

ATTACHMENT 4: FIELD LOGS

This attachment contains the groundwater sample collection field logs for the relatively shallow standpipe monitoring wells (MW-5, MW-6, 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 1st Quarter 2009 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: 2/13/09
 Weather: cloudy and cold

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

PURGE VOLUME CALCULATION (casing volume):

$$\left(\frac{140}{\text{TD (feet)}} - \frac{82.00}{\text{WL (feet)}} \right) \times \frac{4^2}{\text{D (inches)}} \times \frac{3}{\text{\# Vols}} \times 0.0408 = \frac{113.59}{\text{Calculated Purge Volume}} \text{ Gallons}$$

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
0740	82.00	0	--	--	--	--	--	--	Purge start
0746	82.00	23	4.75	42.7	34.0	10.2	13.8	-44	Clear, no odor
0752	82.00	46	4.69	39.9	-0.20	9.0	14.0	-46	Clear, no odor
0758	82.00	69	4.74	41.2	-2.04	9.9	14.5	-42	Clear, no odor
0804	82.00	92	4.86	40.8	-2.49	9.2	14.2	-48	Clear, no odor
0811	82.00	114	4.95	41.4	-2.78	9.5	13.6	-30	Clear, no odor

Total Purge Volume: 114 (Gallons)

Total Discharge: 3.01 (Casing Volumes)

Approx. Purge Rate: 4.0 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at: 0722 Purge time start: 0740

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

WATER DISPOSAL

Purge water storage: polytank
 Purge water disposal: OU 1 System – Battelle - JPL

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>0816</u>	Sample Time: _____	Sample ID: _____	Sample ID: _____
No. of Containers: <u>12 (MS/MSD)</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: 2/12/09
 Weather: partly cloudy and cold

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

PURGE VOLUME CALCULATION (casing volume):

$$\left(\frac{245}{\text{TD (feet)}} - \frac{174.23}{\text{WL (feet)}} \right) \times \frac{4^2}{\text{D (inches)}} \times \frac{3}{\text{\# Vols}} \times 0.0408 = \frac{138.60}{\text{Calculated Purge Volume}} \text{ Gallons}$$

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
0910	174.23	0	--	--	--	--	--	--	Purge start
0922	174.23	28	5.90	0.136	65.8	8.5	18.0	88	Reddish brown color, no odor
0934	174.23	56	5.79	0.132	38.9	8.2	17.6	96	Cloudy, no odor
0946	174.23	84	5.93	0.134	17.6	8.2	17.4	83	Cloudy, no odor
0958	174.23	112	5.86	0.129	10.83	8.1	17.6	77	Cloudy, no odor
1010	174.23	139	6.04	0.136	9.41	9.9	16.8	91	Cloudy, no odor

Total Purge Volume: 139 (Gallons)

Total Discharge: 3.01 (Casing Volumes)

Approx. Purge Rate: 2.50 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at: 0906 Purge time start: 0910

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

WATER DISPOSAL

Purge water storage: polytank

Purge water disposal: OU 1 System – Battelle - JPL

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>1015</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: 2/10/09
 Weather: clear and cool

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

PURGE VOLUME CALCULATION (casing volume):

$$\left(\frac{275}{\text{TD (feet)}} - \frac{206.75}{\text{WL (feet)}} \right) \times \frac{4^2}{\text{D (inches)}} \times \frac{3}{\text{\# Vols}} \times 0.0408 = \frac{133.66}{\text{Calculated Purge Volume}} \text{ Gallons}$$

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
0820	206.75	0	--	--	--	--	--	--	Purge start
0838	206.75	27	5.18	63.5	6.36	5.0	17.0	-127	Clear, no odor
0856	206.75	54	5.46	63.7	1.86	7.7	17.9	-53	Clear, no odor
0914	206.75	81	5.55	63.0	0.41	8.3	18.1	-50	Clear, no odor
0932	206.75	108	5.74	63.1	2.04	7.7	18.3	-64	Clear, no odor
0950	206.75	135	5.38	64.1	2.03	8.3	17.0	-34	Clear, no odor

Total Purge Volume: 135 (Gallons)

Total Discharge: 3.03 (Casing Volumes)

Approx. Purge Rate: 1.50 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at: 0757 Purge time start: 0820

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

WATER DISPOSAL

Purge water storage: polytank
 Purge water disposal: OU 1 System – Battelle - JPL

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: <u>DUPE- 06 – 1Q09</u>	Type: _____	Type: _____
Sample Time: <u>0955</u>	Sample Time: _____	Sample ID: _____	Sample ID: _____
No. of Containers: <u>6</u>	No. of Containers: <u>6</u>	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: 2/11/09
 Weather: clear and cold

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

PURGE VOLUME CALCULATION (casing volume):

$$\left(\frac{205}{\text{TD (feet)}} - \frac{132.40}{\text{WL (feet)}} \right) \times \frac{4^2}{\text{D (inches)}} \times \frac{3}{\text{\# Vols}} \times 0.0408 = \frac{142.18}{\text{Calculated Purge Volume}} \text{ Gallons}$$

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
1005	132.40	0	--	--	--	--	--	--	Purge start
1017	132.40	29	5.68	60.1	4.42	8.7	15.9	-16	Clear, no odor
1029	132.40	58	5.67	59.2	13.4	10.2	16.1	-17	Clear, no odor
1041	132.40	86	5.71	59.1	1.80	9.0	15.8	-27	Clear, no odor
1053	132.40	115	5.76	59.9	1.17	9.1	15.9	-15	Clear, no odor
1104	132.40	143	5.73	59.4	1.12	10.4	15.0	-27	Clear, no odor

Total Purge Volume: 143 (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: 1005 Purge time start: 1104

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

WATER DISPOSAL

Purge water storage: polytank
 Purge water disposal: OU 1 System – Battelle - JPL

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>12 (MS/MSD)</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: 2/12/09
 Weather: partly cloudy and cold

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

PURGE VOLUME CALCULATION (casing volume):

$$\left(\frac{155}{\text{TD (feet)}} - \frac{82.70}{\text{WL (feet)}} \right) \times \frac{4^2}{\text{D (inches)}} \times \frac{3}{\text{\# Vols}} \times 0.0408 = \frac{141.59}{\text{Calculated Purge Volume}} \text{ Gallons}$$

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
0725	82.70	0	-	--	--	--	--	--	Purge start
0733	82.70	29	4.39	0.135	4.89	7.7	16.5	-20	Clear, no odor
0741	82.70	58	5.26	0.131	1.30	7.9	16.4	-50	Clear, no odor
0749	82.70	86	5.42	0.135	0.0	7.9	16.0	22	Clear, no odor
0757	82.70	115	5.39	0.132	-0.16	9.6	16.5	39	Clear, no odor
0805	82.70	143	5.55	0.136	-0.36	9.3	15.3	53	Clear, no odor

Total Purge Volume: 143 (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: 0720 Purge time start: 0725

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

WATER DISPOSAL

Purge water storage: polytank
 Purge water disposal: OU 1 – Battelle - JPL

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-10</u>	Sample ID: <u>DUPE – 07 – 1Q09</u>	Type: _____	Type: _____
Sample Time: <u>0813</u>	Sample Time: _____	Sample ID: _____	Sample ID: _____
No. of Containers: <u>6</u>	No. of Containers: <u>6</u>	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: 2/13/09
 Weather: clear and cold

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

PURGE VOLUME CALCULATION (casing volume):

$$\left(\frac{235}{\text{TD (feet)}} - \frac{177.09}{\text{WL (feet)}} \right) \times \frac{4^2}{\text{D (inches)}} \times \frac{3}{\text{\# Vols}} \times 0.0408 = \frac{113.41}{\text{Calculated Purge Volume}} \text{ Gallons}$$

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
0757	177.09	0	--	--	--	--	--	--	Purge start
0809	177.09	23	4.71	74.9	15.0	7.5	16.4	-88	Clear, no odor
0821	177.09	46	4.81	70.5	5.85	7.5	17.0	-58	Clear, no odor
0833	177.09	68	5.01	74.2	15.1	7.8	17.2	-51	Clear, no odor
0845	177.09	91	5.16	73.4	3.33	10.4	17.0	-59	Clear, no odor
0857	177.09	114	5.49	74.2	0.40	8.4	17.7	-23	Clear, no odor

Total Purge Volume: 114 (Gallons)

Total Discharge: 3.02 (Casing Volumes)

Approx. Purge Rate: 2.00 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at: 0755 Purge time start: 0757

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

WATER DISPOSAL

Purge water storage: polytank
 Purge water disposal: Ou 1 – Battelle - JPL

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-13</u>	Sample ID: _____	Type: _____	Type: _____
Sample Time: <u>0901</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: 2/12/09
 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):

$$\left(\frac{74}{\text{TD (feet)}} - \frac{31.69}{\text{WL (feet)}} \right) \times \frac{4^2}{\text{D (inches)}} \times \frac{3}{\text{\# Vols}} \times 0.0408 = \frac{82.86}{\text{Calculated Purge Volume}} \text{ Gallons}$$

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
1110	31.69	0	--	--	--	--	--	--	Purge start
1115	31.69	17	6.02	61.0	5.68	11.1	19.4	-23	Clear, no odor
1120	31.69	34	6.07	58.4	1.04	11.2	17.5	-14	Clear, no odor
1125	31.69	51	6.15	61.6	0.45	10.4	17.4	-15	Clear, no odor
1130	31.69	68	6.12	62.9	0.11	10.4	17.7	-6	Clear, no odor
1135	31.69	84	6.20	64.0	0.08	11.2	17.8	-28	Clear, no odor

Total Purge Volume: 84 (Gallons)

Total Discharge: 3.04 (Casing Volumes)

Approx. Purge Rate: 3.50 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at: 1103 Purge time start: 1110

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

WATER DISPOSAL

Purge water storage: polytank

Purge water disposal: OU 1 –Battelle - JPL

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>1139</u>	Sample Time: _____	Sample ID: _____	Sample ID: _____
No. of Containers: <u>4 (MS/MSD)</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: 2/10/09
 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):

$$\left(\frac{285}{\text{TD (feet)}} - \frac{229.60}{\text{WL (feet)}} \right) \times \frac{4^2}{\text{D (inches)}} \times \frac{3}{\text{\# Vols}} \times 0.0408 = \frac{108.50}{\text{Calculated Purge Volume}} \text{ Gallons}$$

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
1100	229.60	0	--	--	--	--	--	--	Purge start
1115	229.60	22	5.92	0.096	3.22	9.8	21.0	123	Clear, no odor
1130	229.60	43	5.98	0.092	9.34	9.1	21.3	128	Clear, no odor
1145	229.60	65	6.05	0.096	0.17	9.1	21.8	121	Clear, no odor
1200	229.60	87	6.13	0.093	-0.64	8.8	21.9	124	Clear, no odor
1215	229.60	109	6.18	0.095	-0.81	9.0	21.5	117	Clear, no odor

Total Purge Volume: 109 (Gallons)

Total Discharge: 3.01 (Casing Volumes)

Approx. Purge Rate: 1.50 (GPM)

OBSERVATIONS DURING PUMPING

NOTES: (well condition, color, clarity, odor): Purge start at: 1054 Purge time start: 1100

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

WATER DISPOSAL

Purge water storage: polytank
 Purge water disposal: OU 1 – Battelle - JPL

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>1220</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): 683, 558, 346, 252, 172
 Beginning of Session: 14.08 psia
 End of Session: 14.10 psia

Start Time: 9:0
 Finish Time: 11:00

Date: 2/4/09
 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. (oC)
4	1	✓	✓	✓	✓	✓	✓	✓	✓	208.20	✓	208.13	✓	208.14	✓	✓	208.20	934	5.77	0.47	39.5	9.4	19.5	-47
3	1	✓	✓	✓	✓	✓	✓	✓	✓	115.28	✓	119.20	✓	119.20	✓	✓	115.20	1001	6.34	0.33	36.1	12.5	20.2	-35
3	2	✓	✓	✓	✓	✓	✓	✓	✓	115.28	✓	119.18	✓	119.18	✓	✓	115.28	1020	6.06	0.27	36.5	10.1	18.8	-37
2	1	✓	✓	✓	✓	✓	✓	✓	✓	74.31	✓	78.06	✓	78.08	✓	✓	74.32	1042	6.03	0	48.0	12.2	20.3	-9
2	2	✓	✓	✓	✓	✓	✓	✓	✓	74.31	✓	78.09	✓	78.09	✓	✓	74.30	-	-	-	-	-	-	-

VPEK
SHEK

73
72

Notes:

port 5: NOT SAMPLED port 4: CLEAR, STRONG 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-4
Sampling Zone No.: 3 + 1
Depth (ft): 518, 322, 240, 150
Beginning of Session: 14.11 psia
End of Session: 14.12 psia

Start Time: 7:10
Finish Time: 8:15

Date: 2/4/09
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. (oC)	ORP
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	65.15	✓	117.57	✓	117.57	✓	✓	65.16	726	5.05	11.0	48.8	9.9	14.2	-127	
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	29.27	✓	81.90	✓	81.90	✓	✓	29.31	746	5.13	0.13	84.1	10.7	14.8	-102	
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.18	✓	44.70	✓	44.72	✓	✓	14.25	812	5.60	10.71	40.7	9.9	13.2	-60	

Notes: port 5: NOT SAMPLED port 4: NOT SAMPLED port 3: YELLOWISH BRACKEN COLOR, VERY STRONG 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-11
 Sampling Zone No.: 4 to 1
 Depth (ft): 239, 524, 429, 259, 149
 Beginning of Session: 14.11 psia
 End of Session: 14.06 psia

Start Time: 0950
 Finish Time: 1200

Date: 02/05/09
 Page: 1 of 1

Water Pressure Inside Casing: 14

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 (microhms)	Dissolved Oxygen
4	1	✓	✓	✓	✓	✓	✓	✓	✓	188.90	✓	184.38	✓	184.33	✓	✓	188.92	1016	5.51	0.66	23.0	11.0	17.7	-96
3	1	✓	✓	✓	✓	✓	✓	✓	✓	148.94	✓	141.34	✓	141.23	✓	✓	148.96	1049	5.58	5.46	39.7	10.3	17.2	-15
2	1	✓	✓	✓	✓	✓	✓	✓	✓	75.16	✓	69.07	✓	69.03	✓	✓	75.19	1108	5.85	-1.62	44.1	9.3	16.7	-16
1	1	✓	✓	✓	✓	✓	✓	✓	✓	29.20	✓	29.81	✓	29.79	✓	✓	29.19	1156	6.98	0.94	56.3	10.4	16.4	-20

Notes:
 port 5: NOT SAMPLED port 4: CLEAR STRONG ODO port 3: CLEAR FAINT ODO
 port 2: CLEAR STRONG ODO port 1: CLEAR STRONG ODO

Total Volume: 4



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: 14.12 psia
 End of Session: 14.12 psia

Start Time: 8:58
 Finish Time: 11:05

Date: 2/3/09
 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)
5	1	✓	✓	✓	✓	✓	✓	✓	✓	219.52	✓	203.90	✓	203.88	✓	✓	219.53	918	5.24	216	47.1	13.2	20.8	-108
4	1	✓	✓	✓	✓	✓	✓	✓	✓	170.21	✓	158.50	✓	158.45	✓	✓	170.20	942	5.40	-0.39	48.4	10.5	22.1	-75
3	1	✓	✓	✓	✓	✓	✓	✓	✓	121.96	✓	109.75	✓	109.74	✓	✓	121.95	1005	5.65	3.62	40.1	12.1	22.1	-50
2	1	✓	✓	✓	✓	✓	✓	✓	✓	82.00	✓	75.31	✓	75.31	✓	✓	82.00	1035	6.09	1.81	54.1	11.9	23.4	-49
1	1	✓	✓	✓	✓	✓	✓	✓	✓	42.46	✓	33.95	✓	33.93	✓	✓	42.46	1101	6.22	14.8	51.8	11.9	24.0	-49

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

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: 14.01 psia
End of Session: 14.04 psia

Start Time: 0830
Finish Time: 1120

Date: 01/26/09
Page: 1 of 1

Water Pressure Inside Casing: [handwritten mark]

Table with columns: Port #, Run #, Surface Function Checks (Shoe Out, Vacuum Check, Valve Open, Evacuate Container, Valve Closed, Shoe in, Arm In, Deactivate Set Arm, Locate Port), Position Sampler (Arm out), Sample Collection Checks (Pressure in MP, Shoe Out, Zone Pressure, Open Valve, Zone Pressure, Close Valve, Shoe In, Pressure in MP), Water Quality Parameters (Time, PH, Turb. (NTU), Cond (mmhos), Dissolved Oxygen, Temp. (oC), ORP).

