# GW - 109

# MONITORING REPORT

# Dehy Area

# 03/21/2008

GW 109

Cypress Engineering
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2008 APR 15 PM 4 01

March 21, 2008

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

RE: Report of Groundwater Remediation Activities
Transwestern Pipeline Company - WT-1 Station Dehy Area
Lea County, New Mexico

Dear Glenn,

The enclosed Report of 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) 797-3421 or Larry Campbell at (505) 625-8022.

Sincerely,

George Robinson

George C. Robinson, PE
President/Principal Engineer

| | | |
|---|---|---|
| xc w/attachment: | Sam Duletsky | Transwestern Pipeline Company |
| | Larry Campbell | Transwestern Pipeline Company |
| | Larry Johnson | NMOCD Hobbs District Office |

# Report of Groundwater Remediation Activities

**Transwestern Pipeline Company**
**WT-1 Compressor Station Dehy Area**
**Lea County, New Mexico**

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

**March 12, 2008**

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

Prepared by:
Cypress Engineering Services, Inc.
7171 Highway 6 North, Suite 102
Houston, Texas 77095-2422

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# 1. Groundwater Monitoring Activities

## 1.1 Semi-Annual Groundwater Sampling Events

Two semi-annual groundwater-sampling events have been completed since the last report of remediation activities. These events were completed on June 21, 2007 and December 07, 2007.

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 SVE wells are presented in Table 2.

Groundwater samples were collected from selected monitoring wells at the site. Samples were not collected from wells with accumulated PSH in the well casing. Groundwater samples were delivered to a laboratory for analysis for benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8021B. A summary of the laboratory results and field-measured parameters is presented in Table 3. A copy of the laboratory results for each of the sampling events is included as an appendix to this report.

## 1.2 Results/Conclusions from Groundwater Sampling Events

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

A water table elevation map based on measurements obtained in the course of the December 07, 2007 sampling event is included as Figure 3. The apparent direction of groundwater flow is consistent with water table elevation maps previously developed for this site.

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

The lateral extent of PSH is presently defined by the occurrence of PSH at the water table in monitor well MW-10 and wells SVE-11, SVE-12, and SVE-14. Based on the information currently available, the volume and lateral extent of PSH in the area appears to be relatively limited. A figure indicating the estimated area with PSH present at the water table is included as Figure 4.

### *1.2.3 Condition of Affected Groundwater*

The condition of affected groundwater has not changed significantly from previous sampling events as evidenced by the information presented in Table 3 and Figure 5. The three monitor wells downgradient of the release area continue to yield groundwater samples that are non-detect for BTEX constituents. Monitor well MW-9, located about 200 feet upgradient of the release area, also yielded samples that are non-detect for BTEX constituents.

# 2. Status of Remediation Activities

## 2.1 Remediation Activities Completed through December 2007

The following remediation activities were completed since the last report of remediation activities:

1) Two groundwater-sampling events were completed.
2) Operation of the SVE system is limited to the warmer weather months. Condensed water collecting in the SVE conveyance lines during cold weather made the system ineffective, therefore, the system was shut-down during the winter months. The SVE system is scheduled to restart in April 2008.

### 2.2 Remediation Activities Planned for January 2008 through December 2008

Semi-annual groundwater sampling will continue and the SVE system is scheduled to operate from April 2008 through October 2008.

## 3. Proposed Modifications

### 3.1 Modifications to the Routine Groundwater Sampling Plan

Sampling location, frequency and the sampling analysis plan will continue on a semi-annual basis. A summary of the sample analysis plan is presented in Table 6.

### 3.2 Reporting Frequency

Annual reporting will continue with the next scheduled report being submitted to the OCD by February 28, 2009.

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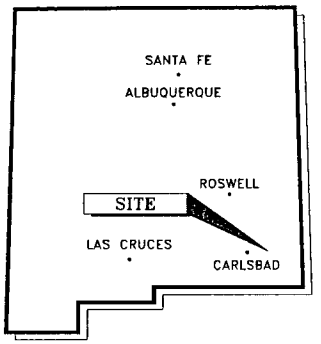


STATE OF NEW MEXICO

Railroad Tracks

Unpaved Road

FORMER DEHY UNIT
REMEDIATION AREA

Pig Launcher

Loading Dock

Former Filter Pit

Former Engine Room Drain Pit

Former Trash Pit

Waste Oil/Water AST

Radio Tower

Engine Oil ASTs

Compressor Building

Wash Rack

Utility Bldg. and Garage

Office

Pipeline Condensate ASTs

Mist Extractor

Location of Former Dehydration Area

Dehy Reboilers

Mainline Pig Receiver

Contactors

Pig Receivers

Scrubbers

Residences

U.S. 62/180

Carlsbad

N

0 275 ft

Explanation

Fence

FIGURE 1

# Facility Site Map

WT-1 COMPRESSOR STATION
TRANSWESTERN PIPELINE COMPANY

CYPRESS ENGINEERING SERVICES, INC.

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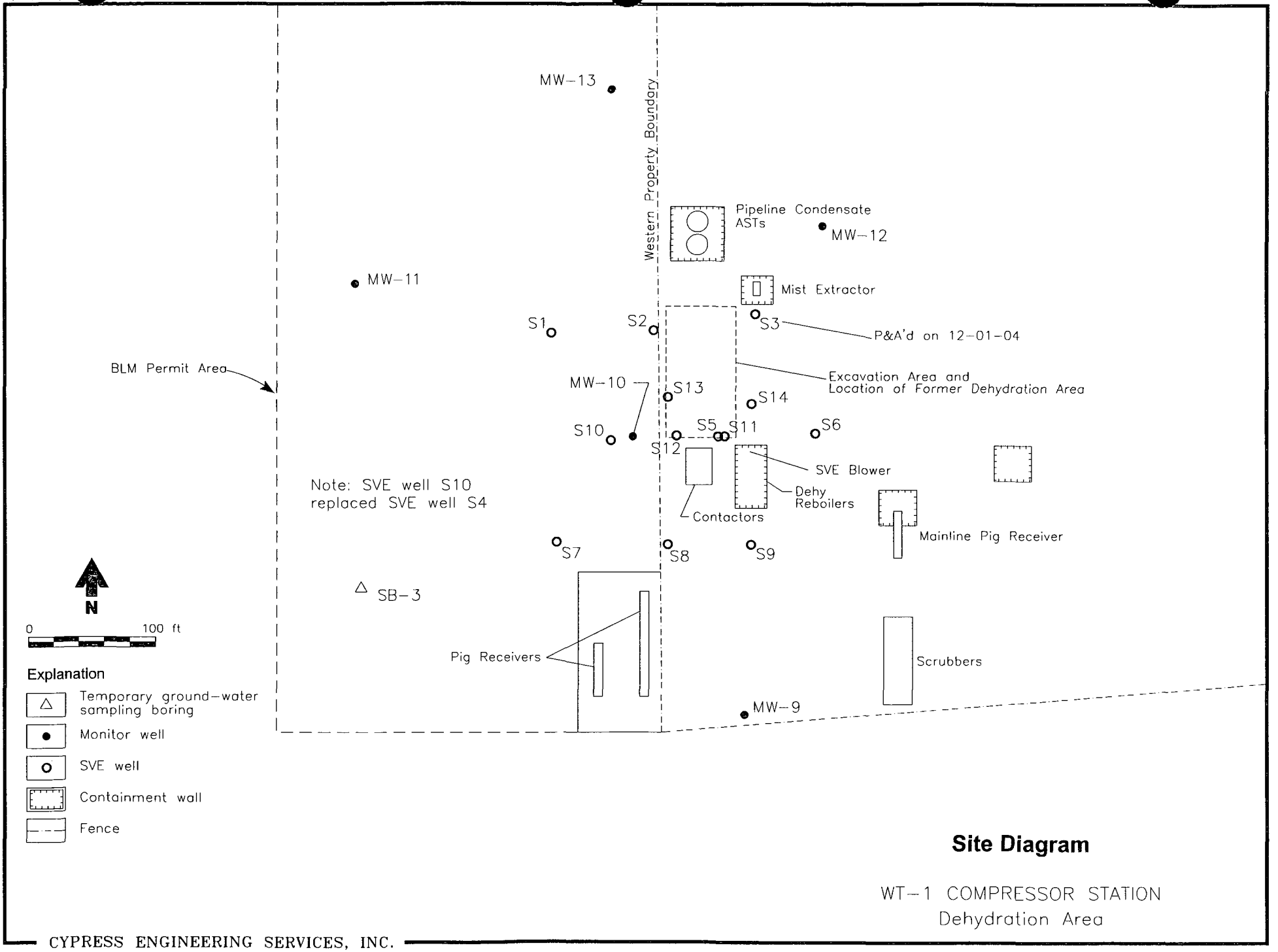
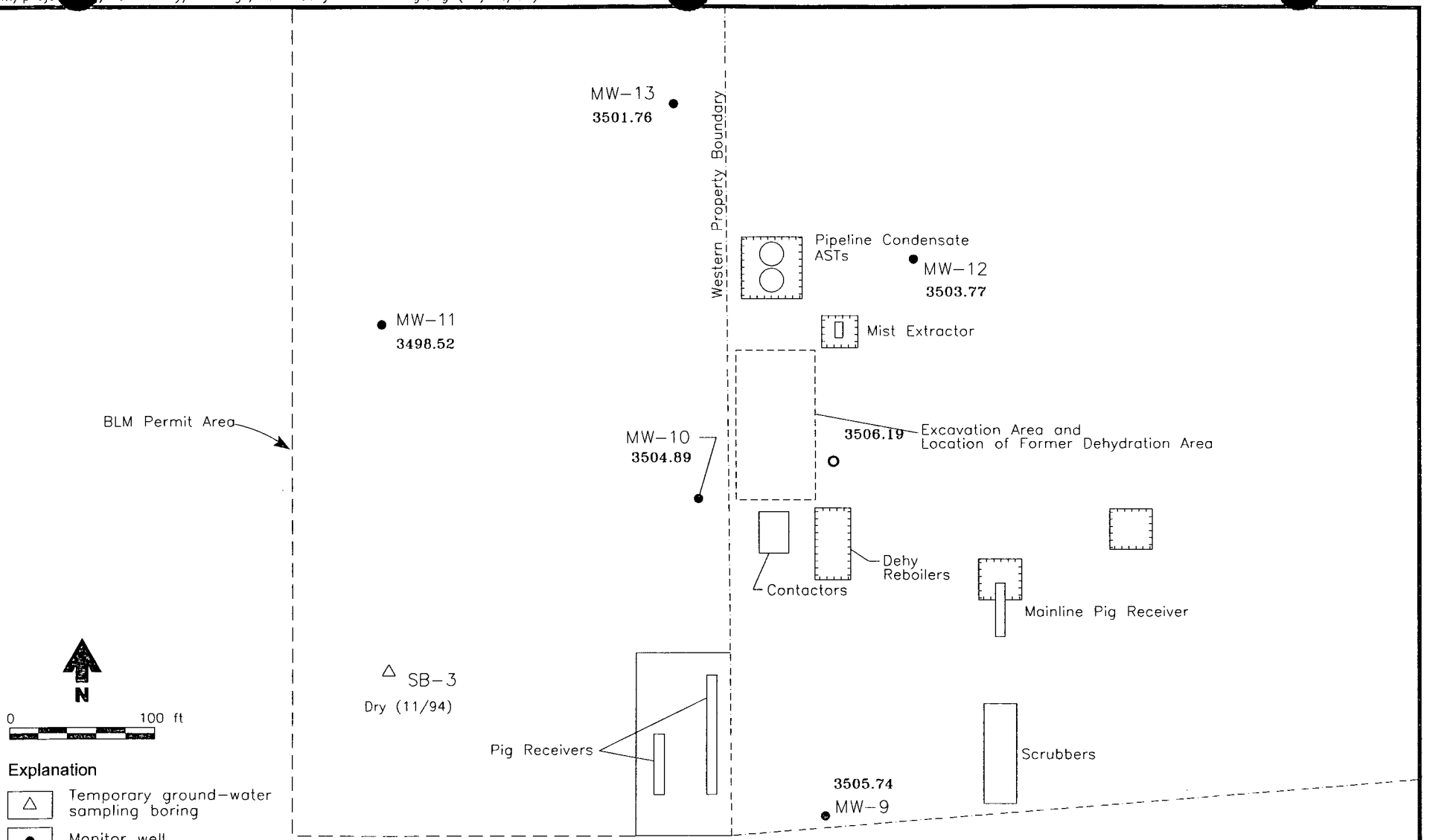



## Site Diagram

WT-1 COMPRESSOR STATION
Dehydration Area

Figure 2

CYPRESS ENGINEERING SERVICES, INC.




**Groundwater Elevations**

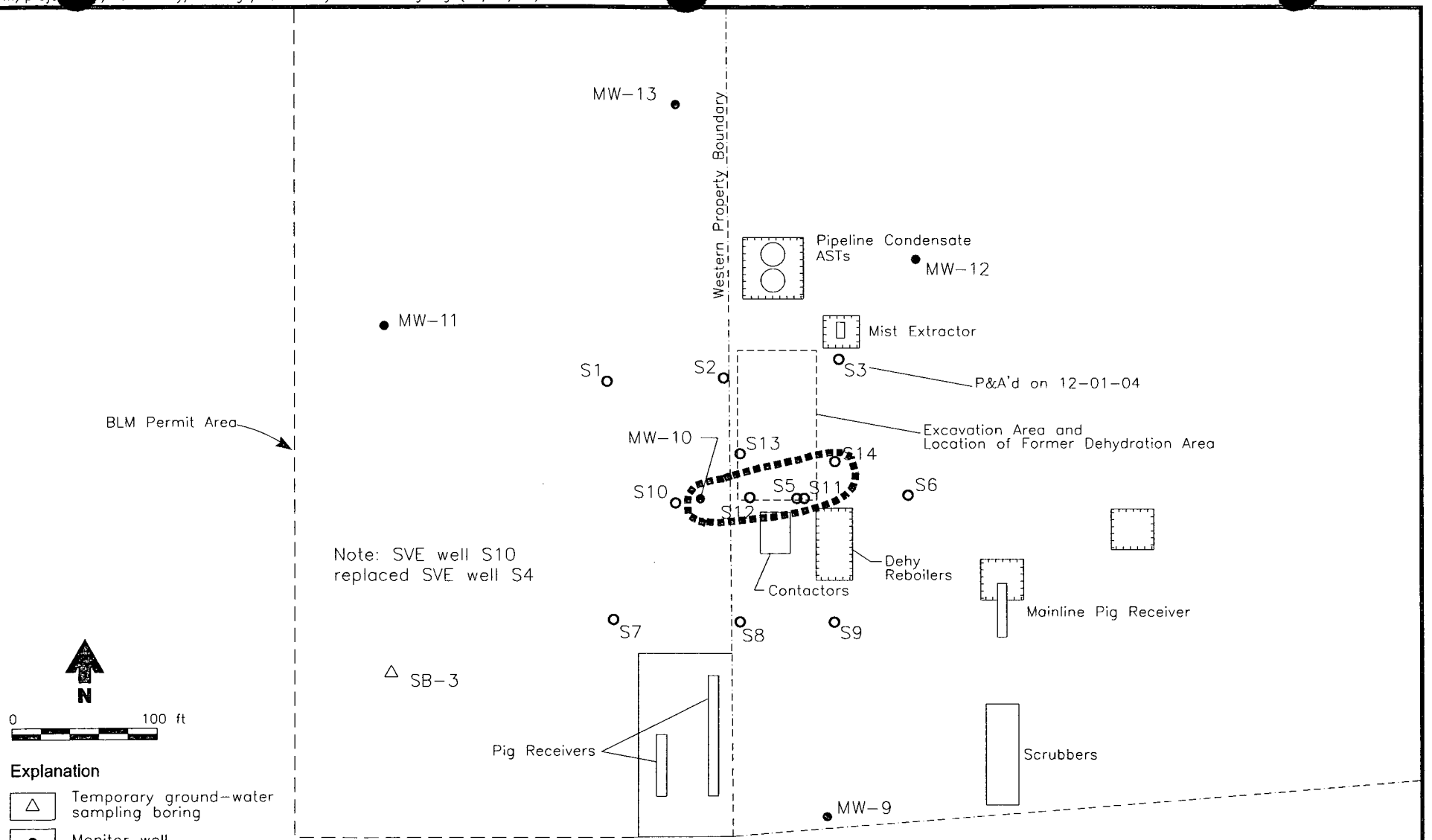
**December 7, 2007**

WT-1 COMPRESSOR STATION
Dehydration Area

Figure 3

CYPRESS ENGINEERING SERVICES, INC.

f:/.../proje /wt-1 dehy/drawings/wt-1 dehy site drawing.dwg (03/12/08)



