

ATTACHMENT 4: FIELD LOGS

This attachment contains the groundwater sample collection field logs for the relatively shallow standpipe monitoring wells (MW-1, MW-5 through MW-10, MW-13, MW-15, and MW-16), as well as the field data sheets for the Westbay™ multiport wells (MW-3, MW-4, MW-11, MW-12, MW-14, and MW-17 through MW-26). Groundwater sample collection for the 3rd Quarter 2008 sampling event was conducted by Insight Environmental, Inc.

GROUNDWATER COLLECTION AND SAMPLE LOG

WELL ID # 5



Project Name: Quarterly Monitoring at JPL, Pasadena, CA.
 Project No: 4-73805
 Navy Contract No.: Battelle
 Sampled By: Chase Brogdon, Andrew Wells
 Date: 8/8/08
 Weather: clear and sunny

22632 Golden Springs Dr., Suite 270
 Diamond Bar, CA 91765
 Telephone: (909) 396-7662
 Fax: (909) 396-1455

PURGE VOLUME CALCULATION (casing volume):

$$\left(\frac{140}{\text{TD (feet)}} - \frac{63.37}{\text{WL (feet)}} \right) \times \frac{4^2}{\text{D (inches)}} \times \frac{3}{\text{\# Vols}} \times 0.0408 = \frac{150.10}{\text{Calculated Purge Volume}} \text{ Gallons}$$

PURGE METHOD

PUMP INTAKE SETTING

Bailer – Type: _____ Pump – Type: 2" Grundfos Depth in feet (BTOC): _____

FIELD PARAMETER MEASUREMENT

Time	Depth to Water (Feet)	Total Discharge (Gallons)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (° C)	ORP (mV)	Comments
716	63.37	0	3.96	36.1	0.85	4.74	17.9	137	Clear, no odor
726	63.37	30	5.28	35.9	42.2	9.91	17.9	97	Clear, no odor
736	63.37	60	5.26	35.2	7.07	4.62	17.9	147	Clear, no odor
746	63.37	90	5.58	36.0	0.34	9.84	18.0	112	Clear, no odor
756	63.37	120	5.61	34.2	0.08	4.35	18.1	153	Clear, no odor
806	63.37	151	5.72	35.6	0.10	9.39	18.6	108	Clear, no odor

Total Purge Volume: 151 (Gallons)

Total Discharge: 3.02 (Casing Volumes)

Approx. Purge Rate: 3.00 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at: 716 Purge time start: 716

RECHARGE BEHAVIOR: Fast recharging
 Slow recharging (80% recharge did not occur after two hours)

WATER DISPOSAL

Purge water storage: polytank
 Purge water disposal: _____

WELL SAMPLING

Sample Depth in feet (BTOC): _____

<u>Original</u>	<u>Duplicate</u>	<u>Blank</u>	<u>Other (Trip / Source / _____)</u>
Sample ID: <u>MW-5</u>	Sample ID: _____	Type: _____	Type: _____
Sample Time: <u>810</u>	Sample Time: _____	Sample ID: _____	Sample ID: _____
No. of Containers: <u>6</u>	No. of Containers: _____	Sample Time: _____	Sample Time: _____
		No. of Containers: _____	No. of Containers: _____

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG

WELL ID # 6



Project Name: Quarterly Monitoring at JPL, Pasadena, CA.
 Project No: 4-73805
 Navy Contract No.: Battelle
 Sampled By: Chase Brogdon, Andrew Wells
 Date: 8/8/08
 Weather: clear and sunny

22632 Golden Springs Dr., Suite 270
 Diamond Bar, CA 91765
 Telephone: (909) 396-7662
 Fax: (909) 396-1455

PURGE VOLUME CALCULATION (casing volume):

$$\left(\frac{245}{\text{TD (feet)}} - \frac{169.77}{\text{WL (feet)}} \right) \times \frac{4^2}{\text{D (inches)}} \times \frac{3}{\text{\# Vols}} \times 0.0408 = \frac{147.33}{\text{Calculated Purge Volume}} \text{ Gallons}$$

PURGE METHOD

PUMP INTAKE SETTING

Bailer – Type: _____ Pump – Type: 2" Grundfos Depth in feet (BTOC): _____

FIELD PARAMETER MEASUREMENT

Time	Depth to Water (Feet)	Total Discharge (Gallons)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (° C)	ORP (mV)	Comments
1020	169.77	0	5.70	0.300	181	3.63	23.3	233	Reddish brown, no odor
1035	169.77	30	6.08	0.095	75.5	3.67	22.4	336	Reddish brown, no odor
1050	169.77	60	6.29	0.097	68.6	8.63	22.6	321	Reddish brown, no odor
1105	169.77	90	6.16	0.096	31.3	8.42	22.9	323	Cloudy, no odor
1120	169.77	120	6.42	0.096	56.7	6.65	23.2	295	Cloudy, no odor
1135	169.77	150	6.37	0.098	17.2	8.70	22.7	310	Clear, no odor

Total Purge Volume: 150 (Gallons)

Total Discharge: 3.05 (Casing Volumes)

Approx. Purge Rate: 2.00 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at: 1015 Purge time start: 1020

Dedicated pump no longer operational. Portable pump was used to sample this well.

RECHARGE BEHAVIOR: Fast recharging
 Slow recharging (80% recharge did not occur after two hours)

WATER DISPOSAL

Purge water storage: polytank

Purge water disposal: _____

WELL SAMPLING

Sample Depth in feet (BTOC): _____

<u>Original</u>	<u>Duplicate</u>	<u>Blank</u>	<u>Other (Trip / Source / _____)</u>
Sample ID: <u>MW-6</u>	Sample ID: _____	Type: _____	Type: _____
Sample Time: <u>1140</u>	Sample Time: _____	Sample ID: _____	Sample ID: _____
No. of Containers: <u>6</u>	No. of Containers: _____	Sample Time: _____	Sample Time: _____
		No. of Containers: _____	No. of Containers: _____

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG

WELL ID # 7



Project Name: Quarterly Monitoring at JPL, Pasadena, CA.
 Project No: 4-73805
 Navy Contract No.: Battelle
 Sampled By: Chase Brogdon, Andrew Wells
 Date: 8/5/08
 Weather: clear and sunny

22632 Golden Springs Dr., Suite 270
 Diamond Bar, CA 91765
 Telephone: (909) 396-7662
 Fax: (909) 396-1455

PURGE VOLUME CALCULATION (casing volume):

$$\left(\frac{275}{\text{TD (feet)}} - \frac{200.24}{\text{WL (feet)}} \right) \times \frac{4^2}{\text{D (inches)}} \times \frac{3}{\text{\# Vols}} \times 0.0408 = \frac{146.41}{\text{Calculated Purge Volume}} \text{ Gallons}$$

PURGE METHOD

PUMP INTAKE SETTING

Bailer – Type: _____ Pump – Type: 2" Grundfos Depth in feet (BTOC): _____

FIELD PARAMETER MEASUREMENT

Time	Depth to Water (Feet)	Total Discharge (Gallons)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (° C)	ORP (mV)	Comments
815	200.24	0	5.15	70.9	29.1	3.53	24.4	209	Cloudy, no odor
835	200.24	30	5.91	71.7	4.31	7.16	24.7	143	Clear, no odor
855	200.24	60	6.03	70.3	0.35	4.47	25.0	178	Clear, no odor
915	200.24	90	6.26	72.9	1.62	4.29	25.4	176	Clear, no odor
935	200.24	120	6.44	72.7	1.15	7.74	25.2	177	Clear, no odor
955	200.24	150	6.47	71.4	0.93	6.90	25.4	177	Clear, no odor

Total Purge Volume: 150 (Gallons)

Total Discharge: 3.07 (Casing Volumes)

Approx. Purge Rate: 1.50 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at: 735 Purge time start: 815

RECHARGE BEHAVIOR: Fast recharging
 Slow recharging (80% recharge did not occur after two hours)

WATER DISPOSAL

Purge water storage: polytank

Purge water disposal: _____

WELL SAMPLING

Sample Depth in feet (BTOC): _____

<u>Original</u>	<u>Duplicate</u>	<u>Blank</u>	<u>Other (Trip / Source / _____)</u>
Sample ID: <u>MW-7</u>	Sample ID: _____	Type: _____	Type: _____
Sample Time: <u>955</u>	Sample Time: _____	Sample ID: _____	Sample ID: _____
No. of Containers: <u>6</u>	No. of Containers: _____	Sample Time: _____	Sample Time: _____
		No. of Containers: _____	No. of Containers: _____

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG

WELL ID # 8



Project Name: Quarterly Monitoring at JPL, Pasadena, CA.
 Project No: 4-73805
 Navy Contract No.: Battelle
 Sampled By: Chase Brogdon, Andrew Wells
 Date: 8/11/08
 Weather: clear and sunny

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 Fax: (909) 396-1455

PURGE VOLUME CALCULATION (casing volume):

$$\left(\frac{205}{\text{TD (feet)}} - \frac{128.81}{\text{WL (feet)}} \right) \times \frac{4^2}{\text{D (inches)}} \times \frac{3}{\text{\# Vols}} \times 0.0408 = \frac{149.21}{\text{Calculated Purge Volume}} \text{ Gallons}$$

PURGE METHOD

PUMP INTAKE SETTING

Bailer – Type: _____ Pump – Type: 2" Grundfos Depth in feet (BTOC): _____

FIELD PARAMETER MEASUREMENT

Time	Depth to Water (Feet)	Total Discharge (Gallons)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (° C)	ORP (mV)	Comments
1002	128.81	0	6.14	66.9	7.44	0.00	21.4	200	Cloudy, no odor
1014	128.81	30	6.34	66.2	1.98	1.12	21.3	173	Cloudy, no odor
1026	128.81	60	6.22	65.1	0.15	1.51	22.5	178	Clear, faint odor
1038	128.81	90	6.35	66.1	0.1	0.86	22.1	168	Clear, no odor
1050	128.81	120	6.49	65.7	0.11	1.18	22.1	166	Clear, no odor
1102	128.81	150	6.43	66.4	0.53	1.81	24.0	188	Clear, no odor

Total Purge Volume: 150 (Gallons)

Total Discharge: 3.02 (Casing Volumes)

Approx. Purge Rate: 2.50 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at: 953 Purge time start: 1002

RECHARGE BEHAVIOR: Fast recharging
 Slow recharging (80% recharge did not occur after two hours)

WATER DISPOSAL

Purge water storage: polytank
 Purge water disposal: _____

WELL SAMPLING

Sample Depth in feet (BTOC): _____

<u>Original</u>	<u>Duplicate</u>	<u>Blank</u>	<u>Other (Trip / Source / _____)</u>
Sample ID: <u>MW-8</u>	Sample ID: _____	Type: _____	Type: _____
Sample Time: <u>1109</u>	Sample Time: _____	Sample ID: _____	Sample ID: _____
No. of Containers: <u>6</u>	No. of Containers: _____	Sample Time: _____	Sample Time: _____
		No. of Containers: _____	No. of Containers: _____

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG

WELL ID # 10



Project Name: Quarterly Monitoring at JPL, Pasadena, CA.
 Project No: 4-73805
 Navy Contract No.: Battelle
 Sampled By: Chase Brogdon, Andrew Wells
 Date: 8/12/08
 Weather: clear and warm

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PURGE VOLUME CALCULATION (casing volume):

$$\left(\frac{155}{\text{TD (feet)}} - \frac{78.45}{\text{WL (feet)}} \right) \times \frac{4^2}{\text{D (inches)}} \times \frac{3}{\text{\# Vols}} \times 0.0408 = \frac{149.92}{\text{Calculated Purge Volume}} \text{ Gallons}$$

PURGE METHOD

PUMP INTAKE SETTING

Bailer – Type: _____ Pump – Type: 2" Grundfos Depth in feet (BTOC): _____

FIELD PARAMETER MEASUREMENT

Time	Depth to Water (Feet)	Total Discharge (Gallons)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (° C)	ORP (mV)	Comments
1102	78.45	0	6.62	90.8	23.6	2.01	24.2	153	Clear, no odor
1114	78.45	30	6.58	93.4	4.44	1.99	23.9	123	Clear, no odor
1126	78.45	60	6.58	98.7	0.97	1.19	23.9	51	Clear, no odor
1138	78.45	90	6.58	99.4	1.23	1.69	24.5	116	Clear, no odor
1150	78.45	120	6.62	99.9	1.01	2.35	24.7	93	Clear, no odor
1202	78.45	150	6.59	99.9	2.25	1.36	25.7	126	Clear, no odor

Total Purge Volume: 150 (Gallons)

Total Discharge: 3.00 (Casing Volumes)

Approx. Purge Rate: 2.50 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at: 1100 Purge time start: 1102

RECHARGE BEHAVIOR: Fast recharging
 Slow recharging (80% recharge did not occur after two hours)

WATER DISPOSAL

Purge water storage: polytank

Purge water disposal: _____

WELL SAMPLING

Sample Depth in feet (BTOC): _____

Original	Duplicate	Blank	Other (Trip / Source / _____)
Sample ID: <u>MW-10</u>	Sample ID: _____	Type: _____	Type: _____
Sample Time: <u>1205</u>	Sample Time: _____	Sample ID: _____	Sample ID: _____
No. of Containers: <u>6</u>	No. of Containers: _____	Sample Time: _____	Sample Time: _____
		No. of Containers: _____	No. of Containers: _____

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG

WELL ID # 13



Project Name: Quarterly Monitoring at JPL, Pasadena, CA.
 Project No: 4-73805
 Navy Contract No.: Battelle
 Sampled By: Chase Brogdon, Andrew Wells
 Date: 8/11/08
 Weather: clear and sunny

22632 Golden Springs Dr., Suite 270
 Diamond Bar, CA 91765
 Telephone: (909) 396-7662
 Fax: (909) 396-1455

PURGE VOLUME CALCULATION (casing volume):

$$\left(\frac{235}{\text{TD (feet)}} - \frac{172.06}{\text{WL (feet)}} \right) \times \frac{4^2}{\text{D (inches)}} \times \frac{3}{\text{\# Vols}} \times 0.0408 = \frac{123.26}{\text{Calculated Purge Volume}} \text{ Gallons}$$

PURGE METHOD

PUMP INTAKE SETTING

Bailer – Type: _____ Pump – Type: 2" Grundfos Depth in feet (BTOC): _____

FIELD PARAMETER MEASUREMENT

Time	Depth to Water (Feet)	Total Discharge (Gallons)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (° C)	ORP (mV)	Comments
800	172.06	0	4.90	67.6	7.47	0	22.0	166	Clear, faint odor
813	172.06	25	4.94	65.9	1.48	0	22.0	124	Clear, faint odor
825	172.06	50	5.50	65.9	0.42	0	22.0	91	Clear, no odor
838	172.06	75	5.72	66.1	0.11	0	22.3	142	Clear, no odor
850	172.06	100	5.93	65.6	0.26	0	22.5	123	Clear, no odor
903	172.06	125	6.06	65.9	0.42	0	22.5	136	Clear, no odor

Total Purge Volume: 125 (Gallons)

Total Discharge: 3.04 (Casing Volumes)

Approx. Purge Rate: 2.00 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at: 739 Purge time start: 800

' – ' DO meter not operational for first three measurements

RECHARGE BEHAVIOR: Fast recharging
 Slow recharging (80% recharge did not occur after two hours)

WATER DISPOSAL

Purge water storage: polytank

Purge water disposal: _____

WELL SAMPLING

Sample Depth in feet (BTOC): _____

Original	Duplicate	Blank	Other (Trip / Source / _____)
Sample ID: <u>MW-13</u>	Sample ID: _____	Type: _____	Type: _____
Sample Time: <u>905</u>	Sample Time: _____	Sample ID: _____	Sample ID: _____
No. of Containers: <u>6</u>	No. of Containers: _____	Sample Time: _____	Sample Time: _____
		No. of Containers: _____	No. of Containers: _____

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG

WELL ID # 15



Project Name: Quarterly Monitoring at JPL, Pasadena, CA.
 Project No: 4-73805
 Navy Contract No.: Battelle
 Sampled By: Chase Brogdon, Andrew Wells
 Date: 8/8/08
 Weather: sunny and hot

22632 Golden Springs Dr., Suite 270
 Diamond Bar, CA 91765
 Telephone: (909) 396-7662
 Fax: (909) 396-1455

PURGE VOLUME CALCULATION (casing volume):

$$\left(\frac{74}{\text{TD (feet)}} - \frac{35.07}{\text{WL (feet)}} \right) \times \frac{4^2}{\text{D (inches)}} \times \frac{3}{\text{\# Vols}} \times 0.0408 = \frac{76.24}{\text{Calculated Purge Volume}} \text{ Gallons}$$

PURGE METHOD

PUMP INTAKE SETTING

Bailer – Type: _____ Pump – Type: 2" Grundfos Depth in feet (BTOC): _____

FIELD PARAMETER MEASUREMENT

Time	Depth to Water (Feet)	Total Discharge (Gallons)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (° C)	ORP (mV)	Comments
1242	35.07	0	6.72	57.3	4.23	7.32	22.3	209	Clear, no odor
1246	35.07	15	6.64	56.4	1.91	11.41	20.7	194	Clear, no odor
1249	35.07	31	6.64	59.4	0.20	2.72	20.8	177	Clear, no odor
1253	35.07	46	6.65	56.7	0.69	2.28	20.0	122	Clear, no odor
1256	35.07	62	6.73	57.4	0.16	2.08	19.9	126	Clear, no odor
1300	35.07	77	6.72	55.5	1.77	3.73	21.5	174	Clear, no odor

Total Purge Volume: 77 (Gallons)

Total Discharge: 3.03 (Casing Volumes)

Approx. Purge Rate: 4.00 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at: 1229 Purge time start: 1242

