

**AP - 105**

**2012 AGWMR**

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

**03 / 29 / 2013**



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March 29, 2013

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

RE: Report of 2012 Groundwater Remediation Activities  
WT-1 Station Engine Room Drain Pit Area  
Transwestern Pipeline Company, LLC  
Lea County, New Mexico  
Case #AP-105 (formerly GW-109R)

Dear Glenn,

The enclosed Report of 2012 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,

A handwritten signature in cursive ink that reads "George C. Robinson".

George C. Robinson, PE  
President/Principal Engineer

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

# **Report of 2012 Groundwater Remediation Activities**

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

**Case # AP-105**

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

**March 25, 2013**

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

Prepared by:  
Cypress Engineering Services, Inc.  
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## **1. Introduction**

The last report of groundwater remediation activities covered activities completed through December 2011. This report presents a summary of monitoring activities completed between January 2012 and December 2012.

## **2. Groundwater Monitoring Activities**

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

One annual groundwater sampling event was completed during 2012. This event was completed on June 26, 2012.

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 June 2012 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 June 2012 sampling event, PSH was measured in two wells, monitor well MW-1 and recovery well RW-2. PSH had previously been measured in well MW-2, however, in June 2012, the water table remains 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. During the June 2012 sampling event, there was no sheen of PSH present in wells RW-1, RW-3, and RW-8. During the previous sampling event in November 2011 there was no sheen or measurable accumulation of PSH in well RW-2; however, during the June 2012 sampling event the measurable amount of

PSH in well RW-2 had increased to 0.01 feet. 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 4.33 feet in June 2012. In light of this, a program was initiated in June 2012 to evaluate the re-accumulation rate of PSH in wells MW-1 and RW-2. From June through October 2012, accumulated PSH was removed from wells MW-1 and RW-2 on three occasions. On each occasion, the re-accumulation of PSH was measured and then accumulated PSH was removed from the well to the extent practicable. On October 11, 2012, the measured re-accumulation of PSH measured in well MW-1 had declined to 1.5 feet. The measured re-accumulation of PSH measured in well RW-2 had remained basically the same at 0.02 feet. A summary of depth measurements and product removal activities for the PSH removal efforts and subsequent monitoring is presented in Table 7. 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 June 2012 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 June 2012 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 46 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 14 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 440 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 14 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 June 2012 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 SVE-1A, the sum of the PQLs was 100 ug/L and for MW-5 the sum of the PQLs was 50 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 2012**

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 2013 through December 2013**

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

### **4. Proposed Modifications**

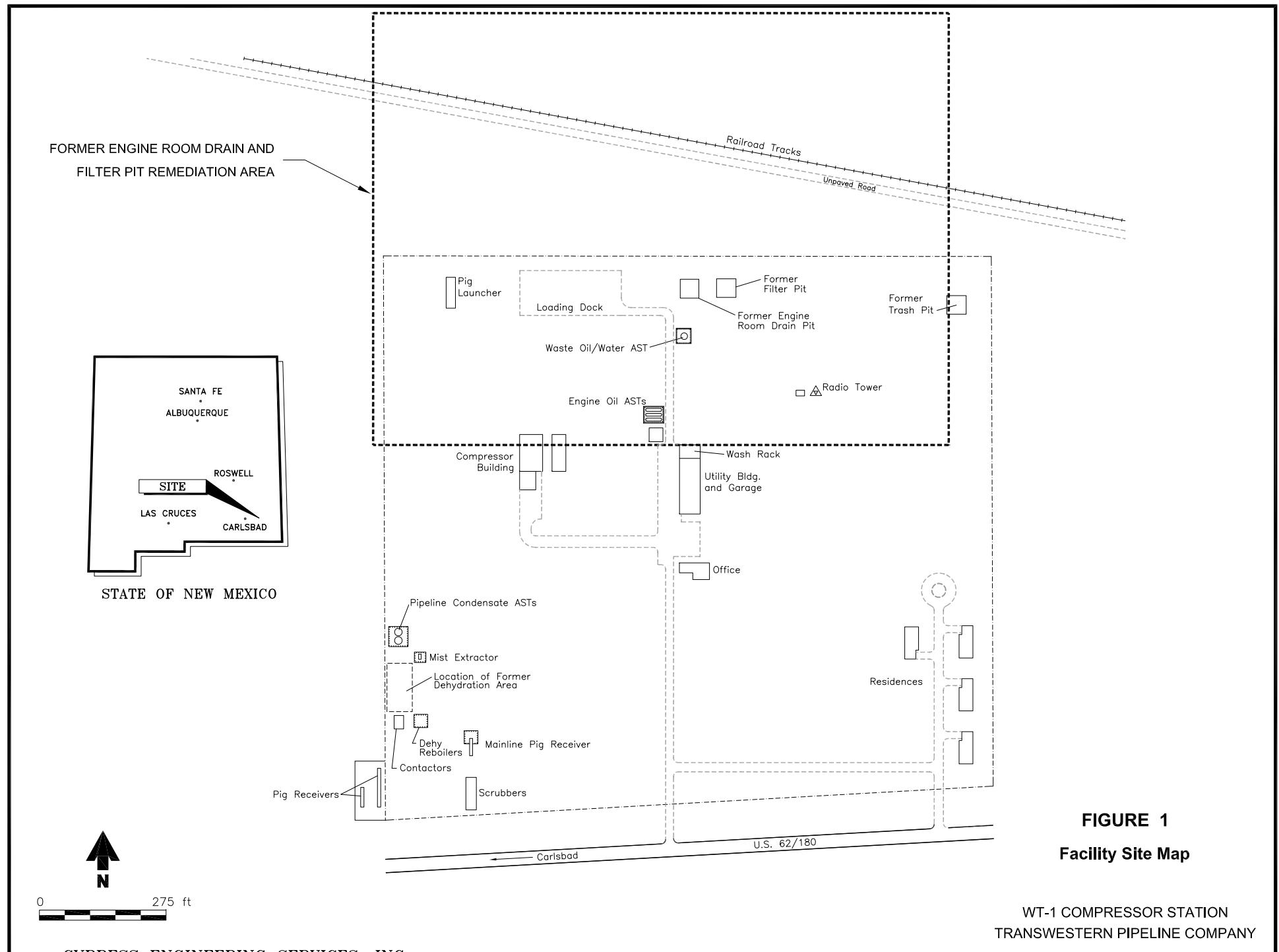
#### **4.1 Modifications to the Routine Groundwater Sampling Plan**

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 2013; however, site monitoring efforts will continue to be evaluated in an effort to further define future monitoring and remediation activities.

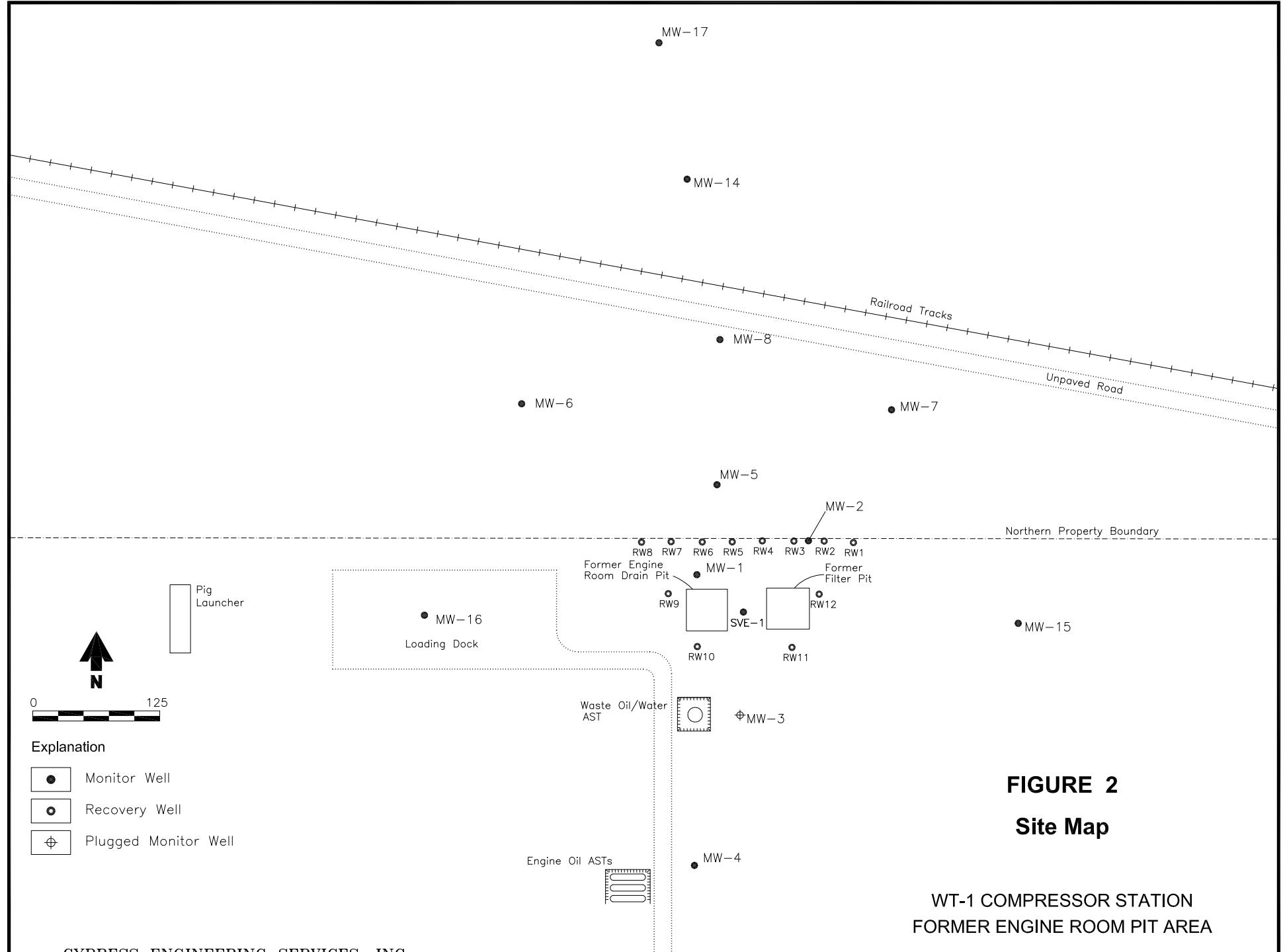
#### **4.2 Reporting Frequency**

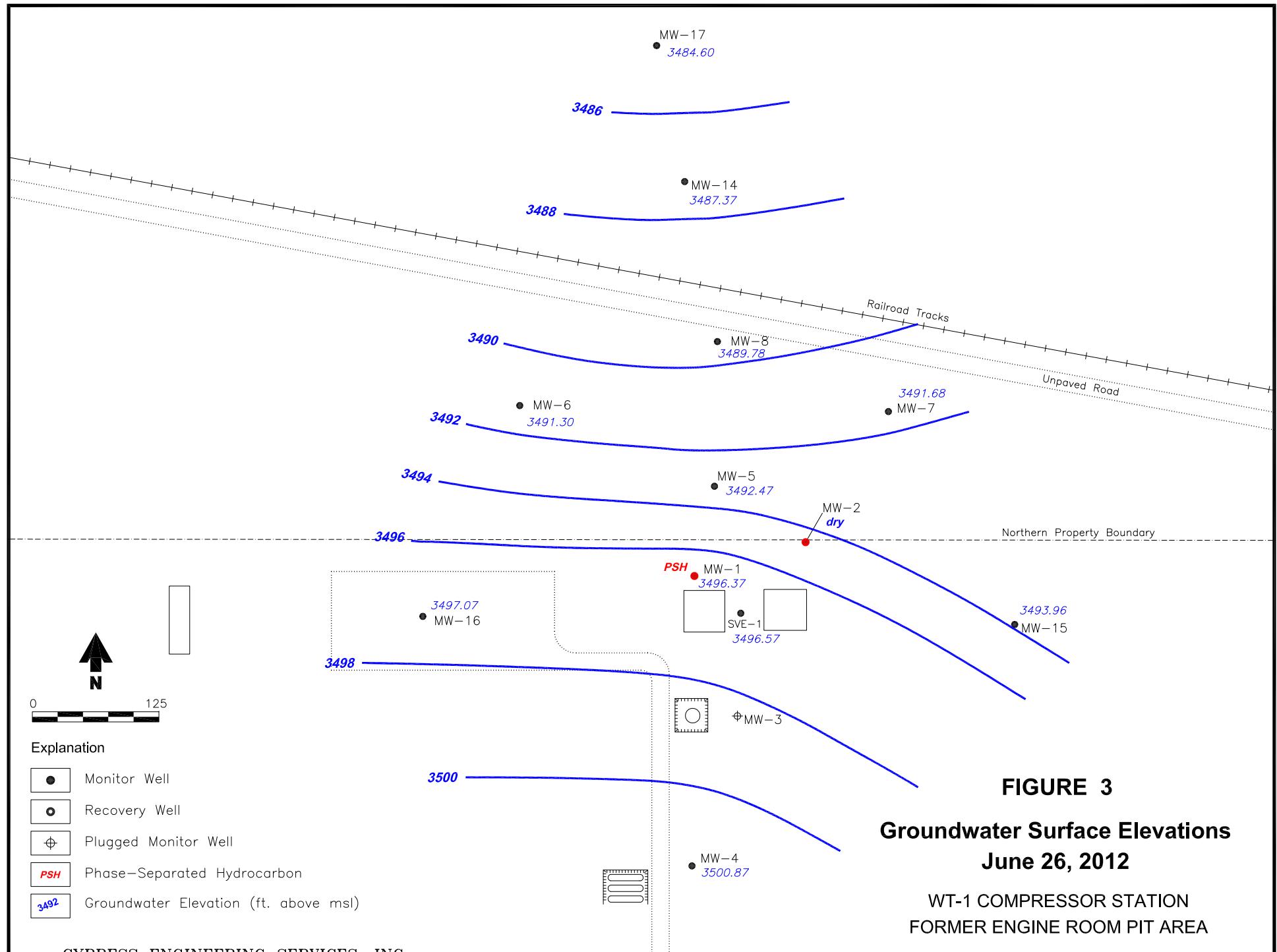
Annual reporting of monitoring activities will continue with the next scheduled report submitted to the OCD by April 1, 2014.

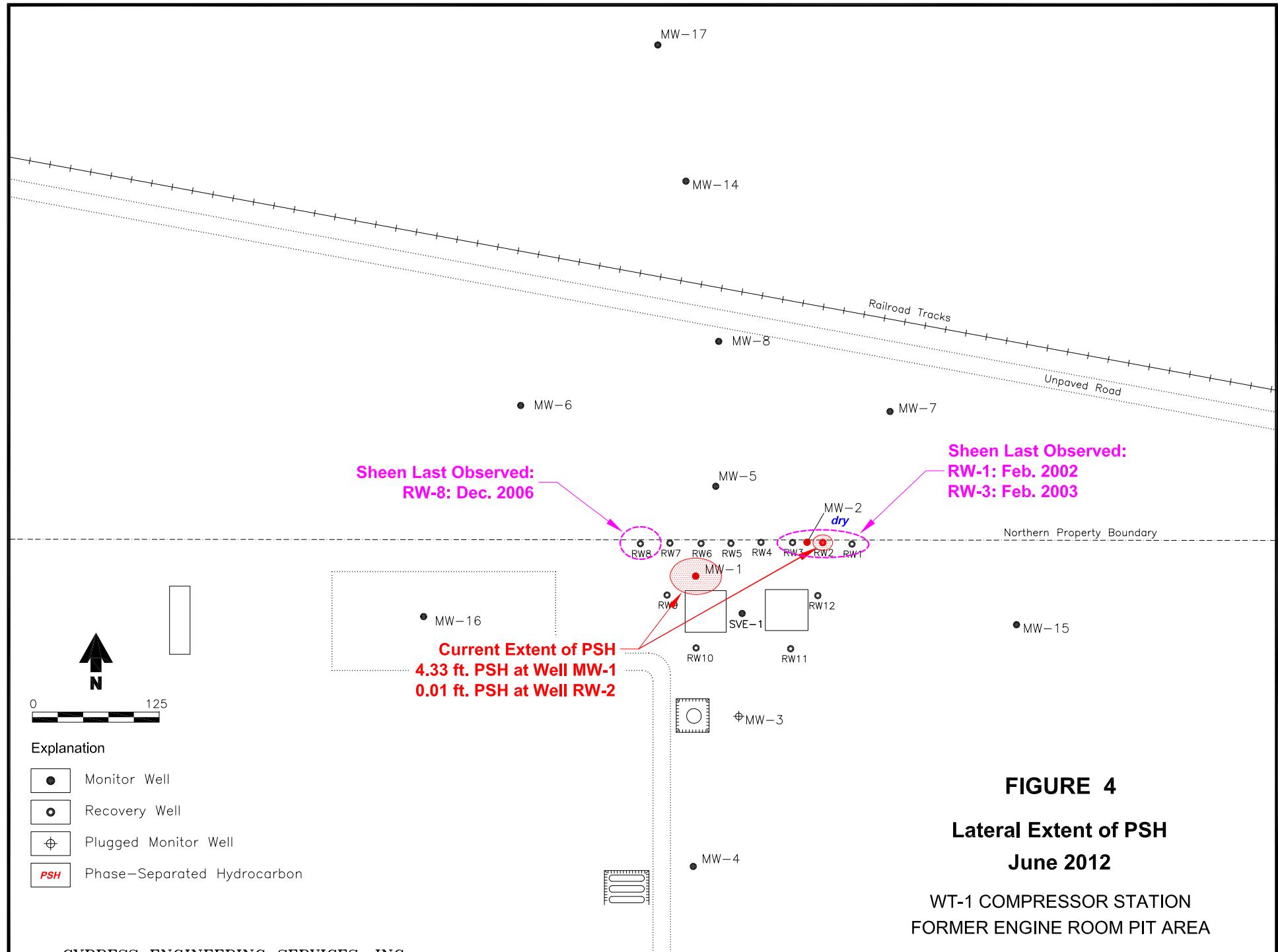
# FIGURES

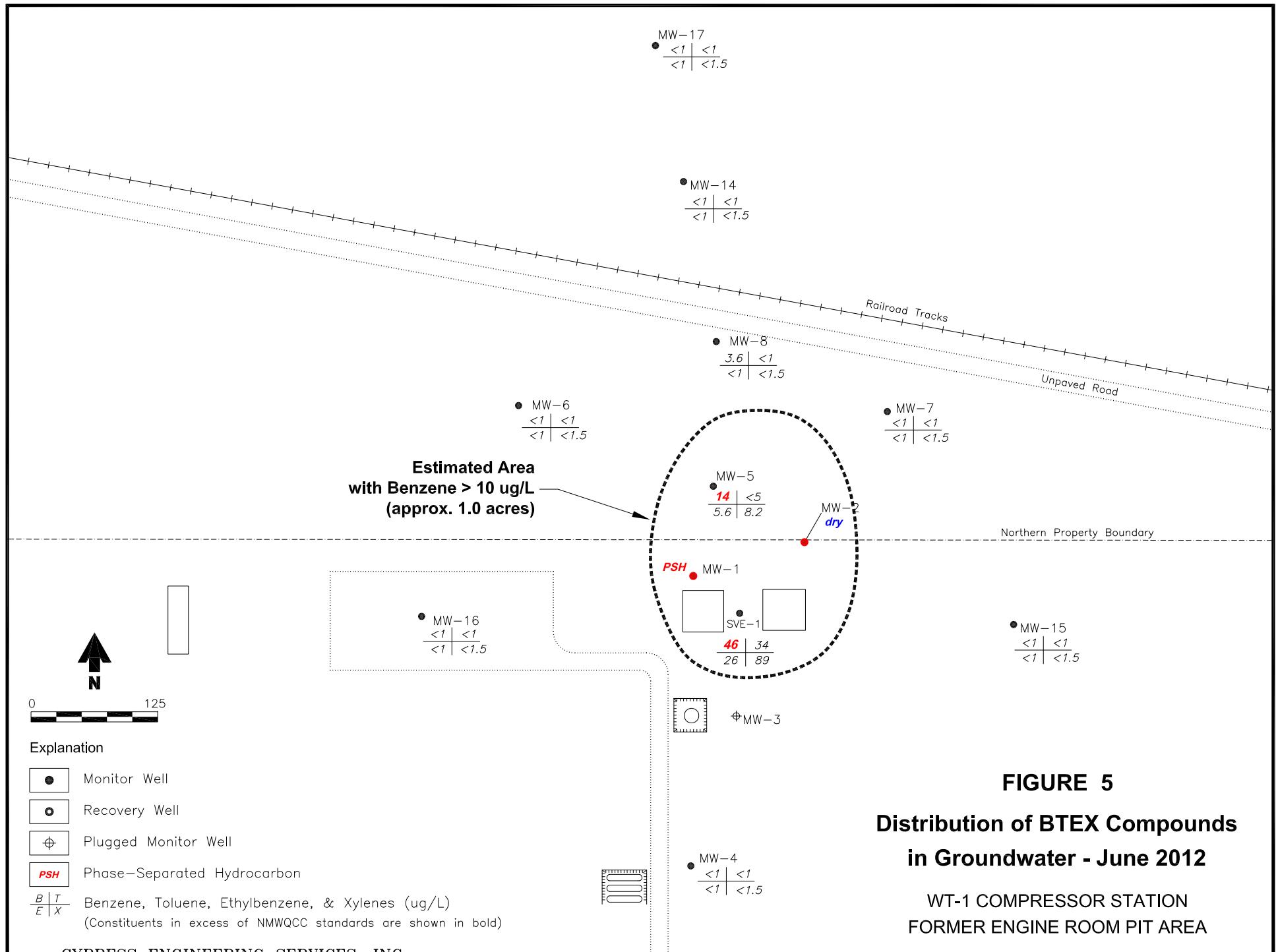


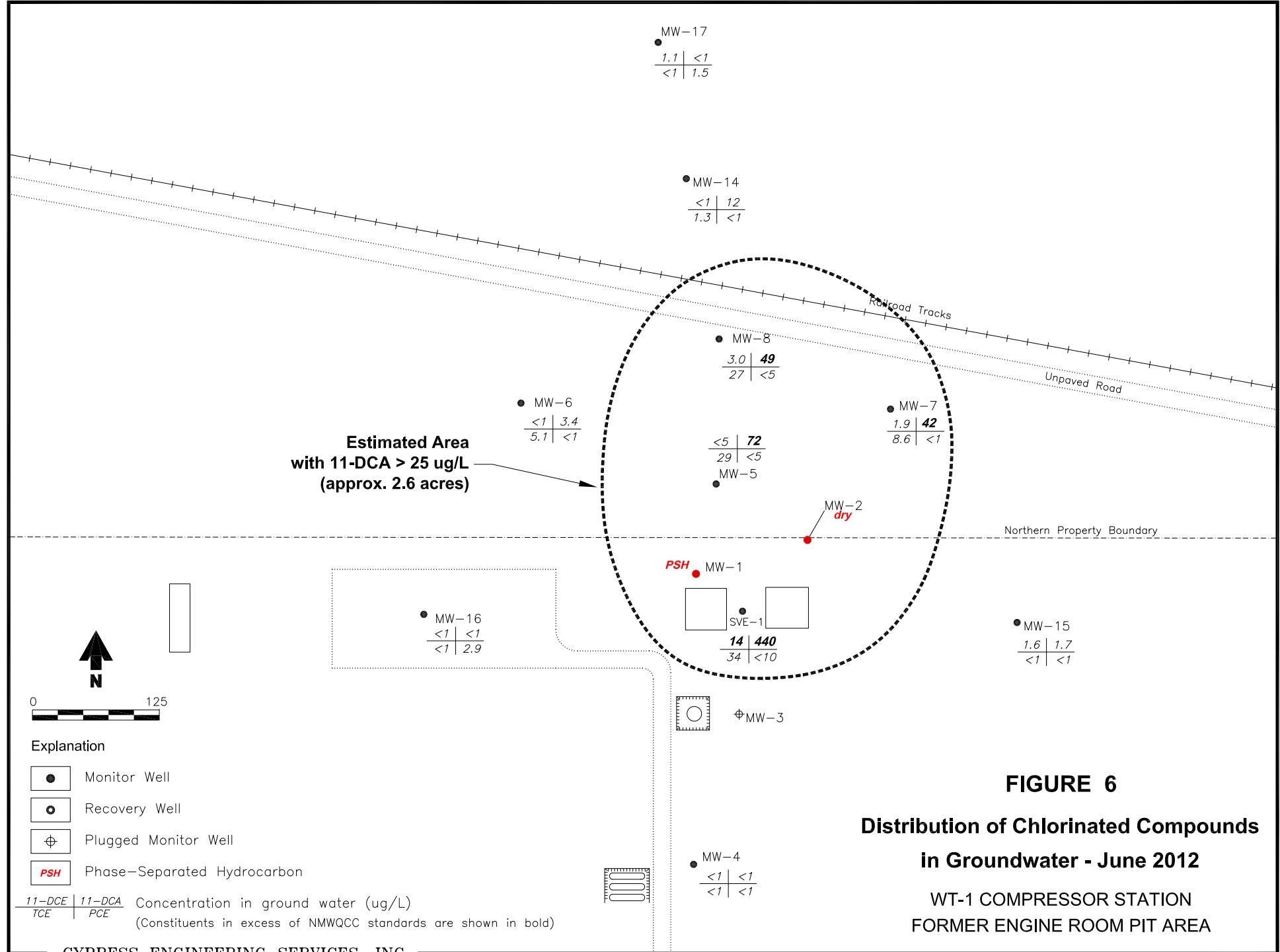
**FIGURE 1**  
**Facility Site Map**











# TABLES

**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
	06/26/12		50.41	54.74	4.33	3496.37
	07/28/12		50.91	52.71	1.80	3496.38
	08/31/12		50.92	52.33	1.41	3496.45
	10/11/12		51.00	52.50	1.50	3496.35