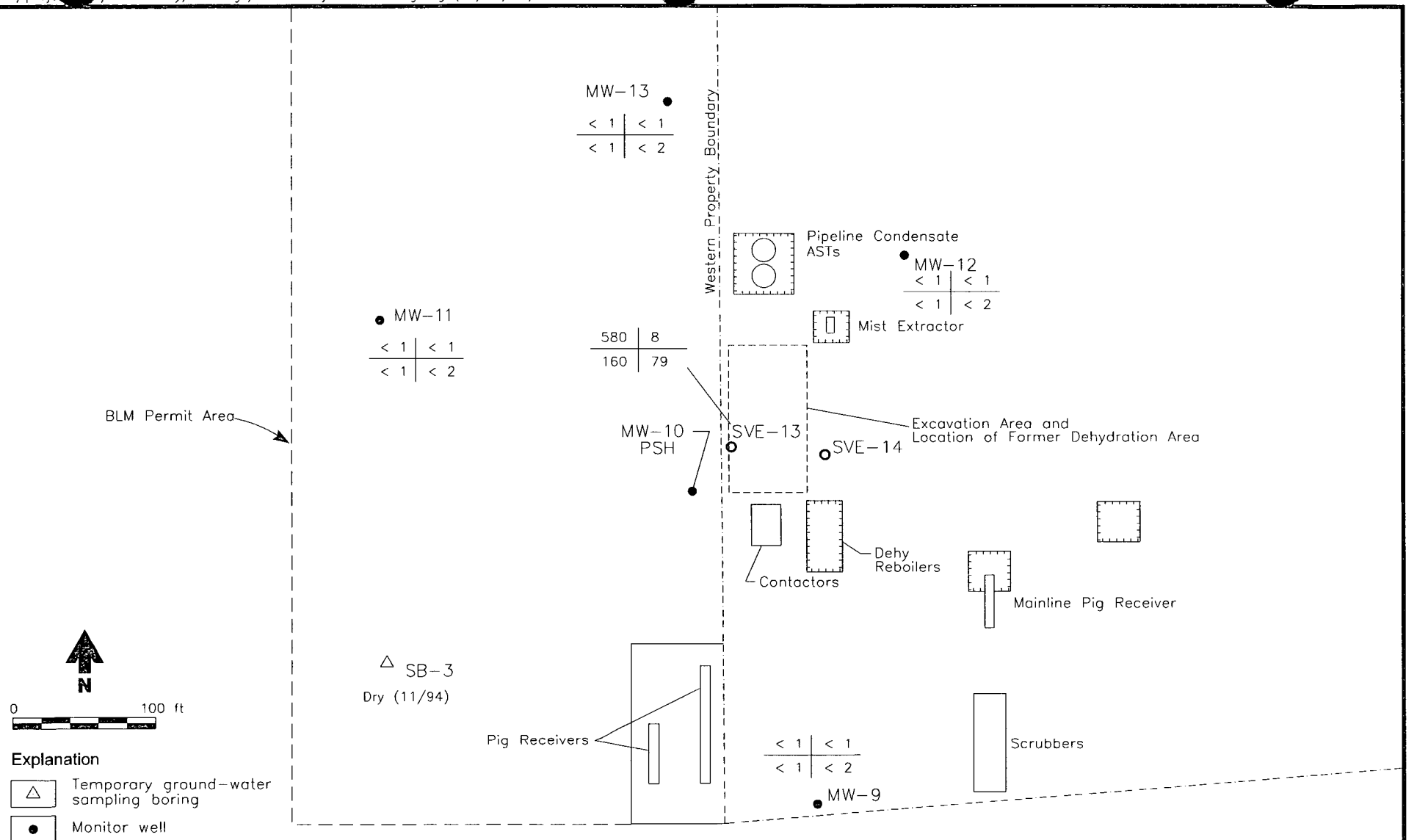

**Distribution of PSH**

**December 7, 2007**

WT-1 COMPRESSOR STATION
Dehydration Area

Figure 4

CYPRESS ENGINEERING SERVICES, INC.




**Distribution of BTEX**

**December 7, 2007**

WT-1 COMPRESSOR STATION
Dehydration Area

Figure 5

CYPRESS ENGINEERING SERVICES, INC.

# Table 1. Summary of Groundwater Surface Elevations
# TW WT-1 Compressor Station Dehy Area

| Well | Sampling Date | Top of Casing (ft) | Depth to PSH (ft) | Depth to Water (ft) | PSH (ft) | Surface Elevation (ft) |
|---|---|---|---|---|---|---|
| MW-9 | 11/21/94 | 3557.31 (b) | (a) | 55.14 | (a) | 3502.17 |
| | 11/21/95 | | (a) | 55.67 | (a) | 3501.64 |
| | 02/22/96 | | (a) | 55.27 | (a) | 3502.04 |
| | 05/14/96 | | (a) | 55.18 | (a) | 3502.13 |
| | 08/12/96 | | (a) | 55.53 | (a) | 3501.78 |
| | 11/12/96 | | (a) | 55.25 | (a) | 3502.06 |
| | 02/05/97 | | (a) | 55.20 | (a) | 3502.11 |
| | 08/05/97 | | (a) | 55.25 | (a) | 3502.06 |
| | 12/29/97 | | (a) | 55.19 | (a) | 3502.12 |
| | 02/23/98* | | (a) | 54.71 | (a) | 3502.60 |
| | 08/05/98* | | (a) | 54.72 | (a) | 3502.59 |
| | 08/27/98 | | (a) | 54.64 | (a) | 3502.67 |
| | 02/11/99* | | (a) | 55.63 | (a) | 3501.68 |
| | 08/11/99* | | (a) | 55.15 | (a) | 3502.16 |
| | 02/13/00* | | (a) | 54.66 | (a) | 3502.65 |
| | 08/21/00* | | (a) | 54.82 | (a) | 3502.49 |
| | 02/17/01* | | (a) | 54.95 | (a) | 3502.36 |
| | 08/15/01 | | (a) | 54.42 | (a) | 3502.89 |
| | 02/27/02* | | (a) | 54.40 | (a) | 3502.91 |
| | 07/31/02* | | (a) | 54.32 | (a) | 3502.99 |
| | 02/13/03* | | (a) | 54.47 | (a) | 3502.84 |
| | 08/04/03* | | (a) | 54.32 | (a) | 3502.99 |
| | 05/24/04* | | (a) | 54.52 | (a) | 3502.79 |
| | 11/09/04* | | (a) | 54.53 | (a) | 3502.78 |
| | 04/11/05* | | (a) | 53.80 | (a) | 3503.51 |
| | 12/01/05* | | (a) | 53.03 | (a) | 3504.28 |
| | 05/10/06* | | (a) | 52.64 | (a) | 3504.67 |
| | 12/14/06* | | (a) | 52.08 | (a) | 3505.23 |
| | 06/20/07* | | (a) | 51.84 | (a) | 3505.47 |
| | 12/07/07* | | (a) | 51.57 | (a) | 3505.74 |

# Table 1. Summary of Groundwater Surface Elevations
# TW WT-1 Compressor Station Dehy Area

| Well | Sampling Date | Top of Casing (ft) | Depth to PSH (ft) | Depth to Water (ft) | PSH (ft) | Surface Elevation (ft) |
|---|---|---|---|---|---|---|
| MW-10 | 11/18/94 | 3553.45 (b) | (a) | 52.63 | (a) | 3500.82 |
| | 11/21/95 | | 52.31 | 54.21 | 1.90 | 3500.76 |
| | 02/22/96 | | 52.08 | 53.75 | 1.67 | 3501.04 |
| | 05/14/96 | | 51.93 | 53.58 | 1.65 | 3501.19 |
| | 08/12/96 | | 52.25 | 53.40 | 1.15 | 3500.97 |
| | 11/12/96 | | 52.48 | 52.82 | 0.34 | 3500.90 |
| | 02/05/97 | | 52.57 | 52.98 | 0.41 | 3500.80 |
| | 08/05/97 | | 52.38 | 53.08 | 0.70 | 3500.93 |
| | 08/07/97 | | 52.39 | 52.72 | 0.33 | 3500.99 |
| | 08/29/97 | | 52.15 | 52.57 | 0.42 | 3501.22 |
| | 12/29/97 | | 53.51 | 53.62 | 0.11 | 3499.92 |
| | 02/23/98* | | (a) | 53.42 | (a) | 3500.03 |
| | 08/27/98 | | (a) | 51.65 | (a) | 3501.80 |
| | 02/11/99* | | (a) | 52.50 | (a) | 3500.95 |
| | 06/15/99 | | 54.05 | 54.24 | 0.19 | 3499.36 |
| | 07/13/99 | | 54.15 | 54.25 | 0.10 | 3499.28 |
| | 07/22/99 | | 53.58 | 54.00 | 0.42 | 3499.79 |
| | 08/11/99* | 3554.31 (c) | 53.57 | 53.62 | 0.05 | 3500.73 |
| | 09/02/99 | | (a) | 53.54 | (a) | 3499.91 |
| | 09/14/99 | | (a) | 53.60 | (a) | 3499.85 |
| | 09/28/99 | | (a) | 53.85 | (a) | 3499.60 |
| | 10/07/99 | | (a) | 53.71 | (a) | 3499.74 |
| | 10/26/99 | | (a) | 53.63 | (a) | 3499.82 |
| | 11/11/99 | | (a) | 53.28 | (a) | 3500.17 |
| | 11/30/99 | | (a) | 52.76 | (a) | 3500.69 |
| | 12/14/99 | | (a) | 53.08 | (a) | 3500.37 |
| | 12/30/99 | | (a) | 52.65 | (a) | 3500.80 |
| | 01/13/00 | | (a) | 53.10 | (a) | 3500.35 |
| | 02/03/00 | | (a) | 53.39 | (a) | 3500.06 |
| | 02/13/00* | | (a) | 52.81 | (a) | 3500.64 |
| | 03/06/00 | | (a) | 53.18 | (a) | 3500.27 |
| | 04/20/00 | | (a) | 55.19 | (a) | 3498.26 |
| | 05/11/00 | | (a) | 54.14 | (a) | 3499.31 |
| | 05/25/00 | | 53.66 | 53.98 | 0.32 | 3500.59 |
| | 06/08/00 | | (a) | 58.24 | (a) | 3495.21 |
| | 06/22/00 | | (a) | 54.35 | (a) | 3499.10 |
| | 07/13/00 | | (a) | 53.82 | (a) | 3499.63 |
| | 07/27/00 | | (a) | 53.48 | (a) | 3499.97 |
| | 08/03/00 | | (a) | 53.10 | (a) | 3500.35 |
| | 08/21/00* | | 52.95 | 53.15 | 0.20 | 3501.32 |
| | 09/19/00 | | 52.98 | 53.30 | 0.32 | 3501.27 |
| | 09/28/00 | | (a) | 52.94 | (a) | 3500.51 |
| | 11/03/00 | | 52.68 | 52.97 | 0.29 | 3501.57 |
| | 11/16/00 | | (a) | 52.69 | (a) | 3500.76 |
| | 12/06/00 | | 52.80 | 53.11 | 0.31 | 3501.45 |

## Table 1. Summary of Groundwater Surface Elevations
## TW WT-1 Compressor Station Dehy Area

| Well | Sampling Date | Top of Casing (ft) | Depth to PSH (ft) | Depth to Water (ft) | PSH (ft) | Surface Elevation (ft) |
|---|---|---|---|---|---|---|
| | 01/25/01 | | 52.51 | 52.96 | 0.45 | 3501.71 |
| | 02/17/01* | | 52.76 | 53.11 | 0.35 | 3501.48 |
| | 02/23/01 | | 52.30 | 52.76 | 0.46 | 3501.92 |
| | 03/30/01 | | 52.48 | 52.49 | 0.01 | 3501.83 |
| | 08/15/01 | | (a) | 52.37 | (a) | 3501.08 |
| | 02/27/02* | | 52.22 | 52.32 | 0.10 | 3502.07 |
| | 07/31/02* | | 52.03 | 52.37 | 0.34 | 3502.21 |
| | 02/13/03* | | 52.09 | 52.41 | 0.32 | 3502.16 |
| | 08/04/03* | | 51.87 | 52.32 | 0.45 | 3502.35 |
| | 05/24/04* | | 51.87 | 52.52 | 0.65 | 3502.31 |
| | 11/09/04* | | (a) | 52.02 | sheen | 3501.43 |
| | 04/11/05* | | 51.66 | 52.22 | 0.56 | 3502.54 |
| | 12/01/05* | | 50.97 | 51.58 | 0.61 | 3503.22 |
| | 05/10/06* | | 50.33 | 51.04 | 0.71 | 3503.84 |
| | 12/14/06* | | 49.87 | 50.77 | 0.90 | 3504.26 |
| | 06/20/07* | | 49.47 | 50.54 | 1.07 | 3504.63 |
| | 12/07/07* | | 49.19 | 50.36 | 1.17 | 3504.89 |

## Table 1. Summary of Groundwater Surface Elevations
## TW WT-1 Compressor Station Dehy Area

| Well | Sampling Date | Top of Casing (ft) | Depth to PSH (ft) | Depth to Water (ft) | PSH (ft) | Surface Elevation (ft) |
|---|---|---|---|---|---|---|
| MW-11 | 11/21/94 | 3547.84 (b) | (a) | DRY | (a) | DRY |
| | 11/21/95 | | (a) | 58.10 | (a) | 3489.74 |
| | 02/22/96 | | (a) | 56.70 | (a) | 3491.14 |
| | 05/14/96 | | (a) | 57.33 | (a) | 3490.51 |
| | 08/12/96 | | (a) | 56.96 | (a) | 3490.88 |
| | 11/12/96 | | (a) | 56.66 | (a) | 3491.18 |
| | 02/05/97 | | (a) | 57.09 | (a) | 3490.75 |
| | 08/05/97 | | (a) | 54.93 | (a) | 3492.91 |
| | 12/29/97 | | (a) | 54.53 | (a) | 3493.31 |
| | 02/23/98* | | (a) | 53.97 | (a) | 3493.87 |
| | 08/05/98* | | (a) | 54.37 | (a) | 3493.47 |
| | 08/27/98 | | (a) | 57.48 | (a) | 3490.36 |
| | 02/11/99* | | (a) | 53.11 | (a) | 3494.73 |
| | 08/11/99* | | (a) | 52.67 | (a) | 3495.17 |
| | 02/13/00* | | (a) | 52.20 | (a) | 3495.64 |
| | 08/21/00* | | (a) | 52.34 | (a) | 3495.50 |
| | 02/17/01* | | (a) | 52.38 | (a) | 3495.46 |
| | 08/15/01 | | (a) | 52.06 | (a) | 3495.78 |
| | 02/27/02* | | (a) | 52.01 | (a) | 3495.83 |
| | 07/31/02* | | (a) | 51.79 | (a) | 3496.05 |
| | 02/13/03* | | (a) | 51.65 | (a) | 3496.19 |
| | 08/04/03* | | (a) | 51.54 | (a) | 3496.30 |
| | 05/24/04* | | (a) | 51.39 | (a) | 3496.45 |
| | 11/09/04* | | (a) | 51.50 | (a) | 3496.34 |
| | 04/11/05* | | (a) | 51.18 | (a) | 3496.66 |
| | 12/01/05* | | (a) | 51.10 | (a) | 3496.74 |
| | 05/10/06* | | (a) | 50.75 | (a) | 3497.09 |
| | 12/14/06* | | (a) | 50.31 | (a) | 3497.53 |
| | 06/20/07* | | (a) | 50.03 | (a) | 3497.81 |
| | 12/07/07* | | (a) | 49.32 | (a) | 3498.52 |

## Table 1. Summary of Groundwater Surface Elevations
## TW WT-1 Compressor Station Dehy Area

| Well | Sampling Date | Top of Casing (ft) | Depth to PSH (ft) | Depth to Water (ft) | PSH (ft) | Surface Elevation (ft) |
|---|---|---|---|---|---|---|
| MW-12 | 11/17/94 | 3551.19 (b) | (a) | 49.31 | (a) | 3501.88 |
| | 11/21/95 | | (a) | 50.49 | (a) | 3500.70 |
| | 02/22/96 | | (a) | 50.13 | (a) | 3501.06 |
| | 05/14/96 | | (a) | 49.96 | (a) | 3501.23 |
| | 08/12/96 | | (a) | 50.31 | (a) | 3500.88 |
| | 11/12/96 | | (a) | 50.41 | (a) | 3500.78 |
| | 02/05/97 | | (a) | 50.53 | (a) | 3500.66 |
| | 08/05/97 | | (a) | 50.39 | (a) | 3500.80 |
| | 12/29/97 | | (a) | 50.35 | (a) | 3500.84 |
| | 02/23/98* | | (a) | 50.26 | (a) | 3500.93 |
| | 08/05/98* | | (a) | 50.22 | (a) | 3500.97 |
| | 08/27/98 | | (a) | 49.94 | (a) | 3501.25 |
| | 02/11/99* | | (a) | 49.87 | (a) | 3501.32 |
| | 08/11/99* | | (a) | 50.29 | (a) | 3500.90 |
| | 02/13/00* | | (a) | 49.62 | (a) | 3501.57 |
| | 08/21/00* | | (a) | 50.28 | (a) | 3500.91 |
| | 02/17/01* | | (a) | 50.06 | (a) | 3501.13 |
| | 08/15/01 | | (a) | 49.61 | (a) | 3501.58 |
| | 02/27/02* | | (a) | 49.45 | (a) | 3501.74 |
| | 07/31/02* | | (a) | 49.43 | (a) | 3501.76 |
| | 02/13/03* | | (a) | 49.41 | (a) | 3501.78 |
| | 08/04/03* | | (a) | 49.36 | (a) | 3501.83 |
| | 05/24/04* | | (a) | 49.45 | (a) | 3501.74 |
| | 11/09/04* | | (a) | 49.57 | (a) | 3501.62 |
| | 04/11/05* | | (a) | 49.37 | (a) | 3501.82 |
| | 12/01/05* | | (a) | 49.05 | (a) | 3502.14 |
| | 05/10/06* | | (a) | 48.51 | (a) | 3502.68 |
| | 12/14/06* | | (a) | 48.11 | (a) | 3503.08 |
| | 06/20/07* | | (a) | 47.85 | (a) | 3503.34 |
| | 12/07/07* | | (a) | 47.42 | (a) | 3503.77 |

