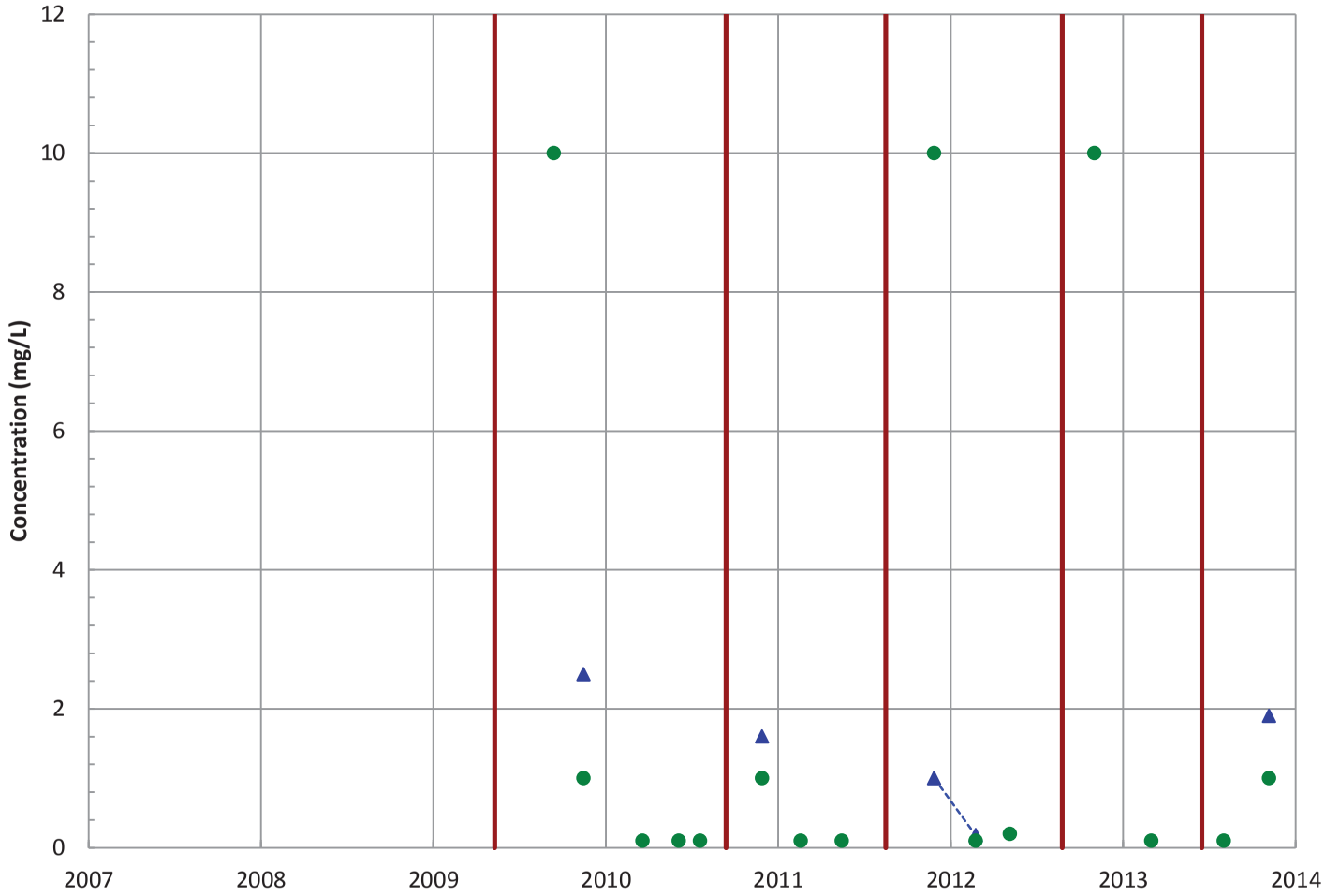
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Injection Dates

Well Location

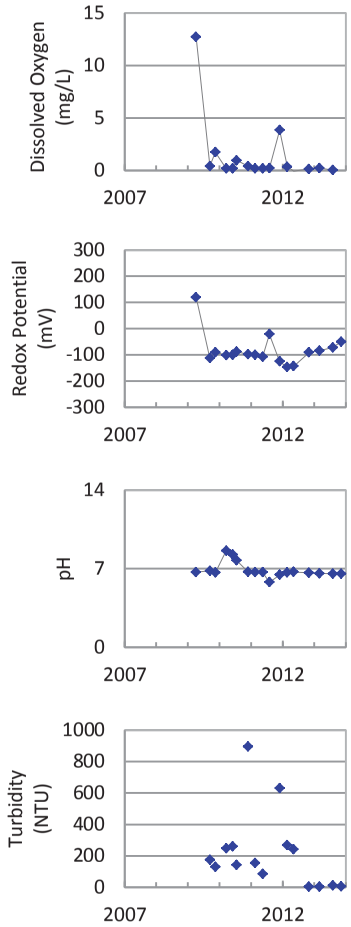


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/15/2009 to 11/11/2013
Analysis Date: 3/21/2014

PTX06-ISB075
Lactic Acid and HIBA Trend in Perched Aquifer



Field Parameters



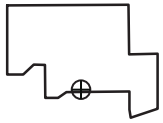
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: Stable

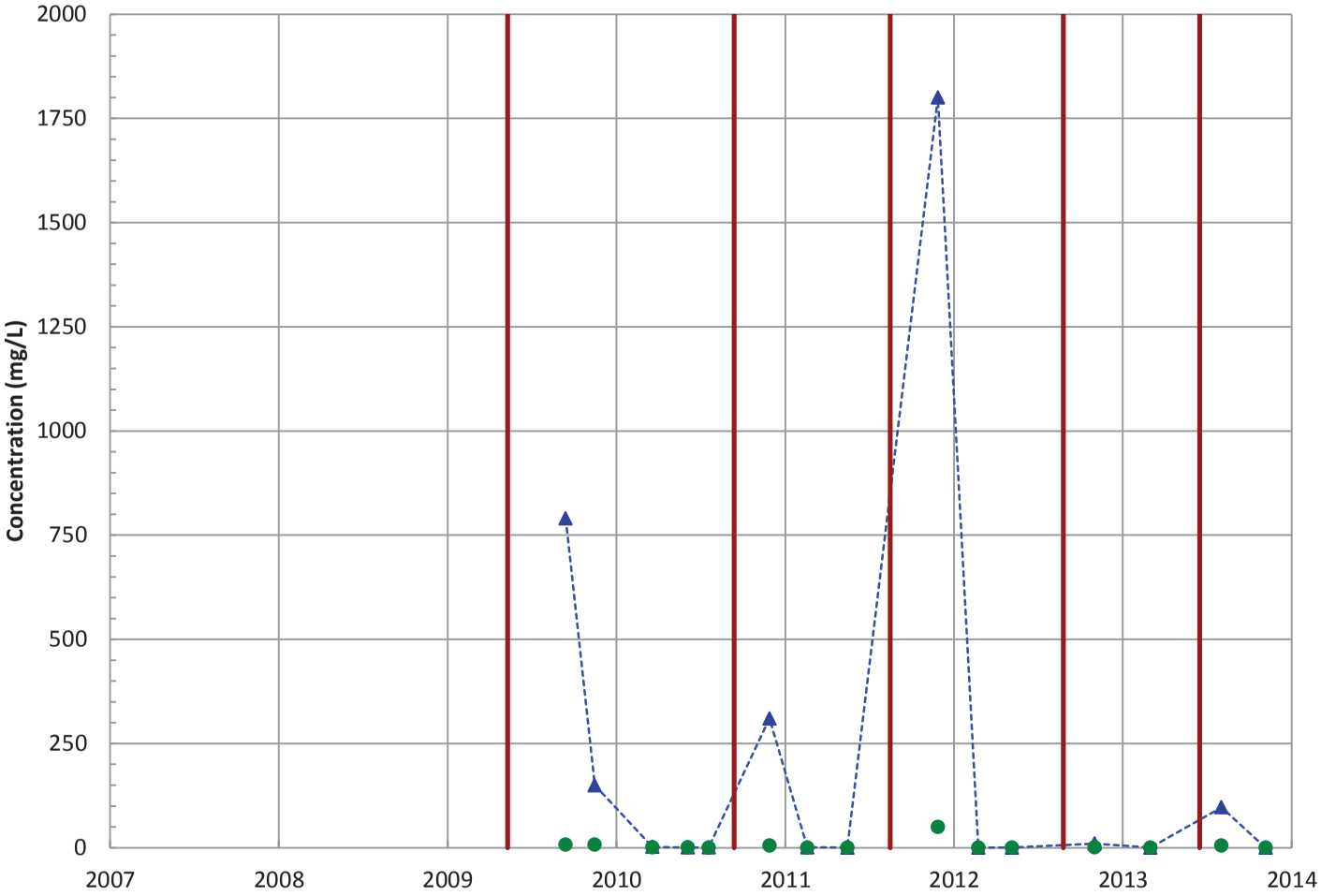
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

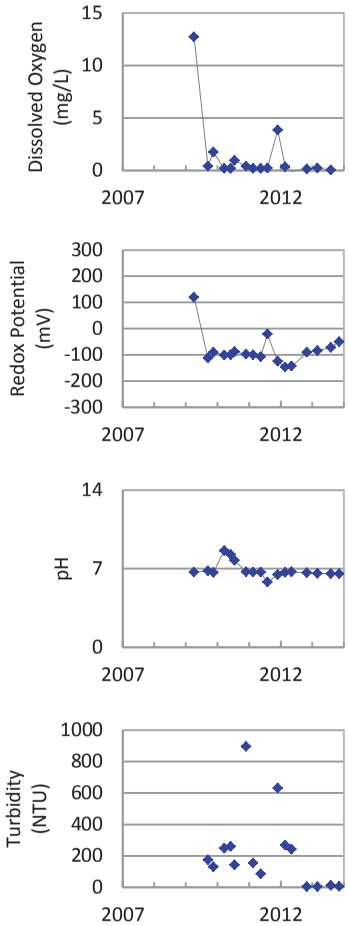


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/15/2009 to 11/11/2013
Analysis Date: 3/21/2014

PTX06-ISB075
Propionic Acid Trend in Perched Aquifer



Field Parameters



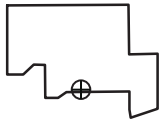
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

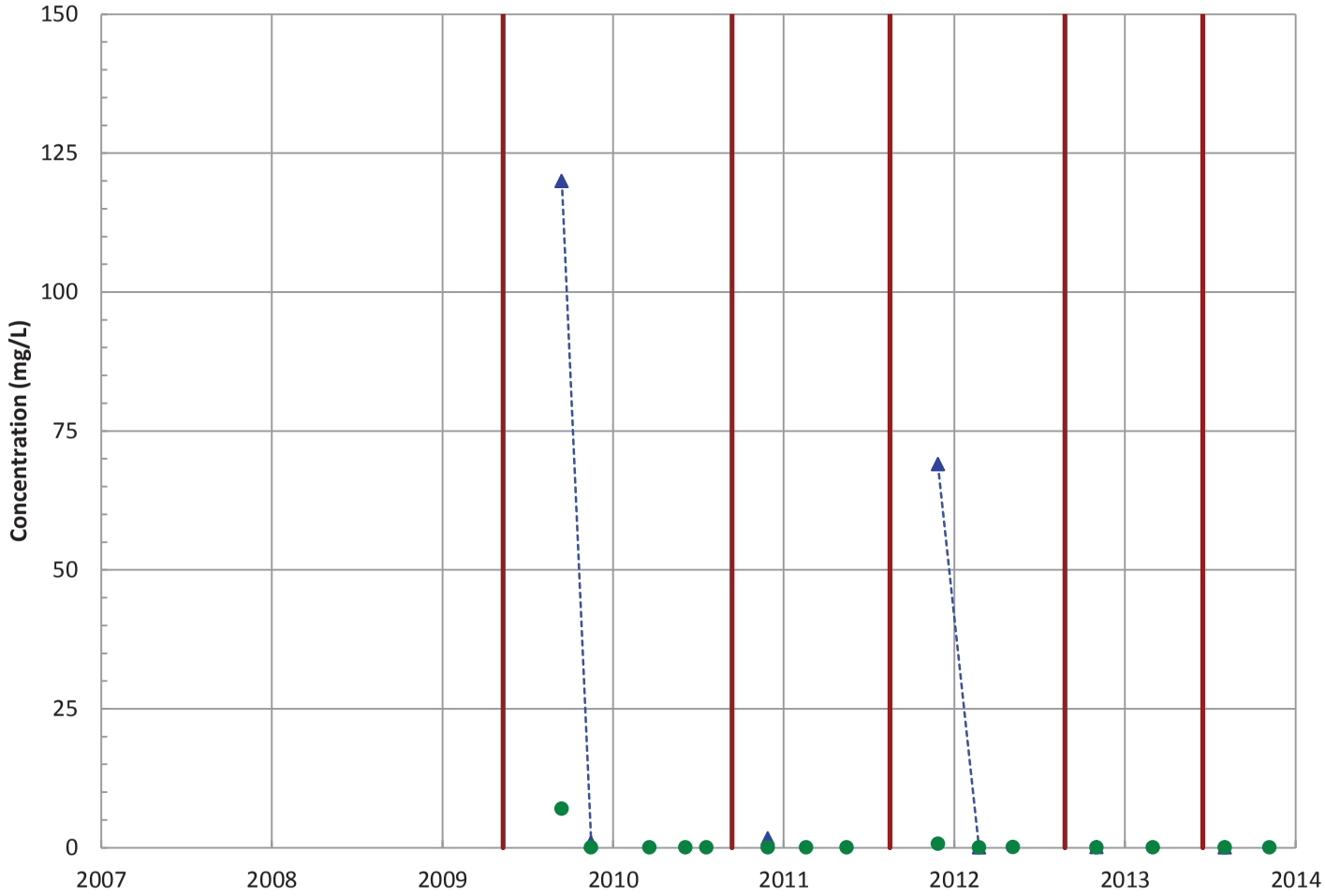
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

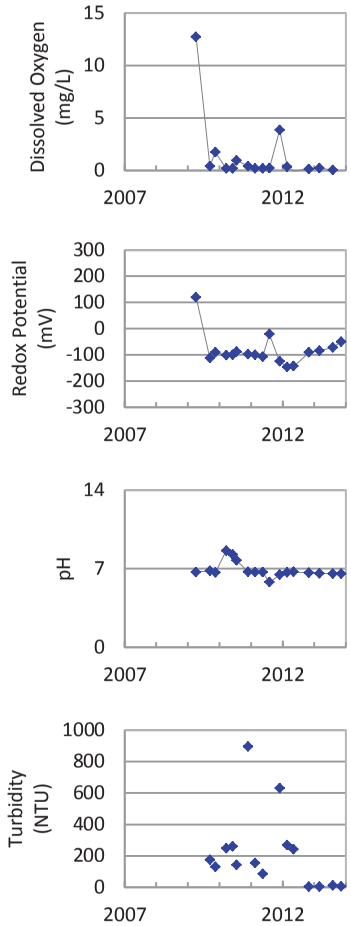


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/15/2009 to 11/11/2013
Analysis Date: 3/21/2014

PTX06-ISB075
Pentanoic Acid Trend in Perched Aquifer



Field Parameters



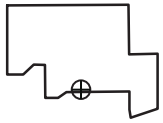
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Probably Decreasing
Last 4 Samples: No Trend

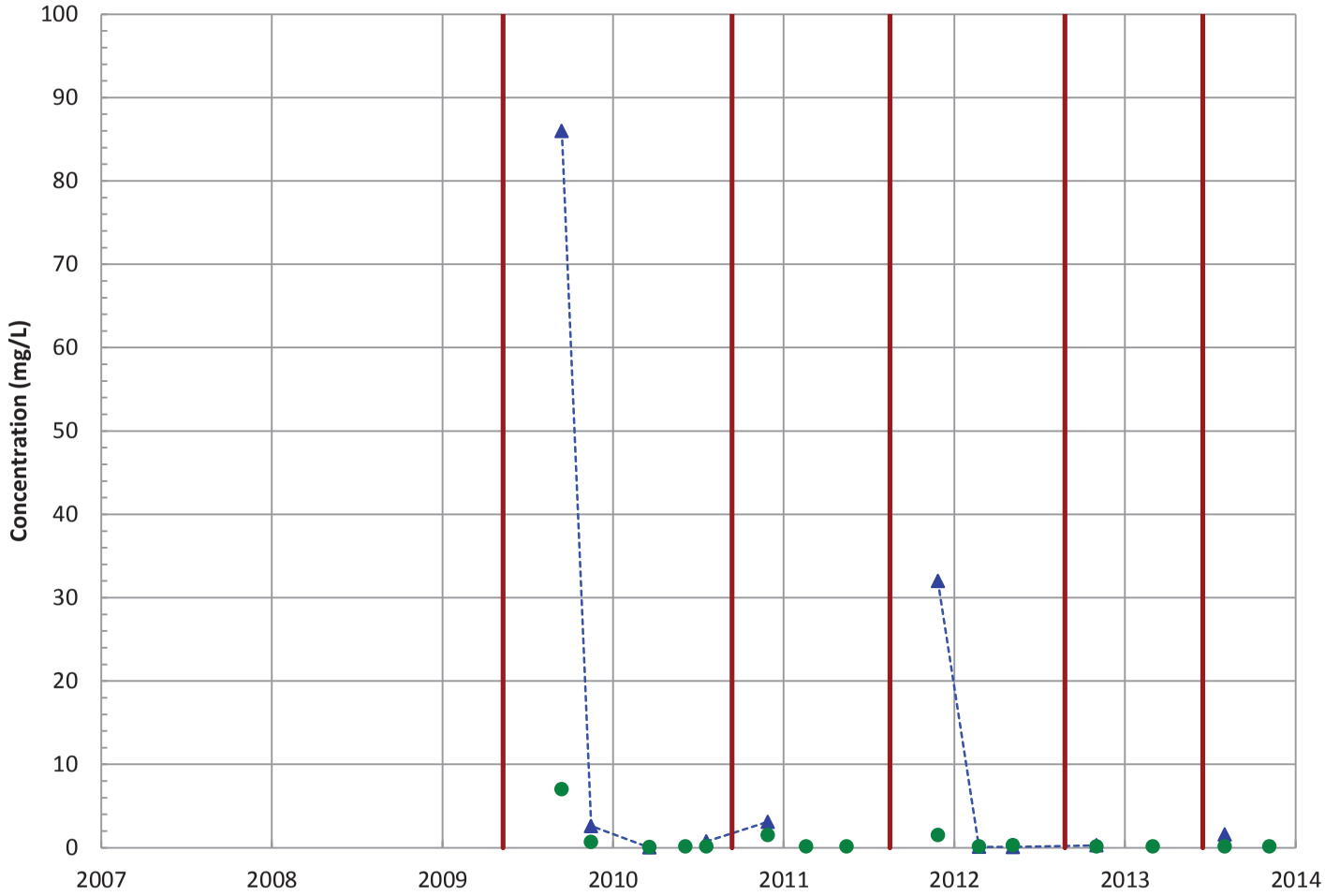
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

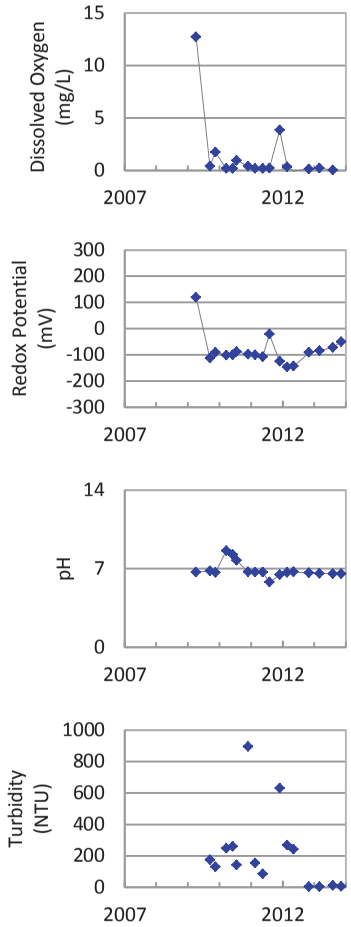


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/15/2009 to 11/11/2013
Analysis Date: 3/21/2014

PTX06-ISB075
Pyruvic Acid Trend in Perched Aquifer



Field Parameters



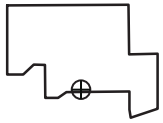
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Increasing

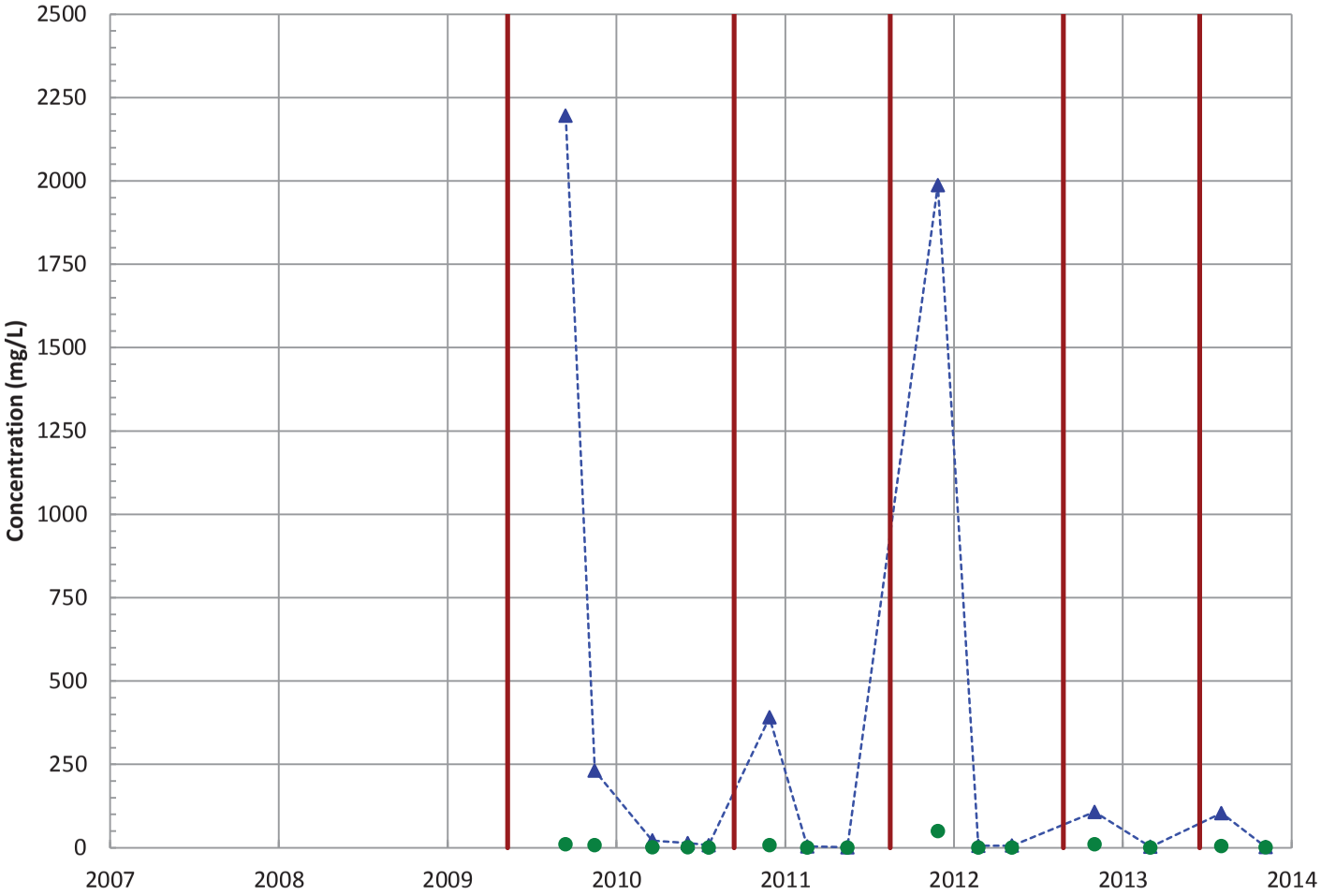
▲ Measured Value
● Sample Detection Limit
Concentration Trend
Injection Dates

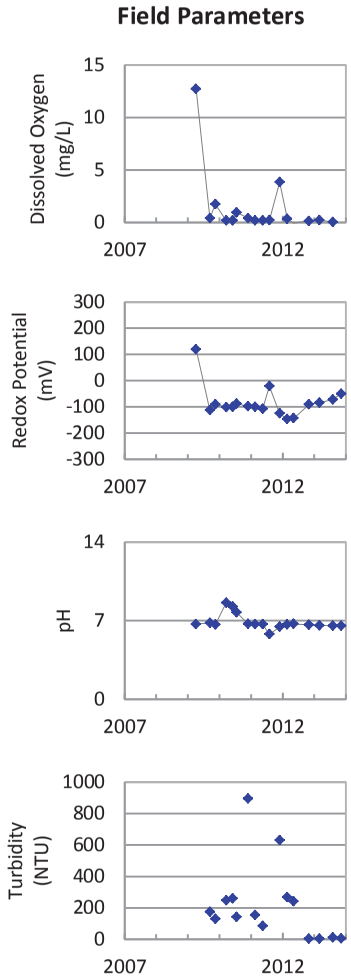
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/15/2009 to 11/11/2013
Analysis Date: 3/21/2014

PTX06-ISB075
Total Volatile Fatty Acids Trend in Perched Aquifer





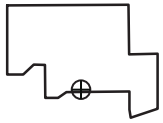
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

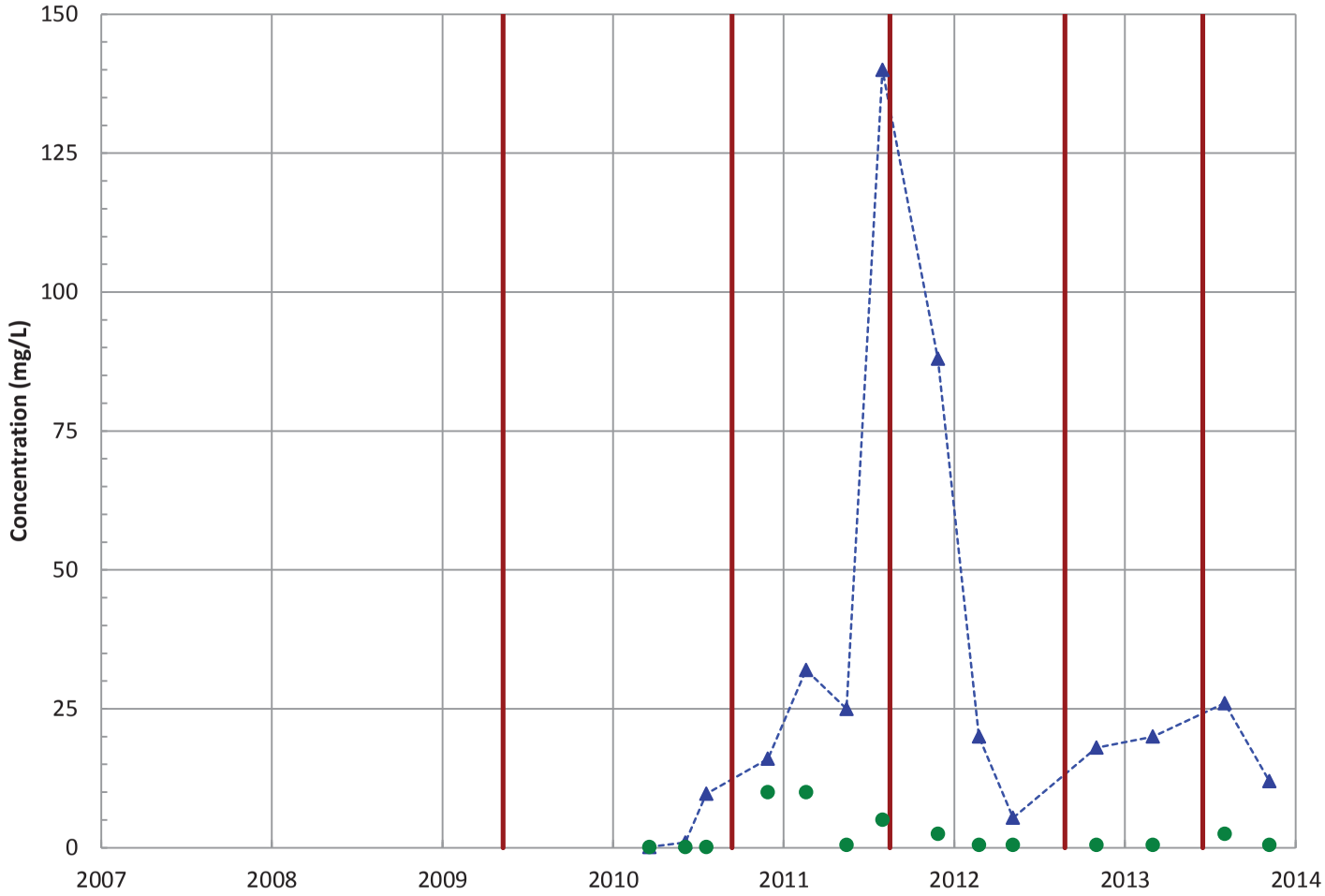
▲ Measured Value
● Sample Detection Limit
---- Concentration Trend
— Injection Dates

Well Location

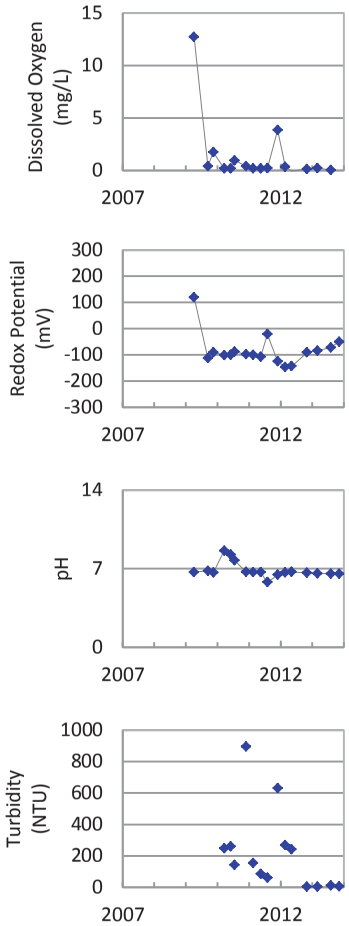


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/15/2009 to 11/11/2013
Analysis Date: 3/21/2014

PTX06-ISB075
Ferrous Iron Trend in Perched Aquifer



Field Parameters



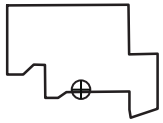
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Stable

MAROS Linear Regression Method
All Data: Probably Increasing
Last 4 Samples: Stable

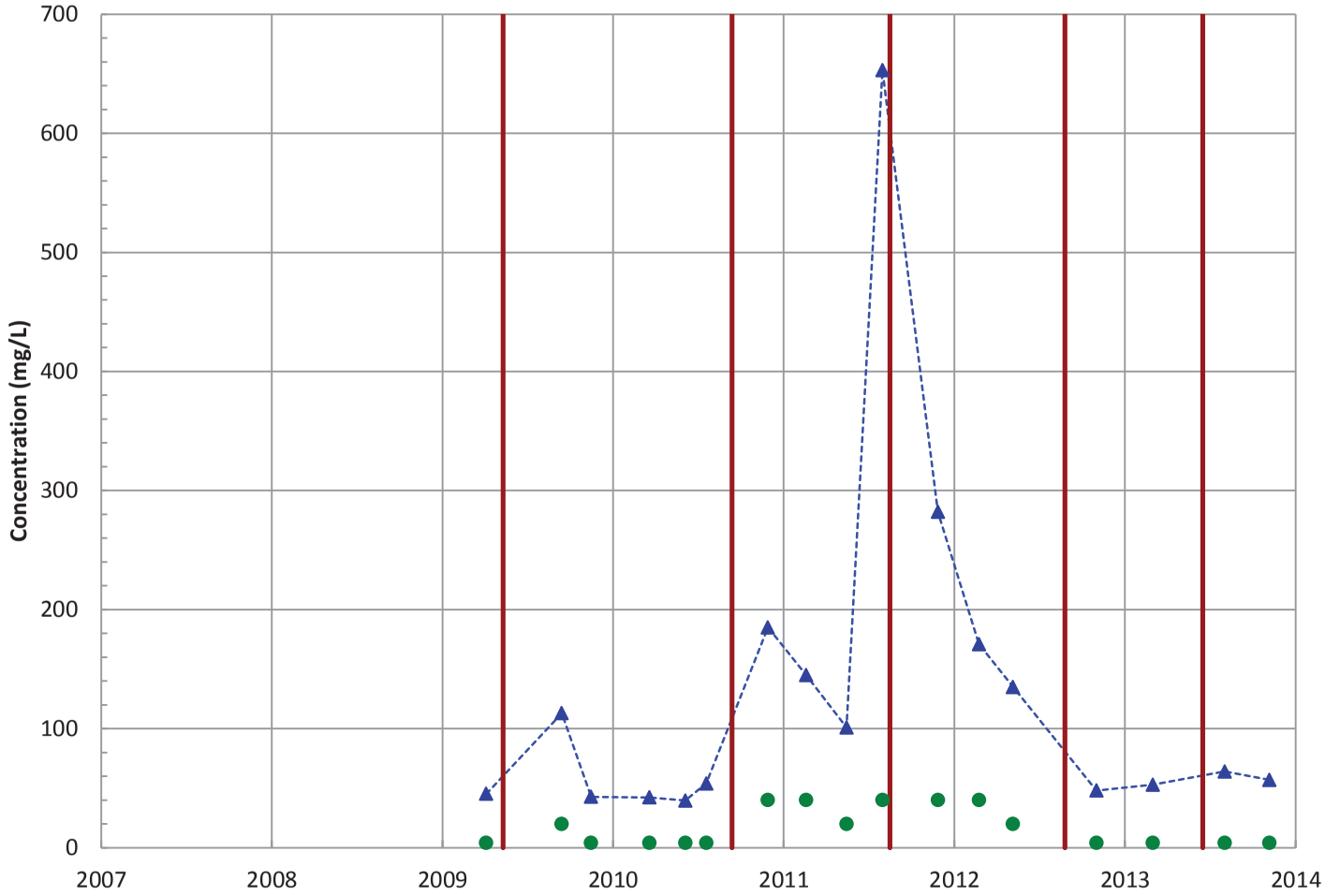
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

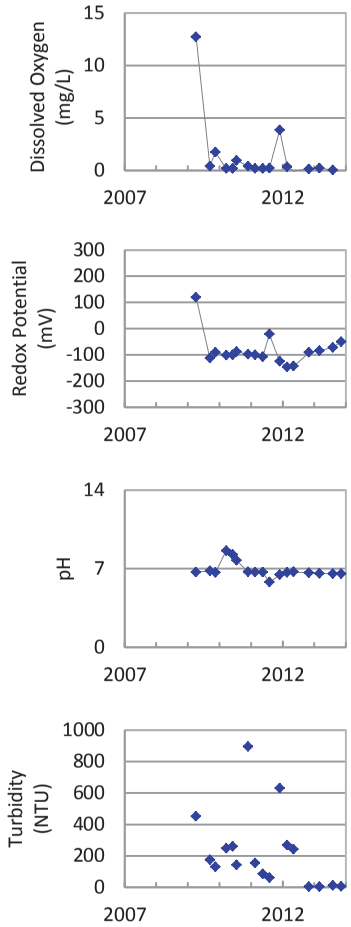


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/22/2010 to 11/11/2013
Analysis Date: 3/21/2014

PTX06-ISB075
Chloride (as Cl) Trend in Perched Aquifer



Field Parameters



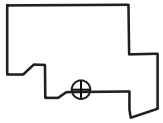
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

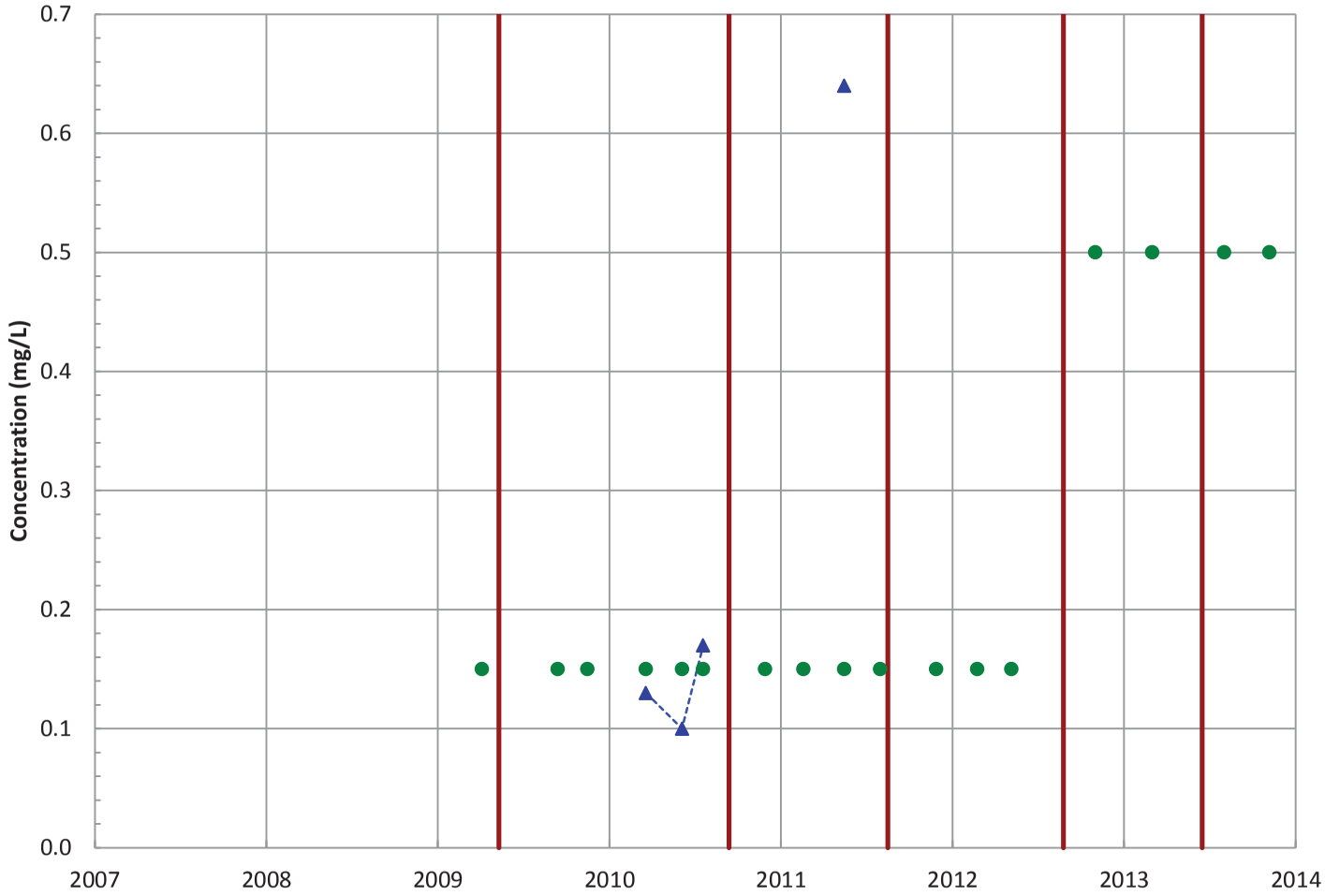
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Injection Dates

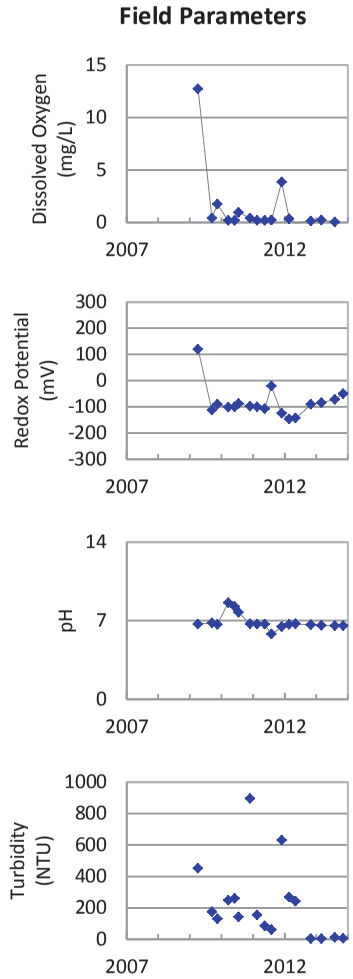
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/6/2009 to 11/11/2013
Analysis Date: 3/21/2014

PTX06-ISB075
Chlorate Trend in Perched Aquifer





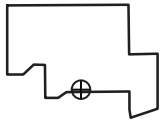
Concentration Trend

MAROS Mann-Kendall Method
All Data: Probably Increasing
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: Increasing

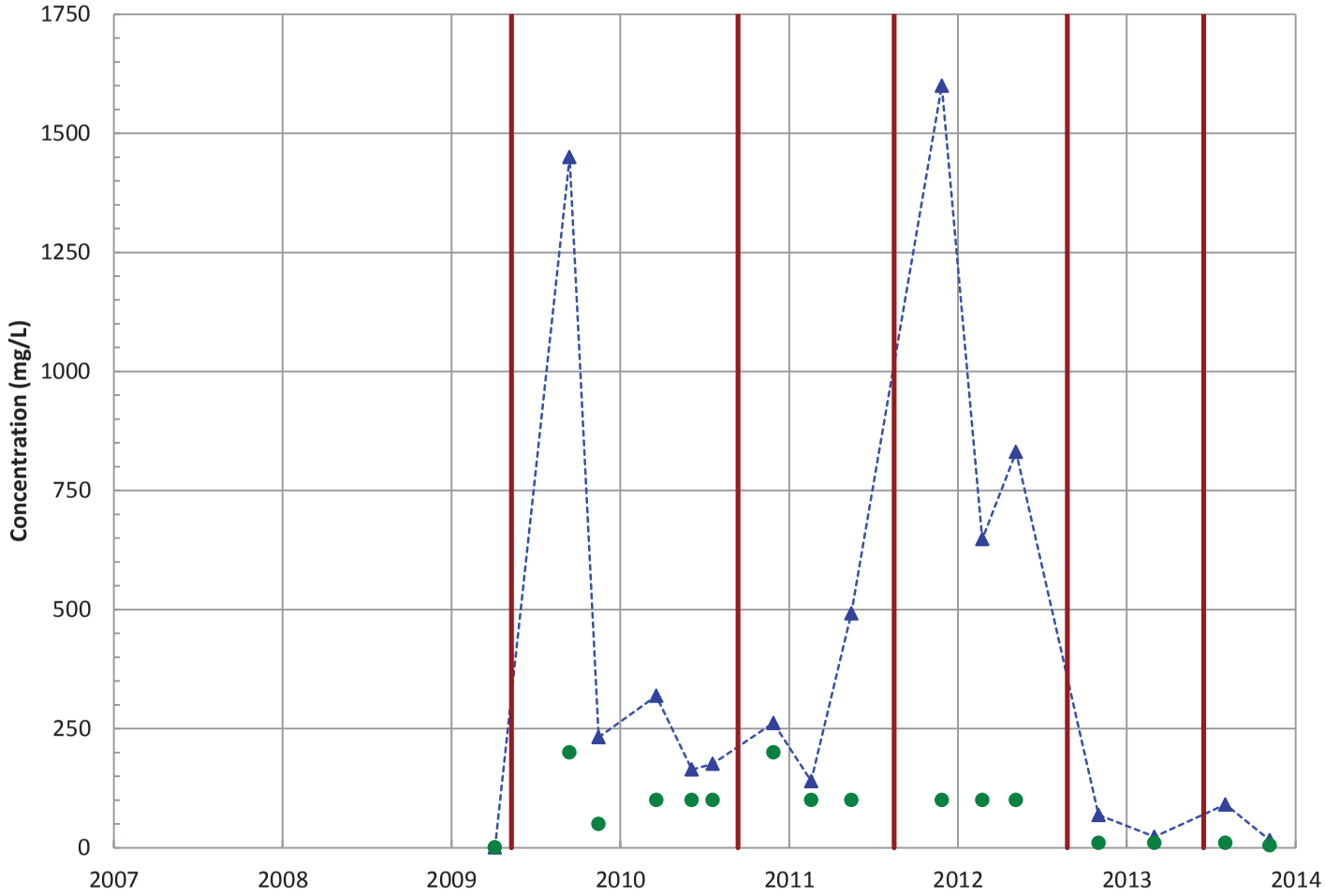
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

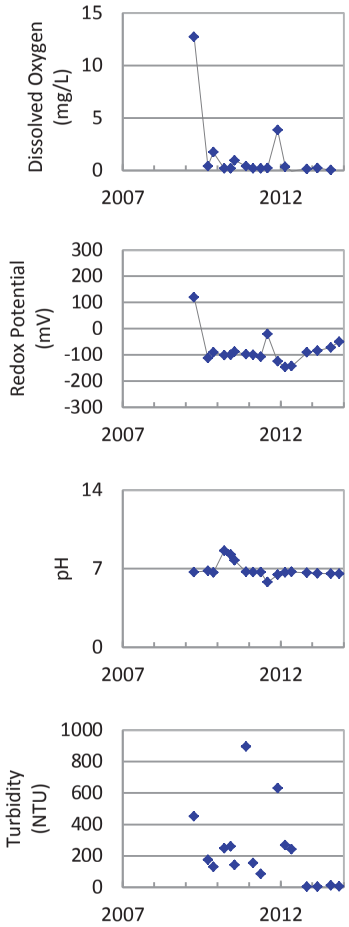


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/6/2009 to 11/11/2013
Analysis Date: 3/21/2014

PTX06-ISB075
Total Organic Carbon Trend in Perched Aquifer



Field Parameters



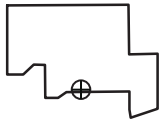
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Stable

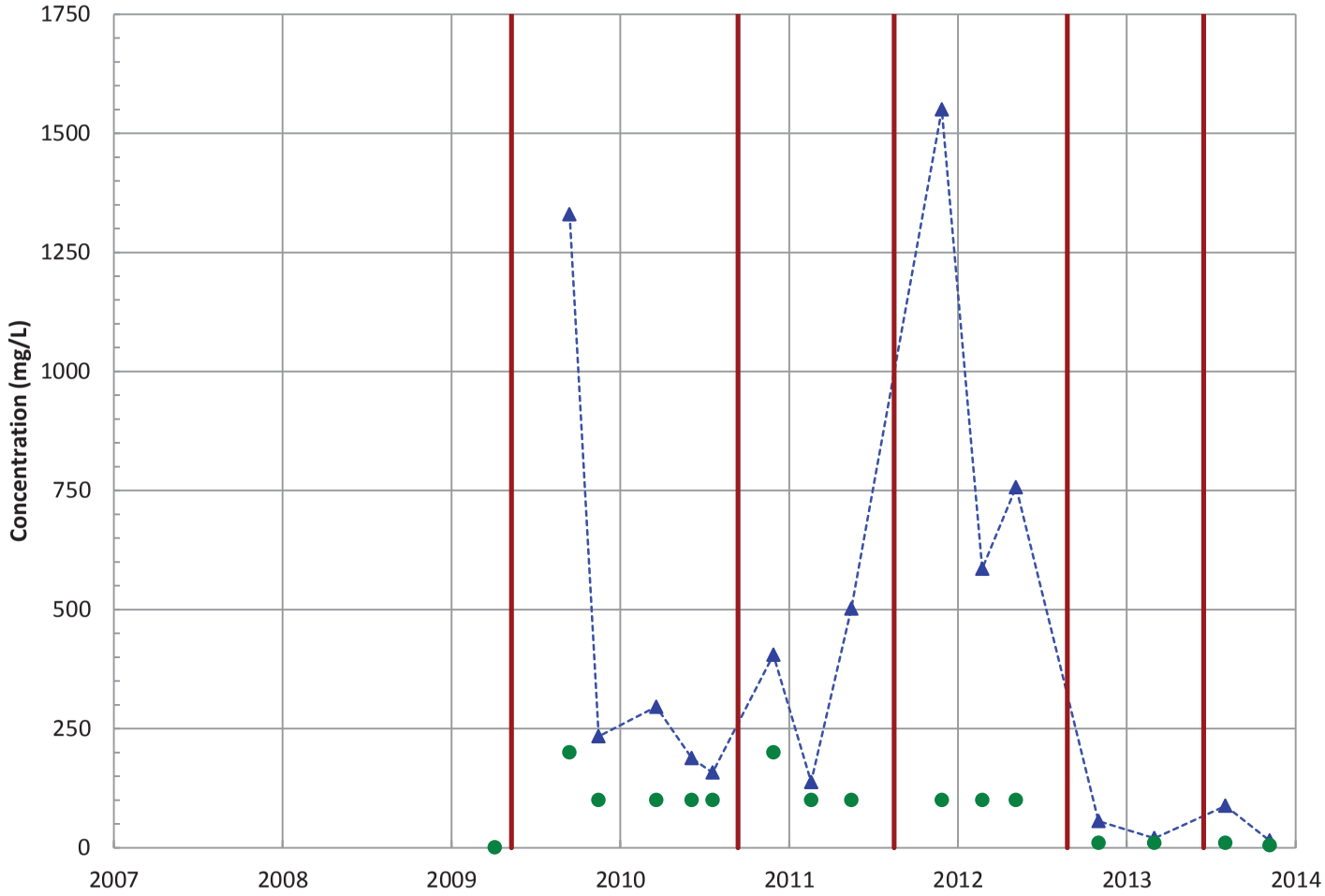
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

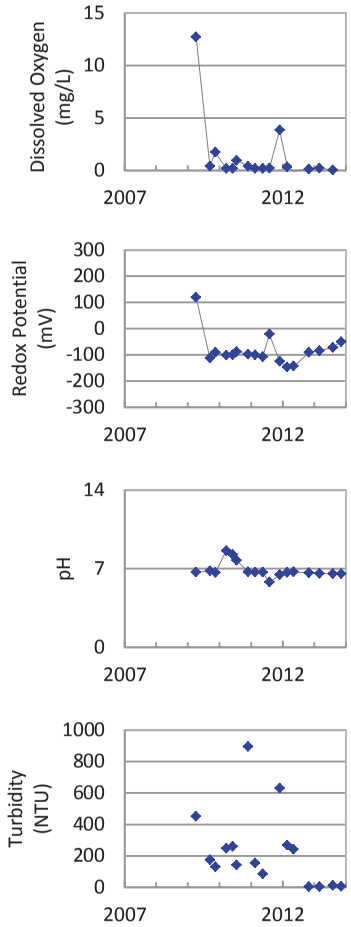


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/6/2009 to 11/11/2013
Analysis Date: 3/21/2014

PTX06-ISB075
Dissolved Organic Carbon (DOC) Trend in Perched Aquifer



Field Parameters



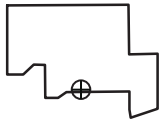
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Stable

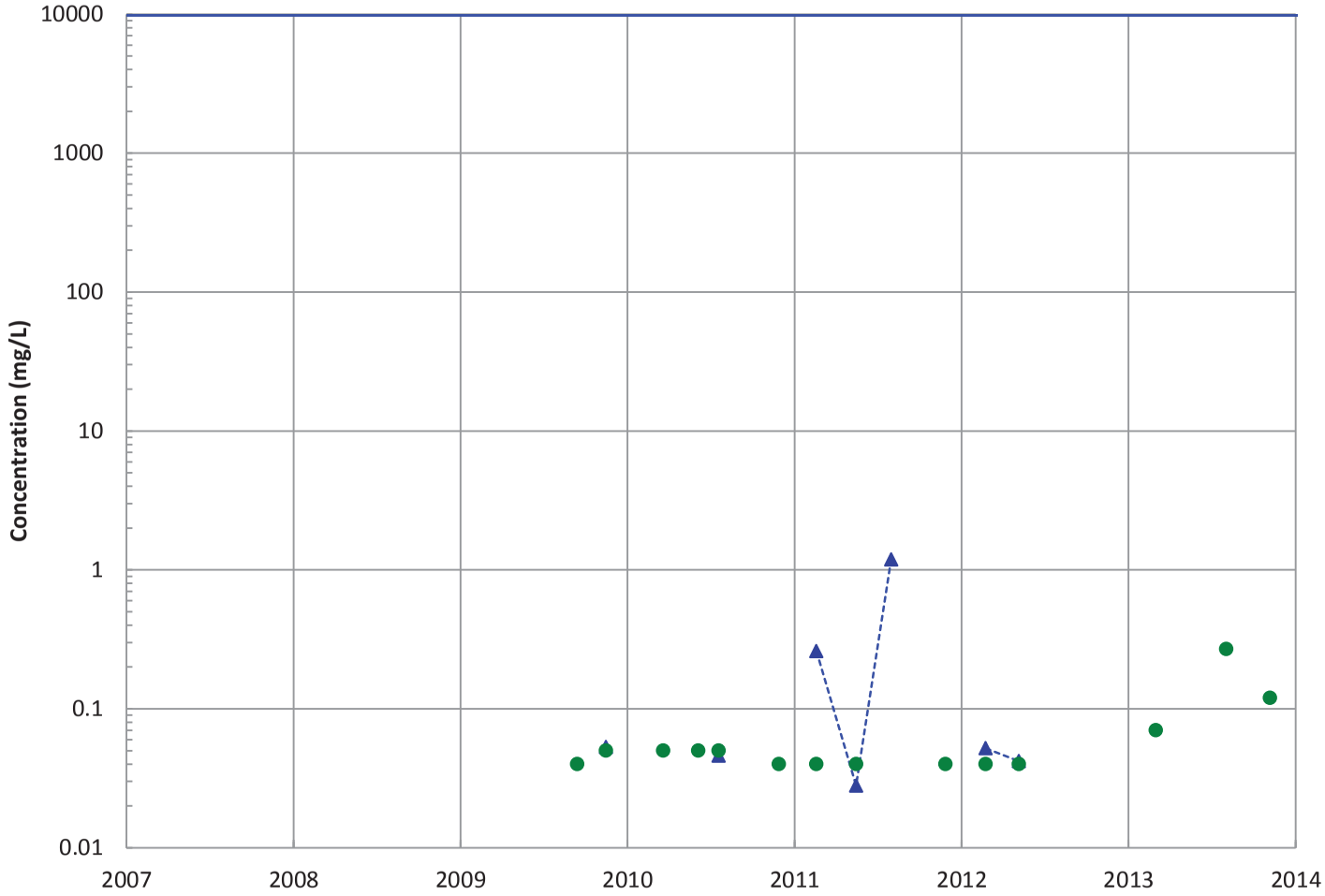
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

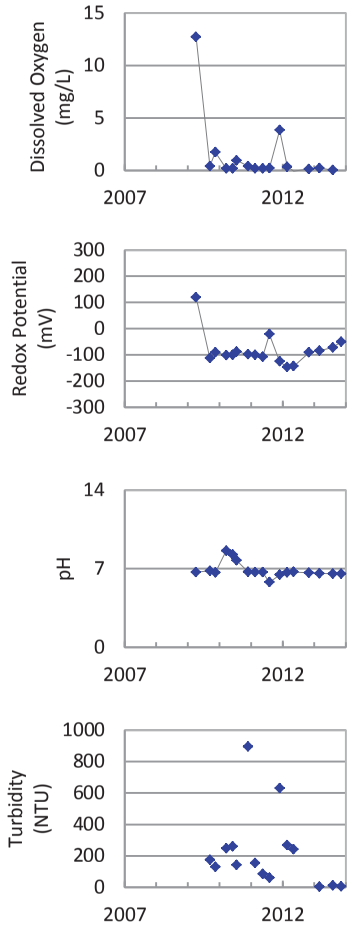


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/6/2009 to 11/11/2013
Analysis Date: 3/21/2014

PTX06-ISB075
Nitrate as N Trend in Perched Aquifer



Field Parameters



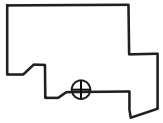
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

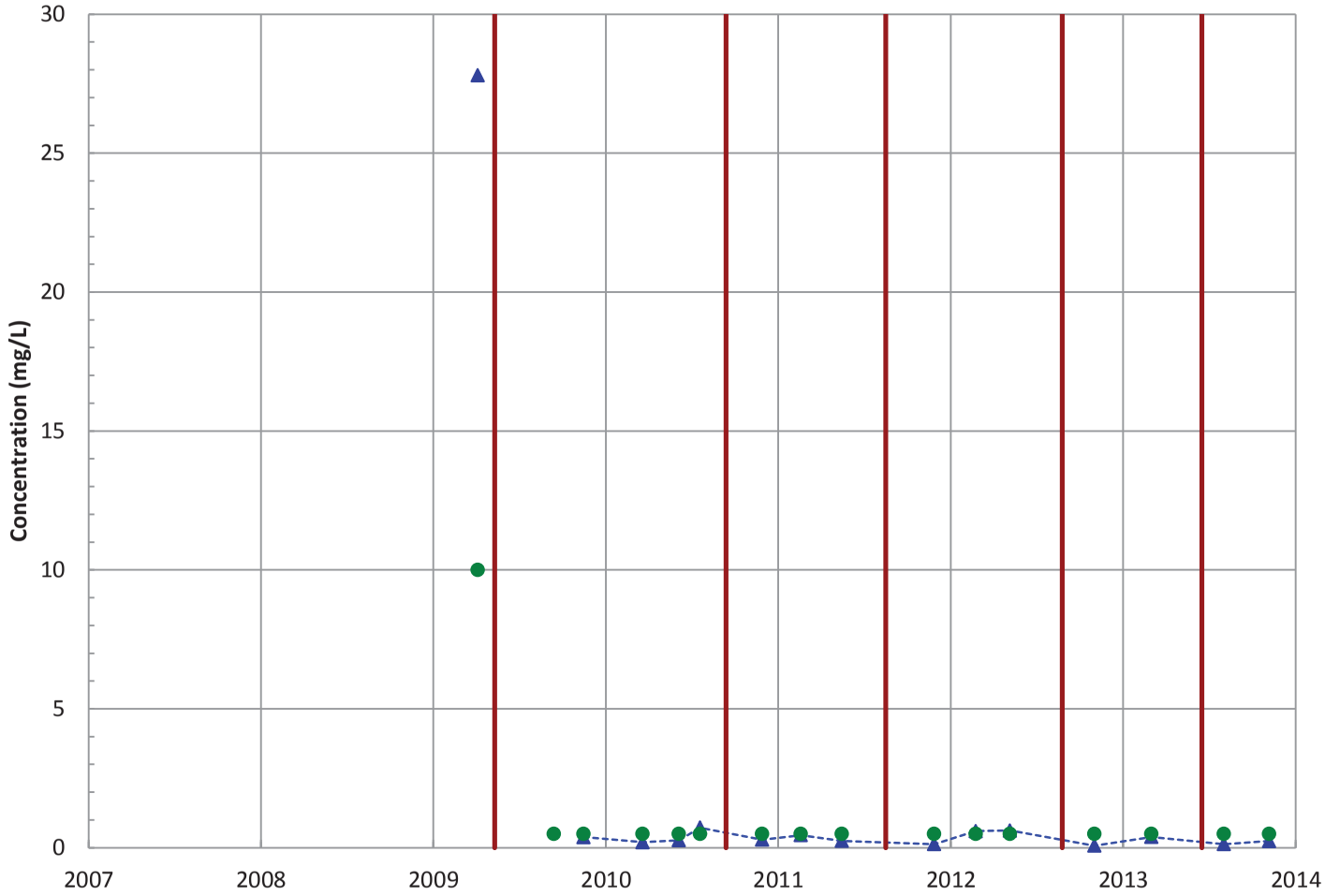
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

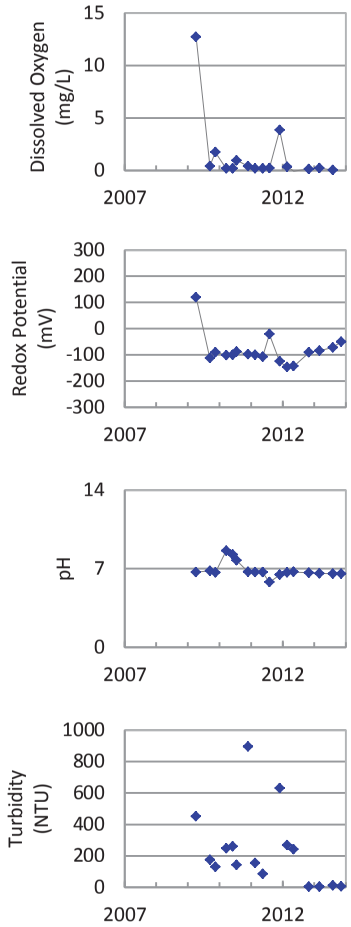


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/15/2009 to 11/11/2013
Analysis Date: 3/21/2014

PTX06-ISB075
Sulfate (as SO4) Trend in Perched Aquifer



Field Parameters



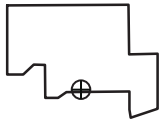
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

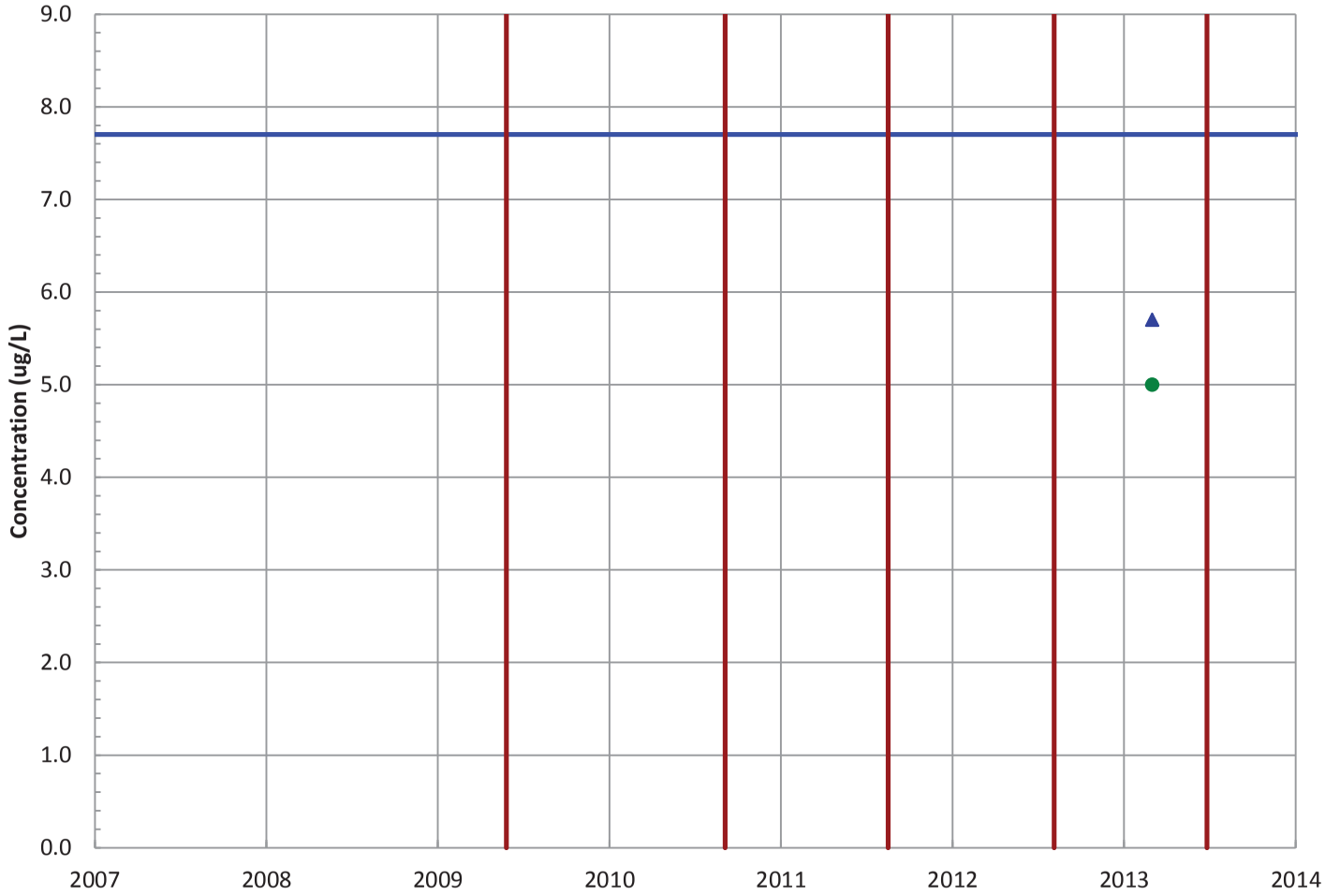
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

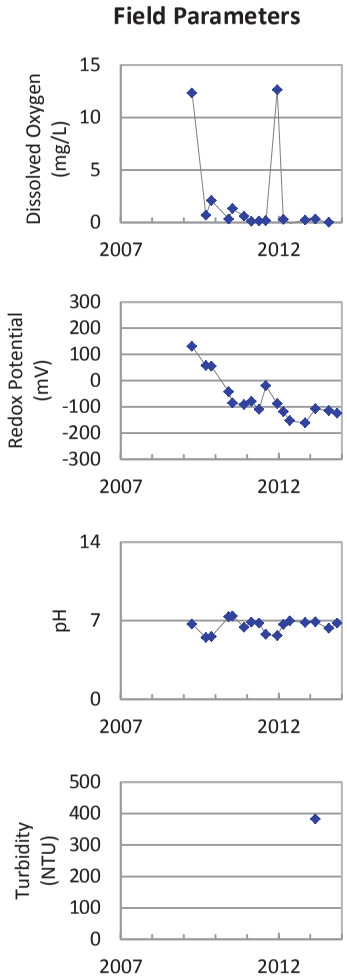
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/6/2009 to 11/11/2013
Analysis Date: 3/21/2014

PTX06-ISB077
1,4-Dioxane (p-Dioxane) Trend in Perched Aquifer





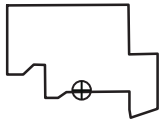
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Samples in Dataset)
Last 4 Samples: N/A (<4 Samples in Dataset)

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

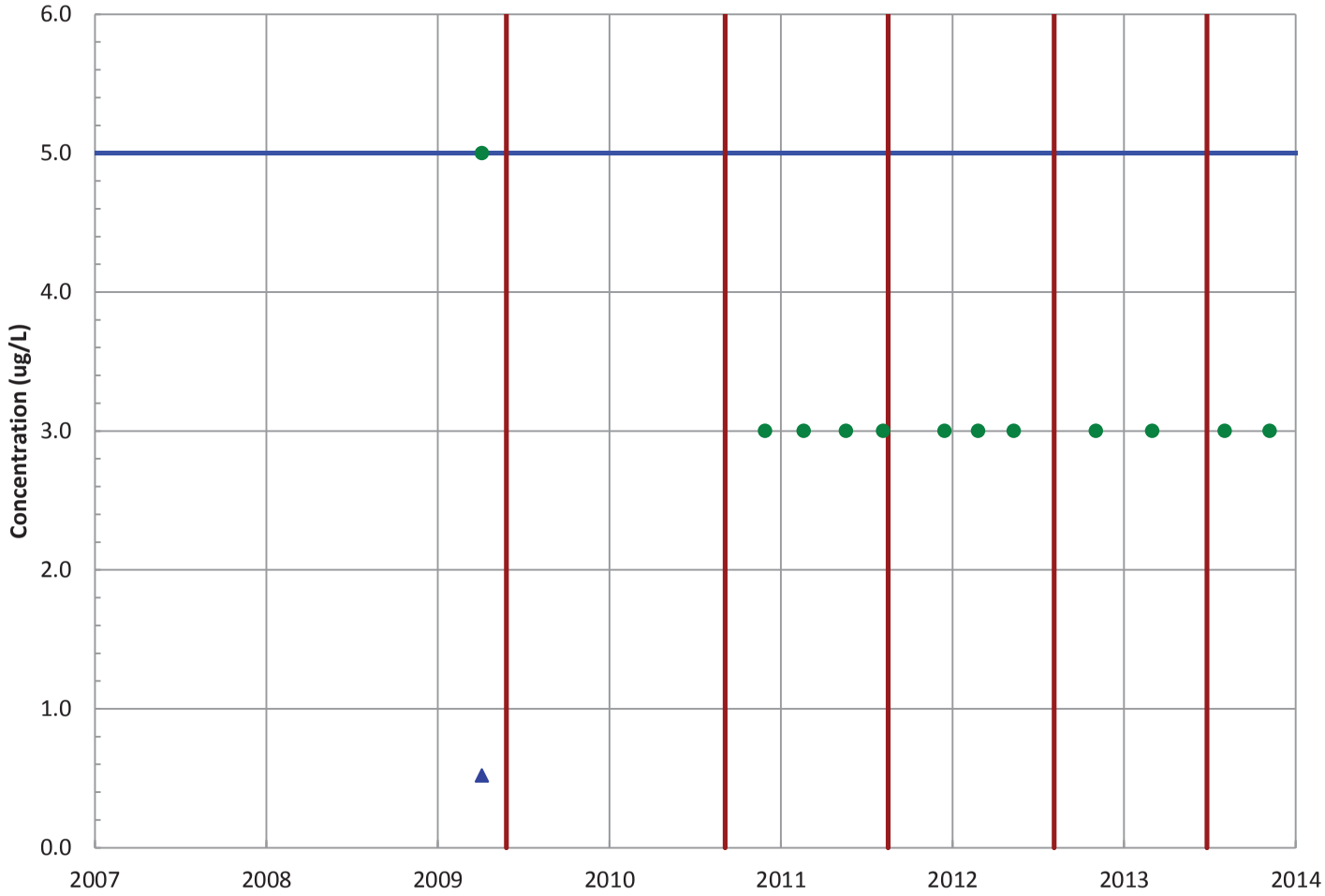
- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

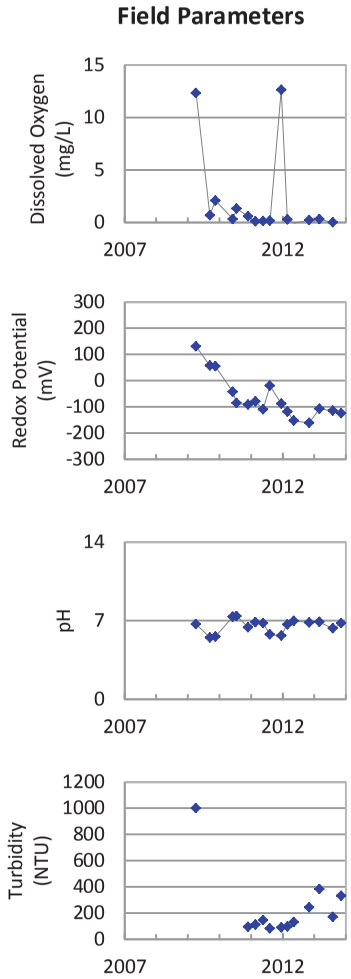
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/6/2013 to 3/6/2013
Analysis Date: 3/21/2014

PTX06-ISB077
Tetrachloroethylene (PCE) Trend in Perched Aquifer





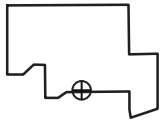
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

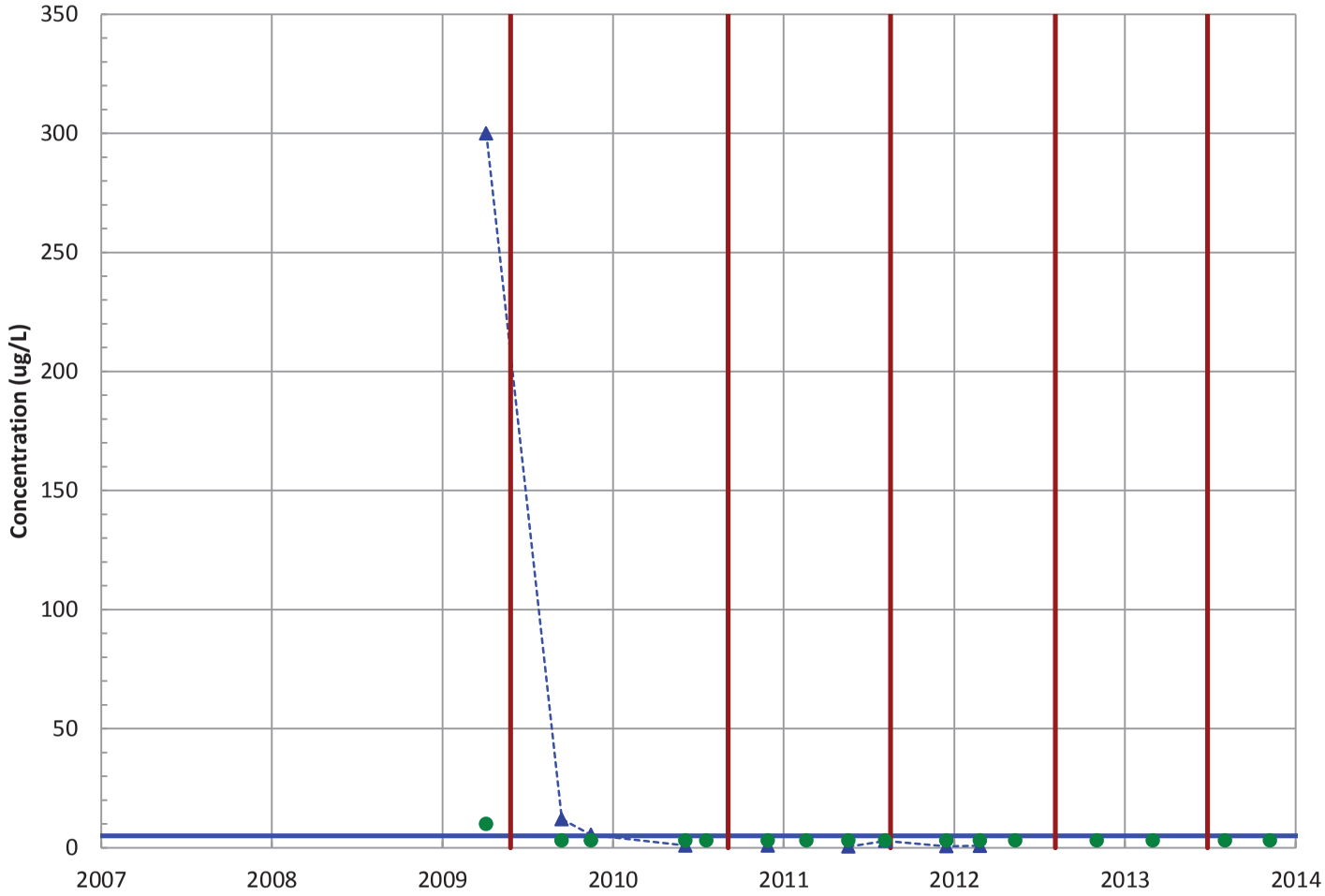
- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

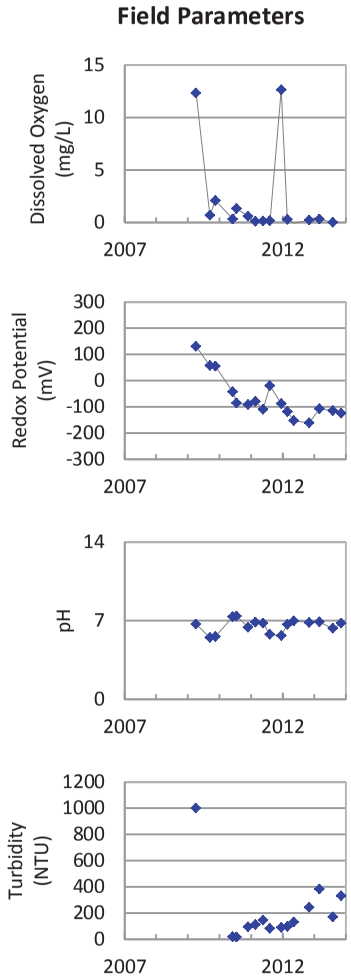
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/6/2009 to 11/12/2013
Analysis Date: 3/21/2014

PTX06-ISB077
Trichloroethene Trend in Perched Aquifer





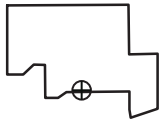
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

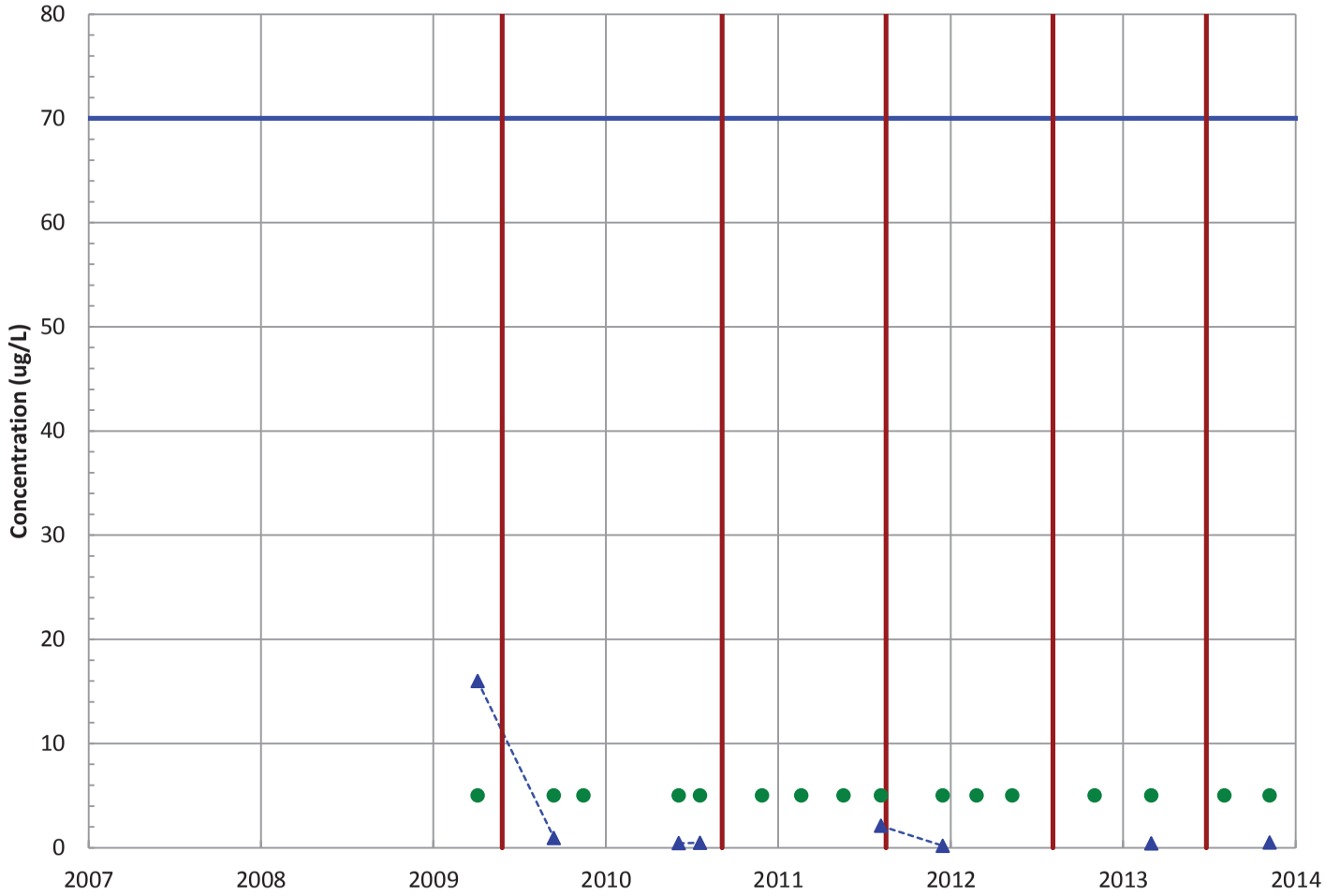
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

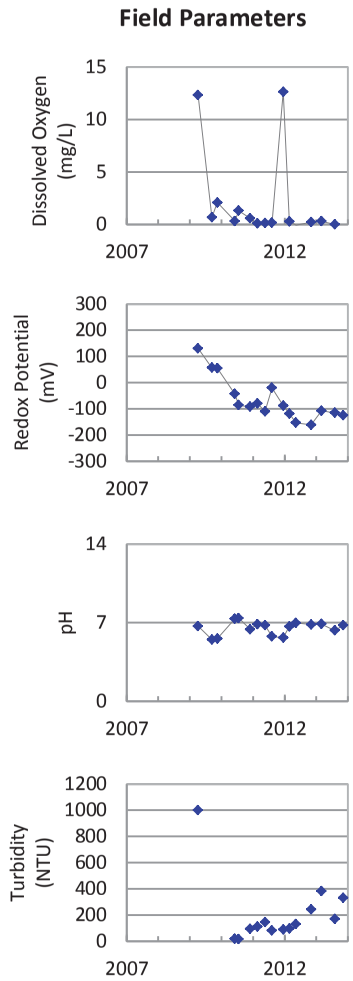
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/6/2009 to 11/12/2013
Analysis Date: 3/21/2014

PTX06-ISB077
cis-1,2-Dichloroethene Trend in Perched Aquifer





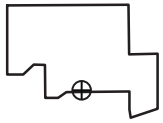
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Probably Decreasing
Last 4 Samples: No Trend

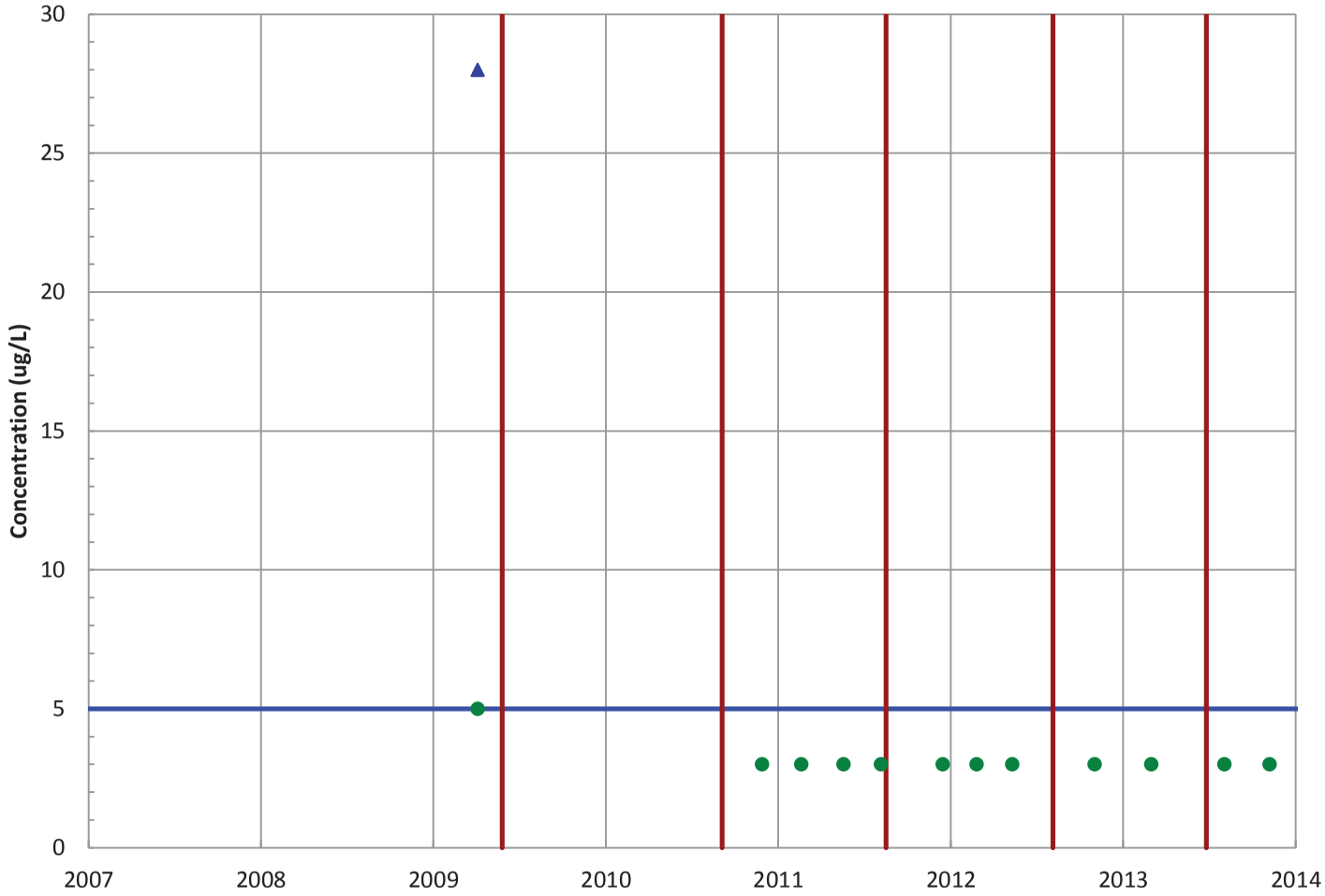
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

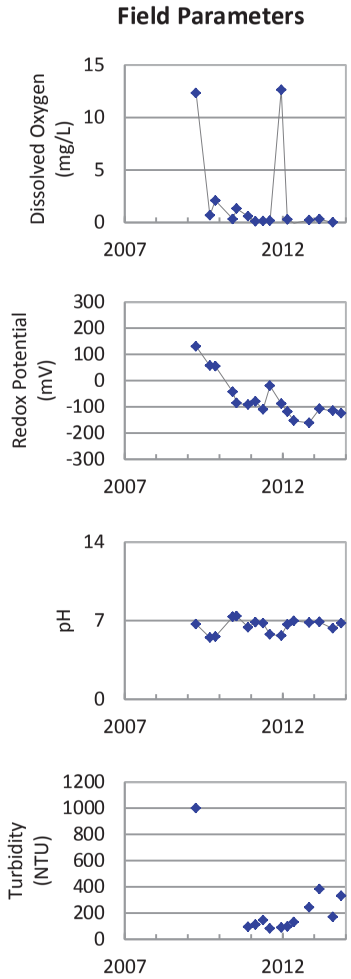
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/6/2009 to 11/12/2013
Analysis Date: 3/21/2014

PTX06-ISB077
1,2-Dichloroethane Trend in Perched Aquifer





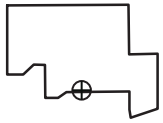
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

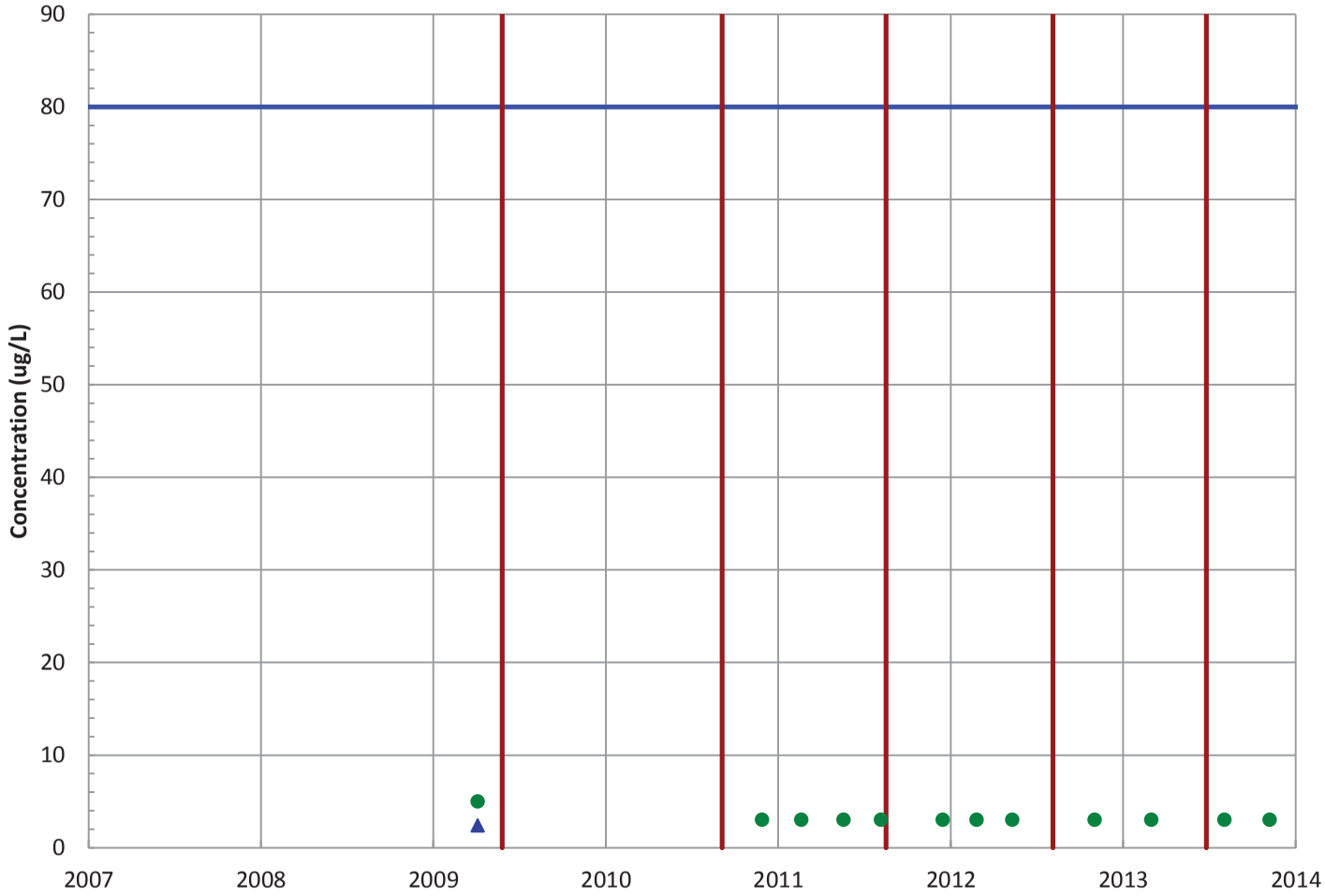
- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

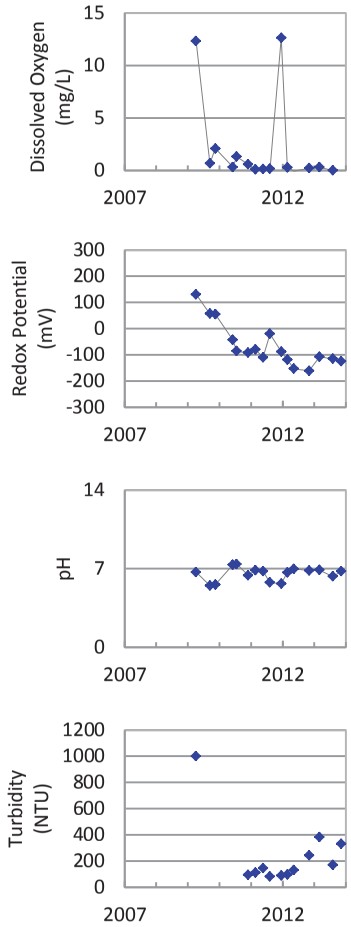


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/6/2009 to 11/12/2013
Analysis Date: 3/21/2014

PTX06-ISB077
Chloroform Trend in Perched Aquifer



Field Parameters



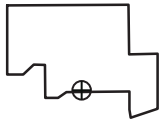
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

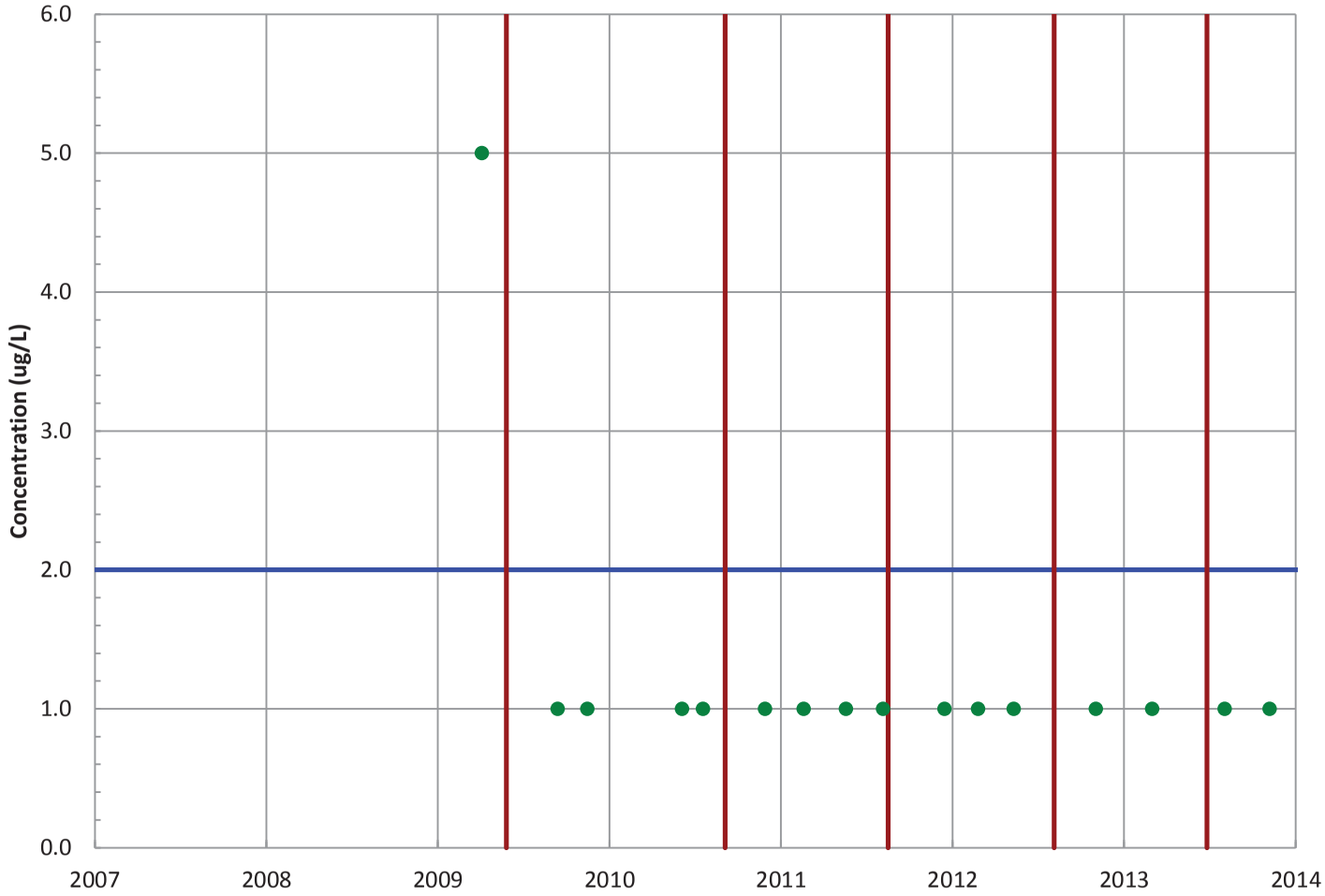
- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

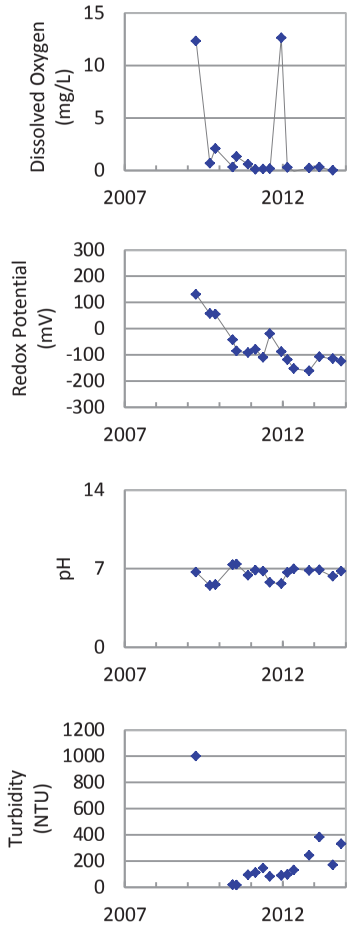


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/6/2009 to 11/12/2013
Analysis Date: 3/21/2014

PTX06-ISB077
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



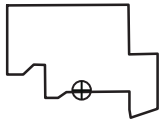
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

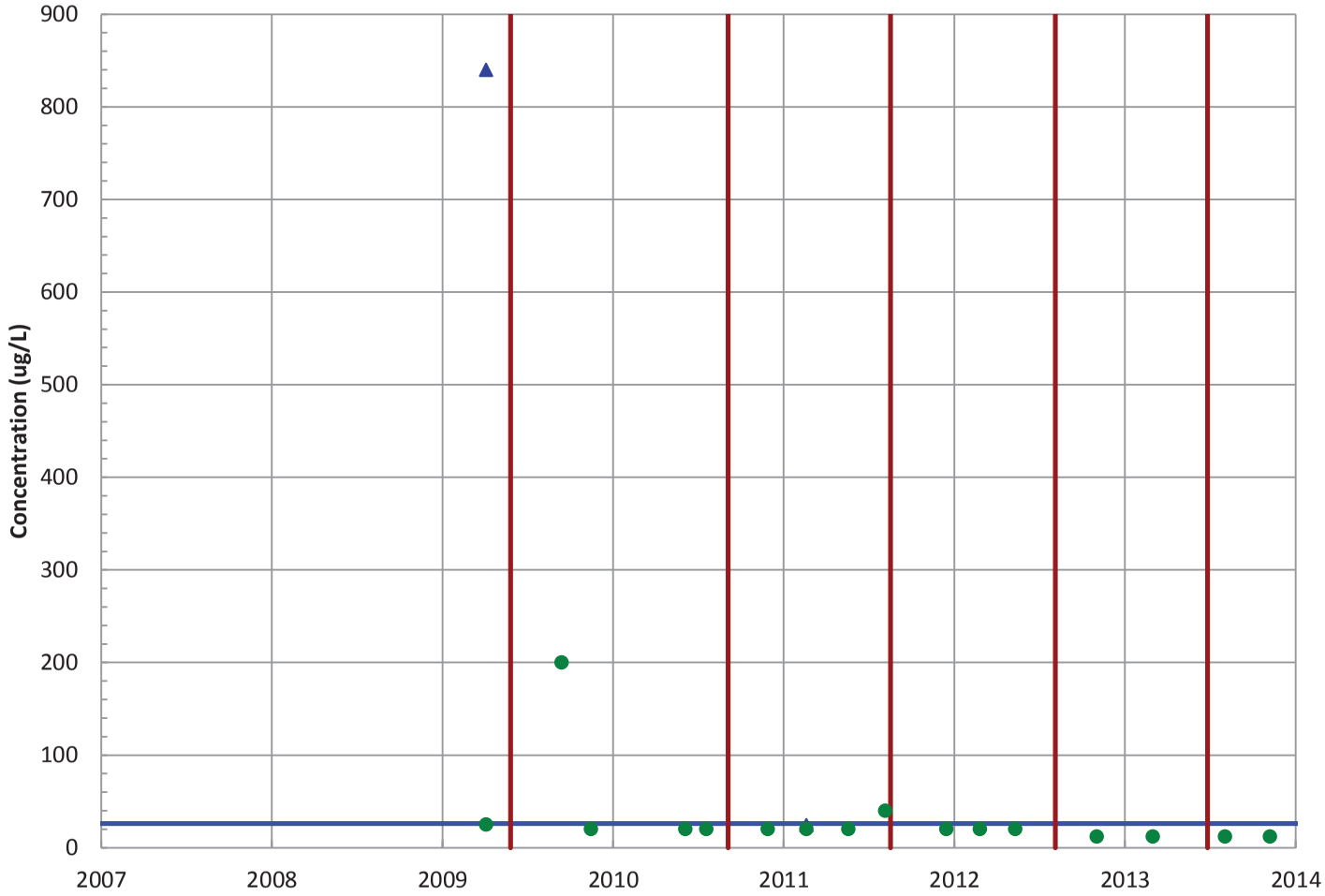
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

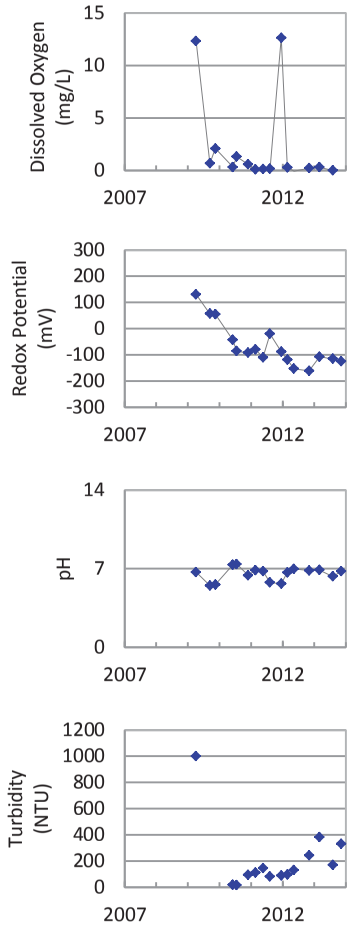


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/6/2009 to 11/12/2013
Analysis Date: 3/21/2014

PTX06-ISB077
Perchlorate Trend in Perched Aquifer



Field Parameters



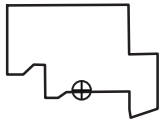
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

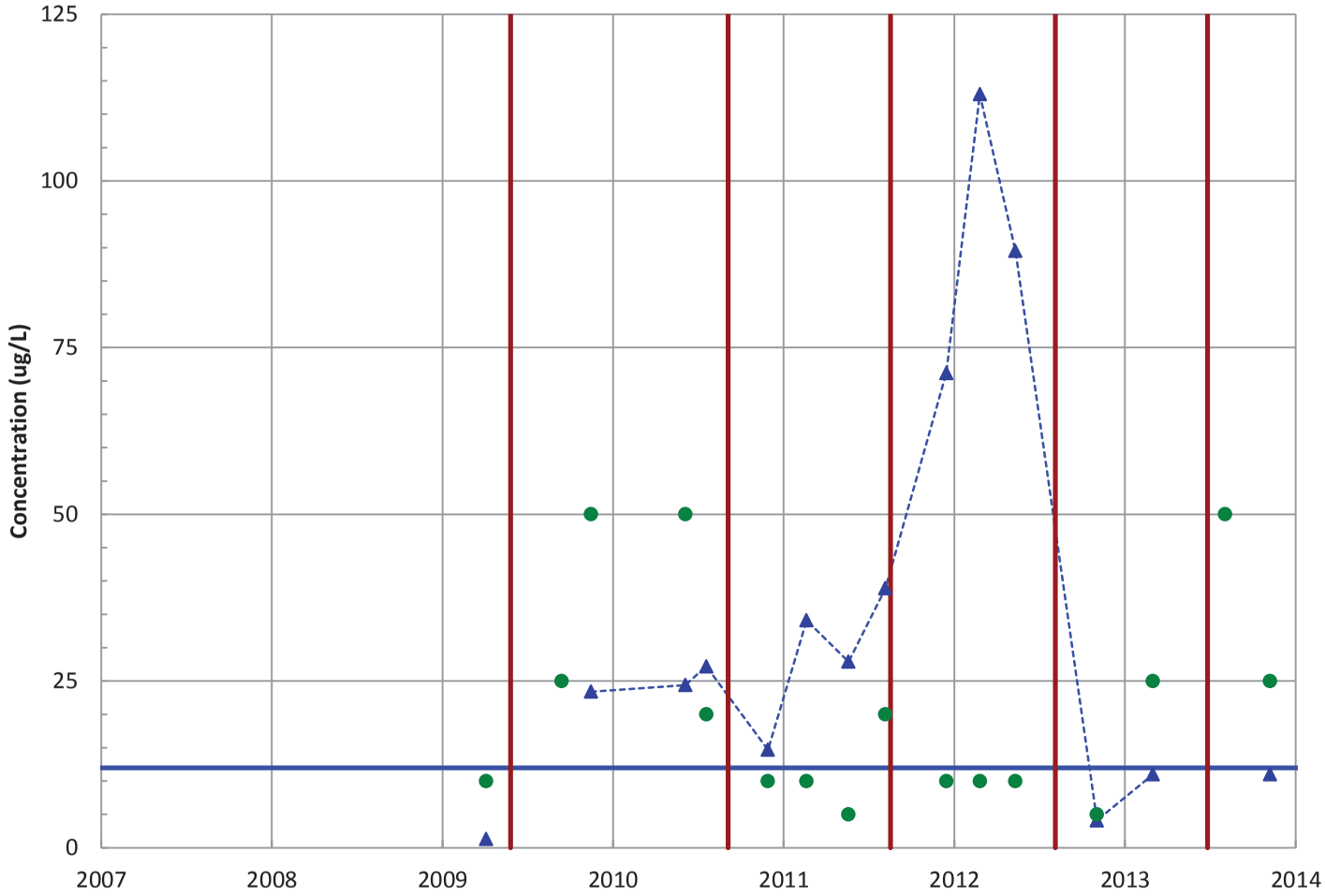
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

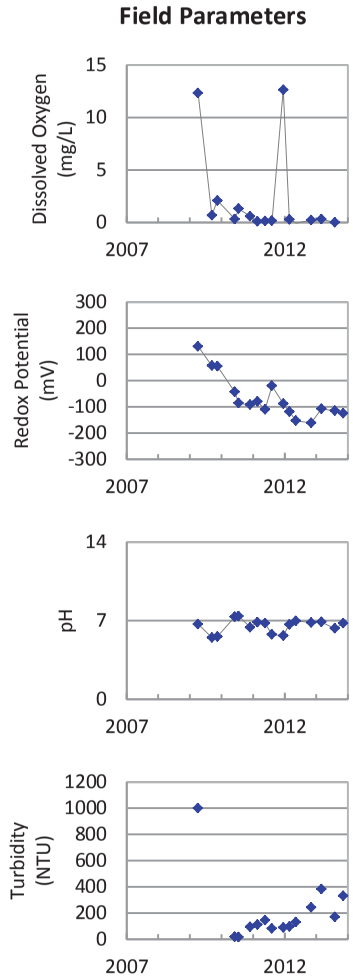
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/6/2009 to 11/12/2013
Analysis Date: 3/21/2014

PTX06-ISB077
Arsenic Trend in Perched Aquifer





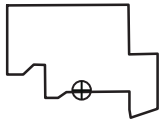
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

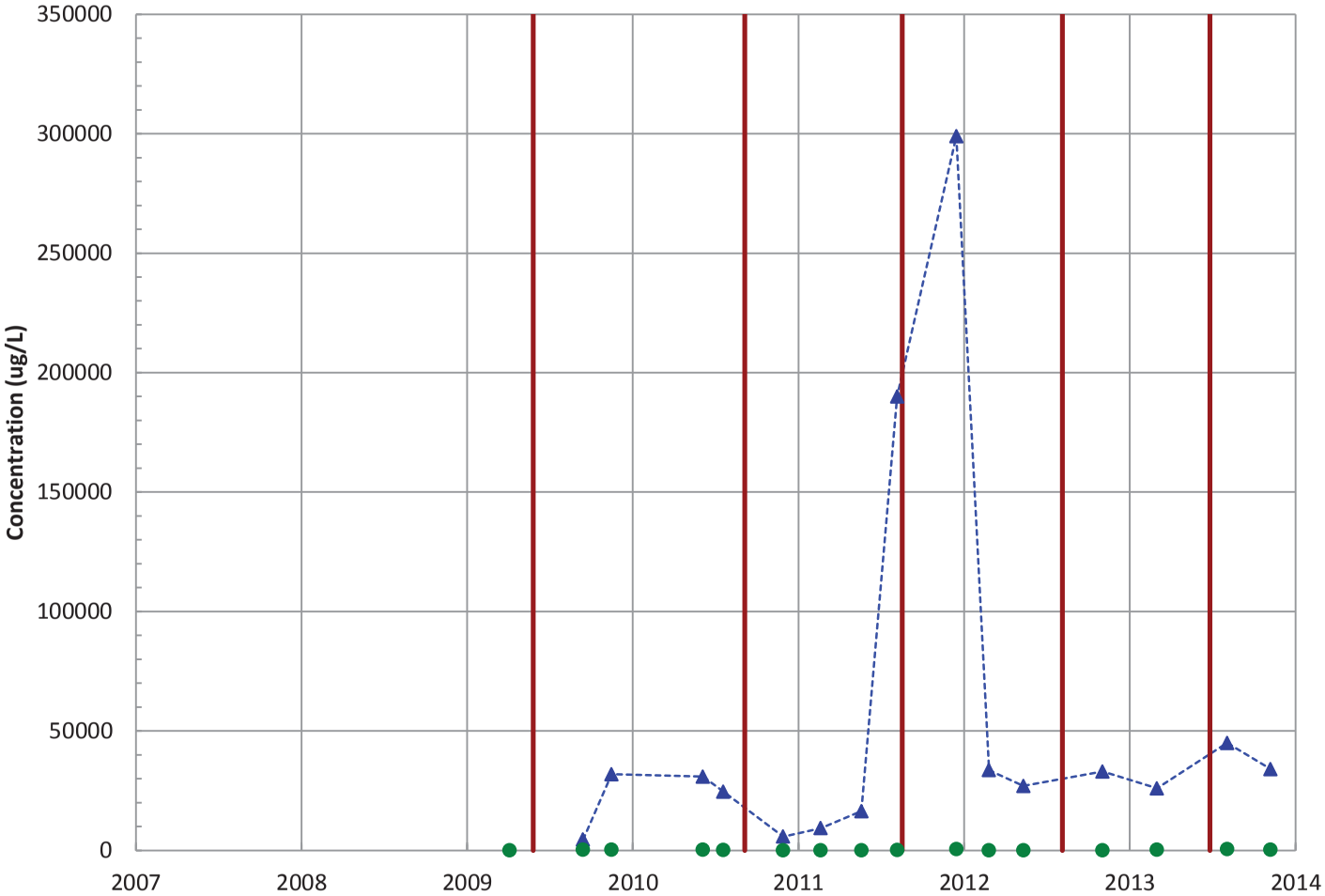
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

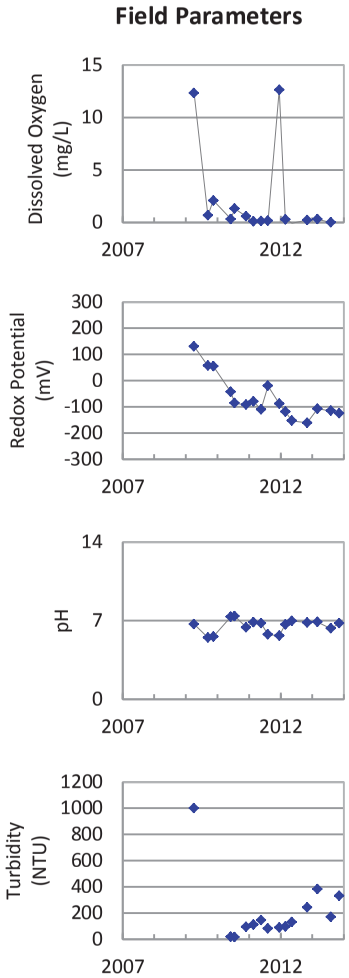
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/6/2009 to 11/12/2013
Analysis Date: 3/21/2014

PTX06-ISB077
Iron Trend in Perched Aquifer





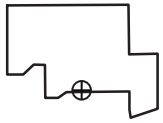
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Probably Increasing
Last 4 Samples: No Trend

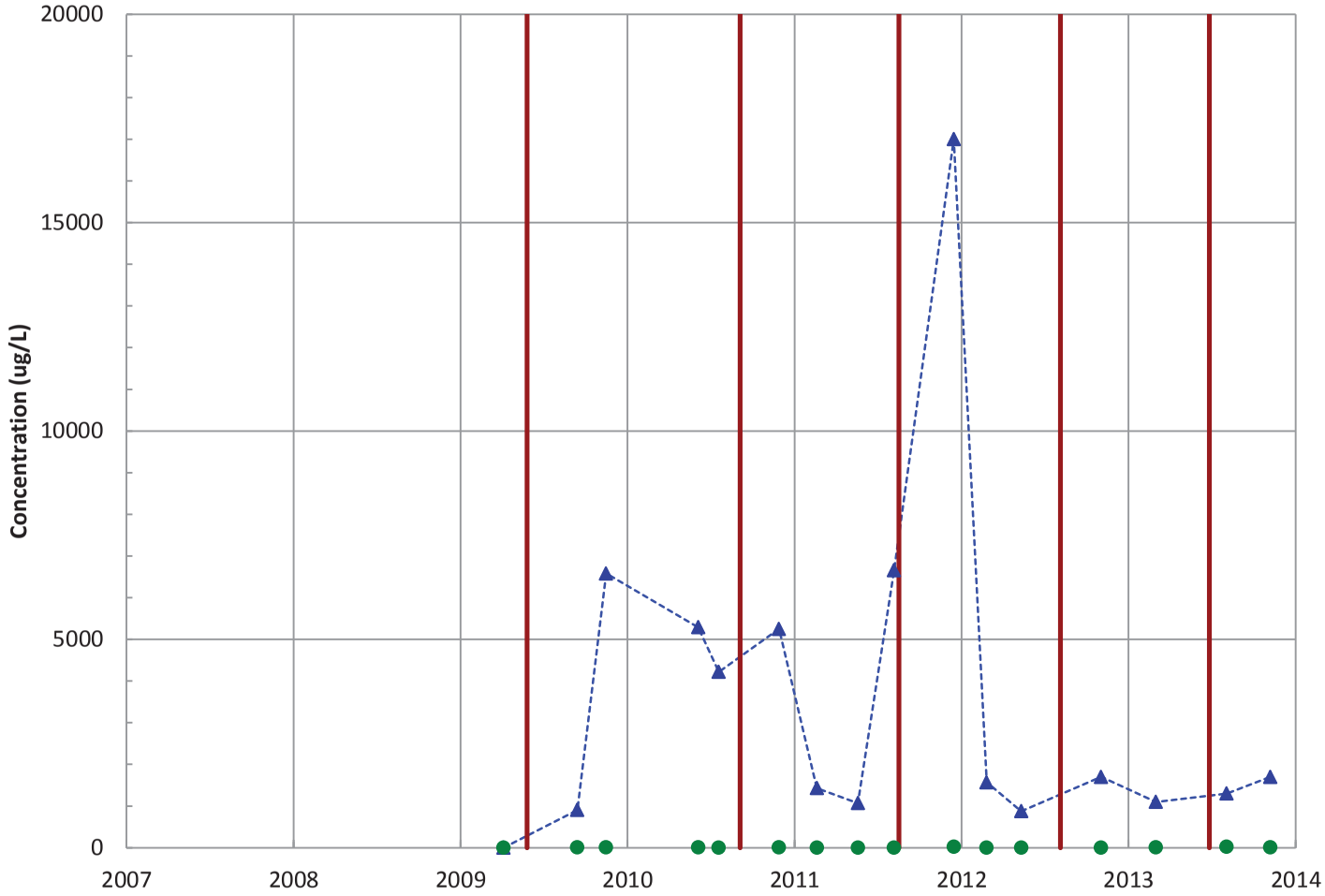
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

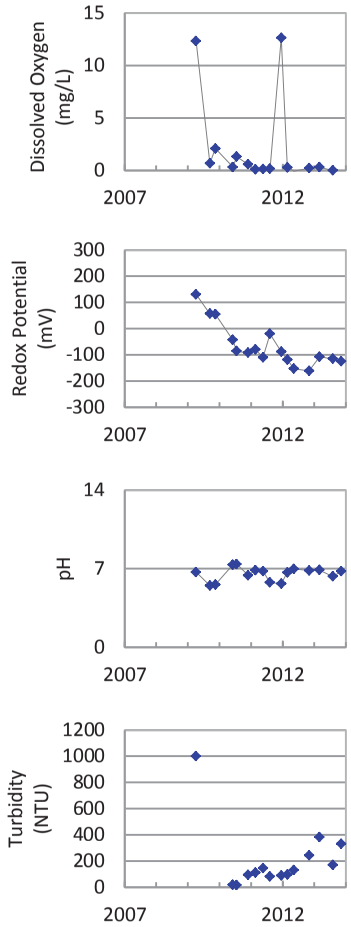


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/6/2009 to 11/12/2013
Analysis Date: 3/21/2014

PTX06-ISB077
Manganese Trend in Perched Aquifer



Field Parameters



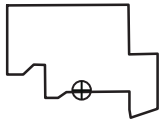
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

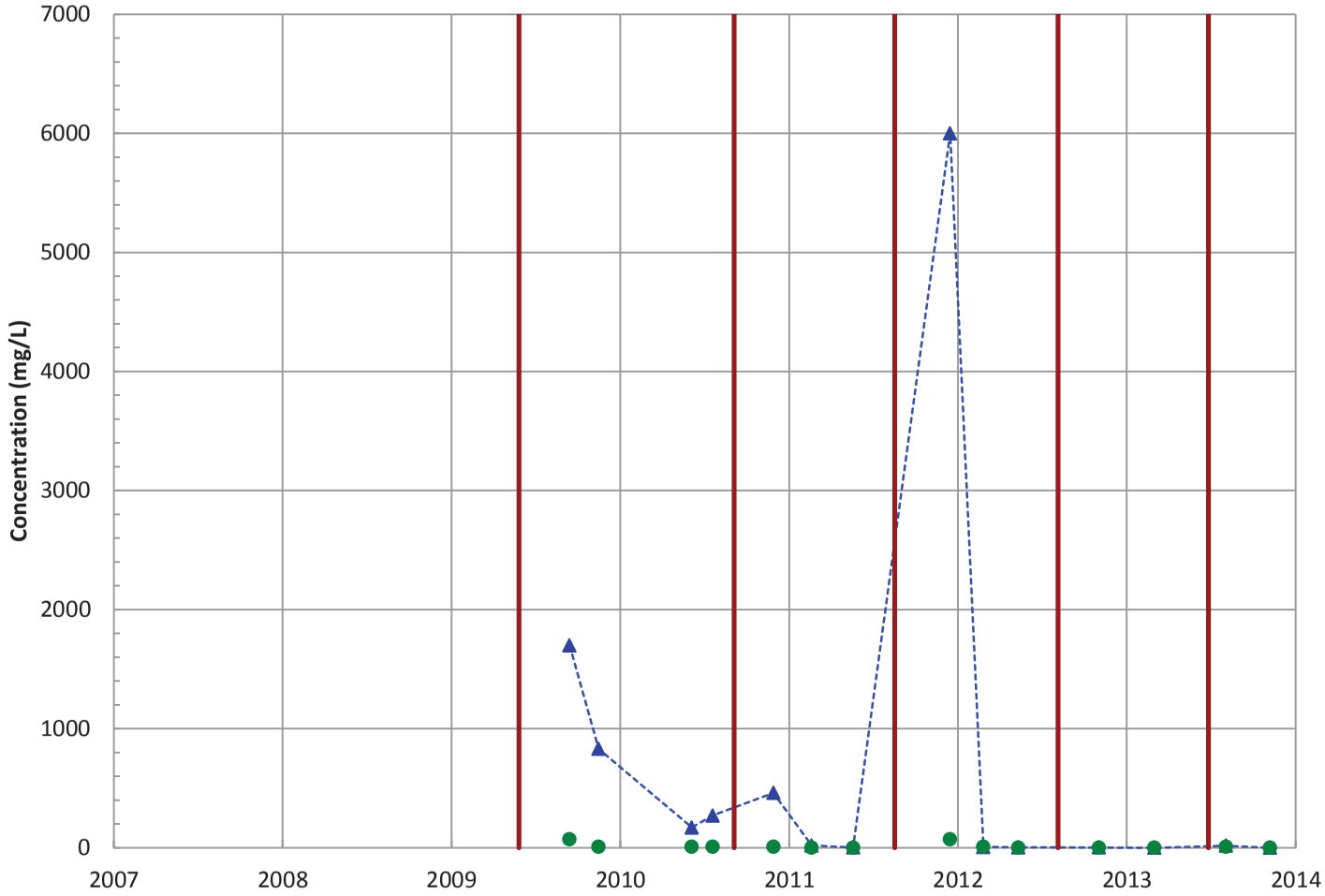
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

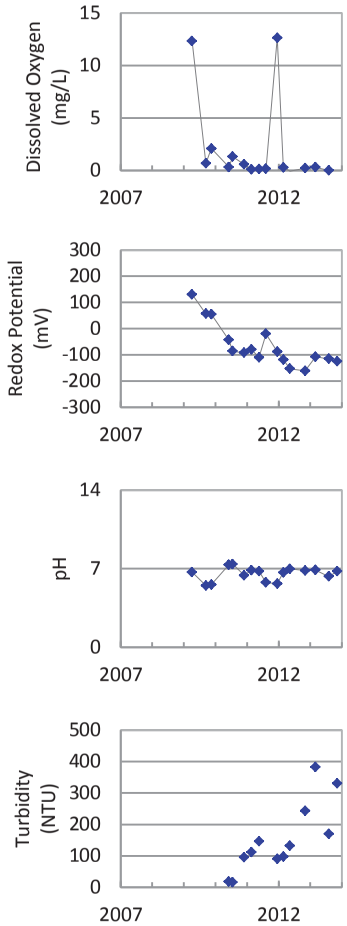


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/6/2009 to 11/12/2013
Analysis Date: 3/21/2014

PTX06-ISB077
Acetic Acid Trend in Perched Aquifer



Field Parameters



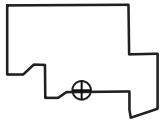
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

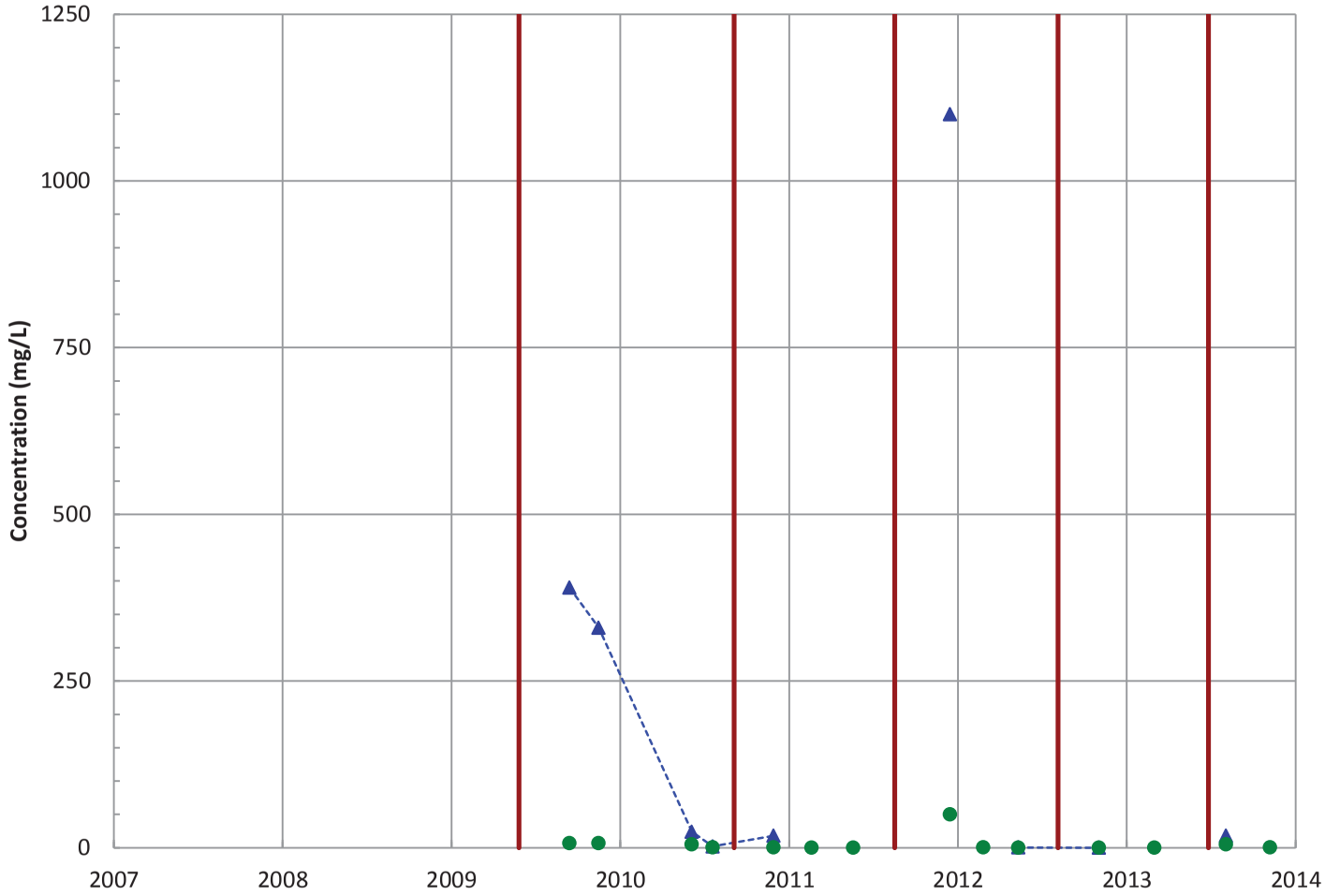
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

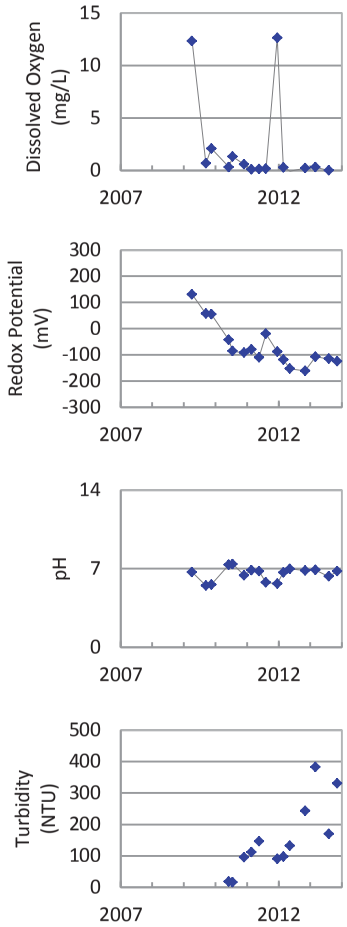


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/15/2009 to 11/12/2013
Analysis Date: 3/21/2014

PTX06-ISB077
Butyric Acid Trend in Perched Aquifer



Field Parameters



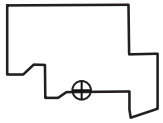
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Probably Decreasing
Last 4 Samples: No Trend

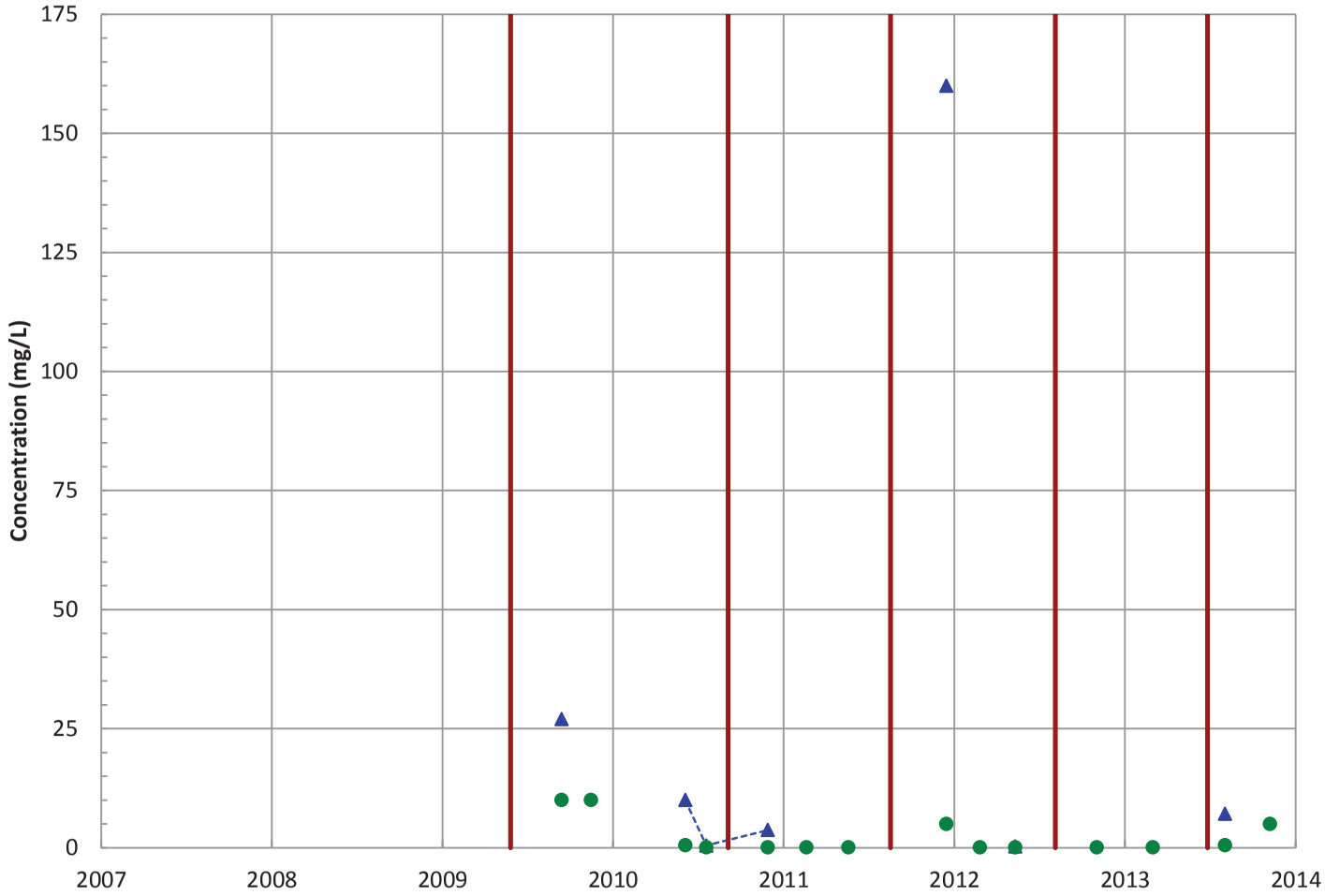
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

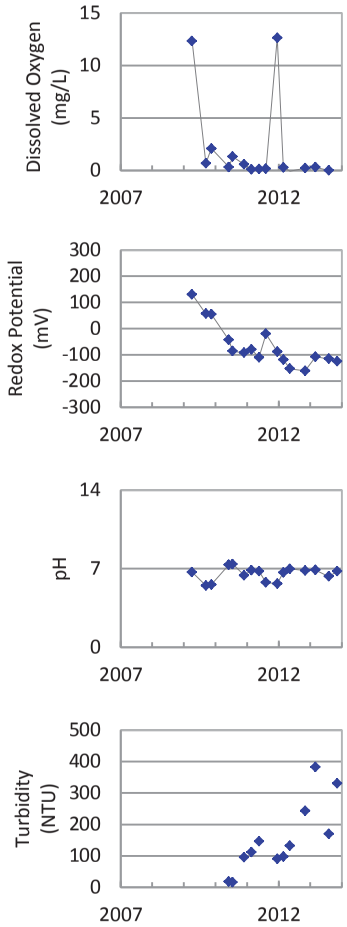


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/15/2009 to 11/12/2013
Analysis Date: 3/21/2014

PTX06-ISB077
Hexanoic Acid Trend in Perched Aquifer



Field Parameters



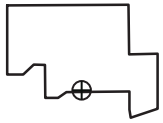
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

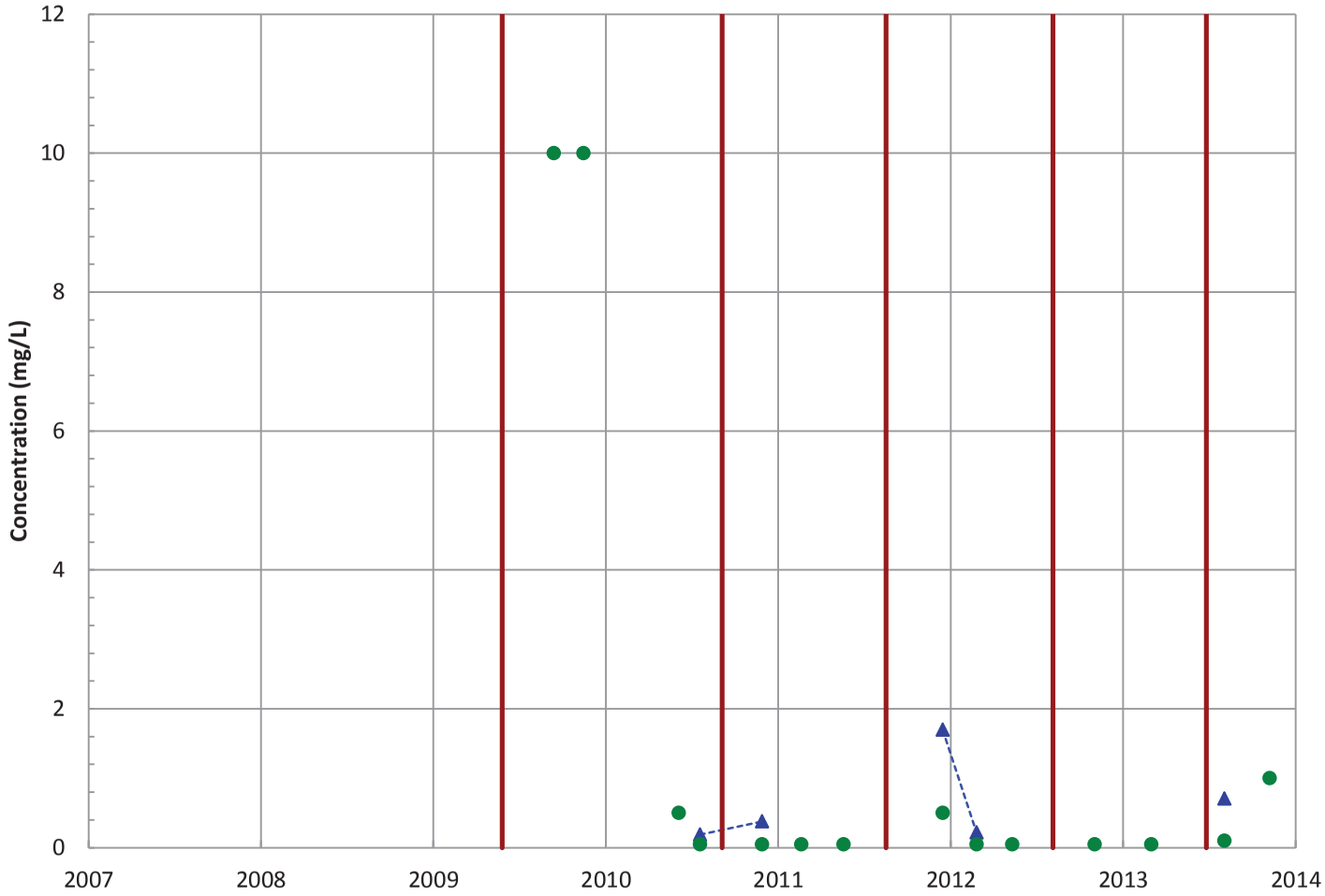
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

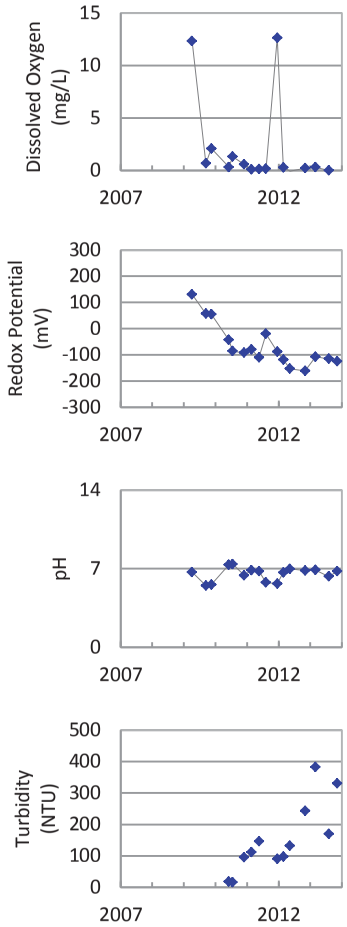


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/15/2009 to 11/12/2013
Analysis Date: 3/21/2014

PTX06-ISB077
i-Hexanoic Acid Trend in Perched Aquifer



Field Parameters



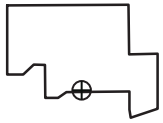
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Stable

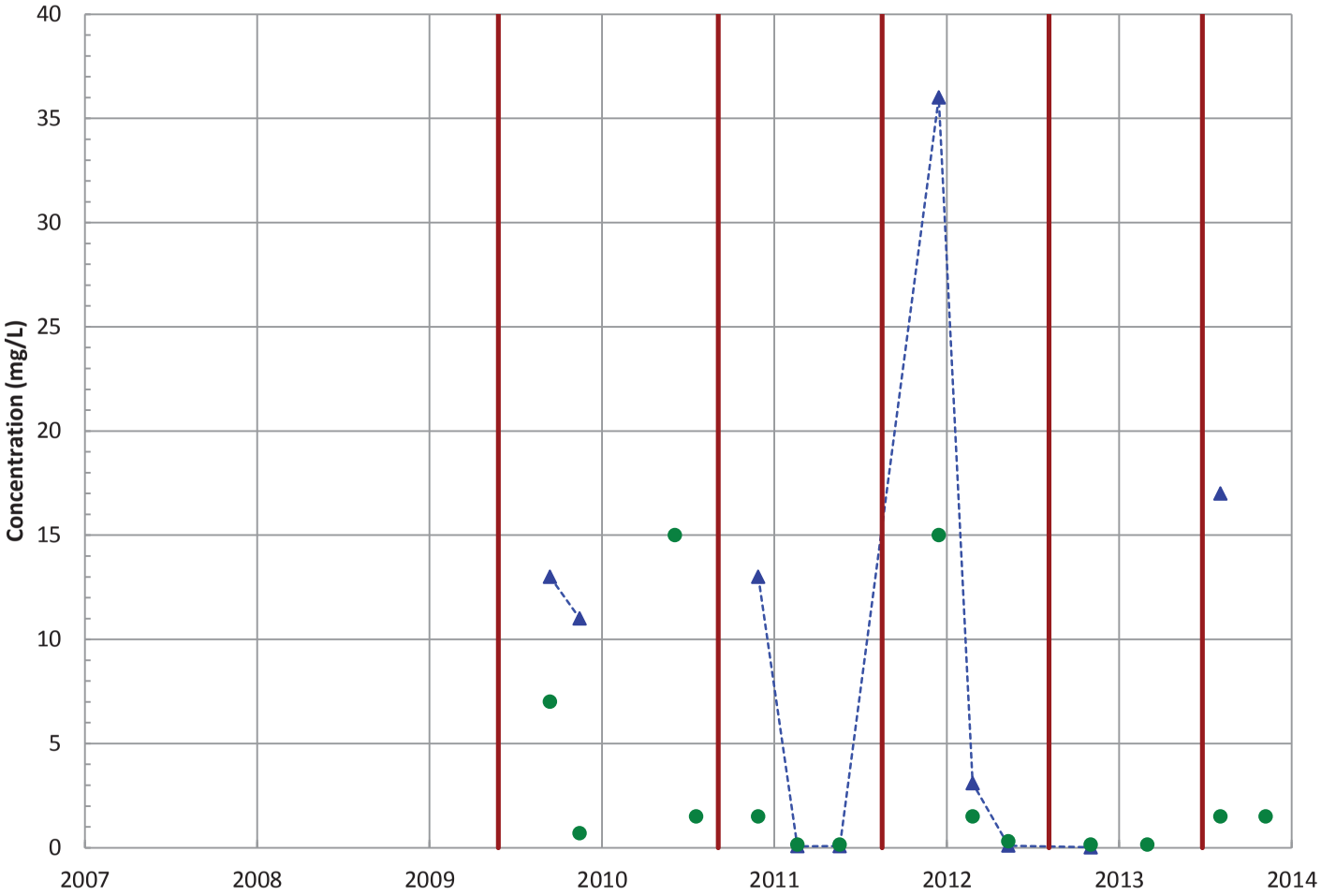
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
—— Injection Dates

Well Location

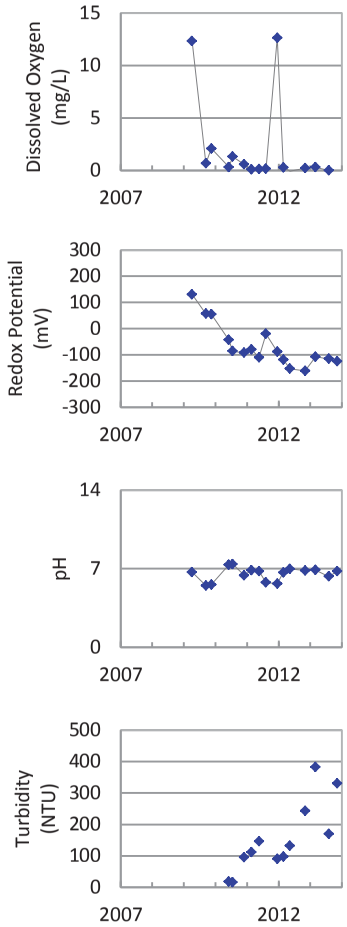


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/15/2009 to 11/12/2013
Analysis Date: 3/21/2014

PTX06-ISB077
i-Pentanoic Acid Trend in Perched Aquifer



Field Parameters



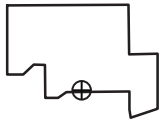
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

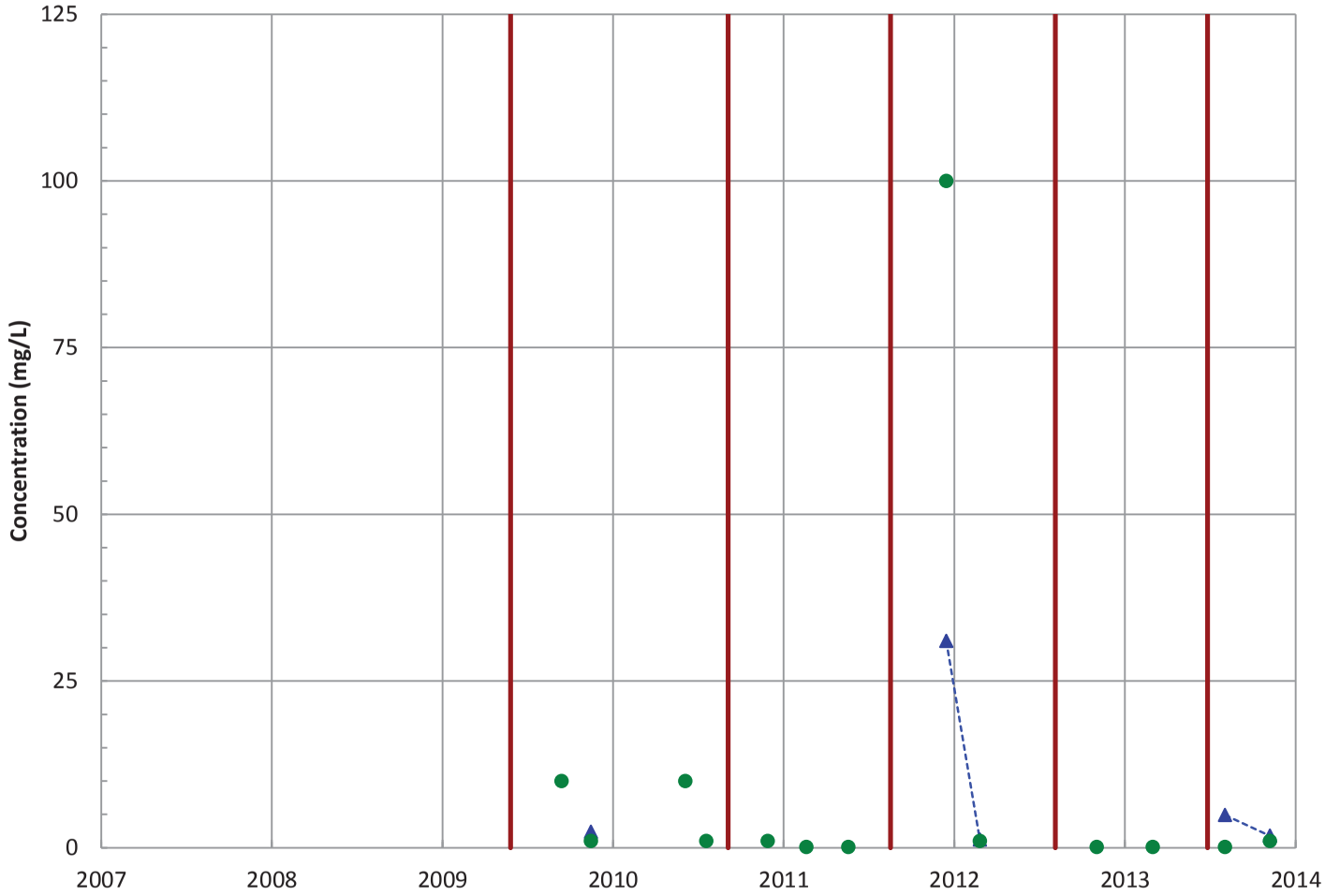
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

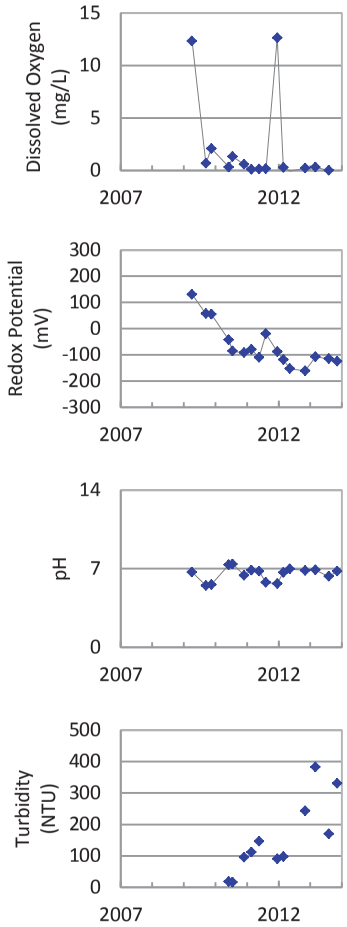


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/15/2009 to 11/12/2013
Analysis Date: 3/21/2014

PTX06-ISB077
Lactic Acid and HIBA Trend in Perched Aquifer



Field Parameters



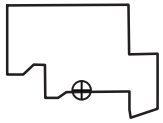
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Probably Decreasing

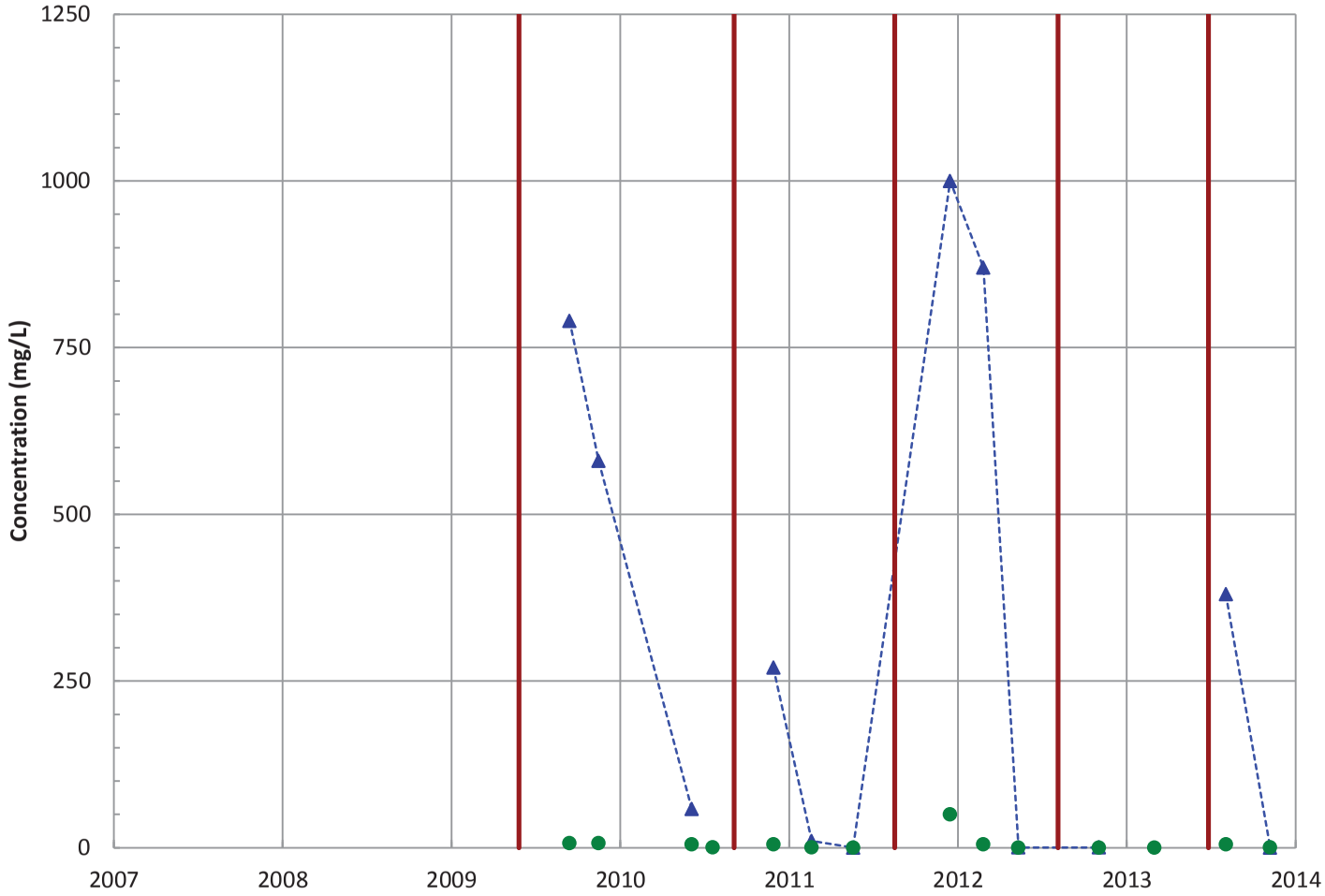
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Injection Dates

Well Location

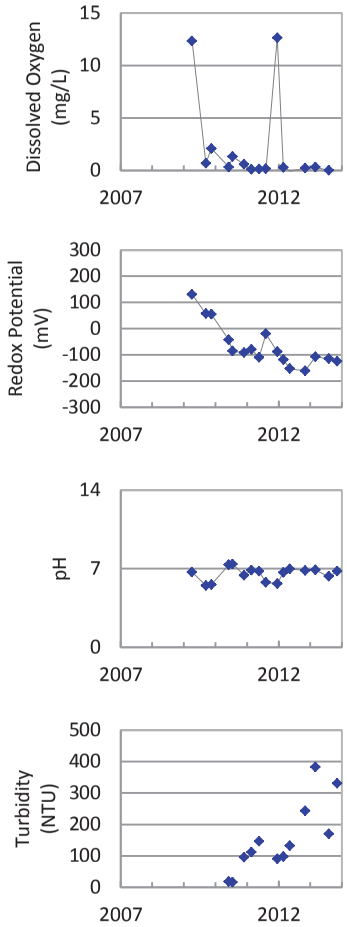


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/15/2009 to 11/12/2013
Analysis Date: 3/21/2014

PTX06-ISB077
Propionic Acid Trend in Perched Aquifer



Field Parameters



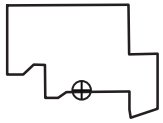
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Probably Decreasing
Last 4 Samples: No Trend

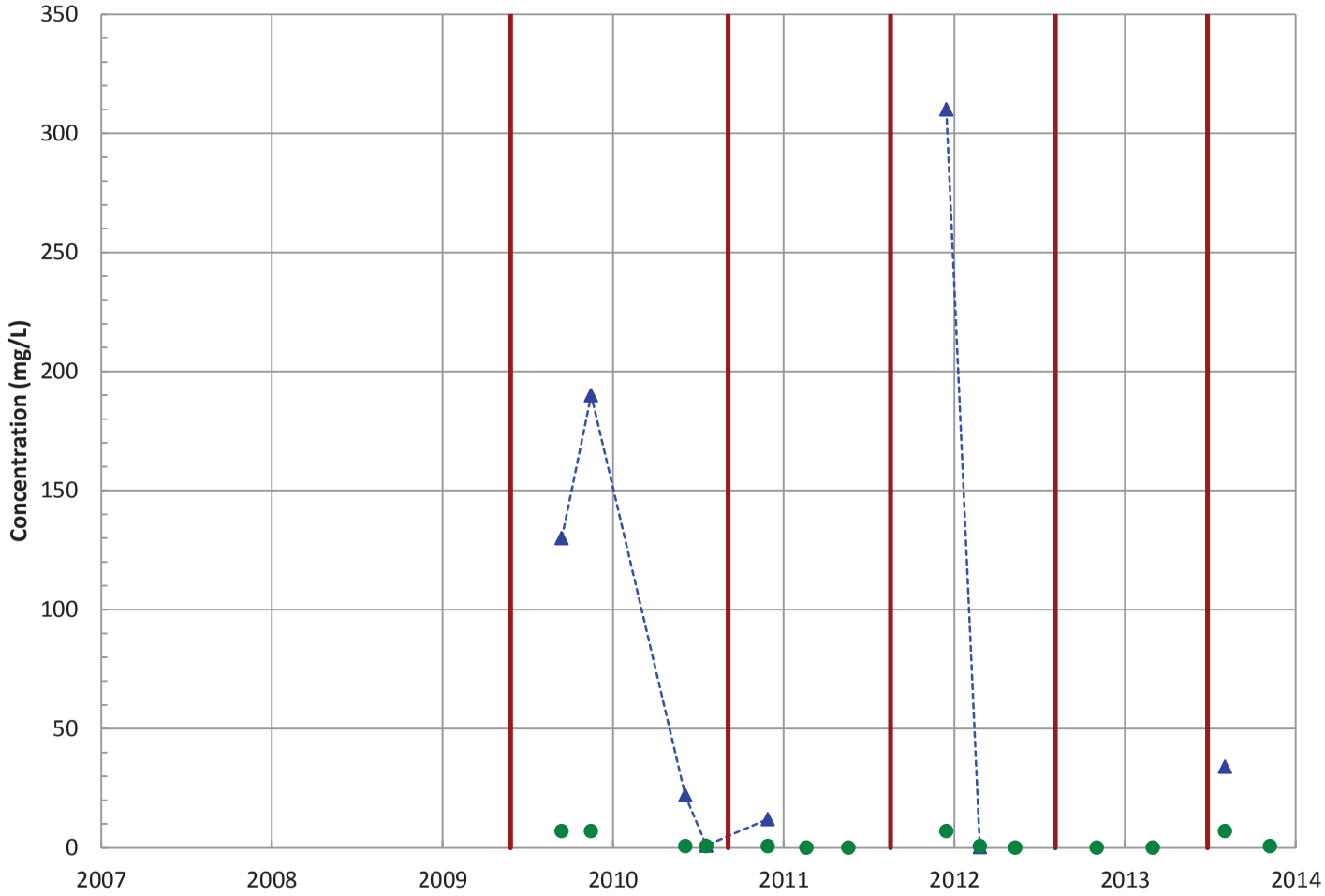
▲ Measured Value
● Sample Detection Limit
---- Concentration Trend
— Injection Dates

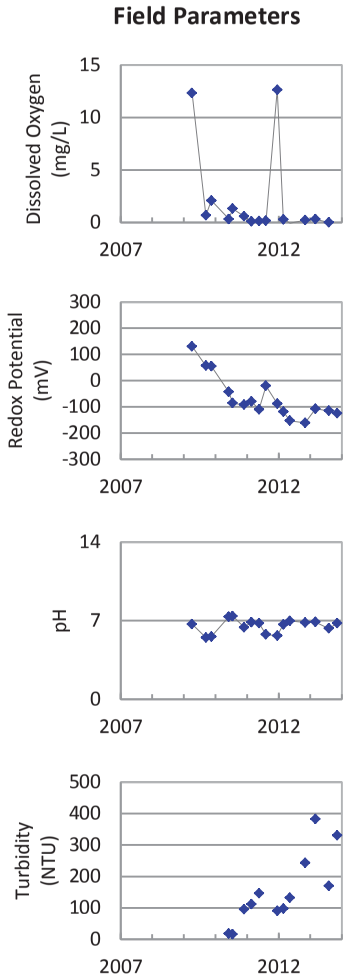
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/15/2009 to 11/12/2013
Analysis Date: 3/21/2014

PTX06-ISB077
Pentanoic Acid Trend in Perched Aquifer





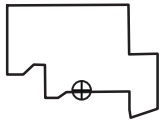
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

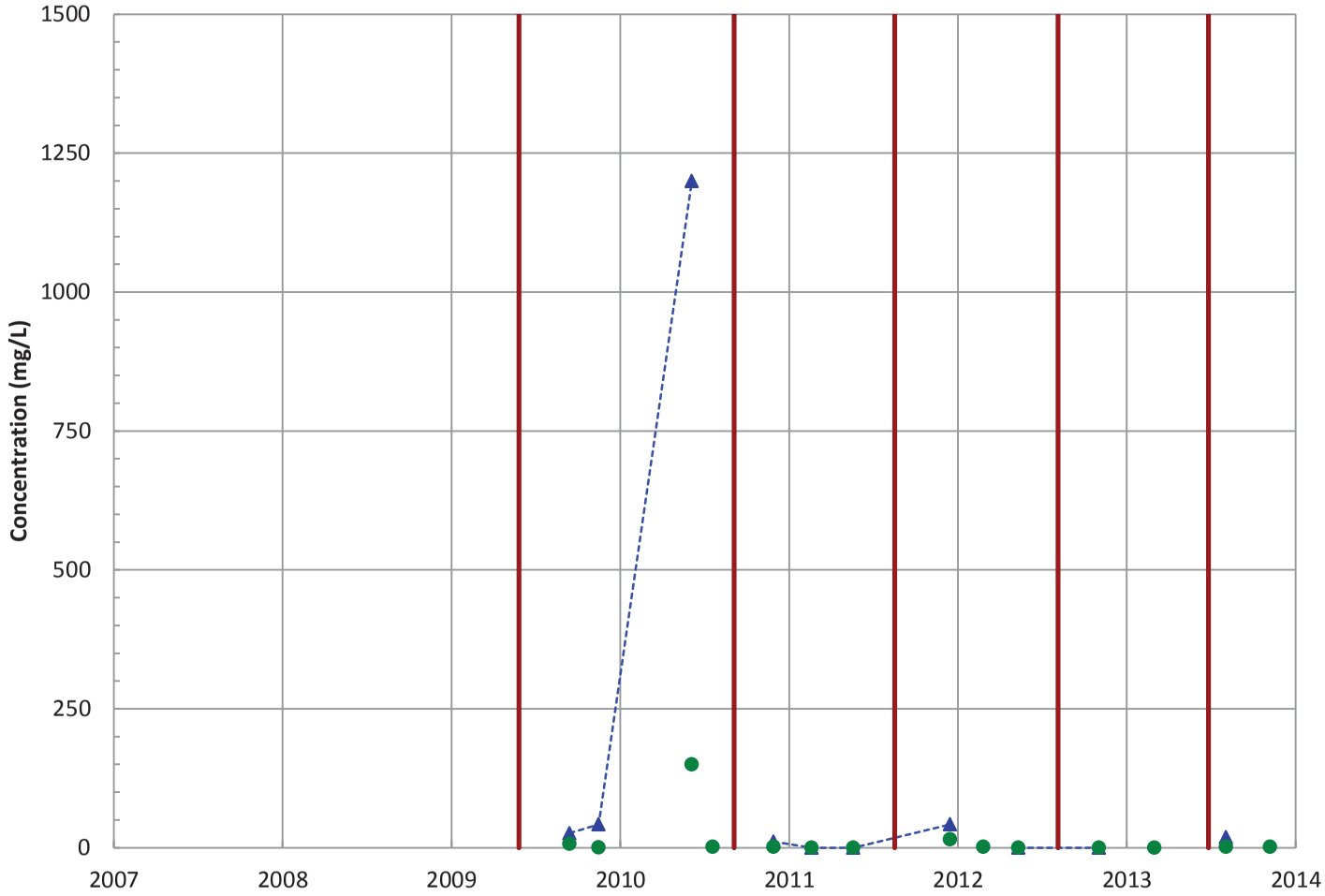
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

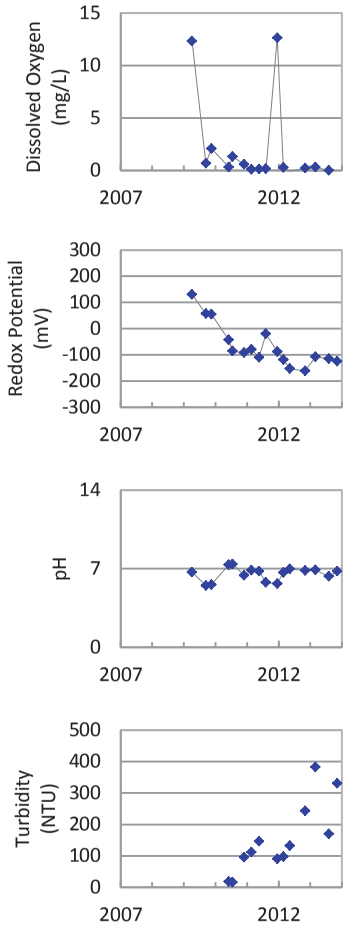


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/15/2009 to 11/12/2013
Analysis Date: 3/21/2014

PTX06-ISB077
Pyruvic Acid Trend in Perched Aquifer



Field Parameters



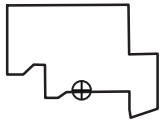
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

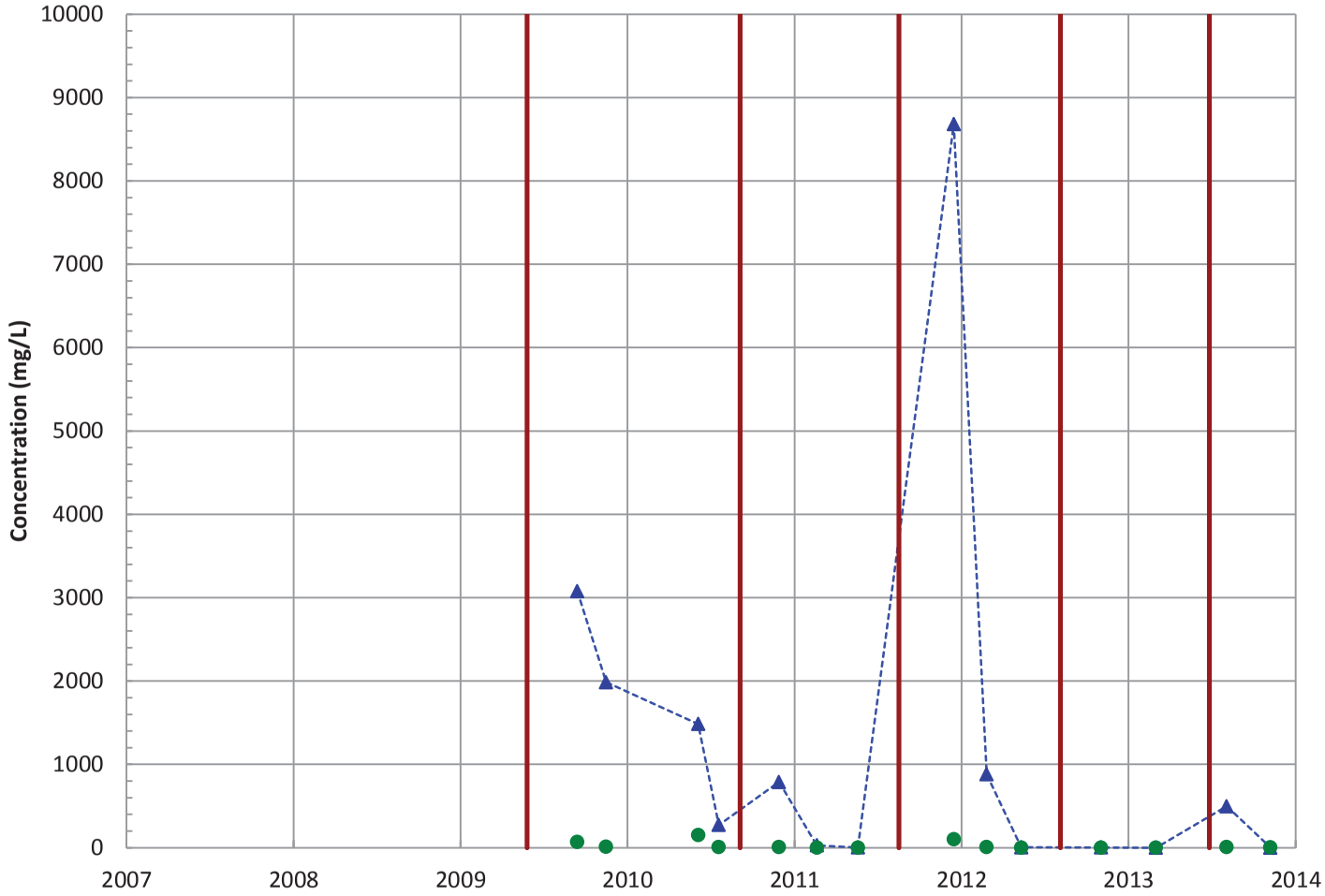
▲ Measured Value
● Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

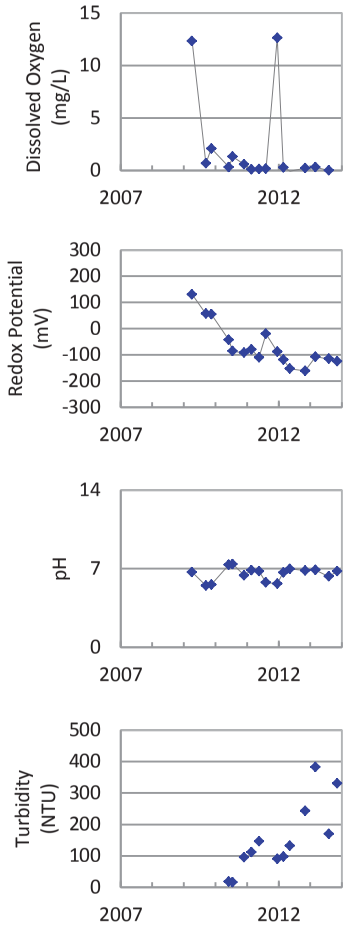


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/15/2009 to 11/12/2013
Analysis Date: 3/21/2014

PTX06-ISB077
Total Volatile Fatty Acids Trend in Perched Aquifer



Field Parameters



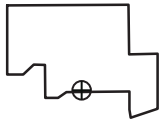
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

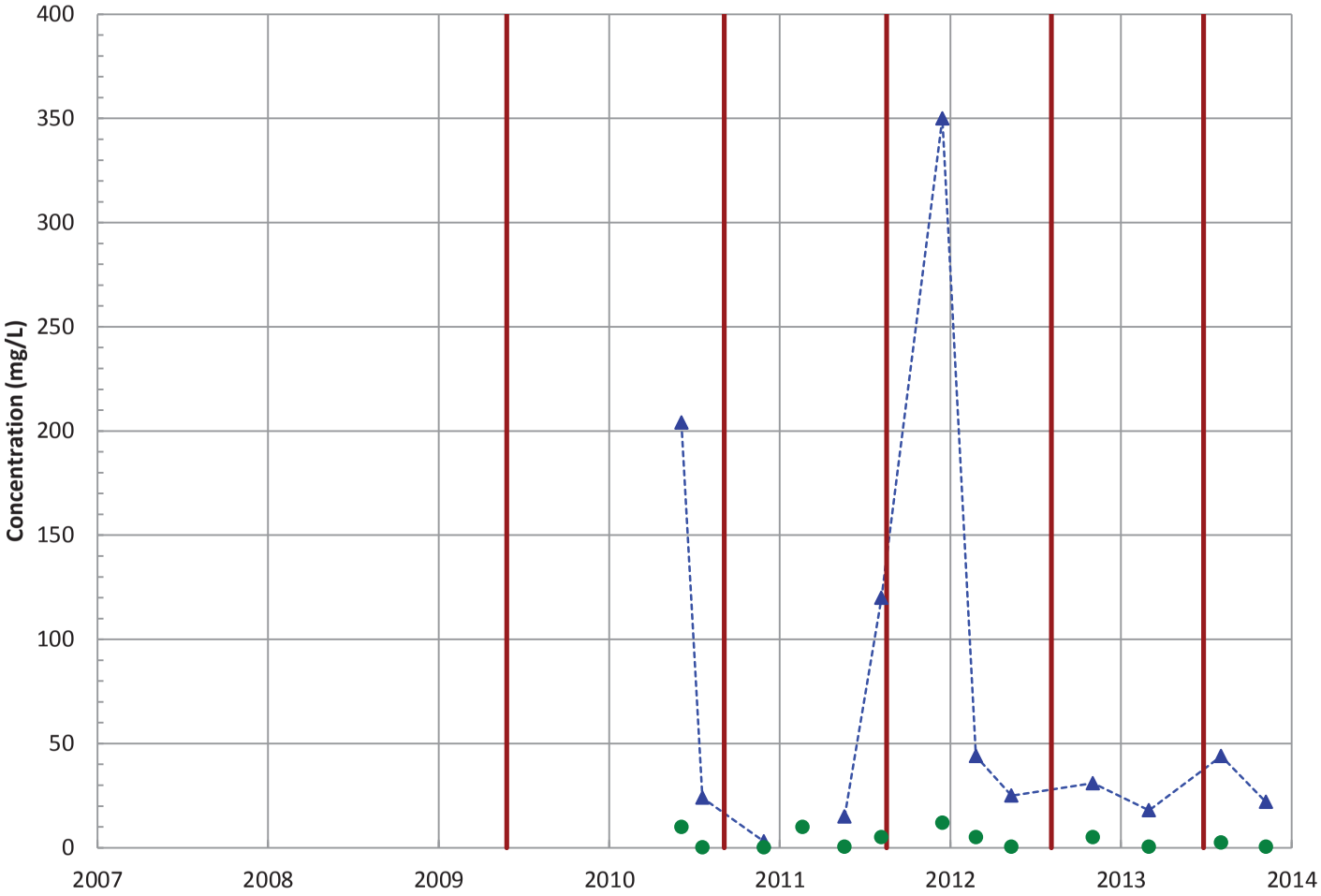
▲ Measured Value
● Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

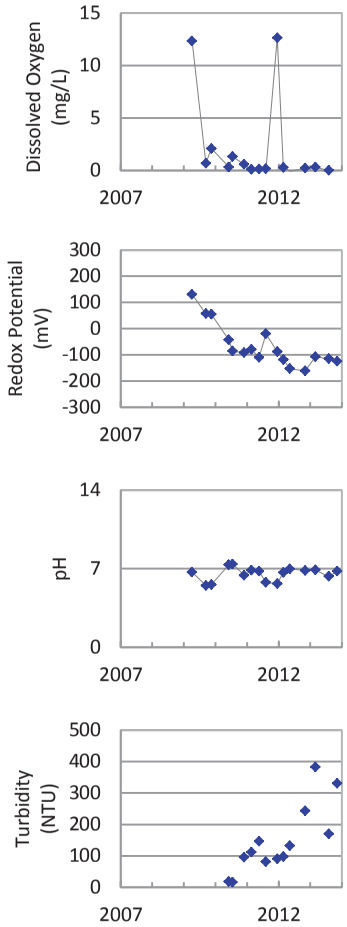


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/15/2009 to 11/12/2013
Analysis Date: 3/21/2014

PTX06-ISB077
Ferrous Iron Trend in Perched Aquifer



Field Parameters



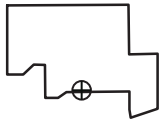
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: Stable

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Stable

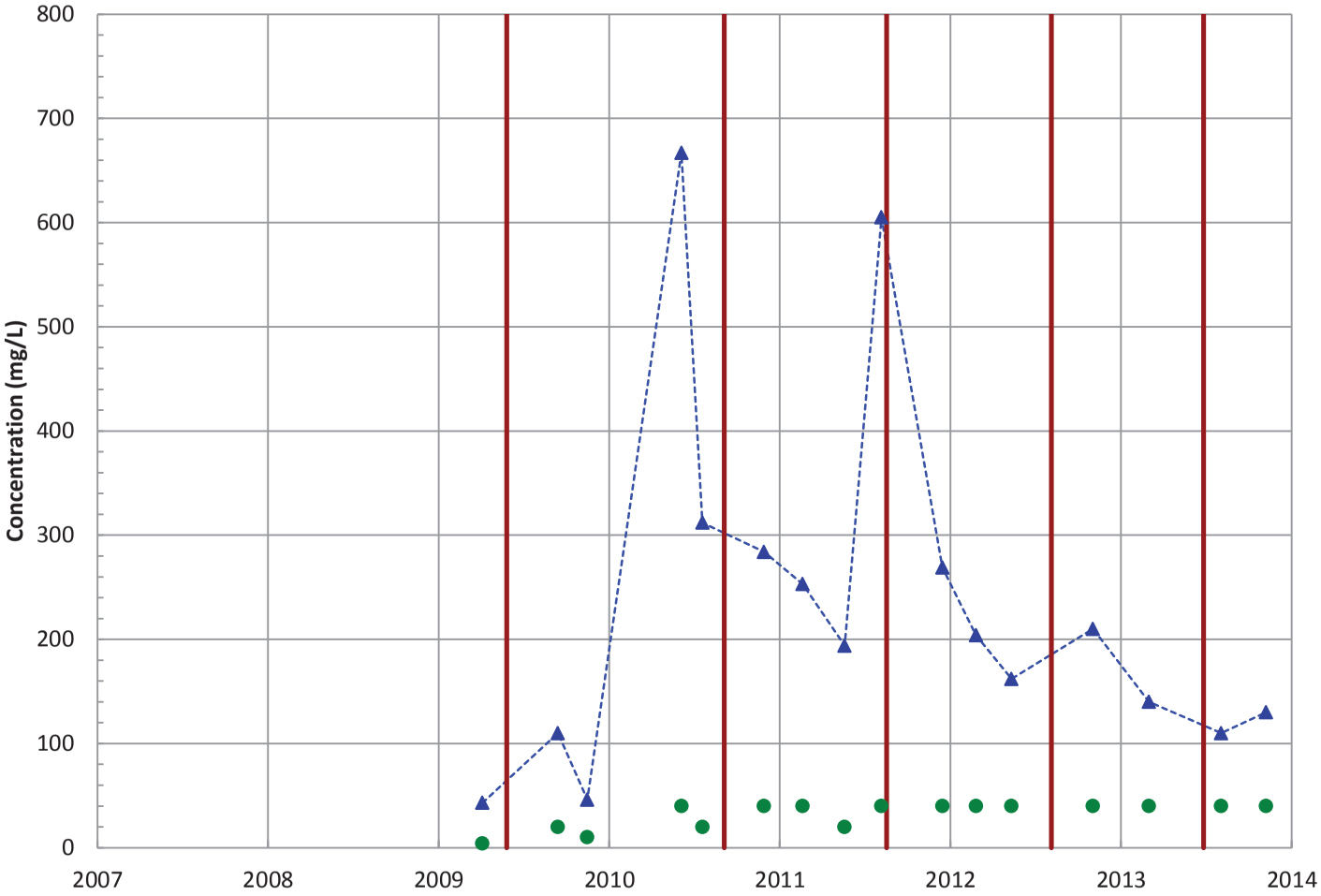
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

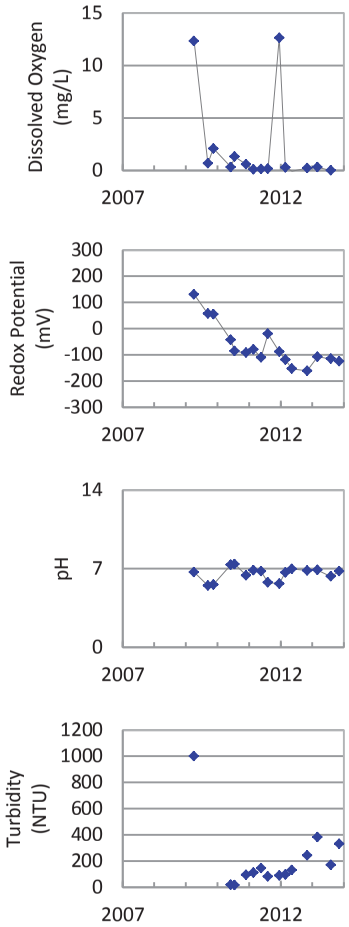


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/7/2010 to 11/12/2013
Analysis Date: 3/21/2014

PTX06-ISB077
Chloride (as Cl) Trend in Perched Aquifer



Field Parameters



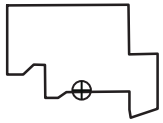
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Stable

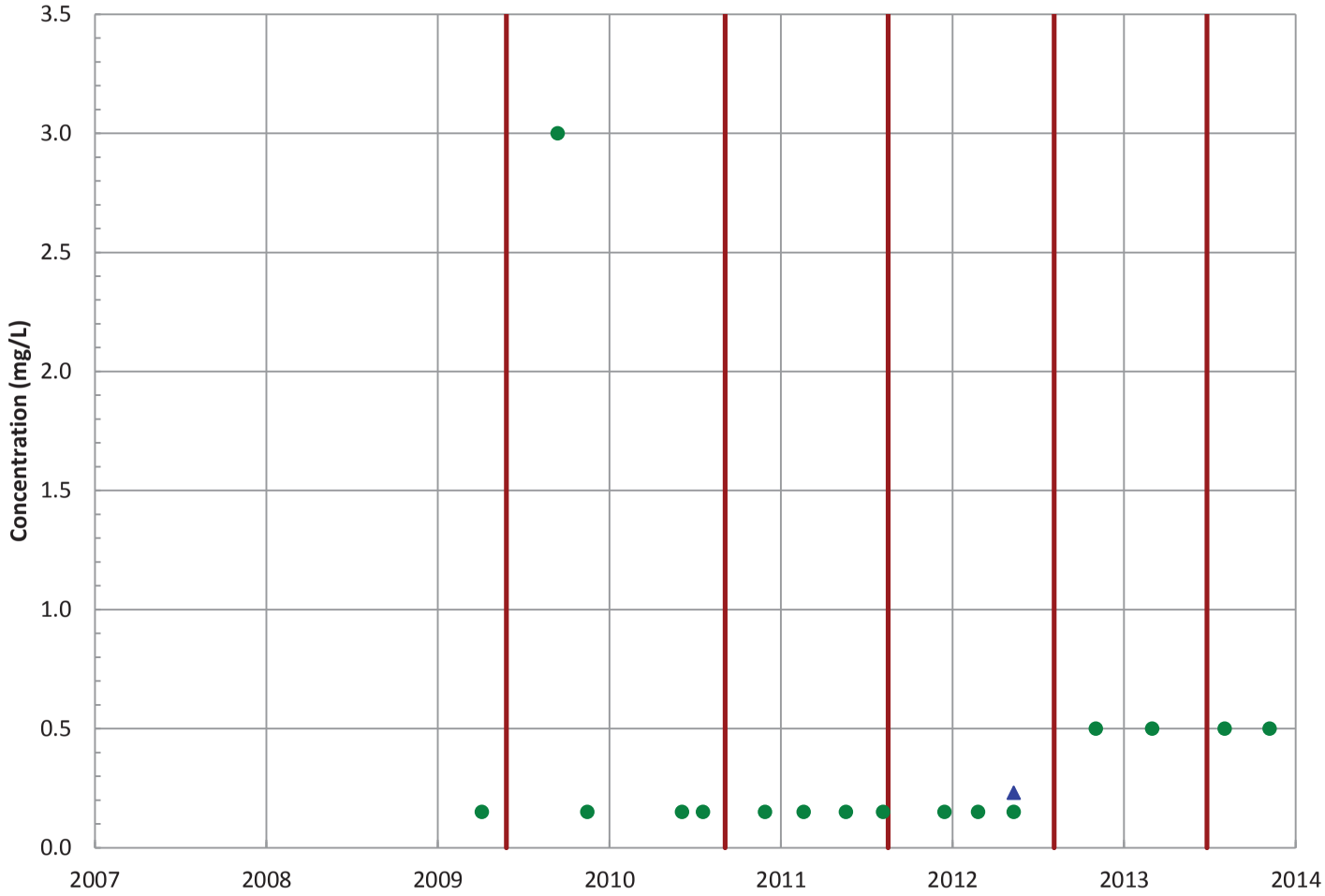
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

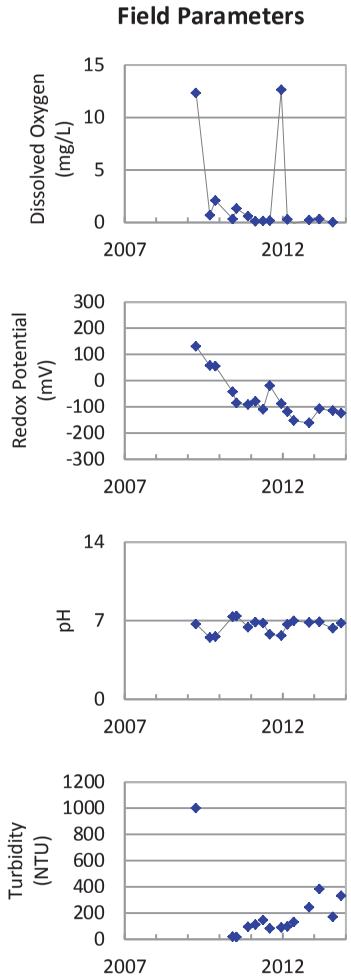
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/6/2009 to 11/12/2013
Analysis Date: 3/21/2014

PTX06-ISB077
Chlorate Trend in Perched Aquifer





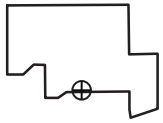
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

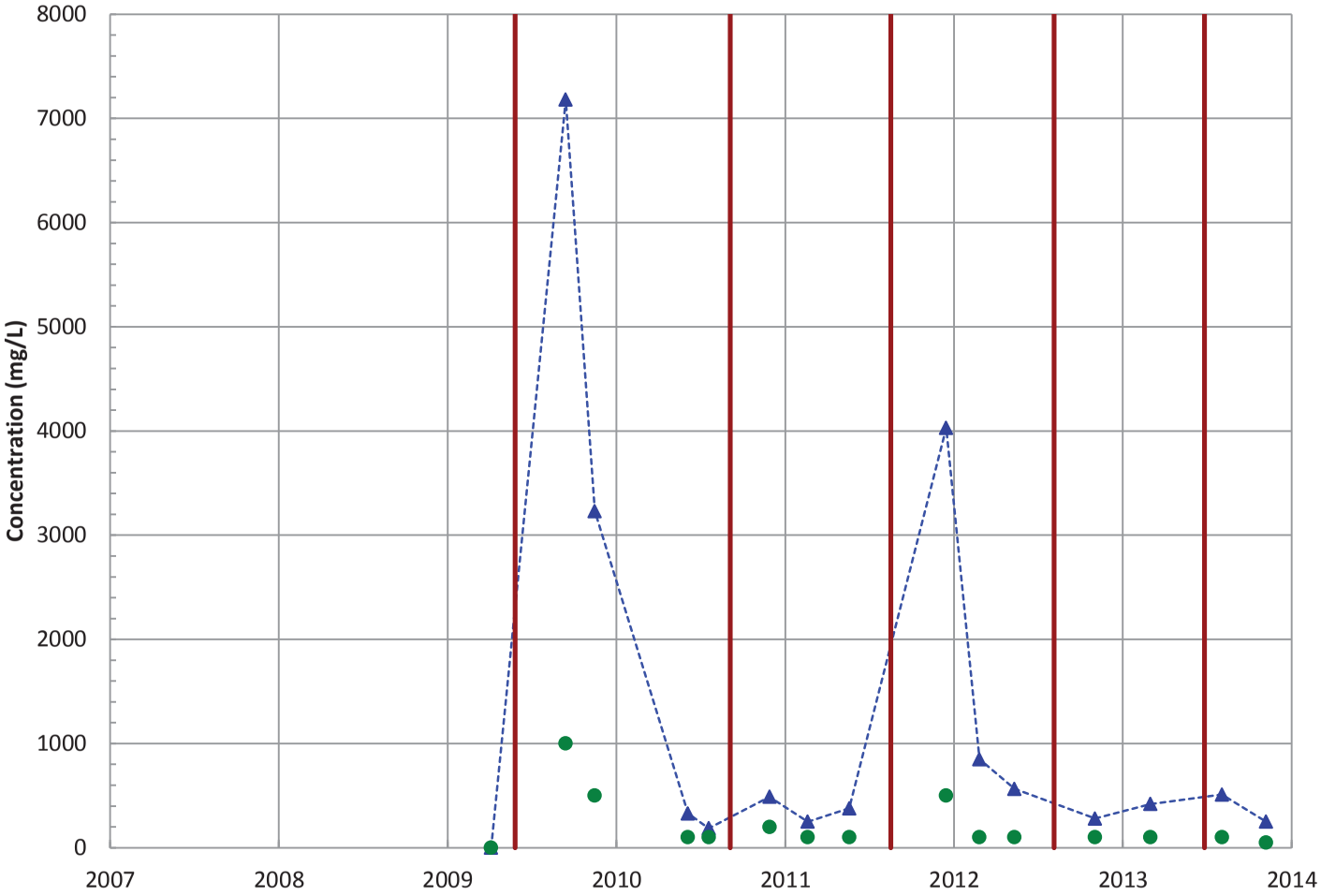
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
═══ Injection Dates

Well Location

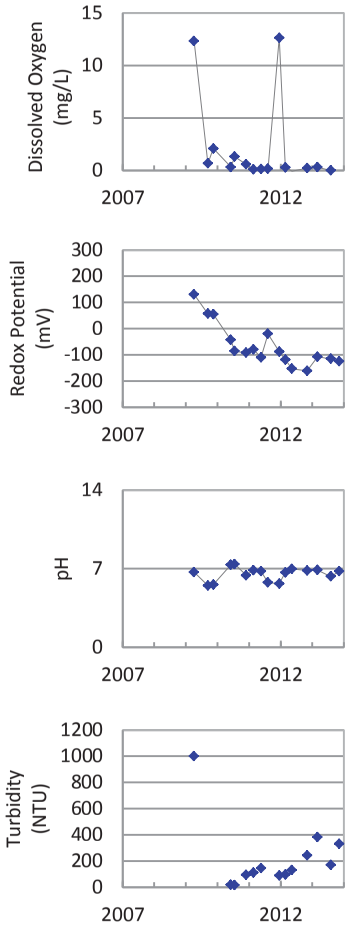


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/6/2009 to 11/12/2013
Analysis Date: 3/21/2014

PTX06-ISB077
Total Organic Carbon Trend in Perched Aquifer



Field Parameters



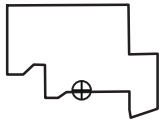
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Stable

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Stable

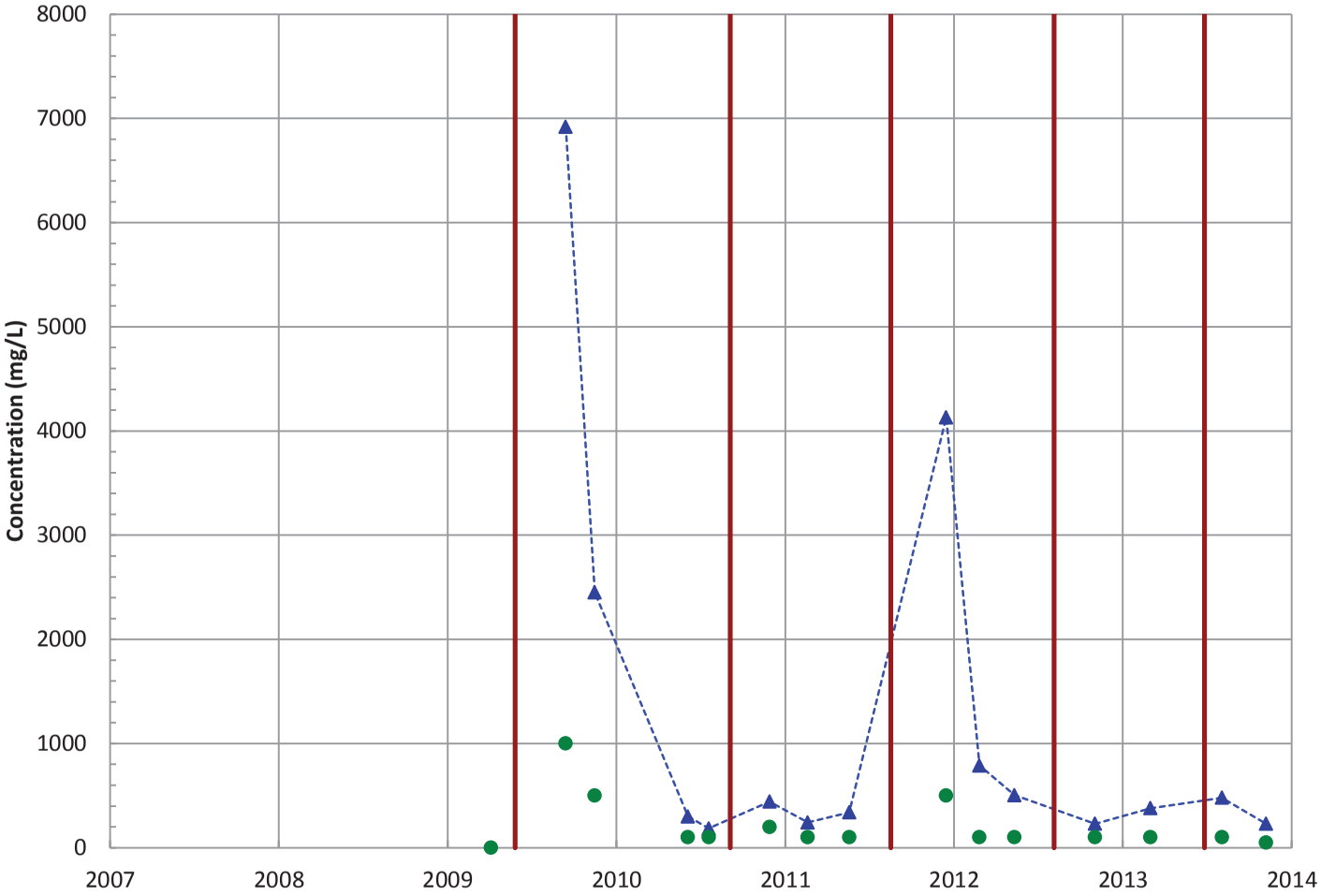
▲ Measured Value
● Sample Detection Limit
---- Concentration Trend
— Injection Dates

Well Location

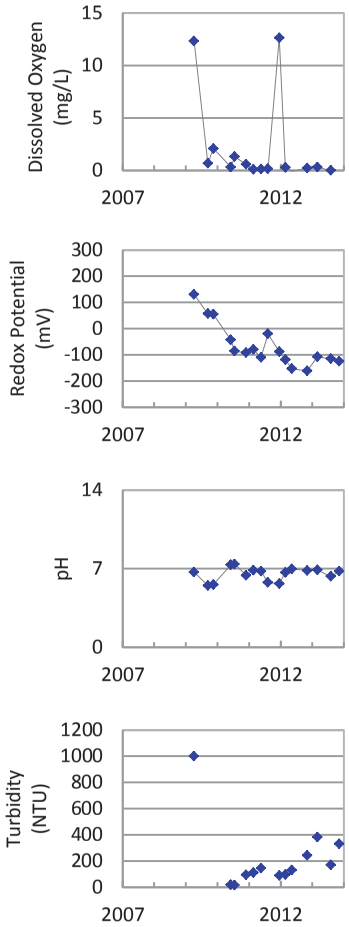


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/6/2009 to 11/12/2013
Analysis Date: 3/21/2014

PTX06-ISB077
Dissolved Organic Carbon (DOC) Trend in Perched Aquifer



Field Parameters



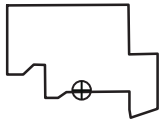
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Probably Decreasing
Last 4 Samples: No Trend

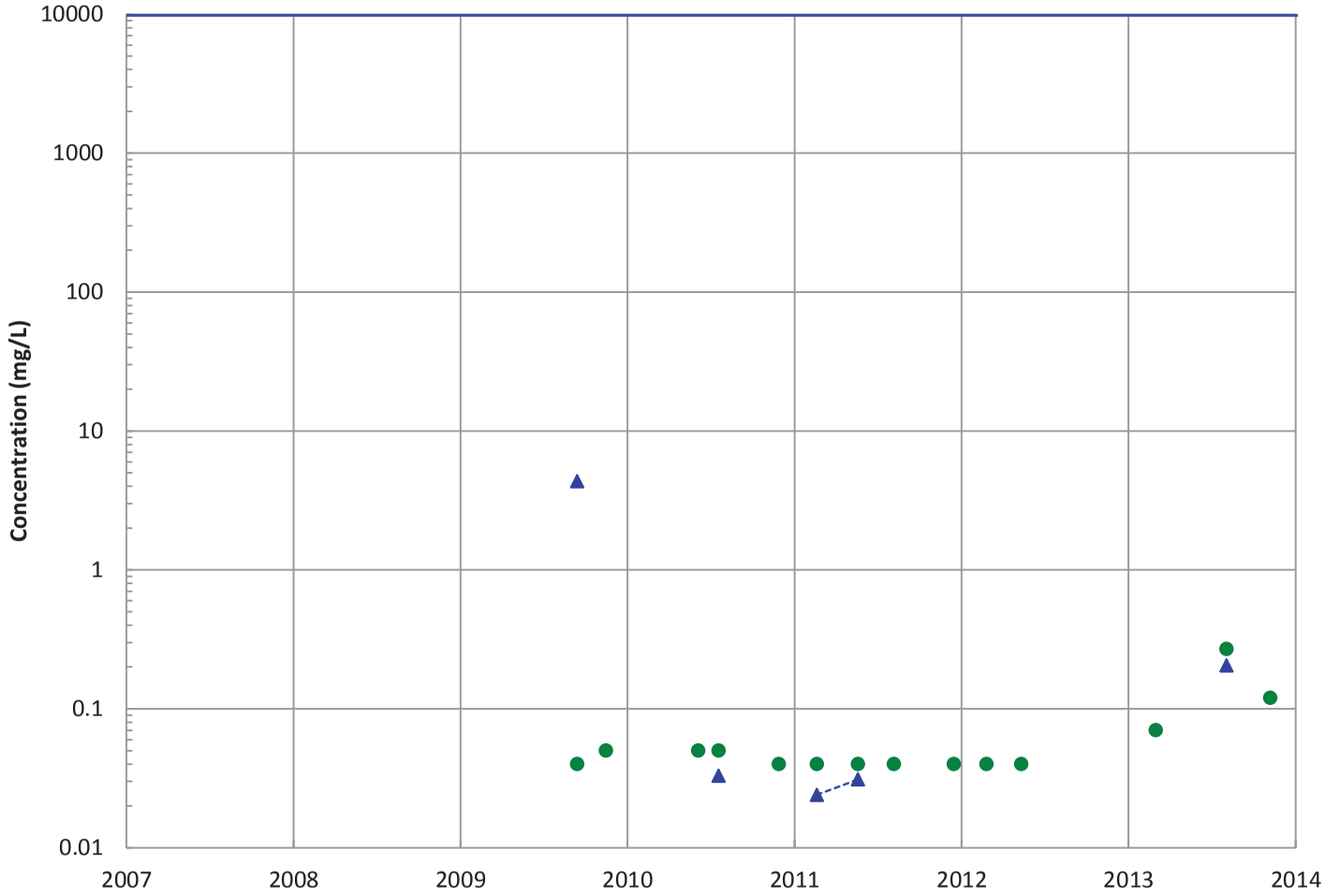
▲ Measured Value
● Sample Detection Limit
---- Concentration Trend
— Injection Dates

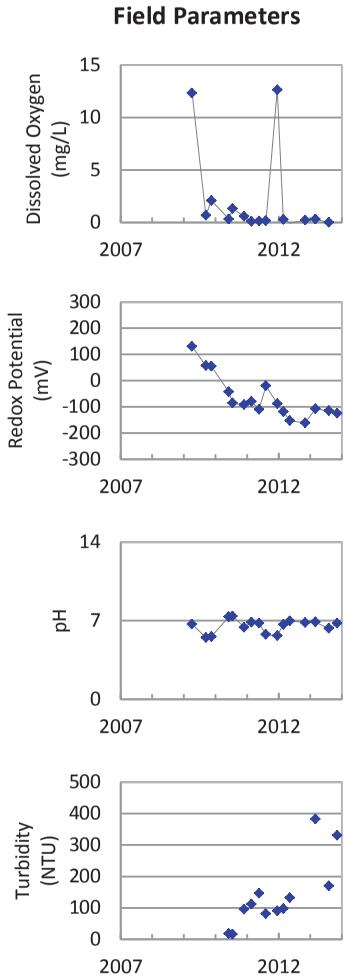
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/6/2009 to 11/12/2013
Analysis Date: 3/21/2014

PTX06-ISB077
Nitrate as N Trend in Perched Aquifer





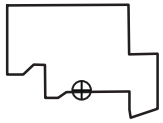
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

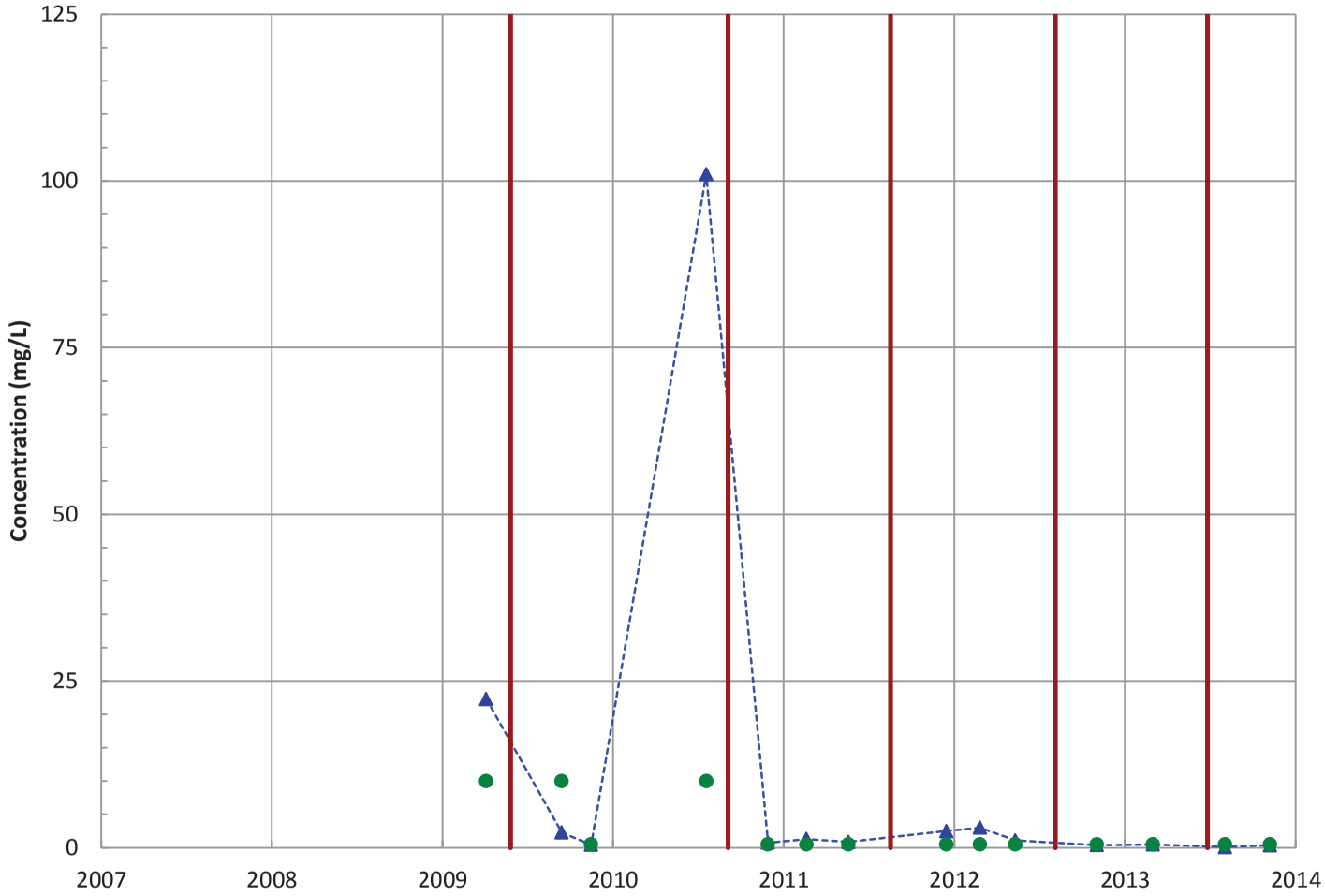
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

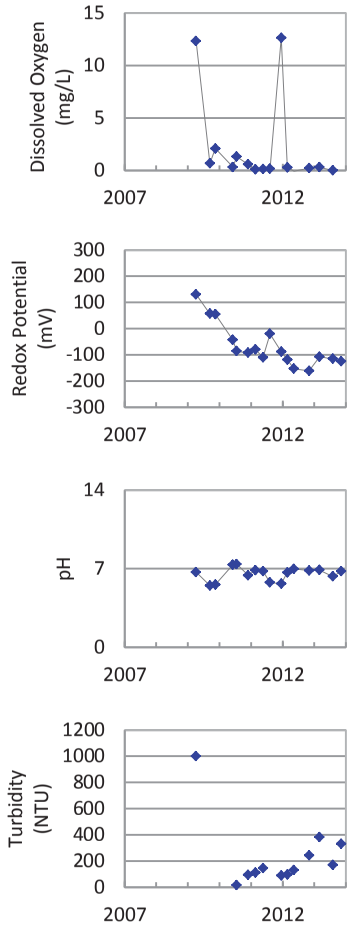


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 9/15/2009 to 11/12/2013
Analysis Date: 3/21/2014

PTX06-ISB077
Sulfate (as SO4) Trend in Perched Aquifer



Field Parameters



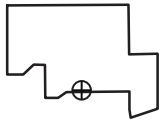
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Stable

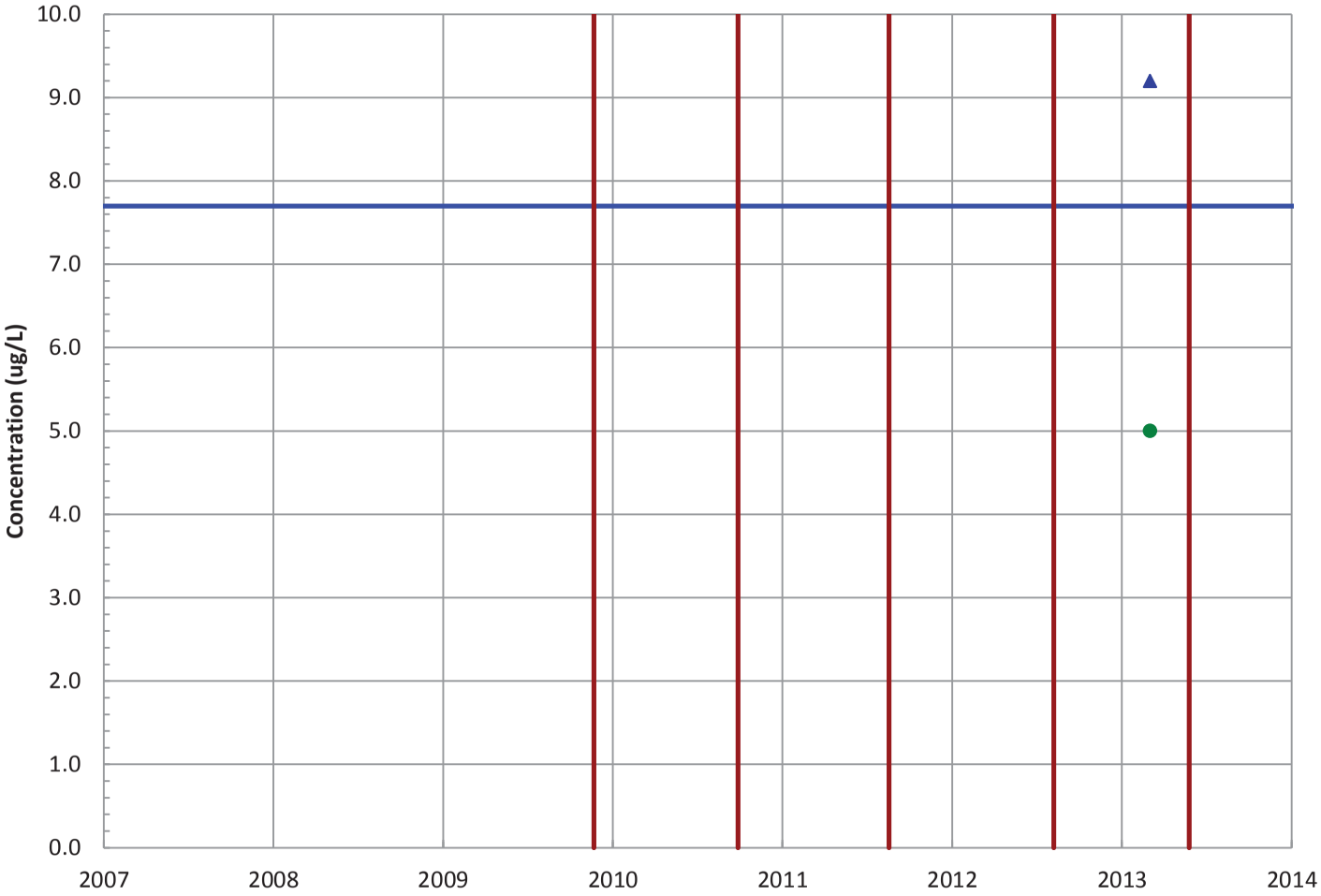
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

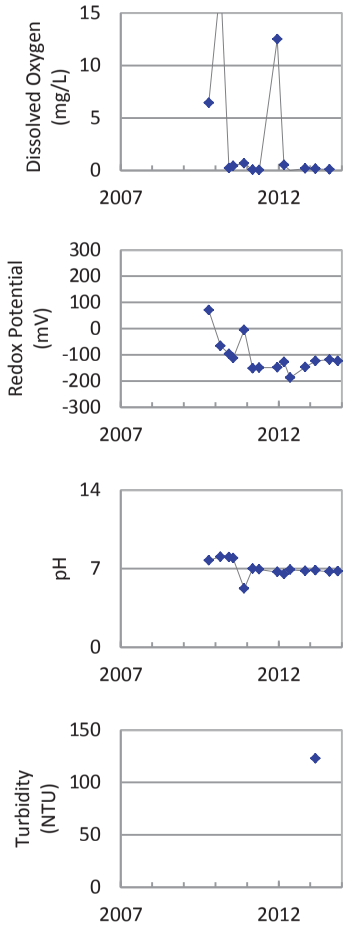


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 4/6/2009 to 11/12/2013
Analysis Date: 3/21/2014

PTX06-ISB081
1,4-Dioxane (p-Dioxane) Trend in Perched Aquifer



Field Parameters



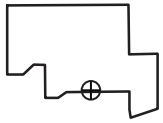
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Samples in Dataset)
Last 4 Samples: N/A (<4 Samples in Dataset)

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

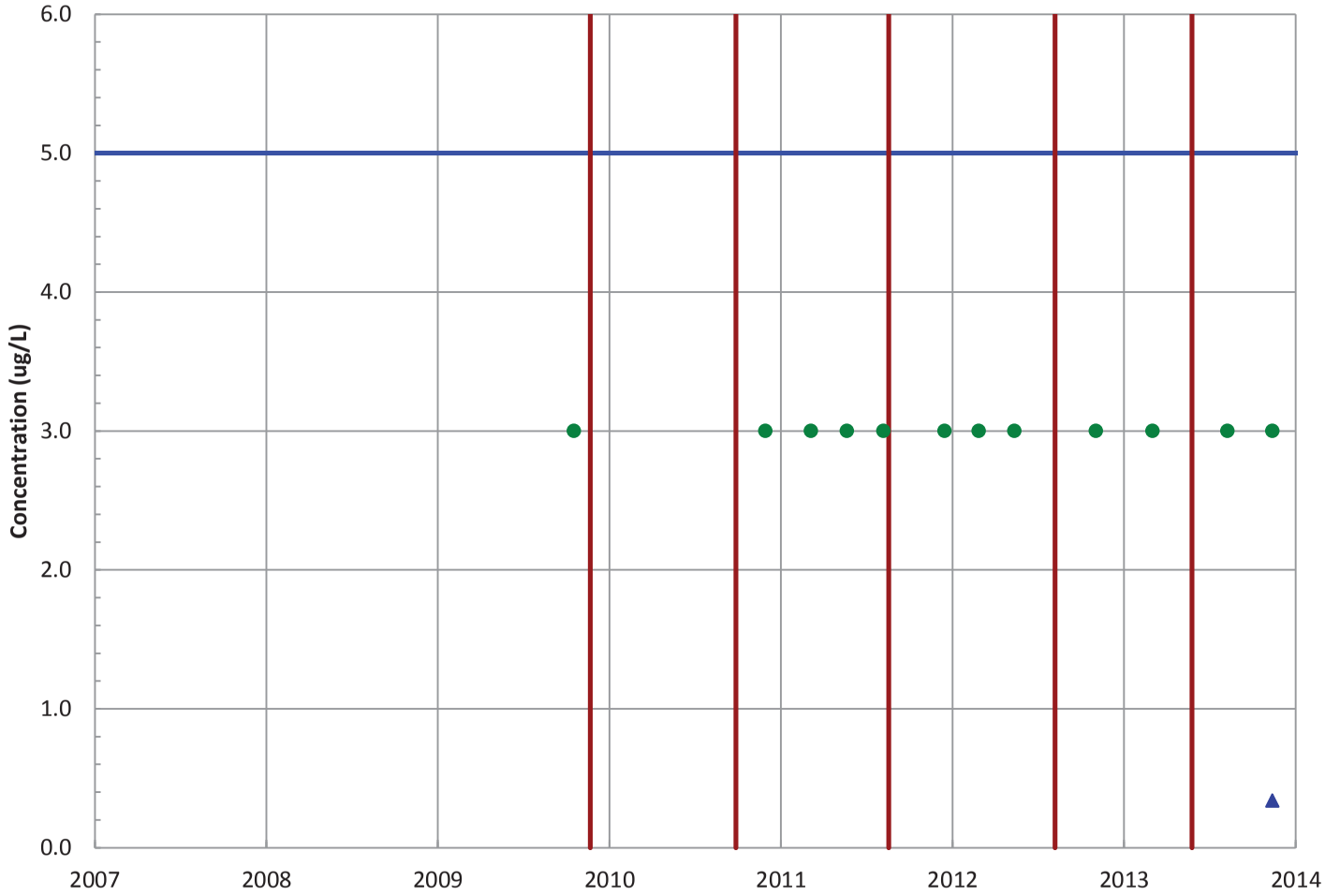
- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

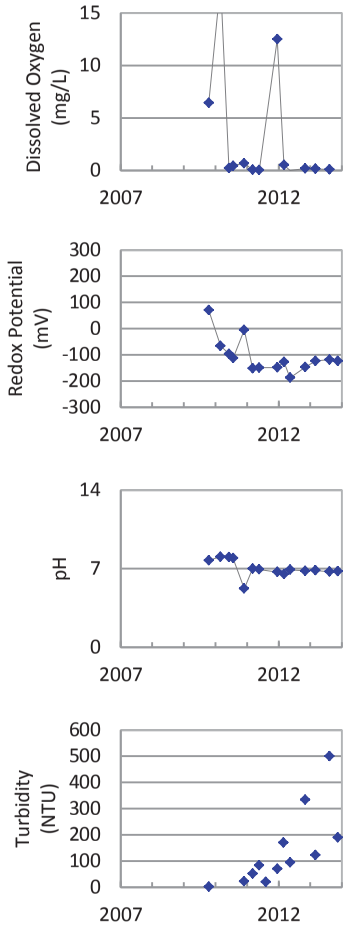


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/7/2013 to 3/7/2013
Analysis Date: 3/21/2014

PTX06-ISB081
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



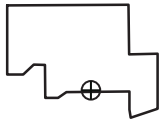
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

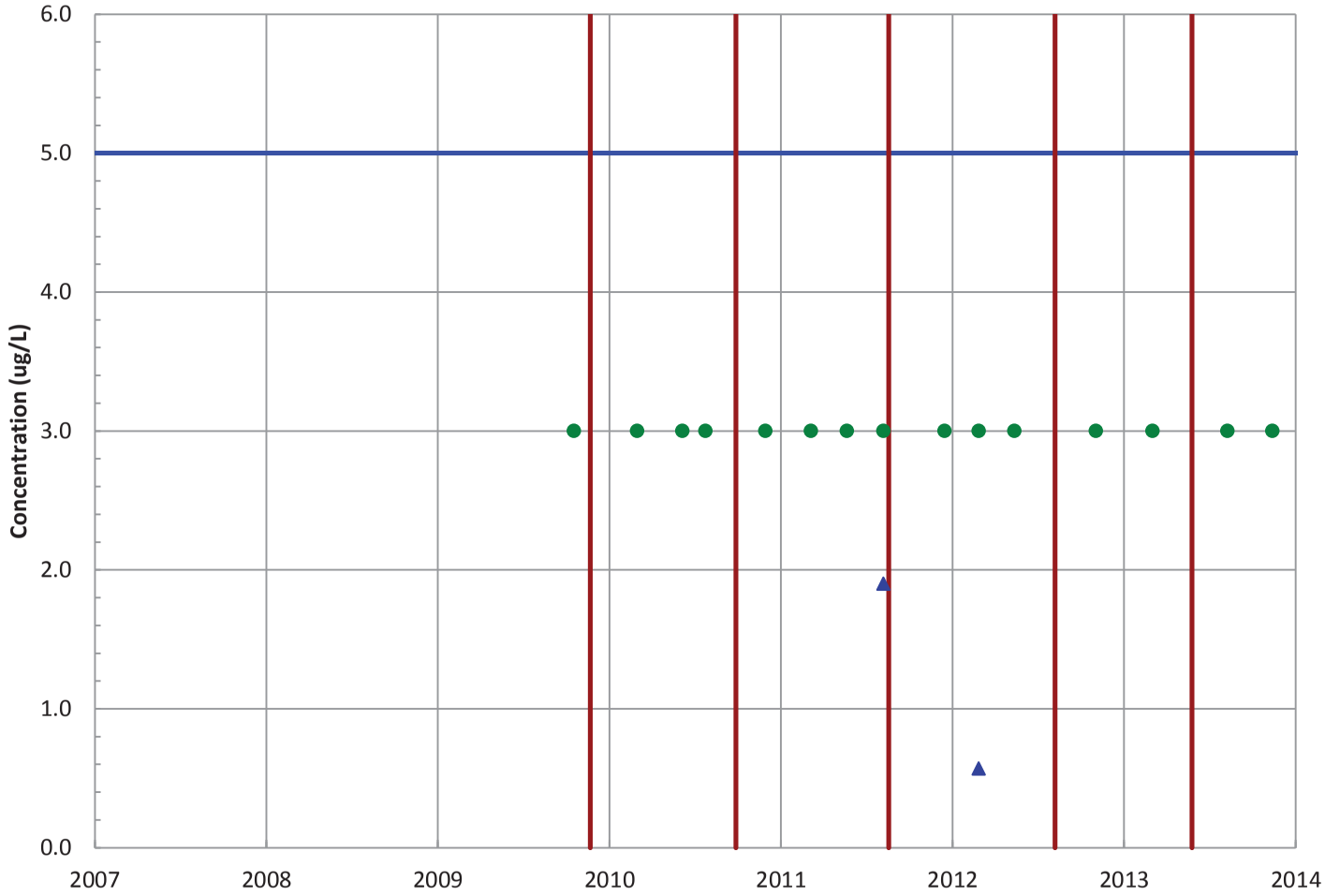
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

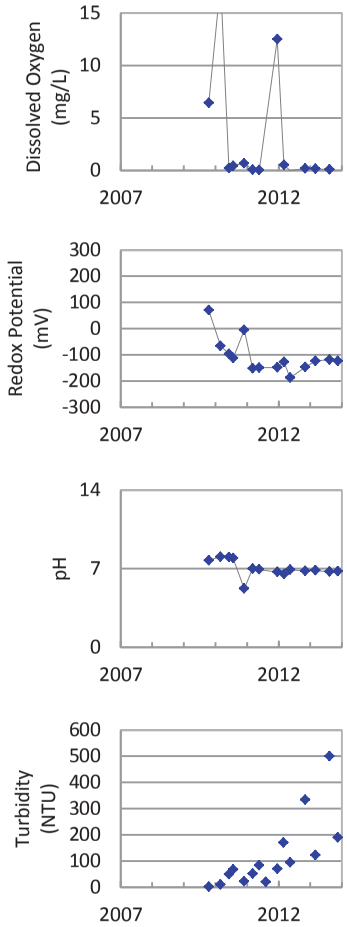


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/19/2009 to 11/18/2013
Analysis Date: 3/21/2014

PTX06-ISB081
Trichloroethene Trend in Perched Aquifer



Field Parameters



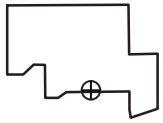
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

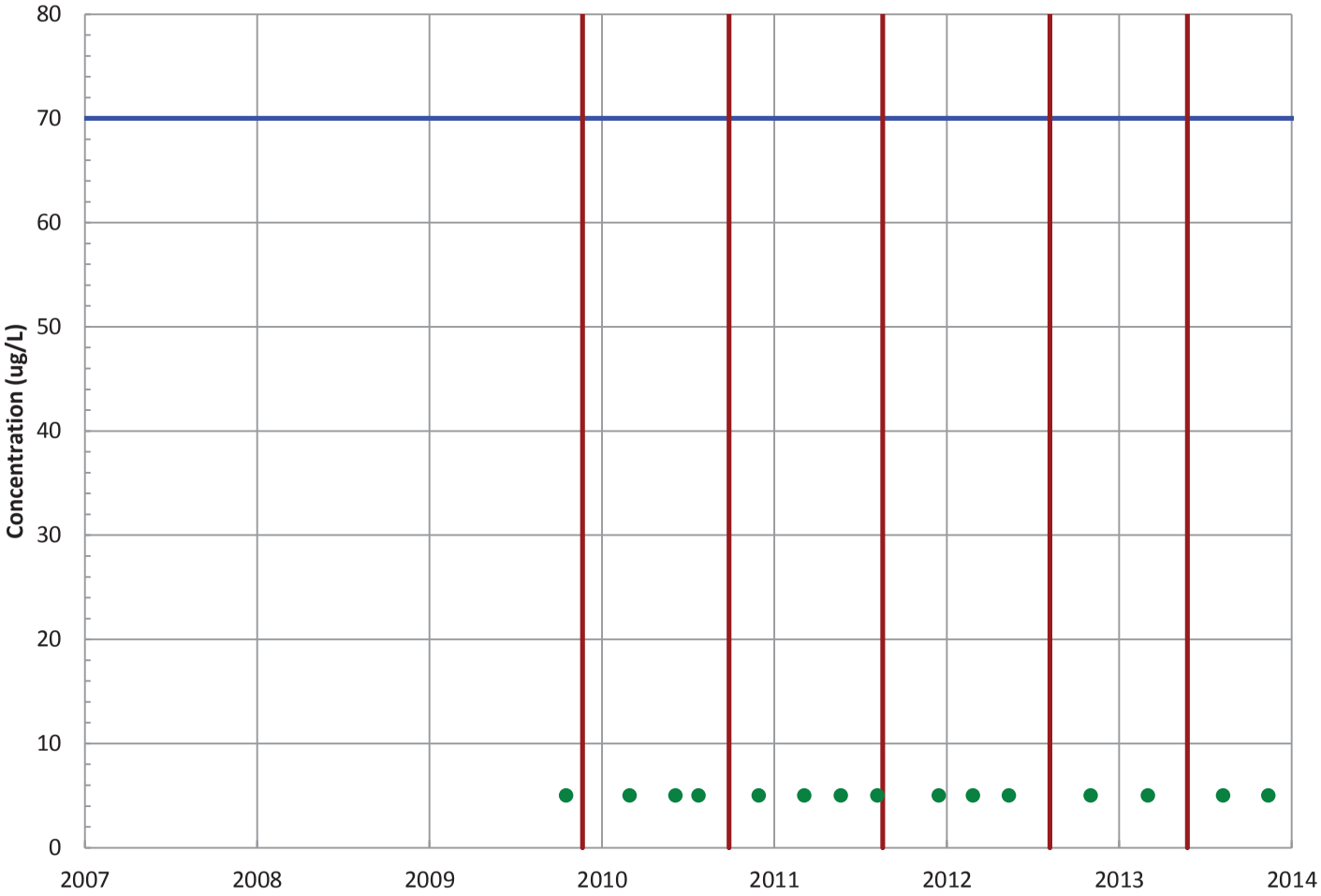
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

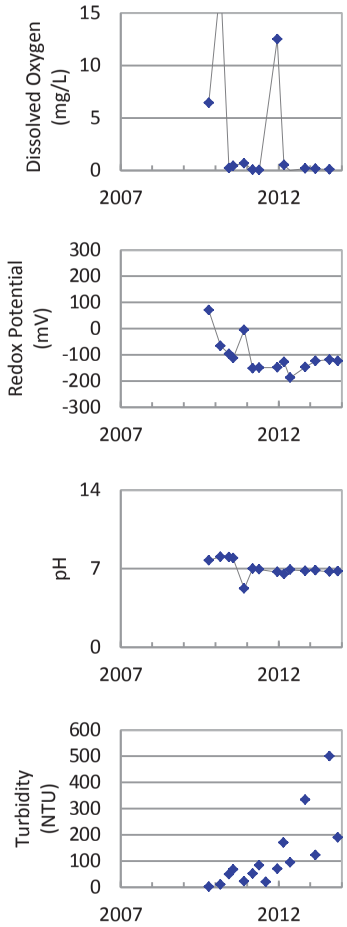


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/19/2009 to 11/18/2013
Analysis Date: 3/21/2014

PTX06-ISB081
cis-1,2-Dichloroethene Trend in Perched Aquifer



Field Parameters



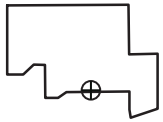
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

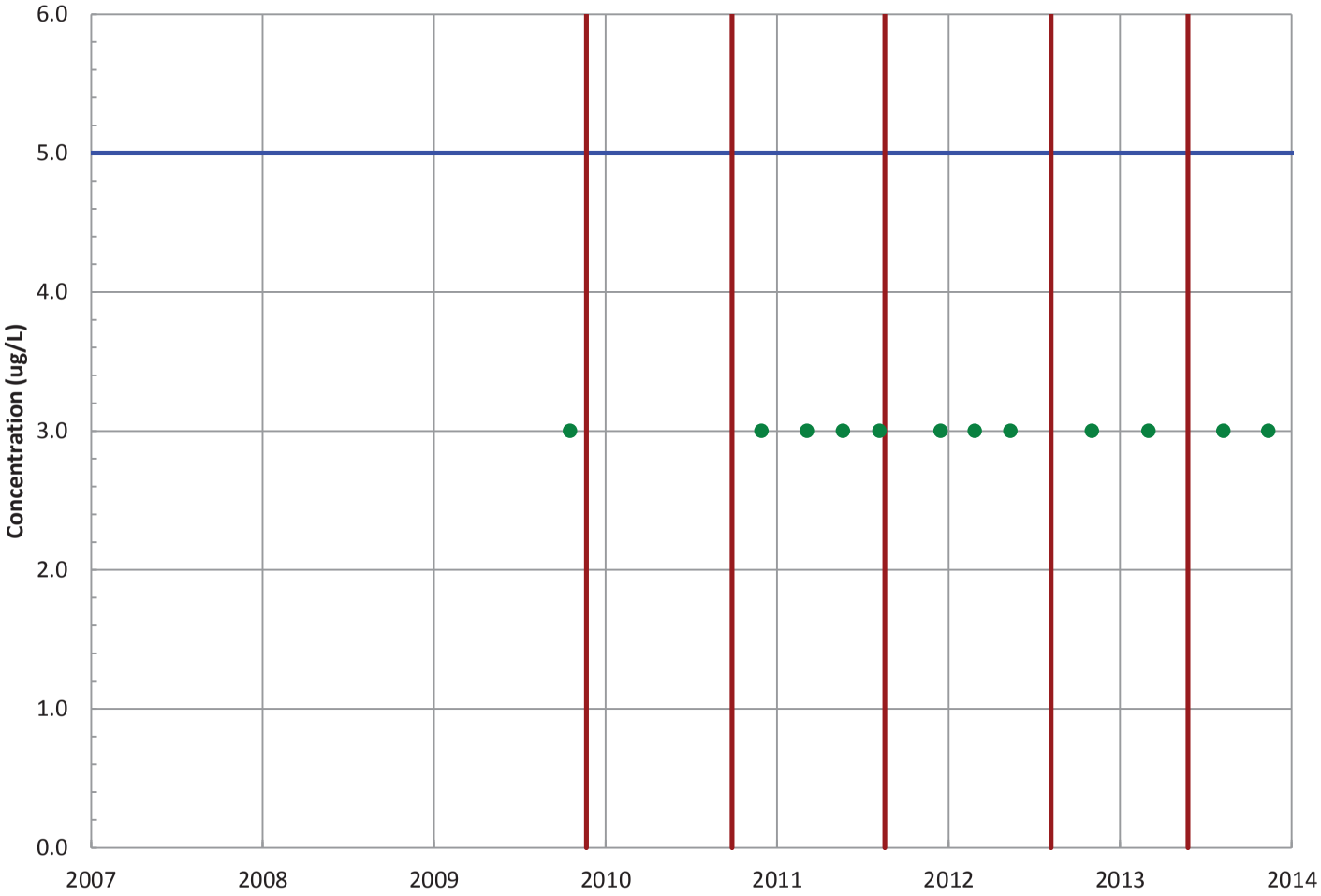
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

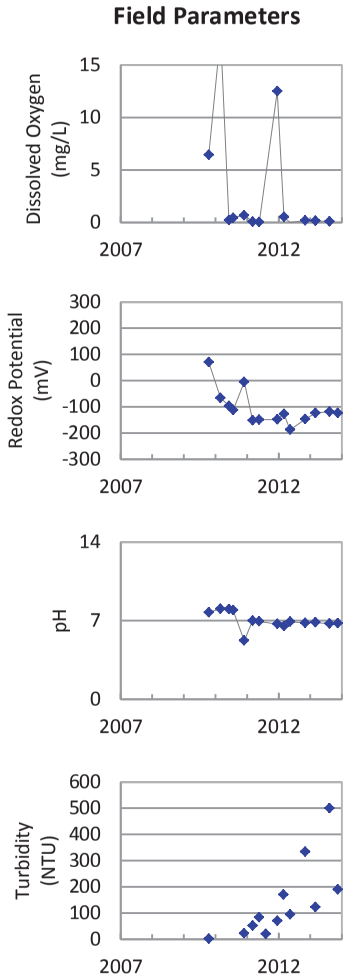
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/19/2009 to 11/18/2013
Analysis Date: 3/21/2014

PTX06-ISB081
1,2-Dichloroethane Trend in Perched Aquifer





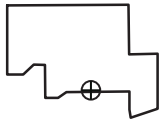
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

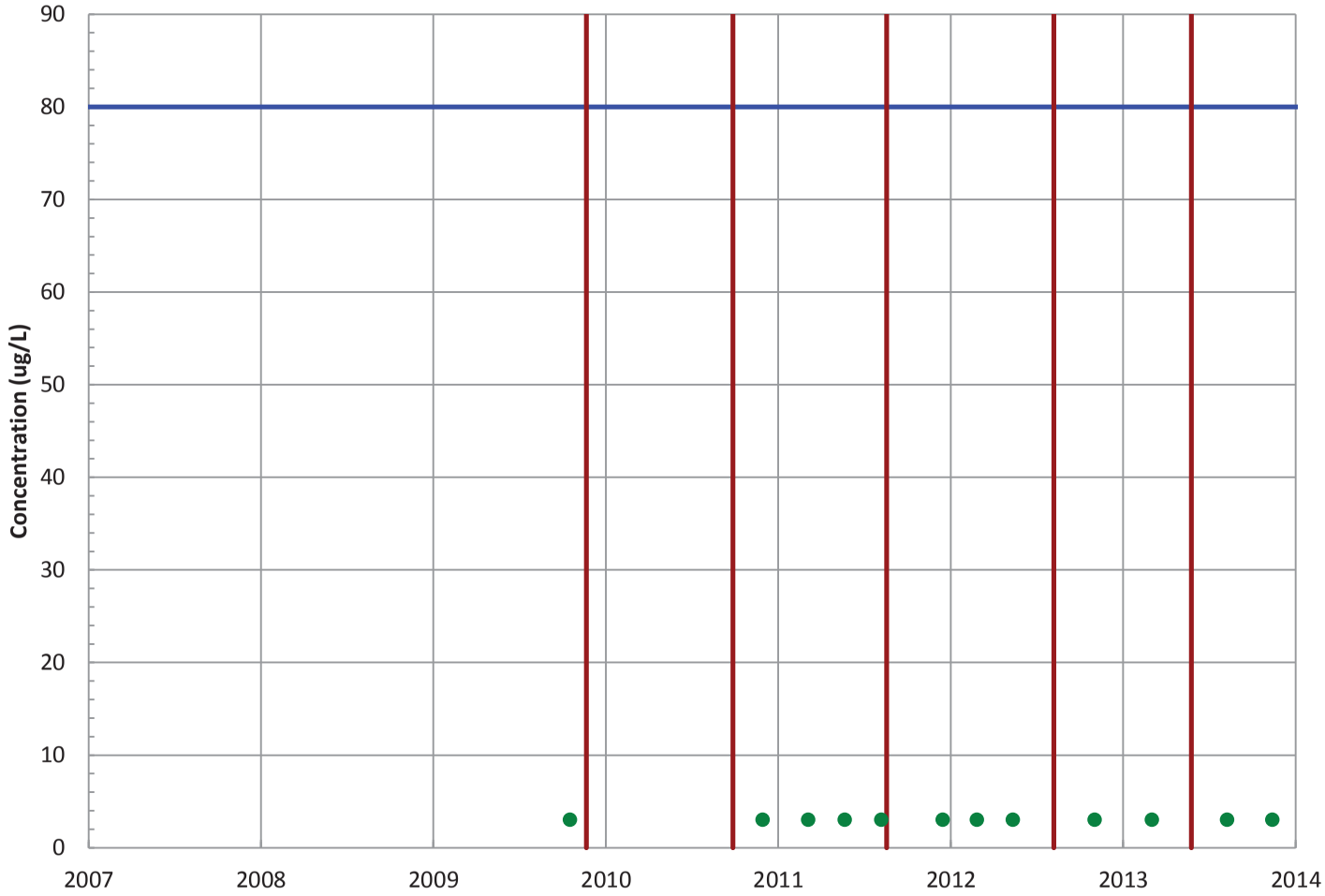
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

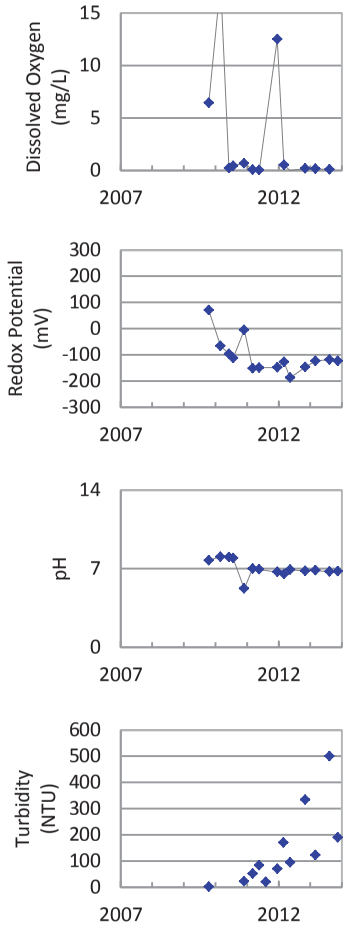


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/19/2009 to 11/18/2013
Analysis Date: 3/21/2014

PTX06-ISB081
Chloroform Trend in Perched Aquifer



Field Parameters



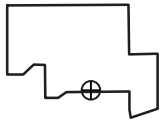
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

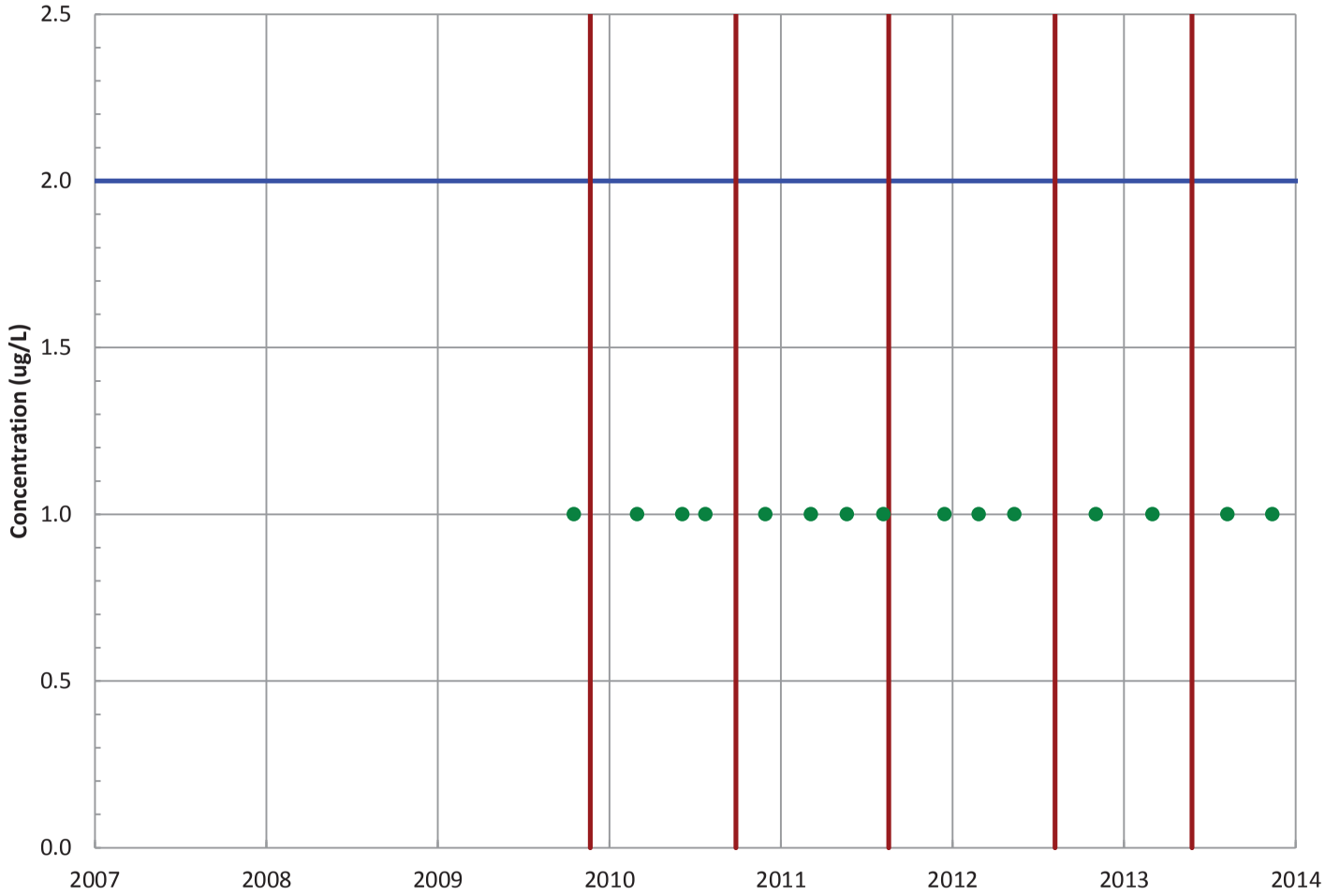
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

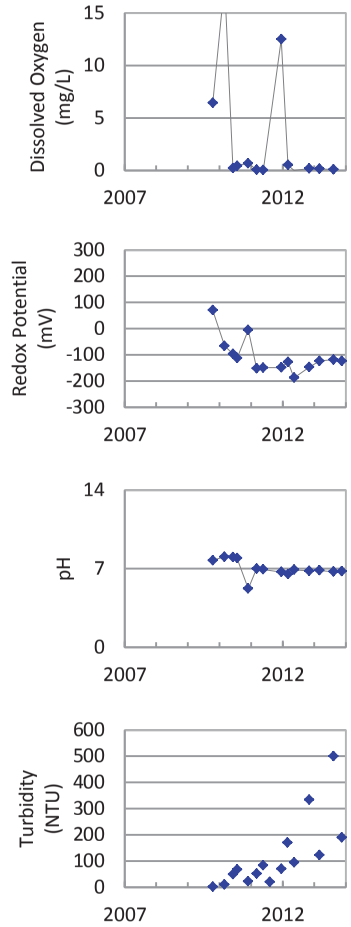


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/19/2009 to 11/18/2013
Analysis Date: 3/21/2014

PTX06-ISB081
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



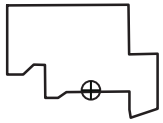
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

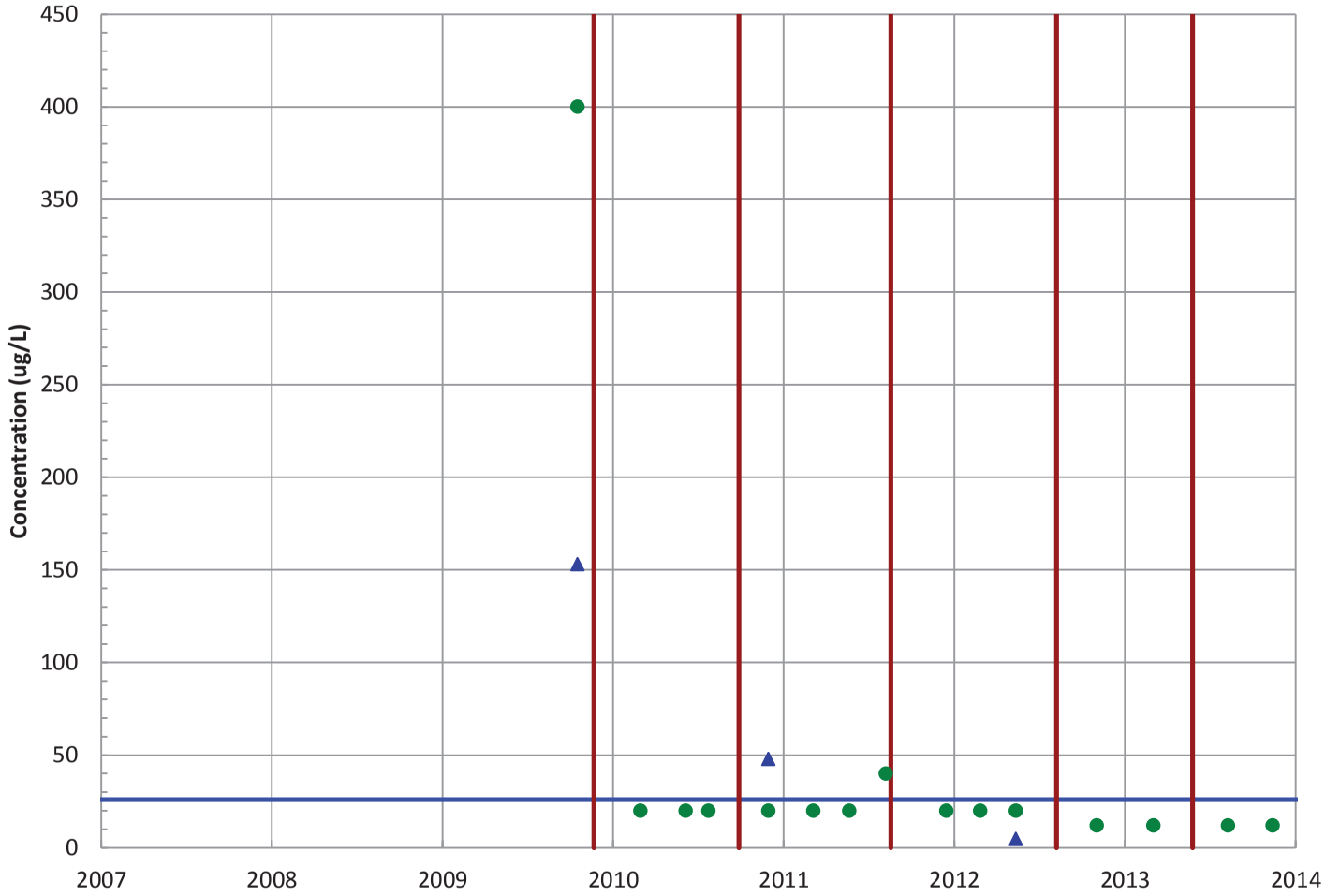
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

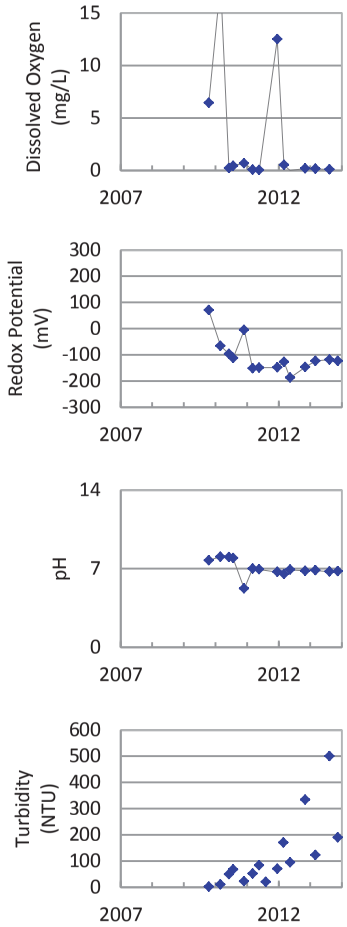


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/19/2009 to 11/18/2013
Analysis Date: 3/21/2014

PTX06-ISB081
Perchlorate Trend in Perched Aquifer



Field Parameters



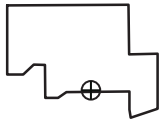
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

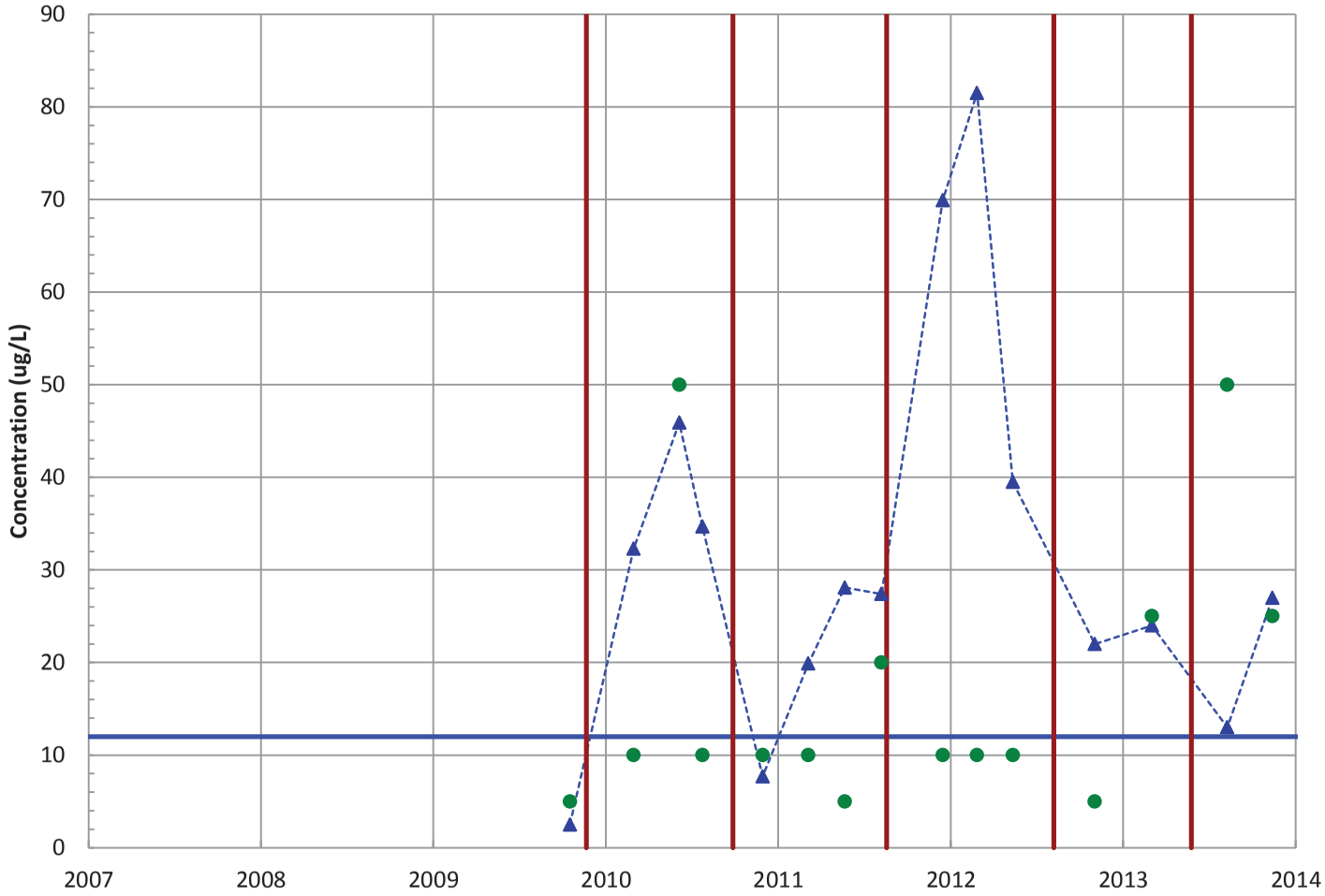
- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

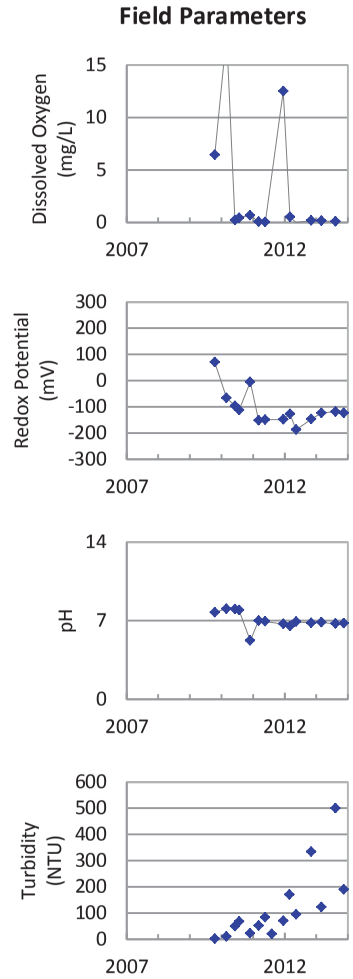
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/19/2009 to 11/18/2013
Analysis Date: 3/21/2014

PTX06-ISB081
Arsenic Trend in Perched Aquifer





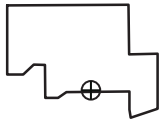
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Stable

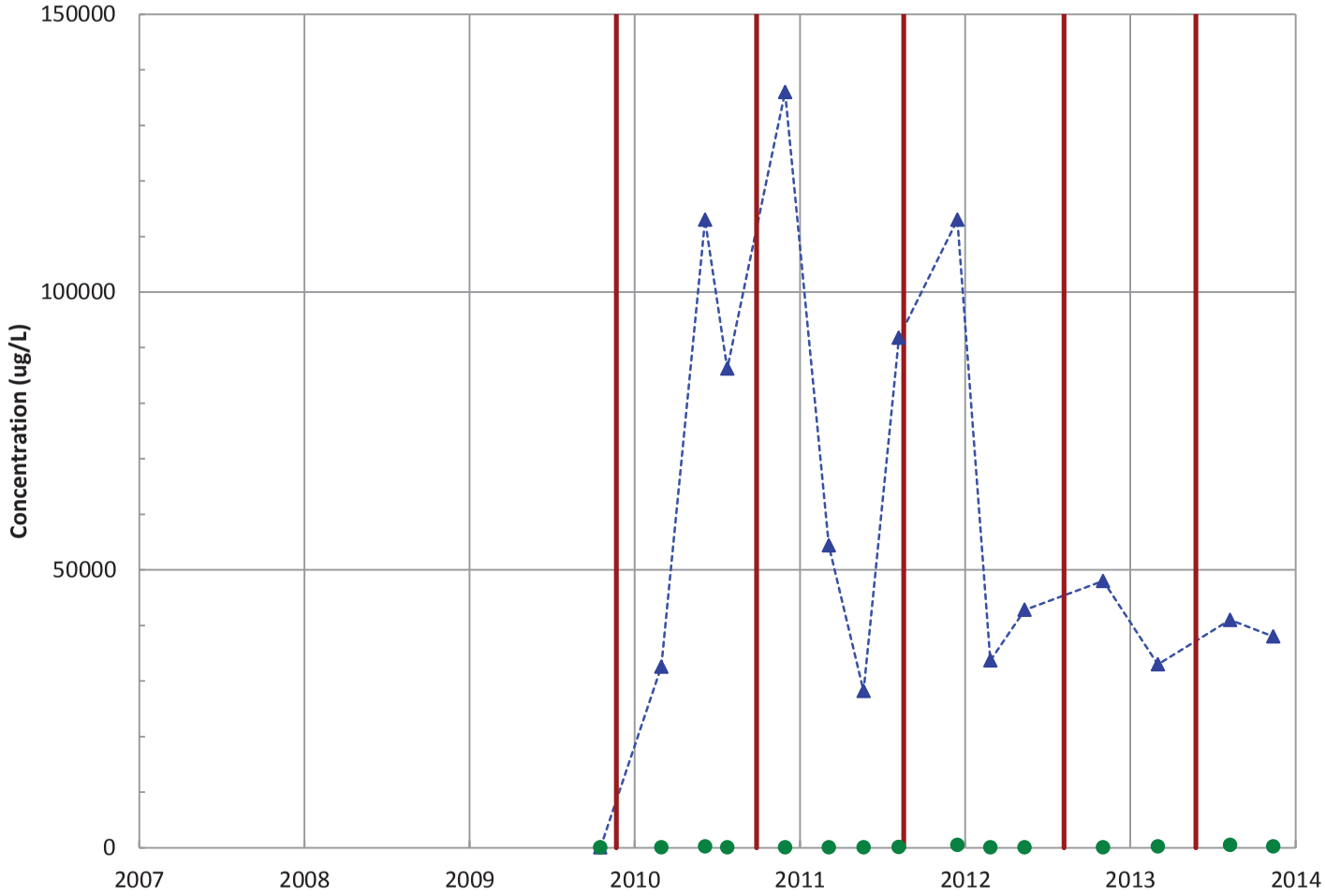
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

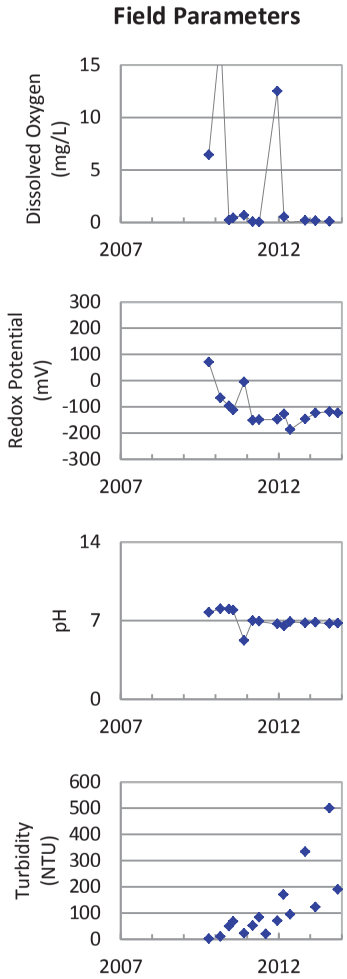
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/19/2009 to 11/18/2013
Analysis Date: 3/21/2014

PTX06-ISB081
Iron Trend in Perched Aquifer



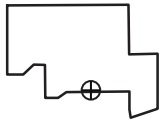


Concentration Trend
MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Stable

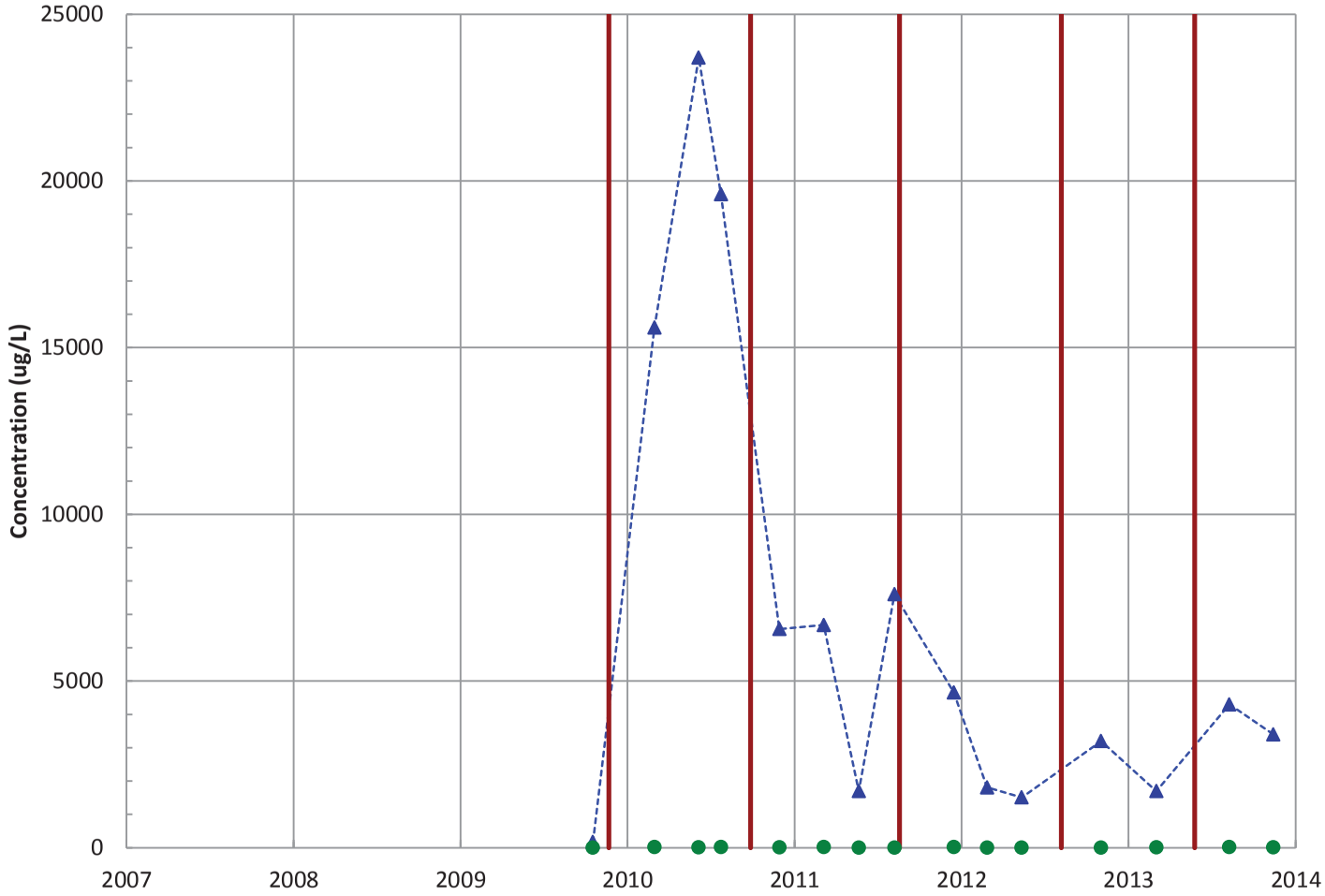
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

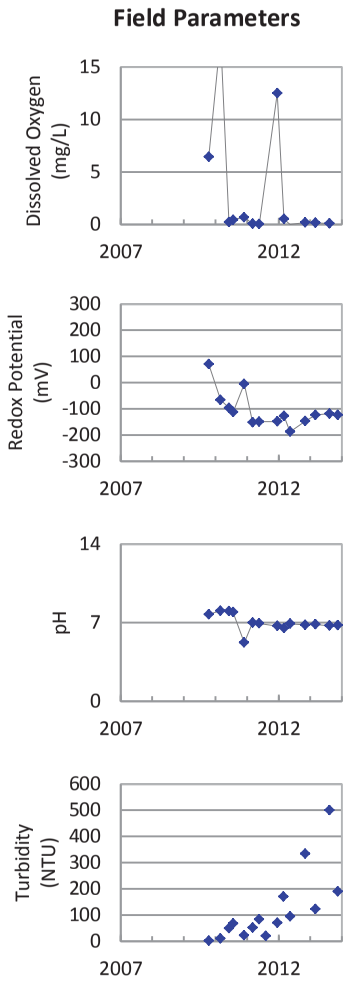
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/19/2009 to 11/18/2013
Analysis Date: 3/21/2014

PTX06-ISB081
Manganese Trend in Perched Aquifer





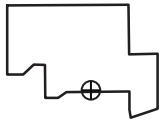
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

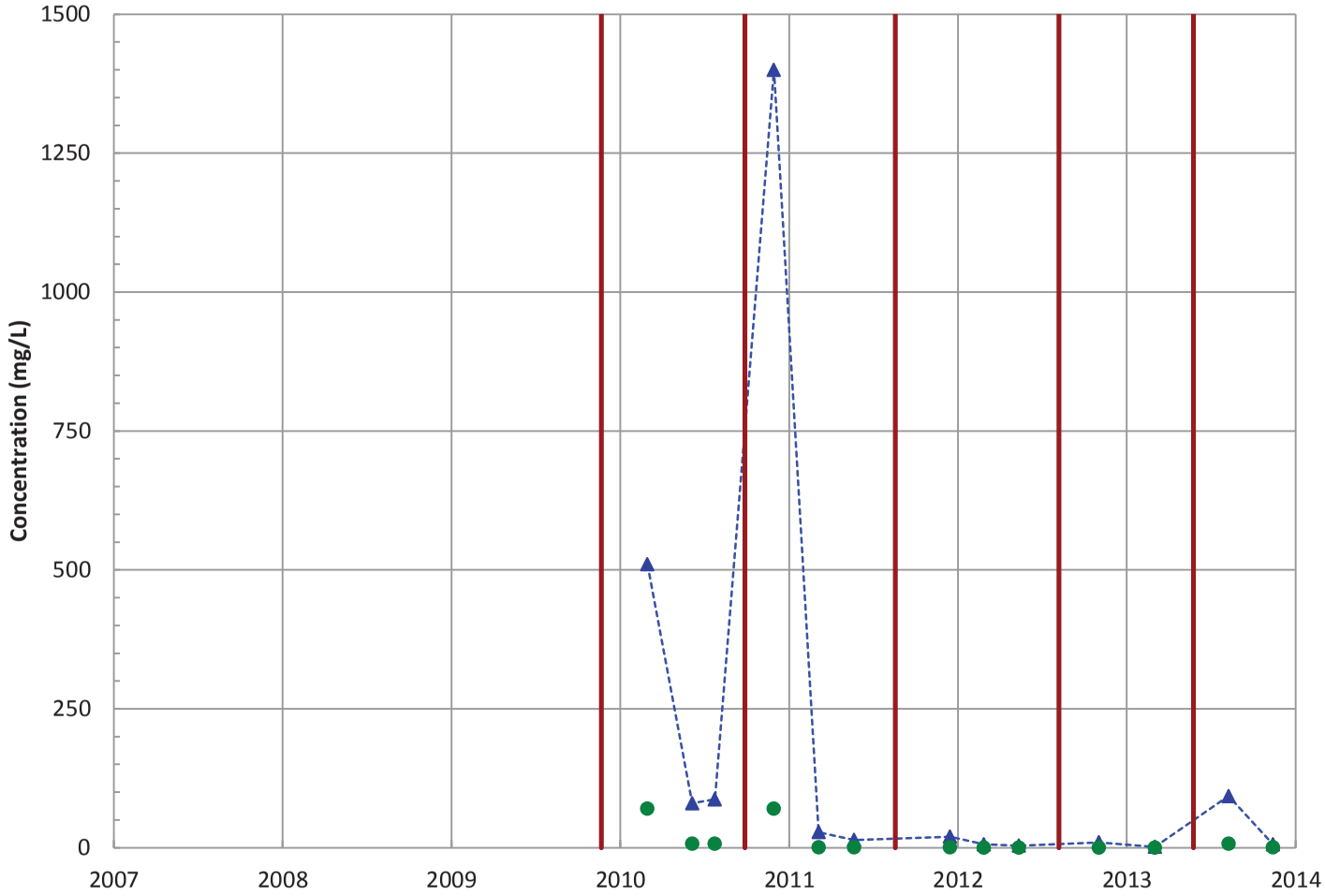
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

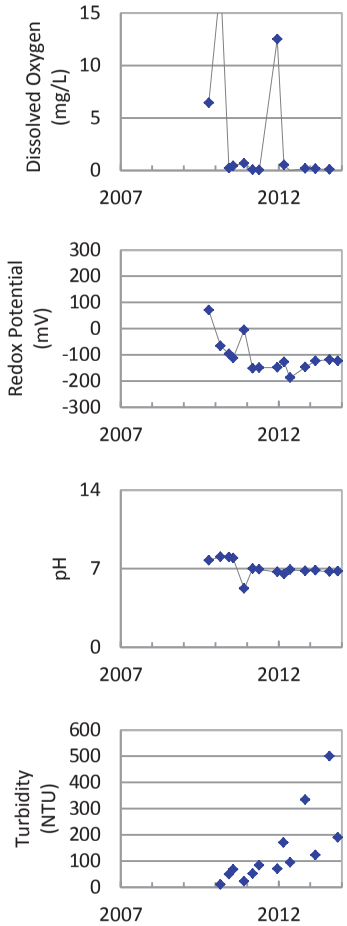


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/19/2009 to 11/18/2013
Analysis Date: 3/21/2014

PTX06-ISB081
Acetic Acid Trend in Perched Aquifer



Field Parameters



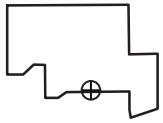
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

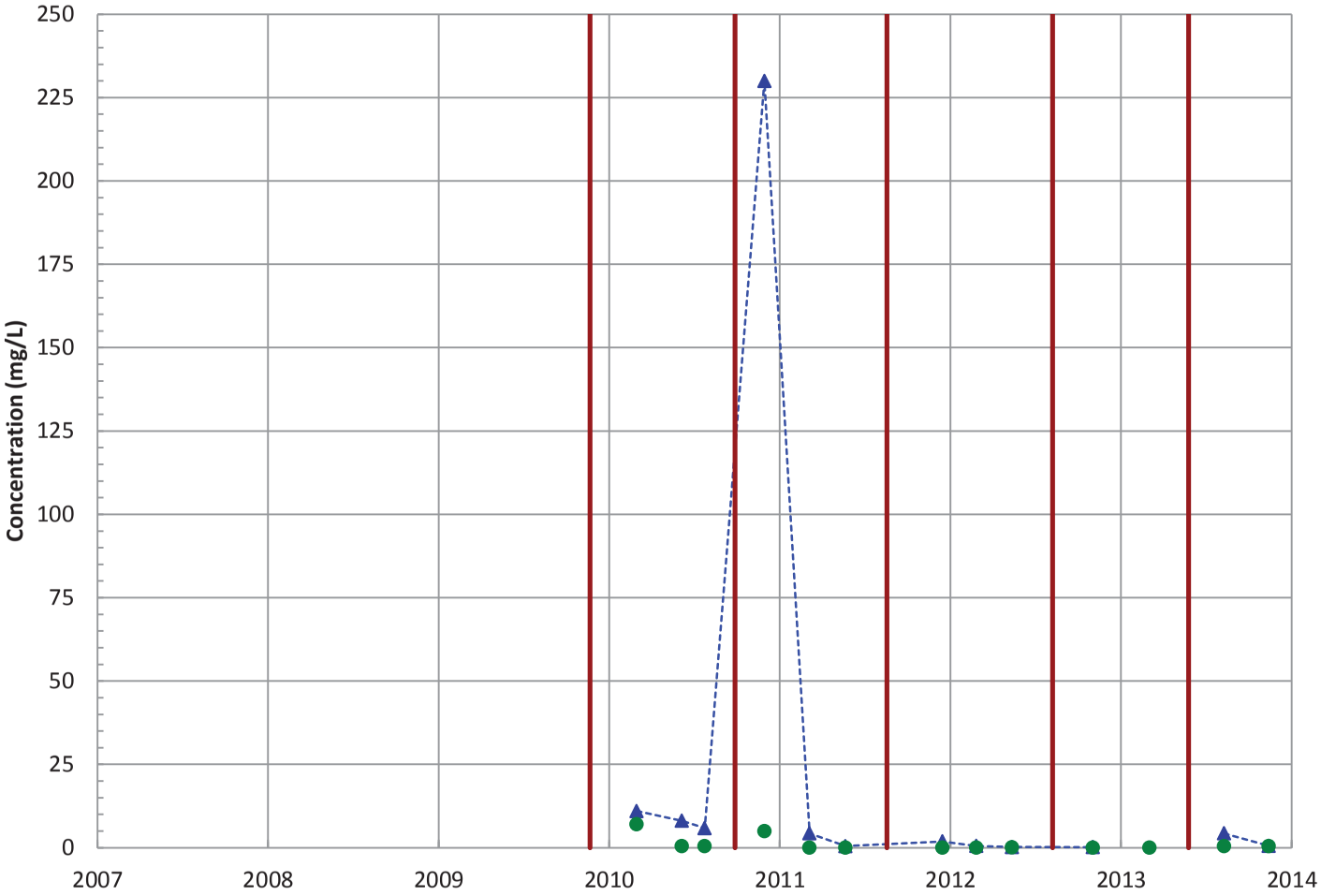
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

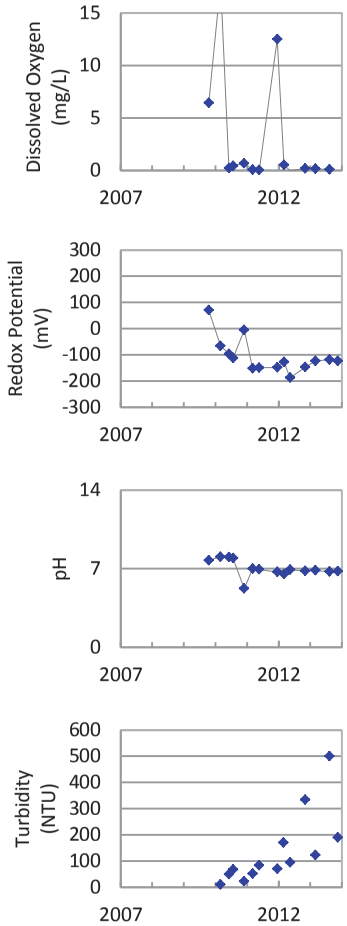


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/3/2010 to 11/18/2013
Analysis Date: 3/21/2014

PTX06-ISB081
Butyric Acid Trend in Perched Aquifer



Field Parameters



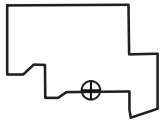
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

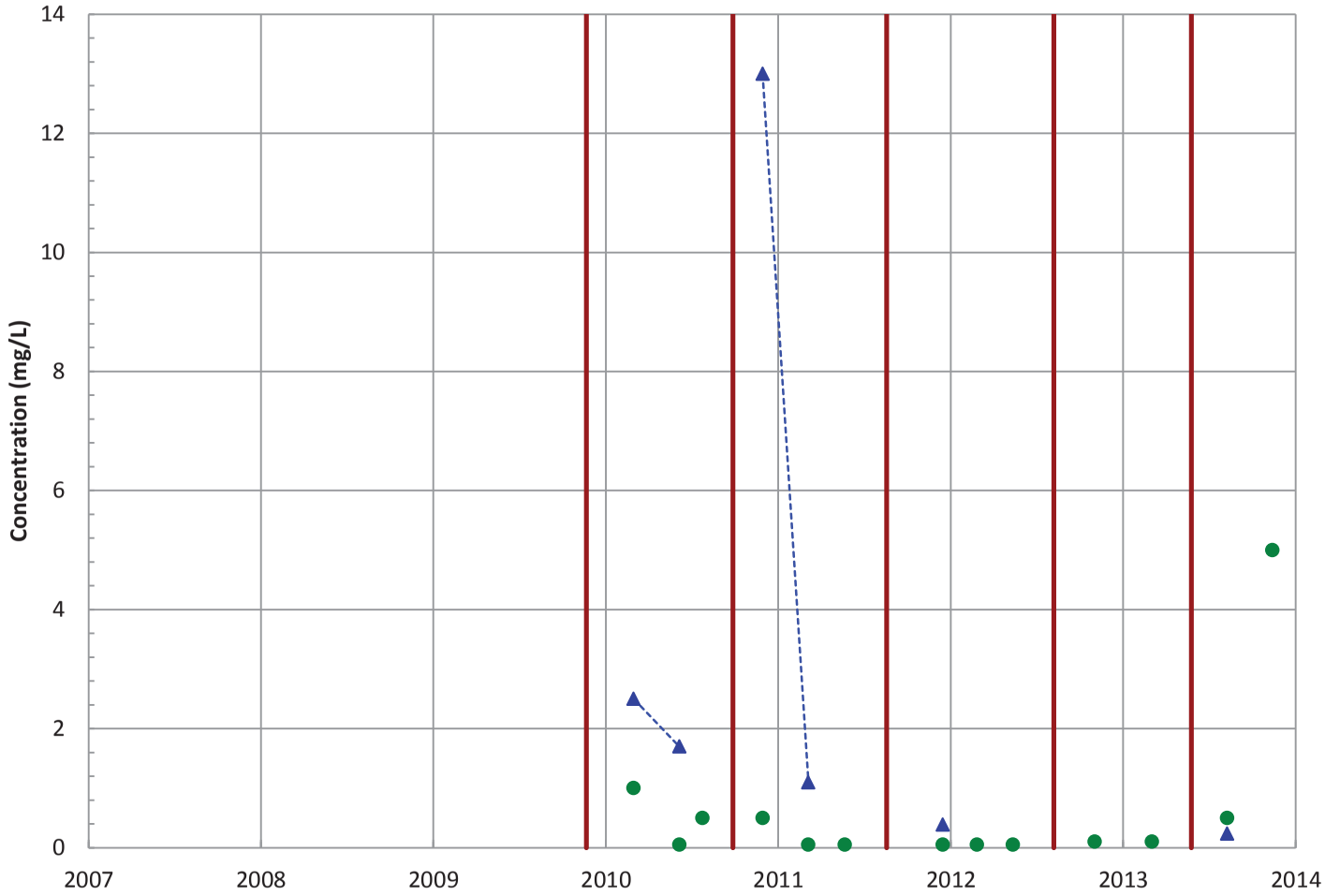
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

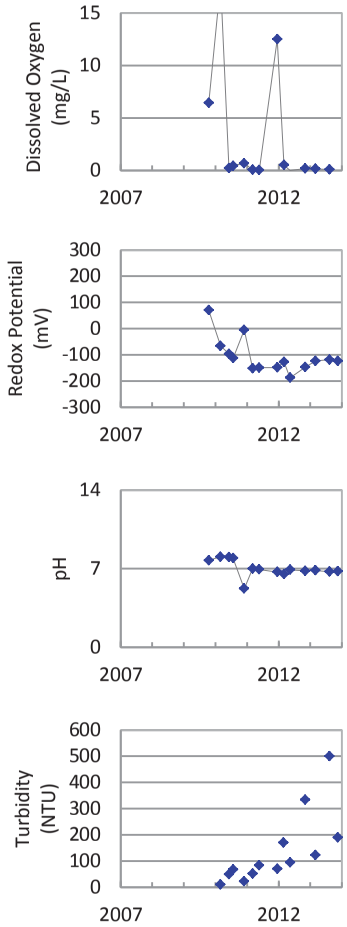


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/3/2010 to 11/18/2013
Analysis Date: 3/21/2014

PTX06-ISB081
Hexanoic Acid Trend in Perched Aquifer



Field Parameters



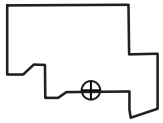
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Decreasing

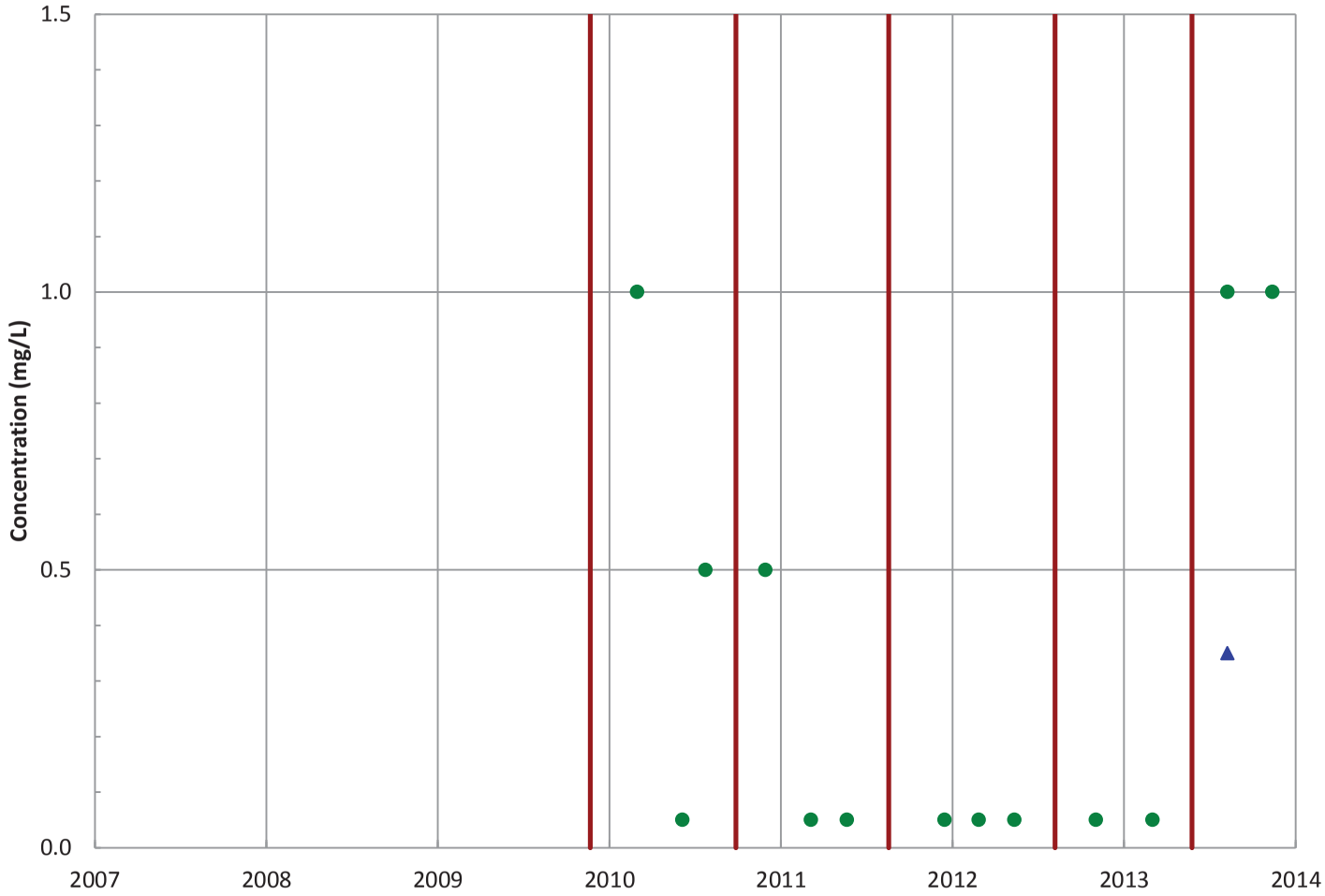
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

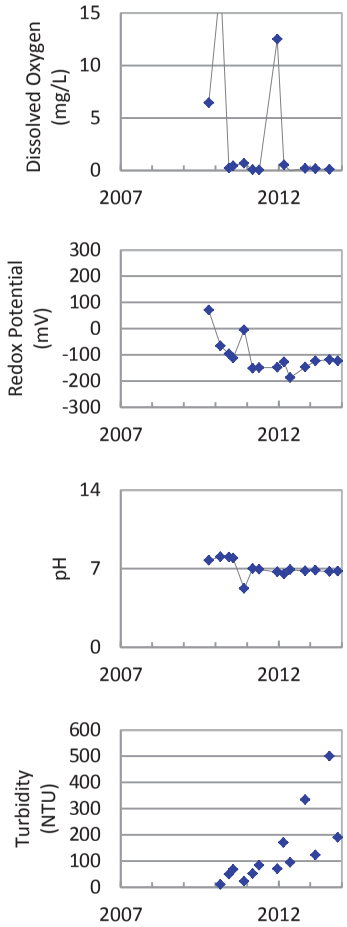


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/3/2010 to 11/18/2013
Analysis Date: 3/21/2014

PTX06-ISB081
i-Hexanoic Acid Trend in Perched Aquifer



Field Parameters



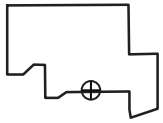
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

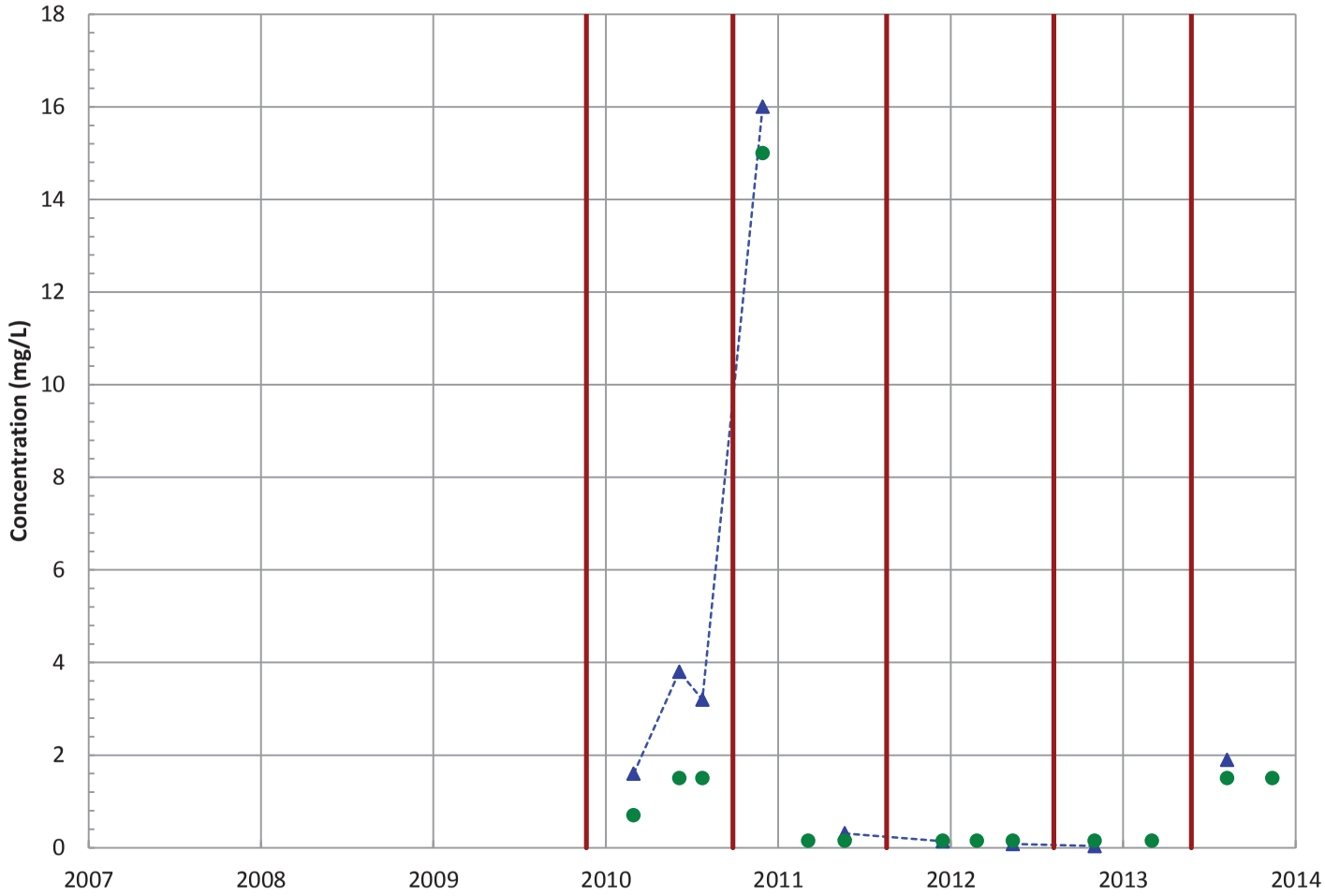
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
═══ Injection Dates

Well Location

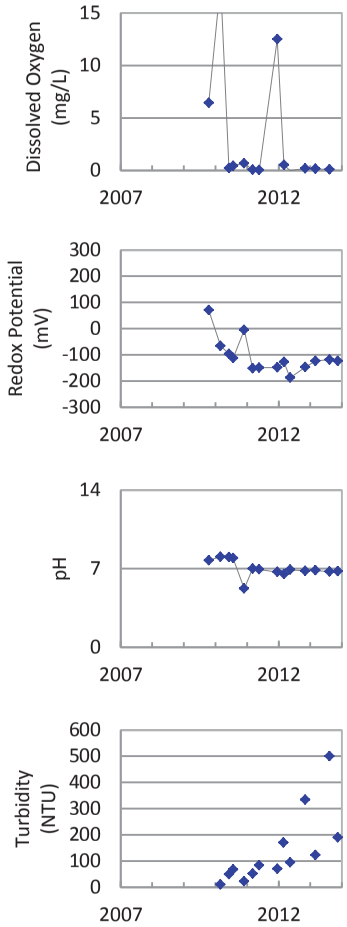


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/3/2010 to 11/18/2013
Analysis Date: 3/21/2014

PTX06-ISB081
i-Pentanoic Acid Trend in Perched Aquifer



Field Parameters



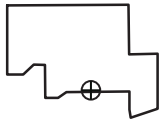
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Probably Decreasing
Last 4 Samples: No Trend

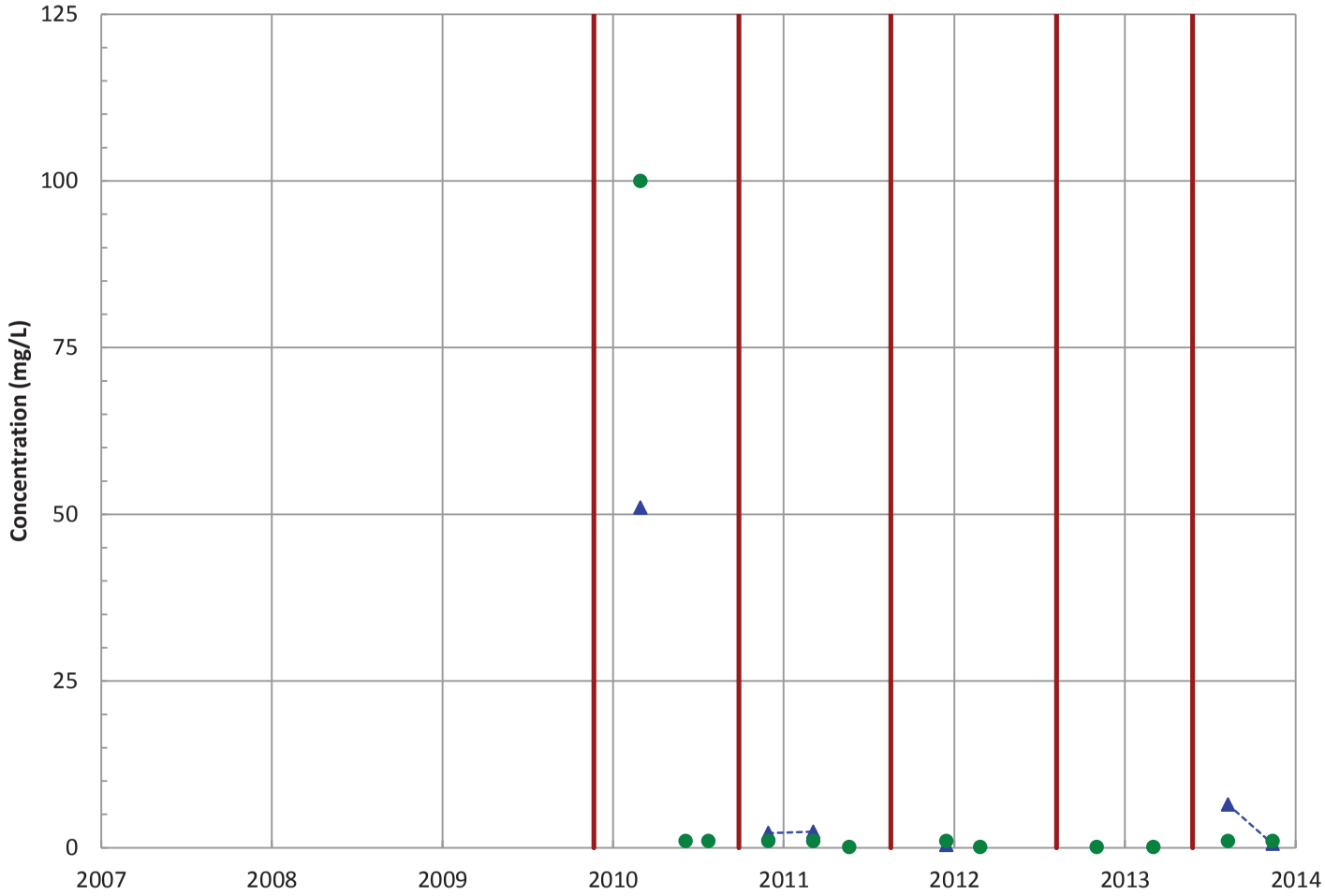
▲ Measured Value
● Sample Detection Limit
---- Concentration Trend
— Injection Dates

Well Location

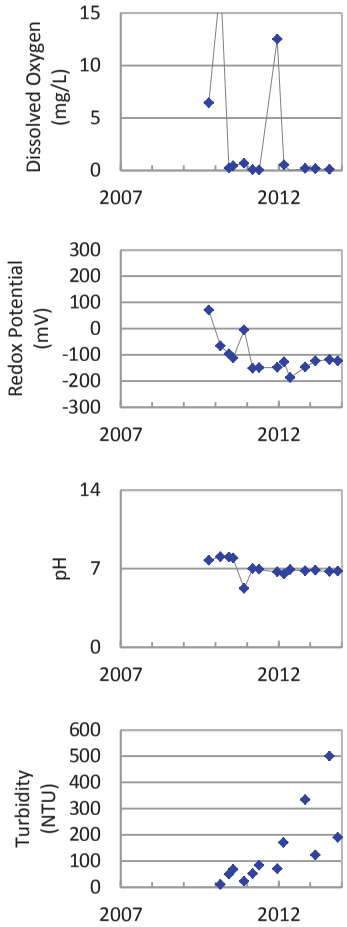


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/3/2010 to 11/18/2013
Analysis Date: 3/21/2014

PTX06-ISB081
Lactic Acid and HIBA Trend in Perched Aquifer



Field Parameters



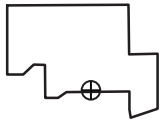
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

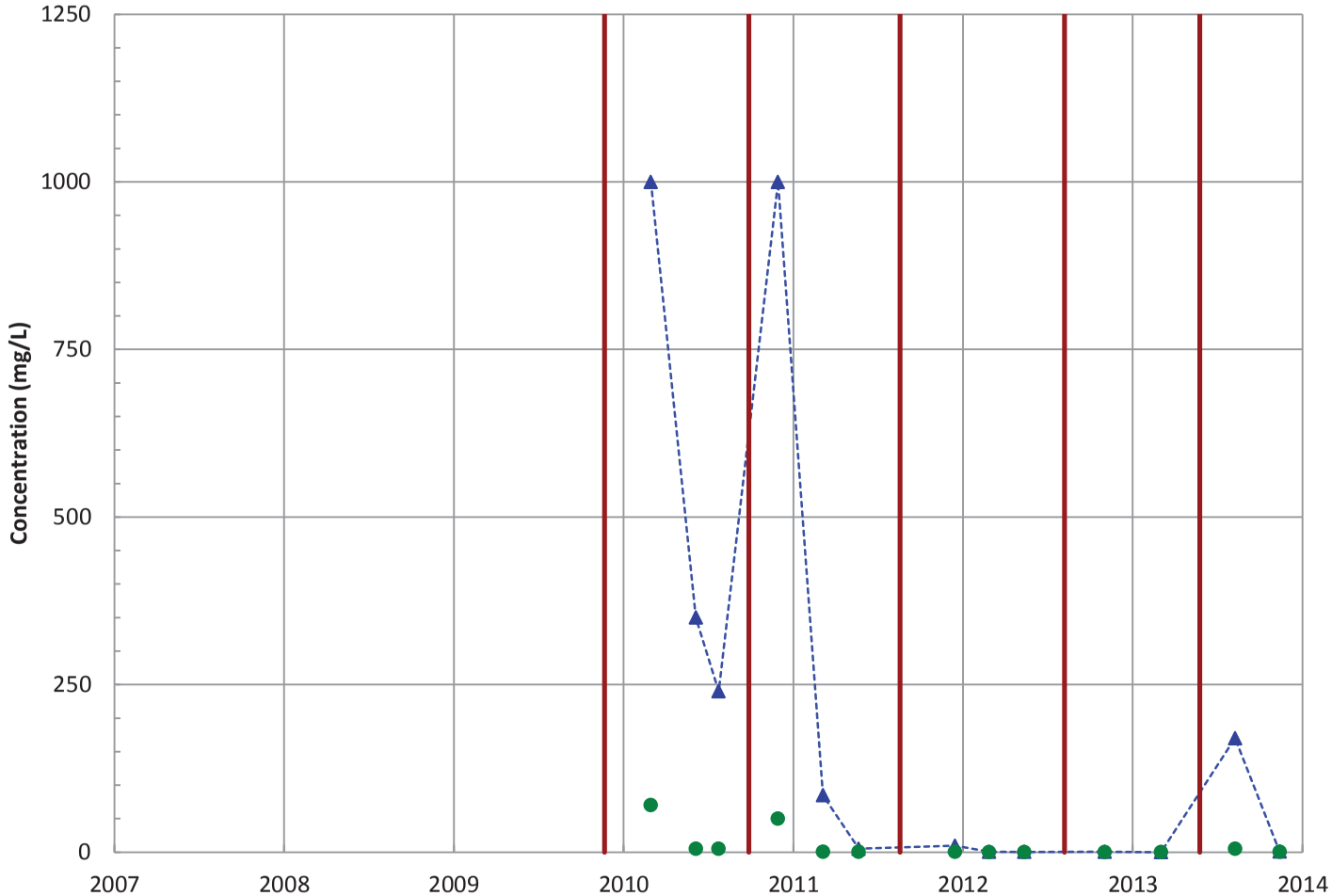
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
═══ Injection Dates

Well Location

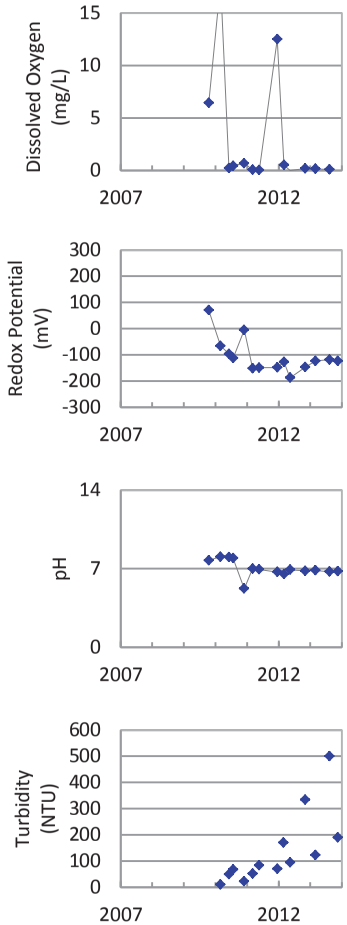


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/3/2010 to 11/18/2013
Analysis Date: 3/21/2014

PTX06-ISB081
Propionic Acid Trend in Perched Aquifer



Field Parameters



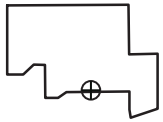
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

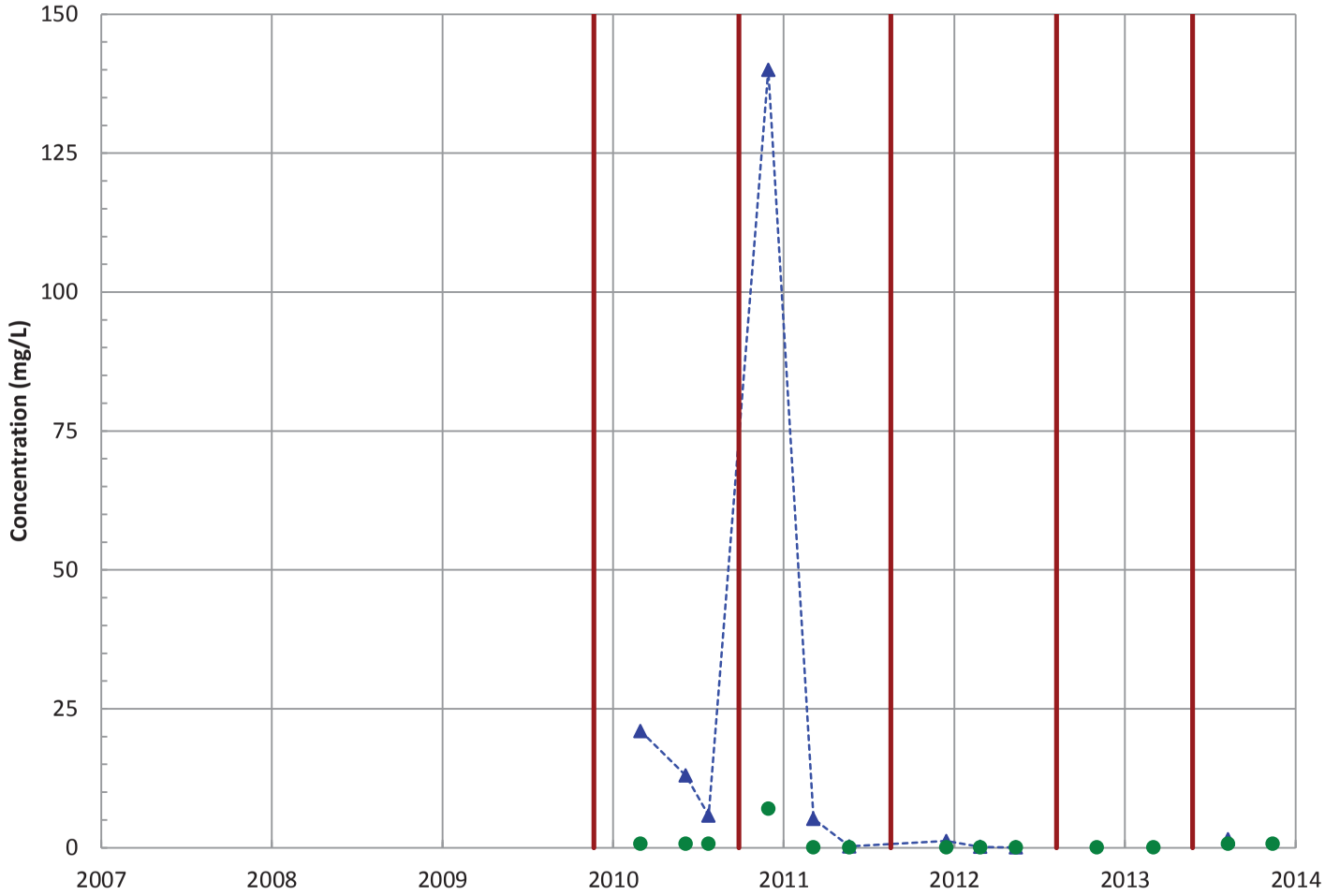
▲ Measured Value
● Sample Detection Limit
---- Concentration Trend
— Injection Dates

Well Location

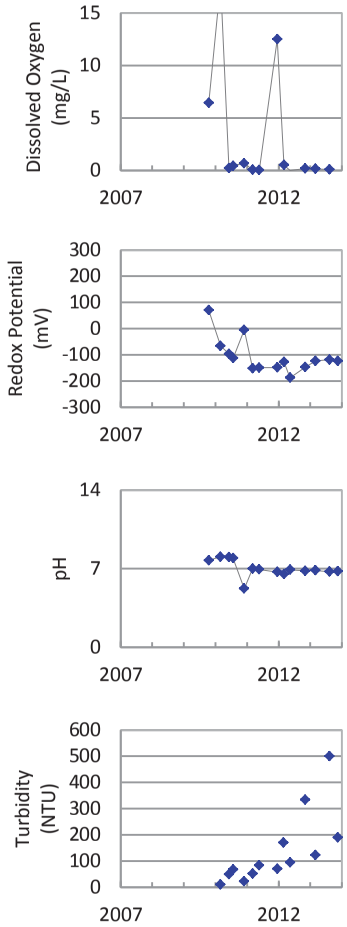


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/3/2010 to 11/18/2013
Analysis Date: 3/21/2014

PTX06-ISB081
Pentanoic Acid Trend in Perched Aquifer



Field Parameters



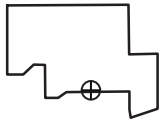
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

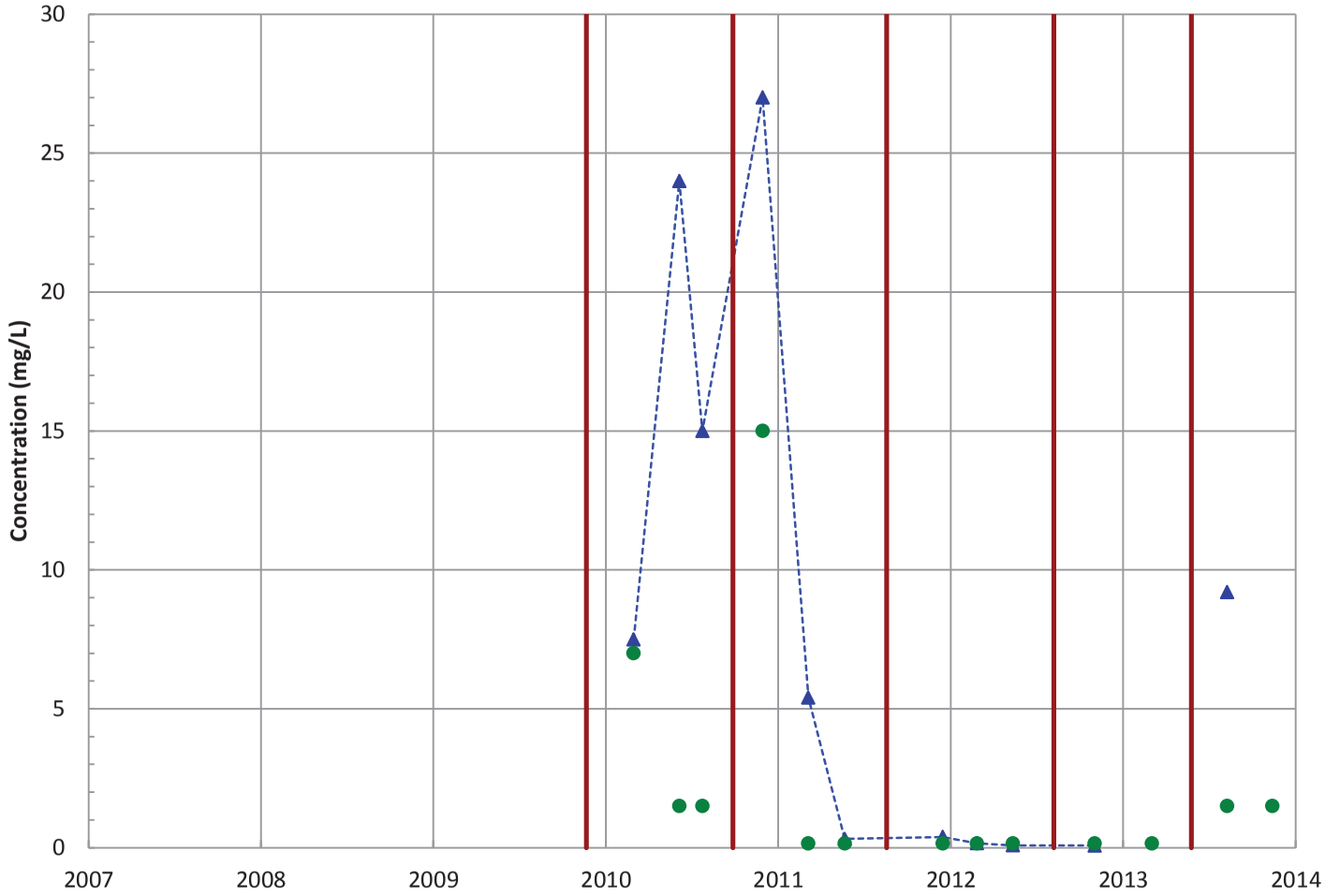
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

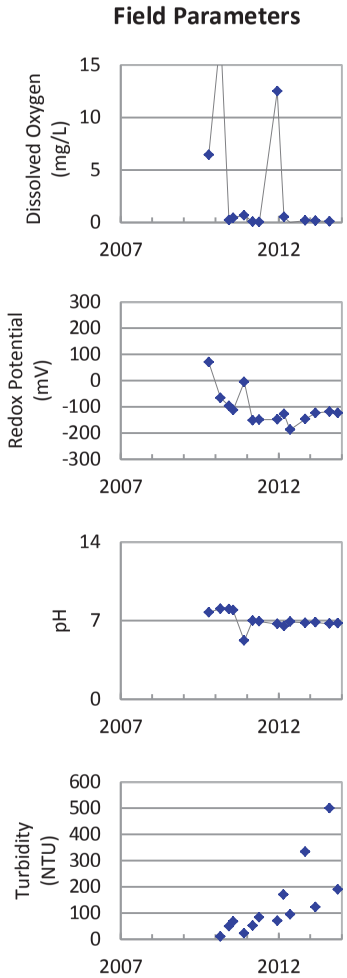
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/3/2010 to 11/18/2013
Analysis Date: 3/21/2014

PTX06-ISB081
Pyruvic Acid Trend in Perched Aquifer





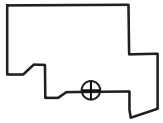
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

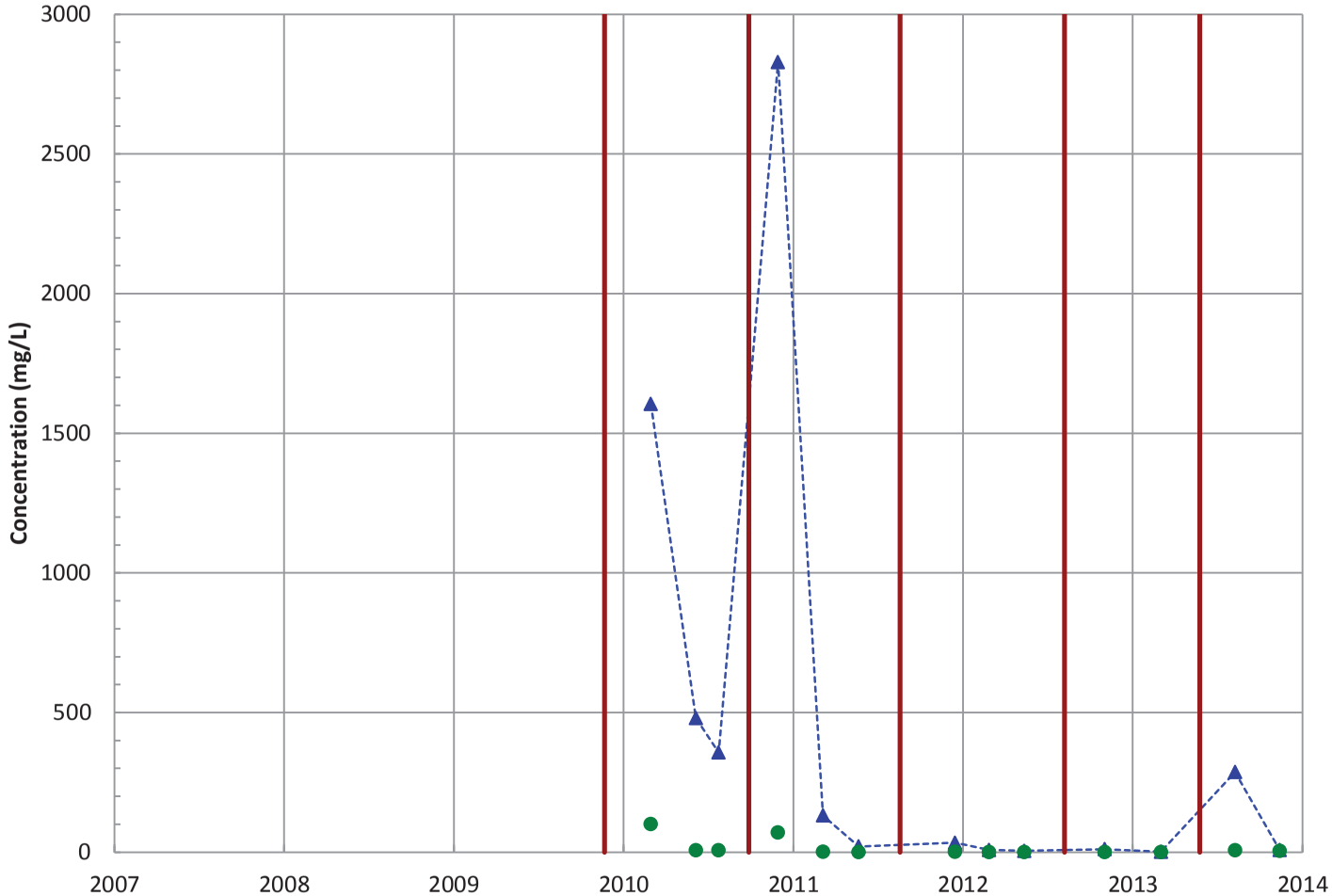
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

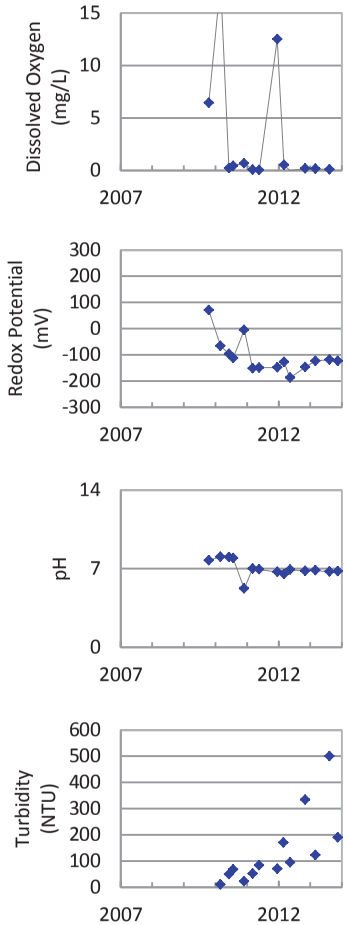


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/3/2010 to 11/18/2013
Analysis Date: 3/21/2014

PTX06-ISB081
Total Volatile Fatty Acids Trend in Perched Aquifer



Field Parameters



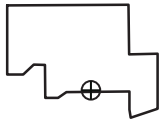
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

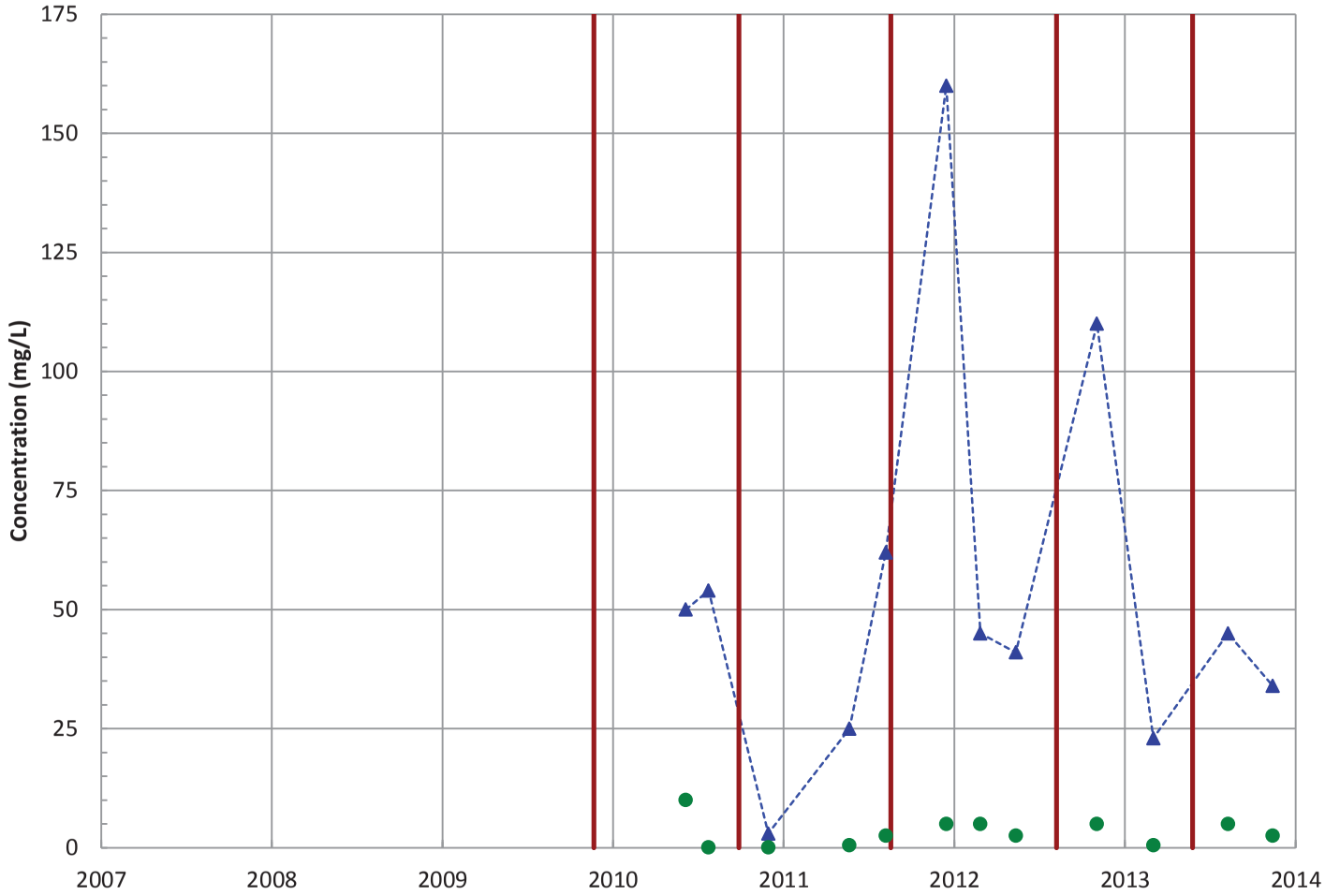
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

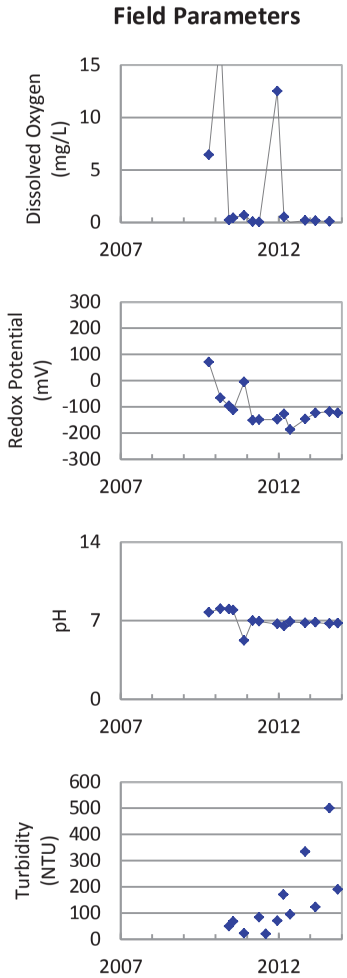
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/3/2010 to 11/18/2013
Analysis Date: 3/21/2014

PTX06-ISB081
Ferrous Iron Trend in Perched Aquifer





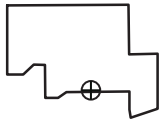
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Stable

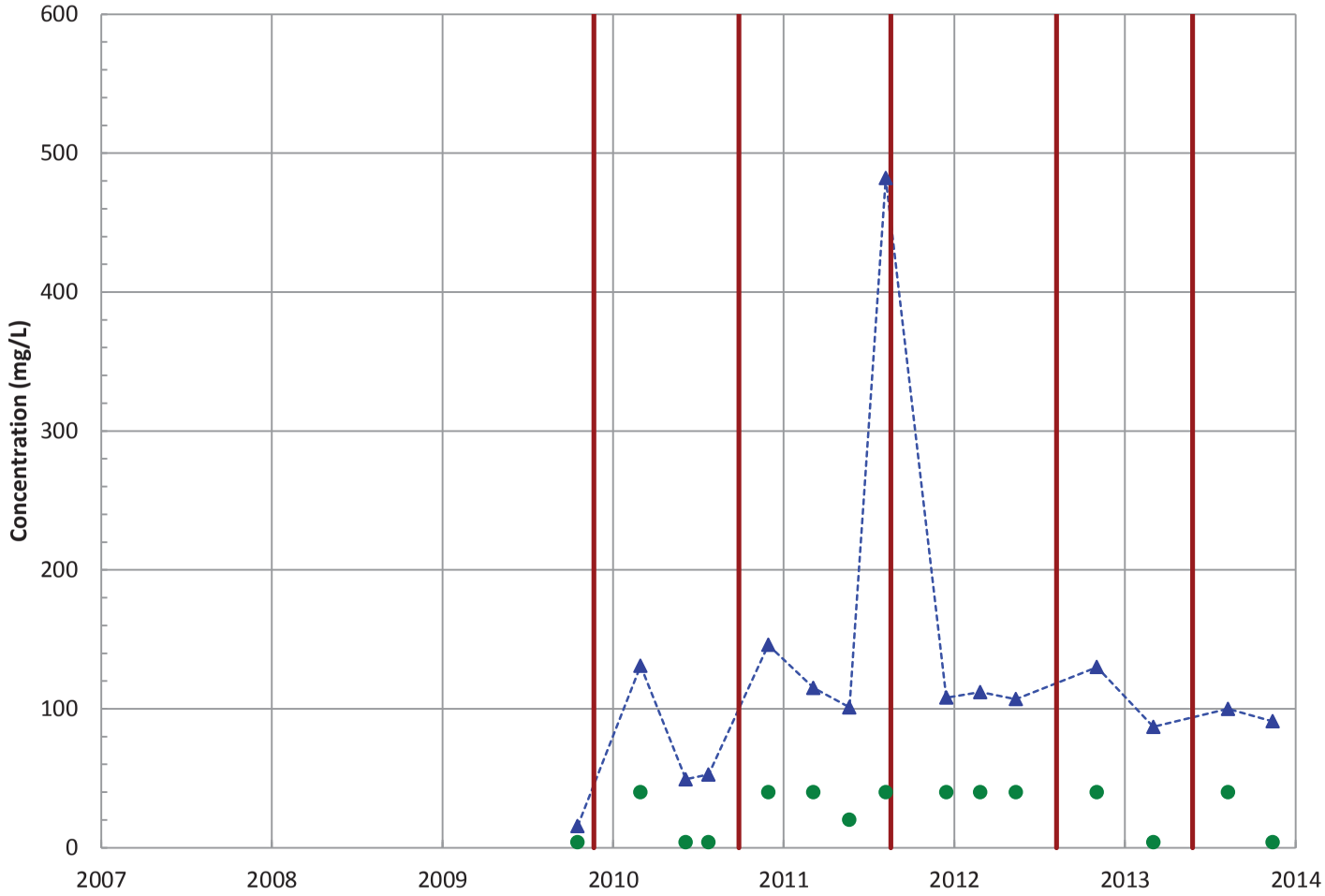
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

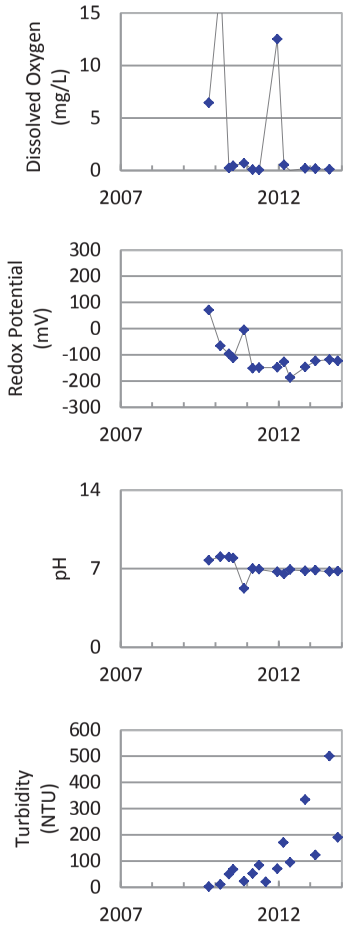


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/8/2010 to 11/18/2013
Analysis Date: 3/21/2014

PTX06-ISB081
Chloride (as Cl) Trend in Perched Aquifer



Field Parameters



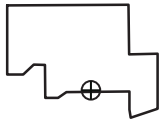
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Stable

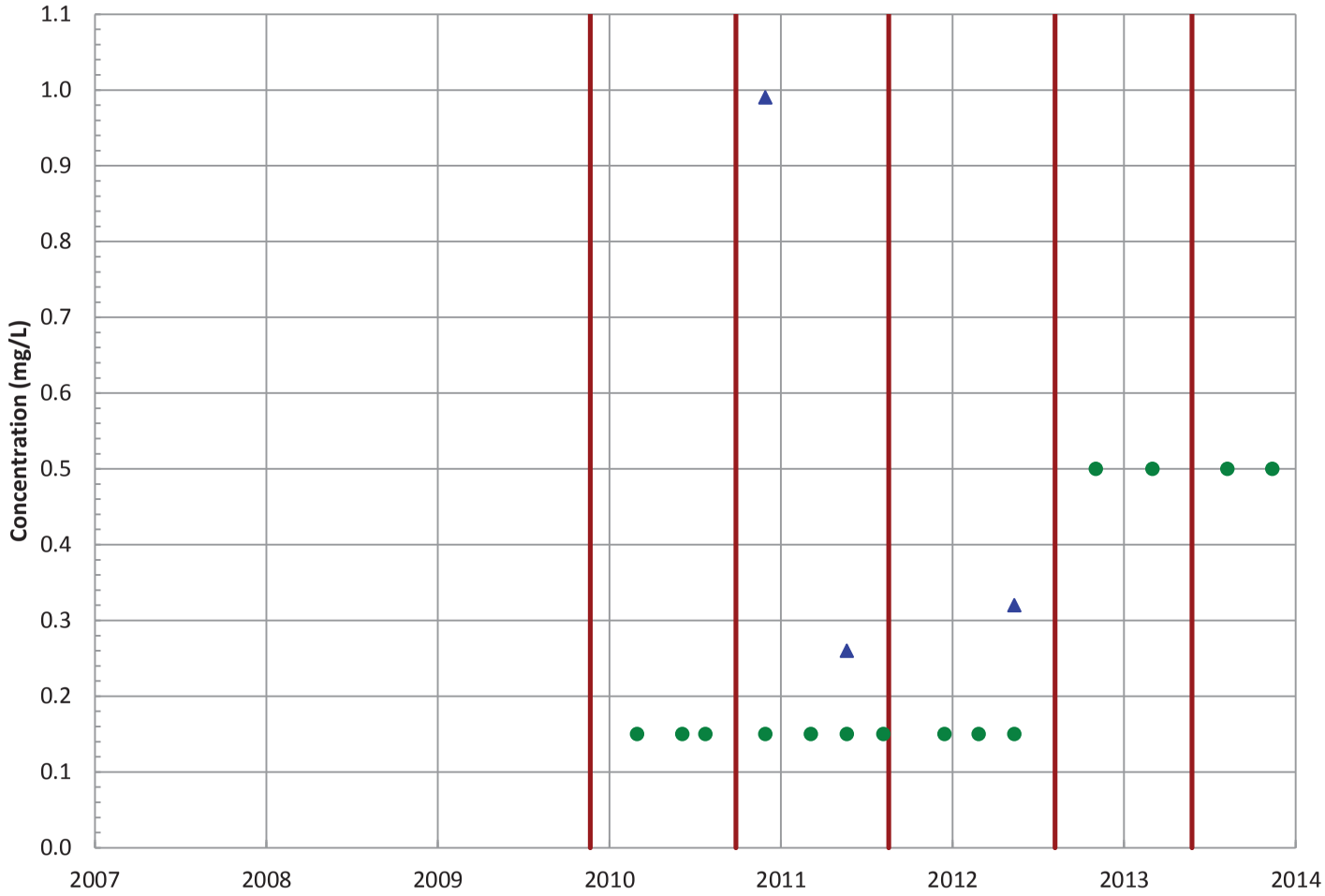
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

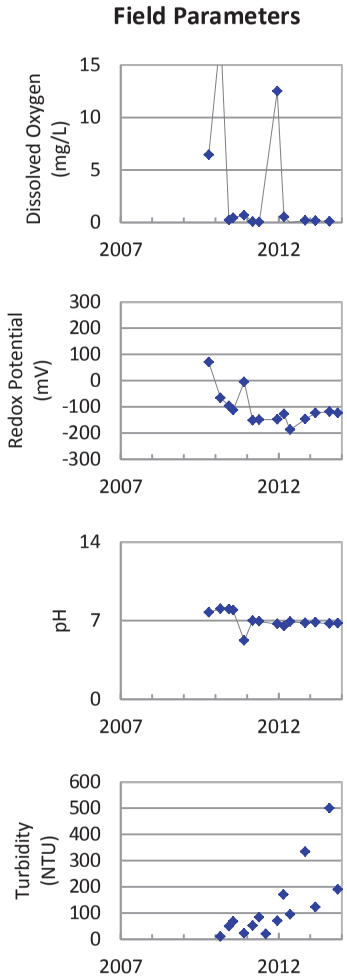
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/19/2009 to 11/18/2013
Analysis Date: 3/21/2014

PTX06-ISB081
Chlorate Trend in Perched Aquifer





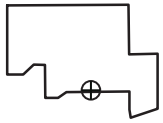
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

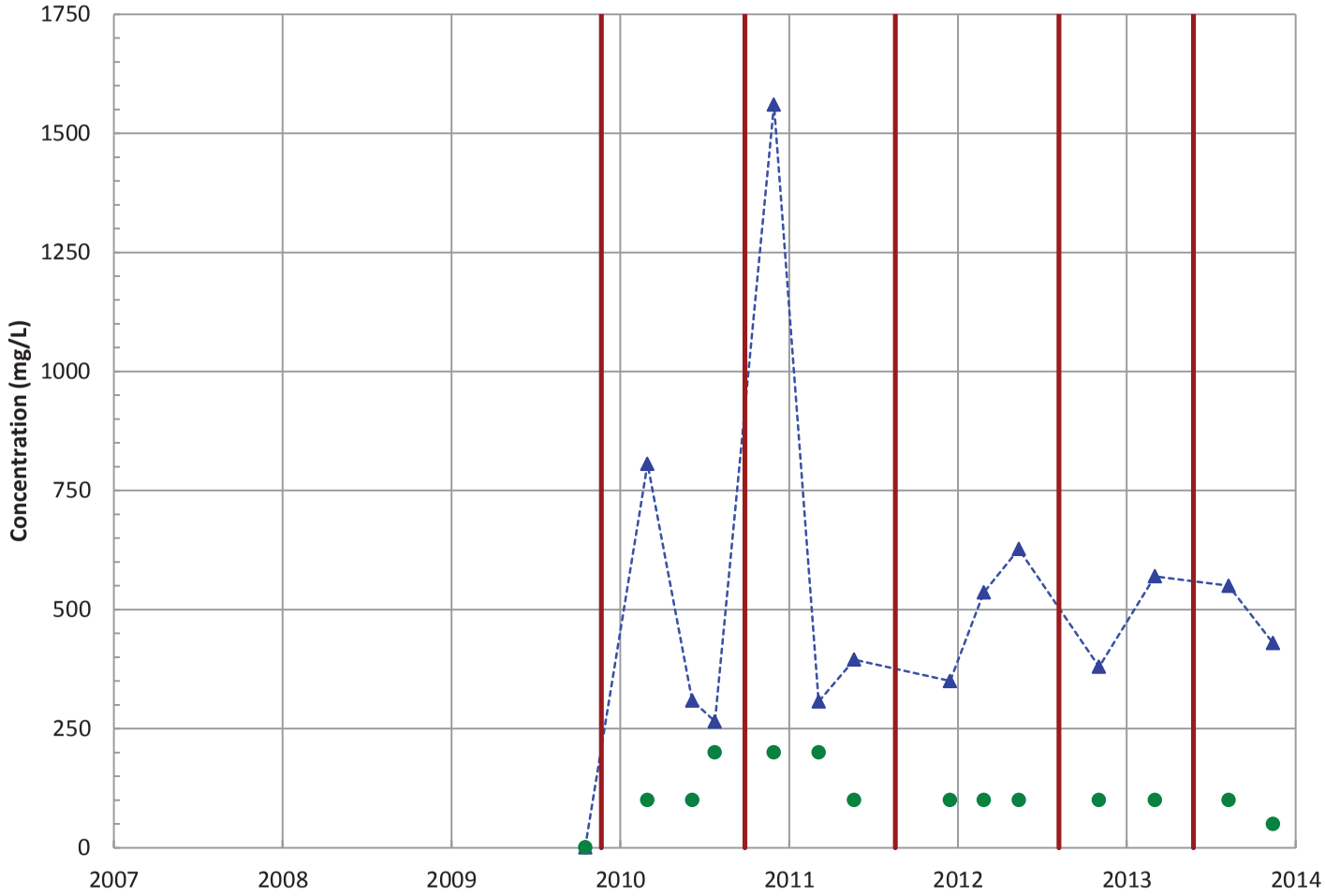
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
═══ Injection Dates

Well Location

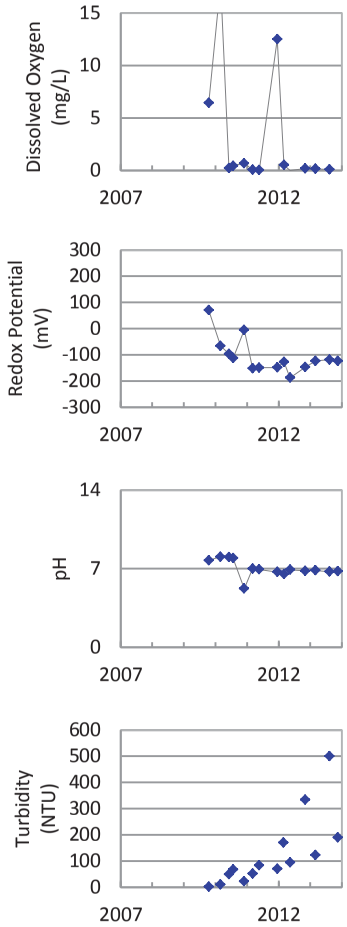


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/3/2010 to 11/18/2013
Analysis Date: 3/21/2014

PTX06-ISB081
Total Organic Carbon Trend in Perched Aquifer



Field Parameters



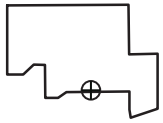
Concentration Trend

MAROS Mann-Kendall Method
All Data: Probably Increasing
Last 4 Samples: Stable

MAROS Linear Regression Method
All Data: Probably Increasing
Last 4 Samples: No Trend