**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	
	06/26/12	(a)	dry (TD=52.30)	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
	06/26/12		(a)	47.42	(a)	3500.87

**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
	06/26/12		(a)	51.13	(a)	3492.47

**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
	06/26/12		(a)	52.03	(a)	3491.30

**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-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
	06/26/12		(a)	50.32	(a)	3491.68

**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
	06/26/12		(a)	51.71	(a)	3489.78

**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
	06/26/12		(a)	52.36	(a)	3487.37

**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
	06/26/12		(a)	48.86	(a)	3493.96

**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
	06/26/12		(a)	48.61	(a)	3497.07

**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-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
	06/26/12		(a)	54.00	(a)	3484.60

**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
	06/26/12		(a)	49.02	(a)	3496.57

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
	06/26/12		(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
	06/26/12		53.02	53.03	0.01	3493.24
	07/28/12		53.24	53.25	0.01	3493.01
	08/31/12		53.23	53.25	0.02	3493.01
	10/11/12		53.38	53.40	0.02	3492.88

**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	
	06/26/12	(a)	52.90	(a)	3493.51	

**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
	06/26/12		(a)	52.95	(a)	3494.01

**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
	06/26/12		(a)	51.41	(a)	3495.34

**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
	06/26/12		(a)	51.05	(a)	3495.64

**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
	06/26/12		(a)	51.51	(a)	3495.99

**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
	06/26/12		(a)	50.47	(a)	3496.57

**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-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
	06/26/12		(a)	48.81	(a)	3497.51

**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
	06/26/12		(a)	49.29	(a)	3496.45

**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
	06/26/12		(a)	50.26	(a)	3494.17

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	Temp. °C	Electrical Conductivity (ms/cm)	Turbidity (NTU/FTU) field / lab	Remarks
MW-1	11/12/96	0.0	6.67	22.2	--	--	strong mercaptan odor, 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

**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	Temp. °C	Electrical Conductivity (ms/cm)	Turbidity (NTU/FTU) field / lab	Remarks
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
	06/26/12	3.8	6.59	20.2	2,670	--	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	Temp. °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	--	grayblack,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
	06/27/12	0.4	6.59	21.1	2,341	--	clear, odor

**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	Temp. °C	Electrical Conductivity (ms/cm)	Turbidity (NTU/FTU) field / lab	Remarks
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
	02/18/01	1.5	6.88	20.2	3,800	--	clear
	08/21/01	1.5	6.68	22.9	3,560	--	clear with odor
	02/28/02	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
	06/27/12	0.9	6.50	21.5	3,705	--	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	Temp. °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
	06/27/12	1.7	6.85	21.0	2,492	--	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	Temp. °C	Electrical Conductivity (ms/cm)	Turbidity (NTU/FTU) field / lab	Remarks
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
	06/27/12	1.2	6.42	22.5	2,663	--	clear, odor

**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	Temp. °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
	02/12/03	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
	11/10/04	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
	05/11/06	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
	06/27/12	0.5	6.53	20.7	3,235	--	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	Temp. °C	Electrical Conductivity (ms/cm)	Turbidity (NTU/FTU) field / lab	Remarks
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
	06/26/12	5.9	6.80	20.8	2,080	--	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	Temp. °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
	06/26/12	0.9	6.49	20.5	3,739	--	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	Temp. °C	Electrical Conductivity (ms/cm)	Turbidity (NTU/FTU) field / lab	Remarks
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
	06/27/12	1.8	6.58	20.9	3,241	--	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 H2O 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 H2O 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	1.9	6.74	19.9	2,621	55	cloudy
	12/02/05	0.8	7.07	19.5	2,300	89	cloudy
	05/11/06	1.6	6.87	20.1	2,338	--	clear
	12/14/06	1.3	6.77	20.2	2,353	>100	turbid, odor
	06/21/07	1.8	7.06	21.0	2,479	--	turbid, odor
	12/07/07	0.7	6.79	20.1	1,926	9.75	slightly turbid, odor
	06/02/08	2.5	--	21.3	2,634	--	slightly turbid, odor
	12/11/08	1.2	6.87	19.4	2,062	28.27	clear. odor
	04/28/09	1.4	6.50	20.5	2,558	15.75	clear. odor
	06/13/10	1.1	6.66	21.7	2,625	--	clear
	11/10/11	1.1	6.64	19.4	2,509	--	clear
	06/27/12	1.5	6.69	23.1	2,615	--	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	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
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	14	28	40	< 10	< 20	< 40	< 40	< 100
	06/27/12	46	34	26	89	< 100	440	< 10	14	310	< 30	160	< 10	< 10	34	< 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-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-1	11/15/94	<b>12</b>	100	10	110	na	<b>690</b>	6.7	2.2	2.8	<b>420</b>	na	16	< 2.0	28	< 2.0	7	< 5	< 5	< 17
	09/14/95	<b>13</b>	90	8	110	2000	<b>730</b>	<b>13</b>	<b>9</b>	na	<b>170</b>	1800	19	57	24	< 10	na	na	na	na
	11/12/96	9	66	< 5	39	630	<b>480</b>	9	< 5	na	88	1500	12	< 5	20	< 10	na	na	na	na
	02/04/97	<b>13</b>	94	8	80	790	<b>480</b>	10	< 5	< 5	89 <sup>b</sup>	1700	9	< 5	29	<b>11</b>	na	na	na	na
	05/10/97	10	75	6	45	470	<b>470</b>	9	< 5	< 5	< 50	1000	8	9	20	< 10	na	na	na	na
	08/07/97	< 50	< 50	< 50	< 50	1100	<b>590</b>	< 50	< 50	< 50	<b>200</b>	1200	< 50	< 50	< 50	< 100	na	na	na	na
	10/09/97	< 50	132	< 50	97	1660	<b>597</b>	< 50	< 50	< 50	<b>221<sup>b</sup></b>	1650	< 50	< 50	< 50	< 100	na	na	na	na
	01/23/98	<b>11</b>	82	7	85	2300	<b>530</b>	< 5	< 5	< 5	<b>230</b>	2000	8	< 5	24	< 10	< 5	na	na	< 5
	04/17/98	<b>11</b>	84	7	85	2100	<b>480</b>	8	< 5	< 5	<b>360</b>	1600	6	< 5	24	< 10	11	na	na	11
	07/17/98	<b>15</b>	93	8	97	< 2000	<b>820</b>	8	<b>12</b>	< 5	<b>330</b>	1800	14	<b>93</b>	21	< 10	13	na	na	13
	01/27/99	<b>15</b>	58	9	93	330	<b>460</b>	8	4	3	<b>310</b>	2100	10	18	26	< 2	14	na	na	14
	08/21/01	<b>12.8</b>	62.7	6.5	92.8	198	<b>791</b>	6.89	<b>20</b>	4.1	<b>133</b>	1200	<b>28.1</b>	<b>147</b>	18.8	<b>2.65</b>	11.2	na	na	11
	03/01/02	< 50.0	51.4	< 50.0	50.2	< 500	<b>544</b>	< 50.0	< 50.0	< 50.0	< 250	1750	< 50.0	< 50.0	< 50.0	< 50.0	< 250	na	na	< 250
	08/01/02	<b>12</b>	49	< 10	81	< 1300	<b>470</b>	< 10	<b>12</b>	< 10	84	1900	<b>20</b>	42	24	< 20	< 20	<b>&lt; 40</b>	<b>&lt; 40</b>	< 100
	02/12/03	<b>14</b>	41	< 10	84	340	<b>360</b>	< 10	< 10	< 10	52	2100	11	14	26	< 20	< 20	<b>&lt; 40</b>	<b>&lt; 40</b>	< 100
	08/05/03	<b>15</b>	38	< 10	94	270	<b>440</b>	< 10	< 10	< 10	62	2100	10	25	26	< 20	< 20	<b>&lt; 40</b>	<b>&lt; 40</b>	< 100
	05/25/04	<b>25</b>	63	14	120	63	<b>640</b>	7.1	<b>21</b>	8.5	<b>190</b>	2200	<b>32</b>	<b>170</b>	38	< 5	21	< 20	< 20	< 61
	11/09/04	<b>23</b>	53	16	160	< 100	<b>410</b>	< 10	< 10	< 10	< 30	2800	11	39	42	< 10	23	<b>&lt; 40</b>	<b>&lt; 40</b>	< 103
	04/12/05	<b>26</b>	60	18	150	110	<b>250</b>	6.4	< 5	8.9	17	2400	13	22	37	< 5	<b>30</b>	< 20	< 20	< 70
	12/02/05	<b>37</b>	94	23	190	140	<b>440</b>	< 5	<b>12</b>	9.9	<b>100</b>	1900	<b>32</b>	<b>89</b>	54	<b>13</b>	<b>31</b>	< 20	<b>32</b>	< 83
	05/11/06	<b>26</b>	61	17	120	120	<b>280</b>	6.7	<b>5.4</b>	6.4	< 15	1700	19	15	30	< 5	27	< 20	< 20	< 67
	12/17/06	<b>48</b>	130	32	210	< 100	<b>380</b>	< 10	< 10	12	< 30	2400	<b>20</b>	18	58	< 10	<b>32</b>	<b>&lt; 40</b>	<b>&lt; 40</b>	< 112
	06/21/07	<b>25</b>	66	16	92	290	<b>350</b>	3.1	4.9	5.6	9.0	1400	<b>42</b>	31	41	1.6	22	6.9	9.6	39
	12/07/07	<b>20</b>	62	11	79	1000	<b>600</b>	< 10	< 10	< 10	< 30	1200	<b>46</b>	38	58	< 10	< 20	<b>&lt; 40</b>	<b>&lt; 40</b>	< 100
	06/02/08	<b>29</b>	80	15	100	500	<b>760</b>	< 10	<b>14</b>	< 10	< 30	1900	<b>76</b>	<b>94</b>	66	< 10	22	<b>&lt; 40</b>	<b>&lt; 40</b>	< 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	

**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	< 5	na	na	na	na	na		
	11/12/96	< 5	< 5	< 5	< 5	< 100	< 5	< 5	< 5	na	< 5	< 50	< 5	< 5	< 5	< 5	na	na	na	na	na		
	02/04/97	< 5	< 5	< 5	< 5	< 100	< 5	< 5	< 5	< 5	< 5	100	< 5	< 5	< 5	< 5	na	na	na	na	na		
	05/10/97	< 5	< 5	< 5	< 5	< 100	< 5	< 5	< 5	< 5	< 50	< 50	< 5	< 5	< 5	< 5	na	na	na	na	na		
	08/06/97	< 5	< 5	< 5	< 5	< 100	< 5	< 5	5.4	< 5	< 5	< 50	< 5	< 5	< 5	< 5	< 10	na	na	na	na	na	
	10/08/97	< 5	< 5	< 5	< 5	< 100	< 5	< 5	< 5	< 5	< 5	< 50	< 5	< 5	< 5	< 5	< 10	na	na	na	na	na	
	01/23/98	< 5	< 5	< 5	< 5	< 100	< 5	< 5	< 5	< 5	< 5	< 10	< 5	< 5	< 5	< 5	< 10	< 5	na	na	< 5	na	na
	04/16/98	< 5	< 5	< 5	< 5	< 100	< 5	< 5	< 5	< 5	< 5	< 10	< 5	< 5	< 5	< 5	< 10	< 5	na	na	< 5	na	na
	07/16/98	< 5	< 5	< 5	< 5	< 100	< 5	< 5	5	< 5	< 5	< 10	< 5	< 5	< 5	< 10	< 5	na	na	< 5	na	na	
	01/26/99	< 1	< 1	< 1	< 1	< 20	< 1	< 1	4	< 1	< 2	< 10	< 1	< 1	< 1	< 2	< 1	na	na	< 1	na	na	
	07/08/99	< 1	< 1	< 1	< 1	< 20	1	< 1	4	< 1	< 2	< 10	< 1	< 1	< 1	< 2	< 1	na	na	< 1	na	na	
	01/27/00	< 1	< 1	< 1	< 1	< 20	1	< 1	4	< 1	< 2	< 10	< 1	< 1	< 1	< 2	< 1	1.0	na	na	< 1	na	na
	07/17/00	< 1	< 1	< 1	< 1	< 20	1	< 1	3	< 1	< 2	< 10	< 1	< 1	< 1	< 2	< 1	1.0	na	na	< 1	na	na
	02/17/01	< 1.00	< 1.00	< 1.00	< 1.00	< 10.00	< 1.00	3.62	< 1.00	< 5.00	< 5.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 2.00	na	na	< 2	na	na	
	08/21/01	< 1	< 1	< 1	< 3	< 10	< 1	< 1	3.6	< 1	< 5	< 5	< 1	< 1	< 1	< 1	< 2	na	na	< 2	na	na	
	02/28/02	< 1	< 1	< 1	< 2	< 10	< 1	< 1	2.92	< 1	< 5	< 5	< 1	< 1	< 1	< 1	< 5.00	na	na	< 5	na	na	
	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	na	na	
	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	na	na	
	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	na	na	
	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	< 1.0	< 2.0	< 4.0	< 4.0	< 10	na	na	
	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	< 1.0	< 2.0	< 4.0	< 4.0	< 10	na	na	
	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	na	na	
	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	< 4.0	< 4.0	< 10	na	na		
	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	< 4.0	< 4.0	< 10	na	na		
	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	< 4.0	< 4.0	< 10	na	na		
	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	< 4.0	< 4.0	< 10	na	na		
	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	< 4.0	< 4.0	< 10	na	na		
	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	< 4.0	< 4.0	< 10	na	na		
	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	< 4.0	< 4.0	< 10	na	na		
	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	< 4.0	< 4.0	< 10	na	na		
	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	< 4.0	< 4.0	< 10	na	na		
	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	< 4.0	< 4.0	< 10	na	na		
	06/26/12	< 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	< 4.0	< 4.0	< 10	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-5	12/01/94	<b>20</b>	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	<b>12</b>	24	< 5	24	1000	<b>200</b>	7	< 5	na	<b>190</b>	520	< 5	< 5	67	< 10	na	na	na	na	
11/12/96	<b>20</b>	44	18	44	< 100	<b>150</b>	< 5	< 5	na	5	300	< 5	< 5	< 5	<b>11</b>	na	na	na	na	
02/06/97	<b>31</b>	53	12	83	56	<b>160</b>	< 5	<b>5.6</b>	140	36 <sup>b</sup>	280	< 5	< 5	<b>120</b>	<b>16</b>	na	na	na	na	
05/10/97	<b>24</b>	35	9	38	< 100	<b>140</b>	< 5	< 5	120	< 50	210	< 5	< 5	86	< 10	na	na	na	na	
08/07/97	<b>22</b>	9	< 5	15	< 100	<b>47</b>	< 5	< 5	53	7	50	< 5	< 5	35	< 10	na	na	na	na	
10/09/97	<b>19</b>	15	7	24	< 100	<b>96</b>	< 5	< 5	103	10 <sup>b</sup>	89	< 5	< 5	71	< 10	na	na	na	na	
01/24/98	<b>23</b>	18	9	33	< 100	<b>120</b>	< 5	<b>6</b>	140	< 5	130	< 5	< 5	75	< 10	<b>48</b>	na	na	<b>48</b>	
04/17/98	<b>16</b>	9	< 5	14	< 100	<b>83</b>	< 5	< 5	91	< 5	18	< 5	< 5	67	< 10	5	na	na	5	
07/17/98	<b>21</b>	10	5	17	< 100	<b>110</b>	< 5	<b>6</b>	100	< 5	47	< 5	< 5	91	< 10	7	na	na	7	
01/27/99	<b>22</b>	9	7	19	< 20	<b>81</b>	1	<b>5</b>	86	< 2	19	3	2	96	< 2	9	na	na	9	
07/09/99	<b>22</b>	11	6	15	< 20	<b>100</b>	2	4	84	< 2	22	3	3	<b>100</b>	< 2	9	na	na	9	
01/27/00	<b>22</b>	8	7	15	< 20	<b>67</b>	1	3	60	< 2	10	3	3	84	< 2	13	na	na	13	
07/18/00	<b>23</b>	8	7	15	< 20	<b>59</b>	1	3	54	< 2	< 10	4	3	82	< 2	11	na	na	11	
02/18/01	<b>19.5</b>	7.73	7.84	17.15	< 10.00	<b>57.7</b>	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	<b>19.8</b>	7.18	6.15	14.35	19	<b>108</b>	1.5	4.37	106	< 5	11.2	1.95	4.49	94.5	<b>1.12</b>	9.4	na	na	9	
03/01/02	<b>14.1</b>	3.54	4.45	8.67	< 10.0	<b>124</b>	1.97	4.15	86.9	< 5.00	6.63	1.10	3.37	<b>104</b>	<b>2.24</b>	10.5	na	na	11	
08/01/02	<b>21</b>	6.3	4.8	12	< 50	<b>130</b>	2.2	<b>8.3</b>	110	< 6.0	< 30	3.3	7.3	<b>110</b>	< 4.0	7.0	8.0	8.0	23	
02/12/03	<b>18</b>	3.7	3.8	9.4	< 50	<b>150</b>	2.4	<b>5.6</b>	100	< 6.0	< 30	5.0	4.9	<b>160</b>	< 4.0	7.4	< 8	< 8	< 23	
08/05/03	<b>22</b>	< 5	< 5	5.4	< 50	<b>220</b>	< 5.0	<b>6.3</b>	160	< 15	< 50	< 5.0	< 5.0	<b>180</b>	< 10	< 10	< 20	< 20	< 50	
05/25/04	<b>22</b>	7.5	5.1	13	< 50	<b>150</b>	< 5.0	< 5.0	120	< 15	< 50	< 5.0	< 5.0	<b>130</b>	< 5.0	< 10	< 20	< 20	< 50	
11/09/04	<b>19</b>	8.3	< 5.0	< 5.0	< 50	<b>160</b>	< 5.0	< 5.0	150	< 15	< 50	< 5.0	< 5.0	<b>130</b>	< 5.0	< 10	< 20	< 20	< 50	
04/12/05	<b>23</b>	7.3	< 5.0	15	< 50	<b>98</b>	< 5.0	<b>5.8</b>	82	< 15	< 50	< 5.0	< 5.0	94	< 5.0	11	< 20	< 20	< 51	
12/02/05	<b>21</b>	7.7	6.4	16	17	<b>71</b>	1.7	3.3	61	< 3	< 10	2.4	2.0	66	<b>2.2</b>	9.8	< 4.0	< 4.0	< 18	
05/11/06	<b>14</b>	4.1	4.5	10	< 10	<b>95</b>	3	2.1	39	< 3	< 10	1.6	< 1.0	47	< 1.0	8.5	< 4.0	< 4.0	< 17	
12/17/06	<b>47</b>	16	17	42	< 50	<b>210</b>	8.7	<b>5.8</b>	120	< 15	< 50	< 5.0	< 5.0	<b>150</b>	< 5.0	24	< 20	< 20	<b>64</b>	
06/21/07	<b>15</b>	5.7	5.6	12	< 10	<b>73</b>	1.3	2.6	36	< 1	< 10	1.8	1.1	43	< 1.0	9.7	< 4.0	< 4.0	< 18	
12/07/07	<b>15</b>	4.7	4.3	11	< 10	<b>71</b>	2.9	2.1	30	< 1	< 10	2.6	1.5	38	< 1.0	8.7	< 4.0	< 4.0	< 17	
06/02/08	<b>14</b>	3.6	4.2	7.5	< 10	<b>72</b>	1.1	2.0	31	< 3	< 10	< 1.0	< 1.0	39	< 1.0	9.0	< 4.0	< 4.0	< 17	
12/11/08	<b>20</b>	6.3	4.1	16	< 10	<b>95</b>	1.5	2.5	31	< 3	< 10	2.6	< 1.0	38	< 1.0	15	< 4.0	5.9	< 25	
04/28/09	<b>16</b>	3.8	5.5	12	< 10	<b>77</b>	1.2	1.6	26	< 3	< 10	1.6	< 1.0	32	< 1.0	9.1	< 4.0	< 4.0	< 17	
06/13/10	<b>17</b>	5.0 J	6.3 J	< 15	41 J	<b>71</b>	< 10	< 10	42	< 30	< 10	< 10	< 10	32	<b>3.7 J</b>	< 20	< 40	< 40	< 100	
11/10/11	<b>16</b>	< 10	< 10	< 15	< 100	<b>61</b>	< 10	< 10	48	< 30	< 100	< 10	< 10	24	< 10	< 20	< 40	< 40	< 100	
06/27/12	<b>14</b>	< 5	5.6	8.2	< 50	<b>72</b>	< 5	< 5	43	< 15	< 50	< 5	< 5	27	< 5	< 10	< 20	< 20	< 50	