# Table 1. Summary of Groundwater Surface Elevations
# TW WT-1 Compressor Station Dehy Area

| Well | Sampling Date | Top of Casing (ft) | Depth to PSH (ft) | Depth to Water (ft) | PSH (ft) | Surface Elevation (ft) |
|---|---|---|---|---|---|---|
| MW-13 | 12/01/94 | 3547.78 (b) | (a) | 49.70 | (a) | 3498.08 |
| | 11/21/95 | | (a) | 49.55 | (a) | 3498.23 |
| | 02/22/96 | | (a) | 49.27 | (a) | 3498.51 |
| | 05/14/96 | | (a) | 49.15 | (a) | 3498.63 |
| | 08/12/96 | | (a) | 49.40 | (a) | 3498.38 |
| | 11/12/96 | | (a) | 49.42 | (a) | 3498.36 |
| | 02/05/97 | | (a) | 49.40 | (a) | 3498.38 |
| | 08/05/97 | | (a) | 49.37 | (a) | 3498.41 |
| | 12/29/97 | | (a) | 49.50 | (a) | 3498.28 |
| | 02/23/98* | | (a) | 49.35 | (a) | 3498.43 |
| | 08/05/98* | | (a) | 49.41 | (a) | 3498.37 |
| | 08/27/98 | | (a) | 49.20 | (a) | 3498.58 |
| | 02/11/99* | | (a) | 49.12 | (a) | 3498.66 |
| | 08/11/99* | | (a) | 49.43 | (a) | 3498.35 |
| | 02/13/00* | | (a) | 49.05 | (a) | 3498.73 |
| | 08/21/00* | | (a) | 49.40 | (a) | 3498.38 |
| | 02/17/01* | | (a) | 49.22 | (a) | 3498.56 |
| | 08/15/01 | | (a) | 48.98 | (a) | 3498.80 |
| | 02/27/02* | | (a) | 48.85 | (a) | 3498.93 |
| | 07/31/02* | | (a) | 48.62 | (a) | 3499.16 |
| | 02/13/03* | | (a) | 48.52 | (a) | 3499.26 |
| | 08/04/03* | | (a) | 48.40 | (a) | 3499.38 |
| | 05/24/04* | | (a) | 48.35 | (a) | 3499.43 |
| | 11/09/04* | | (a) | 48.55 | (a) | 3499.23 |
| | 04/11/05* | | (a) | 48.13 | (a) | 3499.65 |
| | 12/01/05* | | (a) | 47.75 | (a) | 3500.03 |
| | 05/10/06* | | (a) | 46.88 | (a) | 3500.90 |
| | 12/14/06* | | (a) | 46.02 | (a) | 3501.76 |
| | 06/20/07* | | (a) | 45.43 | (a) | 3502.35 |
| | 12/07/07* | | (a) | 45.07 | (a) | 3502.71 |

NOTES:
PSH - Phase separated hydrocarbon
Corrections to ground water surface elevation for presence of hydrocarbon is calculated assuming a specific gravity of
(a) Not applicable since no measurable thickness of hydrocarbon is present
(b) Survey by John West Engineering, Hobbs, NM dated 11/94
(c) Survey by Cypress Engineering, Houston, TX dated 08/11/99

## Table 2. Summary of Groundwater Surface Elevations at SVE Wells
## TW WT-1 Compressor Station Dehy Area

| Well | Sampling Date | Top of Casing (ft) | Depth to PSH (ft) | Depth to Water (ft) | PSH (ft) | Surface Elevation (ft) |
|---|---|---|---|---|---|---|
| SVE-1 | 05/14/96 | 3551.22 (e) | (a) | 51.01 | (a) | 3500.21 |
| | 08/06/97 | | (a) | 49.09 | (a) | 3502.13 |
| | 02/11/99* | | (a) | 51.52 | (a) | 3499.70 |
| | 08/11/99* | | (a) | 52.17 | (a) | 3499.05 |
| | 02/13/00* | | (a) | 51.32 | (a) | 3499.90 |
| | 08/21/00* | | (a) | 51.85 | (a) | 3499.37 |
| | 02/17/01* | | (a) | 51.55 | (a) | 3499.67 |
| | 08/15/01 | | (a) | 51.17 | (a) | 3500.05 |
| | 02/27/02* | | (a) | 50.90 | (a) | 3500.32 |
| | 07/31/02* | | (a) | 50.79 | (a) | 3500.43 |
| | 02/13/03* | | (a) | 50.71 | (a) | 3500.51 |
| | 08/04/03* | | (a) | 50.63 | (a) | 3500.59 |
| | 05/24/04* | | (a) | 50.80 | (a) | 3500.42 |
| | 11/09/04* | | (a) | 50.73 | (a) | 3500.49 |
| | 04/11/05* | | (a) | 50.72 | (a) | 3500.50 |
| | 12/01/05* | | (a) | 50.44 | (a) | 3500.78 |
| | 05/10/06* | | (a) | 50.05 | (a) | 3501.17 |
| | 12/14/06* | | (a) | 48.37 | (a) | 3502.85 |
| | 06/20/07* | | (a) | 49.09 | (a) | 3502.13 |
| | 12/07/07* | | (a) | 48.57 | (a) | 3502.65 |
| SVE-2 | 05/14/96 | 3551.96 (e) | 50.63 | 51.38 | 0.75 | 3501.18 |
| | 08/06/97 | | 50.95 | 52.15 | 1.20 | 3500.77 |
| | 08/07/97 | | 50.93 | 51.64 | 0.71 | 3500.89 |
| | 08/29/97 | | 50.75 | 51.16 | 0.41 | 3501.13 |
| | 12/29/97 | | 51.02 | 51.76 | 0.74 | 3500.79 |
| | 06/26/98 | | (a) | 50.87 | (a) | 3501.09 |
| | 07/13/98 | | (a) | 50.87 | (a) | 3501.09 |
| | 02/11/99* | | (a) | 50.15 | (a) | 3501.81 |
| | 08/11/99* | | (a) | 51.26 | (a) | 3500.70 |
| | 02/13/00* | | (a) | 50.57 | (a) | 3501.39 |
| | 08/21/00* | | (a) | 50.68 | (a) | 3501.28 |
| | 02/17/01* | | (a) | 50.55 | (a) | 3501.41 |
| | 08/15/01 | | (a) | 50.07 | (a) | 3501.89 |
| | 07/31/02* | | (a) | 49.81 | (a) | 3502.15 |
| | 02/13/03* | | (a) | 49.89 | (a) | 3502.07 |
| | 08/04/03* | | (a) | 49.68 | (a) | 3502.28 |
| | 05/24/04* | | (a) | 49.70 | (a) | 3502.26 |
| | 11/09/04* | | (a) | 49.85 | (a) | 3502.11 |
| | 04/11/05* | | (a) | 50.31 | (a) | 3501.65 |
| | 12/01/05* | | (a) | 49.62 | (a) | 3502.34 |
| | 05/10/06* | | (a) | 48.15 | (a) | 3503.81 |
| | 12/14/06* | | (a) | 47.82 | (a) | 3504.14 |
| | 06/20/07* | | (a) | 47.48 | (a) | 3504.48 |
| | 12/07/07* | | (a) | 47.28 | (a) | 3504.68 |

## Table 2. Summary of Groundwater Surface Elevations at SVE Wells
## TW WT-1 Compressor Station Dehy Area

| Well | Sampling Date | Top of Casing (ft) | Depth to PSH (ft) | Depth to Water (ft) | PSH (ft) | Surface Elevation (ft) |
|---|---|---|---|---|---|---|
| SVE-3 | 05/14/96 | 3552.75 (e) | (a) | 50.95 | (a) | 3501.80 |
| | 08/06/97 | | (a) | 47.70 | (a) | 3505.05 |
| | 12/29/97 | | (a) | 51.44 | (a) | 3501.31 |
| | 02/11/99* | | (a) | 46.45 | (a) | 3506.30 |
| | 08/11/99* | | (a) | 51.03 | (a) | 3501.72 |
| | 02/13/00* | | (a) | 51.17 | (a) | 3501.58 |
| | 02/17/01* | | (a) | 51.08 | (a) | 3501.67 |
| | 08/15/01 | | (a) | 50.87 | (a) | 3501.88 |
| | 02/27/02* | | (a) | 50.61 | (a) | 3502.14 |
| | 07/31/02* | | (a) | 50.57 | (a) | 3502.18 |
| | 02/13/03* | | (a) | 50.56 | (a) | 3502.19 |
| | 08/04/03* | | (a) | 50.46 | (a) | 3502.29 |
| | 05/24/04* | | -- | TD@41.00 | -- | -- |
| | 11/09/04* | | -- | TD@41.00 | -- | -- |
| | 12/01/04 | (f) | -- | -- | -- | -- |

## Table 2. Summary of Groundwater Surface Elevations at SVE Wells
## TW WT-1 Compressor Station Dehy Area

| Well | Sampling Date | Top of Casing (ft) | Depth to PSH (ft) | Depth to Water (ft) | PSH (ft) | Surface Elevation (ft) |
|---|---|---|---|---|---|---|
| SVE-4 | 05/14/96 | 3553.03 (d) | 51.91 | 53.67 | 1.76 | 3500.77 |
| | 08/06/97 | | 50.56 | 52.24 | 1.68 | 3502.13 |
| | 08/07/97 | | 52.84 | 53.39 | 0.55 | 3500.08 |
| | 08/29/97 | | 50.50 | 51.74 | 1.24 | 3502.28 |
| | 12/29/97 | | 52.02 | 53.04 | 1.02 | 3500.81 |
| | 06/26/98 | | 50.58 | 52.30 | 1.72 | 3502.11 |
| | 07/13/98 | | 50.52 | 52.30 | 1.78 | 3502.15 |
| | 07/24/98 | | 50.38 | 51.80 | 1.42 | 3502.37 |
| | 09/23/98 | | 50.11 | 51.31 | 1.20 | 3502.68 |
| | 01/07/99 | | 50.70 | 51.36 | 0.66 | 3502.20 |
| | 01/27/99 | | 50.65 | 51.18 | 0.53 | 3502.27 |
| SVE-5 | 05/14/96 | 3554.39 (e) | 51.34 | -- | -- | (a) |
| | 08/06/97 | | 45.69 | 49.30 | 3.61 | 3507.98 |
| | 08/07/97 | | 50.22 | 51.08 | 0.86 | 3504.00 |
| | 08/29/97 | | 45.00 | 48.59 | 3.59 | 3508.67 |
| | 12/29/97 | | 51.83 | -- | -- | (a) |
| | 08/26/98 | | 44.65 | 47.10 | 2.45 | 3509.25 |
| | 01/17/99 | | 46.20 | 46.60 | 0.40 | 3508.11 |
| | 02/11/99* | | 44.87 | 45.10 | 0.23 | 3509.47 |
| | 06/15/99 | | <52.05 | <52.05 | na | na |
| | 07/15/99 | | <52.05 | <52.05 | na | na |
| | 08/13/99 | | <52.05 | <52.05 | na | na |
| | 09/14/99 | | <52.05 | <52.05 | na | na |
| | 10/07/99 | | <52.05 | <52.05 | na | na |
| | 11/16/99 | | <52.05 | <52.05 | na | na |
| | 12/16/99 | | <52.05 | <52.05 | na | na |
| | 01/25/00 | | (a) | 52.08 | (a) | 3502.31 |
| | 02/03/00 | | (a) | 51.23 | (a) | 3503.16 |
| | 02/13/00* | | (a) | 51.08 | (a) | 3503.31 |
| | 02/17/01* | | (a) | 48.08 | (a) | 3506.31 |
| | 08/15/01 | | (a) | 50.68 | (a) | 3503.71 |
| | 02/27/02* | | (a) | 50.53 | (a) | 3503.86 |
| | 07/31/02* | | (a) | 51.96 | (a) | (a) |
| | 02/13/03* | | 51.85 | 52.06 | 0.21 | 3502.50 |
| | 08/04/03* | | 52.90 | 53.56 | 0.66 | 3501.36 |
| | 05/24/04* | | 51.90 | 52.13 | 0.23 | 3502.44 |
| | 11/09/04* | | 51.99 | to TD @ 52.14 | -- | -- |
| | 04/11/05* | | 51.40 | 51.99 | 0.59 | 3502.87 |
| | 12/01/05* | | 50.81 | 51.57 | 0.76 | 3503.43 |
| | 05/10/06* | | 50.24 | 51.09 | 0.85 | 3503.98 |
| | 12/14/06* | | 47.85 | 48.12 | 0.27 | 3506.49 |
| | 06/20/07* | | (a) | 46.76 | (a) | 3507.63 |
| | 12/07/07* | | (a) | 47.37 | (a) | 3507.02 |

## Table 2. Summary of Groundwater Surface Elevations at SVE Wells
## TW WT-1 Compressor Station Dehy Area

| Well | Sampling Date | Top of Casing (ft) | Depth to PSH (ft) | Depth to Water (ft) | PSH (ft) | Surface Elevation (ft) |
|---|---|---|---|---|---|---|
| SVE-6 | 05/14/96 | 3553.74 (e) | (a) | 54.30 | (a) | 3499.44 |
| | 08/06/97 | | (a) | 49.75 | (a) | 3503.99 |
| | 02/11/99* | | (a) | 52.05 | (a) | 3501.69 |
| | 08/11/99* | | (a) | 52.59 | (a) | 3501.15 |
| | 02/13/00* | | (a) | 51.95 | (a) | 3501.79 |
| | 02/17/01* | | (a) | 51.88 | (a) | 3501.86 |
| | 08/15/01 | | (a) | 51.36 | (a) | 3502.38 |
| | 02/27/02* | | (a) | 51.22 | (a) | 3502.52 |
| | 07/31/02* | | (a) | 51.03 | (a) | 3502.71 |
| | 02/13/03* | | (a) | 51.16 | (a) | 3502.58 |
| | 08/04/03* | | (a) | 50.88 | (a) | 3502.86 |
| | 05/24/04* | | (a) | 51.18 | (a) | 3502.56 |
| | 11/09/04* | | (a) | 50.99 | (a) | 3502.75 |
| | 04/11/05* | | (a) | 51.82 | (a) | 3501.92 |
| | 12/01/05* | | (a) | 49.94 | (a) | 3503.80 |
| | 05/10/06* | | (a) | 49.45 | (a) | 3504.29 |
| | 12/14/06* | | (a) | 48.88 | (a) | 3504.86 |
| | 06/20/07* | | (a) | 48.50 | (a) | 3505.24 |
| | 12/07/07* | | (a) | 48.18 | (a) | 3505.56 |
| SVE-7 | 05/14/96 | 3553.81 (e) | (a) | 53.89 | (a) | 3499.92 |
| | 08/06/97 | | (a) | 51.40 | (a) | 3502.41 |
| | 12/29/97 | | (a) | 54.14 | (a) | 3499.67 |
| | 02/11/99* | | (a) | 53.65 | (a) | 3500.16 |
| | 08/11/99* | | (a) | 54.18 | (a) | 3499.63 |
| | 02/13/00* | | (a) | 53.37 | (a) | 3500.44 |
| | 08/21/00* | | (a) | 53.98 | (a) | 3499.83 |
| | 02/17/01* | | (a) | 53.64 | (a) | 3500.17 |
| | 08/15/01 | | (a) | 53.28 | (a) | 3500.53 |
| | 02/27/02* | | (a) | 52.93 | (a) | 3500.88 |
| | 07/31/02* | | (a) | 52.87 | (a) | 3500.94 |
| | 02/13/03* | | (a) | 52.71 | (a) | 3501.10 |
| | 08/04/03* | | (a) | 52.61 | (a) | 3501.20 |
| | 05/24/04* | | (a) | 52.63 | (a) | 3501.18 |
| | 11/09/04* | | (a) | 52.70 | (a) | 3501.11 |
| | 04/11/05* | | (a) | 52.38 | (a) | 3501.43 |
| | 12/01/05* | | (a) | 51.85 | (a) | 3501.96 |
| | 05/10/06* | | (a) | 51.23 | (a) | 3502.58 |
| | 12/14/06* | | (a) | 50.46 | (a) | 3503.35 |
| | 06/20/07* | | (a) | 50.04 | (a) | 3503.77 |
| | 12/07/07* | | (a) | 49.53 | (a) | 3504.28 |