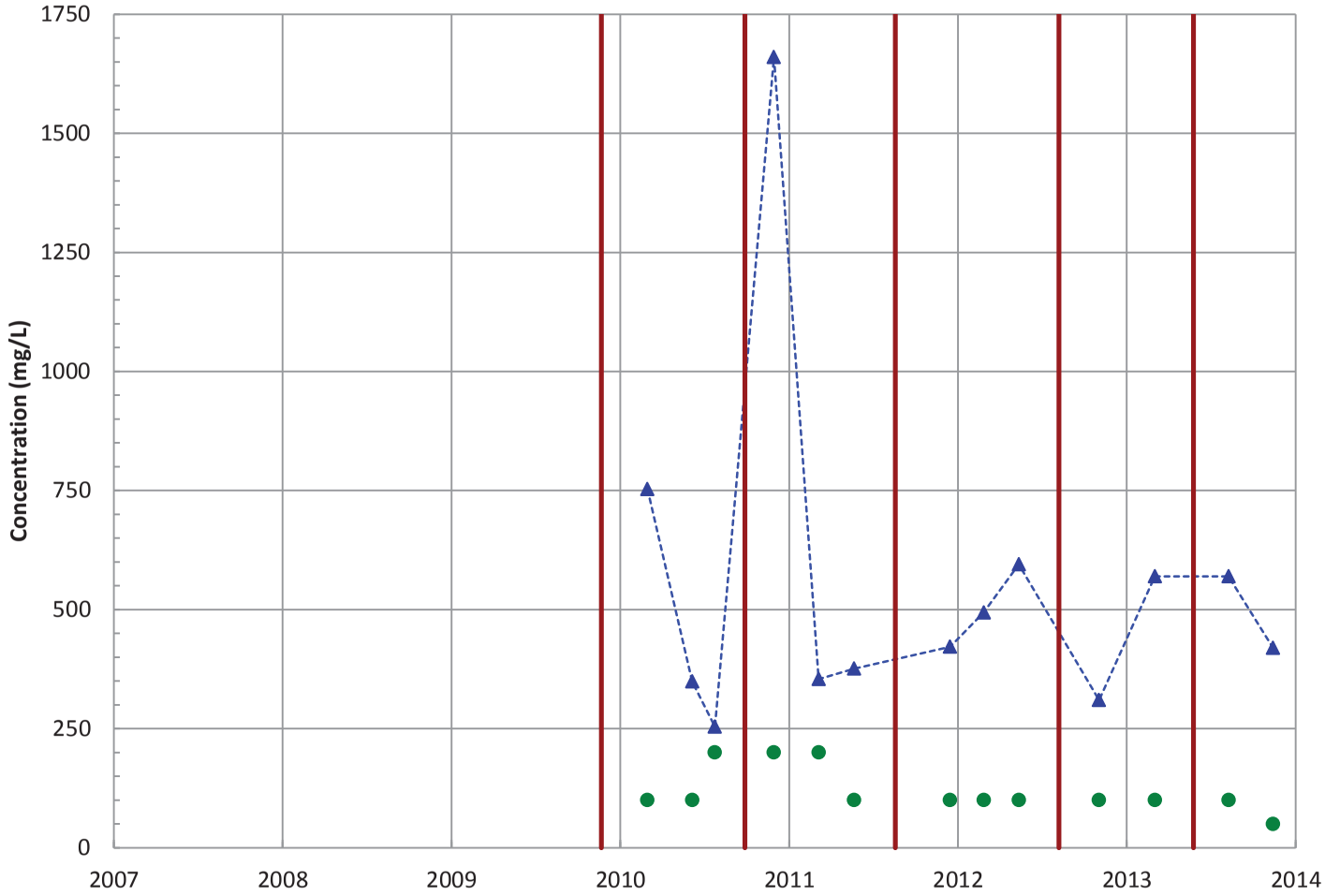
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Injection Dates

Well Location

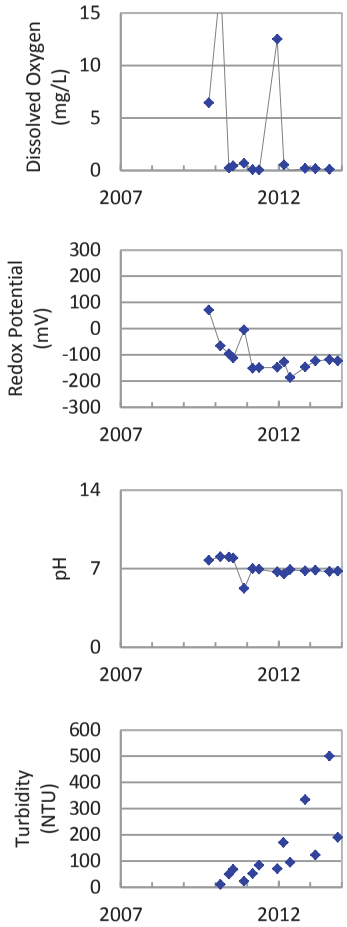


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/19/2009 to 11/18/2013
Analysis Date: 3/21/2014

PTX06-ISB081
Dissolved Organic Carbon (DOC) Trend in Perched Aquifer



Field Parameters



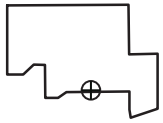
Concentration Trend

MAROS Mann-Kendall Method
All Data: Increasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: No Trend

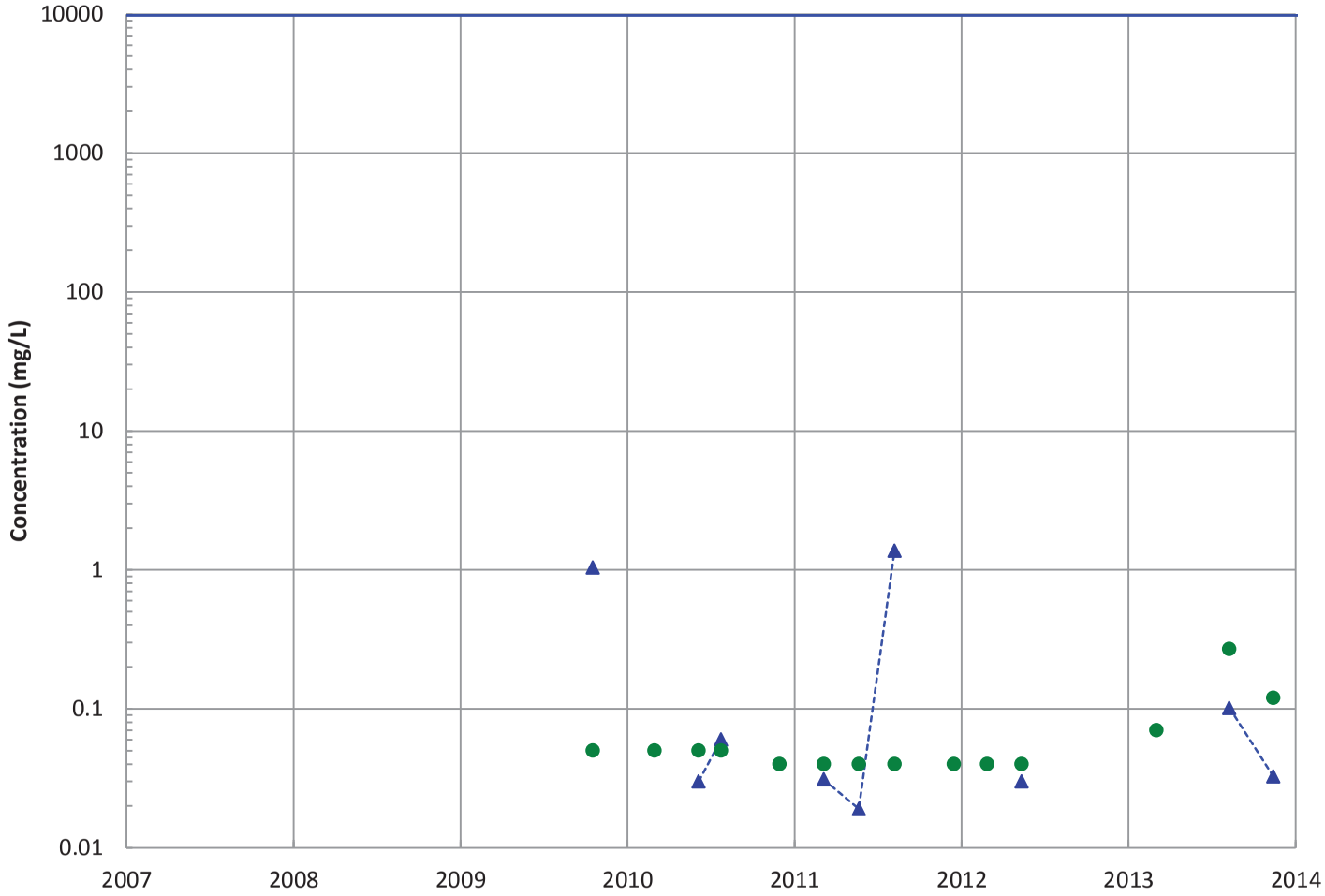
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

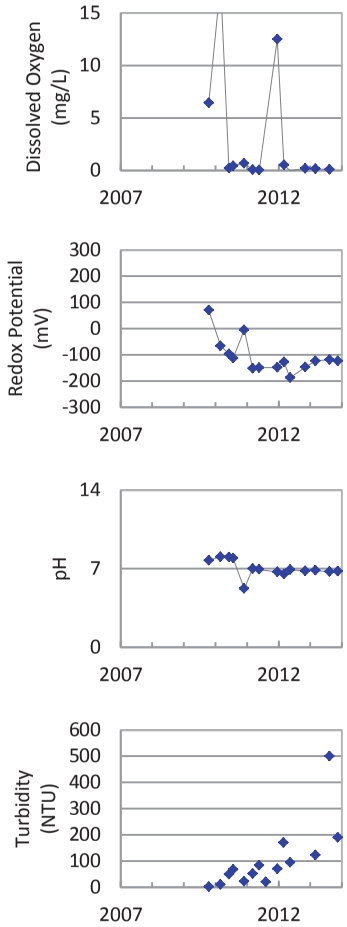


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/3/2010 to 11/18/2013
Analysis Date: 3/21/2014

PTX06-ISB081
Nitrate as N Trend in Perched Aquifer



Field Parameters



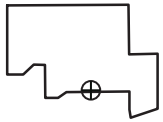
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Probably Decreasing

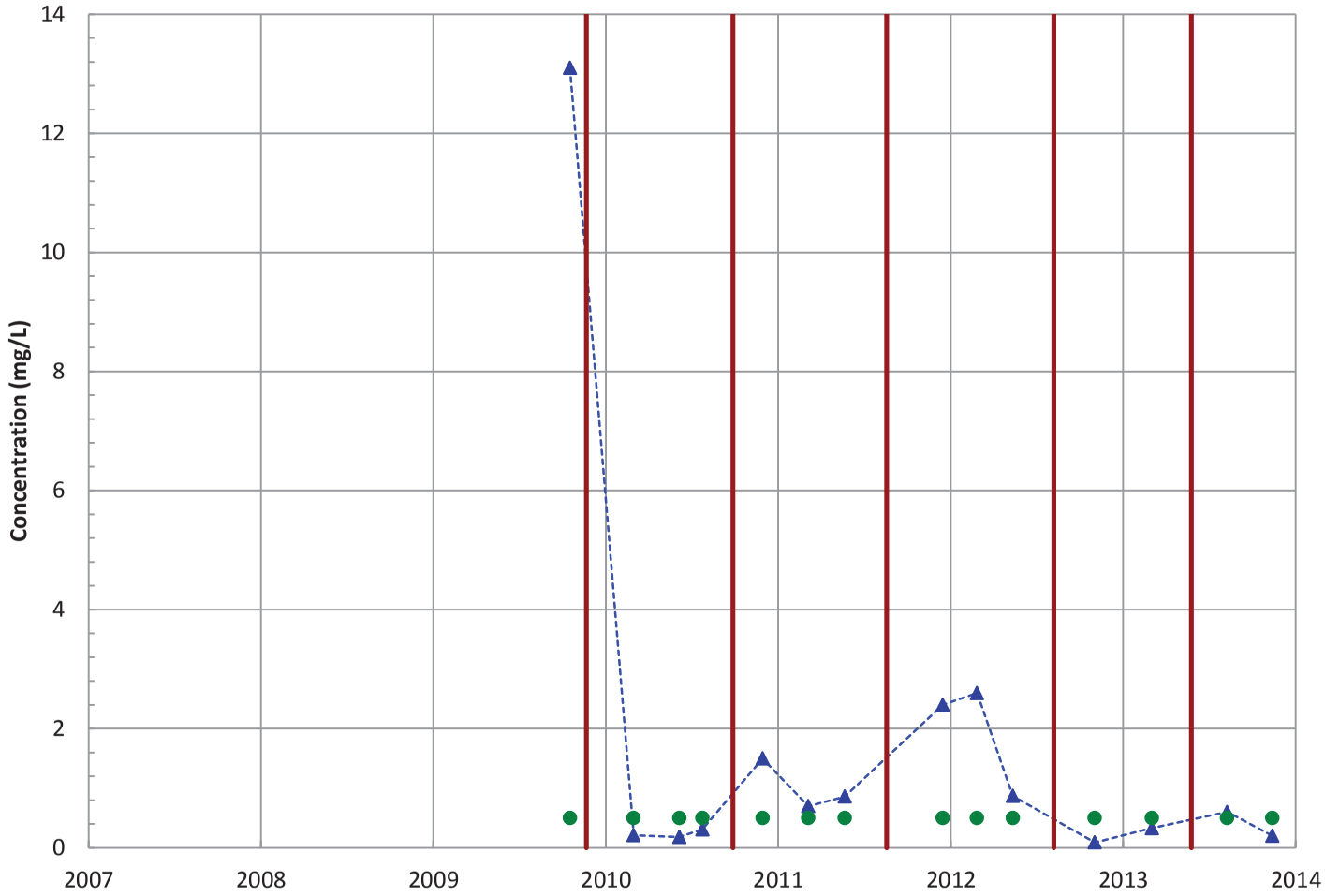
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

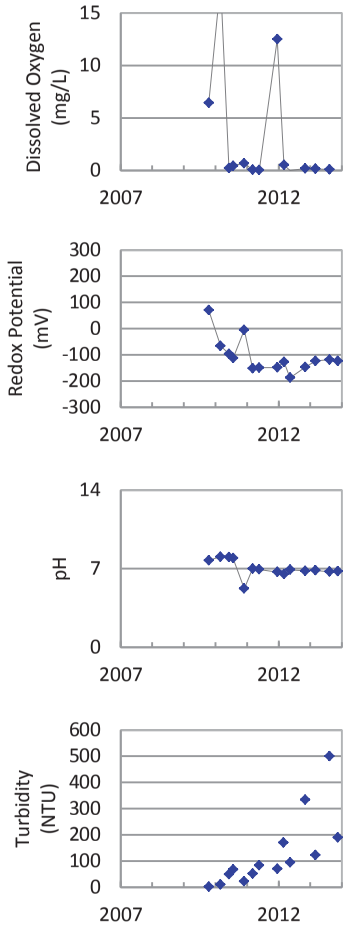


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/19/2009 to 11/18/2013
Analysis Date: 3/21/2014

PTX06-ISB081
Sulfate (as SO4) Trend in Perched Aquifer



Field Parameters



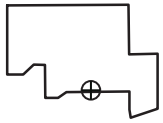
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

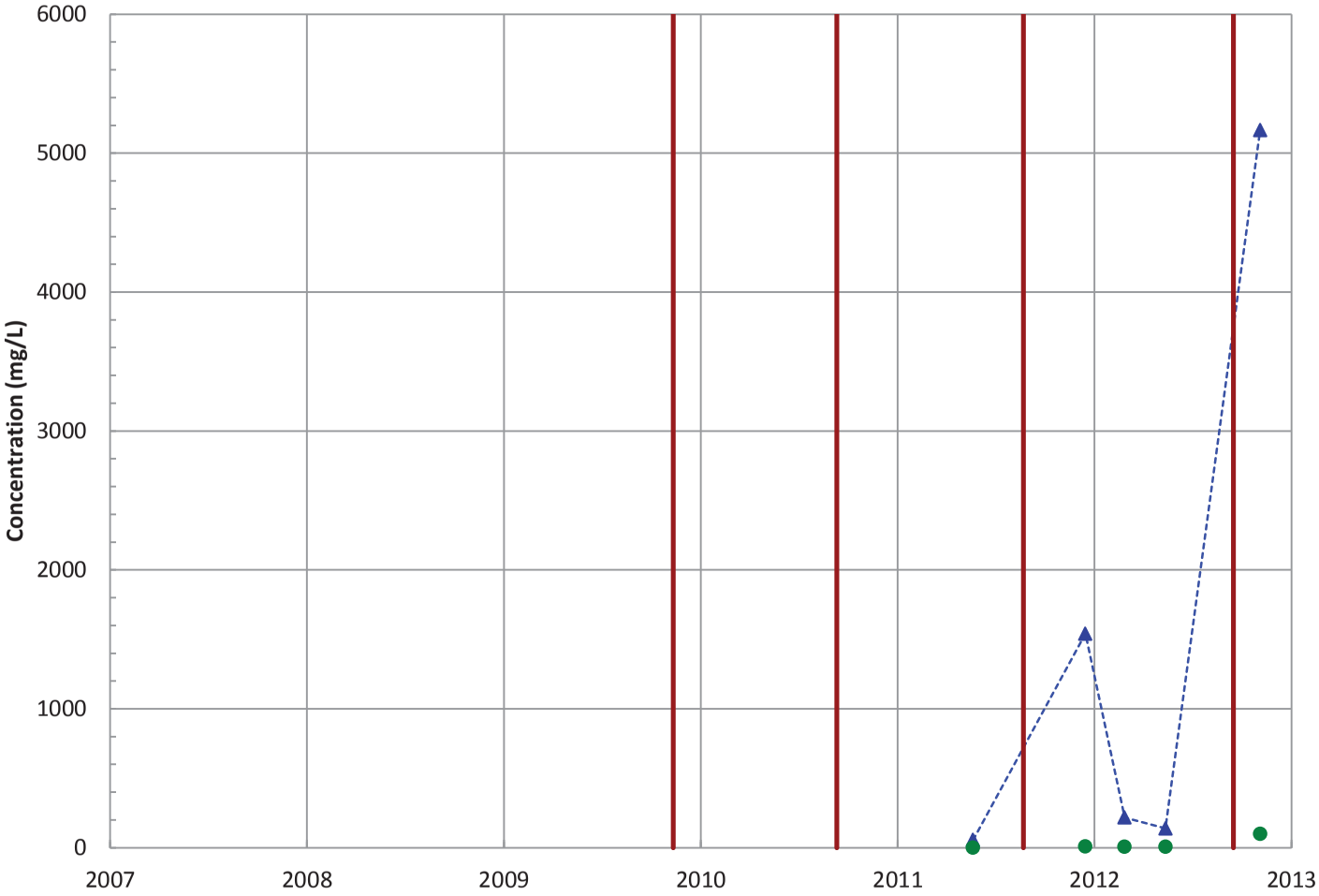
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

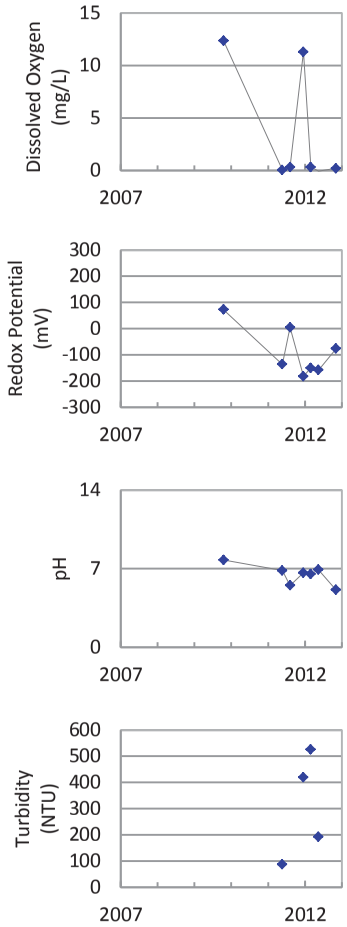


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/19/2009 to 11/18/2013
Analysis Date: 3/21/2014

PTX06-ISB082
Total Volatile Fatty Acids Trend in Perched Aquifer



Field Parameters



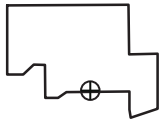
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Probably Increasing
Last 4 Samples: No Trend

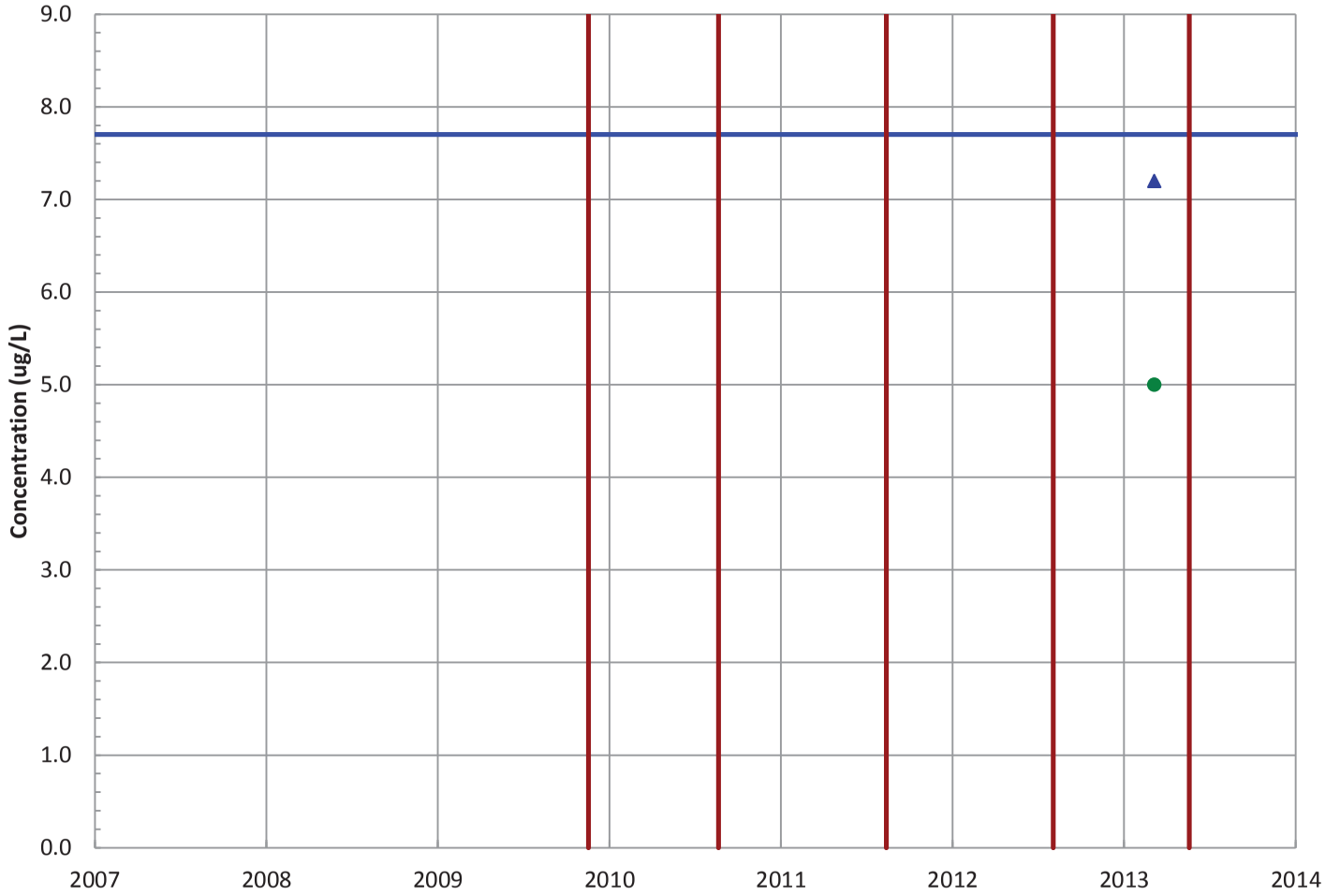
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
═══ Injection Dates

Well Location

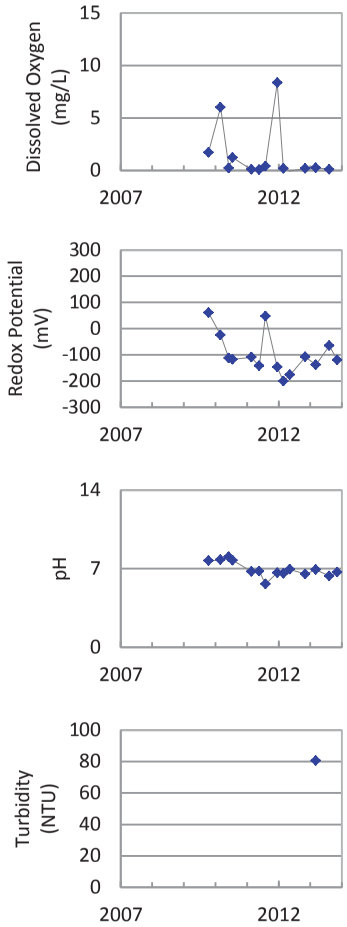


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 5/24/2011 to 11/8/2012
Analysis Date: 3/21/2014

PTX06-ISB085A
1,4-Dioxane (p-Dioxane) Trend in Perched Aquifer



Field Parameters



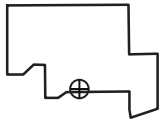
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Samples in Dataset)
Last 4 Samples: N/A (<4 Samples in Dataset)

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

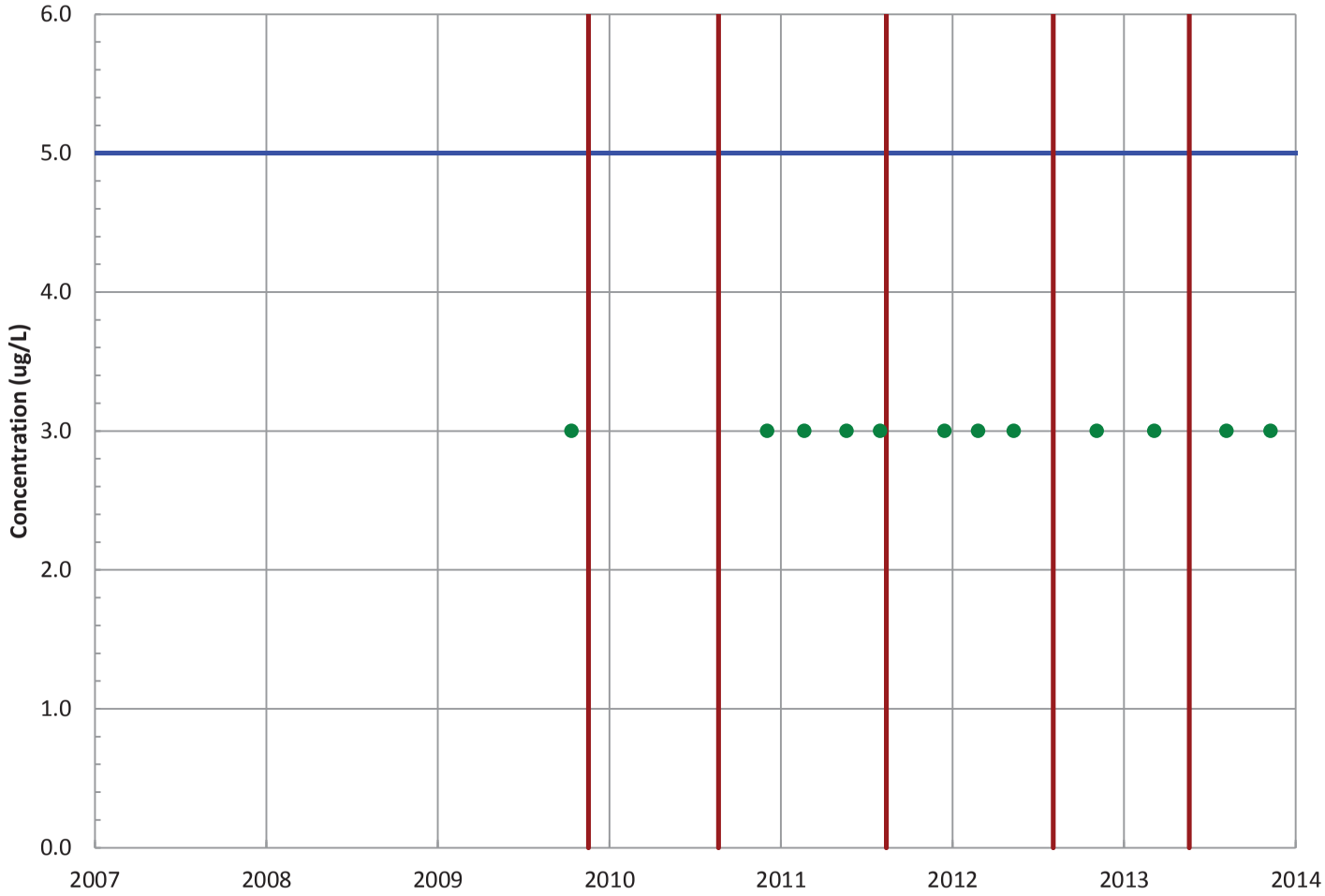
- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

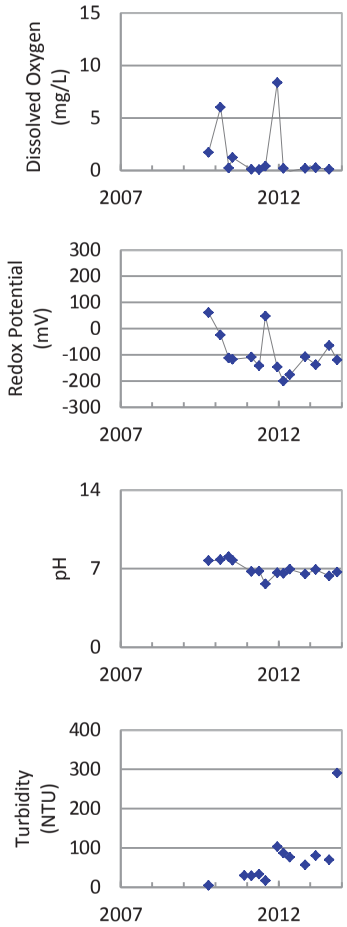


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/11/2013 to 3/11/2013
Analysis Date: 3/21/2014

PTX06-ISB085A
Tetrachloroethylene (PCE) Trend in Perched Aquifer



Field Parameters



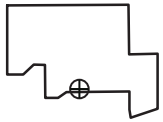
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

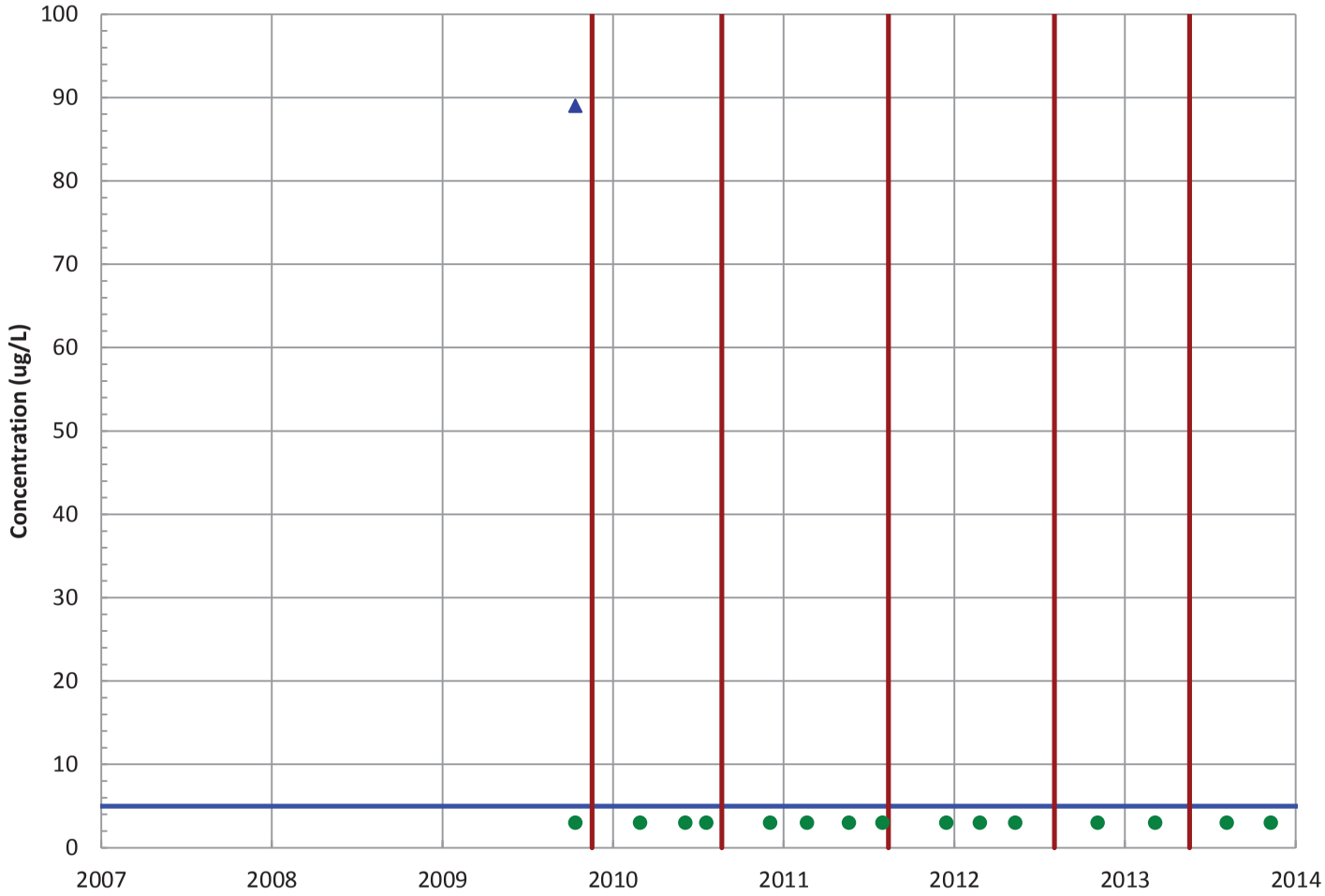
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

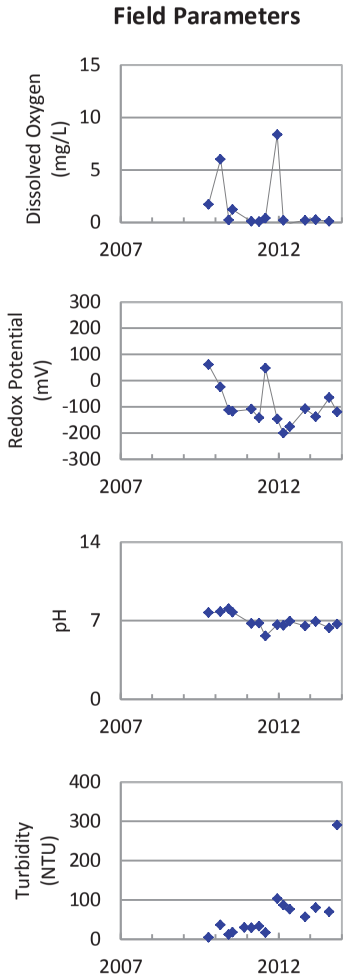
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/14/2009 to 11/14/2013
Analysis Date: 3/21/2014

PTX06-ISB085A
Trichloroethene Trend in Perched Aquifer





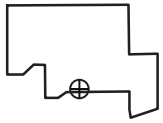
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

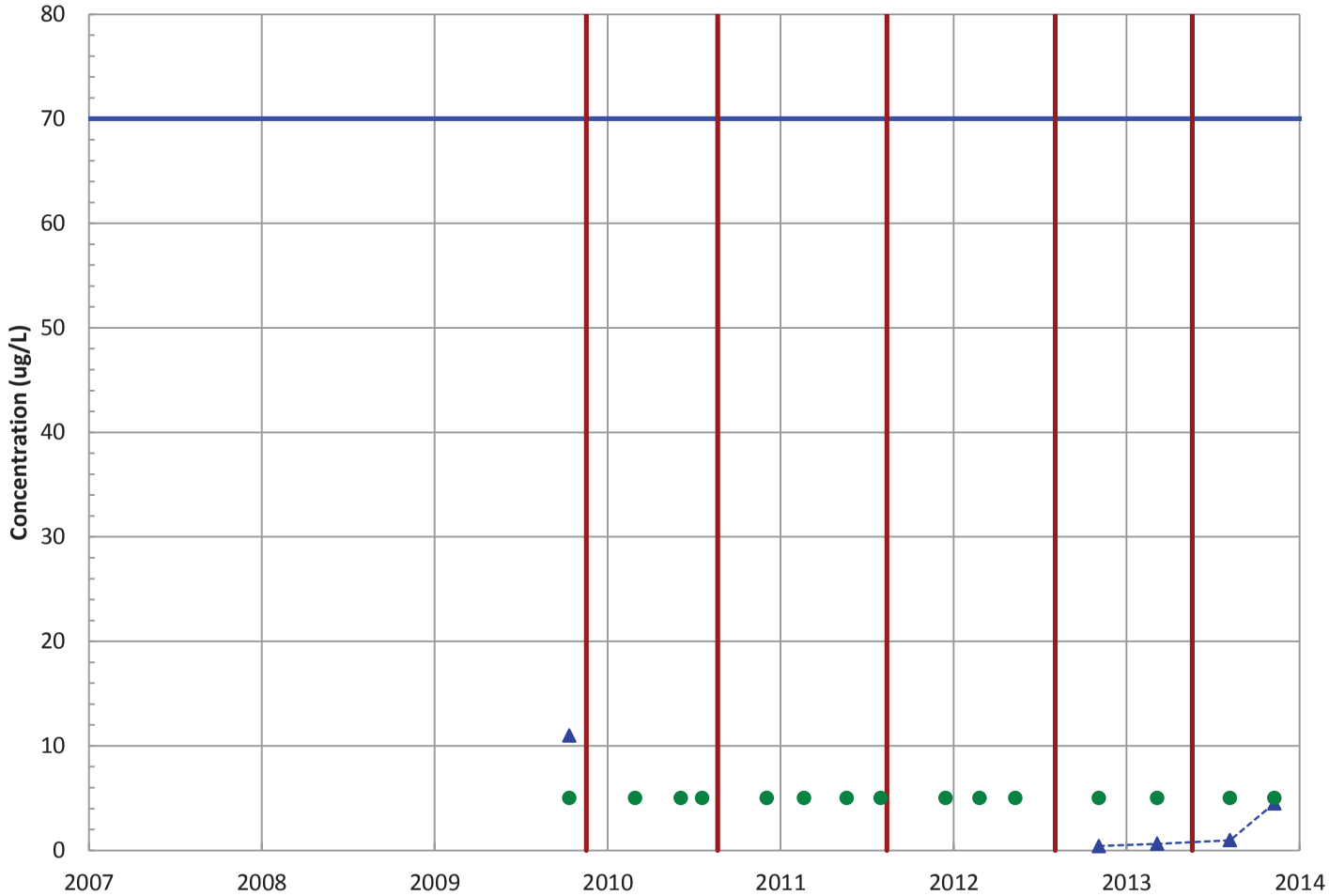
- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

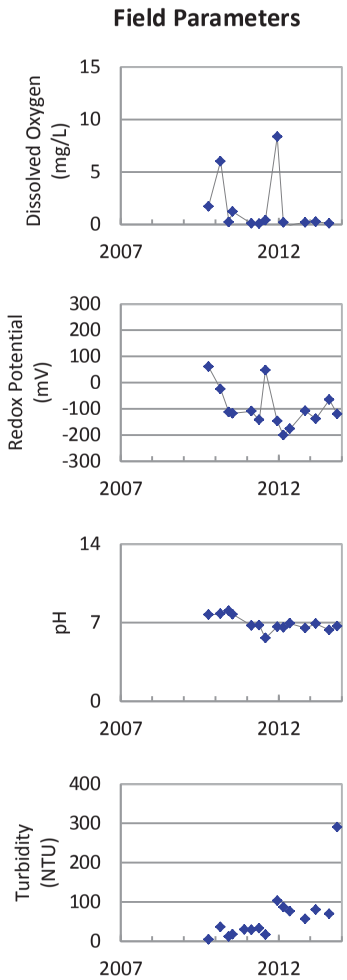
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/14/2009 to 11/14/2013
Analysis Date: 3/21/2014

PTX06-ISB085A
cis-1,2-Dichloroethene Trend in Perched Aquifer





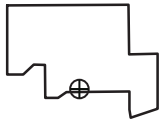
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Increasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

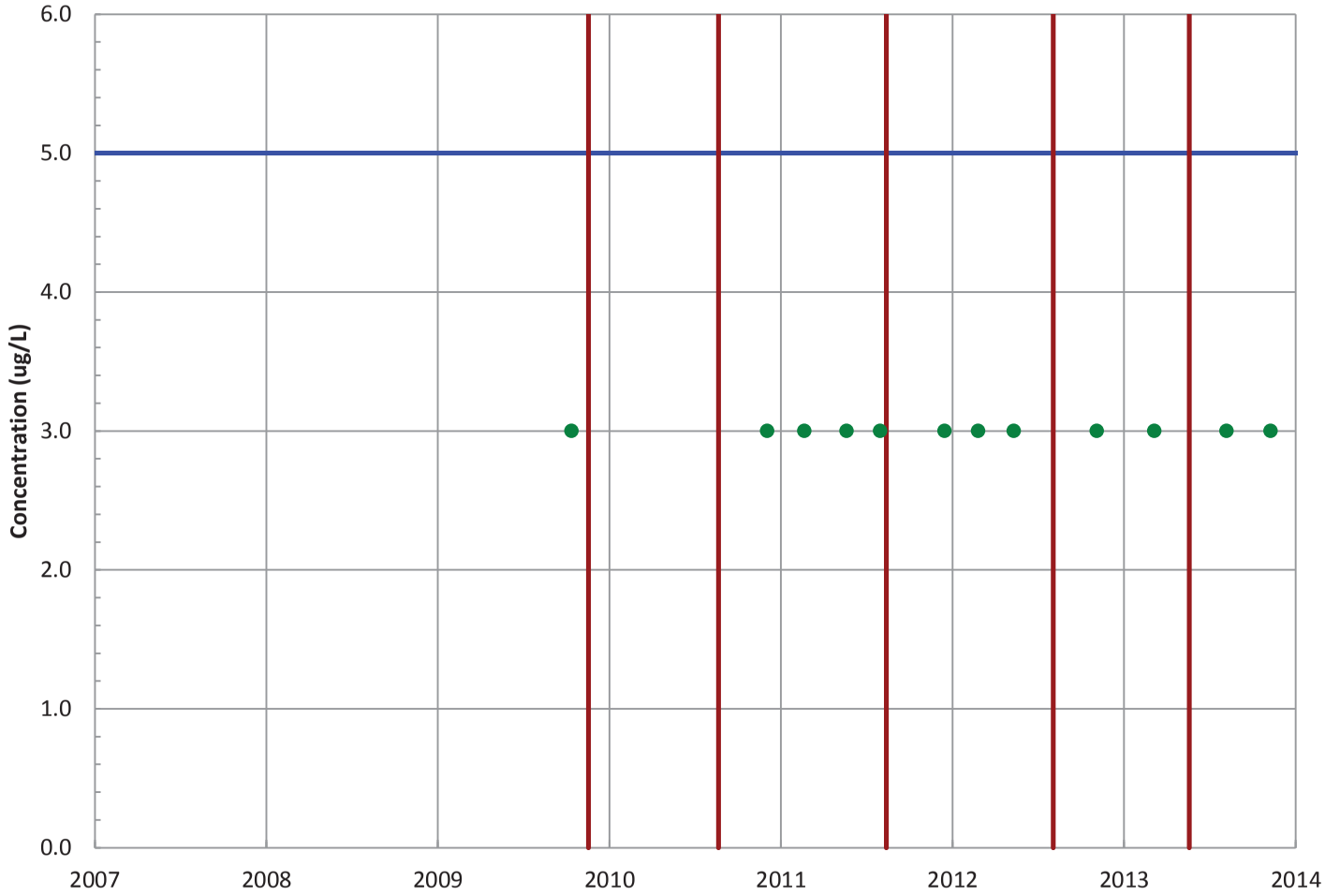
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

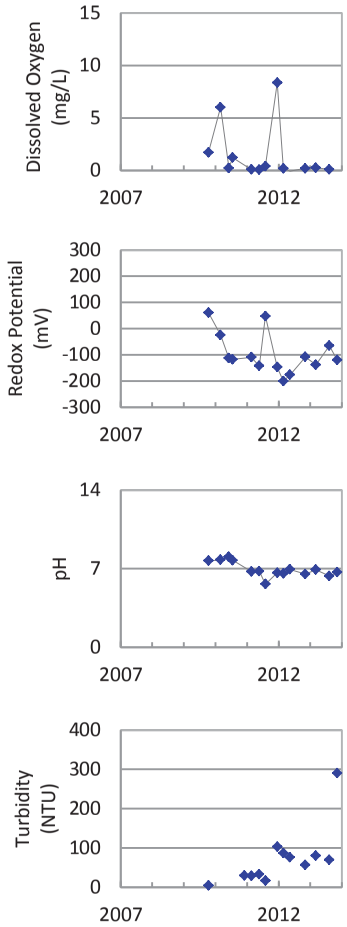


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/14/2009 to 11/14/2013
Analysis Date: 3/21/2014

PTX06-ISB085A
1,2-Dichloroethane Trend in Perched Aquifer



Field Parameters



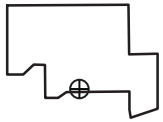
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

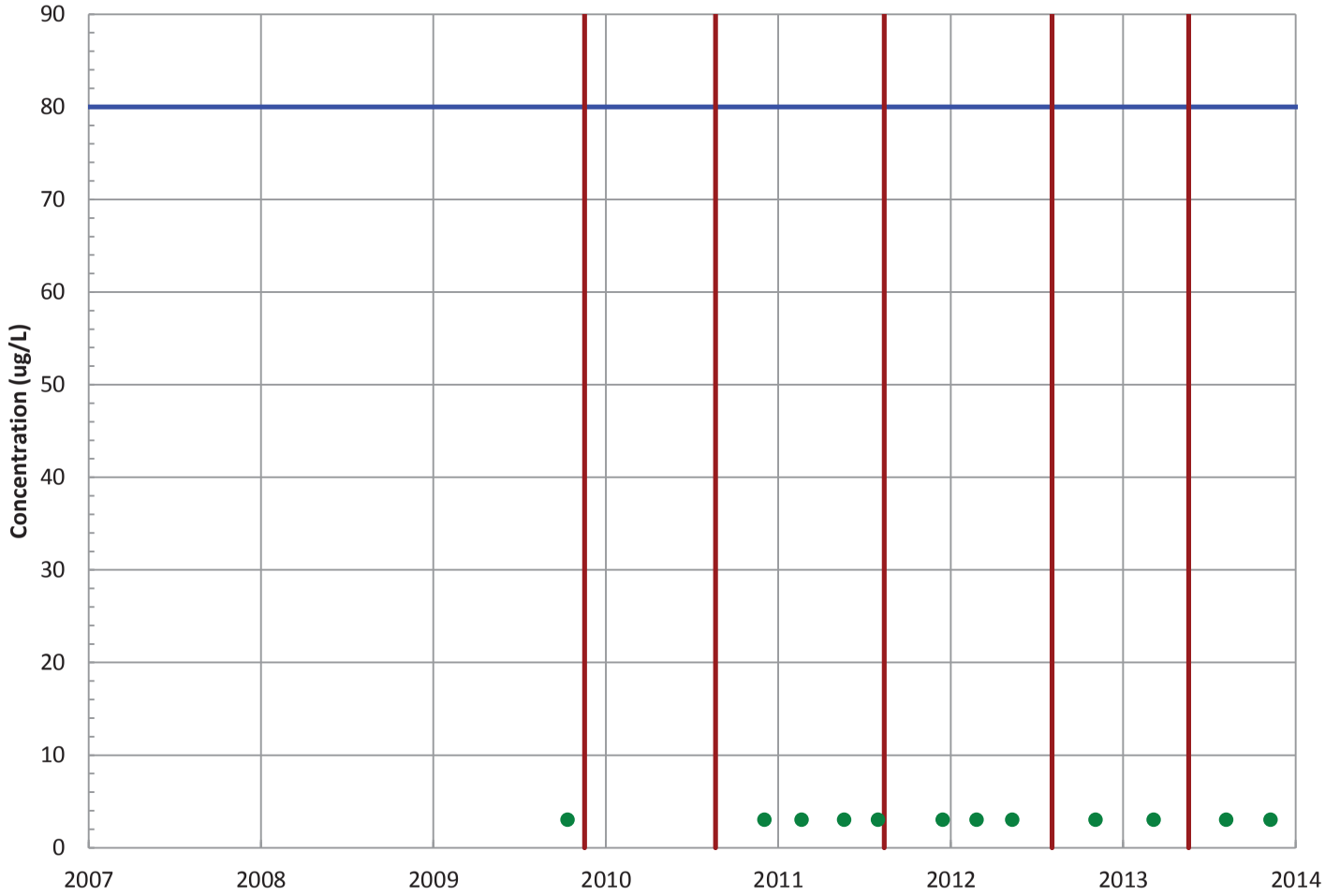
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

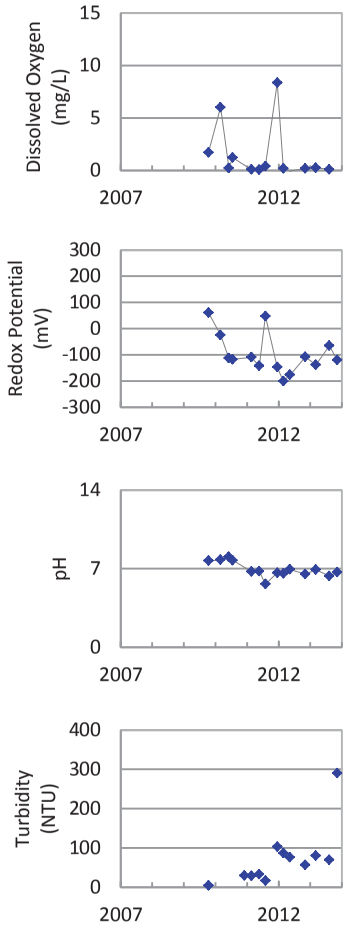


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/14/2009 to 11/14/2013
Analysis Date: 3/21/2014

PTX06-ISB085A
Chloroform Trend in Perched Aquifer



Field Parameters



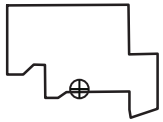
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

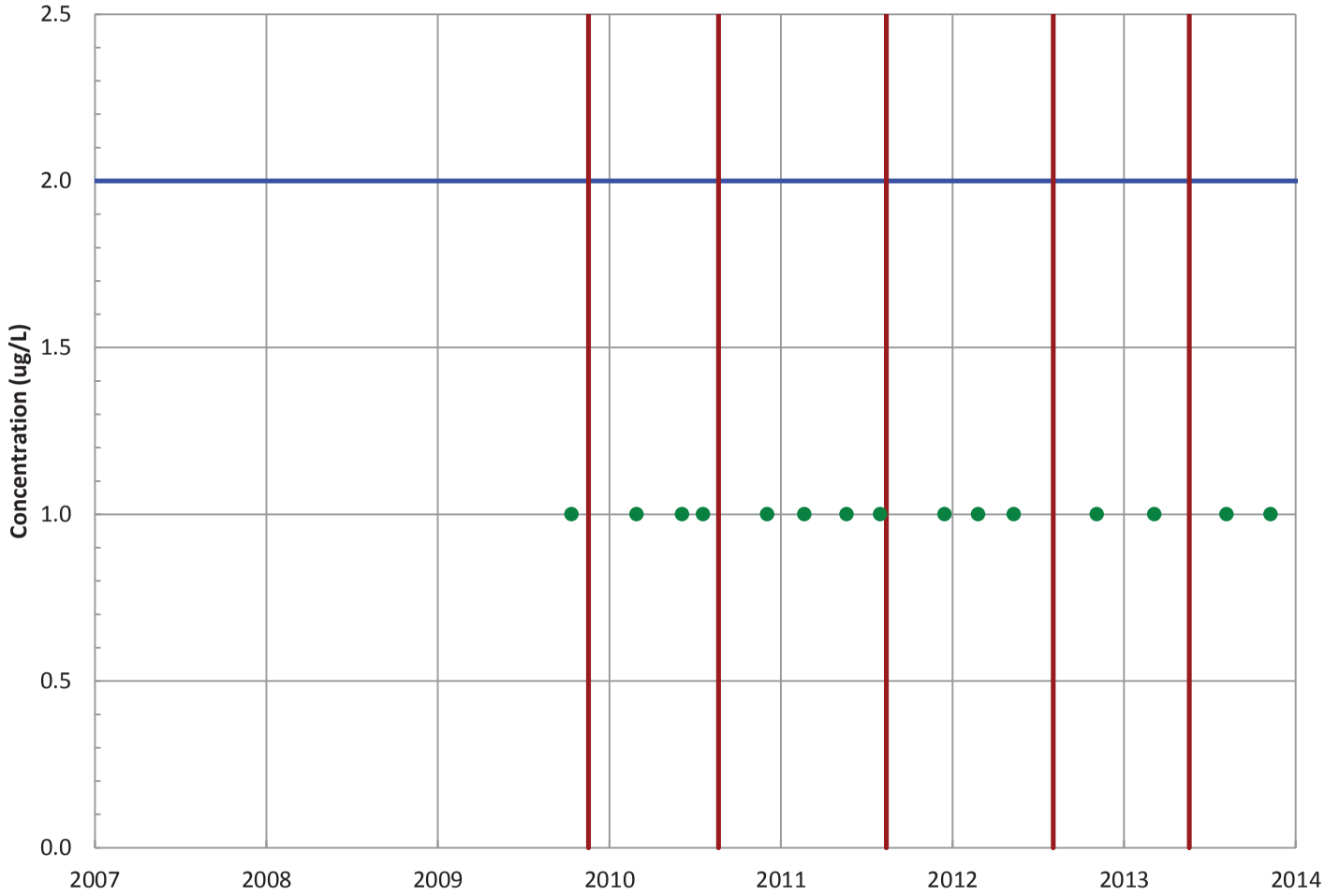
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

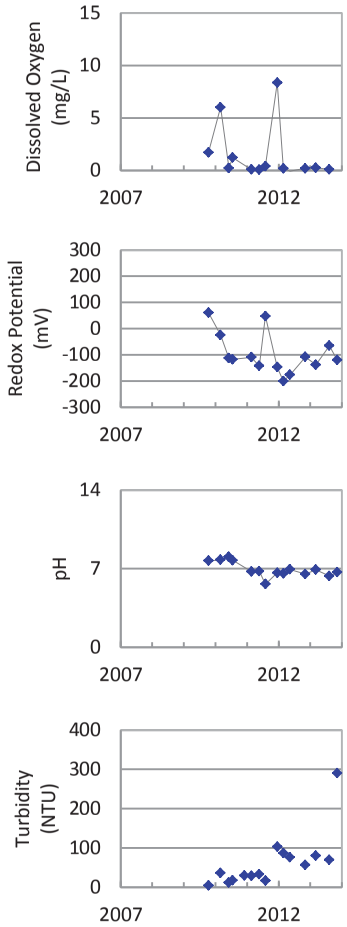


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/14/2009 to 11/14/2013
Analysis Date: 3/21/2014

PTX06-ISB085A
Vinyl Chloride Trend in Perched Aquifer



Field Parameters



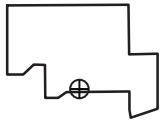
Concentration Trend

MAROS Mann-Kendall Method
All Data: All Non-Detect
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (All Non-Detect)
Last 4 Samples: N/A (All Non-Detect)

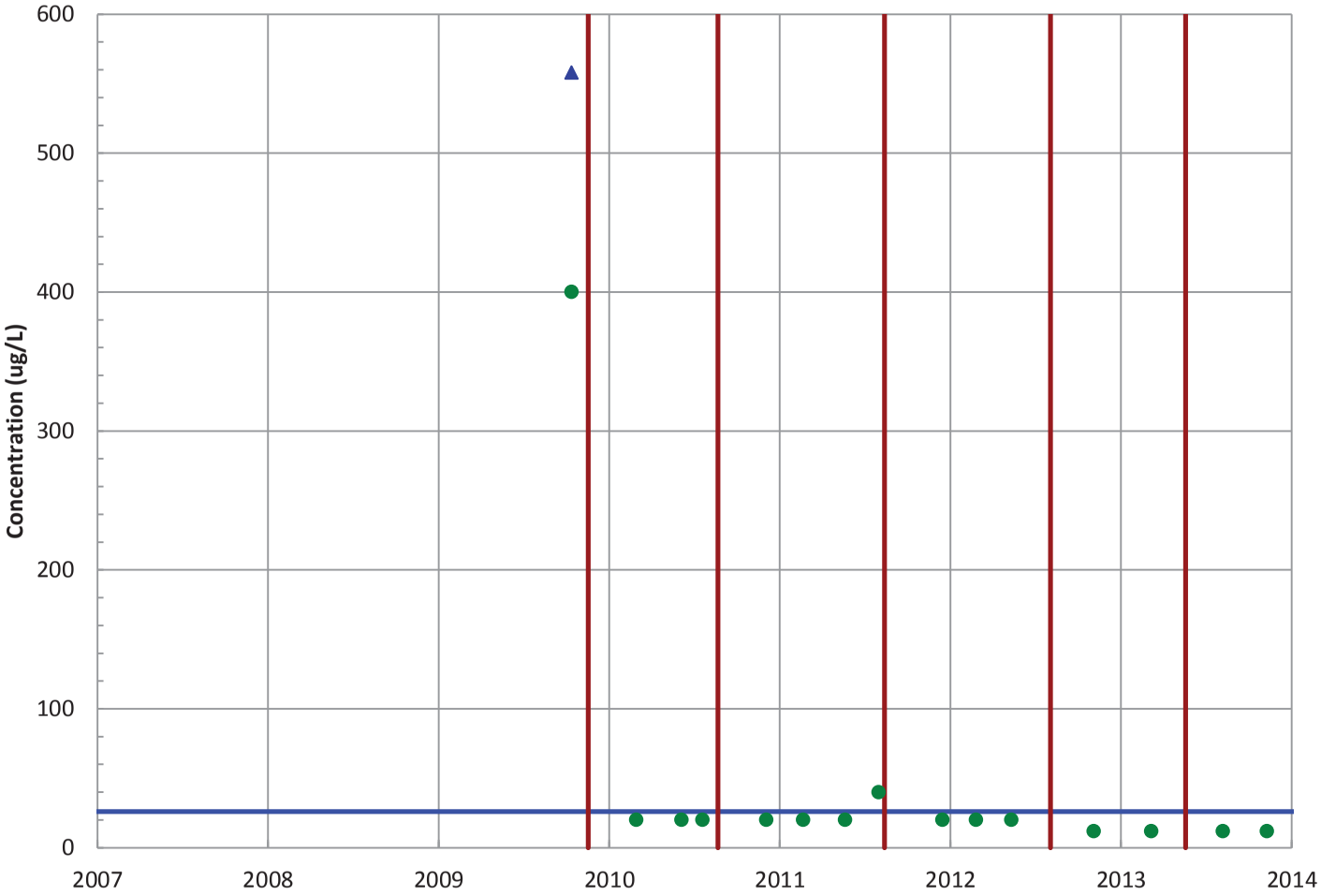
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

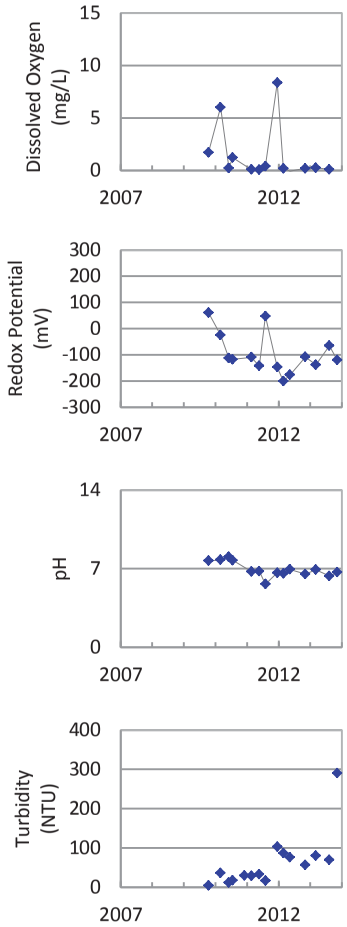


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/14/2009 to 11/14/2013
Analysis Date: 3/21/2014

PTX06-ISB085A
Perchlorate Trend in Perched Aquifer



Field Parameters



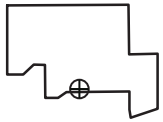
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

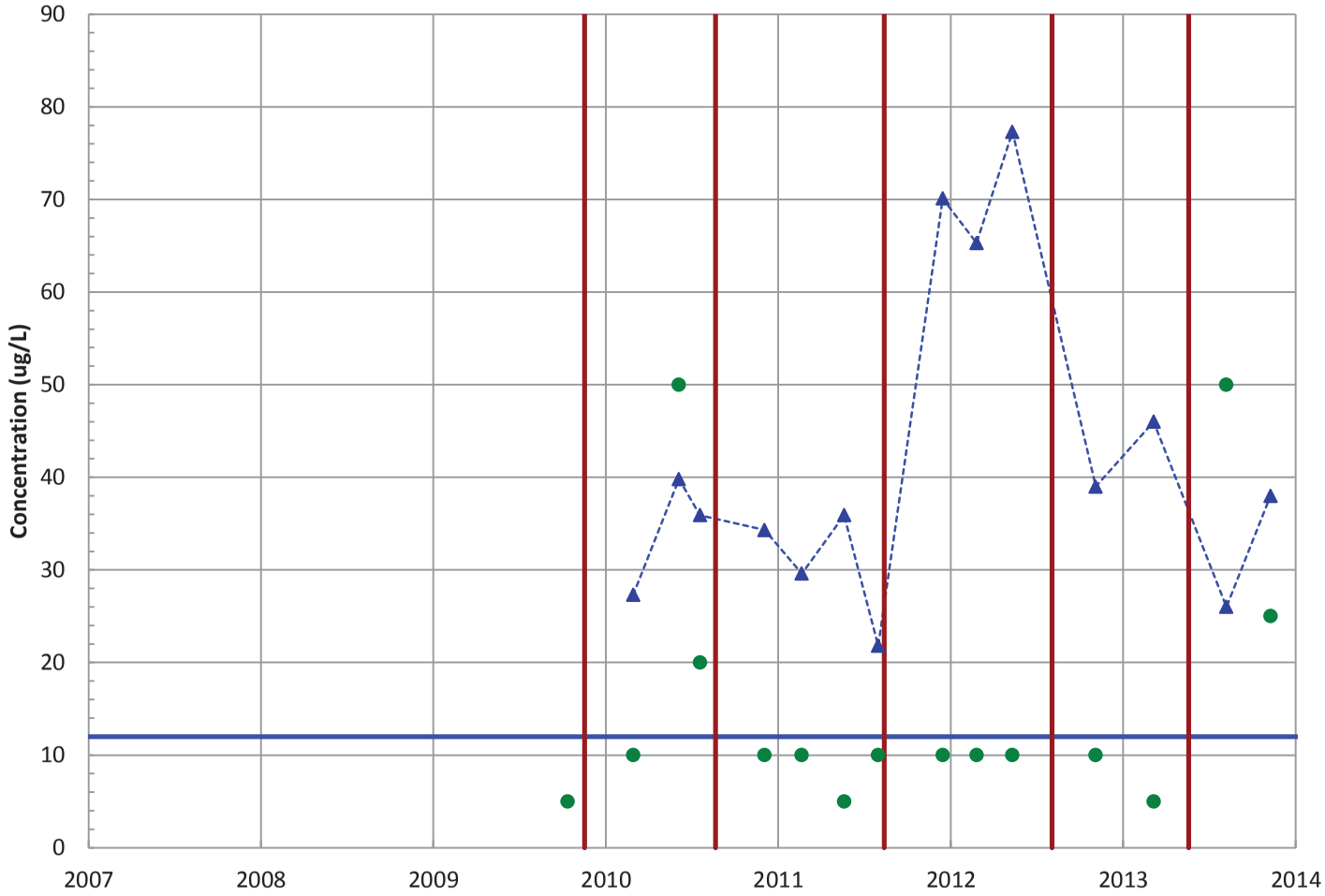
- ▲ Measured Value
- ● Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

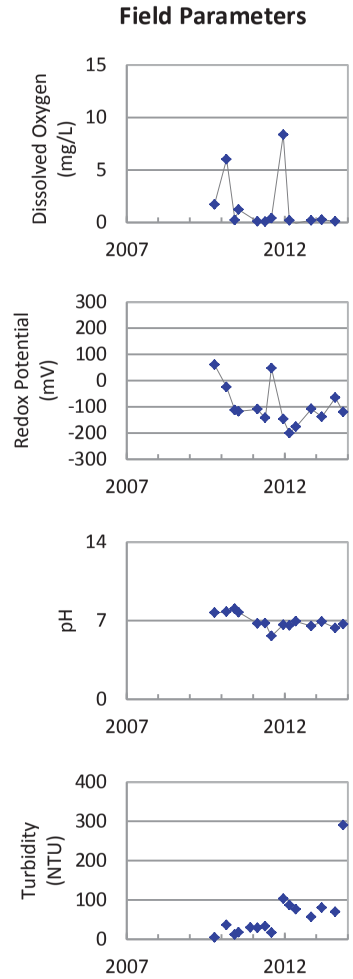
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/14/2009 to 11/14/2013
Analysis Date: 3/21/2014

PTX06-ISB085A
Arsenic Trend in Perched Aquifer





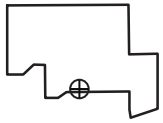
Concentration Trend

MAROS Mann-Kendall Method
All Data: Probably Increasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Stable

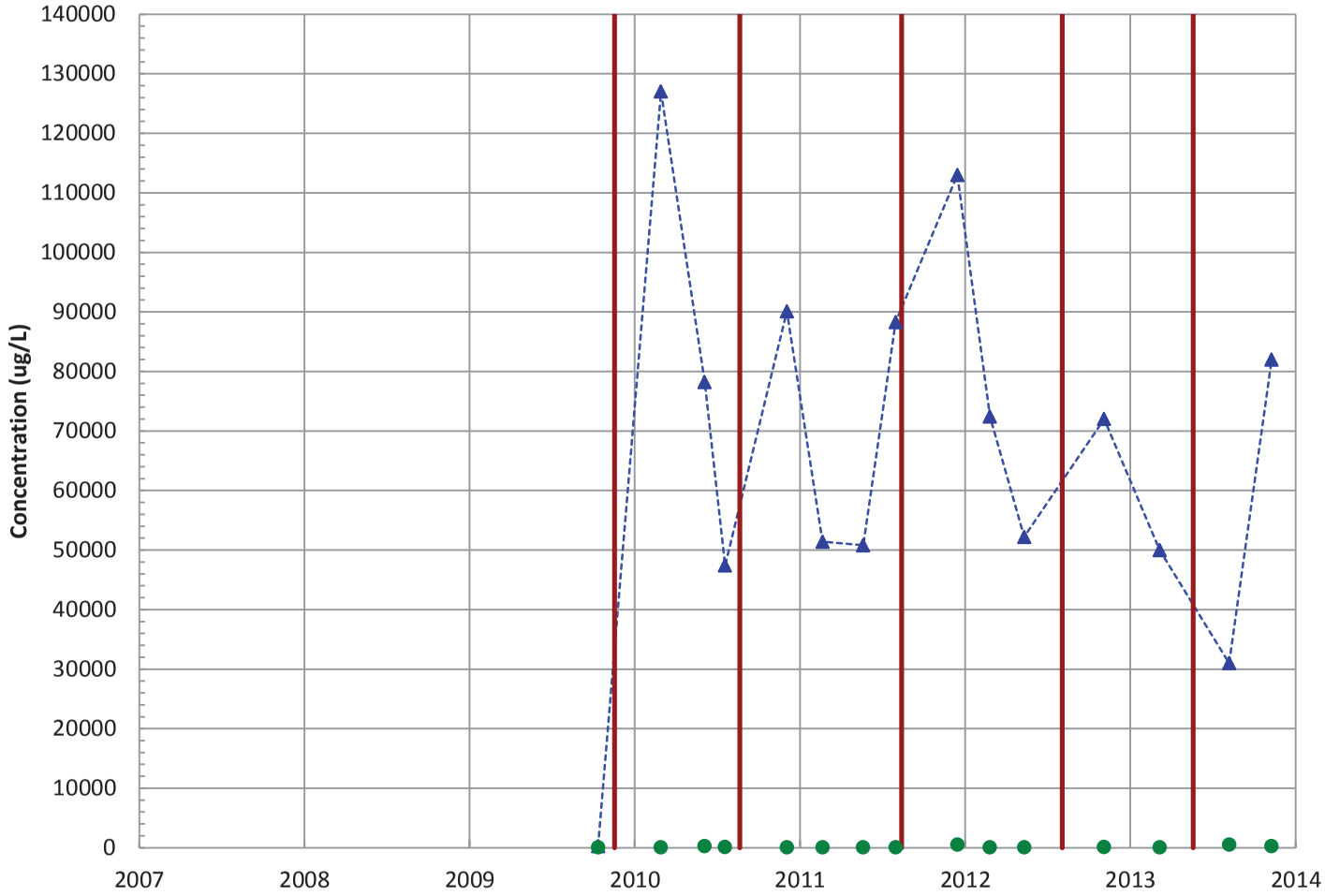
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

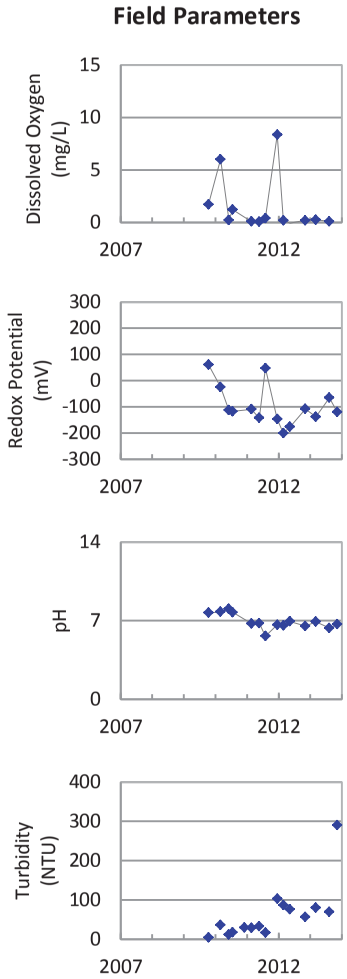
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/14/2009 to 11/14/2013
Analysis Date: 3/21/2014

PTX06-ISB085A
Iron Trend in Perched Aquifer





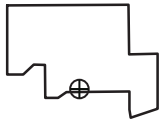
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Stable

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Stable

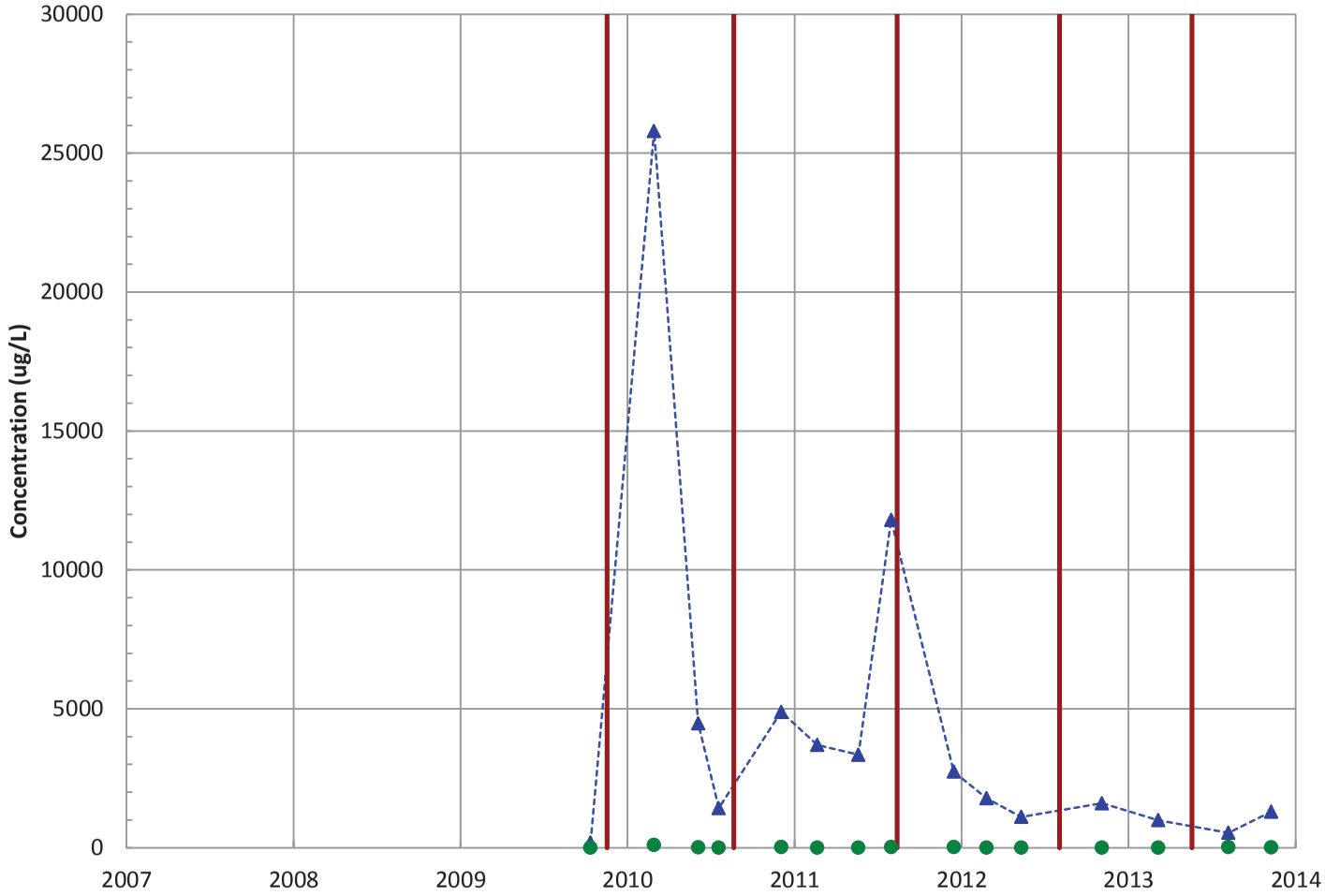
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

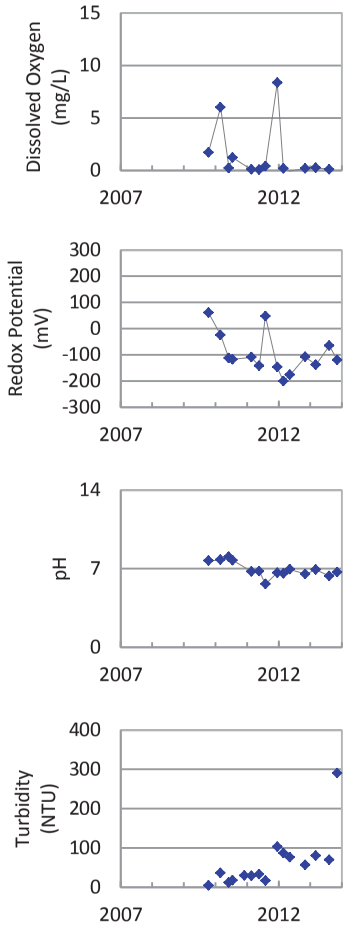


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/14/2009 to 11/14/2013
Analysis Date: 3/21/2014

PTX06-ISB085A
Manganese Trend in Perched Aquifer



Field Parameters



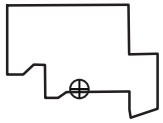
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Stable

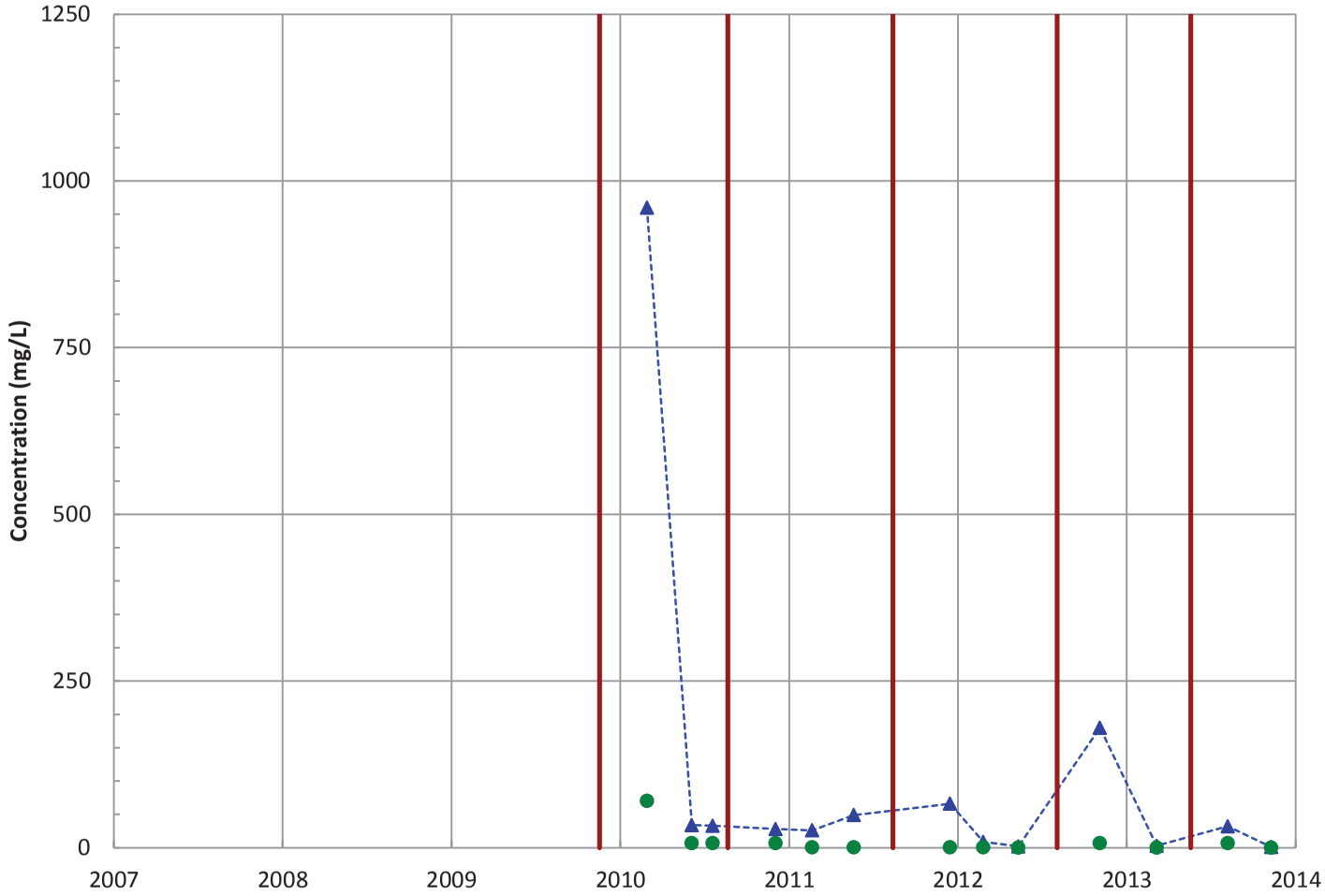
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

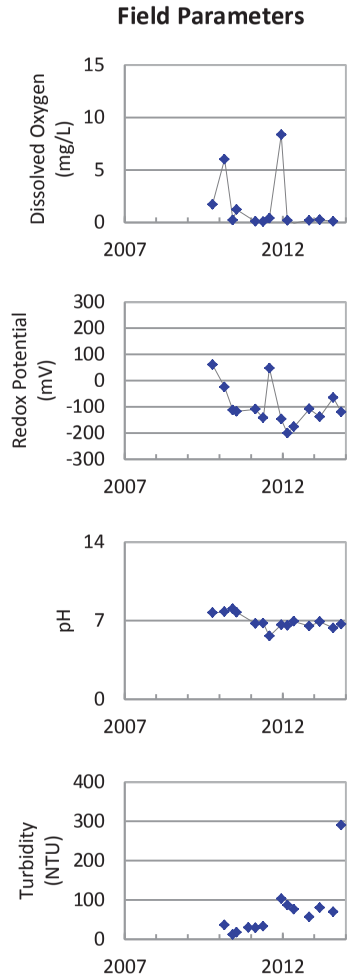
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/14/2009 to 11/14/2013
Analysis Date: 3/21/2014

PTX06-ISB085A
Acetic Acid Trend in Perched Aquifer





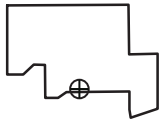
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Probably Decreasing

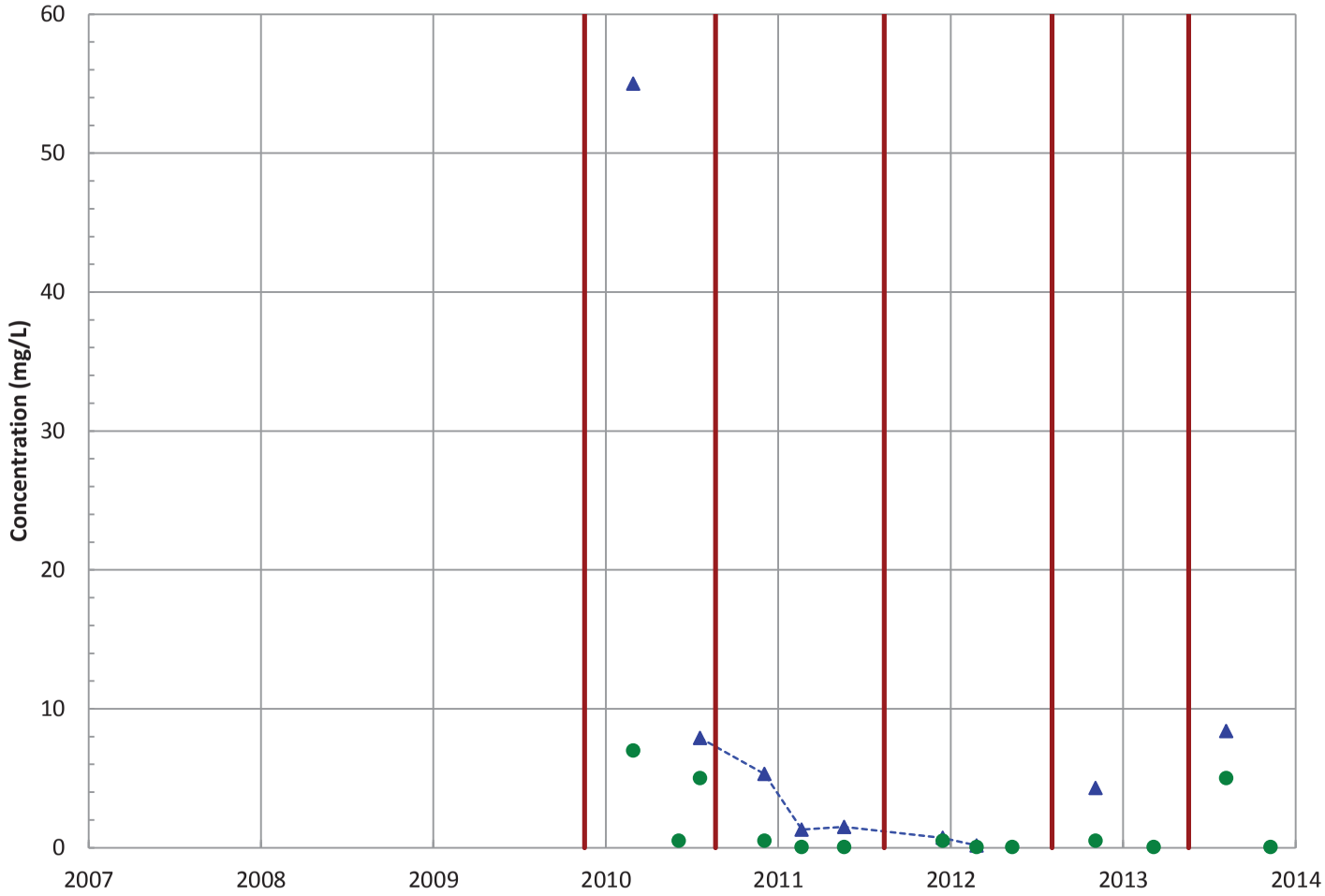
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

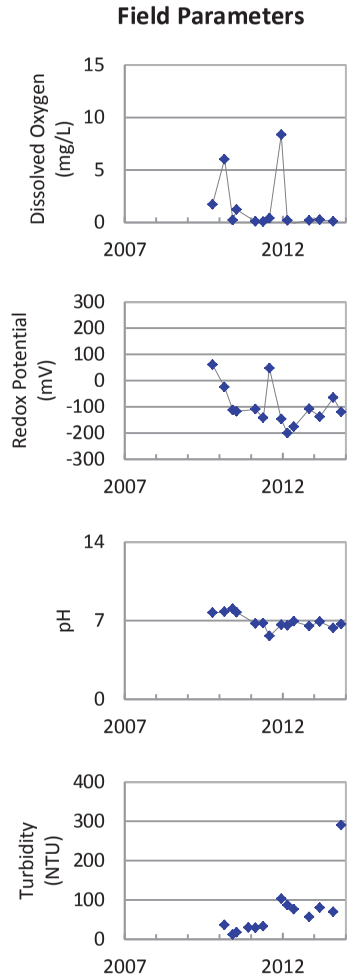
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/2/2010 to 11/14/2013
Analysis Date: 3/21/2014

PTX06-ISB085A
Butyric Acid Trend in Perched Aquifer





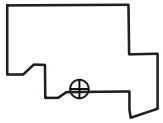
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

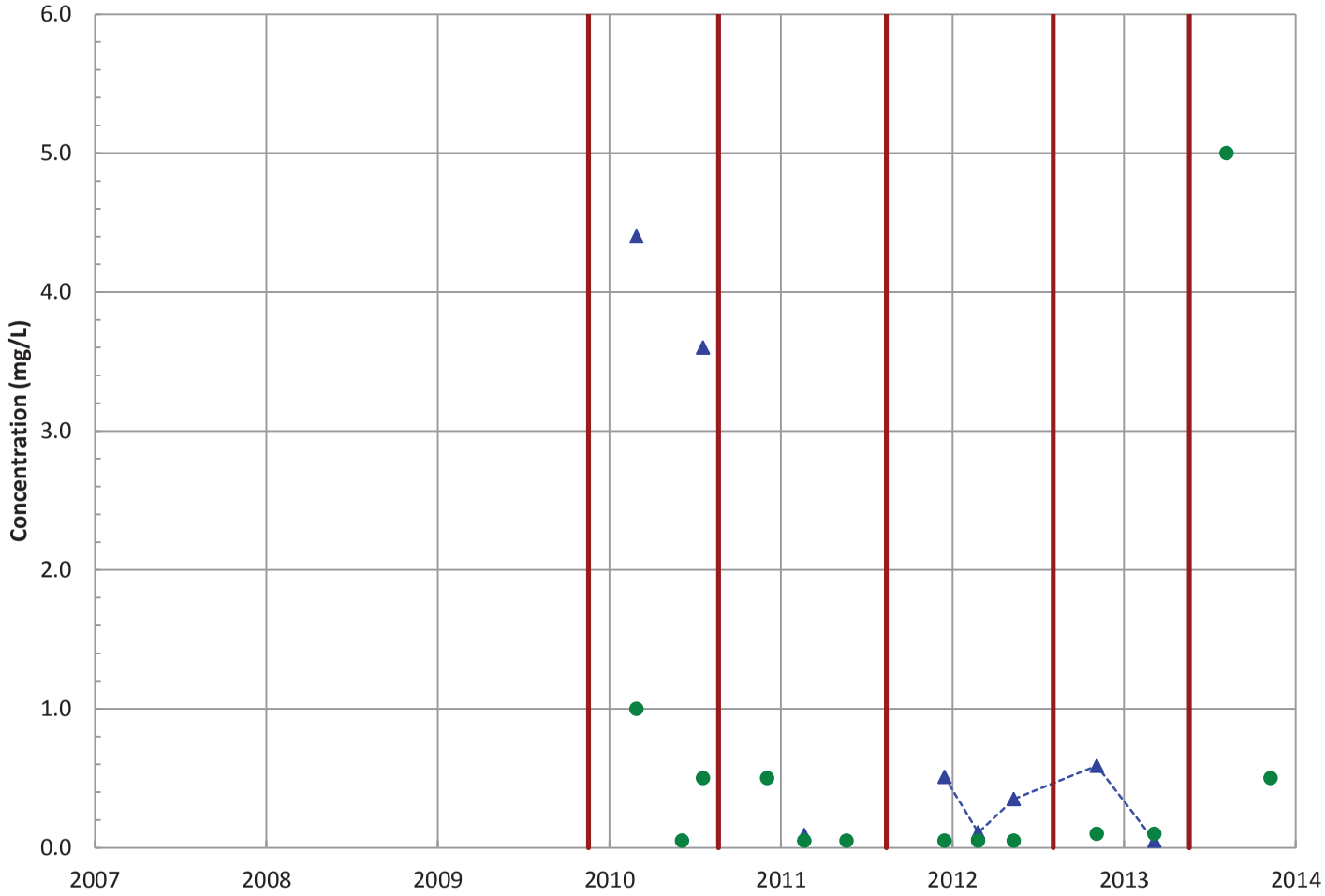
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

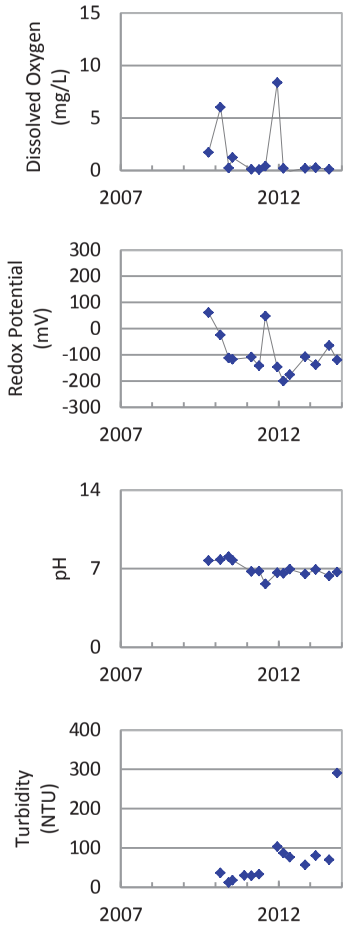


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/2/2010 to 11/14/2013
Analysis Date: 3/21/2014

PTX06-ISB085A
Hexanoic Acid Trend in Perched Aquifer



Field Parameters



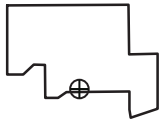
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Stable

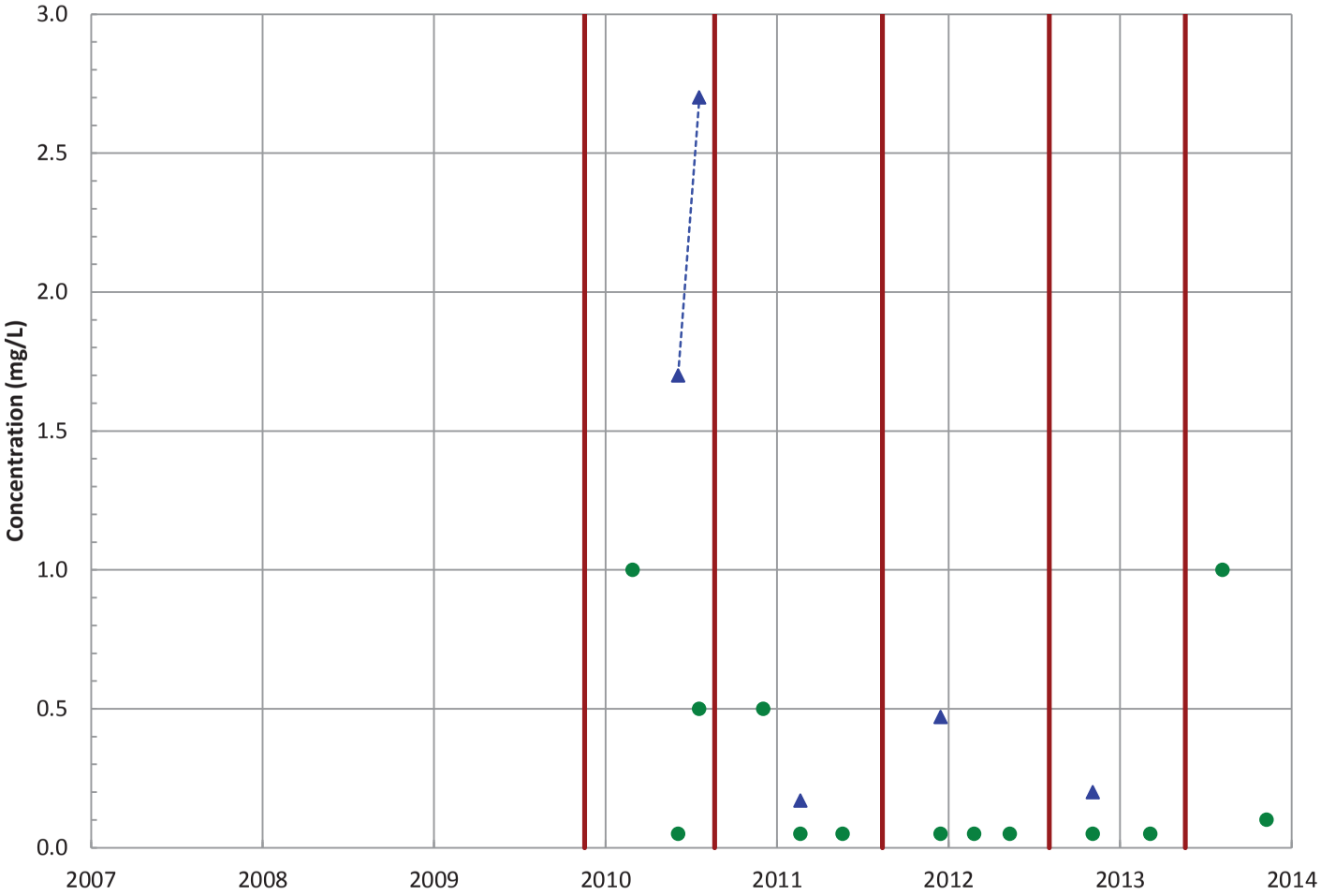
▲ Measured Value
● Sample Detection Limit
- - - Concentration Trend
═ Injection Dates

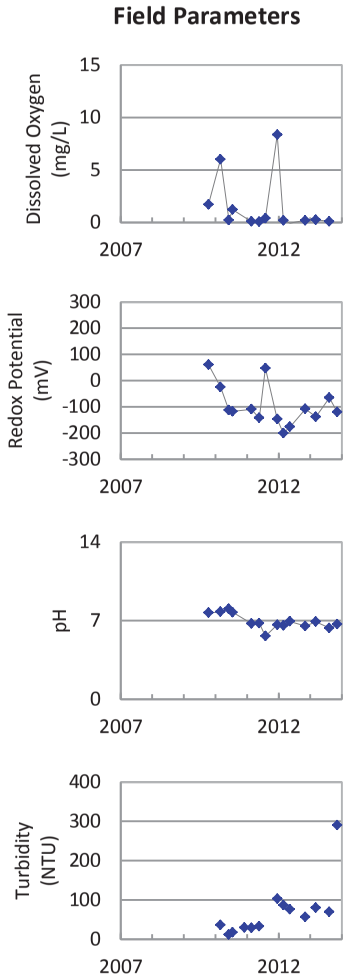
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/2/2010 to 11/14/2013
Analysis Date: 3/21/2014

PTX06-ISB085A
i-Hexanoic Acid Trend in Perched Aquifer





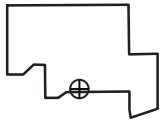
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: Probably Decreasing
Last 4 Samples: No Trend

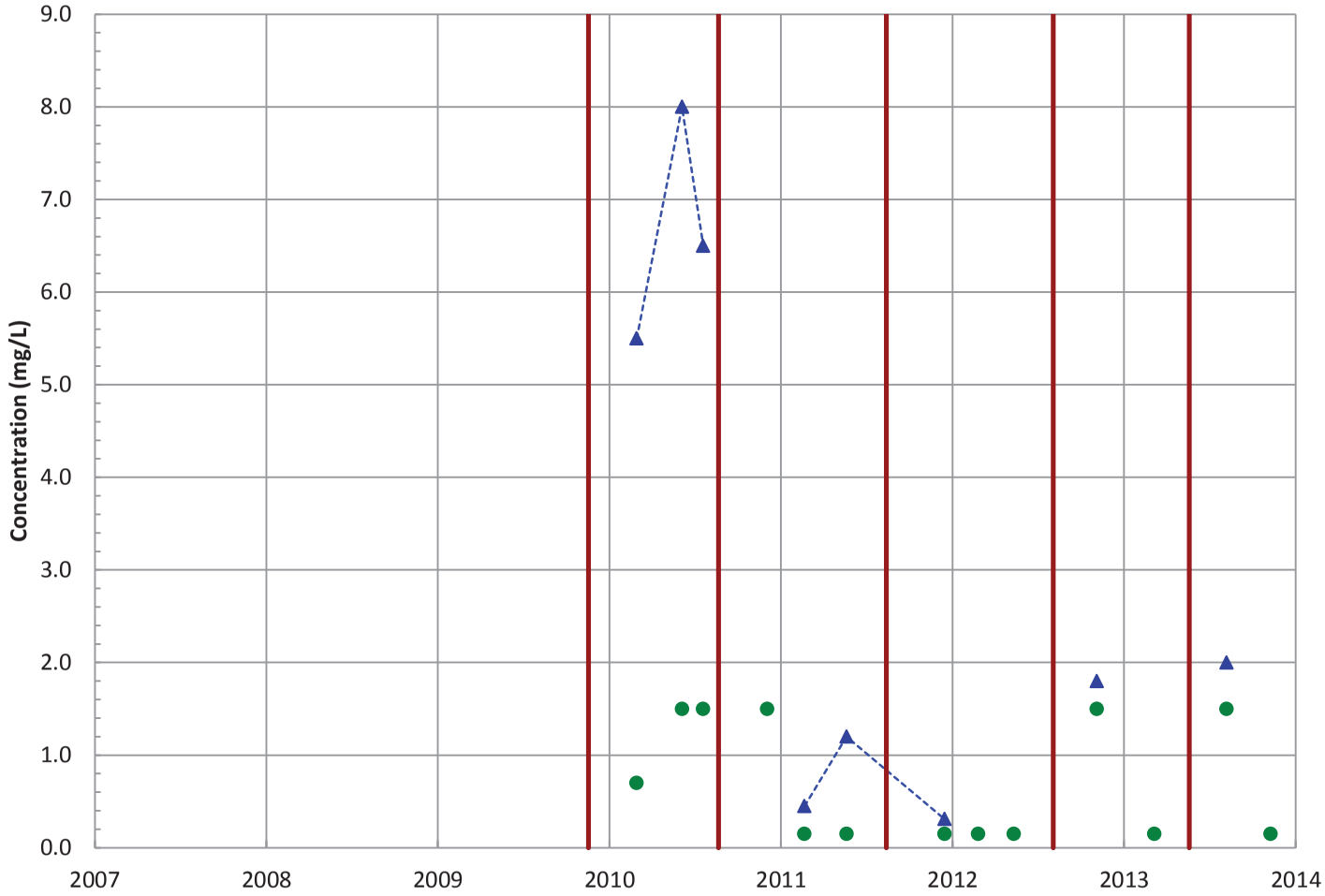
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
═══ Injection Dates

Well Location

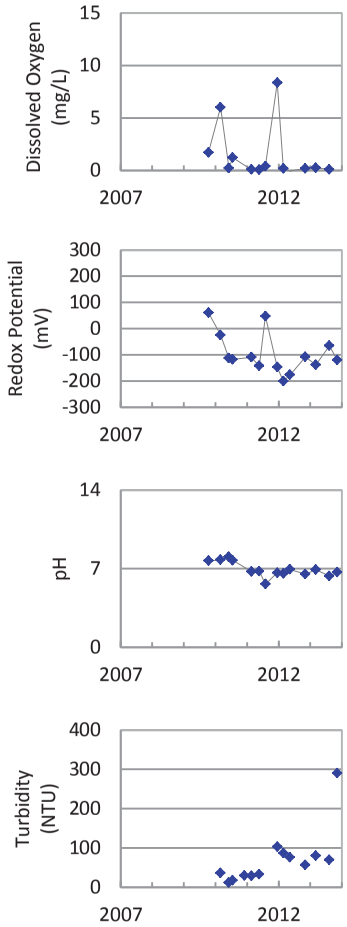


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/2/2010 to 11/14/2013
Analysis Date: 3/21/2014

PTX06-ISB085A
i-Pentanoic Acid Trend in Perched Aquifer



Field Parameters



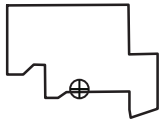
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: No Trend

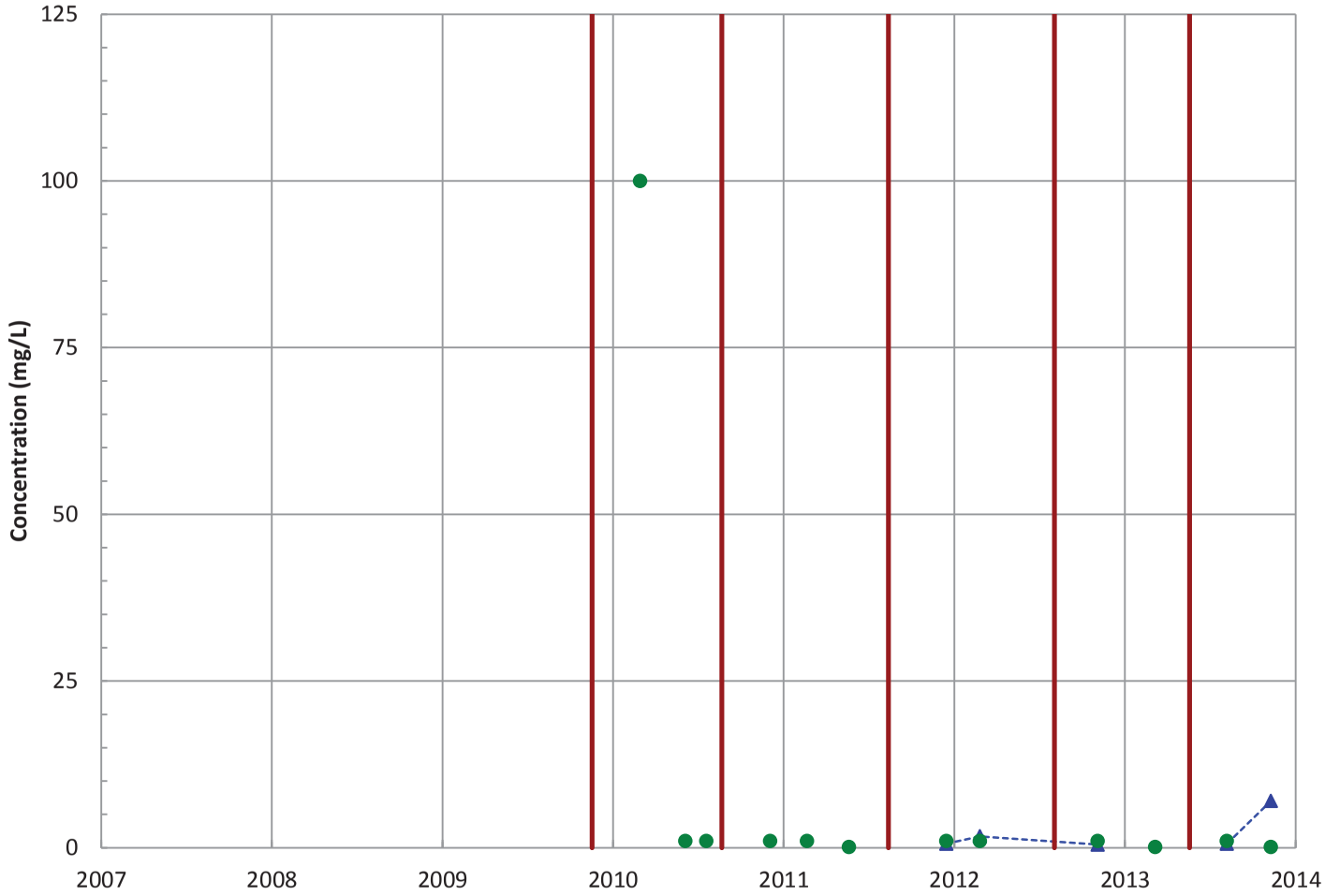
▲ Measured Value
● Sample Detection Limit
------- Concentration Trend
═══ Injection Dates

Well Location

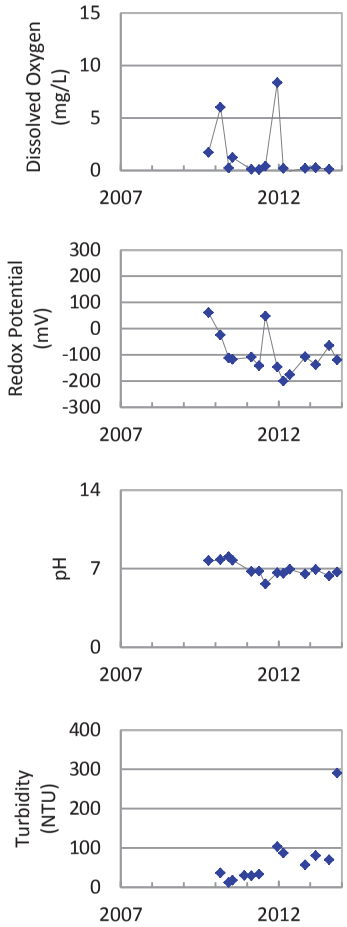


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/2/2010 to 11/14/2013
Analysis Date: 3/21/2014

PTX06-ISB085A
Lactic Acid and HIBA Trend in Perched Aquifer



Field Parameters



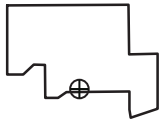
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: No Trend

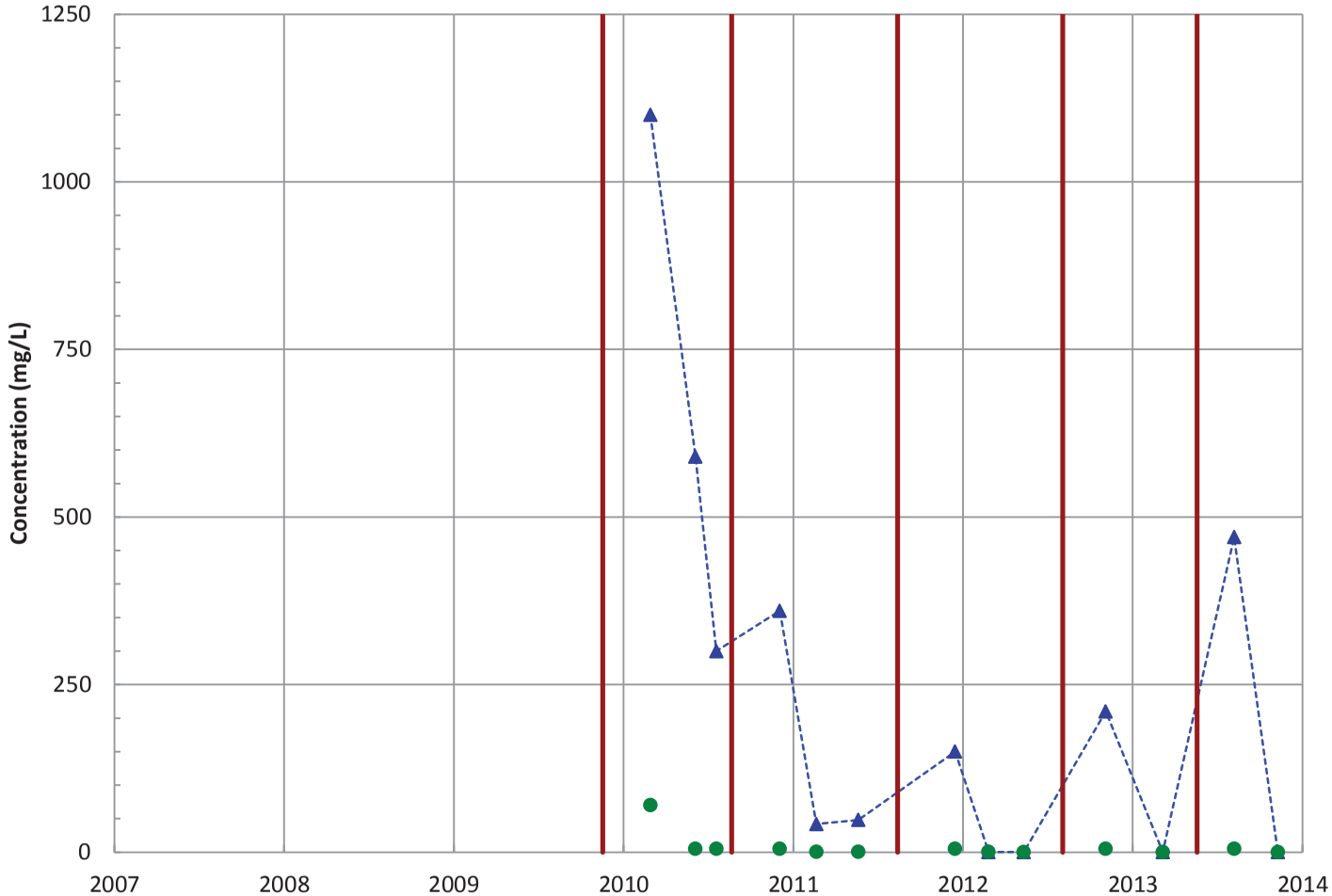
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

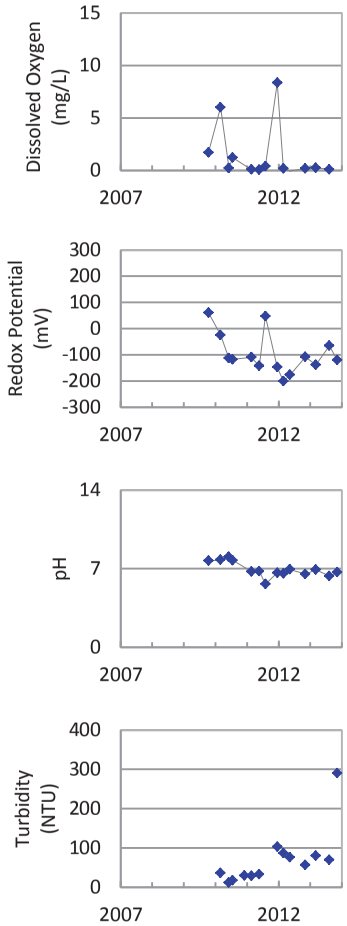


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/2/2010 to 11/14/2013
Analysis Date: 3/21/2014

PTX06-ISB085A
Propionic Acid Trend in Perched Aquifer



Field Parameters



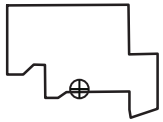
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

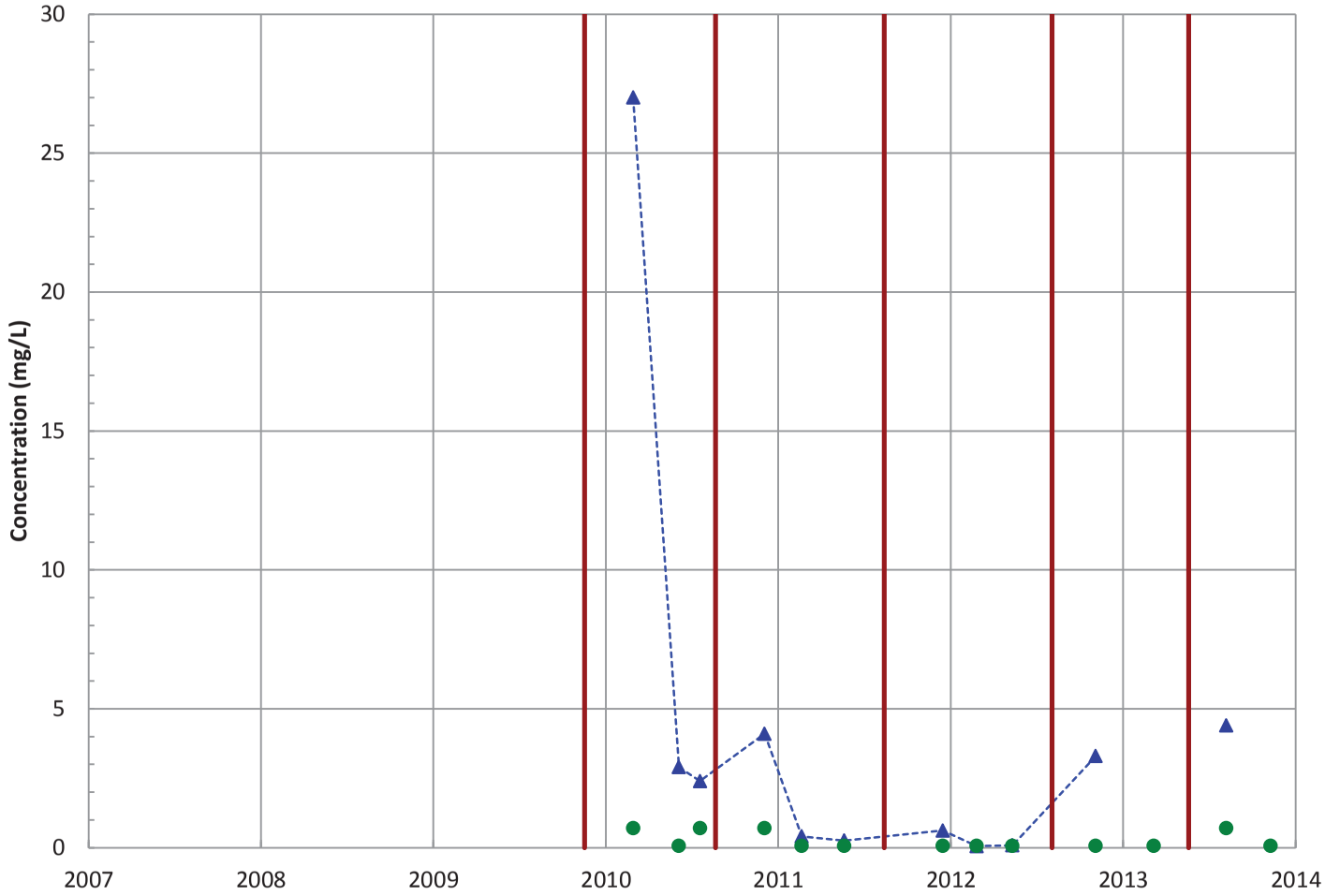
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

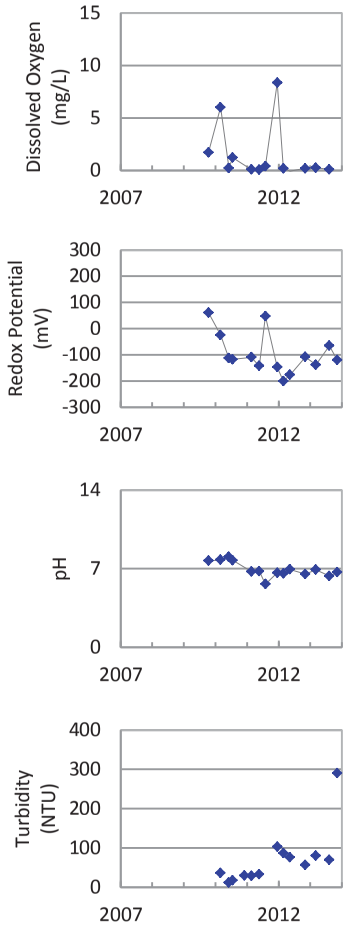


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/2/2010 to 11/14/2013
Analysis Date: 3/21/2014

PTX06-ISB085A
Pentanoic Acid Trend in Perched Aquifer



Field Parameters



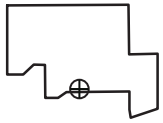
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Probably Increasing

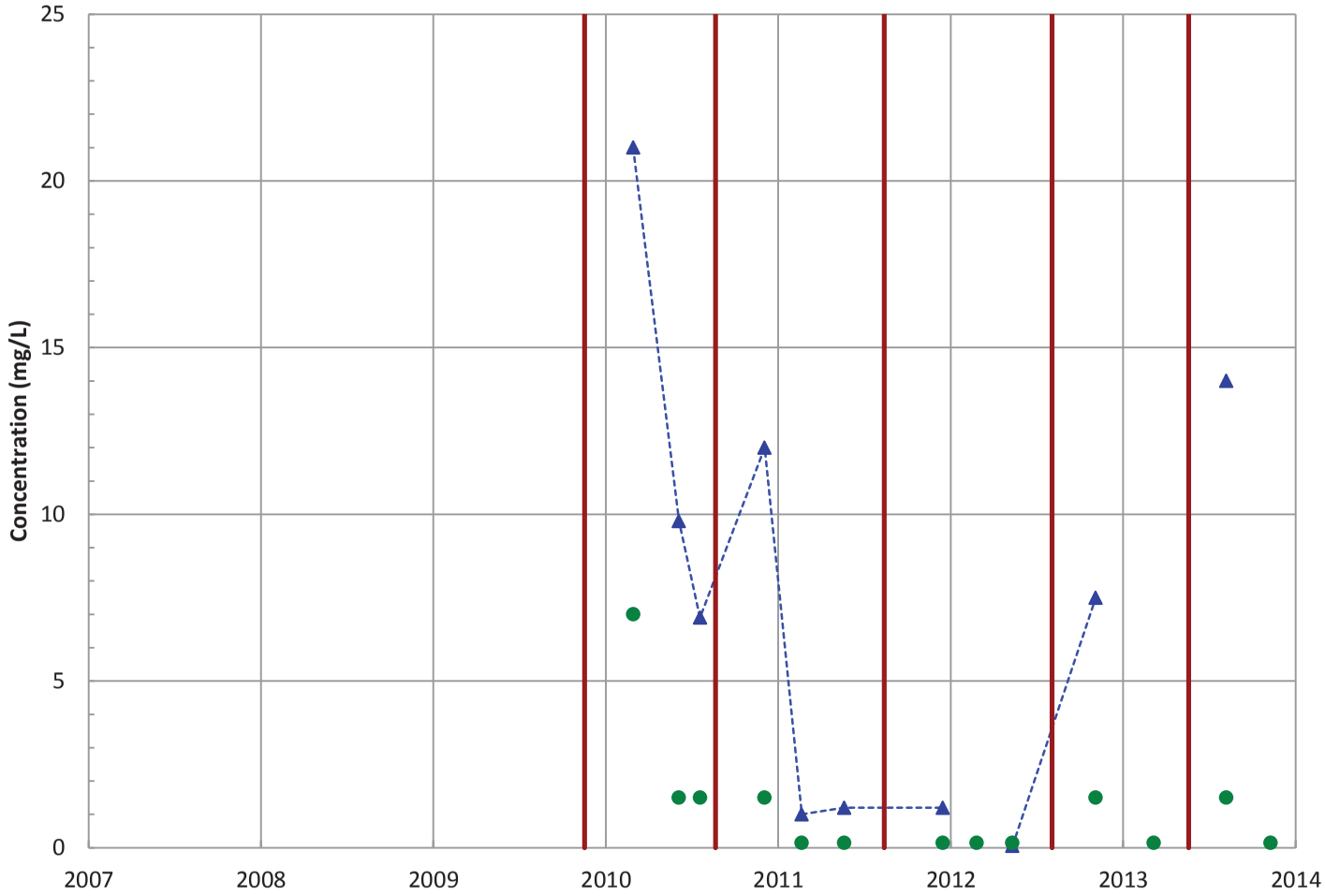
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

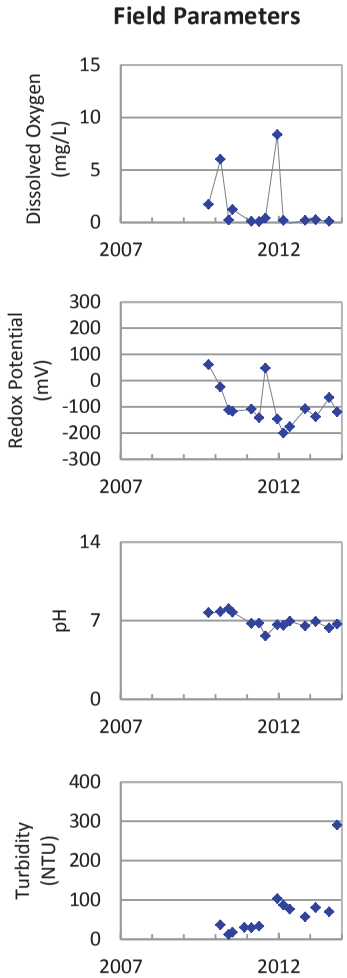
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/2/2010 to 11/14/2013
Analysis Date: 3/21/2014

PTX06-ISB085A
Pyruvic Acid Trend in Perched Aquifer





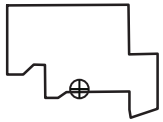
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: No Trend

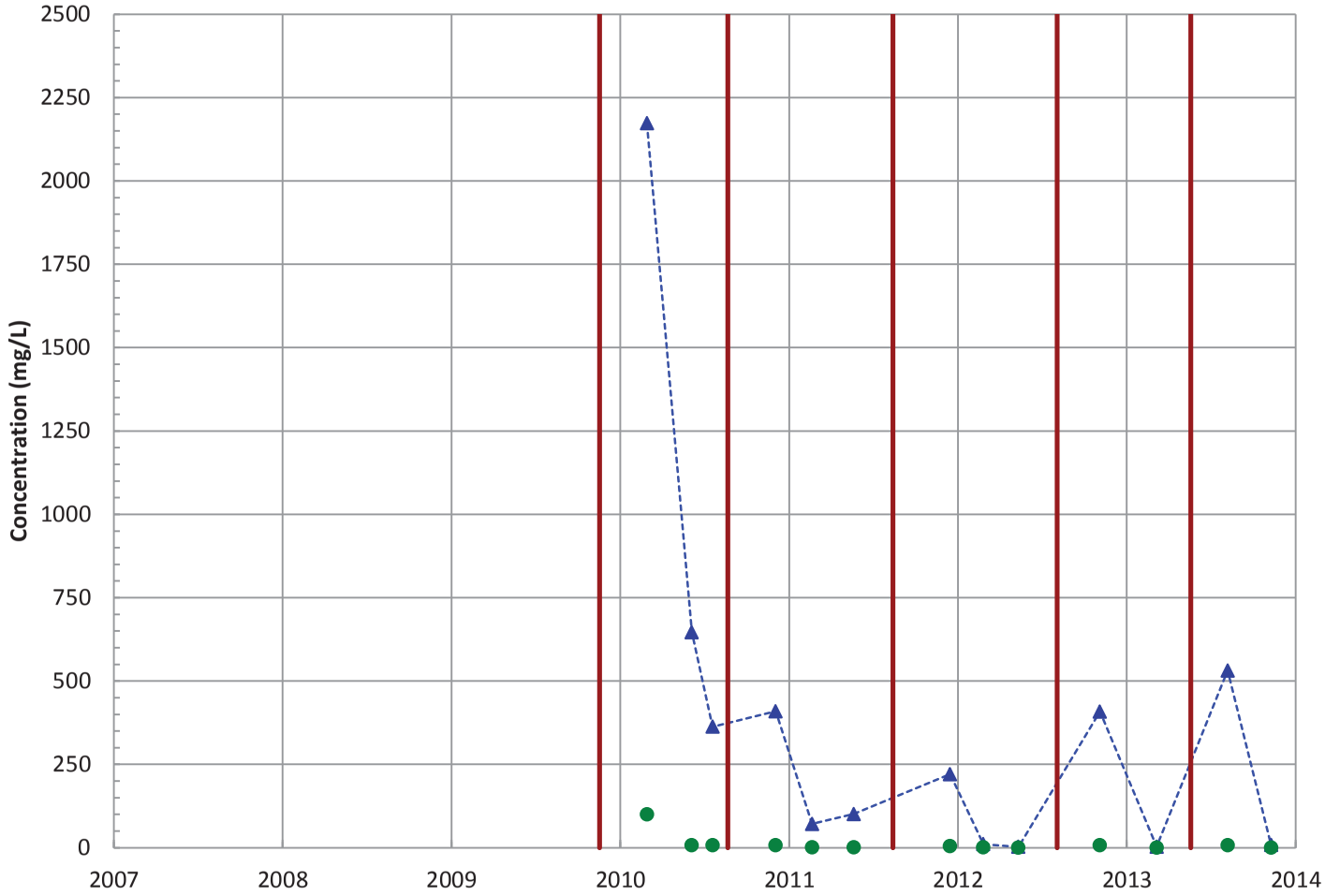
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

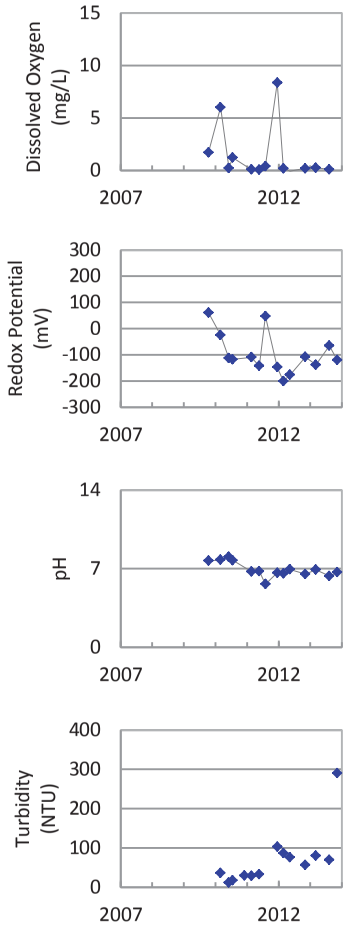


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/2/2010 to 11/14/2013
Analysis Date: 3/21/2014

PTX06-ISB085A
Total Volatile Fatty Acids Trend in Perched Aquifer



Field Parameters



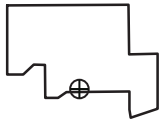
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: No Trend

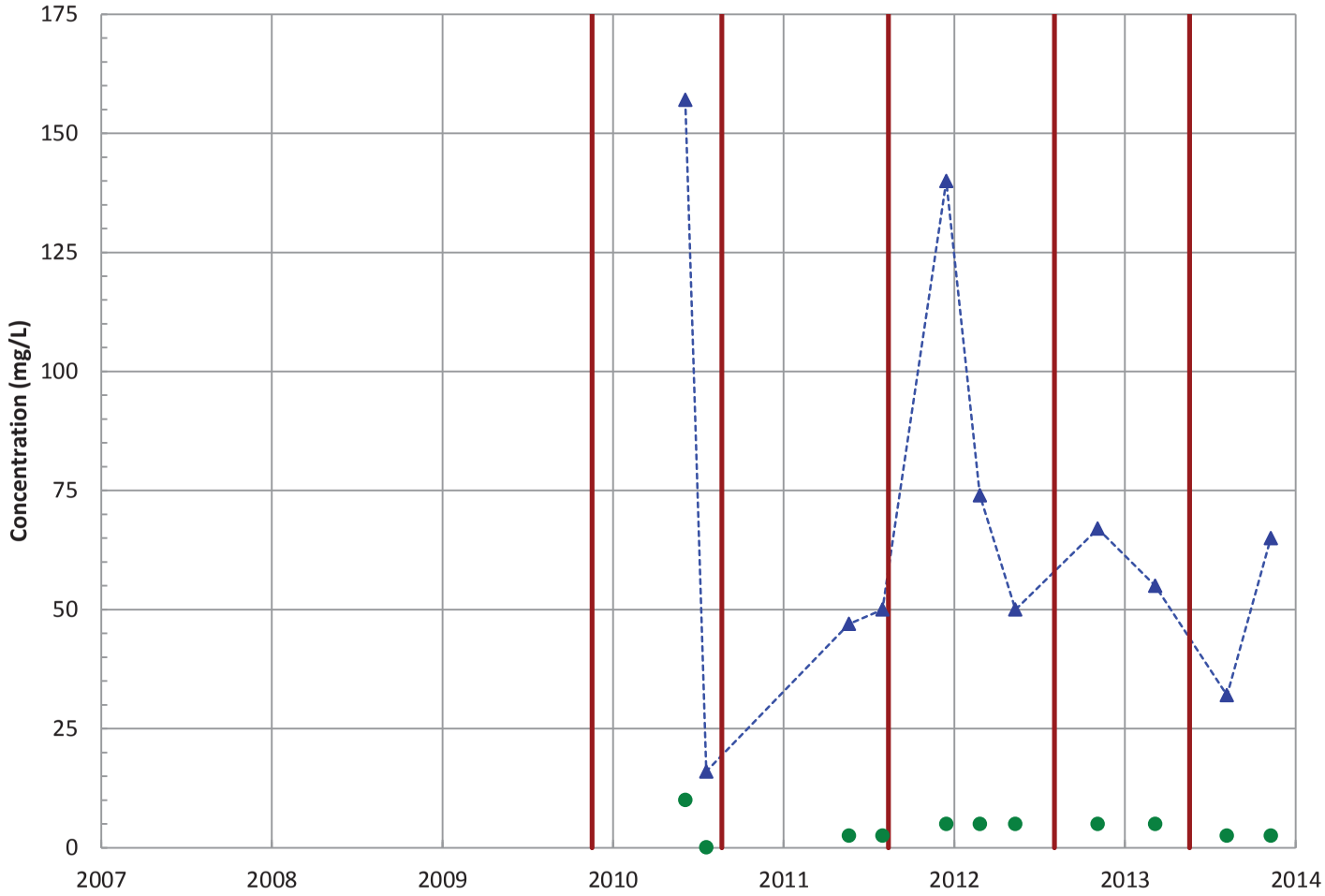
▲ Measured Value
● Sample Detection Limit
Concentration Trend
Injection Dates

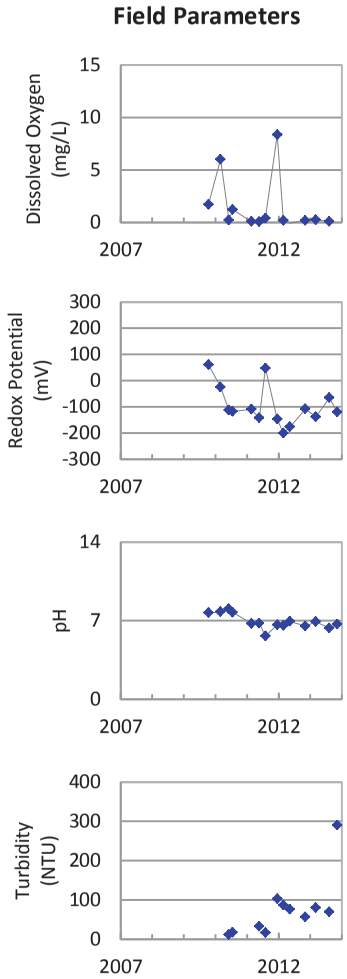
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/2/2010 to 11/14/2013
Analysis Date: 3/21/2014

PTX06-ISB085A
Ferrous Iron Trend in Perched Aquifer





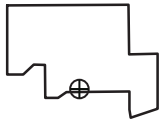
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: Stable

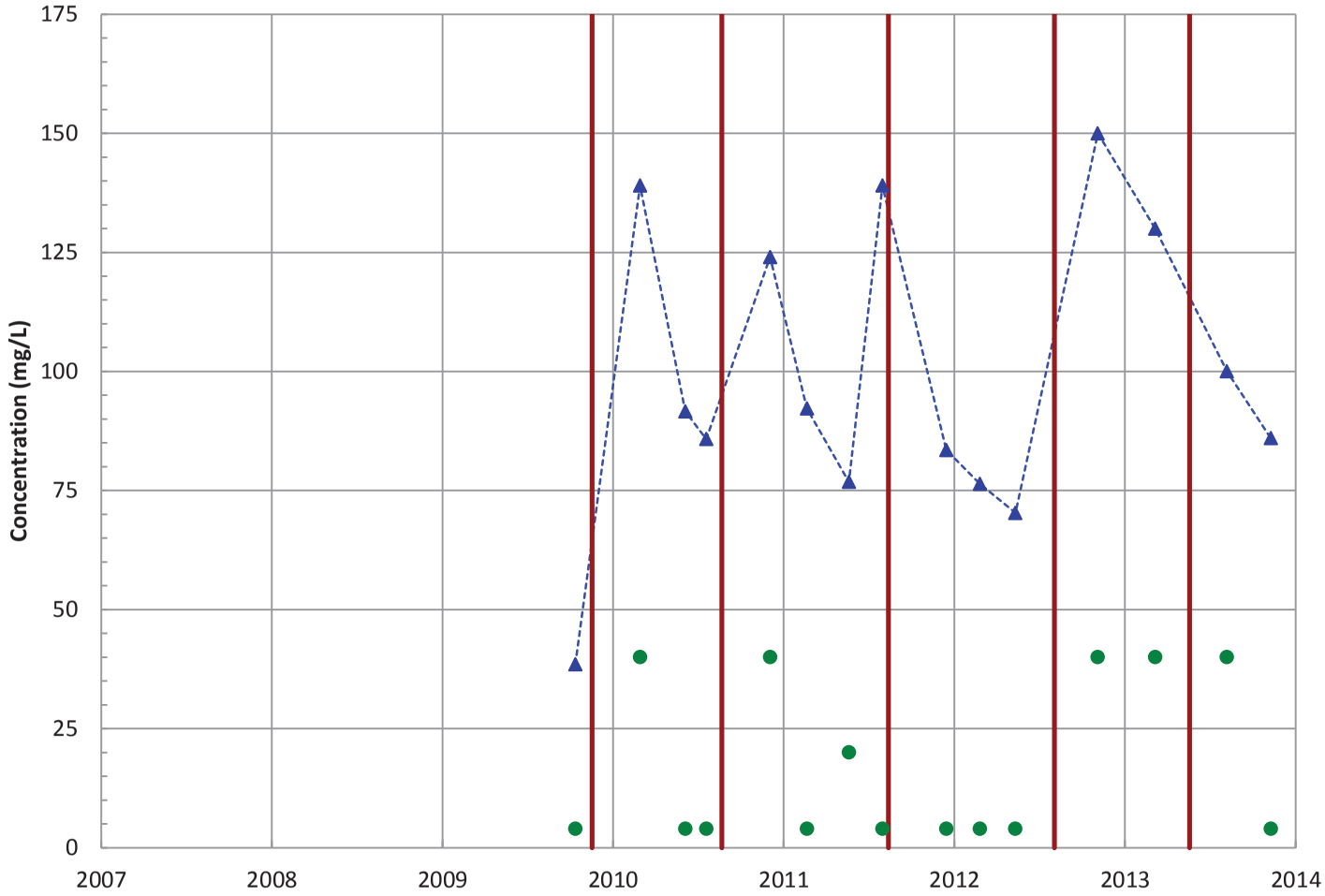
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

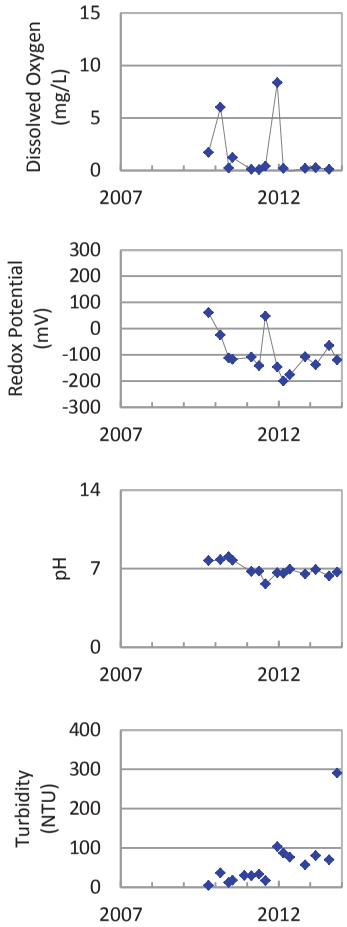


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 6/7/2010 to 11/14/2013
Analysis Date: 3/21/2014

PTX06-ISB085A
Chloride (as Cl) Trend in Perched Aquifer



Field Parameters



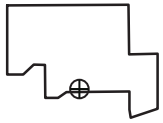
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: No Trend
Last 4 Samples: Decreasing

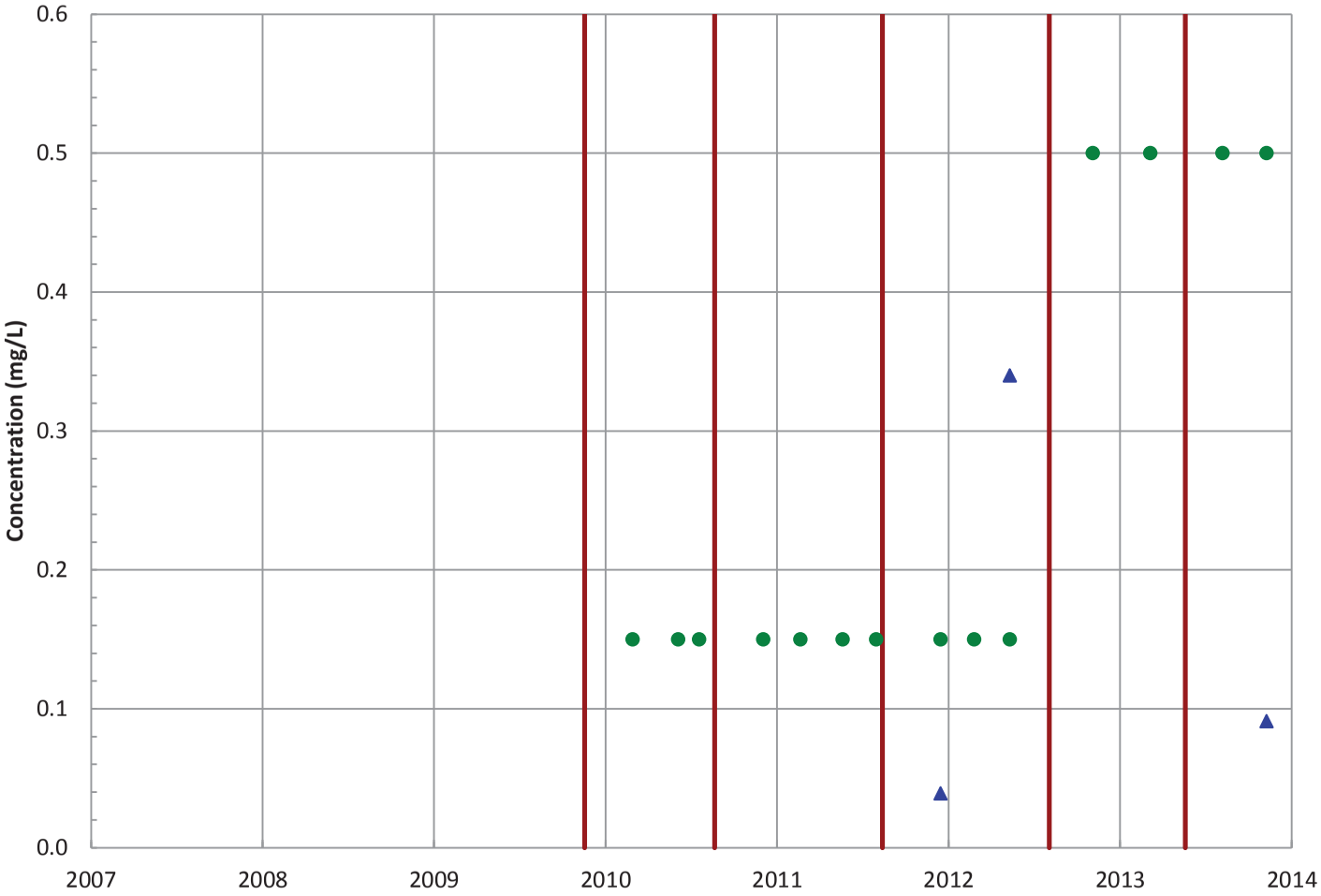
Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

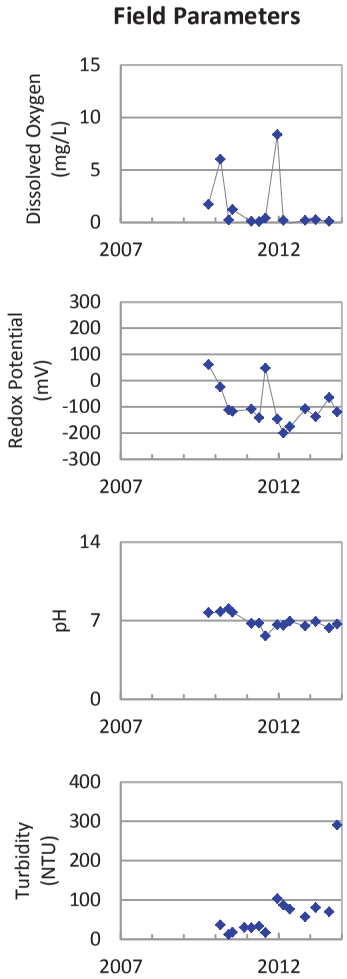
Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/14/2009 to 11/14/2013
Analysis Date: 3/21/2014

PTX06-ISB085A
Chlorate Trend in Perched Aquifer





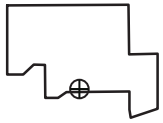
Concentration Trend

MAROS Mann-Kendall Method
All Data: N/A (<4 Detections in Dataset)
Last 4 Samples: N/A (<2 Detections in Dataset)

MAROS Linear Regression Method
All Data: N/A (<4 Detections)
Last 4 Samples: N/A (<4 Detections)

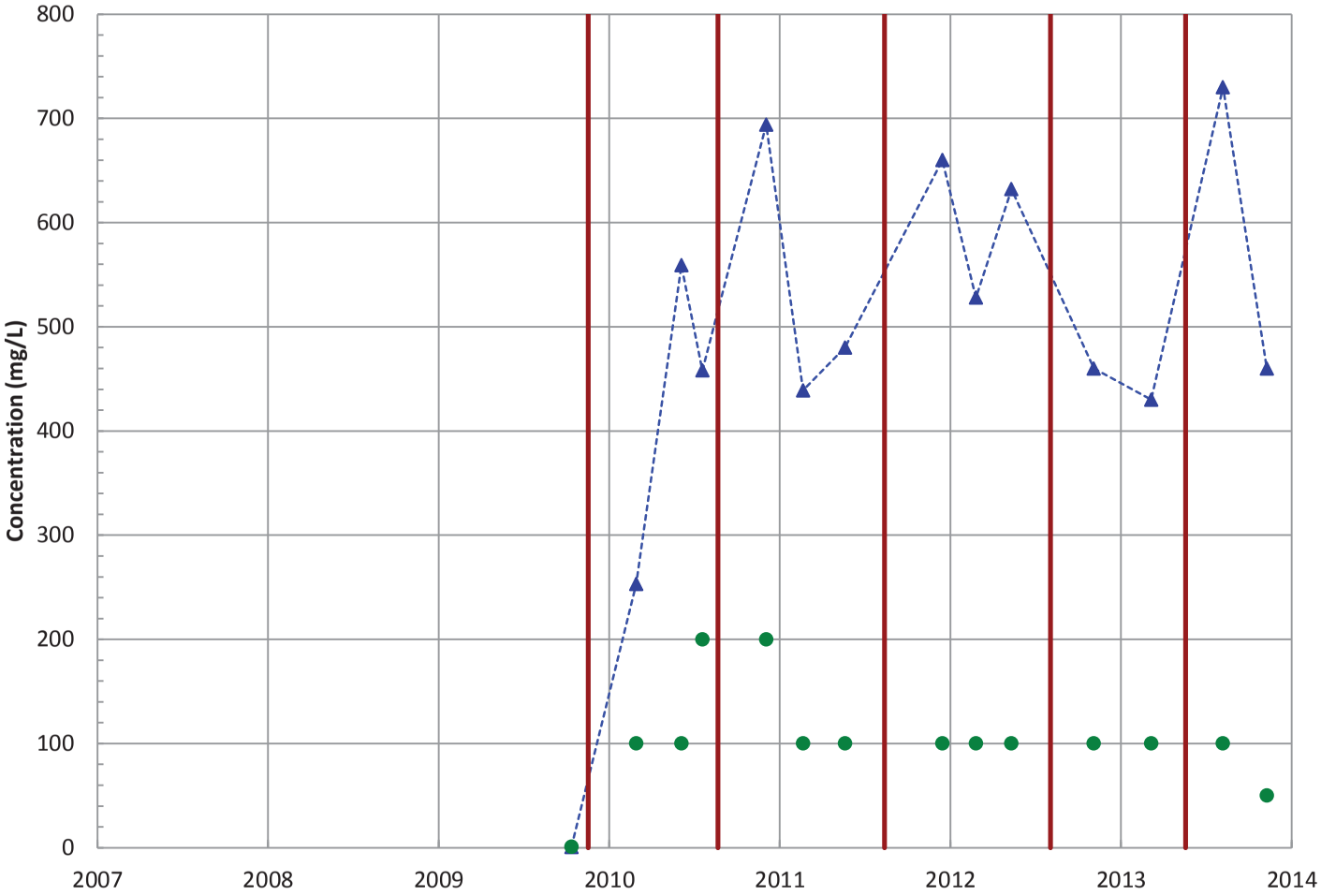
- ▲ Measured Value
- ● Sample Detection Limit
- ------- Concentration Trend
- ═══ Injection Dates

Well Location

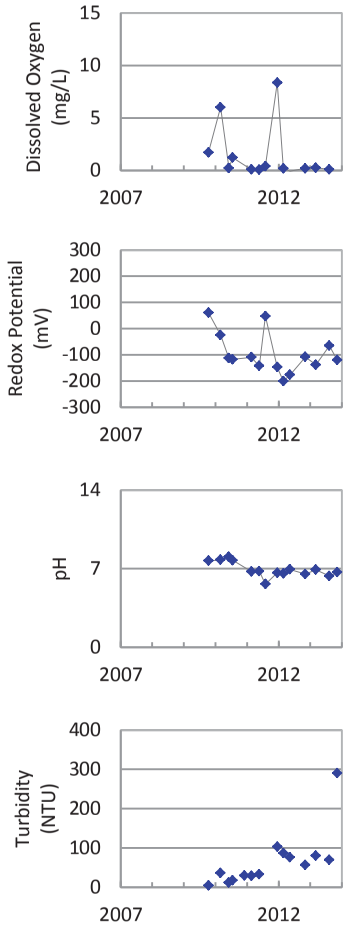


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/2/2010 to 11/14/2013
Analysis Date: 3/21/2014

PTX06-ISB085A
Total Organic Carbon Trend in Perched Aquifer



Field Parameters



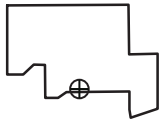
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: No Trend

MAROS Linear Regression Method
All Data: Increasing
Last 4 Samples: No Trend

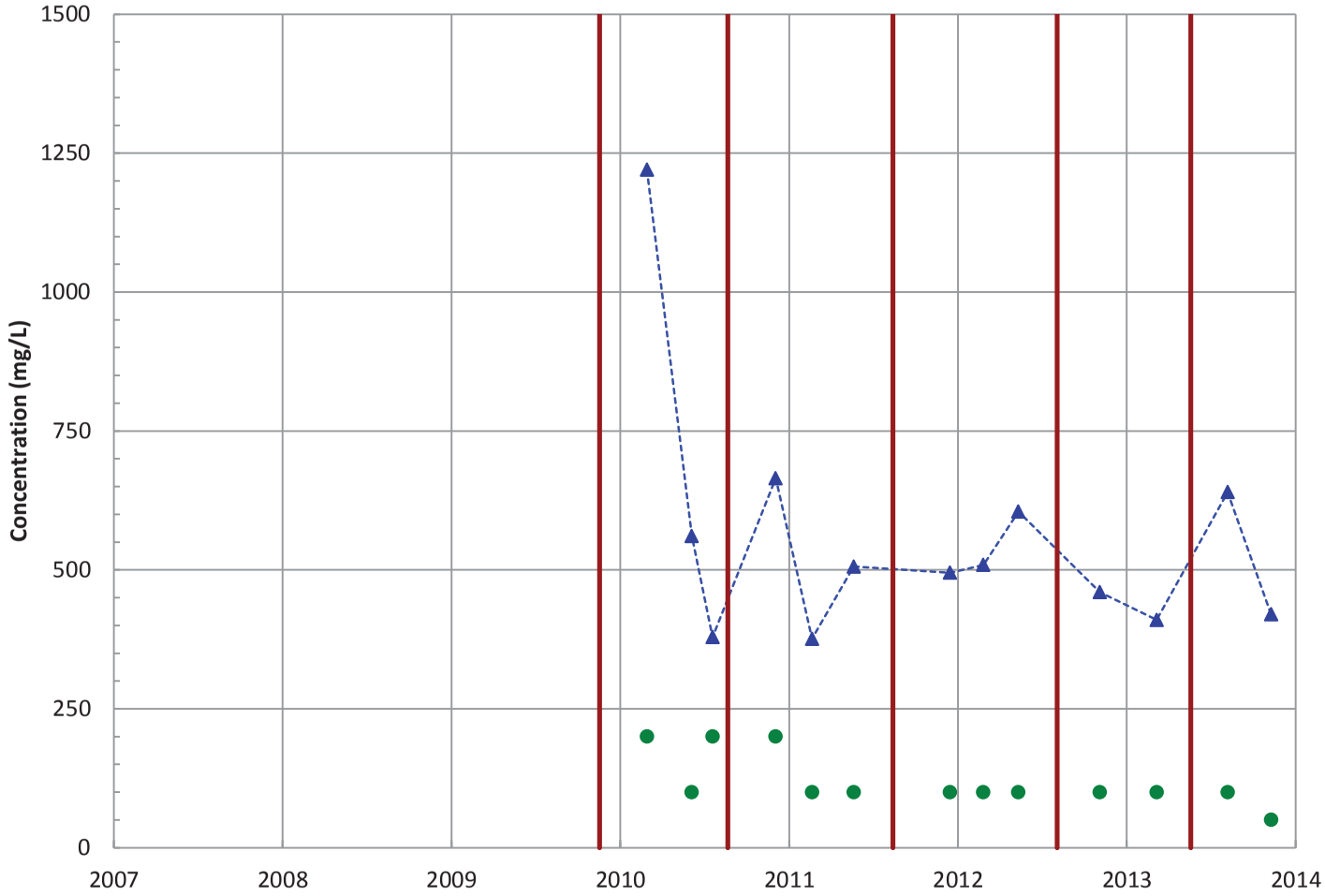
▲ Measured Value
● Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

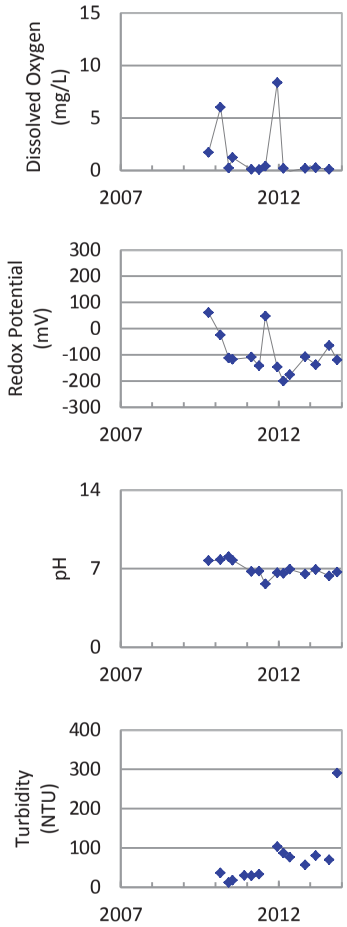


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/14/2009 to 11/14/2013
Analysis Date: 3/21/2014

PTX06-ISB085A
Dissolved Organic Carbon (DOC) Trend in Perched Aquifer



Field Parameters



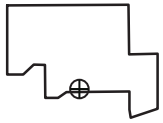
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Stable

MAROS Linear Regression Method
All Data: Stable
Last 4 Samples: Stable

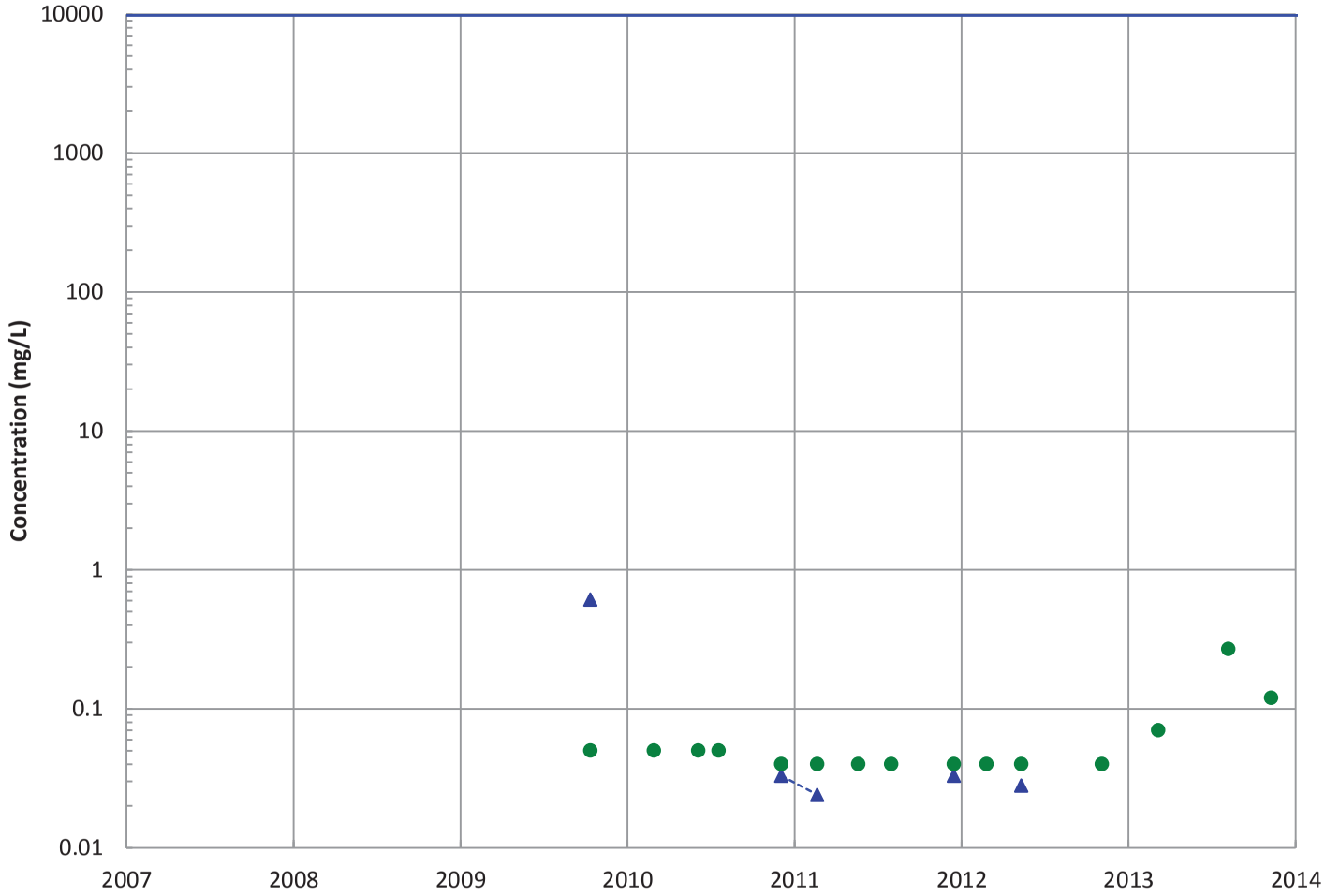
▲ Measured Value
● Sample Detection Limit
Concentration Trend
Injection Dates

Well Location

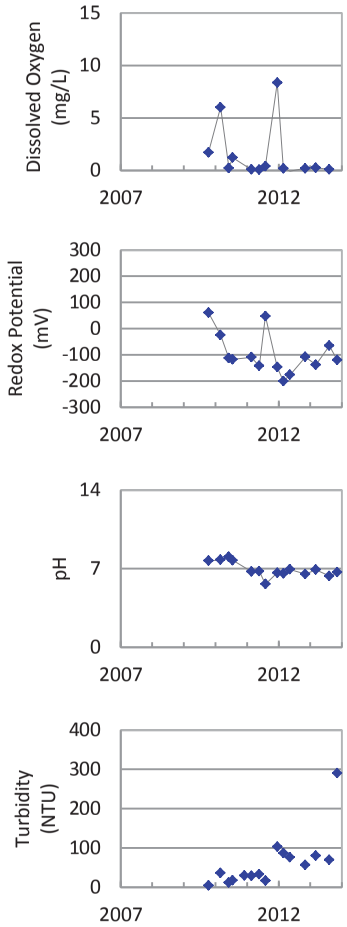


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 3/2/2010 to 11/14/2013
Analysis Date: 3/21/2014

PTX06-ISB085A
Nitrate as N Trend in Perched Aquifer



Field Parameters



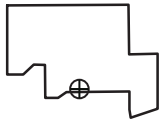
Concentration Trend

MAROS Mann-Kendall Method
All Data: No Trend
Last 4 Samples: All Non-Detect

MAROS Linear Regression Method
All Data: Probably Decreasing
Last 4 Samples: Stable

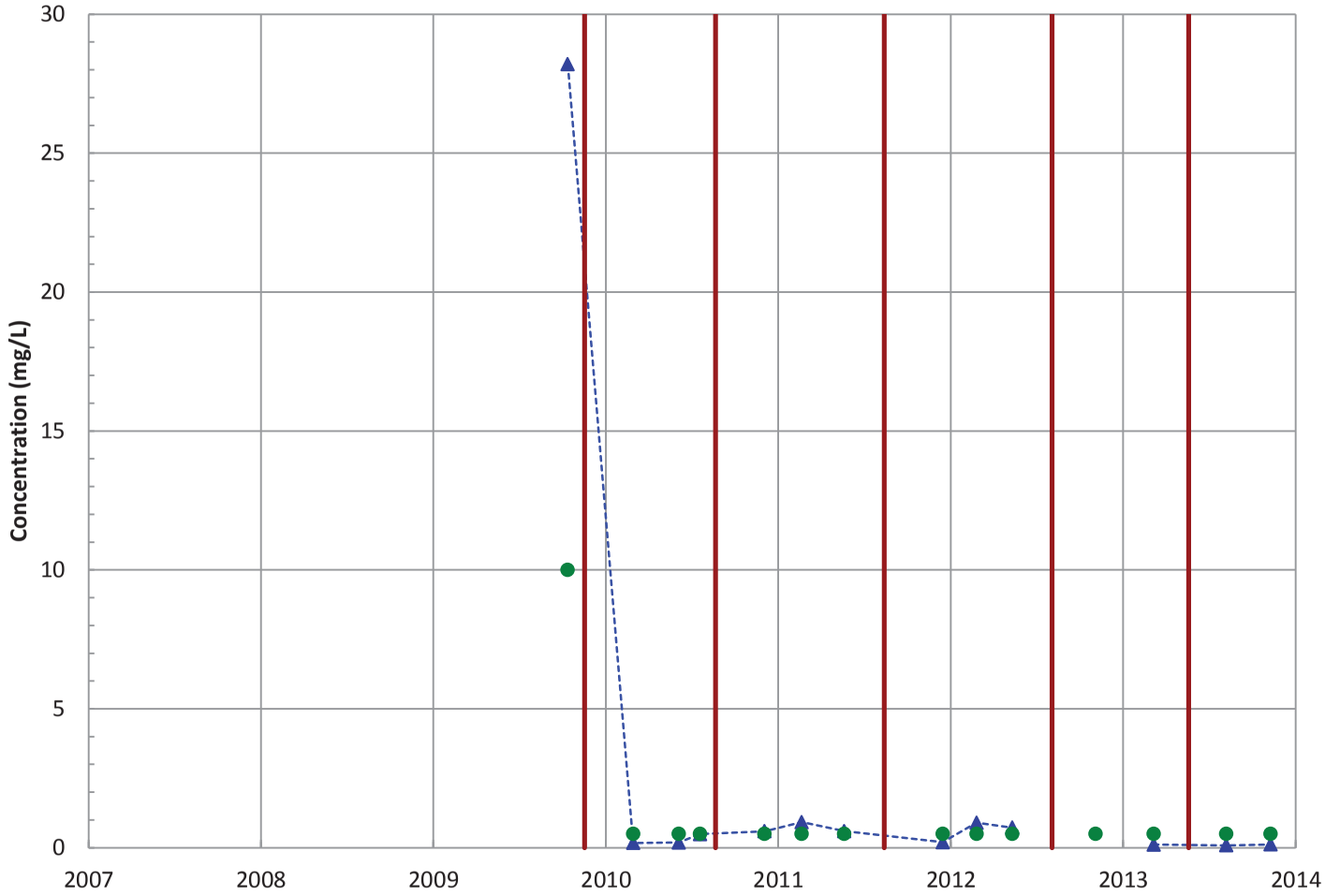
- Measured Value
- Sample Detection Limit
- Concentration Trend
- Groundwater Protection Standard
- Injection Dates

Well Location

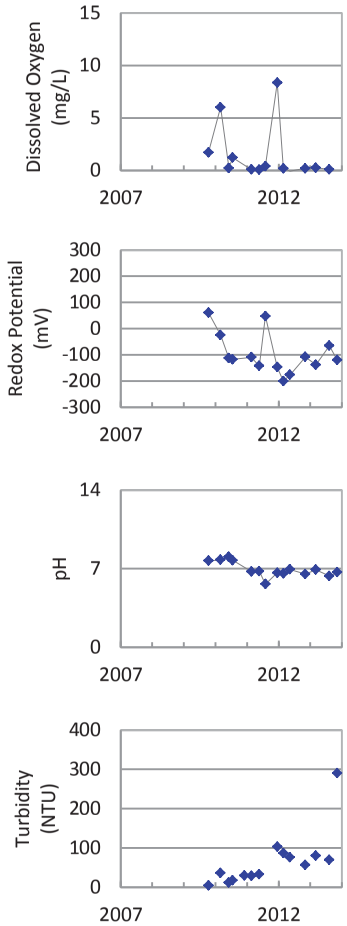


Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/14/2009 to 11/14/2013
Analysis Date: 3/21/2014

PTX06-ISB085A
Sulfate (as SO4) Trend in Perched Aquifer



Field Parameters



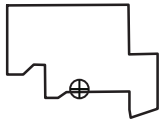
Concentration Trend

MAROS Mann-Kendall Method
All Data: Decreasing
Last 4 Samples: Decreasing

MAROS Linear Regression Method
All Data: Decreasing
Last 4 Samples: Probably Decreasing

Measured Value
Sample Detection Limit
Concentration Trend
Injection Dates

Well Location



Query Date Range: 1/1/1992 to 12/31/2013
Data Date Range: 10/14/2009 to 11/14/2013
Analysis Date: 3/21/2014

Ogallala Aquifer Well Concentration Trends

Appendix E
Water Level Expected Conditions and Well Hydrographs

Perched Aquifer
Water Level Expected Conditions Evaluation
and Hydrographs

Perched Water Level Trending Results Vs. Expected Conditions

Indicator Area	Well ID	LTM Objectives	Progress Report Metrics	WL Expected Condition - LTM Design	Historic WL Trend	Recent WL Trend
Burning Ground	PTX01-1001	UM	Trend/Compare to GWPS			
Burning Ground	PTX01-1002	UM	Compare to GWPS			
Burning Ground	PTX01-1004	PS	Dry	Remain dry	Dry	Dry
Burning Ground	PTX01-1008	UM	Compare to GWPS			
Burning Ground	PTX01-1009	PS	Dry	Remain dry	Dry	Dry
Miscellaneous	PTX04-1001	UM	Trend/Compare to GWPS			
Miscellaneous	PTX04-1002	UM	Trend/Compare to GWPS			
Miscellaneous	PTX06-1049	PS, UM	Compare to GWPS			
Miscellaneous	PTX06-1055	PS	Dry	Remain dry	Dry	Dry
Miscellaneous	PTX06-1071	UM	Compare to GWPS			
Miscellaneous	PTX06-1080	UM	Compare to GWPS			
Miscellaneous	PTX06-1081	UM	Trend/Compare to GWPS			
Miscellaneous	PTX06-1082	UM	Compare to GWPS			
Miscellaneous	PTX06-1083	UM	Trend/Compare to GWPS			
Miscellaneous	PTX06-1085	UM	Compare to GWPS			
Miscellaneous	PTX06-1086	UM	Compare to GWPS			
Miscellaneous	PTX06-1096A	PS, UM	Dry	Remain dry	Dry	Dry
Miscellaneous	PTX06-1097	PS, UM	Dry	Remain dry	Dry	Dry
Miscellaneous	PTX06-1131	UM	Compare to GWPS			
Miscellaneous	PTX07-1Q01	UM	Compare to GWPS			
Miscellaneous	PTX07-1Q02	UM	Compare to GWPS			
Miscellaneous	PTX07-1Q03	UM	Compare to GWPS			
Miscellaneous	PTX07-1R03	UM	Compare to GWPS			
Miscellaneous	PTX08-1010	UM	Trend/Compare to GWPS			
North	PTX07-1O01	PS, UM, RAE	Trend/Compare to GWPS			
North	PTX07-1O02	PS, UM, RAE	Trend/Compare to GWPS			
North	PTX07-1O03	PS, UM, RAE	Trend/Compare to GWPS			
North	PTX07-1O06	PS, UM, RAE	Trend/Compare to GWPS			
North	OW-WR-38	UM, RAE	Water Level, Trend/Compare to GWPS	Decreasing water levels	Decreasing	Decreasing
North	PTX06-1048A	PS, RAE	Trend/Compare to GWPS			
North	PTX06-1050	UM, RAE	Water Level, Trend/Compare to GWPS	Decreasing water levels	Decreasing	Decreasing
North	PTX06-1136	PS	Trend/Compare to GWPS			
Southeast	PTX06-1002A	UM, RAE	Water Level, Trend/Compare to GWPS	Decreasing water levels	Decreasing	Decreasing
Southeast	PTX06-1003	UM, RAE	Water Level, Trend/Compare to GWPS	Decreasing water levels	Decreasing	Decreasing
Southeast	PTX06-1005	UM, RAE	Water Level, Trend/Compare to GWPS	Decreasing water levels	Decreasing	Decreasing
Southeast	PTX06-1010	UM	Trend/Compare to GWPS			

Perched Water Level Trending Results Vs. Expected Conditions

Indicator Area	Well ID	LTM Objectives	Progress Report Metrics	WL Expected Condition - LTM Design	Historic WL Trend	Recent WL Trend
Southeast	PTX06-1014	RAE	Water Level, Trend/Compare to GWPS	Decreasing water levels	Decreasing	Decreasing
Southeast	PTX06-1015	RAE	Water Level, Trend/Compare to GWPS	Decreasing water levels	No Trend	Decreasing
Southeast	PTX06-1023	RAE	Water Level, Trend/Compare to GWPS	Decreasing water levels	Decreasing	Decreasing
Southeast	PTX06-1030	RAE	Trend/Compare to GWPS			
Southeast	PTX06-1031	RAE	Trend/Compare to GWPS			
Southeast	PTX06-1034	RAE	Trend/Compare to GWPS			
Southeast	PTX06-1036	PS	Trend/Compare to GWPS			
Southeast	PTX06-1037	RAE	Trend/Compare to GWPS			
Southeast	PTX06-1038	RAE	Water Level, Trend/Compare to GWPS	Decreasing water levels	Decreasing	Decreasing
Southeast	PTX06-1039A	RAE	Water Level, Trend/Compare to GWPS	Decreasing water levels	Decreasing	Decreasing
Southeast	PTX06-1040	RAE	Water Level, Trend/Compare to GWPS	Decreasing water levels	Decreasing	Decreasing
Southeast	PTX06-1041	RAE	Water Level, Trend/Compare to GWPS	Decreasing water levels	Decreasing	Decreasing
Southeast	PTX06-1042	RAE	Water Level, Trend/Compare to GWPS	Decreasing water levels	Decreasing	Decreasing
Southeast	PTX06-1045	RAE	Trend/Compare to GWPS			
Southeast	PTX06-1046	RAE	Water Level, Trend/Compare to GWPS	Decreasing water levels	No Trend	Decreasing
Southeast	PTX06-1047A	RAE	Water Level, Trend/Compare to GWPS	Decreasing water levels	No Trend	Decreasing
Southeast	PTX06-1051	PS	Dry	Remain dry	Dry	Dry
Southeast	PTX06-1052	RAE	Water Level, Trend/Compare to GWPS	Decreasing water levels	Decreasing	Decreasing
Southeast	PTX06-1069	PS	Trend/Compare to GWPS			
Southeast	PTX06-1088	UM, RAE	Water Level, Trend/Compare to GWPS	Decreasing water levels	Decreasing	Decreasing
Southeast	PTX06-1089	PS	Dry	Remain dry	Dry*	Dry*
Southeast	PTX06-1090	PS	Dry	Remain dry	Dry	Dry
Southeast	PTX06-1091	PS	Dry	Remain dry	Dry	Dry
Southeast	PTX06-1093	PS	Dry	Remain dry	Dry	Dry
Southeast	PTX06-1094	PS	Dry	Remain dry	Dry	Dry
Southeast	PTX06-1095A	UM, RAE	Water Level, Trend/Compare to GWPS	Decreasing water levels	Decreasing	Decreasing
Southeast	PTX06-1098	RAE	Water Level, Trend/Compare to GWPS		Decreasing	No Trend
Southeast	PTX06-1100	RAE	Water Level, Trend/Compare to GWPS		Decreasing	No Trend
Southeast	PTX06-1101	RAE	Water Level, Trend/Compare to GWPS		Decreasing	No Trend
Southeast	PTX06-1102	RAE	Water Level, Trend/Compare to GWPS	Decreasing water levels	Decreasing	Decreasing
Southeast	PTX06-1103	RAE	Water Level, Trend/Compare to GWPS			
Southeast	PTX06-1118	RAE	Trend/Compare to GWPS			
Southeast	PTX06-1119	PS	Dry	Remain dry	Dry	Dry
Southeast	PTX06-1120	PS	Water Level, Trend/Compare to GWPS	Decreasing water levels*	Decreasing	Decreasing
Southeast	PTX06-1121	PS	Water Level, Trend/Compare to GWPS	Decreasing water levels*	Decreasing	Decreasing
Southeast	PTX06-1122	PS	Dry	Remain dry	Dry	Dry

Perched Water Level Trending Results Vs. Expected Conditions

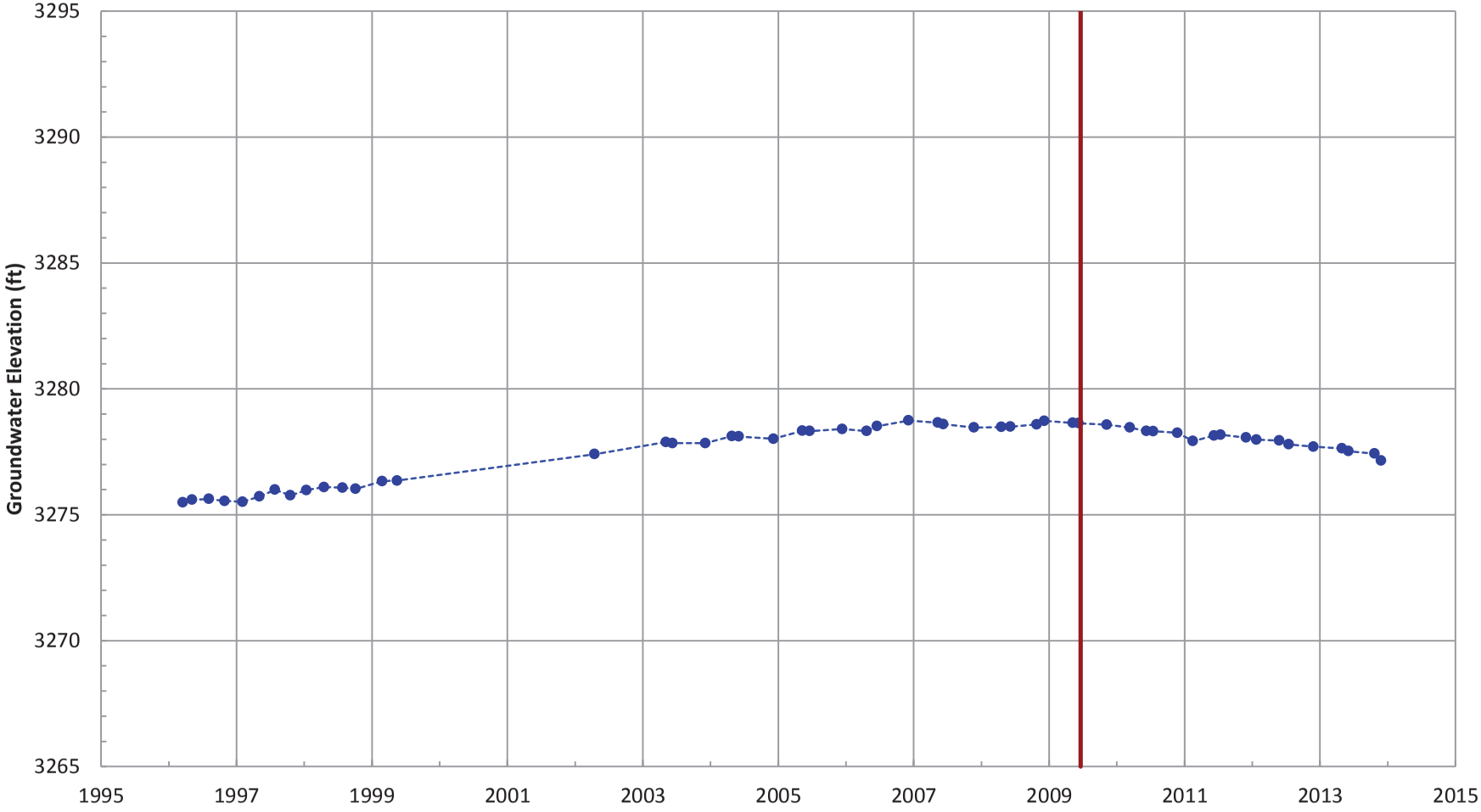
Indicator Area	Well ID	LTM Objectives	Progress Report Metrics	WL Expected Condition - LTM Design	Historic WL Trend	Recent WL Trend
Southeast	PTX06-1123	RAE	Trend/Compare to GWPS			
Southeast	PTX06-1124	PS	Dry	Remain dry	Dry	Dry
Southeast	PTX06-1125	PS	Dry	Remain dry	Dry	Dry
Southeast	PTX06-1130	RAE	Water Level, Trend/Compare to GWPS	Decreasing water levels	Decreasing	Decreasing
Southeast	PTX06-1133	PS	Dry	Remain dry	Not Dry	Not Dry
Southeast	PTX06-1135	PS	Trend/Compare to GWPS			
Southeast	PTX06-1146	PS	Trend/Compare to GWPS			
Southeast	PTX06-1147	PS	Trend/Compare to GWPS			
Southeast	PTX06-1153	RAE	Trend/Compare to GWPS			
Southeast	PTX06-1154	RAE	Trend/Compare to GWPS			
Southeast	PTX08-1002	UM, RAE	Water Level, Trend/Compare to GWPS	Decreasing water levels	Decreasing	Decreasing
Southeast	PTX08-1009	UM, RAE	Water Level, Trend/Compare to GWPS	Decreasing water levels	Decreasing	Decreasing
Southeast	PTX06-1013	RAE	Water Level, Trend/Compare to GWPS	Decreasing water levels	No Trend	Decreasing
Southeast, Zone 11	PTX06-1008	UM	Trend/Compare to GWPS			
Southeast, Zone 11	PTX06-1011	UM	Trend/Compare to GWPS			
Southeast, Zone 11	PTX06-1053	PS, UM	Trend/Compare to GWPS			
Southeast, Zone 11	PTX08-1007	UM	Trend/Compare to GWPS			
Southeast, Zone 11	PTX08-1008	UM, RAE	Water Level, Trend/Compare to GWPS	Decreasing water levels	No Trend	Decreasing
Southeast, Zone 11	PTX10-1014	UM	Trend/Compare to GWPS			
Zone 11	1114-MW4	UM	Trend/Compare to GWPS			
Zone 11	PTX06-1006	PS	Trend/Compare to GWPS			
Zone 11	PTX06-1007	UM	Trend/Compare to GWPS			
Zone 11	PTX06-1012	PS, RAE	Trend/Compare to GWPS			
Zone 11	PTX06-1035	PS	Trend/Compare to GWPS			
Zone 11	PTX06-1073A	PS	Dry	Remain dry	Increasing	Decreasing
Zone 11	PTX06-1077A	UM	Trend/Compare to GWPS			
Zone 11	PTX06-1126	PS, UM	Trend/Compare to GWPS			
Zone 11	PTX06-1127	PS, UM	Trend/Compare to GWPS			
Zone 11	PTX06-1134	PS	Trend/Compare to GWPS			
Zone 11	PTX06-1148	PS, RAE	Trend/Compare to GWPS			
Zone 11	PTX06-1149	PS	Trend/Compare to GWPS			
Zone 11	PTX06-1150	PS, RAE	Trend/Compare to GWPS			
Zone 11	PTX06-1151	PS	Trend/Compare to GWPS			
Zone 11	PTX06-1155	RAE	Trend/Compare to GWPS			
Zone 11	PTX06-1156	RAE	Trend/Compare to GWPS			
Zone 11	PTX07-1P02	UM	Trend/Compare to GWPS			

Perched Water Level Trending Results Vs. Expected Conditions

Indicator Area	Well ID	LTM Objectives	Progress Report Metrics	WL Expected Condition - LTM Design	Historic WL Trend	Recent WL Trend
Zone 11	PTX07-1P05	UM	Trend/Compare to GWPS			
Zone 11	PTX08-1001	UM, RAE	Water Level, Trend/Compare to GWPS	Decreasing water levels	Decreasing	Decreasing
Zone 11	PTX08-1003	PS	Trend/Compare to GWPS			
Zone 11	PTX08-1005	UM	Trend/Compare to GWPS			
Zone 11	PTX08-1006	UM	Trend/Compare to GWPS			

UM = Uncertainty management
PS = Plume stability
RAE = Response action effectiveness

1114-MW4
Hydrograph in Perched Aquifer



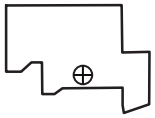
Notes:
1. The top of screen elevation is 3280.32 ft msl.
2. The bottom of screen elevation is 3260.32 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

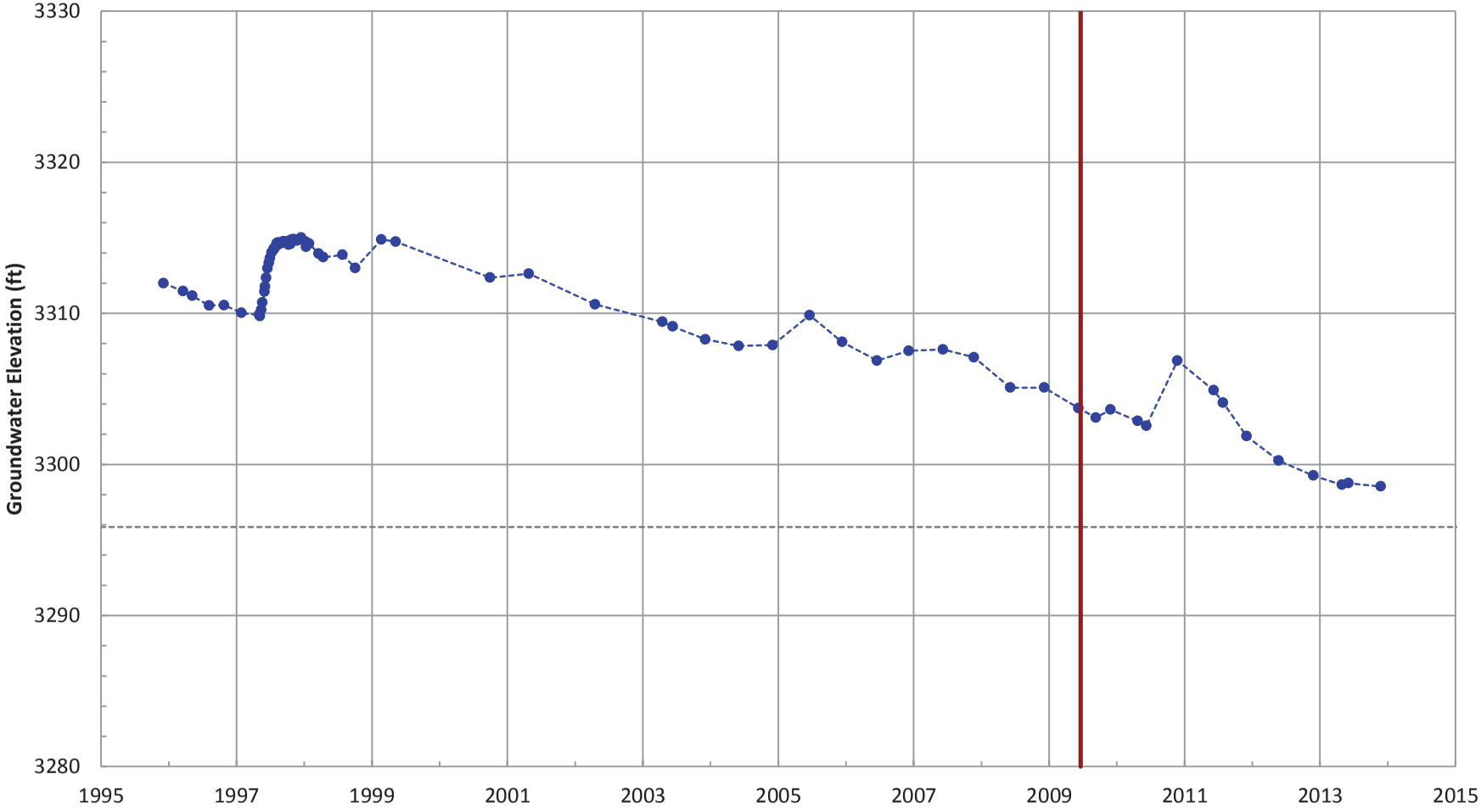
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Increasing at 0.15 ft/yr
2012 - 2014 Data: Decreasing at 0.66 ft/yr

OW-WR-38
Hydrograph in Perched Aquifer

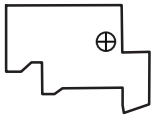


Notes:
1. The top of screen elevation is 3310.86 ft msl.
2. The bottom of screen elevation is 3295.86 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

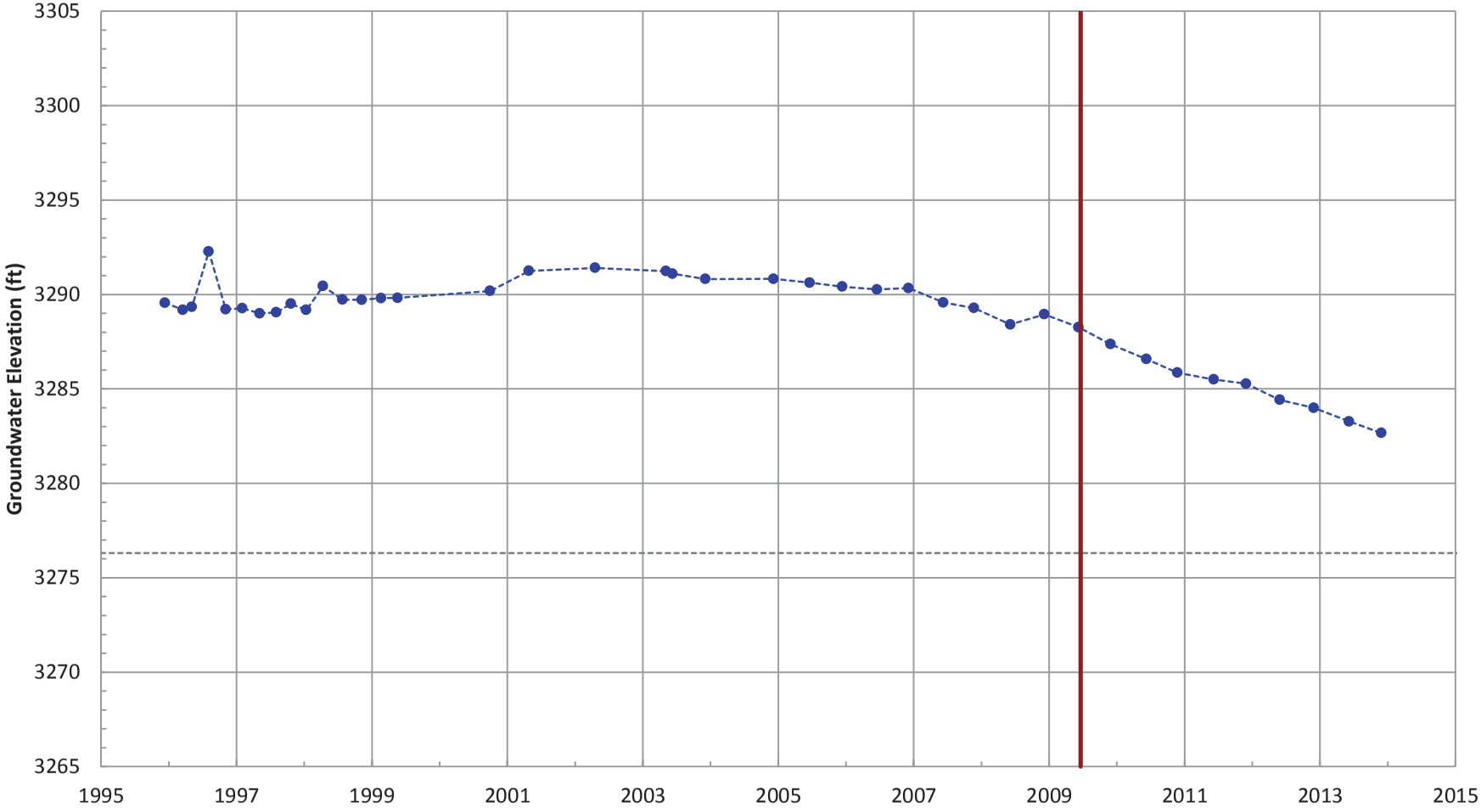
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.78 ft/yr
2012 - 2014 Data: Decreasing at 0.28 ft/yr

OW-WR-45
Hydrograph in Perched Aquifer

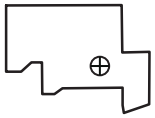


Notes:
1. The top of screen elevation is 3296.31 ft msl.
2. The bottom of screen elevation is 3276.31 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

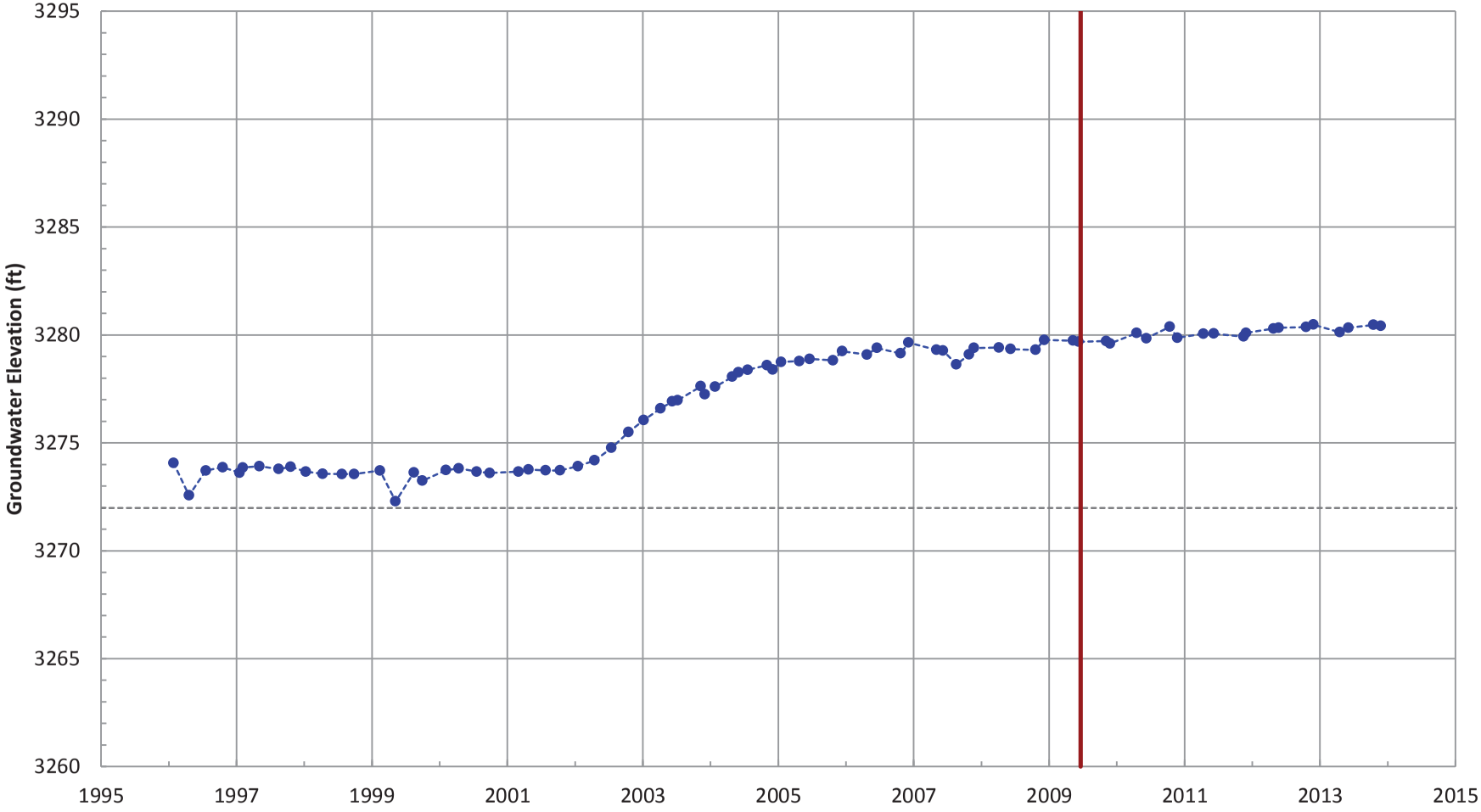
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.28 ft/yr
2012 - 2014 Data: N/A (<3 Measurements)

PTX01-1001
Hydrograph in Perched Aquifer

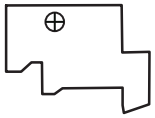


Notes:
1. The top of screen elevation is 3286.99 ft msl.
2. The bottom of screen elevation is 3271.99 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

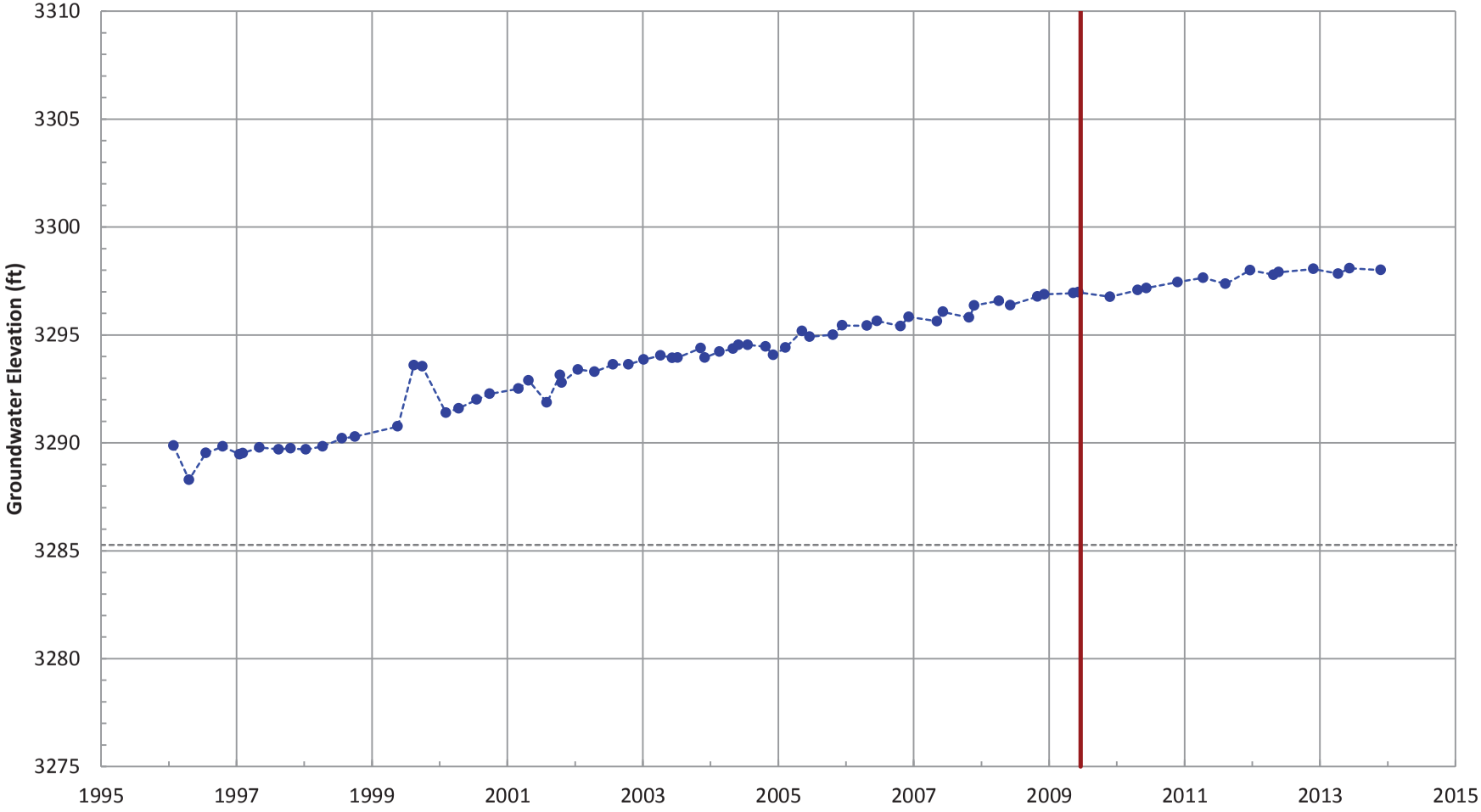
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Increasing at 0.50 ft/yr
2012 - 2014 Data: Increasing at 0.45 ft/yr

PTX01-1002
Hydrograph in Perched Aquifer

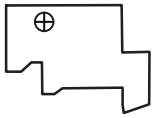


Notes:
1. The top of screen elevation is 3300.27 ft msl.
2. The bottom of screen elevation is 3285.27 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

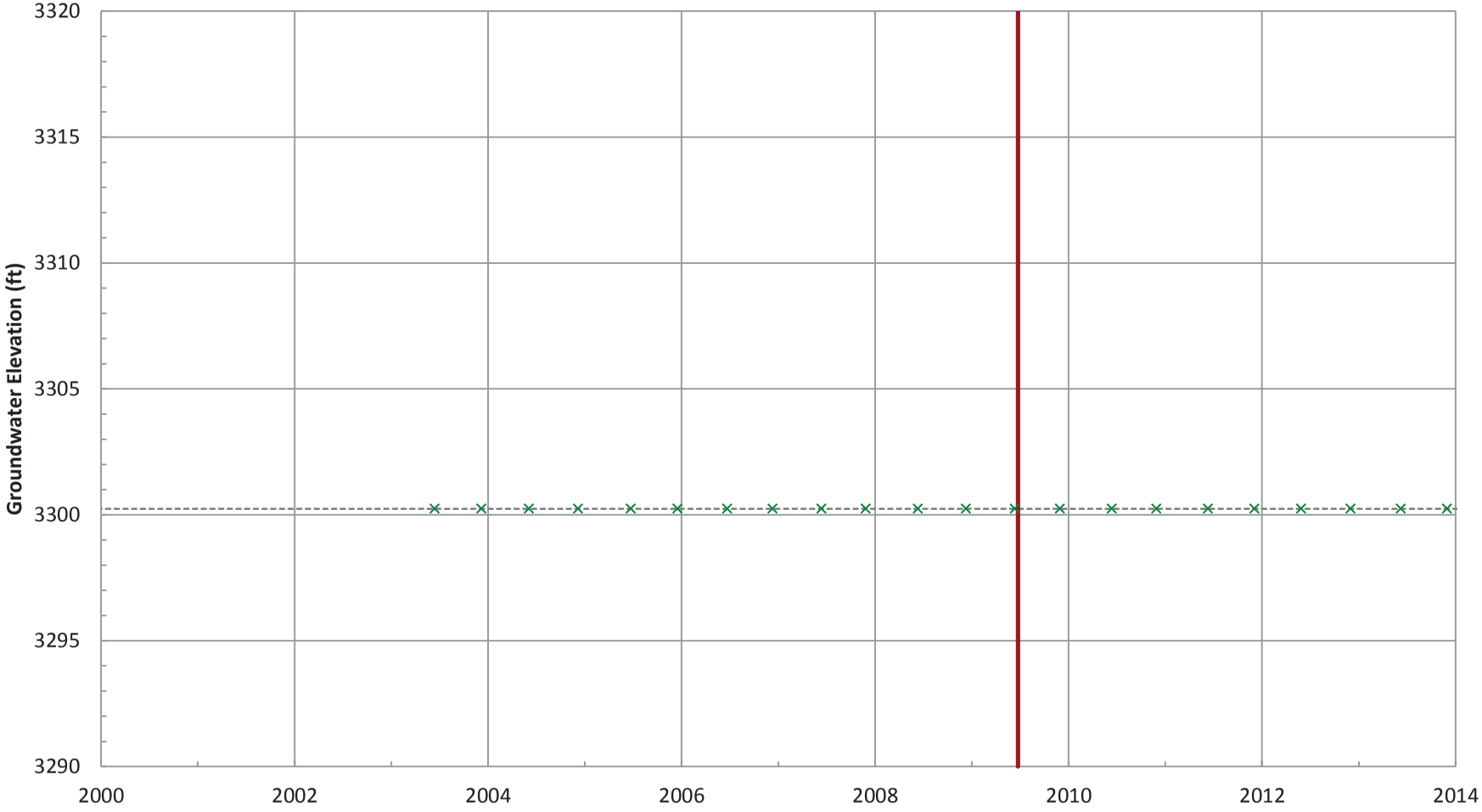
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Increasing at 0.53 ft/yr
2012 - 2014 Data: Increasing at 0.18 ft/yr

PTX01-1004
Hydrograph in Perched Aquifer

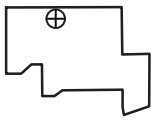


Notes:
1. The top of screen elevation is 3320.24 ft msl.
2. The bottom of screen elevation is 3300.24 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

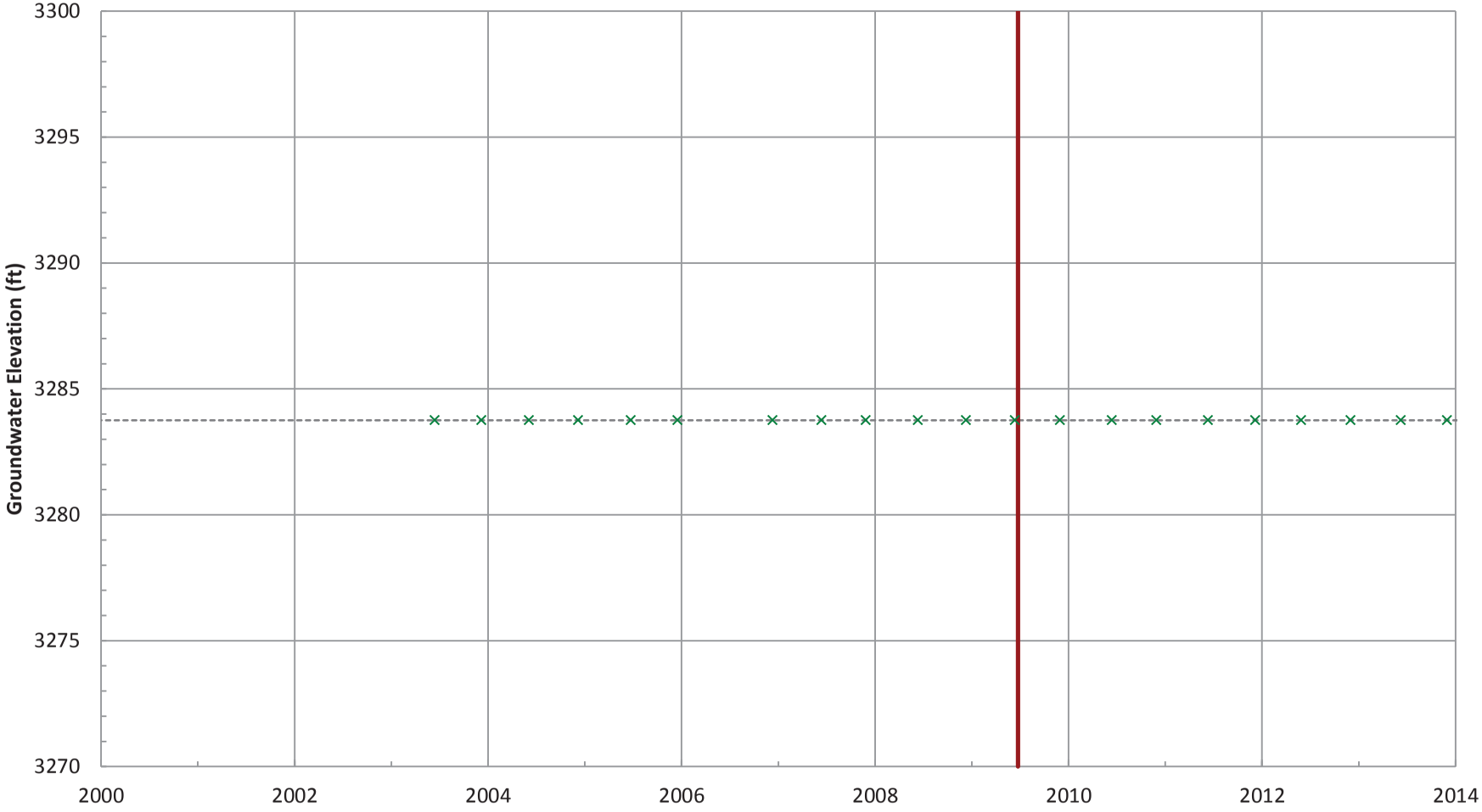
Groundwater Elevation
Bottom of Screen Elevation
No Water Detected
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: N/A (No Measurements)
2012 - 2014 Data: N/A (No Measurements)

PTX01-1006
Hydrograph in Perched Aquifer

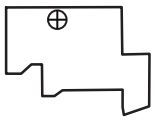


Notes:
1. The top of screen elevation is 3313.76 ft msl.
2. The bottom of screen elevation is 3283.76 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

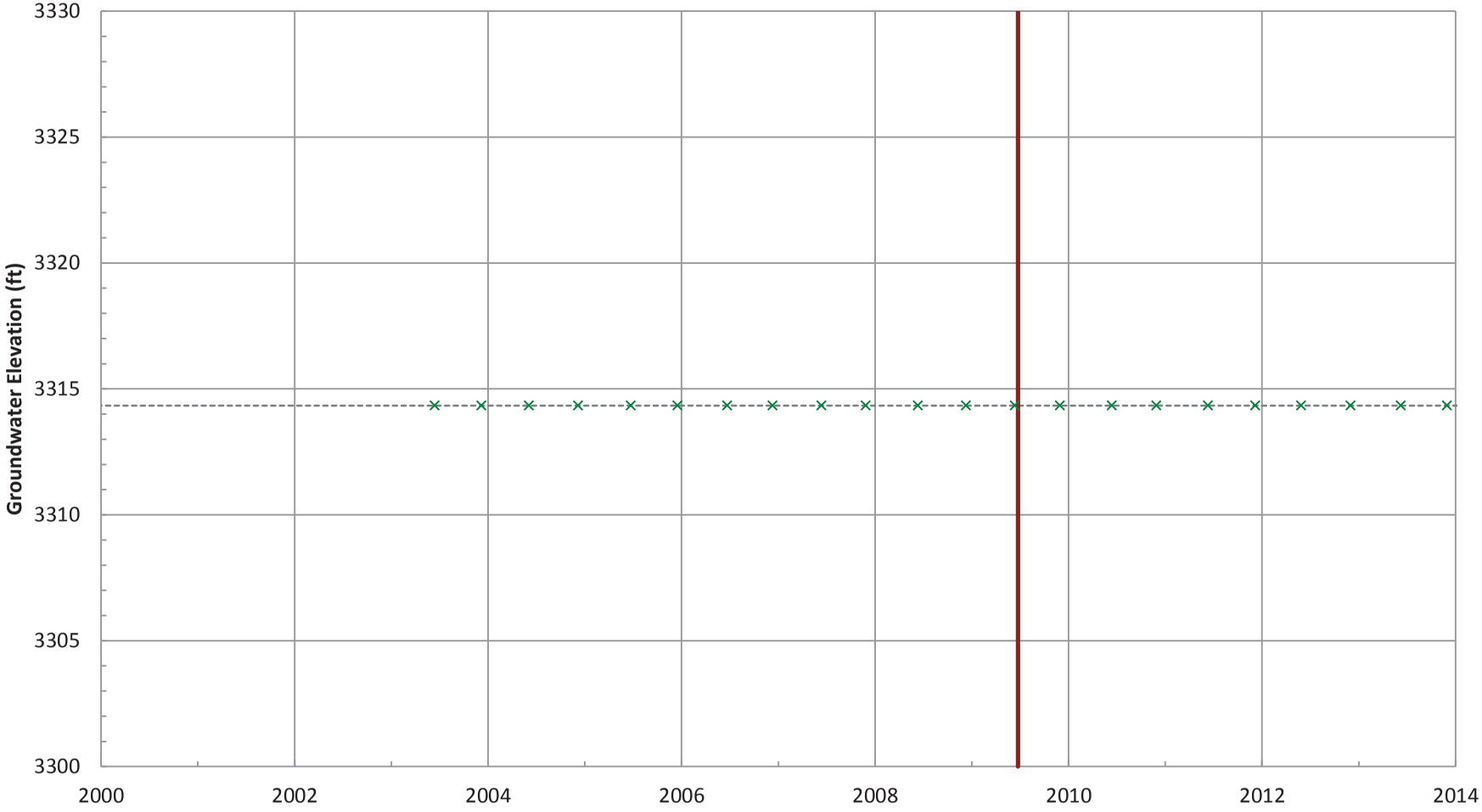
Groundwater Elevation
Bottom of Screen Elevation
No Water Detected
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: N/A (No Measurements)
2012 - 2014 Data: N/A (No Measurements)

PTX01-1007
Hydrograph in Perched Aquifer

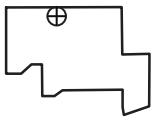


Notes:
1. The top of screen elevation is 3334.34 ft msl.
2. The bottom of screen elevation is 3314.34 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

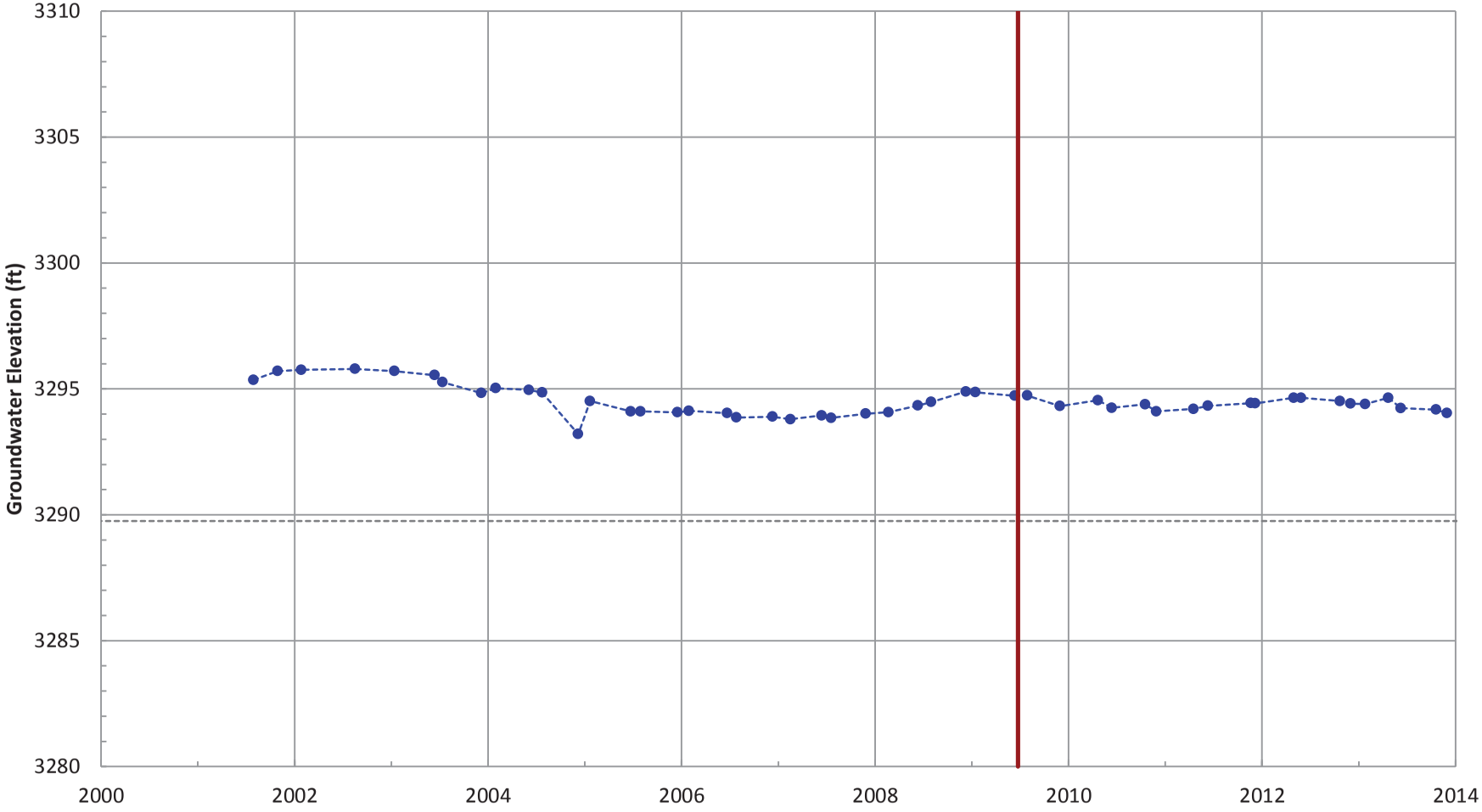
Groundwater Elevation
Bottom of Screen Elevation
No Water Detected
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: N/A (No Measurements)
2012 - 2014 Data: N/A (No Measurements)

PTX01-1008
Hydrograph in Perched Aquifer

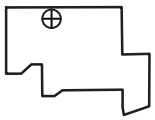


Notes:
1. The top of screen elevation is 3309.75 ft msl.
2. The bottom of screen elevation is 3289.75 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

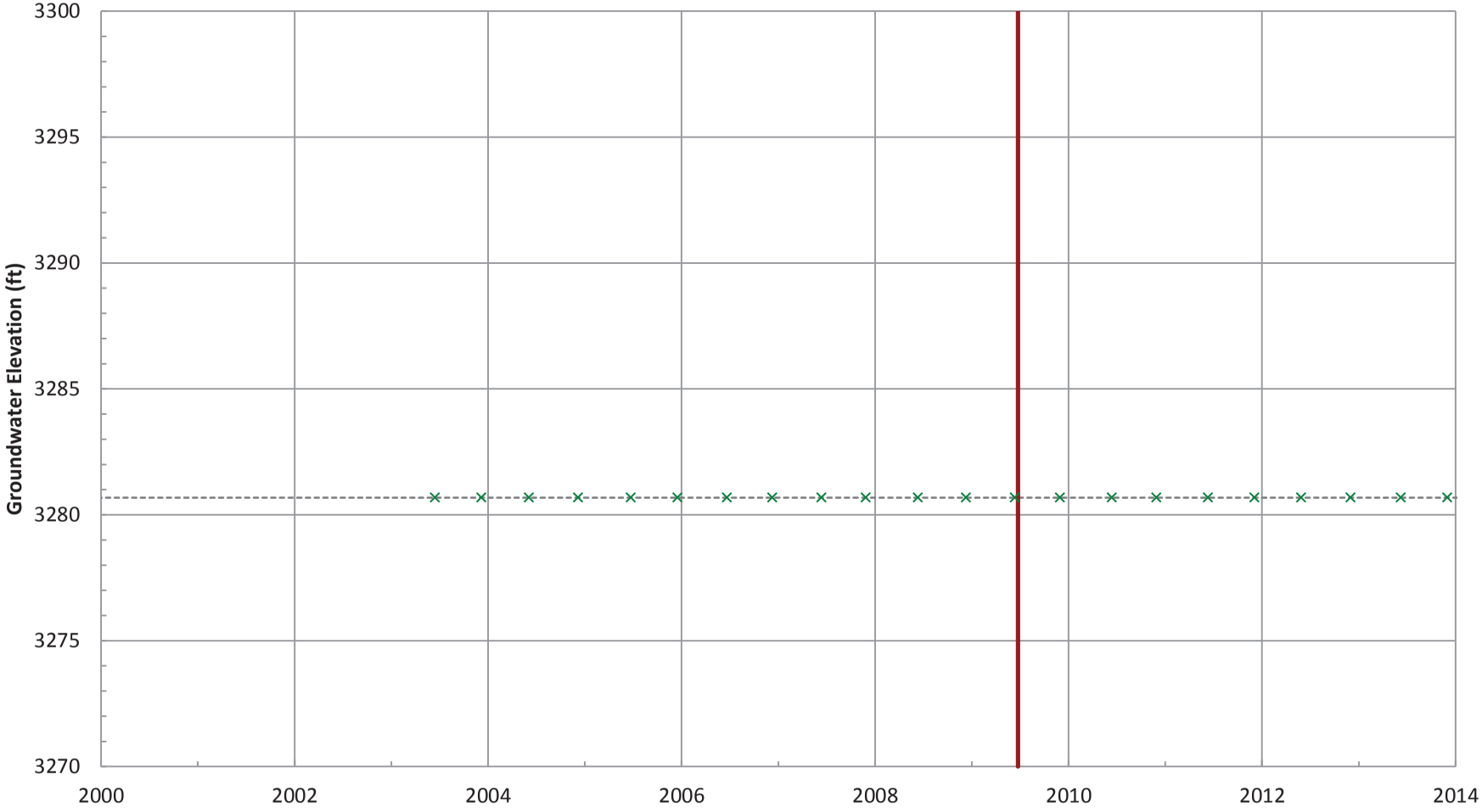
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: No Trend
2012 - 2014 Data: Decreasing at 0.51 ft/yr

PTX01-1009
Hydrograph in Perched Aquifer

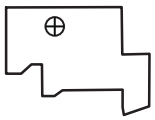


Notes:
1. The top of screen elevation is 3300.68 ft msl.
2. The bottom of screen elevation is 3280.68 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

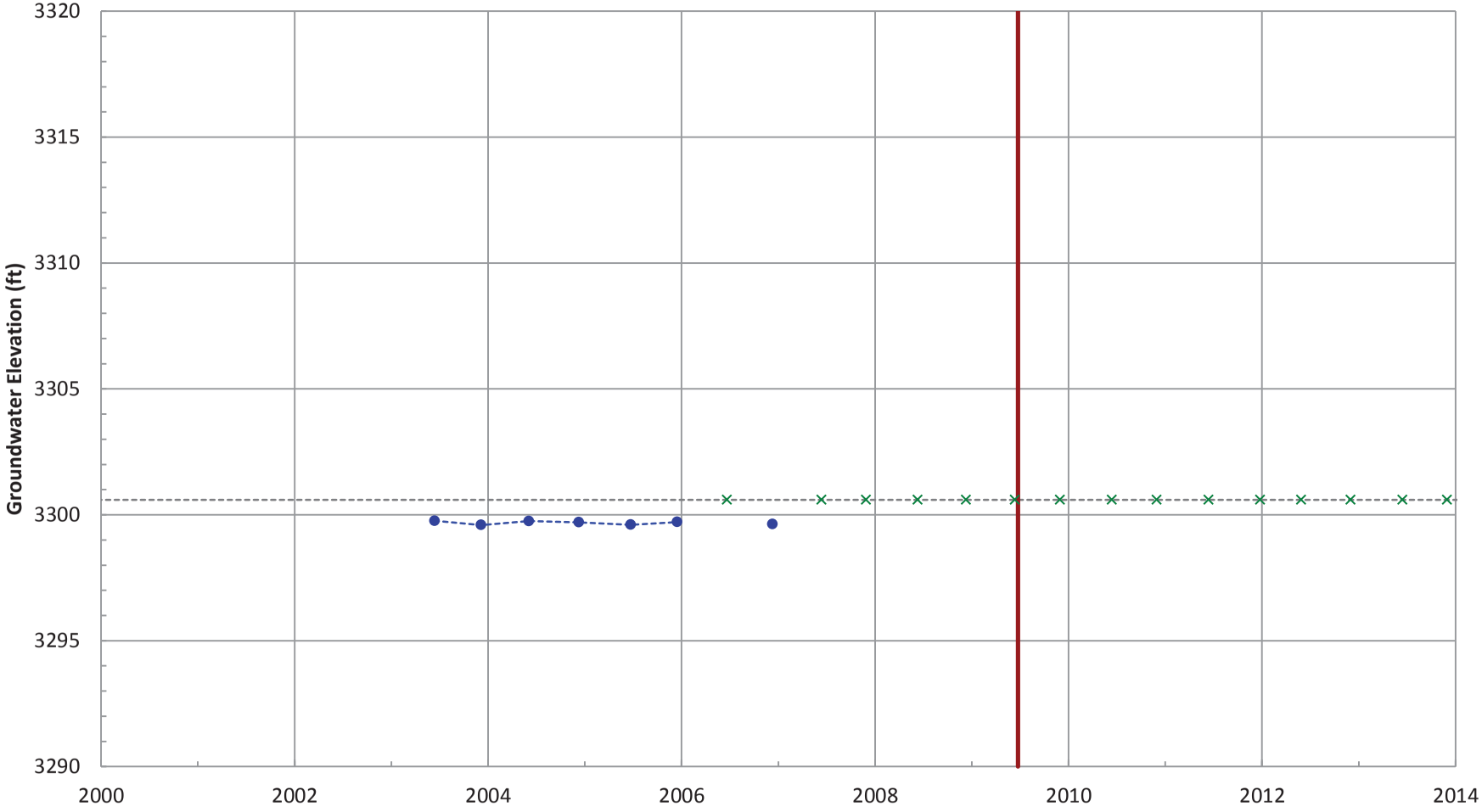
Groundwater Elevation
Bottom of Screen Elevation
No Water Detected
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: N/A (No Measurements)
2012 - 2014 Data: N/A (No Measurements)

PTX01-1014A
Hydrograph in Perched Aquifer

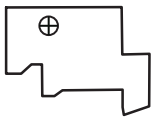


Notes:
1. The top of screen elevation is 3325.6 ft msl.
2. The bottom of screen elevation is 3300.6 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

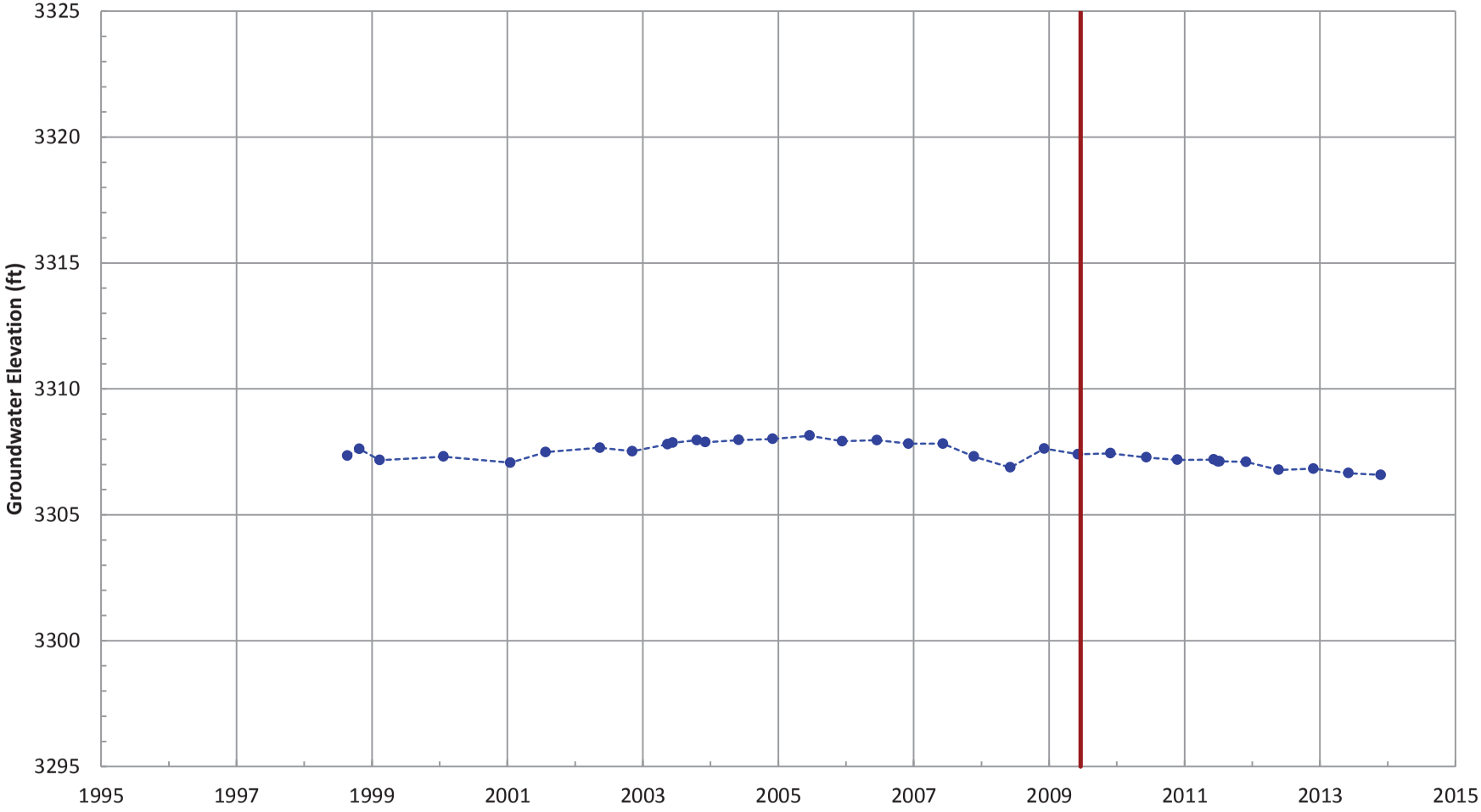
Groundwater Elevation
Bottom of Screen Elevation
No Water Detected
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: No Trend
2012 - 2014 Data: N/A (No Measurements)

PTX04-1001
Hydrograph in Perched Aquifer



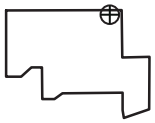
Notes:
1. The top of screen elevation is 3307.77 ft msl.
2. The bottom of screen elevation is 3289.07 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

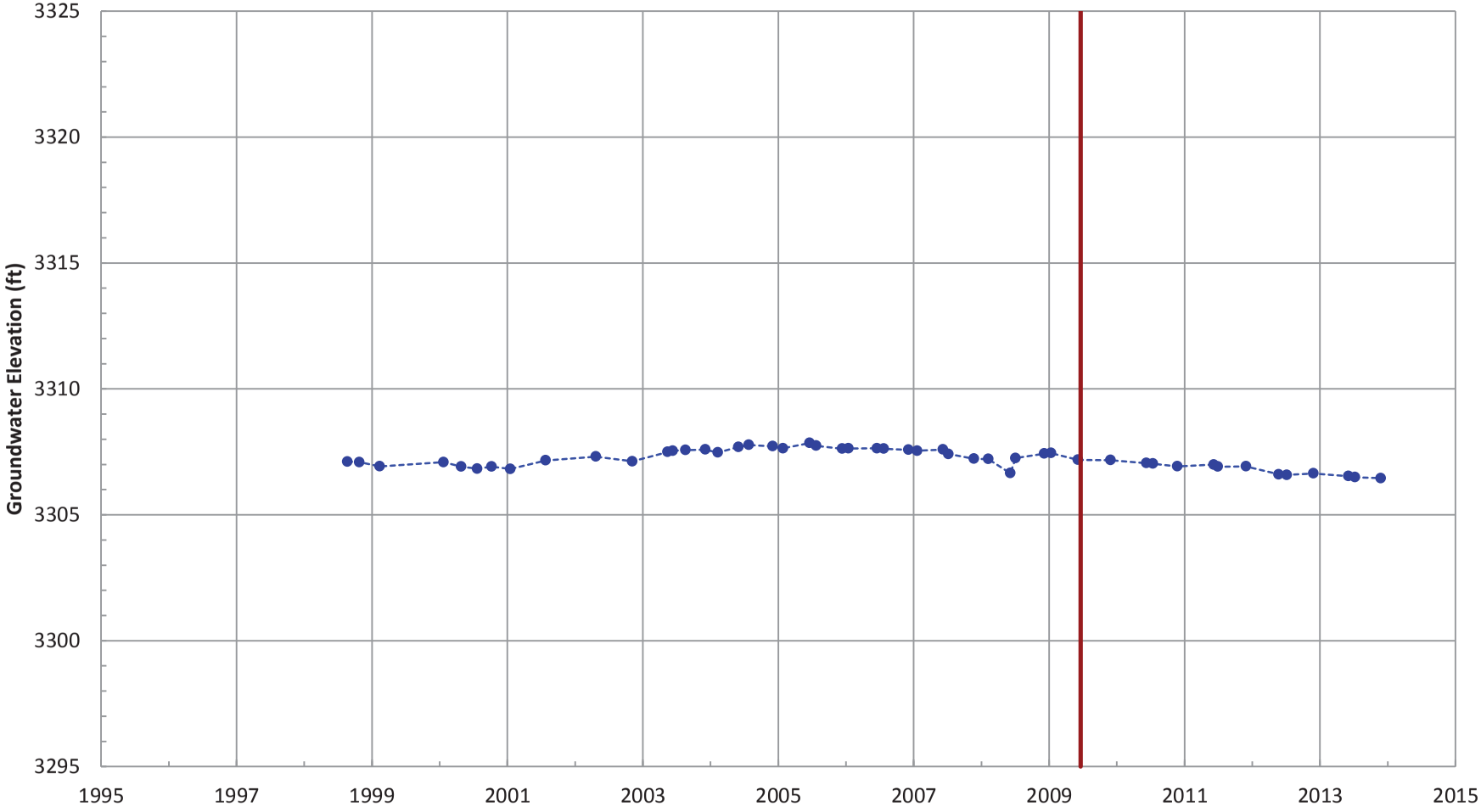
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: No Trend
2012 - 2014 Data: N/A (<3 Measurements)

PTX04-1002
Hydrograph in Perched Aquifer



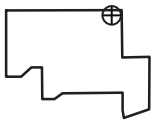
Notes:
1. The top of screen elevation is 3312.63 ft msl.
2. The bottom of screen elevation is 3288.83 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

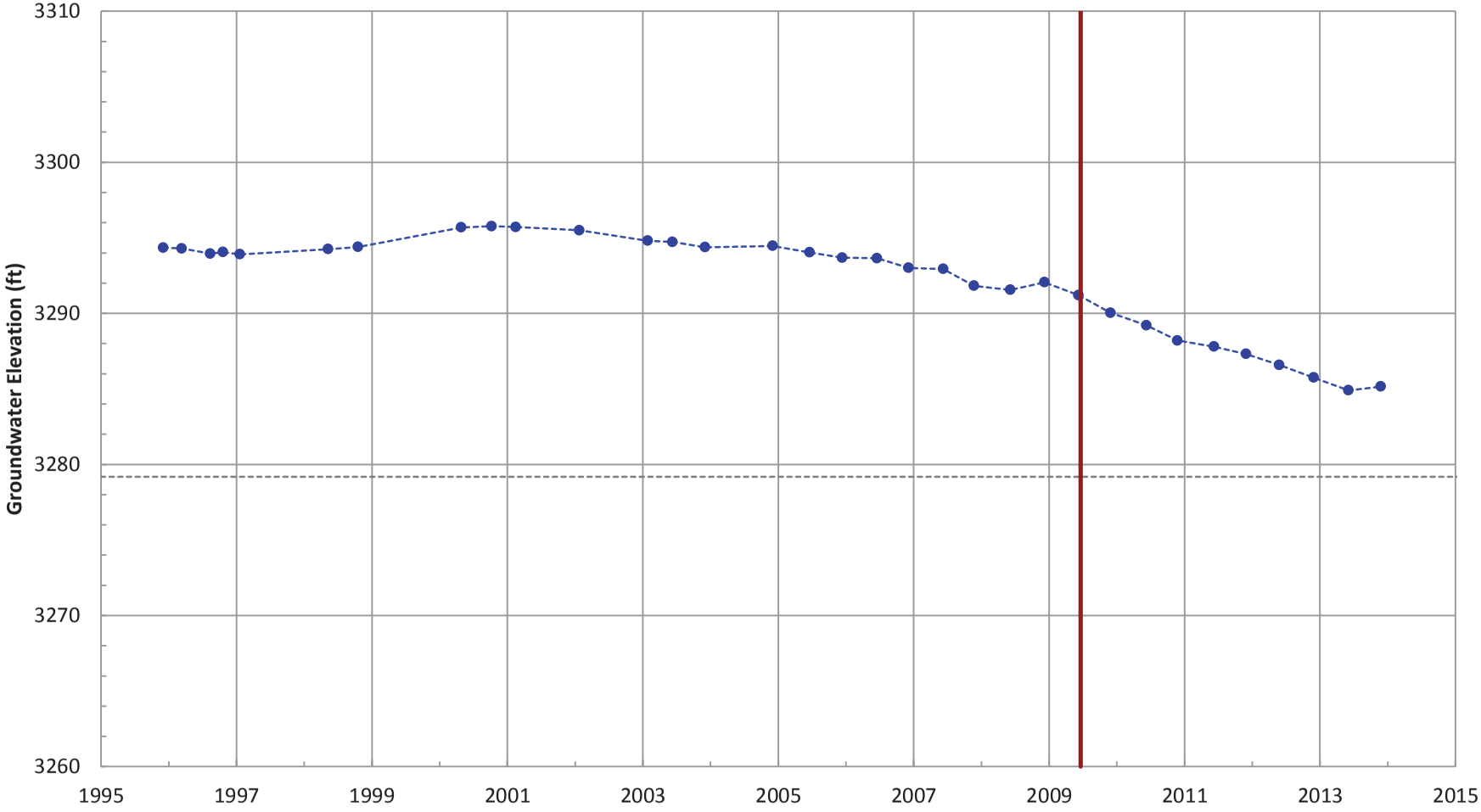
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: No Trend
2012 - 2014 Data: Decreasing at 0.15 ft/yr

PTX06-1001A
Hydrograph in Perched Aquifer

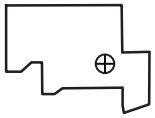


Notes:
1. The top of screen elevation is 3304.19 ft msl.
2. The bottom of screen elevation is 3279.19 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

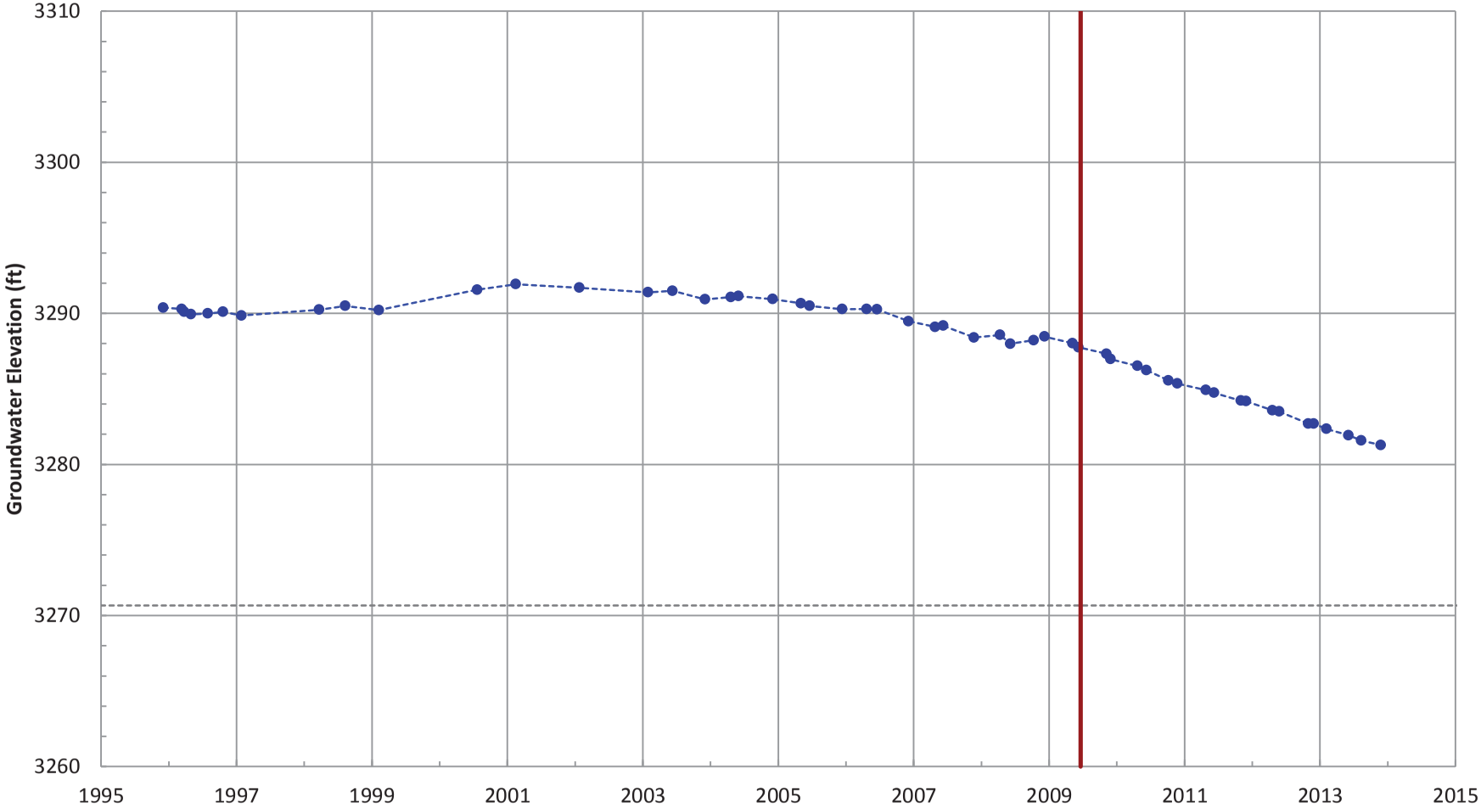
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.49 ft/yr
2012 - 2014 Data: N/A (<3 Measurements)

PTX06-1002A
Hydrograph in Perched Aquifer

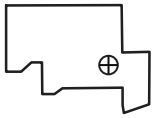


Notes:
1. The top of screen elevation is 3300.17 ft msl.
2. The bottom of screen elevation is 3270.67 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

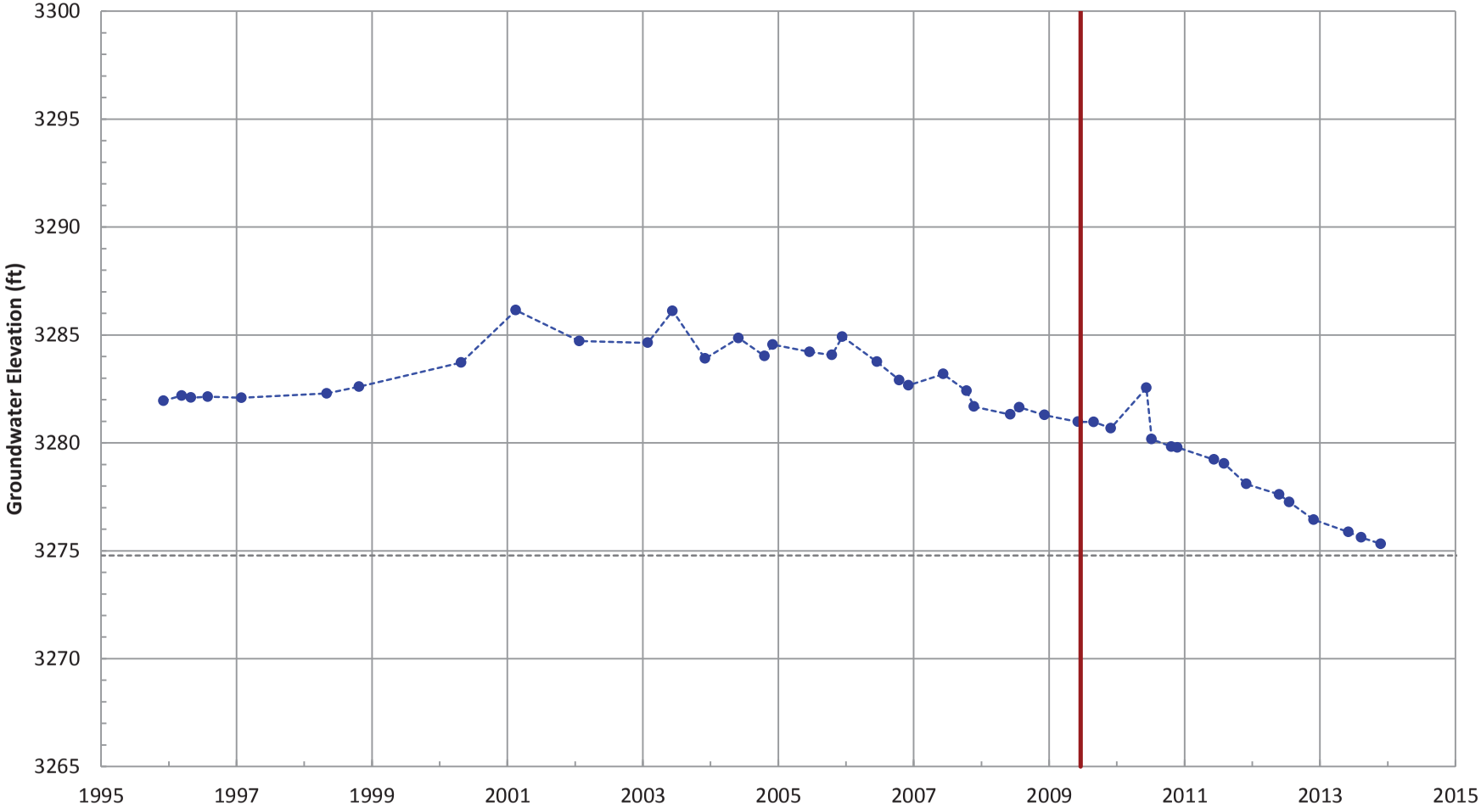
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.45 ft/yr
2012 - 2014 Data: Decreasing at 1.35 ft/yr

PTX06-1003
Hydrograph in Perched Aquifer

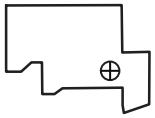


Notes:
1. The top of screen elevation is 3294.78 ft msl.
2. The bottom of screen elevation is 3274.78 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

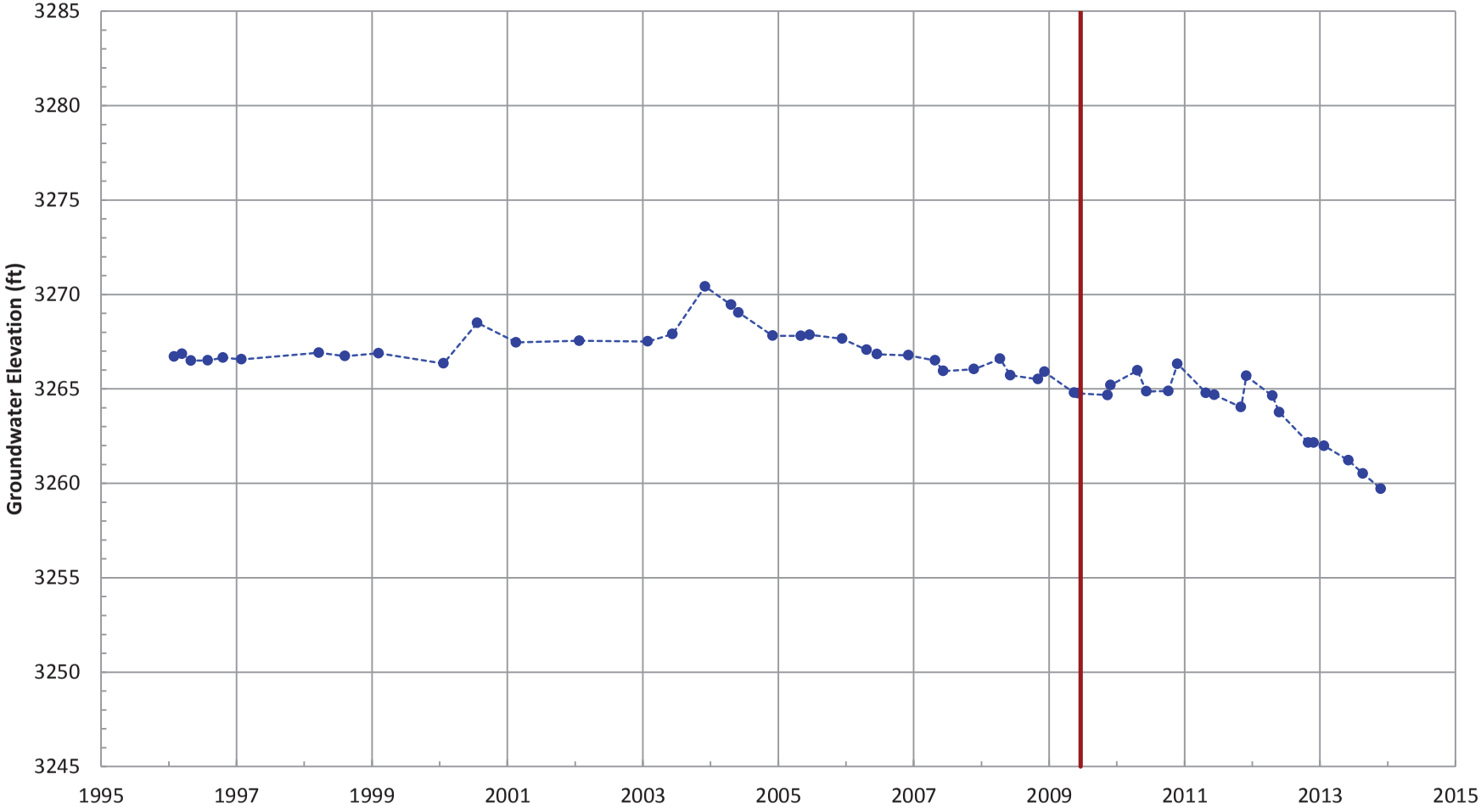
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.34 ft/yr
2012 - 2014 Data: Decreasing at 1.14 ft/yr

PTX06-1005
Hydrograph in Perched Aquifer



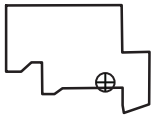
Notes:
1. The top of screen elevation is 3274.81 ft msl.
2. The bottom of screen elevation is 3244.81 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

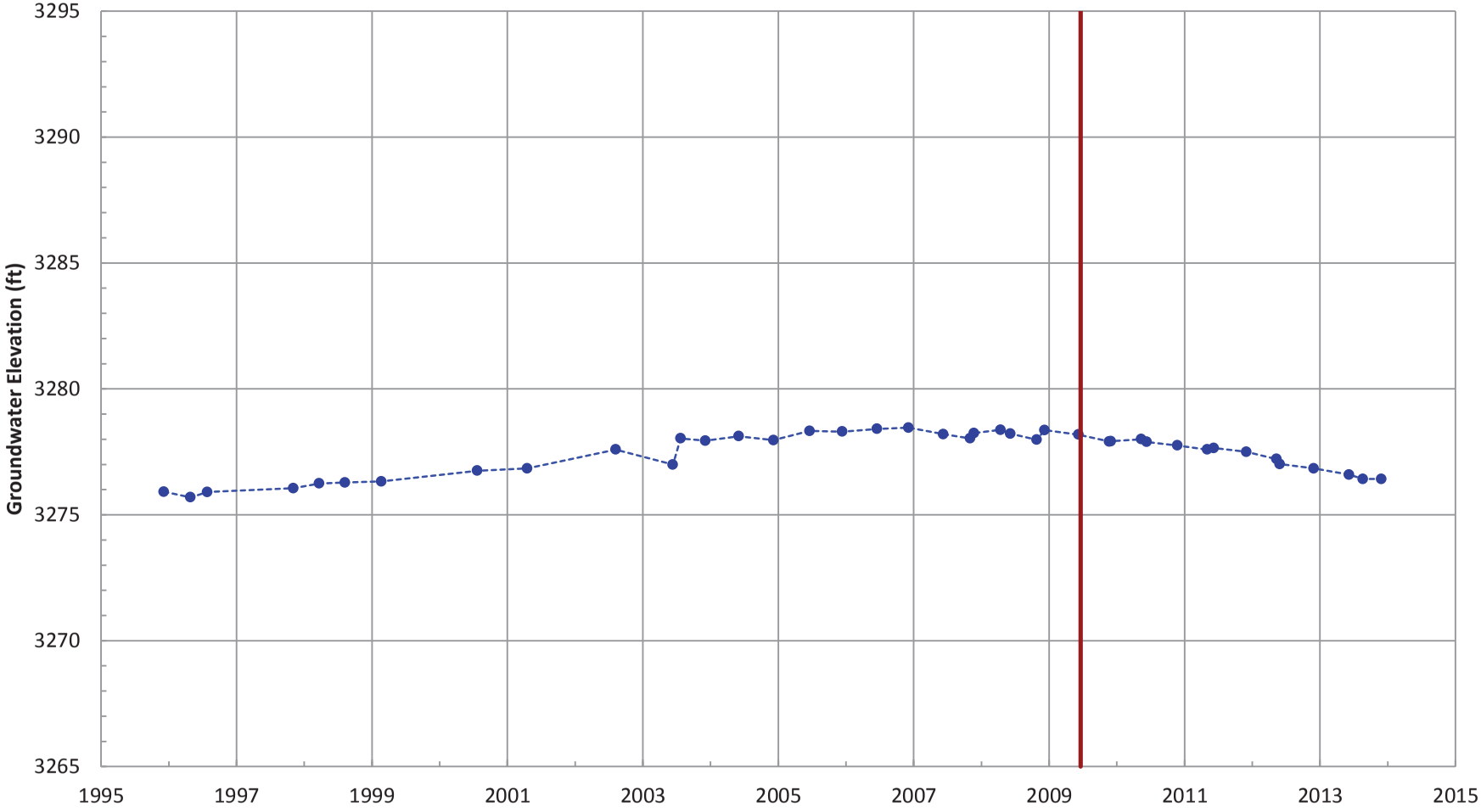
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.26 ft/yr
2012 - 2014 Data: Decreasing at 2.72 ft/yr

PTX06-1006
Hydrograph in Perched Aquifer



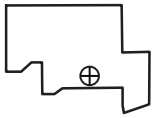
Notes:
1. The top of screen elevation is 3282.54 ft msl.
2. The bottom of screen elevation is 3252.54 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

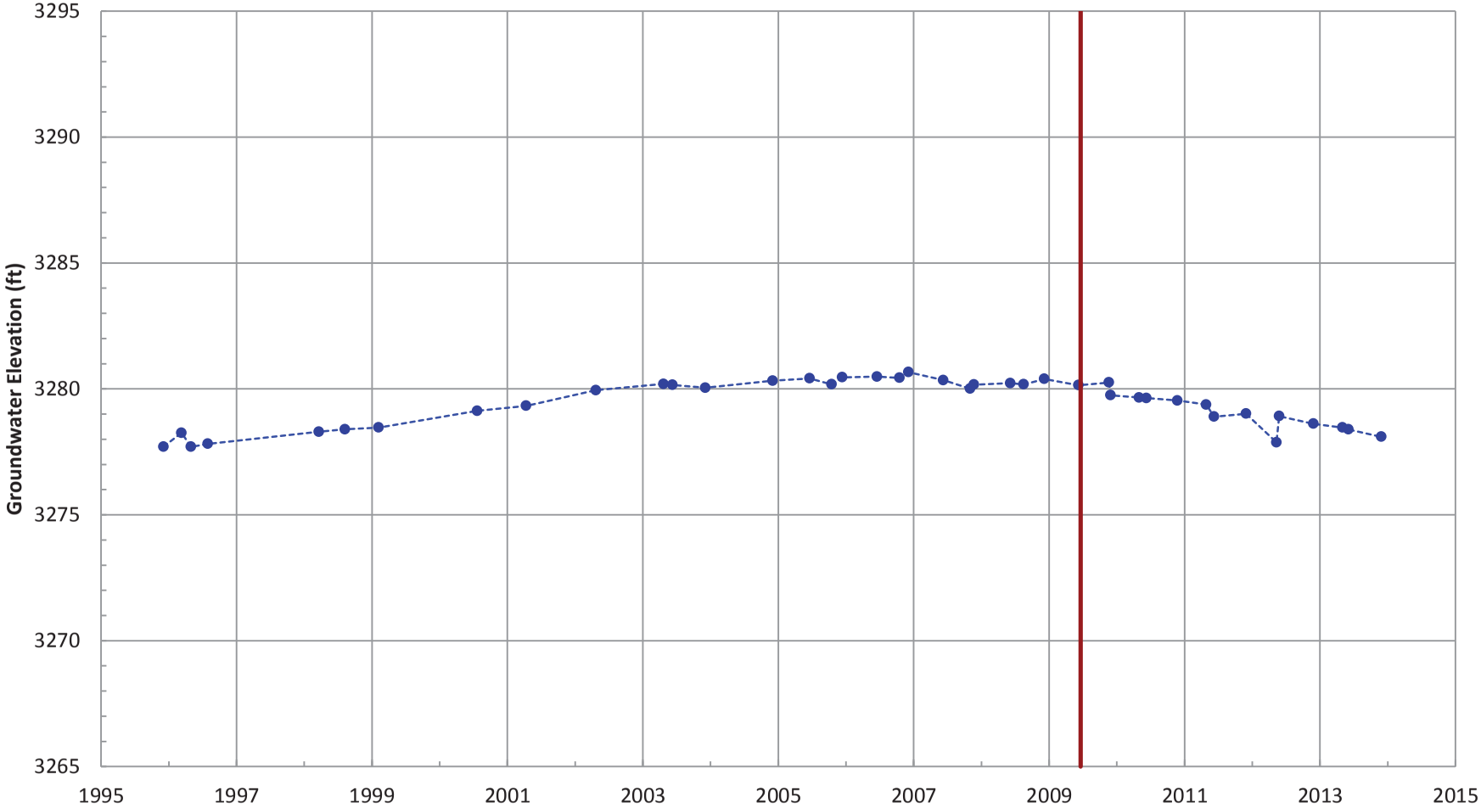
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: No Trend
2012 - 2014 Data: Decreasing at 0.34 ft/yr

PTX06-1007
Hydrograph in Perched Aquifer



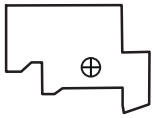
Notes:
1. The top of screen elevation is 3286.53 ft msl.
2. The bottom of screen elevation is 3256.53 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

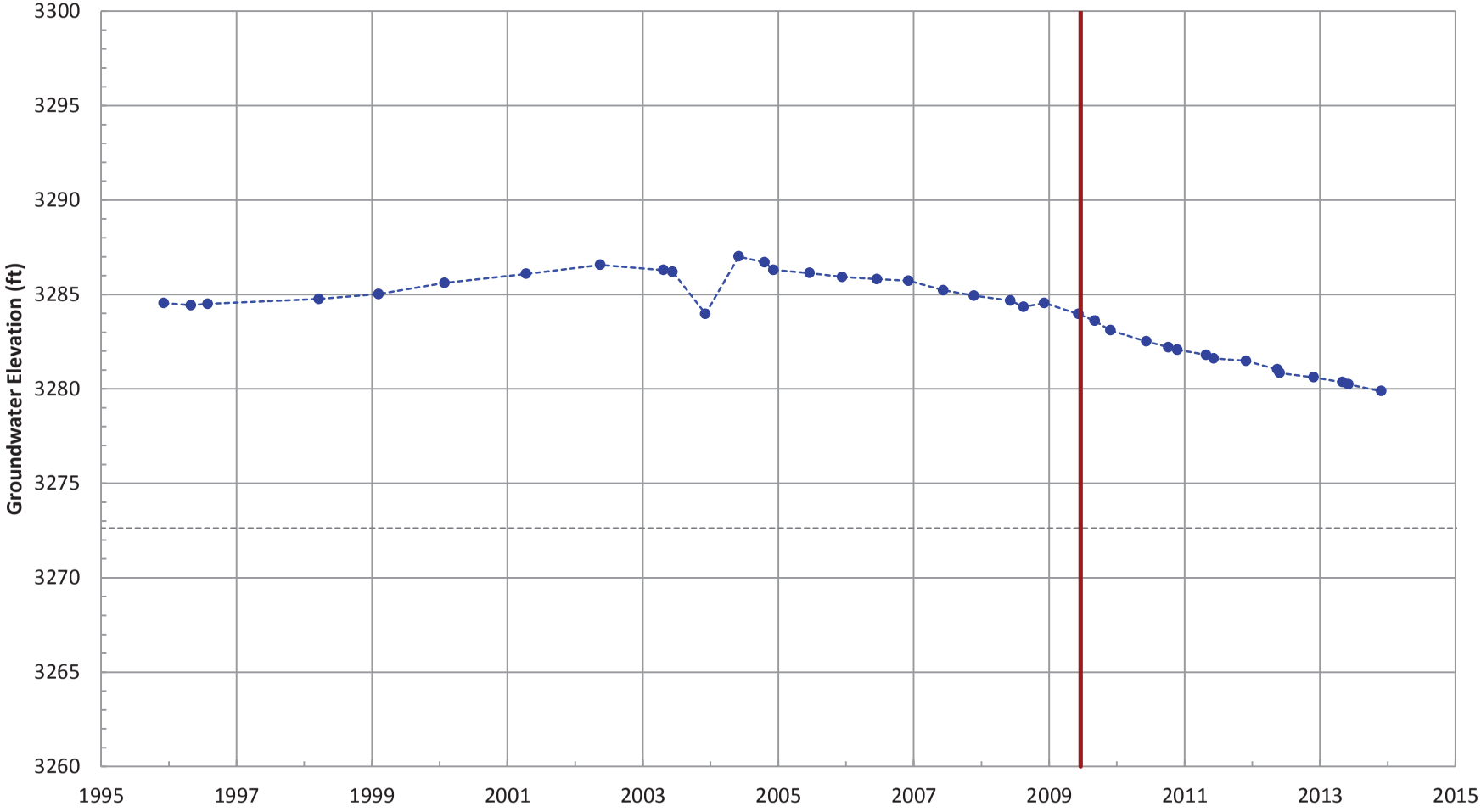
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: No Trend
2012 - 2014 Data: Decreasing at 0.63 ft/yr

PTX06-1008
Hydrograph in Perched Aquifer

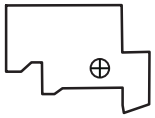


Notes:
1. The top of screen elevation is 3297.61 ft msl.
2. The bottom of screen elevation is 3272.61 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

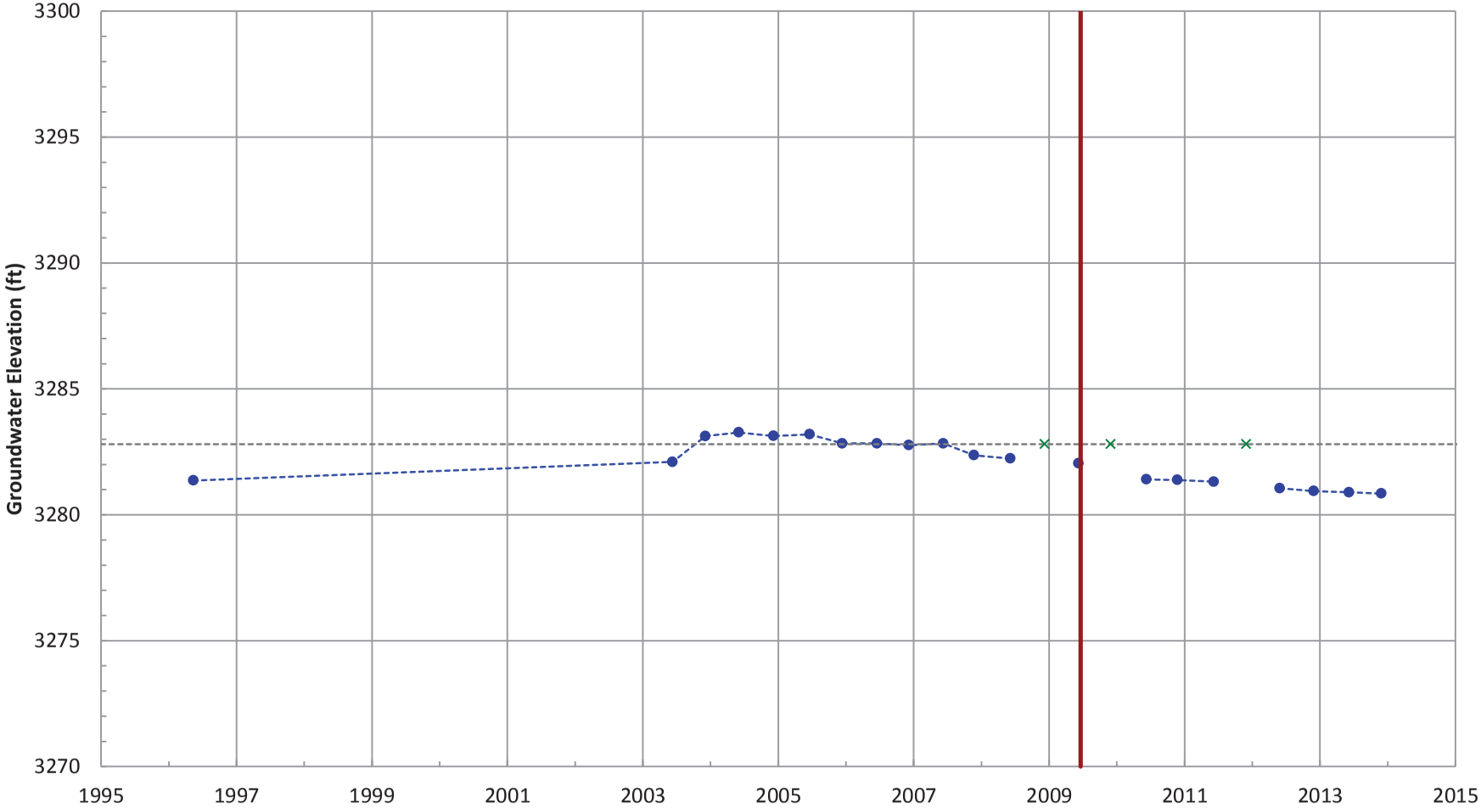
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.29 ft/yr
2012 - 2014 Data: Decreasing at 0.79 ft/yr

PTX06-1009
Hydrograph in Perched Aquifer

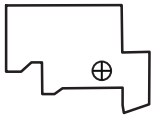


Notes:
1. The top of screen elevation is 3312.81 ft msl.
2. The bottom of screen elevation is 3282.81 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

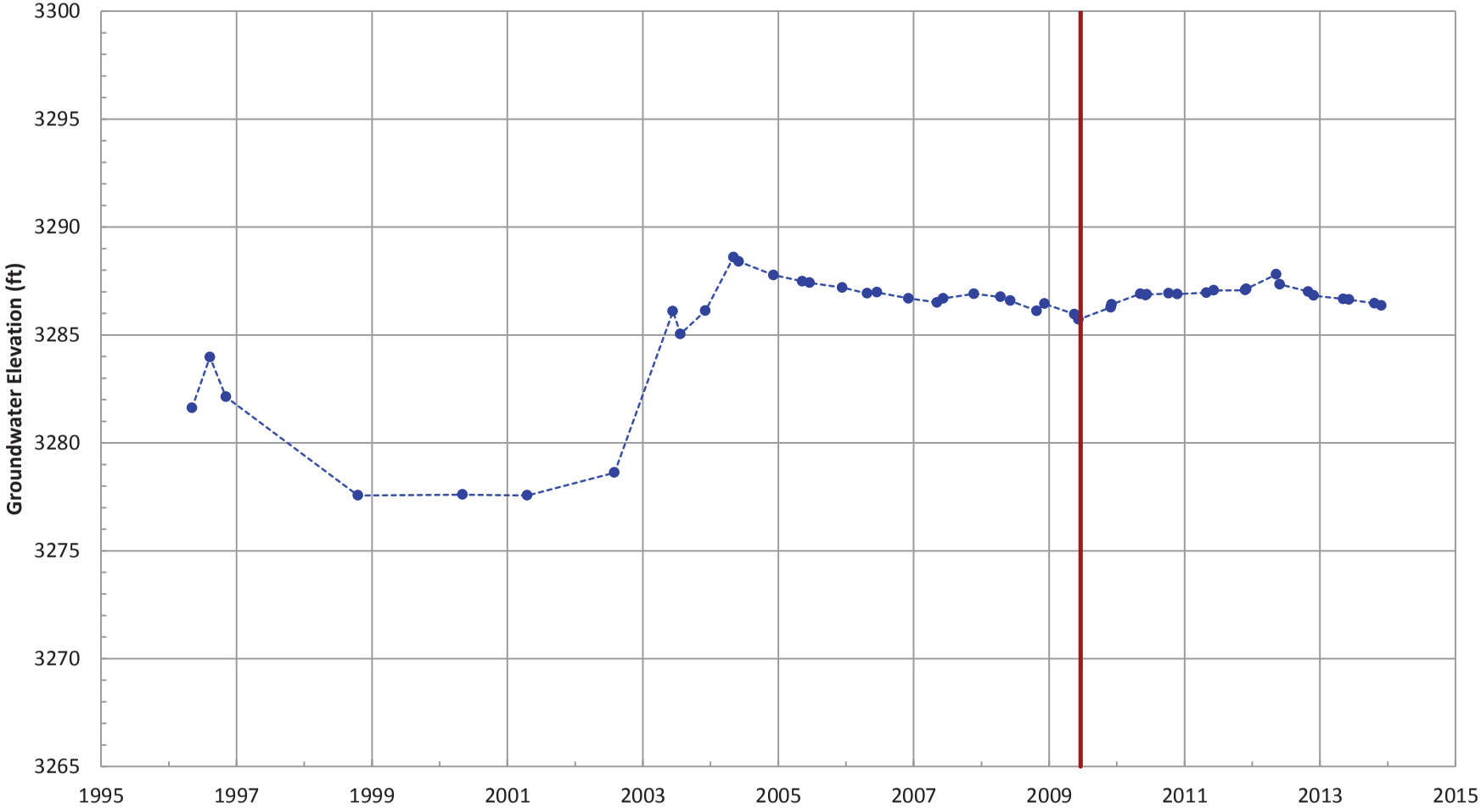
Groundwater Elevation
Bottom of Screen Elevation
No Water Detected
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.12 ft/yr
2012 - 2014 Data: N/A (<3 Measurements)

PTX06-1010
Hydrograph in Perched Aquifer



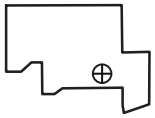
Notes:
1. The top of screen elevation is 3294.04 ft msl.
2. The bottom of screen elevation is 3264.04 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

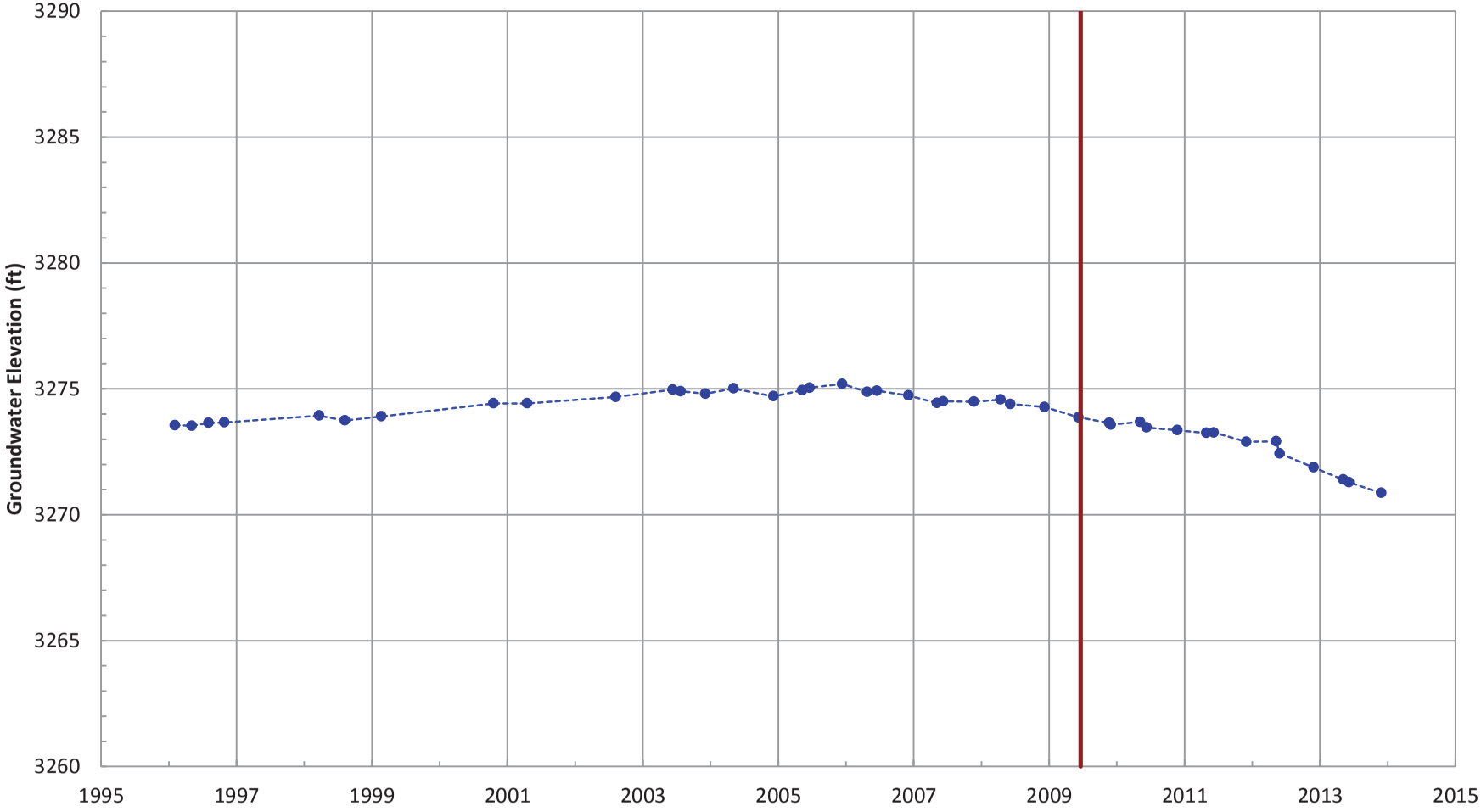
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Increasing at 0.37 ft/yr
2012 - 2014 Data: Decreasing at 0.51 ft/yr

PTX06-1011
Hydrograph in Perched Aquifer



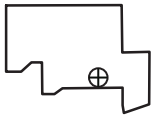
Notes:
1. The top of screen elevation is 3282.58 ft msl.
2. The bottom of screen elevation is 3252.58 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

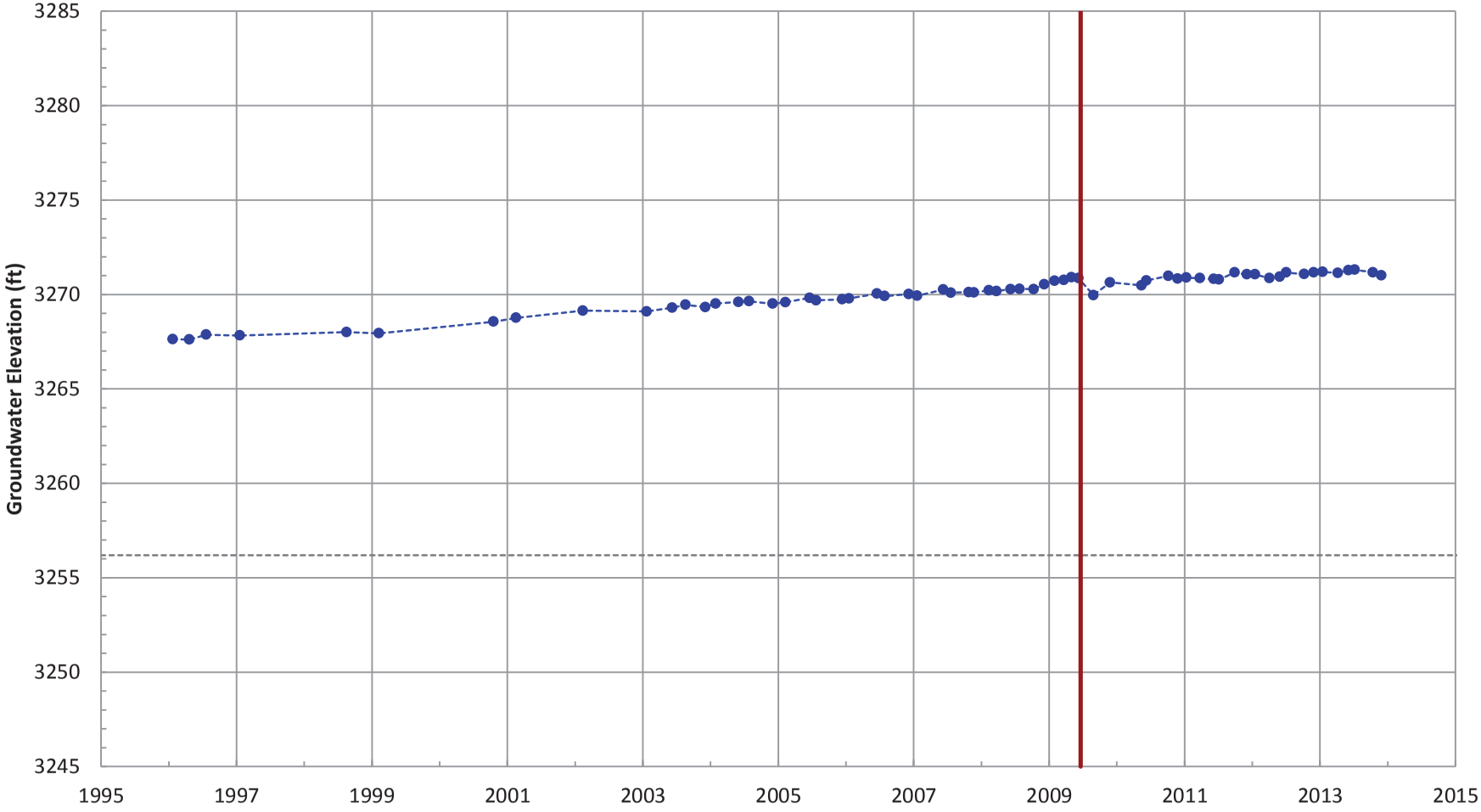
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: No Trend
2012 - 2014 Data: Decreasing at 0.92 ft/yr

PTX06-1012
Hydrograph in Perched Aquifer

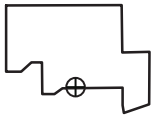


Notes:
1. The top of screen elevation is 3276.19 ft msl.
2. The bottom of screen elevation is 3256.19 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

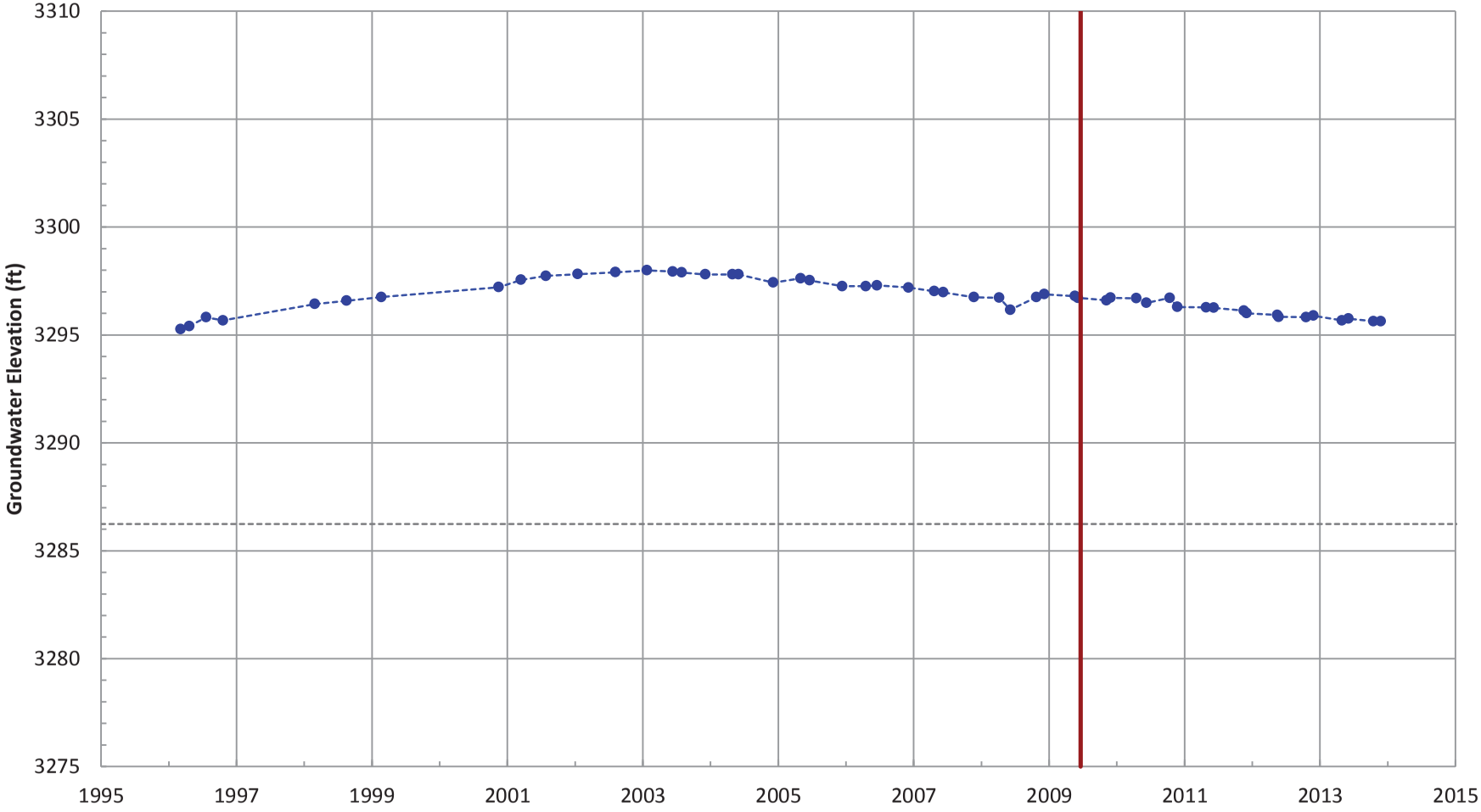
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Increasing at 0.21 ft/yr
2012 - 2014 Data: Decreasing at 0.14 ft/yr

PTX06-1013
Hydrograph in Perched Aquifer

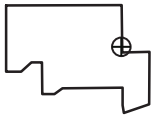


Notes:
1. The top of screen elevation is 3306.24 ft msl.
2. The bottom of screen elevation is 3286.24 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

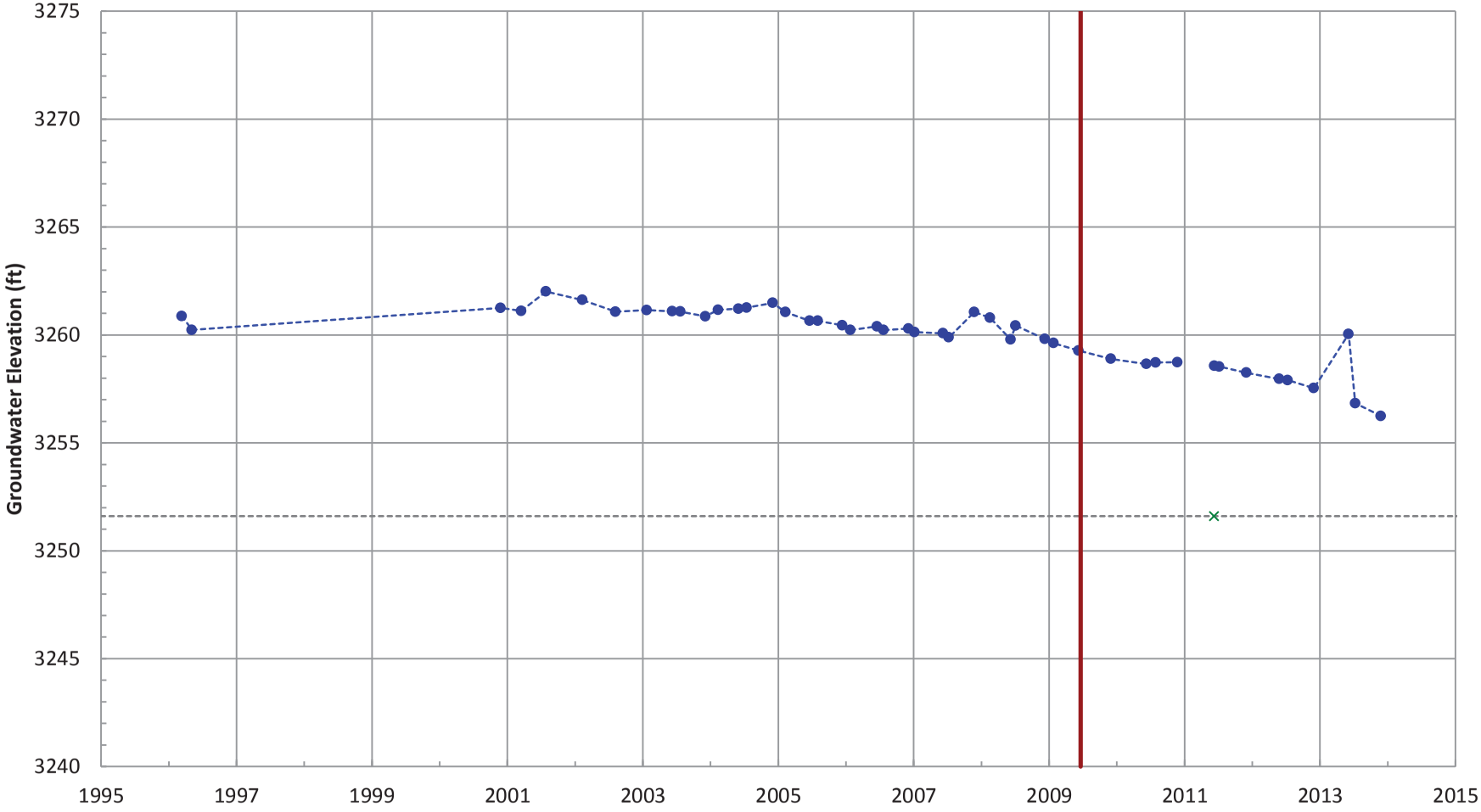
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: No Trend
2012 - 2014 Data: Decreasing at 0.14 ft/yr

PTX06-1014
Hydrograph in Perched Aquifer

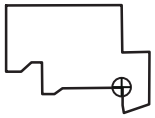


Notes:
1. The top of screen elevation is 3271.6 ft msl.
2. The bottom of screen elevation is 3251.6 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

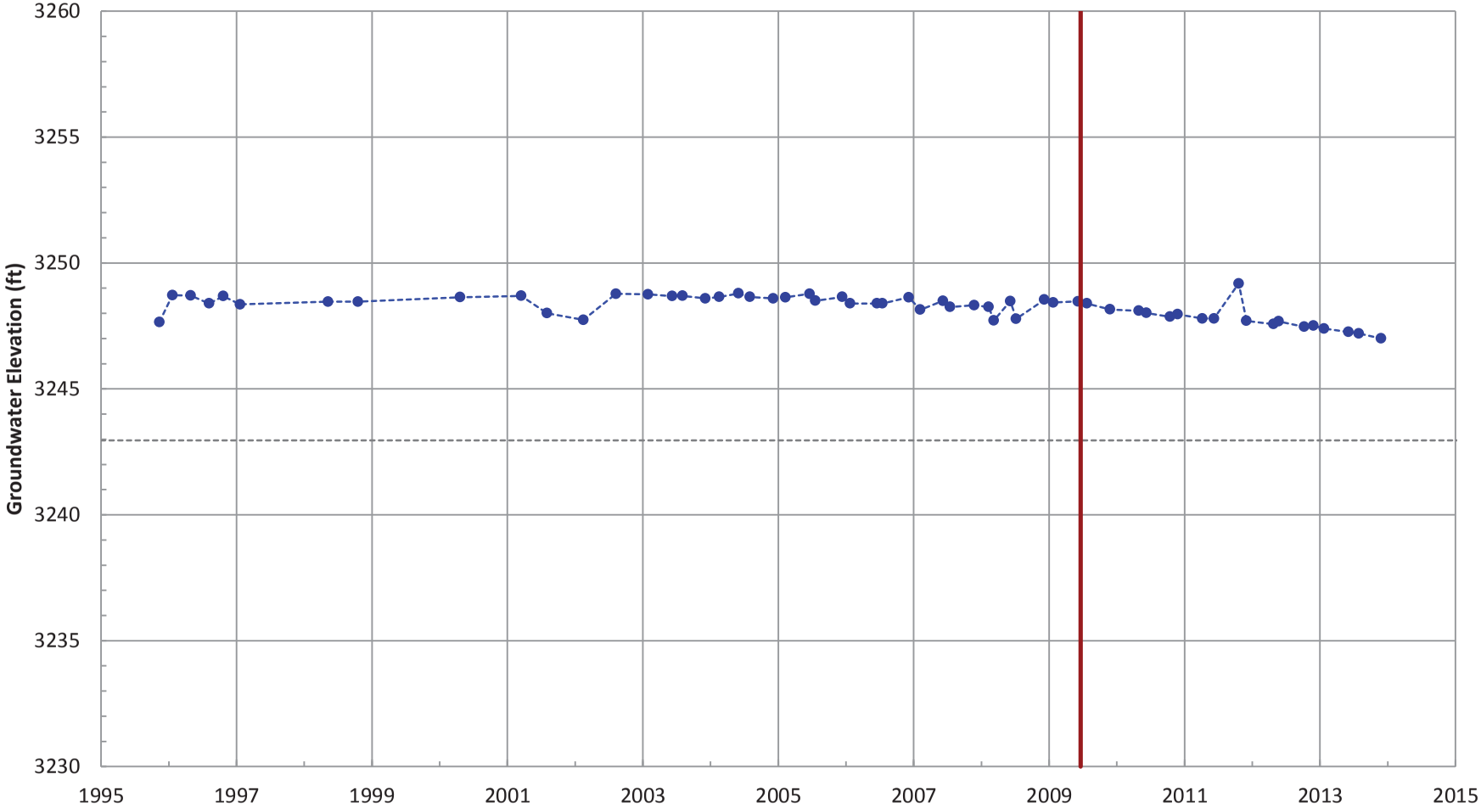
Groundwater Elevation
Bottom of Screen Elevation
No Water Detected
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.25 ft/yr
2012 - 2014 Data: Decreasing at 6.14 ft/yr

PTX06-1015
Hydrograph in Perched Aquifer

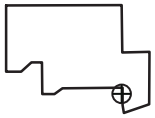


Notes:
1. The top of screen elevation is 3252.95 ft msl.
2. The bottom of screen elevation is 3242.95 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

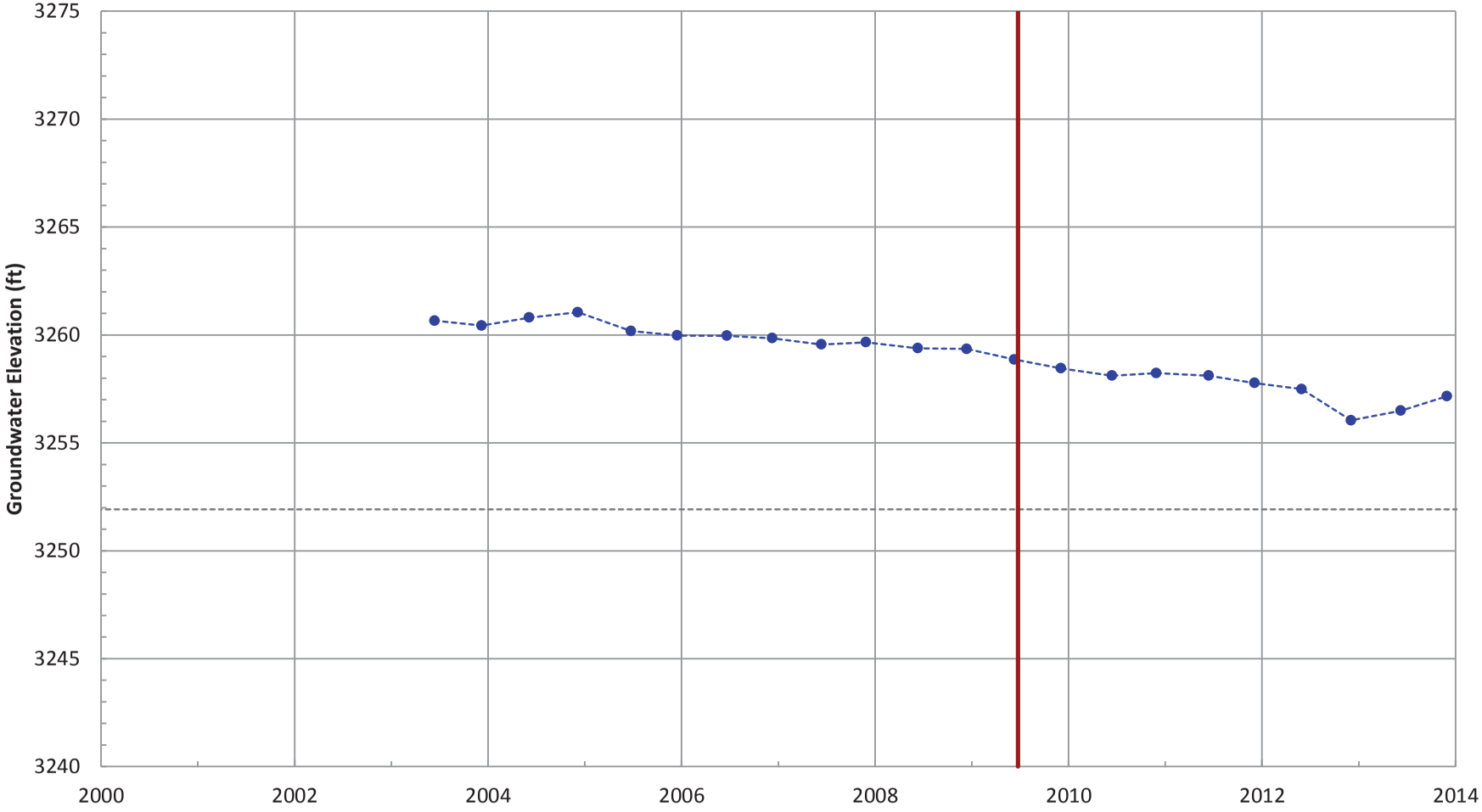
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: No Trend
2012 - 2014 Data: Decreasing at 0.46 ft/yr

PTX06-1017
Hydrograph in Perched Aquifer

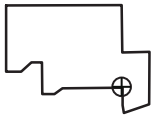


Notes:
1. The top of screen elevation is 3271.92 ft msl.
2. The bottom of screen elevation is 3251.92 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

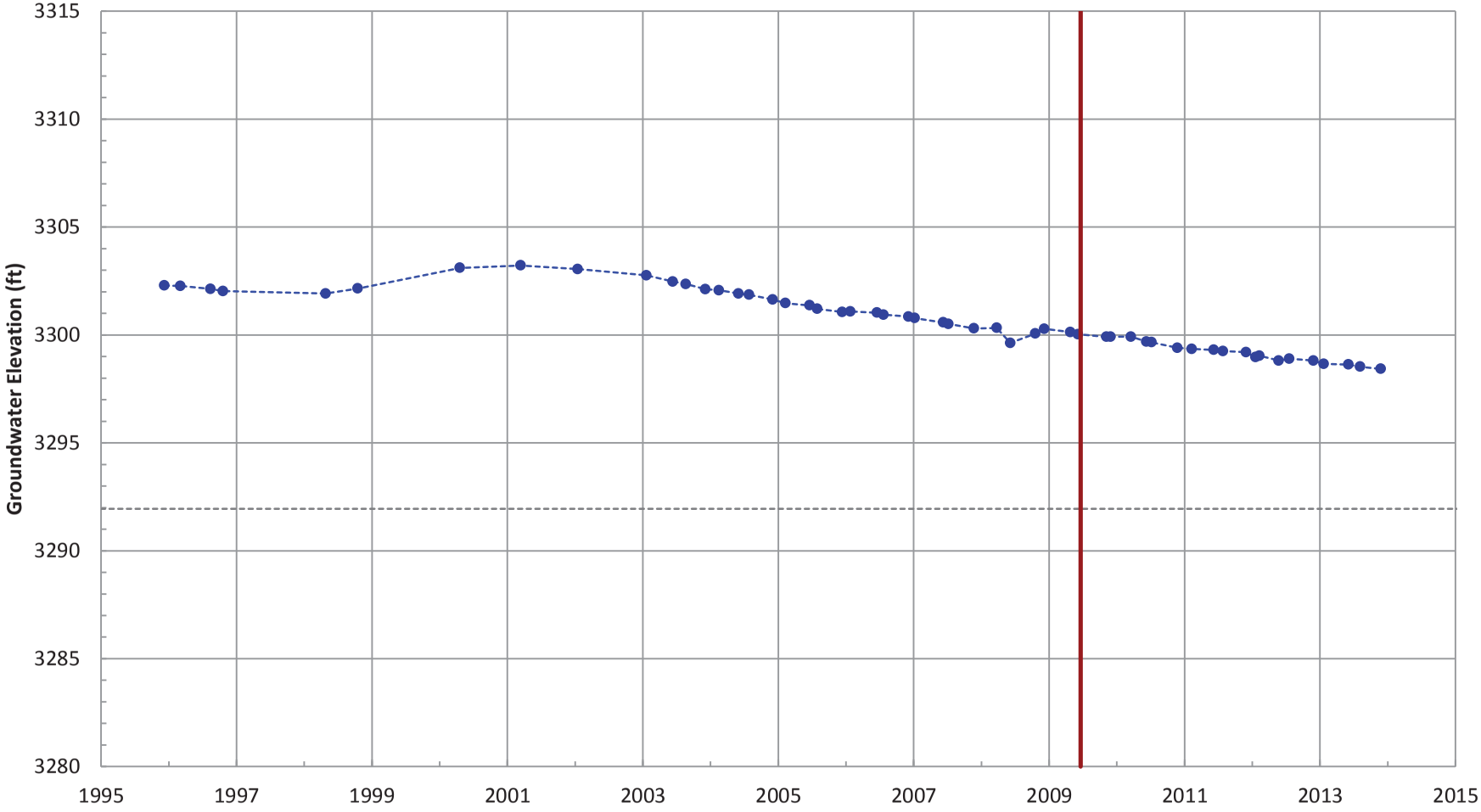
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.42 ft/yr
2012 - 2014 Data: N/A (<3 Measurements)

PTX06-1023
Hydrograph in Perched Aquifer

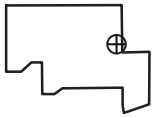


Notes:
1. The top of screen elevation is 3306.94 ft msl.
2. The bottom of screen elevation is 3291.94 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

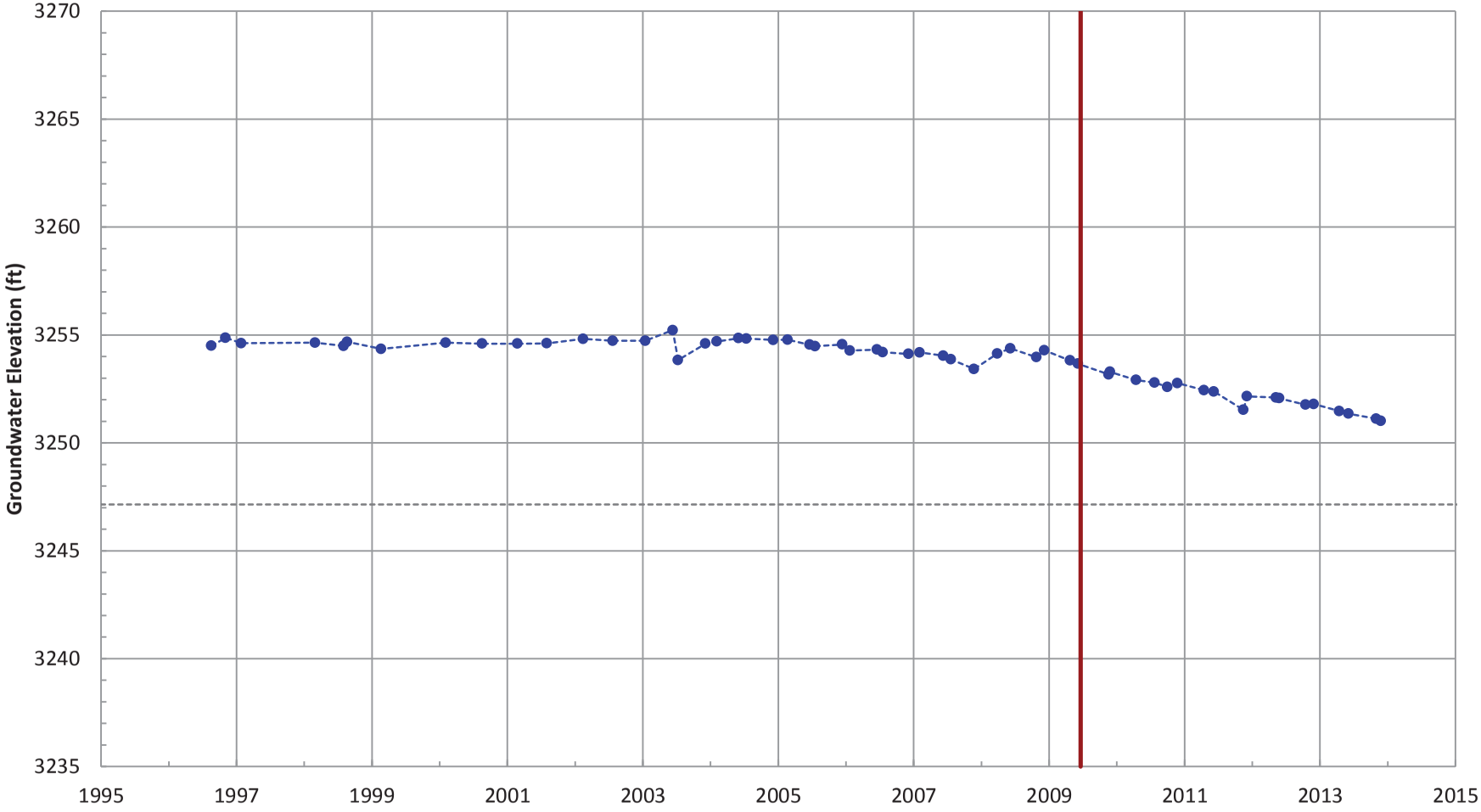
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.26 ft/yr
2012 - 2014 Data: Decreasing at 0.28 ft/yr

PTX06-1030
Hydrograph in Perched Aquifer

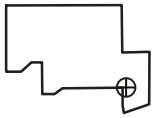


Notes:
1. The top of screen elevation is 3267.15 ft msl.
2. The bottom of screen elevation is 3247.15 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

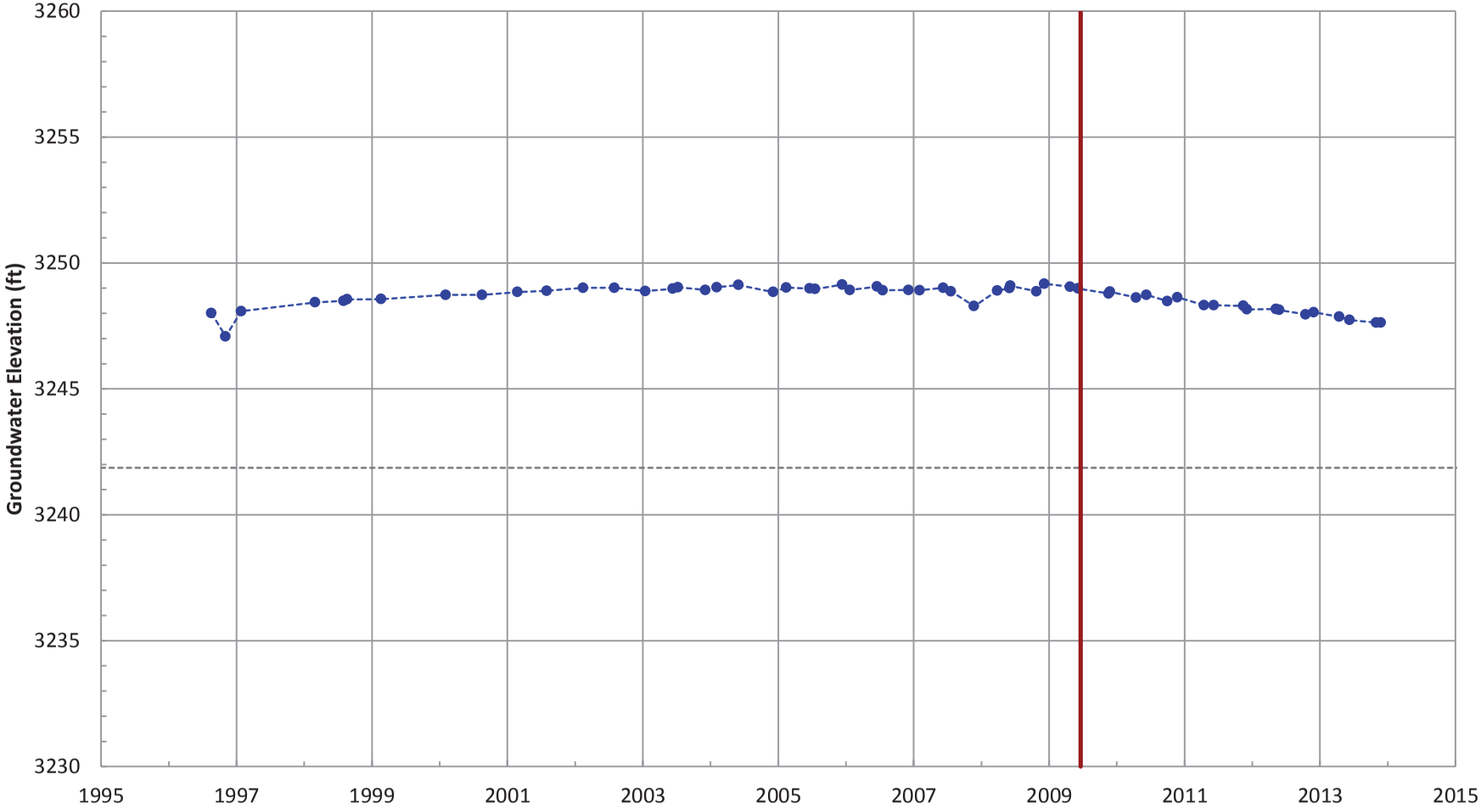
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.20 ft/yr
2012 - 2014 Data: Decreasing at 0.68 ft/yr

PTX06-1031
Hydrograph in Perched Aquifer



Notes:
1. The top of screen elevation is 3261.87 ft msl.
2. The bottom of screen elevation is 3241.87 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

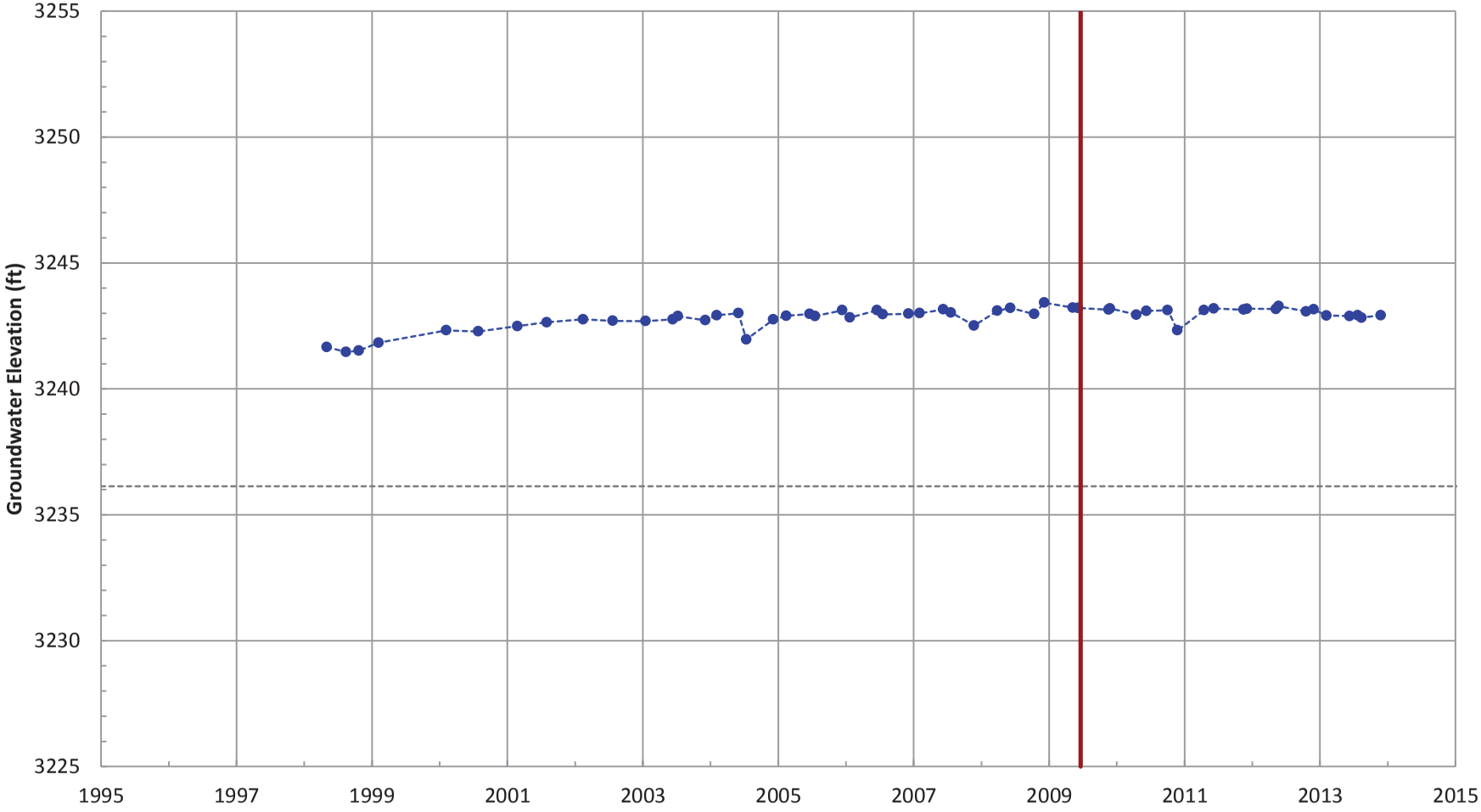
Analysis Date: 3/20/2014

Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location

Hydrograph Trend
(MAROS Linear Regression Method)
All Data: No Trend
2012 - 2014 Data: Decreasing at 0.35 ft/yr

PTX06-1034
Hydrograph in Perched Aquifer

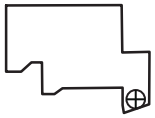


Notes:
1. The top of screen elevation is 3249.84 ft msl.
2. The bottom of screen elevation is 3236.14 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

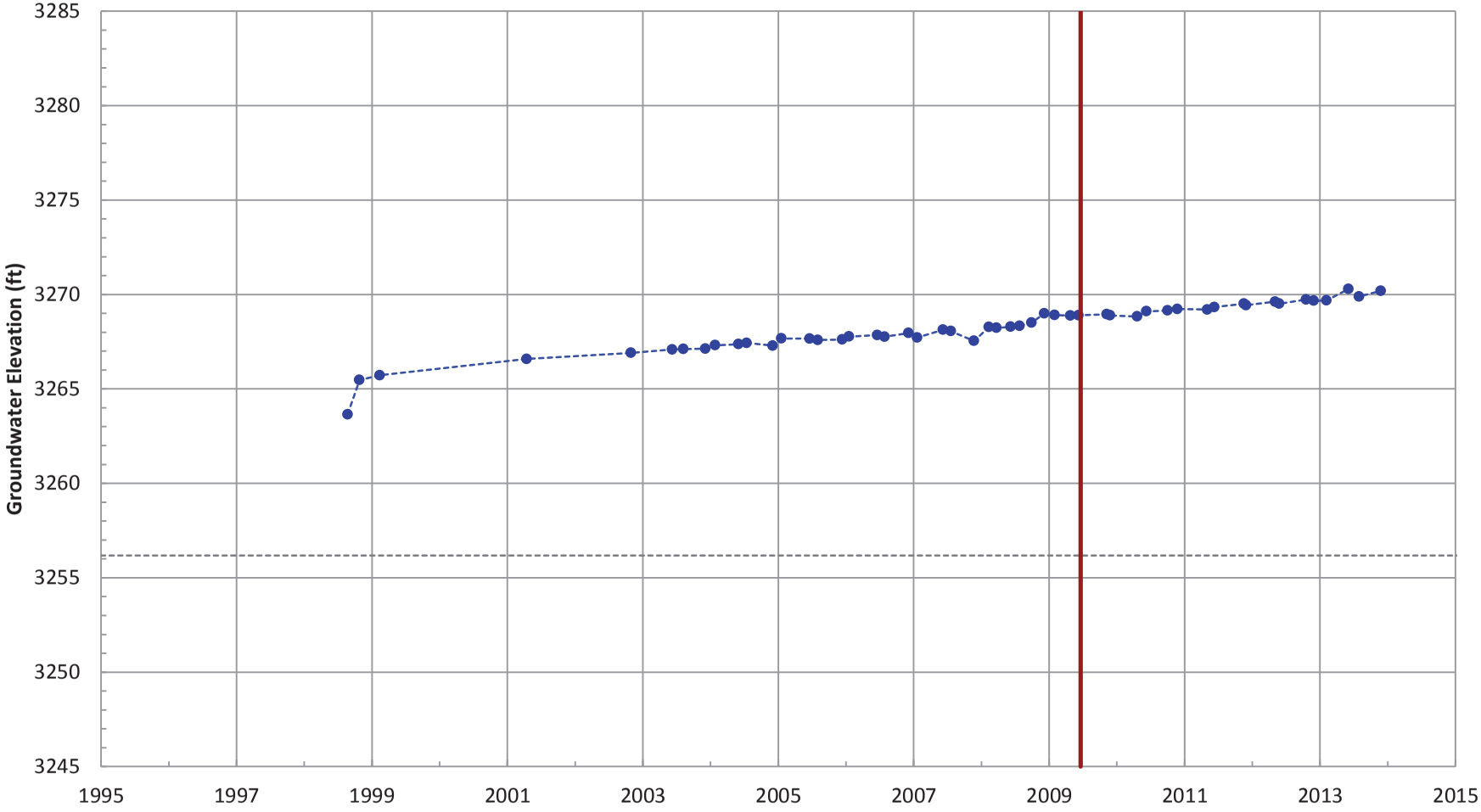
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: No Trend
2012 - 2014 Data: No Trend

PTX06-1035
Hydrograph in Perched Aquifer

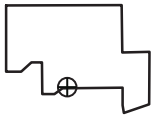


Notes:
1. The top of screen elevation is 3269.88 ft msl.
2. The bottom of screen elevation is 3256.18 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

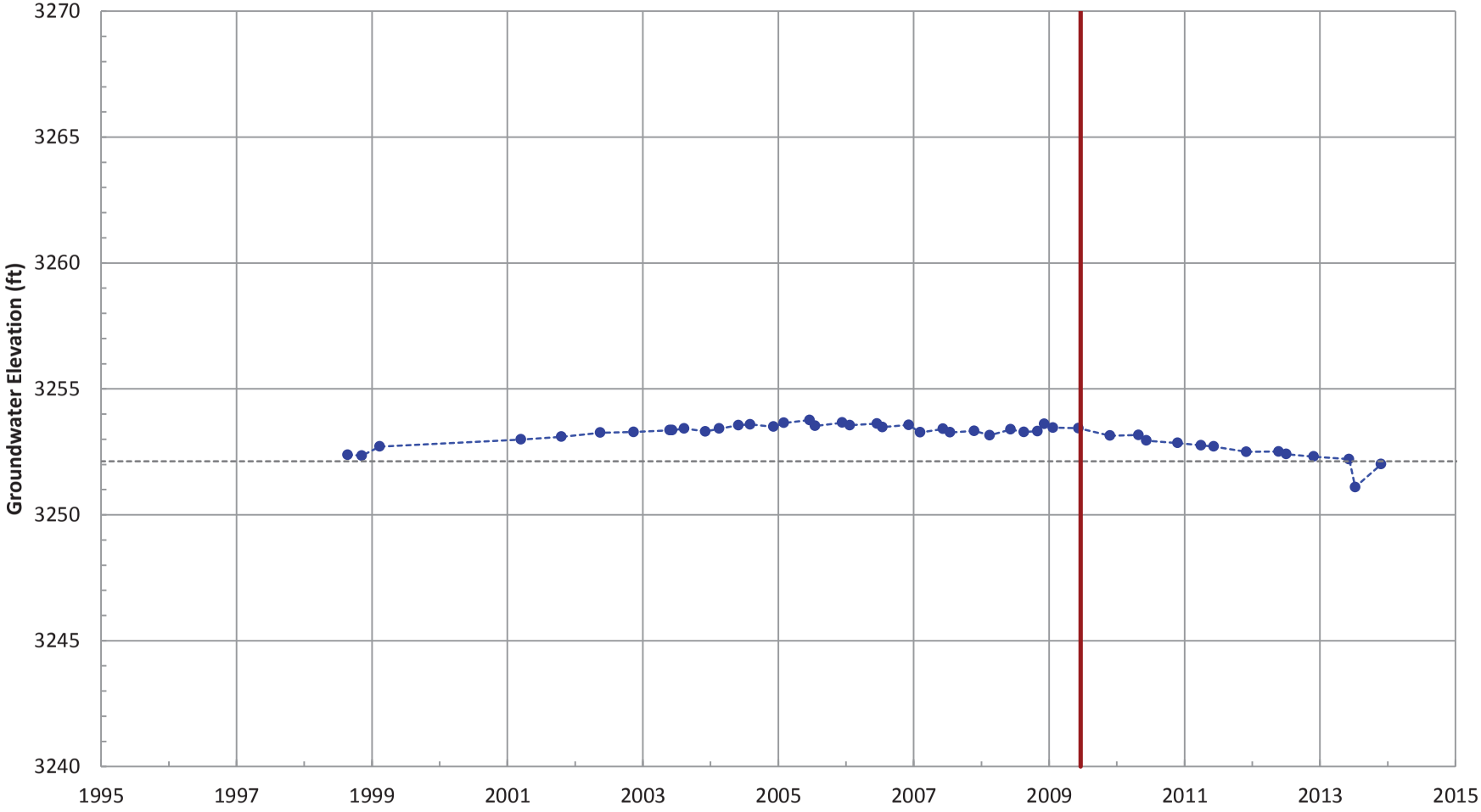
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Increasing at 0.31 ft/yr
2012 - 2014 Data: Increasing at 0.52 ft/yr

PTX06-1036
Hydrograph in Perched Aquifer

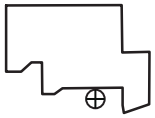


Notes:
1. The top of screen elevation is 3265.72 ft msl.
2. The bottom of screen elevation is 3252.12 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

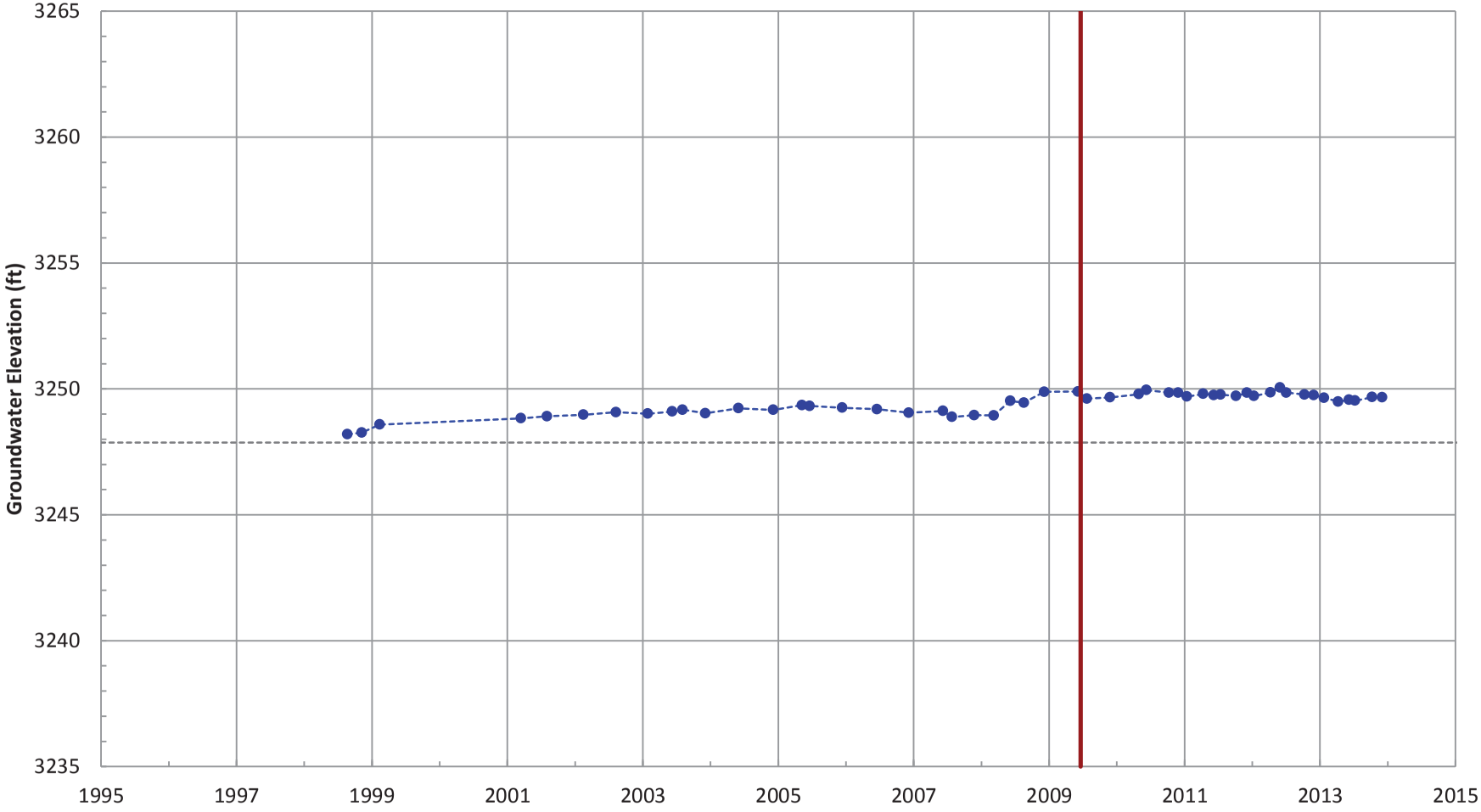
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: No Trend
2012 - 2014 Data: Increasing at 0.41 ft/yr

PTX06-1037
Hydrograph in Perched Aquifer



Notes:
1. The top of screen elevation is 3261.47 ft msl.
2. The bottom of screen elevation is 3247.87 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

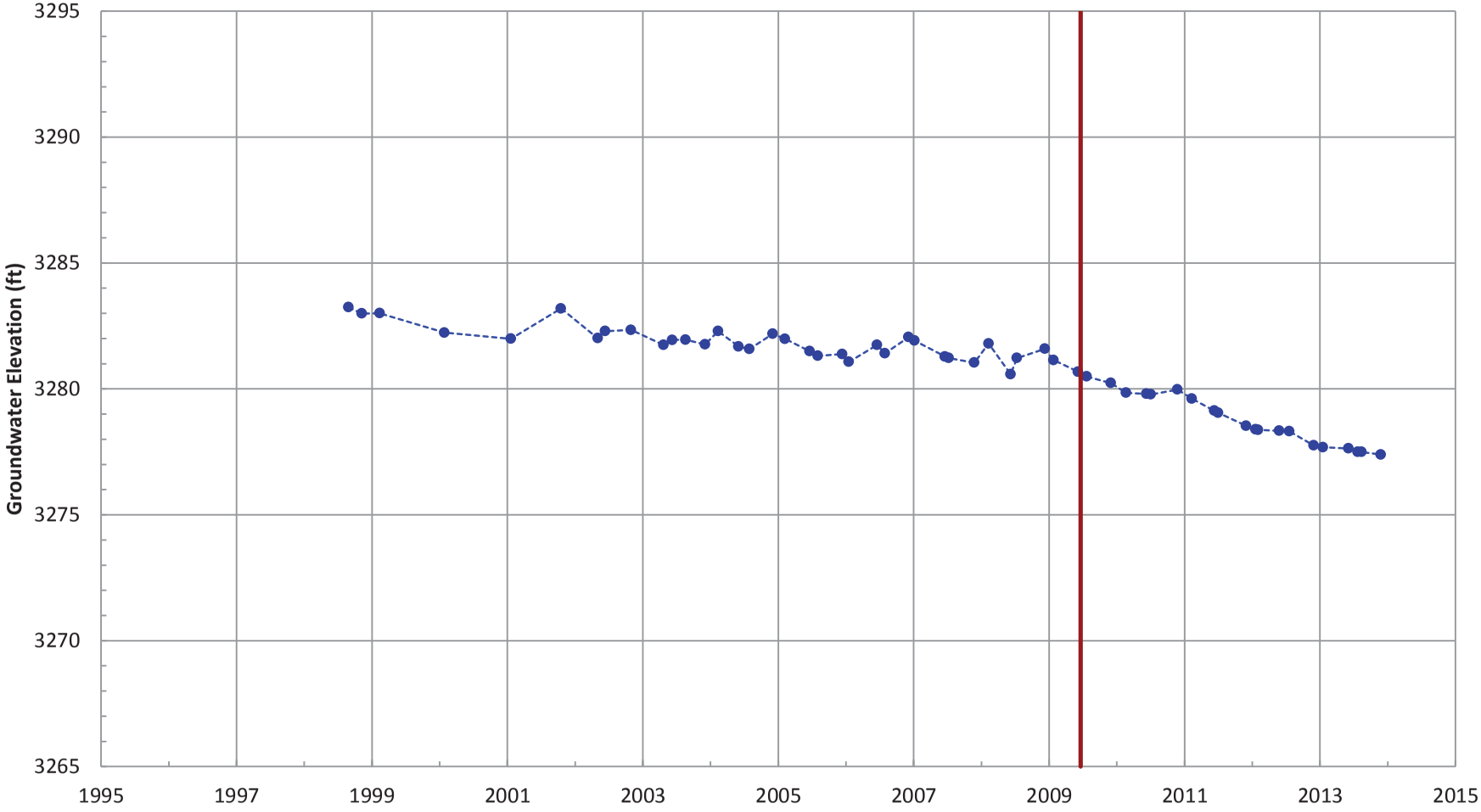
Analysis Date: 3/20/2014

Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location

Hydrograph Trend
(MAROS Linear Regression Method)
All Data: No Trend
2012 - 2014 Data: Increasing at 0.11 ft/yr

PTX06-1038
Hydrograph in Perched Aquifer



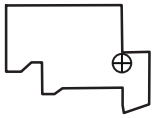
Notes:
1. The top of screen elevation is 3284.33 ft msl.
2. The bottom of screen elevation is 3260.73 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

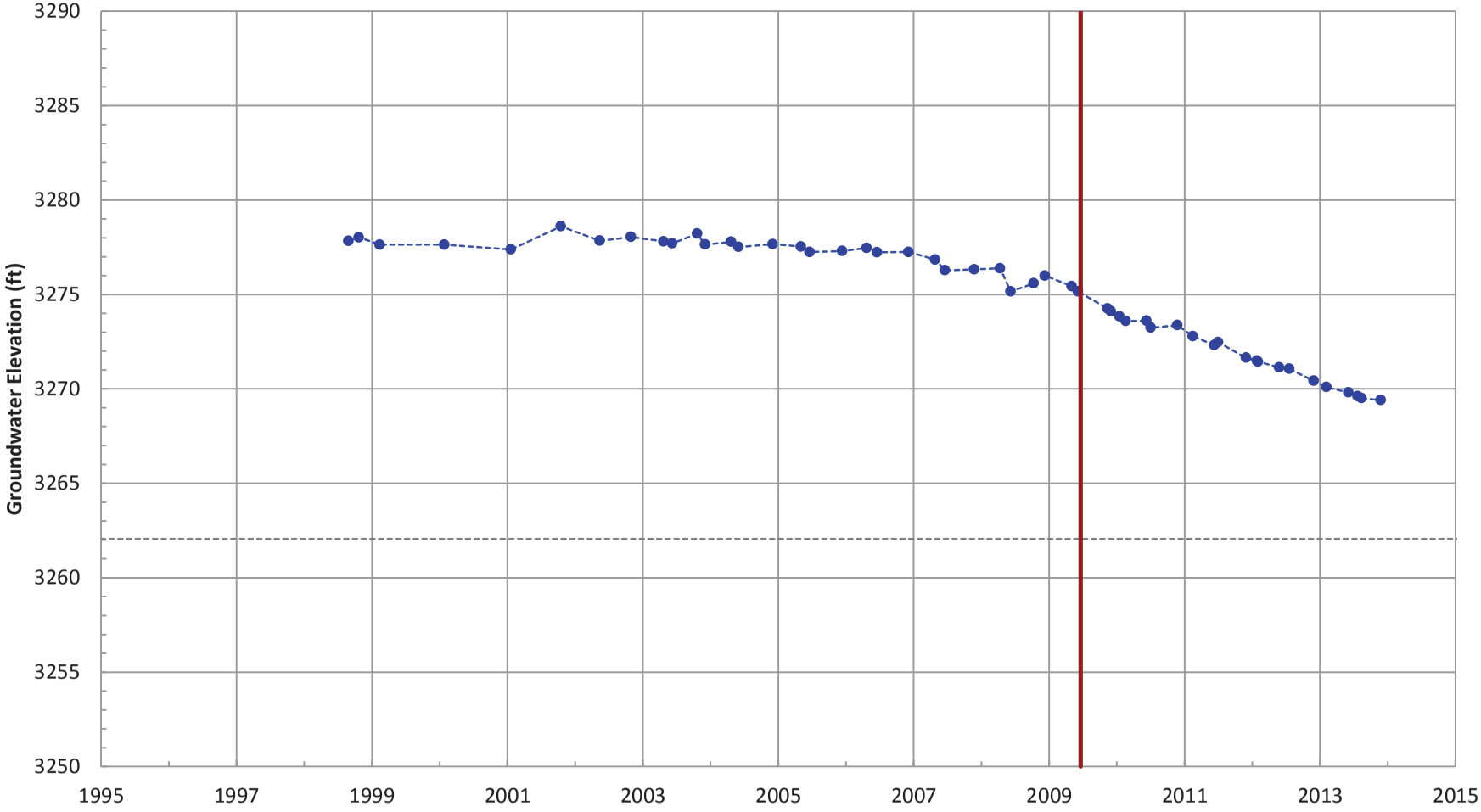
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.36 ft/yr
2012 - 2014 Data: Decreasing at 0.36 ft/yr

PTX06-1039A
Hydrograph in Perched Aquifer

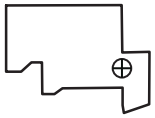


Notes:
1. The top of screen elevation is 3285.76 ft msl.
2. The bottom of screen elevation is 3262.06 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

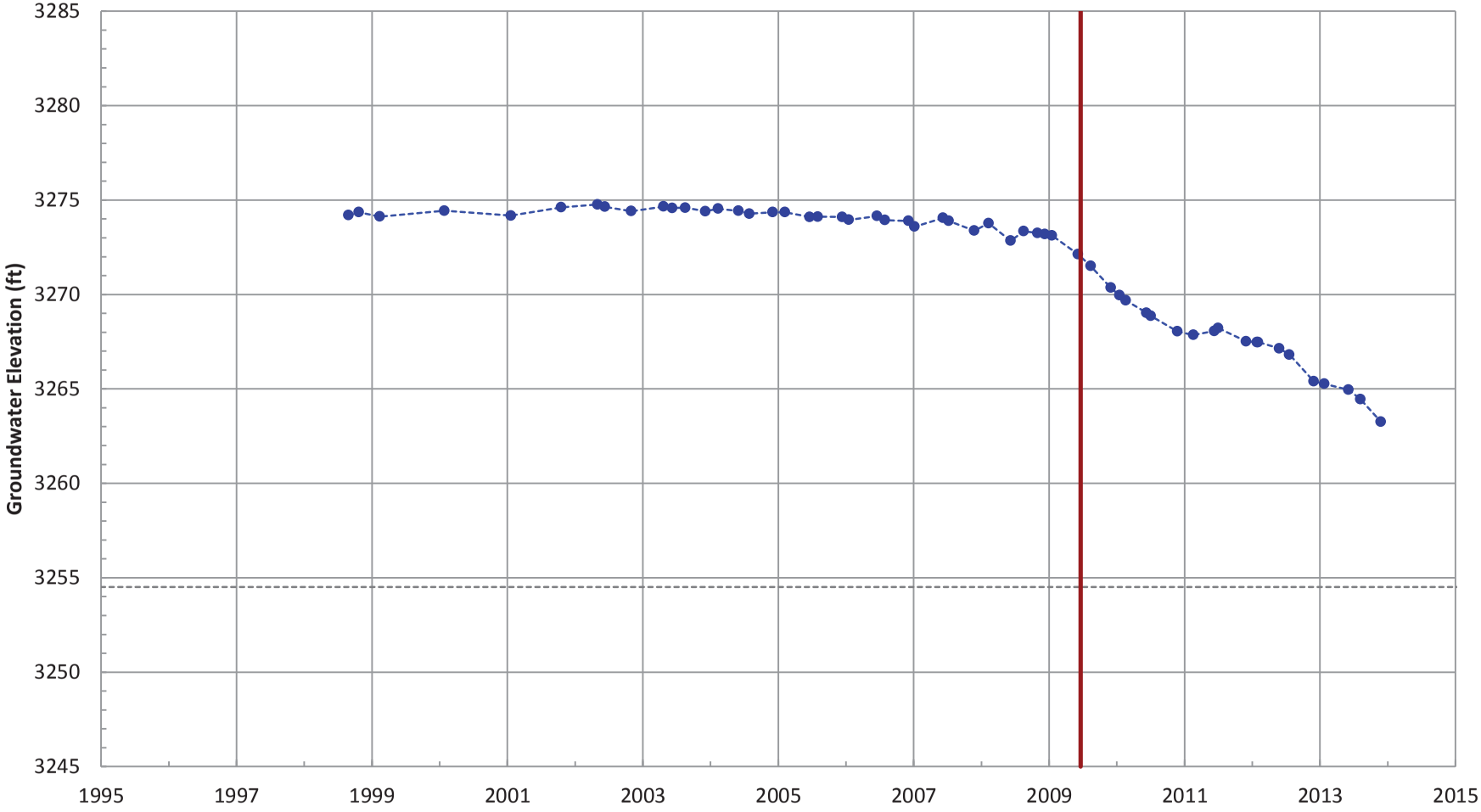
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.60 ft/yr
2012 - 2014 Data: Decreasing at 0.90 ft/yr

PTX06-1040
Hydrograph in Perched Aquifer

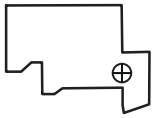


Notes:
1. The top of screen elevation is 3295.32 ft msl.
2. The bottom of screen elevation is 3254.52 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