**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-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	< 5	< 100	17	< 5	< 5	na	< 5	< 50	< 5	< 5	21	< 10	na	na	na	na
11/12/96	< 5	< 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	< 5	< 100	11	< 5	< 5	6	< 50	< 50	< 5	< 5	18	< 10	na	na	na	na
05/10/97	< 5	< 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	< 5	< 100	12	< 5	< 5	7	< 5	< 50	< 5	< 5	16	< 10	na	na	na	na
10/09/97	< 5	< 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	< 5	< 100	14	< 5	< 5	7	< 5	< 10	< 5	< 5	15	< 10	< 5	na	na	< 5
04/16/98	< 5	< 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	< 5	< 100	12	< 5	< 5	7	< 5	< 10	< 5	< 5	14	< 10	< 5	na	na	< 5
01/27/99	1	< 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	< 1	< 20	12	< 1	2	9	< 2	< 10	< 1	< 1	18	< 2	< 1	na	na	< 1
01/27/00	2	< 1	< 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	< 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	< 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	< 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	< 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	< 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	< 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	< 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	< 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	< 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	
06/27/12	< 1.0	< 1.0	< 1.0	< 1.5	< 10	3.4	< 1.0	< 1.0	2.0	< 3.0	< 10	< 1.0	< 1.0	5.1	< 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-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-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	< 5	< 100	22	< 5	< 5	na	< 5	< 50	< 5	< 5	13	< 10	na	na	na	na
11/12/96	9	< 5	< 5	< 5	< 5	< 100	22	<b>24</b>	< 5	na	< 5	< 50	< 5	< 5	18	< 10	na	na	na	na
02/04/97	8	< 5	< 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	< 5	< 100	16	< 5	< 5	< 5	< 50	< 50	< 5	< 5	13	< 10	na	na	na	na
08/07/97	9	< 5	< 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	< 5	< 100	20	< 5	< 5	6	< 5	< 50	< 5	< 5	16	< 10	na	na	na	na
01/23/98	6	< 5	< 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	< 5	< 100	20	< 5	< 5	8	< 5	< 10	< 5	< 5	14	< 10	< 5	na	na	< 5
07/16/98	7	< 5	< 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	< 1	< 20	19	< 1	3	10	< 2	< 10	< 1	< 1	12	< 2	< 1	na	na	< 1
07/08/99	7	< 1	< 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	< 1	< 20	24	< 1	2	13	< 2	< 10	< 1	< 1	12	< 2	< 1.0	na	na	< 1
07/18/00	6	< 1	< 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	< 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	<b>34.3</b>	< 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	<b>30</b>	< 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	<b>36</b>	< 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	<b>29</b>	< 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	<b>28</b>	< 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	<b>32</b>	< 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	<b>30</b>	< 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	<b>30</b>	< 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	<b>38</b>	< 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	<b>30</b>	< 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	<b>33</b>	< 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	<b>32</b>	< 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	<b>41</b>	< 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	<b>32</b>	< 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	<b>29</b>	< 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	<b>37</b>	< 1.0	1.4	52	< 1.0	< 10	< 1.0	< 1.0	6.6	< 1.0	< 2.0	< 4.0	< 4.0	< 10	
06/27/12	< 1.0	< 1.0	< 1.0	< 1.5	< 10	<b>42</b>	< 1.0	1.9	50	< 1.0	< 10	< 1.0	< 1.0	8.6	< 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	<b>12</b>	< 0.5	< 0.5	< 0.5	na	<b>71</b>	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	<b>18</b>	< 5	< 5	< 5	< 5	< 100	<b>92</b>	< 5	< 5	na	< 5	< 50	< 5	< 5	45	< 10	na	na	na	na
11/12/96	<b>19</b>	< 5	< 5	< 5	< 5	< 100	<b>86</b>	< 5	<b>6</b>	na	< 5	< 50	< 5	< 5	59	< 10	na	na	na	na
02/06/97	<b>24</b>	< 5	< 5	< 5	< 5	< 100	<b>80</b>	< 5	< 5	28	5.2 <sup>b</sup>	< 50	< 5	< 5	52	< 10	na	na	na	na
05/10/97	<b>19</b>	42	< 5	< 5	< 5	< 100	<b>74</b>	< 5	< 5	120	< 50	130	< 5	< 5	44	< 10	na	na	na	na
08/07/97	<b>21</b>	< 5	< 5	< 5	< 5	< 100	<b>86</b>	< 5	<b>7.4</b>	30	< 5	< 50	< 5	< 5	49	< 10	na	na	na	na
10/09/97	<b>25</b>	< 5	< 5	< 5	< 5	< 100	<b>104</b>	< 5	< 5	34	7 <sup>b</sup>	< 50	< 5	< 5	67	< 10	na	na	na	na
01/24/98	<b>21</b>	< 5	< 5	< 5	< 5	< 100	<b>100</b>	< 5	< 5	33	< 5	0	< 5	< 5	52	< 10	< 5	na	na	< 5
04/17/98	<b>19</b>	< 5	< 5	< 5	< 5	< 100	<b>89</b>	< 5	< 5	33	< 5	< 10	< 5	< 5	51	< 10	< 5	na	na	< 5
07/17/98	<b>20</b>	< 5	< 5	< 5	< 5	< 100	<b>91</b>	< 5	< 5	32	< 5	< 10	< 5	< 5	51	< 10	< 5	na	na	< 5
01/27/99	<b>20</b>	< 1	< 1	< 1	< 1	< 20	<b>94</b>	2	<b>5</b>	37	< 2	< 10	< 1	< 1	54	< 2	< 1	na	na	< 1
07/09/99	<b>17</b>	< 1	< 1	< 1	< 1	< 20	<b>99</b>	2	<b>5</b>	39	< 2	< 10	< 1	< 1	59	< 2	< 1	na	na	< 1
01/27/00	<b>21</b>	< 1	< 1	< 1	< 1	< 20	<b>110</b>	2	<b>5</b>	43	< 2	< 10	< 1	< 1	59	< 2	< 1.0	na	na	< 1
07/18/00	<b>21</b>	< 1	< 1	< 1	< 1	< 20	<b>100</b>	2	<b>5</b>	45	< 2	< 10	< 1	< 1	59	< 2	< 1.0	na	na	< 1
02/18/01	<b>17.8</b>	< 1.00	< 1.00	< 1.00	< 1.00	< 10.00	<b>89.2</b>	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	<b>17.7</b>	< 1	< 1	< 3	< 10	<b>97.9</b>	1.59	4.74	42.6	< 5	< 5	< 1	< 1	54.1	<b>1.13</b>	< 2	na	na	< 2	
02/28/02	<b>22.1</b>	< 1.00	< 1.00	< 2.00	< 10.0	<b>108</b>	2.33	4.50	47.1	< 5.00	< 5.00	< 1.00	< 1.00	56.6	<b>2.92</b>	< 5.00	na	na	< 5	
08/01/02	<b>25</b>	< 1.0	< 1.0	< 1.0	< 25	<b>120</b>	1.7	<b>6.1</b>	51	< 3.0	< 15	< 1.0	< 1.0	68	< 2.0	< 2.0	< 4.0	< 4.0	< 10	
02/12/03	<b>23</b>	< 1.0	< 1.0	< 1.0	< 25	<b>95</b>	1.7	<b>5.0</b>	49	< 3.0	< 15	< 1.0	< 1.0	52	< 2.0	< 2.0	< 4.0	< 4.0	< 10	
08/05/03	<b>19</b>	< 2.0	< 2.0	< 2.0	< 20	<b>120</b>	< 2	<b>5.0</b>	62	< 6.0	< 20	< 2.0	< 2.0	61	< 4.0	< 4.0	< 8.0	< 8.0	< 20	
05/25/04	<b>12</b>	< 2.0	< 2.0	< 2.0	< 20	<b>120</b>	2.1	<b>5.5</b>	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	<b>92</b>	< 5.0	< 5.0	59	< 15	< 50	< 5.0	< 5.0	54	< 5.0	< 10	< 20	< 20	<b>&lt; 50</b>	
04/12/05	6.4	< 5.0	< 5.0	< 5.0	< 50	<b>63</b>	< 5.0	< 5.0	36	< 15	< 50	< 5.0	< 5.0	35	< 5.0	< 10	< 20	< 20	<b>&lt; 50</b>	
12/02/05	5.6	< 1.0	< 1.0	< 1.0	< 10	<b>67</b>	1.4	3.7	47	< 3	< 10	< 1.0	< 1.0	42	<b>2.6</b>	< 2.0	< 4.0	< 4.0	< 10	
05/11/06	4	< 1.0	< 1.0	< 3.0	< 10	<b>82</b>	3.1	3.4	46	< 3	< 10	< 1.0	< 1.0	35	<b>1.2</b>	< 2.0	< 4.0	< 4.0	< 10	
12/17/06	2.1	< 1.0	< 1.0	< 3.0	< 10	<b>33</b>	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	<b>45</b>	< 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	<b>68</b>	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	<b>66</b>	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	<b>78</b>	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	<b>73</b>	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	<b>55</b>	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	<b>47</b>	< 1.0	2.3	60	< 3	< 10	< 1.0	< 1.0	23	< 1.0	< 2.0	< 4.0	< 4.0	< 10	
06/27/12	3.6	< 1.0	< 1.0	< 1.5	14	<b>49</b>	1.0	3.0	58	< 3	< 10	< 1.0	< 1.0	29	< 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-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-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	<b>25</b>	< 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	<b>27</b>	< 5	< 5	< 5	< 5	< 50	< 5	< 5	14	< 10	na	na	na	na	
10/09/97	< 5	< 5	< 5	< 5	< 100	<b>27</b>	< 5	< 5	< 5	6 <sup>b</sup>	< 50	< 5	< 5	15	< 10	na	na	na	na	
01/23/98	< 5	< 5	< 5	< 5	< 100	<b>31</b>	< 5	< 5	5	< 5	< 10	< 5	< 5	13	< 10	< 5	na	na	< 5	
04/17/98	< 5	< 5	< 5	< 5	< 100	<b>28</b>	< 5	< 5	< 5	< 5	< 10	< 5	< 5	14	< 10	< 5	na	na	< 5	
07/17/98	< 5	< 5	< 5	< 5	< 100	<b>26</b>	< 5	< 5	< 5	< 5	< 10	< 5	< 5	14	< 10	< 5	na	na	< 5	
01/27/99	< 1	< 1	< 1	< 1	< 20	<b>27</b>	< 1	2	5	< 2	< 10	1	< 1	14	< 2	< 1	na	na	< 1	
07/09/99	< 1	< 1	< 1	< 1	< 20	<b>29</b>	< 1	2	5	< 2	< 10	1	< 1	16	< 2	< 1	na	na	< 1	
01/27/00	< 1	< 1	< 1	< 1	< 20	<b>29</b>	< 1	2	5	< 2	< 10	1	< 1	15	< 2	< 1.0	na	na	< 1	
07/18/00	< 1	< 1	< 1	< 1	< 20	<b>32</b>	< 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	<b>31.50</b>	< 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	<b>33.7</b>	< 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	<b>37.1</b>	< 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	<b>37</b>	< 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	<b>26</b>	< 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	<b>33</b>	< 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	<b>29</b>	< 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	<b>24</b>	< 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	<b>27</b>	< 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	<b>26</b>	< 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	<b>28</b>	< 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	<b>28</b>	< 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	<b>19</b>	< 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	<b>18</b>	< 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	<b>19</b>	< 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	<b>19</b>	< 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	<b>20</b>	< 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	<b>16</b>	< 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	<b>12</b>	< 1.0	< 1.0	1.1	< 3.0	< 10	< 1.0	< 1.0	1.2	< 1.0	< 2.0	< 4.0	< 4.0	< 10	
06/27/12	< 1.0	< 1.0	< 1.0	< 1.5	< 10	<b>12</b>	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	< 10	< 1.0	1.3	< 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	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	< 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	6 <sup>b</sup>	< 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	13	< 5	< 5	< 100	< 5	< 5	5	< 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	5	< 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	5	< 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	< 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	< 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	< 1.0	< 2.0	< 4.0	< 4.0	< 10
	06/26/12	< 1.0	< 1.0	< 1.0	< 1.5	< 10	1.7	< 1.0	1.6	< 1.0	< 3.0	< 10	< 1.0	< 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-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-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	7 <sup>b</sup>	< 50	15	< 5	< 5	< 10	na	na	na	na	na	
	01/23/98	< 5	< 5	< 5	< 5	< 100	< 5	< 5	< 5	< 5	< 10	13	< 5	< 5	< 10	< 5	na	na	< 5	na	
	04/16/98	< 5	< 5	< 5	< 5	< 100	< 5	< 5	< 5	< 5	< 10	< 5	< 5	< 5	< 10	< 5	na	na	< 5	na	
	07/16/98	< 5	< 5	< 5	< 5	< 100	< 5	< 5	< 5	< 5	< 10	16	< 5	< 5	< 10	< 5	na	na	< 5	na	
	01/26/99	< 1	< 1	< 1	< 1	< 20	3	< 1	3	< 1	< 2	< 10	16	< 1	1	< 2	< 1	na	na	< 1	na
	07/08/99	< 1	< 1	< 1	< 1	< 20	3	< 1	3	< 1	< 2	< 10	14	< 1	< 1	< 2	< 1	na	na	< 1	na
	01/27/00	< 1	< 1	< 1	< 1	< 20	3	< 1	3	< 1	< 2	< 10	14	< 1	1	< 2	< 1.0	na	na	< 1	na
	07/17/00	< 1	< 1	< 1	< 1	< 20	3	< 1	2	< 1	< 2	< 10	13	< 1	1	< 2	< 1.0	na	na	< 1	na
	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	na
	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	na
	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	na
	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	na
	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	na
	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	na
	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	na
	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	na
	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	na
	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	na
	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	na
	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	na
	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	na
	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	na
	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	na
	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	na
	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	na
	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	na
	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	na
	06/26/12	< 1.0	< 1.0	< 1.0	< 1.5	< 10	< 1.0	< 1.0	< 1.0	< 1.0	< 3.0	< 10	2.9	< 1.0	< 1.0	< 1.0	< 2.0	< 4.0	< 4.0	< 10	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-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
	06/27/12	< 1.0	< 1.0	< 1.0	< 1.5	< 10	< 1.0	< 1.0	1.1	< 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	72	
MW-6	VOC's	3.4	
MW-7	VOC's	42	
MW-8	VOC's	49	
MW-14	VOC's	12	
MW-15	VOC's	1.7	
MW-16	VOC's	< 1	
MW-17	VOC's	< 1	
SVE-1A	VOC's	440	

Notes:

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

**Table 7. Summary for Product Removal Efforts**  
**TW WT-1 Compressor Station Engine Room Pit Area**

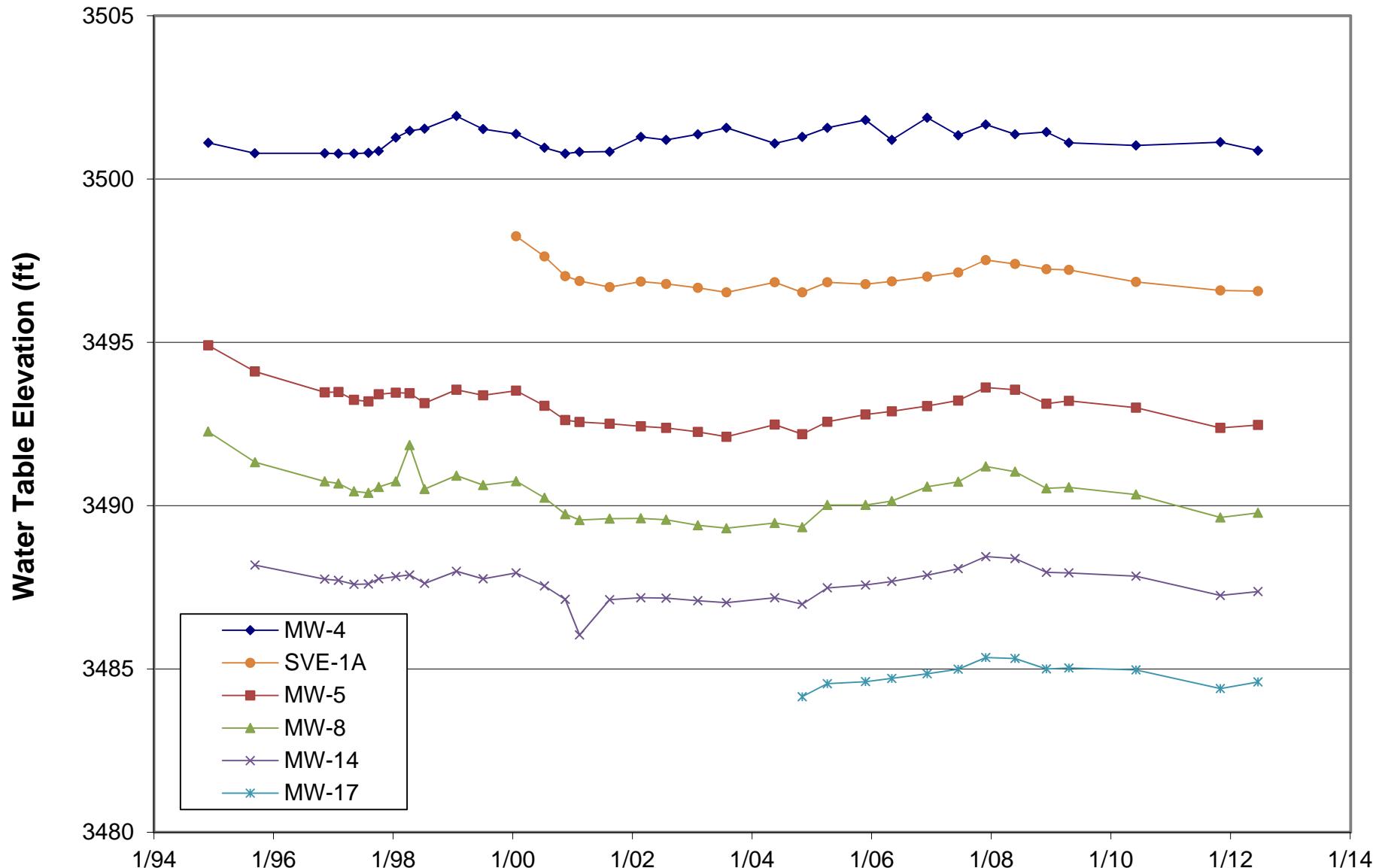
		Initial Measurements			Removal Actions	Post Measurements		
Well	Date	Depth to PSH (ft)	Depth to Water or PSH/Water Interface (ft)	PSH Thickness (ft)		Depth to PSH (ft)	Depth to Water or PSH/Water Interface (ft)	PSH Thickness (ft)
MW-1	06/27/12	50.41	54.74	4.33	Bailed	(a)	bailed dry	sheen
	07/28/12	50.91	52.71	1.80	Bailed	(a)	54.65	sheen
	08/31/12	50.92	52.33	1.41	Bailed	(a)	54.90	sheen
	10/11/12	51.00	52.50	1.50	Bailed	(a)	54.70	sheen
RW-2	06/26/12	53.02	53.03	0.01	None Removed	--	--	--
	07/28/12	53.24	53.25	0.01	Used Absorbent	(a)	53.35	(a)
	08/31/12	53.23	53.25	0.02	Used Absorbent	(a)	53.27	(a)
	10/11/12	53.38	53.40	0.02	Used Absorbent	--	--	--
NOTES:								
(a) Not applicable since no measurable thickness of hydrocarbon is present.								
"--" No measurement obtained.								

# **APPENDICES**

# **APPENDIX A**

**Hydrograph for Selected Monitor Wells  
with No Accumulated PSH**

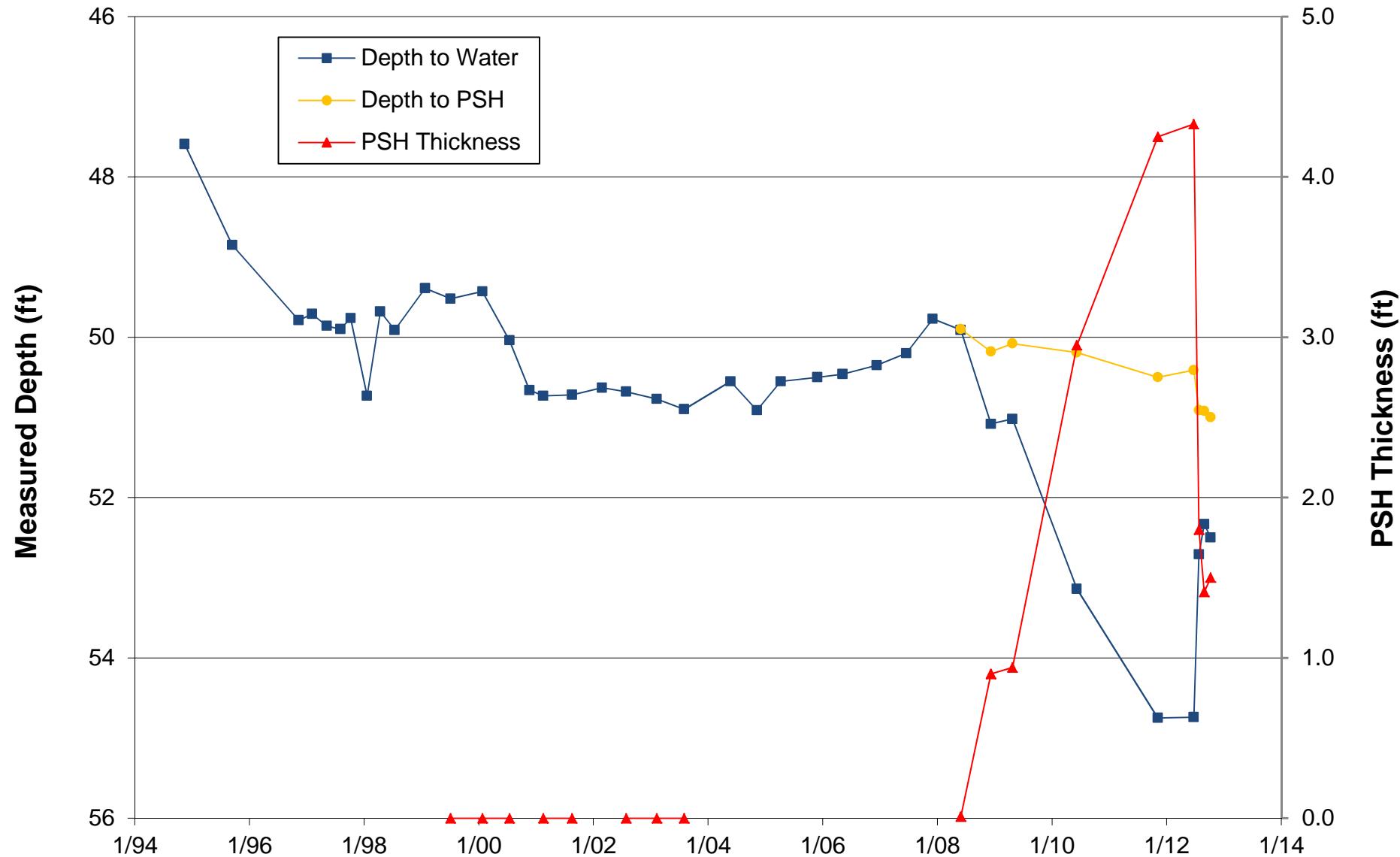
**Hydrograph for Selected Monitor Wells with No Accumulated PSH**  
**WT-1 Station Pit Area Remediation Site**



## APPENDIX B

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

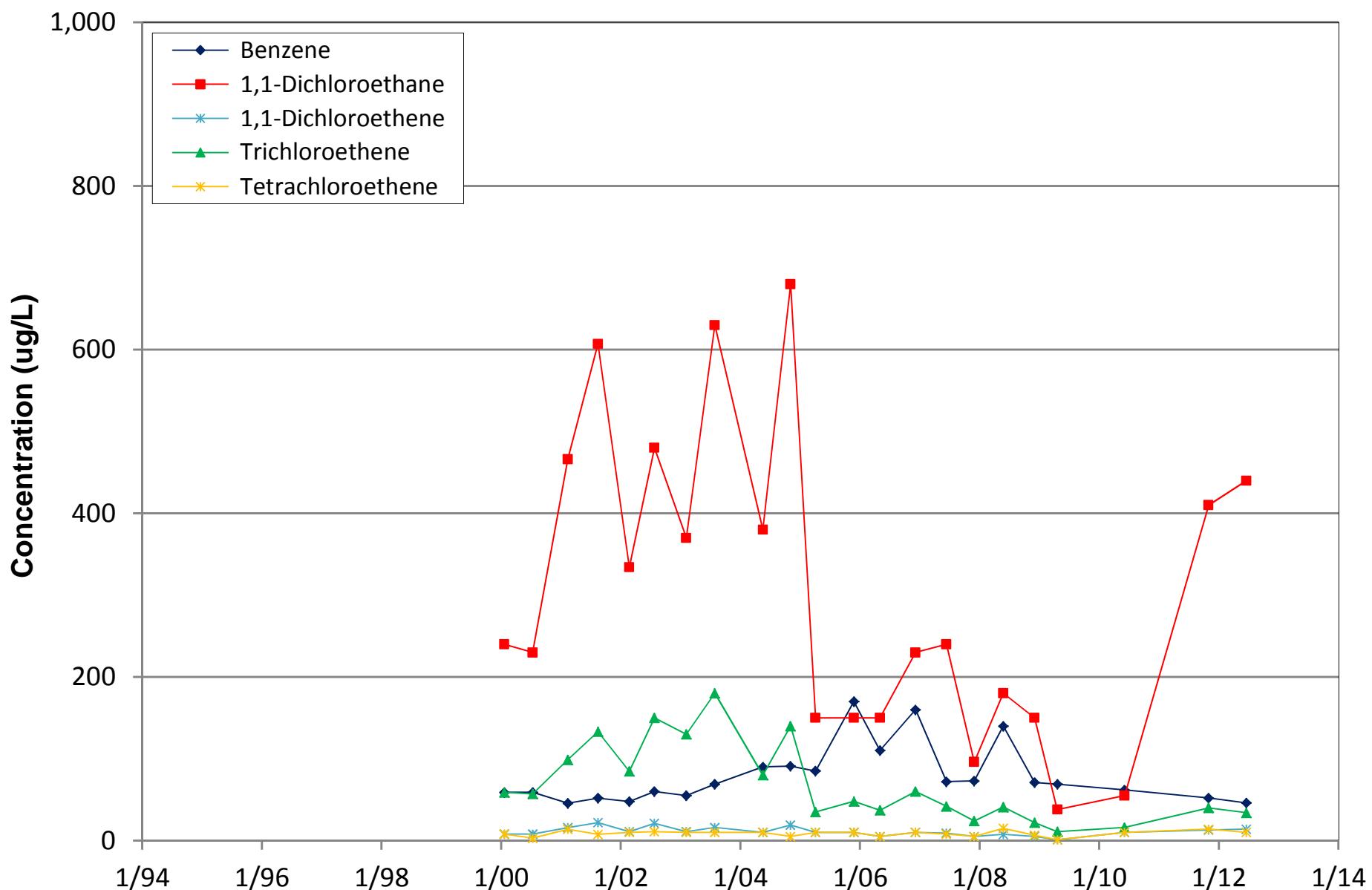
## Depth to Water & PSH Thickness at Monitor Well MW-1 WT-1 Station Pit Area Remediation Site