## Table 2. Summary of Groundwater Surface Elevations at SVE Wells
## TW WT-1 Compressor Station Dehy Area

| Well | Sampling Date | Top of Casing (ft) | Depth to PSH (ft) | Depth to Water (ft) | PSH (ft) | Surface Elevation (ft) |
|---|---|---|---|---|---|---|
| SVE-8 | 05/14/96 | 3555.25 (e) | (a) | 53.55 | (a) | 3501.70 |
| | 08/06/97 | | (a) | 51.72 | (a) | 3503.53 |
| | 12/29/97 | | (a) | 54.07 | (a) | 3501.18 |
| | 02/11/99* | | (a) | 53.06 | (a) | 3502.19 |
| | 08/11/99* | | (a) | 54.02 | (a) | 3501.23 |
| | 02/13/00* | | (a) | 53.33 | (a) | 3501.92 |
| | 08/21/00* | | (a) | 53.57 | (a) | 3501.68 |
| | 02/17/01* | | (a) | 53.34 | (a) | 3501.91 |
| | 08/15/01 | | (a) | 53.08 | (a) | 3502.17 |
| | 02/27/02* | | (a) | 52.94 | (a) | 3502.31 |
| | 07/31/02* | | (a) | 52.83 | (a) | 3502.42 |
| | 02/13/03* | | (a) | 52.86 | (a) | 3502.39 |
| | 08/04/03* | | (a) | 52.73 | (a) | 3502.52 |
| | 05/24/04* | | (a) | 52.74 | (a) | 3502.51 |
| | 11/09/04* | | (a) | 52.87 | (a) | 3502.38 |
| | 04/11/05* | | (a) | 52.39 | (a) | 3502.86 |
| | 12/01/05* | | (a) | 51.60 | (a) | 3503.65 |
| | 05/10/06* | | (a) | 51.07 | (a) | 3504.18 |
| | 12/14/06* | | (a) | 50.67 | (a) | 3504.58 |
| | 06/20/07* | | (a) | 50.18 | (a) | 3505.07 |
| | 12/07/07* | | (a) | 50.03 | (a) | 3505.22 |
| SVE-9 | 05/14/96 | 3555.36 (e) | (a) | 54.13 | (a) | 3501.23 |
| | 08/06/97 | | (a) | 50.06 | (a) | 3505.30 |
| | 02/11/99* | | (a) | 50.97 | (a) | 3504.39 |
| | 08/11/99* | | (a) | 54.39 | (a) | 3500.97 |
| | 02/13/00* | | (a) | 53.65 | (a) | 3501.71 |
| | 08/21/00* | | (a) | 54.22 | (a) | 3501.14 |
| | 02/17/01* | | (a) | 53.57 | (a) | 3501.79 |
| | 08/15/01 | | (a) | 53.14 | (a) | 3502.22 |
| | 02/27/02* | | (a) | 53.01 | (a) | 3502.35 |
| | 07/31/02* | | (a) | 52.78 | (a) | 3502.58 |
| | 02/13/03* | | (a) | 52.88 | (a) | 3502.48 |
| | 08/04/03* | | (a) | 52.63 | (a) | 3502.73 |
| | 05/24/04* | | (a) | 52.81 | (a) | 3502.55 |
| | 11/09/04* | | (a) | 52.78 | (a) | 3502.58 |
| | 04/11/05* | | (a) | 53.53 | (a) | 3501.83 |
| | 12/01/05* | | (a) | 51.81 | (a) | 3503.55 |
| | 05/10/06* | | (a) | 51.10 | (a) | 3504.26 |
| | 12/14/06* | | (a) | 50.61 | (a) | 3504.75 |
| | 06/20/07* | | (a) | 50.31 | (a) | 3505.05 |
| | 12/07/07* | | (a) | 49.91 | (a) | 3505.45 |

## Table 2. Summary of Groundwater Surface Elevations at SVE Wells
## TW WT-1 Compressor Station Dehy Area

| Well | Sampling Date | Top of Casing (ft) | Depth to PSH (ft) | Depth to Water (ft) | PSH (ft) | Surface Elevation (ft) |
|---|---|---|---|---|---|---|
| SVE-10 | 06/04/99 | 3554.40 (e) | 52.86 | 52.88 | 0.02 | 3501.54 |
| | 06/29/99 | | 53.25 | 53.32 | 0.07 | 3501.14 |
| | 07/08/99 | | 51.63 | 51.70 | 0.07 | 3502.76 |
| | 07/27/99 | | 51.23 | 51.41 | 0.18 | 3503.13 |
| | 08/11/99* | | 53.12 | 53.32 | 0.20 | 3501.24 |
| | 08/26/99 | | 51.63 | 51.77 | 0.14 | 3502.74 |
| | 09/28/99 | | 56.65 | 56.79 | 0.14 | 3497.72 |
| | 10/07/99 | | 54.98 | 55.23 | 0.25 | 3499.37 |
| | 10/26/99 | | 54.68 | 54.77 | 0.09 | 3499.70 |
| | 11/11/99 | | 55.79 | 55.85 | 0.06 | 3498.60 |
| | 11/30/99 | | 55.03 | 55.07 | 0.04 | 3499.36 |
| | 12/14/99 | | 54.52 | 54.53 | 0.01 | 3499.88 |
| | 12/30/99 | | 53.91 | 53.94 | 0.03 | 3500.48 |
| | 01/13/00 | | 53.56 | 53.59 | 0.03 | 3500.83 |
| | 01/25/00 | | 53.50 | 53.52 | 0.02 | 3500.90 |
| | 02/03/00 | | 53.61 | 53.63 | 0.02 | 3500.79 |
| | 02/13/00* | | 53.53 | 53.58 | 0.05 | 3500.86 |
| | 03/06/00 | | 54.11 | 54.12 | 0.01 | 3500.29 |
| | 03/23/00 | | (a) | 54.95 | (a) | 3499.45 |
| | 04/06/00 | | 54.05 | 54.07 | 0.02 | 3500.35 |
| | 04/20/00 | | 54.19 | 54.20 | 0.01 | 3500.21 |
| | 05/11/00 | | 54.21 | 54.22 | 0.01 | 3500.19 |
| | 05/25/00 | | (a) | 54.21 | (a) | 3500.19 |
| | 06/08/00 | | (a) | 54.18 | (a) | 3500.22 |
| | 06/22/00 | | (a) | 54.18 | (a) | 3500.22 |
| | 07/13/00 | | (a) | 54.19 | (a) | 3500.21 |
| | 07/27/00 | | (a) | 54.19 | (a) | 3500.21 |
| | 08/03/00 | | 54.03 | 54.04 | 0.01 | 3500.37 |
| | 08/21/00* | | (a) | 54.02 | (a) | 3500.38 |
| | 09/14/00 | | (a) | 53.60 | (a) | 3500.80 |
| | 09/28/00 | | (a) | 53.58 | (a) | 3500.82 |
| | 10/12/00 | | (a) | 53.55 | (a) | 3500.85 |
| | 11/03/00 | | (a) | 53.35 | (a) | 3501.05 |
| | 11/16/00 | | (a) | 53.29 | (a) | 3501.11 |
| | 12/06/00 | | (a) | 53.25 | sheen | 3501.15 |
| | 01/25/01 | | (a) | 53.11 | (a) | 3501.29 |
| | 02/17/01* | | 53.04 | 53.05 | 0.01 | 3501.36 |
| | 02/23/01 | | (a) | 53.00 | (a) | 3501.40 |
| | 03/30/01 | | (a) | 52.95 | (a) | 3501.45 |
| | 08/15/01 | | (a) | 56.16 | (a) | 3498.24 |
| | 02/27/02* | | (a) | 52.70 | (a) | 3501.70 |
| | 07/31/02* | | (a) | 52.60 | (a) | 3501.80 |
| | 02/13/03* | | (a) | 52.47 | sheen | 3501.93 |
| | 08/04/03* | | (a) | 52.30 | sheen | 3502.10 |
| | 05/24/04* | | (a) | 52.27 | (a) | 3502.13 |
| | 11/09/04* | | (a) | 52.37 | sheen | 3502.03 |
| | 04/11/05* | | (a) | 52.06 | (a) | 3502.34 |
| | 12/01/05* | | (a) | 51.50 | (a) | 3502.90 |
| | 05/10/06* | | (a) | 50.89 | sheen | 3503.51 |
| | 12/14/06* | | (a) | 50.53 | (a) | 3503.87 |
| | 06/20/07* | | (a) | 50.10 | sheen | 3504.30 |
| | 12/07/07* | | (a) | 49.85 | sheen | 3504.55 |

## Table 2. Summary of Groundwater Surface Elevations at SVE Wells
## TW WT-1 Compressor Station Dehy Area

| Well | Sampling Date | Top of Casing (ft) | Depth to PSH (ft) | Depth to Water (ft) | PSH (ft) | Surface Elevation (ft) |
|---|---|---|---|---|---|---|
| SVE-11 | 06/04/99 | 3555.33 (e) | 54.94 | 55.32 | 0.38 | 3500.31 |
| | 06/29/99 | | 54.94 | 55.31 | 0.37 | 3500.32 |
| | 07/08/99 | | 54.87 | 56.51 | 1.64 | 3500.13 |
| | 07/27/99 | | 54.52 | 56.18 | 1.66 | 3500.48 |
| | 08/11/99* | | 54.32 | 55.91 | 1.59 | 3500.69 |
| | 08/13/99 | | 54.66 | 55.80 | 1.14 | 3500.44 |
| | 09/02/99 | | 54.30 | 54.39 | 0.09 | 3501.01 |
| | 09/14/99 | | 55.30 | 56.14 | 0.84 | 3499.86 |
| | 10/05/99 | | 54.80 | 54.85 | 0.05 | 3500.52 |
| | 11/02/99 | | 54.58 | 54.59 | 0.01 | 3500.75 |
| | 11/16/99 | | (a) | 54.21 | (a) | 3501.12 |
| | 12/02/99 | | (a) | 54.20 | (a) | 3501.13 |
| | 12/30/99 | | (a) | 53.86 | (a) | 3501.47 |
| | 01/13/00 | | (a) | 53.99 | (a) | 3501.34 |
| | 01/25/00 | | (a) | 54.64 | (a) | 3500.69 |
| | 02/03/00 | | (a) | 54.32 | (a) | 3501.01 |
| | 02/13/00* | | 53.87 | 53.89 | 0.02 | 3501.46 |
| | 03/23/00 | | 57.55 | 57.56 | 0.01 | 3497.78 |
| | 04/06/00 | | (a) | 56.00 | (a) | 3499.33 |
| | 05/11/00 | | (a) | 55.26 | (a) | 3500.07 |
| | 05/25/00 | | (a) | 54.63 | (a) | 3500.70 |
| | 06/08/00 | | (a) | 54.73 | (a) | 3500.60 |
| | 06/22/00 | | (a) | 55.28 | (a) | 3500.05 |
| | 07/13/00 | | 54.62 | 54.63 | 0.01 | 3500.71 |
| | 07/27/00 | | (a) | 54.29 | (a) | 3501.04 |
| | 08/03/00 | | (a) | 54.22 | (a) | 3501.11 |
| | 08/21/00* | | (a) | 53.77 | (a) | 3501.56 |
| | 09/14/00 | | (a) | 53.92 | (a) | 3501.41 |
| | 09/28/00 | | (a) | 53.92 | (a) | 3501.41 |
| | 10/12/00 | | (a) | 53.95 | (a) | 3501.38 |
| | 11/03/00 | | 53.75 | 53.76 | 0.01 | 3501.58 |
| | 11/16/00 | | 53.76 | 53.77 | 0.01 | 3501.57 |
| | 12/06/00 | | 53.83 | 53.89 | 0.06 | 3501.49 |
| | 01/25/01 | | 53.64 | 53.71 | 0.07 | 3501.68 |
| | 02/17/01* | | 53.76 | 53.87 | 0.11 | 3501.55 |
| | 02/23/01 | | 53.47 | 53.54 | 0.07 | 3501.85 |
| | 03/30/01 | | 53.48 | 53.55 | 0.07 | 3501.84 |
| | 08/15/01 | | (a) | 53.43 | (a) | 3501.90 |
| | 02/27/02* | | 53.35 | 53.43 | 0.08 | 3501.96 |
| | 07/31/02* | | 53.15 | 53.16 | 0.01 | 3502.18 |
| | 02/13/03* | | (a) | 53.03 | sheen | 3502.30 |
| | 08/04/03* | | 51.81 | 52.02 | 0.21 | 3503.48 |
| | 05/24/04* | | 55.85 | 56.33 | 0.48 | 3499.38 |
| | 11/09/04* | | 52.94 | 53.31 | 0.37 | 3502.32 |
| | 04/11/05* | | 52.54 | 52.55 | 0.01 | 3502.79 |
| | 12/01/05* | | 51.81 | 53.05 | 1.24 | 3503.27 |
| | 05/10/06* | | 51.19 | 52.55 | 1.36 | 3503.87 |
| | 12/14/06* | | (a) | 50.71 | sheen | 3504.62 |
| | 06/20/07* | | 50.36 | 52.04 | 1.68 | 3504.63 |
| | 12/07/07* | | 50.05 | 51.90 | 1.85 | 3504.91 |

## Table 2. Summary of Groundwater Surface Elevations at SVE Wells
## TW WT-1 Compressor Station Dehy Area

| Well | Sampling Date | Top of Casing (ft) | Depth to PSH (ft) | Depth to Water (ft) | PSH (ft) | Surface Elevation (ft) |
|---|---|---|---|---|---|---|
| SVE-12 | 06/04/99 | 3555.64 (e) | 55.00 | 58.71 | 3.71 | 3499.90 |
| | 07/13/99 | | 55.25 | 55.83 | 0.58 | 3500.27 |
| | 07/27/99 | | 54.99 | 56.16 | 1.17 | 3500.42 |
| | 08/03/99 | | 55.11 | 56.41 | 1.30 | 3500.27 |
| | 09/07/99 | | 54.29 | 54.30 | 0.01 | 3501.35 |
| | 09/14/99 | | 55.28 | 55.29 | 0.01 | 3500.36 |
| | 10/12/99 | | 53.35 | 53.37 | 0.02 | 3502.29 |
| | 10/28/99 | | (a) | 54.56 | (a) | 3501.08 |
| | 11/11/99 | | (a) | 54.23 | (a) | 3501.41 |
| | 11/30/99 | | (a) | 53.88 | (a) | 3501.76 |
| | 12/14/99 | | (a) | 53.89 | (a) | 3501.75 |
| | 12/30/99 | | (a) | 53.82 | (a) | 3501.82 |
| | 01/25/00 | | (a) | 54.33 | (a) | 3501.31 |
| | 02/03/00 | | (a) | 54.41 | (a) | 3501.23 |
| | 02/13/00* | | (a) | 54.17 | sheen | 3501.47 |
| | 04/20/00 | | (a) | 56.38 | (a) | 3499.26 |
| | 06/15/00 | | (a) | 55.25 | (a) | 3500.39 |
| | 07/13/00 | | (a) | 54.50 | (a) | 3501.14 |
| | 07/27/00 | | (a) | 53.97 | (a) | 3501.67 |
| | 08/03/00 | | (a) | 53.19 | (a) | 3502.45 |
| | 08/21/00* | | (a) | 53.73 | (a) | 3501.91 |
| | 09/14/00 | | (a) | 53.57 | (a) | 3502.07 |
| | 09/28/00 | | (a) | 53.82 | (a) | 3501.82 |
| | 10/12/00 | | (a) | 53.54 | (a) | 3502.10 |
| | 11/03/00 | | (a) | 54.04 | (a) | 3501.60 |
| | 11/16/00 | | (a) | 54.06 | (a) | 3501.58 |
| | 12/06/00 | | (a) | 54.12 | sheen | 3501.52 |
| | 01/25/01 | | 53.92 | 53.94 | 0.02 | 3501.72 |
| | 02/17/01* | | 54.06 | 54.10 | 0.04 | 3501.57 |
| | 02/23/01 | | (a) | 52.28 | (a) | 3503.36 |
| | 03/30/01 | | 53.79 | 53.88 | 0.09 | 3501.83 |
| | 08/15/01 | | (a) | 53.73 | (a) | 3501.91 |
| | 02/27/02* | | 53.60 | 53.61 | 0.01 | 3502.04 |
| | 07/31/02* | | 53.44 | 53.59 | 0.15 | 3502.17 |
| | 02/13/03* | | 53.47 | 53.62 | 0.15 | 3502.14 |
| | 08/04/03* | | 53.23 | 53.57 | 0.34 | 3502.34 |
| | 05/24/04* | | 53.13 | 53.74 | 0.61 | 3502.39 |
| | 11/09/04* | | 53.33 | 53.87 | 0.54 | 3502.20 |
| | 04/11/05* | | 52.97 | 52.98 | 0.01 | 3502.67 |
| | 12/01/05* | | 52.20 | 52.90 | 0.70 | 3503.30 |
| | 05/10/06* | | 51.61 | 52.37 | 0.76 | 3503.88 |
| | 12/14/06* | | 51.22 | 52.12 | 0.90 | 3504.24 |
| | 06/20/07* | | 50.81 | 51.81 | 1.00 | 3504.63 |
| | 12/07/07* | | 50.52 | 51.57 | 1.05 | 3504.91 |