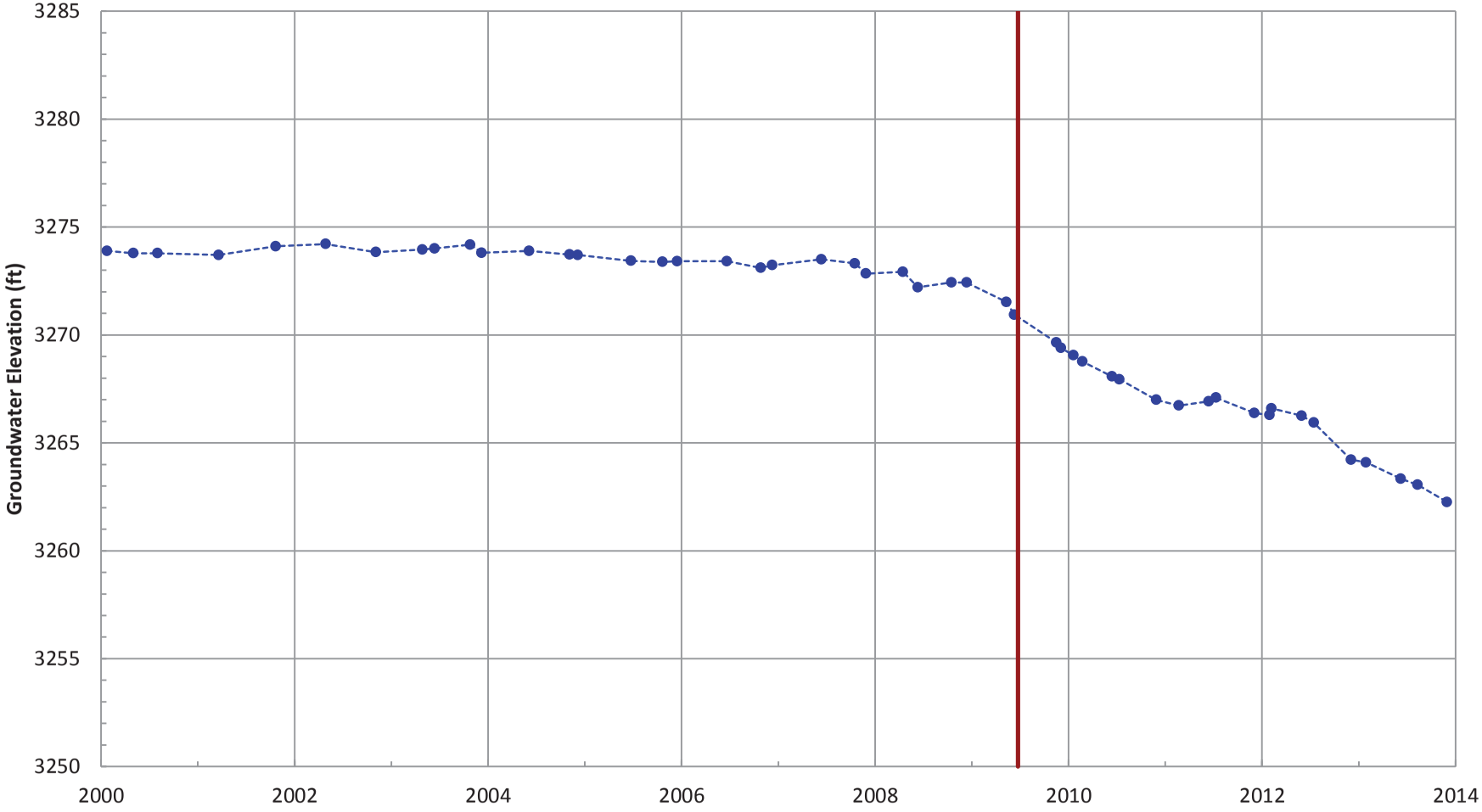
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.69 ft/yr
2012 - 2014 Data: Decreasing at 2.38 ft/yr

PTX06-1041
Hydrograph in Perched Aquifer



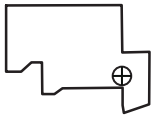
Notes:
1. The top of screen elevation is 3279.61 ft msl.
2. The bottom of screen elevation is 3239.61 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

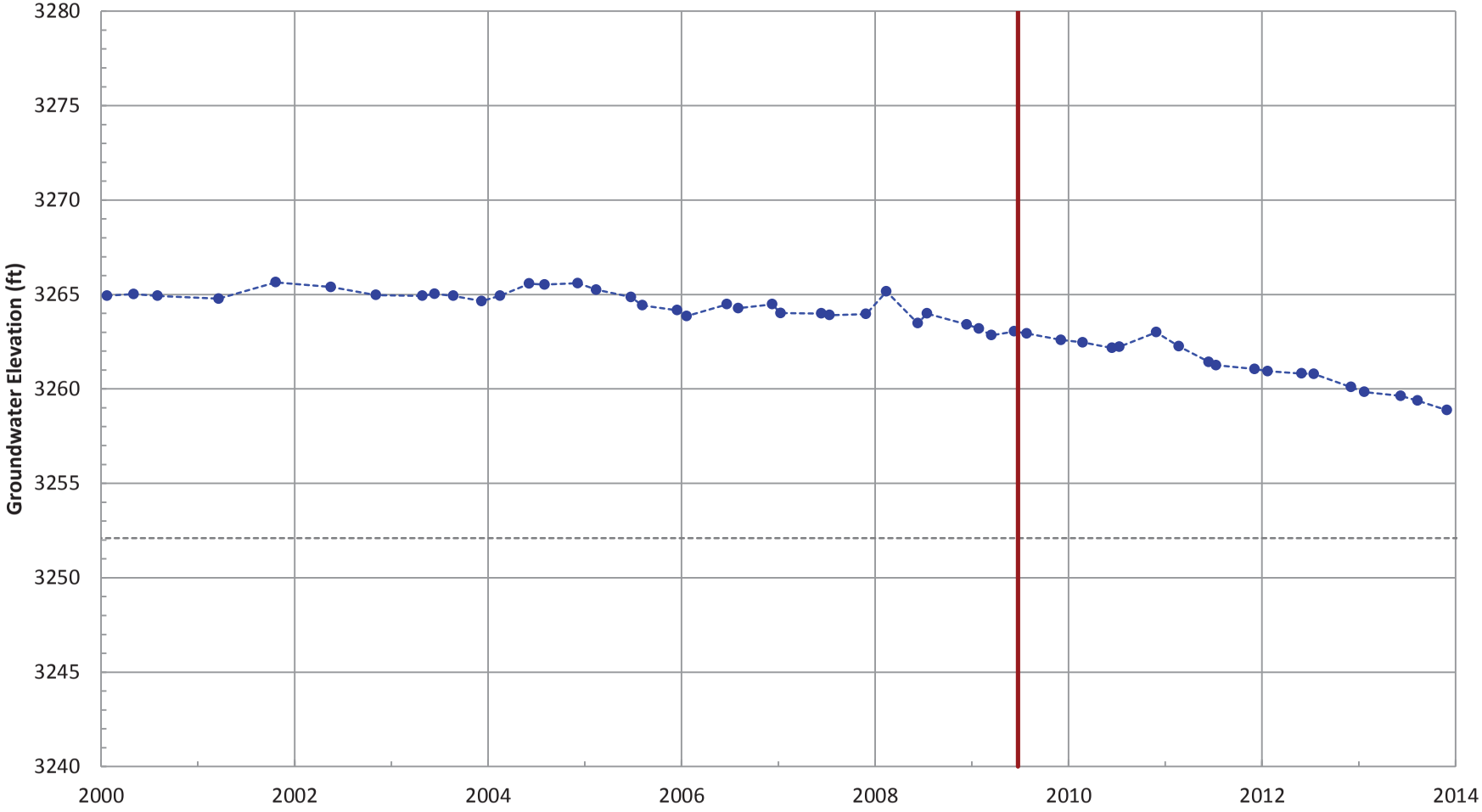
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.82 ft/yr
2012 - 2014 Data: Decreasing at 2.16 ft/yr

PTX06-1042
Hydrograph in Perched Aquifer

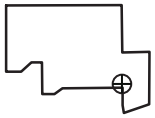


Notes:
1. The top of screen elevation is 3272.1 ft msl.
2. The bottom of screen elevation is 3252.1 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

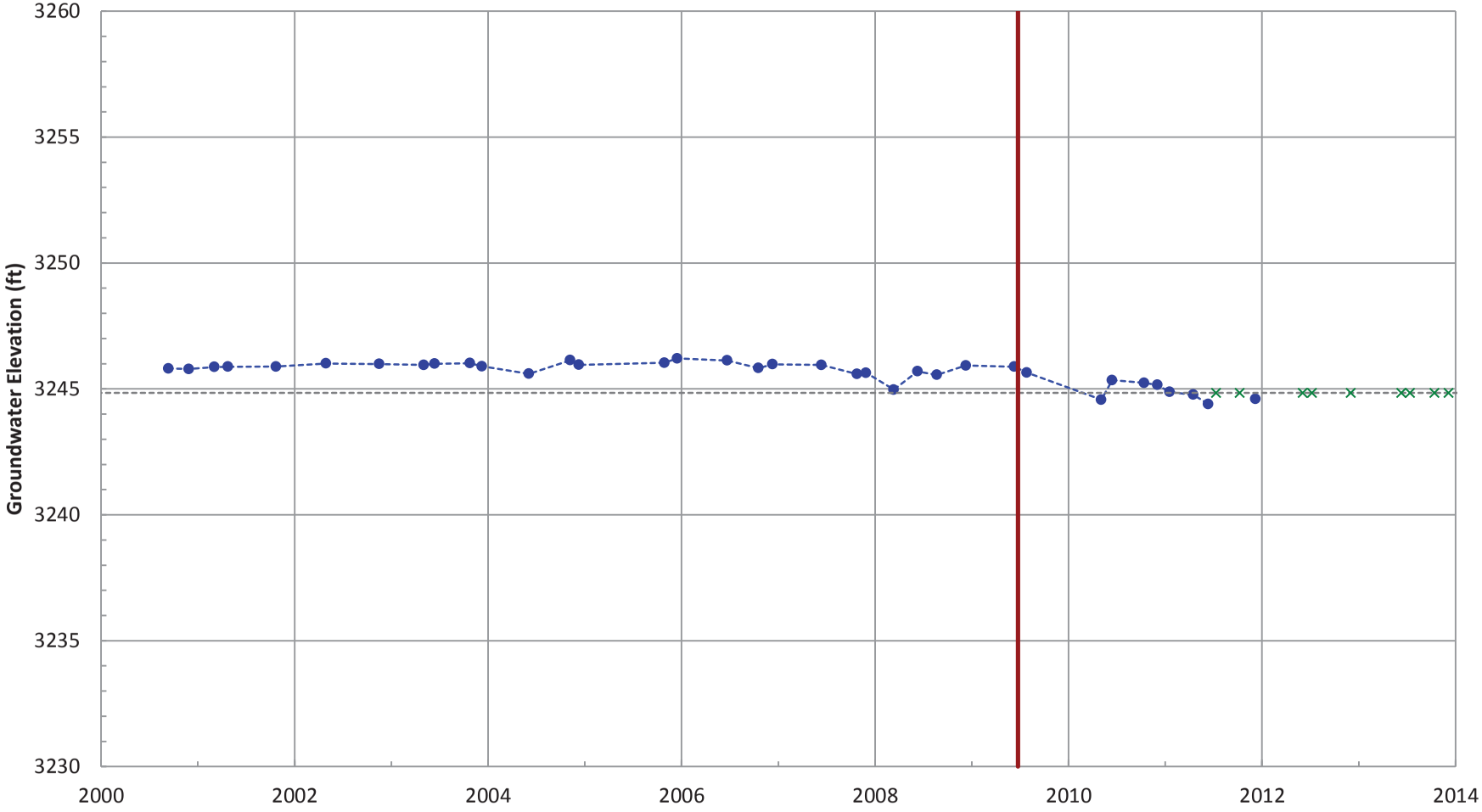
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.43 ft/yr
2012 - 2014 Data: Decreasing at 1.11 ft/yr

PTX06-1045
Hydrograph in Perched Aquifer

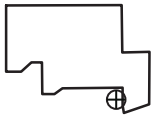


Notes:
1. The top of screen elevation is 3264.84 ft msl.
2. The bottom of screen elevation is 3244.84 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

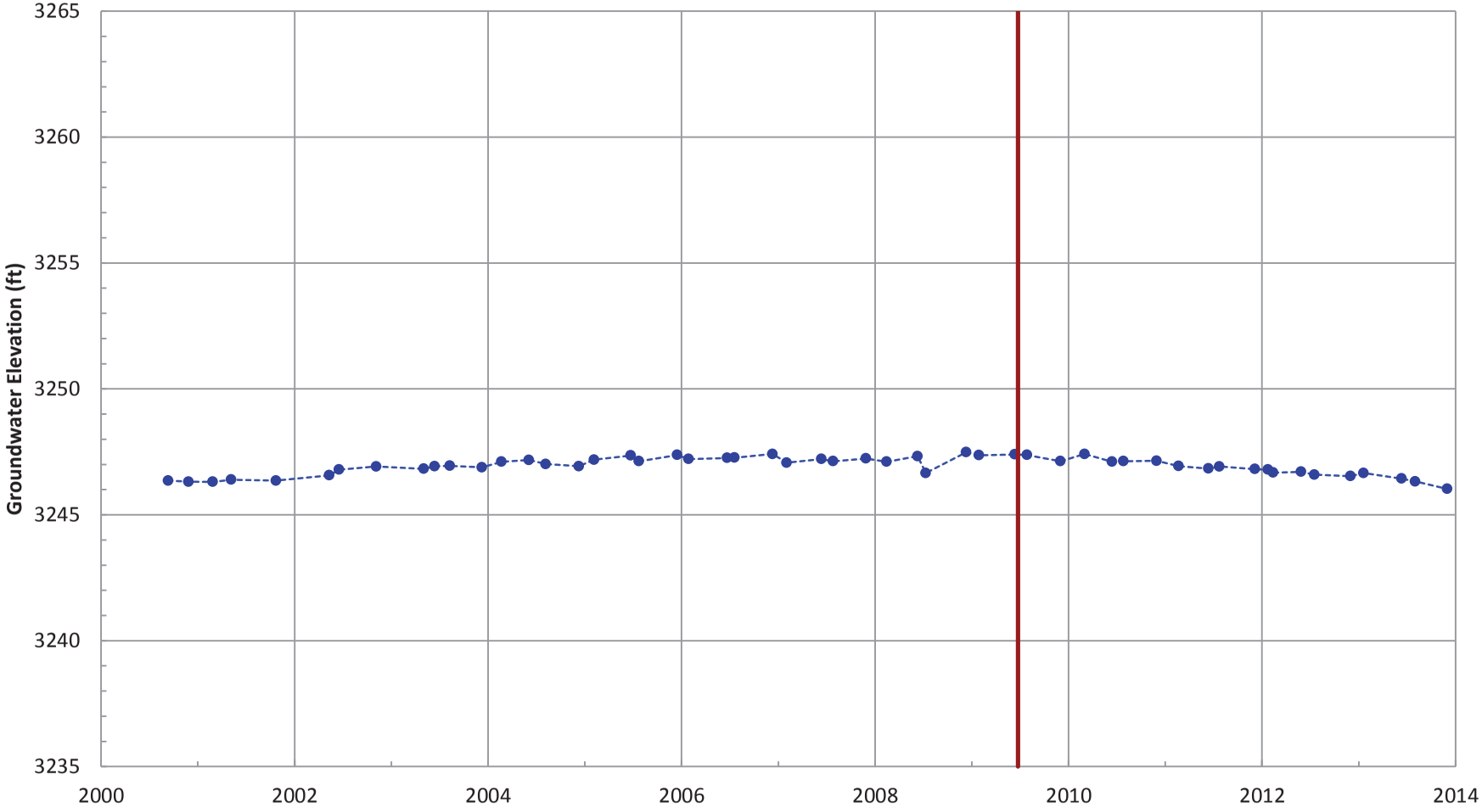
Groundwater Elevation
Bottom of Screen Elevation
No Water Detected
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: No Trend
2012 - 2014 Data: N/A (No Measurements)

PTX06-1046
Hydrograph in Perched Aquifer



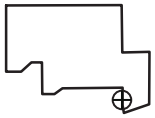
Notes:
1. The top of screen elevation is 3253.04 ft msl.
2. The bottom of screen elevation is 3233.04 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

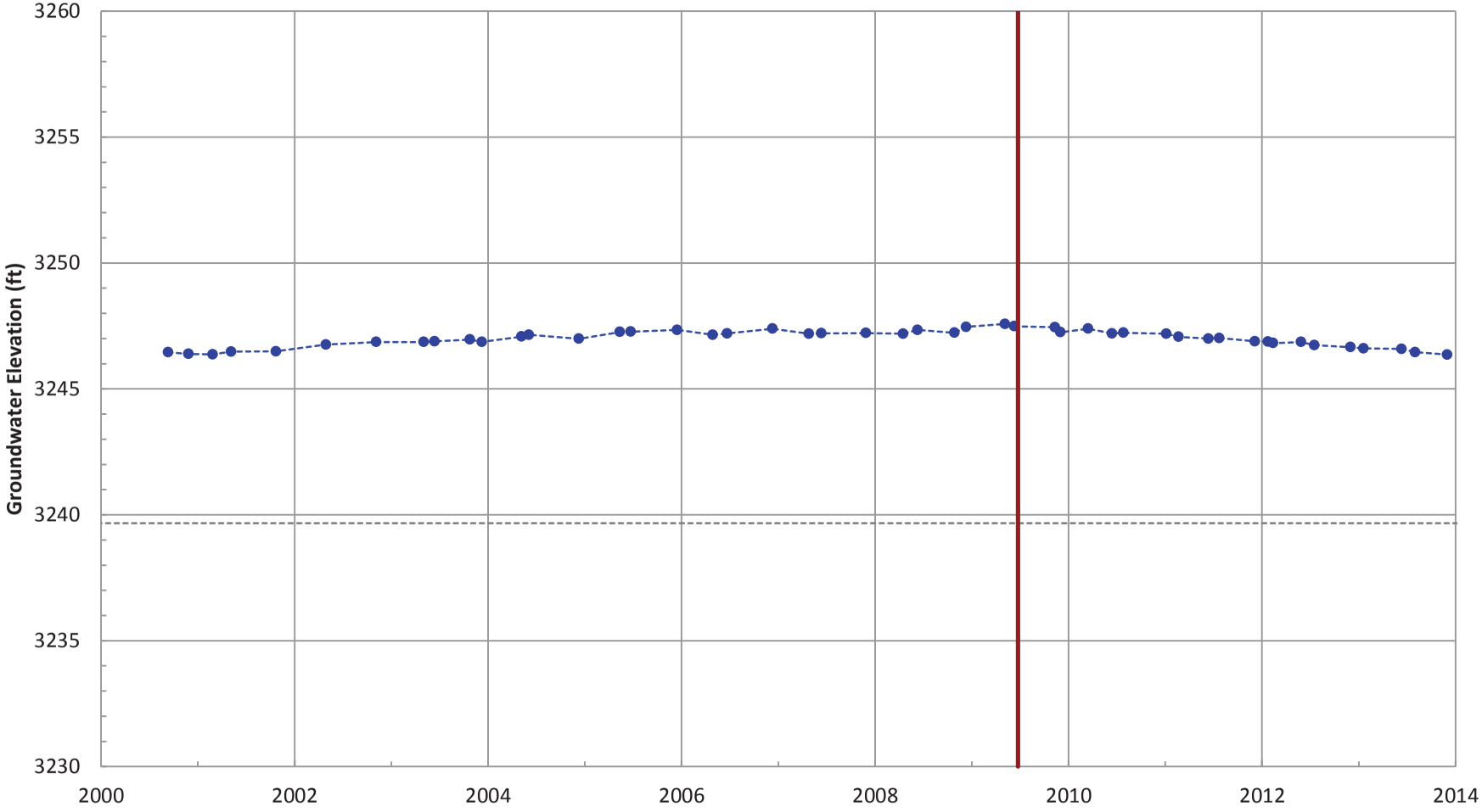
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: No Trend
2012 - 2014 Data: Decreasing at 0.72 ft/yr

PTX06-1047A
Hydrograph in Perched Aquifer

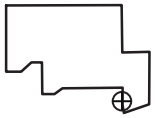


Notes:
1. The top of screen elevation is 3259.67 ft msl.
2. The bottom of screen elevation is 3239.67 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

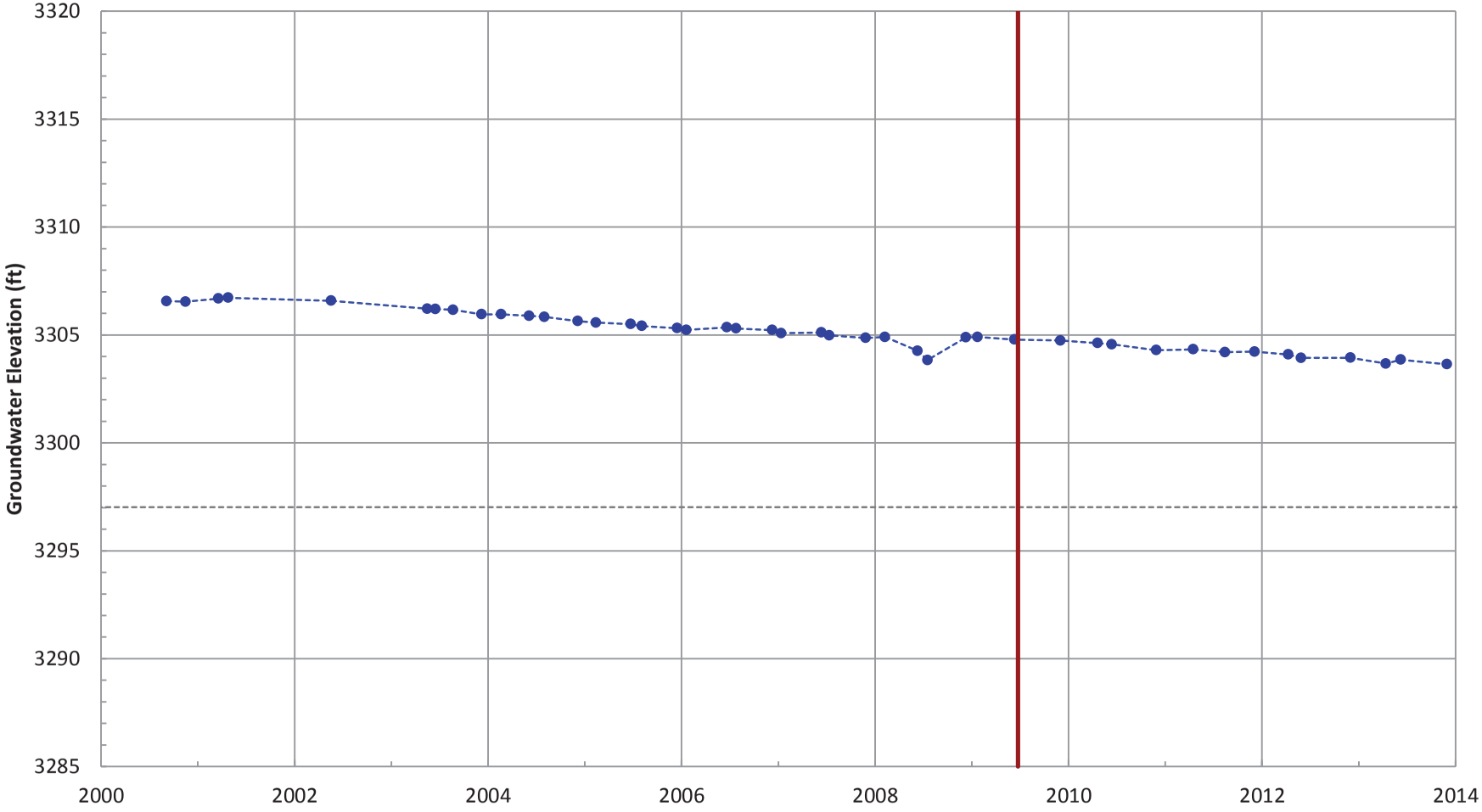
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: No Trend
2012 - 2014 Data: Decreasing at 0.30 ft/yr

PTX06-1048A
Hydrograph in Perched Aquifer

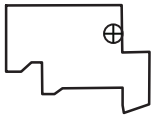


Notes:
1. The top of screen elevation is 3317.02 ft msl.
2. The bottom of screen elevation is 3297.02 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

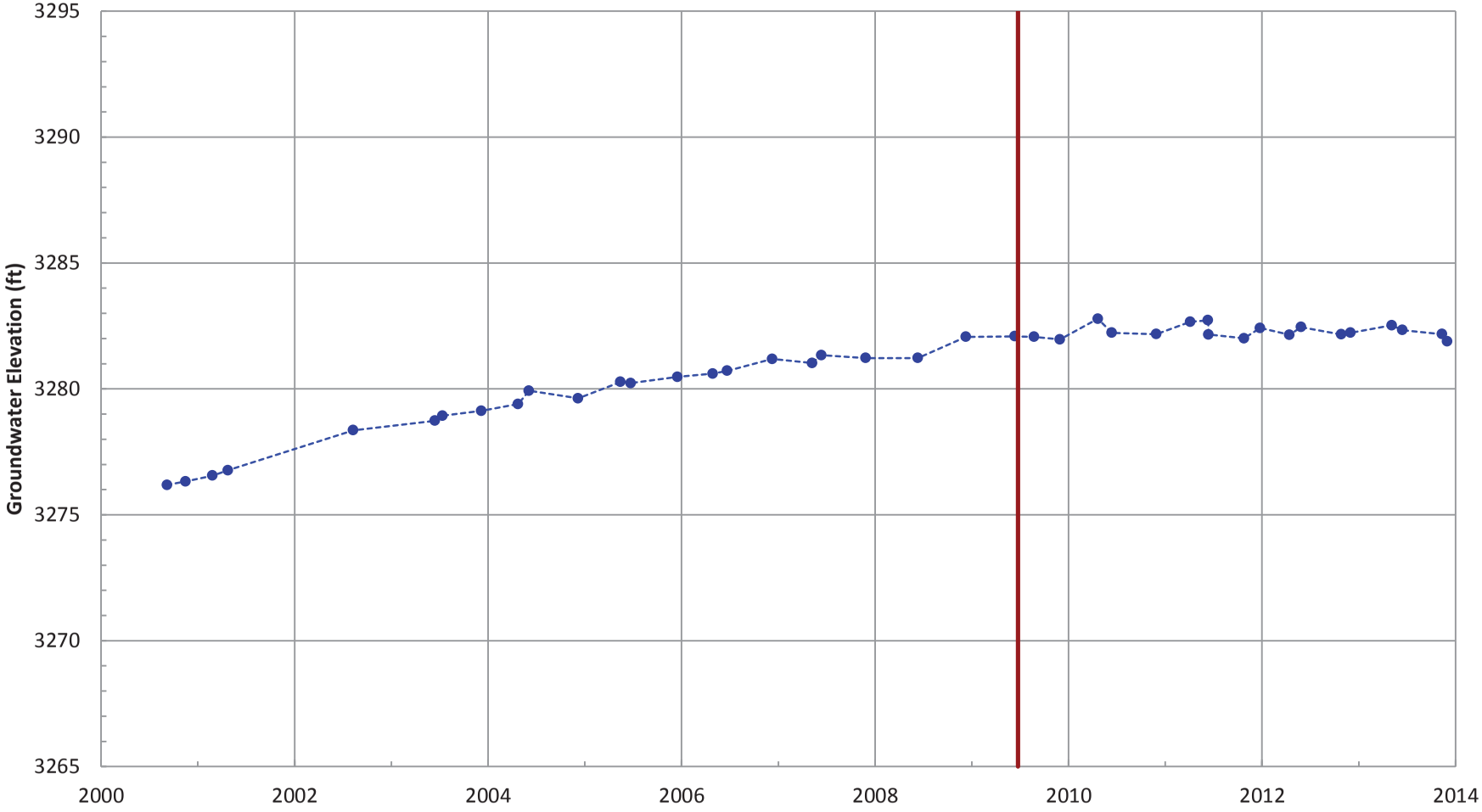
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.23 ft/yr
2012 - 2014 Data: Decreasing at 0.14 ft/yr

PTX06-1049
Hydrograph in Perched Aquifer



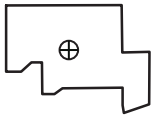
Notes:
1. The top of screen elevation is 3283.38 ft msl.
2. The bottom of screen elevation is 3243.38 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

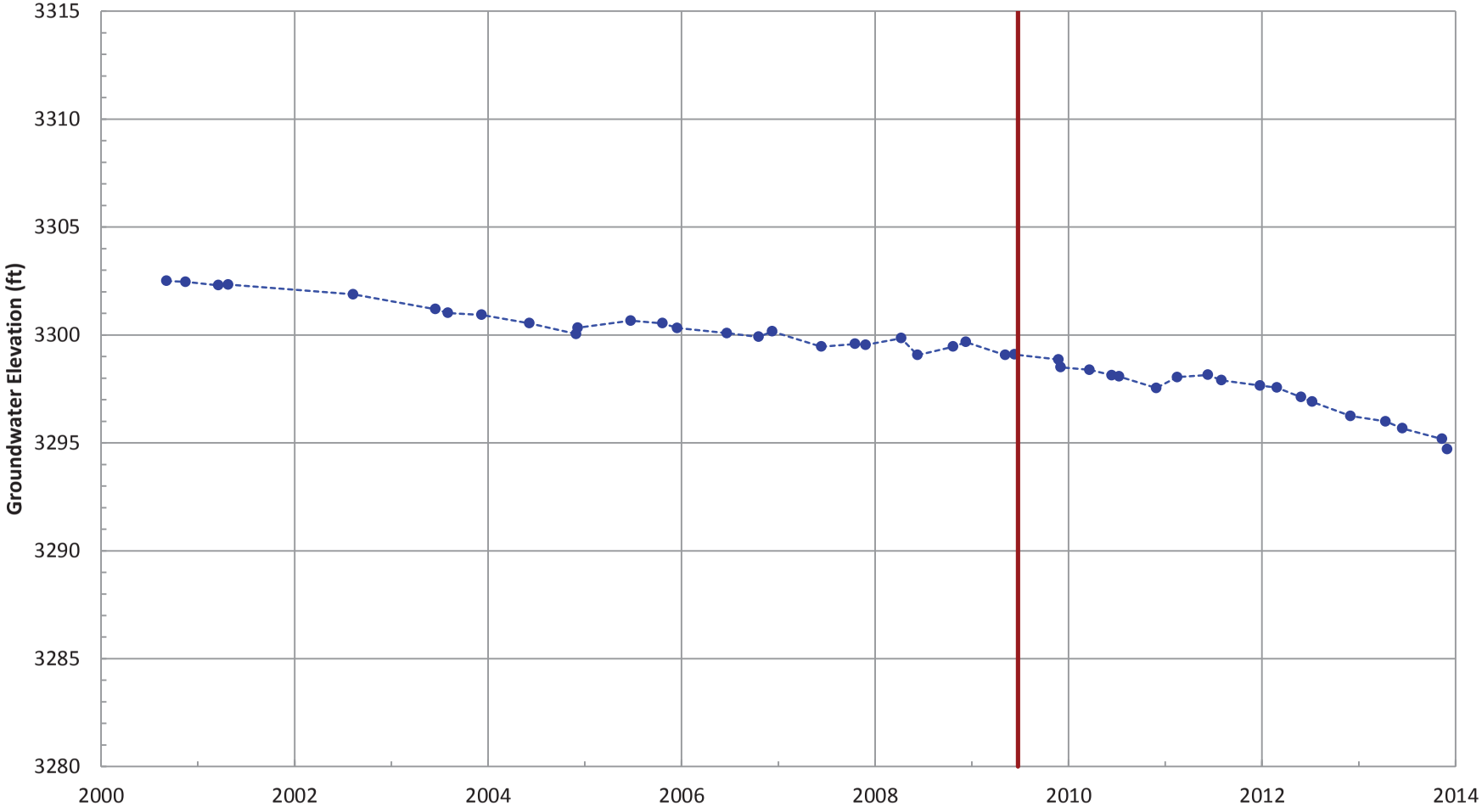
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Increasing at 0.43 ft/yr
2012 - 2014 Data: Decreasing at 0.86 ft/yr

PTX06-1050
Hydrograph in Perched Aquifer



Notes:
1. The top of screen elevation is 3294.96 ft msl.
2. The bottom of screen elevation is 3264.96 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

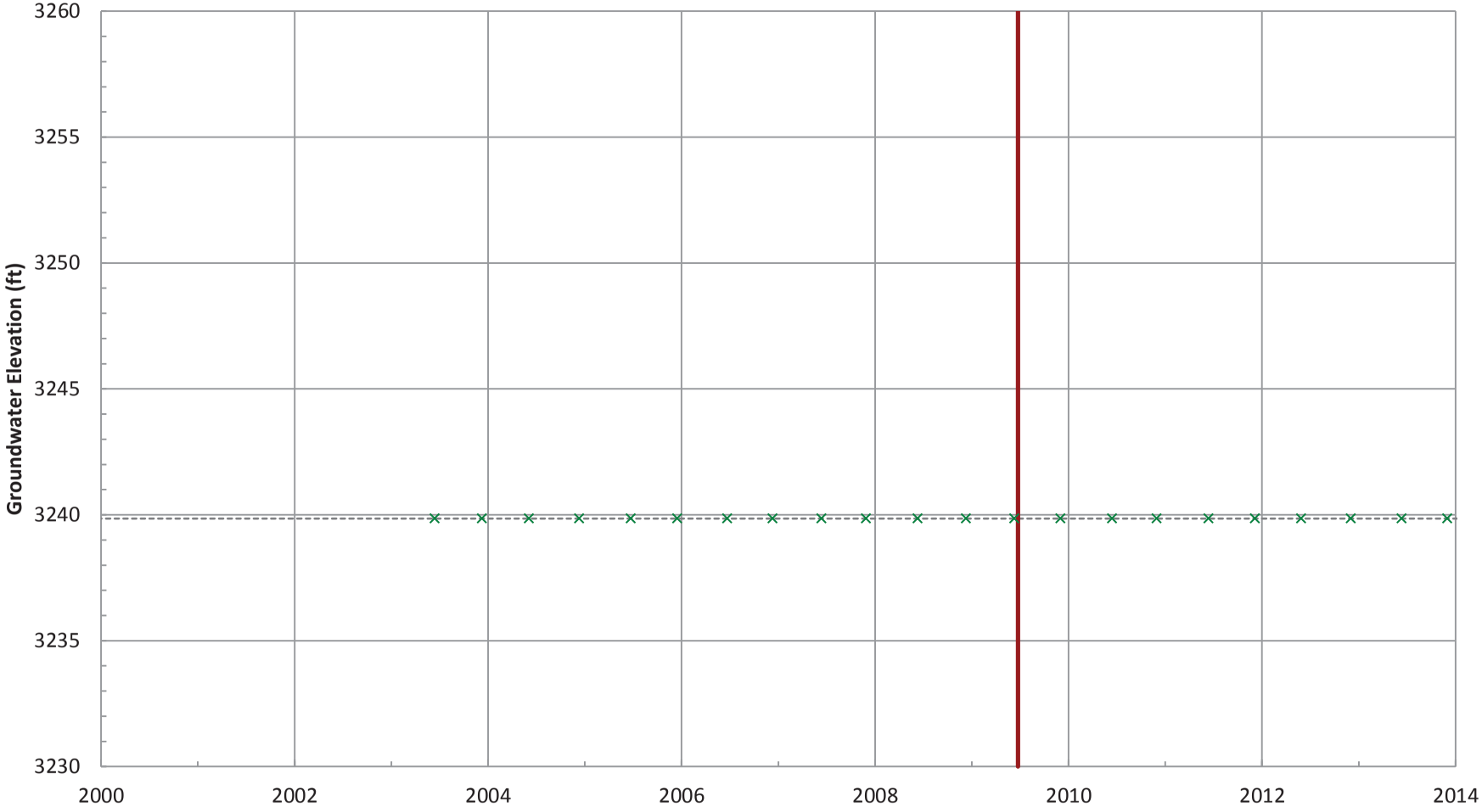
Groundwater Elevation

Start of Remedial Action

Well Location

Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.49 ft/yr
2012 - 2014 Data: Decreasing at 1.73 ft/yr

PTX06-1051
Hydrograph in Perched Aquifer

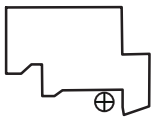


Notes:
1. The top of screen elevation is 3259.85 ft msl.
2. The bottom of screen elevation is 3239.85 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

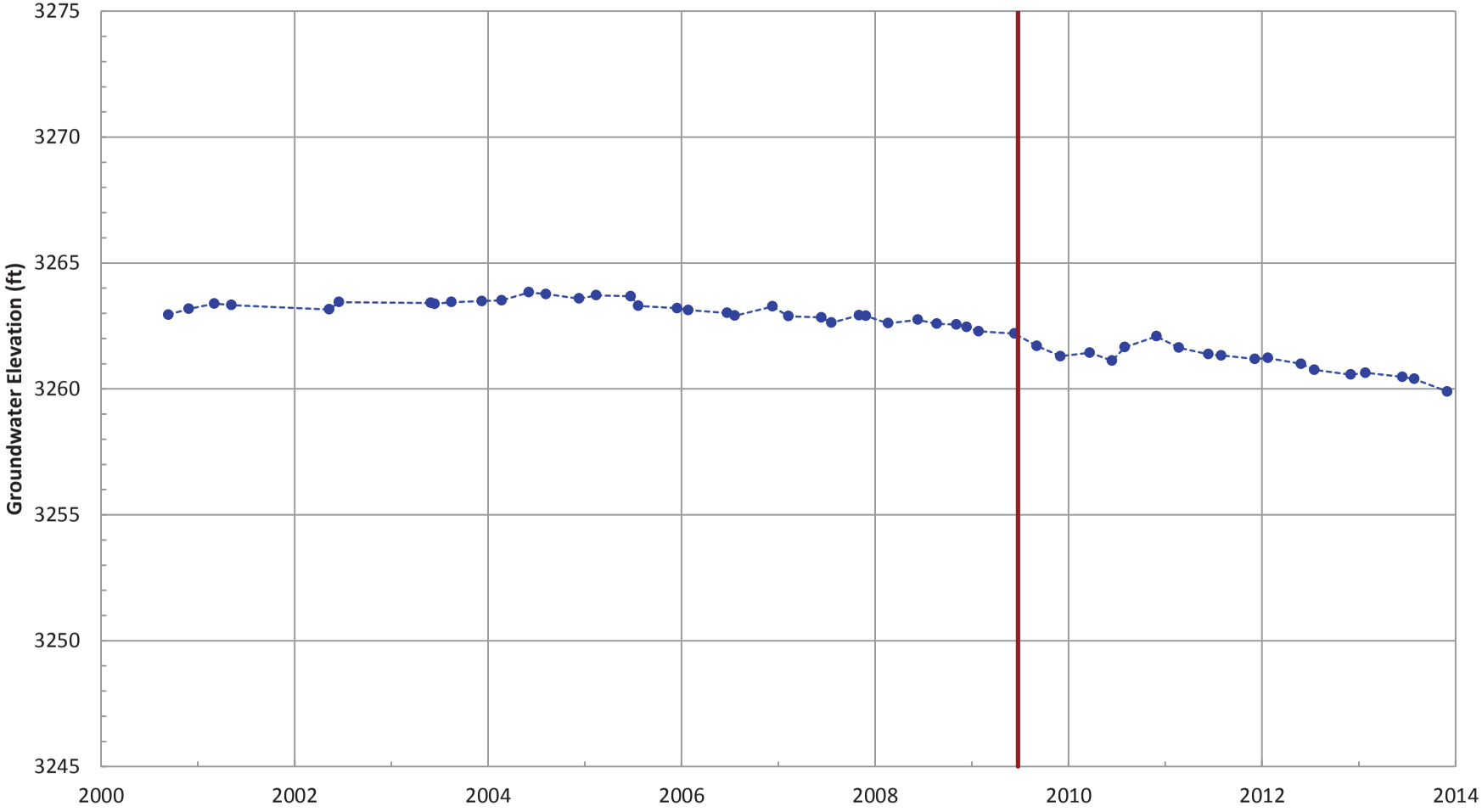
Groundwater Elevation
Bottom of Screen Elevation
No Water Detected
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: N/A (No Measurements)
2012 - 2014 Data: N/A (No Measurements)

PTX06-1052
Hydrograph in Perched Aquifer



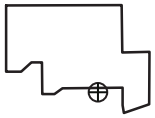
Notes:
1. The top of screen elevation is 3266.45 ft msl.
2. The bottom of screen elevation is 3246.45 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

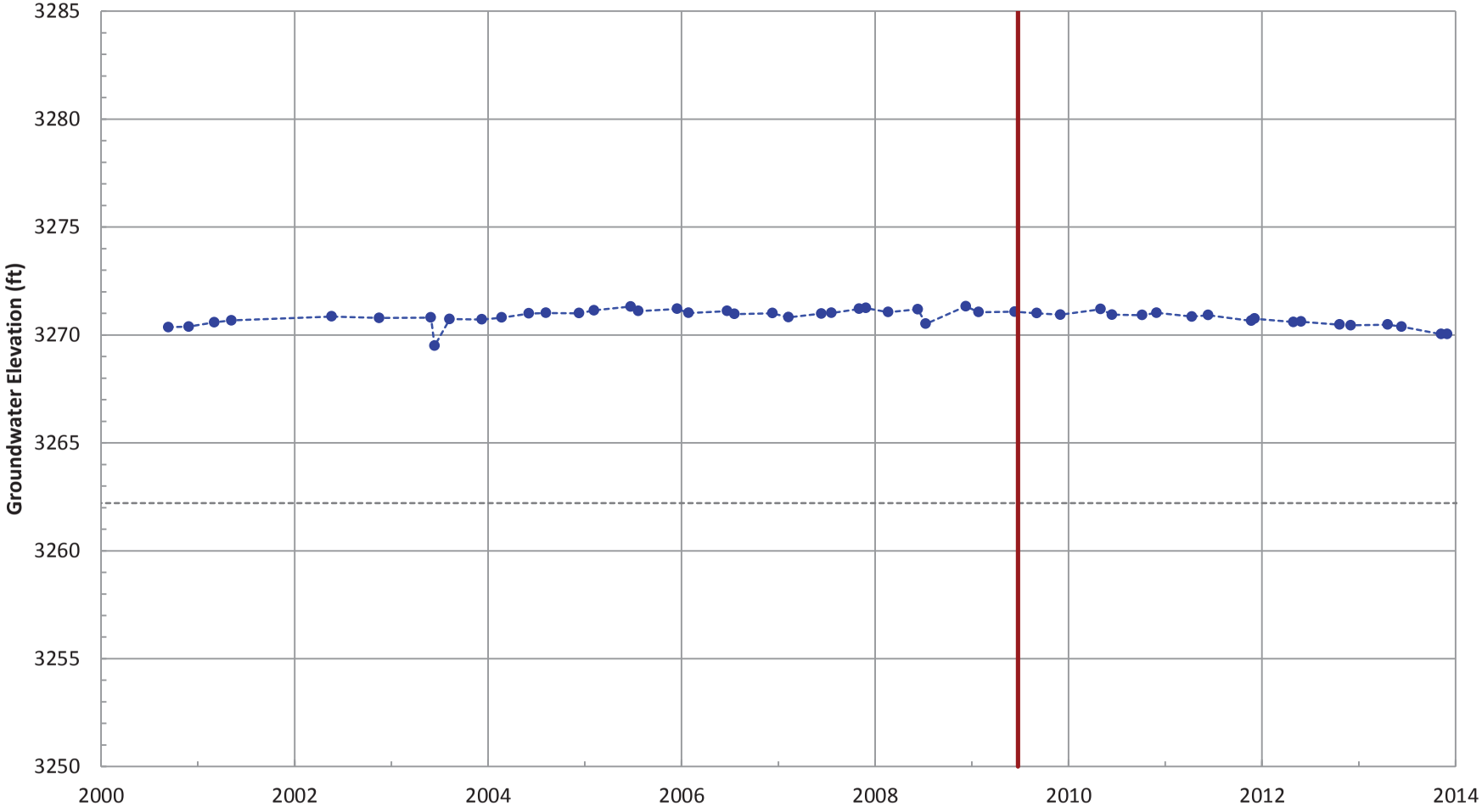
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.26 ft/yr
2012 - 2014 Data: Decreasing at 0.86 ft/yr

PTX06-1053
Hydrograph in Perched Aquifer

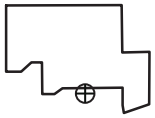


Notes:
1. The top of screen elevation is 3277.21 ft msl.
2. The bottom of screen elevation is 3262.21 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

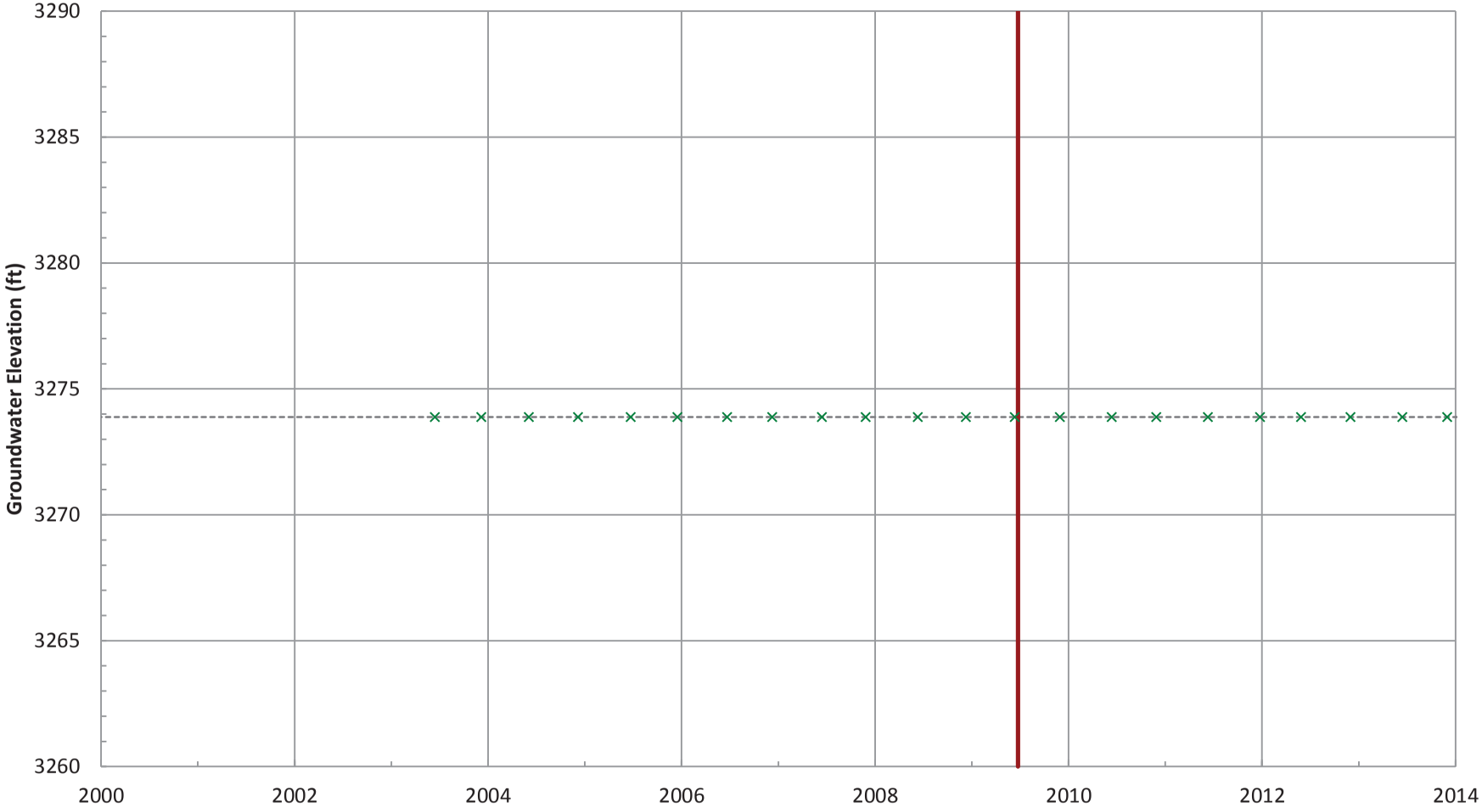
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: No Trend
2012 - 2014 Data: Decreasing at 0.76 ft/yr

PTX06-1055
Hydrograph in Perched Aquifer

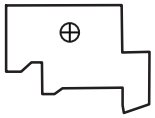


Notes:
1. The top of screen elevation is 3303.88 ft msl.
2. The bottom of screen elevation is 3273.88 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

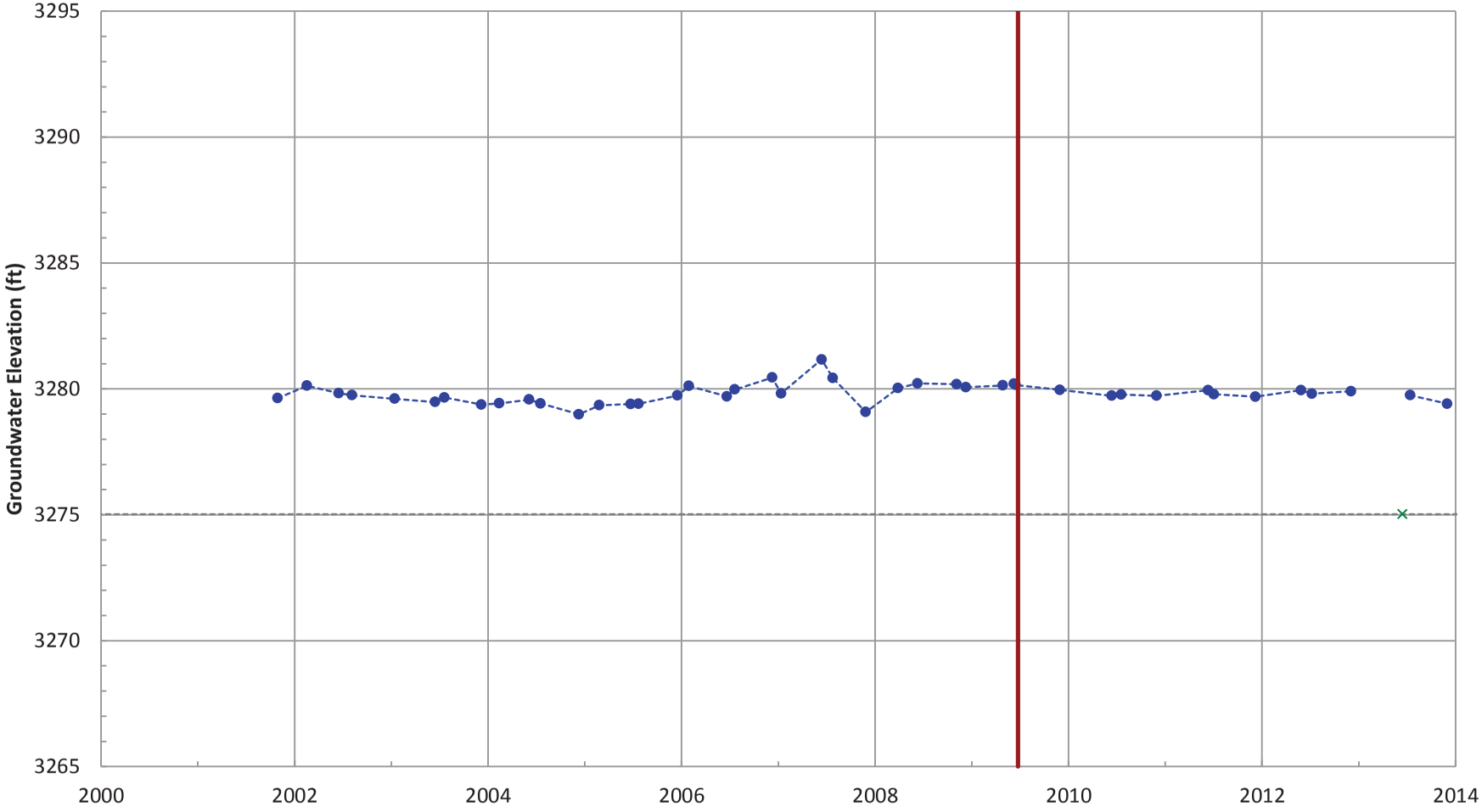
Groundwater Elevation
Bottom of Screen Elevation
No Water Detected
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: N/A (No Measurements)
2012 - 2014 Data: N/A (No Measurements)

PTX06-1069
Hydrograph in Perched Aquifer

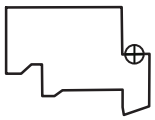


Notes:
1. The top of screen elevation is 3295.02 ft msl.
2. The bottom of screen elevation is 3275.02 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

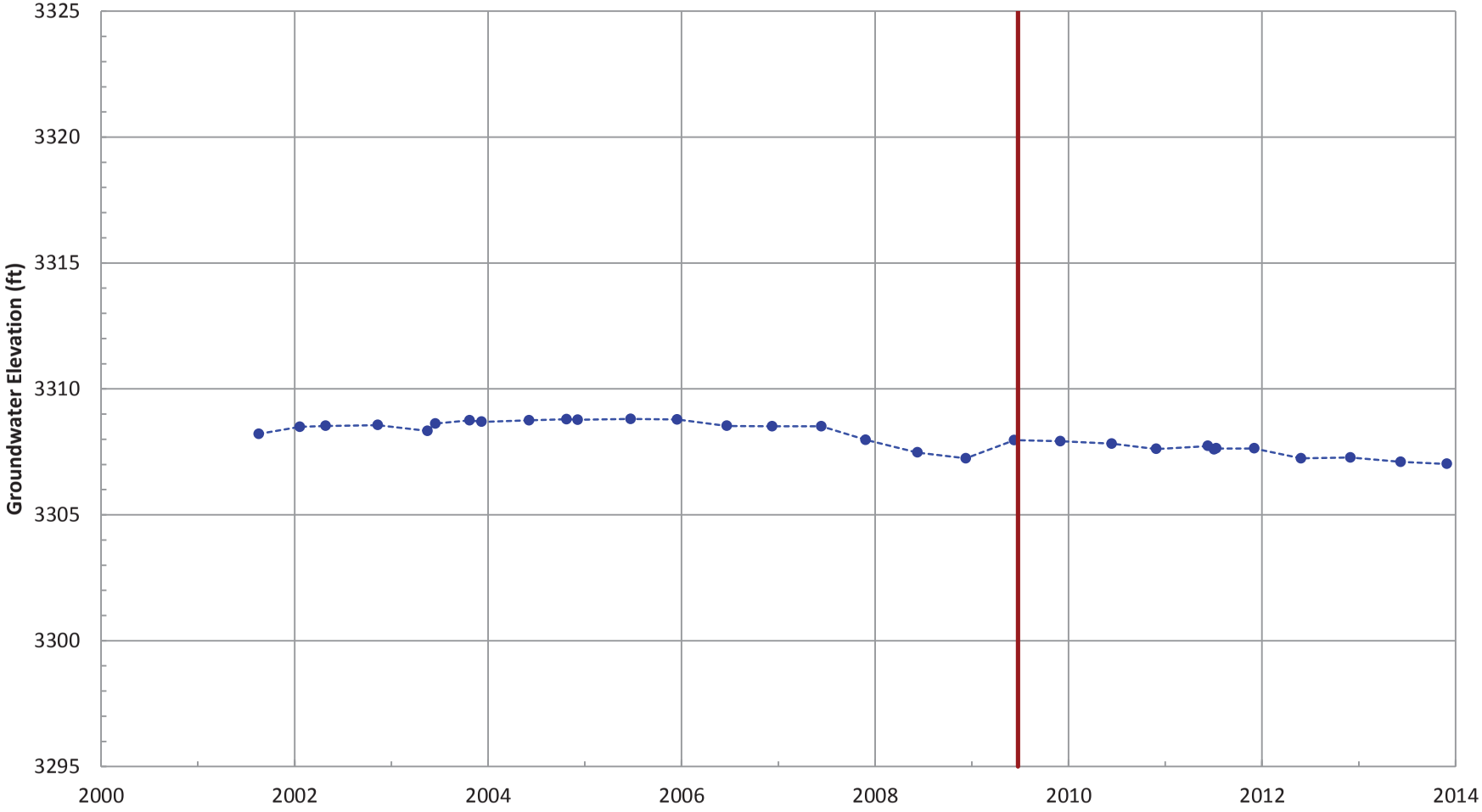
Groundwater Elevation
Bottom of Screen Elevation
No Water Detected
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: No Trend
2012 - 2014 Data: N/A (<3 Measurements)

PTX06-1071
Hydrograph in Perched Aquifer



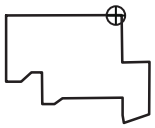
Notes:
1. The top of screen elevation is 3299.13 ft msl.
2. The bottom of screen elevation is 3269.13 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

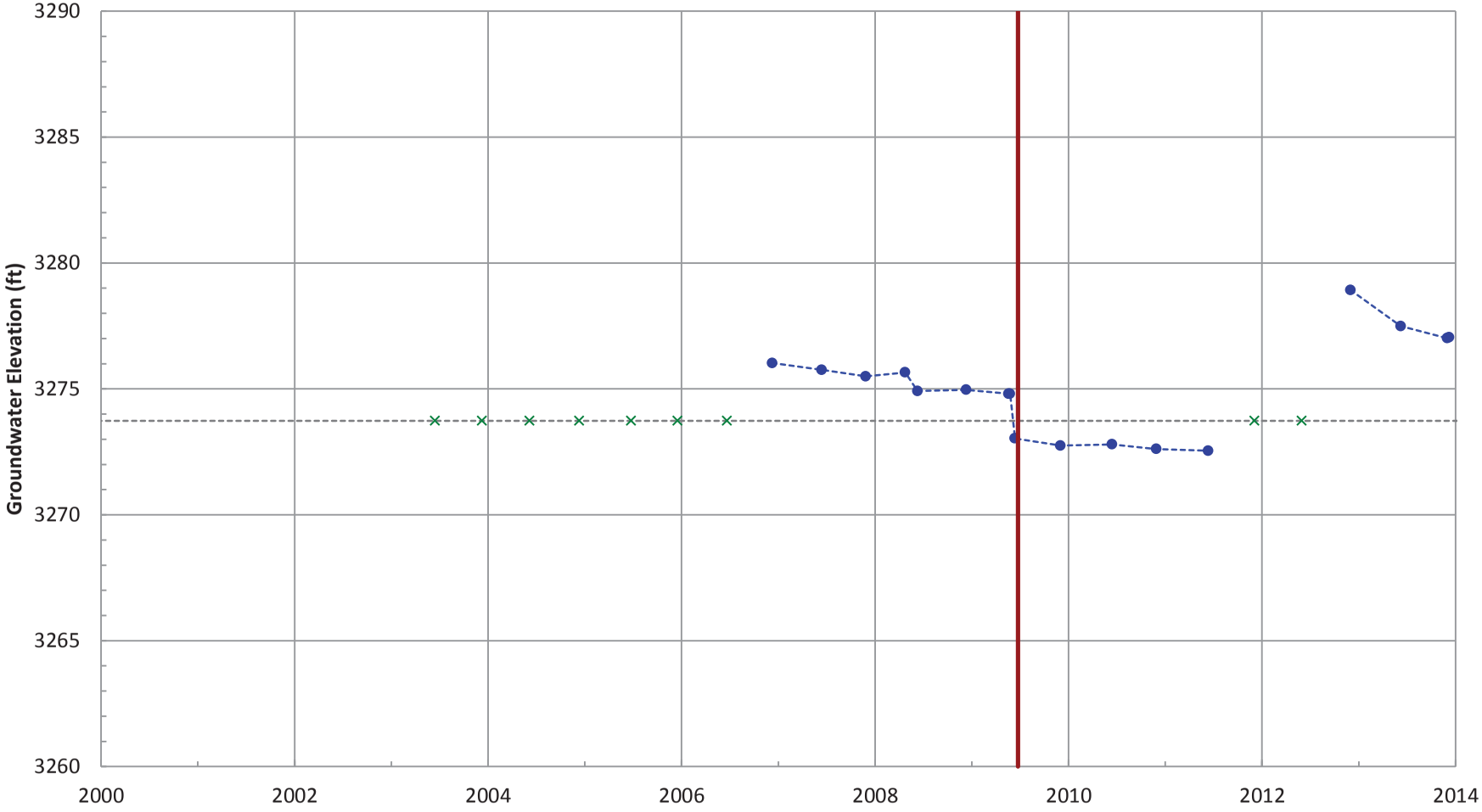
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.13 ft/yr
2012 - 2014 Data: N/A (<3 Measurements)

PTX06-1073A
Hydrograph in Perched Aquifer

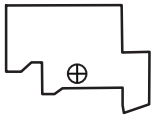


Notes:
1. The top of screen elevation is 3303.73 ft msl.
2. The bottom of screen elevation is 3273.73 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

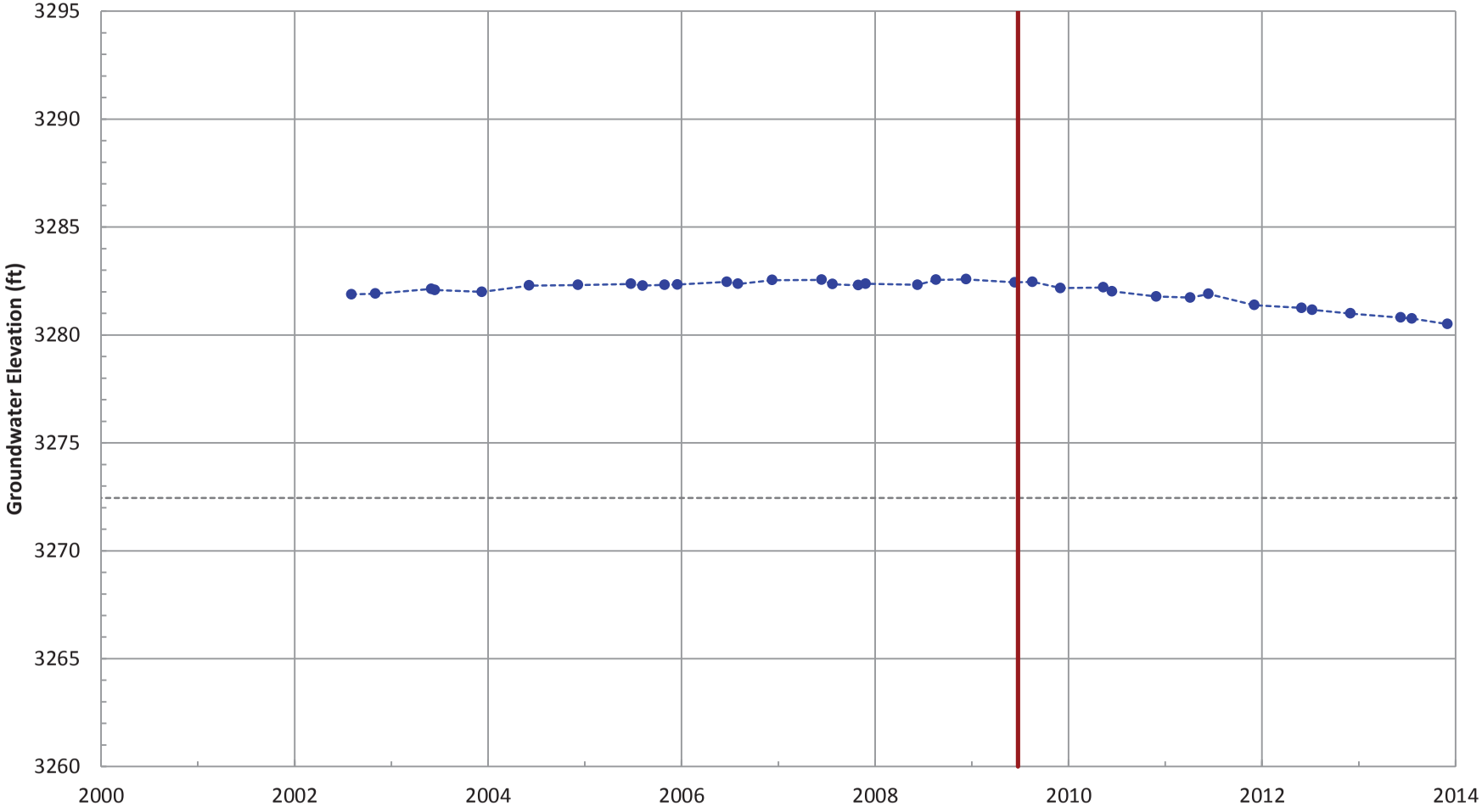
Groundwater Elevation
Bottom of Screen Elevation
No Water Detected
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Increasing at 0.29 ft/yr
2012 - 2014 Data: Decreasing at 0.94 ft/yr

PTX06-1077A
Hydrograph in Perched Aquifer

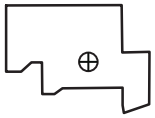


Notes:
1. The top of screen elevation is 3297.44 ft msl.
2. The bottom of screen elevation is 3272.44 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

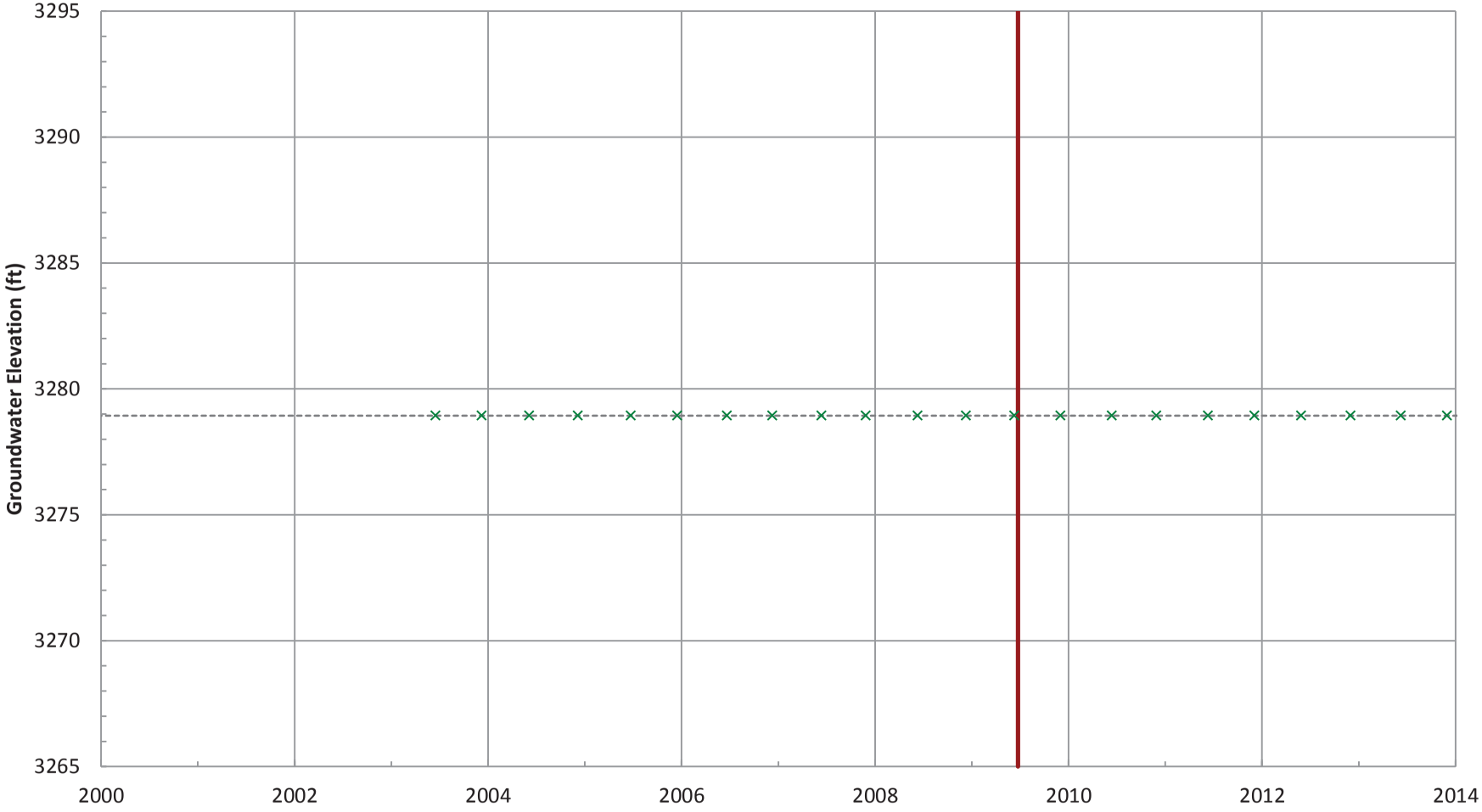
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.11 ft/yr
2012 - 2014 Data: Decreasing at 0.64 ft/yr

PTX06-1078
Hydrograph in Perched Aquifer

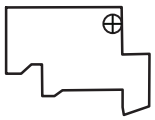


Notes:
1. The top of screen elevation is 3293.94 ft msl.
2. The bottom of screen elevation is 3278.94 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

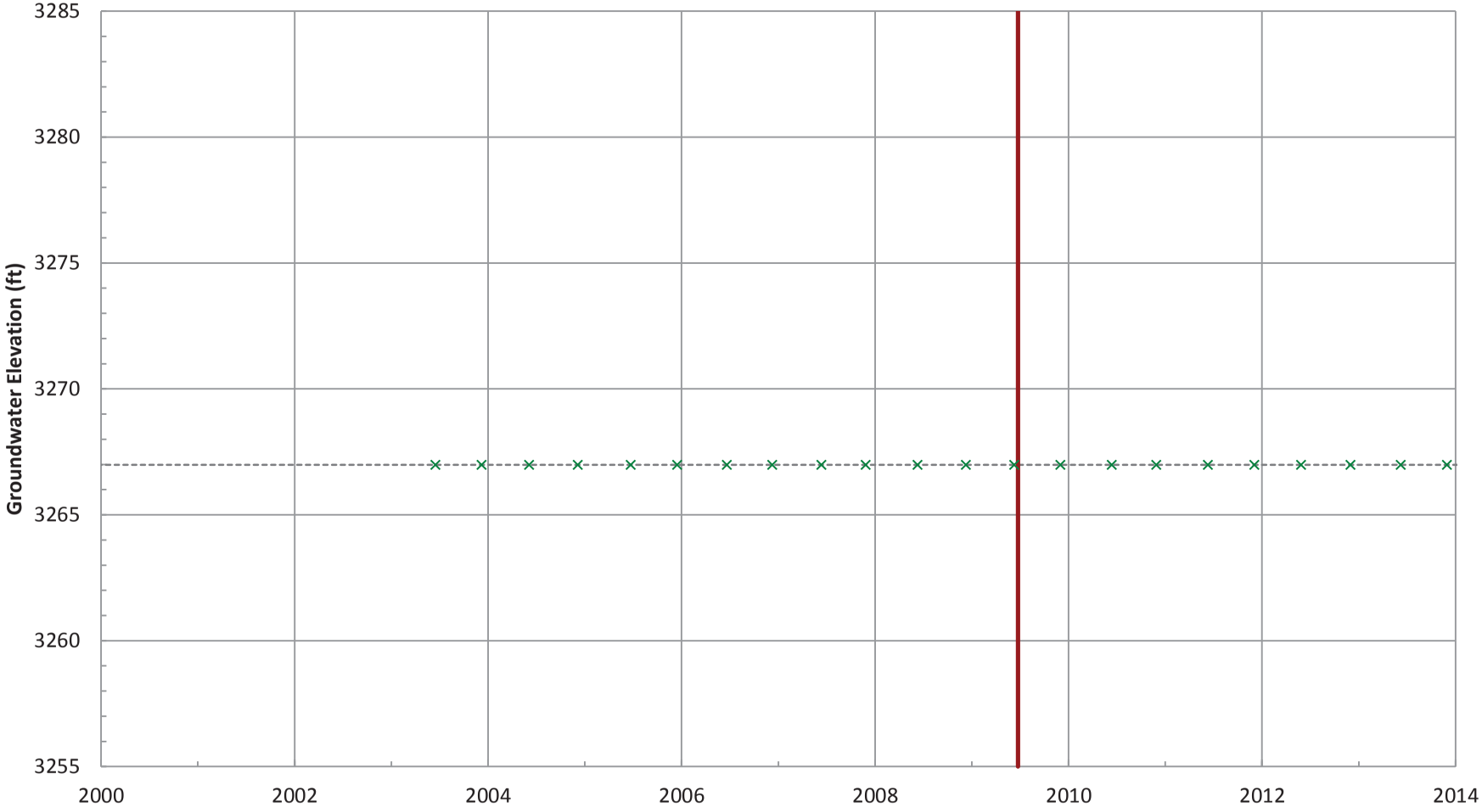
Groundwater Elevation
Bottom of Screen Elevation
No Water Detected
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: N/A (No Measurements)
2012 - 2014 Data: N/A (No Measurements)

PTX06-1079
Hydrograph in Perched Aquifer

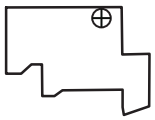


Notes:
1. The top of screen elevation is 3296.98 ft msl.
2. The bottom of screen elevation is 3266.98 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

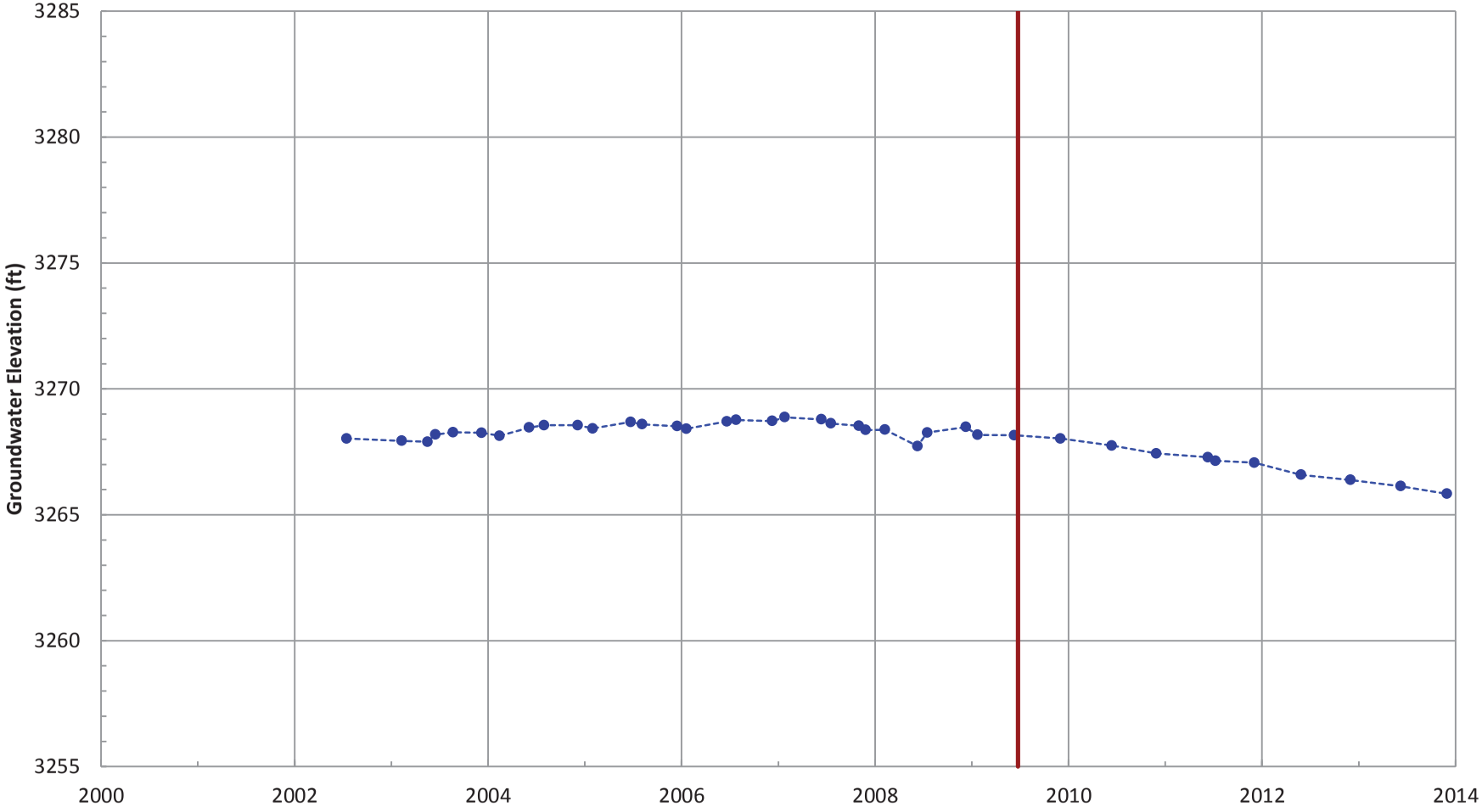
Groundwater Elevation
Bottom of Screen Elevation
No Water Detected
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: N/A (No Measurements)
2012 - 2014 Data: N/A (No Measurements)

PTX06-1080
Hydrograph in Perched Aquifer



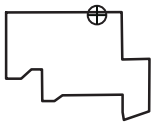
Notes:
1. The top of screen elevation is 3280.12 ft msl.
2. The bottom of screen elevation is 3250.12 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

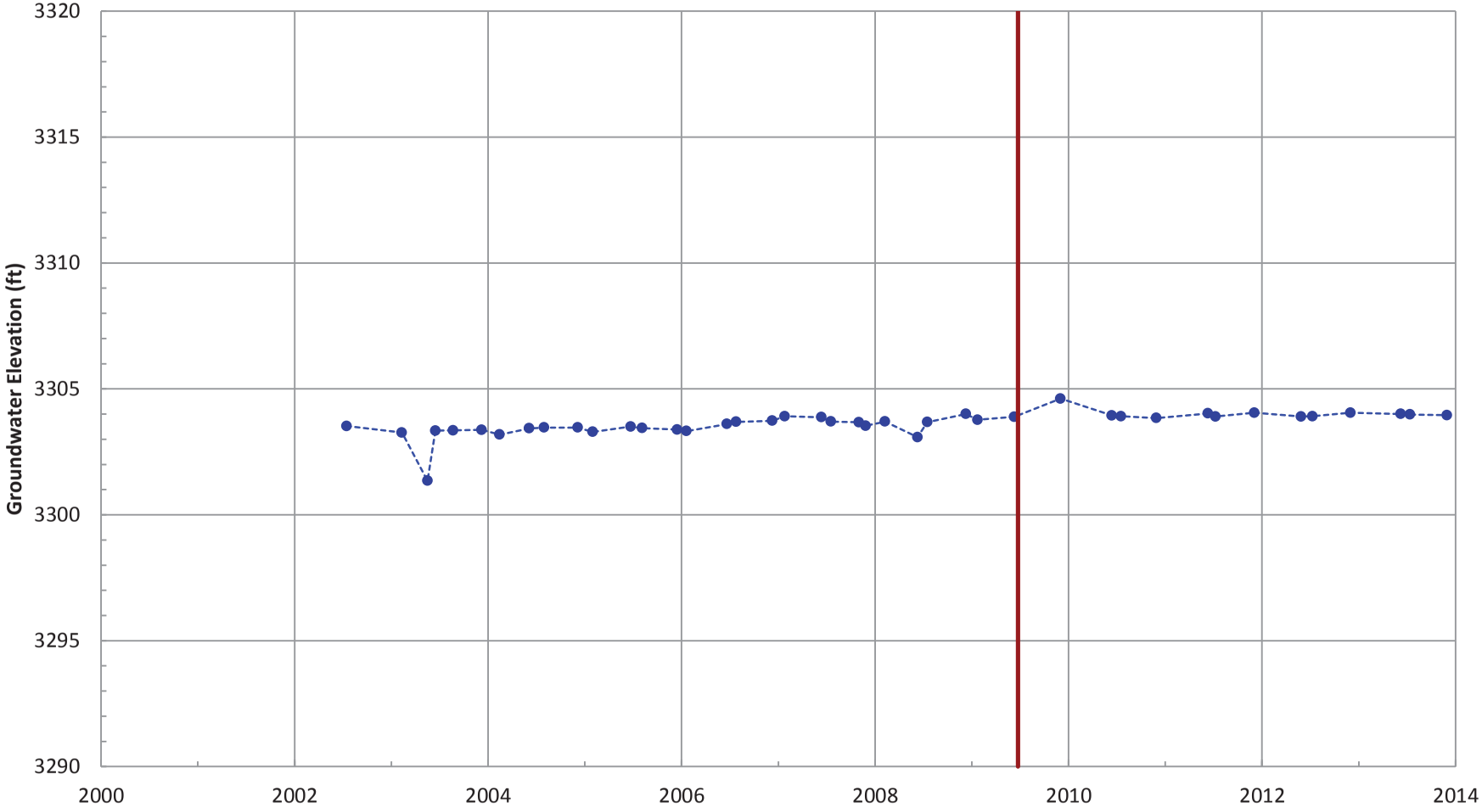
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.17 ft/yr
2012 - 2014 Data: N/A (<3 Measurements)

PTX06-1081
Hydrograph in Perched Aquifer



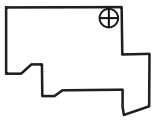
Notes:
1. The top of screen elevation is 3316.5 ft msl.
2. The bottom of screen elevation is 3286.5 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

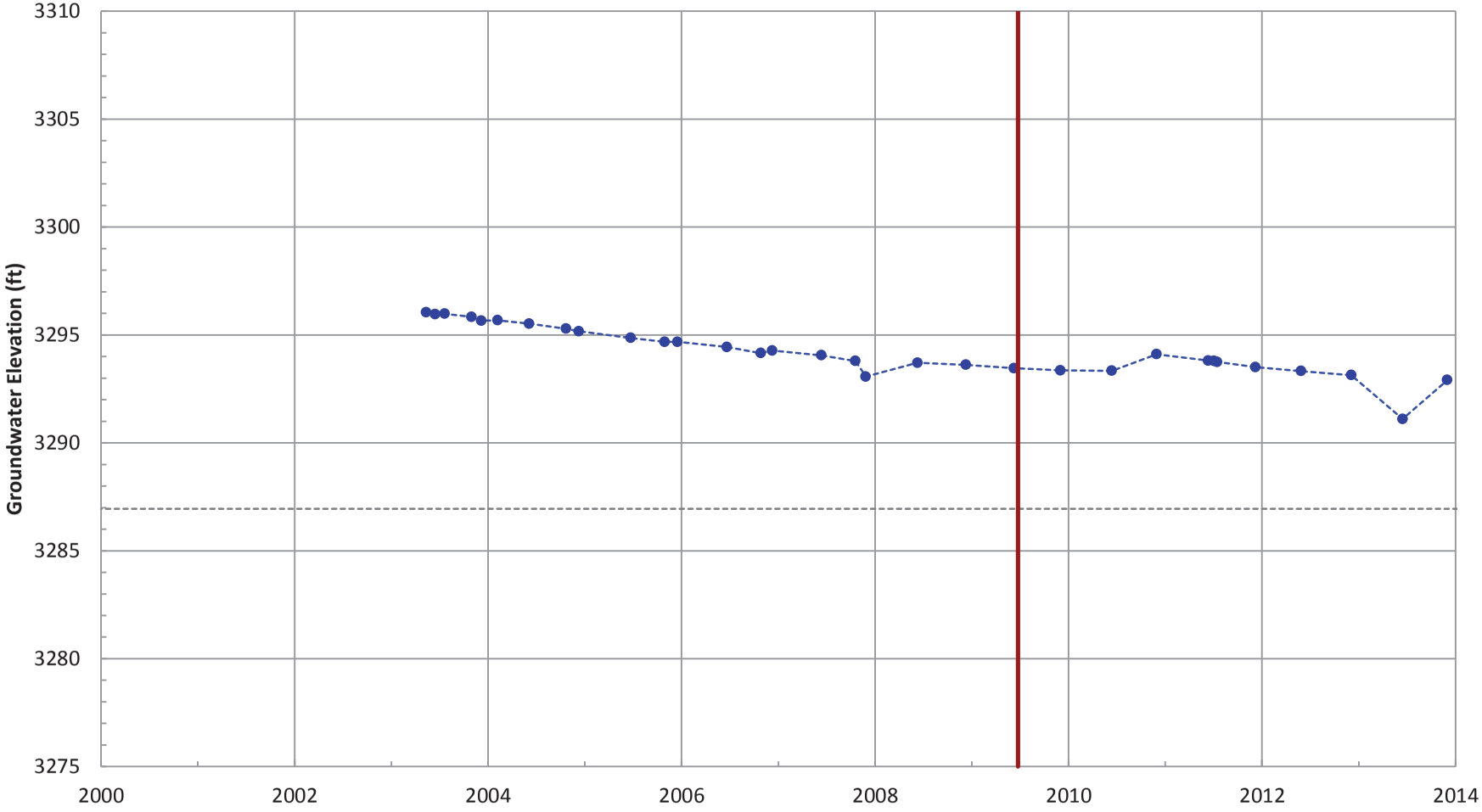
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: No Trend
2012 - 2014 Data: No Trend

PTX06-1082
Hydrograph in Perched Aquifer

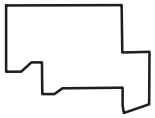


Notes:
1. The top of screen elevation is 3311.94 ft msl.
2. The bottom of screen elevation is 3286.94 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

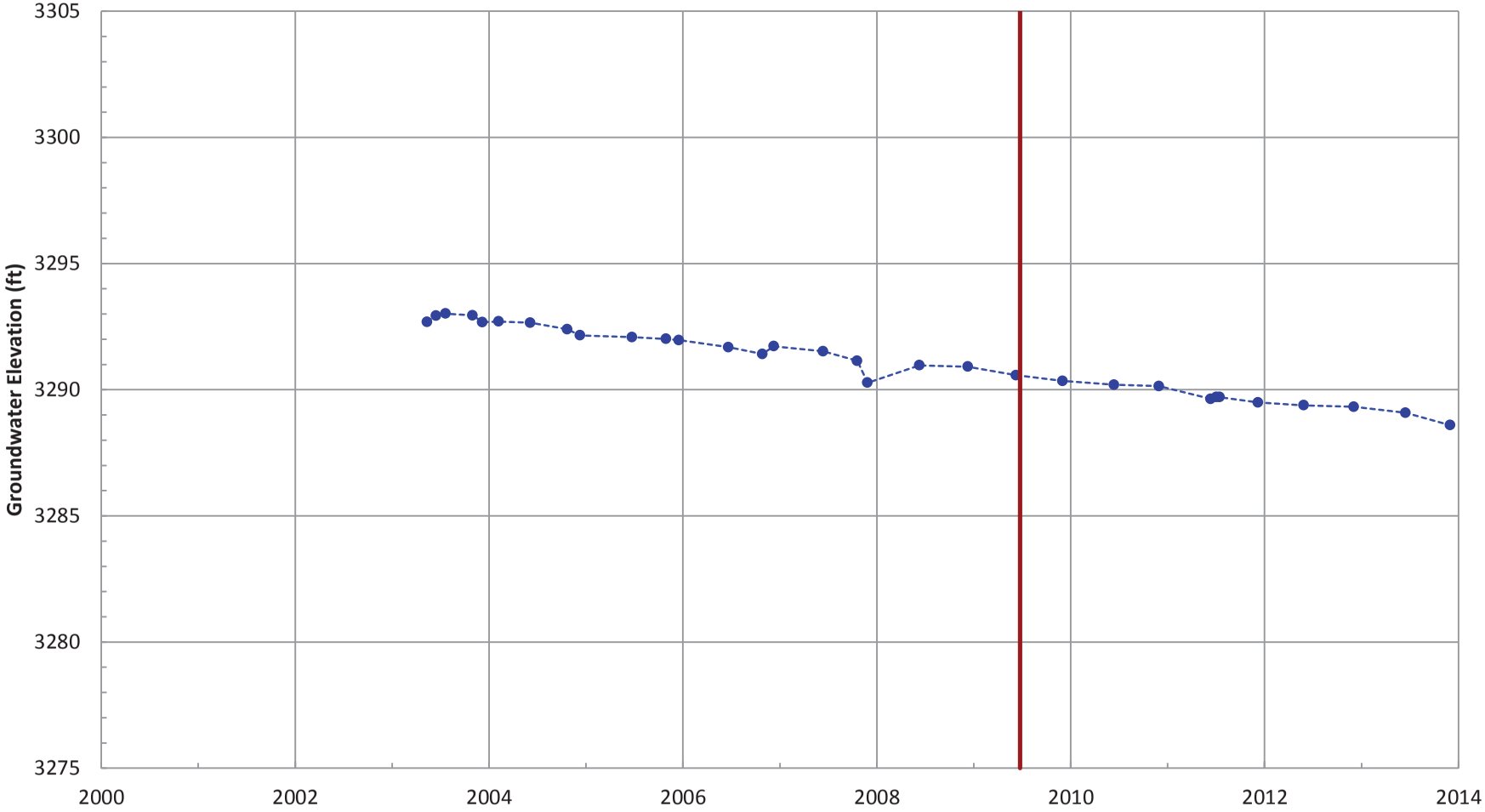
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.30 ft/yr
2012 - 2014 Data: N/A (<3 Measurements)

PTX06-1083
Hydrograph in Perched Aquifer



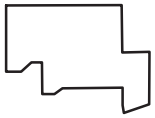
Notes:
1. The top of screen elevation is 3299.91 ft msl.
2. The bottom of screen elevation is 3269.91 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

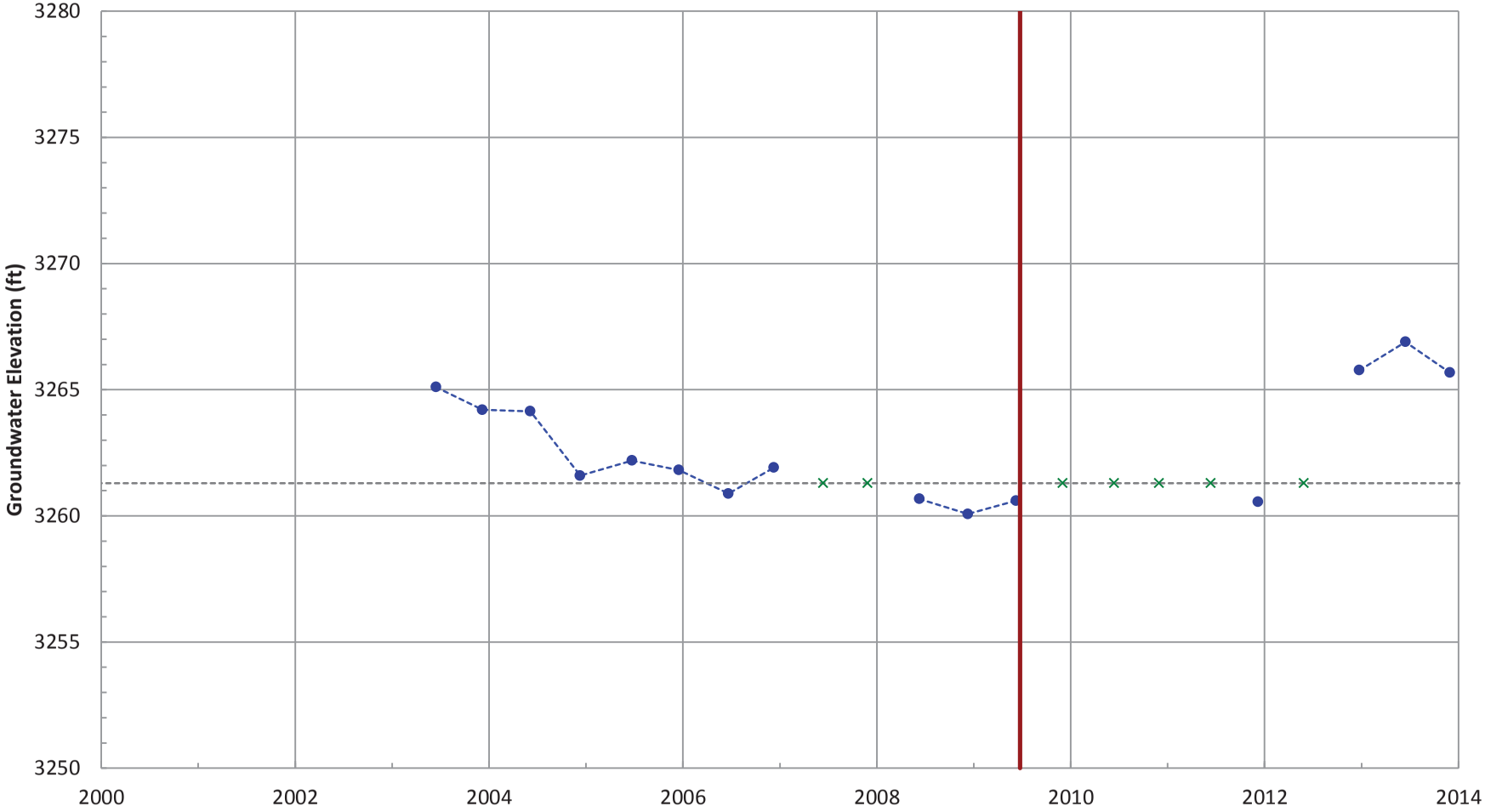
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.39 ft/yr
2012 - 2014 Data: N/A (<3 Measurements)

PTX06-1084
Hydrograph in Perched Aquifer

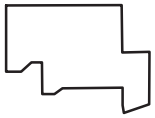


Notes:
1. The top of screen elevation is 3281.3 ft msl.
2. The bottom of screen elevation is 3261.3 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

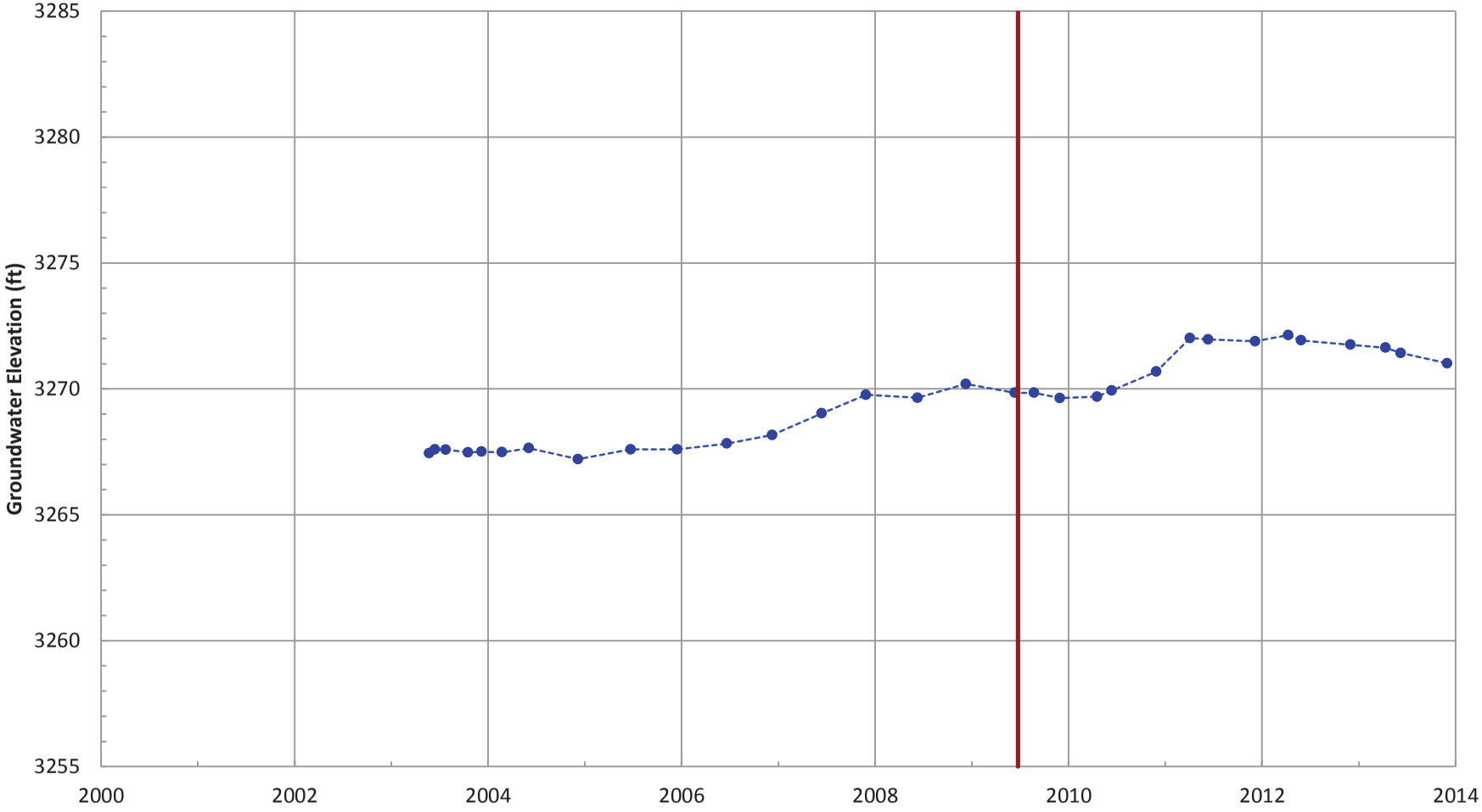
Groundwater Elevation
Bottom of Screen Elevation
No Water Detected
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Increasing at 0.16 ft/yr
2012 - 2014 Data: No Trend

PTX06-1085
Hydrograph in Perched Aquifer



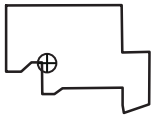
Notes:
1. The top of screen elevation is 3271.52 ft msl.
2. The bottom of screen elevation is 3246.52 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

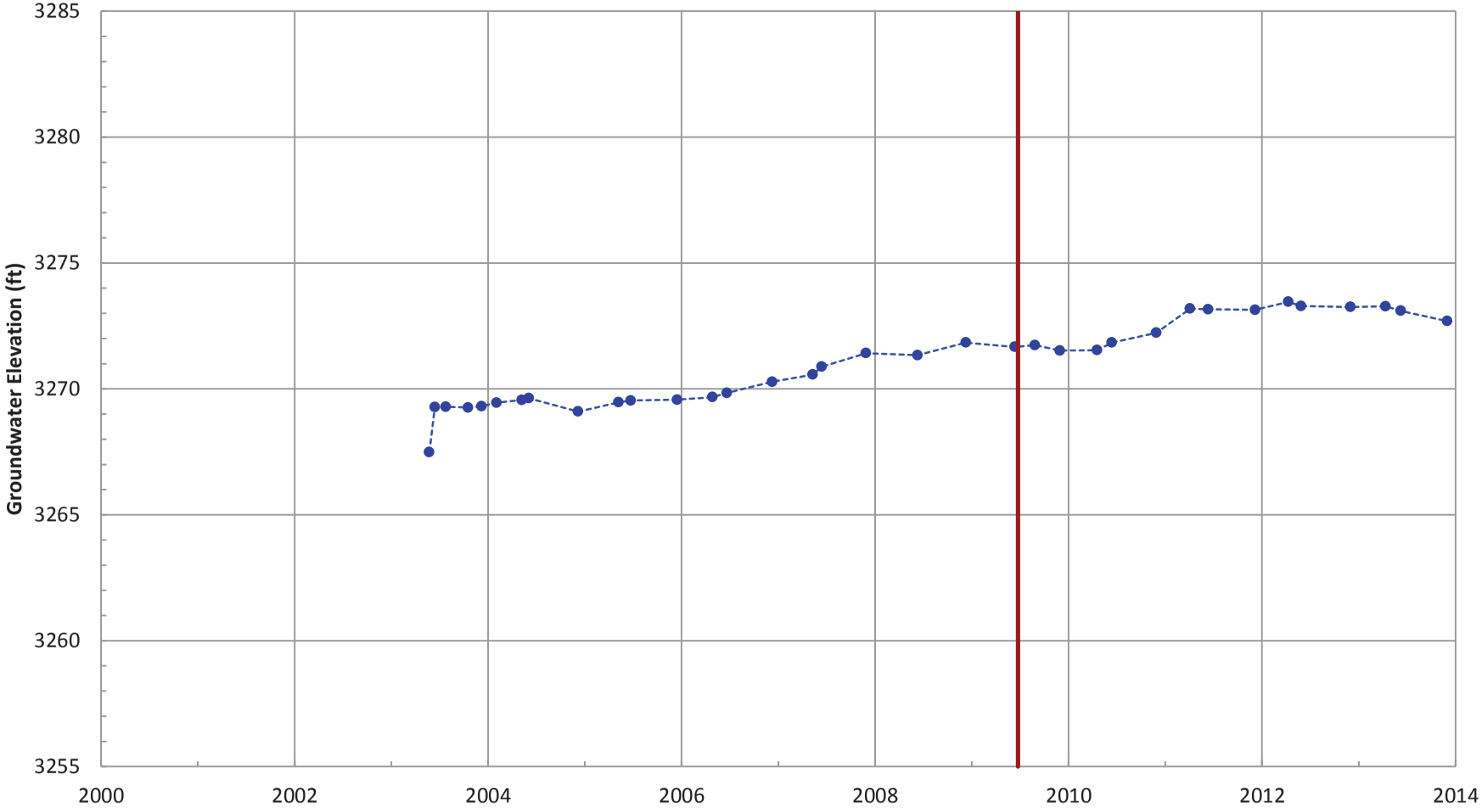
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Increasing at 0.48 ft/yr
2012 - 2014 Data: Decreasing at 0.94 ft/yr

PTX06-1086
Hydrograph in Perched Aquifer



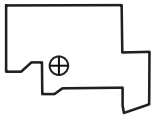
Notes:
1. The top of screen elevation is 3270.72 ft msl.
2. The bottom of screen elevation is 3225.72 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

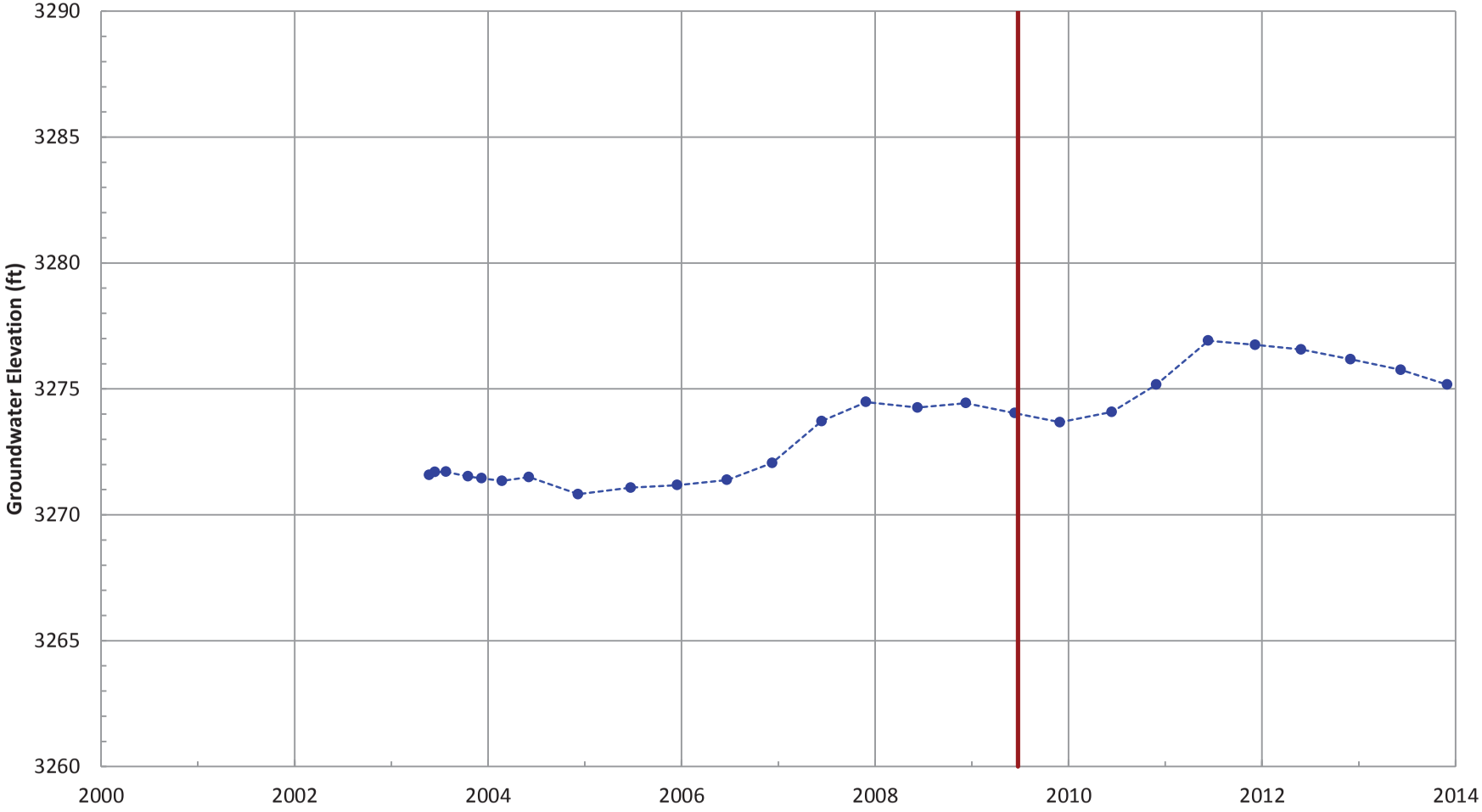
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Increasing at 0.46 ft/yr
2012 - 2014 Data: Decreasing at 0.91 ft/yr

PTX06-1087
Hydrograph in Perched Aquifer



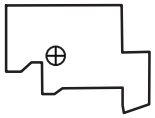
Notes:
1. The top of screen elevation is 3273.68 ft msl.
2. The bottom of screen elevation is 3243.68 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

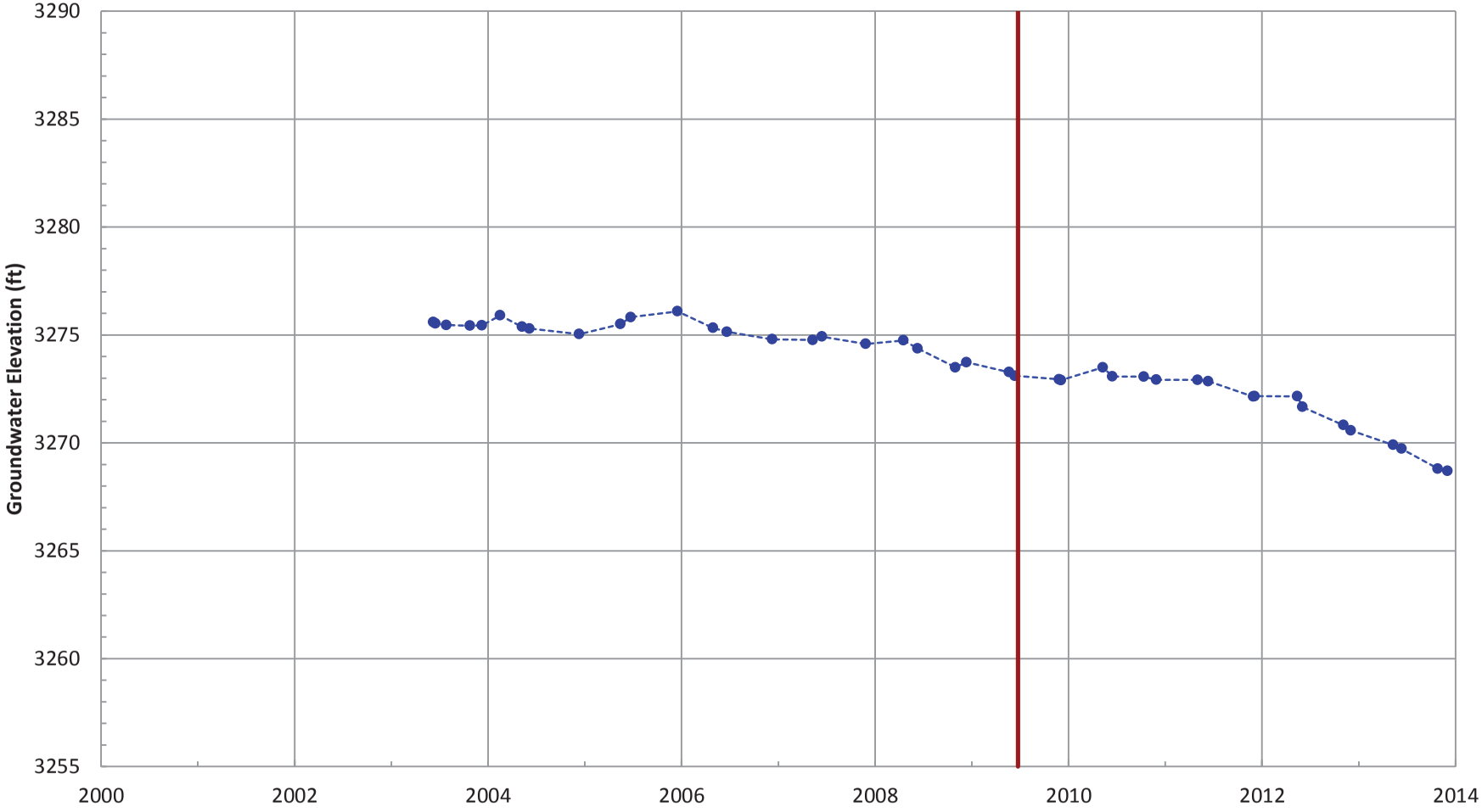
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Increasing at 0.53 ft/yr
2012 - 2014 Data: N/A (<3 Measurements)

PTX06-1088
Hydrograph in Perched Aquifer



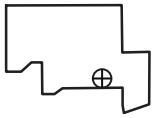
Notes:
1. The top of screen elevation is 3282.54 ft msl.
2. The bottom of screen elevation is 3247.54 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

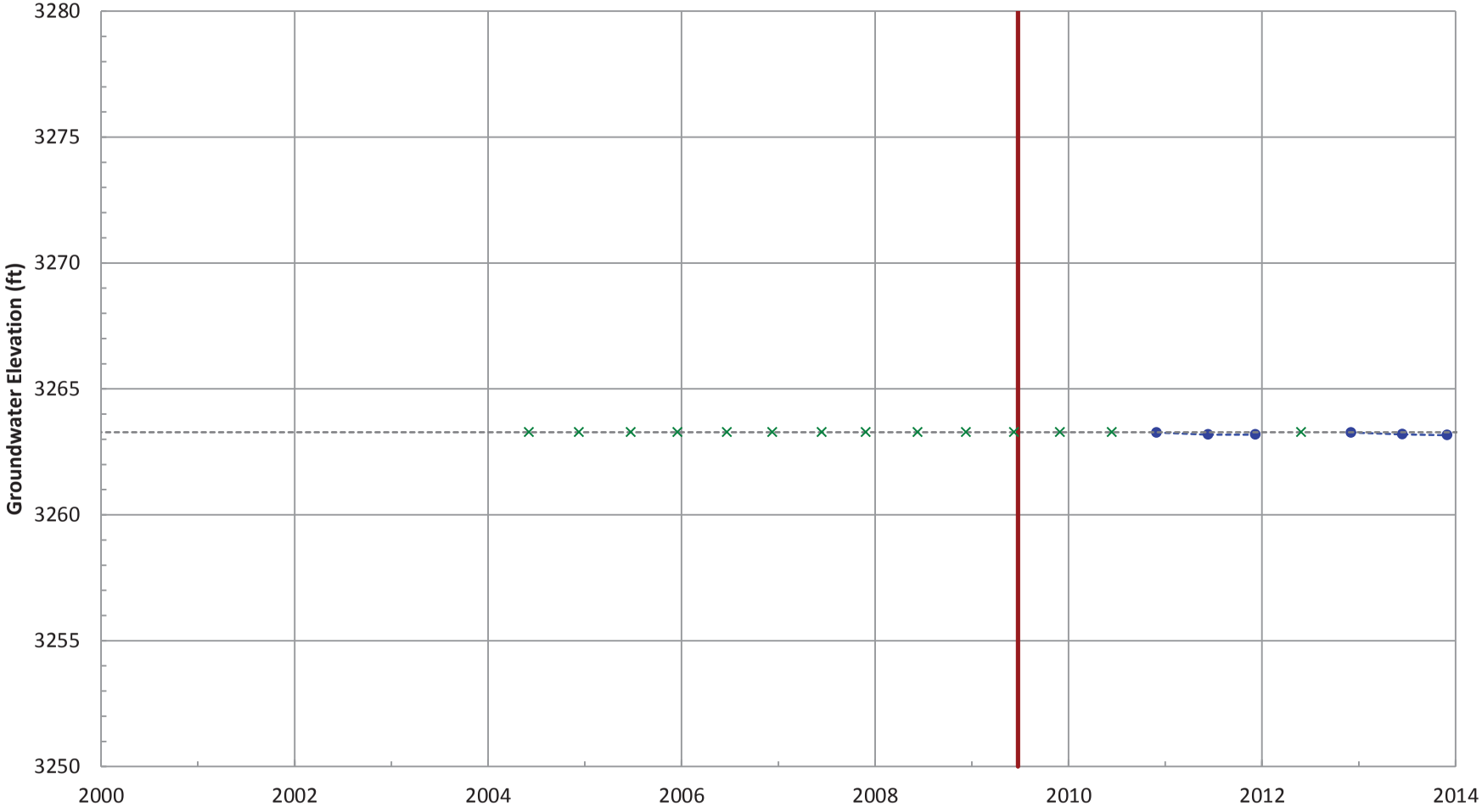
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.55 ft/yr
2012 - 2014 Data: Decreasing at 2.22 ft/yr

PTX06-1089
Hydrograph in Perched Aquifer

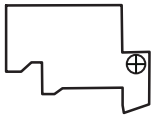


Notes:
1. The top of screen elevation is 3278.28 ft msl.
2. The bottom of screen elevation is 3263.28 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

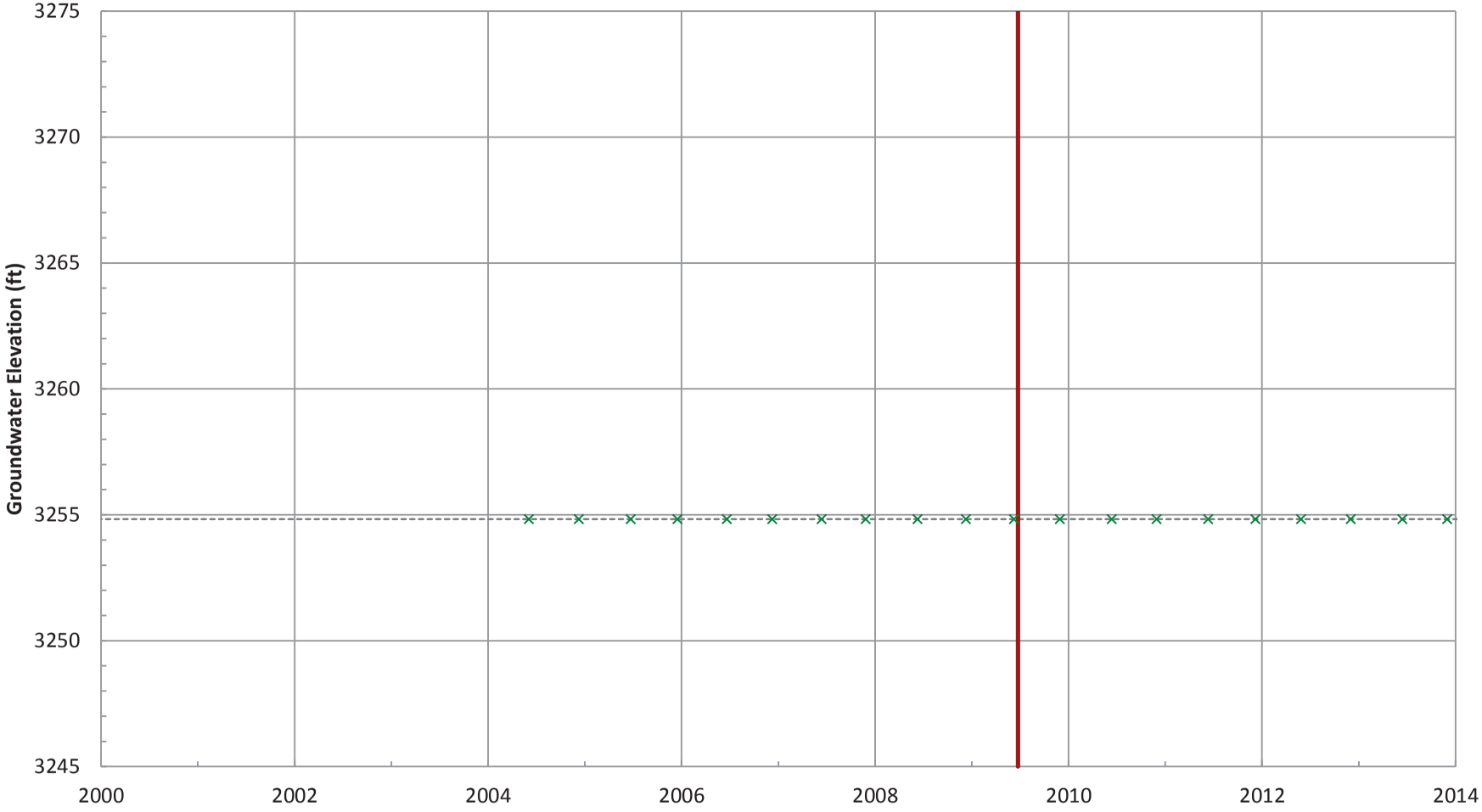
Groundwater Elevation
Bottom of Screen Elevation
No Water Detected
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: No Trend
2012 - 2014 Data: N/A (<3 Measurements)

PTX06-1090
Hydrograph in Perched Aquifer

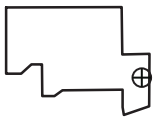


Notes:
1. The top of screen elevation is 3269.83 ft msl.
2. The bottom of screen elevation is 3254.83 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

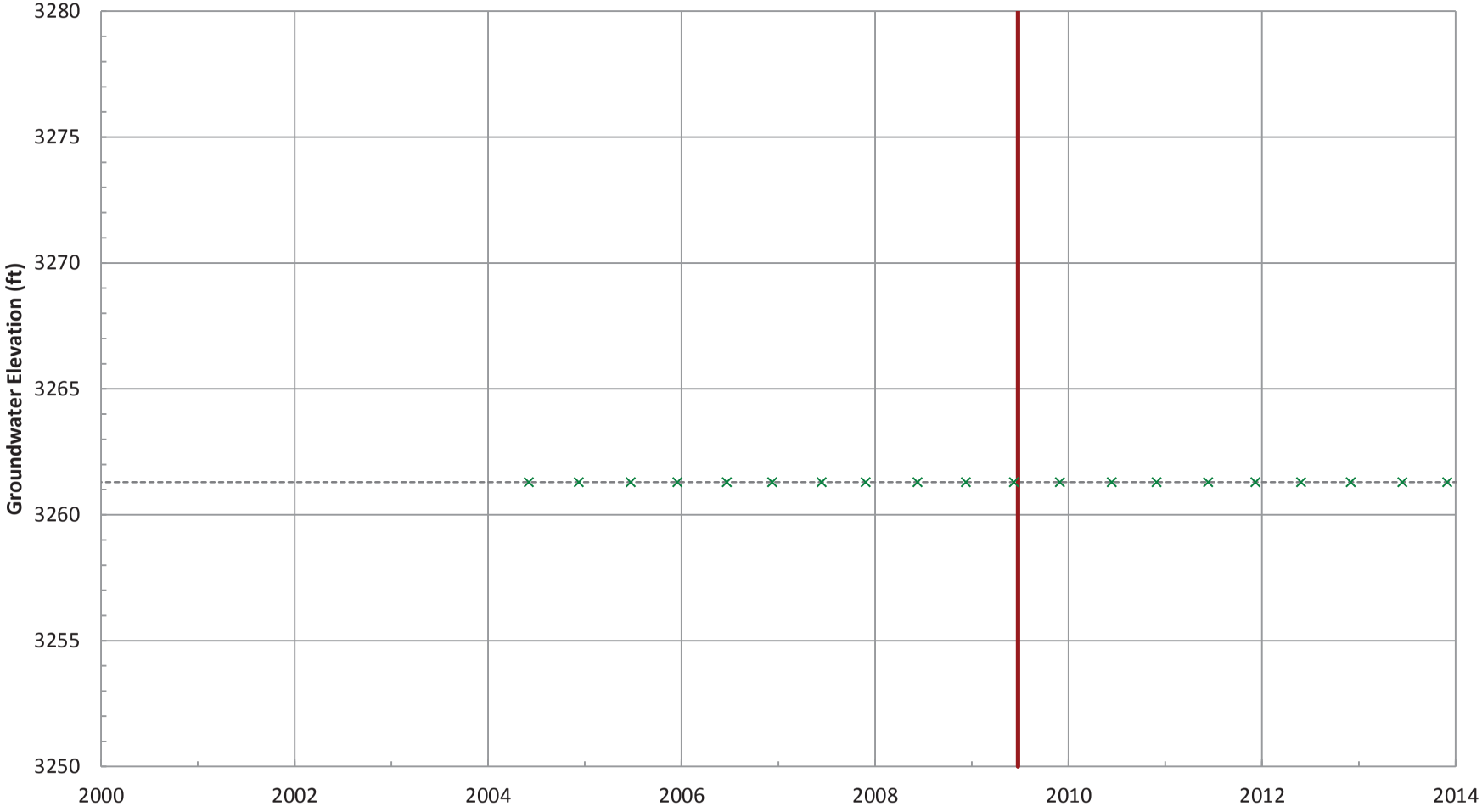
Groundwater Elevation
Bottom of Screen Elevation
No Water Detected
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: N/A (No Measurements)
2012 - 2014 Data: N/A (No Measurements)

PTX06-1091
Hydrograph in Perched Aquifer

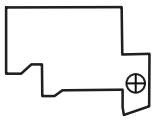


Notes:
1. The top of screen elevation is 3271.29 ft msl.
2. The bottom of screen elevation is 3261.29 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

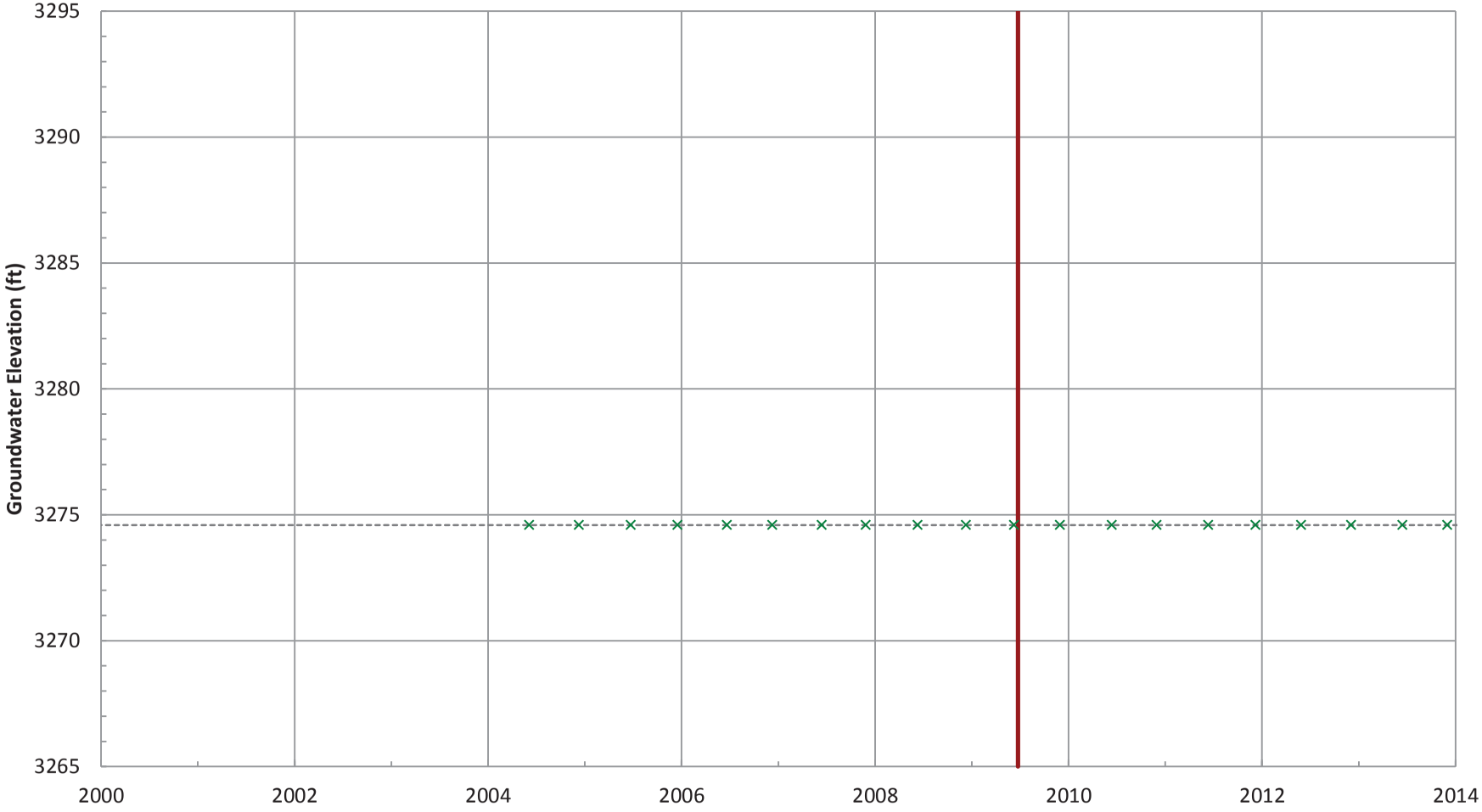
Groundwater Elevation
Bottom of Screen Elevation
No Water Detected
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: N/A (No Measurements)
2012 - 2014 Data: N/A (No Measurements)

PTX06-1093
Hydrograph in Perched Aquifer

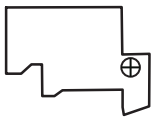


Notes:
1. The top of screen elevation is 3284.6 ft msl.
2. The bottom of screen elevation is 3274.6 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

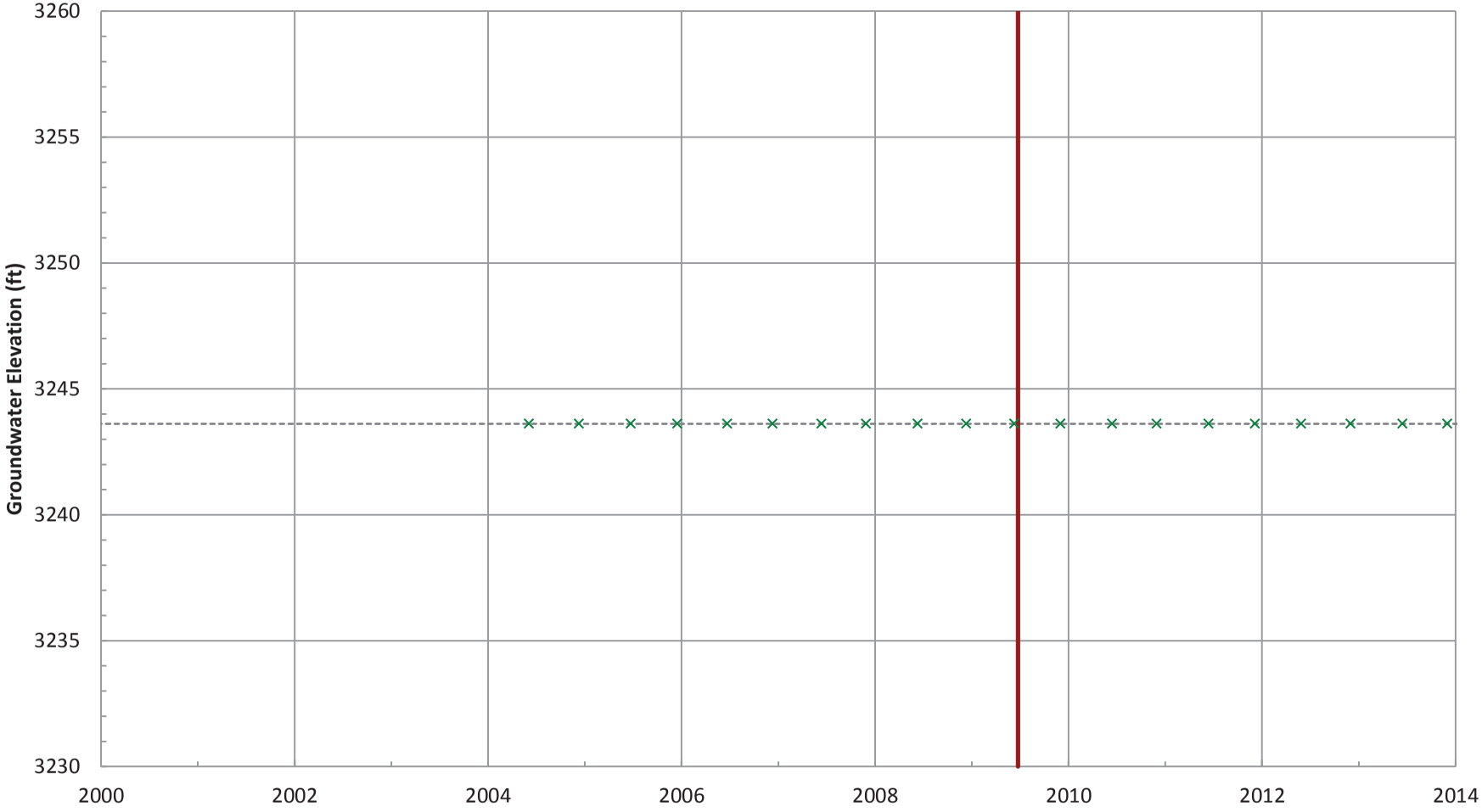
Groundwater Elevation
Bottom of Screen Elevation
No Water Detected
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: N/A (No Measurements)
2012 - 2014 Data: N/A (No Measurements)

PTX06-1094
Hydrograph in Perched Aquifer

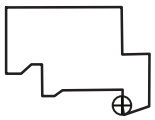


Notes:
1. The top of screen elevation is 3253.62 ft msl.
2. The bottom of screen elevation is 3243.62 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

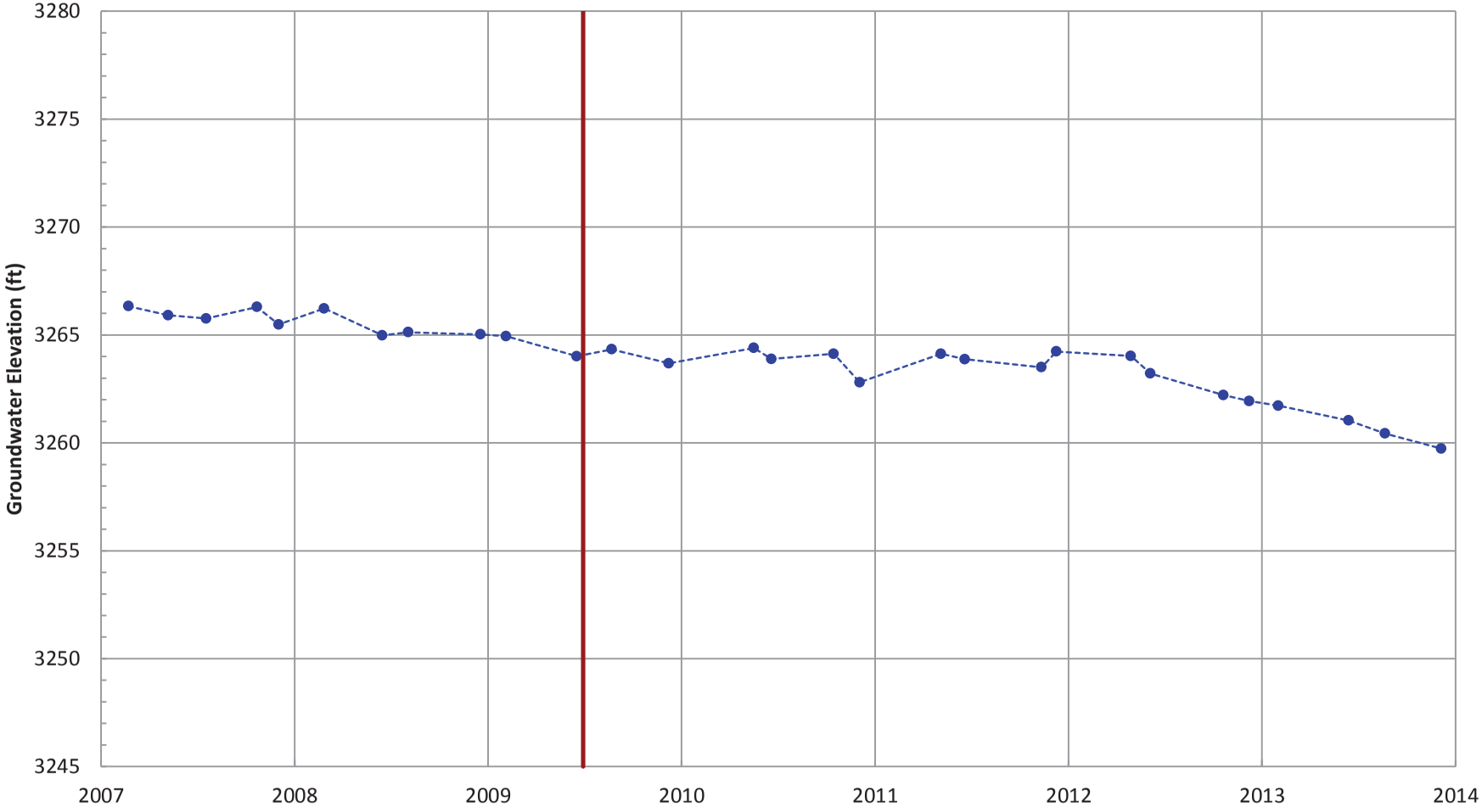
Groundwater Elevation
Bottom of Screen Elevation
No Water Detected
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: N/A (No Measurements)
2012 - 2014 Data: N/A (No Measurements)

PTX06-1095A
Hydrograph in Perched Aquifer



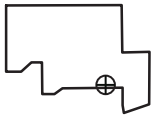
Notes:
1. The top of screen elevation is 3271.23 ft msl.
2. The bottom of screen elevation is 3246.23 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

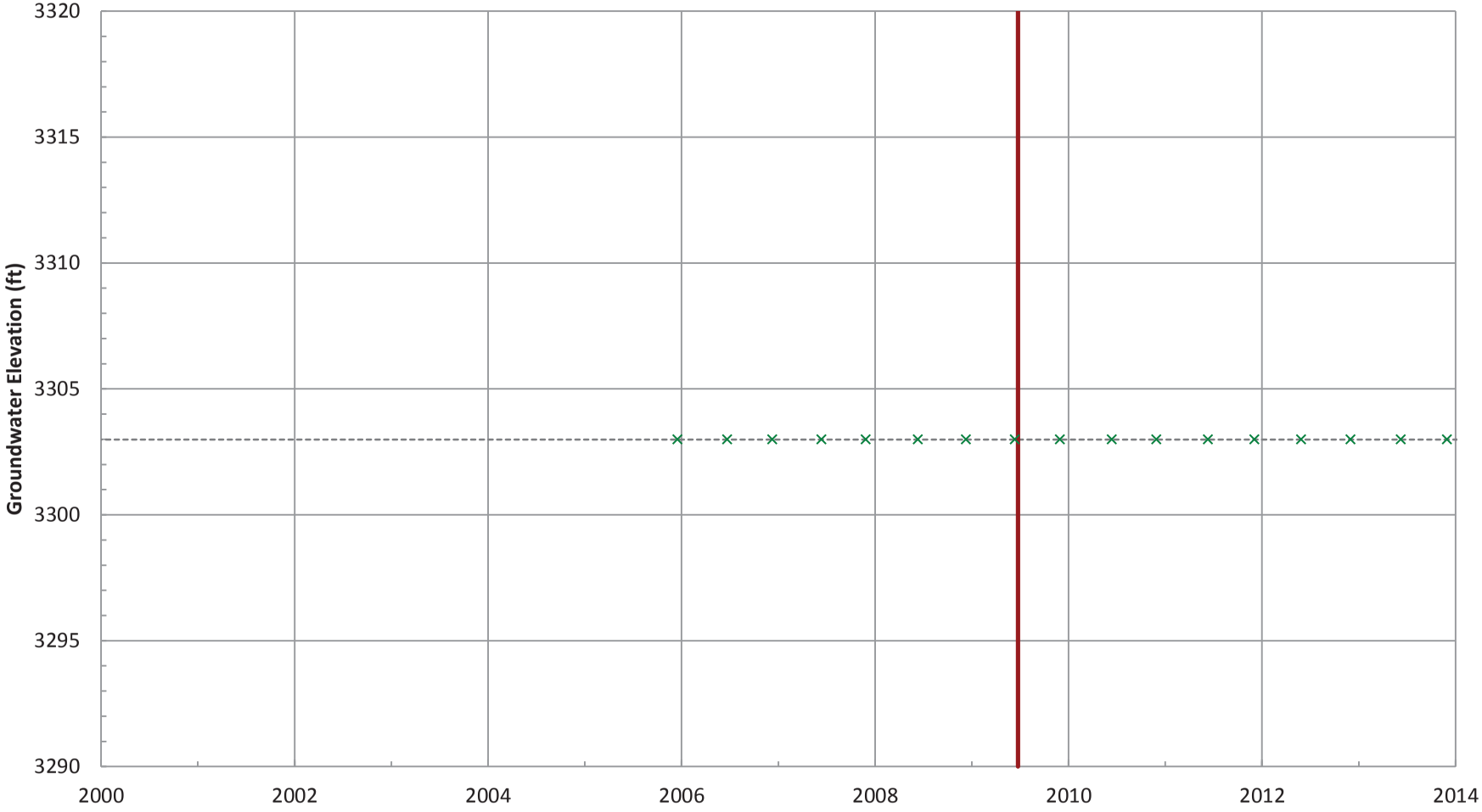
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.75 ft/yr
2012 - 2014 Data: Decreasing at 2.39 ft/yr

PTX06-1096A
Hydrograph in Perched Aquifer

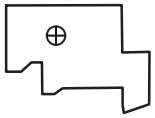


Notes:
1. The top of screen elevation is 3317.99 ft msl.
2. The bottom of screen elevation is 3302.99 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

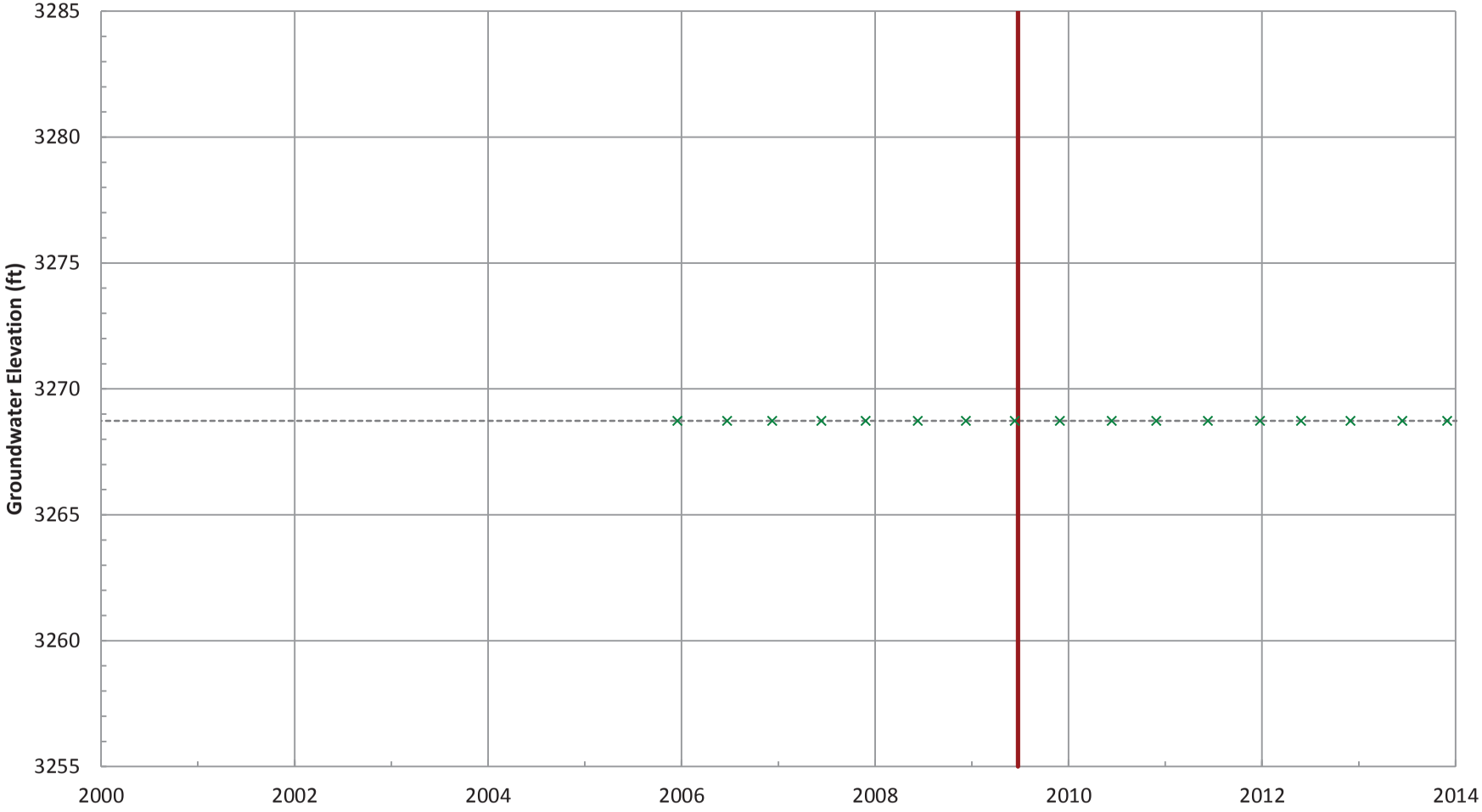
Groundwater Elevation
Bottom of Screen Elevation
No Water Detected
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: N/A (No Measurements)
2012 - 2014 Data: N/A (No Measurements)

PTX06-1097
Hydrograph in Perched Aquifer

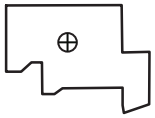


Notes:
1. The top of screen elevation is 3283.73 ft msl.
2. The bottom of screen elevation is 3268.73 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

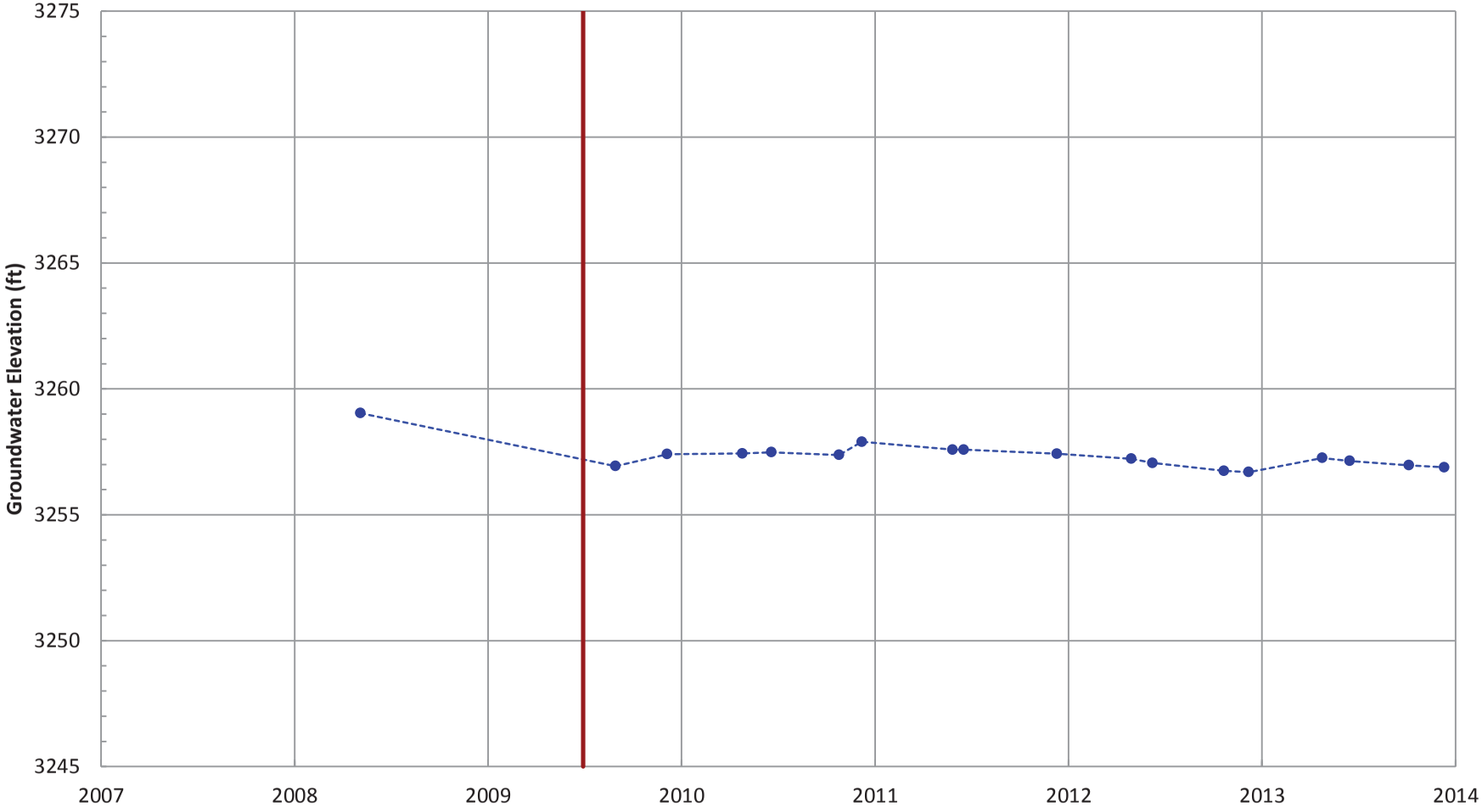
Groundwater Elevation
Bottom of Screen Elevation
No Water Detected
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: N/A (No Measurements)
2012 - 2014 Data: N/A (No Measurements)

PTX06-1098
Hydrograph in Perched Aquifer



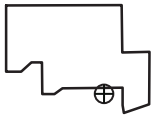
Notes:
1. The top of screen elevation is 3276.74 ft msl.
2. The bottom of screen elevation is 3241.74 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

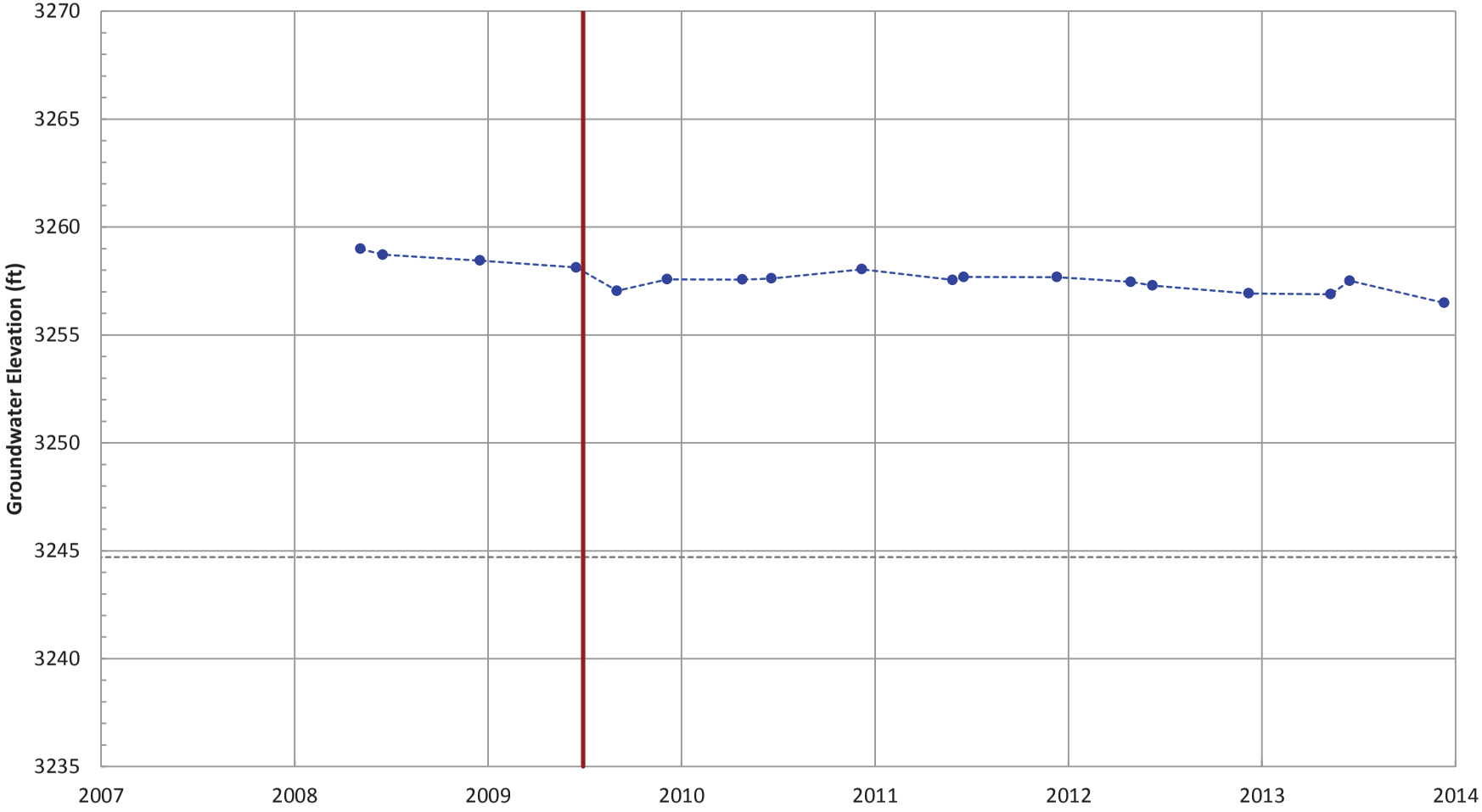
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.23 ft/yr
2012 - 2014 Data: Decreasing at 0.58 ft/yr

PTX06-1100
Hydrograph in Perched Aquifer

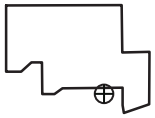


Notes:
1. The top of screen elevation is 3259.7 ft msl.
2. The bottom of screen elevation is 3244.7 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

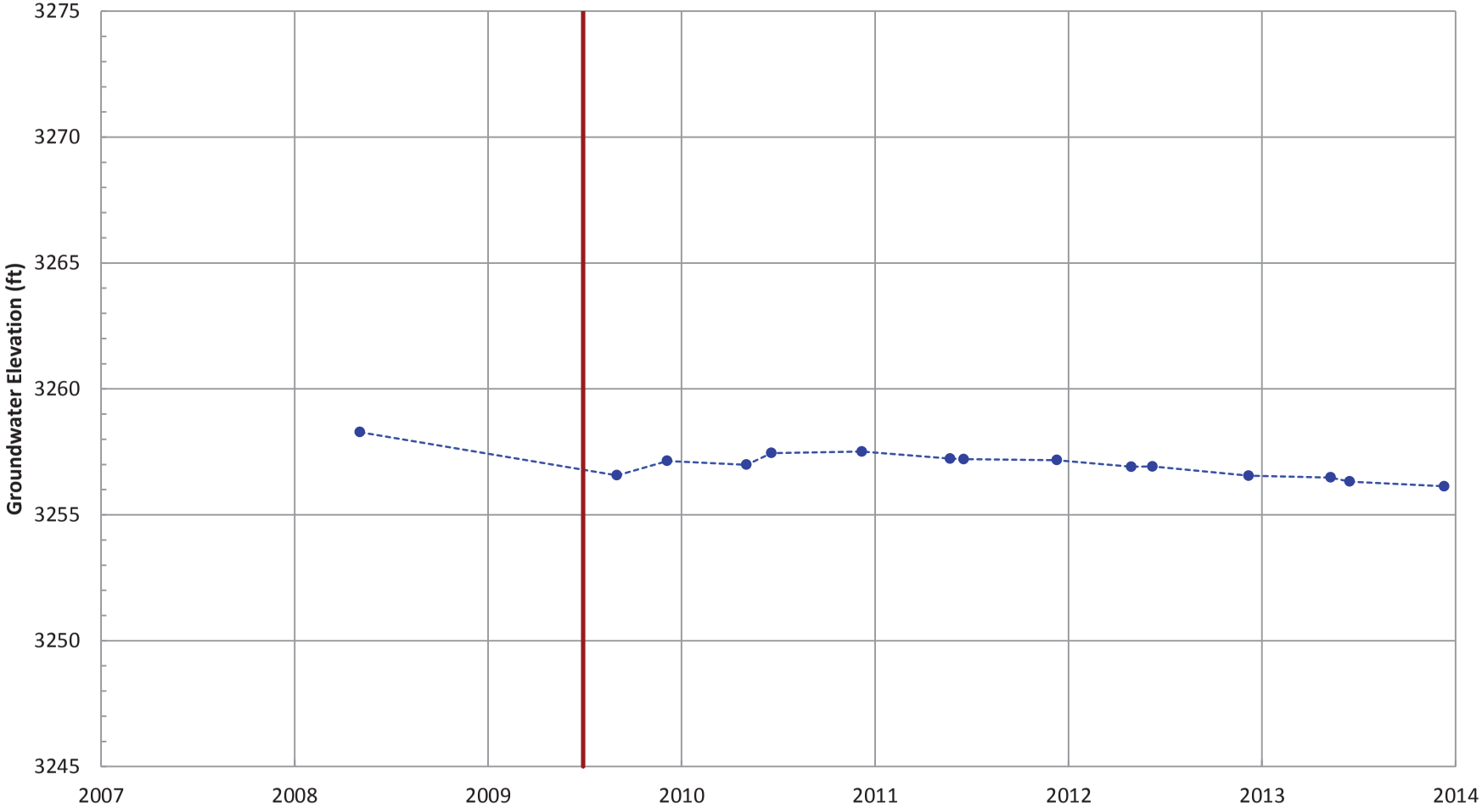
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.29 ft/yr
2012 - 2014 Data: Decreasing at 1.13 ft/yr

PTX06-1101
Hydrograph in Perched Aquifer



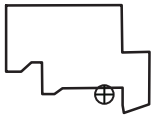
Notes:
1. The top of screen elevation is 3258.8 ft msl.
2. The bottom of screen elevation is 3243.8 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

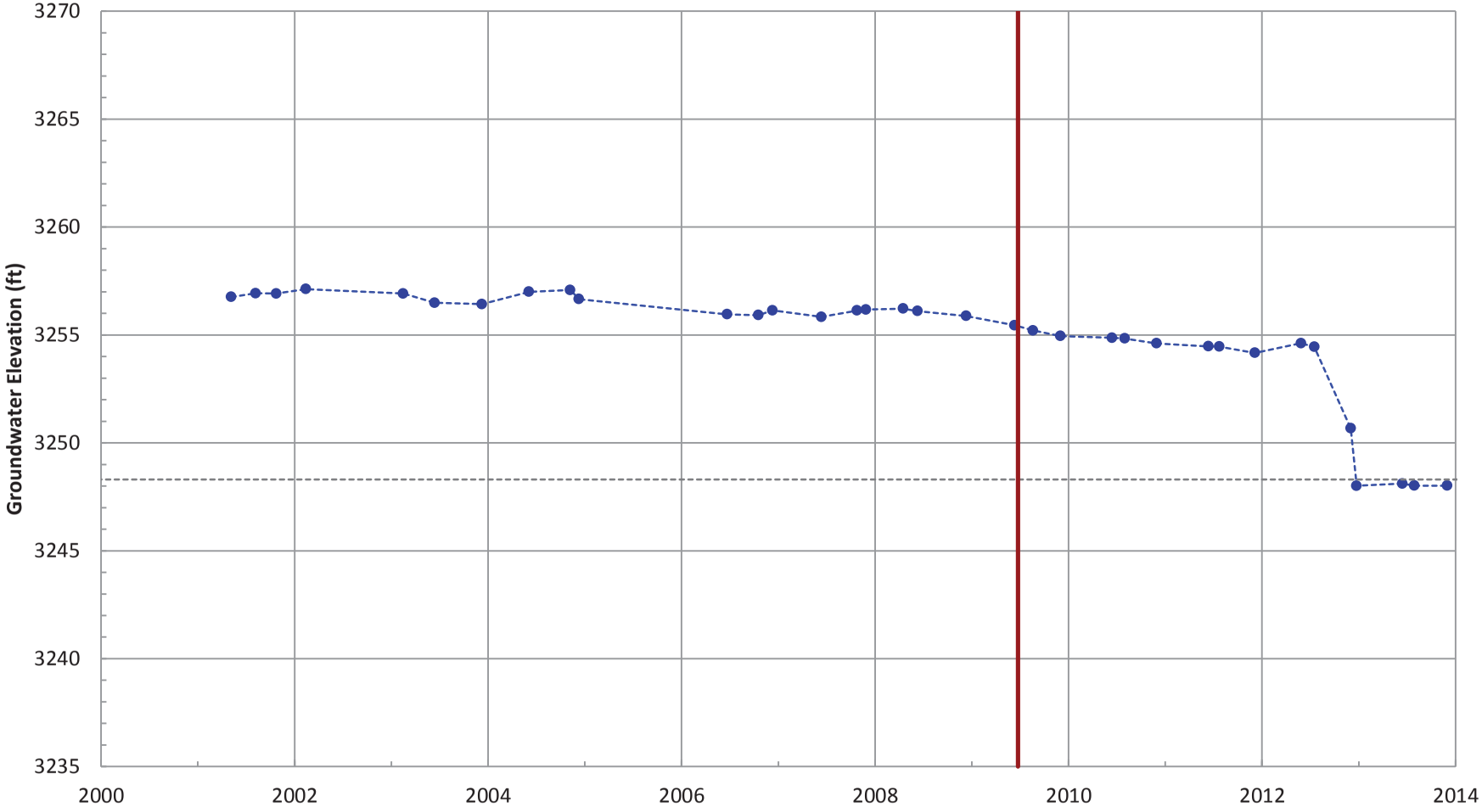
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.26 ft/yr
2012 - 2014 Data: Decreasing at 0.53 ft/yr

PTX06-1102
Hydrograph in Perched Aquifer

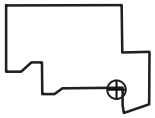


Notes:
1. The top of screen elevation is 3288.3 ft msl.
2. The bottom of screen elevation is 3248.3 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

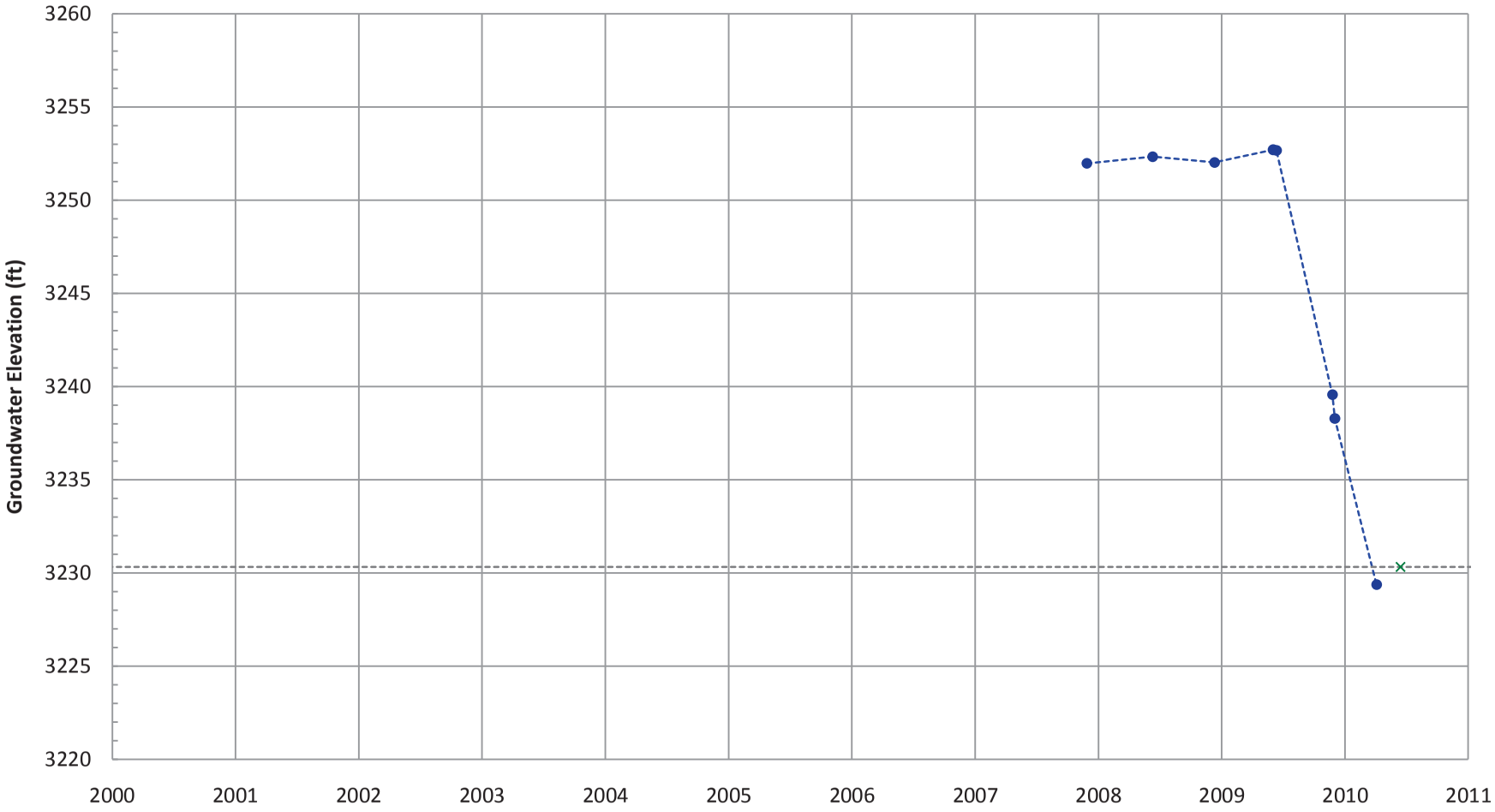
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.54 ft/yr
2012 - 2014 Data: No Trend

PTX06-1103
Hydrograph in Perched Aquifer



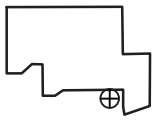
Notes:
1. The top of screen elevation is 3249.33 ft msl.
2. The bottom of screen elevation is 3230.33 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 9/14/2010

Groundwater Elevation
Bottom of Screen Elevation
× No Water Detected

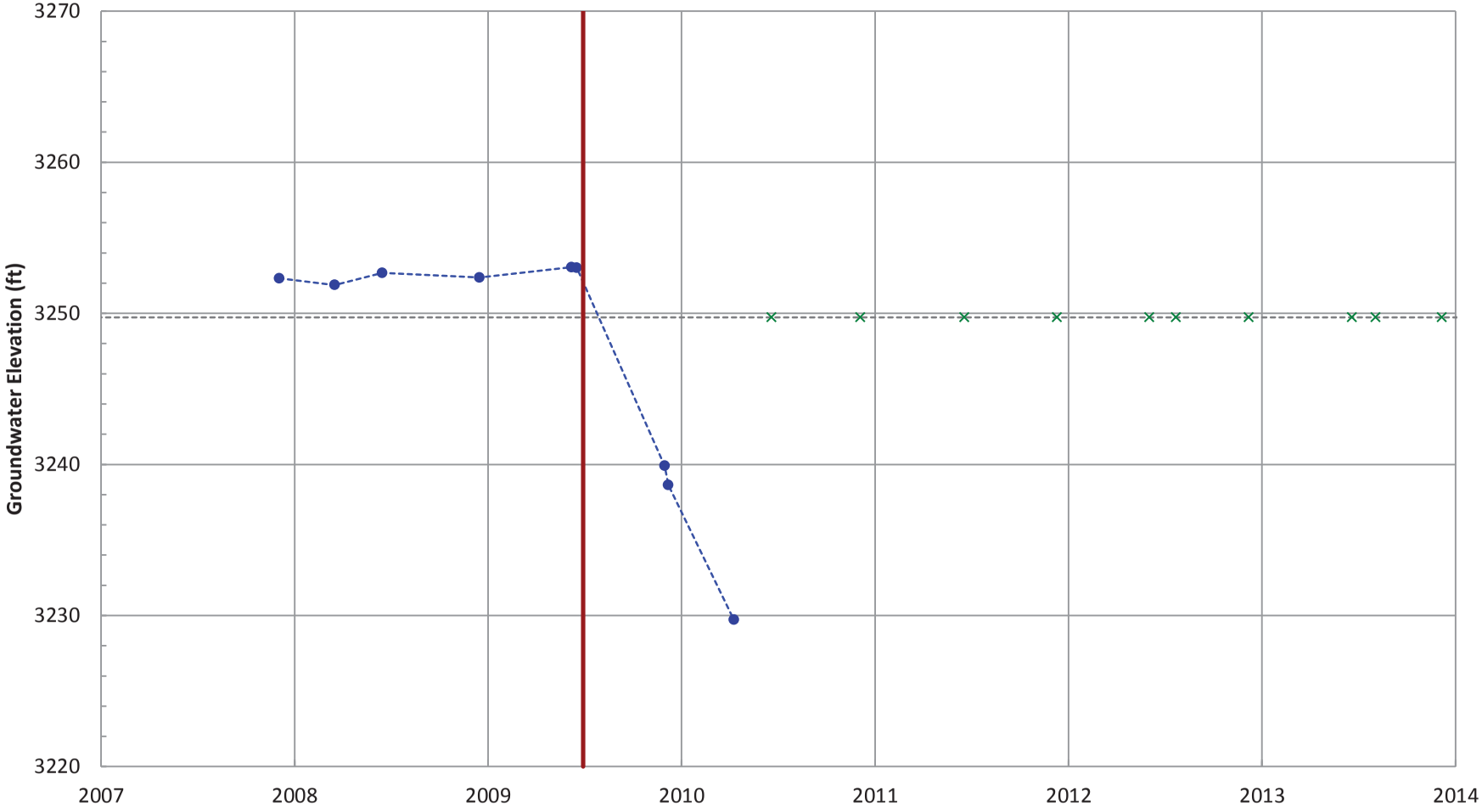
Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 8.58 feet/year
Last 2 Years: Decreasing at 12.54

Well Location



B&W Pantex

PTX06-1103
Hydrograph in Perched Aquifer

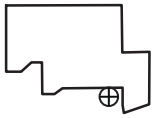


Notes:
1. The top of screen elevation is 3259.74 ft msl.
2. The bottom of screen elevation is 3249.74 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

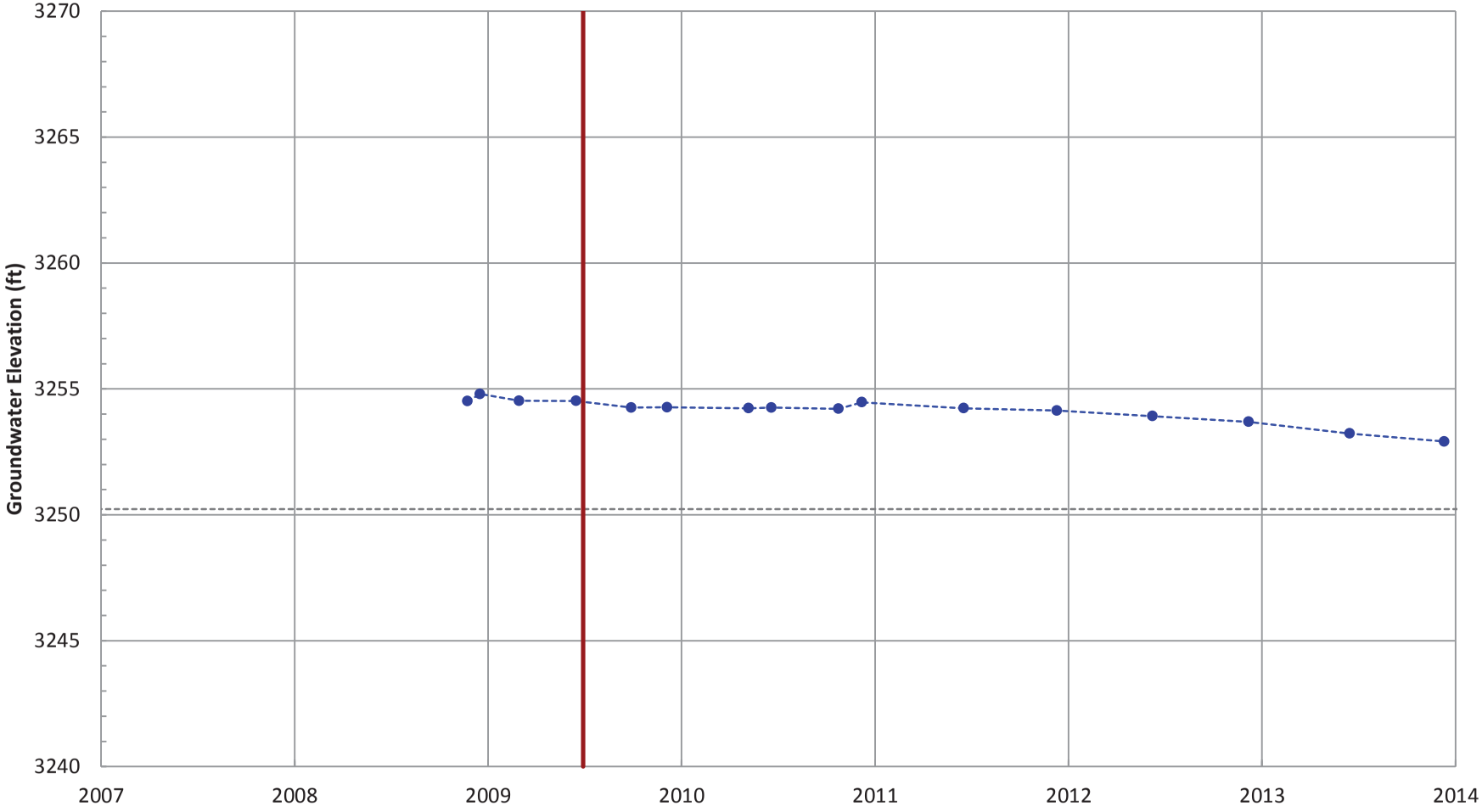
Groundwater Elevation
Bottom of Screen Elevation
No Water Detected
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 7.90 ft/yr
2012 - 2014 Data: N/A (No Measurements)

PTX06-1104
Hydrograph in Perched Aquifer

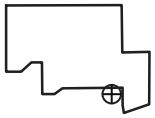


Notes:
1. The top of screen elevation is 3265.22 ft msl.
2. The bottom of screen elevation is 3250.22 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

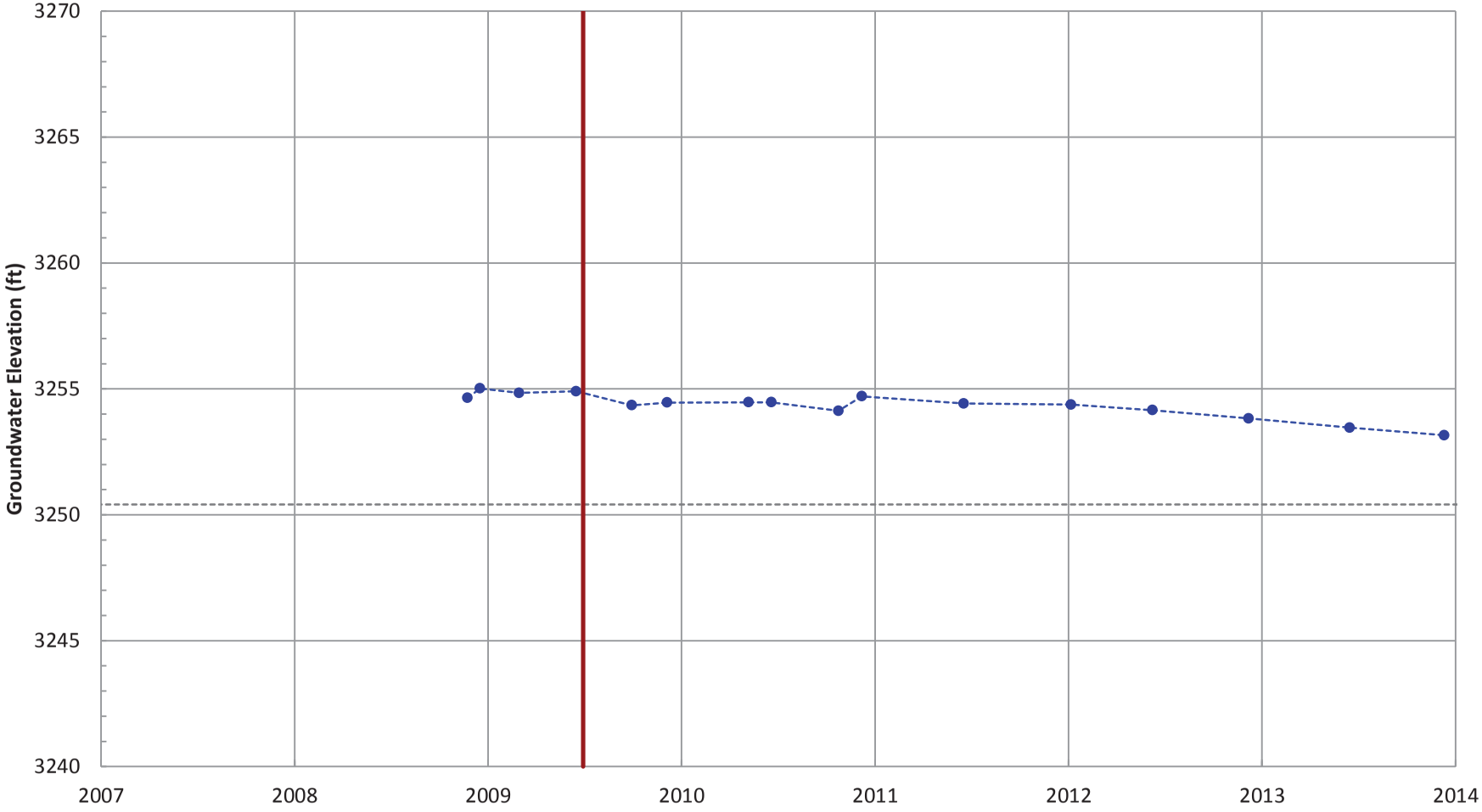
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.28 ft/yr
2012 - 2014 Data: N/A (<3 Measurements)

PTX06-1105
Hydrograph in Perched Aquifer

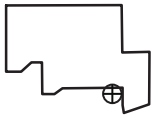


Notes:
1. The top of screen elevation is 3265.41 ft msl.
2. The bottom of screen elevation is 3250.41 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

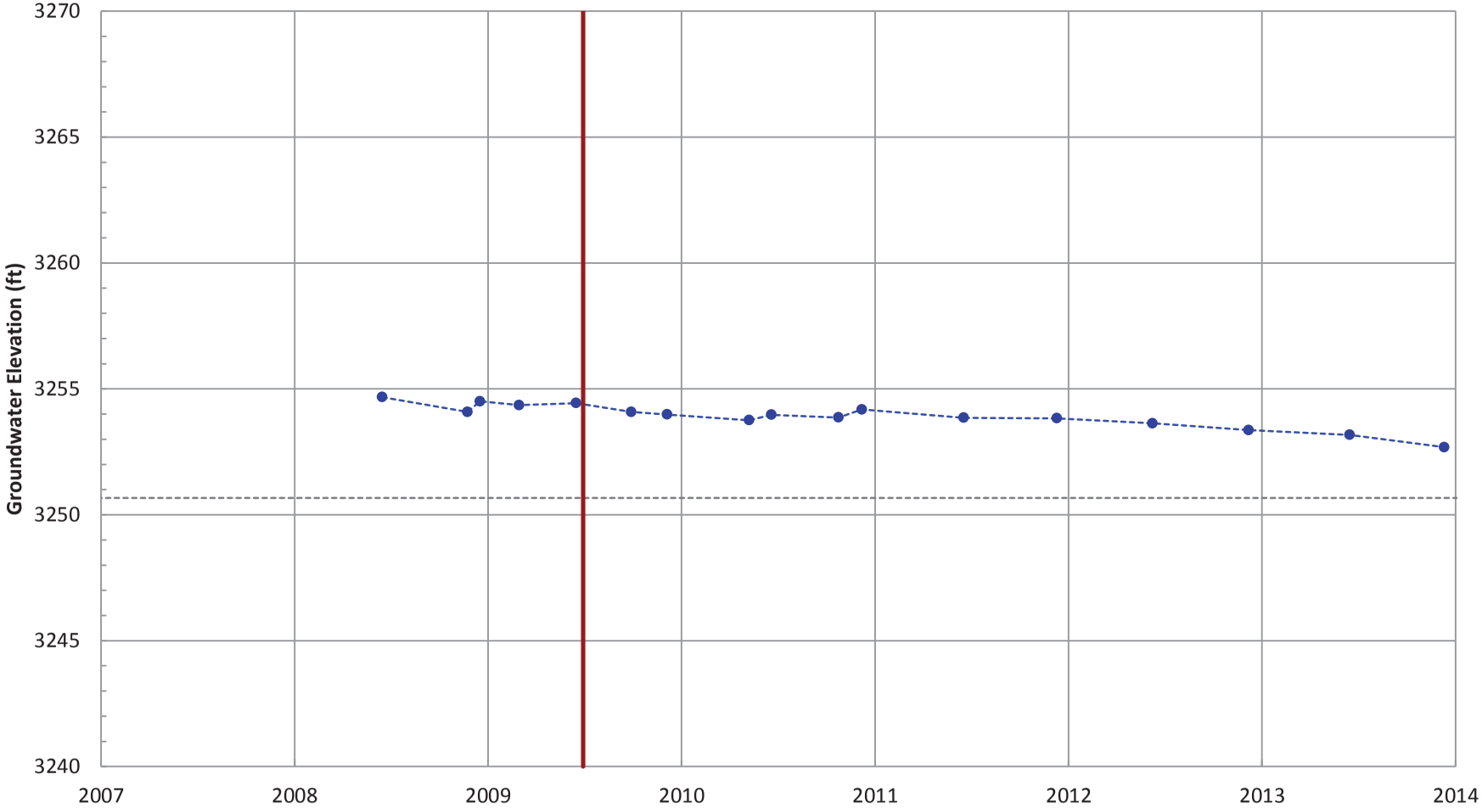
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.28 ft/yr
2012 - 2014 Data: N/A (<3 Measurements)

PTX06-1106
Hydrograph in Perched Aquifer



Notes:
1. The top of screen elevation is 3265.67 ft msl.
2. The bottom of screen elevation is 3250.67 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

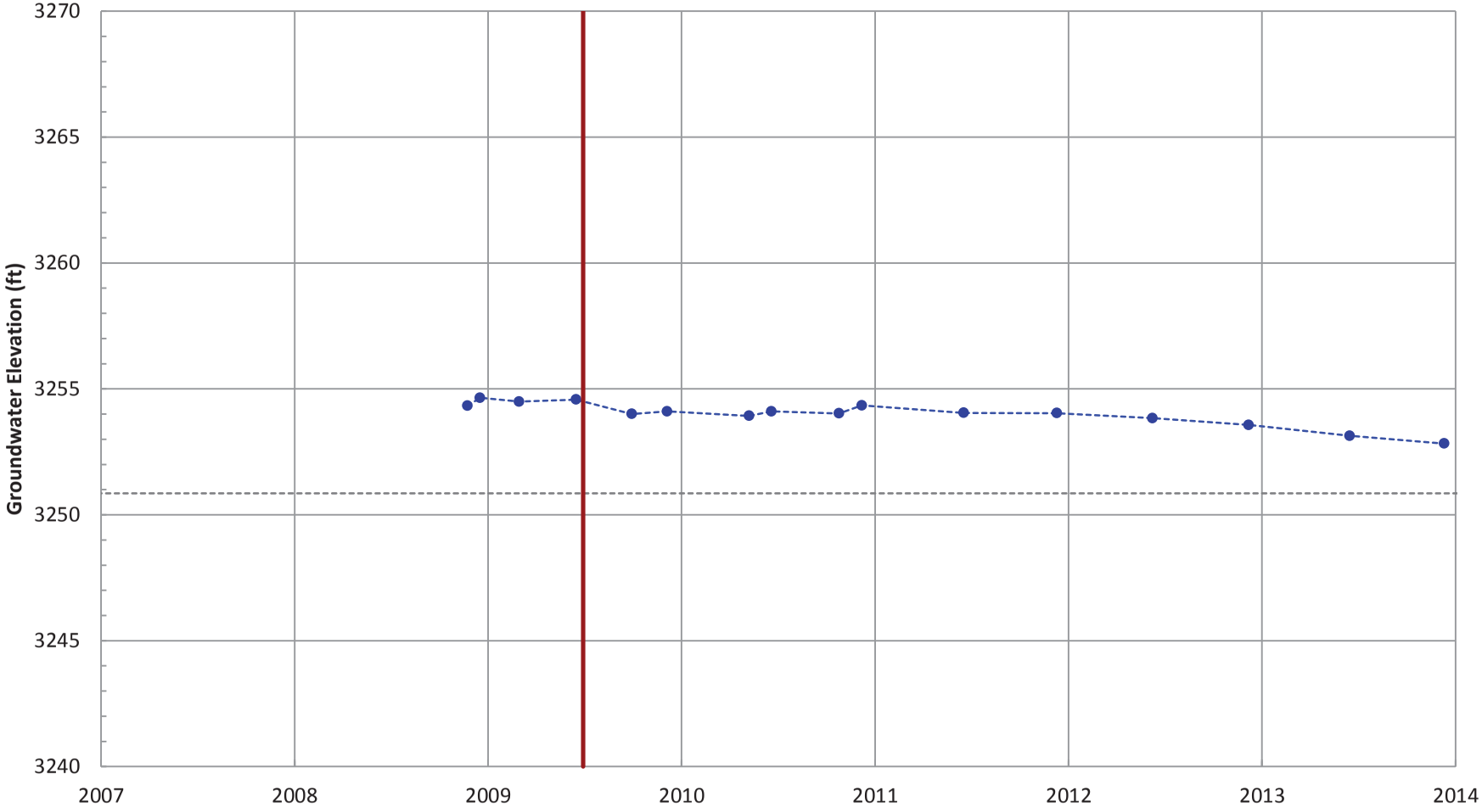
Analysis Date: 3/20/2014

Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location

Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.27 ft/yr
2012 - 2014 Data: N/A (<3 Measurements)

PTX06-1107
Hydrograph in Perched Aquifer

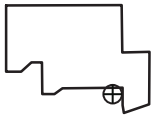


Notes:
1. The top of screen elevation is 3262.85 ft msl.
2. The bottom of screen elevation is 3250.85 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

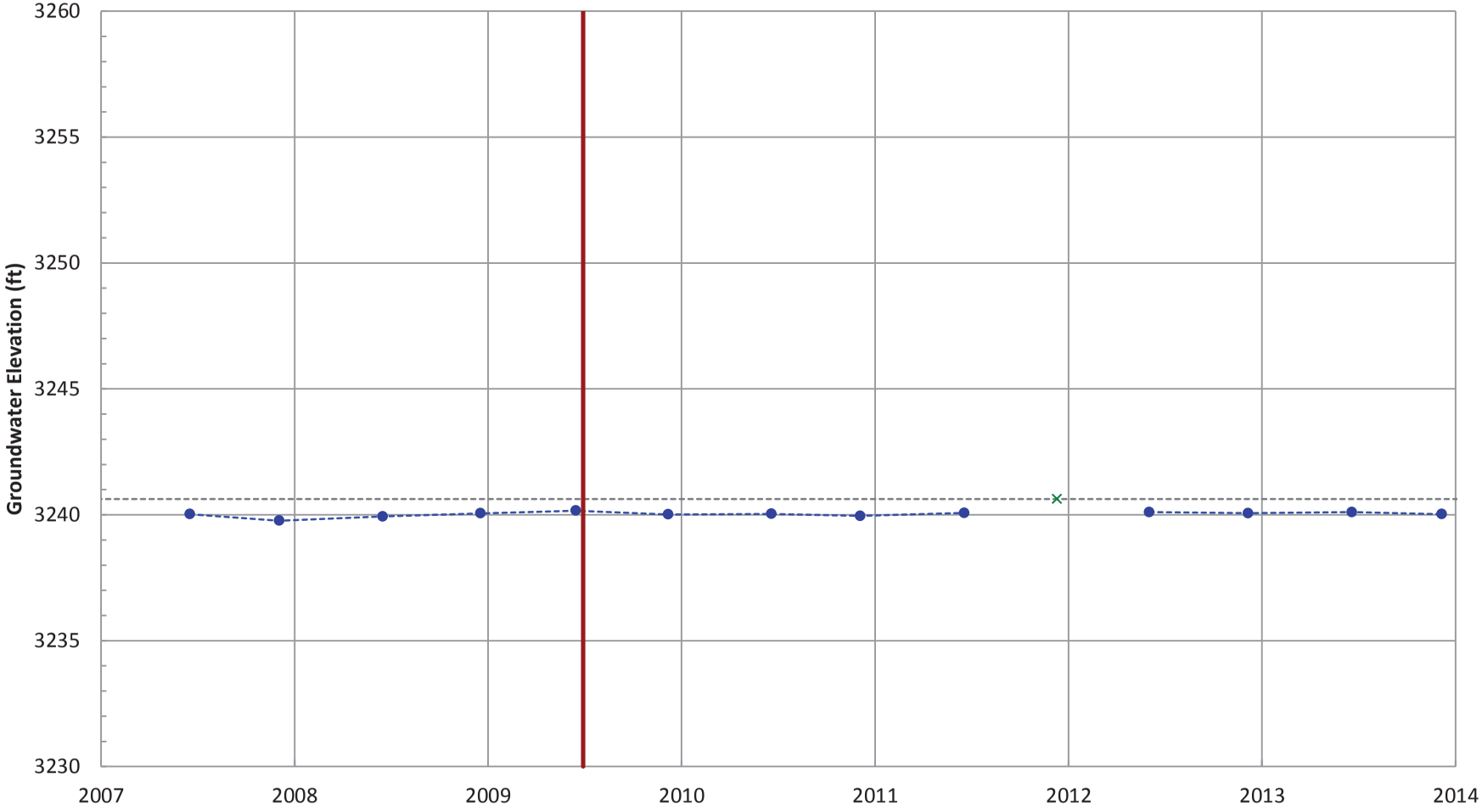
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.27 ft/yr
2012 - 2014 Data: N/A (<3 Measurements)

PTX06-1108
Hydrograph in Perched Aquifer

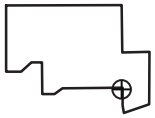


Notes:
1. The top of screen elevation is 3260.63 ft msl.
2. The bottom of screen elevation is 3240.63 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

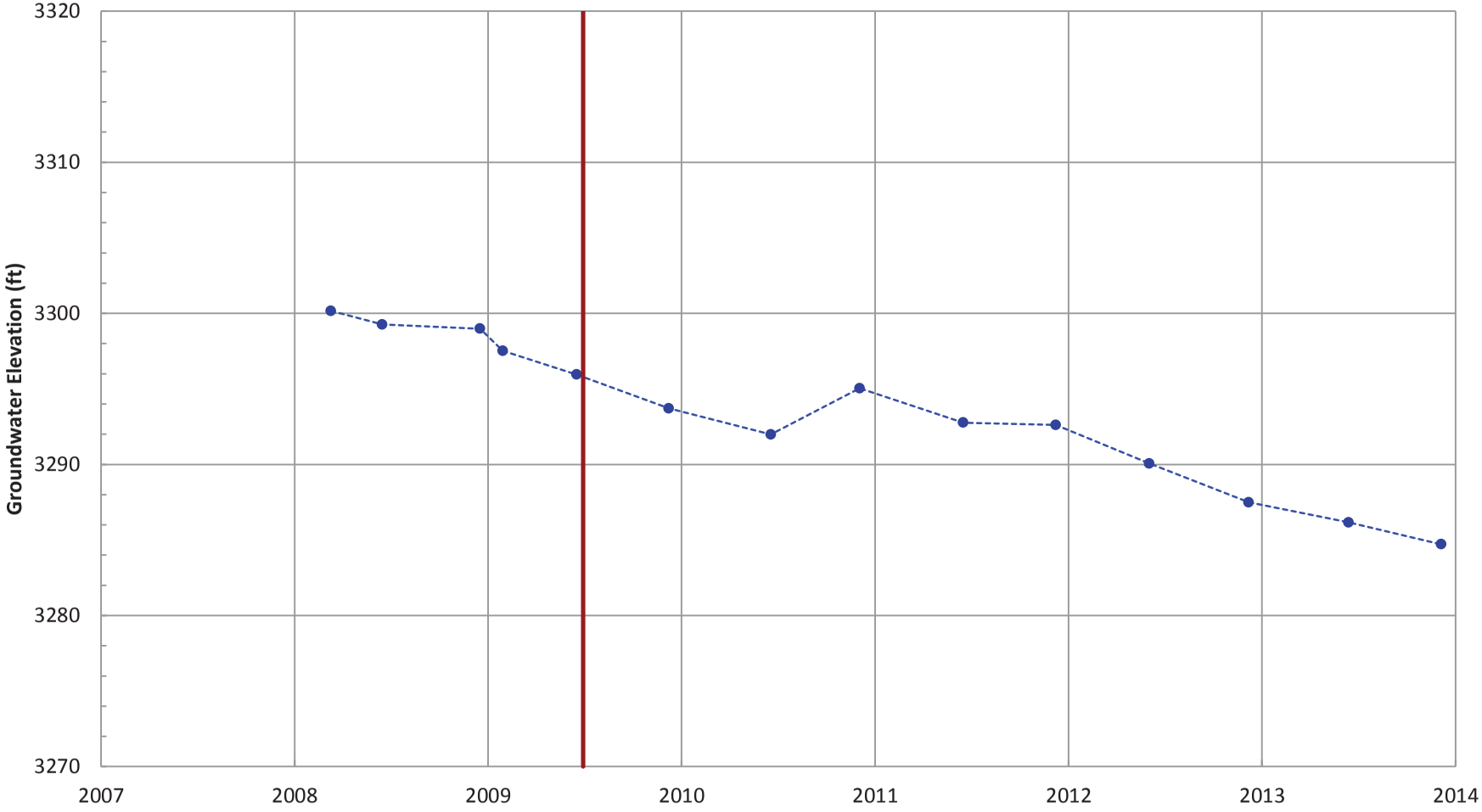
Groundwater Elevation
Bottom of Screen Elevation
No Water Detected
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: No Trend
2012 - 2014 Data: N/A (<3 Measurements)

PTX06-1109
Hydrograph in Perched Aquifer



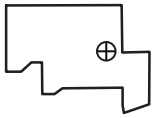
Notes:
1. The top of screen elevation is 3268.25 ft msl.
2. The bottom of screen elevation is 3258.25 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

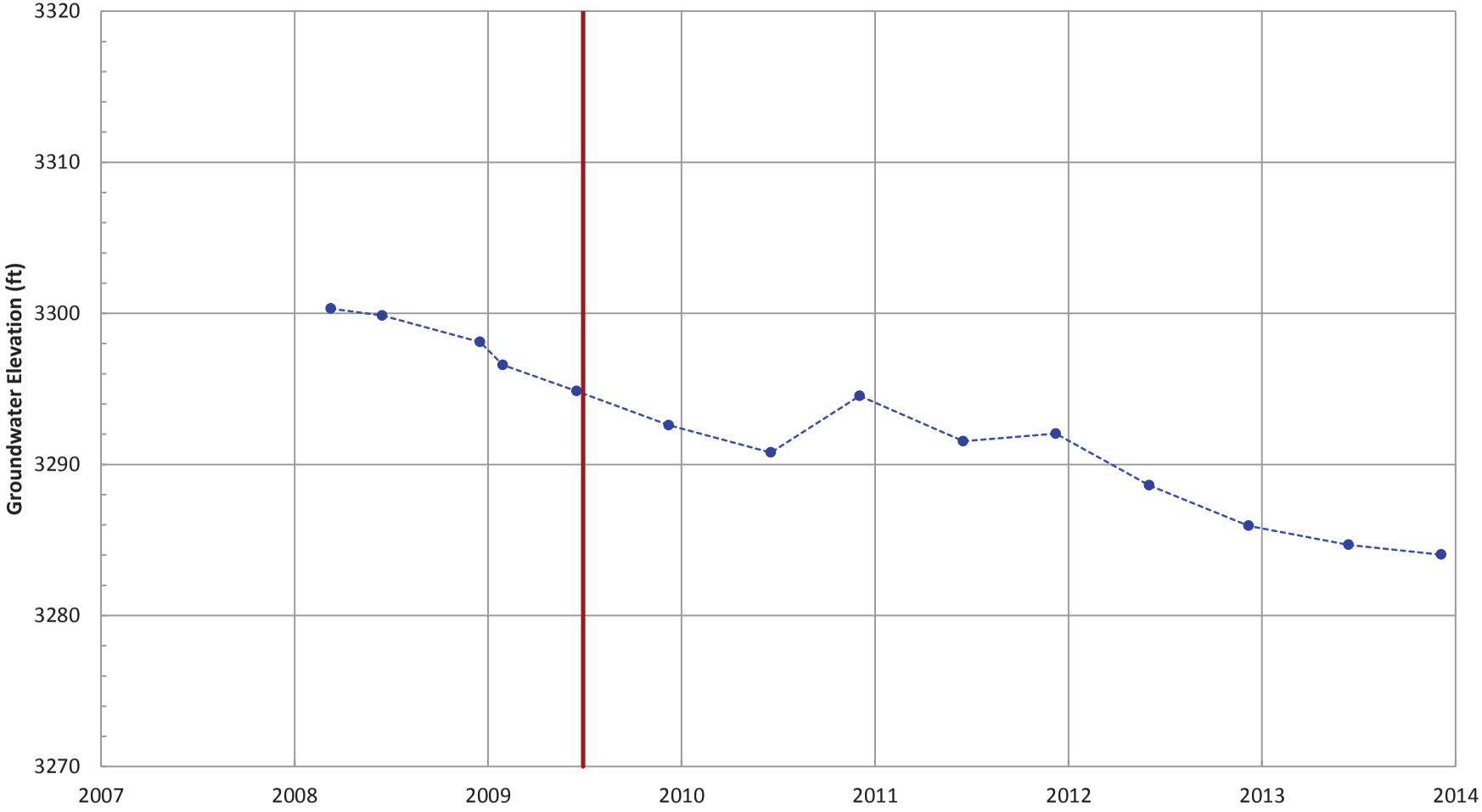
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 2.49 ft/yr
2012 - 2014 Data: N/A (<3 Measurements)

PTX06-1110
Hydrograph in Perched Aquifer



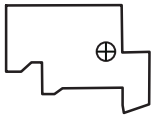
Notes:
1. The top of screen elevation is 3268.51 ft msl.
2. The bottom of screen elevation is 3258.51 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

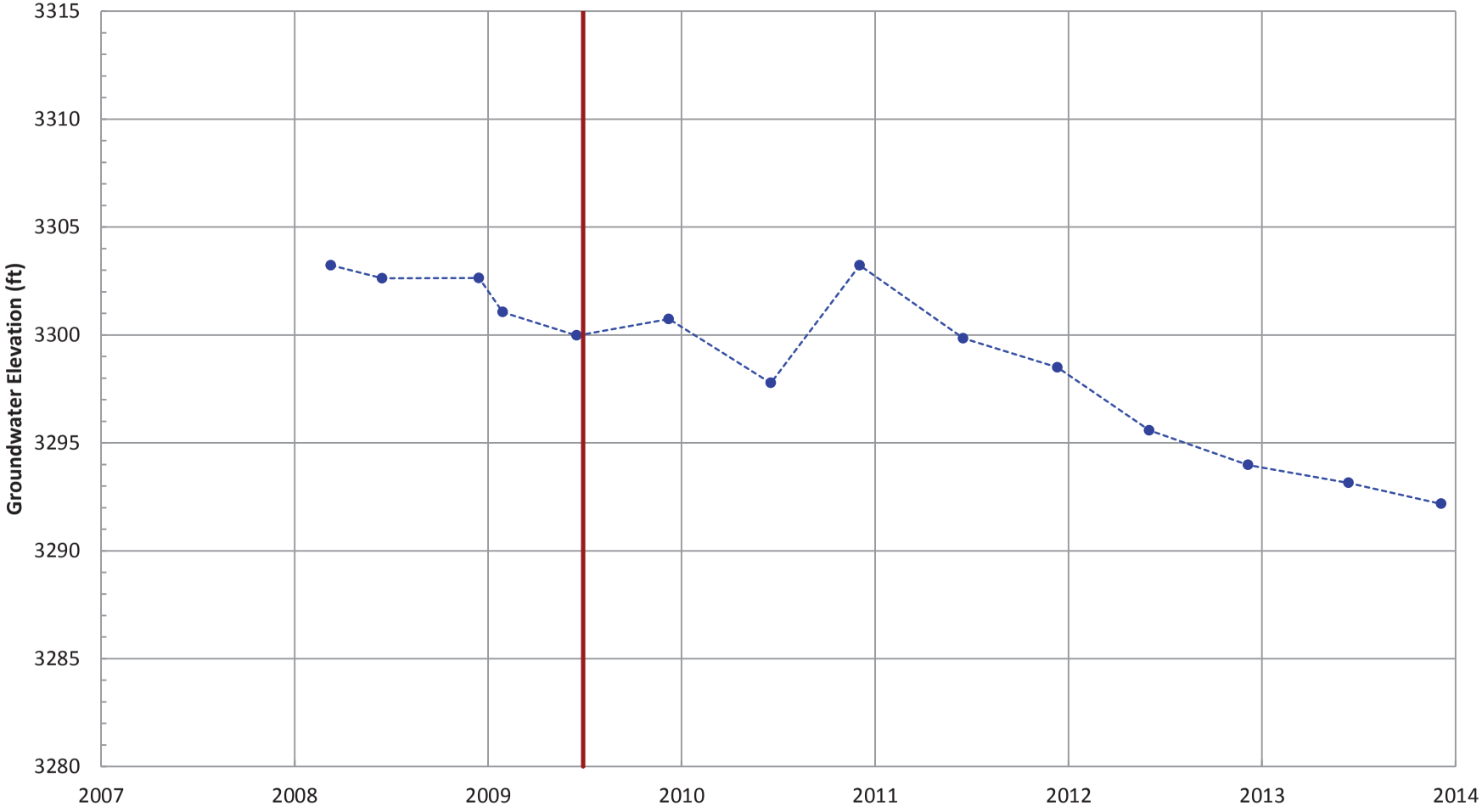
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 2.67 ft/yr
2012 - 2014 Data: N/A (<3 Measurements)

PTX06-1112
Hydrograph in Perched Aquifer



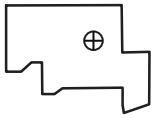
Notes:
1. The top of screen elevation is 3278.44 ft msl.
2. The bottom of screen elevation is 3268.44 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

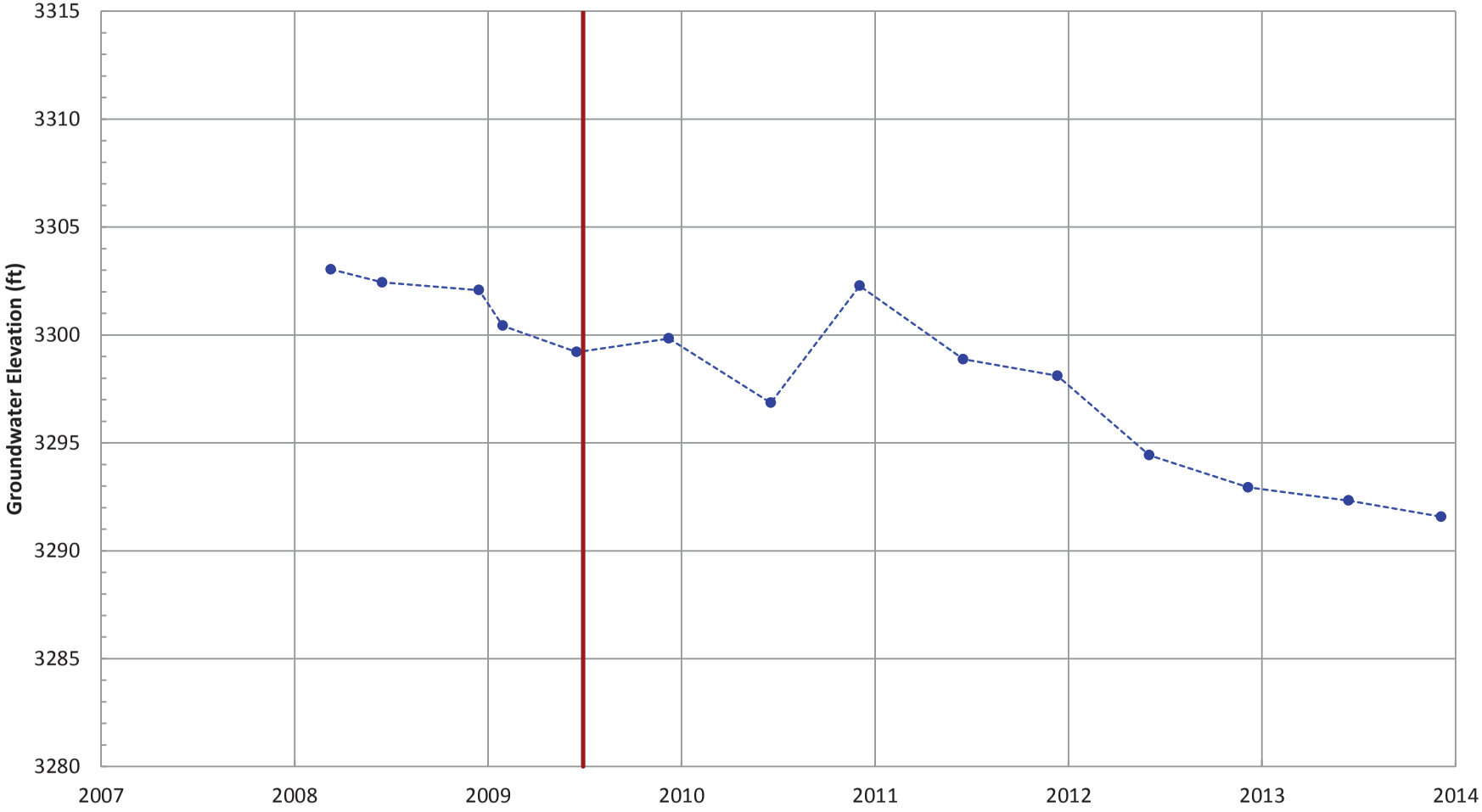
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 1.80 ft/yr
2012 - 2014 Data: N/A (<3 Measurements)

PTX06-1113
Hydrograph in Perched Aquifer



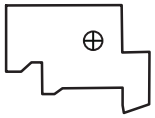
Notes:
1. The top of screen elevation is 3278.58 ft msl.
2. The bottom of screen elevation is 3268.58 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

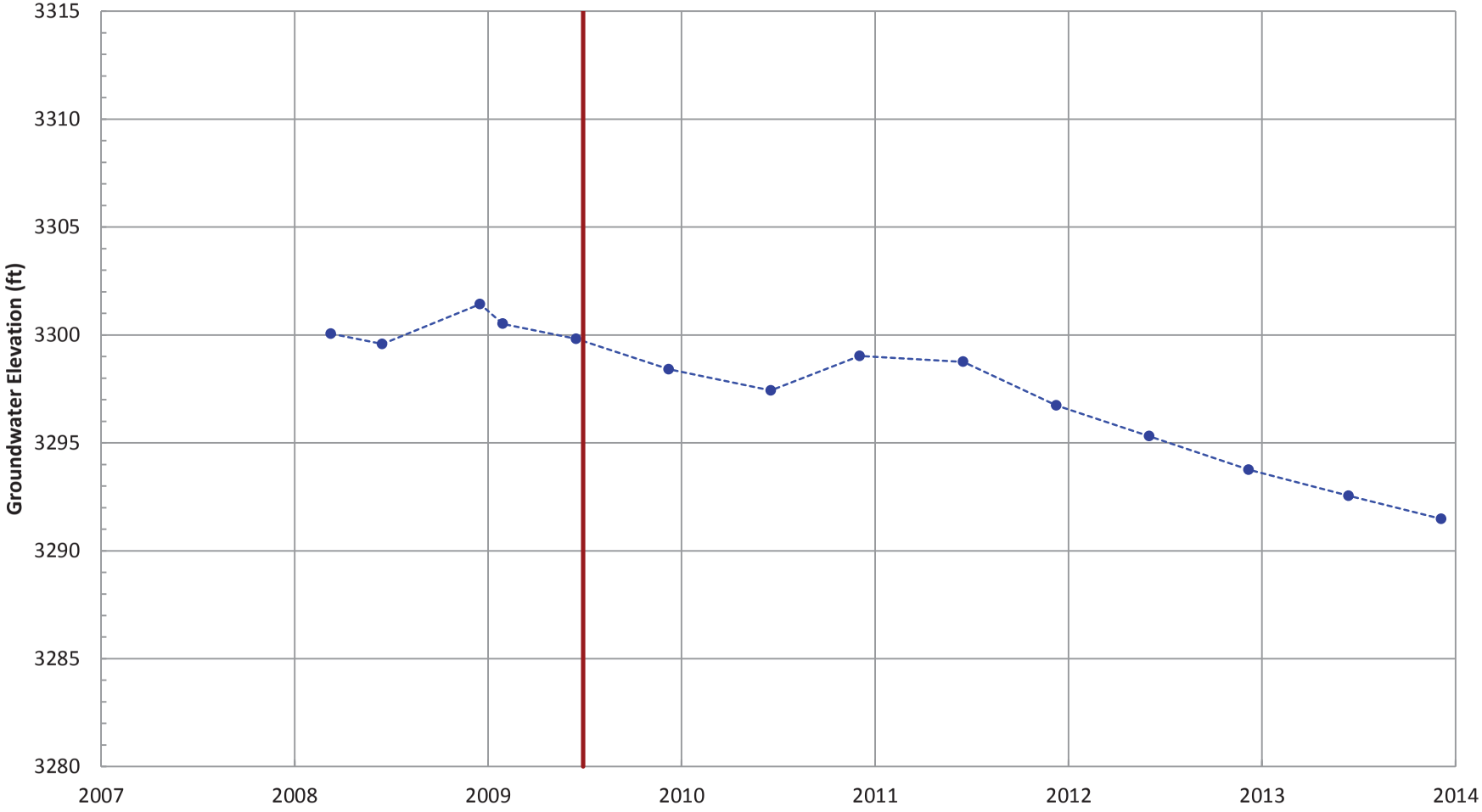
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 1.88 ft/yr
2012 - 2014 Data: N/A (<3 Measurements)

PTX06-1115
Hydrograph in Perched Aquifer



Notes:
1. The top of screen elevation is 3273.18 ft msl.
2. The bottom of screen elevation is 3263.18 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

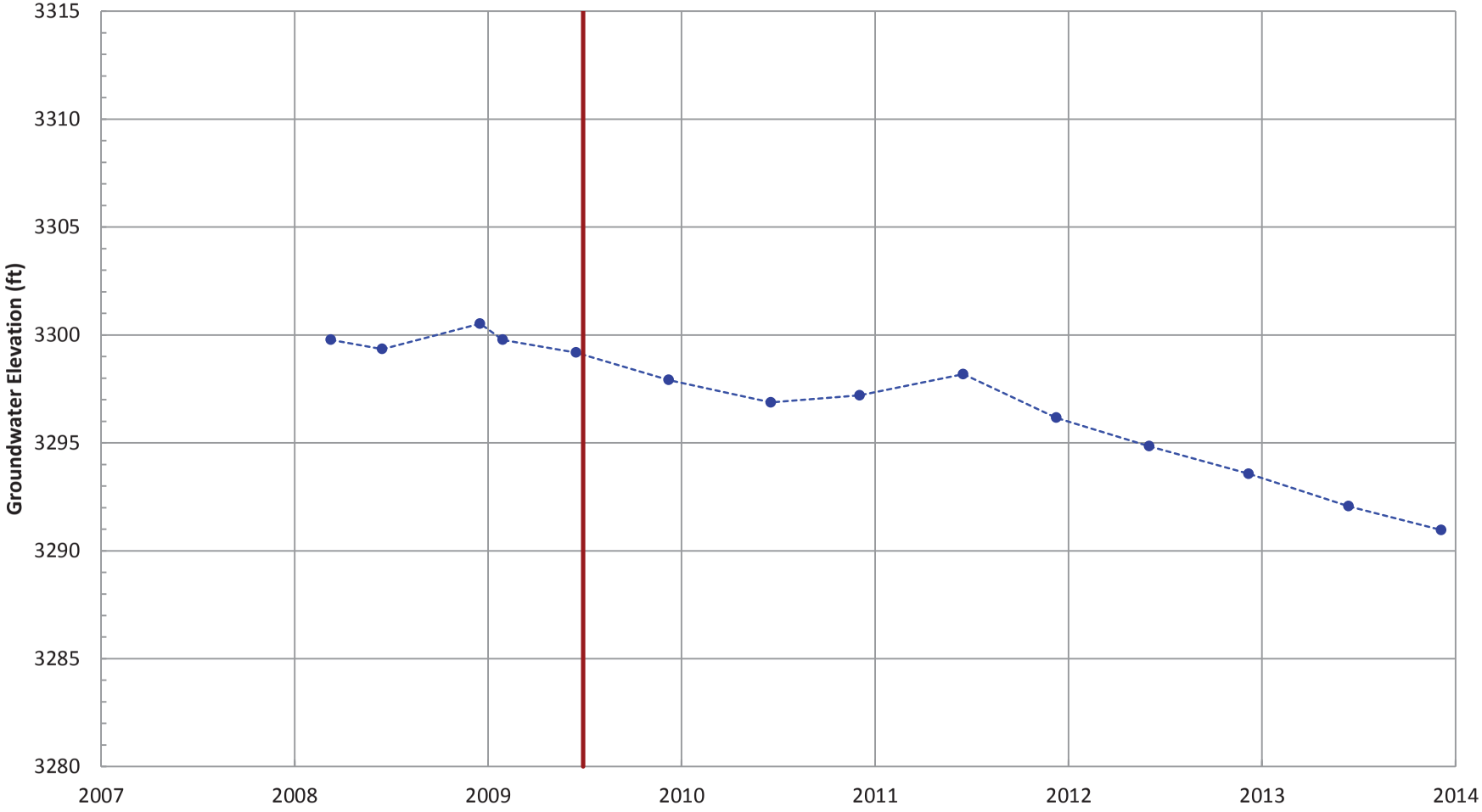
Groundwater Elevation

Start of Remedial Action

Well Location

Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 1.51 ft/yr
2012 - 2014 Data: N/A (<3 Measurements)

PTX06-1116
Hydrograph in Perched Aquifer



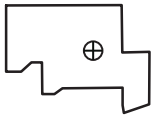
Notes:
1. The top of screen elevation is 3278.26 ft msl.
2. The bottom of screen elevation is 3268.26 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

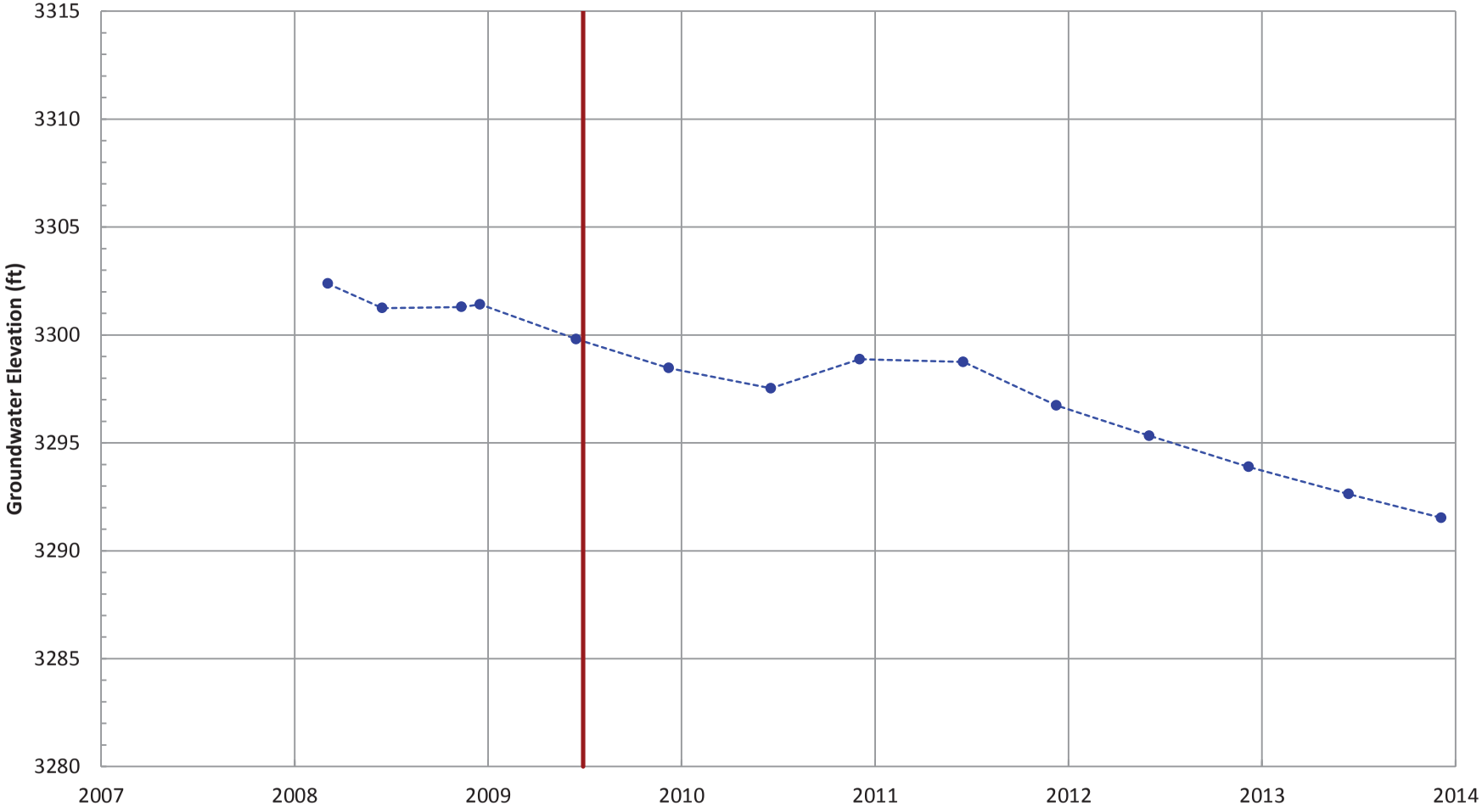
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 1.50 ft/yr
2012 - 2014 Data: N/A (<3 Measurements)

PTX06-1117
Hydrograph in Perched Aquifer



Notes:
1. The top of screen elevation is 3317.97 ft msl.
2. The bottom of screen elevation is 3267.97 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

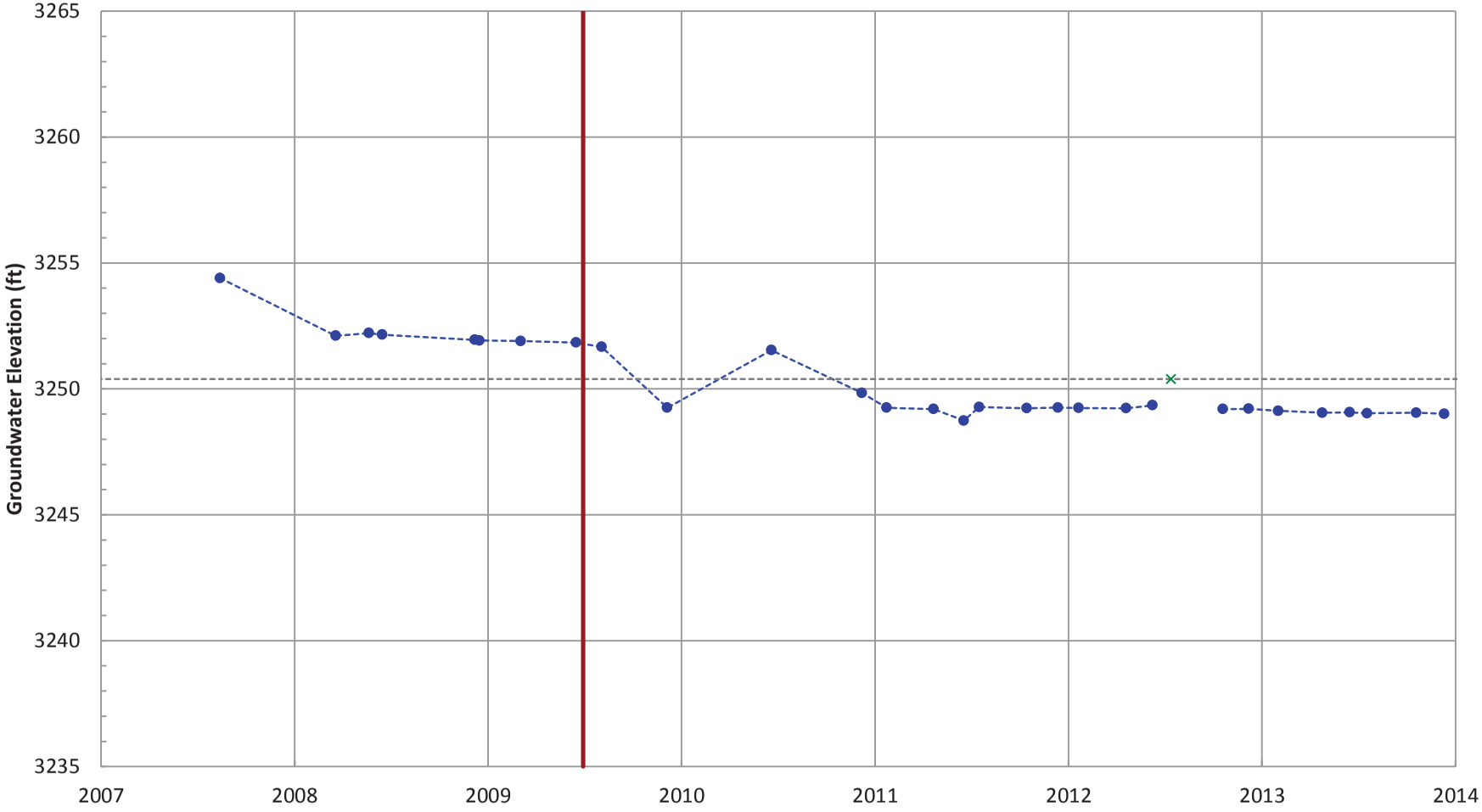
Groundwater Elevation

Start of Remedial Action

Well Location

Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 1.72 ft/yr
2012 - 2014 Data: N/A (<3 Measurements)

PTX06-1118
Hydrograph in Perched Aquifer

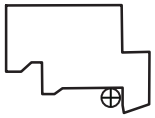


Notes:
1. The top of screen elevation is 3260.39 ft msl.
2. The bottom of screen elevation is 3250.39 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

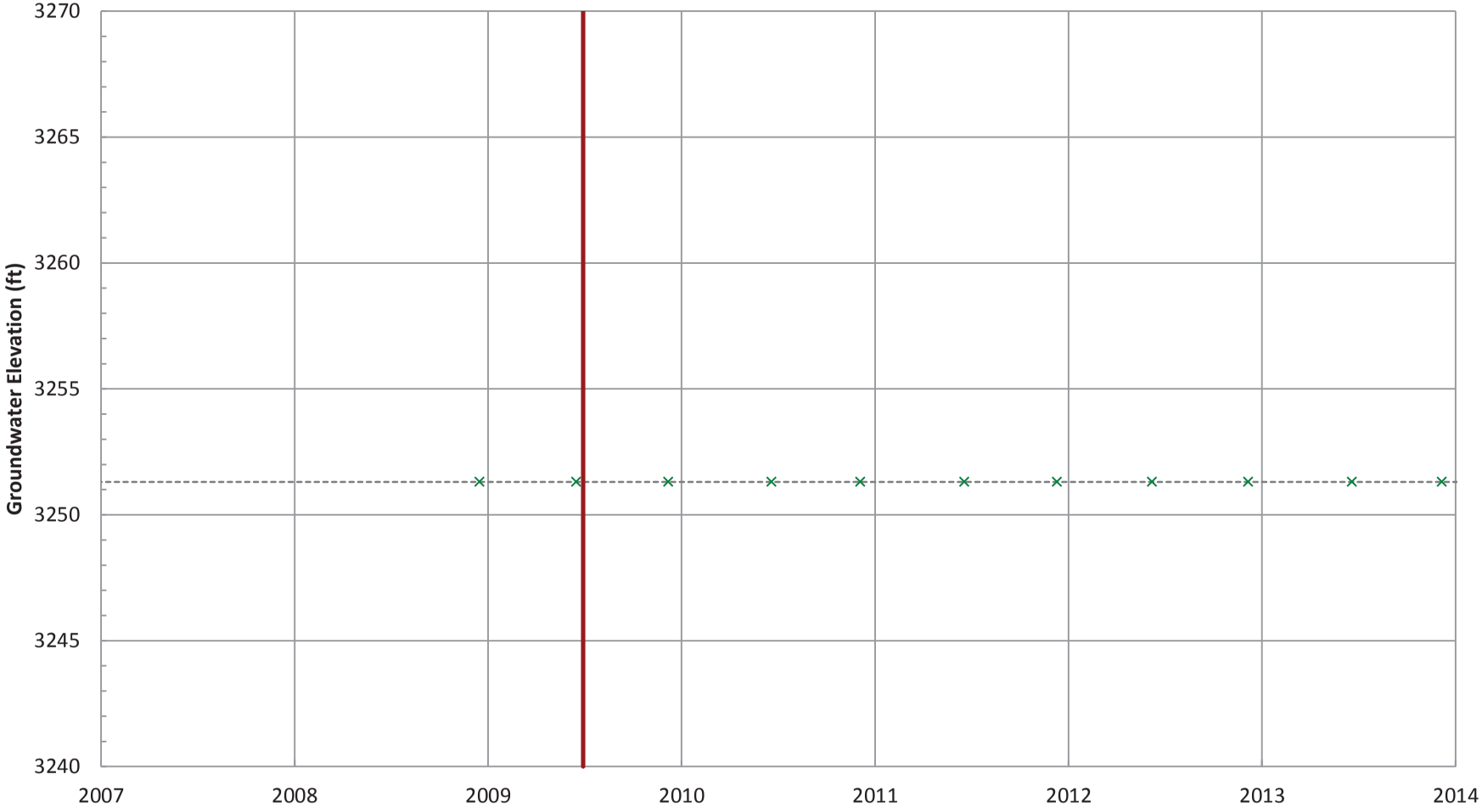
Groundwater Elevation
Bottom of Screen Elevation
No Water Detected
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.70 ft/yr
2012 - 2014 Data: Decreasing at 0.11 ft/yr

PTX06-1119
Hydrograph in Perched Aquifer

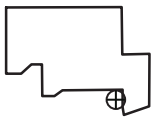


Notes:
1. The top of screen elevation is 3261.31 ft msl.
2. The bottom of screen elevation is 3251.31 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

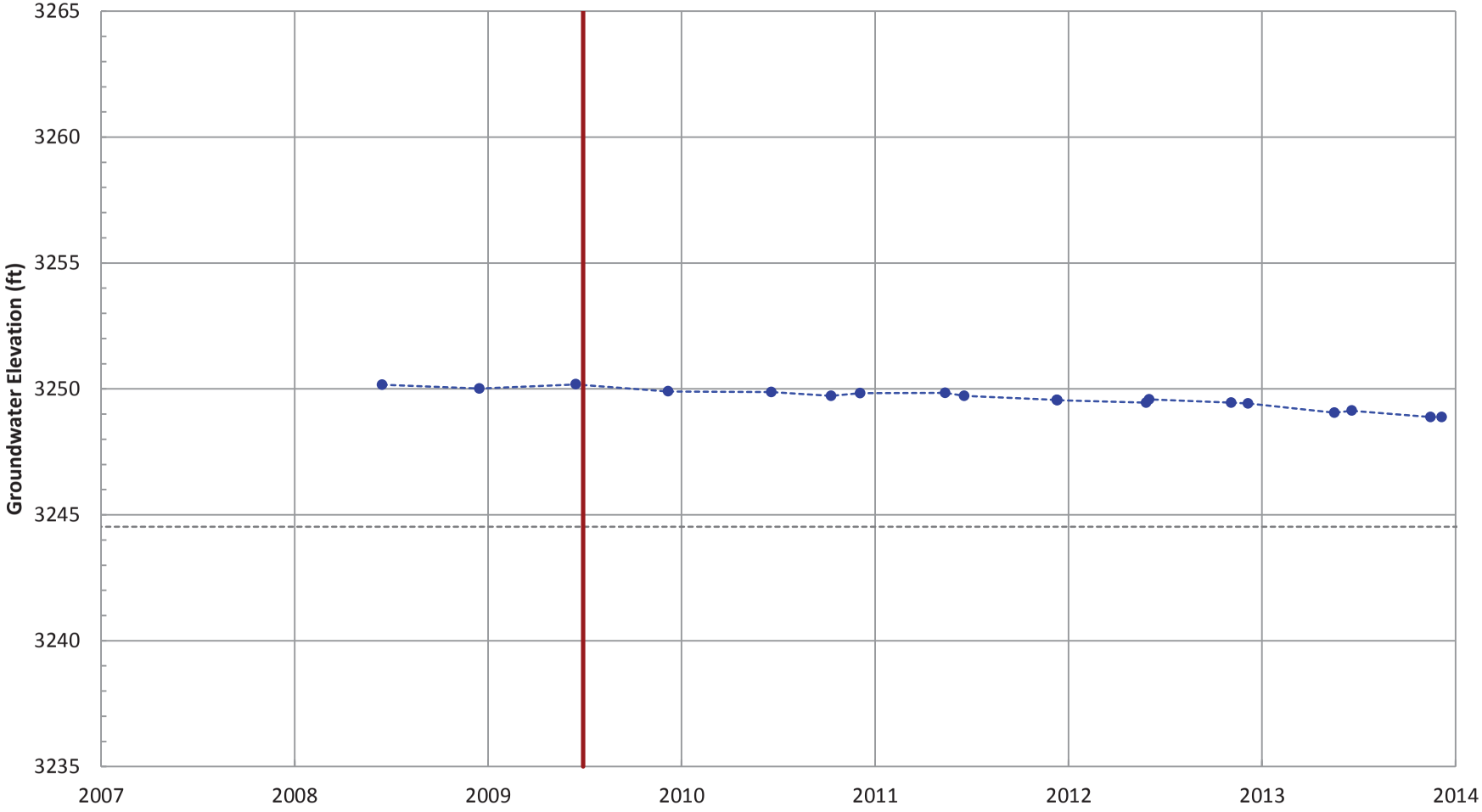
Groundwater Elevation
Bottom of Screen Elevation
No Water Detected
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: N/A (No Measurements)
2012 - 2014 Data: N/A (No Measurements)

PTX06-1120
Hydrograph in Perched Aquifer



Notes:
1. The top of screen elevation is 3259.53 ft msl.
2. The bottom of screen elevation is 3244.53 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

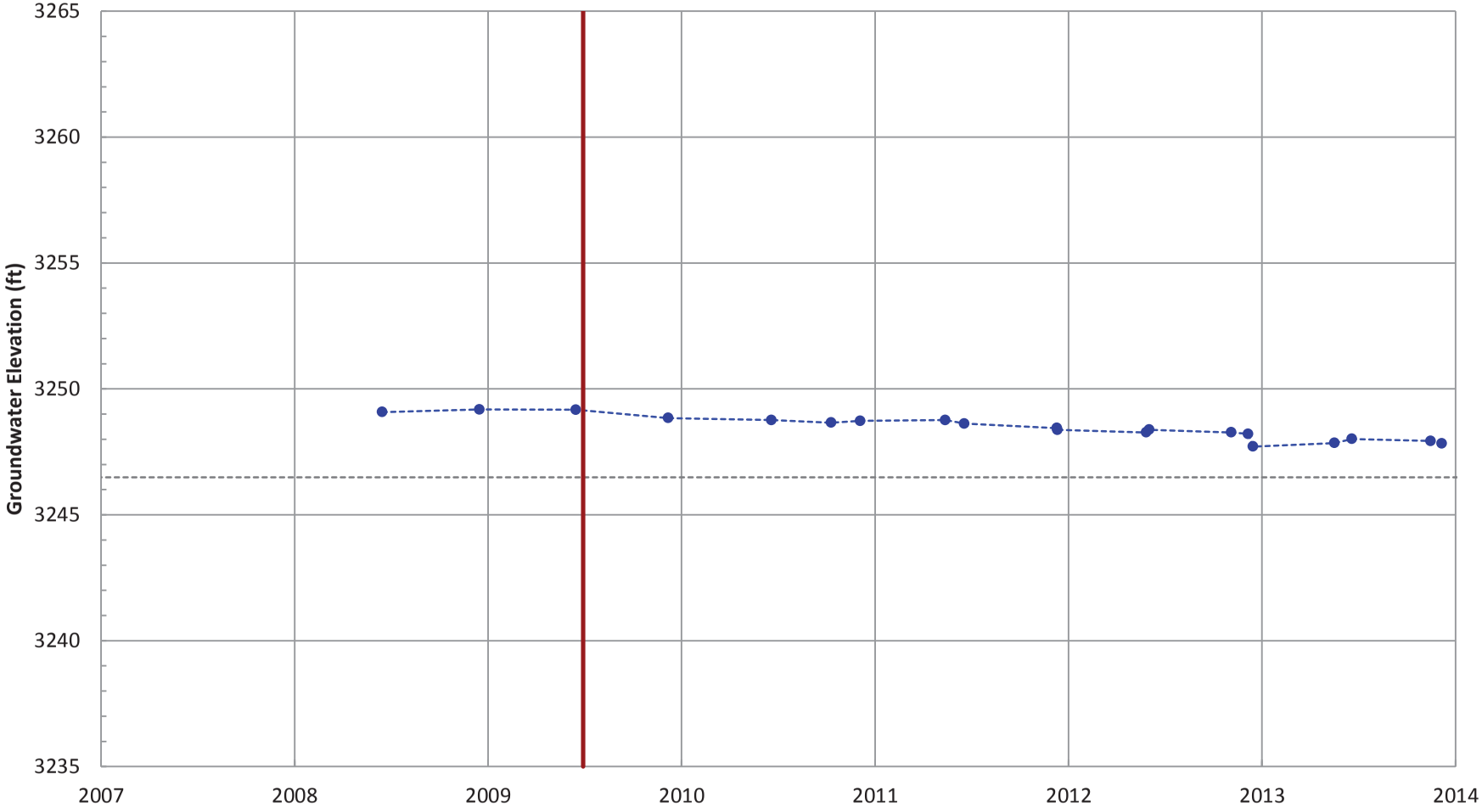
Analysis Date: 3/20/2014

Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location

Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.22 ft/yr
2012 - 2014 Data: Decreasing at 0.41 ft/yr

PTX06-1121
Hydrograph in Perched Aquifer

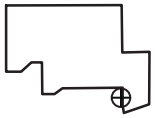


Notes:
1. The top of screen elevation is 3256.49 ft msl.
2. The bottom of screen elevation is 3246.49 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

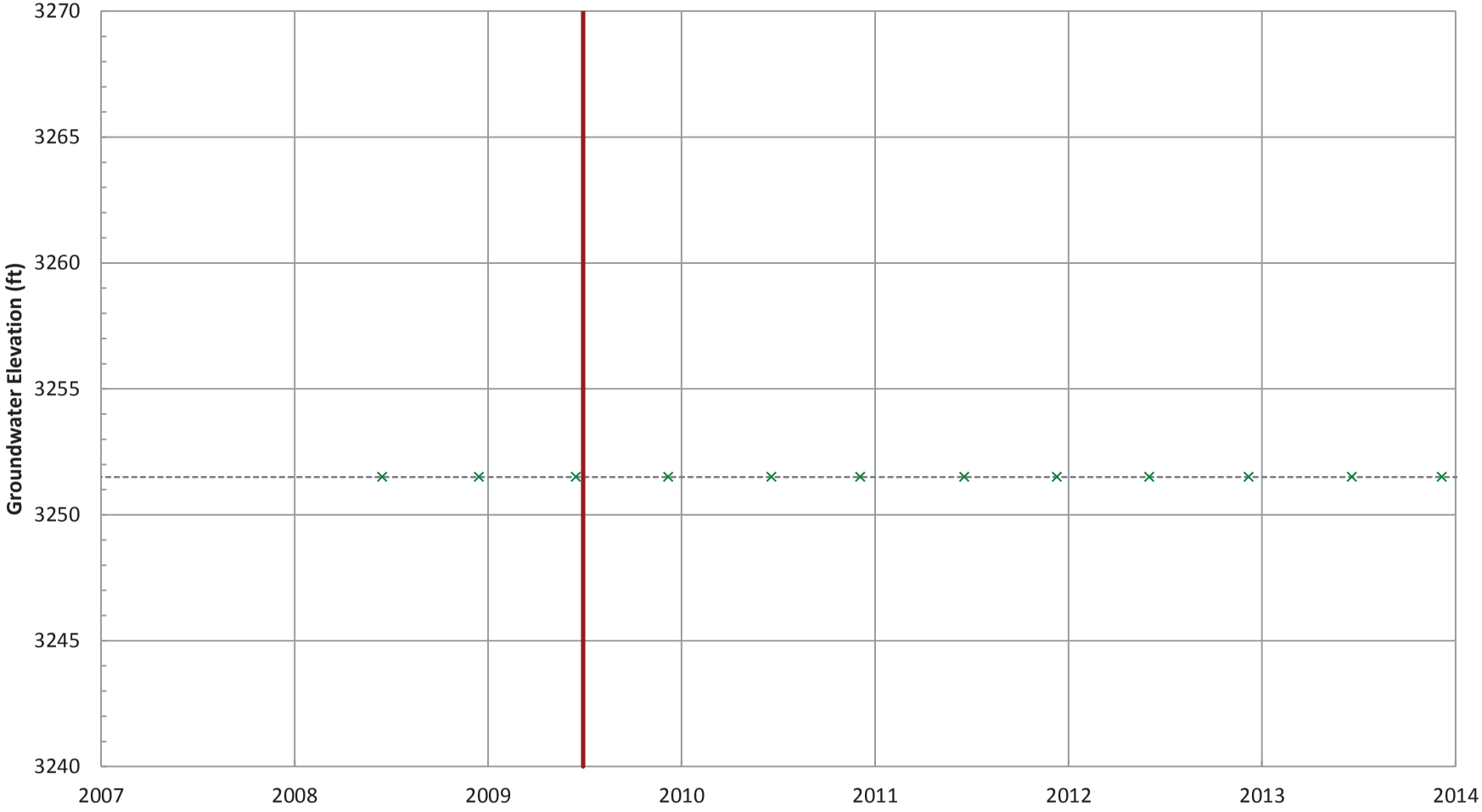
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.26 ft/yr
2012 - 2014 Data: No Trend

PTX06-1122
Hydrograph in Perched Aquifer

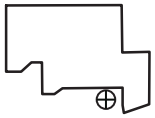


Notes:
1. The top of screen elevation is 3261.5 ft msl.
2. The bottom of screen elevation is 3251.5 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

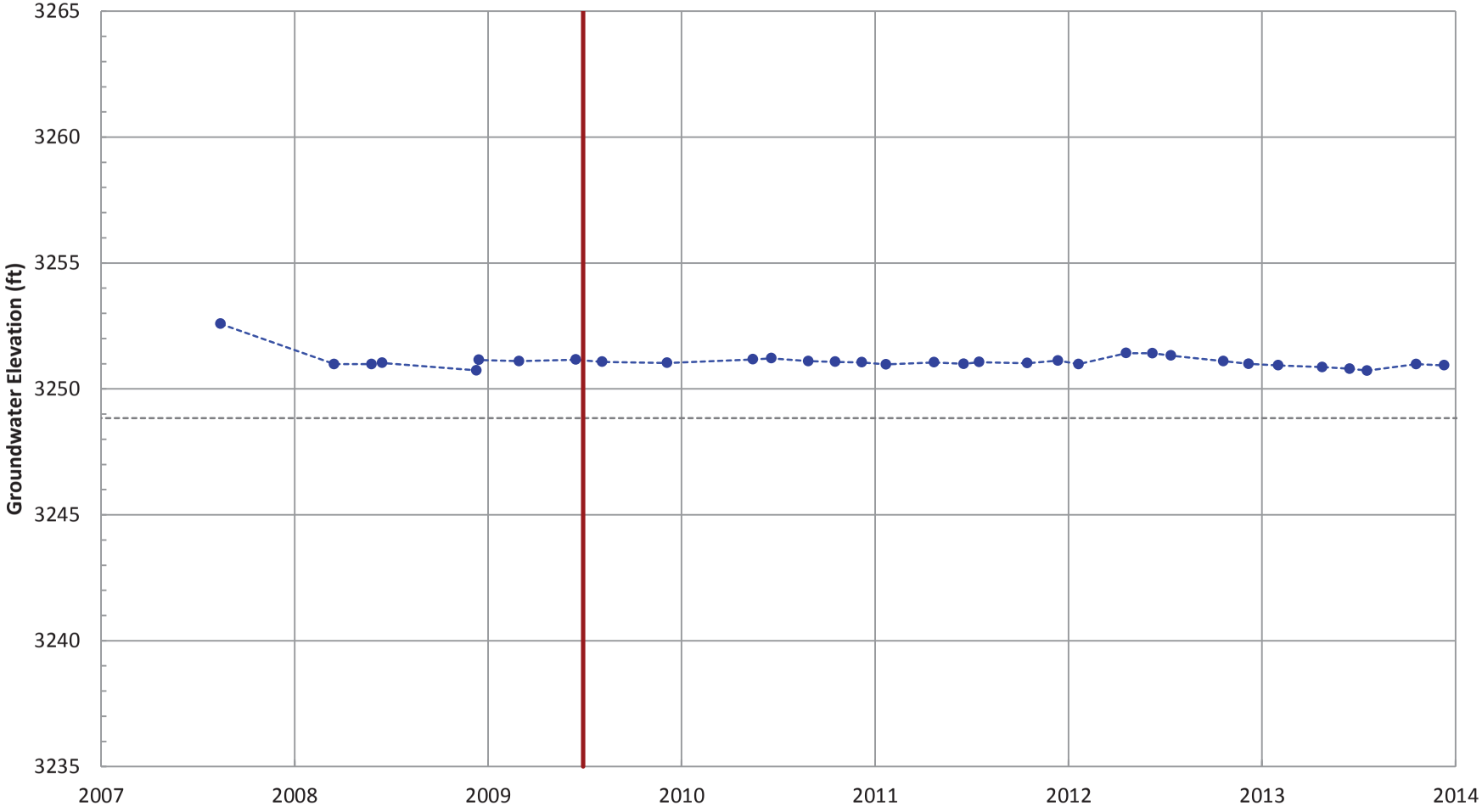
Groundwater Elevation
Bottom of Screen Elevation
No Water Detected
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: N/A (No Measurements)
2012 - 2014 Data: N/A (No Measurements)

PTX06-1123
Hydrograph in Perched Aquifer

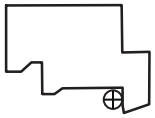


Notes:
1. The top of screen elevation is 3258.84 ft msl.
2. The bottom of screen elevation is 3248.84 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

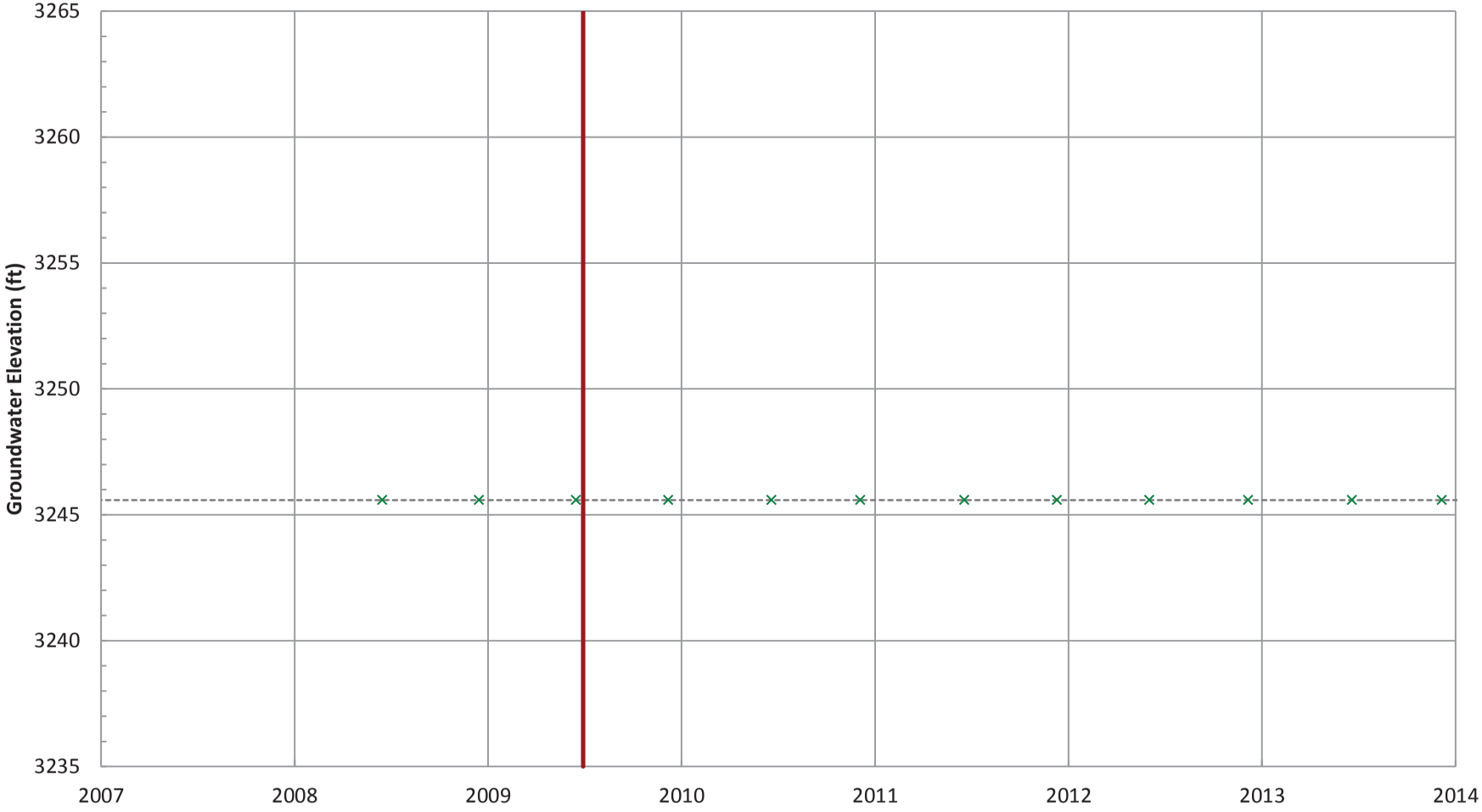
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: No Trend
2012 - 2014 Data: No Trend

PTX06-1124
Hydrograph in Perched Aquifer

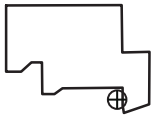


Notes:
1. The top of screen elevation is 3255.58 ft msl.
2. The bottom of screen elevation is 3245.58 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

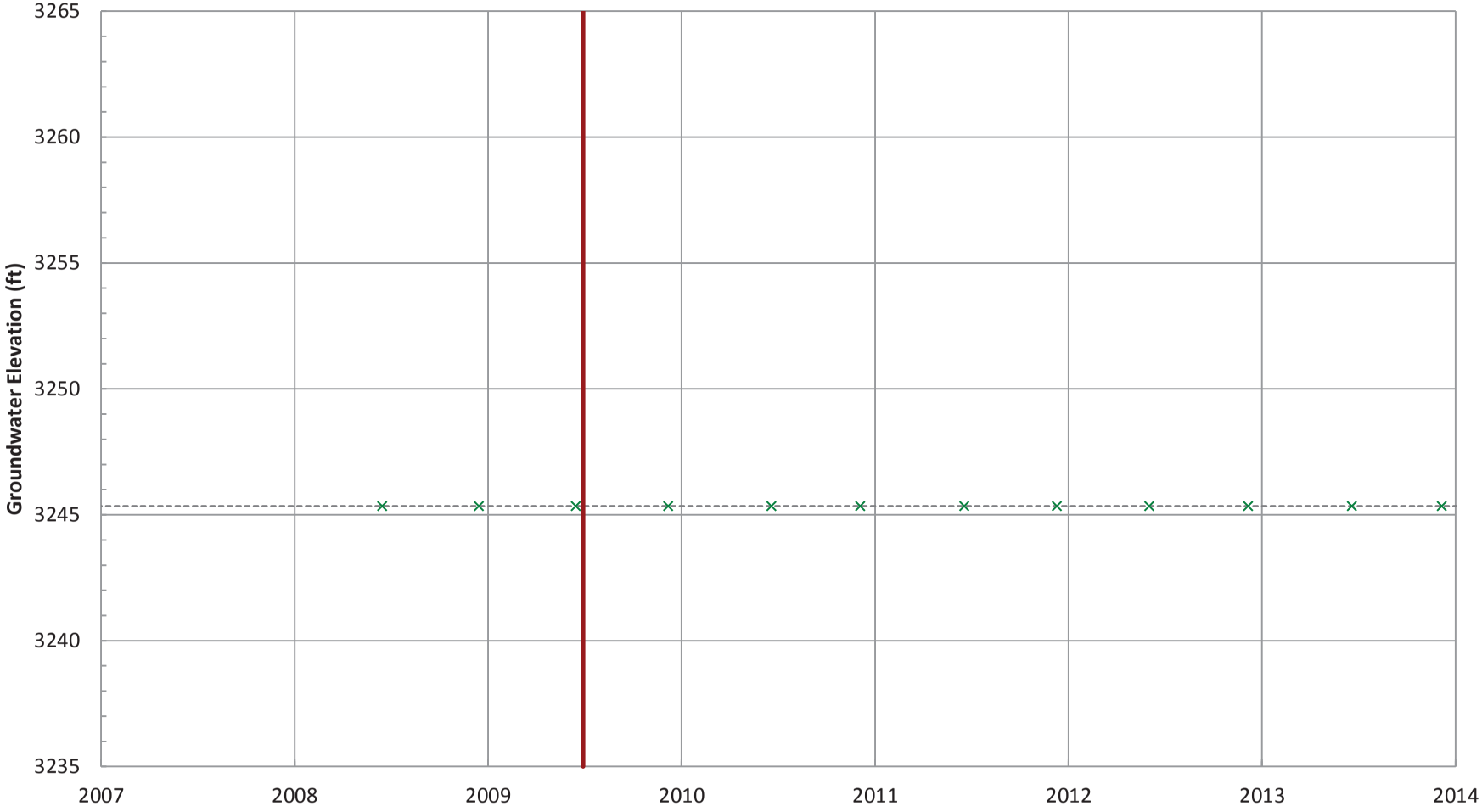
Groundwater Elevation
Bottom of Screen Elevation
No Water Detected
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: N/A (No Measurements)
2012 - 2014 Data: N/A (No Measurements)

PTX06-1125
Hydrograph in Perched Aquifer

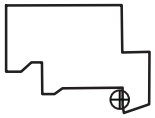


Notes:
1. The top of screen elevation is 3255.34 ft msl.
2. The bottom of screen elevation is 3245.34 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

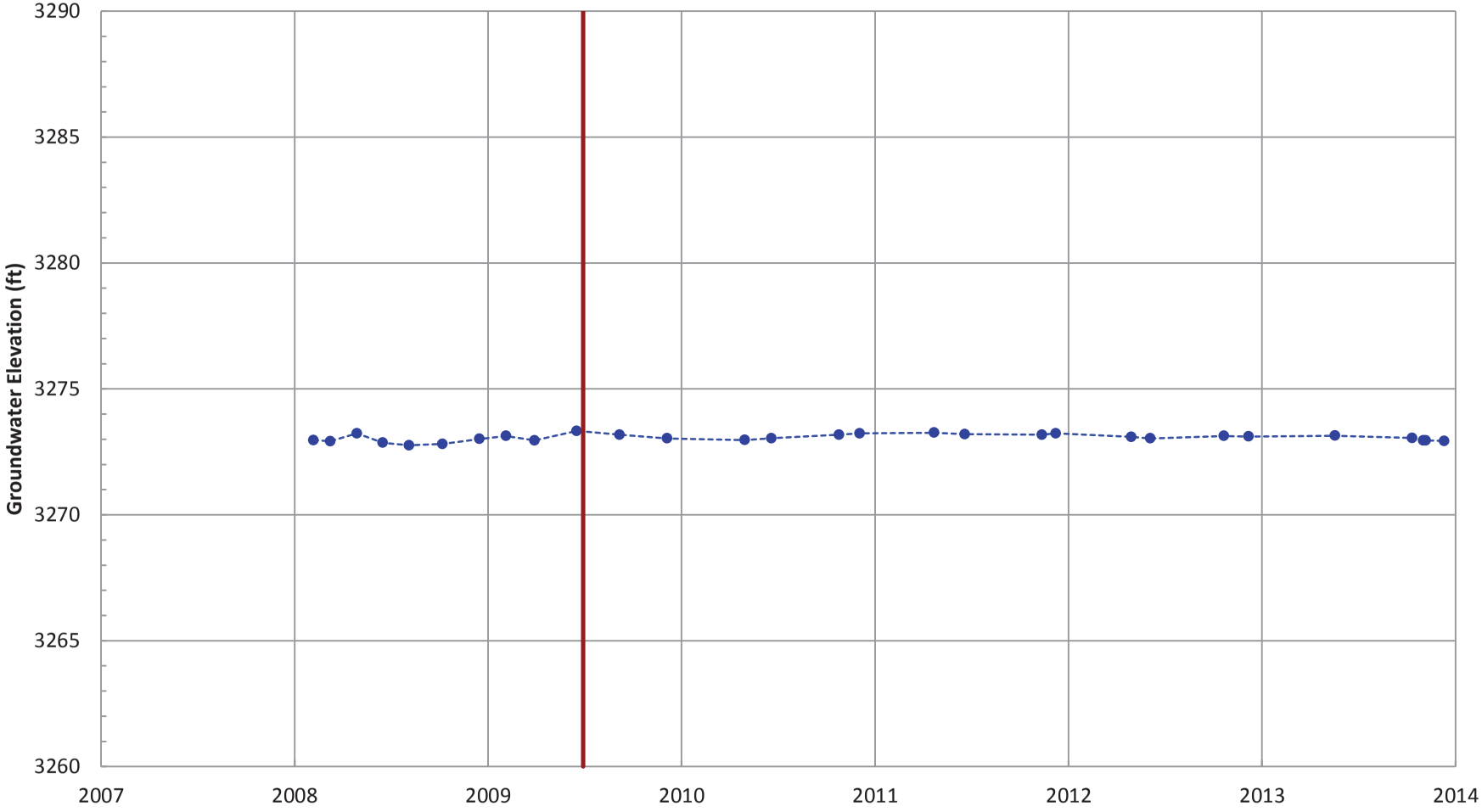
Groundwater Elevation
Bottom of Screen Elevation
No Water Detected
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: N/A (No Measurements)
2012 - 2014 Data: N/A (No Measurements)

PTX06-1126
Hydrograph in Perched Aquifer



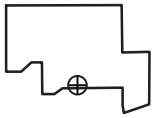
Notes:
1. The top of screen elevation is 3282.55 ft msl.
2. The bottom of screen elevation is 3252.55 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

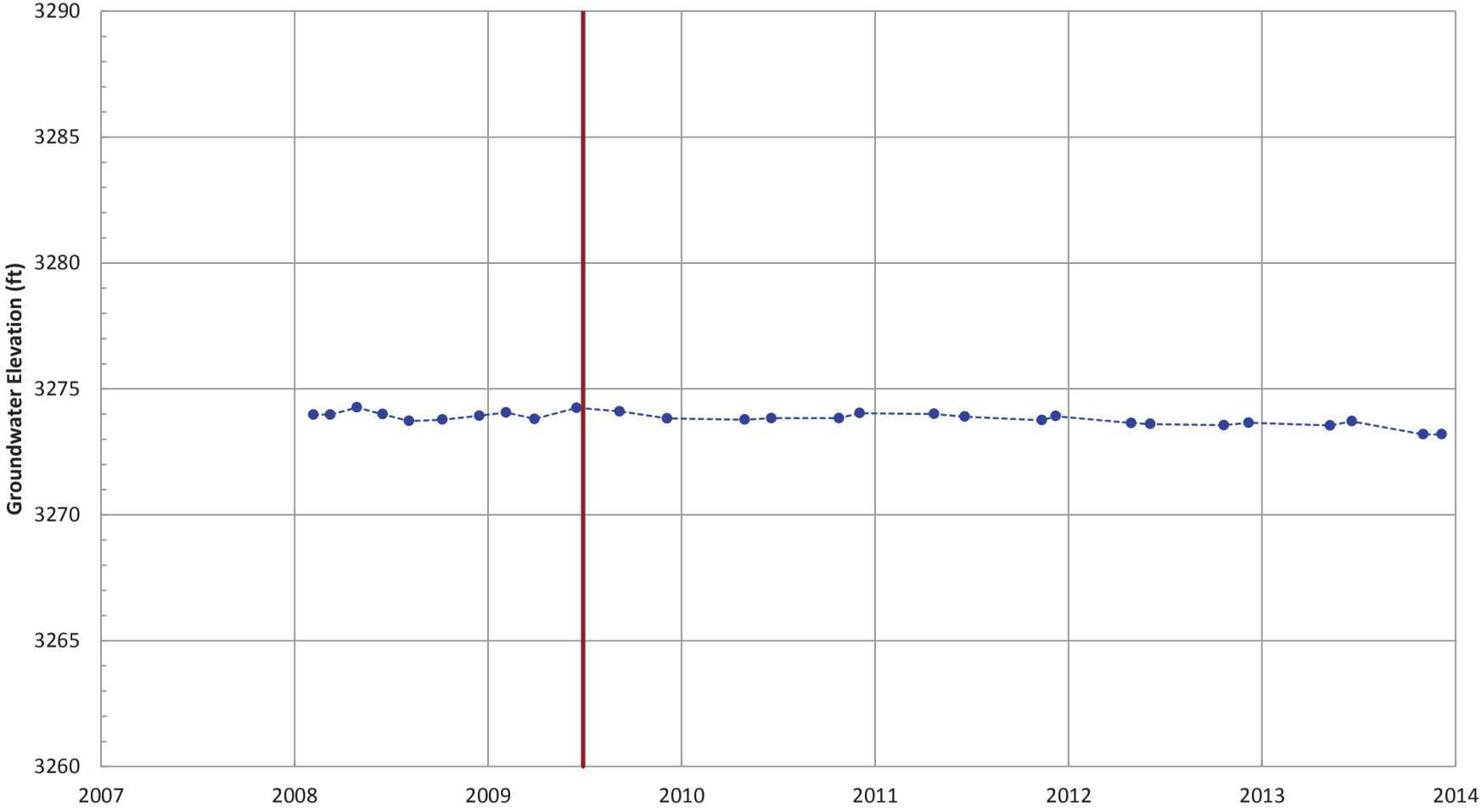
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: No Trend
2012 - 2014 Data: Decreasing at 0.38 ft/yr

PTX06-1127
Hydrograph in Perched Aquifer



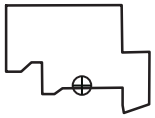
Notes:
1. The top of screen elevation is 3278.57 ft msl.
2. The bottom of screen elevation is 3248.57 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

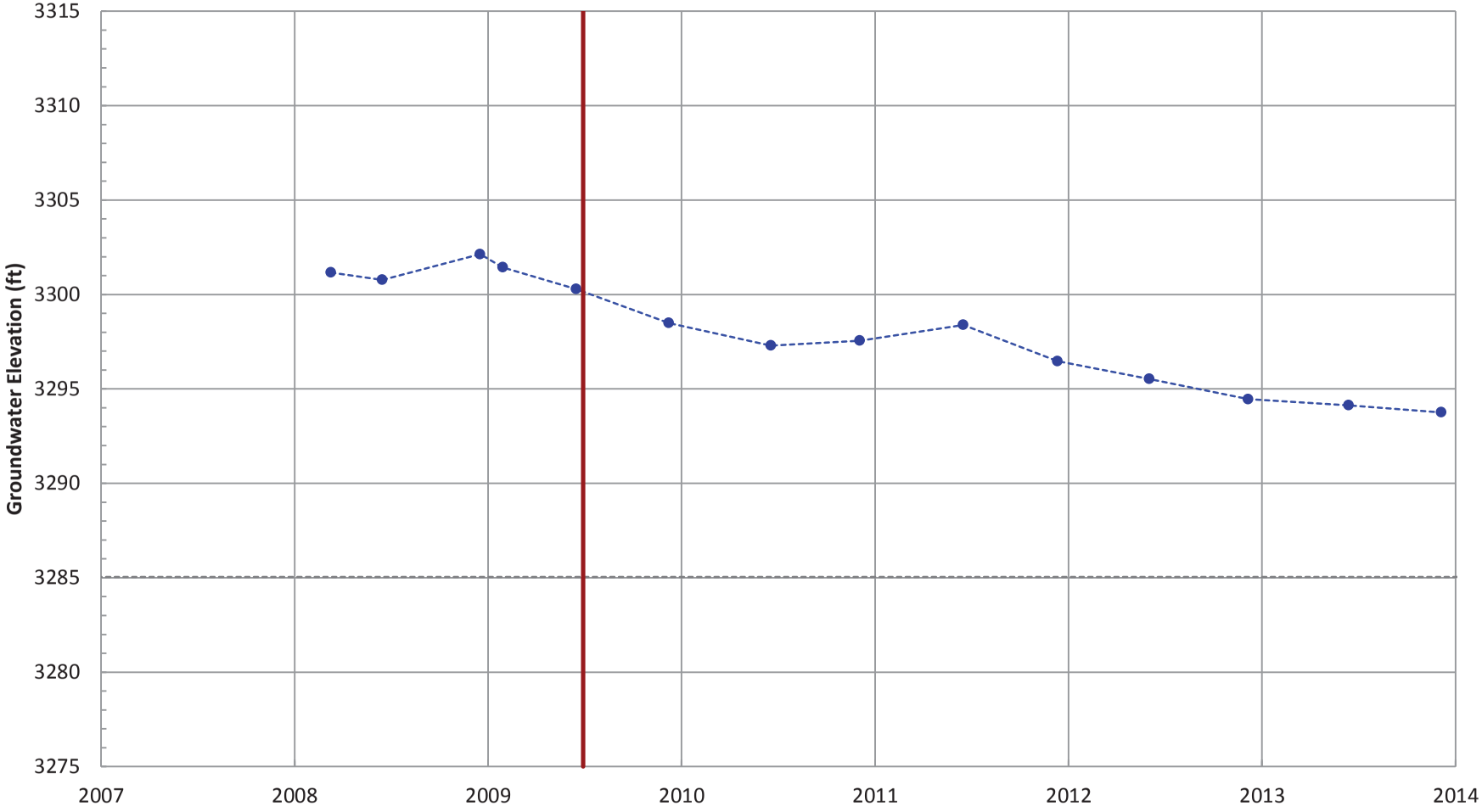
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: No Trend
2012 - 2014 Data: Decreasing at 0.83 ft/yr

PTX06-1128
Hydrograph in Perched Aquifer

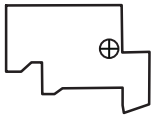


Notes:
1. The top of screen elevation is 3325.04 ft msl.
2. The bottom of screen elevation is 3285.04 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

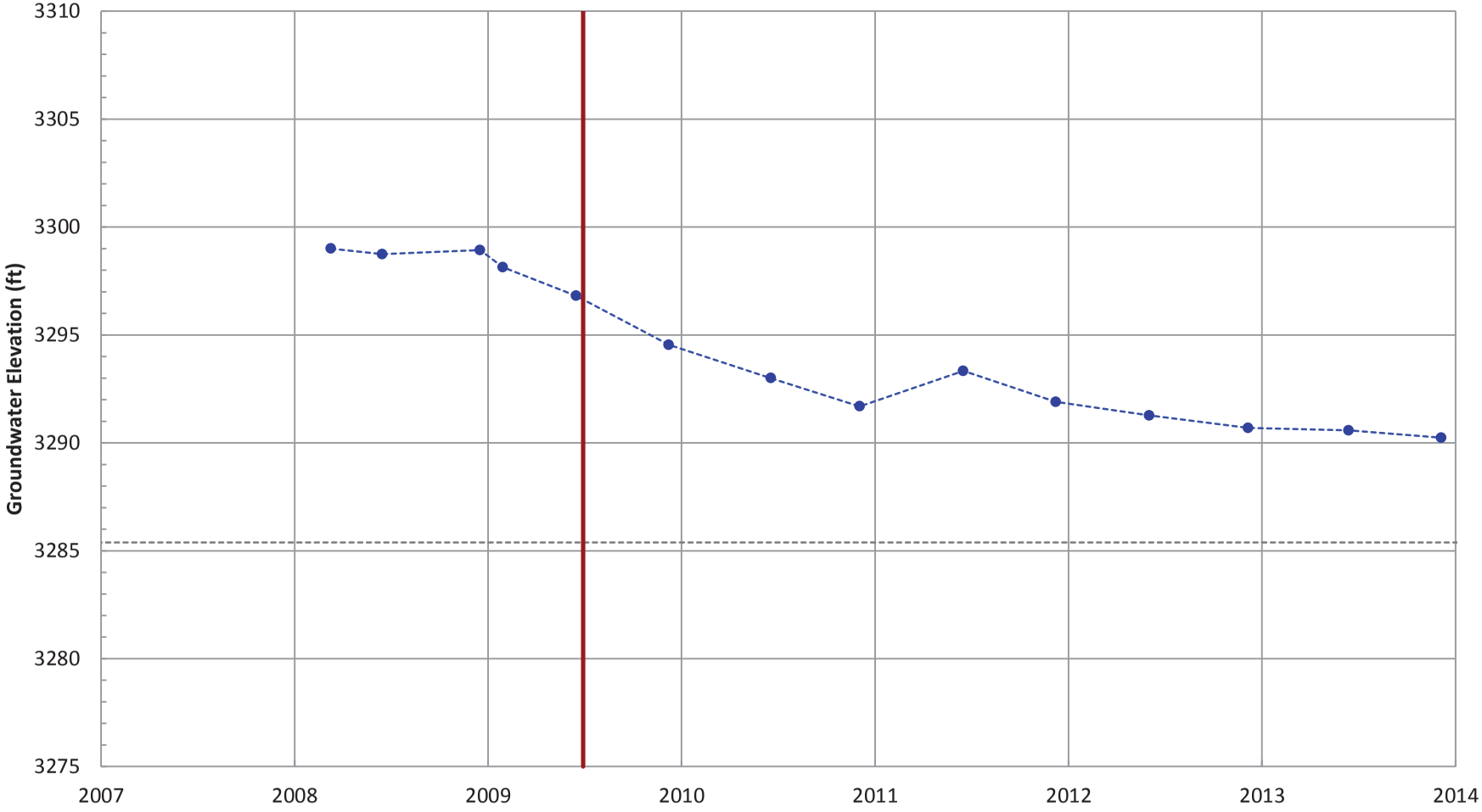
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 1.45 ft/yr
2012 - 2014 Data: N/A (<3 Measurements)

PTX06-1129
Hydrograph in Perched Aquifer

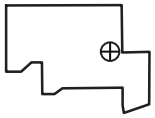


Notes:
1. The top of screen elevation is 3305.39 ft msl.
2. The bottom of screen elevation is 3285.39 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

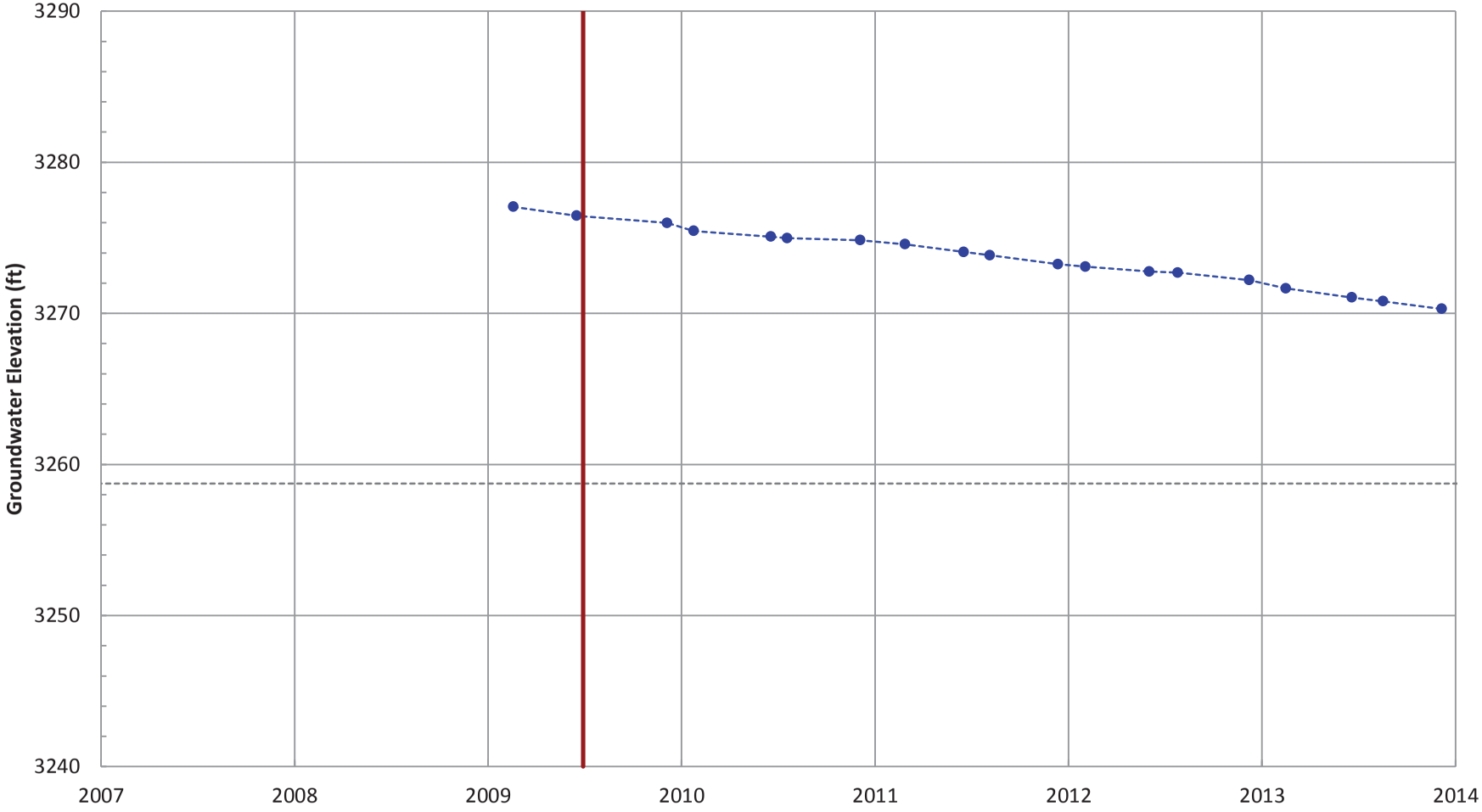
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 1.69 ft/yr
2012 - 2014 Data: N/A (<3 Measurements)

PTX06-1130
Hydrograph in Perched Aquifer

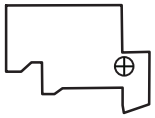


Notes:
1. The top of screen elevation is 3283.74 ft msl.
2. The bottom of screen elevation is 3258.74 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

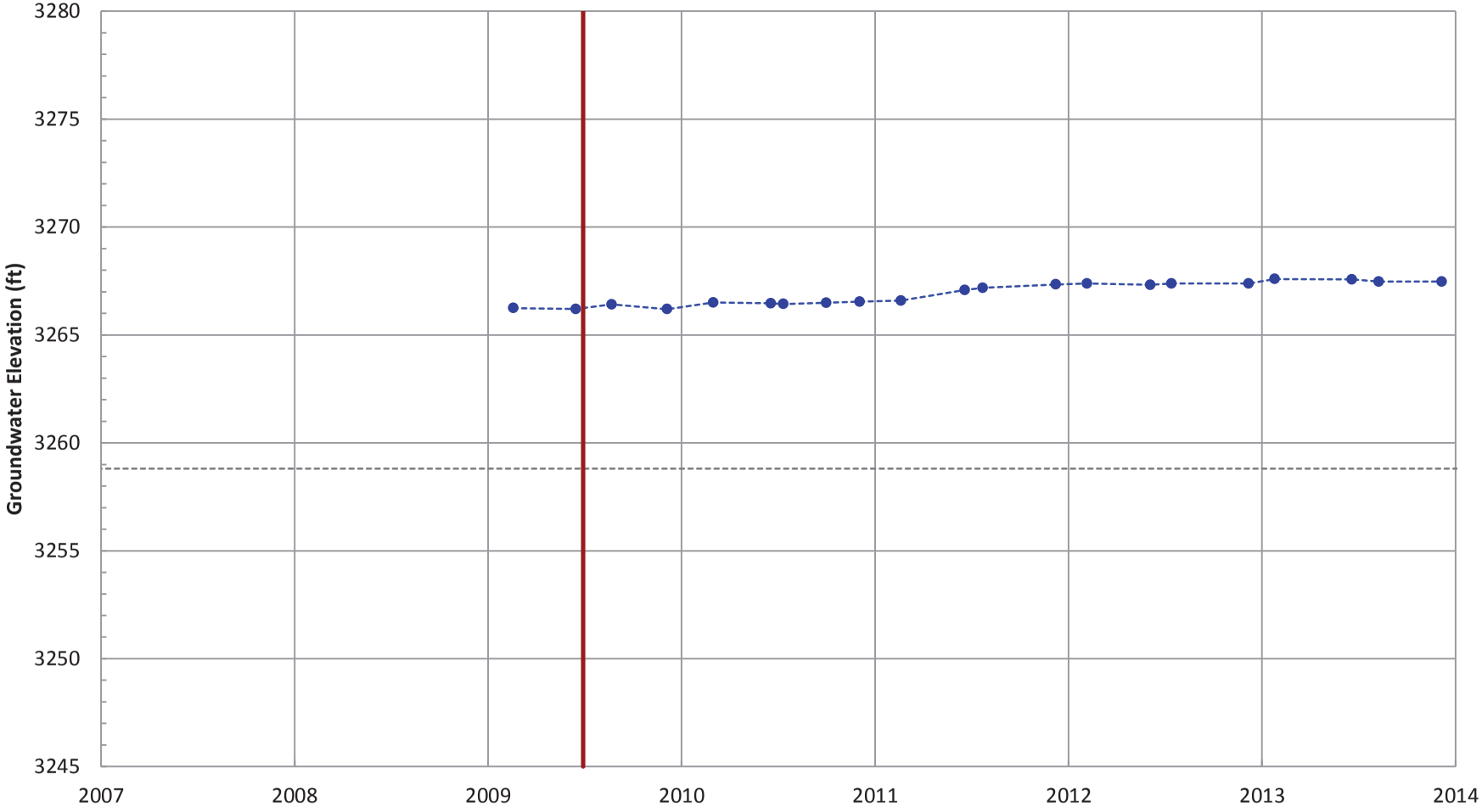
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 1.34 ft/yr
2012 - 2014 Data: Decreasing at 1.68 ft/yr

PTX06-1131
Hydrograph in Perched Aquifer

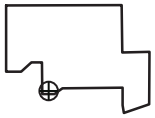


Notes:
1. The top of screen elevation is 3278.81 ft msl.
2. The bottom of screen elevation is 3258.81 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

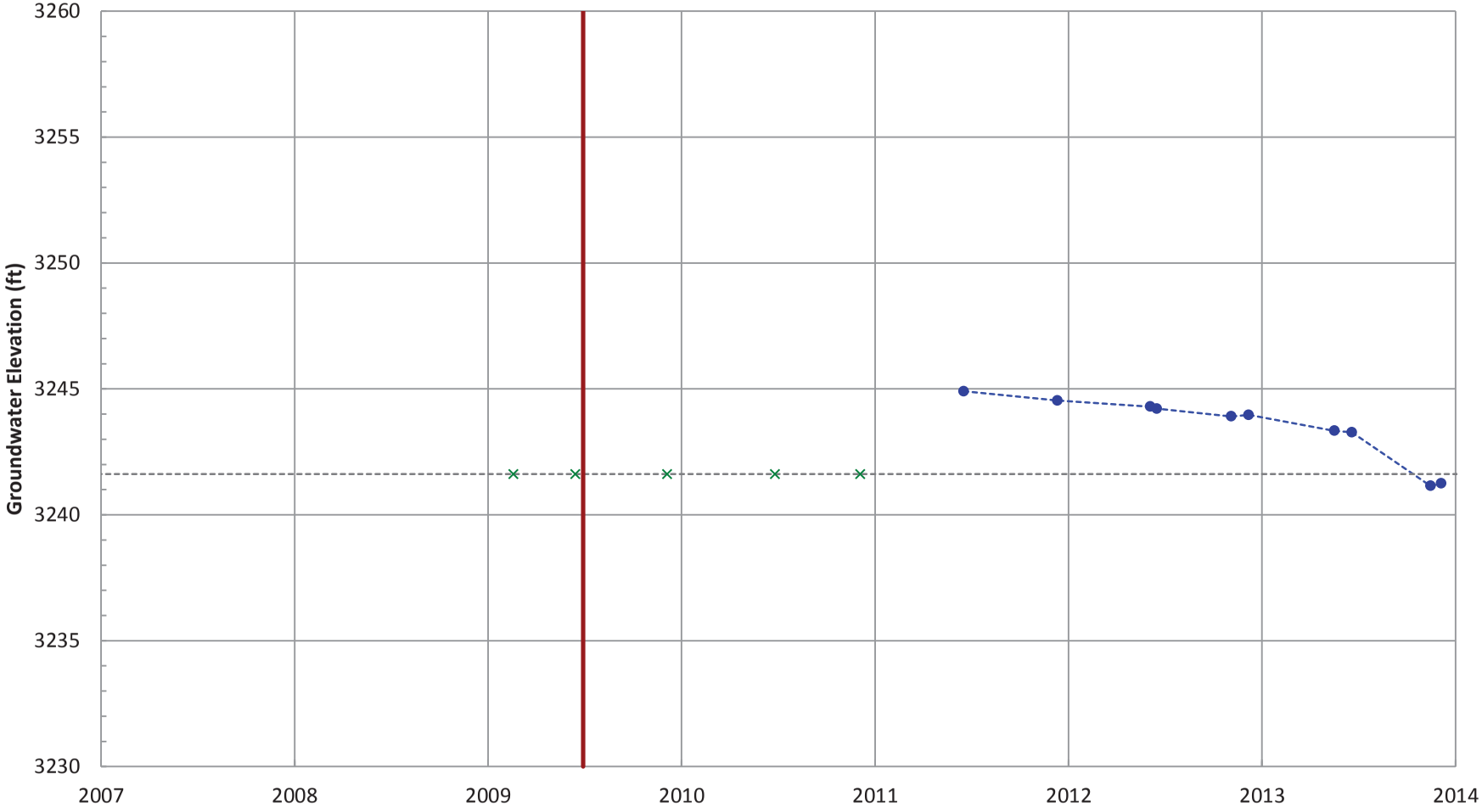
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Increasing at 0.34 ft/yr
2012 - 2014 Data: Decreasing at 0.15 ft/yr

PTX06-1133A
Hydrograph in Perched Aquifer

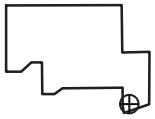


Notes:
1. The top of screen elevation is 3256.61 ft msl.
2. The bottom of screen elevation is 3241.61 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

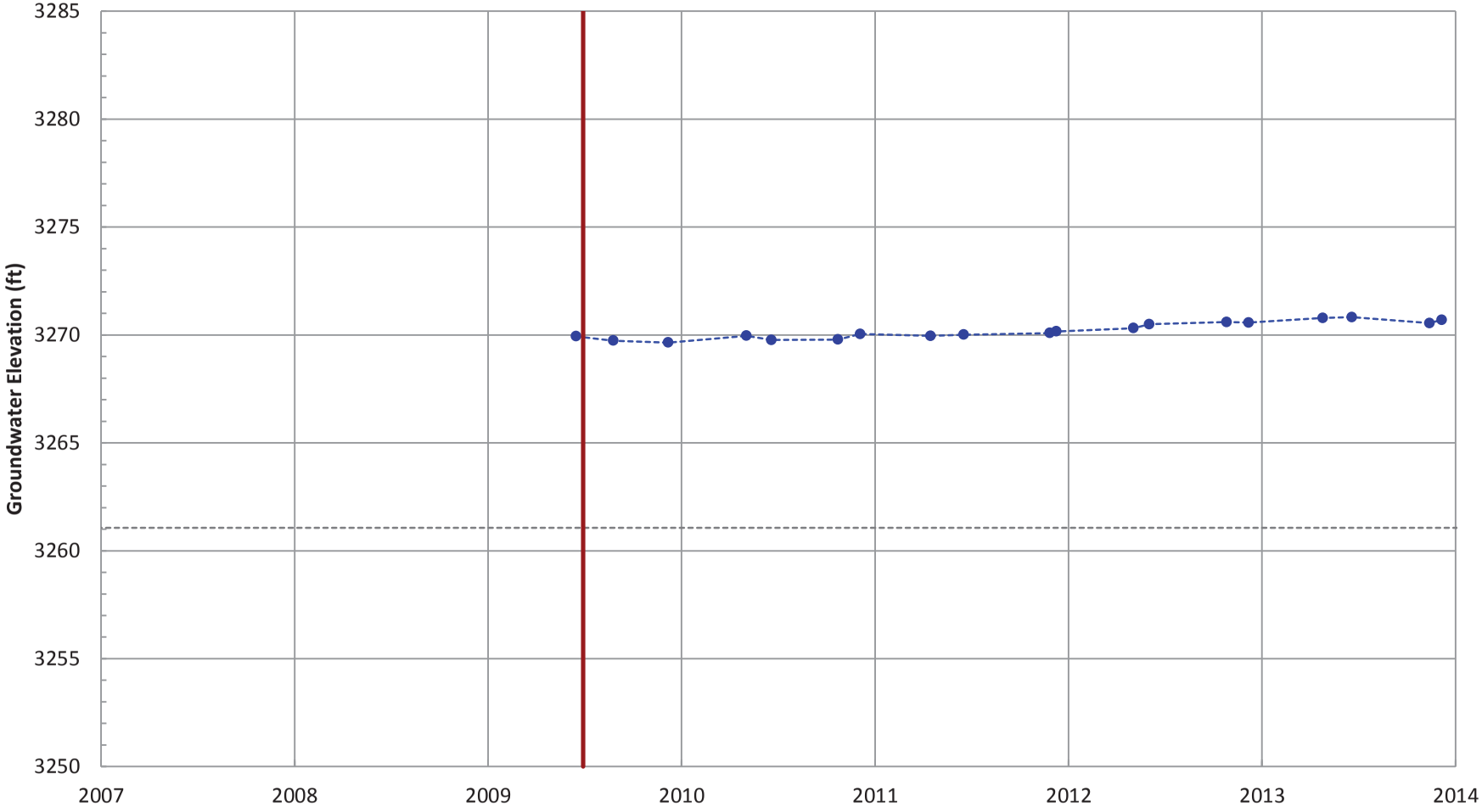
Groundwater Elevation
Bottom of Screen Elevation
No Water Detected
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 1.43 ft/yr
2012 - 2014 Data: Decreasing at 4.28 ft/yr

PTX06-1134
Hydrograph in Perched Aquifer

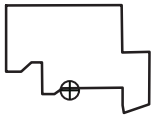


Notes:
1. The top of screen elevation is 3276.07 ft msl.
2. The bottom of screen elevation is 3261.07 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

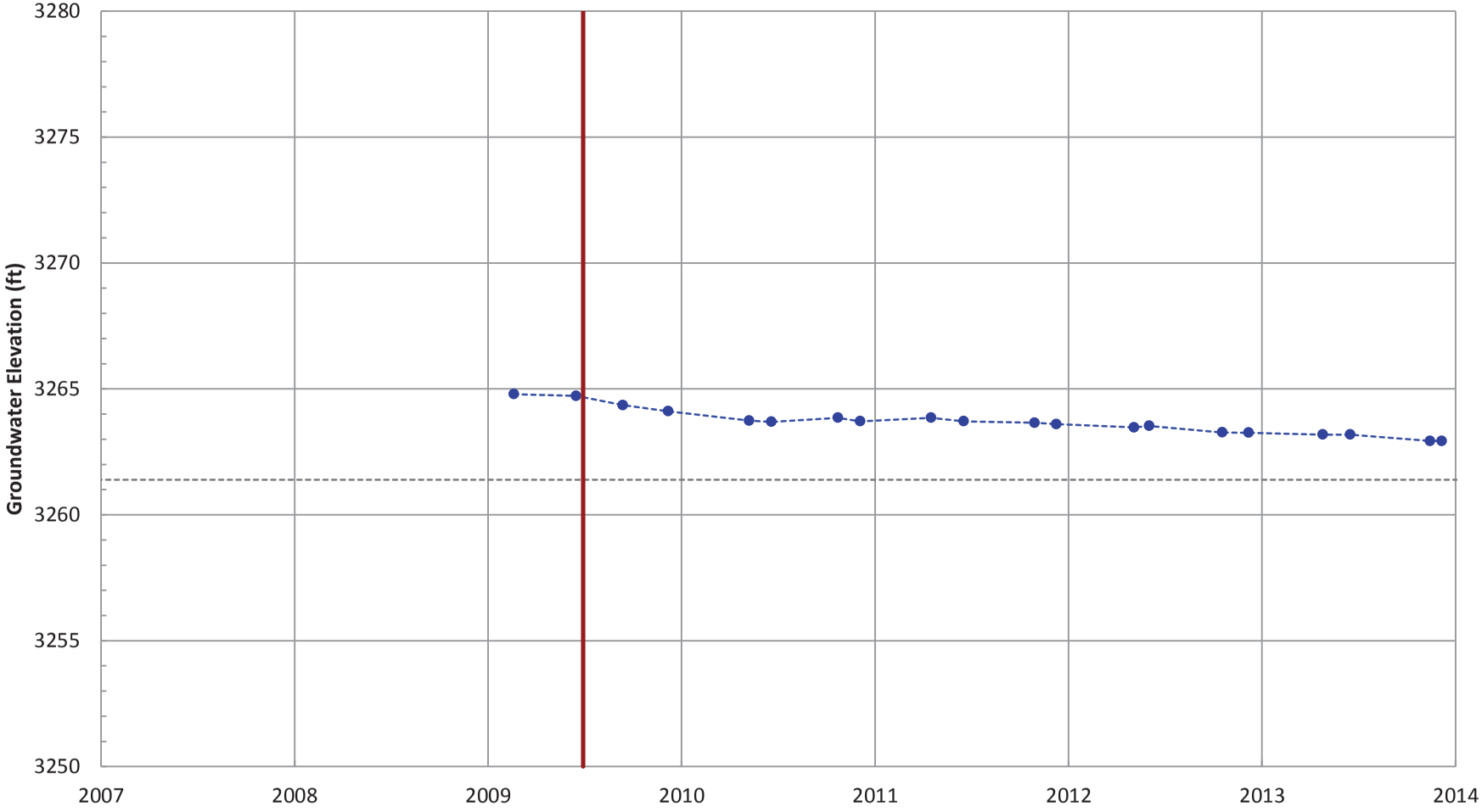
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Increasing at 0.25 ft/yr
2012 - 2014 Data: Decreasing at 0.32 ft/yr

PTX06-1135
Hydrograph in Perched Aquifer

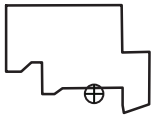


Notes:
1. The top of screen elevation is 3281.39 ft msl.
2. The bottom of screen elevation is 3261.39 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

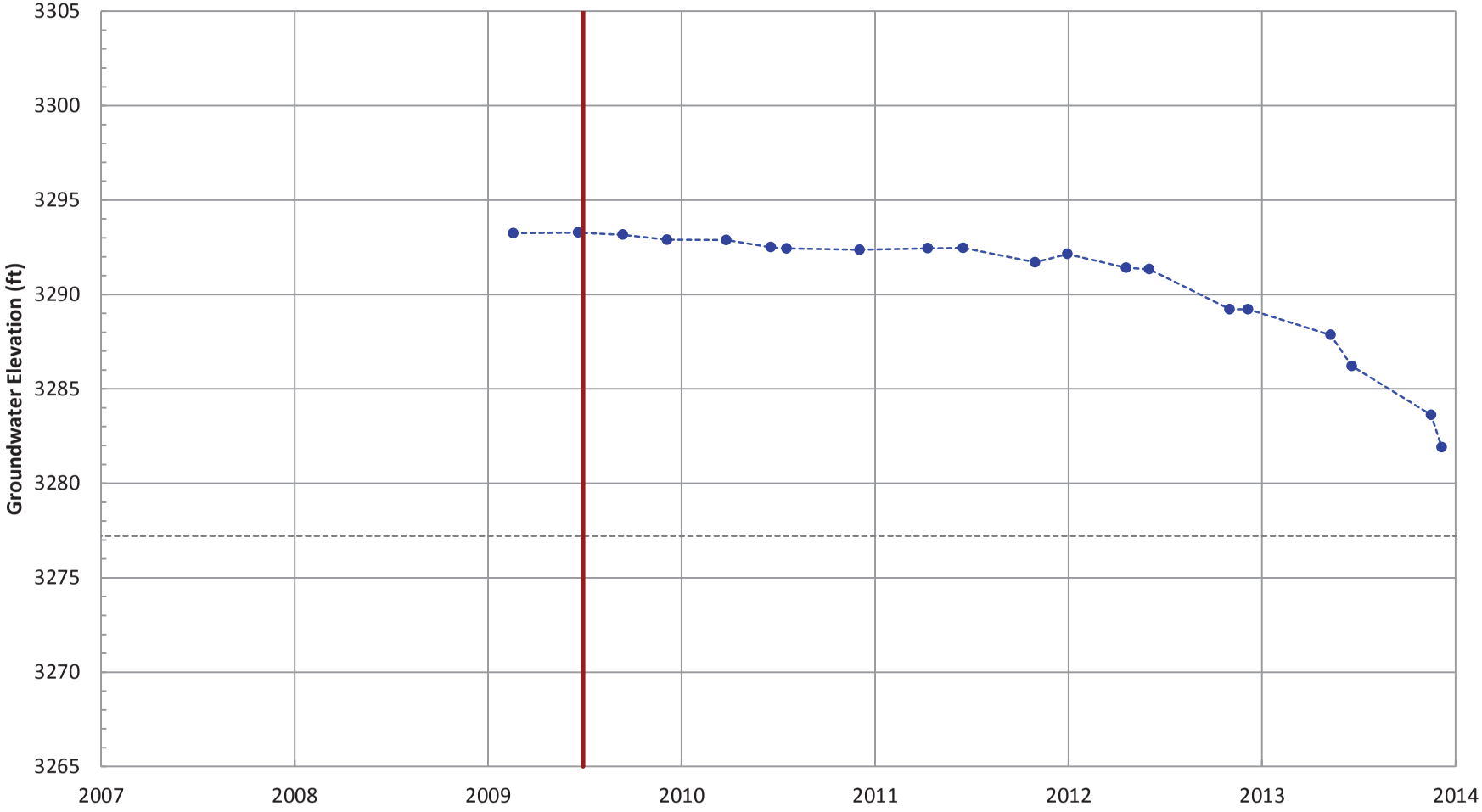
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.32 ft/yr
2012 - 2014 Data: Decreasing at 0.46 ft/yr

PTX06-1136
Hydrograph in Perched Aquifer

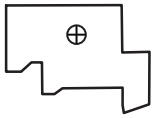


Notes:
1. The top of screen elevation is 3297.22 ft msl.
2. The bottom of screen elevation is 3277.22 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

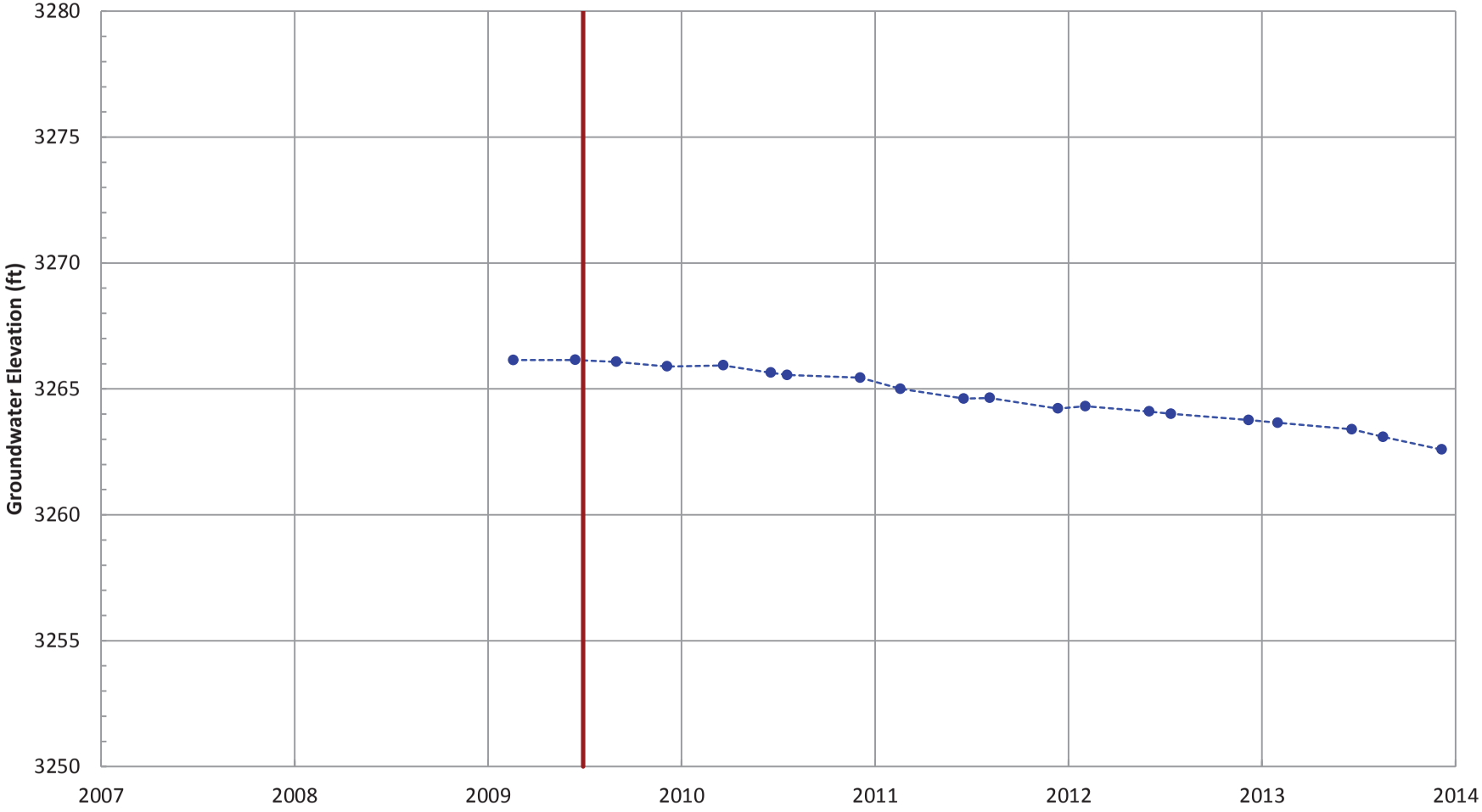
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 1.84 ft/yr
2012 - 2014 Data: Decreasing at 8.93 ft/yr

PTX06-1146
Hydrograph in Perched Aquifer



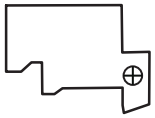
Notes:
1. The top of screen elevation is 3263.96 ft msl.
2. The bottom of screen elevation is 3243.96 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

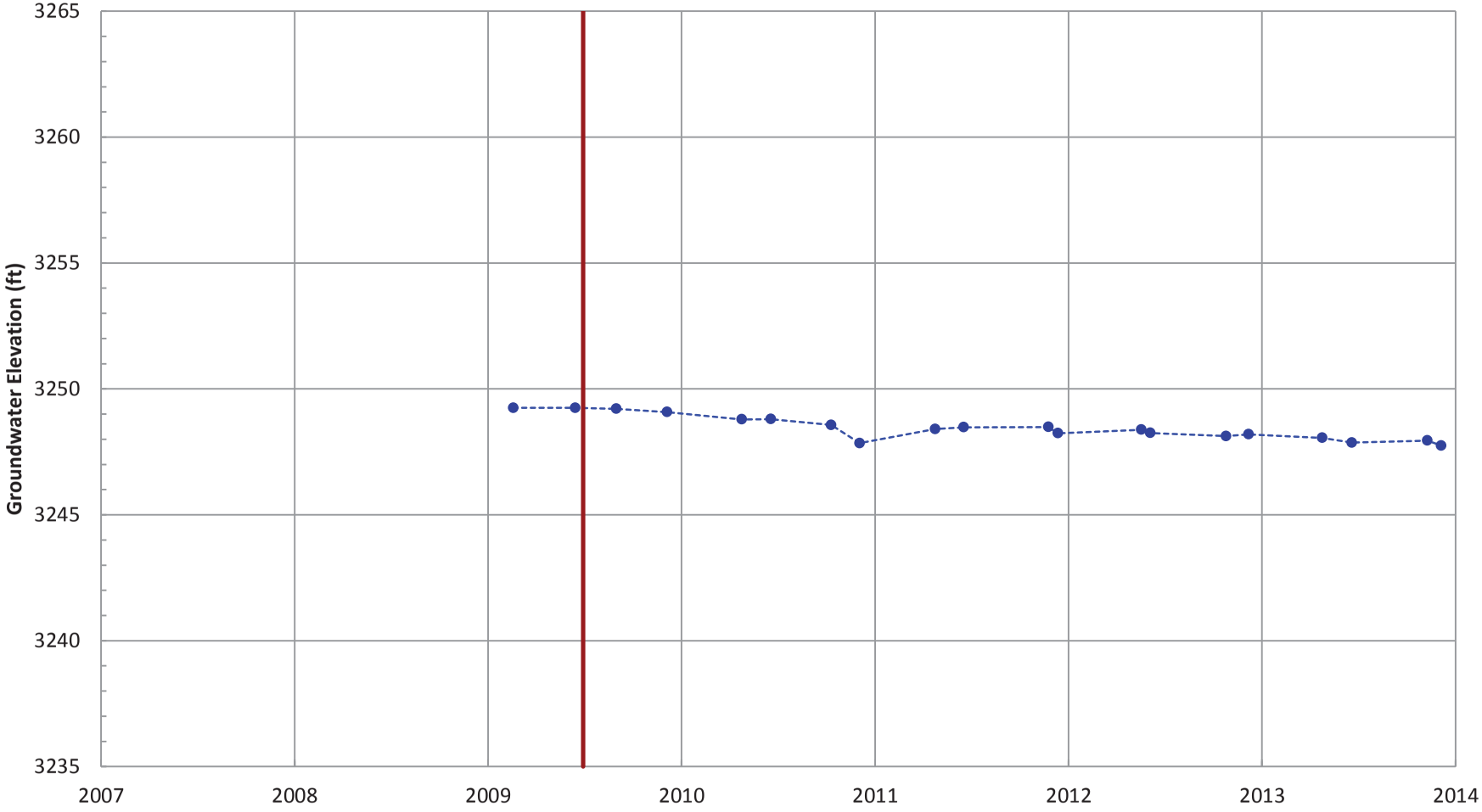
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.74 ft/yr
2012 - 2014 Data: Decreasing at 1.25 ft/yr

PTX06-1147
Hydrograph in Perched Aquifer



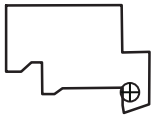
Notes:
1. The top of screen elevation is 3251.62 ft msl.
2. The bottom of screen elevation is 3231.62 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

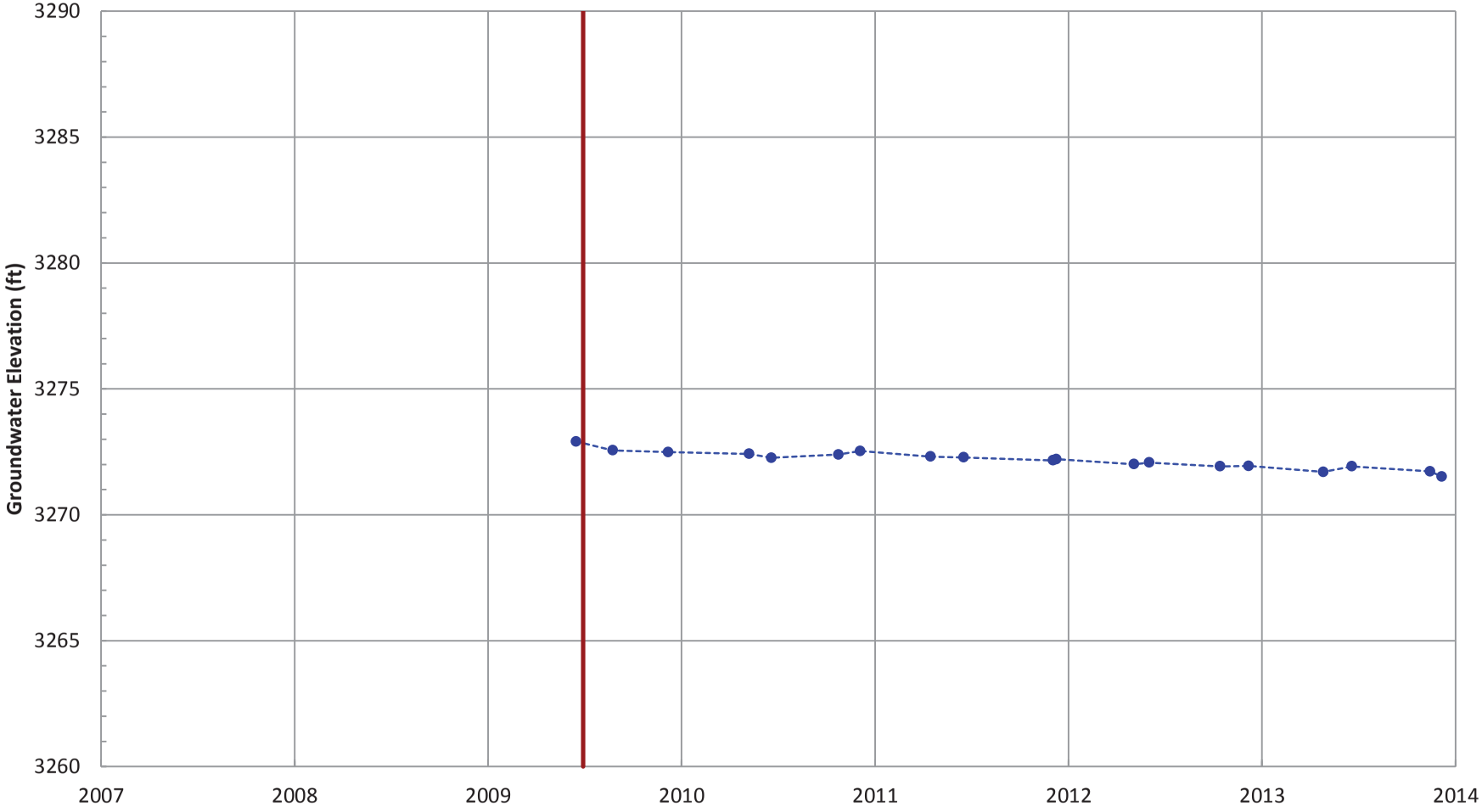
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.28 ft/yr
2012 - 2014 Data: Decreasing at 0.30 ft/yr

PTX06-1148
Hydrograph in Perched Aquifer



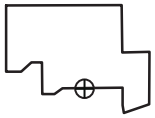
Notes:
1. The top of screen elevation is 3276.06 ft msl.
2. The bottom of screen elevation is 3256.06 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

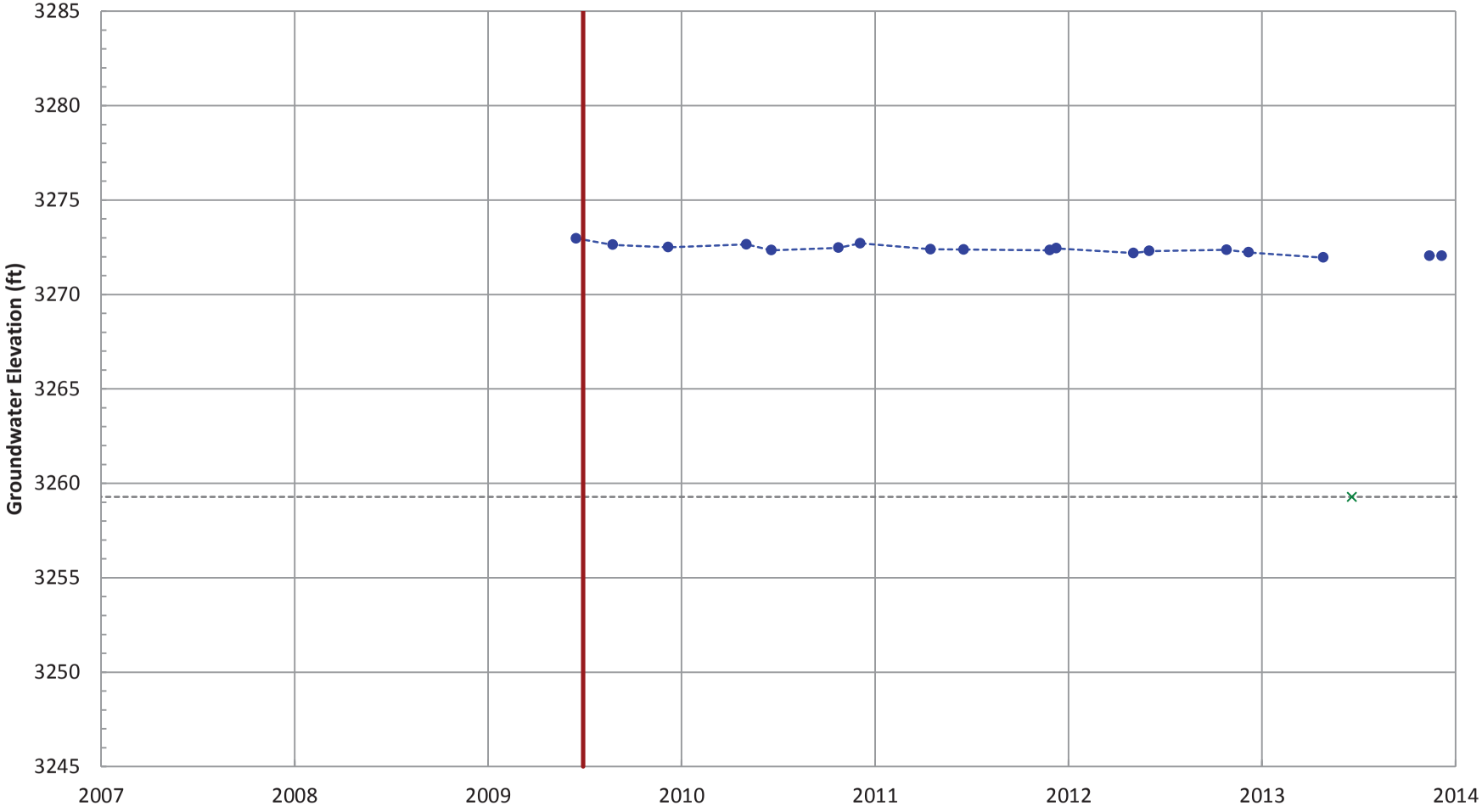
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.23 ft/yr
2012 - 2014 Data: Decreasing at 0.32 ft/yr

PTX06-1149
Hydrograph in Perched Aquifer

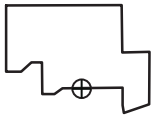


Notes:
1. The top of screen elevation is 3279.28 ft msl.
2. The bottom of screen elevation is 3259.28 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

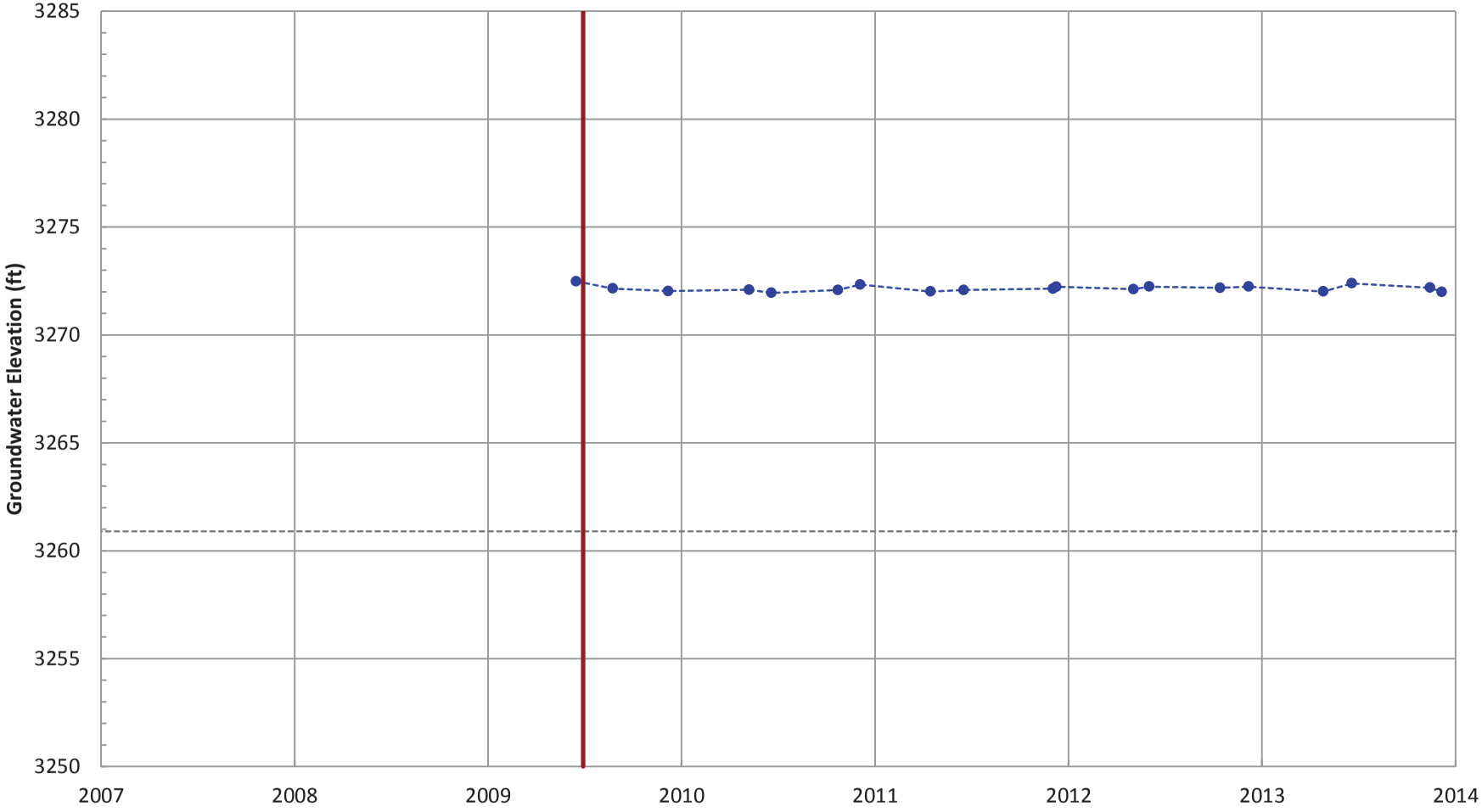
Groundwater Elevation
Bottom of Screen Elevation
No Water Detected
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.16 ft/yr
2012 - 2014 Data: Increasing at 0.17 ft/yr

PTX06-1150
Hydrograph in Perched Aquifer

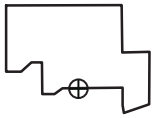


Notes:
1. The top of screen elevation is 3280.9 ft msl.
2. The bottom of screen elevation is 3260.9 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

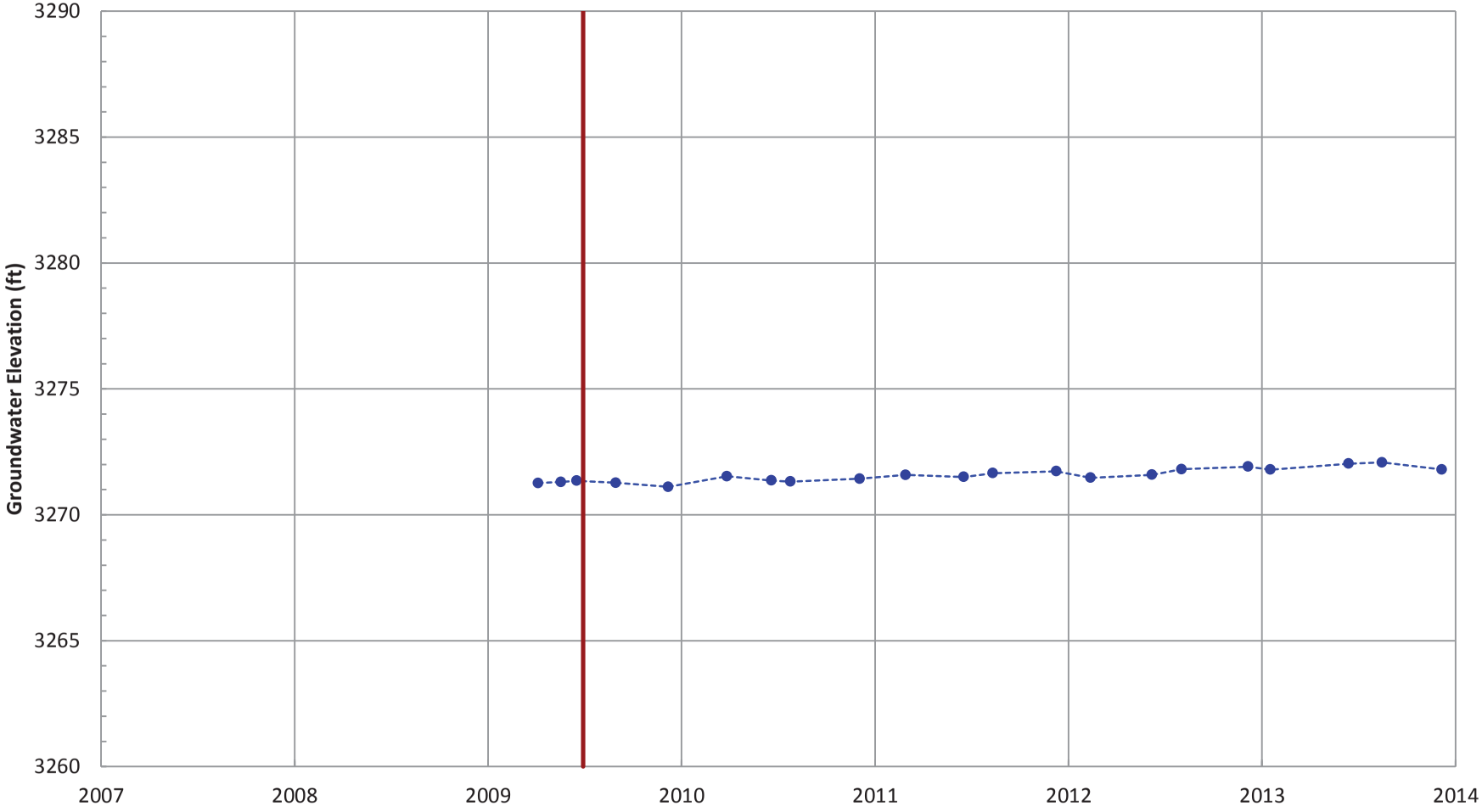
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: No Trend
2012 - 2014 Data: Decreasing at 0.12 ft/yr

PTX06-1151
Hydrograph in Perched Aquifer



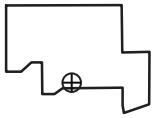
Notes:
1. The top of screen elevation is 3269.55 ft msl.
2. The bottom of screen elevation is 3254.55 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

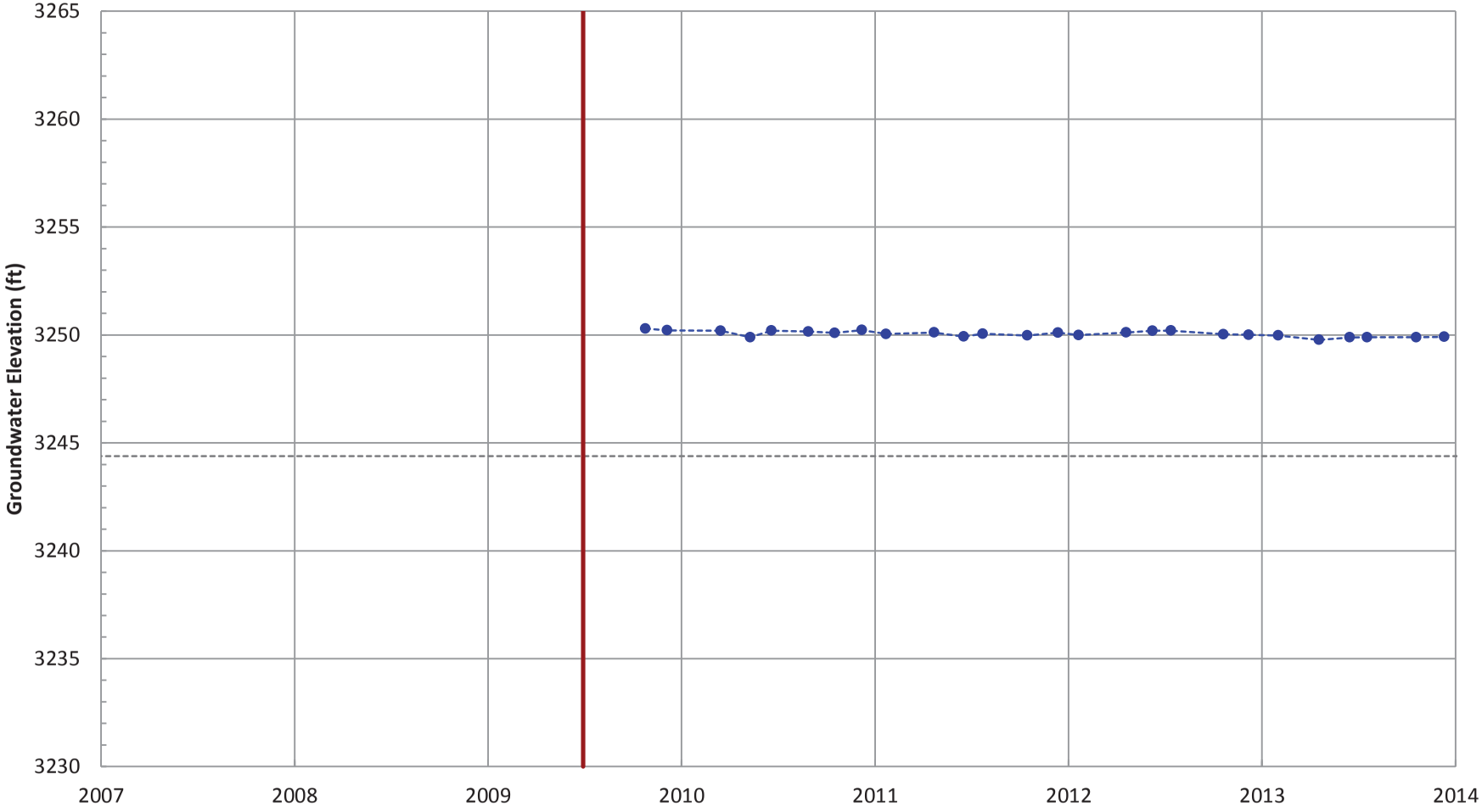
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Increasing at 0.16 ft/yr
2012 - 2014 Data: No Trend

PTX06-1153
Hydrograph in Perched Aquifer



Notes:
1. The top of screen elevation is 3254.38 ft msl.
2. The bottom of screen elevation is 3244.38 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

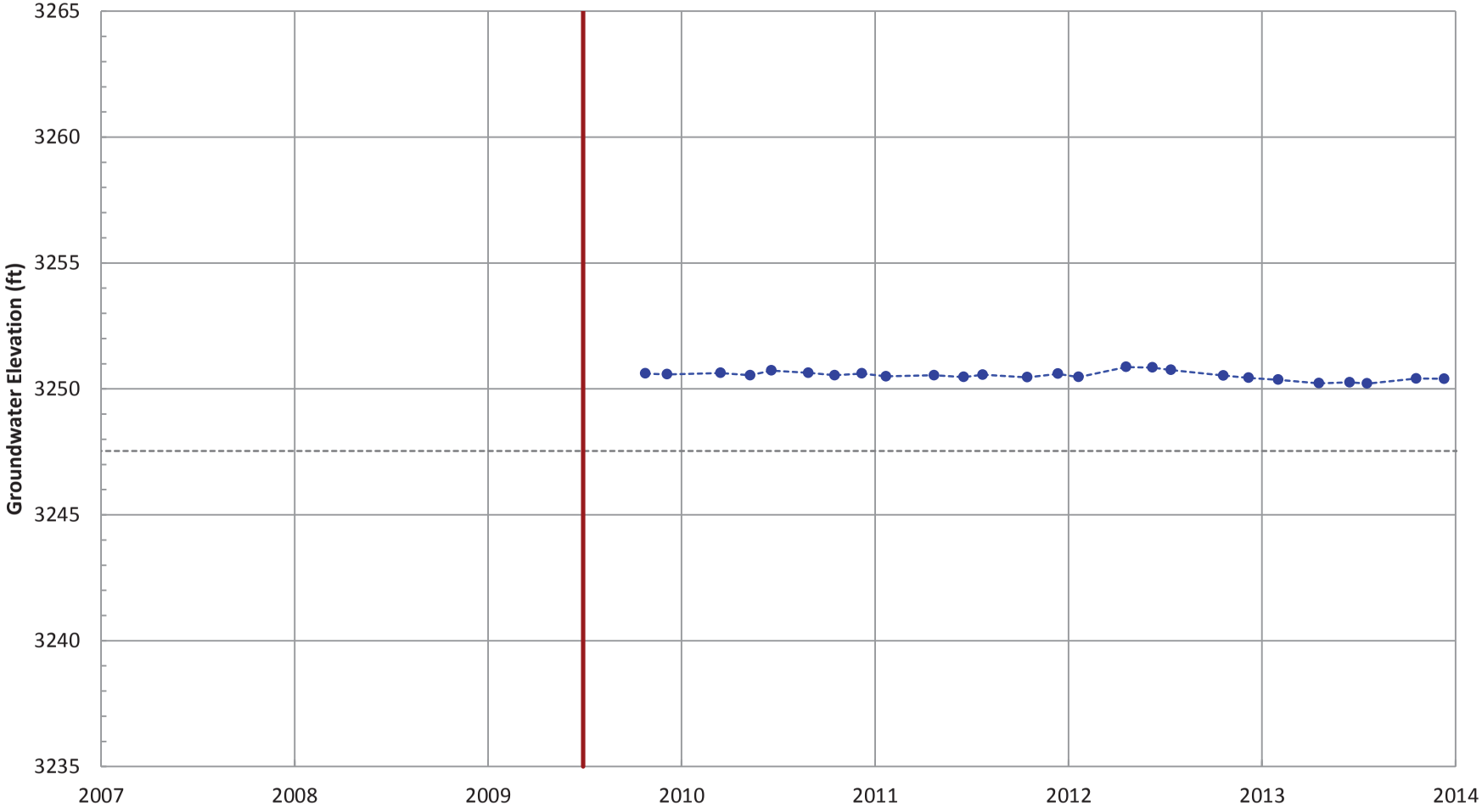
Analysis Date: 3/20/2014

Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location

Hydrograph Trend
(MAROS Linear Regression Method)
All Data: No Trend
2012 - 2014 Data: No Trend

PTX06-1154
Hydrograph in Perched Aquifer



Notes:
1. The top of screen elevation is 3257.54 ft msl.
2. The bottom of screen elevation is 3247.54 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

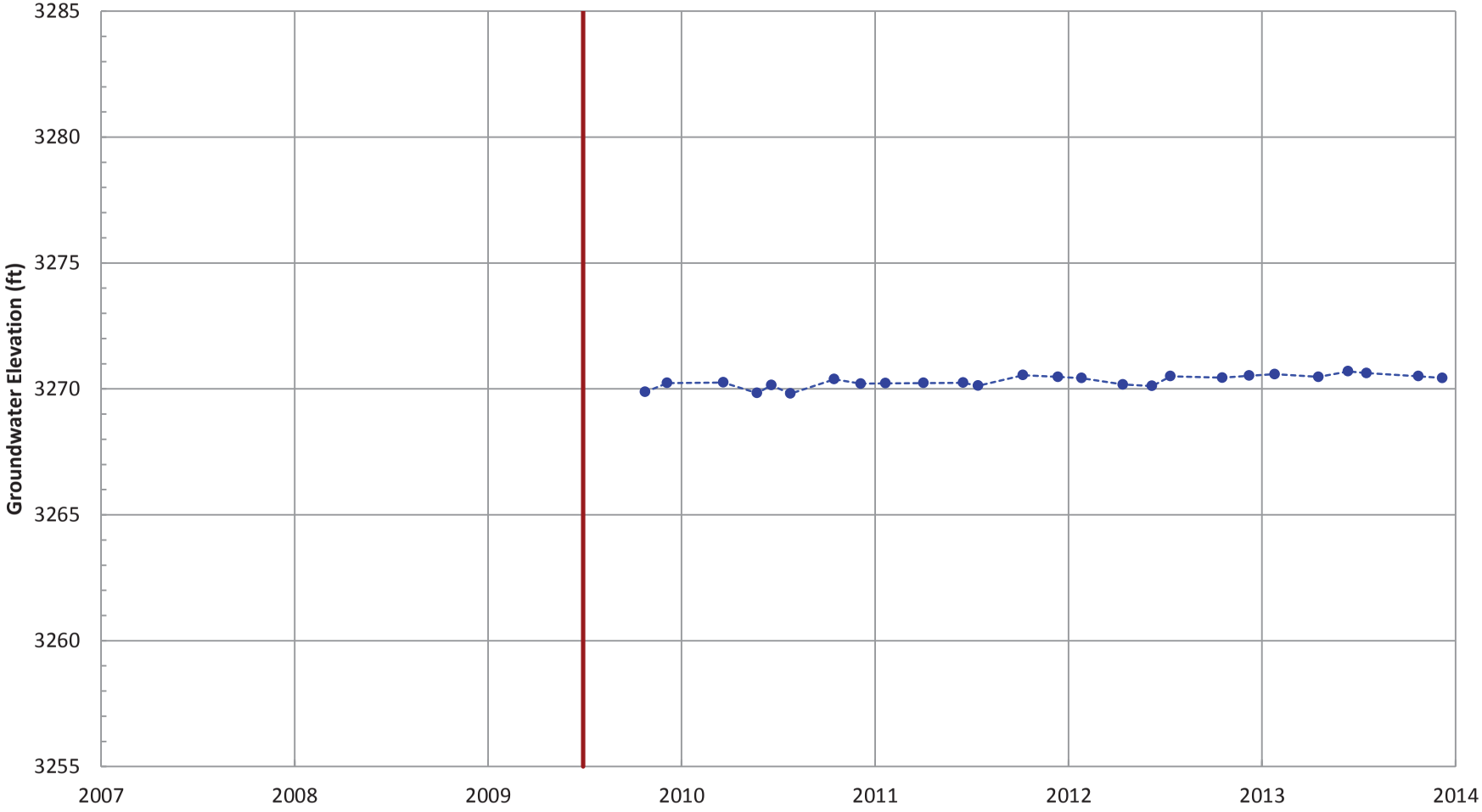
Analysis Date: 3/20/2014

Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location

Hydrograph Trend
(MAROS Linear Regression Method)
All Data: No Trend
2012 - 2014 Data: Increasing at 0.13 ft/yr

PTX06-1155
Hydrograph in Perched Aquifer



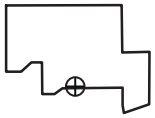
Notes:
1. The top of screen elevation is 3270 ft msl.
2. The bottom of screen elevation is 3255 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

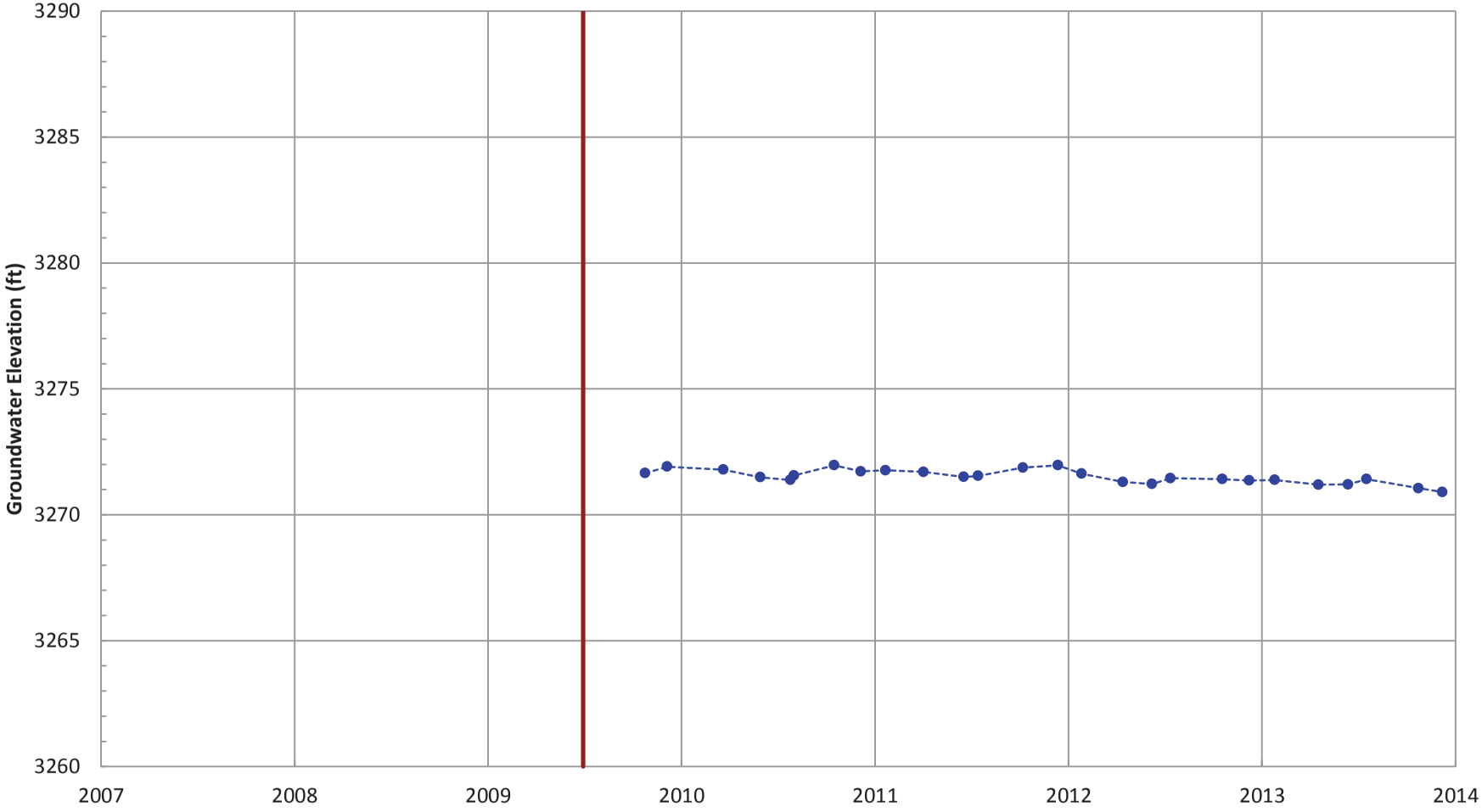
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Increasing at 0.14 ft/yr
2012 - 2014 Data: Decreasing at 0.13 ft/yr

PTX06-1156
Hydrograph in Perched Aquifer



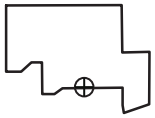
Notes:
1. The top of screen elevation is 3273.4 ft msl.
2. The bottom of screen elevation is 3248.4 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

