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February 20, 2012

Mr. Glenn von Gonten  
Environmental Bureau  
New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

RE: Report of 2011 Groundwater Remediation Activities  
Transwestern Pipeline Company - WT-1 Station Engine Room Drain Pit Area  
Lea County, New Mexico  
Case #AP-105 (formerly GW-109R)

Dear Glenn,

The enclosed Report of 2011 Groundwater Remediation Activities is submitted for your review and files.

If you have any questions or comments regarding this report, please contact me at (281) 797-3420 or Larry Campbell at (575) 625-8022.

Sincerely,

George Robinson

George C. Robinson, PE  
President/Principal Engineer

xc w/attachment: Richard Spell Transwestern Pipeline Company  
Larry Campbell Transwestern Pipeline Company  
Geoffrey R Liking NMOCD Hobbs District Office

# **Report of 2011 Groundwater Remediation Activities**

**Transwestern Pipeline Company  
WT-1 Compressor Station  
Engine Room Drain Pit Area  
Lea County, New Mexico**

**Case # GW-109R**

**Submitted to:  
New Mexico Oil Conservation Division**

**February 8, 2012**

Prepared For:  
**Transwestern Pipeline Company  
6381 North Main Street  
Roswell, NM 88201**

Prepared by:  
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## **1. Introduction**

The last report of groundwater remediation activities covered activities completed through December 2010. This report presents a summary of monitoring activities completed between January 2011 and December 2011.

## **2. Groundwater Monitoring Activities**

### **2.1 Annual Groundwater Sampling Events**

One annual groundwater sampling event was completed during 2011. This event was completed on November 09, 2011.

Prior to sampling, the depth to water, and the depth to hydrocarbon where phase-separated hydrocarbons (PSH) were present, was determined for each monitoring well. The measured depth to water and the corresponding water table elevation for each monitoring well is presented in Table 1. Similar measurements obtained from the remediation wells are presented in Table 2.

Groundwater samples were collected from selected monitoring wells in accordance with the sampling analysis plan. Samples were not collected from wells with accumulated PSH in the well casing. Groundwater samples were delivered to a laboratory for analysis for volatile organic compounds (VOCs) by EPA Method 8260. A summary of field measured groundwater quality parameters (pH, temperature, electrical conductivity and dissolved oxygen) is presented in Table 3. A summary of laboratory results is presented in Table 4. A copy of the laboratory report for this sampling event is included in Appendix D.

### **2.2 Results/Conclusions from Groundwater Sampling Events**

#### ***2.2.1 Occurrence and Direction of Groundwater Flow***

A water table elevation map based on measurements obtained in the course of the November 2011 sampling event is included as Figure 3. The apparent direction of groundwater flow is toward the north and is consistent with water table elevation maps previously developed for this site. A hydrograph for selected monitor wells with no accumulated PSH in the well casing is presented in Appendix A. The depth to water in affected area wells has declined on average by about 2.0 feet since 1995.

#### ***2.2.2 Lateral Extent of Phase Separated Hydrocarbon***

In the course of the November 2011 sampling event, PSH was measured in just one well, monitor well MW-1. PSH had previously been measured in well MW-2, however, in November 2011, the water table had dropped below the total depth of the well and neither PSH nor water was detected in the well. The lateral extent of PSH is further defined by the intermittent occurrence of a sheen of PSH in wells RW-1, RW-2, RW-3, and RW-8. PSH was not present in any of these four wells at the time of the November 2011 sampling event. The estimated lateral extent of PSH at the water table is shown in Figure 4.

A measurable thickness of PSH first appeared in well MW-1 in June 2008. Prior to that, from November 1994 through December 2007, there was no measurable accumulation of PSH in the

well. Since June 2008, the measured accumulation of PSH in well MW-1 has increased from 0.01 feet in June 2008 to 4.25 feet in November 2011. There has been no attempt yet to remove accumulated PSH from well MW-1 in order to evaluate the re-accumulation rate of PSH. A history plot of depth to water and PSH thickness measured in well MW-1 is presented in Appendix B.

### ***2.2.3 Condition of Affected Groundwater***

The primary constituents of concern are Benzene, 1,1-Dichloroethane (11-DCA), 1,1-Dichloroethene (11-DCE), Trichloroethene (TCE), and Total Naphthalene (Total Naphthalene includes Naphthalene, 1-Methylnaphthalene, and 2-Methylnaphthalene). In the course of the November 2011 sampling event, only benzene, 11-DCA, and 11-DCE were measured at concentrations exceeding their respective NMWQCC standard.

The lateral distribution of BTEX constituents in groundwater is presented in Figure 5 for sample results from the November 2011 sampling event. Benzene was measured at a concentration exceeding the NMWQCC standard for benzene of 10 ug/L in samples collected from two wells. The sample from well SVE-1A had a measured benzene concentration of 52 ug/L. Well SVE-1A is located in the immediate vicinity of the release area. The sample from well MW-5 had a measured benzene concentration of 16 ug/L. Well MW-5 is located about 100 feet downgradient of the release area. The estimated area where benzene concentration exceeds the NMWQCC standard of 10 ug/L is approximately 1.0 acres as shown in Figure 5.

The lateral distribution of chlorinated organic constituents (11-DCA, 11-DCE, TCE & PCE) in groundwater is presented in Figure 6. Only 11-DCA and 11-DCE were measured at concentrations exceeding NMWQCC standards of 25 ug/L for 11-DCA and 5 ug/L for 11-DCE. Samples from four wells exceeded the standard for 11-DCA; the highest measured concentration was 410 ug/L in the sample from well SVE-1A. A sample from just one well exceeded the standard for 11-DCE; the measured concentration was 13 ug/L in the sample from well SVE-1A. The estimated area where 11-DCA exceeds the NMWQCC standard of 25 ug/L extends about 350 feet downgradient of the release area and covers an area of approximately 2.6 acres.

In the course of the November 2011 sampling event, Total Naphthalene was not measured above the NMWQCC standard of 30 ug/L, however, the Practical Quantitation Limit (PQL) for the sum of the three Naphthalene compounds was greater than the standard in two samples; these samples were collected from wells MW-5 and SVE-1A. For both samples, the sum of the PQLs was 100 ug/L.

Concentration history plots for monitoring wells are presented in Appendix C. Within the immediate release area, the condition of affected groundwater has not changed significantly from previous sampling events as evidenced by the concentration history plots for wells MW-1 and SVE-1A. Outside of the release area, there has generally been a downward trend of contaminant concentrations, particularly at the two downgradient wells, MW-14 and MW-17. A similar downward trend is evident at the easternmost and westernmost perimeter wells, MW-15 and MW-16.

### **3. Status of Remediation Activities**

#### **3.1 Remediation Activities Completed through December 2011**

There are no ongoing active remediation activities at the site other than the routine annual groundwater monitoring event.

#### **3.2 Remediation Activities Planned for January 2012 through December 2012**

There are no planned remediation activities other than continued groundwater monitoring.

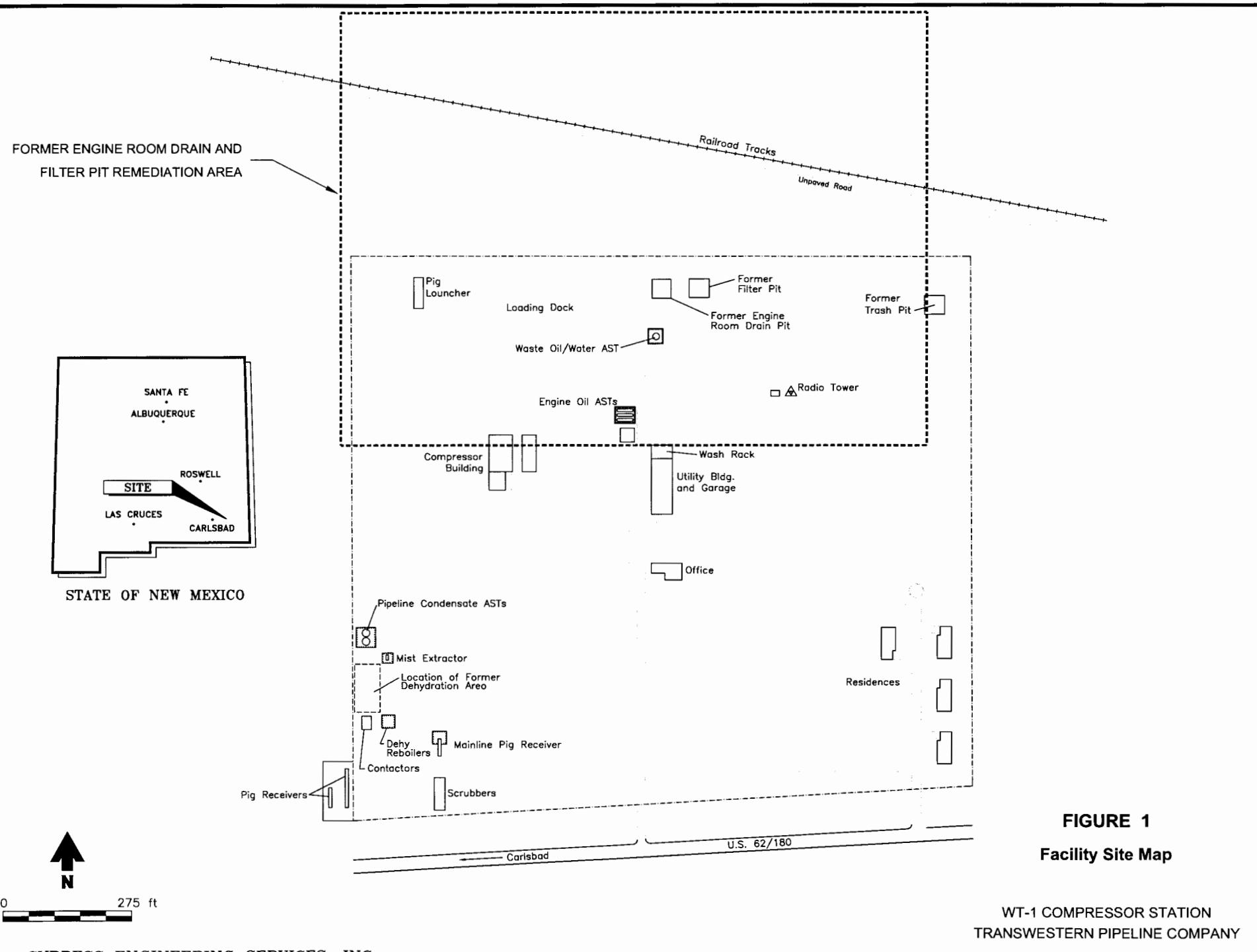
### **4. Proposed Modifications**

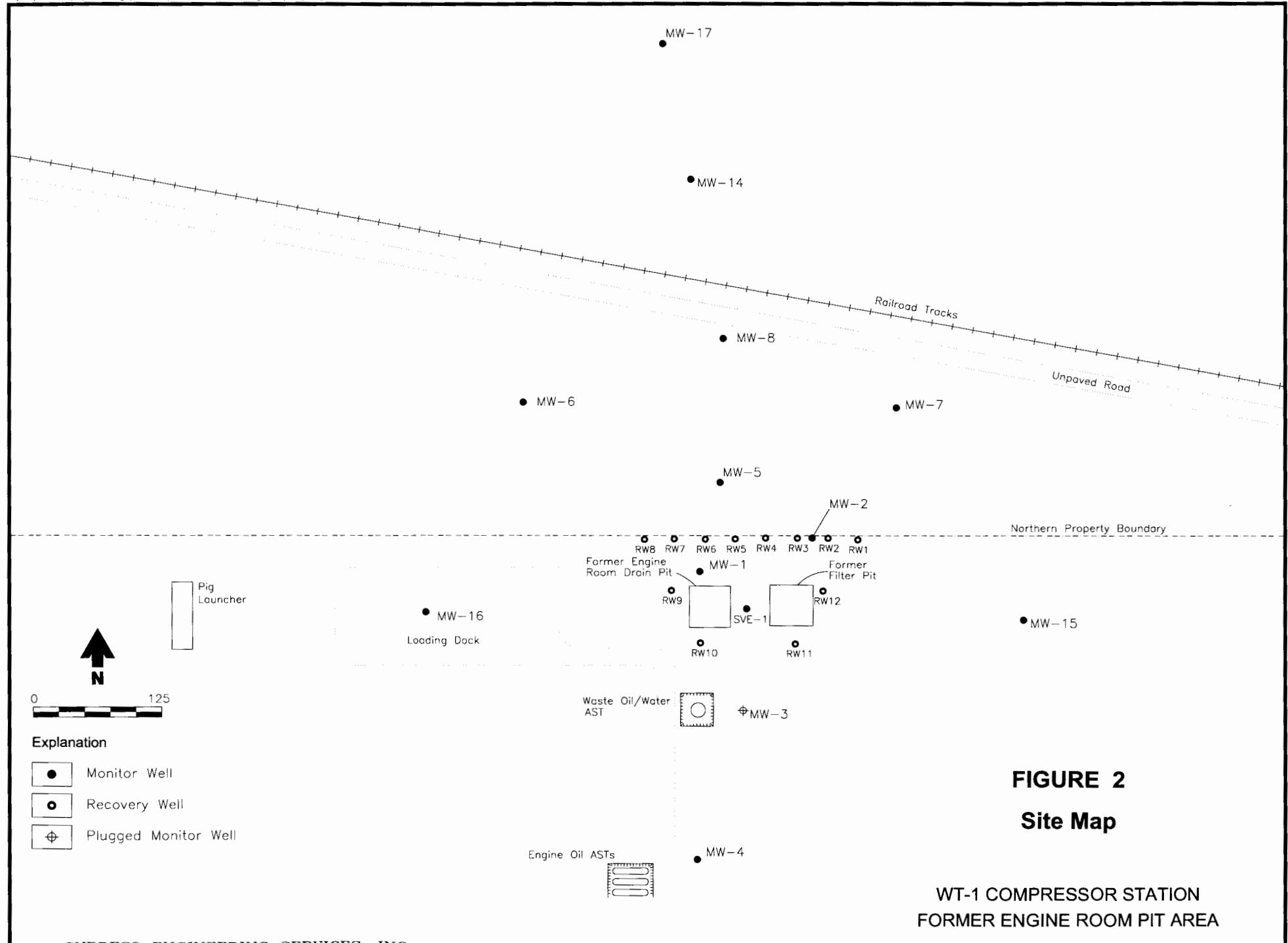
#### **4.1 Modifications to the Routine Groundwater Sampling Plan**

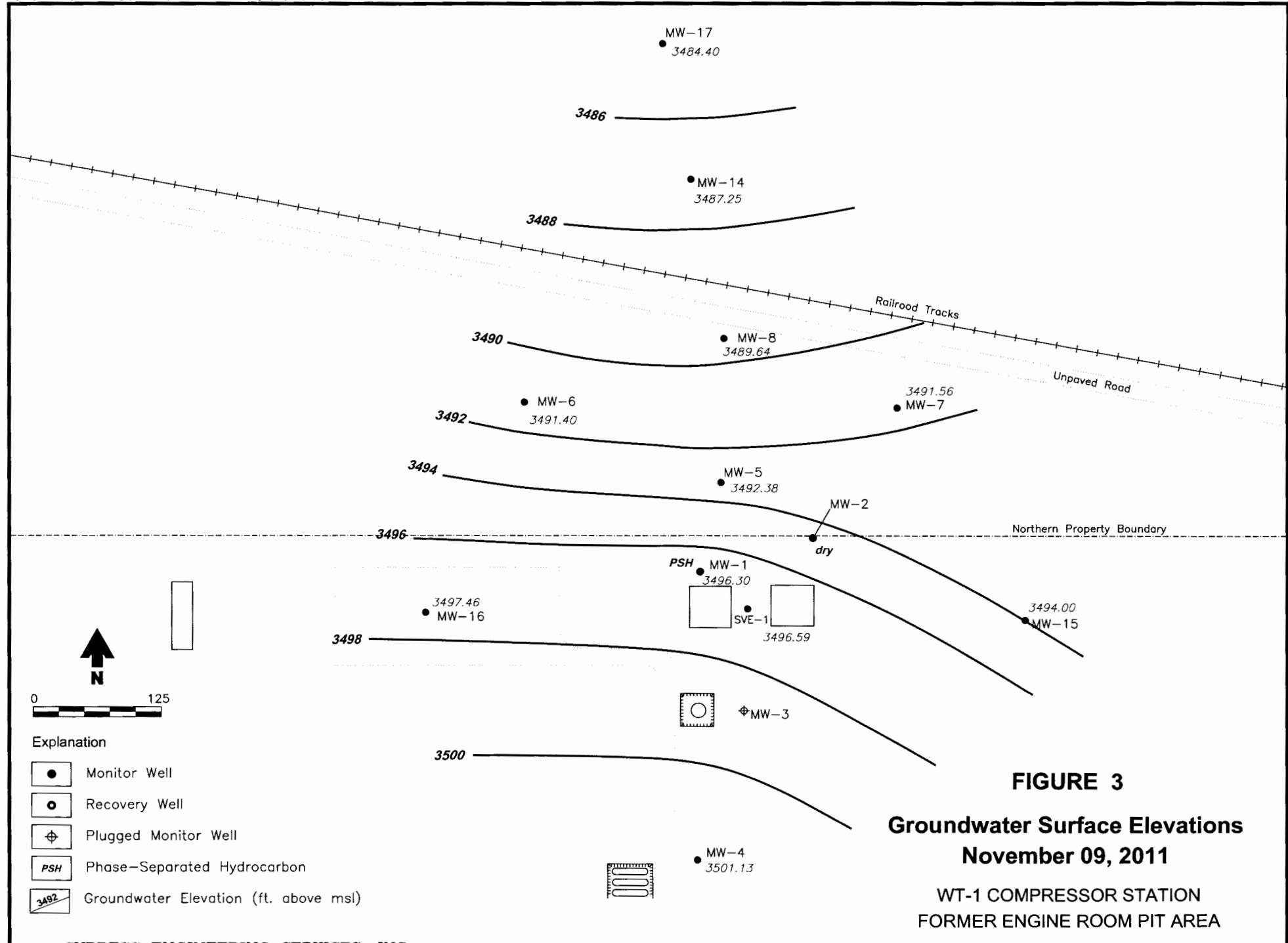
Routine groundwater sampling is conducted annually in accordance with the Sampling Analysis Plan (SAP) presented in Table 6. Currently there are no planned modifications to the SAP scheduled for 2012, however, a comprehensive site evaluation is in progress in an effort to further define future monitoring and remediation activities.

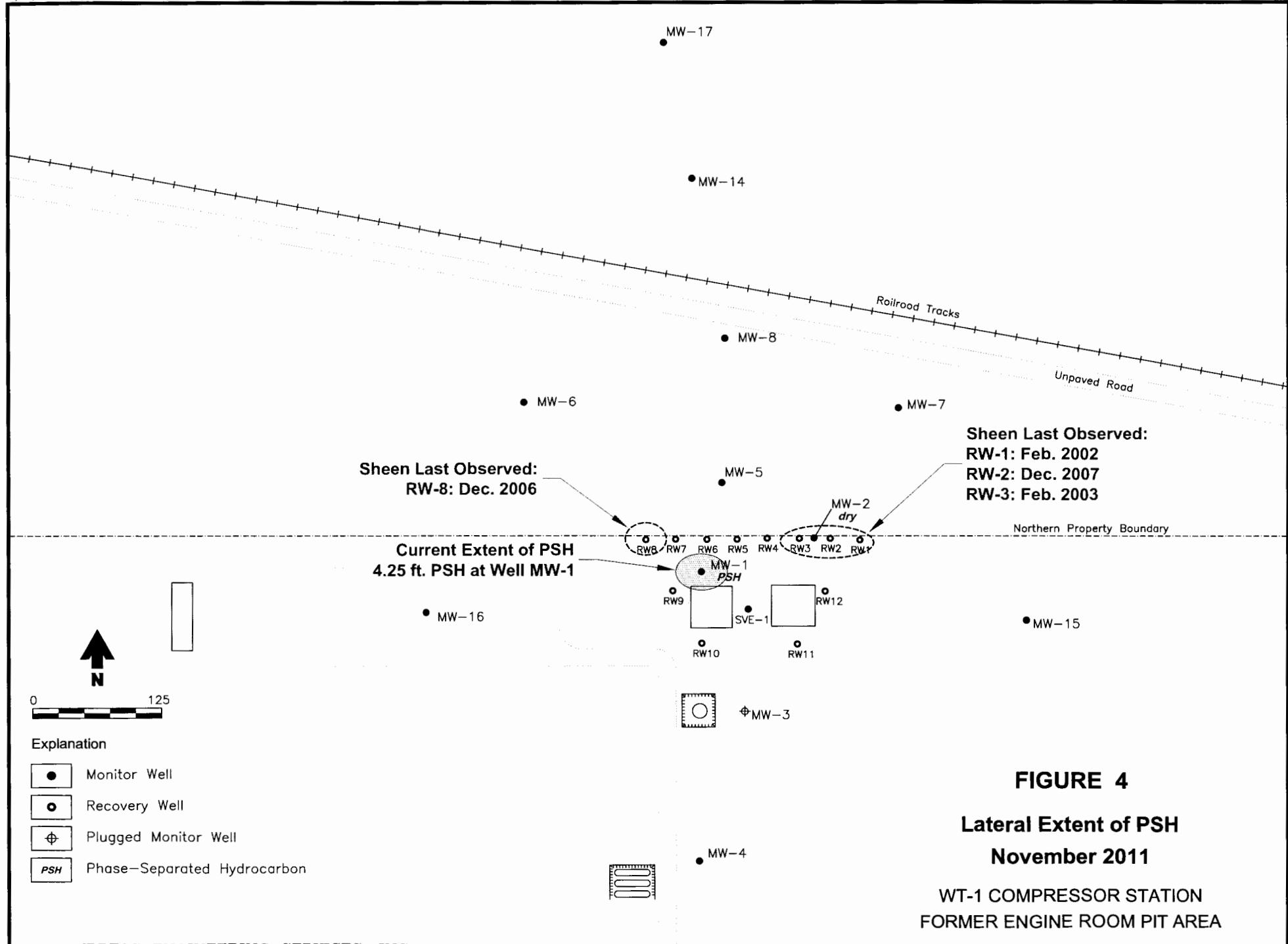
#### **4.2 Reporting Frequency**

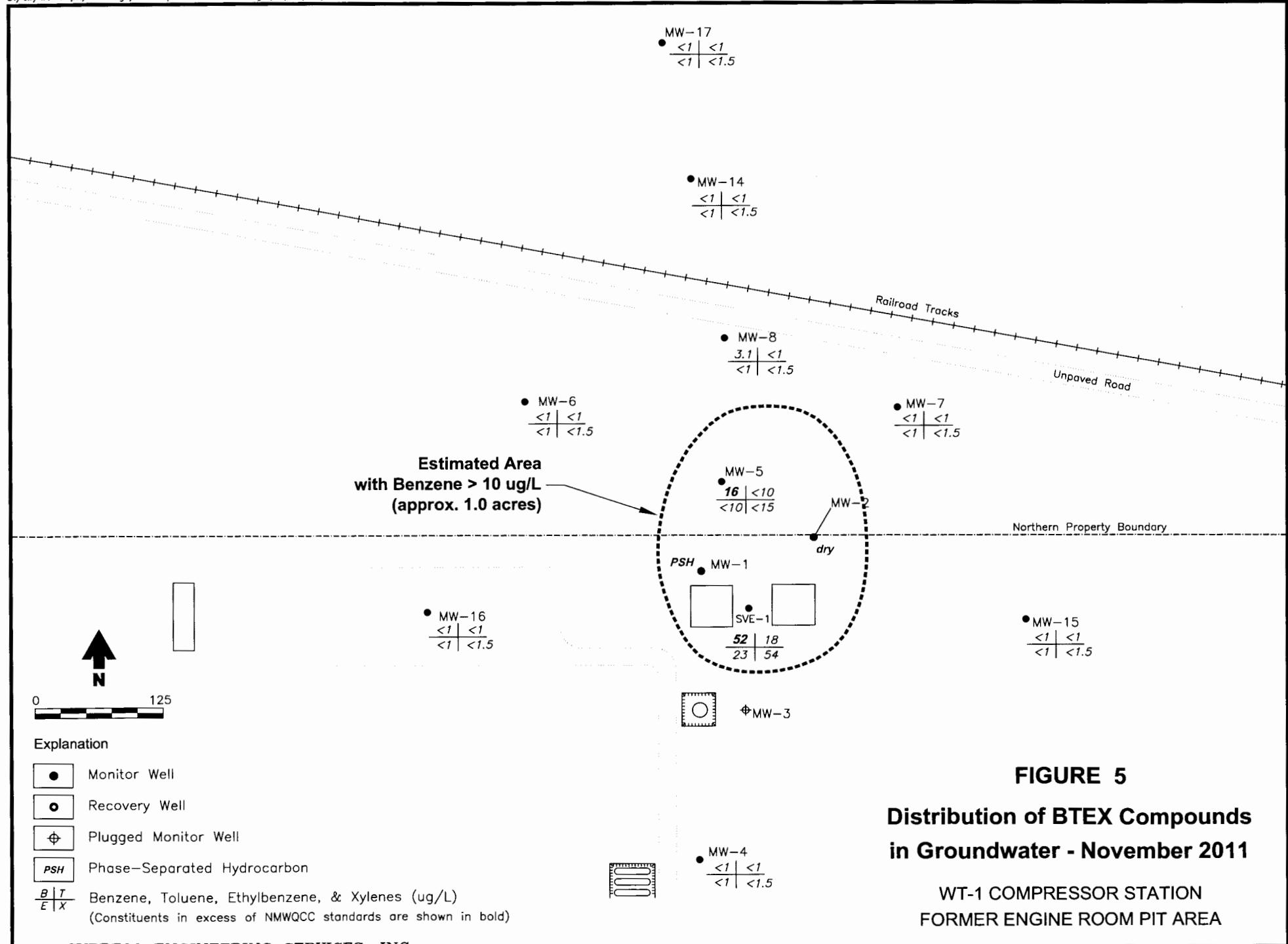
Annual reporting of monitoring activities will continue with the next scheduled report submitted to the OCD by February 28, 2013.



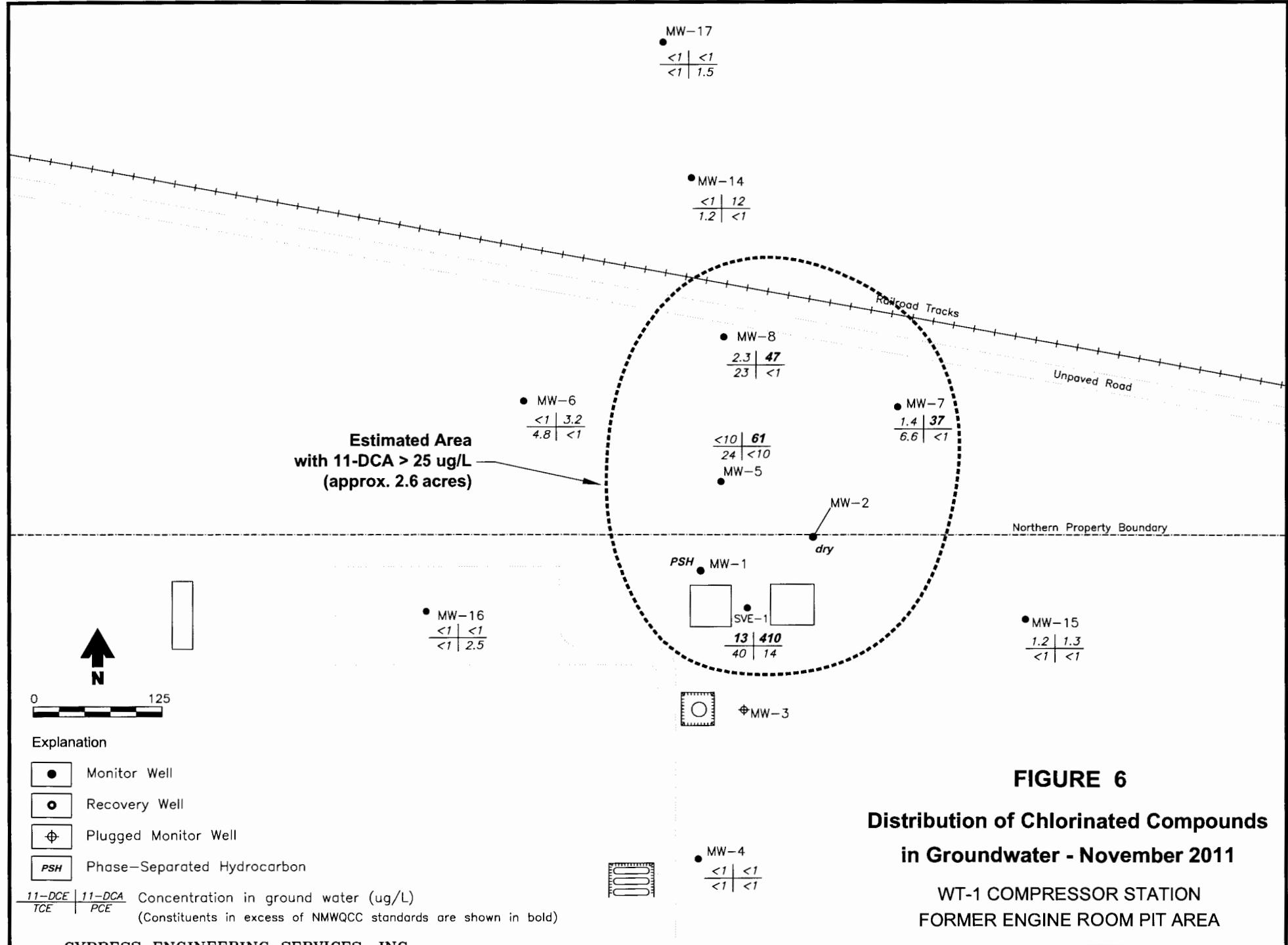




**FIGURE 4**
**Lateral Extent of PSH**  
**November 2011**
**WT-1 COMPRESSOR STATION**  
**FORMER ENGINE ROOM PIT AREA**

**FIGURE 5****Distribution of BTEX Compounds in Groundwater - November 2011**

WT-1 COMPRESSOR STATION  
FORMER ENGINE ROOM PIT AREA



**Table 1. Summary of Groundwater Surface Elevations  
TW WT-1 Station Engine Room Pit Area**

Well ID	Sampling Date	Top of Casing (ft)	Depth to PSH (ft)	Depth to Water (ft)	PSH (ft)	Surface Elevation (ft)
MW-1	11/15/94	3547.67	(a)	47.59	(a)	3500.08
	09/14/95		(a)	48.85	(a)	3498.82
	11/12/96		(a)	49.79	(a)	3497.88
	02/04/97		(a)	49.71	(a)	3497.96
	05/10/97		(a)	49.86	(a)	3497.81
	08/06/97		(a)	49.90	(a)	3497.77
	10/08/97		(a)	49.76	(a)	3497.91
	01/21/98		(a)	50.73	(a)	3496.94
	04/15/98		(a)	49.68	(a)	3497.99
	07/16/98		(a)	49.91	(a)	3497.76
	01/26/99		(a)	49.39	(a)	3498.28
	07/08/99		(a)	49.52	sheen	3498.15
	01/26/00		(a)	49.43	sheen	3498.24
	07/17/00		(a)	50.04	sheen	3497.63
	11/21/00	3547.65 (c)	(a)	50.66	(a)	3496.99
	02/17/01		(a)	50.73	sheen	3496.92
	08/20/01		(a)	50.72	sheen	3496.93
	02/27/02		(a)	50.63	(a)	3497.02
	07/31/02		(a)	50.68	sheen	3496.97
	02/10/03		(a)	50.77	sheen	3496.88
	08/04/03		(a)	50.90	sheen	3496.75
	05/25/04		(a)	50.55	(a)	3497.10
	11/09/04		(a)	50.91	(a)	3496.74
	04/11/05		(a)	50.55	(a)	3497.10
	12/01/05		(a)	50.50	(a)	3497.15
	05/10/06		(a)	50.46	(a)	3497.19
	12/13/06		(a)	50.35	(a)	3497.30
	06/20/07		(a)	50.20	(a)	3497.45
	12/06/07		(a)	49.77	(a)	3497.88
	06/02/08		49.90	49.91	0.01	3497.75
	12/10/08		50.18	51.08	0.90	3497.29
	04/27/09		50.08	51.02	0.94	3497.38
	06/11/10		50.19	53.14	2.95	3496.87
	11/09/11		50.50	54.75	4.25	3496.30

**Table 1. Summary of Groundwater Surface Elevations  
TW WT-1 Station Engine Room Pit Area**

Well ID	Sampling Date	Top of Casing (ft)	Depth to PSH (ft)	Depth to Water (ft)	PSH (ft)	Surface Elevation (ft)
MW-2	11/15/94	3546.28	PSH	-	-	NA
	09/12/95		PSH	-	-	NA
	11/12/96		49.91	-	NA *	NA *
	02/04/97		49.90	52.15	2.25	3495.93
	05/10/97		50.09	52.18	2.09	3495.77
	08/06/97		50.20	52.17	1.97	3495.69
	10/09/97		50.27	52.22	1.95	3495.62
	01/21/98		50.08	--	NA *	NA *
	04/15/98		49.97	--	NA *	NA *
	07/16/98		50.25	--	NA *	NA *
	01/26/99		50.10	--	NA *	NA *
	07/08/99		50.12	--	NA *	NA *
	01/26/00		50.54	52.17	1.63	3495.41
	07/17/00		50.62	--	NA *	NA *
	11/21/00	3546.28 (c)	50.95	--	NA *	NA *
	02/17/01		51.08	52.23	1.15	3494.97
	08/20/01		51.82	--	NA *	NA *
	02/27/02		51.94	--	NA *	NA *
	07/31/02		52.23	--	NA *	NA *
	02/10/03	(a)	dry (TD=52.32)	NA *	NA *	
	08/04/03	(a)	dry (TD=52.32)	NA *	NA *	
	05/25/04	(a)	dry (TD=52.32)	NA *	NA *	
	11/09/04	(a)	dry (TD=52.32)	NA *	NA *	
	04/11/05	(a)	dry (TD=52.32)	NA *	NA *	
	12/01/05	(a)	dry (TD=52.32)	NA *	NA *	
	05/10/06		52.32	PSH to (TD=52.32)	sheen	NA *
	12/13/06		51.81	PSH to (TD=52.32)	NA *	NA *
	06/20/07		51.53	PSH to (TD=52.32)	NA *	NA *
	12/06/07		51.46	PSH to (TD=52.32)	NA *	NA *
	06/02/08		51.20	PSH to (TD=52.30)	NA *	NA *
	12/10/08		51.38	PSH to (TD=52.35)	NA *	NA *
	04/27/09		51.32	PSH to (TD=52.35)	NA *	NA *
	06/11/10		51.92	PSH to (TD=52.35)	NA *	NA *
	11/09/11	(a)	dry (TD=52.25)	NA *	NA *	
MW-3	11/16/94	3548.99	(a)	48.71	(a)	3500.28
	09/12/95		(a)	49.49	(a)	3499.50
	11/12/96		(a)	49.76	(a)	3499.23
	02/04/97		(a)	49.57	(a)	3499.42
	05/10/97		(a)	49.81	(a)	3499.18
	08/06/97		(a)	49.81	(a)	3499.18
	10/08/97		(a)	49.84	(a)	3499.15
	01/21/98		(a)	49.29	(a)	3499.70
	07/16/98		(a)	49.42	(a)	3499.57
	01/26/99		(a)	48.62	(a)	3500.37
	07/08/99		(a)	48.99	(a)	3500.00

**Table 1. Summary of Groundwater Surface Elevations  
TW WT-1 Station Engine Room Pit Area**

Well ID	Sampling Date	Top of Casing (ft)	Depth to PSH (ft)	Depth to Water (ft)	PSH (ft)	Surface Elevation (ft)
MW-4	12/01/94	3548.29	(a)	47.18	(a)	3501.11
	09/12/95		(a)	47.50	(a)	3500.79
	11/12/96		(a)	47.50	(a)	3500.79
	02/04/97		(a)	47.51	(a)	3500.78
	05/10/97		(a)	47.51	(a)	3500.78
	08/06/97		(a)	47.49	(a)	3500.80
	10/08/97		(a)	47.43	(a)	3500.86
	01/21/98		(a)	47.02	(a)	3501.27
	04/16/98		(a)	46.81	(a)	3501.48
	07/16/98		(a)	46.75	(a)	3501.54
	01/26/99		(a)	46.36	(a)	3501.93
	07/08/99		(a)	46.76	(a)	3501.53
	01/26/00		(a)	46.91	(a)	3501.38
	07/17/00		(a)	47.33	(a)	3500.96
	11/21/00	3548.29 (c)	(a)	47.51	(a)	3500.78
	02/17/01		(a)	47.46	(a)	3500.83
	08/20/01		(a)	47.45	(a)	3500.84
	02/27/02		(a)	47.00	(a)	3501.29
	07/31/02		(a)	47.09	(a)	3501.20
	02/10/03		(a)	46.92	(a)	3501.37
	08/04/03		(a)	46.72	(a)	3501.57
	05/25/04		(a)	47.20	(a)	3501.09
	11/09/04		(a)	47.00	(a)	3501.29
	04/11/05		(a)	46.72	(a)	3501.57
	12/01/05		(a)	46.48	(a)	3501.81
	05/10/06		(a)	47.09	(a)	3501.20
	12/13/06		(a)	46.41	(a)	3501.88
	06/20/07		(a)	46.95	(a)	3501.34
	12/06/07		(a)	46.62	(a)	3501.67
	06/02/08		(a)	46.92	(a)	3501.37
	12/10/08		(a)	46.85	(a)	3501.44
	04/27/09		(a)	47.18	(a)	3501.11
	06/11/10		(a)	47.26	(a)	3501.03
	11/09/11		(a)	47.16	(a)	3501.13

**Table 1. Summary of Groundwater Surface Elevations  
TW WT-1 Station Engine Room Pit Area**

Well ID	Sampling Date	Top of Casing (ft)	Depth to PSH (ft)	Depth to Water (ft)	PSH (ft)	Surface Elevation (ft)
MW-5	12/01/94	3543.59	(a)	48.68	(a)	3494.91
	09/12/95		(a)	49.48	(a)	3494.11
	11/12/96		(a)	50.12	(a)	3493.47
	02/04/97		(a)	50.11	(a)	3493.48
	05/10/97		(a)	50.35	(a)	3493.24
	08/06/97		(a)	50.40	(a)	3493.19
	10/08/97		(a)	50.18	(a)	3493.41
	01/21/98		(a)	50.13	(a)	3493.46
	04/15/98		(a)	50.15	(a)	3493.44
	07/16/98		(a)	50.45	(a)	3493.14
	01/26/99		(a)	50.04	(a)	3493.55
	07/08/99		(a)	50.21	(a)	3493.38
	01/26/00		(a)	50.07	(a)	3493.52
	07/17/00		(a)	50.53	(a)	3493.06
	11/21/00	3543.60 (c)	(a)	50.98	(a)	3492.62
	02/17/01		(a)	51.04	(a)	3492.56
	08/20/01		(a)	51.09	(a)	3492.51
	02/27/02		(a)	51.17	(a)	3492.43
	07/31/02		(a)	51.22	(a)	3492.38
	02/10/03		(a)	51.34	(a)	3492.26
	08/04/03		(a)	51.49	(a)	3492.11
	05/25/04		(a)	51.12	(a)	3492.48
	11/09/04		(a)	51.41	(a)	3492.19
	04/11/05		(a)	51.03	(a)	3492.57
	12/01/05		(a)	50.81	(a)	3492.79
	05/10/06		(a)	50.71	(a)	3492.89
	12/13/06		(a)	50.55	(a)	3493.05
	06/20/07		(a)	50.38	(a)	3493.22
	12/06/07		(a)	49.98	(a)	3493.62
	06/02/08		(a)	50.05	(a)	3493.55
	12/10/08		(a)	50.48	(a)	3493.12
	04/27/09		(a)	50.39	(a)	3493.21
	06/11/10		(a)	50.60	(a)	3493.00
	11/09/11		(a)	51.22	(a)	3492.38