## Table 2. Summary of Groundwater Surface Elevations at SVE Wells
## TW WT-1 Compressor Station Dehy Area

| Well | Sampling Date | Top of Casing (ft) | Depth to PSH (ft) | Depth to Water (ft) | PSH (ft) | Surface Elevation (ft) |
|---|---|---|---|---|---|---|
| SVE-13 | 06/04/99 | 3554.11 (e) | 53.73 | 54.83 | 1.10 | 3500.16 |
| | 06/24/99 | | 53.65 | 54.02 | 0.37 | 3500.39 |
| | 07/15/99 | | 53.97 | 54.02 | 0.05 | 3500.13 |
| | 07/27/99 | | 53.28 | 53.30 | 0.02 | 3500.83 |
| | 08/11/99* | | 53.37 | 53.39 | 0.02 | 3500.74 |
| | 08/26/99 | | (a) | 53.27 | (a) | 3500.84 |
| | 09/14/99 | | (a) | 53.93 | (a) | 3500.18 |
| | 09/28/99 | | (a) | 53.24 | (a) | 3500.87 |
| | 10/07/99 | | (a) | 53.36 | (a) | 3500.75 |
| | 10/21/99 | | (a) | 53.51 | (a) | 3500.60 |
| | 11/11/99 | | (a) | 53.00 | (a) | 3501.11 |
| | 11/30/99 | | (a) | 52.56 | (a) | 3501.55 |
| | 12/14/99 | | (a) | 52.54 | (a) | 3501.57 |
| | 12/30/99 | | (a) | 52.38 | (a) | 3501.73 |
| | 01/25/00 | | (a) | 54.18 | (a) | 3499.93 |
| | 02/03/00 | | (a) | 52.79 | (a) | 3501.32 |
| | 02/13/00* | | (a) | 52.60 | (a) | 3501.51 |
| | 03/06/00 | | (a) | 53.45 | (a) | 3500.66 |
| | 03/23/00 | | (a) | 56.07 | (a) | 3498.04 |
| | 04/06/00 | | (a) | 54.76 | (a) | 3499.35 |
| | 05/11/00 | | (a) | 53.54 | (a) | 3500.57 |
| | 05/25/00 | | (a) | 52.68 | (a) | 3501.43 |
| | 06/08/00 | | (a) | 53.16 | (a) | 3500.95 |
| | 06/22/00 | | (a) | 54.22 | (a) | 3499.89 |
| | 07/13/00 | | (a) | 52.91 | (a) | 3501.20 |
| | 07/27/00 | | (a) | 52.67 | (a) | 3501.44 |
| | 08/03/00 | | (a) | 52.48 | (a) | 3501.63 |
| | 08/21/00* | | (a) | 52.47 | (a) | 3501.64 |
| | 09/14/00 | | (a) | 52.65 | (a) | 3501.46 |
| | 09/28/00 | | (a) | 52.58 | (a) | 3501.53 |
| | 10/12/00 | | (a) | 52.57 | (a) | 3501.54 |
| | 11/03/00 | | (a) | 52.49 | (a) | 3501.62 |
| | 11/16/00 | | (a) | 52.51 | (a) | 3501.60 |
| | 12/06/00 | | (a) | 52.59 | (a) | 3501.52 |
| | 01/25/01 | | (a) | 52.41 | (a) | 3501.70 |
| | 02/17/01* | | (a) | 52.55 | (a) | 3501.56 |
| | 02/23/01 | | 53.72 | 53.74 | 0.02 | 3500.39 |
| | 03/30/01 | | (a) | 52.26 | (a) | 3501.85 |
| | 08/15/01 | | (a) | 52.16 | (a) | 3501.95 |
| | 02/27/02* | | (a) | 52.14 | (a) | 3501.97 |
| | 07/31/02* | | (a) | 51.93 | (a) | 3502.18 |
| | 02/13/03* | | (a) | 52.01 | (a) | 3502.10 |
| | 08/04/03* | | (a) | 51.81 | (a) | 3502.30 |
| | 05/24/04* | | (a) | 51.70 | (a) | 3502.41 |
| | 11/09/04* | | (a) | 50.90 | (a) | 3503.21 |
| | 04/11/05* | | (a) | 51.49 | (a) | 3502.62 |
| | 12/01/05* | | (a) | 50.86 | (a) | 3503.25 |
| | 05/10/06* | | (a) | 49.18 | (a) | 3504.93 |
| | 12/14/06* | | (a) | 48.76 | (a) | 3505.35 |
| | 06/20/07* | | (a) | 48.46 | (a) | 3505.65 |
| | 12/07/07* | | (a) | 48.21 | (a) | 3505.90 |

## Table 2. Summary of Groundwater Surface Elevations at SVE Wells
## *TW WT-1 Compressor Station Dehy Area*

| Well | Sampling Date | Top of Casing (ft) | Depth to PSH (ft) | Depth to Water (ft) | PSH (ft) | Surface Elevation (ft) |
|---|---|---|---|---|---|---|
| SVE-14 | 06/04/99 | 3554.83 (e) | (a) | 54.43 | (a) | 3500.40 |
| | 06/24/99 | | (a) | 52.01 | (a) | 3502.82 |
| | 07/15/99 | | (a) | 52.76 | (a) | 3502.07 |
| | 07/27/99 | | (a) | 52.03 | (a) | 3502.80 |
| | 08/11/99* | | (a) | 54.13 | (a) | 3500.70 |
| | 08/26/99 | | (a) | 52.40 | (a) | 3502.43 |
| | 09/14/99 | | (a) | 52.61 | (a) | 3502.22 |
| | 09/28/99 | | (a) | 52.36 | (a) | 3502.47 |
| | 10/07/99 | | (a) | 52.14 | (a) | 3502.69 |
| | 10/21/99 | | (a) | 54.37 | (a) | 3500.46 |
| | 11/11/99 | | (a) | 53.09 | (a) | 3501.74 |
| | 11/30/99 | | (a) | 51.51 | (a) | 3503.32 |
| | 12/14/99 | | (a) | 51.16 | (a) | 3503.67 |
| | 12/30/99 | | (a) | 53.32 | (a) | 3501.51 |
| | 01/13/00 | | (a) | 53.51 | (a) | 3501.32 |
| | 01/25/00 | | (a) | 51.42 | (a) | 3503.41 |
| | 02/03/00 | | (a) | 51.28 | (a) | 3503.55 |
| | 02/13/00* | | (a) | 53.36 | (a) | 3501.47 |
| | 02/17/01* | | (a) | 53.31 | (a) | 3501.52 |
| | 08/21/00* | | (a) | 53.37 | (a) | 3501.46 |
| | 02/17/01* | | (a) | 53.31 | (a) | 3501.52 |
| | 08/15/01 | | (a) | 52.95 | (a) | 3501.88 |
| | 02/27/02* | | (a) | 52.88 | sheen | 3501.95 |
| | 07/31/02* | | (a) | 52.67 | (a) | 3502.16 |
| | 02/13/03* | | (a) | 52.75 | sheen | 3502.08 |
| | 08/04/03* | | 52.56 | 52.57 | 0.01 | 3502.27 |
| | 05/24/04* | | (a) | 52.51 | (a) | 3502.32 |
| | 11/09/04* | | (a) | 51.65 | (a) | 3503.18 |
| | 04/11/05* | | (a) | 49.37 | (a) | 3505.46 |
| | 12/01/05* | | 51.65 | 51.66 | 0.01 | 3503.18 |
| | 05/10/06* | | (a) | 50.02 | (a) | 3504.81 |
| | 12/14/06* | | (a) | 49.56 | (a) | 3505.27 |
| | 06/20/07* | | (a) | 49.08 | (a) | 3505.75 |
| | 12/07/07* | | Sheen | 48.64 | (a) | 3506.19 |

Notes:
(a) Not Applicable
(b) No elevation data available
(c) Survey by John West Engineering, Hobbs, NM dated 11/94
(d) Survey by John West Engineering, Hobbs, NM dated 02/22/96
(e) Survey by Cypress Engineering, Houston, TX dated 08/11/99
(f) SVE-3 plugged and abandoned on 12-01-04 by George Friend.

# Table 3. Summary of Groundwater Analyses
# TW WT-1 Compressor Station Dehy Area

| Well | Sampling Date | | Field Measured Parameters | | | | BTEX Concentration - (ug/L) | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | DO (mg/L) | pH (Units) | Temp. (C) | Conductivity (us/cm) | Benzene | Toluene | Ethylbenzene | Total Xylenes |
| NMWQCC Standard | | | none | 6-9 | none | none | 10 | 750 | 750 | 620 |
| MW-9 | 11/21/94 | | - | - | - | - | **12** | < 0.5 | < 0.5 | < 0.5 |
| | 11/21/95 | | - | 7.03 | 19.4 | 2,890 | 4 | 3 | < 2 | 11 |
| | 02/22/96 | | - | 6.48 | 22.2 | 2,980 | **13** | < 2 | < 2 | < 2 |
| | 05/14/96 | | - | - | - | - | **14** | < 2 | < 2 | < 2 |
| | 08/12/96 | | - | 6.79 | 27.0 | 3,090 | **14** | < 2 | < 2 | < 3 |
| | 11/12/96 | | - | 6.97 | 16.6 | - | 9 | < 2 | < 2 | < 2 |
| | 02/05/97 | | 3.0 | 7.26 | 16.3 | 3,900 | **13** | < 2 | < 2 | < 2 |
| | 08/05/97 | | 1.8 | 6.97 | 20.7 | 3,580 | 3 | < 2 | < 2 | < 2 |
| | 02/24/98 | | 4.2 | 7.00 | 20.3 | 3,550 | **16.3** | < 5 | < 5 | < 5 |
| | 08/05/98 | | 2.2 | 6.93 | 22.6 | 3,910 | 1.9 | < 1 | < 1 | < 1 |
| | 02/12/99 | | - | - | - | - | 6 | < 1 | < 1 | < 1 |
| | 08/11/99 | | 3.1 | 6.9 | 21.0 | 3,230 | < 2 | < 2 | < 2 | < 2 |
| | 02/13/00 | | - | - | - | - | 3.0 | < 1 | < 1 | < 1 |
| | 08/21/00 | (a) | - | - | - | - | 1.5 | < 0.5 | 0.5 | 0.9 |
| | 02/17/01 | | - | - | - | - | < 0.500 | < 0.500 | < 0.500 | < 0.10 |
| | 08/15/01 | | 2.6 | 7.12 | 22.5 | 3,140 | 2.06 | < 1 | < 1 | < 2 |
| | 02/27/02 | | 3.6 | 6.94 | 21.9 | 4,130 | 6 | < 1 | < 1 | < 1 |
| | 08/01/02 | | 3.7 | 6.80 | 21.5 | 3,810 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| | 02/13/03 | | 2.8 | 6.98 | 22.7 | 4,310 | 0.86 | < 0.50 | < 0.50 | < 0.50 |
| | 08/05/03 | | 2.1 | 6.91 | 23.3 | 3,830 | 0.60 | < 0.50 | < 0.50 | < 0.50 |
| | 05/24/04 | | 2.7 | 7.07 | 22.9 | 4,090 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| | 11/09/04* | | 3.3 | 6.83 | 20.6 | 4,423 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| | 04/11/05 | | - | - | - | - | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| | 12/01/05 | | 4.6 | 7.16 | 19.8 | 3,977 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| | 05/10/06 | | 6.1 | 6.98 | 21.0 | 4,104 | < 1 | < 1 | < 1 | < 3 |
| | 12/14/06 | | 5.5 | 6.95 | 20.5 | 4,355 | < 1 | < 1 | < 1 | < 3 |
| | 06/21/07 | | 5.8 | 7.18 | 20.9 | 4,132 | < 1 | < 1 | < 1 | < 2 |
| | 12/07/07 | | 4.9 | 6.90 | 20.4 | 3,957 | < 1 | < 1 | < 1 | < 2 |

# Table 3. Summary of Groundwater Analyses
# TW WT-1 Compressor Station Dehy Area

| Well | Sampling Date | Field Measured Parameters | | | | BTEX Concentration - (ug/L) | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | DO (mg/L) | pH (Units) | Temp. (C) | Conductivity (us/cm) | Benzene | Toluene | Ethylbenzene | Total Xylenes |
| NMWQCC Standard | | none | 6-9 | none | none | 10 | 750 | 750 | 620 |
| MW-10 | 11/18/94 | - | - | - | - | **9,000** | **16,000** | 620 | **8,500** |
| | 08/05/98 | - | - | - | - | **4,000** | **7,500** | 190 | **3,100** |
| | 02/12/99 | - | - | - | - | **4,300** | **7,700** | 340 | **3,300** |
| | 11/18/99 | - | - | - | - | **3,400** | **5,600** | 280 | **3,100** |
| | 02/13/00 | - | - | - | - | **4,800** | **9,200** | 710 | **6,200** |
| | 06/20/00 | - | - | - | - | **3,700** | **6,600** | 380 | **3,900** |
| | 08/15/01 | - | - | - | - | **4,590** | **454** | 429 | **4,680** |

# Table 3. Summary of Groundwater Analyses
# TW WT-1 Compressor Station Dehy Area

| Well | Sampling Date | | Field Measured Parameters | | | | BTEX Concentration - (ug/L) | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | DO (mg/L) | pH (Units) | Temp. (C) | Conductivity (us/cm) | Benzene | Toluene | Ethylbenzene | Total Xylenes |
| NMWQCC Standard | | | none | 6-9 | none | none | 10 | 750 | 750 | 620 |
| MW-11 | 11/21/94 | (b) | - | - | - | - | - | - | - | - |
| | 11/21/95 | | - | - | - | - | < 2 | < 2 | < 2 | < 2 |
| | 02/22/96 | | - | 7.34 | 21.9 | 1,920 | < 2 | < 2 | < 2 | < 2 |
| | 05/14/96 | | - | - | - | - | < 2 | < 2 | < 2 | < 2 |
| | 08/12/96 | | - | 7.11 | 25.7 | 2,050 | < 2 | < 2 | < 2 | < 3 |
| | 11/11/96 | | 6.0 | 7.15 | 19.9 | - | < 2 | < 2 | < 2 | < 2 |
| | 02/05/97 | | 7.0 | 7.56 | 14.8 | 2,300 | < 2 | < 2 | < 2 | < 2 |
| | 08/05/97 | | 5.3 | 7.19 | 21.2 | 2,280 | < 2 | < 2 | < 2 | < 2 |
| | 02/24/98 | | 6.5 | 7.35 | 18.8 | 2,100 | < 5 | < 5 | < 5 | < 5 |
| | 08/05/98 | | 7.2 | 7.15 | 20.4 | 2,250 | < 1 | < 1 | < 1 | < 1 |
| | 02/12/99 | | - | - | - | - | < 1 | < 1 | < 1 | < 1 |
| | 08/11/99 | | 8.8 | 7.42 | 20.8 | 1,800 | < 2 | < 2 | < 2 | < 2 |
| | 02/13/00 | | 6.6 | 7.83 | 19.6 | 2,050 | < 1 | < 1 | < 1 | < 1 |
| | 08/21/00 | (a) | 6.7 | 7.41 | 21.6 | 1,720 | < 0.5 | < 0.5 | < 0.5 | < 1 |
| | 02/17/01 | | - | - | - | - | < 0.500 | < 0.500 | < 0.500 | < 0.10 |
| | 08/15/01 | | 6.0 | 7.20 | 20.3 | 1,932 | < 1 | < 1 | < 1 | < 2 |
| | 02/27/02 | | 6.3 | 7.38 | 21.6 | 2,020 | < 1 | < 1 | < 1 | < 1 |
| | 08/01/02 | | 7.9 | 6.87 | 23.5 | 1,700 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| | 02/13/03 | | 6.1 | 7.41 | 22.3 | 1,960 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| | 08/05/03 | | 5.0 | 7.47 | 22.7 | 1,660 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| | 05/24/04 | | 5.1 | 7.46 | 21.9 | 1,780 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| | 11/09/04* | | 5.8 | 7.14 | 20.2 | 1,775 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| | 04/11/05 | | - | - | - | - | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| | 12/01/05 | | 5.8 | 7.46 | 19.5 | 1,456 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| | 05/10/06 | | 7.3 | 7.36 | 20.1 | 1,481 | < 1 | < 1 | < 1 | < 3 |
| | 12/14/06 | | 7.3 | 7.28 | 20.0 | 1,374 | < 1 | < 1 | < 1 | < 3 |
| | 06/21/07 | | 7.4 | 6.99 | 20.3 | 1,322 | < 1 | < 1 | < 1 | < 2 |
| | 12/07/07 | | 6.7 | 7.26 | 20.0 | 1,216 | < 1 | < 1 | < 1 | < 2 |