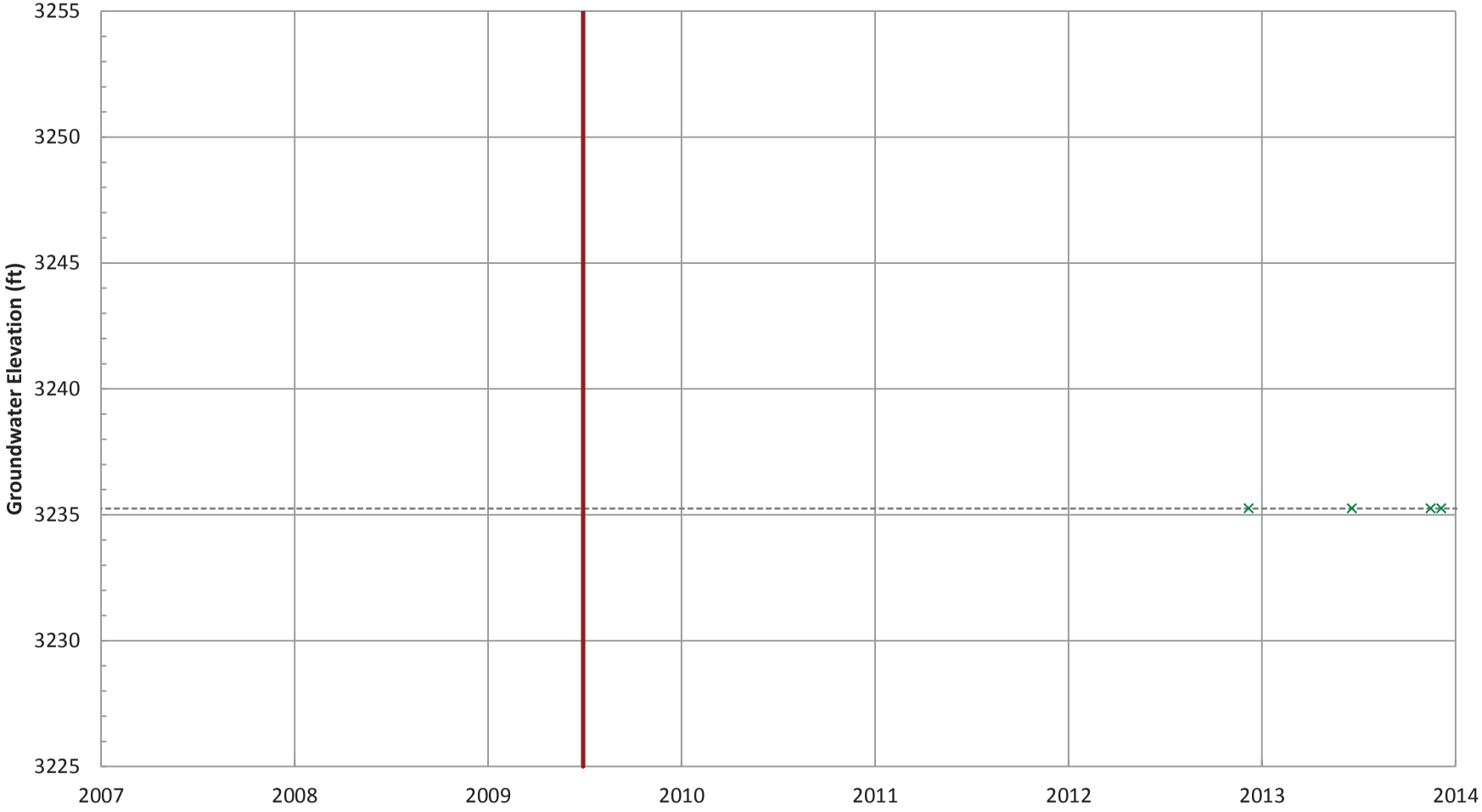
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.16 ft/yr
2012 - 2014 Data: Decreasing at 0.47 ft/yr

PTX06-1158
Hydrograph in Perched Aquifer

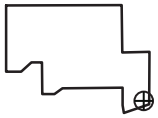


Notes:
1. The top of screen elevation is 3245.25 ft msl.
2. The bottom of screen elevation is 3235.25 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

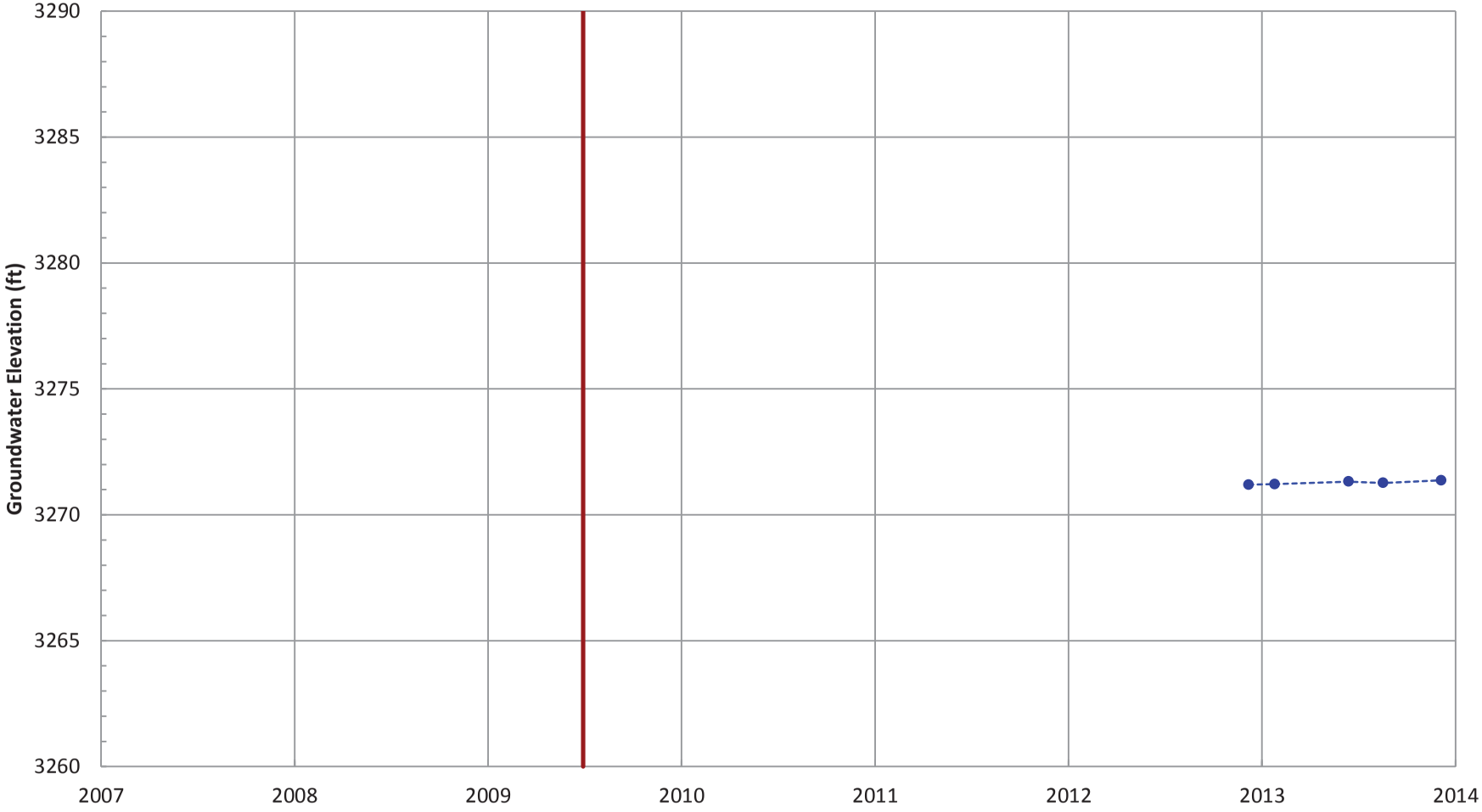
Groundwater Elevation
Bottom of Screen Elevation
No Water Detected
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: N/A (No Measurements)
2012 - 2014 Data: N/A (No Measurements)

PTX06-1159
Hydrograph in Perched Aquifer



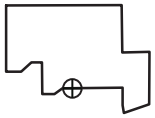
Notes:
1. The top of screen elevation is 3273.93 ft msl.
2. The bottom of screen elevation is 3253.93 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

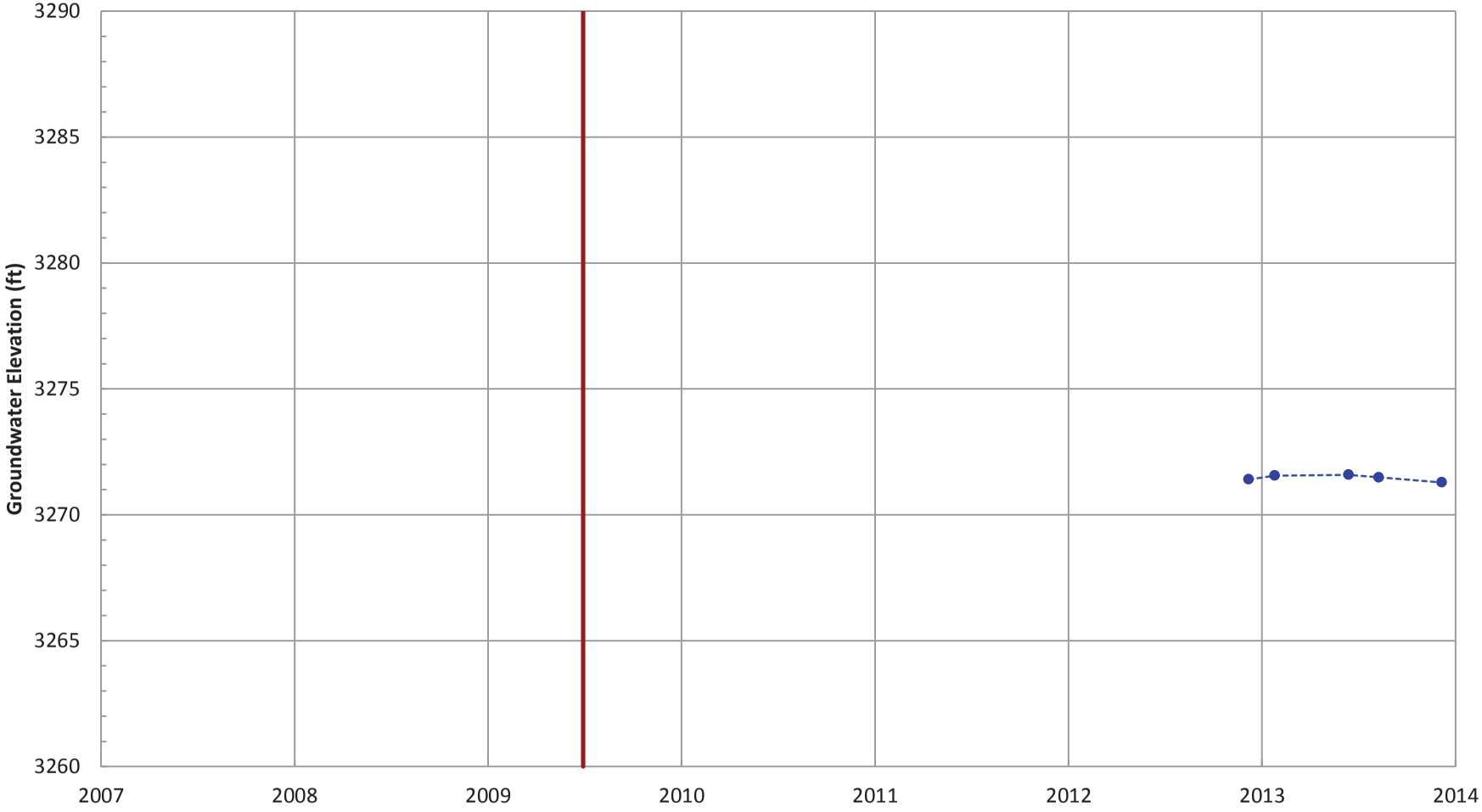
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Increasing at 0.16 ft/yr
2012 - 2014 Data: Increasing at 0.15 ft/yr

PTX06-1160
Hydrograph in Perched Aquifer



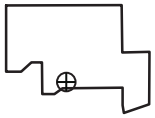
Notes:
1. The top of screen elevation is 3271.51 ft msl.
2. The bottom of screen elevation is 3246.51 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

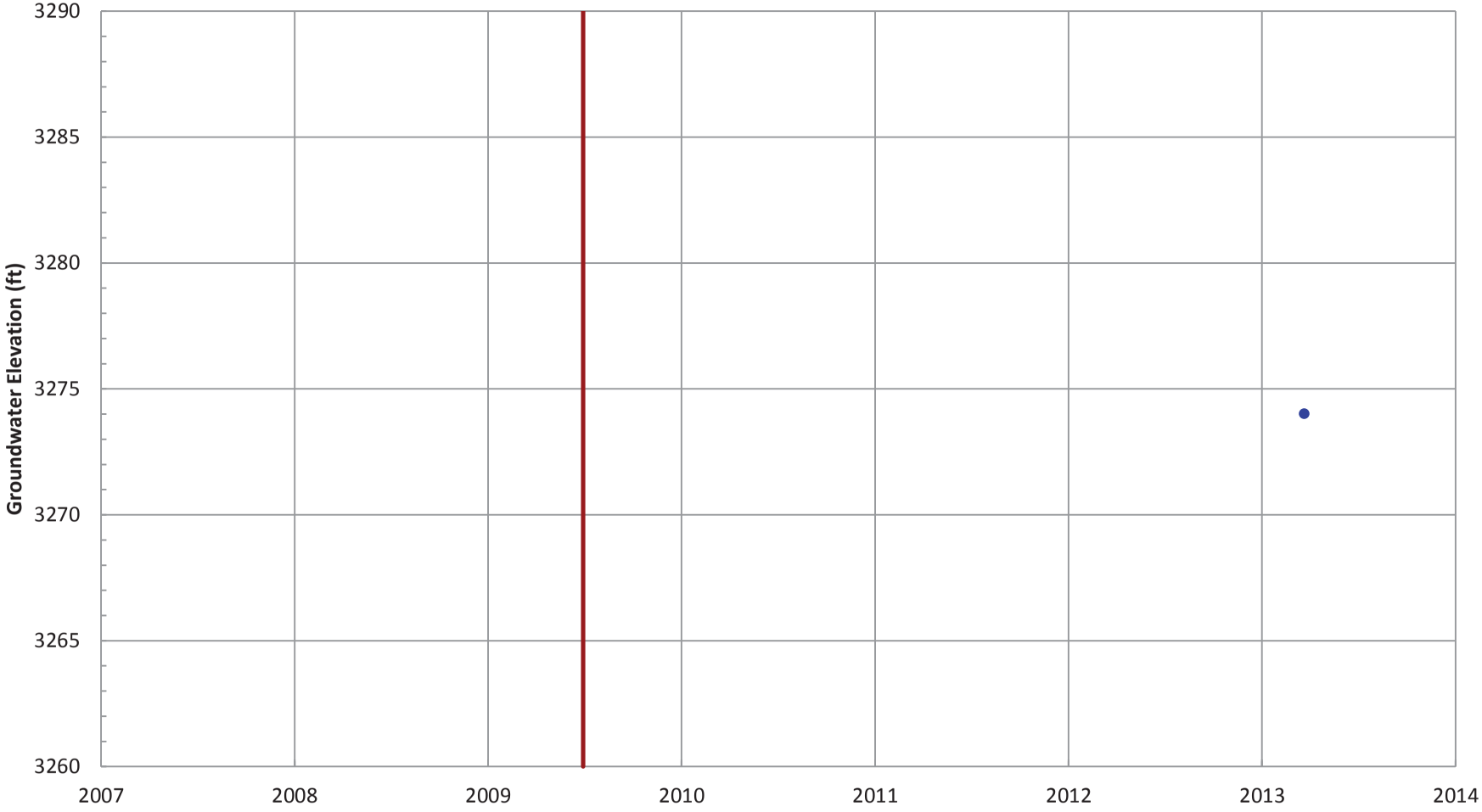
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.13 ft/yr
2012 - 2014 Data: Decreasing at 0.31 ft/yr

PTX06-1162
Hydrograph in Perched Aquifer



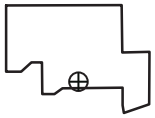
Notes:
1. The top of screen elevation is 3276.3 ft msl.
2. The bottom of screen elevation is 3256.3 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

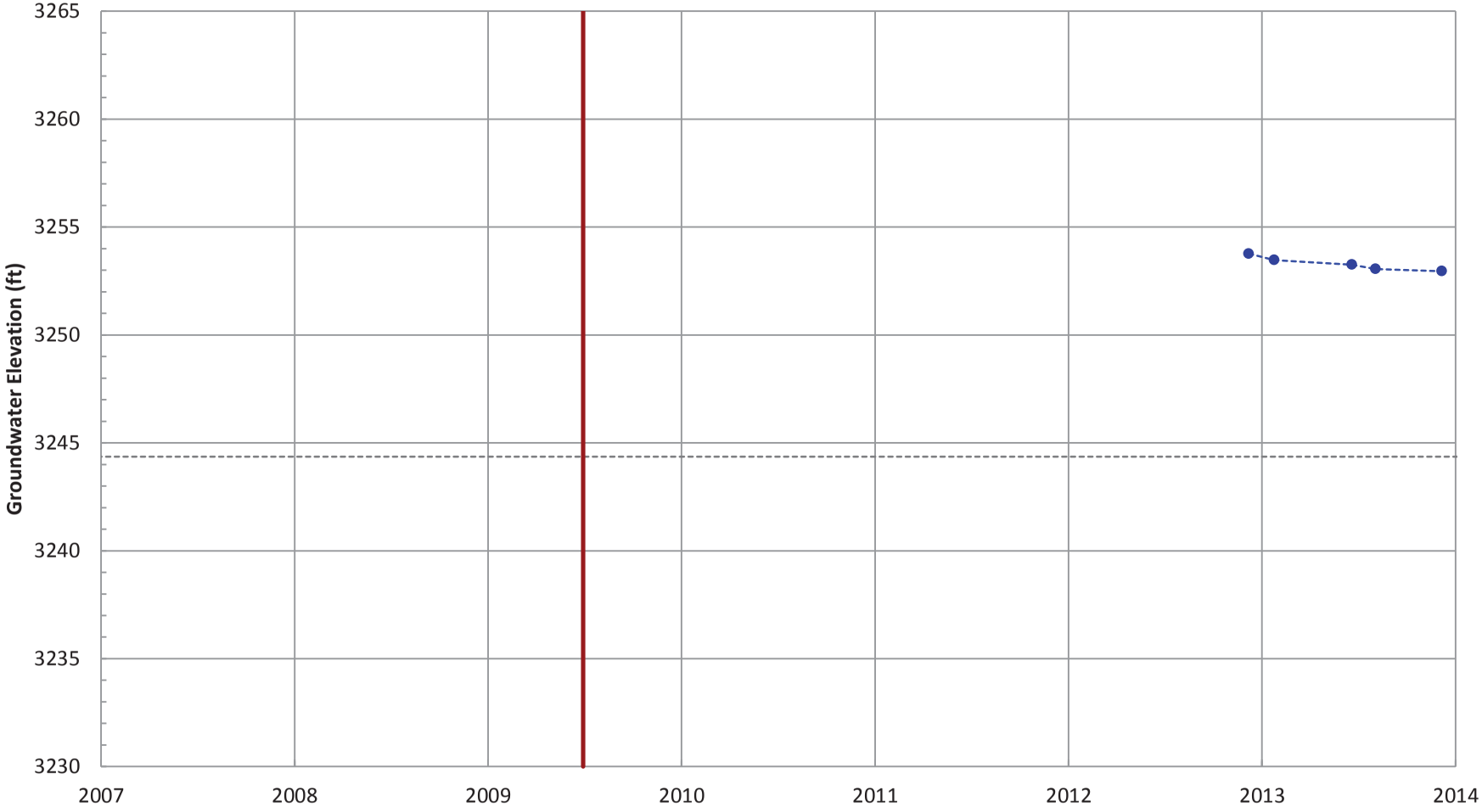
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: N/A (No Measurements)
2012 - 2014 Data: N/A (No Measurements)

PTX06-1166
Hydrograph in Perched Aquifer

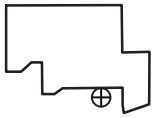


Notes:
1. The top of screen elevation is 3254.36 ft msl.
2. The bottom of screen elevation is 3244.36 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

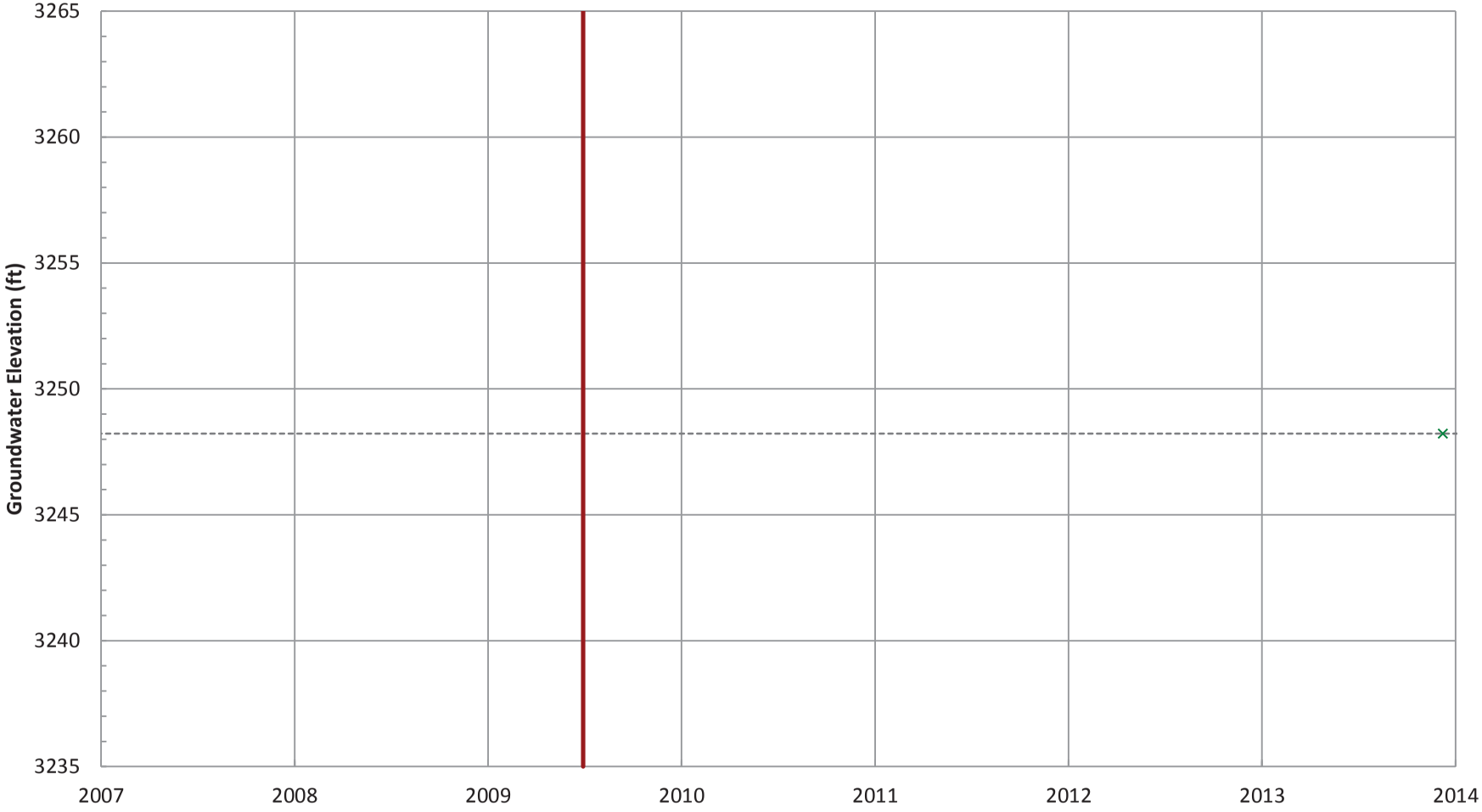
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.77 ft/yr
2012 - 2014 Data: Decreasing at 0.61 ft/yr

PTX06-1167
Hydrograph in Perched Aquifer

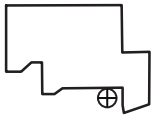


Notes:
1. The top of screen elevation is 3258.22 ft msl.
2. The bottom of screen elevation is 3248.22 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

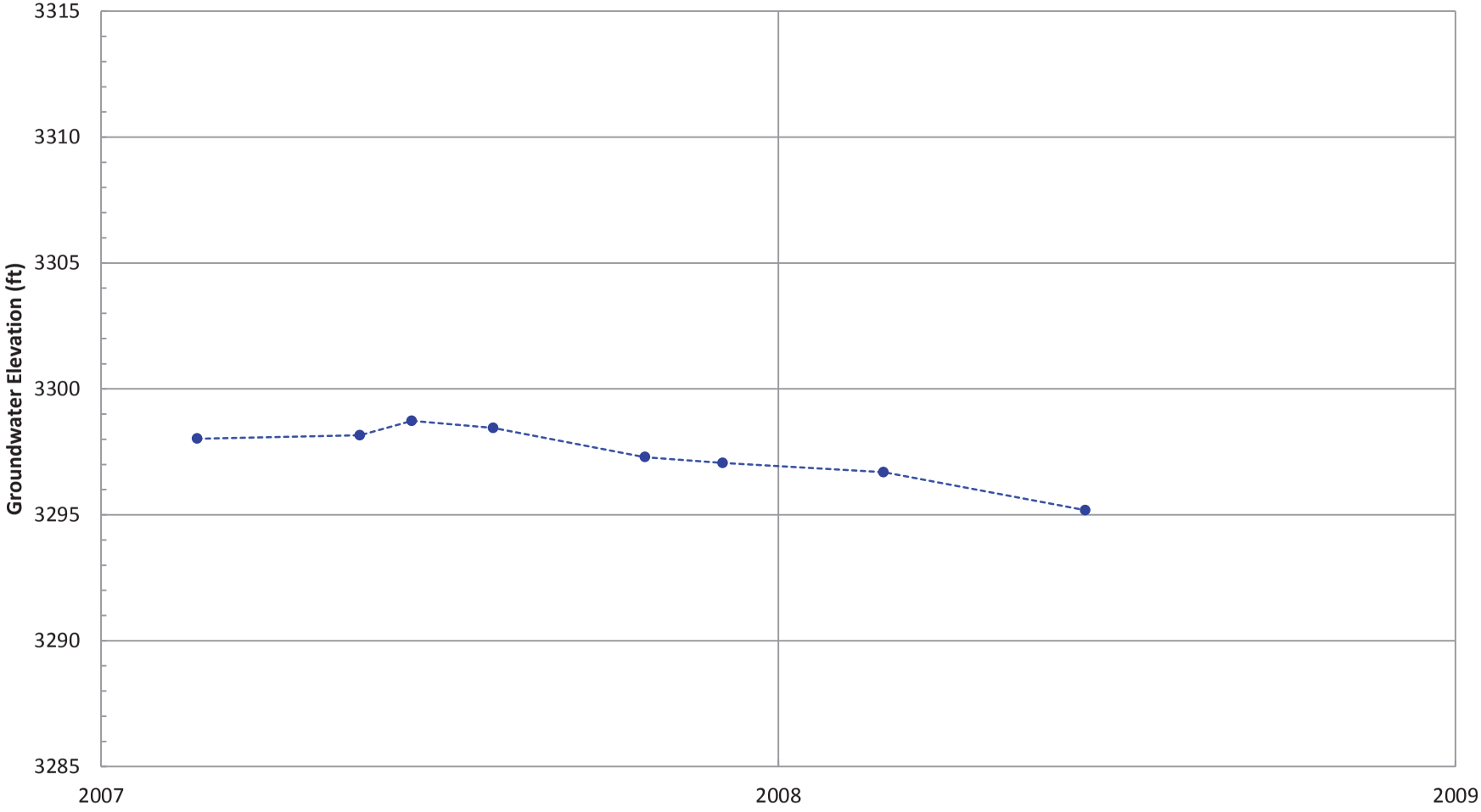
Groundwater Elevation
Bottom of Screen Elevation
No Water Detected
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: N/A (<3 Measurements)
2012 - 2014 Data: N/A (<3 Measurements)

PTX06-EW-70
Hydrograph in Perched Aquifer



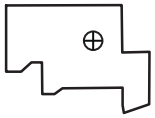
Notes:
1. The top of screen elevation is 3337.59 ft msl.
2. The bottom of screen elevation is 3267.59 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

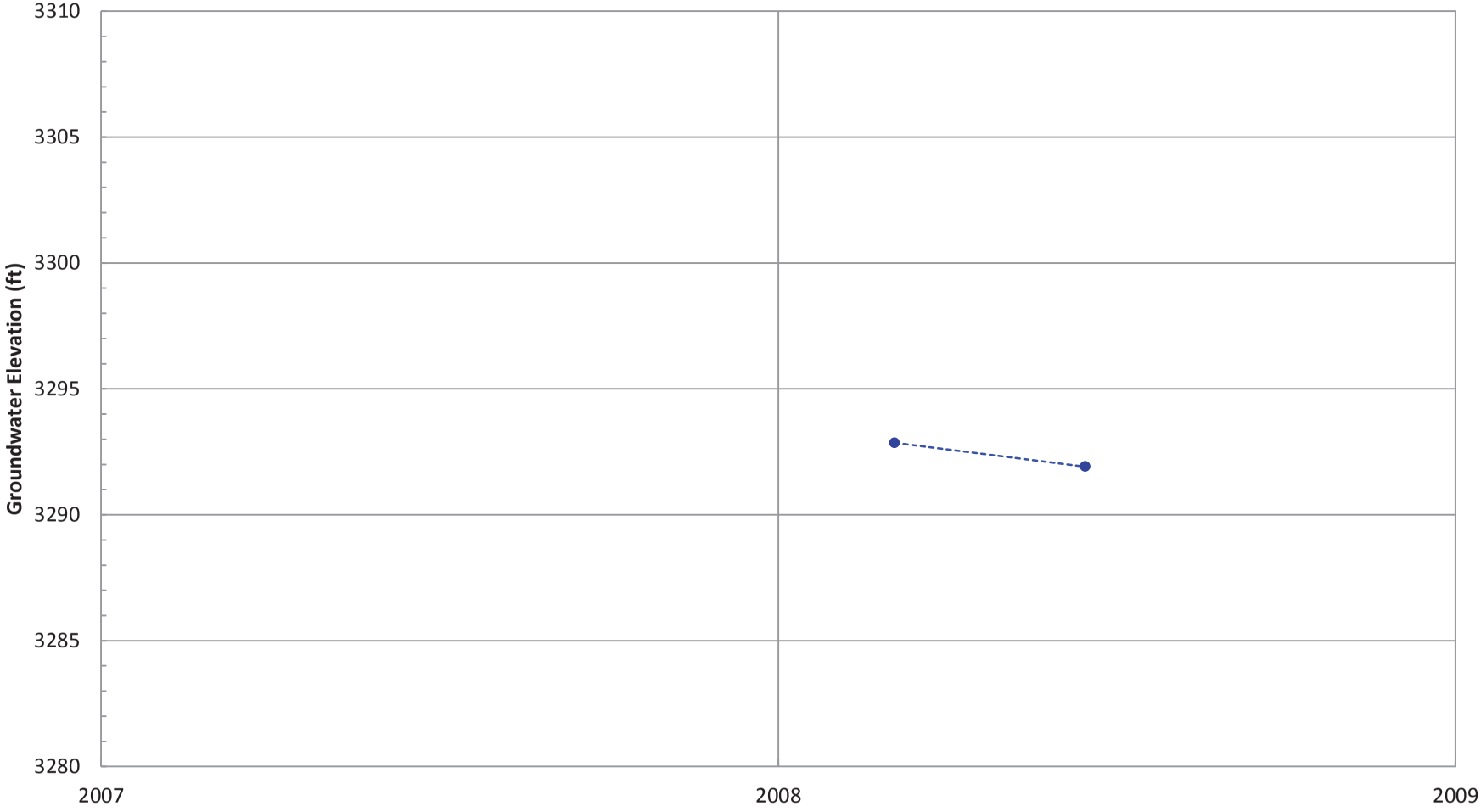
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 2.39 ft/yr
2012 - 2014 Data: N/A (No Measurements)

PTX06-EW-75
Hydrograph in Perched Aquifer



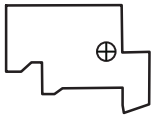
Notes:
1. The top of screen elevation is 3306.57 ft msl.
2. The bottom of screen elevation is 3256.57 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

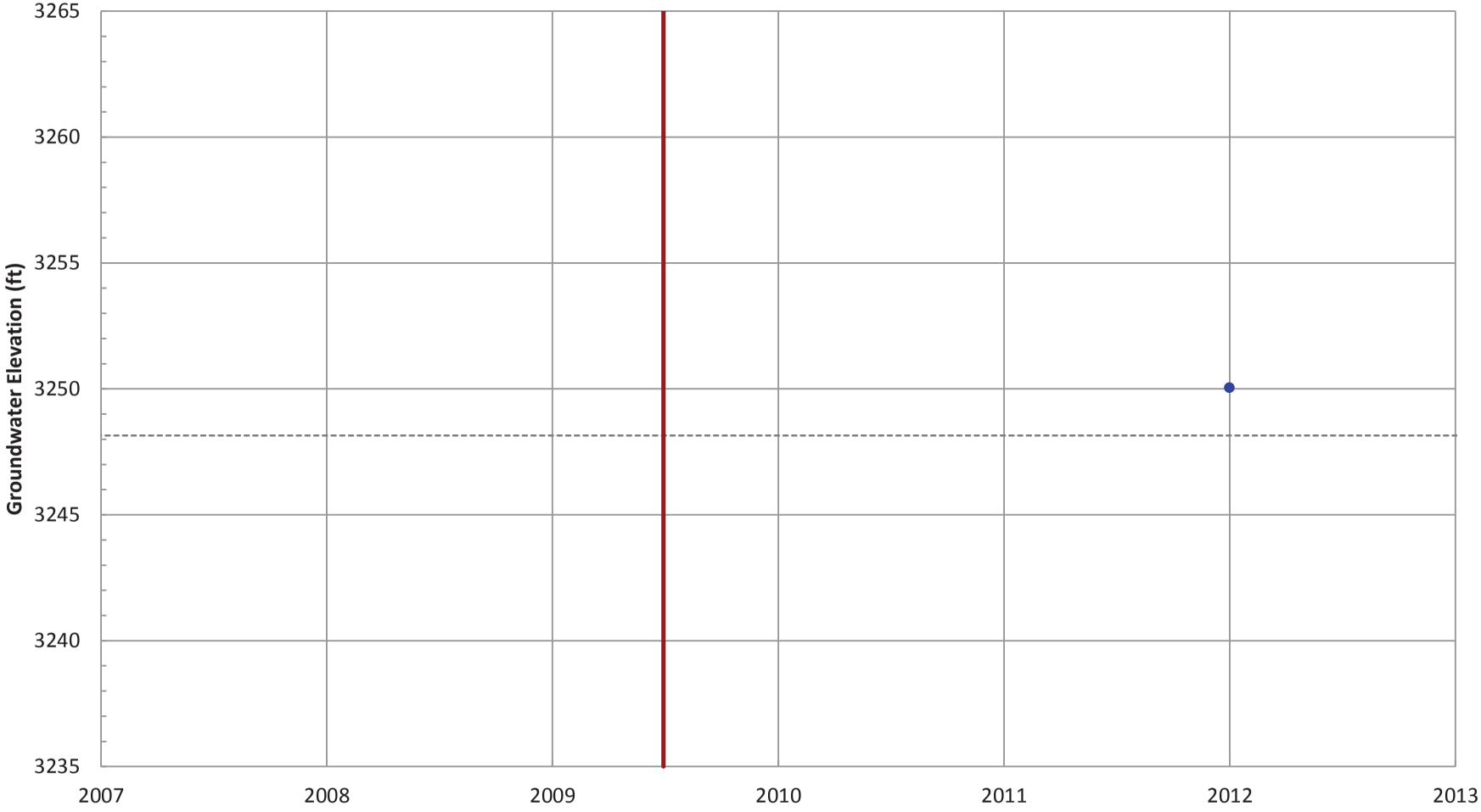
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: N/A (<3 Measurements)
2012 - 2014 Data: N/A (No Measurements)

PTX06-ISB010
Hydrograph in Perched Aquifer

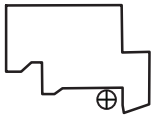


Notes:
1. The top of screen elevation is 3258.15 ft msl.
2. The bottom of screen elevation is 3248.15 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

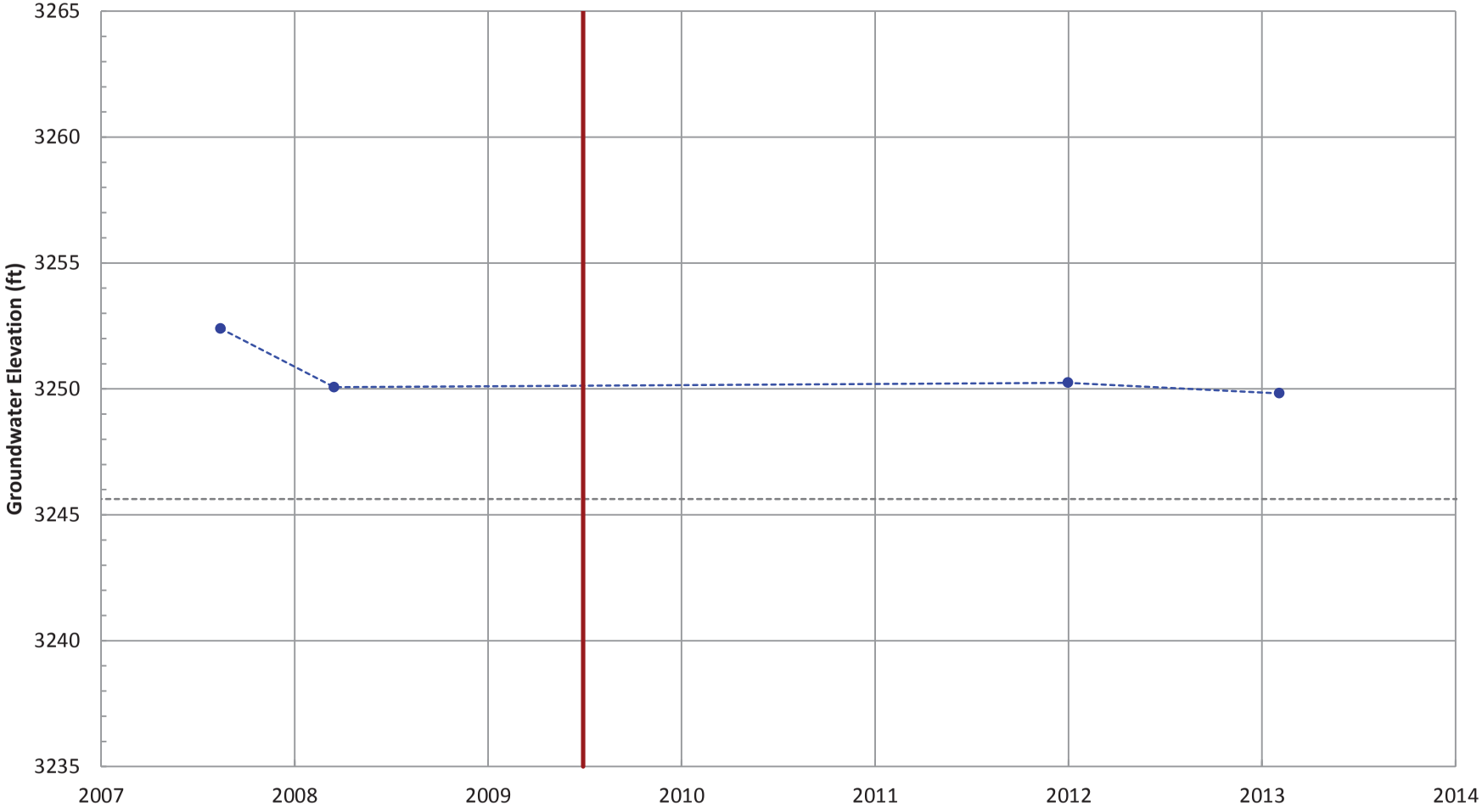
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: N/A (No Measurements)
2012 - 2014 Data: N/A (No Measurements)

PTX06-ISB011
Hydrograph in Perched Aquifer

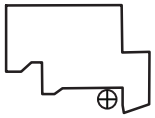


Notes:
1. The top of screen elevation is 3255.63 ft msl.
2. The bottom of screen elevation is 3245.63 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

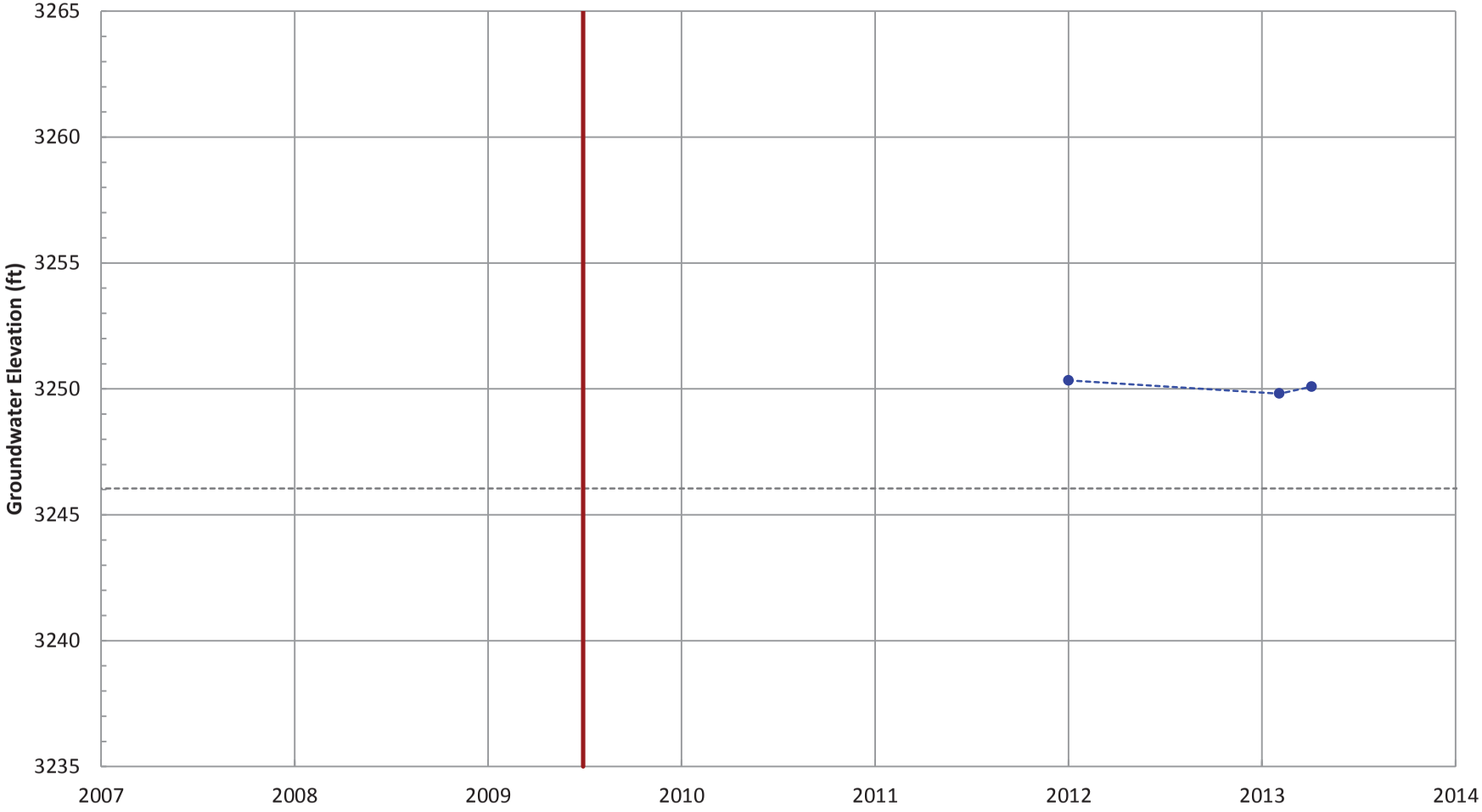
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.29 ft/yr
2012 - 2014 Data: N/A (<3 Measurements)

PTX06-ISB012
Hydrograph in Perched Aquifer

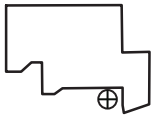


Notes:
1. The top of screen elevation is 3256.05 ft msl.
2. The bottom of screen elevation is 3246.05 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

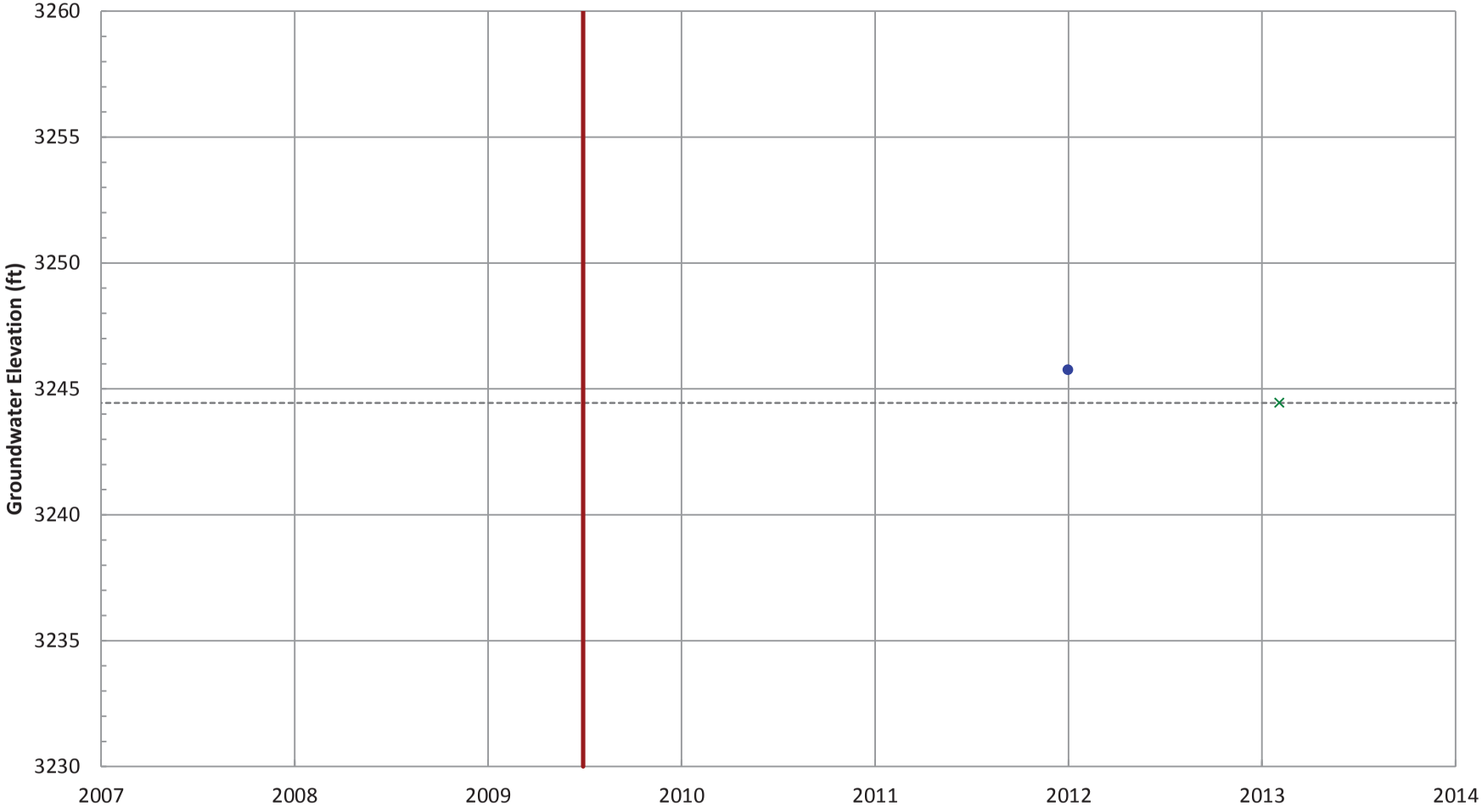
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.30 ft/yr
2012 - 2014 Data: N/A (<3 Measurements)

PTX06-ISB013
Hydrograph in Perched Aquifer

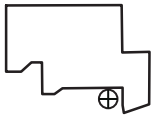


Notes:
1. The top of screen elevation is 3254.44 ft msl.
2. The bottom of screen elevation is 3244.44 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

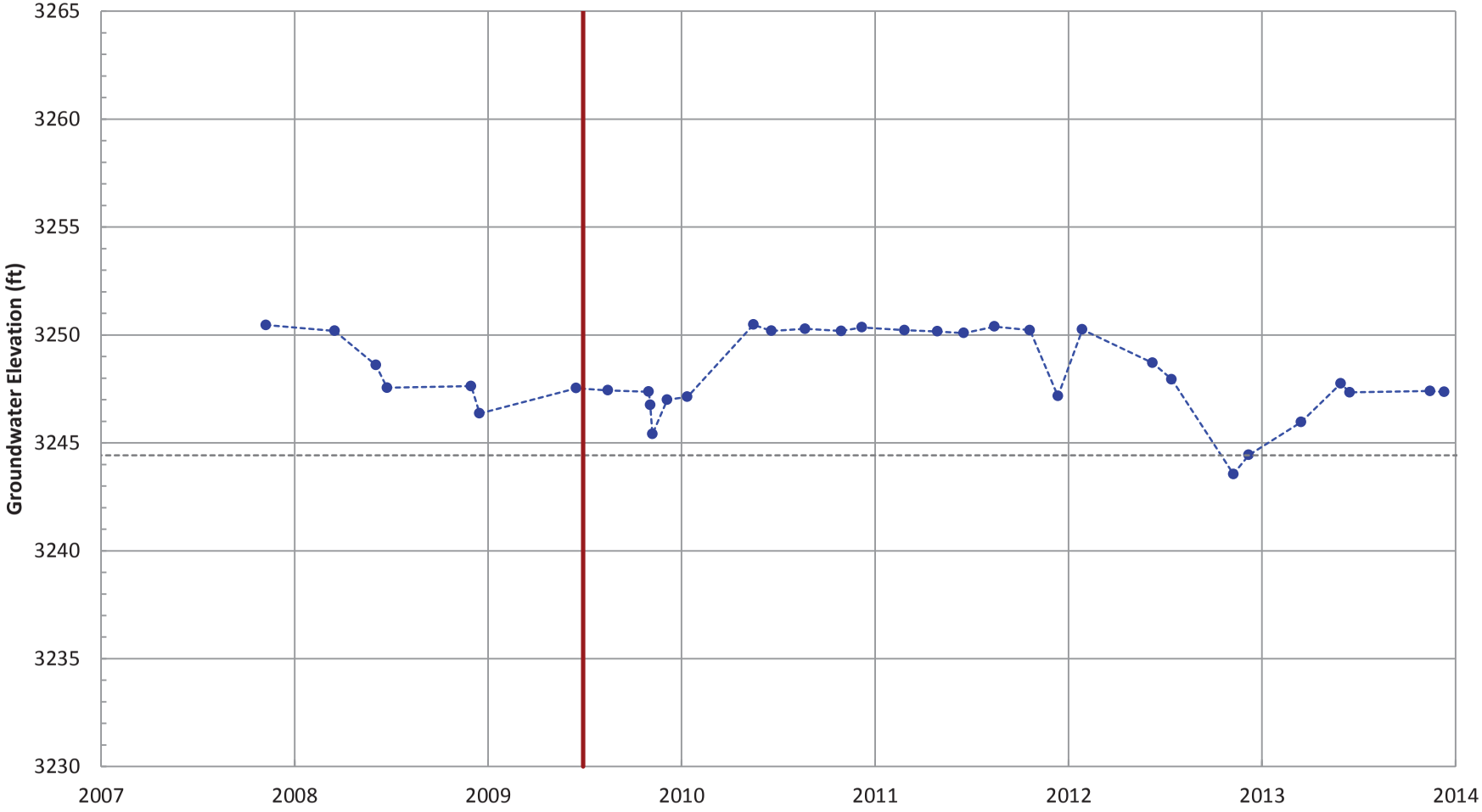
Groundwater Elevation
Bottom of Screen Elevation
No Water Detected
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: N/A (<3 Measurements)
2012 - 2014 Data: N/A (No Measurements)

PTX06-ISB014
Hydrograph in Perched Aquifer

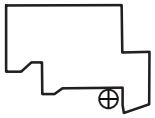


Notes:
1. The top of screen elevation is 3254.42 ft msl.
2. The bottom of screen elevation is 3244.42 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

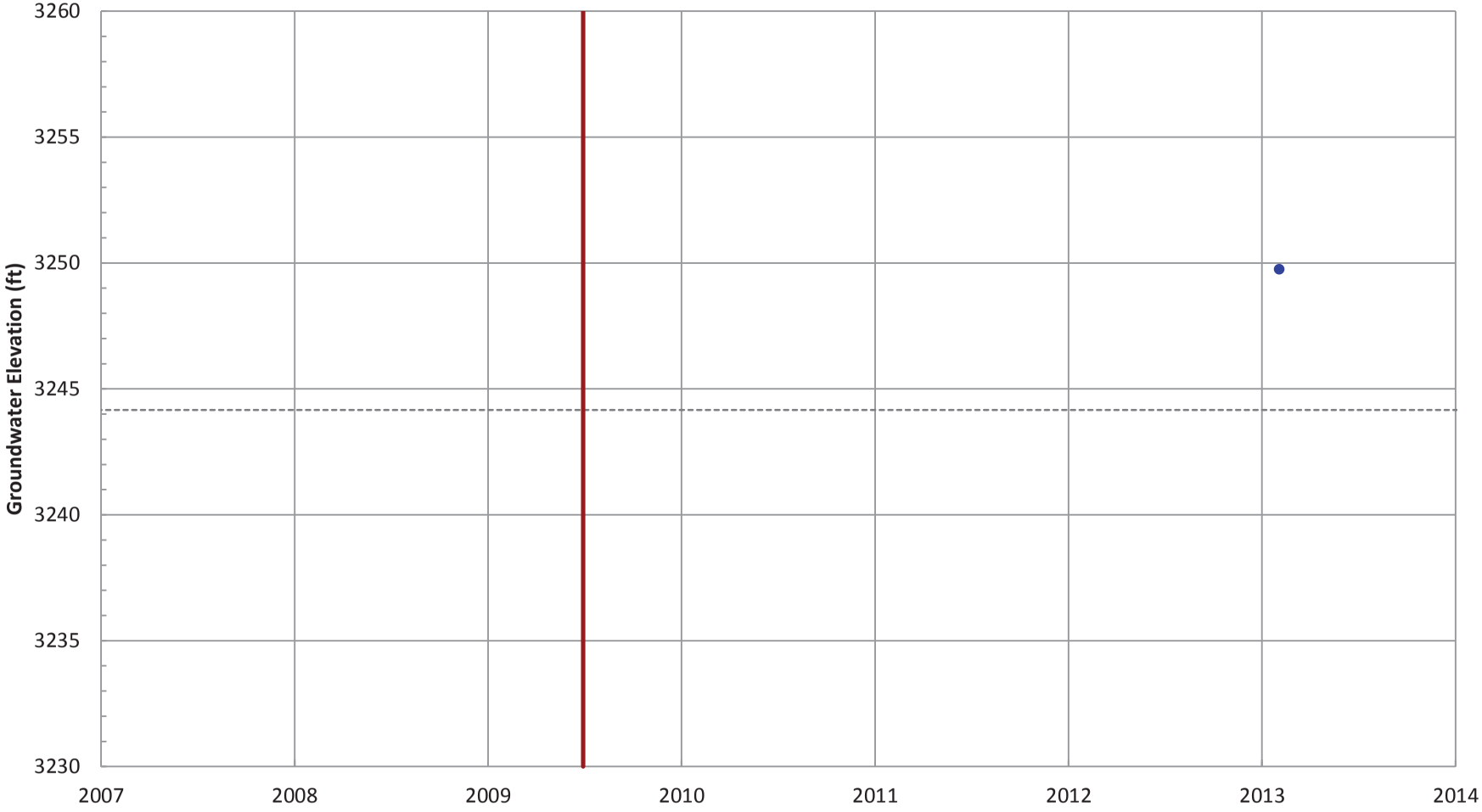
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.23 ft/yr
2012 - 2014 Data: Increasing at 1.16 ft/yr

PTX06-ISB015
Hydrograph in Perched Aquifer

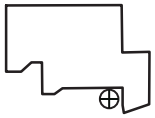


Notes:
1. The top of screen elevation is 3254.16 ft msl.
2. The bottom of screen elevation is 3244.16 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

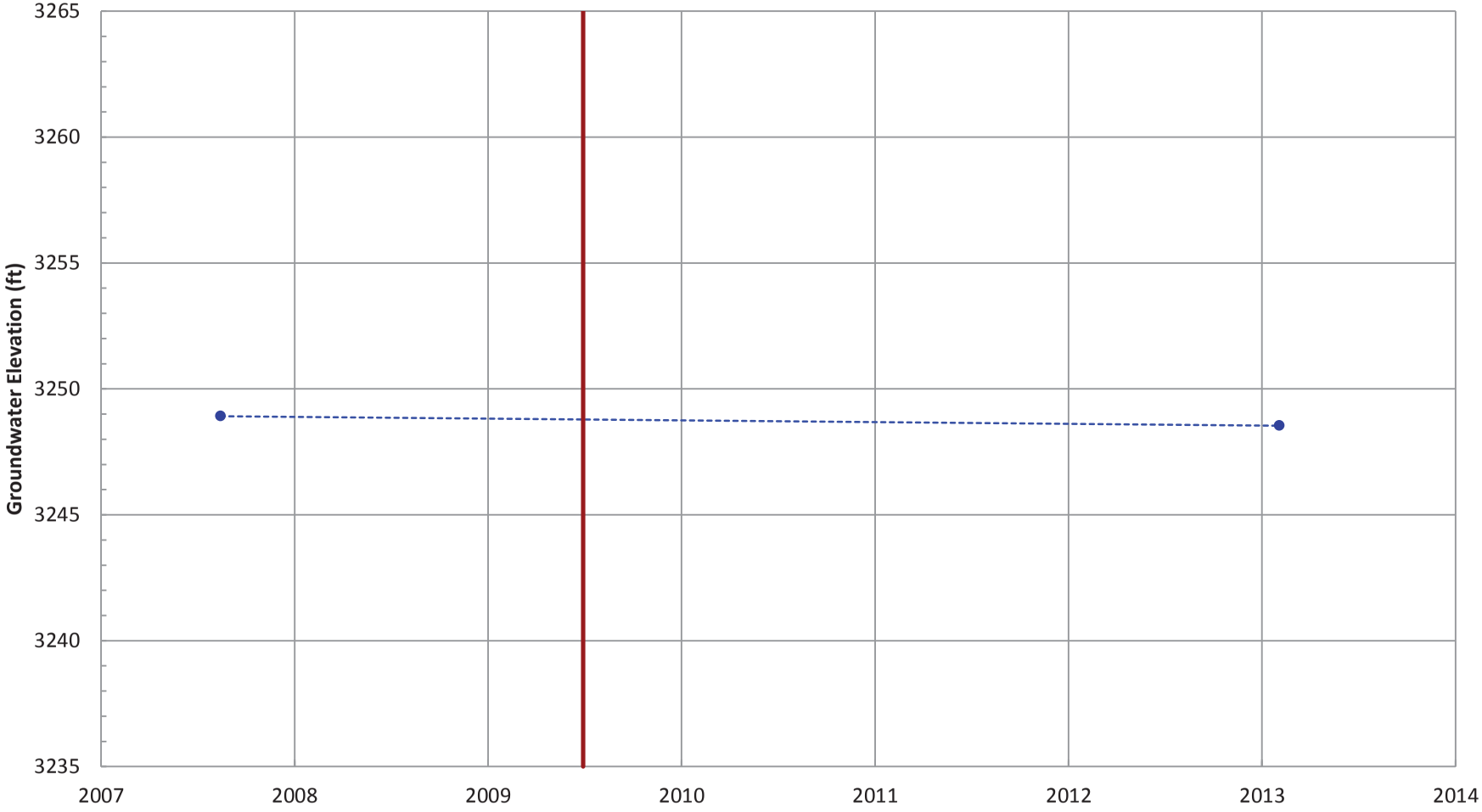
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: N/A (No Measurements)
2012 - 2014 Data: N/A (No Measurements)

PTX06-ISB016
Hydrograph in Perched Aquifer

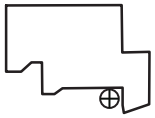


Notes:
1. The top of screen elevation is 3258.8 ft msl.
2. The bottom of screen elevation is 3348.8 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

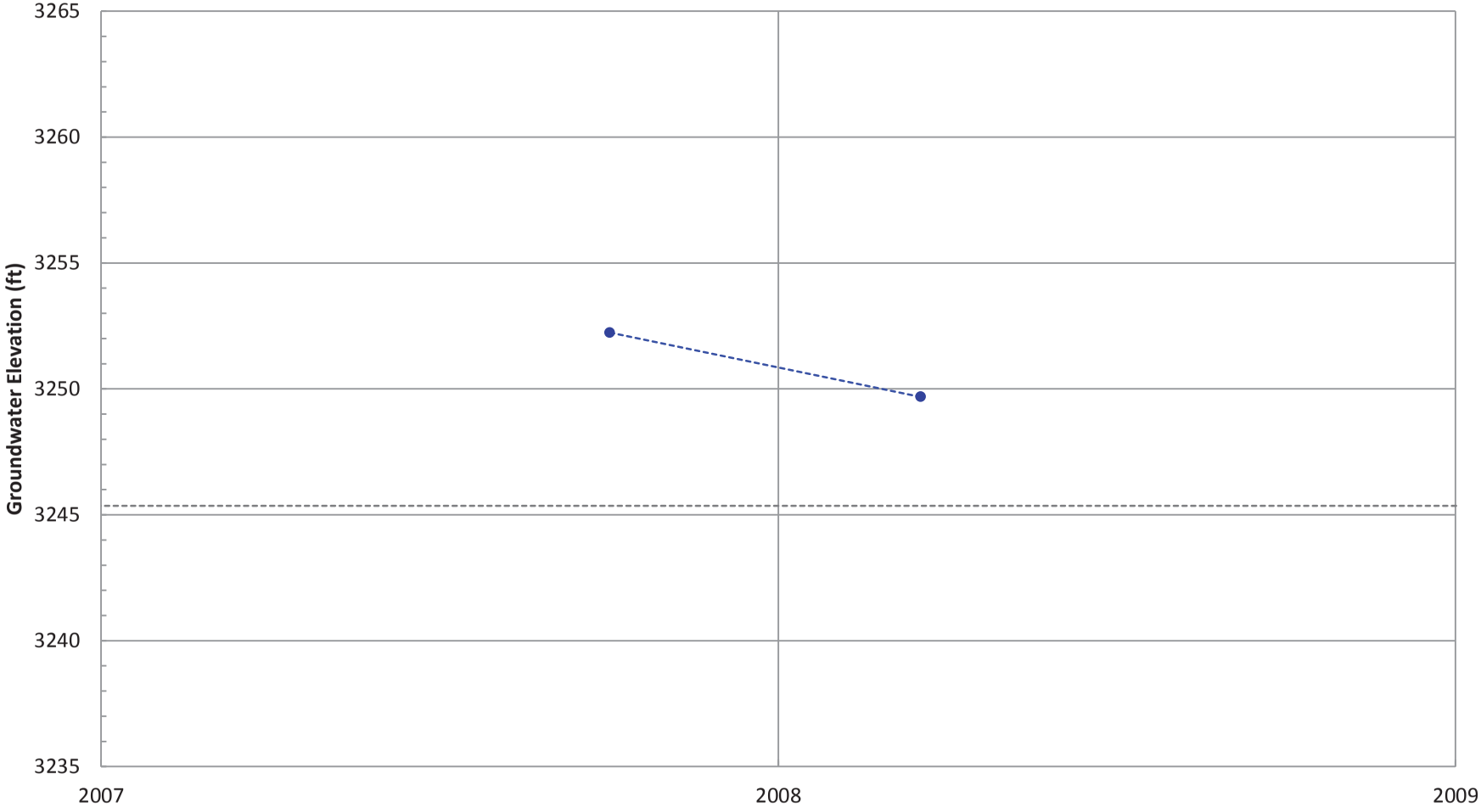
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: N/A (<3 Measurements)
2012 - 2014 Data: N/A (<3 Measurements)

PTX06-ISB018
Hydrograph in Perched Aquifer

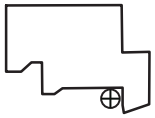


Notes:
1. The top of screen elevation is 3255.36 ft msl.
2. The bottom of screen elevation is 3245.36 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

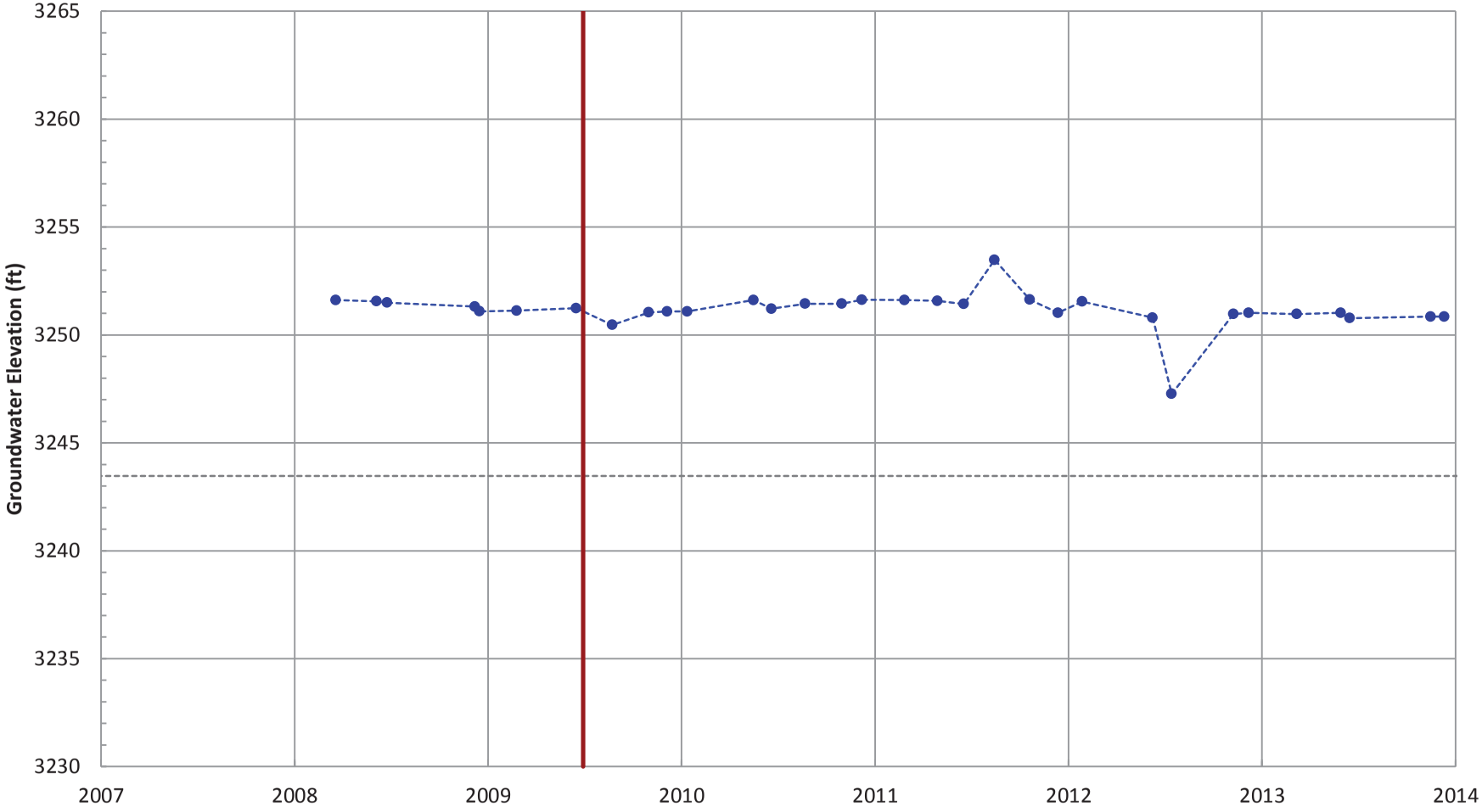
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: N/A (<3 Measurements)
2012 - 2014 Data: N/A (No Measurements)

PTX06-ISB019
Hydrograph in Perched Aquifer

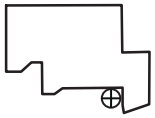


Notes:
1. The top of screen elevation is 3253.47 ft msl.
2. The bottom of screen elevation is 3243.47 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

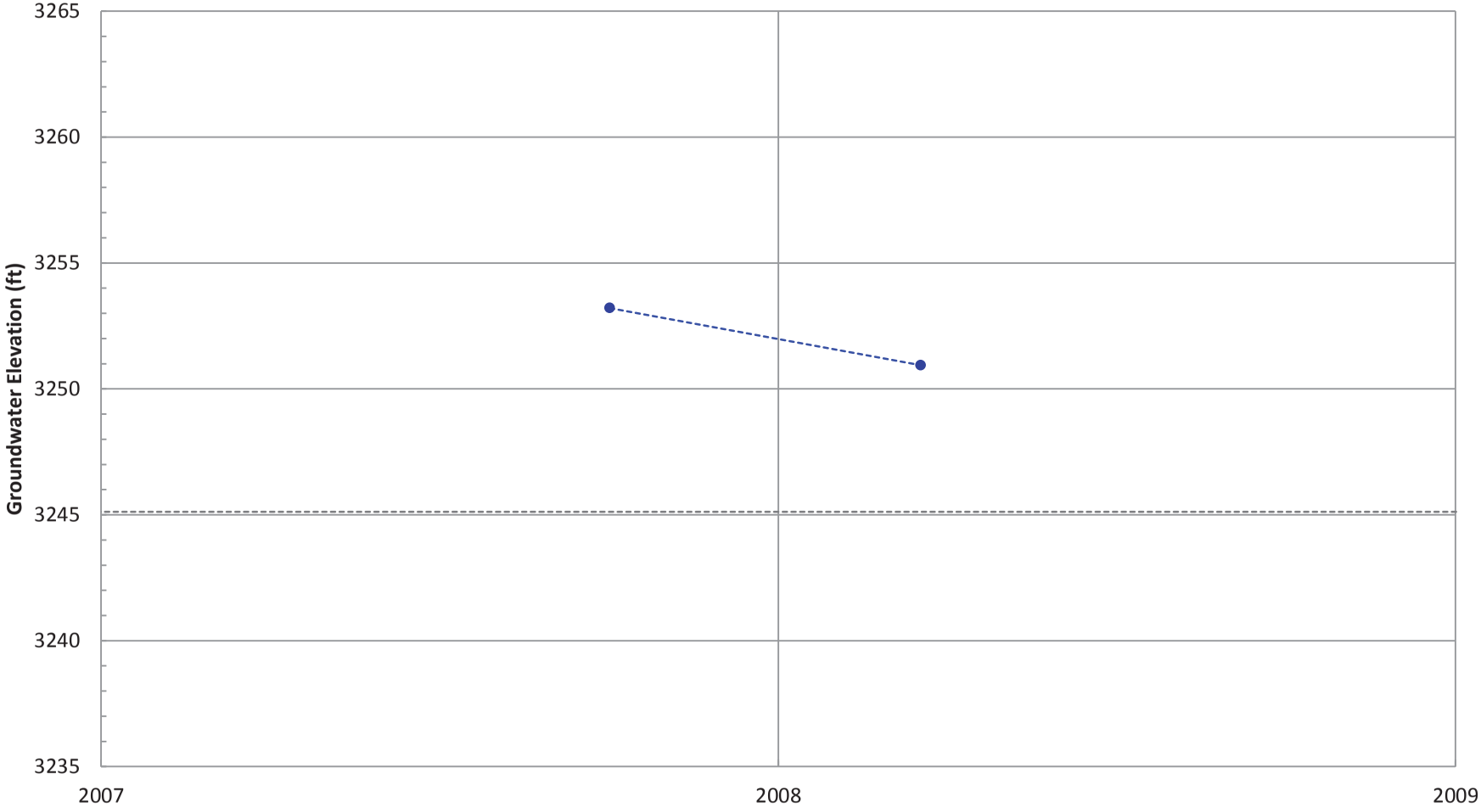
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.12 ft/yr
2012 - 2014 Data: Decreasing at 0.16 ft/yr

PTX06-ISB021
Hydrograph in Perched Aquifer

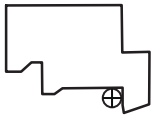


Notes:
1. The top of screen elevation is 3255.12 ft msl.
2. The bottom of screen elevation is 3245.12 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

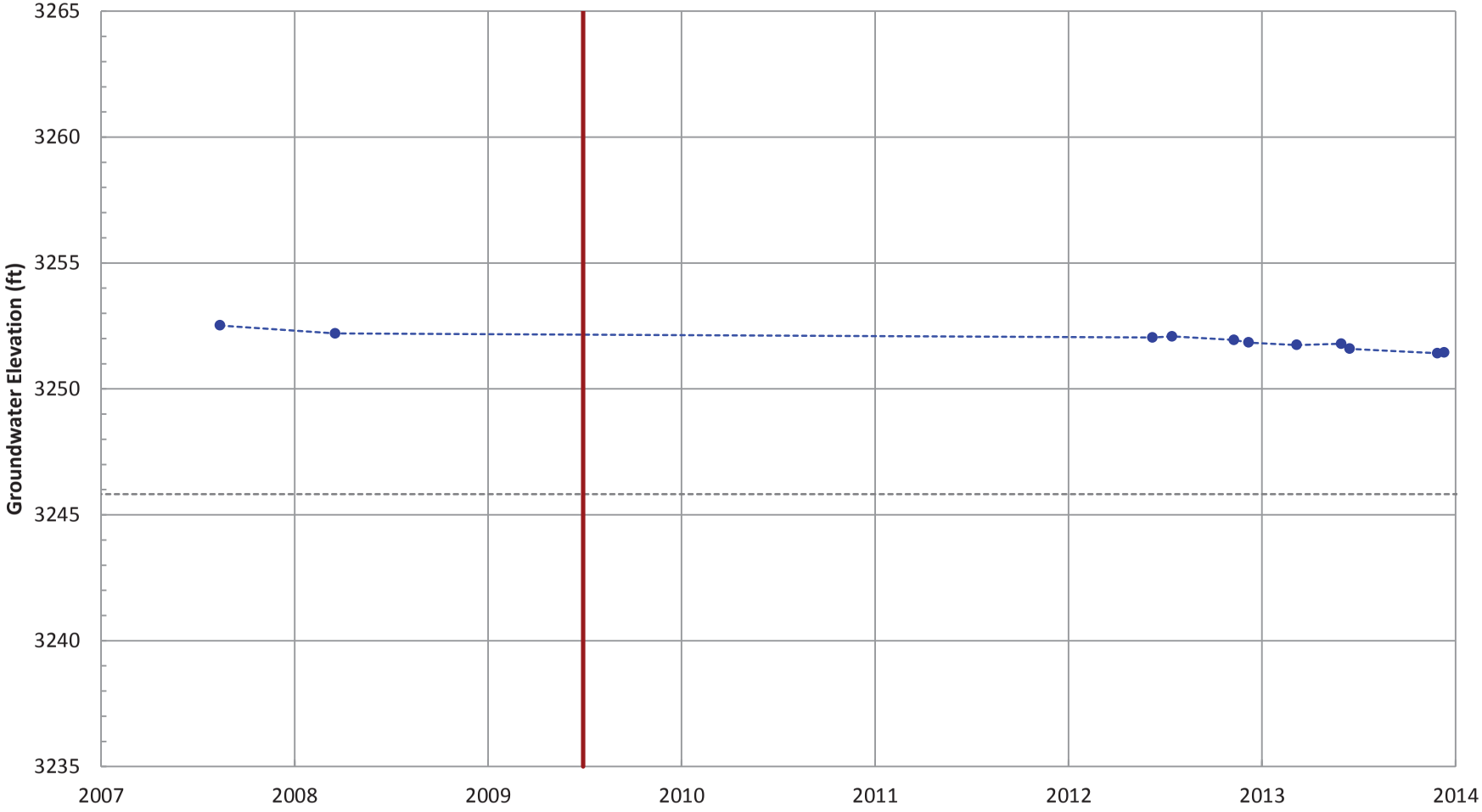
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: N/A (<3 Measurements)
2012 - 2014 Data: N/A (No Measurements)

PTX06-ISB024
Hydrograph in Perched Aquifer

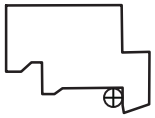


Notes:
1. The top of screen elevation is 3255.82 ft msl.
2. The bottom of screen elevation is 3245.82 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

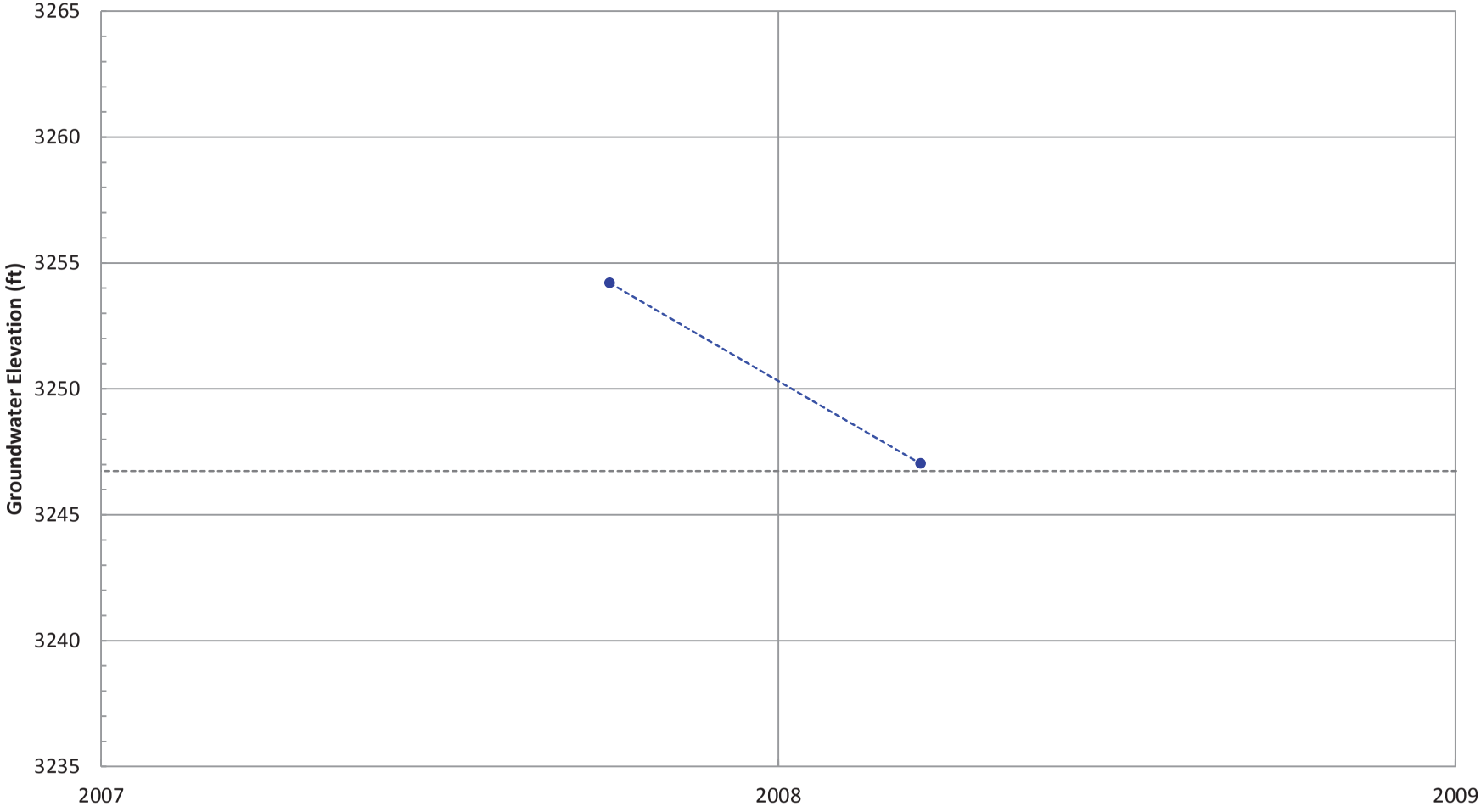
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.13 ft/yr
2012 - 2014 Data: Decreasing at 0.47 ft/yr

PTX06-ISB026
Hydrograph in Perched Aquifer

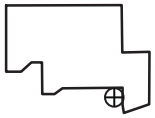


Notes:
1. The top of screen elevation is 3256.74 ft msl.
2. The bottom of screen elevation is 3246.74 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

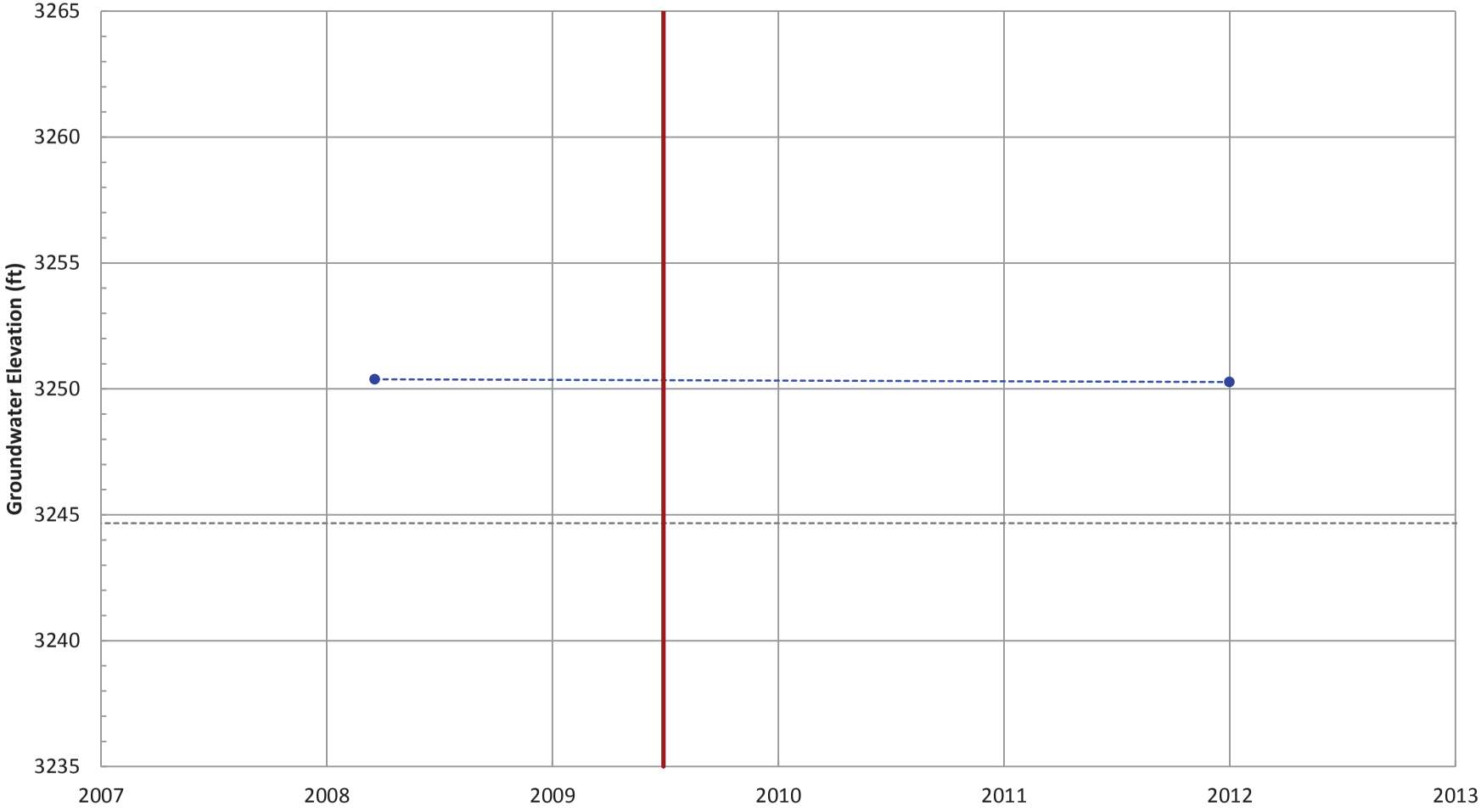
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: N/A (<3 Measurements)
2012 - 2014 Data: N/A (No Measurements)

PTX06-ISB029A
Hydrograph in Perched Aquifer

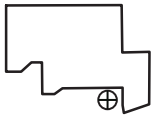


Notes:
1. The top of screen elevation is 3254.66 ft msl.
2. The bottom of screen elevation is 3244.66 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

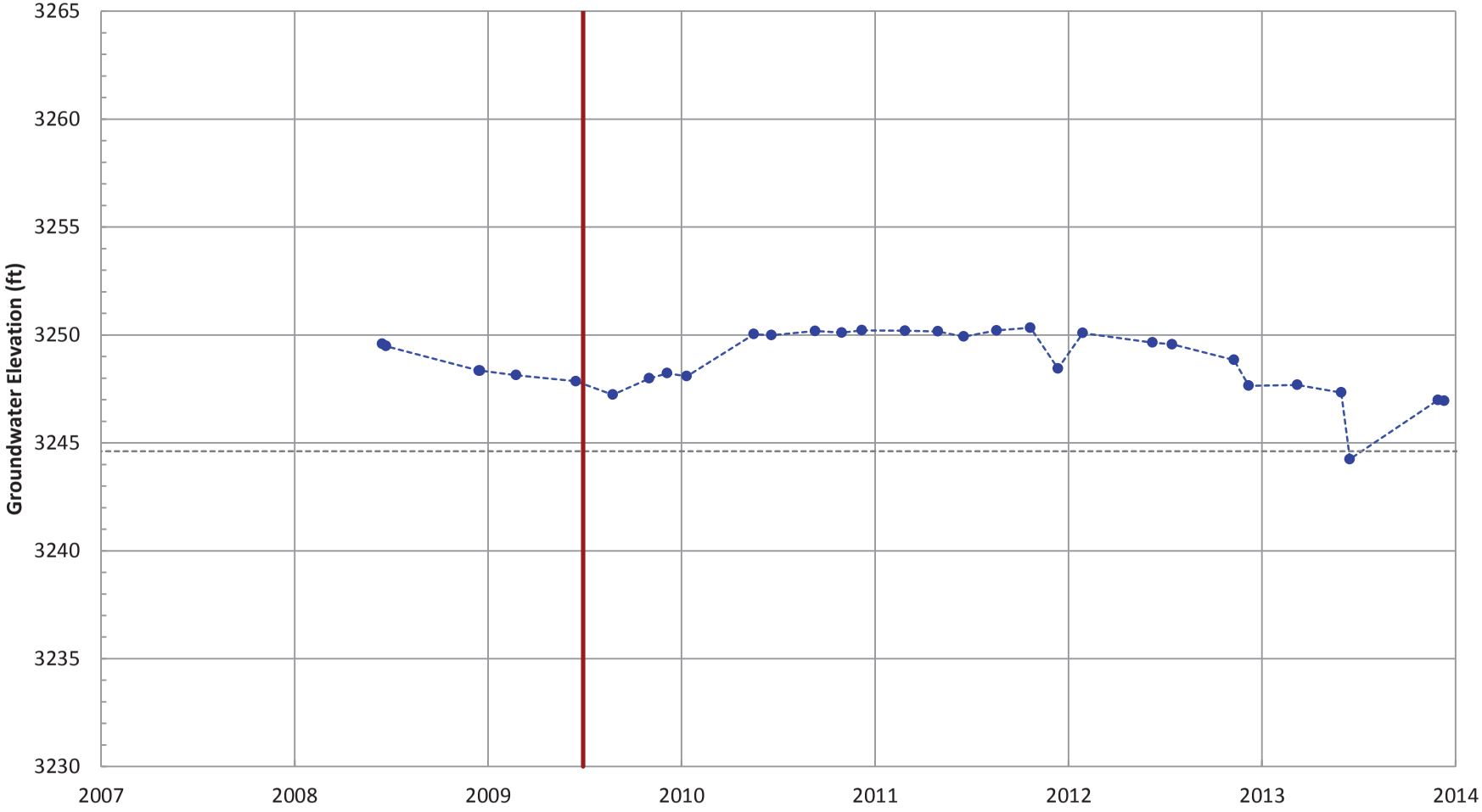
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: N/A (<3 Measurements)
2012 - 2014 Data: N/A (No Measurements)

PTX06-ISB030B
Hydrograph in Perched Aquifer

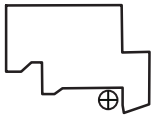


Notes:
1. The top of screen elevation is 3254.61 ft msl.
2. The bottom of screen elevation is 3244.61 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

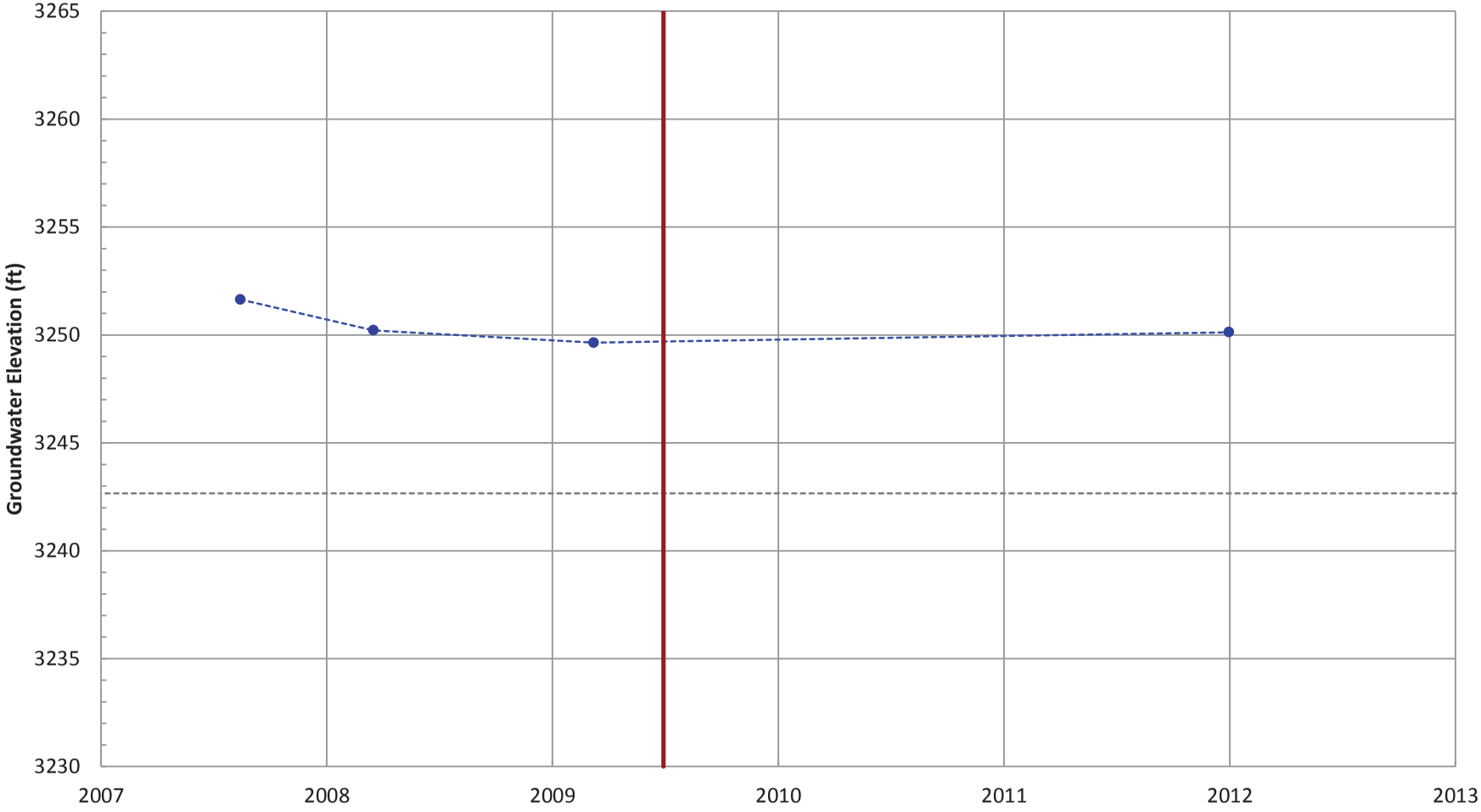
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.25 ft/yr
2012 - 2014 Data: No Trend

PTX06-ISB031
Hydrograph in Perched Aquifer

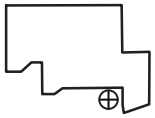


Notes:
1. The top of screen elevation is 3257.66 ft msl.
2. The bottom of screen elevation is 3242.66 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

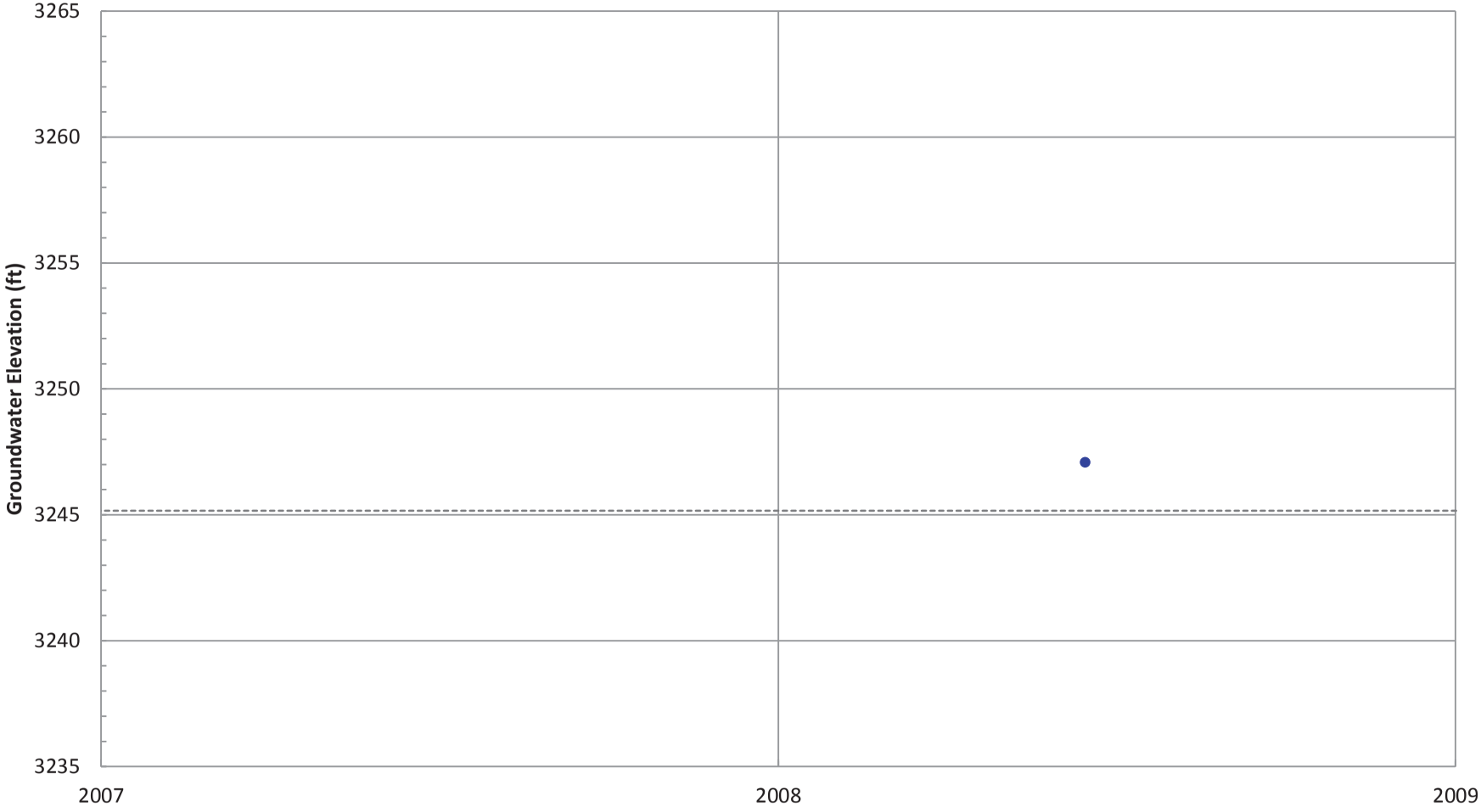
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.22 ft/yr
2012 - 2014 Data: N/A (No Measurements)

PTX06-ISB032
Hydrograph in Perched Aquifer

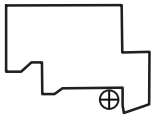


Notes:
1. The top of screen elevation is 3255.17 ft msl.
2. The bottom of screen elevation is 3245.17 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: N/A (No Measurements)
2012 - 2014 Data: N/A (No Measurements)

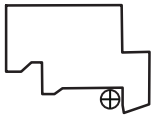
PTX06-ISB034
Hydrograph in Perched Aquifer

Notes:
1. The top of screen elevation is 3252.49 ft msl.
2. The bottom of screen elevation is 3242.49 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: N/A (No Measurements)
2012 - 2014 Data: N/A (No Measurements)

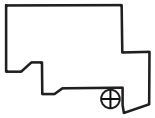
PTX06-ISB035
Hydrograph in Perched Aquifer

Notes:
1. The top of screen elevation is 3255.08 ft msl.
2. The bottom of screen elevation is 3245.08 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

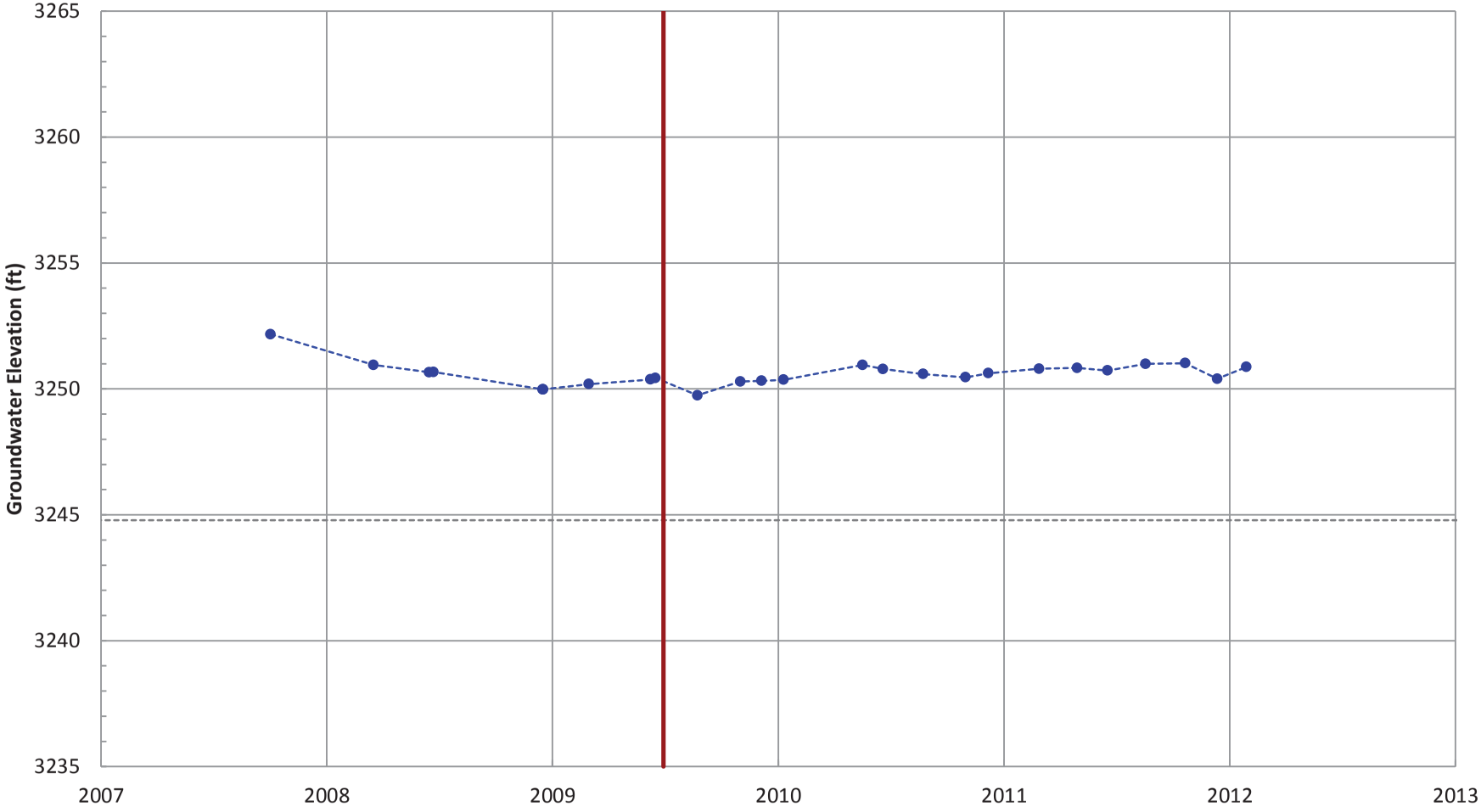
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: N/A (No Measurements)
2012 - 2014 Data: N/A (No Measurements)

PTX06-ISB036
Hydrograph in Perched Aquifer

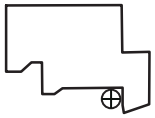


Notes:
1. The top of screen elevation is 3254.78 ft msl.
2. The bottom of screen elevation is 3244.78 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

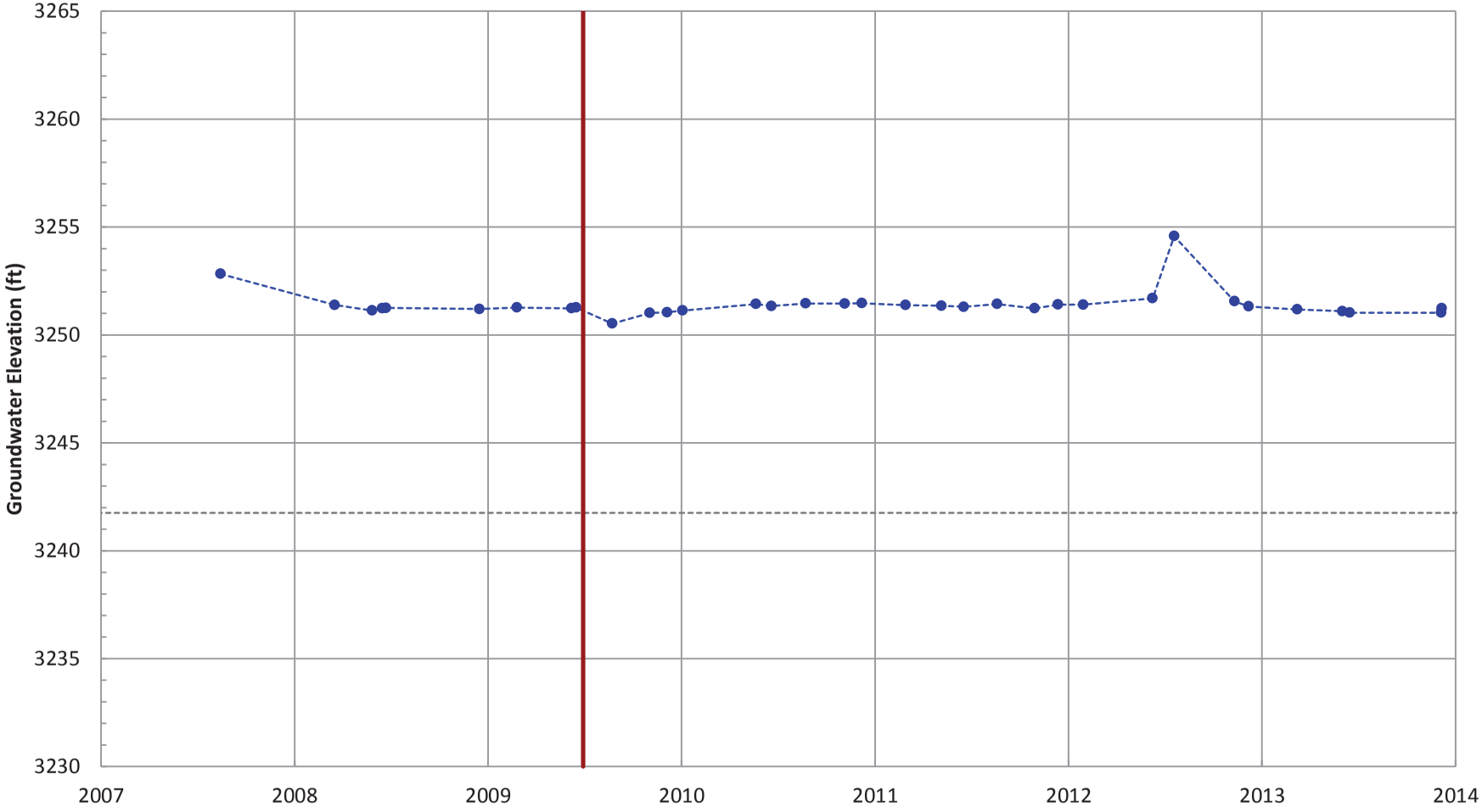
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: No Trend
2012 - 2014 Data: N/A (No Measurements)

PTX06-ISB038
Hydrograph in Perched Aquifer

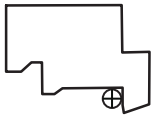


Notes:
1. The top of screen elevation is 3251.76 ft msl.
2. The bottom of screen elevation is 3241.76 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

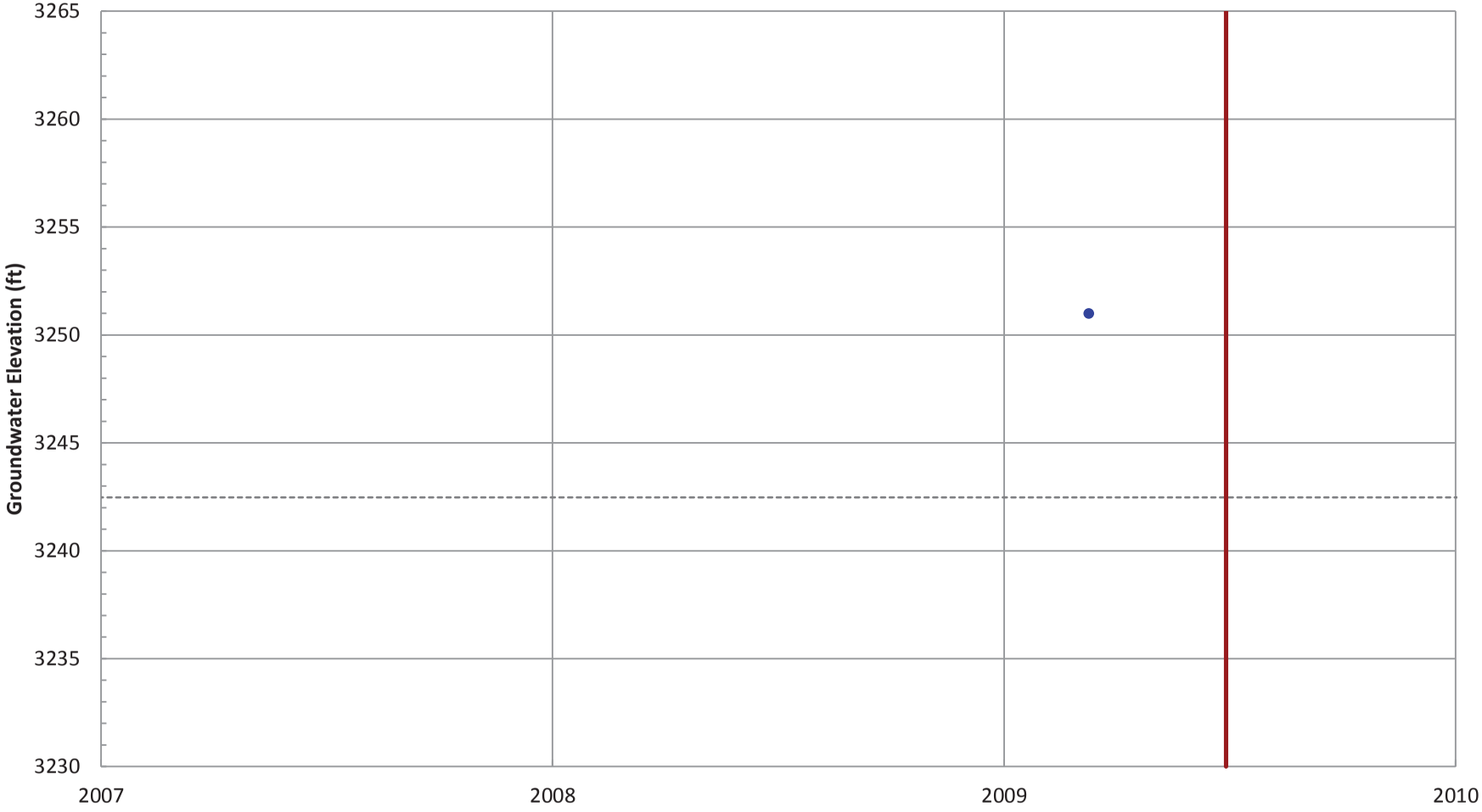
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: No Trend
2012 - 2014 Data: No Trend

PTX06-ISB040
Hydrograph in Perched Aquifer

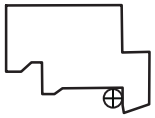


Notes:
1. The top of screen elevation is 3252.48 ft msl.
2. The bottom of screen elevation is 3242.48 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

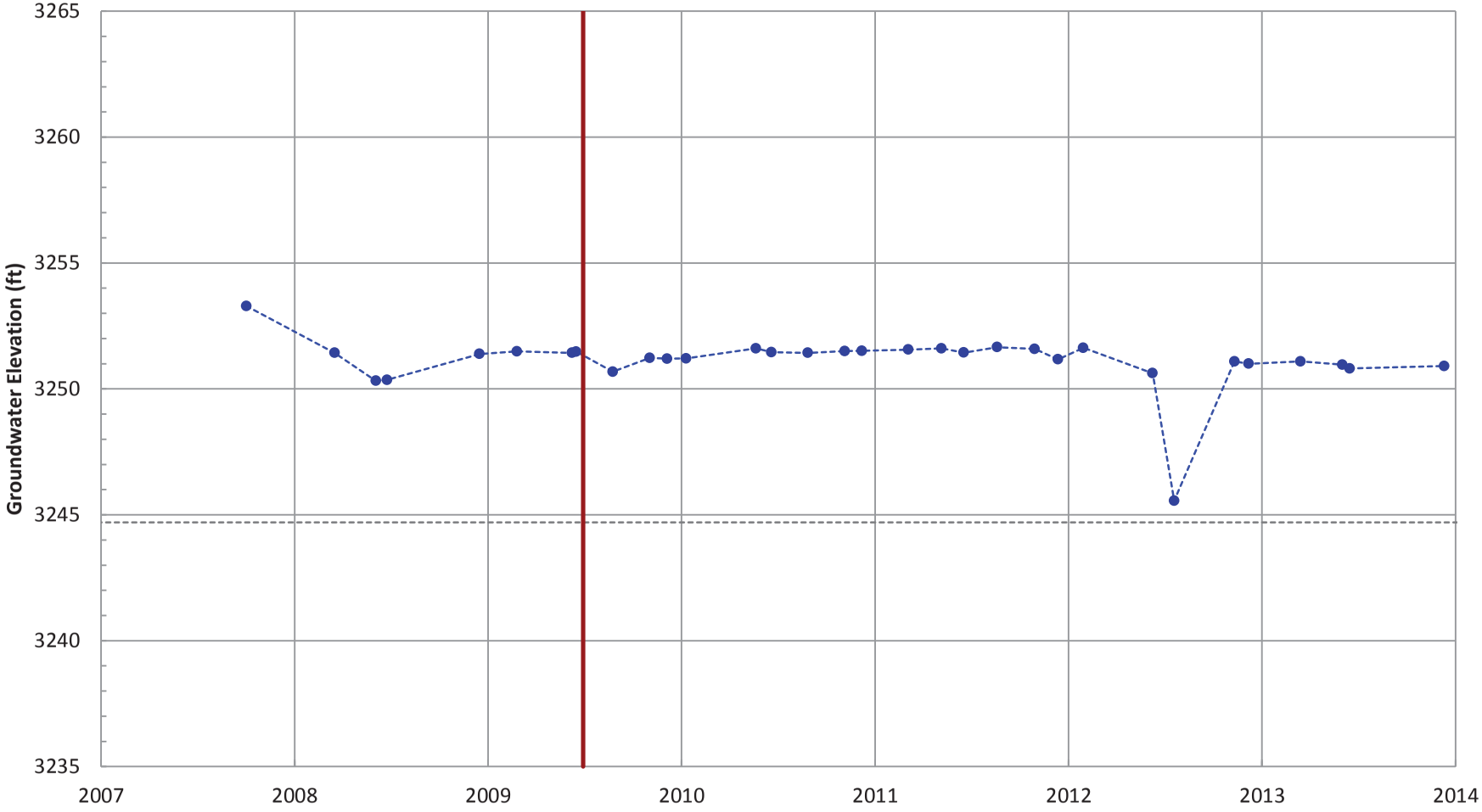
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: N/A (No Measurements)
2012 - 2014 Data: N/A (No Measurements)

PTX06-ISB042
Hydrograph in Perched Aquifer

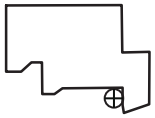


Notes:
1. The top of screen elevation is 3254.7 ft msl.
2. The bottom of screen elevation is 3244.7 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

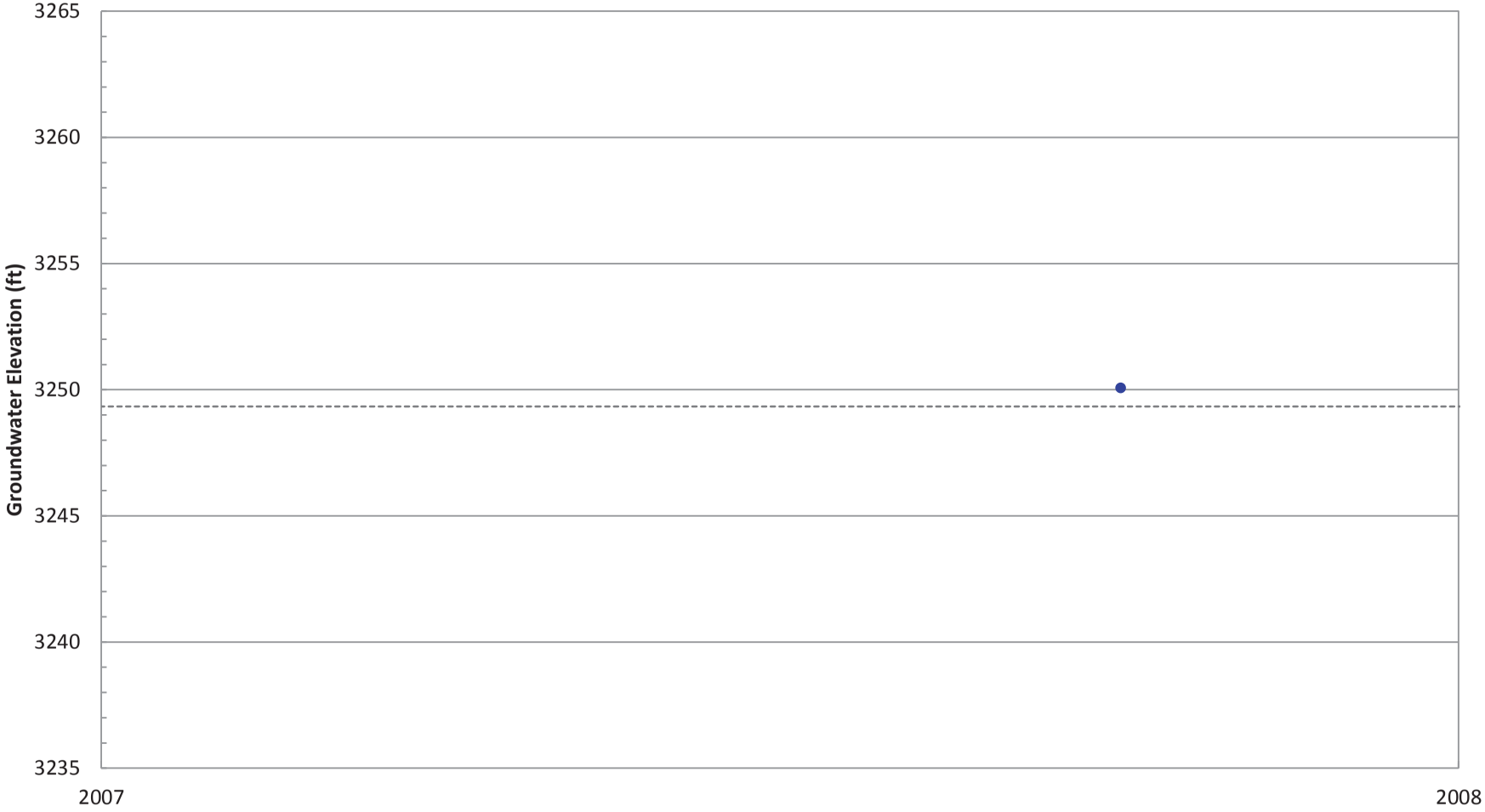
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.18 ft/yr
2012 - 2014 Data: Decreasing at 0.18 ft/yr

PTX06-ISB045
Hydrograph in Perched Aquifer

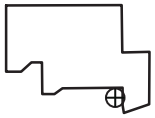


Notes:
1. The top of screen elevation is 3259.34 ft msl.
2. The bottom of screen elevation is 3249.34 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

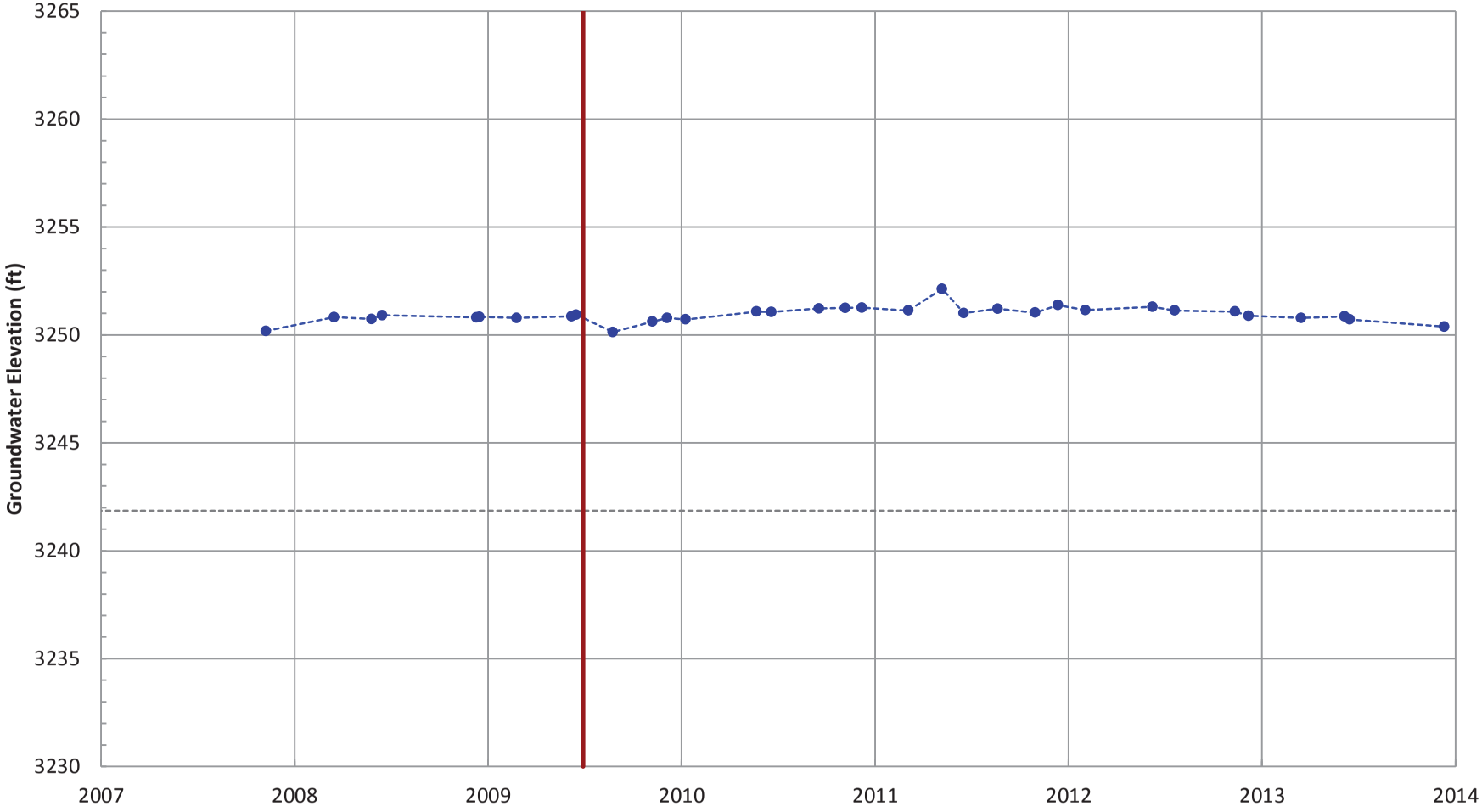
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: N/A (No Measurements)
2012 - 2014 Data: N/A (No Measurements)

PTX06-ISB046
Hydrograph in Perched Aquifer



Notes:
1. The top of screen elevation is 3251.85 ft msl.
2. The bottom of screen elevation is 3241.85 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

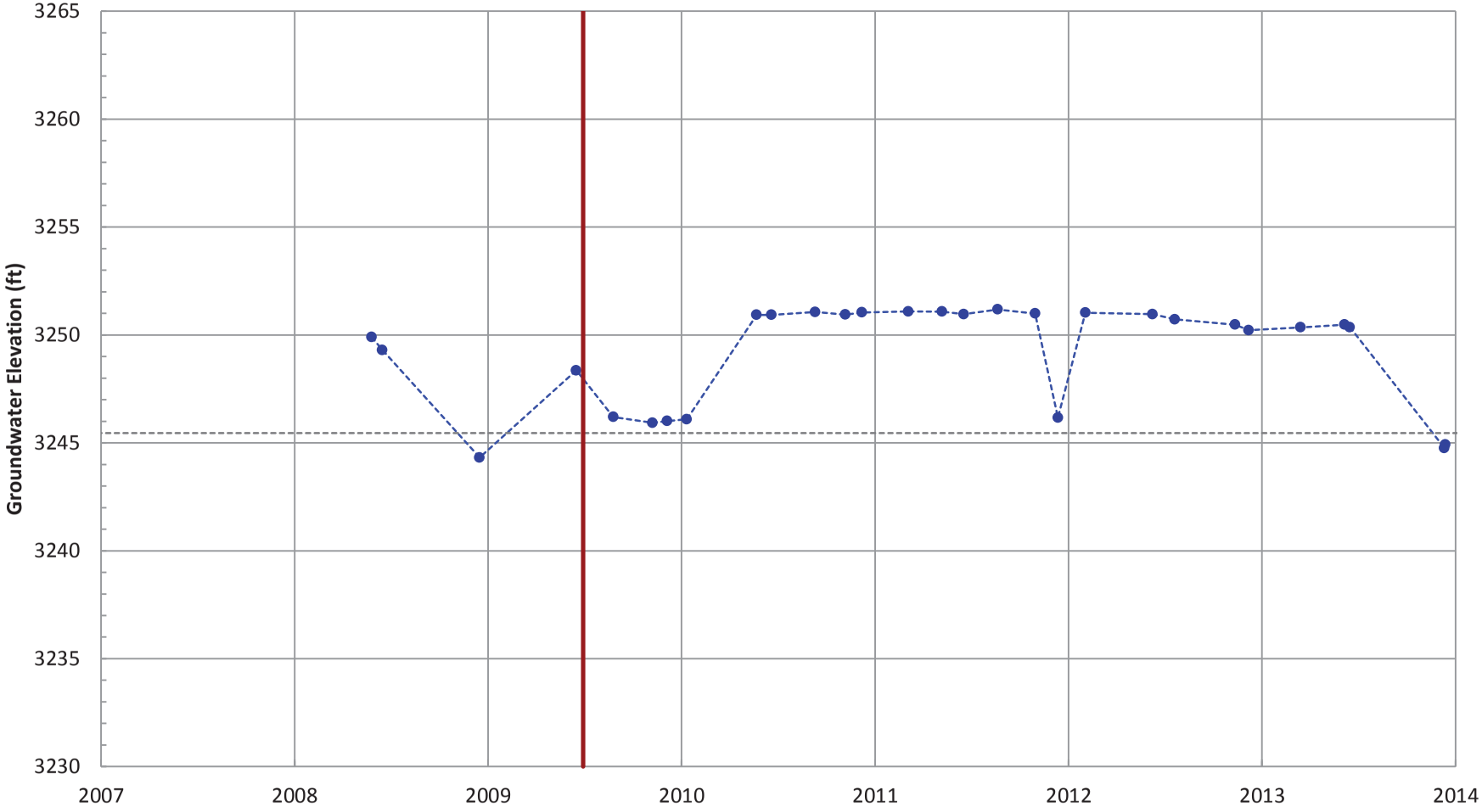
Analysis Date: 3/20/2014

Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location

Hydrograph Trend
(MAROS Linear Regression Method)
All Data: No Trend
2012 - 2014 Data: Decreasing at 0.60 ft/yr

PTX06-ISB048
Hydrograph in Perched Aquifer

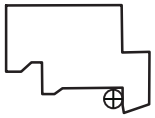


Notes:
1. The top of screen elevation is 3255.45 ft msl.
2. The bottom of screen elevation is 3245.45 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

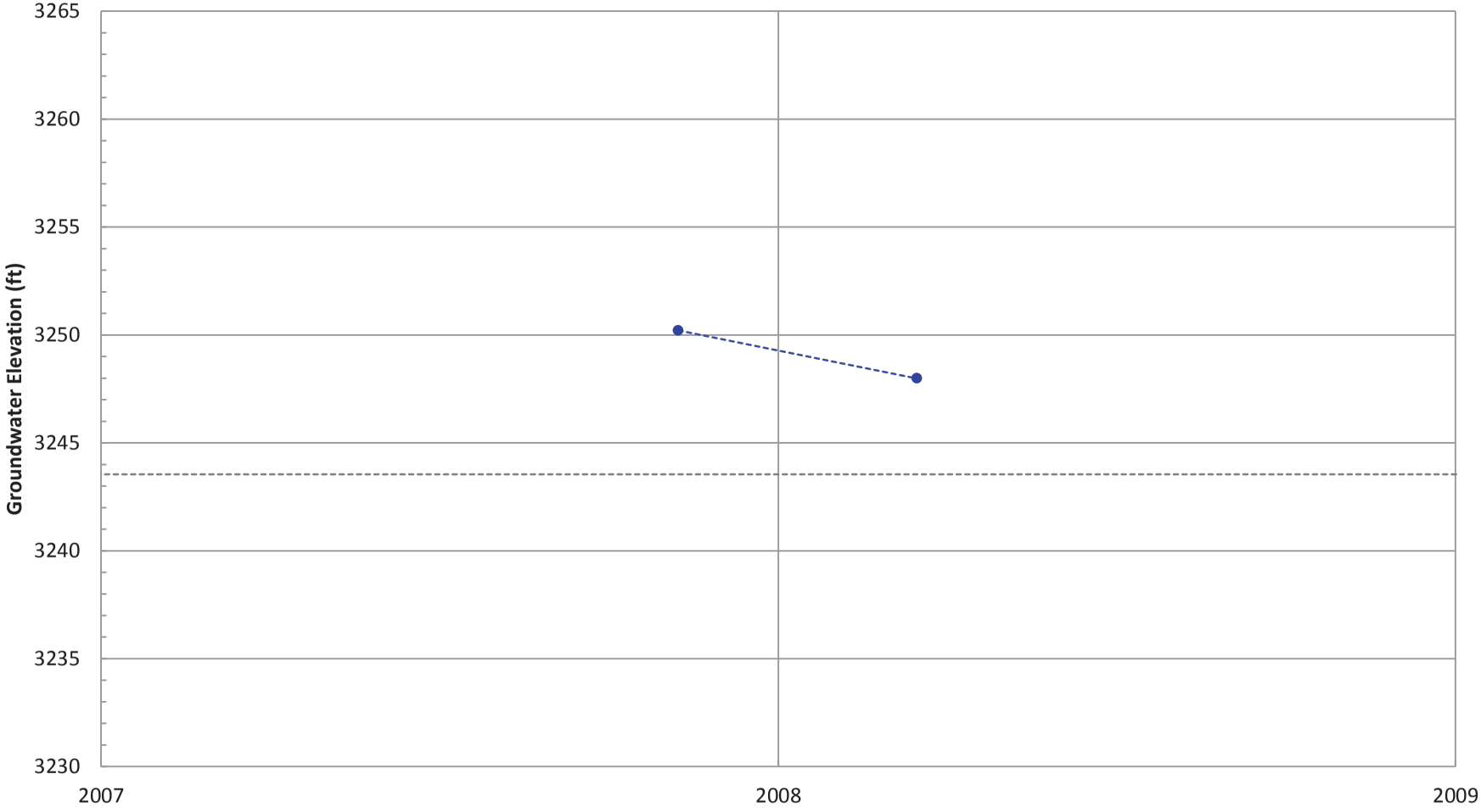
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Increasing at 0.22 ft/yr
2012 - 2014 Data: Decreasing at 8.62 ft/yr

PTX06-ISB049
Hydrograph in Perched Aquifer

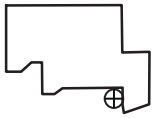


Notes:
1. The top of screen elevation is 3253.54 ft msl.
2. The bottom of screen elevation is 3243.54 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

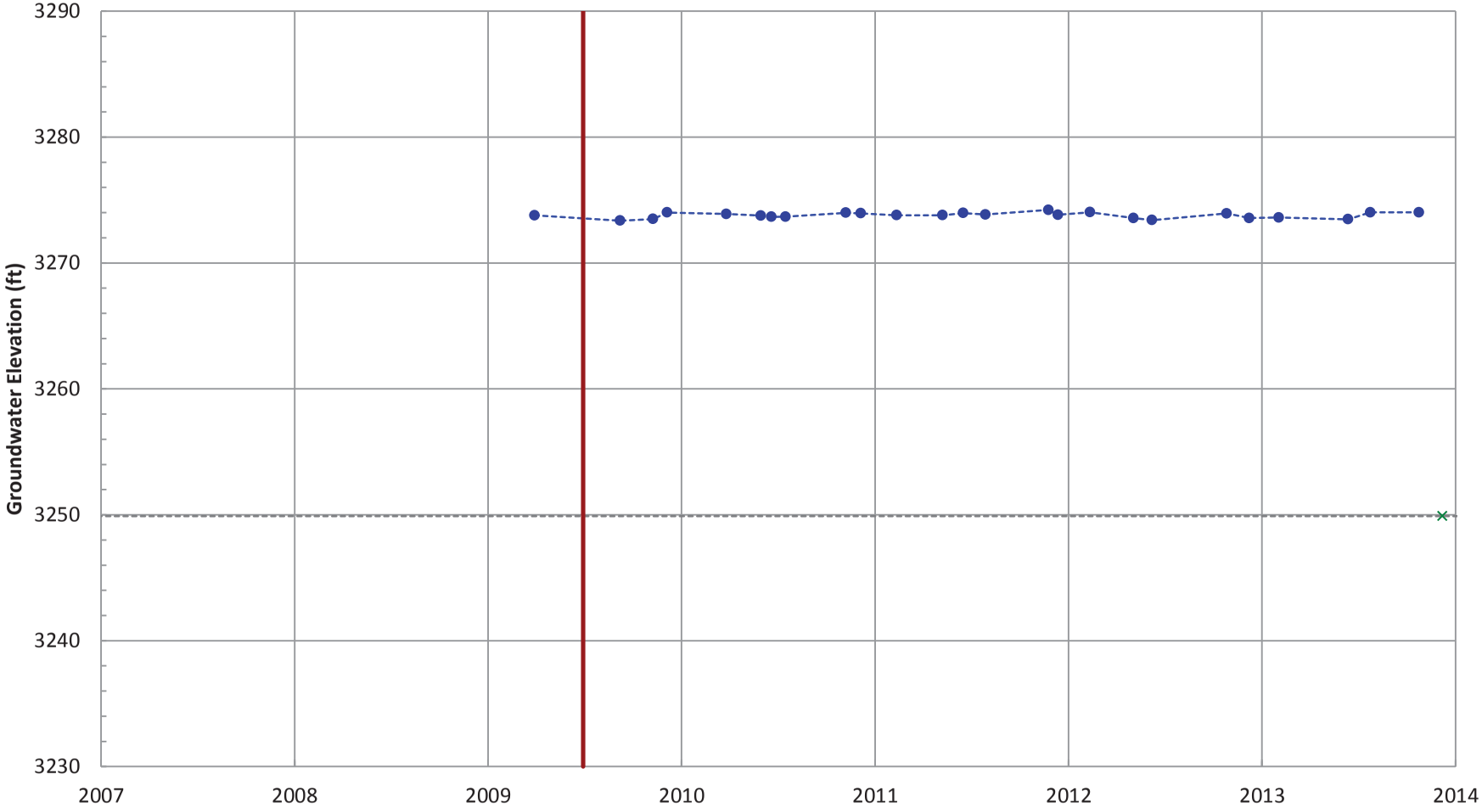
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: N/A (<3 Measurements)
2012 - 2014 Data: N/A (No Measurements)

PTX06-ISB055
Hydrograph in Perched Aquifer

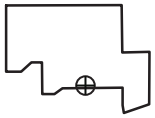


Notes:
1. The top of screen elevation is 3269.9 ft msl.
2. The bottom of screen elevation is 3249.9 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

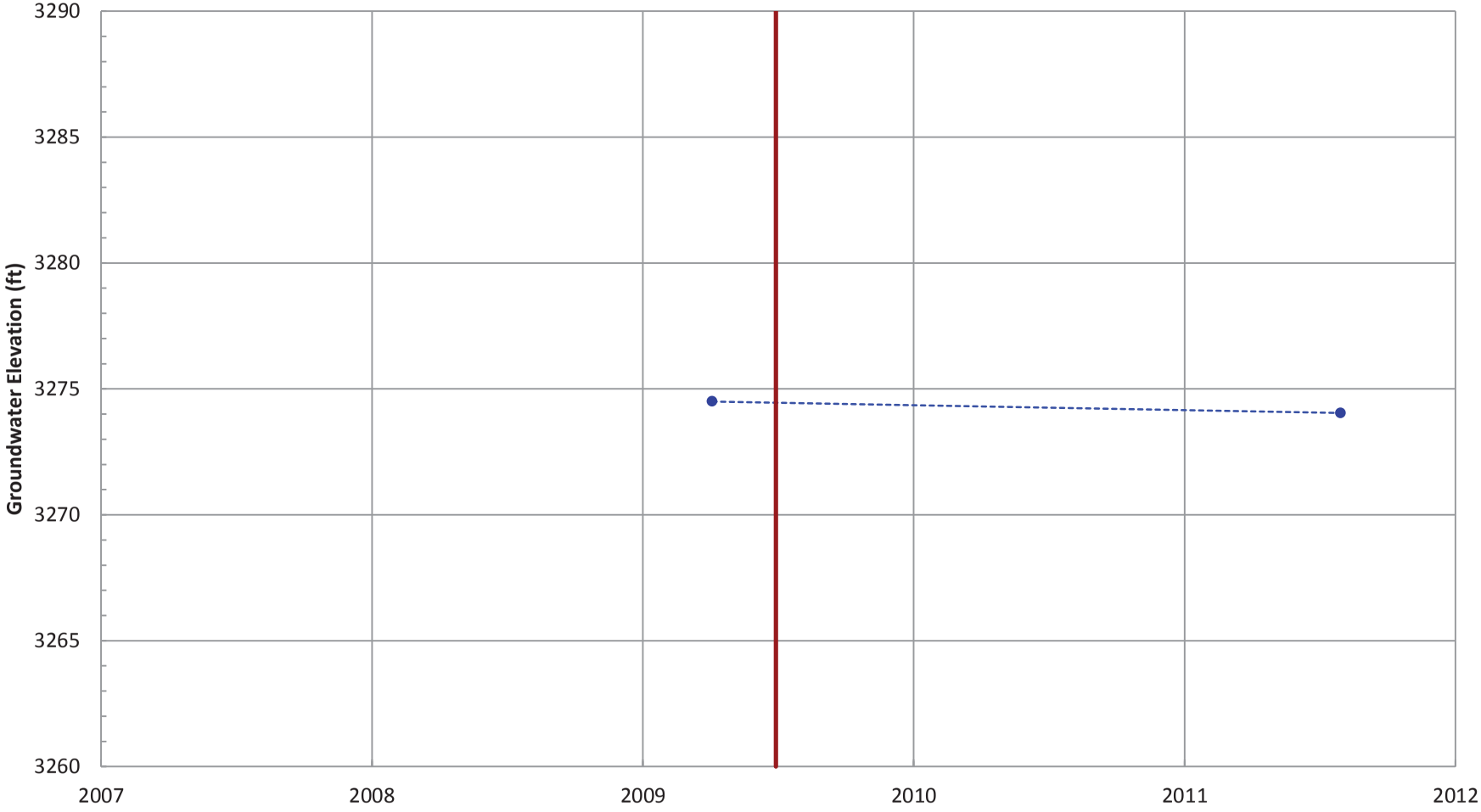
Groundwater Elevation
Bottom of Screen Elevation
No Water Detected
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: No Trend
2012 - 2014 Data: Increasing at 0.65 ft/yr

PTX06-ISB057
Hydrograph in Perched Aquifer



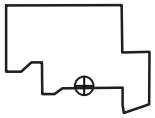
Notes:
1. The top of screen elevation is 3274.18 ft msl.
2. The bottom of screen elevation is 3254.18 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

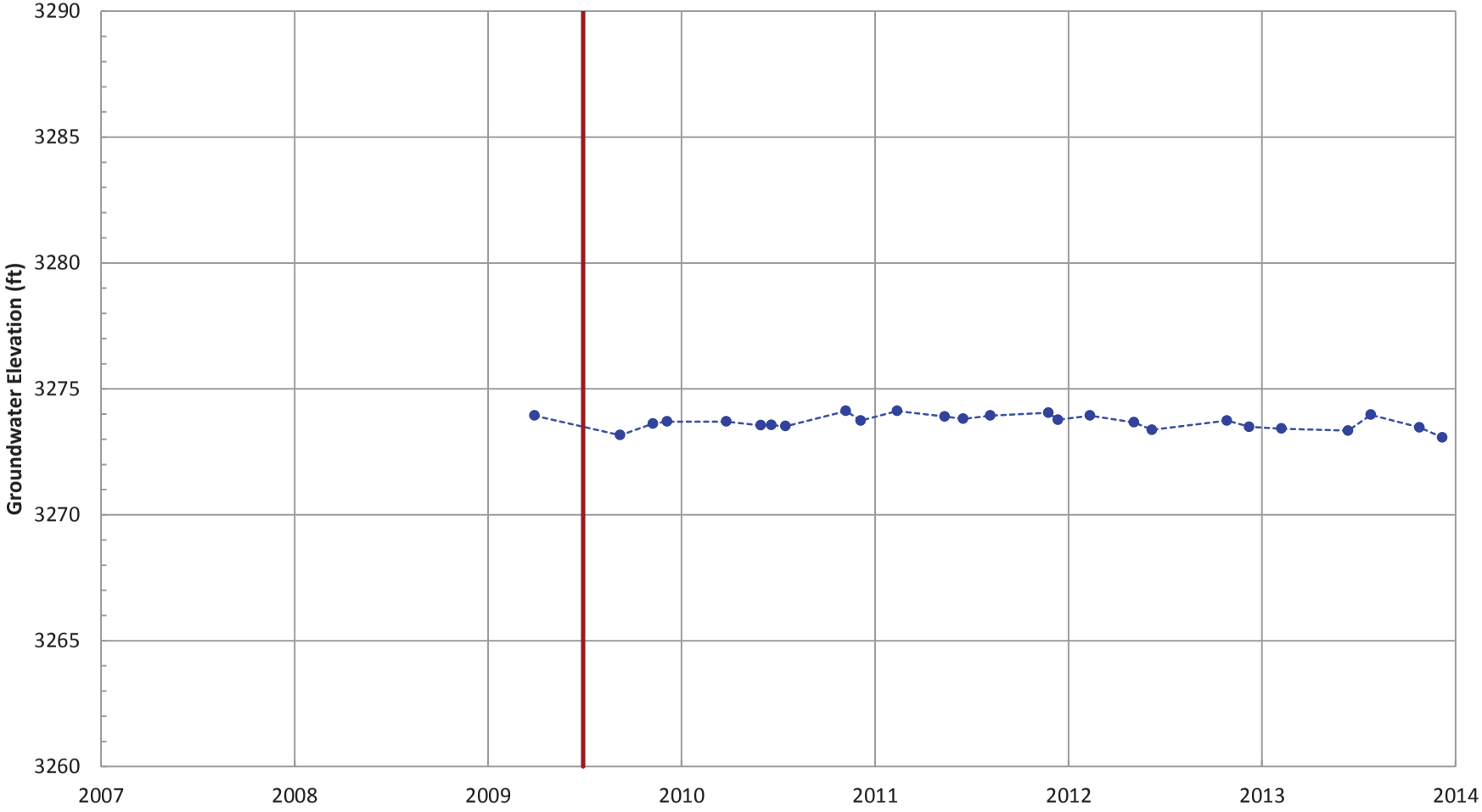
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: N/A (<3 Measurements)
2012 - 2014 Data: N/A (No Measurements)

PTX06-ISB059
Hydrograph in Perched Aquifer



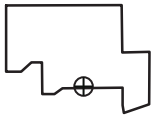
Notes:
1. The top of screen elevation is 3271.56 ft msl.
2. The bottom of screen elevation is 3251.56 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

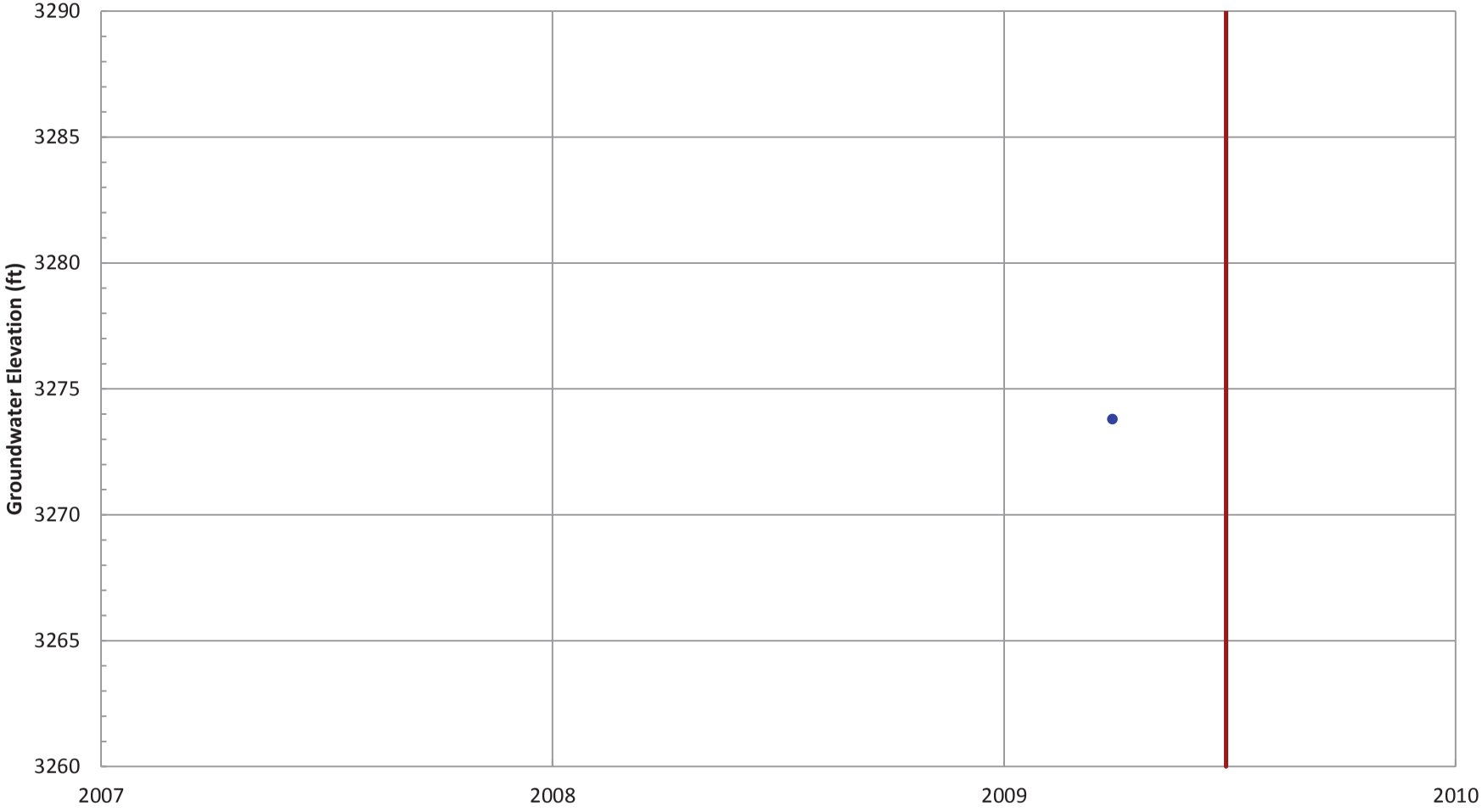
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: No Trend
2012 - 2014 Data: Decreasing at 0.25 ft/yr

PTX06-ISB061
Hydrograph in Perched Aquifer



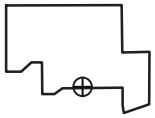
Notes:
1. The top of screen elevation is 3272.95 ft msl.
2. The bottom of screen elevation is 3253.95 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

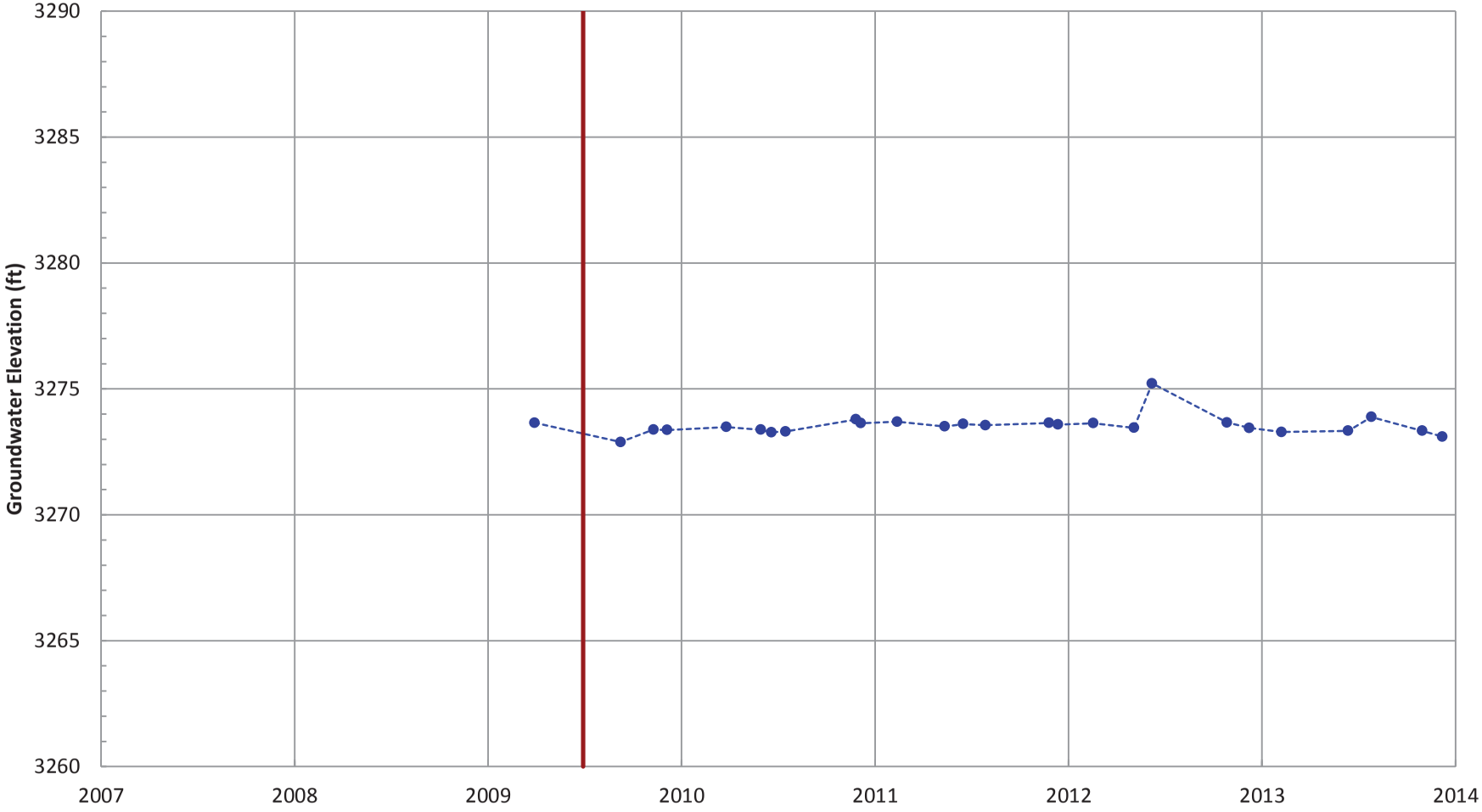
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: N/A (No Measurements)
2012 - 2014 Data: N/A (No Measurements)

PTX06-ISB063
Hydrograph in Perched Aquifer



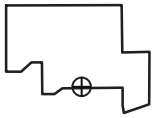
Notes:
1. The top of screen elevation is 3276.7 ft msl.
2. The bottom of screen elevation is 3256.7 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

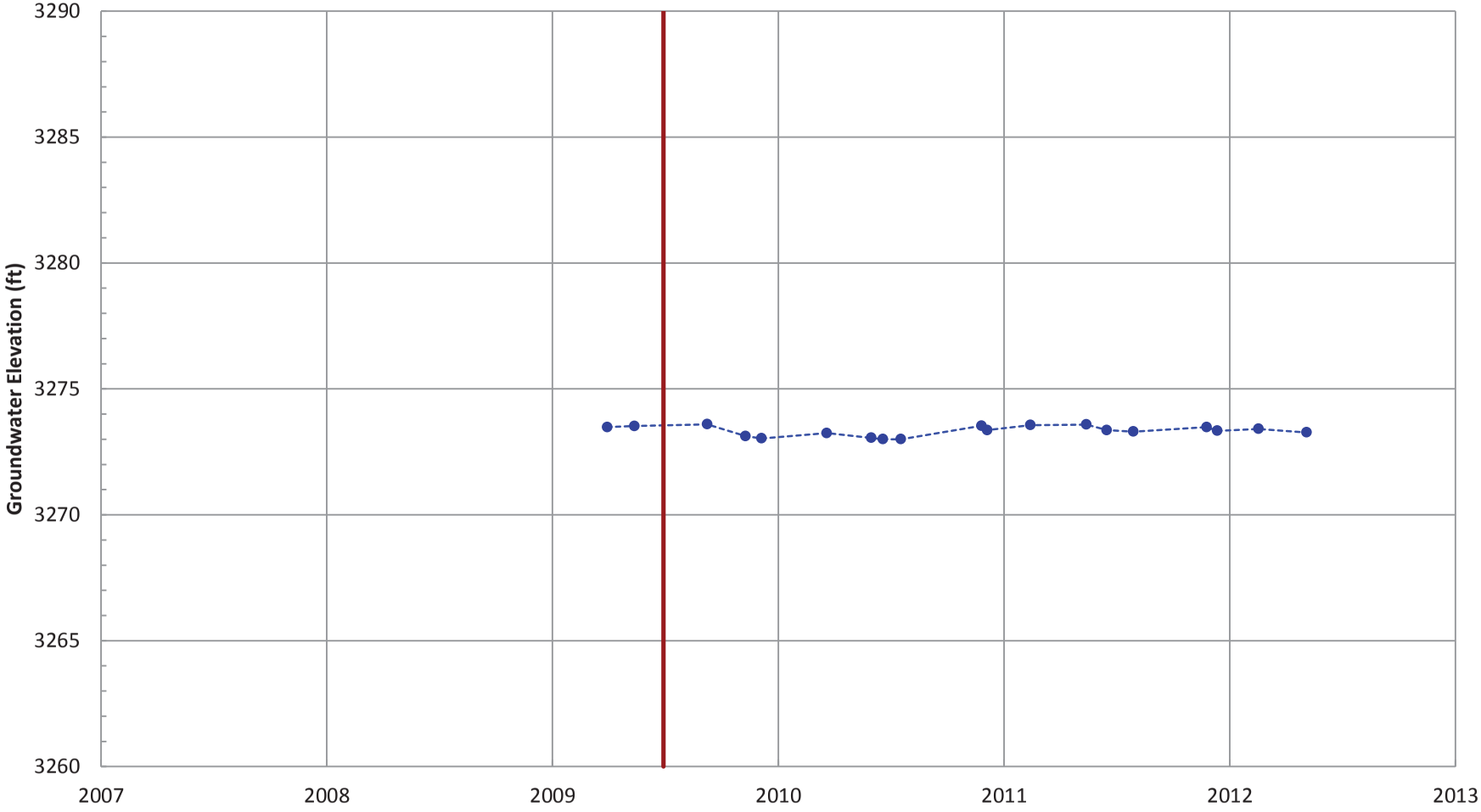
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: No Trend
2012 - 2014 Data: Decreasing at 0.15 ft/yr

PTX06-ISB065
Hydrograph in Perched Aquifer



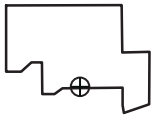
Notes:
1. The top of screen elevation is 3274.94 ft msl.
2. The bottom of screen elevation is 3254.94 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

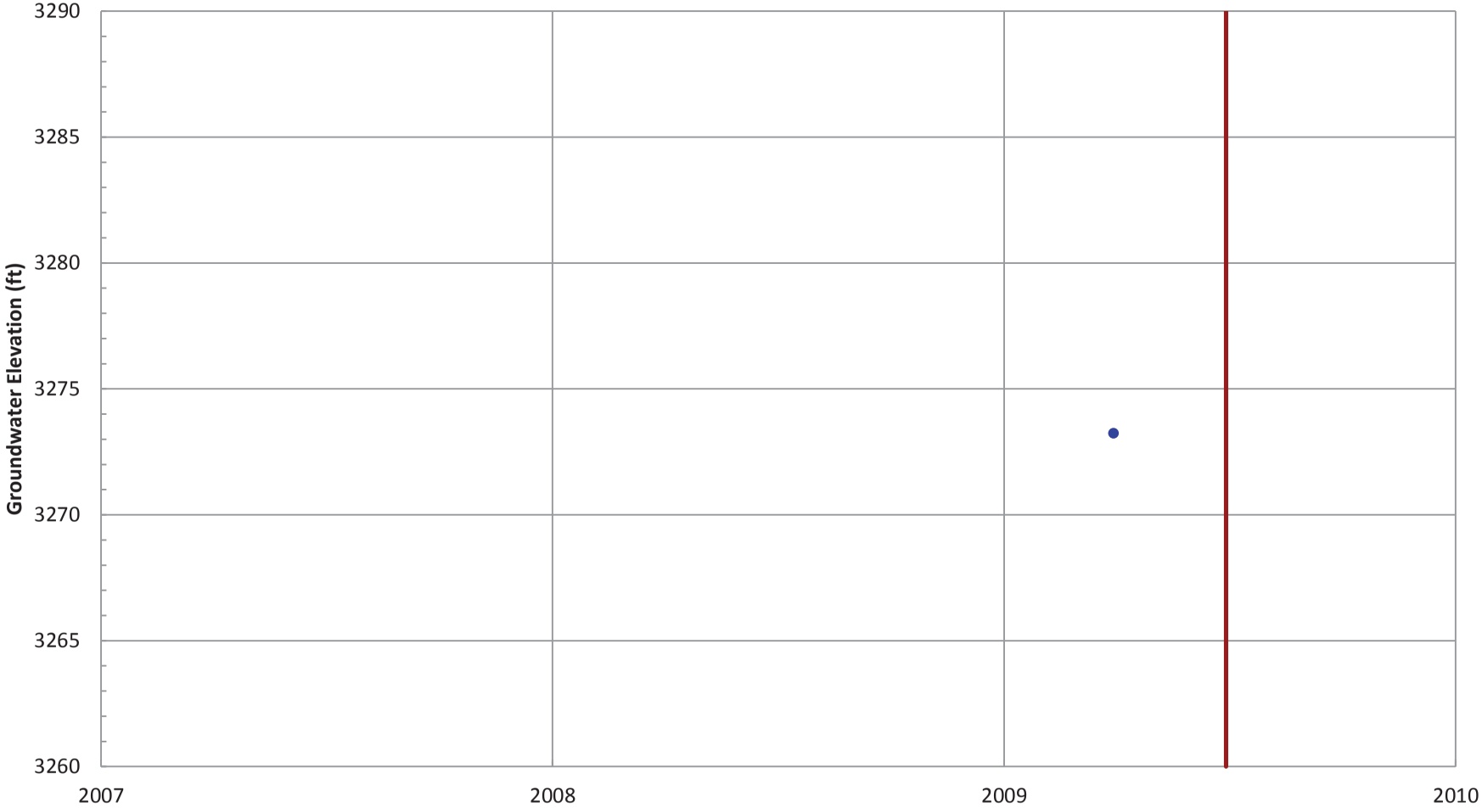
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: No Trend
2012 - 2014 Data: N/A (No Measurements)

PTX06-ISB067
Hydrograph in Perched Aquifer



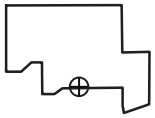
Notes:
1. The top of screen elevation is 3275.56 ft msl.
2. The bottom of screen elevation is 3255.56 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

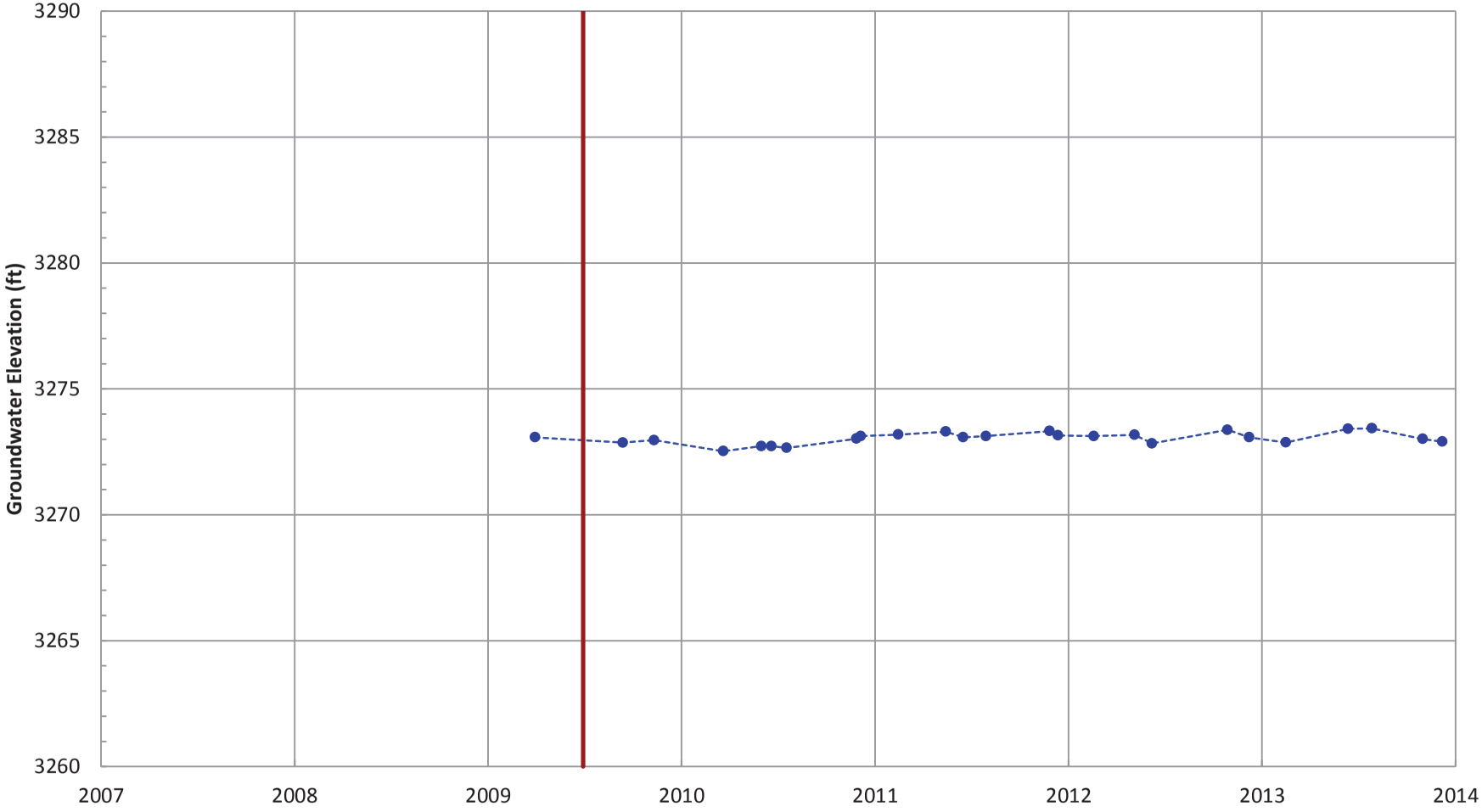
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: N/A (No Measurements)
2012 - 2014 Data: N/A (No Measurements)

PTX06-ISB069A
Hydrograph in Perched Aquifer



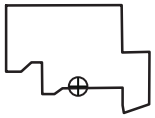
Notes:
1. The top of screen elevation is 3276.05 ft msl.
2. The bottom of screen elevation is 3256.05 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

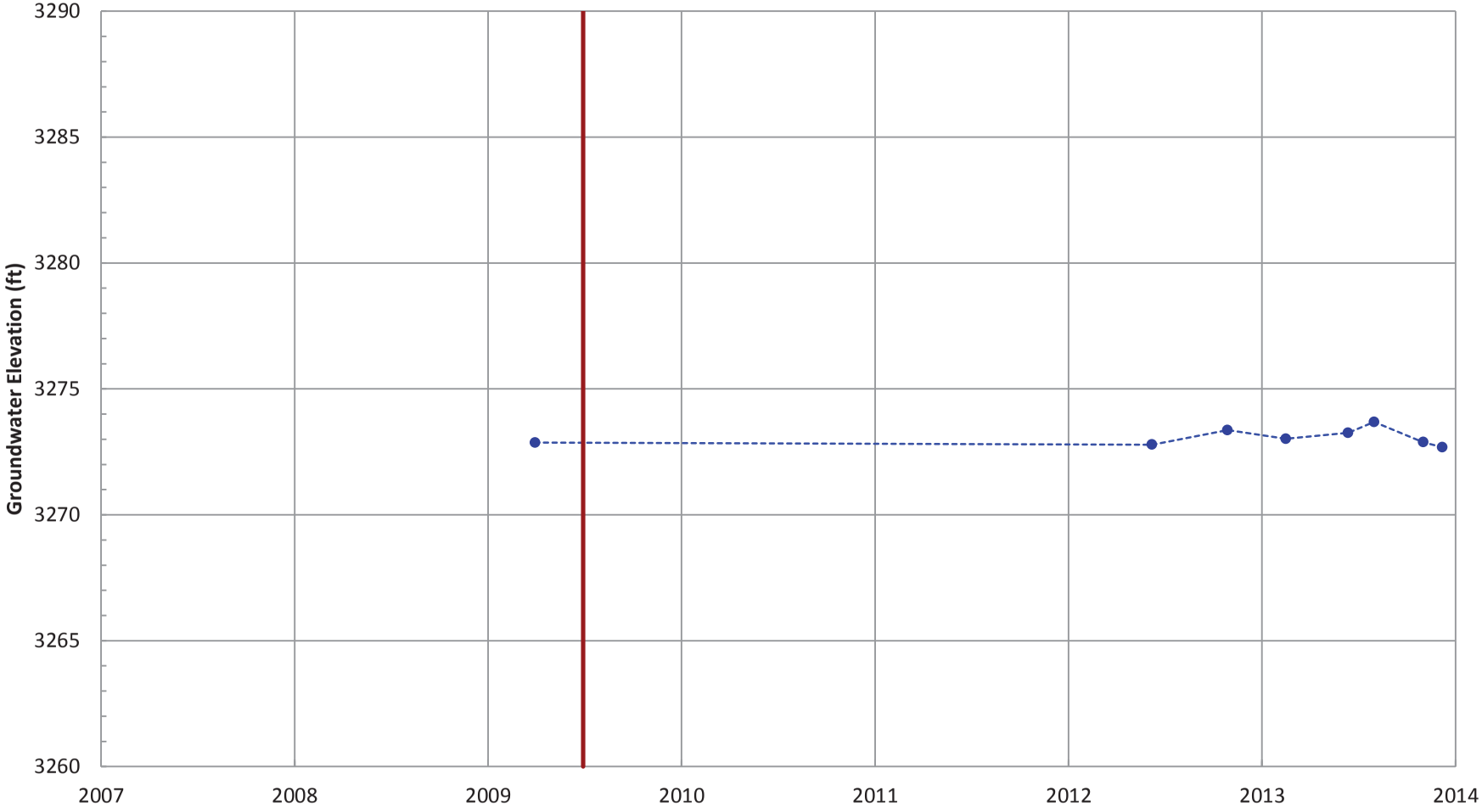
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: No Trend
2012 - 2014 Data: No Trend

PTX06-ISB071
Hydrograph in Perched Aquifer



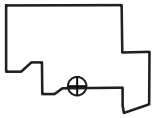
Notes:
1. The top of screen elevation is 3274.58 ft msl.
2. The bottom of screen elevation is 3254.58 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

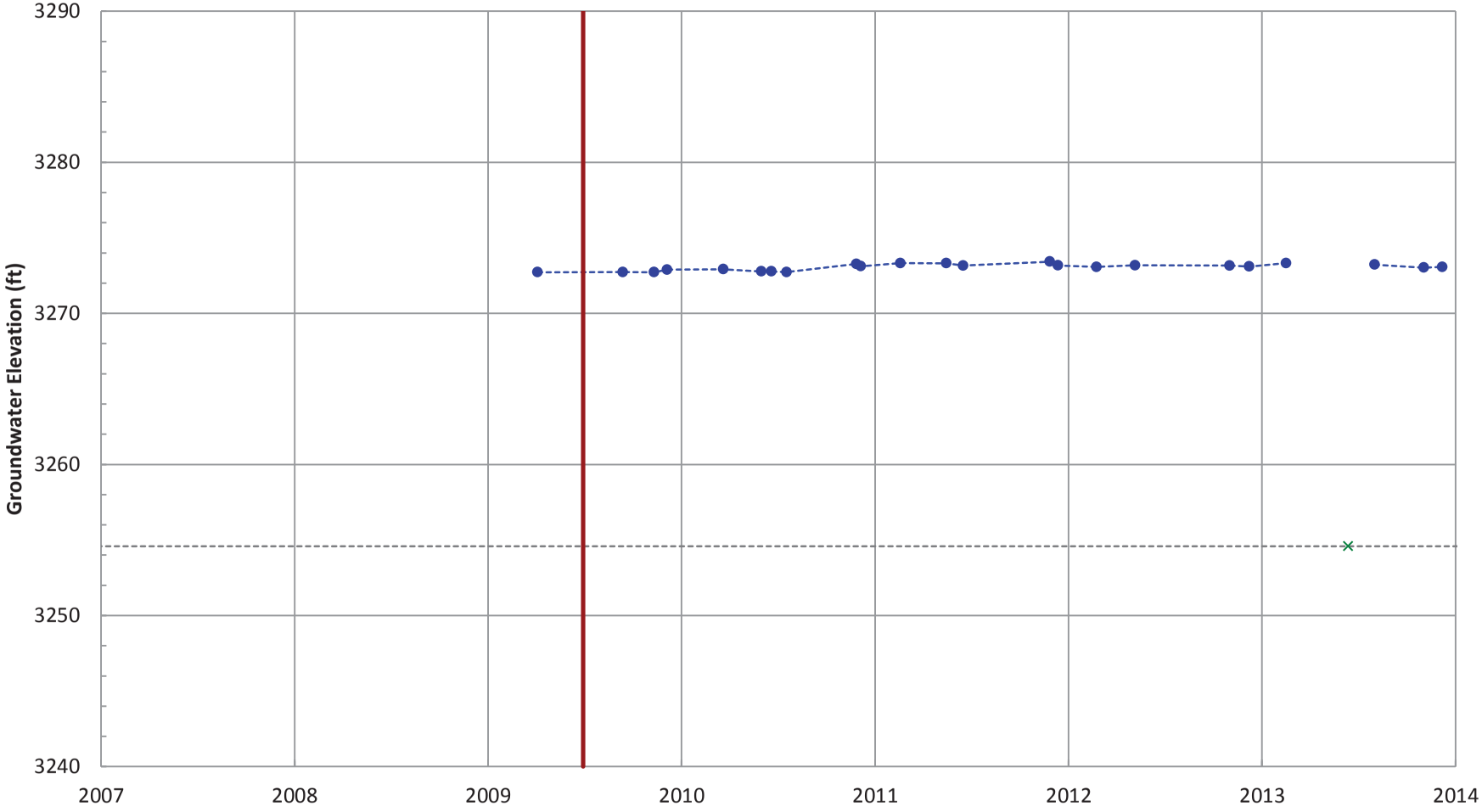
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: No Trend
2012 - 2014 Data: Decreasing at 0.44 ft/yr

PTX06-ISB073
Hydrograph in Perched Aquifer

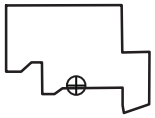


Notes:
1. The top of screen elevation is 3274.59 ft msl.
2. The bottom of screen elevation is 3254.59 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

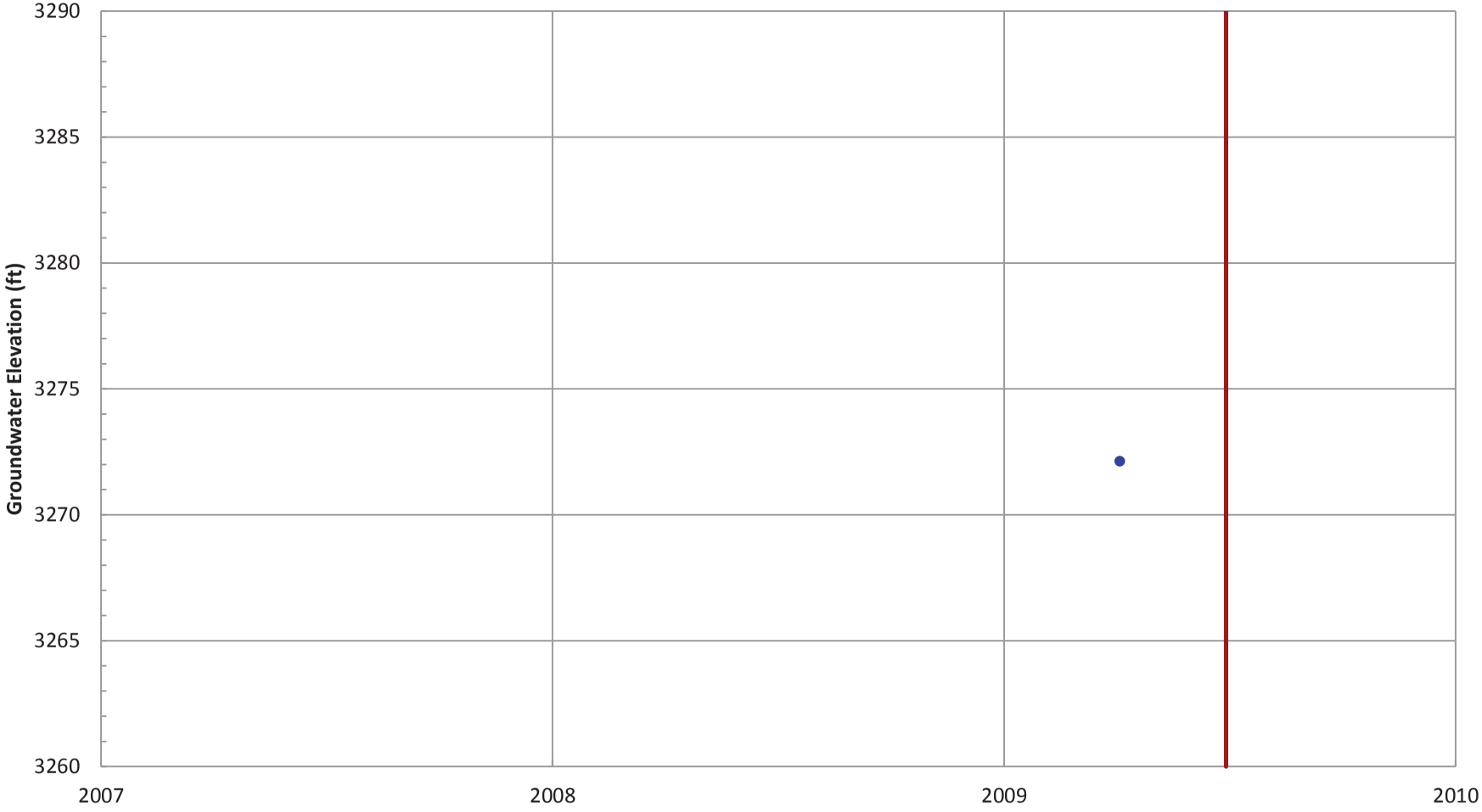
Groundwater Elevation
Bottom of Screen Elevation
No Water Detected
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: No Trend
2012 - 2014 Data: Decreasing at 0.35 ft/yr

PTX06-ISB074
Hydrograph in Perched Aquifer



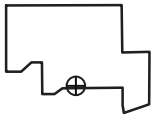
Notes:
1. The top of screen elevation is 3279.2 ft msl.
2. The bottom of screen elevation is 3259.2 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

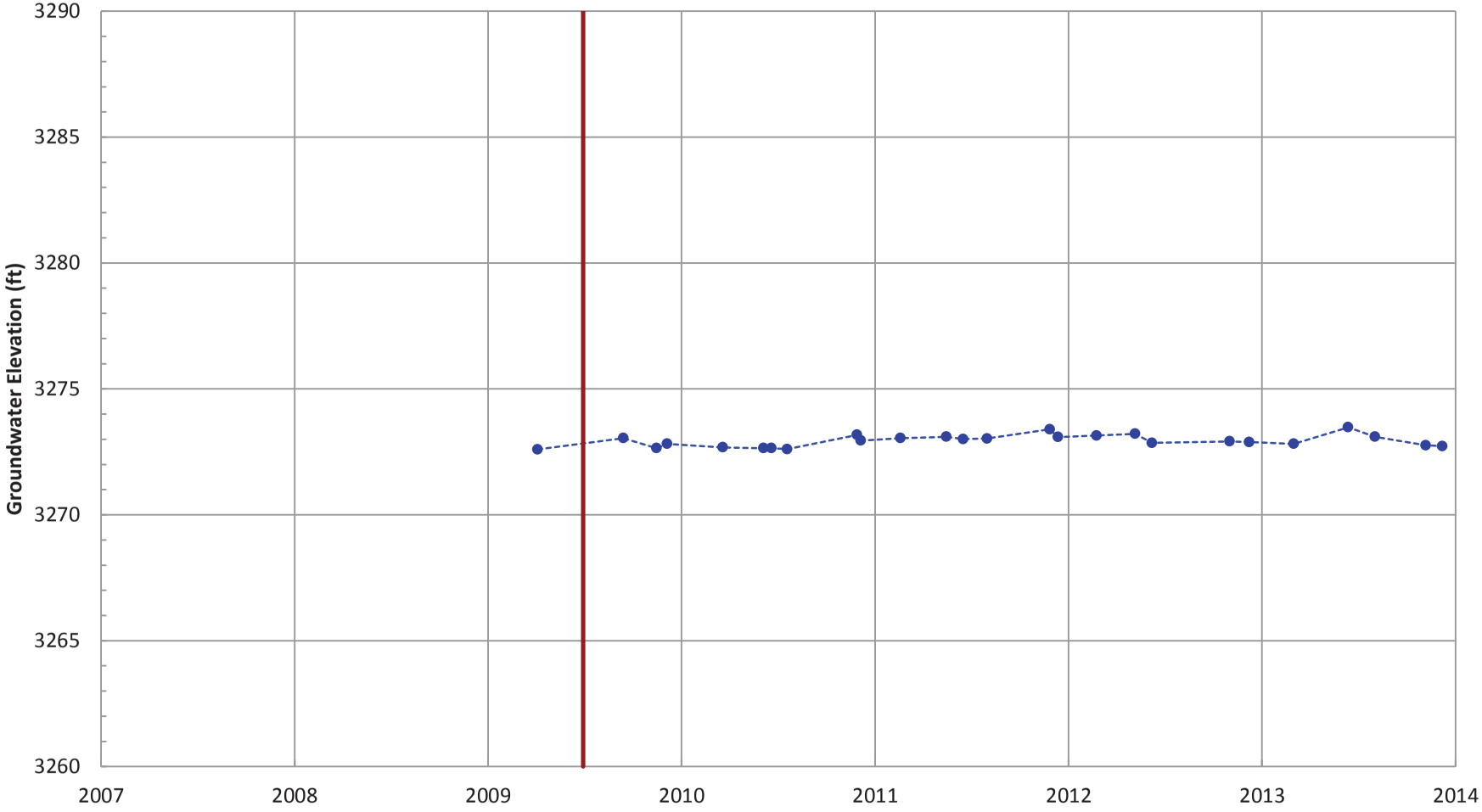
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: N/A (No Measurements)
2012 - 2014 Data: N/A (No Measurements)

PTX06-ISB075
Hydrograph in Perched Aquifer



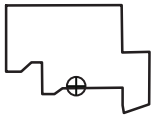
Notes:
1. The top of screen elevation is 3280.59 ft msl.
2. The bottom of screen elevation is 3260.59 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

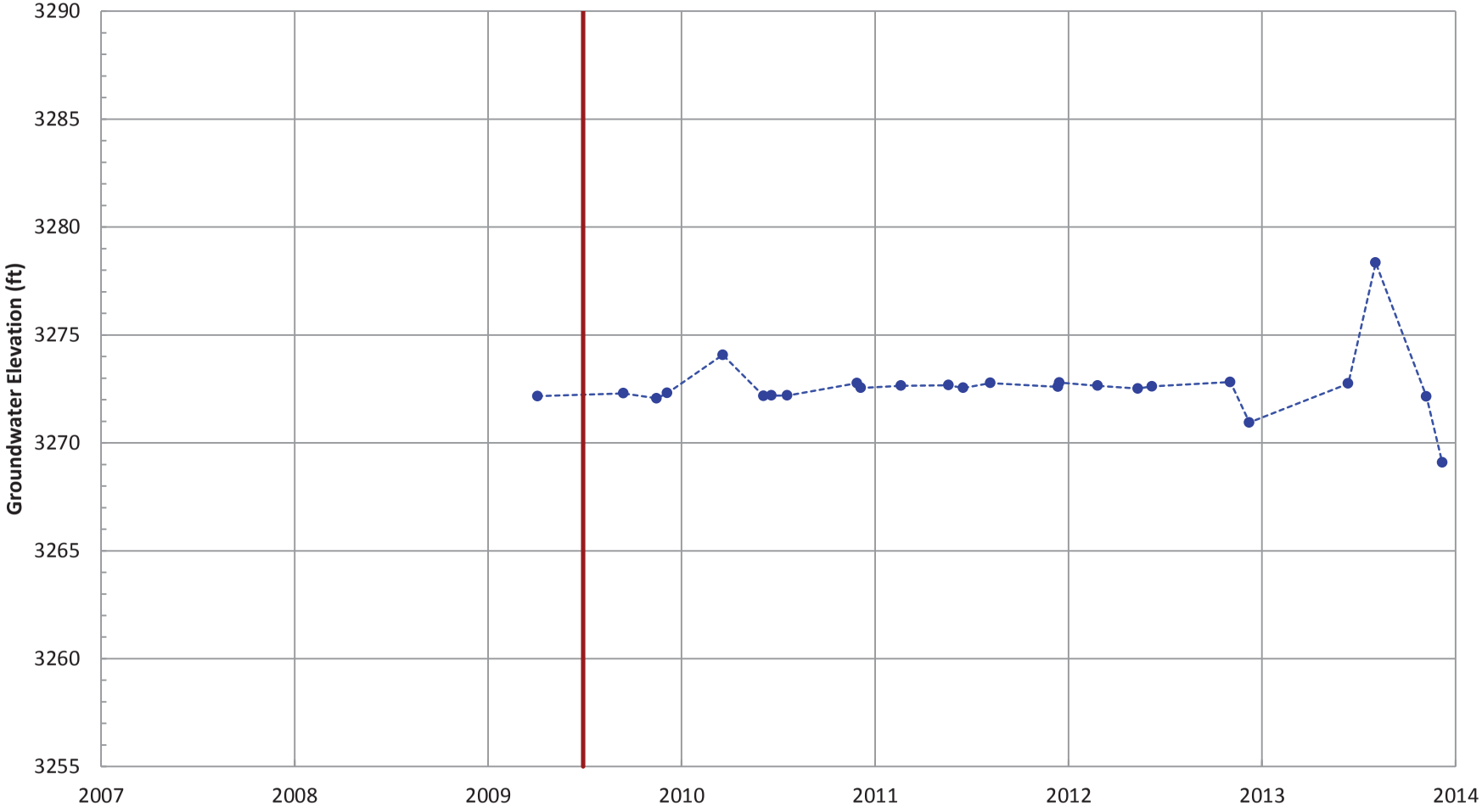
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: No Trend
2012 - 2014 Data: Decreasing at 0.38 ft/yr

PTX06-ISB077
Hydrograph in Perched Aquifer



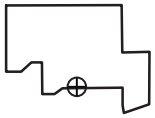
Notes:
1. The top of screen elevation is 3275.82 ft msl.
2. The bottom of screen elevation is 3255.82 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

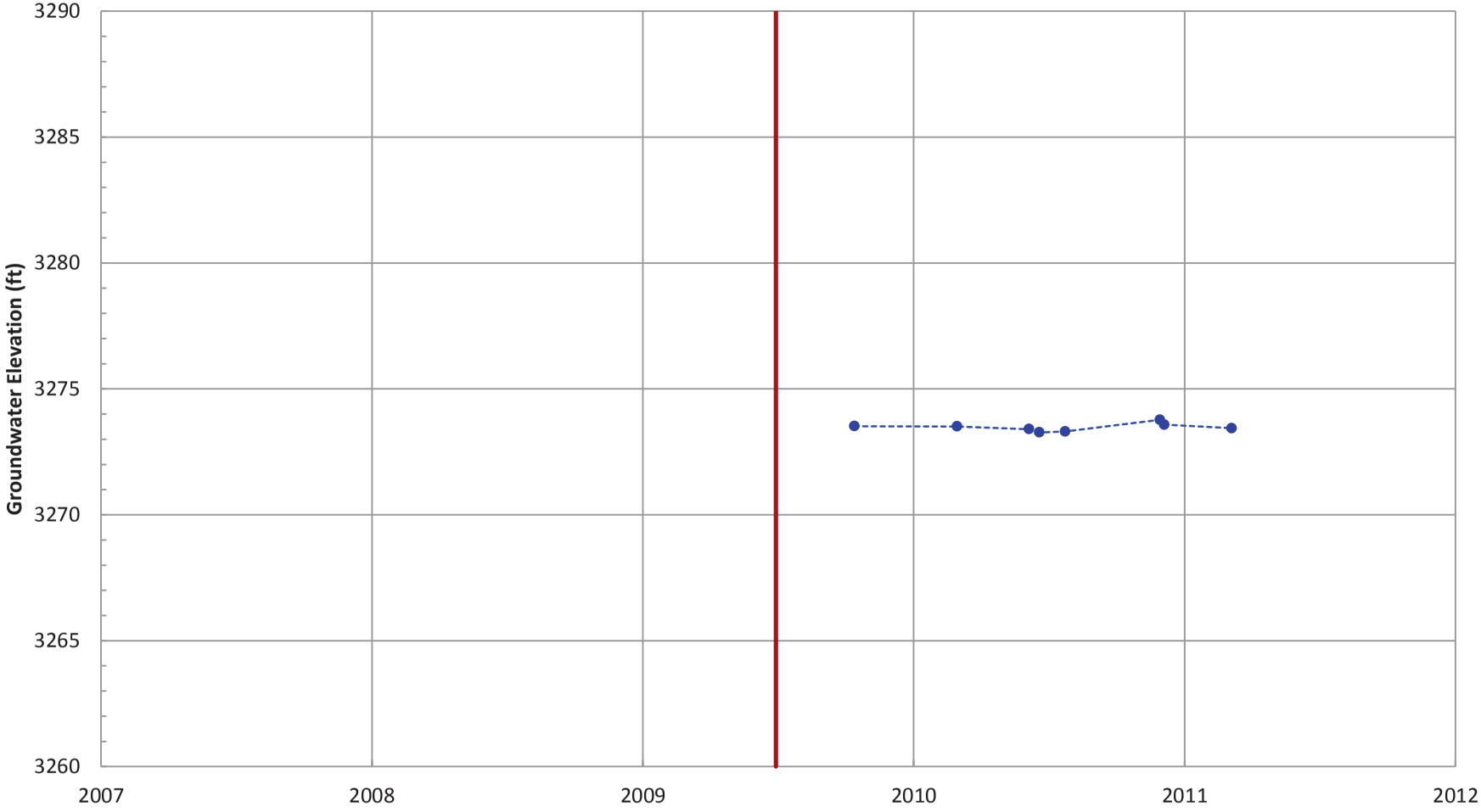
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: No Trend
2012 - 2014 Data: Decreasing at 10.22 ft/yr

PTX06-ISB078
Hydrograph in Perched Aquifer



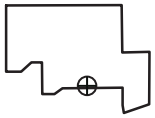
Notes:
1. The top of screen elevation is 3275.41 ft msl.
2. The bottom of screen elevation is 3250.41 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

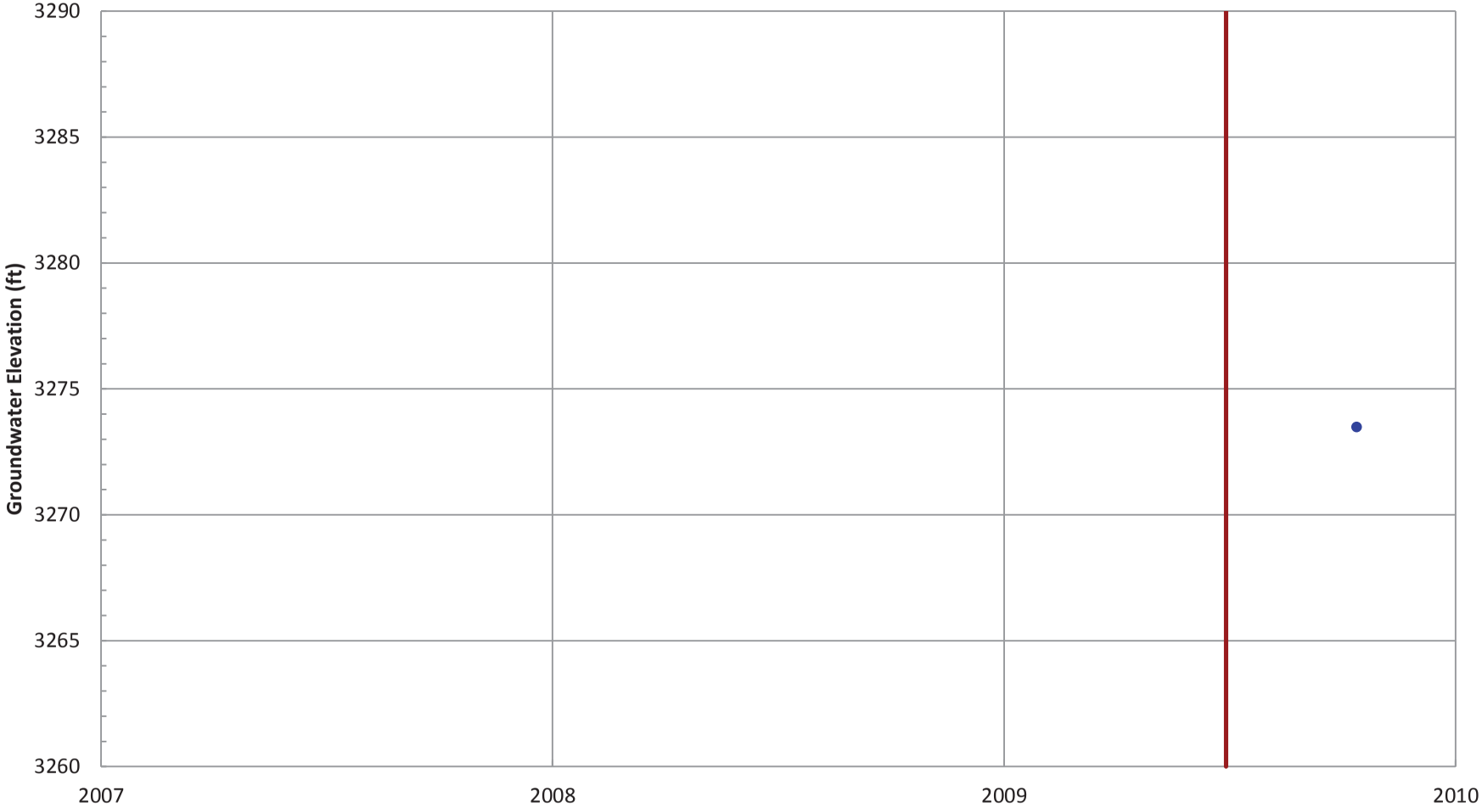
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: No Trend
2012 - 2014 Data: N/A (No Measurements)

PTX06-ISB079
Hydrograph in Perched Aquifer



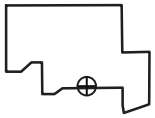
Notes:
1. The top of screen elevation is 3276.5 ft msl.
2. The bottom of screen elevation is 3251.5 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

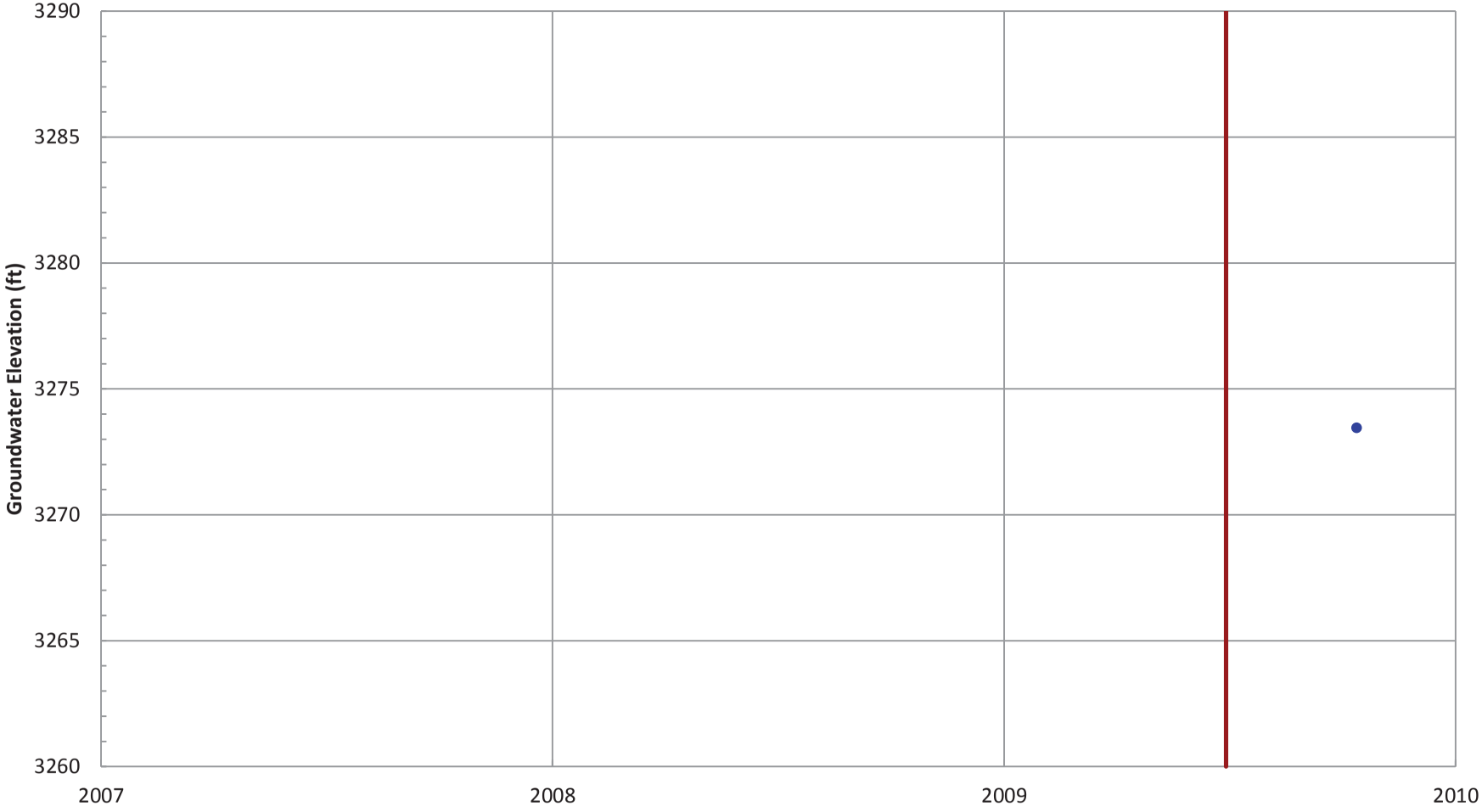
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: N/A (No Measurements)
2012 - 2014 Data: N/A (No Measurements)

PTX06-ISB080
Hydrograph in Perched Aquifer



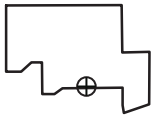
Notes:
1. The top of screen elevation is 3274.94 ft msl.
2. The bottom of screen elevation is 3249.94 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

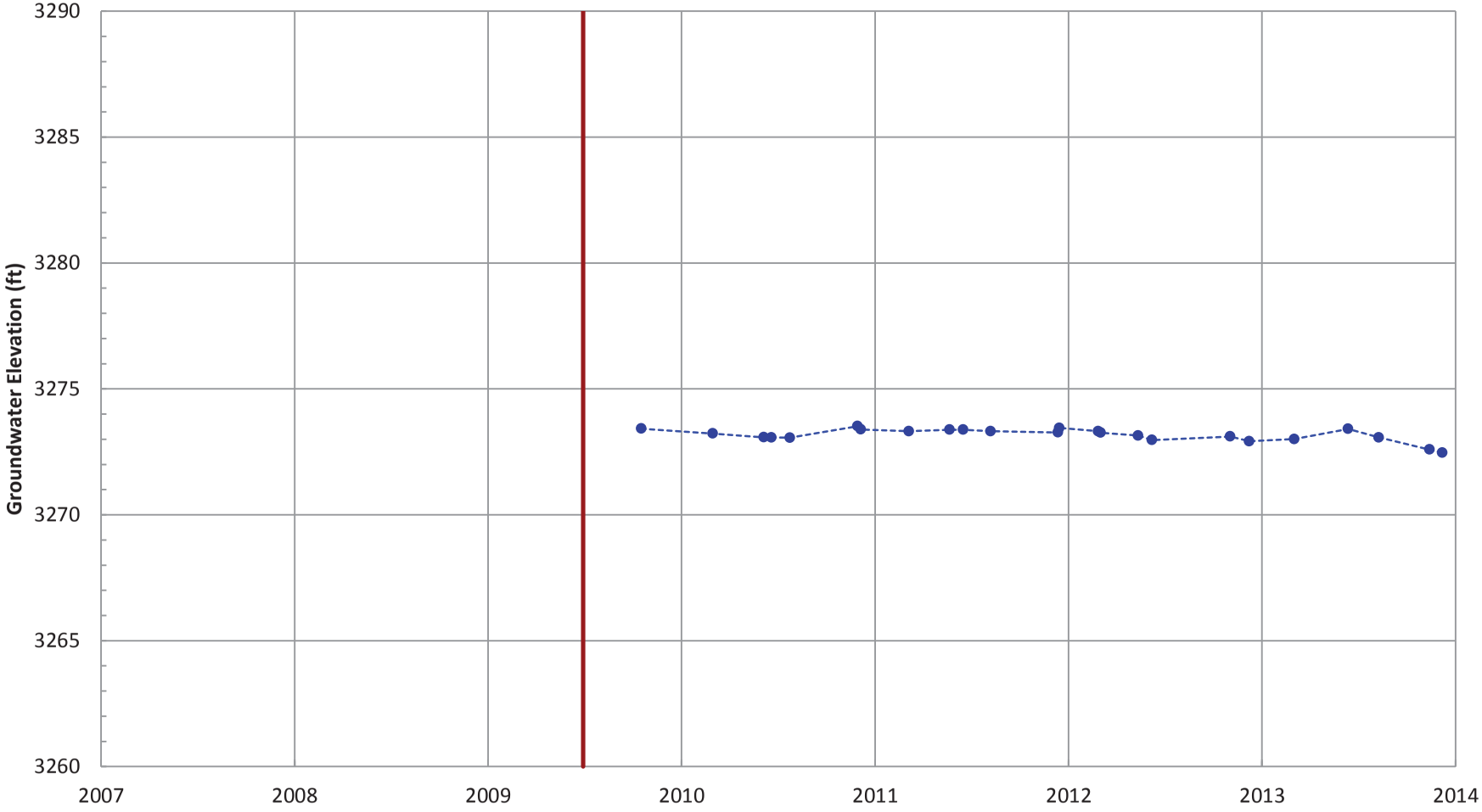
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: N/A (No Measurements)
2012 - 2014 Data: N/A (No Measurements)

PTX06-ISB081
Hydrograph in Perched Aquifer



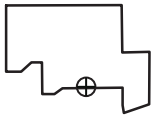
Notes:
1. The top of screen elevation is 3276.07 ft msl.
2. The bottom of screen elevation is 3251.07 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

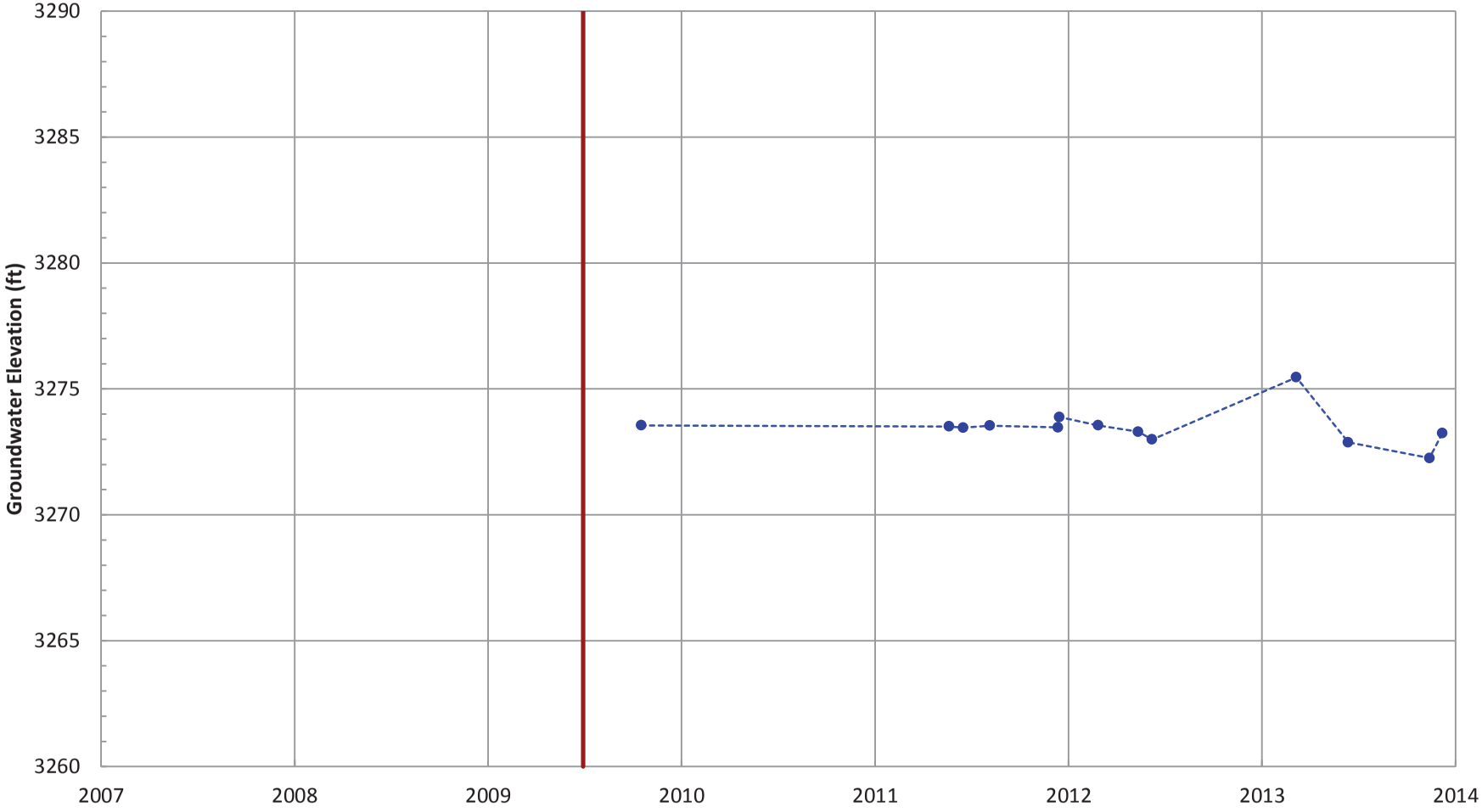
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.12 ft/yr
2012 - 2014 Data: Decreasing at 0.89 ft/yr

PTX06-ISB082
Hydrograph in Perched Aquifer



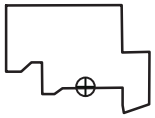
Notes:
1. The top of screen elevation is 3271.56 ft msl.
2. The bottom of screen elevation is 3251.56 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

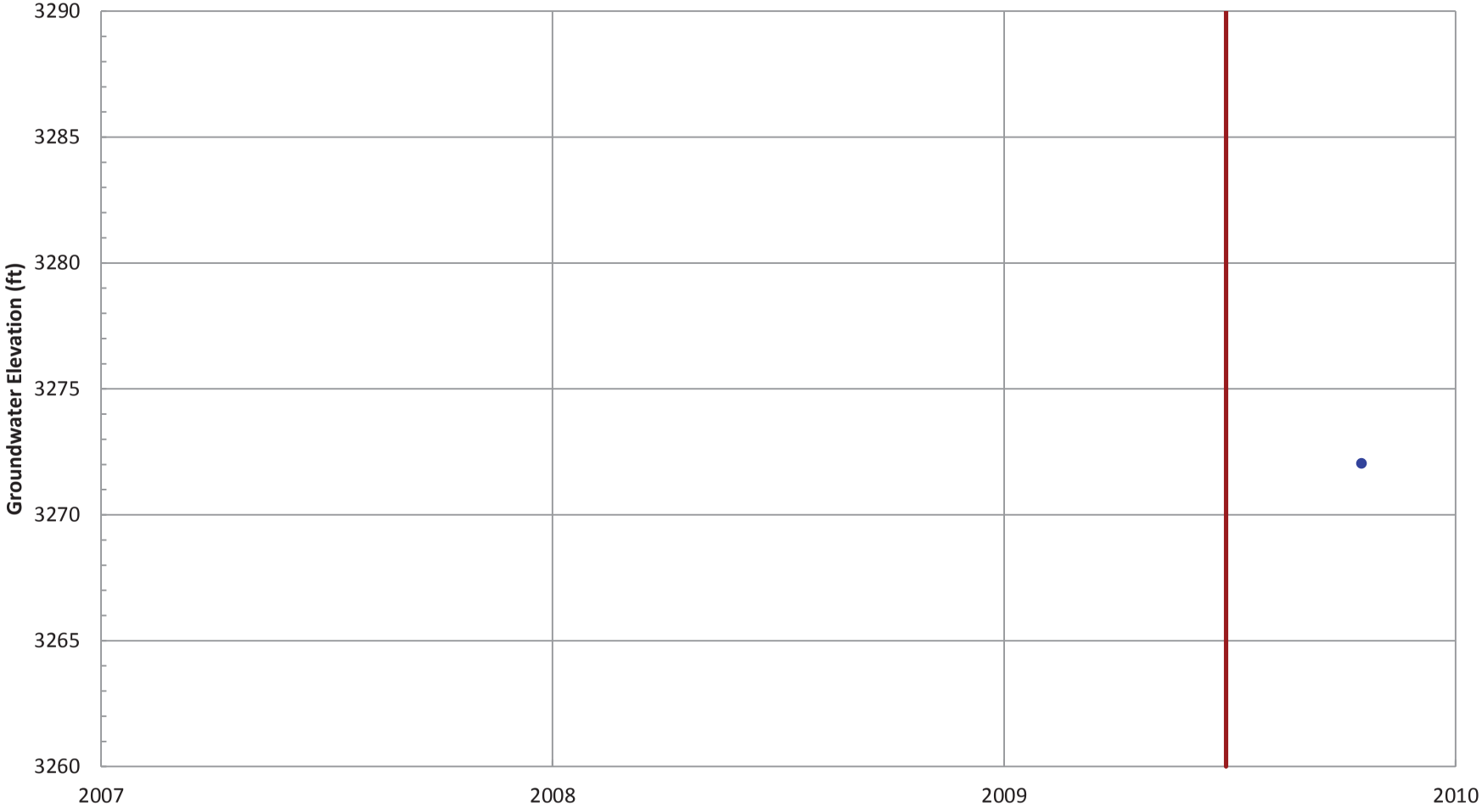
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.11 ft/yr
2012 - 2014 Data: Decreasing at 2.99 ft/yr

PTX06-ISB083
Hydrograph in Perched Aquifer



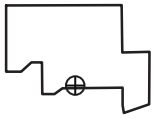
Notes:
1. The top of screen elevation is 3278.95 ft msl.
2. The bottom of screen elevation is 3258.95 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

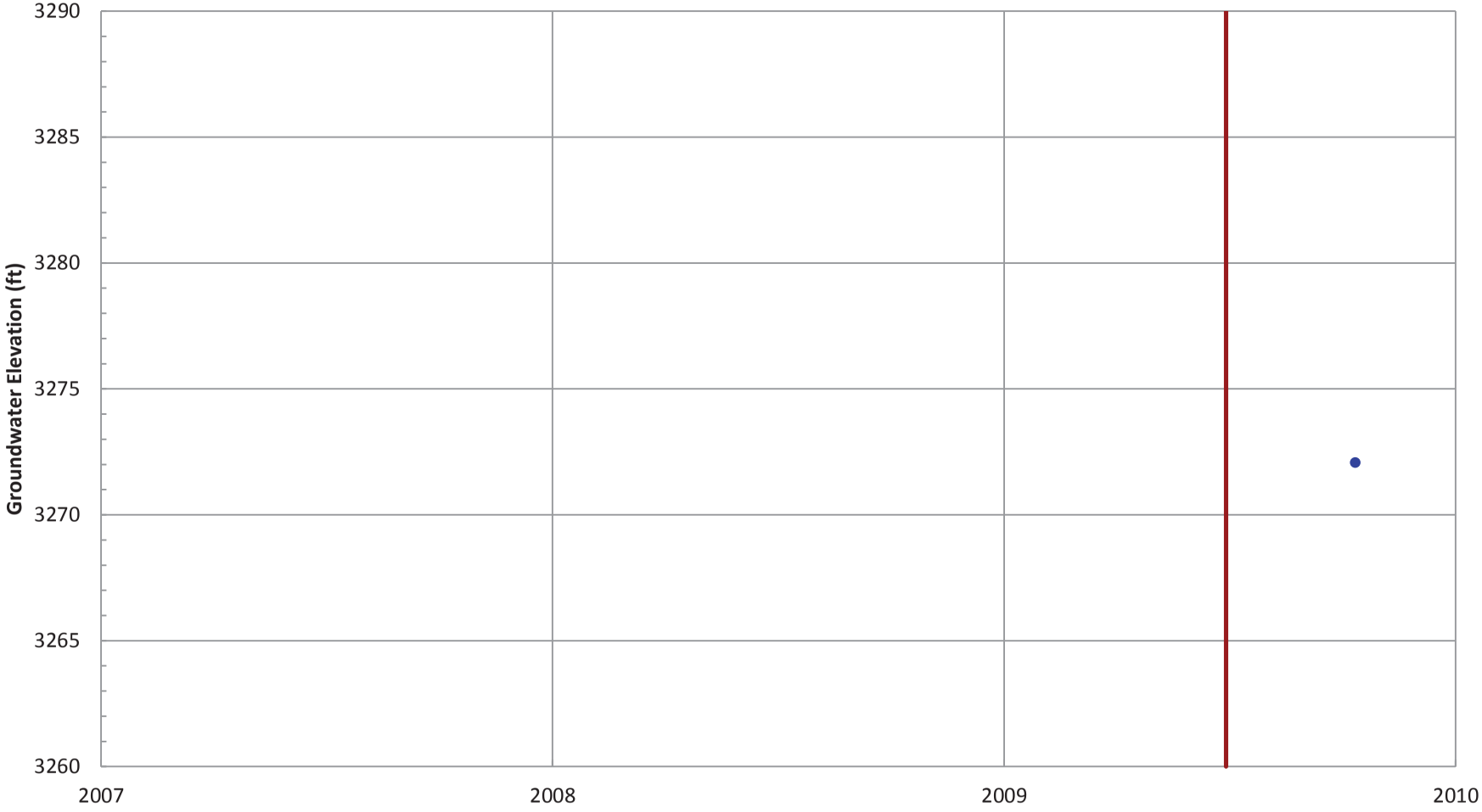
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: N/A (No Measurements)
2012 - 2014 Data: N/A (No Measurements)

PTX06-ISB084
Hydrograph in Perched Aquifer



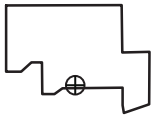
Notes:
1. The top of screen elevation is 3272.92 ft msl.
2. The bottom of screen elevation is 3257.92 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

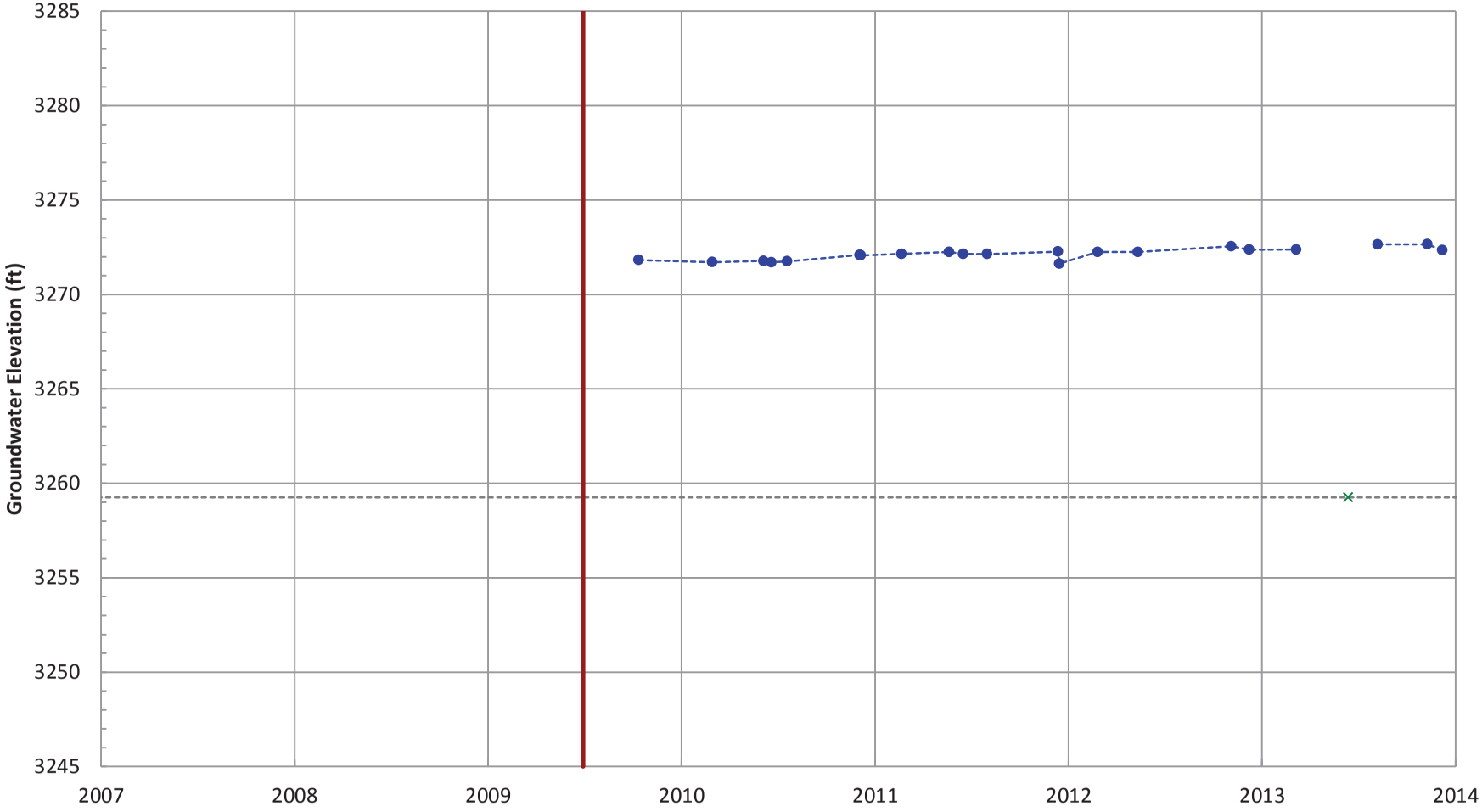
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: N/A (No Measurements)
2012 - 2014 Data: N/A (No Measurements)

PTX06-ISB085A
Hydrograph in Perched Aquifer

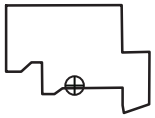


Notes:
1. The top of screen elevation is 3279.26 ft msl.
2. The bottom of screen elevation is 3259.26 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

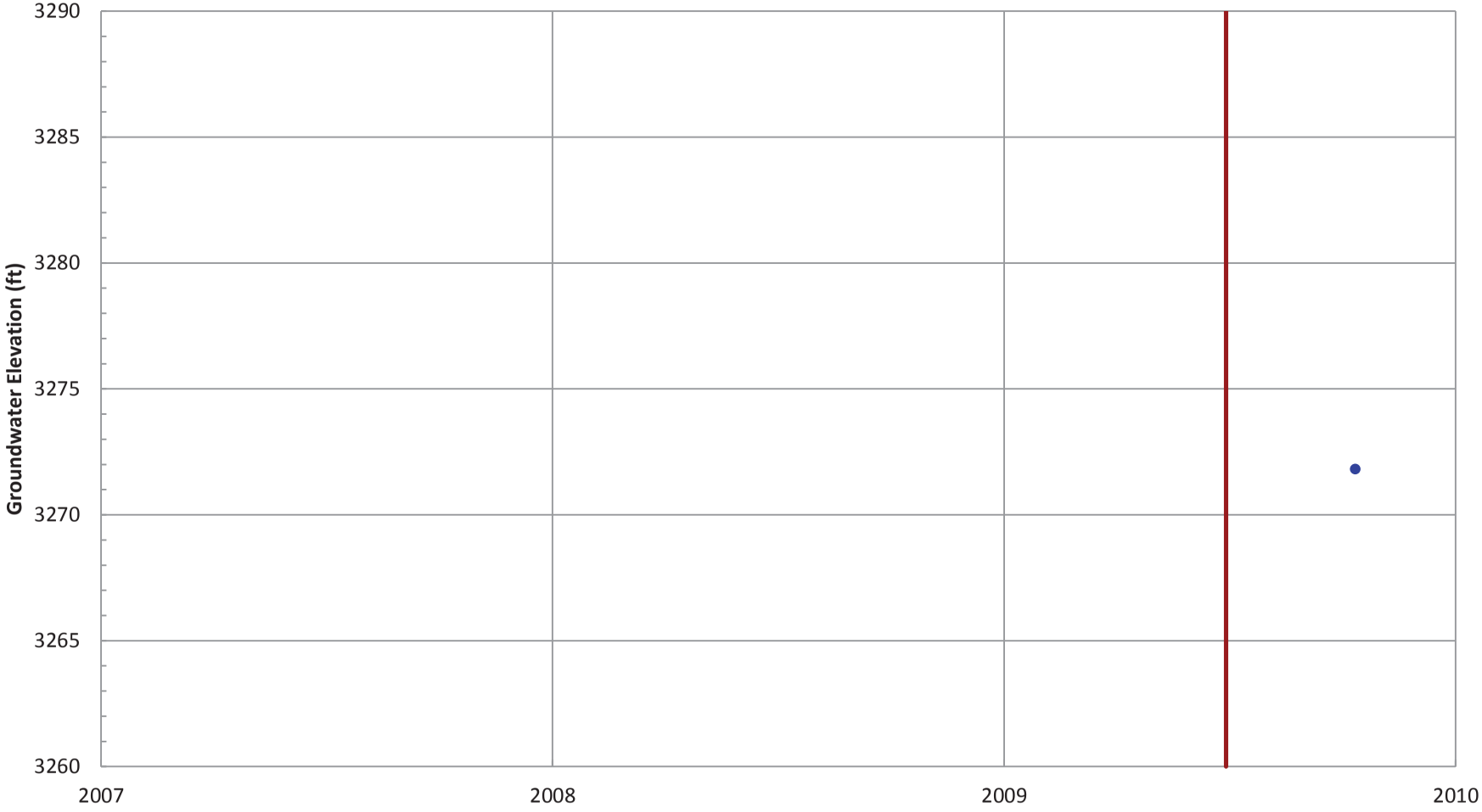
Groundwater Elevation
Bottom of Screen Elevation
No Water Detected
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Increasing at 0.21 ft/yr
2012 - 2014 Data: Increasing at 0.11 ft/yr

PTX06-ISB086
Hydrograph in Perched Aquifer



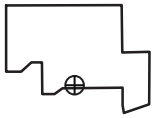
Notes:
1. The top of screen elevation is 3278.7 ft msl.
2. The bottom of screen elevation is 3258.7 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

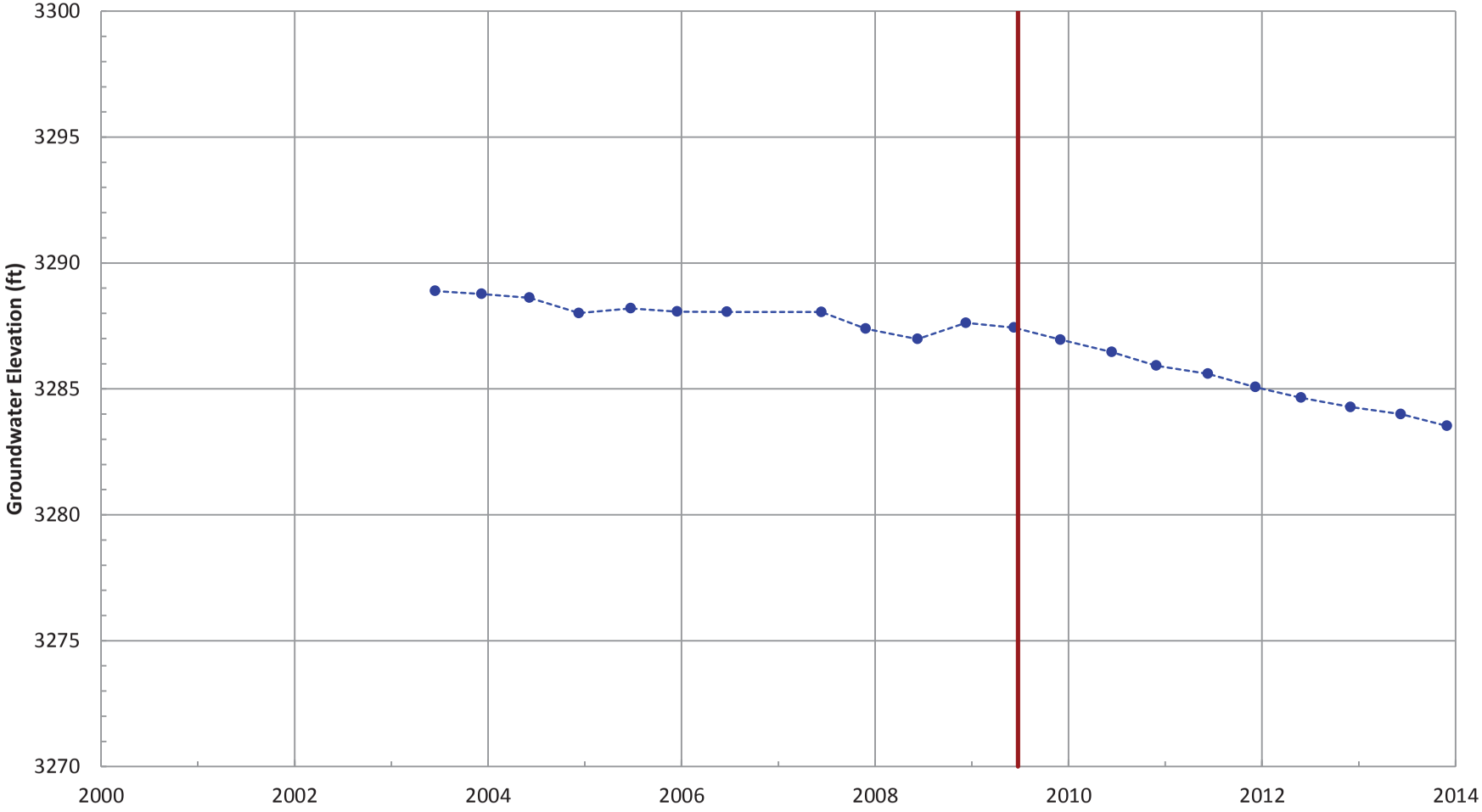
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: N/A (No Measurements)
2012 - 2014 Data: N/A (No Measurements)

PTX06-PZ01
Hydrograph in Perched Aquifer



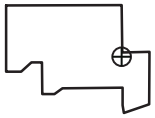
Notes:
1. The top of screen elevation is 3288.44 ft msl.
2. The bottom of screen elevation is 3269.44 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

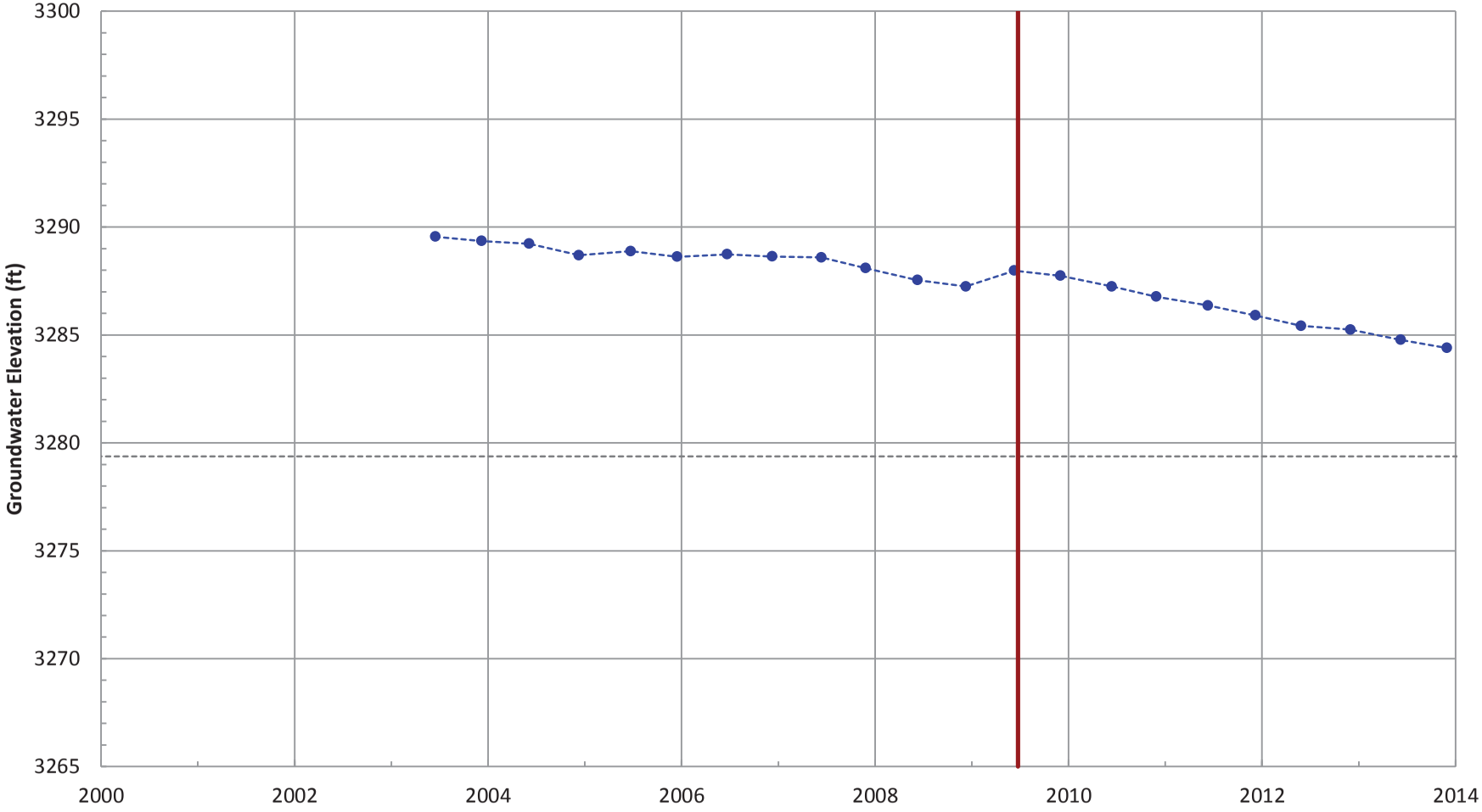
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.48 ft/yr
2012 - 2014 Data: N/A (<3 Measurements)

PTX06-PZ02
Hydrograph in Perched Aquifer

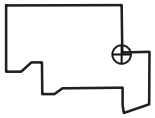


Notes:
1. The top of screen elevation is 3303.87 ft msl.
2. The bottom of screen elevation is 3279.37 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

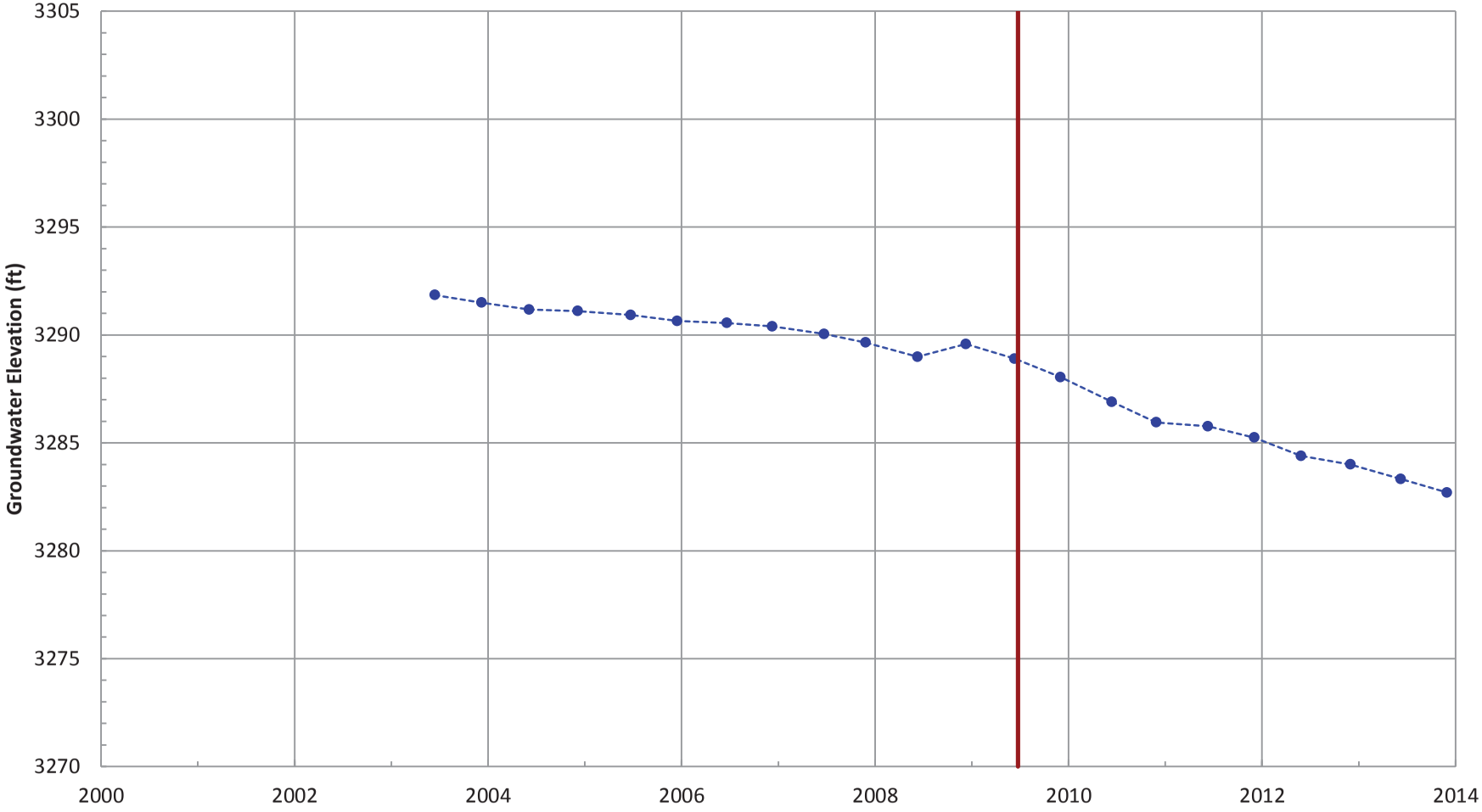
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.46 ft/yr
2012 - 2014 Data: N/A (<3 Measurements)

PTX06-PZ03
Hydrograph in Perched Aquifer



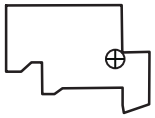
Notes:
1. The top of screen elevation is 3294.14 ft msl.
2. The bottom of screen elevation is 3265.64 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

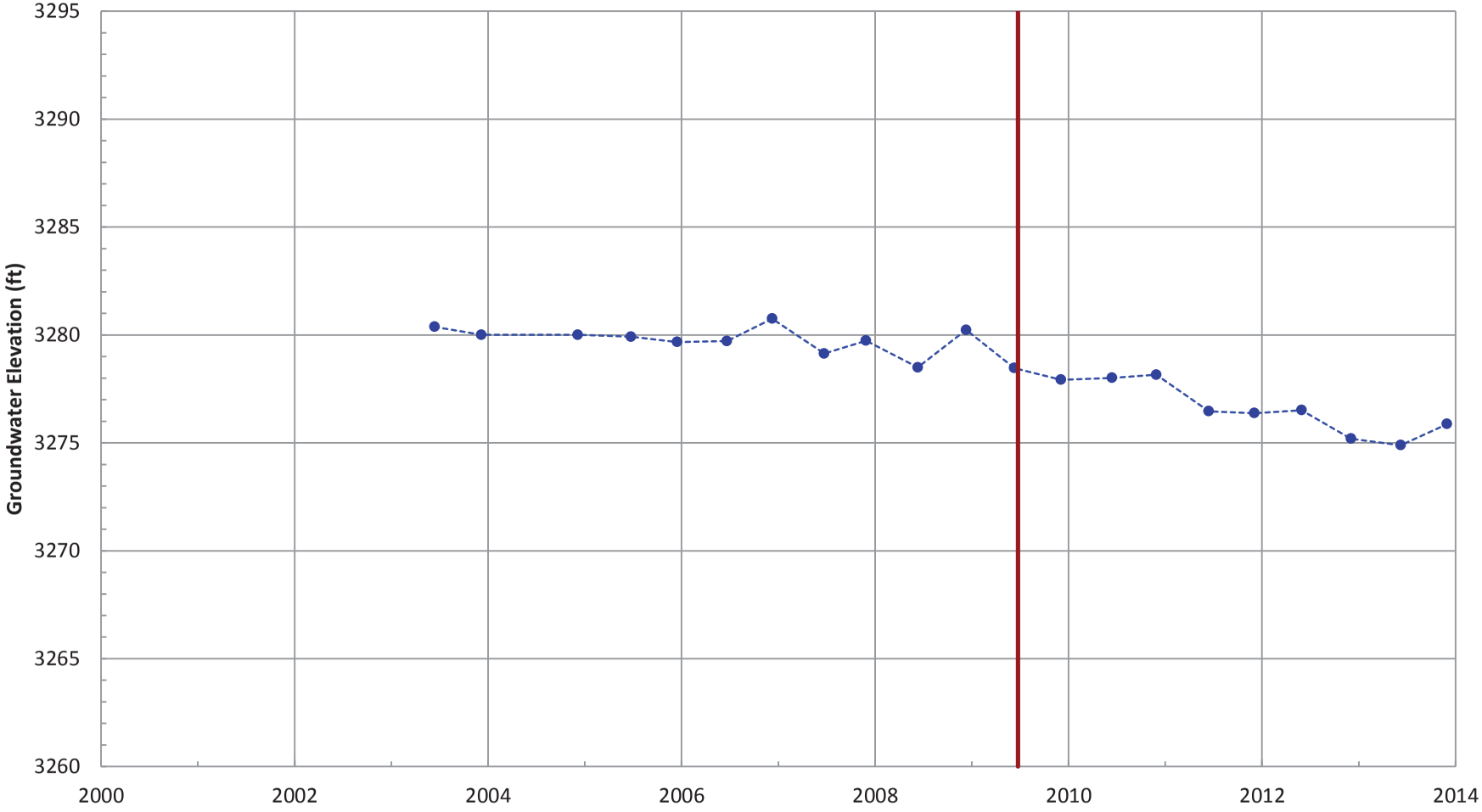
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.88 ft/yr
2012 - 2014 Data: N/A (<3 Measurements)

PTX06-PZ05
Hydrograph in Perched Aquifer



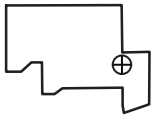
Notes:
1. The top of screen elevation is 3299.45 ft msl.
2. The bottom of screen elevation is 3259.45 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

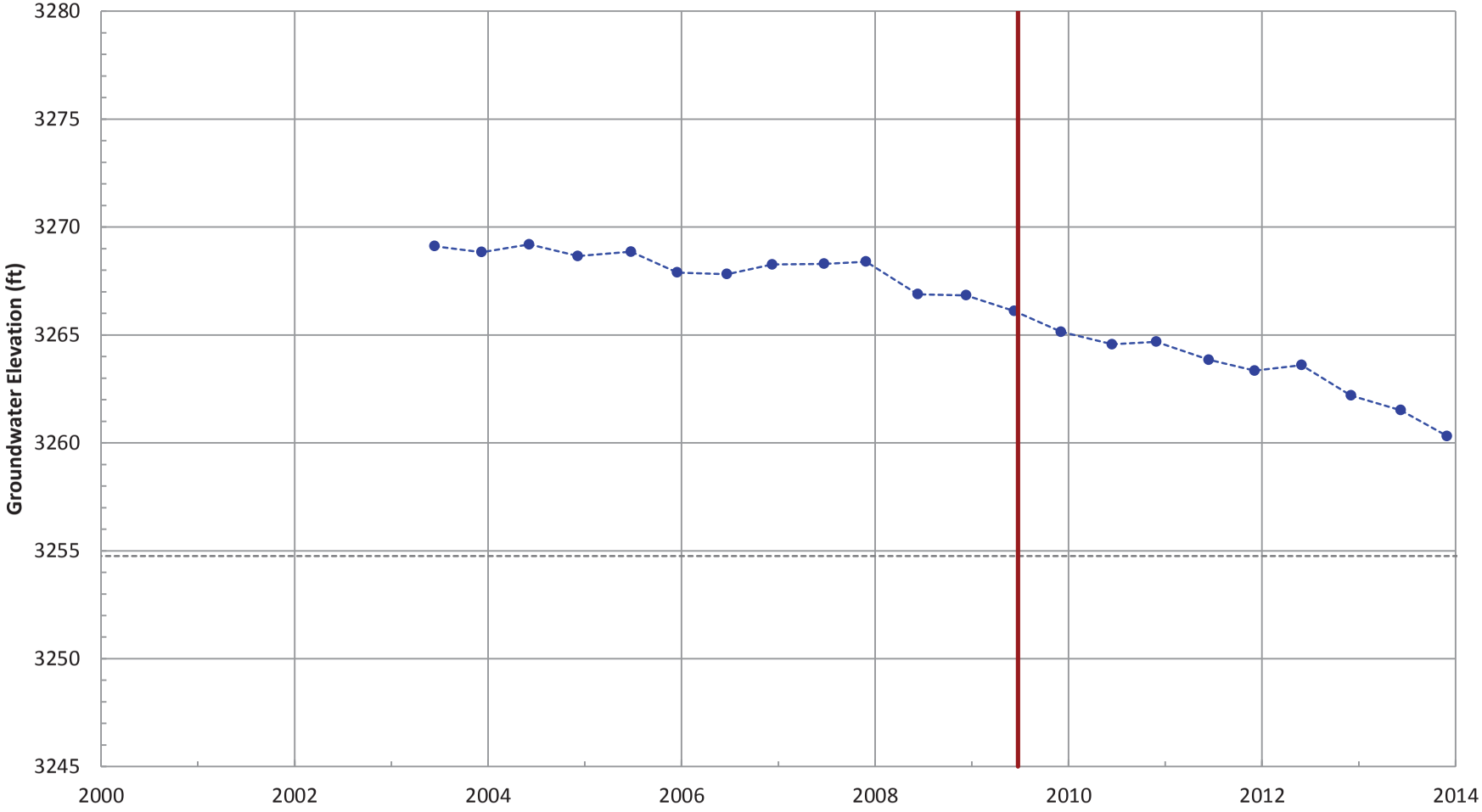
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.52 ft/yr
2012 - 2014 Data: N/A (<3 Measurements)

PTX06-PZ06
Hydrograph in Perched Aquifer

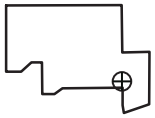


Notes:
1. The top of screen elevation is 3294.76 ft msl.
2. The bottom of screen elevation is 3254.76 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

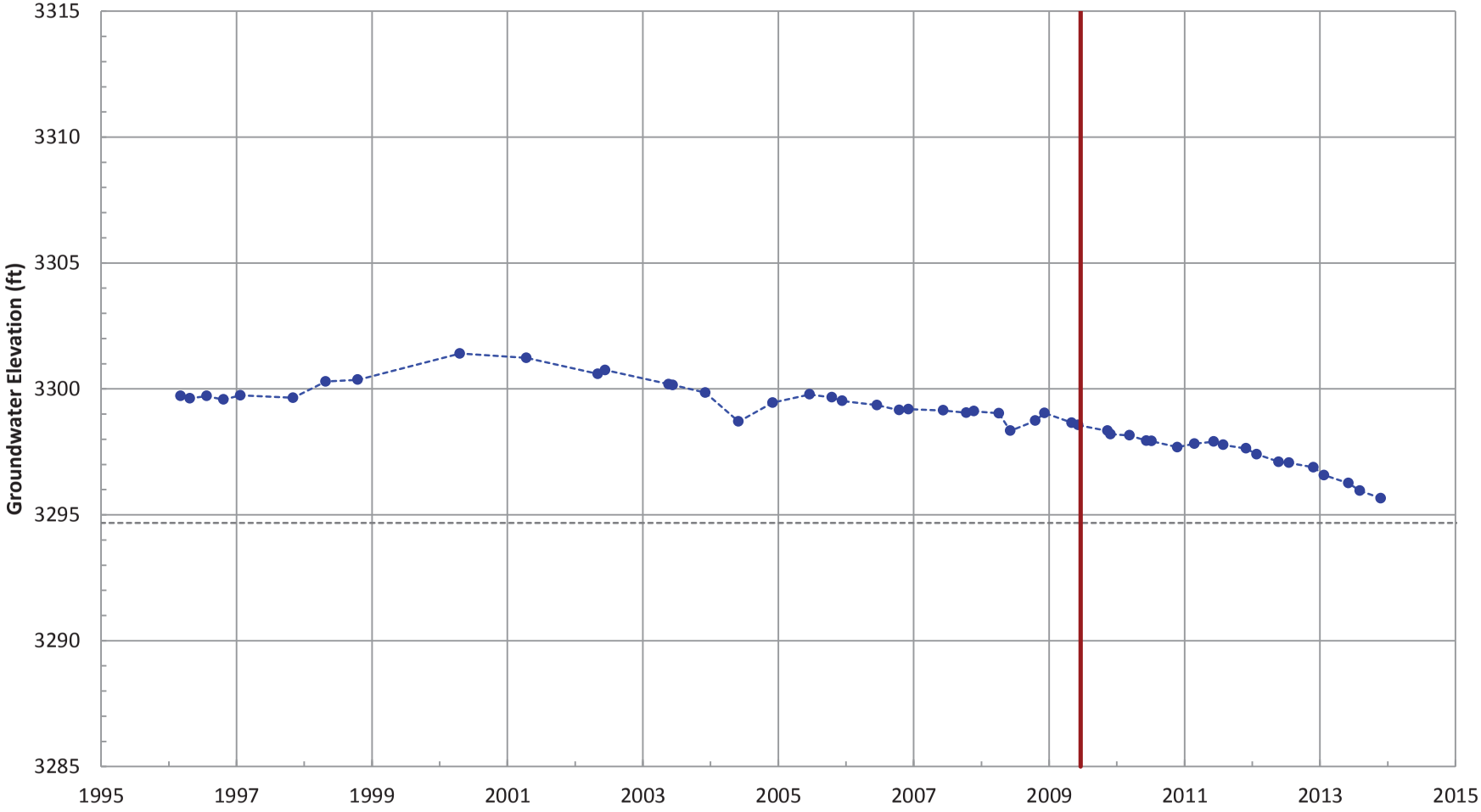
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.80 ft/yr
2012 - 2014 Data: N/A (<3 Measurements)

PTX07-1O01
Hydrograph in Perched Aquifer

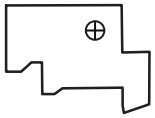


Notes:
1. The top of screen elevation is 3314.68 ft msl.
2. The bottom of screen elevation is 3294.68 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

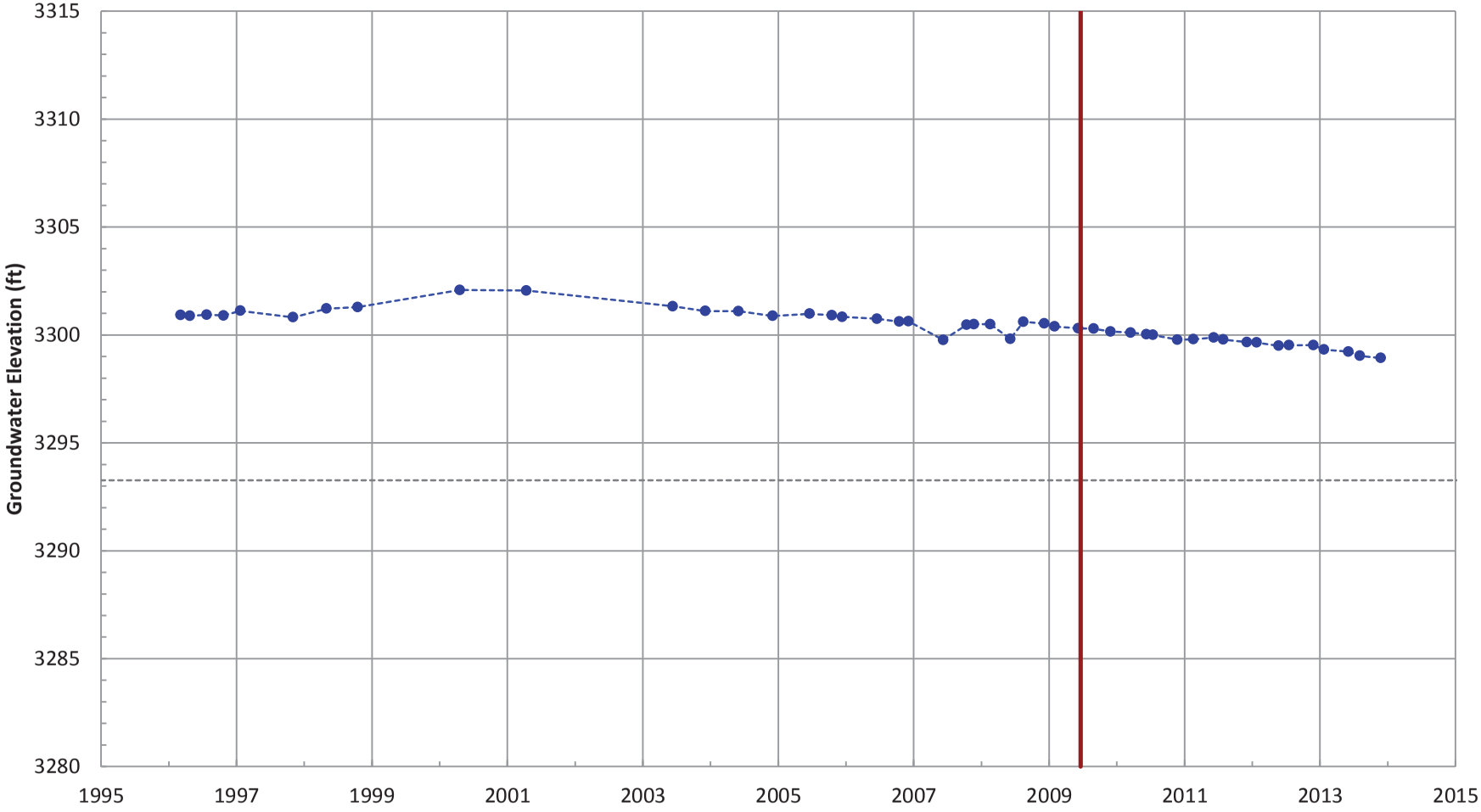
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.21 ft/yr
2012 - 2014 Data: Decreasing at 1.12 ft/yr

PTX07-1O02
Hydrograph in Perched Aquifer

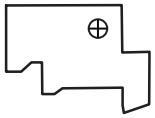


Notes:
1. The top of screen elevation is 3318.26 ft msl.
2. The bottom of screen elevation is 3293.26 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

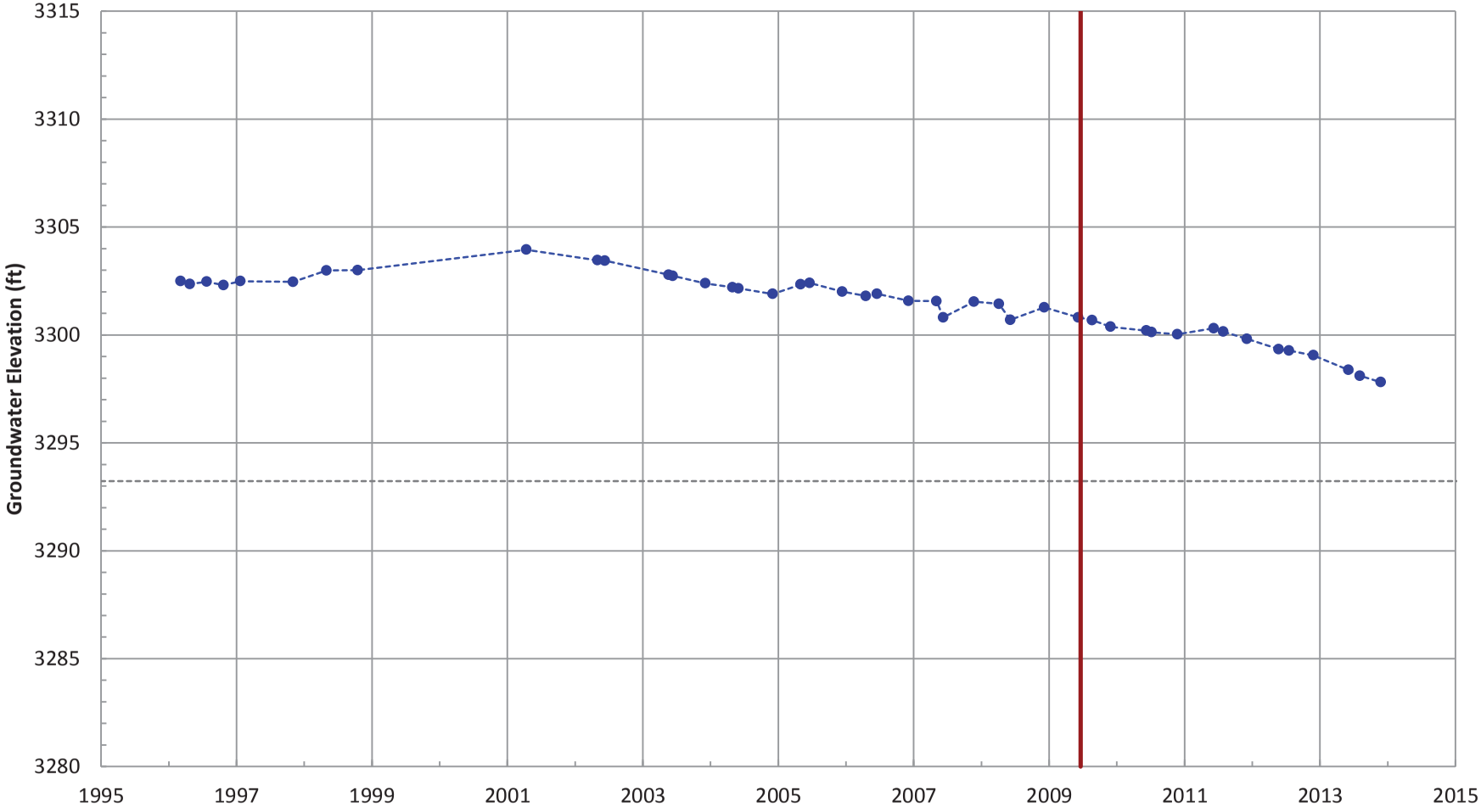
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.11 ft/yr
2012 - 2014 Data: Decreasing at 0.49 ft/yr

PTX07-1O03
Hydrograph in Perched Aquifer

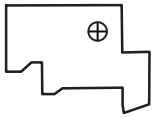


Notes:
1. The top of screen elevation is 3318.22 ft msl.
2. The bottom of screen elevation is 3293.22 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

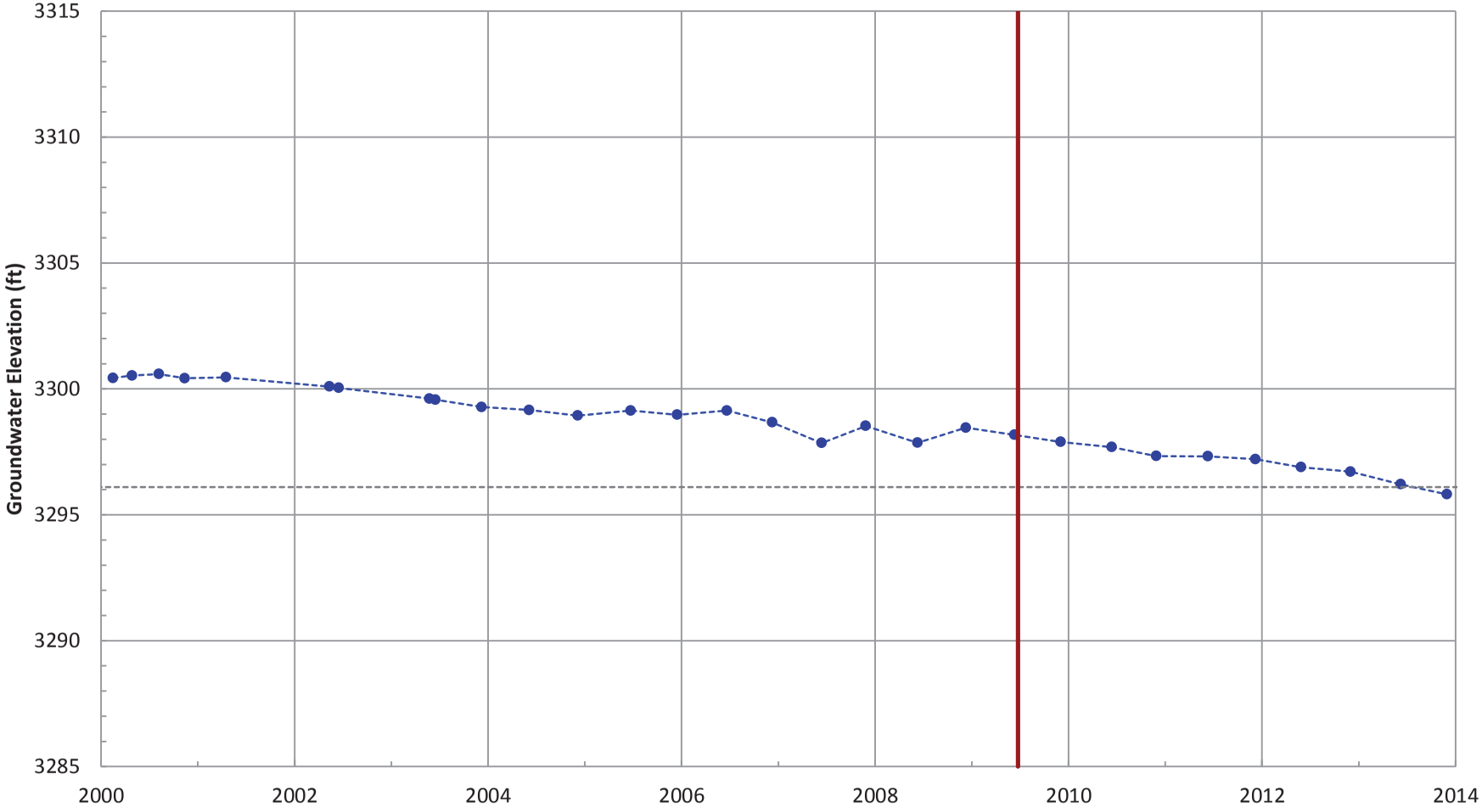
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.24 ft/yr
2012 - 2014 Data: Decreasing at 1.16 ft/yr

PTX07-1O04
Hydrograph in Perched Aquifer

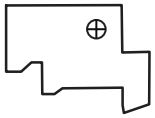


Notes:
1. The top of screen elevation is 3336.1 ft msl.
2. The bottom of screen elevation is 3296.1 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

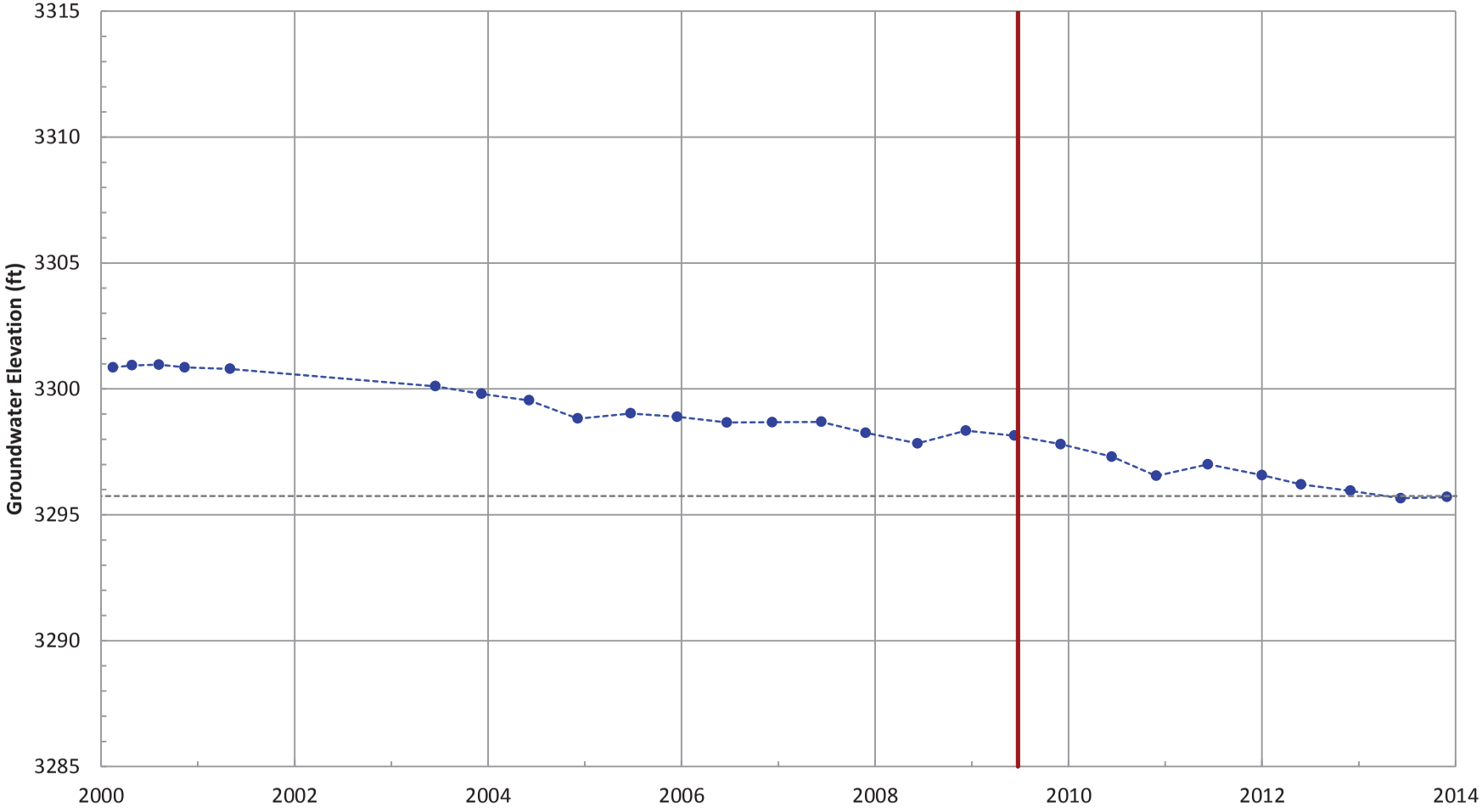
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.31 ft/yr
2012 - 2014 Data: N/A (<3 Measurements)

PTX07-1O05
Hydrograph in Perched Aquifer

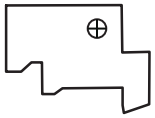


Notes:
1. The top of screen elevation is 3335.74 ft msl.
2. The bottom of screen elevation is 3295.74 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

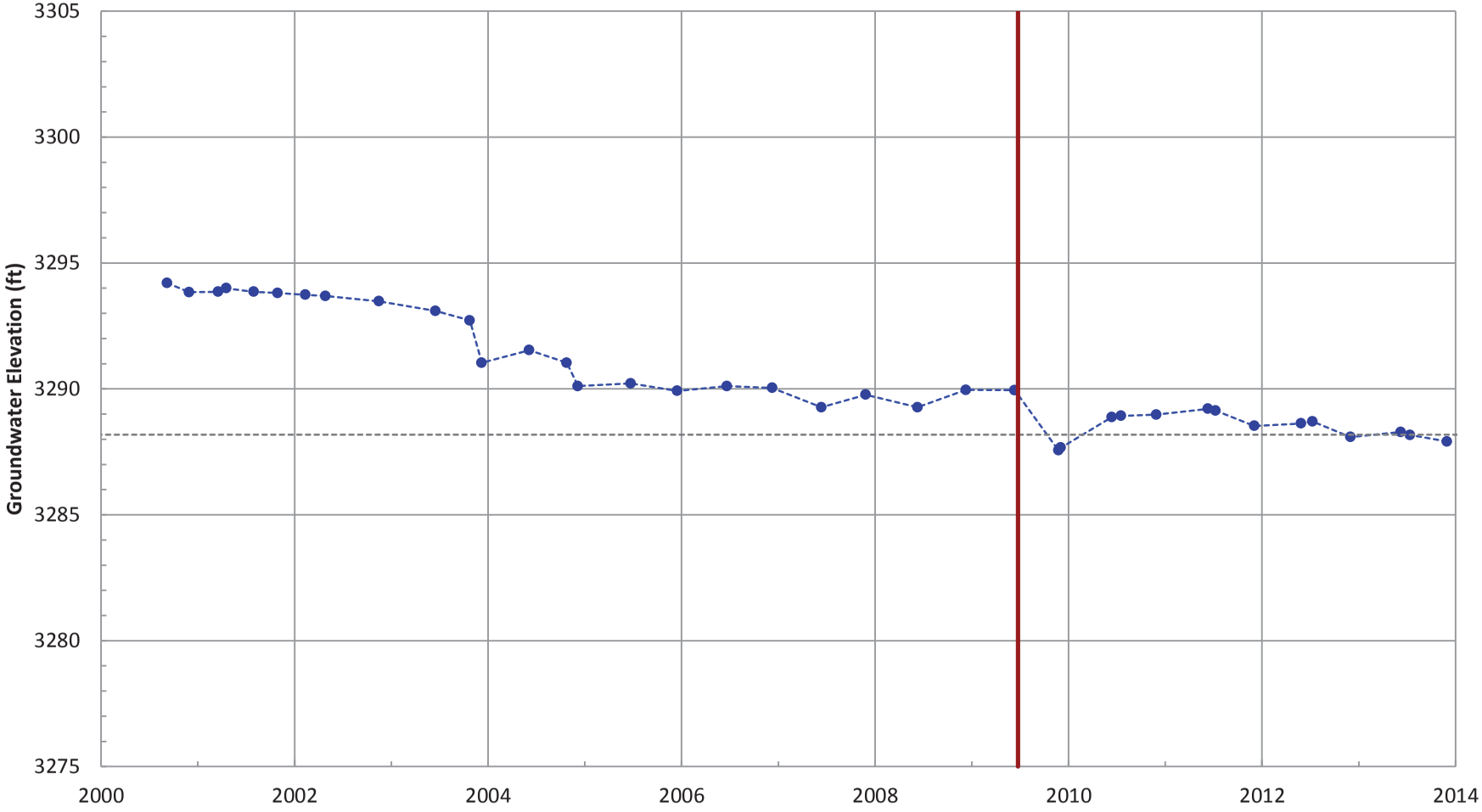
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.39 ft/yr
2012 - 2014 Data: N/A (<3 Measurements)

PTX07-1O06
Hydrograph in Perched Aquifer

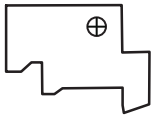


Notes:
1. The top of screen elevation is 3308.18 ft msl.
2. The bottom of screen elevation is 3288.18 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

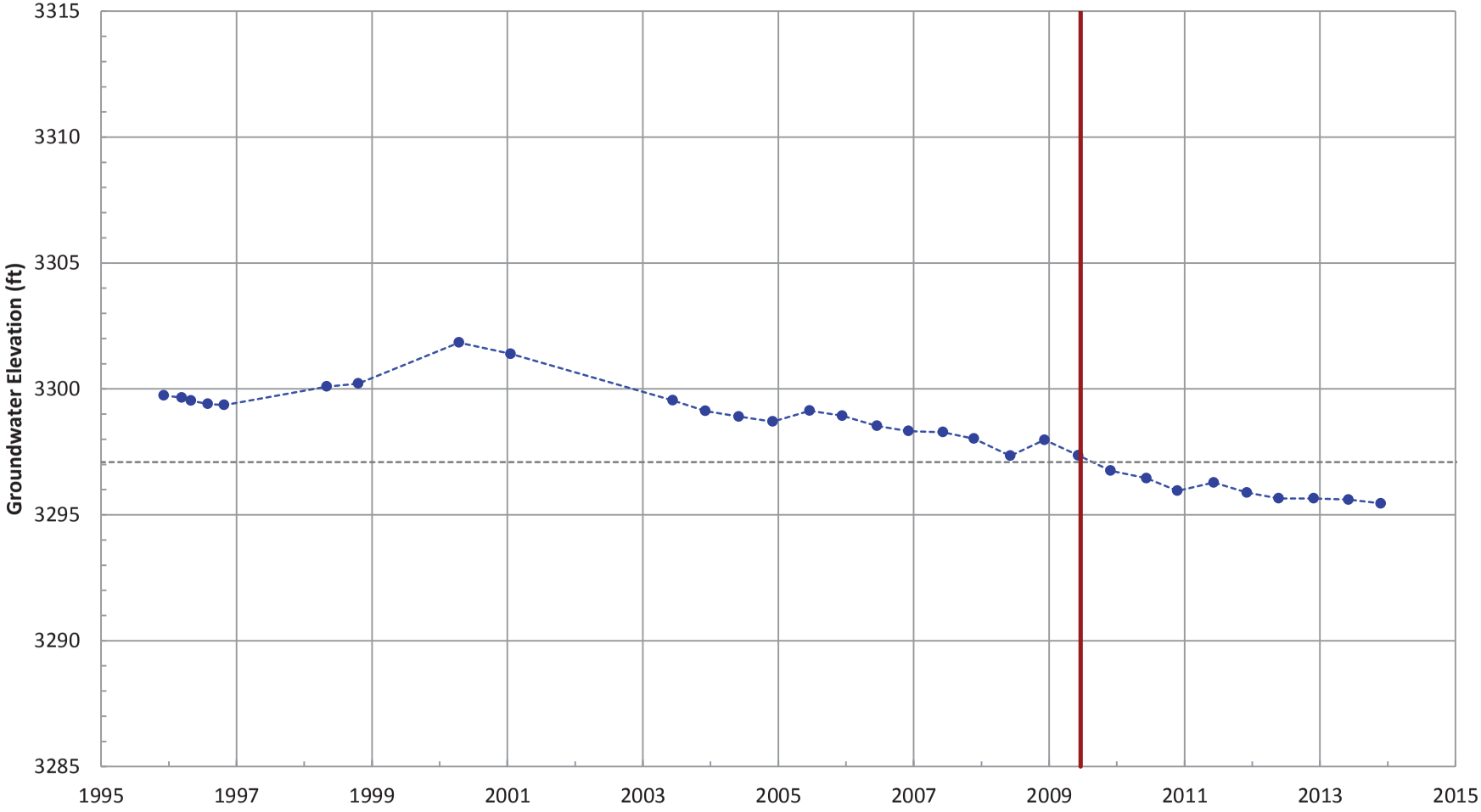
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.48 ft/yr
2012 - 2014 Data: Decreasing at 0.76 ft/yr

PTX07-1P01
Hydrograph in Perched Aquifer



Notes:
1. The top of screen elevation is 3312.09 ft msl.
2. The bottom of screen elevation is 3297.09 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

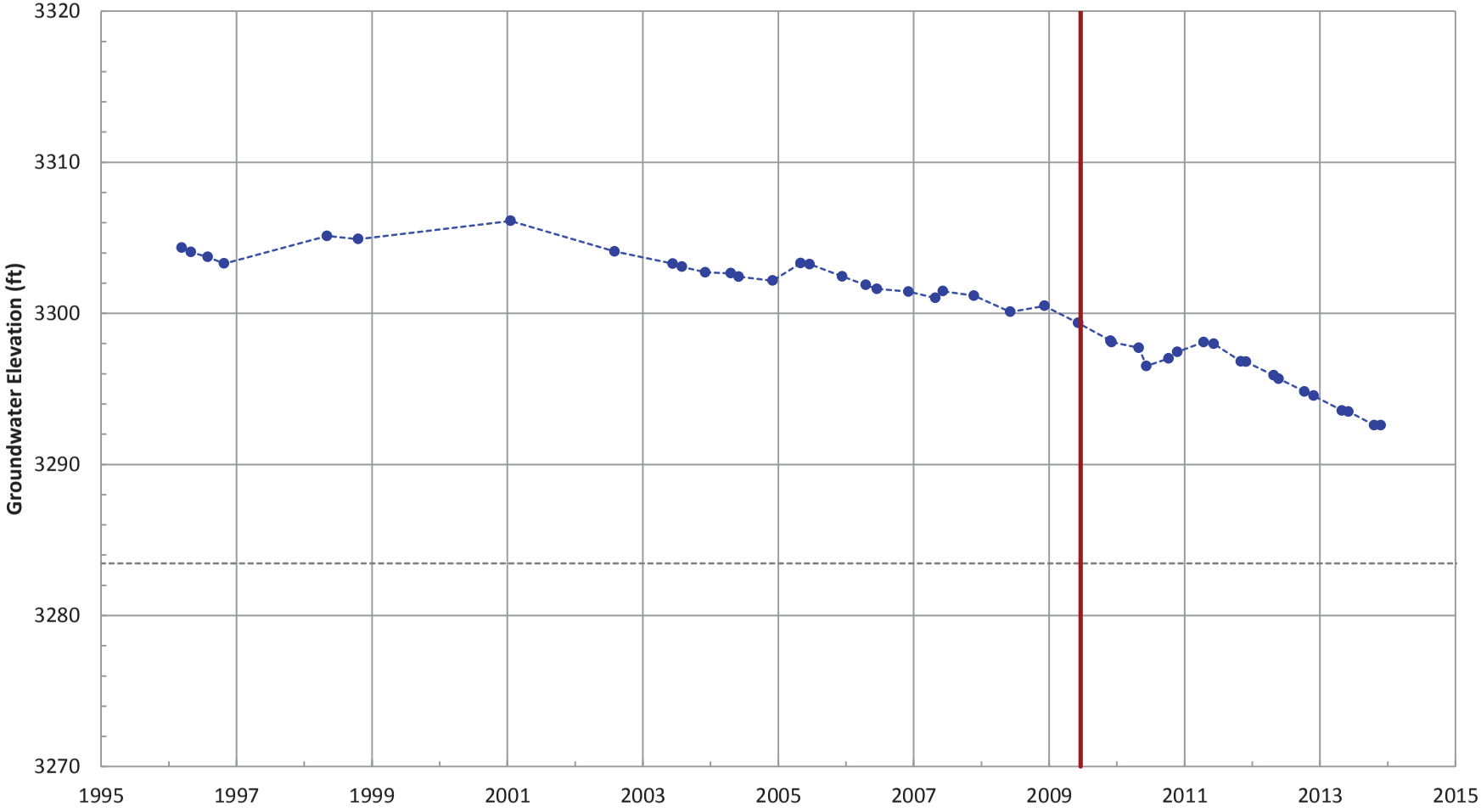
Analysis Date: 3/20/2014

Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location

Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.27 ft/yr
2012 - 2014 Data: N/A (<3 Measurements)

PTX07-1P02
Hydrograph in Perched Aquifer

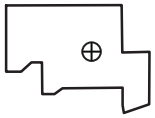


Notes:
1. The top of screen elevation is 3308.46 ft msl.
2. The bottom of screen elevation is 3283.46 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

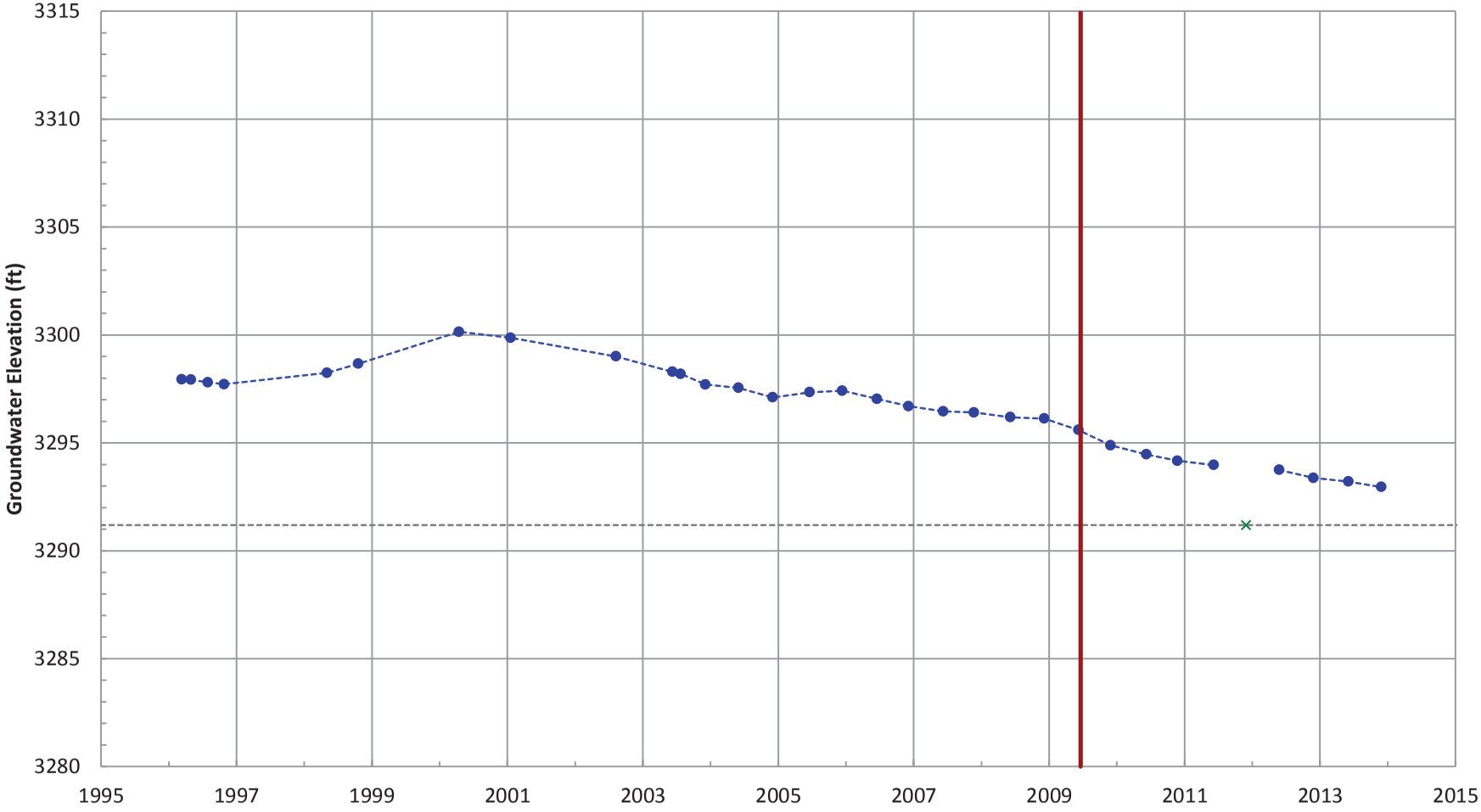
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.65 ft/yr
2012 - 2014 Data: Decreasing at 1.89 ft/yr

PTX07-1P03
Hydrograph in Perched Aquifer



Notes:
1. The top of screen elevation is 3311.18 ft msl.
2. The bottom of screen elevation is 3291.18 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

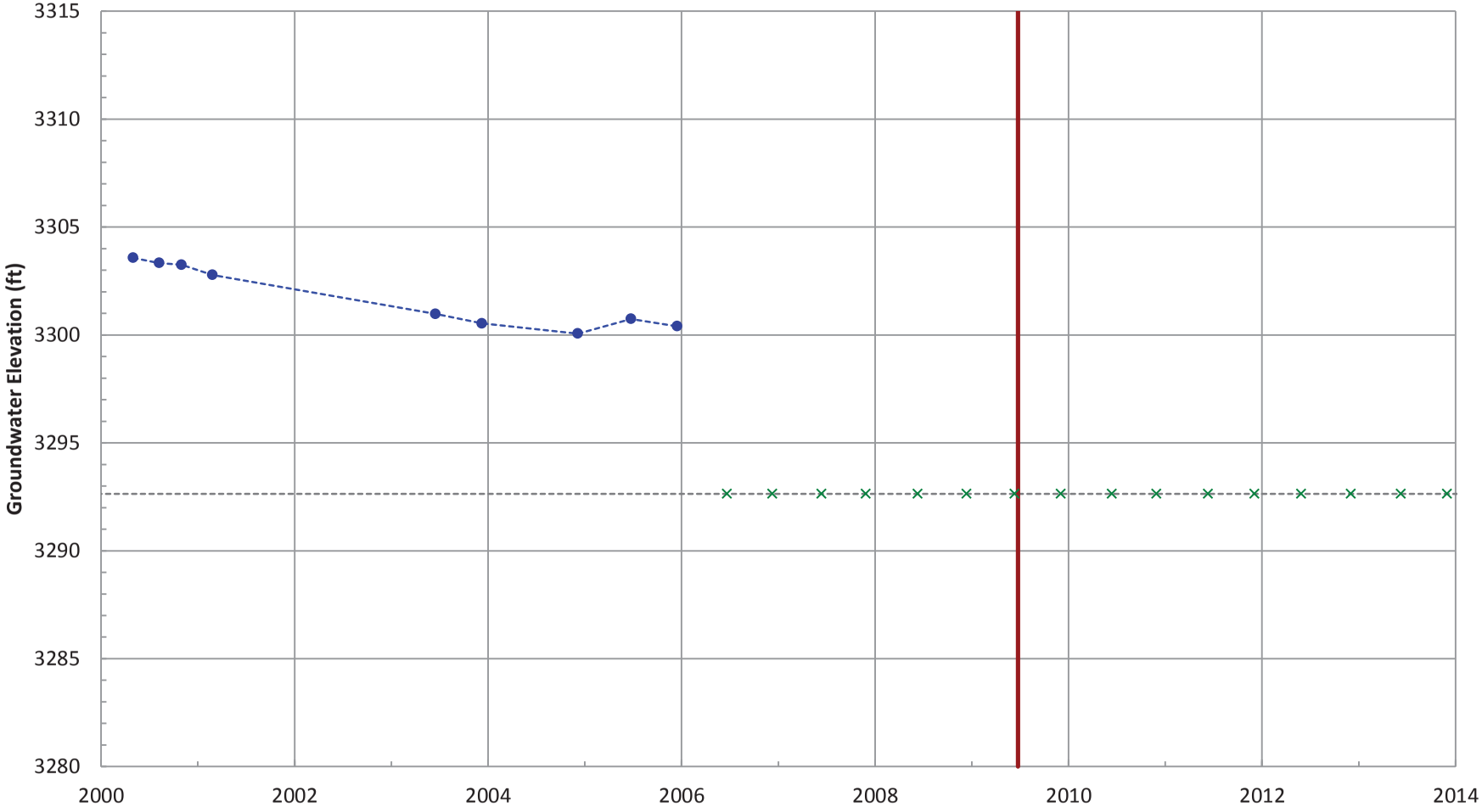
Analysis Date: 3/20/2014

Groundwater Elevation
Bottom of Screen Elevation
No Water Detected
Start of Remedial Action

Well Location

Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.31 ft/yr
2012 - 2014 Data: N/A (<3 Measurements)

PTX07-1P04
Hydrograph in Perched Aquifer

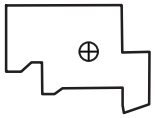


Notes:
1. The top of screen elevation is 3332.64 ft msl.
2. The bottom of screen elevation is 3292.64 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

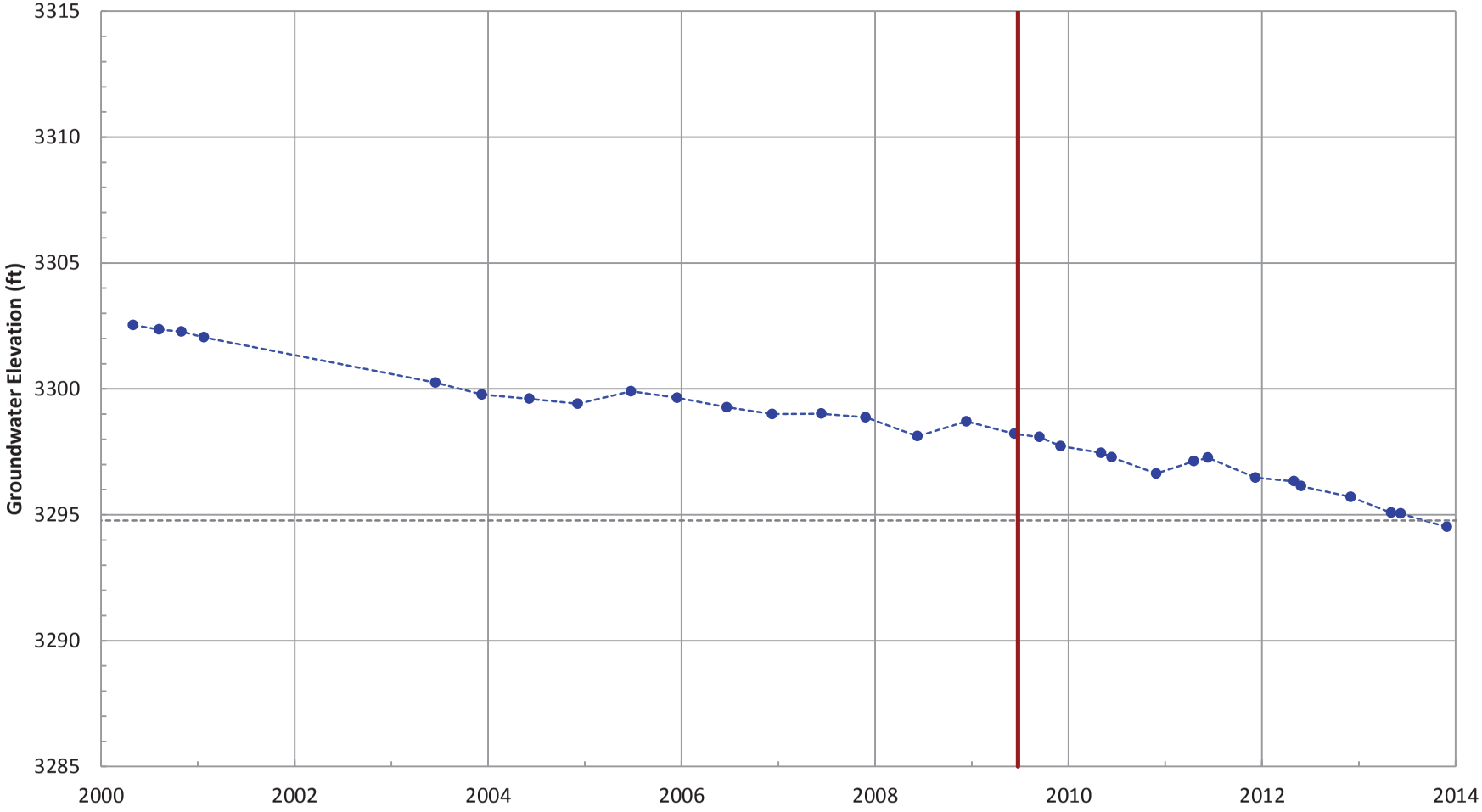
Groundwater Elevation
Bottom of Screen Elevation
No Water Detected
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.61 ft/yr
2012 - 2014 Data: N/A (No Measurements)

PTX07-1P05
Hydrograph in Perched Aquifer

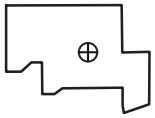


Notes:
1. The top of screen elevation is 3334.77 ft msl.
2. The bottom of screen elevation is 3294.77 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

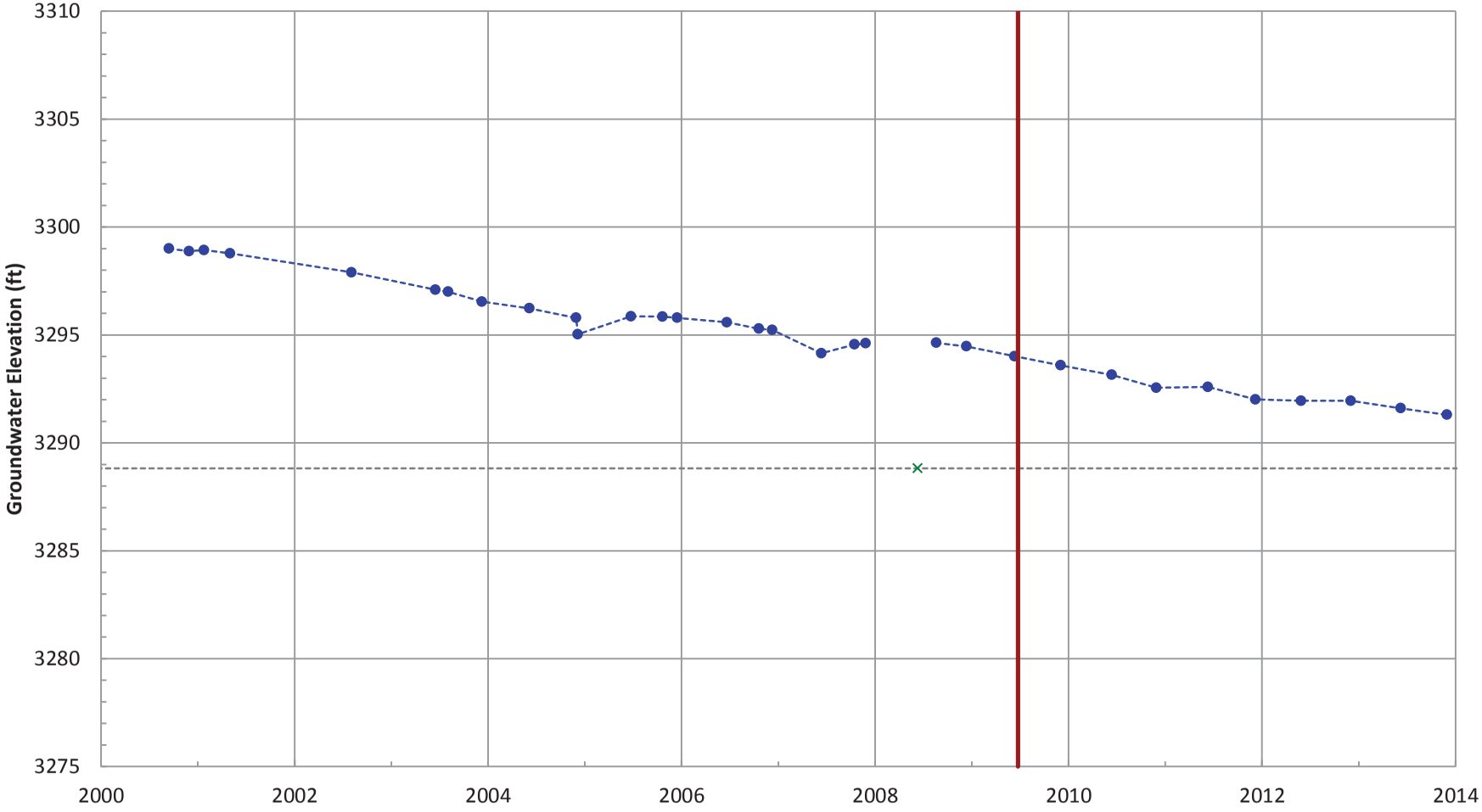
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.51 ft/yr
2012 - 2014 Data: Decreasing at 1.01 ft/yr

PTX07-1P06
Hydrograph in Perched Aquifer

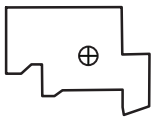


Notes:
1. The top of screen elevation is 3308.82 ft msl.
2. The bottom of screen elevation is 3288.82 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

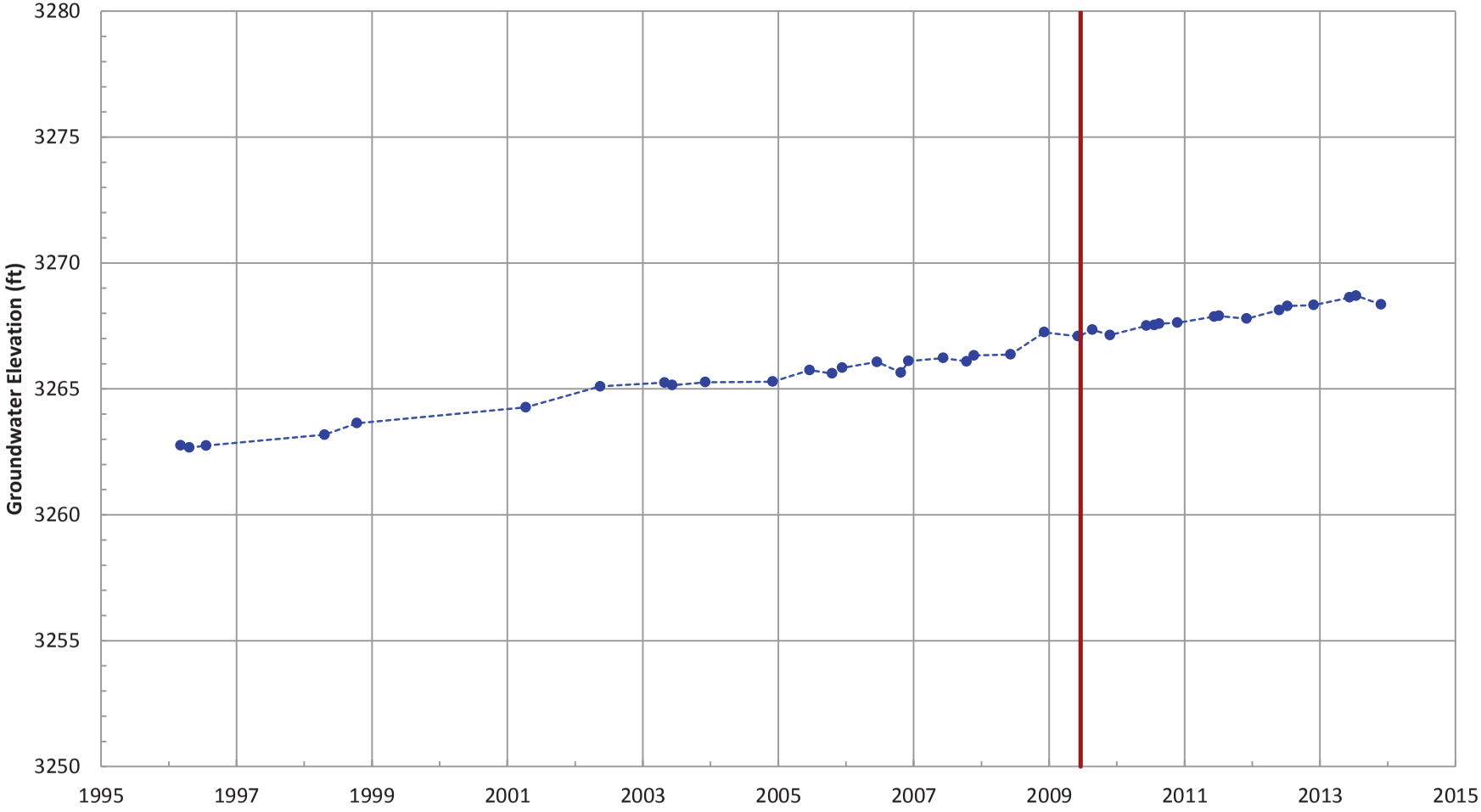
Groundwater Elevation
Bottom of Screen Elevation
No Water Detected
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.57 ft/yr
2012 - 2014 Data: N/A (<3 Measurements)

PTX07-1Q01
Hydrograph in Perched Aquifer



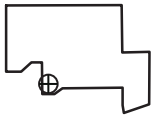
Notes:
1. The top of screen elevation is 3274.86 ft msl.
2. The bottom of screen elevation is 3249.86 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

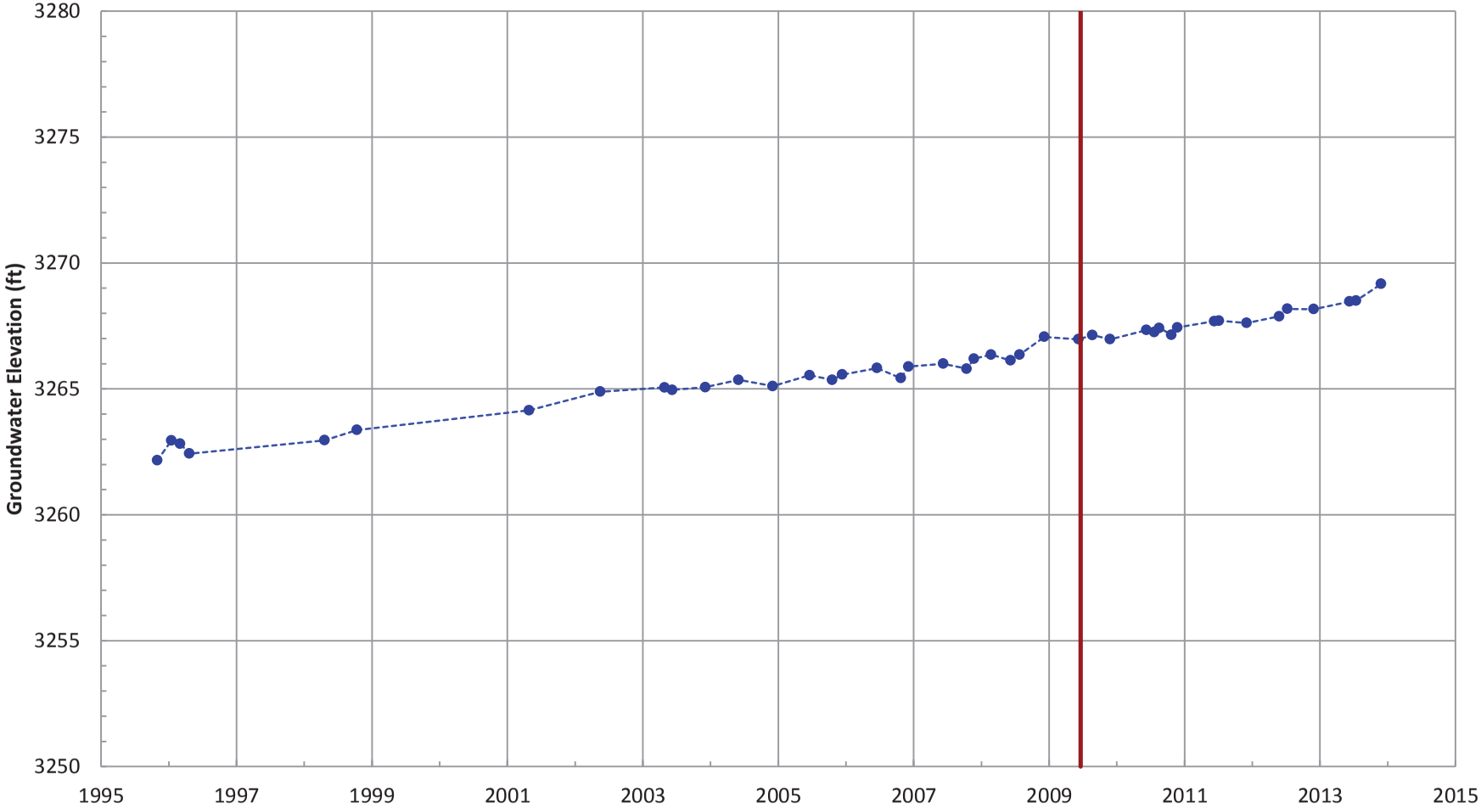
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Increasing at 0.34 ft/yr
2012 - 2014 Data: Decreasing at 0.70 ft/yr

PTX07-1Q02
Hydrograph in Perched Aquifer



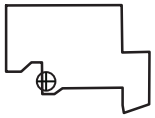
Notes:
1. The top of screen elevation is 3267.94 ft msl.
2. The bottom of screen elevation is 3237.94 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

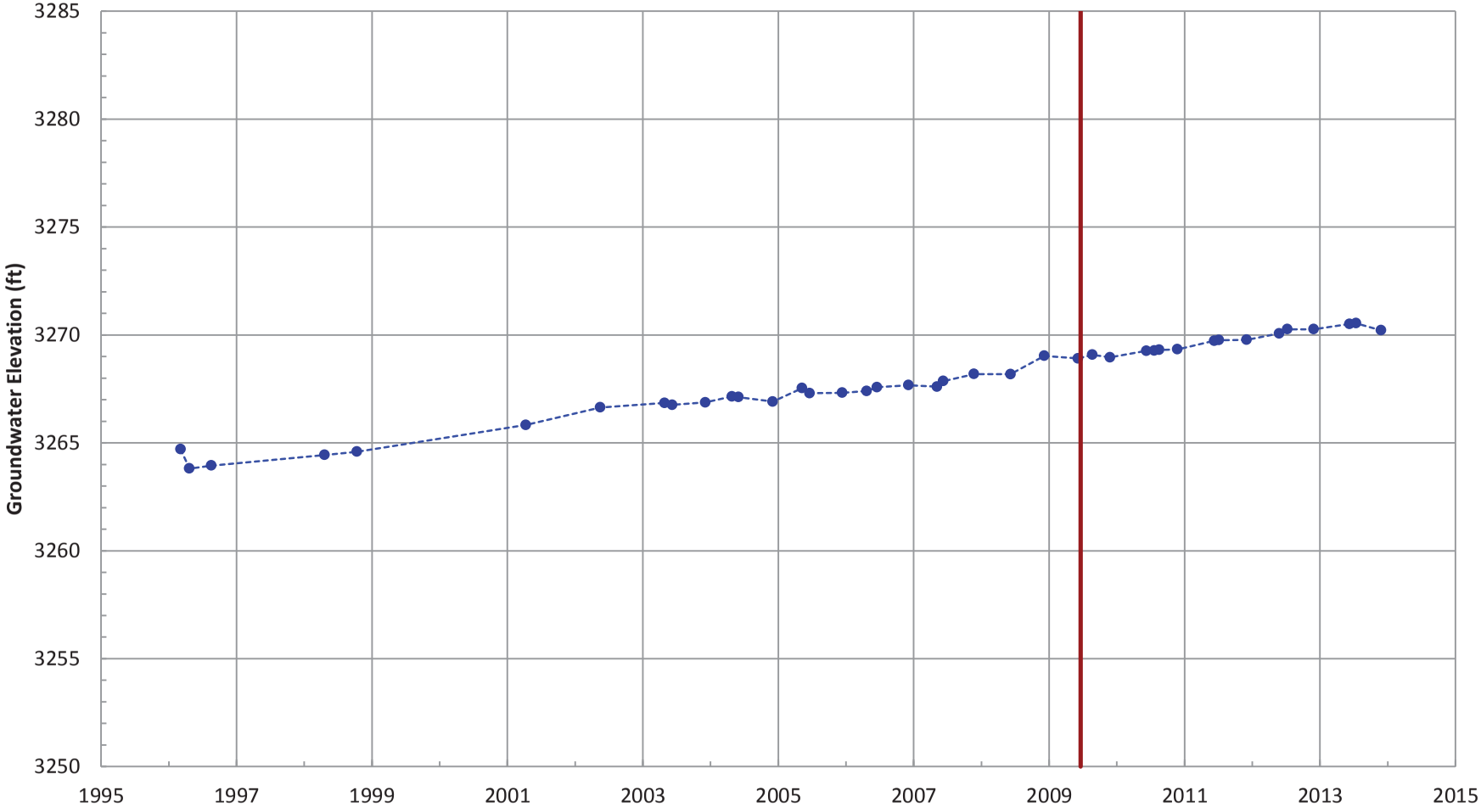
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Increasing at 0.34 ft/yr
2012 - 2014 Data: Increasing at 1.58 ft/yr

PTX07-1Q03
Hydrograph in Perched Aquifer



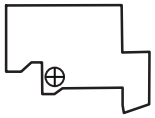
Notes:
1. The top of screen elevation is 3278.29 ft msl.
2. The bottom of screen elevation is 3228.29 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

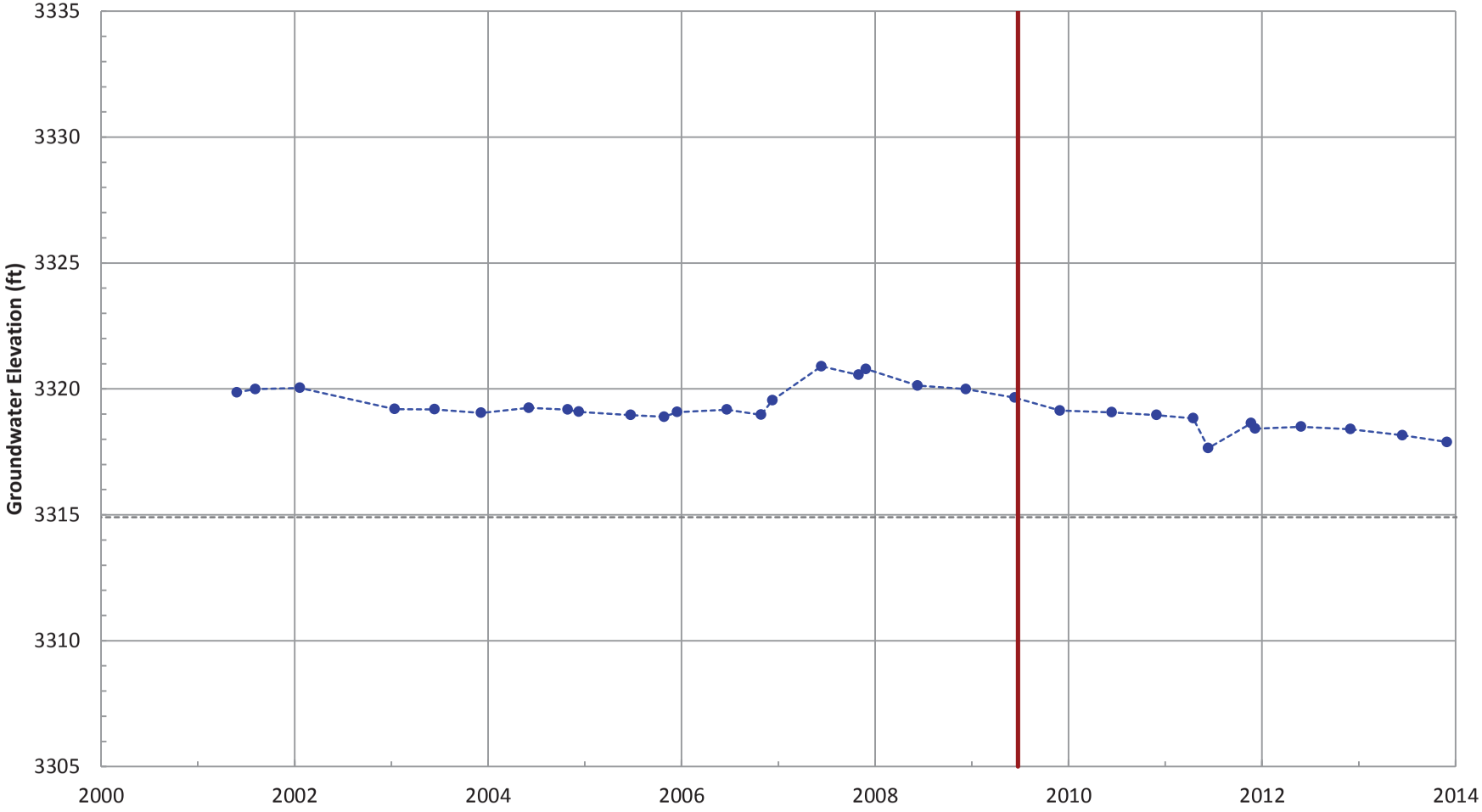
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Increasing at 0.37 ft/yr
2012 - 2014 Data: Decreasing at 0.71 ft/yr

PTX07-1R03
Hydrograph in Perched Aquifer

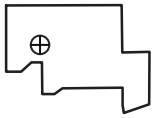


Notes:
1. The top of screen elevation is 3334.9 ft msl.
2. The bottom of screen elevation is 3314.9 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

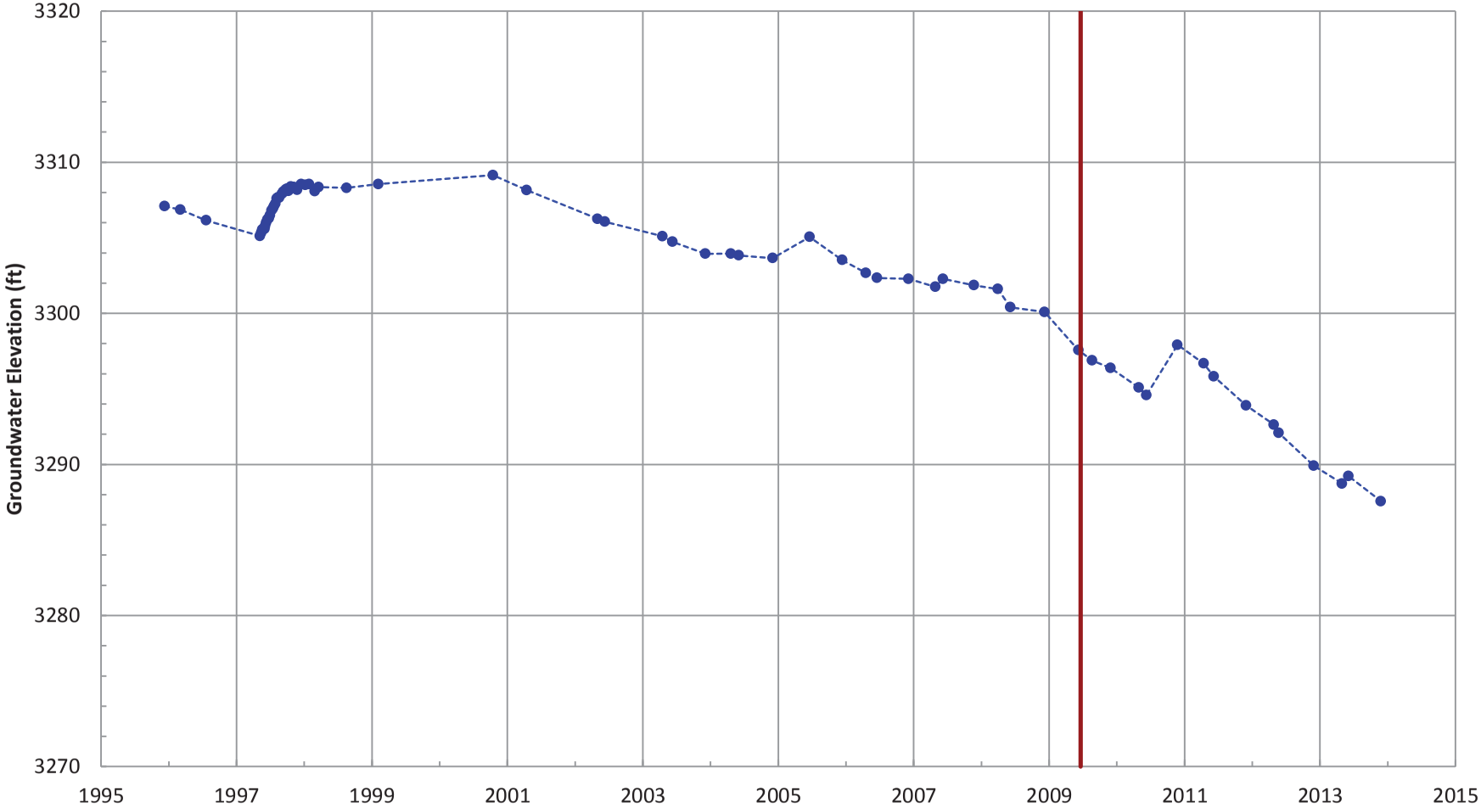
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.11 ft/yr
2012 - 2014 Data: N/A (<3 Measurements)

PTX08-1001
Hydrograph in Perched Aquifer



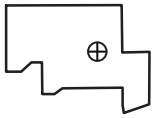
Notes:
1. The top of screen elevation is 3286.63 ft msl.
2. The bottom of screen elevation is 3241.63 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

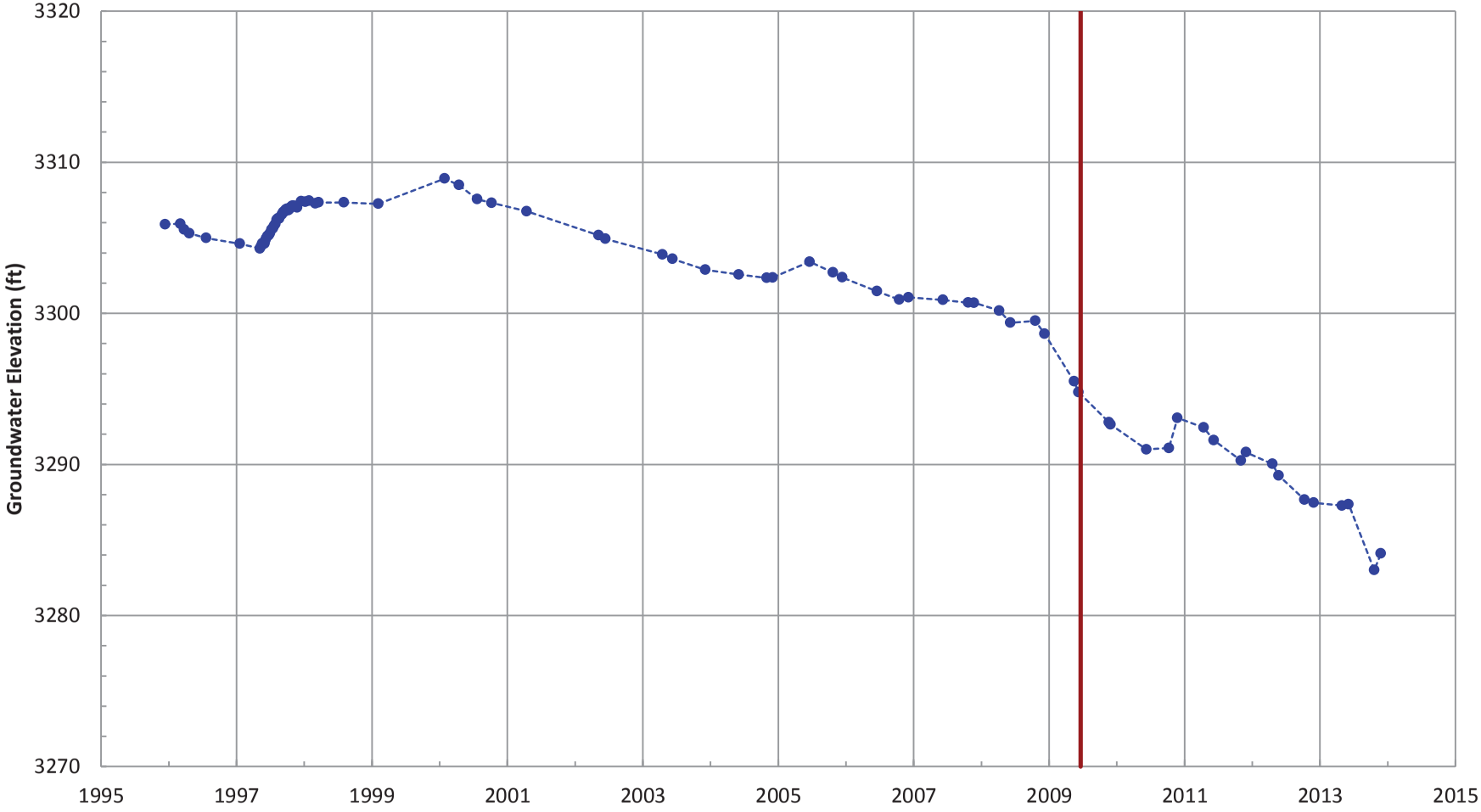
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.90 ft/yr
2012 - 2014 Data: Decreasing at 2.49 ft/yr

PTX08-1002
Hydrograph in Perched Aquifer



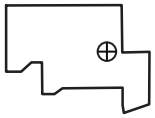
Notes:
1. The top of screen elevation is 3289.71 ft msl.
2. The bottom of screen elevation is 3254.71 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

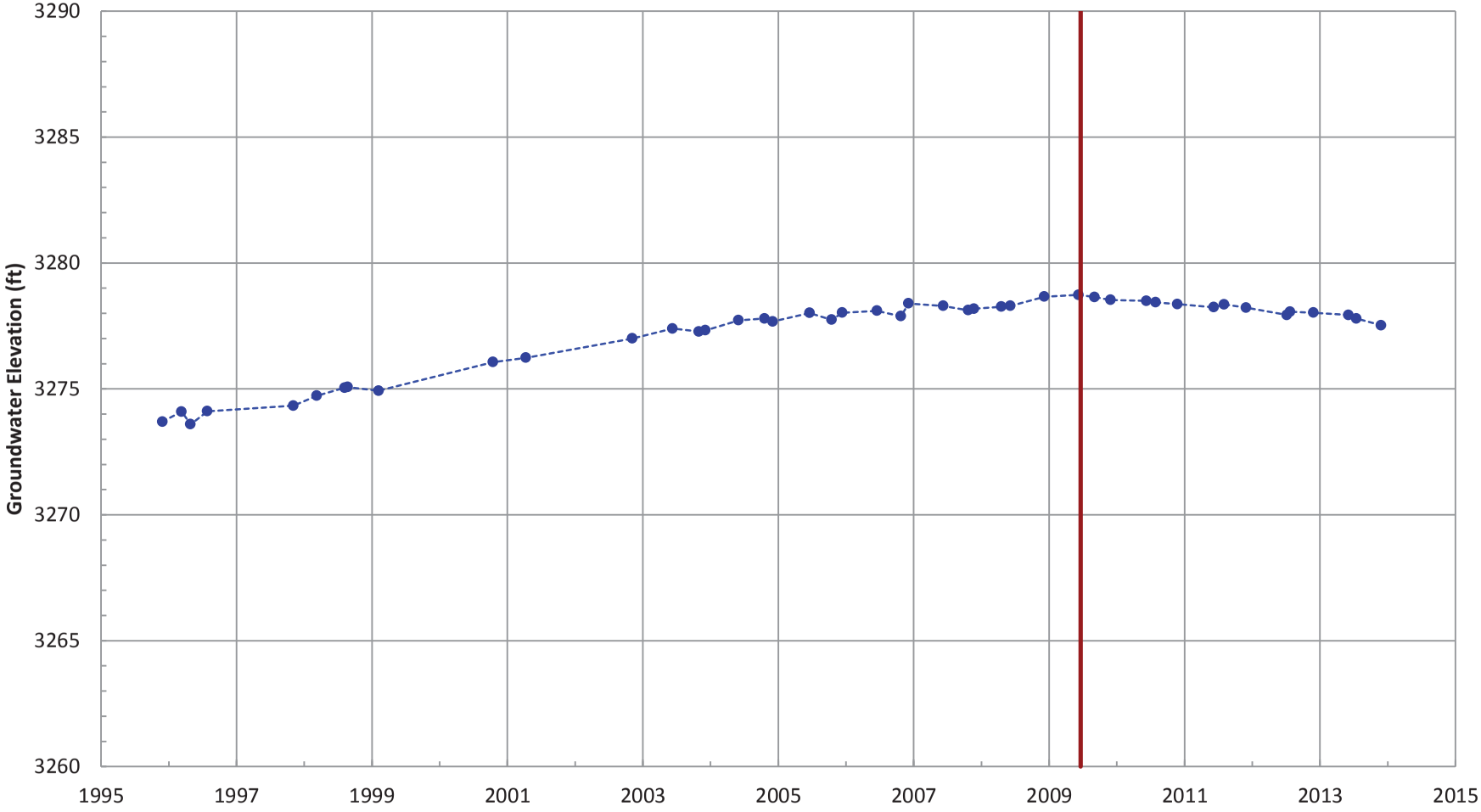
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 1.03 ft/yr
2012 - 2014 Data: Decreasing at 7.30 ft/yr

PTX08-1003
Hydrograph in Perched Aquifer



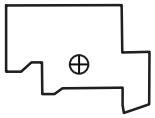
Notes:
1. The top of screen elevation is 3284.39 ft msl.
2. The bottom of screen elevation is 3254.39 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

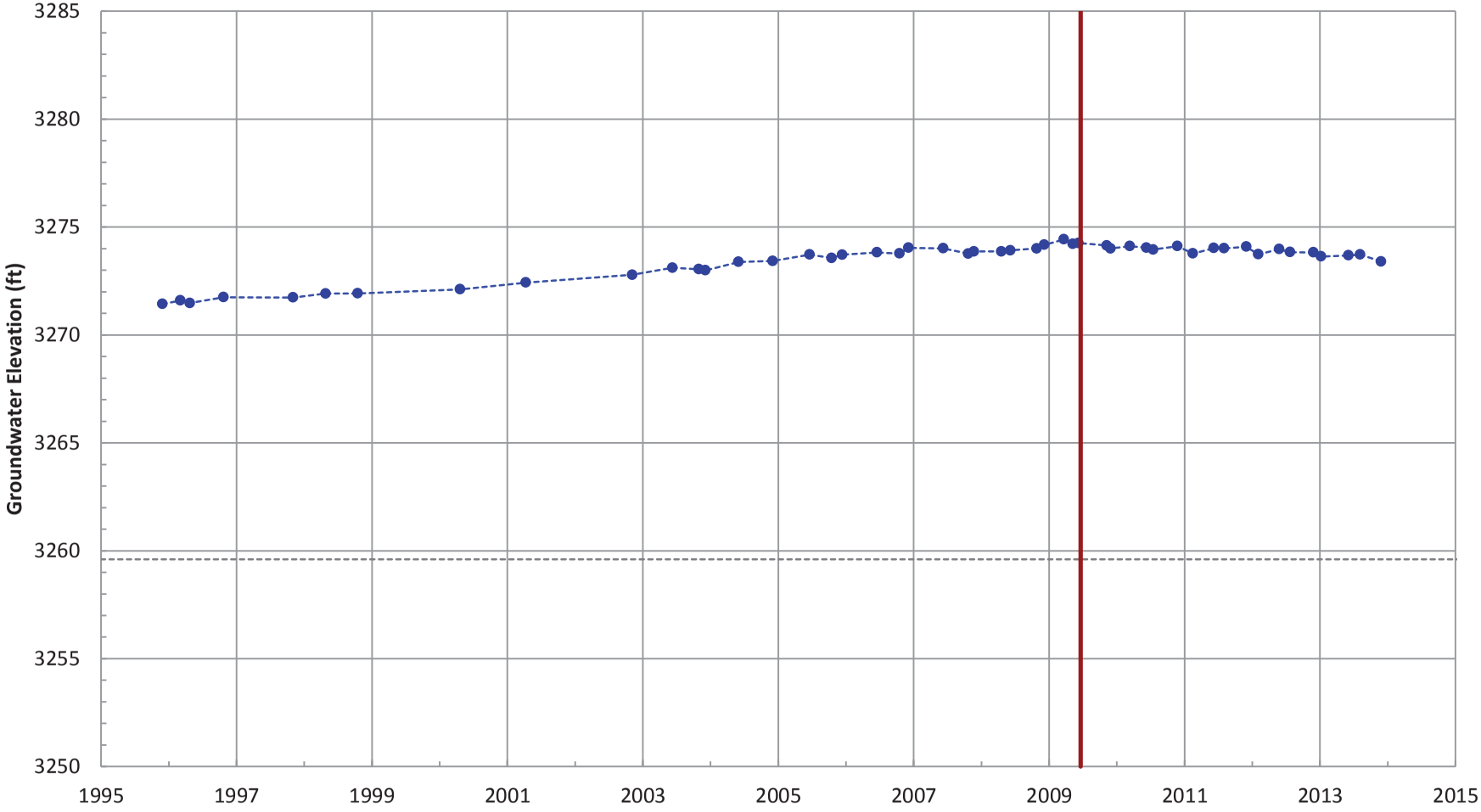
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Increasing at 0.25 ft/yr
2012 - 2014 Data: Decreasing at 0.82 ft/yr

PTX08-1005
Hydrograph in Perched Aquifer

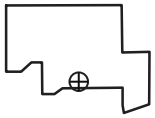


Notes:
1. The top of screen elevation is 3279.61 ft msl.
2. The bottom of screen elevation is 3259.61 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

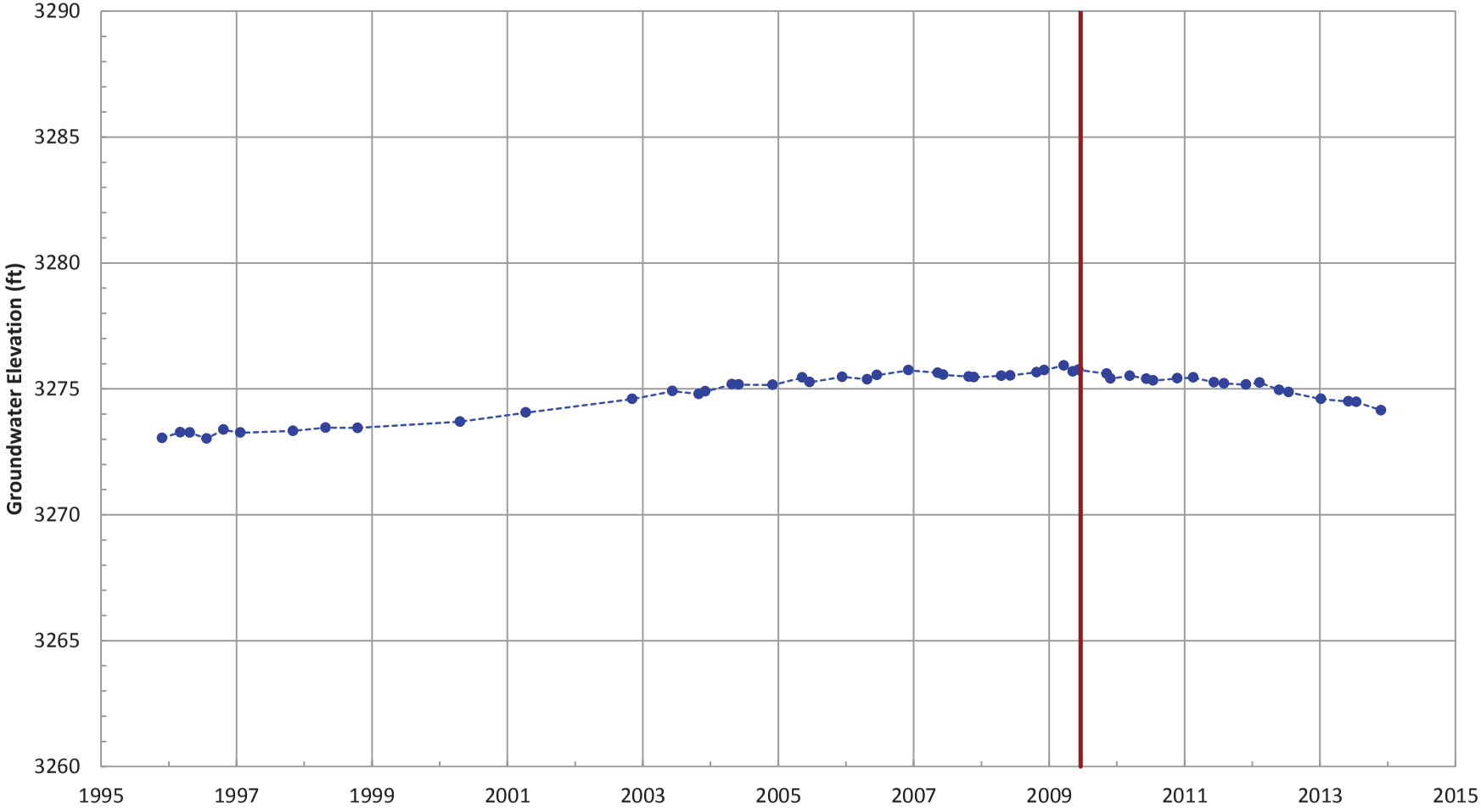
Groundwater Elevation
Bottom of Screen Elevation
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Increasing at 0.14 ft/yr
2012 - 2014 Data: Decreasing at 0.22 ft/yr

PTX08-1006
Hydrograph in Perched Aquifer



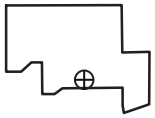
Notes:
1. The top of screen elevation is 3285.96 ft msl.
2. The bottom of screen elevation is 3240.96 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

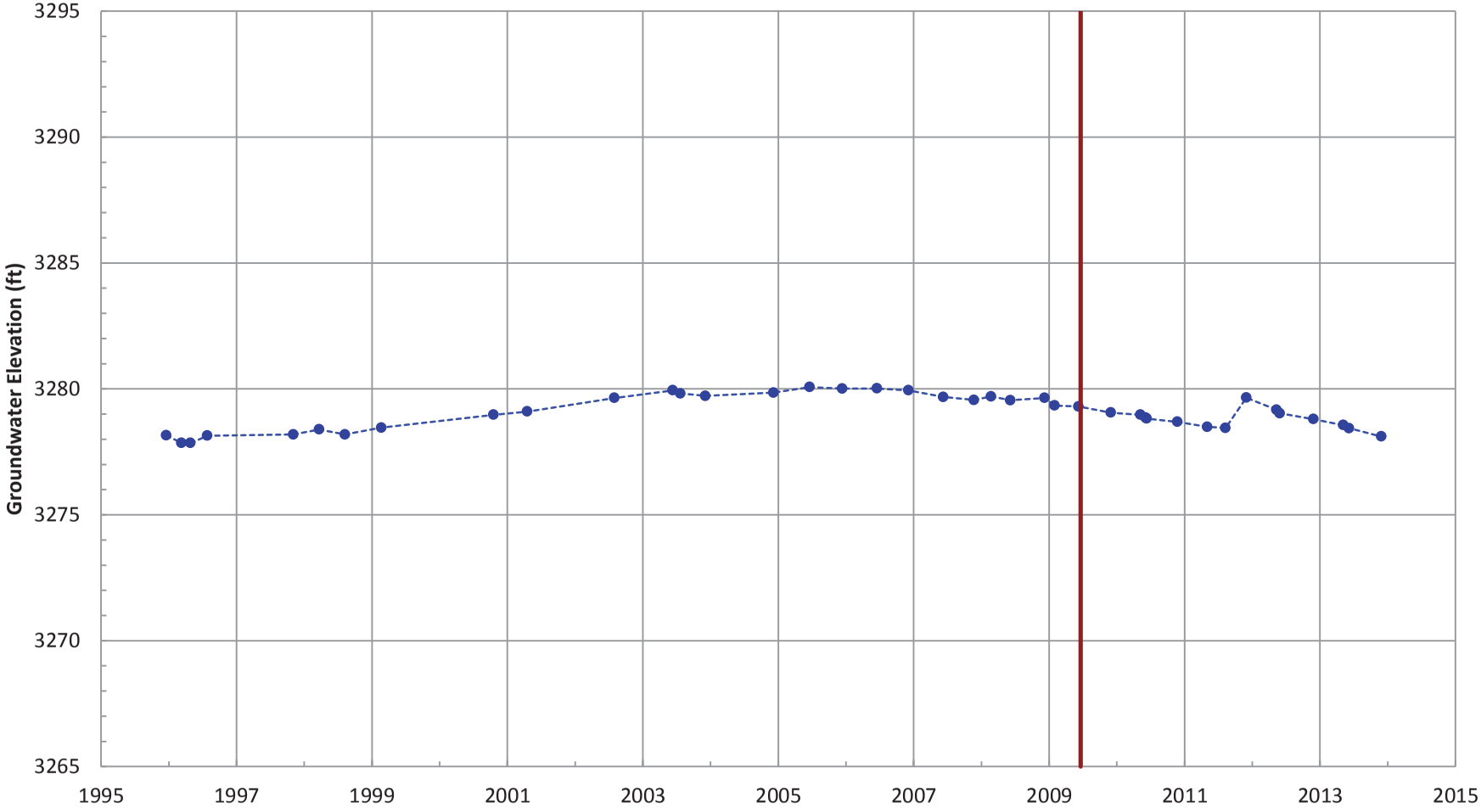
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Increasing at 0.12 ft/yr
2012 - 2014 Data: Decreasing at 0.50 ft/yr

PTX08-1007
Hydrograph in Perched Aquifer



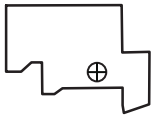
Notes:
1. The top of screen elevation is 3280.55 ft msl.
2. The bottom of screen elevation is 3245.55 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