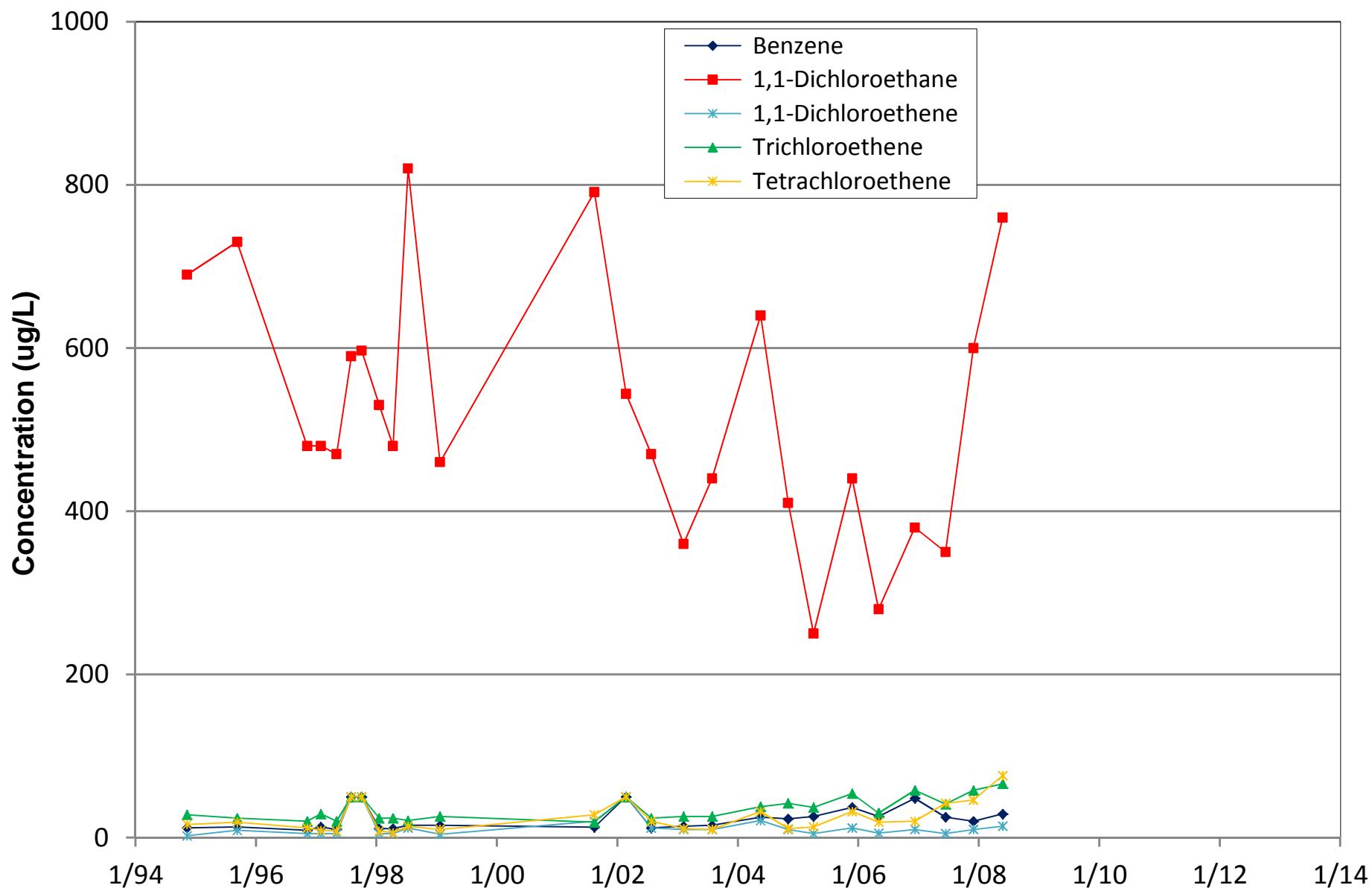
# APPENDIX C

Concentration History Plots  
for Monitoring Wells

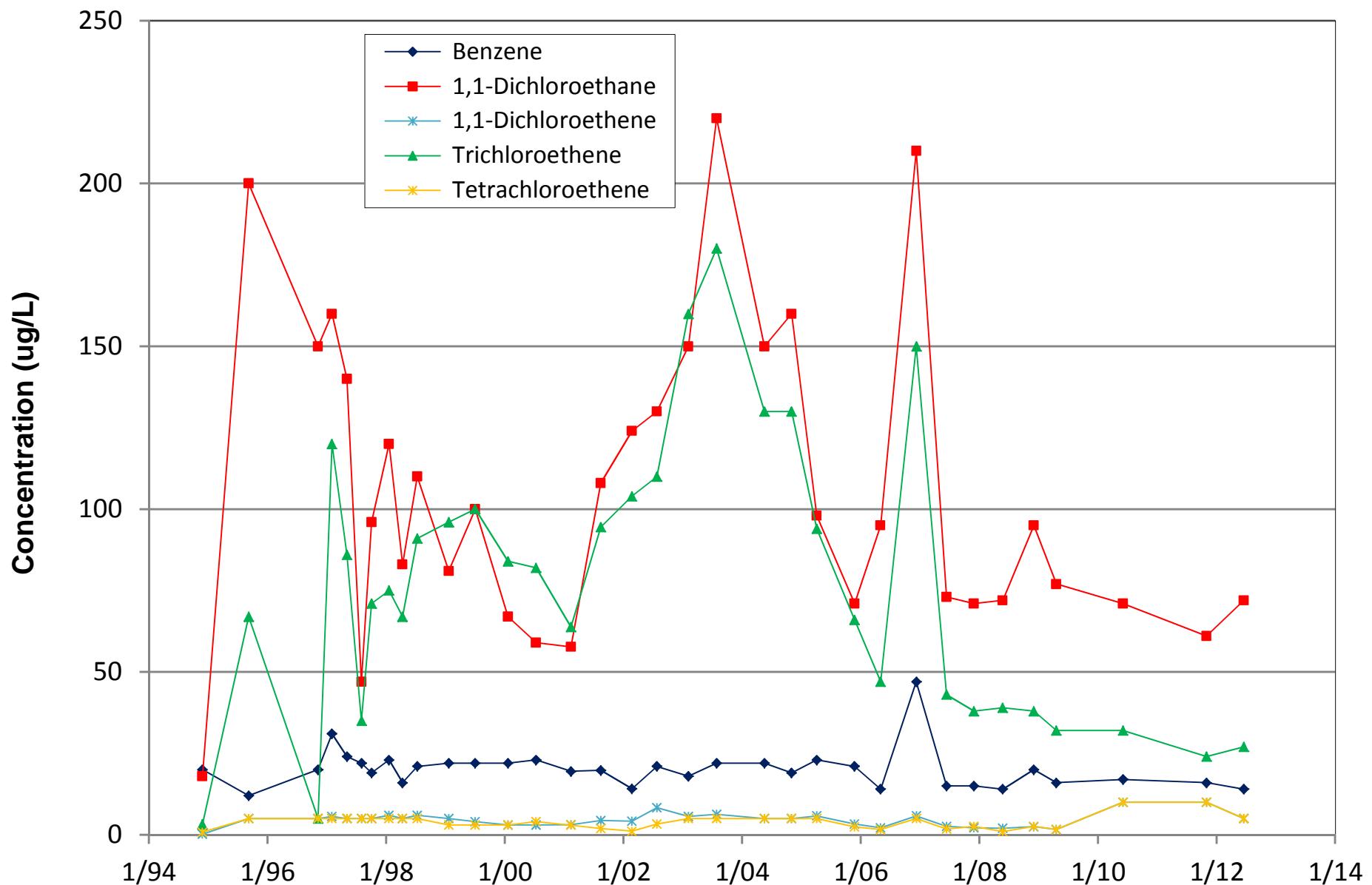
## Concentration History at Well SVE-1A WT-1 Station Pit Area Remediation Site



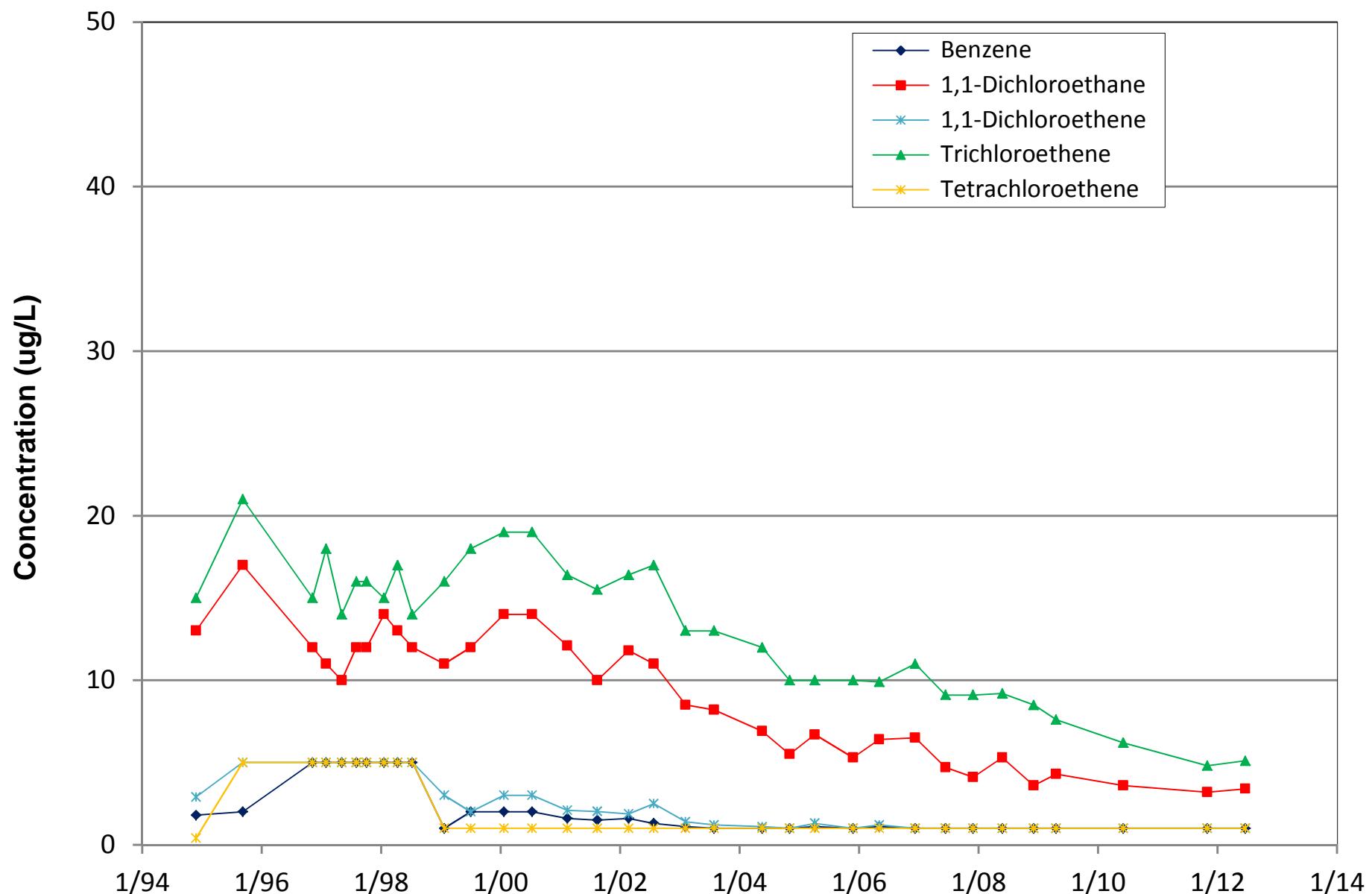
## Concentration History at Well MW-1 WT-1 Station Pit Area Remediation Site



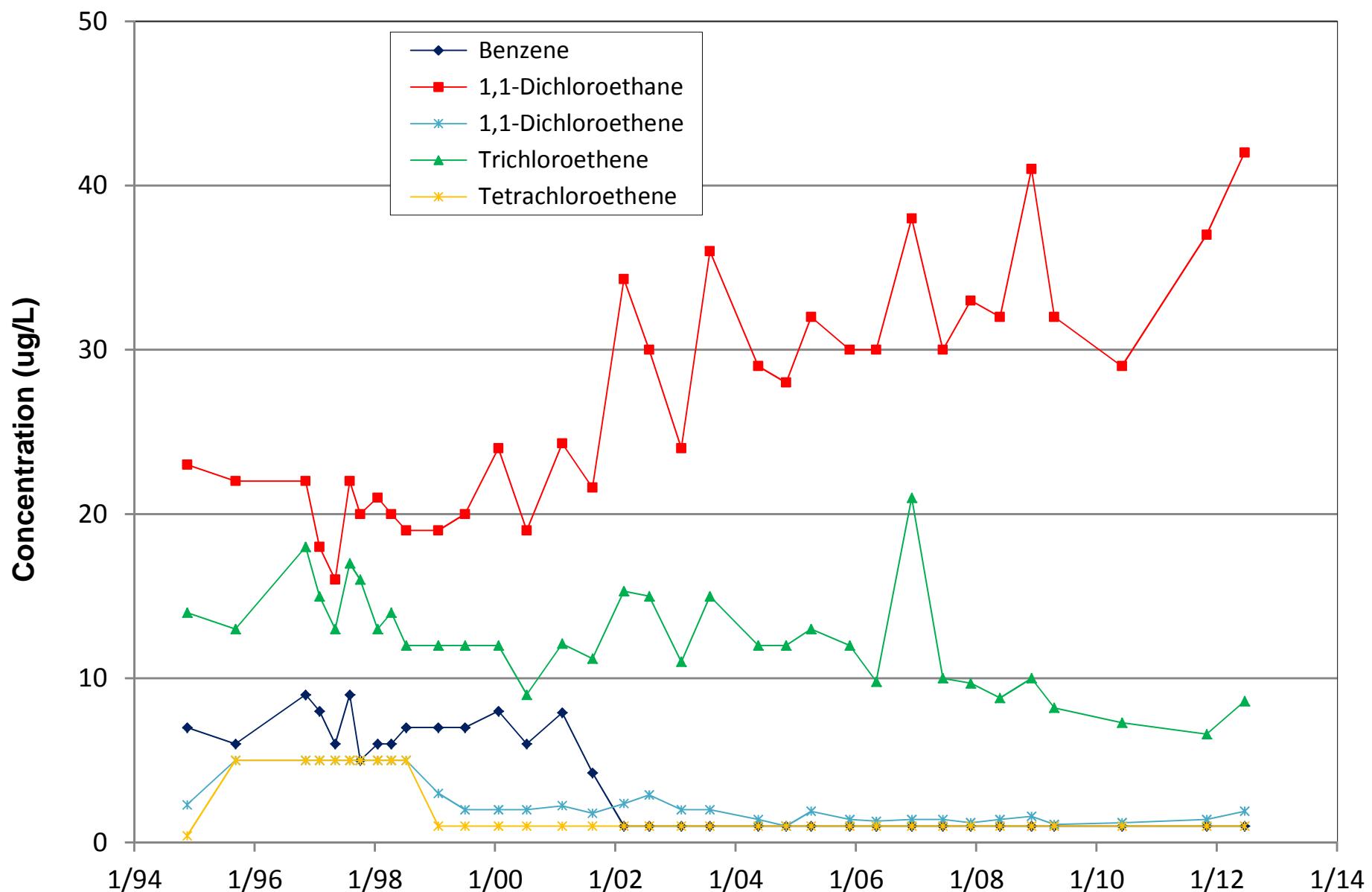
## Concentration History at Well MW-5 WT-1 Station Pit Area Remediation Site



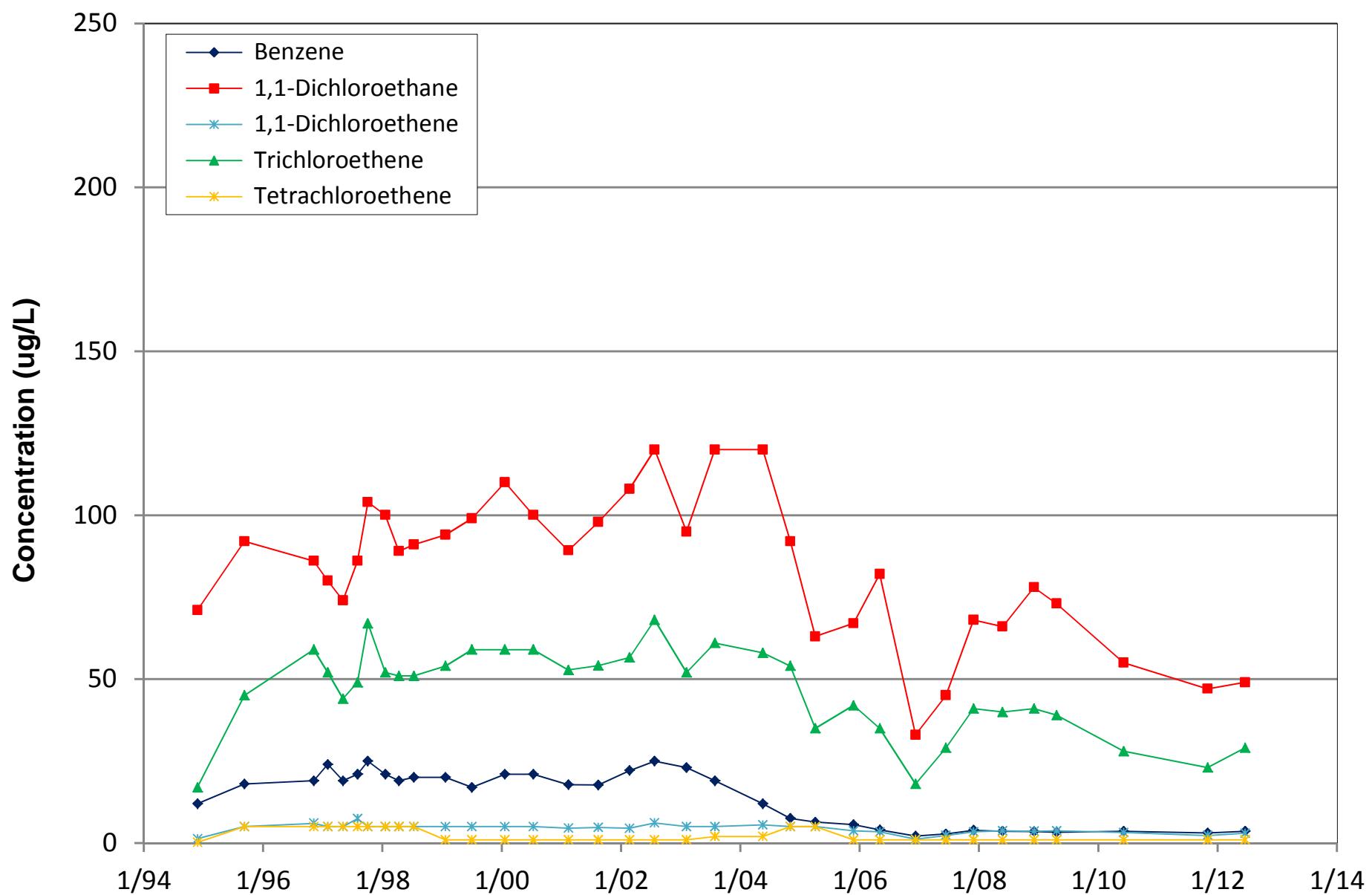
## Concentration History at Well MW-6 WT-1 Station Pit Area Remediation Site



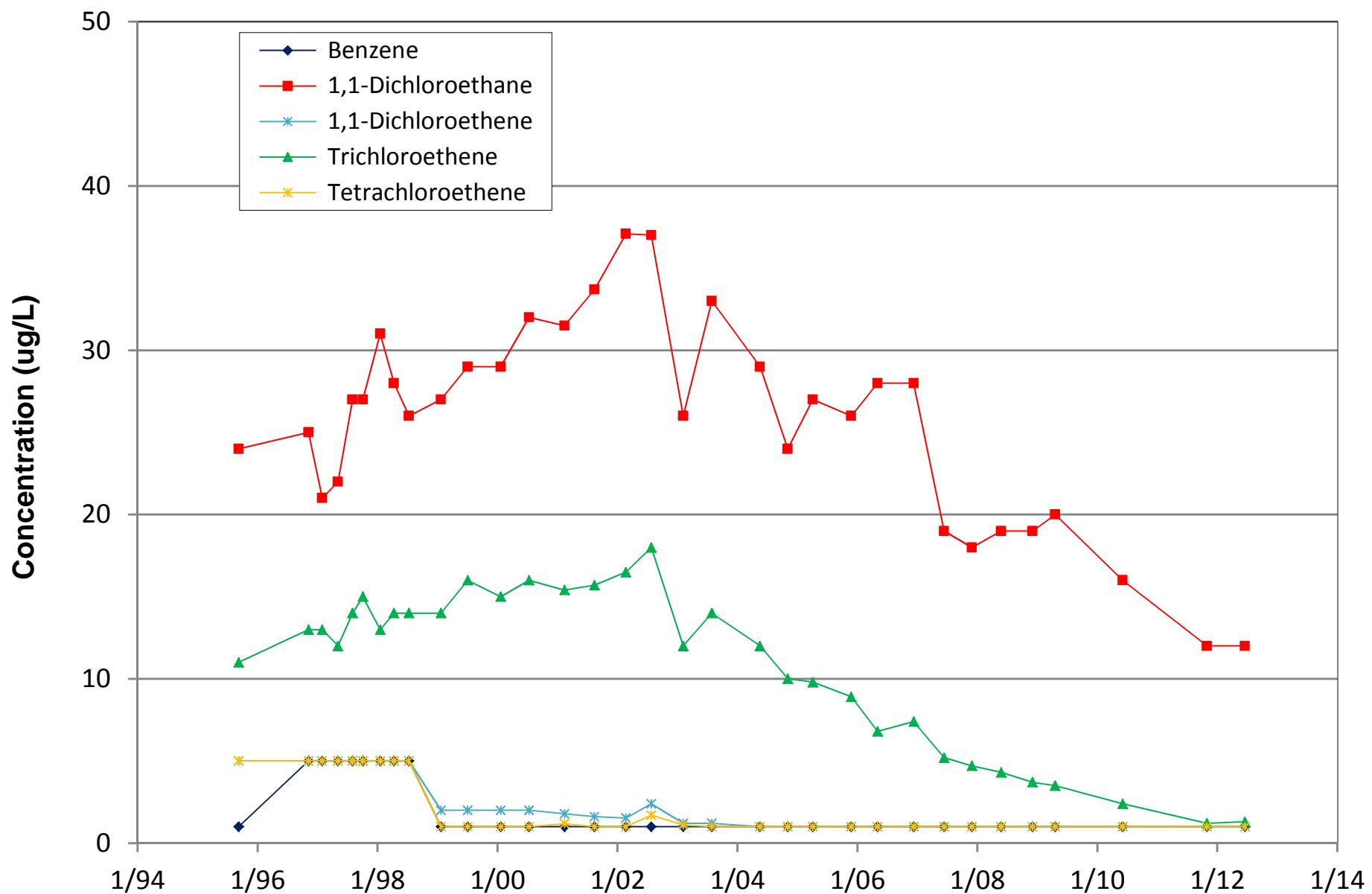
## Concentration History at Well MW-7 WT-1 Station Pit Area Remediation Site