Notes:

port 5: CLEAN NO ODR port 4: CLEAN NO ODR port 3: CLEAN NO ODR
port 2: CLEAN NO ODR port 1: CLEAN NO ODR

Total Volume: [blank]



Groundwater Sampling Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #: Battelle

Well ID: MW-17
 Sampling Zone No.: 4+2
 Depth (ft): 26, 582, 488, 370, 280
 Beginning of Session: 14.13 psia
 End of Session: 14.09 psia

Start Time: 0820
 Finish Time: 0118

Date: 1-28-09
 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)
4	1	✓	✓	✓	✓	✓	✓	✓	✓	182.84	✓	176.47	✓	176.47	✓	✓	182.82	0857	5.17	0.40	31.5	9.8	14.4	-133
3	1	✓	✓	✓	✓	✓	✓	✓	✓	133.37	✓	124.11	✓	124.11	✓	✓	133.39	0930	5.19	0.4	68.9	10.3	15.4	-121
2	1	✓	✓	✓	✓	✓	✓	✓	✓	90.72	✓	85.47	✓	85.46	✓	✓	90.76	1010	5.29	0.58	90.3	10.4	12.8	-100

Notes:
 port 5: NOT SAMPLED port 4: CLEAN NO ODOR port 3: CLEAN NO ODOR
 port 2: CLEAN 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 to 2
 Depth (ft): 624, 564, 424, 338, 270
 Beginning of Session: 14.09 psia
 End of Session: 14.07 psia

Start Time: 1055
 Finish Time: 1258

Date: 1-28-09
 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)
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	159.54	✓	204.69	✓	204.67	✓	✓	159.56	1120	5.63	0.35	30.9	22.9	12.1	-106
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	108.25	✓	152.70	✓	152.69	✓	✓	108.26	1153	6.72	6.53	43.2	14.5	20.6	-79
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	47.20	✓	94.52	✓	94.45	✓	✓	47.22	1221	5.96	-0.31	52.5	14.3	20.0	-54
7	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.21	✓	52.56	✓	52.55	✓	✓	14.29	1250	6.71	-0.17	53.1	15.3	19.8	-55

Notes: port 5: CLEAR STRONG ODOR port 4: CLEAR 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-19
 Sampling Zone No.: 5 to 1
 Depth (ft): 498, 444, 392, 314, 242
 Beginning of Session: 14.16 psia
 End of Session: 14.20 psia

Start Time: 0800
 Finish Time: 1025

Date: 01-27-08
 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	
<u>5</u>	<u>1</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>173.62</u>	<u>✓</u>	<u>163.05</u>	<u>✓</u>	<u>163.84</u>	<u>✓</u>	<u>✓</u>	<u>173.40</u>	<u>0830</u>	<u>4.79</u>	<u>-0.15</u>	<u>72.2</u>	<u>10.6</u>	<u>12.6</u>	<u>-139</u>	
<u>4</u>	<u>1</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>150.17</u>	<u>✓</u>	<u>139.67</u>	<u>✓</u>	<u>139.67</u>	<u>✓</u>	<u>✓</u>	<u>150.19</u>	<u>0853</u>	<u>5.01</u>	<u>-0.51</u>	<u>58.3</u>	<u>9.7</u>	<u>13.1</u>	<u>-138</u>	
<u>3</u>	<u>1</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>127.58</u>	<u>✓</u>	<u>117.81</u>	<u>✓</u>	<u>117.81</u>	<u>✓</u>	<u>✓</u>	<u>127.57</u>	<u>0915</u>	<u>5.21</u>	<u>-0.39</u>	<u>60.0</u>	<u>10.0</u>	<u>13.0</u>	<u>-111</u>	
<u>2</u>	<u>1</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>93.71</u>	<u>✓</u>	<u>82.51</u>	<u>✓</u>	<u>83.51</u>	<u>✓</u>	<u>✓</u>	<u>93.70</u>	<u>0934</u>	<u>5.22</u>	<u>0.20</u>	<u>0.111</u>	<u>10.2</u>	<u>13.2</u>	<u>11</u>	
<u>1</u>	<u>1</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>	<u>62.12</u>	<u>✓</u>	<u>57.89</u>	<u>✓</u>	<u>57.89</u>	<u>✓</u>	<u>✓</u>	<u>62.14</u>	<u>1021</u>	<u>5.42</u>	<u>14.4</u>	<u>48.3</u>	<u>10.9</u>	<u>13.3</u>	<u>-95</u>	

Notes:
 port 5: CLEAR SLIGHT ODOUR port 4: CLEAR FAINT ODOUR port 3: CLEAR FAINT 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-20
Sampling Zone No.: 5-10-1
Depth (ft): 900, 700, 562, 392, 230
Beginning of Session: ~~14.05~~ 14.05
End of Session: 14.11 psia

Start Time: 0815
Finish Time: 1150

Date: 1/30/09
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
	5	1	✓	✓	✓	✓	✓	✓	✓	323.56	✓	323.61	✓	323.61	✓	✓	323.57	0915	5.24	1.06	29.2	17.6	19.1	-199
	4	1	✓	✓	✓	✓	✓	✓	✓	236.67	✓	236.57	✓	236.54	✓	✓	236.56	0919	5.62	0.34	30.3	11.9	19.7	-322
	3	1	✓	✓	✓	✓	✓	✓	✓	176.98	✓	173.49	✓	173.49	✓	✓	176.99	0951	5.70	0.79	42.4	11.9	21.2	-167
DUPE	2	1	✓	✓	✓	✓	✓	✓	✓	103.23	✓	101.13	✓	101.13	✓	✓	103.25	1021	5.56	0.33	64.0	11.6	22.0	-49
	2	2	✓	✓	✓	✓	✓	✓	✓	103.21	✓	101.13	✓	101.14	✓	✓	103.22	—	5.54	0.78	64.4	12.4	20.4	-51
	1	1	✓	✓	✓	✓	✓	✓	✓	32.79	✓	30.73	✓	30.69	✓	✓	32.76	1110	6.0	0.56	46.8	12.2	21.0	-40
DUPE	1	2	✓	✓	✓	✓	✓	✓	✓	32.75	✓	30.67	✓	30.68	✓	✓	32.75	—	6.77	0.59	42.2	12.7	21.1	-43
	1	3	✓	✓	✓	✓	✓	✓	✓	32.89	✓	30.65	✓	30.66	✓	✓	31.87	1145	5.97	0.80	50.3	11.4	21.0	-27

DUPE-03-12
DUPE-04-12

Notes:

port 5: CLEAN STRONG ODOR port 4: CLEAN STRONG ODOR port 3: CLEAN FAINT ODOR
port 2: CLEAN NO ODOR port 1: CLEAN NO ODOR

Total Volume:



Groundwater Sampling
Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #: Battelle

Well ID: MW-21
Sampling Zone No.: 5-01
Depth (ft): 372, 310, 240, 181, 90
Beginning of Session: 14.11 psia
End of Session: 14.15 psia

Start Time: 740
Finish Time: 1050

Date: 1/23/09
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. (oC)
5	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	128.75	✓	152.76	✓	152.75	✓	✓	128.73	812	4.90	0	0.103	11.13	17.6	-
4	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	101.70	✓	125.92	✓	125.92	✓	✓	101.70	847	5.50	1	79	9.23	18.0	-
3	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	76.50	✓	95.97	✓	95.97	✓	✓	76.53	919	6.10	0.22	0.12	9.00	17.3	-
2	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	37.62	✓	61.61	✓	61.51	✓	✓	37.65	948	6.20	-0.66	0.14	9.23	17.0	-
1	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.17	✓	29.98	✓	29.98	✓	✓	14.17	1025	-14	-0.32	0.14	10.70	15.8	-
1	2	✓	✓	✓	✓	✓	✓	✓	✓	✓	14.16	✓	29.96	✓	29.98	✓	✓	14.17	1049	-6	-0.70	0.14	7.04	16.6	-

208 <

> 1

Notes:

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

Total Volume: _____



**Groundwater Sampling
Multi-Port Well Field Data Sheet**

JPL Pasadena
Contract #: Battelle

Well ID: MW-22
 Sampling Zone No.: 3101
 Depth (ft): 588, 487, 389, 329, 245
 Beginning of Session: 14.04 psia
 End of Session: 14.06 psia

Start Time: 0735
 Finish Time: 0920

Date: 22/05/09
 Page: 1 of 1

Water Pressure Inside Casing:

Port #	Run #	Surface Function Checks							Position Sampler	Arm out	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	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
3	1	✓	✓	✓	✓	✓	✓	✓	✓	116.43	✓	110.27	✓	110.27	✓	✓	116.41	0758	4.64	-1.25	71.1	9.0	15.8	-116
2	1	✓	✓	✓	✓	✓	✓	✓	✓	90.34	✓	88.11	✓	84.12	✓	✓	90.36	0825	4.96	-1.33	55.3	9.0	16.2	-79
1	1	✓	✓	✓	✓	✓	✓	✓	✓	53.63	✓	46.97	✓	46.84	✓	✓	53.64	0854	5.01	10.15	0.136	9.2	16.6	67

Notes:

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

Total Volume: 4



Groundwater Sampling
Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #: Battelle

Well ID: MW-23
Sampling Zone No.: 4701
Depth (ft): ~~42~~, 445, 319, 254, 174
Beginning of Session: 14.00 psia
End of Session: 14.07 psia

Start Time: 6:15
Finish Time: 10:50

Date: 02/09/09
Page: 1 of 1

Water Pressure Inside Casing: _____

Port #	Run #	Surface Function Checks							Position Sampler	Arm out	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	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
4	1	✓	✓	✓	✓	✓	✓	✓	✓	162.39	✓	161.12	✓	161.08	✓	✓	162.37	8:25	6.04	1.20	36.2	8.3	16.4	111
3	1	✓	✓	✓	✓	✓	✓	✓	✓	108.17	✓	107.90	✓	107.90	✓	✓	108.17	8:58	5.26	2.95	76.7	8.7	15.0	53
MS/MSD	2	✓	✓	✓	✓	✓	✓	✓	✓	106.15	✓	107.91	✓	107.92	✓	✓	106.16	6:12	4.18	34.9	8.7	15.8	-57	
7	1	✓	✓	✓	✓	✓	✓	✓	✓	79.92	✓	79.62	✓	79.61	✓	✓	79.91	11:59	6.22	1.39	98.8	8.8	12.6	-36
7	1	✓	✓	✓	✓	✓	✓	✓	✓	845.56	✓	809.99	✓	44.98	✓	✓	715.37	10:41	6.20	5.40	131	8.5	13.3	90

Notes:

port 5: NOT SAMPLED port 4: CLEAR SYSTEM ODO port 3: CLEAR FINE ODO
port 2: CLEAR ODO port 1: CLEAR FINE ODO

Total Volume: _____



Groundwater Sampling Multi-Port Well Field Data Sheet

JPL Pasadena
Contract #: Battelle

Well ID: MW-24
Sampling Zone No.: 4+1
Depth (ft): 676, 554, 435, 373, 279
Beginning of Session: 14.12 psia
End of Session: 14.11 psia

Start Time: 0820
Finish Time: 1045

Date: 2/2/09
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
4	1	✓	✓	✓	✓	✓	✓	✓	✓	120.16	✓	167.43	✓	117.42	✓	✓	180.78	0850	4.70	1.31	28.2	9.1	19.0	-180
3	1	✓	✓	✓	✓	✓	✓	✓	✓	128.87	✓	172.24	✓	117.24	✓	✓	128.97	0904	4.81	0.30	30.1	9.7	19.5	-241
2	1	✓	✓	✓	✓	✓	✓	✓	✓	102.05	✓	90.28	✓	40.24	✓	✓	102.08	0928	4.70	1.83	25.8	9.6	20.3	-127
1	1	✓	✓	✓	✓	✓	✓	✓	✓	62.07	✓	50.20	✓	50.20	✓	✓	62.05	1021	4.81	2.68	62.4	10.3	20.9	-14
1	2	✓	✓	✓	✓	✓	✓	✓	✓	61.41	✓	50.19	✓	50.19	✓	✓	61.39	-	5.04	3.06	68.9	10.5	20.7	-25

ms/msd

ms/msd

Notes:

port 5: NOT SAMPLED port 4: CLEAR STRONG ODO. port 3: CLEAR STRONG ODO
port 2: CLEAR STRONG ODO port 1: CLEAR SLIGHT ODO

Total Volume: _____



Groundwater Sampling
Multi-Port Well Field Data Sheet

JPL Pasadena
Contract # Battelle

Well ID: MW-25
Sampling Zone No.: 5+01
Depth (ft): 713, 633, 503, 423, 358
Beginning of Session: 14.24 psia
End of Session: 14.17 psia

Start Time: 0850
Finish Time: 1150

Date: 1/29/09
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)
5	1	✓	✓	✓	✓	✓	✓	✓	✓	206.96	✓	205.01	✓	205.01	✓	✓	206.85	0916	7.86	0.67	50.3	11.6	18.4	-135
4	1	✓	✓	✓	✓	✓	✓	✓	✓	172.30	✓	168.74	✓	168.76	✓	✓	172.27	0944	5.06	0.31	67.3	10.2	19.1	-90
3	1	✓	✓	✓	✓	✓	✓	✓	✓	115.92	✓	115.86	✓	115.84	✓	✓	115.92	1010	5.26	0.54	63.3	10.1	20.1	-92
2	1	✓	✓	✓	✓	✓	✓	✓	✓	81.09	✓	81.64	✓	84.63	✓	✓	81.09	1038	6.00	0.41	62.5	12.1	22.6	-82
1	1	✓	✓	✓	✓	✓	✓	✓	✓	53.70	✓	58.42	✓	58.48	✓	✓	53.70	1113	5.48	5.10	79.1	16.6	23.2	-43
1	2	✓	✓	✓	✓	✓	✓	✓	✓	51.70	✓	58.48	✓	58.45	✓	✓	51.73	1148	5.51	9.62	83.4	18.0	23.6	-51

DATE

DUPE

Notes:

port 5: CLEAR STRONG 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-26
Sampling Zone No.: 2+1
Depth (ft): 215, 135
Beginning of Session: 14.15 psia
End of Session: 14.14 psia

Start Time: 1220
Finish Time: 1300

Date: 1-29-09
Page: 1 of 1

Water Pressure Inside Casing: —

Table with columns for Port #, Run #, Function Checks, Position Sampler, Sample Collection Checks, and Water Quality Parameters. Includes handwritten data for two runs.