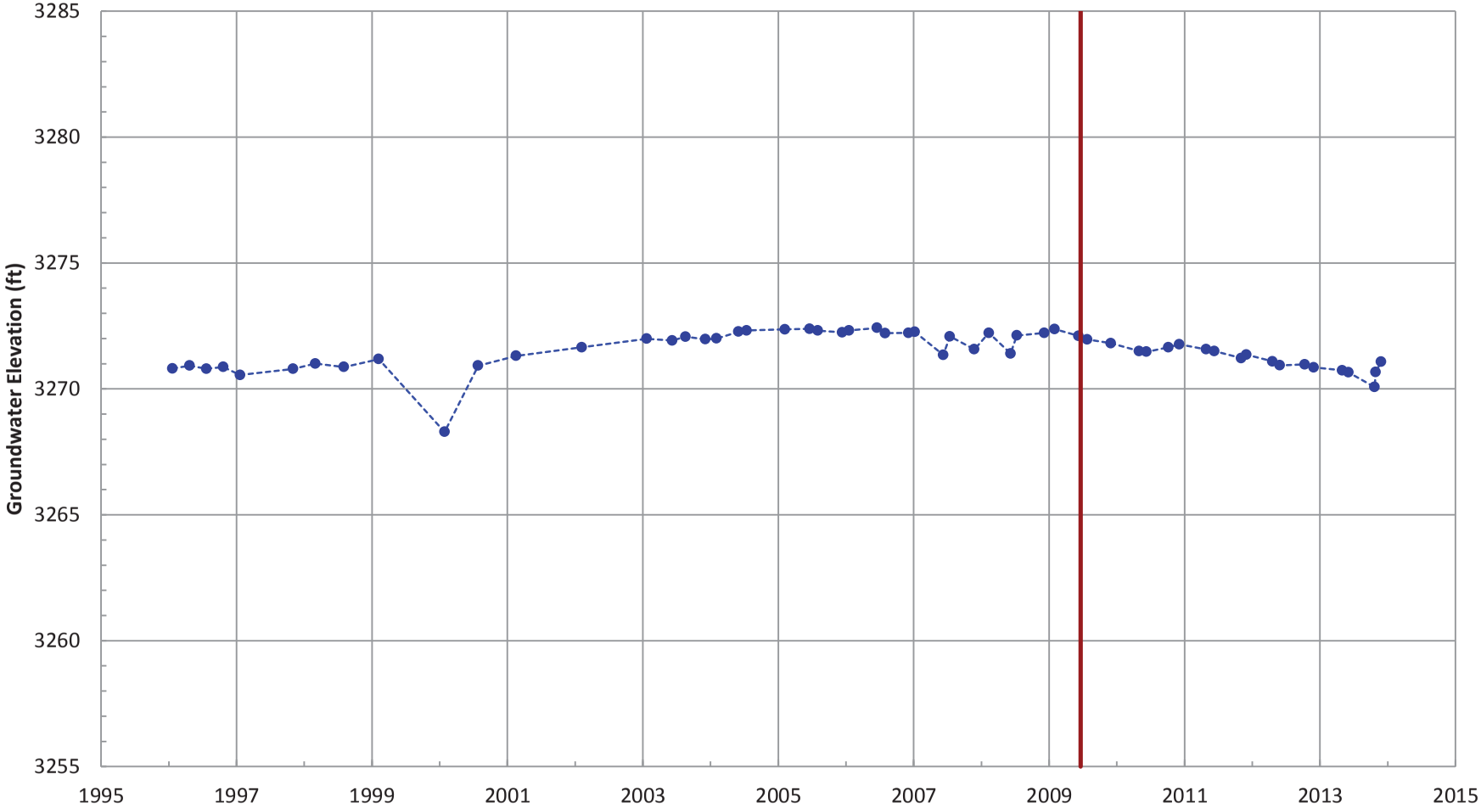
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: No Trend
2012 - 2014 Data: Decreasing at 0.76 ft/yr

PTX08-1008
Hydrograph in Perched Aquifer



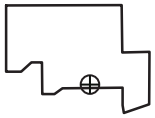
Notes:
1. The top of screen elevation is 3277.04 ft msl.
2. The bottom of screen elevation is 3247.04 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

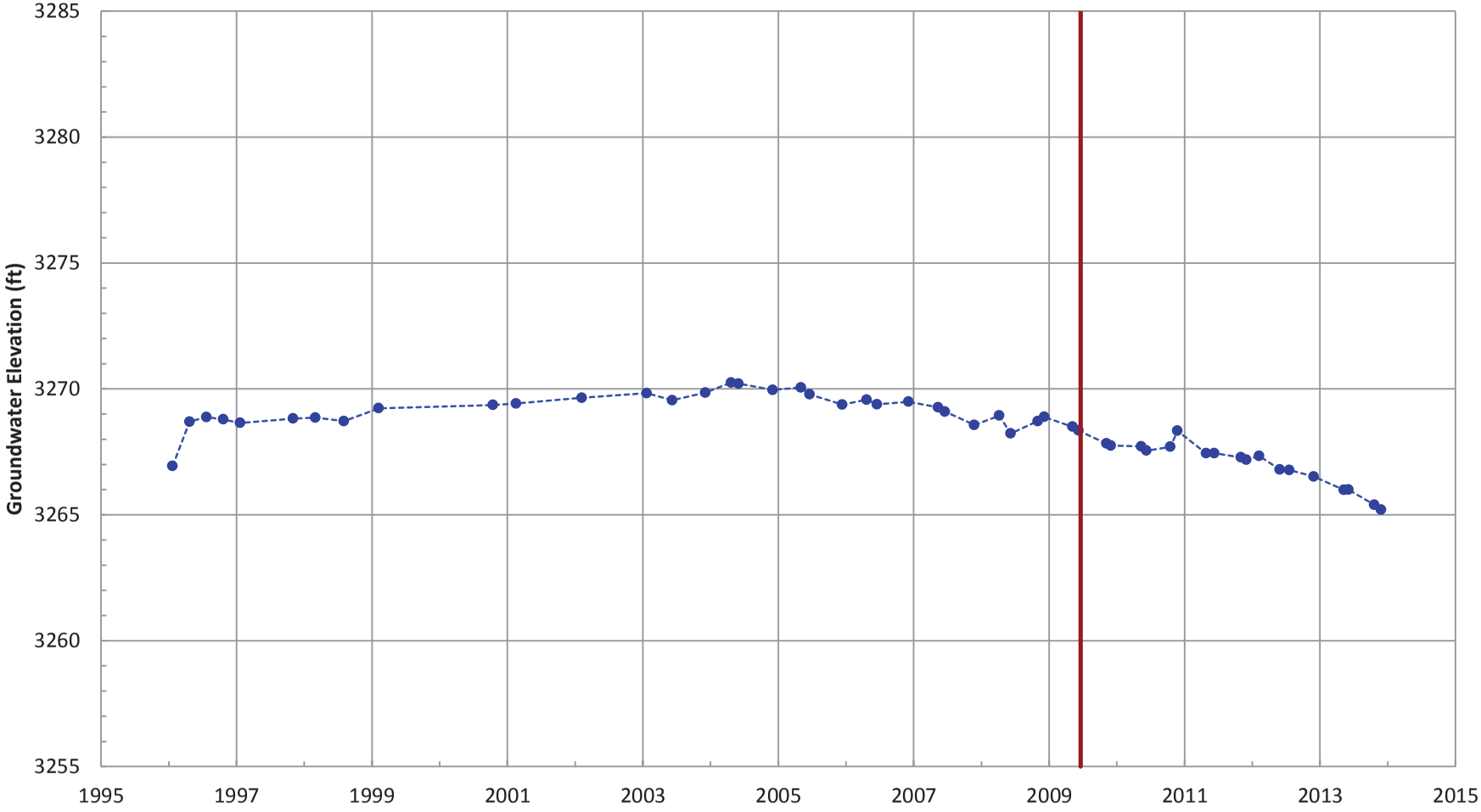
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: No Trend
2012 - 2014 Data: No Trend

PTX08-1009
Hydrograph in Perched Aquifer



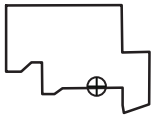
Notes:
1. The top of screen elevation is 3280.09 ft msl.
2. The bottom of screen elevation is 3250.09 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

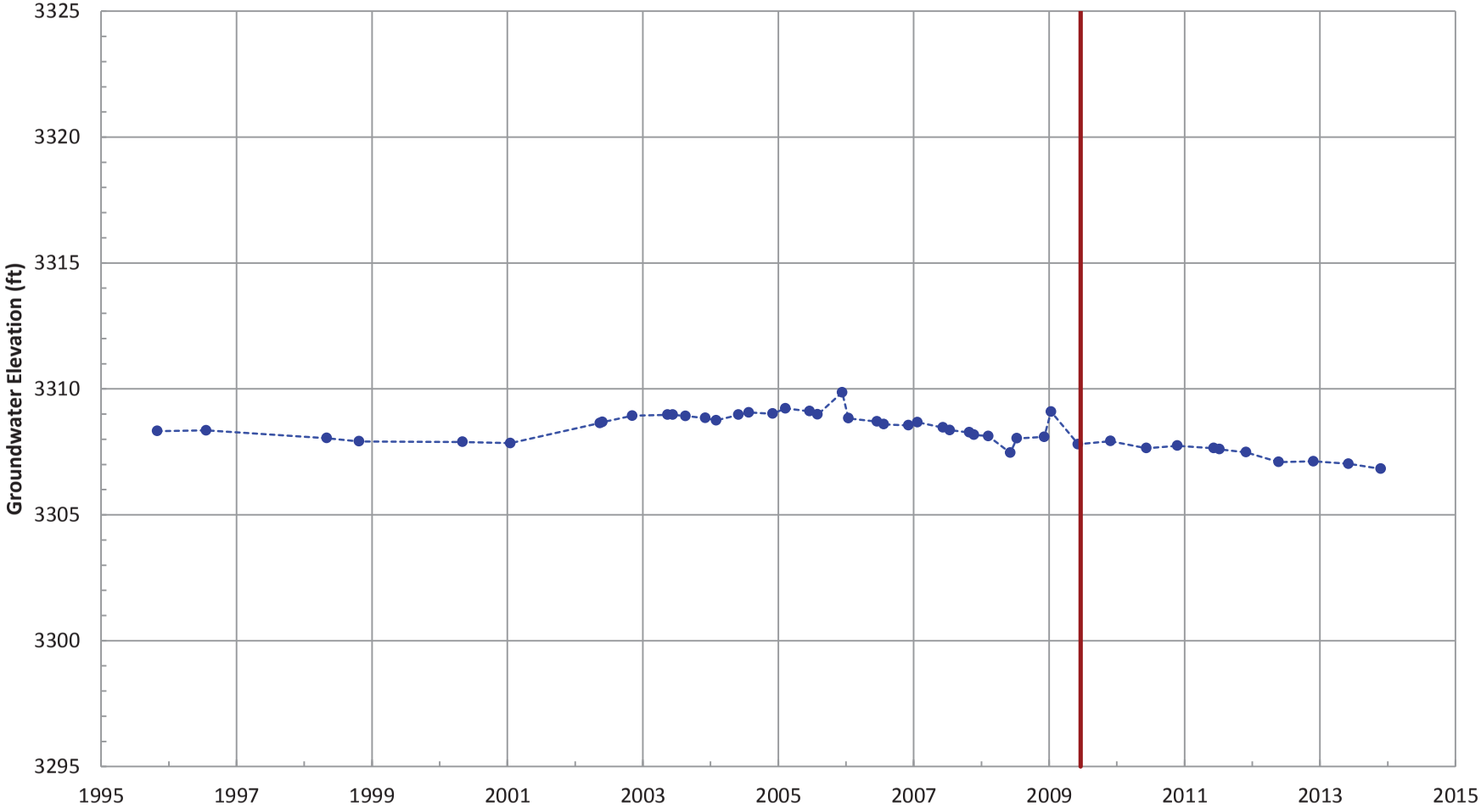
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.14 ft/yr
2012 - 2014 Data: Decreasing at 1.48 ft/yr

PTX08-1010
Hydrograph in Perched Aquifer



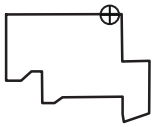
Notes:
1. The top of screen elevation is 3321.22 ft msl.
2. The bottom of screen elevation is 3286.22 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

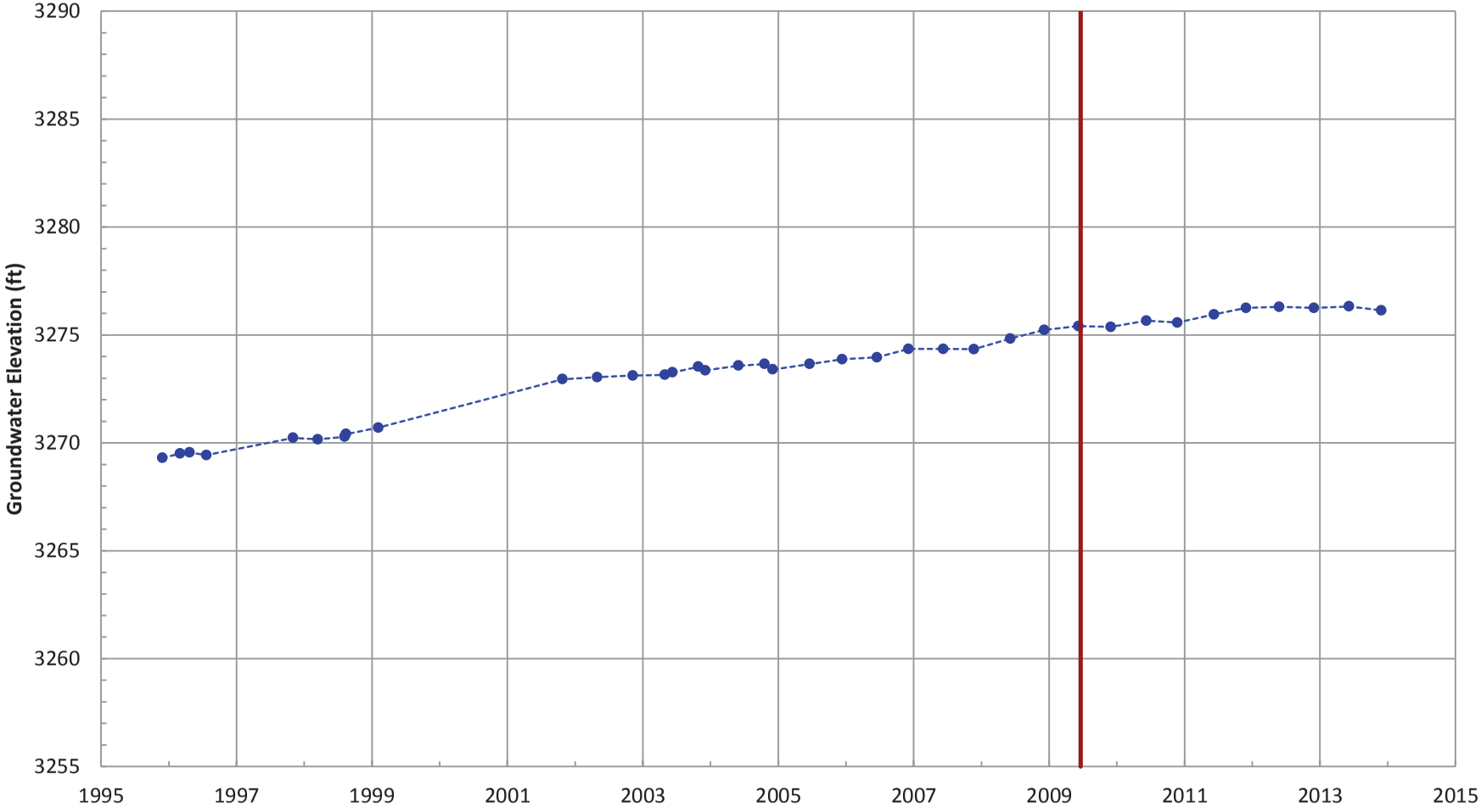
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: No Trend
2012 - 2014 Data: N/A (<3 Measurements)

PTX10-1008
Hydrograph in Perched Aquifer



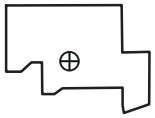
Notes:
1. The top of screen elevation is 3277.2 ft msl.
2. The bottom of screen elevation is 3252.7 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

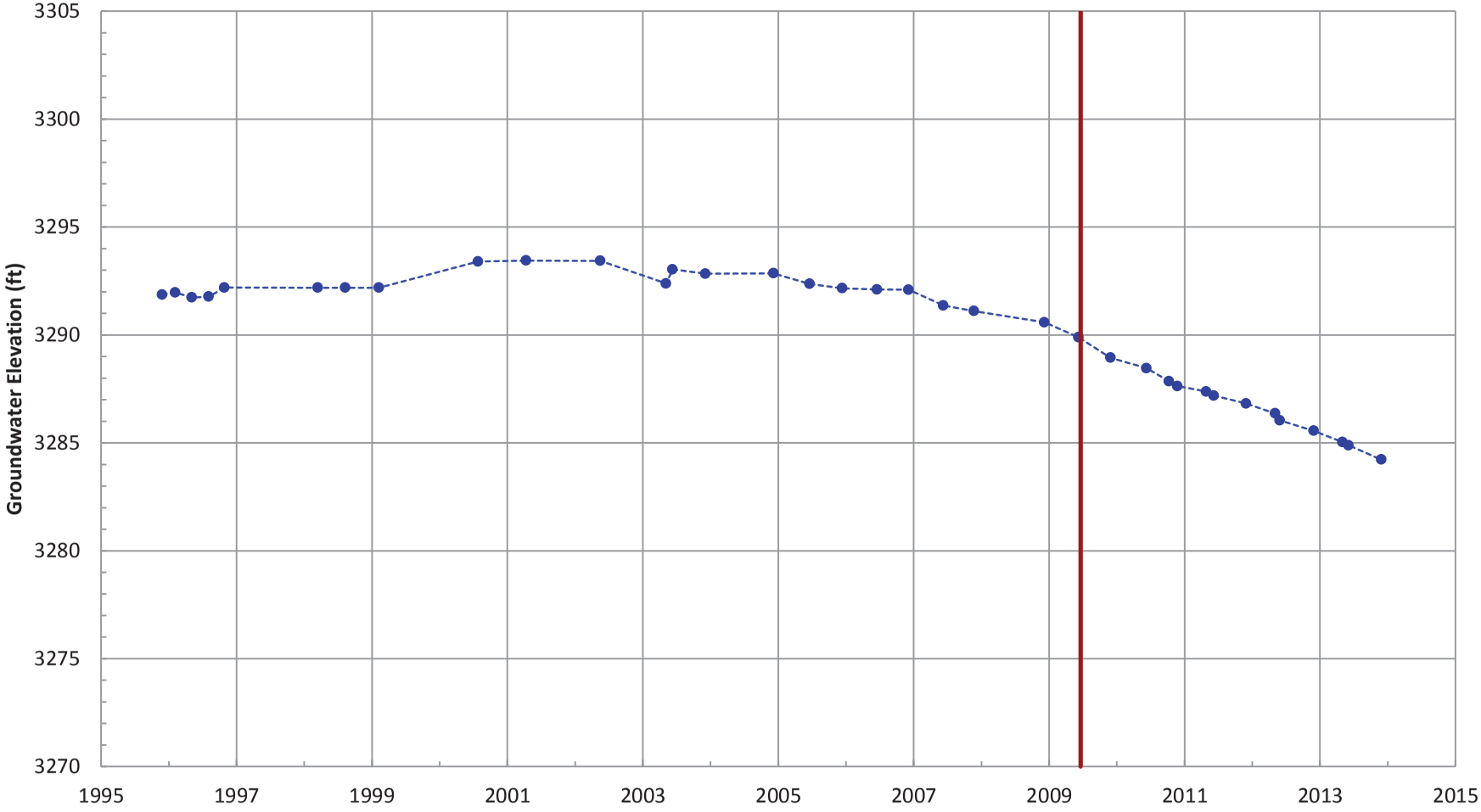
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Increasing at 0.41 ft/yr
2012 - 2014 Data: N/A (<3 Measurements)

PTX10-1014
Hydrograph in Perched Aquifer



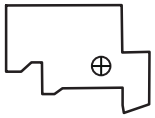
Notes:
1. The top of screen elevation is 3301.64 ft msl.
2. The bottom of screen elevation is 3271.84 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

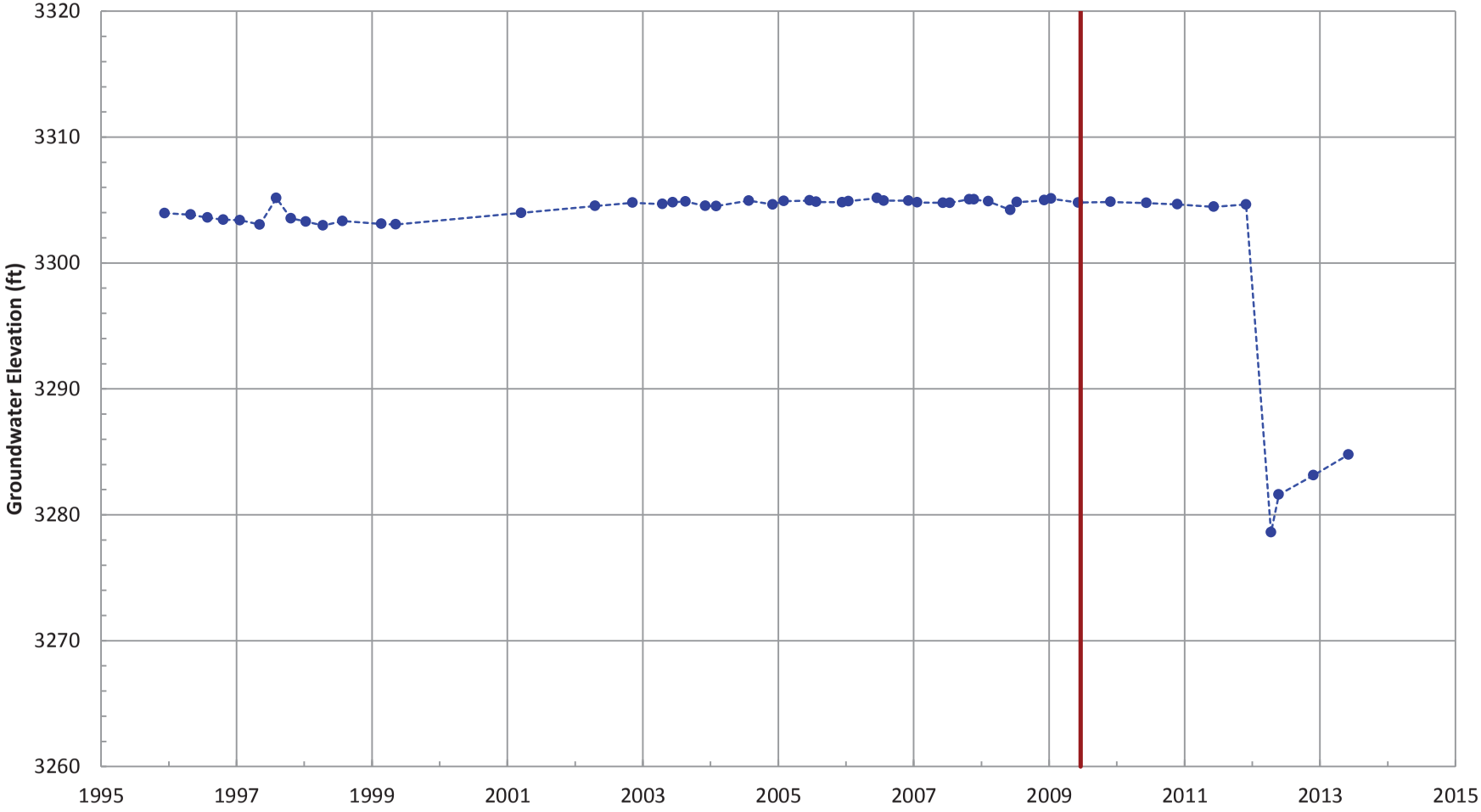
Start of Remedial Action

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.40 ft/yr
2012 - 2014 Data: Decreasing at 1.39 ft/yr

PTX-BEG3
Hydrograph in Perched Aquifer



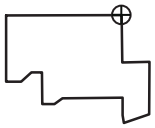
Notes:
1. The top of screen elevation is 3307.2 ft msl.
2. The bottom of screen elevation is 3255.7 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

Start of Remedial Action

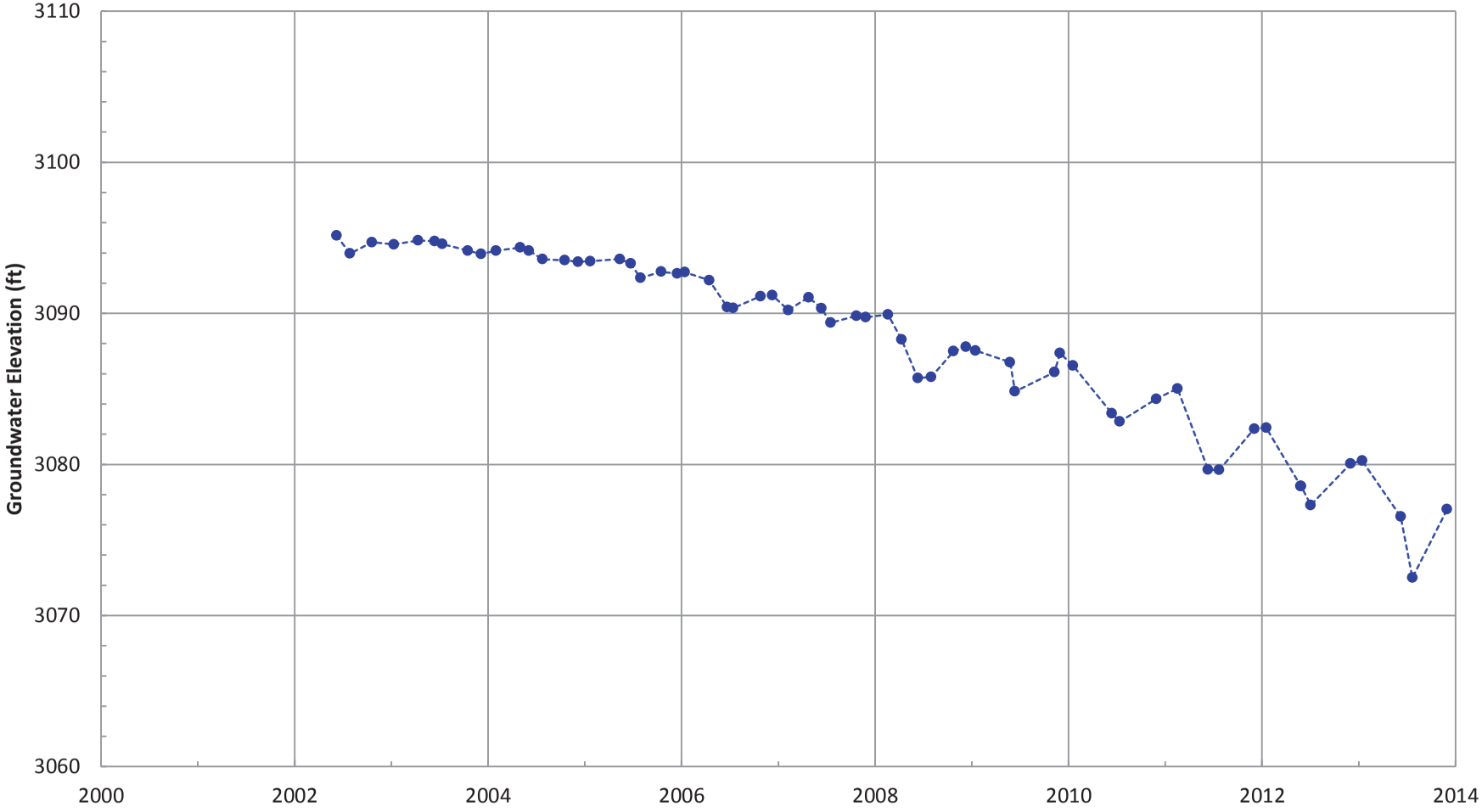
Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.45 ft/yr
2012 - 2014 Data: N/A (<3 Measurements)

Ogallala Aquifer Hydrographs

PTX01-1010
Hydrograph in Ogallala Aquifer

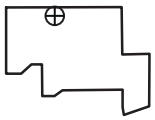


Notes:
1. The top of screen elevation is 3104.01 ft msl.
2. The bottom of screen elevation is 2729.01 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

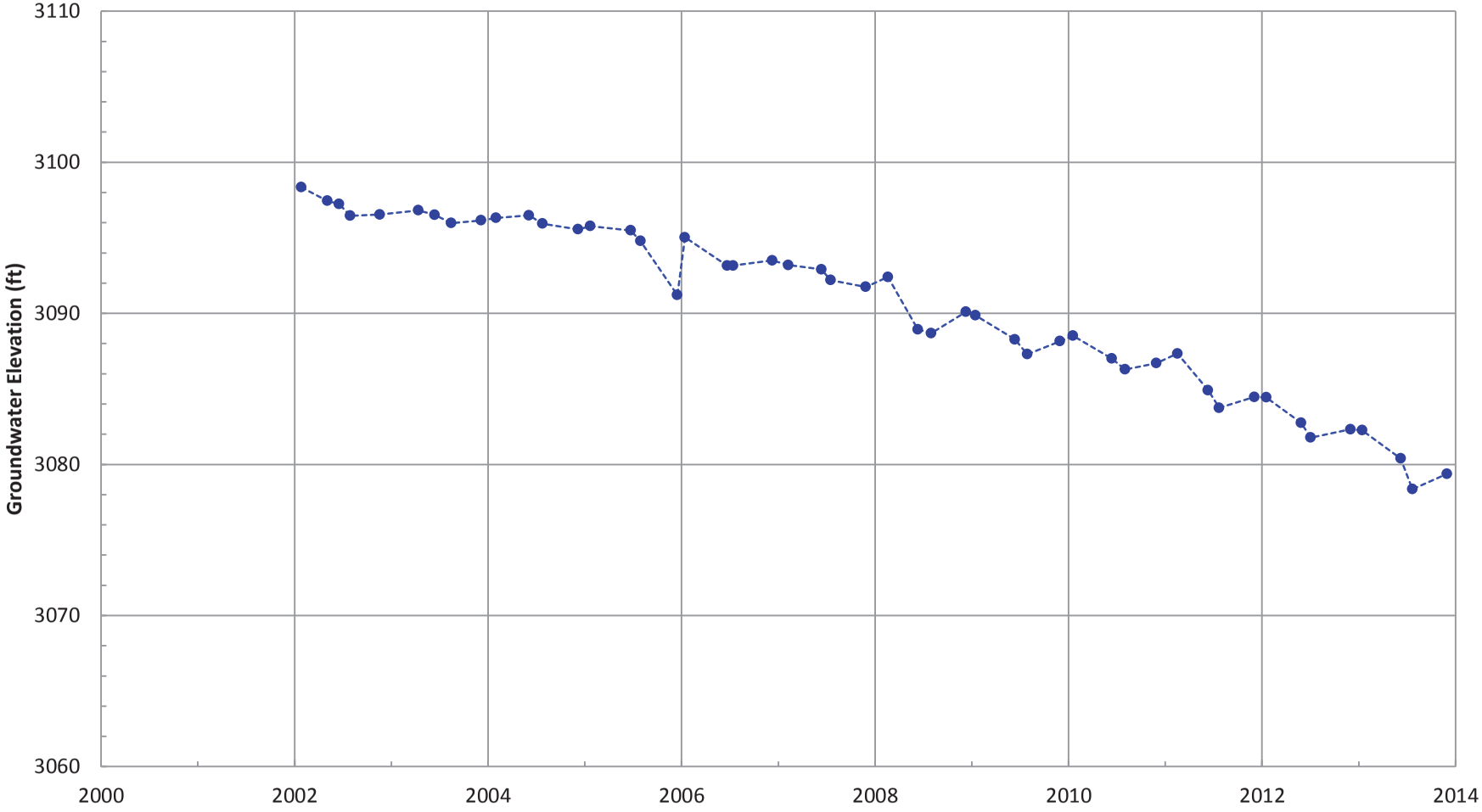
Groundwater Elevation

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 1.71 ft/yr
2012 - 2014 Data: Decreasing at 4.42 ft/yr

PTX01-1011
Hydrograph in Ogallala Aquifer

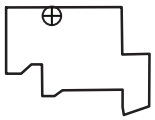


Notes:
1. The top of screen elevation is 3107.81 ft msl.
2. The bottom of screen elevation is 2782.81 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

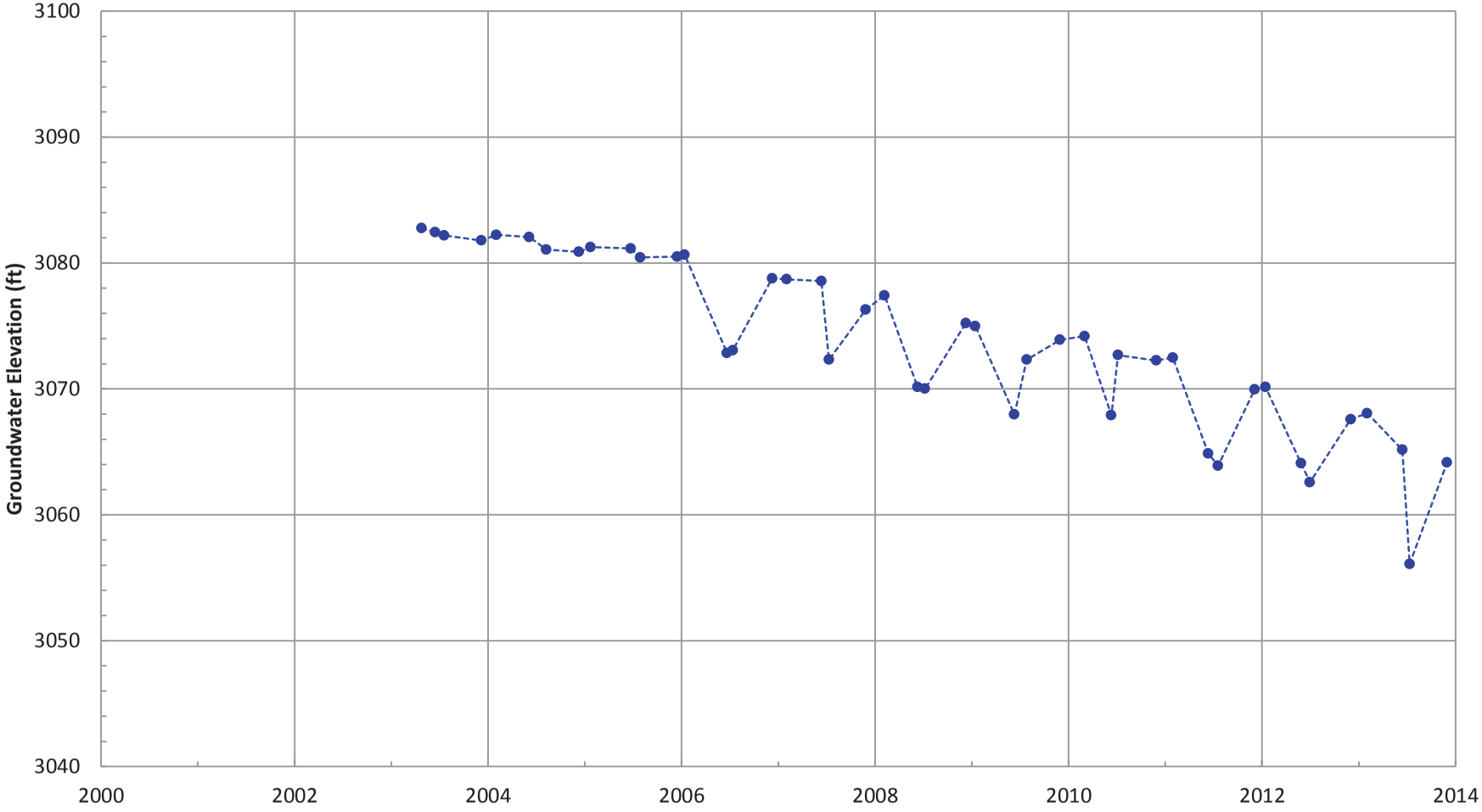
Groundwater Elevation

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 1.53 ft/yr
2012 - 2014 Data: Decreasing at 3.60 ft/yr

PTX01-1012
Hydrograph in Ogallala Aquifer

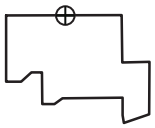


Notes:
1. The top of screen elevation is 3112.48 ft msl.
2. The bottom of screen elevation is 2677.48 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

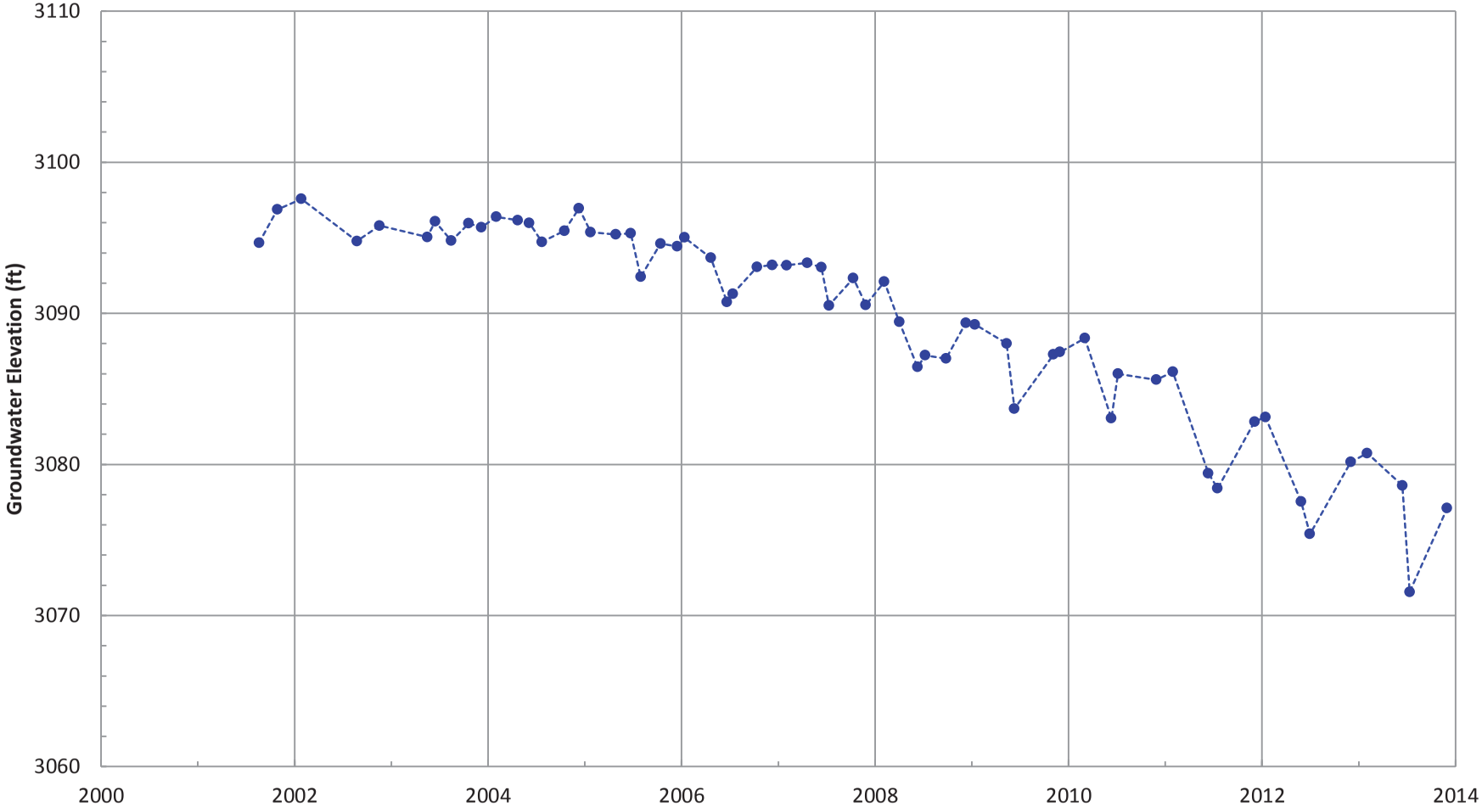
Groundwater Elevation

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 1.91 ft/yr
2012 - 2014 Data: Decreasing at 5.52 ft/yr

PTX01-1013
Hydrograph in Ogallala Aquifer

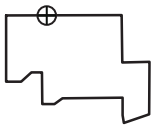


Notes:
1. The top of screen elevation is 3122.17 ft msl.
2. The bottom of screen elevation is 2717.17 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

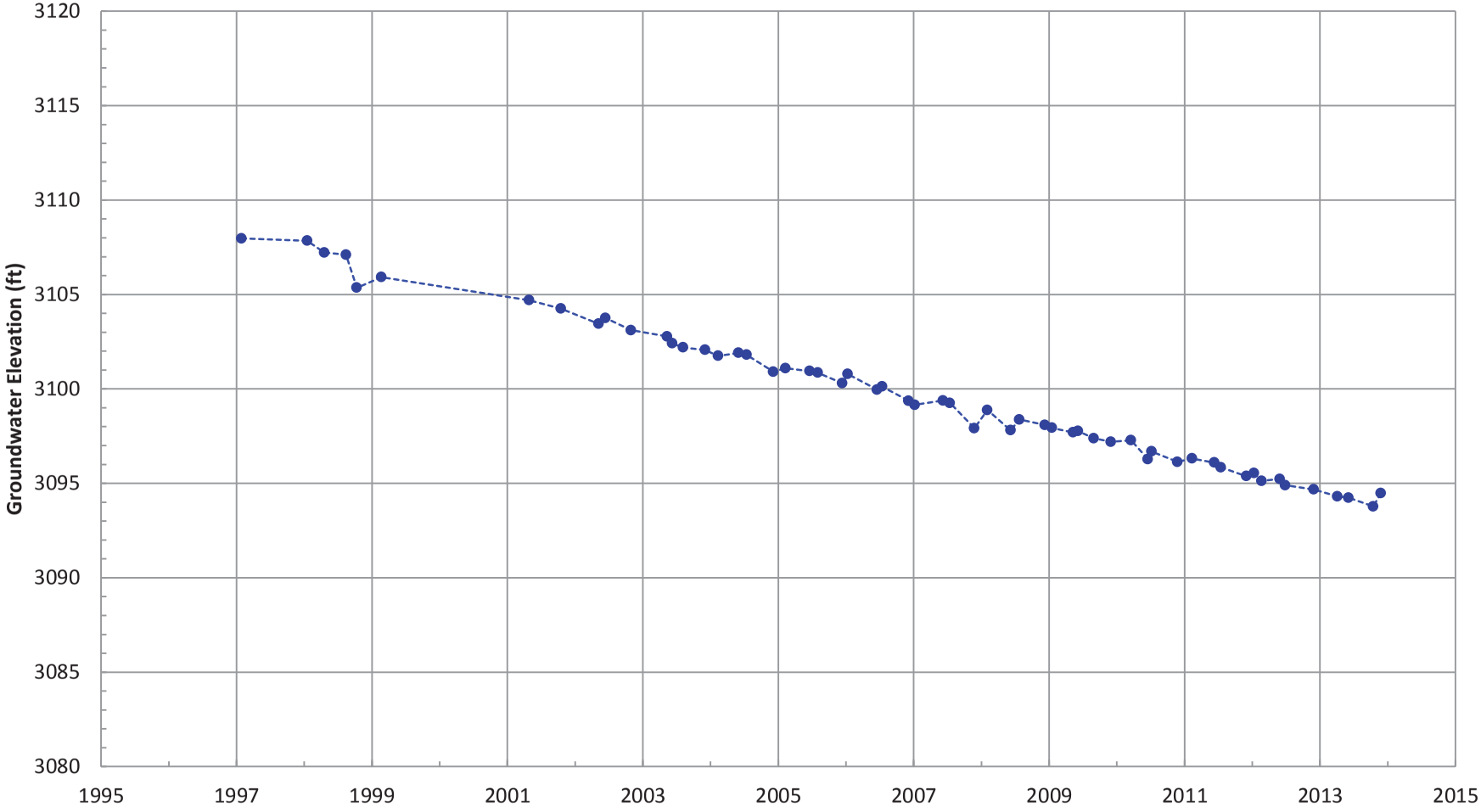
Groundwater Elevation

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 1.78 ft/yr
2012 - 2014 Data: Decreasing at 5.02 ft/yr

PTX06-1033
Hydrograph in Ogallala Aquifer

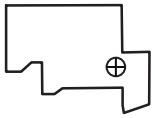


Notes:
1. The top of screen elevation is 3134.04 ft msl.
2. The bottom of screen elevation is 2994.04 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

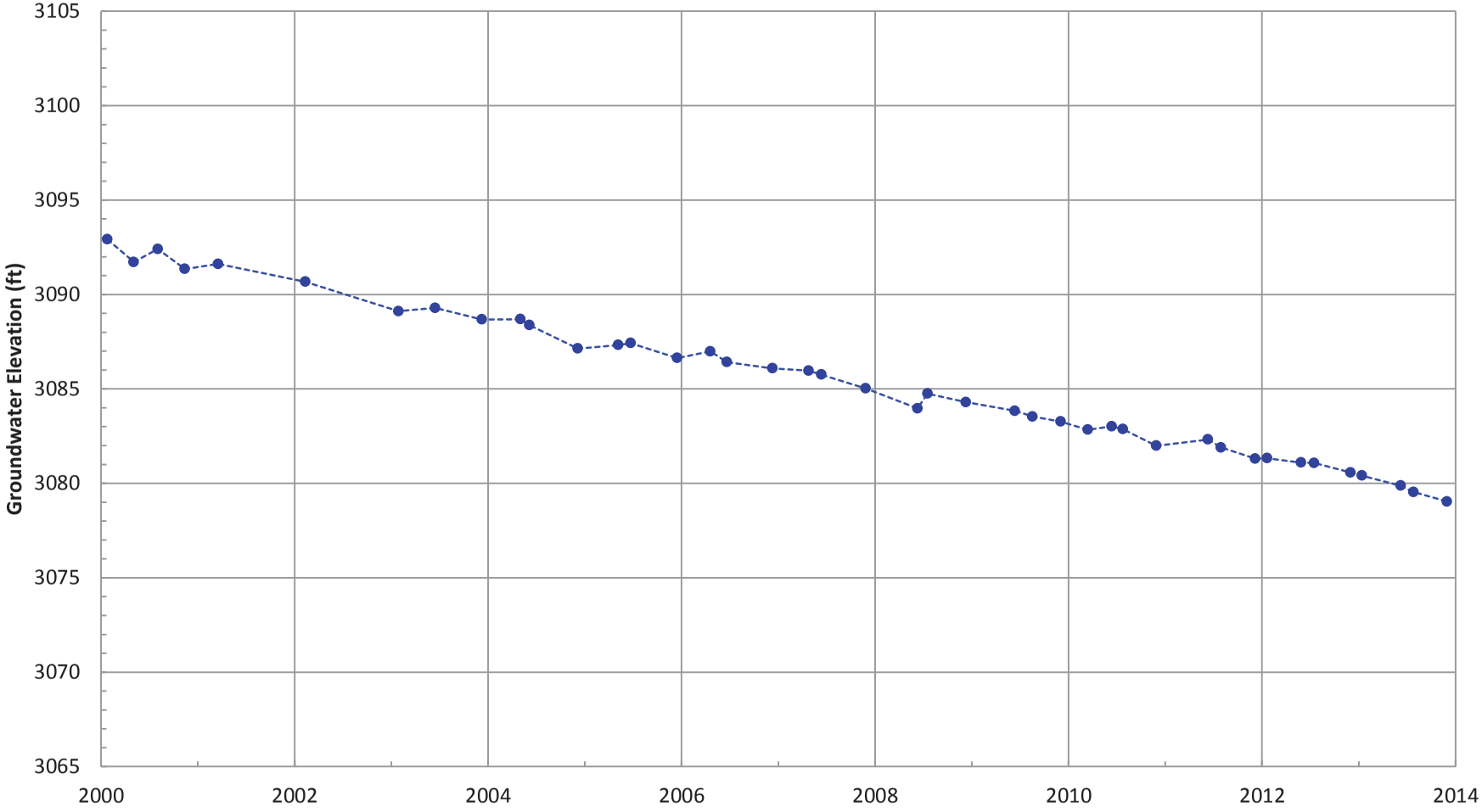
Groundwater Elevation

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.84 ft/yr
2012 - 2014 Data: Decreasing at 0.14 ft/yr

PTX06-1043
Hydrograph in Ogallala Aquifer

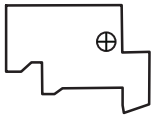


Notes:
1. The top of screen elevation is 3116.09 ft msl.
2. The bottom of screen elevation is 2896.09 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

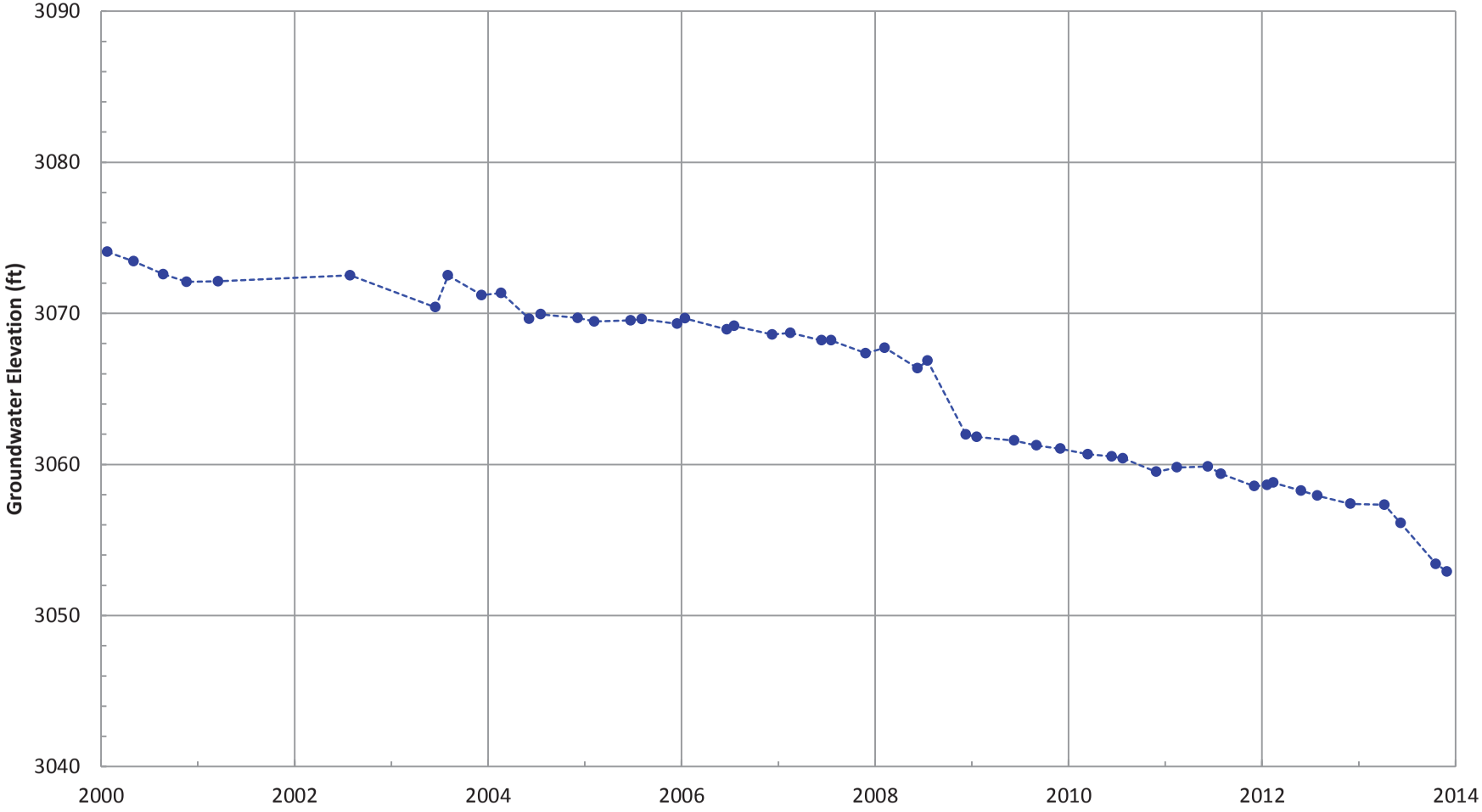
Groundwater Elevation

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.93 ft/yr
2012 - 2014 Data: Decreasing at 1.57 ft/yr

PTX06-1044
Hydrograph in Ogallala Aquifer

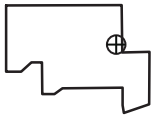


Notes:
1. The top of screen elevation is 3148.69 ft msl.
2. The bottom of screen elevation is 2928.69 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

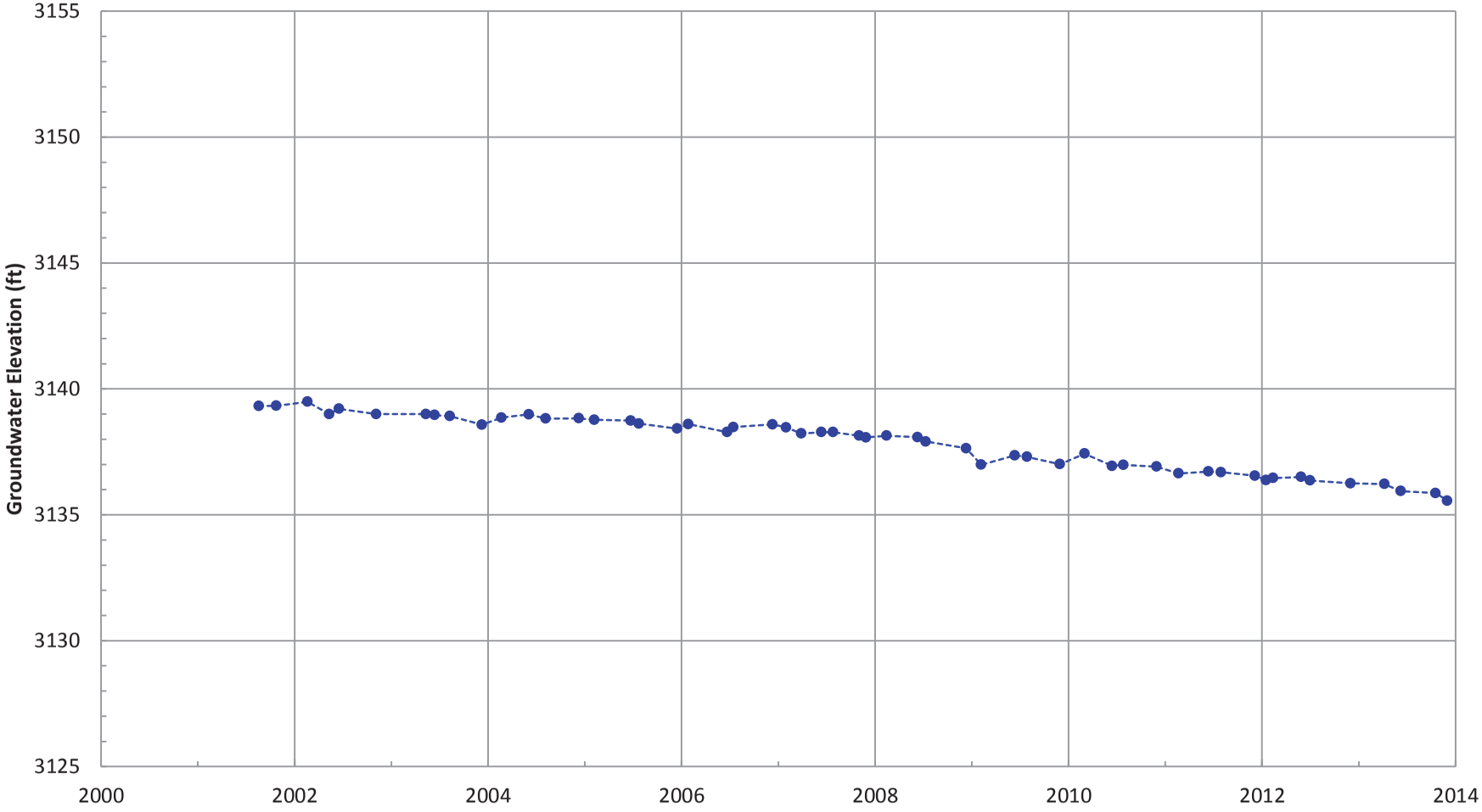
Groundwater Elevation

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 1.45 ft/yr
2012 - 2014 Data: Decreasing at 6.97 ft/yr

PTX06-1056
Hydrograph in Ogallala Aquifer

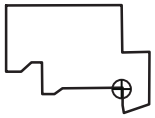


Notes:
1. The top of screen elevation is 3180.77 ft msl.
2. The bottom of screen elevation is 3060.77 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

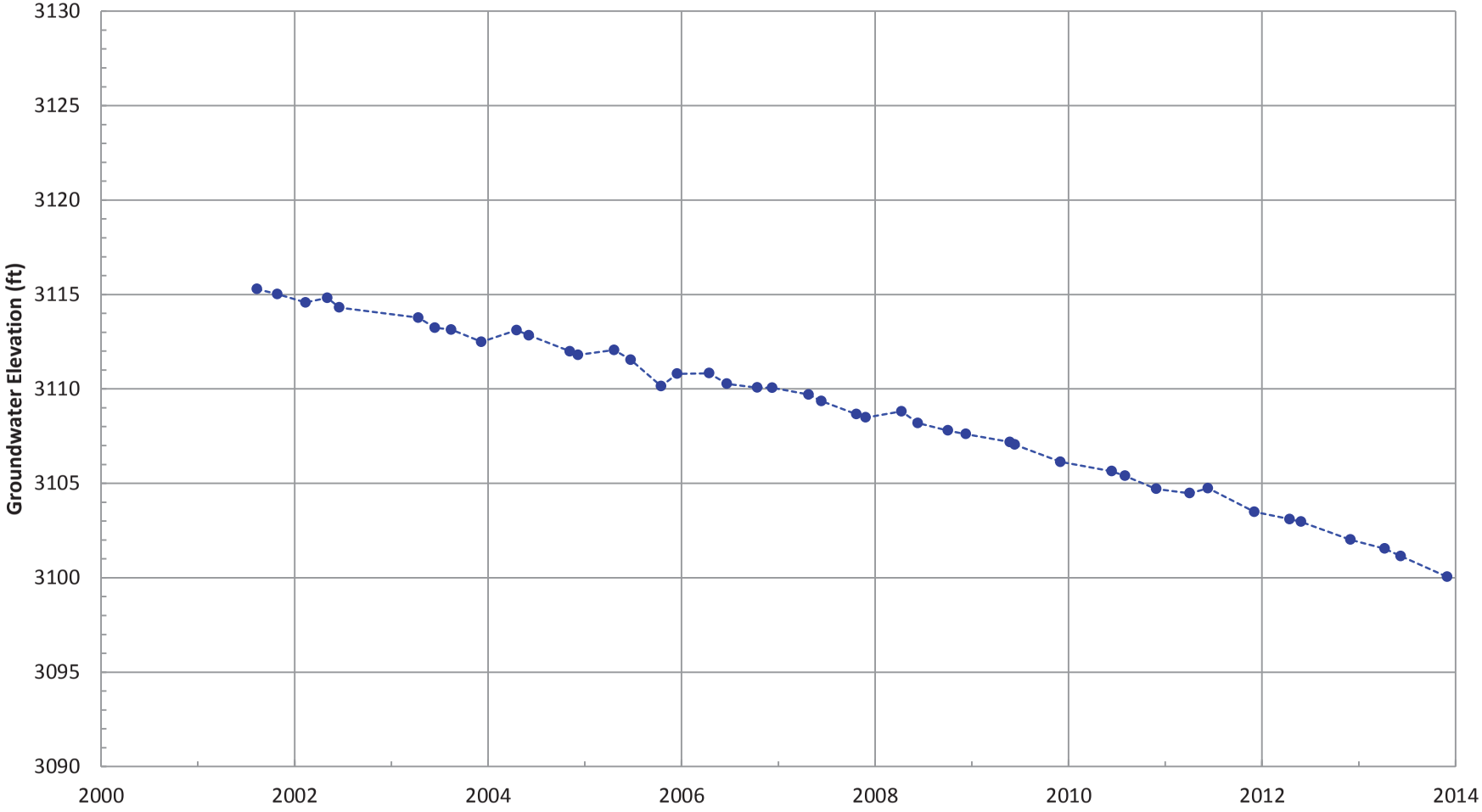
Groundwater Elevation

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.29 ft/yr
2012 - 2014 Data: Decreasing at 0.82 ft/yr

PTX06-1057A
Hydrograph in Ogallala Aquifer

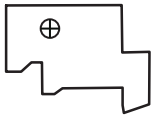


Notes:
1. The top of screen elevation is 3141.52 ft msl.
2. The bottom of screen elevation is 2811.52 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

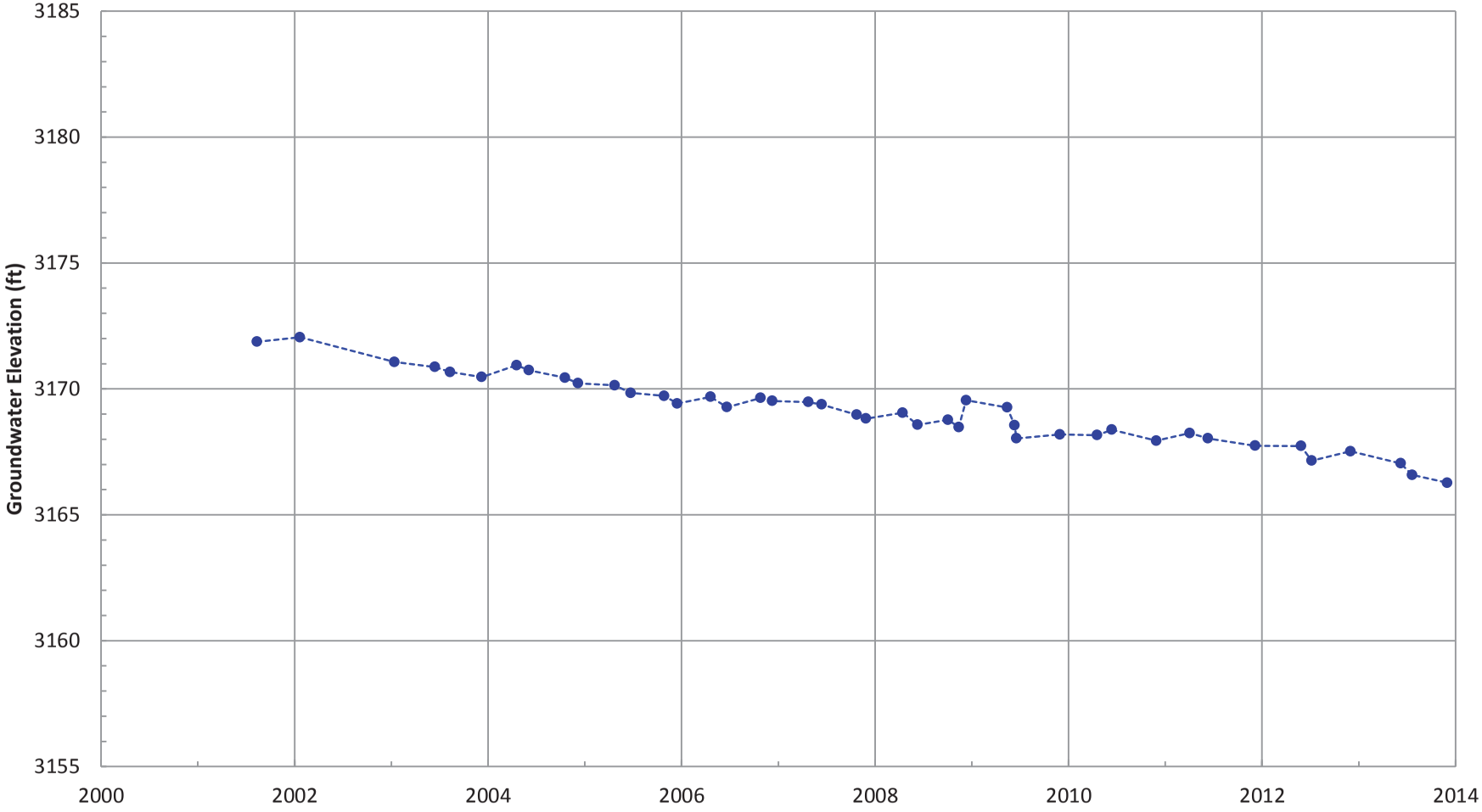
Groundwater Elevation

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 1.17 ft/yr
2012 - 2014 Data: Decreasing at 2.29 ft/yr

PTX06-1058
Hydrograph in Ogallala Aquifer

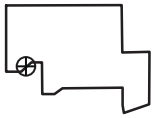


Notes:
1. The top of screen elevation is 3188.45 ft msl.
2. The bottom of screen elevation is 3038.45 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

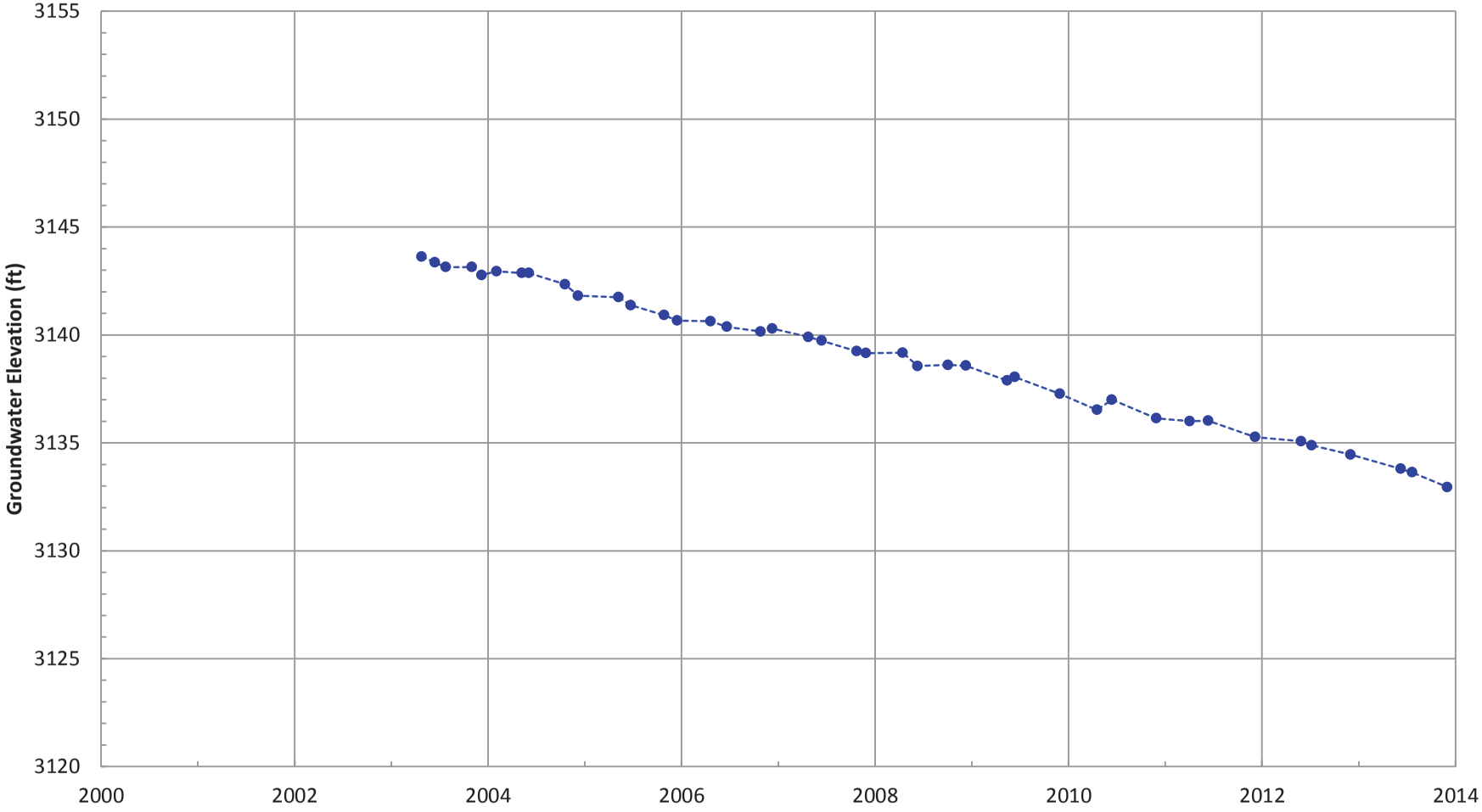
Groundwater Elevation

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.39 ft/yr
2012 - 2014 Data: Decreasing at 1.42 ft/yr

PTX06-1059
Hydrograph in Ogallala Aquifer

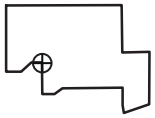


Notes:
1. The top of screen elevation is 3167.38 ft msl.
2. The bottom of screen elevation is 3007.38 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

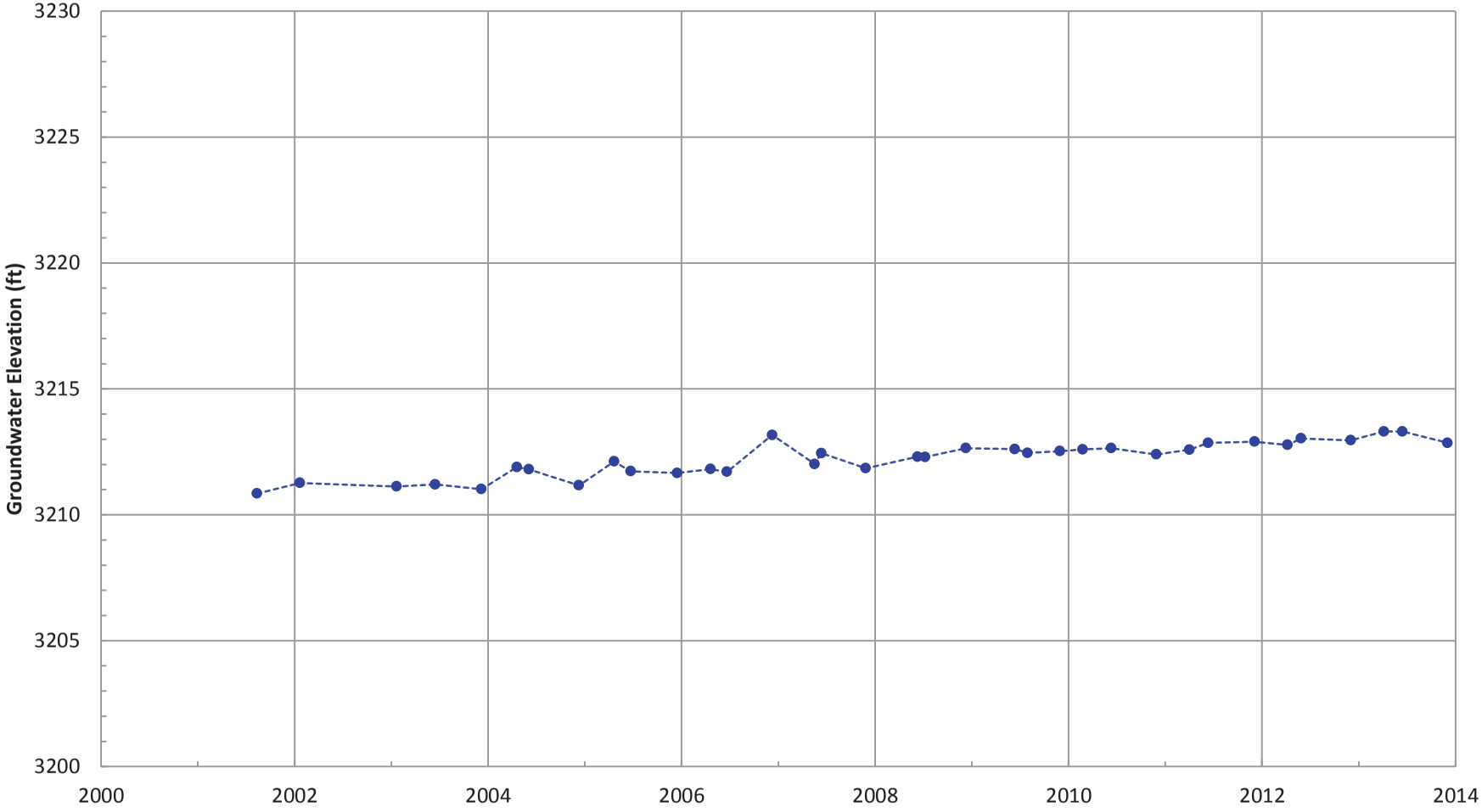
Groundwater Elevation

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.96 ft/yr
2012 - 2014 Data: Decreasing at 1.79 ft/yr

PTX06-1060
Hydrograph in Ogallala Aquifer

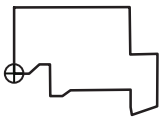


Notes:
1. The top of screen elevation is 3191.81 ft msl.
2. The bottom of screen elevation is 3066.81 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

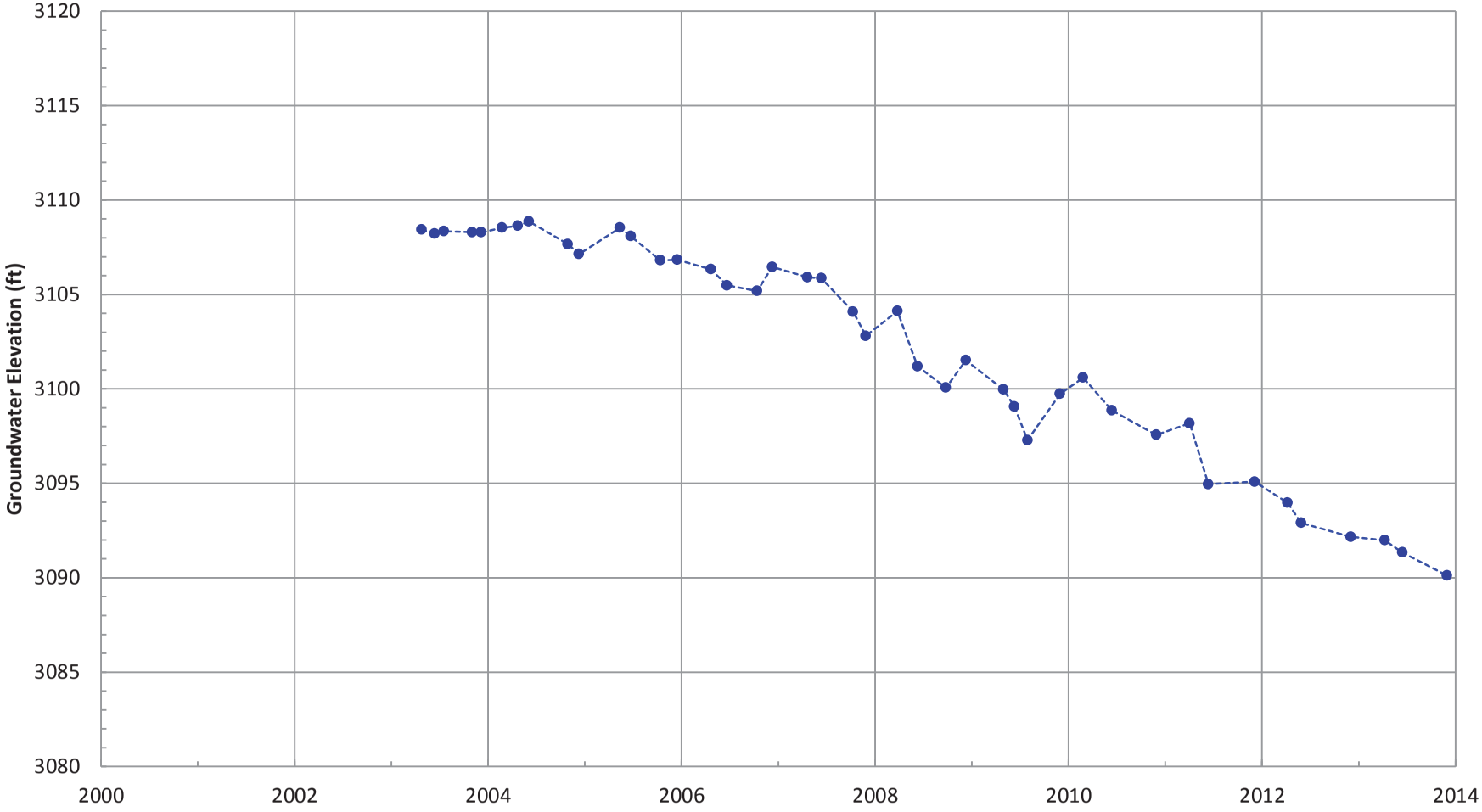
Groundwater Elevation

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Increasing at 0.18 ft/yr
2012 - 2014 Data: Decreasing at 0.73 ft/yr

PTX06-1061
Hydrograph in Ogallala Aquifer

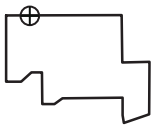


Notes:
1. The top of screen elevation is 3124.65 ft msl.
2. The bottom of screen elevation is 2729.65 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

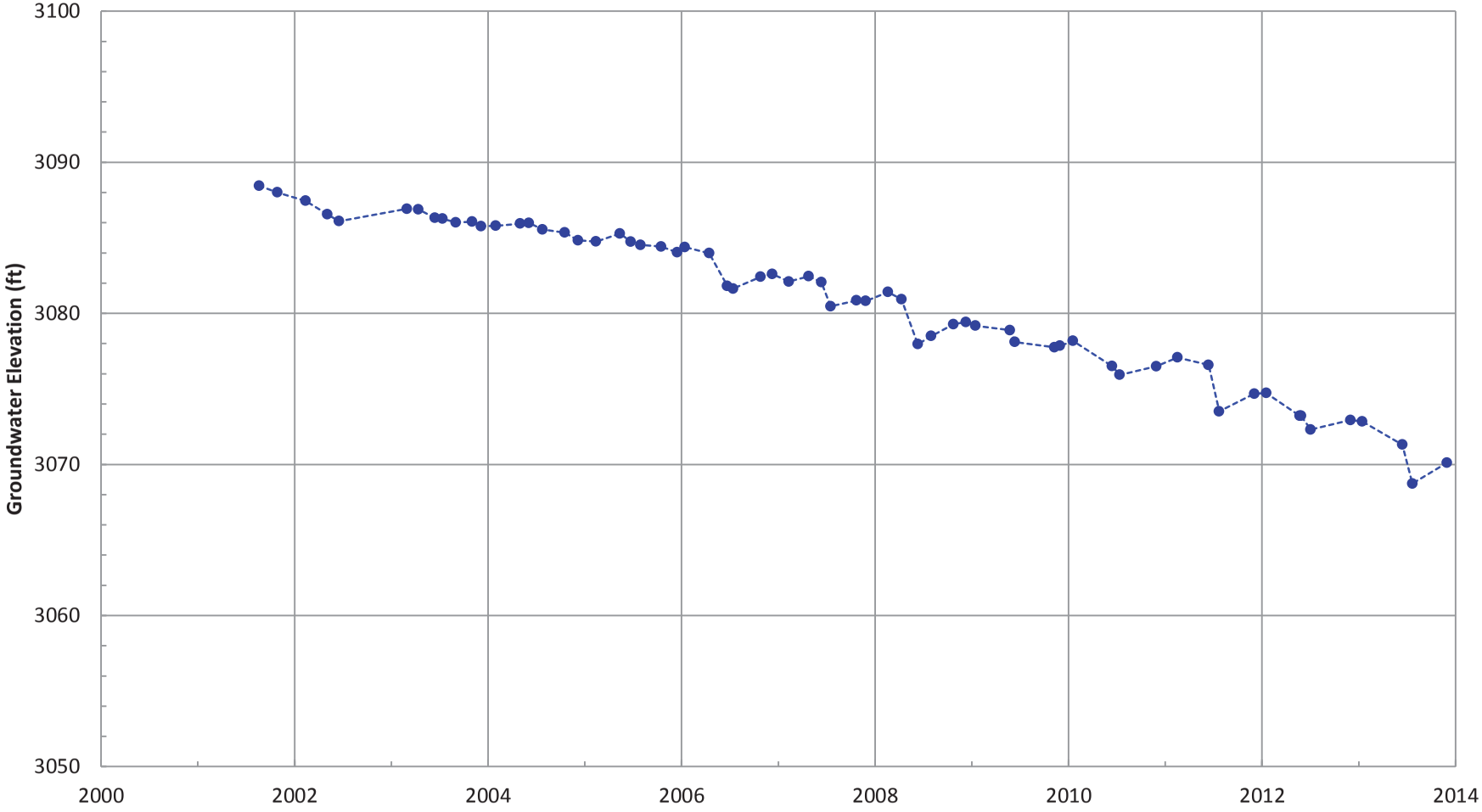
Groundwater Elevation

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 1.79 ft/yr
2012 - 2014 Data: Decreasing at 2.84 ft/yr

PTX06-1062A
Hydrograph in Ogallala Aquifer

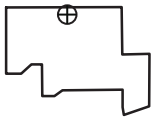


Notes:
1. The top of screen elevation is 3103.89 ft msl.
2. The bottom of screen elevation is 2683.89 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

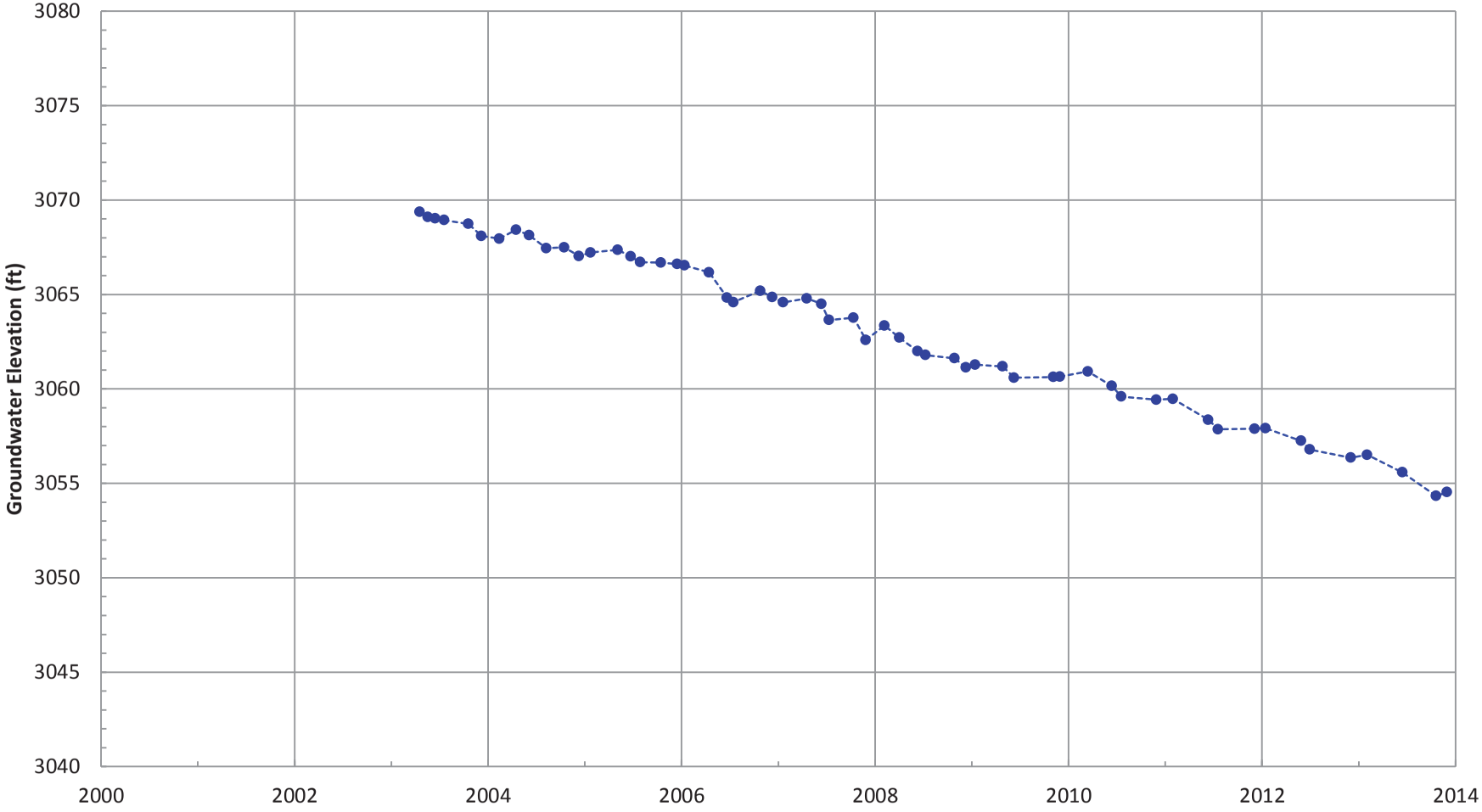
Groundwater Elevation

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 1.46 ft/yr
2012 - 2014 Data: Decreasing at 3.50 ft/yr

PTX06-1064
Hydrograph in Ogallala Aquifer

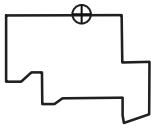


Notes:
1. The top of screen elevation is 3121.99 ft msl.
2. The bottom of screen elevation is 2771.99 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

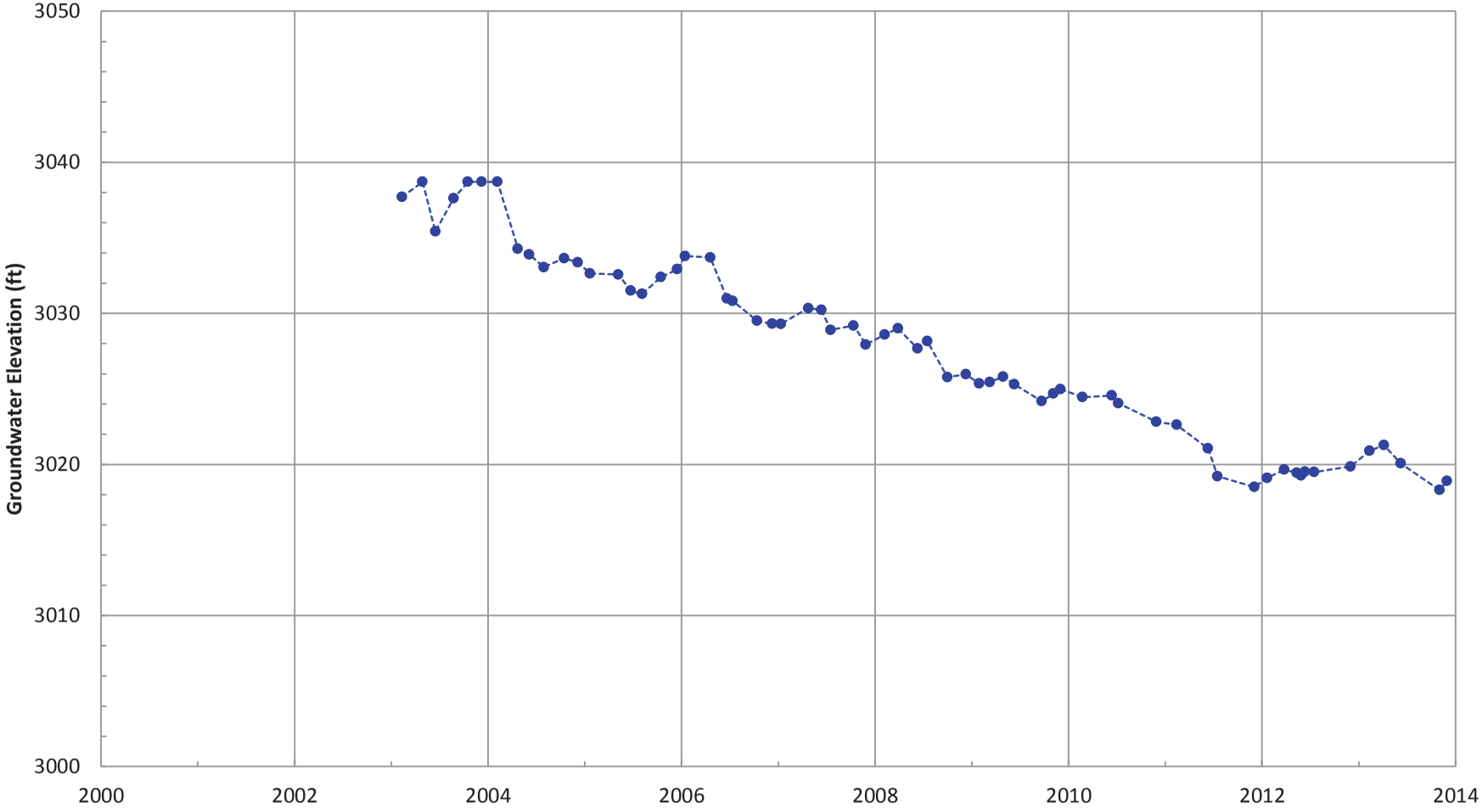
Groundwater Elevation

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 1.37 ft/yr
2012 - 2014 Data: Decreasing at 2.64 ft/yr

PTX06-1068
Hydrograph in Ogallala Aquifer

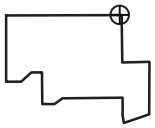


Notes:
1. The top of screen elevation is 3081.55 ft msl.
2. The bottom of screen elevation is 2736.55 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

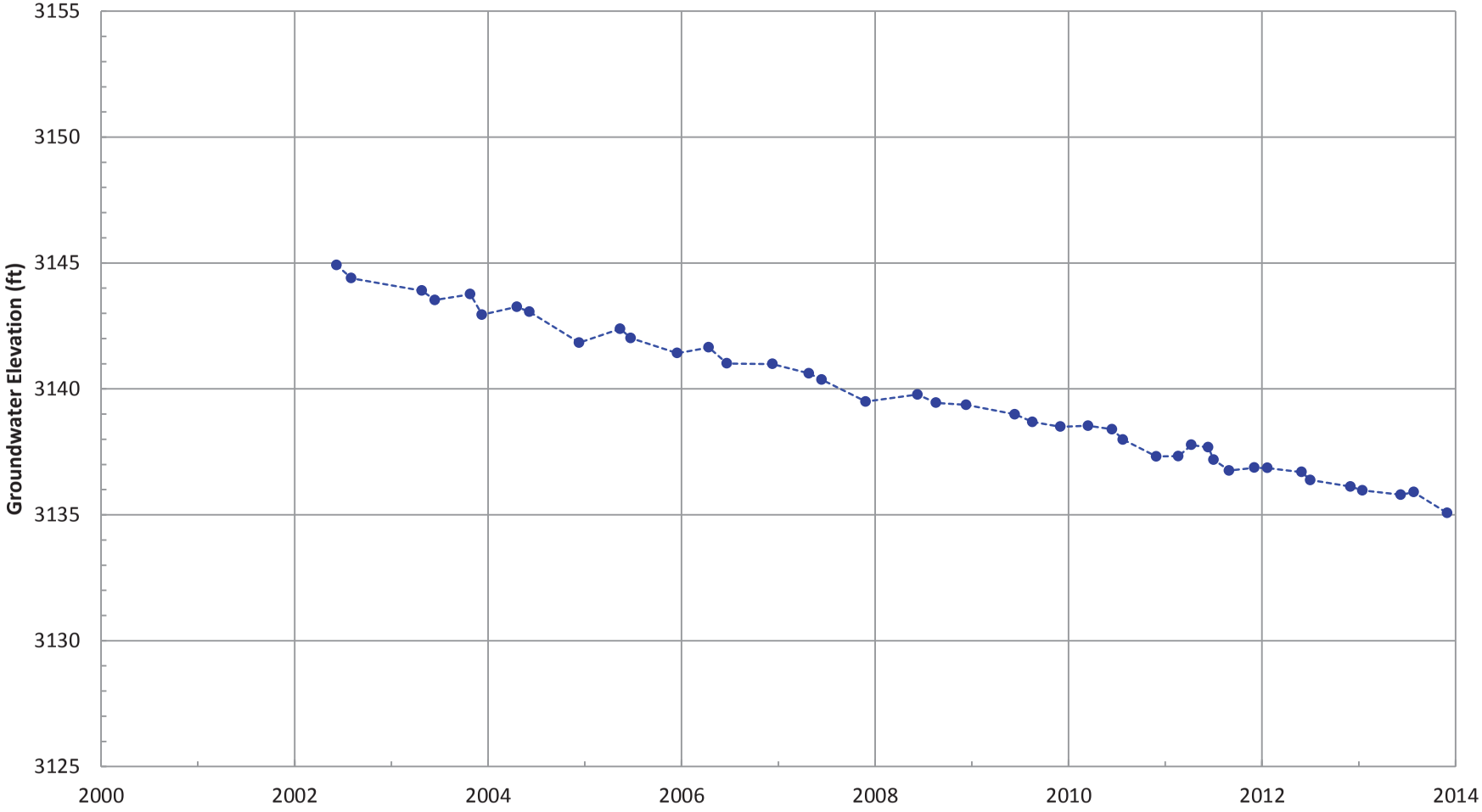
Groundwater Elevation

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 1.87 ft/yr
2012 - 2014 Data: Decreasing at 3.37 ft/yr

PTX06-1072
Hydrograph in Ogallala Aquifer

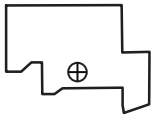


Notes:
1. The top of screen elevation is 3146.3 ft msl.
2. The bottom of screen elevation is 3006.3 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

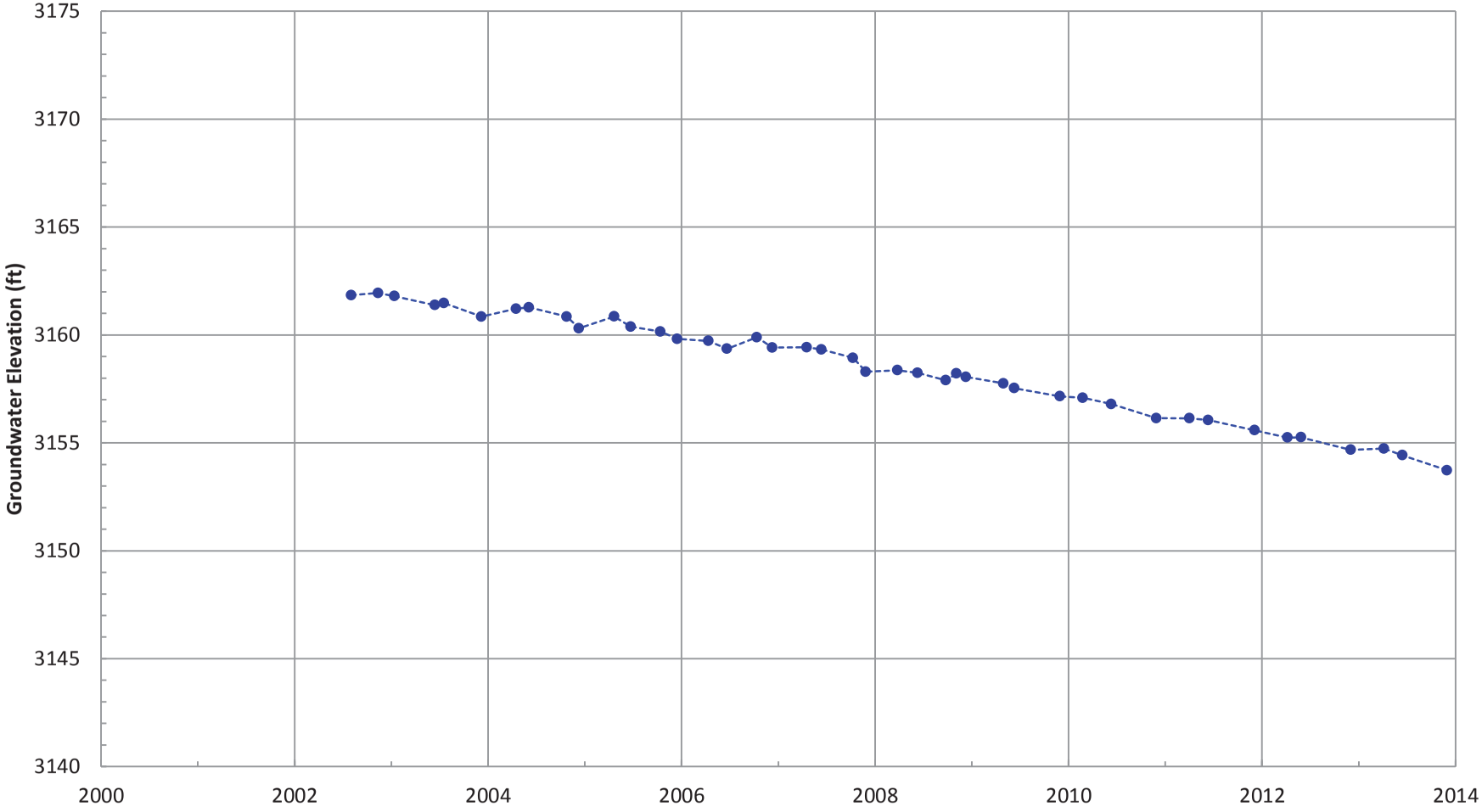
Groundwater Elevation

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.80 ft/yr
2012 - 2014 Data: Decreasing at 0.96 ft/yr

PTX06-1074
Hydrograph in Ogallala Aquifer

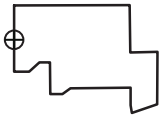


Notes:
1. The top of screen elevation is 3175.53 ft msl.
2. The bottom of screen elevation is 2955.53 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

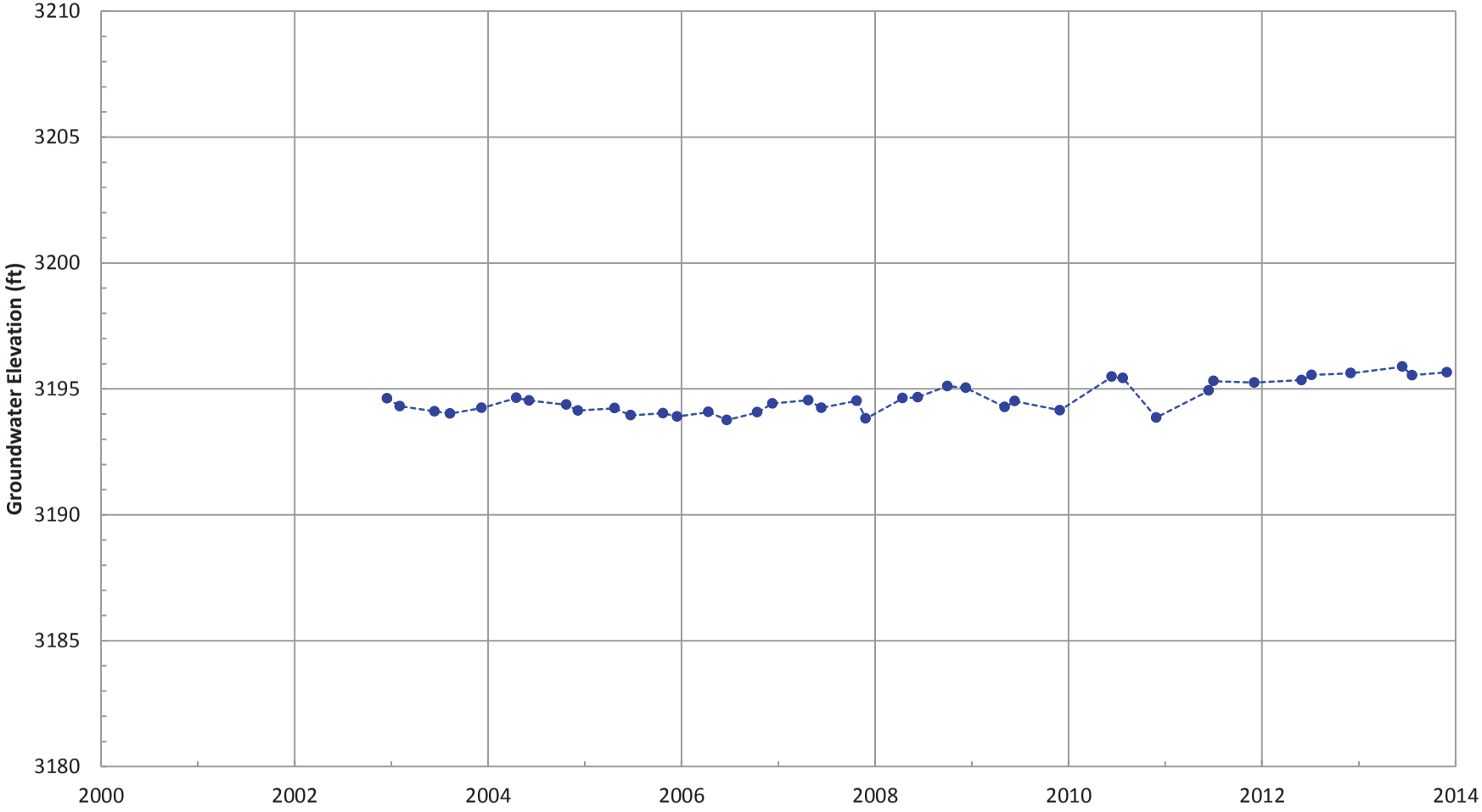
Groundwater Elevation

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.71 ft/yr
2012 - 2014 Data: Decreasing at 1.54 ft/yr

PTX06-1075
Hydrograph in Ogallala Aquifer

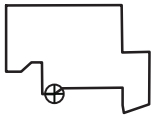


Notes:
1. The top of screen elevation is 3193.11 ft msl.
2. The bottom of screen elevation is 3133.11 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

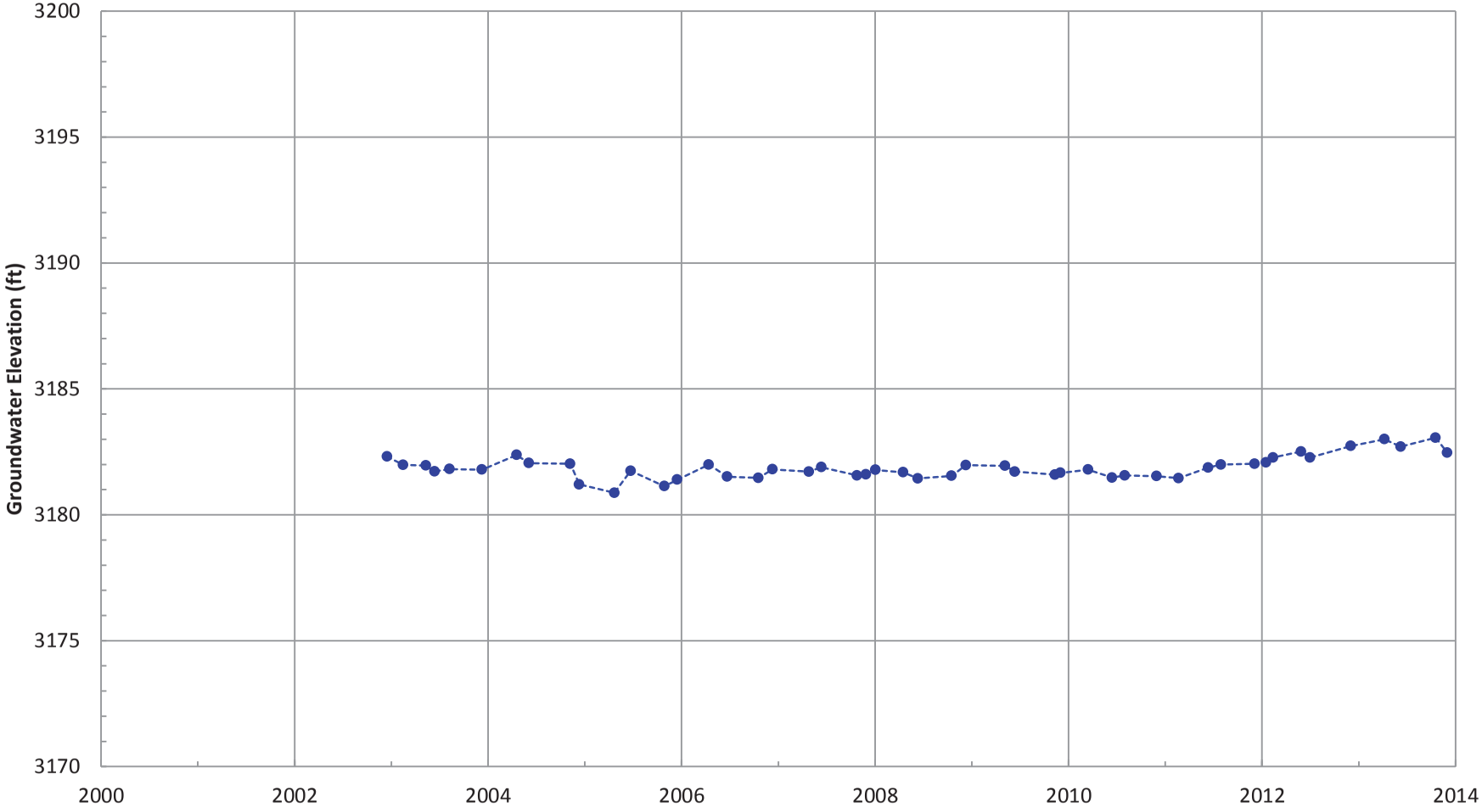
Groundwater Elevation

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Increasing at 0.14 ft/yr
2012 - 2014 Data: Decreasing at 0.26 ft/yr

PTX06-1076
Hydrograph in Ogallala Aquifer

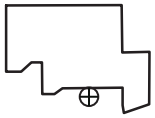


Notes:
1. The top of screen elevation is 3187.64 ft msl.
2. The bottom of screen elevation is 3167.64 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

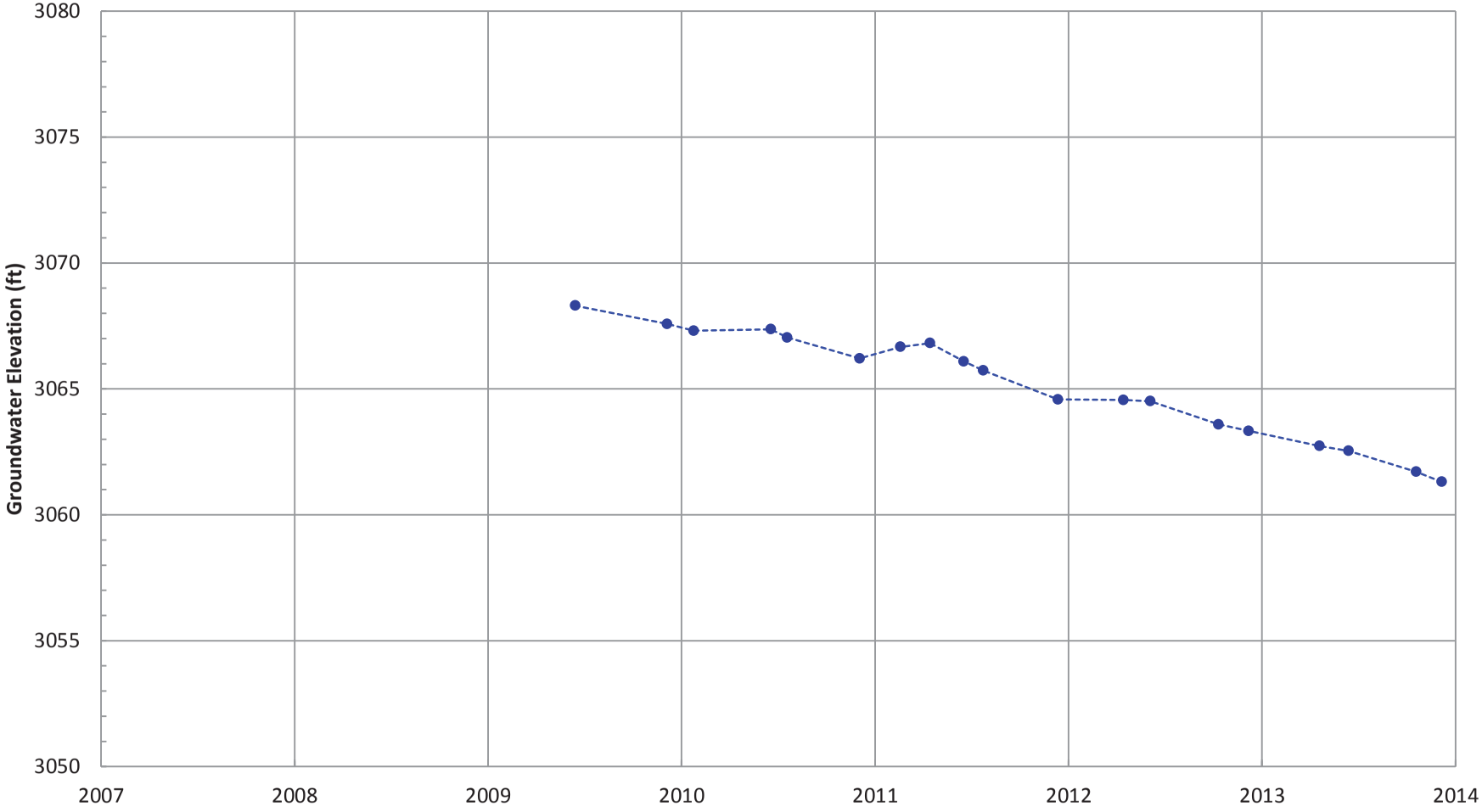
Groundwater Elevation

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: No Trend
2012 - 2014 Data: Decreasing at 0.39 ft/yr

PTX06-1137A
Hydrograph in Ogallala Aquifer

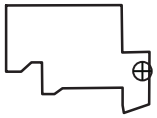


Notes:
1. The top of screen elevation is 3107.5 ft msl.
2. The bottom of screen elevation is 2952.5 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

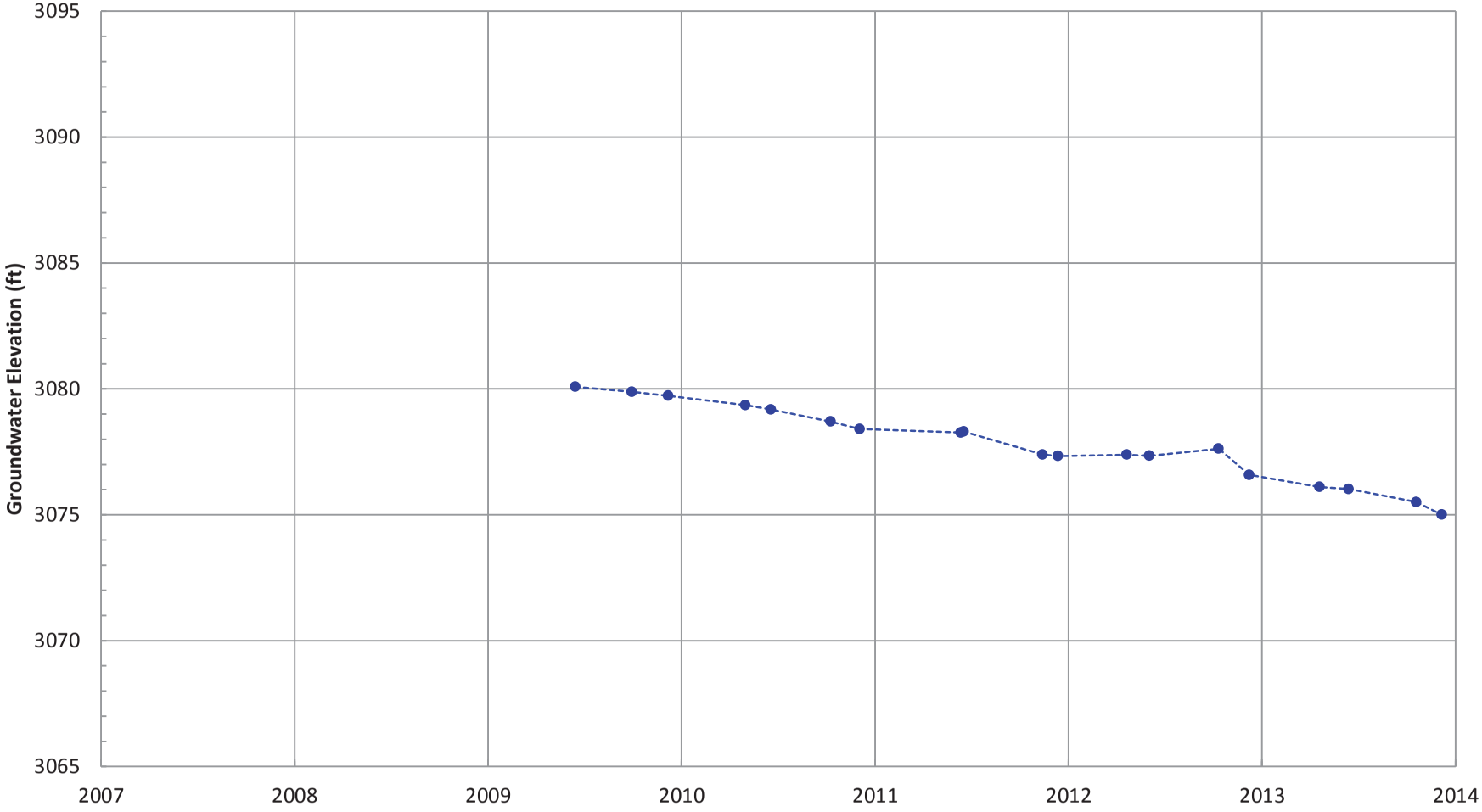
Groundwater Elevation

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 1.54 ft/yr
2012 - 2014 Data: Decreasing at 2.27 ft/yr

PTX06-1138
Hydrograph in Ogallala Aquifer

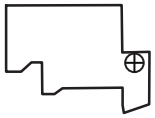


Notes:
1. The top of screen elevation is 3094.47 ft msl.
2. The bottom of screen elevation is 2949.47 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

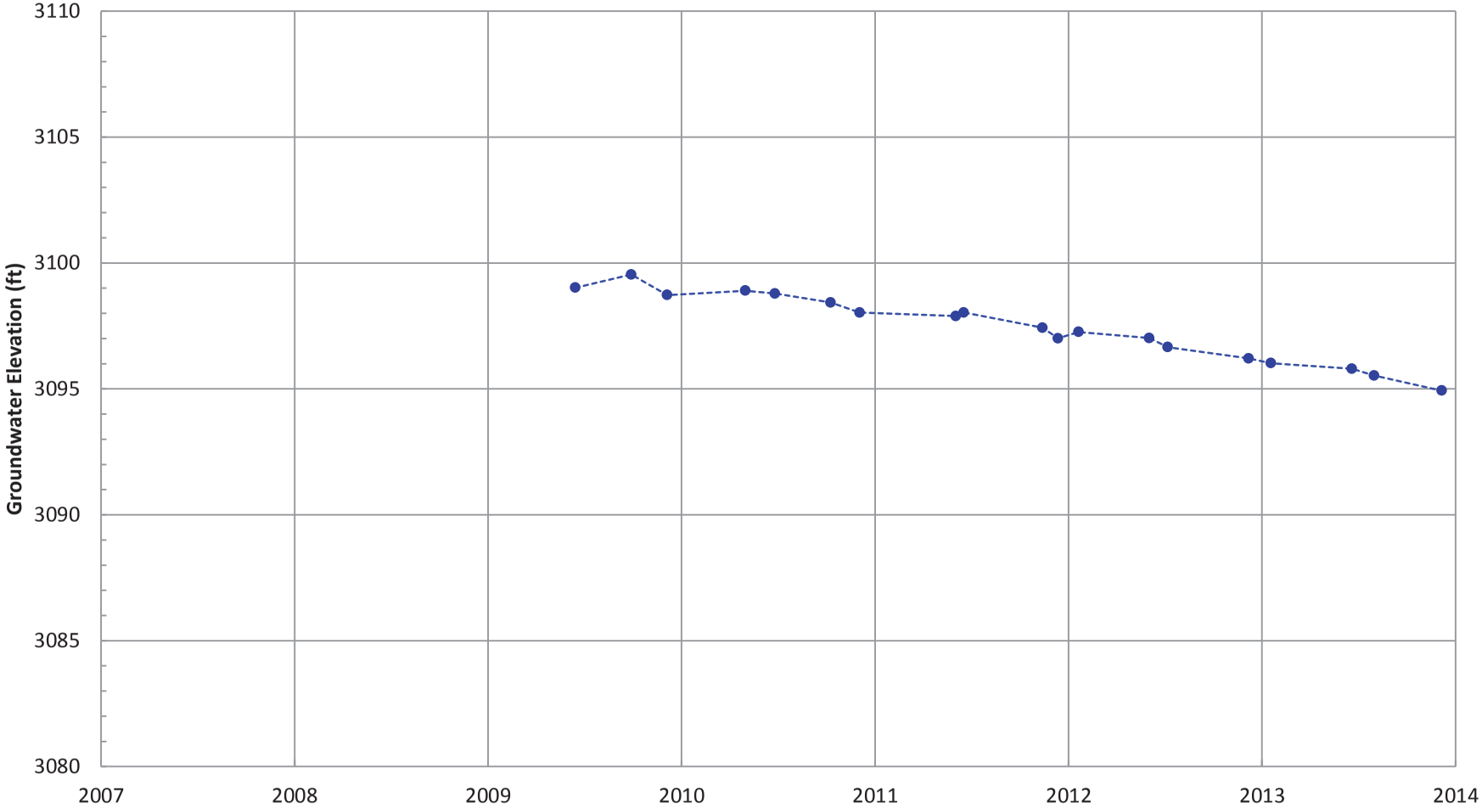
Groundwater Elevation

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 1.05 ft/yr
2012 - 2014 Data: Decreasing at 1.67 ft/yr

PTX06-1139
Hydrograph in Ogallala Aquifer

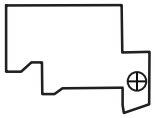


Notes:
1. The top of screen elevation is 3129.42 ft msl.
2. The bottom of screen elevation is 2979.42 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

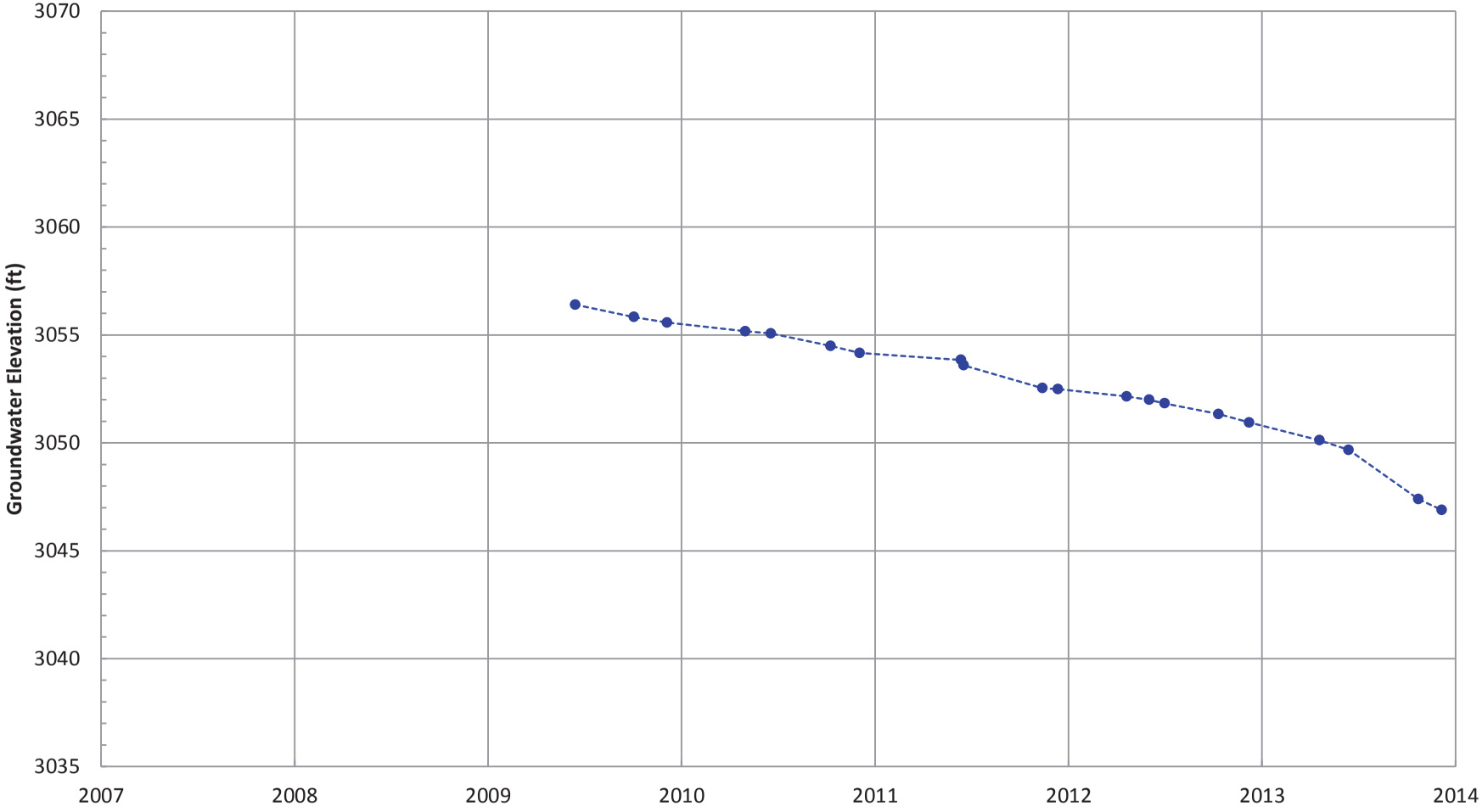
Groundwater Elevation

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.95 ft/yr
2012 - 2014 Data: Decreasing at 1.23 ft/yr

PTX06-1140
Hydrograph in Ogallala Aquifer

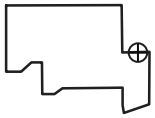


Notes:
1. The top of screen elevation is 3067.33 ft msl.
2. The bottom of screen elevation is 2847.33 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

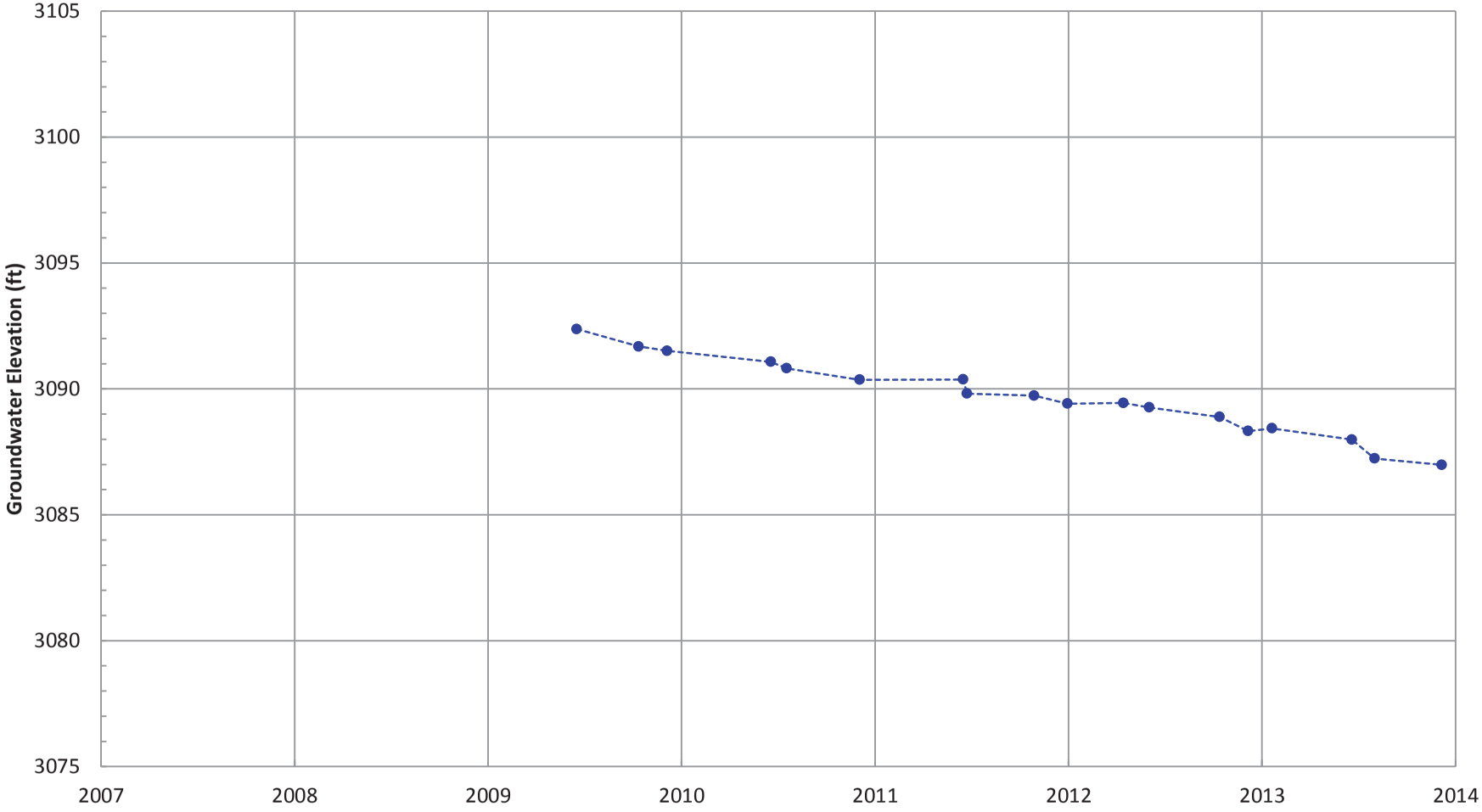
Groundwater Elevation

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 1.87 ft/yr
2012 - 2014 Data: Decreasing at 5.39 ft/yr

PTX06-1141
Hydrograph in Ogallala Aquifer



Notes:
1. The top of screen elevation is 3095.57 ft msl.
2. The bottom of screen elevation is 2885.57 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

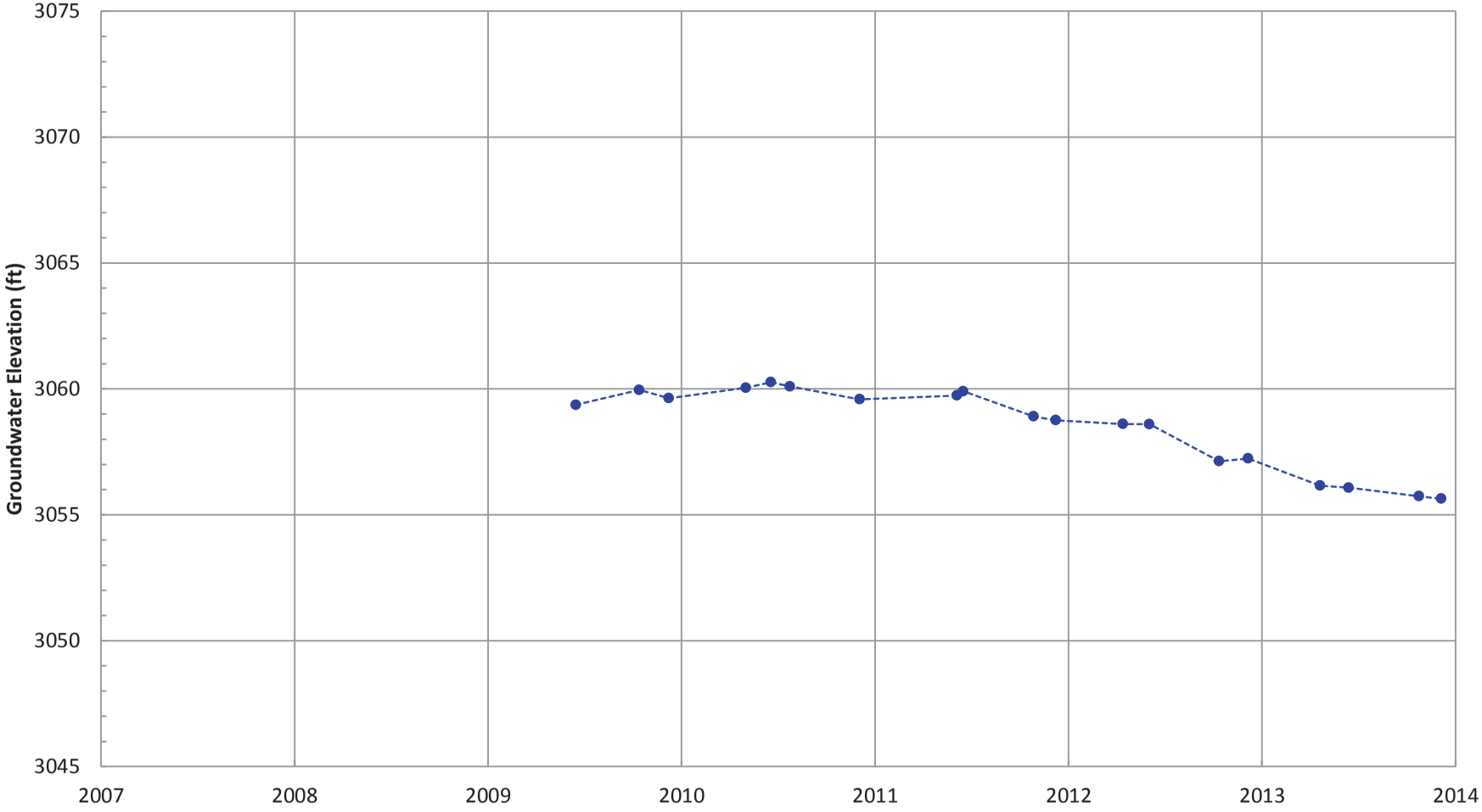
Analysis Date: 3/20/2014

Groundwater Elevation

Well Location

Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 1.08 ft/yr
2012 - 2014 Data: Decreasing at 1.74 ft/yr

PTX06-1143
Hydrograph in Ogallala Aquifer

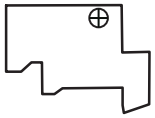


Notes:
1. The top of screen elevation is 3066 ft msl.
2. The bottom of screen elevation is 2766 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

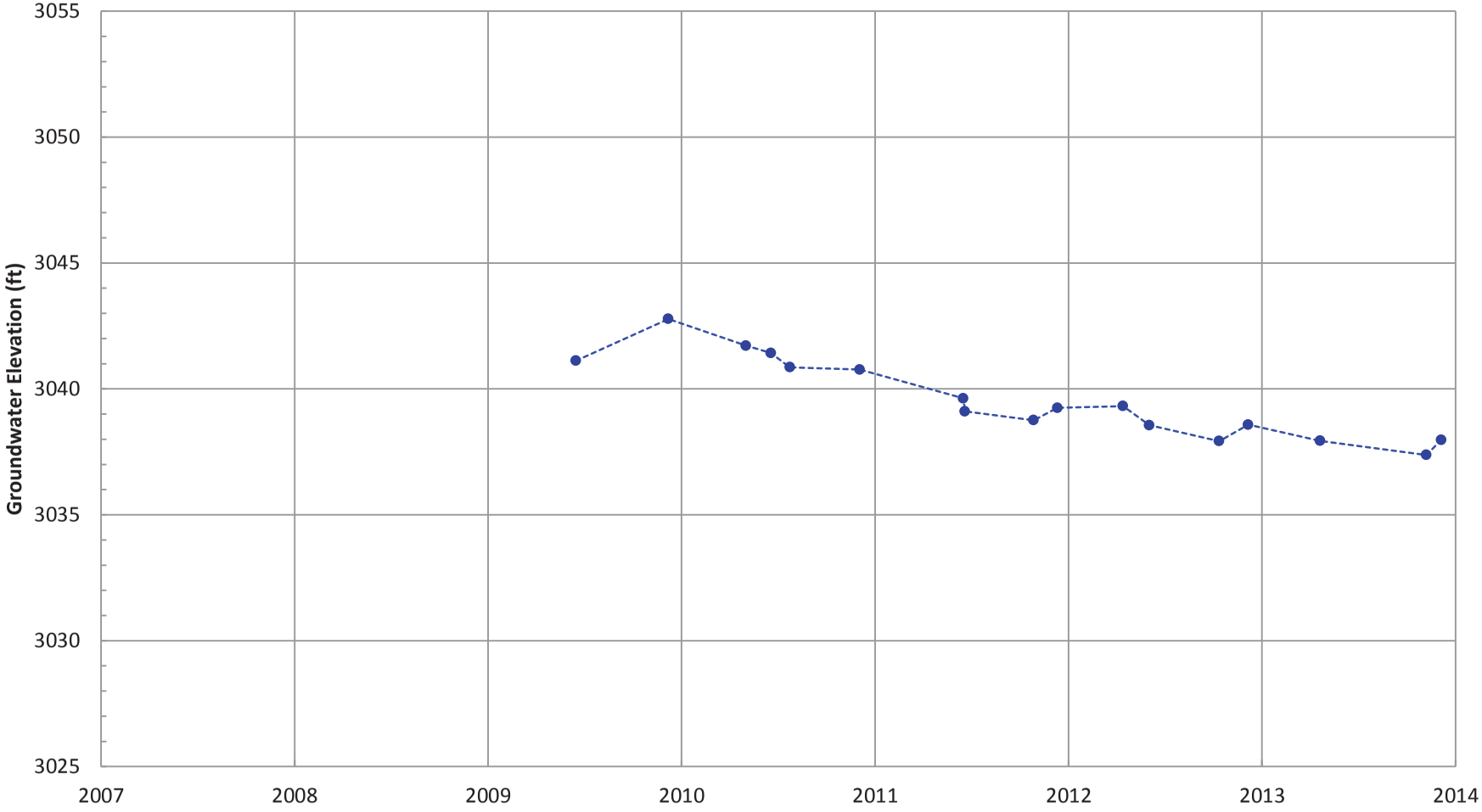
Groundwater Elevation

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 1.04 ft/yr
2012 - 2014 Data: Decreasing at 0.85 ft/yr

PTX06-1144
Hydrograph in Ogallala Aquifer

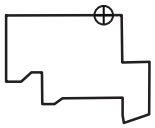


Notes:
1. The top of screen elevation is 3041.34 ft msl.
2. The bottom of screen elevation is 2726.34 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

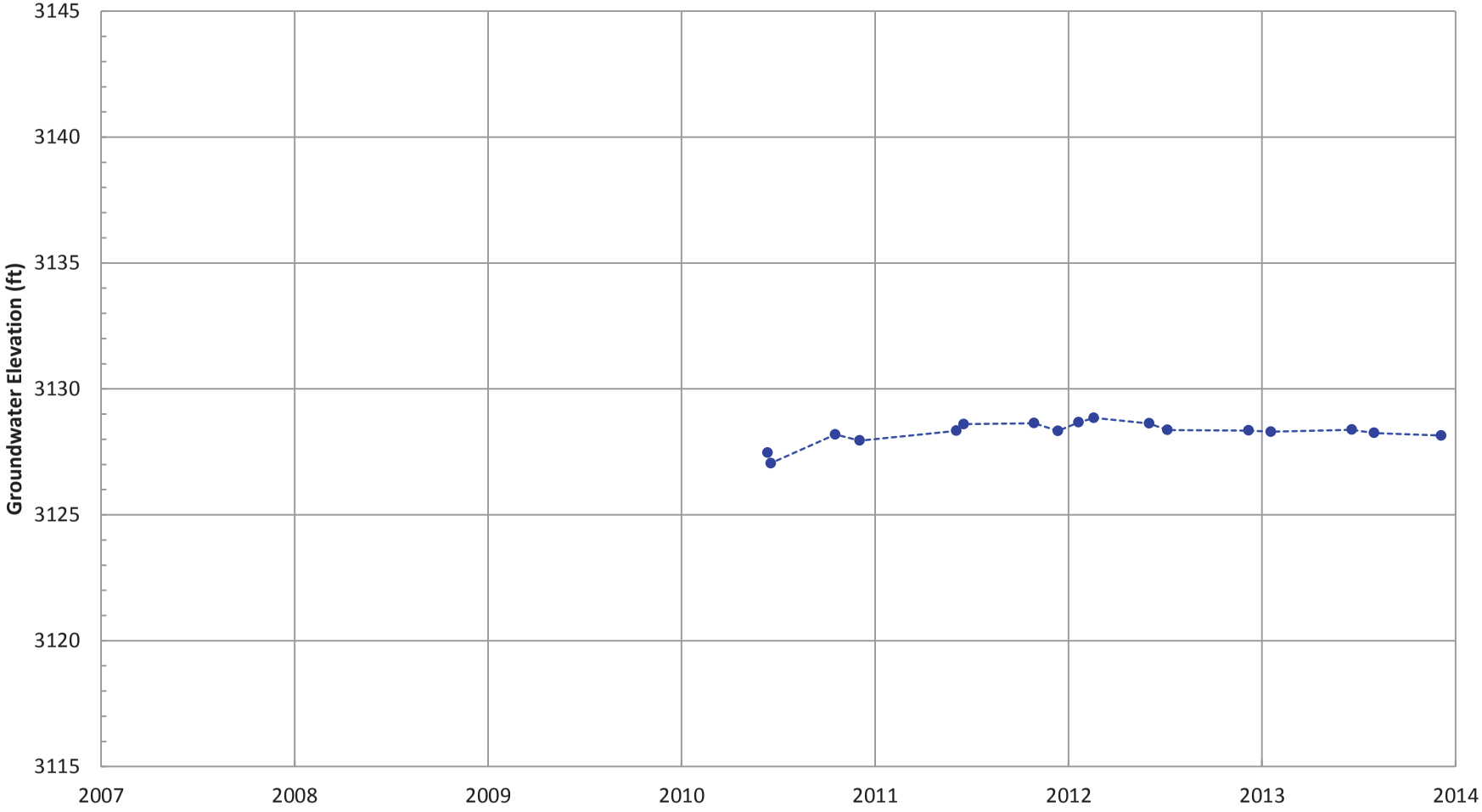
Groundwater Elevation

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 1.08 ft/yr
2012 - 2014 Data: Decreasing at 0.34 ft/yr

PTX06-1157
Hydrograph in Ogallala Aquifer

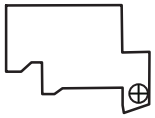


Notes:
1. The top of screen elevation is 3143.59 ft msl.
2. The bottom of screen elevation is 2998.59 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

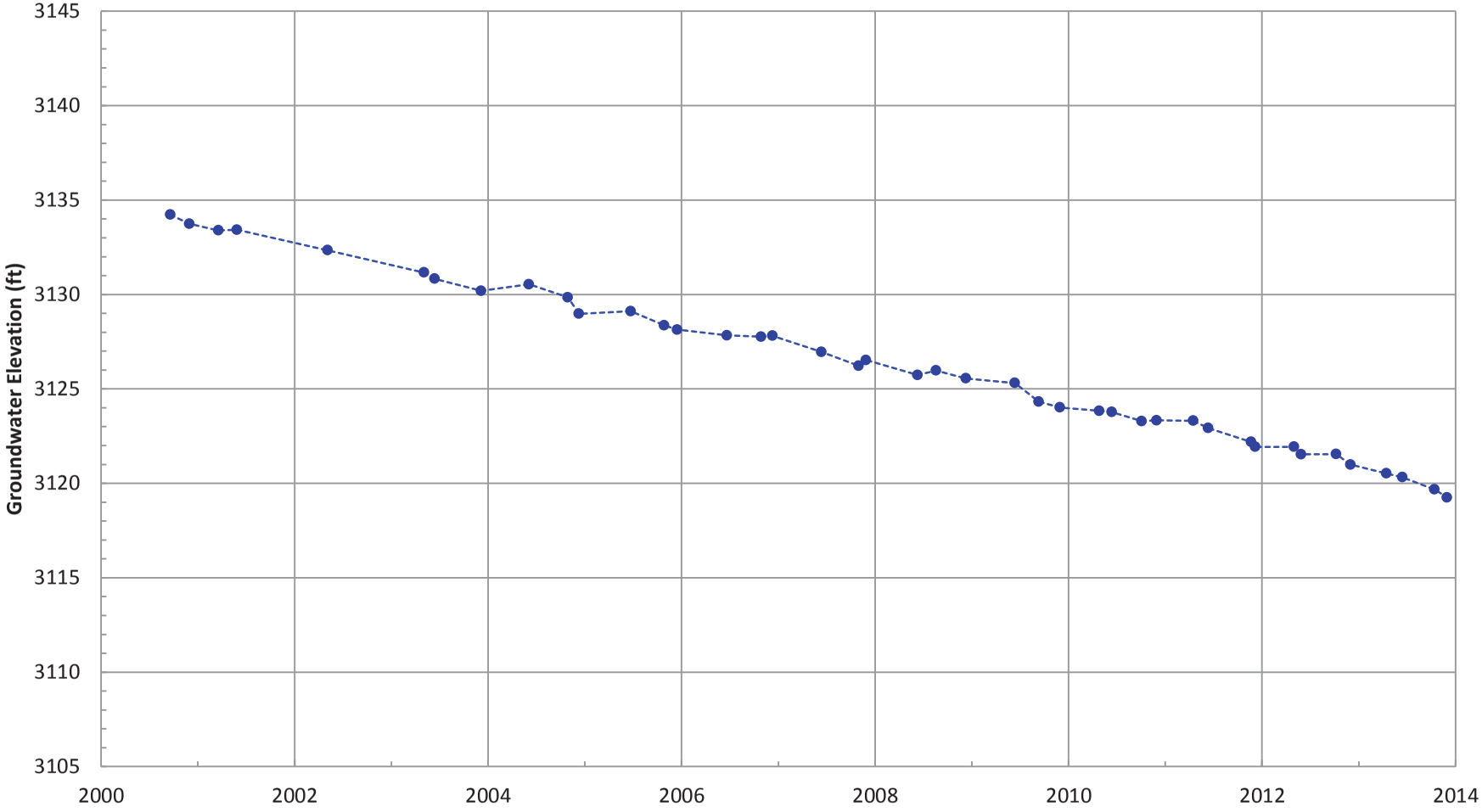
Groundwater Elevation

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Increasing at 0.19 ft/yr
2012 - 2014 Data: Decreasing at 0.18 ft/yr

PTX07-1R01
Hydrograph in Ogallala Aquifer

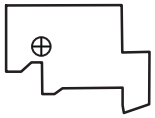


Notes:
1. The top of screen elevation is 3164.47 ft msl.
2. The bottom of screen elevation is 2974.47 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

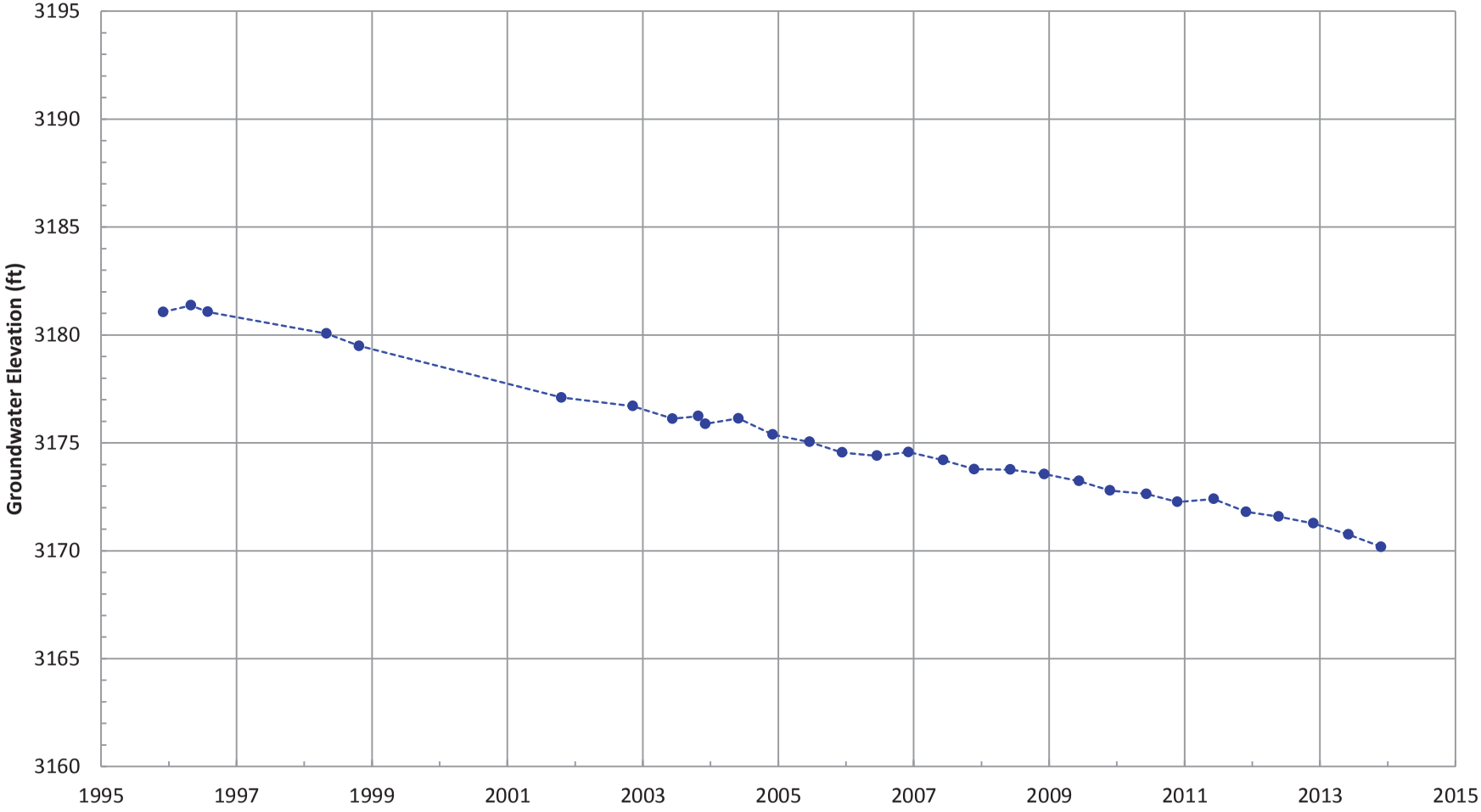
Groundwater Elevation

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 1.06 ft/yr
2012 - 2014 Data: Decreasing at 2.00 ft/yr

PTX08-1011A
Hydrograph in Ogallala Aquifer

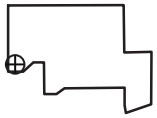


Notes:
1. The top of screen elevation is 3165.26 ft msl.
2. The bottom of screen elevation is 3135.26 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

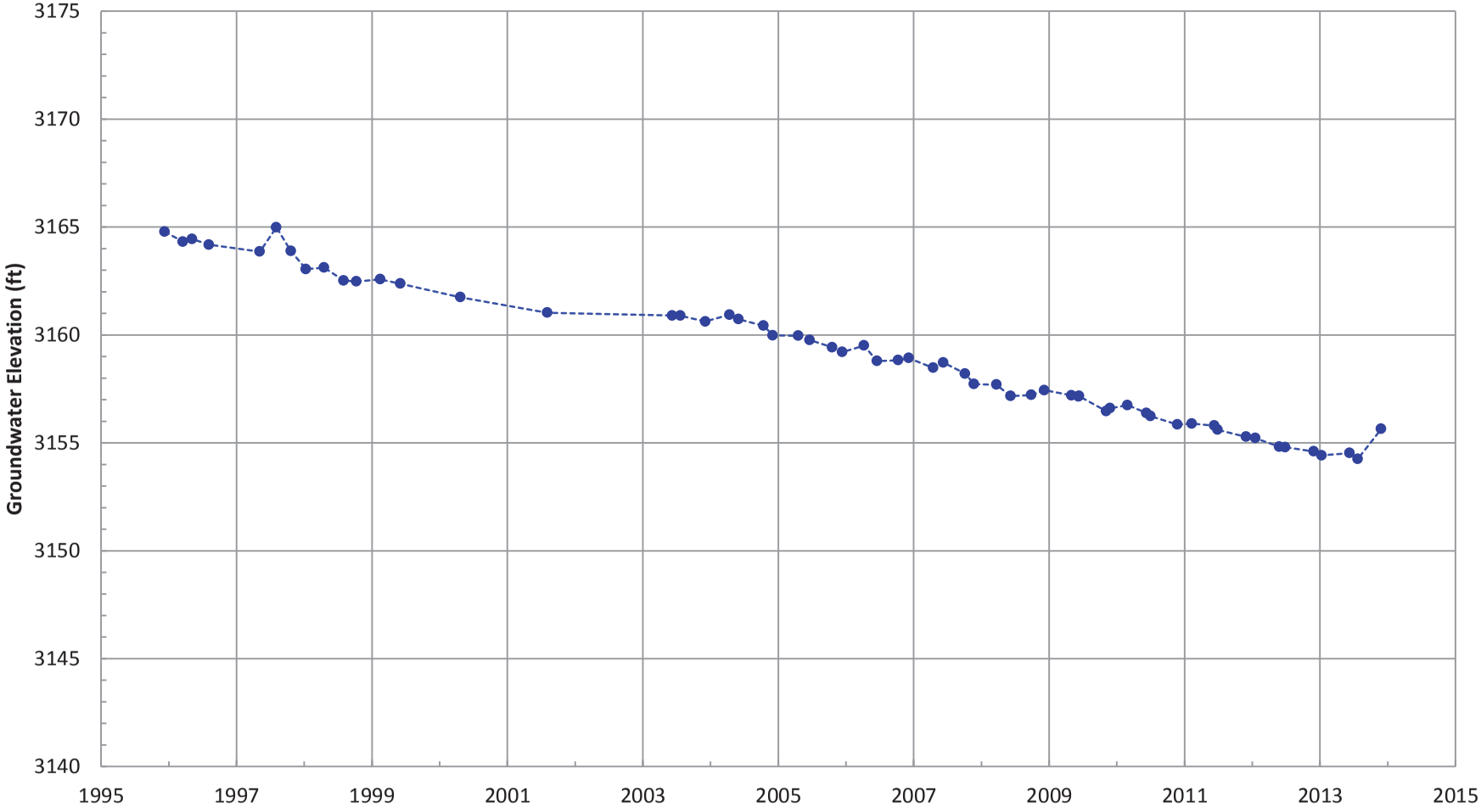
Groundwater Elevation

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.59 ft/yr
2012 - 2014 Data: N/A (<3 Measurements)

PTX-BEG2
Hydrograph in Ogallala Aquifer

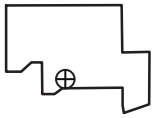


Notes:
1. The top of screen elevation is 3175.56 ft msl.
2. The bottom of screen elevation is 3125.56 ft msl.
3. A continuous hydrograph was produced by linear interpolation between successive discrete measurements. Actual groundwater elevations between measurements may be different than shown.

Analysis Date: 3/20/2014

Groundwater Elevation

Well Location



Hydrograph Trend
(MAROS Linear Regression Method)
All Data: Decreasing at 0.57 ft/yr
2012 - 2014 Data: Increasing at 1.27 ft/yr

Appendix F
Well Certifications and Completion Diagrams

U.S. Department of Energy/National Nuclear Security Administration – Pantex Plant
Amarillo, Texas

Certification of Well Construction
Industrial Solid Waste Registration No. 30459
Hazardous Waste Permit No. 50284
Compliance Plan No. 50284
EPA Identification No. TX4890110527

Certification Statement:

This is to certify that the installation and plugging and abandonment of the following facility components authorized or required by Texas Commission On Environment Quality Compliance Plan No. CP-50284 was completed in 2013, and that construction and plugging and abandonment of said components has been performed in accordance with and in compliance with the design and construction specifications of Compliance Plan No. CP-50284:

- Installation of new observation well PTX06-1167
- Installation of new P1PTS extraction well PTX06-EW-81A
- Plugging and abandonment and replacement monitoring wells PTX06-1149, PTX08-1001, and PTX08-1002
- Plugging and abandonment of parked monitoring wells OW-WR-19 and PTX-BEG-3

STATE OF TEXAS
ANTHONY T. BIGGS
GEOLOGY
2693
LICENSED
PROFESSIONAL GEOSCIENTIST

6/25/14

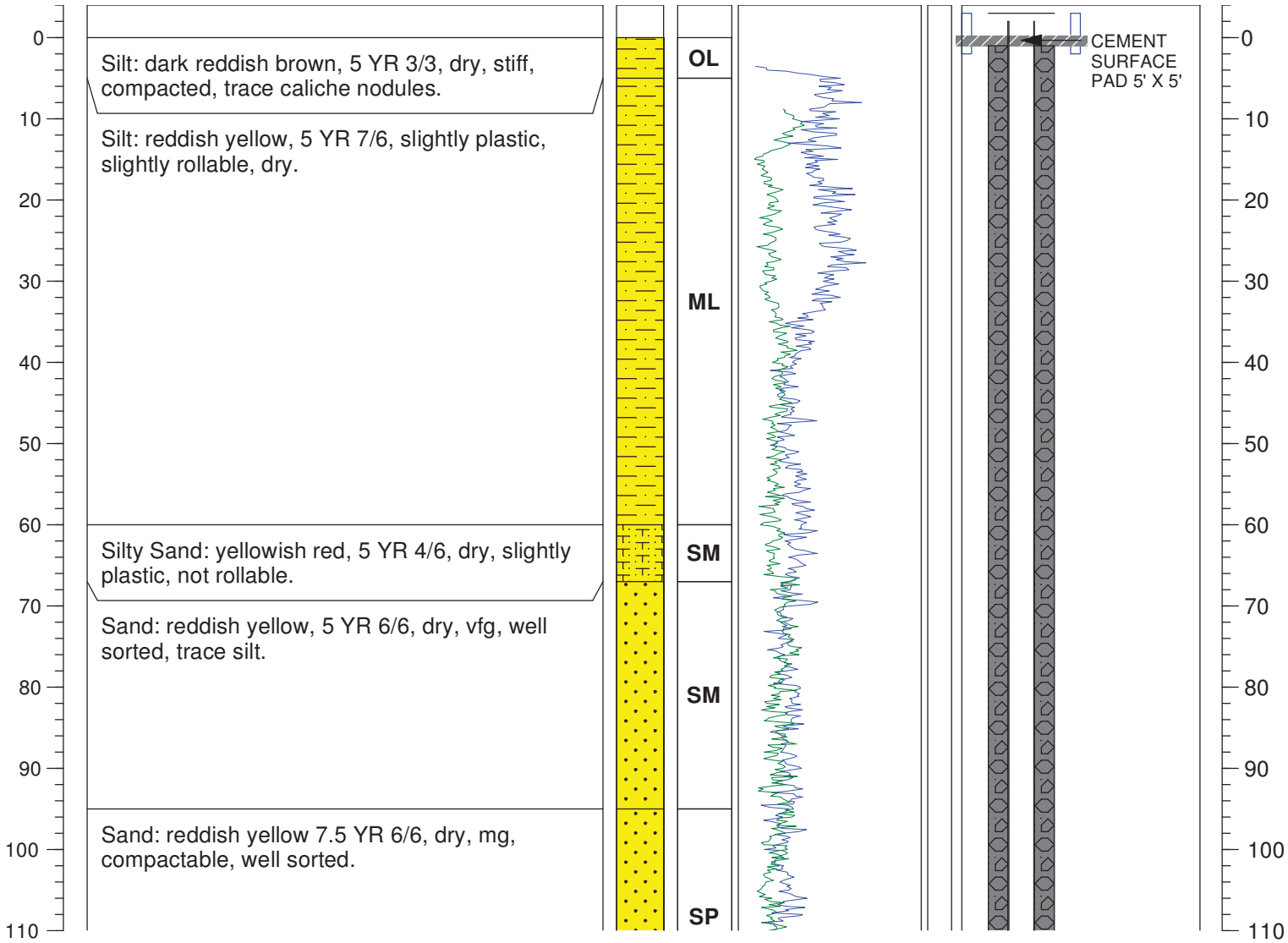
Tony Biggs — Date

Licensed Professional Geologist No. 2693
Environmental Projects & Operations
B&W Pantex, L.L.C.

Boring and Well Log

Project:	BOA 52, Release 1 & 2	**Project No.:**	18A-009-001	**Borehole/Well ID:**	PTX06-1167
Location:	TTU	**Drilling Co:**	Yellow Jacket Drilling Svc.	**Surface Elevation (ft):**	3527.72
Start Date:	7-29-2013	**Driller:**	Quentin Stevens	**TOC Elevation (ft):**	3529.82
End Date:	7-30-2013	**Method:**	ARCH	**Northing:**	3752653.00
Total Depth:	280 ft.	**Borehole Diameter:**	9 5/8"	**Easting:**	640913.71
FGZ Depth:	279 ft.	**Logged by:**	T. Aseltyne	**Note:**	Dry well

Depth (ft bgs)	Lithologic Description	USCS Symbol
0–10	Silt: dark reddish brown, 5 YR 3/3, dry, stiff, compacted, trace caliche nodules.	OL
10–60	Silt: reddish yellow, 5 YR 7/6, slightly plastic, slightly rollable, dry.	ML
60–70	Silty Sand: yellowish red, 5 YR 4/6, dry, slightly plastic, not rollable.	SM
70–100	Sand: reddish yellow, 5 YR 6/6, dry, vfg, well sorted, trace silt.	SM
100–110	Sand: reddish yellow 7.5 YR 6/6, dry, mg, compactable, well sorted.	SP



Notes:

Footer Notes

Boring and Well Log

Project:	BOA 52, Release 1 & 2	**Project No.:**	18A-009-001	**Borehole/Well ID:**	PTX06-1167
Location:	TTU	**Drilling Co:**	Yellow Jacket Drilling Svc.	**Surface Elevation (ft):**	3527.72
Start Date:	7-29-2013	**Driller:**	Quentin Stevens	**TOC Elevation (ft):**	3529.82
End Date:	7-30-2013	**Method:**	ARCH	**Northing:**	3752653.00
Total Depth:	280 ft.	**Borehole Diameter:**	9 5/8"	**Easting:**	640913.71
FGZ Depth:	279 ft.	**Logged by:**	T. Aseltyne	**Note:**	Dry well

Depth (ft bgs)	Lithologic Description	Lithology	USCS Symbol	Geophysical Logging (Gamma Ray / Neutron)	Water Level	Well Construction	Depth (ft bgs)
110–120							110–120
120–160	Sandy Gravel: reddish yellow, 7.5 YR 6/6, vfg, poorly sorted. Gravel mg to cg, rounded.		SW			GROUTED ANNULUS 2' to 257'; 4" SCH. 80 PVC CASING 2' to 269.50'	120–160
160–185	Sand: reddish yellow, 7.5 YR 6/6, well sorted, dry, vfg to fg.		SP				160–185
185–190	Sandy Gravel: reddish yellow, 7.5 YR 6/6, dry, mg, gravel: meduim pebble, subrounded, moderately sorted.		SW				185–190
190–210	Sand: reddish yellow, 7.5 YR 6/6, dry, well sorted.		SP				190–210
210–220	Gravely Sand: reddish yellow, 7.5 YR 6/6, dry. Gravel: medium pebble, subrounded to subangular, poorly sorted.		SW / SP				210–220

Notes:

Footer Notes

Boring and Well Log

Project:	BOA 52, Release 1 & 2	**Project No.:**	18A-009-001	**Borehole/Well ID:**	PTX06-1167
Location:	TTU	**Drilling Co:**	Yellow Jacket Drilling Svc.	**Surface Elevation (ft):**	3527.72
Start Date:	7-29-2013	**Driller:**	Quentin Stevens	**TOC Elevation (ft):**	3529.82
End Date:	7-30-2013	**Method:**	ARCH	**Northing:**	3752653.00
Total Depth:	280 ft.	**Borehole Diameter:**	9 5/8"	**Easting:**	640913.71
FGZ Depth:	279 ft.	**Logged by:**	T. Aseltyne	**Note:**	Dry well

Depth (ft bgs)	Lithologic Description	Lithology	USCS Symbol	Geophysical Logging (Gamma Ray / Neutron)	Water Level	Well Construction	Depth (ft bgs)
230	Sand: reddish yellow, 7.5 YR 6/6, dry, poorly sorted.						230
240	Sandy Gravel: reddish yellow, 7.5 YR 6/6, mg to cg, dry, poorly sorted. Gravel: medium-coarse pebble, subrounded, poorly sorted.		GM				240
250	Gravely Sand: light brown, 7.5 YR 6/4, dry, poorly sorted, mg to cg. Gravel: medium-coarse pebble, subrounded-subangular, poorly sorted.		SW				250
260						BENTONITE PLUG 257' to 264'	260
270						12/20 SAND PACK 264' to 280'	270
280	Silt: light brown, 7.5 YR 6/4, dry, compressable, not rollable (276-277').		ML SM SM			4" SCH. 80 0.01" PVC SCREEN 269.5' to 279.5'	280
	Silty Sand: light brown, 7.5 YR 6/4, wet, compressable (277-279').					4" SCH. 80 PVC SUMP 279.5' to 280'	
	FGZ: top of FGZ 279 ft bgs.						

Notes:

Footer Notes

Boring and Well Log

Project:	BOA 52, Release 1 and 2	**Project No.:**	18A-009-001	**Borehole/Well ID:**	PTX08-1001
Location:	Playa 1 area	**Drilling Co:**	Yellow Jacket Drilling Svc.	**Surface Elevation (ft):**	3516.45
Start Date:	8-3-2013	**Driller:**	Quentin Stevens	**TOC Elevation (ft):**	3518.86
End Date:	8-4-2013	**Method:**	ARCH	**Northing:**	3762976.26
Total Depth:	280 ft.	**Borehole Diameter:**	9 5/8"	**Easting:**	638941.45
FGZ Depth:	274 ft.	**Logged by:**	E. Gorove	**Note:**	Replacement well

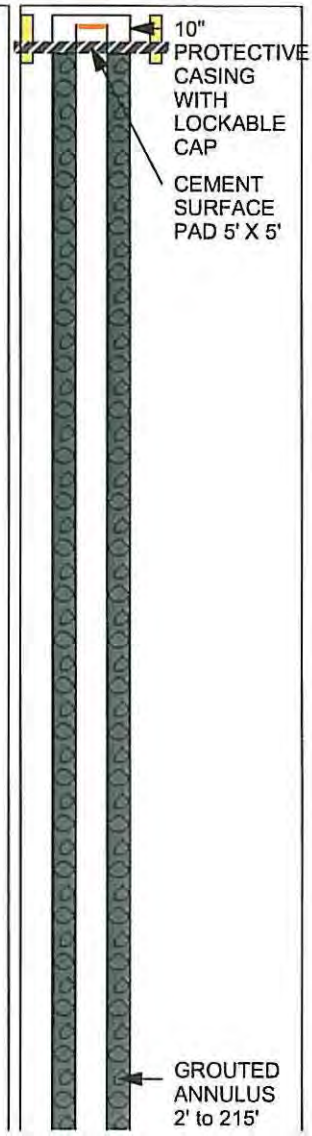
Depth (ft bgs)	Lithologic Description	USCS Symbol
0	Silt: medium brown, 7.5 YR 5/4, topsoil, dry, hard, organic rich.	OL
10	Silt: pinkish tan, 7.5 YR 6/3, dry, hard .	ML
20	Silty Clay: tanish brown, 5 YR 6/4, dry, hard, trace caliche nodules.	ML
30	Silty Clay: meduim brown, 5 YR 5/6, slightly damp, hard, slightly plastic, trace vfg sand.	ML
40	Silty Clay: light brown, 7.5 YR 6/3, dry, not plasic, hard. Grading to redish brown 5 YR 5/6 at 35 ft bgs. Grading to orangish brown 5 YR 5/8 at 40 ft bgs.	ML
50	Silt: brownish red, 5 YR 5/6, damp, some subangular to subrounded caliche gravel 1/4" - 3/4".	CL
60	Gravely Sand: light brown, 7.5 YR 6/6, dry. Sand vfg, poorly sorted. Gravel 1/8" to 1", primarily 1/4", rounded to subangular, caliche based.	SW
70	Silt: reddish brown, 7.5 YR 6/6, damp, hard, with some gravel. Gravel to 1/2", subangular to subrounded, caliche based.	ML
80	Sand: light brown, 7.5 YR 6/2, damp, vfg, well sorted, subangular to subrounded.	SP
90	Gravely Sand: light brown, 7.5 YR 6/3, dry, poorly sorted. Gravel 1/8" - 3/4", predominately 1/8", subangular to subrounded, caliche based	SW
100		SP
110		

Lithology

Geophysical Logging
Gamma Ray
Neutron

Water Level

Well Construction



State Well Report No.: 342793

Boring and Well Log

Project:	BOA 52, Release 1 and 2	**Project No.:**	18A-009-001	**Borehole/Well ID:**	PTX08-1001
Location:	Playa 1 area	**Drilling Co:**	Yellow Jacket Drilling Svc.	**Surface Elevation (ft):**	3516.45
Start Date:	8-3-2013	**Driller:**	Quentin Stevens	**TOC Elevation (ft):**	3518.86
End Date:	8-4-2013	**Method:**	ARCH	**Northing:**	3762976.26
Total Depth:	280 ft.	**Borehole Diameter:**	9 5/8"	**Easting:**	638941.45
FGZ Depth:	274 ft.	**Logged by:**	E. Gorove	**Note:**	Replacement well

Depth (ft bgs)	Lithologic Description	Lithology	USCS Symbol	Geophysical Logging (Gamma Ray / Neutron)	Water Level	Well Construction	Depth (ft bgs)
120	Sand: tan to light brown, 7.5 YR 6/2, dry, vfg, well sorted. Silty sand, mg, subangular to subrounded present 106 ft - 108 ft bgs.		ML			4" SCH. 80 PVC CASING 2' to 230'	120
130	Silt: reddish brown, 5 YR 5/6, dry, non plastic. Sand vfg, subangular to subrounded.						130
140	Silt: tan, 7.5 YR 7/3, dry, non plastic. With trace vfg sand and gravel to 1/4".		ML				140
150	Silty Sand: tan, 10 YR 6/4, slightly damp, non plastic. Sand vfg. With trace gravel 1/2" to 1", subrounded to subangular.		ML				150
160							160
170	Sand: tan, 10 YR 6/4, damp, vfg to fg, well sorted. Trace gravel to 1/4", subangular to rounded.		SP				170
180							180
190	Sand: light tan, 10 YR 6/2, damp, vfg to fg, poorly sorted. With some gravel 1/8" to 1", black, hardened cement grout.		SP SC				190
200	Clayey Sand: light tan, 10 YR 6/2, damp, vfg to fg, well sorted. Clay dark gray, 7.5 YR 4/1, plastic, soft, possible grout.						200
210	Sand: brown, 7.5 YR 6/4, vfg, well sorted, subangular to subrounded. Trace gravel to 3/4".		SP				210
220	Silty Sand: medium brown, 7.5 YR 5/6, vfrg to fg, well sorted, subangular to subrounded. Trace gravel 1/8" to 3/4", subangular to subrouded.		SM			BENTONITE PLUG 215' to 225'	220
230							230

State Well Report No.: 342793

Boring and Well Log

Project:	BOA 52, Release 1 and 2	**Project No.:**	18A-009-001	**Borehole/Well ID:**	PTX08-1001
Location:	Playa 1 area	**Drilling Co:**	Yellow Jacket Drilling Svc.	**Surface Elevation (ft):**	3516.45
Start Date:	8-3-2013	**Driller:**	Quentin Stevens	**TOC Elevation (ft):**	3518.86
End Date:	8-4-2013	**Method:**	ARCH	**Northing:**	3762976.26
Total Depth:	280 ft.	**Borehole Diameter:**	9 5/8"	**Easting:**	638941.45
FGZ Depth:	274 ft.	**Logged by:**	E. Gorove	**Note:**	Replacement well

Depth (ft bgs)	Lithologic Description	Lithology	USCS Symbol	Geophysical Logging (Gamma Ray, Neutron)	Water Level	Well Construction	Depth (ft bgs)
230							230
240	Sand: medium brown, 7.5 YR 5/6, moist to saturated, vfg to fg, , poorly sorted. With some gravel 1/4" to 5/8", subangular to rounded and trace silt.						240
250			SW			12/20 SAND PACK 225' to 276'	250
260						4" SCH. 80 0.01" PVC SCREEN 230' to 275'	260
270							270
280	Sandy Silt: light pinkish brown, 5 YR 7/4, moderately stiff. Sand fg to mg. Top of FGZ 274 ft bgs.		ML			4" SCH. 80 PVC SUMP 275' to 276' BENTONITE PLUG 276' to 280'	280

State Well Report No.: 342793

Boring and Well Log

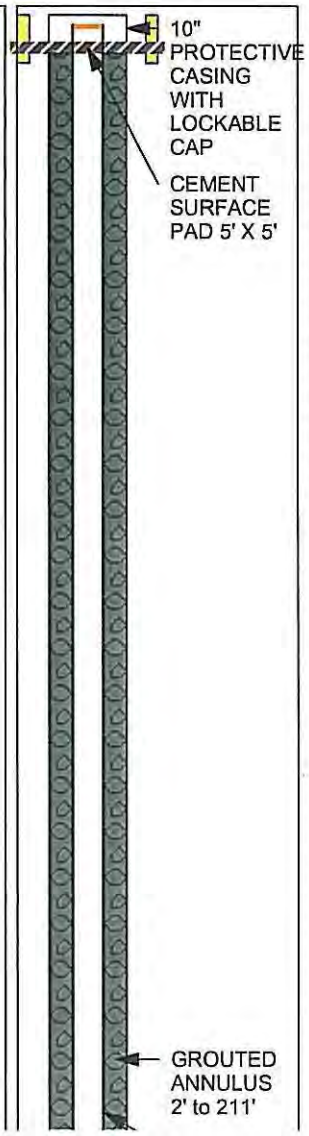
Project:	BOA 52, Release 1 and 2	**Project No.:**	18A-092-001	**Borehole/Well ID:**	PTX08-1002
Location:	Playa 1 area	**Drilling Co:**	Yellow Jacket Drilling Svc.	**Surface Elevation (ft):**	3514.71
Start Date:	8-26-2013	**Driller:**	Quentin Stevens	**TOC Elevation (ft):**	3517.01
End Date:	8-27-2013	**Method:**	ARCH	**Northing:**	3763003.22
Total Depth:	270 ft.	**Borehole Diameter:**	9 5/8"	**Easting:**	640859.00
FGZ Depth:	260 ft.	**Logged by:**	E. Gorove	**Note:**	Replacement well

Depth (ft bgs)	Lithologic Description	USCS Symbol
0	Clay: brown, 7.5 YR 3/4, damp, hard, non plastic. With trace sand.	CL
10	Silty Clay: brown, 7.5 YR 3/4, damp, hard, non plastic.	CL
20		
30	Silty Clay: pinkish brown, 2.5 YR 5/6, damp to dry, hard, slightly plastic, increasing calilche with depth.	CL
40	Silty Clay: pinkish brown, 2.5 YR 5/6, damp to dry, hard, slightly plastic.	CL
50	Gravel: white, 2.5 YR 8/1, dry, moderatley sorted, 1/8" to 1", subangular to subrounded, caliche. With some silt and trace vfg sand.	GW
60		CL
70	Silt: light brown, 7.5 YR 6/4, dry, slightly compressible. With trace caliche 1/4" to 1".	ML
80	Sandy Silt: reddish brown, 2.5 YR 6/3, dry, non plastic. Sand vfg.	SP
90	Sand: light brown, 7.5 YR 6/4, dry, vfg, well sorted, quartz based. With trace gravel (caliche) 1/4" to 1", surbrounded.	ML
100	Sandy Silt: reddish brown, 2.5 YR 6/3, dry to damp, slightly plastic. Sand vfg. With some gravel, 1/4" to 3/4", subrounded to subangular.	ML
110	Silt: reddish brown, 5 YR 5/6, dry, slightly plastic. With some gravel (caliche) to 1/2", subangular	

Geophysical Logging: Gamma Ray, Neutron

Water Level

Well Construction



State Well Report No.: 342803

Boring and Well Log

Project:	BOA 52, Release 1 and 2	**Project No.:**	18A-092-001	**Borehole/Well ID:**	PTX08-1002
Location:	Playa 1 area	**Drilling Co:**	Yellow Jacket Drilling Svc.	**Surface Elevation (ft):**	3514.71
Start Date:	8-26-2013	**Driller:**	Quentin Stevens	**TOC Elevation (ft):**	3517.01
End Date:	8-27-2013	**Method:**	ARCH	**Northing:**	3763003.22
Total Depth:	270 ft.	**Borehole Diameter:**	9 5/8"	**Easting:**	640859.00
FGZ Depth:	260 ft.	**Logged by:**	E. Gorove	**Note:**	Replacement well

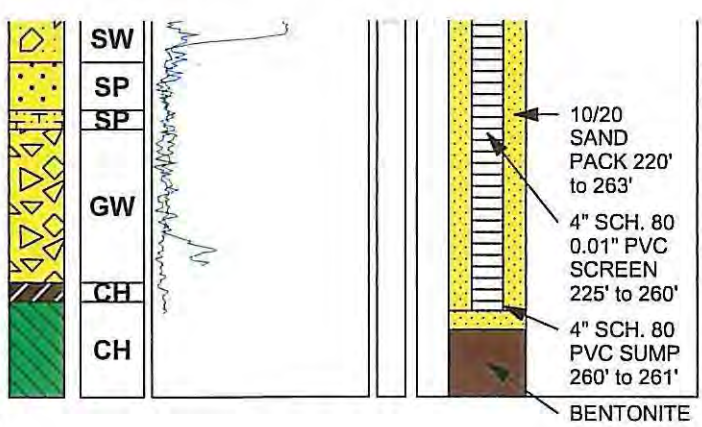
Depth (ft bgs)	Lithologic Description	Lithology	USCS Symbol	Geophysical Logging (Gamma Ray / Neutron)	Water Level	Well Construction	Depth (ft bgs)
	to subrounded.		SP			4" SCH. 80 PVC CASING 2' to 225'	
120	Sand: yellowish brown, 7.5 YR 6/6, dry, vfg, well sorted, subangular to subrounded . With trace silt.						120
130	Silt: yellowish bronw, 7.5 YR 6/6, dry, slightly plastic. With trace vfg sand and gravel to 1/4".		ML				130
140							140
150	Sand: yellowish brown, 7.5 YR 6/4, dry, vfg, well sorted, subangular to subrounded. With trace gravel, 1/4" to 1", subrounded to rounded.		SP				150
160	Silt: yellowish bronw, 10 YR 6/4, dry to damp, slightly plastic. Increasing vfg sand with depth.		ML				160
170							170
180							180
190	Sand: yellowish brown, 10 YR 6/4, dry, vfg, well sorted, subangular to subrounded, subangular to subrounded.		SP				190
200	Sandy Silt: yellowish brown, 10 YR 6/4, damp, slightly plastic. Sand vfg. With trace gravel to 1/2".		CL				200
210						BENTONITE PLUG 211' to 220'	210
220	Sand: yellowish brown, 10 YR 6/4, damp, vfg, well sorted, subangular to subrounded. With trace gravel to 1/2".		SP				220
230							230

State Well Report No.: 342803

Boring and Well Log

Project:	BOA 52, Release 1 and 2	**Project No.:**	18A-092-001	**Borehole/Well ID:**	PTX08-1002
Location:	Playa 1 area	**Drilling Co:**	Yellow Jacket Drilling Svc.	**Surface Elevation (ft):**	3514.71
Start Date:	8-26-2013	**Driller:**	Quentin Stevens	**TOC Elevation (ft):**	3517.01
End Date:	8-27-2013	**Method:**	ARCH	**Northing:**	3763003.22
Total Depth:	270 ft.	**Borehole Diameter:**	9 5/8"	**Easting:**	640859.00
FGZ Depth:	260 ft.	**Logged by:**	E. Gorove	**Note:**	Replacement well

Depth (ft bgs)	Lithologic Description
230–240	Gravely Sand: yellowish brown, 10 YR 6/4, damp, vfg, poorly sorted, subangular to subrounded, Gravel 1/4" to 1-1/4", subrounded.
240–250	Sand: yellowish brown, 10 YR 6/4, damp, vfg, well sorted subangular to subrounded. With trace gravel to 1/2".
250–260	Silty Sand: yellowish brown, 10 YR 6/4, damp to moist, vfg, subangular to subrounded. Silt approx. 35%.
260–270	Sandy Gravel: light brown, 10 YR 5/3, saturated, 1/4" to 3/4", angular to subangular, poorly sorted. Sand mg to cg. With some silt decreasing with depth.
	Silty Clay: light brown, 10 YR 6/3, saturated, plastic, moderately stiff.
	Clay: light brown, 10 YR 6/3, saturated, fat, pliable, no sand or silt. Top of FGZ 260 ft bgs

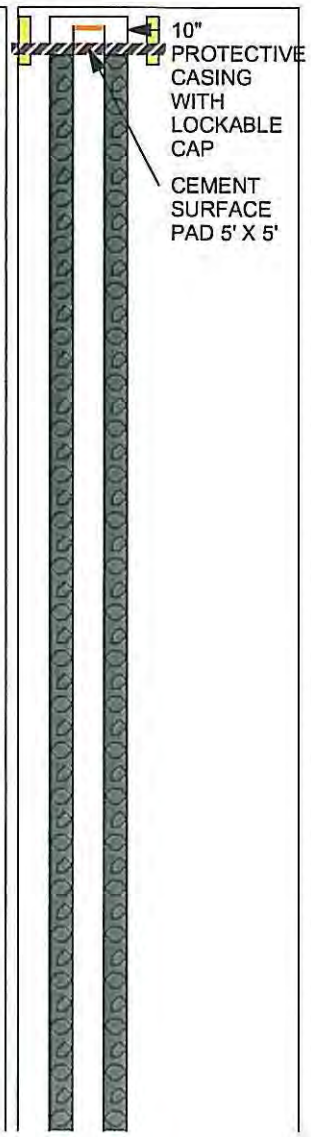


State Well Report No.: 342803

Boring and Well Log

Project:	BOA 52, Release 1 and 2	**Project No.:**	18A-092-001	**Borehole/Well ID:**	PTX06-1149
Location:	TTU	**Drilling Co:**	Yellow Jacket Drilling Svc.	**Surface Elevation (ft):**	3529.28
Start Date:	9-5-2013	**Driller:**	Quentin Stevens	**TOC Elevation (ft):**	3531.45
End Date:	9-7-2013	**Method:**	ARCH	**Northing:**	3754717.64
Total Depth:	272 ft.	**Borehole Diameter:**	9 5/8"	**Easting:**	635864.13
FGZ Depth:	270 ft.	**Logged by:**	F. Krembs	**Note:**	Replacement well

Depth (ft bgs)	Lithologic Description	Lithology	USCS Symbol	Geophysical Logging (Gamma Ray, Neutron)	Water Level	Well Construction	Depth (ft bgs)
0–25	Silty Clay: brown, 7.5 YR 4/6, dry, hard, with trace fg to mg sand.		CL			10" PROTECTIVE CASING WITH LOCKABLE CAP; CEMENT SURFACE PAD 5' X 5'	
25–50	Silty Clay: brown, 5 YR 4/4, dry, hard,with trace fg sand and caliche nodules.		CL				
50–78	Silty Clay: brown, 5 YR 6/4, dry, hard,with trace fg sand and caliche nodules. Grading to 2.5 YR 4/6 at 55 ft bgs; caliche layers at 65 ft bgs.		CL				
78–110	Sand: light reddish brown, 5 YR 6/4, dry, vfg, poorly sorted. With trae silt. Grading to 7.5 YR 6/3 with trace cg sand at 97 ft bgs; grading back to 5 YR 6/4 without cg sand at 115 ft bgs.						



State Well Report No.: 342830

Boring and Well Log

Project:	BOA 52, Release 1 and 2	**Project No.:**	18A-092-001	**Borehole/Well ID:**	PTX06-1149
Location:	TTU	**Drilling Co:**	Yellow Jacket Drilling Svc.	**Surface Elevation (ft):**	3529.28
Start Date:	9-5-2013	**Driller:**	Quentin Stevens	**TOC Elevation (ft):**	3531.45
End Date:	9-7-2013	**Method:**	ARCH	**Northing:**	3754717.64
Total Depth:	272 ft.	**Borehole Diameter:**	9 5/8"	**Easting:**	635864.13
FGZ Depth:	270 ft.	**Logged by:**	F. Krembs	**Note:**	Replacement well

Depth (ft bgs)	Lithologic Description	Lithology	USCS Symbol	Geophysical Logging (Gamma Ray / Neutron)	Water Level	Well Construction	Depth (ft bgs)
120			SP			GROUTED ANNULUS 2' to 236'; 4" SCH. 80 PVC CASING 2' to 250'	120
130							130
140							140
150							150
160							160
170							170
180	Sand: light brown 7.5 YR 6/4, dry, vfg, poorly sorted, with little silt.		SM				180
190							190
200	Sand: light yellowish brown, 10 YR 7/4, dry, vfg, poorly sorted, with trace silt.		SP				200
210	Sand: light brown, 10 YR 7/2, dry, fg to cg, well sorted. With some fg to cg gravel and trace silt.		SP				210
220	Sand: light brown, 10 YR 6/4, dry, fg to mg, moderately sorted. With trace gravel and trace silt.		SP				220
230							230

State Well Report No.: 342830

Boring and Well Log

Project:	BOA 52, Release 1 and 2	**Project No.:**	18A-092-001	**Borehole/Well ID:**	PTX06-1149
Location:	TTU	**Drilling Co:**	Yellow Jacket Drilling Svc.	**Surface Elevation (ft):**	3529.28
Start Date:	9-5-2013	**Driller:**	Quentin Stevens	**TOC Elevation (ft):**	3531.45
End Date:	9-7-2013	**Method:**	ARCH	**Northing:**	3754717.64
Total Depth:	272 ft.	**Borehole Diameter:**	9 5/8"	**Easting:**	635864.13
FGZ Depth:	270 ft.	**Logged by:**	F. Krembs	**Note:**	Replacement well

Depth (ft bgs)	Lithologic Description	Lithology	USCS Symbol	Geophysical Logging (Gamma Ray / Neutron)	Water Level	Well Construction	Depth (ft bgs)
230	Gravel: varigated brown, 10 YR 6/4, dry, fg to cg, moderately sorted. With some fg to cg sand and trace silt.		GP				230
240	Sand: light brown, 10 YR 6/3, damp, fg to mg, well sorted. With some fg to cg gravel and trace silt.		SP			BENTONITE PLUG 236' to 245'	240
250	Sand: yellowish brown, 10 YR 7/3, dry, fg to mg, moderately sorted. With some rounded fg to cg gravel and trace silt.		SP				250
260	Sand: light brown, 10 YR 6/3, damp, fg, poorly sorted. With trace silt. Becoming wet at 258 ft bgs.		SP			12/20 SAND PACK 245' to 272'	260
270	Clayey Silt: light pink, saturated, trace fg sand. Top of FGZ 270 ft bgs.		ML			4" SCH. 80 0.02" PVC SCREEN 250' to 270' 4" SCH. 80 PVC SUMP 270' to 271'	270

State Well Report No.: 342830

Boring and Well Log

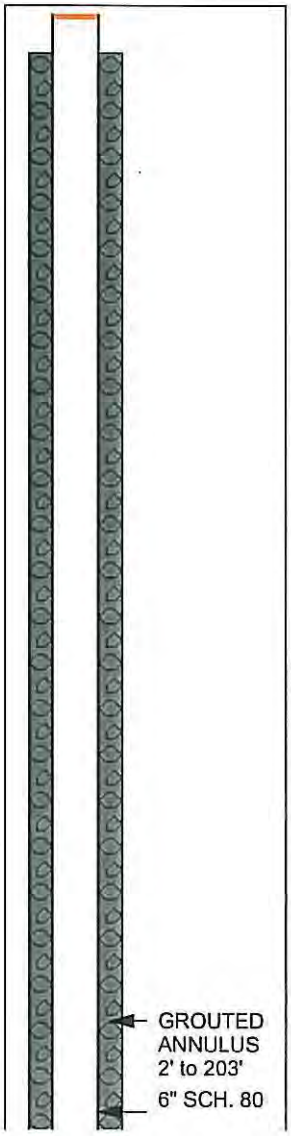
Project:	BOA 52, Release 1 and 2	**Project No.:**	18A-009-001	**Borehole/Well ID:**	PTX06-EW-81A
Location:	Playa 1 Area	**Drilling Co:**	Yellow Jacket Drilling Svc.	**Surface Elevation (ft):**	NA
Start Date:	9-7-2013	**Driller:**	Quentin Stevens	**TOC Elevation (ft):**	3525.79
End Date:	9-21-13	**Method:**	ARCH	**Northing:**	3762095.77
Total Depth:	293 ft.	**Borehole Diameter:**	11 3/4"	**Easting:**	639773.41
FGZ Depth:	Not encountered	**Logged by:**	F. Krembs/E. Gorove	**Note:**	Original boring abandoned

Depth (ft bgs)	Lithologic Description	Lithology	USCS Symbol
0	Silty Clay: brown, 7.5 YR 5/4, dry, hard, some organic top soil.		CL
10–40	Silty Clay: brown, 7.5 YR 5/4, dry, hard, some fg to cg sand and trace fg gravel.		CL
40–65	Clayey Silt: reddish brown, 2.5 YR 5/8, dry, hard, some fg to cg sand.		CL
65–70	Sandy Gravel: light brown, 5 YR 7/3, dry, fg, poorly graded. Sand fg to cg.		GM
70–80	Sand: light yellowish brown, 7.5 YR 7/4, dry, fg, well sorted. With trace silt.		SP
80–100	Sand: brown, 7.5 YR 5/6, dry, fg, moderately sorted, some silt throughout interval; some gravel 93 to 95 ft bgs.		SM
100–110	Sand: yellowish brown, 7.5 YR 7/4, dry, fg, moderately sorted, trace silt throughout interval;		SM

Geophysical Logging: Gamma Ray, Neutron

Water Level

Well Construction



Depth (ft bgs): 0, 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110

State Well Report No.: 342817

Boring and Well Log

Project:	BOA 52, Release 1 and 2	**Project No.:**	18A-009-001	**Borehole/Well ID:**	PTX06-EW-81A
Location:	Playa 1 Area	**Drilling Co:**	Yellow Jacket Drilling Svc.	**Surface Elevation (ft):**	NA
Start Date:	9-7-2013	**Driller:**	Quentin Stevens	**TOC Elevation (ft):**	3525.79
End Date:	9-21-13	**Method:**	ARCH	**Northing:**	3762095.77
Total Depth:	293 ft.	**Borehole Diameter:**	11 3/4"	**Easting:**	639773.41
FGZ Depth:	Not encountered	**Logged by:**	F. Krembs/E. Gorove	**Note:**	Original boring abandoned

Depth (ft bgs)	Lithologic Description	Lithology	USCS Symbol	Geophysical Logging (Gamma Ray / Neutron)	Water Level	Well Construction	Depth (ft bgs)
	some subangular gravel 111 to 113 ft bgs.						
120	Silt: brown, 7.5 YR 4/4, dry. Some fg sand.		ML			PVC CASING 2' to 226'	120
130	Sand: light brown, 7.5 YR 6/4, dry, fg, moderately sorted, with trace silt. Thin layers of silt and/or gravel within interval.						130
140							140
150							150
160							160
170			SP				170
180							180
190							190
200							200
210						BENTONITE PLUG 203' to 220'	210
220	Sand: light yellowish brown, 10 YR 6/6, damp, vfg, well sorted, subrounded to subangular. Becoming moist at 230 ft bgs; wet at 240 ft bgs.						220
230							230

State Well Report No.: 342817

Boring and Well Log

Project:	BOA 52, Release 1 and 2	**Project No.:**	18A-009-001	**Borehole/Well ID:**	PTX06-EW-81A
Location:	Playa 1 Area	**Drilling Co:**	Yellow Jacket Drilling Svc.	**Surface Elevation (ft):**	NA
Start Date:	9-7-2013	**Driller:**	Quentin Stevens	**TOC Elevation (ft):**	3525.79
End Date:	9-21-13	**Method:**	ARCH	**Northing:**	3762095.77
Total Depth:	293 ft.	**Borehole Diameter:**	11 3/4"	**Easting:**	639773.41
FGZ Depth:	Not encountered	**Logged by:**	F. Krembs/E. Gorove	**Note:**	Original boring abandoned

Depth (ft bgs)	Lithologic Description	Lithology	USCS Symbol	Geophysical Logging (Gamma Ray, Neutron)	Water Level	Well Construction	Depth (ft bgs)
230							230
240			SP				240
250						12/20 SAND PACK 220' to 287'	250
260	Silty Sand: light yellowish brown, 10 YR 6/6, saturated, vfg, well sorted, subrounded to subangular, quartz based.		SM			6" WIRE WRAPPED 0.01" SS SCREEN 226' to 286'	260
			SP				
270	Sand: light yellowish brown, 10 YR 6/6, saturated, vfg, well sorted, subrounded to subangular, trace gravel.		SM				270
280	Silty Sand: light yellowish brown, 10 YR 6/6, saturated, vfg, well sorted, subrounded to subangular, trace gravel.		SP				280
290	Clayey Sand: light yellowish brown, 10 YR 6/6, saturated, vfg, moderately sorted, subrounded to subangular, trace gravel to 1/4". Few returns from 285 ft to 293 ft bgs. FGZ not indentified.					6" SS SUMP 286' to 287' FORMATION HEAVED 287' TO 293'	290

State Well Report No.: 342817

STATE OF TEXAS PLUGGING REPORT for Tracking #90342

Owner:	**U.S. Department of Energy**	Owner Well #:	**PTX08-1001**
Address:	**PO Box 30030 Amarillo , TX 79120**	Grid #:	**06-43-6**
Well Location:	**FM 2373 & Hwy 60 Amarillo , TX 79120**	Latitude:	**35° 19' 49" N**
Well County:	**Carson**	Longitude:	**101° 38' 08" W**
		GPS Brand Used:	**Garmin**

Well Type: **Monitor**

HISTORICAL DATA ON WELL TO BE PLUGGED

Original Well Driller:	**C. Allbritton**
Driller's License Number of Original Well Driller:	**3143W**
Date Well Drilled:	**12/23/1992**
Well Report Tracking Number:	**No Data**
Diameter of Borehole:	**9.5 inches**
Total Depth of Borehole:	**262 feet**

Date Well Plugged:	**8/8/2013**
Person Actually Performing Plugging Operation:	**Quentin Stevens**
License Number of Plugging Operator:	**59375**
Plugging Method:	**Pour in 3/8 bentonite chips when standing water in well is less than 100 feet in depth, cement top 2 feet.**
Plugging Variance #:	**No Data**
Casing Left Data:	1st Interval: **4 inches diameter, From 230 ft to 2 ft** 2nd Interval: **No Data** 3rd Interval: **No Data**
Cement/Bentonite Plugs Placed in Well:	1st Interval: **From 230 ft to 2 ft; Sack(s)/type of cement used: 24 sacks bent. chips** 2nd Interval: **From 2 ft to 0 ft; Sack(s)/type of cement used: 4 sacks concrete** 3rd Interval: **No Data** 4th Interval: **No Data** 5th Interval: **No Data**

Certification Data:	The plug installer certified that the plug installer plugged this well (or the well was plugged under the plug installer's direct supervision) and that each and all of the statements herein are true and correct. The plug installer understood that failure to complete the required items will result in the log(s) being returned for completion and resubmittal.
Company Information:	**Yellow Jacket Drilling Svc. 3922 E. University Dr., Ste 1**

	Phoenix , AZ 85034
Plug Installer License Number:	**59375**
Licensed Plug Installer Signature:	**Quentin Stevens**
Registered Plug Installer Apprentice Signature:	**No Data**
Apprentice Registration Number:	**No Data**
Plugging Method Comments:	**Stainless steel well casing cut 2 ft bgs. Boring originally drilled to 262 ft bgs and plugged to 232 ft bgs during well construction.**

Please include the plugging report's tracking number (Tracking **#90342**) on your written request.

Texas Department of Licensing & Regulation
P.O. Box 12157
Austin, TX 78711
(512) 463-7880

STATE OF TEXAS PLUGGING REPORT for Tracking #90341

Owner:	**U.S. Department of Energy**	Owner Well #:	**PTX08-1002**
Address:	**PO Box 30030 Amarillo , TX 79120**	Grid #:	**06-44-5**
Well Location:	**FM 2373 & Hwy 60 Amarillo , TX 79120**	Latitude:	**35° 19' 47" N**
Well County:	**Carson**	Longitude:	**101° 33' 46" W**
		GPS Brand Used:	**Garmin**

Well Type: **Monitor**

HISTORICAL DATA ON WELL TO BE PLUGGED

Original Well Driller:	**C. Allbritton**
Driller's License Number of Original Well Driller:	**3143W**
Date Well Drilled:	**12/20/1992**
Well Report Tracking Number:	**No Data**
Diameter of Borehole:	**9.5 inches**
Total Depth of Borehole:	**230 feet**

Date Well Plugged:	**8/5/2013**
Person Actually Performing Plugging Operation:	**Quentin Stevens**
License Number of Plugging Operator:	**59375**
Plugging Method:	**Pour in 3/8 bentonite chips when standing water in well is less than 100 feet in depth, cement top 2 feet.**
Plugging Variance #:	**No Data**
Casing Left Data:	1st Interval: **4 inches diameter, From 230 ft to 2 ft** 2nd Interval: **No Data** 3rd Interval: **No Data**
Cement/Bentonite Plugs Placed in Well:	1st Interval: **From 230 ft to 2 ft; Sack(s)/type of cement used: 35 sacks bent. chips** 2nd Interval: **From 2 ft to 0 ft; Sack(s)/type of cement used: 4 sacks concrete** 3rd Interval: **No Data** 4th Interval: **No Data** 5th Interval: **No Data**

Certification Data:	The plug installer certified that the plug installer plugged this well (or the well was plugged under the plug installer's direct supervision) and that each and all of the statements herein are true and correct. The plug installer understood that failure to complete the required items will result in the log(s) being returned for completion and resubmittal.
Company Information:	**Yellow Jacket Drilling Svc. 3922 E. University Dr., Ste 1**

	Phoenix , AZ 85034
Plug Installer License Number:	**59375**
Licensed Plug Installer Signature:	**Quentin Stevens**
Registered Plug Installer Apprentice Signature:	**No Data**
Apprentice Registration Number:	**No Data**
Plugging Method Comments:	**Stainless steel casing cut 2 ft bgs; remainder left in place.**

Please include the plugging report's tracking number (Tracking **#90341**) on your written request.

Texas Department of Licensing & Regulation
P.O. Box 12157
Austin, TX 78711
(512) 463-7880

STATE OF TEXAS PLUGGING REPORT for Tracking #90346

Owner:	**U.S. Department of Energy**	Owner Well #:	**PTX06-EW-81**
Address:	**PO Box 30030 Amarillo , TX 79120**	Grid #:	**06-44-5**
Well Location:	**FM 2373 & Hwy 60 Amarillo , TX 79120**	Latitude:	**35° 19' 20" N**
Well County:	**Carson**	Longitude:	**101° 33' 18" W**
		GPS Brand Used:	**Garmin**

Well Type: **De-Watering**

HISTORICAL DATA ON WELL TO BE PLUGGED

Original Well Driller:	**Q. Stevens**
Driller's License Number of Original Well Driller:	**59375**
Date Well Drilled:	**8/20/2013**
Well Report Tracking Number:	**No Data**
Diameter of Borehole:	**11 3/4 inches**
Total Depth of Borehole:	**306 feet**

Date Well Plugged:	**8/5/2013**
Person Actually Performing Plugging Operation:	**Quentin Stevens**
License Number of Plugging Operator:	**59375**
Plugging Method:	**Pour in 3/8 bentonite chips when standing water in well is less than 100 feet in depth, cement top 2 feet.**
Plugging Variance #:	**No Data**
Casing Left Data:	1st Interval: **No Data** 2nd Interval: **No Data** 3rd Interval: **No Data**
Cement/Bentonite Plugs Placed in Well:	1st Interval: **From 290 ft to 2 ft; Sack(s)/type of cement used: 352 sacks bent. chips** 2nd Interval: **From 2 ft to 0 ft; Sack(s)/type of cement used: 4 sacks concrete** 3rd Interval: **No Data** 4th Interval: **No Data** 5th Interval: **No Data**

Certification Data:	The plug installer certified that the plug installer plugged this well (or the well was plugged under the plug installer's direct supervision) and that each and all of the statements herein are true and correct. The plug installer understood that failure to complete the required items will result in the log(s) being returned for completion and resubmittal.
Company Information:	**Yellow Jacket Drilling Svc. 3922 E. University Dr., Ste 1**

	Phoenix , AZ 85034
Plug Installer License Number:	**59375**
Licensed Plug Installer Signature:	**Quentin Stevens**
Registered Plug Installer Apprentice Signature:	**No Data**
Apprentice Registration Number:	**No Data**
Plugging Method Comments:	**Original boring PTX06-EW-81 was abandoned due to heaving sands. Poured in 352 bags 3/8" bentonite chips. Original TD 306 ft, heaved to 290 ft where abandonment began.**

Please include the plugging report's tracking number (Tracking **#90346**) on your written request.

Texas Department of Licensing & Regulation
P.O. Box 12157
Austin, TX 78711
(512) 463-7880

STATE OF TEXAS PLUGGING REPORT for Tracking #90339

Owner:	**U.S. Department of Energy**	Owner Well #:	**PTX06-1149**
Address:	**PO Box 30030 Amarillo , TX 79120**	Grid #:	**06-44-5**
Well Location:	**FM 2373 & Hwy 60 Amarillo , TX 79120**	Latitude:	**35° 18' 07" N**
Well County:	**Carson**	Longitude:	**101° 34' 04" W**
		GPS Brand Used:	**Garmin**

Well Type: **Monitor**

HISTORICAL DATA ON WELL TO BE PLUGGED

Original Well Driller:	**S. Currie**
Driller's License Number of Original Well Driller:	**54499**
Date Well Drilled:	**8/27/2008**
Well Report Tracking Number:	**154437**
Diameter of Borehole:	**9.25 inches**
Total Depth of Borehole:	**278 feet**

Date Well Plugged:	**9/5/2013**
Person Actually Performing Plugging Operation:	**Quentin Stevens**
License Number of Plugging Operator:	**59375**
Plugging Method:	**Pour in 3/8 bentonite chips when standing water in well is less than 100 feet in depth, cement top 2 feet.**
Plugging Variance #:	**No Data**
Casing Left Data:	1st Interval: **4 inches diameter, From 273.5 ft to 20 ft** 2nd Interval: **No Data** 3rd Interval: **No Data**
Cement/Bentonite Plugs Placed in Well:	1st Interval: **From 273.5 ft to 2 ft; Sack(s)/type of cement used: 31 sacks bent. chips** 2nd Interval: **From 2 ft to 0 ft; Sack(s)/type of cement used: 4 sacks concrete** 3rd Interval: **No Data** 4th Interval: **No Data** 5th Interval: **No Data**

Certification Data:	The plug installer certified that the plug installer plugged this well (or the well was plugged under the plug installer's direct supervision) and that each and all of the statements herein are true and correct. The plug installer understood that failure to complete the required items will result in the log(s) being returned for completion and resubmittal.
Company Information:	**Yellow Jacket Drilling Svc. 3922 E. University Dr., Ste 1**

	Phoenix , AZ 85034
Plug Installer License Number:	**59375**
Licensed Plug Installer Signature:	**Quentin Stevens**
Registered Plug Installer Apprentice Signature:	**No Data**
Apprentice Registration Number:	**No Data**
Plugging Method Comments:	**Attempted to pull well casing; broke 20' bgs. Remainder of well casing and screen in place.**

Please include the plugging report's tracking number (Tracking **#90339**) on your written request.

Texas Department of Licensing & Regulation
P.O. Box 12157
Austin, TX 78711
(512) 463-7880

STATE OF TEXAS PLUGGING REPORT for Tracking #91276

Owner:	**U.S. Department of Energy**	Owner Well #:	**OW-WR-19**
Address:	**U.S Highway 60 & FM 2373 Amarillo , TX 79120**	Grid #:	**06-44-5**
Well Location:	**U.S. Highway 60 & FM 2373 Amarillo , TX 79120**	Latitude:	**35° 19' 53" N**
Well County:	**Carson**	Longitude:	**101° 33' 31" W**
		GPS Brand Used:	**Trimble**

Well Type: **Monitor**

HISTORICAL DATA ON WELL TO BE PLUGGED

Original Well Driller:	**Double A Drilling Company**
Driller's License Number of Original Well Driller:	**691**
Date Well Drilled:	**1/30/1975**
Well Report Tracking Number:	**No Data**
Diameter of Borehole:	**12.25 inches**
Total Depth of Borehole:	**350 ft. feet**

Date Well Plugged:	**11/7/2013**
Person Actually Performing Plugging Operation:	**Roy Burson**
License Number of Plugging Operator:	**2585**
Plugging Method:	**Other plugging method.**
Plugging Variance #:	**No Data**
Casing Left Data:	1st Interval: **5.5 inches diameter, From 0 ft to 350 ft** 2nd Interval: **No Data** 3rd Interval: **No Data**
Cement/Bentonite Plugs Placed in Well:	1st Interval: **From 350 ft to 243 ft; Sack(s)/type of cement used: bentonite chips** 2nd Interval: **From 243 ft to 25 ft; Sack(s)/type of cement used: bentonite grout** 3rd Interval: **From 25 ft to 8 ft; Sack(s)/type of cement used: bentonite chips** 4th Interval: **From 8 ft to 3 ft; Sack(s)/type of cement used: cement** 5th Interval: **No Data**

Certification Data:	The plug installer certified that the plug installer plugged this well (or the well was plugged under the plug installer's direct supervision) and that each and all of the statements herein are true and correct. The plug installer understood that failure to complete the required items will result in the log(s) being returned for completion and resubmittal.
Company Information:	**Roy Burson Elk City , OK 73644**

Plug Installer License Number:	**2585**
Licensed Plug Installer Signature:	**Roy Burson**
Registered Plug Installer Apprentice Signature:	**No Data**
Apprentice Registration Number:	**No Data**
Plugging Method Comments:	**Bentonite chips and grout used from bottom to 8 ft. from surface. 5 ft. cement cap to within three feet below ground surface. Pad and casing will be removed to 3 feet below surface to remove foot print.**

Please include the plugging report's tracking number (Tracking #**91276**) on your written request.

Texas Department of Licensing & Regulation
P.O. Box 12157
Austin, TX 78711
(512) 463-7880

STATE OF TEXAS PLUGGING REPORT for Tracking #91897

Owner:	**US Dept of Energy**	Owner Well #:	**PTX-BEG-3**
Address:	**PO Box 30020 Amarillo , TX 79120**	Grid #:	**06-44-2**
Well Location:	**FM 2373 & US Hwy 60 Amarillo , TX 79120**	Latitude:	**35° 21' 12" N**
Well County:	**Carson**	Longitude:	**101° 32' 30" W**
		GPS Brand Used:	**Google Earth**

Well Type: **Monitor**

HISTORICAL DATA ON WELL TO BE PLUGGED

Original Well Driller:	**David Fendley**
Driller's License Number of Original Well Driller:	**2791**
Date Well Drilled:	**2/1/1992**
Well Report Tracking Number:	**No Data**
Diameter of Borehole:	**8.5 inches**
Total Depth of Borehole:	**282 feet**

Date Well Plugged:	**12/10/2013**
Person Actually Performing Plugging Operation:	**Shane Currie**
License Number of Plugging Operator:	**54499**
Plugging Method:	**Other plugging method.**
Plugging Variance #:	**No Data**
Casing Left Data:	1st Interval: **4 inches diameter, From 282 ft to 5 ft** 2nd Interval: **No Data** 3rd Interval: **No Data**
Cement/Bentonite Plugs Placed in Well:	1st Interval: **From 282 ft to 15 ft; Sack(s)/type of cement used: 130 sacks of cement** 2nd Interval: **From 15 ft to 5 ft; Sack(s)/type of cement used: 1 sack of 3/8 bentonite** 3rd Interval: **From 5 ft to 0 ft; Sack(s)/type of cement used: 2 sacks cement** 4th Interval: **No Data** 5th Interval: **No Data**

Certification Data:	The plug installer certified that the plug installer plugged this well (or the well was plugged under the plug installer's direct supervision) and that each and all of the statements herein are true and correct. The plug installer understood that failure to complete the required items will result in the log(s) being returned for completion and resubmittal.
Company Information:	**Talon/LPE 921 N. Bivins Amarillo , TX 79107**

Plug Installer License Number:	**54499**
Licensed Plug Installer Signature:	**Shane Currie**
Registered Plug Installer Apprentice Signature:	**No Data**
Apprentice Registration Number:	**No Data**
Plugging Method Comments:	**Perforated well screen and squeezed cement from total depth to 15 feet from ground surface, followed by bentonite chips and cement cap Added driller to historical data at request of Talon/LPE - 1/9/14 - DT**

Please include the plugging report's tracking number (Tracking #**91897**) on your written request.

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Austin, TX 78711
(512) 463-7880

Appendix G
Implementation and Maintenance Reports for Remedial Actions

List of Reports

Well Field Maintenance Report – Zone 11 ISB System. Trihydro Corporation. November 2013.

Post-Injection Report – Zone 11 ISB System May - July 2013. Trihydro Corporation. November 2013.

Well Field Maintenance Report – Southeast ISB System. Trihydro Corporation. November 2013.

Post-Injection Report – Southeast ISB System July – September 2013. Trihydro Corporation. November 2013.

Closure Turf™ Installation at Landfill 1 (SWMU 68B). Trihydro Corporation. December 2013.

WELL FIELD MAINTENANCE REPORT – ZONE 11 ISB SYSTEM

***IN-SITU* BIOREMEDIATION OPERATIONS AND MAINTENANCE**

PANTEX PLANT, AMARILLO, TEXAS

B&W PANTEX PURCHASE ORDER NO. 5293

November 1, 2013

Project #: 18A-006-002

SUBMITTED BY: Trihydro Corporation

1252 Commerce Drive, Laramie, WY 82070

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B. WASTE ACCUMULATION FORMS

List of Acronyms

AqSol	Aquifer Solutions, Inc.
b	Saturated thickness
cfm	Cubic Feet per Minute
COPC	Constituent Of Potential Concern
CSM	Conceptual Site Model
F	Fahrenheit
ft	Feet or foot
ft^2/day	Feet squared per day
gpm	Gallons per minute
ISB	*In-Situ* Bioremediation
HDPE	High density polyethylene
K	Hydraulic Conductivity
O&M	Operation and Maintenance
Pantex	B&W Pantex, LLC
PE	Polyethylene
psi	Pounds per square inch
S	Coefficient of Storage
SEISB	Southeast ISB
SEPTS	Southeast Pump & Treat System
T	Transmissivity
Trihydro	Trihydro Corporation
Z11ISB	Zone 11 ISB

EXECUTIVE SUMMARY

This report documents the methods and results of well testing and maintenance activities performed at the Zone 11 *In-Situ* Bioremediation (Z11ISB) System from February to April 2013. These activities were performed on behalf of B&W Pantex LLC (Pantex) as a component of Trihydro Corporation's (Trihydro) *In-Situ* Bioremediation (ISB) Operations and Maintenance (O&M) work performed under Purchase Order #5293. Well hydraulic testing and maintenance activities were performed to assess whether injection wells had been impacted by biofouling and to minimize impacts to wells through periodic maintenance consisting of physical agitation, chemical cleaner application, and fluids removal.

Well hydraulic testing consisted of constant-rate injection testing from which transmissivity (T) values were calculated. With the exception of two newly-installed wells (PTX06-ISB066 and PTX06-ISB075) where only pre-maintenance constant-rate injection tests were performed, pre- and post-well maintenance constant-rate injection testing was performed at 31 injection wells.

Well maintenance involved the addition of a caustic chemical cleaner to assist with breaking down residual organic material, termed biofouling. Additionally, a custom-fabricated assembly that includes an integrated surge block and brush in combination with an airlift tool was used to remove the caustic chemical cleaner, fluids, and particulates from the wells.

The following conclusions were drawn from the 2013 well maintenance event at the Z11ISB:

1. Well maintenance activities were completed at 31 injection well locations. Three metrics were used to assess the completion of well maintenance activities: 1) the volume of fluids removed by airlift from the well relative to that added during chemical cleaner addition; 2) the return of pH to near neutral; and 3) field observations such as color, odor, and turbidity.
2. Hydraulic testing to calculate transmissivity (T) before and after well maintenance yielded slightly higher values on average, indicating that the well maintenance program increased the T in the vicinity of the injection well. Increases in T were greatest in the wells with the lowest pre-maintenance T, indicating that the maintenance program was successful in mitigating biofouling impacts at these locations.

Trihydro generated several lessons learned during the course of this work. These included:

1. Constructing an airlift eductor and air tubing protector to decrease wear of the airlift assembly.
2. Using a weight to control the air and eductor tubing while surging with the airlift assembly.
3. Revising the maintenance form to guide field personnel and maintain consistency.
4. Checking the well maintenance equipment for worn components.

1.0 INTRODUCTION

O&M activities are conducted by Trihydro at two existing ISB treatment systems (**Figure 1**) and include two major components: well maintenance and amendment injection. Well maintenance includes the inspection and maintenance of the injection wells associated with the ISB treatment systems. The primary goal of well maintenance is to maintain injection well performance and mitigate the effects of biofouling so that the wells are suitable for injection of bioremediation amendment. Well maintenance is intended to serve primarily as a preventative measure. However, well maintenance activities could also perform a rehabilitation function. This report documents the injection well inspection and maintenance activities performed at the Z11ISB System in February to April 2013.

1.1 PROJECT BACKGROUND

The Z11ISB System consists of 32 injection wells (**Figure 2**), which are used for injection of bioremediation amendment on a periodic basis. Eleven of these injection wells are referred to as "sampled injection wells" in that they are sampled by Pantex personnel for the purpose of evaluating the bioremediation effectiveness. The original Z11ISB System consisted of 23 wells. These wells were supplemented by 9 additional or expansion wells and one replacement well ISB075 that is used for monitoring, bringing the total to 33 ISB wells.

Bioremediation amendment consists primarily of emulsified soybean oil and lactate with lesser amounts of surfactants and buffering agents. Soybean oil serves as a carbon donor that stimulates anaerobic microorganisms that in turn degrade constituents of potential concern (COPCs) in groundwater (Aquifer Solutions, Inc. [AqSol] 2009a). The first injection event for the original 23 wells at the Z11ISB System was completed in early 2009 (AqSol 2009b). In late 2009, the initial injection into the 9 additional wells was completed (AqSol 2009c). A second injection event was completed in 2010 (AqSol 2010a), a third injection event in late summer of 2011 (Trihydro 2011a), and a fourth in late summer of 2012 (Trihydro 2012a). Well maintenance activities were performed prior to the 2010, 2011, and 2012 injection events. Maintenance was preformed again prior to the 2013 injection event, and this maintenance event is discussed in this report.

As a result of the ISB process, the injection wells can become impacted by a general process termed biofouling. Biofouling may consist of the growth of a microbial mat on the wells screen, clogging due to residual amendment that is only partially consumed, or some combination of the two. Biofouling impacts such as reduced flow rates and residues in purge water have been observed at some Southeast ISB (SEISB) and Z11ISB injection wells by Pantex personnel during environmental sampling activities. Biofouling is a concern because it can potentially result in

decreased connectivity between the injection well and the surrounding perched groundwater unit as well as decreased amendment injection rates during future injection events.

The purpose of the well maintenance work reported herein was to: 1) assess the degree to which biofouling had impacted injection wells; 2) to take measures to maintain well performance and mitigate adverse impacts to well performance; and 3) to assess the extent to which maintenance efforts were effective in maintaining wells at a condition that facilitates amendment injection.

The activities performed during the well maintenance process included:

- Pre-maintenance hydraulic testing to quantify the transmissivity (T) of the formation immediately surrounding injection wells before any well maintenance was performed.
- Submittal of hydraulic testing data and approval by Pantex for further maintenance to occur.
- With the exception of newly drilled wells at PTX06-ISB066 and PTX06-ISB075, well maintenance at each of the other 31 injection wells included chemical cleaner application followed by physical development.
- Post-maintenance confirmation hydraulic testing and approval by Pantex for injection activities to take place.
- Reporting of results.

The work documented in this report is one part of a project that has spanned multiple years. The following documents provide additional information related to the project:

- Work Plan for *In-Situ* Bioremediation Systems, Operations and Maintenance, January 27, 2012 (Trihydro 2012b).
- Post Injection Report: Zone 11 ISB System, December (Trihydro 2012a).
- Pantex *In-Situ* Bioremediation Operation & Monitoring, 2010 Annual Monitoring Report (AqSol 2011).
- Post Injection Report: Zone 11 ISB System, November (Trihydro 2011a).
- Well Maintenance Report: Zone 11 ISB System, November (Trihydro 2011b).
- Post Injection Report: Zone 11 System, December 7, 2010 (AqSol 2010a).
- Well Maintenance Report: Zone 11 In-Situ Bioremediation System, December 20, 2010 (AqSol 2010b).
- Statement of Work for *In-Situ* Bioremediation System Operation and Maintenance for the Southeast and Zone 11 ISB Systems, August 2009 (Pantex 2009).

- Operations and Maintenance Plan: *In-Situ* Bioremediation Corrective Measures Design Zone 11 South, April 20, 2009 (AqSol 2009a).
- Implementation Report: *In-Situ* Bioremediation System Corrective Measures Construction Zone 11 South, September 1, 2009 (AqSol 2009b).
- Design Basis Document: *In-Situ* Bioremediation System Corrective Measures Design Zone 11 South, November 18, 2008 (AqSol 2008).

1.2 PROJECT SCHEDULE

The sequence of events including specific milestones with which testing and maintenance was performed are presented by injection well in **Table 1**. Field maintenance activities at Zone 11 began on February 5, 2013 and were completed April 1, 2013. The start of the well maintenance program at the SEISB System (to be discussed in another report to be submitted in the future) was performed concurrently with the completion of demobilization after maintenance at the Z11ISB System. Trihydro and Pantex coordinated work schedules to accommodate obtaining quarterly groundwater samples from sampled injection wells prior to maintenance.

2.0 METHODS

This section discusses the methods used during injection well inspection and maintenance. Well inspection consisted of measuring the depth to groundwater and noting any apparent surface physical damage to the wells. Well hydraulic testing consisted of constant-rate injection testing and evaluation of steady-state amendment monitoring data. Well maintenance consisted of adding a caustic well cleaner, surging/brushing the well screens, and removal of fluids/biofouling debris by airlift. Each activity is discussed below.

2.1 WELL HYDRAULIC TESTING METHODS

Constant-rate injection testing was used as the hydraulic testing method during this well maintenance event. Constant-rate injection analysis is similar to analysis of a pump test: water is injected and the water level in the well is logged with a pressure transducer over time.

2.1.1 INJECTION TESTING AND ANALYSIS METHOD

Constant-rate injection testing consisted of adding approximately 50 to 150 gallons of water at a known flow rate(s) and monitoring the resulting response fluid level in the injection well. Data collection consisted of monitoring the head in the injection well over time with a LevelTroll pressure transducer. The source of water was from the Southeast Pump & Treat System (SEPTS).

Data was analyzed using a pump test analysis module in AQTESOLV 4.50 Pro. A confined solution was used to allow for drawdown amounts that may be greater than the formation saturated thickness, which is a condition that can occur during injection of fluids. In addition, a confined solution is consistent with a conceptual model of injection in which flow is essentially horizontal away from the injection well. Mounding of 2 to 17 (feet) ft was observed at nearby monitoring locations during amendment injection in the ISB Pilot Study (AqSol 2006). Minimal mounding in the formation supports a conceptual model of injection into the perched groundwater unit consisting of flow that is primarily horizontal, thus supporting the applicability of a confined solution in this setting. The Papadopulos-Cooper solution was used for the AQTESOLV analysis. This solution models T and storativity in a confined aquifer as a function of aquifer hydraulics, pumping rate(s), and time. The Papadopulos-Cooper solution was selected because it produced good fits between the raw data and type curves for the first few tests that were analyzed using multiple confined solutions. The following specific parameters were used to fit the injection monitoring data to the type curve.

- T, (in units of feet squared per day [ft^2/day]) is a hydraulic parameter that is a function of a formation's ability to transmit water, and is equal to the hydraulic conductivity (K) times the formation saturated thickness (Fetter 1994). T was used as a fitting parameter in the data analysis process in AQTESOLV.

- Coefficient of Storage (S, dimensionless) is ratio of the amount of water taken (or removed) from aquifer storage per unit of area per unit drawdown. In confined formations, S is a function of both the elasticity of the fluid being removed and of the formation itself (Fetter 1994). S was used as a fitting parameter in the data analysis.
- Anisotropy Ratio ($K_{vertical}$ / $K_{horizontal}$, dimensionless) is a measure of the degree to which fluids will flow preferentially in the horizontal direction relative to the vertical direction. This value was assumed to be 0.1 because anisotropic flow is reasonable in the stratified unconsolidated deposits present in the perched groundwater unit.
- Saturated thickness (b, in units of ft) was set equal to the perched groundwater unit saturated thickness measured at that well. Wells with screened lengths exceeding the formation saturated thickness were entered in AQTESOLV as being fully penetrating wells.

AQTESOLV's automated curve fitting program was used to calculate the aquifer parameters T and S by repeatedly modifying these parameters until the type curve fits the actual data to the extent possible.

2.2 WELL MAINTENANCE METHODS

This section presents the methods used during well maintenance, which consisted of addition of a treatment reagent and subsequent removal of the fluids. In past maintenance activities at the Z11ISB System, "acid maintenance" (Dry Acid Special) and "chemical maintenance" (ethyl lactate and/or catalyzed hydrogen peroxide) have been used (Trihydro 2011b). While the treatment reagent applied at Z11ISB in 2013 is a chemical, the term chemical is not used in this report to avoid confusion with the past use of ethyl lactate and/or catalyzed hydrogen peroxide. During the maintenance event discussed in this report, the following two general mechanisms were used:

- Addition of a solution of Welgicide Cleaner (Cotey Chemical Corporation) mixed in water, which was used to chemically dissolve and remove mineral scale and/or biomass on the well screen and in the filter pack.
- Surging/brushing and airlifting, which was used to physically remove particles, residues, and Welgicide solution.

The recommendation for use of Welgicide Cleaner as a well maintenance reagent and a summary of field application procedures were described in memoranda (Trihydro 2012c and d). Welgicide Cleaner is a powder consisting primarily of sodium hydroxide (a strong base) with lesser amounts of sodium metasilicate and tetrasodium pyrophosphate. This material was received and stored in 5-gallon buckets. The appropriate quantity of Welgicide Cleaner was weighed using a scale and added to water obtained from the SEPTS. These were mixed in a graduated 55-gallon drum using one-quarter pound of Welgicide Cleaner to one gallon of water, following the manufacturer's recommendation. The volume of chemical reagent added to each well equaled approximately one gallon of solution per foot of saturated

thickness. For example, for a well with a 20 ft saturated thickness, 20 gallons of solution consisting of 5 pounds of Welgicide Cleaner and the balance water was used for the dose. This volume was intended to equal the volume of perched groundwater inside the saturated well screen and filter pack, and was noted on maintenance field forms. Data from field forms are presented in the figures and tables of this report. Scanned copies of field forms will be submitted to Pantex during project close-out.

Immediately following mixing of granular Welgicide and makeup water, the temperature of the solution was measured and recorded due to the potential for exothermic reactions to occur during Welgicide dissolution. Temperatures were also measured and recorded after mixing to ensure that the temperature does not exceed 100°Fahrenheit (F). Only after these measurements were made was the Welgicide solution added to wells. The highest recorded temperature of Welgicide solution during mixing was 57°Fahrenheit (F), and temperature readings were always below the 100°F threshold (Trihydro 2012c).

Welgicide solution was delivered through a chemical-resistant hand pump placed inside the drum. The pump discharge was attached to a ½ in. diameter polyethylene (PE) tube. This tube extended to the bottom of the well, with three PE discs attached near the bottom of the assembly that served to mix the solution in the water column. Approximately half of the total volume was delivered to the lower half of the well screen and the remaining half into the upper portion. After the required amount of Welgicide solution was delivered, the pump was removed from the drum and inserted into a 5-gallon bucket of water. This allowed rinsing of the pump and tubing. The final step was to surge or mix the Welgicide solution by raising the tube up and down the water column for several minutes following delivery. The well was allowed to rest for at least one day in order to allow the Welgicide solution to react with the biological growth and/or mineral scale before airlift removal commenced.

Physical maintenance activities included two processes: use of a standard surge block attached to the wire line of the pump rig; and use of a custom-fabricated airlift assembly that included an integrated surge block and brush. The standard surge block was used to vigorously surge the well for approximately 30 minutes following the one-day reaction period described above. After the initial surge was completed, the airlift assembly was lowered to the bottom of the well. The airlift assembly was comprised of surge blocks on the top and bottom of the tool with a nylon brush in between. Compressed air was delivered to the tool at a pressure of 50-90 pounds per square inch (psi) using one of two available 210 cubic feet per minute (cfm) compressors. Groundwater was forced to the surface through a separate eductor pipe and contained in 200-gallon hoppers. Color, pH, turbidity, and olfactory observations of the discharge water were noted on field forms and in field logbooks. An airlift assembly was used to remove water in lieu of a bailer to reduce the risk of damage to injection wells.

3.0 RESULTS

This section presents results of well maintenance activities, and is divided into two subsections: the first presents results of well testing activities and the second subsection presents the well maintenance activities performed.

3.1 WELL TESTING RESULTS

This section presents the results of well testing, including pre-and post-maintenance constant-rate injection testing. Further discussion of these data along with historical data is provided in **Section 4.0**.

3.1.1 DEPTH TO WATER AND SATURATED THICKNESS

Depth to water was gauged in each well prior to hydraulic testing. These data and the resulting saturated thickness are presented on **Table 2**. Depth to water data from historical events are also shown on **Table 2** to provide additional context.

Saturated thickness values calculated from depth to water measurements was generally similar before and after well maintenance. The small magnitude of changes in depth to water (one foot or less) following well maintenance suggests that the wells were generally in good hydraulic communication with the surrounding perched groundwater both before and after maintenance. An exception was at well PTX06-ISB061, where the apparent saturated thickness decreased by 2.9 ft after well maintenance. The post-maintenance saturated thickness is consistent with historical values. The value of T derived from injection testing was approximately 10 times greater after well maintenance at this location, which suggest the presence of some biofouling that was mitigated by well maintenance (see **Section 3.1.2**). Another exception was at well PTX06-ISB072 where the calculated saturated thickness was observed to be 1.4 ft greater following well maintenance. The pre-maintenance value is consistent with historical data (**Table 2**). Therefore, the post-maintenance value is considered anomalous.

3.1.2 CONSTANT-RATE INJECTION TESTING RESULTS

Pre- and post-maintenance constant-rate injection testing results are presented on **Table 3**. As noted in the 2012 Z11ISB Well Field Maintenance Report (Trihydro 2012f), injection testing is being used instead of slug testing as a means of applying a greater amount of head, and thereby performing a test that is potentially more representative of amendment injection. This was the second application of this type of hydraulic testing at the Z11ISB System, thus no direct comparisons to historical slug test data are possible. **Table 3** includes the calculated T, specific capacity (flow rate divided by displacement), maximum displacement, and maximum flow rate during the injection test for pre-and post-maintenance tests.

T ranged from 0.0070 to 400 ft^2/day in the pre-maintenance results, with an average of 34 ft^2/day and a median of 17 ft^2/day. The value of 400 ft^2/day was from the newly installed PTX06-ISB066. The maximum pre-maintenance T among wells that had previously received bioamendment injections was 75 ft^2/day. The post-maintenance T results ranged from 0.026 to 75 ft^2/day with an average of 23.6ft^2/day and a median of 15.7 ft^2/day. AQTESOLV calculations of pre-and post-maintenance T values and the associated response curves are included as **Appendix A**.

Calculated T values were greater after maintenance relative to before maintenance at 17 of the 31 locations (note that post-maintenance injection tests were not performed at PTX06-ISB066 and PTX-ISB075 as maintenance was not performed). Most of the well locations increased as a result of well maintenance, or were within 20% of the initial value, which is considered similar to the pre-maintenance value.

Increases in T were greatest at well locations that had relatively lower pre-maintenance values of T. For the 15 wells with a pre-maintenance value of T of less than 10 ft^2/day, the average increase in T was 300%. For the 16 wells with a pre-maintenance value of T of greater than 10 ft^2/day, the average change in T was -4%, which is considered no change on average. This suggests that wells with relatively lower pre-maintenance T may have been impacted by biofouling, and were successfully mitigated by the well maintenance program. For the other wells, the wells may have not have been impacted by fouling. However, well maintenance at these locations likely provided a benefit from a preventive purpose.

Injection testing at PTX06-ISB084 produced anomalous data during both the pre- and post-maintenance constant-rate injection testing. Post-maintenance test data are shown in **Figure 3**. The portion of the data that is considered anomalous is the decrease in displacement observed after approximately two minutes of injection. The injection rate was constant for the initial portion of the test, then injection was stopped after 12 minutes, which is the same procedure followed during injection testing performed at other wells. The result observed at other locations was an increase in displacement during the period of injection, i.e. the curves sloped upward until injection stopped (**Appendix A**).

Hydraulic testing at PTX06-ISB084 was repeated in the field during both the pre- and post-maintenance hydraulic testing phases, and anomalous data similar to that in **Figure 3** were produced each time. This behavior is not attributed to the pressure transducer or the test implementation because: 1) the result was reproduced during repeated testing at this location; and 2) the tests were conducted using the same methods and instrumentation as the other constant-rate injection tests.

3.2 WELL MAINTENANCE RESULTS

This section presents the results of well maintenance activities that were performed at 31 of the 32 injection wells in the Z11ISB System. PTX06-ISB066 and PTX06-ISB075 are new wells and did not require maintenance. Results include the means and methods used for well maintenance at each injection well (**Section 3.2.1**) and observations recorded during the well maintenance process (**Section 3.2.2**).

3.2.1 WELL MAINTENANCE PERFORMED

The details of well maintenance performed at each well location are shown in **Table 4**, including the following information: saturated thickness, initial surge duration, amount of water added, amount of Welgicide solution added, cumulative surge duration, volume removed, and final pH of the purge water.

Maintenance using Welgicide was performed at 31 well locations (**Table 4**). The volume of Welgicide solution added ranged from 13 to 28 gallons and was based upon the saturated thickness at each well location. Additionally, due to low recharge at 4 of the wells, between 5 and 45 gallons of water were added during the brushing and surging process as indicated on **Table 4**. The volume of fluids removed by airlift ranged from 40 to 100 gallons. The volume of fluids removed was greater than the volume of Welgicide solution added to the well at each of the 31 wells at which maintenance was performed. pH of purge water was 11 or greater immediately following addition of the Welgicide solution at 30 of the 31 wells, except at PTX06-ISB084 where the pH of the purge water started at 8 and reduced to 7. Qualitative properties also improved at PTX06-ISB084 over the airlift period. The pH at the end of well maintenance activities was 8 or lower at 30 of the wells that were maintained, except for PTX06-ISB077 which had a final pH of 9 (**Table 4**). Other maintenance parameters (volume purge, cumulative surge duration etc.) were similar at PTX06-ISB077 relative to other wells. Also note that due to the logarithmic nature of the pH scale, a reduction of pH from 13 to 9 is by definition a reduction in the hydroxide concentration (i.e., “basicity”) of four orders of magnitude.

Three metrics used to define the endpoint of maintenance activities were removal of a volume of fluids greater than the volume of Welgicide solution added, return of pH to near neutral, and visual / olfactory observations (Trihydro 2012b). At each of the 31 locations maintained, the volume of fluids removed was greater than that added, and the pH returned to near neutral.

3.2.2 OBSERVATIONS FROM WELL MAINTENANCE

This section discusses visual observations and process monitoring data that are relevant to maintenance activities, including field observations (**Section 3.2.2.1**).

3.2.2.1 FIELD OBSERVATIONS

Field forms were used to document data collected during well maintenance, with the relevant data summarized in the preceding section. Additional observations reported by field personnel are presented in this section.

Groundwater, reagents, and fine-grained sediments were removed from the wells using an airlift procedure. The volume of groundwater removed at each well was generally similar to the volume removed in 2011 and 2012 with airlift.

Purge water characteristics from most wells exhibited many similarities throughout chemical well maintenance activities. These characteristics included initial high turbidity levels followed by lower turbidity levels at the end of maintenance; an odor (interpreted as a strong reducing odor) that typically diminished over time; and the presence of a semi-solid layer of foam on the hopper surface. In most cases this foam was observed to have grey to brown color, although some wells were nearly white in color. Very fine-grained sand was noted in many of the well discharges.

Although many variations in color, odor, turbidity, etc. were observed throughout maintenance, the wells generally demonstrated a trend towards lighter color, less odor, and decreasing turbidity, providing an additional line of evidence that the well maintenance program was successful.

4.0 DISCUSSION OF RESULTS

This section discusses and synthesizes the results of the constant-rate injection tests results before and after well maintenance. The purpose of pre- and post-maintenance constant rate injection testing was to evaluate the general degree of biofouling and/or if an improvement was noted immediately after maintenance, based upon results presented in **Section 3.1.2**.

On average, the value of T calculated from injection testing results increased as a result of well maintenance. Several summary statistics showing this increase are listed below.

- The median value of T increased from 11 to 18 ft^2/day from pre- to post-maintenance.
- The 25th percentile value of T increased from 2.7 to 3.7 ft^2/day pre- and post-maintenance.
- The 75th percentile value of T increased from 30 to 40 ft^2/day pre- and post-maintenance.
- Of the 31 wells at which pre- and post-maintenance constant-rate injection tests were performed, 17 had a greater value of T post-maintenance and 14 had a lower value of T post-maintenance.

When considering the lower half of the dataset with respect to pre-maintenance T (the 15 wells with pre-maintenance values of T less than 10 ft^2/day), the average increase in T as a result of maintenance was approximately 300%. In contrast, the upper half of the dataset with respect to pre-maintenance T showed a -4% change in T on average. This suggests that for wells with relatively lower pre-maintenance values of T, the well maintenance program was successful in mitigating biofouling impacts. Additionally, the data from wells with relatively higher pre-maintenance values of T could be interpreted to suggest that these wells had not been adversely impacted by biofouling. However, the well maintenance program likely provided benefit at these locations from a biofouling prevention perspective.

The saturated thickness at PTX06-ISB061 was approximately 2.9 ft greater during the pre-maintenance gauging relative to post-maintenance and historical data. This result could have been due to biofouling. The post-maintenance value of T was approximately 900% greater after well maintenance at this location, which suggests that the well maintenance program had the intended effect at this location.

5.0 WASTE MANAGEMENT

Liquid and solid wastes were managed according to specifications in the Waste Management Plan (Work Plan Appendix B [Trihydro 2012b]).

Liquid Wastes included fluids generated during well maintenance, i.e. perched groundwater with residual well maintenance chemicals (Welgicide). These wastes were contained and stored in Pantex-provided roll-off containers while on site. **Appendix B** includes a copy of the waste collection tracking forms (form PX-2844). Liquid wastes were disposed by the Pantex Waste Operations Department.

Solid Wastes were limited to packaging materials such as empty well maintenance chemical containers and spent high density polyethylene (HDPE) tubing. These wastes were cleaned to a non-hazardous residual and recycled for future use (empty containers) or cut up and disposed of as class-2 non-hazardous waste according to the Waste Management Plan.

6.0 LESSONS LEARNED

This section presents lessons learned associated with various aspects of well maintenance work including those related to use of an airlift assembly for well maintenance, Welgicide application, and health and safety issues. Each is discussed in the sections that follow.

6.1 CONSTRUCT AIRLIFT PROTECTOR

To prevent damage to the airlift assembly airline and eductor tubing from the well casing and well protector rim, a small traffic cone with metal reinforcement was constructed. In the past, a simple traffic cone was used, but quickly became deformed and impractical.

6.2 SECURED AIRLIFT TUBING

While maintaining the wells, the airlift assembly is repeatedly lifted and dropped. To prevent the portion of the airline and eductor tubing that runs from the well to the hopper from becoming caught on or punctured by pump rig equipment, a weight (usually a spare tire) was used to keep the assembly away from the pump rig and other objects.

6.3 REVISED MAINTENANCE FORM

To maintain consistency and to prompt users to record data, the well maintenance form was revised. Dosing and totaled maintenance information was separated and important qualitative information (pH, color, turbidity, odor) is prompted for each periodic observation.

6.4 ASSESS MAINTENANCE EQUIPMENT FOR WEAR

After multiple uses, the airlift assembly can wear in many places. It is now standard practice to check the airline and eductor tubing for significant bends, wear, or punctures. The airlift assembly is also checked for clogs caused by sediment present at the bottom of the well.

7.0 CONCLUSIONS AND RECOMMENDATIONS

This section presents conclusions from the work performed and the data that were analyzed as part of this work. This includes visual observations, hydraulic testing data, and well performance during injection. Recommendations for future well maintenance events are presented based on these data and analysis.

7.1 VISUAL OBSERVATIONS

Visual observations during well maintenance activities indicated that surging/airlift removed both liquids (i.e. groundwater and treatment reagents) and some entrained solids. The semi-solid and solid residues are the intended target of well maintenance activities, because these could reduce injection well performance if they were allowed to accumulate over time. Visual evidence that well purge fluids were initially turbid and more clear as maintenance progressed indicates that the maintenance program was successful at removing residues from the wells.

7.2 COMPARISON OF PRE- AND POST-MAINTENANCE INJECTION TESTING RESULTS

Values of T were slightly higher at most well locations when comparing pre-maintenance and post-maintenance constant-rate injection testing results. Increases in T were much greater in wells that had a relatively lower pre-maintenance value of T, which suggests that the well maintenance program was successful in mitigating impacts of biofouling at these locations. At locations with relatively higher pre-maintenance T, injection testing T values did not change as a result of well maintenance. This suggests that well maintenance has generally been successful in its role as a preventive program.

7.3 EVALUATION OF WELL MAINTENANCE REAGENTS

Use of Welgicide Cleaner solution as the treatment reagent resulted in a more streamlined well maintenance program relative to acid and previous “chemical” maintenance programs. Visual observations indicated that use of this cleaner resulted in removal of amounts of residue that were greater than that observed with other reagents that have been applied in the past. Specifically, there was a relatively greater amount of foam observed in the fluids removed with use of Welgicide cleaner relative to other reagents.

7.4 RECOMMENDATIONS

The well maintenance program described herein is one that has been optimized over time. This is the fourth event that has been conducted at the Z11ISB System, and the sixth conducted at the two ISB Systems combined. Lessons learned

from previous maintenance events are continually incorporated into the program. Based upon the well maintenance events conducted to date, Trihydro recommends the following procedures for future well maintenance events:

- The well maintenance program should continue. The program has been successful in maintaining the injection wells in a condition that is suitable for amendment injection.
- Welgicide cleaner should continue to be used as the maintenance treatment chemical. Visual observations indicate that use of this reagent was able to solubilize more residue than previous reagents. Protocols have been developed for reagent delivery that are precise regarding dose and include the proper health & safety considerations.
- Constant-rate injection testing should be used as the hydraulic testing method. Constant-rate injection testing produced reproducible numerical data. Use of this testing method in the future will allow direct comparison between future data and the 2013 data described herein. It is not anticipated that use of an alternative short-term testing method rather than constant-rate injection testing would produce results that are more highly correlated with other hydraulic parameters.

8.0 REFERENCES

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Trihydro 2012f. Well Field Maintenance Report – Zone 11 ISB System, In-Situ Bioremediation Operations and Maintenance, October 31.

TABLES

TABLE 1. SPECIFIC WELL MAINTENANCE COMPLETION DATES
WELL MAINTENANCE REPORT - ZONE 11 ISB SYSTEM
PANTEX ISB O&M, PURCHASE ORDER 5293

Well ID	Pre-Maintenance Hydr. Test Date	Date Welgicide Added	Date Airlift Complete	Post-Maintenance Hydr. Test Date
PTX06-ISB055	3/11/2013	3/22/2013	3/26/2013	4/1/2013
PTX06-ISB056A	2/6/2013	2/19/2013	3/8/2013	3/14/2013
PTX06-ISB057	2/6/2013	2/19/2013	3/6/2013	3/25/2013
PTX06-ISB058	2/6/2013	2/19/2013	3/6/2013	3/14/2013
PTX06-ISB059	3/11/2013	3/22/2013	3/27/2013	4/1/2013
PTX06-ISB060A	2/6/2013	2/19/2013	3/5/2013	3/14/2013
PTX06-ISB061	2/6/2013	2/19/2013	3/5/2013	3/14/2013
PTX06-ISB062	2/6/2013	2/19/2013	2/22/2013	3/5/2013
PTX06-ISB063	3/7/2013	3/13/2013	3/19/2013	3/25/2013
PTX06-ISB064	2/6/2013	2/18/2013	2/21/2013	3/5/2013
PTX06-ISB065	2/8/2013	3/5/2013	3/7/2013	3/14/2013
PTX06-ISB066	2/6/2013	Note 1		
PTX06-ISB067	2/6/2013	2/18/2013	2/20/2013	3/5/2013
PTX06-ISB068	2/5/2013	2/8/2013	2/19/2013	2/23/2013
PTX06-ISB069A	3/7/2013	3/13/2013	3/15/2013	3/25/2013
PTX06-ISB070	2/5/2013	3/13/2013	3/20/2013	3/27/2013
PTX06-ISB071	3/12/2013	3/19/2013	3/25/2013	3/28/2013
PTX06-ISB072	2/5/2013	3/13/2013	3/21/2013	3/27/2013
PTX06-ISB073	3/11/2013	3/19/2013	3/25/2013	3/28/2013
PTX06-ISB074	2/5/2013	2/8/2013	2/15/2013	2/23/2013
PTX06-ISB075 (OLD)	3/11/2013	3/12/2013	3/14/2013	3/15/2013
PTX06-ISB075 (NEW)	3/8/2013	Note 1		
PTX06-ISB076A	2/5/2013	2/8/2013	2/19/2013	2/23/2013
PTX06-ISB077	3/8/2013	3/12/2013	3/14/2013	3/26/2013
PTX06-ISB078	2/7/2013	3/6/2013	3/11/2013	3/15/2013
PTX06-ISB079	2/7/2013	3/6/2013	3/11/2013	3/15/2013
PTX06-ISB080	2/7/2013	3/5/2013	3/13/2013	3/15/2013
PTX06-ISB081	3/8/2013	3/8/2013	3/13/2013	3/15/2013
PTX06-ISB082	3/12/2013	3/21/2013	3/27/2013	4/1/2013
PTX06-ISB083	2/5/2013	2/8/2013	2/14/2013	2/23/2013
PTX06-ISB084	2/5/2013	3/14/2013	3/21/2013	3/26/2013
PTX06-ISB085A	3/12/2013	3/19/2013	3/22/2013	3/26/2013
PTX06-ISB086	2/5/2013	2/8/2013	2/13/2013	2/23/2013

Note:

1. PTX06-ISB066 and PTX06-ISB075 (NEW) are new wells that did not require maintenance.

TABLE 2. HISTORICAL AND CURRENT DEPTH TO WATER AND SATURATED THICKNESS
WELL MAINTENANCE REPORT - ZONE 11 ISB SYSTEM
PANTEX ISB O&M, PURCHASE ORDER 5293

	Baseline (Pre-Injection) 2009		Pre-Maintenance 2010		Post-Maintenance 2010		Pre-Maintenance 2011		Post-Maintenance 2011		Pre-Maintenance 2012		Post-Maintenance 2012		Pre-Maintenance 2013			Post-Maintenance 2013		
Well ID	DTW (ft btoc)	Saturated Thickness (ft)	DTW (ft btoc)	Saturated Thickness (ft)	DTW (ft btoc)	Saturated Thickness (ft)	DTW (ft btoc)	Saturated Thickness (ft)	DTW (ft btoc)	Saturated Thickness (ft)	DTW Date	Saturated Thickness (ft)	DTW Date	Saturated Thickness (ft)	DTW Date	DTW (ft btoc)	Saturated Thickness (ft)	DTW Date	DTW (ft btoc)	Saturated Thickness (ft)
PTX06-ISB055	262.18	21.0	260.10	21.0	260.64	20.5	260.08	21.0	260.33	20.8	6/4/2012	20.7	7/16/2012	20.7	3/11/2013	260.59	20.5	4/1/2013	260.68	20.4
PTX06-ISB056A	261.62	22.5	259.89	22.2	260.00	22.1	259.68	22.4	259.68	22.4	5/22/2012	22.3	7/9/2012	22.1	2/6/2013	260.00	22.1	3/14/2013	260.05	22.1
PTX06-ISB057	261.78	21.4	Note 1						260.29	21.0	5/22/2012	19.8	7/9/2012	19.7	2/6/2013	260.42	19.8	3/25/2013	260.35	19.8
PTX06-ISB058	261.92	20.1	260.30	19.7	260.18	19.8	259.93	20.1	260.01	20.0	5/21/2021	18.9	7/9/2012	19.7	2/6/2013	260.28	19.7	3/14/2013	260.38	19.6
PTX06-ISB059	261.92	20.2	260.05	20.1	260.08	20.0	259.92	20.2	260.09	20.0	5/23/2012	19.2	7/9/2012	19.9	3/11/2013	260.21	19.9	4/1/2013	260.37	19.7
PTX06-ISB060A	262.92	17.2	261.20	17.0	261.08	17.1	260.94	17.2	260.87	17.3	6/2/2012	17.5	7/9/2012	17.2	2/6/2013	261.62	16.6	3/14/2013	261.64	16.5
PTX06-ISB061	262.64	18.5	260.81	18.4	260.71	18.5	260.61	18.6	260.60	18.6	5/21/2021	18.3	7/9/2012	18.4	2/6/2013	258.04	21.2	3/14/2013	260.86	18.3
PTX06-ISB062	263.90	17.3	261.92	17.2	262.01	17.1	261.82	17.3	262.03	17.1	5/19/2012	17.2	7/9/2012	17.2	2/6/2013	261.94	17.2	3/5/2013	262.51	16.6
PTX06-ISB063	264.55	16.6	262.52	16.7	263.08	16.1	262.15	17.0	262.45	16.7	5/24/2012	16.6	7/10/2012	16.6	3/7/2013	262.55	16.6	3/25/2013	262.66	16.5
PTX06-ISB064	264.12	18.8	262.38	19.6	261.10	20.8	262.00	19.9	262.29	19.7	5/19/2012	20.0	7/10/2012	19.5	2/6/2013	262.31	19.6	3/5/2013	262.8	19.1
PTX06-ISB065	265.75	14.2	263.86	14.1	264.05	13.9	263.86	14.1	261.15	16.8	5/24/2012	14.2	7/10/2012	14.1	2/8/2013	263.92	14.1	3/14/2013	263.83	14.2
PTX06-ISB066	266.73	14.2	264.64	14.3	264.82	14.1	264.69	14.3	Note 3		5/23/2012	14.2	Note 3		2/6/2013	264.60	14.4	Note 5		
PTX06-ISB067	267.88	13.2	264.90	14.2	265.80	13.3	264.60	14.5	264.79	14.3	5/19/2012	14.5	6/23/2012	14.5	2/6/2013	264.53	14.6	3/5/2013	265.05	14.1
PTX06-ISB068	267.01	15.0	264.99	15.1	265.85	14.2	264.70	15.4	264.64	15.4	4/25/2012	15.3	6/23/2012	15.3	2/5/2013	264.75	15.3	2/23/2013	264.65	15.4
PTX06-ISB069A	267.41	14.7	265.30	14.8	265.31	14.8	265.29	14.8	264.97	15.1	5/24/2012	14.7	6/23/2012	14.9	3/7/2013	265.10	15.0	3/25/2013	265.17	14.9
PTX06-ISB070	269.31	13.8	267.15	13.9	264.66	16.4	267.33	13.8	266.97	14.1	4/25/2012	14.3	6/23/2012	13.8	2/5/2013	266.86	14.2	3/27/2013	266.80	14.3
PTX06-ISB071	270.26	15.8	268.13	16.0	268.87	15.2	267.89	16.2	267.85	16.3	5/24/2012	16.3	6/23/2012	16.3	3/12/2013	267.82	16.3	3/28/2013	267.85	16.3
PTX06-ISB072	271.05	17.0	269.03	17.0	268.52	17.5	268.63	17.4	268.53	17.5	4/25/2012	17.3	6/23/2012	16.9	2/5/2013	268.82	17.2	4/25/2013	265.54	18.6
PTX06-ISB073	271.91	18.1	269.79	18.2	269.96	18.1	269.16	18.9	Note 4		5/24/2012	18.3	6/23/2012	18.4	3/11/2013	269.59	18.4	3/28/2013	269.54	18.5
PTX06-ISB074	272.27	17.8	270.30	19.5	269.74	20.1	269.82	20.0	269.50	20.3	4/25/2012	20.0	6/16/2012	22.4	2/5/2013	269.72	20.1	2/23/2013	269.70	20.1
PTX06-ISB075 (OLD)	271.58	15.6	269.32	15.8	269.16	15.9	269.80	15.3	269.20	15.9	5/24/2012	16.1	6/16/2012	16.0	3/8/2013	268.86	16.2	3/15/2013	268.81	16.3
PTX06-ISB075 (NEW)	na	na	na	na	na	na	na	na	na	na	na	na	na	na	3/11/2013	269.27	10.1	Note 5		
PTX06-ISB076A	270.94	14.6	Note 2		268.72	17.4	268.50	17.6	267.91	18.2	4/18/2012	17.6	6/16/2012	17.6	2/5/2013	268.35	17.8	2/23/2013	268.25	17.9
PTX06-ISB077	269.97	13.6	Note 2		268.28	15.9	267.67	16.5	267.64	16.5	5/24/2012	16.4	6/16/2012	16.9	3/8/2013	270.46	13.7	2/26/2013	273.69	10.5
PTX06-ISB078	261.35	20.8	257.60	24.5	257.02	25.1	257.13	25.0	257.10	25.0	6/2/2012	24.8	7/16/2012	24.8	2/7/2013	257.72	24.4	3/15/2013	257.55	24.6
PTX06-ISB079	262.58	24.5	258.25	28.9	258.25	28.9	258.30	28.8	258.00	29.1	6/2/2012	28.5	7/16/2012	28.7	2/7/2013	258.90	28.2	3/15/2013	258.60	28.5
PTX06-ISB080	260.50	21.3	257.00	24.8	257.05	24.7	256.95	24.8	257.00	24.8	6/2/2012	24.6	7/16/2012	24.7	2/7/2013	257.62	24.2	3/15/2013	257.33	24.4
PTX06-ISB081	262.17	19.0	257.31	23.8	257.66	23.5	256.89	24.3	257.77	23.4	6/2/2012	23.2	7/17/2012	23.2	3/8/2013	258.14	23.0	3/15/2013	258.16	23.0
PTX06-ISB082	260.85	17.0	257.19	20.6	257.11	20.7	257.07	20.8	257.05	20.8	6/4/2012	20.5	7/16/2012	20.6	3/12/2013	257.00	20.8	4/1/2013	260.97	16.9
PTX06-ISB083	274.91	9.5	270.82	13.6	271.19	13.2	270.65	13.7	270.70	13.7	5/22/2012	13.4	6/15/2012	13.8	2/5/2013	270.41	14.0	2/23/2013	270.32	14.1
PTX06-ISB084	276.00	10.0	271.53	14.5	271.90	14.1	271.22	14.8	269.89	16.2	6/4/2012	14.9	6/16/2012	14.8	2/8/2013	271.09	15.0	3/26/2013	270.92	15.1
PTX06-ISB085A	275.49	8.4	271.35	12.5	272.45	11.4	271.08	12.8	271.00	12.9	5/24/2012	12.5	6/15/2012	12.8	3/12/2013	271.04	12.8	3/26/2013	270.73	13.2
PTX06-ISB086	276.39	9.7	271.86	14.2	270.05	16.0	271.73	14.3	271.84	14.2	5/22/2012	14.6	6/15/2012	14.5	2/5/2013	271.46	14.6	2/23/2013	271.40	14.7

Notes:

1. ISB057 was replaced in 2011 due to well damage observed in 2010. Therefore, no maintenance was performed in 2010 or 2011.
2. No pre-maintenance tests were performed in 2010 at ISB076A and ISB077 because those wells were observed to be dry presumably due to biofouling.
3. Maintenance and post-maintenance hydraulic testing were not performed at ISB066 in 2011 and 2012 due to separation in well casing above screen.
4. An obstruction was observed in ISB073 well casing following hydrogen peroxide addition. Subsequent downhole camera data indicated that the well casing had deformed inwards.
   In 2011, acid maintenance was performed at some locations, chemical maintenance at others, and both acid and chemical at other locations.
5. ISB066 and ISB075 (new) were installed in late 2012, and had not received amendment injection during well maintenance program, therefore no maintenance or post-maintenance testing was performed.

na = not applicable, PTX06-ISB075 (new) not installed until late 2012.

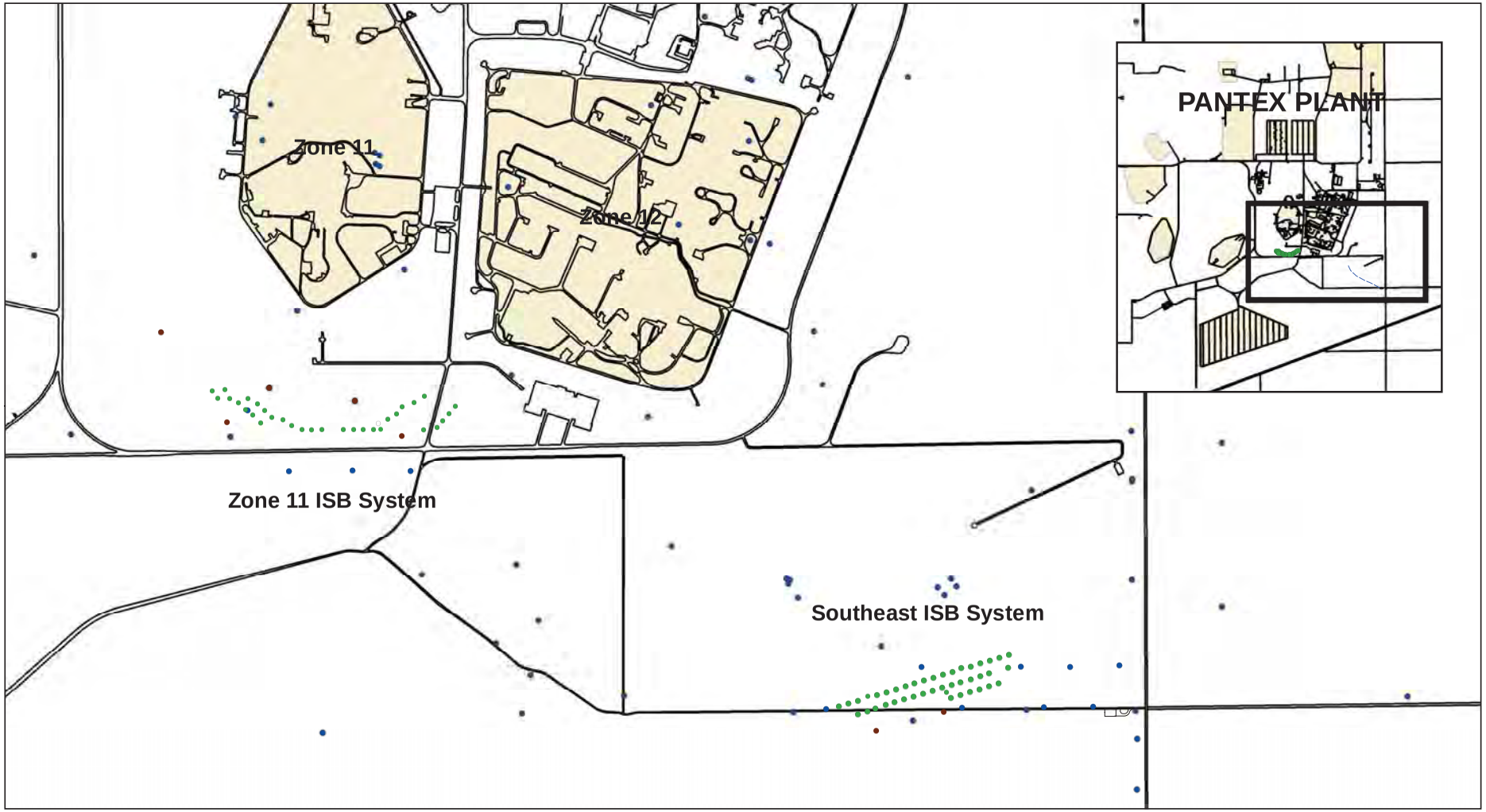
TABLE 3. PRE- AND POST-MAINTENANCE CONSTANT-RATE INJECTION RESULTS
WELL MAINTENANCE REPORT - ZONE 11 ISB SYSTEM
PANTEX ISB O&M, PURCHASE ORDER 5293

	Pre-Rehabilitation 2013					Post-Rehabilitation 2013					
Well ID	Test Date	Papadopulos-Cooper T (ft2/day)	Max. Displacement (ft)	Max. Flow Rate (gpm)	Capacity (gpm / ft displacement)	Test Date	Papadopulos-Cooper T (ft2/day)	Max. Displacement (ft)	Max. Flow Rate (gpm)	Capacity (gpm / ft displacement)	Change in T (%)
PTX06-ISB055	3/14/2013	56	13	10.12	0.78	4/1/2013	57	14	10.12	0.72	2%
PTX06-ISB056A	2/11/2013	25	38.5	8.07	0.21	3/24/2013	24	30.5	8.07	0.26	-2%
PTX06-ISB057	2/6/2013	0.44	39.5	6.03	0.15	3/25/2013	3.6	35.5	2.71	0.076	721%
PTX06-ISB058	2/6/2013	3.5	38	6.03	0.16	3/14/2013	15	31	6.03	0.19	331%
PTX06-ISB059	3/11/2013	2.5	35.5	3.22	0.091	4/1/2013	0.72	16.5	2.18	0.13	-72%
PTX06-ISB060A	2/6/2013	0.0070	38.5	3.22	0.084	3/14/2013	0.026	42	2.97	0.071	277%
PTX06-ISB061	2/6/2013	3.0	32.5	5.01	0.15	3/14/2013	28	29	2.97	0.10	858%
PTX06-ISB062	2/6/2013	29	16	9.35	0.58	3/5/2013	42	15	9.35	0.62	44%
PTX06-ISB063	3/7/2013	31	19.5	7.05	0.36	3/25/2013	29	21	9.10	0.43	-5%
PTX06-ISB064	2/6/2013	17	28	5.01	0.18	3/5/2013	19	20.5	5.01	0.24	15%
PTX06-ISB065	2/8/2013	52	21	9.10	0.43	3/14/2013	48	16	8.84	0.55	-6%
PTX06-ISB066	2/6/2013	401	4	18.28	4.6	No maintenance and post constant rate injection testing performed.					na
PTX06-ISB067	2/6/2013	9.0	32	8.07	0.25	3/5/2013	14	27	8.07	0.30	56%
PTX06-ISB068	2/5/2013	20	31	8.45	0.27	2/23/2013	28	25.5	8.45	0.33	40%
PTX06-ISB069A	3/7/2013	75	13	11.14	0.86	3/25/2013	65	19	12.93	0.68	-14%
PTX06-ISB070	2/5/2013	23	23.5	7.05	0.30	3/27/2013	14	23	7.05	0.31	-40%
PTX06-ISB071	3/12/2013	2.0	40	5.26	0.13	3/28/2013	3.8	28.5	5.51	0.19	90%
PTX06-ISB072	2/5/2013	0.17	35	2.18	0.062	3/27/2013	0.10	40.5	2.06	0.051	-42%
PTX06-ISB073	3/11/2013	29	21.5	8.84	0.41	3/28/2013	3.1	41.5	9.10	0.22	-90%
PTX06-ISB074	2/5/2013	0.43	35	3.48	0.099	2/23/2013	0.47	41.5	3.73	0.090	10%
PTX06-ISB075 (OLD)	3/11/2013	3.2	32.5	2.46	0.076	3/15/2013	2.9	30.5	2.46	0.081	-8%
PTX06-ISB075 (NEW)	3/8/2013	28	20	9.10	0.46	No maintenance and post constant rate injection testing performed.					na
PTX06-ISB076A	2/5/2013	6.6	14.5	3.48	0.24	2/23/2013	6.4	14.5	5.01	0.35	-3%
PTX06-ISB077	3/8/2013	0.018	42.5	5.01	0.12	4/1/2013	0.33	24	2.18	0.091	1720%
PTX06-ISB078	2/7/2013	28	22	12.16	0.55	3/15/2013	33	18	12.16	0.68	16%
PTX06-ISB079	2/7/2013	11	25	12.16	0.49	3/15/2013	16	25	12.16	0.49	42%
PTX06-ISB080	2/7/2013	72	14	12.16	0.87	3/15/2013	58	14.5	12.16	0.84	-20%
PTX06-ISB081	3/8/2013	65	8.5	11.91	1.4	3/15/2013	75	8.5	12.16	1.4	15%
PTX06-ISB082	3/12/2013	0.40	42	3.22	0.077	4/1/2013	0.055	23	1.91	0.083	-86%
PTX06-ISB083	2/5/2013	70	12.5	11.14	0.89	2/23/2013	46.8	14.5	13.78	0.95	-33%
PTX06-ISB084	2/8/2013	9.5	37.5	11.14	0.30	3/26/2013	10.6	33.5	10.89	0.33	12%
PTX06-ISB085A	3/12/2013	34	13.5	11.91	0.88	3/26/2013	23.7	15	12.16	0.81	-31%
PTX06-ISB086	2/5/2013	9.5	10.5	11.14	1.1	2/23/2013	62.6	11	11.75	1.1	559%

TABLE 4. DETAILS OF WELL MAINTENANCE METHODS
WELL MAINTENANCE REPORT - ZONE 11 ISB SYSTEM
PANTEX ISB O&M, CONTRACT 5293

Well ID	Saturated Thickness (ft)	Initial Surge Duration (hrs)	Water Volume Added (gal)	Volume Welgicide Added (gals)	Cumulative Surge Duration (hrs)	Volume Removed with Air Lift (gal)	Final pH Purge Water (SU)
PTX06-ISB055	20.5	0.5	0	20	4.50	100	7
PTX06-ISB056A	22.2	0.5	0	22	5.50	50	8
PTX06-ISB057	19.7	0.5	0	19	5.50	60	8
PTX06-ISB058	19.7	0.5	0	19	5.00	60	8
PTX06-ISB059	19.9	0.5	0	19	6.00	75	8
PTX06-ISB060A	17.2	0.5	0	17	10.00	80	8
PTX06-ISB061	18.4	0.5	0	18	3.00	50	10
PTX06-ISB062	17.2	0.5	0	17	6.00	90	7
PTX06-ISB063	16.6	0.5	0	16	5.50	60	8
PTX06-ISB064	19.5	0.5	0	19	6.25	70	7
PTX06-ISB065	14.1	0.5	0	24	7.00	60	8
PTX06-ISB066	No well maintenance performed because new well that did not require maintenance.						
PTX06-ISB067	14.5	0.5	0	14	7.00	75	7
PTX06-ISB068	15.3	0.5	0	15	5.75	75	7
PTX06-ISB069A	14.9	0.5	0	15	6.00	45	7
PTX06-ISB070	13.8	0.5	0	13	4.25	50	7
PTX06-ISB071	16.3	0.5	0	16	7.00	55	7
PTX06-ISB072	16.9	0.5	20	17	8.00	63	7
PTX06-ISB073	18.4	0.5	0	18	4.75	55	8
PTX06-ISB074	22.4	0.5	8	22	6.50	40	7
PTX06-ISB075	16.0	0.5	0	16	5.50	60	7
PTX06-ISB076A	17.6	0.5	0	17	6.50	100	7
PTX06-ISB077	16.9	0.5	0	16	7.00	60	9
PTX06-ISB078	24.8	0.5	0	24	8.00	60	8
PTX06-ISB079	28.7	0.5	5	28	8.50	65	8
PTX06-ISB080	24.7	0.5	0	24	5.50	75	8
PTX06-ISB081	23.2	0.5	0	23	5.50	50	8
PTX06-ISB082	16.9	0.5	45	20	12.75	80	7
PTX06-ISB083	13.8	0.5	0	13	5.00	55	7
PTX06-ISB084	14.8	0.5	0	14	6.50	60	7
PTX06-ISB085A	12.8	0.5	0	13	5.00	55	8
PTX06-ISB086	14.5	0.5	0	14	6.00	65	7

FIGURES



EXPLANATION

- ISB INJECTION WELLS
- PANTEX MONITORING WELLS
- ROADS
- PANTEX PLANT ZONES

N

0 1,000'

Trihydro CORPORATION
1252 Commerce Drive
Laramie, WY 82070
www.trihydro.com
(P) 307/745.7474 (F) 307/745.7729

FIGURE 1

PANTEX PLANT OVERVIEW

B&W PANTEX
IN SITU BIOREMEDIATION O&M
PANTEX PLANT, AMARILLO, TEXAS

Drawn By: SJS	Checked By: CR	Scale: 1" = 1,000'	Date: 04/25/13	File: Fig1_ISB_Layout.mxd

EXPLANATION

- ISB INJECTION WELLS
- PANTEX MONITORING WELLS
- SAMPLED INJECTION WELLS
- ISB PERFORMANCE MONITORING WELLS
- ROADS
- PANTEX PLANT ZONES

N

0 250'

Trihydro CORPORATION
1252 Commerce Drive
Laramie, WY 82070
www.trihydro.com
(P) 307/745.7474 (F) 307/745.7729

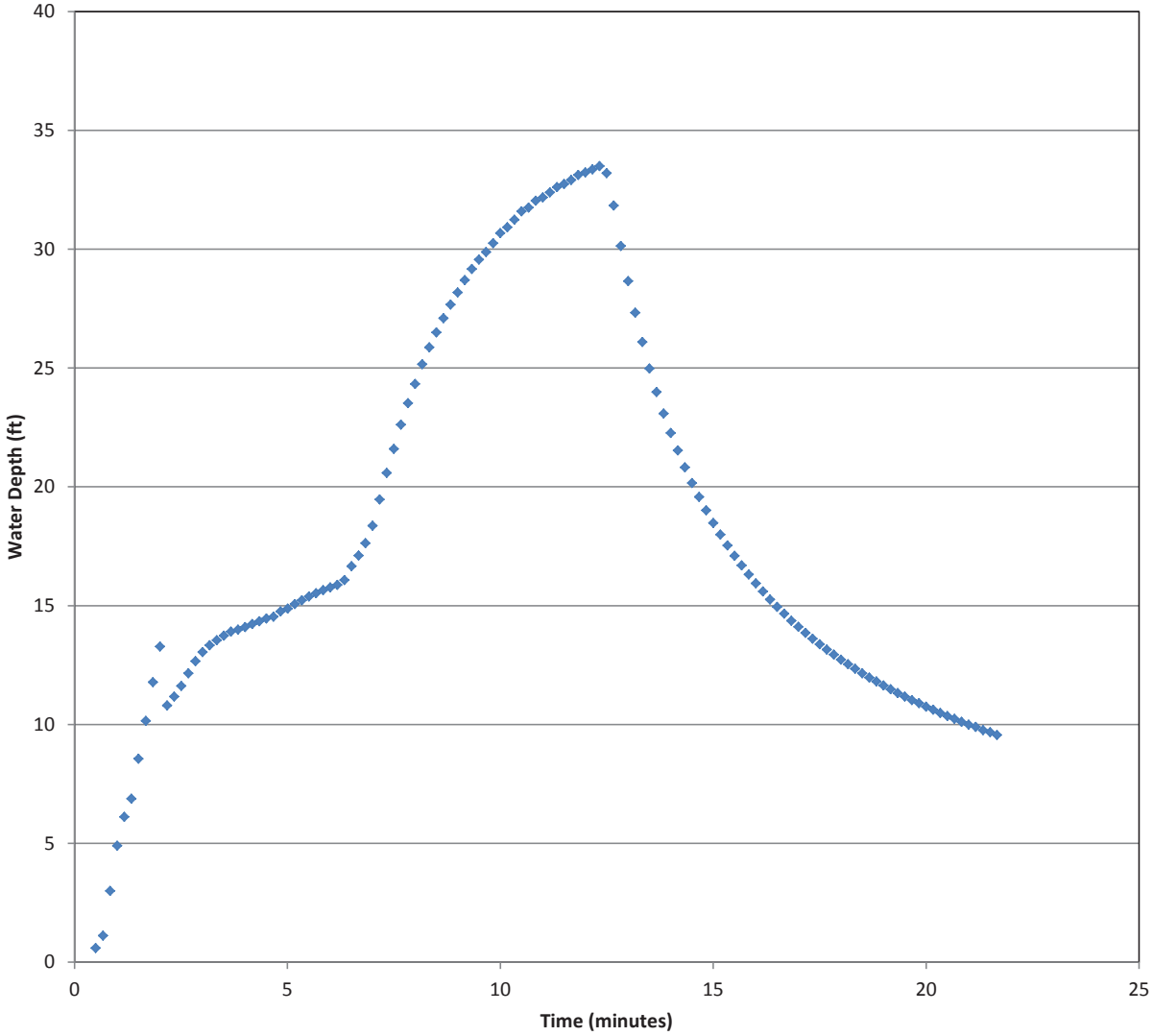
FIGURE 2

ZONE 11 ISB SYSTEM

B&W PANTEX
IN SITU BIOREMEDIATION O&M
PANTEX PLANT, AMARILLO, TEXAS

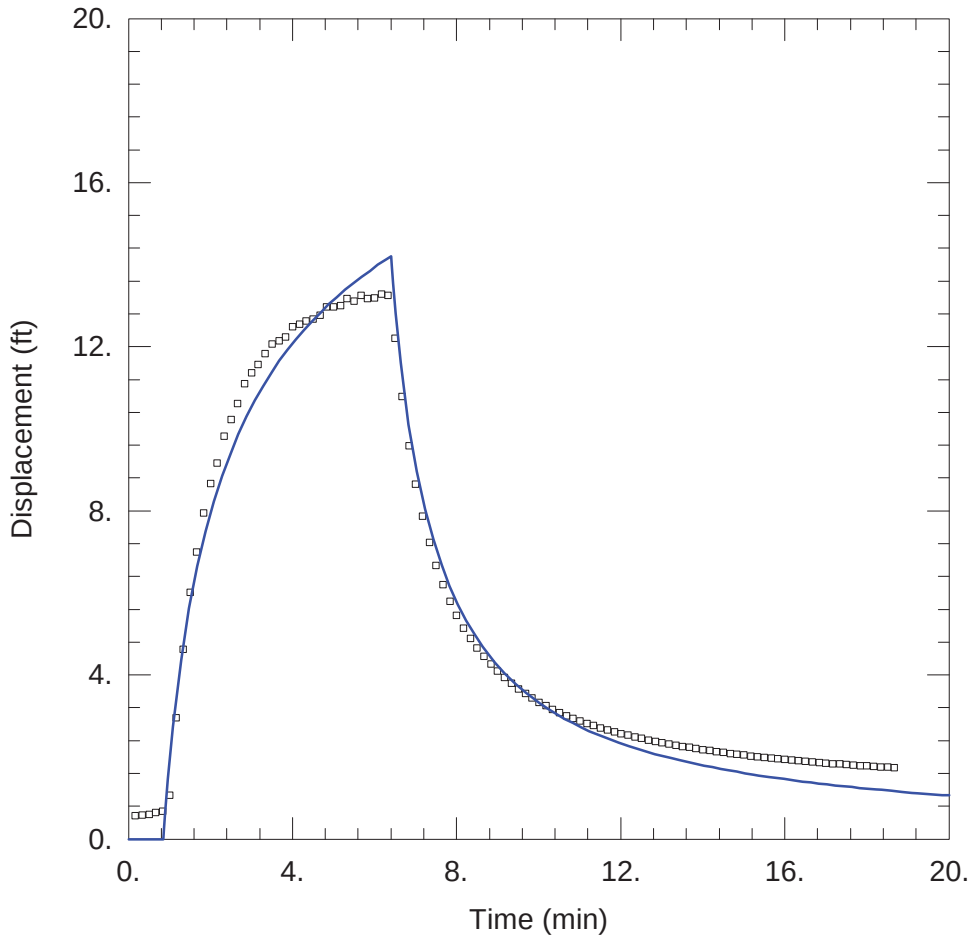
Drawn By: SJS	Checked By: JRS	Scale: 1" = 250'	Date: 04/25/13	File: Fig3_Z11_ISBLayout.mxd

FIGURE 3. ANOMALOUS INJECTION TESTING RESULTS AT PTX06-ISB084



APPENDIX A

PRE- AND POST- MAINTENANCE CONSTANT-RATE INJECTION TESTING AQTESOLV OUTPUTS



WELL TEST ANALYSIS

Data Set: M:\...\ISB055_1inj_PC.aqt
Date: 03/14/13 Time: 12:21:03

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Pre Maint.
Test Well: ISB055
Test Date: 3/11/2013

AQUIFER DATA

Saturated Thickness: 20.5 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB055	0	0

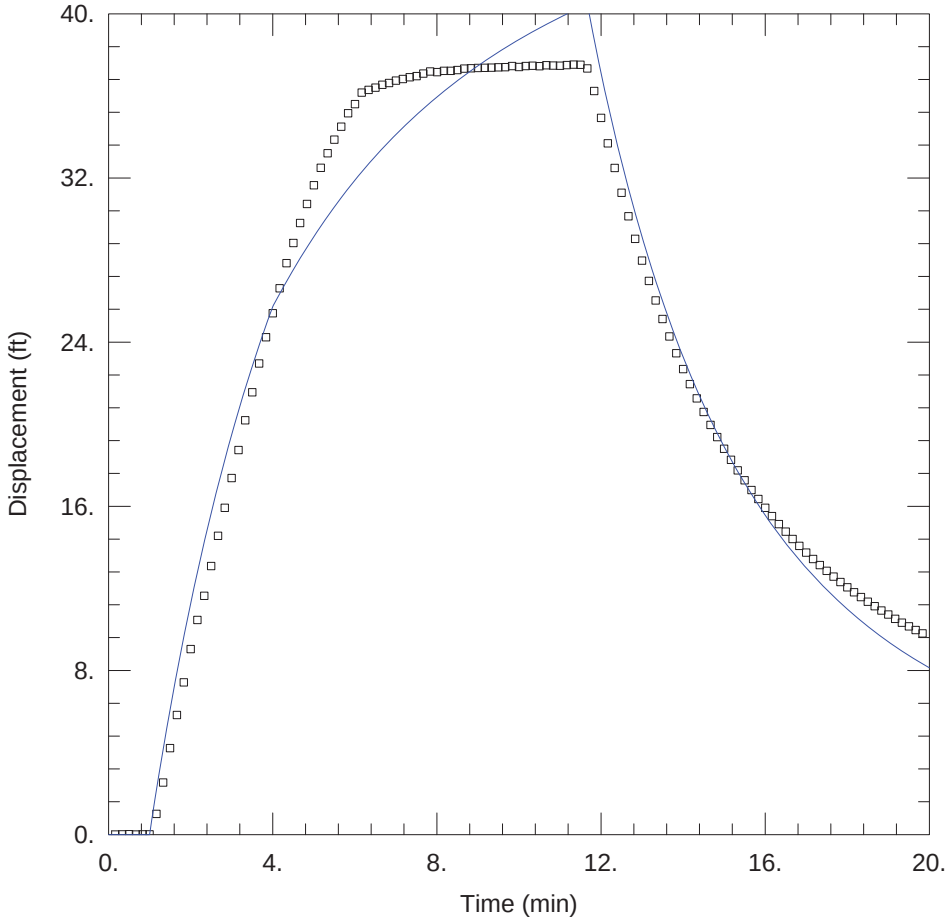
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB055	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 55.58 ft^2/day S = 0.01332
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB056A_1inj_PC.aqt
Date: 11/01/13 Time: 13:14:07

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Pre Maint.
Test Well: ISB056A
Test Date: 2/6/2013

AQUIFER DATA

Saturated Thickness: 22.1 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB056A	0	0

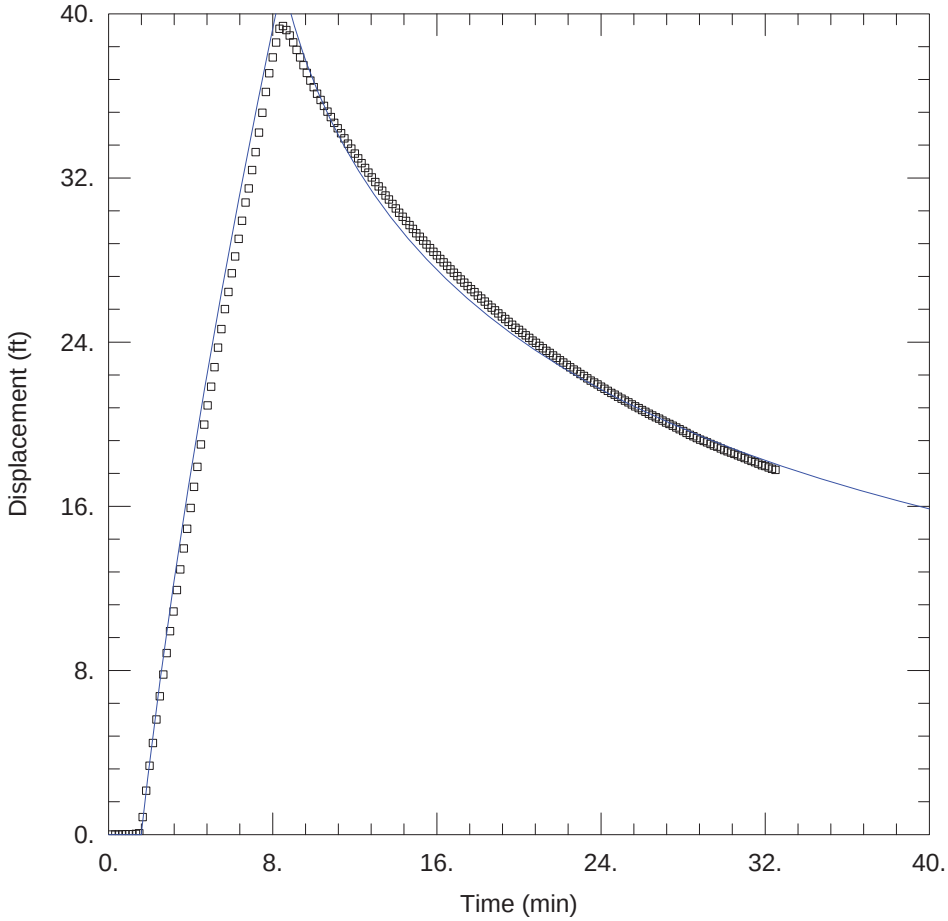
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB056A	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 28.37 ft^2/day S = 2.09E-5
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB057_1inj_PC.aqt
Date: 11/01/13 Time: 13:14:31

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Pre Maint.
Test Well: ISB057
Test Date: 2/6/2013

AQUIFER DATA

Saturated Thickness: 19.8 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB057	0	0

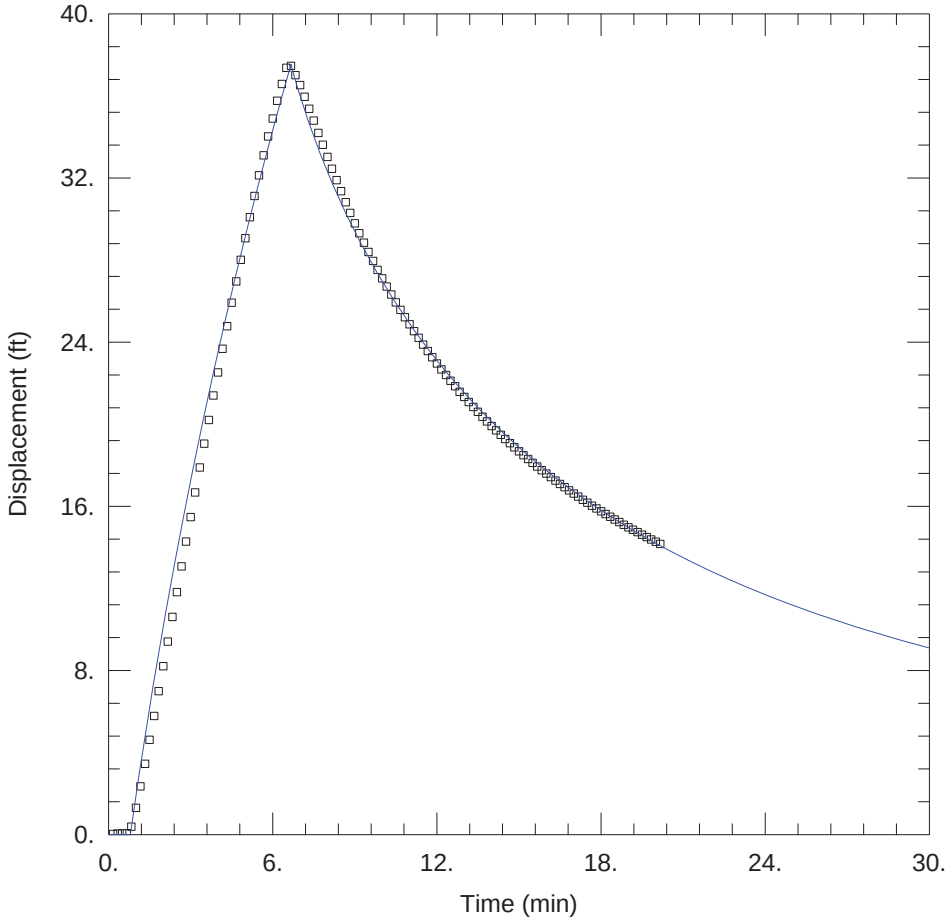
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB057	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 0.4407 ft^2/day S = 0.3
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB058_1inj_PC.aqt
Date: 11/01/13 Time: 13:15:03

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Pre Maint.
Test Well: ISB058
Test Date: 2/6/2013

AQUIFER DATA

Saturated Thickness: 19.7 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB058	0	0

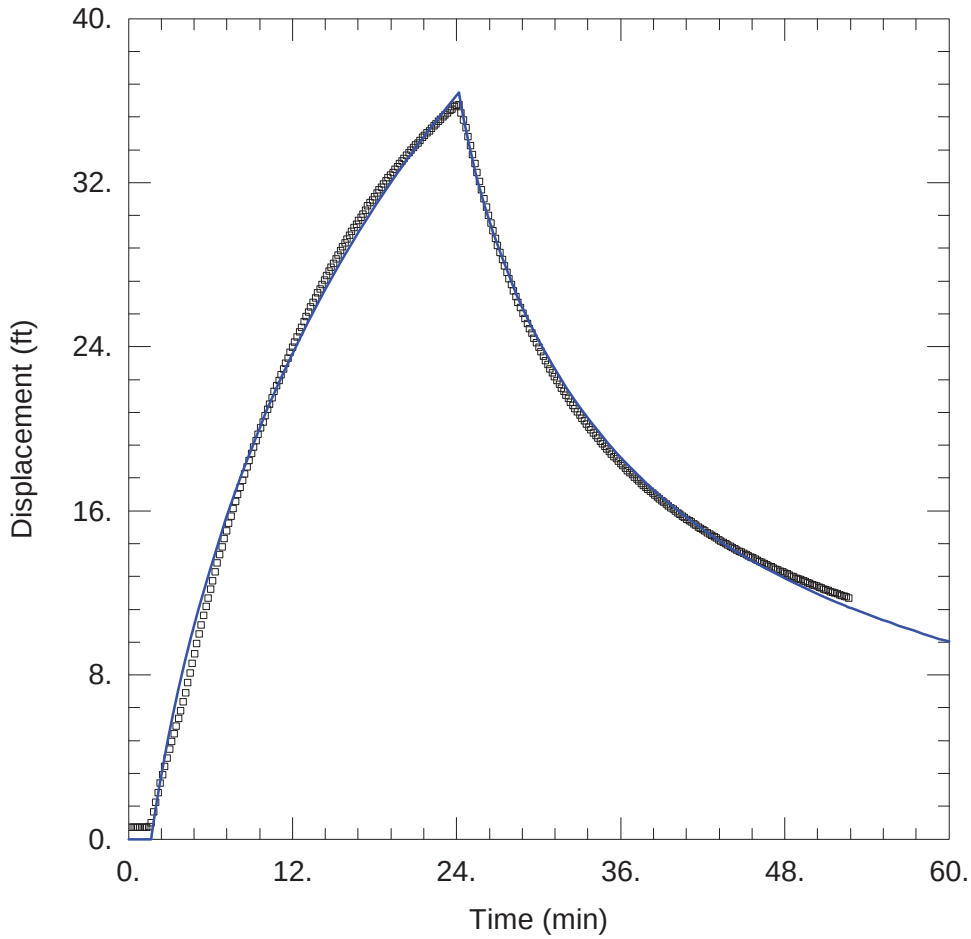
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB058	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 3.475 ft^2/day S = 0.01206
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB059_1inj_PC.aqt
Date: 03/14/13 Time: 13:09:46

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Pre Maint.
Test Well: ISB059
Test Date: 3/11/2013

AQUIFER DATA

Saturated Thickness: 19.9 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB059	0	0

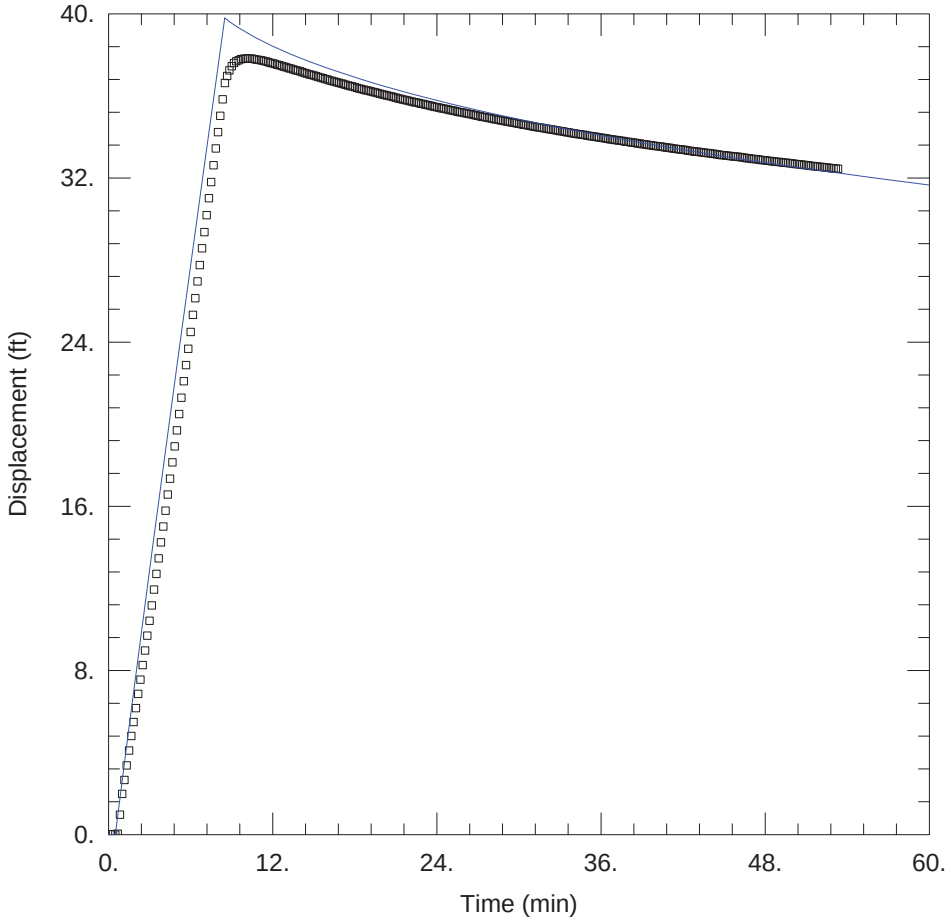
Observation Wells

Well Name	X (ft)	Y (ft)
ISB059	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 2.544 ft^2/day S = 0.07679
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB060A_1inj_PC.aqt
Date: 11/01/13 Time: 13:15:32

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Pre Maint.
Test Well: ISB060A
Test Date: 2/6/2013

AQUIFER DATA

Saturated Thickness: 16.6 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB060A	0	0

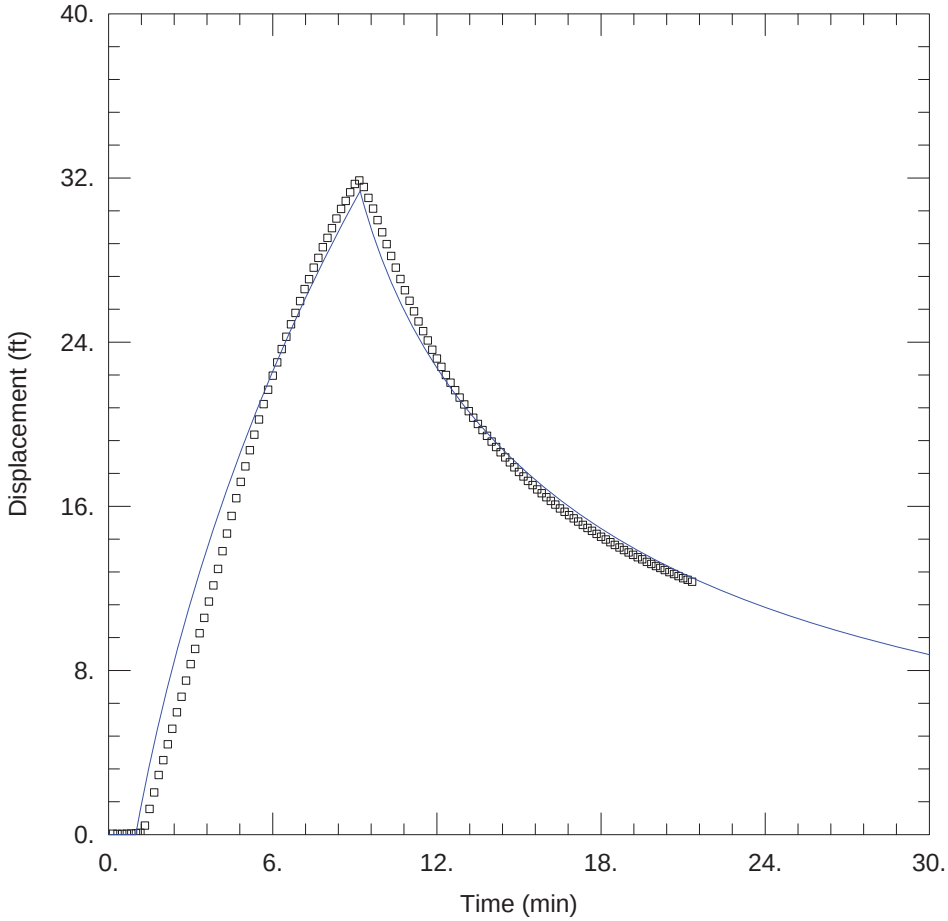
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB060A	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 0.007406 ft^2/day S = 0.3
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB061_1inj_PC.aqt
Date: 11/01/13 Time: 13:15:50

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Pre Maint.
Test Well: ISB061
Test Date: 2/6/2013

AQUIFER DATA

Saturated Thickness: 21.2 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB061	0	0

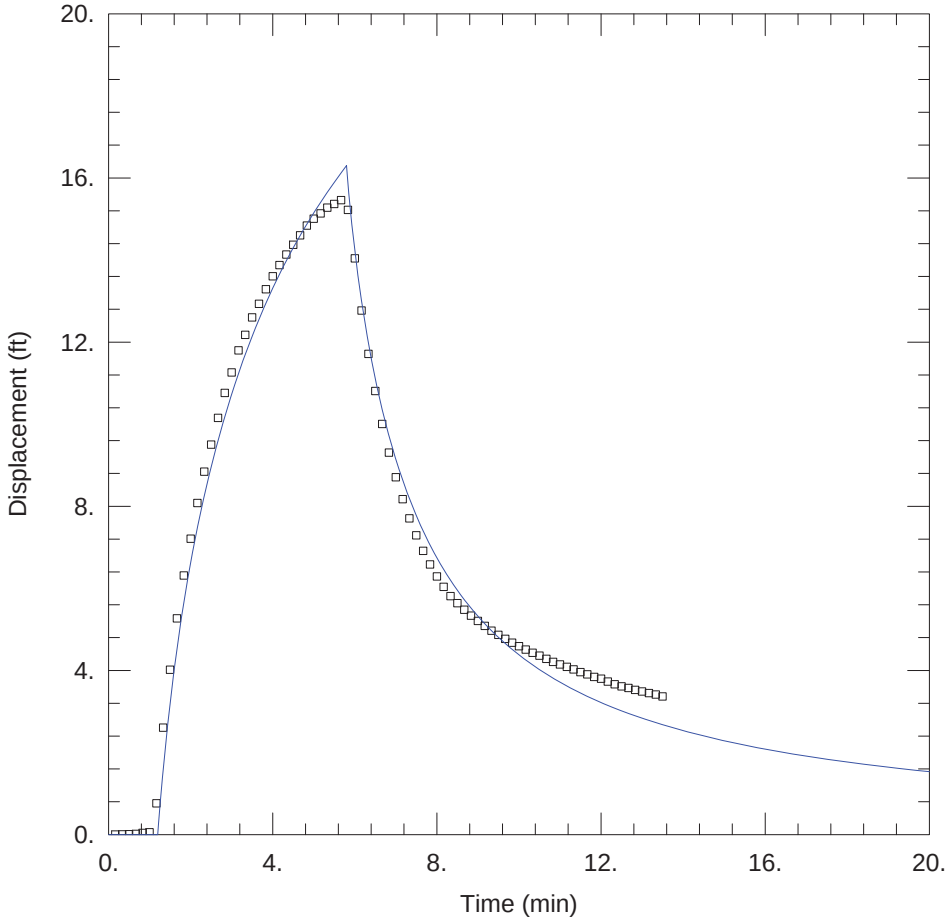
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB061	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 2.951 ft^2/day S = 0.06413
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB062_1inj_PC.aqt
Date: 11/01/13 Time: 13:16:03

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Pre Maint.
Test Well: ISB062
Test Date: 2/6/2013

AQUIFER DATA

Saturated Thickness: 17.2 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB062	0	0

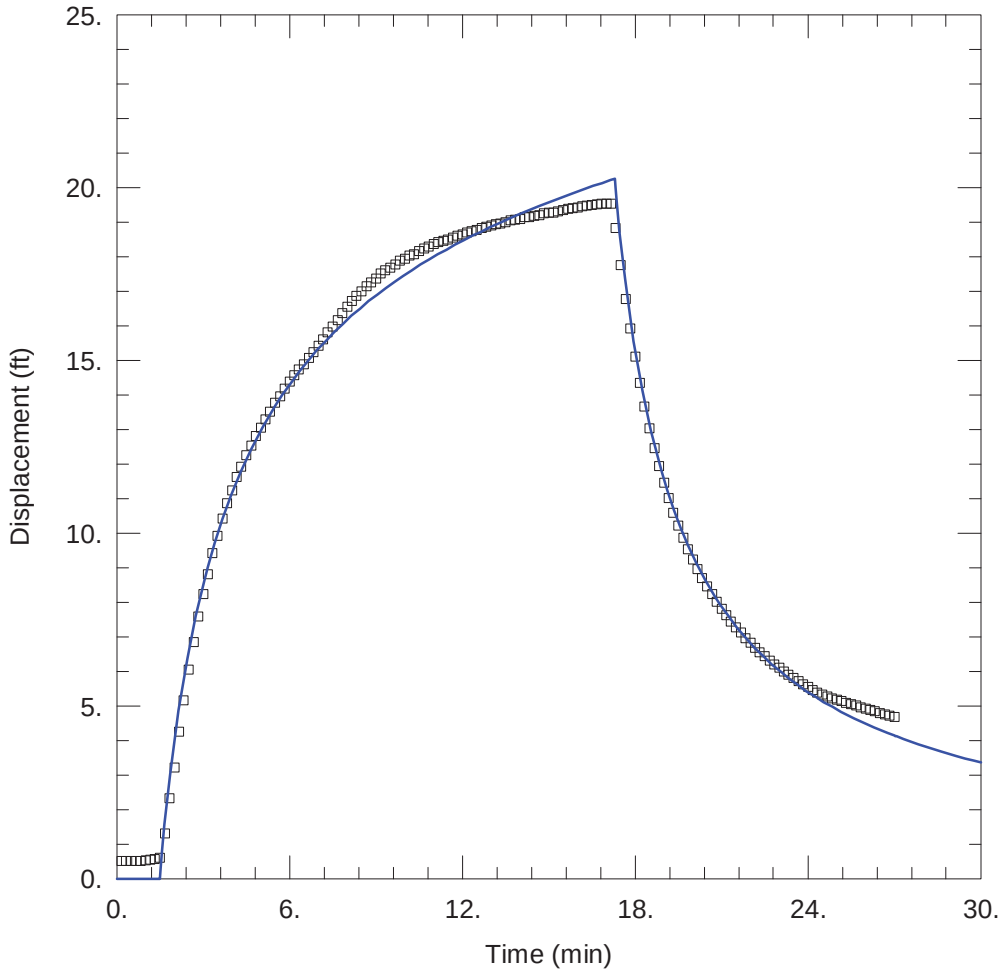
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB062	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 29.46 ft^2/day S = 0.03141
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB063_1inj_PC.aqt
Date: 03/11/13 Time: 08:54:28

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Pre Maint.
Test Well: ISB063
Test Date: 3/7/2013

AQUIFER DATA

Saturated Thickness: 16.6 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB063	0	0

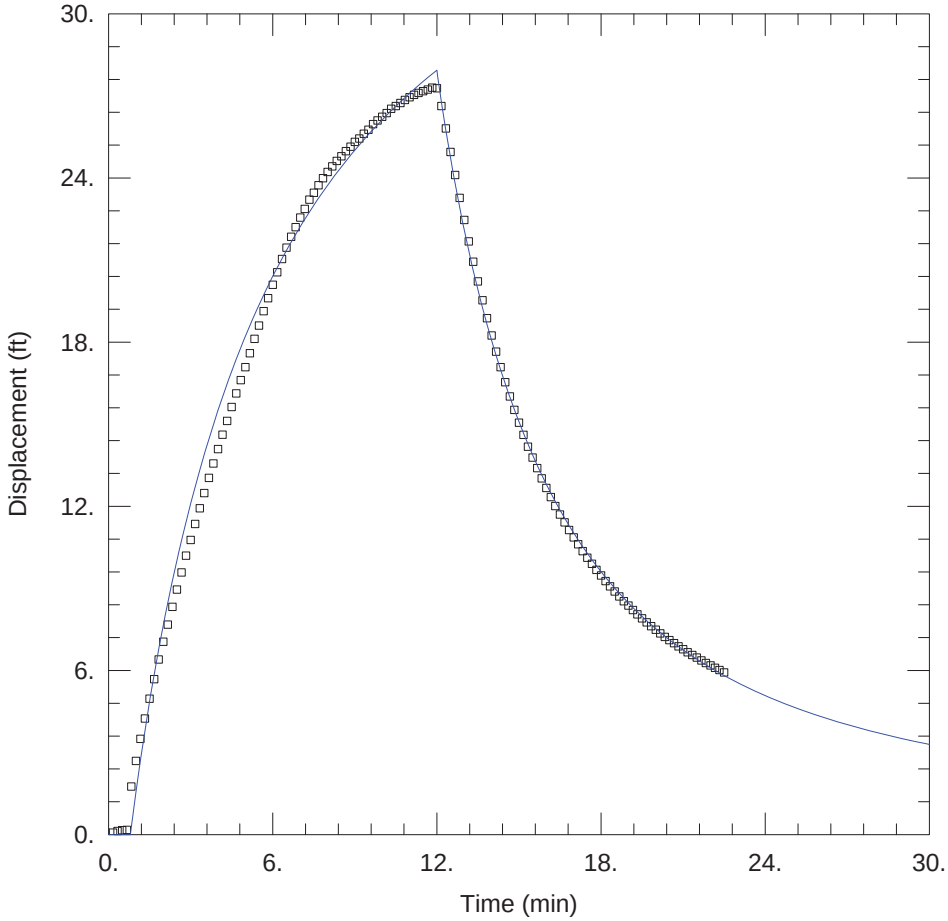
Observation Wells

Well Name	X (ft)	Y (ft)
□ ISB063	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 30.5 ft^2/day S = 0.01232
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB064_1inj_PC.aqt
Date: 11/01/13 Time: 13:16:26

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Pre Maint.
Test Well: ISB064
Test Date: 2/6/2013

AQUIFER DATA

Saturated Thickness: 19.6 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB064	0	0

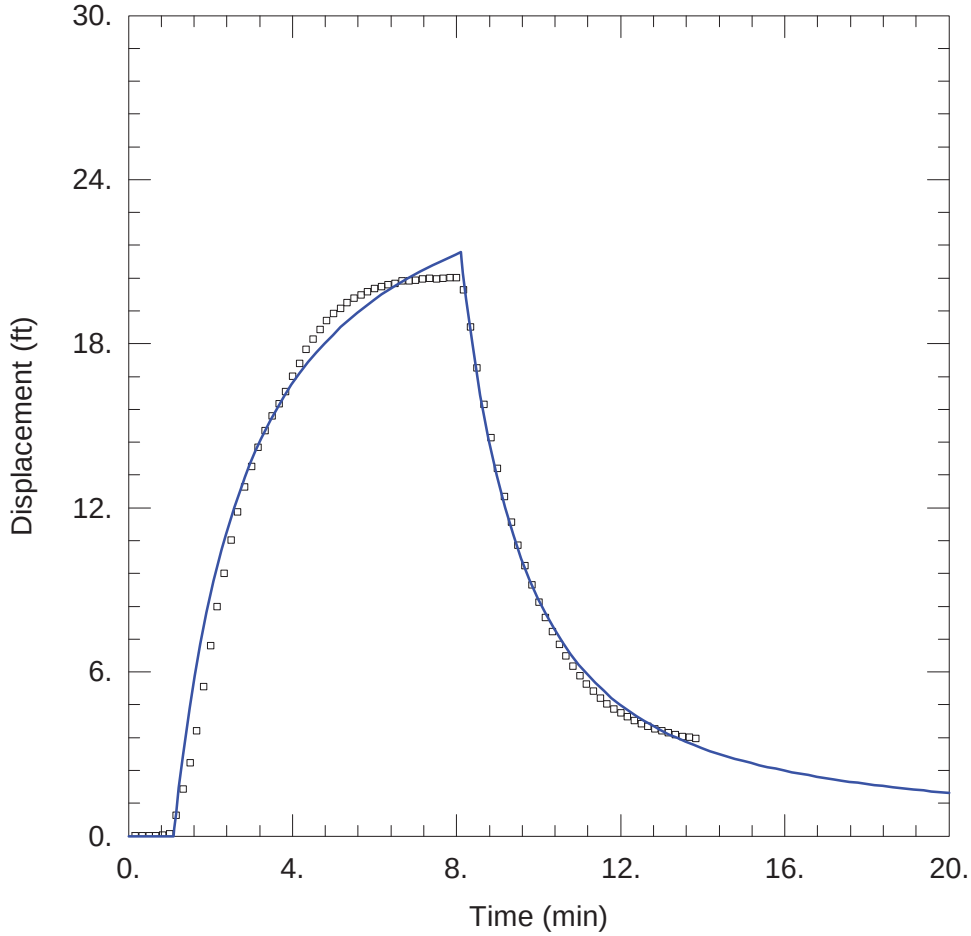
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB064	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 16.9 ft^2/day S = 0.00147
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB065_1inj_PC.aqt
Date: 02/20/13 Time: 09:41:06

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Pre Maint.
Test Well: ISB065
Test Date: 2/8/2013

AQUIFER DATA

Saturated Thickness: 14.1 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB065	0	0

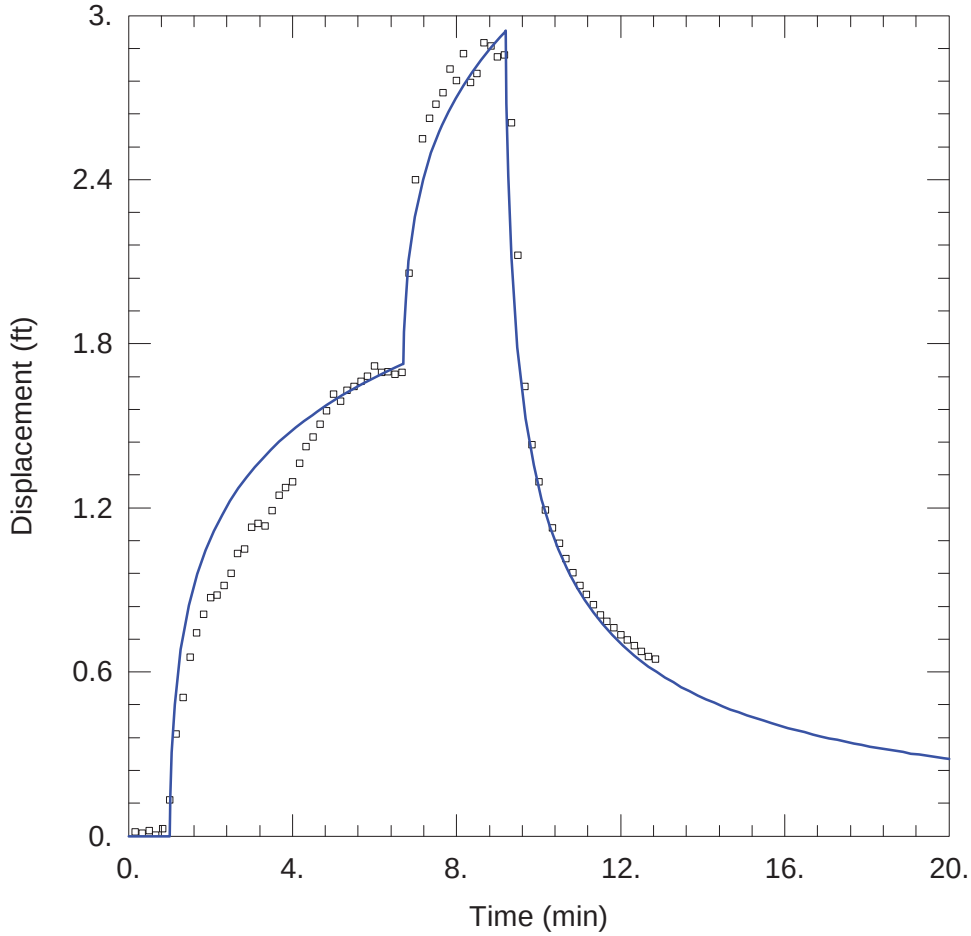
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB065	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 51.56 ft^2/day S = 0.0007398
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB066_1inj_PC.aqt
Date: 02/13/13 Time: 15:29:26

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Pre Maint.
Test Well: ISB066
Test Date: 2/6/2013

AQUIFER DATA

Saturated Thickness: 14.4 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB066	0	0

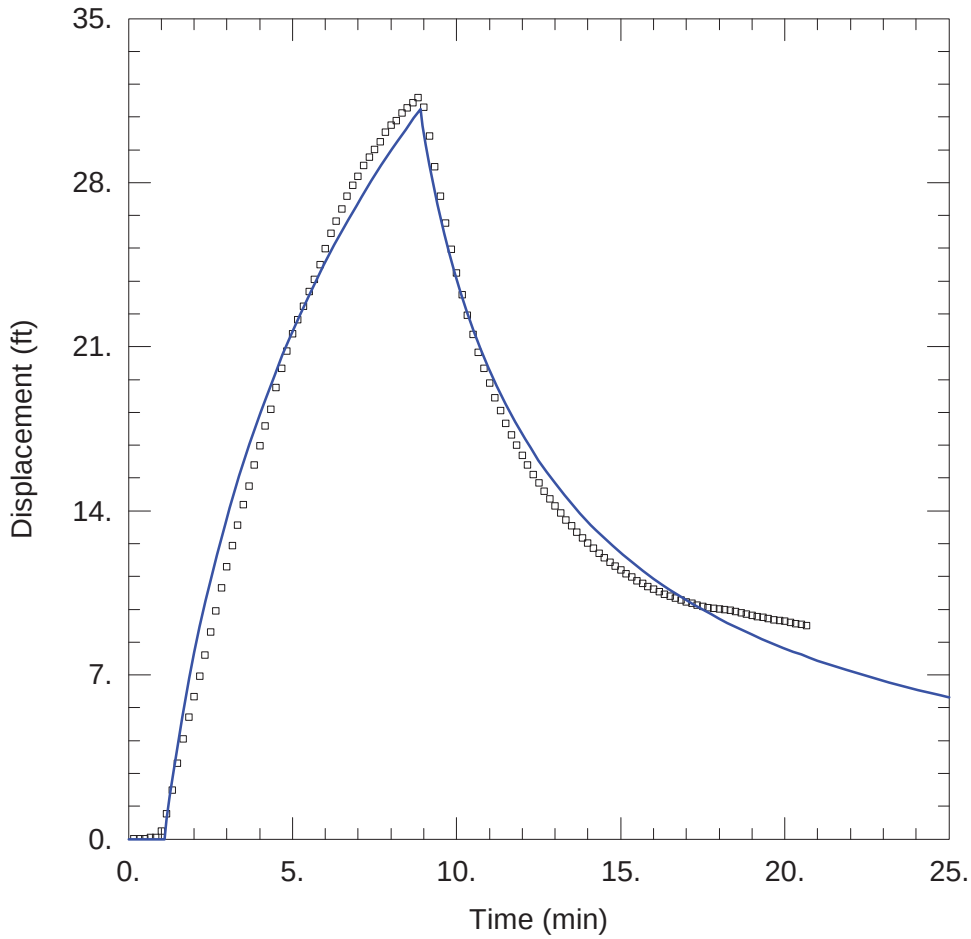
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB066	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 400.8 ft^2/day S = 0.3
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB067_1inj_PC.aqt
Date: 02/13/13 Time: 15:39:17

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Pre Maint.
Test Well: ISB067
Test Date: 2/6/2013

AQUIFER DATA

Saturated Thickness: 14.6 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB067	0	0

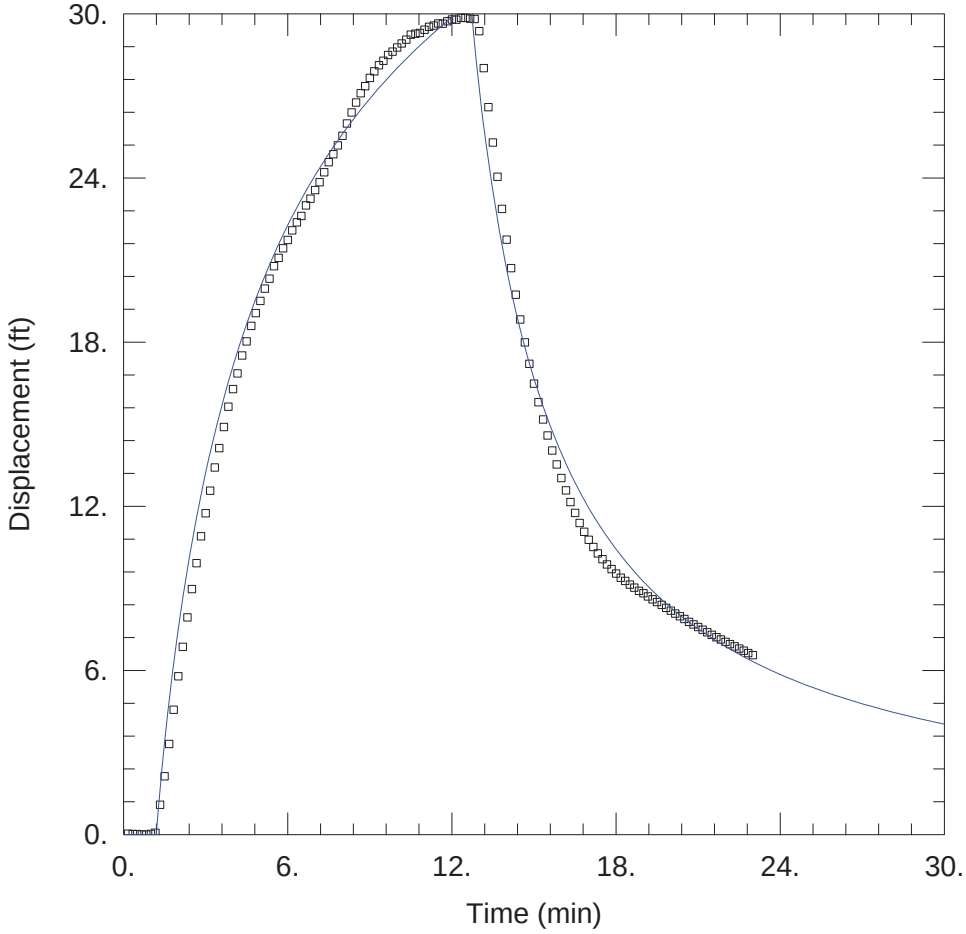
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB067	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 9.006 ft^2/day S = 0.05261
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB068_1inj_PC.aqt
Date: 02/07/13 Time: 20:20:02

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Pre Maint.
Test Well: ISB068
Test Date: 2/5/2013

AQUIFER DATA

Saturated Thickness: 15.3 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB068	0	0

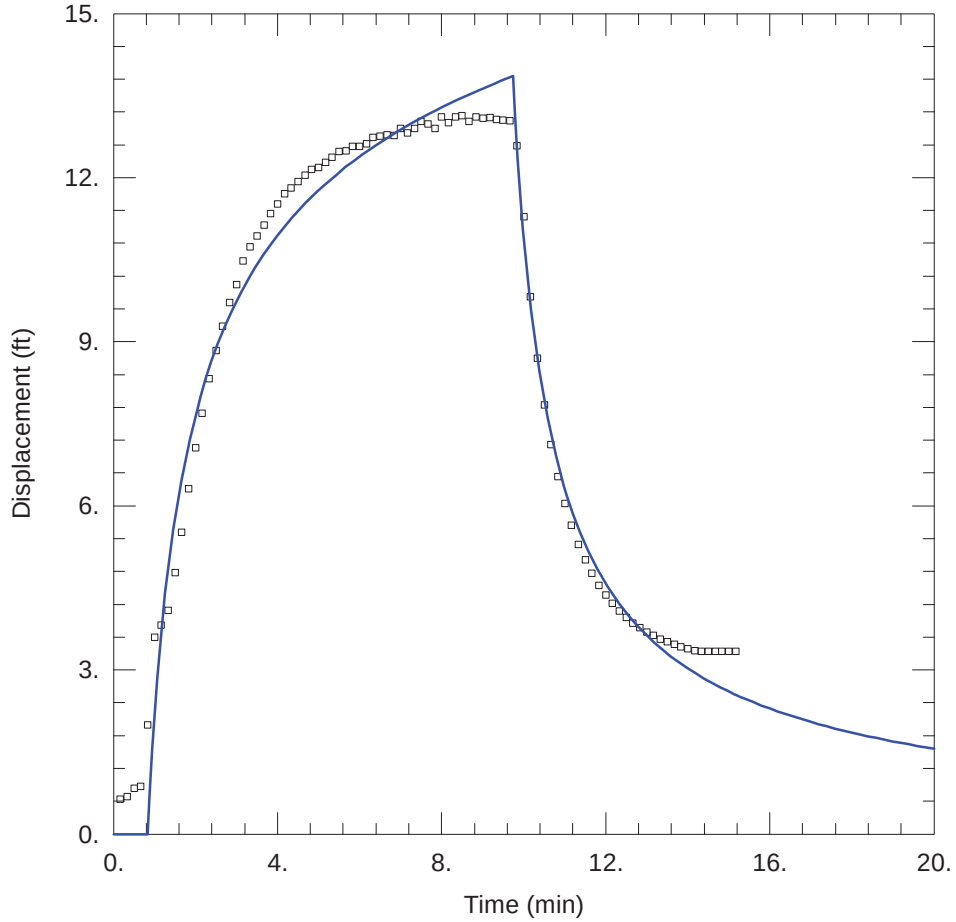
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB068	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 19.72 ft^2/day S = 0.0142
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB069A_1inj_PC.aqt
Date: 03/11/13 Time: 09:37:14

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Pre Maint.
Test Well: ISB069A
Test Date: 3/7/2013

AQUIFER DATA

Saturated Thickness: 15. ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB069A	0	0

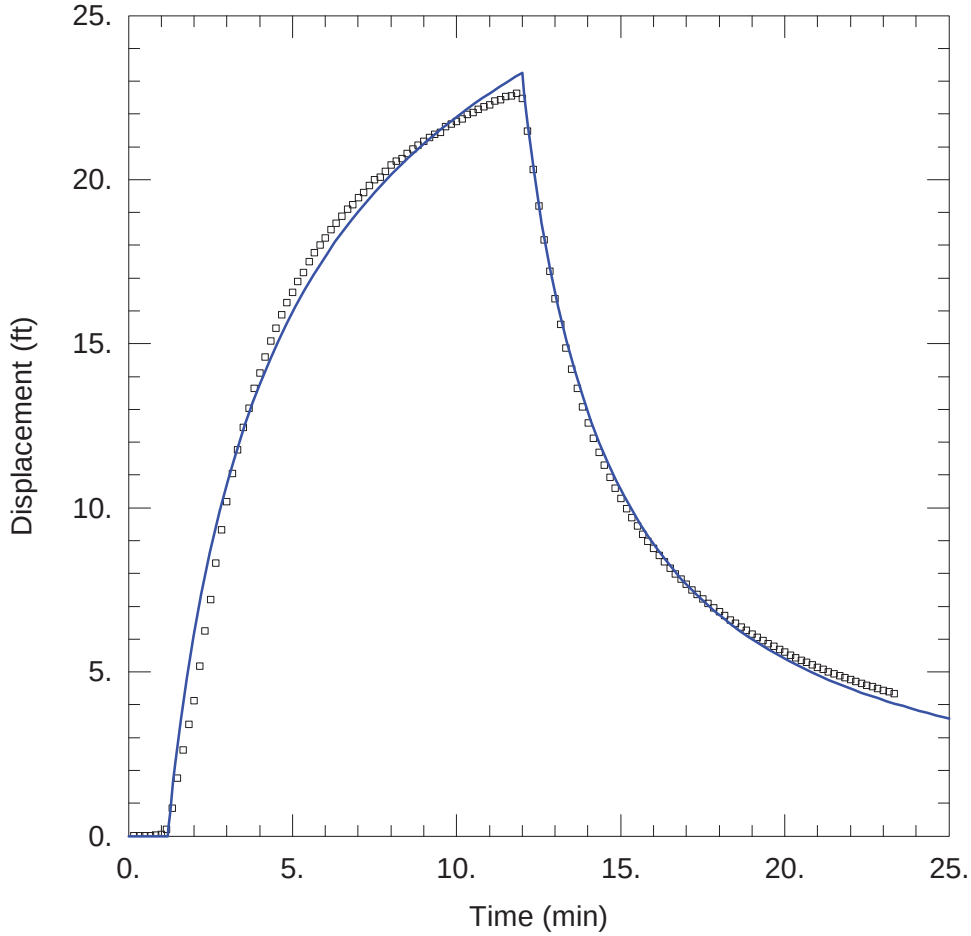
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB069A	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 75.42 ft^2/day S = 0.01213
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB070_1inj_PC.aqt
Date: 02/13/13 Time: 16:15:19

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Pre Maint.
Test Well: ISB070
Test Date: 2/5/2013

AQUIFER DATA

Saturated Thickness: 14.2 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB070	0	0

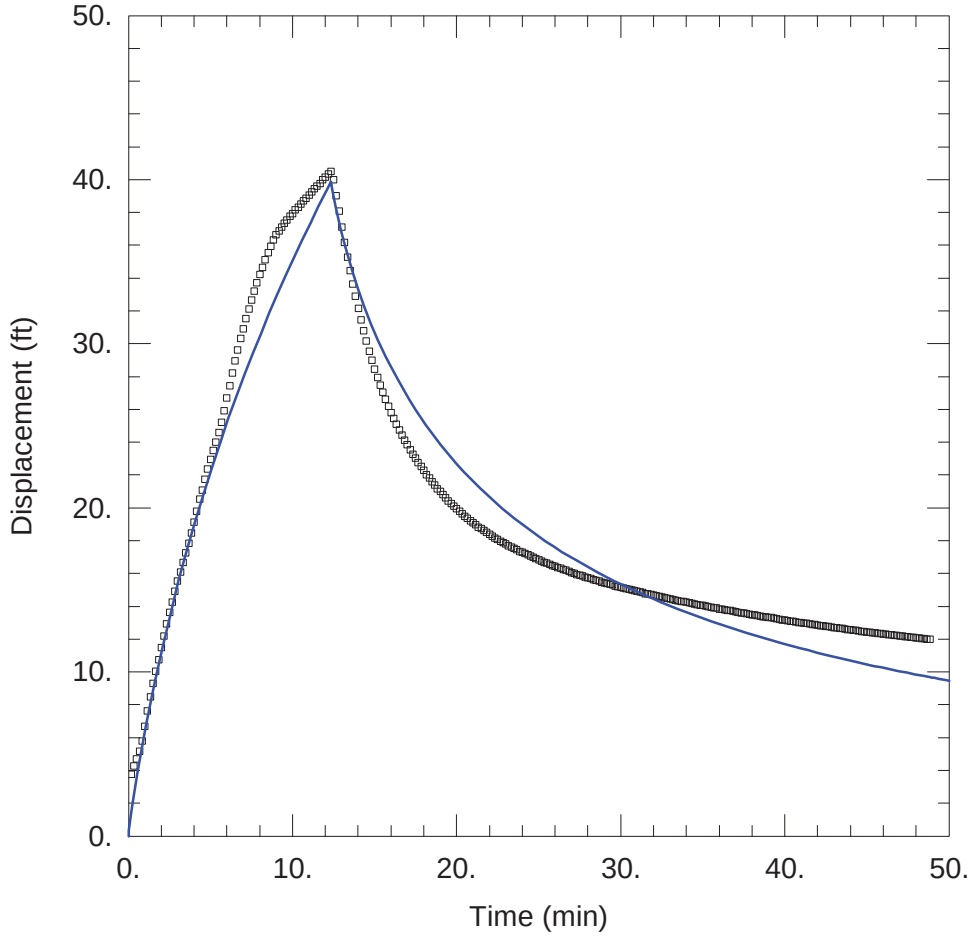
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB070	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 22.65 ft^2/day S = 0.012
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB071_1inj_PC.aqt
Date: 03/14/13 Time: 13:26:28

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Pre Maint.
Test Well: ISB071
Test Date: 3/12/2013

AQUIFER DATA

Saturated Thickness: 16.3 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB071	0	0

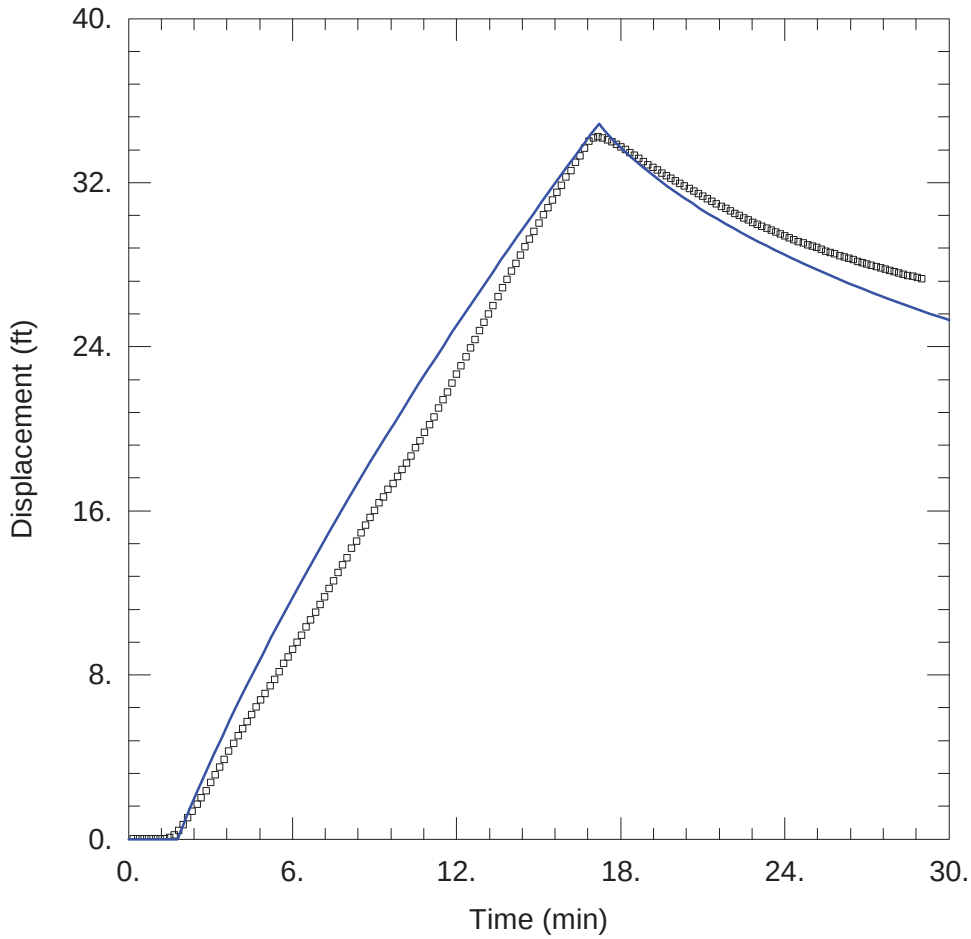
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB071	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 1.972 ft^2/day S = 0.1582
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB072_1inj_PC.aqt
Date: 02/13/13 Time: 16:21:16

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Pre Maint.
Test Well: ISB072
Test Date: 2/5/2013

AQUIFER DATA

Saturated Thickness: 17.2 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB072	0	0

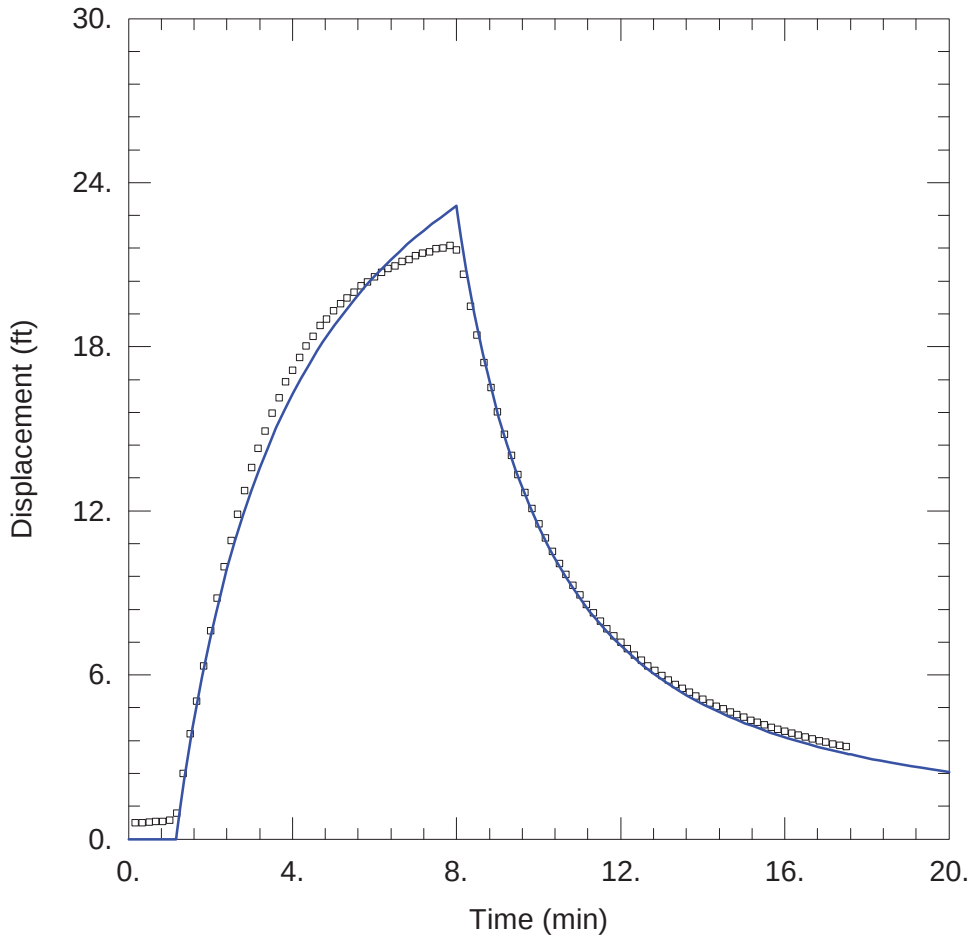
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB072	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 0.1657 ft^2/day S = 0.3
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB073_1inj_PC.aqt
Date: 03/15/13 Time: 14:19:34

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Pre Maint.
Test Well: ISB073
Test Date: 3/11/2013

AQUIFER DATA

Saturated Thickness: 18.4 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB073	0	0

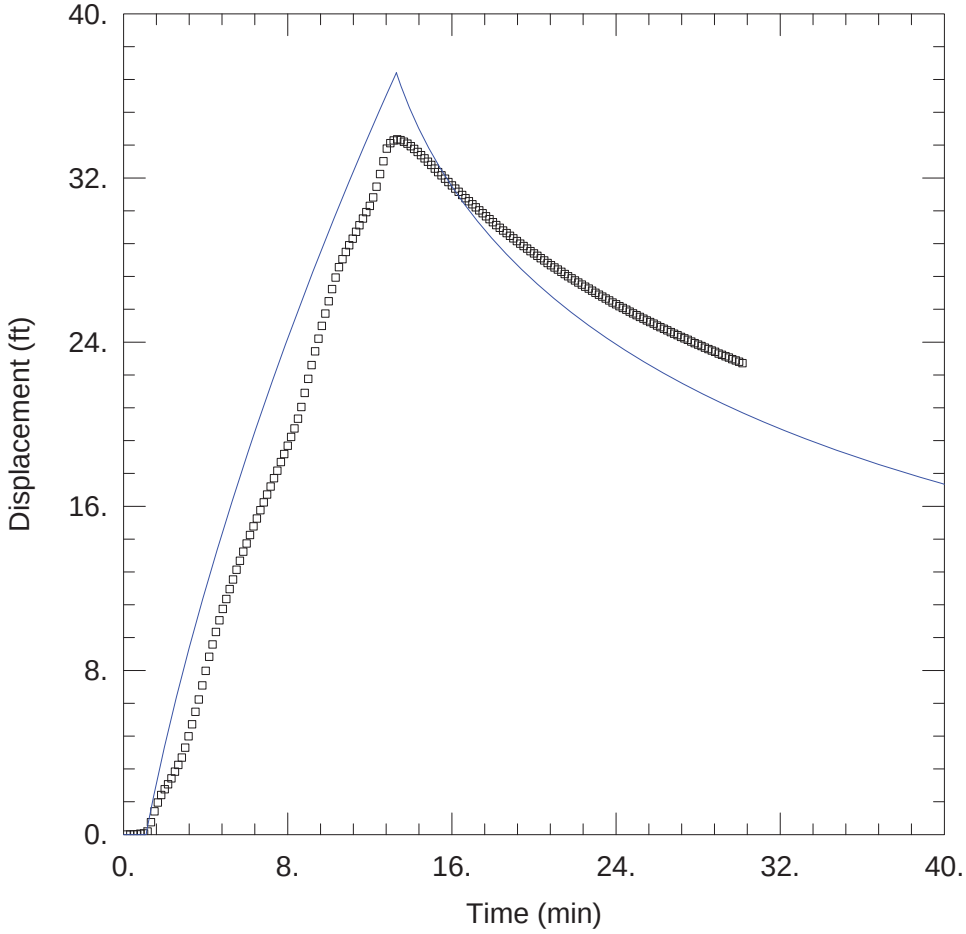
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB073	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 29.28 ft^2/day S = 0.002491
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB074_1inj_PC.aqt
Date: 02/07/13 Time: 20:15:15

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Pre Maint.
Test Well: ISB074
Test Date: 2/5/2013

AQUIFER DATA

Saturated Thickness: 20.1 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB074	0	0

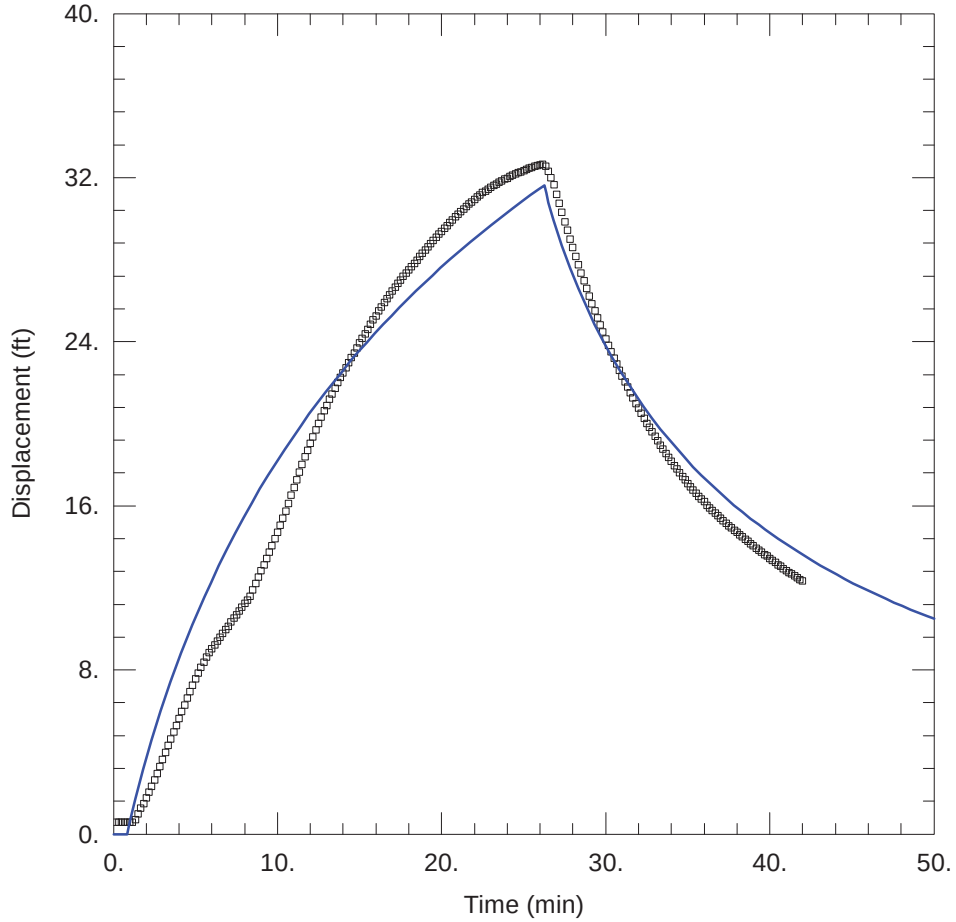
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB074	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 0.4282 ft^2/day S = 0.3
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB075_1inj_PC.aqt
Date: 03/11/13 Time: 14:13:48