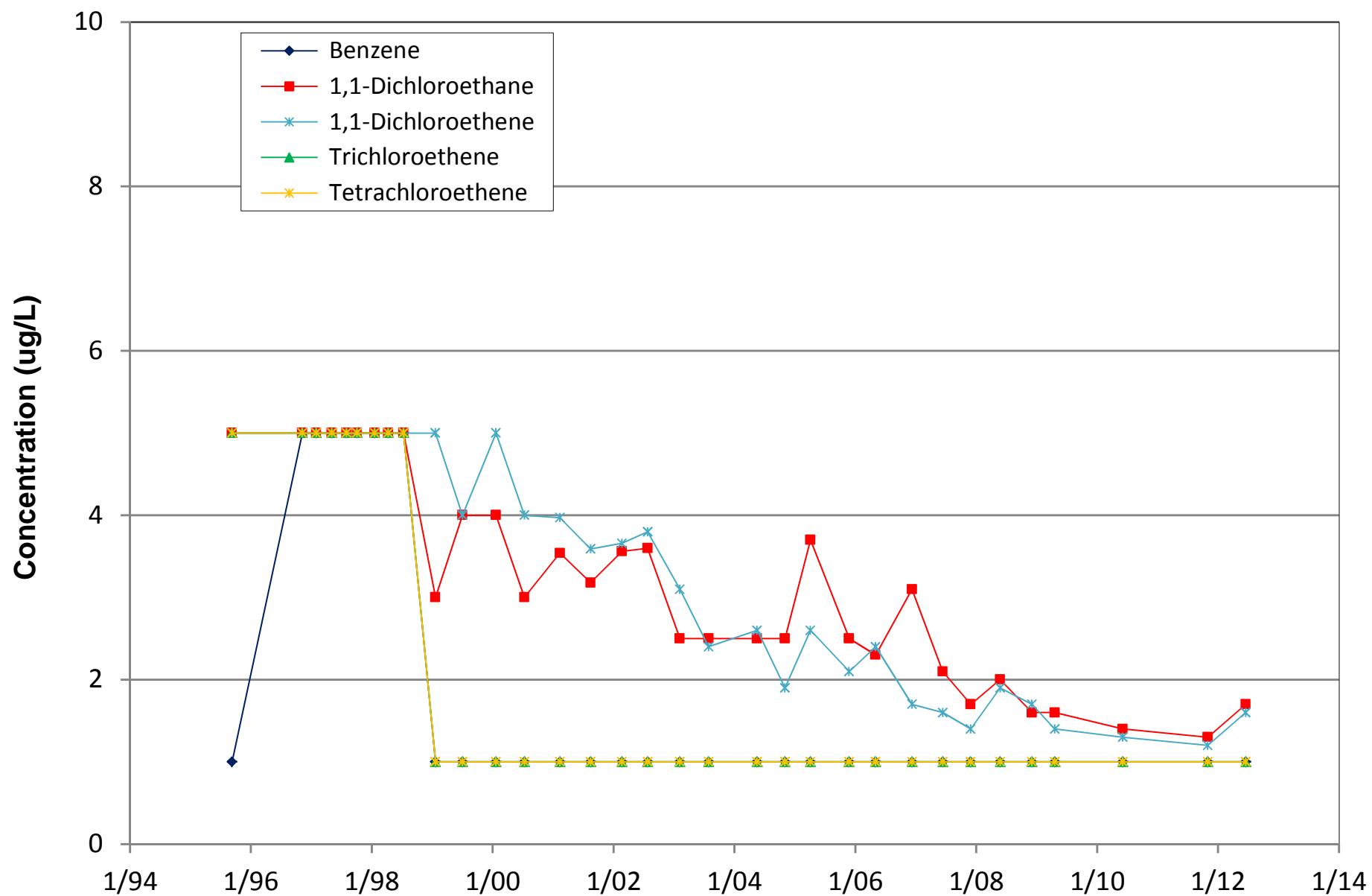
## Concentration History at Well MW-8 WT-1 Station Pit Area Remediation Site



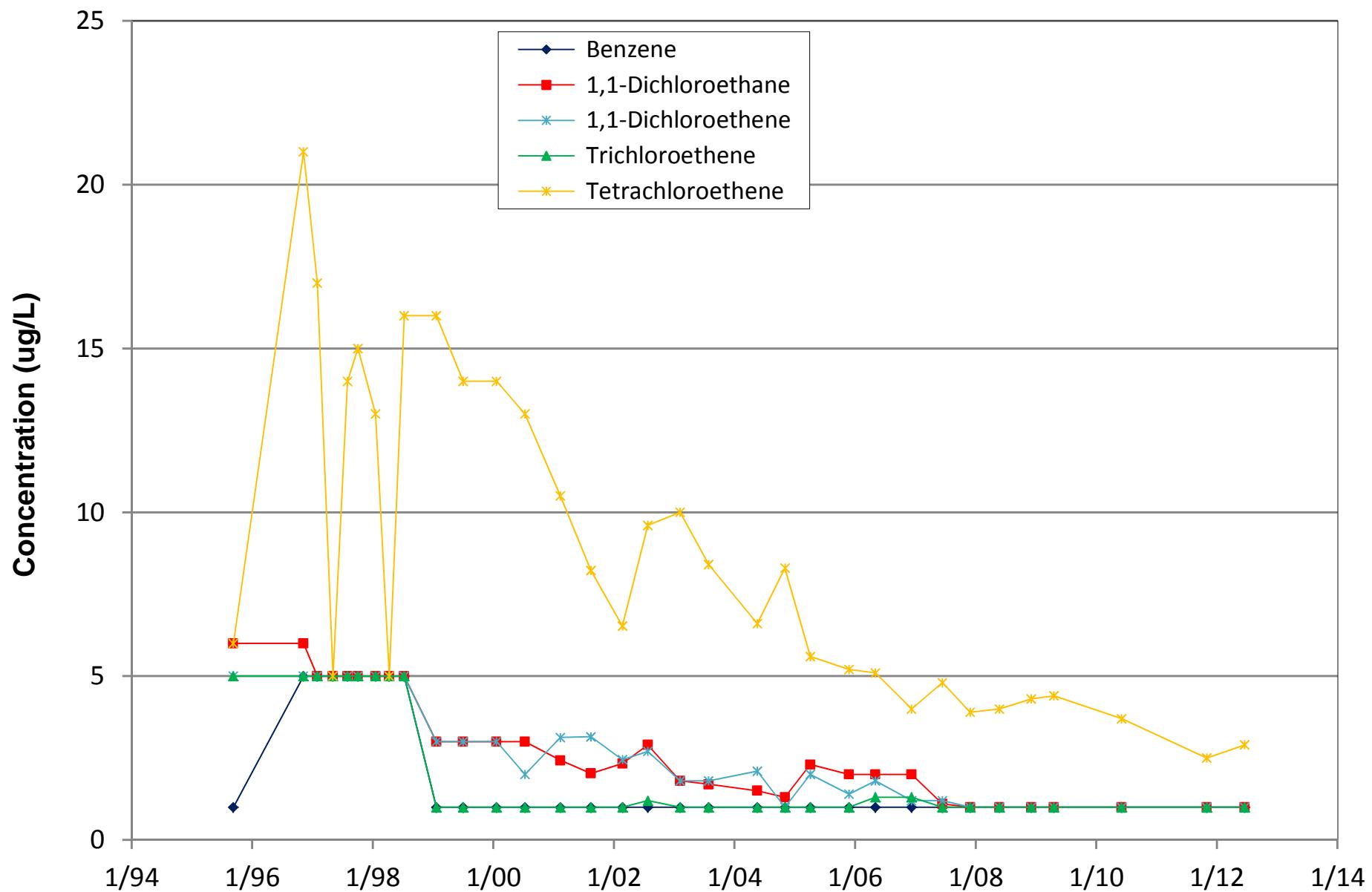
## Concentration History at Well MW-14 WT-1 Station Pit Area Remediation Site



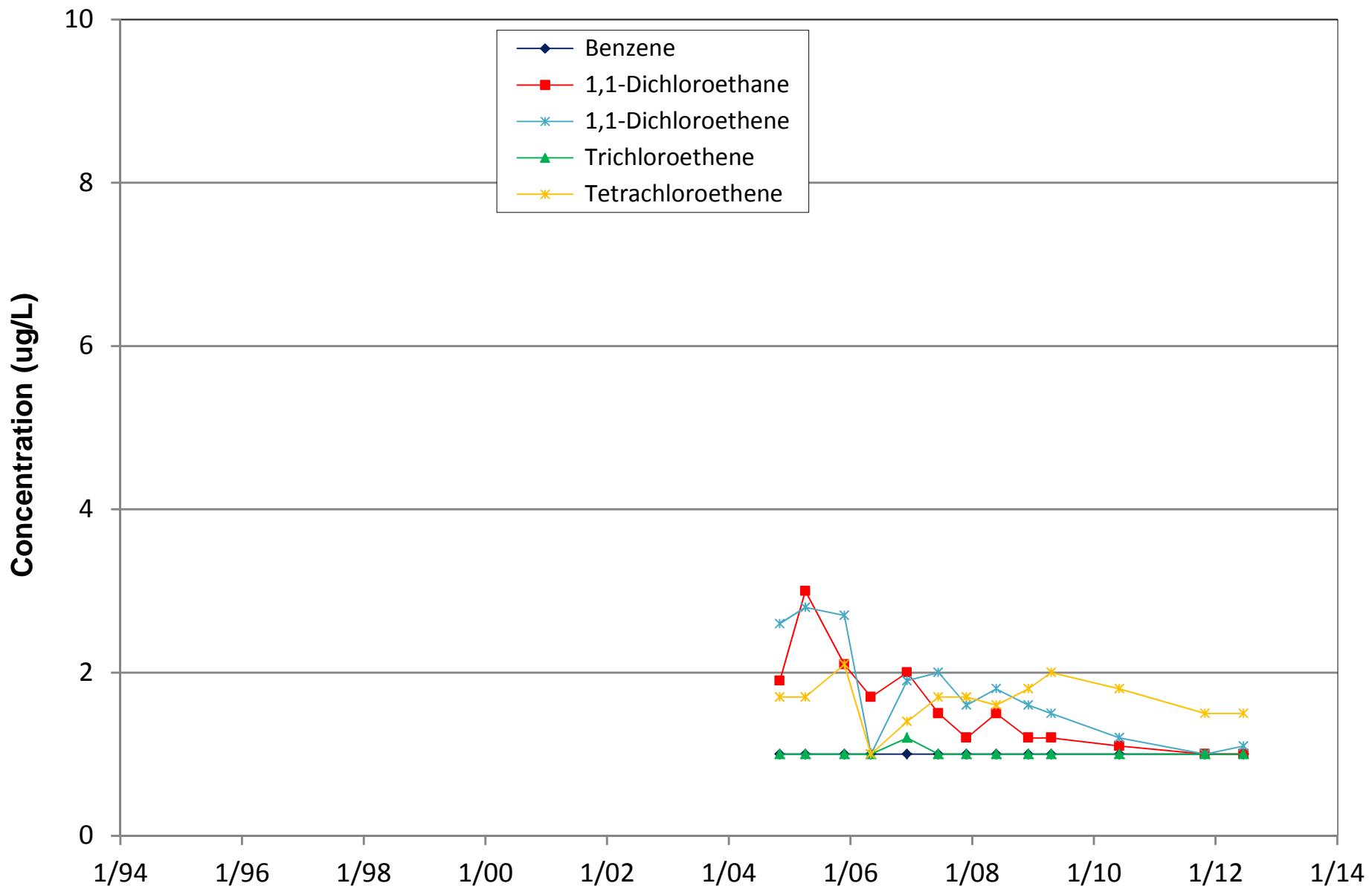
## Concentration History at Well MW-15 WT-1 Station Pit Area Remediation Site



## 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

Laboratory Reports



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

July 10, 2012

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

RE: Transwestern Pipeline Co WT-1 ERP

OrderNo.: 1206C61

Dear George Robinson:

Hall Environmental Analysis Laboratory received 12 sample(s) on 6/29/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. 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. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't 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  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1206C61

Date Reported: 7/10/2012

**CLIENT:** Cypress Engineering

**Project:** Transwestern Pipeline Co WT-1 ERP

**Lab ID:** 1206C61-001

**Matrix:** AQUEOUS

**Client Sample ID:** MW-4

**Collection Date:** 6/26/2012 3:31:00 PM

**Received Date:** 6/29/2012 12:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						
Benzene	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
Toluene	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
Ethylbenzene	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
Naphthalene	ND	2.0		µg/L	1	7/3/2012 7:19:08 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/3/2012 7:19:08 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/3/2012 7:19:08 PM
Acetone	ND	10		µg/L	1	7/3/2012 7:19:08 PM
Bromobenzene	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
Bromodichloromethane	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
Bromoform	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
Bromomethane	ND	3.0		µg/L	1	7/3/2012 7:19:08 PM
2-Butanone	ND	10		µg/L	1	7/3/2012 7:19:08 PM
Carbon disulfide	ND	10		µg/L	1	7/3/2012 7:19:08 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
Chlorobenzene	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
Chloroethane	ND	2.0		µg/L	1	7/3/2012 7:19:08 PM
Chloroform	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
Chloromethane	ND	3.0		µg/L	1	7/3/2012 7:19:08 PM
2-Chlorotoluene	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
4-Chlorotoluene	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
cis-1,2-DCE	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/3/2012 7:19:08 PM
Dibromochloromethane	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
Dibromomethane	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/3/2012 7:19:08 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
2-Hexanone	ND	10		µg/L	1	7/3/2012 7:19:08 PM

**Qualifiers:**

- \*/X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
RL Reporting Detection Limit  
U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1206C61

Date Reported: 7/10/2012

**CLIENT:** Cypress Engineering

**Project:** Transwestern Pipeline Co WT-1 ERP

**Lab ID:** 1206C61-001

**Matrix:** AQUEOUS

**Client Sample ID:** MW-4

**Collection Date:** 6/26/2012 3:31:00 PM

**Received Date:** 6/29/2012 12:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						
Isopropylbenzene	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/3/2012 7:19:08 PM
Methylene Chloride	ND	3.0		µg/L	1	7/3/2012 7:19:08 PM
n-Butylbenzene	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
n-Propylbenzene	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
sec-Butylbenzene	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
Styrene	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
tert-Butylbenzene	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/3/2012 7:19:08 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
trans-1,2-DCE	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/3/2012 7:19:08 PM
Vinyl chloride	ND	1.0		µg/L	1	7/3/2012 7:19:08 PM
Xylenes, Total	ND	1.5		µg/L	1	7/3/2012 7:19:08 PM
Surr: 1,2-Dichloroethane-d4	95.9	70-130		%REC	1	7/3/2012 7:19:08 PM
Surr: 4-Bromofluorobenzene	109	70-130		%REC	1	7/3/2012 7:19:08 PM
Surr: Dibromofluoromethane	103	69.8-130		%REC	1	7/3/2012 7:19:08 PM
Surr: Toluene-d8	93.7	70-130		%REC	1	7/3/2012 7:19:08 PM

**Qualifiers:**

- \*/X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
RL Reporting Detection Limit  
U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1206C61

Date Reported: 7/10/2012

**CLIENT:** Cypress Engineering

**Project:** Transwestern Pipeline Co WT-1 ERP

**Lab ID:** 1206C61-002

**Matrix:** AQUEOUS

**Client Sample ID:** MW-16

**Collection Date:** 6/26/2012 2:37:00 PM

**Received Date:** 6/29/2012 12:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						
Benzene	ND	1.0		µg/L	1	7/3/2012 7:47:28 PM
Toluene	ND	1.0		µg/L	1	7/3/2012 7:47:28 PM
Ethylbenzene	ND	1.0		µg/L	1	7/3/2012 7:47:28 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/3/2012 7:47:28 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/3/2012 7:47:28 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/3/2012 7:47:28 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/3/2012 7:47:28 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/3/2012 7:47:28 PM
Naphthalene	ND	2.0		µg/L	1	7/3/2012 7:47:28 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/3/2012 7:47:28 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/3/2012 7:47:28 PM
Acetone	ND	10		µg/L	1	7/3/2012 7:47:28 PM
Bromobenzene	ND	1.0		µg/L	1	7/3/2012 7:47:28 PM
Bromodichloromethane	ND	1.0		µg/L	1	7/3/2012 7:47:28 PM
Bromoform	ND	1.0		µg/L	1	7/3/2012 7:47:28 PM
Bromomethane	ND	3.0		µg/L	1	7/3/2012 7:47:28 PM
2-Butanone	ND	10		µg/L	1	7/3/2012 7:47:28 PM
Carbon disulfide	ND	10		µg/L	1	7/3/2012 7:47:28 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	7/3/2012 7:47:28 PM
Chlorobenzene	ND	1.0		µg/L	1	7/3/2012 7:47:28 PM
Chloroethane	ND	2.0		µg/L	1	7/3/2012 7:47:28 PM
Chloroform	ND	1.0		µg/L	1	7/3/2012 7:47:28 PM
Chloromethane	ND	3.0		µg/L	1	7/3/2012 7:47:28 PM
2-Chlorotoluene	ND	1.0		µg/L	1	7/3/2012 7:47:28 PM
4-Chlorotoluene	ND	1.0		µg/L	1	7/3/2012 7:47:28 PM
cis-1,2-DCE	ND	1.0		µg/L	1	7/3/2012 7:47:28 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/3/2012 7:47:28 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/3/2012 7:47:28 PM
Dibromochloromethane	ND	1.0		µg/L	1	7/3/2012 7:47:28 PM
Dibromomethane	ND	1.0		µg/L	1	7/3/2012 7:47:28 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/3/2012 7:47:28 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/3/2012 7:47:28 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/3/2012 7:47:28 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/3/2012 7:47:28 PM
1,1-Dichloroethane	ND	1.0		µg/L	1	7/3/2012 7:47:28 PM
1,1-Dichloroethene	ND	1.0		µg/L	1	7/3/2012 7:47:28 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/3/2012 7:47:28 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/3/2012 7:47:28 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/3/2012 7:47:28 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/3/2012 7:47:28 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/3/2012 7:47:28 PM
2-Hexanone	ND	10		µg/L	1	7/3/2012 7:47:28 PM

**Qualifiers:**

- \*/X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
RL Reporting Detection Limit  
U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1206C61

Date Reported: 7/10/2012

**CLIENT:** Cypress Engineering

**Project:** Transwestern Pipeline Co WT-1 ERP

**Lab ID:** 1206C61-002

**Client Sample ID:** MW-16

**Collection Date:** 6/26/2012 2:37:00 PM

**Matrix:** AQUEOUS

**Received Date:** 6/29/2012 12:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						
Isopropylbenzene	ND	1.0		µg/L	1	7/3/2012 7:47:28 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/3/2012 7:47:28 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/3/2012 7:47:28 PM
Methylene Chloride	ND	3.0		µg/L	1	7/3/2012 7:47:28 PM
n-Butylbenzene	ND	1.0		µg/L	1	7/3/2012 7:47:28 PM
n-Propylbenzene	ND	1.0		µg/L	1	7/3/2012 7:47:28 PM
sec-Butylbenzene	ND	1.0		µg/L	1	7/3/2012 7:47:28 PM
Styrene	ND	1.0		µg/L	1	7/3/2012 7:47:28 PM
tert-Butylbenzene	ND	1.0		µg/L	1	7/3/2012 7:47:28 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/3/2012 7:47:28 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/3/2012 7:47:28 PM
Tetrachloroethene (PCE)	2.9	1.0		µg/L	1	7/3/2012 7:47:28 PM
trans-1,2-DCE	ND	1.0		µg/L	1	7/3/2012 7:47:28 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/3/2012 7:47:28 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/3/2012 7:47:28 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/3/2012 7:47:28 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/3/2012 7:47:28 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/3/2012 7:47:28 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/3/2012 7:47:28 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/3/2012 7:47:28 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/3/2012 7:47:28 PM
Vinyl chloride	ND	1.0		µg/L	1	7/3/2012 7:47:28 PM
Xylenes, Total	ND	1.5		µg/L	1	7/3/2012 7:47:28 PM
Surr: 1,2-Dichloroethane-d4	97.0	70-130		%REC	1	7/3/2012 7:47:28 PM
Surr: 4-Bromofluorobenzene	113	70-130		%REC	1	7/3/2012 7:47:28 PM
Surr: Dibromofluoromethane	105	69.8-130		%REC	1	7/3/2012 7:47:28 PM
Surr: Toluene-d8	94.4	70-130		%REC	1	7/3/2012 7:47:28 PM

**Qualifiers:**

- \*/\* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
RL Reporting Detection Limit  
U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1206C61

Date Reported: 7/10/2012

**CLIENT:** Cypress Engineering

**Project:** Transwestern Pipeline Co WT-1 ERP

**Lab ID:** 1206C61-003

**Matrix:** AQUEOUS

**Client Sample ID:** MW-15

**Collection Date:** 6/26/2012 4:57:00 PM

**Received Date:** 6/29/2012 12:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						
Benzene	ND	1.0		µg/L	1	7/3/2012 8:15:42 PM
Toluene	ND	1.0		µg/L	1	7/3/2012 8:15:42 PM
Ethylbenzene	ND	1.0		µg/L	1	7/3/2012 8:15:42 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/3/2012 8:15:42 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/3/2012 8:15:42 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/3/2012 8:15:42 PM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/3/2012 8:15:42 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/3/2012 8:15:42 PM
Naphthalene	ND	2.0		µg/L	1	7/3/2012 8:15:42 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/3/2012 8:15:42 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/3/2012 8:15:42 PM
Acetone	ND	10		µg/L	1	7/3/2012 8:15:42 PM
Bromobenzene	ND	1.0		µg/L	1	7/3/2012 8:15:42 PM
Bromodichloromethane	ND	1.0		µg/L	1	7/3/2012 8:15:42 PM
Bromoform	ND	1.0		µg/L	1	7/3/2012 8:15:42 PM
Bromomethane	ND	3.0		µg/L	1	7/3/2012 8:15:42 PM
2-Butanone	ND	10		µg/L	1	7/3/2012 8:15:42 PM
Carbon disulfide	ND	10		µg/L	1	7/3/2012 8:15:42 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	7/3/2012 8:15:42 PM
Chlorobenzene	ND	1.0		µg/L	1	7/3/2012 8:15:42 PM
Chloroethane	ND	2.0		µg/L	1	7/3/2012 8:15:42 PM
Chloroform	ND	1.0		µg/L	1	7/3/2012 8:15:42 PM
Chloromethane	ND	3.0		µg/L	1	7/3/2012 8:15:42 PM
2-Chlorotoluene	ND	1.0		µg/L	1	7/3/2012 8:15:42 PM
4-Chlorotoluene	ND	1.0		µg/L	1	7/3/2012 8:15:42 PM
cis-1,2-DCE	ND	1.0		µg/L	1	7/3/2012 8:15:42 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/3/2012 8:15:42 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/3/2012 8:15:42 PM
Dibromochloromethane	ND	1.0		µg/L	1	7/3/2012 8:15:42 PM
Dibromomethane	ND	1.0		µg/L	1	7/3/2012 8:15:42 PM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/3/2012 8:15:42 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/3/2012 8:15:42 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/3/2012 8:15:42 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/3/2012 8:15:42 PM
1,1-Dichloroethane	1.7	1.0		µg/L	1	7/3/2012 8:15:42 PM
1,1-Dichloroethene	1.6	1.0		µg/L	1	7/3/2012 8:15:42 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/3/2012 8:15:42 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/3/2012 8:15:42 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/3/2012 8:15:42 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/3/2012 8:15:42 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/3/2012 8:15:42 PM
2-Hexanone	ND	10		µg/L	1	7/3/2012 8:15:42 PM

**Qualifiers:**

- \*/X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
RL Reporting Detection Limit  
U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1206C61

Date Reported: 7/10/2012

**CLIENT:** Cypress Engineering

**Project:** Transwestern Pipeline Co WT-1 ERP

**Lab ID:** 1206C61-003

**Client Sample ID:** MW-15

**Collection Date:** 6/26/2012 4:57:00 PM

**Matrix:** AQUEOUS

**Received Date:** 6/29/2012 12:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						
Isopropylbenzene	ND	1.0		µg/L	1	7/3/2012 8:15:42 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/3/2012 8:15:42 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/3/2012 8:15:42 PM
Methylene Chloride	ND	3.0		µg/L	1	7/3/2012 8:15:42 PM
n-Butylbenzene	ND	1.0		µg/L	1	7/3/2012 8:15:42 PM
n-Propylbenzene	ND	1.0		µg/L	1	7/3/2012 8:15:42 PM
sec-Butylbenzene	ND	1.0		µg/L	1	7/3/2012 8:15:42 PM
Styrene	ND	1.0		µg/L	1	7/3/2012 8:15:42 PM
tert-Butylbenzene	ND	1.0		µg/L	1	7/3/2012 8:15:42 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/3/2012 8:15:42 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/3/2012 8:15:42 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/3/2012 8:15:42 PM
trans-1,2-DCE	ND	1.0		µg/L	1	7/3/2012 8:15:42 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/3/2012 8:15:42 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/3/2012 8:15:42 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/3/2012 8:15:42 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/3/2012 8:15:42 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/3/2012 8:15:42 PM
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/3/2012 8:15:42 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/3/2012 8:15:42 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/3/2012 8:15:42 PM
Vinyl chloride	ND	1.0		µg/L	1	7/3/2012 8:15:42 PM
Xylenes, Total	ND	1.5		µg/L	1	7/3/2012 8:15:42 PM
Surr: 1,2-Dichloroethane-d4	95.8	70-130		%REC	1	7/3/2012 8:15:42 PM
Surr: 4-Bromofluorobenzene	117	70-130		%REC	1	7/3/2012 8:15:42 PM
Surr: Dibromofluoromethane	106	69.8-130		%REC	1	7/3/2012 8:15:42 PM
Surr: Toluene-d8	94.0	70-130		%REC	1	7/3/2012 8:15:42 PM