**Table 1. Summary of Groundwater Surface Elevations  
TW WT-1 Station Engine Room Pit Area**

Well ID	Sampling Date	Top of Casing (ft)	Depth to PSH (ft)	Depth to Water (ft)	PSH (ft)	Surface Elevation (ft)
MW-6	11/30/94	3543.29	(a)	50.22	(a)	3493.07
	09/12/95		(a)	50.97	(a)	3492.32
	11/12/96		(a)	51.93	(a)	3491.36
	02/04/97		(a)	51.93	(a)	3491.36
	05/10/97		(a)	52.08	(a)	3491.21
	08/06/97		(a)	52.11	(a)	3491.18
	10/08/97		(a)	51.88	(a)	3491.41
	01/21/98		(a)	51.72	(a)	3491.57
	04/15/98		(a)	51.63	(a)	3491.66
	07/16/98		(a)	51.87	(a)	3491.42
	01/26/99		(a)	51.39	(a)	3491.90
	07/08/99		(a)	51.65	(a)	3491.64
	01/26/00		(a)	51.59	(a)	3491.70
	07/17/00		(a)	52.11	(a)	3491.18
	11/21/00	3543.33 (c)	(a)	52.64	(a)	3490.69
	02/17/01		(a)	52.74	(a)	3490.59
	08/20/01		(a)	52.68	(a)	3490.65
	02/27/02		(a)	52.46	(a)	3490.87
	07/31/02		(a)	52.27	(a)	3491.06
	02/10/03		(a)	52.27	(a)	3491.06
	08/04/03		(a)	52.37	(a)	3490.96
	05/25/04		(a)	51.90	(a)	3491.43
	11/09/04		(a)	52.24	(a)	3491.09
	04/11/05		(a)	51.53	(a)	3491.80
	12/01/05		(a)	51.52	(a)	3491.81
	05/10/06		(a)	51.42	(a)	3491.91
	12/13/06		(a)	51.16	(a)	3492.17
	06/20/07		(a)	51.05	(a)	3492.28
	12/06/07		(a)	49.60	(a)	3493.73
	06/02/08		(a)	50.72	(a)	3492.61
	12/10/08		(a)	51.15	(a)	3492.18
	04/27/09		(a)	51.19	(a)	3492.14
	06/11/10		(a)	51.27	(a)	3492.06
	11/09/11		(a)	51.93	(a)	3491.40

**Table 1. Summary of Groundwater Surface Elevations  
TW WT-1 Station Engine Room Pit Area**

Well ID	Sampling Date	Top of Casing (ft)	Depth to PSH (ft)	Depth to Water (ft)	PSH (ft)	Surface Elevation (ft)
MW-7	11/30/94	3541.97	(a)	47.67	(a)	3494.30
	09/12/95		(a)	48.54	(a)	3493.43
	11/12/96		(a)	48.67	(a)	3493.30
	02/04/97		(a)	48.83	(a)	3493.14
	05/10/97		(a)	49.05	(a)	3492.92
	08/06/97		(a)	48.96	(a)	3493.01
	10/08/97		(a)	48.74	(a)	3493.23
	01/21/98		(a)	48.65	(a)	3493.32
	04/15/98		(a)	48.71	(a)	3493.26
	07/16/98		(a)	49.12	(a)	3492.85
	01/26/99		(a)	48.70	(a)	3493.27
	07/08/99		(a)	48.96	(a)	3493.01
	01/26/00		(a)	48.72	(a)	3493.25
	07/17/00		(a)	49.25	(a)	3492.72
	11/21/00	3542.00 (c)	(a)	50.18	(a)	3491.82
	02/17/01		(a)	49.82	(a)	3492.18
	08/20/01		(a)	50.21	(a)	3491.79
	02/27/02		(a)	49.86	(a)	3492.14
	07/31/02		(a)	50.06	(a)	3491.94
	02/10/03		(a)	50.26	(a)	3491.74
	08/04/03		(a)	50.47	(a)	3491.53
	05/25/04		(a)	50.40	(a)	3491.60
	11/09/04		(a)	50.21	(a)	3491.79
	04/11/05		(a)	49.93	(a)	3492.07
	12/01/05		(a)	50.02	(a)	3491.98
	05/10/06		(a)	49.97	(a)	3492.03
	12/13/06		(a)	49.40	(a)	3492.60
	06/20/07		(a)	49.31	(a)	3492.69
	12/06/07		(a)	48.89	(a)	3493.11
	06/02/08		(a)	49.00	(a)	3493.00
	12/10/08		(a)	49.45	(a)	3492.55
	04/27/09		(a)	49.45	(a)	3492.55
	06/11/10		(a)	49.84	(a)	3492.16
	11/09/11		(a)	50.44	(a)	3491.56

**Table 1. Summary of Groundwater Surface Elevations  
TW WT-1 Station Engine Room Pit Area**

Well ID	Sampling Date	Top of Casing (ft)	Depth to PSH (ft)	Depth to Water (ft)	PSH (ft)	Surface Elevation (ft)
MW-8	11/30/94	3541.47	(a)	49.20	(a)	3492.27
	09/13/95		(a)	50.14	(a)	3491.33
	11/12/96		(a)	50.73	(a)	3490.74
	02/04/97		(a)	50.79	(a)	3490.68
	05/10/97		(a)	51.03	(a)	3490.44
	08/06/97		(a)	51.08	(a)	3490.39
	10/08/97		(a)	50.90	(a)	3490.57
	01/21/98		(a)	50.73	(a)	3490.74
	04/15/98		(a)	49.62	(a)	3491.85
	07/16/98		(a)	50.96	(a)	3490.51
	01/26/99		(a)	50.55	(a)	3490.92
	07/08/99		(a)	50.84	(a)	3490.63
	01/26/00		(a)	50.72	(a)	3490.75
	07/17/00		(a)	51.23	(a)	3490.24
	11/21/00	3541.49 (c)	(a)	51.75	(a)	3489.74
	02/17/01		(a)	51.93	(a)	3489.56
	08/20/01		(a)	51.89	(a)	3489.60
	02/27/02		(a)	51.88	(a)	3489.61
	07/31/02		(a)	51.92	(a)	3489.57
	02/10/03		(a)	52.09	(a)	3489.40
	08/04/03		(a)	52.18	(a)	3489.31
	05/25/04		(a)	52.02	(a)	3489.47
	11/09/04		(a)	52.15	(a)	3489.34
	04/11/05		(a)	51.47	(a)	3490.02
	12/01/05		(a)	51.47	(a)	3490.02
	05/10/06		(a)	51.35	(a)	3490.14
	12/13/06		(a)	50.91	(a)	3490.58
	06/20/07		(a)	50.76	(a)	3490.73
	12/06/07		(a)	50.29	(a)	3491.20
	06/02/08		(a)	50.45	(a)	3491.04
	12/10/08		(a)	50.96	(a)	3490.53
	04/27/09		(a)	50.93	(a)	3490.56
	06/11/10		(a)	51.15	(a)	3490.34
	11/09/11		(a)	51.85	(a)	3489.64

**Table 1. Summary of Groundwater Surface Elevations  
TW WT-1 Station Engine Room Pit Area**

Well ID	Sampling Date	Top of Casing (ft)	Depth to PSH (ft)	Depth to Water (ft)	PSH (ft)	Surface Elevation (ft)
MW-14	09/13/95	3539.71	(a)	51.53	(a)	3488.18
	11/12/96		(a)	51.96	(a)	3487.75
	02/04/97		(a)	52.00	(a)	3487.71
	05/10/97		(a)	52.12	(a)	3487.59
	08/06/97		(a)	52.11	(a)	3487.60
	10/08/97		(a)	51.95	(a)	3487.76
	01/21/98		(a)	51.88	(a)	3487.83
	04/15/98		(a)	51.83	(a)	3487.88
	07/16/98		(a)	52.09	(a)	3487.62
	01/26/99		(a)	51.72	(a)	3487.99
	07/08/99		(a)	51.95	(a)	3487.76
	01/26/00		(a)	51.77	(a)	3487.94
	07/17/00		(a)	52.17	(a)	3487.54
	11/21/00	3539.73 (c)	(a)	52.60	(a)	3487.13
	02/17/01		(a)	53.69	(a)	3486.04
	08/20/01		(a)	52.61	(a)	3487.12
	02/27/02		(a)	52.55	(a)	3487.18
	07/31/02		(a)	52.56	(a)	3487.17
	02/10/03		(a)	52.64	(a)	3487.09
	08/04/03		(a)	52.70	(a)	3487.03
	05/25/04		(a)	52.55	(a)	3487.18
	11/09/04		(a)	52.75	(a)	3486.98
	04/11/05		(a)	52.25	(a)	3487.48
	12/01/05		(a)	52.16	(a)	3487.57
	05/10/06		(a)	52.05	(a)	3487.68
	12/13/06		(a)	51.86	(a)	3487.87
	06/20/07		(a)	51.66	(a)	3488.07
	12/06/07		(a)	51.29	(a)	3488.44
	06/02/08		(a)	51.35	(a)	3488.38
	12/10/08		(a)	51.77	(a)	3487.96
	04/27/09		(a)	51.79	(a)	3487.94
	06/11/10		(a)	51.89	(a)	3487.84
	11/09/11		(a)	52.48	(a)	3487.25

**Table 1. Summary of Groundwater Surface Elevations  
TW WT-1 Station Engine Room Pit Area**

Well ID	Sampling Date	Top of Casing (ft)	Depth to PSH (ft)	Depth to Water (ft)	PSH (ft)	Surface Elevation (ft)
MW-15	09/14/95	3542.82	(a)	46.43	(a)	3496.39
	11/12/96		(a)	46.61	(a)	3496.21
	02/04/97		(a)	46.90	(a)	3495.92
	05/10/97		(a)	47.23	(a)	3495.59
	08/06/97		(a)	46.97	(a)	3495.85
	10/08/97		(a)	46.75	(a)	3496.07
	01/21/98		(a)	46.62	(a)	3496.20
	04/15/98		(a)	46.81	(a)	3496.01
	07/16/98		(a)	47.24	(a)	3495.58
	01/26/99		(a)	46.71	(a)	3496.11
	07/08/99		(a)	46.99	(a)	3495.83
	01/26/00		(a)	46.88	(a)	3495.94
	07/17/00		(a)	47.54	(a)	3495.28
	11/21/00	3542.82 (c)	(a)	48.06	(a)	3494.76
	02/17/01		(a)	48.24	(a)	3494.58
	08/20/01		(a)	48.39	(a)	3494.43
	02/27/02		(a)	48.37	(a)	3494.45
	07/31/02		(a)	48.52	(a)	3494.30
	02/10/03		(a)	48.75	(a)	3494.07
	08/04/03		(a)	48.90	(a)	3493.92
	05/25/04		(a)	48.77	(a)	3494.05
	11/09/04		(a)	48.37	(a)	3494.45
	04/11/05		(a)	48.39	(a)	3494.43
	12/01/05		(a)	48.51	(a)	3494.31
	05/10/06		(a)	48.54	(a)	3494.28
	12/13/06		(a)	47.84	(a)	3494.98
	06/20/07		(a)	47.79	(a)	3495.03
	12/06/07		(a)	47.39	(a)	3495.43
	06/02/08		(a)	47.60	(a)	3495.22
	12/10/08		(a)	47.80	(a)	3495.02
	04/27/09		(a)	47.87	(a)	3494.95
	06/11/10		(a)	48.50	(a)	3494.32
	11/09/11		(a)	48.82	(a)	3494.00

**Table 1. Summary of Groundwater Surface Elevations  
TW WT-1 Station Engine Room Pit Area**

Well ID	Sampling Date	Top of Casing (ft)	Depth to PSH (ft)	Depth to Water (ft)	PSH (ft)	Surface Elevation (ft)
MW-16	09/14/95	3546.01	(a)	48.86	(a)	3497.15
	11/12/96		(a)	49.42	(a)	3496.59
	02/04/97		(a)	49.41	(a)	3496.60
	05/10/97		(a)	49.51	(a)	3496.50
	08/06/97		(a)	49.57	(a)	3496.44
	10/08/97		(a)	49.36	(a)	3496.65
	01/21/98		(a)	49.00	(a)	3497.01
	04/15/98		(a)	48.84	(a)	3497.17
	07/16/98		(a)	49.02	(a)	3496.99
	01/26/99		(a)	48.46	(a)	3497.55
	07/08/99		(a)	48.79	(a)	3497.22
	01/26/00		(a)	48.96	(a)	3497.05
	07/17/00		(a)	49.18	(a)	3496.83
	11/21/00	3545.68 (c)	(a)	49.65	(a)	3496.03
	02/17/01		(a)	49.73	(a)	3495.95
	08/20/01		(a)	49.62	(a)	3496.06
	02/27/02		(a)	49.78	(a)	3495.90
	07/31/02		(a)	48.35	(a)	3497.33
	02/10/03		(a)	48.28	(a)	3497.40
	08/04/03		(a)	48.21	(a)	3497.47
	05/25/04		(a)	47.79	(a)	3497.89
	11/09/04		(a)	48.12	(a)	3497.56
	04/11/05		(a)	47.32	(a)	3498.36
	12/01/05		(a)	47.52	(a)	3498.16
	05/10/06		(a)	47.76	(a)	3497.92
	12/13/06		(a)	47.46	(a)	3498.22
	06/20/07		(a)	47.48	(a)	3498.20
	12/06/07		(a)	47.25	(a)	3498.43
	06/02/08		(a)	47.42	(a)	3498.26
	12/10/08		(a)	47.61	(a)	3498.07
	04/27/09		(a)	47.76	(a)	3497.92
	06/11/10		(a)	47.94	(a)	3497.74
	11/09/11		(a)	48.22	(a)	3497.46
MW-17	11/09/04	3538.60 (d)	(a)	54.45	(a)	3484.15
	04/11/05		(a)	54.05	(a)	3484.55
	12/01/05		(a)	53.99	(a)	3484.61
	05/10/06		(a)	53.89	(a)	3484.71
	12/13/06		(a)	53.75	(a)	3484.85
	06/20/07		(a)	53.61	(a)	3484.99
	12/06/07		(a)	53.25	(a)	3485.35
	06/02/08		(a)	53.28	(a)	3485.32
	12/10/08		(a)	53.60	(a)	3485.00
	04/27/09		(a)	53.57	(a)	3485.03
	06/11/10		(a)	53.63	(a)	3484.97
	11/09/11		(a)	54.20	(a)	3484.40

**Table 1. Summary of Groundwater Surface Elevations  
TW WT-1 Station Engine Room Pit Area**

Well ID	Sampling Date	Top of Casing (ft)	Depth to PSH (ft)	Depth to Water (ft)	PSH (ft)	Surface Elevation (ft)
SVE-1A	01/26/00	3545.58	(a)	47.33	(a)	3498.25
	07/17/00		(a)	47.95	(a)	3497.63
	11/21/00	3545.59 (c)	(a)	48.56	(a)	3497.03
	02/17/01		(a)	48.71	(a)	3496.88
	08/20/01		(a)	48.90	(a)	3496.69
	02/27/02		(a)	48.73	(a)	3496.86
	07/31/02		(a)	48.80	(a)	3496.79
	02/10/03		(a)	48.92	(a)	3496.67
	08/04/03		(a)	49.06	(a)	3496.53
	05/25/04		(a)	48.75	(a)	3496.84
	11/09/04		(a)	49.06	(a)	3496.53
	04/11/05		(a)	48.75	(a)	3496.84
	12/01/05		(a)	48.81	(a)	3496.78
	05/10/06		(a)	48.72	(a)	3496.87
	12/13/06		(a)	48.58	(a)	3497.01
	06/20/07		(a)	48.45	(a)	3497.14
	12/06/07		(a)	48.07	(a)	3497.52
	06/02/08		(a)	48.19	(a)	3497.40
	12/10/08		(a)	48.35	(a)	3497.24
	04/27/09		(a)	48.37	(a)	3497.22
	06/11/10		(a)	48.74	(a)	3496.85
	11/09/11		(a)	49.00	(a)	3496.59

NOTES:

- (a) Not applicable since no measurable thickness of hydrocarbon is present
- (b) Corrections to ground water surface elevation for presence of hydrocarbon is calculated assuming a specific gravity of 0.88 (0.80 used for 07/17/00 and prior)
- (c) Survey by John West Surveying Co. on October 31, 2000
- (d) Survey by Cypress Engineering (GAF) on November 4, 2004
- (e) NA\* - No PSH/water interface detected

**Table 2. Summary of Groundwater Surface Elevations - Recovery Wells  
TW WT-1 Station Engine Room Pit Area**

Well ID	Sampling Date	Top of Casing (ft)	Depth to PSH (ft)	Depth to Water (ft)	PSH (ft)	Surface Elevation (ft)
RW-1	11/21/00*	3545.97 (c)	51.86	51.87	0.01	3494.11
	11/30/00		(a)	51.67	sheen	3494.30
	12/06/00		(a)	51.91	sheen	3494.06
	01/25/01		(a)	51.78	sheen	3494.19
	02/06/01		51.67	51.68	0.01	3494.30
	02/17/01*		52.07	52.08	0.01	3493.90
	02/23/01		(a)	51.50	sheen	3494.47
	03/09/01		(a)	51.61	sheen	3494.36
	08/20/01		(a)	52.18	sheen	3493.79
	02/27/02		(a)	52.22	sheen	3493.75
	07/31/02		(a)	52.68	(a)	3493.29
	02/10/03		(a)	52.65	(a)	3493.32
	08/04/03		(a)	52.86	(a)	3493.11
	05/25/04		(a)	52.72	(a)	3493.25
	11/09/04		(a)	52.33	(a)	3493.64
	04/11/05		(a)	52.29	(a)	3493.68
	12/01/05		(a)	52.40	(a)	3493.57
	05/10/06		(a)	52.41	(a)	3493.56
	12/13/06		(a)	51.72	(a)	3494.25
	06/20/07		(a)	51.62	(a)	3494.35
	12/06/07		(a)	51.30	(a)	3494.67
	06/02/08		(a)	51.38	(a)	3494.59
	12/10/08		(a)	51.74	(a)	3494.23
	04/27/09		(a)	51.79	(a)	3494.18
	06/11/10		(a)	52.33	(a)	3493.64
	11/09/11		(a)	52.80	(a)	3493.17

**Table 2. Summary of Groundwater Surface Elevations - Recovery Wells  
TW WT-1 Station Engine Room Pit Area**

Well ID	Sampling Date	Top of Casing (ft)	Depth to PSH (ft)	Depth to Water (ft)	PSH (ft)	Surface Elevation (ft)
RW-2	11/21/00*	3546.26 (c)	(a)	52.18	(a)	3494.08
	11/30/00		(a)	51.96	(a)	3494.30
	12/06/00		(a)	52.61	sheen	3493.65
	01/25/01		(a)	52.05	sheen	3494.21
	02/06/01		(a)	51.94	sheen	3494.32
	02/17/01*		(a)	52.38	sheen	3493.88
	02/23/01		(a)	51.75	sheen	3494.51
	03/09/01		(a)	51.80	sheen	3494.46
	08/20/01		(a)	52.42	sheen	3493.84
	02/27/02		(a)	52.46	(a)	3493.80
	07/31/02		(a)	52.68	(a)	3493.58
	02/10/03		(a)	52.88	sheen	3493.38
	08/04/03		(a)	53.08	sheen	3493.18
	05/25/04	52.93		52.94	0.01	3493.33
	11/09/04		(a)	52.58	(a)	3493.68
	04/11/05		(a)	52.57	sheen	3493.69
	12/01/05		(a)	52.68	(a)	3493.58
	05/10/06		(a)	52.68	sheen	3493.58
	12/13/06		(a)	52.01	(a)	3494.25
	06/20/07		(a)	51.95	(a)	3494.31
	12/06/07		(a)	51.55	sheen	3494.71
	06/02/08		(a)	51.63	(a)	3494.63
	12/10/08		(a)	52.03	(a)	3494.23
	04/27/09		(a)	52.08	(a)	3494.18
	06/11/10		(a)	52.56	(a)	3493.70
	11/09/11		(a)	53.07	(a)	3493.19

**Table 2. Summary of Groundwater Surface Elevations - Recovery Wells  
TW WT-1 Station Engine Room Pit Area**

Well ID	Sampling Date	Top of Casing (ft)	Depth to PSH (ft)	Depth to Water (ft)	PSH (ft)	Surface Elevation (ft)
RW-3	11/21/00*	3546.41 (c)	52.27	52.29	0.02	3494.14
	11/30/00		52.02	52.07	0.05	3494.38
	12/06/00		52.12	52.13	0.01	3494.29
	01/25/01		52.13	52.19	0.06	3494.27
	02/06/01		51.92	52.00	0.08	3494.47
	02/17/01*		52.41	52.43	0.02	3494.00
	02/23/01		51.80	51.83	0.03	3494.60
	03/09/01		51.81	51.84	0.03	3494.59
	03/30/01		50.92	50.94	0.02	3495.49
	08/20/01	(a)	52.42	(a)		3493.99
	02/27/02	(a)	52.58	sheen		3493.83
	07/31/02	(a)	52.46	(a)		3493.95
	02/10/03	(a)	52.85	sheen		3493.56
	08/04/03	(a)	52.09	(a)		3494.32
	05/25/04	(a)	52.68	(a)		3493.73
	11/09/04	(a)	52.58	(a)		3493.83
	04/11/05	(a)	52.49	(a)		3493.92
	12/01/05	(a)	52.65	(a)		3493.76
	05/10/06	(a)	52.51	(a)		3493.90
	12/13/06	(a)	52.06	(a)		3494.35
	06/20/07	(a)	51.97	(a)		3494.44
	12/06/07	(a)	51.56	(a)		3494.85
	06/02/08	(a)	51.65	(a)		3494.76
	12/10/08	(a)	52.07	(a)		3494.34
	04/27/09	(a)	51.90	(a)		3494.51
	06/11/10	(a)	52.39	(a)		3494.02
	11/09/11	(a)	52.91	(a)		3493.50

**Table 2. Summary of Groundwater Surface Elevations - Recovery Wells  
TW WT-1 Station Engine Room Pit Area**

Well ID	Sampling Date	Top of Casing (ft)	Depth to PSH (ft)	Depth to Water (ft)	PSH (ft)	Surface Elevation (ft)
RW-4	11/21/00*	3546.96 (c)	(a)	52.45	(a)	3494.51
	11/30/00		(a)	52.20	sheen	3494.76
	12/06/00		(a)	52.33	(a)	3494.63
	01/25/01		(a)	52.29	(a)	3494.67
	02/06/01		(a)	52.09	(a)	3494.87
	02/17/01*		(a)	52.52	(a)	3494.44
	02/23/01		(a)	51.97	(a)	3494.99
	03/09/01		(a)	52.01	(a)	3494.95
	03/30/01		(a)	52.06	sheen	3494.90
	08/20/01		(a)	52.55	(a)	3494.41
	02/27/02		(a)	52.75	(a)	3494.21
	07/31/02		(a)	52.77	(a)	3494.19
	02/10/03		(a)	52.90	(a)	3494.06
	08/04/03		(a)	53.04	(a)	3493.92
	05/25/04		(a)	52.68	(a)	3494.28
	11/09/04		(a)	52.83	(a)	3494.13
	04/11/05		(a)	52.54	(a)	3494.42
	12/01/05		(a)	52.68	(a)	3494.28
	05/10/06		(a)	52.49	(a)	3494.47
	12/13/06		(a)	52.25	(a)	3494.71
	06/20/07		(a)	51.72	(a)	3495.24
	12/06/07		(a)	51.70	(a)	3495.26
	06/02/08		(a)	51.77	(a)	3495.19
	12/10/08		(a)	52.16	(a)	3494.80
	04/27/09		(a)	52.00	(a)	3494.96
	06/11/10		(a)	52.42	(a)	3494.54
	11/09/11		(a)	52.98	(a)	3493.98

**Table 2. Summary of Groundwater Surface Elevations - Recovery Wells  
TW WT-1 Station Engine Room Pit Area**

Well ID	Sampling Date	Top of Casing (ft)	Depth to PSH (ft)	Depth to Water (ft)	PSH (ft)	Surface Elevation (ft)
RW-5	11/21/00*	3546.75 (c)	(a)	50.76	(a)	3495.99
	11/30/00		(a)	50.56	(a)	3496.19
	12/06/00		(a)	50.78	sheen	3495.97
	01/25/01		(a)	50.64	(a)	3496.11
	02/06/01		(a)	50.54	(a)	3496.21
	02/17/01*		(a)	50.98	(a)	3495.77
	02/23/01		(a)	50.39	(a)	3496.36
	03/09/01		(a)	50.44	(a)	3496.31
	03/30/01		(a)	50.60	(a)	3496.15
	08/20/01		(a)	50.95	(a)	3495.80
	02/27/02		(a)	51.03	(a)	3495.72
	07/31/02		(a)	51.12	(a)	3495.63
	02/10/03		(a)	51.24	(a)	3495.51
	08/04/03		(a)	51.32	(a)	3495.43
	05/25/04		(a)	51.03	(a)	3495.72
	11/09/04		(a)	51.37	(a)	3495.38
	04/11/05		(a)	51.10	(a)	3495.65
	12/01/05		(a)	51.11	(a)	3495.64
	05/10/06		(a)	50.92	(a)	3495.83
	12/13/06		(a)	50.88	(a)	3495.87
	06/20/07		(a)	50.76	(a)	3495.99
	12/06/07		(a)	50.32	(a)	3496.43
	06/02/08		(a)	50.35	(a)	3496.40
	12/10/08		(a)	50.80	(a)	3495.95
	04/27/09		(a)	50.64	(a)	3496.11
	06/11/10		(a)	50.92	(a)	3495.83
	11/09/11		(a)	51.46	(a)	3495.29

**Table 2. Summary of Groundwater Surface Elevations - Recovery Wells  
TW WT-1 Station Engine Room Pit Area**

Well ID	Sampling Date	Top of Casing (ft)	Depth to PSH (ft)	Depth to Water (ft)	PSH (ft)	Surface Elevation (ft)
RW-6	11/21/00*	3546.69 (c)	(a)	50.72	(a)	3495.97
	11/30/00		(a)	50.47	(a)	3496.22
	12/06/00		(a)	50.71	sheen	3495.98
	01/25/01		(a)	50.53	(a)	3496.16
	02/06/01		(a)	50.32	(a)	3496.37
	02/17/01*		(a)	50.87	(a)	3495.82
	02/23/01		(a)	50.20	(a)	3496.49
	03/09/01		(a)	50.27	(a)	3496.42
	03/30/01		(a)	50.39	(a)	3496.30
	08/20/01		(a)	50.82	(a)	3495.87
	02/27/02		(a)	50.85	(a)	3495.84
	07/31/02		(a)	50.83	(a)	3495.86
	02/10/03		(a)	50.95	(a)	3495.74
	08/04/03		(a)	51.04	(a)	3495.65
	05/25/04		(a)	50.55	(a)	3496.14
	11/09/04		(a)	51.07	(a)	3495.62
	04/11/05		(a)	50.57	(a)	3496.12
	12/01/05		(a)	50.64	(a)	3496.05
	05/10/06		(a)	50.37	(a)	3496.32
	12/13/06		(a)	50.62	(a)	3496.07
	06/20/07		(a)	50.33	(a)	3496.36
	12/06/07		(a)	49.95	(a)	3496.74
	06/02/08		(a)	49.99	(a)	3496.70
	12/10/08		(a)	50.28	(a)	3496.41
	04/27/09		(a)	50.23	(a)	3496.46
	06/11/10		(a)	50.53	(a)	3496.16
	11/09/11		(a)	50.90	(a)	3495.79

**Table 2. Summary of Groundwater Surface Elevations - Recovery Wells  
TW WT-1 Station Engine Room Pit Area**

Well ID	Sampling Date	Top of Casing (ft)	Depth to PSH (ft)	Depth to Water (ft)	PSH (ft)	Surface Elevation (ft)
RW-7	11/21/00*	3547.50 (c)	(a)	51.27	(a)	3496.23
	11/30/00		(a)	51.01	(a)	3496.49
	12/06/00		(a)	51.22	sheen	3496.28
	01/25/01		(a)	51.10	(a)	3496.40
	02/06/01		(a)	50.92	sheen	3496.58
	02/17/01*		(a)	51.42	(a)	3496.08
	02/23/01		(a)	50.77	(a)	3496.73
	03/09/01		(a)	50.76	(a)	3496.74
	03/30/01		(a)	50.93	(a)	3496.57
	08/20/01		(a)	51.35	(a)	3496.15
	02/27/02		(a)	51.44	(a)	3496.06
	07/31/02		(a)	51.34	(a)	3496.16
	02/10/03		(a)	51.44	(a)	3496.06
	08/04/03		(a)	51.52	(a)	3495.98
	05/25/04		(a)	50.98	(a)	3496.52
	11/09/04		(a)	51.55	(a)	3495.95
	04/11/05		(a)	50.92	(a)	3496.58
	12/01/05		(a)	50.96	(a)	3496.54
	05/10/06		(a)	50.76	(a)	3496.74
	12/13/06		(a)	50.91	(a)	3496.59
	06/20/07		(a)	50.70	(a)	3496.80
	12/06/07		(a)	50.34	(a)	3497.16
	06/02/08		(a)	50.40	(a)	3497.10
	12/10/08		(a)	50.78	(a)	3496.72
	04/27/09		(a)	50.70	(a)	3496.80
	06/11/10		(a)	50.95	(a)	3496.55
	11/09/11		(a)	51.38	(a)	3496.12

**Table 2. Summary of Groundwater Surface Elevations - Recovery Wells  
TW WT-1 Station Engine Room Pit Area**

Well ID	Sampling Date	Top of Casing (ft)	Depth to PSH (ft)	Depth to Water (ft)	PSH (ft)	Surface Elevation (ft)
RW-8	11/21/00*	3547.04 (c)	(a)	50.20	(a)	3496.84
	11/30/00		(a)	50.06	sheen	3496.98
	12/06/00		(a)	50.28	(a)	3496.76
	01/25/01		(a)	50.14	(a)	3496.90
	02/06/01		(a)	50.05	sheen	3496.99
	02/17/01*		(a)	50.42	(a)	3496.62
	02/23/01		(a)	49.95	(a)	3497.09
	03/09/01		(a)	50.01	(a)	3497.03
	03/30/01		(a)	50.09	(a)	3496.95
	08/20/01		(a)	50.40	(a)	3496.64
	02/27/02		(a)	50.27	(a)	3496.77
	07/31/02		(a)	50.19	(a)	3496.85
	02/10/03		50.33	50.33	sheen	3496.71
	08/04/03		50.42	50.42	sheen	3496.62
	05/25/04		49.87	50.30	0.43	3497.08
	11/09/04		(a)	50.40	sheen	3496.64
	04/11/05		49.77	49.79	0.02	3497.27
	12/01/05		(a)	49.71	(a)	3497.33
	05/10/06		(a)	49.66	sheen	3497.38
	12/13/06		(a)	49.76	sheen	3497.28
	06/20/07		(a)	49.64	(a)	3497.40
	12/06/07		(a)	49.36	(a)	3497.68
	06/02/08		(a)	49.32	(a)	3497.72
	12/10/08		(a)	49.75	(a)	3497.29
	04/27/09		(a)	49.76	(a)	3497.28
	06/11/10		(a)	50.03	(a)	3497.01
	11/09/11		(a)	50.34	(a)	3496.70
RW-9	11/21/00*	3545.84 (c)	(a)	48.41	(a)	3497.43
	11/30/00		(a)	48.17	sheen	3497.67
	12/06/00		(a)	43.42	(a)	3502.42
	01/25/01		(a)	48.25	(a)	3497.59
	02/06/01		(a)	48.12	(a)	3497.72
	02/17/01*		(a)	48.60	(a)	3497.24
	02/23/01		(a)	47.94	(a)	3497.90
	03/09/01		(a)	47.99	(a)	3497.85
	08/20/01		(a)	48.52	(a)	3497.32
	02/27/02		(a)	48.37	(a)	3497.47
	07/31/02		(a)	48.39	(a)	3497.45
	02/10/03		(a)	48.50	(a)	3497.34
	08/04/03	(d)	---	---	---	---

**Table 2. Summary of Groundwater Surface Elevations - Recovery Wells  
TW WT-1 Station Engine Room Pit Area**

Well ID	Sampling Date	Top of Casing (ft)	Depth to PSH (ft)	Depth to Water (ft)	PSH (ft)	Surface Elevation (ft)
RW-10	11/21/00*	3546.32 (c)	(a)	48.36	(a)	3497.96
	11/30/00		(a)	48.13	(a)	3498.19
	12/06/00		(a)	48.40	(a)	3497.92
	01/25/01		(a)	48.43	(a)	3497.89
	02/06/01		(a)	48.11	(a)	3498.21
	02/17/01*		(a)	48.60	(a)	3497.72
	02/23/01		(a)	47.92	(a)	3498.40
	03/09/01		(a)	50.01	(a)	3496.31
	08/20/01		(a)	48.57	(a)	3497.75
	02/27/02		(a)	48.33	(a)	3497.99
	07/31/02		(a)	48.39	(a)	3497.93
	02/10/03		(a)	48.48	(a)	3497.84
	08/04/03		(a)	48.63	(a)	3497.69
	05/25/04		(a)	48.20	(a)	3498.12
	11/09/04		(a)	48.75	(a)	3497.57
	04/11/05		(a)	48.15	(a)	3498.17
	12/01/05		(a)	48.17	(a)	3498.15
	05/10/06		(a)	48.23	(a)	3498.09
	12/13/06		(a)	47.98	(a)	3498.34
	06/20/07		(a)	48.09	(a)	3498.23
	12/06/07		(a)	47.49	(a)	3498.83
	06/02/08		(a)	47.62	(a)	3498.70
	12/10/08		(a)	47.89	(a)	3498.43
	04/27/09		(a)	48.01	(a)	3498.31
	06/11/10		(a)	48.39	(a)	3497.93
	11/09/11		(a)	48.70	(a)	3497.62

**Table 2. Summary of Groundwater Surface Elevations - Recovery Wells  
TW WT-1 Station Engine Room Pit Area**

Well ID	Sampling Date	Top of Casing (ft)	Depth to PSH (ft)	Depth to Water (ft)	PSH (ft)	Surface Elevation (ft)
RW-11	11/21/00*	3545.74 (c)	(a)	48.51	(a)	3497.23
	11/30/00		(a)	48.01	(a)	3497.73
	12/06/00		(a)	48.55	(a)	3497.19
	01/25/01		(a)	48.24	(a)	3497.50
	02/06/01		(a)	48.30	(a)	3497.44
	02/17/01*		(a)	48.76	(a)	3496.98
	02/23/01		(a)	48.12	(a)	3497.62
	03/09/01		(a)	48.19	(a)	3497.55
	08/20/01		(a)	48.90	(a)	3496.84
	02/27/02		(a)	48.74	(a)	3497.00
	07/31/02		(a)	48.92	(a)	3496.82
	02/10/03		(a)	49.07	(a)	3496.67
	08/04/03		(a)	49.25	(a)	3496.49
	05/25/04		(a)	48.75	(a)	3496.99
	11/09/04		(a)	49.18	(a)	3496.56
	04/11/05		(a)	48.67	(a)	3497.07
	12/01/05		(a)	48.78	(a)	3496.96
	05/10/06		(a)	48.78	(a)	3496.96
	12/13/06		(a)	48.41	(a)	3497.33
	06/20/07		(a)	48.43	(a)	3497.31
	12/06/07		(a)	47.81	(a)	3497.93
	06/02/08		(a)	47.94	(a)	3497.80
	12/10/08		(a)	48.16	(a)	3497.58
	04/27/09		(a)	48.27	(a)	3497.47
	06/11/10		(a)	48.87	(a)	3496.87
	11/09/11		(a)	49.15	(a)	3496.59

**Table 2. Summary of Groundwater Surface Elevations - Recovery Wells  
TW WT-1 Station Engine Room Pit Area**

Well ID	Sampling Date	Top of Casing (ft)	Depth to PSH (ft)	Depth to Water (ft)	PSH (ft)	Surface Elevation (ft)
RW-12	11/21/00*	3544.43 (c)	(a)	49.44	(a)	3494.99
	11/30/00		(a)	49.11	(a)	3495.32
	12/06/00		(a)	49.17	(a)	3495.26
	01/25/01		(a)	49.53	(a)	3494.90
	02/06/01		(a)	49.24	(a)	3495.19
	02/17/01*		(a)	49.70	(a)	3494.73
	02/23/01		(a)	49.07	(a)	3495.36
	03/09/01		(a)	49.14	(a)	3495.29
	08/20/01		(a)	49.77	(a)	3494.66
	02/27/02		(a)	49.74	(a)	3494.69
	07/31/02		(a)	49.95	(a)	3494.48
	02/10/03		(a)	50.13	(a)	3494.30
	08/04/03		(a)	50.37	(a)	3494.06
	05/25/04		(a)	50.10	(a)	3494.33
	11/09/04		(a)	49.92	(a)	3494.51
	04/11/05		(a)	49.79	(a)	3494.64
	12/01/05		(a)	49.90	(a)	3494.53
	05/10/06		(a)	49.90	(a)	3494.53
	12/13/06		(a)	49.28	(a)	3495.15
	06/20/07		(a)	49.24	(a)	3495.19
	12/06/07		(a)	48.76	(a)	3495.67
	06/02/08		(a)	48.87	(a)	3495.56
	12/10/08		(a)	49.20	(a)	3495.23
	04/27/09		(a)	49.30	(a)	3495.13
	06/11/10		(a)	49.78	(a)	3494.65
	11/09/11		(a)	50.21	(a)	3494.22

**NOTES:**

- (a) Not applicable since no measurable thickness of hydrocarbon is present
- (b) Corrections to ground water surface elevation for presence of hydrocarbon is calculated assuming a specific gravity of 0.88 (0.80 used for 07/17/00 and prior)
- (c) Survey by John West Surveying Co. on October 31, 2000
- (d) Well damaged can no longer access to get water level.