Notes:

Total Volume: —

port 2: CLEAR SILENT port 1: CLEAR NO O2 OR

ATTACHMENT 5: WATER LEVEL MEASUREMENTS

This attachment contains water level measurements for the Westbay™ multiport JPL monitoring wells obtained during the 1st quarter of 2009. Water level measurements were recorded before the sampling event on January 20, 2009, and after the sampling event on February 18, 2009. 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: 1/20/09 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: partly cloudy and cool

Ambient Readings	Start	Finish
Time	1035	1047
Pressure (psia)	14.15	14.16
Temperature (°C)	18.72	17.27

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	246.17	248.89	246.10	20.10	1037	111.45	988.89
4	558	204.90	207.83	204.90	21.51	1039	111.18	989.16
3	346	112.76	118.89	112.76	21.61	1041	104.36	995.98
2	252	71.88	77.77	71.98	20.84	1043	105.23	995.11
1	172	37.10	43.90	37.10	19.09	1045	103.37	996.97

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: 1/20/09 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: partly cloudy and cool

Ambient Readings	Start	Finish
Time	0840	0852
Pressure (psia)	14.14	14.18
Temperature (°C)	19.03	19.77

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	145.67	199.71	145.69	20.42	842		
								84.89
4	392	93.03	147.32	93.06	21.25	0844		
								84.75
3	322	62.57	117.30	62.57	21.20	0846		
								84.01
2	240	26.81	81.65	26.83	20.78	0848		
								84.25
1	150	14.26	15.54	14.24	20.25	0850		
								146.77

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: 1/20/09 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: partly cloudy and cool

Ambient Readings	Start	Finish
Time	1013	1025
Pressure (psia)	14.50	14.16
Temperature (°C)	20.35	18.00

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	639	236.58	225.47	236.63	21.37	1015			
									152.29
4	524	186.13	184.07	187.05	20.95	1017			
									132.80
3	429	146.39	141.08	146.27	20.74	1019			
									136.98
2	259	72.61	68.62	72.65	19.78	1021			
									134.15
1	149	25.30	29.14	25.29	18.75	1023			
									115.23

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: 1/20/09 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: partly cloudy and cool

Ambient Readings	Start	Finish
Time	1424	1435
Pressure (psia)	14.06	14.11
Temperature (°C)	23.30	17.92

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	217.10	203.59	217.12	20.19	1426	110.75	991.39
4	436	168.48	158.19	168.45	20.81	1428	103.49	998.65
3	323	119.29	109.43	119.24	20.36	1430	102.98	999.16
2	243	84.47	74.97	84.45	19.52	1432	102.48	999.66
1	140	39.51	33.44	39.53	18.40	1434	95.29	1006.85

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: 1/20/09 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: partly cloudy and cool

Ambient Readings	Start	Finish
Time	0905	0918
Pressure (psia)	14.11	14.12
Temperature (°C)	20.60	19.36

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	187.57	179.43	187.61	20.72	907	158.61	1014.86
4	456	151.10	143.05	151.08	20.79	909	158.54	1014.93
3	382	118.95	110.93	118.88	20.60	911	158.64	1014.83
2	277	73.03	65.33	73.15	20.14	913	158.84	1014.63
1	207	42.66	35.36	42.65	19.66	915	157.98	1015.49

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: 1/20/09 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: partly cloudy and cool

Ambient Readings	Start	Finish
Time	1154	1206
Pressure (psia)	14.04	14.09
Temperature (°C)	18.15	16.45

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	243.89	239.83	243.88	20.70	1156		
								205.10
4	582	181.53	175.89	181.56	20.49	1158		
								208.61
3	468	132.11	123.73	132.13	19.32	1200		
								214.95
2	370	89.56	85.16	89.58	18.24	1202		
								205.93
1	250	37.43	33.71	37.41	17.25	1204		
								204.62

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: 1/20/09 Serial No.: _____
 Personnel: Chase Brogdon, Andrew Wells
 Datum: TOC Casing Size/Type: 1.5" Westbay
 Elevation of Datum (Ft. + MSL): 1,225.41

Note: partly cloudy and cool

Ambient Readings	Start	Finish
Time	1221	1235
Pressure (psia)	14.02	14.07
Temperature (°C)	20.78	17.26

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	203.75	157.76	20.81	1223		
								246.29
4	564	105.62	152.13	105.61	21.17	1225		
								245.38
3	424	44.71	94.26	44.72	20.41	1227		
								238.89
2	330	14.23	52.27	14.23	19.05	1229		
								241.76
1	270	14.18	15.44	14.20	18.06	1231		
								266.72

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: 1/20/09 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: partly cloudy and cool

Ambient Readings	Start	Finish
Time	1130	1143
Pressure (psia)	14.11	14.13
Temperature (°C)	18.69	17.19

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	172.27	162.15	172.77	18.77	1132	156.47	986.47
4	444	149.34	138.76	149.33	19.06	1134	156.43	986.51
3	392	126.76	117.16	126.79	19.10	1136	154.26	988.68
2	314	92.92	82.87	92.93	19.06	1138	155.37	987.57
1	242	61.70	51.50	61.66	18.64	1140	155.74	987.20

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: 1/20/09 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: partly cloudy and cool

Ambient Readings	Start	Finish
Time	1246	1301
Pressure (psia)	14.06	14.06
Temperature (°C)	21.79	17.35

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	900	322.43	323.21	322.42	21.47	1250	186.79	978.26
4	700	235.74	235.86	235.80	22.36	1253	188.31	976.74
3	562	176.04	173.07	176.02	21.75	1255	195.16	969.89
2	392	102.30	100.71	102.28	20.07	1257	192.10	972.95
1	230	31.88	30.15	31.89	18.17	1259	192.88	972.17

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: 1/20/09 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: partly cloudy and cool

Ambient Readings	Start	Finish
Time	0929	0940
Pressure (psia)	14.11	14.17
Temperature (°C)	18.91	18.90

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	126.24	152.75	126.15	19.79	931	52.16	1006.94
4	310	99.39	149.53	99.38	19.95	933	-2.41	1061.51
3	240	66.96	106.60	66.95	19.66	935	26.63	1032.47
2	161	34.74	61.60	34.69	19.38	937	51.44	1007.66
1	90	14.24	29.98	14.23	19.06	939	53.39	1005.71

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: 1/20/09 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: partly cloudy and cool

Ambient Readings	Start	Finish
Time	0809	0820
Pressure (psia)	14.10	14.10
Temperature (°C)	19.53	20.10

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	193.21	201.52	20.89	811	174.79	1002.19
4	467	149.09	142.20	149.14	21.44	813	171.47	1005.51
3	389	115.31	110.03	115.34	21.35	815	167.69	1009.29
2	329	89.28	83.88	89.31	21.15	817	168.02	1008.96
1	245	53.29	73.88	53.26	20.61	819	107.09	1069.89

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: 1/20/09 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: partly cloudy and cool

Ambient Readings	Start	Finish
Time	0748	0800
Pressure (psia)	14.12	14.18
Temperature (°C)	17.84	19.86

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	203.74	202.42	203.75	19.65	750	107.59	1001.25
4	445	161.73	160.55	161.75	70.62	752	107.19	1001.65
3	319	107.18	107.45	107.17	20.71	754	103.69	1005.15
2	254	78.94	79.15	78.99	20.48	756	103.98	1004.86
1	174	44.21	44.60	44.22	20.20	758	103.68	1005.16

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: 1/20/09 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: partly cloudy and cool

Ambient Readings	Start	Finish
Time	0953	1005
Pressure (psia)	14.09	14.10
Temperature (°C)	19.47	21.29

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	233.09	219.22	233.00	21.10	955		
							204.77	996.17
4	554	179.30	167.19	179.35	21.63	957		
							200.80	1000.14
3	435	128.78	116.98	127.78	21.57	959		
							197.63	1003.31
2	373	100.94	90.00	100.92	21.53	1001		
							197.88	1003.06
1	279	60.14	49.95	60.17	21.39	1003		
							196.27	1004.67

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: 1/20/09 Serial No.: 2508
 Personnel: Chase Brogdon, Andrew Wells
 Datum: TOC Casing Size/Type: 1.5" Westbay
 Elevation of Datum (ft. + MSL): 934.52

Weather: partly cloudy and cool

Ambient Readings	Start	Finish
Time	1318	1330
Pressure (psia)	14.20	14.22
Temperature (°C)	19.71	19.95

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	204.09	208.96	204.11	20.94	1320	263.69	670.83
4	633	169.65	175.21	169.65	21.45	1322	261.55	672.97
3	503	113.41	119.65	113.40	21.30	1324	259.73	674.79
2	423	78.68	85.96	78.65	20.90	1326	257.45	677.07
1	358	50.37	58.62	50.34	20.55	1328	255.52	679.00

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: 2/18/09 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: partly cloudy and cool

Ambient Readings	Start	Finish
Time	1057	1110
Pressure (psia)	14.21	14.25
Temperature (°C)	17.88	17.62

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	245.03	250.91	245.07	20.04	1059	106.93	993.41
4	558	204.88	209.84	204.89	21.45	1101	106.68	993.66
3	346	112.55	121.46	112.60	20.59	1103	98.57	1001.77
2	252	71.77	80.50	71.79	20.23	1105	99.07	1001.27
1	172	36.98	47.75	36.98	19.12	1107	94.62	1005.72

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: 2/18/09 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: partly cloudy and cool

Ambient Readings	Start	Finish
Time	0835	0847
Pressure (psia)	14.19	14.22
Temperature (°C)	18.67	19.87

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	145.78	201.76	145.77	20.15	837		
							80.28	1002.56
4	392	93.14	149.41	93.15	20.98	839		
							80.05	1002.79
3	322	62.68	119.48	62.68	21.03	841		
							79.10	1003.74
2	240	26.91	83.95	26.92	20.85	843		
							79.06	1003.78
1	150	14.30	15.72	14.28	20.37	845		
							146.47	936.37

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: 2/18/09 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: partly cloudy and cool

Ambient Readings	Start	Finish
Time	1024	1038
Pressure (psia)	14.17	14.22
Temperature (°C)	20.50	17.94

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	236.41	227.42	236.44	19.33	1026	147.03	992.27
4	524	186.95	185.50	186.97	20.70	1028	128.74	1010.56
3	429	146.11	142.87	146.10	20.44	1030	132.09	1007.21
2	259	72.45	70.63	72.46	19.35	1032	128.75	1010.55
1	149	25.14	30.66	25.13	18.56	1034	110.96	1028.34

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: 2/18/09 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: partly cloudy and cool

Ambient Readings	Start	Finish
Time	1339	1350
Pressure (psia)	14.18	14.18
Temperature (°C)	19.69	18.06

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	548	216.91	205.61	216.94	20.82	1342	106.37	995.77
4	436	168.24	160.36	168.26	21.24	1344	98.76	1003.38
3	323	119.09	111.82	119.10	20.23	1346	97.74	1004.40
2	243	84.24	77.50	84.24	18.97	1348	96.92	1005.22
1	140	39.27	37.71	39.31	18.38	1349	85.72	1016.42

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: 2/18/09 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: partly cloudy and cool

Ambient Readings	Start	Finish
Time	0857	0911
Pressure (psia)	14.18	14.14
Temperature (°C)	18.81	19.26

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	187.41	181.02	187.42	70.00	859	155.10	1018.37
4	456	150.92	144.63	150.90	20.55	902	155.05	1018.42
3	382	118.58	112.50	118.68	20.40	904	155.18	1018.29
2	277	73.97	66.74	73.96	19.95	906	155.74	1017.73
1	207	42.45	36.44	42.47	19.57	908	155.65	1017.82

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: 2/18/09 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: partly cloudy and cool

Ambient Readings	Start	Finish
Time	1145	1155
Pressure (psia)	14.15	14.20
Temperature (°C)	16.18	16.38

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	243.91	241.75	243.91	18.12	1148	200.93	990.28
4	582	181.62	177.91	181.59	18.88	1150	204.21	987.00
3	468	132.17	125.82	132.21	18.53	1151	210.38	980.83
2	370	89.58	87.59	89.61	17.47	1153	200.57	990.64
1	250	37.42	35.95	37.42	16.93	1154	199.71	991.50

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: 2/18/09 Serial No.: _____
 Personnel: Chase Brogdon, Andrew Wells
 Datum: TOC Casing Size/Type: 1.5" Westbay
 Elevation of Datum (Ft. + MSL): 1,225.41

Note: partly cloudy and cool

Ambient Readings	Start	Finish
Time	1204	1216
Pressure (psia)	14.13	14.16
Temperature (°C)	16.18	16.92

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	157.84	205.71	157.86	18.56	1207		
								242.02
4	564	105.66	154.14	105.69	19.81	1211		
								241.00
3	424	44.81	96.66	44.82	19.33	1212		
								233.60
2	330	14.33	54.29	14.34	17.73	1214		
								237.35
1	270	14.28	27.55	14.28	17.30	1215		
								239.04