RECHARGE BEHAVIOR: Fast recharging
 Slow recharging (80% recharge did not occur after two hours)

WATER DISPOSAL

Purge water storage: polytank

Purge water disposal: _____

WELL SAMPLING

Sample Depth in feet (BTOC): _____

<u>Original</u>	<u>Duplicate</u>	<u>Blank</u>	<u>Other (Trip / Source /)</u>
Sample ID: <u>MW-15</u>	Sample ID: _____	Type: _____	Type: _____
Sample Time: <u>1300</u>	Sample Time: _____	Sample ID: _____	Sample ID: _____
No. of Containers: <u>2</u>	No. of Containers: _____	Sample Time: _____	Sample Time: _____
		No. of Containers: _____	No. of Containers: _____

ORIGINAL FIELD RECORD

GROUNDWATER COLLECTION AND SAMPLE LOG

WELL ID # 16



Project Name: Quarterly Monitoring at JPL, Pasadena, CA.
 Project No: 4-73805
 Navy Contract No.: Battelle
 Sampled By: Chase Brogdon, Andrew Wells
 Date: 8/12/08
 Weather: clear and sunny

22632 Golden Springs Dr., Suite 270
 Diamond Bar, CA 91765
 Telephone: (909) 396-7662
 Fax: (909) 396-1455

PURGE VOLUME CALCULATION (casing volume):

$$\left(\frac{285}{\text{TD (feet)}} - \frac{223.71}{\text{WL (feet)}} \right) \times \frac{4^2}{\text{D (inches)}} \times \frac{3}{\text{\# Vols}} \times 0.0408 = \frac{120.03}{\text{Calculated Purge Volume}} \text{ Gallons}$$

PURGE METHOD

PUMP INTAKE SETTING

Bailer – Type: _____ Pump – Type: 2" Grundfos Depth in feet (BTOC): _____

FIELD PARAMETER MEASUREMENT

Time	Depth to Water (Feet)	Total Discharge (Gallons)	pH	Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (° C)	ORP (mV)	Comments
758	223.71	0	5.14	72.0	2.38	0	22.3	158	Clear, no odor
822	223.71	24	5.89	69.4	1.33	0	22.5	76	Clear, no odor
847	223.71	49	6.22	69.1	1.62	0	22.5	120	Clear, no odor
911	223.71	73	6.31	68.9	0.07	0	23.9	142	Clear, no odor
936	223.71	98	6.50	68.6	-0.03	0.20	24.3	143	Clear, no odor
1000	223.71	122	6.63	69.8	-0.80	0	24.7	101	Clear, no odor

Total Purge Volume: 122 (Gallons)

Total Discharge: 3.05 (Casing Volumes)

Approx. Purge Rate: 1.00 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at: 750 Purge time start: 758

RECHARGE BEHAVIOR: Fast recharging
 Slow recharging (80% recharge did not occur after two hours)

WATER DISPOSAL

Purge water storage: polytank
 Purge water disposal: _____

WELL SAMPLING

Sample Depth in feet (BTOC): _____

<u>Original</u>	<u>Duplicate</u>	<u>Blank</u>	<u>Other (Trip / Source / _____)</u>
Sample ID: <u>MW-16</u>	Sample ID: _____	Type: _____	Type: _____
Sample Time: <u>1004</u>	Sample Time: _____	Sample ID: _____	Sample ID: _____
No. of Containers: <u>6</u>	No. of Containers: _____	Sample Time: _____	Sample Time: _____
		No. of Containers: _____	No. of Containers: _____

ORIGINAL FIELD RECORD

Groundwater Sampling Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #: Battelle

Well ID: MW-3
Sampling Zone No.: 4#2
Depth (ft): ~~652~~, 558, 346, 252, ~~172~~
Beginning of Session: 14.02 psia
End of Session: 14.07 psia

Start Time: 1045
Finish Time: 1230

Date: 7/28/08
Page: 1 of 1

Water Pressure Inside Casing: _____

Port #	Run #	Surface Function Checks								Sample Collection Checks								Water Quality Parameters						
		Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Shoe in	Arm In	Deactivate Set Arm Locate Port	Arm out	Pressure in MP	Shoe Out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	PH	Turb. (NTU)	Cond (mmhos)	Dissolved Oxygen	Temp. (°C)
4	1	✓	✓	✓	✓	✓	✓	✓	✓	208.31	✓	210.59	✓	210.57	✓	✓	208.31	1112	6.94	—	50.5	11.78	23.1	89
4	2	✓	✓	✓	✓	✓	✓	✓	✓	208.30	✓	210.62	✓	210.61	✓	✓	208.31	—	6.89	—	49.1	8.31	21.6	24
3	1	✓	✓	✓	✓	✓	✓	✓	✓	115.88	✓	121.95	✓	121.96	✓	✓	115.86	1159	6.95	—	45.2	11.55	22.1	104
2	1	✓	✓	✓	✓	✓	✓	✓	✓	74.90	✓	80.91	✓	80.94	✓	✓	74.93	1228	6.93	—	55.6	12.63	23.3	127

Notes:
 port 5: NOT SAMPLED
 port 4: YELLOW VERY STRONG odor
 port 3: CLEAR STRONG odor.
 port 2: CLEAR FAINT odor. port 1: NOT SAMPLED.

Total Volume: _____



Groundwater Sampling
Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #: Battelle

Well ID: MW-4
Sampling Zone No.: 3rd 1
Depth (ft): 513, 392, 322, 240, 150
Beginning of Session: 14.03 psia
End of Session: 14.06 psia

Start Time: 0800
Finish Time: 1000

Date: 07/24/09
Page: 1 of 1

Water Pressure Inside Casing: _____

Port #	Run #	Surface Function Checks							Position Sampler	Sample Collection Checks								Water Quality Parameters							
		Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Shoe in	Arm In		Deactivate Set Arm Locate Port	Arm out	Pressure in MP	Shoe Out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	PH	Turb. (NTU)	Cond (mmhos)	Dissolved Oxygen	Temp. (°C)
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	64.92	✓	120.38	✓	120.38	✓	✓	64.94	0823	4.86	-	57.8	0.00	20.4	213
3	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	64.90	✓	120.39	✓	120.39	✓	✓	64.95	0842	5.68	-	49.9	0.00	22.7	61
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	29.06	✓	84.86	✓	84.85	✓	✓	29.13	0915	6.44	-	0.1	0.00	21.4	42
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.11	✓	47.44	✓	47.43	✓	✓	14.20	0950	6.93	-	57.5	0.10	21.5	115

Notes:

port 5: NOT SAMPLED port 4: NOT SAMPLED. port 3: YELLOW COLOR STRONG ODOR.
port 2: CLEAR STRONG ODOR. port 1: CLEAR FAINT ODOR.

Total Volume: _____

NOTE: UNABLE TO TAKE TURBIDITY READING DUE TO METER BEING NONFUNCTIONAL.



Groundwater Sampling
Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #. Battelle

Well ID: MW-11
Sampling Zone No.: 4 to 1
Depth (ft): 623, 524, 429, 259, 149
Beginning of Session: 14.01 psia
End of Session: 14.02 psia

Start Time: 1045
Finish Time: 1340

Date: 07/30/08
Page: 1 of 1

Water Pressure Inside Casing: _____

Port #	Run #	Surface Function Checks							Position Sampler	Sample Collection Checks								Water Quality Parameters								
		Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Shoe in	Arm In	Deactivate Set Arm Locate Port	Arm out	Pressure in MP	Shoe Out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	PH	Turb. (NTU)	Cond (microh)	Dissolved Oxygen	Temp. (oC)	ORP	
DUPE	4	1	✓	✓	✓	✓	✓	✓	✓	✓	191.07	✓	186.59	✓	186.55	✓	✓	191.06	1120	6.57	-0.5	26.0	000	22.8	101	DUPE
	3	1	✓	✓	✓	✓	✓	✓	✓	✓	149.54	✓	143.71	✓	143.67	✓	✓	149.57	1157	6.65	1.56	44.3	4.69	21.9	128	
MS/MSD	2	1	✓	✓	✓	✓	✓	✓	✓	✓	76.76	✓	71.36	✓	71.35	✓	✓	76.75	1237	6.91	-0.05	52.7	3.53	25.5	179	MS/MSD
	2	2	✓	✓	✓	✓	✓	✓	✓	✓	74.19	✓	71.38	✓	71.35	✓	✓	74.16	-	-	-	-	-	-	-	
	1	1	✓	✓	✓	✓	✓	✓	✓	✓	29.76	✓	32.02	✓	32.03	✓	✓	29.79	134	7.08	250	60.6	10.66	23.7	186	

Notes:

port 5: NOT SAMPLED port 4: CLEAR, STRONG ODR port 3: CLEAR, STRONG ODR
port 2: CLEAR, STRONG ODR port 1: CLEAR, FAINT ODR

Total Volume: _____



Groundwater Sampling
Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #: Battelle

Well ID: MW-12
Sampling Zone No.: 5 to 1
Depth (ft): 548, 436, 323, 243, 140
Beginning of Session: 14.05 psia
End of Session: 14.04 psia

Start Time: 704
Finish Time: 930

Date: 7/31/08
Page: 1 of 1

Water Pressure Inside Casing: _____

Port #	Run #	Surface Function Checks								Position Sampler	Sample Collection Checks									Water Quality Parameters						
		Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Shoe in	Arm In	Deactivate Set Arm Locate Port		Arm out	Pressure in MP	Shoe Out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	PH	Turb. (NTU)	Cond (mmhos)	Dissolved Oxygen	Temp. (oC)	ORP
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	220.13	✓	206.24	✓	206.24	✓	✓	220.11	718	5.23	0.06	53.3	7.83	18.0	50
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	171.37	✓	160.97	✓	160.90	✓	✓	171.36	744	5.48	0.37	54.5	7.43	18.5	16
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	122.61	✓	112.37	✓	112.36	✓	✓	122.61	808	5.86	3.27	42.0	6.48	19.0	25
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	87.63	✓	77.96	✓	77.97	✓	✓	87.63	838	5.96	2.12	59.7	6.41	20.5	62
2	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	87.62	✓	77.95	✓	77.95	✓	✓	87.62	854	6.24	2.17	59.9	5.33	20.7	108
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	43.10	✓	35.45	✓	35.45	✓	✓	43.13	923	6.36	4.76	62.0	5.40	22.1	95

DUPE <

> 2

Notes: port 5: CLEAR, SLIGHT ODOUR port 4: CLEAR, STRONG ODOUR port 3: CLEAR, NO ODOUR
port 2: CLEAR, NO ODOUR port 1: CLEAR, NO ODOUR

Total Volume: _____



Groundwater Sampling
Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #: Battelle

Well ID: MW-14
Sampling Zone No.: 5 + 1
Depth (ft): 540, 456, 382, 277, 207
Beginning of Session: 13.97 psia
End of Session: 13.97 psia

Start Time: 0737
Finish Time: 1057

Date: 07/21/08
Page: 1 of 1

Water Pressure Inside Casing: _____

Port #	Run #	Surface Function Checks							Position Sampler	Sample Collection Checks								Water Quality Parameters							
		Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Shoe in	Arm In		Deactivate Set Arm Locate Port	Arm out	Pressure in MP	Shoe Out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	pH	Turb. (NTU)	Cond (mmhos)	Dissolved Oxygen	Temp. (°C)
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	189.98	✓	181.57	✓	181.57	✓	✓	189.99	800	5.16	7.97	36.4	7.82	20.5	22
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	153.37	✓	145.31	✓	145.32	✓	✓	153.38	826	6.06	6.17	62.0	7.27	20.6	21
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	122.57	✓	113.27	✓	113.29	✓	✓	122.59	855	6.50	6.82	0.1	4.28	21.7	151
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	76.22	✓	68.00	✓	68.02	✓	✓	76.23	930	6.85	7.87	0.094	0.00	24.4	173
2	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	76.14	✓	69.06	✓	68.05	✓	✓	76.17	—	6.84	7.63	0.00	2.74	28.0	270
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	46.10	✓	38.55	✓	38.56	✓	✓	46.13	1050	7.32	6.11	0.091	10.16	24.8	149

Dupe ←

→ Dupe

Notes:

port 5: CLEAR, STRONG ODO port 4: CLEAR - STRONG ODO port 3: CLEAR - SLIGHT ODO
 port 2: CLEAR, NO ODO port 1: CLEAR NO ODO

Total Volume: _____



Groundwater Sampling
Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #: Battelle

Well ID: MW-17
Sampling Zone No.: 4+2
Depth (ft): 726, 582, 468, 370, 250
Beginning of Session: 13.95 psia
End of Session: 14.02 psia

Start Time: 8:34
Finish Time: 10:25

Date: 7/23/08
Page: 1 of 1

Water Pressure Inside Casing: _____

Port #	Run #	Surface Function Checks							Position Sampler	Sample Collection Checks								Water Quality Parameters							
		Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Shoe In	Arm In		Deactivate Set Arm Locate Port	Arm out	Pressure in MP	Shoe Out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	PH	Turb. (NTU)	Cond (mmhos)	Dissolved Oxygen	Temp. (°C)
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	183.23	✓	178.96	✓	178.89	✓	✓	183.22	900	5.30	0.37	41.4	8.46	20.2	47
4	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	183.18	✓	178.99	✓	178.93	✓	✓	183.19	924	5.46	0.55	37.7	8.91	20.0	40
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	133.46	✓	127.14	✓	127.13	✓	✓	133.49	950	5.20	19.1	82.2	8.31	20.3	10
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	91.08	✓	88.87	✓	88.87	✓	✓	91.10	1019	5.50	1.80	0.1	9.91	22.3	40

> DUPE

Notes:

port 5: NOT SAMPLED port 4: CLEAR, NO ODOR port 3: SLIGHTLY CLOUDY, AN ODOR
port 2: CLEAR, NO ODOR port 1: NOT SAMPLED

Total Volume: _____



Groundwater Sampling
Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #: Battelle

Well ID: MW-18
Sampling Zone No.: 5 + 2
Depth (ft): 684, 564, 424, 330, 270
Beginning of Session: 13.97 psia
End of Session: 14.01 psia

Start Time: 1110
Finish Time: 1420

Date: 7/23/98
Page: 1 of 1

Water Pressure Inside Casing: _____

Port #	Run #	Surface Function Checks							Position Sampler	Sample Collection Checks								Water Quality Parameters						
		Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Shoe in	Arm In		Deactivate Set Arm Locate Port	Arm out	Pressure in MP	Shoe Out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	PH	Turb (NTU)	Cond (umhos)	Dissolved Oxygen
5	1	✓	✓	✓	✓	✓	✓	✓	✓	160.39	✓	206.16	✓	206.14	✓	✓	160.41	1134	6.20	0.95	37.1	10.76	23.9	60
4	1	✓	✓	✓	✓	✓	✓	✓	✓	108.11	✓	155.43	✓	155.44	✓	✓	108.13	1200	6.26	5.90	50.9	10.41	29.4	55
3	1	✓	✓	✓	✓	✓	✓	✓	✓	47.01	✓	98.01	✓	98.05	✓	✓	47.08	1229	6.31	-0.99	61.0	10.01	25.8	151
3	2	✓	✓	✓	✓	✓	✓	✓	✓	47.02	✓	97.96	✓	98.02	✓	✓	47.03	1249	6.43	-1.11	63.5	3.27	22.7	178
2	1	✓	✓	✓	✓	✓	✓	✓	✓	14.09	✓	56.75	✓	56.73	✓	✓	14.14	1315	6.53	-0.47	61.2	10.35	28.4	150

> DUPE

Notes:

port 5: CLEAR, STRONG ODOR port 4: CLEAR, SLIGHT ODOR port 3: CLEAR, NO ODOR
port 2: CLEAR, NO ODOR port 1: NOT SAMPLED

Total Volume: _____



Groundwater Sampling
Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #: Battelle

Well ID: MW-19
Sampling Zone No.: S₁₊₂
Depth (ft): 498, 444, 392, 314, 242
Beginning of Session: 13.95 psia
End of Session: 14.01 psia

Start Time: 720
Finish Time: 1000

Date: 7/22/08
Page: 1 of 1

Water Pressure Inside Casing: _____

Port #	Run #	Surface Function Checks							Position Sampler	Sample Collection Checks								Water Quality Parameters							
		Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Shoe in	Arm In		Deactivate Set Arm Locate Port	Arm out	Pressure in MP	Shoe Out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	PH	Turb. (NTU)	Cond (mmhos)	Dissolved Oxygen	Temp. (°C)
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	173.90	✓	165.47	✓	165.45	✓	✓	173.91	743	4.84	1.08	89.5	11.41	18.3	79
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	151.04	✓	142.07	✓	142.05	✓	✓	151.02	818	5.33	0.17	70.0	5.16	19.3	99
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	127.86	✓	120.68	✓	120.68	✓	✓	127.89	850	5.81	1.82	71.0	6.06	20.1	83
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	94.55	✓	86.47	✓	86.48	✓	✓	94.61	922	6.01	13.1	0.1	10.34	20.8	127
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	62.62	✓	55.56	✓	55.57	✓	✓	62.64	954	6.49	0.73	48.1	12.84	20.9	15

M5/M5D

DUPE

Notes:

port 5: CLEAR, NO ODOR port 4: CLEAR, NO ODOR port 3: CLEAR, NO ODOR
port 2: YELLOWISH TINGE, NO ODOR port 1: CLEAR, NO ODOR

Total Volume: _____



Groundwater Sampling

Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #: Battelle

Well ID: MW-20
Sampling Zone No.: 5701
Depth (ft): 900, 700, 562, 392, 230
Beginning of Session: 13.93 psia
End of Session: 13.99 psia