**Table 3. Summary of Field Measured Parameters  
TW WT-1 Engine Room Pit Area**

Well ID	Date	Dissolved Oxygen (mg/L) Meter/Hach Kit	pH	Temperature °C	Electrical Conductivity (ms/cm)	Turbidity (NTU/FTU) field / lab	Remarks
MW-1	11/12/96	0.0	6.67	22.2	--	--	strong mercaptin ofor, bailed dry 1 gal
	02/04/97	0.0	6.70	17.3	3,100	39.3/127	strong odor, blk color, bailed dry 1 gal
	05/10/96	--	6.92	21.8	3,110	62.0	strong odor, blk/gry color
	08/08/97	0.0	6.88	20.3	3,260	101	clear to gray, strong odor
	10/09/97	1.2	6.89	21.6	3,080	--	gray blk, strong odor
	01/23/98	0.0	6.65	17.1	2,970	--	strong odor, amber color
	04/17/98	0.9	6.96	19.9	3,070	58.0	clear, gold tint, strong odor
	07/17/98	0.1	6.91	22.4	3,400	9.97	clear, light tint, strong odor
	01/27/99	--	6.81	20.8	3,020	--	clear, odor
	08/21/01	0.8	6.78	23.4	2,380	--	gray,odor, pumped dry @ 1 gallon purged
	03/01/02	1.2/0.2	7.06	21.6	2,940	--	clear, odor
	08/01/02	1.0	7.04	27.2	2,960	6.77	clear, odor
	02/12/03	--	--	--	--	--	sheen
	08/05/03	--	--	--	--	12.93	sheen
	05/24/04	1.30	6.62	21.70	2550	--	clear, odor
	11/09/04	1.70	6.95	21.50	2540	13.46	clear, odor, gold color
	12/02/05	1.93	6.94	17.72	2199	13.96	clear, odor
	05/11/06	1.52	6.83	20.64	2342	--	clear
	12/17/06	2.26	6.73	19.32	2248	38.64	clear
	06/21/07	1.66	6.99	23.13	2793	--	clear, odor
	12/07/07	0.99	6.69	17.99	3143	3.55	clear, odor
	06/02/08	1.12	--	23.69	3279	--	clear, odor
MW-4	11/12/96	--	7.10	20.8	--	--	clear, no odor
	02/04/97	4.0	7.17	17.5	3,400	41.8/32	fine red silt, no odor
	05/10/97	3.0	7.09	19.7	3,400	5.46	very slight brn silt, mostly clear
	08/06/97	3.5	7.02	21.7	3,390	45.2	red silty
	10/08/97	3.0	7.05	21.5	3,060	--	slightly silty, light gold to brown
	01/23/98	0.6/0.8	7.11	18.7	2,640	--	clear
	04/16/98	1.8/0.4	7.00	21.1	2,720	2.5	clear
	07/16/98	1.3/0.8	6.99	21.6	3,090	0.67	clear
	01/26/99	1.2	7.01	19.1	2,740	--	clear
	07/08/99	3.3/1.4	7.12	21.0	3,050	0.76	clear, no odor
	01/27/00	--	7.03	19.1	3,070	--	clear
	07/17/00	2.6/2.6	7.06	20.6	3,100	3.49	clear
	02/17/01	3.5	7.07	20.5	3,130	--	clear
	08/21/01	3.1	6.96	20.3	3,010	--	clear
	02/28/02	0.7	7.01	21.1	2,860	--	clear
	08/01/02	1.2	7.03	23.5	3,000	1.19	clear
	02/12/03	1.1	6.97	22.2	3,010	--	clear
	08/05/03	0.9	6.97	22.8	2,910	0.89	clear
	05/24/04	1.5	6.73	20.2	3,110	--	clear
	11/09/04	1.2	6.94	19.9	2,750	0.62	clear
	12/02/05	1.0	7.02	19.4	2,253	2.37	clear
	05/11/06	1.4	6.88	20.0	2,522	--	clear
	12/17/06	1.3	6.76	19.5	2,238	2.59	clear
	06/21/07	1.8	7.09	20.1	2,488	--	clear
	12/07/07	2.1	6.84	19.4	1,986	0.00	clear
	06/02/08	1.9	7.41	20.3	2,744	--	clear
	12/11/08	2.2	7.46	19.1	2,440	1.43	clear
	04/28/09	2.7	6.48	20.0	2,672	3.50	clear
	06/13/10	1.5	6.56	20.2	2,750	--	clear
	11/10/11	2.2	6.82	19.0	2,485	--	clear

**Table 3. Summary of Field Measured Parameters  
TW WT-1 Engine Room Pit Area**

Well ID	Date	Dissolved Oxygen (mg/L) Meter/Hach Kit	pH	Temperature °C	Electrical Conductivity (ms/cm)	Turbidity (NTU/FTU) field / lab	Remarks
MW-5	11/12/96	--	7.00	23.1	--	--	strong odor, bailed dry 3.5 gal
	02/06/97	0.6	7.17	15.7	3,600	303/2040	strong odor, silty, foamy
	05/10/96	0.8	7.25	20.7	3,500	295	strong odor, red-yellow color, bailed dry 3.5g
	08/07/97	4.9	7.47	20.7	2,810	173	silty, red
	10/09/97	0.2	7.12	22.9	2,970	--	red silty, strong odor
	01/24/98	0.8	7.14	18.7	2,870	31.1	clear, amber color, strong odor
	04/17/98	0.6	7.16	20.2	2,840	52.0	clear, amber tint, strong odor
	07/17/98	0.7	7.02	22.5	3,140	43.18	foamy, light tint, strong odor
	01/27/99	0.6	7.10	20.5	2,700	--	clear, odor
	07/08/99	0.9/0.4	7.11	21.5	2,780	36.98	clear, light amber tint
	01/27/00	--	7.06	19.9	2,820	--	clear, strong odor
	07/18/00	0.0	7.12	23.5	2,800	25.00	clear, amber tint, odor
	02/18/01	0.9	7.13	19.5	2,760	--	clear, amber tint, odor
	08/21/01	1.0	7.01	23.7	2,410	--	gray/black, strong odor
	03/01/02	1.0	7.23	20.6	2,610	--	clear, amber tint, odor
	08/01/02	1.0	7.16	26.2	2,680	6.62	clear, odor
	02/12/03	1.0	7.14	22.3	2,580	--	clear, amber tint, odor
	08/05/03	0.4	7.07	24.4	2,370	22.73	clear, odor
	05/24/04	1.4	6.90	22.3	2,470	--	gray blk, strong odor
	11/10/04	1.3	6.94	19.7	2,000	8.07	gold color, strong odor
	12/02/05	1.0	7.10	19.6	2,146	12.57	clear, odor
	05/11/06	1.8	7.03	20.5	2,183	--	clear
	12/17/06	1.5	6.87	19.5	2,099	47.39	clear
	06/21/07	1.4	7.03	23.2	2,267	--	clear, odor
	12/07/07	0.8	6.89	19.8	1,685	5.33	clear, odor
	06/02/08	1.4	--	22.5	2,268	--	clear, odor
	12/11/08	1.8	7.51	18.3	2,071	<100	clear
	04/28/09	1.3	6.33	19.5	2,191	31.49	clear, odor
	06/13/10	0.6	6.66	22.0	2,331	--	clear, odor
	11/10/11	1.0	6.75	19.0	2,194	--	clear, odor
MW-6	11/12/96	--	--	21.6	--	--	red silty
	02/04/97	2.0	6.56	17.0	3,800	279/600	fine red silt, no odor
	05/10/97	1.8	6.96	21.7	3,800	234	red silty
	08/07/97	1.8	6.89	20.2	3,730	173	red silty
	10/09/97	1.7	6.89	19.3	3,510	--	red silty
	01/23/98	0.6	6.81	19.7	3,460	--	slightly turbid
	04/16/98	0.4	6.87	19.1	3,470	15.36	clear
	07/16/98	2.9/1.6	6.84	22.6	3,810	5.37	clear, took 4 cycles to get final parameters
	01/27/99	1.1	6.79	19.6	3,550	--	clear, odor
	07/08/99	1.8/1.0	6.85	21.2	3,760	4.64	clear, slight odor, took 4 cycles to get final parameters
	01/27/00	--	6.85	19.3	3,800	--	clear, slight odor
	07/18/00	0.5	6.87	21.9	3,790	1.54	clear, slight odor
	02/13/01	1.5	6.88	20.2	3,800	--	clear
	08/21/01	1.5	6.68	22.9	3,560	--	clear with odor
	02/23/02	1.3	6.88	21.6	3,810	--	clear
	08/01/02	1.5	6.89	24.6	3,830	3.57	clear
	02/12/03	1.5	6.87	22.3	3,930	--	clear
	08/05/03	1.1	6.86	24.4	3,910	4.63	clear
	05/24/04	1.4	6.57	21.3	3,610	--	clear
	11/09/04	1.3	6.87	20.5	3,730	4.34	clear
	12/02/05	0.8	6.88	20.3	3,243	22.53	clear
	05/11/06	1.2	6.85	20.4	3,352	--	clear
	12/17/06	1.6	6.65	19.8	3,291	11.38	clear
	06/21/07	1.3	6.93	21.0	3,485	--	clear
	12/07/07	1.7	6.75	19.9	2,738	2.60	clear
	06/02/08	1.6	6.76	21.5	3,660	--	clear
	12/11/08	1.0	7.59	19.6	3,471	1.32	clear, odor
	04/28/09	1.6	6.33	20.0	3,706	8.27	clear
	06/13/10	0.6	6.45	20.9	3,836	--	clear
	11/09/11	1.3	6.60	19.9	3,504	--	clear

**Table 3. Summary of Field Measured Parameters  
TW WT-1 Engine Room Pit Area**

Well ID	Date	Dissolved Oxygen (mg/L) Meter/Hach Kit	pH	Temperature °C	Electrical Conductivity (ms/cm)	Turbidity (NTU/FTU) field / lab	Remarks
MW-7	11/12/97	--	7.16	23.6	--	--	red silty
	02/04/97	2.0	6.89	--	2,900	539/2080	fine red silt, no odor
	05/10/97	2.0	7.17	21.1	2,970	>1000	red silty/sandy
	08/07/97	2.0	7.18	20.2	2,970	18.8	slight red silt
	10/09/97	2.6	7.20	19.6	2,750	--	red silty
	01/23/98	1.1/1.6	7.10	18.7	2,730	--	clear
	04/17/98	2.5/2.6	7.21	18.0	2,720	1.64	clear
	07/16/98	3.5	7.12	21.7	2,970	1.81	clear
	01/27/99	2.6	7.10	19.9	2,740	--	clear
	07/08/99	3.4	7.16	20.7	2,850	1.12	clear
	01/27/00	--	7.13	18.9	2,840	--	clear
	07/18/00	2.3	7.22	21.9	2,780	1.98	clear
	02/18/01	2.8	7.18	19.8	2,790	--	clear
	08/21/01	4.0	7.11	22.5	2,660	--	clear
	02/28/02	2.5	7.21	20.6	2,800	--	clear
	08/01/02	--	--	--	--	--	turbid, pulled pump and bailed
	02/12/03	2.6	7.12	22.2	2,820	--	red turbid
	08/05/03	3.3	7.16	22.0	2,450	> 100	Red sand/ turbid
	05/24/04	2.6	6.94	20.2	2,640	--	Red sand/ slightly turbid
	11/09/04	1.6	6.80	19.3	2,641	41.67	Cloudy
	12/02/05	1.6	7.17	19.2	2,212	30.50	Cloudy
	05/11/06	3.0	6.99	20.3	2,885	--	turbid
	12/14/06	1.9	6.82	19.4	2,270	29.80	clear
	06/21/07	1.4	7.01	20.5	2,310	--	clear
	12/07/07	1.2	6.85	19.3	2,194	5.58	clear
	06/02/08	3.1	7.18	20.8	2,454	--	Slightly turbid
	12/11/08	1.6	7.51	18.9	2,248	23.40	turbid/silt
	04/28/09	1.8	6.52	19.8	2,395	30.66	clear
	06/13/10	3.1	6.76	21.6	2,429	--	clear
	11/10/11	2.0	6.82	19.3	2,277	--	Slightly turbid
MW-8	11/12/96	--	6.91	22.1	--	--	very fine red silt,
	02/06/97	2.0	6.95	14.1	3,000	<1000/590	red, silty, no odor
	05/10/97	1.6	7.00	22.0	3,040	193	red silt/sand
	08/07/97	1.1	6.97	20.1	3,040	237	red silt
	10/09/97	2.9	6.95	20.8	2,800	--	red silty
	01/24/98	0/0.2	6.90	19.0	2,810	26.17	Lt. amber color, clear
	04/17/98	0.9	6.97	19.2	2,860	25.46	clear, Lt. amber color
	07/17/98	0.2/0.0	6.85	22.5	3,070	4.10	clear, odor
	01/27/99	0.8/0.0	6.84	19.4	2,830	--	clear, odor
	07/08/99	1.9	6.87	22.1	2,950	2.79	clear
	01/27/00	--	6.87	19.2	2,960	--	clear, odor
	07/18/00	0.8	6.95	22.6	2,910	6.70	clear, odor
	02/18/01	1.2	6.91	20.3	2,910	--	clear
	08/21/01	1.2	6.82	22.3	2,730	--	clear
	02/28/02	1.6	6.96	20.3	2,900	--	clear
	08/01/02	1.4	6.95	25.6	2,880	2.61	clear
	02/12/03	1.5	6.91	22.5	2,860	--	clear
	08/05/03	1.4	6.92	26.4	2,800	6.73	clear
	05/24/04	1.2	6.64	21.4	2,670	--	clear, odor
	11/09/04	1.4	6.87	19.8	2,740	0.89	clear, odor
	12/02/05	1.2	6.90	20.7	2,392	5.19	clear
	05/11/06	1.1	6.74	20.4	2,434	--	clear
	12/17/06	1.5	6.72	20.1	2,114	9.97	clear
	06/21/07	1.1	6.96	21.5	2,393	--	clear
	12/07/07	1.2	6.61	19.9	1,982	5.46	clear, odor
	06/02/08	3.0	--	22.8	2,724	--	clear, odor
	12/11/08	0.8	7.56	19.6	2,489	<100	clear
	04/28/09	1.1	6.16	19.7	2,619	1.72	clear
	06/13/10	0.2	6.41	21.3	2,668	--	clear
	11/10/11	1.6	6.52	18.6	2,536	--	clear

**Table 3. Summary of Field Measured Parameters  
TW WT-1 Engine Room Pit Area**

Well ID	Date	Dissolved Oxygen (mg/L) Meter/Hach Kit	pH	Temperature °C	Electrical Conductivity (ms/cm)	Turbidity (NTU/FTU) field / lab	Remarks
MW-14	11/12/96	--	7.07	19.9	--	--	mostly clear, slight silt
	02/04/97	3.0	7.06	15.3	3,600	70.1/92	clear initially, red silty, no odor
	05/10/97	2.0	7.04	21.2	3,390	16.2	slight red sand/silt
	08/07/97	1.0	7.09	20.4	3,340	2.8	clear
	10/08/97	1.5	6.74	20.7	3,170	--	clear
	01/23/98	0.7	6.97	17.5	3,150	--	clear
	04/17/98	1.2	7.08	21.1	3,180	0.79	clear
	07/17/98	0.6	6.94	21.8	3,520	2.25	clear
	01/27/99	--	6.92	19.9	3,260	--	clear
	07/08/99	1.3	6.96	20.9	3,460	0.87	clear
	01/27/00	--	6.96	19.5	3,420	--	clear
	07/18/00	0.2/0.6	7.00	20.9	3,330	1.65	clear
	02/18/01	0.9	6.98	20.3	3,350	--	clear
	08/21/01	3.5	7.10	22.3	2,690	--	clear
	02/28/02	2.2	7.03	21.5	3,340	--	clear
	08/01/02	1.4	7.03	24.2	3,330	1.32	clear
	02/2/03	1.1	6.96	22.4	3,360	--	clear
	08/05/03	0.8	6.96	23.6	3,280	2.72	clear
	05/24/04	1.3	6.74	21.3	3,160	--	clear
	11/04/04	1.3	6.90	19.7	2,830	2.16	clear
	12/02/05	0.9	6.97	20.1	2,883	7.97	clear
	05/1/06	1.0	6.81	20.1	2,957	--	clear
	12/17/06	1.3	6.73	19.2	2,948	1.79	clear
	06/21/07	1.2	7.03	20.5	3,072	--	clear
	12/07/07	1.0	6.81	20.2	2,432	13.45	clear
	06/02/08	1.8	7.10	22.0	3,342	--	clear
	12/11/08	0.7	7.46	19.6	3,033	1.75	clear, odor
	04/28/09	1.4	6.39	20.0	3,223	1.29	clear
	06/13/10	0.3	6.50	20.7	3,352	--	clear
	11/09/11	1.8	6.66	19.6	3,076	--	clear
MW-15	11/12/96	--	7.21	24.6	--	--	clear
	02/04/97	8.0	6.90	18.3	3,200	34.5/133	fine red silt, no odor
	05/10/97	--	7.28	20.0	3,230	63.1	silty red sand
	08/07/97	7.4	7.13	20.5	3,160	159	red silt
	10/08/97	7.4	7.26	21.0	2,900	--	red sand/ fine silt
	01/23/98	5.2	7.24	18.8	2,930	--	turbid
	04/16/98	4.9	7.13	19.4	2,940	5.69	clear
	07/17/98	5.8/5.0	7.04	22.1	3,210	11.05	clear
	01/26/99	4.5	7.08	19.4	2,830	--	clear
	07/08/99	6.1	7.08	20.2	2,840	11.34	clear
	01/27/00	--	7.11	18.9	2,850	--	clear
	07/17/00	5.6	7.07	20.6	2,750	5.62	clear
	02/17/01	5.4	7.13	19.9	2,750	--	clear
	08/21/01	5.6	7.06	20.6	2,600	--	clear
	02/28/02	4.9	7.19	21.4	2,770	--	clear
	08/01/02	5.0	7.20	23.1	2,750	1.74	clear
	02/12/03	4.7	7.13	21.9	2,730	--	clear
	08/05/03	5.7	7.14	23.6	2,650	4.76	clear
	05/24/04	3.8	6.87	21.1	2,380	--	clear
	11/09/04	3.5	7.14	20.1	2,500	3.38	clear
	12/02/05	3.5	7.12	19.4	2,222	30.87	clear
	05/11/06	4.2	6.97	19.9	2,222	--	clear
	12/17/06	4.6	6.89	19.2	1,958	8.31	clear
	06/21/07	3.5	7.17	20.1	2,062	--	cloudy
	12/07/07	3.7	6.88	19.4	1,691	49.37	cloudy
	06/02/08	5.1	6.98	20.9	2,235	--	Slightly turbid
	12/11/08	4.2	7.43	18.6	2,009	--	clear
	04/28/09	5.3	6.55	19.8	1,987	26.80	clear
	06/13/10	4.8	6.65	20.7	2,116	--	clear
	11/10/11	3.5	6.89	19.0	2,061	--	clear

**Table 3. Summary of Field Measured Parameters  
TW WT-1 Engine Room Pit Area**

Well ID	Date	Dissolved Oxygen (mg/L) Meter/Hach Kit	pH	Temperature °C	Electrical Conductivity (ms/cm)	Turbidity (NTU/FTU) field / lab	Remarks
MW-16	11/12/96	--	6.7	22.7	--	--	mostly clear, slight red silt
	02/04/97	4.0	6.49	17.2	4,900	139/830	fine red silt, no odor
	05/10/97	1.4	6.91	20.1	4,800	203	red sand/silt
	08/06/97	3.3	6.87	21.3	4,540	670	very silty, red
	10/08/97	3.3	6.88	21.3	4,190	--	red silty
	01/23/98	1.9	6.84	18.6	3,940	--	slightly turbid
	04/16/98	1.4/1.0	6.88	20.8	3,990	1.27	clear
	07/16/98	2.2	6.81	21.2	4,380	0.43	clear
	01/26/99	1.3	6.82	19.5	3,980	--	clear
	07/08/99	1.6/1.0	6.84	20.7	4,520	0.80	clear, no odor
	01/27/00	--	6.80	19.3	4,540	--	clear
	07/17/00	0.9	6.83	20.7	4,520	2.12	clear
	02/17/01	2.0	6.85	20.0	4,230	--	clear
	08/21/01	1.1	6.73	20.6	4,030	--	clear
	02/28/02	1.6	6.89	21.6	4,090	--	clear
	08/01/02	1.4	6.90	23.2	4,300	3.71	clear
	02/12/03	0.8	6.85	22.2	4,350	--	clear
	08/05/03	1.6	6.87	23.1	4,110	0.92	clear
	05/24/04	1.0	6.62	21.0	4,140	--	clear
	11/09/04	1.6	6.87	20.1	4,020	1.34	clear
	12/02/05	0.9	6.87	19.9	3,286	26.45	clear
	05/11/06	1.0	6.71	20.0	3,382	--	clear
	12/17/06	1.9	6.64	19.6	3,314	11.18	clear
	06/21/07	1.0	6.94	20.5	3,465	--	clear
	12/07/07	1.4	6.66	19.8	2,738	0.88	clear
	06/02/08	2.1	6.82	21.0	3,757	--	clear
	12/11/08	0.8	7.52	19.5	3,440	1.09	clear
	04/28/09	1.3	6.28	19.9	3,691	1.42	clear
	06/13/10	0.3	6.49	20.3	4,015	--	clear
	11/10/11	1.8	6.63	19.0	3,628	--	clear
MW-17	11/10/04	4.3	7.05	19.7	2,880	>100	red sand/turbid
	12/02/05	1.8	7.03	19.5	2,912	>100	red sand/turbid
	05/11/06	--	--	--	--	--	--
	12/15/06	2.3	6.9	19.7	3,015	>100	red sand/turbid
	06/21/07	2.3	7.1	21.1	3,152	--	clear
	12/07/07	2.0	6.8	20.2	2,467	3.96	clear
	06/02/08	2.0	7.6	21.2	3,391	--	red sand/turbid
	12/11/08	1.5	7.6	19.3	3,121	>100	clear
	04/28/09	2.0	6.5	20.4	3,322	3.57	clear
	06/13/10	1.2	6.6	20.9	3,430	--	clear
	11/09/11	2.6	6.72	20.1	3,086	--	clear
SVE-1A	01/26/00	--	7.07	18.2	2,800	--	turbid, odor
	07/18/00	0.0	7.09	21.3	2,890	--	turbid, odor
	02/18/01	--	--	--	--	--	turbid, odor, insufficient h <sub>2</sub> O for parameters
	08/21/01	1.3	7.09	21.4	2420.0	--	grayblack, strong odor, bailed dry @ 0.75 gallons
	03/01/02	1.3	7.25	21.9	2820.0	--	red, turbid, odor
	08/01/02	--	--	--	--	--	turbid, odor, insufficient h <sub>2</sub> O for parameters
	02/12/03	0.3	7.10	22.3	2,700	--	turbid
	08/05/03	0.8	7.08	23.4	2,600	9.28	clear
	05/24/04	1.6	6.82	21.0	2,610	--	turbid, strong odor
	11/10/04	1.91	6.74	19.9	2,621	55	cloudy
	12/02/05	0.77	7.07	19.5	2,300	89	cloudy
	05/11/06	1.55	6.87	20.1	2,338	--	clear
	12/14/06	1.26	6.77	20.2	2,353	>100	turbid, odor
	06/21/07	1.81	7.06	21.0	2,479	--	turbid, odor
	12/07/07	0.74	6.79	20.1	1,926	9.75	slightly turbid, odor
	06/02/08	2.47	--	21.3	2,634	--	slightly turbid, odor
	12/11/08	1.23	6.87	19.4	2,062	28.27	clear, odor
	04/28/09	1.44	6.50	20.5	2,558	15.75	clear, odor
	06/13/10	1.13	6.66	21.7	2,625	--	clear
	11/10/11	1.05	6.64	19.4	2,509	--	clear

**Table 4. Summary of Groundwater Analyses - Organics**  
**TW WT-1 Station Engine Room Pit Area**

Well ID	Sampling Date	BTEX (ug/L)				Other VOCs (ug/L)										SVOCs (ug/L)				
		Benzene	Toluene	Ethylbenzene	Xylenes (total)	Acetone	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	Dichlormethane (Methylene chloride)	4-methyl-2-pentanone (Methyl Isobutyl Ketone)	Tetrachloroethene	1,1,1-Trichloroethane	Trichloroethene	Vinyl chloride	Naphthalene	1-Methyl/naphthalene	2-Methyl/naphthalene	Total Naphthalenes
NMWQCC Standard		10	750	750	620	none	25.0	10.0	5	none	100	none	20	60	100	1	30	30	30	30
SVE-1A	01/26/00	59	16	14	57	< 20	240	2	8	54	5	240	8	44	59	< 2	14	na	na	14
	07/18/00	59	16	15	59	< 20	230	3	8	62	3	480	3	33	57	< 2	15	na	na	15
	02/18/01	45.6	29.6	14.2	101.12	< 50.0	466	5.45	15.8	101	< 25.0	883	13.8	55.1	98.9	< 5.00	16.8	na	na	17
	08/21/01	51.9	31.4	16.2	92.6	< 10	607	5.08	21.8	116	< 5	610	7.65	62.5	133	3.6	16.2	na	na	16
	03/01/02	47.7	41.5	16.0	89.2	< 100	334	< 10.0	10.8	101	< 50.0	842	< 10.0	14.9	84.7	< 10.0	< 50	na	na	< 50
	08/01/02	60	57	17	110	< 250	480	< 10	21	170	< 30	1000	11	33	150	< 20	< 20	< 40	< 40	< 100
	02/12/03	55	78	20	120	< 250	370	< 10	11	160	< 30	1100	< 10	19	130	< 20	< 20	< 40	< 40	< 100
	08/05/03	69	83	24	170	< 100	630	< 10	16	240	< 30	1500	< 10	34	180	< 20	< 20	< 40	< 40	< 100
	05/25/04	90	47	25	95	< 100	380	< 10	10	120	< 30	420	< 10	40	80	< 10	23	< 40	< 40	< 103
	11/10/04	91	99	32	190	< 50	680	< 5.0	19	310	< 15	1500	< 5.0	41	140	< 5.0	26	< 20	21	< 67
	04/12/05	85	36	29	79	< 100	150	< 10	< 10	85	< 30	550	< 10	< 10	35	< 10	28	< 40	< 40	< 108
	12/02/05	170	37	60	110	< 100	150	< 10	< 10	76	< 30	180	< 10	12	48	< 10	39	< 40	51	< 130
	05/11/06	110	23	41	89	< 50	150	8.1	< 5	74	< 15	260	< 5	< 5	37	< 5	33	< 20	< 20	< 73
	12/14/06	160	31	65	120	< 100	230	< 10	< 10	95	< 30	200	< 10	15	60	< 10	37	< 40	< 40	< 117
	06/21/07	72	12	28	56	< 10	240	1.4	9.2	59	< 3	58	7.9	21	42	1.1	21	6.8	8.5	36
	12/07/07	73	8.8	25	39	< 50	96	< 5	< 5	37	< 15	< 50	< 5	6.2	24	< 5	19	< 20	< 20	< 59
	06/02/08	140	22	59	81	< 50	180	< 5	7.7	61	< 15	69	15	16	41	< 5	44	< 20	< 20	< 84
	12/11/08	71	7.5	29	35	< 10	150	3.7	5.2	42	< 3	27	6.5	12	22	< 1	21	8.0	12	41
	04/28/09	69	5.7	31	31	< 10	38	< 1	< 1	19	< 3	15	1.1	< 1	11	< 1	21	8.2	12	41
	06/13/10	62	< 10	31	20	< 10	55	< 10	< 10	27	< 30	< 100	< 10	< 10	16	< 10	< 20	< 40	< 40	< 100
	11/09/11	52	18	23	54	< 100	410	< 10	13	190	< 30	< 100	< 100	14	28	40	< 10	< 20	< 40	< 40

**Table 4. Summary of Groundwater Analyses - Organics**  
**TW WT-1 Station Engine Room Pit Area**

Well ID	Sampling Date	BTEX (ug/L)				Other VOCs (ug/L)									SVOCs (ug/L)					
		Benzene	Toluene	Ethylbenzene	Xylenes (total)	Acetone	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	Dichloromethane (Methylene chloride)	4-methyl-2-pentanone (Methyl Isobutyl Ketone)	Tetrachloroethene	1,1,1-Trichloroethane	Trichloroethene	Vinyl chloride	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Total Naphthalenes
NMWQCC Standard		10	750	750	620	none	25.0	10.0	5	none	100	none	20	60	100	1	30	30	30	30
MW-1	11/15/94	12	100	10	110	na	690	6.7	2.2	2.8	420	na	16	< 2.0	28	< 2.0	7	< 5	< 5	< 17
	09/14/95	13	90	8	110	2000	730	13	9	na	170	1800	19	57	24	< 10	na	na	na	na
	11/12/96	9	66	< 5	39	630	480	9	< 5	na	88	1500	12	< 5	20	< 10	na	na	na	na
	02/04/97	13	94	8	80	790	480	10	< 5	< 5	89 <sup>b</sup>	1700	9	< 5	29	11	na	na	na	na
	05/10/97	10	75	6	45	470	470	9	< 5	< 5	< 50	1000	8	9	20	< 10	na	na	na	na
	08/07/97	< 50	< 50	< 50	< 50	1100	590	< 50	< 50	< 50	200	1200	< 50	< 50	< 50	< 100	na	na	na	na
	10/09/97	< 50	132	< 50	97	1660	597	< 50	< 50	< 50	221 <sup>b</sup>	1650	< 50	< 50	< 50	< 100	na	na	na	na
	01/23/98	11	82	7	85	2300	530	< 5	< 5	< 5	230	2000	8	< 5	24	< 10	< 5	na	na	< 5
	04/17/98	11	84	7	85	2100	480	8	< 5	< 5	360	1600	6	< 5	24	< 10	11	na	na	11
	07/17/98	15	93	8	97	< 2000	820	8	12	< 5	330	1800	14	93	21	< 10	13	na	na	13
	01/27/99	15	58	9	93	330	460	8	4	3	310	2100	10	18	26	< 2	14	na	na	14
	08/21/01	12.8	62.7	6.5	92.8	198	791	6.89	20	4.1	133	1200	28.1	147	18.8	2.65	11.2	na	na	11
	03/01/02	< 50.0	51.4	< 50.0	50.2	< 500	544	< 50.0	< 50.0	< 50.0	< 250	1750	< 50.0	< 50.0	< 50.0	< 50.0	< 250	na	na	< 250
	08/01/02	12	49	< 10	81	< 1300	470	< 10	12	< 10	84	1900	20	42	24	< 20	< 20	< 40	< 40	< 100
	02/12/03	14	41	< 10	84	340	360	< 10	< 10	< 10	52	2100	11	14	26	< 20	< 20	< 40	< 40	< 100
	08/05/03	15	38	< 10	94	270	440	< 10	< 10	< 10	62	2100	10	25	26	< 20	< 20	< 40	< 40	< 100
	05/25/04	25	63	14	120	63	640	7.1	21	8.5	190	2200	32	170	38	< 5	21	< 20	< 20	< 61
	11/09/04	23	53	16	160	< 100	410	< 10	< 10	< 10	< 30	2800	11	39	42	< 10	23	< 40	< 40	< 103
	04/12/05	26	60	18	150	110	250	6.4	< 5	8.9	17	2400	13	22	37	< 5	30	< 20	< 20	< 70
	12/02/05	37	94	23	190	140	440	< 5	12	9.9	100	1900	32	89	54	13	31	< 20	32	< 83
	05/11/06	26	61	17	120	120	280	6.7	5.4	6.4	< 15	1700	19	15	30	< 5	27	< 20	< 20	< 67
	12/17/06	48	130	32	210	< 100	380	< 10	< 10	12	< 30	2400	20	18	58	< 10	32	< 40	< 40	< 112
	06/21/07	25	66	16	92	290	350	3.1	4.9	5.6	9.0	1400	42	31	41	1.6	22	6.9	9.6	39
	12/07/07	20	62	11	79	1000	600	< 10	< 10	< 10	< 30	1200	46	38	58	< 10	< 20	< 40	< 40	< 100
	06/02/08	29	80	15	100	500	760	< 10	14	< 10	< 30	1900	76	94	66	< 10	22	< 40	< 40	< 102
MW-3	11/16/94	5	< 0.5	< 0.5	0.5	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na

**Table 4. Summary of Groundwater Analyses - Organics**  
**TW WT-1 Station Engine Room Pit Area**

Well ID	Sampling Date	BTEX (ug/L)				Other VOCs (ug/L)									SVOCs (ug/L)					
		Benzene	Toluene	Ethylbenzene	Xylenes (total)	Acetone	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	Dichloromethane (Methylene chloride)	4-methyl-2-pentanone (Methyl Isobutyl Ketone)	Tetrachloroethene	1,1,1-Trichloroethane	Trichloroethene	Vinyl chloride	Naphthalene	1-Methyl/naphthalene	2-Methyl/naphthalene	Total Naphthalenes
NMWQCC Standard		10	750	750	620	none	25.0	10.0	5	none	100	none	20	60	100	1	30	30	30	30
MW-4	12/01/94	< 0.5	< 0.5	< 0.5	< 0.5	na	0.9	< 0.2	4.7	< 0.2	< 2.0	na	0.5	< 0.2	< 0.2	< 0.2	< 0.5	< 0.5	< 0.5	< 2
	09/12/95	< 1	< 5	< 5	< 5	< 100	< 5	< 5	< 5	na	< 5	< 50	< 5	< 5	< 5	< 10	na	na	na	na
	11/12/96	< 5	< 5	< 5	< 5	< 100	< 5	< 5	< 5	na	< 5	< 50	< 5	< 5	< 5	< 10	na	na	na	na
	02/04/97	< 5	< 5	< 5	< 5	< 100	< 5	< 5	< 5	< 5	< 5	100	< 5	< 5	< 5	< 10	na	na	na	na
	05/10/97	< 5	< 5	< 5	< 5	< 100	< 5	< 5	< 5	< 5	< 50	< 50	< 5	< 5	< 5	< 10	na	na	na	na
	08/06/97	< 5	< 5	< 5	< 5	< 100	< 5	< 5	5.4	< 5	< 5	< 50	< 5	< 5	< 5	< 10	na	na	na	na
	10/08/97	< 5	< 5	< 5	< 5	< 100	< 5	< 5	< 5	< 5	< 5	< 50	< 5	< 5	< 5	< 10	na	na	na	na
	01/23/98	< 5	< 5	< 5	< 5	< 100	< 5	< 5	< 5	< 5	< 5	< 10	< 5	< 5	< 5	< 10	< 5	na	na	< 5
	04/16/98	< 5	< 5	< 5	< 5	< 100	< 5	< 5	< 5	< 5	< 5	< 10	< 5	< 5	< 5	< 10	< 5	na	na	< 5
	07/16/98	< 5	< 5	< 5	< 5	< 100	< 5	< 5	5	< 5	< 5	< 10	< 5	< 5	< 5	< 10	< 5	na	na	< 5
	01/26/99	< 1	< 1	< 1	< 1	< 20	< 1	< 1	4	< 1	< 2	< 10	< 1	< 1	< 1	< 2	< 1	na	na	< 1
	07/08/99	< 1	< 1	< 1	< 1	< 20	1	< 1	4	< 1	< 2	< 10	< 1	< 1	< 1	< 2	< 1	na	na	< 1
	01/27/00	< 1	< 1	< 1	< 1	< 20	1	< 1	4	< 1	< 2	< 10	< 1	< 1	< 1	< 2	< 1.0	na	na	< 1
	07/17/00	< 1	< 1	< 1	< 1	< 20	1	< 1	3	< 1	< 2	< 10	< 1	< 1	< 1	< 2	< 1.0	na	na	< 1
	02/17/01	< 1.00	< 1.00	< 1.00	< 1.00	< 10.00	< 1.00	< 1.00	3.62	< 1.00	< 5.00	< 5.00	< 1.00	< 1.00	< 1.00	< 1.00	< 2.00	na	na	< 2
	08/21/01	< 1	< 1	< 1	< 3	< 10	< 1	< 1	3.6	< 1	< 5	< 5	< 1	< 1	< 1	< 1	< 2	na	na	< 2
	02/28/02	< 1	< 1	< 1	< 2	< 10	< 1	< 1	2.92	< 1	< 5	< 5	< 1	< 1	< 1	< 1	< 5.00	na	na	< 5
	08/01/02	< 1.0	< 1.0	< 1.0	< 1.0	< 25	1.8	< 1.0	3.5	< 1.0	< 3.0	< 15	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 4.0	< 4.0	< 10
	02/12/03	< 1.0	< 1.0	< 1.0	< 1.0	< 25	< 1.0	< 1.0	2.3	< 1.0	< 3.0	< 15	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 4.0	< 4.0	< 10
	08/05/03	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0	< 1.0	1.9	< 1.0	< 3.0	< 10	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 4.0	< 4.0	< 10
	05/25/04	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0	< 1.0	1.6	< 1.0	< 3.0	< 10	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 4.0	< 4.0	< 10
	11/09/04	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	< 10	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 4.0	< 4.0	< 10
	04/12/05	< 1.0	< 1.0	< 1.0	< 1.0	< 10	1.4	< 1.0	1.3	< 1.0	< 3.0	< 10	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 4.0	< 4.0	< 10
	12/02/05	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 2.0	< 1.0	< 1.0	< 1.0	< 3.0	< 10	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 4.0	< 4.0	< 10
	05/11/06	< 1.0	< 1.0	< 1.0	< 3.0	< 10	< 2.0	< 1.0	1.1	< 1.0	< 3.0	< 10	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 4.0	< 4.0	< 10
	12/17/06	< 1.0	< 1.0	< 1.0	< 3.0	< 10	< 2.0	< 1.0	< 1.0	< 1.0	< 3.0	< 10	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 4.0	< 4.0	< 10
	06/21/07	< 1.0	< 1.0	< 1.0	< 1.5	< 10	< 2.0	< 1.0	< 1.0	< 1.0	< 3.0	< 10	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 4.0	< 4.0	< 10
	12/07/07	< 1.0	< 1.0	< 1.0	< 1.5	< 10	< 2.0	< 1.0	< 1.0	< 1.0	< 3.0	< 10	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 4.0	< 4.0	< 10
	06/02/08	< 1.0	< 1.0	< 1.0	< 1.5	< 10	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	< 10	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 4.0	< 4.0	< 10
	12/11/08	< 1.0	< 1.0	< 1.0	< 1.5	< 10	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	< 10	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 4.0	< 4.0	< 10
	04/28/09	< 1.0	< 1.0	< 1.0	< 1.5	< 10	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	< 10	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 4.0	< 4.0	< 10
	06/13/10	< 1.0	< 1.0	< 1.0	< 1.5	< 10	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	< 10	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 4.0	< 4.0	< 10
	11/10/11	< 1.0	< 1.0	< 1.0	< 1.5	< 10	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	< 10	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 4.0	< 4.0	< 10

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**TW WT-1 Station Engine Room Pit Area**