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: 2/18/09 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: partly cloudy and cool

Ambient Readings	Start	Finish
Time	1130	1137
Pressure (psia)	14.19	14.22
Temperature (°C)	17.03	16.95

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	172.26	164.16	172.28	17.63	1132	152.02	990.92
4	444	148.86	140.79	148.85	18.13	1133	151.93	991.01
3	392	126.31	119.15	126.32	18.40	1134	149.86	993.08
2	314	92.48	84.87	92.47	18.51	1134	150.94	992.00
1	242	61.20	53.51	61.18	18.16	1135	151.29	991.65

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: 2/18/09 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: partly cloudy and cool

Ambient Readings	Start	Finish
Time	1225	1236
Pressure (psia)	14.13	14.18
Temperature (°C)	16.62	17.54

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	322.17	324.52	322.17	19.66	1229			
								183.93	981.12
4	700	235.46	237.85	235.55	21.16	1230			
								183.88	981.17
3	562	175.70	174.75	175.76	20.81	1232			
								191.45	973.60
2	392	102.05	102.38	102.06	19.53	1233			
								188.41	976.64
1	230	31.58	31.85	31.63	18.13	1235			
								189.12	975.93

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: 2/18/09 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: partly cloudy and cool

Ambient Readings	Start	Finish
Time	0923	0935
Pressure (psia)	14.22	14.24
Temperature (°C)	18.33	18.34

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	126.21	154.50	126.24	19.13	925	48.37	1010.73
4	310	99.26	127.65	99.23	19.66	927	48.32	1010.78
3	240	69.27	97.66	69.23	19.62	929	47.50	1011.60
2	161	34.81	63.32	34.79	19.29	931	47.73	1011.37
1	90	14.29	31.57	14.28	18.97	933	49.97	1009.13

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: 2/18/09 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: partly cloudy and cool

Ambient Readings	Start	Finish
Time	0804	0816
Pressure (psia)	14.14	14.17
Temperature (°C)	18.57	20.29

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	201.52	195.04	201.55	21.74	806	170.66	1006.32
4	467	149.11	143.99	149.12	20.81	808	167.44	1009.54
3	389	115.25	111.74	115.31	21.62	810	163.84	1013.14
2	329	89.29	85.59	89.29	21.37	812	164.16	1012.82
1	245	52.36	47.94	52.36	20.83	814	167.02	1009.96

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: 2/18/09 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: partly cloudy and cool

Ambient Readings	Start	Finish
Time	0739	0751
Pressure (psia)	14.19	14.20
Temperature (°C)	19.14	19.93

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	204.60	204.19	204.61	20.60	741	103.67	1005.17
4	445	162.59	162.36	162.61	21.00	743	103.17	1005.67
3	319	108.05	109.28	108.03	20.98	745	99.63	1009.21
2	254	79.83	80.90	79.82	20.72	747	100.10	1008.74
1	174	45.09	46.22	45.07	20.32	749	100.11	1008.73

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: 2/18/09 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: partly cloudy and cool

Ambient Readings	Start	Finish
Time	0957	1010
Pressure (psia)	14.14	14.17
Temperature (°C)	17.30	21.19

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	233.97	221.13	233.95	19.78	959	200.47	1000.47
4	554	179.28	169.07	179.28	20.92	1001	196.58	1004.36
3	435	127.71	118.93	127.73	21.30	1003	193.25	1007.69
2	373	100.85	91.97	100.87	21.34	1005	193.45	1007.49
1	279	60.10	51.79	60.10	21.17	1007	192.14	1008.80

INSIGHT, Inc.

Piezometric Pressures/Levels

Field Data Sheet for Multi-Port Monitoring Wells

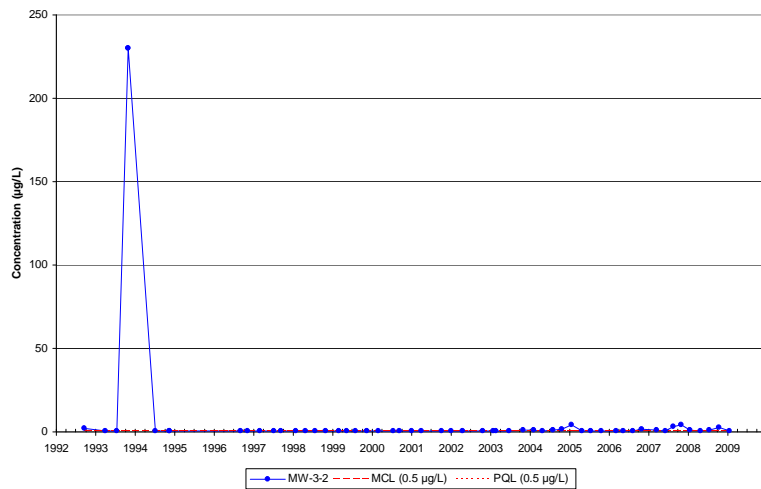
Project Name: JPL Pasadena Well ID: MW-25
 Project No: 4-73805 Probe Type: Westbay
 Date: 2/18/09 Serial No.: 2508
 Personnel: Chase Brogdon, Andrew Wells
 Datum: TOC Casing Size/Type: 1.5" Westbay
 Elevation of Datum (ft. + MSL): 934.52

Weather: partly cloudy and cool

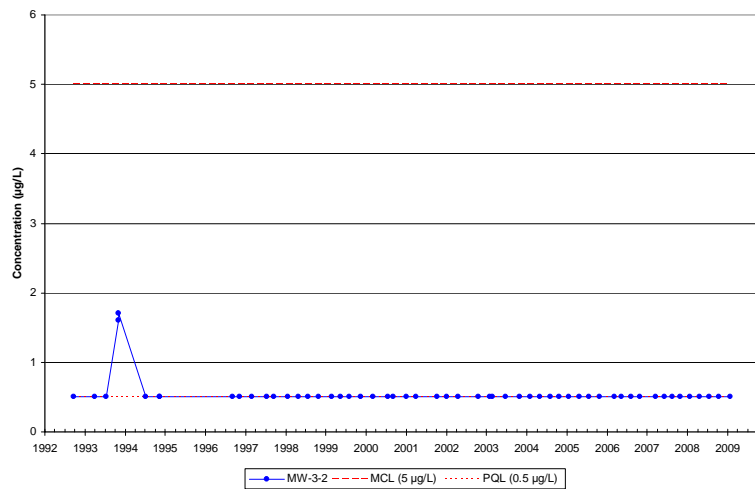
Ambient Readings	Start	Finish
Time	1249	1302
Pressure (psia)	14.27	14.29
Temperature (°C)	17.80	19.77

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	203.91	209.53	203.93	20.11	1253	262.54	671.98
4	633	169.41	175.44	169.49	20.96	1254	261.18	673.34
3	503	113.21	119.81	113.20	20.87	1257	259.52	675.00
2	423	78.46	86.07	78.45	20.55	1259	257.36	677.16
1	358	50.17	58.74	50.18	20.02	1301	255.41	679.11

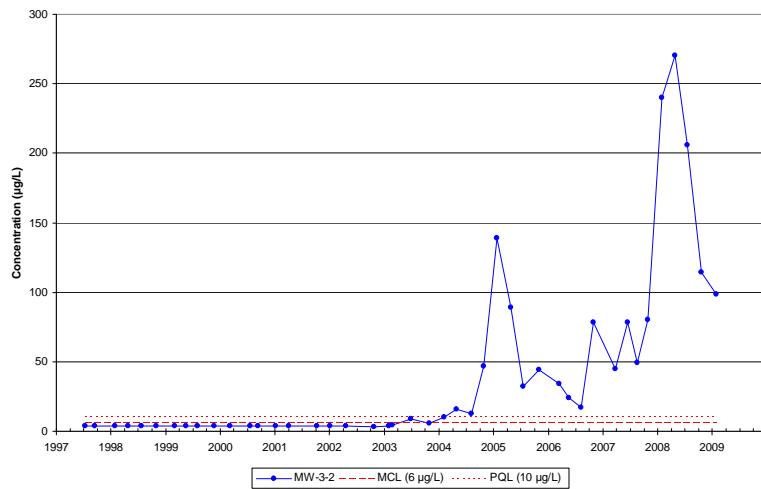
MW-3-2 Carbon tetrachloride Concentrations 1992 to Present



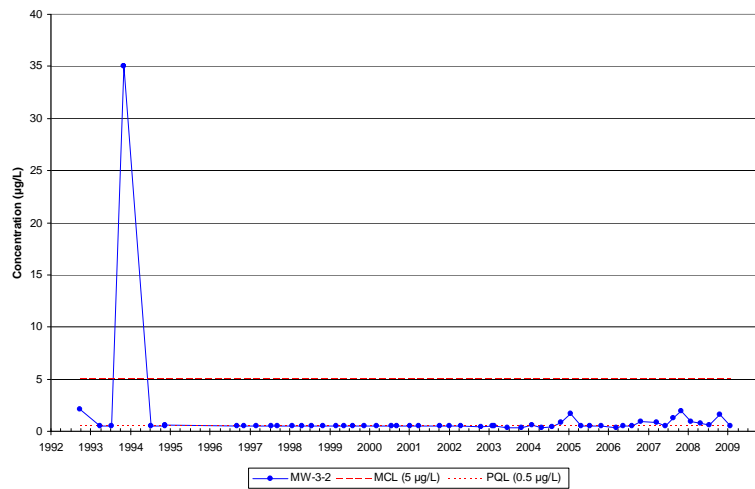
MW-3-2 Tetrachloroethene (PCE) Concentrations 1992 to Present



MW-3-2 Perchlorate Concentrations 1997 to Present

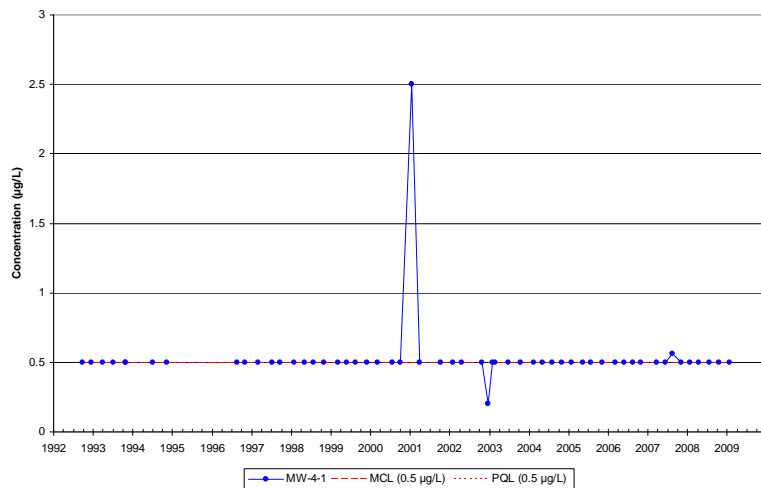


MW-3-2 Trichloroethene (TCE) Concentrations 1992 to Present

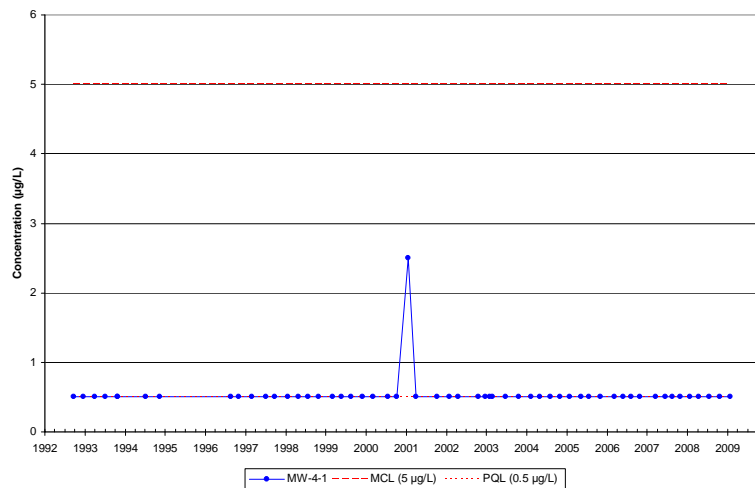


VOCs and Perchlorate Time Series Plots for MW-3-2

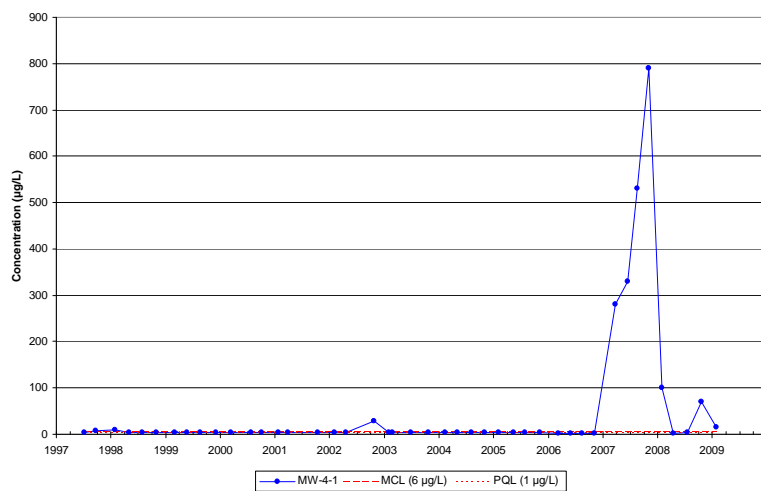
MW-4-1 Carbon tetrachloride Concentrations 1992 to Present



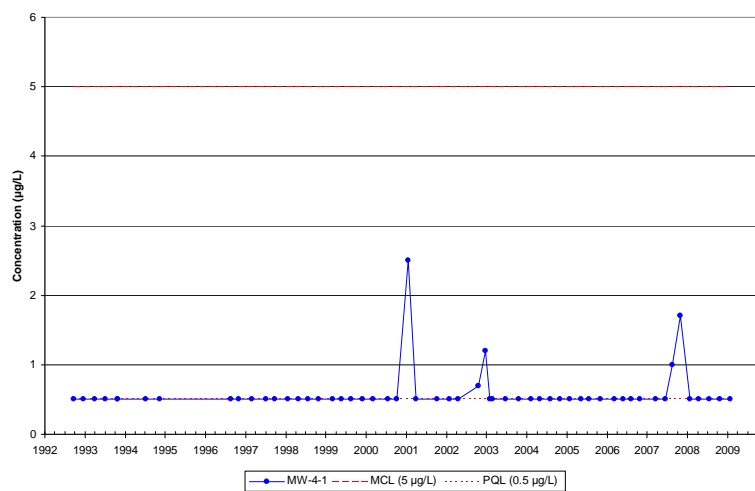
MW-4-1 Tetrachloroethene (PCE) Concentrations 1992 to Present