Start Time: 720
Finish Time: 1300

Date: 7/25/08
Page: 1 of 1

Water Pressure Inside Casing: _____

Port #	Run #	Surface Function Checks							Position Sampler	Sample Collection Checks								Water Quality Parameters						
		Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Shoe In	Arm In		Deactivate Set Arm Locate Port	Arm out	Pressure in MP	Shoe Out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	PH	Turb. (NTU)	Cond (mmhos)	Dissolved Oxygen
5	1	✓	✓	✓	✓	✓	✓	✓	✓	325.31	✓	326.03	✓	326.02	✓	✓	325.30	747	5.56	0.34	36.6	7.88	18.2	-111
4	1	✓	✓	✓	✓	✓	✓	✓	✓	238.60	✓	235.66	✓	235.61	✓	✓	238.60	826	6.14	1.10	35.5	7.27	19.8	-119
3	1	✓	✓	✓	✓	✓	✓	✓	✓	178.77	✓	168.62	✓	168.62	✓	✓	178.77	856	5.87	2.61	51.2	5.65	20.0	-9
2	1	✓	✓	✓	✓	✓	✓	✓	✓	104.70	✓	102.31	✓	102.31	✓	✓	104.70	923	5.82	0.13	43.4	8.25	20.6	-68
1	1	✓	✓	✓	✓	✓	✓	✓	✓	34.13	✓	32.02	✓	32.01	✓	✓	34.13	950	5.81	1.29	65.3	8.41	21.7	-72

Notes:

port 5: CLEAR, STRONG OD OR port 4: CLEAR, SLIGHT OD OR port 3: CLEAR, NO OD OR
 port 2: CLEAR, SLIGHT H₂S OD OR port 1: CLEAR, SLIGHT H₂S OD OR

Total Volume: _____



Groundwater Sampling
Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #: Battelle

Well ID: MW-21
Sampling Zone No.: 5+1
Depth (ft): 372, 310, 240, 161, 90
Beginning of Session: 14.02 psia
End of Session: 14.04 psia

Start Time: 712
Finish Time: 1110

Date: 7/18/08
Page: 1 of 1

Water Pressure Inside Casing: _____

Port #	Run #	Surface Function Checks							Position Sampler	Sample Collection Checks							Water Quality Parameters								
		Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Shoe in	Arm In		Deactivate Set Arm Locate Port	Arm out	Pressure in MP	Shoe Out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	PH	Turb. (NTU)	Cond (µmhos)	Dissolved Oxygen	Temp. (°C)
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	129.91	✓	155.98	✓	155.88	✓	✓	129.52	800	5.26	0.55	0.1	Ø	19.9	206
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	102.35	✓	129.12	✓	129.12	✓	✓	102.35	855	5.71	5.74	96.5	Ø	22.7	158
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	71.74	✓	99.26	✓	99.26	✓	✓	71.74	919	6.11	5.29	0.085	Ø	23.2	191
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	37.72	✓	65.08	✓	65.08	✓	✓	37.75	947	6.48	5.19	0.102	4.80	23.4	147
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.05	✓	33.88	✓	33.88	✓	✓	14.14	1058	6.75	3.11	0.105	Ø	27.3	328

Notes:

port 5: CLEAR, NO ODR port 4: CLEAR, NO ODR port 3: CLEAR, NO ODR
 port 2: CLEAR, NO ODR port 1: CLEAR, NO ODR

Total Volume: _____



Groundwater Sampling Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #: Battelle

Well ID: MW-22
Sampling Zone No.: 3 T01
Depth (ft): 588, 467, 389, 329, 245
Beginning of Session: 13.97 psia
End of Session: 14.01 psia

Start Time: 0734
Finish Time: 0950

Date: 07/30/08
Page: 1 of 1

Water Pressure Inside Casing: _____

Port #	Run #	Surface Function Checks							Position Sampler	Sample Collection Checks								Water Quality Parameters							
		Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Shoe in	Arm In		Deactivate Set Arm Locate Port	Arm out	Pressure in MP	Shoe Out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	PH	Turb. (NTU)	Cond (microhos)	Dissolved Oxygen	Temp. (oC)
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	116.58	✓	112.59	✓	112.57	✓	✓	116.57	802	5.15	-0.56	72.4	8.28	19.3	107
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	90.54	✓	86.51	✓	86.50	✓	✓	90.55	835	5.65	-0.5	59.7	0.00	19.4	79
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	54.02	✓	50.10	✓	50.09	✓	✓	54.02	916	5.72	13.3	0.1	4.34	19.4	268
1	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	52.94	✓	50.11	✓	50.11	✓	✓	52.97	—	5.95	7.09	0.999	8.03	19.3	73
1	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	52.96	✓	50.10	✓	50.10	✓	✓	52.95	—	6.03	7.63	0.1	7.25	20.0	68

MS/MSD

MS/MSD

Notes:

port 5: NOT SAMPLED port 4: NOT SAMPLED port 3: CLEAR NO ODR.
port 2: CLEAR FAINT ODR. port 1: CLEAR NO ODR.

Total Volume: _____



Groundwater Sampling
Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #: Battelle

Well ID: MW-23
Sampling Zone No.: 4 + 1
Depth (ft): 542, 445, 319, 254, 174
Beginning of Session: 14.07 psia
End of Session: 14.07 psia

Start Time: 0730
Finish Time: 1010

Date: 07/29/08
Page: 1 of 1

Water Pressure Inside Casing: _____

Port #	Run #	Surface Function Checks							Position Sampler	Sample Collection Checks								Water Quality Parameters							
		Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Shoe in	Arm In		Deactivate Set Arm Locate Port	Arm out	Pressure in MP	Shoe Out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	PH	Turb. (NTU)	Cond (mmhos)	Dissolved Oxygen	Temp. (oC)
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	162.76	✓	163.18	✓	163.17	✓	✓	162.77	756	5.41	-1.52	0.0	12.90	19.5	107
3	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	109.20	✓	110.23	✓	110.24	✓	✓	109.21	845	5.63	-1.45	40.5	12.90	20.5	88
3	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	107.67	✓	110.22	✓	110.23	✓	✓	107.70	-	5.65	0.74	40.0	7.24	20.6	112
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	80.27	✓	82.05	✓	82.07	✓	✓	80.30	934	5.66	-1.30	96.1	10.65	21.8	85
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	45.52	✓	48.13	✓	48.14	✓	✓	45.51	1001	6.63	4.10	0.090	9.03	22.2	234

M4/MSD

MS/MSD

Notes:

port 5: NOT SAMPLED port 4: CLEAR STRONG ODR port 3: CLEAR FAINT ODR.
port 2: CLEAR NO ODR. port 1: CLEAR NO ODR

Total Volume: _____



Groundwater Sampling
Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #: Battelle

Well ID: MW-24
Sampling Zone No.: 4+01
Depth (ft): 678, 554, 435, 373, 279
Beginning of Session: 13.99 psia
End of Session: 13.97 psia

Start Time: 0750
Finish Time: 1025

Date: 08/24/08
Page: 1 of 1

Water Pressure Inside Casing: _____

Port #	Run #	Surface Function Checks							Position Sampler	Sample Collection Checks										Water Quality Parameters					
		Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Shoe in	Arm in		Deactivate Set Arm Locate Port	Arm out	Pressure in MP	Shoe Out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe in	Pressure in MP	Time	PH	Turb. (NTU)	Cond (mmhos)	Dissolved Oxygen	Temp. (oC)
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	190.25	✓	169.58	✓	169.59	✓	✓	180.27	811	5.28	2.25	32.6	5.23	22.5	-120
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	129.06	✓	119.57	✓	119.59	✓	✓	129.06	841	5.83	-0.06	37.3	6.86	25.0	21
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	102.16	✓	92.92	✓	92.93	✓	✓	102.17	910	5.52	1.47	53.3	6.08	24.7	-5
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	61.97	✓	53.30	✓	53.31	✓	✓	61.99	952	6.19	7.03	67.7	4.92	24.7	157
1	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	58.57	✓	53.32	✓	53.31	✓	✓	61.58	---	6.44	6.12	67.4	3.16	24.9	169

MS/MSD

MS/MSD

Notes:

port 5: NOT SAMPLED. port 4: CLEAR STRONG ODOUR port 3: CLEAR STRONG ODOUR.

port 2: CLEAR STRONG ODOUR port 1: CLEAR FAINT ODOUR.

Total Volume: _____



Groundwater Sampling
Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #: Battelle

Well ID: MW-25
 Sampling Zone No.: 5 to 1
 Depth (ft): 713, 633, 503, 423, 358
 Beginning of Session: 14.07 psia
 End of Session: 14.06 psia

Start Time: 722
 Finish Time: 1020

Date: 8/1/08
 Page: 1 of 1

Water Pressure Inside Casing:

Port #	Run #	Surface Function Checks							Position Sampler	Sample Collection Checks								Water Quality Parameters							
		Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Shoe in	Arm In		Deactivate Set Arm Locate Port	Arm out	Pressure in MP	Shoe Out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	PH	Turb. (NTU)	Cond (mmhos)	Dissolved Oxygen	Temp. (°C)
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	207.29	✓	204.99	✓	204.97	✓	✓	207.27	751	5.67	0.19	56.9	0	20.0	-37
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	172.70	✓	168.67	✓	168.67	✓	✓	172.71	824	5.46	-0.10	75.2	5.40	20.1	73
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	116.31	✓	115.76	✓	115.76	✓	✓	116.32	854	5.72	-0.59	73.6	7.54	20.3	37
3	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	116.31	✓	115.77	✓	115.77	✓	✓	116.30							
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	81.51	✓	84.94	✓	84.94	✓	✓	81.52	947	6.16	-0.12	73.5	7.44	21.9	64
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	53.13	✓	58.93	✓	58.96	✓	✓	53.13	1018	6.30	16.1	95.9	7.74	21.2	54

Notes:

port 5: CLEAR, SLIGHT ODOUR port 4: CLEAR, NO ODOUR port 3: CLEAR, NO ODOUR
 port 2: CLEAR, NO ODOUR port 1: CLEAR, NO ODOUR

Total Volume:



Groundwater Sampling
Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #: Battelle

Well ID: MW-26
 Sampling Zone No.: 2401
 Depth (ft): 215, 135
 Beginning of Session: 13.98 psia
 End of Session: 14.04 psia

Start Time: 1105
 Finish Time: 1215

Date: 08/04/08
 Page: 1 of 1

Water Pressure Inside Casing: _____

Port #	Run #	Function Checks							Position Sampler	Sample Collection Checks							Water Quality Parameters									
		Shoe Out	Vacuum Check Valve Closed	Valve Open	Evacuate Container	Valve Closed	Shoe in	Arm In		Deactivate Set Arm Locate Port	Arm out	Pressure in MP	Shoe Out	Zone Pressure	Open Valve	Zone Pressure	Close Valve	Shoe In	Pressure in MP	Time	PH	Turb. (NTU)	Cond (mmhos)	Dissolved Oxygen	Temp. (°C)	ORP
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	74.99	✓	74.57	✓	74.60	✓	✓	74.60	1130	6.58	0.53	50.0	5.54	25.5	186	
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	39.98	✓	38.20	✓	38.23	✓	✓	39.96	1205	6.77	0.90	98.1	6.41	25.2	213	

Notes:

Total Volume: _____

port 2: CLEAR STRONG ODR port 1: CLEAR FAINT ODR

ATTACHMENT 5: WATER LEVEL MEASUREMENTS

This attachment contains water level measurements for the Westbay™ multiport JPL monitoring wells obtained during the 3rd quarter of 2008. Water level measurements were recorded before the sampling event on July 17, 2008, and after the sampling event on August 13, 2008. Post sampling water level measurements were not collected in multi-port monitoring wells: MW-4, MW-12, MW-20, MW-25, and MW-26 due to Westbay™ probe malfunction. Water levels in the shallow wells were measured using a Solinst™ water level meter and the results are provided with the field logs (Attachment 4). In the deep multiport wells, the hydraulic head at each sampling port was measured with a Westbay™ pressure-transducer probe. Water level measurements were conducted by Insight Environmental, Inc.

INSIGHT, Inc.

Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena Well ID: MW-3
 Project No: 4-73805 Probe Type: Westbay
 Date: 7/17/08 Serial No.: 2508
 Personnel: Chase Brogdon, Andrew Wells
 Datum: TOC Casing Size/Type: 1.5" Westbay
 Elevation of Datum (ft. + MSL): 1,100.34
 Weather: Clear and warm

Ambient Readings	Start	Finish
Time	957	1010
Pressure (psia)	14.11	14.12
Temperature (°C)	21.61	17.58

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	653	246.80	252.43	246.81	22.98	959	103.20	997.14
4	558	205.52	211.37	205.58	23.28	1001	102.92	997.42
3	346	113.34	122.78	113.32	22.61	1003	95.30	1005.04
2	252	72.52	81.81	72.54	20.82	1005	95.82	1004.52
1	172	37.74	47.64	37.76	27.76	1007	94.65	1005.69

INSIGHT, Inc.

Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena Well ID: MW-4
 Project No: 4-73805 Probe Type: Westbay
 Date: 7/17/08 Serial No.: 2508
 Personnel: Chase Brogdon, Andrew Wells
 Datum: TOC Casing Size/Type: 1.5" Westbay
 Elevation of Datum (ft. +MSL): 1,082.84
 Weather: Clear and warm

Ambient Readings	Start	Finish
Time	743	755
Pressure (psia)	14.08	14.13
Temperature (°C)	21.42	20.22

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	513	145.35	203.40	145.35	21.97	745	76.24	1006.60
4	392	92.70	151.04	92.71	22.08	747	76.03	1006.81
3	322	62.24	121.14	62.27	21.80	749	75.01	1007.83
2	240	26.51	85.65	26.53	21.44	751	74.89	1007.95
1	150	14.19	48.36	14.18	20.81	753	70.92	1011.92

INSIGHT, Inc.

Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena Well ID: MW-11
 Project No: 4-73805 Probe Type: Westbay
 Date: 7/17/08 Serial No.: 2508
 Personnel: Chase Brogdon, Andrew Wells
 Datum: TOC Casing Size/Type: 1.5" Westbay
 Elevation of Datum (Ft. + MSL): 1,139.30
 Weather: Clear and warm

Ambient Readings	Start	Finish
Time	923	936
Pressure (psia)	14.02	14.06
Temperature (°C)	24.23	17.96

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	639	237.24	228.99	237.26	22.13	925	143.06	996.24
4	524	187.77	187.41	187.78	22.10	927	123.99	1015.31
3	429	146.93	144.60	146.90	20.99	930	127.75	1011.55
2	259	73.27	72.34	73.29	19.33	932	124.46	1014.84
1	149	25.94	32.95	25.95	18.46	934	105.33	1033.97

INSIGHT, Inc.

Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena Well ID: MW-12
 Project No: 4-73805 Probe Type: Westbay
 Date: 7/17/08 Serial No.: 2508
 Personnel: Chase Brogdon, Andrew Wells
 Datum: TOC Casing Size/Type: 1.5" Westbay
 Elevation of Datum (Ft. + MSL): 1,102.14
 Weather: Clear and warm

Ambient Readings	Start	Finish
Time	1351	1402
Pressure (psia)	14.06	14.09
Temperature (°C)	24.37	17.82

Screen No.	Depth (Ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	548	217.82	207.07	217.80	22.30	1353	102.73	999.41
4	436	169.19	161.87	169.17	22.11	1355	95.00	1007.14
3	323	119.98	113.34	120.01	20.30	1357	93.96	1008.18
2	243	85.15	79.03	85.18	19.42	1359	93.11	1009.03
1	140	40.26	36.69	40.27	18.54	1400	87.79	1014.35

INSIGHT, Inc.

Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena Well ID: MW-14
 Project No: 4-73805 Probe Type: Westbay
 Date: 7/17/08 Serial No.: 2508
 Personnel: Chase Brogdon, Andrew Wells
 Datum: TOC Casing Size/Type: 1.5" Westbay
 Elevation of Datum (Ft. + MSL): 1,173.47
 Weather: Clear and warm

Ambient Readings	Start	Finish
Time	713	726
Pressure (psia)	13.94	14.05
Temperature (°C)	25.36	19.58

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	540	188.22	181.78	18.23	22.95	715	152.79	1020.68
4	456	151.71	145.55	151.72	21.80	717	152.38	1021.09
3	382	119.51	113.52	119.51	21.16	719	152.27	1021.20
2	277	73.81	68.21	73.80	20.49	721	151.80	1021.67
1	207	43.31	38.79	43.28	19.70	723	149.67	1023.80

INSIGHT, Inc.

Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena Well ID: MW-17
 Project No: 4-73805 Probe Type: Westbay
 Date: 7/17/08 Serial No.: 2508
 Personnel: Chase Brogdon, Andrew Wells
 Datum: TOC Casing Size/Type: 1.5" Westbay
 Elevation of Datum (Ft. + MSL): 1,191.21
 Weather: Clear and warm

Ambient Readings	Start	Finish
Time	1150	1204
Pressure (psia)	14.00	14.05
Temperature (°C)	23.09	16.44

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	726	244.12	243.47	244.17	21.49	1152	196.61	994.60
4	582	182.01	179.03	181.96	20.94	1154	201.28	989.93
3	468	132.32	127.76	132.34	19.78	1157	205.56	985.65
2	370	89.87	89.38	89.89	18.83	1159	196.10	995.11
1	250	37.71	37.73	37.70	17.35	1201	195.25	995.96

INSIGHT, Inc.

Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena Well ID: MW-18
 Project No: 4-73805 Probe Type: Westbay
 Date: 7/17/08 Serial No.: _____
 Personnel: Chase Brogdon, Andrew Wells
 Datum: TOC Casing Size/Type: 1.5" Westbay
 Elevation of Datum (Ft. + MSL): 1,225.41

Note: Clear and warm

Ambient Readings	Start	Finish
Time	1115	1130
Pressure (psia)	14.06	14.03
Temperature (°C)	20.90	17.15

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	684	157.71	206.65	157.75	21.49	1118		
								239.69
4	564	105.57	155.84	105.61	21.74	1121		
								236.91
3	424	44.68	98.53	44.71	20.55	1123		
								229.13
2	330	14.20	57.27	14.21	18.75	1125		
								230.31
1	270	14.15	31.14	14.18	17.87	1127		
								230.60

INSIGHT, Inc.

Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena Well ID: MW-19
 Project No: 4-73805 Probe Type: Westbay
 Date: 7/17/08 Serial No.: 2508
 Personnel: Chase Brogdon, Andrew Wells
 Datum: TOC Casing Size/Type: 1.5" Westbay
 Elevation of Datum (ft. +MSL): 1,142.94
 Weather: Clear and warm

Ambient Readings	Start	Finish
Time	1047	1101
Pressure (psia)	14.03	14.09
Temperature (°C)	25.56	17.43

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	498	172.97	165.78	172.91	22.58	1049	147.91	995.03
4	444	149.57	142.39	149.56	21.57	1052	147.87	995.07
3	392	127.01	121.00	127.04	20.69	1054	145.22	997.72
2	314	93.12	66.81	93.10	20.15	1057	192.24	950.70
1	242	61.88	55.92	61.89	19.23	1059	145.36	997.58

INSIGHT, Inc.

Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena Well ID: MW-20
 Project No: 4-73805 Probe Type: Westbay
 Date: 7/17/08 Serial No.: 2508
 Personnel: Chase Brogdon, Andrew Wells
 Datum: TOC Casing Size/Type: 1.5" Westbay
 Elevation of Datum (Ft. + MSL): 1,165.05
 Weather: Clear and warm

Ambient Readings	Start	Finish
Time	1224	1240
Pressure (psia)	14.02	14.06
Temperature (°C)	20.66	17.55

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	900	324.04	326.35	324.12	21.92	1227	179.45	985.60
4	700	237.49	235.91	237.49	22.61	1229	188.10	976.95
3	562	177.68	169.10	177.70	21.75	1233	204.23	960.82
2	392	104.00	102.79	104.01	19.80	1235	187.21	977.84
1	230	33.61	32.44	33.63	18.04	1237	187.51	977.54

INSIGHT, Inc.

Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena Well ID: MW-21
 Project No: 4-73805 Probe Type: Westbay
 Date: 7/17/08 Serial No.: 2508
 Personnel: Chase Brogdon, Andrew Wells
 Datum: TOC Casing Size/Type: 1.5" Westbay
 Elevation of Datum (Ft. + MSL): 1,059.10
 Weather: Clear and warm

Ambient Readings	Start	Finish
Time	806	819
Pressure (psia)	14.09	14.13
Temperature (°C)	21.03	18.99

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	372	126.41	156.03	126.42	20.75	808	44.54	1014.56
4	310	99.44	129.19	99.44	20.74	810	44.46	1014.64
3	240	67.16	98.91	67.19	20.38	812	44.32	1014.78
2	161	35.01	65.17	35.00	19.08	814	43.16	1015.94
1	90	14.19	33.98	14.16	19.00	816	44.11	1014.99

INSIGHT, Inc.

Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena Well ID: MW-22
 Project No: 4-73805 Probe Type: Westbay
 Date: 7/17/08 Serial No.: 2508
 Personnel: Chase Brogdon, Andrew Wells
 Datum: TOC Casing Size/Type: 1.5" Westbay
 Elevation of Datum (Ft. + MSL): 1,176.98
 Weather: Clear and warm

Ambient Readings	Start	Finish
Time	830	843
Pressure (psia)	13.99	14.05
Temperature (°C)	20.62	20.46

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	588	201.58	196.63	201.65	21.70	832	166.65	1010.33
4	467	149.25	145.51	149.28	22.12	834	163.58	1013.40
3	389	115.50	113.36	115.49	21.89	836	159.75	1017.23
2	329	89.47	87.29	89.47	21.45	838	159.90	1017.08
1	245	52.57	50.98	52.57	20.91	840	159.66	1017.32

INSIGHT, Inc.

Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena Well ID: MW-23
 Project No: 4-73805 Probe Type: Westbay
 Date: 7/17/08 Serial No.: 2508
 Personnel: Chase Brogdon, Andrew Wells
 Datum: TOC Casing Size/Type: 1.5" Westbay
 Elevation of Datum (Ft. + MSL): 1,108.84
 Weather: Clear and warm

Ambient Readings	Start	Finish
Time		
Pressure (psia)		
Temperature (°C)		

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	542							
							#DIV/0!	#DIV/0!
4	445							
							#DIV/0!	#DIV/0!
3	319	THIS WELL WAS BLOCKED FOR THE DURATION OF THE SOUNDING EVENT						
								#DIV/0!
2	254							
							#DIV/0!	#DIV/0!
1	174							
							#DIV/0!	#DIV/0!

INSIGHT, Inc.

Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena Well ID: MW-24
 Project No: 4-73805 Probe Type: Westbay
 Date: 7/17/08 Serial No.: 2508
 Personnel: Chase Brogdon, Andrew Wells
 Datum: TOC Casing Size/Type: 1.5" Westbay
 Elevation of Datum (Ft. + MSL): 1,200.94
 Weather: Clear and warm

Ambient Readings	Start	Finish
Time	853	905
Pressure (psia)	14.01	14.06
Temperature (°C)	21.39	21.30

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	678	233.25	222.73	233.27	22.09	855	196.48	1004.46
4	554	179.56	170.66	179.54	21.98	857	192.61	1008.33
3	435	128.00	120.66	128.03	21.89	900	188.96	1011.98
2	373	101.14	93.89	101.12	21.77	902	188.72	1012.22
1	279	60.42	54.46	60.40	21.47	904	185.68	1015.26

INSIGHT, Inc.

Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena Well ID: MW-25
 Project No: 4-73805 Probe Type: Westbay
 Date: 7/17/08 Serial No.: 2508
 Personnel: Chase Brogdon, Andrew Wells
 Datum: TOC Casing Size/Type: 1.5" Westbay
 Elevation of Datum (ft. + MSL): 934.52
 Weather: Clear and warm

Ambient Readings	Start	Finish
Time	1254	1308
Pressure (psia)	14.15	14.19
Temperature (°C)	23.12	19.97

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	713	204.54	205.00	204.60	22.49	1257	272.71	661.81
4	633	170.05	168.69	170.03	22.57	1259	276.48	658.04
3	503	113.90	115.80	113.89	21.74	1302	268.49	666.03
2	423	79.18	85.05	79.16	21.14	1304	259.43	675.09
1	358	50.88	59.10	50.88	20.35	1306	254.30	680.22

INSIGHT, Inc.

Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena Well ID: MW-3
 Project No: 4-73805 Probe Type: Westbay
 Date: 8/13/08 Serial No.: 2508
 Personnel: Chase Brogdon, Andrew Wells
 Datum: TOC Casing Size/Type: 1.5" Westbay
 Elevation of Datum (ft. + MSL): 1,100.34
 Weather: clear and cool

Ambient Readings	Start	Finish
Time	852	902
Pressure (psia)	13.97	14.01
Temperature (°C)	19.66	19.06

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	653	246.53	250.76	246.55	20.82	855	106.73	993.61
4	558	205.28	209.72	205.29	22.37	858	106.40	993.94
3	346	113.12	120.96	113.11	22.00	859	99.17	1001.17
2	252	72.30	79.95	72.32	21.26	900	99.78	1000.56
1	172	37.47	45.53	37.49	20.22	901	99.19	1001.15

INSIGHT, Inc.

Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena Well ID: MW-4
 Project No: 4-73805 Probe Type: Westbay
 Date: 8/13/08 Serial No.: 2508
 Personnel: Chase Brogdon, Andrew Wells
 Datum: TOC Casing Size/Type: 1.5" Westbay
 Elevation of Datum (ft. +MSL): 1,082.84
 Weather: clear and cool

Ambient Readings	Start	Finish
Time		
Pressure (psia)		
Temperature (°C)		

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	513							
							#DIV/0!	#DIV/0!
4	392							
							#DIV/0!	#DIV/0!
3	322	THIS WELL WAS NOT SOUNDED DUE TO A FAULTY SAMPLING PROBE						
							#DIV/0!	#DIV/0!
2	240							
							#DIV/0!	#DIV/0!
1	150							
							#DIV/0!	#DIV/0!

INSIGHT, Inc.

Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena Well ID: MW-11
 Project No: 4-73805 Probe Type: Westbay
 Date: 8/13/08 Serial No.: 2508
 Personnel: Chase Brogdon, Andrew Wells
 Datum: TOC Casing Size/Type: 1.5" Westbay
 Elevation of Datum (Ft. + MSL): 1,139.30
 Weather: clear and cool

Ambient Readings	Start	Finish
Time	833	844
Pressure (psia)	13.97	13.99
Temperature (°C)	21.55	18.73

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	639	236.89	227.32	236.86	21.10	838	146.80	992.50
4	524	187.38	185.76	187.45	21.48	839	127.68	1011.62
3	429	146.54	142.94	146.54	21.11	840	131.47	1007.83
2	259	72.94	70.64	72.95	20.29	842	128.26	1011.04
1	149	25.61	31.06	25.60	19.36	843	109.57	1029.73

INSIGHT, Inc.

Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena Well ID: MW-12
 Project No: 4-73805 Probe Type: Westbay
 Date: 8/13/08 Serial No.: 2508
 Personnel: Chase Brogdon, Andrew Wells
 Datum: TOC Casing Size/Type: 1.5" Westbay
 Elevation of Datum (Ft. + MSL): 1,102.14
 Weather: clear and cool

Ambient Readings	Start	Finish
Time		
Pressure (psia)		
Temperature (°C)		

Screen No.	Depth (Ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	548							
								#DIV/0!
4	436							
								#DIV/0!
3	323	THIS WELL WAS NOT SOUNDED DUE TO A FAULTY SAMPLING PROBE						
								#DIV/0!
2	243							
								#DIV/0!
1	140							
								#DIV/0!

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Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena Well ID: MW-14
 Project No: 4-73805 Probe Type: Westbay
 Date: 8/13/08 Serial No.: 2508
 Personnel: Chase Brogdon, Andrew Wells
 Datum: TOC Casing Size/Type: 1.5" Westbay
 Elevation of Datum (Ft. + MSL): 1,173.47
 Weather: clear and cool

Ambient Readings	Start	Finish
Time	703	718
Pressure (psia)	13.98	13.98
Temperature (°C)	18.63	19.57

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	540	187.84	180.30	187.89	21.46	710	156.30	1017.17
4	456	151.35	144.03	151.36	21.25	712	155.97	1017.50
3	382	119.15	112.00	119.16	20.92	713	155.87	1017.60
2	277	73.42	66.67	73.44	20.38	714	155.44	1018.03
1	207	42.98	37.25	42.93	19.75	716	153.32	1020.15

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Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena Well ID: MW-17
 Project No: 4-73805 Probe Type: Westbay
 Date: 8/13/08 Serial No.: 2508
 Personnel: Chase Brogdon, Andrew Wells
 Datum: TOC Casing Size/Type: 1.5" Westbay
 Elevation of Datum (Ft. + MSL): 1,191.21
 Weather: clear and warm

Ambient Readings	Start	Finish
Time	1004	1015
Pressure (psia)	14.01	14.00
Temperature (°C)	21.42	16.53

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	726	243.98	241.84	244.00	20.61	1007		
								200.40
4	582	181.67	177.38	181.68	20.52	1010		
								205.11
3	468	132.28	125.74	132.17	19.56	1011		
								210.24
2	370	89.71	87.45	89.72	18.45	1012		
								200.57
1	250	37.55	36.63	37.54	17.20	1014		
								197.82

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Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: <u>JPL Pasadena</u>	Well ID: <u>MW-18</u>
Project No: <u>4-73805</u>	Probe Type: <u>Westbay</u>
Date: <u>8/13/08</u>	Serial No.: _____
Personnel: <u>Chase Brogdon, Andrew Wells</u>	
Datum: <u>TOC</u>	Casing Size/Type: <u>1.5" Westbay</u>
Elevation of Datum (Ft. + MSL): <u>1,225.41</u>	

Note: clear and warm

Ambient Readings	Start	Finish
Time	1028	1042
Pressure (psia)	14.00	13.96
Temperature (°C)	20.14	17.00

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	684	157.51	204.90	157.51	20.66	1032		
							243.59	981.82
4	564	105.39	154.05	105.39	21.13	1034		
							240.90	984.51
3	424	44.45	96.59	44.47	20.21	1036		
							233.46	991.95
2	330	14.16	55.22	14.13	18.96	1037		
							234.91	990.50
1	270	14.10	29.01	14.10	17.28	1040		
							235.37	990.04

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Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena Well ID: MW-19
 Project No: 4-73805 Probe Type: Westbay
 Date: 8/13/08 Serial No.: 2508
 Personnel: Chase Brogdon, Andrew Wells
 Datum: TOC Casing Size/Type: 1.5" Westbay
 Elevation of Datum (ft. +MSL): 1,142.94
 Weather: clear and warm

Ambient Readings	Start	Finish
Time	917	925
Pressure (psia)	14.00	14.02
Temperature (°C)	21.99	17.03

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	498	172.82	164.16	172.84	20.48	919	151.58	991.36
4	444	149.39	140.77	149.46	20.25	920	151.54	991.40
3	392	126.81	119.42	126.89	19.99	921	148.80	994.14
2	314	92.95	85.25	92.96	19.70	922	149.63	993.31
1	242	61.72	54.33	61.71	18.98	924	148.96	993.98

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Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena Well ID: MW-20
 Project No: 4-73805 Probe Type: Westbay
 Date: 8/13/08 Serial No.: 2508
 Personnel: Chase Brogdon, Andrew Wells
 Datum: TOC Casing Size/Type: 1.5" Westbay
 Elevation of Datum (Ft. + MSL): 1,165.05
 Weather: clear and cool

Ambient Readings	Start	Finish
Time		
Pressure (psia)		
Temperature (°C)		

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	900							
								#DIV/0!
4	700	THIS WELL WAS NOT SOUNDED DUE TO A FAULTY SAMPLING PROBE					#DIV/0!	#DIV/0!
3	562							
								#DIV/0!
2	392							
								#DIV/0!
1	230							
								#DIV/0!

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Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena Well ID: MW-21
 Project No: 4-73805 Probe Type: Westbay
 Date: 8/13/08 Serial No.: 2508
 Personnel: Chase Brogdon, Andrew Wells
 Datum: TOC Casing Size/Type: 1.5" Westbay
 Elevation of Datum (Ft. + MSL): 1,059.10
 Weather: clear and cool

Ambient Readings	Start	Finish
Time	730	737
Pressure (psia)	13.99	14.03
Temperature (°C)	18.40	19.21

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	372	126.10	154.53	126.13	19.43	732	47.77	1011.33
4	310	99.17	127.69	99.16	19.80	733	47.69	1011.41
3	240	69.10	97.82	69.13	19.70	734	46.60	1012.50
2	161	34.64	63.69	34.67	19.60	735	46.34	1012.76
1	90	14.10	32.46	14.10	19.29	736	47.39	1011.71

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Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena Well ID: MW-22
 Project No: 4-73805 Probe Type: Westbay
 Date: 8/13/08 Serial No.: 2508
 Personnel: Chase Brogdon, Andrew Wells
 Datum: TOC Casing Size/Type: 1.5" Westbay
 Elevation of Datum (Ft. + MSL): 1,176.98
 Weather: clear and cool

Ambient Readings	Start	Finish
Time	749	757
Pressure (psia)	13.96	14.01
Temperature (°C)	18.43	20.35

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	588	201.50	194.98	201.48	20.22	752	170.39	1006.59
4	467	149.15	143.89	149.15	21.22	753	167.25	1009.73
3	389	115.34	111.72	115.34	21.26	754	163.47	1013.51
2	329	89.31	85.64	89.32	21.11	755	163.63	1013.35
1	245	52.39	49.14	52.39	20.78	756	163.84	1013.14

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Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena Well ID: MW-23
 Project No: 4-73805 Probe Type: Westbay
 Date: 8/13/08 Serial No.: 2508
 Personnel: Chase Brogdon, Andrew Wells
 Datum: TOC Casing Size/Type: 1.5" Westbay
 Elevation of Datum (Ft. + MSL): 1,108.84
 Weather: clear and cool

Ambient Readings	Start	Finish
Time	644	652
Pressure (psia)	13.99	14.04
Temperature (°C)	19.34	20.28

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	542	203.81	204.25	203.83	20.48	647	103.07	1005.77
4	445	161.78	162.34	161.78	21.10	648	102.76	1006.08
3	319	107.25	109.34	107.26	21.11	649	99.03	1009.81
2	254	79.06	81.17	79.06	20.86	650	99.02	1009.82
1	174	44.33	47.11	44.31	20.54	651	97.59	1011.25

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Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena Well ID: MW-24
 Project No: 4-73805 Probe Type: Westbay
 Date: 8/13/08 Serial No.: 2508
 Personnel: Chase Brogdon, Andrew Wells
 Datum: TOC Casing Size/Type: 1.5" Westbay
 Elevation of Datum (Ft. + MSL): 1,200.94
 Weather: clear and cool

Ambient Readings	Start	Finish
Time	810	820
Pressure (psia)	13.92	13.95
Temperature (°C)	19.25	21.40

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
5	678	233.01	221.10	233.02	21.16	813	200.04	1000.90
4	554	179.44	169.01	179.41	21.70	815	196.21	1004.73
3	435	127.86	118.96	127.86	21.71	817	192.67	1008.27
2	373	100.97	92.22	100.99	21.68	818	192.36	1008.58
1	279	60.26	52.62	60.23	21.56	819	189.72	1011.22

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Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena Well ID: MW-25
 Project No: 4-73805 Probe Type: Westbay
 Date: 8/13/08 Serial No.: 2508
 Personnel: Chase Brogdon, Andrew Wells
 Datum: TOC Casing Size/Type: 1.5" Westbay
 Elevation of Datum (ft. + MSL): 934.52

Weather: clear and cool

Ambient Readings	Start	Finish
Time		
Pressure (psia)		
Temperature (°C)		

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)	
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)					
5	713								
								#DIV/0!	#DIV/0!
4	633	THIS WELL WAS NOT SOUNDED DUE TO A FAULTY SAMPLING PROBE							
							#DIV/0!	#DIV/0!	
3	503								
								#DIV/0!	#DIV/0!
2	423								
								#DIV/0!	#DIV/0!
1	358								
								#DIV/0!	#DIV/0!