Well ID	Sampling Date	BTEX (ug/L)				Other VOCs (ug/L)									SVOCs (ug/L)					
		Benzene	Toluene	Ethylbenzene	Xylenes (total)	Acetone	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	Dichloromethane (Methylene chloride)	4-methyl-2-pentanone (Methyl Isobutyl Ketone)	Tetrachloroethene	1,1,1-Trichloroethane	Trichloroethene	Vinyl chloride	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Total Naphthalenes
NMWQCC Standard		10	750	750	620	none	25.0	10.0	5	none	100	none	20	60	100	1	30	30	30	30
MW-5	12/01/94	20	19	8.3	26	na	18	1.1	< 0.2	12	43	na	0.8	< 0.2	3.2	< 0.2	< 0.5	< 0.5	< 0.5	< 2
	09/12/95	12	24	< 5	24	1000	200	7	< 5	na	190	520	< 5	< 5	67	< 10	na	na	na	na
	11/12/96	20	44	18	44	< 100	150	< 5	< 5	na	5	300	< 5	< 5	< 5	11	na	na	na	na
	02/06/97	31	53	12	83	56	160	< 5	5.6	140	36 b	280	< 5	< 5	120	16	na	na	na	na
	05/10/97	24	35	9	38	< 100	140	< 5	< 5	120	< 50	210	< 5	< 5	86	< 10	na	na	na	na
	08/07/97	22	9	< 5	15	< 100	47	< 5	< 5	53	7	50	< 5	< 5	35	< 10	na	na	na	na
	10/09/97	19	15	7	24	< 100	96	< 5	< 5	103	10 b	89	< 5	< 5	71	< 10	na	na	na	na
	01/24/98	23	18	9	33	< 100	120	< 5	6	140	< 5	130	< 5	< 5	75	< 10	48	na	na	48
	04/17/98	16	9	< 5	14	< 100	83	< 5	< 5	91	< 5	18	< 5	< 5	67	< 10	5	na	na	5
	07/17/98	21	10	5	17	< 100	110	< 5	6	100	< 5	47	< 5	< 5	91	< 10	7	na	na	7
	01/27/99	22	9	7	19	< 20	81	1	5	86	< 2	19	3	2	96	< 2	9	na	na	9
	07/09/99	22	11	6	15	< 20	100	2	4	84	< 2	22	3	3	100	< 2	9	na	na	9
	01/27/00	22	8	7	15	< 20	67	1	3	60	< 2	10	3	3	84	< 2	13	na	na	13
	07/18/00	23	8	7	15	< 20	59	1	3	54	< 2	< 10	4	3	82	< 2	11	na	na	11
	02/18/01	19.5	7.73	7.84	17.15	< 10.00	57.7	1.23	3.06	62.0	< 5.00	13.9	2.93	3.11	63.8	< 1.00	14.4	na	na	14
	08/21/01	19.8	7.18	6.15	14.35	19	108	1.5	4.37	106	< 5	11.2	1.95	4.49	94.5	1.12	9.4	na	na	9
	03/01/02	14.1	3.54	4.45	8.67	< 10.0	124	1.97	4.15	86.9	< 5.00	6.63	1.10	3.37	104	2.24	10.5	na	na	11
	08/01/02	21	6.3	4.8	12	< 50	130	2.2	8.3	110	< 6.0	< 30	3.3	7.3	110	< 4.0	7.0	8.0	8.0	23
	02/12/03	18	3.7	3.8	9.4	< 50	150	2.4	5.6	100	< 6.0	< 30	5.0	4.9	160	< 4.0	7.4	< 8	< 8	< 23
	08/05/03	22	< 5	< 5	5.4	< 50	220	< 5.0	6.3	160	< 15	< 50	< 5.0	< 5.0	180	< 10	< 10	< 20	< 20	< 50
	05/25/04	22	7.5	5.1	13	< 50	150	< 5.0	< 5.0	120	< 15	< 50	< 5.0	< 5.0	130	< 5.0	< 10	< 20	< 20	< 50
	11/09/04	19	8.3	< 5.0	< 5.0	< 50	160	< 5.0	< 5.0	150	< 15	< 50	< 5.0	< 5.0	130	< 5.0	< 10	< 20	< 20	< 50
	04/12/05	23	7.3	< 5.0	15	< 50	98	< 5.0	5.8	82	< 15	< 50	< 5.0	< 5.0	94	< 5.0	11	< 20	< 20	< 51
	12/02/05	21	7.7	6.4	16	17	71	1.7	3.3	61	< 3	< 10	2.4	2.0	66	2.2	9.8	< 4.0	< 4.0	< 18
	05/11/06	14	4.1	4.5	10	< 10	95	3	2.1	39	< 3	< 10	1.6	< 1.0	47	< 1.0	8.5	< 4.0	< 4.0	< 17
	12/17/06	47	16	17	42	< 50	210	8.7	5.8	120	< 15	< 50	< 5.0	< 5.0	150	< 5.0	24	< 20	< 20	< 64
	06/21/07	15	5.7	5.6	12	< 10	73	1.3	2.6	36	< 1	< 10	1.8	1.1	43	< 1.0	9.7	< 4.0	< 4.0	< 18
	12/07/07	15	4.7	4.3	11	< 10	71	2.9	2.1	30	< 1	< 10	2.6	1.5	38	< 1.0	8.7	< 4.0	< 4.0	< 17
	06/02/08	14	3.6	4.2	7.5	< 10	72	1.1	2.0	31	< 3	< 10	< 1.0	< 1.0	39	< 1.0	9.0	< 4.0	< 4.0	< 17
	12/11/08	20	6.3	4.1	16	< 10	95	1.5	2.5	31	< 3	< 10	2.6	< 1.0	38	< 1.0	15	< 4.0	5.9	< 25
	04/28/09	16	3.8	5.5	12	< 10	77	1.2	1.6	26	< 3	< 10	1.6	< 1.0	32	< 1.0	9.1	< 4.0	< 4.0	< 17
	06/13/10	17	5.0 J	6.3 J	< 15	41 J	71	< 10	< 10	42	< 30	< 10	< 10	< 10	32	3.7 J	< 20	< 40	< 40	< 100
	11/10/11	16	< 10	< 10	< 15	< 100	61	< 10	< 10	48	< 30	< 100	< 10	< 10	24	< 10	< 20	< 40	< 40	< 100

**Table 4. Summary of Groundwater Analyses - Organics**  
**TW WT-1 Station Engine Room Pit Area**

Well ID	Sampling Date	BTEX (ug/L)				Other VOCs (ug/L)										SVOCs (ug/L)				
		Benzene	Toluene	Ethylbenzene	Xylenes (total)	Acetone	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	Dichloromethane (Methylene chloride)	4-methyl-2-pentanone (Methyl Isobutyl Ketone)	Tetrachloroethene	1,1,1-Trichloroethane	Trichloroethene	Vinyl chloride	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Total Naphthalenes
NMWQCC Standard		10	750	750	620	none	25.0	10.0	5	none	100	none	20	60	100	1	30	30	30	30
MW-6	11/30/94	1.8	< 0.5	< 0.5	0.5	na	13	< 0.2	2.9	6.8	< 2.0	na	0.4	< 0.2	15	< 0.2	< 0.5	< 0.5	< 0.5	< 2
	09/12/95	2	< 5	< 5	< 5	< 100	17	< 5	< 5	na	< 5	< 50	< 5	< 5	21	< 10	na	na	na	na
	11/12/96	< 5	< 5	< 5	< 5	< 100	12	< 5	< 5	na	< 5	< 50	< 5	< 5	15	< 10	na	na	na	na
	02/04/97	< 5	< 5	< 5	< 5	< 100	11	< 5	< 5	6	< 50	< 50	< 5	< 5	18	< 10	na	na	na	na
	05/10/97	< 5	< 5	< 5	< 5	< 100	10	< 5	< 5	< 5	< 50	< 50	< 5	< 5	14	< 10	na	na	na	na
	08/07/97	< 5	< 5	< 5	< 5	< 100	12	< 5	< 5	7	< 5	< 50	< 5	< 5	16	< 10	na	na	na	na
	10/09/97	< 5	< 5	< 5	< 5	< 100	12	< 5	< 5	7	< 5	< 50	< 5	< 5	16	< 10	na	na	na	na
	01/23/98	< 5	< 5	< 5	< 5	< 100	14	< 5	< 5	7	< 5	< 10	< 5	< 5	15	< 10	< 5	na	na	< 5
	04/16/98	< 5	< 5	< 5	< 5	< 100	13	< 5	< 5	8	< 5	< 10	< 5	< 5	17	< 10	< 5	na	na	< 5
	07/16/98	< 5	< 5	< 5	< 5	< 100	12	< 5	< 5	7	< 5	< 10	< 5	< 5	14	< 10	< 5	na	na	< 5
	01/27/99	1	< 1	< 1	< 1	< 20	11	< 1	3	8	< 2	< 10	< 1	< 1	16	< 2	< 1	na	na	< 1
	07/08/99	2	< 1	< 1	< 1	< 20	12	< 1	2	9	< 2	< 10	< 1	< 1	18	< 2	< 1	na	na	< 1
	01/27/00	2	< 1	< 1	< 1	< 20	14	< 1	3	9	< 2	< 10	< 1	< 1	19	< 2	< 1.0	na	na	< 1
	07/18/00	2	< 1	< 1	< 1	< 20	14	< 1	3	10	< 2	< 10	< 1	< 1	19	< 2	< 1.0	na	na	< 1
	02/18/01	1.60	< 1.00	< 1.00	< 1.00	< 10.00	12.1	< 1.00	2.09	9.49	< 5.00	< 5.00	< 1.00	< 1.00	16.4	< 1.00	< 2.00	na	na	< 2
	08/21/01	1.5	< 1	< 1	< 3	< 10	10	< 1	2.02	8.28	< 5	< 5	< 1	< 1	15.5	< 1	< 2	na	na	< 2
	02/28/02	1.6	< 1.00	< 1.00	< 2.00	< 10.0	11.8	< 1.00	1.88	8.60	< 5.00	< 5.00	< 1.00	< 1.00	16.4	< 1.00	< 5.00	na	na	< 5
	08/01/02	1.3	< 1.0	< 1.0	< 1.0	< 25	11	< 1.0	2.5	8.4	< 3.0	< 15	< 1.0	< 1.0	17	< 2.0	< 2.0	< 4.0	< 4.0	< 10
	02/12/03	1.1	< 1.0	< 1.0	< 1.0	< 25	8.5	< 1.0	1.4	6.2	< 3.0	< 15	< 1.0	< 1.0	13	< 2.0	< 2.0	< 4.0	< 4.0	< 10
	08/05/03	< 1.0	< 1.0	< 1.0	< 1.0	< 10	8.2	< 1.0	1.2	6.0	< 3.0	< 10	< 1.0	< 1.0	13	< 2.0	< 2.0	< 4.0	< 4.0	< 10
	05/25/04	< 1.0	< 1.0	< 1.0	< 1.0	< 10	6.9	< 1.0	1.1	5.2	< 3.0	< 10	< 1.0	< 1.0	12	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	11/09/04	< 1.0	< 1.0	< 1.0	< 1.0	< 10	5.5	< 1.0	< 1.0	4.6	< 3.0	< 10	< 1.0	< 1.0	10	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	04/12/05	1.1	< 1.0	< 1.0	< 1.0	< 10	6.7	< 1.0	1.3	5.1	< 3.0	< 10	< 1.0	< 1.0	10	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	12/02/05	< 1.0	< 1.0	< 1.0	< 1.0	< 10	5.3	< 1.0	< 1.0	4.2	< 3.0	< 10	< 1.0	< 1.0	10	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	05/11/06	1.1	< 1.0	< 1.0	< 3.0	< 10	6.4	< 1.0	1.2	4.6	< 1.0	< 10	< 1.0	< 1.0	9.9	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	12/17/06	< 1.0	< 1.0	< 1.0	< 3.0	< 10	6.5	< 1.0	< 1.0	4.1	< 1.0	< 10	< 1.0	< 1.0	11	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	06/21/07	< 1.0	< 1.0	< 1.0	< 1.5	< 10	4.7	< 1.0	< 1.0	3.5	< 3.0	< 10	< 1.0	< 1.0	9.1	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	12/07/07	< 1.0	< 1.0	< 1.0	< 1.5	< 10	4.1	< 1.0	< 1.0	3.1	< 3.0	< 10	< 1.0	< 1.0	9.1	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	06/02/08	< 1.0	< 1.0	< 1.0	< 1.5	< 10	5.3	< 1.0	< 1.0	3.5	< 3.0	< 10	< 1.0	< 1.0	9.2	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	12/11/08	< 1.0	< 1.0	< 1.0	< 1.5	< 10	3.6	< 1.0	< 1.0	3.2	< 3.0	< 10	< 1.0	< 1.0	8.5	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	04/28/09	< 1.0	< 1.0	< 1.0	< 1.5	< 10	4.3	< 1.0	< 1.0	3.0	< 3.0	< 10	< 1.0	< 1.0	7.6	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	06/13/10	< 1.0	< 1.0	< 1.0	< 1.5	< 10	3.6	< 1.0	< 1.0	2.7	< 3.0	< 10	< 1.0	< 1.0	6.2	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	11/09/11	< 1.0	< 1.0	< 1.0	< 1.5	< 10	3.2	< 1.0	< 1.0	2.3	< 3.0	< 10	< 1.0	< 1.0	4.8	< 1.0	< 2.0	< 4.0	< 4.0	< 10

**Table 4. Summary of Groundwater Analyses - Organics**  
**TW WT-1 Station Engine Room Pit Area**

Well ID	Sampling Date	BTEX (ug/L)				Other VOCs (ug/L)									SVOCs (ug/L)					
		Benzene	Toluene	Ethylbenzene	Xylenes (total)	Acetone	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	Dichloromethane (Methylene chloride)	4-methyl-1-pentanone (Methyl Isobutyl Ketone)	Tetrachloroethene	1,1,1-Trichloroethane	Trichloroethylene	Vinyl chloride	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Total Naphthalenes
NMWQCC Standard		10	750	750	620	none	25.0	10.0	5	none	100	none	20	60	100	1	30	30	30	30
MW-7	11/22/94	7	< 0.5	< 0.5	< 0.5	na	23	0.3	2.3	7.3	< 2.0	na	0.4	1.6	14	0.3	< 0.5	< 0.5	< 0.5	< 2
	09/12/95	6	< 5	< 5	< 5	< 100	22	< 5	< 5	na	< 5	< 50	< 5	< 5	13	< 10	na	na	na	na
	11/12/96	9	< 5	< 5	< 5	< 100	22	24	< 5	na	< 5	< 50	< 5	< 5	18	< 10	na	na	na	na
	02/04/97	8	< 5	< 5	< 5	< 100	18	< 5	< 5	7	< 50	< 50	< 5	< 5	15	< 10	na	na	na	na
	05/10/97	6	< 5	< 5	< 5	< 100	16	< 5	< 5	< 5	< 50	< 50	< 5	< 5	13	< 10	na	na	na	na
	08/07/97	9	< 5	< 5	< 5	< 100	22	< 5	< 5	8	< 5	< 50	< 5	< 5	17	< 10	na	na	na	na
	10/09/97	< 5	< 5	< 5	< 5	< 100	20	< 5	< 5	6	< 5	< 50	< 5	< 5	16	< 10	na	na	na	na
	01/23/98	6	< 5	< 5	< 5	< 100	21	< 5	< 5	6	< 5	< 10	< 5	< 5	13	< 10	< 5	na	na	< 5
	04/17/98	6	< 5	< 5	< 5	< 100	20	< 5	< 5	8	< 5	< 10	< 5	< 5	14	< 10	< 5	na	na	< 5
	07/16/98	7	< 5	< 5	< 5	< 100	19	< 5	< 5	7	< 5	< 10	< 5	< 5	12	< 10	< 5	na	na	< 5
	01/27/99	7	< 1	< 1	< 1	< 20	19	< 1	3	10	< 2	< 10	< 1	< 1	12	< 2	< 1	na	na	< 1
	07/08/99	7	< 1	< 1	< 1	< 20	20	< 1	2	10	< 2	< 10	< 1	< 1	12	< 2	< 1	na	na	< 1
	01/27/00	8	< 1	< 1	< 1	< 20	24	< 1	2	13	< 2	< 10	< 1	< 1	12	< 2	< 1.0	na	na	< 1
	07/18/00	6	< 1	< 1	< 1	< 20	19	< 1	2	11	< 2	< 10	< 1	< 1	9	< 2	< 1.0	na	na	< 1
	02/18/01	7.90	< 1.00	< 1.00	< 1.00	< 10.00	24.3	< 1.00	2.24	16.0	< 5.00	< 5.00	< 1.00	< 1.00	12.1	< 1.00	< 2.00	na	na	< 2
	08/21/01	4.25	< 1	< 1	< 3	< 10	21.6	< 1	1.79	15	< 5	< 5	< 1	< 1	11.2	< 1	< 2	na	na	< 2
	02/28/02	< 1.00	< 1.00	< 1.00	< 2.00	< 10.0	34.3	< 1.00	2.37	24.8	< 5.00	< 5.00	< 1.00	< 1.00	15.3	< 1.00	< 5.00	na	na	< 5
	08/01/02	< 1.0	< 1.0	< 1.0	< 1.0	< 25	30	< 1.0	2.9	24	< 3.0	< 15	< 1.0	< 1.0	15	< 2.0	< 2.0	< 4.0	< 4.0	< 10
	02/12/03	< 1.0	< 1.0	< 1.0	< 1.0	< 25	24	< 1.0	2.0	20	< 3.0	< 15	< 1.0	< 1.0	11	< 2.0	< 2.0	< 4.0	< 4.0	< 10
	08/05/03	< 1.0	< 1.0	< 1.0	< 1.0	< 10	36	< 1.0	2.0	34	< 3.0	< 10	< 1.0	< 1.0	15	< 2.0	< 2.0	< 4.0	< 4.0	< 10
	05/25/04	< 1.0	< 1.0	< 1.0	< 1.0	< 10	29	< 1.0	1.4	28	< 3.0	< 10	< 1.0	< 1.0	12	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	11/10/04	< 1.0	< 1.0	< 1.0	< 1.0	< 10	28	< 1.0	< 1.0	31	< 3.0	< 10	< 1.0	< 1.0	12	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	04/12/05	< 1.0	< 1.0	< 1.0	< 1.0	< 10	32	< 1.0	1.9	34	< 3.0	< 10	< 1.0	< 1.0	13	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	12/02/05	< 1.0	< 1.0	< 1.0	< 1.0	< 10	30	< 1.0	1.4	33	< 3.0	< 10	< 1.0	< 1.0	12	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	05/11/06	< 1.0	< 1.0	< 1.0	< 3.0	< 10	30	< 1.0	1.3	25	< 3.0	< 10	< 1.0	< 1.0	9.8	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	12/14/06	< 1.0	< 1.0	< 1.0	< 3.0	< 10	38	< 1.0	1.4	41	< 3.0	< 10	< 1.0	< 1.0	21	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	06/21/07	< 1.0	< 1.0	< 1.0	< 1.5	< 10	30	< 1.0	1.4	36	< 1.0	< 10	< 1.0	< 1.0	10	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	12/07/07	< 1.0	< 1.0	< 1.0	< 1.5	< 10	33	< 1.0	1.2	36	< 1.0	< 10	< 1.0	< 1.0	9.7	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	06/02/08	< 1.0	< 1.0	< 1.0	< 1.5	< 10	32	< 1.0	1.4	33	< 1.0	< 10	< 1.0	< 1.0	8.8	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	12/11/08	< 1.0	< 1.0	< 1.0	< 1.5	< 10	41	< 1.0	1.6	48	< 1.0	< 10	< 1.0	< 1.0	10	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	04/28/09	< 1.0	< 1.0	< 1.0	< 1.5	< 10	32	< 1.0	1.1	36	< 1.0	< 10	< 1.0	< 1.0	8.2	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	06/13/10	< 1.0	< 1.0	< 1.0	< 1.5	< 10	29	< 1.0	1.2	34	< 1.0	< 10	< 1.0	< 1.0	7.3	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	11/10/11	< 1.0	< 1.0	< 1.0	< 1.5	< 10	37	< 1.0	1.4	52	< 1.0	< 10	< 1.0	< 1.0	6.6	< 1.0	< 2.0	< 4.0	< 4.0	< 10

**Table 4. Summary of Groundwater Analyses - Organics**  
**TW WT-1 Station Engine Room Pit Area**

Well ID	Sampling Date	BTEX (ug/L)				Other VOCs (ug/L)								SVOCs (ug/L)						
		Benzene	Toluene	Ethylbenzene	Xylenes (total)	Acetone	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	Dichloromethane (Methylene chloride)	4-methyl-2-pentanone (Methyl Isobutyl Ketone)	Tetrachloroethene	1,1,1-Trichloroethane	Trichloroethene	Vinyl chloride	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Total Naphthalenes
NMWQCC Standard	10	750	750	620	none	25.0	10.0	5	none	100	none	20	60	100	1	30	30	30	30	
MW-8	11/30/94	12	< 0.5	< 0.5	< 0.5	na	71	0.9	1.3	18	< 2.0	na	< 0.2	< 0.2	17	0.2	< 0.5	< 0.5	< 0.5	< 2
	09/13/95	18	< 5	< 5	< 5	< 100	92	< 5	< 5	na	< 5	< 50	< 5	< 5	45	< 10	na	na	na	na
	11/12/96	19	< 5	< 5	< 5	< 100	86	< 5	6	na	< 5	< 50	< 5	< 5	59	< 10	na	na	na	na
	02/06/97	24	< 5	< 5	< 5	< 100	80	< 5	< 5	28	5.2 <sup>b</sup>	< 50	< 5	< 5	52	< 10	na	na	na	na
	05/10/97	19	42	< 5	< 5	< 100	74	< 5	< 5	120	< 50	130	< 5	< 5	44	< 10	na	na	na	na
	08/07/97	21	< 5	< 5	< 5	< 100	86	< 5	7.4	30	< 5	< 50	< 5	< 5	49	< 10	na	na	na	na
	10/09/97	25	< 5	< 5	< 5	< 100	104	< 5	< 5	34	7 <sup>b</sup>	< 50	< 5	< 5	67	< 10	na	na	na	na
	01/24/98	21	< 5	< 5	< 5	< 100	100	< 5	< 5	33	< 5	0	< 5	< 5	52	< 10	< 5	na	na	< 5
	04/17/98	19	< 5	< 5	< 5	< 100	89	< 5	< 5	33	< 5	< 10	< 5	< 5	51	< 10	< 5	na	na	< 5
	07/17/98	20	< 5	< 5	< 5	< 100	91	< 5	< 5	32	< 5	< 10	< 5	< 5	51	< 10	< 5	na	na	< 5
	01/27/99	20	< 1	< 1	< 1	< 20	94	2	5	37	< 2	< 10	< 1	< 1	54	< 2	< 1	na	na	< 1
	07/09/99	17	< 1	< 1	< 1	< 20	99	2	5	39	< 2	< 10	< 1	< 1	59	< 2	< 1	na	na	< 1
	01/27/00	21	< 1	< 1	< 1	< 20	110	2	5	43	< 2	< 10	< 1	< 1	59	< 2	< 1.0	na	na	< 1
	07/18/00	21	< 1	< 1	< 1	< 20	100	2	5	45	< 2	< 10	< 1	< 1	59	< 2	< 1.0	na	na	< 1
	02/18/01	17.8	< 1.00	< 1.00	< 1.00	< 10.00	89.2	1.49	4.52	42.0	< 5.00	< 5.00	< 1.00	< 1.00	52.8	< 1.00	< 2.00	na	na	< 2
	08/21/01	17.7	< 1	< 1	< 3	< 10	97.9	1.59	4.74	42.6	< 5	< 5	< 1	< 1	54.1	1.13	< 2	na	na	< 2
	02/28/02	22.1	< 1.00	< 1.00	< 2.00	< 10.0	108	2.33	4.50	47.1	< 5.00	< 5.00	< 1.00	< 1.00	56.6	2.92	< 5.00	na	na	< 5
	08/01/02	25	< 1.0	< 1.0	< 1.0	< 25	120	1.7	6.1	51	< 3.0	< 15	< 1.0	< 1.0	68	< 2.0	< 2.0	< 4.0	< 4.0	< 10
	02/12/03	23	< 1.0	< 1.0	< 1.0	< 25	95	1.7	5.0	49	< 3.0	< 15	< 1.0	< 1.0	52	< 2.0	< 2.0	< 4.0	< 4.0	< 10
	08/05/03	19	< 2.0	< 2.0	< 2.0	< 20	120	< 2	5.0	62	< 6.0	< 20	< 2.0	< 2.0	61	< 4.0	< 4.0	< 8.0	< 8.0	< 20
	05/25/04	12	< 2.0	< 2.0	< 2.0	< 20	120	2.1	5.5	72	< 6.0	< 20	< 2.0	< 2.0	58	< 2.0	< 4.0	< 8.0	< 8.0	< 20
	11/09/04	7.5	< 5.0	< 5.0	< 5.0	< 50	92	< 5.0	< 5.0	59	< 15	< 50	< 5.0	< 5.0	54	< 5.0	< 10	< 20	< 20	< 50
	04/12/05	6.4	< 5.0	< 5.0	< 5.0	< 50	63	< 5.0	< 5.0	36	< 15	< 50	< 5.0	< 5.0	35	< 5.0	< 10	< 20	< 20	< 50
	12/02/05	5.6	< 1.0	< 1.0	< 1.0	< 10	67	1.4	3.7	47	< 3	< 10	< 1.0	< 1.0	42	2.6	< 2.0	< 4.0	< 4.0	< 10
	05/11/06	4	< 1.0	< 1.0	< 3.0	< 10	82	3.1	3.4	46	< 3	< 10	< 1.0	< 1.0	35	1.2	< 2.0	< 4.0	< 4.0	< 10
	12/17/06	2.1	< 1.0	< 1.0	< 3.0	< 10	33	1.1	1.2	19	< 3	< 10	< 1.0	< 1.0	18	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	06/21/07	2.8	< 1.0	< 1.0	< 1.5	< 10	45	< 1.0	2.3	30	< 3	< 10	< 1.0	< 1.0	29	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	12/07/07	3.9	< 1.0	< 1.0	< 1.5	< 10	68	2.7	3.4	48	< 3	< 10	< 1.0	< 1.0	41	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	06/02/08	3.6	< 1.0	< 1.0	< 1.5	< 10	66	1.1	3.7	50	< 3	< 10	< 1.0	< 1.0	40	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	12/11/08	3.5	< 1.0	< 1.0	< 1.5	< 10	78	1.2	3.6	66	< 3	< 10	< 1.0	< 1.0	41	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	04/28/09	3.3	< 1.0	< 1.0	< 1.5	< 10	73	1.1	3.7	65	< 3	< 10	< 1.0	< 1.0	39	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	06/13/10	3.6	< 1.0	< 1.0	< 1.5	< 10	55	1.0	3.2	57	< 3	< 10	< 1.0	< 1.0	28	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	11/10/11	3.1	< 1.0	< 1.0	< 1.5	< 10	47	< 1.0	2.3	60	< 3	< 10	< 1.0	< 1.0	23	< 1.0	< 2.0	< 4.0	< 4.0	< 10

**Table 4. Summary of Groundwater Analyses - Organics**  
**TW WT-1 Station Engine Room Pit Area**

Well ID	Sampling Date	BTEX (ug/L)				Other VOCs (ug/L)									SVOCs (ug/L)					
		Benzene	Toluene	Ethylbenzene	Xylenes (total)	Acetone	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	Dichloromethane (Methylene chloride)	4-methyl-2-pentanone (Methyl Isobutyl Ketone)	Tetrachloroethene	1,1,1-Trichloroethane	Trichloroethene	Vinyl chloride	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Total Naphthalenes
NMWQCC Standard		10	750	750	620	none	25.0	10.0	5	none	100	none	20	60	100	1	30	30	30	30
MW-14	09/13/95	1	< 5	< 5	< 5	< 100	24	< 10	< 5	na	< 5	< 50	< 5	< 5	11	< 10	na	na	na	na
	11/12/96	< 5	< 5	< 5	< 5	< 100	25	< 10	< 5	na	< 5	< 50	< 5	< 5	13	< 10	na	na	na	na
	02/04/97	< 5	< 5	< 5	< 5	< 100	21	< 5	< 5	< 5	< 50	< 50	< 5	< 5	13	< 10	na	na	na	na
	05/10/97	< 5	< 5	< 5	< 5	< 100	22	< 5	< 5	< 5	< 50	< 50	< 5	< 5	12	< 10	na	na	na	na
	08/07/97	< 5	< 5	< 5	< 5	< 100	27	< 5	< 5	< 5	< 5	< 50	< 5	< 5	14	< 10	na	na	na	na
	10/09/97	< 5	< 5	< 5	< 5	< 100	27	< 5	< 5	< 5	6 <sup>b</sup>	< 50	< 5	< 5	15	< 10	na	na	na	na
	01/23/98	< 5	< 5	< 5	< 5	< 100	31	< 5	< 5	5	< 5	< 10	< 5	< 5	13	< 10	< 5	na	na	< 5
	04/17/98	< 5	< 5	< 5	< 5	< 100	28	< 5	< 5	< 5	< 5	< 10	< 5	< 5	14	< 10	< 5	na	na	< 5
	07/17/98	< 5	< 5	< 5	< 5	< 100	26	< 5	< 5	< 5	< 5	< 10	< 5	< 5	14	< 10	< 5	na	na	< 5
	01/27/99	< 1	< 1	< 1	< 1	< 20	27	< 1	2	5	< 2	< 10	1	< 1	14	< 2	< 1	na	na	< 1
	07/09/99	< 1	< 1	< 1	< 1	< 20	29	< 1	2	5	< 2	< 10	1	< 1	16	< 2	< 1	na	na	< 1
	01/27/00	< 1	< 1	< 1	< 1	< 20	29	< 1	2	5	< 2	< 10	1	< 1	15	< 2	< 1.0	na	na	< 1
	07/18/00	< 1	< 1	< 1	< 1	< 20	32	< 1	2	6	< 2	< 10	1	< 1	16	< 2	< 1.0	na	na	< 1
	02/18/01	< 1.00	< 1.00	< 1.00	< 1.00	< 10.00	31.50	< 1.00	1.78	5.95	< 5.00	< 5.00	1.18	< 1.00	15.4	< 1.00	< 2.00	na	na	< 2
	08/21/01	< 1	< 1	< 1	< 3	< 10	33.7	< 1	1.61	5.93	< 5	< 5	< 1	< 1	15.7	< 1	< 2	na	na	< 2
	02/28/02	< 1.00	< 1.00	< 1.00	< 2.00	< 10.0	37.1	< 1.00	1.52	6.97	< 5.00	< 5.00	< 1.00	< 1.00	16.5	1.06	< 5.00	na	na	< 5
	08/01/02	< 1.0	< 1.0	< 1.0	< 1.0	< 25	37	< 1.0	2.4	7.6	< 3.0	< 15	1.7	< 1.0	18	< 2.0	< 2.0	< 4.0	< 4.0	< 10
	02/12/03	< 1.0	< 1.0	< 1.0	< 1.0	< 25	26	< 1.0	1.2	5.4	< 3.0	< 15	1.1	< 1.0	12	< 2.0	< 2.0	< 4.0	< 4.0	< 10
	08/05/03	< 1.0	< 1.0	< 1.0	< 1.0	< 10	33	< 1.0	1.2	6.2	< 3.0	< 10	< 1.0	< 1.0	14	< 2.0	< 2.0	< 4.0	< 4.0	< 10
	05/25/04	< 1.0	< 1.0	< 1.0	< 1.0	< 10	29	< 1.0	< 1.0	5.8	< 3.0	< 10	< 1.0	< 1.0	12	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	11/10/04	< 1.0	< 1.0	< 1.0	< 1.0	< 10	24	< 1.0	< 1.0	5.0	< 3.0	< 10	< 1.0	< 1.0	10	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	04/12/05	< 1.0	< 1.0	< 1.0	< 1.0	< 10	27	< 1.0	1.0	5.3	< 3.0	< 10	< 1.0	< 1.0	9.8	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	12/02/05	< 1.0	< 1.0	< 1.0	< 1.0	< 10	26	< 1.0	< 1.0	5.0	< 3.0	< 10	< 1.0	< 1.0	8.9	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	05/11/06	< 1.0	< 1.0	< 1.0	< 3.0	< 10	28	< 1.0	< 1.0	4.1	< 3.0	< 10	< 1.0	< 1.0	6.8	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	12/17/06	< 1.0	< 1.0	< 1.0	< 3.0	< 10	28	< 1.0	< 1.0	4.5	< 3.0	< 10	< 1.0	< 1.0	7.4	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	06/21/07	< 1.0	< 1.0	< 1.0	< 1.5	< 10	19	< 1.0	< 1.0	3.1	< 3.0	< 10	< 1.0	< 1.0	5.2	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	12/07/07	< 1.0	< 1.0	< 1.0	< 1.5	< 10	18	< 1.0	< 1.0	2.4	< 3.0	< 10	< 1.0	< 1.0	4.7	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	06/02/08	< 1.0	< 1.0	< 1.0	< 1.5	< 10	19	< 1.0	< 1.0	2.4	< 3.0	< 10	< 1.0	< 1.0	4.3	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	12/11/08	< 1.0	< 1.0	< 1.0	< 1.5	< 10	19	< 1.0	< 1.0	2.7	< 3.0	< 10	< 1.0	< 1.0	3.7	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	04/28/09	< 1.0	< 1.0	< 1.0	< 1.5	< 10	20	< 1.0	< 1.0	2.3	< 3.0	< 10	< 1.0	< 1.0	3.5	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	06/13/10	< 1.0	< 1.0	< 1.0	< 1.5	< 10	16	< 1.0	< 1.0	1.8	< 3.0	< 10	< 1.0	< 1.0	2.4	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	11/09/11	< 1.0	< 1.0	< 1.0	< 1.5	< 10	12	< 1.0	< 1.0	1.1	< 3.0	< 1	< 1.0	< 1.0	1.2	< 1.0	< 2.0	< 4.0	< 4.0	< 10

**Table 4. Summary of Groundwater Analyses - Organics**  
**TW WT-1 Station Engine Room Pit Area**

Well ID	Sampling Date	BTEX (ug/L)				Other VOCs (ug/L)									SVOCs (ug/L)					
		Benzene	Toluene	Ethylbenzene	Xylenes (total)	Acetone	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	Dichloromethane (Methylene chloride)	4-methyl-2-pentanone (Methyl Isobutyl Ketone)	Tetrachloroethene	1,1,1-Trichloroethane	Trichloroethene	Vinyl chloride	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Total Naphthalenes
NMWQCC Standard		10	750	750	620	none	25.0	10.0	5	none	100	none	20	60	100	1	30	30	30	30
MW-15	09/14/95	< 1	< 5	< 5	< 5	< 100	< 5	< 5	<b>5</b>	na	< 5	< 50	< 5	< 5	< 5	< 10	na	na	na	na
	11/12/96	< 5	< 5	< 5	< 5	< 100	< 5	< 5	<b>5</b>	na	< 5	< 50	< 5	< 5	< 5	< 10	na	na	na	na
	02/04/97	< 5	< 5	< 5	< 5	< 100	< 5	< 5	< 5	< 5	< 50	< 50	< 5	< 5	< 5	< 10	na	na	na	na
	05/10/97	< 5	< 5	< 5	< 5	< 100	< 5	< 5	< 5	< 5	< 50	< 50	< 5	< 5	< 5	< 10	na	na	na	na
	08/07/97	< 5	< 5	< 5	< 5	< 100	< 5	< 5	< 5	< 5	< 5	< 50	< 5	< 5	< 5	< 10	na	na	na	na
	10/08/97	< 5	< 5	< 5	< 5	< 100	< 5	< 5	< 5	< 5	< 5	< 50	< 5	< 5	< 5	< 10	na	na	na	na
	01/23/98	< 5	< 5	< 5	< 5	< 100	< 5	< 5	< 5	< 5	< 5	< 50	< 5	< 5	< 5	< 10	na	na	na	na
	04/16/98	< 5	13	< 5	< 5	< 100	< 5	< 5	<b>5</b>	< 5	< 5	< 10	< 5	< 5	< 5	< 10	< 5	na	na	< 5
	07/17/98	< 5	< 5	< 5	< 5	< 100	< 5	< 5	< 5	< 5	< 5	< 10	< 5	< 5	< 5	< 10	< 5	na	na	< 5
	01/26/99	< 1	< 1	< 1	< 1	< 20	3	< 1	<b>5</b>	< 1	< 2	< 10	< 1	1	< 1	< 2	< 1	na	na	< 1
	07/08/99	< 1	< 1	< 1	< 1	< 20	4	< 1	4	< 1	< 2	< 10	< 1	2	< 1	< 2	< 1	na	na	< 1
	01/27/00	< 1	< 1	< 1	< 1	< 20	4	< 1	<b>5</b>	< 1	< 2	< 10	< 1	2	< 1	< 2	< 1.0	na	na	< 1
	07/17/00	< 1	< 1	< 1	< 1	< 20	3	< 1	4	< 1	< 2	< 10	< 1	2	< 1	< 2	< 1.0	na	na	< 1
	02/17/01	< 1.00	< 1.00	< 1.00	< 1.00	< 10.00	3.54	< 1.00	3.97	< 1.00	< 5.00	< 5.00	< 1.00	1.81	< 1.00	< 1.00	< 2.00	na	na	< 2
	08/21/01	< 1	< 1	< 1	< 3	< 10	3.18	< 1	3.59	< 1	< 5	< 5	< 1	1.72	< 1	< 1	< 2	na	na	< 2
	02/28/02	< 1.00	< 1.00	< 1.00	< 2.00	< 10.0	3.56	< 1.00	3.66	< 1.00	< 5.00	< 5.00	< 1.00	1.87	< 1.00	< 1.00	< 5.00	na	na	< 5
	08/01/02	< 1.0	< 1.0	< 1.0	< 1.0	< 25	3.6	< 1.0	3.8	< 1.0	< 3.0	< 15	< 1.0	2.1	< 1.0	< 2.0	< 2.0	< 4.0	< 4.0	< 10
	02/12/03	< 1.0	< 1.0	< 1.0	< 1.0	< 25	2.5	< 1.0	3.1	< 1.0	< 3.0	< 15	< 1.0	1.6	< 1.0	< 2.0	< 2.0	< 4.0	< 4.0	< 10
	08/05/03	< 1.0	< 1.0	< 1.0	< 1.0	< 10	2.5	< 1.0	2.4	< 1.0	< 3.0	< 10	< 1.0	2.2	< 1.0	< 2.0	< 2.0	< 4.0	< 4.0	< 10
	05/25/04	< 1.0	< 1.0	< 1.0	< 1.0	< 10	2.5	< 1.0	2.6	< 1.0	< 3.0	< 10	< 1.0	1.9	< 1.0	< 2.0	< 2.0	< 4.0	< 4.0	< 10
	11/09/04	< 1.0	< 1.0	< 1.0	< 1.0	< 10	2.5	< 1.0	1.9	< 1.0	< 3.0	< 10	< 1.0	2.7	< 1.0	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	04/12/05	< 1.0	< 1.0	< 1.0	< 1.0	< 10	3.7	< 1.0	2.6	< 1.0	< 3.0	< 10	< 1.0	1.9	< 1.0	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	12/02/05	< 1.0	< 1.0	< 1.0	< 1.0	< 10	2.5	< 1.0	2.1	< 1.0	< 3.0	< 10	< 1.0	1.9	< 1.0	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	05/11/06	< 1.0	< 1.0	< 1.0	< 3.0	< 10	2.3	< 1.0	2.4	< 1.0	< 3.0	< 10	< 1.0	1.7	< 1.0	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	12/17/06	< 1.0	< 1.0	< 1.0	< 3.0	< 10	3.1	< 1.0	1.7	< 1.0	< 3.0	< 10	< 1.0	1.9	< 1.0	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	06/21/07	< 1.0	< 1.0	< 1.0	< 1.5	< 10	2.1	< 1.0	1.6	< 1.0	< 3.0	< 10	< 1.0	1.4	< 1.0	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	12/07/07	< 1.0	< 1.0	< 1.0	< 1.5	< 10	1.7	< 1.0	1.4	< 1.0	< 3.0	< 10	< 1.0	1.1	< 1.0	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	06/02/08	< 1.0	< 1.0	< 1.0	< 1.5	< 10	2.0	< 1.0	1.9	< 1.0	< 3.0	< 10	< 1.0	1.1	< 1.0	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	12/11/08	< 1.0	< 1.0	< 1.0	< 1.5	< 10	1.6	< 1.0	1.7	< 1.0	< 3.0	< 10	< 1.0	1.0	< 1.0	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	04/28/09	< 1.0	< 1.0	< 1.0	< 1.5	< 10	1.6	< 1.0	1.4	< 1.0	< 3.0	< 10	< 1.0	< 1.0	< 1.0	< 2.0	< 4.0	< 4.0	< 10	
	06/13/10	< 1.0	< 1.0	< 1.0	< 1.5	< 10	1.4	< 1.0	1.3	< 1.0	< 3.0	< 10	< 1.0	1.0	< 1.0	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	11/10/11	< 1.0	< 1.0	< 1.0	< 1.5	< 10	1.3	< 1.0	1.2	< 1.0	< 3.0	< 10	< 1.0	< 1.0	< 1.0	< 2.0	< 4.0	< 4.0	< 10	