MW-4-1 Perchlorate Concentrations 1997 to Present

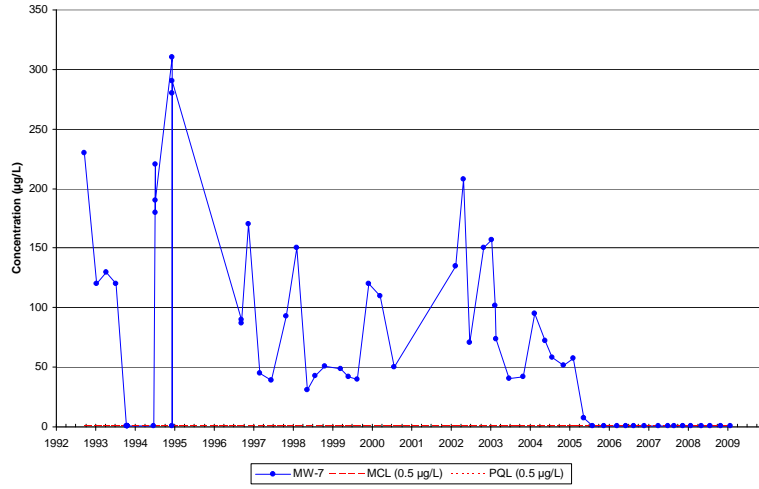


MW-4-1 Trichloroethene (TCE) Concentrations 1992 to Present

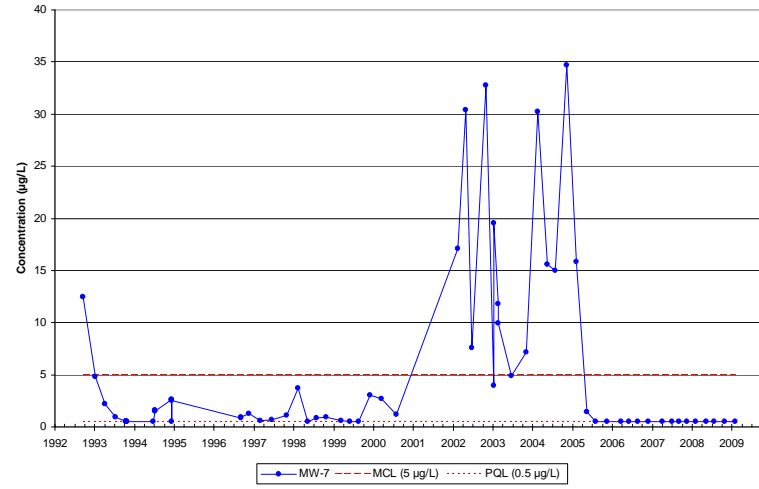


VOCs and Perchlorate Time Series Plots for MW-4-1

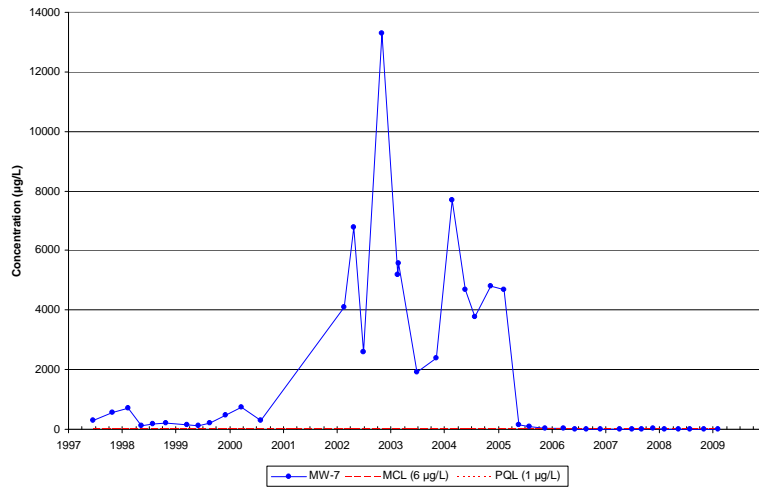
MW-7 Carbon tetrachloride Concentrations 1992 to Present



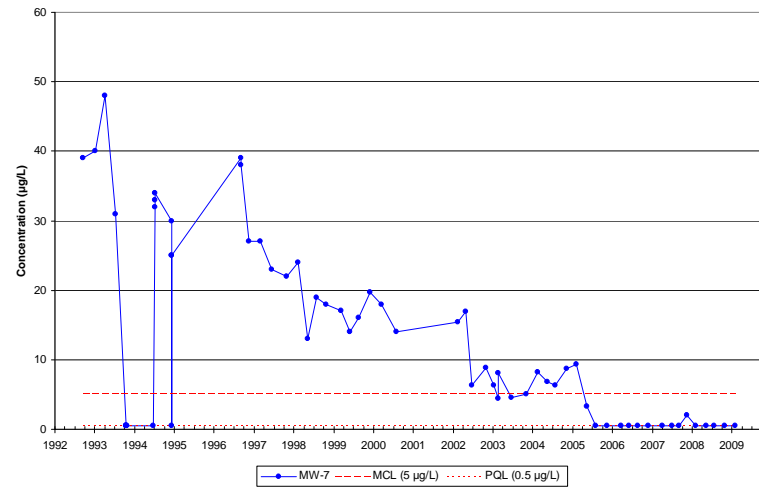
MW-7 Tetrachloroethene (PCE) Concentrations 1992 to Present



MW-7 Perchlorate Concentrations 1997 to Present

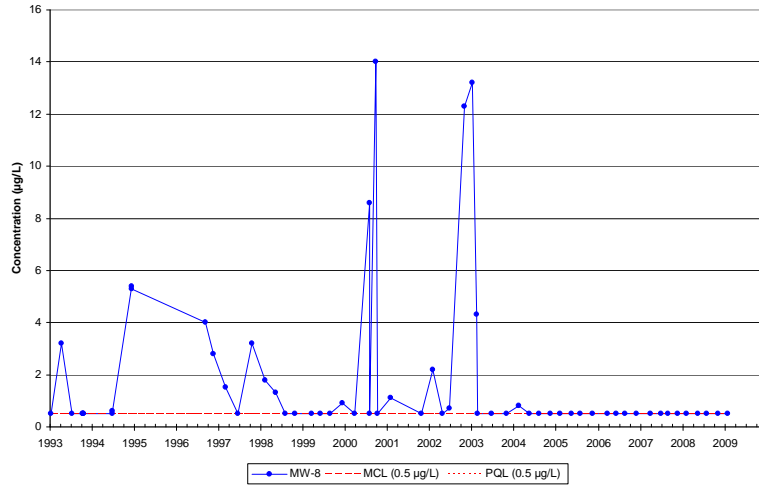


MW-7 Trichloroethene (TCE) Concentrations 1992 to Present

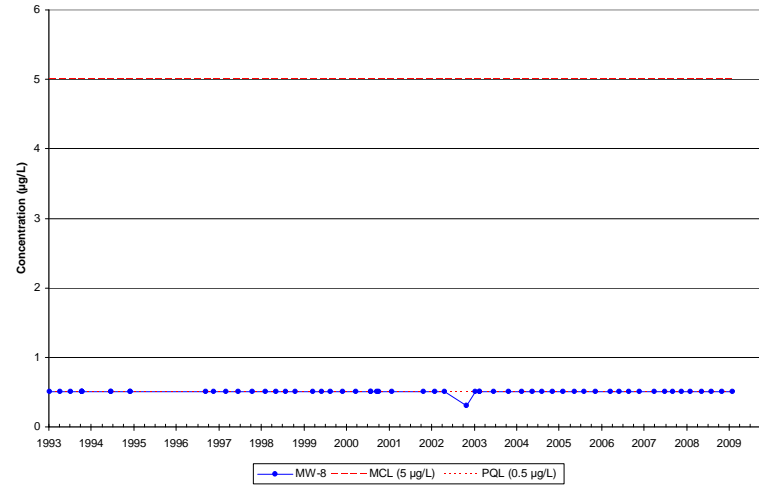


VOCs and Perchlorate Time Series Plots for MW-7

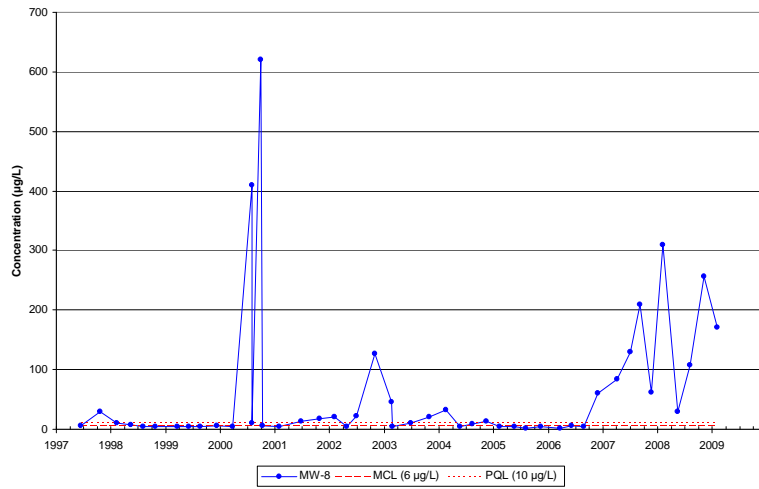
MW-8 Carbon tetrachloride Concentrations 1993 to Present



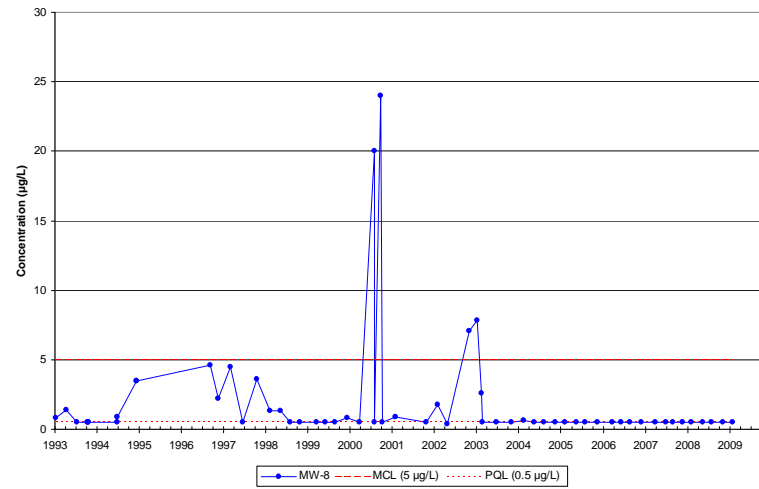
MW-8 Tetrachloroethene (PCE) Concentrations 1993 to Present



MW-8 Perchlorate Concentrations 1997 to Present

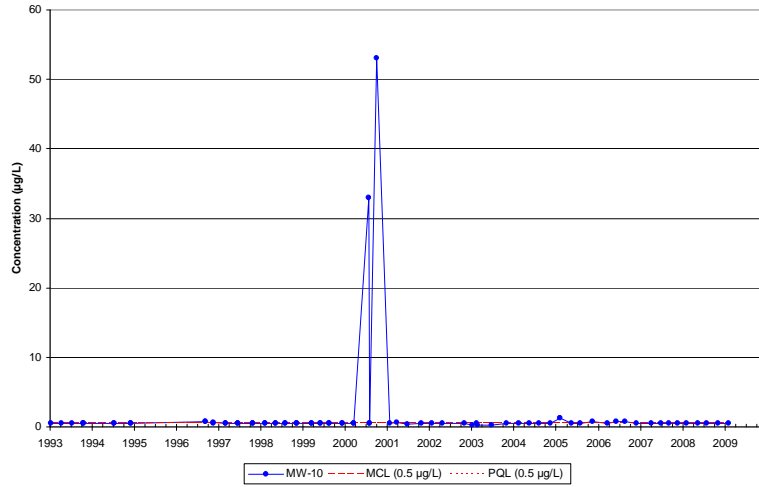


MW-8 Trichloroethene (TCE) Concentrations 1993 to Present

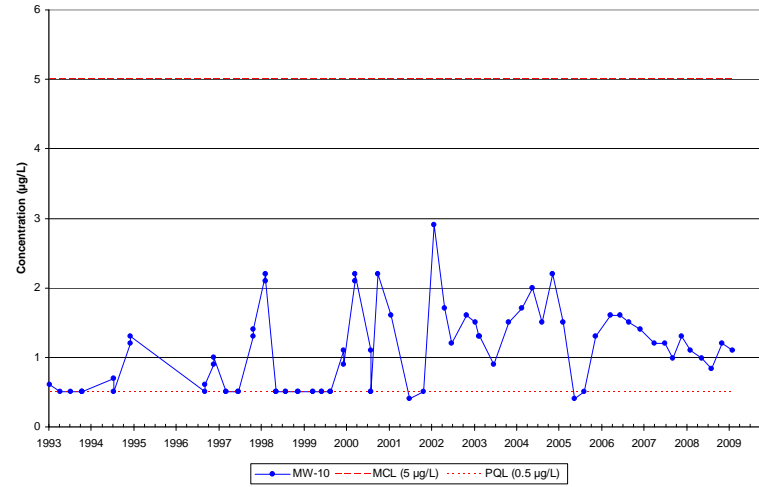


VOCs and Perchlorate Time Series Plots for MW-8

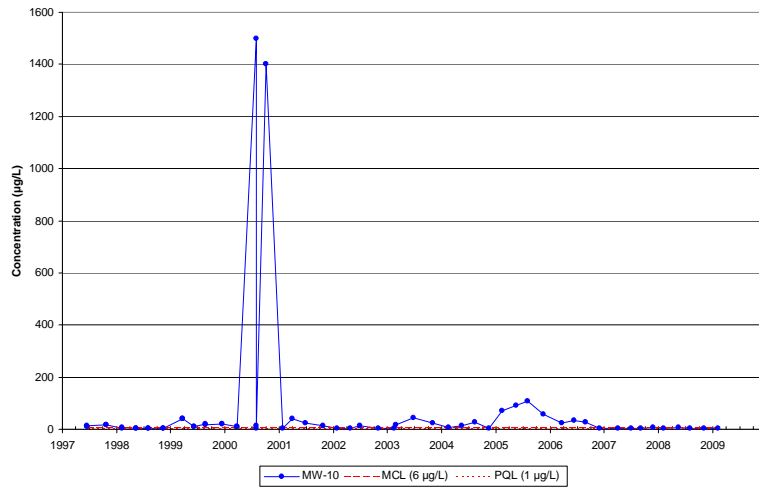
MW-10 Carbon tetrachloride Concentrations 1993 to Present