# Table 3. Summary of Groundwater Analyses
# TW WT-1 Compressor Station Dehy Area

| Well | Sampling Date | | Field Measured Parameters | | | | BTEX Concentration - (ug/L) | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | DO (mg/L) | pH (Units) | Temp. (C) | Conductivity (us/cm) | Benzene | Toluene | Ethylbenzene | Total Xylenes |
| NMWQCC Standard | | | none | 6-9 | none | none | 10 | 750 | 750 | 620 |
| MW-12 | 11/17/94 | | - | - | - | - | < 0.5 | 1.9 | < 0.5 | 3.1 |
| | 11/21/95 | | - | 6.97 | 19.2 | 3,260 | < 2 | < 2 | < 2 | < 2 |
| | 02/22/96 | | - | 6.71 | 22.6 | 3,400 | < 2 | < 2 | < 2 | < 2 |
| | 05/14/96 | | - | - | - | - | < 2 | < 2 | < 2 | < 2 |
| | 08/12/96 | | - | 6.70 | 26.8 | 3,430 | < 2 | < 2 | < 2 | < 3 |
| | 11/12/96 | | 6.0 | 7.06 | 19.3 | - | < 2 | < 2 | < 2 | < 2 |
| | 02/05/97 | | 7.0 | 7.23 | 15.8 | 3,900 | < 2 | < 2 | < 2 | < 2 |
| | 08/05/97 | | 4.9 | 6.85 | 21.8 | 3,880 | < 2 | < 2 | < 2 | < 2 |
| | 02/24/98 | | 6.0 | 7.06 | 20.1 | 3,570 | < 5 | < 5 | < 5 | < 5 |
| | 08/05/98 | | 5.6 | 6.96 | 22.1 | 3,830 | < 1 | < 1 | < 1 | < 1 |
| | 02/12/99 | | - | - | - | - | < 1 | < 1 | < 1 | < 1 |
| | 08/11/99 | | 6.7 | 7.13 | 20.7 | 3,770 | < 2 | < 2 | < 2 | < 2 |
| | 02/13/00 | | 5.4 | 7.10 | 20.1 | 3,780 | < 1 | < 1 | < 1 | < 1 |
| | 08/21/00 | (a) | 6.7 | 7.06 | 21.1 | 3,350 | < 0.5 | 0.5 | 0.8 | 1.1 |
| | 02/17/01 | | - | - | - | - | < 0.500 | < 0.500 | < 0.500 | < 0.10 |
| | 08/15/01 | | 4.5 | 7.23 | 20.7 | 3,690 | < 1 | < 1 | < 1 | < 2 |
| | 02/27/02 | | 4.6 | 7.01 | 22.4 | 4,030 | < 1 | < 1 | < 1 | < 1 |
| | 08/01/02 | | 4.3 | 6.84 | 21.4 | 3,580 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| | 02/13/03 | | 4.3 | 7.04 | 22.8 | 3,930 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| | 08/05/03 | | 4.1 | 7.05 | 23.4 | 3,380 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| | 05/24/04 | | 4.1 | 7.09 | 22.1 | 3,540 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| | 11/09/04* | | 4.2 | 6.90 | 20.4 | 3,547 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| | 04/11/05 | | - | - | - | - | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| | 12/01/05 | | 3.5 | 7.09 | 19.7 | 3,000 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| | 05/10/06 | | 4.8 | 6.75 | 20.5 | 3,128 | < 1 | < 1 | < 1 | < 3 |
| | 12/14/06 | | 4.2 | 7.06 | 20.0 | 2,999 | < 1 | < 1 | < 1 | < 3 |
| | 06/21/07 | | 4.4 | 7.11 | 20.4 | 3,049 | < 1 | < 1 | < 1 | < 2 |
| | 12/07/07 | | 4.0 | 6.80 | 20.0 | 3,021 | < 1 | < 1 | < 1 | < 2 |

# Table 3. Summary of Groundwater Analyses
# TW WT-1 Compressor Station Dehy Area

| Well | Sampling Date | | Field Measured Parameters | | | | BTEX Concentration - (ug/L) | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | DO (mg/L) | pH (Units) | Temp. (C) | Conductivity (us/cm) | Benzene | Toluene | Ethylbenzene | Total Xylenes |
| NMWQCC Standard | | | none | 6-9 | none | none | 10 | 750 | 750 | 620 |
| MW-13 | 12/01/94 | | - | - | - | - | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| | 11/21/95 | | - | 7.63 | 20.3 | 1,530 | < 2 | < 2 | < 2 | < 2 |
| | 02/22/96 | | - | 7.18 | 24.1 | 1,880 | < 2 | < 2 | < 2 | < 2 |
| | 05/14/96 | | - | - | - | - | < 2 | 3 | < 2 | 7 |
| | 08/12/96 | | - | 7.02 | 26.7 | 1,980 | < 2 | < 2 | < 2 | < 3 |
| | 11/11/96 | | 4.0 | 7.18 | 18.8 | - | < 2 | < 2 | < 2 | < 2 |
| | 02/05/97 | | 7 | 7.65 | 17.7 | 1,900 | < 2 | < 2 | < 2 | < 2 |
| | 08/05/97 | | 5.2 | 7.38 | 21.1 | 1,830 | < 2 | < 2 | < 2 | < 2 |
| | 02/24/98 | | 4.5 | 7.27 | 19.5 | 1,703 | < 5 | < 5 | < 5 | < 5 |
| | 08/05/98 | | 5.5 | 7.28 | 20.30 | 1,840 | < 1 | < 1 | < 1 | < 1 |
| | 02/12/99 | | - | - | - | - | < 1 | < 1 | < 1 | < 1 |
| | 08/11/99 | | 6.5 | 7.42 | 20.6 | 1,700 | < 2 | < 2 | < 2 | < 2 |
| | 02/13/00 | | 5.2 | 7.37 | 19.3 | 1,753 | < 1 | < 1 | < 1 | < 1 |
| | 08/21/00 | (a) | 6.4 | 7.57 | 21.1 | 1,640 | 0.4 | 0.5 | 2.3 | 2.9 |
| | 02/17/01 | | - | - | - | - | < 0.500 | < 0.500 | < 0.500 | < 0.10 |
| | 08/15/01 | | 4.2 | 7.42 | 20.6 | 1,646 | < 1 | < 1 | < 1 | < 2 |
| | 02/27/02 | | 4.1 | 7.33 | 21.7 | 1,804 | < 1 | < 1 | < 1 | < 1 |
| | 08/01/02 | | 4.5 | 6.90 | 20.7 | 1,600 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| | 02/13/03 | | 4.2 | 7.37 | 22.3 | 1,803 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| | 08/05/03 | | 4.6 | 7.42 | 22.5 | 1,620 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| | 05/24/04 | | 4.4 | 7.43 | 22.0 | 1,800 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| | 11/09/04* | | 4.8 | 7.11 | 20.0 | 1,979 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| | 04/11/05 | | - | - | - | - | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| | 12/01/05 | | 3.6 | 7.26 | 18.8 | 1,928 | < 0.50 | < 0.50 | < 0.50 | < 0.50 |
| | 05/10/06 | | 5.2 | 7.14 | 20.5 | 2,427 | < 1 | < 1 | < 1 | < 3 |
| | 12/14/06 | | 2.0 | 6.93 | 19.7 | 2,710 | < 1 | < 1 | < 1 | < 3 |
| | 06/21/07 | | 1.9 | 6.99 | 20.2 | 2,921 | < 1 | < 1 | < 1 | < 2 |
| | 12/07/07 | | 1.5 | 6.80 | 19.9 | 3,130 | < 1 | < 1 | < 1 | < 2 |

# Table 3. Summary of Groundwater Analyses
# TW WT-1 Compressor Station Dehy Area

| Well | Sampling Date | | Field Measured Parameters | | | | BTEX Concentration - (ug/L) | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | DO (mg/L) | pH (Units) | Temp. (C) | Conductivity (us/cm) | Benzene | Toluene | Ethylbenzene | Total Xylenes |
| NMWQCC Standard | | | none | 6-9 | none | none | 10 | 750 | 750 | 620 |
| SVE-13 | 02/13/00 | | - | - | - | - | **1,300** | **1,800** | 270 | **1,900** |
| | 06/20/00 | | - | - | - | - | **1,600** | **2,300** | 170 | **2,100** |
| @ 1 well vol | 08/21/00 | (a) | - | - | - | - | **110** | 140 | 91 | 390 |
| | 08/21/00 | (a) | - | - | - | - | **240** | 370 | 110 | **1,000** |
| @ 1 well vol | 02/18/01 | | - | - | - | - | **968** | **789** | 93.2 | **831** |
| | 02/18/01 | | - | - | - | - | **1,170** | **1,110** | 124 | **1,240** |
| (Dup MW-17) | 02/18/01 | | - | - | - | - | **860** | 613 | 96.2 | **864** |
| | 08/15/01 | | - | - | - | - | **773** | 60.1 | 73.1 | 520.3 |
| | 02/28/02 | | - | - | - | - | **614** | < 50 | < 50 | **1,670** |
| (Dup MW-24) | 02/28/02 | | - | - | - | - | **686** | 604 | 619 | **1,670** |
| | 08/01/02 | | - | - | - | - | **720** | < 10 | 74 | 220 |
| | 02/13/03 | | - | - | - | - | **760** | < 10 | 120 | 300 |
| | 08/05/03 | | - | - | - | - | **1,100** | < 10 | 93 | 250 |
| | 05/24/04 | | - | - | - | - | **620** | 21 | 73 | 230 |
| | 11/09/04* | | - | - | - | - | **920** | < 20 | 150 | 260 |
| | 04/11/05 | | - | - | - | - | **800** | 4.8 | 120 | 160 |
| | 12/01/05 | | - | - | - | - | **590** | 9.5 | 110 | 150 |
| | 05/11/06 | | - | - | - | - | **640** | < 10 | 120 | 67 |
| | 12/14/06 | | - | - | - | - | **540** | 12 | 110 | 72 |
| | 06/21/07 | | - | - | - | - | **710** | < 10 | 160 | 76 |
| | 12/07/07 | | - | - | - | - | **580** | 7.5 | 160 | 79 |

# Table 3. Summary of Groundwater Analyses
# TW WT-1 Compressor Station Dehy Area

| Well | Sampling Date | | Field Measured Parameters | | | | BTEX Concentration - (ug/L) | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | DO (mg/L) | pH (Units) | Temp. (C) | Conductivity (us/cm) | Benzene | Toluene | Ethylbenzene | Total Xylenes |
| NMWQCC Standard | | | none | 6-9 | none | none | 10 | 750 | 750 | 620 |
| SVE-14 | 09/08/99 | | 1.2 | 6.89 | 22.0 | 2,460 | **1,600** | **1,200** | 360 | **1,300** |
| | 11/18/99 | | - | - | - | - | **1,400** | 560 | 400 | **970** |
| | 02/13/00 | | - | - | - | - | **3,000** | **4,200** | 510 | **3,000** |
| | 06/20/00 | | - | - | - | - | **1,600** | **2,300** | 330 | **2,400** |
| @ 1 well vol | 08/21/00 | (a) | - | - | - | - | **1,600** | **1,900** | 440 | **2,430** |
| | 08/21/00 | (a) | 5.6 | 7.25 | 22.8 | 2830 | **2,100** | **2,900** | 380 | **2,620** |
| @ 1 well vol | 02/18/01 | | - | - | - | - | **819** | **1,130** | 297 | **1,900** |
| | 02/18/01 | | - | - | - | - | **3,740** | **5,910** | 344 | **3,880** |
| (Dup MW-18) | 02/18/01 | | - | - | - | - | **2,150** | **3,290** | 445 | **2,910** |
| | 08/15/01 | | - | - | - | - | **369** | **1,520** | 632 | **6,440** |
| | 08/01/02 | | - | - | - | - | **3,000** | **2,900** | 380 | **4,100** |
| | 05/24/04 | | - | - | - | - | **260** | 340 | 260 | **1,800** |

NOTES:
(a) Trip Blank contained low concentrations of BTEX constituents.
(b) No sample collected due to insufficient volume of water in well.
(c) @ 1 well vol - Sample collected after purging 1 casing volume. All other samples were collected after purging 3 casi
(d) Dup MW-17 - Blind duplicate sample collected and labeled as MW-17.

## Table 4. Summary of SVE Vapor Concentration Monitoring
## TW WT-1 Compressor Station Dehy Area

| SVE Well | Date | Gasoline Range VOCs | | < C5 | C5-C6 | C6-C7 | C7-C8 | C8-C9 | C9-C10 | C10-C11 | C11-C12 | C12-C14 | C14+ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | (ug/L) | (ppmv) [c] | (%) | | | | | | | | | |
| Combined Flow | | | | | | | | | | | | | |
| (Core Lab) | 02/10/97 | | 6,240 | | | | | | | | | | |
| | 03/20/97 | 6,600 | 1,639 | 0.0 | 2.7 | 29.3 | 32.1 | 23.2 | 9.2 | 3.0 | 0.4 | 0.1 | 0.0 |
| (Core Lab) | 03/20/97 | | 1,740 | | | | | | | | | | |
| | 08/06/97 | 5,000 | 1,242 | 0.3 | 4.0 | 21.2 | 34.8 | 25.3 | 10.2 | 3.5 | 0.7 | 0.0 | 0.0 |
| | 12/30/97 | 7,300 | 1,813 | 0.0 | 2.4 | 13.6 | 35.0 | 29.0 | 16.9 | 2.6 | 0.4 | 0.1 | 0.0 |
| | 08/05/98 | 6,500 | 1,615 | 0.0 | 1.3 | 15.4 | 32.2 | 30.5 | 13.7 | 5.2 | 1.3 | 0.4 | 0.0 |
| | 08/12/98 | 5,300 | 1,317 | 0.0 | 1.5 | 8.9 | 30.9 | 30.5 | 22.5 | 4.7 | 0.9 | 0.1 | 0.0 |
| (dup) | 08/12/98 | 5,000 | 1,242 | 0.1 | 1.5 | 8.8 | 31.8 | 32.9 | 18.0 | 5.0 | 1.4 | 0.4 | 0.1 |
| | 04/13/99 | 6,800 | 1,689 | 0.0 | 1.2 | 8.0 | 28.5 | 32.7 | 23.6 | 3.9 | 1.8 | 0.3 | 0.0 |
| | 12/07/99 | 4,800 | 1,192 | 0.1 | 6.2 | 17.6 | 31.8 | 28.8 | 10.0 | 4.2 | 0.9 | 0.2 | 0.2 |
| (dup) | 12/07/99 | 4,900 | 1,217 | 0.1 | 6.2 | 17.5 | 32.3 | 28.6 | 9.7 | 4.2 | 1.1 | 0.3 | 0.0 |
| | 05/22/00(d) | 3,700 | 919 | 0.0 | 3.8 | 13.4 | 35.0 | 28.7 | 12.4 | 4.7 | 0.8 | 0.6 | 0.6 |
| (dup) | 05/22/00(d) | 6,300 | 1,565 | 0.0 | 3.2 | 12.1 | 34.1 | 31.5 | 11.4 | 5.4 | 1.6 | 0.6 | 0.1 |
| | 06/15/00(d) | 3,000 | 745 | 0.1 | 3.9 | 16.6 | 37.7 | 29.8 | 8.6 | 2.1 | 0.6 | 0.1 | 0.5 |
| (dup) | 06/15/00(d) | 3,700 | 919 | 0.1 | 3.3 | 15.4 | 32.6 | 29.8 | 10.9 | 5.8 | 1.6 | 0.4 | 0.1 |
| | 08/21/00(d) | 3,900 | 969 | 0.0 | 2.9 | 12.2 | 28.7 | 30.0 | 15.4 | 7.9 | 2.4 | 0.5 | 0.0 |
| | 06/10/02(d) | 3,630 | 902 | 0.0 | 1.3 | 8.3 | 27.1 | 30.8 | 24.6 | 4.8 | 2.6 | 0.5 | 0.0 |
| (dup) | 06/10/02(d) | 3,440 | 854 | 0.0 | 1.4 | 8.4 | 27.9 | 31.6 | 24.3 | 4.2 | 2.1 | 0.1 | 0.0 |
| | 08/09/02(d) | 551 | 137 | 0.0 | 4.3 | 18.9 | 31.5 | 23.8 | 10.3 | 3.5 | 2.2 | 2.9 | 2.6 |
| (dup) | 08/09/02(d) | 543 | 135 | 0.0 | 4.6 | 20.6 | 34.0 | 25.1 | 10.3 | 3.2 | 1.5 | 0.3 | 0.4 |
| | 05/02/03(d) | 3,450 | 857 | 0.3 | 3.3 | 14.6 | 29.3 | 19.8 | 24.4 | 5.4 | 2.8 | 0.1 | 0.0 |
| (dup) | 05/02/03(d) | 2,740 | 681 | 0.3 | 3.4 | 15.3 | 30.3 | 20.0 | 23.4 | 4.8 | 2.4 | 0.1 | 0.0 |
| | 07/25/03(d) | 665 | 165 | 0.0 | 2.8 | 17.2 | 28.3 | 34.4 | 15.4 | 1.7 | 0.2 | 0.0 | 0.0 |
| (dup) | 07/25/03(d) | 1,550 | 385 | 0.0 | 2.0 | 11.7 | 23.6 | 36.4 | 21.1 | 4.2 | 1.0 | 0.0 | 0.0 |
| | 08/21/03(d) | 2,590 | 643 | 0.0 | 4.7 | 20.1 | 16.0 | 26.0 | 25.8 | 6.1 | 1.2 | 0.1 | 0.0 |
| | 04/20/04(d) | 2,750 | 683 | 0.5 | 3.4 | 13.8 | 21.4 | 38.3 | 15.7 | 5.9 | 0.9 | 0.1 | 0.0 |
| (dup) | 04/20/04(d) | 2,740 | 681 | 0.6 | 3.7 | 15.1 | 23.6 | 31.3 | 17.7 | 6.5 | 1.1 | 0.3 | 0.1 |
| | 08/30/04(d) | 2,590 | 643 | 2.7 | 5.2 | 15.9 | 29.3 | 24.5 | 15.3 | 5.9 | 1.2 | 0.0 | 0.0 |
| (dup) | 08/30/04(d) | 2,110 | 524 | 0.7 | 3.1 | 13.2 | 29.8 | 27.1 | 17.5 | 6.7 | 1.5 | 0.3 | 0.1 |
| | 08/08/05(d) | 2,060 | 512 | 0.8 | 2.8 | 11.8 | 25.3 | 27.7 | 20.3 | 7.5 | 2.8 | 1.0 | 0.0 |
| (dup) | 08/08/05(d) | 2,440 | 606 | 0.8 | 2.6 | 11.2 | 26.1 | 28.8 | 21.8 | 6.3 | 2.0 | 0.4 | 0.0 |
| | 11/14/05(d) | 1,620 | 402 | 0.8 | 3.6 | 10.9 | 30.8 | 27.0 | 16.1 | 7.5 | 2.9 | 0.4 | 0.0 |
| (dup) | 11/14/05(d) | 1,830 | 455 | 0.7 | 3.2 | 10.0 | 29.4 | 27.4 | 17.3 | 8.1 | 3.2 | 0.7 | 0.0 |
| | 09/18/06(e) | 1,250 | 311 | 1.7 | 4.2 | 15.1 | 29.2 | 27.0 | 15.6 | 6.0 | 1.2 | 0.0 | 0.0 |
| (dup) | 09/18/06(e) | 1,300 | 323 | 1.8 | 4.4 | 15.7 | 29.9 | 27.4 | 14.7 | 5.4 | 0.7 | 0.0 | 0.0 |