INSIGHT, Inc.
Piezometric Pressure/Levels

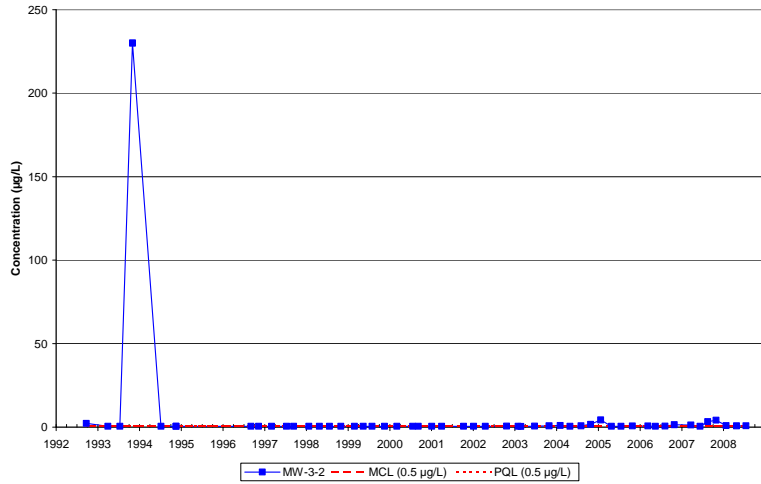
Field Data Sheet for Multi-Port Monitoring Wells

Project Name: JPL Pasadena Well ID: MW-26
 Project No: 4-73805 Probe Type: Westbay
 Date: 8/13/08 Serial No.: 2508
 Personnel: Chase Brogdon, Andrew Wells
 Datum: TOC Casing Size/Type: 1.5" Westbay
 Elevation of Datum (ft. + MSL): 1,059.08
 Weather: clear and cool

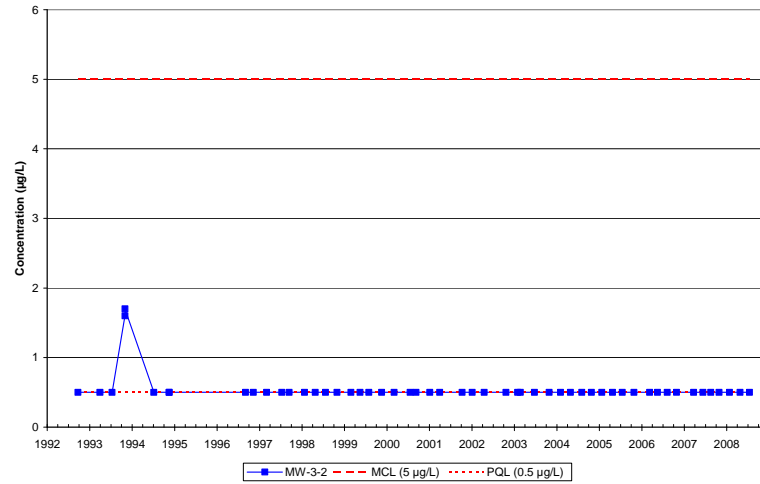
Ambient Readings	Start	Finish
Time		
Pressure (psia)		
Temperature (°C)		

Screen No.	Depth (ft. BTOC)	Fluid Pressure Readings			Temp. (°C)	Time	Piezometric Level Outside Port (ft.)	Water Level Elevation (ft.)
		Inside Casing (psia)	Outside Casing (psia)	Inside Casing (psia)				
		THIS WELL WAS NOT SOUNDED DUE TO A FAULTY SAMPLING PROBE						
2	215						#DIV/0!	#DIV/0!
1	135						#DIV/0!	#DIV/0!

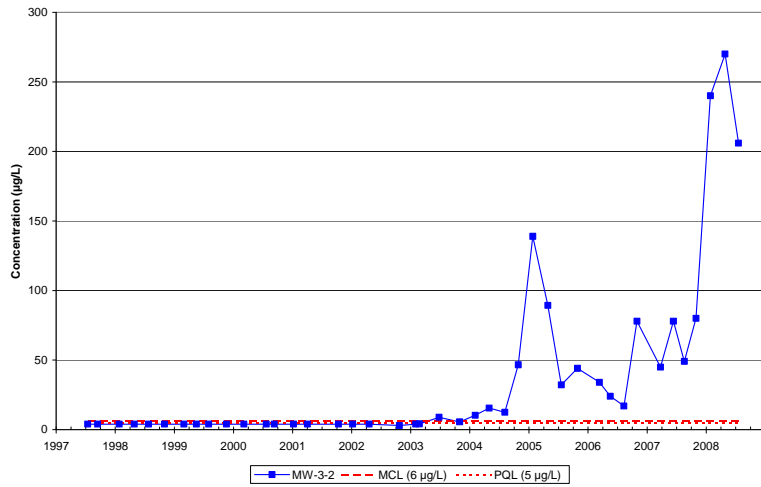
MW-3-2 Carbon tetrachloride Concentrations 1992 to Present



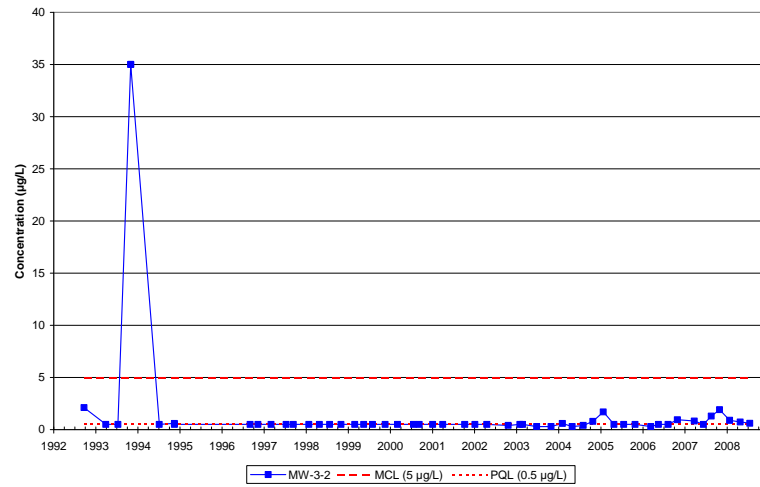
MW-3-2 Tetrachloroethene (PCE) Concentrations 1992 to Present



MW-3-2 Perchlorate Concentrations 1997 to Present

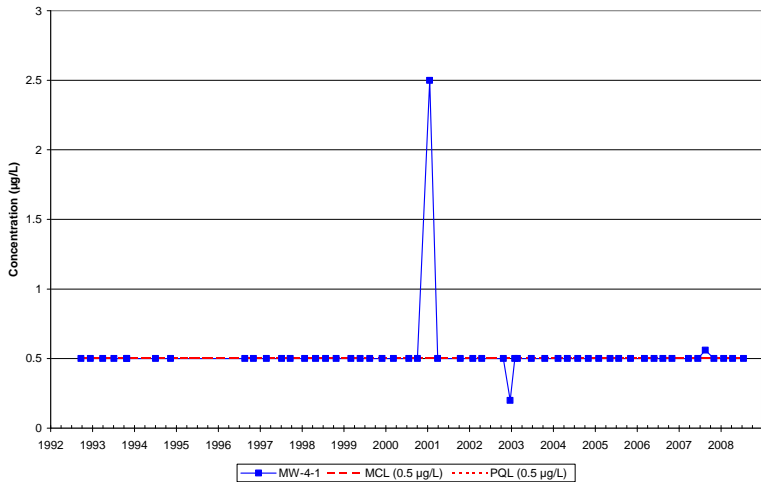


MW-3-2 Trichloroethene (TCE) Concentrations 1992 to Present

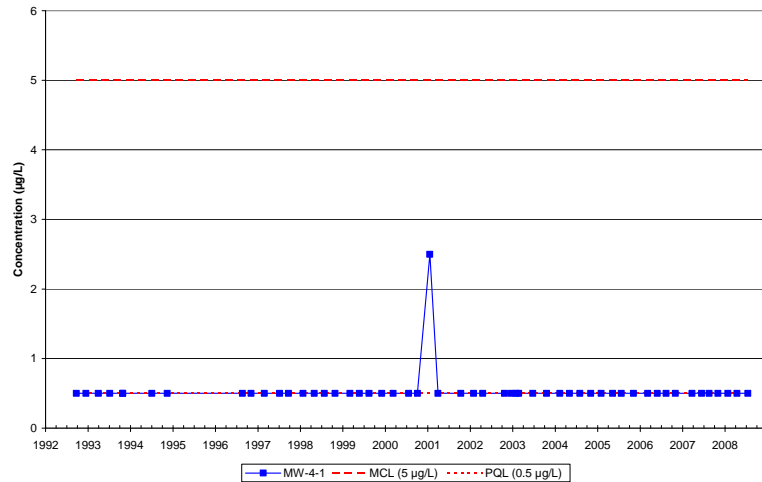


VOCs and Perchlorate Time Series Plots for MW-3-2

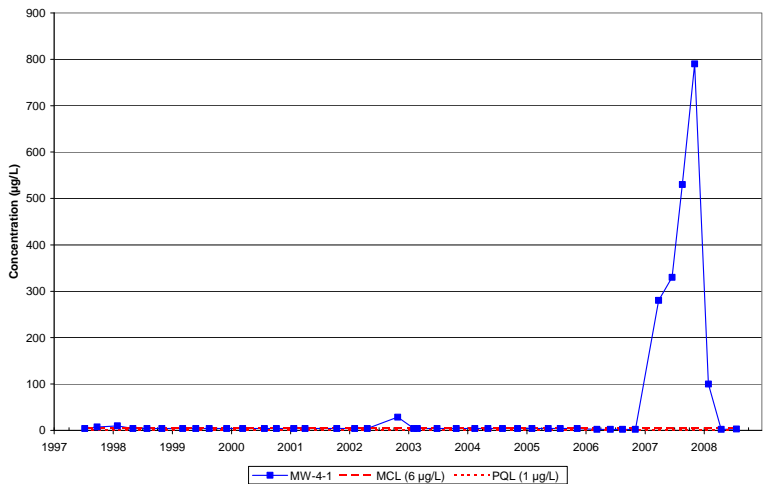
MW-4-1 Carbon tetrachloride Concentrations 1992 to Present



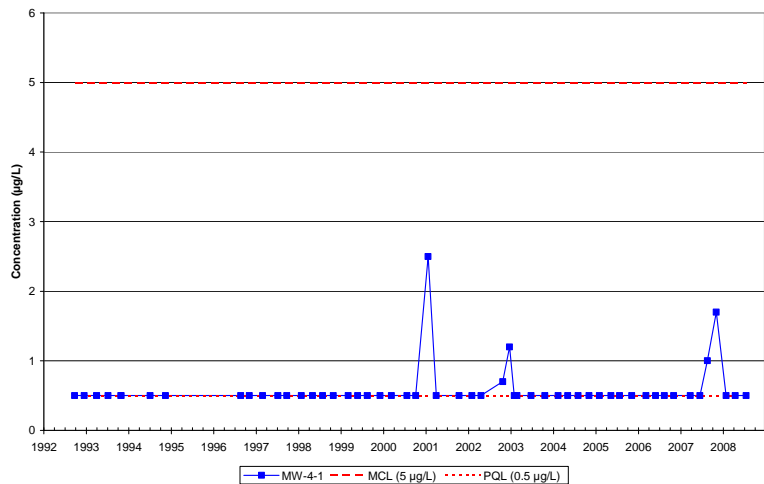
MW-4-1 Tetrachloroethene (PCE) Concentrations 1992 to Present



MW-4-1 Perchlorate Concentrations 1997 to Present

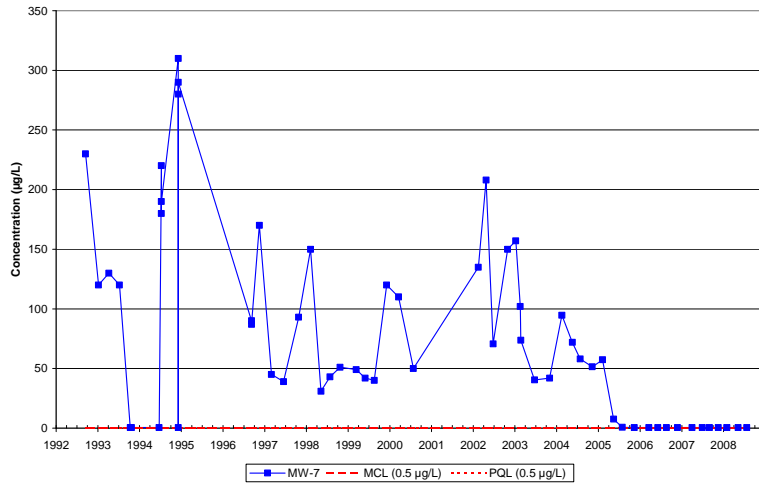


MW-4-1 Trichloroethene (TCE) Concentrations 1992 to Present

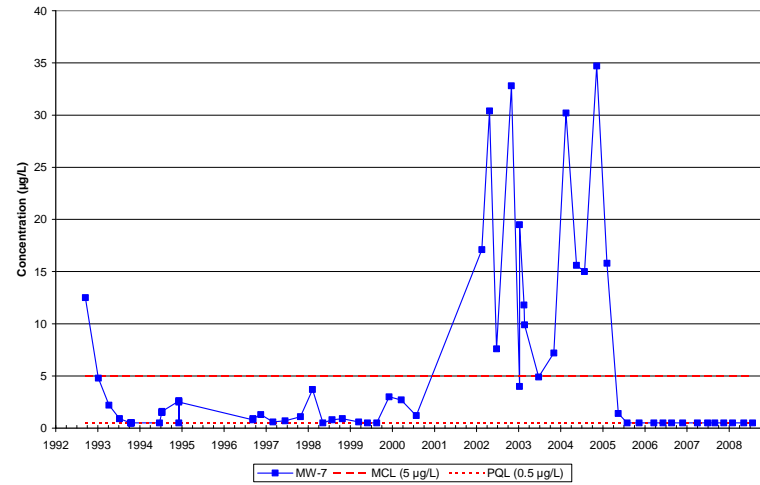


VOCs and Perchlorate Time Series Plots for MW-4-1

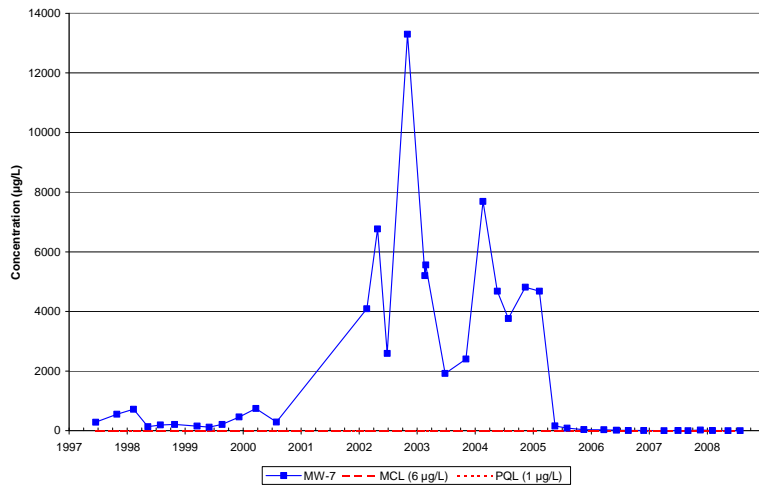
MW-7 Carbon tetrachloride Concentrations 1992 to Present



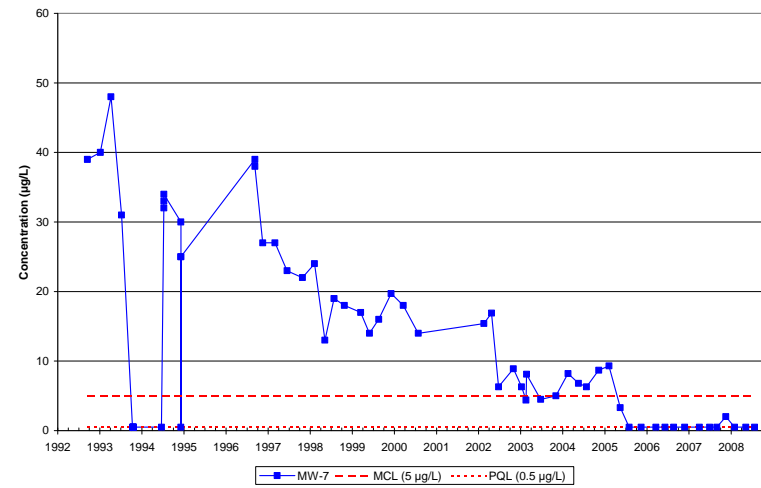
MW-7 Tetrachloroethene (PCE) Concentrations 1992 to Present