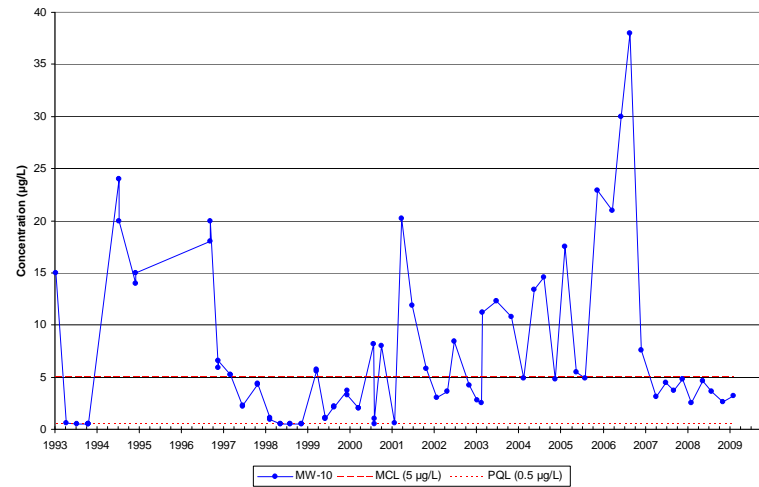
MW-10 Tetrachloroethene (PCE) Concentrations 1993 to Present



MW-10 Perchlorate Concentrations 1997 to Present

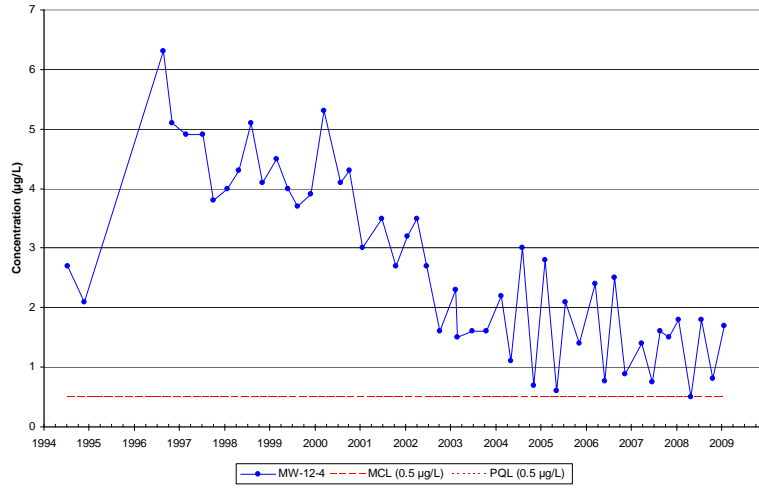


MW-10 Trichloroethene (TCE) Concentrations 1993 to Present

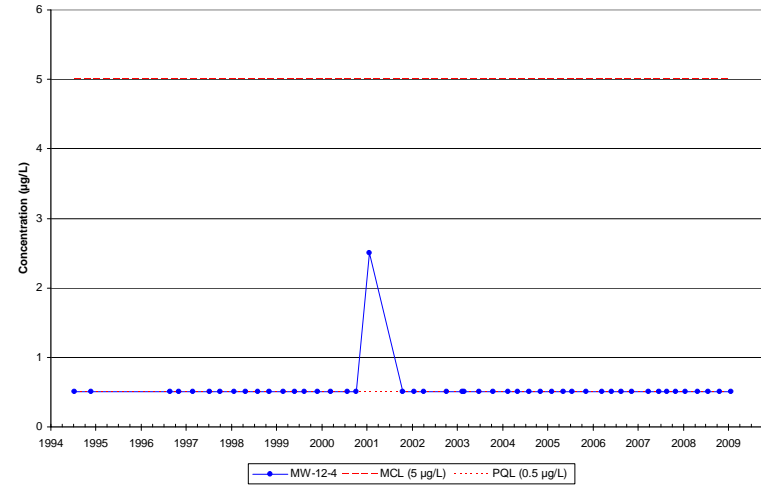


VOCs and Perchlorate Time Series Plots for MW-10

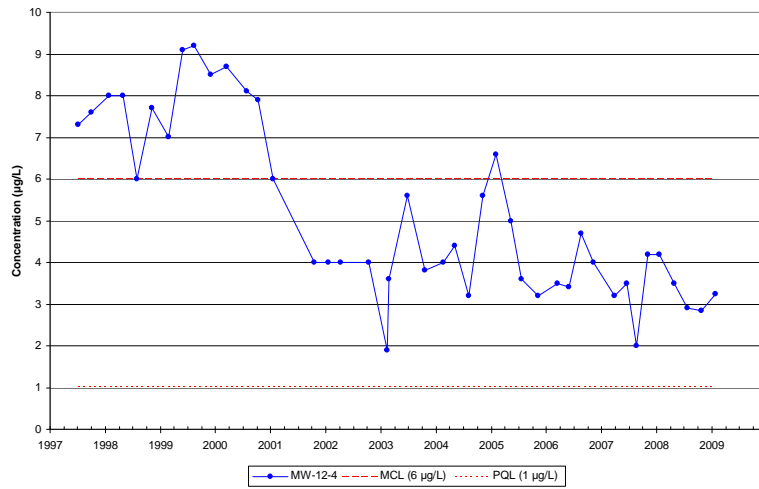
MW-12-4 Carbon tetrachloride Concentrations 1994 to Present



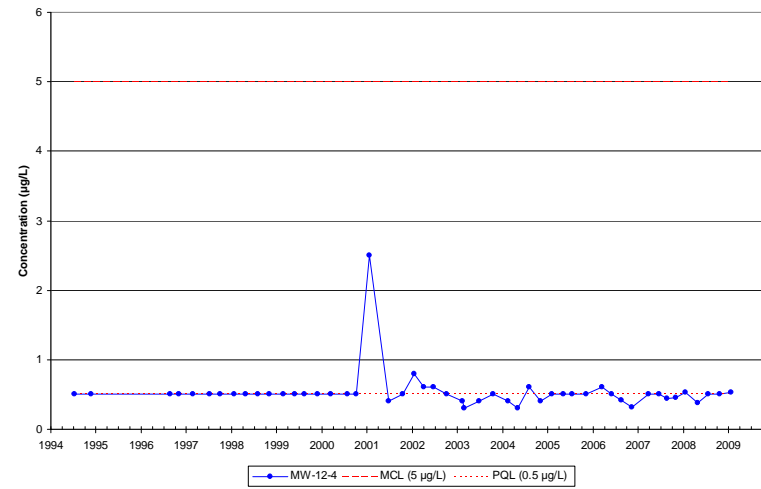
MW-12-4 Tetrachloroethene (PCE) Concentrations 1994 to Present



MW-12-4 Perchlorate Concentrations 1997 to Present

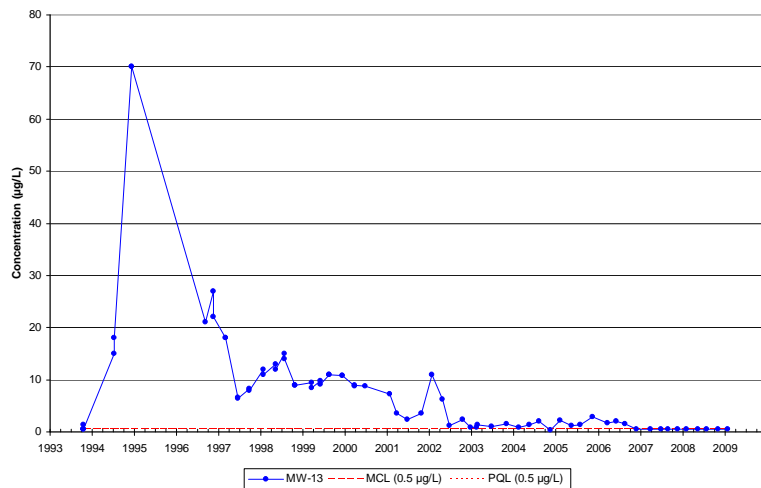


MW-12-4 Trichloroethene (TCE) Concentrations 1994 to Present

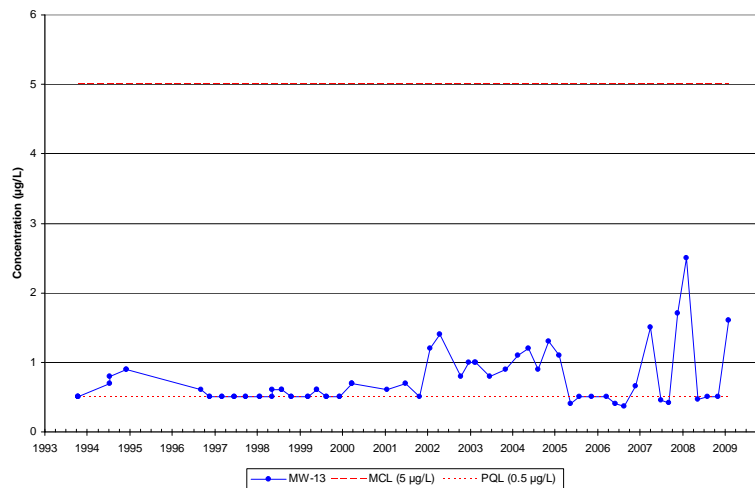


VOCs and Perchlorate Time Series Plots for MW-12-4

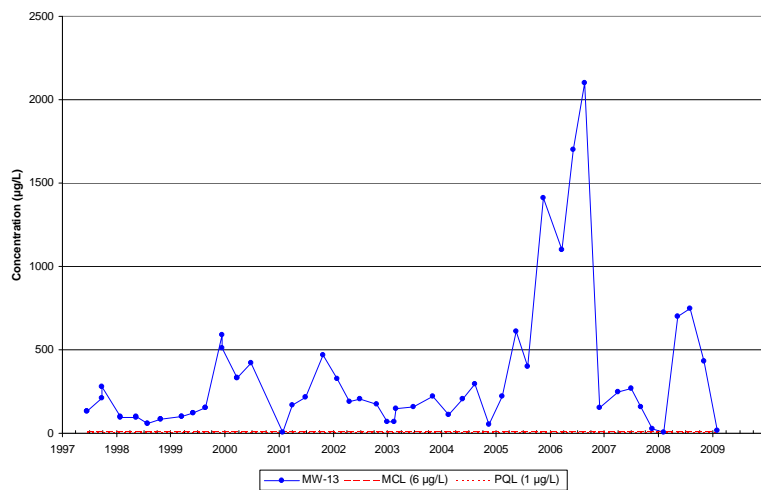
MW-13 Carbon tetrachloride Concentrations 1993 to Present



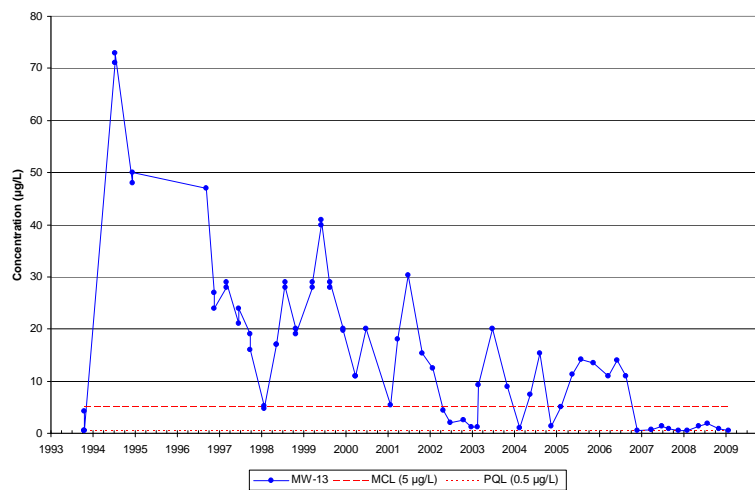
MW-13 Tetrachloroethene (PCE) Concentrations 1993 to Present



MW-13 Perchlorate Concentrations 1997 to Present

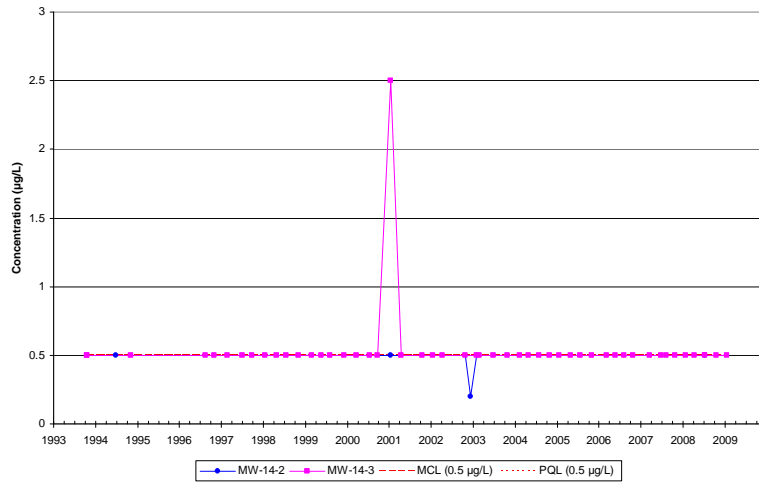


MW-13 Trichloroethene (TCE) Concentrations 1993 to Present

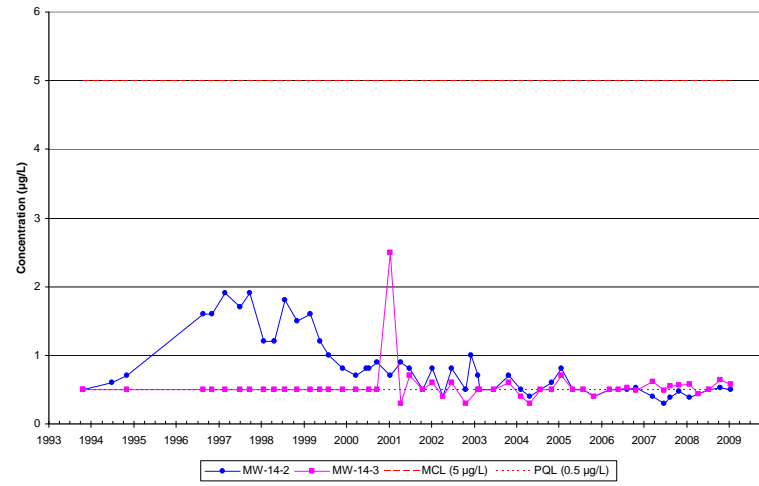


VOCs and Perchlorate Time Series Plots for MW-13

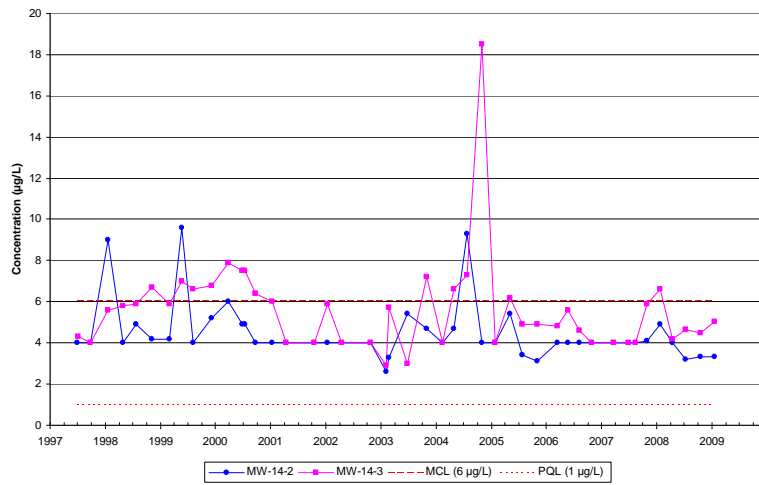
MW-14-2 and MW-14-3 Carbon tetrachloride Concentrations 1993 to Present