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Pre Maint.
Test Well: ISB075
Test Date: 3/8/2013

AQUIFER DATA

Saturated Thickness: 16.2 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB075	0	0

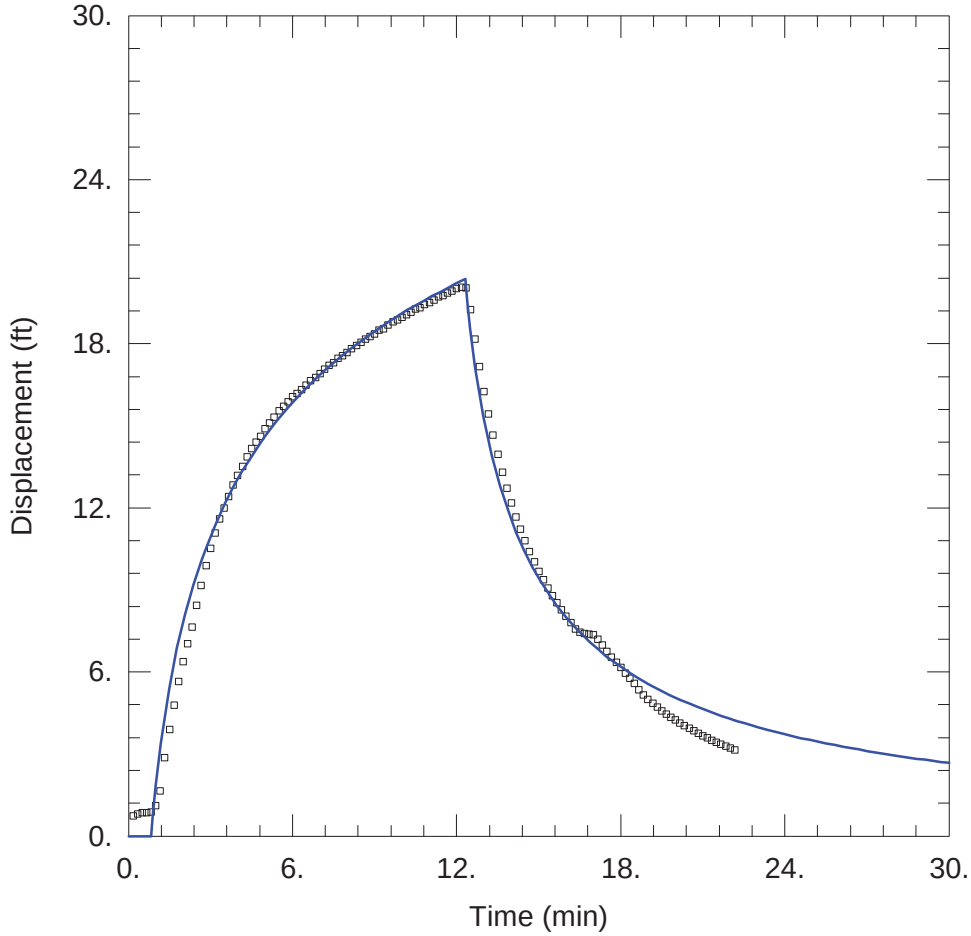
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB075	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 3.171 ft^2/day S = 0.03411
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB075_NEW_1inj_PC.aqt
Date: 03/14/13 Time: 15:29:15

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Pre Maint.
Test Well: ISB075
Test Date: 3/11/2013

AQUIFER DATA

Saturated Thickness: 10.1 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB075	0	0

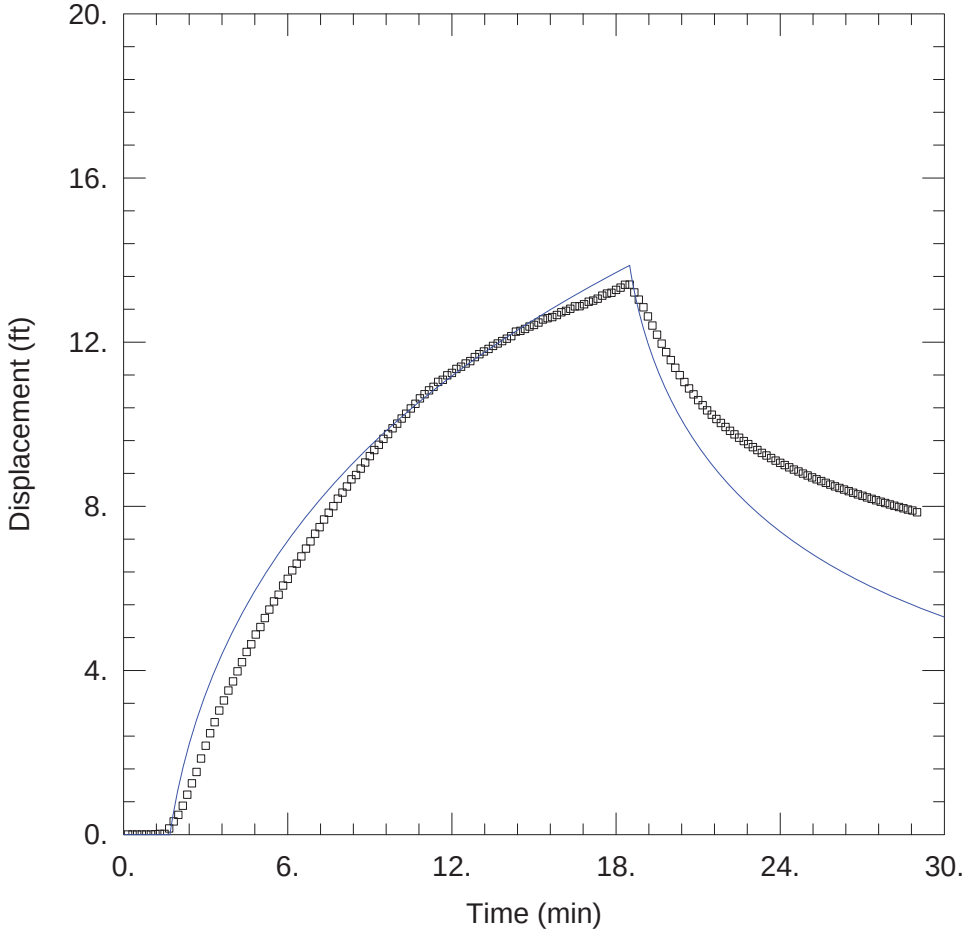
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB075	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 28.16 ft^2/day S = 0.04377
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB076A_1inj_PC.aqt
Date: 02/07/13 Time: 20:08:57

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Pre Maint.
Test Well: ISB076A
Test Date: 2/5/2013

AQUIFER DATA

Saturated Thickness: 17.8 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB076A	0	0

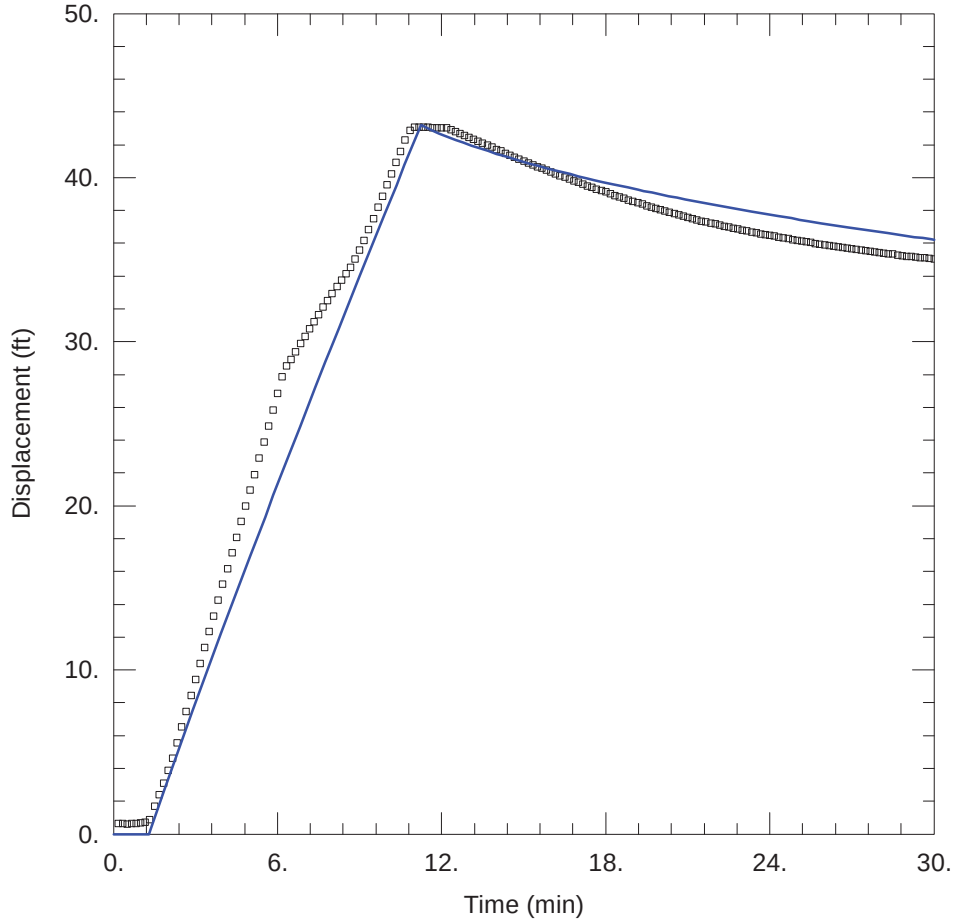
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB076A	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 6.588 ft^2/day S = 0.3
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB077_1inj_PC.aqt
Date: 03/11/13 Time: 14:24:04

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Pre Maint.
Test Well: ISB077
Test Date: 3/8/2013

AQUIFER DATA

Saturated Thickness: 13.7 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB077	0	0

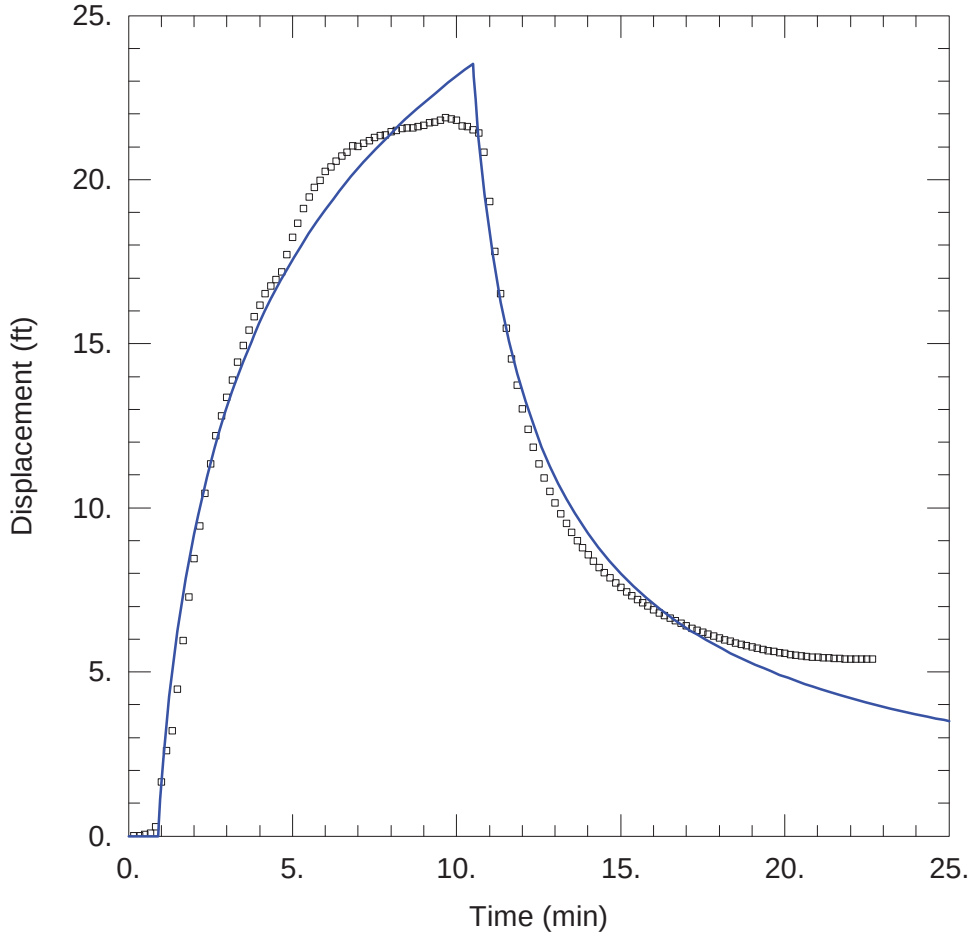
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB077	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 0.01813 ft^2/day S = 0.3
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB078_1inj_PC.aqt
Date: 02/13/13 Time: 16:37:26

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Pre Maint.
Test Well: ISB0878
Test Date: 2/7/2013

AQUIFER DATA

Saturated Thickness: 24.2 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB078	0	0

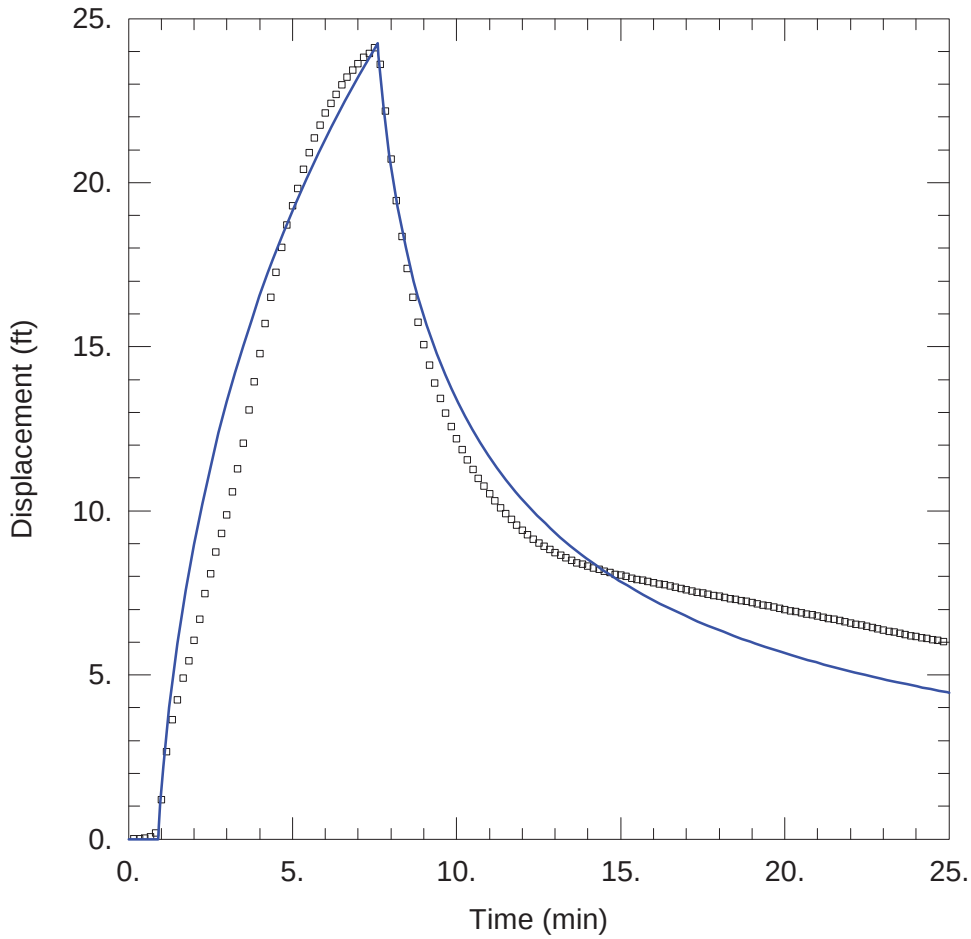
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB078	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 28.48 ft^2/day S = 0.0649
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB079_1inj_PC.aqt
Date: 02/13/13 Time: 16:44:04

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Pre Maint.
Test Well: ISB079
Test Date: 2/7/2013

AQUIFER DATA

Saturated Thickness: 28.2 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB079	0	0

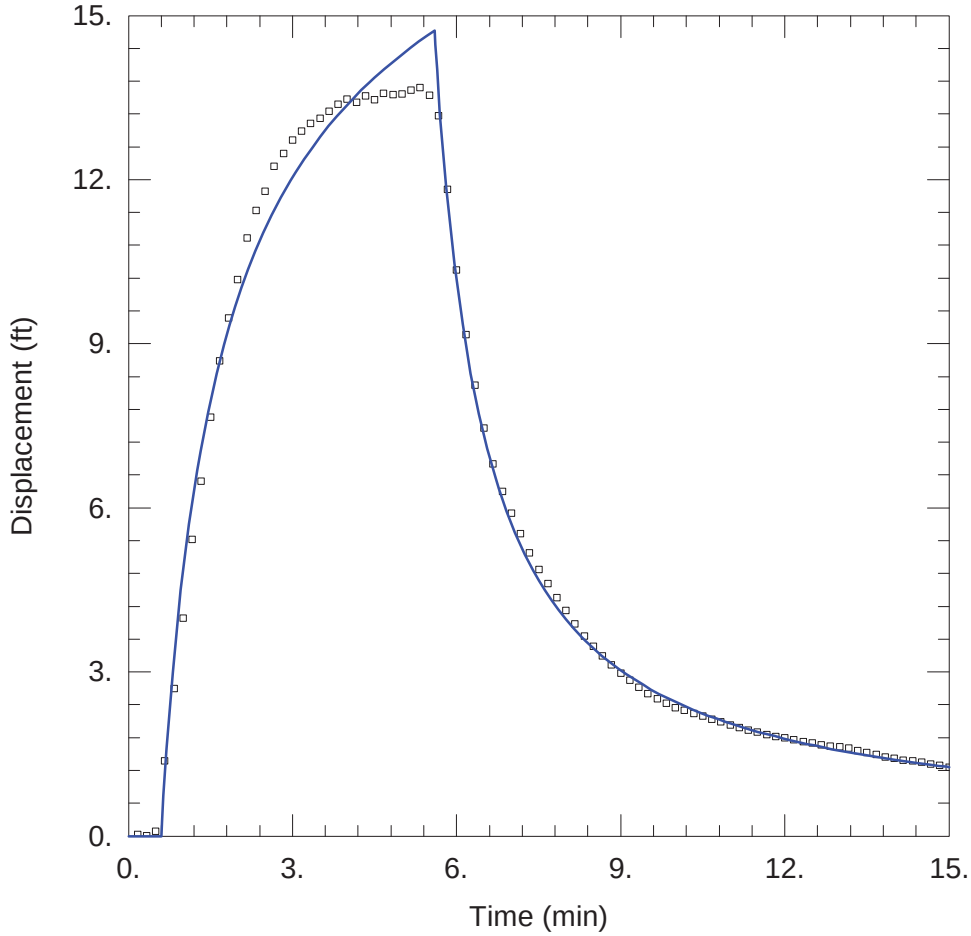
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB079	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 11.03 ft^2/day S = 0.3
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB080_1inj_PC.aqt
Date: 02/13/13 Time: 16:52:09

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Pre Maint.
Test Well: ISB080
Test Date: 2/7/2013

AQUIFER DATA

Saturated Thickness: 24.2 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB080	0	0

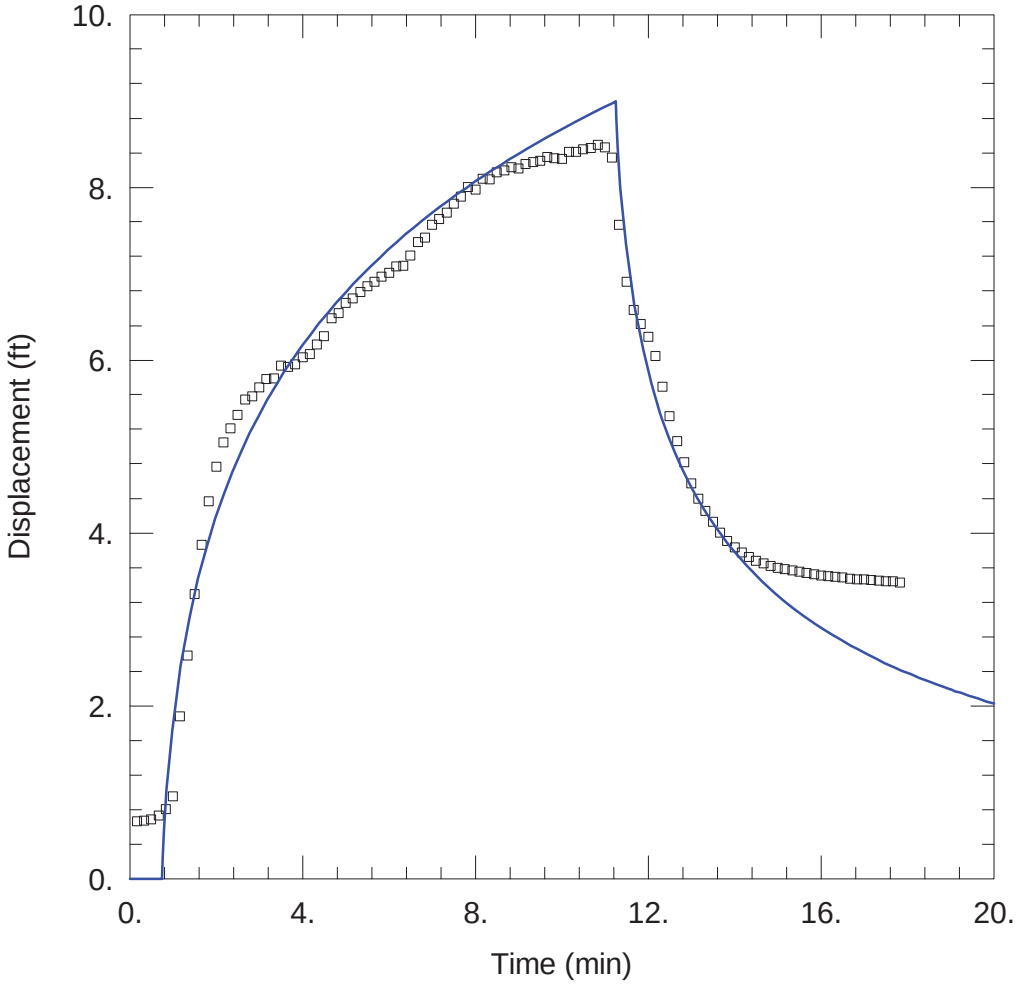
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB080	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 71.76 ft^2/day S = 0.008652
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB081_1inj_PC.aqt
Date: 03/08/13 Time: 12:10:08

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Pre Maint.
Test Well: ISB081
Test Date: 3/8/2013

AQUIFER DATA

Saturated Thickness: 23. ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB081	0	0

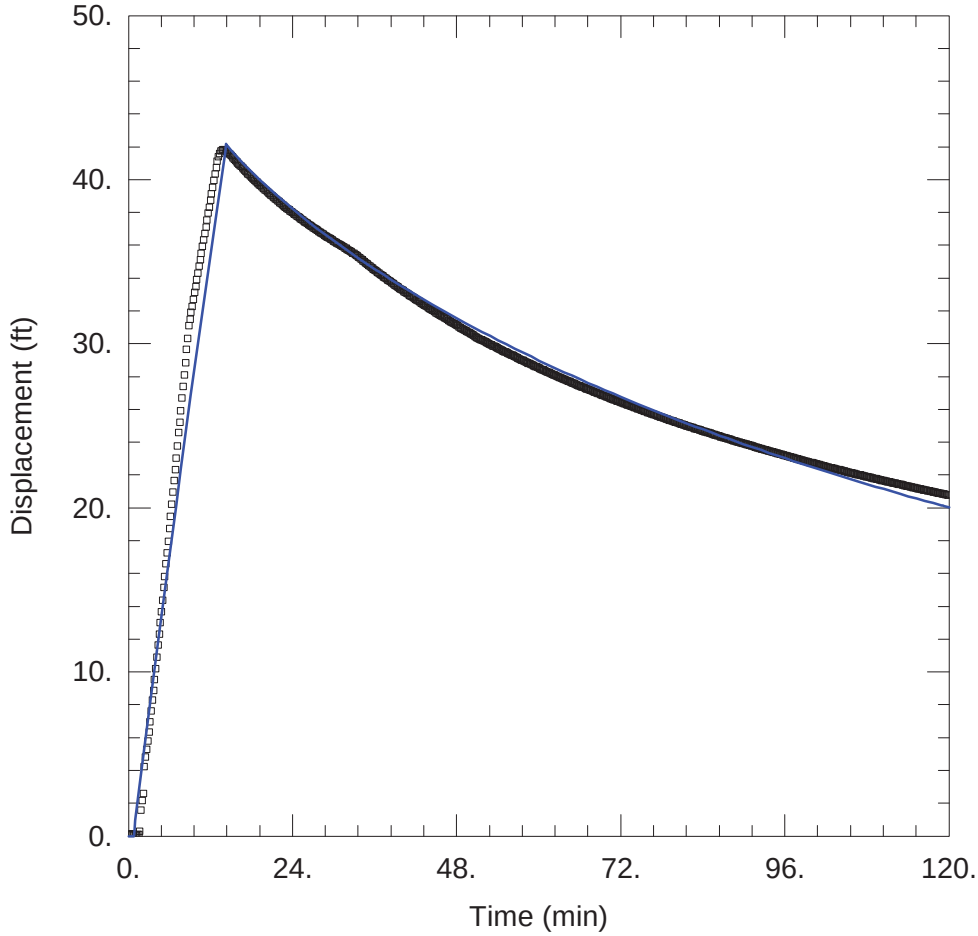
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB081	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 65.37 ft^2/day S = 0.3
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB082_1inj_PC.aqt
Date: 03/14/13 Time: 10:57:58

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Pre Maint.
Test Well: ISB082
Test Date: 3/12/2013

AQUIFER DATA

Saturated Thickness: 20.8 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB082	0	0

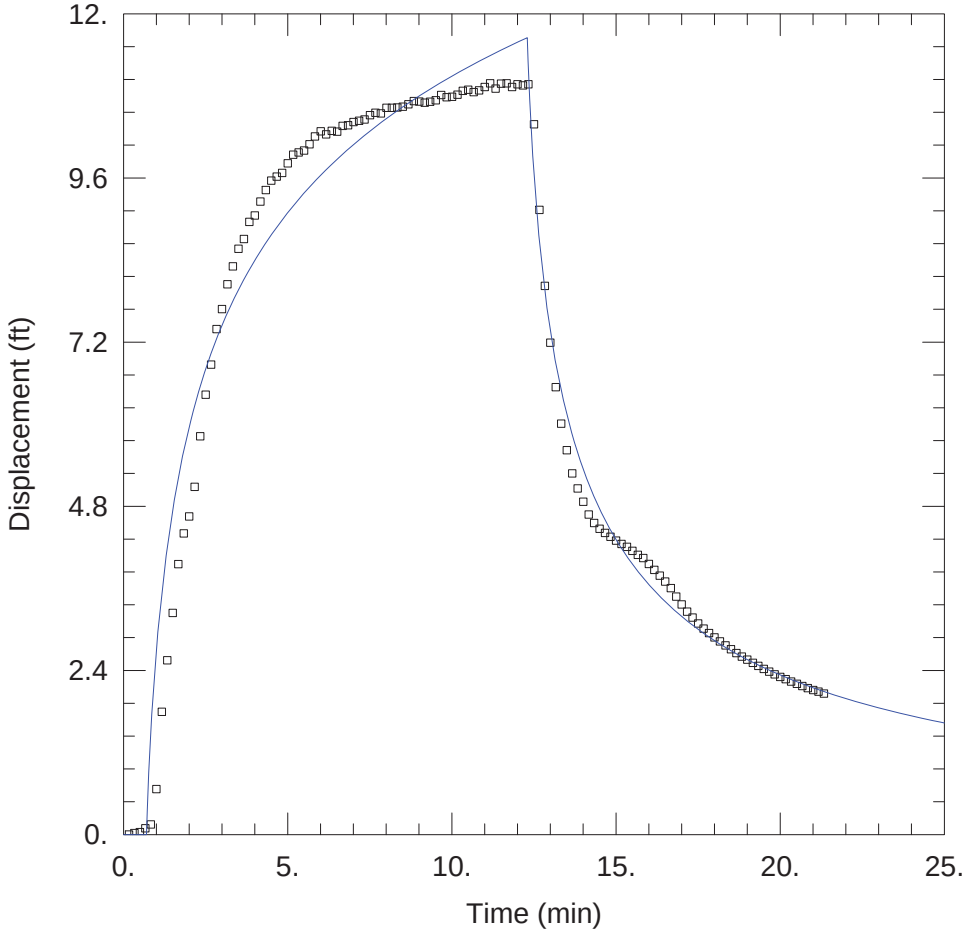
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB082	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 0.3957 ft^2/day S = 0.001058
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB083_1inj_PC.aqt
Date: 02/07/13 Time: 21:22:14

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Pre Maint.
Test Well: ISB083
Test Date: 2/5/2013

AQUIFER DATA

Saturated Thickness: 14. ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB083	0	0

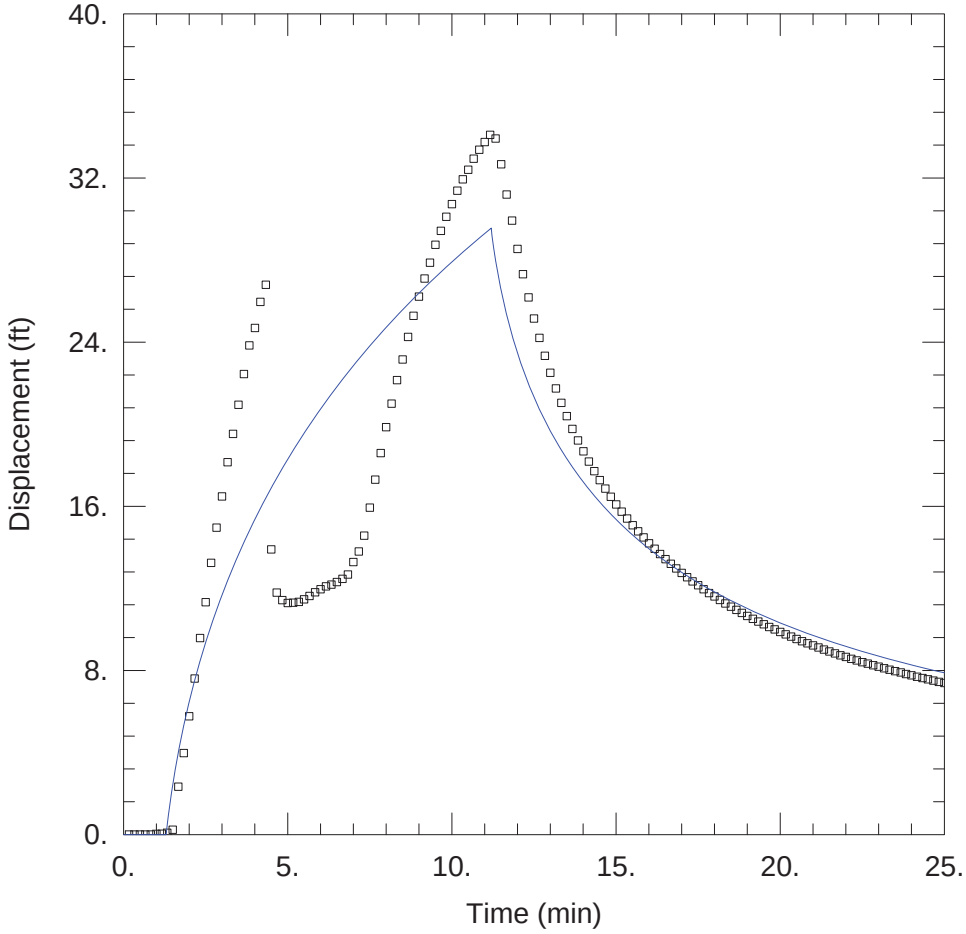
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB083	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 70.07 ft^2/day S = 0.06251
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB084_1inj_PC.aqt
Date: 02/07/13 Time: 19:40:19

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Pre Maint.
Test Well: ISB084
Test Date: 2/5/2013

AQUIFER DATA

Saturated Thickness: 15. ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB084	0	0

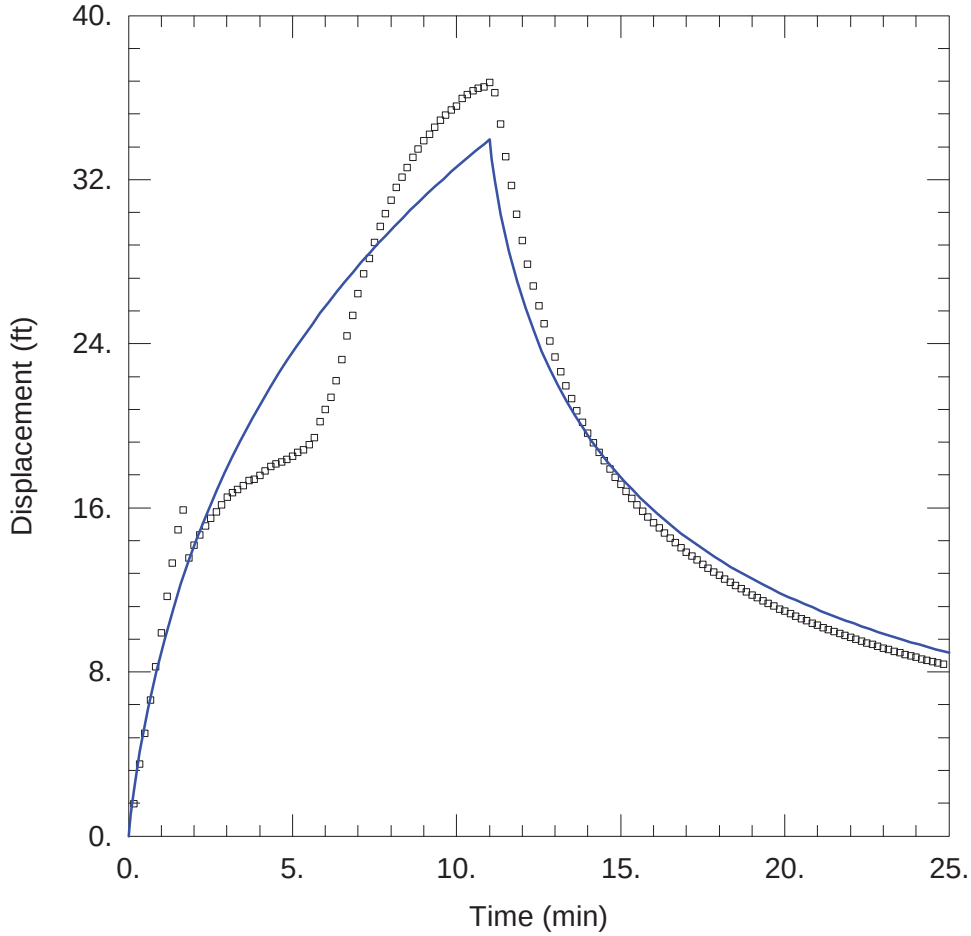
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB084	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 9.032 ft^2/day S = 0.3
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB084Repeat_1inj_PC.aqt
Date: 02/20/13 Time: 09:39:29

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Pre Maint.
Test Well: ISB084 repeat
Test Date: 2/8/2013

AQUIFER DATA

Saturated Thickness: 15. ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB084	0	0

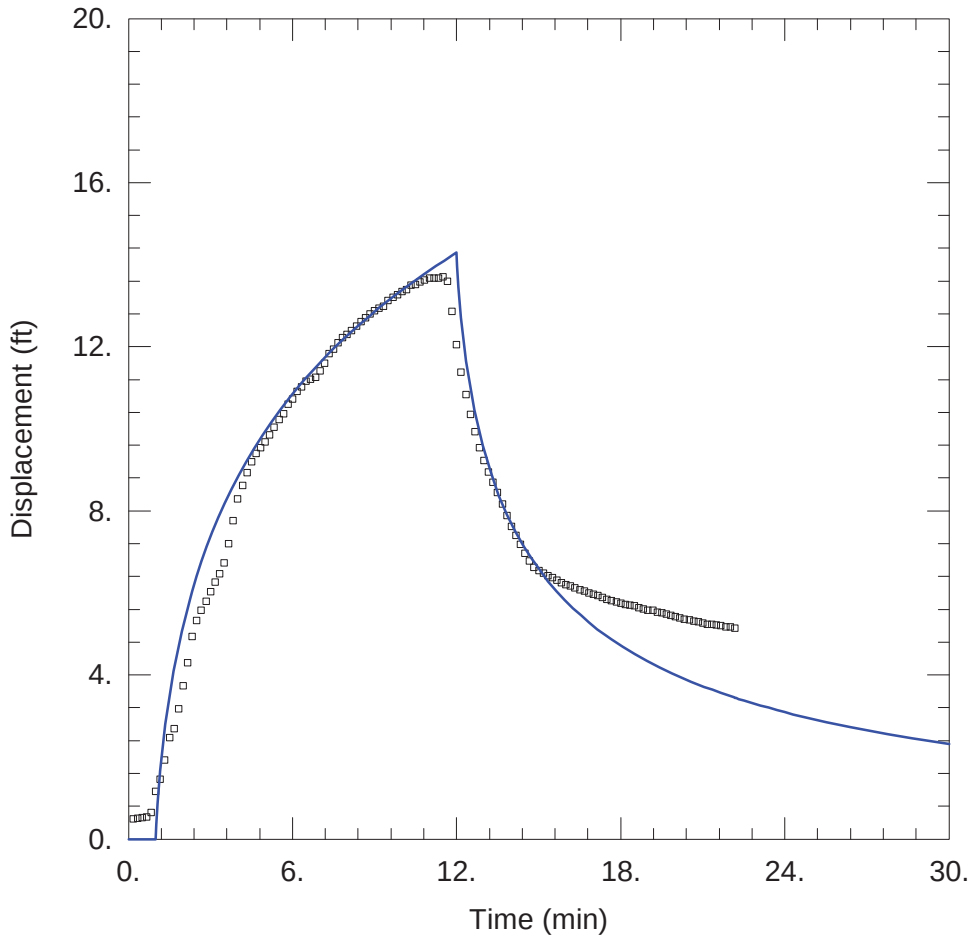
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB084	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 9.453 ft^2/day S = 0.2036
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB085A_1inj_PC.aqt
Date: 03/15/13 Time: 11:58:05

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Pre Maint.
Test Well: ISB085A
Test Date: 3/12/2013

AQUIFER DATA

Saturated Thickness: 12.8 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB085A	0	0

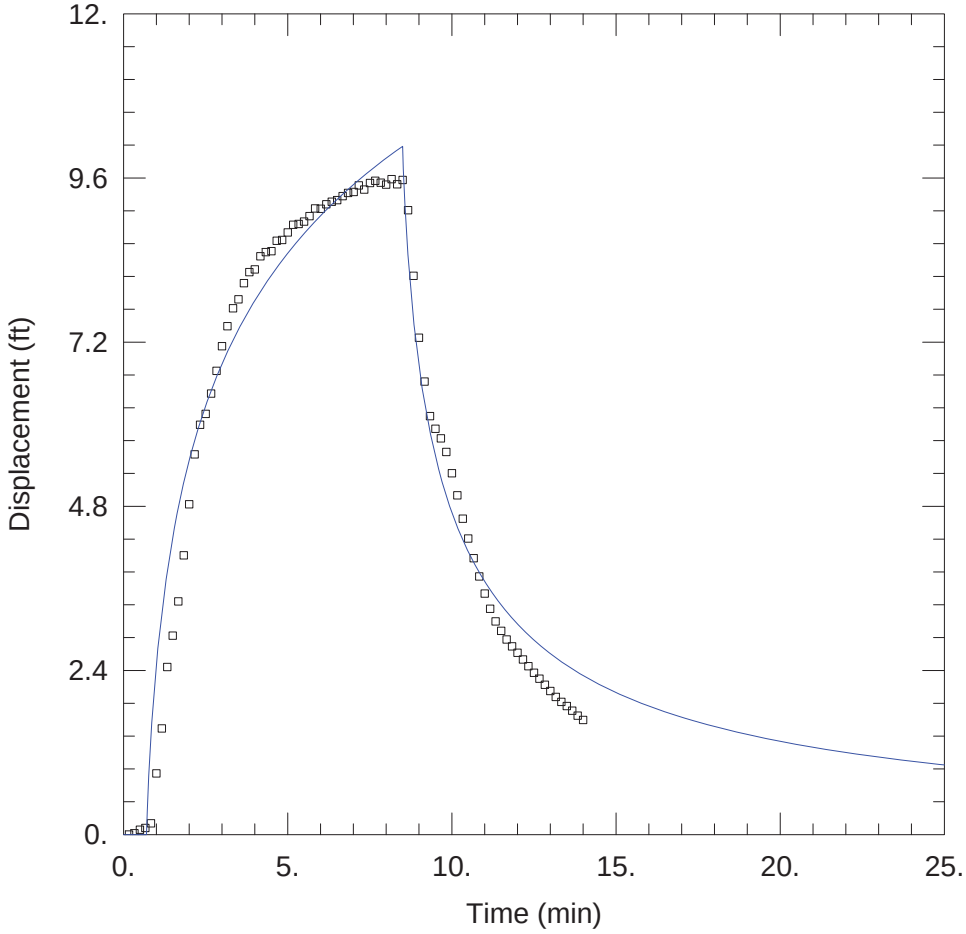
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB085A	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 34.38 ft^2/day S = 0.3
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB086_1inj_PC.aqt
Date: 02/07/13 Time: 21:09:30

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Pre Maint.
Test Well: ISB086
Test Date: 2/5/2013

AQUIFER DATA

Saturated Thickness: 14.6 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB086	0	0

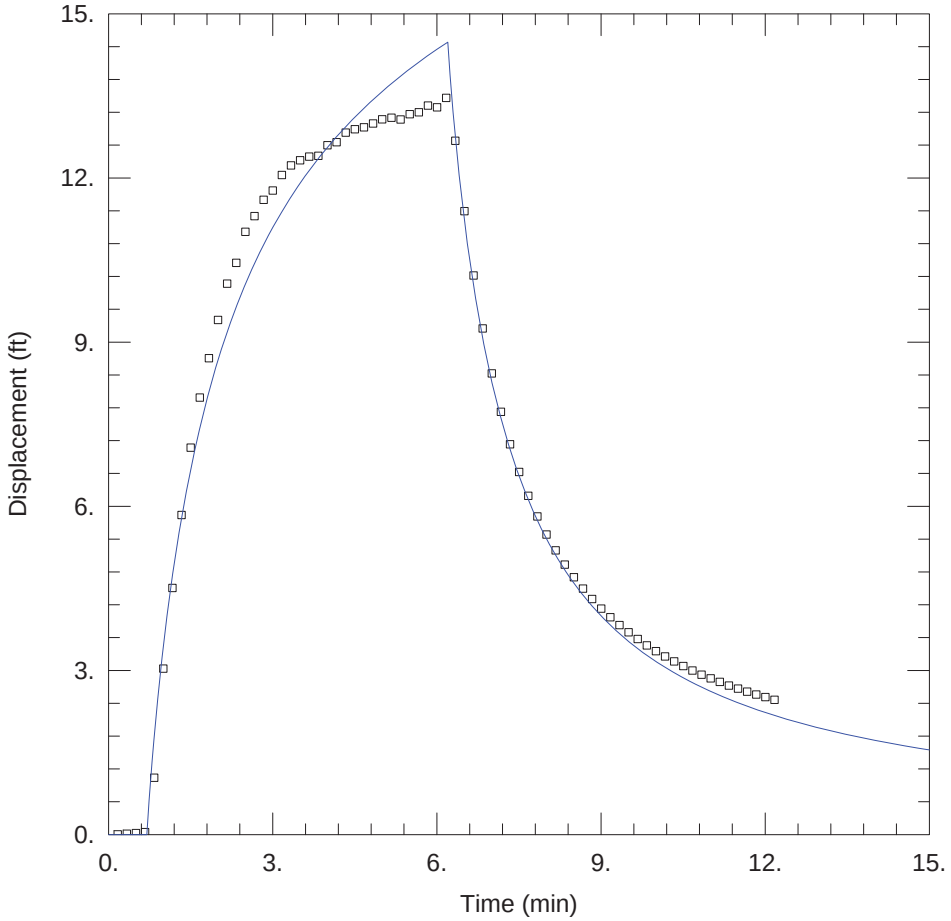
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB086	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 65.49 ft^2/day S = 0.1021
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB055_2-3inj_PC.aqt
Date: 04/23/13 Time: 12:19:18

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Post Maint.
Test Well: ISB055
Test Date: 4/1/2013

AQUIFER DATA

Saturated Thickness: 20.14 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB055	0	0

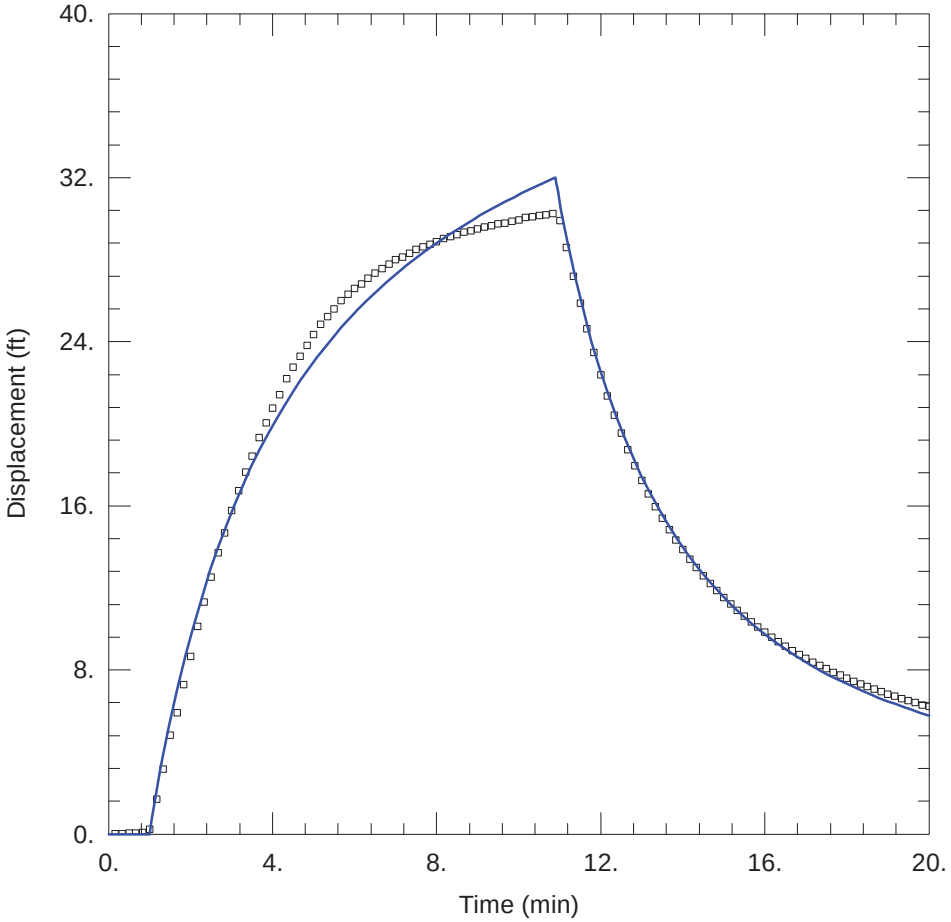
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB055	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 56.76 ft^2/day S = 0.01069
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB056A_2inj_PC.aqt
Date: 03/24/13 Time: 08:07:26

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Post Maint.
Test Well: ISB056A
Test Date: 3/14/2013

AQUIFER DATA

Saturated Thickness: 22.1 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB056A	0	0

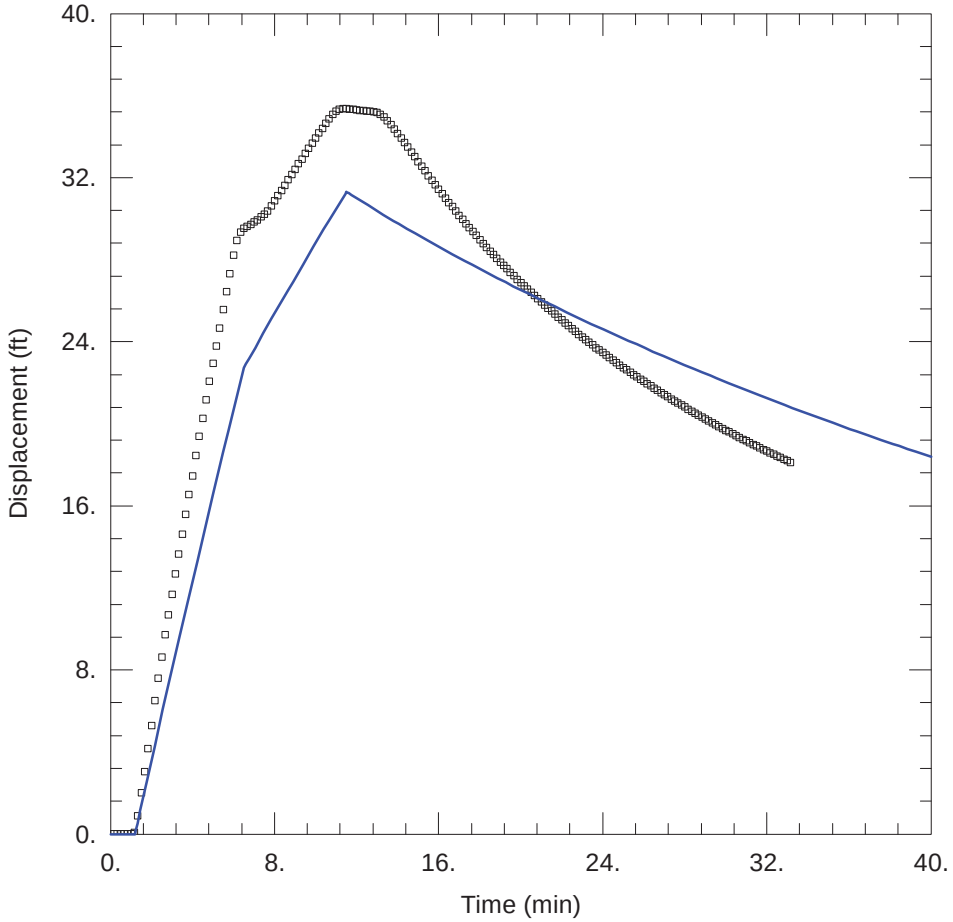
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB056A	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 24.44 ft^2/day S = 0.002088
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB057_2inj_PC.aqt
Date: 04/02/13 Time: 20:05:40

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Post Maint.
Test Well: ISB057
Test Date: 3/25/2013

AQUIFER DATA

Saturated Thickness: 19.8 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB057	0	0

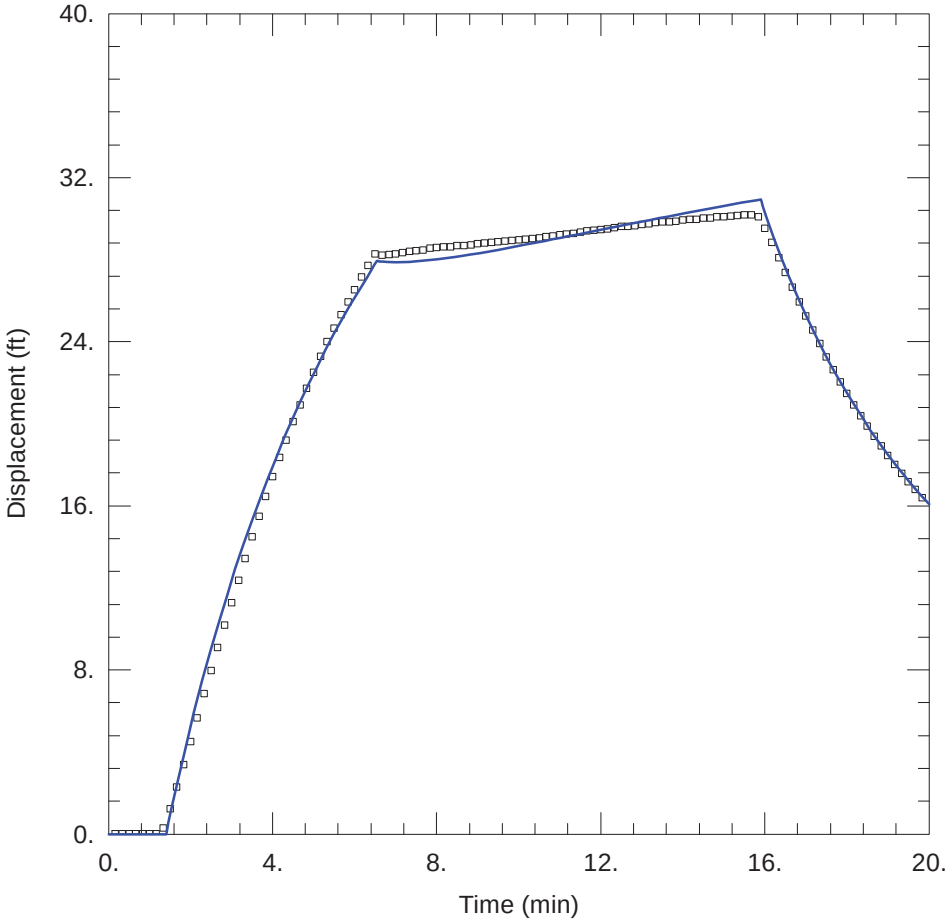
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB057	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 3.614 ft^2/day S = 7.163E-10
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB058_2inj_PC.aqt
Date: 03/24/13 Time: 08:11:12

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Post Maint.
Test Well: ISB058
Test Date: 3/14/2013

AQUIFER DATA

Saturated Thickness: 19.6 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB058	0	0

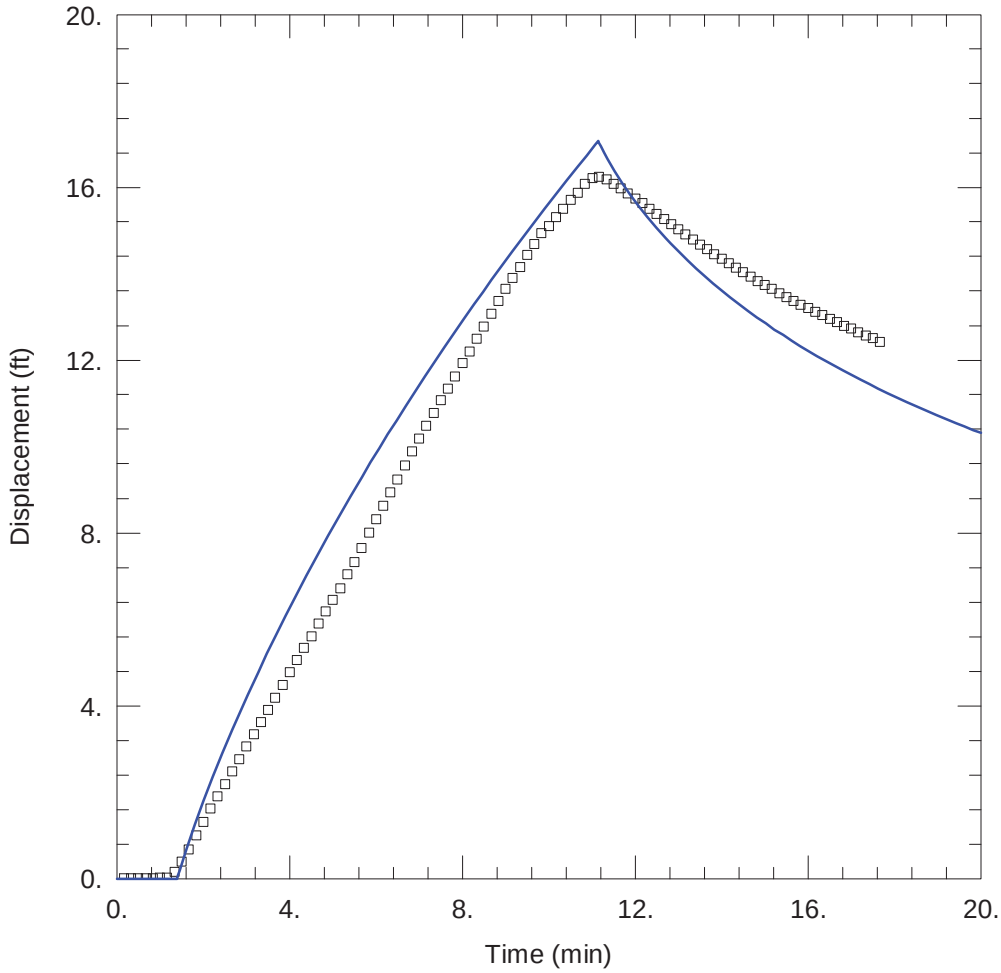
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB058	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 14.99 ft^2/day S = 0.0006307
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB059_2inj_PC.aqt
Date: 04/02/13 Time: 20:11:49

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Post Maint.
Test Well: ISB059
Test Date: 4/1/2013

AQUIFER DATA

Saturated Thickness: 19.7 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB059	0	0

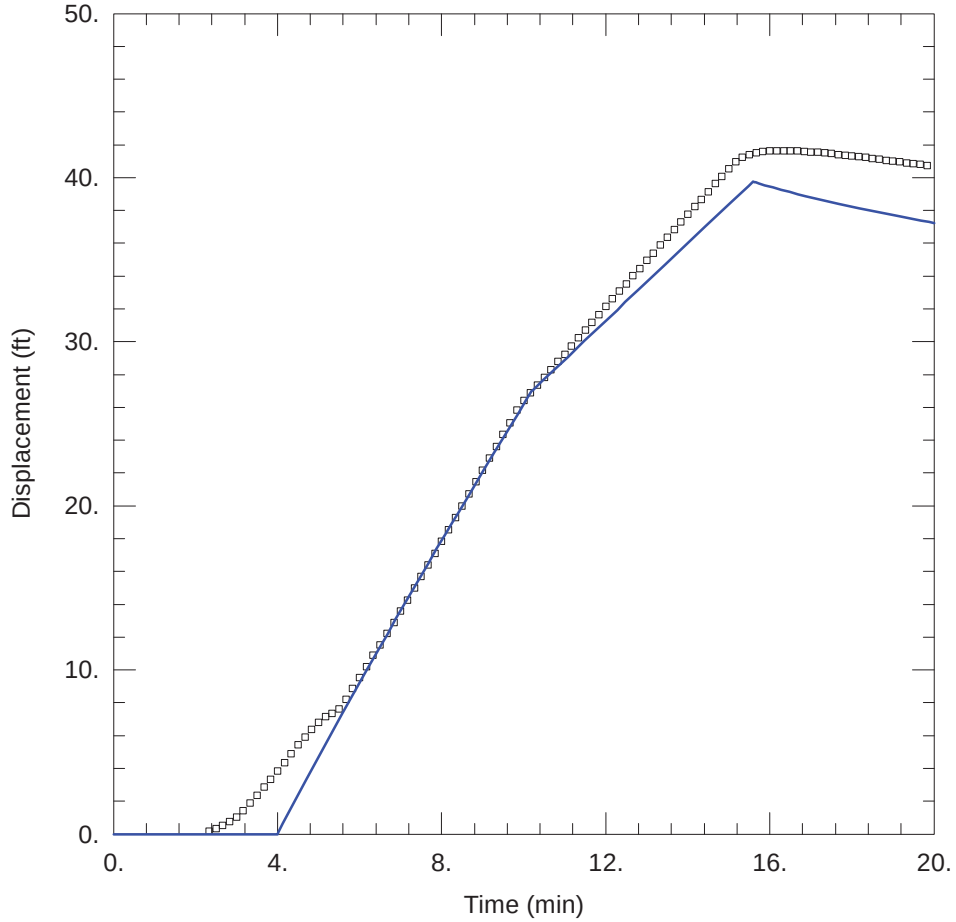
Observation Wells

Well Name	X (ft)	Y (ft)
□ ISB059	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 0.7217 ft^2/day S = 0.3
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB060A_2inj_PC.aqt
Date: 03/24/13 Time: 08:13:51

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Post Maint.
Test Well: ISB060A
Test Date: 3/14/2013

AQUIFER DATA

Saturated Thickness: 16.5 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB060A	0	0

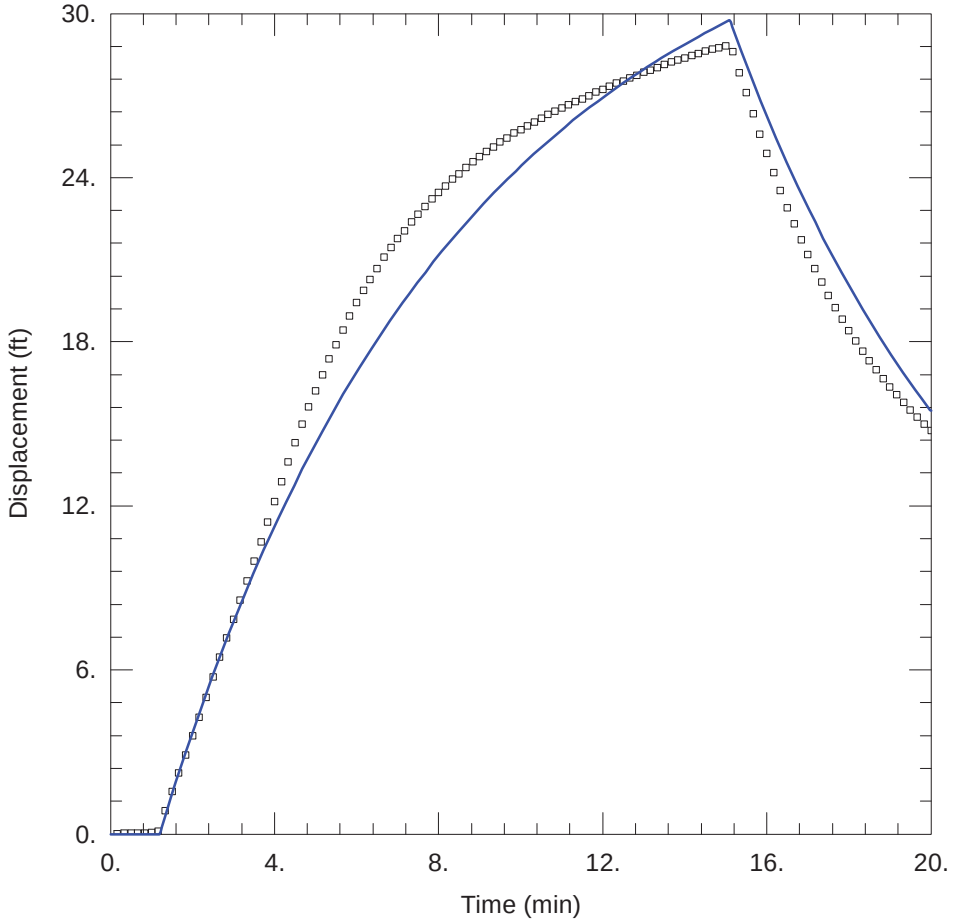
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB060A	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 0.02637 ft^2/day S = 0.3
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB061_2inj_PC.aqt
Date: 03/24/13 Time: 08:16:55

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Post Maint.
Test Well: ISB061
Test Date: 3/14/2013

AQUIFER DATA

Saturated Thickness: 18.3 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB061	0	0

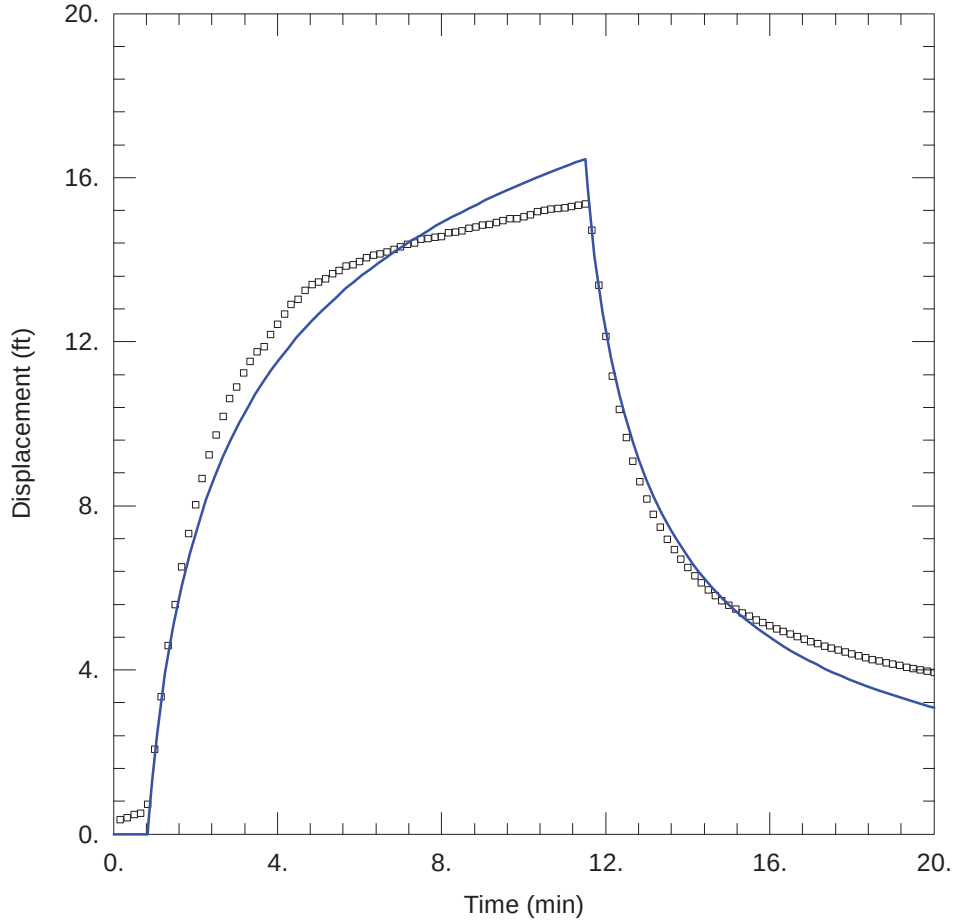
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB061	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 28.27 ft^2/day S = 7.163E-10
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB062_2inj_PC.aqt
Date: 03/12/13 Time: 10:50:38

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Post Maint.
Test Well: ISB062
Test Date: 3/5/2013

AQUIFER DATA

Saturated Thickness: 16.6 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB062	0	0

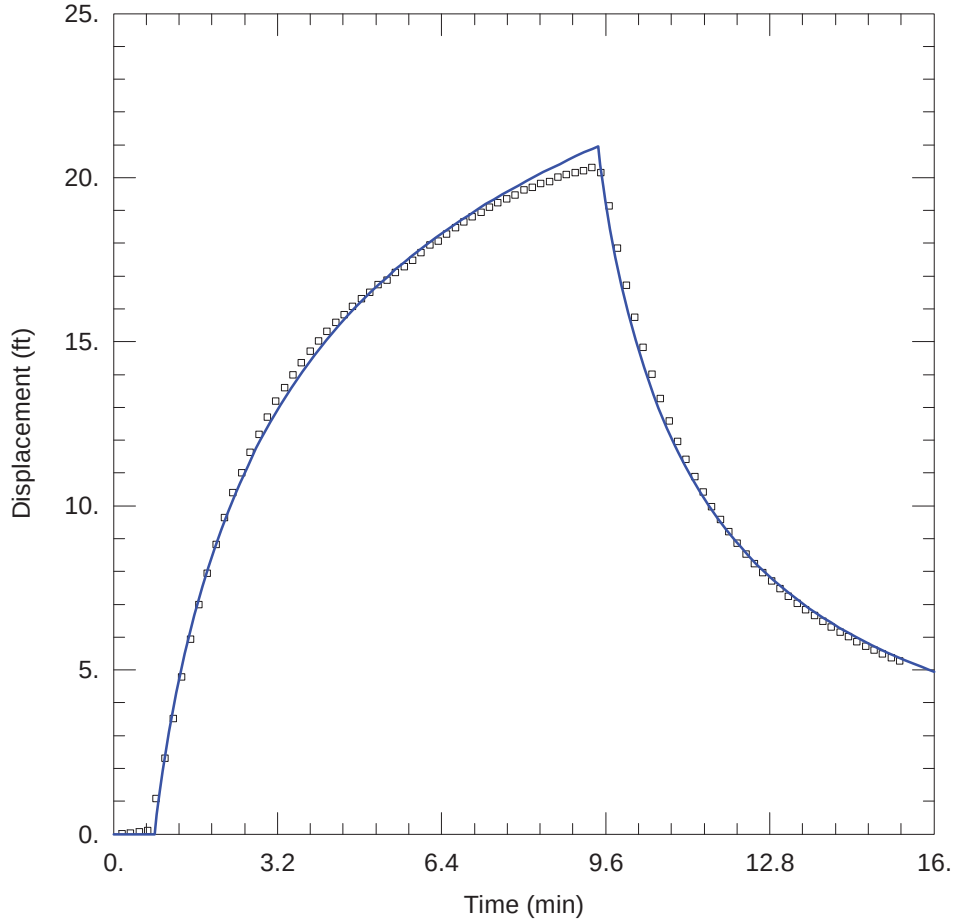
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB062	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 42.37 ft^2/day S = 0.02862
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB063_2inj_PC.aqt
Date: 04/02/13 Time: 20:32:01

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Post Maint.
Test Well: ISB063
Test Date: 3/25/2013

AQUIFER DATA

Saturated Thickness: 16.5 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB063	0	0

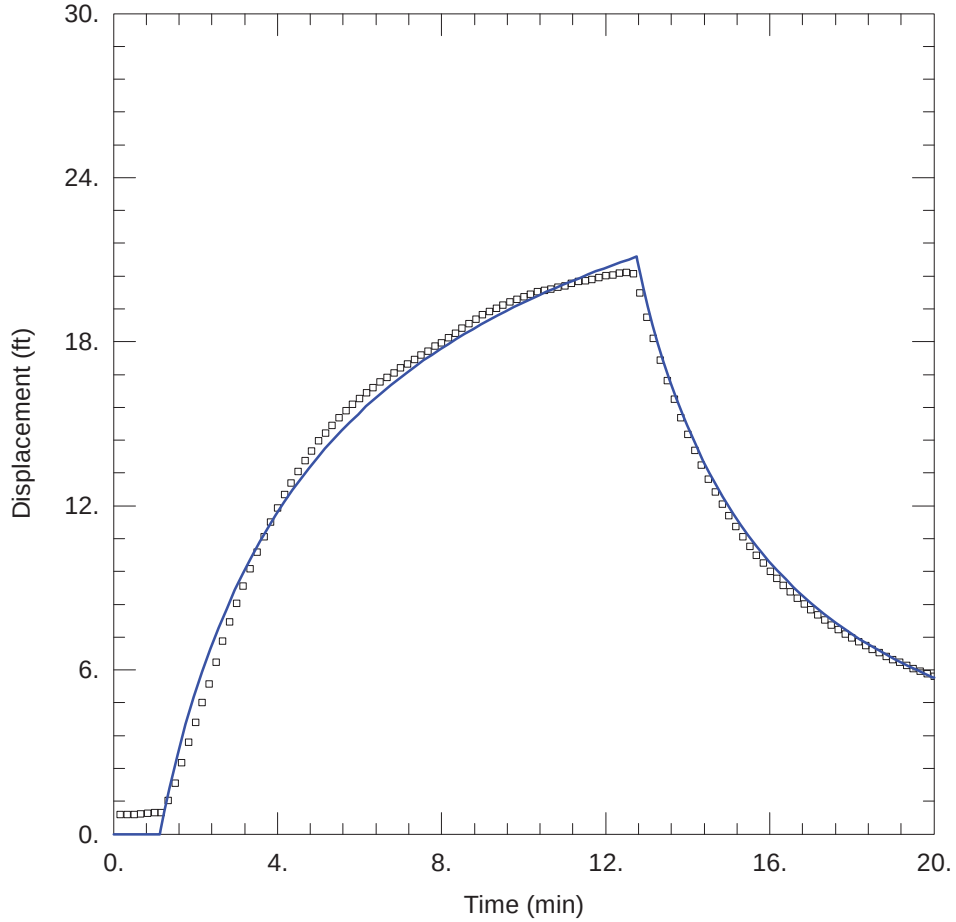
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB063	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 28.84 ft^2/day S = 0.02352
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB064_2inj_PC.aqt
Date: 03/12/13 Time: 14:06:27

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Post Maint.
Test Well: ISB064
Test Date: 3/5/2013

AQUIFER DATA

Saturated Thickness: 19.1 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB064	0	0

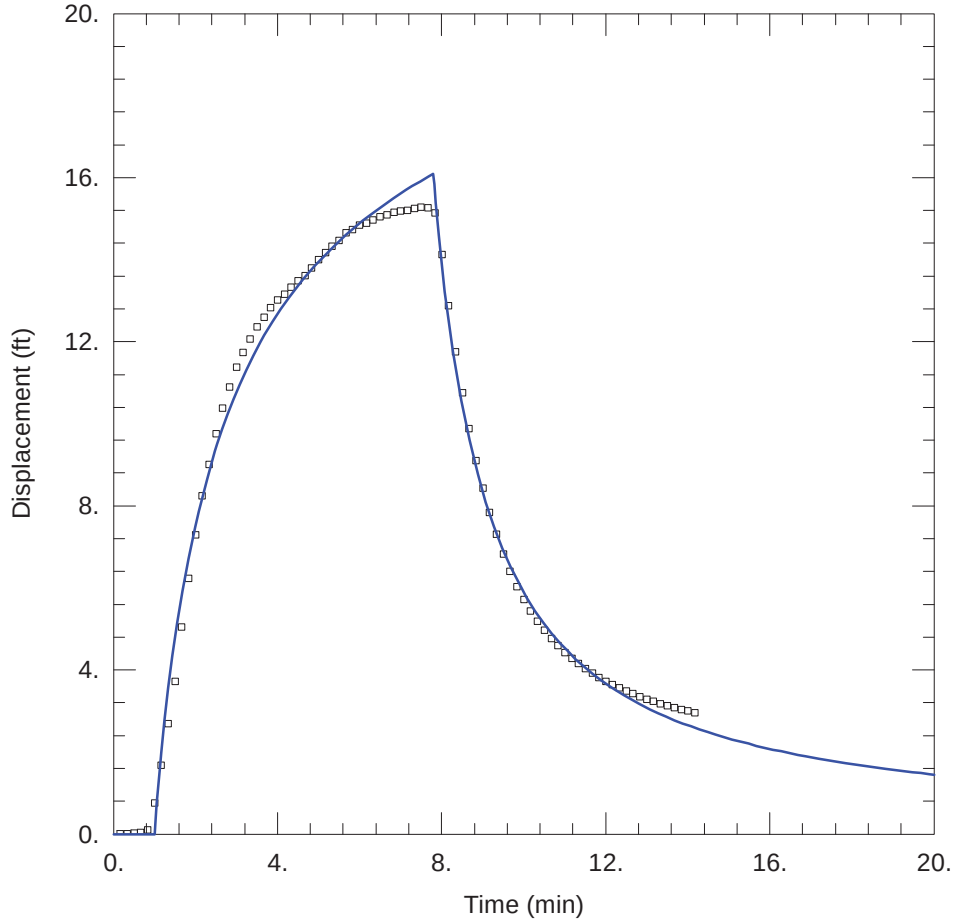
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB064	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 19.36 ft^2/day S = 0.00609
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB065_2inj_PC.aqt
Date: 03/24/13 Time: 08:20:41

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Post Maint.
Test Well: ISB065
Test Date: 3/14/2013

AQUIFER DATA

Saturated Thickness: 14.2 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB065	0	0

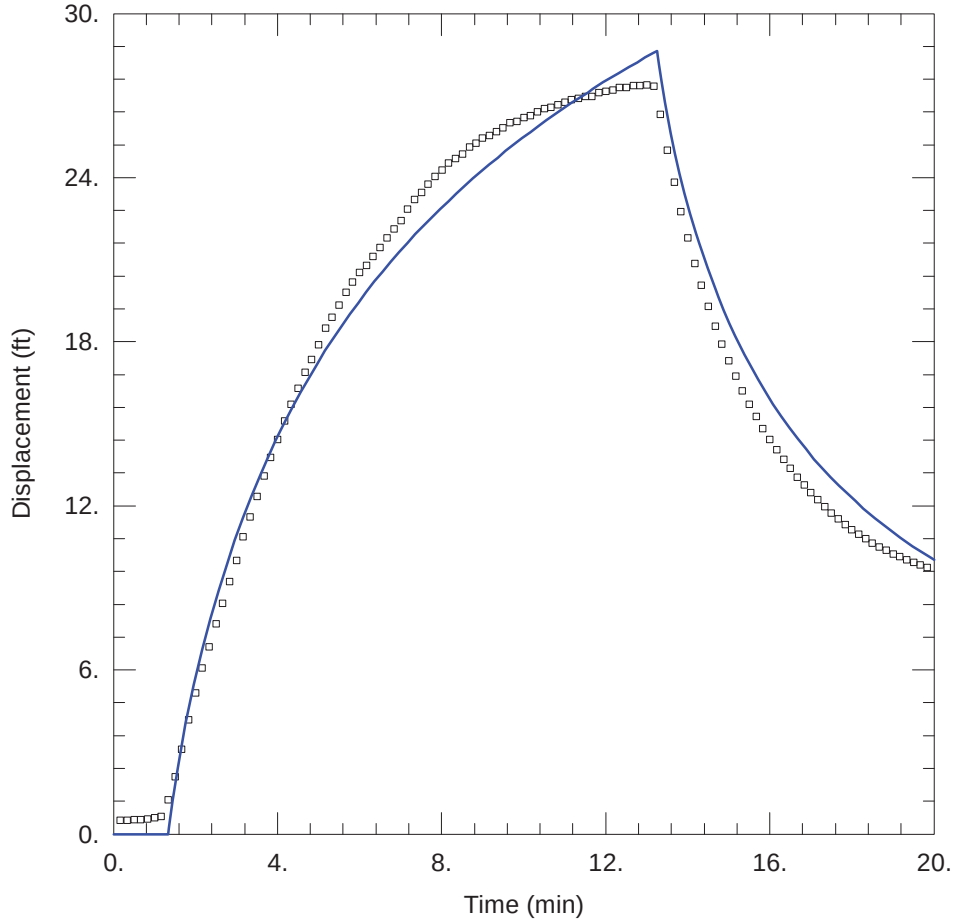
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB065	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 48.34 ft^2/day S = 0.007013
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB067_2inj_PC.aqt
Date: 03/12/13 Time: 15:08:20

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Post Maint.
Test Well: ISB067
Test Date: 3/5/2013

AQUIFER DATA

Saturated Thickness: 15.4 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB067	0	0

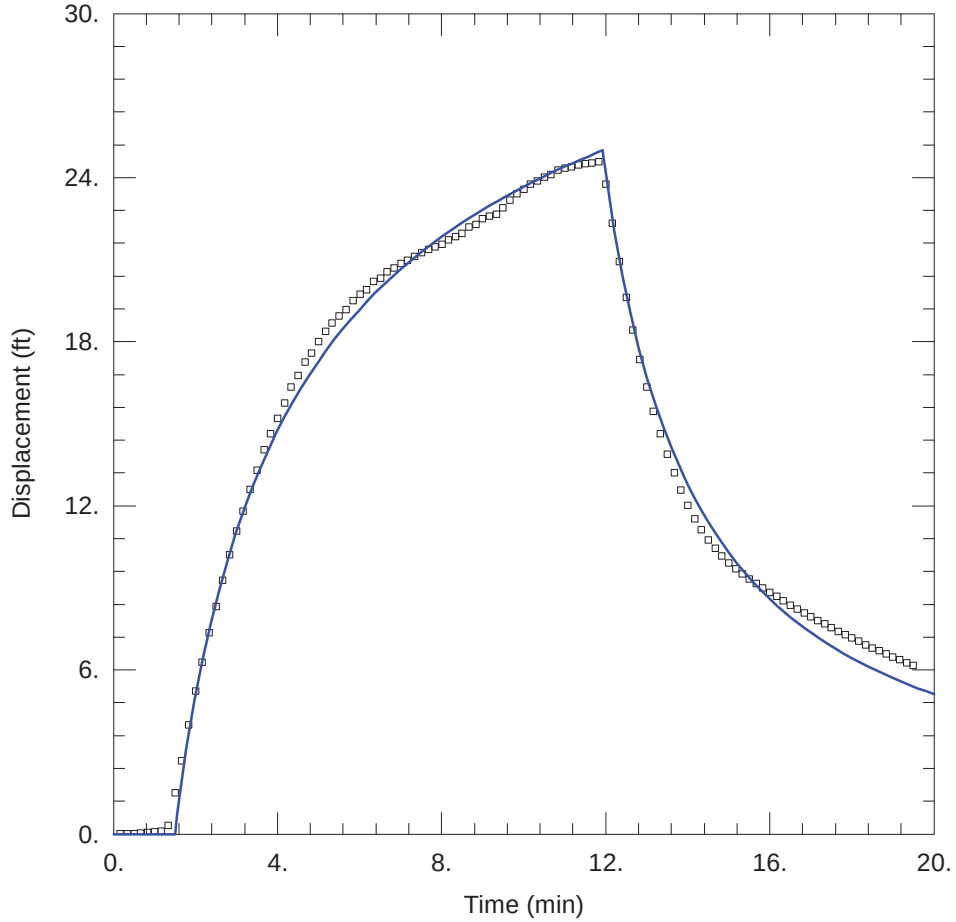
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB067	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 14.05 ft^2/day S = 0.05068
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB068_2inj_PC.aqt
Date: 02/25/13 Time: 14:20:51

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Post Maint.
Test Well: ISB068
Test Date: 2/23/2013

AQUIFER DATA

Saturated Thickness: 15.4 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB068	0	0

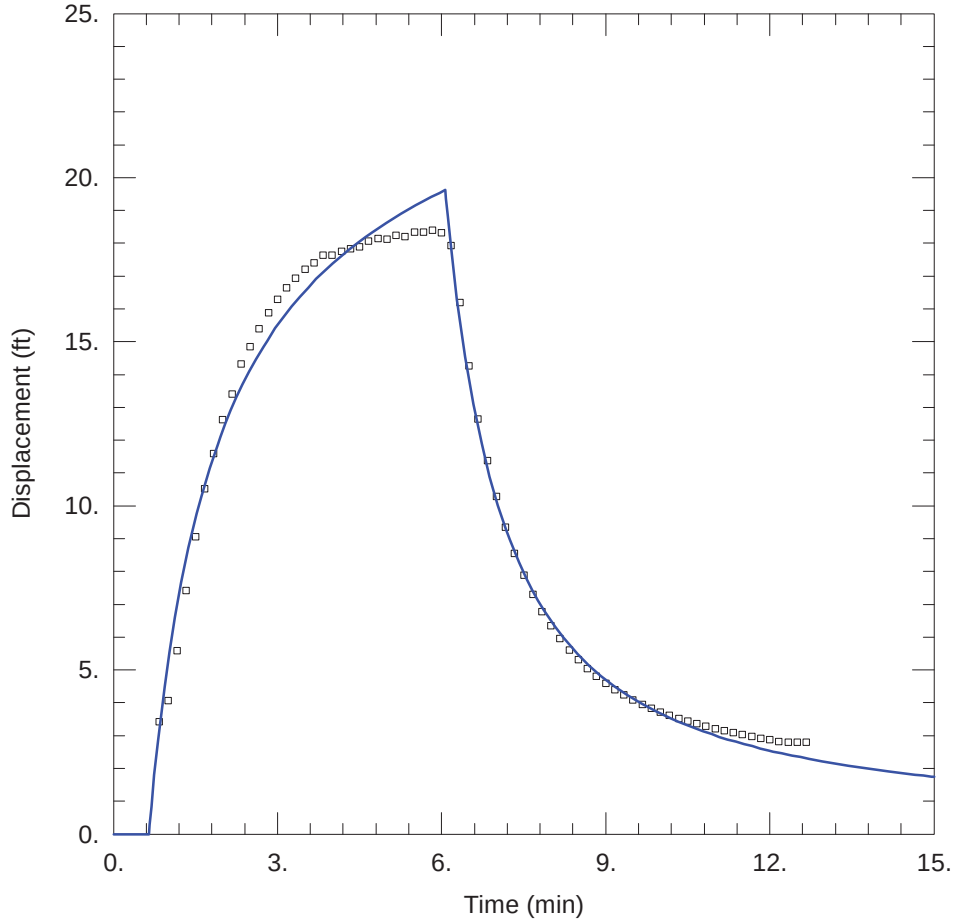
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB068	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 27.57 ft^2/day S = 0.009198
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB069A_2inj_PC.aqt
Date: 04/02/13 Time: 20:36:39

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Post Maint.
Test Well: ISB069A
Test Date: 3/25/2013

AQUIFER DATA

Saturated Thickness: 14.9 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB069A	0	0

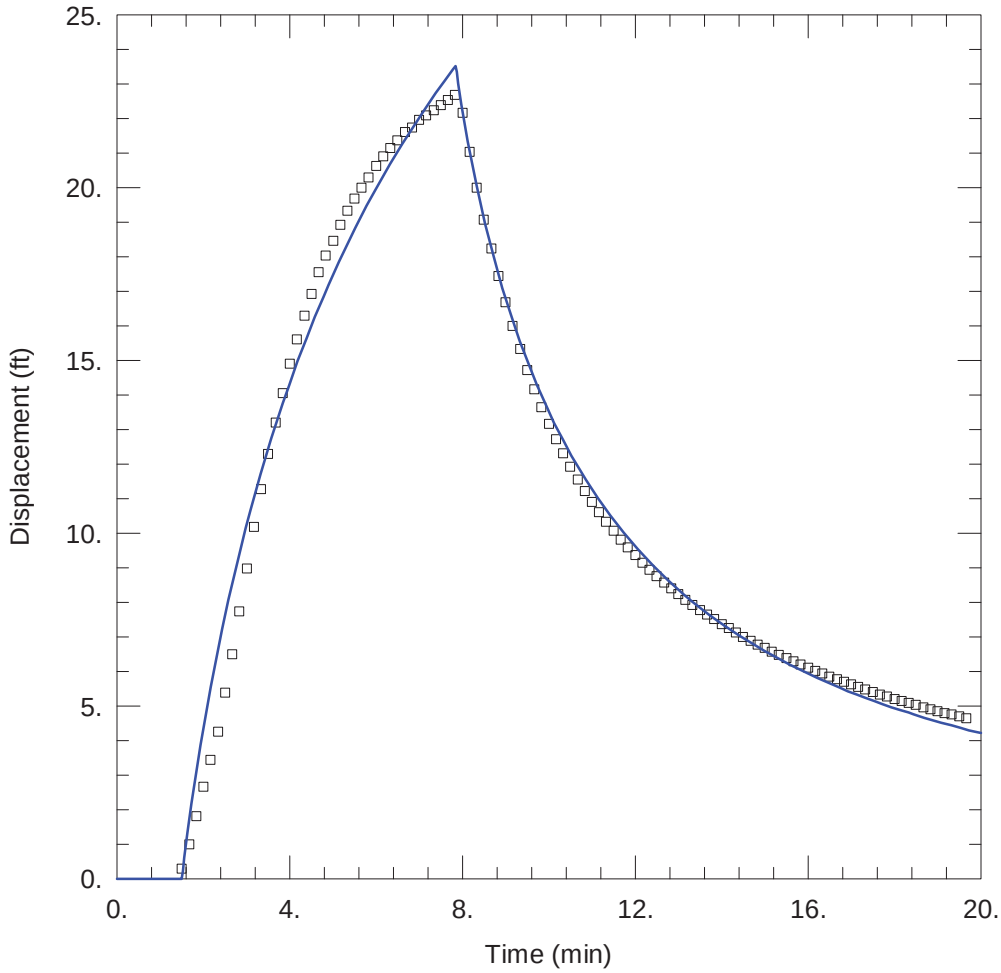
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB069A	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 64.68 ft^2/day S = 0.003701
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB070_2inj_PC.aqt
Date: 04/02/13 Time: 20:42:28

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Post Maint.
Test Well: ISB070
Test Date: 3/27/2013

AQUIFER DATA

Saturated Thickness: 14.3 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB070	0	0

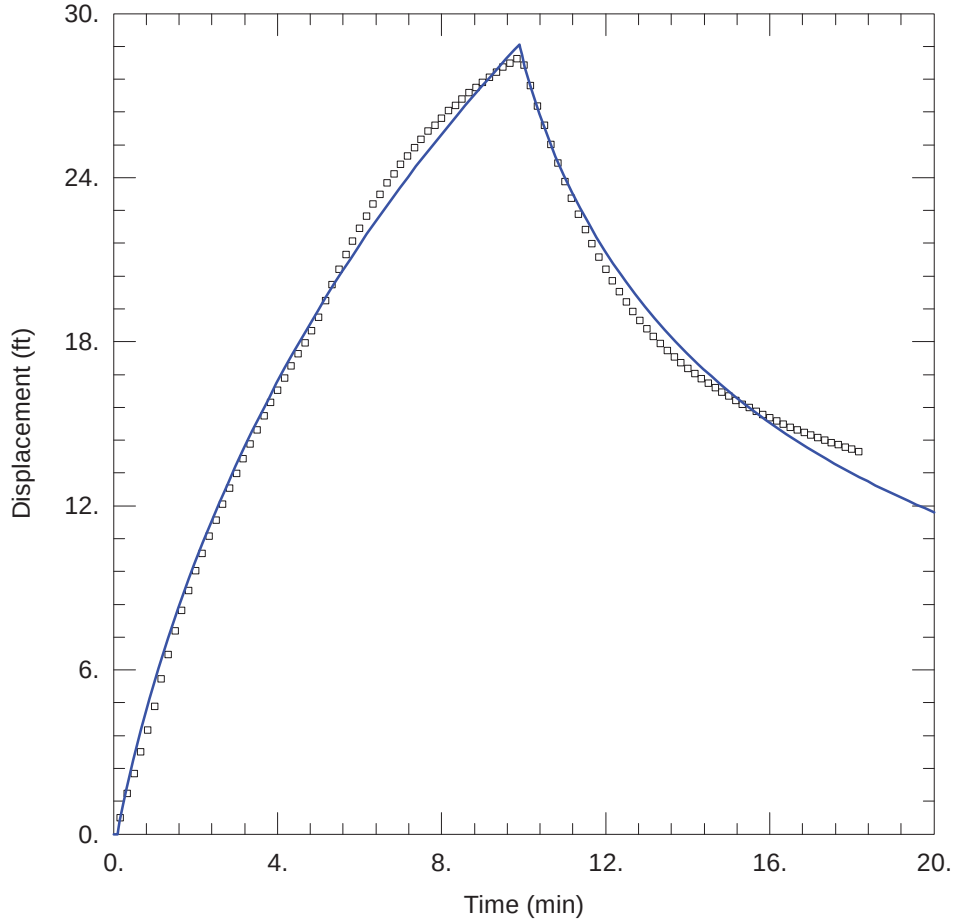
Observation Wells

Well Name	X (ft)	Y (ft)
□ ISB070	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 13.64 ft^2/day S = 0.02336
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB071_2inj_PC.aqt
Date: 04/03/13 Time: 15:13:01

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Post Maint.
Test Well: ISB071
Test Date: 3/28/2013

AQUIFER DATA

Saturated Thickness: 16.3 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB071	0	0

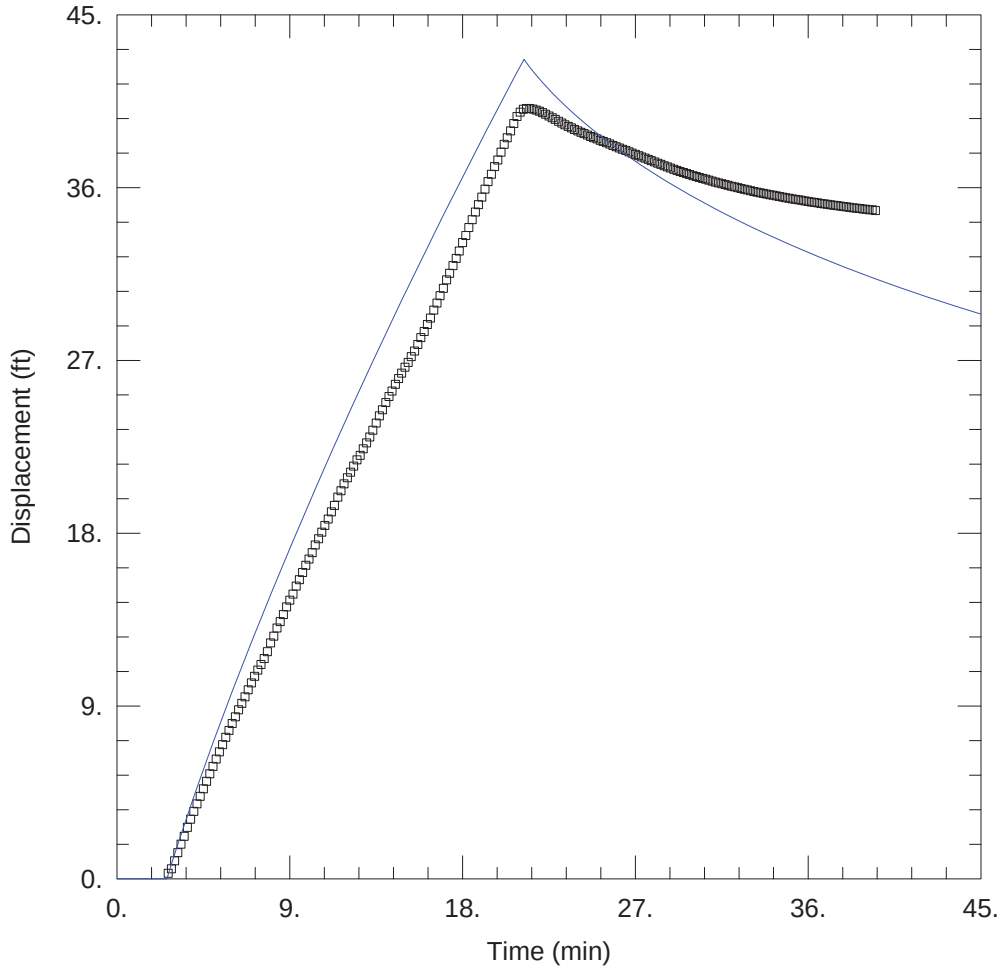
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB071	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 3.754 ft^2/day S = 0.1364
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB072_2inj_PC.aqt
Date: 10/30/13 Time: 14:18:19

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Post Maint.
Test Well: ISB072
Test Date: 3/27/2013

AQUIFER DATA

Saturated Thickness: 18.6 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB072	0	0

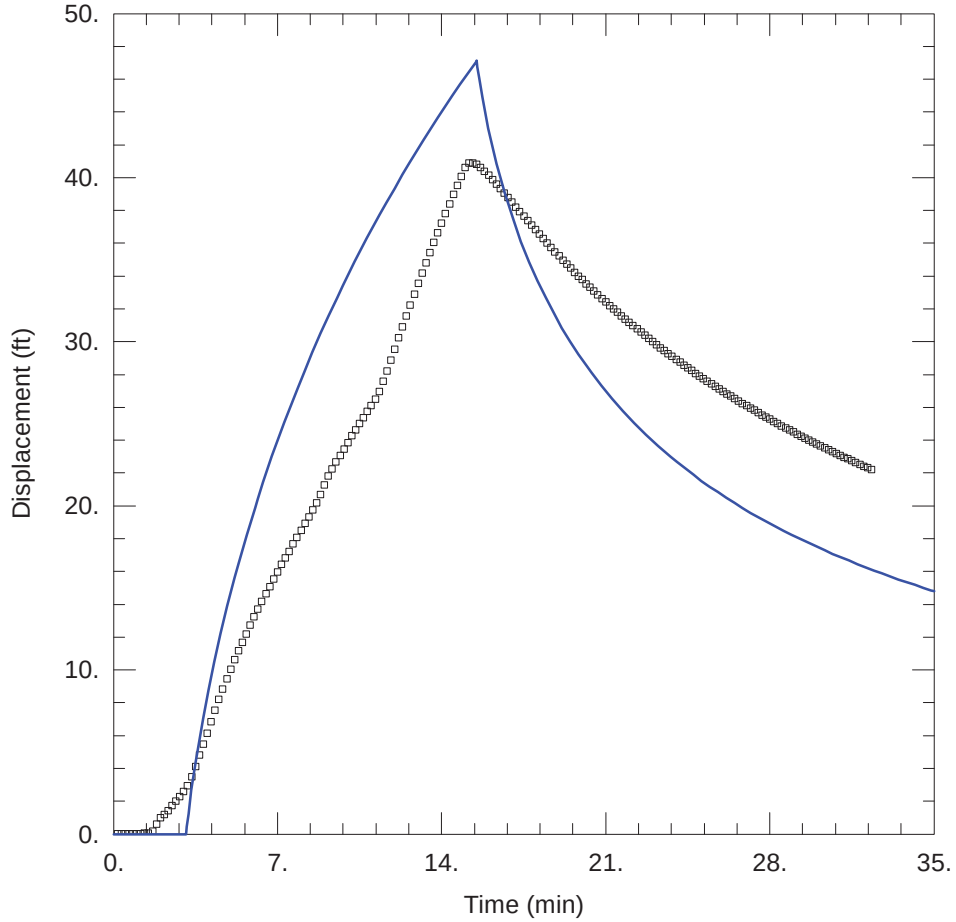
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB072	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 0.09618 ft^2/day S = 0.3
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB073_2inj_PC.aqt
Date: 04/03/13 Time: 15:19:27

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Post Maint.
Test Well: ISB073
Test Date: 3/28/2013

AQUIFER DATA

Saturated Thickness: 18.5 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB073	0	0

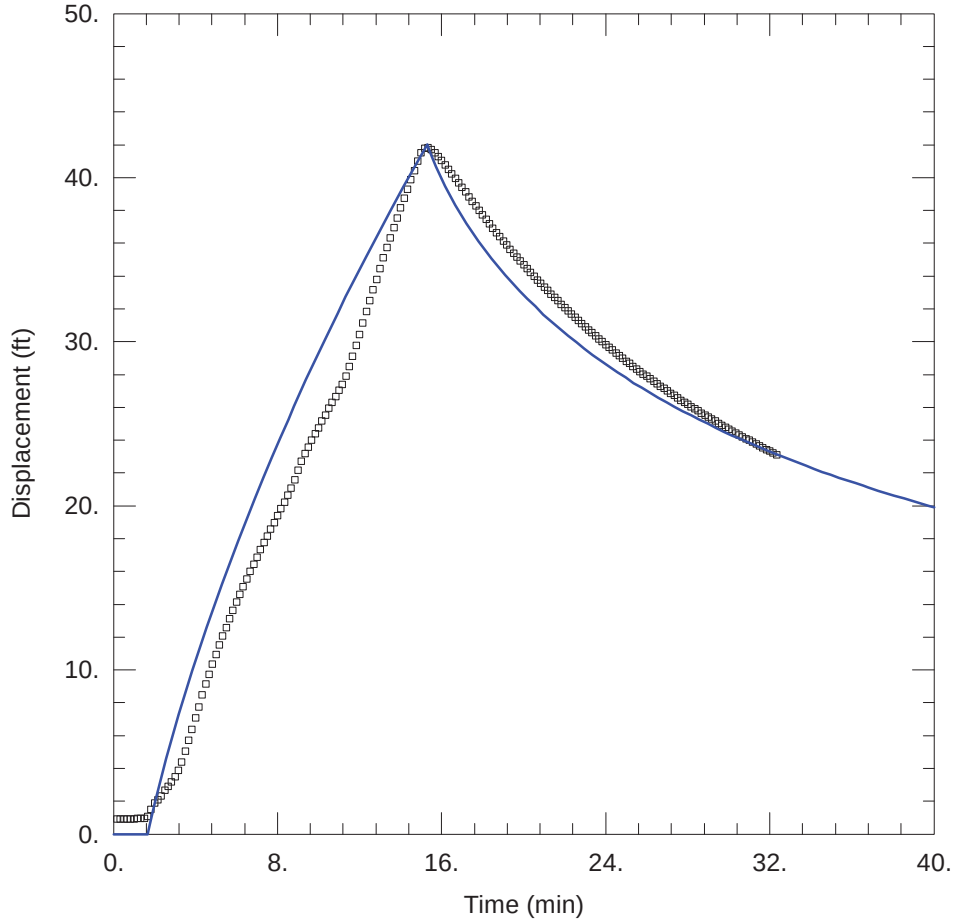
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB073	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 3.068 ft^2/day S = 0.3
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB074_2inj_PC.aqt
Date: 03/01/13 Time: 16:38:45

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Post Maint.
Test Well: ISB074
Test Date: 2/23/2013

AQUIFER DATA

Saturated Thickness: 20.1 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB074	0	0

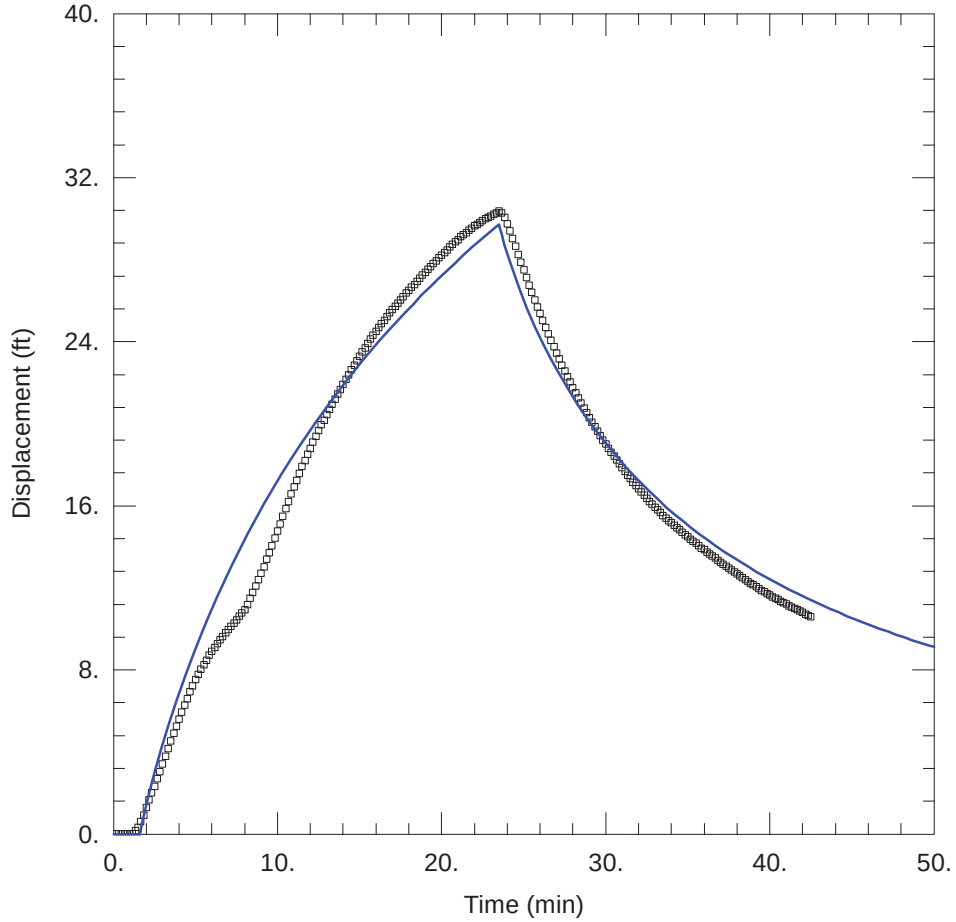
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB074	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 0.4696 ft^2/day S = 0.3
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB075_2inj_PC.aqt
Date: 03/24/13 Time: 08:23:21

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Post Maint.
Test Well: ISB075
Test Date: 3/15/2013

AQUIFER DATA

Saturated Thickness: 17.9 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB075	0	0

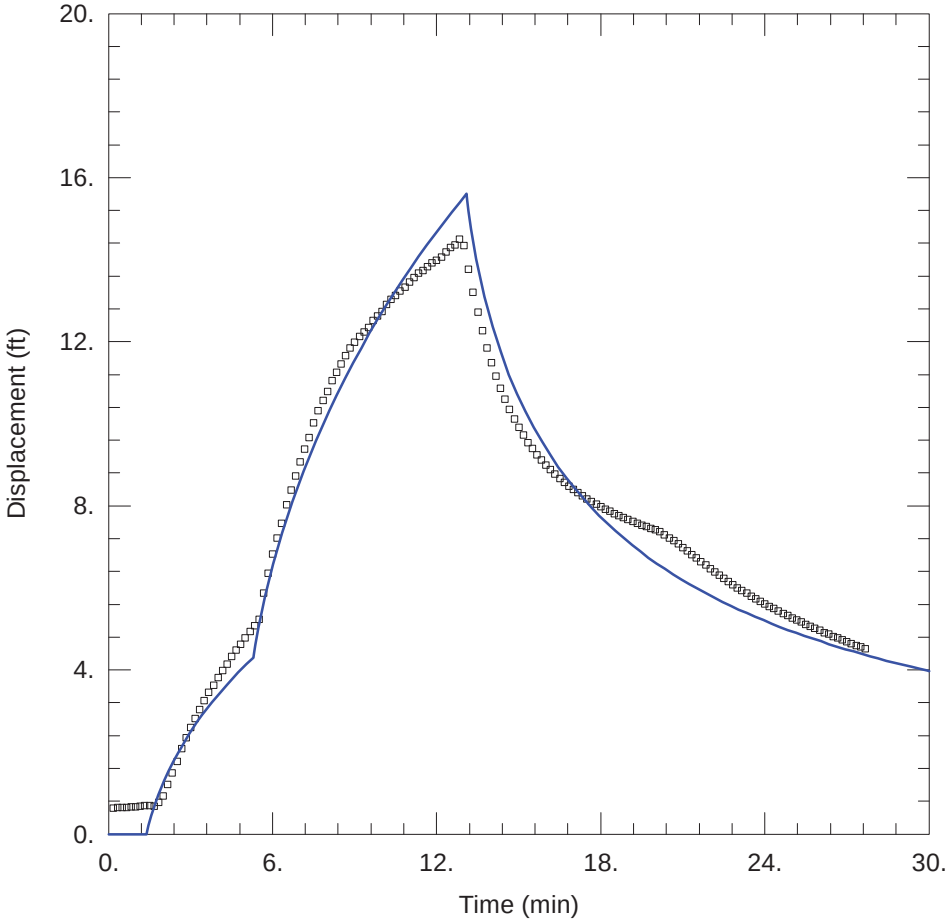
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB075	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 2.909 ft^2/day S = 0.04068
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB076_2inj_PC.aqt
Date: 02/28/13 Time: 12:16:30

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Post Maint.
Test Well: ISB076A
Test Date: 2/23/2013

AQUIFER DATA

Saturated Thickness: 17.9 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB076A	0	0

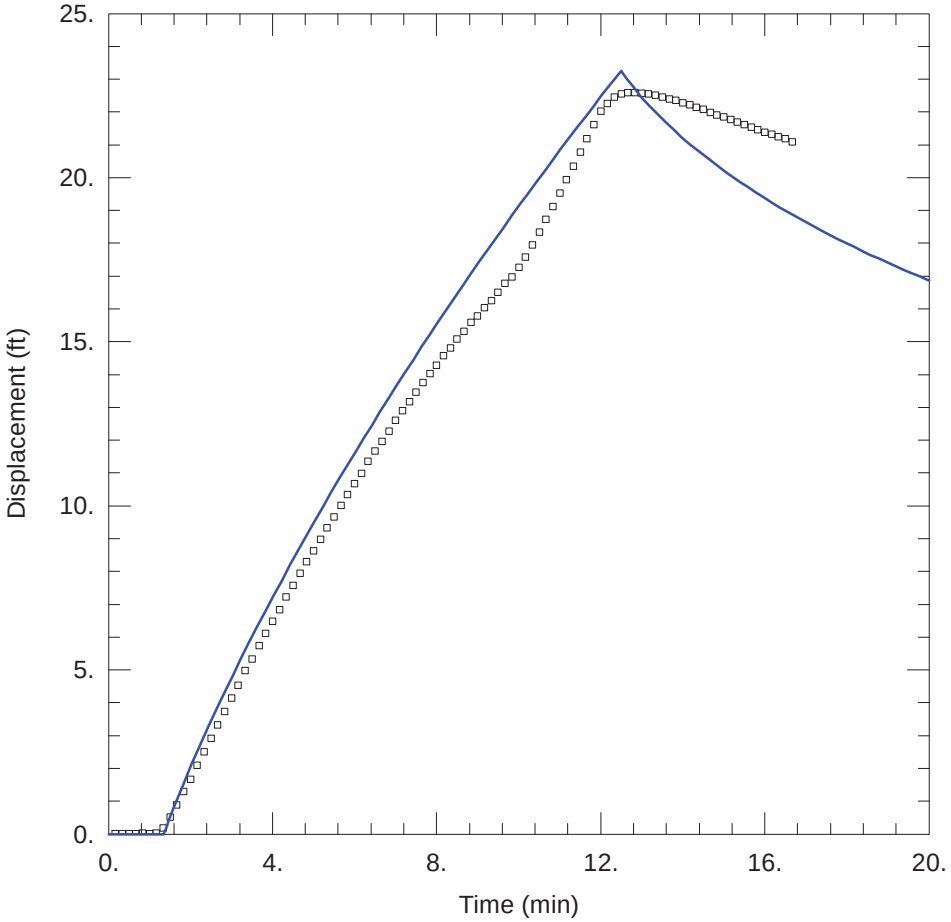
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB076A	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 6.401 ft^2/day S = 0.3
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB077_2-3inj_PC.aqt
Date: 04/02/13 Time: 21:26:02

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Post Maint.
Test Well: ISB077
Test Date: 4/1/2013

AQUIFER DATA

Saturated Thickness: 25.3 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB077	0	0

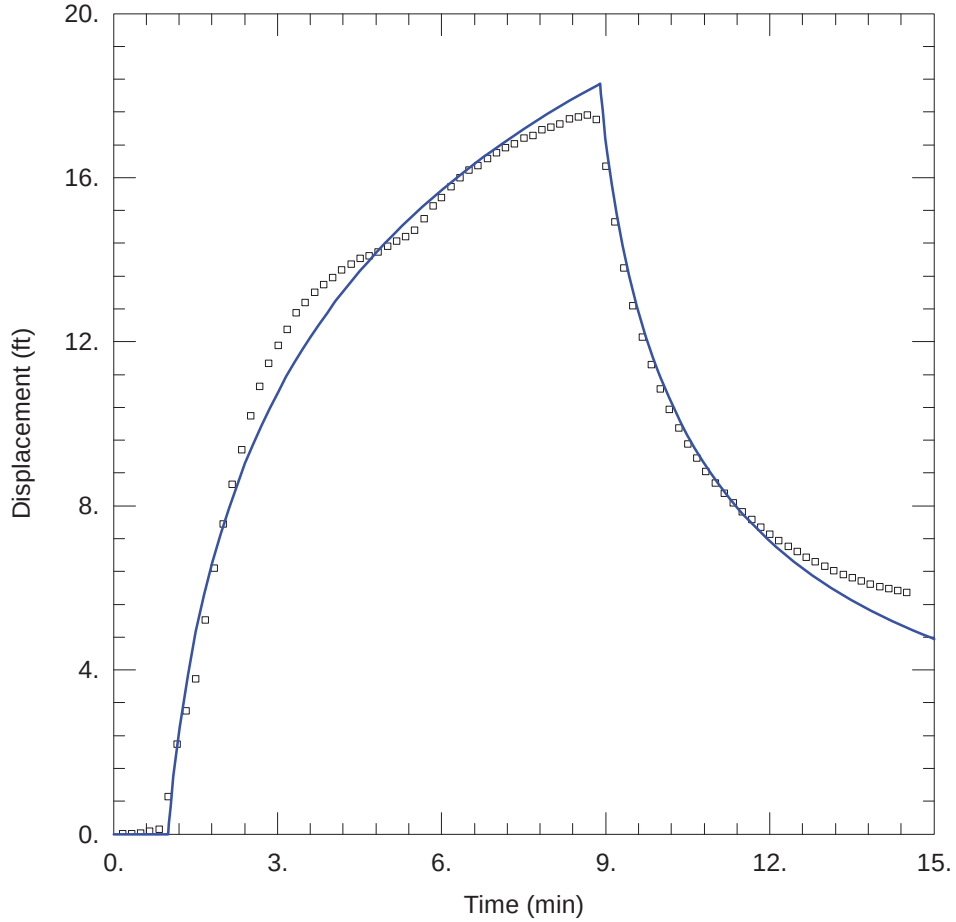
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB077	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 0.33 ft^2/day S = 0.3
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB078_2inj_PC.aqt
Date: 03/24/13 Time: 08:27:04

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Post Maint.
Test Well: ISB078
Test Date: 3/15/2013

AQUIFER DATA

Saturated Thickness: 24.6 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB078	0	0

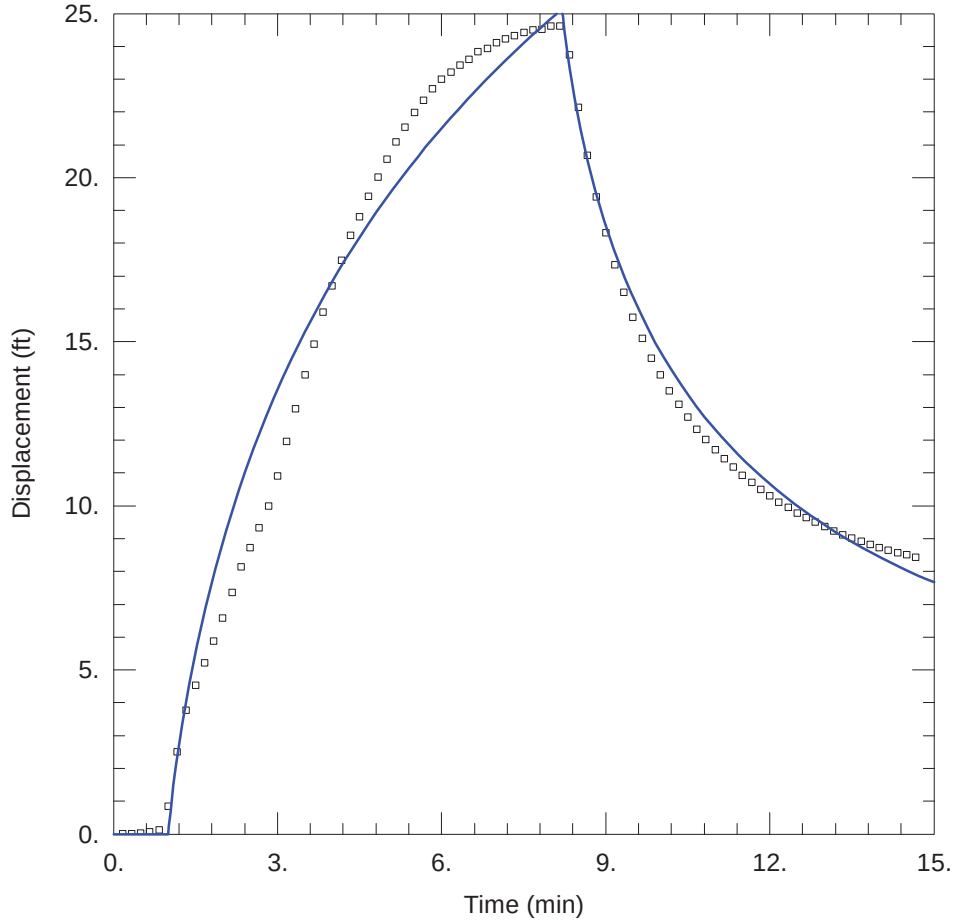
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB078	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 33.01 ft^2/day S = 0.09487
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB079_2inj_PC.aqt
Date: 03/24/13 Time: 08:30:05

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Post Maint.
Test Well: ISB079
Test Date: 3/15/2013

AQUIFER DATA

Saturated Thickness: 28.5 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB079	0	0

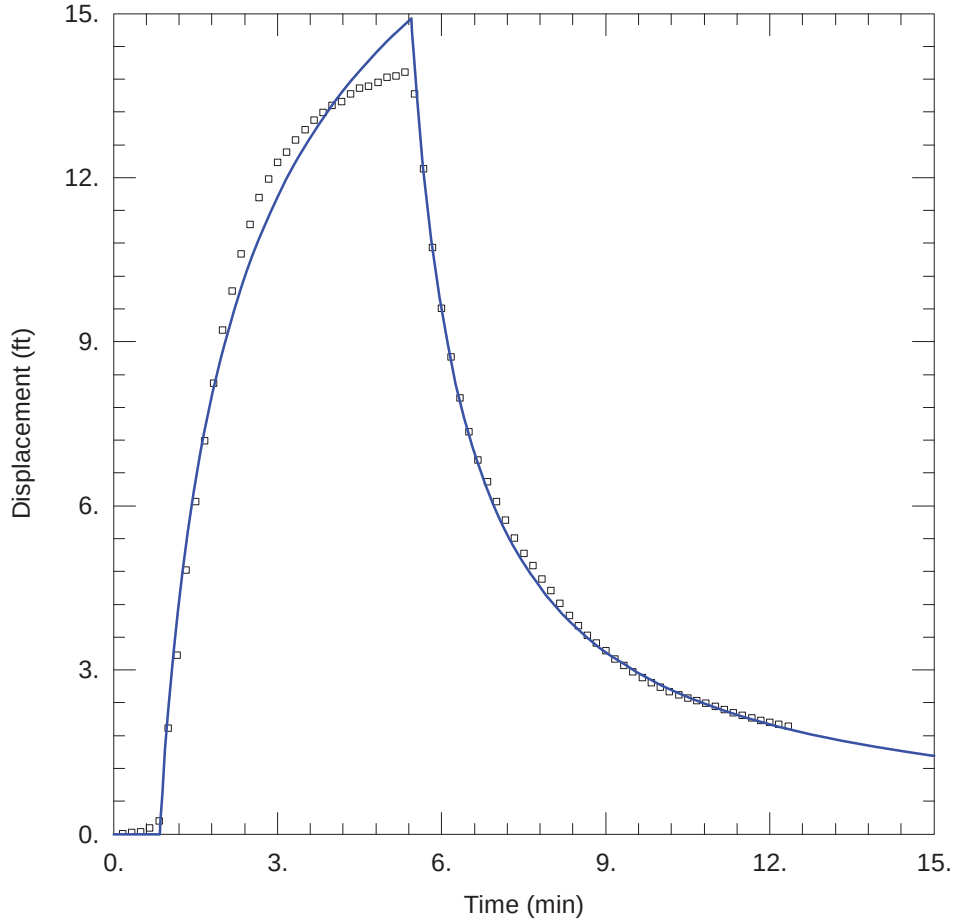
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB079	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 15.7 ft^2/day S = 0.1522
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB080_2inj_PC.aqt
Date: 03/23/13 Time: 17:50:18

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Post Maint.
Test Well: ISB080
Test Date: 3/15/2013

AQUIFER DATA

Saturated Thickness: 24.4 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB080	0	0

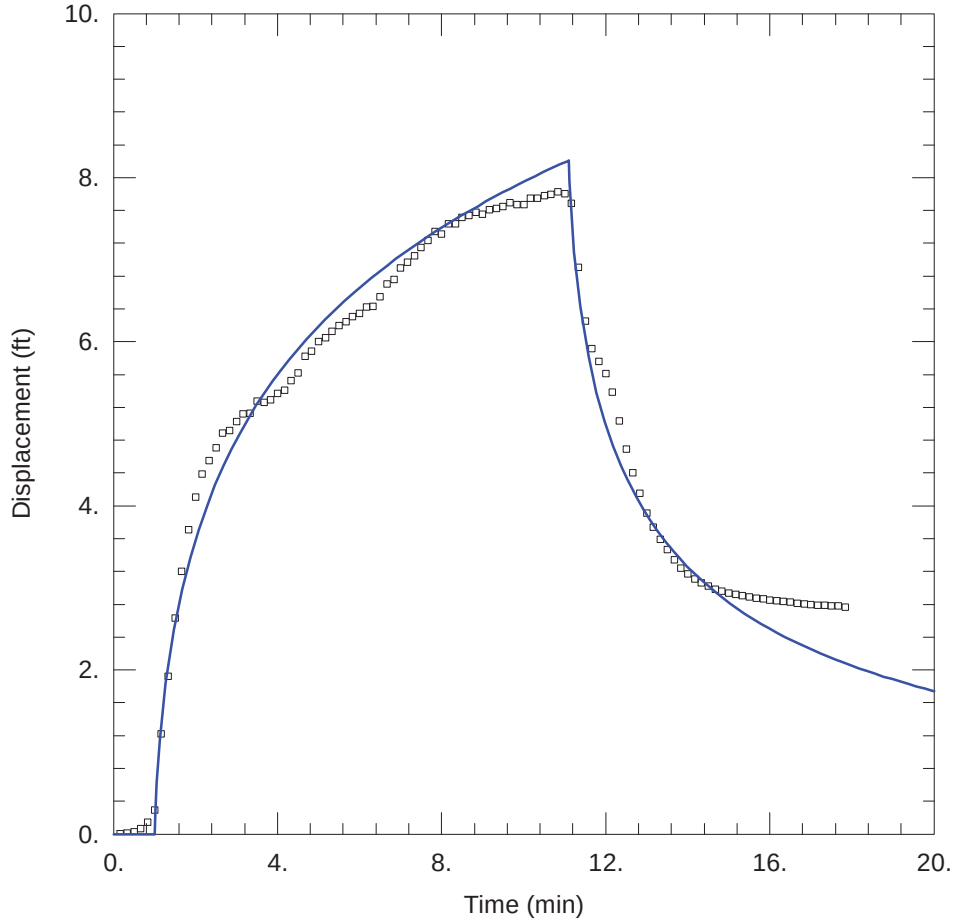
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB080	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 57.63 ft^2/day S = 0.01853
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB081_2inj_PC.aqt
Date: 03/23/13 Time: 17:58:09

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Post Maint.
Test Well: ISB081
Test Date: 3/15/2013

AQUIFER DATA

Saturated Thickness: 23. ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB081	0	0

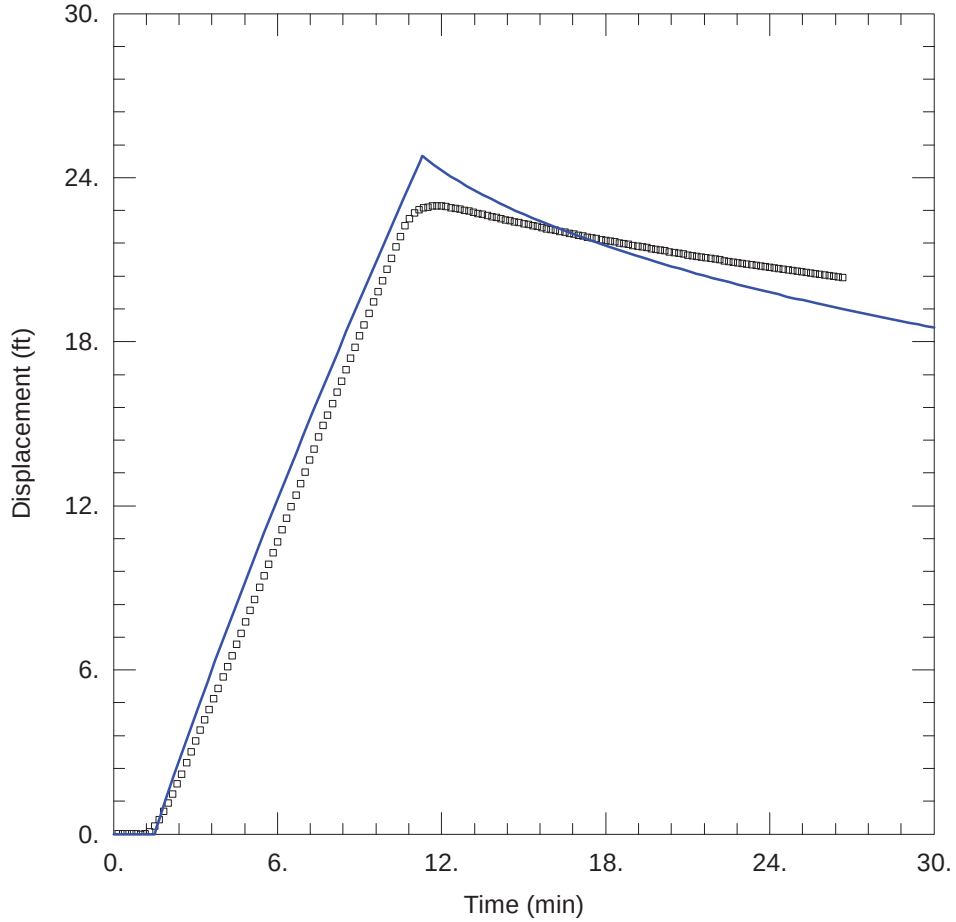
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB081	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 75.2 ft^2/day S = 0.3
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB082_2inj_PC.aqt
Date: 04/02/13 Time: 20:24:20

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Post Maint.
Test Well: ISB082
Test Date: 4/1/2013

AQUIFER DATA

Saturated Thickness: 16.9 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB082	0	0

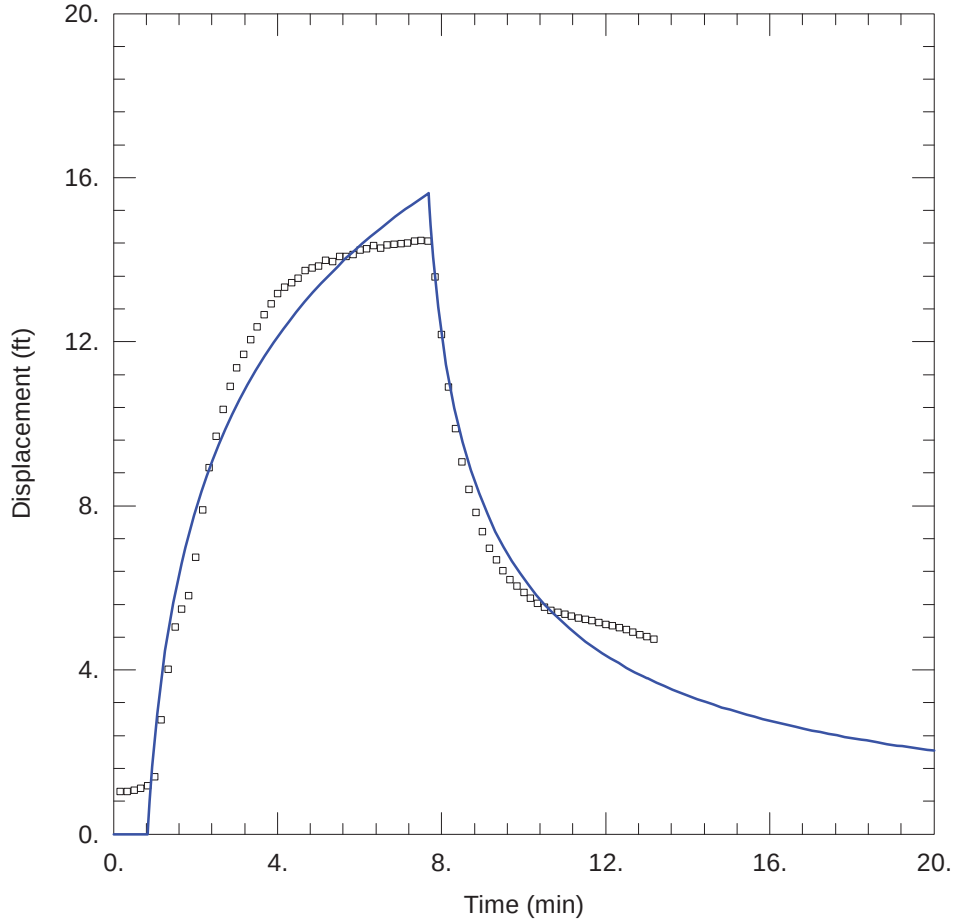
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB082	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 0.05496 ft^2/day S = 0.3
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB083_2inj_PC.aqt
Date: 02/28/13 Time: 12:32:34

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Post Maint.
Test Well: ISB083
Test Date: 2/23/2013

AQUIFER DATA

Saturated Thickness: 14.1 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB083	0	0

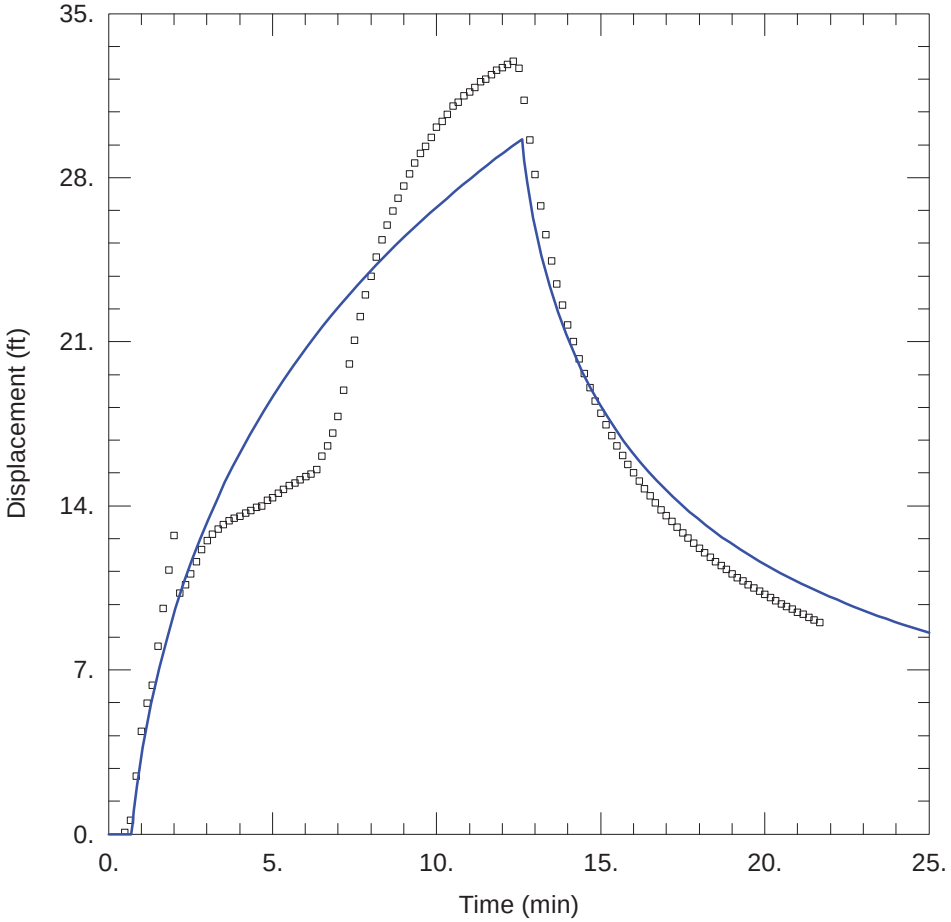
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB083	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 46.84 ft^2/day S = 0.09322
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB084_2inj_PC.aqt
Date: 04/02/13 Time: 20:55:14

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Post Maint.
Test Well: ISB084
Test Date: 3/26/2013

AQUIFER DATA

Saturated Thickness: 15.1 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB084	0	0

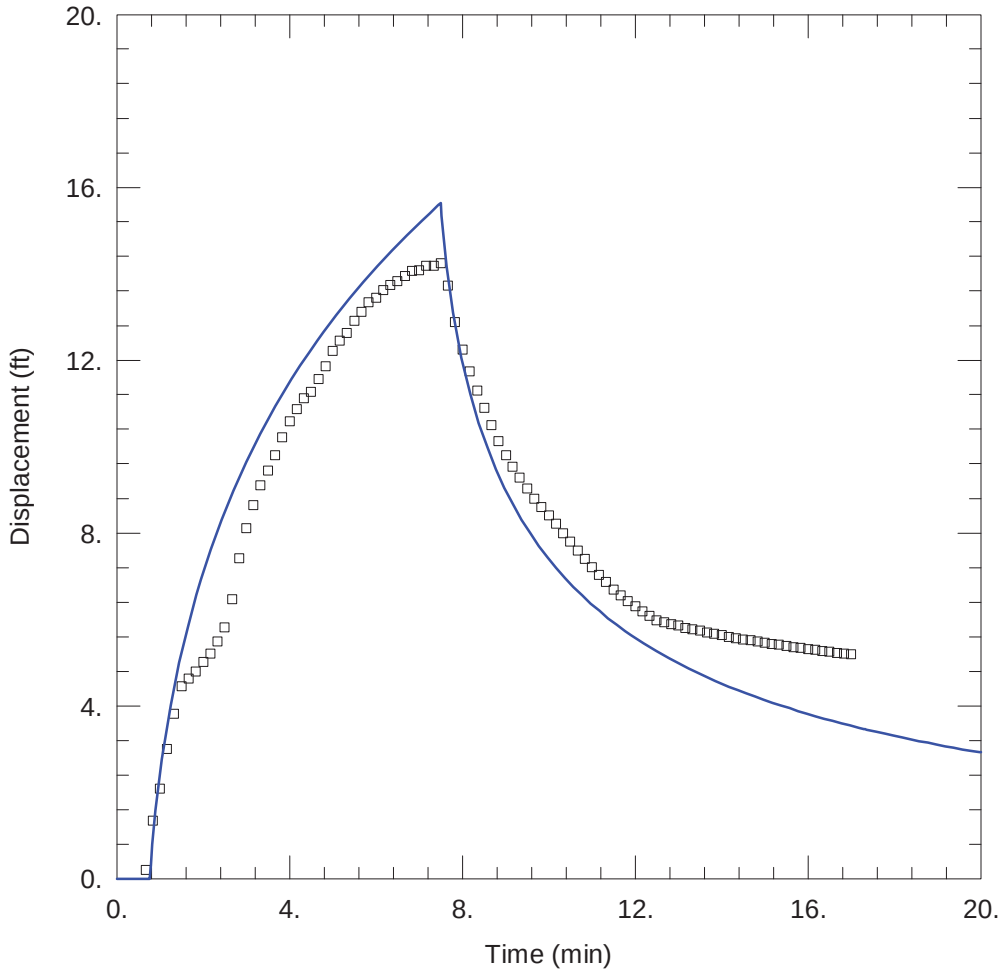
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB084	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 10.56 ft^2/day S = 0.2654
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB085A_2inj_PC.aqt
Date: 04/02/13 Time: 21:00:20

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Post Maint.
Test Well: ISB085A
Test Date: 3/26/2013

AQUIFER DATA

Saturated Thickness: 13.2 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB085A	0	0

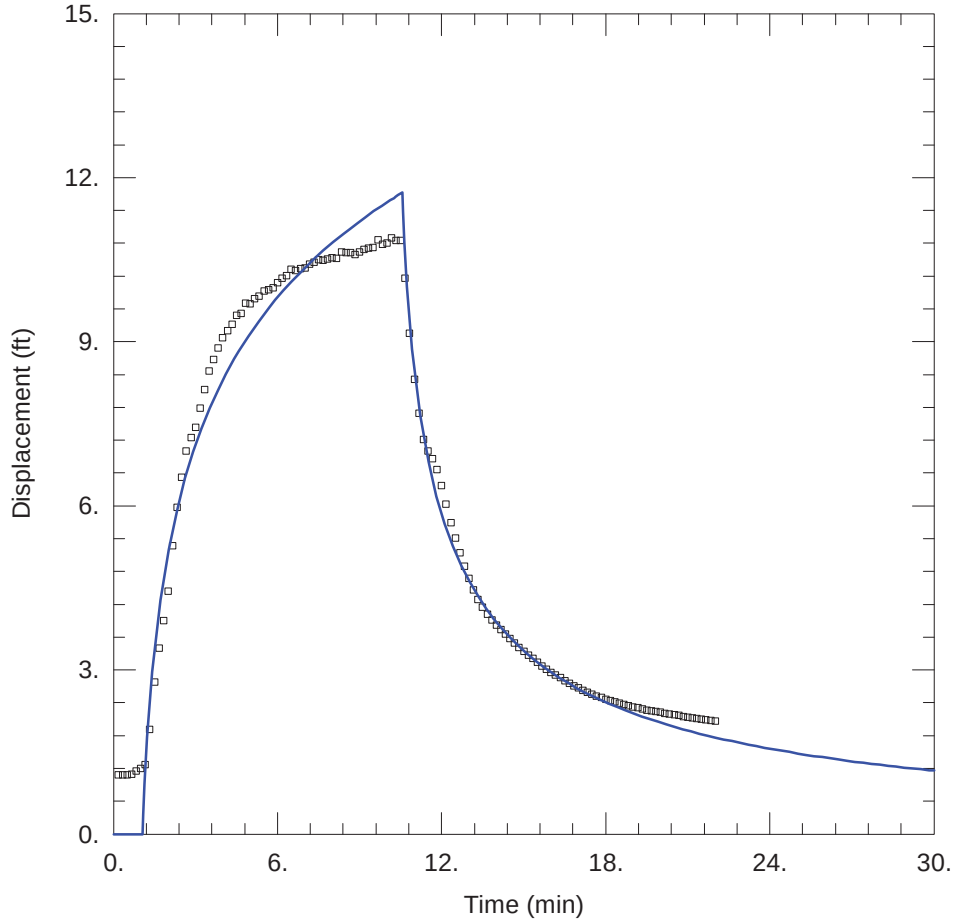
Observation Wells

Well Name	X (ft)	Y (ft)
□ ISB085A	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 23.65 ft^2/day S = 0.3
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB086_2inj_PC.aqt
Date: 03/01/13 Time: 12:56:47

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: Zone 11 Post Maint.
Test Well: ISB086
Test Date: 2/23/2013

AQUIFER DATA

Saturated Thickness: 14.7 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB086	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB086	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 62.6 ft^2/day S = 0.09508
r(w) = 0.4 ft r(c) = 0.167 ft

APPENDIX B

WASTE ACCUMULATION FORMS

Inventory Of Container At Waste Accumulation Site

(Reference WI 02.01.04.05.04, WI 02.01.04.05.05, WI 02.01.04.05.06, WI 02.01.04.05.07)

To have the container removed after container is full or when accumulation of waste has ended:
Plant personnel contact Waste Operations Department (WOD) at ext. 5449 and
fax completed form to fax ext. 7669.
Sub-Contractor personnel contact WOD Point of Contact at ext. 5534 and
fax completed form to ext. 6384
A copy of this form should accompany the container when picked up by WOD.

Complete the following:

Drum ID # 2013030789	Date Accumulation Started 2/13/2013
Container Type Roll-off	Date Accumulation Ended 3/27/2013
Phone # 303-570-9930	Location Zone 11 South Well Field
Mail Drop n/a	Contact Ed Gorove/Sarah Seitz

DATE	WASTE DESCRIPTION	35 ACCOUNT # OR MSDS # OR PEELABLE BARCODE #	BADGE #
2/13/13	ISB086 --- 65 GAL		19484
2/14/13	ISB083 --- 55 GAL		19484
2/14/13	ISB074 --- 40 GAL		19484
2/19/13	ISB076A --- 100GAL		19484
2/19/13	ISB068 --- 75GAL		19484
2/20/13	ISB067 --- 75 GAL		19484
2/22/13	ISB062 --- 90 GAL		19484
3/6/13	ISB057 --- 60 GAL		19484
3/8/13	ISB056A --- 50 GAL		19484
3/8/13	ISB065 --- 60 GAL		19484
3/11/13	ISB078 --- 60 GAL		19484
3/11/13	ISB079 --- 65 GAL		19484
3/13/13	ISB080 --- 75 GAL		19484
3/13/13	ISB081 --- 50 GAL		19484
3/14/13	ISB075 (OLD) --- 60 GAL		19484
3/14/13	ISB077 --- 60 GAL		19484
3/15/13	ISB069A --- 45 GAL		64873
3/19/13	ISB063 --- 60 GAL		64873
3/20/13	ISB0070 --- 50 GAL		64873
3/21/13	ISB072 --- 63 GAL		64873
3/21/13	ISB084 --- 60 GAL		64873
3/22/13	ISB085A --- 55 GAL		64873

Inventory Of Container At Waste Accumulation Site

(Reference WI 02.01.04.05.04, WI 02.01.04.05.05, WI 02.01.04.05.06, WI 02.01.04.05.07)

2/19/13	**ISB058 --- 60 GAL**		64873
2/21/13	**ISB064 --- 70 GAL**		64873
2/22/13	**ISB060A --- 80 GAL**		64873
3/5/13	**ISB061 --- 50 GAL**		64873
3/25/13	**ISB073 --- 55 GAL**		64873
3/26/13	**ISB055 --- 100 GAL**		64873
3/27/13	**ISB082 --- 80 GAL**		64873
3/27/13	**ISB059 --- 75 GAL**		64873
	Total --- 1998 GAL		

POST-INJECTION REPORT – ZONE 11 ISB SYSTEM

MAY – JULY 2013

***IN-SITU* BIOREMEDIATION OPERATIONS AND MAINTENANCE**

PANTEX PLANT, AMARILLO, TEXAS

B&W PANTEX PURCHASE ORDER 5293

November 5, 2013

Project #: 18A-006-002

SUBMITTED BY: Trihydro Corporation

1252 Commerce Drive, Laramie, WY 82070

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List of Acronyms

AHA	Activity Hazard Analysis
AqSol	Aquifer Solutions, Inc.
COPC	Constituent Of Potential Concern
CSM	Conceptual Site Model
DOE	Department of Energy
DBD	Design Basis Document
FM	Farm to Market
HASP	Health and Safety Plan
HDPE	High Density Polyethylene
HE	High Explosives
ISB	*In-Situ* Bioremediation
GWPS	Groundwater Protection Standard
MSDS	Material Safety Data Sheet
O&M	Operation and Maintenance/Monitoring
Pantex	B&W Pantex, LLC
PERC	Perchlorate
PLC	Programmable Logic Control
PSTR	Project Subcontract Technical Representative
PVC	Polyvinyl Chloride
QA	Quality Assurance
QAPP	Quality Assurance Project Plan
QC	Quality Control
RPD	Relative Percent Difference

List of Acronyms (cont.)

SEISB	Southeast ISB
SEPTS	Southeast Pump & Treat System
SSO	Site Safety Officer
SWP	Safe Work Permit
TCE	Trichloroethylene
Trihydro	Trihydro Corporation
TTU	Texas Tech University
UIC	Underground Injection Control
WMP	Waste Management Plan
Z11ISB	Zone 11 ISB

EXECUTIVE SUMMARY

This report documents the amendment injection activities performed at the Zone 11 *In-Situ* Bioremediation (Z11ISB) System from May to July 2013. These activities were performed on behalf of B&W Pantex LLC (Pantex) as a component of Trihydro Corporation's (Trihydro) *In-Situ* Bioremediation (ISB) Operations and Maintenance (O&M) work performed under Purchase Order #5293. Amendment injection was performed to maintain the biologically-active treatment zone at the Z11ISB System. The specific tasks performed included equipment mobilization, setup, equipment maintenance, amendment injection and associated monitoring, and equipment demobilization. Each of these tasks and pertinent data and observations are summarized below.

Mobilization and setup consisted of delivery and placement of frac tanks for water storage and intermodal tanks for storage of bioamendment. Site setup consisted of the connection of a header system for water transmission from the frac tanks and transmission of mixed amendment to the injection trailer per the project plans.

While attempting to restore power to the Pantex-owned injection trailer at the Z11ISB equipment pad, it was determined that one of the three transformers was not operable. As a result, a generator was mobilized to the site and the system was operated with power supplied by that generator.

The initial portion of this amendment injection event was performed concurrently with two 72-hour pump tests performed at nearby locations. Water removed during performance of the pump tests was metered and used as makeup water to support injection at some locations in the western portion of the Z11ISB System. Integration of the pump test with ISB injections required use of two additional frac tanks. After completion of the pump test and decontamination of tanks, the two frac tanks from the pump test were removed from the site.

Trihydro began the injection event following the on-site pre-injection safety meeting and operator refresher training. Amendment was injected into each of the 32 injection wells in the Z11ISB System. In total, 127,423 gallons of pure amendment, 1,770,930 gallons of mixed amendment (after addition of makeup water), and 194,112 gallons of flush water were delivered during this event. Each of the 32 injection wells received the target volume of pure amendment (i.e. dose) and total fluids specified in the project plans. The amendment and volume targets achieved were based on the Design Basis Document (DBD), updated Conceptual Site Model (CSM), and an additional factor of safety. The factor of safety beyond the amendment dose specified in the DBD varied by injection location, and was based on concentrations of constituents of potential concern (COPCs) and groundwater flux.

Injection monitoring at each well was performed to document the execution of the work and as one means of redundancy to reduce the risk of releases of amendment or water to the ground surface. The monitoring program included recording injection volumes, flow rates, and displacement observed inside injection well casing. Steady-state displacement data at a given flow rate was also used to compare the ability of the injection wells to accept fluids. This is an important consideration relative to the ongoing well maintenance program, with the most recent well maintenance event being conducted immediately before the injection event described herein. Steady-state injection data suggests that well performance is consistent with previous injection events and that the well maintenance program has been successful in keeping the wells in a condition that allows for periodic amendment injection.

In addition, fluid levels were continuously measured at new well PTX06-ISB075 during injection into old well PTX06-ISB075. These wells are located approximately 18 ft apart. The fluid level surface in the injection well rose approximately 150 ft, which is typical during amendment injection. The change in elevation of perched groundwater at the new ISB075 (i.e. mounding) was less than 2 ft.

Maintenance was performed on various components of the Pantex-owned injection system during the course of this work. This included installation of a new pressure transducer, updates to a background program that runs on the PLC, and use of a portable generator because of a temporary interruption of the power supply to the injection trailer, and routine changes of bag filters, changing compressor oil, cleaning of y-strainers etc.

Quality Assurance (QA) activities associated with this work included QA documentation for the amendment and cross-checks of redundant flow meter readings. Amendment QA documentation was provided to Pantex for each of the 22 tankers delivered, and each of these conformed to the project QA requirements. Redundant flow meter data suggested that the flow instrumentation performed in the same manner as previous injection events, and that the volumes delivered to each well were accurately tracked by the instrumentation.

This work was performed with zero Health & Safety incidents. Several lessons learned were developed as part of this work. These included use of generator for powering injection trailer, isolating the leak detection system inside the injection trailer from sever rain events, and proposed increases in pipe sizing in the amendment distribution portion of the injection trailer as a means to increase as-injected amendment concentrations.

1.0 INTRODUCTION

Trihydro provides O&M activities at two ISB treatment Systems at the Pantex Plant under Purchase Order 5293 with B&W Pantex, LLC (Pantex). The two ISB Systems include:

1. Southeast ISB (SEISB) System located on Texas Tech University (TTU) property
2. Z11ISB System located on the Pantex Plant

Post-injection reports are prepared following completion of injection activities at each ISB System as required by the *In-Situ Bioremediation System Operation and Maintenance* Statement of Work, October 2011 (Pantex 2011). This report constitutes the sixth post-injection report prepared for the Z11ISB System since the initial injection event that was conducted at Z11ISB in 2009. This report addresses injection work that Trihydro performed during the May through July 2013 O&M period, collectively referred to as the summer 2013 injection event.

This post-injection report covers activities associated with the summer 2013 Z11ISB injection event, including:

- A brief summary of well rehabilitation and hydraulic testing.
- A brief description of the injection event.
- Injection start and finish dates.
- Summary tables of the total injected volumes into each well.
- Average flow rates into each well.
- Completed data collection sheets from the Z11ISB injection event.
- Description of lessons learned.

This work was performed following the methods described in the planning documents prepared for this project, including the *Work Plan* (Trihydro 2012a) and the *Health and Safety Plan* (HASP), the Contractor *Waste Management Plan* (WMP) and the *Quality Assurance Project Plan* (QAPP) appended to the *Work Plan*.

Additional information detailing site background and ISB implementation and historical results, are included in the following documents:

- Pantex *In-Situ* Bioremediation Operation & Monitoring, 2010 Annual Monitoring Report (AqSol 2011).
- Operator's Manual – Southeast and Zone 11 ISB Systems (Trihydro 2013a).

- Well Maintenance Report: Zone 11 ISB System, October (Trihydro 2012b).
- Post Injection Report: Zone 11 ISB System, December (Trihydro 2012c).
- Post Injection Report: Zone 11 ISB System, November (Trihydro 2011a).
- Well Maintenance Report: Zone 11 ISB System, November (Trihydro 2011b).
- Post-Injection Report: Zone 11 System, December 7, 2010 (AqSol 2010a).
- Well Maintenance Report: Zone 11 In-Situ Bioremediation System, December 20, 2010 (AqSol 2010b).
- Statement of Work for *In-Situ* Bioremediation System Operation and Maintenance for the Southeast and Zone 11 ISB Systems, August 2009 (Pantex 2009).
- Operations and Maintenance Plan: *In-Situ* Bioremediation Corrective Measures Design Zone 11 South, April 20, 2009 (AqSol 2009a).
- Implementation Report: *In-Situ* Bioremediation System Corrective Measures Construction Zone 11 South, September 1, 2009 (AqSol 2009b).
- Post-Injection Report Zone 11 South Nine Expansion Wells, December 23, 2009 (AqSol 2009c)

1.1 SITE DESCRIPTION

The Pantex Plant is located in the Texas Panhandle in Carson County, north of U.S. Highway 60. The Plant is centered on an approximately 17,500-acre site located approximately 17 miles northeast of downtown Amarillo and 1 mile north of U.S. Highway 60. The Pantex Plant site consists of land owned and leased by the U.S. Department of Energy (DOE) and operated by Pantex. The DOE owns 11,703 acres, including 9,100 acres in the main Plant area, 1,526 acres in four tracts purchased in the latter part of 2008 (east of Texas Farm-to-Market Road (FM) 2373 near the main Plant area), and 1,077 acres at Pantex Lake, which is located approximately 2.5 miles northeast of the main Plant area. Industrial operations are conducted on approximately 2,500 acres, most of which is within Zones 11 and 12. In addition, 5,800 acres of land south of the main Plant area are leased from TTU for a safety and security buffer zone. The facility is bordered on the west by FM 683, on the north by FM 293, and partially on the east by Texas FM 2373.

1.2 PROJECT DESCRIPTION

The ISB O&M project is designed to operate and maintain two bioremediation treatment systems located within the perched groundwater unit beneath the site: the Z11ISB System and the SEISB System (**Figure 1**). O&M of these systems is accomplished through periodic injection of bioremediation amendment and other associated maintenance activities. Both systems are constructed as a linear array of injection wells installed perpendicular to the direction of

groundwater flow. These systems allow for hydraulic movement of groundwater through the system and result in treatment of COPCs through biotic degradation and abiotic transformation of COPCs.

Pantex has identified the following COPCs in the perched groundwater near the two systems:

- Chromium (total and hexavalent) (SEISB System)
- High Explosives (HE) including RDX (hexahydro-1,3,5-trinitro-1,3,5-triazine) and HMX (Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine) (SEISB System)
- Trichloroethylene (TCE) (Z11ISB System)
- Perchlorate (PERC) (Z11ISB System)

The ISB Systems were created by injecting bioremediation amendment into the 42 injection wells at the SEISB System and all 32 wells at the Z11ISB System (**Figure 2**). The continued effectiveness of the bioremediation systems relies on periodic injection of amendment to maintain the treatment zone within the perched groundwater unit at each System.

The remainder of this report summarizes the observations and findings of the most recent round of injection activities at the Z11ISB System, performed during the summer of 2013.

2.0 MOBILIZATION ACTIVITIES

Mobilization included the physical mobilization to the site, as well as the associated coordination efforts to initiate field activities. These are described in the following subsections.

2.1 PERMITS

A safe work permit was obtained before initiation of fieldwork. The contractor Activity Hazard Analysis (AHA) and Safe Work Permit, Pantex form PX-4798 (SWP), was issued for all construction activities and applicable service contract work by the Pantex Safety Department. Addenda to the AHA/SWP were issued throughout the project as required based on changes to the activities performed or equipment utilized. An Underground Injection Control (UIC) permit was also required for the project and this permit was obtained by Pantex.

2.2 SECURITY REQUIREMENTS

Site access required for deliveries, visitors, and subcontractors was coordinated through the Project Subcontract Technical Representative (PSTR), Mr. Chad McGarry. The PSTR arranged for badges, guards, and site access for field personnel. Contractor and subcontractor personnel were required to obtain access to the facility through a construction badge or a visitor's badge prior to entry onto the site.

2.3 ACCESS TO WORK AREAS

Daily requirements for work during the performance period described herein included the following notification protocols:

- Notified PSTR that work had begun, typically at the beginning of the work day
- Notified PSTR or acting person in charge that work had ended for the day (contact provided daily by PSTR)

2.4 INJECTION TRAILER AND ASSOCIATED EQUIPMENT RELOCATION

The mixing and injection trailer was located at the Z11ISB equipment pad following injection activities in 2012. The trailer tie downs installed in 2012 remained in place. During setup of the injection trailer and associated equipment, it was discovered that a transformer on the overhead power supply lines was no longer operational. Because of the long lead time required to source a replacement transformer, the injection trailer was hooked to a 80 kV portable generator. Electrical connections between the generator and trailer were made by a licensed electrician.

The three 21,000-gallon water storage tanks (or “frac tanks”) were mobilized to the Z11ISB equipment pad before this injection event. These were positioned in the same configuration as used in previous injections. Ancillary equipment including distribution pipes, wires, control boxes, and wellhead assemblies were present at the Z11ISB equipment pad or in the general area. Two additional frac tanks were used during the start of injection activities to allow integration of pump tests with Z11ISB injections.

The existing water supply pipeline and infrastructure located at the Z11ISB equipment pad was used to supply water for injection. The source of water was treated groundwater from the Southeast Pump and Treat System (SEPTS) located at Building 16-28. The water supply was connected from the termination of the pipeline and run to the injection trailer using a 4-inch flexible hose with quick connect fittings on both ends. Piping connections were made in a manner consistent with the equipment requirements described in the Work Plan (Trihydro 2012a).

3.0 SUMMARY OF WELL MAINTENANCE AND HYDRAULIC TESTING

Well maintenance work was performed on the Z11ISB injection wells from February to April 2013. The maintenance program is designed to: assess the degree to which biofouling may have impacted injection well performance; take measures to mitigate adverse impacts to well performance; and verify that mitigation efforts have restored wells to a condition that would support future amendment injection. Of the 32 injection wells in the Z11ISB System, 31 injection wells were hydraulically tested and/or maintained. The one injection well that was not maintained (PTX06-ISB066) was recently installed and had not yet received injection of amendment. The methods and results of this well maintenance effort were documented in the Well Maintenance Report being submitted to Pantex in conjunction with this report, and are briefly summarized here.

Biofouling impacts were assessed by performing hydraulic injection tests before well maintenance at each injection well. After receiving approval from Pantex, Trihydro performed maintenance activities using reagents and mechanical means. The reagent applied during maintenance was Cotey Chemical Corporation's Welgicide Cleaner, which is a granular material that consists primarily of sodium hydroxide (a strong base). This reagent is intended to dissolve and remove mineral scale and/or biomass on the well screen and filter pack. The mechanical component consisted of use of a surge block and well purging using a combination airlift/surge block/brush device constructed for this project.

4.0 EQUIPMENT MAINTENANCE

The following equipment repairs and maintenance was performed during this injection event:

- The team found that one of the Pantex-owned electrical supply transformers had malfunctioned. Replacement of this transformer is being coordinated by Pantex.
- Replaced pressure transducer (P-101) that interfaces with PLC.
- Replaced flange gaskets on all of the water supply lines flange fittings.
- Replaced the eight SuperDos mixers with newly manufactured units from the manufacturer. This included the newly machined lower body assemblies that caused issues during the last injection event.
- Replaced the reed switch in FIQ-403 due to switch malfunction.
- Replaced amendment tubing into amendment feed side of SuperDos units. The replacement included an increase in tubing size from ½-inch to ¾-inch. The tubing size was increased in part to provide more consistent elevated concentrations of mixed amendment from the SuperDos units.
- Wear parts (i.e. o-rings and dosing pistons) were replaced in the SuperDos mixers during the course of the injection event.

The following routine maintenance activities were performed immediately prior to and/or during this injection event:

- The coalescing filters on the compressed air system were drained periodically to remove condensate.
- The compressed air desiccant medium was changed at the beginning of the injection event.
- The air compressor oil was changed on a monthly basis.
- The 100-micron bag filter (F-102) was changed twice; once approximately half way through the injection event and then again following completion of injection activities.
- Periodic maintenance of flow meters FIQ-201 through FIQ-205 and FIQ-401 through FIQ-404 including, but not limited to, removal, inspection, and reinstallation to increase meter responsiveness. The system was purged of fluids and valves left in a half-open position for the extended shutdown. In addition, all 200- and 400-series meters were removed, cleaned, and reinstalled in preparation for the injection event at SEISB System.
- The injection trailer was transported to the Plant Vehicle Inspection Facility for the periodic inspection before being transported to the SEISB equipment pad.

5.0 FIELD INJECTION OPERATIONS

The field injection operations at the Z11ISB System consisted of amendment receipt, storage, mixing, and injection. These operations were implemented in accordance with Pantex procedures, the Operator's Manual (Trihydro 2013a), the Trihydro Work Plan (Trihydro 2012a), and the means and methods used in past ISB injection events at Pantex. This section documents the injection process and reports as-injected volumes and concentrations. Injection activities were implemented between May 14 and July 12, 2013. **Table 1** summarizes the injection start and finish dates at each injection well.

5.1 AMENDMENT DELIVERY AND STORAGE

Similar to previous injection events at Pantex, Newman Zone non-ionic, buffered, bioremediation amendment was injected for this project. This formulation is an aqueous (water-based) solution containing 46% by weight emulsified soybean oil and 4% sodium lactate, with less than 10% surfactants and other food-grade additives. The amendment is a non-hazardous, food-grade substance.

Amendment delivery occurred between May and July 2013, and was noted in daily field logs and logbooks. Twenty-two 5,800-gallon capacity food-grade tankers were used to deliver the bioremediation amendment for this injection event. A total of 123,377 gallons were delivered. The bills of lading and manufacturer's internal quality monitoring forms received from the supplier and delivery service were tracked to ensure that the product received matched the manufacturer's specifications. See **Section 8.2** (Quality Assurance) for additional details on amendment quality assurance.

Two amendment tankers were typically kept onsite at any given time. Depending on the shipping schedule and injection progress, the volume of amendment in the tankers ranged from two empty tankers to two full tankers. When a new tanker arrived, it was staged on the equipment pad, and the driver would remove an empty tanker from the site when applicable. Prior to placing a tanker in service, the field supervisor placed the tanker in a Quality Assurance / Quality Control (QA/QC) hold and flagged with a yellow QA/QC tag. Trihydro then reviewed the associated QA/QC documentation and transportation chain of custody documents to ensure that both the pass-fail acceptance criteria and other evaluation criteria were acceptable. Trihydro's amendment QA/QC review was submitted to the PSTR for confirmation and the tanker was then taken out of QA/QC hold, flagged with a green QA-Accepted tag, and put into service.

5.2 AMENDMENT MIXING AND INJECTION EQUIPMENT

The Pantex-owned mixing and injection equipment consisted of the following major components:

- **Water delivery system**: Treated groundwater from the SEPTS (Building 16-28) was piped directly into the injection trailer, metered, and then stored in three 21,000 gallon frac tanks. The frac tanks were equipped with Low-Low, Low, High, and High-High levels switches to regulate the quantity of water received into the system. The amount of treated groundwater stored in the frac tanks was based on the position of the Low and High level switches; the Low-Low and High-High switches were for redundancy.
- **Amendment delivery system**: Amendment was delivered to the Z11ISB in food-grade tankers and allowed to gravity feed into the injection trailer. Pressuring the amendment tankers with compressed air was intermittently used during this injection event to aid in providing more consistent amendment delivery. Once inside the trailer, suction applied by the SuperDos mixers drew the amendment into the mixing zone. The amendment level in each tanker was physically measured before placing it into service. Additionally, the amendment level in the tanker was gauged daily with a site tube.
- **Mixing system**: This system consisted of a 32-foot insulated trailer equipped with HVAC that houses the controls, pumps, and mixing/injection equipment.

Detailed specifications of these major components are available in the Work Plan (Trihydro 2012a) and Operator's Manual (Trihydro 2013a).

5.3 INJECTION DOCUMENTATION

Injection-related field activities were documented in field log books and field forms (well connections checklists, trailer injection forms, and field injection forms). Collectively, these field forms were designed to record pertinent observations and measurements as specified in the Work Plan and in the project QAPP. At Pantex's request, these forms will be submitted to Pantex as part of project close-out rather than appended to this report. Pertinent data contained in the field notes and forms have been placed in the text, tables, or figures included in this report.

Field forms were used to gather the following data, collected at the frequency shown in parentheses:

- Flow meter totalizer readings, including water supply, pure amendment, mixed amendment, and field meters (twice each shift, and at completion of mixed amendment injection and water flush for each well)
- Mixed amendment and flush volume injection rates (each shift)

- Fluid level, flow rate, and totalizer volume at injection wells during injection (several times per day while on site, with greater measurement frequency obtained during well startup)
- Measurement of amendment tanker fluid levels using the site tube which were converted into volumes (twice each shift)

In addition to recording the above information, Trihydro performed calculations to derive the following parameters for each day's injection:

- Daily injection volumes at each injection well.
- Amendment concentrations at each injection well.
- Quality control calculations to check the above data, including relative percent difference (RPD) values between the following data:
  - Computer vs. mechanical totals for each flow meter in the injection trailer.
  - Totals between redundant meters (e.g., total amendment at FIQ-201 vs. individual amendment meters calculated by summing FIQ-202 through 205).
  - Amendment tanker site-tube gauging vs. flow meter totals.

The above calculations were completed following each shift. When injecting overnight, each day was divided into a day shift (manned operations) and night shift (unmanned operations), hence these calculations would be conducted twice each day if overnight operations occurred. When quality control calculations indicated that RPDs were greater than 10%, Trihydro reconciled the data by checking for data entry errors or duplicating data collection points.

Daily quantities of mixed amendment, pure amendment, flush volume (if applicable), and as-injected amendment concentration were all reported for each active well. In addition, an overall progress summary table was updated on a daily basis. These data were made available to project personnel on a daily basis.

5.4 INJECTION QUANTITIES, CONCENTRATIONS, AND FLUSH VOLUMES

Target injection quantities for mixed amendment and flush volumes were determined based on prior design work and knowledge gained at the site, including:

- The *Design Basis Document* (DBD) (AqSol 2007) dose and volume calculations. Specifically, the DBD defines the dose of pure amendment and volume of fluids to be injected based on saturated thickness.

- Updated understanding of the CSM as described in the AqSol 2010 Annual Monitoring Report (AqSol 2011).
- Saturated thickness from 2013 based on depth to water data collected during the well maintenance program conducted prior to this injection event (Trihydro 2012b).

The injection quantities were determined by using the amendment dosage calculation basis specified in the DBD as a starting point, and then modifying these values in consideration of the results of the modified CSM. The DBD calculation accounts for a uniform amendment dose across the area based on the saturated thickness at each injection well location. As specified in the DBD, this amendment volume and dose target is calculated based on injection of 15% of a pore volume (porosity x saturated thickness x assumed 10,000 square foot area x 0.15), and a 5% amendment concentration. Therefore, delivery of a volume of pure amendment that is equal to, or greater than, this minimum design dose is a key design parameter. The DBD also specifies injection of a volume of fluids at each location based on the saturated thickness of the perched groundwater unit.

Actual injection volumes broken down by pure amendment, mixed amendment, flush water, and total volume are shown on **Table 2**. A total of 1,965,042 gallons of fluids were injected into 32 injection wells over the 2013 Z11ISB injection event. This includes 127,423 gallons of pure amendment (as measured by 200-series flow meters), 1,770,930 gallons of mixed amendment, and 194,112 gallons of flush water. All 32 injection wells in the Z11ISB System received an amendment dose equal to or greater than the target and greater than the DBD minimum dose. All 32 injection wells in the Z11ISB System received the target total volume specified by the DBD. An additional operational parameter that Trihydro tracks is the concentration of mixed amendment (pure amendment divided by total volume of mixed amendment). Amendment concentration is not a design parameter as specified by the DBD. The operational target amendment concentration was met at the majority of the well locations. At the other well locations, the target amendment dose and total volume of fluids were met by injecting a greater volume of mixed amendment at a lower concentration. At these wells, the design objectives were met, and the injection of a lower concentration is not anticipated to reduce the effectiveness of the treatment.

In order to optimize the amendment injection, Trihydro worked with Pantex to evaluate COPC concentrations and groundwater flux (groundwater velocity multiplied by saturated thickness) as described in the CSM developed in the 2010 Annual Monitoring Report for the two ISB Systems (AqSol 2011). A similar optimization procedure was followed in the previous two injection events at the Z11ISB System. The CSM was utilized to identify ISB injection wells located in: a) high groundwater flux zones; and b) high COPC concentration zones. Following that evaluation, a relative ranking was assigned to each ISB injection well for both groundwater flux and COPC concentration. The higher ranking represented higher flux and higher COPC concentration. Since both higher flux and higher COPC

concentration represent important parameters that would dictate potentially faster rates of amendment consumption, the amendment dosage was optimized considering these parameters.

These target dosages were reconciled as the injection event progressed by comparison of the actual amount of amendment used against the estimated remaining volume of amendment. The basis for this calculation was the volume of amendment delivered to the site per the manufacturers shipping information compared to the volume injected based on the mechanical flow meters that measure pure amendment (200-series meters). The 200-series mechanical flow meters were typically observed to indicate volumetric totals of approximately 3% greater than the volume of amendment ordered and received. The amendment amounts remaining were distributed to the wells that had not been injected into as of that time. The target amendment concentrations for the remaining wells were slightly increased to spread injection of additional amendment amounts throughout the remaining wells. Multiplying the amendment concentration by a constant factor preserved the relative weighting scale based on groundwater and COPC flux specified in the CSM (AqSol 2011). The resulting dosages that were applied to each well are presented in **Table 2**.

Injection activities at each well consisted of the injection of mixed amendment, targeted at the concentration calculated as described above, followed by a period of a water-only flush. The water-only flush represented approximately 10% of the target injection volume at each well. By flushing the injected mixed amendment with water, amendment was transported away from the direct vicinity of the well, thereby potentially lessening the degree of biofouling.

5.5 INJECTION RATES

Maximum sustainable injection flow rates at each injection well and the amount of displacement observed in the injection well casing at this flow rate are shown on **Table 3**, with data from the historical injection events shown for reference. At most injection wells, the system was operated at a single flow rate and thus one set of data are presented. At a few locations, the injection team operated the wells at multiple flow rates, thus two sets of data are presented for these locations (e.g., PTX06-ISB057). The flow rate and displacement data indicated that well performance (as determined from specific capacity in gallons per minute [gpm] flow rate divided by ft of displacement in well) in the 2012 injection event was comparable to the well performance in previous injection events. The maximum flow rate ranged from 5 to 38 gallons per minute with an average of 24 gallons per minute. Note that 38 gpm is approaching the maximum design flow rate (40 gpm) that can be injected through the two SuperDos units on each injection leg. The water level mounding observed in the well casing ranged from 87 to 200 feet with an average of 147 feet. **Table 4** shows summary statistics of specific capacity for each injection event conducted to date. Summary statistics in the 2013 injection event were generally similar to previous injection events, though some slight reductions did occur in 2013 relative to 2012.

5.6 MONITORING OF HYDRAULIC RESPONSE DURING INJECTION

A replacement well PTX06-ISB075 was installed in 2012. However, the previously installed PTX06-ISB075 remains in place. These two wells are approximately 18 ft apart based on Pantex survey data. These will be referred to as the "old ISB075" and "new ISB075" in the remainder of this section. The old ISB075 has a deformed PVC casing based on 2012 downhole camera data. However, this well continues to be suitable for injection of bioamendment at this time. Therefore, the old ISB075 was used for injection in the 2013 bioamendment injection event. The new ISB075 was used for monitoring hydraulic response at an adjacent location during injection. These data will help evaluate the degree to which fluid levels increase in the surrounding formation during bioamendment injection. This is referred to as displacement, though sometimes the term "mounding" is used as well. Monitoring of the hydraulic response in the new ISB075 consisted of collection of fluid level data with an In-Situ Inc. LevelTroll pressure transducer.

Observed displacement at the new ISB075 is shown on **Figure 3**. Barometric pressure (converted to ft of water column) is shown for reference because changes in barometric pressure can have influence on water table elevations. The time period shown on **Figure 3** is considered the most representative for this analysis because it included a period of continuous injection at a relatively constant flow rate. After that time, there were periods where no injection was performed due to refueling generator, switching out amendment tankers, shutdown over weekends, etc. During this period, the maximum observed displacement was approximately 0.9 ft. The observed displacement at the new ISB075 was at most 1.2 ft during the course of injections.

Because of the cyclical nature of injection rates that is inherent to injection of bioamendment, Trihydro performed a hypothetical analysis of longer term mounding using the AQTESOLV hydraulic testing software package. The purpose of this analysis was to extrapolate to longer-term injection of fluids to develop a worst-case scenario as far as the amount of mounding that might occur. Based on extrapolating the data during the continuous injection period, approximately 2 ft of mounding would be observed after 10 days of continuous injection.

During the initial period of injection, displacement in the old ISB075 injection casing was approximately 150 ft, which is approximately at the desired operating limit of 100 ft below top of casing. These data along with minimal displacement at the new ISB075 suggest that in general mounding within the formation away from the injection well is minimal during amendment injection.

5.7 INTEGRATION OF ISB INJECTION WITH PUMP TESTS

Aquifer testing was conducted prior to and during the initial portion of amendment injection at the Z11ISB System. Details of the aquifer testing program were documented in Trihydro's Report of Pumping Tests (Trihydro 2013b).

Aquifer testing was conducted at PTX06-1162 and PTX06-1163, which are north, and northwest of the Z11ISB System, respectively. A step test and 72-hour constant-rate pumping test were conducted at both of these locations.

Extracted groundwater was initially pumped into two additional frac tanks (Tanks #4 and #5) used for the pump tests. The extracted groundwater was pumped from these frac tanks through a bag filter, into ISB frac tanks, and ultimately through the injection trailer and into the well field. In the injection trailer, the extracted groundwater was used in the same way as SEPTS water (i.e. amendment added at prescribed ratio with SuperDos mixers).

Groundwater from each of these two extraction wells contained TCE at concentrations greater than the groundwater protection standard (GWPS). Therefore, water from the pump tests was used in the western portion of the Z11ISB System because TCE was already present in groundwater in that portion of the System. The wells that received injection of pump test groundwater during amendment injection at the Z11ISB System, and the approximate volume injected, are listed below.

- PTX06-ISB070: 25,000 gallons
- PTX06-ISB074: 16,000 gallons
- PTX06-ISB083: 23,000 gallons
- PTX06-ISB084: 28,000 gallons
- PTX06-ISB086: 26,000 gallons

6.0 WASTE MANAGEMENT

Liquid and solid wastes were managed according to specifications in the Waste Management Plan (Work Plan Appendix B [Trihydro 2012a]). Limited quantities of wastes were generated due to efficient management and recycling to the extent possible.

Liquid Wastes included residual pure and mixed amendment. These wastes were contained and disposed of in Pantex-provided 55-gallon drums. Amendment wastes were generated during three types of field activities; minor leakage from amendment tanker valves, during routine and other necessary maintenance activities, and during preparation for long-term shut down. **Appendix A** includes a copy of the waste collection tracking forms (form PX-2844). The following summarizes liquid waste quantities generated:

- 6/12/2013, 50 gallons of amendment and rain water
- 6/12/2013, 50 gallons of amendment and rain water
- 6/20/2013, 50 gallons of amendment and rain water
- 6/21/2013, 50 gallons of waste amendment
- 7/13/2013, 3 gallons bailed from new PTX06-ISB075, 45 gallons waste amendment

Disposal of liquid waste associated with the pump tests (i.e. extracted groundwater) is documented in Trihydro's pump test report (Trihydro 2013b).

Solid Wastes included small amounts of packaging and maintenance related trash such as bag filters and PVC fittings. These items are Class 2 (non-hazardous) waste, and Trihydro disposed of these accordingly per the WMP (Trihydro 2012a, Appendix B).

7.0 HEALTH AND SAFETY

The injection event was conducted with no accidents. The original Safe Work Permit was not amended during this work. The following list highlights the notable features of the health and safety program:

- Tailgate health and safety meetings were typically conducted twice per day. Safety calendars were prepared to provide alternative health and safety topics for tailgate safety meetings to avoid redundancy and encourage interaction from the entire crew.
- A discussion of the "plan of the day" was held daily in conjunction with the tailgate meeting to detail the specific allowable activities. The "plan of the day" was designed to make personnel aware that if additional or unanticipated work was required, that the field team should stop and discuss the relevant safety procedures with the Site Safety Officer (SSO).
- Copies of material safety data sheets (MSDSs) were kept available on site.
- A pre-injection safety briefing was completed which included a detailed review of system operation, potential hazards and actions to mitigate and control hazards.
- An on-site training review of injection trailer operational procedures was conducted by the project lead engineer.
- Pantex construction safety conducted periodic safety inspections. There were no activities identified that required improvement.

8.0 QUALITY ASSURANCE

Trihydro's QA procedures included assessment of operations (e.g., flow meter) data collected in both the injection trailer and from the field flow meters and amendment QA verification. Each of these is presented below.

8.1 INJECTION DATA QA

Redundant flow meter totals were compared on a daily basis to ensure accurate injection tracking documentation. Flow meters in the injection trailer generate both mechanical and computer readings. For each flow meter, the mechanical and computer readings were within approximately 1% for both the 100-series (injection makeup water) and 400-series (mixed amendment), as has been observed in past injection events. In the few situations in which the computer or mechanical readings varied by significantly more than this percentage, the mechanical dial readings were double checked, and corrected to reflect potentially misread mechanical readings.

The mechanical and computer data for the 200-series (pure amendment) varied by as much as 50%, as has been observed in the past. FIQ-201 measures the total amendment used, while FIQ-202 through FIQ-205 measure the amendment in the individual legs, and thus the total for FIQ-201 should equal the summed total of FIQ-202 through FIQ-205. As has also been observed in the past the mechanical readings of the 200-series flow meters were reliable, while the computer readings were not. This discrepancy is attributed to the pulsing nature of the amendment flow in the system, and how the computer system integrates flow meter electronic signals. As a result, mechanical meter readings were used to track the daily volumes of amendment injected.

Trailer flow meter totals and field flow meter totals varied by up to +/- 30%, as has been observed in past injection events. Variations in field flow meter data are potentially attributed to the vacuum formed at the field flow meters during injection. The injection system was operated during this injection event by injecting into only one well at a time on each injection leg, as a result trailer flow meters were used to record daily injection volumes at each well.

The total quantity of amendment injected was assessed by comparing the 200-series mechanical flow meter totals over the course of the work to the total weight and average density of the amendment shipped by the production facility. The mechanical flow meter totals for FIQ-201 (all amendment) and the sum of FIQ 202 through FIQ 205 (amendment in individual legs) were within 0.19% of each other over the course of the project. The mechanical 200-series flow totals were 3.3% higher than the volume shipped by the production facility. Similar variations have been observed in past injection events.

8.2 AMENDMENT QA

Amendment QA included examination of the amendment supplier's internal QA and shipping documents. QA documentation was provided to Pantex throughout the project, with complete results attached as **Appendix B**. A summary of the data that were tracked as part of the amendment QA procedures are included as **Table 5**. The amendment supplier provided results of QA testing to document that the product was produced according to their internal specifications and in compliance with the criteria set forth in the QAPP. The QAPP specified a set of pass/fail criteria (QAPP Table 1, including percent fat, percent total solids, and several droplet size parameters) as well as secondary criteria (QAPP Table 2, including pH, coliform, bacterial plate count, yeast, and mold).

Amendment shipping documentation was also QA reviewed and included the truck number, seal numbers, and the net weight of product shipped and received onsite. These were reviewed to ensure that the materials received onsite were the same as those for which analytical testing results had been provided. Following field and office inspection of the provided QA/QC documents, Trihydro submitted the QA/QC approval to Pantex for review and approval prior to injection of each amendment tanker.

All of the tanker deliveries of the 123,377 gallons of amendment delivered had acceptable QA/QC documentation. Four tankers (#5, #6, #9, and #10) had detectable total plate counts and #9 and #10 had detectable concentrations of yeast. These are classified as secondary parameters rather than pass/fail criteria as defined in the QAPP. Trihydro discussed these issues with the PSTR and received concurrence that the contents of these tankers could be used for injection.

9.0 REPORTING

As part of this injection event, a number of reports and other forms of communication were submitted documenting the various elements of the project, including the project status; data collected, data analysis; and data interpretations and conclusions. These consisted of:

- Daily Log Reports/Contractor Daily Construction Logs - The site superintendent provided the PSTR with written contractor daily construction logs, copies of the daily tailgate safety meeting forms, and daily equipment inspection checklists during the project. The site superintendent also provided the project team with daily reports of work activities including a summary of work activities, injection volumes, and overall progress status information; these were conveyed to Pantex via Trihydro's Project Direct software system.
- Weekly Verbal Reports - The B&W Project Manager and PSTR were provided with a verbal status report on a weekly basis. These reports were presented by the Trihydro Project Manager and discussed the progress of the work performed the previous week.
- Monthly Reports - Monthly reports were submitted that included a project management review of scope, schedule and budget. A revised project schedule was submitted with the monthly report showing the schedule with completed and forecasted activities.

10.0 LESSONS LEARNED

This section presents lessons learned during the execution of this injection event.

10.1 GENERATOR SIZING

Trihydro used a portable generator to supply power to the injection trailer as described in Section 2. A 80 kVA or larger generator is required to power all the equipment in the injection trailer. Electricity demands include the 480 V / 3-phase pumps, but also the equipment on the 120/240 V circuits, including air conditioning, heating, PLC, and office equipment.

10.2 ISOLATING LEAK DETECTION SYSTEM FROM RAINWATER

One morning Trihydro arrived to find that the leak detection system had been tripped during evening hours. The leak detection system had shut down the pumps and injection legs, as intended. However, upon close inspection of the inside of the trailer it appeared that rainwater had entered the trailer from one or more of the four ports where the injection legs exit the trailer. The previous evening, there had been a rainstorm with very high winds.

The lesson learned was that false-positive trips of the leak detection system can cause losses in injection productivity. The corrective action employed was to add additional spray-on, closed-cell insulation around the ports where the injection legs exit the trailer. This insulation appeared to have created a barrier to rainwater entering the trailer. No other false-positive trips of the leak detection system were observed during this injection event.

10.3 AMENDMENT CONCENTRATION

While the design basis for amendment dosage is based on the total amount of amendment injected, the concentration of mixed amendment is an operational parameter that Trihydro tracks during injection. The operational target concentration at each injection well is calculated by dividing the target pure amendment dose by the volume of mixed amendment. At some injection wells, the mixed amendment concentration that was injected was lower than the operational target. In these situations, Trihydro injected a greater volume of mixed amendment so that the target pure amendment dose was met. Through these corrections, Trihydro met the design objectives at each well location with respect to pure amendment dose and total volume of fluids injected.

Trihydro performed several modifications during the injection event to attempt to increase the as-injected concentration of amendment to a value closer to the operational target. These included replacement of wear parts on the SuperDos mixers, checking for leaks in the amendment feed lines, cleaning check valves, and application of pressurized air to the

amendment tankers. These modifications did not eliminate the occurrence of injection of a concentration of mixed amendment that was lower than the operational targets.

The observation that as-injected amendment concentrations are lower than operational targets is consistent with previous injection events at Z11ISB and at SEISB. In addition, the system maintenance described above (replacement of SuperDos lower bodies, replacement of o-rings, cleaning check valves etc.) has also been performed prior to or during other recent injection events. Those previous maintenance activities did not result in increases in as-injected concentrations, similar to the observation in this injection event.

Moving forward, Trihydro proposes to increase the pipe size in the amendment distribution piping inside the injection trailer. The rationale supporting this modification was presented to Pantex in Trihydro's letter to Chad McGarry (PSTR) on March 29, 2013 (Trihydro 2013c), and is briefly summarized here. Amendment flows through the injection trailer both due to pressure head from the amendment storage tankers and by suction applied by the SuperDos units. Based on the observed variations in concentration, Trihydro believes that increasing the pipe size from 1-inch to 2-inch will result in more consistent distribution through each of the distribution legs. Based on Trihydro's calculation, increasing the pipe size is anticipated to reduce friction losses by approximately a factor of 30. The existing 1-inch flow meters will be kept in place.

11.0 REFERENCES

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Post Injection Report – Zone 11 ISB System, Trihydro Corporation, December 6, 2012 (Trihydro 2012c).

Operator's Manual – Southeast and Zone 11 ISB Systems, Trihydro Corporation, April 30, 2013 (Trihydro 2013a).

Report of Pumping Tests Performed at Two Locations South of Zone 11, Trihydro Corporation, July 12, 2013 (Trihydro 2013b).

Transmittal of Construction Estimate: ISB Injection Trailer Improvements, Letter from Dan Gravelding (Trihydro) to Chad McGarry (Pantex), March 29, 2013 (Trihydro 2013c).

TABLES

TABLE 1. INJECTION START AND FINISH DATES
POST INJECTION REPORT - ZONE 11 ISB SYSTEM
PANTEX ISB O&M, PO 5293

Well ID	Date Started	Date Completed
PTX06-ISB055	7/9/2013	7/12/2013
PTX06-ISB056A	6/29/2013	7/8/2013
PTX06-ISB057	6/26/2013	6/29/2013
PTX06-ISB058	6/20/2013	6/26/2013
PTX06-ISB059	7/1/2013	7/9/2013
PTX06-ISB060A	6/27/2013	7/1/2013
PTX06-ISB061	6/20/2013	6/26/2013
PTX06-ISB062	5/21/2013	5/24/2013
PTX06-ISB063	7/2/2013	7/8/2013
PTX06-ISB064	7/9/2013	7/12/2013
PTX06-ISB065	6/13/2013	6/20/2013
PTX06-ISB066	6/10/2013	6/13/2013
PTX06-ISB067	5/31/2013	6/3/2013
PTX06-ISB068	5/29/2013	5/30/2013
PTX06-ISB069A	5/22/2013	5/31/2013
PTX06-ISB070	5/15/2013	5/21/2013
PTX06-ISB071	7/2/2013	7/11/2013
PTX06-ISB072	5/28/2013	6/10/2013
PTX06-ISB073	6/11/2013	6/18/2013
PTX06-ISB074	5/19/2013	5/29/2013
PTX06-ISB075	6/11/2013	6/20/2013
PTX06-ISB076A	6/21/2013	6/27/2013
PTX06-ISB077	6/28/2013	7/1/2013
PTX06-ISB078	6/13/2013	6/17/2013
PTX06-ISB079	6/7/2013	6/12/2013
PTX06-ISB080	5/31/2013	6/3/2013
PTX06-ISB081	5/28/2013	5/30/2013
PTX06-ISB082	6/18/2013	7/1/2013
PTX06-ISB083	5/14/2013	5/18/2013
PTX06-ISB084	5/18/2013	5/21/2013
PTX06-ISB085A	5/22/2013	5/24/2013
PTX06-ISB086	5/14/2013	5/17/2013

TABLE 2. TARGET AND ACTUAL INJECTION VOLUMES
POST INJECTION REPORT - ZONE 11 ISB SYSTEM
PANTEX ISB O&M, PO 5293

	Pure Amendment (gal)			Mixed Amendment (gal)		Flush Water (gal)		Total Volume (gal)		Amendment Concentration (%)	
Well ID	***2008 DBD Specification***	***Design Target***	**Actual**	***Operational Target***	**Actual**	***Operational Target***	**Actual**	***Design Target***	**Actual**	***Operational Target***	**Actual**
PTX06-ISB055	*3,474*	*4,805*	5,328	*61,906*	61,994	*6,878*	6,887	*68,784*	68,881	*7.8%*	8.6%
PTX06-ISB056A	*3,752*	*5,190*	5,459	*66,856*	69,848	*7,428*	7,527	*74,284*	77,375	*7.8%*	7.8%
PTX06-ISB057	*3,369*	*4,431*	4,660	*60,043*	60,688	*6,671*	6,677	*66,714*	67,365	*7.4%*	7.7%
PTX06-ISB058	*3,339*	*4,106*	4,319	*59,507*	59,072	*6,612*	7,046	*66,118*	66,118	*6.9%*	7.3%
PTX06-ISB059	*3,357*	*4,127*	4,341	*59,819*	59,822	*6,647*	6,542	*66,465*	66,364	*6.9%*	7.3%
PTX06-ISB060A	*2,812*	*3,458*	3,639	*50,118*	50,546	*5,569*	5,567	*55,687*	56,113	*6.9%*	7.2%
PTX06-ISB061	*3,117*	*3,833*	4,032	*55,553*	55,594	*6,173*	6,173	*61,726*	61,767	*6.9%*	7.3%
PTX06-ISB062	*2,924*	*2,996*	2,996	*52,106*	52,295	*5,790*	5,790	*57,895*	58,085	*5.7%*	5.7%
PTX06-ISB063	*2,809*	*2,878*	3,027	*50,049*	50,193	*5,561*	5,437	*55,610*	55,630	*5.7%*	6.0%
PTX06-ISB064	*3,255*	*3,335*	3,712	*58,007*	58,126	*6,445*	6,362	*64,452*	64,488	*5.7%*	6.4%
PTX06-ISB065	*2,407*	*2,672*	2,752	*42,893*	42,998	*4,766*	4,776	*47,659*	47,774	*6.2%*	6.4%
PTX06-ISB066	*2,448*	*2,717*	2,947	*43,623*	48,182	*4,847*	4,749	*48,470*	52,931	*6.2%*	6.1%
PTX06-ISB067	*2,391*	*2,655*	2,677	*42,615*	43,654	*4,735*	4,758	*47,350*	48,412	*6.2%*	6.1%
PTX06-ISB068	*2,622*	*2,911*	2,911	*46,725*	46,856	*5,192*	5,203	*51,917*	52,059	*6.2%*	6.2%
PTX06-ISB069A	*2,533*	*2,812*	2,897	*45,138*	45,964	*5,015*	5,018	*50,153*	50,982	*6.2%*	6.3%
PTX06-ISB070	*2,431*	*3,196*	3,209	*43,317*	43,328	*4,813*	4,820	*48,130*	48,148	*7.4%*	7.4%
PTX06-ISB071	*2,764*	*3,824*	4,023	*49,258*	49,267	*5,473*	5,473	*54,731*	54,740	*7.8%*	8.2%
PTX06-ISB072	*3,162*	*4,374*	4,428	*56,347*	56,743	*6,261*	5,995	*62,608*	62,738	*7.8%*	7.8%
PTX06-ISB073	*3,145*	*4,350*	4,350	*56,041*	56,063	*6,227*	6,236	*62,268*	62,299	*7.8%*	7.8%
PTX06-ISB074	*3,424*	*4,737*	4,740	*61,021*	61,324	*6,780*	6,887	*67,801*	68,211	*7.8%*	7.7%
PTX06-ISB075	*2,769*	*3,641*	3,750	*49,340*	49,340	*5,482*	5,487	*54,822*	54,827	*7.4%*	7.6%
PTX06-ISB076A	*3,039*	*3,997*	4,204	*54,163*	54,171	*6,018*	6,027	*60,181*	60,198	*7.4%*	7.8%
PTX06-ISB077	*2,788*	*3,666*	3,863	*49,682*	50,232	*5,520*	5,340	*55,202*	55,572	*7.4%*	7.7%
PTX06-ISB078	*4,178*	*5,138*	5,292	*74,460*	74,482	*8,273*	8,280	*82,733*	82,762	*6.9%*	7.1%
PTX06-ISB079	*4,849*	*5,962*	6,128	*86,405*	86,658	*9,601*	9,354	*96,005*	96,012	*6.9%*	7.1%
PTX06-ISB080	*4,156*	*5,110*	5,199	*74,060*	74,691	*8,229*	8,234	*82,289*	82,925	*6.9%*	7.0%
PTX06-ISB081	*3,908*	*4,805*	4,810	*69,637*	71,259	*7,737*	7,742	*77,374*	79,001	*6.9%*	6.8%
PTX06-ISB082	*3,502*	*4,605*	4,811	*62,406*	63,015	*6,934*	6,326	*69,340*	69,341	*7.4%*	7.6%
PTX06-ISB083	*2,390*	*3,143*	3,143	*42,587*	42,645	*4,732*	4,756	*47,319*	47,401	*7.4%*	7.4%
PTX06-ISB084	*2,571*	*3,556*	3,556	*45,811*	47,142	*5,090*	5,275	*50,901*	52,417	*7.8%*	7.5%
PTX06-ISB085A	*2,237*	*2,942*	2,941	*39,867*	40,237	*4,430*	4,430	*44,297*	44,667	*7.4%*	7.3%
PTX06-ISB086	*2,494*	*3,279*	3,279	*44,438*	44,501	*4,938*	4,938	*49,376*	49,439	*7.4%*	7.4%
TOTAL	***98,417***	***123,250***	**127,423**	***1,753,795***	**1,770,930**	***194,866***	**194,112**	***1,948,662***	**1,965,042**		

Note: Targets shown in italics, actual injected volumes in plain text. Amendment concentration calculated by dividing the volume of pure amendment by the volume of mixed amendment.

TABLE 3. INJECTION WELL PERFORMANCE DATA
POST INJECTION REPORT - ZONE 11 ISB SYSTEM
PANTEX ISB O&M, CONTRACT 5293

	2009 Injection Data			2010 Injection Data			2011 Injection Data			2012 Injection Data			2013 Injection Data						
Well ID	Flow Rate (gpm)	Displace. Observed (ft)	*Specific Capacity (gpm/ft)*	Flow Rate (gpm)	Displace. Observed (ft)	*Specific Capacity (gpm/ft)*	Flow Rate (gpm)	Displac. Observed (ft)	*Specific Capacity (gpm/ft)*	Flow Rate (gpm)	Displac. Observed (ft)	*Specific Capacity (gpm/ft)*	Flow Rate (gpm)	Displac. Observed (ft)	*Specific Capacity (gpm/ft)*	Flow Rate (gpm)	Displac. Observed (ft)	*Specific Capacity (gpm/ft)*	*Average Specific Capacity (gpm/ft)*
PTX06-ISB055	32	107	*0.30*	38	111	*0.34*	32	70	*0.46*	19	88	*0.22*	26	134	*0.19*				*0.19*
PTX06-ISB056A	31	82	*0.38*	35	131	*0.27*	30	134	*0.22*	30	134	*0.22*	15	158	*0.09*				*0.09*
PTX06-ISB057*	32	197	*0.16*	35	165	*0.21*	13.5	168	*0.08*	38	115	*0.33*	15	180	*0.08*	20	198	*0.10*	*0.09*
PTX06-ISB058	37	78	*0.47*	28	135	*0.21*	20	129	*0.16*	25	140	*0.18*	27	172	*0.16*				*0.16*
PTX06-ISB059	37	82	*0.45*	36	>30	*NA*	21	120	*0.18*	19	140	*0.14*	23	160	*0.14*				*0.14*
PTX06-ISB060A	35	198	*0.18*	38	155	*0.25*	20	143	*0.14*	11	171	*0.06*	12	200	*0.06*				*0.06*
PTX06-ISB061	32	202	*0.16*	16	199	*0.08*	15	153	*0.10*	33	202	*0.16*	20	173	*0.12*				*0.12*
PTX06-ISB062	31	198	*0.16*	44	77	*0.57*	34	70	*0.49*	35	108	*0.32*	31	149	*0.21*				*0.21*
PTX06-ISB063	32	201	*0.16*	31	94	*0.33*	31	143	*0.22*	20	117	*0.17*	25	110	*0.23*				*0.23*
PTX06-ISB064	34	115	*0.30*	38	99	*0.38*	18	118.5	*0.15*	20	141	*0.14*	30	150	*0.20*				*0.20*
PTX06-ISB065	34	199	*0.17*	38	124	*0.31*	34	157	*0.22*	30	170	*0.18*	25	161	*0.16*				*0.16*
PTX06-ISB066	7	204	*0.03*	25	204	*0.12*	33	NA	*NA*	30	NA	*NA*	35	102	*0.34*				*0.34*
PTX06-ISB067	15	150	*0.10*	32	173	*0.19*	21	185	*0.11*	20	150	*0.13*	22	174	*0.13*	26	184	*0.14*	*0.13*
PTX06-ISB068	34	137	*0.25*	30	117	*0.26*	17.5	64	*0.27*	25	109	*0.23*	31	154	*0.20*				*0.20*
PTX06-ISB069A	31	204	*0.15*	25	>45	*NA*	31	115	*0.27*	30	32	*0.93*	16	119	*0.13*	26	119	*0.22*	*0.18*
PTX06-ISB070	28	125	*0.22*	38	<200	*NA*	18	106	*0.17*	33	116	*0.28*	20	145	*0.14*				*0.14*
PTX06-ISB071	25	190	*0.13*	38	181	*0.21*	31	191	*0.16*	21	147	*0.14*	26	185	*0.14*				*0.14*
PTX06-ISB072	13	216	*0.06*	34	>104	*NA*	20	70	*0.29*	23	172	*0.13*	10	171	*0.06*	14	187	*0.07*	*0.07*
PTX06-ISB073*	22	194	*0.11*	38	167	*0.23*	18	214	*0.08*	32	175	*0.18*	30	165	*0.18*				*0.18*
PTX06-ISB074	15	180	*0.08*	32	210	*0.15*	20	159	*0.13*	21	172	*0.12*	11	190	*0.06*				*0.06*
PTX06-ISB075	10	207	*0.05*	38	158	*0.24*	30	195	*0.15*	33	42	*0.79*	16	161	*0.10*				*0.10*
PTX06-ISB076A	17	199	*0.09*	36	>78	*NA*	34.5	206	*0.17*	31	176	*0.18*	24	153	*0.16*				*0.16*
PTX06-ISB077	16	117	*0.14*	24	158	*0.15*	25	188	*0.13*	17	205	*0.08*	15	183	*0.08*				*0.08*
PTX06-ISB078	35	39	*0.90*	40	75	*0.53*	39	96	*0.41*	30	86	*0.35*	32	109	*0.29*				*0.29*
PTX06-ISB079	36	163	*0.22*	40	81	*0.49*	35	72	*0.49*	38	92	*0.41*	36	107	*0.34*				*0.34*
PTX06-ISB080	34	159	*0.21*	40	74	*0.54*	36	67	*0.54*	38	86	*0.44*	38	101	*0.38*				*0.38*
PTX06-ISB081	36	43	*0.84*	45	>33	*NA*	38	22	*1.73*	52	101	*0.51*	38	87	*0.44*				*0.44*
PTX06-ISB082	30	161	*0.19*	36	135	*0.27*	38	163	*0.23*	17	160	*0.11*	5	138	*0.04*	12	153	*0.08*	*0.06*
PTX06-ISB083	36	148	*0.24*	29	75	*0.39*	33	59	*0.56*	32	68	*0.47*	24	93	*0.26*				*0.26*
PTX06-ISB084	27	183	*0.15*	33	41	*0.81*	31	22	*1.41*	31	148	*0.21*	33	158	*0.21*				*0.21*
PTX06-ISB085A	31	181	*0.17*	29	61	*0.47*	31	45	*0.69*	29	52	*0.56*	31	193	*0.16*				*0.16*
PTX06-ISB086	27	181	*0.15*	35	56	*0.62*	30	47	*0.64*	34	80	*0.42*	36	87	*0.41*				*0.41*

Notes:

Well Capacity calculated by dividing steady-state flow rate by mounding observed. In some cases steady-state flow was measured at more than one flow rate.

When one flow rate was used, other cells are blank. Average well performance calculated from multiple data pairs by taking average of well performance calculated from each data pair.

* = the original wells were replaced in 2011 so specific capacity data may not comparable from year to year.

NA = not applicable (i.e. because mounding data did not produce conclusive depth (e.g. >33 ft), or because of packer used at ISB066 in 2011 and 2012).

TABLE 4. INJECTION WELL SPECIFIC CAPACITY OVER TIME
POST INJECTION REPORT - ZONE 11 ISB SYSTEM
PANTEX ISB O&M, PO 5293

Summary Statistic	2009	2010	2011	2012	2013
Minimum	0.034	0.081	0.080	0.062	0.057
Q1	0.14	0.21	0.15	0.14	0.11
Median	0.17	0.27	0.22	0.21	0.16
Q3	0.24	0.45	0.47	0.38	0.21
Maximum	0.90	0.81	1.73	0.93	0.44

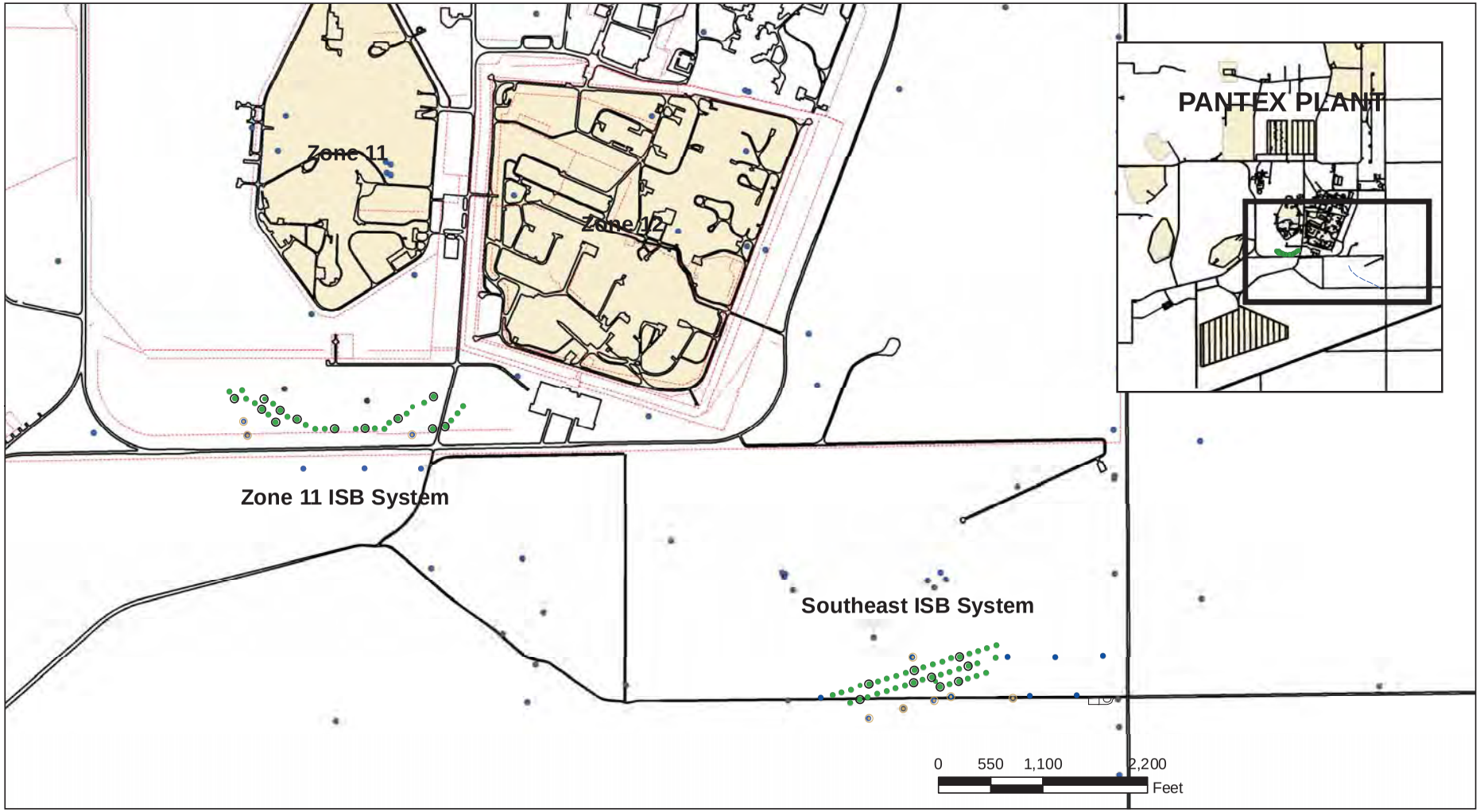
Notes:
Tabulated data show specific capacity (gpm/ft of displacement) from each injection event.
Q1 = 25th percentile, Q3 = 75th percentile

TABLE 5. AMENDMENT SHIPPING AND QUALITY ASSURANCE SUMMARY
POST INJECTION REPORT - ZONE 11 ISB SYSTEM
PANTEX ISB O&M, PO 5293

Tanker Number	Agmark Container Number	Seal Numbers	Date Delivered	Lot Number	Mass Delivered (lbs)	Volume Delivered (gal)	Supplier Laboratory Testing (pass/fail)	Secondary Parameters (in/out of range)	Truck Number	Notes and Initials of Field Personnel
(internal tracking)	(printed on tanker)	(printed on seals)		(printed on bill of lading)	(per scales at production facility)	(calculated from mass delivered)	(QAPP Table 1)	(QAPP Table 2)	(from delivery receipt)	
1	580413	0060152, 0060153, 0060154	5/7/2013	145733	46,020	5,578	Pass	In Range	172308	JRS
2	580089	0060155, 0060156, 0060157	5/7/2013	145733	46,260	5,607	Pass	In Range	N2140	JRS
3	580719	0060186, 0060187, 0060188	5/17/2013	157024	45,980	5,573	Pass	In Range	NDS2324	EGG
4	580466	0060189, 0060190, 0062364	5/20/2013	157024	46,080	5,585	Pass	In Range	NDS2324	JRS
5	580051	0064865, 0064866, 0064867	5/22/2013	158348	45,900	5,564	Pass	Out of Range 2	N2333	JRS
6	580483	0064860, 00646861, 0064862	5/28/2013	158348	46,220	5,602	Pass	Out of Range 2	N2308	FJK
7	580085	0062631, 0062362, 0062363	5/29/2013	157024	46,140	5,593	Pass	In Range	NDS2324	FJK
8	580382	0060196, 0060197, 0060198 3	5/31/2013	157024	46,060	5,583	Pass	In Range	N2308	FJK
9	580720	0064968, 064969, 064990	6/7/2013	158749	46,020	5,578	Pass	Out of Range 2	NDS2324	FJK
10	580355	0064991, 064992, 064993	6/7/2013	158749	46,320	5,615	Pass	Out of Range 2	NDS2324	FJK
11	580076	0060245, 0060246, 0060247	6/12/2013	159394	46,280	5,610	Pass	In Range	N22308	EGG
12	580457	0060242, 0060243, 0060244	6/13/2013	159394	46,240	5,605	Pass	In Range	NDS2324	EGG
13	580548	0060664, 0060665, 0060666	6/18/2013	159394	46,200	5,600	Pass	In Range	112308	TK
14	580572	0060667, 0060668, 0060669	6/18/2013	159394	46,640	5,653	Pass	In Range	N2308	CGR
15	580325	0060343, 0060344, 0060345	6/24/2013	159591	46,980	5,695	Pass	In Range	N2324	JRS
16	580615	0060346, 0060347, 0060679	6/26/2013	159855	46,240	5,605	Pass	In Range	N2324	JRS
17	580602	0060338, 0060339, 0060340	6/26/2013	159591	46,260	5,607	Pass	In Range	N2141	JRS
18	580400-1 1	0060349, 0060348, 0060350	6/28/2013	159855	46,200	5,600	Pass	In Range	N2324	FJK
19	580433	0060253, 0060254, 0060255	6/28/2013	159855	46,260	5,607	Pass	In Range	N2141	FJK
20	580443	0060257, 0060258, 0060265	7/1/2013	159855	46,220	5,602	Pass	In Range	N2324	FJK
21	580040	0060359, 0060680, 0060681	7/3/2013	160124	46,600	5,648	Pass	In Range	N2324	FJK
22	580032	0060682, 0060683, 0060684	7/8/2013	160124	46,740	5,665	Pass	In Range	N2324	JRS
			Total Received On-Site		**1,017,860**	**123,377**				

Note: Documentation of testing and shipping documents submitted with each amendment tanker/tote QA submittal and approved by Pantex prior to use. Another copy of these documents will be provided to Pantex during project close-out.

FIGURES



EXPLANATION

- ISB Injection Wells
- Pantex Monitoring Wells
- ISPM Wells
- Sampled Injection Wells
- Fences
- Roads
- Pantex Plant Zones

N

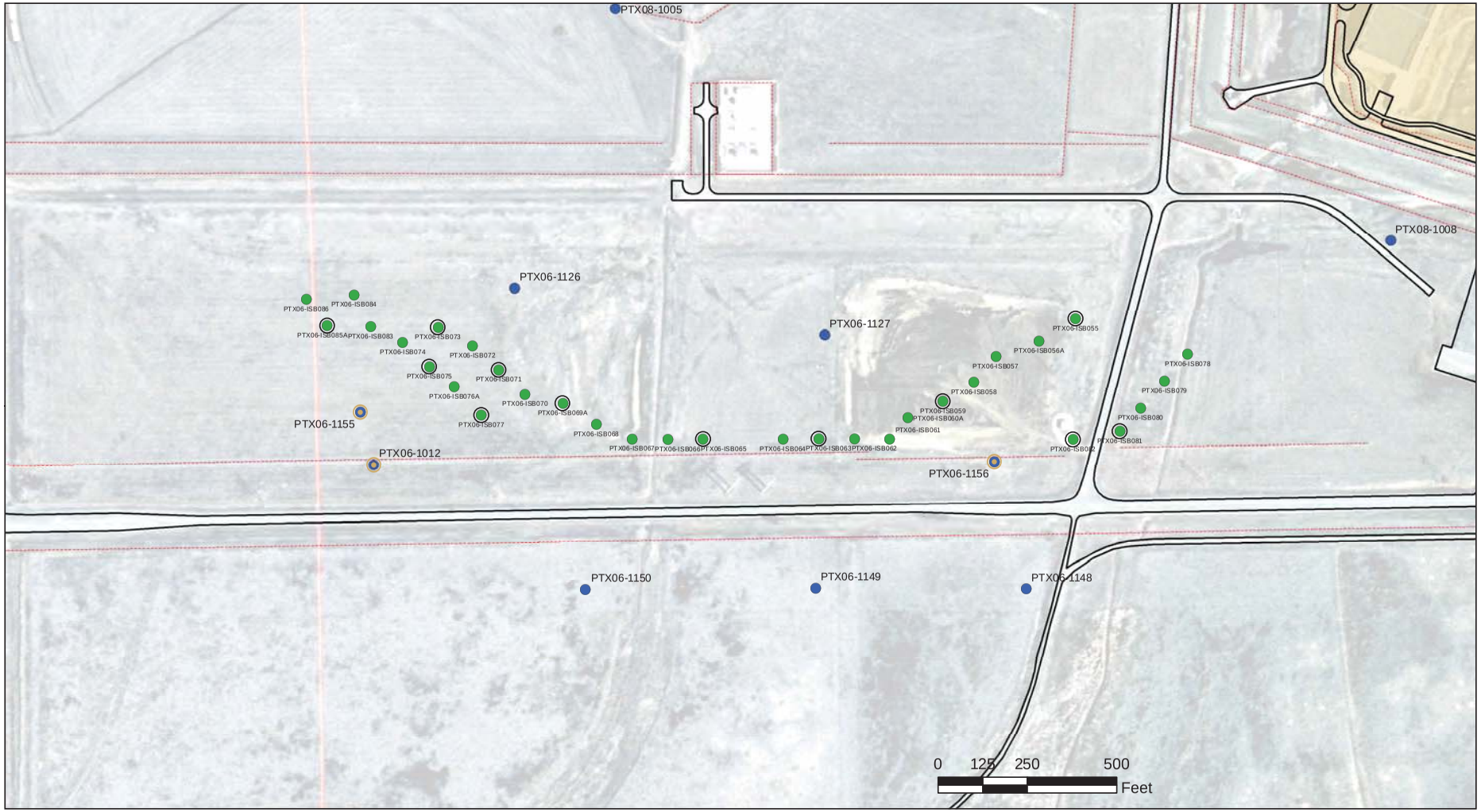
Trihydro
1252 Commerce Drive
Laramie, WY 82070
www.trihydro.com
(P) 307/745.7474 (F) 307/745.7729

FIGURE 1

PANTEX PLANT OVERVIEW

B&W PANTEX
IN-SITU BIOREMEDIATION O&M
PANTEX PLANT, AMARILLO, TEXAS

Drawn By: SJS	Checked By: FJK	Scale: 1" = 1,000'	Date: 09/05/12	File: Fig1_ISB_Layout.mxd



EXPLANATION

- ISB Injection Wells
- Pantex Monitoring Wells
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N

Trihydro Corporation
1252 Commerce Drive
Laramie, WY 82070
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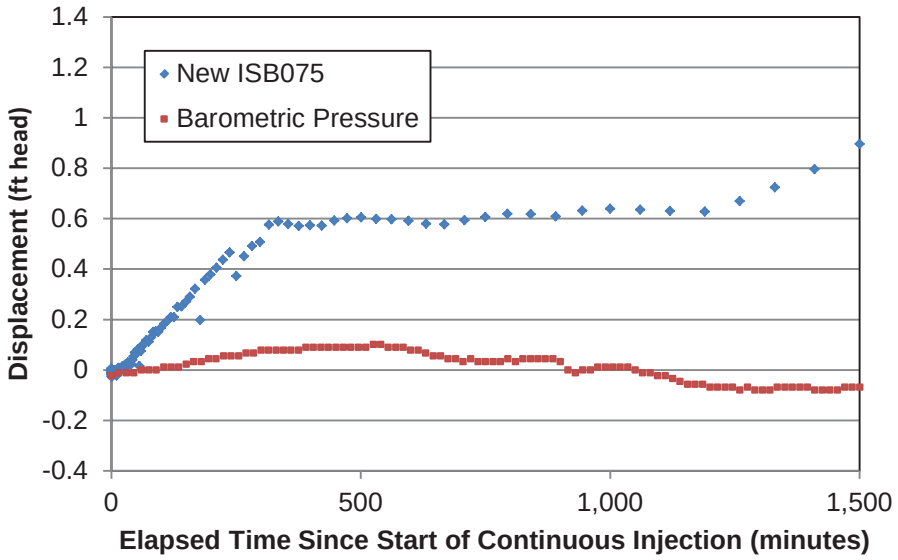
FIGURE 2

ZONE 11 ISB SYSTEM

B&W PANTEX
IN-SITU BIOREMEDIATION O&M
PANTEX PLANT, AMARILLO, TEXAS

Drawn By: SJS	Checked By: FJK	Scale: 1" = 250'	Date: 09/05/12	File: Fig2_Z11_ISBLayout.mxd

FIGURE 3. DISPLACEMENT OBSERVED AT NEW ISB075 AND BAROMETRIC PRESSURE



Note: During the time period shown above, mixed amendment was being injected at the old ISB075 at flow rates of approximately 20 gpm. The new and old ISB075 are located 18 ft apart. Displacement (i.e. fluid elevation increase) in the injection well was as great as 150 ft during the time period shown above.

APPENDIX A

WASTE TRACKING FORMS

INVENTORY OF CONTAINER AT WASTE ACCUMULATION SITE

(Ref. WI 02.01.04.05.04, WI 02.01.04.05, WI 02.01.04.06, WI 02.01.04.07)

To have the container removed after container is full or when accumulation of waste has ended:
Plant personnel contact Waste Operations Department (WOD) at ext. 5449 and
fax completed form to fax ext. 7669.
Sub-Contractor personnel contact WOD Point of Contact at ext. 5534 and
fax completed form to ext. 6384
A copy of this form should accompany the container when picked up by WOD.

Complete the following:

Drum ID # 2013051298	Date Accumulation Started 5/7/2013
Container Type 55 gal poly drum	Date Accumulation Ended 6/12/2013
Phone # 303-570-9930	Location Zone 11 South Well Field
Mail Drop	Contact Ed Gorove

DATE	WASTE DESCRIPTION	35 ACCOUNT OR MSDS #	BADGE #
5/7/2013 - 6/12/2013	AMENDMENT AND RAIN WATER UP TO 50 GALLONS		64823

INVENTORY OF CONTAINER AT WASTE ACCUMULATION SITE

(Ref. WI 02.01.04.05.04, WI 02.01.04.05, WI 02.01.04.06, WI 02.01.04.07)

To have the container removed after container is full or when accumulation of waste has ended:
Plant personnel contact Waste Operations Department (WOD) at ext. 5449 and
fax completed form to fax ext. 7669.
Sub-Contractor personnel contact WOD Point of Contact at ext. 5534 and
fax completed form to ext. 6384
A copy of this form should accompany the container when picked up by WOD.

Complete the following:

Drum ID # 2013051299	Date Accumulation Started 5/7/2013
Container Type 55 gal poly drum	Date Accumulation Ended 6/12/2013
Phone # 303-570-9930	Location Zone 11 South Well Field
Mail Drop	Contact Ed Gorove

DATE	WASTE DESCRIPTION	35 ACCOUNT OR MSDS #	BADGE #
5/7/2013 - 6/12/2013	AMENDMENT AND RAIN WATER UP TO 50 GALLONS		64823

INVENTORY OF CONTAINER AT WASTE ACCUMULATION SITE

(Ref. WI 02.01.04.05.04, WI 02.01.04.05, WI 02.01.04.06, WI 02.01.04.07)

To have the container removed after container is full or when accumulation of waste has ended:
Plant personnel contact Waste Operations Department (WOD) at ext. 5449 and
fax completed form to fax ext. 7669.
Sub-Contractor personnel contact WOD Point of Contact at ext. 5534 and
fax completed form to ext. 6384
A copy of this form should accompany the container when picked up by WOD.

Complete the following:

Drum ID # 2013051489	Date Accumulation Started 6/13/2013
Container Type 55 gal poly drum	Date Accumulation Ended 6/20/2013
Phone # 303-570-9930	Location Zone 11 South Well Field
Mail Drop	Contact Ed Gorove

DATE	WASTE DESCRIPTION	35 ACCOUNT OR MSDS #	BADGE #
6/13/2013 - 6/20/2013	AMENDMENT AND RAIN WATER UP TO 50 GALLONS		64823

Inventory Of Container At Waste Accumulation Site

(Reference WI 02.01.04.05.04, WI 02.01.04.05.05, WI 02.01.04.05.06, WI 02.01.04.05.07)

To have the container removed after container is full or when accumulation of waste has ended:
Plant personnel contact Waste Operations Department (WOD) at ext. 5449 and
fax completed form to fax ext. 7669.
Sub-Contractor personnel contact WOD Point of Contact at ext. 5534 and
fax completed form to ext. 6384
A copy of this form should accompany the container when picked up by WOD.

Complete the following:

Drum ID # 2013061490	Date Accumulation Started 6-20-2013
Container Type 55-gallon drum	Date Accumulation Ended 6-21-2013
Phone # 303-570-9930	Location Zone 11 South ISB Injection Pad
Mail Drop n/a	Contact Ed Gorove/Sarah Seitz

DATE	WASTE DESCRIPTION	35 ACCOUNT # OR MSDS # OR PEELABLE BARCODE #	BADGE #
6-20-2013	**25 gal waste amendment**		**64873**
6-21-2013	**25 gal waste amendment**		**64873**

Inventory Of Container At Waste Accumulation Site

(Reference WI 02.01.04.05.04, WI 02.01.04.05.05, WI 02.01.04.05.06, WI 02.01.04.05.07)

To have the container removed after container is full or when accumulation of waste has ended:
Plant personnel contact Waste Operations Department (WOD) at ext. 5449 and
fax completed form to fax ext. 7669.
Sub-Contractor personnel contact WOD Point of Contact at ext. 5534 and
fax completed form to ext. 6384
A copy of this form should accompany the container when picked up by WOD.

Complete the following:

Drum ID # 2013061588	Date Accumulation Started 7-8-2013
Container Type 55-gallon drum	Date Accumulation Ended 7-12-2013
Phone # 303-570-9930	Location Zone 11 South ISB Injection Pad
Mail Drop n/a	Contact Ed Gorove/Sarah Seitz

DATE	WASTE DESCRIPTION	35 ACCOUNT # OR MSDS # OR PEELABLE BARCODE #	BADGE #
7-8-2013	**Bailed water from ISB075 – 3 gallons**		**64143**
7-12-2013	**45 gallons waste amendment**		**64143**

APPENDIX B

AMENDMENT QA CHECKLIST AND DOCUMENTATION

AMENDMENT SUPPLY QUALITY ASSURANCE CHECKLIST
ISB O&M

Field Inspection										
TANKER #	AGMARK CONTAINER #	SEAL #s (from bill of lading)	DATE DELIVERED	LOT # (from lading)	MASS DELIVERED (lbs)	MASS DELIVERED (gals)	SUPPLIER LABORATORY TESTING (pass/fail)	Secondary Parmeters (in/out[2] of range)	TRUCK ID # (from Delivery Receipt)	Notes and Initials of Field Personnel
1	580413	0060152, 0060153, 0060154	5/7/2013	145733	46,020	5,578	Pass	In Range	172308	JRS
2	580089	0060155, 0060156, 0060157	5/7/2013	145733	46,260	5,607	Pass	In Range	N2140	JRS

Notes: This QA audit was performed by evaluating the suppliers internal QA data, the shippers bill of lading, and the shipping company's delivery receipt received by Trihydro in the field. All of these supporting documents are attached. The QA checks included review that the supplier's product met their internal standards (Supplier Laboratory Testing column), review that the truck number from the supplier matched that of the shipper's delivery receipt (Truck ID # column), and that the mass of amendment loaded out equaled that ordered.

[1]Detect above detection limit, but within acceptable range.

[2]Out of range discuss with PSTR

	name	signature	date
Reviewer	S. Seitz		2013May10
Project Manager	D. Gravelding		2013May10

RNAS
REMEDIATION & NATURAL ATTENUATION SERVICES, INC.

Innovative Remediation Products and Services

Lot Number:	157023	**Truck Numbers:**	580413
Date Processed:	4/29/02013	**Date of Load Out:**	4/30/2013
Formulation:	190-6730	**Net Emulsion Weight:**	46,020

AMENDMENT PASS/FAIL CRITERIA

Test Parameter	Specification	Results	Method
Total Fat % weight	44.00-48.00%	47.89%	Mojonnier
Total Solids % weight	52.50-56.50%	54.44%	Mojonnier
Droplet Size	99.9% Droplets Smaller than 1.0 microns	99.9% less than 0.669 microns	Laser Particle Size
Droplet Size	99.9% Droplets Larger than 0.10 microns	99.9% larger than 0.131 microns	Laser Particle Size
Mean Droplet Size	0.20-0.40 microns	0.3320	Laser Particle Size
Median Droplet Size	0.20-0.40 microns	0.3270	Laser Particle Size

SECONDARY AMENDMENT PARAMETERS

Test Parameter	Specification	Results	Method
pH	7-9	8.69	pH Meter
Coliform	less than 5 cfu/ml	<5	Plate Count
Standard Plate Count	less than 100 cfu/ml	<100	Plate Count
Yeast	less than 1 cfu/ml	<1	Plate Count
Mold	less than 100 cfu/ml	<1	Plate Count

Certifcation

5/6/2013 [illegible] - President + Owner RNAS

Date Lori Brouillette - Business Manager- Remediation and Natural Attenuation Services, Inc.

RNAS
REMEDIATION & NATURAL ATTENUATION SERVICES, INC.

Innovative Remediation Products and Services

Lot Number:	157023	**Truck Numbers:**	580089
Date Processed:	4/29/02013	**Date of Load Out:**	4/30/2013
Formulation:	190-6730	**Net Emulsion Weight:**	46,260

AMENDMENT PASS/FAIL CRITERIA

Test Parameter	Specification	Results	Method
Total Fat % weight	44.00-48.00%	47.07%	Mojonnier
Total Solids % weight	52.50-56.50%	54.45%	Mojonnier
Droplet Size	99.9% Droplets Smaller than 1.0 microns	99.9% less than 0.669 microns	Laser Particle Size
Droplet Size	99.9% Droplets Larger than 0.10 microns	99.9% larger than 0.131 microns	Laser Particle Size
Mean Droplet Size	0.20-0.40 microns	0.3320	Laser Particle Size
Median Droplet Size	0.20-0.40 microns	0.3270	Laser Particle Size

SECONDARY AMENDMENT PARAMETERS

Test Parameter	Specification	Results	Method
pH	7-9	8.69	pH Meter
Coliform	less than 5 cfu/ml	<5	Plate Count
Standard Plate Count	less than 100 cfu/ml	<100	Plate Count
Yeast	less than 1 cfu/ml	<1	Plate Count
Mold	less than 100 cfu/ml	<1	Plate Count

Certifcation

5/6/2013 [illegible] - President + Owner RNAS

Date Lori Brouillette - Business Manager- Remediation and Natural Attenuation Services, Inc.

Ship note: 490258
Ship Run: 440258
Warehouse: GC

Galloway Company
601 S. Commercial St.
Neenah, WI 54956-

Order Number: 470074
Printed: 04/30/2013 14:11:07

Uniform Straight Bill of Lading (& Packing Slip)

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper on request.

Subject to Section 7 of Conditions of applicable bill of lading. If this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:

The carrier may decline to make delivery of this shipment without payment of freight and all other lawful charges.

Carrier ID: Agmark Logistics LLC
222 2nd North Avenue
Suite 311
Nashville, TN 37201-

Phone: (615) 313-6588
Fax: (615) 313-6592

Freight charges are prepaid unless marked collect.

Received $_____ to apply in prepayment of the charges on the property described hereon.
Collect

Consign to

D.O.E PANTEX PLANT
FM 2373 and Highway 60
Amarillo, TX 79120-
US

Customer Number: 11056
Ship-to-Address: 39
Customer Phone:
Customer PO: 618
Scheduled Ship: 4/30/13 12:00 pm
Delivery: 5/6/13 12:00 am

The property described below, in apparent good order, except as noted, (contents and condition of contents of packages unknown) marked, consigned, and destined as shown below, which said carrier agrees to carry to destination, if on its route, or otherwise to deliver to another carrier on the route to destination. Every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained which are hereby agreed to by the shipper and accepted for himself and his assigns.

FOODSTUFF	FOODSTUFF	FOODSTUFF		
Item	**Description**	**Lot Number**	**Ship Qty**	**UOM**
190-6730	NEWMAN ZONE NIB Bulk	157023 Kilograms: 20,874.54	46,020.00	LBS

Seal Numbers: 0060152,0060153,0060154
Seals verified and attached by: TM

Scale Tkt:	31164				
Gross Wgt:	79,380	**Out :**	04/30/2013 14:09		
Tare Wgt:	33,360	**In :**	04/30/2013 10:22	**Tank:**	T65
Net Wgt:	46,020	**Tmp:**	41 F	**Mfg Date:**	04/29/2013
Trailer:	580413	**Last Haul:**	white grape		

Plant Number: 55-0469
Prior to loading, this trailer was CIP washed at Galloway Company via turbulent force using these parameters: **Rinse:** 3 water 'burst' at 65-85 degrees F
Wash: 30% caustic at 140-150 degrees F, min of 20 minutes
Rinse: 3 water 'burst' at 90-110 degrees F
Sanitize: Mandate plus acid at 75-95 degrees F, min of 2 minutes
The tank interior, dome, lids, vents, pumps, valves, hoses, caps, fittings, and all gaskets have been cleaned, sanitized, and inspected. **INITIALS:** TM

Loaded by: TM
Date: 4-30-13
Carrier: Agmark
Driver: [signature]

Ship note: 490259
Ship Run: 440259
Warehouse: GC

Galloway Company
601 S. Commercial St.
Neenah, WI 54956-

Order Number: 470075
Printed: 04/30/2013 19:50:31

Uniform Straight Bill of Lading (& Packing Slip)

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper on request.

Subject to Section 7 of Conditions of applicable bill of lading. If this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:

The carrier may decline to make delivery of this shipment without payment of freight and all other lawful charges.

Carrier ID: Agmark Logistics LLC
222 2nd North Avenue
Suite 311
Nashville, TN 37201-

Phone: (615) 313-6588
Fax: (615) 313-6592

Freight charges are prepaid unless marked collect.

Received $_____ to apply in prepayment of the charges on the property described hereon.
Collect

Consign to

D.O.E PANTEX PLANT
FM 2373 and Highway 60
Amarillo, TX 79120-
US

Customer Number: 11056
Ship-to-Address: 39
Customer Phone:
Customer PO: 618
Scheduled Ship: 4/30/13 2:00 pm
Delivery: 5/6/13 12:00 am

The property described below, in apparent good order, except as noted, (contents and condition of contents of packages unknown) marked, consigned, and destined as shown below, which said carrier agrees to carry to destination, if on its route, or otherwise to deliver to another carrier on the route to destination. Every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained which are hereby agreed to by the shipper and accepted for himself and his assigns.

FOODSTUFF		FOODSTUFF	FOODSTUFF	
Item	**Description**	**Lot Number**	**Ship Qty**	**UOM**
190-6730	NEWMAN ZONE NIB Bulk	157023 Kilograms: 20,983.40	46,260.00	LBS

Seal Numbers: 0060155,0060156,0060157
Seals verified and attached by: TM

Scale Tkt:	**31165**				
Gross Wgt:	**76,540**	**Out** : 04/30/2013	19:48		
Tare Wgt:	**30,280**	**In** : 04/30/2013	17:47	**Tank:**	T65
Net Wgt:	**46,260**	**Tmp:** 42 F		**Mfg Date:**	04/29/2013
Trailer:	**580089**	**Last Haul:** WINE			

Plant Number: 55-0469
Prior to loading, this trailer was CIP washed at Galloway Company via turbulent force using these parameters: **Rinse:** 3 water 'burst' at 65-85 degrees F
Wash: 30% caustic at 140-150 degrees F, min of 20 minutes
Rinse: 3 water 'burst' at 90-110 degrees F
Sanitize: Mandate plus acid at 75-95 degrees F, min of 2 minutes
The tank interior, dome, lids, vents, pumps, valves, hoses, caps, fittings, and all gaskets have been cleaned, sanitized, and inspected. **INITIALS:** TM

Loaded by: TM
Date: 4-30-13
Carrier: Agmark
Driver: [illegible]

AMENDMENT SUPPLY QUALITY ASSURANCE CHECKLIST
ISB O&M

Field Inspection										
TANKER #	AGMARK CONTAINER #	SEAL #s (from bill of lading)	DATE DELIVERED	LOT # (from lading)	MASS DELIVERED (lbs)	MASS DELIVERED (gals)	SUPPLIER LABORATORY TESTING (pass/fail)	Secondary Parmeters (in/out[2] of range)	TRUCK ID # (from Delivery Receipt)	Notes and Initials of Field Personnel
3	580719	0060186, 0060187, 0060188	5/17/2013	157024	45,980	5,573	Pass	In Range	NDS2324	EGG

Notes: This QA audit was performed by evaluating the suppliers internal QA data, the shippers bill of lading, and the shipping company's delivery receipt received by Trihydro in the field.
All of these supporting documents are attached. The QA checks included review that the supplier's product met their internal standards (Supplier Laboratory Testing column),
review that the truck number from the supplier matched that of the shipper's delivery receipt (Truck ID # column), and that the mass of amendment loaded out equaled that ordered.
[1]Detect above detection limit, but within acceptable range.
[2]Out of range discuss with PSTR
TBD = To be determined when delivered

	name	signature	date
Reviewer	S. Seitz		2013May17
Project Manager	D. Gravelding		2013May17

RNAS
REMEDIATION & NATURAL ATTENUATION SERVICES, INC.

Innovative Remediation Products and Services

Lot Number:	157024	**Truck Numbers:**	580719
Date Processed:	5/6/2013	**Date of Load Out:**	5/7/2013
Formulation:	190-6730	**Net Emulsion Weight:**	45,980

AMENDMENT PASS/FAIL CRITERIA

Test Parameter	Specification	Results	Method
Total Fat % weight	44.00-48.00%	47.80%	Mojonnier
Total Solids % weight	52.50-56.50%	54.38%	Mojonnier
Droplet Size	99.9% Droplets Smaller than 1.0 microns	99.9% less than 0.669 microns	Laser Particle Size
Droplet Size	99.9% Droplets Larger than 0.10 microns	99.9% larger than 0.131 microns	Laser Particle Size
Mean Droplet Size	0.20-0.40 microns	0.3300	Laser Particle Size
Median Droplet Size	0.20-0.40 microns	0.3240	Laser Particle Size

SECONDARY AMENDMENT PARAMETERS

Test Parameter	Specification	Results	Method
pH	7-9	8.62	pH Meter
Coliform	less than 5 cfu/ml	<5	Plate Count
Standard Plate Count	less than 100 cfu/ml	<100	Plate Count
Yeast	less than 1 cfu/ml	<1	Plate Count
Mold	less than 100 cfu/ml	<1	Plate Count

Certifcation

5/16/13 Lori L Brouillette

Date Lori Brouillette - Business Manager- Remediation and Natural Attenuation Services, Inc.

Ship note: 490334
Ship Run: 440334
Warehouse: GC

Galloway Company
601 S. Commercial St.
Neenah, WI 54956-

Order Number: 470077
Printed: 05/07/2013 14:50:19

Uniform Straight Bill of Lading (& Packing Slip)

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper on request.

Subject to Section 7 of Conditions of applicable bill of lading. If this shipment is to be delivered to the consignee without recourse on the consignor, the consignee shall sign the following statement:

The carrier may decline to make delivery of this shipment without payment of freight and all other lawful charges.

Carrier ID: Agmark Logistics LLC
222 2nd North Avenue
Suite 311
Nashville, TN 37201-

Phone: (615) 313-6588
Fax: (615) 313-6592

Freight charges are prepaid unless marked collect.

Received $_____ to apply in prepayment of the charges on the property described hereon.
Collect

Consign to

D.O.E PANTEX PLANT
FM 2373 and Highway 60
Amarillo, TX 79120-
US

Customer Number: 11056
Ship-to-Address: 39
Customer Phone:
Customer PO: 619
Scheduled Ship: 5/7/13 12:00 pm
Delivery: 5/13/13 12:00 am

The property described below, in apparent good order, except as noted, (contents and condition of contents of packages unknown) marked, consigned, and destined as shown below, which said carrier agrees to carry to destination, if on its route, or otherwise to deliver to another carrier on the route to destination. Every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained which are hereby agreed to by the shipper and accepted for himself and his assigns.

FOODSTUFF **FOODSTUFF** **FOODSTUFF**

Item	Description	Lot Number	Ship Qty	UOM
190-6730	NEWMAN ZONE NIB Bulk	157024 Kilograms: 20,856.39	45,980.00	LBS

Seal Numbers: 0060186,0060187,0060188
Seals verified and attached by: BB

Scale Tkt:	31335				
Gross Wgt:	74,580	Out :	05/07/2013 13:49		
Tare Wgt:	28,600	In :	05/07/2013 11:59	Tank:	T64
Net Wgt:	45,980	Tmp:	41 F	Mfg Date:	05/06/2013
Trailer:	580719	Last Haul:	red wine		

Plant Number: 55-0469
Prior to loading, this trailer was CIP washed at Galloway Company via turbulent force using these parameters: **Rinse:** 3 water 'burst' at 65-85 degrees F
Wash: 30% caustic at 140-150 degrees F, min of 20 minutes
Rinse: 3 water 'burst' at 90-110 degrees F
Sanitize: Mandate plus acid at 75-95 degrees F, min of 2 minutes
The tank interior, dome, lids, vents, pumps, valves, hoses, caps, fittings, and all gaskets have been cleaned, sanitized, and inspected. **INITIALS:**_____

Loaded by: B R B
Date: 5-7-13
Carrier: Agmark
Driver: _____

AMENDMENT SUPPLY QUALITY ASSURANCE CHECKLIST
ISB O&M

Field Inspection										
TANKER #	AGMARK CONTAINER #	SEAL #s (from bill of lading)	DATE DELIVERED	LOT # (from lading)	MASS DELIVERED (lbs)	MASS DELIVERED (gals)	SUPPLIER LABORATORY TESTING (pass/fail)	Secondary Parmeters (in/out[2] of range)	TRUCK ID # (from Delivery Receipt)	Notes and Initials of Field Personnel
4	580466	0060189, 0060190, 0062364	5/20/2013	157024	46,080	5,585	Pass	In Range	NDS2324	JRS

Notes: This QA audit was performed by evaluating the suppliers internal QA data, the shippers bill of lading, and the shipping company's delivery receipt received by Trihydro in the field. All of these supporting documents are attached. The QA checks included review that the supplier's product met their internal standards (Supplier Laboratory Testing column), review that the truck number from the supplier matched that of the shipper's delivery receipt (Truck ID # column), and that the mass of amendment loaded out equaled that ordered.

[1]Detect above detection limit, but within acceptable range.

[2]Out of range discuss with PSTR

TBD = To be determined when delivered

	name	signature	date
Reviewer	S. Seitz		2013May20
Project Manager	D. Gravelding		2013May20

RNAS
REMEDIATION & NATURAL ATTENUATION SERVICES INC

Innovative Remediation Products and Services

Lot Number:	157024	**Truck Numbers:**	580466
Date Processed:	5/6/2013	**Date of Load Out:**	5/7/2013
Formulation:	190-6730	**Net Emulsion Weight:**	46,080

AMENDMENT PASS/FAIL CRITERIA

Test Parameter	Specification	Results	Method
Total Fat % weight	44.00-48.00%	47.87%	Mojonnier
Total Solids % weight	52.50-56.50%	54.30%	Mojonnier
Droplet Size	99.9% Droplets Smaller than 1.0 microns	99.9% less than 0.669 microns	Laser Particle Size
Droplet Size	99.9% Droplets Larger than 0.10 microns	99.9% larger than 0.131 microns	Laser Particle Size
Mean Droplet Size	0.20-0.40 microns	0.3300	Laser Particle Size
Median Droplet Size	0.20-0.40 microns	0.3240	Laser Particle Size

SECONDARY AMENDMENT PARAMETERS

Test Parameter	Specification	Results	Method
pH	7-9	8.66	pH Meter
Coliform	less than 5 cfu/ml	<5	Plate Count
Standard Plate Count	less than 100 cfu/ml	<100	Plate Count
Yeast	less than 1 cfu/ml	<1	Plate Count
Mold	less than 100 cfu/ml	<1	Plate Count

Certifcation

5/16/13 — Lori J Rollette

Date — Lori Brouillette - Business Manager- Remediation and Natural Attenuation Services, Inc.

Ship note: 490335
Ship Run: 440335
Warehouse: GC

Galloway Company
601 S. Commercial St.
Neenah, WI 54956-

Order Number: 470078
Printed: 05/07/2013 16:01:31

Uniform Straight Bill of Lading (& Packing Slip)

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper on request.

Subject to Section 7 of Conditions of applicable bill of lading. If this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:

The carrier may decline to make delivery of this shipment without payment of freight and all other lawful charges.

Carrier ID: Agmark Logistics LLC
222 2nd North Avenue
Suite 311
Nashville, TN 37201-

Phone: (615) 313-6588
Fax: (615) 313-6592

Freight charges are prepaid unless marked collect.

Received $_____ to apply in prepayment of the charges on the property described hereon.
Collect

Consign to

D.O.E PANTEX PLANT
FM 2373 and Highway 60
Amarillo, TX 79120-
US

Customer Number: 11056
Ship-to-Address: 39
Customer Phone:
Customer PO: 619
Scheduled Ship: 5/7/13 2:00 pm
Delivery: 5/13/13 12:00 am

The property described below, in apparent good order, except as noted, (contents and condition of contents of packages unknown) marked, consigned, and destined as shown below, which said carrier agrees to carry to destination, if on its route, or otherwise to deliver to another carrier on the route to destination. Every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained which are hereby agreed to by the shipper and accepted for himself and his assigns.

FOODSTUFF **FOODSTUFF** **FOODSTUFF**

Item	Description	Lot Number	Ship Qty	UOM
190-6730	NEWMAN ZONE NIB Bulk	157024 Kilograms: 20,901.75	46,080.00	LBS

Seal Numbers: 0060189,0060190,0062364
Seals verified and attached by: BB

Scale Tkt:	31336				
Gross Wgt:	76,100	Out :	05/07/2013 15:59		
Tare Wgt:	30,020	In :	05/07/2013 13:48	Tank:	T64
Net Wgt:	46,080	Tmp:	41 F	Mfg Date:	05/06/2013
Trailer:	580466	Last Haul:	orange juice		

Plant Number: 55-0469
Prior to loading, this trailer was CIP washed at Galloway Company via turbulent force using these parameters: **Rinse:** 3 water 'burst' at 65-85 degrees F
Wash: 30% caustic at 140-150 degrees F, min of 20 minutes
Rinse: 3 water 'burst' at 90-110 degrees F
Sanitize: Mandate plus acid at 75-95 degrees F, min of 2 minutes
The tank interior, dome, lids, vents, pumps, valves, hoses, caps, fittings, and all gaskets have been cleaned, sanitized, and inspected. **INITIALS:** NIA

Loaded by: B. CH
Carrier: Agmark

Date: 5-7-13
Driver: Grady Truitt

AMENDMENT SUPPLY QUALITY ASSURANCE CHECKLIST
ISB O&M

Field Inspection										
TANKER #	AGMARK CONTAINER #	SEAL #s (from bill of lading)	DATE DELIVERED	LOT # (from lading)	MASS DELIVERED (lbs)	MASS DELIVERED (gals)	SUPPLIER LABORATORY TESTING (pass/fail)	Secondary Parameters (in/out[2] of range)	TRUCK ID # (from Delivery Receipt)	Notes and Initials of Field Personnel
5	580051	0064865, 0064866, 0064867	5/22/2013	158348	45,900	5,564	Pass	Out of Range[2]	N2333	JRS

Notes: This QA audit was performed by evaluating the suppliers internal QA data, the shippers bill of lading, and the shipping company's delivery receipt received by Trihydro in the field. All of these supporting documents are attached. The QA checks included review that the supplier's product met their internal standards (Supplier Laboratory Testing column), review that the truck number from the supplier matched that of the shipper's delivery receipt (Truck ID # column), and that the mass of amendment loaded out equaled that ordered.

[1]Detect above detection limit, but within acceptable range.

[2]Out of range - Notified PSTR on May 21, 2013 that SPC is just above the criteria for CFU. QA/QC plan does not require NCR until 25% of product is out of range. Advise using as-is.

TBD = To be determined when delivered

	name	signature	date
Reviewer	S. Seitz		2013May23
Project Manager	D. Gravelding		2013May23

RNAS
REMEDIATION & NATURAL ATTENUATION SERVICES INC

Innovative Remediation Products and Services

Lot Number:	158348	**Truck Numbers:**	580051
Date Processed:	5/14/2013	**Date of Load Out:**	5/15/2013
Formulation:	190-6730	**Net Emulsion Weight:**	45,900

AMENDMENT PASS/FAIL CRITERIA

Test Parameter	Specification	Results	Method
Total Fat % weight	44.00-48.00%	47.68%	Mojonnier
Total Solids % weight	52.50-56.50%	54.18%	Mojonnier
Droplet Size	99.9% Droplets Smaller than 1.0 microns	99.9% less than 0.669 microns	Laser Particle Size
Droplet Size	99.9% Droplets Larger than 0.10 microns	99.9% larger than 0.131 microns	Laser Particle Size
Mean Droplet Size	0.20-0.40 microns	0.3400	Laser Particle Size
Median Droplet Size	0.20-0.40 microns	0.3320	Laser Particle Size

SECONDARY AMENDMENT PARAMETERS

Test Parameter	Specification	Results	Method
pH	7-9	8.66	pH Meter
Coliform	less than 5 cfu/ml	<5	Plate Count
Standard Plate Count	less than 100 cfu/ml	100	Plate Count
Yeast	less than 1 cfu/ml	<1	Plate Count
Mold	less than 100 cfu/ml	<1	Plate Count

Certifcation

5/20/13
Date

Lori Brouillette - Business Manager- Remediation and Natural Attenuation Services, Inc.

Ship note: 490409
Ship Run: 440409
Warehouse: GC

Galloway Company
601 S. Commercial St.
Neenah, WI 54956-

Order Number: 470301
Printed: 05/15/2013 17:53:13

Uniform Straight Bill of Lading (& Packing Slip)

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper on request.

Subject to Section 7 of Conditions of applicable bill of lading. If this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:

The carrier may decline to make delivery of this shipment without payment of freight and all other lawful charges.

Carrier ID: Agmark Logistics LLC
222 2nd North Avenue
Suite 311
Nashville, TN 37201-

Phone: (615) 313-6588
Fax: (615) 313-6592

Freight charges are prepaid unless marked collect.

Received $_____ to apply in prepayment of the charges on the property described hereon.
Collect

Consign to

D.O.E PANTEX PLANT
FM 2373 and Highway 60
Amarillo, TX 79120-
US

Customer Number: 11056
Ship-to-Address: 39
Customer Phone:
Customer PO: 620
Scheduled Ship: 5/15/13 11:00 am
Delivery: 5/15/13 12:00 am

The property described below, in apparent good order, except as noted, (contents and condition of contents of packages unknown) marked, consigned, and destined as shown below, which said carrier agrees to carry to destination, if on its route, or otherwise to deliver to another carrier on the route to destination. Every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained which are hereby agreed to by the shipper and accepted for himself and his assigns.

FOODSTUFF **FOODSTUFF** **FOODSTUFF**

Item	Description	Lot Number	Ship Qty	UOM
190-6730	NEWMAN ZONE NIB Bulk	158348 Kilograms: 20,820.10	45,900.00	LBS

Seal Numbers: 0064865,0064866,0064867
Seals verified and attached by:_____

Scale Tkt:	**31549**				
Gross Wgt:	**74,920**	**Out** : 05/15/2013 17:50			
Tare Wgt:	**29,020**	**In** : 05/15/2013 15:38		**Tank:**	T65
Net Wgt:	**45,900**	**Tmp:** 40 F		**Mfg Date:**	05/13/2013
Trailer:	**580051**	**Last Haul:** orange juice			

Plant Number: 55-0469
Prior to loading, this trailer was CIP washed at Galloway Company via turbulent force using these parameters: **Rinse:** 3 water 'burst' at 65-85 degrees F
Wash: 30% caustic at 140-150 degrees F, min of 20 minutes
Rinse: 3 water 'burst' at 90-110 degrees F
Sanitize: Mandate plus acid at 75-95 degrees F, min of 2 minutes
The tank interior, dome, lids, vents, pumps, valves, hoses, caps, fittings, and all gaskets have been cleaned, sanitized, and inspected. **INITIALS:**_____

Loaded by: _____ **Date:** 5-15-13
Carrier: Agmark **Driver:** Rayon-B

AMENDMENT SUPPLY QUALITY ASSURANCE CHECKLIST
ISB O&M

Field Inspection										
TANKER #	AGMARK CONTAINER #	SEAL #s (from bill of lading)	DATE DELIVERED	LOT # (from lading)	MASS DELIVERED (lbs)	MASS DELIVERED (gals)	SUPPLIER LABORATORY TESTING (pass/fail)	Secondary Parameters (in/out[2] of range)	TRUCK ID # (from Delivery Receipt)	Notes and Initials of Field Personnel
6	580483	0064860, 00646861, 0064862	5/28/2013	158348	46,220	5,602	Pass	Out of Range[2]	N2308	FJK

Notes: This QA audit was performed by evaluating the suppliers internal QA data, the shippers bill of lading, and the shipping company's delivery receipt received by Trihydro in the field. All of these supporting documents are attached. The QA checks included review that the supplier's product met their internal standards (Supplier Laboratory Testing column), review that the truck number from the supplier matched that of the shipper's delivery receipt (Truck ID # column), and that the mass of amendment loaded out equaled that ordered.

[1]Detect above detection limit, but within acceptable range.

[2]Out of range - Notified PSTR on May 21, 2013 that SPC is just above the criteria for CFU. QA/QC plan does not require NCR until 25% of product is out of range. Advise using as-is.

TBD = To be determined when delivered

	name	signature	date
Reviewer	S. Seitz		2013May29
Project Manager	D. Gravelding		2013May29

RNAS
REMEDIATION & NATURAL ATTENUATION SERVICES, INC.

Innovative Remediation Products and Services

Lot Number:	158348	**Truck Numbers:**	580483
Date Processed:	5/14/2013	**Date of Load Out:**	5/15/2013
Formulation:	190-6730	**Net Emulsion Weight:**	46,220

AMENDMENT PASS/FAIL CRITERIA

Test Parameter	Specification	Results	Method
Total Fat % weight	44.00-48.00%	47.62%	Mojonnier
Total Solids % weight	52.50-56.50%	54.23%	Mojonnier
Droplet Size	99.9% Droplets Smaller than 1.0 microns	99.9% less than 0.669 microns	Laser Particle Size
Droplet Size	99.9% Droplets Larger than 0.10 microns	99.9% larger than 0.131 microns	Laser Particle Size
Mean Droplet Size	0.20-0.40 microns	0.3400	Laser Particle Size
Median Droplet Size	0.20-0.40 microns	0.3320	Laser Particle Size

SECONDARY AMENDMENT PARAMETERS

Test Parameter	Specification	Results	Method
pH	7-9	8.75	pH Meter
Coliform	less than 5 cfu/ml	<5	Plate Count
Standard Plate Count	less than 100 cfu/ml	100	Plate Count
Yeast	less than 1 cfu/ml	<1	Plate Count
Mold	less than 100 cfu/ml	<1	Plate Count

Certifcation

5/20/13 L. Brouillette
Date Lori Brouillette - Business Manager- Remediation and Natural Attenuation Services, Inc.

Ship note: 490407
Ship Run: 440407
Warehouse: GC

Galloway Company
601 S. Commercial St.
Neenah, WI 54956-

Order Number: 470300
Printed: 05/15/2013 13:01:07

Uniform Straight Bill of Lading (& Packing Slip)

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper on request.

Subject to Section 7 of Conditions of applicable bill of lading. If this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:

The carrier may decline to make delivery of this shipment without payment of freight and all other lawful charges.

Carrier ID: Agmark Logistics LLC
222 2nd North Avenue
Suite 311
Nashville, TN 37201-

Phone: (615) 313-6588
Fax: (615) 313-6592

Freight charges are prepaid unless marked collect.

Received $_____ to apply in prepayment of the charges on the property described hereon.
Collect

Consign to

D.O.E PANTEX PLANT
FM 2373 and Highway 60
Amarillo, TX 79120-
US

Customer Number: 11056
Ship-to-Address: 39
Customer Phone:
Customer PO: 620
Scheduled Ship: 5/15/13 9:00 am
Delivery: 5/15/13 12:00 am

The property described below, in apparent good order, except as noted, (contents and condition of contents of packages unknown) marked, consigned, and destined as shown below, which said carrier agrees to carry to destination, if on its route, or otherwise to deliver to another carrier on the route to destination. Every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained which are hereby agreed to by the shipper and accepted for himself and his assigns.

FOODSTUFF **FOODSTUFF** **FOODSTUFF**

Item	Description	Lot Number	Ship Qty	UOM
190-6730	NEWMAN ZONE NIB Bulk	158348 Kilograms: 20,965.25	46,220.00	LBS

Seal Numbers: 0064860,0064861,0064862
Seals verified and attached by: BB

Scale Tkt:	31547				
Gross Wgt:	78,920	**Out** : 05/15/2013 12:59			
Tare Wgt:	32,700	**In** : 05/15/2013 11:08		**Tank:**	T65
Net Wgt:	46,220	**Tmp:** 40 F		**Mfg Date:**	05/13/2013
Trailer:	580483	**Last Haul:** orange juice			

Plant Number: 55-0469
Prior to loading, this trailer was CIP washed at Galloway Company via turbulent force using these parameters: **Rinse:** 3 water 'burst' at 65-85 degrees F
Wash: 30% caustic at 140-150 degrees F, min of 20 minutes
Rinse: 3 water 'burst' at 90-110 degrees F
Sanitize: Mandate plus acid at 75-95 degrees F, min of 2 minutes
The tank interior, dome, lids, vents, pumps, valves, hoses, caps, fittings, and all gaskets have been cleaned, sanitized, and inspected. **INITIALS:** BB

Loaded by: B. RBH
Carrier: Agmark
Date: 5/15-13
Driver: [illegible]

AMENDMENT SUPPLY QUALITY ASSURANCE CHECKLIST
ISB O&M

Field Inspection										
TANKER #	AGMARK CONTAINER #	SEAL #s (from bill of lading)	DATE DELIVERED	LOT # (from lading)	MASS DELIVERED (lbs)	MASS DELIVERED (gals)	SUPPLIER LABORATORY TESTING (pass/fail)	Secondary Parameters (in/out[2] of range)	TRUCK ID # (from Delivery Receipt)	Notes and Initials of Field Personnel
7	580085	0062631, 0062362, 0062363	5/29/2013	157024	46,140	5,593	Pass	In Range	NDS2324	FJK

Notes: This QA audit was performed by evaluating the suppliers internal QA data, the shippers bill of lading, and the shipping company's delivery receipt received by Trihydro in the field. All of these supporting documents are attached. The QA checks included review that the supplier's product met their internal standards (Supplier Laboratory Testing column), review that the truck number from the supplier matched that of the shipper's delivery receipt (Truck ID # column), and that the mass of amendment loaded out equaled that ordered.

[1]Detect above detection limit, but within acceptable range.

[2]Out of range discuss with PSTR

TBD = To be determined when delivered

	name	signature	date
Reviewer	S. Seitz		2013May29
Project Manager	D. Gravelding		2013May29

RNAS
REMEDIATION & NATURAL ATTENUATION SERVICES INC

Innovative Remediation Products and Services

Lot Number:	157024	**Truck Numbers:**	580085
Date Processed:	5/6/2013	**Date of Load Out:**	5/8/2013
Formulation:	190-6730	**Net Emulsion Weight:**	46,140

AMENDMENT PASS/FAIL CRITERIA

Test Parameter	Specification	Results	Method
Total Fat % weight	44.00-48.00%	47.98%	Mojonnier
Total Solids % weight	52.50-56.50%	54.22%	Mojonnier
Droplet Size	99.9% Droplets Smaller than 1.0 microns	99.9% less than 0.669 microns	Laser Particle Size
Droplet Size	99.9% Droplets Larger than 0.10 microns	99.9% larger than 0.131 microns	Laser Particle Size
Mean Droplet Size	0.20-0.40 microns	0.3300	Laser Particle Size
Median Droplet Size	0.20-0.40 microns	0.3240	Laser Particle Size

SECONDARY AMENDMENT PARAMETERS

Test Parameter	Specification	Results	Method
pH	7-9	8.75	pH Meter
Coliform	less than 5 cfu/ml	<5	Plate Count
Standard Plate Count	less than 100 cfu/ml	<100	Plate Count
Yeast	less than 1 cfu/ml	<1	Plate Count
Mold	less than 100 cfu/ml	<1	Plate Count

Certifcation

5/16/13
Date

Lori L Brouillette
Lori Brouillette - Business Manager- Remediation and Natural Attenuation Services, Inc.

Ship note: 490343
Ship Run: 440343
Warehouse: GC

Galloway Company
601 S. Commercial St.
Neenah, WI 54956-

Order Number: 470080
Printed: 05/08/2013 14:21:57

Uniform Straight Bill of Lading (& Packing Slip)

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper on request.

Subject to Section 7 of Conditions of applicable bill of lading. If this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:

The carrier may decline to make delivery of this shipment without payment of freight and all other lawful charges.

Carrier ID: Agmark Logistics LLC
222 2nd North Avenue
Suite 311
Nashville, TN 37201-

Phone: (615) 313-6588
Fax: (615) 313-6592

Freight charges are prepaid unless marked collect.

Received $_____ to apply in prepayment of the charges on the property described hereon.
Collect

Consign to

D.O.E PANTEX PLANT
FM 2373 and Highway 60
Amarillo, TX 79120-
US

Customer Number: 11056
Ship-to-Address: 39
Customer Phone:
Customer PO: 619
Scheduled Ship: 5/8/13 11:00 am
Delivery: 5/14/13 12:00 am

The property described below, in apparent good order, except as noted, (contents and condition of contents of packages unknown) marked, consigned, and destined as shown below, which said carrier agrees to carry to destination, if on its route, or otherwise to deliver to another carrier on the route to destination. Every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained which are hereby agreed to by the shipper and accepted for himself and his assigns.

FOODSTUFF		FOODSTUFF	FOODSTUFF	
Item	**Description**	**Lot Number**	**Ship Qty**	**UOM**
190-6730	NEWMAN ZONE NIB Bulk	157024 Kilograms: 20,928.97	46,140.00	LBS

Seal Numbers: 0062361,0062362,0062363
Seals verified and attached by: BB

Scale Tkt:	**31377**				
Gross Wgt:	**76,900**	**Out** : 05/08/2013 14:18			
Tare Wgt:	**30,760**	**In** : 05/08/2013 12:02		**Tank:**	T64
Net Wgt:	**46,140**	**Tmp:** 42 F		**Mfg Date:**	05/06/2013
Trailer:	**580085**	**Last Haul:** orange juice			

Plant Number: 55-0469
Prior to loading, this trailer was CIP washed at Galloway Company via turbulent force using these parameters: **Rinse:** 3 water 'burst' at 65-85 degrees F
Wash: 30% caustic at 140-150 degrees F, min of 20 minutes
Rinse: 3 water 'burst' at 90-110 degrees F
Sanitize: Mandate plus acid at 75-95 degrees F, min of 2 minutes
The tank interior, dome, lids, vents, pumps, valves, hoses, caps, fittings, and all gaskets have been cleaned, sanitized, and inspected. **INITIALS:** NIA

Loaded by: [illegible]
Date: 5-8-13
Carrier: Agmark
Driver: [illegible]

AMENDMENT SUPPLY QUALITY ASSURANCE CHECKLIST
ISB O&M

Field Inspection										
TANKER #	AGMARK CONTAINER #	SEAL #s (from bill of lading)	DATE DELIVERED	LOT # (from lading)	MASS DELIVERED (lbs)	MASS DELIVERED (gals)	SUPPLIER LABORATORY TESTING (pass/fail)	Secondary Parameters (in/out[2] of range)	TRUCK ID # (from Delivery Receipt)	Notes and Initials of Field Personnel
8	580382	0060196, 0060197, 0060198 [3]	5/31/2013	157024	46,060	5,583	Pass	In Range	N2308	FJK

Notes: This QA audit was performed by evaluating the suppliers internal QA data, the shippers bill of lading, and the shipping company's delivery receipt received by Trihydro in the field.
All of these supporting documents are attached. The QA checks included review that the supplier's product met their internal standards (Supplier Laboratory Testing column),
review that the truck number from the supplier matched that of the shipper's delivery receipt (Truck ID # column), and that the mass of amendment loaded out equaled that ordered.

[1]Detect above detection limit, but within acceptable range.

[2]Out of range discuss with PSTR

[3] Field confirmation with FJK/JWR on May 31, 2013 confirmed that the tanker actually had 3 seals, not just two as BOL indicates. Numbers are numerical in order and verbal confirmation with RNAS on May 31, 2013 agreed that it is an omission on the BOL.

TBD = To be determined when delivered

	name	signature	date
Reviewer	S. Seitz		2013May31
Project Manager	D. Gravelding		2013May31

RNAS
REMEDIATION & NATURAL ATTENUATION SERVICES, INC.

Innovative Remediation Products and Services

Lot Number:	157024	**Truck Numbers:**	580382
Date Processed:	5/6/2013	**Date of Load Out:**	5/8/2013
Formulation:	190-6730	**Net Emulsion Weight:**	46,060

AMENDMENT PASS/FAIL CRITERIA

Test Parameter	Specification	Results	Method
Total Fat % weight	44.00-48.00%	47.83%	Mojonnier
Total Solids % weight	52.50-56.50%	54.07%	Mojonnier
Droplet Size	99.9% Droplets Smaller than 1.0 microns	99.9% less than 0.669 microns	Laser Particle Size
Droplet Size	99.9% Droplets Larger than 0.10 microns	99.9% larger than 0.131 microns	Laser Particle Size
Mean Droplet Size	0.20-0.40 microns	0.3300	Laser Particle Size
Median Droplet Size	0.20-0.40 microns	0.3240	Laser Particle Size

SECONDARY AMENDMENT PARAMETERS

Test Parameter	Specification	Results	Method
pH	7-9	8.64	pH Meter
Coliform	less than 5 cfu/ml	<5	Plate Count
Standard Plate Count	less than 100 cfu/ml	<100	Plate Count
Yeast	less than 1 cfu/ml	<1	Plate Count
Mold	less than 100 cfu/ml	<1	Plate Count

Certifcation

5/16/13 Lori L Brouillette
Date Lori Brouillette - Business Manager- Remediation and Natural Attenuation Services, Inc.

Ship note: 490341
Ship Run: 440341
Warehouse: GC

Galloway Company
601 S. Commercial St.
Neenah, WI 54956-

Order Number: 470079
Printed: 05/08/2013 12:32:15

Uniform Straight Bill of Lading (& Packing Slip)

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper on request.

Subject to Section 7 of Conditions of applicable bill of lading. If this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:

The carrier may decline to make delivery of this shipment without payment of freight and all other lawful charges.

Carrier ID: Agmark Logistics LLC
222 2nd North Avenue
Suite 311
Nashville, TN 37201-

Phone: (615) 313-6588
Fax: (615) 313-6592

Freight charges are prepaid unless marked collect.

Received $_____ to apply in prepayment of the charges on the property described hereon.
Collect

Consign to

D.O.E PANTEX PLANT
FM 2373 and Highway 60
Amarillo, TX 79120-
US

Customer Number: 11056
Ship-to-Address: 39
Customer Phone:
Customer PO: 619
Scheduled Ship: 5/8/13 9:00 am
Delivery: 5/14/13 12:00 am

The property described below, in apparent good order, except as noted, (contents and condition of contents of packages unknown) marked, consigned, and destined as shown below, which said carrier agrees to carry to destination, if on its route, or otherwise to deliver to another carrier on the route to destination. Every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained which are hereby agreed to by the shipper and accepted for himself and his assigns.

FOODSTUFF FOODSTUFF FOODSTUFF

Item	Description	Lot Number	Ship Qty	UOM
190-6730	NEWMAN ZONE NIB Bulk	157024 Kilograms: 20,892.68	46,060.00	LBS

Seal Numbers: 0060196,0060197
Seals verified and attached by: JK

Scale Tkt:	31375				
Gross Wgt:	75,660	Out :	05/08/2013 12:30		
Tare Wgt:	29,600	In :	05/08/2013 10:49	Tank:	T64
Net Wgt:	46,060	Tmp:	42 F	Mfg Date:	05/06/2013
Trailer:	580382	Last Haul:	orange juice		

Plant Number: 55-0469
Prior to loading, this trailer was CIP washed at Galloway Company via turbulent force using these parameters: **Rinse:** 3 water 'burst' at 65-85 degrees F
Wash: 30% caustic at 140-150 degrees F, min of 20 minutes
Rinse: 3 water 'burst' at 90-110 degrees F
Sanitize: Mandate plus acid at 75-95 degrees F, min of 2 minutes
The tank interior, dome, lids, vents, pumps, valves, hoses, caps, fittings, and all gaskets have been cleaned, sanitized, and inspected. **INITIALS:** N/A

Loaded by: [signature] **Date:** 5-8-13
Carrier: Agmark **Driver:** [signature]

AMENDMENT SUPPLY QUALITY ASSURANCE CHECKLIST
ISB O&M

Field Inspection										
TANKER #	AGMARK CONTAINER #	SEAL #s (from bill of lading)	DATE DELIVERED	LOT # (from lading)	MASS DELIVERED (lbs)	MASS DELIVERED (gals)	SUPPLIER LABORATORY TESTING (pass/fail)	Secondary Parameters (in/out[2] of range)	TRUCK ID # (from Delivery Receipt)	Notes and Initials of Field Personnel
9	580720	0064968, 064969, 064990	6/7/2013	158749	46,020	5,578	Pass	Out of Range[2]	NDS2324	FJK
10	580355	0064991, 064992, 064993	6/7/2013	158749	46,020	5,578	Pass	Out of Range[2]	NDS2324	FJK

Notes: This QA audit was performed by evaluating the suppliers internal QA data, the shippers bill of lading, and the shipping company's delivery receipt received by Trihydro in the field. All of these supporting documents are attached. The QA checks included review that the supplier's product met their internal standards (Supplier Laboratory Testing column), review that the truck number from the supplier matched that of the shipper's delivery receipt (Truck ID # column), and that the mass of amendment loaded out equaled that ordered.

[1]Detect above detection limit, but within acceptable range.

[2]Out of range - Notified via QA/QC on June 7, 2013 that yeast and Standard Plate Count (SPC) is just above the criteria for CFU. Tankers #5, #6, #9, and #10 were out of range and contain approximately 18% of the mass of ordered amendment. QA/QC plan does not require NCR until 25% of product is out of range. Advise using as-is.

TBD = To be determined when delivered

	name	signature	date
Reviewer	S. Seitz		2013June07
Project Manager	D. Gravelding		2013June07

RNAS
REMEDIATION & NATURAL ATTENUATION SERVICES, INC.

Innovative Remediation Products and Services

Lot Number:	158749	**Truck Numbers:**	580355
Date Processed:	5/27/2013	**Date of Load Out:**	5/28/2013
Formulation:	190-6730	**Net Emulsion Weight:**	46,320

AMENDMENT PASS/FAIL CRITERIA

Test Parameter	Specification	Results	Method
Total Fat % weight	44.00-48.00%	47.37%	Mojonnier
Total Solids % weight	52.50-56.50%	53.54%	Mojonnier
Droplet Size	99.9% Droplets Smaller than 1.0 microns	99.9% less than 0.669 microns	Laser Particle Size
Droplet Size	99.9% Droplets Larger than 0.10 microns	99.9% larger than 0.131 microns	Laser Particle Size
Mean Droplet Size	0.20-0.40 microns	0.3290	Laser Particle Size
Median Droplet Size	0.20-0.40 microns	0.3240	Laser Particle Size

SECONDARY AMENDMENT PARAMETERS

Test Parameter	Specification	Results	Method
pH	7-9	8.74	pH Meter
Coliform	less than 5 cfu/ml	<5	Plate Count
Standard Plate Count	less than 100 cfu/ml	100	Plate Count
Yeast	less than 1 cfu/ml	5	Plate Count
Mold	less than 100 cfu/ml	<1	Plate Count

Certifcation

6/7/2013 William A Newman

Date William Newman - President - Remediation and Natural Attenuation Services, Inc.

RNAS
REMEDIATION & NATURAL ATTENUATION SERVICES, INC.

Innovative Remediation Products and Services

Lot Number:	158749	**Truck Numbers:**	580720
Date Processed:	5/27/2013	**Date of Load Out:**	5/28/2013
Formulation:	190-6730	**Net Emulsion Weight:**	46,020

AMENDMENT PASS/FAIL CRITERIA

Test Parameter	Specification	Results	Method
Total Fat % weight	44.00-48.00%	47.30%	Mojonnier
Total Solids % weight	52.50-56.50%	53.54%	Mojonnier
Droplet Size	99.9% Droplets Smaller than 1.0 microns	99.9% less than 0.669 microns	Laser Particle Size
Droplet Size	99.9% Droplets Larger than 0.10 microns	99.9% larger than 0.131 microns	Laser Particle Size
Mean Droplet Size	0.20-0.40 microns	0.3290	Laser Particle Size
Median Droplet Size	0.20-0.40 microns	0.3240	Laser Particle Size

SECONDARY AMENDMENT PARAMETERS

Test Parameter	Specification	Results	Method
pH	7-9	8.71	pH Meter
Coliform	less than 5 cfu/ml	<5	Plate Count
Standard Plate Count	less than 100 cfu/ml	100	Plate Count
Yeast	less than 1 cfu/ml	65	Plate Count
Mold	less than 100 cfu/ml	<1	Plate Count

Certifcation

6/7/2013 William A. Newman

Date William A. Newman - President - Remediation and Natural Attenuation Services, Inc.

Ship note: 490511
Ship Run: 440511
Warehouse: GC

Galloway Company
601 S. Commercial St.
Neenah, WI 54956-

Order Number: 470303
Printed: 05/28/2013 17:03:14

Uniform Straight Bill of Lading (& Packing Slip)

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper on request.

Subject to Section 7 of Conditions of applicable bill of lading. If this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:

The carrier may decline to make delivery of this shipment without payment of freight and all other lawful charges.

Carrier ID: Agmark Logistics LLC
222 2nd North Avenue
Suite 311
Nashville, TN 37201-

Phone: (615) 313-6588
Fax: (615) 313-6592

Freight charges are prepaid unless marked collect.

Received $_____ to apply in prepayment of the charges on the property described hereon.
Collect

Consign to

D.O.E PANTEX PLANT
FM 2373 and Highway 60
Amarillo, TX 79120-
US

Customer Number: 11056
Ship-to-Address: 39
Customer Phone:
Customer PO: 622
Scheduled Ship: 5/28/13 2:00 pm
Delivery: 5/28/13 12:00 am

The property described below, in apparent good order, except as noted, (contents and condition of contents of packages unknown) marked, consigned, and destined as shown below, which said carrier agrees to carry to destination, if on its route, or otherwise to deliver to another carrier on the route to destination. Every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained which are hereby agreed to by the shipper and accepted for himself and his assigns.

FOODSTUFF		FOODSTUFF	FOODSTUFF	
Item	**Description**	**Lot Number**	**Ship Qty**	**UOM**
190-6730	NEWMAN ZONE NIB Bulk	158749 Kilograms: 21,010.61	46,320.00	LBS

Seal Numbers: 0064991,0064992,0064993 BB
Seals verified and attached by:_____

Scale Tkt:	31831				
Gross Wgt:	78,740	**Out** : 05/28/2013	17:01		
Tare Wgt:	32,420	**In** : 05/28/2013	15:07	**Tank:**	T65
Net Wgt:	46,320	**Tmp:** 41 F		**Mfg Date:**	05/23/2013
Trailer:	580355	**Last Haul:** orangejuice			

Plant Number: 55-0469
Prior to loading, this trailer was CIP washed at Galloway Company via turbulent force using these parameters: **Rinse:** 3 water 'burst' at 65-85 degrees F
Wash: 30% caustic at 140-150 degrees F, min of 20 minutes
Rinse: 3 water 'burst' at 90-110 degrees F
Sanitize: Mandate plus acid at 75-95 degrees F, min of 2 minutes
The tank interior, dome, lids, vents, pumps, valves, hoses, caps, fittings, and all gaskets have been cleaned, sanitized, and inspected. **INITIALS:** N/A

Loaded by: B. R. B.
Date: 5-28-13
Carrier: Agmark
Driver: Beth R Kenely

Ship note: 490509
Ship Run: 440509
Warehouse: GC

Galloway Company
601 S. Commercial St.
Neenah, WI 54956-

Order Number: 470302
Printed: 05/28/2013 14:01:43

Uniform Straight Bill of Lading (& Packing Slip)

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper on request.

Subject to Section 7 of Conditions of applicable bill of lading. If this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:

The carrier may decline to make delivery of this shipment without payment of freight and all other lawful charges.

Carrier ID: Agmark Logistics LLC
222 2nd North Avenue
Suite 311
Nashville, TN 37201-

Phone: (615) 313-6588
Fax: (615) 313-6592

Freight charges are prepaid unless marked collect.

Received $_____ to apply in prepayment of the charges on the property described hereon.
Collect

Consign to

D.O.E PANTEX PLANT
FM 2373 and Highway 60
Amarillo, TX 79120-
US

Customer Number: 11056
Ship-to-Address: 39
Customer Phone:
Customer PO: 622
Scheduled Ship: 5/28/13 12:00 pm
Delivery: 5/28/13 12:00 am

The property described below, in apparent good order, except as noted, (contents and condition of contents of packages unknown) marked, consigned, and destined as shown below, which said carrier agrees to carry to destination, if on its route, or otherwise to deliver to another carrier on the route to destination. Every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained which are hereby agreed to by the shipper and accepted for himself and his assigns.

FOODSTUFF FOODSTUFF FOODSTUFF

Item	Description	Lot Number	Ship Qty	UOM
190-6730	NEWMAN ZONE NIB Bulk	158749 Kilograms: 20,874.54	46,020.00	LBS

Seal Numbers: 0064968,0064969,0064990
Seals verified and attached by: BB

Scale Tkt:	31830				
Gross Wgt:	75,820	Out : 05/28/2013	13:56		
Tare Wgt:	29,800	In : 05/28/2013	11:37	Tank:	T65
Net Wgt:	46,020	Tmp: 41 F		Mfg Date:	05/23/2013
Trailer:	580720	Last Haul: white grape juice			

Plant Number: 55-0469
Prior to loading, this trailer was CIP washed at Galloway Company via turbulent force using these parameters: **Rinse:** 3 water 'burst' at 65-85 degrees F
Wash: 30% caustic at 140-150 degrees F, min of 20 minutes
Rinse: 3 water 'burst' at 90-110 degrees F
Sanitize: Mandate plus acid at 75-95 degrees F, min of 2 minutes
The tank interior, dome, lids, vents, pumps, valves, hoses, caps, fittings and all gaskets have been cleaned, sanitized, and inspected. **INITIALS:** N/A

Loaded by: B. (BB)
Carrier: Agmark
Date: 5-28-13
Driver: [illegible]

AMENDMENT SUPPLY QUALITY ASSURANCE CHECKLIST
ISB O&M

Field Inspection										
TANKER #	AGMARK CONTAINER #	SEAL #s (from bill of lading)	DATE DELIVERED	LOT # (from lading)	MASS DELIVERED (lbs)	MASS DELIVERED (gals)	SUPPLIER LABORATORY TESTING (pass/fail)	Secondary Parameters (in/out of range)	TRUCK ID # (from Delivery Receipt)	Notes and Initials of Field Personnel
11	580076	0060245, 0060246, 0060247	6/12/2013	159394	46,280	5,610	Pass	In Range	N22308	EGG

Notes: This QA audit was performed by evaluating the suppliers internal QA data, the shippers bill of lading, and the shipping company's delivery receipt received by Trihydro in the field. All of these supporting documents are attached. The QA checks included review that the supplier's product met their internal standards (Supplier Laboratory Testing column), review that the truck number from the supplier matched that of the shipper's delivery receipt (Truck ID # column), and that the mass of amendment loaded out equaled that ordered.

[1]Detect above detection limit, but within acceptable range.

[2]Out of range discuss with PSTR

TBD = To be determined when delivered

	name	signature	date
Reviewer	S. Seitz		2013June12
Project Manager	D. Gravelding		2013June12

RNAS
REMEDIATION & NATURAL ATTENUATION SERVICES, INC.

Innovative Remediation Products and Services

Lot Number: 159394
Date Processed: 6/3/2013
Formulation: 190-6730

Truck Numbers: 580076
Date of Load Out: 6/4/2013
Net Emulsion Weight: 46,280

AMENDMENT PASS/FAIL CRITERIA

Test Parameter	Specification	Results	Method
Total Fat % weight	44.00-48.00%	47.87%	Mojonnier
Total Solids % weight	52.50-56.50%	54.05%	Mojonnier
Droplet Size	99.9% Droplets Smaller than 1.0 microns	99.9% less than 0.669 microns	Laser Particle Size
Droplet Size	99.9% Droplets Larger than 0.10 microns	99.9% larger than 0.131 microns	Laser Particle Size
Mean Droplet Size	0.20-0.40 microns	0.3220	Laser Particle Size
Median Droplet Size	0.20-0.40 microns	0.3170	Laser Particle Size

SECONDARY AMENDMENT PARAMETERS

Test Parameter	Specification	Results	Method
pH	7-9	8.66	pH Meter
Coliform	less than 5 cfu/ml	<5	Plate Count
Standard Plate Count	less than 100 cfu/ml	<100	Plate Count
Yeast	less than 1 cfu/ml	<1	Plate Count
Mold	less than 100 cfu/ml	<1	Plate Count

Certifcation

6/12/2013 [signature]

Date — William A. Newman - President - Remediation and Natural Attenuation Services, Inc.

Ship note: 490629
Ship Run: 440629
Warehouse: GC

Galloway Company
601 S. Commercial St.
Neenah, WI 54956-

Order Number: 470306
Printed: 06/05/2013 17:59:16

Uniform Straight Bill of Lading (& Packing Slip)

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper on request.

Subject to Section 7 of Conditions of applicable bill of lading. If this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:

The carrier may decline to make delivery of this shipment without payment of freight and all other lawful charges.

Carrier ID: Agmark Logistics LLC
222 2nd North Avenue
Suite 311
Nashville, TN 37201-

Phone: (615) 313-6588
Fax: (615) 313-6592

Freight charges are prepaid unless marked collect.

Received $_____ to apply in prepayment of the charges on the property described hereon.
Collect

Consign to

D.O.E PANTEX PLANT
FM 2373 and Highway 60
Amarillo, TX 79120-
US

Customer Number: 11056
Ship-to-Address: 39
Customer Phone:
Customer PO: 623
Scheduled Ship: 6/4/13 8:00 pm
Delivery: 6/4/13 12:00 am

The property described below, in apparent good order, except as noted, (contents and condition of contents of packages unknown) marked, consigned, and destined as shown below, which said carrier agrees to carry to destination, if on its route, or otherwise to deliver to another carrier on the route to destination. Every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained which are hereby agreed to by the shipper and accepted for himself and his assigns.

FOODSTUFF **FOODSTUFF** **FOODSTUFF**

Item	Description	Lot Number	Ship Qty	UOM
190-6730	NEWMAN ZONE NIB Bulk	159394 Kilograms: 20,992.47	46,280.00	LBS

Seal Numbers: 0060245,0060246,0060247
Seals verified and attached by: a

Scale Tkt:	**31992**				
Gross Wgt:	**78,900**	**Out** : 06/05/2013 17:57			
Tare Wgt:	**32,620**	**In** : 06/05/2013 15:57		**Tank:**	T64
Net Wgt:	**46,280**	**Tmp:** 41 F		**Mfg Date:**	06/03/2013
Trailer:	**580076**	**Last Haul:** orange juice			

Plant Number: 55-0469
Prior to loading, this trailer was CIP washed at Galloway Company via turbulent force using these parameters: **Rinse:** 3 water 'burst' at 65-85 degrees F
Wash: 30% caustic at 140-150 degrees F, min of 20 minutes
Rinse: 3 water 'burst' at 90-110 degrees F
Sanitize: Mandate plus acid at 75-95 degrees F, min of 2 minutes
The tank interior, dome, lids, vents, pumps, valves, hoses, caps, fittings, and all gaskets have been cleaned, sanitized, and inspected. **INITIALS:** a

Loaded by: a
Carrier: Agmark

Date: 6-5-13
Driver:

AMENDMENT SUPPLY QUALITY ASSURANCE CHECKLIST
ISB O&M

Field Inspection										
TANKER #	AGMARK CONTAINER #	SEAL #s (from bill of lading)	DATE DELIVERED	LOT # (from lading)	MASS DELIVERED (lbs)	MASS DELIVERED (gals)	SUPPLIER LABORATORY TESTING (pass/fail)	Secondary Parameters (in/out of range)	TRUCK ID # (from Delivery Receipt)	Notes and Initials of Field Personnel
12	580457	0060242, 0060243, 0060244	6/13/2013	159394	46,240	5,605	Pass	In Range	NDS2324	EGG

Notes: This QA audit was performed by evaluating the suppliers internal QA data, the shippers bill of lading, and the shipping company's delivery receipt received by Trihydro in the field. All of these supporting documents are attached. The QA checks included review that the supplier's product met their internal standards (Supplier Laboratory Testing column), review that the truck number from the supplier matched that of the shipper's delivery receipt (Truck ID # column), and that the mass of amendment loaded out equaled that ordered.

[1]Detect above detection limit, but within acceptable range.

[2]Out of range discuss with PSTR

TBD = To be determined when delivered

	name	signature	date
Reviewer	S. Seitz		2013June13
Project Manager	D. Gravelding		2013June13

RNAS
REMEDIATION & NATURAL ATTENUATION SERVICES, INC.

Innovative Remediation Products and Services

Lot Number:	159394	**Truck Numbers:**	580457
Date Processed:	6/3/2013	**Date of Load Out:**	6/4/2013
Formulation:	190-6730	**Net Emulsion Weight:**	46,240

AMENDMENT PASS/FAIL CRITERIA

Test Parameter	Specification	Results	Method
Total Fat % weight	**44.00-48.00%**	48.82%	Mojonnier
Total Solids % weight	**52.50-56.50%**	54.44%	Mojonnier
Droplet Size	**99.9% Droplets Smaller than 1.0 microns**	99.9% less than 0.669 microns	Laser Particle Size
Droplet Size	**99.9% Droplets Larger than 0.10 microns**	99.9% larger than 0.131 microns	Laser Particle Size
Mean Droplet Size	**0.20-0.40 microns**	0.3220	Laser Particle Size
Median Droplet Size	**0.20-0.40 microns**	0.3170	Laser Particle Size

SECONDARY AMENDMENT PARAMETERS

Test Parameter	Specification	Results	Method
pH	**7-9**	8.66	pH Meter
Coliform	**less than 5 cfu/ml**	<5	Plate Count
Standard Plate Count	**less than 100 cfu/ml**	<100	Plate Count
Yeast	**less than 1 cfu/ml**	<1	Plate Count
Mold	**less than 100 cfu/ml**	<1	Plate Count

Certifcation

6/12/2013 William A. Newman

Date William A. Newman - President - Remediation and Natural Attenuation Services, Inc.

Ship note: 490604
Ship Run: 440604
Warehouse: GC

Galloway Company
601 S. Commercial St.
Neenah, WI 54956-

Order Number: 470305
Printed: 06/04/2013 18:23:30

Uniform Straight Bill of Lading (& Packing Slip)

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper on request.

Subject to Section 7 of Conditions of applicable bill of lading. If this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:

The carrier may decline to make delivery of this shipment without payment of freight and all other lawful charges.

Carrier ID: Agmark Logistics LLC
222 2nd North Avenue
Suite 311
Nashville, TN 37201-

Phone: (615) 313-6588
Fax: (615) 313-6592

Freight charges are prepaid unless marked collect.

Received $_____ to apply in prepayment of the charges on the property described hereon.
Collect

Consign to

D.O.E PANTEX PLANT
FM 2373 and Highway 60
Amarillo, TX 79120-
US

Customer Number: 11056
Ship-to-Address: 39
Customer Phone:
Customer PO: 623
Scheduled Ship: 6/4/13 6:00 pm
Delivery: 6/4/13 12:00 am

The property described below, in apparent good order, except as noted, (contents and condition of contents of packages unknown) marked, consigned, and destined as shown below, which said carrier agrees to carry to destination, if on its route, or otherwise to deliver to another carrier on the route to destination. Every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained which are hereby agreed to by the shipper and accepted for himself and his assigns.

FOODSTUFF **FOODSTUFF** **FOODSTUFF**

Item	Description	Lot Number	Ship Qty	UOM
190-6730	NEWMAN ZONE NIB Bulk	159394 Kilograms: 20,974.33	46,240.00	LBS

Seal Numbers: 0060242,0060243,0060244
Seals verified and attached by: a

Scale Tkt:	**31991**				
Gross Wgt:	**77,800**	**Out :** 06/04/2013 18:22			
Tare Wgt:	**31,560**	**In :** 06/04/2013 16:17		**Tank:**	T64
Net Wgt:	**46,240**	**Tmp:** 40 F		**Mfg Date:**	06/03/2013
Trailer:	**580457**	**Last Haul:** orangejuice			

Plant Number: 55-0469
Prior to loading, this trailer was CIP washed at Galloway Company via turbulent force using these parameters: **Rinse:** 3 water 'burst' at 65-85 degrees F
Wash: 30% caustic at 140-150 degrees F, min of 20 minutes
Rinse: 3 water 'burst' at 90-110 degrees F
Sanitize: Mandate plus acid at 75-95 degrees F, min of 2 minutes
The tank interior, dome, lids, vents, pumps, valves, hoses, caps, fittings, and all gaskets have been cleaned, sanitized, and inspected. **INITIALS:**_____

Loaded by: a
Date: 6-4-13
Carrier: Agmark
Driver: Wayne Ram

AMENDMENT SUPPLY QUALITY ASSURANCE CHECKLIST
ISB O&M

Field Inspection										
TANKER #	AGMARK CONTAINER #	SEAL #s (from bill of lading)	DATE DELIVERED	LOT # (from lading)	MASS DELIVERED (lbs)	MASS DELIVERED (gals)	SUPPLIER LABORATORY TESTING (pass/fail)	Secondary Parameters (in/out of range)	TRUCK ID # (from Delivery Receipt)	Notes and Initials of Field Personnel
13	580548	0060664, 0060665, 0060666	6/18/2013	159394	46,200	5,600	Pass	In Range	112308	TK

Notes: This QA audit was performed by evaluating the suppliers internal QA data, the shippers bill of lading, and the shipping company's delivery receipt received by Trihydro in the field. All of these supporting documents are attached. The QA checks included review that the supplier's product met their internal standards (Supplier Laboratory Testing column), review that the truck number from the supplier matched that of the shipper's delivery receipt (Truck ID # column), and that the mass of amendment loaded out equaled that ordered.

[1]Detect above detection limit, but within acceptable range.

[2]Out of range discuss with PSTR

TBD = To be determined when delivered

	name	signature	date
Reviewer	S. Seitz		2013June18
Project Manager	D. Gravelding		2013June18

RNAS
REMEDIATION & NATURAL ATTENUATION SERVICES, INC.

Innovative Remediation Products and Services

Lot Number: 159394
Date Processed: 6/3/2013
Formulation: 190-6730

Truck Numbers: 580548
Date of Load Out: 6/4/2013
Net Emulsion Weight: 46,200

AMENDMENT PASS/FAIL CRITERIA

Test Parameter	Specification	Results	Method
Total Fat % weight	44.00-48.00%	47.67%	Mojonnier
Total Solids % weight	52.50-56.50%	54.55%	Mojonnier
Droplet Size	99.9% Droplets Smaller than 1.0 microns	99.9% less than 0.669 microns	Laser Particle Size
Droplet Size	99.9% Droplets Larger than 0.10 microns	99.9% larger than 0.131 microns	Laser Particle Size
Mean Droplet Size	0.20-0.40 microns	0.3220	Laser Particle Size
Median Droplet Size	0.20-0.40 microns	0.3170	Laser Particle Size

SECONDARY AMENDMENT PARAMETERS

Test Parameter	Specification	Results	Method
pH	7-9	8.64	pH Meter
Coliform	less than 5 cfu/ml	<5	Plate Count
Standard Plate Count	less than 100 cfu/ml	<100	Plate Count
Yeast	less than 1 cfu/ml	<1	Plate Count
Mold	less than 100 cfu/ml	<1	Plate Count

Certifcation

6/12/2013 William A. Newman

Date William A. Newman - President - Remediation and Natural Attenuation Services, Inc.

Ship note: 490637
Ship Run: 440637
Warehouse: GC

Galloway Company
601 S. Commercial St.
Neenah, WI 54956-

Order Number: 470307
Printed: 06/06/2013 12:31:20

Uniform Straight Bill of Lading (& Packing Slip)

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper on request.

Subject to Section 7 of Conditions of applicable bill of lading. If this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:

The carrier may decline to make delivery of this shipment without payment of freight and all other lawful charges.

Carrier ID: Agmark Logistics LLC
222 2nd North Avenue
Suite 311
Nashville, TN 37201-

Phone: (615) 313-6588
Fax: (615) 313-6592

Freight charges are prepaid unless marked collect.

Received $_____ to apply in prepayment of the charges on the property described hereon.
Collect

Consign to

D.O.E PANTEX PLANT
FM 2373 and Highway 60
Amarillo, TX 79120-
US

Customer Number: 11056
Ship-to-Address: 39
Customer Phone:
Customer PO: 623
Scheduled Ship: 6/6/13 10:00 am
Delivery: 6/6/13 12:00 am

The property described below, in apparent good order, except as noted, (contents and condition of contents of packages unknown) marked, consigned, and destined as shown below, which said carrier agrees to carry to destination, if on its route, or otherwise to deliver to another carrier on the route to destination. Every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained which are hereby agreed to by the shipper and accepted for himself and his assigns.

FOODSTUFF	FOODSTUFF	FOODSTUFF		
Item	**Description**	**Lot Number**	**Ship Qty**	**UOM**
190-6730	NEWMAN ZONE NIB Bulk	159394 Kilograms: 20,956.18	46,200.00	LBS

Seal Numbers: 0060664,0060665,0060666
Seals verified and attached by: BB

Scale Tkt:	**32030**				
Gross Wgt:	**78,900**	**Out** : 06/06/2013	12:28		
Tare Wgt:	**32,700**	**In** : 06/06/2013	10:44	**Tank:**	T64
Net Wgt:	**46,200**	**Tmp:** 42 F		**Mfg Date:**	06/03/2013
Trailer:	**580548**	**Last Haul:** white grape			

Plant Number: 55-0469
Prior to loading, this trailer was CIP washed at Galloway Company via turbulent force using these parameters: **Rinse:** 3 water 'burst' at 65-85 degrees F
Wash: 30% caustic at 140-150 degrees F, min of 20 minutes
Rinse: 3 water 'burst' at 90-110 degrees F
Sanitize: Mandate plus acid at 75-95 degrees F, min of 2 minutes
The tank interior, dome, lids, vents, pumps, valves, hoses, caps, fittings, and all gaskets have been cleaned, sanitized, and inspected. **INITIALS:** N/A

Loaded by: B. R. BA
Date: 6-6-13
Carrier: Agmark
Driver: [illegible]

AMENDMENT SUPPLY QUALITY ASSURANCE CHECKLIST
ISB O&M

Field Inspection										
TANKER #	AGMARK CONTAINER #	SEAL #s (from bill of lading)	DATE DELIVERED	LOT # (from lading)	MASS DELIVERED (lbs)	MASS DELIVERED (gals)	SUPPLIER LABORATORY TESTING (pass/fail)	Secondary Parameters (in/out of range)	TRUCK ID # (from Delivery Receipt)	Notes and Initials of Field Personnel
13	580572	0060667, 0060668, 0060669	6/18/2013	159394	46,640	5,653	Pass	In Range	N2308	CGR

Notes: This QA audit was performed by evaluating the suppliers internal QA data, the shippers bill of lading, and the shipping company's delivery receipt received by Trihydro in the field. All of these supporting documents are attached. The QA checks included review that the supplier's product met their internal standards (Supplier Laboratory Testing column), review that the truck number from the supplier matched that of the shipper's delivery receipt (Truck ID # column), and that the mass of amendment loaded out equaled that ordered.

[1]Detect above detection limit, but within acceptable range.

[2]Out of range discuss with PSTR

TBD = To be determined when delivered

	name	signature	date
Reviewer	S. Seitz		2013June19
Project Manager	D. Gravelding		2013June19

RNAS
REMEDIATION & NATURAL ATTENUATION SERVICES, INC

Innovative Remediation Products and Services

Lot Number:	159394	**Truck Numbers:**	580572
Date Processed:	6/3/2013	**Date of Load Out:**	6/4/2013
Formulation:	190-6730	**Net Emulsion Weight:**	46,640

AMENDMENT PASS/FAIL CRITERIA

Test Parameter	Specification	Results	Method
Total Fat % weight	**44.00-48.00%**	48.26%	Mojonnier
Total Solids % weight	**52.50-56.50%**	54.41%	Mojonnier
Droplet Size	**99.9% Droplets Smaller than 1.0 microns**	99.9% less than 0.669 microns	Laser Particle Size
Droplet Size	**99.9% Droplets Larger than 0.10 microns**	99.9% larger than 0.131 microns	Laser Particle Size
Mean Droplet Size	**0.20-0.40 microns**	0.3220	Laser Particle Size
Median Droplet Size	**0.20-0.40 microns**	0.3170	Laser Particle Size

SECONDARY AMENDMENT PARAMETERS

Test Parameter	Specification	Results	Method
pH	**7-9**	8.65	pH Meter
Coliform	**less than 5 cfu/ml**	<5	Plate Count
Standard Plate Count	**less than 100 cfu/ml**	<100	Plate Count
Yeast	**less than 1 cfu/ml**	<1	Plate Count
Mold	**less than 100 cfu/ml**	<1	Plate Count

Certifcation

6/12/2013 William A. Newman

Date William A. Newman - President - Remediation and Natural Attenuation Services, Inc.

Ship note: 490642
Ship Run: 440642
Warehouse: GC

Galloway Company
601 S. Commercial St.
Neenah, WI 54956-

Order Number: 470308
Printed: 06/06/2013 17:20:23

Uniform Straight Bill of Lading (& Packing Slip)

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper on request.

Subject to Section 7 of Conditions of applicable bill of lading. If this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:

The carrier may decline to make delivery of this shipment without payment of freight and all other lawful charges.

Carrier ID: Agmark Logistics LLC
222 2nd North Avenue
Suite 311
Nashville, TN 37201-

Phone: (615) 313-6588
Fax: (615) 313-6592

Freight charges are prepaid unless marked collect.

Received $_____ to apply in prepayment of the charges on the property described hereon.
Collect

Consign to

D.O.E PANTEX PLANT
FM 2373 and Highway 60
Amarillo, TX 79120-
US

Customer Number: 11056
Ship-to-Address: 39
Customer Phone:
Customer PO: 623
Scheduled Ship: 6/6/13 4:00 pm
Delivery: 6/6/13 12:00 am

The property described below, in apparent good order, except as noted, (contents and condition of contents of packages unknown) marked, consigned, and destined as shown below, which said carrier agrees to carry to destination, if on its route, or otherwise to deliver to another carrier on the route to destination. Every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained which are hereby agreed to by the shipper and accepted for himself and his assigns.

FOODSTUFF **FOODSTUFF** **FOODSTUFF**

Item	Description	Lot Number	Ship Qty	UOM
190-6730	NEWMAN ZONE NIB Bulk	159394 Kilograms: 21,155.77	46,640.00	LBS

Seal Numbers: 0060667,0060668,0060669
Seals verified and attached by: BB

Scale Tkt:	32031				
Gross Wgt:	79,340	Out :	06/06/2013 17:18		
Tare Wgt:	32,700	In :	06/06/2013 15:28	Tank:	T64
Net Wgt:	46,640	Tmp:	42 F	Mfg Date:	06/03/2013
Trailer:	580572	Last Haul:	apple juice		

Plant Number: 55-0469
Prior to loading, this trailer was CIP washed at Galloway Company via turbulent force using these parameters: **Rinse:** 3 water 'burst' at 65-85 degrees F
Wash: 30% caustic at 140-150 degrees F, min of 20 minutes
Rinse: 3 water 'burst' at 90-110 degrees F
Sanitize: Mandate plus acid at 75-95 degrees F, min of 2 minutes
The tank interior, dome, lids, vents, pumps, valves, hoses, caps, fittings, and all gaskets have been cleaned, sanitized, and inspected. **INITIALS:** N/A

Loaded by: B. R BB
Date: 4-6-13
Carrier: Agmark
Driver: [illegible]

AMENDMENT SUPPLY QUALITY ASSURANCE CHECKLIST
ISB O&M

Field Inspection										
TANKER #	AGMARK CONTAINER #	SEAL #s (from bill of lading)	DATE DELIVERED	LOT # (from lading)	MASS DELIVERED (lbs)	MASS DELIVERED (gals)	SUPPLIER LABORATORY TESTING (pass/fail)	Secondary Parameters (in/out of range)	TRUCK ID # (from Delivery Receipt)	Notes and Initials of Field Personnel
15	580325	0060343, 0060344, 0060345	6/24/2013	159591	46,980	5,695	Pass	In Range	N2324	JRS

Notes: This QA audit was performed by evaluating the suppliers internal QA data, the shippers bill of lading, and the shipping company's delivery receipt received by Trihydro in the field. All of these supporting documents are attached. The QA checks included review that the supplier's product met their internal standards (Supplier Laboratory Testing column), review that the truck number from the supplier matched that of the shipper's delivery receipt (Truck ID # column), and that the mass of amendment loaded out equaled that ordered.

[1]Detect above detection limit, but within acceptable range.

[2]Out of range discuss with PSTR

TBD = To be determined when delivered

	name	signature	date
Reviewer	S. Seitz		2013June24
Project Manager	D. Gravelding		2013June24

RNAS
REMEDIATION & NATURAL ATTENUATION SERVICES, INC.

Innovative Remediation Products and Services

Lot Number:	159591	**Truck Numbers:**	580325
Date Processed:	6/11/2013	**Date of Load Out:**	6/12/2013
Formulation:	190-6730	**Net Emulsion Weight:**	46,980

AMENDMENT PASS/FAIL CRITERIA

Test Parameter	Specification	Results	Method
Total Fat % weight	44.00-48.00%	47.34%	Mojonnier
Total Solids % weight	52.50-56.50%	54.15%	Mojonnier
Droplet Size	99.9% Droplets Smaller than 1.0 microns	99.9% less than 0.669 microns	Laser Particle Size
Droplet Size	99.9% Droplets Larger than 0.10 microns	99.9% larger than 0.115 microns	Laser Particle Size
Mean Droplet Size	0.20-0.40 microns	0.3230	Laser Particle Size
Median Droplet Size	0.20-0.40 microns	0.3180	Laser Particle Size

SECONDARY AMENDMENT PARAMETERS

Test Parameter	Specification	Results	Method
pH	7-9	8.6	pH Meter
Coliform	less than 5 cfu/ml	<5	Plate Count
Standard Plate Count	less than 100 cfu/ml	<100	Plate Count
Yeast	less than 1 cfu/ml	<1	Plate Count
Mold	less than 100 cfu/ml	<1	Plate Count

Certifcation

6/24/2013 William A. Newman

Date William A. Newman - President- Remediation and Natural Attenuation Services, Inc.

Ship note: 490699
Ship Run: 440696
Warehouse: GC

Galloway Company
601 S. Commercial St.
Neenah, WI 54956-

Order Number: 470416
Printed: 06/12/2013 14:35:05

Uniform Straight Bill of Lading (& Packing Slip)

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper on request.

Subject to Section 7 of Conditions of applicable bill of lading. If this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:

The carrier may decline to make delivery of this shipment without payment of freight and all other lawful charges.

Carrier ID: Agmark Logistics LLC
222 2nd North Avenue
Suite 311
Nashville, TN 37201-

Phone: (615) 313-6588
Fax: (615) 313-6592

Freight charges are prepaid unless marked collect.

Received $_____ to apply in prepayment of the charges on the property described hereon.
Collect

Consign to

D.O.E PANTEX PLANT
FM 2373 and Highway 60
Amarillo, TX 79120-
US

Customer Number: 11056
Ship-to-Address: 39
Customer Phone:
Customer PO: 625
Scheduled Ship: 6/12/13 2:00 pm
Delivery: 6/12/13 12:00 am

The property described below, in apparent good order, except as noted, (contents and condition of contents of packages unknown) marked, consigned, and destined as shown below, which said carrier agrees to carry to destination, if on its route, or otherwise to deliver to another carrier on the route to destination. Every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained which are hereby agreed to by the shipper and accepted for himself and his assigns.

FOODSTUFF		FOODSTUFF	FOODSTUFF	
Item	**Description**	**Lot Number**	**Ship Qty**	**UOM**
190-6730	NEWMAN ZONE NIB Bulk	159591 Kilograms: 21,309.99	46,980.00	LBS

Seal Numbers: 0060343,0060344,0060345
Seals verified and attached by: BB

Scale Tkt:	**32182**				
Gross Wgt:	**76,100**	**Out :**	06/12/2013 14:33		
Tare Wgt:	**29,120**	**In :**	06/12/2013 12:28	**Tank:**	T65
Net Wgt:	**46,980**	**Tmp:**	42 F	**Mfg Date:**	06/10/2013
Trailer:	**580325**	**Last Haul:**	orange juice		

Plant Number: 55-0469
Prior to loading, this trailer was CIP washed at Galloway Company via turbulent force using these parameters: **Rinse:** 3 water 'burst' at 65-85 degrees F
Wash: 30% caustic at 140-150 degrees F, min of 20 minutes
Rinse: 3 water 'burst' at 90-110 degrees F
Sanitize: Mandate plus acid at 75-95 degrees F, min of 2 minutes
The tank interior, dome, lids, vents, pumps, valves, hoses, caps, fittings, and all gaskets have been cleaned, sanitized, and inspected. **INITIALS:** N/A

Loaded by: [signature]
Date: 6-12-13
Carrier: Ag Mark
Driver: [signature]

AMENDMENT SUPPLY QUALITY ASSURANCE CHECKLIST
ISB O&M

Field Inspection										
TANKER #	AGMARK CONTAINER #	SEAL #s (from bill of lading)	DATE DELIVERED	LOT # (from lading)	MASS DELIVERED (lbs)	MASS DELIVERED (gals)	SUPPLIER LABORATORY TESTING (pass/fail)	Secondary Parameters (in/out of range)	TRUCK ID # (from Delivery Receipt)	Notes and Initials of Field Personnel
16	580615	0060346, 0060347, 0060679	6/26/2013	159855	46,240	5,605	Pass	In Range	N2324	JRS

Notes: This QA audit was performed by evaluating the suppliers internal QA data, the shippers bill of lading, and the shipping company's delivery receipt received by Trihydro in the field. All of these supporting documents are attached. The QA checks included review that the supplier's product met their internal standards (Supplier Laboratory Testing column), review that the truck number from the supplier matched that of the shipper's delivery receipt (Truck ID # column), and that the mass of amendment loaded out equaled that ordered.

[1]Detect above detection limit, but within acceptable range.

[2]Out of range discuss with PSTR

TBD = To be determined when delivered

	name	signature	date
Reviewer	S. Seitz		2013June26
Project Manager	D. Gravelding		2013June26

RNAS
REMEDIATION & NATURAL ATTENUATION SERVICES, INC.

Innovative Remediation Products and Services

Lot Number:	159855	**Truck Numbers:**	580615
Date Processed:	6/11/2013	**Date of Load Out:**	6/13/2013
Formulation:	190-6730	**Net Emulsion Weight:**	46,240

AMENDMENT PASS/FAIL CRITERIA

Test Parameter	Specification	Results	Method
Total Fat % weight	44.00-48.00%	47.82%	Mojonnier
Total Solids % weight	52.50-56.50%	53.84%	Mojonnier
Droplet Size	99.9% Droplets Smaller than 1.0 microns	99.9% less than 0.669 microns	Laser Particle Size
Droplet Size	99.9% Droplets Larger than 0.10 microns	99.9% larger than 0.131 microns	Laser Particle Size
Mean Droplet Size	0.20-0.40 microns	0.3480	Laser Particle Size
Median Droplet Size	0.20-0.40 microns	0.3410	Laser Particle Size

SECONDARY AMENDMENT PARAMETERS

Test Parameter	Specification	Results	Method
pH	7-9	8.59	pH Meter
Coliform	less than 5 cfu/ml	<5	Plate Count
Standard Plate Count	less than 100 cfu/ml	<100	Plate Count
Yeast	less than 1 cfu/ml	<1	Plate Count
Mold	less than 100 cfu/ml	<1	Plate Count

Certifcation

6/19/13

Date

Lori Brouillette / Business Manager-Remediation and Natural Attenuation Services, Inc.

Ship note: 490709
Ship Run: 440705
Warehouse: GC

Galloway Company
601 S. Commercial St.
Neenah, WI 54956-

Order Number: 470599
Printed: 06/13/2013 14:54:44

Uniform Straight Bill of Lading (& Packing Slip)

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper on request.

Subject to Section 7 of Conditions of applicable bill of lading. If this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:

The carrier may decline to make delivery of this shipment without payment of freight and all other lawful charges.

Carrier ID: Agmark Logistics LLC
222 2nd North Avenue
Suite 311
Nashville, TN 37201-

Phone: (615) 313-6588
Fax: (615) 313-6592

Freight charges are prepaid unless marked collect.

Received $_____ to apply in prepayment of the charges on the property described hereon.
Collect

Consign to

D.O.E PANTEX PLANT
FM 2373 and Highway 60
Amarillo, TX 79120-
US

Customer Number: 11056
Ship-to-Address: 39
Customer Phone:
Customer PO: 630
Scheduled Ship: 6/13/13 12:00 pm
Delivery: 6/13/13 12:00 am

The property described below, in apparent good order, except as noted, (contents and condition of contents of packages unknown) marked, consigned, and destined as shown below, which said carrier agrees to carry to destination, if on its route, or otherwise to deliver to another carrier on the route to destination. Every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained which are hereby agreed to by the shipper and accepted for himself and his assigns.

FOODSTUFF **FOODSTUFF** **FOODSTUFF**

Item	Description	Lot Number	Ship Qty	UOM
190-6730	NEWMAN ZONE NIB Bulk	159855 Kilograms: 20,974.33	46,240.00	LBS

Seal Numbers: 0060346,0060347,0060679
Seals verified and attached by: TM

Scale Tkt:	**32186**				
Gross Wgt:	**75,460**	**Out** : 06/13/2013 14:52			
Tare Wgt:	**29,220**	**In** : 06/13/2013 13:18		**Tank:**	T65
Net Wgt:	**46,240**	**Tmp:** 41 F		**Mfg Date:**	06/12/2013
Trailer:	**580615**	**Last Haul:** oj			

Plant Number: 55-0469
Prior to loading, this trailer was CIP washed at Galloway Company via turbulent force using these parameters: **Rinse:** 3 water 'burst' at 65-85 degrees F
Wash: 30% caustic at 140-150 degrees F, min of 20 minutes
Rinse: 3 water 'burst' at 90-110 degrees F
Sanitize: Mandate plus acid at 75-95 degrees F, min of 2 minutes
The tank interior, dome, lids, vents, pumps, valves, hoses, caps, fittings, and all gaskets have been cleaned, sanitized, and inspected. **INITIALS:** TM

Loaded by: TM
Date: 6-13-13
Carrier: Ag Mark
Driver: [signature]

AMENDMENT SUPPLY QUALITY ASSURANCE CHECKLIST
ISB O&M

Field Inspection										
TANKER #	AGMARK CONTAINER #	SEAL #s (from bill of lading)	DATE DELIVERED	LOT # (from lading)	MASS DELIVERED (lbs)	MASS DELIVERED (gals)	SUPPLIER LABORATORY TESTING (pass/fail)	Secondary Parameters (in/out of range)	TRUCK ID # (from Delivery Receipt)	Notes and Initials of Field Personnel
18	580602	0060338, 0060339, 0060340	6/26/2013	159591	46,260	5,607	Pass	In Range	N2141	JRS

Notes: This QA audit was performed by evaluating the suppliers internal QA data, the shippers bill of lading, and the shipping company's delivery receipt received by Trihydro in the field. All of these supporting documents are attached. The QA checks included review that the supplier's product met their internal standards (Supplier Laboratory Testing column), review that the truck number from the supplier matched that of the shipper's delivery receipt (Truck ID # column), and that the mass of amendment loaded out equaled that ordered.

[1]Detect above detection limit, but within acceptable range.

[2]Out of range discuss with PSTR

TBD = To be determined when delivered

	name	signature	date
Reviewer	S. Seitz		2013June26
Project Manager	D. Gravelding		2013June26

RNAS
REMEDIATION & NATURAL ATTENUATION SERVICES, INC

Innovative Remediation Products and Services

Lot Number:	159591	**Truck Numbers:**	580602
Date Processed:	6/11/2013	**Date of Load Out:**	6/12/2013
Formulation:	190-6730	**Net Emulsion Weight:**	46,260

AMENDMENT PASS/FAIL CRITERIA

Test Parameter	Specification	Results	Method
Total Fat % weight	44.00-48.00%	47.87%	Mojonnier
Total Solids % weight	52.50-56.50%	55.23%	Mojonnier
Droplet Size	99.9% Droplets Smaller than 1.0 microns	99.9% less than 0.669 microns	Laser Particle Size
Droplet Size	99.9% Droplets Larger than 0.10 microns	99.9% larger than 0.115 microns	Laser Particle Size
Mean Droplet Size	0.20-0.40 microns	0.3230	Laser Particle Size
Median Droplet Size	0.20-0.40 microns	0.3180	Laser Particle Size

SECONDARY AMENDMENT PARAMETERS

Test Parameter	Specification	Results	Method
pH	7-9	8.54	pH Meter
Coliform	less than 5 cfu/ml	<5	Plate Count
Standard Plate Count	less than 100 cfu/ml	<100	Plate Count
Yeast	less than 1 cfu/ml	<1	Plate Count
Mold	less than 100 cfu/ml	<1	Plate Count

Certifcation

6/26/13

Date

Lori Brouillette - Business Manager- Remediation and Natural Attenuation Services, Inc.

Ship note: 490693
Ship Run: 440690
Warehouse: GC

Galloway Company
601 S. Commercial St.
Neenah, WI 54956-

Order Number: 470415
Printed: 06/12/2013 12:47:47

Uniform Straight Bill of Lading (& Packing Slip)

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper on request.

Subject to Section 7 of Conditions of applicable bill of lading. If this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:

The carrier may decline to make delivery of this shipment without payment of freight and all other lawful charges.

Carrier ID: Agmark Logistics LLC
222 2nd North Avenue
Suite 311
Nashville, TN 37201-

Phone: (615) 313-6588
Fax: (615) 313-6592

Freight charges are prepaid unless marked collect.

Received $_____ to apply in prepayment of the charges on the property described hereon.
Collect

Consign to

D.O.E PANTEX PLANT
FM 2373 and Highway 60
Amarillo, TX 79120-
US

Customer Number: 11056
Ship-to-Address: 39
Customer Phone:
Customer PO: 625
Scheduled Ship: 6/12/13 12:00 pm
Delivery: 6/12/13 12:00 am

The property described below, in apparent good order, except as noted, (contents and condition of contents of packages unknown) marked, consigned, and destined as shown below, which said carrier agrees to carry to destination, if on its route, or otherwise to deliver to another carrier on the route to destination. Every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained which are hereby agreed to by the shipper and accepted for himself and his assigns.

FOODSTUFF **FOODSTUFF** **FOODSTUFF**

Item	Description	Lot Number	Ship Qty	UOM
190-6730	NEWMAN ZONE NIB Bulk	159591 Kilograms: 20,983.40	46,260.00	LBS

Seal Numbers: 0060338,0060339,0060340
Seals verified and attached by: BB

Scale Tkt:	32180				
Gross Wgt:	76,680	Out :	06/12/2013 12:46		
Tare Wgt:	30,420	In :	06/12/2013 10:56	Tank:	T65
Net Wgt:	46,260	Tmp:	41 F	Mfg Date:	06/10/2013
Trailer:	580602	Last Haul:	red whine		

Plant Number: 55-0469
Prior to loading, this trailer was CIP washed at Galloway Company via turbulent force using these parameters: **Rinse:** 3 water 'burst' at 65-85 degrees F
Wash: 30% caustic at 140-150 degrees F, min of 20 minutes
Rinse: 3 water 'burst' at 90-110 degrees F
Sanitize: Mandate plus acid at 75-95 degrees F, min of 2 minutes
The tank interior, dome, lids, vents, pumps, valves, hoses, caps, fittings, and all gaskets have been cleaned, sanitized, and inspected. **INITIALS:** N/A

Loaded by: B. RB
Carrier: Agmark

Date: 6-12-13
Driver: Grady Truitt

Ship note: 490699
Ship Run: 440696
Warehouse: GC

Galloway Company
601 S. Commercial St.
Neenah, WI 54956-

Order Number: 470416
Printed: 06/12/2013 14:35:05

Uniform Straight Bill of Lading (& Packing Slip)

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper on request.

Subject to Section 7 of Conditions of applicable bill of lading. If this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:

The carrier may decline to make delivery of this shipment without payment of freight and all other lawful charges.

Carrier ID: Agmark Logistics LLC
222 2nd North Avenue
Suite 311
Nashville, TN 37201-

Phone: (615) 313-6588
Fax: (615) 313-6592

Freight charges are prepaid unless marked collect.

Received $_____ to apply in prepayment of the charges on the property described hereon.
Collect

Consign to

D.O.E PANTEX PLANT
FM 2373 and Highway 60
Amarillo, TX 79120-
US

Customer Number: 11056
Ship-to-Address: 39
Customer Phone:
Customer PO: 625
Scheduled Ship: 6/12/13 2:00 pm
Delivery: 6/12/13 12:00 am

The property described below, in apparent good order, except as noted, (contents and condition of contents of packages unknown) marked, consigned, and destined as shown below, which said carrier agrees to carry to destination, if on its route, or otherwise to deliver to another carrier on the route to destination. Every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained which are hereby agreed to by the shipper and accepted for himself and his assigns.

FOODSTUFF		FOODSTUFF	FOODSTUFF	
Item	**Description**	**Lot Number**	**Ship Qty**	**UOM**
190-6730	NEWMAN ZONE NIB Bulk	159591 Kilograms: 21,309.99	46,980.00	LBS

Seal Numbers: 0060343,0060344,0060345
Seals verified and attached by: BB

Scale Tkt:	**32182**				
Gross Wgt:	**76,100**	**Out :**	06/12/2013 14:33		
Tare Wgt:	**29,120**	**In :**	06/12/2013 12:28	**Tank:**	T65
Net Wgt:	**46,980**	**Tmp:**	42 F	**Mfg Date:**	06/10/2013
Trailer:	**580325**	**Last Haul:**	orange juice		

Plant Number: 55-0469
Prior to loading, this trailer was CIP washed at Galloway Company via turbulent force using these parameters: **Rinse:** 3 water 'burst' at 65-85 degrees F
Wash: 30% caustic at 140-150 degrees F, min of 20 minutes
Rinse: 3 water 'burst' at 90-110 degrees F
Sanitize: Mandate plus acid at 75-95 degrees F, min of 2 minutes
The tank interior, dome, lids, vents, pumps, valves, hoses, caps, fittings, and all gaskets have been cleaned, sanitized, and inspected. **INITIALS:** N/A

Loaded by: [signature]
Date: 6-12-13
Carrier: Ag Mark
Driver: [signature]

AMENDMENT SUPPLY QUALITY ASSURANCE CHECKLIST
ISB O&M

Field Inspection										
TANKER #	AGMARK CONTAINER #	SEAL #s (from bill of lading)	DATE DELIVERED	LOT # (from lading)	MASS DELIVERED (lbs)	MASS DELIVERED (gals)	SUPPLIER LABORATORY TESTING (pass/fail)	Secondary Parameters (in/out of range)	TRUCK ID # (from Delivery Receipt)	Notes and Initials of Field Personnel
18	580400(1)	0060349, 0060348, 0060350	6/28/2013	159855	46,200	5,600	Pass	In Range	N2324	FJK
19	580433	0060253, 0060254, 0060255	6/28/2013	159855	46,260	5,607	Pass	In Range	N2141	FJK

Notes: This QA audit was performed by evaluating the suppliers internal QA data, the shippers bill of lading, and the shipping company's delivery receipt received by Trihydro in the field. All of these supporting documents are attached. The QA checks included review that the supplier's product met their internal standards (Supplier Laboratory Testing column), review that the truck number from the supplier matched that of the shipper's delivery receipt (Truck ID # column), and that the mass of amendment loaded out equaled that ordered.

[1]Detect above detection limit, but within acceptable range.

[2]Out of range discuss with PSTR

TBD = To be determined when delivered

Reviewer	S. Seitz		2013June28
	name	signature	date
Project Manager	D. Gravelding		2013June28
	name		date

Trihydro CORPORATION

RNAS
REMEDIATION & NATURAL ATTENUATION SERVICES, INC

Innovative Remediation Products and Services

Lot Number:	159855	**Truck Numbers:**	5804001
Date Processed:	6/11/2013	**Date of Load Out:**	6/13/2013
Formulation:	190-6730	**Net Emulsion Weight:**	46,200

AMENDMENT PASS/FAIL CRITERIA

Test Parameter	Specification	Results	Method
Total Fat % weight	44.00-48.00%	47.74%	Mojonnier
Total Solids % weight	52.50-56.50%	54.04%	Mojonnier
Droplet Size	99.9% Droplets Smaller than 1.0 microns	99.9% less than 0.669 microns	Laser Particle Size
Droplet Size	99.9% Droplets Larger than 0.10 microns	99.9% larger than 0.131 microns	Laser Particle Size
Mean Droplet Size	0.20-0.40 microns	0.3480	Laser Particle Size
Median Droplet Size	0.20-0.40 microns	0.3410	Laser Particle Size

SECONDARY AMENDMENT PARAMETERS

Test Parameter	Specification	Results	Method
pH	7-9	8.58	pH Meter
Coliform	less than 5 cfu/ml	<5	Plate Count
Standard Plate Count	less than 100 cfu/ml	<100	Plate Count
Yeast	less than 1 cfu/ml	<1	Plate Count
Mold	less than 100 cfu/ml	<1	Plate Count

Certifcation

6/19/13
Date

Lori Brouillette - Business Manager- Remediation and Natural Attenuation Services, Inc.

Ship note: 490711
Ship Run: 440707
Warehouse: GC

Galloway Company
601 S. Commercial St.
Neenah, WI 54956-

Order Number: 470600
Printed: 06/13/2013 17:27:44

Uniform Straight Bill of Lading (& Packing Slip)

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper on request.

Subject to Section 7 of Conditions of applicable bill of lading. If this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:

The carrier may decline to make delivery of this shipment without payment of freight and all other lawful charges.

Carrier ID: Agmark Logistics LLC
222 2nd North Avenue
Suite 311
Nashville, TN 37201-

Phone: (615) 313-6588
Fax: (615) 313-6592

Freight charges are prepaid unless marked collect.

Received $_____ to apply in prepayment of the charges on the property described hereon.
Collect

Consign to

D.O.E PANTEX PLANT
FM 2373 and Highway 60
Amarillo, TX 79120-
US

Customer Number: 11056
Ship-to-Address: DEFAULT
Customer Phone:
Customer PO: 630
Scheduled Ship: 6/13/13 2:00 pm
Delivery: 6/13/13 12:00 am

The property described below, in apparent good order, except as noted, (contents and condition of contents of packages unknown) marked, consigned, and destined as shown below, which said carrier agrees to carry to destination, if on its route, or otherwise to deliver to another carrier on the route to destination. Every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained which are hereby agreed to by the shipper and accepted for himself and his assigns.

FOODSTUFF **FOODSTUFF** **FOODSTUFF**

Item	Description	Lot Number	Ship Qty	UOM
190-6730	NEWMAN ZONE NIB Bulk	159855 Kilograms: 20,956.18	46,200.00	LBS

Seal Numbers: 0060348,0060349,0060350
Seals verified and attached by: TM

Scale Tkt:	32187				
Gross Wgt:	79,200	Out :	06/13/2013 17:25		
Tare Wgt:	33,000	In :	06/13/2013 15:41	Tank:	T65
Net Wgt:	46,200	Tmp:	41 F	Mfg Date:	06/12/2013
Trailer:	5804001	Last Haul:	apple juice		

Plant Number: 55-0469
Prior to loading, this trailer was CIP washed at Galloway Company via turbulent force using these parameters: **Rinse:** 3 water 'burst' at 65-85 degrees F
Wash: 30% caustic at 140-150 degrees F, min of 20 minutes
Rinse: 3 water 'burst' at 90-110 degrees F
Sanitize: Mandate plus acid at 75-95 degrees F, min of 2 minutes
The tank interior, dome, lids, vents, pumps, valves, hoses, caps, fittings, and all gaskets have been cleaned, sanitized, and inspected. **INITIALS:** TM

Loaded by: TM
Date: 6·13·13
Carrier: AgMark
Driver: [illegible]

RNAS
REMEDIATION & NATURAL ATTENUATION SERVICES, INC.

Innovative Remediation Products and Services

Lot Number:	159855	**Truck Numbers:**	580433
Date Processed:	6/11/2013	**Date of Load Out:**	6/14/2013
Formulation:	190-6730	**Net Emulsion Weight:**	46,260

AMENDMENT PASS/FAIL CRITERIA

Test Parameter	Specification	Results	Method
Total Fat % weight	44.00-48.00%	47.49%	Mojonnier
Total Solids % weight	52.50-56.50%	54.23%	Mojonnier
Droplet Size	99.9% Droplets Smaller than 1.0 microns	99.9% less than 0.669 microns	Laser Particle Size
Droplet Size	99.9% Droplets Larger than 0.10 microns	99.9% larger than 0.131 microns	Laser Particle Size
Mean Droplet Size	0.20-0.40 microns	0.3480	Laser Particle Size
Median Droplet Size	0.20-0.40 microns	0.3410	Laser Particle Size

SECONDARY AMENDMENT PARAMETERS

Test Parameter	Specification	Results	Method
pH	7-9	8.58	pH Meter
Coliform	less than 5 cfu/ml	<5	Plate Count
Standard Plate Count	less than 100 cfu/ml	<100	Plate Count
Yeast	less than 1 cfu/ml	<1	Plate Count
Mold	less than 100 cfu/ml	<1	Plate Count

Certifcation

6/19/13
Date

Lori Brouillette - Business Manager- Remediation and Natural Attenuation Services, Inc.

Ship note: 490718
Ship Run: 440711
Warehouse: GC

Galloway Company
601 S. Commercial St.
Neenah, WI 54956-

Order Number: 470601
Printed: 06/14/2013 11:47:21

Uniform Straight Bill of Lading (& Packing Slip)

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper on request.

Subject to Section 7 of Conditions of applicable bill of lading. If this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:

The carrier may decline to make delivery of this shipment without payment of freight and all other lawful charges.

Carrier ID: Agmark Logistics LLC
222 2nd North Avenue
Suite 311
Nashville, TN 37201-

Phone: (615) 313-6588
Fax: (615) 313-6592

Freight charges are prepaid unless marked collect.

Received $_____ to apply in prepayment of the charges on the property described hereon.
Collect

Consign to

D.O.E PANTEX PLANT
FM 2373 and Highway 60
Amarillo, TX 79120-
US

Customer Number: 11056
Ship-to-Address: 39
Customer Phone:
Customer PO: 630
Scheduled Ship: 6/14/13 10:00 am
Delivery: 6/14/13 12:00 am

The property described below, in apparent good order, except as noted, (contents and condition of contents of packages unknown) marked, consigned, and destined as shown below, which said carrier agrees to carry to destination, if on its route, or otherwise to deliver to another carrier on the route to destination. Every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained which are hereby agreed to by the shipper and accepted for himself and his assigns.

FOODSTUFF **FOODSTUFF** **FOODSTUFF**

Item	Description	Lot Number	Ship Qty	UOM
190-6730	NEWMAN ZONE NIB Bulk	159855 Kilograms: 20,983.40	46,260.00	LBS

Seal Numbers: 0060253,0060254,0060255
Seals verified and attached by: TM

Scale Tkt:	32210				
Gross Wgt:	75,840	Out :	06/14/2013 11:43		
Tare Wgt:	29,580	In :	06/14/2013 9:51	Tank:	T65
Net Wgt:	46,260	Tmp:	41 F	Mfg Date:	06/12/2013
Trailer:	580433	Last Haul:	wine		

Plant Number: 55-0469
Prior to loading, this trailer was CIP washed at Galloway Company via turbulent force using these parameters: **Rinse:** 3 water 'burst' at 65-85 degrees F
Wash: 30% caustic at 140-150 degrees F, min of 20 minutes
Rinse: 3 water 'burst' at 90-110 degrees F
Sanitize: Mandate plus acid at 75-95 degrees F, min of 2 minutes
The tank interior, dome, lids, vents, pumps, valves, hoses, caps, fittings, and all gaskets have been cleaned, sanitized, and inspected. **INITIALS:** TM

Loaded by: TM
Date: 6-14-13
Carrier: Agmark
Driver: [signature]

AMENDMENT SUPPLY QUALITY ASSURANCE CHECKLIST
ISB O&M

Field Inspection										
TANKER #	AGMARK CONTAINER #	SEAL #s (from bill of lading)	DATE DELIVERED	LOT # (from lading)	MASS DELIVERED (lbs)	MASS DELIVERED (gals)	SUPPLIER LABORATORY TESTING (pass/fail)	Secondary Parameters (in/out of range)	TRUCK ID # (from Delivery Receipt)	Notes and Initials of Field Personnel
20	580443	0060257, 0060258, 0060265	7/1/2013	159855	46,220	5,602	Pass	In Range	N2324	FJK

Notes: This QA audit was performed by evaluating the suppliers internal QA data, the shippers bill of lading, and the shipping company's delivery receipt received by Trihydro in the field. All of these supporting documents are attached. The QA checks included review that the supplier's product met their internal standards (Supplier Laboratory Testing column), review that the truck number from the supplier matched that of the shipper's delivery receipt (Truck ID # column), and that the mass of amendment loaded out equaled that ordered.

[1]Detect above detection limit, but within acceptable range.

[2]Out of range discuss with PSTR

TBD = To be determined when delivered

	name	signature	date
Reviewer	S. Seitz		2013July1
Project Manager	D. Gravelding		2013July1

RNAS
REMEDIATION & NATURAL ATTENUATION SERVICES INC

Innovative Remediation Products and Services

Lot Number:	159855	**Truck Numbers:**	580443
Date Processed:	6/11/2013	**Date of Load Out:**	6/14/2013
Formulation:	190-6730	**Net Emulsion Weight:**	46,220

AMENDMENT PASS/FAIL CRITERIA

Test Parameter	Specification	Results	Method
Total Fat % weight	44.00-48.00%	47.65%	Mojonnier
Total Solids % weight	52.50-56.50%	53.95%	Mojonnier
Droplet Size	99.9% Droplets Smaller than 1.0 microns	99.9% less than 0.669 microns	Laser Particle Size
Droplet Size	99.9% Droplets Larger than 0.10 microns	99.9% larger than 0.131 microns	Laser Particle Size
Mean Droplet Size	0.20-0.40 microns	0.3480	Laser Particle Size
Median Droplet Size	0.20-0.40 microns	0.3410	Laser Particle Size

SECONDARY AMENDMENT PARAMETERS

Test Parameter	Specification	Results	Method
pH	7-9	8.63	pH Meter
Coliform	less than 5 cfu/ml	<5	Plate Count
Standard Plate Count	less than 100 cfu/ml	<100	Plate Count
Yeast	less than 1 cfu/ml	<1	Plate Count
Mold	less than 100 cfu/ml	<1	Plate Count

Certifcation

6/19/13
Date

Lori Brouillette - Business Manager- Remediation and Natural Attenuation Services, Inc.

Ship note: 490720
Ship Run: 440713
Warehouse: GC

Galloway Company
601 S. Commercial St.
Neenah, WI 54956-

Order Number: 470602
Printed: 06/14/2013 17:19:49

Uniform Straight Bill of Lading (& Packing Slip)

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper on request.

Subject to Section 7 of Conditions of applicable bill of lading. If this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:

The carrier may decline to make delivery of this shipment without payment of freight and all other lawful charges.

Carrier ID: Agmark Logistics LLC
222 2nd North Avenue
Suite 311
Nashville, TN 37201-

Phone: (615) 313-6588
Fax: (615) 313-6592

Freight charges are prepaid unless marked collect.

Received $_____ to apply in prepayment of the charges on the property described hereon.
Collect

_____ Consign to _____

D.O.E PANTEX PLANT
FM 2373 and Highway 60
Amarillo, TX 79120-
US

Customer Number: 11056
Ship-to-Address: 39
Customer Phone:
Customer PO: 630
Scheduled Ship: 6/14/13 12:00 pm
Delivery: 6/14/13 12:00 am

The property described below, in apparent good order, except as noted, (contents and condition of contents of packages unknown) marked, consigned, and destined as shown below, which said carrier agrees to carry to destination, if on its route, or otherwise to deliver to another carrier on the route to destination. Every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained which are hereby agreed to by the shipper and accepted for himself and his assigns.

FOODSTUFF **FOODSTUFF** **FOODSTUFF**

Item	Description	Lot Number	Ship Qty	UOM
190-6730	NEWMAN ZONE NIB Bulk	159855 Kilograms: 20,965.25	46,220.00	LBS

Seal Numbers: 0060257,0060258,0060265
Seals verified and attached by: TM

Scale Tkt:	32211				
Gross Wgt:	78,800	Out :	06/14/2013 17:18		
Tare Wgt:	32,580	In :	06/14/2013 15:30	Tank:	T65
Net Wgt:	46,220	Tmp:	41 F	Mfg Date:	06/12/2013
Trailer:	580443	Last Haul:	wine		

Plant Number: 55-0469
Prior to loading, this trailer was CIP washed at Galloway Company via turbulent force using these parameters: **Rinse:** 3 water 'burst' at 65-85 degrees F
Wash: 30% caustic at 140-150 degrees F, min of 20 minutes
Rinse: 3 water 'burst' at 90-110 degrees F
Sanitize: Mandate plus acid at 75-95 degrees F, min of 2 minutes
The tank interior, dome, lids, vents, pumps, valves, hoses, caps, fittings, and all gaskets have been cleaned, sanitized, and inspected. **INITIALS:** TM

Loaded by: TM
Date: 6-14-13
Carrier: Agmark
Driver: K. LaBrank

AMENDMENT SUPPLY QUALITY ASSURANCE CHECKLIST
ISB O&M

Field Inspection										
TANKER #	AGMARK CONTAINER #	SEAL #s (from bill of lading)	DATE DELIVERED	LOT # (from lading)	MASS DELIVERED (lbs)	MASS DELIVERED (gals)	SUPPLIER LABORATORY TESTING (pass/fail)	Secondary Parameters (in/out of range)	TRUCK ID # (from Delivery Receipt)	Notes and Initials of Field Personnel
21	580040	0060359, 0060680, 0060681	7/3/2013	160124	46,600	5,648	Pass	In Range	N2324	FJK

Notes: This QA audit was performed by evaluating the suppliers internal QA data, the shippers bill of lading, and the shipping company's delivery receipt received by Trihydro in the field. All of these supporting documents are attached. The QA checks included review that the supplier's product met their internal standards (Supplier Laboratory Testing column), review that the truck number from the supplier matched that of the shipper's delivery receipt (Truck ID # column), and that the mass of amendment loaded out equaled that ordered.

[1]Detect above detection limit, but within acceptable range.

[2]Out of range discuss with PSTR

TBD = To be determined when delivered

	name	signature	date
Reviewer	S. Seitz		2013July5
Project Manager	D. Gravelding		2013July5

RNAS
REMEDIATION & NATURAL ATTENUATION SERVICES INC

Innovative Remediation Products and Services

Lot Number:	160124	**Truck Numbers:**	580040
Date Processed:	6/19/2013	**Date of Load Out:**	6/20/2013
Formulation:	190-6730	**Net Emulsion Weight:**	46,600

AMENDMENT PASS/FAIL CRITERIA

Test Parameter	Specification	Results	Method
Total Fat % weight	44.00-48.00%	46.82%	Mojonnier
Total Solids % weight	52.50-56.50%	53.72%	Mojonnier
Droplet Size	99.9% Droplets Smaller than 1.0 microns	99.9% less than 0.669 microns	Laser Particle Size
Droplet Size	99.9% Droplets Larger than 0.10 microns	99.9% larger than 0.115 microns	Laser Particle Size
Mean Droplet Size	0.20-0.40 microns	0.3400	Laser Particle Size
Median Droplet Size	0.20-0.40 microns	0.3330	Laser Particle Size

SECONDARY AMENDMENT PARAMETERS

Test Parameter	Specification	Results	Method
pH	7-9	8.5	pH Meter
Coliform	less than 5 cfu/ml	<5	Plate Count
Standard Plate Count	less than 100 cfu/ml	<100	Plate Count
Yeast	less than 1 cfu/ml	<1	Plate Count
Mold	less than 100 cfu/ml	<1	Plate Count

Certifcation

6/26/13 JYR

Date Lon Brouillette - Business Manager- Remediation and Natural Attenuation Services, Inc.

Ship note: 490775
Ship Run: 440768
Warehouse: GC

Galloway Company
601 S. Commercial St.
Neenah, WI 54956-

Order Number: 470688
Printed: 06/20/2013 20:26:47

Uniform Straight Bill of Lading (& Packing Slip)

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper on request.

Subject to Section 7 of Conditions of applicable bill of lading. If this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement.

The carrier may decline to make delivery of this shipment without payment of freight and all other lawful charges.

Carrier ID: Agmark Logistics LLC
222 2nd North Avenue
Suite 311
Nashville, TN 37201-

Phone: (615) 313-6588
Fax: (615) 313-6592

Freight charges are prepaid unless marked collect.

Received $_____ to apply in prepayment of the charges on the property described hereon.
Collect

Consign to

Bill Newman Aka Rnas
6712 WEST RIVER ROAD
BROOKLYN CENTER, MN 55430-
US

Customer Number: 11056
Ship-to-Address: DEFAULT
Customer Phone:
Customer PO: 629
Scheduled Ship: 6/20/13 12:00 pm
Delivery: 6/20/13 12:00 am

The property described below, in apparent good order, except as noted, (contents and condition of contents of packages unknown) marked, consigned, and destined as shown below, which said carrier agrees to carry to destination, if on its route, or otherwise to deliver to another carrier on the route to destination. Every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained which are hereby agreed to by the shipper and accepted for himself and his assigns.