MW-7 Perchlorate Concentrations 1997 to Present

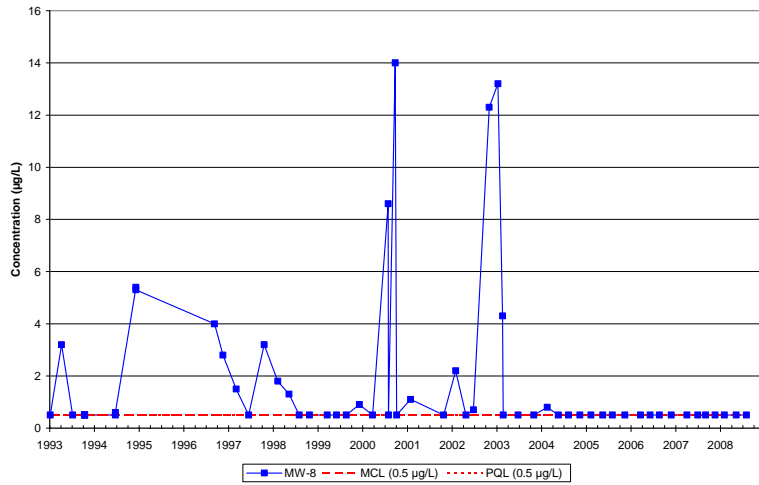


MW-7 Trichloroethene (TCE) Concentrations 1992 to Present

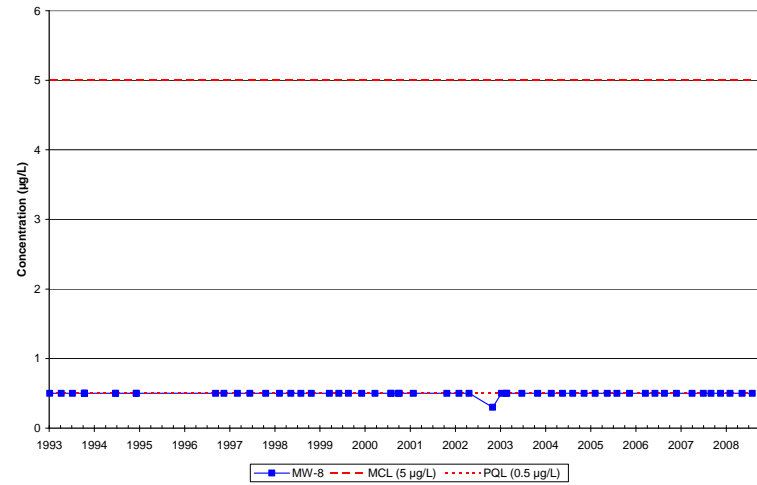


VOCs and Perchlorate Time Series Plots for MW-7

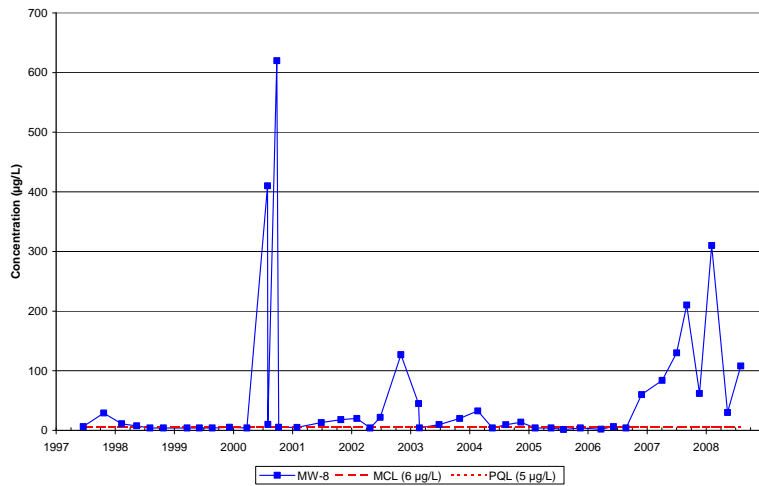
MW-8 Carbon tetrachloride Concentrations 1993 to Present



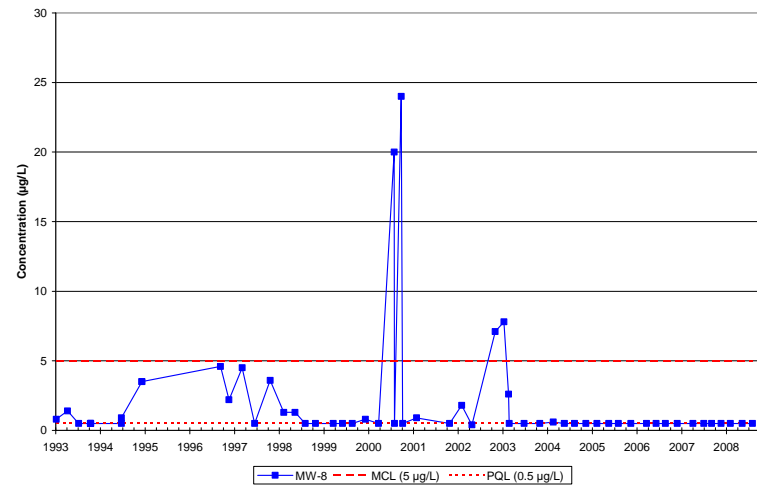
MW-8 Tetrachloroethene (PCE) Concentrations 1993 to Present



MW-8 Perchlorate Concentrations 1997 to Present

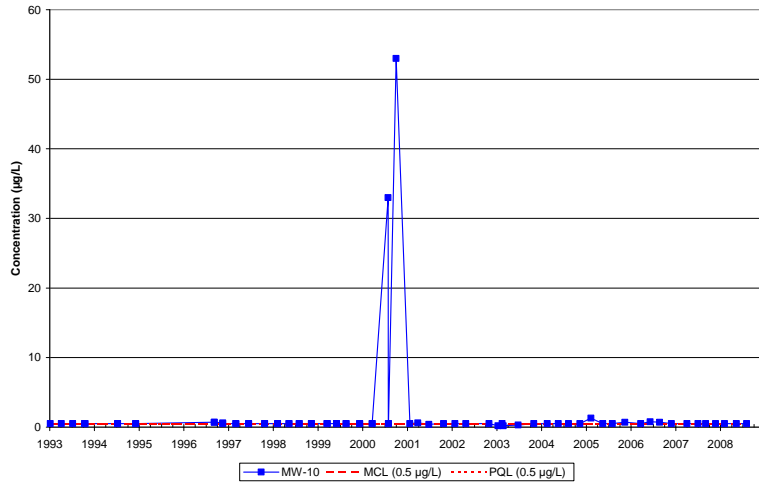


MW-8 Trichloroethene (TCE) Concentrations 1993 to Present

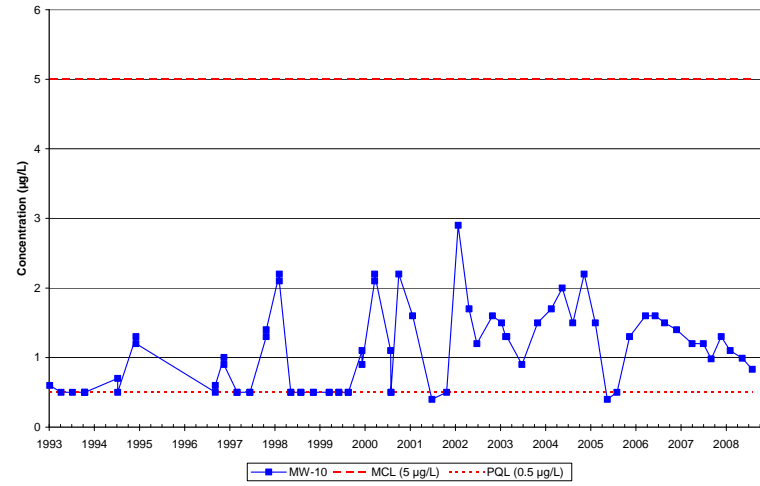


VOCs and Perchlorate Time Series Plots for MW-8

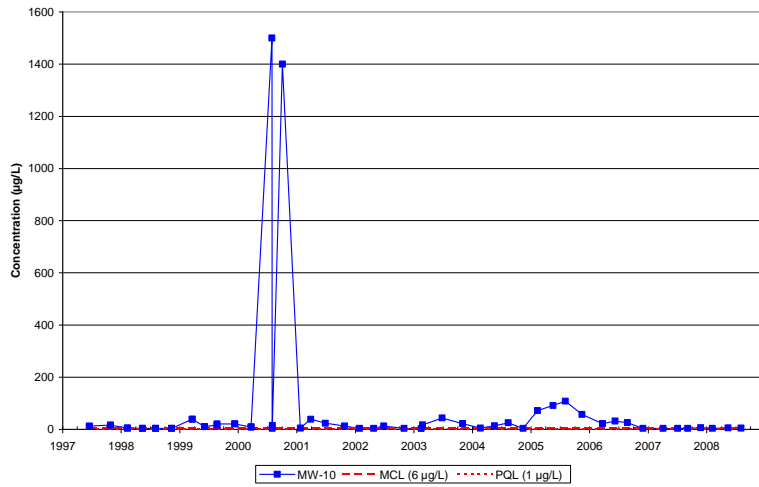
MW-10 Carbon tetrachloride Concentrations 1993 to Present



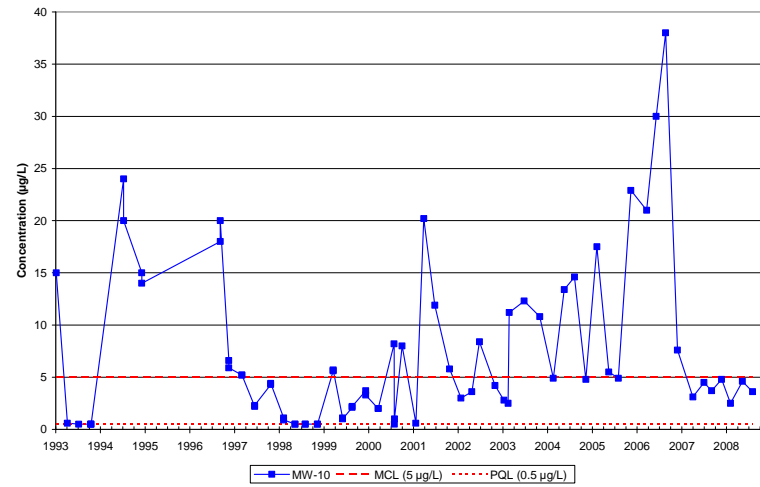
MW-10 Tetrachloroethene (PCE) Concentrations 1993 to Present



MW-10 Perchlorate Concentrations 1997 to Present

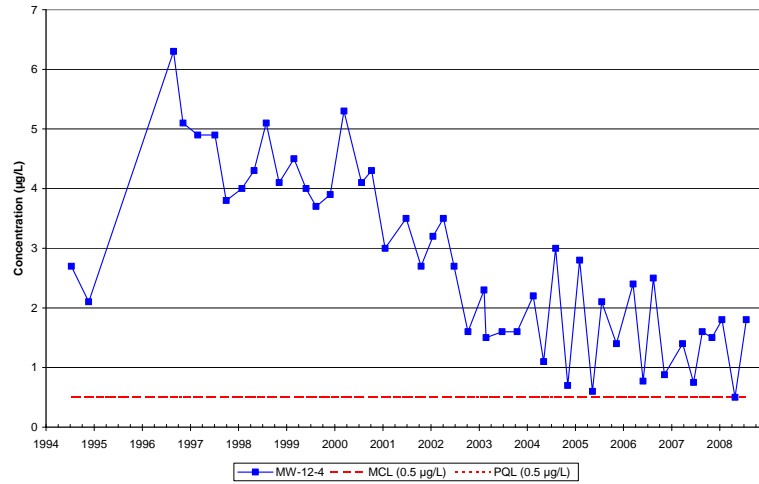


MW-10 Trichloroethene (TCE) Concentrations 1993 to Present

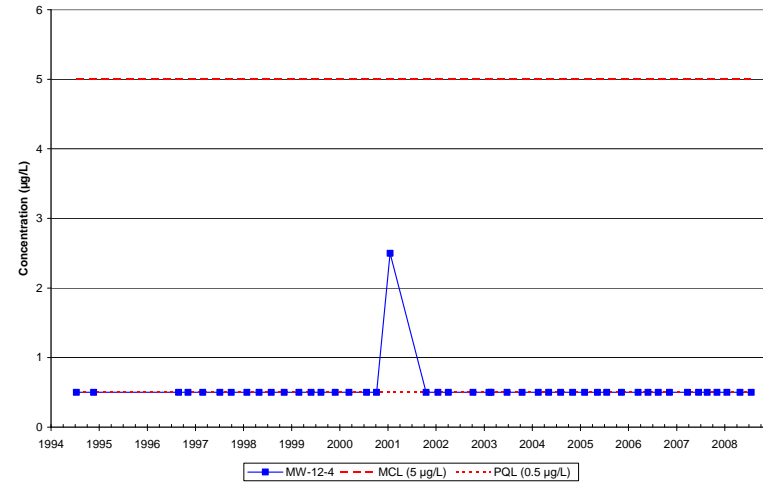


VOCs and Perchlorate Time Series Plots for MW-10

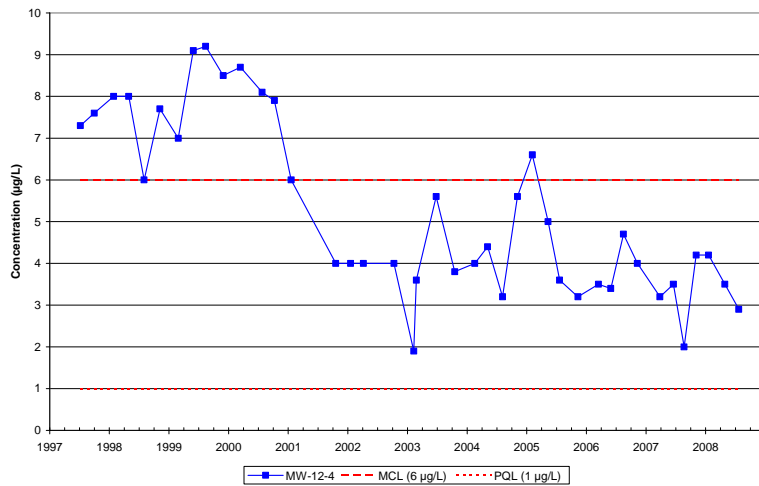
MW-12-4 Carbon tetrachloride Concentrations 1994 to Present



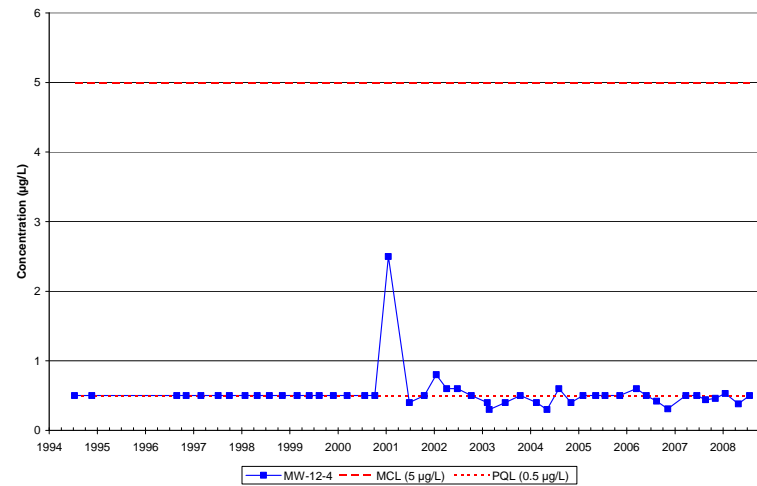
MW-12-4 Tetrachloroethene (PCE) Concentrations 1994 to Present



MW-12-4 Perchlorate Concentrations 1997 to Present

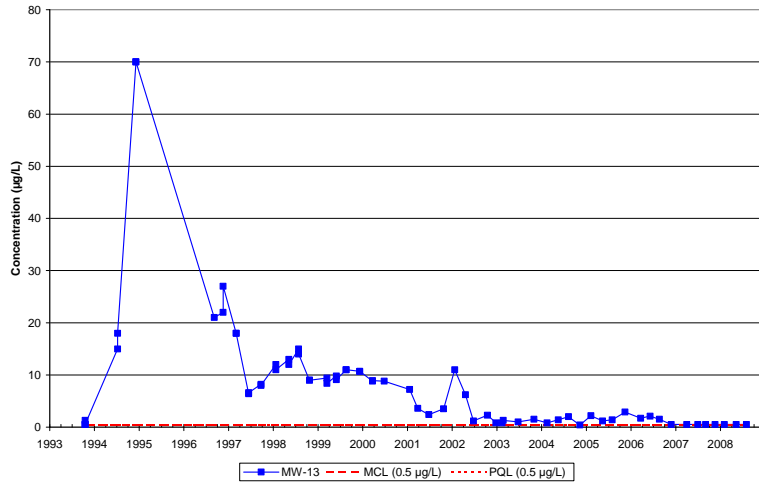


MW-12-4 Trichloroethene (TCE) Concentrations 1994 to Present

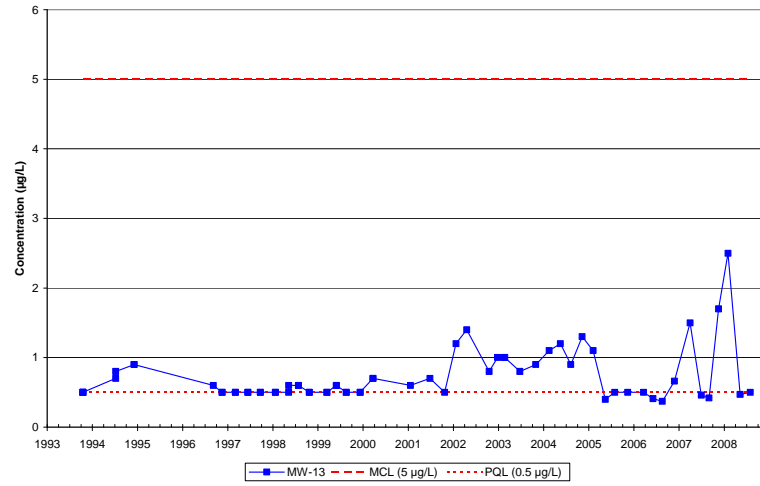


VOCs and Perchlorate Time Series Plots for MW-12-4

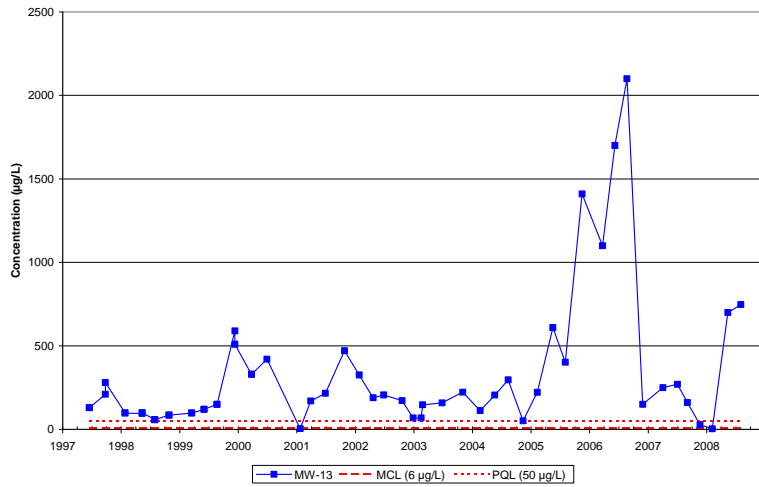
MW-13 Carbon tetrachloride Concentrations 1993 to Present