**Table 4. Summary of Groundwater Analyses - Organics**  
**TW WT-1 Station Engine Room Pit Area**

Well ID	Sampling Date	BTEX (ug/L)				Other VOCs (ug/L)									SVOCS (ug/L)					
		Benzene	Toluene	Ethylbenzene	Xylenes (total)	Acetone	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	Dichloromethane (Methylene chloride)	4-methyl-1-pentanone (Methyl Isobutyl Ketone)	Tetrachloroethene	1,1,1-Trichloroethane	Trichloroethene	Vinyl chloride	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Total Naphthalenes
NMWQCC Standard		10	750	750	620	none	25.0	10.0	5	none	100	none	20	60	100	1	30	30	30	30
MW-16	09/14/95	< 1	< 5	< 5	< 5	< 100	6	< 5	< 5	na	< 5	< 50	6	< 5	< 5	< 10	na	na	na	na
	11/12/96	< 5	< 5	< 5	< 5	< 100	6	< 5	< 5	na	< 5	< 50	21	< 5	< 5	< 10	na	na	na	na
	02/04/97	< 5	< 5	< 5	< 5	< 100	< 5	< 5	< 5	< 5	< 50	< 50	17	< 5	< 5	< 10	na	na	na	na
	05/10/97	< 5	< 5	< 5	< 5	< 100	< 5	< 5	< 5	< 5	< 50	< 50	< 5	< 5	< 5	< 10	na	na	na	na
	08/06/97	< 5	< 5	< 5	< 5	< 100	< 5	< 5	< 5	< 5	6	< 50	14	< 5	< 5	< 10	na	na	na	na
	10/08/97	< 5	< 5	< 5	< 5	< 100	< 5	< 5	< 5	< 5	7 <sup>b</sup>	< 50	15	< 5	< 5	< 10	na	na	na	na
	01/23/98	< 5	< 5	< 5	< 5	< 100	< 5	< 5	< 5	< 5	< 5	< 10	13	< 5	< 5	< 10	< 5	na	na	< 5
	04/16/98	< 5	< 5	< 5	< 5	< 100	< 5	< 5	< 5	< 5	< 5	< 10	< 5	< 5	< 5	< 10	< 5	na	na	< 5
	07/16/98	< 5	< 5	< 5	< 5	< 100	< 5	< 5	< 5	< 5	< 5	< 10	16	< 5	< 5	< 10	< 5	na	na	< 5
	01/26/99	< 1	< 1	< 1	< 1	< 20	3	< 1	3	< 1	< 2	< 10	16	< 1	1	< 2	< 1	na	na	< 1
	07/08/99	< 1	< 1	< 1	< 1	< 20	3	< 1	3	< 1	< 2	< 10	14	< 1	< 1	< 2	< 1	na	na	< 1
	01/27/00	< 1	< 1	< 1	< 1	< 20	3	< 1	3	< 1	< 2	< 10	14	< 1	1	< 2	< 1.0	na	na	< 1
	07/17/00	< 1	< 1	< 1	< 1	< 20	3	< 1	2	< 1	< 2	< 10	13	< 1	1	< 2	< 1.0	na	na	< 1
	02/17/01	< 1.00	< 1.00	< 1.00	< 1.00	< 10.00	2.43	< 1.00	3.13	< 1.00	< 5.00	< 5.00	10.5	< 1.00	< 1.00	< 1.00	< 2.00	na	na	< 2
	08/21/01	< 1	< 1	< 1	< 3	< 10	2.03	< 1	3.15	< 1	< 5	< 5	8.22	< 1	< 1	< 1	< 2	na	na	< 2
	02/28/02	< 1	< 1	< 1	< 2	< 10	2.33	< 1	2.45	< 1	< 5	< 5	6.53	< 1	< 1	< 1	< 5.00	na	na	< 5
	08/01/02	< 1.0	< 1.0	< 1.0	< 1.0	< 25	2.9	< 1.0	2.7	< 1.0	< 3.0	< 15	9.6	< 1.0	1.2	< 2.0	< 2.0	< 4.0	< 4.0	< 10
	02/12/03	< 1.0	< 1.0	< 1.0	< 1.0	< 25	1.8	< 1.0	1.8	< 1.0	< 3.0	< 15	10	< 1.0	< 1.0	< 2.0	< 2.0	< 4.0	< 4.0	< 10
	08/05/03	< 1.0	< 1.0	< 1.0	< 1.0	< 10	1.7	< 1.0	1.8	< 1.0	< 3.0	< 10	8.4	< 1.0	< 1.0	< 2.0	< 2.0	< 4.0	< 4.0	< 10
	05/25/04	< 1.0	< 1.0	< 1.0	< 1.0	< 10	1.5	< 1.0	2.1	< 1.0	< 3.0	< 10	6.6	< 1.0	< 1.0	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	11/09/04	< 1.0	< 1.0	< 1.0	< 1.0	< 10	1.3	< 1.0	1.0	< 1.0	< 3.0	< 10	8.3	< 1.0	< 1.0	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	04/12/05	< 1.0	< 1.0	< 1.0	< 1.0	< 10	2.3	< 1.0	2.0	< 1.0	< 3.0	< 10	5.6	< 1.0	< 1.0	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	12/02/05	< 1.0	< 1.0	< 1.0	< 1.0	< 10	< 2.0	< 1.0	1.4	< 1.0	< 3.0	< 10	5.2	< 1.0	< 1.0	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	05/11/06	< 1.0	< 1.0	< 1.0	< 3.0	< 10	< 2.0	< 1.0	1.8	< 1.0	< 3.0	< 10	5.1	< 1.0	1.3	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	12/17/06	< 1.0	< 1.0	< 1.0	< 3.0	< 10	< 2.0	< 1.0	1.2	< 1.0	< 3.0	< 10	4.0	< 1.0	1.3	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	06/21/07	< 1.0	< 1.0	< 1.0	< 1.5	< 10	1.1	< 1.0	1.2	< 1.0	< 3.0	< 10	4.8	< 1.0	< 1.0	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	12/07/07	< 1.0	< 1.0	< 1.0	< 1.5	< 10	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	< 10	3.9	< 1.0	< 1.0	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	06/02/08	< 1.0	< 1.0	< 1.0	< 1.5	< 10	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	< 10	4.0	< 1.0	< 1.0	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	12/11/08	< 1.0	< 1.0	< 1.0	< 1.5	< 10	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	< 10	4.3	< 1.0	< 1.0	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	04/28/09	< 1.0	< 1.0	< 1.0	< 1.5	< 10	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	< 10	4.4	< 1.0	< 1.0	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	06/13/10	< 1.0	< 1.0	< 1.0	< 1.5	< 10	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	< 10	3.7	< 1.0	< 1.0	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	11/10/11	< 1.0	< 1.0	< 1.0	< 1.5	< 10	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	< 10	2.5	< 1.0	< 1.0	< 1.0	< 2.0	< 4.0	< 4.0	< 10

**Table 4. Summary of Groundwater Analyses - Organics**  
**TW WT-1 Station Engine Room Pit Area**

Well ID	Sampling Date	BTEX (ug/L)				Other VOCs (ug/L)								SVOCs (ug/L)						
		Benzene	Toluene	Ethylbenzene	Xylenes (total)	Acetone	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethane	Dichloromethane (Methylene chloride)	4-methyl-2-pentanone (Methyl Isobutyl Ketone)	Tetrachloroethene	1,1,1-Trichloroethane	Trichloroethene	Vinyl chloride	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Total Naphthalenes
NMWQCC Standard	10	750	750	620	none	25.0	10.0	5	none	100	none	20	60	100	1	30	30	30	30	
MW-17	11/10/04	< 1.0	< 1.0	< 1.0	< 1.0	< 10	1.9	< 1.0	2.6	< 1.0	< 3.0	< 10	1.7	< 1.0	< 1.0	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	04/12/05	< 1.0	< 1.0	< 1.0	< 1.0	< 10	3.0	< 1.0	2.8	< 1.0	< 3.0	< 10	1.7	< 1.0	< 1.0	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	12/02/05	< 1.0	< 1.0	< 1.0	< 1.0	< 10	2.1	< 1.0	2.7	< 1.0	< 3.0	< 10	2.1	< 1.0	< 1.0	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	05/11/06	< 1.0	< 1.0	< 1.0	< 1.0	< 10	1.7	< 1.0	< 1.0	< 1.0	< 3.0	< 10	1	< 1.0	< 1.0	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	12/15/06	< 1.0	< 1.0	< 1.0	< 3.0	< 10	< 2.0	< 1.0	1.9	< 1.0	< 3.0	< 10	1.4	< 1.0	1.2	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	06/21/07	< 1.0	< 1.0	< 1.0	< 1.5	< 10	1.5	< 1.0	2.0	< 1.0	< 3.0	< 10	1.7	< 1.0	< 1.0	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	12/07/07	< 1.0	< 1.0	< 1.0	< 1.5	< 10	1.2	< 1.0	1.6	< 1.0	< 3.0	< 10	1.7	< 1.0	< 1.0	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	06/02/08	< 1.0	< 1.0	< 1.0	< 1.5	< 10	1.5	< 1.0	1.8	< 1.0	< 3.0	< 10	1.6	< 2.0	< 1.0	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	12/11/08	< 1.0	< 1.0	< 1.0	< 1.5	< 10	1.2	< 1.0	1.6	< 1.0	< 3.0	< 10	1.8	< 1.0	< 1.0	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	04/28/09	< 1.0	< 1.0	< 1.0	< 1.5	< 10	1.2	< 1.0	1.5	< 1.0	< 3.0	< 10	2.0	< 1.0	< 1.0	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	06/13/10	< 1.0	< 1.0	< 1.0	< 1.5	< 10	1.1	< 1.0	1.2	< 1.0	< 3.0	< 10	1.8	< 1.0	< 1.0	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	11/09/11	< 1.0	< 1.0	< 1.0	< 1.5	< 10	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	< 10	1.5	< 1.0	< 1.0	< 1.0	< 2.0	< 4.0	< 4.0	< 10

NOTES:

- (a) Total Naphthalenes = Naphthalene + 1-Methylnaphthalene + 2-Methylnaphthalene
- (b) Constituent also detected in laboratory blank sample
- (c) na - Analysis for this constituent was not run on samples collected during this sample event
- (d) "J" - Analyte detected below quantitation limits

**Table 5. Summary of Completion Details for Soil Borings Completed as Wells  
TW WT-1 Station Engine Room Pit Area**

Well ID	Source <sup>a</sup>	Date of Completion	Measuring Point Elevation <sup>b</sup> (ft)	Northing (ft)	Easting (ft)	Total Depth of Boring (ft bgs)	Measured Depth of Well (ft from TOC)	Surface Completion Type	Casing Diameter (in.)	Screen Interval (ft bgs)	Top of Sand Pack (ft bgs)
MW-1	SH&B/B&R	08/12/92	3,547.65	-36.2	-661.8	53.5	55.04	Stickup	2	43.5-53.5	41.0
MW-2	SH&B/B&R	09/01/92	3,546.28	-2.8	-552.0	50.0	52.31	Stickup	2	40-50	38.0
MW-3	SH&B/B&R	08/28/92	3,548.99	-174.5	-619.3	48.5	50.00	Flush Mount	2	38.5-48.5	35.5
MW-3 P&A	CMB	01/08/00	--	--	--	--	--	--	--	--	--
MW-4	Eades/DBS&A	11/29/94	3,548.29	-322.5	-664.2	80.0	58.25	Flush Mount	2	43.5-58.5	41.0
MW-5	Eades/DBS&A	11/29/94	3,543.60	52.4	-642.0	59.6	59.75	Flush Mount	2	44.6-59.6	41.0
MW-6	Eades/DBS&A	11/28/94	3,543.33	132.1	-834.3	61.0	61.20	Flush Mount	2	46-61	42.5
MW-7	Eades/DBS&A	11/21/94	3,542.00	129.5	-470.6	56.0	54.88	Flush Mount	2	40-55	37.0
MW-8	Eades/DBS&A	11/20/94	3,541.49	195.3	-639.1	59.0	59.20	Flush Mount	2	44-59	42.0
MW-14	Eades/DBS&A	09/11/95	3,539.73	353.3	-671.4	61.0	60.25	Flush Mount	2	45.5-60.5	43.0
MW-15	Eades/DBS&A	09/12/95	3,542.82	-84.1	-345.5	60.5	57.85	Flush Mount	2	43-58	40.5
MW-16	Eades/DBS&A	09/12/95	3,545.68	-76.1	-930.0	61.0	60.02	Flush Mount	2	45-60	42.0
MW-17	Atkins/CES	10/28/04	3,538.60	487.6	-699.1	75.0	74.83	Flush Mount	2	44-74	42.0
SVE-1A	Eades/DBS&A	11/18/94	3,545.59	-73.0	-616.0	53.0	52.63	Flush Mount	2	42.5-52.5	41.2
SVE-1B	Eades/DBS&A	11/18/94	3,545.61	-73.0	-616.0	37.5	NA	Flush Mount	2	21-36	18.3
RW-1	GPI/CES	09/07/00	3,545.97	-4.6	-507.7	60.2	62.36	Stickup	4.5	Open hole 43-60.2	None
RW-2	GPI/CES	09/08/00	3,546.26	-3.1	-536.5	60.4	62.45	Stickup	4.5	Open hole 43-60.4	None
RW-3	GPI/CES	09/09/00	3,546.41	-3.1	-566.3	60.0	61.65	Stickup	4.5	Open hole 43-60	None
RW-4	GPI/CES	09/10/00	3,546.96	-2.9	-597.4	60.0	62.10	Stickup	4.5	Open hole 43-60	None
RW-5	GPI/CES	09/11/00	3,546.75	-3.9	-627.0	60.0	62.35	Stickup	4.5	Open hole 43-60	None
RW-6	GPI/CES	09/12/00	3,546.69	-4.0	-656.5	60.0	62.12	Stickup	4.5	Open hole 43-60	None
RW-7	GPI/CES	09/13/00	3,547.50	-3.7	-687.2	60.2	62.52	Stickup	4.5	Open hole 43-60.2	None
RW-8	GPI/CES	09/14/00	3,547.04	-4.2	-716.3	60.1	62.17	Stickup	4.5	Open hole 43-60.1	None
RW-9	GPI/CES	09/20/00	3,545.84	-54.9	-690.0	60.2	59.98	Stickup	4.5	Open hole 43-60.2	None

**Table 5. Summary of Completion Details for Soil Borings Completed as Wells  
TW WT-1 Station Engine Room Pit Area**

Well ID	Source <sup>a</sup>	Date of Completion	Measuring Point Elevation <sup>b</sup> (ft)	Northing (ft)	Easting (ft)	Total Depth of Boring (ft bgs)	Measured Depth of Well (ft from TOC)	Surface Completion Type	Casing Diameter (in.)	Screen Interval (ft bgs)	Top of Sand Pack (ft bgs)
RW-10	GPI/CES	09/21/00	3,546.32	-107.0	-661.4	60.1	59.90	Stickup	4.5	Open hole 43-60.1	None
RW-11	GPI/CES	09/22/00	3,545.74	-107.8	-568.2	60.2	59.97	Stickup	4.5	Open hole 43-60.2	None
RW-12	GPI/CES	09/23/00	3,544.43	-55.4	-541.4	60.2	60.09	Stickup	4.5	Open hole 43-60.2	None

**NOTES:**

- (a) Driller/Consultant
- (b) Survey by John W. West Engineering
- (c) Survey by Cypress Engineering (GAF) on November 4, 2004 for well MW-17

**Table 6. Monitor Well Sampling Locations, Frequency, and Sample Analysis Plan**  
**TW WT-1 Station Engine Room Pit Area**

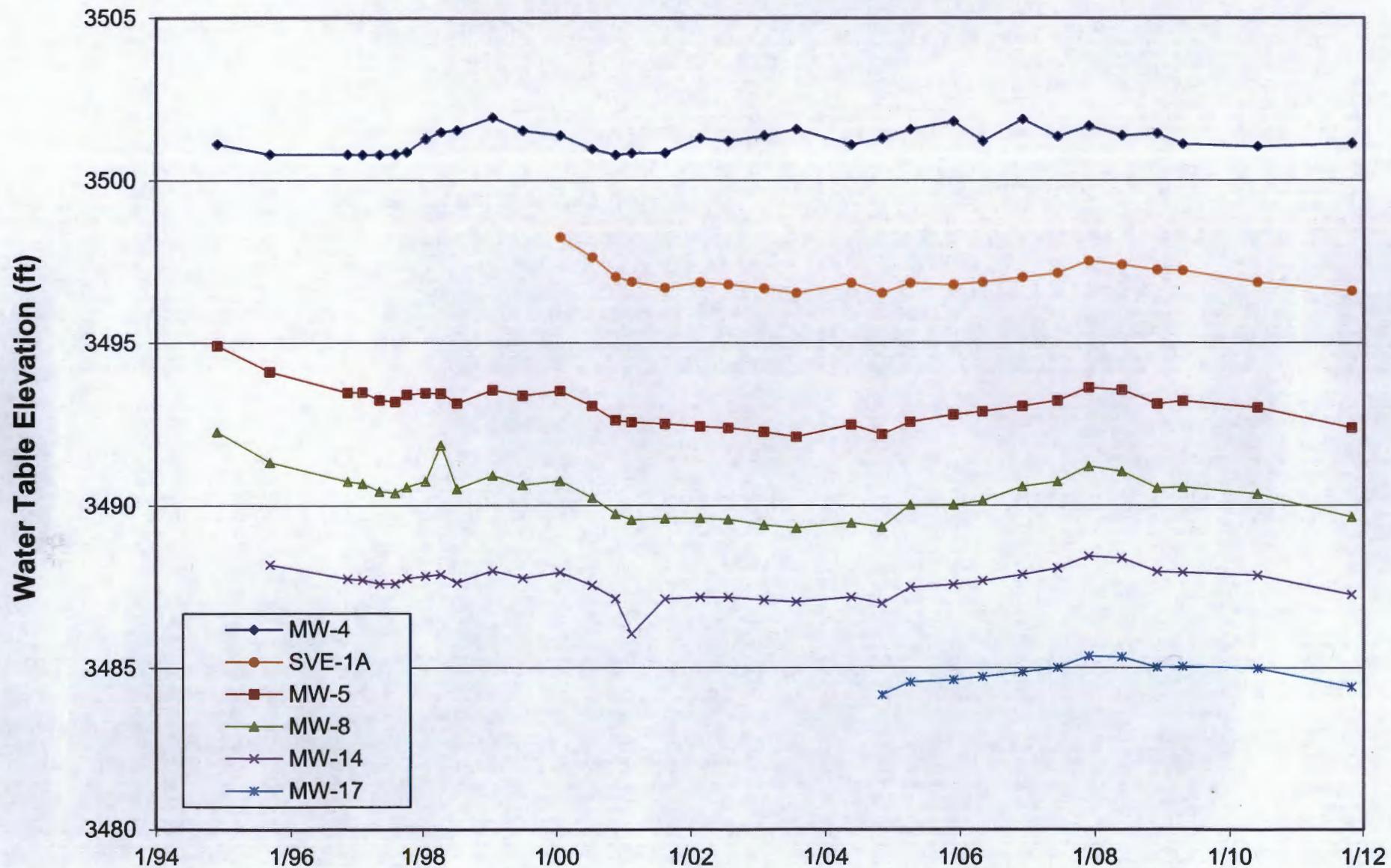
Well ID	Analytical Requirements for Annual Event	1,1-DCA (ppb) Latest Result	Comments
MW-1	VOC's	760*	Well contains PSH intermittently * Result from 6/2/08 sample event
MW-2	na	na	Well contains PSH
MW-3	na	na	Well P&A'd on 1/8/2000
MW-4	VOC's	< 1	
MW-5	VOC's	61	
MW-6	VOC's	3.2	
MW-7	VOC's	37	
MW-8	VOC's	55	
MW-14	VOC's	12	
MW-15	VOC's	1.3	
MW-16	VOC's	< 1	
MW-17	VOC's	< 1	
SVE-1A	VOC's	410	

Notes:  
 1) VOC's by 8260  
 2) "Comments" are provided for wells that will not be sampled during one or more events

## **APPENDIX A**

**Hydrography, Sedimentation, and Marine Mammals  
With The Accumulated FSH**

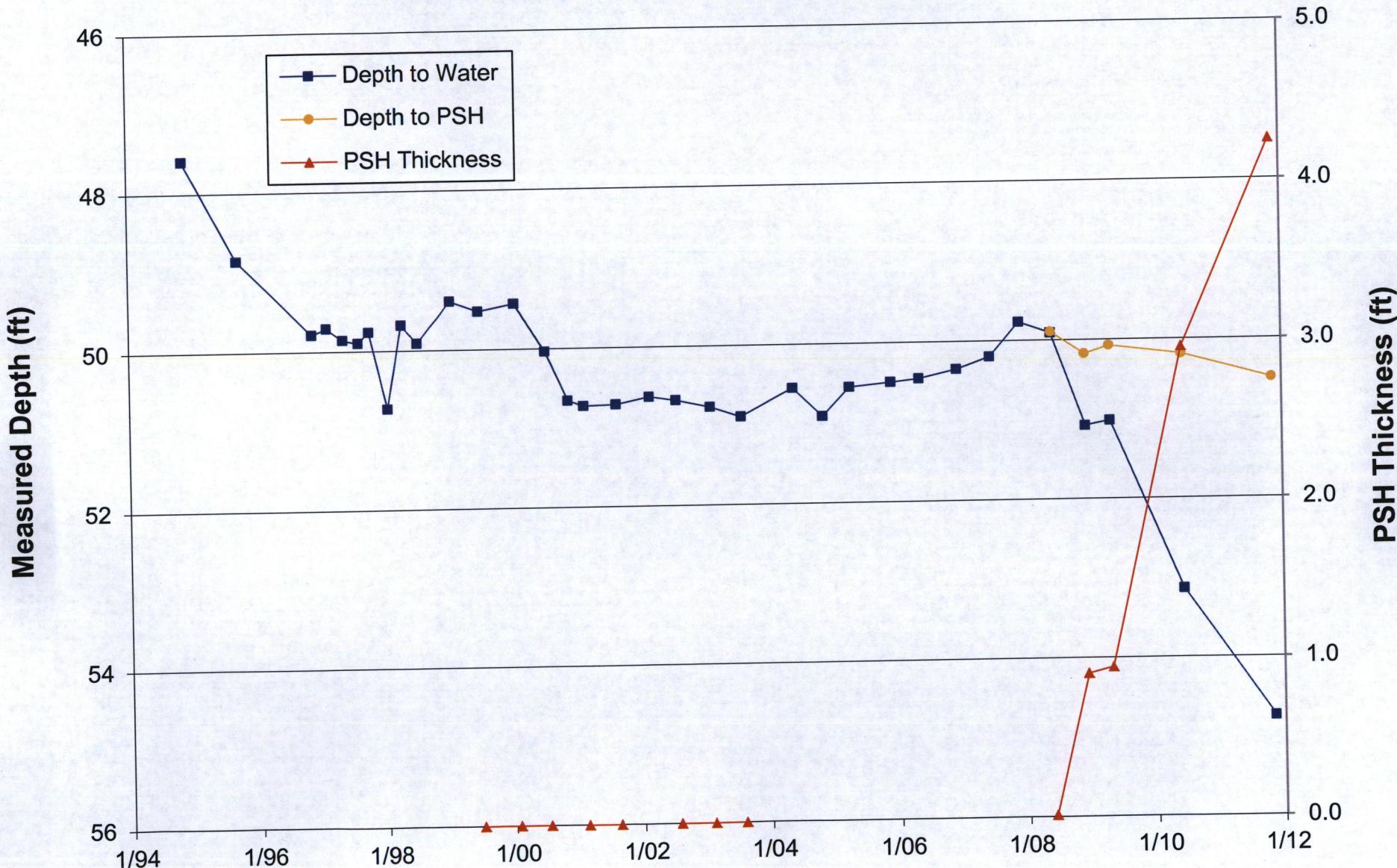
## Hydrograph for Selected Monitor Wells with No Accumulated PSH WT-1 Station Pit Area Remediation Site



## **APPENDIX B**

**History Plot of Depth to Water & PSH  
Thickness at Monitor Well MW-1**

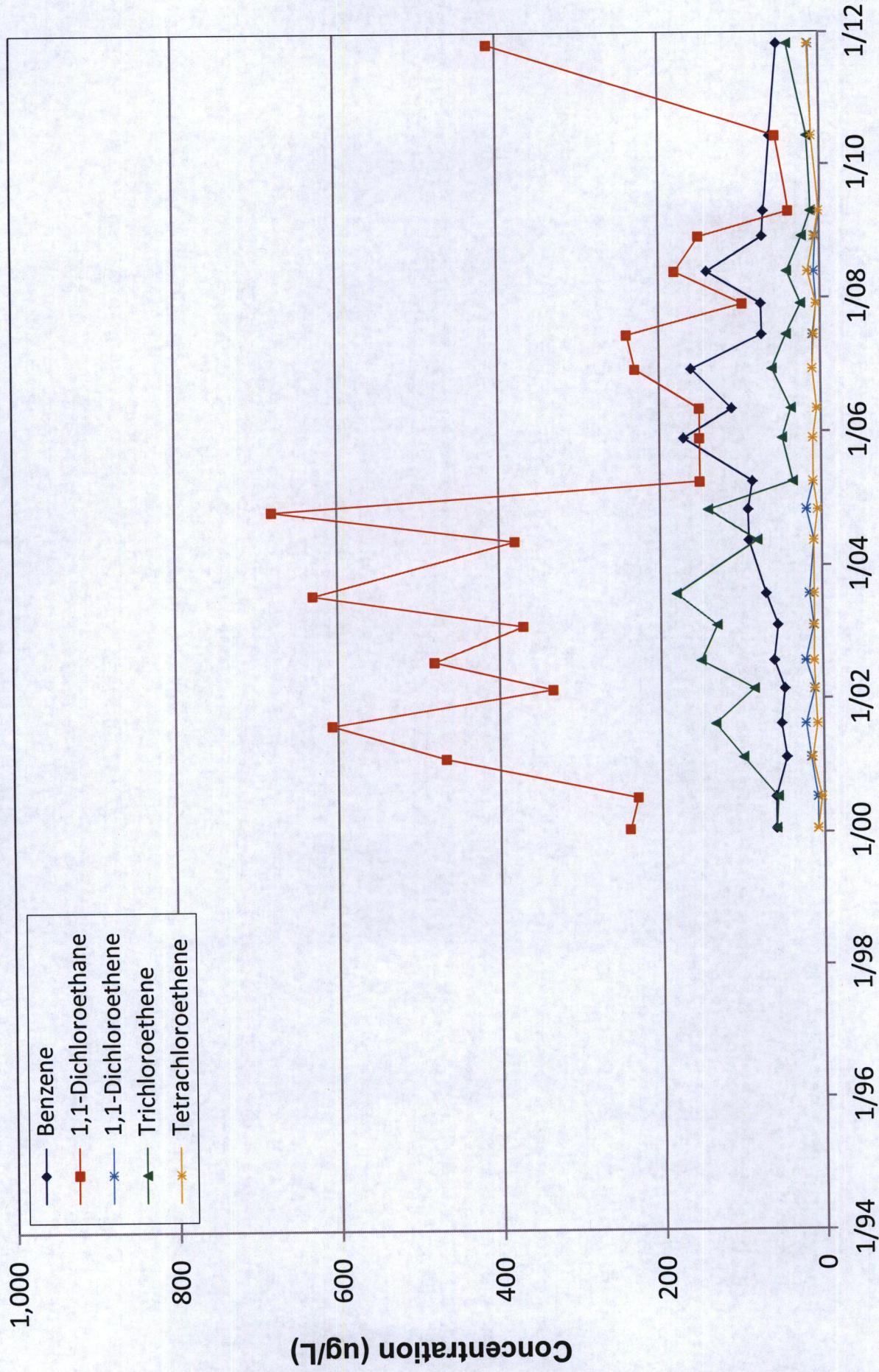
**Depth to Water & PSH Thickness at Monitor Well MW-1**  
**WT-1 Station Pit Area Remediation Site**



## **APPENDIX C**

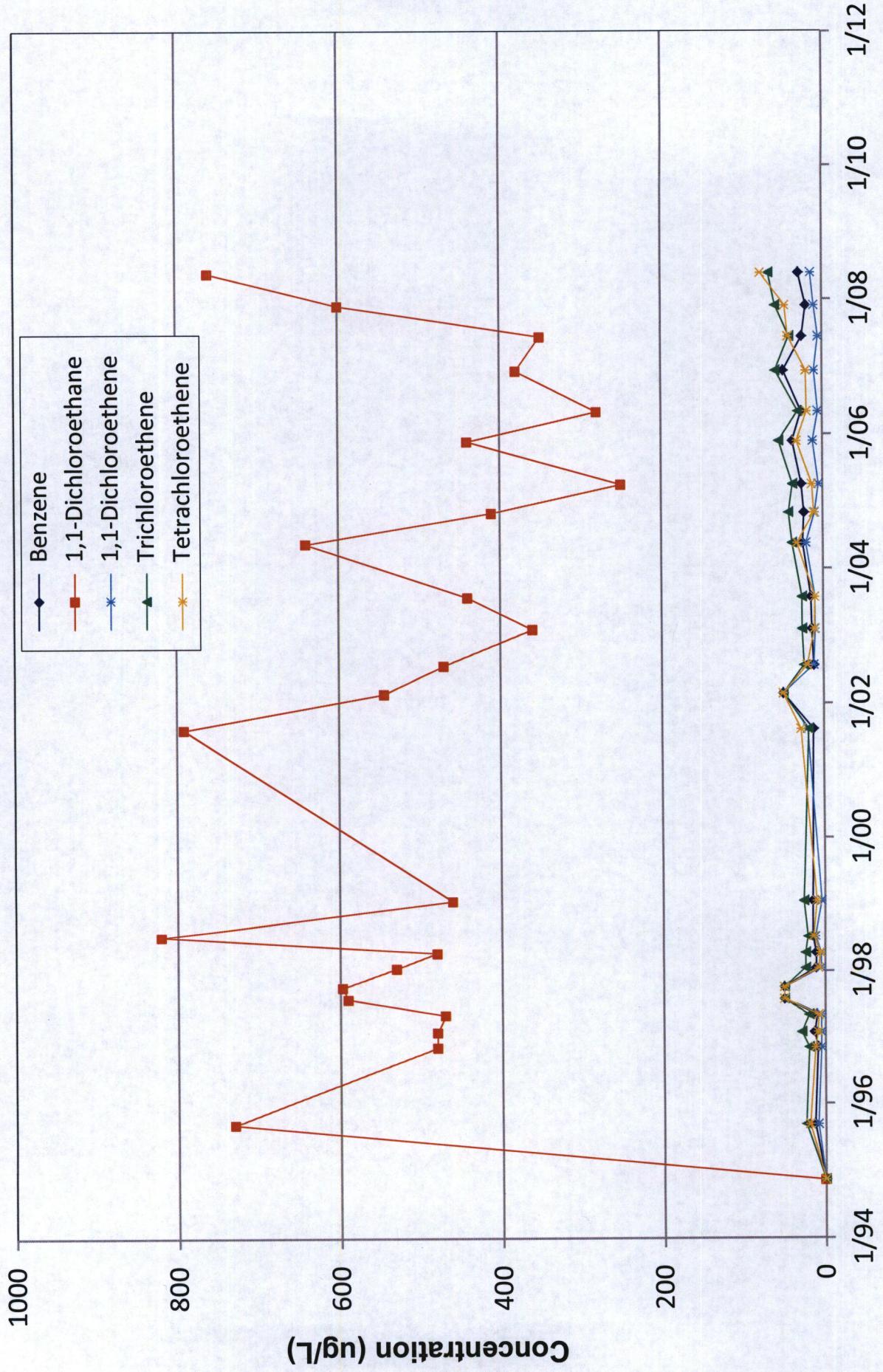
**Concentration History Plots  
for Monitoring Wells**

## Concentration History at Well SVE-1A WT-1 Station Pit Area Remediation Site

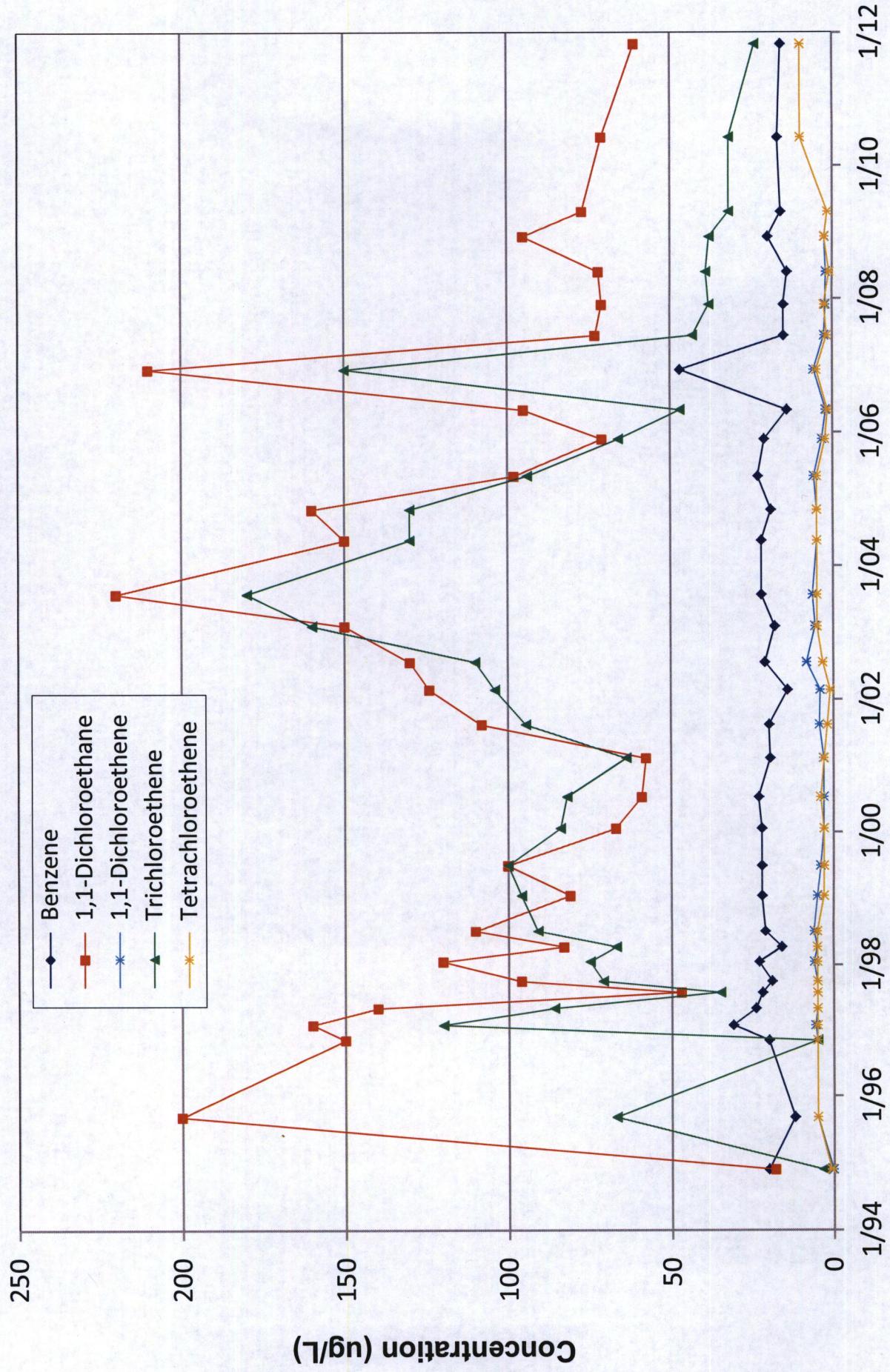


## WT-1 Station Pit Area Remediation Site

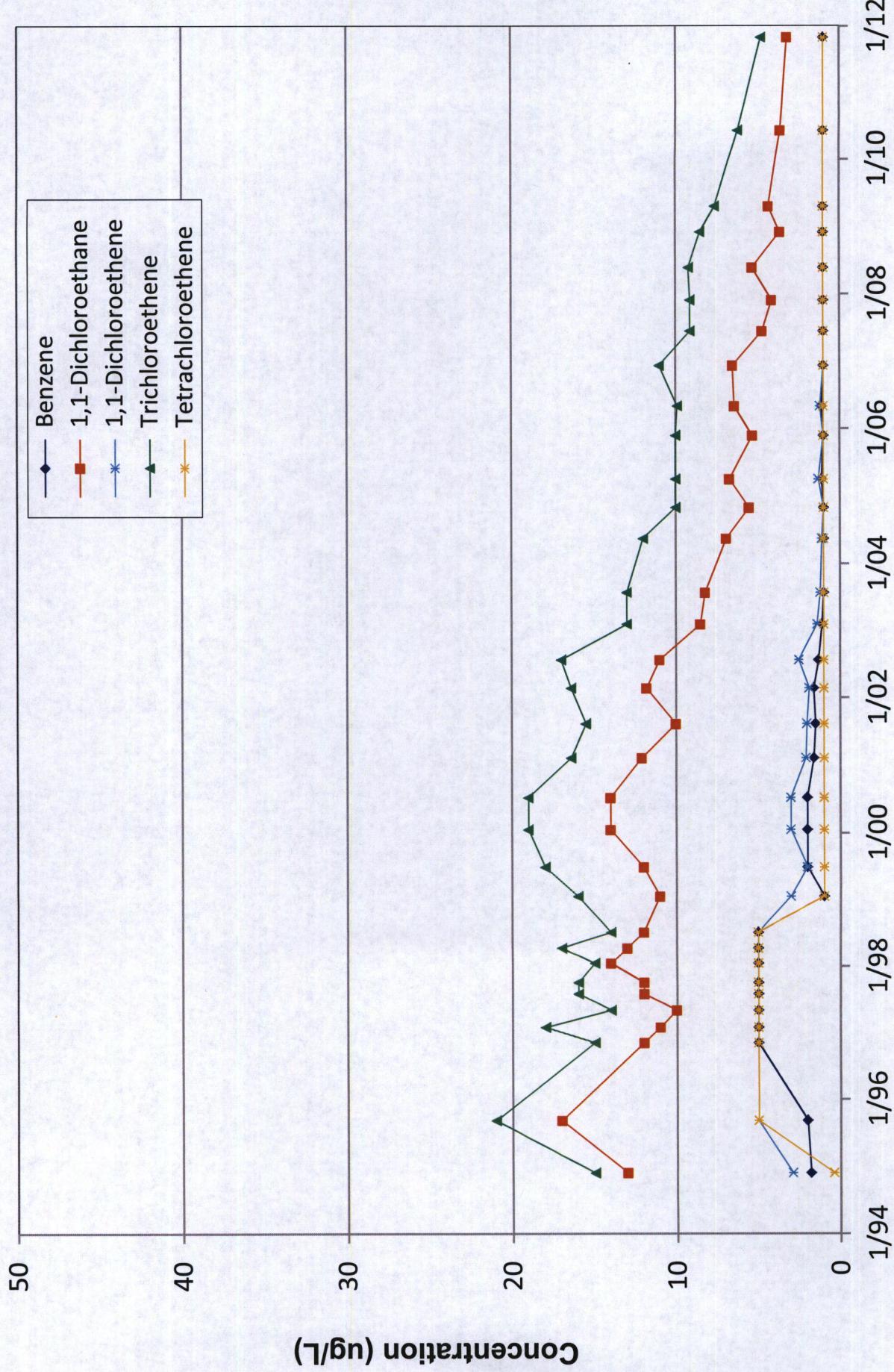
### Concentration History at Well MW-1



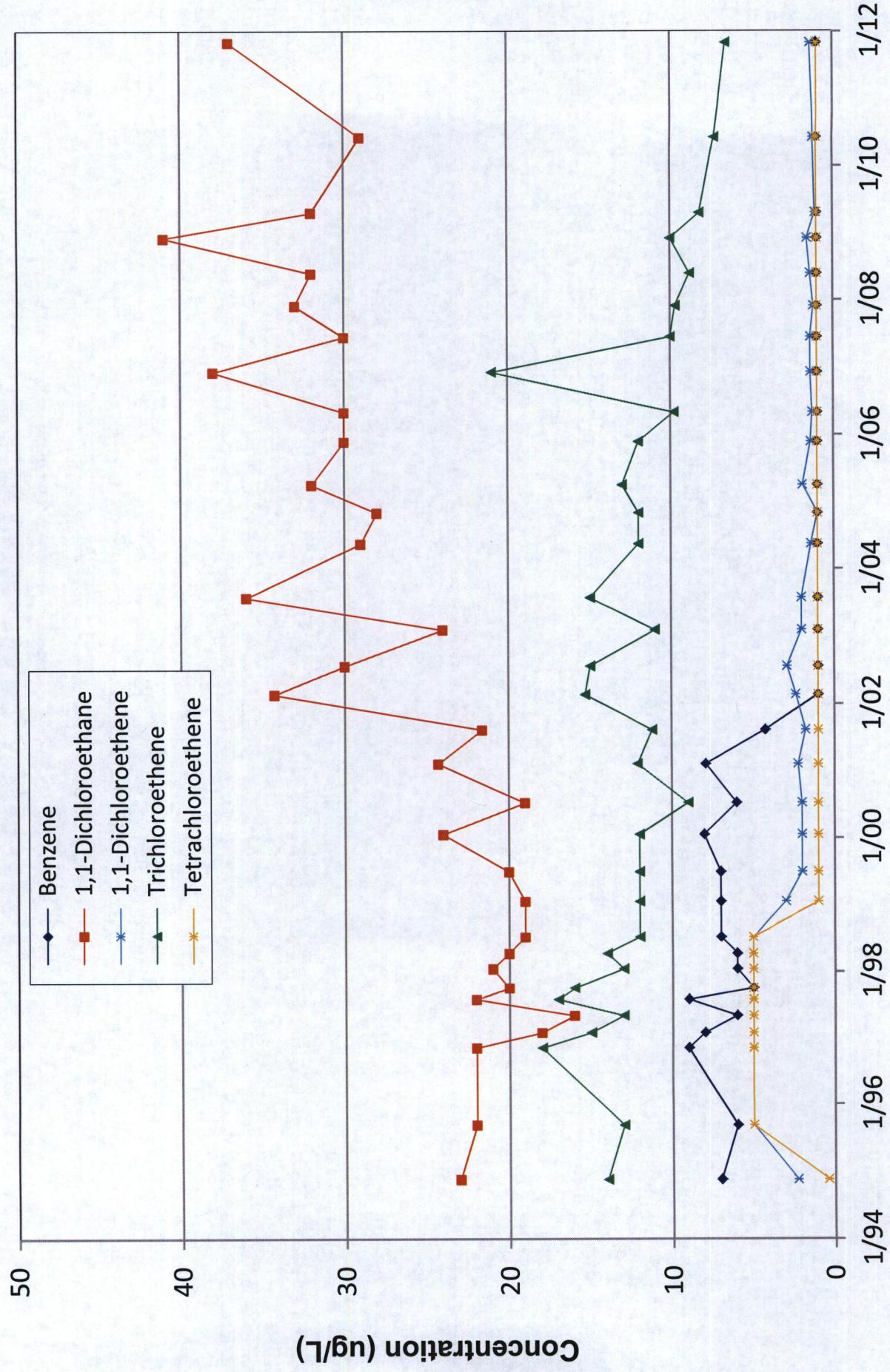
**Concentration History at Well MW-5  
WT-1 Station Pit Area Remediation Site**