Notes:

(a) All air samples analyzed by Hall Laboratory of Albuquerque, NM

(b) PID = Photoionization detector

(c) Conversion Factor:

P = 0.88 atm, MW = 110 g/mole, R = 0.08205 L*atm/(K*mole), T = 293oK

C ppmv = C ug/L * ((R * T)/(MW*P))

C ppmv = C ug/L * 0.2484

(d) Total Flow analysis included wells SVE-11, 12, 13, 14 & MW-10

(e) Total Flow analysis included wells SVE-6, 11, 12, 14 & MW-10

## Table 5. Summary of Completion Details for Soil Borings Completed as Wells
## TWP WT-1 Compressor Station Dehy Area

| Well | Source[a] | Date of Completion | Measuring Point Elevation (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-9 | Eades Drlg/DBS | 11/18/94 | 3557.31 (b) | -1209.40 | -1254.20 | 60.5 | na | Flush Mount | 2 | 44-59 | 40.5 |
| MW-10 | Eades Drlg/DBS | 11/17/94 | 3553.45 (b) | -986.60 | -1342.10 | 62.5 | 63.57 | Flush Mount | 2 | 47.5-62.5 | 43.5 |
| MW-11 | Eades Drlg/DBS | 11/21/94 | 3547.84 (b) | -864.70 | -1562.50 | 65.0 | 59.78 | Flush Mount | 2 | 45-60 | 38.5 |
| MW-12 | Eades Drlg/DBS | 11/16/94 | 3551.19 (b) | -818.40 | -1192.90 | 60.0 | 60.11 | Flush Mount | 2 | 45-60 | 42.3 |
| MW-13 | Eades Drlg/DBS | 11/16/94 | 3547.78 (b) | -708.90 | -1359.20 | 58.0 | 57.52 | Flush Mount | 2 | 43-58 | 39.5 |
| SVE-1 | Eades Drlg/DBS | 10/04/95 | 3551.22 (d) | -903.90 | -1406.60 | 55.0 | 54.49 | Flush Mount | 2 | 35-55 | 32.9 |
| SVE-2 | Eades Drlg/DBS | 10/05/95 | 3551.96 (d) | -901.70 | -1325.80 | 53.0 | 52.75 | Flush Mount | 2 | 33-53 | 30.8 |
| SVE-3 | Eades Drlg/DBS | 10/05/95 | 3552.75 (d) | -888.70 | -1245.80 | 55.0 | 55.30 | Flush Mount | 2 | 35-55 | 32.6 |
| SVE-3 P&A | CES | 12/01/04 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SVE-4 | Eades Drlg/DBS | 10/04/95 | 3553.03 (c) | -989.20 | -1359.10 | 55.0 | na | Flush Mount | 2 | 30-55 | 27.9 |
| SVE-4 P&A (e) | GPI/CES | 05/25/99 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SVE-5 | Eades Drlg/DBS | 10/04/95 | 3554.39 (d) | -986.40 | -1275.10 | 52.7 | 52.11 | Flush Mount | 2 | 32.7-52.7 | 30.0 |
| SVE-6 | Eades Drlg/DBS | 10/05/95 | 3553.74 (d) | -984.10 | -1198.40 | 55.0 | 54.29 | Flush Mount | 2 | 35-55 | 32.8 |
| SVE-7 | Eades Drlg/DBS | 10/04/95 | 3553.81 (d) | -1071.00 | 1402.50 | 58.0 | 57.68 | Flush Mount | 2 | 33-58 | 31.8 |
| SVE-8 | Eades Drlg/DBS | 10/05/95 | 3555.25 (d) | -1072.80 | -1314.70 | 56.5 | 56.76 | Flush Mount | 2 | 36.5-56.5 | 34.8 |
| SVE-9 | Eades Drlg/DBS | 10/05/95 | 3555.36 (d) | -1073.10 | -1249.20 | 56.2 | 55.90 | Flush Mount | 2 | 36.2-56.2 | 34.2 |
| SVE-10 (e) | GPI/CES | 05/25/99 | 3554.40 (d) | -989.58 | -1359.42 | 66.6 | 64.46 | Flush Mount | 4 | 47.5-62.5 | 42.7 |
| SVE-11 | GPI/CES | 05/14/99 | 3555.33 (d) | -986.39 | -1269.94 | 63.4 | 63.93 | Flush Mount | 4 | 47.5-62.5 | 44.5 |
| SVE-12 | GPI/CES | 05/14/99 | 3555.64 (d) | -985.74 | -1307.78 | 63.5 | 63.55 | Flush Mount | 4 | 47.5-62.5 | 42.7 |
| SVE-13 | GPI/CES | 05/10/99 | 3554.11 (d) | -954.94 | -1314.42 | 64.8 | 63.21 | Flush Mount | 4 | 47.5-62.5 | 42.3 |
| SVE-14 | GPI/CES | 05/14/99 | 3554.83 (d) | -960.46 | -1248.58 | 63.4 | 63.97 | Flush Mount | 4 | 47.5-62.5 | 43.5 |

NOTES:
(a) Driller/Consultant
(b) Survey by John West Engineering on 11/94
(c) Survey by John West Engineering on 2/96
(d) Survey by Cypress Engineering on 8/99
(e) SVE-10 is an overdrill of SVE-4
na - Information not available

## Table 6. Monitor Well Sampling Locations, Frequency, and Sample Analysis Plan
## TW WT-1 Compressor Station Dehy Area

| | Analytical Requirements | | | |
|---|---|---|---|---|
| **Well ID** | **1st Semiannual Event** | **2nd Semiannual Event** | **Benzene (ppb) Latest Result** | **Comments** |
| MW-9 | BTEX | BTEX | < 1 | |
| MW-10 | BTEX | BTEX | na | contains PSH |
| MW-11 | BTEX | BTEX | < 1 | clean downgradient well |
| MW-12 | BTEX | BTEX | < 1 | clean downgradient well |
| MW-13 | BTEX | BTEX | < 1 | clean downgradient well |
| SVE-13 | BTEX | BTEX | 580 | |
| SVE-14 | BTEX | BTEX | na | contains PSH intermittently |

Notes:
1) na - not available
2) BTEX - BTEX Compounds by EPA Method 8021B

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

# COVER LETTER

Monday, July 02, 2007

George Robinson
Cypress Engineering
7171 Highway 6 North
Suite 102
Houston, TX 770952422

TEL: (281) 797-3420
FAX (281) 859-1881

RE: TWP WT-1 DEHY

Order No.: 0706353

Dear George Robinson:

Hall Environmental Analysis Laboratory, Inc. received 6 sample(s) on 6/23/2007 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001

# Hall Environmental Analysis Laboratory, Inc.

Date: *02-Jul-07*

CLIENT: Cypress Engineering
Project: TWP WT-1 DEHY

Lab Order: 0706353

**Lab ID:** 0706353-01 **Collection Date:** 6/21/2007 11:40:00 AM
**Client Sample ID:** MW-11 **Matrix:** AQUEOUS

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| EPA METHOD 8021B: VOLATILES | | | | | | Analyst: NSB |
| Benzene | ND | 1.0 | | µg/L | 1 | 7/1/2007 3:47:14 AM |
| Toluene | ND | 1.0 | | µg/L | 1 | 7/1/2007 3:47:14 AM |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 7/1/2007 3:47:14 AM |
| Xylenes, Total | ND | 2.0 | | µg/L | 1 | 7/1/2007 3:47:14 AM |
| Surr: 4-Bromofluorobenzene | 82.3 | 70.2-105 | | %REC | 1 | 7/1/2007 3:47:14 AM |

**Lab ID:** 0706353-02 **Collection Date:** 6/21/2007 11:55:00 AM
**Client Sample ID:** MW-13 **Matrix:** AQUEOUS

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| EPA METHOD 8021B: VOLATILES | | | | | | Analyst: NSB |
| Benzene | ND | 1.0 | | µg/L | 1 | 7/1/2007 4:17:12 AM |
| Toluene | ND | 1.0 | | µg/L | 1 | 7/1/2007 4:17:12 AM |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 7/1/2007 4:17:12 AM |
| Xylenes, Total | ND | 2.0 | | µg/L | 1 | 7/1/2007 4:17:12 AM |
| Surr: 4-Bromofluorobenzene | 86.6 | 70.2-105 | | %REC | 1 | 7/1/2007 4:17:12 AM |

**Lab ID:** 0706353-03 **Collection Date:** 6/21/2007 9:45:00 AM
**Client Sample ID:** MW-12 **Matrix:** AQUEOUS

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| EPA METHOD 8021B: VOLATILES | | | | | | Analyst: NSB |
| Benzene | ND | 1.0 | | µg/L | 1 | 7/1/2007 4:47:18 AM |
| Toluene | ND | 1.0 | | µg/L | 1 | 7/1/2007 4:47:18 AM |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 7/1/2007 4:47:18 AM |
| Xylenes, Total | ND | 2.0 | | µg/L | 1 | 7/1/2007 4:47:18 AM |
| Surr: 4-Bromofluorobenzene | 81.5 | 70.2-105 | | %REC | 1 | 7/1/2007 4:47:18 AM |

Qualifiers:

| | | | |
|---|---|---|---|
| * | 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 | MCL | Maximum Contaminant Level |
| ND | Not Detected at the Reporting Limit | RL | Reporting Limit |
| S | Spike recovery outside accepted recovery limits | | |

# Hall Environmental Analysis Laboratory, Inc.

Date: *02-Jul-07*

**CLIENT:** Cypress Engineering
**Project:** TWP WT-1 DEHY

**Lab Order:** 0706353

**Lab ID:** 0706353-04 **Collection Date:** 6/21/2007 10:10:00 AM
**Client Sample ID:** MW-9 **Matrix:** AQUEOUS

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| EPA METHOD 8021B: VOLATILES | | | | | | Analyst: NSB |
| Benzene | ND | 1.0 | | µg/L | 1 | 7/1/2007 5:49:52 AM |
| Toluene | ND | 1.0 | | µg/L | 1 | 7/1/2007 5:49:52 AM |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 7/1/2007 5:49:52 AM |
| Xylenes, Total | ND | 2.0 | | µg/L | 1 | 7/1/2007 5:49:52 AM |
| Surr: 4-Bromofluorobenzene | 80.0 | 70.2-105 | | %REC | 1 | 7/1/2007 5:49:52 AM |

**Lab ID:** 0706353-05 **Collection Date:** 6/21/2007 11:10:00 AM
**Client Sample ID:** SVE-13 **Matrix:** AQUEOUS

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| EPA METHOD 8021B: VOLATILES | | | | | | Analyst: NSB |
| Benzene | 710 | 10 | | µg/L | 10 | 7/1/2007 6:22:31 AM |
| Toluene | ND | 10 | | µg/L | 10 | 7/1/2007 6:22:31 AM |
| Ethylbenzene | 160 | 10 | | µg/L | 10 | 7/1/2007 6:22:31 AM |
| Xylenes, Total | 76 | 20 | | µg/L | 10 | 7/1/2007 6:22:31 AM |
| Surr: 4-Bromofluorobenzene | 91.7 | 70.2-105 | | %REC | 10 | 7/1/2007 6:22:31 AM |

**Lab ID:** 0706353-06 **Collection Date:**
**Client Sample ID:** TRIP BLANK **Matrix:** TRIP BLANK

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| EPA METHOD 8021B: VOLATILES | | | | | | Analyst: NSB |
| Benzene | ND | 1.0 | | µg/L | 1 | 7/1/2007 7:22:23 AM |
| Toluene | ND | 1.0 | | µg/L | 1 | 7/1/2007 7:22:23 AM |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 7/1/2007 7:22:23 AM |
| Xylenes, Total | ND | 2.0 | | µg/L | 1 | 7/1/2007 7:22:23 AM |
| Surr: 4-Bromofluorobenzene | 80.9 | 70.2-105 | | %REC | 1 | 7/1/2007 7:22:23 AM |

Qualifiers:
- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

# QA/QC SUMMARY REPORT

Client: Cypress Engineering
Project: TWP WT-1 DEHY

**Work Order:** 0706353

| Analyte | Result | Units | PQL | %Rec | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Method:** SW8021 | | | | | | | | | |
| **Sample ID:** 5ML REAGENT BLA | | *MBLK* | | | Batch ID: | R24198 | Analysis Date: | 6/30/2007 6:59:05 PM | |
| Benzene | ND | µg/L | 1.0 | | | | | | |
| Toluene | ND | µg/L | 1.0 | | | | | | |
| Ethylbenzene | ND | µg/L | 1.0 | | | | | | |
| Xylenes, Total | ND | µg/L | 2.0 | | | | | | |
| **Sample ID:** 100NG BTEX LCS | | *LCS* | | | Batch ID: | R24198 | Analysis Date: | 6/30/2007 11:44:25 PM | |
| Benzene | 19.42 | µg/L | 1.0 | 97.1 | 85.9 | 113 | | | |
| Toluene | 19.80 | µg/L | 1.0 | 99.0 | 86.4 | 113 | | | |
| Ethylbenzene | 20.03 | µg/L | 1.0 | 100 | 83.5 | 118 | | | |
| Xylenes, Total | 59.67 | µg/L | 2.0 | 99.4 | 83.4 | 122 | | | |

Qualifiers:

- 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
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