**Qualifiers:**

- \*/\* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
RL Reporting Detection Limit  
U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1206C61

Date Reported: 7/10/2012

**CLIENT:** Cypress Engineering

**Project:** Transwestern Pipeline Co WT-1 ERP

**Lab ID:** 1206C61-004

**Matrix:** AQUEOUS

**Client Sample ID:** MW-5

**Collection Date:** 6/27/2012 1:45:00 PM

**Received Date:** 6/29/2012 12:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						
Benzene	14	5.0		µg/L	5	7/3/2012 10:36:53 PM
Toluene	ND	5.0		µg/L	5	7/3/2012 10:36:53 PM
Ethylbenzene	5.6	5.0		µg/L	5	7/3/2012 10:36:53 PM
Methyl tert-butyl ether (MTBE)	ND	5.0		µg/L	5	7/3/2012 10:36:53 PM
1,2,4-Trimethylbenzene	9.4	5.0		µg/L	5	7/3/2012 10:36:53 PM
1,3,5-Trimethylbenzene	ND	5.0		µg/L	5	7/3/2012 10:36:53 PM
1,2-Dichloroethane (EDC)	ND	5.0		µg/L	5	7/3/2012 10:36:53 PM
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	7/3/2012 10:36:53 PM
Naphthalene	ND	10		µg/L	5	7/3/2012 10:36:53 PM
1-Methylnaphthalene	ND	20		µg/L	5	7/3/2012 10:36:53 PM
2-Methylnaphthalene	ND	20		µg/L	5	7/3/2012 10:36:53 PM
Acetone	ND	50		µg/L	5	7/3/2012 10:36:53 PM
Bromobenzene	ND	5.0		µg/L	5	7/3/2012 10:36:53 PM
Bromodichloromethane	ND	5.0		µg/L	5	7/3/2012 10:36:53 PM
Bromoform	ND	5.0		µg/L	5	7/3/2012 10:36:53 PM
Bromomethane	ND	15		µg/L	5	7/3/2012 10:36:53 PM
2-Butanone	ND	50		µg/L	5	7/3/2012 10:36:53 PM
Carbon disulfide	ND	50		µg/L	5	7/3/2012 10:36:53 PM
Carbon Tetrachloride	ND	5.0		µg/L	5	7/3/2012 10:36:53 PM
Chlorobenzene	ND	5.0		µg/L	5	7/3/2012 10:36:53 PM
Chloroethane	ND	10		µg/L	5	7/3/2012 10:36:53 PM
Chloroform	ND	5.0		µg/L	5	7/3/2012 10:36:53 PM
Chloromethane	ND	15		µg/L	5	7/3/2012 10:36:53 PM
2-Chlorotoluene	ND	5.0		µg/L	5	7/3/2012 10:36:53 PM
4-Chlorotoluene	ND	5.0		µg/L	5	7/3/2012 10:36:53 PM
cis-1,2-DCE	43	5.0		µg/L	5	7/3/2012 10:36:53 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	7/3/2012 10:36:53 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	7/3/2012 10:36:53 PM
Dibromochloromethane	ND	5.0		µg/L	5	7/3/2012 10:36:53 PM
Dibromomethane	ND	5.0		µg/L	5	7/3/2012 10:36:53 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	5	7/3/2012 10:36:53 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	5	7/3/2012 10:36:53 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	5	7/3/2012 10:36:53 PM
Dichlorodifluoromethane	ND	5.0		µg/L	5	7/3/2012 10:36:53 PM
1,1-Dichloroethane	72	5.0		µg/L	5	7/3/2012 10:36:53 PM
1,1-Dichloroethene	ND	5.0		µg/L	5	7/3/2012 10:36:53 PM
1,2-Dichloropropane	ND	5.0		µg/L	5	7/3/2012 10:36:53 PM
1,3-Dichloropropane	ND	5.0		µg/L	5	7/3/2012 10:36:53 PM
2,2-Dichloropropane	ND	10		µg/L	5	7/3/2012 10:36:53 PM
1,1-Dichloropropene	ND	5.0		µg/L	5	7/3/2012 10:36:53 PM
Hexachlorobutadiene	ND	5.0		µg/L	5	7/3/2012 10:36:53 PM
2-Hexanone	ND	50		µg/L	5	7/3/2012 10:36:53 PM

**Qualifiers:**

- \*/X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
RL Reporting Detection Limit  
U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1206C61

Date Reported: 7/10/2012

**CLIENT:** Cypress Engineering

**Project:** Transwestern Pipeline Co WT-1 ERP

**Lab ID:** 1206C61-004

**Matrix:** AQUEOUS

**Client Sample ID:** MW-5

**Collection Date:** 6/27/2012 1:45:00 PM

**Received Date:** 6/29/2012 12:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						
Isopropylbenzene	ND	5.0		µg/L	5	7/3/2012 10:36:53 PM
4-Isopropyltoluene	ND	5.0		µg/L	5	7/3/2012 10:36:53 PM
4-Methyl-2-pentanone	ND	50		µg/L	5	7/3/2012 10:36:53 PM
Methylene Chloride	ND	15		µg/L	5	7/3/2012 10:36:53 PM
n-Butylbenzene	ND	5.0		µg/L	5	7/3/2012 10:36:53 PM
n-Propylbenzene	ND	5.0		µg/L	5	7/3/2012 10:36:53 PM
sec-Butylbenzene	ND	5.0		µg/L	5	7/3/2012 10:36:53 PM
Styrene	ND	5.0		µg/L	5	7/3/2012 10:36:53 PM
tert-Butylbenzene	ND	5.0		µg/L	5	7/3/2012 10:36:53 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	7/3/2012 10:36:53 PM
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	7/3/2012 10:36:53 PM
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	7/3/2012 10:36:53 PM
trans-1,2-DCE	ND	5.0		µg/L	5	7/3/2012 10:36:53 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	7/3/2012 10:36:53 PM
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	7/3/2012 10:36:53 PM
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	7/3/2012 10:36:53 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	5	7/3/2012 10:36:53 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	5	7/3/2012 10:36:53 PM
Trichloroethene (TCE)	27	5.0		µg/L	5	7/3/2012 10:36:53 PM
Trichlorofluoromethane	ND	5.0		µg/L	5	7/3/2012 10:36:53 PM
1,2,3-Trichloropropane	ND	10		µg/L	5	7/3/2012 10:36:53 PM
Vinyl chloride	ND	5.0		µg/L	5	7/3/2012 10:36:53 PM
Xylenes, Total	8.2	7.5		µg/L	5	7/3/2012 10:36:53 PM
Surr: 1,2-Dichloroethane-d4	97.1	70-130		%REC	5	7/3/2012 10:36:53 PM
Surr: 4-Bromofluorobenzene	108	70-130		%REC	5	7/3/2012 10:36:53 PM
Surr: Dibromofluoromethane	104	69.8-130		%REC	5	7/3/2012 10:36:53 PM
Surr: Toluene-d8	92.1	70-130		%REC	5	7/3/2012 10:36:53 PM

**Qualifiers:**

- \*/\* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
RL Reporting Detection Limit  
U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1206C61

Date Reported: 7/10/2012

**CLIENT:** Cypress Engineering

**Project:** Transwestern Pipeline Co WT-1 ERP

**Lab ID:** 1206C61-005

**Matrix:** AQUEOUS

**Client Sample ID:** MW-8

**Collection Date:** 6/27/2012 11:10:00 AM

**Received Date:** 6/29/2012 12:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						
Benzene	3.6	1.0		µg/L	1	7/3/2012 11:33:13 PM
Toluene	ND	1.0		µg/L	1	7/3/2012 11:33:13 PM
Ethylbenzene	ND	1.0		µg/L	1	7/3/2012 11:33:13 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/3/2012 11:33:13 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/3/2012 11:33:13 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/3/2012 11:33:13 PM
1,2-Dichloroethane (EDC)	1.0	1.0		µg/L	1	7/3/2012 11:33:13 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/3/2012 11:33:13 PM
Naphthalene	ND	2.0		µg/L	1	7/3/2012 11:33:13 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/3/2012 11:33:13 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/3/2012 11:33:13 PM
Acetone	14	10		µg/L	1	7/3/2012 11:33:13 PM
Bromobenzene	ND	1.0		µg/L	1	7/3/2012 11:33:13 PM
Bromodichloromethane	ND	1.0		µg/L	1	7/3/2012 11:33:13 PM
Bromoform	ND	1.0		µg/L	1	7/3/2012 11:33:13 PM
Bromomethane	ND	3.0		µg/L	1	7/3/2012 11:33:13 PM
2-Butanone	ND	10		µg/L	1	7/3/2012 11:33:13 PM
Carbon disulfide	ND	10		µg/L	1	7/3/2012 11:33:13 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	7/3/2012 11:33:13 PM
Chlorobenzene	ND	1.0		µg/L	1	7/3/2012 11:33:13 PM
Chloroethane	ND	2.0		µg/L	1	7/3/2012 11:33:13 PM
Chloroform	ND	1.0		µg/L	1	7/3/2012 11:33:13 PM
Chloromethane	ND	3.0		µg/L	1	7/3/2012 11:33:13 PM
2-Chlorotoluene	ND	1.0		µg/L	1	7/3/2012 11:33:13 PM
4-Chlorotoluene	ND	1.0		µg/L	1	7/3/2012 11:33:13 PM
cis-1,2-DCE	58	1.0		µg/L	1	7/3/2012 11:33:13 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/3/2012 11:33:13 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/3/2012 11:33:13 PM
Dibromochloromethane	ND	1.0		µg/L	1	7/3/2012 11:33:13 PM
Dibromomethane	ND	1.0		µg/L	1	7/3/2012 11:33:13 PM
1,2-Dichlorobenzene	1.5	1.0		µg/L	1	7/3/2012 11:33:13 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/3/2012 11:33:13 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/3/2012 11:33:13 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/3/2012 11:33:13 PM
1,1-Dichloroethane	49	1.0		µg/L	1	7/3/2012 11:33:13 PM
1,1-Dichloroethene	3.0	1.0		µg/L	1	7/3/2012 11:33:13 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/3/2012 11:33:13 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/3/2012 11:33:13 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/3/2012 11:33:13 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/3/2012 11:33:13 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/3/2012 11:33:13 PM
2-Hexanone	ND	10		µg/L	1	7/3/2012 11:33:13 PM

**Qualifiers:**

- \*/X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1206C61

Date Reported: 7/10/2012

**CLIENT:** Cypress Engineering

**Project:** Transwestern Pipeline Co WT-1 ERP

**Lab ID:** 1206C61-005

**Matrix:** AQUEOUS

**Client Sample ID:** MW-8

**Collection Date:** 6/27/2012 11:10:00 AM

**Received Date:** 6/29/2012 12:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						
Isopropylbenzene	ND	1.0		µg/L	1	7/3/2012 11:33:13 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/3/2012 11:33:13 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/3/2012 11:33:13 PM
Methylene Chloride	ND	3.0		µg/L	1	7/3/2012 11:33:13 PM
n-Butylbenzene	ND	1.0		µg/L	1	7/3/2012 11:33:13 PM
n-Propylbenzene	ND	1.0		µg/L	1	7/3/2012 11:33:13 PM
sec-Butylbenzene	ND	1.0		µg/L	1	7/3/2012 11:33:13 PM
Styrene	ND	1.0		µg/L	1	7/3/2012 11:33:13 PM
tert-Butylbenzene	ND	1.0		µg/L	1	7/3/2012 11:33:13 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/3/2012 11:33:13 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/3/2012 11:33:13 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/3/2012 11:33:13 PM
trans-1,2-DCE	1.1	1.0		µg/L	1	7/3/2012 11:33:13 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/3/2012 11:33:13 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/3/2012 11:33:13 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/3/2012 11:33:13 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/3/2012 11:33:13 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/3/2012 11:33:13 PM
Trichloroethene (TCE)	29	1.0		µg/L	1	7/3/2012 11:33:13 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/3/2012 11:33:13 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/3/2012 11:33:13 PM
Vinyl chloride	ND	1.0		µg/L	1	7/3/2012 11:33:13 PM
Xylenes, Total	ND	1.5		µg/L	1	7/3/2012 11:33:13 PM
Surr: 1,2-Dichloroethane-d4	96.6	70-130		%REC	1	7/3/2012 11:33:13 PM
Surr: 4-Bromofluorobenzene	108	70-130		%REC	1	7/3/2012 11:33:13 PM
Surr: Dibromofluoromethane	100	69.8-130		%REC	1	7/3/2012 11:33:13 PM
Surr: Toluene-d8	91.7	70-130		%REC	1	7/3/2012 11:33:13 PM

**Qualifiers:**

- \*/\* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
RL Reporting Detection Limit  
U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1206C61

Date Reported: 7/10/2012

**CLIENT:** Cypress Engineering

**Project:** Transwestern Pipeline Co WT-1 ERP

**Lab ID:** 1206C61-006

**Matrix:** AQUEOUS

**Client Sample ID:** MW-18

**Collection Date:** 6/27/2012 8:10:00 AM

**Received Date:** 6/29/2012 12:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						
Benzene	3.7	1.0		µg/L	1	7/5/2012 4:59:21 PM
Toluene	ND	1.0		µg/L	1	7/5/2012 4:59:21 PM
Ethylbenzene	ND	1.0		µg/L	1	7/5/2012 4:59:21 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/5/2012 4:59:21 PM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/5/2012 4:59:21 PM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/5/2012 4:59:21 PM
1,2-Dichloroethane (EDC)	1.1	1.0		µg/L	1	7/5/2012 4:59:21 PM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/5/2012 4:59:21 PM
Naphthalene	ND	2.0		µg/L	1	7/5/2012 4:59:21 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/5/2012 4:59:21 PM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/5/2012 4:59:21 PM
Acetone	ND	10		µg/L	1	7/5/2012 4:59:21 PM
Bromobenzene	ND	1.0		µg/L	1	7/5/2012 4:59:21 PM
Bromodichloromethane	ND	1.0		µg/L	1	7/5/2012 4:59:21 PM
Bromoform	ND	1.0		µg/L	1	7/5/2012 4:59:21 PM
Bromomethane	ND	3.0		µg/L	1	7/5/2012 4:59:21 PM
2-Butanone	ND	10		µg/L	1	7/5/2012 4:59:21 PM
Carbon disulfide	ND	10		µg/L	1	7/5/2012 4:59:21 PM
Carbon Tetrachloride	ND	1.0		µg/L	1	7/5/2012 4:59:21 PM
Chlorobenzene	ND	1.0		µg/L	1	7/5/2012 4:59:21 PM
Chloroethane	ND	2.0		µg/L	1	7/5/2012 4:59:21 PM
Chloroform	ND	1.0		µg/L	1	7/5/2012 4:59:21 PM
Chloromethane	ND	3.0		µg/L	1	7/5/2012 4:59:21 PM
2-Chlorotoluene	ND	1.0		µg/L	1	7/5/2012 4:59:21 PM
4-Chlorotoluene	ND	1.0		µg/L	1	7/5/2012 4:59:21 PM
cis-1,2-DCE	58	1.0		µg/L	1	7/5/2012 4:59:21 PM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/5/2012 4:59:21 PM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/5/2012 4:59:21 PM
Dibromochloromethane	ND	1.0		µg/L	1	7/5/2012 4:59:21 PM
Dibromomethane	ND	1.0		µg/L	1	7/5/2012 4:59:21 PM
1,2-Dichlorobenzene	1.4	1.0		µg/L	1	7/5/2012 4:59:21 PM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/5/2012 4:59:21 PM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/5/2012 4:59:21 PM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/5/2012 4:59:21 PM
1,1-Dichloroethane	46	1.0		µg/L	1	7/5/2012 4:59:21 PM
1,1-Dichloroethene	2.8	1.0		µg/L	1	7/5/2012 4:59:21 PM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/5/2012 4:59:21 PM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/5/2012 4:59:21 PM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/5/2012 4:59:21 PM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/5/2012 4:59:21 PM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/5/2012 4:59:21 PM
2-Hexanone	ND	10		µg/L	1	7/5/2012 4:59:21 PM

**Qualifiers:**

- \*/X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1206C61

Date Reported: 7/10/2012

**CLIENT:** Cypress Engineering

**Project:** Transwestern Pipeline Co WT-1 ERP

**Lab ID:** 1206C61-006

**Matrix:** AQUEOUS

**Client Sample ID:** MW-18

**Collection Date:** 6/27/2012 8:10:00 AM

**Received Date:** 6/29/2012 12:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						
Isopropylbenzene	ND	1.0		µg/L	1	7/5/2012 4:59:21 PM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/5/2012 4:59:21 PM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/5/2012 4:59:21 PM
Methylene Chloride	ND	3.0		µg/L	1	7/5/2012 4:59:21 PM
n-Butylbenzene	ND	1.0		µg/L	1	7/5/2012 4:59:21 PM
n-Propylbenzene	ND	1.0		µg/L	1	7/5/2012 4:59:21 PM
sec-Butylbenzene	ND	1.0		µg/L	1	7/5/2012 4:59:21 PM
Styrene	ND	1.0		µg/L	1	7/5/2012 4:59:21 PM
tert-Butylbenzene	ND	1.0		µg/L	1	7/5/2012 4:59:21 PM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/5/2012 4:59:21 PM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/5/2012 4:59:21 PM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/5/2012 4:59:21 PM
trans-1,2-DCE	ND	1.0		µg/L	1	7/5/2012 4:59:21 PM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/5/2012 4:59:21 PM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/5/2012 4:59:21 PM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/5/2012 4:59:21 PM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/5/2012 4:59:21 PM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/5/2012 4:59:21 PM
Trichloroethene (TCE)	27	1.0		µg/L	1	7/5/2012 4:59:21 PM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/5/2012 4:59:21 PM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/5/2012 4:59:21 PM
Vinyl chloride	ND	1.0		µg/L	1	7/5/2012 4:59:21 PM
Xylenes, Total	ND	1.5		µg/L	1	7/5/2012 4:59:21 PM
Surr: 1,2-Dichloroethane-d4	94.4	70-130		%REC	1	7/5/2012 4:59:21 PM
Surr: 4-Bromofluorobenzene	107	70-130		%REC	1	7/5/2012 4:59:21 PM
Surr: Dibromofluoromethane	105	69.8-130		%REC	1	7/5/2012 4:59:21 PM
Surr: Toluene-d8	94.9	70-130		%REC	1	7/5/2012 4:59:21 PM

**Qualifiers:**

- \*/\* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
RL Reporting Detection Limit  
U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1206C61

Date Reported: 7/10/2012

**CLIENT:** Cypress Engineering

**Project:** Transwestern Pipeline Co WT-1 ERP

**Lab ID:** 1206C61-007

**Matrix:** AQUEOUS

**Client Sample ID:** MW-6

**Collection Date:** 6/27/2012 12:00:00 PM

**Received Date:** 6/29/2012 12:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						
Benzene	ND	1.0		µg/L	1	7/4/2012 12:57:50 AM
Toluene	ND	1.0		µg/L	1	7/4/2012 12:57:50 AM
Ethylbenzene	ND	1.0		µg/L	1	7/4/2012 12:57:50 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/4/2012 12:57:50 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/4/2012 12:57:50 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/4/2012 12:57:50 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/4/2012 12:57:50 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/4/2012 12:57:50 AM
Naphthalene	ND	2.0		µg/L	1	7/4/2012 12:57:50 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/4/2012 12:57:50 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/4/2012 12:57:50 AM
Acetone	ND	10		µg/L	1	7/4/2012 12:57:50 AM
Bromobenzene	ND	1.0		µg/L	1	7/4/2012 12:57:50 AM
Bromodichloromethane	ND	1.0		µg/L	1	7/4/2012 12:57:50 AM
Bromoform	ND	1.0		µg/L	1	7/4/2012 12:57:50 AM
Bromomethane	ND	3.0		µg/L	1	7/4/2012 12:57:50 AM
2-Butanone	ND	10		µg/L	1	7/4/2012 12:57:50 AM
Carbon disulfide	ND	10		µg/L	1	7/4/2012 12:57:50 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	7/4/2012 12:57:50 AM
Chlorobenzene	ND	1.0		µg/L	1	7/4/2012 12:57:50 AM
Chloroethane	ND	2.0		µg/L	1	7/4/2012 12:57:50 AM
Chloroform	ND	1.0		µg/L	1	7/4/2012 12:57:50 AM
Chloromethane	ND	3.0		µg/L	1	7/4/2012 12:57:50 AM
2-Chlorotoluene	ND	1.0		µg/L	1	7/4/2012 12:57:50 AM
4-Chlorotoluene	ND	1.0		µg/L	1	7/4/2012 12:57:50 AM
cis-1,2-DCE	2.0	1.0		µg/L	1	7/4/2012 12:57:50 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/4/2012 12:57:50 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/4/2012 12:57:50 AM
Dibromochloromethane	ND	1.0		µg/L	1	7/4/2012 12:57:50 AM
Dibromomethane	ND	1.0		µg/L	1	7/4/2012 12:57:50 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/4/2012 12:57:50 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/4/2012 12:57:50 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/4/2012 12:57:50 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/4/2012 12:57:50 AM
1,1-Dichloroethane	3.4	1.0		µg/L	1	7/4/2012 12:57:50 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	7/4/2012 12:57:50 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/4/2012 12:57:50 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/4/2012 12:57:50 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/4/2012 12:57:50 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/4/2012 12:57:50 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/4/2012 12:57:50 AM
2-Hexanone	ND	10		µg/L	1	7/4/2012 12:57:50 AM

**Qualifiers:**

- \*/X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

**Analytical Report**  
 Lab Order **1206C61**  
 Date Reported: **7/10/2012**

**CLIENT:** Cypress Engineering

**Project:** Transwestern Pipeline Co WT-1 ERP

**Lab ID:** 1206C61-007

**Matrix:** AQUEOUS

**Client Sample ID:** MW-6

**Collection Date:** 6/27/2012 12:00:00 PM

**Received Date:** 6/29/2012 12:00:00 PM

<b>Analyses</b>	<b>Result</b>	<b>RL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
<b>EPA METHOD 8260B: VOLATILES</b>						
Isopropylbenzene	ND	1.0		µg/L	1	7/4/2012 12:57:50 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/4/2012 12:57:50 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/4/2012 12:57:50 AM
Methylene Chloride	ND	3.0		µg/L	1	7/4/2012 12:57:50 AM
n-Butylbenzene	ND	1.0		µg/L	1	7/4/2012 12:57:50 AM
n-Propylbenzene	ND	1.0		µg/L	1	7/4/2012 12:57:50 AM
sec-Butylbenzene	ND	1.0		µg/L	1	7/4/2012 12:57:50 AM
Styrene	ND	1.0		µg/L	1	7/4/2012 12:57:50 AM
tert-Butylbenzene	ND	1.0		µg/L	1	7/4/2012 12:57:50 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/4/2012 12:57:50 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/4/2012 12:57:50 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/4/2012 12:57:50 AM
trans-1,2-DCE	ND	1.0		µg/L	1	7/4/2012 12:57:50 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/4/2012 12:57:50 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/4/2012 12:57:50 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/4/2012 12:57:50 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/4/2012 12:57:50 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/4/2012 12:57:50 AM
Trichloroethene (TCE)	5.1	1.0		µg/L	1	7/4/2012 12:57:50 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/4/2012 12:57:50 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/4/2012 12:57:50 AM
Vinyl chloride	ND	1.0		µg/L	1	7/4/2012 12:57:50 AM
Xylenes, Total	ND	1.5		µg/L	1	7/4/2012 12:57:50 AM
Surr: 1,2-Dichloroethane-d4	92.8	70-130		%REC	1	7/4/2012 12:57:50 AM
Surr: 4-Bromofluorobenzene	110	70-130		%REC	1	7/4/2012 12:57:50 AM
Surr: Dibromofluoromethane	104	69.8-130		%REC	1	7/4/2012 12:57:50 AM
Surr: Toluene-d8	94.4	70-130		%REC	1	7/4/2012 12:57:50 AM

**Qualifiers:**

- \*/\* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 RL Reporting Detection Limit  
 U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1206C61