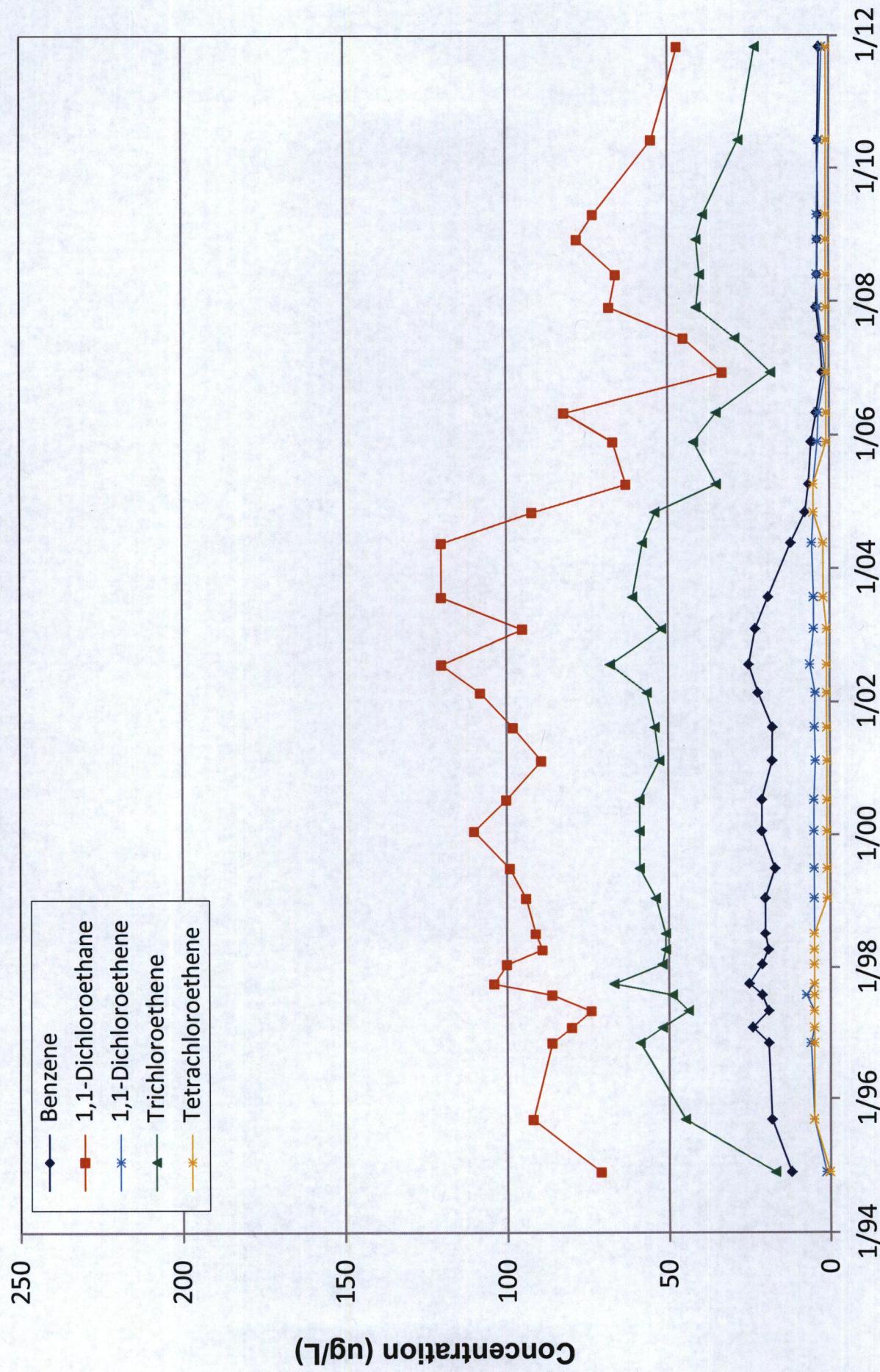
## Concentration History at Well MW-6 WT-1 Station Pit Area Remediation Site



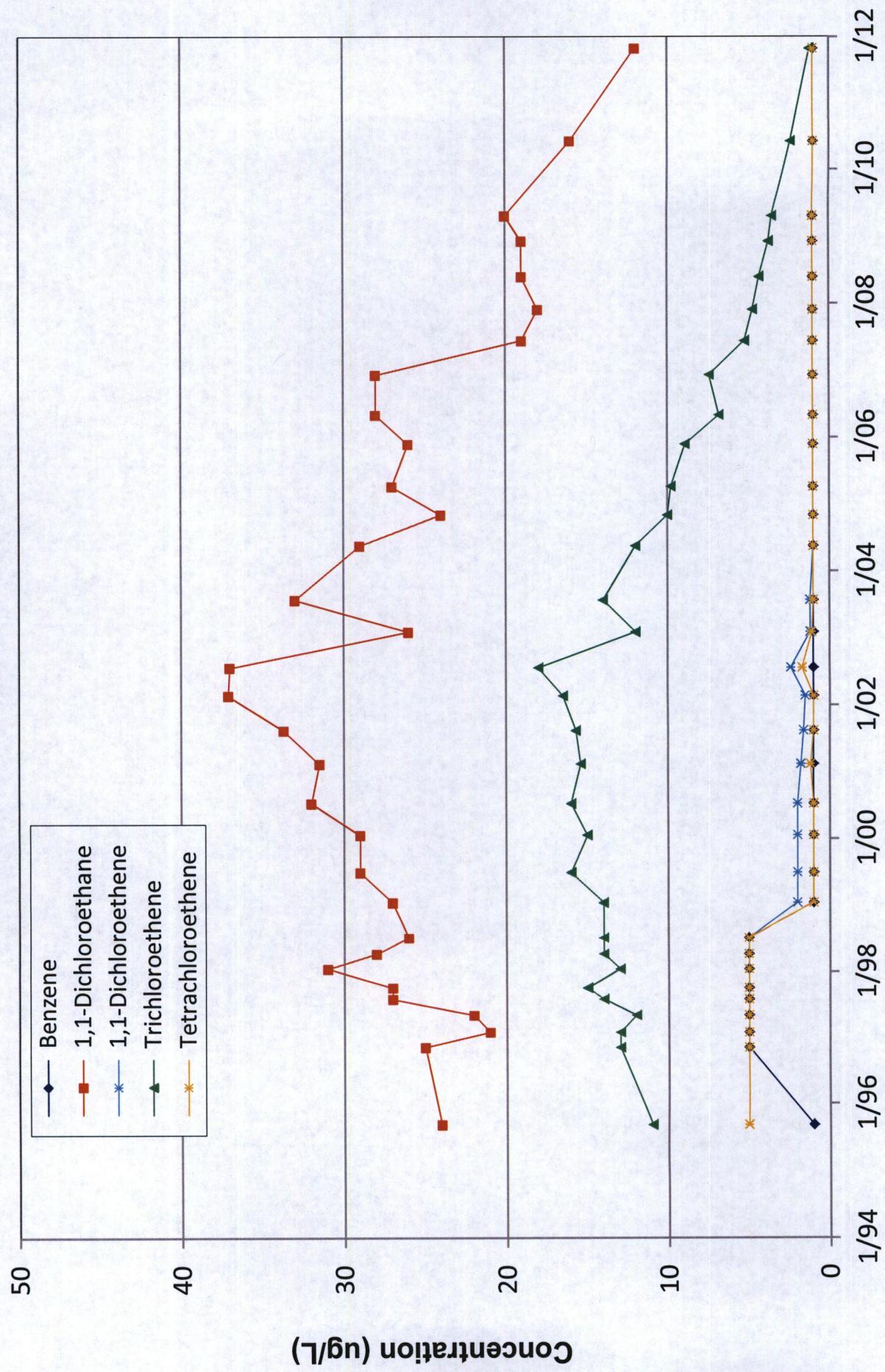
## Concentration History at Well MW-7 WT-1 Station Pit Area Remediation Site



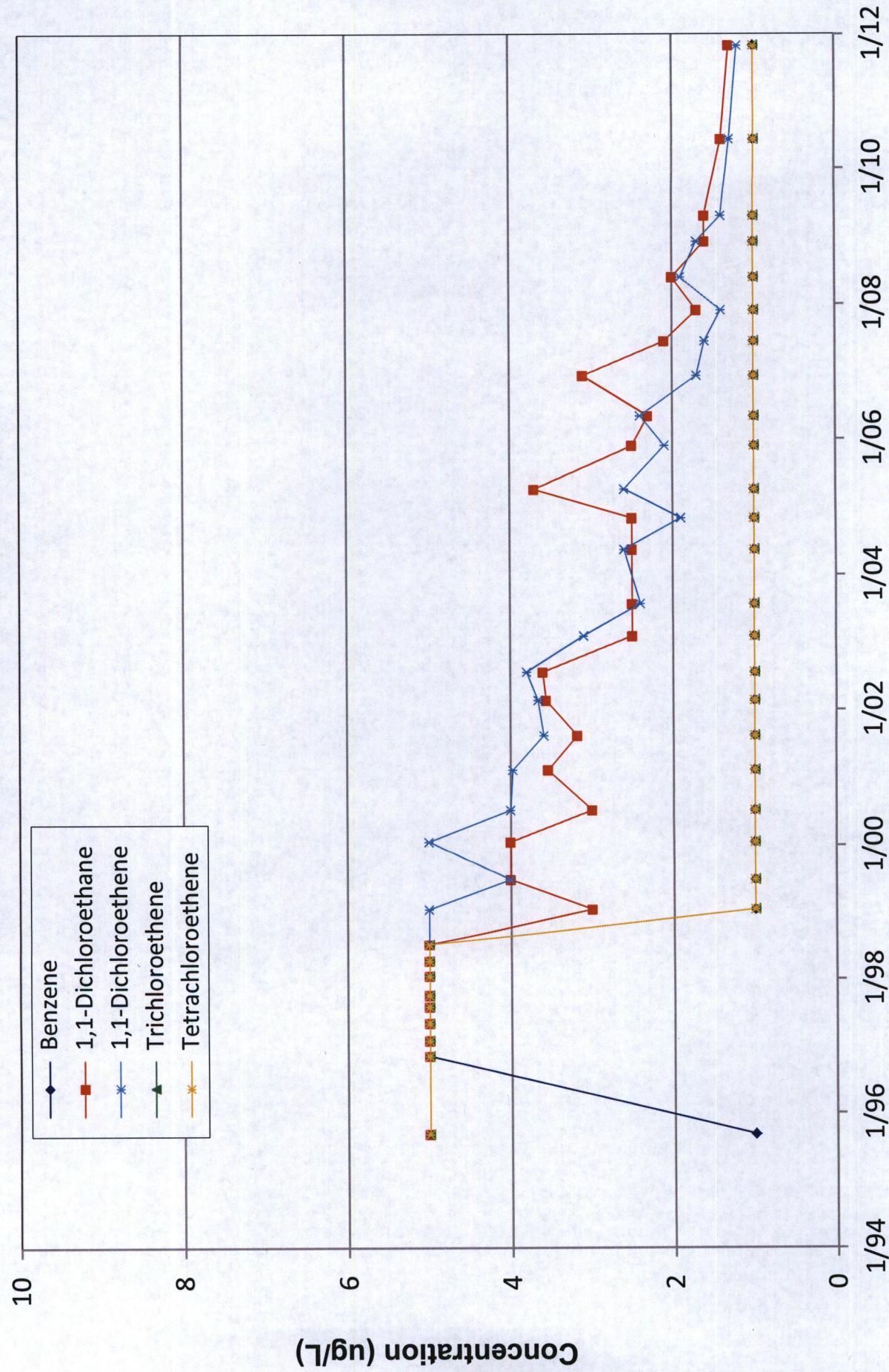
## Concentration History at Well MW-8 WT-1 Station Pit Area Remediation Site



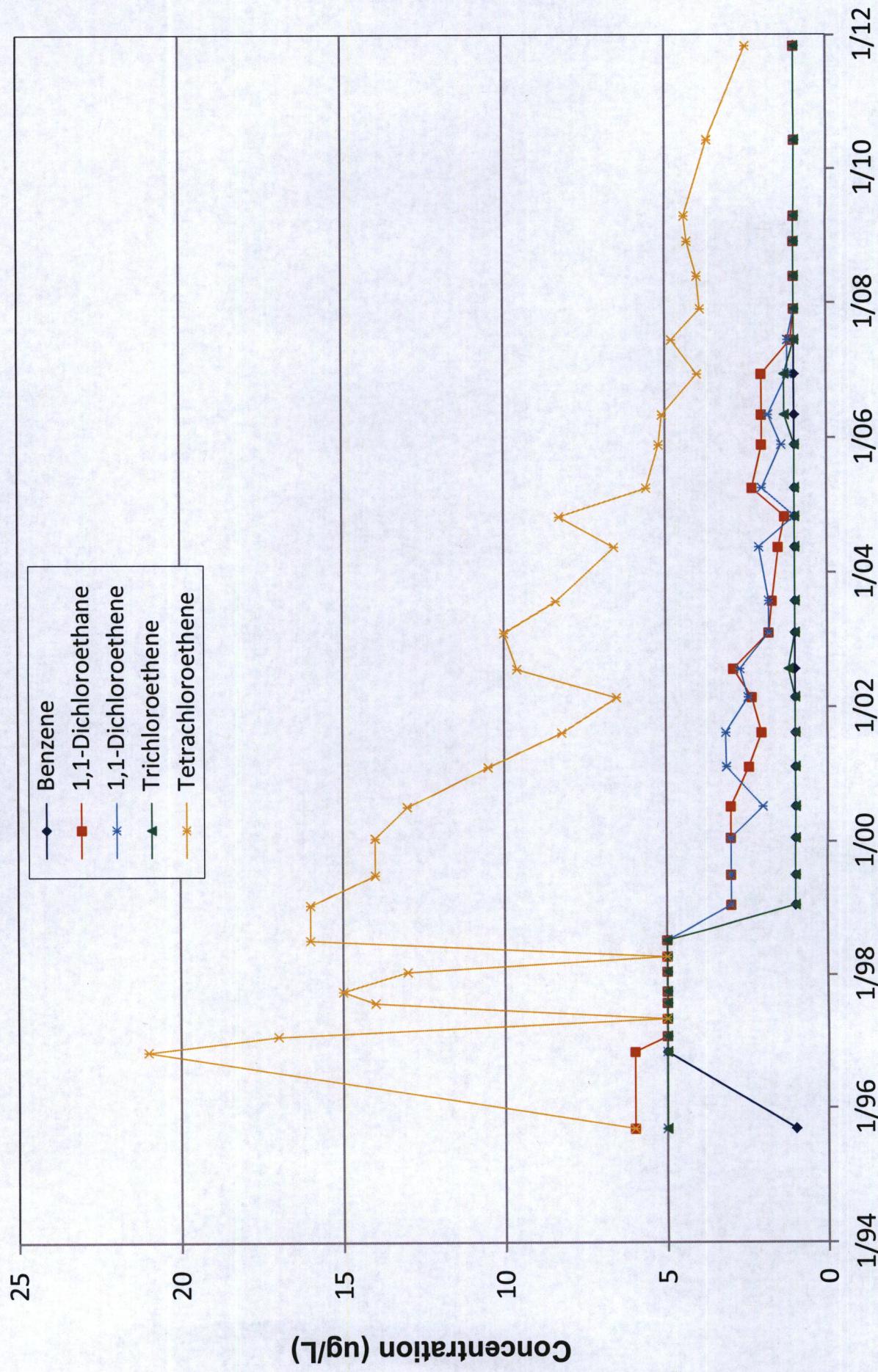
## Concentration History at Well MW-14 WT-1 Station Pit Area Remediation Site



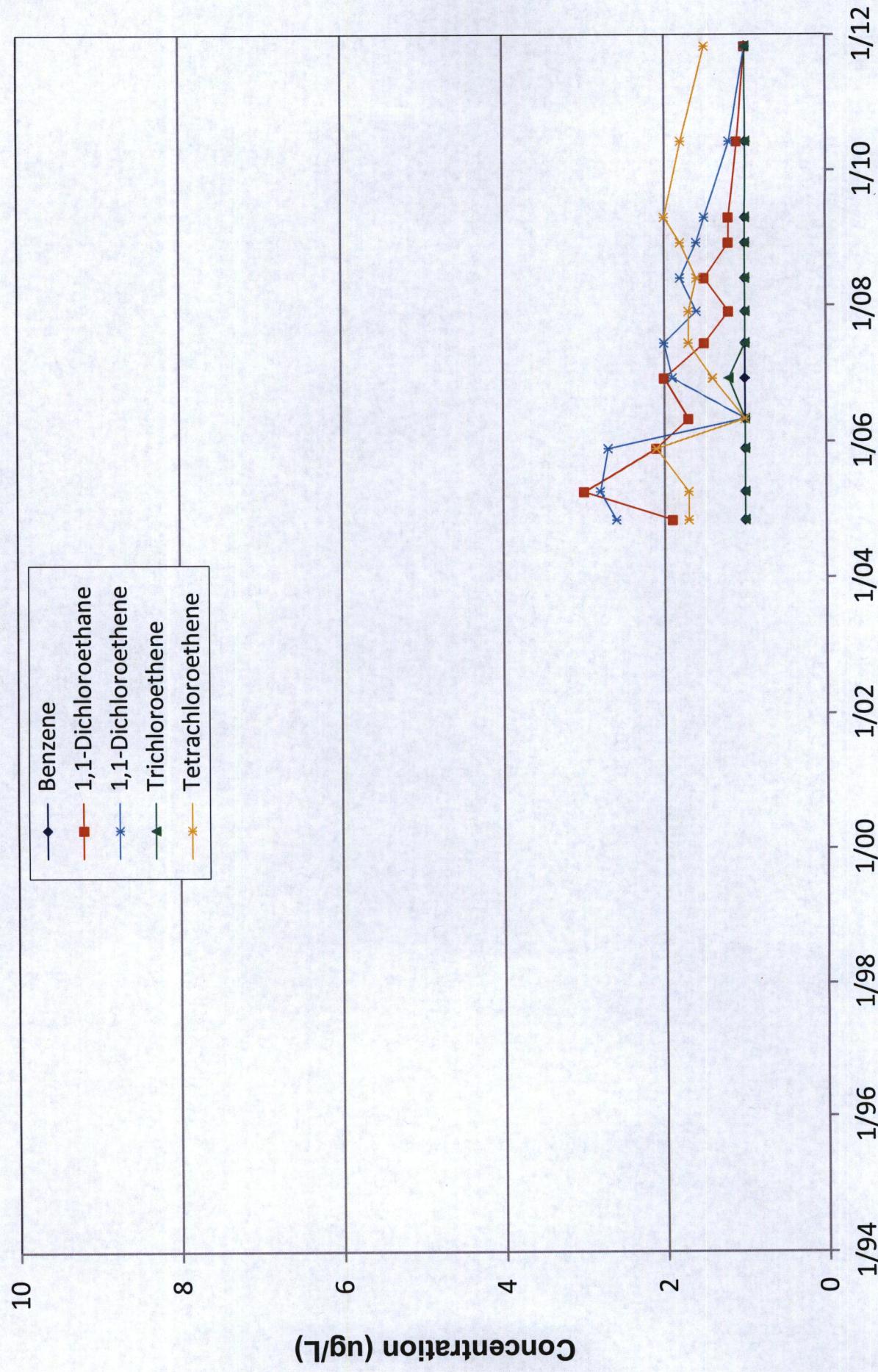
**Concentration History at Well MW-15  
WT-1 Station Pit Area Remediation Site**



**Concentration History at Well MW-16  
WT-1 Station Pit Area Remediation Site**



## Concentration History at Well MW-17 WT-1 Station Pit Area Remediation Site



## **APPENDIX D**

### **Inventory Reports**



## COVER LETTER

Thursday, December 08, 2011

George Robinson  
Cypress Engineering  
7171 Highway 6 North  
Suite 102  
Houston, TX 770952422  
TEL: (281) 797-3420  
FAX (281) 859-1881

RE: TWP WT-1 Station ERP

Order No.: 1111605

Dear George Robinson:

Hall Environmental Analysis Laboratory, Inc. received 12 sample(s) on 11/15/2011 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman".

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901  
AZ license # AZ0682

# Hall Environmental Analysis Laboratory, Inc.

Date: 08-Dec-11

Analytical Report

**CLIENT:** Cypress Engineering  
**Lab Order:** 1111605  
**Project:** TWP WT-1 Station ERP  
**Lab ID:** 1111605-01

**Client Sample ID:** MW-4  
**Collection Date:** 11/10/2011 10:11:00 AM  
**Date Received:** 11/15/2011  
**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						
Benzene	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM
Toluene	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM
Ethylbenzene	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM
Naphthalene	ND	2.0		µg/L	1	11/16/2011 1:59:29 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	11/16/2011 1:59:29 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	11/16/2011 1:59:29 PM
Acetone	ND	10		µg/L	1	11/16/2011 1:59:29 PM
Bromobenzene	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM
Bromodichloromethane	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM
Bromoform	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM
Bromomethane	ND	3.0		µg/L	1	11/16/2011 1:59:29 PM
2-Butanone	ND	10		µg/L	1	11/16/2011 1:59:29 PM
Carbon disulfide	ND	10		µg/L	1	11/16/2011 1:59:29 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM
Chlorobenzene	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM
Chloroethane	ND	2.0		µg/L	1	11/16/2011 1:59:29 PM
Chloroform	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM
Chloromethane	ND	3.0		µg/L	1	11/16/2011 1:59:29 PM
2-Chlorotoluene	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM
4-Chlorotoluene	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM
cis-1,2-DCE	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/16/2011 1:59:29 PM
Dibromochloromethane	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM
Dibromomethane	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	11/16/2011 1:59:29 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level  
 E Estimated value  
 J Analyte detected below quantitation limits  
 NC Non-Chlorinated  
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 MCL Maximum Contaminant Level  
 ND Not Detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

Date: 08-Dec-11

Analytical Report

**CLIENT:** Cypress Engineering  
**Lab Order:** 1111605  
**Project:** TWP WT-1 Station ERP  
**Lab ID:** 1111605-01

**Client Sample ID:** MW-4  
**Collection Date:** 11/10/2011 10:11:00 AM  
**Date Received:** 11/15/2011  
**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						
Hexachlorobutadiene	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM
2-Hexanone	ND	10		µg/L	1	11/16/2011 1:59:29 PM
Isopropylbenzene	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	11/16/2011 1:59:29 PM
Methylene Chloride	ND	3.0		µg/L	1	11/16/2011 1:59:29 PM
n-Butylbenzene	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM
n-Propylbenzene	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM
sec-Butylbenzene	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM
Styrene	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM
tert-Butylbenzene	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/16/2011 1:59:29 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM
trans-1,2-DCE	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/16/2011 1:59:29 PM
Vinyl chloride	ND	1.0		µg/L	1	11/16/2011 1:59:29 PM
Xylenes, Total	ND	1.5		µg/L	1	11/16/2011 1:59:29 PM
Surr: 1,2-Dichloroethane-d4	94.1	70-130		%REC	1	11/16/2011 1:59:29 PM
Surr: 4-Bromofluorobenzene	105	73-131		%REC	1	11/16/2011 1:59:29 PM
Surr: Dibromofluoromethane	98.1	70-130		%REC	1	11/16/2011 1:59:29 PM
Surr: Toluene-d8	97.4	70-130		%REC	1	11/16/2011 1:59:29 PM

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level  
E Estimated value  
J Analyte detected below quantitation limits  
NC Non-Chlorinated  
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
MCL Maximum Contaminant Level  
ND Not Detected at the Reporting Limit  
S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

Date: 08-Dec-11

Analytical Report

**CLIENT:** Cypress Engineering  
**Lab Order:** 1111605  
**Project:** TWP WT-1 Station ERP  
**Lab ID:** 1111605-02

**Client Sample ID:** MW-5  
**Collection Date:** 11/10/2011 9:25:00 AM  
**Date Received:** 11/15/2011  
**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Analyst: MMS
<b>EPA METHOD 8260B: VOLATILES</b>							
Benzene	16	10		µg/L	10	11/17/2011 7:12:37 AM	
Toluene	ND	10		µg/L	10	11/17/2011 7:12:37 AM	
Ethylbenzene	ND	10		µg/L	10	11/17/2011 7:12:37 AM	
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	11/17/2011 7:12:37 AM	
1,2,4-Trimethylbenzene	ND	10		µg/L	10	11/17/2011 7:12:37 AM	
1,3,5-Trimethylbenzene	ND	10		µg/L	10	11/17/2011 7:12:37 AM	
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	11/17/2011 7:12:37 AM	
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	11/17/2011 7:12:37 AM	
Naphthalene	ND	20		µg/L	10	11/17/2011 7:12:37 AM	
1-Methylnaphthalene	ND	40		µg/L	10	11/17/2011 7:12:37 AM	
2-Methylnaphthalene	ND	40		µg/L	10	11/17/2011 7:12:37 AM	
Acetone	ND	100		µg/L	10	11/17/2011 7:12:37 AM	
Bromobenzene	ND	10		µg/L	10	11/17/2011 7:12:37 AM	
Bromodichloromethane	ND	10		µg/L	10	11/17/2011 7:12:37 AM	
Bromoform	ND	10		µg/L	10	11/17/2011 7:12:37 AM	
Bromomethane	ND	30		µg/L	10	11/17/2011 7:12:37 AM	
2-Butanone	ND	100		µg/L	10	11/17/2011 7:12:37 AM	
Carbon disulfide	ND	100		µg/L	10	11/17/2011 7:12:37 AM	
Carbon Tetrachloride	ND	10		µg/L	10	11/17/2011 7:12:37 AM	
Chlorobenzene	ND	10		µg/L	10	11/17/2011 7:12:37 AM	
Chloroethane	ND	20		µg/L	10	11/17/2011 7:12:37 AM	
Chloroform	ND	10		µg/L	10	11/17/2011 7:12:37 AM	
Chloromethane	ND	30		µg/L	10	11/17/2011 7:12:37 AM	
2-Chlorotoluene	ND	10		µg/L	10	11/17/2011 7:12:37 AM	
4-Chlorotoluene	ND	10		µg/L	10	11/17/2011 7:12:37 AM	
cis-1,2-DCE	48	10		µg/L	10	11/17/2011 7:12:37 AM	
cis-1,3-Dichloropropene	ND	10		µg/L	10	11/17/2011 7:12:37 AM	
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	11/17/2011 7:12:37 AM	
Dibromochloromethane	ND	10		µg/L	10	11/17/2011 7:12:37 AM	
Dibromomethane	ND	10		µg/L	10	11/17/2011 7:12:37 AM	
1,2-Dichlorobenzene	ND	10		µg/L	10	11/17/2011 7:12:37 AM	
1,3-Dichlorobenzene	ND	10		µg/L	10	11/17/2011 7:12:37 AM	
1,4-Dichlorobenzene	ND	10		µg/L	10	11/17/2011 7:12:37 AM	
Dichlorodifluoromethane	ND	10		µg/L	10	11/17/2011 7:12:37 AM	
1,1-Dichloroethane	61	10		µg/L	10	11/17/2011 7:12:37 AM	
1,1-Dichloroethene	ND	10		µg/L	10	11/17/2011 7:12:37 AM	
1,2-Dichloropropane	ND	10		µg/L	10	11/17/2011 7:12:37 AM	
1,3-Dichloropropane	ND	10		µg/L	10	11/17/2011 7:12:37 AM	
2,2-Dichloropropane	ND	20		µg/L	10	11/17/2011 7:12:37 AM	
1,1-Dichloropropene	ND	10		µg/L	10	11/17/2011 7:12:37 AM	

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level  
 E Estimated value  
 J Analyte detected below quantitation limits  
 NC Non-Chlorinated  
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 MCL Maximum Contaminant Level  
 ND Not Detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

Date: 08-Dec-11

Analytical Report

**CLIENT:** Cypress Engineering  
**Lab Order:** 1111605  
**Project:** TWP WT-1 Station ERP  
**Lab ID:** 1111605-02

**Client Sample ID:** MW-5

**Collection Date:** 11/10/2011 9:25:00 AM

**Date Received:** 11/15/2011

**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						
Hexachlorobutadiene	ND	10	μg/L	10	10	11/17/2011 7:12:37 AM
2-Hexanone	ND	100	μg/L	10	10	11/17/2011 7:12:37 AM
Isopropylbenzene	ND	10	μg/L	10	10	11/17/2011 7:12:37 AM
4-Isopropyltoluene	ND	10	μg/L	10	10	11/17/2011 7:12:37 AM
4-Methyl-2-pentanone	ND	100	μg/L	10	10	11/17/2011 7:12:37 AM
Methylene Chloride	ND	30	μg/L	10	10	11/17/2011 7:12:37 AM
n-Butylbenzene	ND	10	μg/L	10	10	11/17/2011 7:12:37 AM
n-Propylbenzene	ND	10	μg/L	10	10	11/17/2011 7:12:37 AM
sec-Butylbenzene	ND	10	μg/L	10	10	11/17/2011 7:12:37 AM
Styrene	ND	10	μg/L	10	10	11/17/2011 7:12:37 AM
tert-Butylbenzene	ND	10	μg/L	10	10	11/17/2011 7:12:37 AM
1,1,1,2-Tetrachloroethane	ND	10	μg/L	10	10	11/17/2011 7:12:37 AM
1,1,2,2-Tetrachloroethane	ND	20	μg/L	10	10	11/17/2011 7:12:37 AM
Tetrachloroethene (PCE)	ND	10	μg/L	10	10	11/17/2011 7:12:37 AM
trans-1,2-DCE	ND	10	μg/L	10	10	11/17/2011 7:12:37 AM
trans-1,3-Dichloropropene	ND	10	μg/L	10	10	11/17/2011 7:12:37 AM
1,2,3-Trichlorobenzene	ND	10	μg/L	10	10	11/17/2011 7:12:37 AM
1,2,4-Trichlorobenzene	ND	10	μg/L	10	10	11/17/2011 7:12:37 AM
1,1,1-Trichloroethane	ND	10	μg/L	10	10	11/17/2011 7:12:37 AM
1,1,2-Trichloroethane	ND	10	μg/L	10	10	11/17/2011 7:12:37 AM
Trichloroethene (TCE)	24	10	μg/L	10	10	11/17/2011 7:12:37 AM
Trichlorofluoromethane	ND	10	μg/L	10	10	11/17/2011 7:12:37 AM
1,2,3-Trichloropropane	ND	20	μg/L	10	10	11/17/2011 7:12:37 AM
Vinyl chloride	ND	10	μg/L	10	10	11/17/2011 7:12:37 AM
Xylenes, Total	ND	15	μg/L	10	10	11/17/2011 7:12:37 AM
Surr: 1,2-Dichloroethane-d4	84.8	70-130	%REC	10	10	11/17/2011 7:12:37 AM
Surr: 4-Bromofluorobenzene	113	73-131	%REC	10	10	11/17/2011 7:12:37 AM
Surr: Dibromofluoromethane	93.5	70-130	%REC	10	10	11/17/2011 7:12:37 AM
Surr: Toluene-d8	97.3	70-130	%REC	10	10	11/17/2011 7:12:37 AM

## Qualifiers:

\* Value exceeds Maximum Contaminant Level  
 E Estimated value  
 J Analyte detected below quantitation limits  
 NC Non-Chlorinated  
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 MCL Maximum Contaminant Level  
 ND Not Detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

Date: 08-Dec-11

Analytical Report

**CLIENT:** Cypress Engineering  
**Lab Order:** 1111605  
**Project:** TWP WT-1 Station ERP  
**Lab ID:** 1111605-03

**Client Sample ID:** MW-6

**Collection Date:** 11/9/2011 4:01:00 PM

**Date Received:** 11/15/2011

**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Analyst: MMS
<b>EPA METHOD 8260B: VOLATILES</b>							
Benzene	ND	1.0		µg/L	1	11/17/2011 8:39:06 AM	
Toluene	ND	1.0		µg/L	1	11/17/2011 8:39:06 AM	
Ethylbenzene	ND	1.0		µg/L	1	11/17/2011 8:39:06 AM	
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/17/2011 8:39:06 AM	
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/17/2011 8:39:06 AM	
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/17/2011 8:39:06 AM	
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/17/2011 8:39:06 AM	
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/17/2011 8:39:06 AM	
Naphthalene	ND	2.0		µg/L	1	11/17/2011 8:39:06 AM	
1-Methylnaphthalene	ND	4.0		µg/L	1	11/17/2011 8:39:06 AM	
2-Methylnaphthalene	ND	4.0		µg/L	1	11/17/2011 8:39:06 AM	
Acetone	ND	10		µg/L	1	11/17/2011 8:39:06 AM	
Bromobenzene	ND	1.0		µg/L	1	11/17/2011 8:39:06 AM	
Bromodichloromethane	ND	1.0		µg/L	1	11/17/2011 8:39:06 AM	
Bromoform	ND	1.0		µg/L	1	11/17/2011 8:39:06 AM	
Bromomethane	ND	3.0		µg/L	1	11/17/2011 8:39:06 AM	
2-Butanone	ND	10		µg/L	1	11/17/2011 8:39:06 AM	
Carbon disulfide	ND	10		µg/L	1	11/17/2011 8:39:06 AM	
Carbon Tetrachloride	ND	1.0		µg/L	1	11/17/2011 8:39:06 AM	
Chlorobenzene	ND	1.0		µg/L	1	11/17/2011 8:39:06 AM	
Chloroethane	ND	2.0		µg/L	1	11/17/2011 8:39:06 AM	
Chloroform	ND	1.0		µg/L	1	11/17/2011 8:39:06 AM	
Chloromethane	ND	3.0		µg/L	1	11/17/2011 8:39:06 AM	
2-Chlorotoluene	ND	1.0		µg/L	1	11/17/2011 8:39:06 AM	
4-Chlorotoluene	ND	1.0		µg/L	1	11/17/2011 8:39:06 AM	
cis-1,2-DCE	2.3	1.0		µg/L	1	11/17/2011 8:39:06 AM	
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/17/2011 8:39:06 AM	
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/17/2011 8:39:06 AM	
Dibromochloromethane	ND	1.0		µg/L	1	11/17/2011 8:39:06 AM	
Dibromomethane	ND	1.0		µg/L	1	11/17/2011 8:39:06 AM	
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/17/2011 8:39:06 AM	
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/17/2011 8:39:06 AM	
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/17/2011 8:39:06 AM	
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/17/2011 8:39:06 AM	
1,1-Dichloroethane	3.2	1.0		µg/L	1	11/17/2011 8:39:06 AM	
1,1-Dichloroethene	ND	1.0		µg/L	1	11/17/2011 8:39:06 AM	
1,2-Dichloropropane	ND	1.0		µg/L	1	11/17/2011 8:39:06 AM	
1,3-Dichloropropane	ND	1.0		µg/L	1	11/17/2011 8:39:06 AM	
2,2-Dichloropropane	ND	2.0		µg/L	1	11/17/2011 8:39:06 AM	
1,1-Dichloropropene	ND	1.0		µg/L	1	11/17/2011 8:39:06 AM	

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level  
 E Estimated value  
 J Analyte detected below quantitation limits  
 NC Non-Chlorinated  
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 MCL Maximum Contaminant Level  
 ND Not Detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

Date: 08-Dec-11

Analytical Report

**CLIENT:** Cypress Engineering  
**Lab Order:** 1111605  
**Project:** TWP WT-1 Station ERP  
**Lab ID:** 1111605-03

**Client Sample ID:** MW-6

**Collection Date:** 11/9/2011 4:01:00 PM

**Date Received:** 11/15/2011

**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Analyst: MMS
<b>EPA METHOD 8260B: VOLATILES</b>							
Hexachlorobutadiene	ND	1.0		µg/L	1	11/17/2011 8:39:06 AM	
2-Hexanone	ND	10		µg/L	1	11/17/2011 8:39:06 AM	
Isopropylbenzene	ND	1.0		µg/L	1	11/17/2011 8:39:06 AM	
4-Isopropyltoluene	ND	1.0		µg/L	1	11/17/2011 8:39:06 AM	
4-Methyl-2-pentanone	ND	10		µg/L	1	11/17/2011 8:39:06 AM	
Methylene Chloride	ND	3.0		µg/L	1	11/17/2011 8:39:06 AM	
n-Butylbenzene	ND	1.0		µg/L	1	11/17/2011 8:39:06 AM	
n-Propylbenzene	ND	1.0		µg/L	1	11/17/2011 8:39:06 AM	
sec-Butylbenzene	ND	1.0		µg/L	1	11/17/2011 8:39:06 AM	
Styrene	ND	1.0		µg/L	1	11/17/2011 8:39:06 AM	
tert-Butylbenzene	ND	1.0		µg/L	1	11/17/2011 8:39:06 AM	
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/17/2011 8:39:06 AM	
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/17/2011 8:39:06 AM	
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/17/2011 8:39:06 AM	
trans-1,2-DCE	ND	1.0		µg/L	1	11/17/2011 8:39:06 AM	
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/17/2011 8:39:06 AM	
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/17/2011 8:39:06 AM	
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/17/2011 8:39:06 AM	
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/17/2011 8:39:06 AM	
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/17/2011 8:39:06 AM	
Trichloroethene (TCE)	4.8	1.0		µg/L	1	11/17/2011 8:39:06 AM	
Trichlorofluoromethane	ND	1.0		µg/L	1	11/17/2011 8:39:06 AM	
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/17/2011 8:39:06 AM	
Vinyl chloride	ND	1.0		µg/L	1	11/17/2011 8:39:06 AM	
Xylenes, Total	ND	1.5		µg/L	1	11/17/2011 8:39:06 AM	
Surr: 1,2-Dichloroethane-d4	87.3	70-130		%REC	1	11/17/2011 8:39:06 AM	
Surr: 4-Bromofluorobenzene	108	73-131		%REC	1	11/17/2011 8:39:06 AM	
Surr: Dibromofluoromethane	96.8	70-130		%REC	1	11/17/2011 8:39:06 AM	
Surr: Toluene-d8	93.3	70-130		%REC	1	11/17/2011 8:39:06 AM	