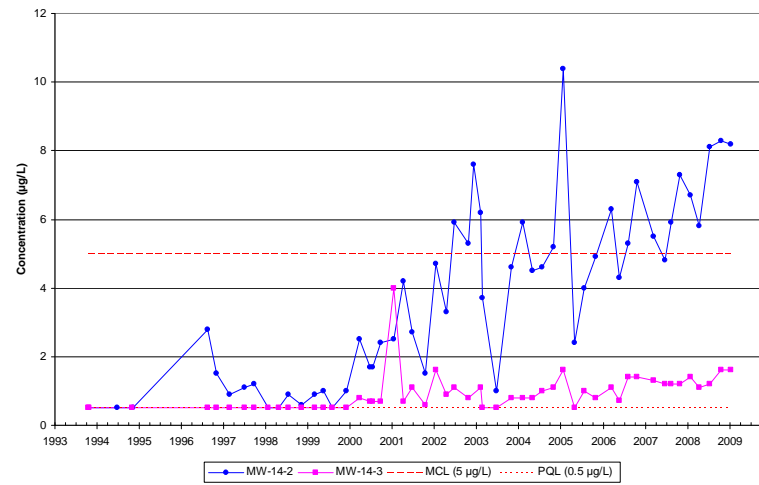
MW-14-2 and MW-14-3 Tetrachloroethene (PCE) Concentrations 1993 to Present



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

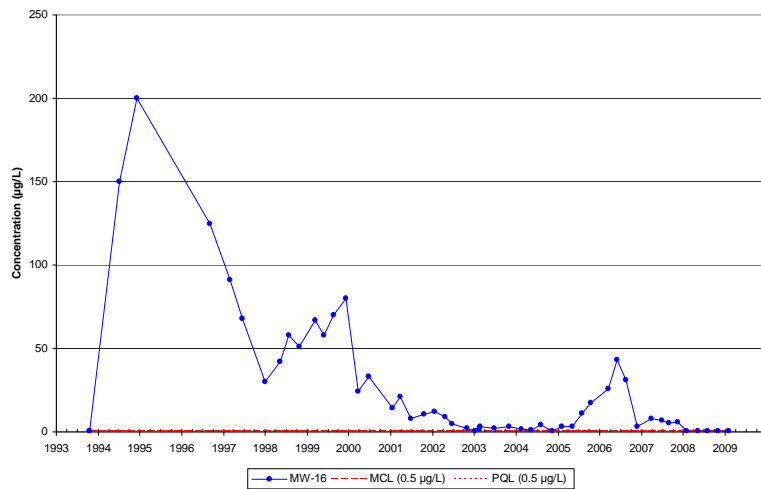


MW-14-2 and MW-14-3 Trichloroethene (TCE) Concentrations 1993 to Present

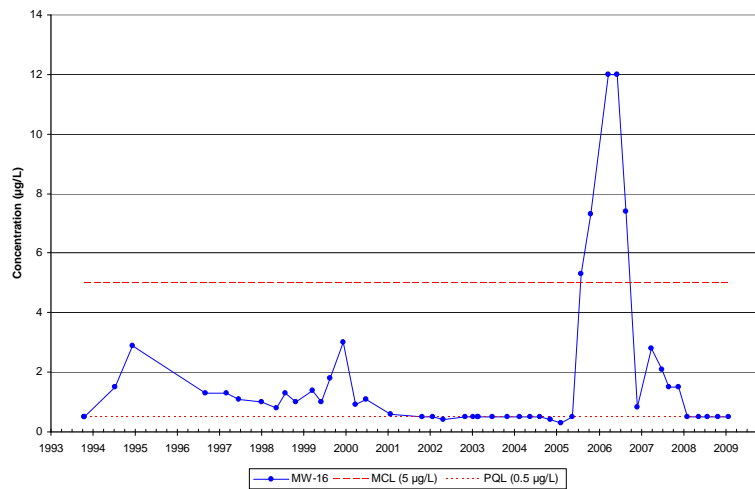


VOCs and Perchlorate Time Series Plots for MW-14-2 and MW-14-3

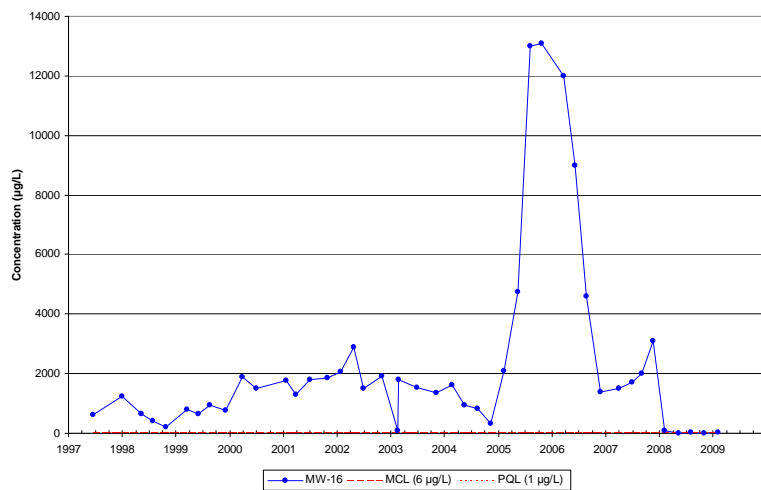
MW-16 Carbon tetrachloride Concentrations 1993 to Present



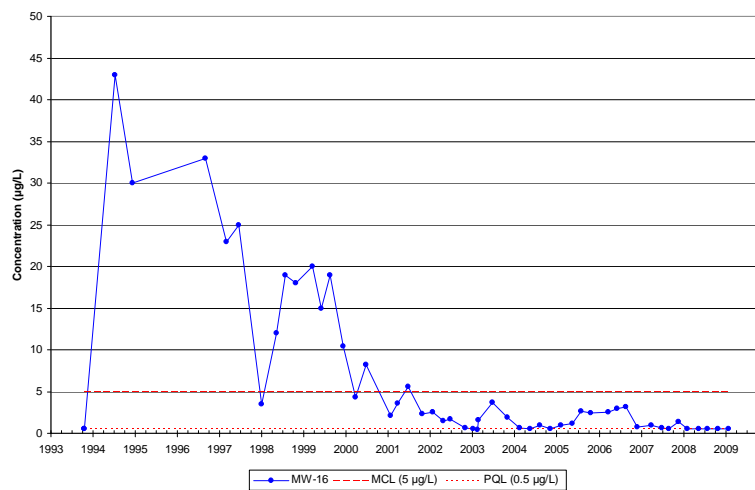
MW-16 Tetrachloroethene (PCE) Concentrations 1993 to Present



MW-16 Perchlorate Concentrations 1997 to Present

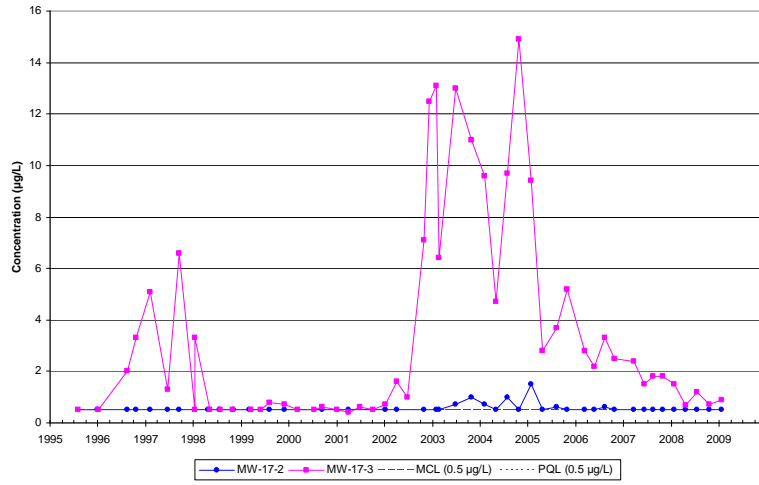


MW-16 Trichloroethene (TCE) Concentrations 1993 to Present

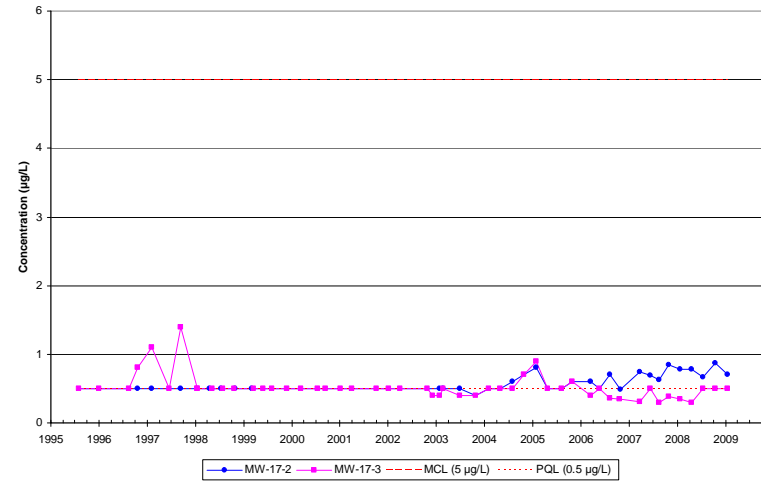


VOCs and Perchlorate Time Series Plots for MW-16

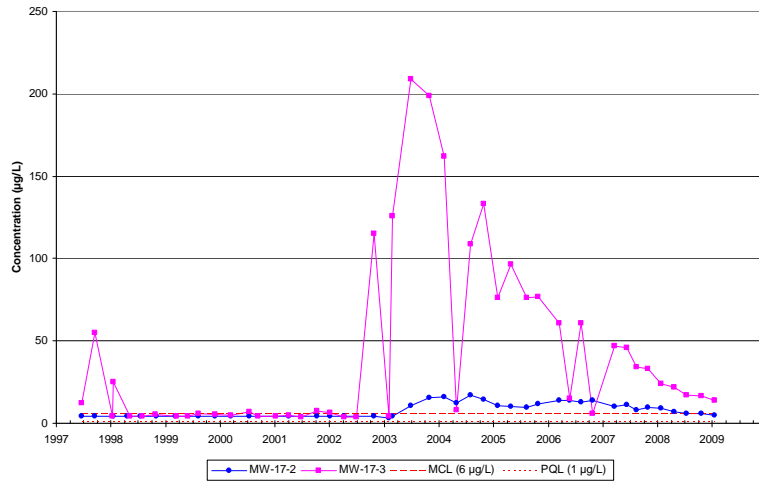
MW-17-2 and MW-17-3 Carbon tetrachloride Concentrations 1995 to Present



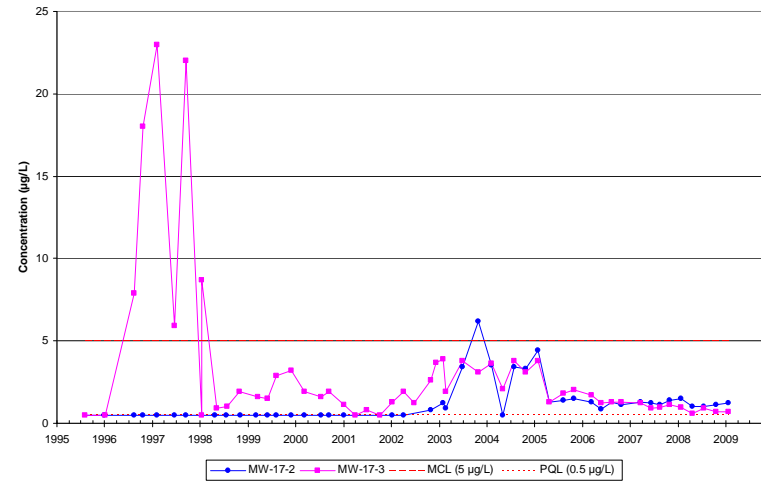
MW-17-2 and MW-17-3 Tetrachloroethene (PCE) Concentrations 1995 to Present