Date Reported: 7/10/2012

**CLIENT:** Cypress Engineering

**Project:** Transwestern Pipeline Co WT-1 ERP

**Lab ID:** 1206C61-008

**Matrix:** AQUEOUS

**Client Sample ID:** MW-17

**Collection Date:** 6/27/2012 12:58:00 PM

**Received Date:** 6/29/2012 12:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						
Benzene	ND	1.0		µg/L	1	7/4/2012 1:26:02 AM
Toluene	ND	1.0		µg/L	1	7/4/2012 1:26:02 AM
Ethylbenzene	ND	1.0		µg/L	1	7/4/2012 1:26:02 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/4/2012 1:26:02 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/4/2012 1:26:02 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/4/2012 1:26:02 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/4/2012 1:26:02 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/4/2012 1:26:02 AM
Naphthalene	ND	2.0		µg/L	1	7/4/2012 1:26:02 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/4/2012 1:26:02 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/4/2012 1:26:02 AM
Acetone	ND	10		µg/L	1	7/4/2012 1:26:02 AM
Bromobenzene	ND	1.0		µg/L	1	7/4/2012 1:26:02 AM
Bromodichloromethane	ND	1.0		µg/L	1	7/4/2012 1:26:02 AM
Bromoform	ND	1.0		µg/L	1	7/4/2012 1:26:02 AM
Bromomethane	ND	3.0		µg/L	1	7/4/2012 1:26:02 AM
2-Butanone	ND	10		µg/L	1	7/4/2012 1:26:02 AM
Carbon disulfide	ND	10		µg/L	1	7/4/2012 1:26:02 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	7/4/2012 1:26:02 AM
Chlorobenzene	ND	1.0		µg/L	1	7/4/2012 1:26:02 AM
Chloroethane	ND	2.0		µg/L	1	7/4/2012 1:26:02 AM
Chloroform	1.3	1.0		µg/L	1	7/4/2012 1:26:02 AM
Chloromethane	ND	3.0		µg/L	1	7/4/2012 1:26:02 AM
2-Chlorotoluene	ND	1.0		µg/L	1	7/4/2012 1:26:02 AM
4-Chlorotoluene	ND	1.0		µg/L	1	7/4/2012 1:26:02 AM
cis-1,2-DCE	ND	1.0		µg/L	1	7/4/2012 1:26:02 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/4/2012 1:26:02 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/4/2012 1:26:02 AM
Dibromochloromethane	ND	1.0		µg/L	1	7/4/2012 1:26:02 AM
Dibromomethane	ND	1.0		µg/L	1	7/4/2012 1:26:02 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/4/2012 1:26:02 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/4/2012 1:26:02 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/4/2012 1:26:02 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/4/2012 1:26:02 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	7/4/2012 1:26:02 AM
1,1-Dichloroethene	1.1	1.0		µg/L	1	7/4/2012 1:26:02 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/4/2012 1:26:02 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/4/2012 1:26:02 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/4/2012 1:26:02 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/4/2012 1:26:02 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/4/2012 1:26:02 AM
2-Hexanone	ND	10		µg/L	1	7/4/2012 1:26:02 AM

**Qualifiers:**

- \*/X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1206C61

Date Reported: 7/10/2012

**CLIENT:** Cypress Engineering

**Project:** Transwestern Pipeline Co WT-1 ERP

**Lab ID:** 1206C61-008

**Matrix:** AQUEOUS

**Client Sample ID:** MW-17

**Collection Date:** 6/27/2012 12:58:00 PM

**Received Date:** 6/29/2012 12:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						
Isopropylbenzene	ND	1.0		µg/L	1	7/4/2012 1:26:02 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/4/2012 1:26:02 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/4/2012 1:26:02 AM
Methylene Chloride	ND	3.0		µg/L	1	7/4/2012 1:26:02 AM
n-Butylbenzene	ND	1.0		µg/L	1	7/4/2012 1:26:02 AM
n-Propylbenzene	ND	1.0		µg/L	1	7/4/2012 1:26:02 AM
sec-Butylbenzene	ND	1.0		µg/L	1	7/4/2012 1:26:02 AM
Styrene	ND	1.0		µg/L	1	7/4/2012 1:26:02 AM
tert-Butylbenzene	ND	1.0		µg/L	1	7/4/2012 1:26:02 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/4/2012 1:26:02 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/4/2012 1:26:02 AM
Tetrachloroethene (PCE)	1.5	1.0		µg/L	1	7/4/2012 1:26:02 AM
trans-1,2-DCE	ND	1.0		µg/L	1	7/4/2012 1:26:02 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/4/2012 1:26:02 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/4/2012 1:26:02 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/4/2012 1:26:02 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/4/2012 1:26:02 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/4/2012 1:26:02 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/4/2012 1:26:02 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/4/2012 1:26:02 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/4/2012 1:26:02 AM
Vinyl chloride	ND	1.0		µg/L	1	7/4/2012 1:26:02 AM
Xylenes, Total	ND	1.5		µg/L	1	7/4/2012 1:26:02 AM
Surr: 1,2-Dichloroethane-d4	94.7	70-130		%REC	1	7/4/2012 1:26:02 AM
Surr: 4-Bromofluorobenzene	114	70-130		%REC	1	7/4/2012 1:26:02 AM
Surr: Dibromofluoromethane	101	69.8-130		%REC	1	7/4/2012 1:26:02 AM
Surr: Toluene-d8	93.9	70-130		%REC	1	7/4/2012 1:26:02 AM

**Qualifiers:**

- \*/\* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
RL Reporting Detection Limit  
U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1206C61

Date Reported: 7/10/2012

**CLIENT:** Cypress Engineering

**Project:** Transwestern Pipeline Co WT-1 ERP

**Lab ID:** 1206C61-009

**Client Sample ID:** MW-14

**Collection Date:** 6/27/2012 1:26:00 PM

**Matrix:** AQUEOUS

**Received Date:** 6/29/2012 12:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						
Benzene	ND	1.0		µg/L	1	7/4/2012 1:54:13 AM
Toluene	ND	1.0		µg/L	1	7/4/2012 1:54:13 AM
Ethylbenzene	ND	1.0		µg/L	1	7/4/2012 1:54:13 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/4/2012 1:54:13 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/4/2012 1:54:13 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/4/2012 1:54:13 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/4/2012 1:54:13 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/4/2012 1:54:13 AM
Naphthalene	ND	2.0		µg/L	1	7/4/2012 1:54:13 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/4/2012 1:54:13 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/4/2012 1:54:13 AM
Acetone	ND	10		µg/L	1	7/4/2012 1:54:13 AM
Bromobenzene	ND	1.0		µg/L	1	7/4/2012 1:54:13 AM
Bromodichloromethane	ND	1.0		µg/L	1	7/4/2012 1:54:13 AM
Bromoform	ND	1.0		µg/L	1	7/4/2012 1:54:13 AM
Bromomethane	ND	3.0		µg/L	1	7/4/2012 1:54:13 AM
2-Butanone	ND	10		µg/L	1	7/4/2012 1:54:13 AM
Carbon disulfide	ND	10		µg/L	1	7/4/2012 1:54:13 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	7/4/2012 1:54:13 AM
Chlorobenzene	ND	1.0		µg/L	1	7/4/2012 1:54:13 AM
Chloroethane	ND	2.0		µg/L	1	7/4/2012 1:54:13 AM
Chloroform	ND	1.0		µg/L	1	7/4/2012 1:54:13 AM
Chloromethane	ND	3.0		µg/L	1	7/4/2012 1:54:13 AM
2-Chlorotoluene	ND	1.0		µg/L	1	7/4/2012 1:54:13 AM
4-Chlorotoluene	ND	1.0		µg/L	1	7/4/2012 1:54:13 AM
cis-1,2-DCE	ND	1.0		µg/L	1	7/4/2012 1:54:13 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/4/2012 1:54:13 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/4/2012 1:54:13 AM
Dibromochloromethane	ND	1.0		µg/L	1	7/4/2012 1:54:13 AM
Dibromomethane	ND	1.0		µg/L	1	7/4/2012 1:54:13 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/4/2012 1:54:13 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/4/2012 1:54:13 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/4/2012 1:54:13 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/4/2012 1:54:13 AM
1,1-Dichloroethane	12	1.0		µg/L	1	7/4/2012 1:54:13 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	7/4/2012 1:54:13 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/4/2012 1:54:13 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/4/2012 1:54:13 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/4/2012 1:54:13 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/4/2012 1:54:13 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/4/2012 1:54:13 AM
2-Hexanone	ND	10		µg/L	1	7/4/2012 1:54:13 AM

**Qualifiers:**

- \*/X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1206C61

Date Reported: 7/10/2012

**CLIENT:** Cypress Engineering

**Project:** Transwestern Pipeline Co WT-1 ERP

**Lab ID:** 1206C61-009

**Matrix:** AQUEOUS

**Client Sample ID:** MW-14

**Collection Date:** 6/27/2012 1:26:00 PM

**Received Date:** 6/29/2012 12:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						
Isopropylbenzene	ND	1.0		µg/L	1	7/4/2012 1:54:13 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/4/2012 1:54:13 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/4/2012 1:54:13 AM
Methylene Chloride	ND	3.0		µg/L	1	7/4/2012 1:54:13 AM
n-Butylbenzene	ND	1.0		µg/L	1	7/4/2012 1:54:13 AM
n-Propylbenzene	ND	1.0		µg/L	1	7/4/2012 1:54:13 AM
sec-Butylbenzene	ND	1.0		µg/L	1	7/4/2012 1:54:13 AM
Styrene	ND	1.0		µg/L	1	7/4/2012 1:54:13 AM
tert-Butylbenzene	ND	1.0		µg/L	1	7/4/2012 1:54:13 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/4/2012 1:54:13 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/4/2012 1:54:13 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/4/2012 1:54:13 AM
trans-1,2-DCE	ND	1.0		µg/L	1	7/4/2012 1:54:13 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/4/2012 1:54:13 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/4/2012 1:54:13 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/4/2012 1:54:13 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/4/2012 1:54:13 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/4/2012 1:54:13 AM
Trichloroethene (TCE)	1.3	1.0		µg/L	1	7/4/2012 1:54:13 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/4/2012 1:54:13 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/4/2012 1:54:13 AM
Vinyl chloride	ND	1.0		µg/L	1	7/4/2012 1:54:13 AM
Xylenes, Total	ND	1.5		µg/L	1	7/4/2012 1:54:13 AM
Surr: 1,2-Dichloroethane-d4	97.2	70-130		%REC	1	7/4/2012 1:54:13 AM
Surr: 4-Bromofluorobenzene	114	70-130		%REC	1	7/4/2012 1:54:13 AM
Surr: Dibromofluoromethane	106	69.8-130		%REC	1	7/4/2012 1:54:13 AM
Surr: Toluene-d8	93.0	70-130		%REC	1	7/4/2012 1:54:13 AM

**Qualifiers:**

- \*/\* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
RL Reporting Detection Limit  
U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1206C61

Date Reported: 7/10/2012

**CLIENT:** Cypress Engineering

**Project:** Transwestern Pipeline Co WT-1 ERP

**Lab ID:** 1206C61-010

**Matrix:** AQUEOUS

**Client Sample ID:** SVE-1A

**Collection Date:** 6/27/2012 1:15:00 PM

**Received Date:** 6/29/2012 12:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						
Benzene	46	10		µg/L	10	7/4/2012 2:22:23 AM
Toluene	34	10		µg/L	10	7/4/2012 2:22:23 AM
Ethylbenzene	26	10		µg/L	10	7/4/2012 2:22:23 AM
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	7/4/2012 2:22:23 AM
1,2,4-Trimethylbenzene	64	10		µg/L	10	7/4/2012 2:22:23 AM
1,3,5-Trimethylbenzene	39	10		µg/L	10	7/4/2012 2:22:23 AM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	7/4/2012 2:22:23 AM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	7/4/2012 2:22:23 AM
Naphthalene	ND	20		µg/L	10	7/4/2012 2:22:23 AM
1-Methylnaphthalene	ND	40		µg/L	10	7/4/2012 2:22:23 AM
2-Methylnaphthalene	ND	40		µg/L	10	7/4/2012 2:22:23 AM
Acetone	ND	100		µg/L	10	7/4/2012 2:22:23 AM
Bromobenzene	ND	10		µg/L	10	7/4/2012 2:22:23 AM
Bromodichloromethane	ND	10		µg/L	10	7/4/2012 2:22:23 AM
Bromoform	ND	10		µg/L	10	7/4/2012 2:22:23 AM
Bromomethane	ND	30		µg/L	10	7/4/2012 2:22:23 AM
2-Butanone	ND	100		µg/L	10	7/4/2012 2:22:23 AM
Carbon disulfide	ND	100		µg/L	10	7/4/2012 2:22:23 AM
Carbon Tetrachloride	ND	10		µg/L	10	7/4/2012 2:22:23 AM
Chlorobenzene	ND	10		µg/L	10	7/4/2012 2:22:23 AM
Chloroethane	ND	20		µg/L	10	7/4/2012 2:22:23 AM
Chloroform	ND	10		µg/L	10	7/4/2012 2:22:23 AM
Chloromethane	ND	30		µg/L	10	7/4/2012 2:22:23 AM
2-Chlorotoluene	ND	10		µg/L	10	7/4/2012 2:22:23 AM
4-Chlorotoluene	ND	10		µg/L	10	7/4/2012 2:22:23 AM
cis-1,2-DCE	310	10		µg/L	10	7/4/2012 2:22:23 AM
cis-1,3-Dichloropropene	ND	10		µg/L	10	7/4/2012 2:22:23 AM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	7/4/2012 2:22:23 AM
Dibromochloromethane	ND	10		µg/L	10	7/4/2012 2:22:23 AM
Dibromomethane	ND	10		µg/L	10	7/4/2012 2:22:23 AM
1,2-Dichlorobenzene	ND	10		µg/L	10	7/4/2012 2:22:23 AM
1,3-Dichlorobenzene	ND	10		µg/L	10	7/4/2012 2:22:23 AM
1,4-Dichlorobenzene	ND	10		µg/L	10	7/4/2012 2:22:23 AM
Dichlorodifluoromethane	ND	10		µg/L	10	7/4/2012 2:22:23 AM
1,1-Dichloroethane	440	10		µg/L	10	7/4/2012 2:22:23 AM
1,1-Dichloroethene	14	10		µg/L	10	7/4/2012 2:22:23 AM
1,2-Dichloropropane	ND	10		µg/L	10	7/4/2012 2:22:23 AM
1,3-Dichloropropane	ND	10		µg/L	10	7/4/2012 2:22:23 AM
2,2-Dichloropropane	ND	20		µg/L	10	7/4/2012 2:22:23 AM
1,1-Dichloropropene	ND	10		µg/L	10	7/4/2012 2:22:23 AM
Hexachlorobutadiene	ND	10		µg/L	10	7/4/2012 2:22:23 AM
2-Hexanone	ND	100		µg/L	10	7/4/2012 2:22:23 AM

**Qualifiers:**

- \*/X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1206C61

Date Reported: 7/10/2012

**CLIENT:** Cypress Engineering

**Project:** Transwestern Pipeline Co WT-1 ERP

**Lab ID:** 1206C61-010

**Client Sample ID:** SVE-1A

**Collection Date:** 6/27/2012 1:15:00 PM

**Matrix:** AQUEOUS

**Received Date:** 6/29/2012 12:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						
Isopropylbenzene	ND	10		µg/L	10	7/4/2012 2:22:23 AM
4-Isopropyltoluene	ND	10		µg/L	10	7/4/2012 2:22:23 AM
4-Methyl-2-pentanone	160	100		µg/L	10	7/4/2012 2:22:23 AM
Methylene Chloride	ND	30		µg/L	10	7/4/2012 2:22:23 AM
n-Butylbenzene	ND	10		µg/L	10	7/4/2012 2:22:23 AM
n-Propylbenzene	ND	10		µg/L	10	7/4/2012 2:22:23 AM
sec-Butylbenzene	ND	10		µg/L	10	7/4/2012 2:22:23 AM
Styrene	ND	10		µg/L	10	7/4/2012 2:22:23 AM
tert-Butylbenzene	ND	10		µg/L	10	7/4/2012 2:22:23 AM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	7/4/2012 2:22:23 AM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	7/4/2012 2:22:23 AM
Tetrachloroethene (PCE)	ND	10		µg/L	10	7/4/2012 2:22:23 AM
trans-1,2-DCE	ND	10		µg/L	10	7/4/2012 2:22:23 AM
trans-1,3-Dichloropropene	ND	10		µg/L	10	7/4/2012 2:22:23 AM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	7/4/2012 2:22:23 AM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	7/4/2012 2:22:23 AM
1,1,1-Trichloroethane	ND	10		µg/L	10	7/4/2012 2:22:23 AM
1,1,2-Trichloroethane	ND	10		µg/L	10	7/4/2012 2:22:23 AM
Trichloroethene (TCE)	34	10		µg/L	10	7/4/2012 2:22:23 AM
Trichlorofluoromethane	ND	10		µg/L	10	7/4/2012 2:22:23 AM
1,2,3-Trichloropropane	ND	20		µg/L	10	7/4/2012 2:22:23 AM
Vinyl chloride	ND	10		µg/L	10	7/4/2012 2:22:23 AM
Xylenes, Total	89	15		µg/L	10	7/4/2012 2:22:23 AM
Surr: 1,2-Dichloroethane-d4	95.9	70-130		%REC	10	7/4/2012 2:22:23 AM
Surr: 4-Bromofluorobenzene	108	70-130		%REC	10	7/4/2012 2:22:23 AM
Surr: Dibromofluoromethane	104	69.8-130		%REC	10	7/4/2012 2:22:23 AM
Surr: Toluene-d8	91.5	70-130		%REC	10	7/4/2012 2:22:23 AM

**Qualifiers:**

- \*/\* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
RL Reporting Detection Limit  
U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1206C61

Date Reported: 7/10/2012

**CLIENT:** Cypress Engineering

**Project:** Transwestern Pipeline Co WT-1 ERP

**Lab ID:** 1206C61-011

**Matrix:** AQUEOUS

**Client Sample ID:** MW-7

**Collection Date:** 6/27/2012 12:55:00 PM

**Received Date:** 6/29/2012 12:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						
Benzene	ND	1.0		µg/L	1	7/4/2012 3:18:41 AM
Toluene	ND	1.0		µg/L	1	7/4/2012 3:18:41 AM
Ethylbenzene	ND	1.0		µg/L	1	7/4/2012 3:18:41 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/4/2012 3:18:41 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/4/2012 3:18:41 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/4/2012 3:18:41 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/4/2012 3:18:41 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/4/2012 3:18:41 AM
Naphthalene	ND	2.0		µg/L	1	7/4/2012 3:18:41 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/4/2012 3:18:41 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/4/2012 3:18:41 AM
Acetone	ND	10		µg/L	1	7/4/2012 3:18:41 AM
Bromobenzene	ND	1.0		µg/L	1	7/4/2012 3:18:41 AM
Bromodichloromethane	ND	1.0		µg/L	1	7/4/2012 3:18:41 AM
Bromoform	ND	1.0		µg/L	1	7/4/2012 3:18:41 AM
Bromomethane	ND	3.0		µg/L	1	7/4/2012 3:18:41 AM
2-Butanone	ND	10		µg/L	1	7/4/2012 3:18:41 AM
Carbon disulfide	ND	10		µg/L	1	7/4/2012 3:18:41 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	7/4/2012 3:18:41 AM
Chlorobenzene	ND	1.0		µg/L	1	7/4/2012 3:18:41 AM
Chloroethane	ND	2.0		µg/L	1	7/4/2012 3:18:41 AM
Chloroform	ND	1.0		µg/L	1	7/4/2012 3:18:41 AM
Chloromethane	ND	3.0		µg/L	1	7/4/2012 3:18:41 AM
2-Chlorotoluene	ND	1.0		µg/L	1	7/4/2012 3:18:41 AM
4-Chlorotoluene	ND	1.0		µg/L	1	7/4/2012 3:18:41 AM
cis-1,2-DCE	50	1.0		µg/L	1	7/4/2012 3:18:41 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/4/2012 3:18:41 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/4/2012 3:18:41 AM
Dibromochloromethane	ND	1.0		µg/L	1	7/4/2012 3:18:41 AM
Dibromomethane	ND	1.0		µg/L	1	7/4/2012 3:18:41 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/4/2012 3:18:41 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/4/2012 3:18:41 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/4/2012 3:18:41 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/4/2012 3:18:41 AM
1,1-Dichloroethane	42	1.0		µg/L	1	7/4/2012 3:18:41 AM
1,1-Dichloroethene	1.9	1.0		µg/L	1	7/4/2012 3:18:41 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/4/2012 3:18:41 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/4/2012 3:18:41 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/4/2012 3:18:41 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/4/2012 3:18:41 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/4/2012 3:18:41 AM
2-Hexanone	ND	10		µg/L	1	7/4/2012 3:18:41 AM

**Qualifiers:**

- \*/X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1206C61

Date Reported: 7/10/2012

**CLIENT:** Cypress Engineering

**Project:** Transwestern Pipeline Co WT-1 ERP

**Lab ID:** 1206C61-011

**Matrix:** AQUEOUS

**Client Sample ID:** MW-7

**Collection Date:** 6/27/2012 12:55:00 PM

**Received Date:** 6/29/2012 12:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						
Isopropylbenzene	ND	1.0		µg/L	1	7/4/2012 3:18:41 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/4/2012 3:18:41 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/4/2012 3:18:41 AM
Methylene Chloride	ND	3.0		µg/L	1	7/4/2012 3:18:41 AM
n-Butylbenzene	ND	1.0		µg/L	1	7/4/2012 3:18:41 AM
n-Propylbenzene	ND	1.0		µg/L	1	7/4/2012 3:18:41 AM
sec-Butylbenzene	ND	1.0		µg/L	1	7/4/2012 3:18:41 AM
Styrene	ND	1.0		µg/L	1	7/4/2012 3:18:41 AM
tert-Butylbenzene	ND	1.0		µg/L	1	7/4/2012 3:18:41 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/4/2012 3:18:41 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/4/2012 3:18:41 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/4/2012 3:18:41 AM
trans-1,2-DCE	ND	1.0		µg/L	1	7/4/2012 3:18:41 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/4/2012 3:18:41 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/4/2012 3:18:41 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/4/2012 3:18:41 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/4/2012 3:18:41 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/4/2012 3:18:41 AM
Trichloroethene (TCE)	8.6	1.0		µg/L	1	7/4/2012 3:18:41 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/4/2012 3:18:41 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/4/2012 3:18:41 AM
Vinyl chloride	ND	1.0		µg/L	1	7/4/2012 3:18:41 AM
Xylenes, Total	ND	1.5		µg/L	1	7/4/2012 3:18:41 AM
Surr: 1,2-Dichloroethane-d4	94.4	70-130		%REC	1	7/4/2012 3:18:41 AM
Surr: 4-Bromofluorobenzene	114	70-130		%REC	1	7/4/2012 3:18:41 AM
Surr: Dibromofluoromethane	103	69.8-130		%REC	1	7/4/2012 3:18:41 AM
Surr: Toluene-d8	94.8	70-130		%REC	1	7/4/2012 3:18:41 AM

**Qualifiers:**

- \*/\* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
RL Reporting Detection Limit  
U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1206C61

Date Reported: 7/10/2012

**CLIENT:** Cypress Engineering

**Project:** Transwestern Pipeline Co WT-1 ERP

**Lab ID:** 1206C61-012

**Client Sample ID:** TRIP BLANK

**Collection Date:** 6/27/2012

**Matrix:** TRIP BLANK

**Received Date:** 6/29/2012 12:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						
Benzene	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
Toluene	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
Ethylbenzene	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
Naphthalene	ND	2.0		µg/L	1	7/4/2012 3:46:50 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	7/4/2012 3:46:50 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	7/4/2012 3:46:50 AM
Acetone	ND	10		µg/L	1	7/4/2012 3:46:50 AM
Bromobenzene	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
Bromodichloromethane	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
Bromoform	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
Bromomethane	ND	3.0		µg/L	1	7/4/2012 3:46:50 AM
2-Butanone	ND	10		µg/L	1	7/4/2012 3:46:50 AM
Carbon disulfide	ND	10		µg/L	1	7/4/2012 3:46:50 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
Chlorobenzene	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
Chloroethane	ND	2.0		µg/L	1	7/4/2012 3:46:50 AM
Chloroform	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
Chloromethane	ND	3.0		µg/L	1	7/4/2012 3:46:50 AM
2-Chlorotoluene	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
4-Chlorotoluene	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
cis-1,2-DCE	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/4/2012 3:46:50 AM
Dibromochloromethane	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
Dibromomethane	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	7/4/2012 3:46:50 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
2-Hexanone	ND	10		µg/L	1	7/4/2012 3:46:50 AM

**Qualifiers:**

- \*/X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- U Samples with CalcVal < MDL