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level  
E Estimated value  
J Analyte detected below quantitation limits  
NC Non-Chlorinated  
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
MCL Maximum Contaminant Level  
ND Not Detected at the Reporting Limit  
S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

Date: 08-Dec-11

Analytical Report

**CLIENT:** Cypress Engineering  
**Lab Order:** 1111605  
**Project:** TWP WT-1 Station ERP  
**Lab ID:** 1111605-04

**Client Sample ID:** MW-7  
**Collection Date:** 11/10/2011 9:11:00 AM  
**Date Received:** 11/15/2011  
**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Analyst: MMS
<b>EPA METHOD 8260B: VOLATILES</b>							
Benzene	ND	1.0		µg/L	1	11/17/2011 9:07:59 AM	
Toluene	ND	1.0		µg/L	1	11/17/2011 9:07:59 AM	
Ethylbenzene	ND	1.0		µg/L	1	11/17/2011 9:07:59 AM	
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	11/17/2011 9:07:59 AM	
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	11/17/2011 9:07:59 AM	
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	11/17/2011 9:07:59 AM	
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	11/17/2011 9:07:59 AM	
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	11/17/2011 9:07:59 AM	
Naphthalene	ND	2.0		µg/L	1	11/17/2011 9:07:59 AM	
1-Methylnaphthalene	ND	4.0		µg/L	1	11/17/2011 9:07:59 AM	
2-Methylnaphthalene	ND	4.0		µg/L	1	11/17/2011 9:07:59 AM	
Acetone	ND	10		µg/L	1	11/17/2011 9:07:59 AM	
Bromobenzene	ND	1.0		µg/L	1	11/17/2011 9:07:59 AM	
Bromodichloromethane	ND	1.0		µg/L	1	11/17/2011 9:07:59 AM	
Bromoform	ND	1.0		µg/L	1	11/17/2011 9:07:59 AM	
Bromomethane	ND	3.0		µg/L	1	11/17/2011 9:07:59 AM	
2-Butanone	ND	10		µg/L	1	11/17/2011 9:07:59 AM	
Carbon disulfide	ND	10		µg/L	1	11/17/2011 9:07:59 AM	
Carbon Tetrachloride	ND	1.0		µg/L	1	11/17/2011 9:07:59 AM	
Chlorobenzene	ND	1.0		µg/L	1	11/17/2011 9:07:59 AM	
Chloroethane	ND	2.0		µg/L	1	11/17/2011 9:07:59 AM	
Chloroform	ND	1.0		µg/L	1	11/17/2011 9:07:59 AM	
Chloromethane	ND	3.0		µg/L	1	11/17/2011 9:07:59 AM	
2-Chlorotoluene	ND	1.0		µg/L	1	11/17/2011 9:07:59 AM	
4-Chlorotoluene	ND	1.0		µg/L	1	11/17/2011 9:07:59 AM	
cis-1,2-DCE	52	1.0		µg/L	1	11/17/2011 9:07:59 AM	
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	11/17/2011 9:07:59 AM	
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	11/17/2011 9:07:59 AM	
Dibromochloromethane	ND	1.0		µg/L	1	11/17/2011 9:07:59 AM	
Dibromomethane	ND	1.0		µg/L	1	11/17/2011 9:07:59 AM	
1,2-Dichlorobenzene	ND	1.0		µg/L	1	11/17/2011 9:07:59 AM	
1,3-Dichlorobenzene	ND	1.0		µg/L	1	11/17/2011 9:07:59 AM	
1,4-Dichlorobenzene	ND	1.0		µg/L	1	11/17/2011 9:07:59 AM	
Dichlorodifluoromethane	ND	1.0		µg/L	1	11/17/2011 9:07:59 AM	
1,1-Dichloroethane	37	1.0		µg/L	1	11/17/2011 9:07:59 AM	
1,1-Dichloroethene	1.4	1.0		µg/L	1	11/17/2011 9:07:59 AM	
1,2-Dichloropropane	ND	1.0		µg/L	1	11/17/2011 9:07:59 AM	
1,3-Dichloropropane	ND	1.0		µg/L	1	11/17/2011 9:07:59 AM	
2,2-Dichloropropane	ND	2.0		µg/L	1	11/17/2011 9:07:59 AM	
1,1-Dichloropropene	ND	1.0		µg/L	1	11/17/2011 9:07:59 AM	

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level  
E Estimated value  
J Analyte detected below quantitation limits  
NC Non-Chlorinated  
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
MCL Maximum Contaminant Level  
ND Not Detected at the Reporting Limit  
S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

Date: 08-Dec-11

Analytical Report

**CLIENT:** Cypress Engineering  
**Lab Order:** 1111605  
**Project:** TWP WT-1 Station ERP  
**Lab ID:** 1111605-04

**Client Sample ID:** MW-7

**Collection Date:** 11/10/2011 9:11:00 AM

**Date Received:** 11/15/2011

**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						
Hexachlorobutadiene	ND	1.0		µg/L	1	11/17/2011 9:07:59 AM
2-Hexanone	ND	10		µg/L	1	11/17/2011 9:07:59 AM
Isopropylbenzene	ND	1.0		µg/L	1	11/17/2011 9:07:59 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	11/17/2011 9:07:59 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	11/17/2011 9:07:59 AM
Methylene Chloride	ND	3.0		µg/L	1	11/17/2011 9:07:59 AM
n-Butylbenzene	ND	1.0		µg/L	1	11/17/2011 9:07:59 AM
n-Propylbenzene	ND	1.0		µg/L	1	11/17/2011 9:07:59 AM
sec-Butylbenzene	ND	1.0		µg/L	1	11/17/2011 9:07:59 AM
Styrene	ND	1.0		µg/L	1	11/17/2011 9:07:59 AM
tert-Butylbenzene	ND	1.0		µg/L	1	11/17/2011 9:07:59 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/17/2011 9:07:59 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/17/2011 9:07:59 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/17/2011 9:07:59 AM
trans-1,2-DCE	ND	1.0		µg/L	1	11/17/2011 9:07:59 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/17/2011 9:07:59 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/17/2011 9:07:59 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/17/2011 9:07:59 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/17/2011 9:07:59 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/17/2011 9:07:59 AM
Trichloroethene (TCE)	6.6	1.0		µg/L	1	11/17/2011 9:07:59 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	11/17/2011 9:07:59 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/17/2011 9:07:59 AM
Vinyl chloride	ND	1.0		µg/L	1	11/17/2011 9:07:59 AM
Xylenes, Total	ND	1.5		µg/L	1	11/17/2011 9:07:59 AM
Surr: 1,2-Dichloroethane-d4	85.5	70-130		%REC	1	11/17/2011 9:07:59 AM
Surr: 4-Bromofluorobenzene	103	73-131		%REC	1	11/17/2011 9:07:59 AM
Surr: Dibromofluoromethane	94.3	70-130		%REC	1	11/17/2011 9:07:59 AM
Surr: Toluene-d8	96.6	70-130		%REC	1	11/17/2011 9:07:59 AM

## Qualifiers:

\* Value exceeds Maximum Contaminant Level  
E Estimated value  
J Analyte detected below quantitation limits  
NC Non-Chlorinated  
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
MCL Maximum Contaminant Level  
ND Not Detected at the Reporting Limit  
S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

Date: 08-Dec-11

Analytical Report

**CLIENT:** Cypress Engineering  
**Lab Order:** 1111605  
**Project:** TWP WT-1 Station ERP  
**Lab ID:** 1111605-05

**Client Sample ID:** MW-8  
**Collection Date:** 11/10/2011 9:30:00 AM  
**Date Received:** 11/15/2011  
**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						
Benzene	3.1	1.0	µg/L	1	11/17/2011 9:36:56 AM	Analyst: MMS
Toluene	ND	1.0	µg/L	1	11/17/2011 9:36:56 AM	
Ethylbenzene	ND	1.0	µg/L	1	11/17/2011 9:36:56 AM	
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1	11/17/2011 9:36:56 AM	
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1	11/17/2011 9:36:56 AM	
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1	11/17/2011 9:36:56 AM	
1,2-Dichloroethane (EDC)	ND	1.0	µg/L	1	11/17/2011 9:36:56 AM	
1,2-Dibromoethane (EDB)	ND	1.0	µg/L	1	11/17/2011 9:36:56 AM	
Naphthalene	ND	2.0	µg/L	1	11/17/2011 9:36:56 AM	
1-Methylnaphthalene	ND	4.0	µg/L	1	11/17/2011 9:36:56 AM	
2-Methylnaphthalene	ND	4.0	µg/L	1	11/17/2011 9:36:56 AM	
Acetone	ND	10	µg/L	1	11/17/2011 9:36:56 AM	
Bromobenzene	ND	1.0	µg/L	1	11/17/2011 9:36:56 AM	
Bromodichloromethane	ND	1.0	µg/L	1	11/17/2011 9:36:56 AM	
Bromoform	ND	1.0	µg/L	1	11/17/2011 9:36:56 AM	
Bromomethane	ND	3.0	µg/L	1	11/17/2011 9:36:56 AM	
2-Butanone	ND	10	µg/L	1	11/17/2011 9:36:56 AM	
Carbon disulfide	ND	10	µg/L	1	11/17/2011 9:36:56 AM	
Carbon Tetrachloride	ND	1.0	µg/L	1	11/17/2011 9:36:56 AM	
Chlorobenzene	ND	1.0	µg/L	1	11/17/2011 9:36:56 AM	
Chloroethane	ND	2.0	µg/L	1	11/17/2011 9:36:56 AM	
Chloroform	ND	1.0	µg/L	1	11/17/2011 9:36:56 AM	
Chloromethane	ND	3.0	µg/L	1	11/17/2011 9:36:56 AM	
2-Chlorotoluene	ND	1.0	µg/L	1	11/17/2011 9:36:56 AM	
4-Chlorotoluene	ND	1.0	µg/L	1	11/17/2011 9:36:56 AM	
cis-1,2-DCE	60	1.0	µg/L	1	11/17/2011 9:36:56 AM	
cis-1,3-Dichloropropene	ND	1.0	µg/L	1	11/17/2011 9:36:56 AM	
1,2-Dibromo-3-chloropropane	ND	2.0	µg/L	1	11/17/2011 9:36:56 AM	
Dibromochloromethane	ND	1.0	µg/L	1	11/17/2011 9:36:56 AM	
Dibromomethane	ND	1.0	µg/L	1	11/17/2011 9:36:56 AM	
1,2-Dichlorobenzene	1.1	1.0	µg/L	1	11/17/2011 9:36:56 AM	
1,3-Dichlorobenzene	ND	1.0	µg/L	1	11/17/2011 9:36:56 AM	
1,4-Dichlorobenzene	ND	1.0	µg/L	1	11/17/2011 9:36:56 AM	
Dichlorodifluoromethane	ND	1.0	µg/L	1	11/17/2011 9:36:56 AM	
1,1-Dichloroethane	47	1.0	µg/L	1	11/17/2011 9:36:56 AM	
1,1-Dichloroethene	2.3	1.0	µg/L	1	11/17/2011 9:36:56 AM	
1,2-Dichloropropane	ND	1.0	µg/L	1	11/17/2011 9:36:56 AM	
1,3-Dichloropropane	ND	1.0	µg/L	1	11/17/2011 9:36:56 AM	
2,2-Dichloropropane	ND	2.0	µg/L	1	11/17/2011 9:36:56 AM	
1,1-Dichloropropene	ND	1.0	µg/L	1	11/17/2011 9:36:56 AM	

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level  
 E Estimated value  
 J Analyte detected below quantitation limits  
 NC Non-Chlorinated  
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 MCL Maximum Contaminant Level  
 ND Not Detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

Date: 08-Dec-11

Analytical Report

**CLIENT:** Cypress Engineering  
**Lab Order:** 1111605  
**Project:** TWP WT-1 Station ERP  
**Lab ID:** 1111605-05

**Client Sample ID:** MW-8  
**Collection Date:** 11/10/2011 9:30:00 AM  
**Date Received:** 11/15/2011  
**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						
Hexachlorobutadiene	ND	1.0		µg/L	1	11/17/2011 9:36:56 AM
2-Hexanone	ND	10		µg/L	1	11/17/2011 9:36:56 AM
Isopropylbenzene	ND	1.0		µg/L	1	11/17/2011 9:36:56 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	11/17/2011 9:36:56 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	11/17/2011 9:36:56 AM
Methylene Chloride	ND	3.0		µg/L	1	11/17/2011 9:36:56 AM
n-Butylbenzene	ND	1.0		µg/L	1	11/17/2011 9:36:56 AM
n-Propylbenzene	ND	1.0		µg/L	1	11/17/2011 9:36:56 AM
sec-Butylbenzene	ND	1.0		µg/L	1	11/17/2011 9:36:56 AM
Styrene	ND	1.0		µg/L	1	11/17/2011 9:36:56 AM
tert-Butylbenzene	ND	1.0		µg/L	1	11/17/2011 9:36:56 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/17/2011 9:36:56 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/17/2011 9:36:56 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/17/2011 9:36:56 AM
trans-1,2-DCE	ND	1.0		µg/L	1	11/17/2011 9:36:56 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/17/2011 9:36:56 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/17/2011 9:36:56 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/17/2011 9:36:56 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/17/2011 9:36:56 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/17/2011 9:36:56 AM
Trichloroethene (TCE)	23	1.0		µg/L	1	11/17/2011 9:36:56 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	11/17/2011 9:36:56 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/17/2011 9:36:56 AM
Vinyl chloride	ND	1.0		µg/L	1	11/17/2011 9:36:56 AM
Xylenes, Total	ND	1.5		µg/L	1	11/17/2011 9:36:56 AM
Surr: 1,2-Dichloroethane-d4	89.2	70-130		%REC	1	11/17/2011 9:36:56 AM
Surr: 4-Bromofluorobenzene	104	73-131		%REC	1	11/17/2011 9:36:56 AM
Surr: Dibromofluoromethane	94.9	70-130		%REC	1	11/17/2011 9:36:56 AM
Surr: Toluene-d8	95.2	70-130		%REC	1	11/17/2011 9:36:56 AM

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level  
E Estimated value  
J Analyte detected below quantitation limits  
NC Non-Chlorinated  
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
MCL Maximum Contaminant Level  
ND Not Detected at the Reporting Limit  
S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

Date: 08-Dec-11

Analytical Report

**CLIENT:** Cypress Engineering  
**Lab Order:** 1111605  
**Project:** TWP WT-1 Station ERP  
**Lab ID:** 1111605-06

**Client Sample ID:** MW-14

**Collection Date:** 11/9/2011 3:25:00 PM

**Date Received:** 11/15/2011

**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Analyst: MMS
<b>EPA METHOD 8260B: VOLATILES</b>							
Benzene	ND	1.0	µg/L	1	11/17/2011 10:05:59 AM		
Toluene	ND	1.0	µg/L	1	11/17/2011 10:05:59 AM		
Ethylbenzene	ND	1.0	µg/L	1	11/17/2011 10:05:59 AM		
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1	11/17/2011 10:05:59 AM		
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1	11/17/2011 10:05:59 AM		
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1	11/17/2011 10:05:59 AM		
1,2-Dichloroethane (EDC)	ND	1.0	µg/L	1	11/17/2011 10:05:59 AM		
1,2-Dibromoethane (EDB)	ND	1.0	µg/L	1	11/17/2011 10:05:59 AM		
Naphthalene	ND	2.0	µg/L	1	11/17/2011 10:05:59 AM		
1-Methylnaphthalene	ND	4.0	µg/L	1	11/17/2011 10:05:59 AM		
2-Methylnaphthalene	ND	4.0	µg/L	1	11/17/2011 10:05:59 AM		
Acetone	ND	10	µg/L	1	11/17/2011 10:05:59 AM		
Bromobenzene	ND	1.0	µg/L	1	11/17/2011 10:05:59 AM		
Bromodichloromethane	ND	1.0	µg/L	1	11/17/2011 10:05:59 AM		
Bromoform	ND	1.0	µg/L	1	11/17/2011 10:05:59 AM		
Bromomethane	ND	3.0	µg/L	1	11/17/2011 10:05:59 AM		
2-Butanone	ND	10	µg/L	1	11/17/2011 10:05:59 AM		
Carbon disulfide	ND	10	µg/L	1	11/17/2011 10:05:59 AM		
Carbon Tetrachloride	ND	1.0	µg/L	1	11/17/2011 10:05:59 AM		
Chlorobenzene	ND	1.0	µg/L	1	11/17/2011 10:05:59 AM		
Chloroethane	ND	2.0	µg/L	1	11/17/2011 10:05:59 AM		
Chloroform	ND	1.0	µg/L	1	11/17/2011 10:05:59 AM		
Chloromethane	ND	3.0	µg/L	1	11/17/2011 10:05:59 AM		
2-Chlorotoluene	ND	1.0	µg/L	1	11/17/2011 10:05:59 AM		
4-Chlorotoluene	ND	1.0	µg/L	1	11/17/2011 10:05:59 AM		
cis-1,2-DCE	1.1	1.0	µg/L	1	11/17/2011 10:05:59 AM		
cis-1,3-Dichloropropene	ND	1.0	µg/L	1	11/17/2011 10:05:59 AM		
1,2-Dibromo-3-chloropropane	ND	2.0	µg/L	1	11/17/2011 10:05:59 AM		
Dibromochloromethane	ND	1.0	µg/L	1	11/17/2011 10:05:59 AM		
Dibromomethane	ND	1.0	µg/L	1	11/17/2011 10:05:59 AM		
1,2-Dichlorobenzene	ND	1.0	µg/L	1	11/17/2011 10:05:59 AM		
1,3-Dichlorobenzene	ND	1.0	µg/L	1	11/17/2011 10:05:59 AM		
1,4-Dichlorobenzene	ND	1.0	µg/L	1	11/17/2011 10:05:59 AM		
Dichlorodifluoromethane	ND	1.0	µg/L	1	11/17/2011 10:05:59 AM		
1,1-Dichloroethane	12	1.0	µg/L	1	11/17/2011 10:05:59 AM		
1,1-Dichloroethene	ND	1.0	µg/L	1	11/17/2011 10:05:59 AM		
1,2-Dichloropropane	ND	1.0	µg/L	1	11/17/2011 10:05:59 AM		
1,3-Dichloropropane	ND	1.0	µg/L	1	11/17/2011 10:05:59 AM		
2,2-Dichloropropane	ND	2.0	µg/L	1	11/17/2011 10:05:59 AM		
1,1-Dichloropropene	ND	1.0	µg/L	1	11/17/2011 10:05:59 AM		

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level  
 E Estimated value  
 J Analyte detected below quantitation limits  
 NC Non-Chlorinated  
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 MCL Maximum Contaminant Level  
 ND Not Detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

Date: 08-Dec-11

Analytical Report

**CLIENT:** Cypress Engineering  
**Lab Order:** 1111605  
**Project:** TWP WT-1 Station ERP  
**Lab ID:** 1111605-06

**Client Sample ID:** MW-14

**Collection Date:** 11/9/2011 3:25:00 PM

**Date Received:** 11/15/2011

**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Analyst: MMS
<b>EPA METHOD 8260B: VOLATILES</b>							
Hexachlorobutadiene	ND	1.0		µg/L	1	11/17/2011 10:05:59 AM	
2-Hexanone	ND	10		µg/L	1	11/17/2011 10:05:59 AM	
Isopropylbenzene	ND	1.0		µg/L	1	11/17/2011 10:05:59 AM	
4-Isopropyltoluene	ND	1.0		µg/L	1	11/17/2011 10:05:59 AM	
4-Methyl-2-pentanone	ND	10		µg/L	1	11/17/2011 10:05:59 AM	
Methylene Chloride	ND	3.0		µg/L	1	11/17/2011 10:05:59 AM	
n-Butylbenzene	ND	1.0		µg/L	1	11/17/2011 10:05:59 AM	
n-Propylbenzene	ND	1.0		µg/L	1	11/17/2011 10:05:59 AM	
sec-Butylbenzene	ND	1.0		µg/L	1	11/17/2011 10:05:59 AM	
Styrene	ND	1.0		µg/L	1	11/17/2011 10:05:59 AM	
tert-Butylbenzene	ND	1.0		µg/L	1	11/17/2011 10:05:59 AM	
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/17/2011 10:05:59 AM	
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/17/2011 10:05:59 AM	
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/17/2011 10:05:59 AM	
trans-1,2-DCE	ND	1.0		µg/L	1	11/17/2011 10:05:59 AM	
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/17/2011 10:05:59 AM	
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/17/2011 10:05:59 AM	
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/17/2011 10:05:59 AM	
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/17/2011 10:05:59 AM	
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/17/2011 10:05:59 AM	
Trichloroethene (TCE)	1.2	1.0		µg/L	1	11/17/2011 10:05:59 AM	
Trichlorofluoromethane	ND	1.0		µg/L	1	11/17/2011 10:05:59 AM	
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/17/2011 10:05:59 AM	
Vinyl chloride	ND	1.0		µg/L	1	11/17/2011 10:05:59 AM	
Xylenes, Total	ND	1.5		µg/L	1	11/17/2011 10:05:59 AM	
Surr: 1,2-Dichloroethane-d4	89.6	70-130		%REC	1	11/17/2011 10:05:59 AM	
Surr: 4-Bromofluorobenzene	102	73-131		%REC	1	11/17/2011 10:05:59 AM	
Surr: Dibromofluoromethane	95.4	70-130		%REC	1	11/17/2011 10:05:59 AM	
Surr: Toluene-d8	98.0	70-130		%REC	1	11/17/2011 10:05:59 AM	

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level  
E Estimated value  
J Analyte detected below quantitation limits  
NC Non-Chlorinated  
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
MCL Maximum Contaminant Level  
ND Not Detected at the Reporting Limit  
S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

Date: 08-Dec-11

Analytical Report

**CLIENT:** Cypress Engineering  
**Lab Order:** 1111605  
**Project:** TWP WT-1 Station ERP  
**Lab ID:** 1111605-07

**Client Sample ID:** MW-15

**Collection Date:** 11/10/2011 10:42:00 AM

**Date Received:** 11/15/2011

**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Analyst: MMS
<b>EPA METHOD 8260B: VOLATILES</b>							
Benzene	ND	1.0	µg/L	1	1	11/16/2011 6:38:35 PM	
Toluene	ND	1.0	µg/L	1	1	11/16/2011 6:38:35 PM	
Ethylbenzene	ND	1.0	µg/L	1	1	11/16/2011 6:38:35 PM	
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1	1	11/16/2011 6:38:35 PM	
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1	1	11/16/2011 6:38:35 PM	
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1	1	11/16/2011 6:38:35 PM	
1,2-Dichloroethane (EDC)	ND	1.0	µg/L	1	1	11/16/2011 6:38:35 PM	
1,2-Dibromoethane (EDB)	ND	1.0	µg/L	1	1	11/16/2011 6:38:35 PM	
Naphthalene	ND	2.0	µg/L	1	1	11/16/2011 6:38:35 PM	
1-Methylnaphthalene	ND	4.0	µg/L	1	1	11/16/2011 6:38:35 PM	
2-Methylnaphthalene	ND	4.0	µg/L	1	1	11/16/2011 6:38:35 PM	
Acetone	ND	10	µg/L	1	1	11/16/2011 6:38:35 PM	
Bromobenzene	ND	1.0	µg/L	1	1	11/16/2011 6:38:35 PM	
Bromodichloromethane	ND	1.0	µg/L	1	1	11/16/2011 6:38:35 PM	
Bromoform	ND	1.0	µg/L	1	1	11/16/2011 6:38:35 PM	
Bromomethane	ND	3.0	µg/L	1	1	11/16/2011 6:38:35 PM	
2-Butanone	ND	10	µg/L	1	1	11/16/2011 6:38:35 PM	
Carbon disulfide	ND	10	µg/L	1	1	11/16/2011 6:38:35 PM	
Carbon Tetrachloride	ND	1.0	µg/L	1	1	11/16/2011 6:38:35 PM	
Chlorobenzene	ND	1.0	µg/L	1	1	11/16/2011 6:38:35 PM	
Chloroethane	ND	2.0	µg/L	1	1	11/16/2011 6:38:35 PM	
Chloroform	ND	1.0	µg/L	1	1	11/16/2011 6:38:35 PM	
Chloromethane	ND	3.0	µg/L	1	1	11/16/2011 6:38:35 PM	
2-Chlorotoluene	ND	1.0	µg/L	1	1	11/16/2011 6:38:35 PM	
4-Chlorotoluene	ND	1.0	µg/L	1	1	11/16/2011 6:38:35 PM	
cis-1,2-DCE	ND	1.0	µg/L	1	1	11/16/2011 6:38:35 PM	
cis-1,3-Dichloropropene	ND	1.0	µg/L	1	1	11/16/2011 6:38:35 PM	
1,2-Dibromo-3-chloropropane	ND	2.0	µg/L	1	1	11/16/2011 6:38:35 PM	
Dibromochloromethane	ND	1.0	µg/L	1	1	11/16/2011 6:38:35 PM	
Dibromomethane	ND	1.0	µg/L	1	1	11/16/2011 6:38:35 PM	
1,2-Dichlorobenzene	ND	1.0	µg/L	1	1	11/16/2011 6:38:35 PM	
1,3-Dichlorobenzene	ND	1.0	µg/L	1	1	11/16/2011 6:38:35 PM	
1,4-Dichlorobenzene	ND	1.0	µg/L	1	1	11/16/2011 6:38:35 PM	
Dichlorodifluoromethane	ND	1.0	µg/L	1	1	11/16/2011 6:38:35 PM	
1,1-Dichloroethane	1.3	1.0	µg/L	1	1	11/16/2011 6:38:35 PM	
1,1-Dichloroethene	1.2	1.0	µg/L	1	1	11/16/2011 6:38:35 PM	
1,2-Dichloropropane	ND	1.0	µg/L	1	1	11/16/2011 6:38:35 PM	
1,3-Dichloropropane	ND	1.0	µg/L	1	1	11/16/2011 6:38:35 PM	
2,2-Dichloropropane	ND	2.0	µg/L	1	1	11/16/2011 6:38:35 PM	
1,1-Dichloropropene	ND	1.0	µg/L	1	1	11/16/2011 6:38:35 PM	

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level  
E Estimated value  
J Analyte detected below quantitation limits  
NC Non-Chlorinated  
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
MCL Maximum Contaminant Level  
ND Not Detected at the Reporting Limit  
S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

Date: 08-Dec-11

Analytical Report

**CLIENT:** Cypress Engineering  
**Lab Order:** 1111605  
**Project:** TWP WT-1 Station ERP  
**Lab ID:** 1111605-07

**Client Sample ID:** MW-15

**Collection Date:** 11/10/2011 10:42:00 AM

**Date Received:** 11/15/2011

**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						
Hexachlorobutadiene	ND	1.0		µg/L	1	11/16/2011 6:38:35 PM
2-Hexanone	ND	10		µg/L	1	11/16/2011 6:38:35 PM
Isopropylbenzene	ND	1.0		µg/L	1	11/16/2011 6:38:35 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	11/16/2011 6:38:35 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	11/16/2011 6:38:35 PM
Methylene Chloride	ND	3.0		µg/L	1	11/16/2011 6:38:35 PM
n-Butylbenzene	ND	1.0		µg/L	1	11/16/2011 6:38:35 PM
n-Propylbenzene	ND	1.0		µg/L	1	11/16/2011 6:38:35 PM
sec-Butylbenzene	ND	1.0		µg/L	1	11/16/2011 6:38:35 PM
Styrene	ND	1.0		µg/L	1	11/16/2011 6:38:35 PM
tert-Butylbenzene	ND	1.0		µg/L	1	11/16/2011 6:38:35 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/16/2011 6:38:35 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/16/2011 6:38:35 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/16/2011 6:38:35 PM
trans-1,2-DCE	ND	1.0		µg/L	1	11/16/2011 6:38:35 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/16/2011 6:38:35 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/16/2011 6:38:35 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/16/2011 6:38:35 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/16/2011 6:38:35 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/16/2011 6:38:35 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/16/2011 6:38:35 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	11/16/2011 6:38:35 PM
1,2,3-Trichloropropene	ND	2.0		µg/L	1	11/16/2011 6:38:35 PM
Vinyl chloride	ND	1.0		µg/L	1	11/16/2011 6:38:35 PM
Xylenes, Total	ND	1.5		µg/L	1	11/16/2011 6:38:35 PM
Surr: 1,2-Dichloroethane-d4	90.5	70-130		%REC	1	11/16/2011 6:38:35 PM
Surr: 4-Bromofluorobenzene	103	73-131		%REC	1	11/16/2011 6:38:35 PM
Surr: Dibromofluoromethane	96.6	70-130		%REC	1	11/16/2011 6:38:35 PM
Surr: Toluene-d8	98.9	70-130		%REC	1	11/16/2011 6:38:35 PM

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level  
E Estimated value  
J Analyte detected below quantitation limits  
NC Non-Chlorinated  
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
MCL Maximum Contaminant Level  
ND Not Detected at the Reporting Limit  
S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

Date: 08-Dec-11

Analytical Report

**CLIENT:** Cypress Engineering  
**Lab Order:** 1111605  
**Project:** TWP WT-1 Station ERP  
**Lab ID:** 1111605-08

**Client Sample ID:** MW-16

**Collection Date:** 11/10/2011 11:10:00 AM

**Date Received:** 11/15/2011

**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Analyst: MMS
<b>EPA METHOD 8260B: VOLATILES</b>							
Benzene	ND	1.0	µg/L	1	11/16/2011 7:07:46 PM		
Toluene	ND	1.0	µg/L	1	11/16/2011 7:07:46 PM		
Ethylbenzene	ND	1.0	µg/L	1	11/16/2011 7:07:46 PM		
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1	11/16/2011 7:07:46 PM		
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1	11/16/2011 7:07:46 PM		
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1	11/16/2011 7:07:46 PM		
1,2-Dichloroethane (EDC)	ND	1.0	µg/L	1	11/16/2011 7:07:46 PM		
1,2-Dibromoethane (EDB)	ND	1.0	µg/L	1	11/16/2011 7:07:46 PM		
Naphthalene	ND	2.0	µg/L	1	11/16/2011 7:07:46 PM		
1-Methylnaphthalene	ND	4.0	µg/L	1	11/16/2011 7:07:46 PM		
2-Methylnaphthalene	ND	4.0	µg/L	1	11/16/2011 7:07:46 PM		
Acetone	ND	10	µg/L	1	11/16/2011 7:07:46 PM		
Bromobenzene	ND	1.0	µg/L	1	11/16/2011 7:07:46 PM		
Bromodichloromethane	ND	1.0	µg/L	1	11/16/2011 7:07:46 PM		
Bromoform	ND	1.0	µg/L	1	11/16/2011 7:07:46 PM		
Bromomethane	ND	3.0	µg/L	1	11/16/2011 7:07:46 PM		
2-Butanone	ND	10	µg/L	1	11/16/2011 7:07:46 PM		
Carbon disulfide	ND	10	µg/L	1	11/16/2011 7:07:46 PM		
Carbon Tetrachloride	ND	1.0	µg/L	1	11/16/2011 7:07:46 PM		
Chlorobenzene	ND	1.0	µg/L	1	11/16/2011 7:07:46 PM		
Chloroethane	ND	2.0	µg/L	1	11/16/2011 7:07:46 PM		
Chloroform	ND	1.0	µg/L	1	11/16/2011 7:07:46 PM		
Chloromethane	ND	3.0	µg/L	1	11/16/2011 7:07:46 PM		
2-Chlorotoluene	ND	1.0	µg/L	1	11/16/2011 7:07:46 PM		
4-Chlorotoluene	ND	1.0	µg/L	1	11/16/2011 7:07:46 PM		
cis-1,2-DCE	ND	1.0	µg/L	1	11/16/2011 7:07:46 PM		
cis-1,3-Dichloropropene	ND	1.0	µg/L	1	11/16/2011 7:07:46 PM		
1,2-Dibromo-3-chloropropane	ND	2.0	µg/L	1	11/16/2011 7:07:46 PM		
Dibromochloromethane	ND	1.0	µg/L	1	11/16/2011 7:07:46 PM		
Dibromomethane	ND	1.0	µg/L	1	11/16/2011 7:07:46 PM		
1,2-Dichlorobenzene	ND	1.0	µg/L	1	11/16/2011 7:07:46 PM		
1,3-Dichlorobenzene	ND	1.0	µg/L	1	11/16/2011 7:07:46 PM		
1,4-Dichlorobenzene	ND	1.0	µg/L	1	11/16/2011 7:07:46 PM		
Dichlorodifluoromethane	ND	1.0	µg/L	1	11/16/2011 7:07:46 PM		
1,1-Dichloroethane	ND	1.0	µg/L	1	11/16/2011 7:07:46 PM		
1,1-Dichloroethene	ND	1.0	µg/L	1	11/16/2011 7:07:46 PM		
1,2-Dichloropropane	ND	1.0	µg/L	1	11/16/2011 7:07:46 PM		
1,3-Dichloropropane	ND	1.0	µg/L	1	11/16/2011 7:07:46 PM		
2,2-Dichloropropane	ND	2.0	µg/L	1	11/16/2011 7:07:46 PM		
1,1-Dichloropropene	ND	1.0	µg/L	1	11/16/2011 7:07:46 PM		

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level  
 E Estimated value  
 J Analyte detected below quantitation limits  
 NC Non-Chlorinated  
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 MCL Maximum Contaminant Level  
 ND Not Detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

Date: 08-Dec-11

Analytical Report

**CLIENT:** Cypress Engineering  
**Lab Order:** 1111605  
**Project:** TWP WT-1 Station ERP  
**Lab ID:** 1111605-08

**Client Sample ID:** MW-16

**Collection Date:** 11/10/2011 11:10:00 AM

**Date Received:** 11/15/2011

**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						
Hexachlorobutadiene	ND	1.0		µg/L	1	11/16/2011 7:07:46 PM
2-Hexanone	ND	10		µg/L	1	11/16/2011 7:07:46 PM
Isopropylbenzene	ND	1.0		µg/L	1	11/16/2011 7:07:46 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	11/16/2011 7:07:46 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	11/16/2011 7:07:46 PM
Methylene Chloride	ND	3.0		µg/L	1	11/16/2011 7:07:46 PM
n-Butylbenzene	ND	1.0		µg/L	1	11/16/2011 7:07:46 PM
n-Propylbenzene	ND	1.0		µg/L	1	11/16/2011 7:07:46 PM
sec-Butylbenzene	ND	1.0		µg/L	1	11/16/2011 7:07:46 PM
Styrene	ND	1.0		µg/L	1	11/16/2011 7:07:46 PM
tert-Butylbenzene	ND	1.0		µg/L	1	11/16/2011 7:07:46 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/16/2011 7:07:46 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/16/2011 7:07:46 PM
Tetrachloroethene (PCE)	2.5	1.0		µg/L	1	11/16/2011 7:07:46 PM
trans-1,2-DCE	ND	1.0		µg/L	1	11/16/2011 7:07:46 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/16/2011 7:07:46 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/16/2011 7:07:46 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/16/2011 7:07:46 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/16/2011 7:07:46 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/16/2011 7:07:46 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/16/2011 7:07:46 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	11/16/2011 7:07:46 PM
1,2,3-Trichloropropene	ND	2.0		µg/L	1	11/16/2011 7:07:46 PM
Vinyl chloride	ND	1.0		µg/L	1	11/16/2011 7:07:46 PM
Xylenes, Total	ND	1.5		µg/L	1	11/16/2011 7:07:46 PM
Surr: 1,2-Dichloroethane-d4	90.7	70-130		%REC	1	11/16/2011 7:07:46 PM
Surr: 4-Bromofluorobenzene	99.5	73-131		%REC	1	11/16/2011 7:07:46 PM
Surr: Dibromofluoromethane	98.1	70-130		%REC	1	11/16/2011 7:07:46 PM
Surr: Toluene-d8	100	70-130		%REC	1	11/16/2011 7:07:46 PM

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level  
 E Estimated value  
 J Analyte detected below quantitation limits  
 NC Non-Chlorinated  
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 MCL Maximum Contaminant Level  
 ND Not Detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

Date: 08-Dec-11  
Analytical Report

**CLIENT:** Cypress Engineering  
**Lab Order:** 1111605  
**Project:** TWP WT-1 Station ERP  
**Lab ID:** 1111605-09

**Client Sample ID:** MW-17  
**Collection Date:** 11/9/2011 3:00:00 PM  
**Date Received:** 11/15/2011  
**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						
Benzene	ND	1.0	µg/L	1	11/16/2011 7:36:55 PM	Analyst: MMS
Toluene	ND	1.0	µg/L	1	11/16/2011 7:36:55 PM	
Ethylbenzene	ND	1.0	µg/L	1	11/16/2011 7:36:55 PM	
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1	11/16/2011 7:36:55 PM	
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1	11/16/2011 7:36:55 PM	
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1	11/16/2011 7:36:55 PM	
1,2-Dichloroethane (EDC)	ND	1.0	µg/L	1	11/16/2011 7:36:55 PM	
1,2-Dibromoethane (EDB)	ND	1.0	µg/L	1	11/16/2011 7:36:55 PM	
Naphthalene	ND	2.0	µg/L	1	11/16/2011 7:36:55 PM	
1-Methylnaphthalene	ND	4.0	µg/L	1	11/16/2011 7:36:55 PM	
2-Methylnaphthalene	ND	4.0	µg/L	1	11/16/2011 7:36:55 PM	
Acetone	ND	10	µg/L	1	11/16/2011 7:36:55 PM	
Bromobenzene	ND	1.0	µg/L	1	11/16/2011 7:36:55 PM	
Bromodichloromethane	ND	1.0	µg/L	1	11/16/2011 7:36:55 PM	
Bromoform	ND	1.0	µg/L	1	11/16/2011 7:36:55 PM	
Bromomethane	ND	3.0	µg/L	1	11/16/2011 7:36:55 PM	
2-Butanone	ND	10	µg/L	1	11/16/2011 7:36:55 PM	
Carbon disulfide	ND	10	µg/L	1	11/16/2011 7:36:55 PM	
Carbon Tetrachloride	ND	1.0	µg/L	1	11/16/2011 7:36:55 PM	
Chlorobenzene	ND	1.0	µg/L	1	11/16/2011 7:36:55 PM	
Chloroethane	ND	2.0	µg/L	1	11/16/2011 7:36:55 PM	
Chloroform	ND	1.0	µg/L	1	11/16/2011 7:36:55 PM	
Chloromethane	ND	3.0	µg/L	1	11/16/2011 7:36:55 PM	
2-Chlorotoluene	ND	1.0	µg/L	1	11/16/2011 7:36:55 PM	
4-Chlorotoluene	ND	1.0	µg/L	1	11/16/2011 7:36:55 PM	
cis-1,2-DCE	ND	1.0	µg/L	1	11/16/2011 7:36:55 PM	
cis-1,3-Dichloropropene	ND	1.0	µg/L	1	11/16/2011 7:36:55 PM	
1,2-Dibromo-3-chloropropane	ND	2.0	µg/L	1	11/16/2011 7:36:55 PM	
Dibromochloromethane	ND	1.0	µg/L	1	11/16/2011 7:36:55 PM	
Dibromomethane	ND	1.0	µg/L	1	11/16/2011 7:36:55 PM	
1,2-Dichlorobenzene	ND	1.0	µg/L	1	11/16/2011 7:36:55 PM	
1,3-Dichlorobenzene	ND	1.0	µg/L	1	11/16/2011 7:36:55 PM	
1,4-Dichlorobenzene	ND	1.0	µg/L	1	11/16/2011 7:36:55 PM	
Dichlorodifluoromethane	ND	1.0	µg/L	1	11/16/2011 7:36:55 PM	
1,1-Dichloroethane	ND	1.0	µg/L	1	11/16/2011 7:36:55 PM	
1,1-Dichloroethene	ND	1.0	µg/L	1	11/16/2011 7:36:55 PM	
1,2-Dichloropropane	ND	1.0	µg/L	1	11/16/2011 7:36:55 PM	
1,3-Dichloropropane	ND	1.0	µg/L	1	11/16/2011 7:36:55 PM	
2,2-Dichloropropane	ND	2.0	µg/L	1	11/16/2011 7:36:55 PM	
1,1-Dichloropropene	ND	1.0	µg/L	1	11/16/2011 7:36:55 PM	