## Sample Receipt Checklist

Client Name CYP | Date and Time Received: 6/23/2007

Work Order Number 0706353 | Received by TLS

Checklist completed by Signature Tanya Shomin Date 6/23/07

Matrix | Carrier name Greyhound

| | | | | |
|---|---|---|---|---|
| Shipping container/cooler in good condition? | Yes ☑ | No ☐ | Not Present ☐ | |
| Custody seals intact on shipping container/cooler? | Yes ☑ | No ☐ | Not Present ☐ | Not Shipped ☐ |
| Custody seals intact on sample bottles? | Yes ☐ | No ☐ | N/A ☑ | |
| Chain of custody present? | Yes ☑ | No ☐ | | |
| Chain of custody signed when relinquished and received? | Yes ☑ | No ☐ | | |
| Chain of custody agrees with sample labels? | Yes ☑ | No ☐ | | |
| Samples in proper container/bottle? | Yes ☑ | No ☐ | | |
| Sample containers intact? | Yes ☑ | No ☐ | | |
| Sufficient sample volume for indicated test? | Yes ☑ | No ☐ | | |
| All samples received within holding time? | Yes ☑ | No ☐ | | |
| Water - VOA vials have zero headspace? No VOA vials submitted ☐ | | Yes ☑ | No ☐ | |
| Water - Preservation labels on bottle and cap match? | Yes ☐ | No ☐ | N/A ☑ | |
| Water - pH acceptable upon receipt? | Yes ☐ | No ☐ | N/A ☑ | |
| Container/Temp Blank temperature? | 5° | *4° C ± 2 Acceptable* If given sufficient time to cool. | | |

COMMENTS:

Client contacted | Date contacted: | Person contacted

Contacted by: | Regarding

Comments:

Corrective Action

# CHAIN-OF-CUSTODY RECORD

QA / QC Package
Std ☐ Level 4 ☐
Other:

Client: CYPRESS ENGINEERING

Address: 701 HWY 6 NORTH, STE 102 HOUSTON TX 77095

Phone #: 2812973420

Fax #: 2818592881

Project Name: TRANSWESTERN PIPELINE CO. WT-1 DEHY

Project #: TWP WT-1 DEHY

Project Manager: GEORGE ROBINSON

Sampler: SANDY SHARP

Sample Temperature: 5°C

| Date | Time | Matrix | Sample I.D. No. | Number/Volume | Preservative $HgCl_2$ | Preservative $HNO_3$ | Preservative HCl | HEAL No. 07060353 |
|---|---|---|---|---|---|---|---|---|
| 6/22/07 | 1140 | W | MW-11 | 3/40ml | | | X | 1 |
| | 1155 | | MW-13 | | | | | 2 |
| | 0945 | | MW-12 | | | | | 3 |
| | 1010 | | MW-9 | | | | | 4 |
| | 1110 | | SVE-13 | | | | | 5 |
| | | | Trip Blank | | | | | 6 |

| Date: | Time: | Relinquished By: (Signature) | Received By: (Signature) | |
|---|---|---|---|---|
| 6/22/07 | 1000 | | | 6/23/07 950 |
| Date: | Time: | Relinquished By: (Signature) | Received By: (Signature) | |


HALL ENVIRONMENTAL ANALYSIS LABORATORY
4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com


## ANALYSIS REQUEST

| BTEX + ~~MTBE~~ + ~~TMB's~~ (8021) | BTEX + MTBE + TPH (Gasoline Only) | TPH Method 8015B (Gas/Diesel) | TPH (Method 418.1) | EDB (Method 504.1) | EDC (Method 8021) | 8310 (PNA or PAH) | RCRA 8 Metals | Anions ($F$, $Cl$, $NO_3$, $NO_2$, $PO_4$, $SO_4$) | 8081 Pesticides / PCB's (8082) | 8260B (VOA) | 8270 (Semi-VOA) | | | | | Air Bubbles or Headspace (Y or N) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| X | | | | | | | | | | | | | | | | |

Remarks:

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

# COVER LETTER

Thursday, December 13, 2007

George Robinson
Cypress Engineering
7171 Highway 6 North
Suite 102
Houston, TX 770952422

TEL: (281) 797-3420
FAX (281) 859-1881

RE: TWP WT-1 DEHY

Order No.: 0712139

Dear George Robinson:

Hall Environmental Analysis Laboratory, Inc. received 6 sample(s) on 12/11/2007 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001

# Hall Environmental Analysis Laboratory, Inc.

**Date:** *13-Dec-07*

**CLIENT:** Cypress Engineering
**Project:** TWP WT-1 DEHY
**Lab Order:** 0712139

**Lab ID:** 0712139-01 **Collection Date:** 12/7/2007 4:00:00 PM
**Client Sample ID:** MW-11 **Matrix:** AQUEOUS

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 8021B: VOLATILES** | | | | | | Analyst: **NSB** |
| Benzene | ND | 1.0 | | µg/L | 1 | 12/11/2007 3:18:26 PM |
| Toluene | ND | 1.0 | | µg/L | 1 | 12/11/2007 3:18:26 PM |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 12/11/2007 3:18:26 PM |
| Xylenes, Total | ND | 2.0 | | µg/L | 1 | 12/11/2007 3:18:26 PM |
| Surr: 4-Bromofluorobenzene | 87.6 | 70.2-105 | | %REC | 1 | 12/11/2007 3:18:26 PM |

**Lab ID:** 0712139-02 **Collection Date:** 12/7/2007 4:05:00 PM
**Client Sample ID:** MW-13 **Matrix:** AQUEOUS

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 8021B: VOLATILES** | | | | | | Analyst: **NSB** |
| Benzene | ND | 1.0 | | µg/L | 1 | 12/11/2007 3:48:30 PM |
| Toluene | ND | 1.0 | | µg/L | 1 | 12/11/2007 3:48:30 PM |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 12/11/2007 3:48:30 PM |
| Xylenes, Total | ND | 2.0 | | µg/L | 1 | 12/11/2007 3:48:30 PM |
| Surr: 4-Bromofluorobenzene | 91.6 | 70.2-105 | | %REC | 1 | 12/11/2007 3:48:30 PM |

**Lab ID:** 0712139-03 **Collection Date:** 12/7/2007 2:30:00 PM
**Client Sample ID:** MW-12 **Matrix:** AQUEOUS

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 8021B: VOLATILES** | | | | | | Analyst: **NSB** |
| Benzene | ND | 1.0 | | µg/L | 1 | 12/11/2007 4:18:34 PM |
| Toluene | ND | 1.0 | | µg/L | 1 | 12/11/2007 4:18:34 PM |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 12/11/2007 4:18:34 PM |
| Xylenes, Total | ND | 2.0 | | µg/L | 1 | 12/11/2007 4:18:34 PM |
| Surr: 4-Bromofluorobenzene | 86.8 | 70.2-105 | | %REC | 1 | 12/11/2007 4:18:34 PM |

**Lab ID:** 0712139-04 **Collection Date:** 12/7/2007 2:55:00 PM
**Client Sample ID:** MW-9 **Matrix:** AQUEOUS

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 8021B: VOLATILES** | | | | | | Analyst: **NSB** |
| Benzene | ND | 1.0 | | µg/L | 1 | 12/11/2007 4:48:40 PM |
| Toluene | ND | 1.0 | | µg/L | 1 | 12/11/2007 4:48:40 PM |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 12/11/2007 4:48:40 PM |
| Xylenes, Total | ND | 2.0 | | µg/L | 1 | 12/11/2007 4:48:40 PM |
| Surr: 4-Bromofluorobenzene | 86.3 | 70.2-105 | | %REC | 1 | 12/11/2007 4:48:40 PM |

**Qualifiers:**

| | | | |
|---|---|---|---|
| * | 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 | MCL | Maximum Contaminant Level |
| ND | Not Detected at the Reporting Limit | RL | Reporting Limit |
| S | Spike recovery outside accepted recovery limits | | |

# Hall Environmental Analysis Laboratory, Inc.

**Date:** *13-Dec-07*

**CLIENT:** Cypress Engineering
**Project:** TWP WT-1 DEHY
**Lab Order:** 0712139

**Lab ID:** 0712139-05
**Collection Date:** 12/7/2007 3:45:00 PM
**Client Sample ID:** SVE-13
**Matrix:** AQUEOUS

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 8021B: VOLATILES** | | | | | | Analyst: **NSB** |
| Benzene | 580 | 10 | | µg/L | 10 | 12/11/2007 5:21:21 PM |
| Toluene | 7.5 | 2.0 | | µg/L | 2 | 12/13/2007 2:33:42 AM |
| Ethylbenzene | 160 | 2.0 | | µg/L | 2 | 12/13/2007 2:33:42 AM |
| Xylenes, Total | 79 | 4.0 | | µg/L | 2 | 12/13/2007 2:33:42 AM |
| Surr: 4-Bromofluorobenzene | 116 | 70.2-105 | S | %REC | 2 | 12/13/2007 2:33:42 AM |

**Lab ID:** 0712139-06
**Collection Date:**
**Client Sample ID:** TRIP BLANK
**Matrix:** TRIP BLANK

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 8021B: VOLATILES** | | | | | | Analyst: **NSB** |
| Benzene | ND | 1.0 | | µg/L | 1 | 12/11/2007 5:51:30 PM |
| Toluene | ND | 1.0 | | µg/L | 1 | 12/11/2007 5:51:30 PM |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 12/11/2007 5:51:30 PM |
| Xylenes, Total | ND | 2.0 | | µg/L | 1 | 12/11/2007 5:51:30 PM |
| Surr: 4-Bromofluorobenzene | 86.1 | 70.2-105 | | %REC | 1 | 12/11/2007 5:51:30 PM |

**Qualifiers:**

| | |
|---|---|
| * | Value exceeds Maximum Contaminant Level |
| E | Value above quantitation range |
| J | Analyte detected below quantitation limits |
| ND | Not Detected at the Reporting Limit |
| S | Spike recovery outside accepted recovery limits |
| B | Analyte detected in the associated Method Blank |
| H | Holding times for preparation or analysis exceeded |
| MCL | Maximum Contaminant Level |
| RL | Reporting Limit |

# QA/QC SUMMARY REPORT

**Client:** Cypress Engineering
**Project:** TWP WT-1 DEHY
**Work Order:** 0712139

| Analyte | Result | Units | PQL | %Rec | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Method: EPA Method 8021B: Volatiles** | | | | | | | | | |
| **Sample ID: 0712139-02A MSD** | | *MSD* | | | Batch ID: | **R26481** | Analysis Date: | 12/11/2007 7:22:03 PM | |
| Benzene | 21.08 | µg/L | 1.0 | 105 | 85.9 | 113 | 1.44 | 27 | |
| Toluene | 21.18 | µg/L | 1.0 | 106 | 86.4 | 113 | 0.844 | 19 | |
| Ethylbenzene | 21.67 | µg/L | 1.0 | 106 | 83.5 | 118 | 0.760 | 10 | |
| Xylenes, Total | 66.20 | µg/L | 2.0 | 109 | 83.4 | 122 | 0.175 | 13 | |
| **Sample ID: 5ML RB** | | *MBLK* | | | Batch ID: | **R26481** | Analysis Date: | 12/11/2007 8:46:17 AM | |
| Benzene | ND | µg/L | 1.0 | | | | | | |
| Toluene | ND | µg/L | 1.0 | | | | | | |
| Ethylbenzene | ND | µg/L | 1.0 | | | | | | |
| Xylenes, Total | ND | µg/L | 2.0 | | | | | | |
| **Sample ID: 5ML RB** | | *MBLK* | | | Batch ID: | **R26503** | Analysis Date: | 12/12/2007 9:08:08 AM | |
| Benzene | ND | µg/L | 1.0 | | | | | | |
| Toluene | ND | µg/L | 1.0 | | | | | | |
| Ethylbenzene | ND | µg/L | 1.0 | | | | | | |
| Xylenes, Total | ND | µg/L | 2.0 | | | | | | |
| **Sample ID: 100NG BTEX LCS** | | *LCS* | | | Batch ID: | **R26481** | Analysis Date: | 12/11/2007 8:22:20 PM | |
| Benzene | 19.58 | µg/L | 1.0 | 97.9 | 85.9 | 113 | | | |
| Toluene | 19.63 | µg/L | 1.0 | 97.9 | 86.4 | 113 | | | |
| Ethylbenzene | 19.54 | µg/L | 1.0 | 97.7 | 83.5 | 118 | | | |
| Xylenes, Total | 58.92 | µg/L | 2.0 | 98.2 | 83.4 | 122 | | | |
| **Sample ID: 100NG BTEX LCS** | | *LCS* | | | Batch ID: | **R26503** | Analysis Date: | 12/12/2007 8:19:11 PM | |
| Benzene | 20.43 | µg/L | 1.0 | 102 | 85.9 | 113 | | | |
| Toluene | 19.95 | µg/L | 1.0 | 99.0 | 86.4 | 113 | | | |
| Ethylbenzene | 19.88 | µg/L | 1.0 | 99.4 | 83.5 | 118 | | | |
| Xylenes, Total | 59.43 | µg/L | 2.0 | 99.0 | 83.4 | 122 | | | |
| **Sample ID: 0712139-02A MS** | | *MS* | | | Batch ID: | **R26481** | Analysis Date: | 12/11/2007 6:51:57 PM | |
| Benzene | 20.78 | µg/L | 1.0 | 104 | 85.9 | 113 | | | |
| Toluene | 21.00 | µg/L | 1.0 | 105 | 86.4 | 113 | | | |
| Ethylbenzene | 21.51 | µg/L | 1.0 | 105 | 83.5 | 118 | | | |
| Xylenes, Total | 66.08 | µg/L | 2.0 | 108 | 83.4 | 122 | | | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| 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 | S | Spike recovery outside accepted recovery limits |

## Hall Environmental Analysis Laboratory, Inc.

### Sample Receipt Checklist

Client Name CYP | Date Received: 12/11/2007

Work Order Number 0712139 | Received by: ARS

Checklist completed by: [signature] Signature | 12/11/07 Date | Sample ID labels checked by TS Initials

Matrix | Carrier name Greyhound

| | | | | |
|---|---|---|---|---|
| Shipping container/cooler in good condition? | Yes ☑ | No ☐ | Not Present ☐ | |
| Custody seals intact on shipping container/cooler? | Yes ☑ | No ☐ | Not Present ☐ | Not Shipped ☐ |
| Custody seals intact on sample bottles? | Yes ☐ | No ☐ | N/A ☑ | |
| Chain of custody present? | Yes ☑ | No ☐ | | |
| Chain of custody signed when relinquished and received? | Yes ☑ | No ☐ | | |
| Chain of custody agrees with sample labels? | Yes ☑ | No ☐ | | |
| Samples in proper container/bottle? | Yes ☑ | No ☐ | | |
| Sample containers intact? | Yes ☑ | No ☐ | | |
| Sufficient sample volume for indicated test? | Yes ☑ | No ☐ | | |
| All samples received within holding time? | Yes ☑ | No ☐ | | |
| Water - VOA vials have zero headspace? | No VOA vials submitted ☐ | Yes ☑ | No ☐ | |
| Water - Preservation labels on bottle and cap match? | Yes ☐ | No ☐ | N/A ☑ | |
| Water - pH acceptable upon receipt? | Yes ☐ | No ☐ | N/A ☑ | |

Container/Temp Blank temperature? 1° *<6° C Acceptable* If given sufficient time to cool.

COMMENTS:

---

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

# Chain-of-Custody Record

Client: Cypress Engineering Services

Address: 7171 Hwy 6 North, Ste 102 Houston, TX 77095

Phone #: 281.797.3420

email or Fax#: 281.859.6881

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)
☐ Other
☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: Transwestern Pipeline Co. WT-1 Derry

Project #: TWP WT-1 Derry Area

Project Manager: George Robinson

Sampler: Sandy Sharp

On Ice: ☒ Y ☐ N

Sample Temperature: 4

**HALL ENVIRONMENTAL ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

| Date | Time | Sample Request ID | Container Type and # | Preservative Type | HEAL No. 0712139 | BTEX + MTBE + TMBs (8021) | BTEX + MTBE + TPH (Gas only) | TPH Method 8015B (Gas/Diesel) | TPH (Method 418.1) | EDB (Method 504.1) | EDC (Method 8260) | 8310 (PNA or PAH) | Anions ($F,Cl,NO_3,NO_2,PO_4,SO_4$) | 8081 Pesticides / 8082 PCB's | 8260B (VOA) | 8270 (Semi-VOA) | Air Bubbles (Y or N) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12/7/07 | 1600 | MW-11 | 40ml VOAs x3 | HCl | 1 | X | | | | | | | | | | | |
| | 1605 | MW-13 | | | 2 | | | | | | | | | | | | |
| | 1430 | MW-12 | | | 3 | | | | | | | | | | | | |
| | 1455 | MW-9 | | | 4 | | | | | | | | | | | | |
| | 1545 | SVE-13 | | | 5 | | | | | | | | | | | | |
| | | ~~SVE-14 SB~~ | | | | | | | | | | | | | | | |
| | | Trip Blank | 2 x 40mL VOAs | HCl | 6 | X | | | | | | | | | | | |

| Date: | Time: | Relinquished by: | Received by: | Remarks: |
|---|---|---|---|---|
| 12/8/07 | 1800 | Sandy Sharp | 9:25 12/11/07 | |
| Date: | Time: | Relinquished by: | Received by: | |

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.