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1206C61

Date Reported: 7/10/2012

**CLIENT:** Cypress Engineering

**Project:** Transwestern Pipeline Co WT-1 ERP

**Lab ID:** 1206C61-012

**Client Sample ID:** TRIP BLANK

**Collection Date:** 6/27/2012

**Matrix:** TRIP BLANK

**Received Date:** 6/29/2012 12:00:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						
Isopropylbenzene	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	7/4/2012 3:46:50 AM
Methylene Chloride	ND	3.0		µg/L	1	7/4/2012 3:46:50 AM
n-Butylbenzene	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
n-Propylbenzene	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
sec-Butylbenzene	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
Styrene	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
tert-Butylbenzene	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/4/2012 3:46:50 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
trans-1,2-DCE	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/4/2012 3:46:50 AM
Vinyl chloride	ND	1.0		µg/L	1	7/4/2012 3:46:50 AM
Xylenes, Total	ND	1.5		µg/L	1	7/4/2012 3:46:50 AM
Surr: 1,2-Dichloroethane-d4	97.9	70-130		%REC	1	7/4/2012 3:46:50 AM
Surr: 4-Bromofluorobenzene	113	70-130		%REC	1	7/4/2012 3:46:50 AM
Surr: Dibromofluoromethane	101	69.8-130		%REC	1	7/4/2012 3:46:50 AM
Surr: Toluene-d8	96.1	70-130		%REC	1	7/4/2012 3:46:50 AM

**Qualifiers:**

- \*/X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
RL Reporting Detection Limit  
U Samples with CalcVal < MDL

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1206C61

17-Jul-12

**Client:** Cypress Engineering

**Project:** Transwestern Pipeline Co WT-1 ERP

Sample ID	5ml rb	SampType:	MBLK	TestCode: EPA Method 8260B: VOLATILES							
Client ID:	PBW	Batch ID:	R3867	RunNo: 3867							
Prep Date:		Analysis Date:	7/3/2012	SeqNo:	109964	Units:	µg/L				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		ND	1.0								
Toluene		ND	1.0								
Ethylbenzene		ND	1.0								
Methyl tert-butyl ether (MTBE)		ND	1.0								
1,2,4-Trimethylbenzene		ND	1.0								
1,3,5-Trimethylbenzene		ND	1.0								
1,2-Dichloroethane (EDC)		ND	1.0								
1,2-Dibromoethane (EDB)		ND	1.0								
Naphthalene		ND	2.0								
1-Methylnaphthalene		ND	4.0								
2-Methylnaphthalene		ND	4.0								
Acetone		ND	10								
Bromobenzene		ND	1.0								
Bromodichloromethane		ND	1.0								
Bromoform		ND	1.0								
Bromomethane		ND	3.0								
2-Butanone		ND	10								
Carbon disulfide		ND	10								
Carbon Tetrachloride		ND	1.0								
Chlorobenzene		ND	1.0								
Chloroethane		ND	2.0								
Chloroform		ND	1.0								
Chloromethane		ND	3.0								
2-Chlorotoluene		ND	1.0								
4-Chlorotoluene		ND	1.0								
cis-1,2-DCE		ND	1.0								
cis-1,3-Dichloropropene		ND	1.0								
1,2-Dibromo-3-chloropropane		ND	2.0								
Dibromochloromethane		ND	1.0								
Dibromomethane		ND	1.0								
1,2-Dichlorobenzene		ND	1.0								
1,3-Dichlorobenzene		ND	1.0								
1,4-Dichlorobenzene		ND	1.0								
Dichlorodifluoromethane		ND	1.0								
1,1-Dichloroethane		ND	1.0								
1,1-Dichloroethene		ND	1.0								
1,2-Dichloropropane		ND	1.0								
1,3-Dichloropropane		ND	1.0								
2,2-Dichloropropane		ND	2.0								
1,1-Dichloropropene		ND	1.0								
Hexachlorobutadiene		ND	1.0								

**Qualifiers:**

\*/X Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1206C61

17-Jul-12

Client: Cypress Engineering

Project: Transwestern Pipeline Co WT-1 ERP

Sample ID	5ml rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES						
Client ID:	PBW	Batch ID:	R3867	RunNo:	3867						
Prep Date:		Analysis Date:	7/3/2012	SeqNo:	109964						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone		ND	10								
Isopropylbenzene		ND	1.0								
4-Isopropyltoluene		ND	1.0								
4-Methyl-2-pentanone		ND	10								
Methylene Chloride		ND	3.0								
n-Butylbenzene		ND	1.0								
n-Propylbenzene		ND	1.0								
sec-Butylbenzene		ND	1.0								
Styrene		ND	1.0								
tert-Butylbenzene		ND	1.0								
1,1,1,2-Tetrachloroethane		ND	1.0								
1,1,2,2-Tetrachloroethane		ND	2.0								
Tetrachloroethene (PCE)		ND	1.0								
trans-1,2-DCE		ND	1.0								
trans-1,3-Dichloropropene		ND	1.0								
1,2,3-Trichlorobenzene		ND	1.0								
1,2,4-Trichlorobenzene		ND	1.0								
1,1,1-Trichloroethane		ND	1.0								
1,1,2-Trichloroethane		ND	1.0								
Trichloroethene (TCE)		ND	1.0								
Trichlorofluoromethane		ND	1.0								
1,2,3-Trichloropropane		ND	2.0								
Vinyl chloride		ND	1.0								
Xylenes, Total		ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.6		10.00		96.1	70	130				
Surr: 4-Bromofluorobenzene	11		10.00		113	70	130				
Surr: Dibromofluoromethane	10		10.00		104	69.8	130				
Surr: Toluene-d8	9.4		10.00		94.3	70	130				

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES						
Client ID:	LCSW	Batch ID:	R3867	RunNo:	3867						
Prep Date:		Analysis Date:	7/3/2012	SeqNo:	109968						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	97.9	84.1	126				
Toluene	19	1.0	20.00	0	93.4	80	120				
Chlorobenzene	18	1.0	20.00	0	90.8	70	130				
1,1-Dichloroethene	21	1.0	20.00	0	105	83	130				
Trichloroethene (TCE)	19	1.0	20.00	0	95.4	76.2	119				
Surr: 1,2-Dichloroethane-d4	10		10.00		99.5	70	130				
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130				

**Qualifiers:**

\*/X Value exceeds Maximum Contaminant Level.

B Analyte detected in the associated Method Blank

E Value above quantitation range

H Holding times for preparation or analysis exceeded

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1206C61

17-Jul-12

Client: Cypress Engineering

Project: Transwestern Pipeline Co WT-1 ERP

Sample ID	<b>100ng lcs</b>	SampType:	<b>LCS</b>	TestCode: <b>EPA Method 8260B: VOLATILES</b>						
Client ID:	<b>LCSW</b>	Batch ID:	<b>R3867</b>	RunNo: <b>3867</b>						
Prep Date:		Analysis Date:	<b>7/3/2012</b>	SeqNo: <b>109968</b> Units: <b>µg/L</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	11		10.00		106	69.8	130			
Surr: Toluene-d8	9.6		10.00		96.0	70	130			

Sample ID	<b>1207016-001ams</b>	SampType:	<b>MS</b>	TestCode: <b>EPA Method 8260B: VOLATILES</b>						
Client ID:	<b>BatchQC</b>	Batch ID:	<b>R3867</b>	RunNo: <b>3867</b>						
Prep Date:		Analysis Date:	<b>7/4/2012</b>	SeqNo: <b>109970</b> Units: <b>µg/L</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chlorobenzene	930	50	1000	0	92.6	70	130			
1,1-Dichloroethene	970	50	1000	0	97.4	76.3	127			
Trichloroethene (TCE)	920	50	1000	0	92.2	70	130			
Surr: 1,2-Dichloroethane-d4	490		500.0		98.0	70	130			
Surr: 4-Bromofluorobenzene	490		500.0		98.4	70	130			
Surr: Dibromofluoromethane	520		500.0		103	69.8	130			
Surr: Toluene-d8	470		500.0		94.6	70	130			

Sample ID	<b>1207016-001amsd</b>	SampType:	<b>MSD</b>	TestCode: <b>EPA Method 8260B: VOLATILES</b>						
Client ID:	<b>BatchQC</b>	Batch ID:	<b>R3867</b>	RunNo: <b>3867</b>						
Prep Date:		Analysis Date:	<b>7/4/2012</b>	SeqNo: <b>109972</b> Units: <b>µg/L</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chlorobenzene	900	50	1000	0	90.4	70	130	2.36	17.7	
1,1-Dichloroethene	940	50	1000	0	93.8	76.3	127	3.76	16.5	
Trichloroethene (TCE)	880	50	1000	0	87.9	70	130	4.72	18.9	
Surr: 1,2-Dichloroethane-d4	490		500.0		97.1	70	130	0	0	
Surr: 4-Bromofluorobenzene	480		500.0		95.3	70	130	0	0	
Surr: Dibromofluoromethane	520		500.0		104	69.8	130	0	0	
Surr: Toluene-d8	480		500.0		95.9	70	130	0	0	

Sample ID	<b>b12</b>	SampType:	<b>MBLK</b>	TestCode: <b>EPA Method 8260B: VOLATILES</b>						
Client ID:	<b>PBW</b>	Batch ID:	<b>R3867</b>	RunNo: <b>3867</b>						
Prep Date:		Analysis Date:	<b>7/4/2012</b>	SeqNo: <b>110001</b> Units: <b>µg/L</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								

**Qualifiers:**

\*/X Value exceeds Maximum Contaminant Level.

B Analyte detected in the associated Method Blank

E Value above quantitation range

H Holding times for preparation or analysis exceeded

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

RL Reporting Detection Limit

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1206C61

17-Jul-12

**Client:** Cypress Engineering

**Project:** Transwestern Pipeline Co WT-1 ERP

Sample ID	b12	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES						
Client ID:	PBW	Batch ID:	R3867	RunNo:	3867						
Prep Date:		Analysis Date:	7/4/2012	SeqNo:	110001						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Naphthalene		ND	2.0								
1-Methylnaphthalene		ND	4.0								
2-Methylnaphthalene		ND	4.0								
Acetone		ND	10								
Bromobenzene		ND	1.0								
Bromodichloromethane		ND	1.0								
Bromoform		ND	1.0								
Bromomethane		ND	3.0								
2-Butanone		ND	10								
Carbon disulfide		ND	10								
Carbon Tetrachloride		ND	1.0								
Chlorobenzene		ND	1.0								
Chloroethane		ND	2.0								
Chloroform		ND	1.0								
Chloromethane		ND	3.0								
2-Chlorotoluene		ND	1.0								
4-Chlorotoluene		ND	1.0								
cis-1,2-DCE		ND	1.0								
cis-1,3-Dichloropropene		ND	1.0								
1,2-Dibromo-3-chloropropane		ND	2.0								
Dibromochloromethane		ND	1.0								
Dibromomethane		ND	1.0								
1,2-Dichlorobenzene		ND	1.0								
1,3-Dichlorobenzene		ND	1.0								
1,4-Dichlorobenzene		ND	1.0								
Dichlorodifluoromethane		ND	1.0								
1,1-Dichloroethane		ND	1.0								
1,1-Dichloroethene		ND	1.0								
1,2-Dichloropropane		ND	1.0								
1,3-Dichloropropane		ND	1.0								
2,2-Dichloropropane		ND	2.0								
1,1-Dichloropropene		ND	1.0								
Hexachlorobutadiene		ND	1.0								
2-Hexanone		ND	10								
Isopropylbenzene		ND	1.0								
4-Isopropyltoluene		ND	1.0								
4-Methyl-2-pentanone		ND	10								
Methylene Chloride		ND	3.0								
n-Butylbenzene		ND	1.0								
n-Propylbenzene		ND	1.0								
sec-Butylbenzene		ND	1.0								

## Qualifiers:

\*/X Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1206C61

17-Jul-12

Client: Cypress Engineering

Project: Transwestern Pipeline Co WT-1 ERP

Sample ID	b12	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8260B: VOLATILES</b>					
Client ID:	PBW	Batch ID:	R3867	RunNo:	<b>3867</b>					
Prep Date:		Analysis Date:	7/4/2012	SeqNo:	<b>110001</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.5		10.00		95.1	70	130			
Surr: 4-Bromofluorobenzene	12		10.00		115	70	130			
Surr: Dibromofluoromethane	10		10.00		101	69.8	130			
Surr: Toluene-d8	9.4		10.00		94.2	70	130			

Sample ID	<b>100ng lcs2</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8260B: VOLATILES</b>					
Client ID:	LCSW	Batch ID:	R3867	RunNo:	<b>3867</b>					
Prep Date:		Analysis Date:	7/3/2012	SeqNo:	<b>110002</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.4	84.1	126			
Toluene	19	1.0	20.00	0	94.6	80	120			
Chlorobenzene	19	1.0	20.00	0	93.3	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	103	83	130			
Trichloroethene (TCE)	19	1.0	20.00	0	93.4	76.2	119			
Surr: 1,2-Dichloroethane-d4	9.8		10.00		97.7	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		110	70	130			
Surr: Dibromofluoromethane	11		10.00		106	69.8	130			
Surr: Toluene-d8	9.3		10.00		93.1	70	130			

Sample ID	<b>5ml-rb</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8260B: VOLATILES</b>					
Client ID:	PBW	Batch ID:	R3883	RunNo:	<b>3883</b>					
Prep Date:		Analysis Date:	7/5/2012	SeqNo:	<b>110751</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								

**Qualifiers:**

\*/X Value exceeds Maximum Contaminant Level.

B Analyte detected in the associated Method Blank

E Value above quantitation range

H Holding times for preparation or analysis exceeded

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1206C61

17-Jul-12

Client: Cypress Engineering

Project: Transwestern Pipeline Co WT-1 ERP

Sample ID	5ml-rb	SampType:	MBLK	TestCode: EPA Method 8260B: VOLATILES							
Client ID:	PBW	Batch ID:	R3883	RunNo: 3883							
Prep Date:		Analysis Date:	7/5/2012	SeqNo:	110751	Units:	µg/L				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Toluene		ND	1.0								
Ethylbenzene		ND	1.0								
Methyl tert-butyl ether (MTBE)		ND	1.0								
1,2,4-Trimethylbenzene		ND	1.0								
1,3,5-Trimethylbenzene		ND	1.0								
1,2-Dichloroethane (EDC)		ND	1.0								
1,2-Dibromoethane (EDB)		ND	1.0								
Naphthalene		ND	2.0								
1-Methylnaphthalene		ND	4.0								
2-Methylnaphthalene		ND	4.0								
Acetone		ND	10								
Bromobenzene		ND	1.0								
Bromodichloromethane		ND	1.0								
Bromoform		ND	1.0								
Bromomethane		ND	3.0								
2-Butanone		ND	10								
Carbon disulfide		ND	10								
Carbon Tetrachloride		ND	1.0								
Chlorobenzene		ND	1.0								
Chloroethane		ND	2.0								
Chloroform		ND	1.0								
Chloromethane		ND	3.0								
2-Chlorotoluene		ND	1.0								
4-Chlorotoluene		ND	1.0								
cis-1,2-DCE		ND	1.0								
cis-1,3-Dichloropropene		ND	1.0								
1,2-Dibromo-3-chloropropane		ND	2.0								
Dibromochloromethane		ND	1.0								
Dibromomethane		ND	1.0								
1,2-Dichlorobenzene		ND	1.0								
1,3-Dichlorobenzene		ND	1.0								
1,4-Dichlorobenzene		ND	1.0								
Dichlorodifluoromethane		ND	1.0								
1,1-Dichloroethane		ND	1.0								
1,1-Dichloroethene		ND	1.0								
1,2-Dichloropropane		ND	1.0								
1,3-Dichloropropane		ND	1.0								
2,2-Dichloropropane		ND	2.0								
1,1-Dichloropropene		ND	1.0								
Hexachlorobutadiene		ND	1.0								
2-Hexanone		ND	10								

**Qualifiers:**

\*/X Value exceeds Maximum Contaminant Level.

B Analyte detected in the associated Method Blank

E Value above quantitation range

H Holding times for preparation or analysis exceeded

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1206C61

17-Jul-12

Client: Cypress Engineering

Project: Transwestern Pipeline Co WT-1 ERP

Sample ID	5ml-rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES						
Client ID:	PBW	Batch ID:	R3883	RunNo:	3883						
Prep Date:		Analysis Date:	7/5/2012	SeqNo:	110751						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Isopropylbenzene		ND	1.0								
4-Isopropyltoluene		ND	1.0								
4-Methyl-2-pentanone		ND	10								
Methylene Chloride		ND	3.0								
n-Butylbenzene		ND	1.0								
n-Propylbenzene		ND	1.0								
sec-Butylbenzene		ND	1.0								
Styrene		ND	1.0								
tert-Butylbenzene		ND	1.0								
1,1,1,2-Tetrachloroethane		ND	1.0								
1,1,2,2-Tetrachloroethane		ND	2.0								
Tetrachloroethene (PCE)		ND	1.0								
trans-1,2-DCE		ND	1.0								
trans-1,3-Dichloropropene		ND	1.0								
1,2,3-Trichlorobenzene		ND	1.0								
1,2,4-Trichlorobenzene		ND	1.0								
1,1,1-Trichloroethane		ND	1.0								
1,1,2-Trichloroethane		ND	1.0								
Trichloroethene (TCE)		ND	1.0								
Trichlorofluoromethane		ND	1.0								
1,2,3-Trichloropropane		ND	2.0								
Vinyl chloride		ND	1.0								
Xylenes, Total		ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.8		10.00		97.8	70	130				
Surr: 4-Bromofluorobenzene	11		10.00		108	70	130				
Surr: Dibromofluoromethane	11		10.00		107	69.8	130				
Surr: Toluene-d8	9.3		10.00		93.5	70	130				

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES						
Client ID:	LCSW	Batch ID:	R3883	RunNo:	3883						
Prep Date:		Analysis Date:	7/5/2012	SeqNo:	110753						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		20	1.0	20.00	0	98.4	84.1	126			
Toluene		18	1.0	20.00	0	91.8	80	120			
Chlorobenzene		19	1.0	20.00	0	92.6	70	130			
1,1-Dichloroethene		21	1.0	20.00	0	105	83	130			
Trichloroethene (TCE)		19	1.0	20.00	0	95.8	76.2	119			
Surr: 1,2-Dichloroethane-d4	9.9		10.00		99.0	70	130				
Surr: 4-Bromofluorobenzene	11		10.00		108	70	130				
Surr: Dibromofluoromethane	10		10.00		104	69.8	130				

**Qualifiers:**

\*/X Value exceeds Maximum Contaminant Level.

B Analyte detected in the associated Method Blank

E Value above quantitation range

H Holding times for preparation or analysis exceeded

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1206C61

17-Jul-12

Client: Cypress Engineering

Project: Transwestern Pipeline Co WT-1 ERP

Sample ID	<b>100ng lcs</b>	SampType:	<b>LCS</b>	TestCode: <b>EPA Method 8260B: VOLATILES</b>						
Client ID:	<b>LCSW</b>	Batch ID:	<b>R3883</b>	RunNo: <b>3883</b>						
Prep Date:		Analysis Date:	<b>7/5/2012</b>	SeqNo: <b>110753</b> Units: <b>µg/L</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Toluene-d8	9.4		10.00		94.4	70	130			

Sample ID	<b>1207076-002a ms</b>	SampType:	<b>MS</b>	TestCode: <b>EPA Method 8260B: VOLATILES</b>						
Client ID:	<b>BatchQC</b>	Batch ID:	<b>R3883</b>	RunNo: <b>3883</b>						
Prep Date:		Analysis Date:	<b>7/5/2012</b>	SeqNo: <b>110754</b> Units: <b>µg/L</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	99.0	71.1	135			
Toluene	19	1.0	20.00	0	96.4	74	121			
Chlorobenzene	19	1.0	20.00	0	96.0	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	101	76.3	127			
Trichloroethene (TCE)	19	1.0	20.00	0	93.4	70	130			
Surr: 1,2-Dichloroethane-d4	9.6		10.00		96.3	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		106	70	130			
Surr: Dibromofluoromethane	10		10.00		103	69.8	130			
Surr: Toluene-d8	9.4		10.00		94.2	70	130			

Sample ID	<b>1207076-002a msd</b>	SampType:	<b>MSD</b>	TestCode: <b>EPA Method 8260B: VOLATILES</b>						
Client ID:	<b>BatchQC</b>	Batch ID:	<b>R3883</b>	RunNo: <b>3883</b>						
Prep Date:		Analysis Date:	<b>7/5/2012</b>	SeqNo: <b>110755</b> Units: <b>µg/L</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	97.9	71.1	135	1.11	21.9	
Toluene	18	1.0	20.00	0	90.7	74	121	6.15	18.5	
Chlorobenzene	18	1.0	20.00	0	91.4	70	130	4.95	17.7	
1,1-Dichloroethene	20	1.0	20.00	0	97.7	76.3	127	3.73	16.5	
Trichloroethene (TCE)	19	1.0	20.00	0	93.6	70	130	0.163	18.9	
Surr: 1,2-Dichloroethane-d4	9.8		10.00		97.6	70	130	0	0	
Surr: 4-Bromofluorobenzene	11		10.00		111	70	130	0	0	
Surr: Dibromofluoromethane	10		10.00		104	69.8	130	0	0	
Surr: Toluene-d8	9.3		10.00		93.0	70	130	0	0	

**Qualifiers:**

\*/X Value exceeds Maximum Contaminant Level.

B Analyte detected in the associated Method Blank

E Value above quantitation range

H Holding times for preparation or analysis exceeded

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

RL Reporting Detection Limit

## Sample Log-In Check List

Client Name: TWP HOUSTON

Work Order Number: 1206C61

Received by/date: *JM* 06/29/12

*AG*

Logged By: Ashley Gallegos

6/29/2012 12:00:00 PM

*AG*

Completed By: Ashley Gallegos

6/29/2012 2:27:16 PM

*AG*

Reviewed By: *MJ*

06/29/12

### Chain of Custody

1. Were seals intact? Yes  No  Not Present
2. Is Chain of Custody complete? Yes  No  Not Present
3. How was the sample delivered? UPS

### Log In

4. Coolers are present? (see 19. for cooler specific information) Yes  No  NA
5. Was an attempt made to cool the samples? Yes  No  NA
6. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA
7. Sample(s) in proper container(s)? Yes  No
8. Sufficient sample volume for indicated test(s)? Yes  No
9. Are samples (except VOA and ONG) properly preserved? Yes  No
10. Was preservative added to bottles? Yes  No  NA
11. VOA vials have zero headspace? Yes  No  No VOA Vials
12. Were any sample containers received broken? Yes  No
13. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes  No  # of preserved bottles checked for pH: \_\_\_\_\_
14. Are matrices correctly identified on Chain of Custody? Yes  No  (<2 or >12 unless noted)
15. Is it clear what analyses were requested? Yes  No  Adjusted?
16. Were all holding times able to be met?  
(If no, notify customer for authorization.) Yes  No  Checked by: \_\_\_\_\_

### Special Handling (if applicable)

17. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:

Date:

By Whom:

Via:

eMail  Phone  Fax

In Person

Regarding:

Client Instructions:

18. Additional remarks:

### 19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.2	Good	Yes			

## Chain-of-Custody Record

				Turn-Around Time:			
				Project Name: TRANSWESTERN PIPELINE CO Mailing Address: HUTCHISON TX 77075			
				Phone #: 281.797.3421			
Client:	TRANSWESTERN PIPELINE CO	Project Standard	<input type="checkbox"/> Rush				
Accreditation:	Standard	<input checked="" type="checkbox"/> QA/QC Package	<input type="checkbox"/> Level 4 (Full Validation)				
EDD (Type):	NELAP	<input type="checkbox"/> Other	<input type="checkbox"/> Accreditation				
Date:	Time:	Matrix:	Sample Request ID				
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	Remarks:
12/27/12	1531	Water	MW-4			-001	
	1437	Water	MW-16			-002	
	1657	Water	MW-15			-003	
12/27/12	1345	Water	MW-5			-004	
	1110	Water	MW-8			-005	
	0810	Water	MW-18			-006	
	1200	Water	MW-10			-007	
	1258	Water	MW-17			-008	
12/26		Water	MW-14			-009	
	1315	Water	SWE-14			-010	
	1255	Water	MW-7			-011	
	—	—	TEP-14			-012	
Date:	Time:	Received by:	Relinquished by:	Date	Time	Remarks:	
12/28/12	1200	George Johnson	George Johnson	12/29/12	1200		
Date:	Time:	Received by:	Relinquished by:	Date	Time		

HALL ENVIRONMENTAL  
ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

### Analysis Request

Air Bubbles (Y or N)
8270 (Semi-VOA)
8260B (VOA) VOA's
8081 Pesticides / 8082 PCB's
Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )
RCRA 8 Metals
PAH's (8310 or 8270 SIMS)
EDB (Method 504.1)
TPH (Method 418.1)
TPH 8015B (GRO / DRO / MRO)
BTEX + MTBE + TPH (Gas only)
BTEX + MTBE + TMB's (8021)