## Qualifiers:

\* Value exceeds Maximum Contaminant Level  
E Estimated value  
J Analyte detected below quantitation limits  
NC Non-Chlorinated  
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
MCL Maximum Contaminant Level  
ND Not Detected at the Reporting Limit  
S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

Date: 08-Dec-11

Analytical Report

**CLIENT:** Cypress Engineering  
**Lab Order:** 1111605  
**Project:** TWP WT-1 Station ERP  
**Lab ID:** 1111605-09

**Client Sample ID:** MW-17

**Collection Date:** 11/9/2011 3:00:00 PM

**Date Received:** 11/15/2011

**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Analyst: MMS
<b>EPA METHOD 8260B: VOLATILES</b>							
Hexachlorobutadiene	ND	1.0		µg/L	1	11/16/2011 7:36:55 PM	
2-Hexanone	ND	10		µg/L	1	11/16/2011 7:36:55 PM	
Isopropylbenzene	ND	1.0		µg/L	1	11/16/2011 7:36:55 PM	
4-Isopropyltoluene	ND	1.0		µg/L	1	11/16/2011 7:36:55 PM	
4-Methyl-2-pentanone	ND	10		µg/L	1	11/16/2011 7:36:55 PM	
Methylene Chloride	ND	3.0		µg/L	1	11/16/2011 7:36:55 PM	
n-Butylbenzene	ND	1.0		µg/L	1	11/16/2011 7:36:55 PM	
n-Propylbenzene	ND	1.0		µg/L	1	11/16/2011 7:36:55 PM	
sec-Butylbenzene	ND	1.0		µg/L	1	11/16/2011 7:36:55 PM	
Styrene	ND	1.0		µg/L	1	11/16/2011 7:36:55 PM	
tert-Butylbenzene	ND	1.0		µg/L	1	11/16/2011 7:36:55 PM	
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/16/2011 7:36:55 PM	
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/16/2011 7:36:55 PM	
Tetrachloroethene (PCE)	1.5	1.0		µg/L	1	11/16/2011 7:36:55 PM	
trans-1,2-DCE	ND	1.0		µg/L	1	11/16/2011 7:36:55 PM	
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/16/2011 7:36:55 PM	
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/16/2011 7:36:55 PM	
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/16/2011 7:36:55 PM	
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/16/2011 7:36:55 PM	
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/16/2011 7:36:55 PM	
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/16/2011 7:36:55 PM	
Trichlorofluoromethane	ND	1.0		µg/L	1	11/16/2011 7:36:55 PM	
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/16/2011 7:36:55 PM	
Vinyl chloride	ND	1.0		µg/L	1	11/16/2011 7:36:55 PM	
Xylenes, Total	ND	1.5		µg/L	1	11/16/2011 7:36:55 PM	
Surr: 1,2-Dichloroethane-d4	91.4	70-130		%REC	1	11/16/2011 7:36:55 PM	
Surr: 4-Bromofluorobenzene	99.7	73-131		%REC	1	11/16/2011 7:36:55 PM	
Surr: Dibromofluoromethane	96.0	70-130		%REC	1	11/16/2011 7:36:55 PM	
Surr: Toluene-d8	95.6	70-130		%REC	1	11/16/2011 7:36:55 PM	

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level  
E Estimated value  
J Analyte detected below quantitation limits  
NC Non-Chlorinated  
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
MCL Maximum Contaminant Level  
ND Not Detected at the Reporting Limit  
S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

Date: 08-Dec-11  
Analytical Report

**CLIENT:** Cypress Engineering  
**Lab Order:** 1111605  
**Project:** TWP WT-1 Station ERP  
**Lab ID:** 1111605-10

**Client Sample ID:** MW-18  
**Collection Date:** 11/9/2011 5:00:00 PM  
**Date Received:** 11/15/2011  
**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						
Benzene	ND	20		µg/L	20	11/16/2011 8:05:53 PM
Toluene	ND	20		µg/L	20	11/16/2011 8:05:53 PM
Ethylbenzene	ND	20		µg/L	20	11/16/2011 8:05:53 PM
Methyl tert-butyl ether (MTBE)	ND	20		µg/L	20	11/16/2011 8:05:53 PM
1,2,4-Trimethylbenzene	ND	20		µg/L	20	11/16/2011 8:05:53 PM
1,3,5-Trimethylbenzene	ND	20		µg/L	20	11/16/2011 8:05:53 PM
1,2-Dichloroethane (EDC)	ND	20		µg/L	20	11/16/2011 8:05:53 PM
1,2-Dibromoethane (EDB)	ND	20		µg/L	20	11/16/2011 8:05:53 PM
Naphthalene	ND	40		µg/L	20	11/16/2011 8:05:53 PM
1-Methylnaphthalene	ND	80		µg/L	20	11/16/2011 8:05:53 PM
2-Methylnaphthalene	ND	80		µg/L	20	11/16/2011 8:05:53 PM
Acetone	ND	200		µg/L	20	11/16/2011 8:05:53 PM
Bromobenzene	ND	20		µg/L	20	11/16/2011 8:05:53 PM
Bromodichloromethane	ND	20		µg/L	20	11/16/2011 8:05:53 PM
Bromoform	ND	20		µg/L	20	11/16/2011 8:05:53 PM
Bromomethane	ND	60		µg/L	20	11/16/2011 8:05:53 PM
2-Butanone	ND	200		µg/L	20	11/16/2011 8:05:53 PM
Carbon disulfide	ND	200		µg/L	20	11/16/2011 8:05:53 PM
Carbon Tetrachloride	ND	20		µg/L	20	11/16/2011 8:05:53 PM
Chlorobenzene	ND	20		µg/L	20	11/16/2011 8:05:53 PM
Chloroethane	ND	40		µg/L	20	11/16/2011 8:05:53 PM
Chloroform	ND	20		µg/L	20	11/16/2011 8:05:53 PM
Chloromethane	ND	60		µg/L	20	11/16/2011 8:05:53 PM
2-Chlorotoluene	ND	20		µg/L	20	11/16/2011 8:05:53 PM
4-Chlorotoluene	ND	20		µg/L	20	11/16/2011 8:05:53 PM
cis-1,2-DCE	78	20		µg/L	20	11/16/2011 8:05:53 PM
cis-1,3-Dichloropropene	ND	20		µg/L	20	11/16/2011 8:05:53 PM
1,2-Dibromo-3-chloropropane	ND	40		µg/L	20	11/16/2011 8:05:53 PM
Dibromochloromethane	ND	20		µg/L	20	11/16/2011 8:05:53 PM
Dibromomethane	ND	20		µg/L	20	11/16/2011 8:05:53 PM
1,2-Dichlorobenzene	ND	20		µg/L	20	11/16/2011 8:05:53 PM
1,3-Dichlorobenzene	ND	20		µg/L	20	11/16/2011 8:05:53 PM
1,4-Dichlorobenzene	ND	20		µg/L	20	11/16/2011 8:05:53 PM
Dichlorodifluoromethane	ND	20		µg/L	20	11/16/2011 8:05:53 PM
1,1-Dichloroethane	55	20		µg/L	20	11/16/2011 8:05:53 PM
1,1-Dichloroethene	ND	20		µg/L	20	11/16/2011 8:05:53 PM
1,2-Dichloropropane	ND	20		µg/L	20	11/16/2011 8:05:53 PM
1,3-Dichloropropane	ND	20		µg/L	20	11/16/2011 8:05:53 PM
2,2-Dichloropropane	ND	40		µg/L	20	11/16/2011 8:05:53 PM
1,1-Dichloropropene	ND	20		µg/L	20	11/16/2011 8:05:53 PM

## Qualifiers:

\* Value exceeds Maximum Contaminant Level  
E Estimated value  
J Analyte detected below quantitation limits  
NC Non-Chlorinated  
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
MCL Maximum Contaminant Level  
ND Not Detected at the Reporting Limit  
S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

Date: 08-Dec-11

Analytical Report

**CLIENT:** Cypress Engineering  
**Lab Order:** 1111605  
**Project:** TWP WT-1 Station ERP  
**Lab ID:** 1111605-10

**Client Sample ID:** MW-18  
**Collection Date:** 11/9/2011 5:00:00 PM  
**Date Received:** 11/15/2011  
**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Analyst: MMS
<b>EPA METHOD 8260B: VOLATILES</b>							
Hexachlorobutadiene	ND	20		µg/L	20	11/16/2011 8:05:53 PM	
2-Hexanone	ND	200		µg/L	20	11/16/2011 8:05:53 PM	
Isopropylbenzene	ND	20		µg/L	20	11/16/2011 8:05:53 PM	
4-Isopropyltoluene	ND	20		µg/L	20	11/16/2011 8:05:53 PM	
4-Methyl-2-pentanone	ND	200		µg/L	20	11/16/2011 8:05:53 PM	
Methylene Chloride	ND	60		µg/L	20	11/16/2011 8:05:53 PM	
n-Butylbenzene	ND	20		µg/L	20	11/16/2011 8:05:53 PM	
n-Propylbenzene	ND	20		µg/L	20	11/16/2011 8:05:53 PM	
sec-Butylbenzene	ND	20		µg/L	20	11/16/2011 8:05:53 PM	
Styrene	ND	20		µg/L	20	11/16/2011 8:05:53 PM	
tert-Butylbenzene	ND	20		µg/L	20	11/16/2011 8:05:53 PM	
1,1,1,2-Tetrachloroethane	ND	20		µg/L	20	11/16/2011 8:05:53 PM	
1,1,2,2-Tetrachloroethane	ND	40		µg/L	20	11/16/2011 8:05:53 PM	
Tetrachloroethene (PCE)	ND	20		µg/L	20	11/16/2011 8:05:53 PM	
trans-1,2-DCE	ND	20		µg/L	20	11/16/2011 8:05:53 PM	
trans-1,3-Dichloropropene	ND	20		µg/L	20	11/16/2011 8:05:53 PM	
1,2,3-Trichlorobenzene	ND	20		µg/L	20	11/16/2011 8:05:53 PM	
1,2,4-Trichlorobenzene	ND	20		µg/L	20	11/16/2011 8:05:53 PM	
1,1,1-Trichloroethane	ND	20		µg/L	20	11/16/2011 8:05:53 PM	
1,1,2-Trichloroethane	ND	20		µg/L	20	11/16/2011 8:05:53 PM	
Trichloroethene (TCE)	35	20		µg/L	20	11/16/2011 8:05:53 PM	
Trichlorofluoromethane	ND	20		µg/L	20	11/16/2011 8:05:53 PM	
1,2,3-Trichloropropane	ND	40		µg/L	20	11/16/2011 8:05:53 PM	
Vinyl chloride	ND	20		µg/L	20	11/16/2011 8:05:53 PM	
Xylenes, Total	ND	30		µg/L	20	11/16/2011 8:05:53 PM	
Surr: 1,2-Dichloroethane-d4	88.5	70-130		%REC	20	11/16/2011 8:05:53 PM	
Surr: 4-Bromofluorobenzene	102	73-131		%REC	20	11/16/2011 8:05:53 PM	
Surr: Dibromofluoromethane	94.1	70-130		%REC	20	11/16/2011 8:05:53 PM	
Surr: Toluene-d8	97.5	70-130		%REC	20	11/16/2011 8:05:53 PM	

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level  
E Estimated value  
J Analyte detected below quantitation limits  
NC Non-Chlorinated  
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
MCL Maximum Contaminant Level  
ND Not Detected at the Reporting Limit  
S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

Date: 08-Dec-11

Analytical Report

**CLIENT:** Cypress Engineering  
**Lab Order:** 1111605  
**Project:** TWP WT-1 Station ERP  
**Lab ID:** 1111605-11

**Client Sample ID:** TRIP BLANK

**Collection Date:**

**Date Received:** 11/15/2011

**Matrix:** TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Analyst: MMS
<b>EPA METHOD 8260B: VOLATILES</b>							
Benzene	ND	1.0	µg/L	1	1	11/16/2011 8:35:04 PM	
Toluene	ND	1.0	µg/L	1	1	11/16/2011 8:35:04 PM	
Ethylbenzene	ND	1.0	µg/L	1	1	11/16/2011 8:35:04 PM	
Methyl tert-butyl ether (MTBE)	ND	1.0	µg/L	1	1	11/16/2011 8:35:04 PM	
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1	1	11/16/2011 8:35:04 PM	
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1	1	11/16/2011 8:35:04 PM	
1,2-Dichloroethane (EDC)	ND	1.0	µg/L	1	1	11/16/2011 8:35:04 PM	
1,2-Dibromoethane (EDB)	ND	1.0	µg/L	1	1	11/16/2011 8:35:04 PM	
Naphthalene	ND	2.0	µg/L	1	1	11/16/2011 8:35:04 PM	
1-Methylnaphthalene	ND	4.0	µg/L	1	1	11/16/2011 8:35:04 PM	
2-Methylnaphthalene	ND	4.0	µg/L	1	1	11/16/2011 8:35:04 PM	
Acetone	ND	10	µg/L	1	1	11/16/2011 8:35:04 PM	
Bromobenzene	ND	1.0	µg/L	1	1	11/16/2011 8:35:04 PM	
Bromodichloromethane	ND	1.0	µg/L	1	1	11/16/2011 8:35:04 PM	
Bromoform	ND	1.0	µg/L	1	1	11/16/2011 8:35:04 PM	
Bromomethane	ND	3.0	µg/L	1	1	11/16/2011 8:35:04 PM	
2-Butanone	ND	10	µg/L	1	1	11/16/2011 8:35:04 PM	
Carbon disulfide	ND	10	µg/L	1	1	11/16/2011 8:35:04 PM	
Carbon Tetrachloride	ND	1.0	µg/L	1	1	11/16/2011 8:35:04 PM	
Chlorobenzene	ND	1.0	µg/L	1	1	11/16/2011 8:35:04 PM	
Chloroethane	ND	2.0	µg/L	1	1	11/16/2011 8:35:04 PM	
Chloroform	ND	1.0	µg/L	1	1	11/16/2011 8:35:04 PM	
Chloromethane	ND	3.0	µg/L	1	1	11/16/2011 8:35:04 PM	
2-Chlorotoluene	ND	1.0	µg/L	1	1	11/16/2011 8:35:04 PM	
4-Chlorotoluene	ND	1.0	µg/L	1	1	11/16/2011 8:35:04 PM	
cis-1,2-DCE	ND	1.0	µg/L	1	1	11/16/2011 8:35:04 PM	
cis-1,3-Dichloropropene	ND	1.0	µg/L	1	1	11/16/2011 8:35:04 PM	
1,2-Dibromo-3-chloropropane	ND	2.0	µg/L	1	1	11/16/2011 8:35:04 PM	
Dibromochloromethane	ND	1.0	µg/L	1	1	11/16/2011 8:35:04 PM	
Dibromomethane	ND	1.0	µg/L	1	1	11/16/2011 8:35:04 PM	
1,2-Dichlorobenzene	ND	1.0	µg/L	1	1	11/16/2011 8:35:04 PM	
1,3-Dichlorobenzene	ND	1.0	µg/L	1	1	11/16/2011 8:35:04 PM	
1,4-Dichlorobenzene	ND	1.0	µg/L	1	1	11/16/2011 8:35:04 PM	
Dichlorodifluoromethane	ND	1.0	µg/L	1	1	11/16/2011 8:35:04 PM	
1,1-Dichloroethane	ND	1.0	µg/L	1	1	11/16/2011 8:35:04 PM	
1,1-Dichloroethene	ND	1.0	µg/L	1	1	11/16/2011 8:35:04 PM	
1,2-Dichloropropane	ND	1.0	µg/L	1	1	11/16/2011 8:35:04 PM	
1,3-Dichloropropane	ND	1.0	µg/L	1	1	11/16/2011 8:35:04 PM	
2,2-Dichloropropane	ND	2.0	µg/L	1	1	11/16/2011 8:35:04 PM	
1,1-Dichloropropene	ND	1.0	µg/L	1	1	11/16/2011 8:35:04 PM	

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level  
E Estimated value  
J Analyte detected below quantitation limits  
NC Non-Chlorinated  
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
MCL Maximum Contaminant Level  
ND Not Detected at the Reporting Limit  
S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

Date: 08-Dec-11  
Analytical Report

<b>CLIENT:</b>	Cypress Engineering	<b>Client Sample ID:</b> TRIP BLANK				
<b>Lab Order:</b>	1111605	<b>Collection Date:</b>				
<b>Project:</b>	TWP WT-1 Station ERP	<b>Date Received:</b> 11/15/2011				
<b>Lab ID:</b>	1111605-11	<b>Matrix:</b> TRIP BLANK				

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						
Hexachlorobutadiene	ND	1.0		µg/L	1	11/16/2011 8:35:04 PM
2-Hexanone	ND	10		µg/L	1	11/16/2011 8:35:04 PM
Isopropylbenzene	ND	1.0		µg/L	1	11/16/2011 8:35:04 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	11/16/2011 8:35:04 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	11/16/2011 8:35:04 PM
Methylene Chloride	ND	3.0		µg/L	1	11/16/2011 8:35:04 PM
n-Butylbenzene	ND	1.0		µg/L	1	11/16/2011 8:35:04 PM
n-Propylbenzene	ND	1.0		µg/L	1	11/16/2011 8:35:04 PM
sec-Butylbenzene	ND	1.0		µg/L	1	11/16/2011 8:35:04 PM
Styrene	ND	1.0		µg/L	1	11/16/2011 8:35:04 PM
tert-Butylbenzene	ND	1.0		µg/L	1	11/16/2011 8:35:04 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	11/16/2011 8:35:04 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	11/16/2011 8:35:04 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	11/16/2011 8:35:04 PM
trans-1,2-DCE	ND	1.0		µg/L	1	11/16/2011 8:35:04 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	11/16/2011 8:35:04 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	11/16/2011 8:35:04 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	11/16/2011 8:35:04 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	11/16/2011 8:35:04 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	11/16/2011 8:35:04 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	11/16/2011 8:35:04 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	11/16/2011 8:35:04 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	11/16/2011 8:35:04 PM
Vinyl chloride	ND	1.0		µg/L	1	11/16/2011 8:35:04 PM
Xylenes, Total	ND	1.5		µg/L	1	11/16/2011 8:35:04 PM
Surr: 1,2-Dichloroethane-d4	92.4	70-130		%REC	1	11/16/2011 8:35:04 PM
Surr: 4-Bromofluorobenzene	103	73-131		%REC	1	11/16/2011 8:35:04 PM
Surr: Dibromofluoromethane	96.6	70-130		%REC	1	11/16/2011 8:35:04 PM
Surr: Toluene-d8	96.5	70-130		%REC	1	11/16/2011 8:35:04 PM

#### Qualifiers:

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

Date: 08-Dec-11  
Analytical Report

**CLIENT:** Cypress Engineering  
**Lab Order:** 1111605  
**Project:** TWP WT-1 Station ERP  
**Lab ID:** 1111605-12

**Client Sample ID:** SVE1A

**Collection Date:** 11/10/2011 11:35:00 AM

**Date Received:** 11/15/2011

**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						
Benzene	52	10	μg/L	10	10	11/16/2011 9:04:09 PM
Toluene	18	10	μg/L	10	10	11/16/2011 9:04:09 PM
Ethylbenzene	23	10	μg/L	10	10	11/16/2011 9:04:09 PM
Methyl tert-butyl ether (MTBE)	ND	10	μg/L	10	10	11/16/2011 9:04:09 PM
1,2,4-Trimethylbenzene	38	10	μg/L	10	10	11/16/2011 9:04:09 PM
1,3,5-Trimethylbenzene	31	10	μg/L	10	10	11/16/2011 9:04:09 PM
1,2-Dichloroethane (EDC)	ND	10	μg/L	10	10	11/16/2011 9:04:09 PM
1,2-Dibromoethane (EDB)	ND	10	μg/L	10	10	11/16/2011 9:04:09 PM
Naphthalene	ND	20	μg/L	10	10	11/16/2011 9:04:09 PM
1-Methylnaphthalene	ND	40	μg/L	10	10	11/16/2011 9:04:09 PM
2-Methylnaphthalene	ND	40	μg/L	10	10	11/16/2011 9:04:09 PM
Acetone	ND	100	μg/L	10	10	11/16/2011 9:04:09 PM
Bromobenzene	ND	10	μg/L	10	10	11/16/2011 9:04:09 PM
Bromodichloromethane	ND	10	μg/L	10	10	11/16/2011 9:04:09 PM
Bromoform	ND	10	μg/L	10	10	11/16/2011 9:04:09 PM
Bromomethane	ND	30	μg/L	10	10	11/16/2011 9:04:09 PM
2-Butanone	ND	100	μg/L	10	10	11/16/2011 9:04:09 PM
Carbon disulfide	ND	100	μg/L	10	10	11/16/2011 9:04:09 PM
Carbon Tetrachloride	ND	10	μg/L	10	10	11/16/2011 9:04:09 PM
Chlorobenzene	ND	10	μg/L	10	10	11/16/2011 9:04:09 PM
Chloroethane	ND	20	μg/L	10	10	11/16/2011 9:04:09 PM
Chloroform	ND	10	μg/L	10	10	11/16/2011 9:04:09 PM
Chloromethane	ND	30	μg/L	10	10	11/16/2011 9:04:09 PM
2-Chlorotoluene	ND	10	μg/L	10	10	11/16/2011 9:04:09 PM
4-Chlorotoluene	ND	10	μg/L	10	10	11/16/2011 9:04:09 PM
cis-1,2-DCE	190	10	μg/L	10	10	11/16/2011 9:04:09 PM
cis-1,3-Dichloropropene	ND	10	μg/L	10	10	11/16/2011 9:04:09 PM
1,2-Dibromo-3-chloropropane	ND	20	μg/L	10	10	11/16/2011 9:04:09 PM
Dibromochloromethane	ND	10	μg/L	10	10	11/16/2011 9:04:09 PM
Dibromomethane	ND	10	μg/L	10	10	11/16/2011 9:04:09 PM
1,2-Dichlorobenzene	ND	10	μg/L	10	10	11/16/2011 9:04:09 PM
1,3-Dichlorobenzene	ND	10	μg/L	10	10	11/16/2011 9:04:09 PM
1,4-Dichlorobenzene	ND	10	μg/L	10	10	11/16/2011 9:04:09 PM
Dichlorodifluoromethane	ND	10	μg/L	10	10	11/16/2011 9:04:09 PM
1,1-Dichloroethane	410	10	μg/L	10	10	11/16/2011 9:04:09 PM
1,1-Dichloroethene	13	10	μg/L	10	10	11/16/2011 9:04:09 PM
1,2-Dichloropropane	ND	10	μg/L	10	10	11/16/2011 9:04:09 PM
1,3-Dichloropropane	ND	10	μg/L	10	10	11/16/2011 9:04:09 PM
2,2-Dichloropropane	ND	20	μg/L	10	10	11/16/2011 9:04:09 PM
1,1-Dichloropropene	ND	10	μg/L	10	10	11/16/2011 9:04:09 PM

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level  
E Estimated value  
J Analyte detected below quantitation limits  
NC Non-Chlorinated  
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
MCL Maximum Contaminant Level  
ND Not Detected at the Reporting Limit  
S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

Date: 08-Dec-11  
Analytical Report

**CLIENT:** Cypress Engineering  
**Lab Order:** 1111605  
**Project:** TWP WT-1 Station ERP  
**Lab ID:** 1111605-12

**Client Sample ID:** SVE1A  
**Collection Date:** 11/10/2011 11:35:00 AM  
**Date Received:** 11/15/2011  
**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						
Hexachlorobutadiene	ND	10		µg/L	10	11/16/2011 9:04:09 PM
2-Hexanone	ND	100		µg/L	10	11/16/2011 9:04:09 PM
Isopropylbenzene	ND	10		µg/L	10	11/16/2011 9:04:09 PM
4-Isopropyltoluene	ND	10		µg/L	10	11/16/2011 9:04:09 PM
4-Methyl-2-pentanone	ND	100		µg/L	10	11/16/2011 9:04:09 PM
Methylene Chloride	ND	30		µg/L	10	11/16/2011 9:04:09 PM
n-Butylbenzene	ND	10		µg/L	10	11/16/2011 9:04:09 PM
n-Propylbenzene	ND	10		µg/L	10	11/16/2011 9:04:09 PM
sec-Butylbenzene	ND	10		µg/L	10	11/16/2011 9:04:09 PM
Styrene	ND	10		µg/L	10	11/16/2011 9:04:09 PM
tert-Butylbenzene	ND	10		µg/L	10	11/16/2011 9:04:09 PM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	11/16/2011 9:04:09 PM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	11/16/2011 9:04:09 PM
Tetrachloroethene (PCE)	14	10		µg/L	10	11/16/2011 9:04:09 PM
trans-1,2-DCE	ND	10		µg/L	10	11/16/2011 9:04:09 PM
trans-1,3-Dichloropropene	ND	10		µg/L	10	11/16/2011 9:04:09 PM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	11/16/2011 9:04:09 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	11/16/2011 9:04:09 PM
1,1,1-Trichloroethane	28	10		µg/L	10	11/16/2011 9:04:09 PM
1,1,2-Trichloroethane	ND	10		µg/L	10	11/16/2011 9:04:09 PM
Trichloroethene (TCE)	40	10		µg/L	10	11/16/2011 9:04:09 PM
Trichlorofluoromethane	ND	10		µg/L	10	11/16/2011 9:04:09 PM
1,2,3-Trichloropropane	ND	20		µg/L	10	11/16/2011 9:04:09 PM
Vinyl chloride	ND	10		µg/L	10	11/16/2011 9:04:09 PM
Xylenes, Total	54	15		µg/L	10	11/16/2011 9:04:09 PM
Surr: 1,2-Dichloroethane-d4	91.3	70-130		%REC	10	11/16/2011 9:04:09 PM
Surr: 4-Bromofluorobenzene	102	73-131		%REC	10	11/16/2011 9:04:09 PM
Surr: Dibromofluoromethane	96.5	70-130		%REC	10	11/16/2011 9:04:09 PM
Surr: Toluene-d8	94.2	70-130		%REC	10	11/16/2011 9:04:09 PM

## Qualifiers:

\* Value exceeds Maximum Contaminant Level  
E Estimated value  
J Analyte detected below quantitation limits  
NC Non-Chlorinated  
PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
MCL Maximum Contaminant Level  
ND Not Detected at the Reporting Limit  
S Spike recovery outside accepted recovery limits

# QA/QC SUMMARY REPORT

**Client:** Cypress Engineering  
**Project:** TWP WT-1 Station ERP

**Work Order:** 1111605

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
<b>Method: EPA Method 8260B: VOLATILES</b>											
Sample ID: 1111605-02a msd		MSD				Batch ID:	R49143	Analysis Date:	11/17/2011 8:10:14 AM		
Benzene	204.2	µg/L	10	200	16.09	94.1	69.2	127	0.370	18.7	
Toluene	207.4	µg/L	10	200	7.106	100	68.2	130	0.368	16.9	
Chlorobenzene	201.0	µg/L	10	200	1.842	99.6	74	122	1.80	13.9	
1,1-Dichloroethene	188.8	µg/L	10	200	0	94.4	69.3	123	3.22	16.7	
Trichloroethene (TCE)	178.9	µg/L	10	200	24	77.4	61.3	127	2.07	18	
Sample ID: 5ml rb		MBLK				Batch ID:	R49143	Analysis Date:	11/16/2011 8:50:31 AM		
Benzene	ND	µg/L	1.0								
Toluene	ND	µg/L	1.0								
Ethylbenzene	ND	µg/L	1.0								
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0								
1,2,4-Trimethylbenzene	ND	µg/L	1.0								
1,3,5-Trimethylbenzene	ND	µg/L	1.0								
1,2-Dichloroethane (EDC)	ND	µg/L	1.0								
1,2-Dibromoethane (EDB)	ND	µg/L	1.0								
Naphthalene	ND	µg/L	2.0								
1-Methylnaphthalene	ND	µg/L	4.0								
2-Methylnaphthalene	ND	µg/L	4.0								
Acetone	ND	µg/L	10								
Bromobenzene	ND	µg/L	1.0								
Bromodichloromethane	ND	µg/L	1.0								
Bromoform	ND	µg/L	1.0								
Bromomethane	ND	µg/L	3.0								
2-Butanone	ND	µg/L	10								
Carbon disulfide	ND	µg/L	10								
Carbon Tetrachloride	ND	µg/L	1.0								
Chlorobenzene	ND	µg/L	1.0								
Chloroethane	ND	µg/L	2.0								
Chloroform	ND	µg/L	1.0								
Chloromethane	ND	µg/L	3.0								
2-Chlorotoluene	ND	µg/L	1.0								
4-Chlorotoluene	ND	µg/L	1.0								
cis-1,2-DCE	ND	µg/L	1.0								
cis-1,3-Dichloropropene	ND	µg/L	1.0								
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0								
Dibromochloromethane	ND	µg/L	1.0								
Dibromomethane	ND	µg/L	1.0								
1,2-Dichlorobenzene	ND	µg/L	1.0								
1,3-Dichlorobenzene	ND	µg/L	1.0								
1,4-Dichlorobenzene	ND	µg/L	1.0								
Dichlorodifluoromethane	ND	µg/L	1.0								
1,1-Dichloroethane	ND	µg/L	1.0								
1,1-Dichloroethene	ND	µg/L	1.0								
1,2-Dichloropropane	ND	µg/L	1.0								
1,3-Dichloropropane	ND	µg/L	1.0								

**Qualifiers:**

E Estimated value  
J Analyte detected below quantitation limits  
ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded  
NC Non-Chlorinated  
R RPD outside accepted recovery limits

## QA/QC SUMMARY REPORT

**Client:** Cypress Engineering  
**Project:** TWP WT-1 Station ERP

**Work Order:** 1111605

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
<b>Method: EPA Method 8260B: VOLATILES</b>											
Sample ID: 5ml rb		MBLK									
2,2-Dichloropropane	ND	µg/L	2.0								
1,1-Dichloropropene	ND	µg/L	1.0								
Hexachlorobutadiene	ND	µg/L	1.0								
2-Hexanone	ND	µg/L	10								
Isopropylbenzene	ND	µg/L	1.0								
4-Isopropyltoluene	ND	µg/L	1.0								
4-Methyl-2-pentanone	ND	µg/L	10								
Methylene Chloride	ND	µg/L	3.0								
n-Butylbenzene	ND	µg/L	1.0								
n-Propylbenzene	ND	µg/L	1.0								
sec-Butylbenzene	ND	µg/L	1.0								
Styrene	ND	µg/L	1.0								
tert-Butylbenzene	ND	µg/L	1.0								
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0								
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0								
Tetrachloroethene (PCE)	ND	µg/L	1.0								
trans-1,2-DCE	ND	µg/L	1.0								
trans-1,3-Dichloropropene	ND	µg/L	1.0								
1,2,3-Trichlorobenzene	ND	µg/L	1.0								
1,2,4-Trichlorobenzene	ND	µg/L	1.0								
-Trichloroethane	ND	µg/L	1.0								
1,1,2-Trichloroethane	ND	µg/L	1.0								
Trichloroethene (TCE)	ND	µg/L	1.0								
Trichlorofluoromethane	ND	µg/L	1.0								
1,2,3-Trichloropropene	ND	µg/L	2.0								
Vinyl chloride	ND	µg/L	1.0								
Xylenes, Total	ND	µg/L	1.5								
Sample ID: b4		MBLK									
Benzene	ND	µg/L	1.0								
Toluene	ND	µg/L	1.0								
Ethylbenzene	ND	µg/L	1.0								
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0								
1,2,4-Trimethylbenzene	ND	µg/L	1.0								
1,3,5-Trimethylbenzene	ND	µg/L	1.0								
1,2-Dichloroethane (EDC)	ND	µg/L	1.0								
1,2-Dibromoethane (EDB)	ND	µg/L	1.0								
Naphthalene	ND	µg/L	2.0								
1-Methylnaphthalene	ND	µg/L	4.0								
2-Methylnaphthalene	ND	µg/L	4.0								
Acetone	ND	µg/L	10								
Bromobenzene	ND	µg/L	1.0								
Bromodichloromethane	ND	µg/L	1.0								
Bromoform	ND	µg/L	1.0								
Bromomethane	ND	µg/L	3.0								

## ifiers:

- b** Estimated value
- J** Analyte detected below quantitation limits
- ND** Not Detected at the Reporting Limit

- H** Holding times for preparation or analysis exceeded
- NC** Non-Chlorinated
- R** RPD outside accepted recovery limits

# QA/QC SUMMARY REPORT

**Client:** Cypress Engineering  
**Project:** TWP WT-1 Station ERP

**Work Order:** 1111605

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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**Method:** EPA Method 8260B: VOLATILES

Sample ID: b4	MBLK										Batch ID: R49143 Analysis Date: 11/16/2011 10:02:11 PM
2-Butanone	ND	µg/L	10								
Carbon disulfide	ND	µg/L	10								
Carbon Tetrachloride	ND	µg/L	1.0								
Chlorobenzene	ND	µg/L	1.0								
Chloroethane	ND	µg/L	2.0								
Chloroform	ND	µg/L	1.0								
Chloromethane	ND	µg/L	3.0								
2-Chlorotoluene	ND	µg/L	1.0								
4-Chlorotoluene	ND	µg/L	1.0								
cis-1,2-DCE	ND	µg/L	1.0								
cis-1,3-Dichloropropene	ND	µg/L	1.0								
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0								
Dibromochloromethane	ND	µg/L	1.0								
Dibromomethane	ND	µg/L	1.0								
1,2-Dichlorobenzene	ND	µg/L	1.0								
1,3-Dichlorobenzene	ND	µg/L	1.0								
1,4-Dichlorobenzene	ND	µg/L	1.0								
Dichlorodifluoromethane	ND	µg/L	1.0								
1,1-Dichloroethane	ND	µg/L	1.0								
1,1-Dichloroethylene	ND	µg/L	1.0								
1,2-Dichloropropane	ND	µg/L	1.0								
1,3-Dichloropropane	ND	µg/L	1.0								
2,2-Dichloropropane	ND	µg/L	2.0								
1,1-Dichloropropene	ND	µg/L	1.0								
Hexachlorobutadiene	ND	µg/L	1.0								
2-Hexanone	ND	µg/L	10								
Isopropylbenzene	ND	µg/L	1.0								
4-Isopropyltoluene	ND	µg/L	1.0								
4-Methyl-2-pentanone	ND	µg/L	10								
Methylene Chloride	ND	µg/L	3.0								
n-Butylbenzene	ND	µg/L	1.0								
n-Propylbenzene	ND	µg/L	1.0								
sec-Butylbenzene	ND	µg/L	1.0								
Styrene	ND	µg/L	1.0								
tert-Butylbenzene	ND	µg/L	1.0								
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0								
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0								
Tetrachloroethene (PCE)	ND	µg/L	1.0								
trans-1,2-DCE	ND	µg/L	1.0								
trans-1,3-Dichloropropene	ND	µg/L	1.0								
1,2,3-Trichlorobenzene	ND	µg/L	1.0								
1,2,4-Trichlorobenzene	ND	µg/L	1.0								
1,1,1-Trichloroethane	ND	µg/L	1.0								
1,1,2-Trichloroethane	ND	µg/L	1.0								

#### Qualifiers:

E Estimated value  
J Analyte detected below quantitation limits  
ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded  
NC Non-Chlorinated  
R RPD outside accepted recovery limits

## QA/QC SUMMARY REPORT

**Client:** Cypress Engineering  
**Project:** TWP WT-1 Station ERP      **Work Order:** 1111605

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
<b>Method: EPA Method 8260B: VOLATILES</b>											
Sample ID: b4		MBLK					Batch ID: R49143		Analysis Date: 11/16/2011 10:02:11 PM		
Trichloroethene (TCE)	ND	µg/L	1.0								
Trichlorofluoromethane	ND	µg/L	1.0								
1,2,3-Trichloropropane	ND	µg/L	2.0								
Vinyl chloride	ND	µg/L	1.0								
Xylenes, Total	ND	µg/L	1.5								
Sample ID: 100ng lcs		LCS					Batch ID: R49143		Analysis Date: 11/16/2011 9:48:57 AM		
Benzene	18.34	µg/L	1.0	20	0	91.7	81.1	130			
Toluene	18.65	µg/L	1.0	20	0	93.2	82.3	122			
Chlorobenzene	18.06	µg/L	1.0	20	0	90.3	70	130			
1,1-Dichloroethene	18.41	µg/L	1.0	20	0	92.1	83.1	126			
Trichloroethene (TCE)	15.21	µg/L	1.0	20	0	76.1	67.4	137			
Sample ID: 100ng lcs-2		LCS					Batch ID: R49143		Analysis Date: 11/16/2011 11:00:21 PM		
Benzene	19.74	µg/L	1.0	20	0	98.7	81.1	130			
Toluene	19.66	µg/L	1.0	20	0.1882	97.3	82.3	122			
Chlorobenzene	19.63	µg/L	1.0	20	0	98.1	70	130			
1,1-Dichloroethene	20.21	µg/L	1.0	20	0	101	83.1	126			
Trichloroethene (TCE)	16.67	µg/L	1.0	20	0	83.3	67.4	137			
Sample ID: 1111605-02a ms		MS					Batch ID: R49143		Analysis Date: 11/17/2011 7:41:25 AM		
Benzene	205.0	µg/L	10	200	16.09	94.4	69.2	127			
Toluene	208.8	µg/L	10	200	7.106	99.8	68.2	130			
Chlorobenzene	197.4	µg/L	10	200	1.842	97.8	74	122			
1,1-Dichloroethene	194.9	µg/L	10	200	0	97.5	69.3	123			
Trichloroethene (TCE)	182.6	µg/L	10	200	24	79.3	61.3	127			

## Identifiers:

- Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit

- H Holding times for preparation or analysis exceeded
- NC Non-Chlorinated
- R RPD outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Sample Receipt Checklist

Client Name CYP

Date Received: 11/15/2011

Work Order Number 1111605

Received by: AMG

Checklist completed by:

Signature

Date

Sample ID labels checked by:

Initials

Matrix:

Carrier name: UPS

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>	Not Shipped <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>	
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>		Number of preserved bottles checked for pH:
Water - VOA vials have zero headspace?	No VOA vials submitted <input type="checkbox"/>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - Preservation labels on bottle and cap match?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>	
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>	<2 >12 unless noted below.
Container/Temp Blank temperature?	2.6°	<6° C Acceptable If given sufficient time to cool.		

COMMENTS:

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Client contacted \_\_\_\_\_ Date contacted: \_\_\_\_\_ Person contacted \_\_\_\_\_

Contacted by: \_\_\_\_\_ Regarding: \_\_\_\_\_

Comments: \_\_\_\_\_

Corrective Action \_\_\_\_\_