FOODSTUFF **FOODSTUFF** **FOODSTUFF**

Item	Description	Lot Number	Ship Qty	UOM
190-6730	NEWMAN ZONE NIB Bulk	160124 Kilograms: 21,137.62	46,600.00	LBS

Seal Numbers: 0060359,0060680,0060681
Seals verified and attached by: JR

Scale Tkt:	32360				
Gross Wgt:	79,020	Out :	06/20/2013 20:24		
Tare Wgt:	32,420	In :	06/20/2013 18:35	Tank:	T64
Net Wgt:	46,600	Tmp:	42 F	Mfg Date:	06/19/2013
Trailer:	580040	Last Haul:	grapejuice		

Plant Number: 55-0469
Prior to loading, this trailer was CIP washed at Galloway Company via turbulent force using these parameters: **Rinse:** 3 water 'burst' at 65-85 degrees F
Wash: 30% caustic at 140-150 degrees F, min of 20 minutes
Rinse: 3 water 'burst' at 90-110 degrees F
Sanitize: Mandate plus acid at 75-95 degrees F, min of 2 minutes
The tank interior, dome, lids, vents, pumps, valves, hoses, caps, fittings, and all gaskets have been cleaned, sanitized, and inspected. **INITIALS:** JR

Loaded by: [signature]
Carrier: Agmark
Date: 6-20-13
Driver: [signature]

AMENDMENT SUPPLY QUALITY ASSURANCE CHECKLIST
ISB O&M

Field Inspection										
TANKER #	AGMARK CONTAINER #	SEAL #s (from bill of lading)	DATE DELIVERED	LOT # (from lading)	MASS DELIVERED (lbs)	MASS DELIVERED (gals)	SUPPLIER LABORATORY TESTING (pass/fail)	Secondary Parameters (in/out of range)	TRUCK ID # (from Delivery Receipt)	Notes and Initials of Field Personnel
22	580032	0060682, 0060683, 0060684	7/8/2013	160124	46,740	5,665	Pass	In Range	N2324	JRS

Notes: This QA audit was performed by evaluating the suppliers internal QA data, the shippers bill of lading, and the shipping company's delivery receipt received by Trihydro in the field. All of these supporting documents are attached. The QA checks included review that the supplier's product met their internal standards (Supplier Laboratory Testing column), review that the truck number from the supplier matched that of the shipper's delivery receipt (Truck ID # column), and that the mass of amendment loaded out equaled that ordered.

[1]Detect above detection limit, but within acceptable range.

[2]Out of range discuss with PSTR

TBD = To be determined when delivered

	name	signature	date
Reviewer	S. Seitz		2013July08
Project Manager	D. Gravelding		2013July08

RNAS
REMEDIATION & NATURAL ATTENUATION SERVICES, INC

Innovative Remediation Products and Services

Lot Number:	160124	**Truck Numbers:**	580032
Date Processed:	6/19/2013	**Date of Load Out:**	6/20/2013
Formulation:	190-6730	**Net Emulsion Weight:**	46,740

AMENDMENT PASS/FAIL CRITERIA

Test Parameter	Specification	Results	Method
Total Fat % weight	44.00-48.00%	46.82%	Mojonnier
Total Solids % weight	52.50-56.50%	53.72%	Mojonnier
Droplet Size	99.9% Droplets Smaller than 1.0 microns	99.9% less than 0.669 microns	Laser Particle Size
Droplet Size	99.9% Droplets Larger than 0.10 microns	99.9% larger than 0.115 microns	Laser Particle Size
Mean Droplet Size	0.20-0.40 microns	0.3400	Laser Particle Size
Median Droplet Size	0.20-0.40 microns	0.3330	Laser Particle Size

SECONDARY AMENDMENT PARAMETERS

Test Parameter	Specification	Results	Method
pH	7-9	8.5	pH Meter
Coliform	less than 5 cfu/ml	<5	Plate Count
Standard Plate Count	less than 100 cfu/ml	<100	Plate Count
Yeast	less than 1 cfu/ml	<1	Plate Count
Mold	less than 100 cfu/ml	<1	Plate Count

Certifcation

6/26/13

Date

Lori Brouillette - Business Manager- Remediation and Natural Attenuation Services, Inc.

Ship note: 490781
Ship Run: 440774
Warehouse: GC

Galloway Company
601 S. Commercial St.
Neenah, WI 54956-

Order Number: 470689
Printed: 06/21/2013 14:29:49

Uniform Straight Bill of Lading (& Packing Slip)

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper on request.

Subject to Section 7 of Conditions of applicable bill of lading. If this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:

The carrier may decline to make delivery of this shipment without payment of freight and all other lawful charges.

Carrier ID: Agmark Logistics LLC
222 2nd North Avenue
Suite 311
Nashville, TN 37201-

Phone: (615) 313-6588
Fax: (615) 313-6592

Freight charges are prepaid unless marked collect.

Received $_____ to apply in prepayment of the charges on the property described hereon.
Collect

Consign to

D.O.E PANTEX PLANT
FM 2373 and Highway 60
Amarillo, TX 79120-
US

Customer Number: 11056
Ship-to-Address: 39
Customer Phone:
Customer PO:
Scheduled Ship: 6/20/13 2:00 pm
Delivery: 6/20/13 12:00 am

The property described below, in apparent good order, except as noted, (contents and condition of contents of packages unknown) marked, consigned, and destined as shown below, which said carrier agrees to carry to destination, if on its route, or otherwise to deliver to another carrier on the route to destination. Every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained which are hereby agreed to by the shipper and accepted for himself and his assigns.

FOODSTUFF FOODSTUFF FOODSTUFF

Item	Description	Lot Number	Ship Qty	UOM
190-6730	NEWMAN ZONE NIB Bulk	160124 Kilograms: 21,201.12	46,740.00	LBS

Seal Numbers: 0060682,0060683,0060684
Seals verified and attached by: BB

Scale Tkt:	32361				
Gross Wgt:	77,880	Out :	06/21/2013 14:27		
Tare Wgt:	31,140	In :	06/21/2013 11:24	Tank:	T64
Net Wgt:	46,740	Tmp:	42 F	Mfg Date:	06/19/2013
Trailer:	580032	Last Haul:	grape juice		

Plant Number: 55-0469
Prior to loading, this trailer was CIP washed at Galloway Company via turbulent force using these parameters: **Rinse:** 3 water 'burst' at 65-85 degrees F
Wash: 30% caustic at 140-150 degrees F, min of 20 minutes
Rinse: 3 water 'burst' at 90-110 degrees F
Sanitize: Mandate plus acid at 75-95 degrees F, min of 2 minutes
The tank interior, dome, lids, vents, pumps, valves, hoses, caps, fittings, and all gaskets have been cleaned, sanitized, and inspected. **INITIALS:** N/A

Loaded by: Bi R BB
Date: 6-21-13
Carrier: Agmark
Driver: [illegible]

WELL FIELD MAINTENANCE REPORT – SOUTHEAST ISB SYSTEM

***IN-SITU* BIOREMEDIATION OPERATIONS AND MAINTENANCE**

PANTEX PLANT, AMARILLO, TEXAS

B&W PANTEX PURCHASE ORDER NO. 5293

November 13, 2013

Project #: 18A-006-002

SUBMITTED BY: Trihydro Corporation

1252 Commerce Drive, Laramie, WY 82070

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List of Acronyms

AqSol	Aquifer Solutions, Inc.
b	Saturated thickness
COPC	Constituent Of Potential Concern
CSM	Conceptual Site Model
FGZ	Fine-Grained Zone
ft	Foot (feet)
ft/day	Feet per day
ft^2/day	Feed squared per day
gpm	Gallons per minute
ISB	*In-Situ* Bioremediation
K	Hydraulic Conductivity
O&M	Operation and Maintenance/Monitoring
Pantex	B&W Pantex, LLC
PE	Polyethylene
psi	Pounds per square inch
S	Coefficient of Storage
R^2	Coefficient of Determination
SEISB	Southeast ISB
SEPTS	Southeast Pump & Treat System
T	Transmissivity
Trihydro	Trihydro Corporation
WOD	Waste Operations Department
Z11ISB	Zone 11 ISB

EXECUTIVE SUMMARY

This report documents the methods and results of well testing and maintenance activities performed at the Southeast *In-Situ* Bioremediation (SEISB) System from March to July 2013. These activities were performed on behalf of B&W Pantex LLC (Pantex) as a component of Trihydro's *In-Situ* Bioremediation (ISB) Operations and Maintenance (O&M) work performed under Purchase Order #5293. Well testing and maintenance activities were performed to assess whether injection wells had been impacted by biofouling, and to minimize impacts to wells through periodic physical and chemical maintenance.

Well hydraulic testing consisted of constant-rate injection testing. Injection testing data was analyzed to derive a value of Transmissivity (T) for each injection test. Pre- and post-well maintenance constant-rate injection testing was performed at active injection wells.

Well maintenance consisted of a combination of chemical and physical methods. A specialty well cleaning chemical called "Wellgicide Cleaner" was mixed with water and added to the wells. The physical component consisted of use of a custom-fabricated assembly that includes a surge block and brush in combination with an airlift mechanism to remove fluids and particulates from the wells.

After well maintenance was completed and during injection of bioremediation amendment, injection rates, and the amount of displacement in the injection well casing (mounding) were monitored. The resulting steady-state injection data provided a means through which well performance was assessed. The injection monitoring data from the injection event conducted during the summer of 2013 indicated that well maintenance was successful in maintaining injection rates comparable to historical data.

The following conclusions were drawn from the 2013 well maintenance event at the SEISB System:

1. Based on the constant-rate injection testing, there appears to be an increase in T after well maintenance relative to pre-maintenance results for the wells with relatively lower pre-maintenance T. For wells with relatively higher pre-maintenance T, the value of T was similar before and after well maintenance, on average.
2. Hydraulic testing results from constant-rate injection tests appear to show a moderate positive correlation with specific capacity data derived from 2013 amendment injection data (i.e., steady-state data).
3. Specific capacity calculated from steady-state amendment injection data during each of the four injection events is consistent over time when considering the well field as a whole. The consistency of specific capacity during amendment injection suggests that the well maintenance efforts have generally been successful in maintaining

injection well performance and functionality for amendment injection. Two injection wells, PTX06-ISB022 and PTX06-ISB029A are anomalous, and show a downward trend in amendment injection rates and specific capacity over time. Future enhancements to the well maintenance program for these two locations should be considered, including alternative physical methods (e.g., jetting), chemical methods (e.g., inorganic acids, organic acids, biocides) or increasing the maintenance of the wells from prior to the injection event (every 1.5 to 2 years) to every year.

1.0 INTRODUCTION

O&M activities are conducted by Trihydro at two existing ISB treatment systems (**Figure 1**). There are two major components of this work: well maintenance and amendment injection. Well maintenance includes the inspection, and maintenance of the injection wells associated with the ISB treatment systems. The primary goal of well maintenance is to maintain injection well performance and mitigate the effects of biofouling so that the wells are suitable for injection of bioremediation amendment. This report documents the injection well inspection and maintenance activities performed at the SEISB System in March to July 2013. Amendment injection activities conducted immediately after well maintenance are described in the "Post-Injection Report – Southeast ISB System" submitted to Pantex by Trihydro under a separate cover.

1.1 PROJECT BACKGROUND

The SEISB System consists of 42 injection wells (**Figure 2**), which are used for injection of bioremediation amendment. Nine (9) of the injection wells are referred to as sampled ISB injection wells, in that they are sampled by Pantex personnel for the purpose of evaluating the bioremediation process and also used for injection of bioremediation amendment.

The bioremediation amendment used for SEISB consists primarily of dilute emulsified soybean oil and lactate with lesser amounts of surfactants and buffering agents. Soybean oil serves as a carbon donor that stimulates anaerobic microorganisms that in turn degrade constituents of potential concern (COPCs) in groundwater (Aquifer Solutions, Inc. [AqSol] 2009a). The first injection event at the SEISB System was implemented in early 2008 (AqSol 2009b). A second injection event was completed in 2010 (AqSol 2010d), a third injection event in the spring of 2012 (Trihydro 2012a), and a fourth in summer of 2013 (report to be submitted by Trihydro under separate cover). Well maintenance activities were performed prior to the 2010 injection event, prior to the 2012 event, and again prior to the 2013 injection event, the last being discussed in this report.

As a result of the ISB process the injection wells can become impacted by a general process termed biofouling. Biofouling may consist of the growth of a microbial mat on the wells screen, clogging due to residual amendment that is only partially consumed, or some combination of the two. Biofouling impacts such as reduced flow rates and residues in purge water have been observed at some SEISB and Zone 11 ISB (Z11ISB) injection wells by Pantex personnel during environmental sampling activities. Biofouling is a concern because it can potentially result in decreased amendment injection effectiveness or rates during future injection events.

The purpose of the well maintenance work reported herein was to: 1) assess the degree to which biofouling had impacted injection wells; 2) to take measures to maintain well performance and mitigate adverse impacts to well performance; and 3) to assess the extent to which maintenance efforts were effective in restoring wells to / maintaining wells at a condition that facilitates amendment injection.

The activities performed during the well maintenance process included:

- Pre-maintenance hydraulic testing to quantify the transmissivity of the formation immediately surrounding injection wells before any rehabilitation was performed.
- Submittal of hydraulic testing data and approval by Pantex for further maintenance to occur.
- Well maintenance at non-dry wells including chemical cleaner application followed by physical development.
- Post- maintenance confirmation hydraulic testing and approval by Pantex for injection activities to take place.
- Reporting of results.

Several key documents summarize the prior work conducted at the SEISB System to date, and the reader is referred to the following documents for additional information:

- Well Field Maintenance Report – Southeast ISB System, July, 2012 (Trihydro 2012a).
- Work Plan for *In-Situ* Bioremediation Systems, Operations and Maintenance, January 27, 2012 (Trihydro 2012b).
- Pantex *In-Situ* Bioremediation Operation & Monitoring, 2010 Annual Monitoring Report (AqSol 2011).
- Results of Southeast ISB Hydraulic Testing and Well Rehabilitation Recommendations, January 21, 2010 (AqSol 2010a).
- Results of Chemical Treatment at SE ISB, letter from AqSol to Martin Amos of Pantex, September 21, 2010 (AqSol 2010b).
- Well Maintenance Report: Southeast ISB System, September 23, 2010 (AqSol 2010c).
- Well Maintenance Report: Zone 11 *In-Situ* Bioremediation System, December 20, 2010 (AqSol 2010d).
- Statement of Work for *In-Situ* Bioremediation System Operation and Maintenance for the Southeast and Zone 11 ISB Systems, August 2009 (Pantex 2009).
- Operations and Maintenance Plan: *In-Situ* Bioremediation Corrective Measures Design Zone 11 South, April 20, 2009 (AqSol 2009a).

- Implementation Report: *In-Situ* Bioremediation System Corrective Measures Construction Zone 11 South, September 1, 2009 (AqSol 2009b).
- Interim Results of Southeast ISB Hydraulic Testing and Well Rehabilitation Recommendations, letter to David Crump (Pantex), November 19, 2009 (AqSol 2009c).

1.2 PROJECT SCHEDULE

This section briefly describes the sequence of events with which the testing and maintenance was performed. Completion dates of activities are presented for each well in **Table 1**. Field maintenance activities began in March 2013 and were completed by the end of July 2013. Trihydro and Pantex coordinated work schedules to accommodate both maintenance and quarterly groundwater sampling of sampled ISB injection wells.

2.0 METHODS

This section discusses the methods used during injection well inspection and maintenance. Well inspection consisted of measurement of depth to groundwater, noting any evidence of physical damage to the wells measured. Well hydraulic testing consisted of constant-rate injection testing. Well maintenance consisted of surging/brushing the well screens, addition of well maintenance chemicals, and fluids/biofouling debris removal by airlift.

2.1 WELL TESTING METHODS

Constant-rate injection testing was used as the hydraulic testing method during this well maintenance event. Constant-rate injection analysis is similar to analysis of a pump test: water is injected and the water level in the well is logged with a pressure transducer over time.

In addition to well testing to determine hydraulic conductivity, amendment injection monitoring data were also used to evaluate well performance over time. The methods associated with hydraulic testing are discussed further below. Results are presented in **Section 3.0** and discussed in **Section 4.0**.

2.1.1 INJECTION TESTING AND ANALYSIS METHOD

Constant-rate injection testing consisted of adding approximately 50 to 150 gallons of water at a known flow rate(s) and monitoring the resulting response fluid level in the injection well. Data collection consisted of monitoring the head in the injection well over time with a LevelTroll pressure transducer. The source of water was from the Southeast Pump & Treat System (SEPTS) received via the subsurface pipeline that terminates at the SEISB equipment pad.

Data was analyzed using a pump test analysis module in AQTESOLV 4.50 Pro. A confined solution was used to allow for drawdown amounts that may be greater than the formation saturated thickness, which is a condition that can occur during injection of fluids. In addition, a confined solution is consistent with a conceptual model of injection in which flow is essentially horizontal away from the injection well. Mounding of 2 to 17 feet (ft) was observed at nearby monitoring locations during amendment injection in the ISB Pilot Study (AqSol 2006). Minimal mounding in the formation supports a conceptual model of injection into the perched groundwater unit consisting of flow that is primarily horizontal, thus supporting the applicability of a confined solution in this setting. The Papadopulos-Cooper solution was used for the AQTESOLV analysis. This solution models T and storativity in a confined aquifer as a function of aquifer hydraulics, pumping rate(s), and time. The Papadopulos-Cooper solution was selected because it produced good fits between the raw data and type curves for the first few tests that were analyzed using multiple confined solutions. The following specific parameters were used to fit the injection monitoring data to the type curve.

- T, (in units of feet squared per day [ft^2/day]) is a hydraulic parameter that is a function of a formation's ability to transmit water, and is equal to the hydraulic conductivity (K) times the formation saturated thickness (Fetter 1994). T was used as a fitting parameter in the data analysis process in AQTESOLV.
- Coefficient of Storage (S, dimensionless) is ratio of the amount of water taken (or removed) from aquifer storage per unit of area per unit drawdown. In confined formations, S is a function of both the elasticity of the fluid being removed and of the formation itself (Fetter 1994). S was used as a fitting parameter in the data analysis.
- Anisotropy Ratio ($K_{vertical}$ / $K_{horizontal}$, dimensionless) is a measure of the degree to which fluids will flow preferentially in the horizontal direction relative to the vertical direction. This value was assumed to be 0.1 because anisotropic flow is reasonable in the stratified unconsolidated deposits present in the perched groundwater unit.
- Saturated thickness (b, in units of ft) was set equal to the perched groundwater unit saturated thickness calculated at that well from perched groundwater elevation and Fine-Grained Zone (FGZ) elevation. Wells with screened lengths exceeding the formation saturated thickness were entered in AQTESOLV as being fully penetrating wells.

AQTESOLV's automated curve fitting program was used to calculate the aquifer parameters T and S by repeatedly modifying these parameters until the type curve fits the actual data to the extent possible.

2.1.2 AMENDMENT INJECTION DATA TO DETERMINE WELL PERFORMANCE

Steady-state injection data is collected during each bioamendment injection event. In addition to serving as a means to document spill prevention measures that are in place, these data are used to evaluate well performance over time. At steady-state injection rates the amount of fluid displacement (i.e., mounding) at that flow rate were recorded during amendment injection. Steady-state refers to data collected after the fluid level in the injection well was observed to be stable (e.g., after several hours of injection at a continuous flow rate). Steady-state flow rate divided by displacement at that flow rate produces specific capacity (units of gpm/ft), which is a measure of well performance during injection, which can be used to identify potential well or aquifer problems, and accordingly to determine the effectiveness of the well maintenance program. Trihydro calculated specific capacity during each of the four injection events from data reported in field injection forms. Specific capacity has value in assessing well performance over time because it is based on data collected during use of the injection wells for their intended purpose, which is injection of bioremediation amendment.

2.2 WELL MAINTENANCE METHODS

This section presents the methods used during well maintenance, which consisted of addition of a treatment reagent and subsequent removal of the fluids. In past maintenance activities at the SEISB System, "acid maintenance" (Dry Acid Special) and "chemical maintenance" (ethyl lactate and/or catalyzed hydrogen peroxide) have been used (Trihydro 2012a). While the treatment reagent applied at SEISB in 2013 is a chemical, the term chemical is not used in this report to avoid confusion with the past use of ethyl lactate and/or catalyzed hydrogen peroxide. During the maintenance event discussed in this report, the following two general mechanisms were used:

- Addition of a solution of Welgicide Cleaner (Cotey Chemical Corporation) mixed in water, which was used to chemically dissolve and remove mineral scale and/or biomass on the well screen and in the filter pack.
- Surging/brushing and airlifting, which was used to physically remove particles, residues, and residual Welgicide solution.

The recommendation for use of Welgicide Cleaner as a well maintenance reagent and a summary of field application procedures were described in memoranda (Trihydro 2012c and d). Welgicide Cleaner is a powder consisting primarily of sodium hydroxide (a strong base) with lesser amounts of sodium metasilicate and tetrasodium pyrophosphate. This material was received and stored in 5-gallon buckets. The appropriate quantity of Welgicide Cleaner was weighed using a scale and added to water obtained from the SEPTS. These were mixed in a graduated 55-gallon drum using one-quarter pound of Welgicide Cleaner to one gallon of water, following the manufacturer's recommendation. The volume of chemical reagent added to each well equaled approximately one gallon of solution per foot of saturated thickness. For example, for a well with a 20 ft saturated thickness, 20 gallons of solution consisting of 5 pounds of Welgicide Cleaner and the balance water was used for the dose. This volume was intended to equal the volume of perched groundwater inside the saturated well screen and filter pack, and was noted on maintenance field forms.

Immediately following mixing of granular Welgicide and makeup water, the temperature of the solution was measured and recorded due to the potential for exothermic reactions to occur during Welgicide dissolution. Temperatures were also measured and recorded after mixing to ensure that the temperature does not exceed 100°Fahrenheit (F). Only after these measurements were made was the Welgicide solution added to wells. The highest recorded temperature of Welgicide solution during mixing was 82° Fahrenheit (F).

Welgicide solution was delivered through a chemical-resistant hand pump placed inside the drum. The pump discharge was attached to a ½ in. diameter polyethylene (PE) tube. This tube extended to the bottom of the well, with three PE discs attached near the bottom of the assembly that served to mix the solution in the water column. Approximately half of the total volume was delivered to the lower half of the well screen and the remaining half into the upper portion.

After the required amount of Welgicide solution was delivered, the pump was removed from the drum and inserted into a 5-gallon bucket of water. This allowed rinsing of the pump and tubing. The final step was to surge or mix the Welgicide solution by raising the tube up and down the water column for several minutes following delivery. The well was allowed to rest for at least one day in order to allow the Welgicide solution to react with the biological growth and/or mineral scale before airlift removal commenced.

Physical maintenance activities included two processes: use of a standard surge block attached to the wire line of the pump rig; and use of a custom-fabricated airlift assembly that included an integrated surge block and brush. The standard surge block was used to vigorously surge the well for approximately 30 minutes following the one-day reaction period described above. After the initial surge was completed, the airlift assembly was lowered to the bottom of the well. The airlift assembly was comprised of surge blocks on the top and bottom of the tool with a nylon brush in between. Compressed air was delivered to the tool at a pressure of 50-90 pounds per square inch (psi) using one of two available 210 cubic feet per minute (cfm) compressors. Groundwater was forced to the surface through a separate eductor pipe and contained in 200-gallon hoppers. Color, pH, turbidity, and olfactory observations of the discharge water were noted on field forms and in field logbooks. An airlift assembly was used to remove water in lieu of a bailer to reduce the risk of damage to injection wells.

3.0 RESULTS

The results provided in this section are divided into two subsections: the first presents results of well testing activities and the second subsection presents the well maintenance activities performed.

3.1 WELL TESTING RESULTS

This section presents the results of well testing, including pre- and post-maintenance constant-rate injection testing data. Steady-state injection data from the recently completed amendment injection event at the SEISB System are presented as well. Further discussion of these data along with historical data is provided in **Section 4.0**.

3.1.1 DEPTH TO WATER AND SATURATED THICKNESS

Depth to water was gauged prior to each hydraulic test. These data and the resulting saturated thickness are presented on **Table 2**. Depth to water data from the 2008, 2010, and 2012 events are also shown on **Table 2** to provide additional historical context. Saturated thickness values calculated from depth to water changed by one ft or less over the course of 2013 well maintenance activities with nine exceptions. The small magnitude of changes in depth to water following well maintenance suggests that the wells were generally in good hydraulic communication with the surrounding perched groundwater both before and after maintenance. The wells with variation in saturated thickness of greater than one ft over the course of well maintenance were: PTX06-ISB011, PTX06-ISB013, PTX06-ISB014, PTX06-ISB019, PTX06-ISB023A, PTX06-ISB025, PTX06-ISB030B, and PTX06-ISB049. At wells PTX06-ISB023A, PTX06-ISB025, and PTX06-ISB049, water was not measured in the well or the water was calculated to be below the FGZ prior to well maintenance. After maintenance, these three wells recovered to their approximate historical levels (see **Table 2**). The recoveries in saturated thickness ranged from 7.5 to 8.9 feet. Similar saturated thickness increases due to maintenance were observed at PTX06-ISB023A and PTX06-ISB049 during the 2012 well maintenance event at SEISB (Trihydro 2012a). The change in water measured in these wells, post maintenance, suggests that well maintenance improved the connectivity of each of these wells with the surrounding perched groundwater unit.

3.1.2 CONSTANT-RATE INJECTION TESTING RESULTS

Pre- and post-maintenance constant-rate injection monitoring results are presented on **Table 3**. As noted in **Section 2**, this type of hydraulic testing is preferred over slug testing as a means of applying a greater amount of head, and thereby performing a test that is potentially more representative of amendment injection. The 2013 SEISB System was the second application of this type of testing, with 2012 being the first, thus no direct comparisons to 2008 or 2010 data are possible. **Table 3** includes the calculated transmissivity, maximum displacement, and maximum flow rate during the injection test for pre-and post-maintenance wells, as well as the calculated percent increase in T.

T ranged from 0.023 to 170 ft^2/day in the pre-maintenance results, with an average of 30 ft^2/day and a median of 22 ft^2/day. The post-maintenance results ranged from 0.47 to 170 ft^2/day with an average of 31 ft^2/day and a median of 23 ft^2/day. The median increase in T among all the wells was 16%, and T increased in slightly over half of the wells tested. AQTESOLV calculations of pre-and post-maintenance T values and the associated response curves are included as **Appendix A** and **Appendix B**, respectively.

3.1.3 STEADY-STATE AMENDMENT INJECTION DATA RESULTS

Steady-state injection monitoring data are shown on **Table 4**, along with historical data from 2008, 2010, and 2012 for context. The median and average flow rate during the 2013 injection event were 20 gpm, which is consistent with flow rates during previous injection events. The minimum flow rate in 2013 was 3 gpm, which is lower than minimum flow rates in previous injection events. There were 3 wells at which sustainable flow rates were 10 gpm or less, PTX06-ISB022, PTX06-ISB029A, and PTX06-ISB049. Because of geologic variability, it is expected that flow rates will be higher at some wells and lower in others due to factors that are not related to well fouling. However, flow rates at PTX06-ISB022 and PTX06-ISB029A have decreased during each injection event relative to the previous event (**Table 4**). These two wells are discussed further in **Section 4**.

Also shown is the calculated specific capacity for each injection event (steady-state flow rate divided by mounding). During the 2013 injection event, specific capacity ranged from 0.018 to 0.51 gpm/ft, with an average of 0.20 gpm/ft and a median of 0.17 gpm/ft. Specific capacity as calculated from steady-state injection monitoring data has remained consistent over the course of the four injection events conducted to date from 2008 to 2013 (**Table 5**).

3.2 WELL MAINTENANCE RESULTS

This section presents the results of well maintenance activities that were performed at 35 of the injection wells in the SEISB System. Results include the means and methods used for well maintenance at each injection well (**Section 3.2.1**) and observations recorded during the well maintenance process (**Section 3.2.2**).

3.2.1 WELL MAINTENANCE PERFORMED

The details of well maintenance performed at each well location are shown in **Table 6**, including the following information: saturated thickness, initial surge duration, amount of water added, amount of Welgicide solution added, cumulative surge duration, volume removed, and final pH of the purge water. The data on which this table is based were recorded in field forms during well maintenance. At Pantex's request, these field forms will be submitted to Pantex during project close-out, and not as an appendix to this report.

Maintenance using Welgicide was performed at 35 well locations (**Table 6**). The volume of Welgicide solution added ranged from 0.3 to 12.5 gallons and was based upon the saturated thickness at each well location. Additionally, due to low recharge at 20 of the wells, between 5 and 20 gallons of water were added during the brushing and surging process as indicated on **Table 6**. The volume of fluids removed by airlift ranged from 3 to 45 gallons. The volume of fluids removed was equal to or greater than the volume of Welgicide solution added to the well at each of the 35 wells at which maintenance was performed. The volume of fluids removed was greater than the amount of water added during the maintenance process (if any was added) at all locations except for two. A greater amount of water was added than fluids removed at PTX06-ISB010 and PTX06-ISB016 (**Table 6**). Both of these wells were characterized by low recharge and low saturated thickness. The pH at the end of well maintenance activities was 8 or lower at 33 of the wells that were maintained, except for PTX06-ISB021 and PTX06-ISB049, which had final pH values of 10 and 9, respectively (**Table 6**). pH values at these two locations will continue to decrease to neutral values over time. In addition, the observed pH values are representative of the water in the well casing, and may not represent the biological treatment zone as a whole. Therefore, pH values above 8 observed at these two locations do not suggest that the well maintenance program will adversely impact the biological treatment process. Other maintenance parameters (volume purge, cumulative surge duration etc.) were similar at these two locations relative to other wells.

Three metrics used to define the endpoint of maintenance activities were removal of a volume of fluids greater than the volume of Welgicide solution added, and return of pH to near neutral (Trihydro 2012b). At each of the 35 locations maintained, the volume of fluids removed was greater than that added, and the pH returned to near neutral, except as noted above.

3.2.2 OBSERVATIONS FROM WELL MAINTENANCE

This section discusses visual observations and process monitoring data that are relevant to maintenance activities. Field forms were used to document data collected during well maintenance, with the relevant data summarized in the preceding section. Additional observations reported by field personnel are presented in this section.

Groundwater, reagents, and fine-grained sediments were removed from the wells using an air-lift procedure. The volume of groundwater removed was typically similar to the volume removed during each step of well maintenance process (ethyl lactate or hydrogen peroxide) used in the 2012 event at the SEISB System, which also used an airlift tool. These values are generally lower than the volumes removed in the 2010 event, which used a surge block and bailer.

The purge water observed in this well maintenance event generally had a gray color, notable organic odor, and produced foam when discharged into the hopper. These generally subsided as well maintenance progressed, though more so at some locations than at others. Some locations were observed to produce relatively little water, and water from SEPTS was generally added at these locations to facilitate the well maintenance process. Lack of water production at some locations could be the result of lower permeability of geologic materials in the vicinity of the well, low saturated thickness, more extensive biological impacts to the well screen, or some combination of these.

Wells PTX06-ISB022 and PTX06-ISB029A had low maximum injection rates during the amendment injection event that was implemented just after well maintenance. In addition, amendment injection rates have steadily declined over time at these two wells, as discussed further in **Section 4.3**. Well maintenance methods and observations were similar at these two locations relative to the others that were maintained during this event (**Table 6**). Specifically, the reagent volumes added and volume of fluids removed by airlift were similar, as was the final groundwater pH.

4.0 DISCUSSION OF RESULTS

This section discusses and synthesizes the results of the various hydraulic metrics to evaluate the well maintenance program and well performance overall. Constant-rate injection tests results before and after well maintenance are compared. Constant-rate injection testing data are compared to steady-state well capacity data collected during amendment injection. Finally, steady-state amendment injection data is evaluated as a function of time.

4.1 COMPARISON OF PRE- AND POST-MAINTENANCE INJECTION TESTING RESULTS

Based upon constant-rate injection results presented in **Section 3.1.3**, there appears to be a small overall increase in T as derived from constant-rate injection testing after well maintenance relative to pre-maintenance. The median increase in T was 16% among the wells on which maintenance was performed (data on **Table 3**). Comparing individual well pre- and post-maintenance data indicates that T increased at some locations (19 of 35 wells maintained), and decreased at others (16 of 35 wells maintained).

The change in T as a result of well maintenance appears to be correlated with the pre-maintenance value of T. This statement is based on the following statistical analysis.

- Well maintenance data were ordered from lowest pre-maintenance T to highest.
- Median changes in T were calculated for two portions of the dataset: the half of the data with the lowest pre-maintenance value of T; and the half with the highest pre-maintenance value of T.
- The median increase in T was 180% for the group with the lowest pre-maintenance value of T, while the median change in T was -14% for the group with higher pre-maintenance T.

The findings above suggest that the well maintenance program was successful at injection wells that had been impacted by biofouling. Biofouling would reduce values of T because of less hydraulic communication between the well and the surrounding formation. Well maintenance increased the values of T in these wells. Among wells that may not have been impacted by biofouling (higher pre-maintenance T), the well maintenance program did not appear to improve the degree of communication between the well and the formation. However, the well maintenance program likely still provided benefit to the project as a preventive measure against biofouling at these wells.

4.2 COMPARISON OF HYDRAULIC TESTING AND AMENDMENT INJECTION DATA

This section compares the constant-rate injection test results with data steady-statement amendment injection data. Both types of data monitor the fluid level response in an injection well during injection of fluid. Therefore, results of

constant-rate injection tests conducted after well maintenance could potentially be used to predict injection well performance. To evaluate the correlation between the two, steady-state specific capacity during amendment injection was plotted versus post-maintenance injection testing T. These two parameters are compared graphically with linear and log-linear scales on **Figures 3** and **4**, respectively. There appears to be a moderate positive correlation between these parameters (R^2 0.34 and 0.38, respectively). For wells with post-maintenance values of T less than 10 ft^2/day, amendment injection specific capacity was less than 0.2 gpm/ft. For wells with post-maintenance values of T greater than 30 ft^2/day, amendment injection specific capacity was approximately equal to or greater than 0.2 gpm/ft.

Overall, post-maintenance constant-rate injection testing T appears to be a moderately accurate predictor of injection testing specific capacity based on 2013 data. The ability to predict amendment injection rates was a primary reason why constant-rate injection testing was used for hydraulic testing from 2012 onwards.

4.3 EVALUATION OF AMENDMENT INJECTION OVER TIME

Specific capacity calculated from amendment injection rates and displacement observed at that rate is an important measure of the condition of the injection wells for their intended purpose of receiving periodic amendment injections to maintain the ISB system. **Table 5** shows summary statistics (minimum, maximum, median etc.) of injection well specific capacity in each of the four injection events conducted to date. The majority of the summary statistics (median, 10th, 25th, 75th, and 90th percentiles) all appear to be consistent over time. This suggests that overall, the well field as a whole performed in the same manner in the 2013 as it has in previous injection events. There does not appear to be a decline in well performance over time based on the well field as a whole. The minimum value has declined over time, which could suggest that one or two wells may have performance issues that have slowly developed over the course of the project.

PTX06-ISB022 and PTX06-ISB029A had maximum flow sustained flow rates of 3 and 7 gpm during the 2013 amendment injection event, respectively, which were the two lowest during this injection event. Flow rates in this range require multiple days of amendment injection to reach targets, while 1 to 2 days was the typical duration for the project as a whole. In addition, the maximum flow rate at both of these wells has declined steadily over time (**Table 4**).

4.4 EVALUATION OF AMENDMENT INJECTION VS. CSM TRANSMISSIVITY

T was calculated within the SEISB System in the revised Conceptual Site Model (CSM) presented in AqSol 2011. The revised CSM is used to further the understanding of subsurface conditions and to optimize amendment dosing. The calculation consisted of multiplying baseline K derived from slug testing conducted in 2007 by the saturated thickness. Note that all the parameters used in these calculations are based on pre-injection, static measurements. There is a

theoretical basis for a positive correlation between T and specific capacity, as discussed above. Amendment injection specific capacity is plotted versus CSM T on **Figures 5** and **6** with linear and logarithmic scales, respectively.

T from the revised CSM data does not correlate with 2013 amendment injection specific capacity, as shown in **Figures 5** and **6**. This statement is based on visual inspection of the graphs and the low R^2 value of 0.0009 shown on **Figure 5**. There are several possible explanations for this lack of correlation. First, conditions may have changed in the immediate vicinity of the injection wells since they were installed in 2007, including microbial growth, precipitation of minerals, or interactions between the filter pack and surrounding formation. The extent to which any or all of these conditions influence local well hydraulics likely varies from one well location to the next, thus masking correlations between CSM T and injection well performance in 2013. Second, CSM T was calculated from slug testing data. Slug testing changes the head in the well by approximately one to two feet. In contrast, amendment injection specific capacity is measured when tens to hundreds of feet of head are placed on the injection well. This large difference in head may also impart variability to the results, thereby leading to variable results between the two metrics.

5.0 WASTE MANAGEMENT

Liquid and solid wastes were managed according to specifications in the Waste Management Plan (Work Plan Appendix B [Trihydro 2012]).

Liquid Wastes included fluids generated during well maintenance (perched groundwater with residual ethyl lactate and iron-EDTA). These wastes were contained and stored in Pantex-provided roll-off containers while on site. **Appendix F** includes a copy of the waste collection tracking forms (form PX-2844). All liquid wastes were disposed by the Pantex Waste Operations Department (WOD)

Solid Wastes were limited to packaging materials such as empty drums and containers. These wastes were cleaned and recycled for future use.

6.0 LESSONS LEARNED

This section presents lessons learned associated with various aspects of well maintenance.

6.1 MACHINE GUARDING ON WELL DEVELOPMENT RIG LEVERS

During the 2013 well maintenance program, a near miss occurred that resulted in implementation of a corrective action. The maintenance team was placing the airlift tubing down a well after it was placed onto the ground. The tubing hit one of the levers of the well development rig as it was being lowered. This caused the mast of the rig to slowly lower onto the top of the rig. There were no injuries associated with this event and the near miss was reported to Pantex.

As a result of this event, a metal guard was placed above the levers. The purpose of this machine guarding was to prevent objects from accidentally striking the levers and causing an unsafe condition.

6.2 IMPROVED CHEMICAL DELIVERY SYSTEM

During the 2013 SEISB well maintenance event, the Wellgicide Cleaner solution and associated pumps and tubing were all placed in the small equipment trailer. The mixing and addition of chemicals was performed inside this trailer. This system reduced the amount of lifting and movement of equipment that was required when adding the chemical at each well. The resulting process was more efficient, safer, and also minimized the potential for accidental releases.

7.0 CONCLUSIONS AND RECOMMENDATIONS

7.1 COMPARISON OF PRE- AND POST-MAINTENANCE INJECTION TESTING RESULTS

Constant-rate injection testing results indicated that T increased after well maintenance at wells that had relatively lower pre-maintenance values of T. The well locations with lower pre-maintenance values of T presumably had a relatively greater degree of hydraulic impacts due to microbial growth or other factors. Therefore, increases in T as a result of well maintenance suggest that the maintenance program was successful at mitigating the impacts of biofouling.

Injection testing values of T at wells with relatively higher pre-maintenance T did not increase as a result of well maintenance. This suggests that biofouling had not progressed to the point where well hydraulics were influenced at these locations. However, the well maintenance program likely provided benefit to these wells as a form of preventative maintenance.

7.2 COMPARISON OF HYDRAULIC TESTING AND AMENDMENT INJECTION DATA

There appears to be a moderate positive correlation between the post-maintenance T value and specific capacity during amendment injection. This correlation is expected, as both constant-rate injection testing and specific capacity relate to the rate at which an injection well will receive fluids and how quickly the fluid level rises during injection. The correlation is not so strong that constant-rate injection test results could be used as a predictive tool to estimate the flow rate an individual well would accept during amendment injection. Therefore, Trihydro does not recommend using a specific constant-rate injection testing T value as a metric with which to determine whether or not well maintenance is required. In addition, using constant-rate injection testing results as a metric to evaluate whether or not well maintenance is necessary would not consider the benefit well maintenance appears to provide as a preventive measure.

7.3 EVALUATION OF AMENDMENT INJECTION OVER TIME

Specific capacity calculated from amendment injection rates and displacement observed at that rate is an important measure of the condition of the injection wells for their intended purpose of receiving periodic amendment injections to maintain the ISB system. Evaluation of specific capacity over time indicated that overall, the wells have performed in a consistent manner during each of the four injection events conducted to date. The 10th, 25th, median, 75th, and 90th percentile values of amendment injection specific capacity have remained approximately constant over the course of the four injection events.

The minimum specific capacity, and the value of the lowest maximum flow rate that could be sustained, have both declined consistently over time. This is due to the fact that these parameters have declined over time at PTX06-ISB022 and PTX06-ISB029A. The declining performance trends at these two wells are an anomaly relative to the consistent performance of the well field as a whole. Trihydro recommends consideration of enhancements to the well maintenance program be considered for these two well locations at the SEISB System. Enhancements could include use of other physical methods. Jetting is a physical method that has not been employed for well maintenance on this project. Jetting consists of injection of pressurized water through specialized nozzles to clean debris off the well screen and surrounding filter pack. Jetting would likely be combined with another method to remove fluids, such as airlift. Alternative chemical methods may also be used as enhancements. These could include use of other acids or specialty well treatment chemicals. Trihydro will evaluate potential physical and chemical enhancements to the well maintenance program for use at these locations where well performance appears to have declined over time as part of the Work Plan to be prepared in the third year of the contract. Another potential change to the maintenance program could be to change the frequency of well maintenance. Well maintenance is currently being performed prior to each injection event, which at SE has varied from about 2 years to 1.5 years. The wells may respond more favorably if the well maintenance was performed every year.

7.4 EVALUATION OF AMENDMENT INJECTION VS. GROUNDWATER FLUX

Specific capacity calculated from steady-state amendment injection data does not appear to be correlated with T presented in the revised CSM (AqSol 2011). The lack of correlation is hypothesized to be due to the differences in the physical conditions under which these two sets of data were collected. Specific capacity is based on data collected after hours or days of injection at up to 40 gpm with up to 200 ft of head applied. Such conditions would result in saturating previously dry portions of the well screen, changes in hydraulic gradients, and could result in changes in the saturated thickness in the immediate vicinity of the injection well. Groundwater flux data are based on the values of T calculated in the CSM from slug test data under static conditions, including static saturated thicknesses, gradients, and K values calculated from slug testing.

The lack of correlation between specific capacity and groundwater flux does not reduce the value of the revised CSM. The revised CSM continues to be a valuable tool through which to analyze how the SEISB System performs between injection events. Because the System is designed to act as a passive system with periodic injection to maintain it, the hydraulic properties of the System under ambient flow conditions are key to evaluating its success.

8.0 REFERENCES

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Trihydro 2012d. ISB O&M Well Maintenance Caustic Rehabilitation, technical memorandum from Dan Gravelding of Trihydro to Martin Amos of Pantex, May 29.

TABLES

TABLE 1. WELL MAINTENANCE COMPLETION DATES
WELL MAINTENANCE REPORT - SOUTHEAST ISB SYSTEM
PANTEX ISB O&M, PURCHASE ORDER 5293

Well ID	Pre-Maintenance Hydr. Test Date	Date Welgicide Added	Date Airlift Complete	Post-Maintenance Hydr. Test Date
PTX06-ISB010	3/23/2013	4/1/2013	4/4/2013	4/11/2013
PTX06-ISB011	3/23/2013	4/1/2013	4/4/2013	4/11/2013
PTX06-ISB012	4/22/2013	6/26/2013	7/9/2013	7/19/2013
PTX06-ISB013	4/2/2013	4/4/2013	4/5/2013	4/11/2013
PTX06-ISB014	7/1/2013	7/11/2013	7/18/2013	7/23/2013
PTX06-ISB015	3/23/2013	4/1/2013	4/3/2013	4/11/2013
PTX06-ISB016	4/2/2013	4/4/2013	4/8/2013	4/18/2013
PTX06-ISB017	4/2/2013	4/4/2013	4/9/2013	4/18/2013
PTX06-ISB018	4/2/2013	4/9/2013	4/11/2013	4/18/2013
PTX06-ISB019	7/1/2013	7/11/2013	7/18/2013	7/19/2013
PTX06-ISB020	4/2/2013	4/4/2013	4/11/2013	4/22/2013
PTX06-ISB021	4/2/2013	4/9/2013	4/16/2013	4/22/2013
PTX06-ISB022	4/3/2013	4/9/2013	4/17/2013	4/25/2013
PTX06-ISB023A	4/3/2013	7/9/2013	7/11/2013	7/16/2013
PTX06-ISB024	7/1/2013	7/11/2013	7/12/2013	7/19/2013
PTX06-ISB025	4/3/2013	7/9/2013	7/11/2013	7/19/2013
PTX06-ISB026	4/3/2013	4/9/2013	4/18/2013	4/26/2013
PTX06-ISB027	4/4/2013	4/17/2013	4/19/2013	7/23/2013
PTX06-ISB028	Dry, No Maintenance			
PTX06-ISB029A	4/5/2013	4/19/2013	4/23/2013	7/19/2013
PTX06-ISB030B	7/1/2013	7/11/2013	7/19/2013	7/23/2013
PTX06-ISB031	4/5/2013	4/19/2013	4/23/2013	7/19/2013
PTX06-ISB032	4/3/2013	4/9/2013	4/22/2013	7/18/2013
PTX06-ISB033	Dry, No Maintenance			
PTX06-ISB034	Dry, No Maintenance			
PTX06-ISB035	4/4/2013	4/19/2013	4/26/2013	7/18/2013
PTX06-ISB036	4/4/2013	4/22/2013	4/26/2013	7/18/2013
PTX06-ISB037	4/5/2013	6/21/2013	6/25/2013	7/18/2013
PTX06-ISB038	6/27/2013	7/11/2013	7/17/2013	7/19/2013
PTX06-ISB039	4/5/2013	6/21/2013	6/25/2013	7/18/2013
PTX06-ISB040	4/5/2013	6/24/2013	6/26/2013	7/18/2013
PTX06-ISB041	4/5/2013	6/24/2013	6/26/2013	7/16/2013
PTX06-ISB042	6/27/2013	7/11/2013	7/16/2013	7/19/2013
PTX06-ISB043	Dry, No Maintenance			
PTX06-ISB044A	4/5/2013	6/25/2013	7/9/2013	7/18/2013
PTX06-ISB045	Dry, No Maintenance			
PTX06-ISB046	6/27/2013	7/11/2013	7/19/2013	7/23/2013
PTX06-ISB047	4/8/2013	6/25/2013	6/28/2013	7/18/2013
PTX06-ISB048	6/27/2013	7/11/2013	7/15/2013	7/18/2013
PTX06-ISB049	4/8/2013	6/26/2013	6/27/2013	7/18/2013
PTX06-ISB050	Dry, No Maintenance			
PTX06-ISB051	Dry, No Maintenance			

TABLE 2. HISTORICAL AND CURRENT DEPTH TO WATER AND SATURATED THICKNESS
WELL MAINTENANCE REPORT - SOUTHEAST ISB SYSTEM
PANTEX ISB O&M, PO 5293

	Baseline (Pre-Injection) Winter 2008		Pre-Maintenance Fall 2009		Post-Maintenance Winter 2010		Pre-Maintenance Winter 2012		Post-Maintenance Spring 2012		Pre-Maintenance Summer 2013			Post-Maintenance Summer 2013		
Well ID	DTW (ft btoc)	Saturated Thickness (ft)	DTW (ft btoc)	Saturated Thickness (ft)	DTW (ft btoc)	Saturated Thickness (ft)	DTW (ft btoc)	Saturated Thickness (ft)	DTW (ft btoc)	Saturated Thickness (ft)	DTW Date	DTW (ft btoc)	Saturated Thickness (ft)	DTW Date	DTW (ft btoc)	Saturated Thickness (ft)
PTX06-ISB010	281.23	3.2	281.31	3.1	281.11	3.3	281.31	3.1	281.2	3.2	3/23/2013	282.28	2.1	4/11/2013	281.16	3.2
PTX06-ISB011	280.73	4.6	Dry	Dry	280.55	4.8	280.52	4.9	280.54	4.8	3/23/2013	280.62	4.8	4/11/2013	280.72	4.7
PTX06-ISB012	281.26	4.2	281.07	4.4	281.23	4.2	281.06	4.4	281.09	4.3	4/22/2013	281.40	4.0	7/19/2013	279.83	5.6
PTX06-ISB013	Dry	Dry	280.62	5.8	280.50	5.9	284.85	1.6	284.74	1.7	4/2/2013	283.51	2.9	4/11/2013	278.73	7.7
PTX06-ISB014	280.68	3.7	284.82	Dry	280.40	4.0	280.76	3.7	280.45	4.0	7/1/2013	281.35	3.1	7/23/2013	281.02	3.4
PTX06-ISB015	280.40	2.9	280.50	2.8	280.17	3.2	280.61	2.7	280.37	3.0	3/23/2013	280.18	3.2	4/11/2013	280.22	3.1
PTX06-ISB016	282.02	Dry	281.22	0.2	280.53	0.9	281.12	0.3	281.12	0.3	4/2/2013	281.19	0.2	4/18/2013	280.85	0.6
PTX06-ISB017	280.02	3.3	Dry	Dry	279.32	4.0	279.74	3.6	278.68	4.7	4/2/2013	279.80	3.6	4/18/2013	280.58	2.8
PTX06-ISB018	279.13	3.3	285.11	Dry	278.19	4.2	278.71	3.7	278.71	3.7	4/2/2013	278.98	3.4	4/18/2013	279.09	3.3
PTX06-ISB019	277.66	3.8	278.33	3.2	278.48	3.0	278.03	3.5	277.79	3.7	7/1/2013	278.85	2.6	7/19/2013	282.85	-1.4
PTX06-ISB020	277.51	4.9	277.32	5.1	278.30	4.1	277.24	5.1	277.13	5.3	4/2/2013	278.44	3.9	4/22/2013	277.67	4.7
PTX06-ISB021	278.17	8.3	284.01	2.4	278.08	8.4	278.54	7.9	277.90	8.5	4/2/2013	278.81	7.6	4/22/2013	278.37	8.1
PTX06-ISB022	277.68	3.7	279.35	2.1	277.52	3.9	277.71	3.7	277.68	3.7	4/3/2013	278.27	3.1	4/25/2013	277.74	3.7
PTX06-ISB023A	277.91	5.5	Dry	Dry	287.40	Dry	287.11	-3.7	277.57	5.8	4/3/2013	287.21	-3.8	7/16/2013	278.58	4.8
PTX06-ISB024	277.18	6.2	280.13	3.3	277.19	6.2	277.04	6.4	277	6.4	7/1/2013	277.35	6.1	7/19/2013	277.37	6.1
PTX06-ISB025	276.91	3.4	276.97	3.4	276.85	3.5	276.92	3.4	276.8	3.5	4/3/2013	285.18	-4.8	7/19/2013	276.28	4.1
PTX06-ISB026	276.94	3.5	278.22	2.2	276.55	3.9	276.99	3.4	278.48	2.0	4/3/2013	277.26	3.2	4/26/2013	278.14	2.3
PTX06-ISB027	276.78	1.6	Dry	Dry	276.31	2.0	276.44	1.9	276.84	1.5	4/4/2013	281.42	-3.1	7/23/2013	281.10	-2.8
PTX06-ISB029A	281.63	3.7	282.80	2.6	280.5	4.9	280.70	4.7	280.52	4.8	4/5/2013	282.24	3.1	7/19/2013	282.89	2.5
PTX06-ISB030B	Dry	Dry	283.25	0.2	280.75	2.7	280.76	2.7	280.78	2.7	7/1/2013	285.70	-2.2	7/23/2013	281.25	2.2
PTX06-ISB031	279.88	4.5	279.60	4.8	279.70	4.7	279.78	4.6	279.61	4.8	4/5/2013	280.16	4.2	7/19/2013	280.24	4.1
PTX06-ISB032	280.47	3.9	Dry	Dry	280.00	4.4	280.80	3.6	280.40	4.0	4/3/2013	281.88	2.5	7/18/2013	281.41	3.0
PTX06-ISB034	289.10	Dry	290.02	Dry	Dry	Dry	290.17	Dry	Dry	Dry	4/4/2013	Dry	Dry	Dry	Dry	Dry
PTX06-ISB035	279.17	3.2	283.40	Dry	Dry	Dry	298.92	Dry	278.44	4.0	4/4/2013	281.70	0.7	7/18/2013	282.98	-0.6
PTX06-ISB036	278.32	9.9	278.14	10.1	Dry	Dry	277.88	10.3	277.57	10.6	4/4/2013	278.17	10.0	7/18/2013	278.31	9.9
PTX06-ISB037	278.03	7.4	277.88	7.5	277.92	7.5	277.80	7.6	277.71	7.7	4/5/2013	277.92	7.5	7/18/2013	278.00	7.4
PTX06-ISB038	277.90	12.5	277.92	12.5	277.74	12.6	277.54	12.8	277.52	12.9	6/27/2013	277.81	12.6	7/19/2013	277.79	12.6
PTX06-ISB039	278.19	7.2	278.03	7.4	277.93	7.5	277.80	7.6	278.1	7.3	4/5/2013	277.92	7.5	7/18/2013	278.12	7.3
PTX06-ISB040	277.72	7.7	277.59	7.8	277.50	7.9	277.61	7.8	277.36	8.0	4/5/2013	277.66	7.7	7/18/2013	277.72	7.7
PTX06-ISB041	277.74	5.6	Dry	Dry	277.46	5.9	277.69	5.7	277.38	6.0	4/5/2013	278.00	5.4	7/16/2013	277.90	5.5
PTX06-ISB042	277.35	5.1	277.43	5.0	277.42	5.0	277.35	5.1	276.89	5.5	6/27/2013	278.05	4.4	7/19/2013	277.83	4.6
PTX06-ISB044	276.21	3.1	Dry	Dry	NM	NM	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PTX06-ISB044A	NA	NA	NA	NA	NA	NA	278.18	9.5	278.18	9.5	4/5/2013	278.74	8.9	7/18/2013	278.39	9.2
PTX06-ISB046	277.91	6.5	277.50	6.9	277.68	6.8	277.35	7.1	277.49	6.9	6/27/2013	277.80	6.6	7/23/2013	277.81	6.6
PTX06-ISB047	277.82	4.6	277.94	4.4	277.64	4.7	277.51	4.9	277.53	4.8	4/8/2013	278.12	4.3	7/18/2013	277.93	4.4
PTX06-ISB048	277.98	2.4	282.74	Dry	277.73	2.6	277.62	2.8	277.67	2.7	6/27/2013	278.21	2.2	7/18/2013	278.12	2.3
PTX06-ISB049	277.59	2.8	Dry	Dry	277.54	2.9	281.63	-1.2	277.23	3.2	4/8/2013	285.47	-5.1	7/18/2013	277.93	2.5

Notes: DTW = depth to water. NA = Not Applicable (e.g. ISB044A not present 2008 to 2011). NM = Not Measured.

TABLE 3. PRE- AND POST-MAINTENANCE CONSTANT-RATE INJECTION RESULTS
WELL MAINTENANCE REPORT - SOUTHEAST ISB SYSTEM
PANTEX ISB O&M, PO 5293

	Pre-Maintenance 2013				Post-Maintenance 2013				
Well ID	**Test Date**	**Papadopulos-Cooper T (ft2/day)**	**Max. Displace. (ft)**	**Max. Flow Rate (gpm)**	**Test Date**	**Papadopulos-Cooper T (ft2/day)**	**Max. Displace. (ft)**	**Max. Flow Rate (gpm)**	**Change in T (%)**
PTX06-ISB010	3/23/2013	35	10.1	12.0	4/11/2013	37	16.4	11.9	5%
PTX06-ISB011	3/23/2013	170	5.0	11.9	4/11/2013	146	4.9	11.9	-14%
PTX06-ISB012	4/22/2013	42	18.9	12.2	7/19/2013	24	28.0	7.1	-43%
PTX06-ISB013	4/2/2013	1.4	37.3	5.0	4/11/2013	0.47	42.3	5.0	-66%
PTX06-ISB014	7/1/2013	12	35.1	5.2	7/23/2013	8.0	38.2	4.8	-32%
PTX06-ISB015	3/23/2013	25	22.1	6.8	4/11/2013	37	17.9	6.8	52%
PTX06-ISB016	4/2/2013	22	8.5	8.1	4/18/2013	25	9.5	10.1	16%
PTX06-ISB017	4/2/2013	52	17.7	11.1	4/18/2013	18	20.0	6.0	-66%
PTX06-ISB018	4/2/2013	53	13.6	11.1	4/18/2013	12	12.4	7.8	-76%
PTX06-ISB019	7/1/2013	25	32.1	7.0	7/19/2013	17	22.3	6.5	-33%
PTX06-ISB020	4/2/2013	11	38.2	10.1	4/22/2013	30	24.0	9.1	164%
PTX06-ISB021	4/2/2013	4.1	42.0	5.0	4/22/2013	12	37.3	3.6	191%
PTX06-ISB022	4/3/2013	0.39	32.5	3.0	4/25/2013	2.4	32.7	2.9	512%
PTX06-ISB023A	4/3/2013	15	21.1	5.0	7/16/2013	1.5	25.4	4.2	-90%
PTX06-ISB024	7/1/2013	43	9.6	8.4	7/19/2013	37	10.1	8.8	-13%
PTX06-ISB025	4/3/2013	0.30	39.3	7.6	7/19/2013	0.55	41.2	7.1	83%
PTX06-ISB026	4/3/2013	10	6.8	5.0	4/26/2013	29	12.9	8.1	196%
PTX06-ISB027	4/4/2013	0.29	42.5	5.0	7/23/2013	2.2	40.4	5.0	646%
PTX06-ISB028	Dry, No Maintenance								
PTX06-ISB029A	4/5/2013	0.023	40.7	3.2	7/19/2013	1.4	41.4	3.0	6024%
PTX06-ISB030B	7/1/2013	0.24	42.0	6.2	7/23/2013	1.5	42.0	5.0	543%
PTX06-ISB031	4/5/2013	62	11.3	17.0	7/19/2013	60	8.2	14.0	-3%
PTX06-ISB032	4/3/2013	1.3	40.8	5.0	7/18/2013	1.6	40.1	5.0	24%
PTX06-ISB033	Dry, No Maintenance								
PTX06-ISB034	Dry, No Maintenance								
PTX06-ISB035	4/4/2013	13	17.0	5.0	7/18/2013	4.0	16.3	4.2	-70%
PTX06-ISB036	4/4/2013	72	12.4	10.1	7/18/2013	51	11.4	10.1	-29%
PTX06-ISB037	4/5/2013	7.1	40.3	10.1	7/18/2013	27	24.8	8.1	277%
PTX06-ISB038	6/27/2013	91	13.2	7.0	7/19/2013	69	8.2	11.1	-24%
PTX06-ISB039	4/5/2013	22	37.2	11.4	7/18/2013	30	23.3	9.4	40%
PTX06-ISB040	4/5/2013	54	28.7	10.9	7/18/2013	62	14.4	10.2	16%
PTX06-ISB041	4/5/2013	38	28.9	8.6	7/16/2013	167	13.7	12.7	345%
PTX06-ISB042	6/27/2013	54	8.9	12.0	7/19/2013	51	10.7	9.9	-6%
PTX06-ISB043	Dry, No Maintenance								
PTX06-ISB044A	4/5/2013	3.1	19.6	3.5	7/18/2013	20	15.0	7.1	564%
PTX06-ISB045	Dry, No Maintenance								
PTX06-ISB046	6/27/2013	39	15.4	12.2	7/23/2013	64	11.7	11.4	62%
PTX06-ISB047	4/8/2013	30	24.0	10.1	7/18/2013	23	17	6.0	-22%
PTX06-ISB048	6/27/2013	25	20.5	9.1	7/18/2013	15	26	7.1	-39%
PTX06-ISB049	4/8/2013	3.7	37.9	8.1	7/18/2013	12	27	5.0	234%
PTX06-ISB050	Dry, No Maintenance								
PTX06-ISB051	Dry, No Maintenance								

Notes: NA = not applicable. Displace = displacement in well during injection test.

TABLE 4. COMPLETE INJECTION WELL PERFORMANCE DATA
WELL MAINTENANCE REPORT- SOUTHEAST ISB SYSTEM
PANTEX ISB O&M, PO 5293

Well ID	Maximum Steady State Rate Winter 2008 (gpm)	Maximum Steady State Observed Mounding 2008 (ft.)	Specific Capacity 2008 (gpm/ft.)	Maximum Steady State Rate Spring 2010 (gpm)	Maximum Steady State Observed Mounding 2010 (ft.)	Specific Capacity (gpm/ft.)	Maximum Steady State Rate Spring 2012 (gpm)	Maximum Steady State Observed Mounding 2012 (ft.)	Specific Capacity 2012 (gpm/ft.)	Maximum Steady State Rate Spring 2013 (gpm)	Maximum Steady State Observed Mounding 2013 (ft.)	Specific Capacity 2013 (gpm/ft.)
PTX06-ISB010	12	NR		26	161	0.16	25	191	0.13	24	134	0.18
PTX06-ISB011	25	10	2.5	35	12	2.9	30	30	1.0	28	55	0.51
PTX06-ISB012	12	NR		23	185	0.12	20	110	0.2	25	96	0.26
PTX06-ISB013	16	5	3.2	33	165	0.20	7	171	0.041	21	202	0.10
PTX06-ISB014	10	71	0.14	16	165	0.10	10	155	0.06	14	141	0.099
PTX06-ISB015	25	124	0.20	25	89	0.28	33	150	0.22	24	80	0.30
PTX06-ISB016	11	NR		30	61	0.49	30	112	0.27	19	71	0.27
PTX06-ISB017	20	103	0.19	33	137	0.24	30	159	0.19	25	163	0.15
PTX06-ISB018	10	NR		23	188	0.12	25	110	0.23	28	162	0.17
PTX06-ISB019	19	67	0.28	6	213	0.028	11	205	0.054	16	211	0.076
PTX06-ISB020	19	NR		11	110	0.10	32	213	0.15	25	78	0.32
PTX06-ISB021	12	150	0.080	32	215	0.15	30	218	0.14	27	168	0.16
PTX06-ISB022	11	23	0.48	9	188	0.048	6	151	0.04	3	193	0.018
PTX06-ISB023A	21	132	0.16	15	216	0.069	24	153	0.16	25	150	0.17
PTX06-ISB024	11	9	1.2	24	104	0.23	25	77	0.32	24	57	0.42
PTX06-ISB025	18	162	0.11	13	139	0.094	16	211	0.073	15	171	0.088
PTX06-ISB026	10	160	0.06	15	114	0.13	16	143	0.11	21	178	0.12
PTX06-ISB027	5	NR		6	90	0.07	17	180	0.094	17	189	0.087
PTX06-ISB029A	27	NR		19	185	0.10	9	221	0.041	7	156	0.045
PTX06-ISB030B	22	NR		15	220	0.068	11	168	0.065	13	181	0.072
PTX06-ISB031	16	NR		38	21	1.8	27	81	0.33	22	44	0.50
PTX06-ISB032	11	165	0.067	48	201	0.24	31	209	0.15	26	151	0.17
PTX06-ISB035	23	NR		NA	NA	NA	25	116	0.22	20	130	0.15
PTX06-ISB036	30	NR		13	158	0.082	36	194	0.19	19	78	0.24
PTX06-ISB037	25	40	0.63	30	130	0.23	23	184	0.13	16	210	0.076
PTX06-ISB038	30	3	10	30	46	0.65	25	50	0.50	29	57	0.51
PTX06-ISB039	12	210	0.057	24	48	0.50	15	64	0.23	15	83	0.18
PTX06-ISB040	29	69	0.42	27	159	0.17	25	150	0.17	25	118	0.21
PTX06-ISB041	12	NR		21	144	0.15	11	151	0.07	17	88	0.19
PTX06-ISB042	9	NR		23	103	0.22	19	105	0.18	18	52	0.35
PTX06-ISB044	20	NR		20	42	0.48	NA	NA	NA	NA	NA	NA
PTX06-ISB044A	NA	NA	NA	NA	NA	NA	8	212	0.038	15	72	0.21
PTX06-ISB046	16	140	0.11	30	133	0.23	34	210	0.16	34	178	0.19
PTX06-ISB047	17	NR		30	178	0.17	8	88	0.091	15	131	0.12
PTX06-ISB048	13	210	0.062	10	43	0.23	17	87	0.20	11	93	0.11
PTX06-ISB049	17	NR		21	191	0.11	10	137	0.073	9	206	0.044

Notes: Data presented above are those collect during the amendment injection events conducted to date. NR = Not Recorded. NA = Not Applicable (ISB044 replaced at different location with ISB044A).

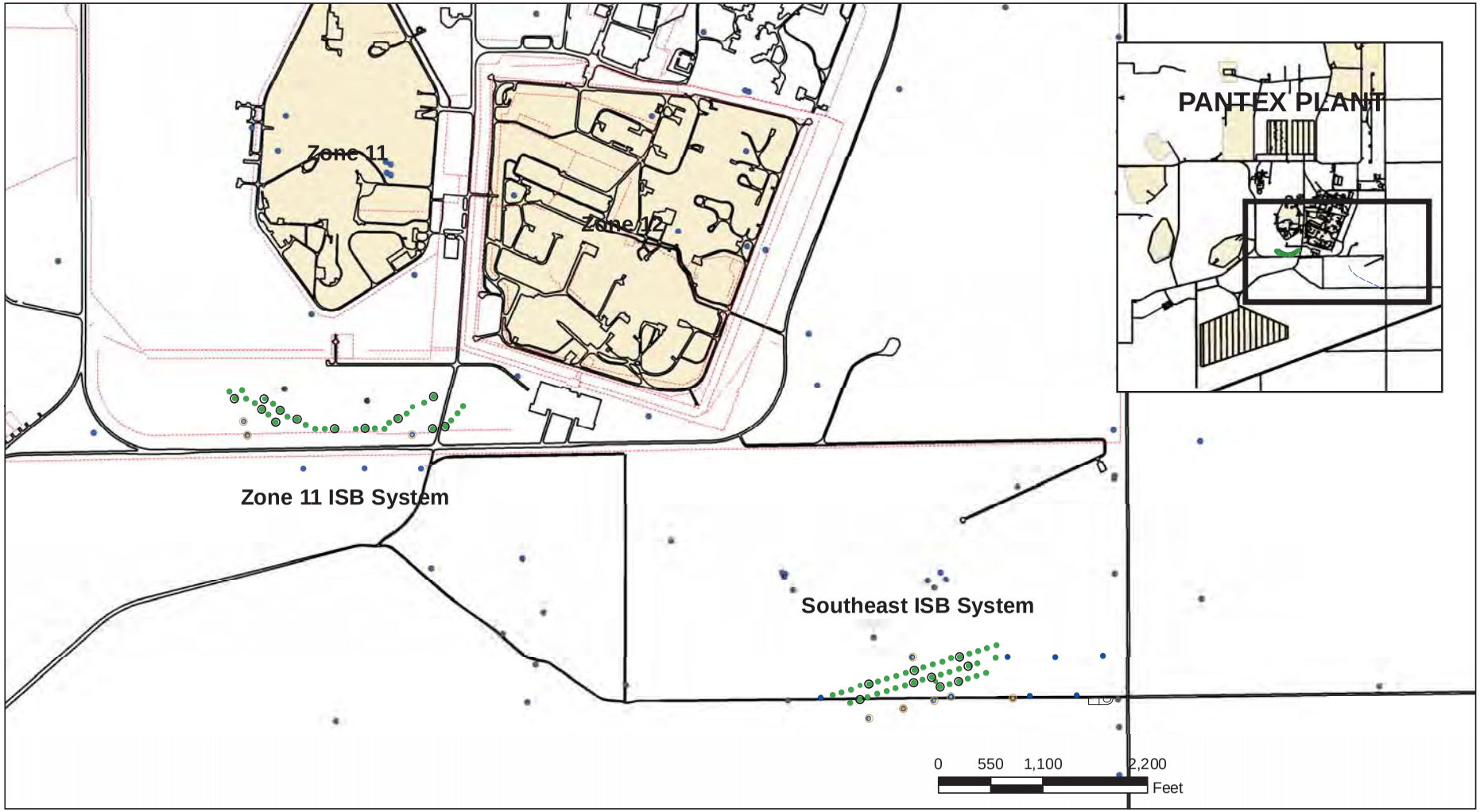
TABLE 5. INJECTION WELL SPECIFIC CAPACITY OVER TIME
WELL MAINTENANCE REPORT- SOUTHEAST ISB SYSTEM
PANTEX ISB O&M, PO 5293

Summary Statistic	2008	2010	2012	2013
Minimum	0.057	0.028	0.036	0.018
10th Percentile	0.062	0.069	0.046	0.073
25th Percentile	0.096	0.10	0.073	0.10
Median	0.19	0.17	0.15	0.17
75th Percentile	0.55	0.24	0.21	0.25
90th Percentile	2.6	0.50	0.30	0.39
Maximum	10	2.9	1.0	0.51

TABLE 6. DETAILS OF WELL MAINTENANCE METHODS
WELL MAINTENANCE REPORT - SOUTHEAST ISB SYSTEM
PANTEX ISB O&M, PO 5293

Well ID	Saturated Thickness (ft)	Wellgicide Cleaner Solution Added (gallons)	Initial Surge Duration (hrs)	Water Volume Added (gal)	Cumulative Surge Duration (hrs)	Volume Removed with Airlift (gallons)	Final pH Purge Water (su)
PTX06-ISB010	3.2	3.1	0.5	20	4.5	3	8
PTX06-ISB011	4.7	4.7	0.5	20	6.5	27	7
PTX06-ISB012	4.3	4.5	0.5	5	6.0	30	8
PTX06-ISB013	1.7	1.7	0.5	15	5.5	25	8
PTX06-ISB014	4.0	3.9	0.5	0	3.5	30	8
PTX06-ISB015	2.9	3.0	0.5	0	6.0	23	7
PTX06-ISB016	0.3	0.3	0.5	15	5.0	4	7
PTX06-ISB017	4.7	4.7	0.5	20	6.0	23	7
PTX06-ISB018	3.7	3.7	0.5	10	6.0	14	7
PTX06-ISB019	3.7	3.6	0.5	0	4.5	30	8
PTX06-ISB020	5.3	5.3	0.5	10	6.0	13	7
PTX06-ISB021	8.5	8.3	0.5	20	8.5	45	10
PTX06-ISB022	3.7	3.6	0.5	0	5.0	40	8
PTX06-ISB023A	5.8	5.6	0.5	10	5.0	25	8
PTX06-ISB024	6.4	6.4	0.5	5	5.5	25	8
PTX06-ISB025	3.5	3.5	0.5	0	4.0	35	8
PTX06-ISB026	2.0	1.9	0.5	10	4.5	21	7
PTX06-ISB027	1.5	1.5	0.5	15	4.8	30	7
PTX06-ISB029A	4.8	4.7	0.5	11	5.5	30	8
PTX06-ISB030B	2.7	2.6	0.5	5	4.3	22	8
PTX06-ISB031	4.8	4.7	0.5	15	6.0	17	7
PTX06-ISB032	4.0	3.9	0.5	10	5.0	30	8
PTX06-ISB035	4.0	3.9	0.5	20	5.5	25	7
PTX06-ISB036	10.6	10.4	0.5	20	5.5	27	7
PTX06-ISB037	7.7	4.6	0.5	0	5.0	25	8
PTX06-ISB038	12.9	12.5	0.5	0	4.5	30	8
PTX06-ISB039	7.3	7.2	0.5	0	5.3	25	8
PTX06-ISB040	8.0	8.0	0.5	0	5.3	25	8
PTX06-ISB041	6.0	6.0	0.5	0	4.8	20	8
PTX06-ISB042	5.5	5.7	0.5	0	5.0	25	8
PTX06-ISB044A	9.5	9.2	0.5	0	4.5	40	8
PTX06-ISB046	6.9	6.8	0.5	0	4.3	20	8
PTX06-ISB047	4.8	4.8	0.5	0	5.8	30	8
PTX06-ISB048	2.7	2.8	0.5	5	4.5	25	8
PTX06-ISB049	3.2	3.2	0.5	0	4.5	27	9

FIGURES



EXPLANATION

- ISB Injection Wells
- Pantex Monitoring Wells
- ISPM Wells
- Sampled Injection Wells
- Fences
- Roads
- Pantex Plant Zones

N

Trihydro
1252 Commerce Drive
Laramie, WY 82070
www.trihydro.com
(P) 307/745.7474 (F) 307/745.7729

FIGURE 1

PANTEX PLANT OVERVIEW

B&W PANTEX
IN-SITU BIOREMEDIATION O&M
PANTEX PLANT, AMARILLO, TEXAS

Drawn By: SJS	Checked By: FJK	Scale: 1" = 1,000'	Date: 09/05/12	File: Fig1_ISB_Layout.mxd

EXPLANATION

- ISB Injection Wells
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N

Trihydro

1252 Commerce Drive
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FIGURE 2

SOUTHEAST ISB SYSTEM

B&W PANTEX
IN-SITU BIOREMEDIATION O&M
PANTEX PLANT, AMARILLO, TEXAS

Drawn By: SJS	Checked By: FJK	Scale: 1" = 250'	Date: 09/05/12	File: Fig2_SE_ISBLayout.mxd

FIGURE 3. AMENDMENT INJECTION SPECIFIC CAPACITY VS. POST-MAINTENANCE INJECTION TESTING TRANSMISSIVITY – LINEAR SCALE

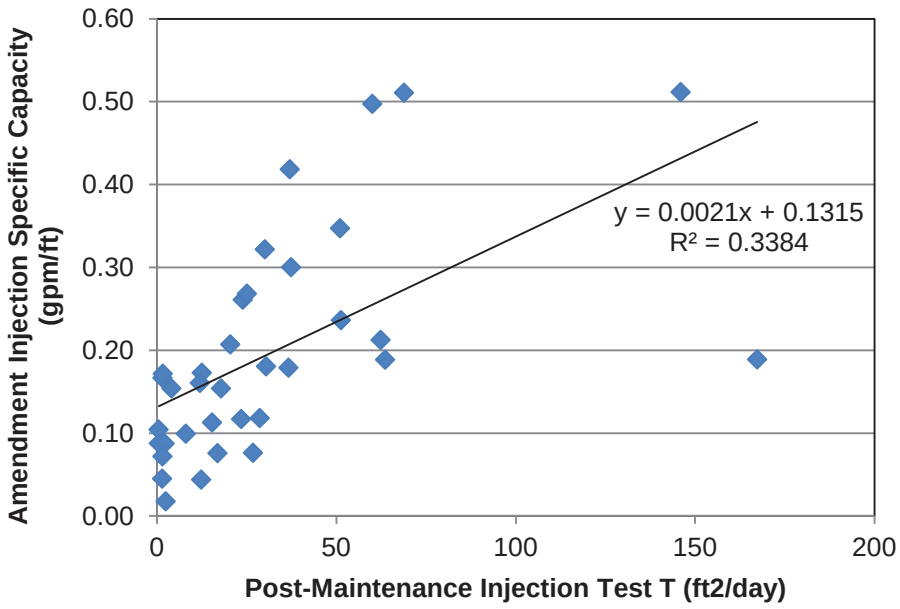


FIGURE 4. AMENDMENT INJECTION SPECIFIC CAPACITY VS. POST-MAINTENANCE INJECTION TESTING TRANSMISSIVITY – LOG-LINEAR SCALE

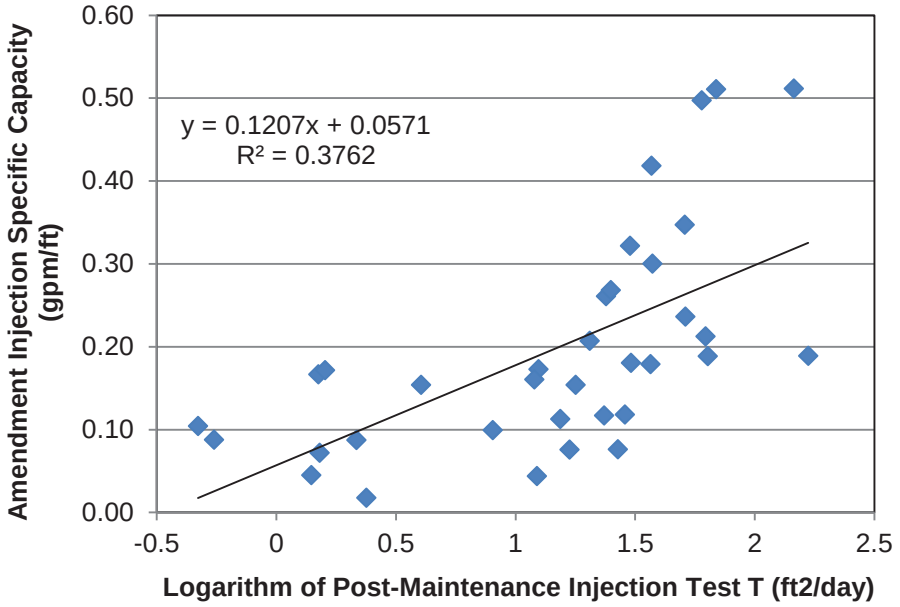


FIGURE 5. AMENDMENT INJECTION SPECIFIC CAPACITY VS. CSM TRANSMISSIVITY – LINEAR SCALE

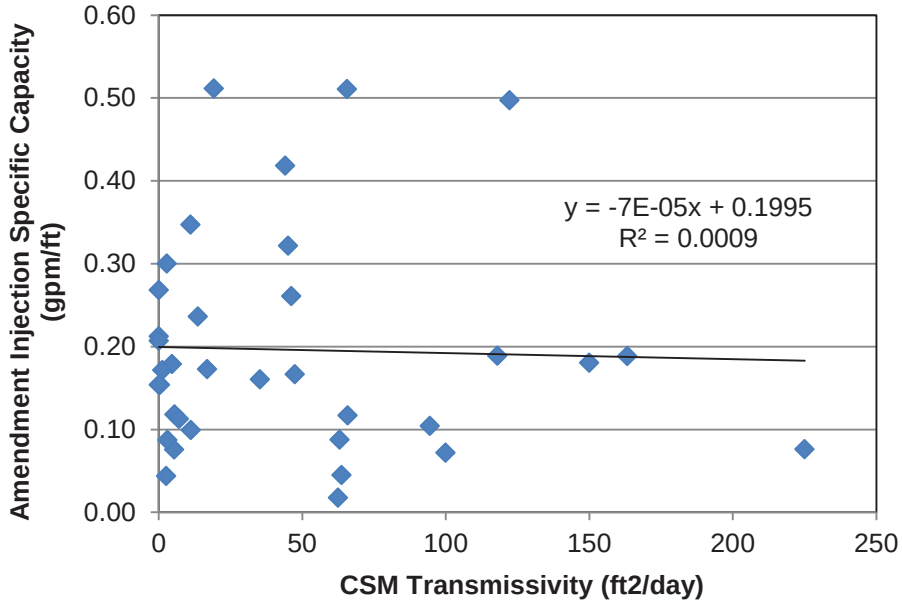
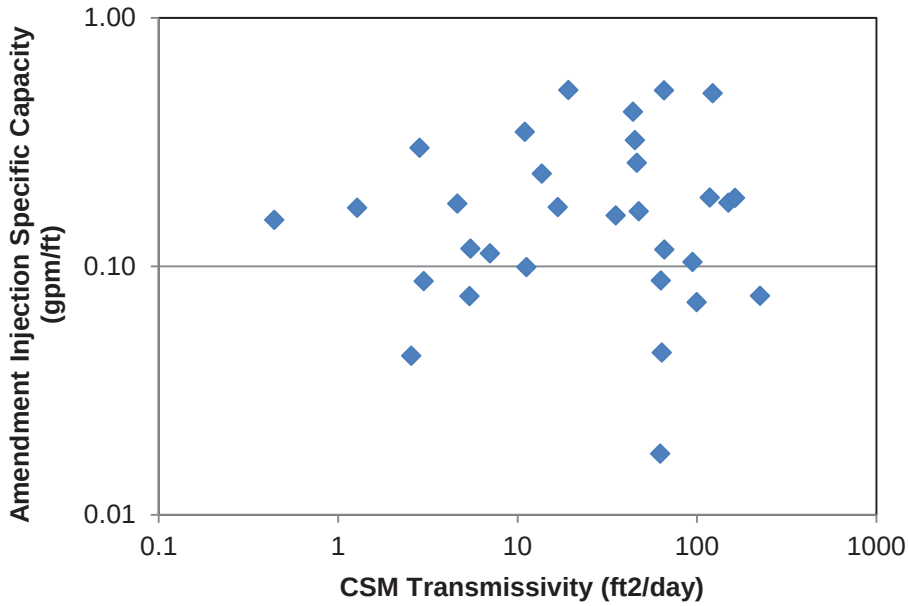


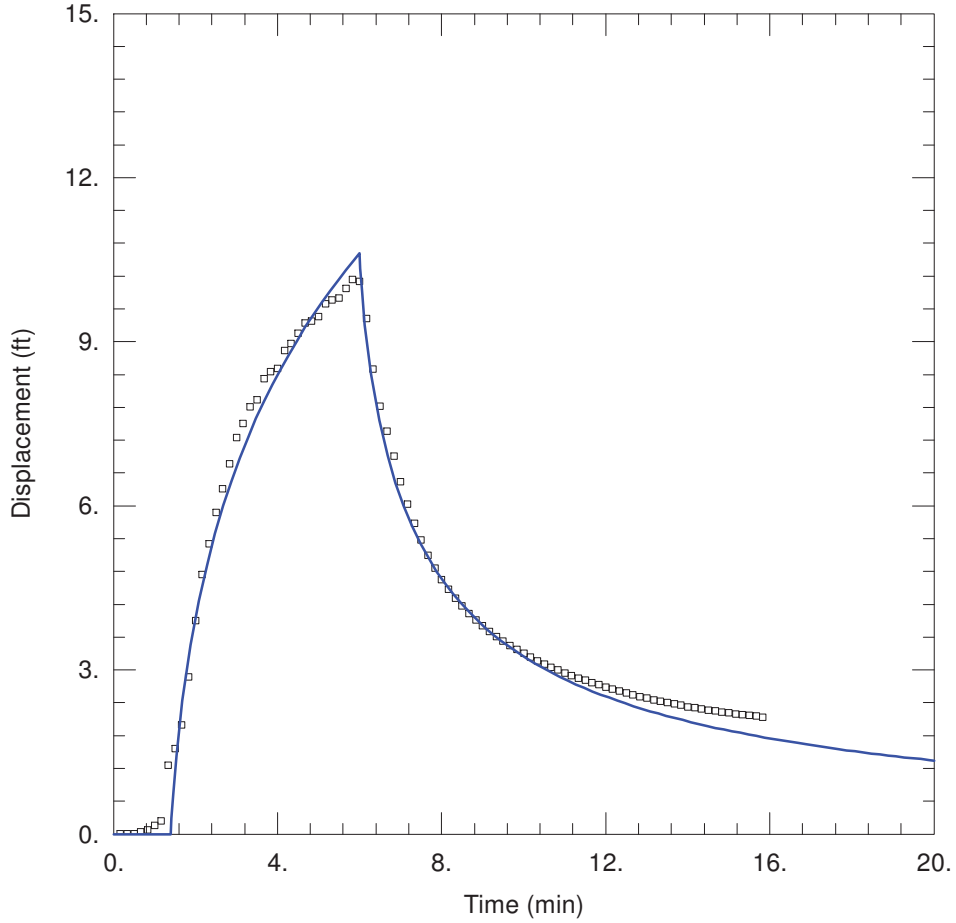
FIGURE 6. AMENDMENT INJECTION SPECIFIC CAPACITY VS. CSM TRANSMISSIVITY – LOGARITHMIC SCALE



Note: Equation and R^2 of trendline are same as Figure 5. These are not shown on Figure 6 because a linear trendline would not appear as a straight line when plotted on a logarithmic scale.

APPENDIX A

PRE- MAINTENANCE CONSTANT-RATE INJECTION TESTING AQTESOLV OUTPUTS



WELL TEST ANALYSIS

Data Set: M:\...\ISB010_1inj_PC.aqt
Date: 03/24/13 Time: 09:57:37

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Pre Maint.
Test Well: ISB010
Test Date: 3/23/2013

AQUIFER DATA

Saturated Thickness: 2.1 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB010	0	0

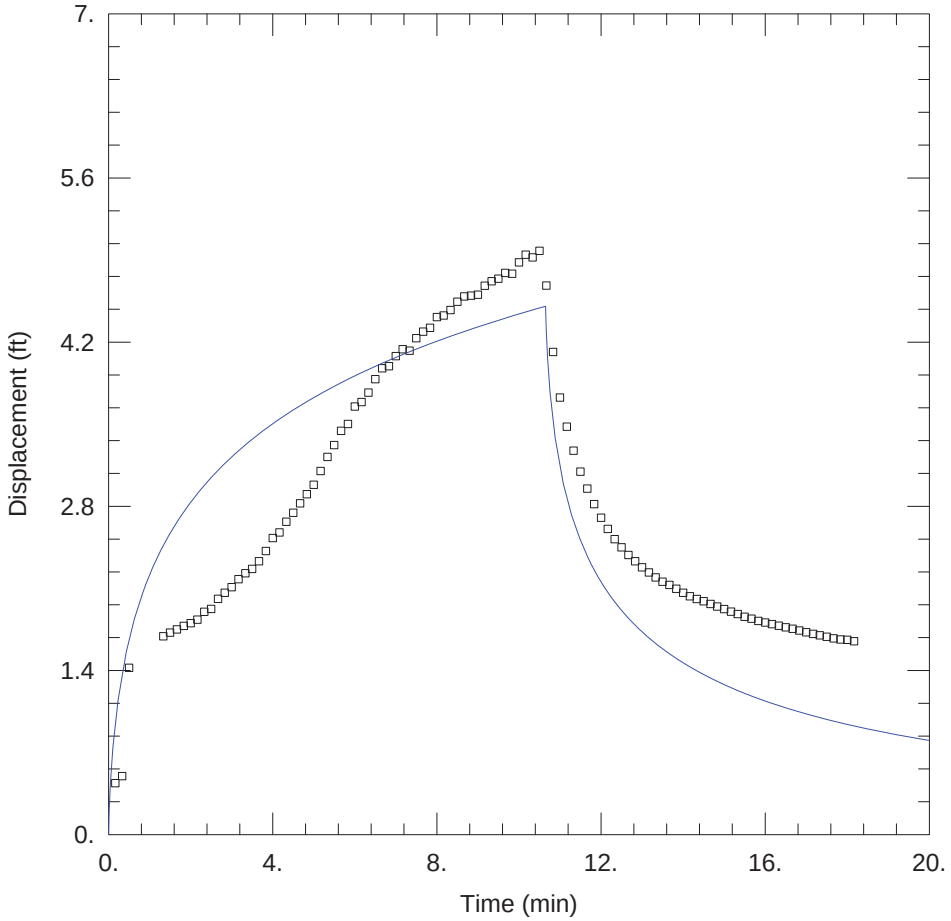
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB010	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 34.96 ft^2/day S = 0.2875
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB011_1inj_PC_v2.aqt
Date: 03/25/13 Time: 11:27:00

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Pre Maint.
Test Well: ISB011
Test Date: 3/23/2013

AQUIFER DATA

Saturated Thickness: 4.8 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB011	0	0

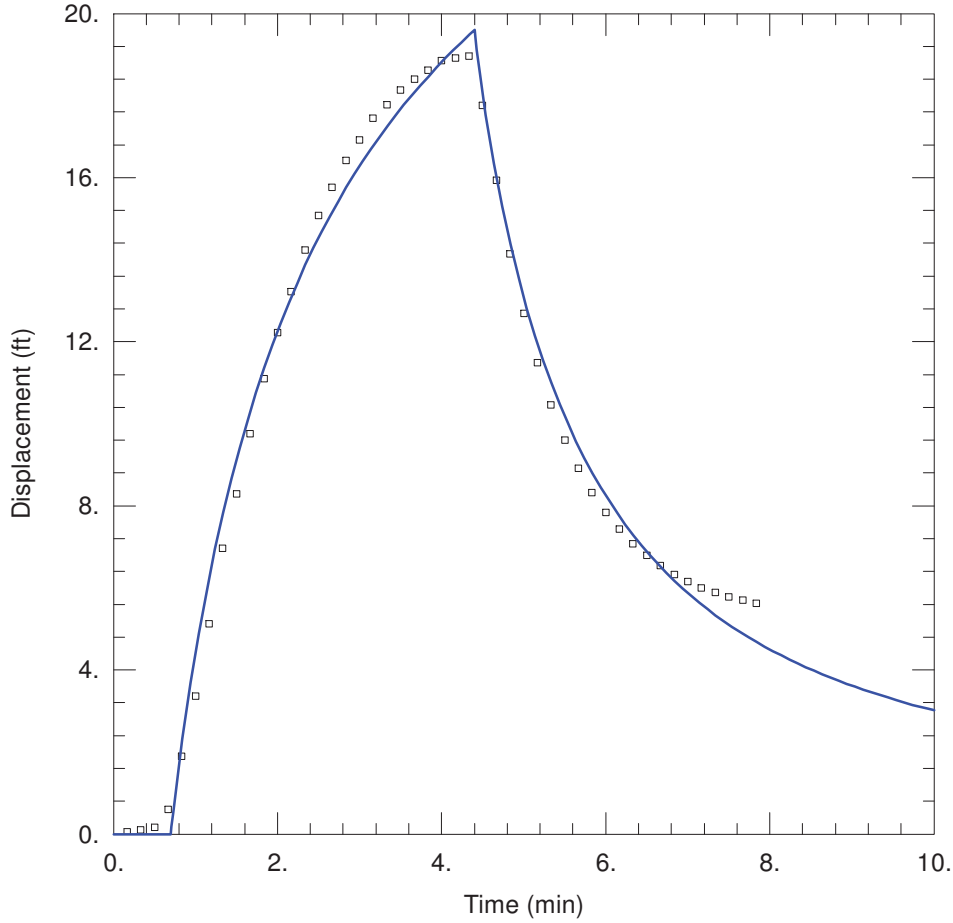
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB011	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 166.3 ft^2/day S = 0.3
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB012_1inj_PC.aqt
Date: 04/30/13 Time: 11:02:40

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Pre Maint.
Test Well: ISB012
Test Date: 4/22/2013

AQUIFER DATA

Saturated Thickness: 4. ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB012	0	0

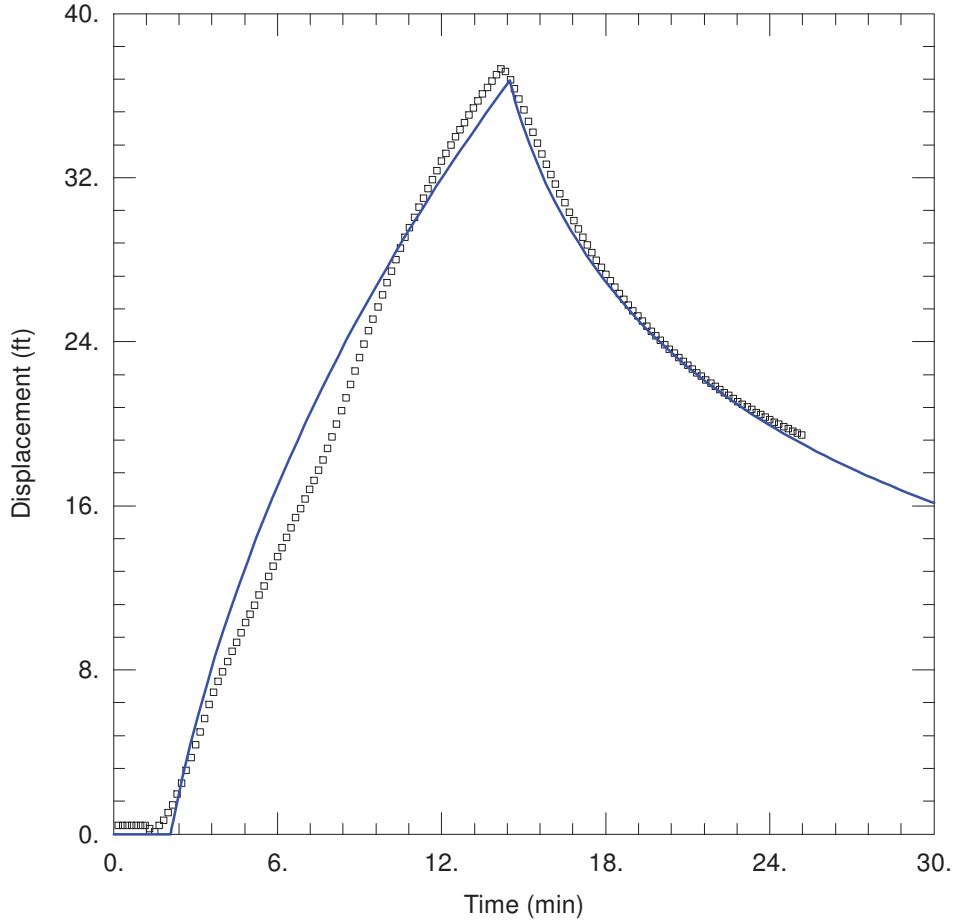
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB012	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 41.96 ft^2/day S = 0.009451
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB013_1inj_PC.aqt
Date: 04/03/13 Time: 12:38:38

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Pre Maint.
Test Well: ISB013
Test Date: 4/2/2013

AQUIFER DATA

Saturated Thickness: 2.9 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB013	0	0

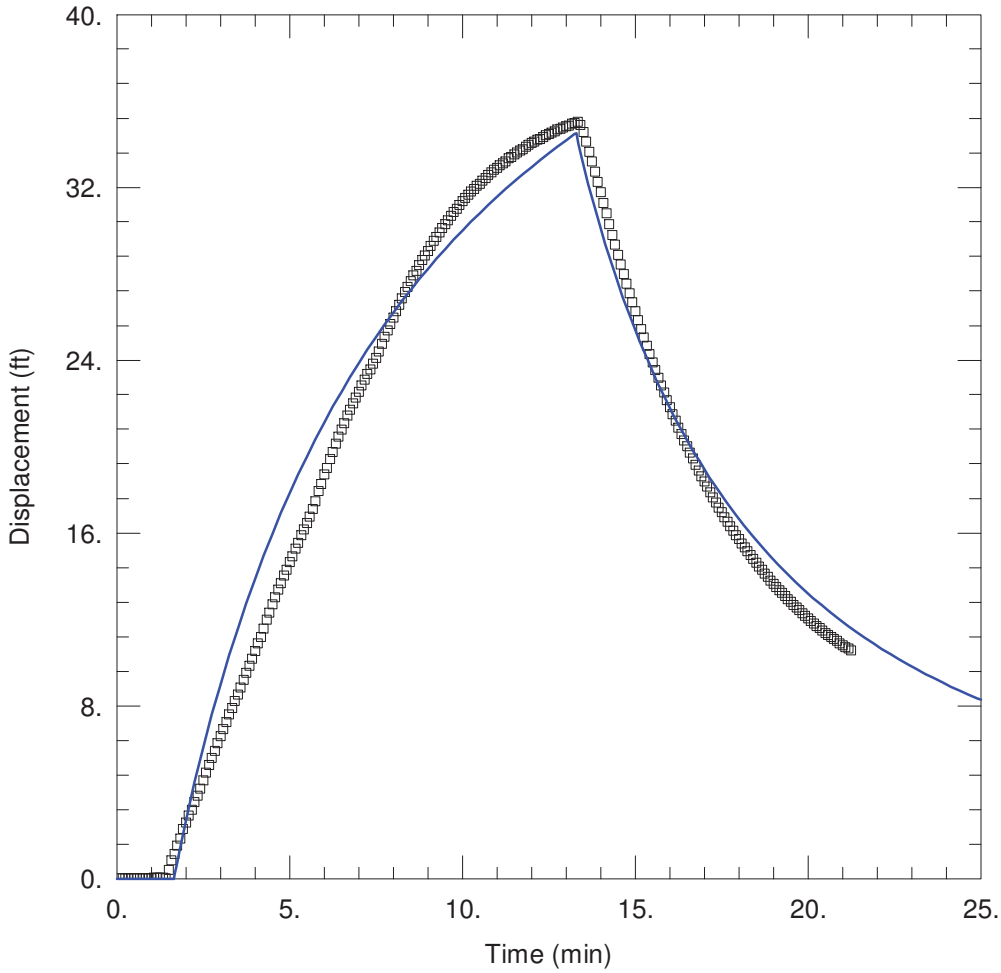
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB013	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 1.376 ft^2/day S = 0.3
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: \...\ISB014_1inj_PC.aqt
Date: 07/08/13 Time: 16:15:12

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Pre Maint.
Test Well: ISB014
Test Date: 7/1/2013

AQUIFER DATA

Saturated Thickness: 3.1 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB014	0	0

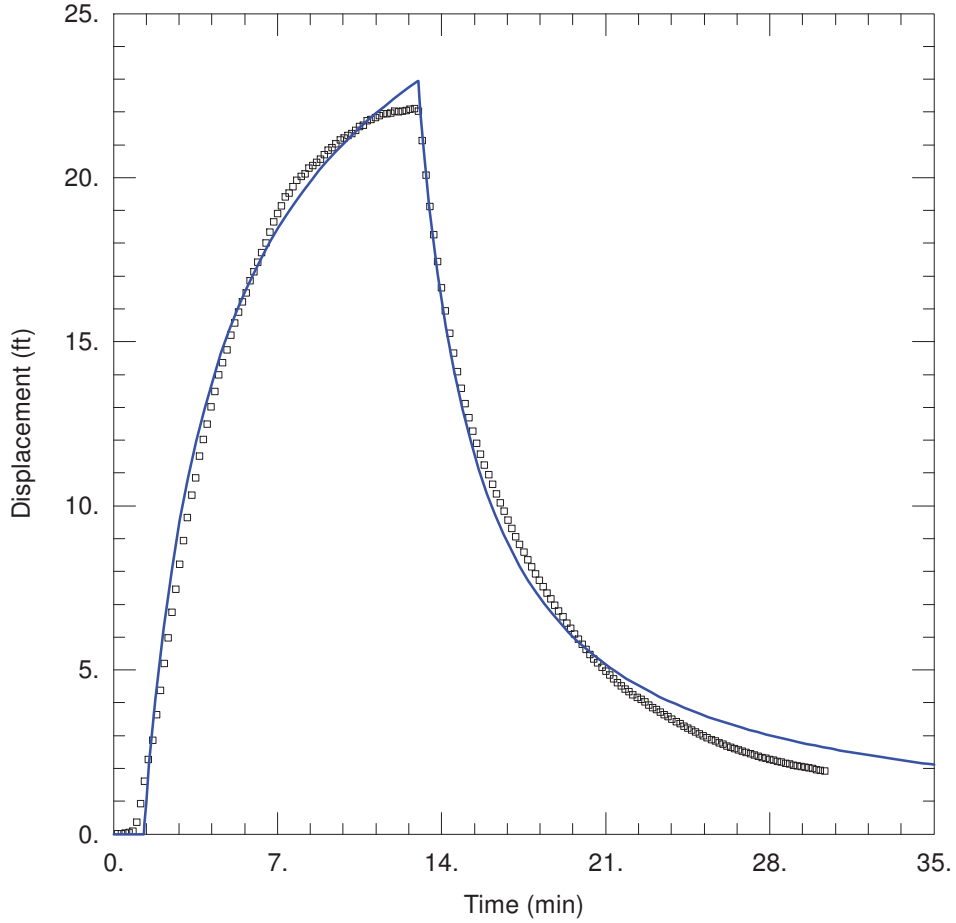
Observation Wells

Well Name	X (ft)	Y (ft)
□ ISB014	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 11.82 ft^2/day S = 0.002594
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB015_1inj_PC.aqt
Date: 03/24/13 Time: 19:14:38

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Pre Maint.
Test Well: ISB015
Test Date: 3/23/2013

AQUIFER DATA

Saturated Thickness: 3.2 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB015	0	0

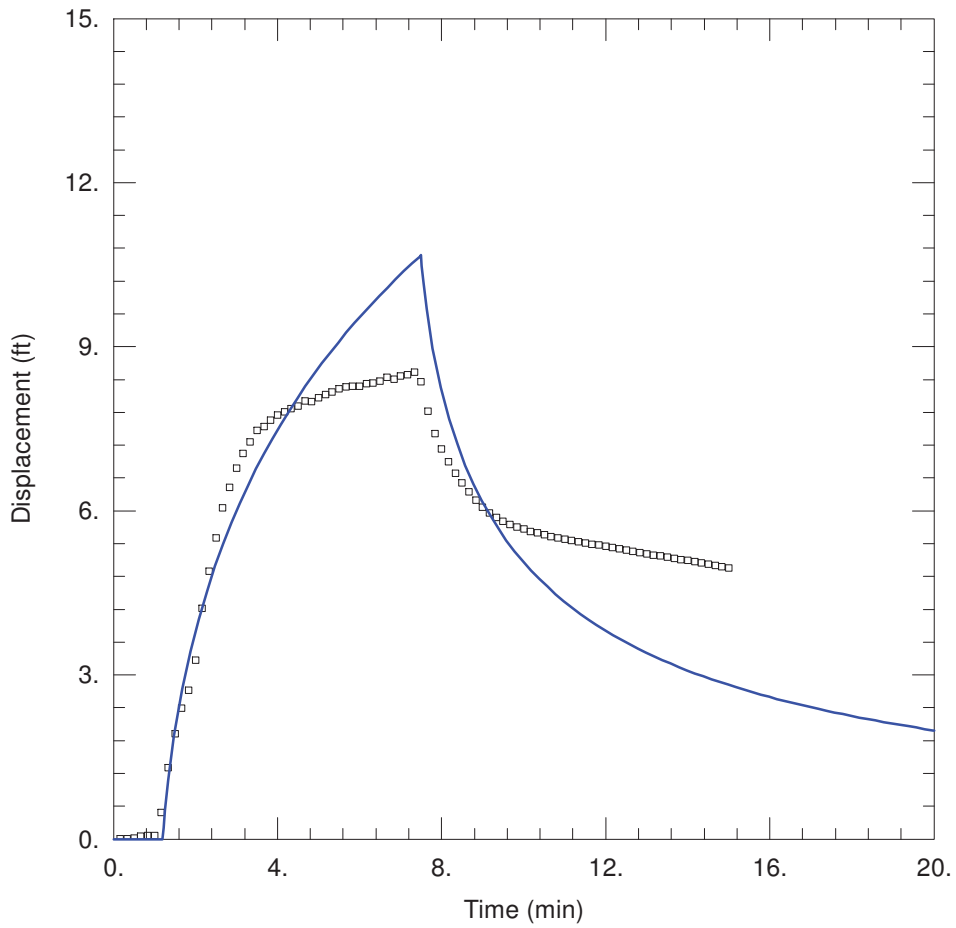
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB015	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 24.6 ft^2/day S = 0.008195
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB016_1inj_PC.aqt
Date: 04/03/13 Time: 10:30:25

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Pre Maint.
Test Well: ISB016
Test Date: 4/2/2013

AQUIFER DATA

Saturated Thickness: 0.2 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB016	0	0

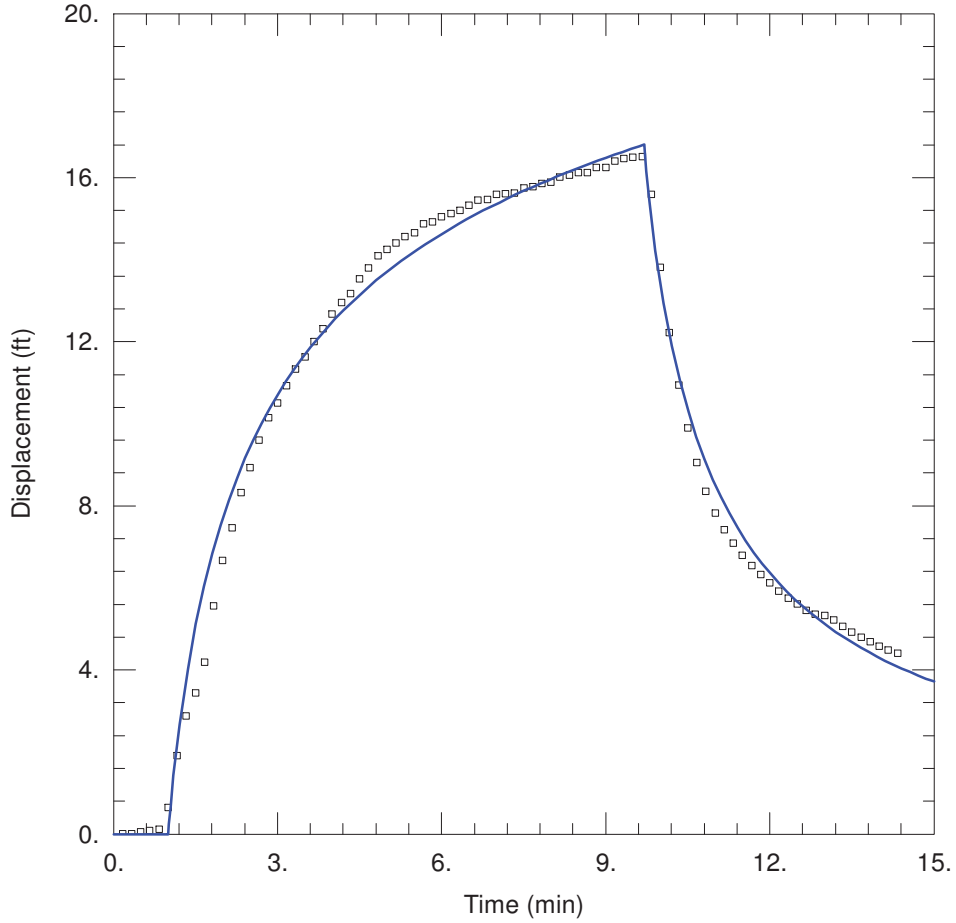
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB016	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 21.61 ft^2/day S = 0.3
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB017_1inj_PC.aqt
Date: 04/03/13 Time: 12:20:18

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Pre Maint.
Test Well: ISB017
Test Date: 4/2/2013

AQUIFER DATA

Saturated Thickness: 3.6 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB017	0	0

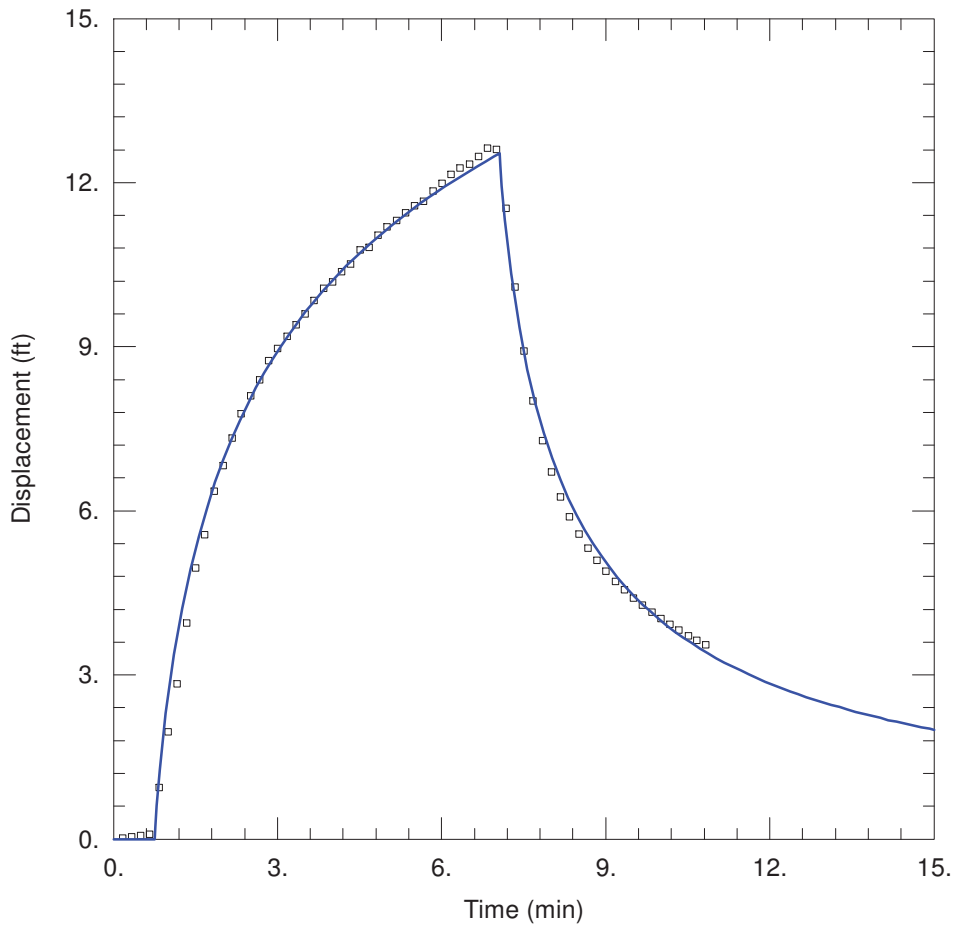
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB017	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 52.12 ft^2/day S = 0.02149
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB018_1inj_PC.aqt
Date: 04/03/13 Time: 12:23:31

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Pre Maint.
Test Well: ISB018
Test Date: 4/2/2013

AQUIFER DATA

Saturated Thickness: 3.4 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB018	0	0

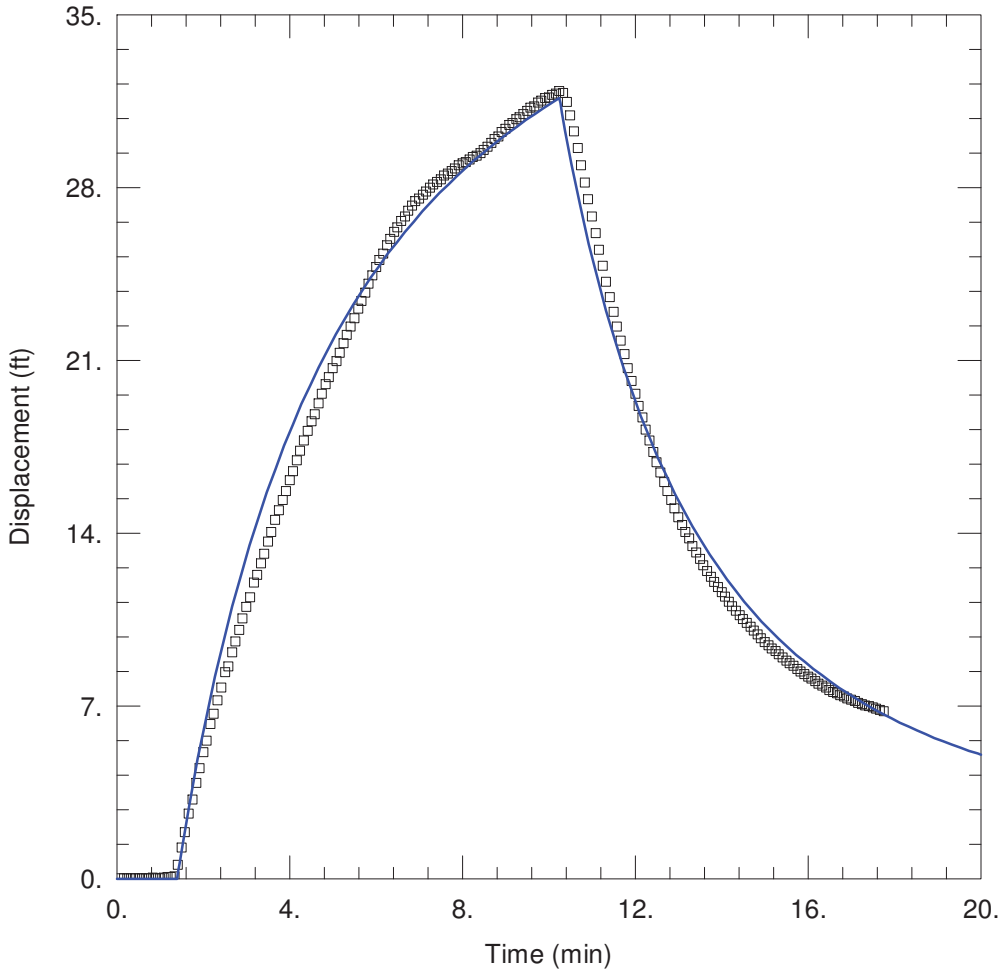
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB018	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 52.96 ft^2/day S = 0.05931
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: \...\ISB019_1inj_PC.aqt
Date: 07/08/13 Time: 16:19:52

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Pre Maint.
Test Well: ISB019
Test Date: 7/1/2013

AQUIFER DATA

Saturated Thickness: 2.6 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB019	0	0

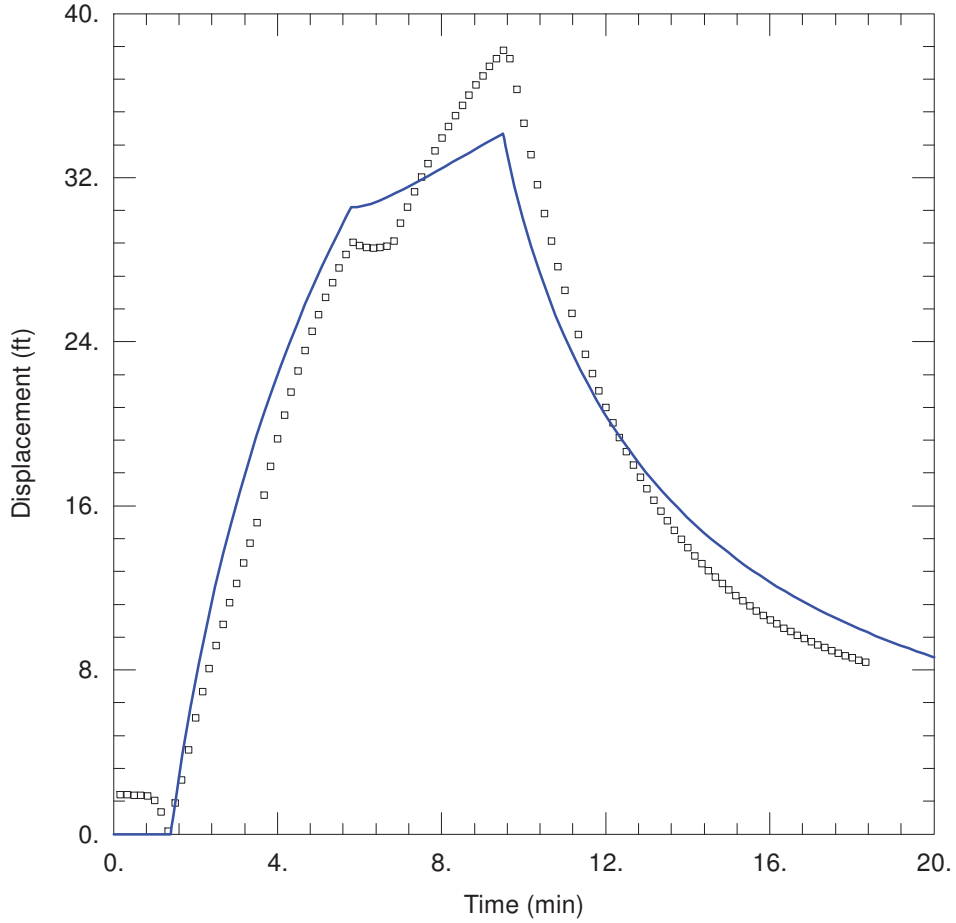
Observation Wells

Well Name	X (ft)	Y (ft)
□ ISB019	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 24.98 ft^2/day S = 0.0004722
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB020_1inj_PC.aqt
Date: 04/03/13 Time: 11:03:55

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Pre Maint.
Test Well: ISB020
Test Date: 4/2/2013

AQUIFER DATA

Saturated Thickness: 3.9 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB020	0	0

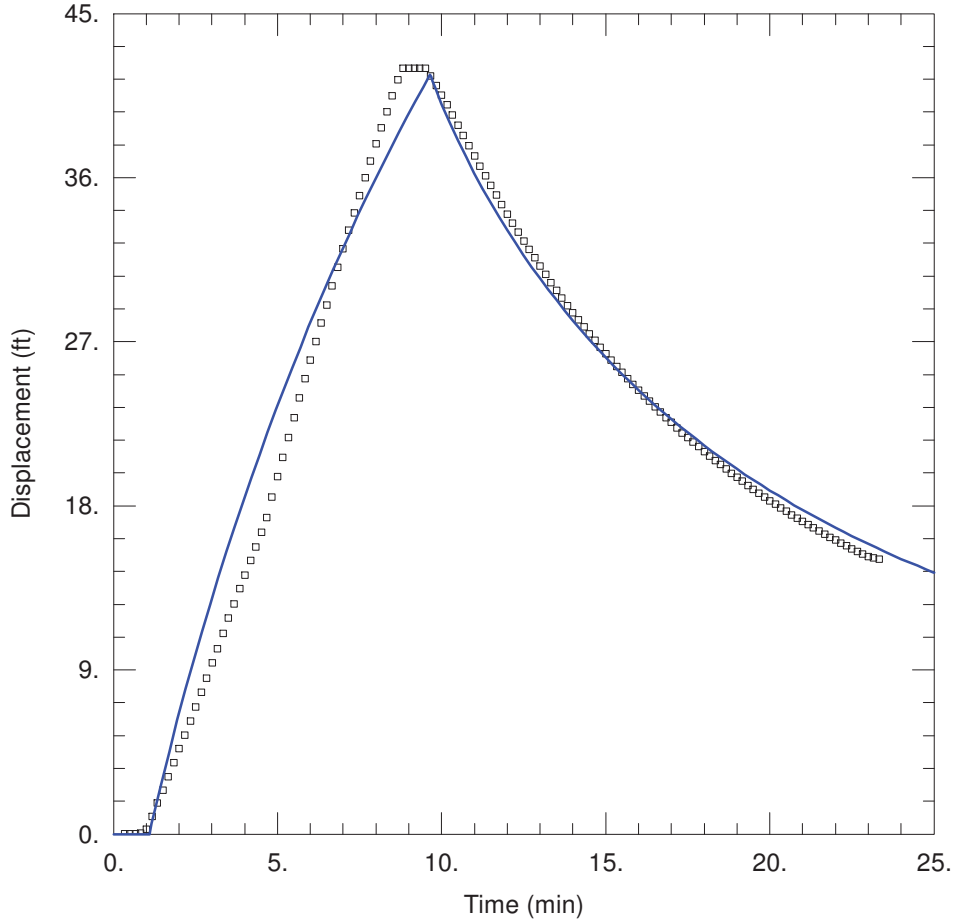
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB020	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 11.41 ft^2/day S = 0.02448
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB021_1inj_PC.aqt
Date: 04/08/13 Time: 15:03:48

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Pre Maint.
Test Well: ISB021
Test Date: 4/2/2013

AQUIFER DATA

Saturated Thickness: 7.6 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB021	0	0

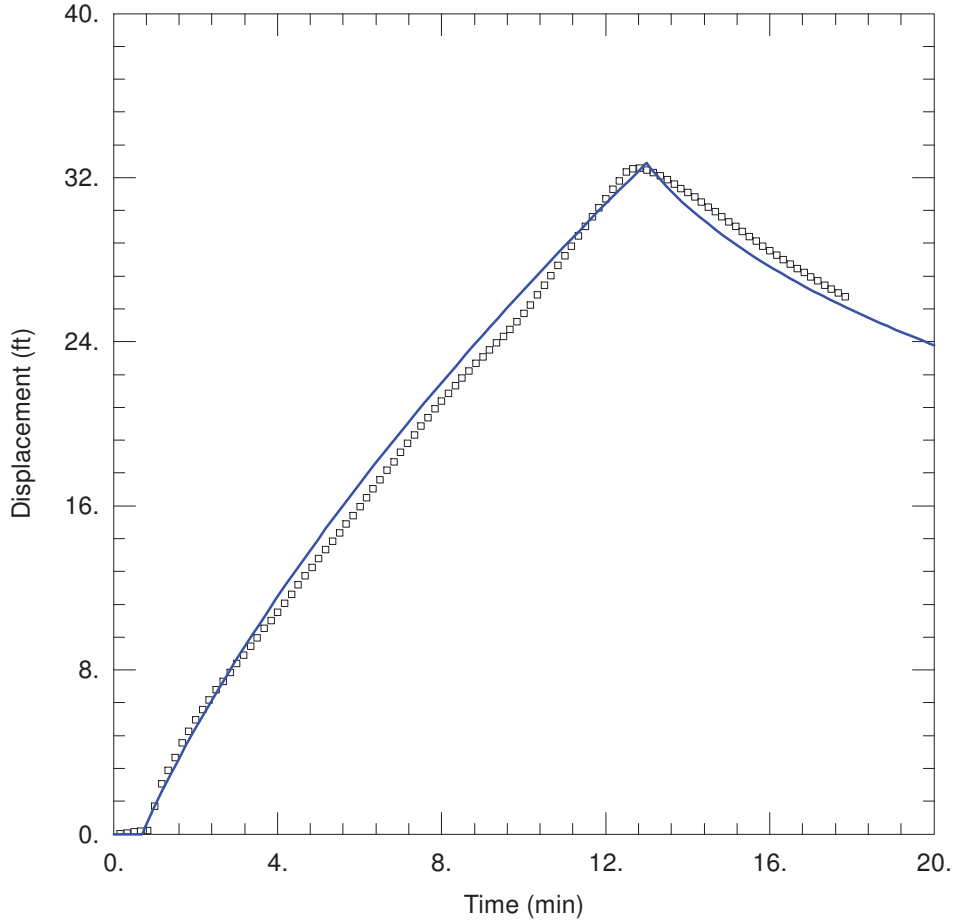
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB021	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 4.127 ft^2/day S = 0.006189
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB022_1inj_PC.aqt
Date: 04/08/13 Time: 15:06:00

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Pre Maint.
Test Well: ISB022
Test Date: 4/3/2013

AQUIFER DATA

Saturated Thickness: 3.1 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB022	0	0

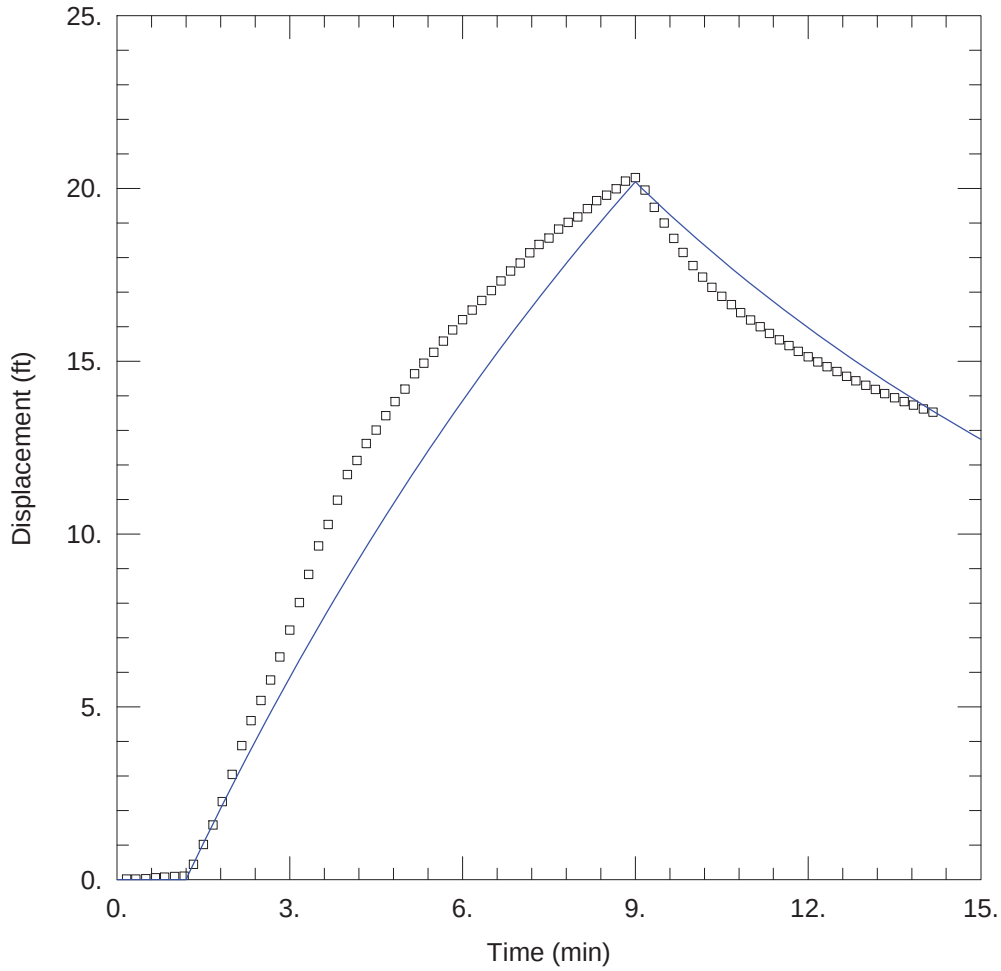
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB022	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 0.3891 ft^2/day S = 0.3
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB023A_1inj_PC.aqt
Date: 04/19/13 Time: 10:42:32

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Pre Maint.
Test Well: ISB023A
Test Date: 4/3/2013

AQUIFER DATA

Saturated Thickness: 3.1 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB023A	0	0

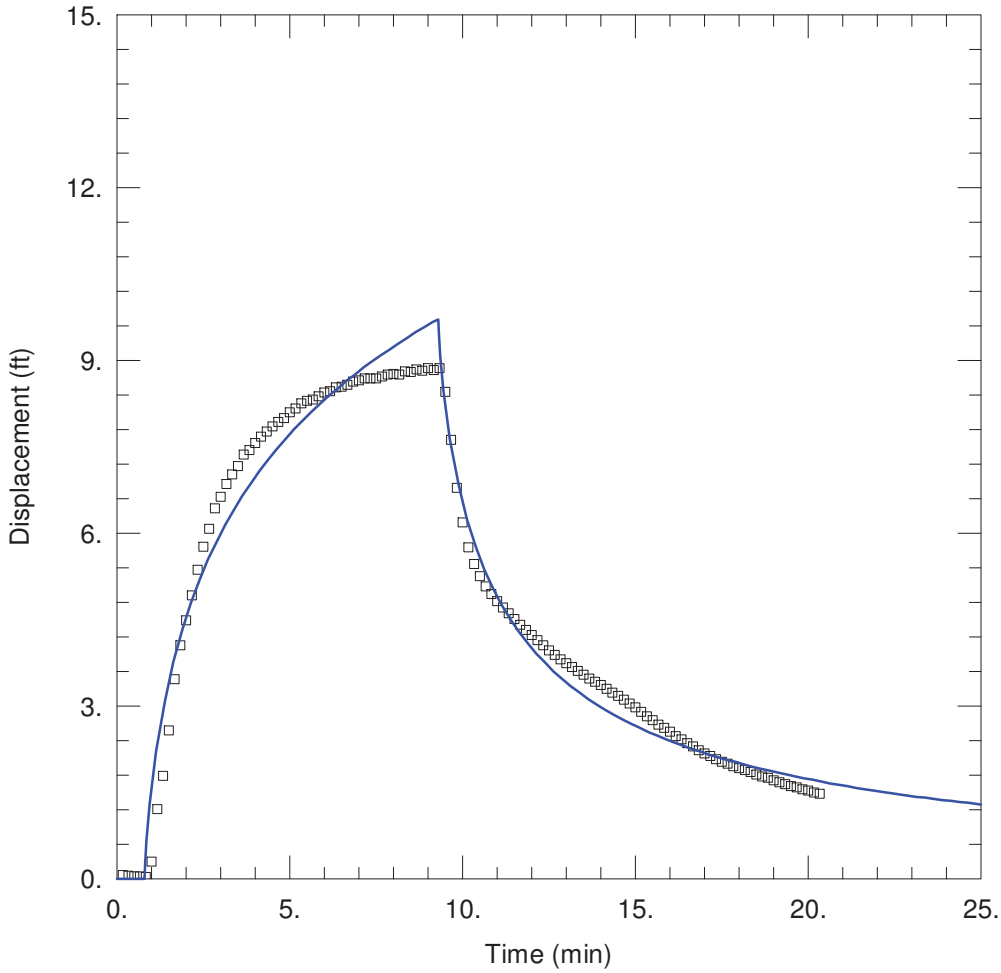
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB023A	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 15.17 ft^2/day S = 7.163E-10
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: \...\ISB024_1inj_PC.aqt
Date: 07/08/13 Time: 16:18:30

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Pre Maint.
Test Well: ISB024
Test Date: 7/1/2013

AQUIFER DATA

Saturated Thickness: 6.1 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB024	0	0

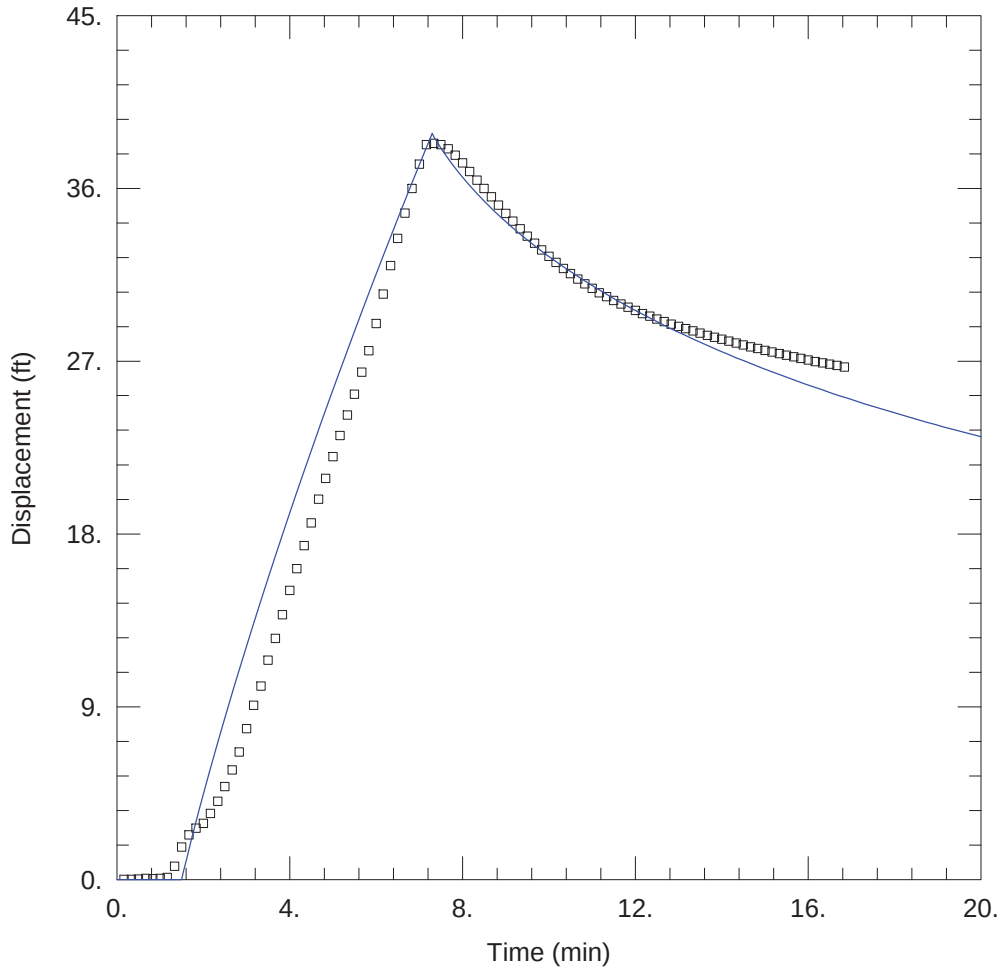
Observation Wells

Well Name	X (ft)	Y (ft)
□ ISB024	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 42.67 ft^2/day S = 0.149
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB025_1inj_PC.aqt
Date: 04/19/13 Time: 10:44:22

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Pre Maint.
Test Well: ISB023A
Test Date: 4/3/2013

AQUIFER DATA

Saturated Thickness: 3.1 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB025	0	0

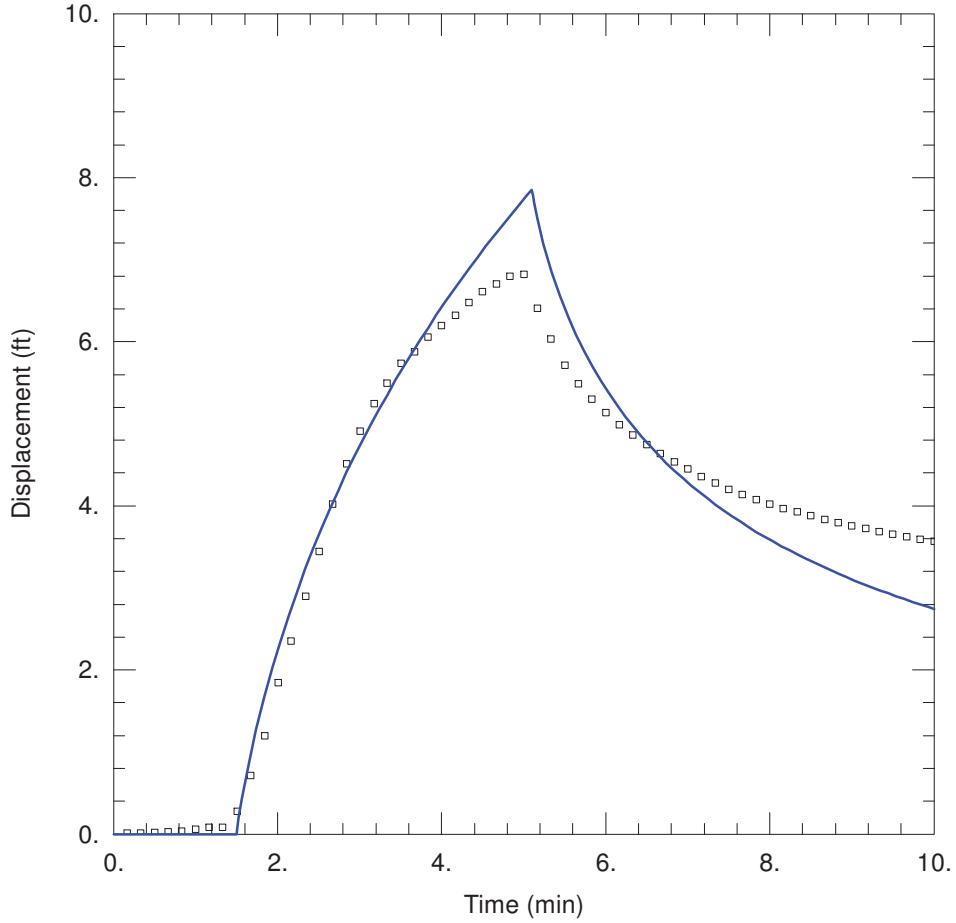
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB025	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 0.3044 ft^2/day S = 0.3
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB026_1inj_PC.aqt
Date: 04/08/13 Time: 15:10:54

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Pre Maint.
Test Well: ISB026
Test Date: 4/3/2013

AQUIFER DATA

Saturated Thickness: 3.2 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB026	0	0

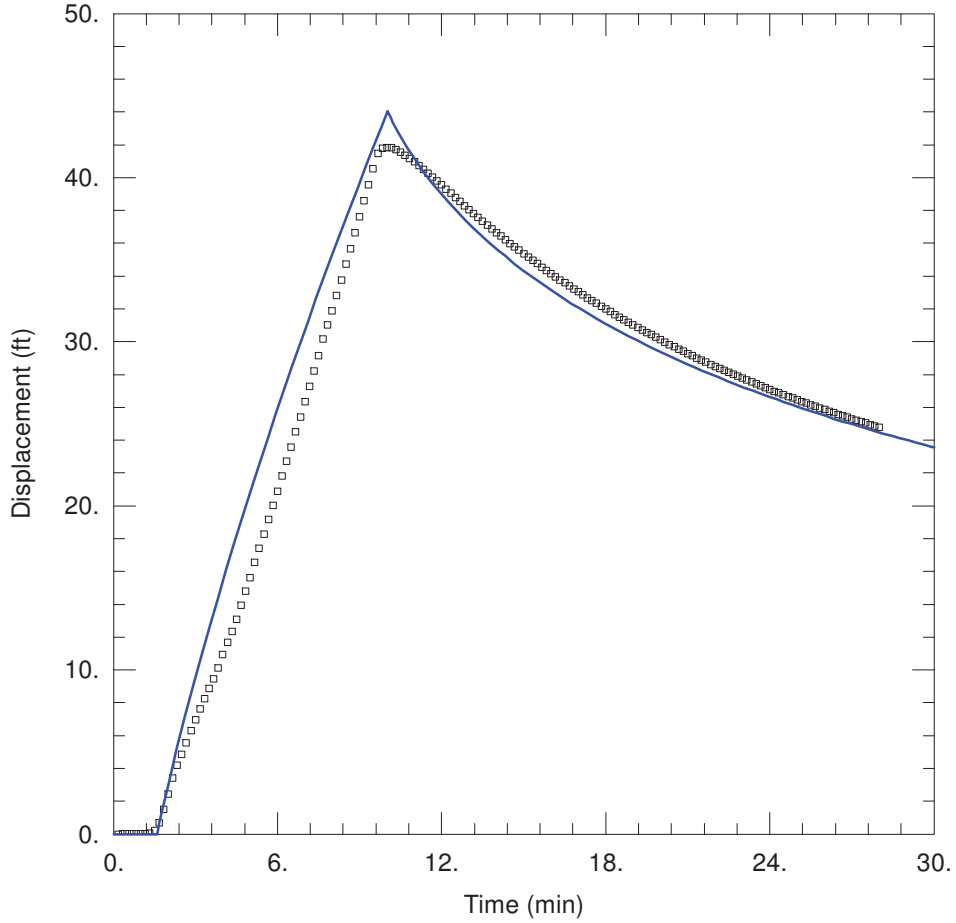
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB026	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 9.681 ft^2/day S = 0.3
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB027_1inj_PC.aqt
Date: 04/12/13 Time: 09:48:27

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Pre Maint.
Test Well: ISB027
Test Date: 4/4/2013

AQUIFER DATA

Saturated Thickness: 0.1 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB027	0	0

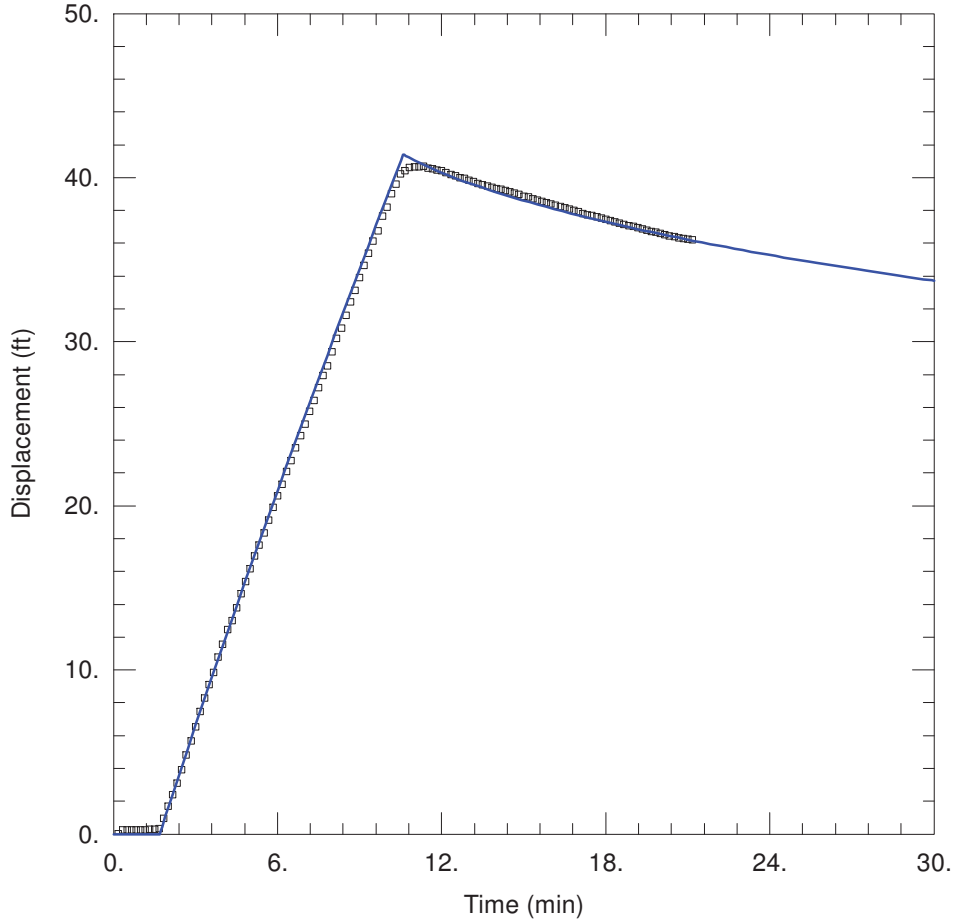
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB027	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 0.2972 ft^2/day S = 0.3
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB029A_1inj_PC.aqt
Date: 04/10/13 Time: 16:56:48

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Pre Maint.
Test Well: ISB029A
Test Date: 4/5/2013

AQUIFER DATA

Saturated Thickness: 3.1 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB029A	0	0

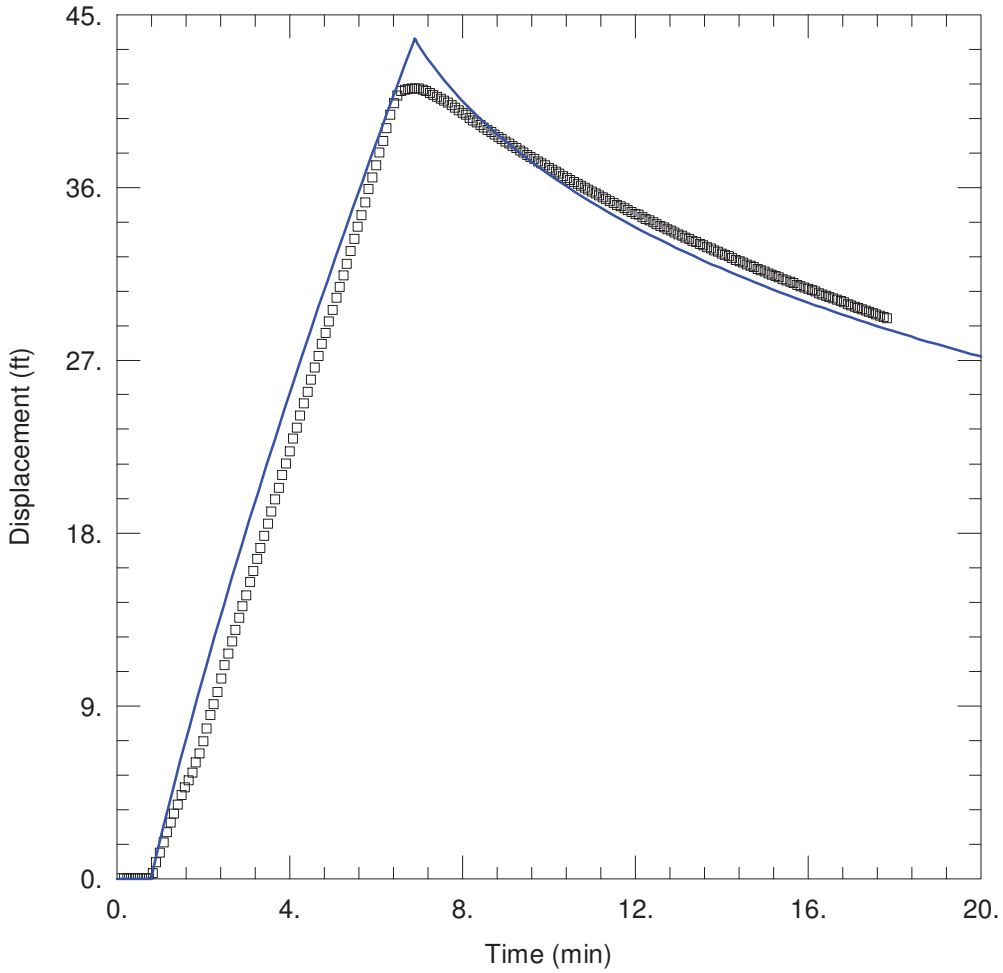
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB029A	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 0.02286 ft^2/day S = 0.3
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: \...\ISB030B_1inj_PC.aqt
Date: 07/08/13 Time: 16:17:25

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Pre Maint.
Test Well: ISB030B
Test Date: 7/1/2013

AQUIFER DATA

Saturated Thickness: 0.1 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB030B	0	0

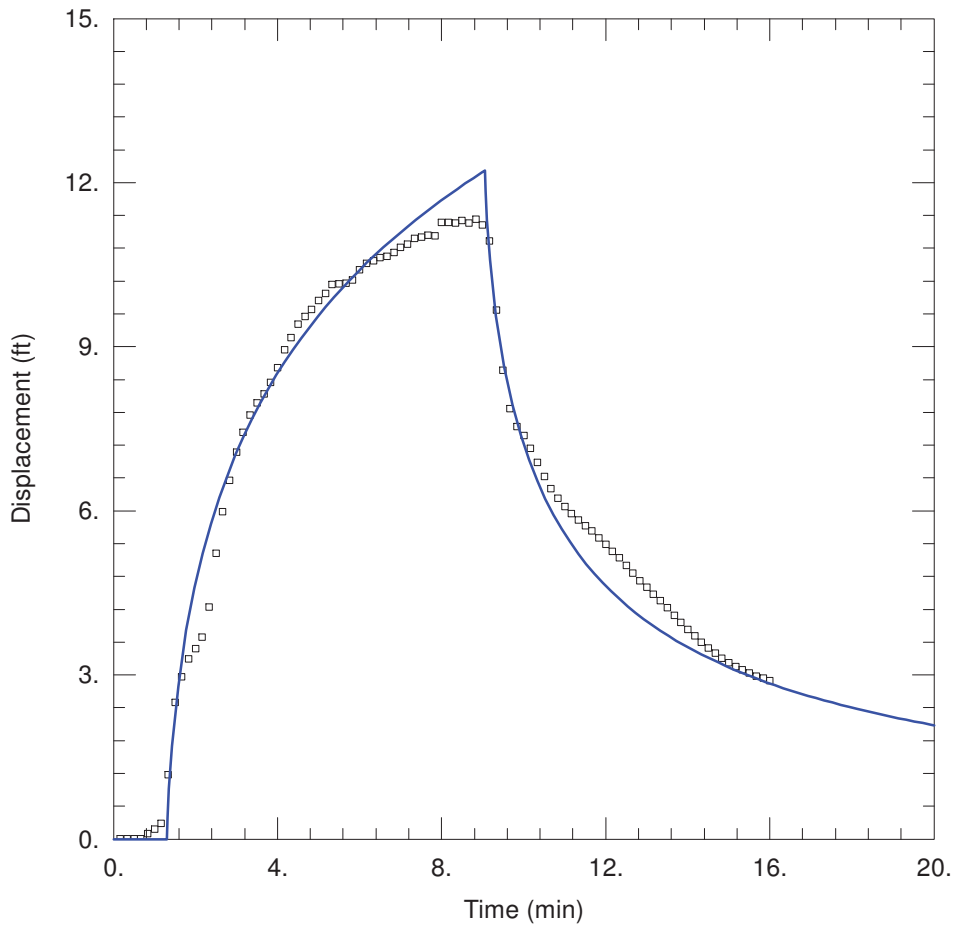
Observation Wells

Well Name	X (ft)	Y (ft)
□ ISB030B	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 0.2364 ft^2/day S = 0.3
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB031_1inj_PC.aqt
Date: 04/10/13 Time: 16:59:18

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Pre Maint.
Test Well: ISB031
Test Date: 4/5/2013

AQUIFER DATA

Saturated Thickness: 4.2 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB031	0	0

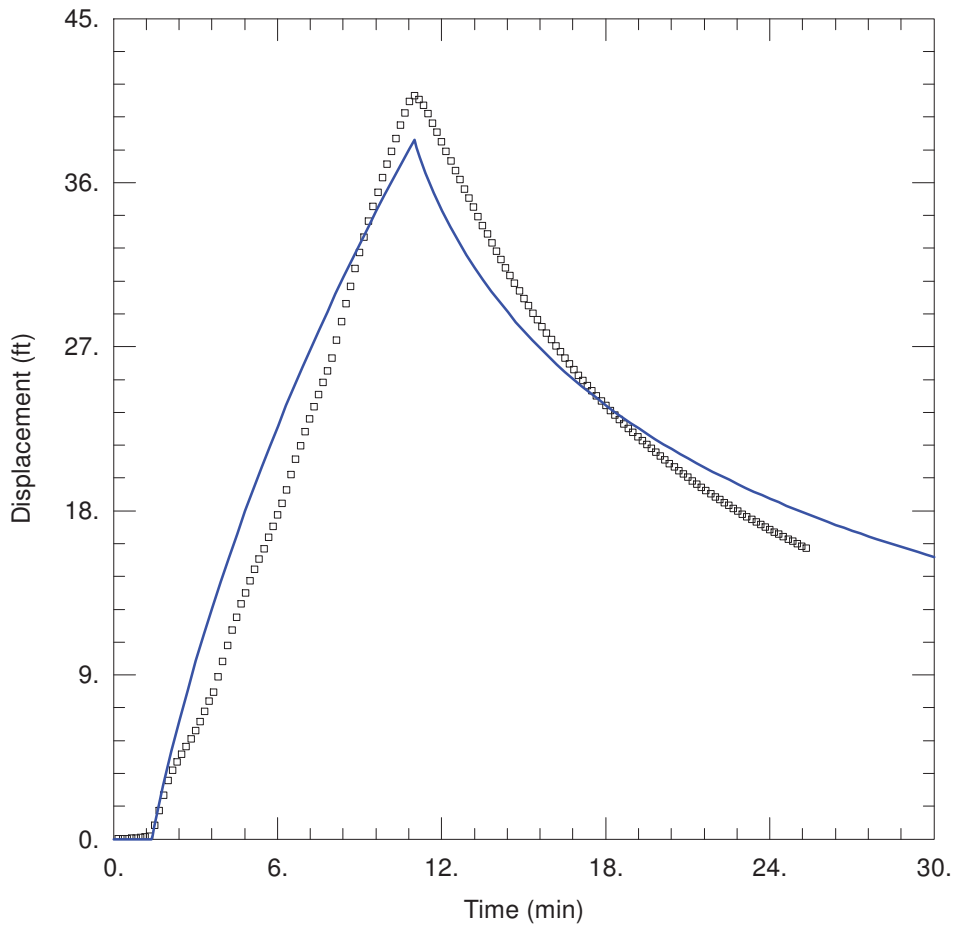
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB031	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 61.87 ft^2/day S = 0.3
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB032_1inj_PC.aqt
Date: 04/08/13 Time: 15:22:55

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Pre Maint.
Test Well: ISB032
Test Date: 4/3/2013

AQUIFER DATA

Saturated Thickness: 2.5 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB032	0	0

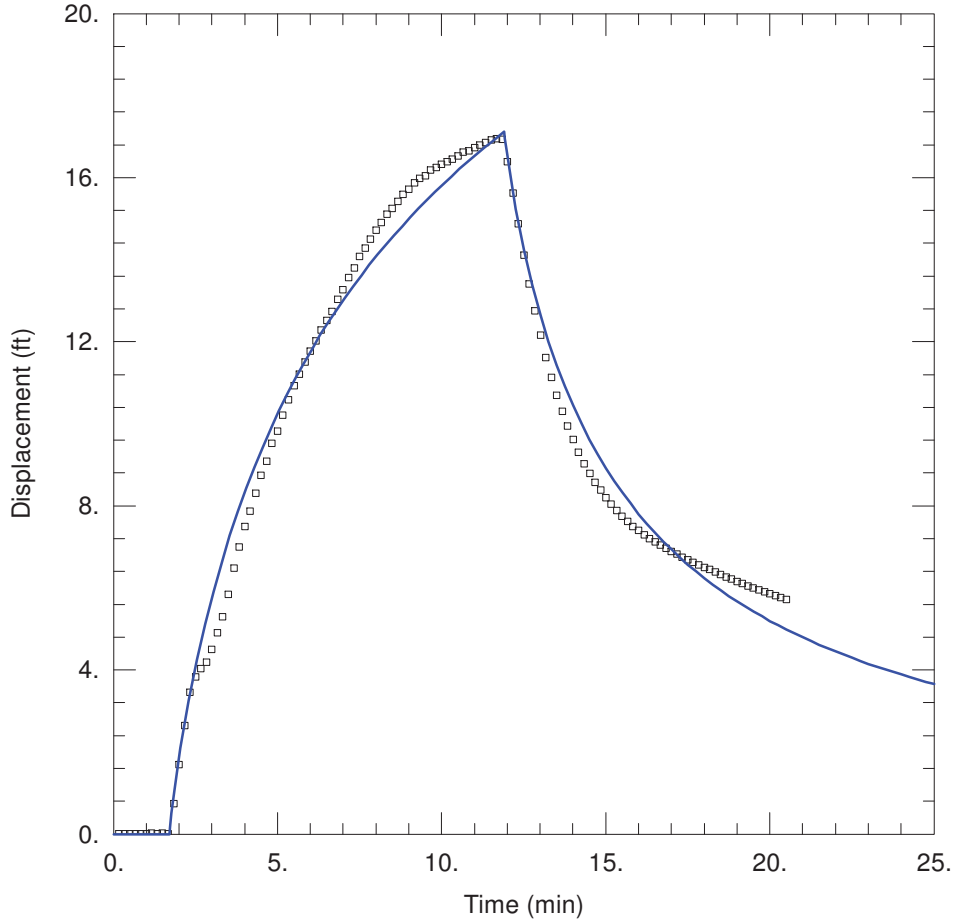
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB032	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 1.296 ft^2/day S = 0.1479
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB035_1inj_PC.aqt
Date: 04/10/13 Time: 17:00:00

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Pre Maint.
Test Well: ISB035
Test Date: 4/4/2013

AQUIFER DATA

Saturated Thickness: 0.7 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB035	0	0

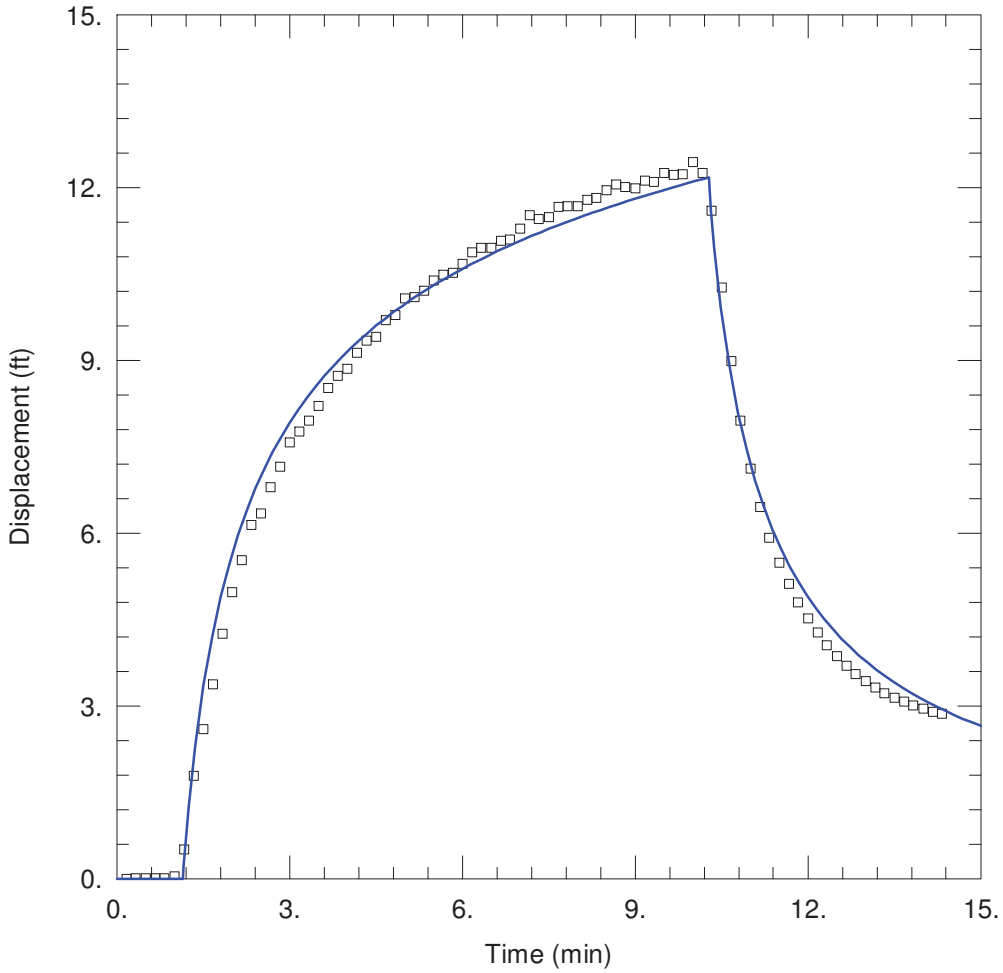
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB035	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 13.37 ft^2/day S = 0.05376
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB036_1inj_PC.aqt
Date: 04/10/13 Time: 17:01:02

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Pre Maint.
Test Well: ISB036
Test Date: 4/4/2013

AQUIFER DATA

Saturated Thickness: 10. ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB036	0	0

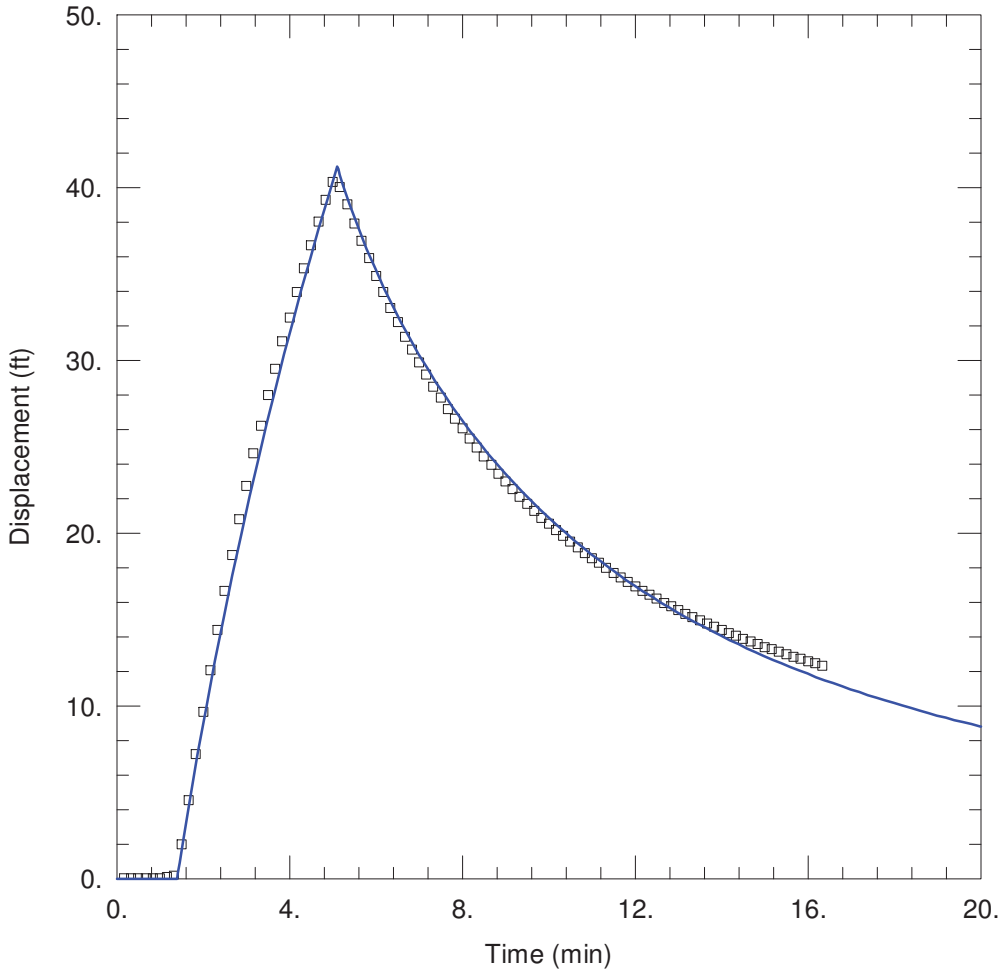
Observation Wells

Well Name	X (ft)	Y (ft)
□ ISB036	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 72.04 ft^2/day S = 0.01934
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB037_1inj_PC.aqt
Date: 04/10/13 Time: 17:01:41

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Pre Maint.
Test Well: ISB037
Test Date: 4/5/2013

AQUIFER DATA

Saturated Thickness: 7.5 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB037	0	0

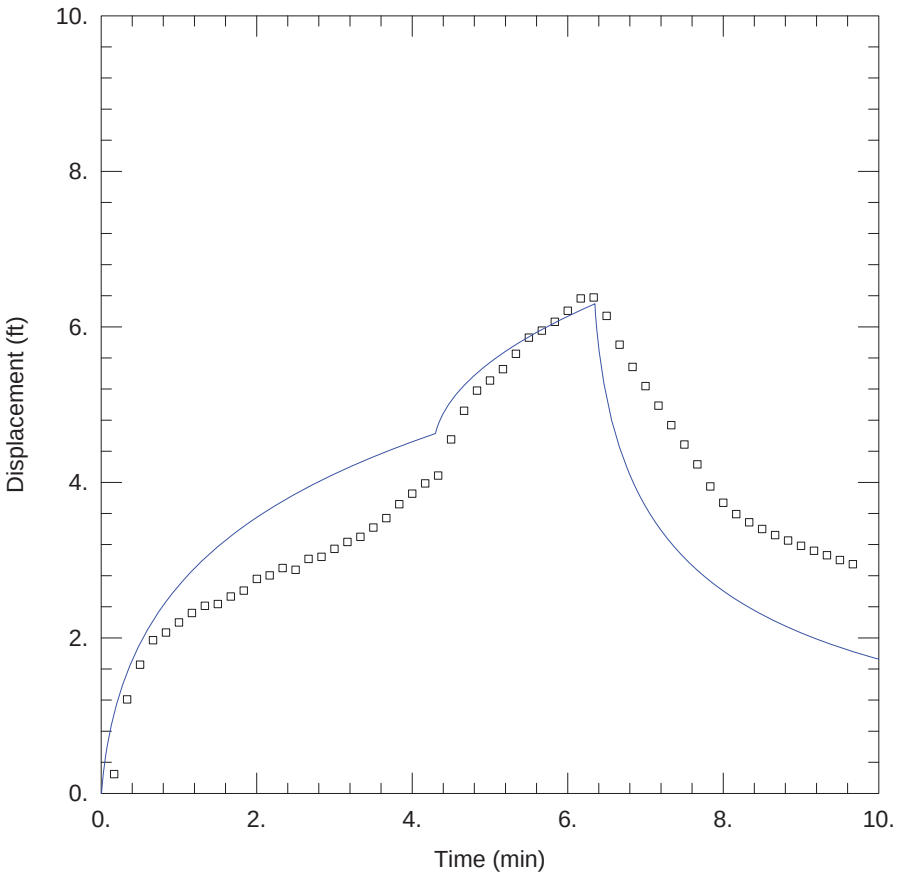
Observation Wells

Well Name	X (ft)	Y (ft)
□ ISB037	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 7.1 ft^2/day S = 0.004593
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB038_1inj_PC.aqt
Date: 07/22/13 Time: 15:23:28

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Pre Maint.
Test Well: ISB038
Test Date: 6/27/2013

AQUIFER DATA

Saturated Thickness: 12.6 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB038	0	0

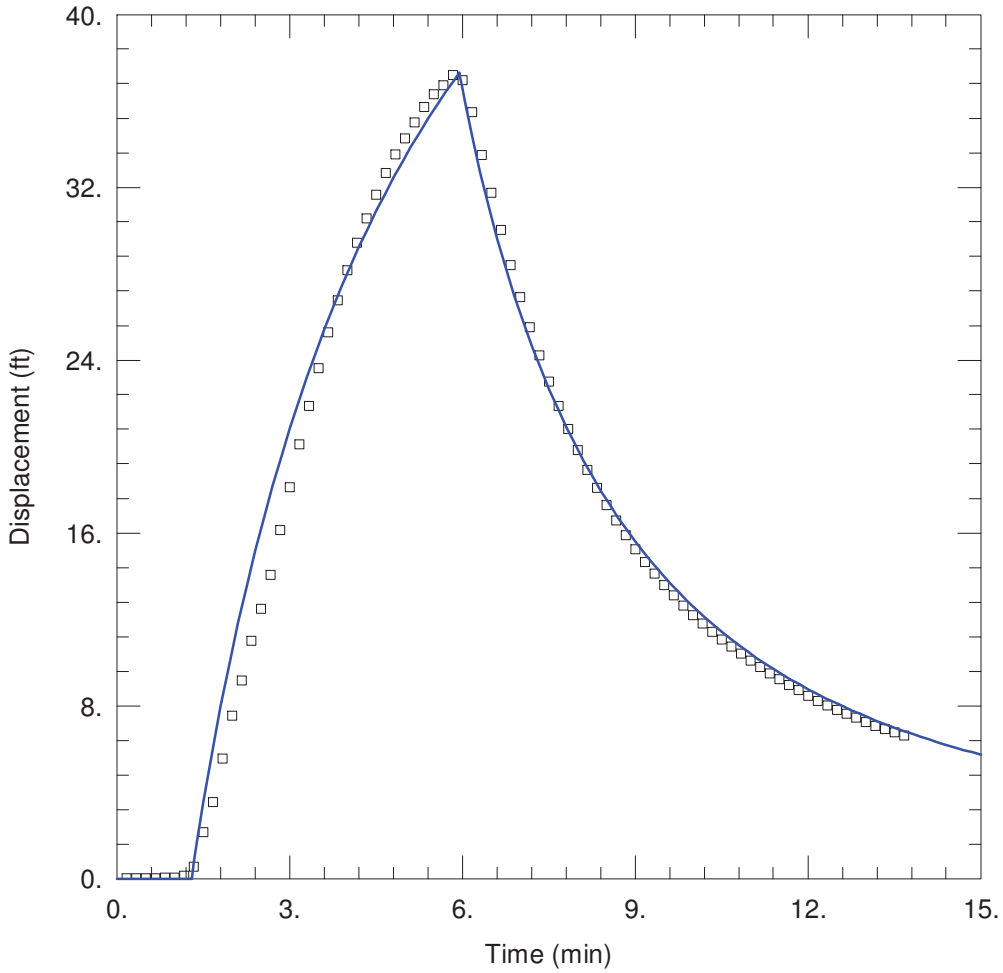
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB038	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 91.26 ft^2/day S = 0.3
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB039_1inj_PC.aqt
Date: 04/10/13 Time: 17:02:50

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Pre Maint.
Test Well: ISB039
Test Date: 4/5/2013

AQUIFER DATA

Saturated Thickness: 7.5 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB039	0	0

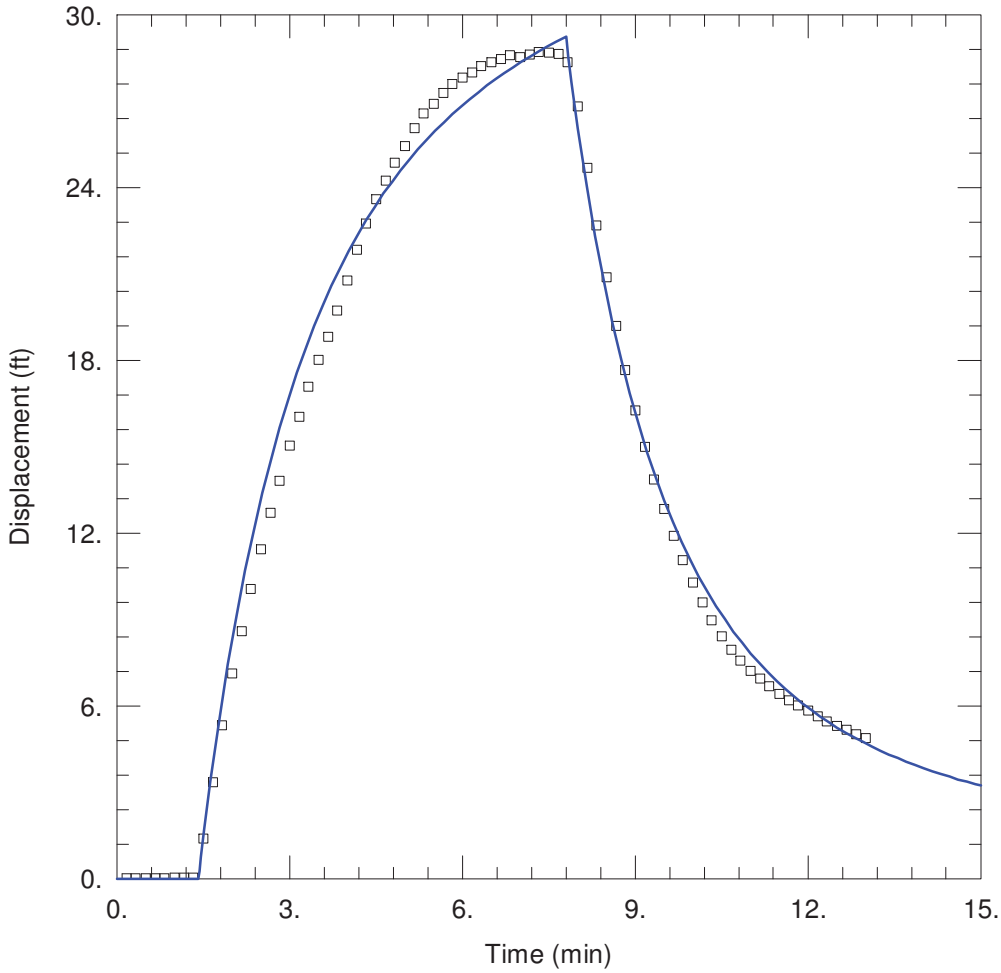
Observation Wells

Well Name	X (ft)	Y (ft)
□ ISB039	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 21.78 ft^2/day S = 0.001983
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB040_1inj_PC.aqt
Date: 04/10/13 Time: 17:03:23

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Pre Maint.
Test Well: ISB040
Test Date: 4/5/2013

AQUIFER DATA

Saturated Thickness: 7.7 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB040	0	0

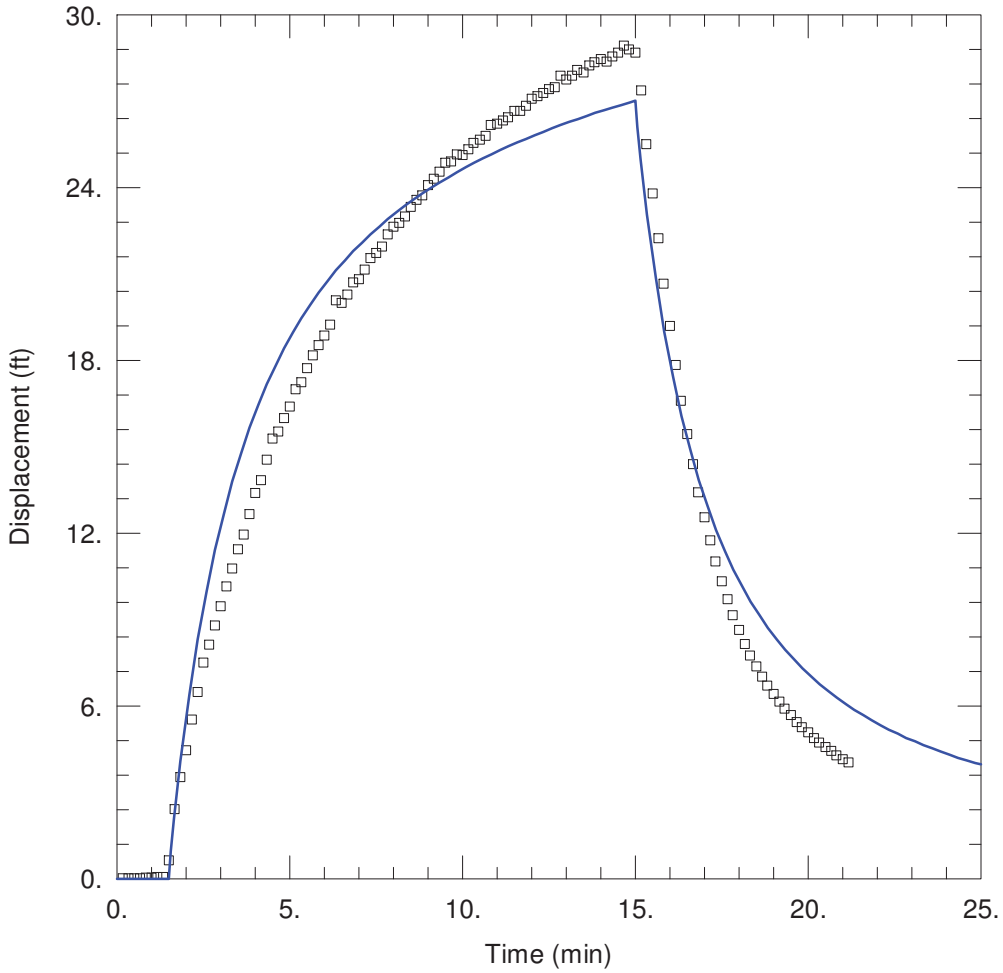
Observation Wells

Well Name	X (ft)	Y (ft)
□ ISB040	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 53.57 ft^2/day S = 0.0001174
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB041_1inj_PC.aqt
Date: 04/10/13 Time: 17:04:03

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Pre Maint.
Test Well: ISB041
Test Date: 4/5/2013

AQUIFER DATA

Saturated Thickness: 5.4 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB041	0	0

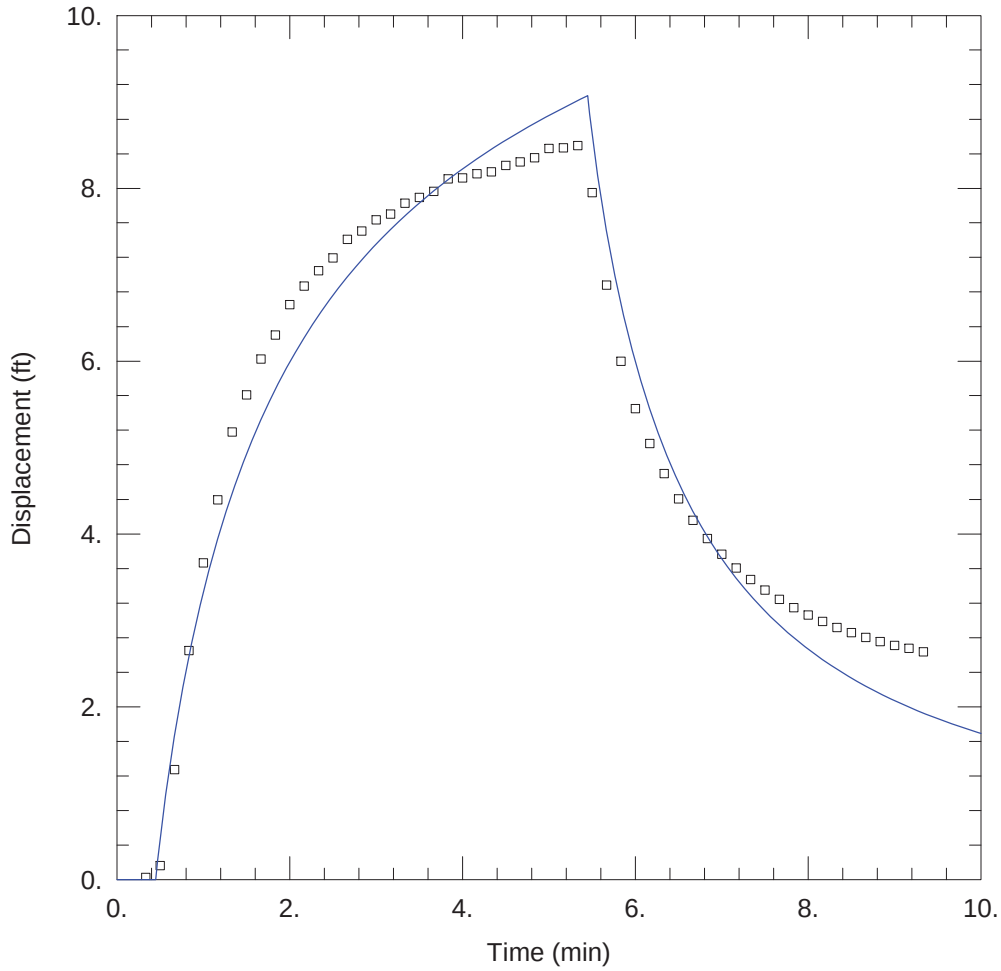
Observation Wells

Well Name	X (ft)	Y (ft)
□ ISB041	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 37.61 ft^2/day S = 0.001544
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: \...\ISB042_1inj_PC.aqt
Date: 07/02/13 Time: 10:47:50

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Pre Maint.
Test Well: ISB042
Test Date: 6/27/2013

AQUIFER DATA

Saturated Thickness: 4.4 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB042	0	0

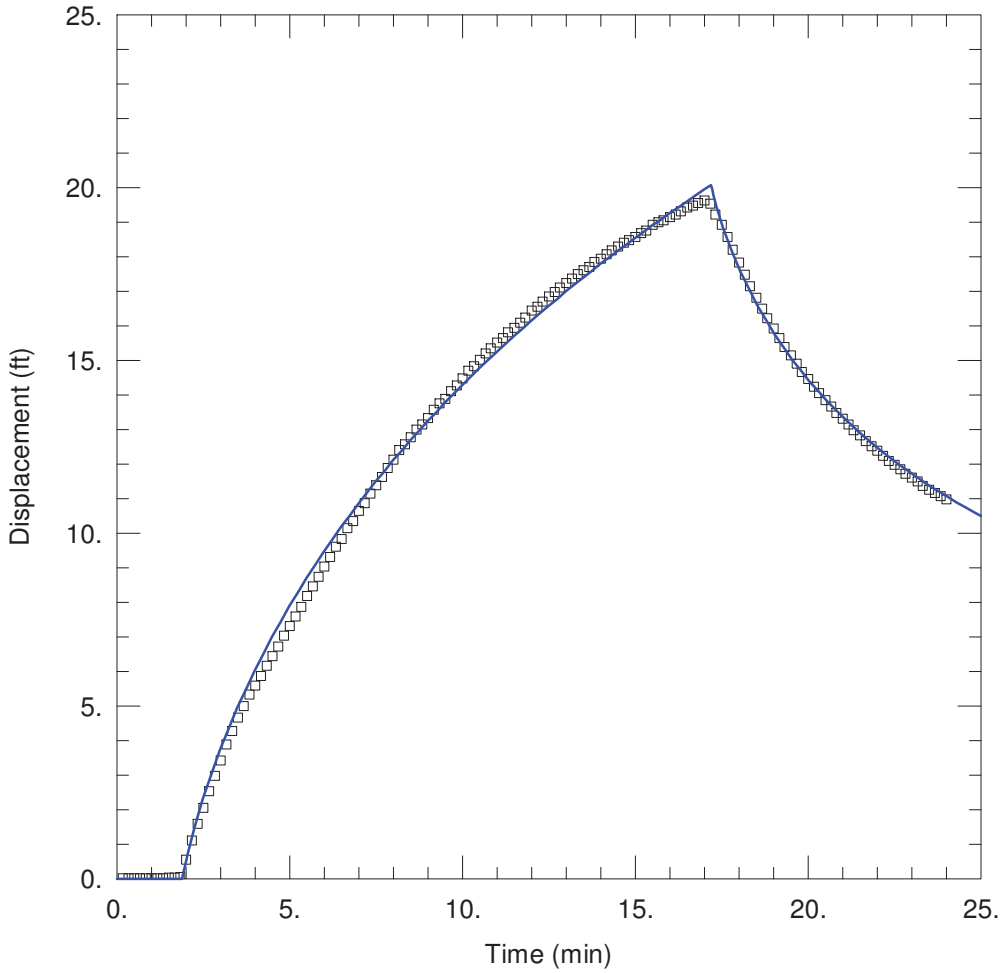
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB042	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 54.05 ft^2/day S = 0.01108
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB044A_1inj_PC.aqt
Date: 04/10/13 Time: 17:14:45

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Pre Maint.
Test Well: ISB044A
Test Date: 4/5/2013

AQUIFER DATA

Saturated Thickness: 8.9 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB044A	0	0

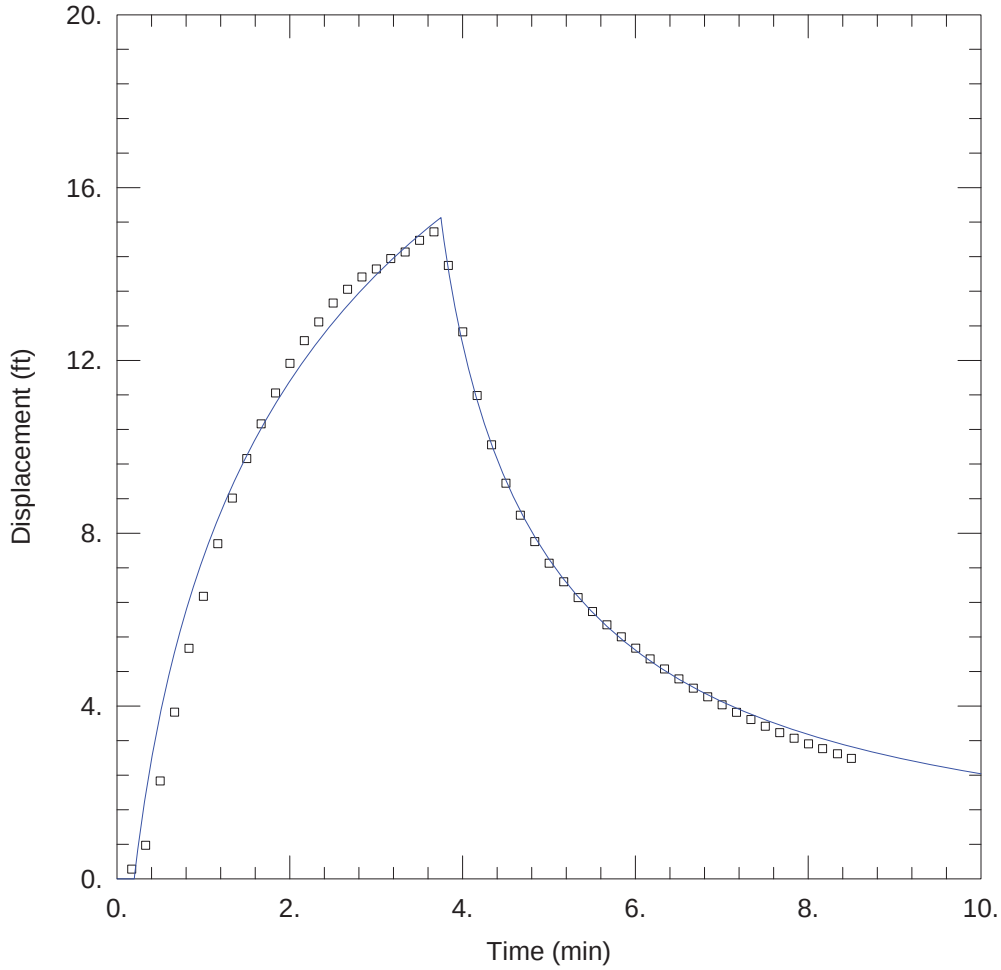
Observation Wells

Well Name	X (ft)	Y (ft)
□ ISB044A	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 3.071 ft^2/day S = 0.3
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: C:\...\ISB046_1inj_PC.aqt
Date: 09/23/13 Time: 14:27:50

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Pre Maint.
Test Well: ISB046
Test Date: 6/27/2013

AQUIFER DATA

Saturated Thickness: 6.6 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB046	0	0

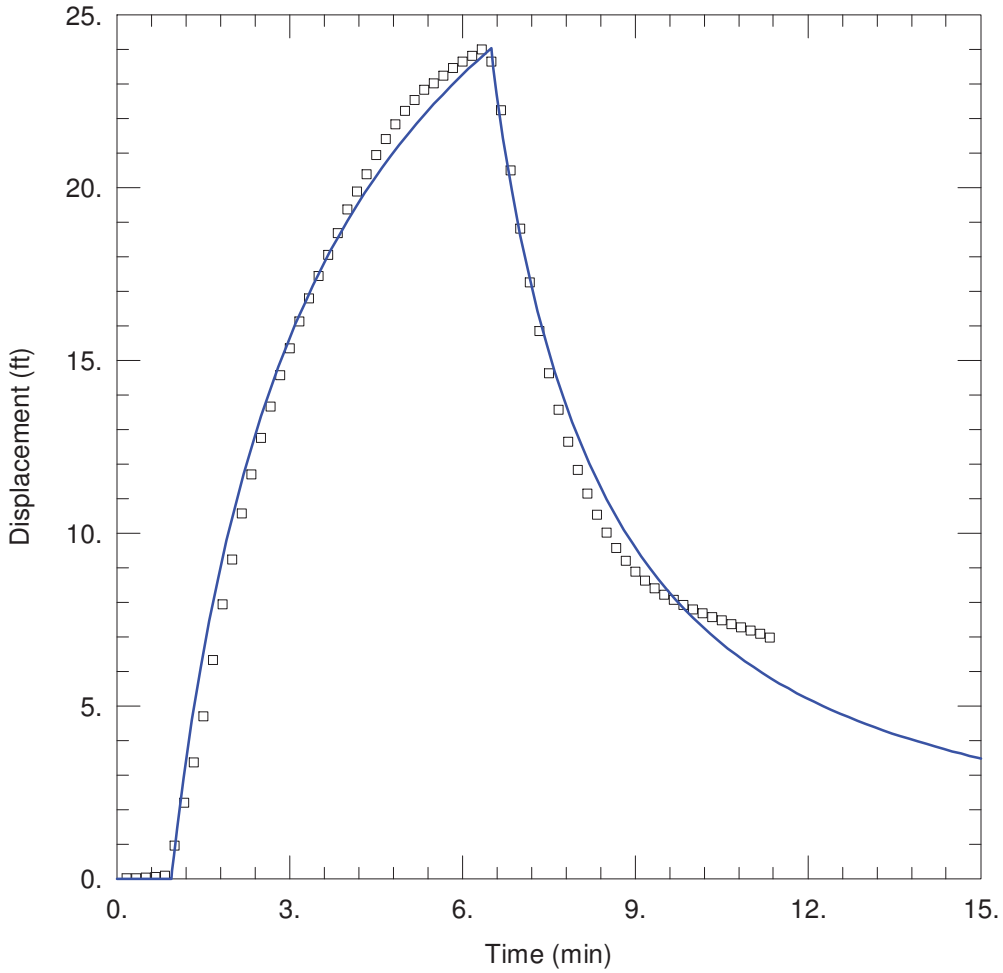
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB046	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 39.18 ft^2/day S = 0.03959
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB047_1inj_PC.aqt
Date: 04/10/13 Time: 17:04:37

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Pre Maint.
Test Well: ISB047
Test Date: 4/8/2013

AQUIFER DATA

Saturated Thickness: 4.3 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB047	0	0

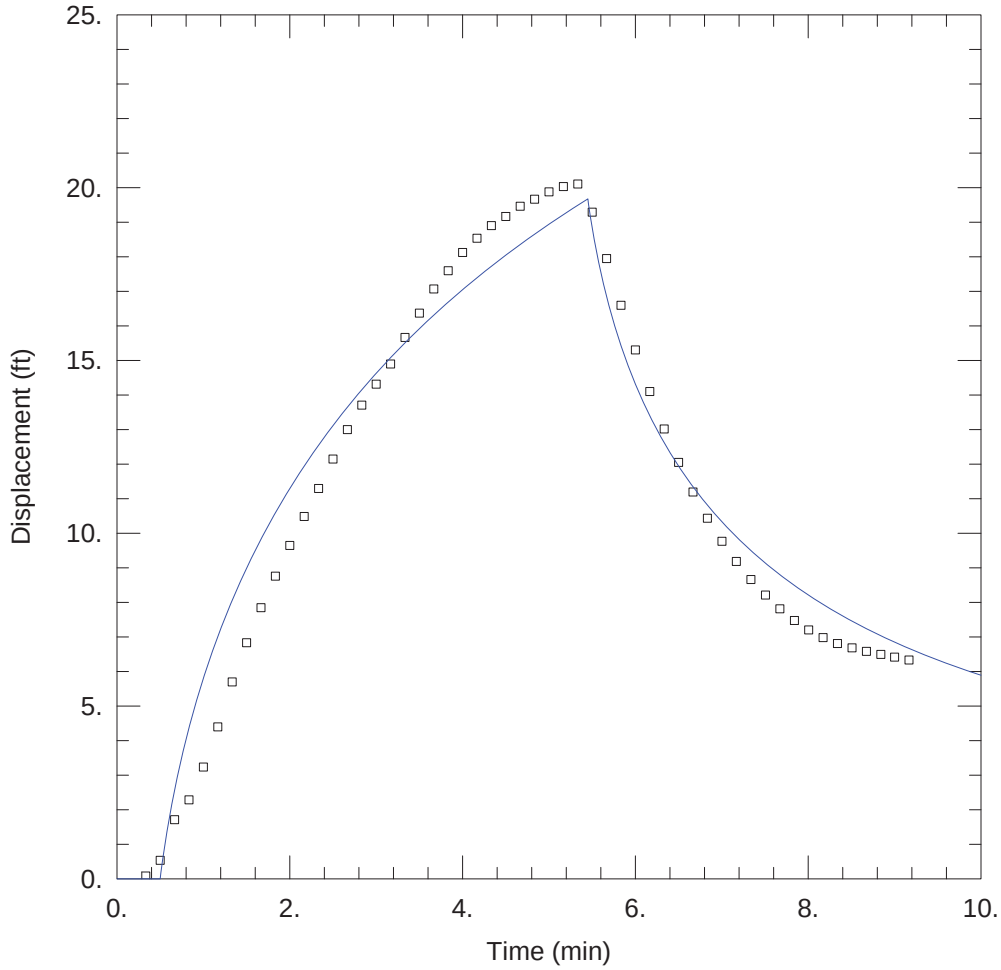
Observation Wells

Well Name	X (ft)	Y (ft)
□ ISB047	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 29.99 ft^2/day S = 0.008
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: C:\...\ISB048_1inj_PC.aqt
Date: 09/23/13 Time: 14:27:37

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Pre Maint.
Test Well: ISB048
Test Date: 6/27/2013

AQUIFER DATA

Saturated Thickness: 2.2 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB048	0	0

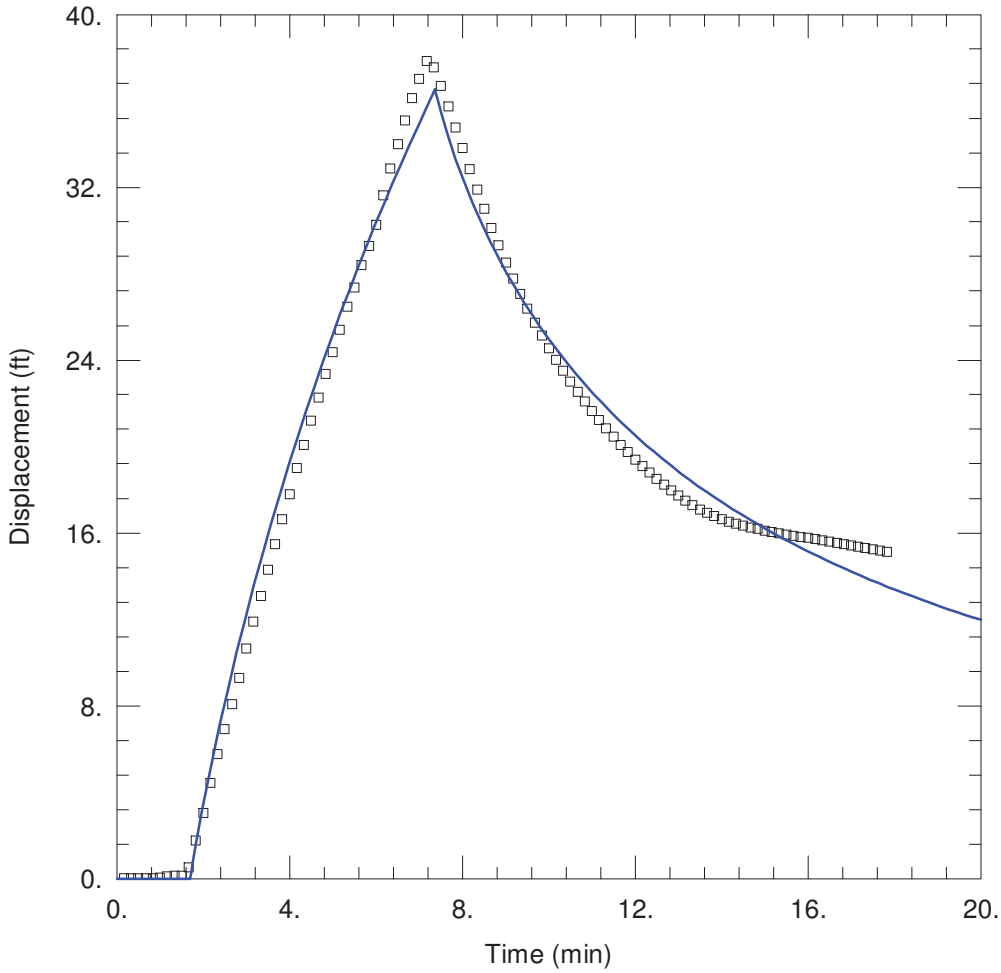
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB048	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 25.36 ft^2/day S = 0.1436
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB049_1inj_PC.aqt
Date: 04/10/13 Time: 17:05:14

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Pre Maint.
Test Well: ISB049
Test Date: 4/8/2013

AQUIFER DATA

Saturated Thickness: 0.1 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB049	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
□ ISB049	0	0

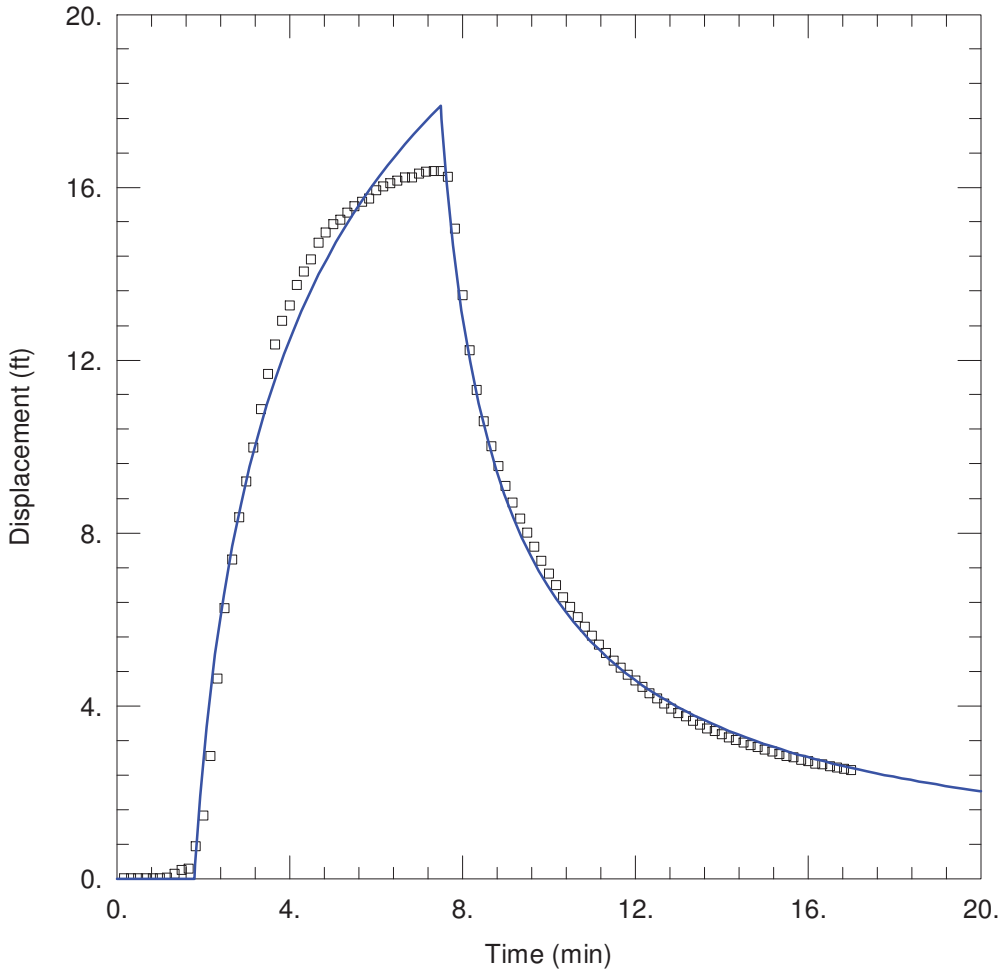
SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 3.674 ft^2/day S = 0.06698
r(w) = 0.4 ft r(c) = 0.167 ft

APPENDIX B

POST- MAINTENANCE CONSTANT-RATE INJECTION TESTING AQTESOLV OUTPUTS



WELL TEST ANALYSIS

Data Set: M:\...\ISB010_2inj_PC.aqt
Date: 04/20/13 Time: 16:13:18

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Post Maint.
Test Well: ISB010
Test Date: 4/11/2013

AQUIFER DATA

Saturated Thickness: 3.2 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB010	0	0

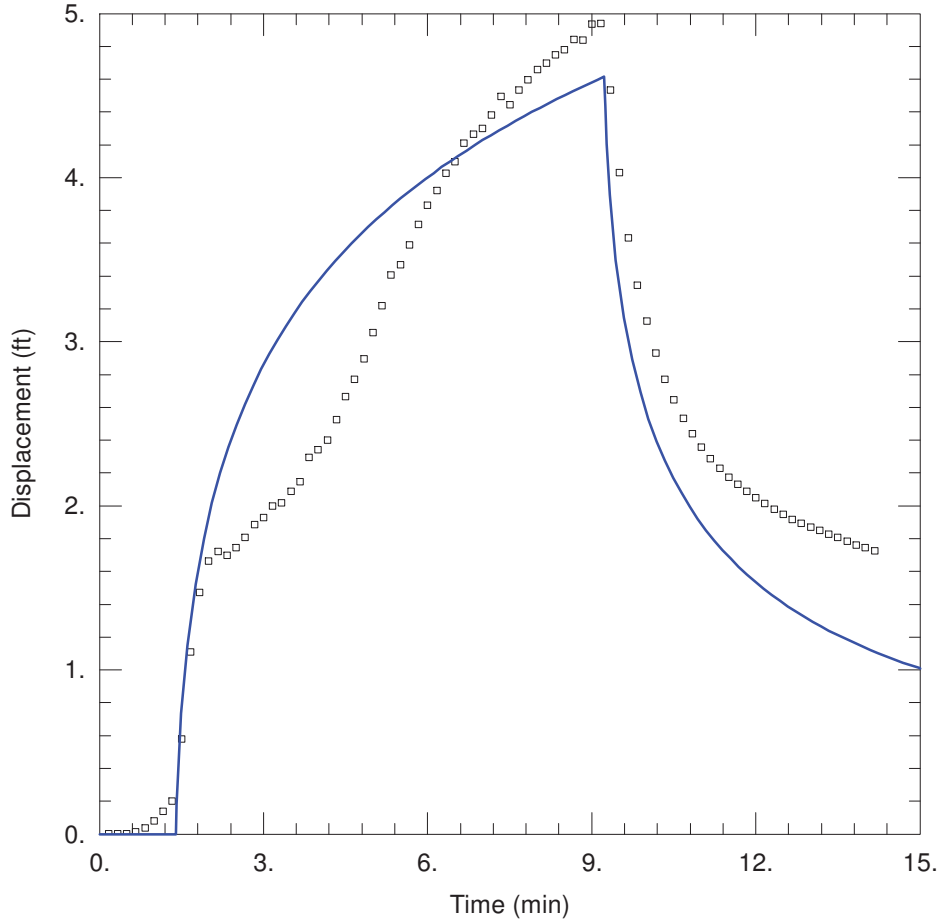
Observation Wells

Well Name	X (ft)	Y (ft)
□ ISB010	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 36.71 ft^2/day S = 0.0449
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB011_2inj_PC - Copy.aqt
Date: 04/23/13 Time: 19:21:21

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Post Maint.
Test Well: ISB011
Test Date: 4/11/2013

AQUIFER DATA

Saturated Thickness: 4.7 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB011	0	0

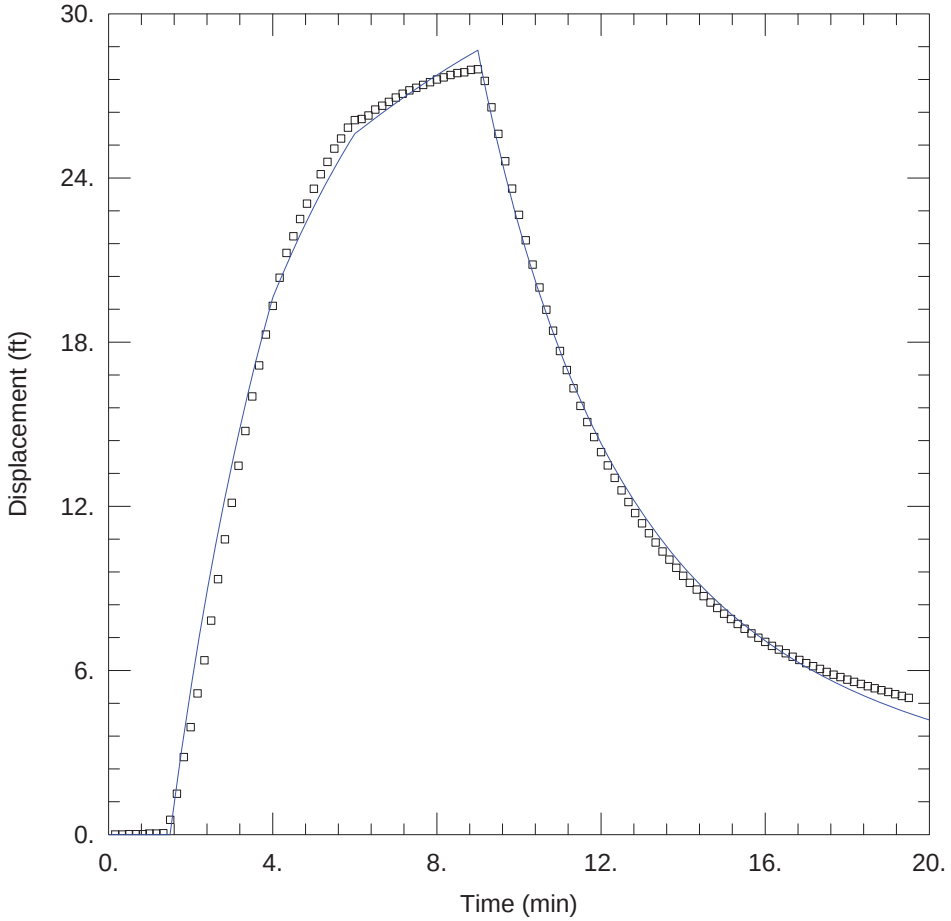
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB011	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 146. ft^2/day S = 0.3
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB012_2inj_PC - Copy.aqt
Date: 07/25/13 Time: 23:42:24

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Post Maint.
Test Well: ISB012
Test Date: 07/19/2013

AQUIFER DATA

Saturated Thickness: 5.6 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB012	0	0

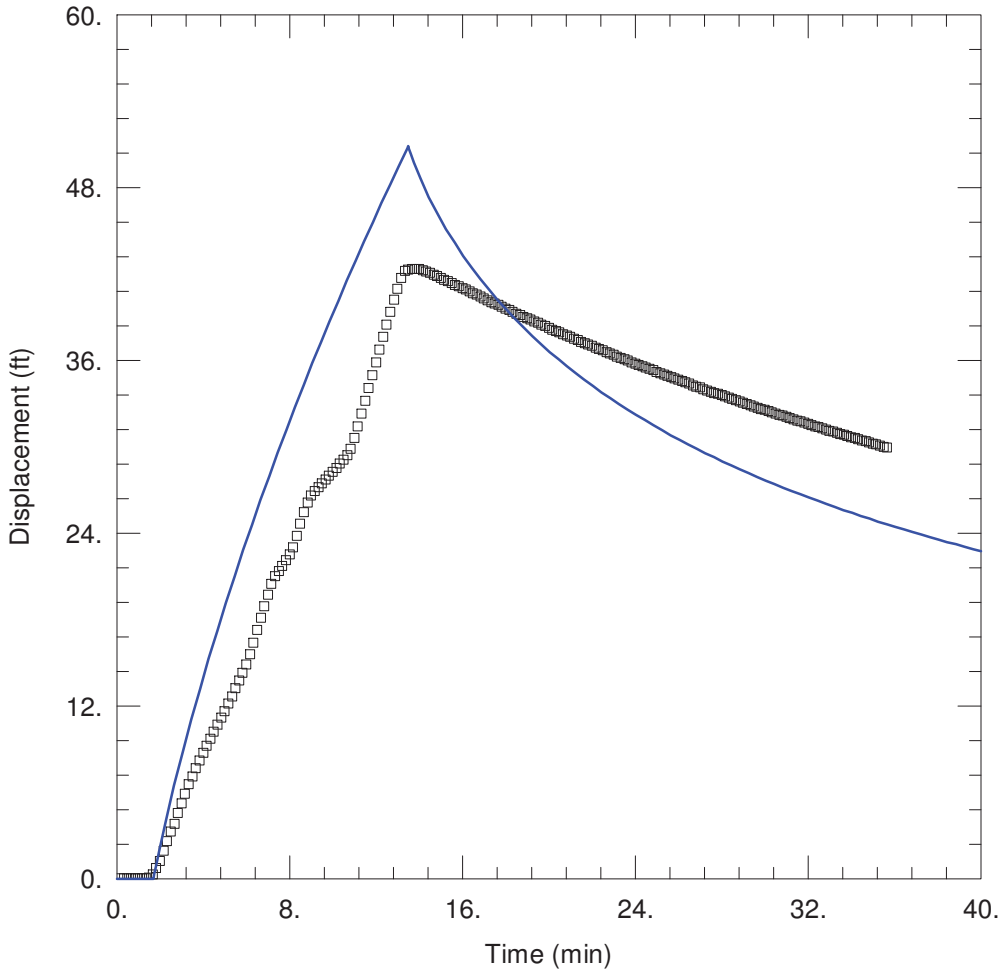
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB012	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 23.9 ft^2/day S = 0.0001053
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB013_2inj_PC - Copy.aqt
Date: 04/23/13 Time: 19:22:29

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Post Maint.
Test Well: ISB013
Test Date: 4/11/2013

AQUIFER DATA

Saturated Thickness: 7.7 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB013	0	0

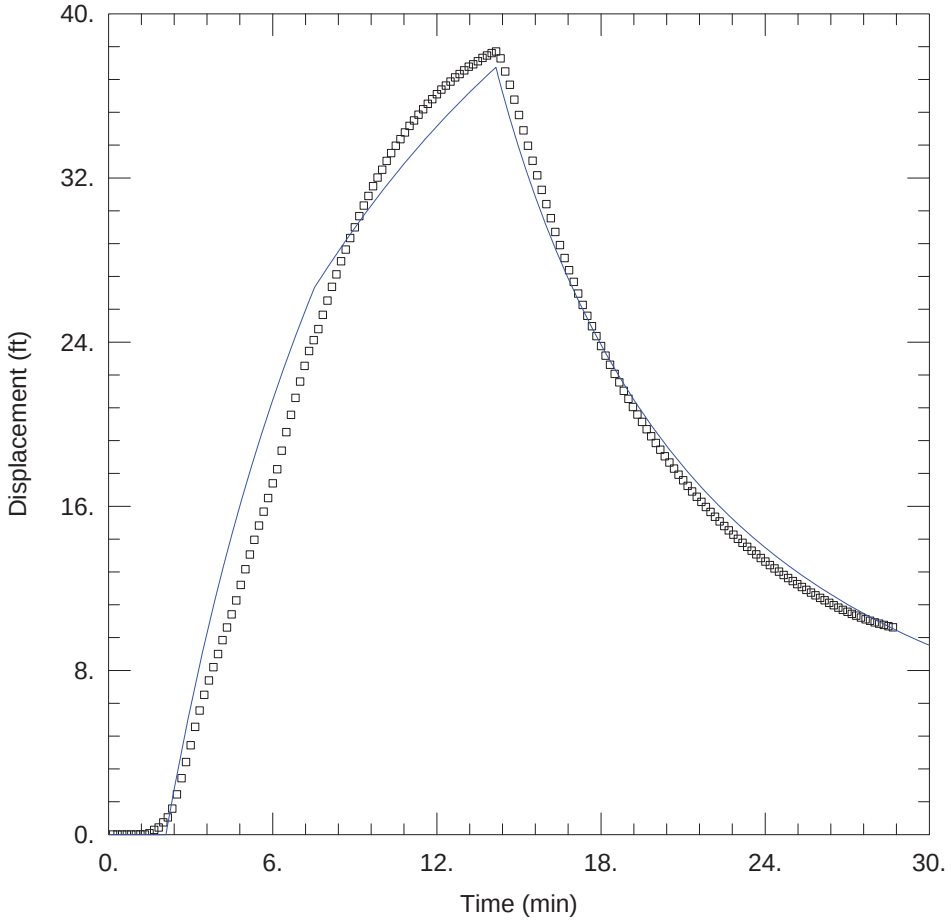
Observation Wells

Well Name	X (ft)	Y (ft)
□ ISB013	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 0.4704 ft^2/day S = 0.3
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB014_2inj_PC.aqt
Date: 07/25/13 Time: 23:43:39

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Post Maint.
Test Well: ISB014
Test Date: 7/23/2013

AQUIFER DATA

Saturated Thickness: 3.4 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB014	0	0

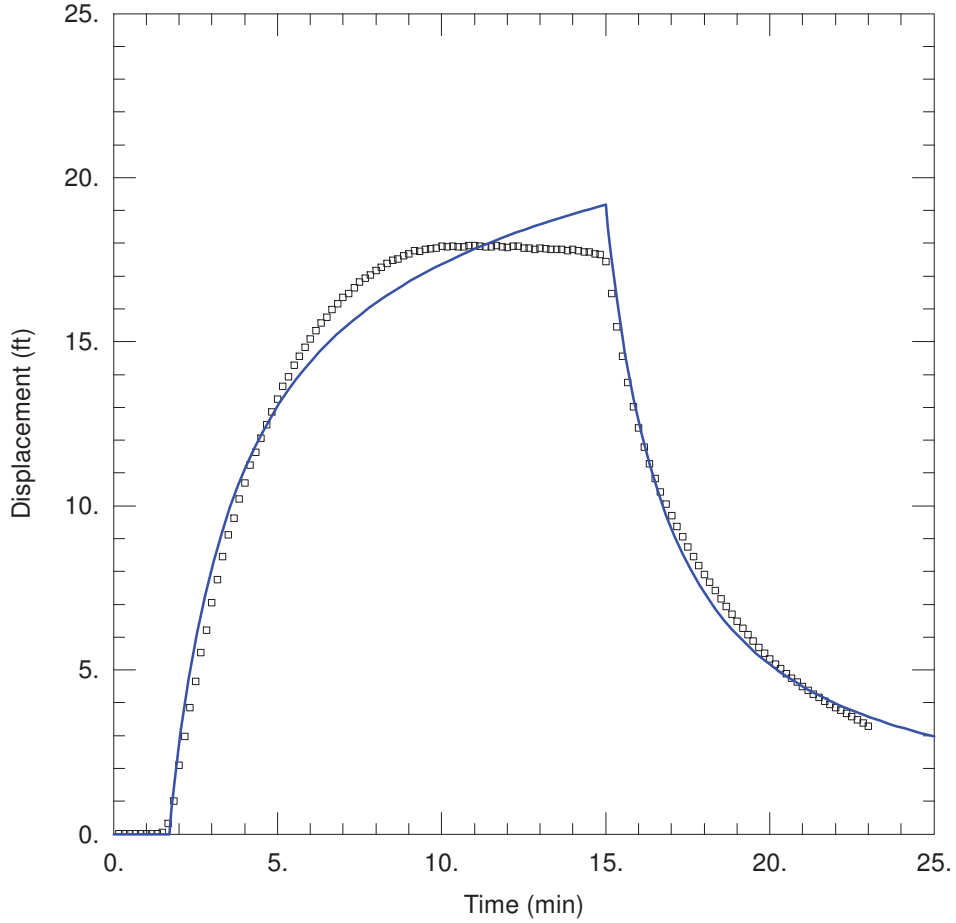
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB014	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 8.044 ft^2/day S = 0.001602
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB015_2inj_PC.aqt
Date: 04/20/13 Time: 17:02:20

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Post Maint.
Test Well: ISB015
Test Date: 4/11/2013

AQUIFER DATA

Saturated Thickness: 3.1 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB015	0	0

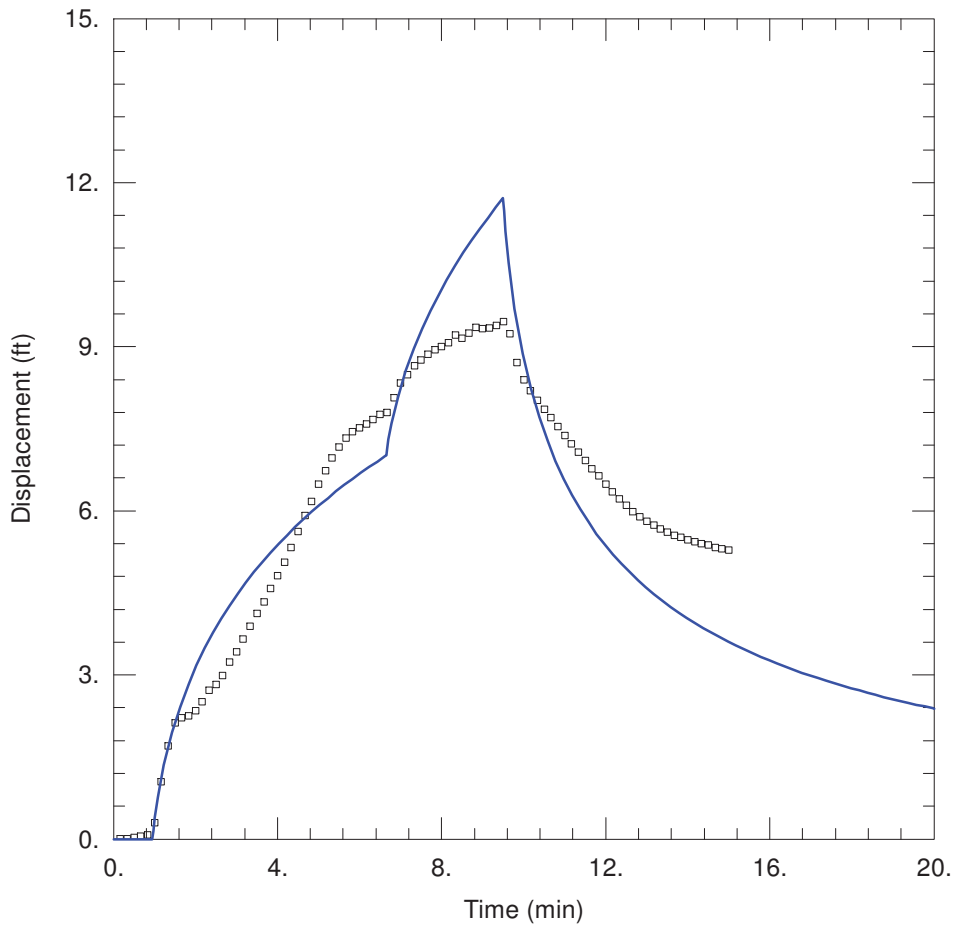
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB015	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 37.34 ft^2/day S = 0.003677
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB016_2inj_PC.aqt
Date: 04/23/13 Time: 19:18:38

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Post Maint.
Test Well: ISB016
Test Date: 4/18/2013

AQUIFER DATA

Saturated Thickness: 0.6 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB016	0	0

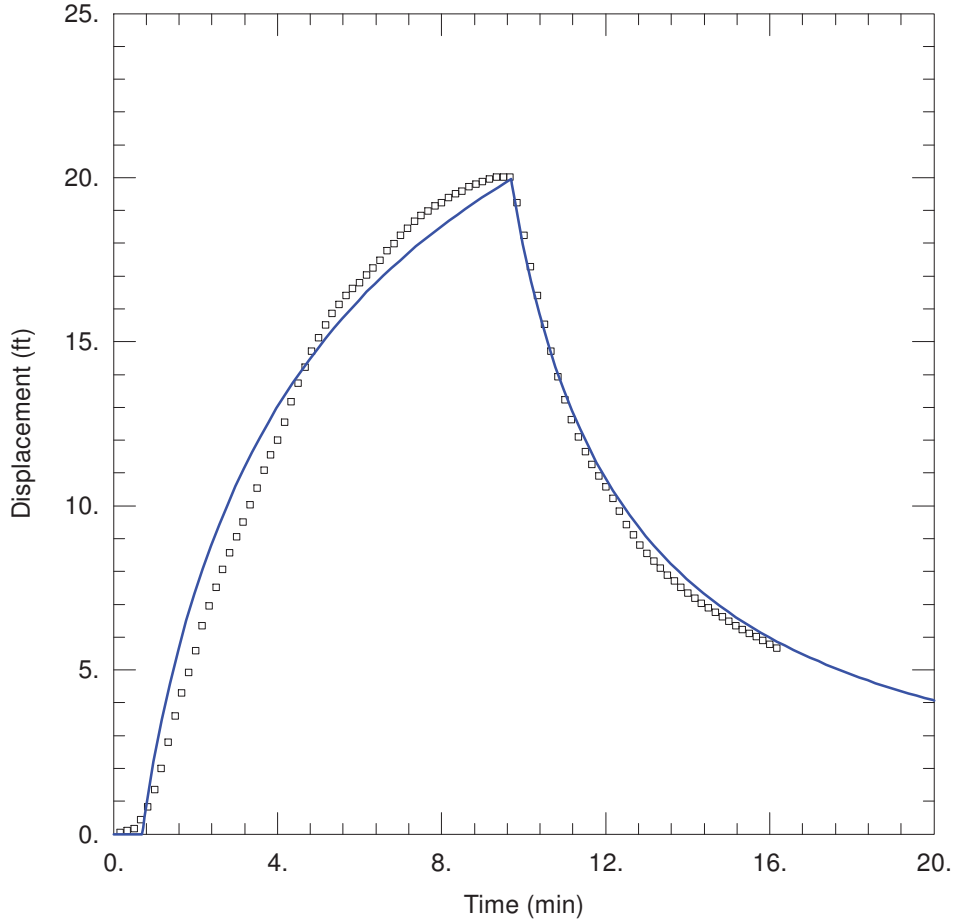
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB016	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 25.05 ft^2/day S = 0.3
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB017_2inj_PC.aqt
Date: 04/20/13 Time: 17:27:23

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Post Maint.
Test Well: ISB017
Test Date: 4/18/2013

AQUIFER DATA

Saturated Thickness: 2.8 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB017	0	0

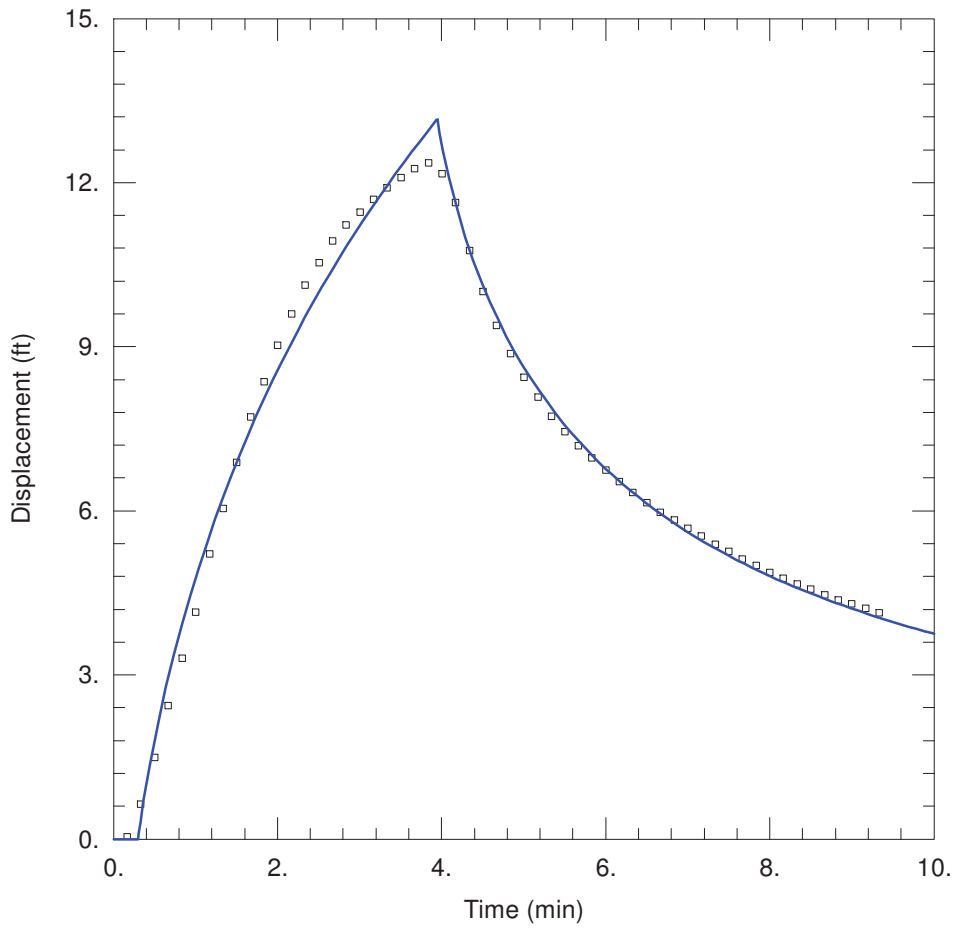
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB017	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 17.82 ft^2/day S = 0.0213
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB018_2inj_PC.aqt
Date: 04/23/13 Time: 19:16:00

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Post Maint.
Test Well: ISB018
Test Date: 4/18/2013

AQUIFER DATA

Saturated Thickness: 3.3 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB018	0	0

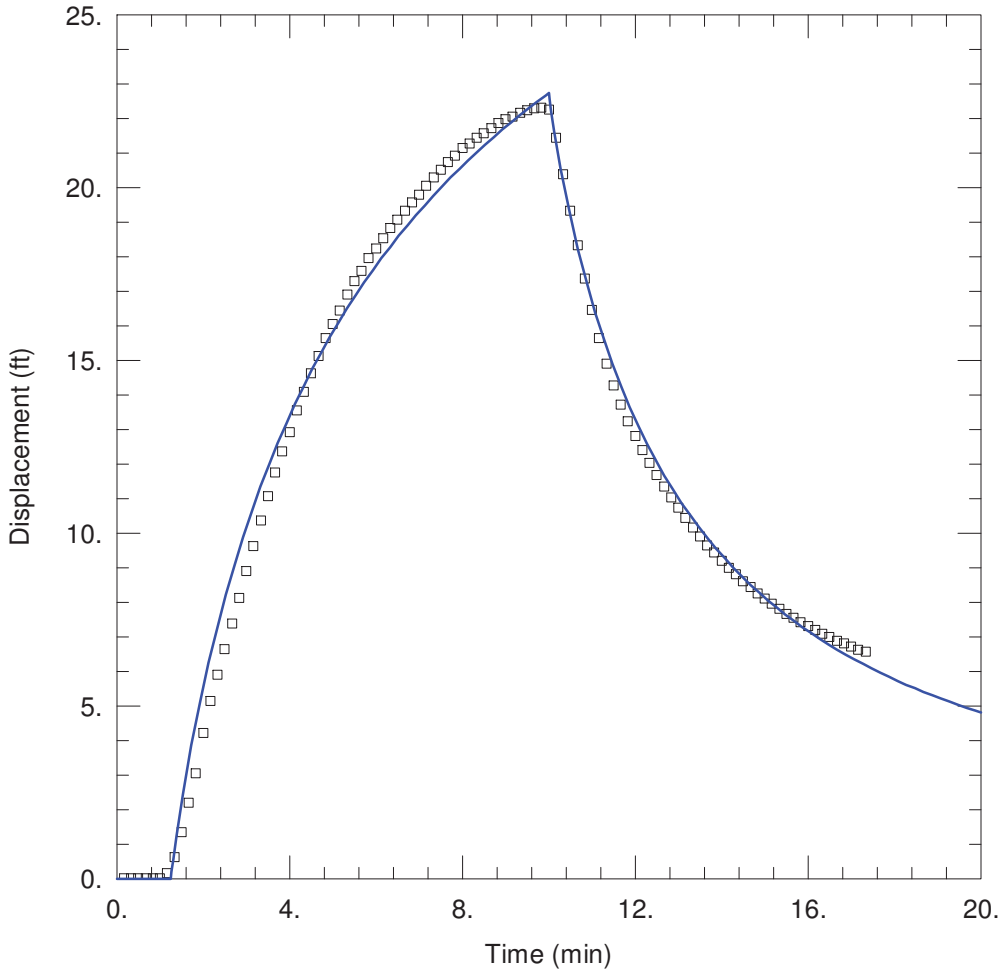
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB018	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 12.46 ft^2/day S = 0.1621
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB019_2inj_PC.aqt
Date: 07/26/13 Time: 08:04:56

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Post Maint.
Test Well: ISB019
Test Date: 7/19/2013

AQUIFER DATA

Saturated Thickness: 0.1 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB019	0	0

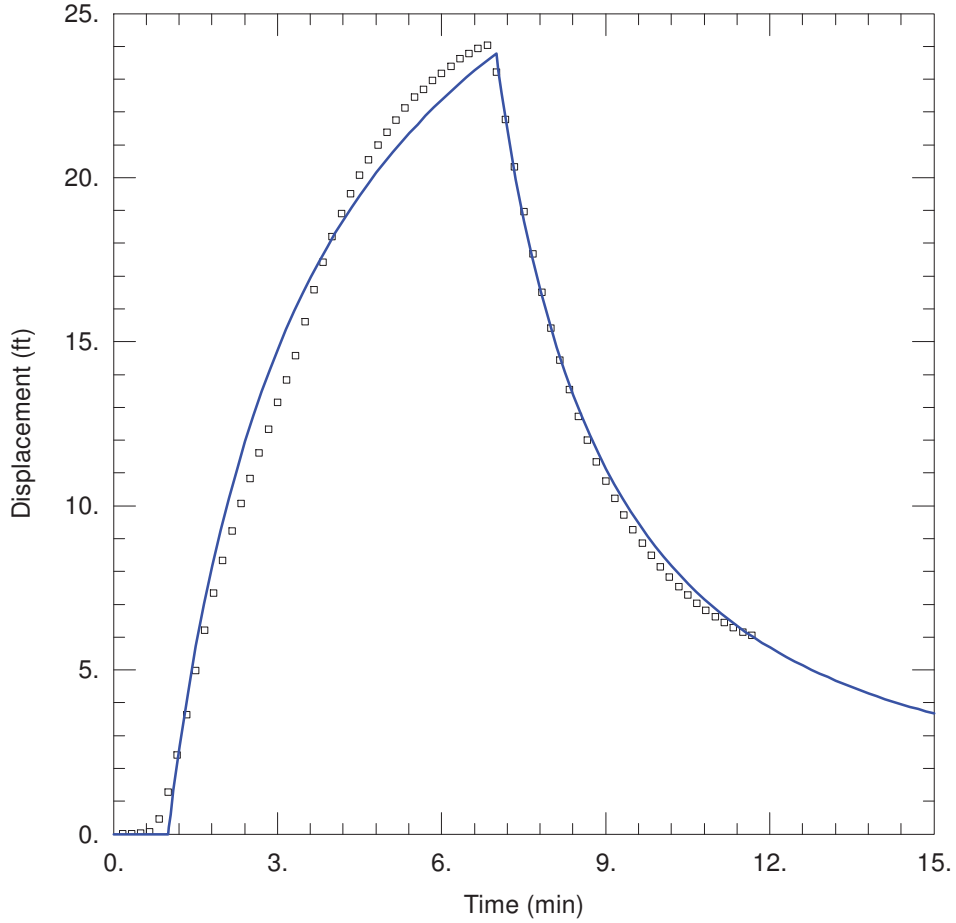
Observation Wells

Well Name	X (ft)	Y (ft)
□ ISB019	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 16.83 ft^2/day S = 0.01911
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB020_2inj_PC.aqt
Date: 04/30/13 Time: 12:47:55

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Post Maint.
Test Well: ISB020
Test Date: 4/22/2013

AQUIFER DATA

Saturated Thickness: 4.7 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB022	0	0

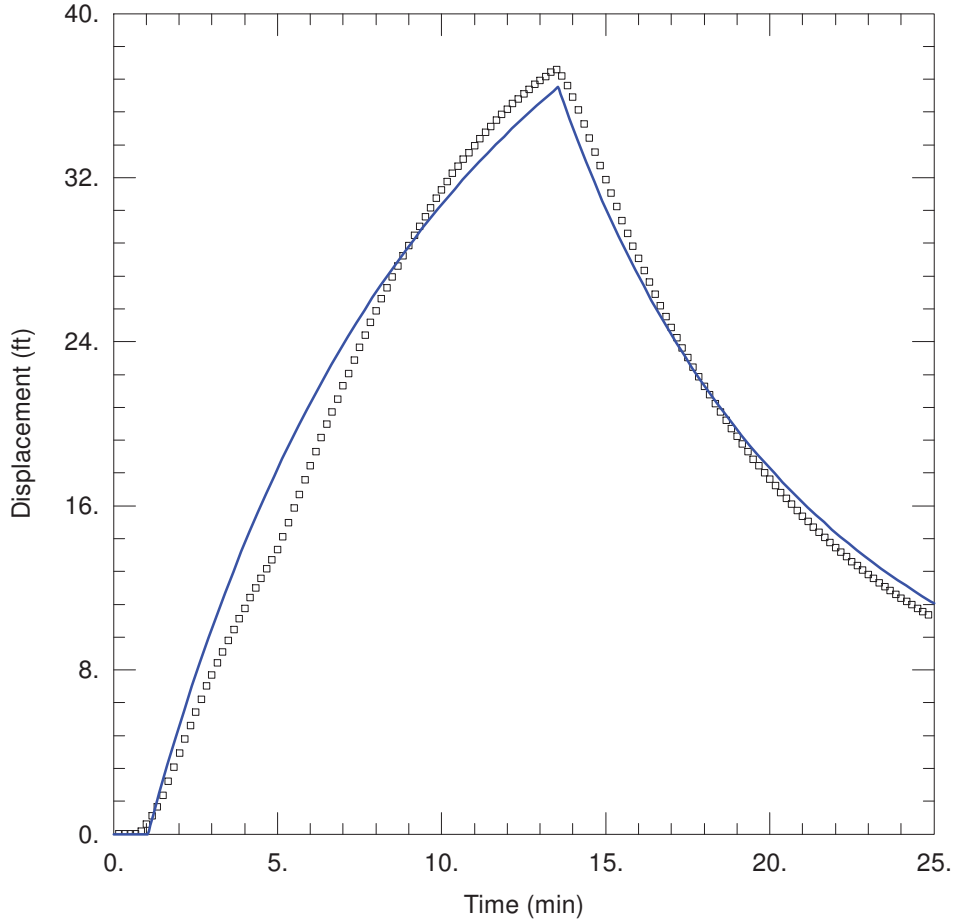
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB022	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 30.09 ft^2/day S = 0.005015
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB021_2inj_PC.aqt
Date: 04/30/13 Time: 13:02:47

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Post Maint.
Test Well: ISB021
Test Date: 4/22/2013

AQUIFER DATA

Saturated Thickness: 8.1 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB021	0	0

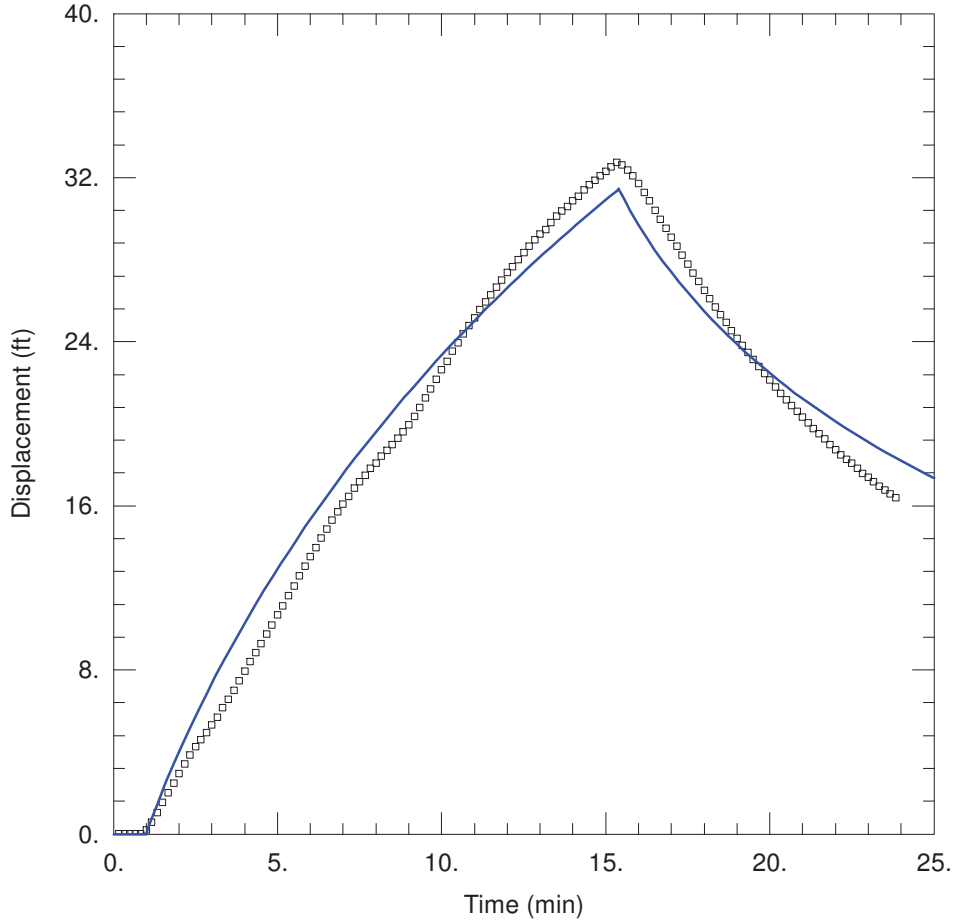
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB021	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 12. ft^2/day S = 3.277E-5
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB022_2inj_PC.aqt
Date: 04/30/13 Time: 13:08:46

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Post Maint.
Test Well: ISB022
Test Date: 4/25/2013

AQUIFER DATA

Saturated Thickness: 3.7 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB022	0	0

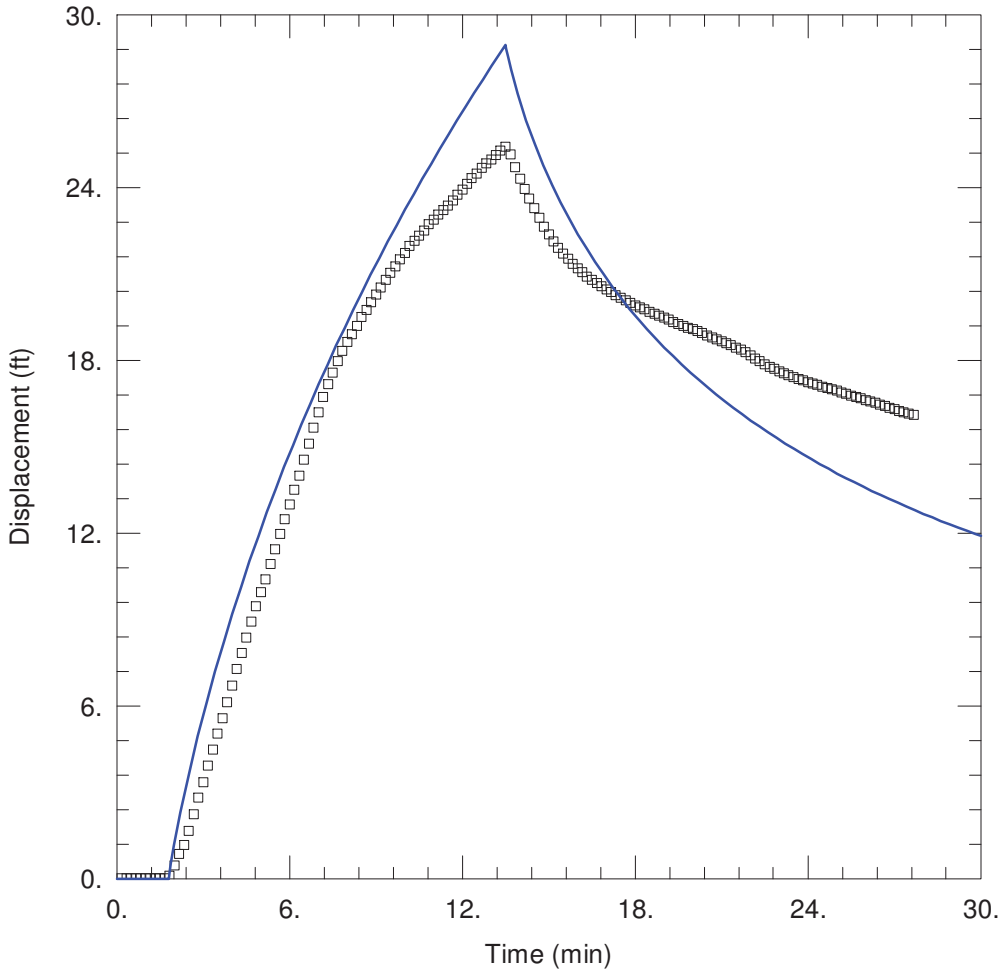
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB022	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 2.382 ft^2/day S = 0.03733
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB023A_2inj_PC.aqt
Date: 07/19/13 Time: 17:14:53

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Post Maint.
Test Well: ISB023A
Test Date: 7/16/2013

AQUIFER DATA

Saturated Thickness: 4.8 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB023A	0	0

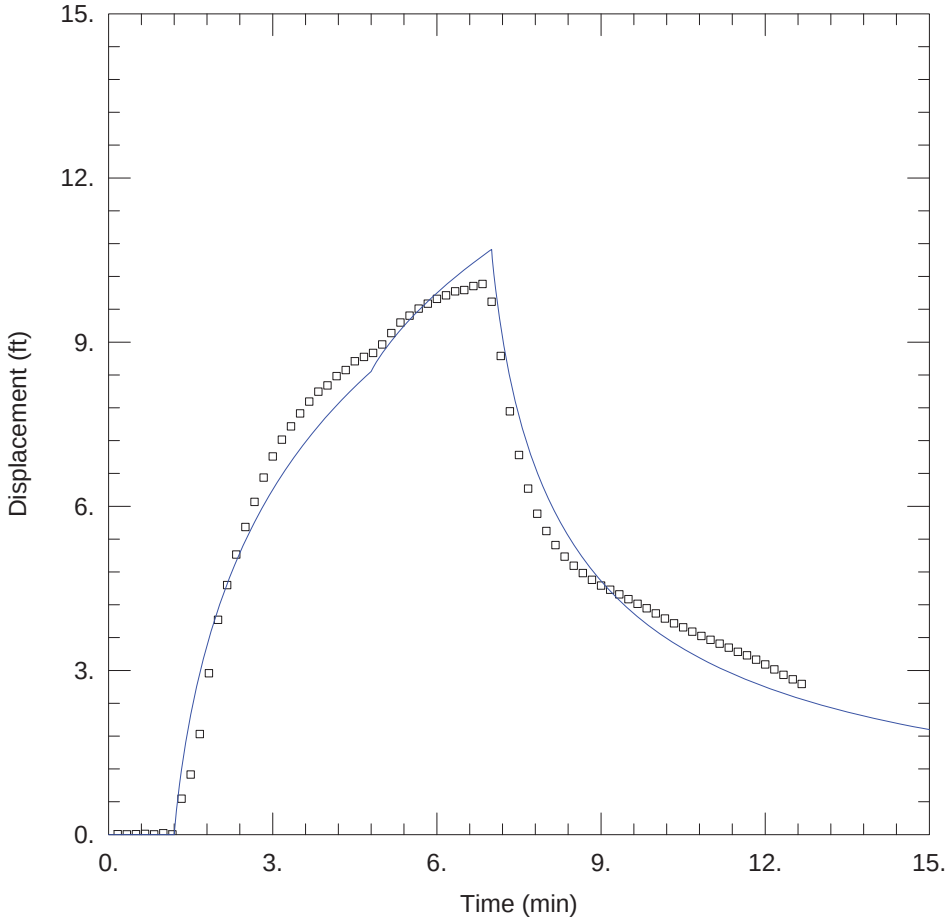
Observation Wells

Well Name	X (ft)	Y (ft)
□ ISB023A	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 1.509 ft^2/day S = 0.3
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB024_2inj_PC.aqt
Date: 07/25/13 Time: 23:47:52

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Post Maint.
Test Well: ISB024
Test Date: 07/19/2013

AQUIFER DATA

Saturated Thickness: 6.1 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB024	0	0

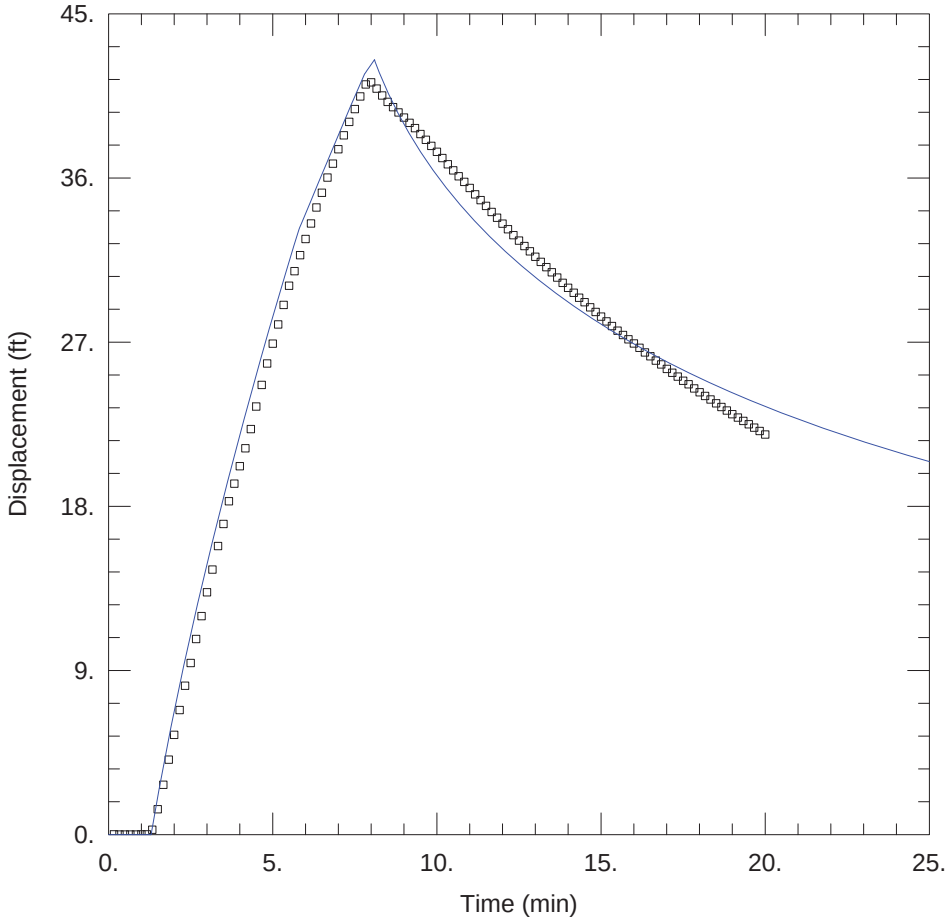
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB024	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 37.04 ft^2/day S = 0.09996
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB025_2inj_PC.aqt
Date: 07/25/13 Time: 23:48:25

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Post Maint.
Test Well: ISB025
Test Date: 07/19/2013

AQUIFER DATA

Saturated Thickness: 4.1 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB025	0	0

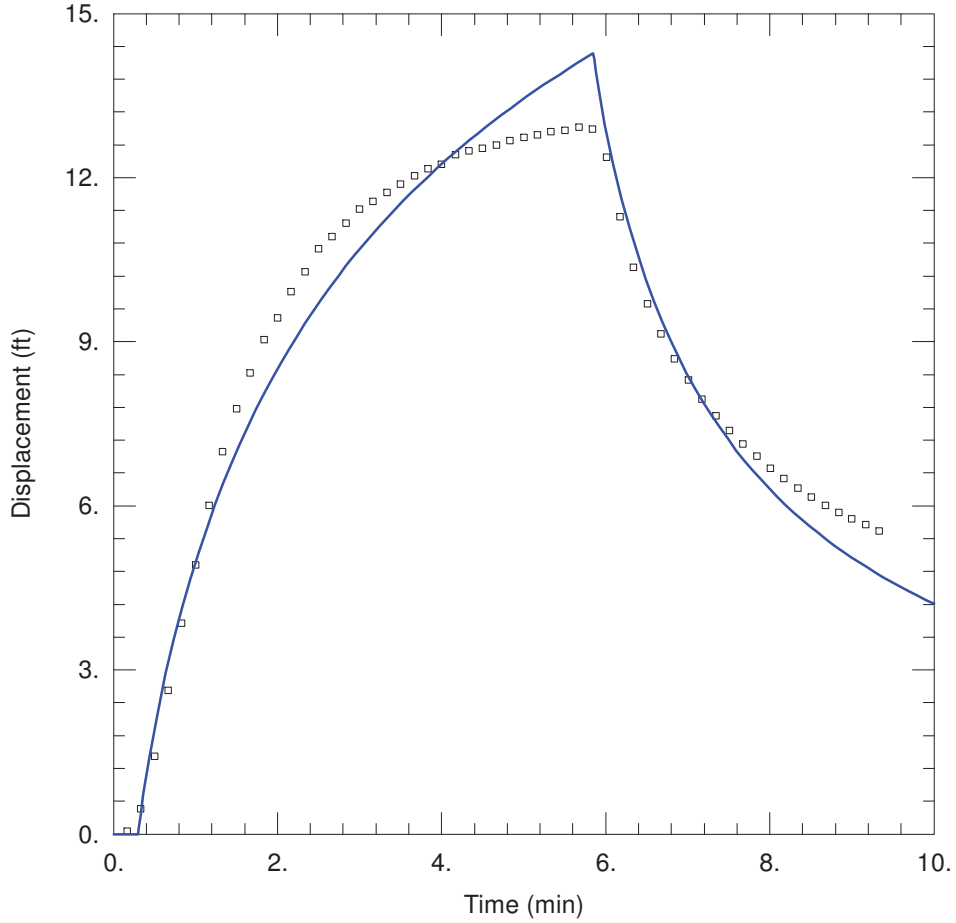
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB025	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 0.5493 ft^2/day S = 0.3
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB026_2inj_PC.aqt
Date: 04/30/13 Time: 13:16:03

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Post Maint.
Test Well: ISB026
Test Date: 4/26/2013

AQUIFER DATA

Saturated Thickness: 2.3 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB026	0	0

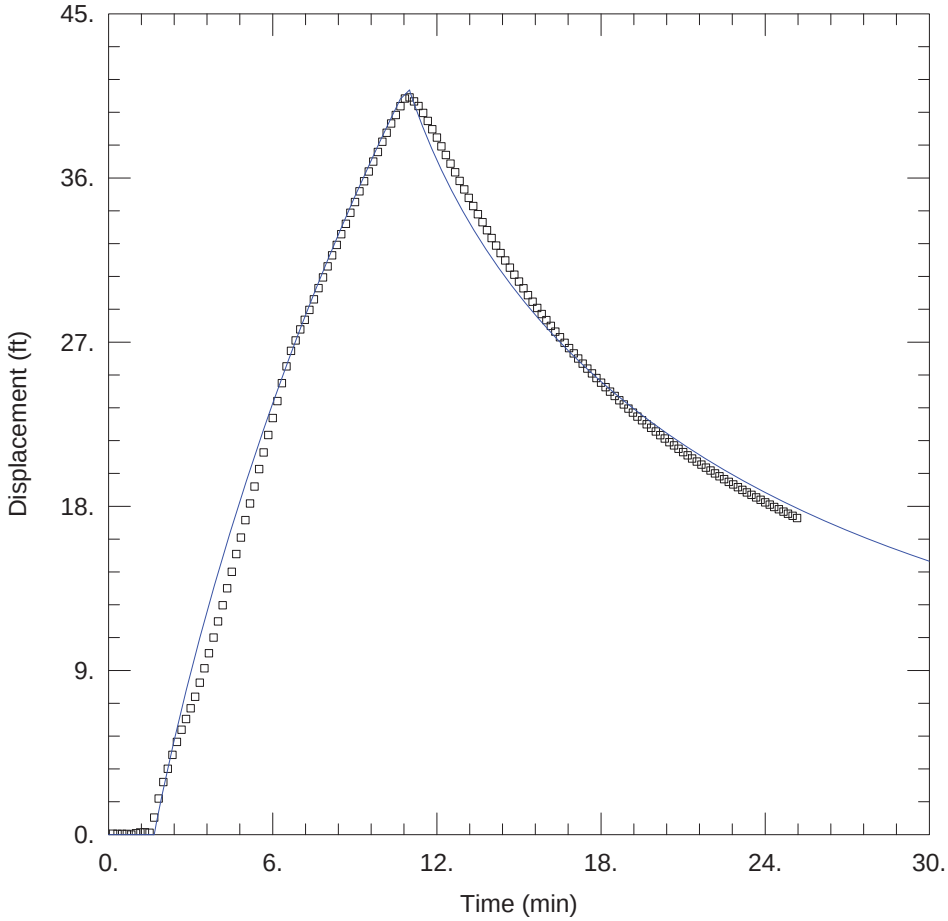
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB026	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 28.65 ft^2/day S = 0.04349
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB027RE_2inj_PC.aqt
Date: 07/25/13 Time: 23:51:14

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Post Maint.
Test Well: ISB027
Test Date: 7/23/2013

AQUIFER DATA

Saturated Thickness: 0.1 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB027	0	0

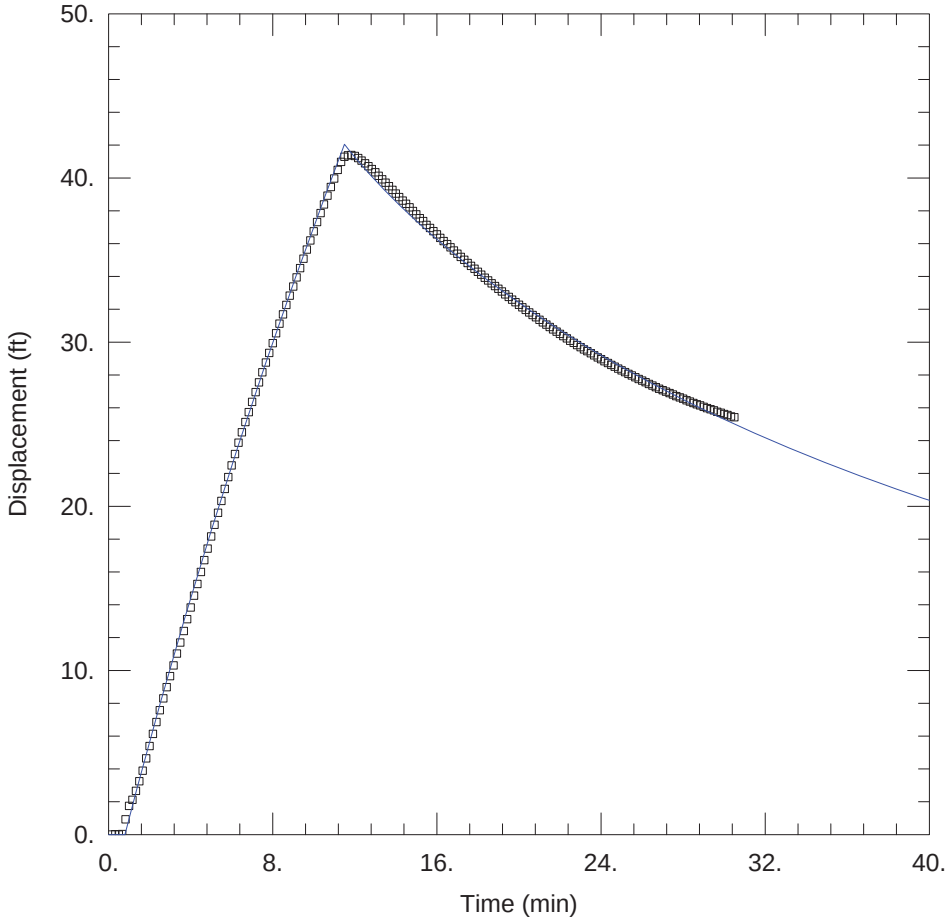
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB027	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 2.162 ft^2/day S = 0.04189
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: C:\Users\fkrembs\Desktop\ISB029A_2inj_PC.aqt
Date: 07/30/13 Time: 08:03:04

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Post Maint.
Test Well: ISB029A
Test Date: 7/19/2013

AQUIFER DATA

Saturated Thickness: 2.5 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB029A	0	0

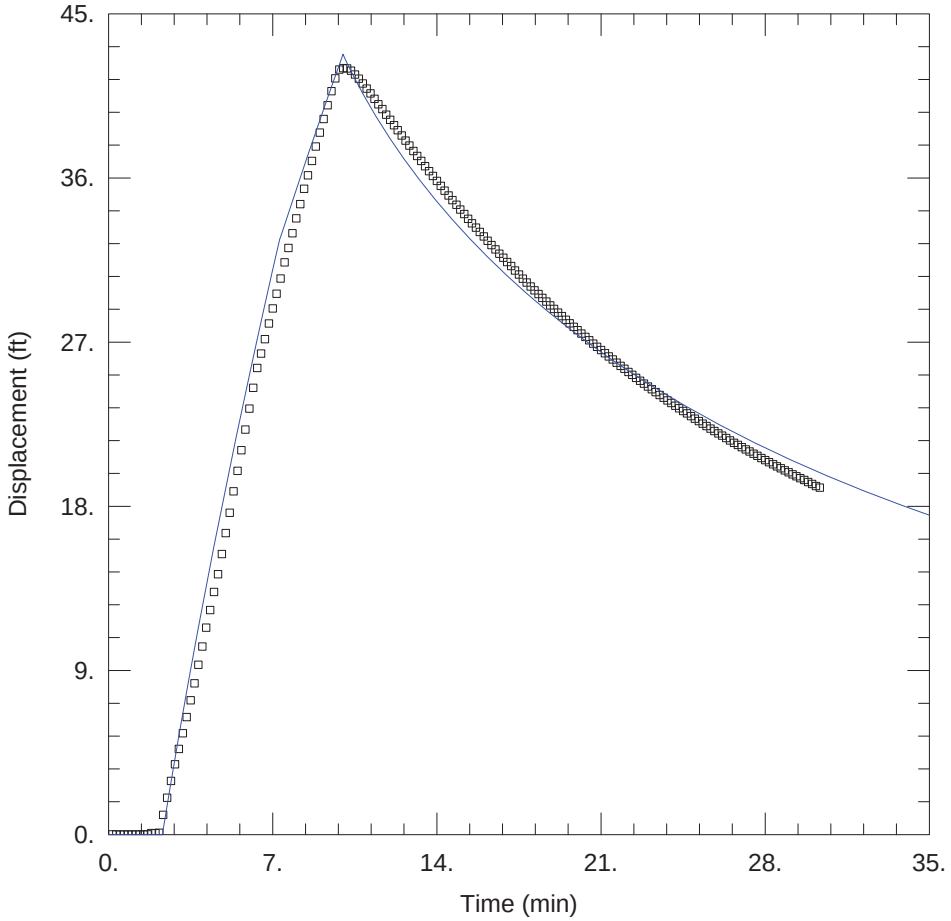
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB029A	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 1.401 ft^2/day S = 0.001893
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB030B_2inj_PC.aqt
Date: 07/25/13 Time: 23:53:03

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Post Maint.
Test Well: ISB030B
Test Date: 7/23/2013

AQUIFER DATA

Saturated Thickness: 2.2 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB030B	0	0

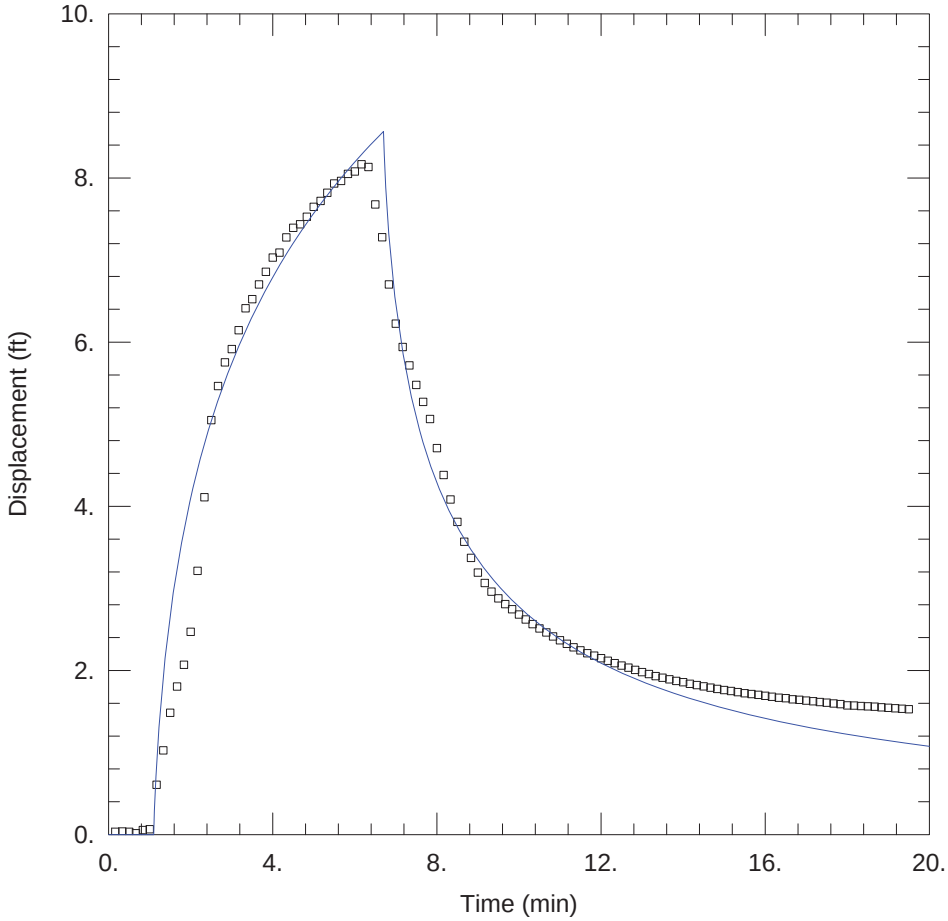
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB030B	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 1.519 ft^2/day S = 0.01173
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB031_2inj_PC.aqt
Date: 07/25/13 Time: 23:56:25

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Post Maint.
Test Well: ISB031
Test Date: 07/19/2013

AQUIFER DATA

Saturated Thickness: 4.1 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB031	0	0

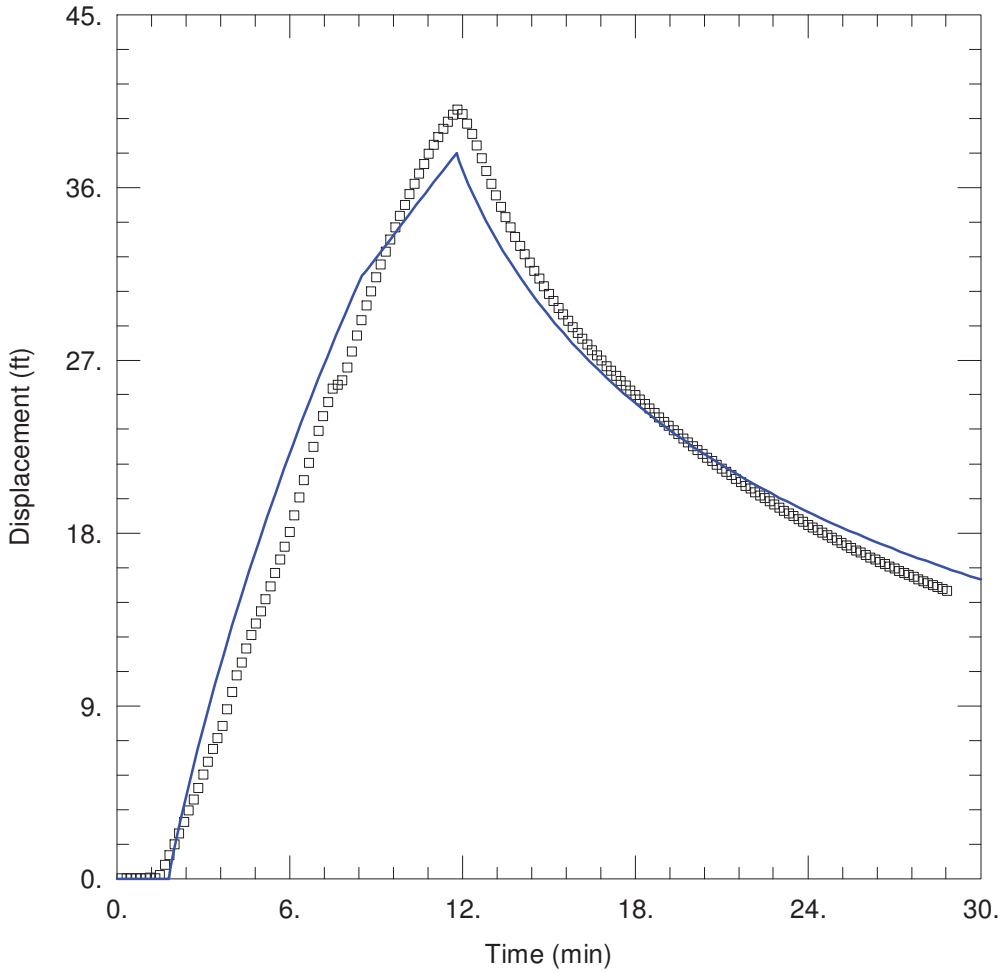
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB031	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 60.37 ft^2/day S = 0.3
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: \...\ISB032_2inj_PC.aqt
Date: 07/19/13 Time: 17:18:51

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Post Maint.
Test Well: ISB032
Test Date: 7/18/2013

AQUIFER DATA

Saturated Thickness: 3. ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB032	0	0

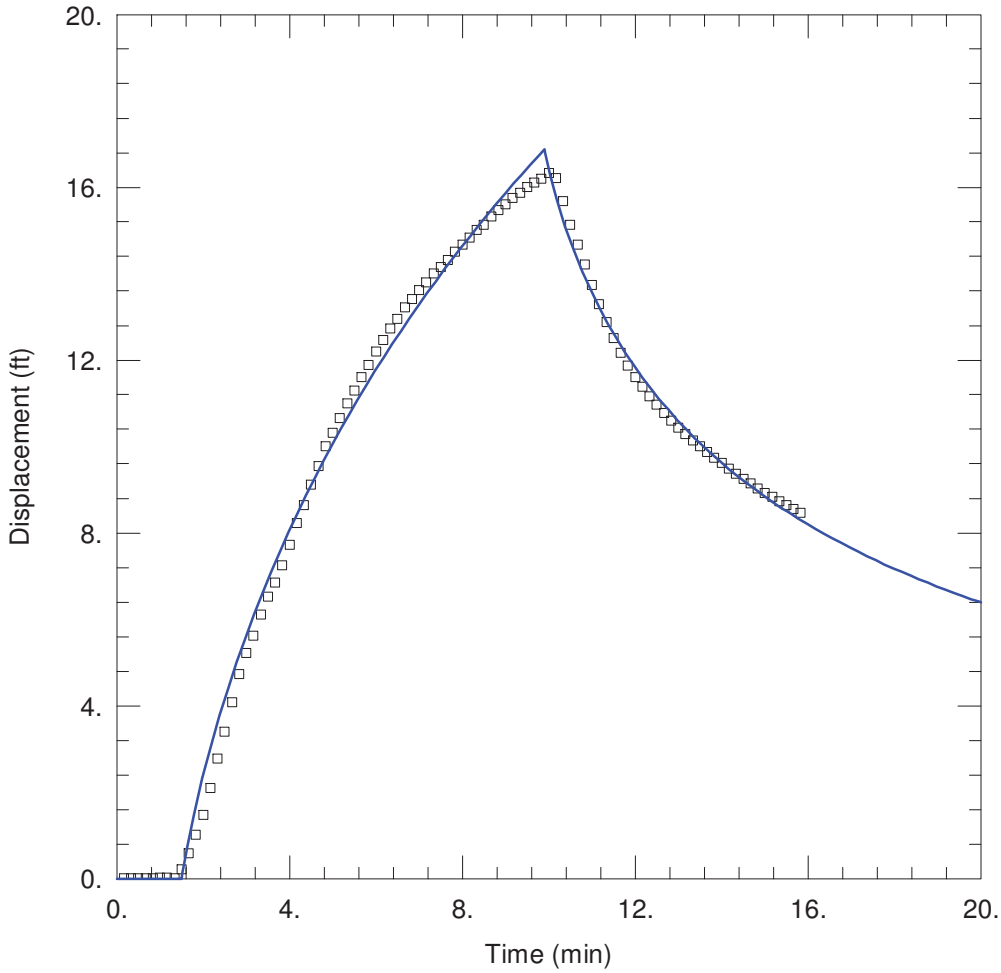
Observation Wells

Well Name	X (ft)	Y (ft)
□ ISB032	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 1.603 ft^2/day S = 0.0859
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: \...\ISB035_2inj_PC.aqt
Date: 07/19/13 Time: 17:19:27

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Post Maint.
Test Well: ISB035
Test Date: 7/18/2013

AQUIFER DATA

Saturated Thickness: 0.1 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB035	0	0

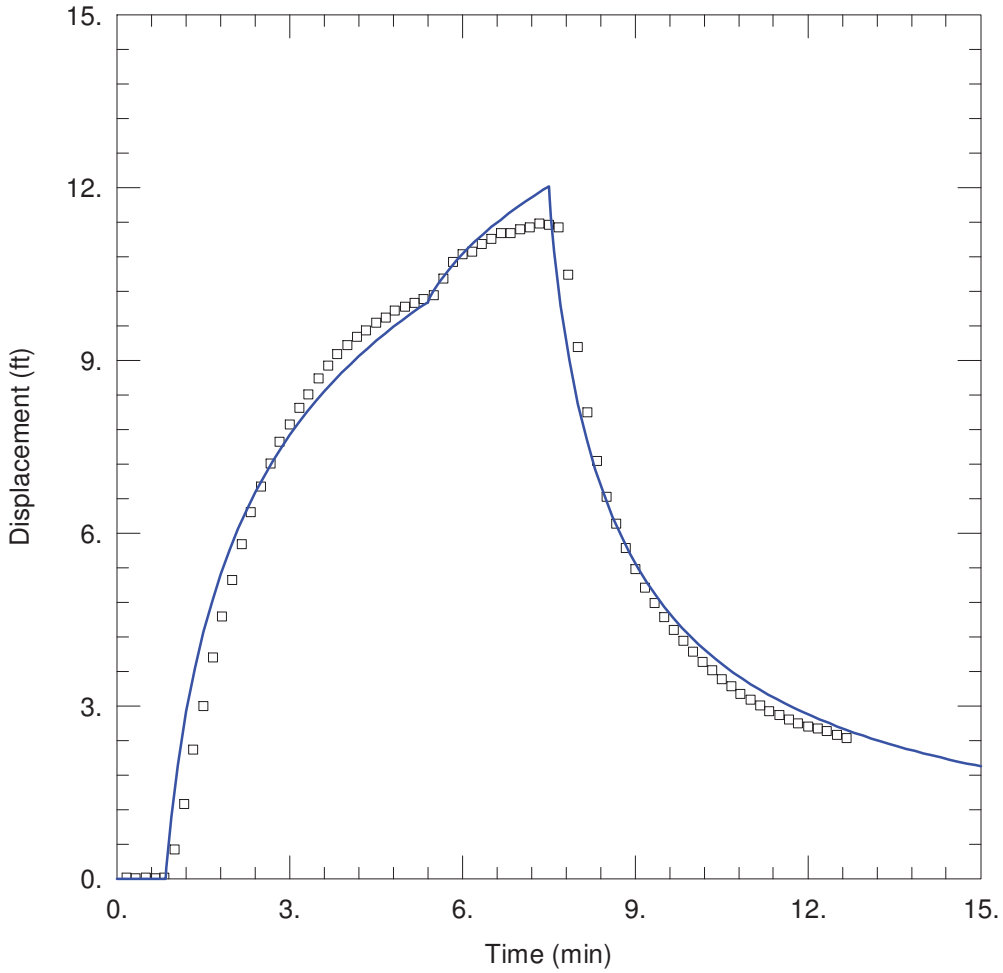
Observation Wells

Well Name	X (ft)	Y (ft)
□ ISB035	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 4.033 ft^2/day S = 0.2369
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: \...\ISB036_2inj_PC.aqt
Date: 07/19/13 Time: 17:21:04

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Post Maint.
Test Well: ISB036
Test Date: 7/18/2013

AQUIFER DATA

Saturated Thickness: 9.9 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB036	0	0

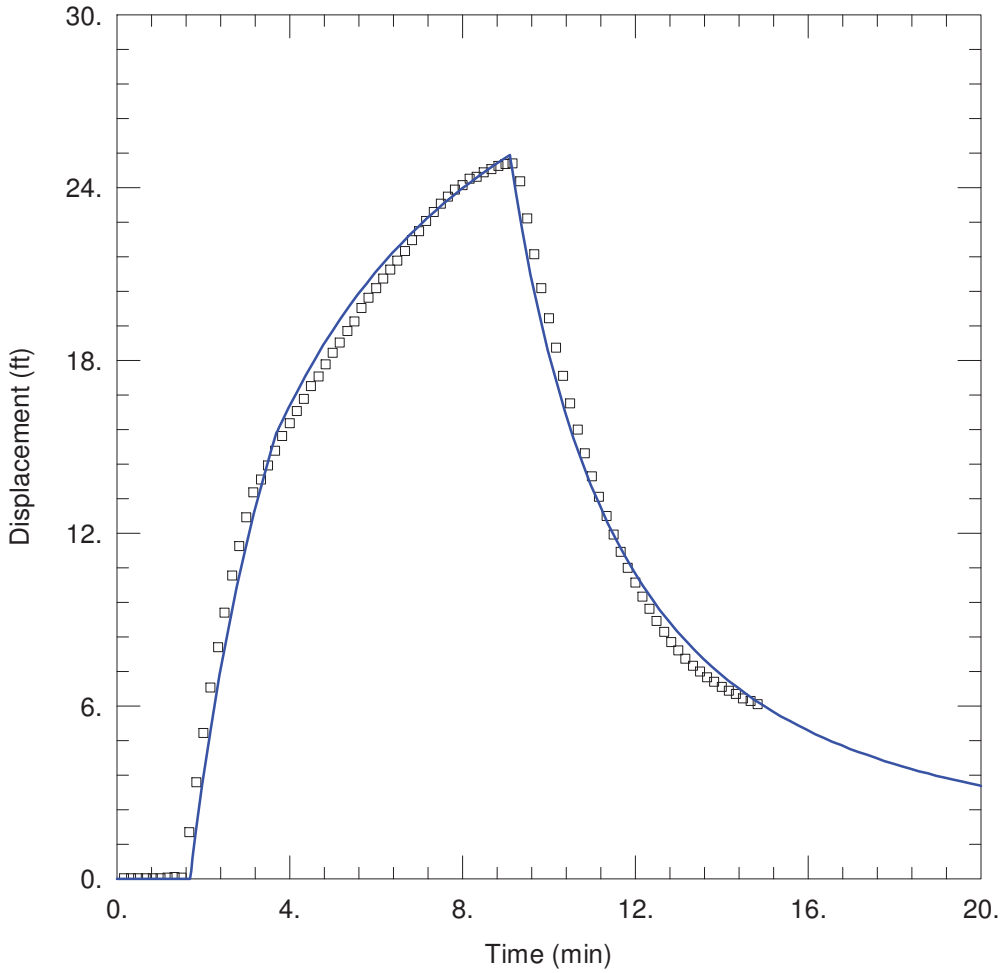
Observation Wells

Well Name	X (ft)	Y (ft)
□ ISB036	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 51.28 ft^2/day S = 0.04727
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: \...\ISB037_2inj_PC.aqt
Date: 07/19/13 Time: 17:22:12

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Post Maint.
Test Well: ISB037
Test Date: 7/18/2013

AQUIFER DATA

Saturated Thickness: 7.4 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB037	0	0

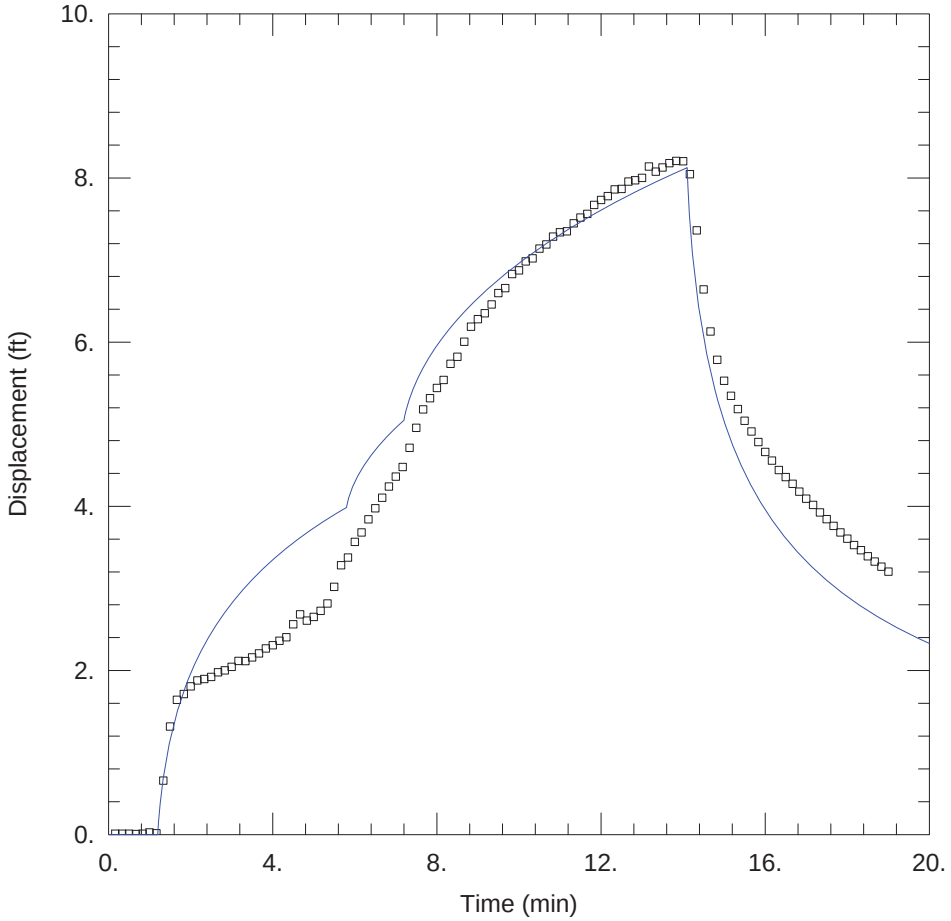
Observation Wells

Well Name	X (ft)	Y (ft)
□ ISB037	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 26.8 ft^2/day S = 0.00167
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB038_2inj_PC.aqt
Date: 07/25/13 Time: 23:57:34

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Post Maint.
Test Well: ISB038
Test Date: 07/19/2013

AQUIFER DATA

Saturated Thickness: 12.6 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB038	0	0

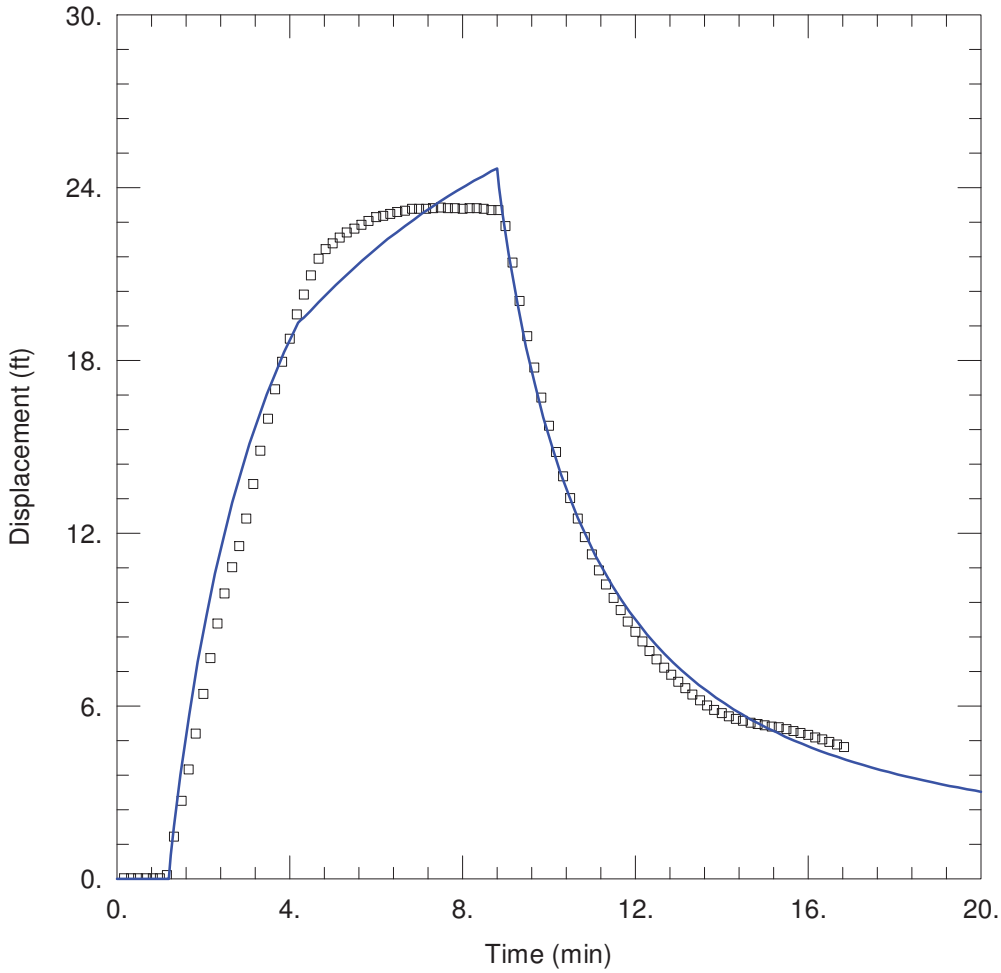
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB038	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 68.88 ft^2/day S = 0.3
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: \...\ISB039_2inj_PC.aqt
Date: 07/19/13 Time: 17:23:29

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Post Maint.
Test Well: ISB039
Test Date: 7/18/2013

AQUIFER DATA

Saturated Thickness: 7.3 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB039	0	0

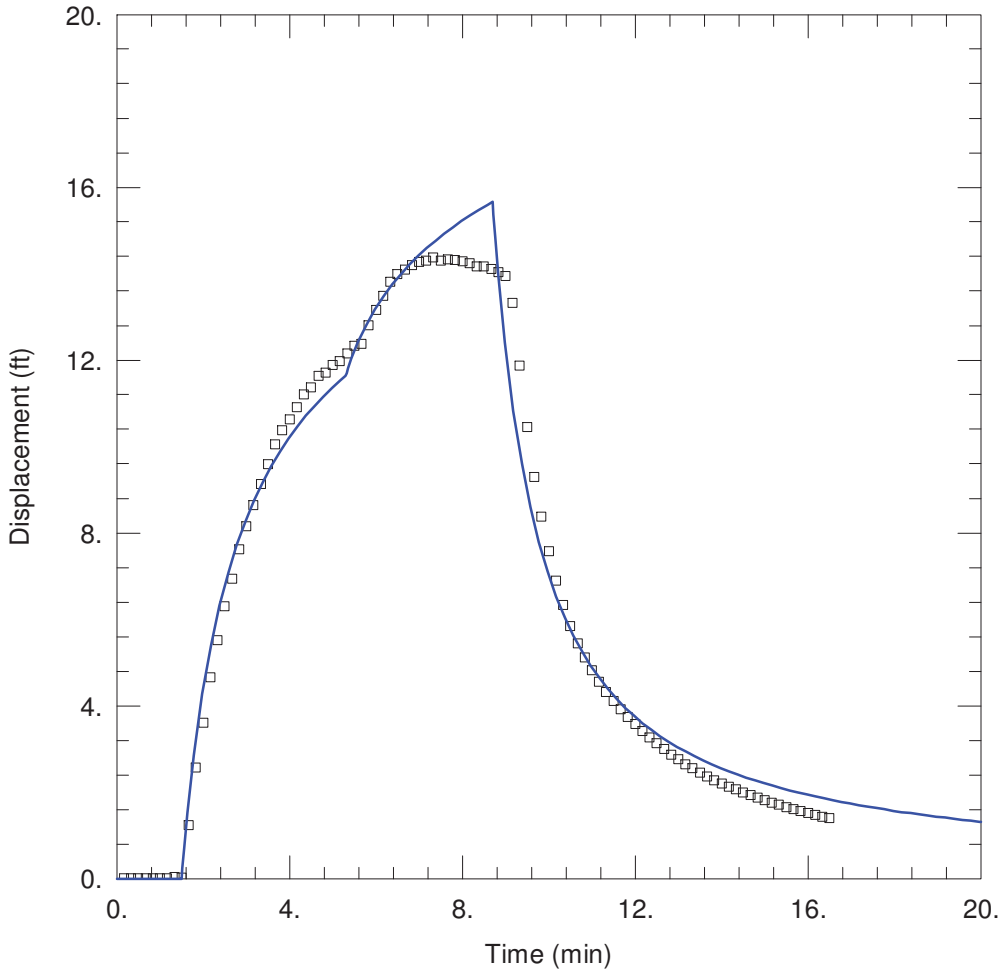
Observation Wells

Well Name	X (ft)	Y (ft)
□ ISB039	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 30.4 ft^2/day S = 0.003745
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: \...\ISB040_2inj_PC.aqt
Date: 07/19/13 Time: 17:24:20

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Post Maint.
Test Well: ISB040
Test Date: 7/18/2013

AQUIFER DATA

Saturated Thickness: 7.7 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB040	0	0

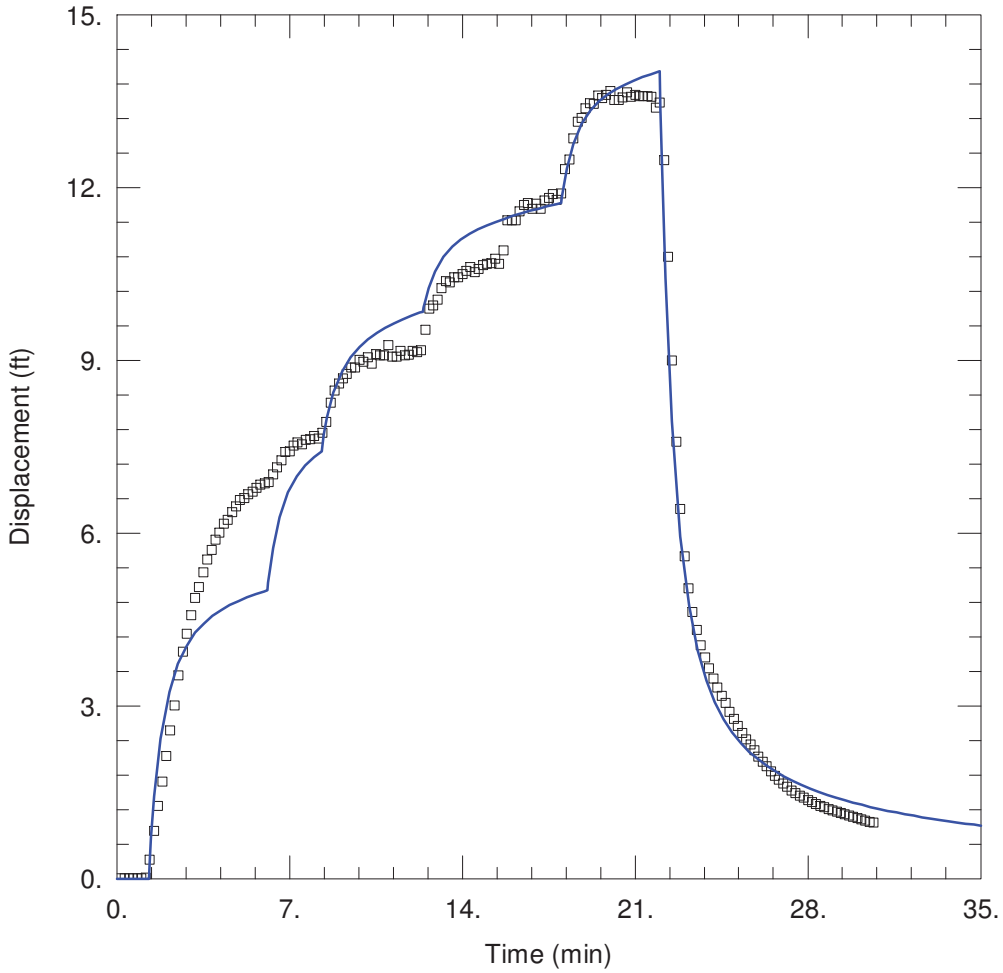
Observation Wells

Well Name	X (ft)	Y (ft)
□ ISB040	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 62.32 ft^2/day S = 0.005308
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: \...\ISB041_2inj_PC.aqt
Date: 07/19/13 Time: 17:24:53

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Post Maint.
Test Well: ISB041
Test Date: 7/16/2013

AQUIFER DATA

Saturated Thickness: 5.5 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB041	0	0

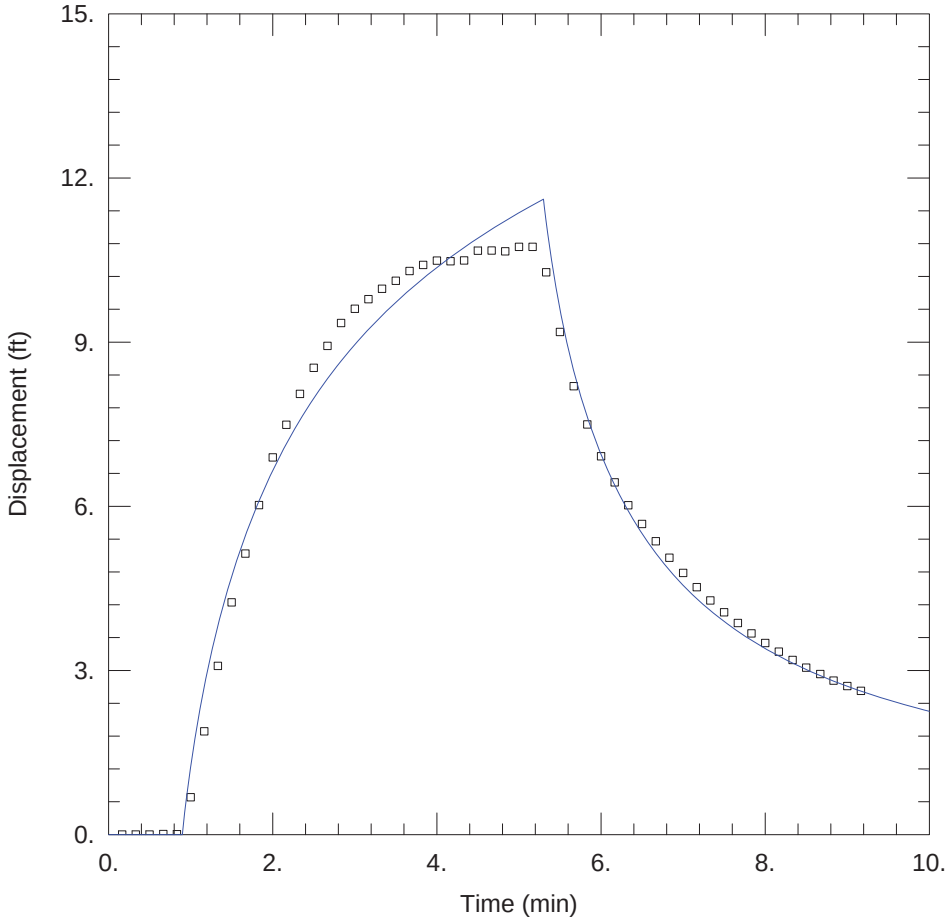
Observation Wells

Well Name	X (ft)	Y (ft)
□ ISB041	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 167.3 ft^2/day S = 0.0001063
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB042_2inj_PC.aqt
Date: 07/25/13 Time: 23:58:43

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Post Maint.
Test Well: ISB042
Test Date: 07/19/2013

AQUIFER DATA

Saturated Thickness: 4.6 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB042	0	0

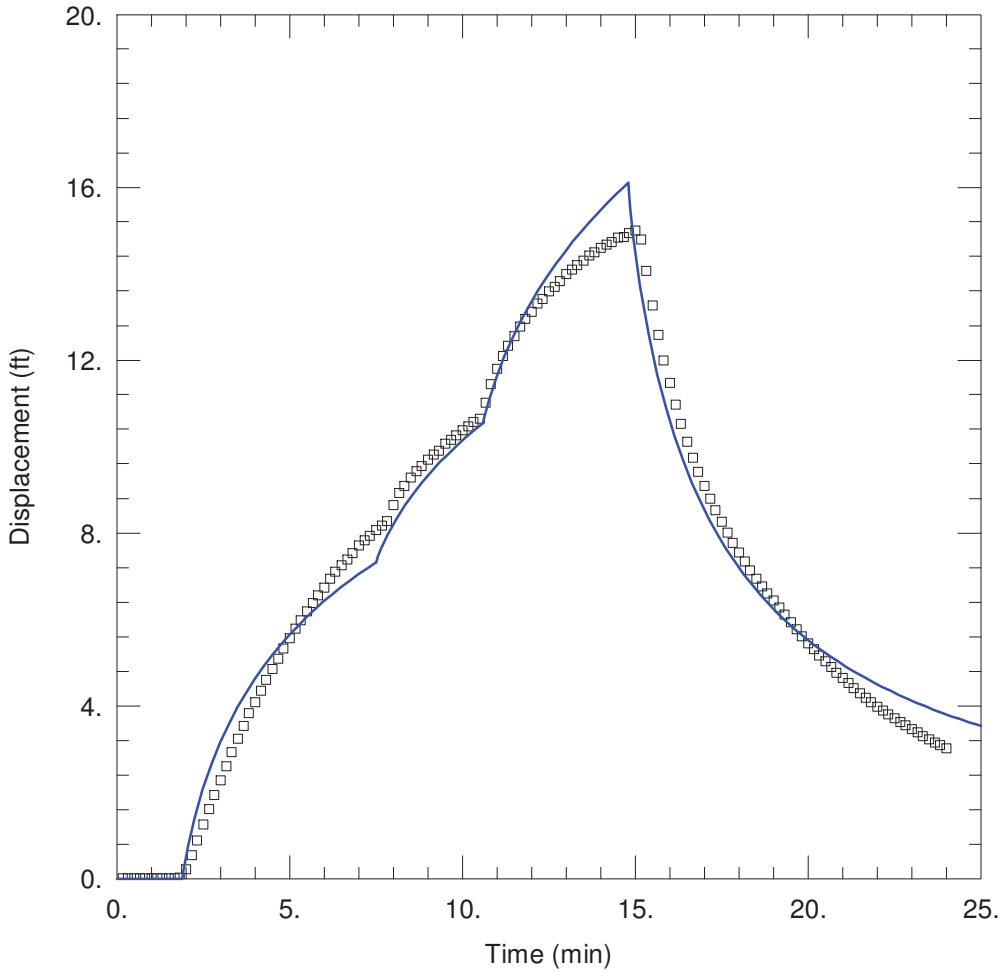
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB042	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 51.05 ft^2/day S = 0.03318
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: \...\ISB044A_2inj_PC.aqt
Date: 07/19/13 Time: 17:25:48

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Post Maint.
Test Well: ISB044A
Test Date: 7/18/2013

AQUIFER DATA

Saturated Thickness: 9.2 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB044A	0	0

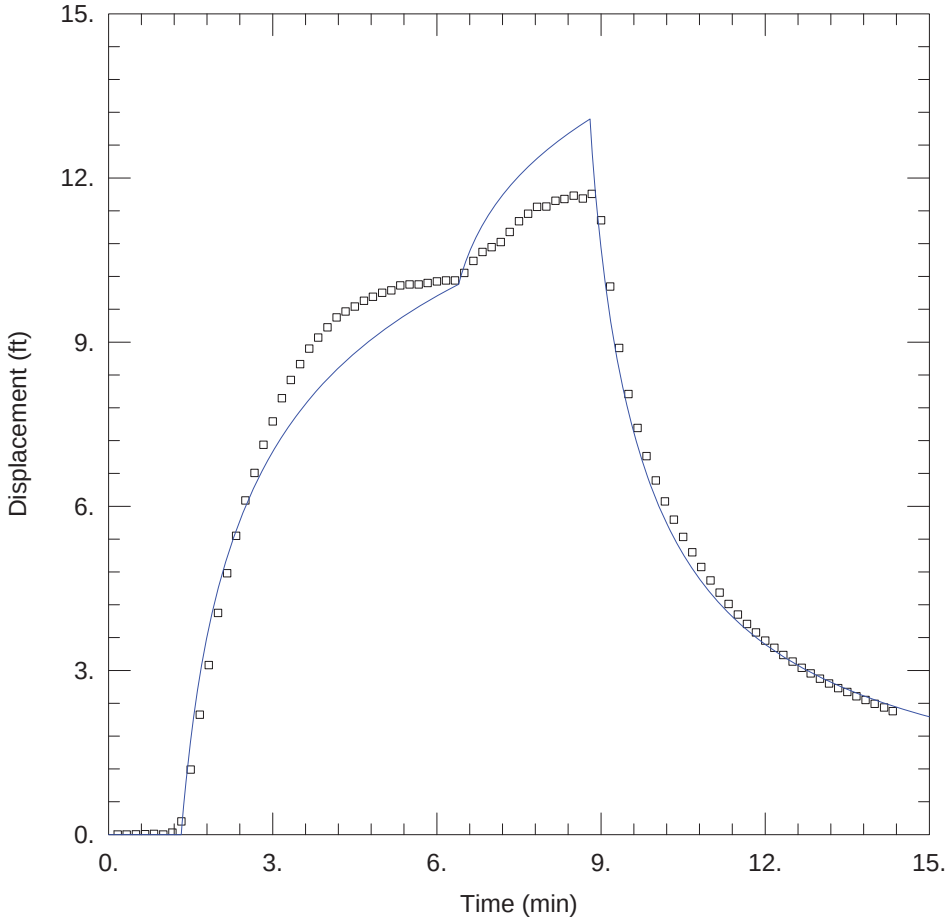
Observation Wells

Well Name	X (ft)	Y (ft)
□ ISB044A	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 20.4 ft^2/day S = 0.07029
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: M:\...\ISB046_2inj_PC.aqt
Date: 07/25/13 Time: 23:59:39

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Post Maint.
Test Well: ISB046
Test Date: 7/23/2013

AQUIFER DATA

Saturated Thickness: 6.6 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB046	0	0

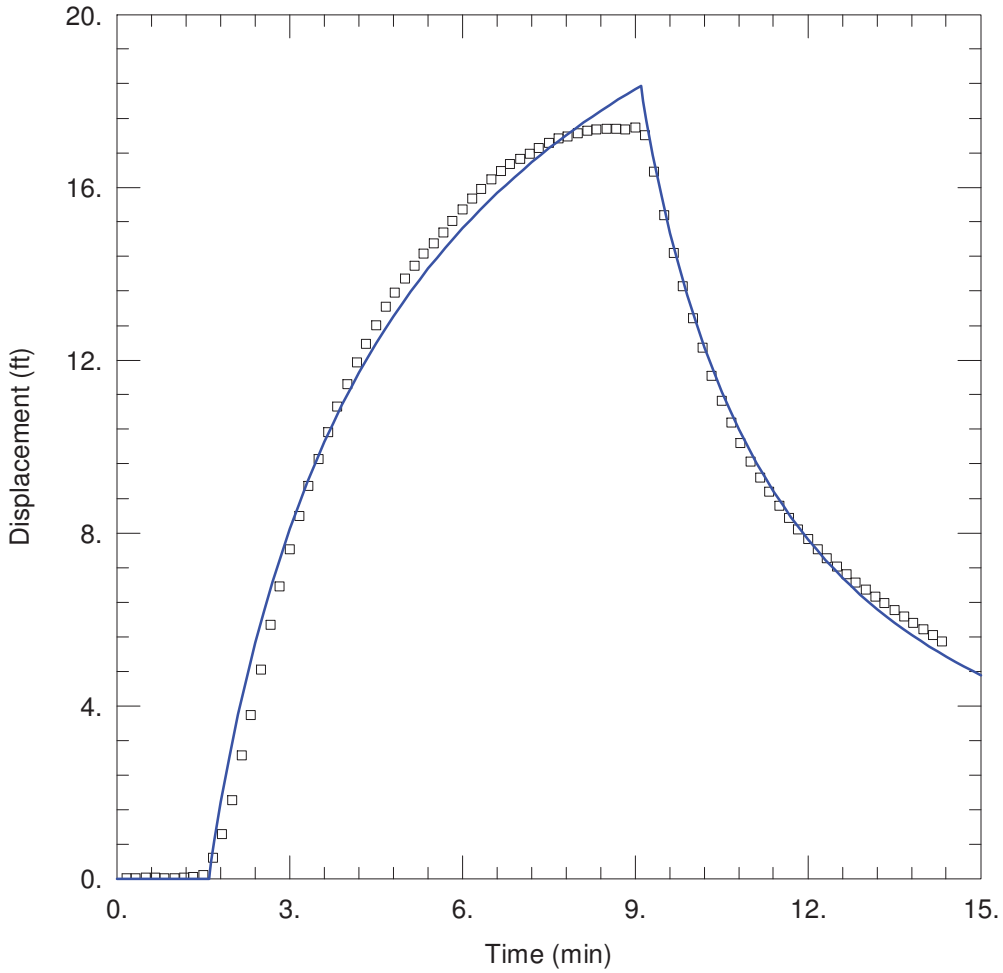
Observation Wells

Well Name	X (ft)	Y (ft)
▫ ISB046	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 63.64 ft^2/day S = 0.02514
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: \...\ISB047_2inj_PC.aqt
Date: 07/19/13 Time: 17:26:34

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Post Maint.
Test Well: ISB047
Test Date: 7/18/2013

AQUIFER DATA

Saturated Thickness: 4.4 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB047	0	0

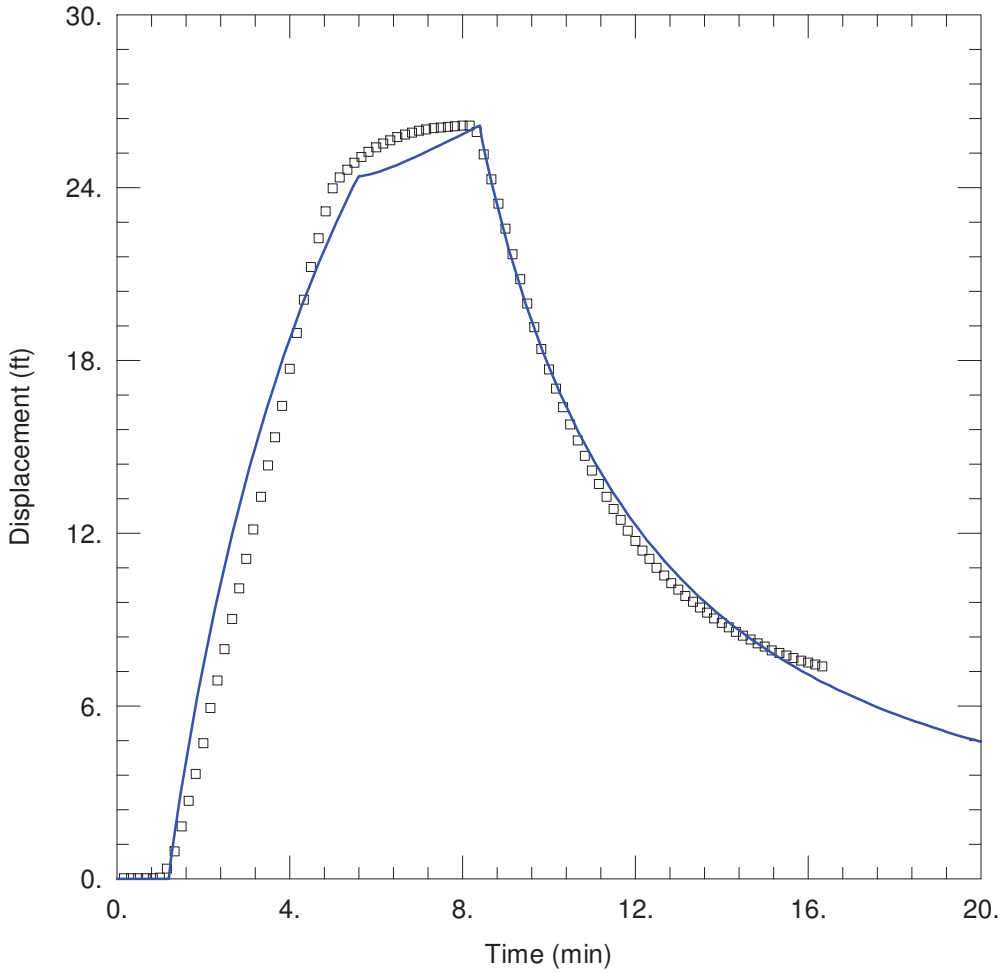
Observation Wells

Well Name	X (ft)	Y (ft)
□ ISB047	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 23.45 ft^2/day S = 0.008785
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: \...\ISB048_2inj_PC.aqt
Date: 07/19/13 Time: 17:27:09

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Post Maint.
Test Well: ISB048
Test Date: 7/18/2013

AQUIFER DATA

Saturated Thickness: 2.3 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB048	0	0

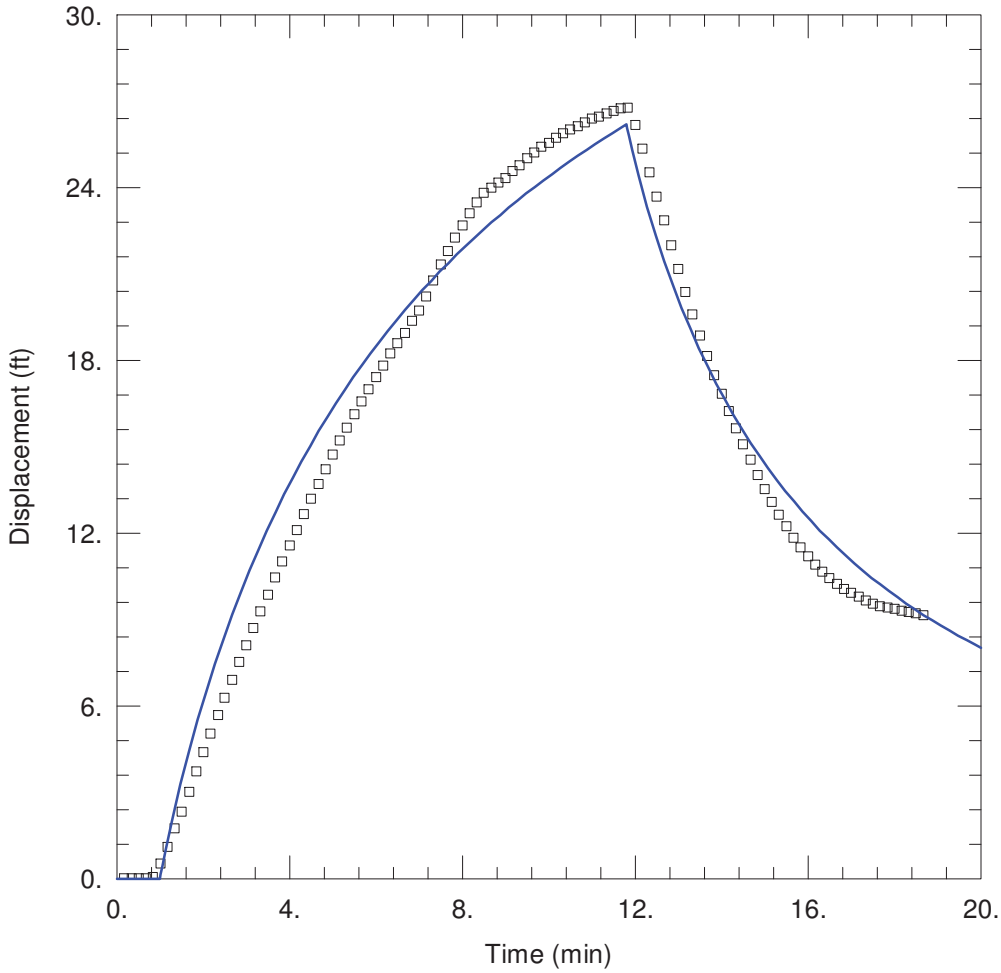
Observation Wells

Well Name	X (ft)	Y (ft)
□ ISB048	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 15.37 ft^2/day S = 0.004204
r(w) = 0.4 ft r(c) = 0.167 ft



WELL TEST ANALYSIS

Data Set: \...\ISB049_2inj_PC.aqt
Date: 07/19/13 Time: 17:27:54

PROJECT INFORMATION

Company: Trihydro
Client: Pantex
Project: 5293 / 18A-006-002
Location: SE Post Maint.
Test Well: ISB049
Test Date: 7/18/2013

AQUIFER DATA

Saturated Thickness: 2.5 ft Anisotropy Ratio (Kz/Kr): 0.1

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ISB049	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
□ ISB049	0	0

SOLUTION

Aquifer Model: Confined Solution Method: Papadopulos-Cooper

T = 12.28 ft^2/day S = 0.009201
r(w) = 0.4 ft r(c) = 0.167 ft

APPENDIX C

WASTE ACCUMULATION FORMS

Inventory Of Container At Waste Accumulation Site

(Reference WI 02.01.04.05.04, WI 02.01.04.05.05, WI 02.01.04.05.06, WI 02.01.04.05.07)

To have the container removed after container is full or when accumulation of waste has ended:
Plant personnel contact Waste Operations Department (WOD) at ext. 5449 and
fax completed form to fax ext. 7669.
Sub-Contractor personnel contact WOD Point of Contact at ext. 5534 and
fax completed form to ext. 6384
A copy of this form should accompany the container when picked up by WOD.

Complete the following:

Drum ID # 201304805	Date Accumulation Started 4-3-2013
Container Type Roll-off	Date Accumulation Ended 7-22-2013
Phone # 303-570-9930	Location ISB SE Well Field
Mail Drop n/a	Contact Ed Gorove/Sarah Seitz

DATE	WASTE DESCRIPTION	35 ACCOUNT # OR MSDS # OR PEELABLE BARCODE #	BADGE #
4/3/2013	Well redevelopment water – 23 gal		64143
4/4/2013	Well redevelopment water – 27 gal		64143
4/4/2013	Well redevelopment water – 3 gal		64143
4/5/2013	Well redevelopment water – 25 gal		64143
4/8/2013	Well redevelopment water – 4 gal		64143
4/9/2013	Well redevelopment water – 23 gal		64143
4/11/2013	Well redevelopment water – 14 gal		64143
4/11/2013	Well redevelopment water – 13 gal		64143
4/16/2013	Well redevelopment water – 45 gal		64143
4/17/2013	Well redevelopment water – 40 gal		64873
4/18/2013	Well redevelopment water – 21 gal		64873
4/19/2013	Well redevelopment water – 30 gal		64873
4/22/2013	Well redevelopment water – 30 gal		64873
4/23/2013	Well redevelopment water – 17 gal		64873
4/25/2013	Well redevelopment water – 30 gal		64873
4/26/2013	Well redevelopment water – 27 gal		64873
4/26/2013	Well redevelopment water – 25 gal		64873

Inventory Of Container At Waste Accumulation Site

(Reference WI 02.01.04.05.04, WI 02.01.04.05.05, WI 02.01.04.05.06, WI 02.01.04.05.07)

6/25/2013	Well redevelopment water – 25 gal		19484
6/26/2013	Well redevelopment water – 20 gal		19484
6/27/2013	Well redevelopment water – 25 gal		19484
6/28/2013	Well redevelopment water – 30 gal		19484
7/8/2013	Well redevelopment water – 40 gal		19484
7/9/2013	Well redevelopment water – 30 gal		19484
7/11/2013	Well redevelopment water – 25 gal		19484
7/11/2013	Well redevelopment water – 25 gal		19484
7/12/2013	Well redevelopment water – 25 gal		19484
7/15/2013	Well redevelopment water – 25 gal		19484
7/16/2013	Well redevelopment water – 25 gal		19484
7/17/2013	Well redevelopment water – 30 gal		19484
7/18/2013	Well redevelopment water – 30 gal		19484
7/18/2013	Well redevelopment water – 30 gal		19484
7/19/2013	Well redevelopment water – 20 gal		19484
7/22/2013	Well redevelopment water – 40 gal		19484

POST-INJECTION REPORT - SOUTHEAST ISB SYSTEM

JULY – SEPTEMBER 2013

***IN-SITU* BIOREMEDIATION OPERATIONS AND MAINTENANCE**

PANTEX PLANT, AMARILLO, TEXAS

B&W PANTEX PURCHASE ORDER 5293

November 13, 2013

Project #: 18A-006-002

SUBMITTED BY: Trihydro Corporation

1252 Commerce Drive, Laramie, WY 82070

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List of Acronyms

AHA	Activity Hazard Analysis
AqSol	Aquifer Solutions, Inc.
COPC	Constituent Of Potential Concern
CSM	Conceptual Site Model
CWMP	Contractor Waste Management Plan
DOE	Department of Energy
DBD	Design Basis Document
FM	Farm to Market
HASP	Health and Safety Plan
HE	High Explosives
ISB	*In-Situ* Bioremediation
MSDS	Material Safety Data Sheet
O&M	Operation and Maintenance/Monitoring
Pantex	B&W Pantex, LLC
PERC	Perchlorate
PLC	Programmable Logic Control
PSTR	Project Subcontract Technical Representative
PVC	Polyvinyl Chloride
QA	Quality Assurance
QAPP	Quality Assurance Project Plan
QC	Quality Control
RPD	Relative Percent Difference

List of Acronyms (cont.)

SEISB	Southeast ISB
SEPTS	Southeast Pump & Treat System
SSO	Site Safety Officer
SWP	Safe Work Permit
TCE	Trichloroethylene
Trihydro	Trihydro Corporation
TTU	Texas Tech University
UIC	Underground Injection Control
WMP	Waste Management Plan
WP	Work Plan
Z11ISB	Zone 11 ISB

EXECUTIVE SUMMARY

This report documents the amendment injection activities performed at the Southeast *In-Situ* Bioremediation (SEISB) System from July to September 2013. These activities were performed on behalf of B&W Pantex LLC (Pantex) as a component of Trihydro Corporation's (Trihydro) *In-Situ* Bioremediation (ISB) Operations and Maintenance (O&M) work performed under Purchase Order #5293. Amendment injection was performed to maintain the biologically-active treatment zone at the SEISB System. The specific tasks performed included equipment mobilization, setup, equipment maintenance, amendment injection and associated monitoring, and equipment demobilization. Each of these tasks, pertinent data, and observations are summarized below.

Mobilization and setup consisted of delivery and placement of frac tanks for water storage and intermodal tanks for storage of bioamendment. Site setup consisted of the connection of a header system for water transmission from the frac tanks and transmission of mixed amendment to the injection trailer per the project plans.

Trihydro began the injection event following the on-site pre-injection safety meeting and operator review of operating procedures. Amendment was injected into 37 injection wells in the SEISB System. Five dry wells did not receive injection of amendment. In total, 50,854 gallons of pure amendment, 724,073 gallons of mixed amendment (after addition of makeup water), and 101,505 gallons of flush water were delivered during this event. The amendment and volume targets achieved were based on the Design Basis Document (DBD), updated Conceptual Site Model (CSM), and an additional factor of safety. The factor of safety beyond the amendment dose specified in the DBD varied by injection location, and was based on concentrations of constituents of potential concern (COPCs) and groundwater flux. The SEISB DBD specifies the target dose of amendment into each of the four flux zones, and this target volume was met in each flux zone. Thirty-five (35) of the 37 injection wells received the target volume of pure amendment (i.e. dose) and total fluids specified in the project plans. In the two wells that did not meet the target volume of pure amendment, extra amendment was injected into adjacent wells in order to meet the DBD flux-zone based specifications.

Injection monitoring at each well was performed to document the execution of the work and as one means of redundancy to reduce the risk of releases of amendment or water to the ground surface. The monitoring program included recording injection volumes, flow rates, and displacement observed inside injection well casing. Steady-state displacement data at a given flow rate was also used to compare the ability of the injection wells to accept fluids. This is an important consideration relative to the ongoing well maintenance program, with the most recent well maintenance event being conducted immediately before the injection event described herein. Steady-state injection data is presented in detail in the SEISB Well Maintenance Report submitted under separate cover. In summary, the steady-state

injection data showed similar injection rates and specific capacity (flow rate divided by displacement in injection well) during the 2013 amendment injection event relative to previous injection events. This suggests that well performance is consistent with previous injection events and that the well maintenance program has been successful in keeping the wells in a condition that allows for periodic amendment injection.

Maintenance was performed on various components of the Pantex-owned injection system during the course of this work. This included expansion of the caliche equipment pad, installation of a plug to connect the injection trailer to the electrical power source, replacement of a sensor in a frac tank, replacement of a flow meter body, and routine changes of bag filters, changing compressor oil, cleaning of y-strainers etc.

Quality Assurance (QA) activities associated with this work included QA documentation for the amendment and cross-checks of redundant flow meter readings. Amendment QA documentation was provided to Pantex for each of the 8 tankers and 14 totes delivered, and each of these conformed to the project QA requirements. Redundant flow meter data suggested that the flow instrumentation performed in the same manner as previous injection events, and that the volumes delivered to each well were accurately tracked by the instrumentation.

This work was performed with zero Health & Safety incidents. Several lessons learned were developed as part of this work. These included improved practices for receipt and transfer of amendment received in totes, improved amendment shipments, and improvements in tracking of as-injected amendment concentration.

1.0 INTRODUCTION

Trihydro performs O&M activities at two ISB treatment Systems at the Pantex Plant under Purchase Order 5293 with Pantex. The two ISB Systems include:

1. SEISB System located on Texas Tech University (TTU) property
2. Zone 11 ISB (Z11ISB) System located on the Pantex Plant

Post-injection reports are prepared following completion of injection activities at each ISB System as required by the *In-Situ Bioremediation System Operation and Maintenance* Statement of Work, October 2011 (Pantex 2011). This report constitutes the fourth post-injection report prepared for the SEISB System since the initial injection event conducted at SEISB in March 2008. This report addresses injection work that Trihydro performed during the July through September 2013 O&M period, collectively referred to as the summer 2013 injection event.

This post-injection report covers activities associated with the summer 2013 SEISB injection event, including:

- A brief summary of well rehabilitation and hydraulic testing (reported in detail in a separate report)
- A brief description of the injection event
- Injection start and finish dates
- Summary tables of the total injected volumes into each well
- Average flow rates into each well
- Description of lessons learned

This work was performed following the methods described in the planning documents prepared for this project, including the *Work Plan* (Trihydro 2012a) and the *Health and Safety Plan* (HASP), the *Contractor Waste Management Plan* (CWMP) and the *Quality Assurance Project Plan* (QAPP) appended to the *Work Plan*, and also the updated *Operator's Manual – Southeast and Zone 11 ISB Systems* (Trihydro 2013a).

Additional information detailing site background, ISB implementation and historical results, are included in the following documents:

- *Final Implementation Report: Pilot Scale In Situ Bioremediation for the Southeast Perched Aquifer System, Llano-Permian Environmental, Aquifer Solutions, and AMEC, (AqSol, 2006).*

- *Final Design Basis Document: In-Situ Bioremediation Corrective Measures Design, BWXT Pantex Contract 54761 (AqSol 2007).*
- *Final Operations and Maintenance Plan, Southeast Plume In-Situ Bioremediation Corrective Measures Design, Aquifer Solutions, (AqSol, 2008).*
- *Statement of Work for In-Situ Bioremediation System Operation and Maintenance for the Southeast and Zone 11 ISB Systems, B&W Pantex Environmental Projects & Operations Department, August Final Operations and Maintenance Plan, Southeast Plume In-Situ Bioremediation Corrective Measures Design. (Pantex, 2008).*
- *Final Implementation Report, Southeast Plume In-Situ Bioremediation Corrective Measures Design and Construction. (AqSol 2008).*
- *Revised Implementation Report: Southeast Plume In-Situ Bioremediation Corrective Measures Design and Construction, Aquifer Solutions, (AqSol 2009).*
- *Results of Southeast ISB Hydraulic Testing and Well Rehabilitation Recommendations, Aquifer Solutions, (AqSol, 2010).*
- *Final Operation and Maintenance Plan, Rev. 1, Southeast Plume In-Situ Bioremediation Corrective Measures Design (AqSol 2010).*
- *2010 Second Quarter Quarterly Monitoring Report: Southeast and Zone 11 South In-Situ Bioremediation Operation and Maintenance (AqSol 2010).*
- *Pantex In Situ Bioremediation Operation & Monitoring, 2010 Annual Monitoring Report (AqSol 2011).*
- *Work Plan for In-Situ Bioremediation Systems Operations & Maintenance for B&W Pantex, Purchase Order No. 5293 (Trihydro, 2012a).*
- Post Injection Report – Southeast ISB System (Trihydro 2012b).

1.1 SITE DESCRIPTION

The Pantex Plant is located in the Texas Panhandle in Carson County, north of U.S. Highway 60. The Plant is centered on an approximately 17,500-acre site located approximately 17 miles northeast of downtown Amarillo and 1 mile north of U.S. Highway 60. The Pantex Plant site consists of land owned and leased by the U.S. Department of Energy (DOE) and operated by Pantex. The DOE owns 11,703 acres, including 9,100 acres in the main Plant area, 1,526 acres in four tracts purchased in the latter part of 2008 (east of Texas Farm-to-Market Road (FM) 2373 near the main Plant area), and 1,077 acres at Pantex Lake, which is located approximately 2.5 miles northeast of the main Plant area. Industrial operations are conducted on approximately 2,500 acres, most of which is within Zones 11 and 12. In addition,

5,800 acres of land south of the main Plant area are leased from TTU for a safety and security buffer zone. The facility is bordered on the west by FM 683, on the north by FM 293, and partially on the east by Texas FM 2373.

1.2 PROJECT DESCRIPTION

The ISB O&M project is designed to operate and maintain two bioremediation treatment systems located within the perched groundwater unit beneath the site: the Z11ISB System and the SEISB System (**Figure 1**). O&M of these systems is accomplished through periodic injection of bioremediation amendment and other associated maintenance activities. Both systems are constructed as a linear array of injection wells installed perpendicular to the direction of groundwater flow. These systems allow for hydraulic movement of groundwater through the system and result in treatment of constituents of potential concern (COPCs) through biotic degradation and abiotic transformation of COPCs.

Pantex has identified the following COPCs in the perched groundwater near the two systems:

- Chromium (total and hexavalent) (SEISB System)
- High Explosives (HE) including RDX (hexahydro-1,3,5-trinitro-1,3,5-triazine) and HMX (Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine) (SEISB System)
- Trichloroethylene (TCE) (Z11ISB System)
- Perchlorate (PERC) (Z11ISB System)

The ISB systems were created by injecting bioremediation amendment into 42 injection wells at the SEISB System (**Figure 2**) and 32 wells at the Z11ISB System. The continued effectiveness of the bioremediation systems relies on periodic injection of amendment to maintain the treatment zone within the perched groundwater unit at each System.

The remainder of this report summarizes the observations and findings of the most recent round of injection activities at the SEISB System, performed during the summer of 2013.

2.0 MOBILIZATION ACTIVITIES

Mobilization included the physical mobilization to the site, as well as the associated coordination efforts to initiate field activities. These are described in the following subsections.

2.1 PERMITS

The contractor Activity Hazard Analysis (AHA) and Safe Work Permit (SWP), Pantex form PX-4798, were issued for construction activities and applicable service contract work by the Pantex Safety Department. Addenda to the AHA/SWP were issued throughout the project as required based on changes to the activities performed or equipment utilized. An Underground Injection Control (UIC) permit was also required for the project and this permit was obtained by Pantex.

2.2 SECURITY REQUIREMENTS

Site access required for deliveries, visitors, and subcontractors was coordinated through the Project Subcontract Technical Representative (PSTR), Mr. Chad McGarry. The PSTR arranged for badges, guards, and site access for field personnel. Contractor and subcontractor personnel were required to obtain access to the facility through a construction badge or a visitor's badge prior to entry onto the site.

2.3 ACCESS TO WORK AREAS

Daily requirements for work during the performance period described herein included the following notification protocols:

- Notified PSTR that work had begun, typically at the beginning of the work day
- Notified PSTR or acting person in charge that work had ended for the day (contact provided daily by PSTR)

2.4 INJECTION TRAILER AND ASSOCIATED EQUIPMENT RELOCATION

The mixing and injection trailer was moved from the Z11ISB equipment pad to the SEISB equipment pad before this injection event on July 15, 2013. The trailer was placed on the pad, leveled with jacks, and attached to existing grounding rods installed at each of its four corners. All electrical connections between the existing electrical service and the trailer were completed by a qualified electrician, and in accordance with Pantex Plant requirements (including lock out/tag out), the HASP, and the WP.

The three 21,000-gallon water storage tanks (or “frac tanks”) were moved from the Z11ISB equipment pad to the SE equipment pad on July 17, 2013. These were positioned in the same configuration as used in previous injections. Ancillary equipment including distribution pipes, wires, control boxes, and wellhead assemblies were also relocated to the SEISB equipment pad or in the general area.

The existing water supply pipeline and infrastructure located at the SEISB equipment pad was used to supply water for injection. The source of water was treated groundwater from the Southeast Pump and Treat System (SEPTS) located at Building 16-28. The water supply was connected from the termination of the pipeline and run to the injection trailer using a 4-inch flexible hose with quick connect fittings on both ends. Piping connections were made in a manner consistent with the equipment requirements described in the Operator’s Manual (Trihydro 2013a).

3.0 SUMMARY OF WELL MAINTENANCE AND HYDRAULIC TESTING

Well maintenance work was performed on the SEISB injection wells between March and July 2013, and was reported in detail in a separate report. The maintenance program is designed to: assess the degree to which biofouling may have impacted injection well performance; take measures to mitigate adverse impacts to well performance; and verify that mitigation efforts have restored wells to a condition that would support future amendment injection. Of the 42 injection wells in the SEISB System, 35 injection wells were hydraulically tested and/or maintained. Maintenance was performed at each of the 35 of the wells at which hydrogeologic data indicated that the saturated thickness of the perched groundwater unit was greater than zero (i.e. elevation of water was greater than elevation of Fine Grained Zone). The seven (7) injection wells that were not maintained were determined to be dry with no saturated thickness. The methods and results of this effort were documented in a Well Maintenance Report being submitted to Pantex in conjunction with this report, and are briefly summarized here.

Biofouling impacts were assessed by performing hydraulic injection tests before well maintenance at each injection well. After receiving approval from Pantex, Trihydro performed maintenance activities using chemical and mechanical means. The chemical treatment consisted of the use of Cotey Chemical Corporation's "Wellgicide Cleaner" (granular sodium hydroxide with lesser amounts of other chemicals mixed with water). Physical development was performed using a combination airlift/surge block/brush device constructed for this project. The success of maintenance efforts was quantified with post maintenance hydraulic testing as well as by visual observations (removal of turbid water, recharge of water during development etc.).

4.0 EQUIPMENT MAINTENANCE

The following non-routine maintenance was performed during this injection event:

- Replacement of frac tank sensor.

The following routine maintenance activities were performed immediately prior to this injection event:

- Replacement of leak detection system 9 V batteries.
- Replacement of SuperDos mixer wear parts (o-rings and plastic piston guides).
- Draining of coalescing filters on the compressed air system periodically to remove condensate.
- Replacement of desiccant filter material with new material.
- Changing the air compressor oil on a monthly basis.
- Replacement of 100-micron bag filter (F-102), once prior to and once during the injection activities.
- Periodic maintenance of flow meters FIQ-201 through FIQ-205 and FIQ-401 through FIQ-404 including, but not limited to, removal, inspection, and reinstallation to increase meter responsiveness.
- Cleaning of y-strainers.
- The system was purged of water and valves left in a half-open position for extended shutdown. At the amendment intake/water bypass on the mixing manifold in the trailer, several piping tees are located downstream of a check valve, which prohibits complete drainage of that part of the system. These were filled with RV antifreeze to reduce the risk of fluids freezing this coming winter.

The following system upgrades were implemented immediately prior to this injection event:

- The above-ground electrical connection was fitted with a weather-proof plug connection. This connection allows the injection trailer to be connected to the 3-phase power source with the plug rather than with wire nuts. Though the plug is designed to be safely removed while energized, the protocol for connecting the trailer to the electrical plug will continue to involve de-energizing the system and having a Qualified Electrical Worker make the connection.
- The inner body (mechanical dial, gears, and impeller) of flow meter FIQ-401 was replaced.
- The caliche surface of the SEISB equipment pad was expanded. The initial construction consisted of a loop around which vehicles could turn adjacent to the caliche surface on which tankers and the trailer are placed. The inside of

the loop was covered with caliche so that the pad is now one continuous surface. This modification allows delivery trucks more room to back-up tankers and move equipment. The surface of the caliche pad was raised in the location where the jacks of the amendment tankers are placed. This modification caused the amendment tankers to sit in a slightly pitched position so that they would drain completely without raising the tanker.

5.0 FIELD INJECTION OPERATIONS

The field injection operations at the SEISB System consisted of amendment receipt, storage, mixing, and injection. These operations were implemented in accordance with Pantex procedures, the Operator's Manual (Trihydro 2013a), the Trihydro WP (Trihydro 2012a), and the means and methods used in past ISB injection events at Pantex. This section documents the injection process, reports as-injected quantities, and dose concentrations. Injection activities were implemented between July 30 and September 4, 2013. **Table 1** summarizes the injection start and finish dates at each injection well.

5.1 AMENDMENT DELIVERY AND STORAGE, MIXING, AND INJECTION EQUIPMENT

Similar to previous injection events at Pantex, Newman Zone non-ionic, buffered, bioremediation amendment was injected for this project. This formulation is an aqueous (water-based) solution containing 46% by weight emulsified soybean oil and 4% sodium lactate, with less than 10% surfactants and other food-grade additives. The amendment is a non-hazardous, food-grade substance.

Amendment delivery occurred during July and August 2013, and was noted in daily field logs and logbooks. Eight (8) 5,800-gallon capacity food-grade tankers delivered the bioremediation amendment for this injection event. In addition, a quantity of 14, 250-gallon totes were delivered. A total of 48,357 gallons of amendment was ordered and total of 48,383 gallons of amendment (399,160 pounds) were received at the field site and injected into the perched groundwater unit. The bills of lading and manufacturer's internal quality monitoring forms received from the supplier and delivery service were tracked to ensure that the product received matched the manufacturer's specifications. See **Section 8.2** (Quality Assurance) for additional details on amendment quality assurance.

One or two amendment tankers were typically kept onsite at any given time. When a new tanker arrived, it was staged on the equipment pad, and the driver would remove an empty tanker from the site when applicable. Prior to placing a tanker in service, the field supervisor placed the tanker in a Quality Assurance / Quality Control (QA/QC) hold with a readily identifiable field QA/QC tag. Trihydro then reviewed the associated QA/QC documentation and transportation chain of custody documents to ensure that both the pass-fail acceptance criteria and other evaluation criteria were acceptable. Trihydro's amendment QA/QC review was submitted to the PSTR for confirmation and the tanker was then taken out of QA/QC hold and put into operation.

The final amendment delivery consisted of 14, 250-gallon totes. These were delivered in an enclosed trailer and off-loaded into an empty amendment tanker with a transfer pump. Totes were received because the remaining volume

required was not enough to fill a tanker. Also, totes were available on-hand from the vendor while a partial tanker would have required an additional lead time to manufacture.