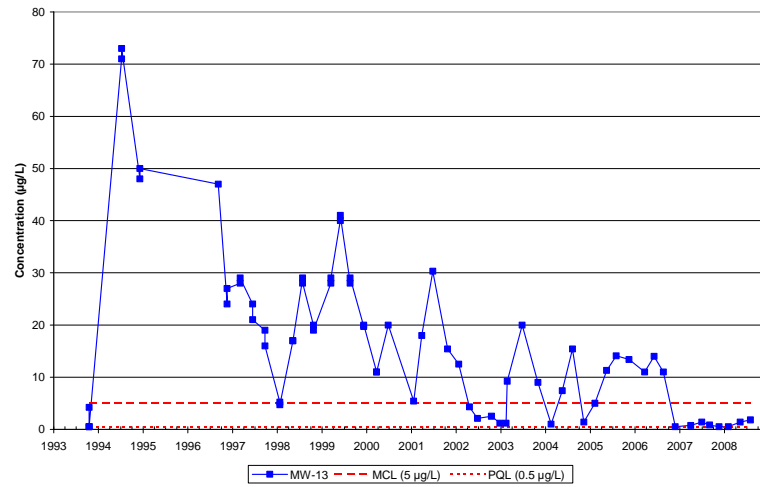
MW-13 Tetrachloroethene (PCE) Concentrations 1993 to Present



MW-13 Perchlorate Concentrations 1997 to Present

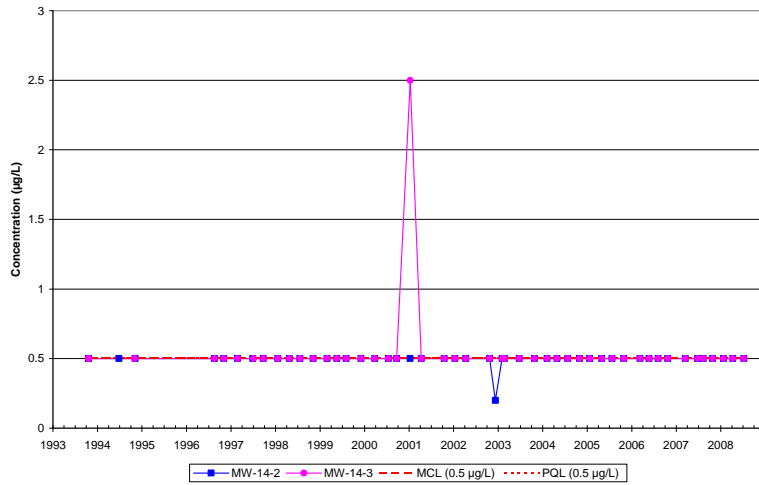


MW-13 Trichloroethene (TCE) Concentrations 1993 to Present

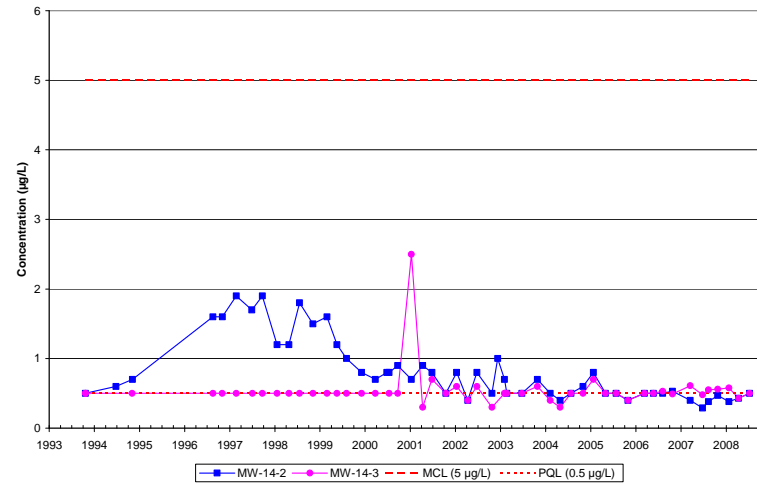


VOCs and Perchlorate Time Series Plots for MW-13

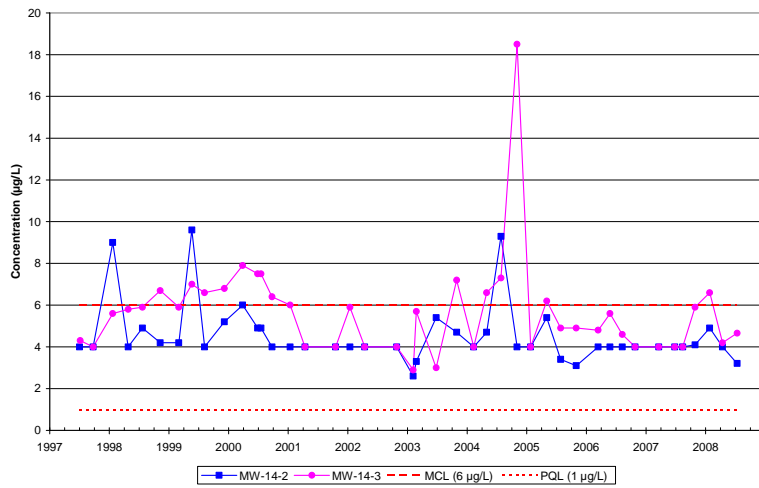
MW-14-2 and MW-14-3 Carbon tetrachloride Concentrations 1993 to Present



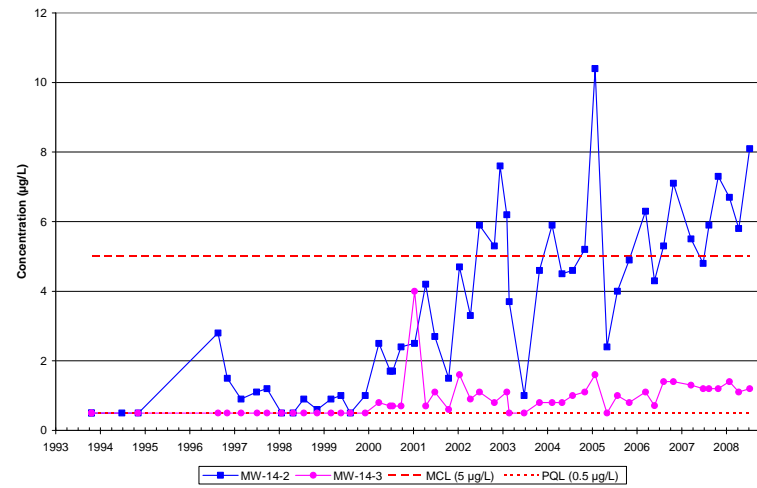
MW-14-2 and MW-14-3 Tetrachloroethene (PCE) Concentrations 1993 to Present



MW-14-2 and MW-14-3 Perchlorate Concentrations 1997 to Present

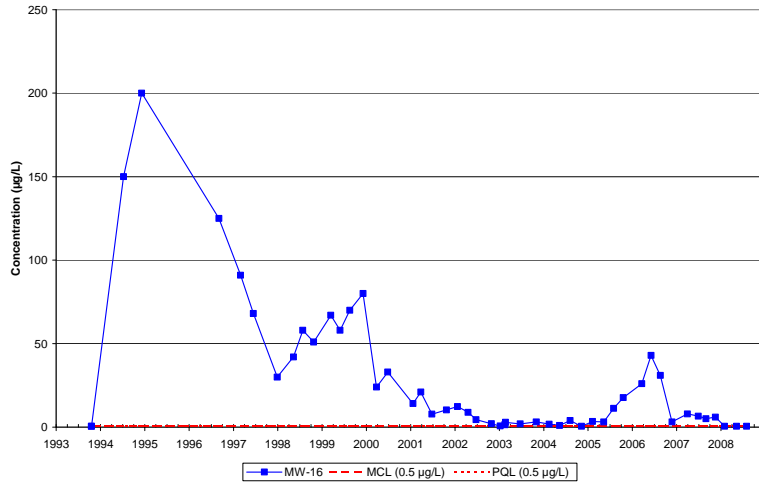


MW-14-2 and MW-14-3 Trichloroethene (TCE) Concentrations 1993 to Present

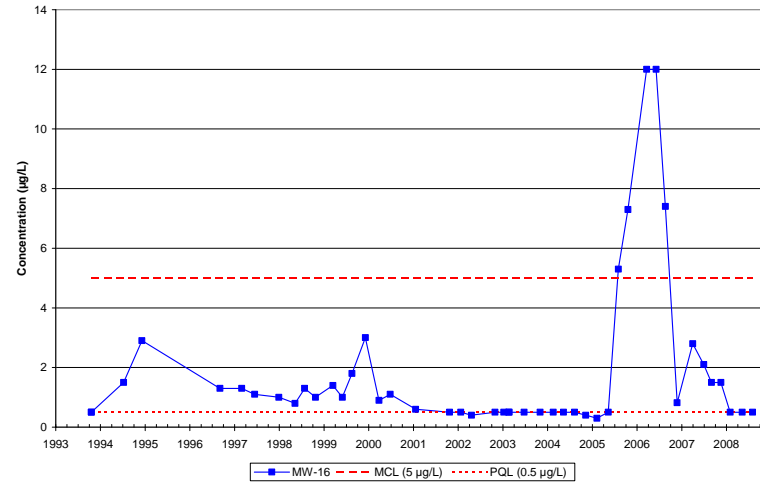


VOCs and Perchlorate Time Series Plots for MW-14-2 and MW-14-3

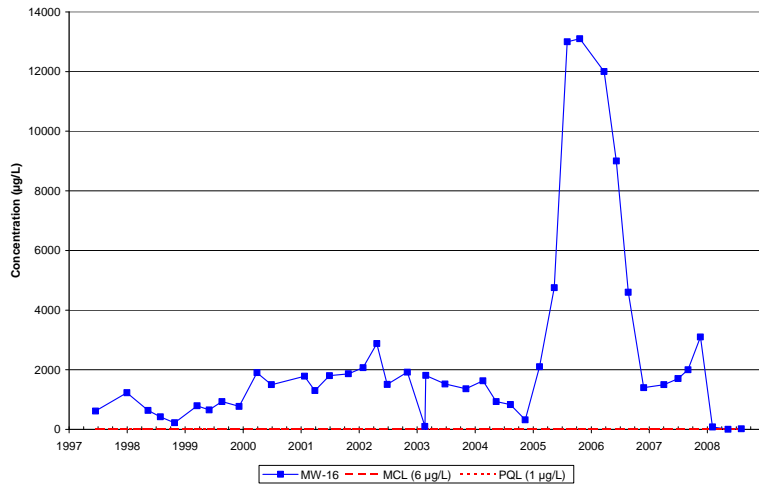
MW-16 Carbon tetrachloride Concentrations 1993 to Present



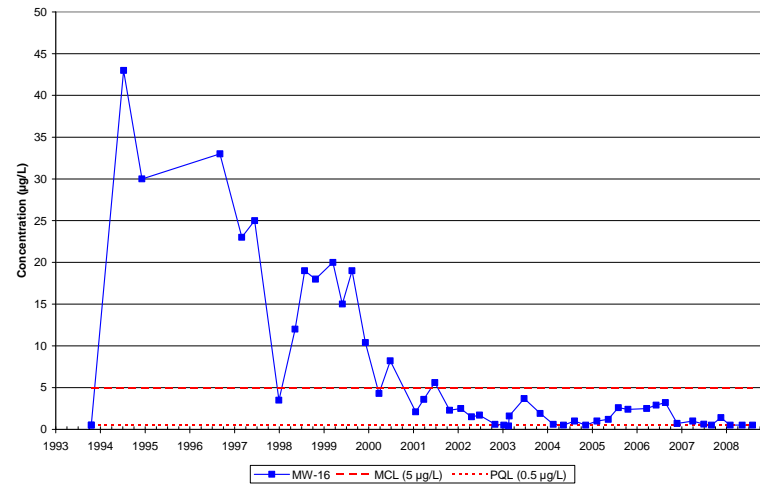
MW-16 Tetrachloroethene (PCE) Concentrations 1993 to Present



MW-16 Perchlorate Concentrations 1997 to Present

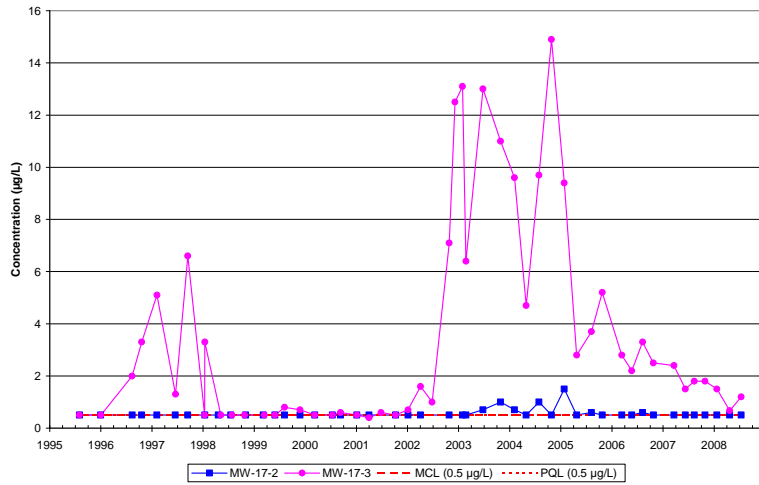


MW-16 Trichloroethene (TCE) Concentrations 1993 to Present

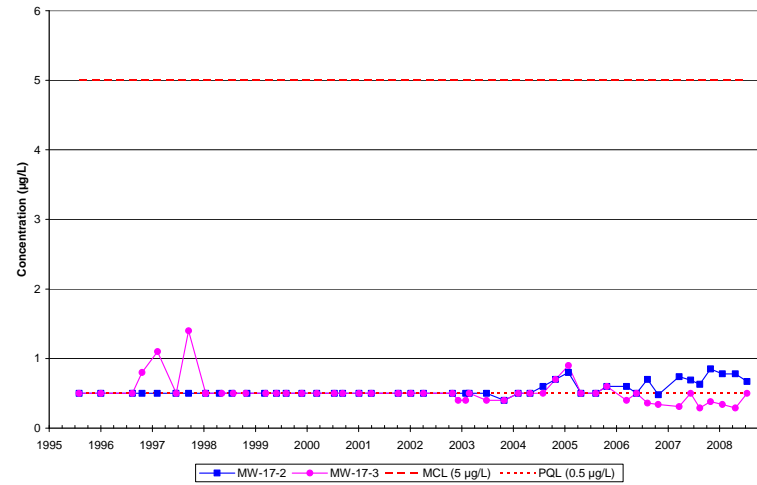


VOCs and Perchlorate Time Series Plots for MW-16

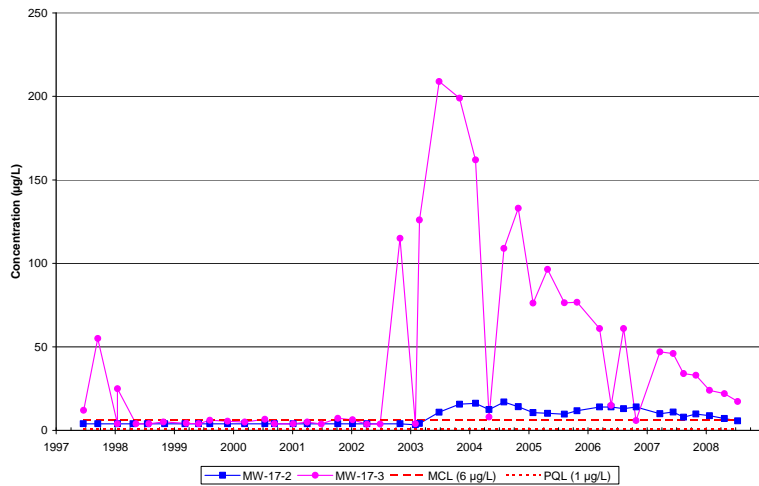
MW-17-2 and MW-17-3 Carbon tetrachloride Concentrations 1995 to Present