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

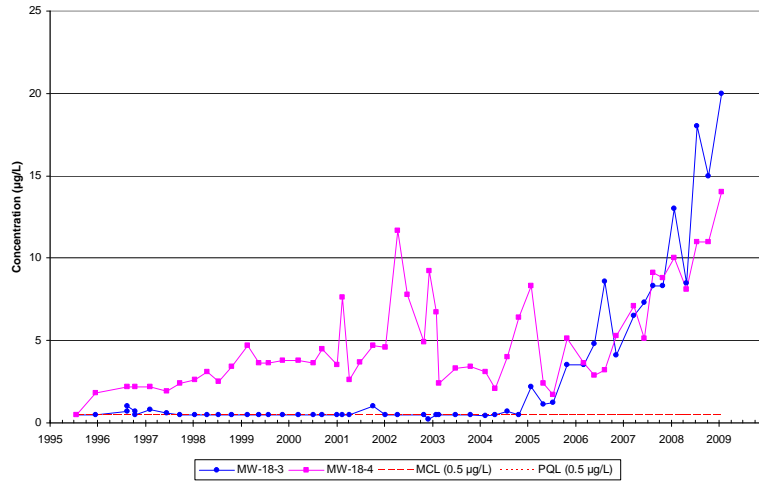


MW-17-2 and MW-17-3 Trichloroethene (TCE) Concentrations 1995 to Present

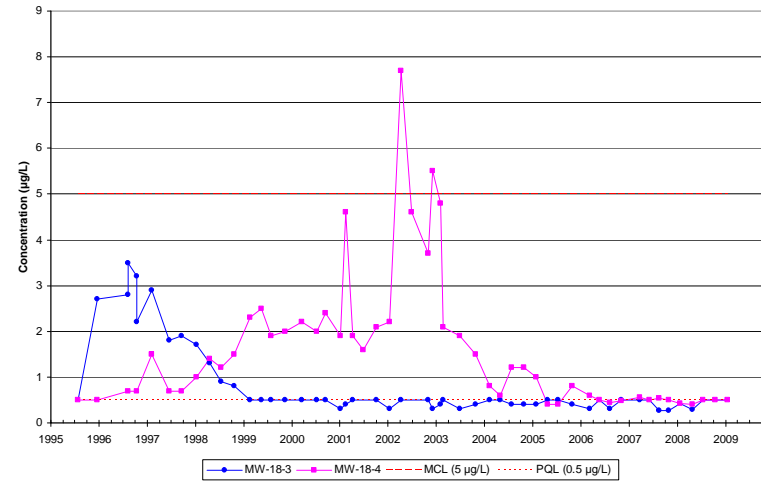


VOCs and Perchlorate Time Series Plots for MW-17-2 and MW-17-3

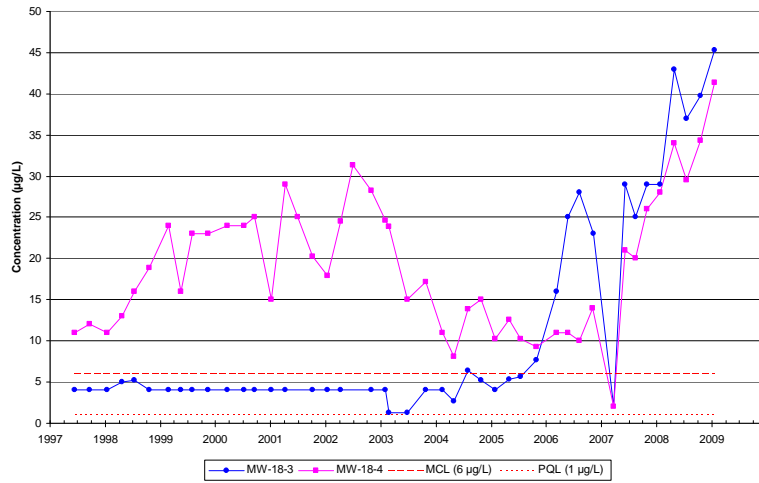
MW-18-3 and MW-18-4 Carbon tetrachloride Concentrations 1995 to Present



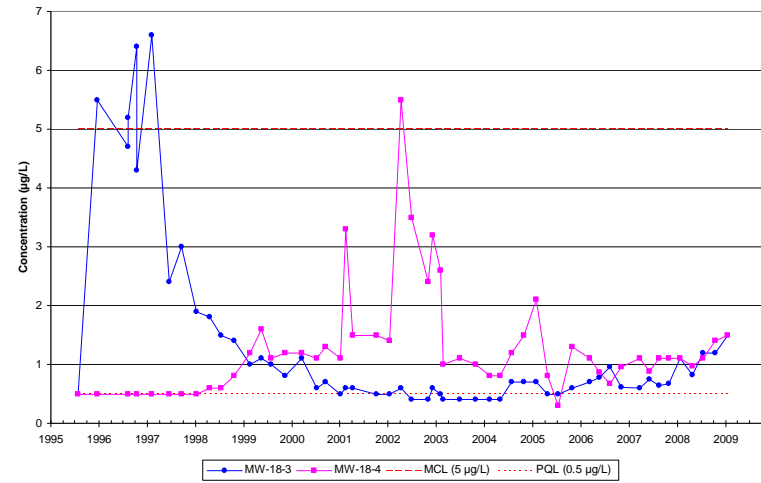
MW-18-3 and MW-18-4 Tetrachloroethene (PCE) Concentrations 1995 to Present



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

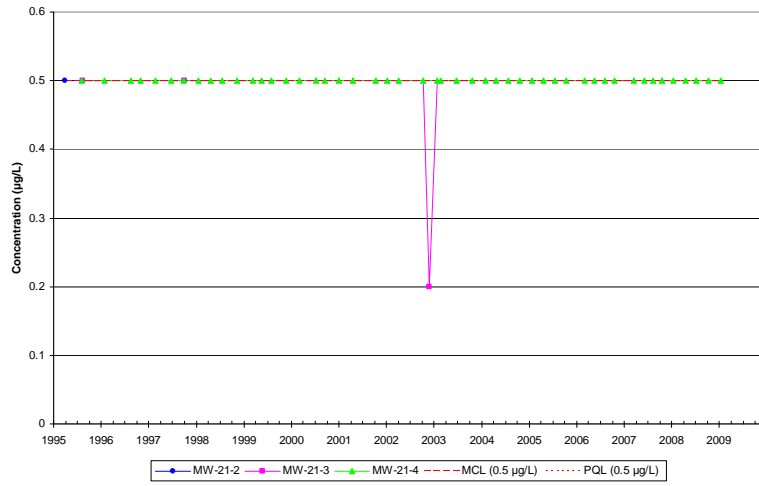


MW-18-3 and MW-18-4 Trichloroethene (TCE) Concentrations 1995 to Present

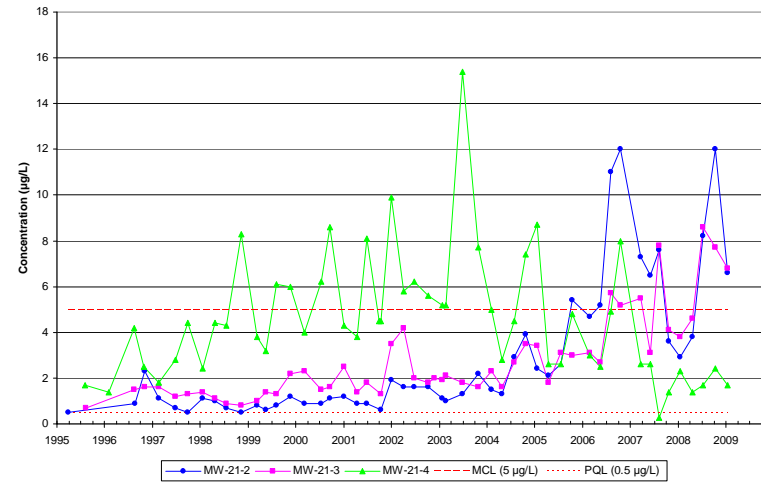


VOCs and Perchlorate Time Series Plots for MW-18-3 and MW-18-4

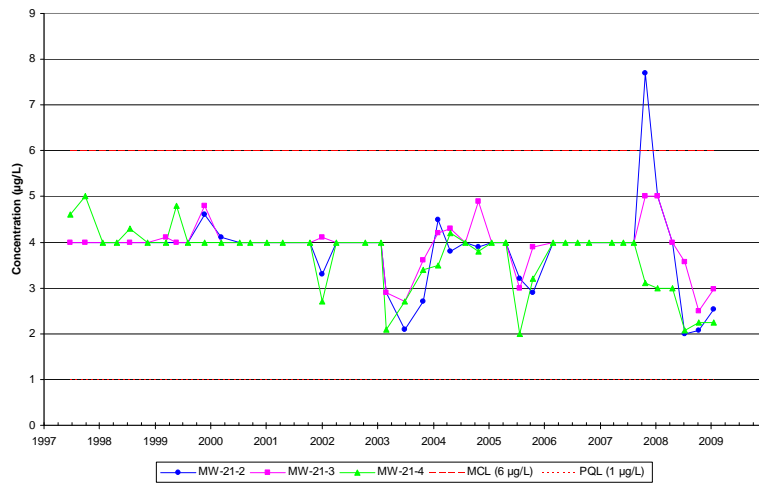
MW-21-2, MW-21-3, and MW-21-4 Carbon tetrachloride Concentrations 1995 to Present



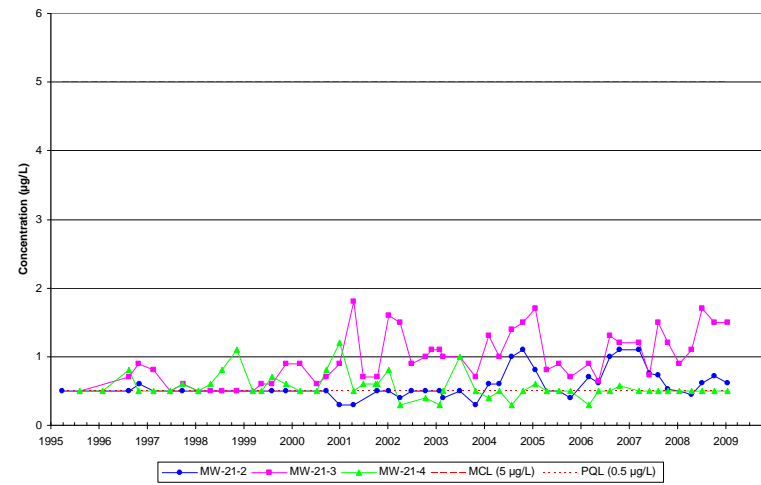
MW-21-2, MW-21-3, and MW-21-4 Tetrachloroethene (PCE) Concentrations 1995 to Present



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

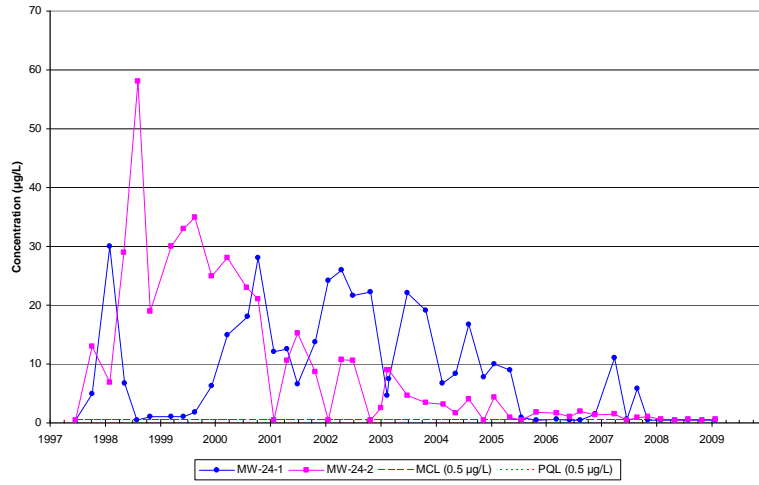


MW-21-2, MW-21-3, and MW-21-4 Trichloroethene (TCE) Concentrations 1995 to Present

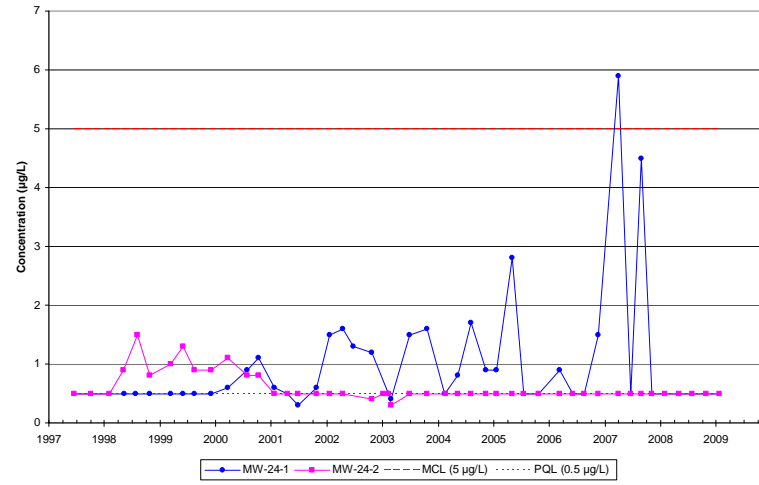


VOCs and Perchlorate Time Series Plots for MW-21-2 and MW-21-3 and MW-21-4

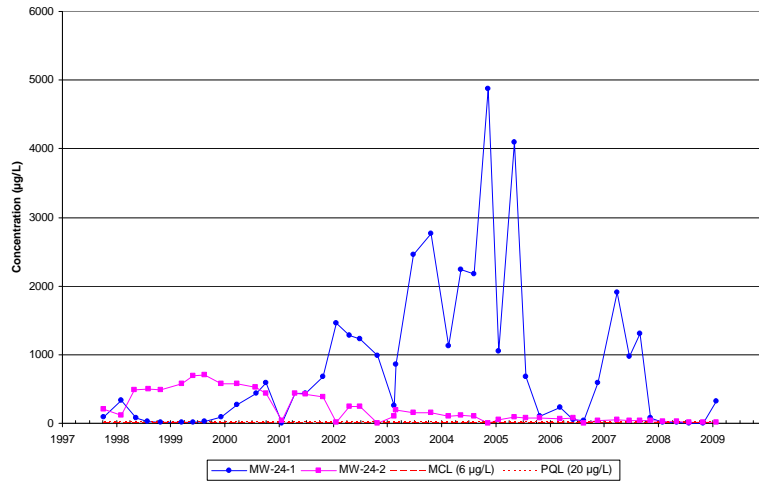
MW-24-1 and MW-24-2 Carbon tetrachloride Concentrations 1997 to Present



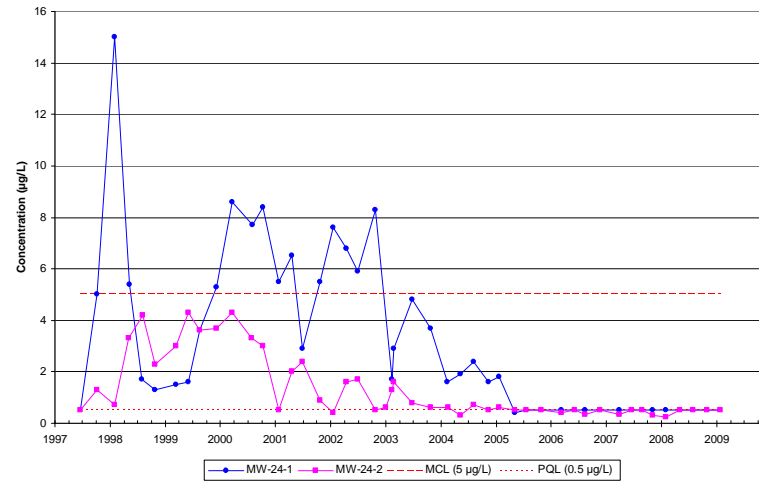
MW-24-1 and MW-24-2 Tetrachloroethene (PCE) Concentrations 1997 to Present



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