5.2 AMENDMENT MIXING AND INJECTION EQUIPMENT

The Pantex-owned mixing and injection trailer was relocated from the Z11ISB to the SEISB equipment pad in July 2013. The mixing and injection equipment consisted of the following major components:

- **Water delivery system**: Treated groundwater from the SEPTS (Building 16-28) was piped directly into the injection trailer, metered, and then stored in three 21,000 gallon frac tanks. The frac tanks were equipped with Low-Low, Low, High, and High-High levels switches to regulate the quantity of water received into the system based on the location of the Low and High level switches.
- **Amendment delivery system**: Amendment was delivered to the site in food grade tankers and pumped directly into the injection trailer via gravity feed and suction applied by the SuperDos mixers. Compressed air was not utilized during this injection to aid in amendment delivery, unlike some past injection events. Delivery of amendment to the injection trailer was not affected by using gravity feed rather than compressed air. Each tanker was physically measured at the beginning of the tanker usage. Additionally, in order to allow for daily amendment measurements, a sight tube was designed and installed. This sight tube enabled direct recording of fluid levels in the tank.
- **Pantex-owned mixing system**: This system consisted of a 32-foot insulated trailer equipped with HVAC that houses all of the controls, pumps, and mixing/injection equipment.

Detailed specifications of these major components are found in previous O&M project documents, the Operator's Manual, and WP (AqSol 2008, AqSol 2010, Trihydro 2013a, and Trihydro 2012a).

5.3 INJECTION DOCUMENTATION

Injection-related field activities were documented in field log books, and field forms (well connection checklists, injection trailer forms**,** and well field monitoring forms). These field forms were designed to record all pertinent observations and measurements, and were included in the WP and in the project QAPP. At Pantex's request, electronic copies of these notes and forms will be submitted to Pantex with the project close-out documents rather than as appendices to this report. Pertinent information from these notes and forms has been included in the text, tables, and figures of this report, as appropriate.

Field forms were used to gather the following data, collected at the frequency shown in parentheses:

- Flow meter totalizer readings, including water supply, pure amendment, mixed amendment, and field meters (twice each shift, and at completion of mixed amendment injection and water flush for each well)
- Mixed amendment and flush volume injection rates (each shift)
- Water level and flow rate at injection wells during injection (several times per day while on site, with greater measurement frequency during well startup)
- Manual observation of amendment tanker fluid levels from site tube which were converted into volumes (twice each shift)

In addition to recording the above information, Trihydro performed calculations to derive the following parameters for each day's injection:

- Daily injection volumes at each injection well.
- Amendment concentrations at each injection well.
- Quality control calculations to check the above data, including relative percent difference (RPD) values between the following data:
    - Computer vs. mechanical totals for each flow meter in the injection trailer.
    - Totals between redundant meters (e.g., total amendment at FIQ-201 vs. individual amendment meters calculated by summing FIQ-202 through 205).
    - Amendment tanker site-tube gauging vs. flow meter totals.

The above calculations were completed following each shift. When injecting overnight, each day was divided into a day shift (manned operations) and night shift (unmanned operations), hence these calculations would be conducted twice each day if overnight operations occurred. When quality control calculations indicated that RPDs were greater than 10%, Trihydro reconciled the data by checking for data entry errors or duplicating data collection points.

Daily quantities of mixed amendment, pure amendment, flush volume (if applicable), and as injected amendment percent were all reported for each active well. In addition, an overall progress summary table was updated on a daily basis. These data were made available to project personnel on a daily basis.

5.4 INJECTION QUANTITIES, CONCENTRATIONS, AND FLUSH VOLUMES

Target injection quantities for mixed amendment and flush volumes were determined based on prior design work and knowledge gained at the site, including:

- The DBD (AqSol 2007) dose and volume calculations.
- Updated understanding of the CSM as described in the AqSol 2010 Annual Monitoring Report (AqSol 2011).

The injection quantities were determined by using the amendment dosage calculation basis specified in the DBD as a starting point, and then modifying these values in consideration of the results of the modified CSM. The DBD calculation accounts for a uniform amendment dose across the area based on the saturated thickness at each injection well location. As specified in the DBD, this amendment volume and dose target is calculated based on injection of 15% of a pore volume (porosity x saturated thickness x assumed 12,500 square foot area x 0.15), and a 5% amendment concentration.

In order to optimize the amendment injection, Trihydro worked with Pantex to evaluate COPC concentrations and groundwater flux (groundwater velocity multiplied by saturated thickness) as described in the CSM developed in the 2010 Annual Monitoring Report for the two ISB Systems (AqSol 2011). A similar optimization procedure was developed for the Zone 11 System in 2011 (Trihydro 2011). The CSM was utilized to identify ISB injection wells located in: a) high groundwater flux zones; and b) high COPC concentration zones. Following that evaluation, a relative ranking was assigned to each ISB injection well for both groundwater flux and COPC concentration. The higher ranking represented higher flux and higher COPC concentration. Since both higher flux and higher COPC concentration represent important parameters that would dictate potentially faster rates of amendment consumption, the amendment dosage was optimized considering these parameters. Amendment was also injected at PTX06-ISB033 and PTX06-ISB034 though groundwater elevation data before and after well maintenance indicated that these two wells were dry. The purpose of injecting into these two dry wells was to attempt to influence nearby saturated zones including downgradient monitoring well, PTX06-1153.

These target dosages were reconciled as the injection event progressed by comparison of the actual amount of amendment used against the estimated remaining volume of amendment. The basis for this calculation was the volume of amendment delivered to the site per the manufacturers shipping information compared to the volume injected based on the 200 series mechanical flow meters. The 200 series mechanical flow meters were typically observed to indicate volumetric totals approximately 3% more amendment than the volume of amendment ordered and received. The amendment amounts remaining were distributed to the wells that had not been injected into as of that time. The target amendment concentrations for the remaining wells were slightly increased to spread injection of additional amendment

amounts throughout the remaining wells. Multiplying the amendment concentration by a constant factor preserved the relative weighting scale based on groundwater and COPC flux specified in the CSM (AqSol 2011). The resulting dosages that were applied to each well are presented in **Table 2**.

Injection activities at each well consisted of the injection of mixed amendment, targeted at the concentration calculated as described above, followed by a period of a water-only flush. The water-only flush represented approximately 10% of the target injection volume at each well. By flushing the injected mixed amendment with water, amendment was transported away from the direct vicinity of the well, thereby potentially lessening the degree of biofouling.

Actual injection volumes broken down by pure amendment, mixed amendment, flush water, and total volume are shown on **Table 2**. A total of 825,578 gallons of fluids were injected into 37 injection wells during the 2013 SEISB injection event. All injection wells received the target dosage based on the 2008 DBD calculations, though it is noted that the DBD specified amendment allocation based on four zones, not individual wells. The design target volume and dose was met for all four zones. In addition, informal operational targets were established for each individual well. All injection wells received an amendment dose greater than, or within 5 gallons of, the 2013 operational target or received a greater quantity of pure amendment than the target with two exceptions. PTX06-ISB022 and PTX06-ISB029A were 191 and 101 gallons less than the target amendment quantity, respectively, due to a downward drift in amendment concentration as a result of the low rates at which these two locations would accept injected fluids. Both of these wells received more mixed amendment volume than the targeted quantity and in addition, amendment beyond the 2013 target volumes was injected at adjacent injection wells to compensate for these two wells not reaching their targets. Several wells did not have sufficient saturated thickness to warrant injection. Wells PTX06-ISB028, PTX06-ISB043, PTX06-ISB045, PTX06-ISB050, and PTX06-ISB051 were not injected into during this period.

5.5 INJECTION RATES

Injection rates during this injection event are summarized briefly here. The median sustained injection flow rate was 20 gpm in the 2013 amendment injection event, which is similar to previous injection events. The 25th percentile, 75th percentile, and maximum flow rates were also similar to previous injection events. This shows that the majority of wells, on average, performed similarly in 2013 relative to previous injection events. The minimum sustained flow rate was 3 gpm at PTX06-ISB022. This value is lower than the minimum flow rate in previous events. Additional analysis of injection flow rates are presented in Trihydro's Well Maintenance Report because amendment injection flow rates are an additional means through which to assess the well maintenance program.

6.0 WASTE MANAGEMENT

Liquid and solid wastes were managed according to specifications in the CWMP. Limited quantities of wastes were generated due to efficient management and recycling to the extent possible.

Liquid Wastes included residual pure and mixed amendment. These wastes were contained and disposed of in Pantex-provided 55-gallon drums. **Appendix A** includes a copy of the waste collection tracking forms (form PX-2844). The following summarizes liquid waste quantities generated:

- Amendment wastes were generated during three types of field activities; leakage from amendment tanker valves, during routine and other necessary maintenance activities, and from precipitation events that filled the containment tanker catchment pools (approximately 135 gallons).

Solid Wastes included small amounts of packaging and maintenance related trash such as bag filters and PVC fittings. In addition, the totes included thick cardboard liners and polyethylene bladders, and were shipped to the site on wooden pallets. These items are Class 2 (non-hazardous) waste, and Trihydro disposed of these accordingly per the CWMP (Trihydro 2012a, Appendix B).

7.0 HEALTH AND SAFETY

The injection event was conducted with no accidents. The original SWP was periodically updated to address activities and equipment that was not originally anticipated in the work. These activities included:

- Traffic control for access to gate PE-3
- Revised traffic control for access to gate PE-3
- Application of weed killer in the laydown yard

The following list highlights the notable features of the health and safety program:

- Tailgate health and safety meetings were conducted twice per day. Safety calendars were prepared to provide new health and safety topics for tailgate safety meetings to avoid redundancy and encourage interaction from the entire crew.
- A discussion of the daily plan of the day was held in conjunction with the tailgate meeting to detail the specific allowable activities. The purpose of discussing the plan of the day was to make personnel aware that if additional new, unanticipated work was required, that the group should stop and discuss the relevant safety procedures with the Site Safety Officer (SSO) and those that would perform the new work.
- Copies of all material safety data sheets (MSDSs) were kept available on site.
- A pre-injection safety briefing was completed which included a detailed review of system operation, potential hazards and actions to mitigate and control hazards.
- An on-site training review of injection trailer operational procedures was conducted by the project lead engineer.
- Pantex conducted periodic safety inspections, and none was identified by Pantex as needing improvement.
- A tagging system for several different activities first implemented in 2012 was continued to ensure communication in the field. The following are examples of the tagging system that had safety implications:
    - Defective equipment was tagged as out-of-service with the date and issue until it was fixed or removed from the site.
    - Each well was tagged to indicate the work that was completed to date so field personnel had both the field notes and the tagging system to confirm the appropriate task or activity at each well.
    - Amendment tankers were tagged to visually identify if they were approved by the QA/QC process for injection activities.

8.0 QUALITY ASSURANCE

Trihydro's QA procedures included two general categories: 1) injection data consisting primarily of flow meter readings used to verify amendment dosing at each well location and to confirm the accuracy of flow meter readings and; 2) amendment QA performed to verify that amendment received on site was consistent with project specifications. Each of these is presented below.

8.1 INJECTION DATA QA

Redundant flow meter totals were compared on a daily basis to ensure accurate injection tracking documentation. Flow meters in the injection trailer generate both mechanical and computer readings. For each flow meter, the mechanical and computer readings were within approximately 1% for both the 100 series (injection makeup water) and 400 series (mixed amendment), as has been observed in past injection events. In the few situations in which the computer or mechanical readings varied by significantly more than this percentage, the mechanical dial readings were double checked, and corrected to reflect potentially misread mechanical readings.

The mechanical and computer data for the 200 series (pure amendment) varied by as much as 50%, as has been observed in the past. FIQ-201 measures the total amendment used, while FIQ-202 through FIQ-205 measure the amendment in the individual legs, and thus the total for FIQ-201 should equal the summed total of FIQ-202 through FIQ-205. As has also been observed in the past the mechanical readings of the 200 series flow meters were reliable, while the computer readings were not. As a result, mechanical meter readings were used to track the daily volumes of amendment injected.

Trailer flow meter totals and field flow meter totals varied by up to +/- 30%, as has been observed in past injection events. Variations in field flow meter data are potentially attributed to the vacuum formed at the field flow meters during injection. The injection system was operated during this injection event by injecting into only one well at a time on each injection leg so that in this case trailer flow meters were used to record daily injection volumes at each well.

The total quantity of amendment injected was assessed by comparing the 200 series mechanical flow meter totals over the course of the work to the total weight and average density of the amendment shipped by the production facility. The mechanical flow meter totals for FIQ-201 (all amendment) and the sum of FIQ 202 through FIQ 205 (amendment in individual legs) were within 0.26% of each other over the course of the project. The mechanical 200 series flow totals were 3.9% higher than the volume shipped by the production facility. Similar variations have been observed in past injection events.

8.2 AMENDMENT QA

Amendment QA included examination of the amendment supplier's internal QA and shipping documents. QA documentation was provided to Pantex throughout the project, with complete results attached as **Appendix B**. A summary of QA documentation is shown on **Table 3**. The amendment supplier provided results of QA testing that documented that the product was produced according to their internal specifications and in compliance with the criteria set forth in the QAPP. The QAPP specified a set of pass/fail criteria (QAPP Table 1, including percent fat, percent total solids, and several droplet size parameters) as well as secondary criteria (QAPP Table 2, including pH, coliform, bacterial plate count, yeast, and mold). The shipping documentation reviewed also included the truck number, seal numbers, and the net weight of product shipped and received onsite. These were reviewed to ensure that the materials received onsite were the same as those for which analytical testing results had been provided. Following field and office inspection of the provided QA/QC documents, Trihydro submitted the QA/QC approval to Pantex for review and approval prior to injection of the each amendment tanker.

All of the tanker deliveries of amendment had acceptable QA/QC documentation, including passing values for all pass/fail criteria and all other secondary criteria within target range.

9.0 REPORTING

As part of this injection event, a number of reports and other forms of communication were submitted documenting the various elements of the project, including the project status; data collected, data analysis; and data interpretations and conclusions. These consisted of:

- Daily Log Reports/Contractor Daily Construction Logs - The site superintendent provided the PSTR with written contractor daily construction logs, copies of the daily tailgate safety meeting forms, and daily equipment inspection checklists during the project. The site superintendent also provided the project team with daily reports of work activities and other issues included was a summary of work activities, injection volumes, and overall progress status information were conveyed to Pantex via Trihydro's Project Direct software system.
- Weekly Verbal Reports - The B&W Project Manager and PSTR were provided with a verbal status report on a weekly basis. These reports were presented by the Trihydro Project Manager and discussed the progress of the work performed the previous week.
- Monthly Reports - Monthly reports were submitted during the field work phase that included a project management review of scope, schedule and budget. A revised project schedule was submitted with the monthly report showing the schedule with the status of completed and forecasted tasks.

10.0 LESSONS LEARNED

This section presents lessons learned during the execution of this injection event.

10.1 TRANSFER OF AMENDMENT FROM TOTES TO TANKERS

The last delivery of amendment consisted of 14 250-gallon totes received in the back of an enclosed trailer. Trihydro transferred the contents of the totes into an empty amendment tanker. This process was performed effectively, but several lessons learned resulted from this experience.

First, handling of totes of amendment was considerably more labor-intensive than receipt of tankers. A corrective action is that Trihydro should continue to order tankers of amendment rather than totes. It should be noted that totes were the only type of amendment container that was available at the time of delivery, so use of a tanker would have resulted in a schedule delay.

Second, the equipment used to transfer the contents of the totes could have been modified to perform the task more quickly. Trihydro used a rental gas-powered transfer pump. A PVC stinger was placed into the top of the totes and connected to the pump with a suction hose. The pump discharged into the top of the amendment tanker through a lay-down hose secured to the top hatch. The pump's flow rate was relatively high when the pump was primed properly. However, after one tote was emptied the prime on the pump was lost before starting the next tote. This situation appeared to have been compounded by the fact that the pure amendment bubbled/foamed around the pump impeller, making it difficult to re-prime the pump. Finally, the pump appeared to have difficulty moving fluids to the top of the amendment tanker because of the height difference between the pump and the tanker. One possible improvement to this system could be plumbing the pressurized water supply onto the suction side of the pump with a series of Tees and valves. With this system, small amounts of pressurized water could be forced into the pump to prime it. Another possible improvement would be to place the pump discharge line into the exit port on the bottom of the amendment tanker so that less pressure head would be required. This configuration would require a check valve so that amendment would not flow out of the tanker when the pump is turned off.

10.2 AMENDMENT DELIVERY AND CONNECTION

The caliche surface of the equipment pad was expanded as discussed in Section 4. This allowed the amendment delivery drivers to pull onto site moving forwards versus having to back onto the site as they had in the past. This greatly reduced the amount of time the delivery drivers spent moving at slow speeds on FM 2373. Overall, the expansion of the equipment pad and first-move-forward driving onto the site resulted in a safer delivery method.

The water supply frac tanks could have been placed approximately five ft. further south to allow more room for delivery drivers to maneuver on the equipment pad, and also to allow three amendment tankers to be placed side-by-side without blocking the road to the well field. While only two amendment tankers are kept on site, it is desirable to have room to park a third so that each delivery places the new full tanker into an empty spot, then connects directly to the empty tanker.

10.3 AMENDMENT CONCENTRATION

The SuperDos mixers did not deliver the operational target concentration of mixed amendment. Lower than target amendment concentrations were observed in the 2013 amendment injection event at SEISB and Z11ISB and in 2012 injection events as well. Trihydro attempted to remedy this situation by replacing the lower bodies of the SuperDos units (in early 2013), and replacing the wear parts in the units (prior to the start of this injection event).

Moving forward, Trihydro proposes to increase the pipe size in the amendment distribution piping inside the injection trailer. The rationale supporting this modification was presented to Pantex in Trihydro's letter to Chad McGarry (PM/PSTR) on March 29, 2013 (Trihydro 2013b), and is briefly summarized here. Amendment flows through the injection trailer both due to pressure head from the amendment storage tankers and by suction applied by the SuperDos units. Based on the observed variations in concentration, Trihydro believes that increasing the pipe size from 1-inch to 2-inch will result in more consistent distribution through each of the distribution legs. Based on Trihydro's calculation, increasing the pipe size is anticipated to reduce friction losses by approximately a factor of 30. The existing 1-inch flow meters will be kept in place.

11.0 REFERENCES

Final Design Basis Document: In-Situ Bioremediation Corrective Measures Design, BWXT Pantex Contract 54761 (AqSol 2007).

Final Operations and Maintenance Plan, Southeast Plume In-Situ Bioremediation Corrective Measures Design, Aquifer Solutions, (AqSol, 2008).

Final Operation and Maintenance Plan, Rev. 1, Southeast Plume In-Situ Bioremediation Corrective Measures Design (AqSol 2010).

Pantex In Situ Bioremediation Operation & Monitoring, 2010 Annual Monitoring Report (AqSol, 2011).

Statement of Work: *In-Situ* Bioremediation Systems, Operation & Maintenance (Pantex 2011).

Work Plan for In Situ Bioremediation Systems Operations & Maintenance for B&W Pantex, Purchase Order No. 5293 (Trihydro, 2012).

Operator's Manual – Southeast and Zone 11 ISB Systems, April 30, 2013 (Trihydro 2013a).

Transmittal of Construction Estimate: ISB Injection Trailer Improvements, Letter from Dan Gravelding (Trihydro) to Chad McGarry (Pantex), March 29, 2013 (Trihydro 2013b).

TABLES

TABLE 1. INJECTION START AND FINISH DATES
POST INJECTION REPORT - SOUTHEAST ISB SYSTEM
PANTEX ISB O&M, PO 5293

Well ID	Date Started	Date Completed
PTX06-ISB010	7/30/2013	7/31/2013
PTX06-ISB011	7/31/2013	8/1/2013
PTX06-ISB012	8/1/2013	8/2/2013
PTX06-ISB013	8/2/2013	8/7/2013
PTX06-ISB014	8/7/2013	8/9/2013
PTX06-ISB015	8/9/2013	8/10/2013
PTX06-ISB016	8/14/2013	8/15/2013
PTX06-ISB017	7/30/2013	7/31/2013
PTX06-ISB018	7/31/2013	8/1/2013
PTX06-ISB019	8/1/2013	8/2/2013
PTX06-ISB020	8/2/2013	8/8/2013
PTX06-ISB021	8/9/2013	8/10/2013
PTX06-ISB022	7/30/2013	8/2/2013
PTX06-ISB023A	8/7/2013	8/9/2013
PTX06-ISB024	8/2/2013	8/7/2013
PTX06-ISB025	8/1/2013	8/2/2013
PTX06-ISB026	7/30/2013	7/31/2013
PTX06-ISB027	7/31/2013	8/1/2013
PTX06-ISB028	Dry, no injection	
PTX06-ISB029A	8/21/2013	9/4/2013
PTX06-ISB030B	8/28/2013	9/4/2013
PTX06-ISB031	8/27/2013	9/3/2013
PTX06-ISB032	8/20/2013	8/21/2013
PTX06-ISB033	8/19/2013	8/20/2013
PTX06-ISB034	8/15/2013	8/16/2013
PTX06-ISB035	8/14/2013	8/15/2013
PTX06-ISB036	8/8/2013	8/10/2013
PTX06-ISB037	8/10/2013	8/16/2013
PTX06-ISB038	8/19/2013	8/21/2013
PTX06-ISB039	8/21/2013	8/23/2013
PTX06-ISB040	8/9/2013	8/10/2013
PTX06-ISB041	8/14/2013	8/16/2013
PTX06-ISB042	8/16/2013	8/20/2013
PTX06-ISB043	Dry, no injection	
PTX06-ISB044A	8/22/2013	8/27/2013
PTX06-ISB045	Dry, no injection	
PTX06-ISB046	8/27/2013	8/29/2013
PTX06-ISB047	8/22/2013	8/27/2013
PTX06-ISB048	8/27/2013	8/28/2013
PTX06-ISB049	8/20/2013	8/22/2013
PTX06-ISB050	Dry, no injection	
PTX06-ISB051	Dry, no injection	

Note: No injection at dry wells PTX06-ISB028, -043, -045, -050, and -051

TABLE 2. TARGET AND ACTUAL INJECTION VOLUMES
POST INJECTION REPORT - SOUTHEAST ISB SYSTEM
PANTEX ISB O&M, PO 5293

	Pure Amendment (gal)			Mixed Amendment (gal)		Flush Water (gal)		Total Volume (gal)		Amendment Concentration (%)	
Well ID	***2008 DBD Specification***	***Target***	**Actual**	***Target***	**Actual**	***Target***	**Actual**	***Target***	**Actual**	***Target***	**Actual**
PTX06-ISB010	*679*	*726*	746	*12,095*	12,138	*1,344*	2,353	*13,439*	14,491	*6.0%*	6.1%
PTX06-ISB011	*1,028*	*1,099*	1,099	*18,313*	18,342	*2,035*	2,945	*20,347*	21,287	*6.0%*	6.0%
PTX06-ISB012	*924*	*1,095*	1,095	*16,465*	16,482	*1,829*	2,739	*18,294*	19,221	*6.7%*	6.6%
PTX06-ISB013	*363*	*460*	522	*6,464*	6,470	*718*	1,632	*7,182*	8,102	*7.1%*	8.1%
PTX06-ISB014	*845*	*1,002*	1,017	*15,064*	14,005	*1,674*	3,653	*16,737*	17,658	*6.7%*	7.3%
PTX06-ISB015	*631*	*675*	675	*11,243*	10,985	*1,249*	2,454	*12,492*	13,439	*6.0%*	6.1%
PTX06-ISB016	*65*	*69*	69	*1,151*	1,149	*128*	1,044	*1,279*	2,193	*6.0%*	6.0%
PTX06-ISB017	*996*	*1,065*	1,179	*17,741*	17,750	*1,971*	2,749	*19,712*	20,499	*6.0%*	6.6%
PTX06-ISB018	*789*	*935*	935	*14,064*	14,072	*1,563*	2,330	*15,627*	16,402	*6.7%*	6.6%
PTX06-ISB019	*788*	*934*	934	*14,041*	14,041	*1,560*	2,327	*15,601*	16,368	*6.7%*	6.7%
PTX06-ISB020	*1,116*	*1,415*	1,419	*19,892*	19,660	*2,210*	3,732	*22,102*	23,392	*7.1%*	7.2%
PTX06-ISB021	*1,814*	*2,418*	2,418	*32,324*	33,202	*3,592*	2,763	*35,915*	35,965	*7.5%*	7.3%
PTX06-ISB022	*794*	*1,059*	868	*14,151*	14,778	*1,572*	1,605	*15,723*	16,383	*7.5%*	5.9%
PTX06-ISB023A	*1,239*	*1,652*	1,658	*22,081*	22,095	*2,453*	2,893	*24,534*	24,988	*7.5%*	7.5%
PTX06-ISB024	*1,364*	*1,819*	1,819	*24,311*	25,731	*2,701*	3,146	*27,012*	28,877	*7.5%*	7.1%
PTX06-ISB025	*752*	*1,003*	1,003	*13,401*	13,411	*1,489*	1,929	*14,890*	15,340	*7.5%*	7.5%
PTX06-ISB026	*415*	*492*	492	*7,396*	7,502	*822*	1,262	*8,217*	8,764	*6.7%*	6.6%
PTX06-ISB027	*318*	*377*	377	*5,673*	5,689	*630*	1,074	*6,303*	6,763	*6.7%*	6.6%
PTX06-ISB028	*0*	*0*	0	*0*	0	*0*	0	*0*	0		
PTX06-ISB029A	*1,028*	*1,218*	1,117	*18,313*	18,657	*2,035*	1,641	*20,347*	20,298	*6.7%*	6.0%
PTX06-ISB030B	*572*	*725*	1,131	*10,194*	14,634	*1,133*	894	*11,327*	15,528	*7.1%*	7.7%
PTX06-ISB031	*1,014*	*1,286*	1,727	*18,078*	27,405	*2,009*	4,186	*20,087*	31,591	*7.1%*	6.3%
PTX06-ISB032	*853*	*912*	1,025	*15,192*	15,200	*1,688*	2,465	*16,880*	17,665	*6.0%*	6.7%
PTX06-ISB033	*0*	*1,137*	1,277	*18,934*	18,939	*2,104*	2,876	*21,038*	21,815	*6.0%*	6.7%
PTX06-ISB034	*0*	*909*	909	*15,147*	15,142	*1,683*	2,455	*16,830*	17,597	*6.0%*	6.0%
PTX06-ISB035	*844*	*909*	909	*15,147*	15,164	*1,683*	2,459	*16,830*	17,623	*6.0%*	6.0%
PTX06-ISB036	*2,261*	*2,679*	2,694	*40,291*	36,691	*4,477*	9,511	*44,768*	46,202	*6.7%*	7.3%
PTX06-ISB037	*1,635*	*2,073*	2,073	*29,143*	29,149	*3,238*	3,938	*32,381*	33,087	*7.1%*	7.1%
PTX06-ISB038	*2,732*	*3,462*	3,916	*48,679*	48,689	*5,409*	6,110	*54,087*	54,799	*7.1%*	8.0%
PTX06-ISB039	*1,559*	*2,078*	2,362	*27,780*	27,785	*3,087*	3,787	*30,866*	31,572	*7.5%*	8.5%
PTX06-ISB040	*1,710*	*2,280*	2,275	*30,480*	30,400	*3,387*	3,923	*33,866*	34,323	*7.5%*	7.5%
PTX06-ISB041	*1,270*	*1,694*	1,694	*22,637*	22,741	*2,515*	2,760	*25,152*	25,501	*7.5%*	7.4%
PTX06-ISB042	*1,172*	*1,389*	1,389	*20,888*	21,006	*2,321*	2,767	*23,209*	23,773	*6.7%*	6.6%
PTX06-ISB043	*0*	*0*	0	*0*	0	*0*	0	*0*	0		
PTX06-ISB044A	*2,010*	*2,680*	3,068	*35,819*	41,176	*3,980*	1,009	*39,799*	42,185	*7.5%*	7.5%
PTX06-ISB045	*0*	*0*	0	*0*	0	*0*	0	*0*	0		
PTX06-ISB046	*1,475*	*1,966*	1,979	*26,280*	26,382	*2,920*	3,614	*29,200*	29,996	*7.5%*	7.5%
PTX06-ISB047	*1,029*	*1,371*	1,567	*18,328*	24,298	*2,036*	1,142	*20,364*	25,440	*7.5%*	6.4%
PTX06-ISB048	*575*	*615*	626	*10,247*	11,048	*1,139*	1,579	*11,385*	12,627	*6.0%*	5.7%
PTX06-ISB049	*677*	*680*	791	*12,072*	12,065	*1,341*	1,759	*13,414*	13,824	*5.6%*	6.6%
PTX06-ISB050	*0*	*0*	0	*0*	0	*0*	0	*0*	0		
PTX06-ISB051	*0*	*0*	0	*0*	0	*0*	0	*0*	0		
TOTAL	***37,336***	***48,357***	**50,854**	***699,515***	**724,073**	***77,724***	**101,505**	***777,239***	**825,578**		

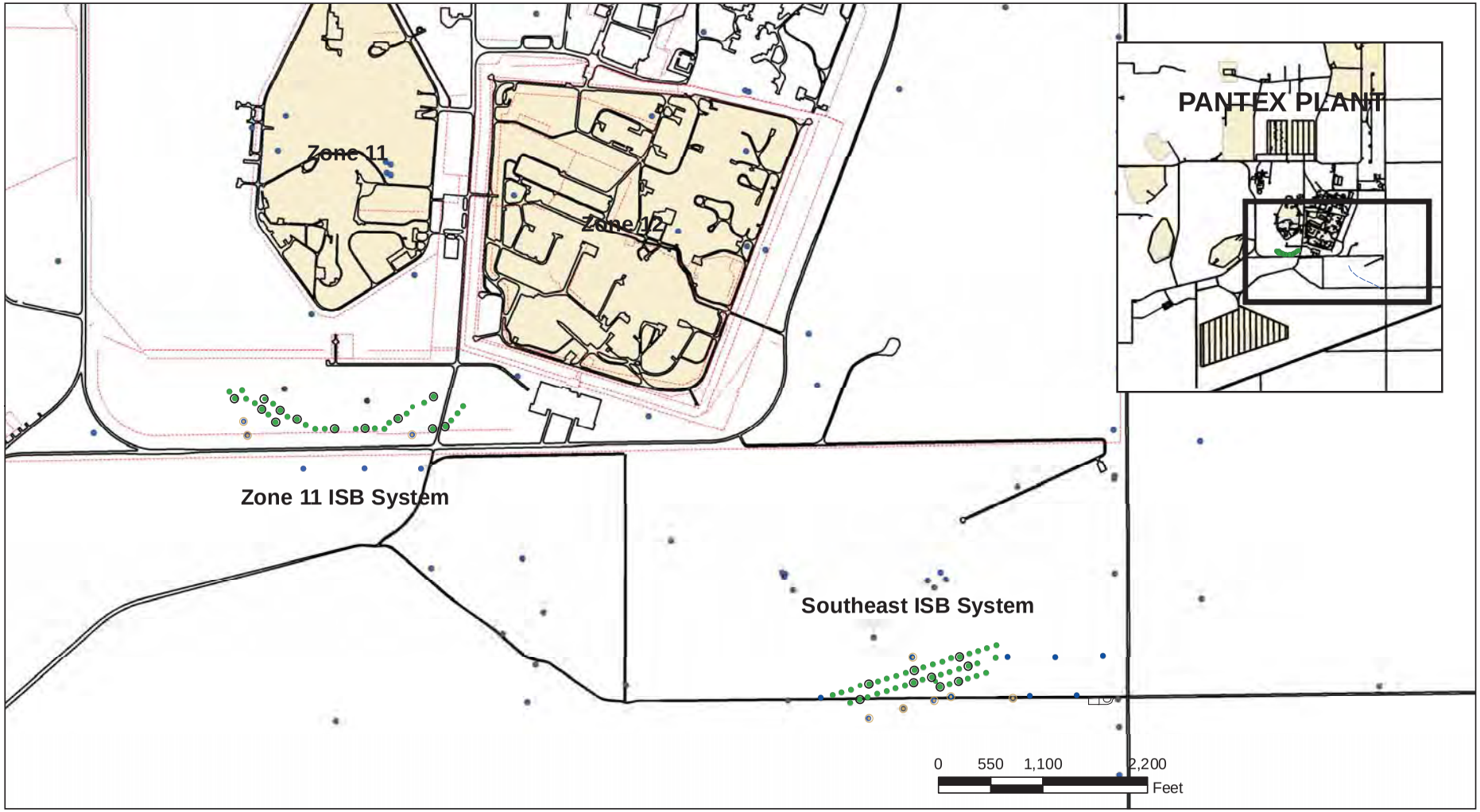
Note: Targets shown in italics, actual injected volumes in plain text. Amendment concentration calculated by dividing the volume of pure amendment by the volume of mixed amendment.

TABLE 3. AMENDMENT SHIPPING AND QUALITY ASSURANCE SUMMARY
POST INJECTION REPORT - SOUTHEAST ISB SYSTEM
PANTEX ISB O&M, PO 5293

Tanker Number	Agmark Container Number	Seal Numbers	Date Delivered	Lot Number	Mass Delivered (lbs)	Volume Delivered (gal)	Supplier Laboratory Testing (pass/fail)	Secondary Parameters (in/out of range)	Truck Number	Notes and Initials of Field Personnel
(internal tracking)	(printed on tanker)	(printed on seals)		(printed on bill of lading)	(per scales at production facility)	(calculated from mass delivered)	(QAPP Table 1)	(QAPP Table 2)	(from delivery receipt)	
1	580314	0063637, 0063638, 0063639	7/29/2013	161851	46,900	5,685	Pass	In Range	N2324	JRS
2	580412	0063642, 0063643, 0063644	7/31/2013	161851	46,760	5,668	Pass	In Range	N2324	JRS
3	580423	0063746, 0063747	8/7/2013	162373	45,520	5,518	Pass	In Range	NDS2324	FJK
4	580719	0063680, 0063681, 0063749	8/9/2013	162373	43,280	5,246	Pass	In Range	NDS2324	JRS
5	580437	0060819, 0060822, 0060823	8/14/2013	162703	47,300	5,733	Pass	In Range	NDS2324	CR
6	580615	0060816, 0060817, 0060818	8/16/2013	162703	46,440	5,629	Pass	In Range	NDS2324	CR
7	580711	0060892, 0060893, 0060894	8/19/2013	163103	46,780	5,670	Pass	In Range	NDS2324	CR
8	580378	006087, 0060898, 0060899	8/21/2013	163103	46,780	5,670	Pass	In Range	NDS2324	CR
Totes 1-4	NA - Totes	NA - Banding intact on totes	8/26/2013	159591	8,400	1,018	Pass	In Range	R6392	FJK
Totes 5-14	NA - Totes	NA - Banding intact on totes	8/26/2013	159855	21,000	2,545	Pass	In Range	R6392	FJK
Total Received On-Site					**399,160**	**48,383**				

Note: Documentation of testing and shipping documents submitted with each amendment tanker/tote QA submittal and approved by Pantex prior to use. Another copy of these documents will be provided to Pantex during project close-out.

FIGURES



EXPLANATION

- ISB Injection Wells
- Pantex Monitoring Wells
- ISPM Wells
- Sampled Injection Wells
- Fences
- Roads
- Pantex Plant Zones

N

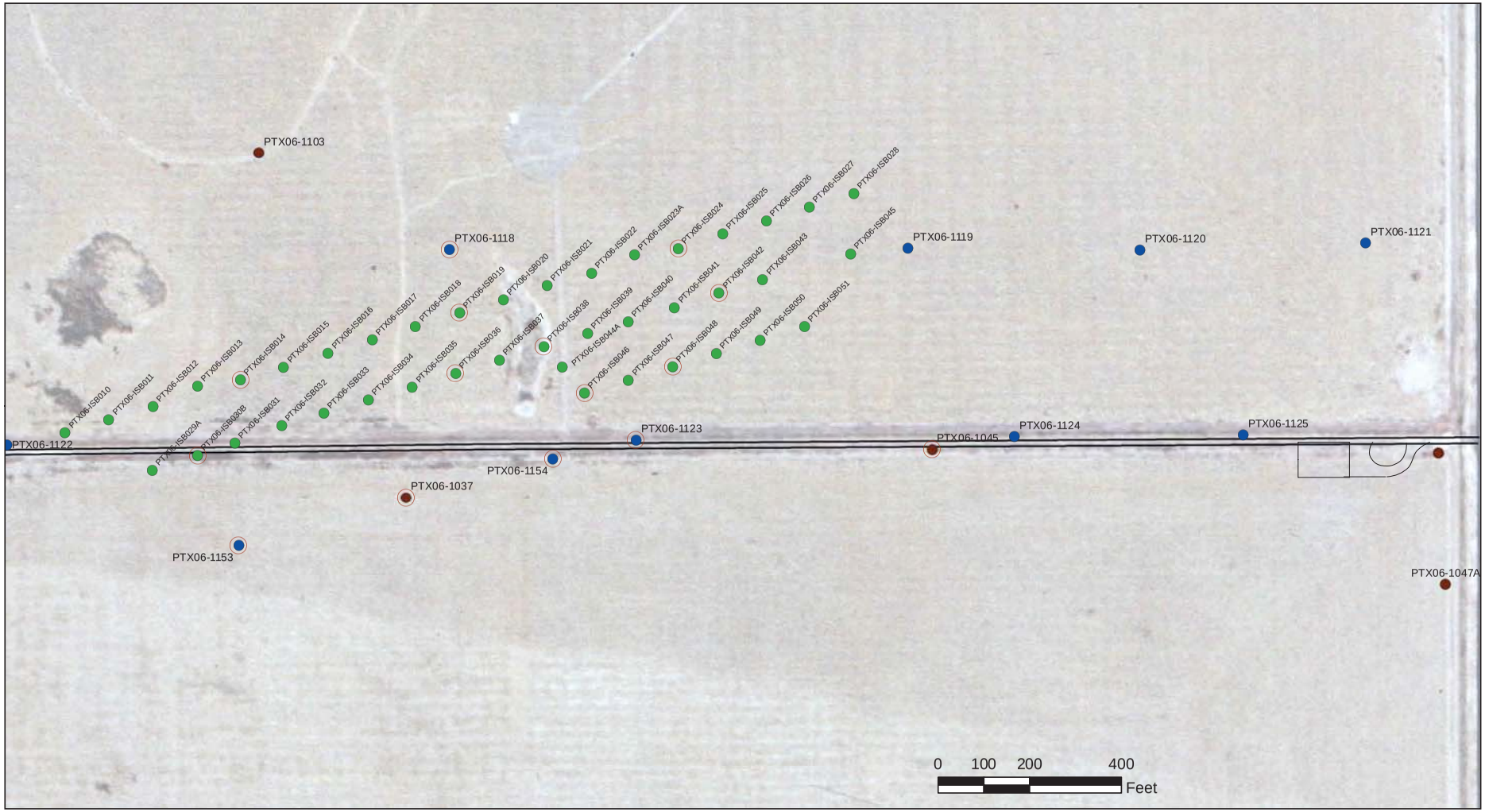
Trihydro
1252 Commerce Drive
Laramie, WY 82070
www.trihydro.com
(P) 307/745.7474 (F) 307/745.7729

FIGURE 1

PANTEX PLANT OVERVIEW

B&W PANTEX
IN-SITU BIOREMEDIATION O&M
PANTEX PLANT, AMARILLO, TEXAS

Drawn By: SJS	Checked By: FJK	Scale: 1" = 1,000'	Date: 09/05/12	File: Fig1_ISB_Layout.mxd



EXPLANATION

- ISB Injection Wells
- ISB Monitoring Wells
- Pantex Monitoring Wells
- ISPM Wells
- Fences
- Roads
- Pantex Plant Zones

N

Trihydro

1252 Commerce Drive
Laramie, WY 82070
www.trihydro.com
(P) 307/745.7474 (F) 307/745.7729

FIGURE 2

SOUTHEAST ISB SYSTEM

B&W PANTEX
IN SITU BIOREMEDIATION O&M
PANTEX PLANT, AMARILLO, TEXAS

Drawn By: SJS	Checked By: FJK	Scale: 1" = 250'	Date: 06/22/12	File: Fig2_SE_ISBLayout.mxd

APPENDIX A

WASTE TRACKING FORMS

B&W Pantex

Index No. PX-2844
Page No. 1 of 1
Issue No. 011

Inventory Of Container At Waste Accumulation Site

(Reference WI 02.01.04.05.04, WI 02.01.04.05.05, WI 02.01.04.05.06, WI 02.01.04.05.07)

To have the container removed after container is full or when accumulation of waste has ended:
Plant personnel contact Waste Operations Department (WOD) at ext. 5449 and
fax completed form to fax ext. 7669.
Sub-Contractor personnel contact WOD Point of Contact at ext. 5534 and
fax completed form to ext. 6384
A copy of this form should accompany the container when picked up by WOD.

Complete the following:

Drum ID # 2013071780	Date Accumulation Started 8/1/2013
Container Type 55-gallon drum	Date Accumulation Ended 9/5/2013
Phone # 806-654-1070	Location Zone 11 South Well Field
Mail Drop n/a	Contact Jeremy Simons/Sarah Seitz

DATE	WASTE DESCRIPTION	35 ACCOUNT # OR MSDS # OR PEELABLE BARCODE #	BADGE #
9/5/2013	40-GALLONS OF WASTE ISB AMENDMENT AND RAINWATER FROM AUGUST 2013		64143

Inventory Of Container At Waste Accumulation Site

(Reference WI 02.01.04.05.04, WI 02.01.04.05.05, WI 02.01.04.05.06, WI 02.01.04.05.07)

To have the container removed after container is full or when accumulation of waste has ended:
Plant personnel contact Waste Operations Department (WOD) at ext. 5449 and
fax completed form to fax ext. 7669.
Sub-Contractor personnel contact WOD Point of Contact at ext. 5534 and
fax completed form to ext. 6384
A copy of this form should accompany the container when picked up by WOD.

Complete the following:

Drum ID # 2013071781	Date Accumulation Started 8/1/2013
Container Type 55-gallon drum	Date Accumulation Ended 9/5/2013
Phone # 806-654-1070	Location Zone 11 South Well Field
Mail Drop n/a	Contact Jeremy Simons/Sarah Seitz

DATE	WASTE DESCRIPTION	35 ACCOUNT # OR MSDS # OR PEELABLE BARCODE #	BADGE #
9/5/2013	40-GALLONS OF WASTE ISB AMENDMENT AND RAINWATER FROM AUGUST 2013		64143

B&W Pantex

Index No. PX-2844
Page No. 1 of 1
Issue No. 011

Inventory Of Container At Waste Accumulation Site

(Reference WI 02.01.04.05.04, WI 02.01.04.05.05, WI 02.01.04.05.06, WI 02.01.04.05.07)

To have the container removed after container is full or when accumulation of waste has ended:
Plant personnel contact Waste Operations Department (WOD) at ext. 5449 and
fax completed form to fax ext. 7669.
Sub-Contractor personnel contact WOD Point of Contact at ext. 5534 and
fax completed form to ext. 6384
A copy of this form should accompany the container when picked up by WOD.

Complete the following:

Drum ID # 2013061587	Date Accumulation Started 7/1/2013
Container Type 55-gallon drum	Date Accumulation Ended 9/5/2013
Phone # 806-654-1070	Location Zone 11 South Well Field
Mail Drop n/a	Contact Jeremy Simons/Sarah Seitz

DATE	WASTE DESCRIPTION	35 ACCOUNT # OR MSDS # OR PEELABLE BARCODE #	BADGE #
7/1-2013 TO 9/5/2013	40-GALLONS OF WASTE ISB AMENDMENT AND RAINWATER FROM JULY AND AUGUST 2013		64143

B&W Pantex

Index No. PX-2844
Page No. 1 of 1
Issue No. 011

Inventory Of Container At Waste Accumulation Site

(Reference WI 02.01.04.05.04, WI 02.01.04.05.05, WI 02.01.04.05.06, WI 02.01.04.05.07)

To have the container removed after container is full or when accumulation of waste has ended:
Plant personnel contact Waste Operations Department (WOD) at ext. 5449 and
fax completed form to fax ext. 7669.
Sub-Contractor personnel contact WOD Point of Contact at ext. 5534 and
fax completed form to ext. 6384
A copy of this form should accompany the container when picked up by WOD.

Complete the following:

Drum ID #	Date Accumulation Started 8/20/2013
Container Type Driller roll-off	Date Accumulation Ended 9/5/2013
Phone # 806-654-1070	Location Zone 11 South Well Field
Mail Drop n/a	Contact Jeremy Simons/Sarah Seitz

DATE	WASTE DESCRIPTION	35 ACCOUNT # OR MSDS # OR PEELABLE BARCODE #	BADGE #
8/20/2013 TO 9/5/2013	14 EMPTY LARGE PLASTIC BAGS THAT CONTAINED ISB AMENDMENT IN TRANSPORT		64143

APPENDIX B

AMENDMENT QA CHECKLIST AND DOCUMENTATION

AMENDMENT SUPPLY QUALITY ASSURANCE CHECKLIST
ISB O&M

Field Inspection										
TANKER #	AGMARK CONTAINER #	SEAL #s (from bill of lading)	DATE DELIVERED	LOT # (from lading)	MASS DELIVERED (lbs)	MASS DELIVERED (gals)	SUPPLIER LABORATORY TESTING (pass/fail)	Secondary Parmeters (in/out[2] of range)	TRUCK ID # (from Delivery Receipt)	Notes and Initials of Field Personnel
1	580314	0063637, 0063638, 0063639	7/29/2013	161851	46,900	5,685	Pass	In Range	N2324	JRS

Notes: This QA audit was performed by evaluating the suppliers internal QA data, the shippers bill of lading, and the shipping company's delivery receipt received by Trihydro in the field. All of these supporting documents are attached. The QA checks included review that the supplier's product met their internal standards (Supplier Laboratory Testing column), review that the truck number from the supplier matched that of the shipper's delivery receipt (Truck ID # column), and that the mass of amendment loaded out equaled that ordered.

[1]Detect above detection limit, but within acceptable range.

[2]Out of range discuss with PSTR

	name	signature	date
Reviewer	S. Seitz		2013July30
Project Manager	D. Gravelding		2013July30

RNAS
REMEDIATION & NATURAL ATTENUATION SERVICES, INC.

Innovative Remediation Products and Services

Lot Number:	161851	**Truck Numbers:**	580314
Date Processed:	7/21/2013	**Date of Load Out:**	7/25/2013
Formulation:	190-6730	**Net Emulsion Weight:**	46,900

AMENDMENT PASS/FAIL CRITERIA

Test Parameter	Specification	Results	Method
Total Fat % weight	44.00-48.00%	47.48%	Mojonnier
Total Solids % weight	52.50-56.50%	53.70%	Mojonnier
Droplet Size	99.9% Droplets Smaller than 1.0 microns	99.9% less than 0.669 microns	Laser Particle Size
Droplet Size	99.9% Droplets Larger than 0.10 microns	99.9% larger than 0.115 microns	Laser Particle Size
Mean Droplet Size	0.20-0.40 microns	0.3250	Laser Particle Size
Median Droplet Size	0.20-0.40 microns	0.2000	Laser Particle Size

SECONDARY AMENDMENT PARAMETERS

Test Parameter	Specification	Results	Method
pH	7-9	8.5	pH Meter
Coliform	less than 5 cfu/ml	<5	Plate Count
Standard Plate Count	less than 100 cfu/ml	<100	Plate Count
Yeast	less than 1 cfu/ml	<1	Plate Count
Mold	less than 100 cfu/ml	<1	Plate Count

Certifcation

7/30/2013 [signature]

Date William Newman - President - Remediation and Natural Attenuation Services, Inc.

Ship note: 491127

Ship Run: 441114

Warehouse: GC

Galloway Company

601 S. Commercial St
Neenah, WI 54956-

Order Number: 470977

Printed: 07/25/2013 15:00:12

Uniform Straight Bill of Lading (& Packing Slip)

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper on request

Subject to Section 7 of Conditions of applicable bill of lading. If this shipment is to be delivered to the consignee without recourse on the consignor, the consignee shall sign the following statement:

The carrier may decline to make delivery of this shipment without payment of freight and all other lawful charges.

Carrier ID: Agmark Logistics LLC
222 2nd North Avenue
Suite 311
Nashville, TN 37201-

Phone: (615) 313-6588

Fax: (615) 313-6592

Freight charges are prepaid unless marked collect.

Received $_____ to apply in prepayment of the charges on the property described hereon.
Third Party

Consign to

D.O.E PANTEX PLANT
FM 2373 and Highway 60
Amarillo, TX 79120-
US

Customer Number: 11056
Ship-to-Address: 39
Customer Phone:
Customer PO: 635
Scheduled Ship: 7/25/13 12:00 pm
Delivery: 7/29/13 12:00 am

The property described below, in apparent good order, except as noted, (contents and condition of contents of packages unknown) marked, consigned, and destined as shown below, which said carrier agrees to carry to destination, if on its route, or otherwise to deliver to another carrier on the route to destination. Every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained which are hereby agreed to by the shipper and accepted for himself and his assigns.

FOODSTUFF	FOODSTUFF	FOODSTUFF		
Item	**Description**	**Lot Number**	**Ship Qty**	**UOM**
190-6730	NEWMAN ZONE NIB Bulk	161851 Kilograms: 21,273.70	46,900.00	LBS

Seal Numbers: 0063637,0063638,0063639
Seals verified and attached by: TM

Scale Tkt:	33174				
Gross Wgt:	76,880	Out	07/25/2013 14:45		
Tare Wgt:	29,980	In	07/25/2013 11:44	Tank:	T64
Net Wgt:	46,900	Tmp:	40 F	Mfg Date:	07/21/2013
Trailer:	580314	Last Haul:	lemon juice		

Plant Number: 55-0469
Prior to loading, this trailer was CIP washed at Galloway Company via turbulent force using these parameters: **Rinse:** 3 water 'burst' at 65-85 degrees F
Wash: 30% caustic at 140-150 degrees F, min of 20 minutes
Rinse: 3 water 'burst' at 90-110 degrees F
Sanitize: Mandate plus acid at 75-95 degrees F, min of 2 minutes
The tank interior, dome, lids, vents, pumps, valves, hoses, caps, fittings, and all gaskets have been cleaned, sanitized, and inspected. **INITIALS:** TM

Loaded by: TM

Date: 7-25-13

Carrier: AgMark

Driver: Wayne Rios

AMENDMENT SUPPLY QUALITY ASSURANCE CHECKLIST
ISB O&M

Field Inspection										
TANKER #	AGMARK CONTAINER #	SEAL #s (from bill of lading)	DATE DELIVERED	LOT # (from lading)	MASS DELIVERED (lbs)	MASS DELIVERED (gals)	SUPPLIER LABORATORY TESTING (pass/fail)	Secondary Parmeters (in/out[2] of range)	TRUCK ID # (from Delivery Receipt)	Notes and Initials of Field Personnel
2	580412	0063642, 0063643, 0063644	7/31/2013	161851	46,760	5,668	Pass	In Range	N2324	JRS

Notes: This QA audit was performed by evaluating the suppliers internal QA data, the shippers bill of lading, and the shipping company's delivery receipt received by Trihydro in the field. All of these supporting documents are attached. The QA checks included review that the supplier's product met their internal standards (Supplier Laboratory Testing column), review that the truck number from the supplier matched that of the shipper's delivery receipt (Truck ID # column), and that the mass of amendment loaded out equaled that ordered.

[1]Detect above detection limit, but within acceptable range.

[2]Out of range discuss with PSTR

	name	signature	date
Reviewer	S. Seitz		2013July31
Project Manager	D. Gravelding		2013July31

RNAS
REMEDIATION & NATURAL ATTENUATION SERVICES, INC.

Innovative Remediation Products and Services

Lot Number:	161851	**Truck Numbers:**	580412
Date Processed:	7/24/2013	**Date of Load Out:**	7/25/2013
Formulation:	190-6730	**Net Emulsion Weight:**	46,760

AMENDMENT PASS/FAIL CRITERIA

Test Parameter	Specification	Results	Method
Total Fat % weight	44.00-48.00%	47.37%	Mojonnier
Total Solids % weight	52.50-56.50%	54.16%	Mojonnier
Droplet Size	99.9% Droplets Smaller than 1.0 microns	99.9% less than 0.669 microns	Laser Particle Size
Droplet Size	99.9% Droplets Larger than 0.10 microns	99.9% larger than 0.115 microns	Laser Particle Size
Mean Droplet Size	0.20-0.40 microns	0.3250	Laser Particle Size
Median Droplet Size	0.20-0.40 microns	0.3200	Laser Particle Size

SECONDARY AMENDMENT PARAMETERS

Test Parameter	Specification	Results	Method
pH	7-9	8.49	pH Meter
Coliform	less than 5 cfu/ml	<5	Plate Count
Standard Plate Count	less than 100 cfu/ml	<100	Plate Count
Yeast	less than 1 cfu/ml	<1	Plate Count
Mold	less than 100 cfu/ml	<1	Plate Count

Certifcation

7/30/2013 William A. Newman

Date — William Newman - President - Remediation and Natural Attenuation Services, Inc.

Ship note: 491132
Ship Run: 441119
Warehouse: GC

Galloway Company
601 S. Commercial St.
Neenah, WI 54956-

Order Number: 470978
Printed: 07/25/2013 20:20:25

Uniform Straight Bill of Lading (& Packing Slip)

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper on request.

Subject to Section 7 of Conditions of applicable bill of lading. If this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement

The carrier may decline to make delivery of this shipment without payment of freight and all other lawful charges.

Carrier ID: Agmark Logistics LLC
222 2nd North Avenue
Suite 311
Nashville, TN 37201-

Phone: (615) 313-6588
Fax: (615) 313-6592

Freight charges are prepaid unless marked collect.

Received $_____ to apply in prepayment of the charges on the property described hereon.
Collect

Consign to

D.O.E PANTEX PLANT
FM 2373 and Highway 60
Amarillo, TX 79120-
US

Customer Number: 11056
Ship-to-Address: 39
Customer Phone:
Customer PO: 635
Scheduled Ship: 7/25/13 2:00 pm
Delivery: 7/29/13 12:00 am

The property described below, in apparent good order, except as noted, (contents and condition of contents of packages unknown) marked, consigned, and destined as shown below, which said carrier agrees to carry to destination, if on its route, or otherwise to deliver to another carrier on the route to destination. Every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained which are hereby agreed to by the shipper and accepted for himself and his assigns.

FOODSTUFF **FOODSTUFF** **FOODSTUFF**

Item	Description	Lot Number	Ship Qty	UOM
190-6730	NEWMAN ZONE NIB Bulk	161851 Kilograms: 21,210.20	46,760.00	LBS

Seal Numbers: 0063642,0063643,0063644
Seals verified and attached by: TM

Scale Tkt:	33176				
Gross Wgt:	76,020	Out : 07/25/2013 20:18			
Tare Wgt:	29,260	In : 07/25/2013 18:19		Tank:	T64
Net Wgt:	46,760	Tmp: 40 F		Mfg Date:	07/21/2013
Trailer:	580412	Last Haul: lemon juice			

Plant Number: 55-0469
Prior to loading, this trailer was CIP washed at Galloway Company via turbulent force using these parameters: **Rinse:** 3 water 'burst' at 65-85 degrees F
Wash: 30% caustic at 140-150 degrees F, min of 20 minutes
Rinse: 3 water 'burst' at 90-110 degrees F
Sanitize: Mandate plus acid at 75-95 degrees F, min of 2 minutes
The tank interior, dome, lids, vents, pumps, valves, hoses, caps, fittings, and all gaskets have been cleaned, sanitized, and inspected. **INITIALS:** TM

Loaded by: TM
Date: 7-25-13
Carrier: Agmark
Driver: [illegible]

AMENDMENT SUPPLY QUALITY ASSURANCE CHECKLIST
ISB O&M

Field Inspection										
TANKER #	AGMARK CONTAINER #	SEAL #s (from bill of lading)	DATE DELIVERED	LOT # (from lading)	MASS DELIVERED (lbs)	MASS DELIVERED (gals)	SUPPLIER LABORATORY TESTING (pass/fail)	Secondary Parmeters (in/out[2] of range)	TRUCK ID # (from Delivery Receipt)	Notes and Initials of Field Personnel
3	580423	0063746, 0063747	8/7/2013	162373	45,520	5,518	Pass	In Range	NDS2324	FJK

Notes: This QA audit was performed by evaluating the suppliers internal QA data, the shippers bill of lading, and the shipping company's delivery receipt received by Trihydro in the field. All of these supporting documents are attached. The QA checks included review that the supplier's product met their internal standards (Supplier Laboratory Testing column), review that the truck number from the supplier matched that of the shipper's delivery receipt (Truck ID # column), and that the mass of amendment loaded out equaled that ordered.

[1]Detect above detection limit, but within acceptable range.

[2]Out of range discuss with PSTR

TBD = To be determined when delivered

	name	signature	date
Reviewer	S. Seitz		2013Aug07
Project Manager	D. Gravelding		2013Aug07

RNAS
REMEDIATION & NATURAL ATTENUATION SERVICES, INC.

Innovative Remediation Products and Services

Lot Number:	162373	**Truck Numbers:**	580423
Date Processed:	7/31/2013	**Date of Load Out:**	8/1/2013
Formulation:	190-6730	**Net Emulsion Weight:**	45,520

AMENDMENT PASS/FAIL CRITERIA

Test Parameter	Specification	Results	Method
Total Fat % weight	44.00-48.00%	47.69%	Mojonnier
Total Solids % weight	52.50-56.50%	54.40%	Mojonnier
Droplet Size	99.9% Droplets Smaller than 1.0 microns	99.9% less than 0.669 microns	Laser Particle Size
Droplet Size	99.9% Droplets Larger than 0.10 microns	99.9% larger than 0.115 microns	Laser Particle Size
Mean Droplet Size	0.20-0.40 microns	0.3180	Laser Particle Size
Median Droplet Size	0.20-0.40 microns	0.3130	Laser Particle Size

SECONDARY AMENDMENT PARAMETERS

Test Parameter	Specification	Results	Method
pH	7-9	8.64	pH Meter
Coliform	less than 5 cfu/ml	<5	Plate Count
Standard Plate Count	less than 100 cfu/ml	<100	Plate Count
Yeast	less than 1 cfu/ml	<1	Plate Count
Mold	less than 100 cfu/ml	<1	Plate Count

Certifcation

8/7/2013 William A Newman

Date — William Newman - President - Remediation and Natural Attenuation Services, Inc.

Ship note: 491196
Ship Run: 441181
Warehouse: GC

Galloway Company
601 S. Commercial St.
Neenah, WI 54956-

Order Number: 471135
Printed: 08/01/2013 20:49:47

Uniform Straight Bill of Lading (& Packing Slip)

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper on request.

Subject to Section 7 of Conditions of applicable bill of lading. If this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:

The carrier may decline to make delivery of this shipment without payment of freight and all other lawful charges.

Carrier ID: Agmark Logistics LLC
222 2nd North Avenue
Suite 311
Nashville, TN 37201-

Phone: (615) 313-6588
Fax: (615) 313-6592

Freight charges are prepaid unless marked collect.

Received $_____ to apply in prepayment of the charges on the property described hereon.
Collect

Consign to

D.O.E PANTEX PLANT
FM 2373 and Highway 60
Amarillo, TX 79120-
US

Customer Number: 11056
Ship-to-Address: 39
Customer Phone:
Customer PO: 636
Scheduled Ship: 8/1/13 12:00 pm
Delivery: 8/1/13 12:00 am

The property described below, in apparent good order, except as noted, (contents and condition of contents of packages unknown) marked, consigned, and destined as shown below, which said carrier agrees to carry to destination, if on its route, or otherwise to deliver to another carrier on the route to destination. Every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained which are hereby agreed to by the shipper and accepted for himself and his assigns.

FOODSTUFF **FOODSTUFF** **FOODSTUFF**

Item	Description	Lot Number	Ship Qty	UOM
190-6730	NEWMAN ZONE NIB Bulk	162373 Kilograms: 20,647.74	45,520.00	LBS

Seal Numbers: 0063746,0063747
Seals verified and attached by: JK

Scale Tkt:	**33350**				
Gross Wgt:	**75,420**	**Out** : 08/01/2013 20:48			
Tare Wgt:	**29,900**	**In** : 08/01/2013 15:11		**Tank:**	T68
Net Wgt:	**45,520**	**Tmp:** 40 F		**Mfg Date:**	07/31/2013
Trailer:	**580423**	**Last Haul:** lemonjuice			

Plant Number: 55-0469
Prior to loading, this trailer was CIP washed at Galloway Company via turbulent force using these parameters: **Rinse:** 3 water 'burst' at 65-85 degrees F
Wash: 30% caustic at 140-150 degrees F, min of 20 minutes
Rinse: 3 water 'burst' at 90-110 degrees F
Sanitize: Mandate plus acid at 75-95 degrees F, min of 2 minutes
The tank interior, dome, lids, vents, pumps, valves, hoses, caps, fittings, and all gaskets have been cleaned, sanitized, and inspected. **INITIALS:** JK

Loaded by: [signature]
Carrier: Agmark
Date: 8-1-13
Driver: Shady Truitt

AMENDMENT SUPPLY QUALITY ASSURANCE CHECKLIST
ISB O&M

Field Inspection										
TANKER #	AGMARK CONTAINER #	SEAL #s (from bill of lading)	DATE DELIVERED	LOT # (from lading)	MASS DELIVERED (lbs)	MASS DELIVERED (gals)	SUPPLIER LABORATORY TESTING (pass/fail)	Secondary Parmeters (in/out[2] of range)	TRUCK ID # (from Delivery Receipt)	Notes and Initials of Field Personnel
4	580719	0063680, 0063681, 0063749	8/9/2013	162373	43,280	5,246	Pass	In Range	NDS2324	JRS

Notes: This QA audit was performed by evaluating the suppliers internal QA data, the shippers bill of lading, and the shipping company's delivery receipt received by Trihydro in the field. All of these supporting documents are attached. The QA checks included review that the supplier's product met their internal standards (Supplier Laboratory Testing column), review that the truck number from the supplier matched that of the shipper's delivery receipt (Truck ID # column), and that the mass of amendment loaded out equaled that ordered.

[1]Detect above detection limit, but within acceptable range.

[2]Out of range discuss with PSTR

TBD = To be determined when delivered

	name	signature	date
Reviewer	S. Seitz		2013Aug09
Project Manager	D. Gravelding		2013Aug09

RNAS
REMEDIATION & NATURAL ATTENUATION SERVICES, INC.

Innovative Remediation Products and Services

Lot Number:	162373	**Truck Numbers:**	580719
Date Processed:	7/31/2013	**Date of Load Out:**	8/1/2013
Formulation:	190-6730	**Net Emulsion Weight:**	43,280

AMENDMENT PASS/FAIL CRITERIA

Test Parameter	Specification	Results	Method
Total Fat % weight	44.00-48.00%	47.46%	Mojonnier
Total Solids % weight	52.50-56.50%	54.45%	Mojonnier
Droplet Size	99.9% Droplets Smaller than 1.0 microns	99.9% less than 0.669 microns	Laser Particle Size
Droplet Size	99.9% Droplets Larger than 0.10 microns	99.9% larger than 0.115 microns	Laser Particle Size
Mean Droplet Size	0.20-0.40 microns	0.3180	Laser Particle Size
Median Droplet Size	0.20-0.40 microns	0.3130	Laser Particle Size

SECONDARY AMENDMENT PARAMETERS

Test Parameter	Specification	Results	Method
pH	7-9	8.71	pH Meter
Coliform	less than 5 cfu/ml	<5	Plate Count
Standard Plate Count	less than 100 cfu/ml	<100	Plate Count
Yeast	less than 1 cfu/ml	<1	Plate Count
Mold	less than 100 cfu/ml	<1	Plate Count

Certifcation

8/7/2013 William Newman

Date William Newman - President - Remediation and Natural Attenuation Services, Inc.

Ship note: 491197
Ship Run: 441182
Warehouse: GC

Galloway Company
601 S. Commercial St.
Neenah, WI 54956-

Order Number: 471136
Printed: 08/01/2013 22:36:22

Uniform Straight Bill of Lading (& Packing Slip)

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper on request.

Subject to Section 7 of Conditions of applicable bill of lading. If this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:

The carrier may decline to make delivery of this shipment without payment of freight and all other lawful charges.

Carrier ID: Agmark Logistics LLC
222 2nd North Avenue
Suite 311
Nashville, TN 37201-

Phone: (615) 313-6588
Fax: (615) 313-6592

Freight charges are prepaid unless marked collect.

Received $_____ to apply in prepayment of the charges on the property described hereon.
Collect

Consign to

D.O.E PANTEX PLANT
FM 2373 and Highway 60
Amarillo, TX 79120-
US

Customer Number: 11056
Ship-to-Address: 39
Customer Phone:
Customer PO: 636
Scheduled Ship: 8/1/13 2:00 pm
Delivery: 8/1/13 12:00 am

The property described below, in apparent good order, except as noted, (contents and condition of contents of packages unknown) marked, consigned, and destined as shown below, which said carrier agrees to carry to destination, if on its route, or otherwise to deliver to another carrier on the route to destination. Every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained which are hereby agreed to by the shipper and accepted for himself and his assigns.

FOODSTUFF		FOODSTUFF	FOODSTUFF	
Item	**Description**	**Lot Number**	**Ship Qty**	**UOM**
190-6730	NEWMAN ZONE NIB Bulk	162373 Kilograms: 19,631.68	43,280.00	LBS

Seal Numbers: 0063680,0063681,0063749
Seals verified and attached by: JL

Scale Tkt:	33349				
Gross Wgt:	75,420	**Out** : 08/01/2013 20:48			
Tare Wgt:	32,140	**In** : 08/01/2013 18:15		**Tank:**	T68
Net Wgt:	43,280	**Tmp:** 40 F		**Mfg Date:**	07/31/2013
Trailer:	580719	**Last Haul:** applejuice			

Plant Number: 55-0469
Prior to loading, this trailer was CIP washed at Galloway Company via turbulent force using these parameters: **Rinse:** 3 water 'burst' at 65-85 degrees F
Wash: 30% caustic at 140-150 degrees F, min of 20 minutes
Rinse: 3 water 'burst' at 90-110 degrees F
Sanitize: Mandate plus acid at 75-95 degrees F, min of 2 minutes
The tank interior, dome, lids, vents, pumps, valves, hoses, caps, fittings, and all gaskets have been cleaned, sanitized, and inspected. **INITIALS:** JL

Loaded by: _____ **Date:** 8-1-13
Carrier: Agmark **Driver:** _____

AMENDMENT SUPPLY QUALITY ASSURANCE CHECKLIST
ISB O&M

Field Inspection										
TANKER #	AGMARK CONTAINER #	SEAL #s (from bill of lading)	DATE DELIVERED	LOT # (from lading)	MASS DELIVERED (lbs)	MASS DELIVERED (gals)	SUPPLIER LABORATORY TESTING (pass/fail)	Secondary Parameters (in/out[2] of range)	TRUCK ID # (from Delivery Receipt)	Notes and Initials of Field Personnel
5	580437	0060819, 0060822, 0060823	8/14/2013	162703	47,300	5,733	Pass	In Range	NDS2324	CR

Notes: This QA audit was performed by evaluating the suppliers internal QA data, the shippers bill of lading, and the shipping company's delivery receipt received by Trihydro in the field. All of these supporting documents are attached. The QA checks included review that the supplier's product met their internal standards (Supplier Laboratory Testing column), review that the truck number from the supplier matched that of the shipper's delivery receipt (Truck ID # column), and that the mass of amendment loaded out equaled that ordered.

[1]Detect above detection limit, but within acceptable range.

[2]Out of range - Notified PSTR on May 21, 2013 that SPC is just above the criteria for CFU. QA/QC plan does not require NCR until 25% of product is out of range. Advise using as-is.

TBD = To be determined when delivered

	name	signature	date
Reviewer	S. Seitz		2013Aug14
Project Manager	D. Gravelding		2013Aug14

RNAS
REMEDIATION & NATURAL ATTENUATION SERVICES, INC.

Innovative Remediation Products and Services

Lot Number:	162703	**Truck Numbers:**	580437
Date Processed:	8/5/2013	**Date of Load Out:**	8/8/203
Formulation:	190-6730	**Net Emulsion Weight:**	47,300

AMENDMENT PASS/FAIL CRITERIA

Test Parameter	Specification	Results	Method
Total Fat % weight	**44.00-48.00%**	47.38%	Mojonnier
Total Solids % weight	**52.50-56.50%**	55.25%	Mojonnier
Droplet Size	**99.9% Droplets Smaller than 1.0 microns**	99.9% less than 0.584 microns	Laser Particle Size
Droplet Size	**99.9% Droplets Larger than 0.10 microns**	99.9% larger than 0.115 microns	Laser Particle Size
Mean Droplet Size	**0.20-0.40 microns**	0.3080	Laser Particle Size
Median Droplet Size	**0.20-0.40 microns**	0.3030	Laser Particle Size

SECONDARY AMENDMENT PARAMETERS

Test Parameter	Specification	Results	Method
pH	**7-9**	8.57	pH Meter
Coliform	**less than 5 cfu/ml**	<5	Plate Count
Standard Plate Count	**less than 100 cfu/ml**	100	Plate Count
Yeast	**less than 1 cfu/ml**	<1	Plate Count
Mold	**less than 100 cfu/ml**	<1	Plate Count

Certifcation

8/13/2013 William A Newman

Date William Newman - President - Remediation and Natural Attenuation Services, Inc.

Ship note: 491266
Ship Run: 441251
Warehouse: GC

Galloway Company
601 S. Commercial St.
Neenah, WI 54956-

Order Number: 471140
Printed: 08/08/2013 16:38:56

Uniform Straight Bill of Lading (& Packing Slip)

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper on request.

Subject to Section 7 of Conditions of applicable bill of lading. If this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:

The carrier may decline to make delivery of this shipment without payment of freight and all other lawful charges.

Carrier ID: Agmark Logistics LLC
222 2nd North Avenue
Suite 311
Nashville, TN 37201-

Phone: (615) 313-6588
Fax: (615) 313-6592

Freight charges are prepaid unless marked collect.

Received $_____ to apply in prepayment of the charges on the property described hereon.
Collect

Consign to

D.O.E PANTEX PLANT
FM 2373 and Highway 60
Amarillo, TX 79120-
US

Customer Number: 11056
Ship-to-Address: 39
Customer Phone:
Customer PO: 637
Scheduled Ship: 8/8/13 12:00 pm
Delivery: 8/8/13 12:00 am

The property described below, in apparent good order, except as noted, (contents and condition of contents of packages unknown) marked, consigned, and destined as shown below, which said carrier agrees to carry to destination, if on its route, or otherwise to deliver to another carrier on the route to destination. Every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained which are hereby agreed to by the shipper and accepted for himself and his assigns.

FOODSTUFF **FOODSTUFF** **FOODSTUFF**

Item	Description	Lot Number	Ship Qty	UOM
190-6730	NEWMAN ZONE NIB Bulk	162703 Kilograms: 21,455.14	47,300.00	LBS

Seal Numbers: 0060819,0060822,0060823
Seals verified and attached by:_____

Scale Tkt:	33530				
Gross Wgt:	77,700	Out :	08/08/2013 16:36		
Tare Wgt:	30,400	In :	08/08/2013 14:31	Tank:	T65
Net Wgt:	47,300	Tmp:	41 F	Mfg Date:	08/05/2013
Trailer:	580437	Last Haul:	liqoer		

Plant Number: 55-0469
Prior to loading, this trailer was CIP washed at Galloway Company via turbulent force using these parameters: **Rinse:** 3 water 'burst' at 65-85 degrees F
Wash: 30% caustic at 140-150 degrees F, min of 20 minutes
Rinse: 3 water 'burst' at 90-110 degrees F
Sanitize: Mandate plus acid at 75-95 degrees F, min of 2 minutes
The tank interior, dome, lids, vents, pumps, valves, hoses, caps, fittings, and all gaskets have been cleaned, sanitized, and inspected. **INITIALS:**_____

Loaded by:_____ **Date:** 8-8-13
Carrier: Agmark **Driver:** Wayne Dunn

AMENDMENT SUPPLY QUALITY ASSURANCE CHECKLIST
ISB O&M

Field Inspection										
TANKER #	AGMARK CONTAINER #	SEAL #s (from bill of lading)	DATE DELIVERED	LOT # (from lading)	MASS DELIVERED (lbs)	MASS DELIVERED (gals)	SUPPLIER LABORATORY TESTING (pass/fail)	Secondary Parameters (in/out[2] of range)	TRUCK ID # (from Delivery Receipt)	Notes and Initials of Field Personnel
5	580615	0060816, 0060817, 0060818	8/13/2013	162703	46,440	5,629	Pass	In Range	NDS2324	CR

Notes: This QA audit was performed by evaluating the suppliers internal QA data, the shippers bill of lading, and the shipping company's delivery receipt received by Trihydro in the field. All of these supporting documents are attached. The QA checks included review that the supplier's product met their internal standards (Supplier Laboratory Testing column), review that the truck number from the supplier matched that of the shipper's delivery receipt (Truck ID # column), and that the mass of amendment loaded out equaled that ordered.

[1]Detect above detection limit, but within acceptable range.

[2]Out of range - Notified PSTR on August 13, 2013 that SPC is just above the criteria for CFU. QA/QC plan does not require NCR until 25% of product is out of range. Advise using as-is.

TBD = To be determined when delivered

	name	signature	date
Reviewer	S. Seitz		2013Aug13
Project Manager	D. Gravelding		2013Aug13

RNAS
REMEDIATION & NATURAL ATTENUATION SERVICES, INC.

Innovative Remediation Products and Services

Lot Number:	162703	**Truck Numbers:**	580615
Date Processed:	8/5/2013	**Date of Load Out:**	8/8/203
Formulation:	190-6730	**Net Emulsion Weight:**	46,440

AMENDMENT PASS/FAIL CRITERIA

Test Parameter	Specification	Results	Method
Total Fat % weight	44.00-48.00%	47.85%	Mojonnier
Total Solids % weight	52.50-56.50%	55.10%	Mojonnier
Droplet Size	99.9% Droplets Smaller than 1.0 microns	99.9% less than 0.584 microns	Laser Particle Size
Droplet Size	99.9% Droplets Larger than 0.10 microns	99.9% larger than 0.115 microns	Laser Particle Size
Mean Droplet Size	0.20-0.40 microns	0.3080	Laser Particle Size
Median Droplet Size	0.20-0.40 microns	0.3030	Laser Particle Size

SECONDARY AMENDMENT PARAMETERS

Test Parameter	Specification	Results	Method
pH	7-9	8.58	pH Meter
Coliform	less than 5 cfu/ml	<5	Plate Count
Standard Plate Count	less than 100 cfu/ml	<100	Plate Count
Yeast	less than 1 cfu/ml	<1	Plate Count
Mold	less than 100 cfu/ml	<1	Plate Count

Certifcation

8/13/2013 William A Newman

Date William Newman - President - Remediation and Natural Attenuation Services, Inc.

Ship note: 491264
Ship Run: 441249
Warehouse: GC

Galloway Company
601 S. Commercial St.
Neenah, WI 54956-

Order Number: 471139
Printed: 08/08/2013 14:11:23

Uniform Straight Bill of Lading (& Packing Slip)

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper on request.

Subject to Section 7 of Conditions of applicable bill of lading. If this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:

The carrier may decline to make delivery of this shipment without payment of freight and all other lawful charges.

Carrier ID: Agmark Logistics LLC
222 2nd North Avenue
Suite 311
Nashville, TN 37201-

Phone: (615) 313-6588
Fax: (615) 313-6592

Freight charges are prepaid unless marked collect.

Received $_____ to apply in prepayment of the charges on the property described hereon.
Collect

Consign to

D.O.E PANTEX PLANT
FM 2373 and Highway 60
Amarillo, TX 79120-
US

Customer Number: 11056
Ship-to-Address: 39
Customer Phone:
Customer PO: 637
Scheduled Ship: 8/8/13 10:00 am
Delivery: 8/8/13 12:00 am

The property described below, in apparent good order, except as noted, (contents and condition of contents of packages unknown) marked, consigned, and destined as shown below, which said carrier agrees to carry to destination, if on its route, or otherwise to deliver to another carrier on the route to destination. Every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained which are hereby agreed to by the shipper and accepted for himself and his assigns.

FOODSTUFF **FOODSTUFF** **FOODSTUFF**

Item	Description	Lot Number	Ship Qty	UOM
190-6730	NEWMAN ZONE NIB Bulk	162703 Kilograms: 21,065.05	46,440.00	LBS

Seal Numbers: 0060816,0060817,0060818
Seals verified and attached by:_____

Scale Tkt:	33531				
Gross Wgt:	76,640	Out :	08/08/2013 14:09		
Tare Wgt:	30,200	In :	08/08/2013 9:10	Tank:	T65
Net Wgt:	46,440	Tmp:	41 F	Mfg Date:	08/05/2013
Trailer:	580615	Last Haul:	apple juice		

Plant Number: 55-0469
Prior to loading, this trailer was CIP washed at Galloway Company via turbulent force using these parameters: **Rinse:** 3 water 'burst' at 65-85 degrees F
Wash: 30% caustic at 140-150 degrees F, min of 20 minutes
Rinse: 3 water 'burst' at 90-110 degrees F
Sanitize: Mandate plus acid at 75-95 degrees F, min of 2 minutes
The tank interior, dome, lids, vents, pumps, valves, hoses, caps, fittings, and all gaskets have been cleaned, sanitized, and inspected. **INITIALS:**_____

Loaded by:_____ **Date:** 8-8-13
Carrier:_____ **Driver:** Grady Truitt

AMENDMENT SUPPLY QUALITY ASSURANCE CHECKLIST
ISB O&M

Field Inspection										
TANKER #	AGMARK CONTAINER #	SEAL #s (from bill of lading)	DATE DELIVERED	LOT # (from lading)	MASS DELIVERED (lbs)	MASS DELIVERED (gals)	SUPPLIER LABORATORY TESTING (pass/fail)	Secondary Parameters (in/out[2] of range)	TRUCK ID # (from Delivery Receipt)	Notes and Initials of Field Personnel
7	580711	0060892, 0060893, 0060894	8/19/2013	163103	46,780	5,670	Pass	In Range	NDS2324	CR

Notes: This QA audit was performed by evaluating the suppliers internal QA data, the shippers bill of lading, and the shipping company's delivery receipt received by Trihydro in the field. All of these supporting documents are attached. The QA checks included review that the supplier's product met their internal standards (Supplier Laboratory Testing column), review that the truck number from the supplier matched that of the shipper's delivery receipt (Truck ID # column), and that the mass of amendment loaded out equaled that ordered.

[1]Detect above detection limit, but within acceptable range.

[2]Out of range discuss with PSTR

TBD = To be determined when delivered

	name	signature	date
Reviewer	S. Seitz		2013Aug20
Project Manager	D. Gravelding		2013Aug20

RNAS
REMEDIATION & NATURAL ATTENUATION SERVICES, INC.

Innovative Remediation Products and Services

Lot Number:	163103	**Truck Numbers:**	580711
Date Processed:	8/13/2013	**Date of Load Out:**	8/15/2013
Formulation:	190-6730	**Net Emulsion Weight:**	46,780

AMENDMENT PASS/FAIL CRITERIA

Test Parameter	Specification	Results	Method
Total Fat % weight	44.00-48.00%	47.52%	Mojonnier
Total Solids % weight	52.50-56.50%	53.79%	Mojonnier
Droplet Size	99.9% Droplets Smaller than 1.0 microns	99.9% less than 0.669 microns	Laser Particle Size
Droplet Size	99.9% Droplets Larger than 0.10 microns	99.9% larger than 0.115 microns	Laser Particle Size
Mean Droplet Size	0.20-0.40 microns	0.3290	Laser Particle Size
Median Droplet Size	0.20-0.40 microns	0.3240	Laser Particle Size

SECONDARY AMENDMENT PARAMETERS

Test Parameter	Specification	Results	Method
pH	7-9	8.61	pH Meter
Coliform	less than 5 cfu/ml	<5	Plate Count
Standard Plate Count	less than 100 cfu/ml	<100	Plate Count
Yeast	less than 1 cfu/ml	<1	Plate Count
Mold	less than 100 cfu/ml	<1	Plate Count

Certifcation

8/20/2013 William A Newman

Date William Newman - President - Remediation and Natural Attenuation Services, Inc.

Ship note: 491341
Ship Run: 441326
Warehouse: GC

Galloway Company
601 S. Commercial St.
Neenah, WI 54956-

Order Number: 471142
Printed: 08/15/2013 10:28:13

Uniform Straight Bill of Lading (& Packing Slip)

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper on request.

Subject to Section 7 of Conditions of applicable bill of lading. If this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:

The carrier may decline to make delivery of this shipment without payment of freight and all other lawful charges.

Carrier ID: Agmark Logistics LLC
222 2nd North Avenue
Suite 311
Nashville, TN 37201-

Phone: (615) 313-6588
Fax: (615) 313-6592

Freight charges are prepaid unless marked collect.

Received $_____ to apply in prepayment of the charges on the property described hereon.
Collect

Consign to

D.O.E PANTEX PLANT
FM 2373 and Highway 60
Amarillo, TX 79120-
US

Customer Number: 11056
Ship-to-Address: 39
Customer Phone:
Customer PO: 638
Scheduled Ship: 8/15/13 10:00 am
Delivery: 8/15/13 12:00 am

The property described below, in apparent good order, except as noted, (contents and condition of contents of packages unknown) marked, consigned, and destined as shown below, which said carrier agrees to carry to destination, if on its route, or otherwise to deliver to another carrier on the route to destination. Every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained which are hereby agreed to by the shipper and accepted for himself and his assigns.

FOODSTUFF	FOODSTUFF	FOODSTUFF		
Item	**Description**	**Lot Number**	**Ship Qty**	**UOM**
190-6730	NEWMAN ZONE NIB Bulk	163103 Kilograms: 21,219.27	46,780.00	LBS

Seal Numbers: 0060892,0060893,0060894
Seals verified and attached by:_____

Scale Tkt:	**33684**				
Gross Wgt:	**76,660**	**Out** : 08/15/2013	10:26		
Tare Wgt:	**29,880**	**In** : 08/15/2013	8:30	**Tank:**	T64
Net Wgt:	**46,780**	**Tmp:** 42 F		**Mfg Date:**	08/13/2013
Trailer:	**580711**	**Last Haul:** grape fruit			

Plant Number: 55-0469
Prior to loading, this trailer was CIP washed at Galloway Company via turbulent force using these parameters: **Rinse:** 3 water 'burst' at 65-85 degrees F
Wash: 30% caustic at 140-150 degrees F, min of 20 minutes
Rinse: 3 water 'burst' at 90-110 degrees F
Sanitize: Mandate plus acid at 75-95 degrees F, min of 2 minutes
The tank interior, dome, lids, vents, pumps, valves, hoses, caps, fittings, and all gaskets have been cleaned, sanitized, and inspected. **INITIALS:**_____

Loaded by:_____ **Date:** 8/15/13
Carrier: Agmark **Driver:** Grady Truett

AMENDMENT SUPPLY QUALITY ASSURANCE CHECKLIST
ISB O&M

Field Inspection										
TANKER #	AGMARK CONTAINER #	SEAL #s (from bill of lading)	DATE DELIVERED	LOT # (from lading)	MASS DELIVERED (lbs)	MASS DELIVERED (gals)	SUPPLIER LABORATORY TESTING (pass/fail)	Secondary Parameters (in/out[2] of range)	TRUCK ID # (from Delivery Receipt)	Notes and Initials of Field Personnel
8	580378	006087, 0060898, 0060899	8/21/2013	163103	46,780	5,670	Pass	In Range	NDS2324	CR

Notes: This QA audit was performed by evaluating the suppliers internal QA data, the shippers bill of lading, and the shipping company's delivery receipt received by Trihydro in the field.
All of these supporting documents are attached. The QA checks included review that the supplier's product met their internal standards (Supplier Laboratory Testing column),
review that the truck number from the supplier matched that of the shipper's delivery receipt (Truck ID # column), and that the mass of amendment loaded out equaled that ordered.

[1]Detect above detection limit, but within acceptable range.

[2]Out of range discuss with PSTR

[3] Field confirmation with FJK/JWR on May 31, 2013 confirmed that the tanker actually had 3 seals, not just two as BOL indicates. Numbers are numerical in order and verbal confirmation with RNAS on May 31, 2013 agreed that it is an omission on the BOL.

TBD = To be determined when delivered

	name	signature	date
Reviewer	S. Seitz		2013Aug21
Project Manager	D. Gravelding		2013Aug21

RNAS
REMEDIATION & NATURAL ATTENUATION SERVICES, INC.

Innovative Remediation Products and Services

Lot Number:	163103	**Truck Numbers:**	580378
Date Processed:	8/13/2013	**Date of Load Out:**	8/15/2013
Formulation:	190-6730	**Net Emulsion Weight:**	46,780

AMENDMENT PASS/FAIL CRITERIA

Test Parameter	Specification	Results	Method
Total Fat % weight	44.00-48.00%	47.46%	Mojonnier
Total Solids % weight	52.50-56.50%	53.76%	Mojonnier
Droplet Size	99.9% Droplets Smaller than 1.0 microns	99.9% less than 0.669 microns	Laser Particle Size
Droplet Size	99.9% Droplets Larger than 0.10 microns	99.9% larger than 0.115 microns	Laser Particle Size
Mean Droplet Size	0.20-0.40 microns	0.3290	Laser Particle Size
Median Droplet Size	0.20-0.40 microns	0.3240	Laser Particle Size

SECONDARY AMENDMENT PARAMETERS

Test Parameter	Specification	Results	Method
pH	7-9	8.58	pH Meter
Coliform	less than 5 cfu/ml	<5	Plate Count
Standard Plate Count	less than 100 cfu/ml	<100	Plate Count
Yeast	less than 1 cfu/ml	<1	Plate Count
Mold	less than 100 cfu/ml	<1	Plate Count

Certifcation

8/20/2013 [signature]

Date William Newman - President - Remediation and Natural Attenuation Services, Inc.

Ship note: 491343
Ship Run: 441328
Warehouse: GC

Galloway Company
601 S. Commercial St.
Neenah, WI 54956-

Order Number: 471143
Printed: 08/15/2013 13:24:42

Uniform Straight Bill of Lading (& Packing Slip)

Received, subject to individually determined rates or contracts that have been agreed upon in writing between the carrier and shipper, if applicable, otherwise to the rates, classifications, and rules that have been established by the carrier and are available to the shipper on request.

Subject to Section 7 of Conditions of applicable bill of lading. If this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:

The carrier may decline to make delivery of this shipment without payment of freight and all other lawful charges.

Carrier ID: Agmark Logistics LLC
222 2nd North Avenue
Suite 311
Nashville, TN 37201-

Phone: (615) 313-6588
Fax: (615) 313-6592

Freight charges are prepaid unless marked collect.

Received $_____ to apply in prepayment of the charges on the property described hereon.
Collect

Consign to

D.O.E PANTEX PLANT
FM 2373 and Highway 60
Amarillo, TX 79120-
US

Customer Number: 11056
Ship-to-Address: 39
Customer Phone:
Customer PO: 638
Scheduled Ship: 8/15/13 12:00 pm
Delivery: 8/15/13 12:00 am

The property described below, in apparent good order, except as noted, (contents and condition of contents of packages unknown) marked, consigned, and destined as shown below, which said carrier agrees to carry to destination, if on its route, or otherwise to deliver to another carrier on the route to destination. Every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained which are hereby agreed to by the shipper and accepted for himself and his assigns.

FOODSTUFF **FOODSTUFF** **FOODSTUFF**

Item	Description	Lot Number	Ship Qty	UOM
190-6730	NEWMAN ZONE NIB Bulk	163103 Kilograms: 21,219.27	46,780.00	LBS

Seal Numbers: 0060897,0060898,0060899
Seals verified and attached by: BLB

Scale Tkt:	33682				
Gross Wgt:	78,500	Out :	08/15/2013 13:22		
Tare Wgt:	31,720	In :	08/15/2013 11:48	Tank:	T64
Net Wgt:	46,780	Tmp:	42 F	Mfg Date:	08/13/2013
Trailer:	580378	Last Haul:	orange juice		

Plant Number: 55-0469
Prior to loading, this trailer was CIP washed at Galloway Company via turbulent force using these parameters: **Rinse:** 3 water 'burst' at 65-85 degrees F
Wash: 30% caustic at 140-150 degrees F, min of 20 minutes
Rinse: 3 water 'burst' at 90-110 degrees F
Sanitize: Mandate plus acid at 75-95 degrees F, min of 2 minutes
The tank interior, dome, lids, vents, pumps, valves, hoses, caps, fittings, and all gaskets have been cleaned, sanitized, and inspected. **INITIALS:** BLB

Loaded by: B. LeBlanc
Carrier: Agmark
Date: 8/15/13
Driver:

AMENDMENT SUPPLY QUALITY ASSURANCE CHECKLIST
ISB O&M

Field Inspection										
TOTE #	CONTAINER #	SEAL #s (from bill of lading)	DATE DELIVERED	LOT # (from lading)	MASS DELIVERED (lbs)	MASS DELIVERED (gals)	SUPPLIER LABORATORY TESTING (pass/fail)	Secondary Parameters (in/out[2] of range)	TRUCK ID # (from Delivery Receipt)	Notes and Initials of Field Personnel
1-4	NA - Totes	NA - Banding in tact on totes	8/26/2013	159591	8,400	1,018	Pass	In Range	R6392	FJK
5-14	NA - Totes	NA - Banding in tact on totes	8/26/2013	159855	21,000	2,545	Pass	In Range	R6392	FJK

Notes: This QA audit was performed by evaluating the suppliers internal QA data, the shippers bill of lading, and the shipping company's delivery receipt received by Trihydro in the field. All of these supporting documents are attached. The QA checks included review that the supplier's product met their internal standards (Supplier Laboratory Testing column), review that the truck number from the supplier matched that of the shipper's delivery receipt (Truck ID # column), and that the mass of amendment loaded out equaled that ordered.

[1]Detect above detection limit, but within acceptable range.

[2]Out of range - Notified via QA/QC on June 7, 2013 that yeast and Standard Plate Count (SPC) is just above the criteria for CFU. Tankers #5, #6, #9, and #10 were out of range and contain approximately 18% of the mass of ordered amendment. QA/QC plan does not require NCR until 25% of product is out of range. Advise using as-is.

TBD = To be determined when delivered

	name	signature	date
Reviewer	S. Seitz		2013August26
Project Manager	D. Gravelding		2013August26

RNAS
REMEDIATION & NATURAL ATTENUATION SERVICES, INC.

Innovative Remediation Products and Services

Lot Number: 159591
Date Processed: 6/11/2013
Formulation: 190-6730

Truck Numbers: Not Applicable - Totes Delivered
Date of Load Out: Packaged - 6/12/2013
Net Emulsion Weight: Net contents 2,100 pounds per tote

AMENDMENT PASS/FAIL CRITERIA

Test Parameter	Specification	Results	Method
Total Fat % weight	44.00-48.00%	47.87%	Mojonnier
Total Solids % weight	52.50-56.50%	55.23%	Mojonnier
Droplet Size	99.9% Droplets Smaller than 1.0 microns	99.9% less than 0.669 microns	Laser Particle Size
Droplet Size	99.9% Droplets Larger than 0.10 microns	99.9% larger than 0.115 microns	Laser Particle Size
Mean Droplet Size	0.20-0.40 microns	0.3230	Laser Particle Size
Median Droplet Size	0.20-0.40 microns	0.3180	Laser Particle Size

SECONDARY AMENDMENT PARAMETERS

Test Parameter	Specification	Results	Method
pH	7-9	8.54	pH Meter
Coliform	less than 5 cfu/ml	<5	Plate Count
Standard Plate Count	less than 100 cfu/ml	<100	Plate Count
Yeast	less than 1 cfu/ml	<1	Plate Count
Mold	less than 100 cfu/ml	<1	Plate Count

Certifcation

8/23/2013 [signature]

Date William Newman - President - Remediation and Natural Attenuation Services, Inc.

RNAS
REMEDIATION & NATURAL ATTENUATION SERVICES, INC.

Innovative Remediation Products and Services

Lot Number: 159855
Date Processed: 6/11/2013
Formulation: 190-6730

Truck Numbers: Not Applicable - Totes
Date of Load Out: Packaged 6/12/2013
Net Emulsion Weight: Net contents 2,100 pounds per tote

AMENDMENT PASS/FAIL CRITERIA

Test Parameter	Specification	Results	Method
Total Fat % weight	44.00-48.00%	47.49%	Mojonnier
Total Solids % weight	52.50-56.50%	54.23%	Mojonnier
Droplet Size	99.9% Droplets Smaller than 1.0 microns	99.9% less than 0.669 microns	Laser Particle Size
Droplet Size	99.9% Droplets Larger than 0.10 microns	99.9% larger than 0.131 microns	Laser Particle Size
Mean Droplet Size	0.20-0.40 microns	0.3480	Laser Particle Size
Median Droplet Size	0.20-0.40 microns	0.3410	Laser Particle Size

SECONDARY AMENDMENT PARAMETERS

Test Parameter	Specification	Results	Method
pH	7-9	8.58	pH Meter
Coliform	less than 5 cfu/ml	<5	Plate Count
Standard Plate Count	less than 100 cfu/ml	<100	Plate Count
Yeast	less than 1 cfu/ml	<1	Plate Count
Mold	less than 100 cfu/ml	<1	Plate Count

Certifcation

8/23/2013

Date — William Newman - President - Remediation and Natural Attenuation Services, Inc.

NORTHLAND COLD STORAGE, INC.
P.O. Box 11796
Green Bay, WI 54307-1796

B/L No: 93666
Page: 1
Printed: 8/23/2013 11:32:19

STRAIGHT BILL OF LADING/SHORT FORM-NOT NEGOTIABLE

AS TO ALL PARTIES HEREIN THIS CONTRACT IS SUBJECT TO THE TERMS AND CONDITIONS OF THE UNIFORM DOMESTIC STRAIGHT BILL OF LADING SET FORTH IN THE UNIFORM FREIGHT CLASSIFICATION TARIFF IN EFFECT ON THE DATE HEREOF. CARRIER ACKNOWLEDGES RECEIPT OF THE DESCRIBED ARTICLES (EXCEPT AS NOTED AND AS TO CONTENTS OF PACKAGES), AND SHALL DELIVER SAME TO THE DESCRIBED DESTINATION OR A CARRIER THAT WILL DELIVER TO THIS DESTINATION.

Carrier: LUBENOW EXPRESS, LLC **Ship Date:** 8/23/2013

Consigned to:

B&W PANTEX PLANT
FM 2373 & HIGHWAY 60
AMARILLO TX 79120
United States of America
Phone: 303-679-3143

Subject to Section 7 of Conditions of applicable bill of lading. If this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement: The Carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

NFS Doc Ref:	Consignee Order:	Ref Number:	Shippers PO:
		80612-0813	

Shipping Terms: PREPAID

Shipper: RNAS INC
6712 WEST RIVER ROAD
BROOKLYN CENTER MN 55430
United States of America

At: NORTHLAND COLD STORAGE - SB
2490 S. BROADWAY
GREEN BAY WI 54304
United States of America

Seals:

Instructions:

Quantity	Product Code	Description of Articles	Grs Wgt IN LB.	Net Wgt IN LB.
4	RNA~PYR6730T	NEWMAN ZONE BUFFERED NONIONIC TOTE [06.13.2013, 06.10.2013, 159591]	8832	8400
10	RNA~PYR6730T	NEWMAN ZONE BUFFERED NONIONIC TOTE [06.18.2013, 06.12.2013, 159855]	22080	21000
14	***TOTALS***		30912	29400

MAINTAIN AT 35.0 DEGREES F AT ALL TIMES

TRAILER: R6392

PROD. TEMP: Front:36.0 Middle:37.0 Tail:37.5

EXCEPTIONS:

PALLETS IN: 0 PALLETS OUT: 14 PALLET TYPE: 48 x 40 Four Way Pallet

This certifies that the description and gross weight of shipment shown hereon is correct and subject to verification by the WWIB, EWIB and SWIB. In signing this Bill of Lading the carrier or his agent hereby acknowledge the total weight shown herein is within the legal published carrying capacity of the carrier's equipment.

SHIPPER: RNAS INC **CARRIER:** LUBENOW EXPRESS, LLC

AGENT: NORTHLAND COLD STORAGE, INC.

Amanda Endsley

8/23/2013

Don Heemel

NORTHLAND COLD STORAGE, INC. P.O. Box 11796 Green Bay, WI 54307-1796	B/L No:	93666
	Page:	2
	Printed:	8/23/2013 11:32:19

AGENT'S SIGNATURE	DATE	CARRIER'S SIGNATURE

CLOSURE TURF™ INSTALLATION AT LANDFILL 1 (SWMU 68B)

CLOSEOUT REPORT

B&W PANTEX

PURCHASE ORDER NO. 25776

PANTEX PLANT, AMARILLO TEXAS

December 27, 2013

Project #: 18A-010-001

SUBMITTED BY: Trihydro Corporation

1252 Commerce Drive, Laramie, WY 82070

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List of Acronyms

AEG	American Environmental Group Ltd.
AHA	Activity Hazard Analysis
closure turf	Closure Turf™
Pantex	B&W Pantex, LLC
LLDPE	Linear Low density polyethylene
PE	Polyethylene
PM	Project Manager
PO	Purchase Order
ppi	Pounds per inch
PSTR	Project Subcontract Technical Representative
QA	Quality Assurance
QAPP	Quality Assurance Project Plan
QC	Quality Control
QCO	Quality Control Officer
QCT	Quality Control Technician
SWMU	Solid Waste Management Unit
RFP	Request for Proposal
SSO	Site Safety Officer
SWPPP	Storm Water Pollution Prevention Plan
Talon	Talon LPE
Trihydro	Trihydro Corporation
WP	Work Plan
WOD	Waste Operations Department

1.0 INTRODUCTION

Trihydro Corporation (Trihydro) performed this work in response to B&W Pantex (Pantex) Request for Proposal (RFP) No. 463, for the Closure Turf™ (closure turf) installation at Landfill 1, also known as Solid Waste Management Unit (SWMU) 68b under purchase Order (PO) 25776. The purpose of this work was to install a synthetic cover material at Landfill 1 to prevent wind and water erosion of the existing landfill cap. The existing landfill cap consists of 2 to 4 feet of clean borrow material. The closure turf system was installed using American Environmental Group (AEG) as the installation subcontractor, who is a certified installer of the closure turf product. This report addresses the closure turf installation, largely consisting of preparation work and installation work that was performed from September 24, 2013 through November 20, 2013.

This report covers the following completed activities and a brief description of each:

1. Mobilization and Site Access.
2. Clearing, Grubbing and Subgrade Preparation.
3. Anchor Trench Excavation.
4. Installation of the closure turf system.
5. Site Cleanup and Demobilization.

The team that assisted Trihydro in completing the scope of this project included:

- Talon LPE (Talon) – Site grubbing and backfill of low areas, anchor trench excavation and backfill.
- AEG – Installation of Closure Turf.
- Soil Express – Deployment of sand ballast layer over closure turf.

Key personnel responsible for this work included:

- Dan Gravelding, Project Manager
- Ken Schreuder, Technical Review and Direction
- Mike Bradford, SSO/Technical Support
- Jeremy Simons, SSO/Site Supervisor
- Sarah Seitz, Waste Manager
- Todd Forry, R.P.I.H, Health and Safety Manager

2.0 PRECONSTRUCTION SURVEY

Prior to mobilization to the site, Trihydro and the Pantex Subcontract Technical Representative (PSTR) walked the site and marked the limits of the existing landfill. The limit of the landfill was determined based on visual observation of topographic changes. The toe of the slope was flagged with pin flags and numbered. The Pantex surveyor then surveyed in the marked locations and transmitted the data to Trihydro. This data was input in to CADD and the area of the geometric shape was determined to be 137,420 square feet, as shown on Figure 1 of this report.

3.0 MOBILIZATION AND SITE ACCESS

Mobilization included the physical mobilization to the site, as well as the associated coordination effort to initiate field activities. Trihydro, Talon and AEG performed thorough inspections of the project equipment that was mobilized to the site to verify that it was clean and in safe working condition.

3.1 SECURITY REQUIREMENTS

Site access required for deliveries, visitors, and subcontractors was coordinated through the PSTR, Mr. Chad McGarry. The PSTR arranged for badges, guards, and site access for all Trihydro, contractor and subcontractor personnel. Contractor and subcontractor personnel were required to obtain access to the facility through a construction badge or a visitor's badge prior to entry onto the site.

3.2 ACCESS TO WORK AREAS

Daily requirements for work included the following notification protocols:

- The Trihydro SSO:
  - Notified the Pantex PSTR, Chad McGarry or alternative designee that work has begun for the day.
  - Notified the Pantex PSTR, Chad McGarry or alternative designee that work has ended for the day.
  - Requests for non-standard work shifts (weekends, late nights, or plant holidays) were communicated to the PSTR by the previous Wednesday.
- Work at the site was not allowed without the presence of the Trihydro SSO.

3.3 WORK PERMITS

Several work permits were necessary for construction and were issued by the appropriate Pantex department and added as appendices to the Trihydro Work Plan (WP). These work permits included:

- An Activity Hazard Analysis (AHA)/Safe Work Permit (PX-4798) was prepared by Trihydro and approved by the Pantex Safety Department.
- An Excavation Permit (PX-2872A) was obtained by the PSTR for the landfill surface and buffer area surrounding the landfill. The Excavation Permit acknowledges that utility locates have been completed by Pantex. The Trihydro Site Safety Officer (SSO) walked down the locations described in the permit with the PSTR prior to excavation or other ground penetration activities.

- A hot work permit (PX-5394) was obtained for the fusion welding, extrusion welding and leistering of the geomembrane liner and closure turf.
- A lift permit (PX-4782) was obtained for the hoisting of geomembrane liner and closure turf rolls below the lifting forks of the telescoping forklift used for the deployment of the various liner materials.

Before permit related tasks were initiated the appropriate permit was reviewed by the field crew with the Trihydro SSO.

3.4 STORM WATER POLLUTION PREVENTION INSPECTIONS

A Storm Water Pollution Prevention Plan (SWPPP) was completed and was included in the WP. Inspections were completed and recorded on SWPPP inspection forms (PX-5736) every Tuesday throughout the project duration. The completed inspection forms were submitted to the Pantex PSTR at project completion. During construction there were no significant precipitation events that effected work or caused water to pond in any great degree.

3.5 EQUIPMENT INSPECTIONS

Each day that a piece of heavy equipment (i.e. front loader, track hoe, telescoping forklift) or light vehicular equipment (i.e. skid steer) was used, a separate heavy or light equipment inspection form was completed by the SSO and the designated equipment operator for each unit used. Copies of these completed forms were submitted to the PSTR periodically throughout the duration of this project.

4.0 SUMMARY OF WORK PERFORMED

This section presents a description of the work Trihydro and associated subcontractors performed to complete the installation of the closure turf at Landfill 1.

4.1 PROGRAM/PROJECT MANAGEMENT

Trihydro performed the following program and project activities under this task throughout the project:

- Weekly update meetings via teleconference with the PSTR
- Monthly accrual reports
- Monthly man-hour reports
- Subcontractor procurement and management

4.2 PREPARATION OF PLANNING DOCUMENTS

The following planning documents were prepared for this work:

- Work Plan that includes a section on Quality Assurance/Quality Control (QA/QC)
- Contractor Waste Management Plan
- Health and Safety Plan
- SWPPP

4.3 VEGETATION REMOVAL AND SITE PREPARATION

Trihydro utilized and oversaw the services of Talon, a local Amarillo contractor, for vegetation removal and other site preparation earthwork. The following vegetation removal and site preparation tasks were performed:

- Removed (grubbed) approximately 6 inches of vegetation (grub) from the existing surface of Landfill 1 while minimizing disturbance of the 2.5 feet soil layer of the existing cover system.
- At the direction of Pantex Waste Operations Department (WOD) personnel, grubbed materials were hauled to the active onsite Pantex landfill. This material was placed onto an existing landfill cap to act as fill material to be utilized by the Pantex WOD. The first truckload was weighed at the landfill and was hauling approximately 6.5 tons of soil. 73 truckloads, or 730 cubic yards, for a total of 474.5 tons of grubbed materials were taken to the landfill.

- Low areas of the landfill were identified once the vegetative layer was removed. Approximately 300 yards of fill material was imported from the Pantex borrow pit and graded on top of the existing landfill cover system with a motor grader to fill low spots and provide positive drainage of precipitation away from the landfill cap.
- The imported fill material was compacted and leveled over the final cover system surface by multiple passes of a smooth drum vibratory roller.

4.4 ANCHOR TRENCH

A one-foot wide by two-feet deep perimeter anchor trench was excavated using a chain trencher. The chain trencher was configured to deposit 90% of excavation spoils to the outside of the trench. A skid steer was used to grade the remaining 10% of excavation spoils deposited on the inside of the anchor trench over the existing cover.

During excavation of the anchor trench some buried landfill materials were brought to the surface at two different locations. These exhumed materials were determined to be metal rebar, copper rods, concrete, scrap metal, and brick. This waste was encountered for approximately 140 linear feet along the southeastern side of the landfill and in some cases caused excavation refusal. Anchor trench depth was limited to 16 inches in various locations along this portion of the trench. The PSTR was notified of the waste materials encountered. Pantex assessed this area and determined that anchor trench adjustments were not necessary and the locations of limited anchor trench depth were acceptable. Exhumed waste materials were assessed by the WOD, found to be non-hazardous, and removed from the anchor trench spoils. Approximately 2 cubic feet of concrete and brick debris was disposed in Pantex roll offs and approximately 15 pieces of metal was placed in Pantex recycle bins.

4.5 SUBGRADE ACCEPTANCE

After the anchor trench was completely excavated, the landfill was inspected to determine if vegetation was removed and the surface was properly graded to provide positive drainage and there were no rocks or debris present. The Trihydro SSO and the Pantex PSTR visually inspected the final surface and found it to be smooth, free of irregularities, protrusions, organics, rocks, and other debris and acceptable for closure turf system installation. Further, prior to placement of the geomembrane, the AEG site supervisor performed an independent subgrade inspection and also found it to be acceptable for geomembrane installation.

4.6 CLOSURE TURF SYSTEM INSTALLATION

4.6.1 OVERVIEW

Trihydro provided construction quality assurance oversight and documentation for the installation of the closure turf system. AEG performed the physical installation of the closure turf system. Deployment of the closure turf system began on October 9, 2013 and was completed on November 16, 2013.

The Closure Turf™ system installed at Landfill 1 consists of:

- 50 Mil Linear Low- Density Polyethylene (LLDPE) grip-net geomembrane liner (geomembrane) installed directly over the prepared subgrade surface.
- Duraturf installed over the top of the geomembrane liner.
- 0.5-inch thick sand ballast layer placed and spread evenly over the closure turf.

4.6.2 DELIVERY, INSPECTION AND STORAGE

The liner materials were delivered in rolls on September 30, 2013. Liner and turf rolls were inspected for damage then stockpiled along the north end of the project site over pallets to protect from potential ponding water. Trihydro verified that all rolls that were delivered matched the approved manufacturers roll certification sheets, all rolls were accounted for. Roll certifications and delivery manifests are provided in **Appendix A**.

4.6.3 GEOMEMBRANE CONFORMANCE TESTING

The conformance testing of the geomembrane was completed and submitted by the manufacturer, Agru America (Agru). Trihydro reviewed and accepted the quality control testing certifications for each roll. Agru's quality control certificates for each roll that was delivered and accepted at the site is provided in **Appendix B**.

4.6.4 LINER SYSTEM PANEL LAYOUT

Initially the panel layout was designed to be oriented in an east-west direction. However, after arriving onsite and observing that the prevailing wind direction was from south to north the AEG superintendent suggested that the panels be deployed lengthwise in a north-south direction. Trihydro and the Pantex PSTR agreed that this field change would minimize wind related issues and hazards while deploying the liner materials and approved the change. The Trihydro SSO sketched and recorded the as-built geomembrane panel layout on Daily Liner Deployment Sketch forms provided in **Appendix C**. **Figure 2** shows the as-built conditions of the final geomembrane panel layout.

4.6.5 GEOMEMBRANE DEPLOYMENT

The geomembrane rolls were deployed using a spreader bar securely anchored to a telescoping forklift. The forklift would lift and position the rolls over the end of the desired deployment location. Once in place a cable winch mounted on a skid steer would automatically spread the geomembrane panel out with several AEG workers directing it into the proper place. Once deployed the AEG workers would use liner clamps to line up the smooth edges along the length of the geomembrane in preparation of the fusion welding machine. Areas where full width panels were not needed the panels were cut to fit the intended area using a retractable hooked razor. Once in place the AEG quality control officer (QCO) would spray paint the roll number and panel number onto the panel. Panels that fell along the anchor trench were draped into the trench and trimmed as necessary. The Trihydro SSO visually observed this process and recorded on the Daily Panel Deployment Tracking form and Daily Liner Deployment Sketch form the panel location and approximate dimensions, these forms are provided in **Appendix D** and **Appendix C** respectively.

4.6.6 GEOMEMBRANE SEAMING

AEG utilized an automatic wedge style fusion welding machine for the panel length seams and a manual gun style extrusion welding machine for end to end panel width seams.

4.6.6.1 TRIAL WELDS

Prior to performing either type of welding on the in place panels, a trial weld was completed for each machine. The trial welds were completed at the start of shift and after lunch on a daily basis. These trial weld samples were then provided to the AEG QCO for field stress testing. The QCO would cut six-one inch wide coupons from each of the trial weld samples and test for both peel and shear strength using a field tensiometer as defined below:

- **Peel Test Method –** The QCO placed a coupon in the tensiometer and used it to try to peel the weld apart from both sides. Upon failure, the peel strength was recorded in pounds per inch (ppi). This test was performed on both fusion and extrusion welds.
- **Shear Test Method –** The QCO placed a coupon in the tensiometer and used it to try to pull the seam apart end to end. Upon failure, the shear strength was recorded in ppi. This test was only performed on fusion welds.
- In either case, the goal is to have the liner material fail on either side of the weld leaving the weld intact.
- A test is considered a failure if the test damages the seam or if the liner material on either side of the seam fails under the specified minimum strengths listed below:
  - Sheer Strength – 100 ppi.
  - Peel Strength – 76 ppi for Fusion Welds, 65 ppi for Extrusion Welds.

Trihydro observed each of these tests and recorded the results on a Daily Trial Weld Tracking Log form provided in **Appendix E**. AEG's welding technicians were not allowed to perform any welding on in-place liner materials until the trial welds passed field testing.

4.6.6.2 FUSION WELDING AND TESTING

The seams along the sides of the panels were welded using an automated fusion welding machine. The AEG welding technician would clean off the geomembrane surface with a brush ahead of the welding machine to minimize the potential of dust and debris compromising the integrity of the weld. The technician would also go ahead of the welding machine and trim the liner as needed and aid the machine over bumps and wrinkles. The machines were calibrated for 50 mil LLDPE and fused the panels together at 800 degrees Fahrenheit at a speed between 9.5 to 10.5 feet per minute. This temperature and speed was set to ensure a strong weld without burning through the liner material.

The quality control plan required two types of testing to ensure the strength and integrity of each fusion weld seam, these tests are described below:

- **Non-Destructive Air Testing –** Fusion welding machines create two fusion welds approximately one-inch apart leaving a small pocket in between. An AEG quality control technician (QCT) would test these pockets using compressed air. The QCT would seal of each end of the seam and pressurize the pocket to 30 psi. A successfully welded seam would not drop more than 2 psi over a five-minute period. If the seam held the required pressure, the QCT would unseal the end of the seam opposite of the pressure gauge to determine if there was a blockage in the seam indicating whether the entire seam was being tested. If a blockage was detected, the blockage would be located and the test would be redone on both sides of the blockage. If the air test itself failed the QCT would use soapy water to determine the location of the air leak, repair it, and restart the test. Trihydro observed and recorded the results of all air testing on a Daily Non-Destructive Seam Testing form provided in **Appendix F**.
- **Destructive Testing –** Per the project specifications, a destructive sample must be taken every 500 cumulative linear feet of seam per fusion welding machine. The Trihydro SSO would track the cumulative seam lengths per machine (See **Appendix K**) and mark on the seam where to cut out each destructive sample. Then an AEG worker would cut the destruct sample and provide it to the Trihydro SSO for testing. The AEG tensiometer was used to field-test the destructive samples at the site. Testing of the destructive samples was identical to the methods used for trial weld testing described in **Section 4.6.6.1** of this document. The Trihydro SSO observed and recorded the testing of each sample and all samples exceeded specification. The location of each destructive sample was recorded on the Daily Panel Deployment Sketch, these locations are also shown on Figure 2. The results of the

testing were recorded on the Destructive Weld Test Tracking Log, both are provided in **Appendix C** and **Appendix G** respectively.

4.6.6.3 EXTRUSION WELDING AND TESTING

End to end panel seams, or butt seams, were performed using a manual extrusion-welding machine . The AEG welding technician would prepare the seam by grinding off the geomembrane's grip spikes on both panels, clearing debris from the geomembrane surface with a brush, temporarily bonding the surfaces together with a leister gun, then complete the seam by welding the two panel surfaces together with an extrusion machine. The extrusion machines were calibrated for 50 mil LLDPE and the panels were welded together at approximately 500 degrees Fahrenheit.

The quality control plan required two types of testing to ensure the strength and integrity of each extrusion weld seam, these tests are described below:

- **Non-Destructive Vacuum Testing –** Extrusion welding machines use a string of polyethylene (PE) material which is fed through the machine's barrel, superheated, melted, and a bead of melted PE was spread over the panel overlapped by the technician. This bead fuses to both panels, instantly cools, and hardens creating an extrusion seam. However, this bead has the potential for pinhole leaks. An AEG QCT tested each of these seams using a vacuum test. This test was performed by the QCT by applying soap water along the seam and then placing a 2 foot by 1 foot vacuum box over a section of the seam and applying a vacuum to the seam for 10 seconds per section. If a leak is present in the seam the QCT will observe bubbles generating around the leak. Leaks found by the QCT would be marked, sealed with an additional extrusion bead and retested. Trihydro observed and recorded the results of all butt seam vacuum testing on a Daily Liner Repair Log (provided in **Appendix H**) and identified them as "Butt Seam" under the "Repair Type" column.
- **Destructive Testing –** The project specifications did not call for any destructive samples of panel seams welded using extrusion welding methods. Due to the grip spikes present on the geomembrane it was not possible to fusion weld the butt seams. Therefore, extrusion welding was required to be performed along the end-to-end panel overlaps The AEG QCO obtained one (1) destructive sample from an extrusion welded seam to spot check the integrity of the in-place extrusion welds. This destructive sample was also field-tested using AEG's tensiometer. Again, testing of destructive samples was identical to the methods used for trial weld testing described in **Section 4.6.6.1** of this document. The Trihydro SSO observed and recorded the test of this destructive sample and it exceeded the welding specification. The location of this destructive sample was recorded on the Daily Panel Deployment Sketch and the result of its testing was recorded as sample "EX-1" on the Destructive Weld Test Tracking Log, both provided in **Appendix G**.

4.6.6.4 REPAIRS

Upon completing the seaming of the in-place panels, the AEG crew began repairs. In addition to routine repairs inherent to liner installation, the Trihydro SSO and the AEG QCO routinely scanned and marked the geomembrane surface for damage incurred during construction. There were three different types of repairs as defined below:

- Intersection - Repairs of intersections of three or more panels
- Patch - Repairs of minor damage and destructive sample locations
- Cap - Repair of failed fusion seams identified through air testing

Liner damage too large to be sealed with an extrusion bead were performed by grinding down the liner surface and grip spikes, placing a scrap piece of liner material over the damaged area, leistering the patch into place, and extrusion welding the patch to the panel. Once the patch was completed, the repair was vacuum tested as described in the previous section. The Trihydro SSO observed and recorded the location and results of all repairs and vacuum tests on the Daily Liner Repair Log, provided in **Appendix H**.

The specifications do call for destructive testing of repair seams in excess of 10 feet in length. However, there were no repair seams in excess of 10 feet of continuous length.

4.6.7 CLOSURE TURF DEPLOYMENT

The closure turf rolls were also deployed using a spreader bar securely anchored to a telescoping forklift similar to the geomembrane deployment. However, unlike the geomembrane, adjoining panels were placed on top of one another for seaming. Specifically, the first panel was deployed on the geomembrane grass side up in the desired location, subsequent panels were deployed face down on top of the previously placed panel. The sides of the stacked panels were held up, aligned, and the seam sewn. The seam was sewn by a hand held manual sewing machine, which applied a single nylon thread stitch along the length of the seam. Once the seam was completed the upside-down panel was flipped over and pulled tight. The underside of end-to-end panels were sewn together, folded down, and capped with a scrap of closure turf material. The cap was secured in place with a leister gun.

The closure turf did not require any construction quality assurance documentation, however, two closure turf manufacturer's representatives were present during installation of the closure turf to verify the installation procedures.

4.6.8 ANCHOR TRENCH BACKFILL, COMPACTION AND INTERIM BALLASTING

The installation guidance manual indicated that anchor trench backfill and compaction not be performed until the 0.5 inch thick sand ballast layer was installed. However, due to the unplanned government shut down beginning October 18, 2013 the project was placed on hold before the sand ballast layer could be placed. Therefore, the manufacturer was consulted and approval was granted to backfill and compact the anchor trench as long as the closure turf was anchored down with sandbags in the interim between completing the liner installation and the placement of the ballast sand (see **Appendix L** for email approvals from the Manufacturer). Approximately 1,800 sand bags were evenly placed on top of the liner to act as ballast during the shutdown. Anchor trench backfill and compaction was completed in compliance with the applicable material and placement specifications.

4.6.9 SAND BALLAST LAYER

After the government shutdown ended, the project resumed on November 11, 2013, and Trihydro and the contractors were allowed back on-site to install the 0.5 inch thick sand ballast layer. According to the specifications set forth by the closure turf manufacturer's installation guidelines, the sand aggregate must consist of highly permeable sand with a well graded or poorly graded sand (SW or SP) curve specification. The sand material that was installed was tested by a local geophysical laboratory and approved by the geophysical engineer. Laboratory sieve analysis results are provided in **Appendix I**.

Sand was delivered to the site from a local company, Howell Sand, using 12 yard end dump trucks. 33 loads of sand was delivered to the site equaling approximately 466 tons. The sand was stockpiled at the northeast corner of the project site.

During initial sand placement, it was observed that small rocks were occasionally mixed in with the sand. This was evident as the material was being placed onto the turf surface. The SSO stopped operations and sent the material that had not been placed back to Howell Sand for rescreening to remove the rock. The unscreened material that was already placed was within specification but contained some rock. The rock was removed by hand from the turf material by the crew. The remaining sand that was delivered was rescreened by the sand provider to eliminate the courser rock.

4.6.9.1 SAND DISTRIBUTION AND THICKNESS VERIFICATION

Soil Express, a contractor from Fort Worth, utilized a truck mounted Express Blower System to distribute the sand. The sand was loaded into the top of the system, then blowers attached to a hose were directed by an operator to uniformly distribute the sand over the closure turf. Once the sand was distributed using the Express Blower System, a

Power Broom attached to a small lightweight tractor was used to manually spread the sand into the fibers of the turf material creating an even 0.5 inch thick ballast layer.

A representative from the closure turf manufacturer and the Trihydro SSO used a caliper to perform verification of the sand thickness. The sand was verified at an average thickness of 0.5 inch to 0.75 inch. The thickness was checked at a rate of approximately 20 to 30 points per acre. The results of the thickness tests points and locations are indicated on Daily Sand Level QAQC Sketch, provided in **Appendix J**. Locations that were found to be less than the nominal thicknesses were marked and revisited by the sand placement crew to place and broom additional sand into place. The Trihydro SSO inspector re-inspected these areas and approved them after placement was completed.

5.0 SITE CLEANUP AND DEMOBILIZATION

Site cleanup and demobilization was completed immediately after all construction activities were completed. Hand tools were used to remove soil and debris from project equipment before removed from the site. Generated waste were collected, containerized, and disposed in accordance with local, state, and federal regulations, and the approved Waste Management Plan for the project. Approximately 72 cubic yards of LLDPE, Duraturf was shipped to plastic recyclers via roll offs, approximately 15,000 cubic feet of LLDPE material and 10,000 cubic feet of Duraturf was hauled off site by AEG. Approximately 4,040 pounds of liner material cutoff, pallets and shipping plastic were hauled to the Pantex landfill for disposal.

Areas disturbed during landfill capping operations were seeded with a plant approved seed mixture. Seed was broadcast distributed and surface graded to place the seed with in the top inch of soil material.

A final site walk-through was conducted with the PSTR to verify that site cleanup and demobilization activities met expectations.

6.0 PHOTO DOCUMENTATION

Security protocols at the B&W Pantex Facility prohibited Trihydro or any of the contractors from using personal cameras while onsite. However, the Pantex PSTR was authorized to take photo documentation of the project and provided Trihydro with photos approved for release after completion of the project. Photos of key project tasks have been assembled and are provided in **Appendix M**.

FIGURES

EXPLANATION

- PANTEX MONITORING WELLS
- ROADS
- PANTEX PLANT ZONES
- Proposed Landfill Cover
- Topography (1-ft intervals)
- **Solid Waste Management Unit**
- SWMU 68b

N

0 100'

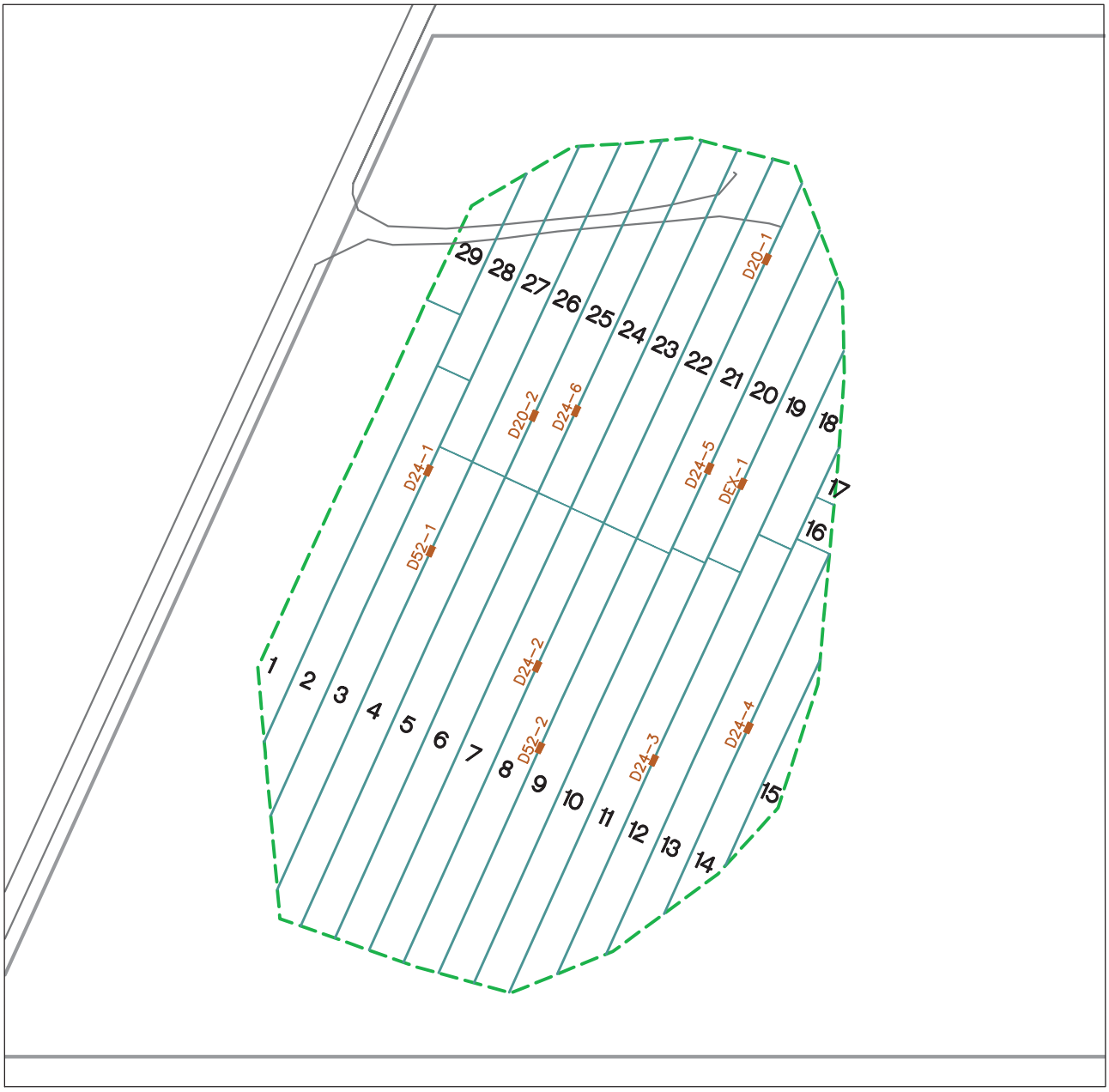
Trihydro CORPORATION
1252 Commerce Drive
Laramie, WY 82070
www.trihydro.com
(P) 307/745.7474 (F) 307/745.7729

FIGURE 1

LANDFILL COVER OVERVIEW

B&W PANTEX
LANDFILL 1 CLOSURE TURF INSTALLATION
PANTEX PLANT, AMARILLO, TEXAS

Drawn By: SJS	Checked By: JRS	Scale: 1" = 100'	Date: 09/20/13	File: 201312_Fig1_ISB_Layout.mxd



EXPLANATION

- PROPOSED LANDFILL COVER
- SWMU 68B BOUNDARY
- ROAD EDGE
- 12 — GEOMEMBRANE PANEL WITH PANEL NUMBER
- D24-3 — APPROXIMATE LOCATION OF DESTRUCTIVE SAMPLE WITH DESIGNATION

N

0 100'

Trihydro CORPORATION
1252 Commerce Drive
Laramie, Wyoming 82070
www.trihydro.com
(P) 307/745.7474 (F) 307/745.7729

FIGURE 2

GEOMEMBRANE PANEL LAYOUT

B&W PANTEX
LANDFILL 1 CLOSURE TURF INSTALLATION
PANTEX PLANT, AMARILLO, TEXAS

Drawn By: SV	Checked By: MB	Scale: 1" = 100'	Date: 12/27/2013	File: 18A010GEOMMBRNPANLLAYOUT201312

APPENDIX A

MANUFACTURERS ROLL CERTIFICATION AND DELIVERY MANIFESTS

Certficate of Analysis

Customer: B & W Pantex

Purchase Order:

007729

Bill of Lading:

Manufacturer's Name: Shaw Industries

Destination: Amarillo, TX

Product Component: Duraturf

Shaw™

Where Great Floors Begin

Name: Dan Wright

Title: Director of Quality, Specialty Markets

Signature: Dan Wright

Date: 9/23/13

#	Roll #	Production Date	Color	Roll Width (ft)	Roll Length (ft)	Tufting Gauge (in)	Pile Height (in)	Wide-Width Tensile Test (lb/ft), (MD/XD) ASTM D-4595	Total Product Weight (oz/sy) ASTM D-5261	Yarn Tensile Strength (lbs) ASTM D-2256
1	AA1821Z	7/8/13 22:46	Olive	15	300	1/2	46/32	1805/1581	26.61	19.2
2	AA18221	7/9/13 3:23	Olive	15	300	1/2	46/32	1805/1581	26.61	19.2
3	AA1825C	7/9/13 3:51	Olive	15	300	1/2	46/32	1805/1581	26.61	19.2
4	AA1825D	7/9/13 4:21	Olive	15	300	1/2	46/32	1805/1581	26.61	19.2
5	AA1825E	7/9/13 10:58	Olive	15	300	1/2	46/32	1805/1581	26.61	19.2
6	AA1825F	7/9/13 11:45	Olive	15	300	1/2	46/32	1772/1566	26.67	19.7
7	AA1825G	7/9/13 12:32	Olive	15	300	1/2	46/32	1772/1566	26.67	19.7
8	AA1825H	7/9/13 13:04	Olive	15	300	1/2	46/32	1772/1566	26.67	19.7
9	AA1827G	7/9/13 14:23	Olive	15	300	1/2	46/32	1772/1566	26.67	19.7
10	AA1827H	7/9/13 14:47	Olive	15	300	1/2	46/32	1772/1566	26.67	19.7
11	AA1827J	7/9/13 16:36	Olive	15	300	1/2	46/32	1772/1566	26.67	19.7
12	AA1827K	7/9/13 17:06	Olive	15	300	1/2	46/32	1772/1566	26.67	19.7
13	AA1827M	7/9/13 17:54	Olive	15	300	1/2	46/32	1772/1566	26.67	19.7
14	AA1827N	7/10/13 5:26	Olive	15	300	1/2	46/32	1772/1566	26.67	19.7
15	AA1829R	7/10/13 6:13	Olive	15	300	1/2	46/32	1772/1566	26.67	19.7
16	AA1829T	7/11/13 1:31	Olive	15	300	1/2	46/32	1772/1566	26.67	19.7
17	AA1829U	7/11/13 2:05	Olive	15	300	1/2	46/32	1772/1566	26.67	19.7
18	AA1829V	7/11/13 2:32	Olive	15	300	1/2	46/32	1772/1566	26.67	19.7
19	AA1829W	7/11/13 3:00	Olive	15	300	1/2	46/32	1772/1566	26.67	19.7
20	AA1829X	7/11/13 3:29	Olive	15	300	1/2	46/32	1772/1566	26.67	19.7
21	AA182HT	7/11/13 5:48	Olive	15	300	1/2	46/32	1772/1566	26.67	19.7
22	AA182HU	7/11/13 6:20	Olive	15	300	1/2	46/32	1772/1566	26.67	19.7
23	AA182HV	7/11/13 6:59	Olive	15	300	1/2	46/32	1772/1566	26.67	19.7
24	AA182HW	7/11/13 7:30	Olive	15	300	1/2	46/32	1772/1566	26.67	19.7
25	AA182HX	7/11/13 7:59	Olive	15	300	1/2	46/32	1772/1566	26.67	19.7

Certficate of Analysis

Customer: B & W Pantex

Purchase Order: 007729

Bill of Lading:

Manufacturer's Name: Shaw Industries

Destination: Amarillo, TX

Product Component: Duraturf

Shaw™
Where Great Floors Begin

Name: Dan Wright

Title: Director of Quality, Specialty Markets

Signature: Dan Wright

Date: 9/23/13

#	Roll #	Production Date	Color	Roll Width (ft)	Roll Length (ft)	Tufting Gauge (in)	Pile Height (in)	Wide-Width Tensile Test (lb/ft), (MD/XD) ASTM D-4595	Total Product Weight (oz/sy) ASTM D-5261	Yarn Tensile Strength (lbs) ASTM D-2256
26	AA182HY	7/11/13 8:25	Olive	15	300	1/2	46/32	1772/1566	26.67	19.7
27	AA182JK	7/11/13 8:46	Olive	15	300	1/2	46/32	1772/1566	26.67	19.7
28	AA182JM	7/11/13 9:20	Olive	15	300	1/2	46/32	1772/1566	26.67	19.7
29	AA182JN	7/11/13 9:56	Olive	15	300	1/2	46/32	1772/1566	26.67	19.7
30	AA182JP	7/11/13 10:29	Olive	15	300	1/2	46/32	1772/1566	26.67	19.7
31	AA182JR	7/11/13 10:58	Olive	15	300	1/2	46/32	1772/1566	26.67	19.7
32	AA182JT	7/11/13 11:37	Olive	15	300	1/2	46/32	1772/1566	26.67	19.7
33	AA182K7	7/11/13 12:04	Olive	15	300	1/2	46/32	1772/1566	26.67	19.7
34	AA182K8	7/11/13 12:26	Olive	15	300	1/2	46/32	1772/1566	26.67	19.7
35	AA182K9	7/11/13 13:14	Olive	15	300	1/2	46/32	1772/1566	26.67	19.7
36	AA182KA	7/11/13 13:42	Olive	15	300	1/2	46/32	1772/1566	26.67	19.7
37	AA182KC	7/11/13 14:09	Olive	15	300	1/2	46/32	1772/1566	26.67	19.7
38	AA182KD	7/11/13 14:52	Olive	15	300	1/2	46/32	1772/1566	26.67	19.7

cust: American Environmental

PO#: 404-13 B & W Pantex

Dest: Amarillo, TX

doc	23244

25 rolls 50 LL supergrip (300)

roll #	wid	len	area	check weld rod qty (if ordered)				wgt	resin lot #
	English Dimensions								
146670 .12	23	300.0	6,900.0	50LL	supergrip	25tot	1	2758	CCJ810240
146671 .12	23	300.0	6,900.0	50LL	supergrip	25tot	2	2758	CCJ810240
103112 .13	23	300.0	6,900.0	50LL	supergrip	25tot	5	2736	CCH810570
103213 .13	23	300.0	6,900.0	50LL	supergrip	25tot	6	2734	CCH810570
105624 .13	23	300.0	6,900.0	50LL	supergrip	25tot	7	2764	CCG810270
105625 .13	23	300.0	6,900.0	50LL	supergrip	25tot	8	2766	CCH811870
105626 .13	23	300.0	6,900.0	50LL	supergrip	25tot	9	2764	CCH811870
105727 .13	23	300.0	6,900.0	50LL	supergrip	25tot	10	2766	CCH811870
105728 .13	23	300.0	6,900.0	50LL	supergrip	25tot	11	2764	CCH811870
105729 .13	23	300.0	6,900.0	50LL	supergrip	25tot	12	2766	CCH811870
105730 .13	23	300.0	6,900.0	50LL	supergrip	25tot	13	2764	CCH811870
105731 .13	23	300.0	6,900.0	50LL	supergrip	25tot	14	2764	CCH811870
105732 .13	23	300.0	6,900.0	50LL	supergrip	25tot	15	2760	CCH811870
105733 .13	23	300.0	6,900.0	50LL	supergrip	25tot	16	2766	CCH811870
105734 .13	23	300.0	6,900.0	50LL	supergrip	25tot	17	2760	CCH811870
105735 .13	23	300.0	6,900.0	50LL	supergrip	25tot	18	2758	CCH811870
105736 .13	23	300.0	6,900.0	50LL	supergrip	25tot	19	2760	CCH811870
105737 .13	23	300.0	6,900.0	50LL	supergrip	25tot	20	2766	CCH811870
105738 .13	23	300.0	6,900.0	50LL	supergrip	25tot	21	2766	CCH811870
105739 .13	23	300.0	6,900.0	50LL	supergrip	25tot	22	2765	CCH811870
106101 .13	23	300.0	6,900.0	50LL	supergrip	25tot	23	2764	CCH811870
106102 .13	23	300.0	6,900.0	50LL	supergrip	25tot	24	2768	CCH811870
106103 .13	23	300.0	6,900.0	50LL	supergrip	25tot	25	2770	CCH811870
109781 .13	23	300.0	6,900.0	50LL	supergrip	25tot	3	2778	CCK811990
109782 .13	23	300.0	6,900.0	50LL	supergrip	25tot	4	2778	CCK811990

RECEIVED: Subject to the "COMMON CARRIER RATE AGREEMENT" or the CONTRACT between the Shipper and Carrier in effect on the date of shipment, the property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as shown below. This bill of lading is not subject to duty tariff, or classifications whether individually determined or filed with any federal or state regulatory agency, except as specifically agreed to in writing by the shipper and the carrier.

11 526647 092713

DO NOT WRITE IN THIS AREA

CONSIGNED TO
B & W PANTEX
2373 FM & HWY 60 E
DAN G 303.250.1787
AMARILLO TX79120

[redacted] 99 47
AT RINGGOLD, GA

DATE 092713

FROM SHAW INDUSTRIES, INC
952 INDUSTRIAL BLVD
RINGGOLD GA 30736

CONSIGNOR'S NUMBER 526647

ROUTING 30736
SCOTT LOGISTICS CUST PHONE 770-777-0386
PRO#

VEHICLE ID 53219LIVE
SEAL NUMBER 1560160 0004178394

SHIPPING INSTRUCTIONS

B & W PANTEX --AMARILLO
TO DELIVER 9/30

SHIP PPD S1 @$2535 QTE#Q3395/SS 5428
JANNA X3004510

FREIGHT CHARGES

PREPAID	COLLECT
A	

COMMODITY DESCRIPTION: CARPET OR CARPETING, SOFT SURFACE (PILE) FABRIC POWER MACHINE TUFTED PER DETAIL LISTED BELOW

ORDER NUMBER	ORDER LINE	STYLE NAME	STYLE NUMBER	STYLE COLOR	WIDTH FT.	WIDTH IN.	LENGTH FT.	LENGTH IN.	ROLL NUMBER	PURCHASE ORDER NUMBER	DYE LOT	DYE SEQ	M T	B C	WEIGHT	DIAMETER
092613		3072408	14:57													SQYDS
	S/M -	B & W PANTEX --AMARILLO														
	S/M -	SHIP PPD S1 @$2535 QTE#Q3395/SS 5428														
	S/M -	TO DELIVER 9/30														
	S/M -	JANNA X3004510														
	S/M -	RT-SCOTT LOGISTICS 09/25 10:54 JWH2														
	S/M -	REQ BY 4 09/25 10:54 JWH2														
384987	028	SO CLOSURE TURF	28350	00301	15	00	300	00	AA182JM	7729	G48551	-24	C	F	848	500.00
									FRT CLASS 100							
384987	029	SO CLOSURE TURF	28350	00301	15	00	300	00	AA182JN	7729	G48551	-25	R	F	848	500.00
									FRT CLASS 100							
384987	030	SO CLOSURE TURF	28350	00301	15	00	300	00	AA182JP	7729	G48551	-26	R	F	848	500.00
									FRT CLASS 100							
384987	031	SO CLOSURE TURF	28350	00301	15	00	300	00	AA182JR	7729	G48551	-27	R	F	848	500.00
									FRT CLASS 100							
384987	032	SO CLOSURE TURF	28350	00301	15	00	300	00	AA182JT	7729	G48551	-28	R	F	848	500.00
									FRT CLASS 100							

NOTE: WHERE THE RATE IS DEPENDENT ON VALUE CONSIGNOR IS REQUIRED TO STATE SPECIFICALLY IN WRITING THE AGREED OR DECLARED VALUE OF THE PROPERTY. THE AGREED OR DECLARED VALUE OF THE PROPERTY IS HEREBY SPECIFICALLY STATED BY THE CONSIGNOR TO BE NOT EXCEEDING _____ PER _____ IF THE SHIPMENT MOVES BETWEEN TWO PORTS BY A CARRIER BY WATER, THE LAW REQUIRES THAT THE BILL OF LADING STATE WHETHER IT IS CARRIER'S OR CONSIGNOR'S WEIGHT

REMIT TO

PAGE NO.	TOTAL CASES	TOTAL CUTS	TOTAL ROLLS	TOTAL WEIGHT	TOTAL PIECES
1	000	000	000	000000	000

AGENT	SIGNATURE	DATE

PERMANENT POST OFFICE ADDRESS OF CONSIGNOR
P.O. DRAWER 2128
DALTON, GA. 30722-2128

AGENT MUST DETACH THIS SHIPPING ORDER AND SIGN THE ORIGINAL BILL OF LADING.

2

RECEIVED: Subject to the "COMMON CARRIER RATE AGREEMENT" or the CONTRACT between the Shipper and Carrier in effect on the date of shipment, the property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as shown below. This bill of lading is not subject to duty tariff, or classifications whether individually determined or filed with any federal or state regulatory agency, except as specifically agreed to in writing by the shipper and the carrier.

11 526647 092713

DO NOT WRITE IN THIS AREA

CONSIGNED TO
B & W PANTEX
2373 FM & HWY 60 E
DAN G 303.250.1787
AMARILLO TX79120

[redacted] 99 47
AT RINGGOLD, GA

DATE 092713

FROM SHAW INDUSTRIES, INC
952 INDUSTRIAL BLVD
RINGGOLD GA 30736

CONSIGNOR'S NUMBER 526647

ROUTING 30736
SCOTT LOGISTICS CUST PHONE 770-777-0386
PRO#

VEHICLE ID 53219LIVE

SEAL NUMBER 1560160
0004178394

SHIPPING INSTRUCTIONS

B & W PANTEX --AMARILLO

SHIP PPD 31 @$2535 QTE#Q3395/SS 5428

FREIGHT CHARGES

PREPAID	COLLECT
A	

COMMODITY DESCRIPTION: CARPET OR CARPETING, SOFT SURFACE (PILE) FABRIC POWER MACHINE TUFTED PER DETAIL LISTED BELOW

ORDER NUMBER	ORDER LINE	STYLE NAME	STYLE NUMBER	STYLE COLOR	WIDTH FT.	WIDTH IN.	LENGTH FT.	LENGTH IN.	ROLL NUMBER	PURCHASE ORDER NUMBER	DYE LOT	DYE SEQ	MT	BC	WEIGHT	DIAMETER
384987	033	SO CLOSURE TURF	283SS	00301	15	00	300	00	AA182K7	7729	G48551	-29	R	F	848	500.00
									FRT CLASS 100							
384987	034	SO CLOSURE TURF	283SS	00301	15	00	300	00	AA182K8	7729	G48551	-30	R	F	848	500.00
									FRT CLASS 100							
384987	035	SO CLOSURE TURF	283SS	00301	15	00	300	00	AA182K9	7729	G48551	-31	R	F	848	500.00
									FRT CLASS 100							
34987	036	SO CLOSURE TURF	283SS	00301	15	00	300	00	AA182KA	7729	G48551	-32	R	F	848	500.00
									FRT CLASS 100							
384987	037	SO CLOSURE TURF	283SS	00301	15	00	300	00	AA182KC	7729	G48551	-33	R	F	848	500.00
									FRT CLASS 100							
384987	038	SO CLOSURE TURF	283SS	00301	15	00	300	00	AA182KD	7729	G48571	-01	R	F	848	500.00
									FRT CLASS 100							
																5500.00

NOTE: WHERE THE RATE IS DEPENDENT ON VALUE CONSIGNOR IS REQUIRED TO STATE SPECIFICALLY IN WRITING THE AGREED OR DECLARED VALUE OF THE PROPERTY. THE AGREED OR DECLARED VALUE OF THE PROPERTY IS HEREBY SPECIFICALLY STATED BY THE CONSIGNOR TO BE NOT EXCEEDING _____ PER _____ IF THE SHIPMENT MOVES BETWEEN TWO PORTS BY A CARRIER BY WATER, THE LAW REQUIRES THAT THE BILL OF LADING STATE WHETHER IT IS CARRIER'S OR CONSIGNOR'S WEIGHT

REMIT TO

Driver Time In 8:30AM
Out 2:45pm

PAGE NO.	TOTAL CASES	TOTAL CUTS	TOTAL ROLLS	TOTAL WEIGHT	TOTAL PIECES
2		1	10	8,328	11

AGENT	SIGNATURE	DATE

PERMANENT POST OFFICE ADDRESS OF CONSIGNOR
P.O. DRAWER 2128
DALTON, GA. 30722-2128

17:46

TOTAL SQ YDS 5500.00

CPSC CERTIFICATE OF CONFORMITY CAN **AGENT MUST DETACH THIS SHIPPING ORDER AND SIGN THE ORIGINAL BILL OF LADING.** OF CONFORMITY

2

RECEIVED: Subject to the "COMMON CARRIER RATE AGREEMENT" or the CONTRACT between the Shipper and Carrier in effect on the date of shipment, the property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as shown below. This bill of lading is not subject to duty tariff, or classifications whether individually determined or filed with any federal or state regulatory agency, except as specifically agreed to in writing by the shipper and the carrier.

11 525985 092713

DO NOT WRITE IN THIS AREA

CONSIGNED TO		DATE	FROM	CONSIGNOR'S NUMBER
B & W PANTEX 2373 FM & HWY 60 E DAN G 303.250.1787 AMARILLO TX79120	[redacted]99 47 AT RINGGOLD, GA	/ 092713	SHAW INDUSTRIES, INC 952 INDUSTRIAL BLVD RINGGOLD GA 30736	525985
	ROUTING 30736 SCOTT LOGISTICS CUST PHONE 770-777-0386 PROH			VEHICLE ID: 5071LIVE SEAL NUMBER: 1560251 0004177669

SHIPPING INSTRUCTIONS

B & W PANTEX --AMARILLO
TO DELIVER 9/30

SHIP PPD S1 @$2535 QTE#03395/SS 5428
JANNA X3004510

FREIGHT CHARGES	
PREPAID	COLLECT
A	

COMMODITY DESCRIPTION: CARPET OR CARPETING, SOFT SURFACE (PILE) FABRIC POWER MACHINE TUFTED PER DETAIL LISTED BELOW

ORDER NUMBER	ORDER LINE	STYLE NAME	STYLE NUMBER	STYLE COLOR	WIDTH FT.	WIDTH IN.	LENGTH FT.	LENGTH IN.	ROLL NUMBER	PURCHASE ORDER NUMBER	DYE LOT	DYE SEQ	M T	B C	WEIGHT	DIAMETER
092613		307240A	16:53													SQYDS
	S/M -	B & W PANTEX --AMARILLO														
	S/M -	SHIP PPD S1 @$2535 QTE#03395/SS 5428														
	S/M -	TO DELIVER 9/30														
	S/M -	JANNA X3004510														
	S/M -	RT-SCOTT LOGISTICS 09/25 10:54 JBH2														
	S/M -	REQ BY 4 09/25 10:54 JBH2														
38498	001	SO CLOSURE TURF	283S6	00301	15	00	300	00	AA1821Z 7729 FRT CLASS 100		G48541	-30	R	F	848	500.00
38498	002	SO CLOSURE TURF	283S6	00301	15	00	300	00	AA18221 7729 FRT CLASS 100		G48541	-31	C	F	848	500.00
38498	003	SO CLOSURE TURF	283S6	00301	15	00	300	00	AA1825C 7729 FRT CLASS 100		G48541	-32	R	F	848	500.00
38498	004	SO CLOSURE TURF	283S6	00301	15	00	300	00	AA1825D 7729 FRT CLASS 100		G48541	-33	C	F	848	500.00
38498	005	SO CLOSURE TURF	283S6	00301	15	00	300	00	AA1825E 7729 FRT CLASS 100		G48551	-01	R	F	848	500.00

NOTE: WHERE THE RATE IS DEPENDENT ON VALUE CONSIGNOR IS REQUIRED TO STATE SPECIFICALLY IN WRITING THE AGREED OR DECLARED VALUE OF THE PROPERTY. THE AGREED OR DECLARED VALUE OF THE PROPERTY IS HEREBY SPECIFICALLY STATED BY THE CONSIGNOR TO BE NOT EXCEEDING _____

PER _____ IF THE SHIPMENT MOVES BETWEEN TWO PORTS BY A CARRIER BY WATER, THE LAW REQUIRES THAT THE BILL OF LADING STATE WHETHER IT IS CARRIER'S OR CONSIGNOR'S WEIGHT

REMIT TO Mike Bradford

PAGE NO.	TOTAL CASES	TOTAL CUTS	TOTAL ROLLS	TOTAL WEIGHT	TOTAL PIECES
1	000	000	000	000000	000

AGENT	SIGNATURE	DATE

PERMANENT POST OFFICE ADDRESS OF CONSIGNOR
P.O. DRAWER 2128
DALTON, GA. 30722-2128

AGENT MUST DETACH THIS SHIPPING ORDER AND SIGN THE ORIGINAL BILL OF LADING.

2

RECEIVED: Subject to the "COMMON CARRIER RATE AGREEMENT" or the CONTRACT between the Shipper and Carrier in effect on the date of shipment, the property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as shown below. This bill of lading is not subject to duty tariff, or classifications whether individually determined or filed with any federal or state regulatory agency, except as specifically agreed to in writing by the shipper and the carrier.

11 525985 092713

DO NOT WRITE IN THIS AREA

CONSIGNED TO
B & W PANTEX
2373 FM & HWY 60 E
DAN G 303.250.1787
AMARILLO TX79120

[redacted] 99 47
AT RINGGOLD, GA

DATE 092713

FROM SHAW INDUSTRIES, INC
952 INDUSTRIAL BLVD
RINGGOLD GA 30736

CONSIGNOR'S NUMBER 525985

ROUTING 30736
SCOTT LOGISTICS CUST PHONE 770-777-0386
PRO#

VEHICLE ID	SEAL NUMBER
5071LIVE	1560251 0004177668

SHIPPING INSTRUCTIONS

B & W PANTEX --AMARILLO

SHIP PPD SL @$2535 QTE#Q3395/SS 5428

FREIGHT CHARGES	
PREPAID	COLLECT
A	

COMMODITY DESCRIPTION: CARPET OR CARPETING, SOFT SURFACE (PILE) FABRIC POWER MACHINE TUFTED PER DETAIL LISTED BELOW

ORDER NUMBER	ORDER LINE	STYLE NAME	STYLE NUMBER	STYLE COLOR	WIDTH FT.	WIDTH IN.	LENGTH FT.	LENGTH IN.	ROLL NUMBER	PURCHASE ORDER NUMBER	DYE LOT	DYE SEQ	M T	B C	WEIGHT	DIAMETER
384987	006	SO CLOSURE TURF	283SG	00301	15	00	300	00	AA1825F FRT CLASS 100	7729	G48551	-02	R	F	848	500.00
384987	007	SO CLOSURE TURF	283SG	00301	15	00	300	00	AA1825G FRT CLASS 100	7729	G48551	-03	R	F	848	500.00
384987	008	SO CLOSURE TURF	283SG	00301	15	00	300	00	AA1825H FRT CLASS 100	7729	G48551	-04	R	F	848	500.00
34987	009	SO CLOSURE TURF	283SG	00301	15	00	300	00	AA1827G FRT CLASS 100	7729	G48551	-05	R	F	848	500.00
384987	010	SO CLOSURE TURF	283SG	00301	15	00	300	00	AA1827H FRT CLASS 100	7729	G48551	-06	C	F	848	500.00
384987	011	SO CLOSURE TURF	283SG	00301	15	00	300	00	AA1827J FRT CLASS 100	7729	G48551	-07	C	F	848	500.00
384987	012	SO CLOSURE TURF	283SG	00301	15	00	300	00	AA1827K FRT CLASS 100	7729	G48551	-08	R	F	848	500.00
384987	013	SO CLOSURE TURF	283SG	00301	15	00	300	00	AA1827M FRT CLASS 100	7729	G48551	-09	R	F	848	500.00
384987	014	SO CLOSURE TURF	283SG	00301	15	00	300	00	AA1827N FRT CLASS 100	7729	G48551	-10	R	F	848	500.00

NOTE: WHERE THE RATE IS DEPENDENT ON VALUE CONSIGNOR IS REQUIRED TO STATE SPECIFICALLY IN WRITING THE AGREED OR DECLARED VALUE OF THE PROPERTY. THE AGREED OR DECLARED VALUE OF THE PROPERTY IS HEREBY SPECIFICALLY STATED BY THE CONSIGNOR TO BE NOT EXCEEDING _____

PER _____ IF THE SHIPMENT MOVES BETWEEN TWO PORTS BY A CARRIER BY WATER, THE LAW REQUIRES THAT THE BILL OF LADING STATE WHETHER IT IS CARRIER'S OR CONSIGNOR'S WEIGHT

REMIT TO

PAGE NO.	TOTAL CASES	TOTAL CUTS	TOTAL ROLLS	TOTAL WEIGHT	TOTAL PIECES

AGENT 000 000 SIGNATURE DATE 000

PERMANENT POST OFFICE ADDRESS OF CONSIGNOR
P.O. DRAWER 2128
DALTON, GA. 30722-2128

AGENT MUST DETACH THIS SHIPPING ORDER AND SIGN THE ORIGINAL BILL OF LADING.

2

RECEIVED: Subject to the "COMMON CARRIER RATE AGREEMENT" or the CONTRACT between the Shipper and Carrier in effect on the date of shipment, the property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as shown below. This bill of lading is not subject to duty tariff, or classifications whether individually determined or filed with any federal or state regulatory agency, except as specifically agreed to in writing by the shipper and the carrier.

I1 525985 092713

DO NOT WRITE IN THIS AREA

CONSIGNED TO		DATE	FROM	CONSIGNOR'S NUMBER
B & W PANTEX 2373 FM & HWY 60 E DAN G 303.250.1787 AMARILLO TX79120	[redacted] 99 47 AT RINGGOLD, GA	092713	SHAW INDUSTRIES, INC 952 INDUSTRIAL BLVD RINGGOLD GA 30736	525985
	ROUTING 30736 SCOTT LOGISTICS CUST PHONE 770-777-0386 PRO#			VEHICLE ID: 5071LIVE SEAL NUMBER: 1560251 0004177668

SHIPPING INSTRUCTIONS

B & W PANTEX --AMARILLO

SHIP PPD S1 @$2535 QTE#Q3395/SS 5428

FREIGHT CHARGES	
PREPAID	COLLECT
A	

COMMODITY DESCRIPTION: CARPET OR CARPETING, SOFT SURFACE (PILE) FABRIC POWER MACHINE TUFTED PER DETAIL LISTED BELOW

ORDER NUMBER	ORDER LINE	STYLE NAME	STYLE NUMBER	STYLE COLOR	WIDTH FT.	WIDTH IN.	LENGTH FT.	LENGTH IN.	ROLL NUMBER	PURCHASE ORDER NUMBER	DYE LOT	DYE SEQ	M T	B C	WEIGHT	DIAMETER
384987	015	SO CLOSURE TURF	283SG	00301	15	00	300	00	AA1829R	7729	G48551	-11	R	F	848	500.00
									FRT CLASS 100							
384987	016	SO CLOSURE TURF	283SG	00301	15	00	300	00	AA1829T	7729	G48551	-12	R	F	848	500.00
									FRT CLASS 100							
384987	017	SO CLOSURE TURF	283SG	00301	15	00	300	00	AA1829U	7729	G48551	-13	R	F	848	500.00
									FRT CLASS 100							
384987	018	SO CLOSURE TURF	283SG	00301	15	00	300	00	AA1829V	7729	G48551	-14	R	F	848	500.00
									FRT CLASS 100							
384987	019	SO CLOSURE TURF	283SG	00301	15	00	300	00	AA1829W	7729	G48551	-15	R	F	848	500.00
									FRT CLASS 100							
384987	020	SO CLOSURE TURF	283SG	00301	15	00	300	00	AA1829X	7729	G48551	-16	R	F	848	500.00
									FRT CLASS 100							
384987	021	SO CLOSURE TURF	283SG	00301	15	00	300	00	AA182HT	7729	G48551	-17	R	F	848	500.00
									FRT CLASS 100							
384987	022	SO CLOSURE TURF	283SG	00301	15	00	300	00	AA182HU	7729	G48551	-18	R	F	848	500.00
									FRT CLASS 100							
384987	023	SO CLOSURE TURF	283SG	00301	15	00	300	00	AA182HV	7729	G48551	-19	R	F	84	500.00
									FRT CLASS 100							

NOTE: WHERE THE RATE IS DEPENDENT ON VALUE CONSIGNOR IS REQUIRED TO STATE SPECIFICALLY IN WRITING THE AGREED OR DECLARED VALUE OF THE PROPERTY. THE AGREED OR DECLARED VALUE OF THE PROPERTY IS HEREBY SPECIFICALLY STATED BY THE CONSIGNOR TO BE NOT EXCEEDING _____

PER _____ IF THE SHIPMENT MOVES BETWEEN TWO PORTS BY A CARRIER BY WATER, THE LAW REQUIRES THAT THE BILL OF LADING STATE WHETHER IT IS CARRIER'S OR CONSIGNOR'S WEIGHT

REMIT TO [illegible]

PAGE NO.	TOTAL CASES	TOTAL CUTS	TOTAL ROLLS	TOTAL WEIGHT	TOTAL PIECES

AGENT 000 000 SIGNATURE 00000 DATE 000

PERMANENT POST OFFICE ADDRESS OF CONSIGNOR
P.O. DRAWER 2128
DALTON, GA. 30722-2128

AGENT MUST DETACH THIS SHIPPING ORDER AND SIGN THE ORIGINAL BILL OF LADING.

2

RECEIVED: Subject to the "COMMON CARRIER RATE AGREEMENT" or the CONTRACT between the Shipper and Carrier in effect on the date of shipment, the property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as shown below. This bill of lading is not subject to duty tariff, or classifications whether individually determined or filed with any federal or state regulatory agency, except as specifically agreed to in writing by the shipper and the carrier.

11 525985 092713

DO NOT WRITE IN THIS AREA

CONSIGNED TO
B & W PANTEX
2373 FM & HWY 60 E
DAN G 303.250.1787
AMARILLO TX79120

[redacted] 99 47
AT RINGGOLD, GA

DATE 092713

FROM SHAW INDUSTRIES, INC
952 INDUSTRIAL BLVD
RINGGOLD GA 30736

CONSIGNOR'S NUMBER 525985

ROUTING 30736
SCOTT LOGISTICS CUST PHONE 770-777-0386
PRO#

VEHICLE ID	SEAL NUMBER
5071LIVE	1560251 0004177668

SHIPPING INSTRUCTIONS

B & W PANTEX --AMARILLO

SHIP PPD S1 @$2535 QTE#Q3395/SS 5428

FREIGHT CHARGES	
PREPAID	COLLECT
A	

COMMODITY DESCRIPTION: CARPET OR CARPETING, SOFT SURFACE (PILE) FABRIC POWER MACHINE TUFTED PER DETAIL LISTED BELOW

ORDER NUMBER	LINE	STYLE NAME	STYLE NUMBER	STYLE COLOR	WIDTH FT.	WIDTH IN.	LENGTH FT.	LENGTH IN.	ROLL NUMBER	PURCHASE ORDER NUMBER	DYE LOT	DYE SEQ	M T	B C	WEIGHT	DIAMETER
384987	024	SO CLOSURE TURF	283SG	00301	15	00	300	00	AA182HW FRT CLASS 100	7729	G48551	-20	R	F	848	500.00
384987	025	SO CLOSURE TURF	283SG	00301	15	00	300	00	AA182HX FRT CLASS 100	7729	G48551	-21	R	F	848	500.00
384987	026	SO CLOSURE TURF	283SG	00301	15	00	300	00	AA182HY FRT CLASS 100	7729	G48551	-22	R	F	848	500.00
384987	027	SO CLOSURE TURF	283SG	00301	15	00	300	00	AA182JK FRT CLASS 100	7729	G48551	-23	R	F	848	500.00
																13500.00

NOTE: WHERE THE RATE IS DEPENDENT ON VALUE CONSIGNOR IS REQUIRED TO STATE SPECIFICALLY IN WRITING THE AGREED OR DECLARED VALUE OF THE PROPERTY. THE AGREED OR DECLARED VALUE OF THE PROPERTY IS HEREBY SPECIFICALLY STATED BY THE CONSIGNOR TO BE NOT EXCEEDING _____
PER _____ IF THE SHIPMENT MOVES BETWEEN TWO PORTS BY A CARRIER BY WATER, THE LAW REQUIRES THAT THE BILL OF LADING STATE WHETHER IT IS CARRIER'S OR CONSIGNOR'S WEIGHT

REMIT TO

PAGE NO.	TOTAL CASES	TOTAL CUTS	TOTAL ROLLS	TOTAL WEIGHT	TOTAL PIECES
4		4	23	22 896	27

AGENT	SIGNATURE	DATE
	Estelle Pile	7/27/13

PERMANENT POST OFFICE ADDRESS OF CONSIGNOR
P.O. DRAWER 2128
DALTON, GA. 30722-2128

12:50

EST 81 SQ YDS LOAD 13500.00

CPSC CERTIFICATE OF CONFORMITY CAN BE PRINTED ON THE ORIGINAL BILL OF LADING. AGENT MUST DETACH THIS SHIPPING ORDER AND SIGN OF CONFORMITY

2

RECEIVED, Subject to the "COMMON CARRIER RATE AGREEMENT" or the CONTRACT between the Shipper and Carrier in effect on the date of shipment, the property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as shown below. This bill of lading is not subject to duty tariff, or classifications whether individually determined or filed with any federal or state regulatory agency, except as specifically agreed to in writing by the shipper and the carrier.

12 075385 092713

DO NOT WRITE IN THIS AREA

CONSIGNED TO
DROP#00
B & W PANTEX
2373 FM & HWY 60 E
DAN G 303.250.1787
AMARILLO TX 79120

DATE 12:51
FROM
AT TRIP# 0004177663 09-27-13

CONSIGNOR'S NUMBER 075385

ROUTING
VIA: SCOTT LOGISTICS APPT(09/29 13:00)

VEHICLE ID	SEAL NUMBER
5071LIVE	1560251

SHIPPING INSTRUCTIONS

CONSIGNOR TO LOAD / CONSIGNEE TO UNLOAD SHIPMENT **

SV Trucking

FREIGHT CHARGES

PREPAID	COLLECT

COMMODITY DESCRIPTION: CARPET OR CARPETING, SOFT SURFACE (PILE) FABRIC POWER MACHINE TUFTED PER DETAIL LISTED BELOW

ORDER NUMBER	ORDER LINE	STYLE NAME	STYLE NUMBER	STYLE COLOR	WIDTH FT.	WIDTH IN.	LENGTH FT.	LENGTH IN.	ROLL NUMBER	PURCHASE ORDER NUMBER	DYE LOT	DYE SEQ	M T	B C	WEIGHT	DIAMETER
ACKNOWLEDGING RECEIPT OF CARPET AS LISTED ON BILLS OF LADING NUMBERED AS FOLLOWS :																
DROP# 00			BOL NO	PRO NUMBER			CUSTOMER PO			BOL NO	PRO NUMBER		CUSTOMER PO			
B & W PANTEX			525985				7729									
2373 FM & HWY 60 E																
DAN G 303.250.1787																
AMARILLO TX 79120																
** DROP TOTALS ** SQ YDS - 13,500.00					PIECES		- 027		CASES -		00	WEIGHT -		22,896	LBS.	

NOTE: WHERE THE RATE IS DEPENDENT ON VALUE CONSIGNOR IS REQUIRED TO STATE SPECIFICALLY IN WRITING THE AGREED OR DECLARED VALUE OF THE PROPERTY. THE AGREED OR DECLARED VALUE OF THE PROPERTY IS HEREBY SPECIFICALLY STATED BY THE CONSIGNOR TO BE NOT EXCEEDING _____

PER _____ IF THE SHIPMENT MOVES BETWEEN TWO PORTS BY A CARRIER BY WATER, THE LAW REQUIRES THAT THE BILL OF LADING STATE WHETHER IT IS CARRIER'S OR CONSIGNOR'S WEIGHT

REMIT TO

** MASTER BOL TOTALS **
TOTAL SQ YDS. 13,500.00

PAGE NO.	TOTAL CASES	TOTAL CUTS	TOTAL ROLLS	TOTAL WEIGHT	TOTAL PIECES
1	0	4	23	22,896	27

AGENT	SIGNATURE	DATE
ESTEBAN LOPEZ	Esteban Lopez	9/27/13

PERMANENT POST OFFICE ADDRESS OF CONSIGNOR
P.O. DRAWER 2128
DALTON, GA. 30722-2128

CPSC CERTIFICATE OF CONFORMITY CAN BE FOUND @ HTTP://WWW.SHAWFLOORS.COM/CERTIFICATESOFCONFORMITY

3

RECEIVED: Subject to the "COMMON CARRIER RATE AGREEMENT" or the CONTRACT between the Shipper and Carrier in effect on the date of shipment, the property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as shown below. This bill of lading is not subject to duty tariff, or classifications whether individually determined or filed with any federal or state regulatory agency, except as specifically agreed to in writing by the shipper and the carrier.

12 075403 092713

DO NOT WRITE IN THIS AREA

CONSIGNED TO
DROP#00
B & W PANTEX
2373 FM & HWY 60 E
DAN G 303.250.1787
AMARILLO TX 79120

AT TRIP# 0004178294

DATE 18:01 09-27-13

FROM

CONSIGNOR'S NUMBER 075403

ROUTING
VIA: SCOTT LOGISTICS APPT(09/29 19:00

VEHICLE ID 53219L

SEAL NUMBER VE 1560160

SHIPPING INSTRUCTIONS
CONSIGNOR TO LOAD / CONSIGNEE TO UNLOAD SHIPMENT **

B+K

FREIGHT CHARGES
PREPAID | COLLECT

COMMODITY DESCRIPTION: CARPET OR CARPETING, SOFT SURFACE (PILE) FABRIC POWER MACHINE TUFTED PER DETAIL LISTED BELOW

ORDER NUMBER	LINE	STYLE NAME	STYLE NUMBER	STYLE COLOR	WIDTH FT.	WIDTH IN.	LENGTH FT.	LENGTH IN.	ROLL NUMBER	PURCHASE ORDER NUMBER	DYE LOT	DYE SEQ	M T	B C	WEIGHT	DIAMETER
ACKNOWLEDGING RECEIPT OF CARPET AS LISTED ON BILLS OF LADING NUMBERED AS FOLLOWS :																
DROP# 00			BOL NO		PRO NUMBER		CUSTOMER PO			BOL NO	PRO NUMBER		CUSTOMER PO			
B & W PANTEX			526647				7129									
2373 FM & HWY 60 E																
DAN G 303.250.1787																
AMARILLO TX 79120																
** DROP TOTALS ** SQ YDS - 5,500.00 PIECES - 011 CASES - 00 WEIGHT - 9,329 LBS.																

NOTE: WHERE THE RATE IS DEPENDENT ON VALUE CONSIGNOR IS REQUIRED TO STATE SPECIFICALLY IN WRITING THE AGREED OR DECLARED VALUE OF THE PROPERTY. THE AGREED OR DECLARED VALUE OF THE PROPERTY IS HEREBY SPECIFICALLY STATED BY THE CONSIGNOR TO BE NOT EXCEEDING _____ PER _____ IF THE SHIPMENT MOVES BETWEEN TWO PORTS BY A CARRIER BY WATER, THE LAW REQUIRES THAT THE BILL OF LADING STATE WHETHER IT IS CARRIER'S OR CONSIGNOR'S WEIGHT

REMIT TO
** MASTER BOL TOTALS **
TOTAL SQ YDS. 5,500.00

PAGE NO.	TOTAL CASES	TOTAL CUTS	TOTAL ROLLS	TOTAL WEIGHT	TOTAL PIECES
1	0	1	10	9,329	11

AGENT	SIGNATURE	DATE
TK	Tommy Kid	9 27 13

PERMANENT POST OFFICE ADDRESS OF CONSIGNOR
P.O. DRAWER 2128
DALTON, GA. 30722-2128

CPSC CERTIFICATE OF CONFORMITY CAN BE FOUND @ HTTP://WWW.SHAWFLOORS.COM/CERTIFICATESOFCONFORMITY

3

'RAIGHT BILL OF LADING - SHORT FORM - ORIGINAL - NOT NEGOTIABLE

ME OF CARRIER	CARRIER'S NO.	DATE	B/L NO.
TRUCK		9/27/2013	041163

:EIVED, subject to the classifications and lawfully filed tariffs in effect on the date of issue of this Bill of Lading,
property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated below which said carrier (the word carrier
lerstood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliv
ther carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property over all or any portion of said route to destination, and as to each party at any time interested in all or a
l property, that every service to be performed hereunder, shall be subject to all the terms and conditions of the Uniform Domestic Straight Bill of Lading set forth (1) in Uniform Freight Classifications in effect on the
eof, if this is a rail or a rail-water shipment, or (2) in the applicable motor carrier classification or tariff if this is a motor carrier shipment.
pper hereby certifies that he is familiar with all the terms and conditions of the said bill of lading, set forth in the classification or tariff which governs the transportation of this shipment, and the said terms and condi
hereby agreed to by the shipper and accepted for himself and his assigns.

ROM:
HIPPER
ORIGIN)

AGRU/AMERICA, INC.
500 GARRISON ROAD
GEORGETOWN, SOUTH CAROLINA 29440
(843) 546-0600

EMERGENCY RESPONSE PHONE NO.

TO:
CONSIGNEE B&W PANTEX
FM 2373 & HWY 60 E
AMARILLO, TX 79177 USA
STREET SEE SITE CONTACTS BELOW
DESTINATION ZIP

LIVERING RRIER Dallick with Elite trucking
ROUTE
VEHICLE NUMBER

NO. PACKAGES	+ HM	KIND OF PACKAGE, DESCRIPTION OF ARTICLES SPECIAL MARKS AND EXCEPTIONS	*WEIGHT (SUBJECT TO CORR.)	CLASS OR RATE	✓	CHARGES (FOR CARRIER USE ONL
82,801		CLOSURE TURF SYSTEM				
220		WELD ROD MFG BLACK LDPE 5MM				

Item Key	Lot Number	Quantity
L-LL-SGRP-50-23	103112-13	6,900
L-LL-SGRP-50-23	103213-13	6,900
L-LL-SGRP-50-23	105624-13	6,900
L-LL-SGRP-50-23	105625-13	6,900
L-LL-SGRP-50-23	105626-13	6,900
L-LL-SGRP-50-23	105727-13	6,900
L-LL-SGRP-50-23	105728-13	6,900
L-LL-SGRP-50-23	105739-13	6,900
L-LL-SGRP-50-23	109781-13	6,900
L-LL-SGRP-50-23	109782-13	6,900
L-LL-SGRP-50-23	146670-12	6,900
L-LL-SGRP-50-23	146671-12	6,900

Total Weight: 3~~3,340 LB~~ 33,556 LBS
Total Packages: ~~83,021~~ 12 Rolls / 105 pcs w/R
Order No.: 23244 Order Date: 09/09/13 Request Date: 09/27/13
Location: GTOWN P.O. No.: 404-13

EMIT C.O.D. TO:
AGRU/AMERICA, INC.
500 GARRISON ROAD
GEORGETOWN, SOUTH CAROLINA 29440
(843) 546-0600

C.O.D. Amt $

C.O.D. FEE
☑ Prepaid
☐ Collect $

If the shipment moves between two ports by a carrier by ater, the law requires that the bill of lading shall state hether it is "carrier's or shipper's weight".

Shipper's imprint in lieu of stamp; not a part of bill of lading pproved by the Interstate Commerce Commission.

NOTE: Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property.
The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding
$ per

Subject to Section 7 of conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.
(Signature of Consignor)

TOTAL CHARGES $

Freight charges are PREPAID unless marked collect.
☐ Check box if charges are Coll

This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation, according to the applicable regulations of the Department of Transporta

Shipper, Per Walter Casey Benford
Agent, Per

Page 1 of 1

ermanent post office address of shipper

+ MARK WITH "X" TO DESIGNATE HAZARDOUS MATERIAL AS DEFINED IN TITLE 49 OF FEDERAL REGULATIONS.

When transporting hazardous materials include the technical or chemical name for n.o.s. (not otherwise specified) or generic description of material with appropriate UN or NA number as defined in US DOT Emergency Response Communication Standard (HM-126C). Provide emergency response phone number in case of incident or accident.

agru america, inc.

[redacted]

Date: 9-27-2013 BOL #: 23244 Document #: Customer: AE Destination: A, TX

[redacted]

1	146670.12	Y	N	Y	N	Y	N	Y	N	CDE810570	(10)
2	146671.12	Y	N	Y	N	Y	N	Y	N		
3	103112.13	Y	N	Y	N	Y	N	Y	N		
4	103213.13	Y	N	Y	N	Y	N	Y	N		
5	105624.13	Y	N	Y	N	Y	N	Y	N		
6	105625.13	Y	N	Y	N	Y	N	Y	N		
7	105626.13	Y	N	Y	N	Y	N	Y	N		
8	105627.13	Y	N	Y	N	Y	N	Y	N		
9	105728.13	Y	N	Y	N	Y	N	Y	N		
10	105739.13	Y	N	Y	N	Y	N	Y	N		
11	109781.13	Y	N	Y	N	Y	N	Y	N		
12	109782.13	Y	N	Y	N	Y	N	Y	N		
13		Y	N	Y	N	Y	N	Y	N		
14		Y	N	Y	N	Y	N	Y	N		
15		Y	N	Y	N	Y	N	Y	N		
16		Y	N	Y	N	Y	N	Y	N		
17		Y	N	Y	N	Y	N	Y	N		
18		Y	N	Y	N	Y	N	Y	N		
19		Y	N	Y	N	Y	N	Y	N		
20		Y	N	Y	N	Y	N	Y	N		

External Visual Check : Clean Roll; Damage (Holes, Tears); Telescoping; Liner Defects (Voids, Bug Marks, etc.); Legible markings on roll

Strap Check : 6 foot spacing; Check for wear, cuts

Core Check : Check for cracks, defects

Weld Rod Check (*if neccessary*) : *Secure Load; Lot # on BOL; Check type*

Comments : Note comments for ANY & ALL "No" entries on form

CHECK OFF ON ALL FIELDS - INSPECTOR VERIFIES ALL COMMENTS

Digital photo taken of shipment ?

yes no

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Inspector - S. Miller

Loader :

APPENDIX B

AGRU GEOMEMBRANE CONFORMANCE TESTING CERTIFICATIONS

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ROLL # **146670-12** Lot #: **CCJ810240** **Liner Type: SUPERGRIP™ LLDPE**

Measurement ASTM D5994 (Modified)		METRIC		ENGLISH	
	MIN:	**1.27**	mm	**50**	mil
	MAX:	**1.66**	mm	**65**	mil
Asperity GRI GM12: **150/206** mil TOP(DRAIN) / BOTTOM(GRIP)	AVE:	**1.45**	mm	**57**	mil

Thickness.....	**1.25**	**mm**	**50 mil**
Length.....	**91.441**	m	**300.0** feet
Width.....	**7.01**	m;	**23.0** feet
OIT(Standard) ASTM D3895	minutes	**174**	

								TEST RESULTS	
Specific Gravity ASTM D792	Density			g/cc				**.934**	
MFI ASTM D1238 COND. E GRADE: **7104**	Melt Flow Index 190ºC /2160 g			g/10 min				**.34**	
Carbon Black Content ASTM D4218	Range			%				**2.25**	
Carbon Black Dispersion ASTM D5596	Category							**10 In Cat 1**	
Tensile Strength ASTM D6693 ASTM D638 (Modified) (2 inches / minute)	Average Strength @ Break	**38**	N/mm		**215**	ppi		**3,764**	psi
Elongation ASTM D6693 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Break			%				**523.1**	
Dimensional Stability ASTM D1204 (Modified)	Average Dimensional change			%				**-.55**	
Tear Resistance ASTM D-1004 (Modified)	Average Tear Resistance	**221.2**	N					**49.722**	lbs
Puncture Resistance FTMS 101 Method 2065 (Modified)	Load	**448.6**	N					**100.86**	lbs
Puncture Resistance ASTM D4833 (Modified)	Load	**606.5**	N					**136.35**	lbs
ESCR ASTM D1693	Minimum Hrs w/o Failures	1500	hrs					**CERTIFIED**	

Customer: **American Environmental**
PO: **404-13 B & W Pantex**
Destination **Amarillo, TX**

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ROLL # **146671-12** Lot #: **CCJ810240** **Liner Type: SUPERGRIP™ LLDPE**

Measurement ASTM D5994 (Modified)		METRIC		ENGLISH	
	MIN:	**1.39**	mm	**55**	mil
	MAX:	**1.63**	mm	**64**	mil
Asperity GRI GM12: **147/206** mil TOP(DRAIN) / BOTTOM(GRIP)	AVE:	**1.47**	mm	**58**	mil

Thickness.....	**1.25**	**mm**	**50 mil**
Length.....	**91.441**	m	**300.0** feet
Width.....	**7.01**	m;	**23.0** feet
OIT(Standard) ASTM D3895	minutes	**174**	

								TEST RESULTS	
Specific Gravity ASTM D792	Density			g/cc				**.932**	
MFI ASTM D1238 COND. E GRADE: **7104**	Melt Flow Index 190ºC /2160 g			g/10 min				**.34**	
Carbon Black Content ASTM D4218	Range			%				**2.21**	
Carbon Black Dispersion ASTM D5596	Category							**10 In Cat 1**	
Tensile Strength ASTM D6693 ASTM D638 (Modified) (2 inches / minute)	Average Strength @ Break	**40**	N/mm		**229**	ppi		**3,950**	psi
Elongation ASTM D6693 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Break			%				**570.2**	
Dimensional Stability ASTM D1204 (Modified)	Average Dimensional change			%				**-.55**	
Tear Resistance ASTM D-1004 (Modified)	Average Tear Resistance	**221.4**	N					**49.785**	lbs
Puncture Resistance FTMS 101 Method 2065 (Modified)	Load	**464.6**	N					**104.44**	lbs
Puncture Resistance ASTM D4833 (Modified)	Load	**584.7**	N					**131.45**	lbs
ESCR ASTM D1693	Minimum Hrs w/o Failures	1500	hrs					**CERTIFIED**	

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ROLL # **103112-13** Lot #: **CCH810570** **Liner Type: SUPERGRIP™ LLDPE**

Measurement ASTM D5994 (Modified)		METRIC		ENGLISH	
	MIN:	**1.33**	mm	**52**	mil
	MAX:	**1.66**	mm	**65**	mil
Asperity GRI GM12: **154/199** mil TOP(DRAIN) / BOTTOM(GRIP)	AVE:	**1.51**	mm	**59**	mil

Thickness.....	**1.25**	**mm**	**50 mil**
Length.....	**91.441**	m	**300.0** feet
Width.....	**7.01**	m;	**23.0** feet
OIT(Standard) ASTM D3895	minutes	**173**	

								TEST RESULTS	
Specific Gravity ASTM D792	Density			g/cc				**.935**	
MFI ASTM D1238 COND. E GRADE: **7104**	Melt Flow Index 190ºC /2160 g			g/10 min				**.36**	
Carbon Black Content ASTM D4218	Range			%				**2.38**	
Carbon Black Dispersion ASTM D5596	Category							**10 IN CATEGORY 1**	
Tensile Strength ASTM D6693 ASTM D638 (Modified) (2 inches / minute)	Average Strength @ Break	**41**	N/mm		**232**	ppi		**3,899**	psi
Elongation ASTM D6693 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Break			%				**545.7**	
Dimensional Stability ASTM D1204 (Modified)	Average Dimensional Change			%				**-.85**	
Tear Resistance ASTM D-1004 (Modified)	Average Tear Resistance	**237.4**	N					**53.376**	lbs
Puncture Resistance FTMS 101 Method 2065 (Modified)	Load	**476.8**	N					**107.202**	lbs
Puncture Resistance ASTM D4833 (Modified)	Load	**656.6**	N					**147.623**	lbs
ESCR ASTM D1693	Minimum Hrs w/o Failures	1500	hrs					**CERTIFIED**	

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ROLL # **103213-13** Lot #: **CCH810570** **Liner Type: SUPERGRIP™ LLDPE**

Measurement ASTM D5994 (Modified)		METRIC		ENGLISH	
	MIN:	**1.37**	mm	**54**	mil
	MAX:	**1.94**	mm	**76**	mil
Asperity GRI GM12: **150/198** mil TOP(DRAIN) / BOTTOM(GRIP)	AVE:	**1.57**	mm	**62**	mil

Thickness.....	**1.25**	**mm**	**50 mil**
Length.....	**91.441**	m	**300.0** feet
Width.....	**7.01**	m;	**23.0** feet
OIT(Standard) ASTM D3895	minutes	**173**	

								TEST RESULTS	
Specific Gravity ASTM D792	Density			g/cc				**.935**	
MFI ASTM D1238 COND. E GRADE: **7104**	Melt Flow Index 190ºC /2160 g			g/10 min				**.36**	
Carbon Black Content ASTM D4218	Range			%				**2.38**	
Carbon Black Dispersion ASTM D5596	Category							**10 IN CATEGORY 1**	
Tensile Strength ASTM D6693 ASTM D638 (Modified) (2 inches / minute)	Average Strength @ Break	**42**	N/mm		**241**	ppi		**3,899**	psi
Elongation ASTM D6693 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Break			%				**545.7**	
Dimensional Stability ASTM D1204 (Modified)	Average Dimensional Change			%				**-.85**	
Tear Resistance ASTM D-1004 (Modified)	Average Tear Resistance	**237.4**	N					**53.376**	lbs
Puncture Resistance FTMS 101 Method 2065 (Modified)	Load	**476.8**	N					**107.202**	lbs
Puncture Resistance ASTM D4833 (Modified)	Load	**656.6**	N					**147.623**	lbs
ESCR ASTM D1693	Minimum Hrs w/o Failures	1500	hrs					**CERTIFIED**	

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ROLL # **105624-13** Lot #: **CCG810270** **Liner Type: SUPERGRIP™ LLDPE**

Measurement ASTM D5994 (Modified)		METRIC		ENGLISH	
	MIN:	**1.38**	mm	**54**	mil
	MAX:	**1.56**	mm	**61**	mil
Asperity GRI GM12: **157/207** mil TOP(DRAIN) / BOTTOM(GRIP)	AVE:	**1.48**	mm	**58**	mil

Thickness.....	**1.25**	**mm**	**50 mil**
Length.....	**91.441**	m	**300.0** feet
Width.....	**7.01**	m;	**23.0** feet
OIT(Standard) ASTM D3895	minutes	**163**	

								TEST RESULTS	
Specific Gravity ASTM D792	Density			g/cc				**.933**	
MFI ASTM D1238 COND. E GRADE: **7104**	Melt Flow Index 190ºC /2160 g			g/10 min				**.35**	
Carbon Black Content ASTM D4218	Range			%				**2.21**	
Carbon Black Dispersion ASTM D5596	Category						**10 IN CATEGORY 1**		
Tensile Strength ASTM D6693 ASTM D638 (Modified) (2 inches / minute)	Average Strength @ Break	**43**	N/mm		**243**	ppi		**4,175**	psi
Elongation ASTM D6693 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Break			%				**580.0**	
Dimensional Stability ASTM D1204 (Modified)	Average Dimensional Change			%				**-.60**	
Tear Resistance ASTM D-1004 (Modified)	Average Tear Resistance	**223.5**	N					**50.252**	lbs
Puncture Resistance FTMS 101 Method 2065 (Modified)	Load	**499.3**	N					**112.246**	lbs
Puncture Resistance ASTM D4833 (Modified)	Load	**547.6**	N					**123.104**	lbs
ESCR ASTM D1693	Minimum Hrs w/o Failures	1500	hrs					**CERTIFIED**	

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ROLL # **105625-13** Lot #: **CCH811870** **Liner Type: SUPERGRIP™ LLDPE**

Measurement ASTM D5994 (Modified)		METRIC		ENGLISH	
	MIN:	**1.35**	mm	**53**	mil
	MAX:	**1.58**	mm	**62**	mil
Asperity GRI GM12: **156/209** mil TOP(DRAIN) / BOTTOM(GRIP)	AVE:	**1.48**	mm	**58**	mil

Thickness.....	**1.25**	**mm**	**50 mil**
Length.....	**91.441**	m	**300.0** feet
Width.....	**7.01**	m;	**23.0** feet
OIT(Standard) ASTM D3895	minutes	**171**	

							TEST RESULTS	
Specific Gravity ASTM D792	Density		g/cc				**.935**	
MFI ASTM D1238 COND. E GRADE: **7104**	Melt Flow Index 190ºC /2160 g		g/10 min				**.32**	
Carbon Black Content ASTM D4218	Range		%				**2.21**	
Carbon Black Dispersion ASTM D5596	Category						**10 IN CATEGORY 1**	
Tensile Strength ASTM D6693 ASTM D638 (Modified) (2 inches / minute)	Average Strength @ Break	**43**	N/mm	**243**	ppi		**4,175**	psi
Elongation ASTM D6693 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Break		%				**580.0**	
Dimensional Stability ASTM D1204 (Modified)	Average Dimensional Change		%				**-.92**	
Tear Resistance ASTM D-1004 (Modified)	Average Tear Resistance	**223.5**	N				**50.252**	lbs
Puncture Resistance FTMS 101 Method 2065 (Modified)	Load	**499.3**	N				**112.246**	lbs
Puncture Resistance ASTM D4833 (Modified)	Load	**547.6**	N				**123.104**	lbs
ESCR ASTM D1693	Minimum Hrs w/o Failures	1500	hrs				**CERTIFIED**	

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ROLL # **105626-13** Lot #: **CCH811870** **Liner Type: SUPERGRIP™ LLDPE**

Measurement ASTM D5994 (Modified)		METRIC		ENGLISH	
	MIN:	**1.43**	mm	**56**	mil
	MAX:	**1.64**	mm	**65**	mil
Asperity GRI GM12: **156/199** mil TOP(DRAIN) / BOTTOM(GRIP)	AVE:	**1.49**	mm	**59**	mil

Thickness.....	**1.25**	**mm**	**50 mil**
Length.....	**91.441**	m	**300.0** feet
Width.....	**7.01**	m;	**23.0** feet
OIT(Standard) ASTM D3895	minutes	**171**	

								TEST RESULTS	
Specific Gravity ASTM D792	Density		g/cc					**.935**	
MFI ASTM D1238 COND. E GRADE: **7104**	Melt Flow Index 190ºC /2160 g		g/10 min					**.32**	
Carbon Black Content ASTM D4218	Range		%					**2.23**	
Carbon Black Dispersion ASTM D5596	Category							**10 IN CATEGORY 1**	
Tensile Strength ASTM D6693 ASTM D638 (Modified) (2 inches / minute)	Average Strength @ Break	**43**	N/mm	**245**	ppi			**4,175**	psi
Elongation ASTM D6693 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Break		%					**580.0**	
Dimensional Stability ASTM D1204 (Modified)	Average Dimensional Change		%					**-.92**	
Tear Resistance ASTM D-1004 (Modified)	Average Tear Resistance	**223.5**	N					**50.252**	lbs
Puncture Resistance FTMS 101 Method 2065 (Modified)	Load	**499.3**	N					**112.246**	lbs
Puncture Resistance ASTM D4833 (Modified)	Load	**547.6**	N					**123.104**	lbs
ESCR ASTM D1693	Minimum Hrs w/o Failures	1500	hrs					**CERTIFIED**	

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ROLL # **105727-13** Lot #: **CCH811870** **Liner Type: SUPERGRIP™ LLDPE**

Measurement ASTM D5994 (Modified)		METRIC		ENGLISH	
	MIN:	**1.38**	mm	**54**	mil
	MAX:	**1.61**	mm	**63**	mil
Asperity GRI GM12: **154/203** mil TOP(DRAIN) / BOTTOM(GRIP)	AVE:	**1.47**	mm	**58**	mil

Thickness.....	**1.25**	**mm**	**50 mil**
Length.....	**91.441**	m	**300.0** feet
Width.....	**7.01**	m;	**23.0** feet
OIT(Standard) ASTM D3895	minutes	**171**	

								TEST RESULTS	
Specific Gravity ASTM D792	Density		g/cc					**.935**	
MFI ASTM D1238 COND. E GRADE: **7104**	Melt Flow Index 190ºC /2160 g		g/10 min					**.32**	
Carbon Black Content ASTM D4218	Range		%					**2.23**	
Carbon Black Dispersion ASTM D5596	Category							**10 IN CATEGORY 1**	
Tensile Strength ASTM D6693 ASTM D638 (Modified) (2 inches / minute)	Average Strength @ Break	**42**	N/mm	**242**	ppi			**4,175**	psi
Elongation ASTM D6693 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Break		%					**580.0**	
Dimensional Stability ASTM D1204 (Modified)	Average Dimensional Change		%					**-.92**	
Tear Resistance ASTM D-1004 (Modified)	Average Tear Resistance	**223.5**	N					**50.252**	lbs
Puncture Resistance FTMS 101 Method 2065 (Modified)	Load	**499.3**	N					**112.246**	lbs
Puncture Resistance ASTM D4833 (Modified)	Load	**547.6**	N					**123.104**	lbs
ESCR ASTM D1693	Minimum Hrs w/o Failures	1500	hrs					**CERTIFIED**	

Customer: **American Environmental**
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Destination **Amarillo, TX**

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ROLL # **105728-13** Lot #: **CCH811870** **Liner Type: SUPERGRIP™ LLDPE**

Measurement ASTM D5994 (Modified)		METRIC		ENGLISH	
	MIN:	**1.37**	mm	**54**	mil
	MAX:	**1.58**	mm	**62**	mil
Asperity GRI GM12: **154/207** mil TOP(DRAIN) / BOTTOM(GRIP)	AVE:	**1.48**	mm	**58**	mil

Thickness.....	**1.25**	**mm**	**50 mil**
Length.....	**91.441**	m	**300.0** feet
Width.....	**7.01**	m;	**23.0** feet
OIT(Standard) ASTM D3895	minutes	**171**	

								TEST RESULTS	
Specific Gravity ASTM D792	Density		g/cc					**.934**	
MFI ASTM D1238 COND. E GRADE: **7104**	Melt Flow Index 190ºC /2160 g		g/10 min					**.32**	
Carbon Black Content ASTM D4218	Range		%					**2.26**	
Carbon Black Dispersion ASTM D5596	Category							**10 IN CATEGORY 1**	
Tensile Strength ASTM D6693 ASTM D638 (Modified) (2 inches / minute)	Average Strength @ Break	**41**	N/mm	**236**	ppi			**4,058**	psi
Elongation ASTM D6693 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Break		%					**552.5**	
Dimensional Stability ASTM D1204 (Modified)	Average Dimensional Change		%					**-.92**	
Tear Resistance ASTM D-1004 (Modified)	Average Tear Resistance	**223.9**	N					**50.342**	lbs
Puncture Resistance FTMS 101 Method 2065 (Modified)	Load	**469.4**	N					**105.523**	lbs
Puncture Resistance ASTM D4833 (Modified)	Load	**611.5**	N					**137.479**	lbs
ESCR ASTM D1693	Minimum Hrs w/o Failures	1500	hrs					**CERTIFIED**	

Customer: **American Environmental**
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ROLL # **105729-13** Lot #: **CCH811870** **Liner Type: SUPERGRIP™ LLDPE**

Measurement ASTM D5994 (Modified)		METRIC		ENGLISH	
	MIN:	**1.45**	mm	**57**	mil
	MAX:	**1.59**	mm	**63**	mil
Asperity GRI GM12: **153/202** mil TOP(DRAIN) / BOTTOM(GRIP)	AVE:	**1.52**	mm	**60**	mil

Thickness.....	**1.25**	**mm**	**50 mil**
Length.....	**91.441**	m	**300.0** feet
Width.....	**7.01**	m;	**23.0** feet
OIT(Standard) ASTM D3895	minutes	**171**	

								TEST RESULTS	
Specific Gravity ASTM D792	Density		g/cc					**.934**	
MFI ASTM D1238 COND. E GRADE: **7104**	Melt Flow Index 190ºC /2160 g		g/10 min					**.32**	
Carbon Black Content ASTM D4218	Range		%					**2.26**	
Carbon Black Dispersion ASTM D5596	Category							**10 IN CATEGORY 1**	
Tensile Strength ASTM D6693 ASTM D638 (Modified) (2 inches / minute)	Average Strength @ Break	**43**	N/mm	**243**	ppi			**4,058**	psi
Elongation ASTM D6693 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Break		%					**552.5**	
Dimensional Stability ASTM D1204 (Modified)	Average Dimensional Change		%					**-.92**	
Tear Resistance ASTM D-1004 (Modified)	Average Tear Resistance	**223.9**	N					**50.342**	lbs
Puncture Resistance FTMS 101 Method 2065 (Modified)	Load	**469.4**	N					**105.523**	lbs
Puncture Resistance ASTM D4833 (Modified)	Load	**611.5**	N					**137.479**	lbs
ESCR ASTM D1693	Minimum Hrs w/o Failures	1500	hrs					**CERTIFIED**	

Customer: **American Environmental**
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ROLL # **105730-13** Lot #: **CCH811870** **Liner Type: SUPERGRIP™ LLDPE**

Measurement ASTM D5994 (Modified)		METRIC		ENGLISH	
	MIN:	**1.46**	mm	**57**	mil
	MAX:	**1.68**	mm	**66**	mil
Asperity GRI GM12: **158/204** mil TOP(DRAIN) / BOTTOM(GRIP)	AVE:	**1.55**	mm	**61**	mil

Thickness.....	**1.25**	**mm**	**50 mil**
Length.....	**91.441**	m	**300.0** feet
Width.....	**7.01**	m;	**23.0** feet
OIT(Standard) ASTM D3895	minutes	**171**	

								TEST RESULTS	
Specific Gravity ASTM D792	Density		g/cc					**.934**	
MFI ASTM D1238 COND. E GRADE: **7104**	Melt Flow Index 190ºC /2160 g		g/10 min					**.32**	
Carbon Black Content ASTM D4218	Range		%					**2.26**	
Carbon Black Dispersion ASTM D5596	Category							**10 IN CATEGORY 1**	
Tensile Strength ASTM D6693 ASTM D638 (Modified) (2 inches / minute)	Average Strength @ Break	**43**	N/mm	**248**	ppi			**4,058**	psi
Elongation ASTM D6693 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Break		%					**552.5**	
Dimensional Stability ASTM D1204 (Modified)	Average Dimensional Change		%					**-.92**	
Tear Resistance ASTM D-1004 (Modified)	Average Tear Resistance	**223.9**	N					**50.342**	lbs
Puncture Resistance FTMS 101 Method 2065 (Modified)	Load	**469.4**	N					**105.523**	lbs
Puncture Resistance ASTM D4833 (Modified)	Load	**611.5**	N					**137.479**	lbs
ESCR ASTM D1693	Minimum Hrs w/o Failures	1500	hrs					**CERTIFIED**	

Customer: **American Environmental**
PO: **404-13 B & W Pantex**
Destination **Amarillo, TX**

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ROLL # **105731-13** Lot #: **CCH811870** **Liner Type: SUPERGRIP™ LLDPE**

Measurement ASTM D5994 (Modified)		METRIC		ENGLISH	
	MIN:	**1.34**	mm	**53**	mil
	MAX:	**1.63**	mm	**64**	mil
Asperity GRI GM12: **162/203** mil TOP(DRAIN) / BOTTOM(GRIP)	AVE:	**1.52**	mm	**60**	mil

Thickness.....	**1.25**	**mm**	**50 mil**
Length.....	**91.441**	m	**300.0** feet
Width.....	**7.01**	m;	**23.0** feet
OIT(Standard) ASTM D3895	minutes	**171**	

								TEST RESULTS	
Specific Gravity ASTM D792	Density		g/cc					**.934**	
MFI ASTM D1238 COND. E GRADE: **7104**	Melt Flow Index 190ºC /2160 g		g/10 min					**.32**	
Carbon Black Content ASTM D4218	Range		%					**2.21**	
Carbon Black Dispersion ASTM D5596	Category							**10 IN CATEGORY 1**	
Tensile Strength ASTM D6693 ASTM D638 (Modified) (2 inches / minute)	Average Strength @ Break	**43**	N/mm	**243**	ppi			**4,058**	psi
Elongation ASTM D6693 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Break		%					**552.5**	
Dimensional Stability ASTM D1204 (Modified)	Average Dimensional Change		%					**-.92**	
Tear Resistance ASTM D-1004 (Modified)	Average Tear Resistance	**223.9**	N					**50.342**	lbs
Puncture Resistance FTMS 101 Method 2065 (Modified)	Load	**469.4**	N					**105.523**	lbs
Puncture Resistance ASTM D4833 (Modified)	Load	**611.5**	N					**137.479**	lbs
ESCR ASTM D1693	Minimum Hrs w/o Failures	1500	hrs					**CERTIFIED**	

Customer: **American Environmental**
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ROLL # **105732-13** Lot #: **CCH811870** **Liner Type: SUPERGRIP™ LLDPE**

Measurement ASTM D5994 (Modified)		METRIC		ENGLISH	
	MIN:	**1.39**	mm	**55**	mil
	MAX:	**1.66**	mm	**65**	mil
Asperity GRI GM12: **164/213** mil TOP(DRAIN) / BOTTOM(GRIP)	AVE:	**1.49**	mm	**59**	mil

Thickness.....	**1.25**	**mm**	**50 mil**
Length.....	**91.441**	m	**300.0** feet
Width.....	**7.01**	m;	**23.0** feet
OIT(Standard) ASTM D3895	minutes	**171**	

								TEST RESULTS	
Specific Gravity ASTM D792	Density		g/cc					**.934**	
MFI ASTM D1238 COND. E GRADE: **7104**	Melt Flow Index 190ºC /2160 g		g/10 min					**.32**	
Carbon Black Content ASTM D4218	Range		%					**2.21**	
Carbon Black Dispersion ASTM D5596	Category							**10 IN CATEGORY 1**	
Tensile Strength ASTM D6693 ASTM D638 (Modified) (2 inches / minute)	Average Strength @ Break	**42**	N/mm	**238**	ppi			**4,058**	psi
Elongation ASTM D6693 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Break		%					**552.5**	
Dimensional Stability ASTM D1204 (Modified)	Average Dimensional Change		%					**-.92**	
Tear Resistance ASTM D-1004 (Modified)	Average Tear Resistance	**223.9**	N					**50.342**	lbs
Puncture Resistance FTMS 101 Method 2065 (Modified)	Load	**469.4**	N					**105.523**	lbs
Puncture Resistance ASTM D4833 (Modified)	Load	**611.5**	N					**137.479**	lbs
ESCR ASTM D1693	Minimum Hrs w/o Failures	1500	hrs					**CERTIFIED**	

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ROLL # **105733-13** Lot #: **CCH811870** **Liner Type: SUPERGRIP™ LLDPE**

Measurement ASTM D5994 (Modified)		METRIC		ENGLISH	
	MIN:	**1.43**	mm	**56**	mil
	MAX:	**1.77**	mm	**70**	mil
Asperity GRI GM12: **159/198** mil TOP(DRAIN) / BOTTOM(GRIP)	AVE:	**1.54**	mm	**61**	mil

Thickness.....	**1.25**	**mm**	**50 mil**
Length.....	**91.441**	m	**300.0** feet
Width.....	**7.01**	m;	**23.0** feet
OIT(Standard) ASTM D3895	minutes	**171**	

								TEST RESULTS	
Specific Gravity ASTM D792	Density		g/cc					**.935**	
MFI ASTM D1238 COND. E GRADE: **7104**	Melt Flow Index 190ºC /2160 g		g/10 min					**.32**	
Carbon Black Content ASTM D4218	Range		%					**2.19**	
Carbon Black Dispersion ASTM D5596	Category							**10 IN CATEGORY 1**	
Tensile Strength ASTM D6693 ASTM D638 (Modified) (2 inches / minute)	Average Strength @ Break	**45**	N/mm	**257**	ppi			**4,238**	psi
Elongation ASTM D6693 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Break		%					**579.5**	
Dimensional Stability ASTM D1204 (Modified)	Average Dimensional Change		%					**-.92**	
Tear Resistance ASTM D-1004 (Modified)	Average Tear Resistance	**231.1**	N					**51.953**	lbs
Puncture Resistance FTMS 101 Method 2065 (Modified)	Load	**494.4**	N					**111.158**	lbs
Puncture Resistance ASTM D4833 (Modified)	Load	**606.8**	N					**136.424**	lbs
ESCR ASTM D1693	Minimum Hrs w/o Failures	1500	hrs					**CERTIFIED**	

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ROLL # **105734-13** Lot #: **CCH811870** **Liner Type: SUPERGRIP™ LLDPE**

Measurement ASTM D5994 (Modified)		METRIC		ENGLISH	
	MIN:	**1.44**	mm	**57**	mil
	MAX:	**1.78**	mm	**70**	mil
Asperity GRI GM12: **158/201** mil TOP(DRAIN) / BOTTOM(GRIP)	AVE:	**1.56**	mm	**61**	mil

Thickness.....	**1.25**	**mm**	**50 mil**
Length.....	**91.441**	m	**300.0** feet
Width.....	**7.01**	m;	**23.0** feet
OIT(Standard) ASTM D3895	minutes	**171**	

							TEST RESULTS	
Specific Gravity ASTM D792	Density		g/cc				**.935**	
MFI ASTM D1238 COND. E GRADE: **7104**	Melt Flow Index 190ºC /2160 g		g/10 min				**.32**	
Carbon Black Content ASTM D4218	Range		%				**2.19**	
Carbon Black Dispersion ASTM D5596	Category						**10 IN CATEGORY 1**	
Tensile Strength ASTM D6693 ASTM D638 (Modified) (2 inches / minute)	Average Strength @ Break	**46**	N/mm	**260**	ppi		**4,238**	psi
Elongation ASTM D6693 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Break		%				**579.5**	
Dimensional Stability ASTM D1204 (Modified)	Average Dimensional Change		%				**-.92**	
Tear Resistance ASTM D-1004 (Modified)	Average Tear Resistance	**231.1**	N				**51.953**	lbs
Puncture Resistance FTMS 101 Method 2065 (Modified)	Load	**494.4**	N				**111.158**	lbs
Puncture Resistance ASTM D4833 (Modified)	Load	**606.8**	N				**136.424**	lbs
ESCR ASTM D1693	Minimum Hrs w/o Failures	1500	hrs				**CERTIFIED**	

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ROLL # **105735-13** Lot #: **CCH811870** **Liner Type: SUPERGRIP™ LLDPE**

Measurement ASTM D5994 (Modified)		METRIC		ENGLISH	
	MIN:	**1.38**	mm	**54**	mil
	MAX:	**1.66**	mm	**65**	mil
Asperity GRI GM12: **163/206** mil TOP(DRAIN) / BOTTOM(GRIP)	AVE:	**1.50**	mm	**59**	mil

Thickness.....	**1.25**	**mm**	**50 mil**
Length.....	**91.441**	m	**300.0** feet
Width.....	**7.01**	m;	**23.0** feet
OIT(Standard) ASTM D3895	minutes	**171**	

								TEST RESULTS	
Specific Gravity ASTM D792	Density		g/cc					**.935**	
MFI ASTM D1238 COND. E GRADE: **7104**	Melt Flow Index 190ºC /2160 g		g/10 min					**.32**	
Carbon Black Content ASTM D4218	Range		%					**2.19**	
Carbon Black Dispersion ASTM D5596	Category						**10 IN CATEGORY 1**		
Tensile Strength ASTM D6693 ASTM D638 (Modified) (2 inches / minute)	Average Strength @ Break	**44**	N/mm	**250**	ppi			**4,238**	psi
Elongation ASTM D6693 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Break		%					**579.5**	
Dimensional Stability ASTM D1204 (Modified)	Average Dimensional Change		%					**-.92**	
Tear Resistance ASTM D-1004 (Modified)	Average Tear Resistance	**231.1**	N					**51.953**	lbs
Puncture Resistance FTMS 101 Method 2065 (Modified)	Load	**494.4**	N					**111.158**	lbs
Puncture Resistance ASTM D4833 (Modified)	Load	**606.8**	N					**136.424**	lbs
ESCR ASTM D1693	Minimum Hrs w/o Failures	1500	hrs					**CERTIFIED**	

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ROLL # **105736-13** Lot #: **CCH811870** **Liner Type: SUPERGRIP™ LLDPE**

Measurement ASTM D5994 (Modified)		METRIC		ENGLISH	
	MIN:	**1.38**	mm	**54**	mil
	MAX:	**1.60**	mm	**63**	mil
Asperity GRI GM12: **157/209** mil TOP(DRAIN) / BOTTOM(GRIP)	AVE:	**1.51**	mm	**59**	mil

Thickness.....	**1.25**	**mm**	**50 mil**
Length.....	**91.441**	m	**300.0** feet
Width.....	**7.01**	m;	**23.0** feet
OIT(Standard) ASTM D3895	minutes	**171**	

								TEST RESULTS	
Specific Gravity ASTM D792	Density			g/cc				**.935**	
MFI ASTM D1238 COND. E GRADE: **7104**	Melt Flow Index 190ºC /2160 g			g/10 min				**.32**	
Carbon Black Content ASTM D4218	Range			%				**2.22**	
Carbon Black Dispersion ASTM D5596	Category						**10 IN CATEGORY 1**		
Tensile Strength ASTM D6693 ASTM D638 (Modified) (2 inches / minute)	Average Strength @ Break	**44**	N/mm		**252**	ppi		**4,238**	psi
Elongation ASTM D6693 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Break			%				**579.5**	
Dimensional Stability ASTM D1204 (Modified)	Average Dimensional Change			%				**-.92**	
Tear Resistance ASTM D-1004 (Modified)	Average Tear Resistance	**231.1**	N					**51.953**	lbs
Puncture Resistance FTMS 101 Method 2065 (Modified)	Load	**494.4**	N					**111.158**	lbs
Puncture Resistance ASTM D4833 (Modified)	Load	**606.8**	N					**136.424**	lbs
ESCR ASTM D1693	Minimum Hrs w/o Failures	1500 hrs						**CERTIFIED**	

Customer: **American Environmental**
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ROLL # **105737-13** Lot #: **CCH811870** **Liner Type: SUPERGRIP™ LLDPE**

Measurement ASTM D5994 (Modified)		METRIC		ENGLISH	
	MIN:	**1.45**	mm	**57**	mil
	MAX:	**1.59**	mm	**63**	mil
Asperity GRI GM12: **153/204** mil TOP(DRAIN) / BOTTOM(GRIP)	AVE:	**1.52**	mm	**60**	mil

Thickness.....	**1.25**	**mm**	**50 mil**
Length.....	**91.441**	m	**300.0** feet
Width.....	**7.01**	m;	**23.0** feet
OIT(Standard) ASTM D3895	minutes	**171**	

								TEST RESULTS	
Specific Gravity ASTM D792	Density		g/cc					**.935**	
MFI ASTM D1238 COND. E GRADE: **7104**	Melt Flow Index 190ºC /2160 g		g/10 min					**.32**	
Carbon Black Content ASTM D4218	Range		%					**2.22**	
Carbon Black Dispersion ASTM D5596	Category							**10 IN CATEGORY 1**	
Tensile Strength ASTM D6693 ASTM D638 (Modified) (2 inches / minute)	Average Strength @ Break	**44**	N/mm	**254**	ppi			**4,238**	psi
Elongation ASTM D6693 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Break		%					**579.5**	
Dimensional Stability ASTM D1204 (Modified)	Average Dimensional Change		%					**-.92**	
Tear Resistance ASTM D-1004 (Modified)	Average Tear Resistance	**231.1**	N					**51.953**	lbs
Puncture Resistance FTMS 101 Method 2065 (Modified)	Load	**494.4**	N					**111.158**	lbs
Puncture Resistance ASTM D4833 (Modified)	Load	**606.8**	N					**136.424**	lbs
ESCR ASTM D1693	Minimum Hrs w/o Failures	1500	hrs					**CERTIFIED**	

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ROLL # **105738-13** Lot #: **CCH811870** **Liner Type: SUPERGRIP™ LLDPE**

Measurement ASTM D5994 (Modified)		METRIC		ENGLISH	
	MIN:	**1.43**	mm	**56**	mil
	MAX:	**1.59**	mm	**63**	mil
Asperity GRI GM12: **154/198** mil TOP(DRAIN) / BOTTOM(GRIP)	AVE:	**1.47**	mm	**58**	mil

Thickness.....	**1.25**	**mm**	**50 mil**
Length.....	**91.441**	m	**300.0** feet
Width.....	**7.01**	m;	**23.0** feet
OIT(Standard) ASTM D3895	minutes	**171**	

								TEST RESULTS	
Specific Gravity ASTM D792	Density		g/cc					**.935**	
MFI ASTM D1238 COND. E GRADE: **7104**	Melt Flow Index 190ºC /2160 g		g/10 min					**.32**	
Carbon Black Content ASTM D4218	Range		%					**2.24**	
Carbon Black Dispersion ASTM D5596	Category							**10 IN CATEGORY 1**	
Tensile Strength ASTM D6693 ASTM D638 (Modified) (2 inches / minute)	Average Strength @ Break	**42**	N/mm	**241**	ppi			**4,169**	psi
Elongation ASTM D6693 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Break		%					**572.4**	
Dimensional Stability ASTM D1204 (Modified)	Average Dimensional Change		%					**-.92**	
Tear Resistance ASTM D-1004 (Modified)	Average Tear Resistance	**229.6**	N					**51.610**	lbs
Puncture Resistance FTMS 101 Method 2065 (Modified)	Load	**454.1**	N					**102.088**	lbs
Puncture Resistance ASTM D4833 (Modified)	Load	**629.2**	N					**141.450**	lbs
ESCR ASTM D1693	Minimum Hrs w/o Failures	1500	hrs					**CERTIFIED**	

Customer: **American Environmental**
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ROLL # **105739-13** Lot #: **CCH811870** **Liner Type: SUPERGRIP™ LLDPE**

Measurement ASTM D5994 (Modified)		METRIC		ENGLISH	
	MIN:	**1.33**	mm	**52**	mil
	MAX:	**1.59**	mm	**63**	mil
Asperity GRI GM12: **154/213** mil TOP(DRAIN) / BOTTOM(GRIP)	AVE:	**1.47**	mm	**58**	mil

Thickness.....	**1.25**	**mm**	**50 mil**
Length.....	**91.441**	m	**300.0** feet
Width.....	**7.01**	m;	**23.0** feet
OIT(Standard) ASTM D3895	minutes	**171**	

								TEST RESULTS	
Specific Gravity ASTM D792	Density			g/cc				**.935**	
MFI ASTM D1238 COND. E GRADE: **7104**	Melt Flow Index 190ºC /2160 g			g/10 min				**.32**	
Carbon Black Content ASTM D4218	Range			%				**2.24**	
Carbon Black Dispersion ASTM D5596	Category						**10 IN CATEGORY 1**		
Tensile Strength ASTM D6693 ASTM D638 (Modified) (2 inches / minute)	Average Strength @ Break	**42**	N/mm		**241**	ppi		**4,169**	psi
Elongation ASTM D6693 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Break			%				**572.4**	
Dimensional Stability ASTM D1204 (Modified)	Average Dimensional Change			%				**-.92**	
Tear Resistance ASTM D-1004 (Modified)	Average Tear Resistance	**229.6**	N					**51.610**	lbs
Puncture Resistance FTMS 101 Method 2065 (Modified)	Load	**454.1**	N					**102.088**	lbs
Puncture Resistance ASTM D4833 (Modified)	Load	**629.2**	N					**141.450**	lbs
ESCR ASTM D1693	Minimum Hrs w/o Failures	1500	hrs					**CERTIFIED**	

Customer: **American Environmental**
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ROLL # **106101-13** Lot #: **CCH811870** **Liner Type: SUPERGRIP™ LLDPE**

Measurement ASTM D5994 (Modified)		METRIC		ENGLISH	
	MIN:	**1.38**	mm	**54**	mil
	MAX:	**1.69**	mm	**67**	mil
Asperity GRI GM12: **154/200** mil TOP(DRAIN) / BOTTOM(GRIP)	AVE:	**1.50**	mm	**59**	mil

Thickness.....	**1.25**	**mm**	**50 mil**
Length.....	**91.441**	m	**300.0** feet
Width.....	**7.01**	m;	**23.0** feet
OIT(Standard) ASTM D3895	minutes	**171**	

								TEST RESULTS	
Specific Gravity ASTM D792	Density		g/cc					**.935**	
MFI ASTM D1238 COND. E GRADE: **7104**	Melt Flow Index 190ºC /2160 g		g/10 min					**.32**	
Carbon Black Content ASTM D4218	Range		%					**2.24**	
Carbon Black Dispersion ASTM D5596	Category							**10 IN CATEGORY 1**	
Tensile Strength ASTM D6693 ASTM D638 (Modified) (2 inches / minute)	Average Strength @ Break	**43**	N/mm	**246**	ppi			**4,169**	psi
Elongation ASTM D6693 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Break		%					**572.4**	
Dimensional Stability ASTM D1204 (Modified)	Average Dimensional Change		%					**-.92**	
Tear Resistance ASTM D-1004 (Modified)	Average Tear Resistance	**229.6**	N					**51.610**	lbs
Puncture Resistance FTMS 101 Method 2065 (Modified)	Load	**454.1**	N					**102.088**	lbs
Puncture Resistance ASTM D4833 (Modified)	Load	**629.2**	N					**141.450**	lbs
ESCR ASTM D1693	Minimum Hrs w/o Failures	1500	hrs					**CERTIFIED**	

Customer: **American Environmental**
PO: **404-13 B & W Pantex**
Destination **Amarillo, TX**

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ROLL # **106102-13** Lot #: **CCH811870** **Liner Type: SUPERGRIP™ LLDPE**

Measurement ASTM D5994 (Modified)		METRIC		ENGLISH	
	MIN:	**1.44**	mm	**57**	mil
	MAX:	**1.68**	mm	**66**	mil
Asperity GRI GM12: **151/207** mil TOP(DRAIN) / BOTTOM(GRIP)	AVE:	**1.53**	mm	**60**	mil

Thickness.....	**1.25**	**mm**	**50 mil**
Length.....	**91.441**	m	**300.0** feet
Width.....	**7.01**	m;	**23.0** feet
OIT(Standard) ASTM D3895	minutes	**171**	

								TEST RESULTS	
Specific Gravity ASTM D792	Density			g/cc				**.935**	
MFI ASTM D1238 COND. E GRADE: **7104**	Melt Flow Index 190ºC /2160 g			g/10 min				**.32**	
Carbon Black Content ASTM D4218	Range			%				**2.24**	
Carbon Black Dispersion ASTM D5596	Category							**10 IN CATEGORY 1**	
Tensile Strength ASTM D6693 ASTM D638 (Modified) (2 inches / minute)	Average Strength @ Break	**44**	N/mm		**251**	ppi		**4,169**	psi
Elongation ASTM D6693 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Break			%				**572.4**	
Dimensional Stability ASTM D1204 (Modified)	Average Dimensional Change			%				**-.92**	
Tear Resistance ASTM D-1004 (Modified)	Average Tear Resistance	**229.6**	N					**51.610**	lbs
Puncture Resistance FTMS 101 Method 2065 (Modified)	Load	**454.1**	N					**102.088**	lbs
Puncture Resistance ASTM D4833 (Modified)	Load	**629.2**	N					**141.450**	lbs
ESCR ASTM D1693	Minimum Hrs w/o Failures	1500	hrs					**CERTIFIED**	

Customer: **American Environmental**
PO: **404-13 B & W Pantex**
Destination **Amarillo, TX**

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ROLL # **106103-13** Lot #: **CCH811870** **Liner Type: SUPERGRIP™ LLDPE**

Measurement ASTM D5994 (Modified)		METRIC		ENGLISH	
	MIN:	**1.44**	mm	**57**	mil
	MAX:	**1.59**	mm	**63**	mil
Asperity GRI GM12: **153/200** mil TOP(DRAIN) / BOTTOM(GRIP)	AVE:	**1.49**	mm	**59**	mil

Thickness.....	**1.25**	**mm**	**50 mil**
Length.....	**91.441**	m	**300.0** feet
Width.....	**7.01**	m;	**23.0** feet
OIT(Standard) ASTM D3895	minutes	**171**	

								TEST RESULTS	
Specific Gravity ASTM D792	Density		g/cc					**.935**	
MFI ASTM D1238 COND. E GRADE: **7104**	Melt Flow Index 190ºC /2160 g		g/10 min					**.32**	
Carbon Black Content ASTM D4218	Range		%					**2.24**	
Carbon Black Dispersion ASTM D5596	Category							**10 IN CATEGORY 1**	
Tensile Strength ASTM D6693 ASTM D638 (Modified) (2 inches / minute)	Average Strength @ Break	**43**	N/mm	**245**	ppi			**4,169**	psi
Elongation ASTM D6693 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Break		%					**572.4**	
Dimensional Stability ASTM D1204 (Modified)	Average Dimensional Change		%					**-.92**	
Tear Resistance ASTM D-1004 (Modified)	Average Tear Resistance	**229.6**	N					**51.610**	lbs
Puncture Resistance FTMS 101 Method 2065 (Modified)	Load	**454.1**	N					**102.088**	lbs
Puncture Resistance ASTM D4833 (Modified)	Load	**629.2**	N					**141.450**	lbs
ESCR ASTM D1693	Minimum Hrs w/o Failures	1500	hrs					**CERTIFIED**	

Customer: **American Environmental**
PO: **404-13 B & W Pantex**
Destination **Amarillo, TX**

Date:..... **2/4/2013**

Signature.....
Quality Control Department

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REV 03
4/26/06

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quality certificate

ROLL # **109781-13** Lot #: **CCK811990** **Liner Type: SUPERGRIP™ LLDPE**

Measurement ASTM D5994 (Modified)		METRIC		ENGLISH	
	MIN:	**1.39**	mm	**55**	mil
	MAX:	**1.58**	mm	**62**	mil
Asperity GRI GM12: **159/203** mil TOP(DRAIN) / BOTTOM(GRIP)	AVE:	**1.49**	mm	**59**	mil

Thickness.....	**1.25**	**mm**	**50 mil**
Length.....	**91.441**	m	**300.0** feet
Width.....	**7.01**	m;	**23.0** feet
OIT(Standard) ASTM D3895	minutes	**168**	

								TEST RESULTS	
Specific Gravity ASTM D792	Density		g/cc					**.937**	
MFI ASTM D1238 COND. E GRADE: **7104**	Melt Flow Index 190ºC /2160 g		g/10 min					**.35**	
Carbon Black Content ASTM D4218	Range		%					**2.19**	
Carbon Black Dispersion ASTM D5596	Category							**10 IN CATEGORY 1**	
Tensile Strength ASTM D6693 ASTM D638 (Modified) (2 inches / minute)	Average Strength @ Break	**41**	N/mm	**233**	ppi			**3,974**	psi
Elongation ASTM D6693 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Break		%					**534.0**	
Dimensional Stability ASTM D1204 (Modified)	Average Dimensional Change		%					**-.97**	
Tear Resistance ASTM D-1004 (Modified)	Average Tear Resistance	**235.4**	N					**52.917**	lbs
Puncture Resistance FTMS 101 Method 2065 (Modified)	Load	**478.1**	N					**107.482**	lbs
Puncture Resistance ASTM D4833 (Modified)	Load	**624.1**	N					**140.318**	lbs
ESCR ASTM D1693	Minimum Hrs w/o Failures	1500 hrs						**CERTIFIED**	

Customer: **American Environmental**
PO: **404-13 B & W Pantex**
Destination **Amarillo, TX**

Date:..... **3/3/2013**

Signature.....
Quality Control Department

50LLSG.FRM
REV 03
4/26/06

agru america quality control dept

quality certificate

ROLL # **109782-13** Lot #: **CCK811990** **Liner Type: SUPERGRIP™ LLDPE**

Measurement ASTM D5994 (Modified)		METRIC		ENGLISH	
	MIN:	**1.42**	mm	**56**	mil
	MAX:	**1.54**	mm	**61**	mil
Asperity GRI GM12: **153/198** mil TOP(DRAIN) / BOTTOM(GRIP)	AVE:	**1.49**	mm	**59**	mil

Thickness.....	**1.25**	**mm**	**50 mil**
Length.....	**91.441**	m	**300.0** feet
Width.....	**7.01**	m;	**23.0** feet
OIT(Standard) ASTM D3895	minutes	**168**	

								TEST RESULTS	
Specific Gravity ASTM D792	Density		g/cc					**.937**	
MFI ASTM D1238 COND. E GRADE: **7104**	Melt Flow Index 190ºC /2160 g		g/10 min					**.35**	
Carbon Black Content ASTM D4218	Range		%					**2.19**	
Carbon Black Dispersion ASTM D5596	Category							**10 IN CATEGORY 1**	
Tensile Strength ASTM D6693 ASTM D638 (Modified) (2 inches / minute)	Average Strength @ Break	**41**	N/mm	**233**	ppi			**3,974**	psi
Elongation ASTM D6693 ASTM D638 (Modified) (2 inches / minute) Lo = 1.3" Yield Lo = 2.0" Break	Average Elongation @ Break		%					**534.0**	
Dimensional Stability ASTM D1204 (Modified)	Average Dimensional Change		%					**-.97**	
Tear Resistance ASTM D-1004 (Modified)	Average Tear Resistance	**235.4**	N					**52.917**	lbs
Puncture Resistance FTMS 101 Method 2065 (Modified)	Load	**478.1**	N					**107.482**	lbs
Puncture Resistance ASTM D4833 (Modified)	Load	**624.1**	N					**140.318**	lbs
ESCR ASTM D1693	Minimum Hrs w/o Failures	1500	hrs					**CERTIFIED**	

Customer: **American Environmental**
PO: **404-13 B & W Pantex**
Destination **Amarillo, TX**

Date:..... **3/3/2013**

Signature.....
Quality Control Department

50LLSG.FRM
REV 03
4/26/06

CoA Date: 11/02/2012

Certificate of Analysis

Shipped To: AGRU AMERICA INC:GEORGETOWN
500 GARRISON RD
GEORGETOWN SC 29440
USA

Recipient: PALMER
Fax:

Delivery #: 88548539
PO #: 7022
Weight: 189300 LB
Ship Date: 11/02/2012
Package: BULK
Mode: Hopper Car
Car #: CHVX898532
Seal No: 532711

Product: PE 7104 BULK

Lot Number: CCJ810240

Property	Test Method	Value	Unit
Melt Index	ASTM D1238	0.34	g/10mi
HLMI	ASTM D1238	14.60	g/10mi
Pellet Count	ST-905	30	pel/g
Production date		20120904	
Density	D1505 or D4883	0.919	g/cm3

The data set forth herein have been carefully compiled by Chevron Phillips Chemical Company LP (CPChem).
However, there is no warranty of any kind, either expressed or implied, applicable to its use, and the user assumes all risk and liability in connection therewith.

Kevin Ayres
Quality Control Supervisor

For CoA questions contact Customer Service Representative at +1-832-813-4806

CoA Date: 08/13/2012

Certificate of Analysis

Shipped To: AGRU AMERICA INC
500 GARRISON RD
GEORGETOWN SC 29440
USA

Recipient: PALMER
Fax:

Delivery #: 88505610
PO #: 006841
Weight: 183600 LB
Ship Date: 08/13/2012
Package: BULK
Mode: Hopper Car
Car #: CHVX890032
Seal No: 531820

Product: PE 7104 BULK

Lot Number: CCH810570

Property	Test Method	Value	Unit
Melt Index	ASTM D1238	0.36	g/10mi
HLMI	ASTM D1238	16.07	g/10mi
Pellet Count	ST-905	31	pel/g
Production date		20120812	
Density	D1505 or D4883	0.919	g/cm3

The data set forth herein have been carefully compiled by Chevron Phillips Chemical Company LP (CPChem).
However, there is no warranty of any kind, either expressed or implied, applicable to its use, and the user assumes all risk and liability in connection therewith.

Kevin Ayres
Quality Control Supervisor

For CoA questions contact Customer Service Representative at +1-832-813-4806

CoA Date: 08/20/2012

Certificate of Analysis

Shipped To: AGRU AMERICA INC
500 GARRISON RD
GEORGETOWN SC 29440
USA

Recipient: PALMER
Fax:

Delivery #: 88509393
PO #: 006841
Weight: 188200 LB
Ship Date: 08/20/2012
Package: BULK
Mode: Hopper Car
Car #: CHVX889434
Seal No: 529291

Product: PE 7104 BULK

Lot Number: CC 810270

Property	Test Method	Value	Unit
Melt Index	ASTM D1238	0.35	g/10mi
HLMI	ASTM D1238	12.61	g/10mi
Pellet Count	ST-905	31	pel/g
Production date		20120705	
Density	D1505 or D4883	0.918	g/cm3

The data set forth herein have been carefully compiled by Chevron Phillips Chemical Company LP (CPChem).
However, there is no warranty of any kind, either expressed or implied, applicable to its use, and the user assumes all risk and liability in connection therewith.

Kevin Ayres
Quality Control Supervisor

For CoA questions contact Customer Service Representative at +1-832-813-4806

CoA Date: 10/25/2012

Certificate of Analysis

Shipped To: AGRU AMERICA INC:GEORGETOWN
500 GARRISON RD
GEORGETOWN SC 29440
USA

Recipient: PALMER
Fax:

Delivery #: 88544719
PO #: 6947
Weight: 189100 LB
Ship Date: 10/25/2012
Package: BULK
Mode: Hopper Car
Car #: NAHX620014
Seal No: 532443

Product: PE 7104 BULK

Lot Number: CCH811870

Property	Test Method	Value	Unit
Melt Index	ASTM D1238	0.32	g/10mi
HLMI	ASTM D1238	14.45	g/10mi
Pellet Count	ST-905	32	pel/g
Production date		20120831	
Density	D1505 or D4883	0.920	g/cm3

The data set forth herein have been carefully compiled by Chevron Phillips Chemical Company LP (CPChem).
However, there is no warranty of any kind, either expressed or implied, applicable to its use, and the user assumes all risk and liability in connection therewith.

Kevin Ayres
Quality Control Supervisor

For CoA questions contact Customer Service Representative at +1-832-813-4806

CoA Date: 11/08/2012

Certificate of Analysis

Shipped To: AGRU AMERICA INC:GEORGETOWN
500 GARRISON RD
GEORGETOWN SC 29440
USA

Recipient: PALMER
Fax:

Delivery #: 88551915
PO #: 7022
Weight: 191800 LB
Ship Date: 11/08/2012
Package: BULK
Mode: Hopper Car
Car #: PSPX001361
Seal No: 536673

Product: PE 7104 BULK

Lot Number: CCK811990

Property	Test Method	Value	Unit
Melt Index	ASTM D1238	0.35	g/10mi
HLMI	ASTM D1238	14.55	g/10mi
Pellet Count	ST-905	29	pel/g
Production date		20121029	
Density	D1505 or D4883	0.918	g/cm3

The data set forth herein have been carefully compiled by Chevron Phillips Chemical Company LP (CPChem).
However, there is no warranty of any kind, either expressed or implied, applicable to its use, and the user assumes all risk and liability in connection therewith.

Kevin Ayres
Quality Control Supervisor

For CoA questions contact Customer Service Representative at +1-832-813-4806

APPENDIX C

DAILY LINER DEPLOYMENT SKETCH FORMS

Trihydro
CORPORATION

DAILY LINER DEPLOYMENT SKETCH

CQA Monitor: Mike Bradford Date: 10/9/13

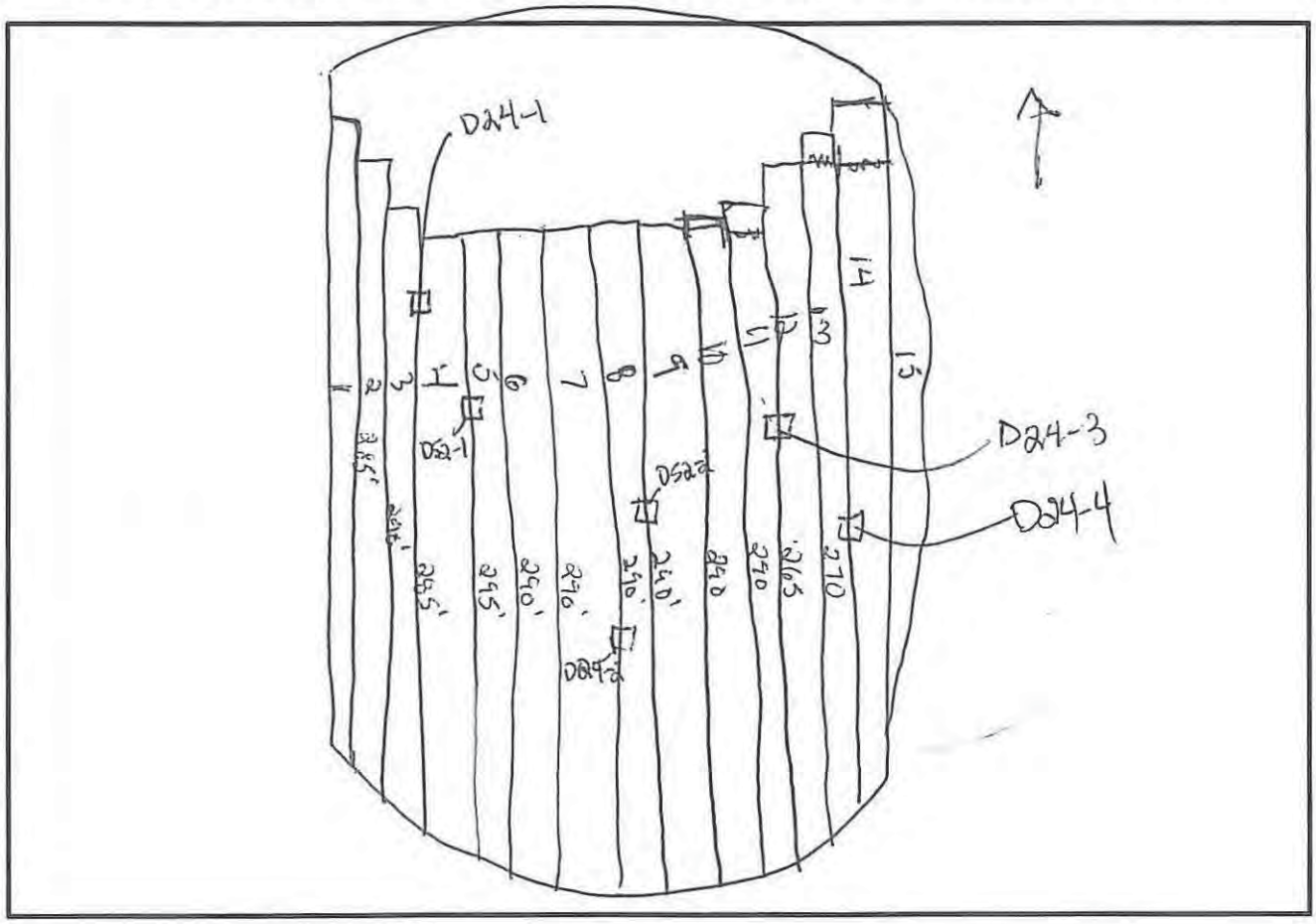
Project: Pantex Closure Tank Project No. 18A - 010 - 001

Client: Pantex Installer: AEG

Liner Material: 50 mil LLDPE

Location Description:

Sketch below should include direction, panel numbers, locations of repairs,, and destructive test samples:



Trihydro
CORPORATION

DAILY LINER DEPLOYMENT SKETCH

CQA Monitor: M. Lee Bradford Date: 10/10/13

Project: Pantex Landfill Closure Project No. 184-010-001

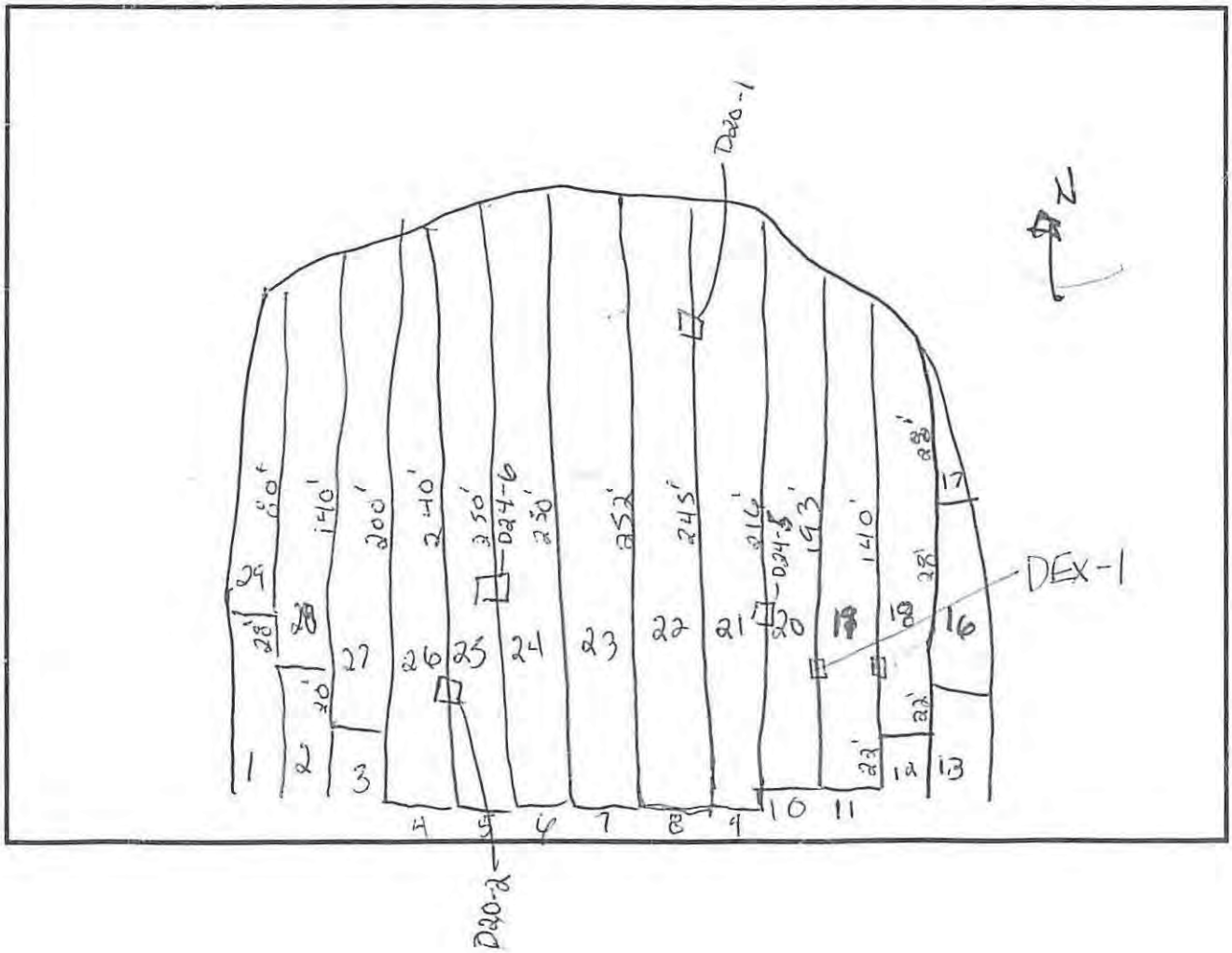
Client: Pantex Installer: AEG

Liner Material: 50 mil LLDPE

Location Description:

North half of Landfill

Sketch below should include direction, panel numbers, locations of repairs,, and destructive test samples:



APPENDIX D

DAILY PANEL DEPLOYMENT TRACKING FORMS

Trihydro
CORPORATION

DAILY PANEL DEPLOYMENT TRACKING LOG

Project: Pantex Landfill Closure Project No. 14H-076-001

Client: Pantex Installer: AEG

Liner Material: 50 mil LLDPE

Panel No.	Roll No.	Date Placed	CQA Monitor	Length (ft)	Width (ft)
1	15739-13	10/9	MB	285	23
2	103213			290	23
3	106101			285	23
4	105739			290	23
5	106100			295	23
6	105730			290	23
7	105734			290	23
8	105737			290	23
9	105735			290	23
10	105733			290	23
11	105729			295	23
12	105732			285	23
13	106103			270	23
14	105731			254	23
15	105736			140	15

Trihydro CORPORATION

DAILY PANEL DEPLOYMENT TRACKING LOG

Project: Pantex Landfill Closure Project No. 18A-010-001

Client: Pantex Installer: AEG

Liner Material: 50 mil LLDPE

Panel No.	Roll No.	Date Placed	CQA Monitor	Length (ft)	Width (ft)
16	105731	10/10	MB	28	23
17	105736			28	10
18	105736			140	23
19	105727			193	23
20	105625			216	23
21	108792			245	23
22	105728			252	23
23	146671			250	23
24	105624			250	23
25	105626			240	23
26	109781			200	23
27	146670			200	23
28	103112			160	23
29	103112			108	23

APPENDIX E

DAILY TRIAL WELD TRACKING LOG FORMS

Shear 100
Peel 76 Fusion, 65 Ex

Trihydro CORPORATION

DAILY TRIAL WELD TRACKING LOG

Project: Pantex Landfill 1 Closure Project No. 18H-010-001
Client: Pantex Installer: AEG
Liner Material: 50 mil LLDPE
CQA Monitor Mike Bradford Date 10/9/13

Sample ID	Welding Machine No.	Welding Tech	Weld Type	Extrusion Weld		Fusion Weld		Peel Values (ppi)			Shear Values (ppi)
				Preheat Temp (Deg. F)	Barrel Temp (Deg. F)	Wedge Temp (Deg. F)	Wedge Speed (Deg. F)	1	2	3	
M-1	W-24	AAA				800	10.0	120/128	125/129	129/120	157/149/155
	W-51										
M-2	W-52	WB				800	10.5	133/125	126/131	133/123	156/151/149
A-1	W-24	A.A.				800	10	116/109	110/112	117/114	125/124/128
A-2	W-52	WB				800	10.5	108/98	104/108	106/106	126/123/126

100 Shear
76 Peal Fusion
65 Peal Extrusion

Trihydro CORPORATION

DAILY TRIAL WELD TRACKING LOG

Project: Pantex Landfill Closure Project No. 18A-010-001

Client: Pantex Installer: AEG

Liner Material: 50 mil LLDPE

CQA Monitor Mike Bradford Date 10/10/13

Sample ID	Welding Machine No.	Welding Tech	Weld Type	Extrusion Weld		Fusion Weld		Peel Values (ppi)			Shear Values (ppi)		
				Preheat Temp (Deg. F)	Barrel Temp (Deg. F)	Wedge Temp (Deg. F)	Wedge Speed (Deg. F)	1	2	3			
~~[illegible]~~													
~~[illegible]~~													
24-1A	W-24	A.A.	Fus.			800	10	126/139	132/131	134/135	168	169	171
20-1A	W-20	WB	Fus			800	9.5	134/117	132/120	140/112	166	169	163
24-2A	W-24	A.A.	Fus			800	10	107/114	110/110	102/102	148	153	150
24-3P	W-24	A.A	Fus			800	10	116/108	114/110	106/117	121	120	119
20-2P	W-20	WB	Fus			800	9.5	111/116	114/112	104/111	134	133	132
51-1P	651	TT	Ex	475	475			120/[illegible]	123	116	131	130	130

Shear 100 PPI

Peel 75 PPI Fusion
65 PPI Extrusion

Trihydro
CORPORATION

DAILY TRIAL WELD TRACKING LOG

Project: Pantex Landfill Closure Project No. 184-010-001

Client: Pantex Installer: AEG

Liner Material: 50 mil LLDPE

CQA Monitor Mike Bradford Date 10/11/13

Sample ID	Welding Machine No.	Welding Tech	Weld Type	Extrusion Weld		Fusion Weld		Peel Values (ppi)			Shear Values (ppi)		
				Preheat Temp (Deg. F)	Barrel Temp (Deg. F)	Wedge Temp (Deg. F)	Wedge Speed (Deg. F)	1	2	3			
61-1A	G-51	T.T.	Ex	475	415			139	116	117	173	173	158
58-1A	G-58	A.A.	Ex	500	400			108	95	91	172	171	177
58-2P	G-58	AA.	Ex	500	400			119	123	116	192	160	166

Trihydro CORPORATION

DAILY TRIAL WELD TRACKING LOG

Project: Pantex Landfill Closure Project No. 184-010-001

Client: Pantex Installer: ABG

Liner Material: 50 mil LLDPE

CQA Monitor Mike Bradford Date 10/12/13

Sample ID	Welding Machine No.	Welding Tech	Weld Type	Extrusion Weld		Fusion Weld		Peel Values (ppi)			Shear Values (ppi)		
				Preheat Temp (Deg. F)	Barrel Temp (Deg. F)	Wedge Temp (Deg. F)	Wedge Speed (Deg. F)	1	2	3			
58-1A	G-58	A.A.	Ex	500	400			131	130	148	138	176	121

APPENDIX F

DAILY NON-DESTRUCTIVE SEAM TESTING FORMS

Trihydro CORPORATION

DAILY NON-DESTRUCTIVE SEAM TESTING (AIR TEST)

Project: Pantex Landfill Closure Project No. 18A-010-001

Client: Pantex Installer: AFG

Liner Material: 50 mil LLDPE

CQA Monitor MB

Seam No.	Date Tested	Seam Length	Start Pressure (PSI)	Start Time	End Pressure (PSI)	End Time	Duration Min	Blockage (Y/N)	Pass / Fail
1-2 N	10/4		32	1:29	32	1:35	5	N	P
1-2 S			35	1:29	35	1:35		N	P
1-2S2			33	1:45	33	1:50		N	P
1-2S3			35	1:54	35	1:59		N	P
2-3			34	2:26	32	2:31		N	P
3-4			30	2:29	28	2:35		N	P
4-5S			36	2:32	36	2:37		N	P
4-5N			36	2:49	36	2:55		N	P
5-6			34	3:25	34	3:33		N	P
6-7			35	3:23	35	3:20		N	P
6-7-2			34	3:15	34	3:20		N	P
6-7-3			37	3:30	37	3:4		N	P
6-7-4			36	3:38	36	3:43		N	P
7-8			35	3:52	35	3:58		N	P
8-9			36	4:13	36	4:18		N	P
9-10			36	4:22	36	4:28		N	P
10-11			38	4:36	38	4:41		N	P
11-12			34	4:40	34	4:45		N	P
12-13			36	4:58	36	4:57		N	P
13-14			37	6:07	36	6:12		N	P
14-15									

Trihydro CORPORATION

DAILY NON-DESTRUCTIVE SEAM TESTING (AIR TEST)

Project: Pantex Landfill Closure Project No. 18A-010-001

Client: Pantex Installer: AEG

Liner Material: 50 mil LLDPE

CQA Monitor Mike Bradford

Seam No.	Date Tested	Seam Length	Start Pressure (PSI)	Start Time	End Pressure (PSI)	End Time	Duration Min	Blockage (Y/N)	Pass / Fail	
14-15a	10/10		38	8:37	37	8:42	5	N	P	
14-15-3	10/10									Captoon
15-16			36	9:54	36	9:59	5	N	P	
16-18			37	9:56	36	10:01		N	P	
17-18			37	10:09	35	10:14		N	P	
18-19			34	10:35	34	10:40		N	P	
18-19			34	10:36	33	10:41		N	P	
19-20			35	11:01	35	11:06		N	P	
20-21			37	11:19	37	11:24		N	P	
21-22			36	11:47	35	11:52		N	P	
22-23			36	12:15	34	12:20		N	P	
23-24			37	1:08	36	1:13		N	P	
24-25			33	2:08	32	2:13		N	P	
25-26			35	2:47	34	2:52		N	P	
26-27			37	3:09	37	3:14		N	P	
2-27			36	3:22	36	3:27		N	P	
27-28			37	3:30	35	3:35		N	P	
28-29			33	3:35	33	3:40		N	P	

APPENDIX G

DESTRUCTIVE WELD TEST TRACKING LOG

Shear - 100 ppi
Peel Fus - 76 ppi
Peel Ex - 65 ppi

Trihydro CORPORATION

Destructive Test

~~DAILY TRIAL~~ WELD TRACKING LOG

Project: Pantex Landfill Closure Project No. 18A-010-001

Client: Pantex Installer: AEG

Liner Material: 50 mil LLDPE

CQA Monitor Mike Bradford Date 10/10/13

Sample ID	Welding Machine No.	Welding Tech	Weld Type	Extrusion Weld		Fusion Weld		Peel Values (ppi)			Shear Values (ppi)		
				Preheat Temp (Deg. F)	Barrel Temp (Deg. F)	Wedge Temp (Deg. F)	Wedge Speed (Deg. F)	1	2	3			
D24-6	W-24	A.A.	Fus			800	10.5	111/111	110/115	113/107	123	124	122
D20-1	W-20	WB	Fus			800	9.5	118/105	112/104	119/108	126	125	126
D20-2	W-20	WB	Fus			800	9.5	119/123	118/126	121/123	130	133	127
D24-5	W-24	A.A.	Fus			800	10.5	122/115	118/122	120/118	130	125	124
D24-4	W-24	AA	Fus			800	10.5	115/118	117/115	119/120	122	120	121
D24-3	W24	AA	Fus			800	10.5	118/115	114/118	117/116	120	119	123
D52-2	W-52	WB	Fus			800	10	120/119	116/117	115/115	123	120	118
D24-1	W-24	AA	Fus			800	10	116/123	120/115	117/113	114	123	120
D24-2	W24	AA	Fus			800	10	118/110	117/120	118/113	125	120	122
D52-1	W52	WB	Fus			800	10.0	120/115	117/116	125/120	127	128	121
DEX-1	W55	AA	EX	500	400			146/103	112/120	132	153	165	177

APPENDIX H

DAILY LINER REPAIR LOG

Check SE 9-10
SE 7-8
SE 4-5

Trihydro CORPORATION

DAILY LINER REPAIR LOG

Project: Pantex Landfill Closure Project No. 184-010-001

Client: Pantex Installer: AEG

Liner Material: 60-mil LLDPE

Repair No.	Repair Date	CQA Monitor	Repair Type	Location	Vacuum Test Date	Test Pass /Fail
1	10/11	MB	CAP	South End of 14-15	10/11	P
2			Patch	Middle of 14-15		P
3			Patch	North end of 14-15		P
X 4			Patch	North end of 13-14		P
5			~~Patch~~ Dest	D24-4 on 13-14		P
X 6			Dest	D24-3 on 11-12		P
7			Bead	North end on 10-11		P
8			Bead	South end on 8-9		P
9			Bead	60' North of SE on 8-9		P
10			Bead	90' North of SE on 8-9		P
11			Dest	D52-2 Mid 8-9		P
12			Bead	100 South of NE on 8-9		P
13			Dest	D24-2 60' North of SE 7-8		P
14			CAP	Mid 6-7		P
15			CAP	90' S of NEnd of 6-7		P
16			CAP	60' S of N end of 6-7		P
17			Patch	100' N of S end on 4-5		P
18			Dest D52-1	60' S of N end on 4-5		P
19			Dest	D24-1 N end of 3-4		P
20			Patch	S end of 2-3		P
21			Patch	30' S of N End on 1-2		P
22			CAP	100' S of N End on 1-2		P
23			CAP	30' N of S End on 1-2		P
X 24			Patch/Int	1-29-28		P
X 25			Butt Seam	1-29		P
26			Patch	S end of 1-28		P
27			Int	1-2-28		P
28			Butt Seam	2-28		P
29			Patch	N end of 2-27		P
30			Patch	Mid 2-27		P
31			Bead	South half 2-27		P
32			Int	2-3-27		P
33			Butt Seam	3-27		P
34			Dest	D20-2 40' N of S end of 26-27		P
35			Dest	D24-6 50 N of S end of 25-26		P
X 36			Dest	D24-5 50 N of S end on 20-21		P
X 37			CAP	North 1/3rd of 17-20		P
38			Butt Seam	11-19		P

Trihydro CORPORATION

DAILY LINER REPAIR LOG

Project: Pantex Landfill Closure Project No. 18A-010-001

Client: Pantex Installer: AEG

Liner Material: 50 mil LLDPE

Repair No.	Repair Date	CQA Monitor	Repair Type	Location	Vacuum Test Date	Test Pass /Fail
39	10/11	MB	Int	11-12-19	10/11	P
40			Bead	mid near 18-19		P
41			~~Patch~~ Int	12-18-19		P
42			Butt Seam	12-18		P
43			Int	12-13-18		P
44			Int	13-16-18		P
45			Butt Seam	13-16		P
46			Int	16-17-18		P
47			Butt Seam	16-17		P
48			Int	3-26-27		P
49			Cap	3-26		P
50			Butt Seam	4-26		P
51			Patch	Near 4-26		P
52			Patch	Near 4-26		P
53			Int	4-5-25-26		P
54			Butt Seam	5-25		P
55			Int	5-6-24-25		P
56			Bead	N end of 6		P
57			Bead	N end of 6		P
58			Bead	N end of 6		P
59			CAP	Seam of 6-21		P
60			Bead	N end of 5		P
61			Int	6-7-23-24	10/12	P
62			Butt Seam	7-23		P
63			Int	7-8-22-23		P
64			Butt Seam	8-23		P
65			Int	8-9-21-22		P
66			Butt Seam	9-21		P
67			Patch Int	9-10-21		P
68			Butt Seam	10-21 S		P
69			Patch	Mid 10-21		P
70			Butt Seam	10-21 N		P
71			Int	10-20-21		P
72			Butt Seam	10-20		P
73			DEX-1 Dest	Send of 19-20		P
74			D20-1 Dest	N end 21-22		P
75			Bead	Mid 10-21		

APPENDIX I

LABORATORY SIEVE ANALYSIS FOR SAND BALLAST MATERIAL

Apex geoscience inc.

Amarillo
215 S. Fannin
Amarillo, Tx 79106
Telephone 806.677.0600
Facsimile 855.581.8081

SIEVE ANALYSIS

ENVIRONMENTAL GEOTECHNICAL ENGINEERING MATERIALS TESTING

Client Name:	Howell Sand Company Inc.	Report Number:	1012-0033-00240 / Version: 1
Project Name:	MSA 2012 Howell Sand Co	Report Date:	10.17.2013
Project No.:	1012-0033	Sampled:	10.03.2013 / Joel Gonzalez
Location:	Amarillo, TX		
I. D. No.:	5800-1		

TEST RESULTS

Material: Screenings (Howell Sand Pit)

Sieve	% Passing	% Retained
3/8 in	99	1
No. 4	93	7
No. 10	67	33
No. 20	51	49
No. 30	45	55
No. 40	38	62
No. 70	25	75
No. 100	21	79
No. 140	17	83
No. 200	14.4	85.5

Remarks: Sample # 1
Test Method (As Applicable):

Orig: Howell Sand Company Inc. Attn: Mr. Richard Howell (1-ec)

Apex geoscience inc.
TBPE Firm Registration No. F-3179, Expires 01/31/2014

Shane Nance, P.E.
Shane E. Nance, P.E., Senior Engineer,Western Region

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www.apexgeo.com
Amarillo College Station Conroe Dallas/Fort Worth Longview Lubbock Lufkin Oklahoma City Paris Texarkana Tyler Wichita Falls

Apex geoscience inc.

Amarillo
215 S. Fannin
Amarillo, Tx 79106
Telephone 806.677.0600
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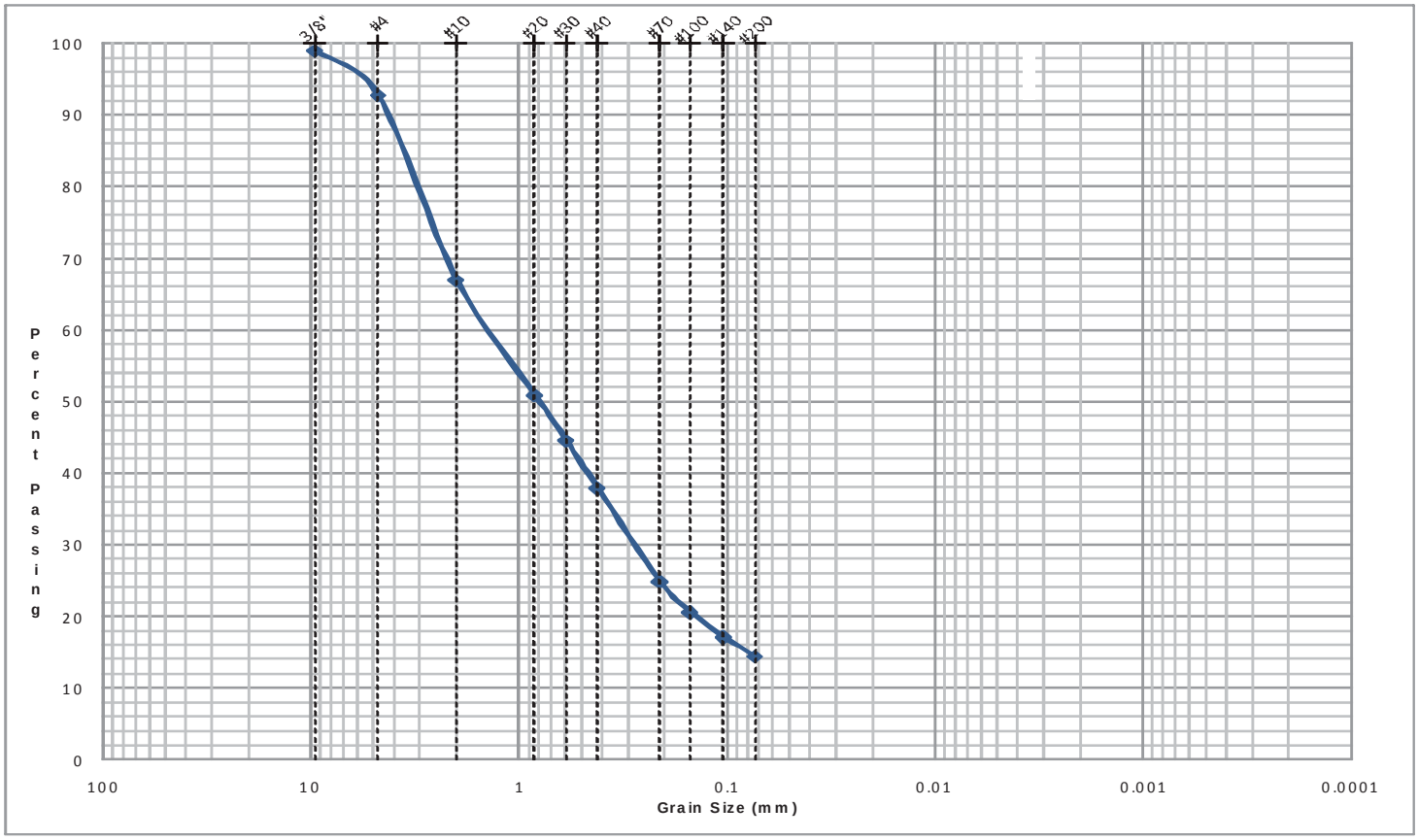
Project No.:	1012-0033	Sampled:	10.03.2013 / Joel Gonzalez
Location:	Amarillo, TX		
I. D. No.:	5800-1		

TEST RESULTS



Orig: Howell Sand Company Inc. Attn: Mr. Richard Howell (1-ec)

Apex geoscience inc.
TBPE Firm Registration No. F-3179, Expires 01/31/2014

Shane Nance, P.E.
Shane E. Nance, P.E., Senior Engineer,Western Region

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REPORT CREATED BY ElmTree SYSTEM

Apex geoscience inc.

Amarillo
215 S. Fannin
Amarillo, Tx 79106
Telephone 806.677.0600
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SIEVE ANALYSIS

ENVIRONMENTAL GEOTECHNICAL ENGINEERING MATERIALS TESTING

Client Name:	Howell Sand Company Inc.	Report Number:	1012-0033-00241 / Version: 1
Project Name:	MSA 2012 Howell Sand Co	Report Date:	10.17.2013
Project No.:	1012-0033	Sampled:	10.03.2013 / Joel Gonzalez
Location:	Amarillo, TX		
I. D. No.:	5800-2		

TEST RESULTS

Material: Screenings (Howell Sand Pit)

Sieve	% Passing	% Retained
3/8 in	99	0.8
No. 4	92	8
No. 10	68	32
No. 20	52	48
No. 30	46	54
No. 40	39	61
No. 70	26	74
No. 100	21	79
No. 140	18	82
No. 200	14.3	85.1

Remarks: Sample #2
Test Method (As Applicable):

Orig: Howell Sand Company Inc. Attn: Mr. Richard Howell (1-ec)

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Shane E. Nance, P.E., Senior Engineer,Western Region

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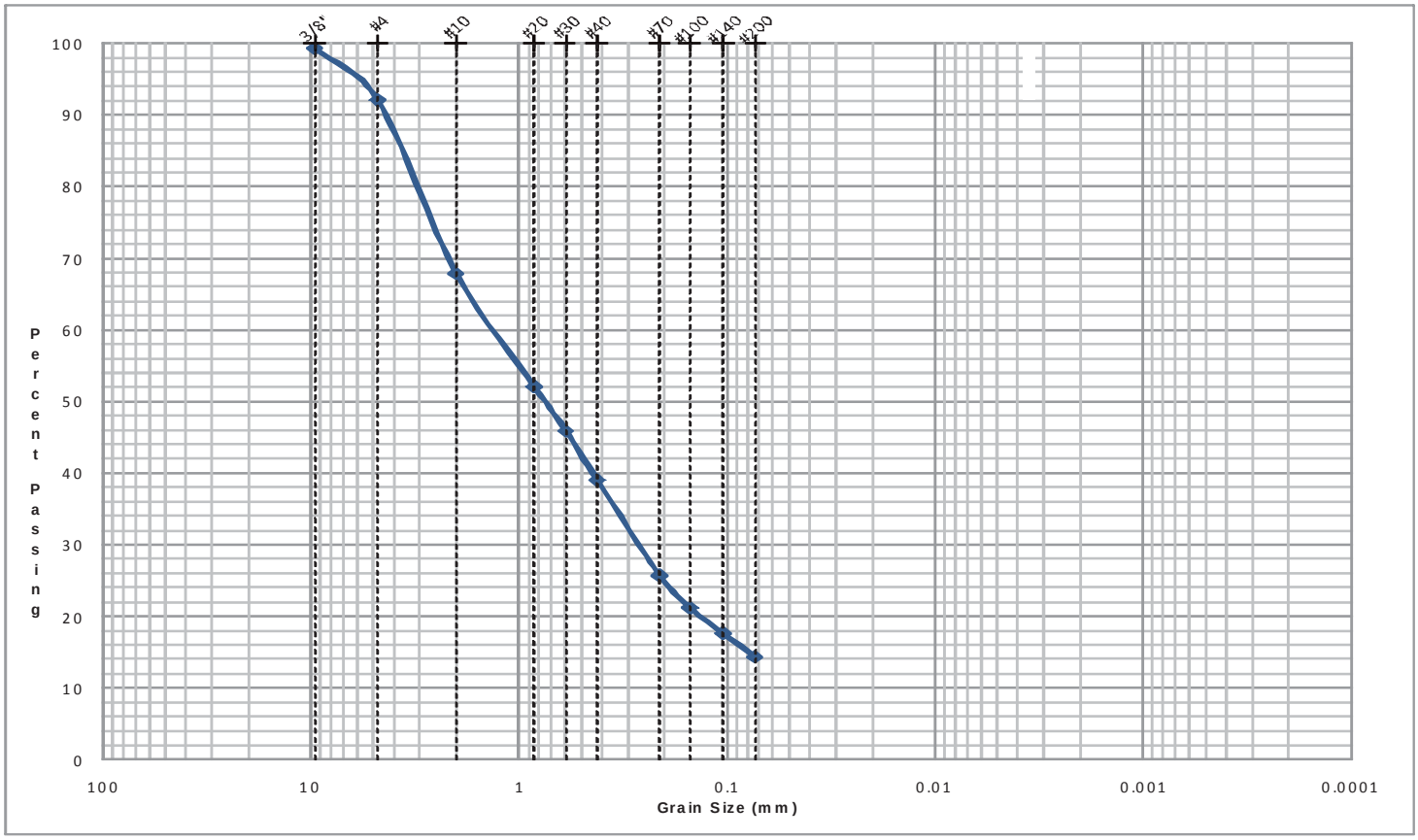
Project No.:	1012-0033	Sampled:	10.03.2013 / Joel Gonzalez
Location:	Amarillo, TX		
I. D. No.:	5800-2		

TEST RESULTS



Orig: Howell Sand Company Inc. Attn: Mr. Richard Howell (1-ec)

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REPORT CREATED BY ElmTree SYSTEM

APPENDIX J

DAILY SAND LEVEL QAQC SKETCH

Trihydro CORPORATION

Sand level GMBC

DAILY ~~LINER DEPLOYMENT~~ SKETCH

CQA Monitor: Jeremy Simon Date: 11-15-13

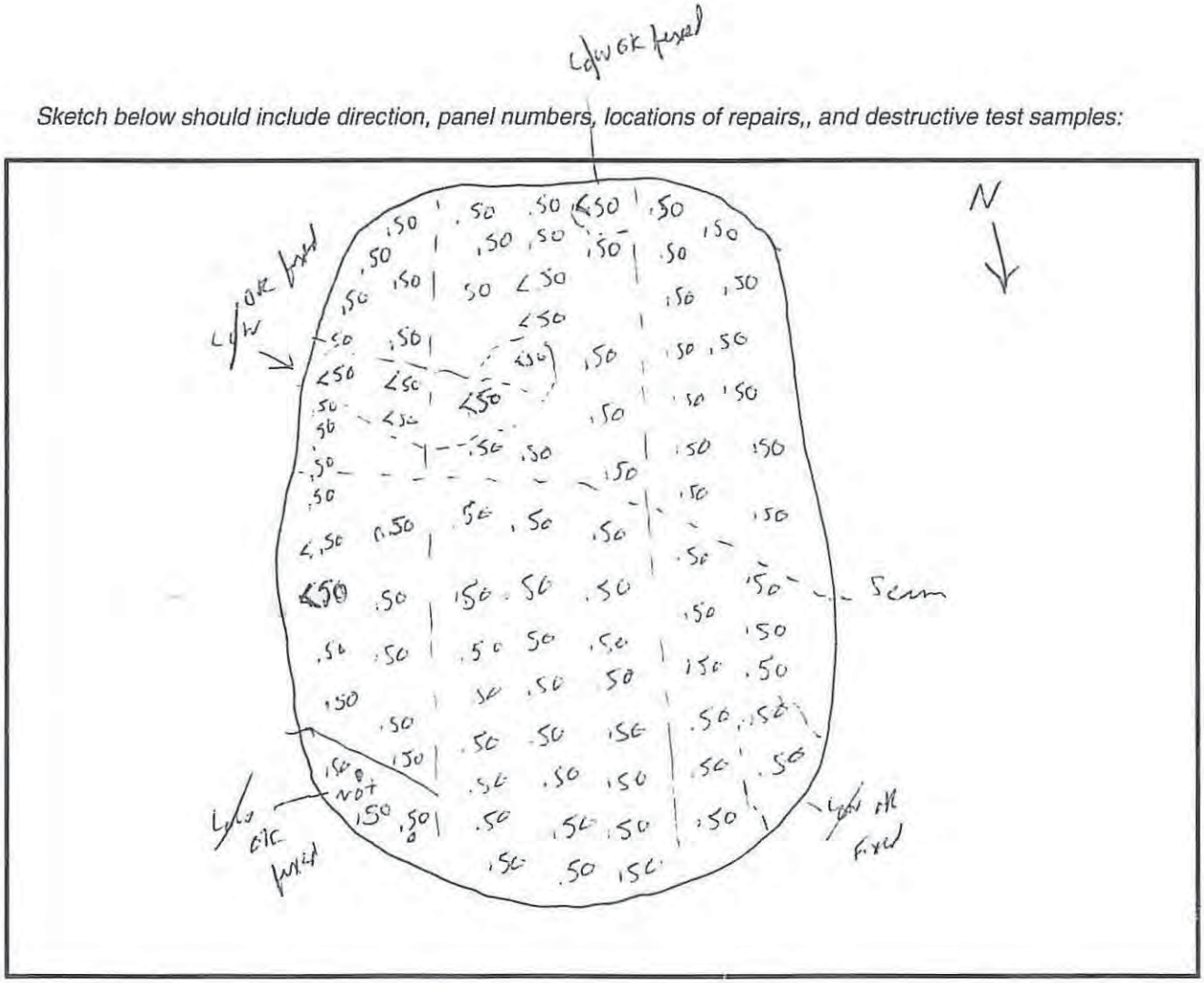
Project: Closure Tarp Project No. 188-010-001

Client: Pantex Installer: Bad cypress

Liner Material: Closure Tarp

Location Description: Checked all areas as indicated below. Any areas lower than 0.50" were all addressed and rechecked.

Sketch below should include direction, panel numbers, locations of repairs,, and destructive test samples:



APPENDIX K

DAILY SEAM LENGTH TRACKING LOG

Trihydro
CORPORATION

DAILY SEAM LENGTH TRACKING LOG

Project: Pantex Landfill Closure Project No. 184-010-001

Client: Pantex Installer: AEG

Liner Material: 50 mil LLDPE

CQA Monitor MB Starting Cumulative Seam Length from Previous Form 0

Seam No.	Date Seamed	Time Seamed	Amb. Temp (Deg F)	Liner Temp (Deg F)	Welding Machine No.	Welder Tech	Destruct Sample No.	Seam Length (feet)	Cumulative Seam Length* (feet)	
1-2	10/9	9:34	—	—	W-52	WB		265	265	
4-5	↓	10:45			↓	↓	DS2-1	295	560	
6-7		11:45						290	350	+60
8-9		1:36					DS2-2	290	640	
10-11		2:50						290	430	+140

- Track cumulative seam length up to 1000 linear feet per welding machine and collect a destruct sample and restart cumulative length. Cumulative lengths will carry over into the next day per machine.

Trihydro CORPORATION

DAILY SEAM LENGTH TRACKING LOG

Project: Pantex Landfill 1 Closure Project No. 18H-010-001
Client: Pantex Installer: HEG
Liner Material: 50 mil LLDPE
CQA Monitor M. K. Bradford Starting Cumulative Seam Length from Previous Form 0

Seam No.	Date Seamed	Time Seamed	Amb. Temp (Deg F)	Liner Temp (Deg F)	Welding Machine No.	Welder Tech	Destruct Sample No.	Seam Length (feet)	Cumulative Seam Length* (feet)	
2-3	10/9	9:40	—	—	W-24	AAA		250	250	
3-4		10:35					D24-1	266	516	
5-6		11:25						290	306	+16
7-8		1:25					D24-2	290	586	
9-10		2:35						290	386	+96
11-12		3:30					D24-3	265	651	
12-13		4:30						270	420	+151
13-14		5:00					D24-4	195	616	
14-15		5:45						145	261	+116

* Track cumulative seam length up to 1000 linear feet per welding machine and collect a destruct sample and restart cumulative length. Cumulative lengths will carry over into the next day per machine.

500

Trihydro CORPORATION

DAILY SEAM LENGTH TRACKING LOG

Project: Pantex Landfill Closure Project No. 184-010-001

Client: Pantex Installer: AEG

Liner Material: 50 mil LLDPE

CQA Monitor Mike Bradford Starting Cumulative Seam Length from Previous Form 216

Seam No.	Date Seamed	Time Seamed	Amb. Temp (Deg F)	Liner Temp (Deg F)	Welding Machine No.	Welder Tech	Destruct Sample No.	Seam Length (feet)	Cumulative Seam Length* (feet)	
13-18	10/10	9:12			W-24	A.A.		22	238	
16-18		9:20						28	268	
17-18		9:25						28	296	
19-20		10:00						41	337	
~~[illegible]~~		~~[illegible]~~						~~216~~	~~53~~	
20-21		10:50					D24-5	216	553	~~+53~~
22-23		11:42						252	305	+53
24-25		1:27					D24-6	250	555	
26-27		2:30						200	255	+55
[illegible]-28		3:00						28	283	
28-29		3:30						80	363	

- *Track cumulative seam length up to ~~1000~~ 500 linear feet per welding machine and collect a destruct sample and restart cumulative length. Cumulative lengths will carry over into the next day per machine.*

Trihydro CORPORATION

DAILY SEAM LENGTH TRACKING LOG

Project: Pantex Landfill Closure Project No. 184-010-001

Client: Pantex Installer: AEG

Liner Material: 30 mil LLDPE

CQA Monitor Mike Bradford Starting Cumulative Seam Length from Previous Form ~~0~~ 0

Seam No.	Date Seamed	Time Seamed	Amb. Temp (Deg F)	Liner Temp (Deg F)	Welding Machine No.	Welder Tech	Destruct Sample No.	Seam Length (feet)	Cumulative Seam Length* (feet)	
~~18-18~~	10/10									
12-19		9:25			W-20	WB		12	12	
18-19		9:25						140	156	
19-20N		10:15						150	306	
21-22		11:00					D20-1	245	551	
23-24		12:00						250	301	+51
25-26		2:00					D20-2	240	541	
27-28		3:00						140	181	+-11
2-27		2:45						20	201	

- *Track cumulative seam length up to 1000 linear feet per welding machine and collect a destruct sample and restart cumulative length. Cumulative lengths will carry over into the next day per machine.*

APPENDIX L

EMAIL APPROVAL FROM CLOSURE TURF MANUFACTURER TO BACKFILL ANCHOR TRENCH PRIOR TO SAND BALLAST PLACEMENT

Jeremy Simons

From: Curt Boling <cboling@watershedgeo.com>
Sent: Monday, October 14, 2013 2:11 PM
To: Dan Gravelding
Cc: Jon Edens; Delaney Lewis; Jose Urrutia
Subject: Fwd: Pantex-Anchor Trench Backfill

Dan,

What is the status of the anchor trenches be backfilled prior to AEG demobilizing?

We are def. ok with the anchor trenches being backfilled prior to sand installation.

Sorry for any confusion this may have caused as we normally don't permit the backfilling of the anchor trenches prior to sand installation. However due the circumstances of this site (strong sustainable winds, flat grades, shutdown) we are comfortable with backfilling.

Hope this clarifies our position.

Thank you,

Curt Boling
Project Manager
ClosureTurf.com
Office: 770-777-0386
Fax: 770-777-0387
Cell: 678-592-2483

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Begin forwarded message:

From: Curt Boling <cboling@watershedgeo.com>
Subject: Pantex-Anchor Trench Backfill
Date: October 10, 2013 12:19:46 PM EDT
To: Dan Gravelding <dgravelding@trihydro.com>
Cc: Jose Urrutia <jurrutia@watershedgeo.com>, Delaney Lewis <dlewis@watershedgeo.com>, Bob Buzzell <rbuzzell@watershedgeo.com>

Dan,

We previously discussed not backfilling the anchor trench prior to sand install.

However, if the sand install is delayed, due to the grade of this project we would be comfortable backfilling the anchor trench after the turf has been installed. Normally we do advise to keep it open allowing the components to adjust to its final place however the circumstances of this project are different.

Let me know if you have any further questions and we can discuss further.

Thank you,

Curt Boling
ClosureTurf.com
Office: 770-777-0386
Cell: 678-592-2483

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Jeremy Simons

From: jurrutia@watershedgeo.com
Sent: Wednesday, October 09, 2013 1:36 PM
To: Curt Boling; Dan Gravelding; t@watershedgeo.com
Cc: Jeremy Simons; Mike Bradford; rbuzzell@watershedgeo.com
Subject: RE: e-mail information

All, based on the gradation provided the sand infill meets the project specifications.

Jose Urrutia
VP of Engineering

-------- Original Message --------
Subject: Re: e-mail information
From: Curt Boling <cboling@watershedgeo.com>
Date: Wed, October 09, 2013 11:15 am
To: Dan Gravelding <dgravelding@trihydro.com>, Jose Urrutia <jurrutia@watershedgeo.com>
Cc: Jeremy Simons <jsimons@trihydro.com>, Mike Bradford <MBradford@trihydro.com>

Certainly Dan.

Jose-please see the below email.

Curt Boling
ClosureTurf.com
Office: 770-777-0386
Cell: 678-592-2483

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On Oct 9, 2013, at 12:51 PM, "Dan Gravelding" <dgravelding@trihydro.com> wrote:

Hi Curt, it was nice to meet you. Do you think you or whoever reviewed this information from Closure Turf can send me a response to this email based on our conversation in the field yesterday regarding acceptance of the sand?

Thanks again,
Dan

From: Jeremy Simons
Sent: Tuesday, October 08, 2013 7:54 AM
To: Dan Gravelding
Subject: Fwd: e-mail information

Sent from my iPhone

Begin forwarded message:

> **From:** Steve Camargo <scamargo@apexgeo.com>
> **Date:** October 4, 2013, 5:33:40 PM MDT
> **To:** Jeremy Simons <jsimons@trihydro.com>
> **Cc:** "Dan Gravelding" <dgravelding@trihydro.com>, Mike Bradford <MBradford@trihydro.com>, Shane Nance <snance@apexgeo.com>
> **Subject: RE: e-mail information**
>
> Jeremy,
>
> Attached are the gradation reports you were requesting. Let me know if you have any questions.

Steve Camargo
Manager, Construction Services
Apex geoscience inc.
215 S. Fannin
Amarillo, TX 79106
806.677.0600 office
806.570.0886 mobile
855.581.8081 facsimile
scamargo@apexgeo.com
www.apexgeo.com

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Professional Geoscience Firm Registrations by State with Expiration Dates:
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From: Jeremy Simons [mailto:jsimons@trihydro.com]
Sent: Thursday, October 03, 2013 5:25 PM
To: Steve Camargo
Cc: Dan Gravelding; Mike Bradford
Subject: RE: e-mail information

Hey there Steve,

Thanks for the call today about the sand particle size test for Howell Sand. Did you happen to grab another couple of samples from them this morning? (we require two samples be run from the same pile)
As soon as you have results can you let me know as we need to get things set up on our end for approvals and such.
Thanks again for your help and communications.
Jeremy Simons
720-273-4416

PS Please reply all so that the other team members stay in the email loop as well.

From: Steve Camargo [mailto:scamargo@apexgeo.com]
Sent: Tuesday, October 01, 2013 9:31 AM
To: Jeremy Simons
Subject: e-mail information

Jeremy,

Below is my contact information for your convenience.

Steve Camargo
Manager, Construction Services
Apex geoscience inc.
215 S. Fannin
Amarillo, TX 79106
806.677.0600 office
806.570.0886 mobile
855.581.8081 facsimile
scamargo@apexgeo.com
www.apexgeo.com

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<Tryhidro gradation - sample #2.pdf>

<Tryhidro gradation - sample #1.pdf>

APPENDIX M

PROJECT PHOTOS

Landfill cap prior to performing any work activities. Looking Northeast

Landfill cap prior to performing any work activities. Looking North.

Windrowing vegetation material

Grubbing vegetation material off of the landfill cover

Digging the anchor trench

Deployment of the LLDPE/ Grip net liner

Seam cleaning and welding the LLDPE/ Grip net liner

Labeling of liner seams and welds

Placement and sewing of the Closure Turf

Backfilled anchor trench

Placement of the sand using the Express Blower

Power broom the sand into place

Appendix H
Hydrologic Evaluation
East and Southeast Zones of the Perched Aquifer at the Pantex Plant

U.S. Department of Energy/

National Nuclear Security Administration

P A N T E X

P L A N T

Hydrologic Evaluation – East and Southeast Zones of the Perched Groundwater at the Pantex Plant

2013 Update

May 2014

Hydrologic Evaluation

East and Southeast Zones of the Perched Aquifer at the Pantex Plant

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Attachments

Attachment 1: Comparison of 2009, 2012, and 2013 Perched Aquifer Groundwater Elevation Maps

Attachment 2: 20-year pumping Simulation results

Attachment 2: 20-year Pumping Simulation Results, with Additional Extraction Wells

I. Introduction

This updated evaluation is included in the 2013 Annual Progress Report as a result of key findings in the Draft Five-Year Review Report (B&W Pantex 2012). The report recognized that perched groundwater COC plumes continue to move and/or expand down-gradient, especially to the east of FM 2373 and in the southeastern lobe of the perched aquifer. As stated in the Groundwater Remedy Effectiveness Evaluation (Trihydro 2012) conducted as part of the Five-Year Review, portions of these areas are not under the short-term influence of the SEPTS and may not be under the long-term influence due to limited saturated thickness or other limiting hydrogeologic conditions (see Figure 1).

Due to the issues identified, Pantex is evaluating these areas in more detail than prior reporting efforts, which tended to focus more on the operation of installed remedial actions and effects on the perched groundwater system as a whole rather than these areas near the fringe of perched groundwater that may or may not be influenced by the installed remedial actions. This report is the second focusing on these areas, but will be updated and revised yearly as part of the Annual Progress Reporting as additional data is collected and analyzed.

The 2013 update includes discussion of water level and COC concentration data collected in 2013.

Even though several high explosive compounds are found in this region, this report focuses on the RDX plume as it is the most widespread at the highest concentrations in these areas and has been consistently used in prior reporting and evaluations to represent the southeast plume. The following sections discuss RDX concentrations, trends, and apparent plume movement in perched groundwater east of FM 2373, as well as effects of pump and treat operations over time.

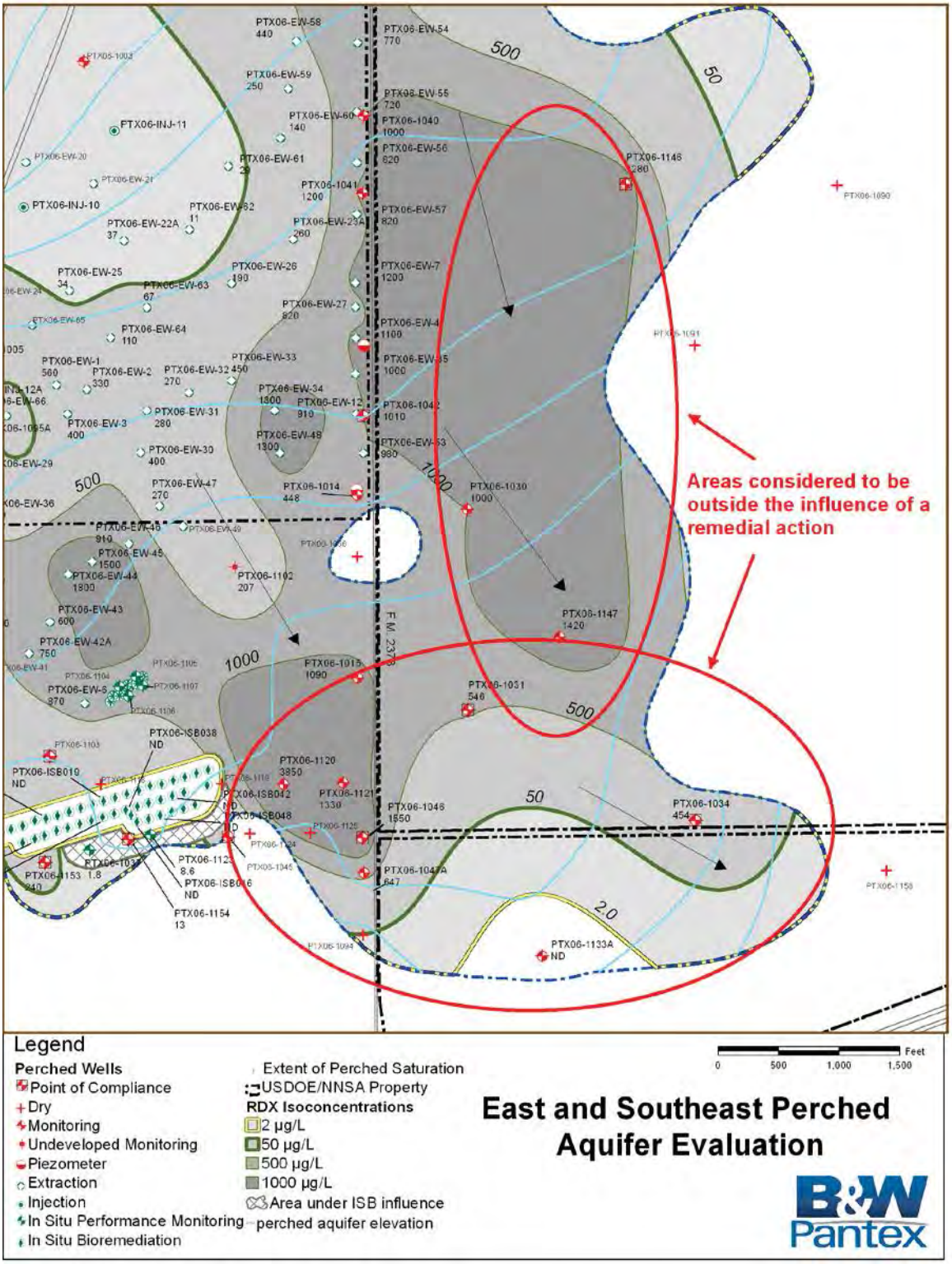


Figure 1. Areas of Perched Groundwater outside the Influence of Remedial Actions

II. Wells Evaluated

Many wells have been installed in the areas identified as currently outside the influence of a remedial action depicted in Figure 1. These wells are discussed in detail below and include:

- PTX06-1015
- PTX06-1030
- PTX06-1031
- PTX06-1034
- PTX06-1046
- PTX06-1047A
- PTX06-1120
- PTX06-1121
- PTX06-1146
- PTX06-1147
- PTX06-1133A

Additionally, six dry wells are installed in this region of perched groundwater and help define the perched extent. These wells are monitored at least twice per year for water levels and will be included in this evaluation if water is observed in these wells. These dry wells include:

- PTX06-1158
- PTX06-1094
- PTX06-1125
- PTX06-1124
- PTX06-1090
- PTX06-1091

PTX06-1015 was installed in 1995 on Texas Tech property approximately 150 feet west of FM 2373 and has had RDX concentrations exceeding GWPS since installation. This is the closest down gradient well to the SEPTS extraction well field so it may be the first well to see effects of extraction.

PTX06-1030 and PTX06-1031 were installed approximately 750-feet east of FM 2373 on the Cockrell property in 1996, which was eventually purchased by DOE in 2008. PTX06-1030 has had RDX concentrations exceeding GWPS since monitoring began in 1996, typically ranging from 500 – 2000 ug/L. However, there does appear to be a recent decreasing trend in RDX. PTX06-1031, which was installed approximately 1700-feet south of PTX06-1030, had non-detect RDX results in 1996 followed by a gradual increasing trend in RDX. Concentrations have ranged from approximately 100 to 700 ug/L since 2001. Calculated trends are quite variable, depending on the time frame, ranging from increasing considering all data to decreasing since the start of remedial actions.

PTX06-1034 was installed 1998 in the southeast lobe of perched groundwater (former Cockrell property) and is currently the furthest down gradient sampled well installed in the area. This well was initially non-detect for RDX, which then began to dramatically increase in 2005. Based on 2012 – 2013 data, the RDX concentrations may be stabilizing at concentrations around 700 ug/L. Due to increasing COC trends in this well, Pantex installed an additional well further east of PTX06-1034 (PTX06-1158) in 2012, but the well has been dry since installation.

PTX06-1046 and PTX06-1047A were installed on Texas Tech property in 2000. PTX06-1046 has had RDX concentrations exceeding GWPS since monitoring began in 2000 and has increased from approximately 500 to approximately 1500 ug/L. RDX was initially non-detect in PTX06-1047A, which installed approximately 300-feet south of PTX06-1046, until concentrations began consistently exceeding GWPS in 2006, but appear to have peaked in 2012 and are now decreasing.

PTX06-1120 and PTX06-1121 were installed east of the Southeast ISB system in 2007 and were considered to be dry when completed. Sampling began in 2010 and RDX concentrations have ranged from approximately 2000 – 4000 ug/L in PTX06-1120 and 900 – 1300 ug/L in PTX06-1121. Recent RDX data suggest possible decreasing trends in these wells.

PTX06-1146 and PTX06-1147 were installed along the eastern edge of the estimated perched extent in 2008. When sampling began in 2009, PTX06-1146 had concentrations around 1400 ug/L, which increased until early 2011, when the concentrations appeared to have peaked, began appear to have stabilized around 1200 ug/L. PTX06-1147, installed approximately 3800-feet south/southwest of PTX06-1146 had had RDX concentrations increase from approximately 400 ug/L to over 1000 ug/L since 2009.

III. Pumping Effects

If the perched groundwater elevation maps are compared from 2009 to 2012 (Attachment 1), positive effects of pump and treat operations are apparent, including the reduction of the mound of groundwater under Playa 1 and a general shift of groundwater contours to the north in the SEPTS well field. However, the elevation contours have not noticeably shifted in the eastern areas of perched groundwater and have actually shifted further south in the southeast lobe of perched groundwater. When comparing the 2013 and 2012 groundwater elevation maps, the groundwater elevations within the extraction well fields continue to shift while the water levels to the east and southeast remain virtually unchanged. The other noticeable change in the maps is the apparent spread of the dry zone located south of the SEPTS well field, caused by the water now being measured in the sump of PTX06-1102. This dry zone will likely continue to expand as pump and treat operations continue to reduce saturated thickness of the perched aquifer upgradient of this area.

These observations are also supported by the 2012 Capture Zone analysis results which are depicted in Figure 2. The capture zones represent areas of influence over a five-year pumping

period using 2012 well operational data coupled with a single layer groundwater model specifically developed for evaluating remedial options in the perched aquifer.

Some of this movement can be explained by a closer examination of the SEPTS extraction well field. As depicted in Figure 3, extraction well pump intake depths are set at elevations ranging from approximately 3245 – 3255 ft amsl in the southeast portion of the SEPTS well field. Intake depths are slightly lower in some wells installed further to the southwest on Texas Tech property, but this region tends to have lower hydraulic conductivity and saturated thickness resulting in reduced well productivity. Therefore, perched aquifer surface contour lines of 3250 – 3255 ft likely represent the extent of "recoverable" area of the perched aquifer with the current configuration of the SEPTS well field.

As pump and treat operations continue to remove head, the unaffected zone of perched groundwater will continue to expand as the current volume of water in this region continues to spread into unsaturated zones, as documented by the recent water levels in PTX06-1133A. Additionally water continues to flow into this region from the north caused by the general south/southeast groundwater gradient, which is driven by the general slope of the fine grained zone. It may be possible that, as the pump and treat systems continue to remove head from the perched groundwater system, the water levels will be affected over the entire perched groundwater system, thereby reducing the flux of groundwater into this region. However, these reductions in flux will take many years to take effect. If more immediate corrective action is needed, the SEPTS well field could be expanded to the east across FM 2373 to reduce head and thus groundwater flux before it reaches areas with lower transmissivity where pump and treat technologies are less effective.

In order to analyze pumping effects in more detail, the single layer model used in the capture zone analysis was used to evaluate long-term pumping effects and the possible addition of extraction wells east of FM 2373. The contoured 2012 water level surface was used for initial heads and extraction wells were assigned their 2012 average flow rate used in the capture zone analysis. A 20-year pumping period was simulated and model graphical results at time 0, 5, 10, and 20 years can be seen in Attachment 2. Note the color flood indicates perched water table elevations and the blue contours represent perched aquifer saturated thickness. Additionally, white cells represent simulated dry conditions and the light blue cells at the perched extent represent the general head boundaries that define flow boundaries for the model.

As depicted in Attachment 2, most effects on saturated thickness are observed within the SEPTS well field early in the simulation. Some effects are observed across FM 2373 from the well field but virtually no effects are seen in the southeast lobe of the perched aquifer until over 10 years of pumping. It is also important to note that, as saturated thickness is reduced, the modeled pumping rate is correspondingly reduced until the flow rate is essentially zero. So, if the 5-ft saturated thickness line represents an effectively dewatered perched zone that can no longer be pumped, approximately half of the SEPTS well field will be inoperable by the end of the simulated pumping period. This reduction in pumping is represented in hydrologic budgets

recorded in the model output file and summarized in Table 1. It is important to remember these values represent total extraction of both pump and treat systems and extraction rates at individual wells cannot be determined.

Table 1 - Simulated Extraction Rates

Simulated pumping time	Well Extraction (gpm)	% Reduction in Extraction
< 1 yr (0)	432	--
5 yrs	396	8
10 yrs	267	32
20 yrs	200	54

So the reduction in saturated thickness in the southeast lobe illustrated between 10 and 20 years of the simulation period is not directly due to pumping effects but rather movement of water by expansion of the perched groundwater along the fringes of the model domain as simulated by water moving out of the general head boundaries, as described below.

The 20-year pumping model was also used to simulate addition of two extraction wells in the zone of thicker saturated thickness east of FM 2373 (directly east of EW-57). Attachment 3 contains simulation results. When comparing the simulated results with additional extraction to the simulated results with the current extraction system, reductions in saturated thickness are observed very quickly and the northern area east of FM 2373 is almost effectively dewatered (saturated thickness less than approximately 5 ft) after 10 years of pumping. However, simulated effects to water table elevations and saturated thicknesses in the southeast lobe were much less obvious. Saturated thickness contours with additional extraction were slightly smaller after 20 years of pumping.

These results indicate that the installation of additional extraction wells east of FM 2373 will remove COC mass and limit flux moving into the southeast lobe to a degree, but it appears that the SEPTS well field is already relatively effective in limiting flux into this area. Additionally, water movement in the area is primarily either downward movement through the fine-grained zone or by lateral spread at the fringes of the perched extent as dewatering of the perched aquifer up gradient has little effect on the decreasing water levels in the area.

Given the above discussions above regarding the results of modeling, the limitations and assumptions of numerical modeling must be recognized. All groundwater models will have some degree of assumption regarding aquifer geometry, properties, etc. Some of these uncertainties can be addressed through model calibration and refinement over time, but some uncertainty and model limitations will always be a part of the modeling process. Two issues were identified that will likely affect the study areas:

- Since this is a single layer model, the model bottom is defined as the top of the fine-grained zone. Therefore, these simulations in no way represent vertical flow downward through the fine grained zone. These effects become more important in the southern portion of the study area where the fine-grained zone thins out and vertical movement is more likely.

- The perched aquifer extent is represented in the model by general head boundaries, which are head-dependent flow boundaries. Essentially, flow into or out of the aquifer is dependent upon the simulated head at adjacent cells, the head defined at the boundary cell, and a conductance term. In this model, the heads defined at the general head boundaries were set at 6-inches above the aquifer bottom so water tends to freely flow out of the aquifer at the defined boundaries, which likely represents the flow conditions relatively well in the areas evaluated.

Even with the issues identified above, the general conclusions gained from the modeling results are believed to be sound. If groundwater models that more accurately represent groundwater flow in these areas are needed to assist in assessing remedial options, a new model could be developed or the current model could be modified to represent vertical movement through the fine-grained zone using multiple layers. Additionally, the active model domain could be expanded to represent variably saturated flow conditions at the perched aquifer fringe rather than defined flow boundaries.

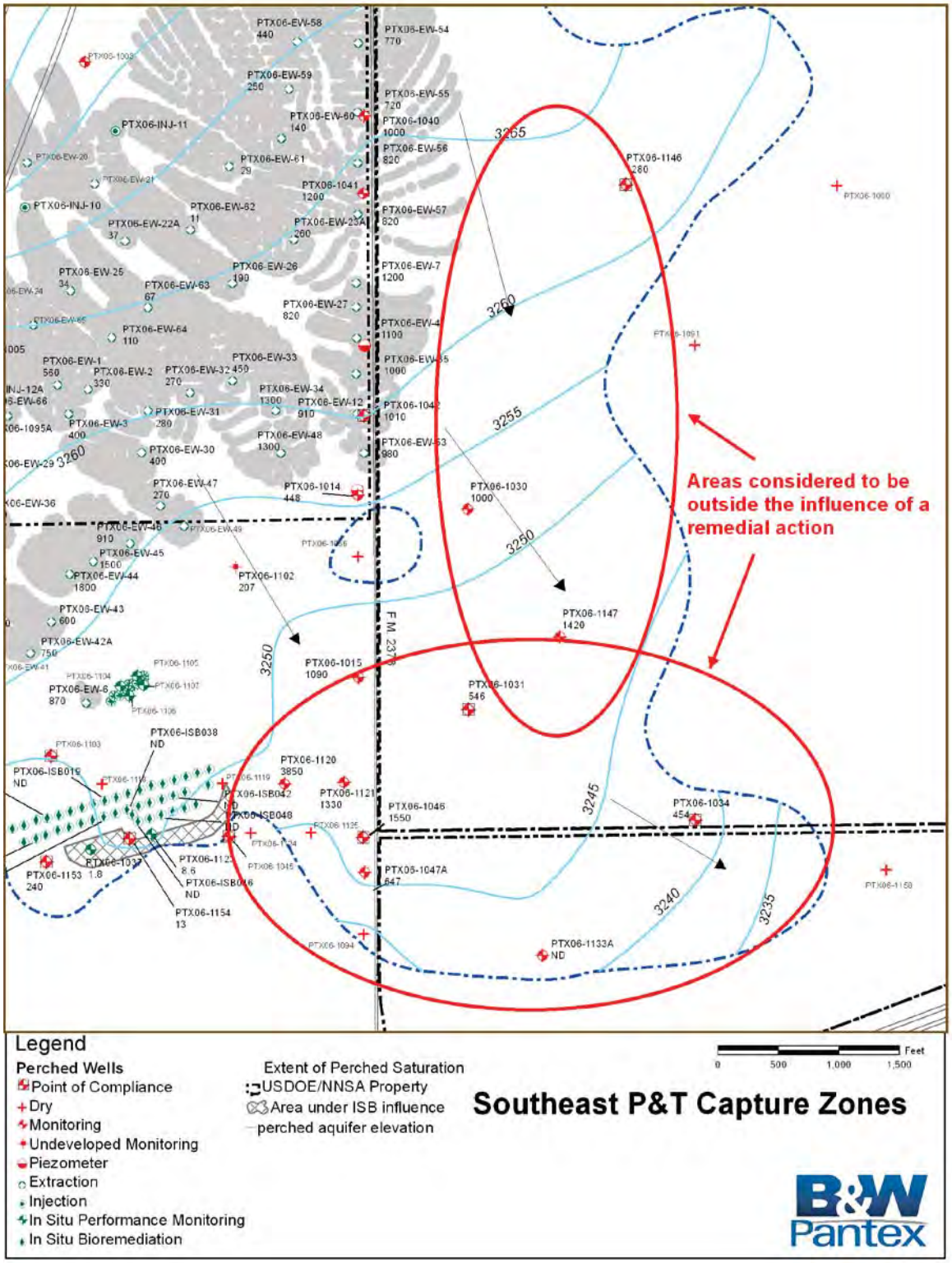


Figure 2. SEPTS Captures Zones

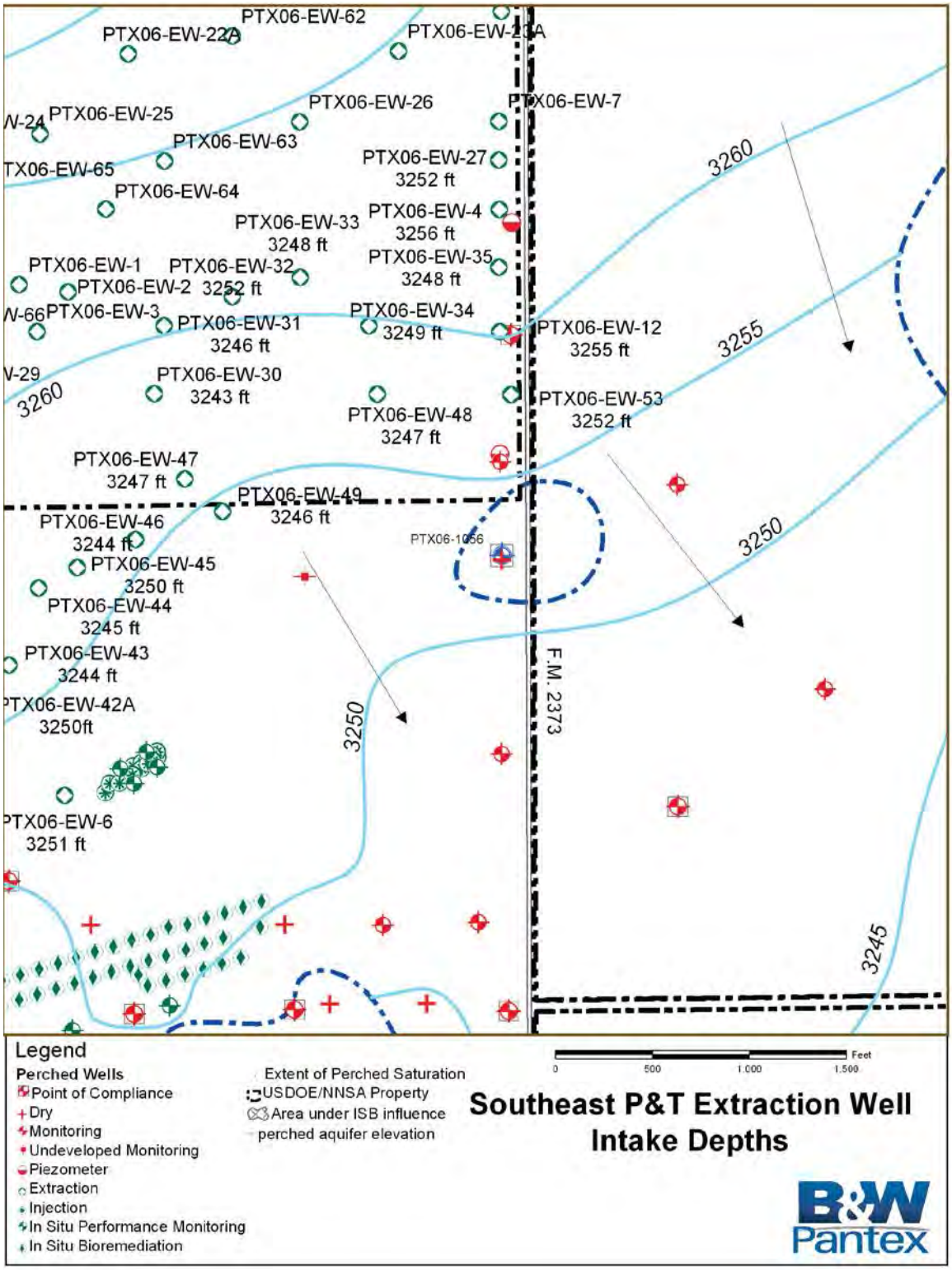


Figure 3. SEPTS intake Depths vs Perched Aquifer Water Surface Elevations

IV. Indicators of Plume Movement

In order to evaluate and attempt to quantify plume movement in the areas that are unlikely affected by pump and treat operations. the RDX concentrations were plotted over time on the same axis for:

- PTX06-1030
- PTX06-1031
- PTX06-1034
- PTX06-1147
- PTX06-1133A

These wells were chosen because in general, they are located in a line following the groundwater gradient in the area, which shifts from south (in the northern region) to southeast (in the southern region).

As depicted in Figure 4, RDX data has been collected in PTX06-1030 and PTX06-1031 since 2006. At that time, the RDX plume had already reached PTX06-1030 as, with the exception of a single data point, the concentrations consistently exceeded 200 ug/L. Concentrations increased to values ranging around 1500 ug/L and are now exhibiting a decreasing trend. RDX concentrations were at or near detection limits in PTX06-1031 until 1998, then began to gradually increase and appear to be stable at concentrations around 500 ug/L.

PTX06-1034, which is currently the furthest down gradient sampled well installed in the area, had relatively consistent low-level detections of RDX from the time it was installed in 1998 until 2004, when concentrations began to gradually increase. Then, in 2010, concentrations began to increase at a much faster rate and are now over 700 ug/L. Pantex installed an additional well further east of PTX06-1034 (PTX06-1158) in 2012, but the well has been dry since installation.

High concentrations of RDX had already reached PTX06-1147 when installed in 2009. This well, which was installed between PTX06-1030 and PTX06-1034 had concentrations increase from approximately 400 ug/L to over 1000 ug/L in 2012. 2013 data indicate the RDX concentrations may be stabilizing in this well around 1200 ug/L.

If the RDX concentration of approximately 400 ug/L depicted on Figure 4 is chosen as the leading edge of the plume and considering the temporal changes in concentration discussed above, the RDX plume appears to moving down gradient at a rate of 100 – 200 ft/yr from PTX06-1030 to PTX06-1034. This appears to be faster than groundwater velocities estimated for the SEISB conceptual site model, but similar to those groundwater velocities estimated for the Zone 11 ISB conceptual site model (Trihydro 2011). Keep in mind these velocities were estimated using slug testing techniques in ISB injection wells, which may or may not be representative of conditions in the surrounding formation.

PTX06-1133A was dry when installed in 2009 and remained dry until 2011, when approximately 3 feet of water entered the well. Since then, the water level trend is decreasing. This well has

been sampled since December 2011 and all VOCs and HEs have been non-detect. These water level measurements and analytical results suggest that the perched extent is slowly expanding in the area and "old" perched groundwater unaffected by plant operations has now moved into this well. As the plumes continue to move down gradient at velocities observed in up gradient wells and affected water continues to spread in the region, COCs will likely be detected at concentrations exceeding GWPS in this well soon.

As summarized in Figure 5, many of the wells in the far southeast lobe of perched groundwater are exhibiting decreasing trends in RDX and no wells are exhibiting increasing trends considering the 2012 – 2013 data. These trends may be caused by mass removal upgradient and some mixing with unaffected water in the region.

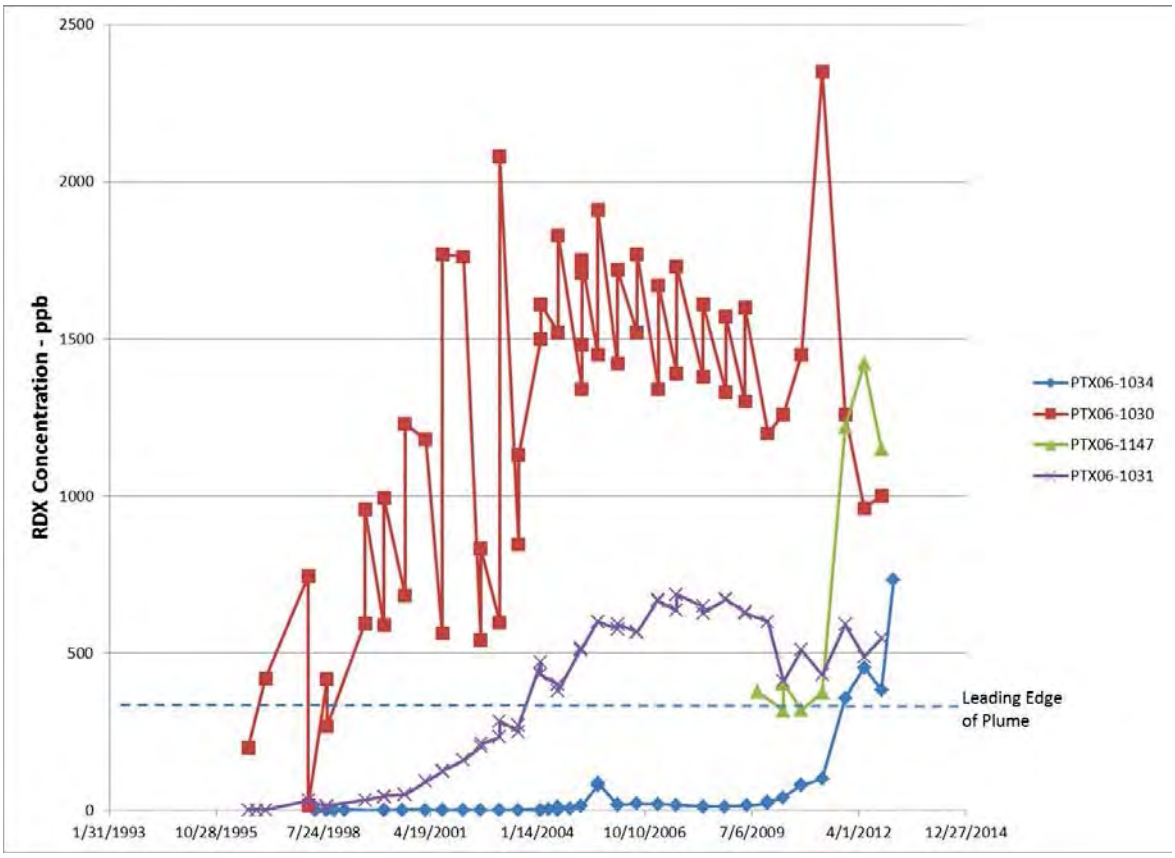


Figure 4. RDX Concentrations over time, Southeast Perched Aquifer Wells

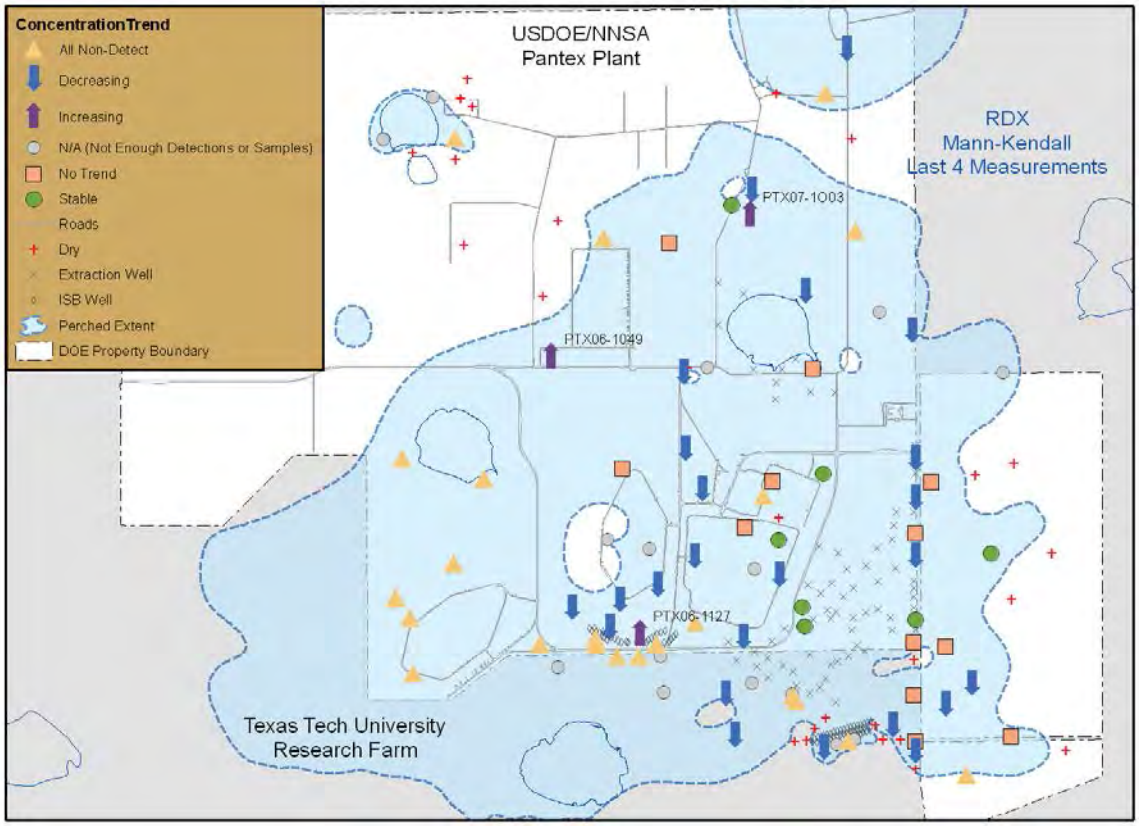


Figure 5. Recent RDX Trends in the Perched Aquifer

V. Conclusions

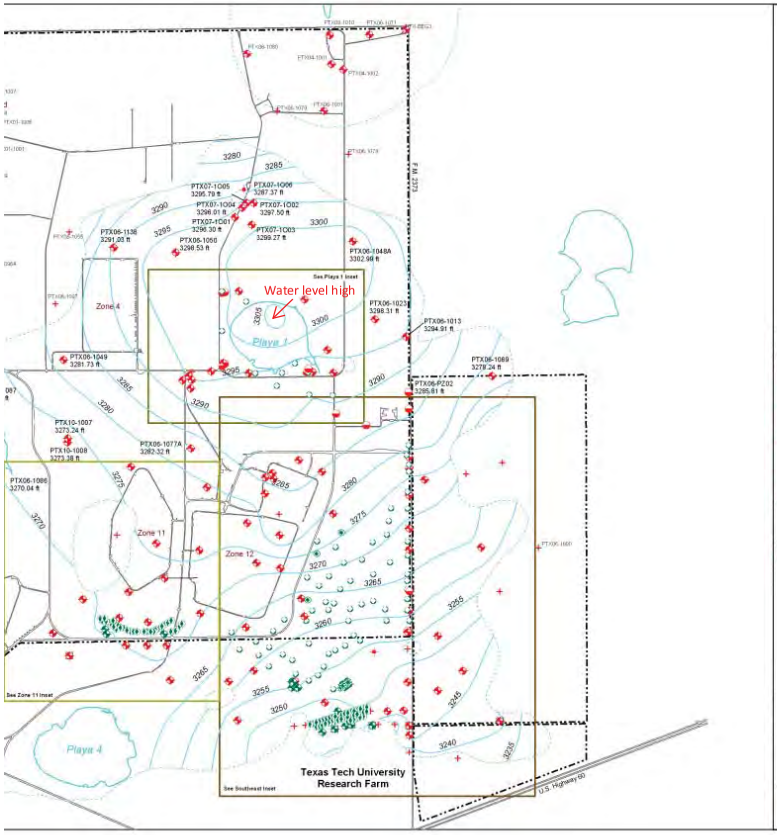
Based on the data evaluated, several important conclusions can be drawn. Given the current configuration of the SEPTS well field, the system will not be able to affect water levels, spread of the perched aquifer, or COC mass currently in the southeast lobe of the perched aquifer. Considering the observed saturated thicknesses in this area as well as operational data from extraction wells installed west of this area on Texas Tech property, additional extraction wells installed in this area would likely be ineffective. Water will continue to flow into this area from the north due to the general gradient, increasing the water volume and COC mass, which will likely continue to slowly spread throughout this zone of perched groundwater.

Therefore, several options could be considered for this region, depending on the risk associated with COCs exceeding the GWPS in this area. An in-situ treatment technology could be utilized to treat the current mass or encourage natural attenuation processes in the area. While modeling results indicate limited effectiveness in reducing water levels in the southeast lobe, the installation of extraction wells east of FM 2373 in areas that have a saturated thickness exceeding 15 feet would remove COC mass and ultimately reduce flux to the south by reducing the gradient and thus the driving head of affected water movement into this area. The current SEPTS conveyance system would need to be evaluated to determine whether it could handle the additional flow, but if current conveyance lines could be used, cost per mass removal would be significantly lower than installing an in-situ treatment system. Additionally, the Pantex Renewable Energy Project to be constructed in 2013 will provide some of the needed infrastructure for power to these extraction wells. However, another factor to consider with the expansion and continued operation of the pump and treatment systems is the anticipated reduced extraction and system effectiveness as saturated thickness is reduced in the well field.

As outlined in the Draft Five-Year Review Report, Pantex has committed to conducting aquifer testing (slug testing) in PTX06-1146 and PTX06-1147 to improve the understanding of the hydrogeology and effectiveness of potential remedial actions in the area. These activities are currently planned for May 2014.

Attachment 1

Comparison of 2009, 2012, and 2013 Groundwater Elevation Maps



Legend

Perched Wells
- Point of Compliance
- Extraction
- Injection
- In Situ Bioremediation
- In Situ Performance Monitoring
- Monitoring
- Dry
- Undeveloped Monitoring
- Permeable Reactive Barrier
- Piezometer

Ogallala Wells
- Monitoring
- Pantex Water Supply

- USDOE/NNSA Property
- Playas
- Water Table Contours - ft
- Appx. Extent of Perched Saturation

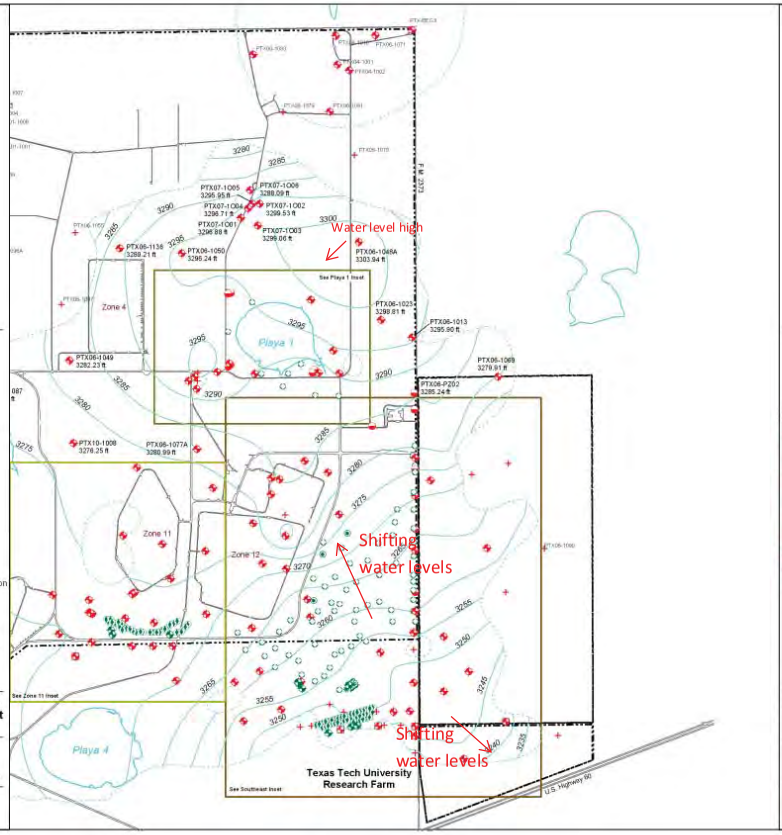
N

Feet
0 1,000 2,000 3,000

Annual Progress Report
USDOE/NNSA Pantex Plant
June 2010

Groundwater Elevations
Site-Wide Perched Aquifer

B&W Pantex



Legend
- Piezometer
- In Situ Performance Monitoring
- Permeable Reactive Barrier
- Monitoring
- Dry
- In Situ Bioremediation
- Injection
- Extraction
- Point of Compliance
- USDOE/NNSA Property
- Playas
- Extent of Perched Saturation
- Water Table Contours - ft

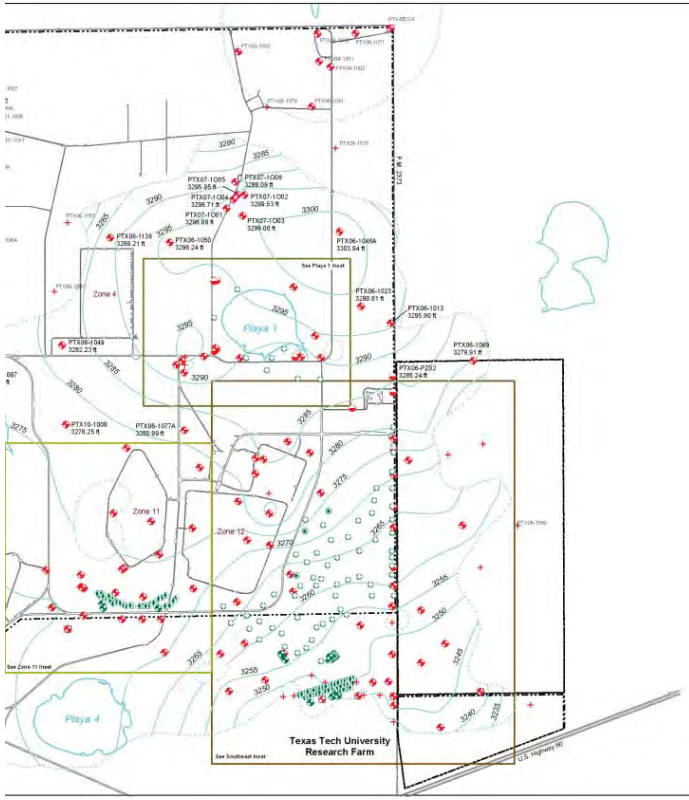
N

Feet
0 1,000 2,000 3,000

Annual Progress Report
USDOE/NNSA Pantex Plant
June 2013

Groundwater Elevations
Site-Wide Perched Aquifer

B&W Pantex



Legend

- Piezometer
- In Situ Performance Monitoring
- Permeable Reactive Barrier
- Monitoring
- Dry
- In Situ Bioremediation
- Injection
- Extraction
- Point of Compliance
- USDOE/NNSA Property
- Playas
- Extent of Perched Saturation
- Water Table Contours - ft

N

0 1,000 2,000 3,000 Feet

Annual Progress Report
USDOE/NNSA Pantex Plant
June 2013

Groundwater Elevations
Site-Wide Perched Aquifer

B&W Pantex

Legend

- Piezometer
- In Situ Performance Monitoring
- Permeable Reactive Barrier
- Monitoring
- Dry
- In Situ Bioremediation
- Injection
- Extraction
- Point of Compliance
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- Extent of Perched Saturation
- Water Table Contours - ft

N

0 1,000 2,000 3,000 Feet

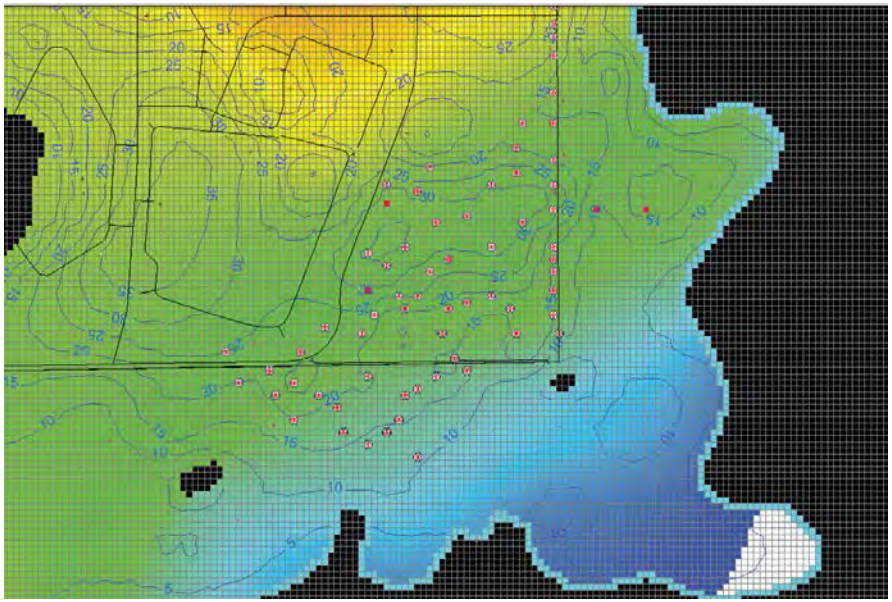
Annual Progress Report
USDOE/NNSA Pantex Plant
June 2014

Groundwater Elevations
Site-Wide Perched Aquifer

Attachment 2

20-year Pumping Simulation Results

Groundwater Vistas/MODFLOW-SURFACT Graphical Output



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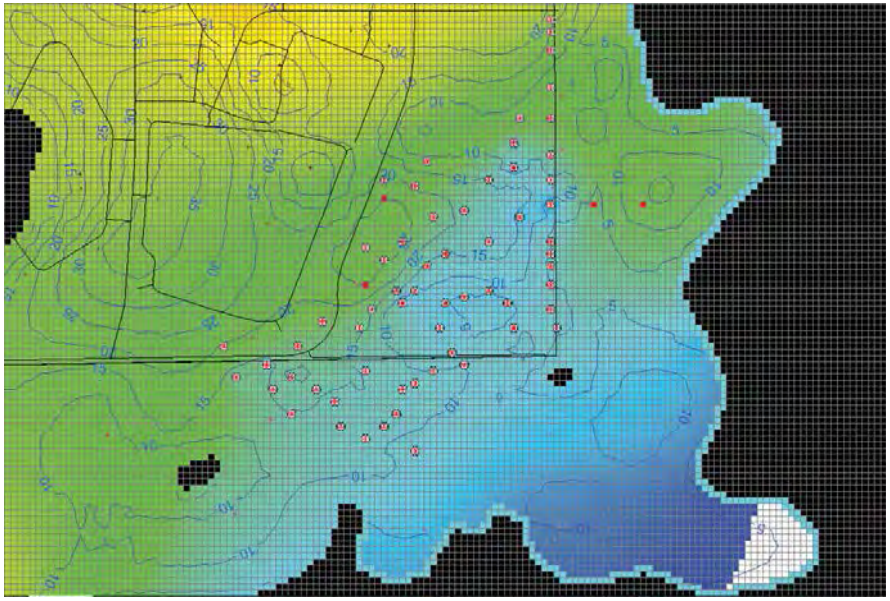

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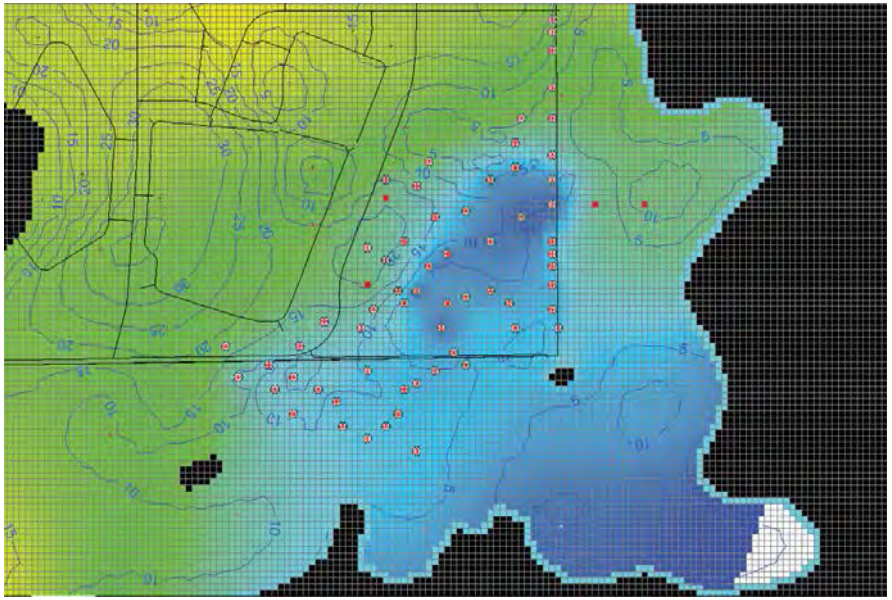

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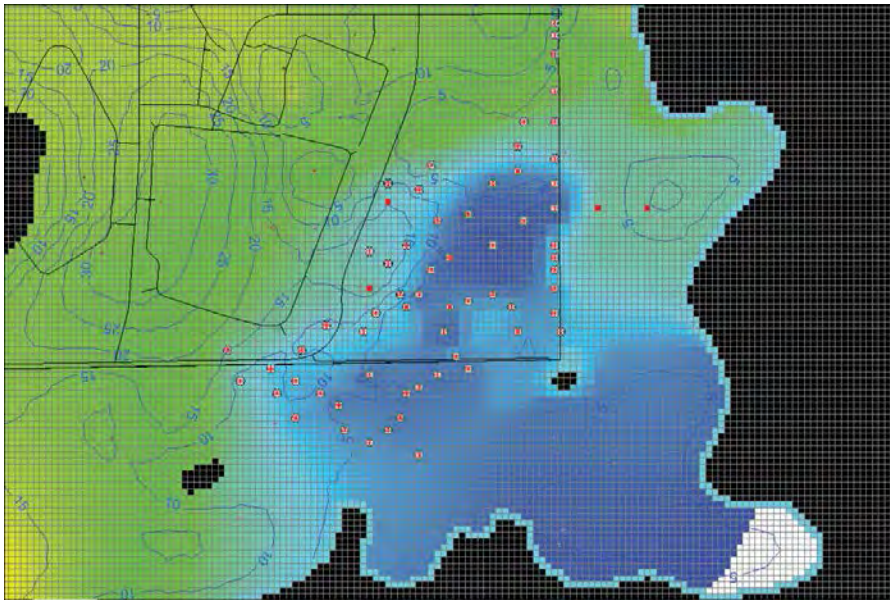
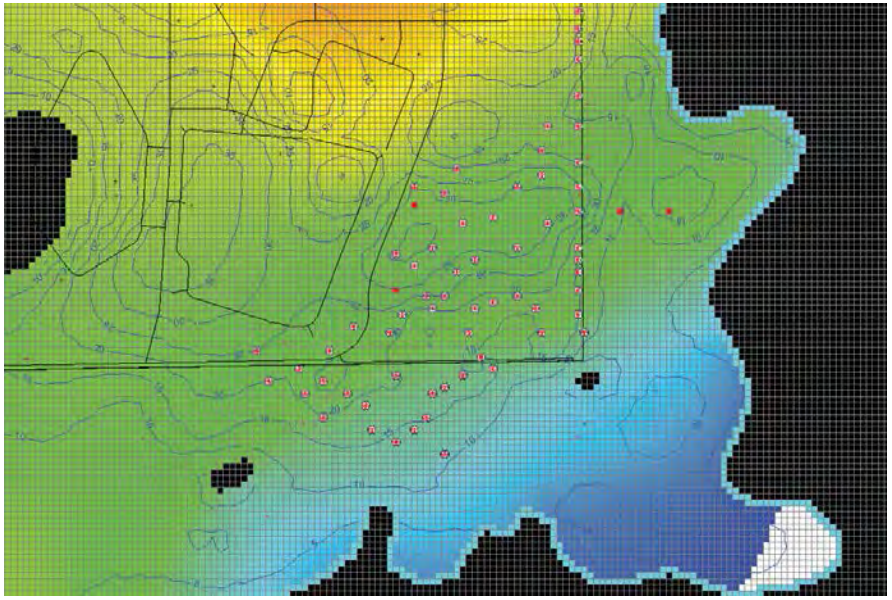


Time: 20 yrs

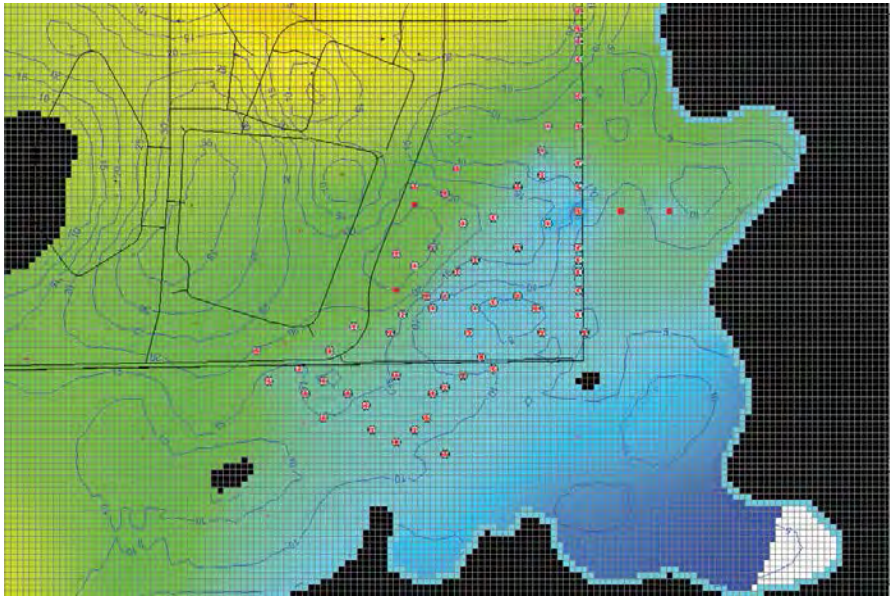
Attachment 3

20-year Pumping Simulation Results, with additional Extraction Wells

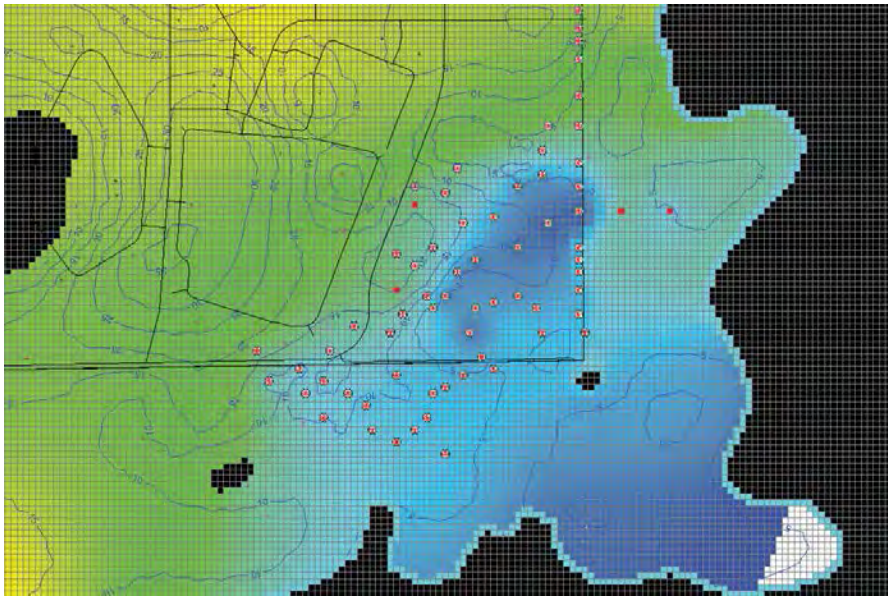
Groundwater Vistas/MODFLOW-SURFACT Graphical Output



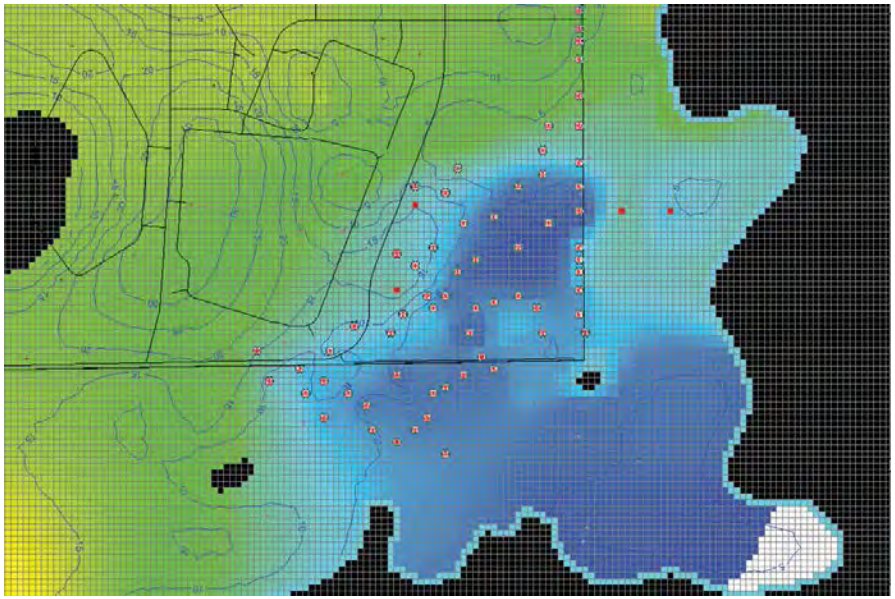
Time: <1 yr



Time: 5 yrs



Time: 10 yrs



Time: 20 yrs