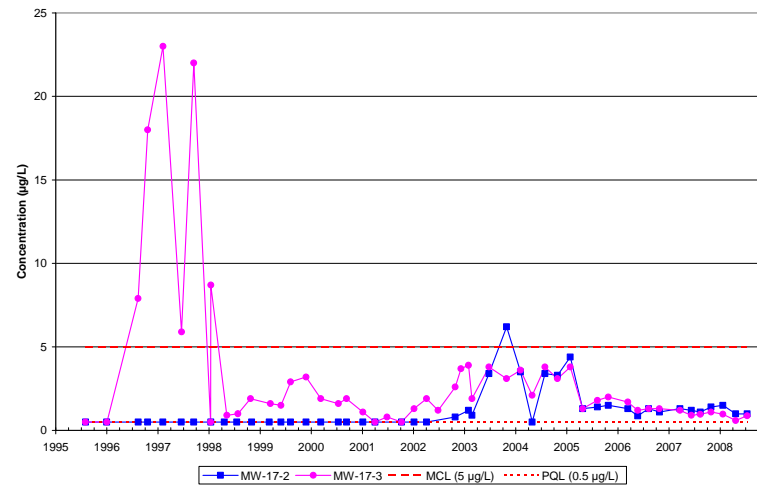
MW-17-2 and MW-17-3 Tetrachloroethene (PCE) Concentrations 1995 to Present



MW-17-2 and MW-17-3 Perchlorate Concentrations 1997 to Present

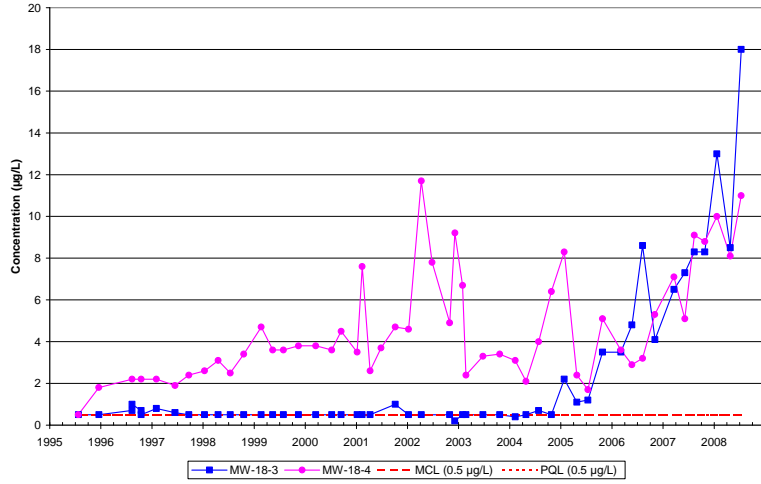


MW-17-2 and MW-17-3 Trichloroethene (TCE) Concentrations 1995 to Present

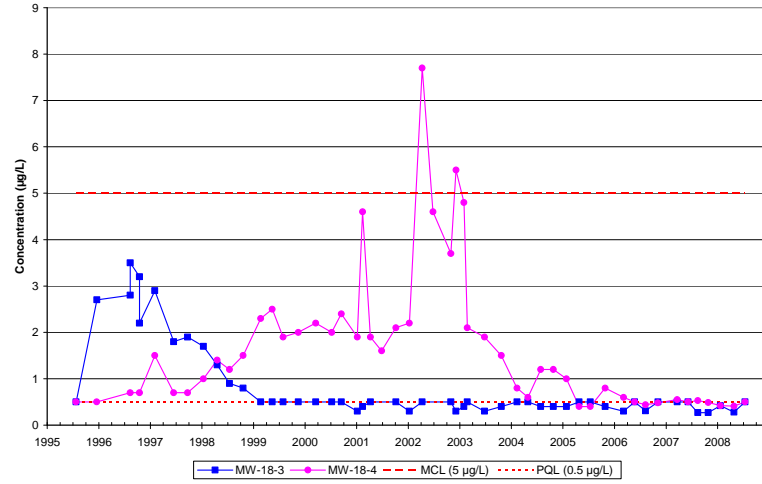


VOCs and Perchlorate Time Series Plots for MW-17-2 and MW-17-3

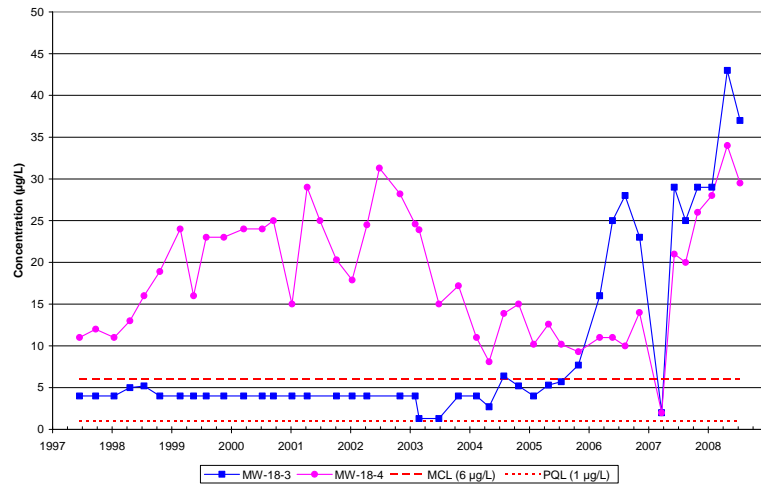
MW-18-3 and MW-18-4 Carbon tetrachloride Concentrations 1995 to Present



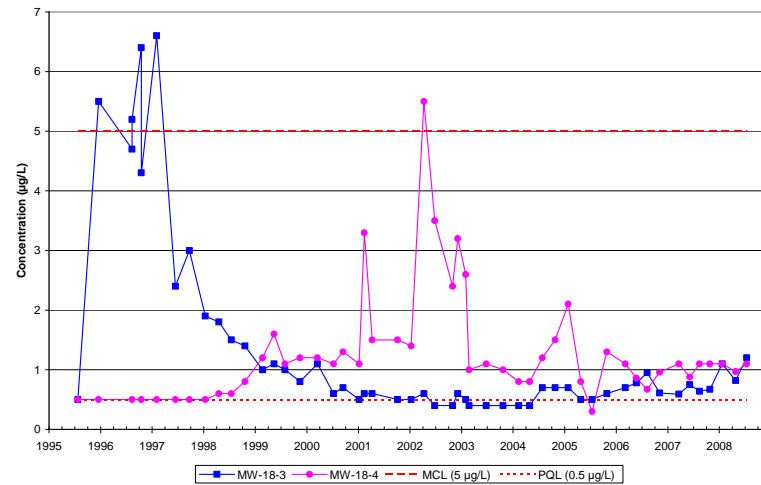
MW-18-3 and MW-18-4 Tetrachloroethene (PCE) Concentrations 1995 to Present



MW-18-3 and MW-18-4 Perchlorate Concentrations 1997 to Present

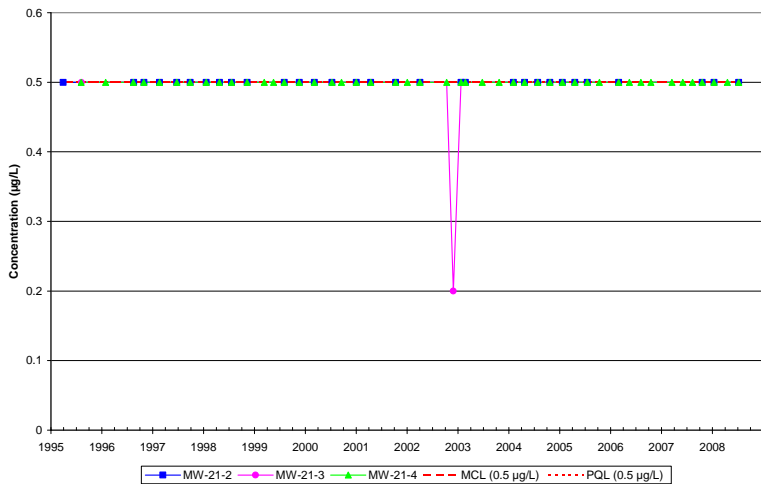


MW-18-3 and MW-18-4 Trichloroethene (TCE) Concentrations 1995 to Present

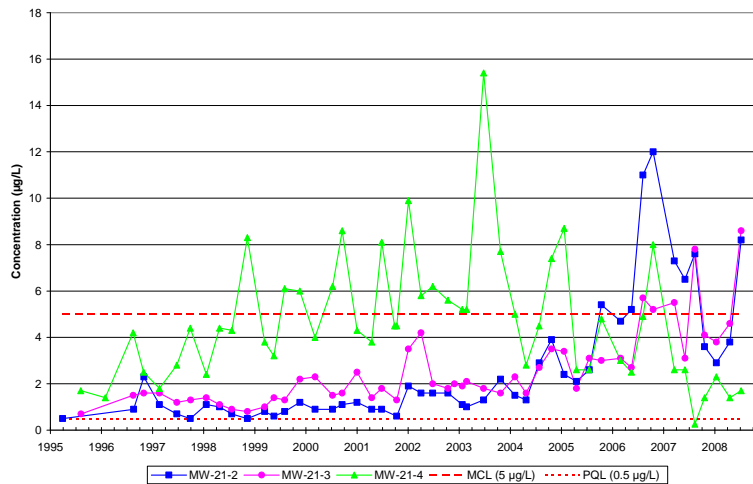


VOCs and Perchlorate Time Series Plots for MW-18-3 and MW-18-4

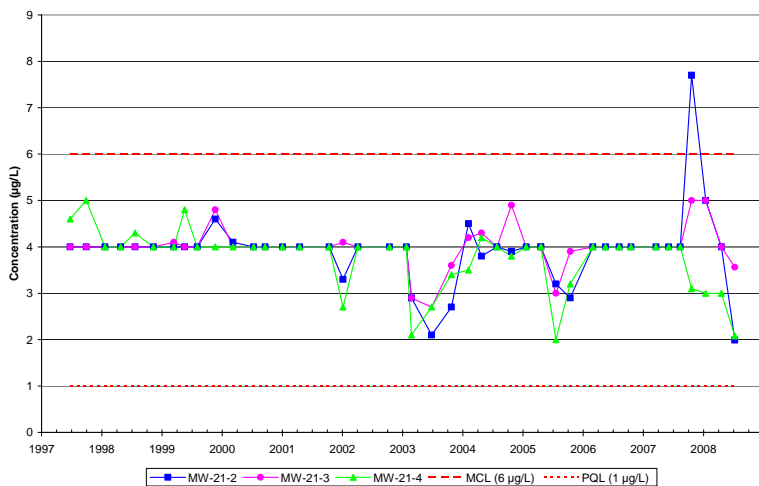
MW-21-2, MW-21-3, and MW-21-4 Carbon tetrachloride Concentrations 1995 to Present



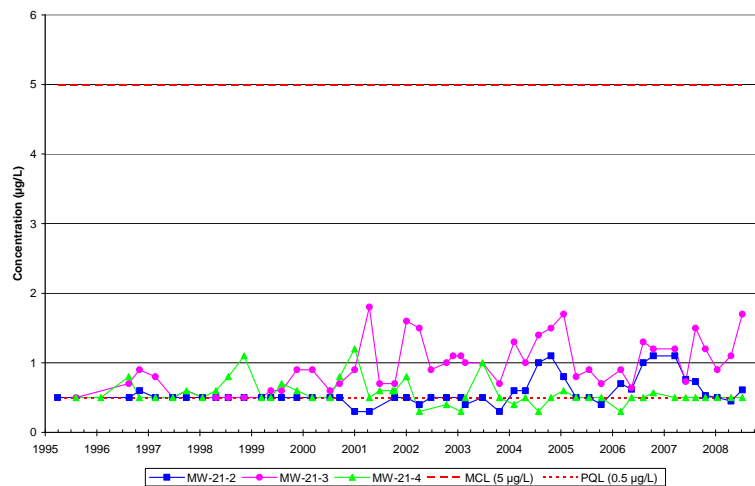
MW-21-2, MW-21-3, and MW-21-4 Tetrachloroethene (PCE) Concentrations 1995 to Present



MW-21-2, MW-21-3, and MW-21-4 Perchlorate Concentrations 1997 to Present

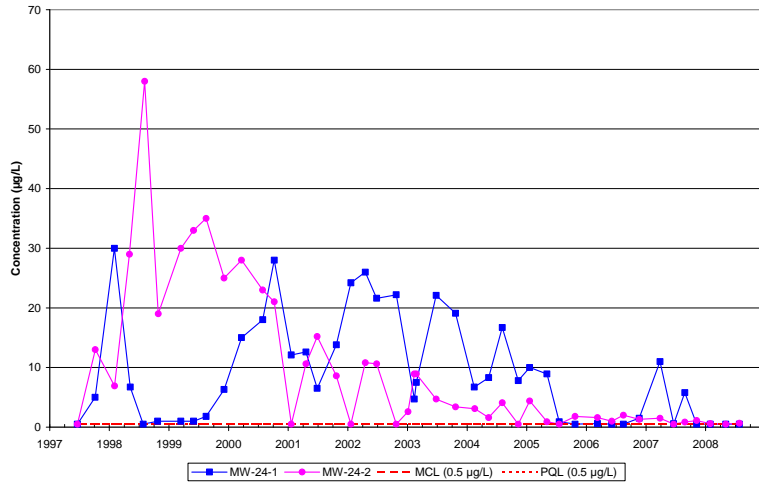


MW-21-2, MW-21-3, and MW-21-4 Trichloroethene (TCE) Concentrations 1995 to Present

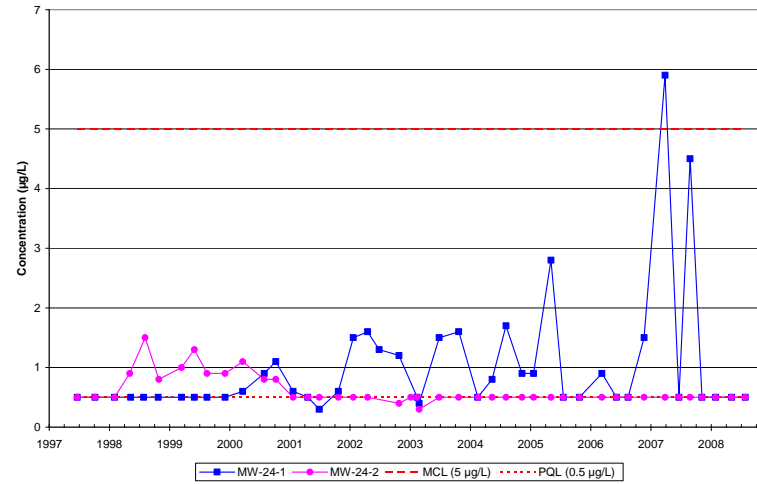


VOCs and Perchlorate Time Series Plots for MW-21-2, MW-21-3 and MW-21-4

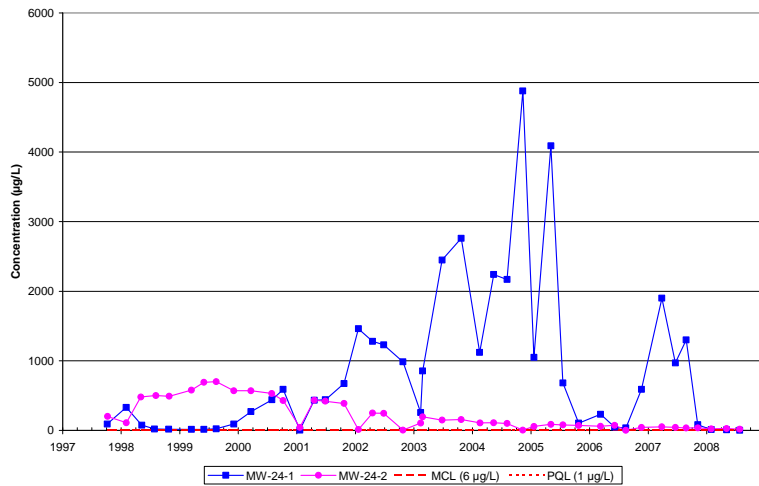
MW-24-1 and MW-24-2 Carbon tetrachloride Concentrations 1997 to Present



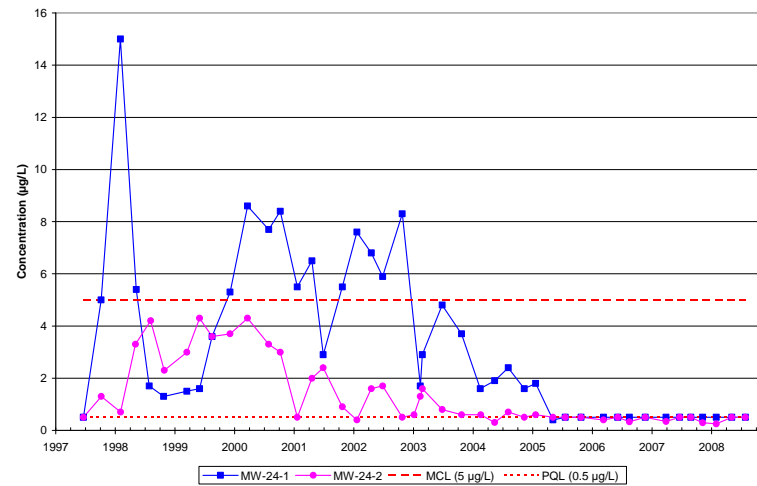
MW-24-1 and MW-24-2 Tetrachloroethene (PCE) Concentrations 1997 to Present



MW-24-1 and MW-24-2 Perchlorate Concentrations 1997 to Present



MW-24-1 and MW-24-2 Trichloroethene (TCE) Concentrations 1997 to Present



VOCs and Perchlorate Time Series Plots for MW-24-1 and MW-24-2