



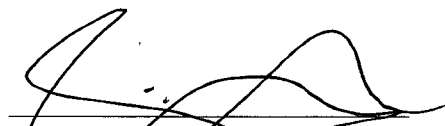
## THIRD QUARTER 2010 GROUNDWATER MONITORING REPORT

DCP APEX COMPRESSOR STATION  
GW-163

LATITUDE: N 32.708700 LONGITUDE: W 103.3089  
LEA COUNTY, NEW MEXICO


**Prepared For:**

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**CONESTOGA-ROVERS  
& ASSOCIATES**

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**CONESTOGA-ROVERS  
& ASSOCIATES**

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## 1.0 INTRODUCTION

Conestoga-Rovers & Associates (CRA) is submitting this *Third Quarter 2010 Groundwater Monitoring Report* to DCP Midstream, LP (DCP) for the Apex Compressor Station in Lea County, New Mexico. This report summarizes the third quarter 2010 groundwater sampling event. Groundwater monitoring and sampling details, analytical results and conclusions are presented below.

### **Site Background**

The site is located in Lea County, New Mexico approximately nine miles west of Hobbs, New Mexico (Figure 1). The site occupies approximately 1.8 acres in an undeveloped area. Petroleum hydrocarbons were discovered in soil and groundwater beneath a former tank battery during a 2004 property transaction. There are 24 groundwater monitoring and recovery wells onsite.

### **Hydrogeology**

Historical static groundwater depths have ranged between 51.69 and 65.87 feet below ground surface (ft bgs). Static groundwater depths ranged from 59.23 (MW-06) to 65.71 ft bgs (MW-10) on September 20, 2010. Groundwater flows to the south-southeast with a gradient of 0.015 ft/ft (Figure 2).

## 2.0 GROUNDWATER MONITORING AND SAMPLING

CRA gauged groundwater monitoring wells MW-01 through MW-07, MW-09, MW-10, MW-B through MW-D, and recovery wells RW-1 through RW-12 on September 20, 2010 and collected samples from MW-02 through MW-07, MW-09, MW-10, MW-B through MW-D, RW-01, RW-02, and RW-05 through RW-12 on September 21 and 22, 2010. Light non-aqueous phase liquids (LNAPL) were measured in wells MW-01, RW-03, and RW-04; groundwater samples were not collected. Each well cap was removed to allow groundwater levels to stabilize and equilibrate prior to gauging. All sampled wells were purged of approximately three well-casing volumes while temperature, pH, and conductivity were measured. Groundwater samples, including duplicate samples, were collected using clean disposable bailers and decanted into clean containers supplied by the analytical laboratory. Groundwater samples were submitted under chain-of-custody to Accutest Laboratories of Texas. CRA well sampling forms are presented as Appendix A. CRA's standard operating procedures for groundwater monitoring and sampling are presented as Appendix B.



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### **LNAPL Recovery**

CRA manually removed LNAPL from wells MW-01, RW-03, and RW-04 on July 10, August 26, and September 20, 2010. LNAPL thickness ranged from approximately 0.02 (MW-01) to 2.85 ft (RW-04) during the third quarter 2010. LNAPL recovery is summarized in Table 1.

### **Purged Groundwater**

Purged groundwater was transported to the DCP Linam Ranch facility for disposal. Purged LNAPL was transported to the Hobbs Gas Plant facility for secure storage.

## **3.0 ANALYTICAL RESULTS**

### **Groundwater Analytical Methods**

Groundwater samples collected from MW-02 through MW-10, MW-B through MW-D, RW-01, RW-02, and RW-05 through RW-12 were analyzed for:

- Benzene, toluene, ethylbenzene, and xylenes (BTEX) by SW-846 8260B.

### **Groundwater Sampling Results**

No BTEX was detected above NMWQCC standards in wells MW-04, MW-05, MW-09, MW-10, MW-C, and RW-09 through RW-12. The maximum benzene concentration was 6,770 micrograms per liter ( $\mu\text{g}/\text{l}$ ) in sample RW-05. Sample RW-06 contained the maximum concentration of xylenes 4,550  $\mu\text{g}/\text{l}$ . Current groundwater analytical results are summarized in Table 2. Historical groundwater analytical results are summarized in Table 3. The laboratory analytical report is presented as Appendix C.

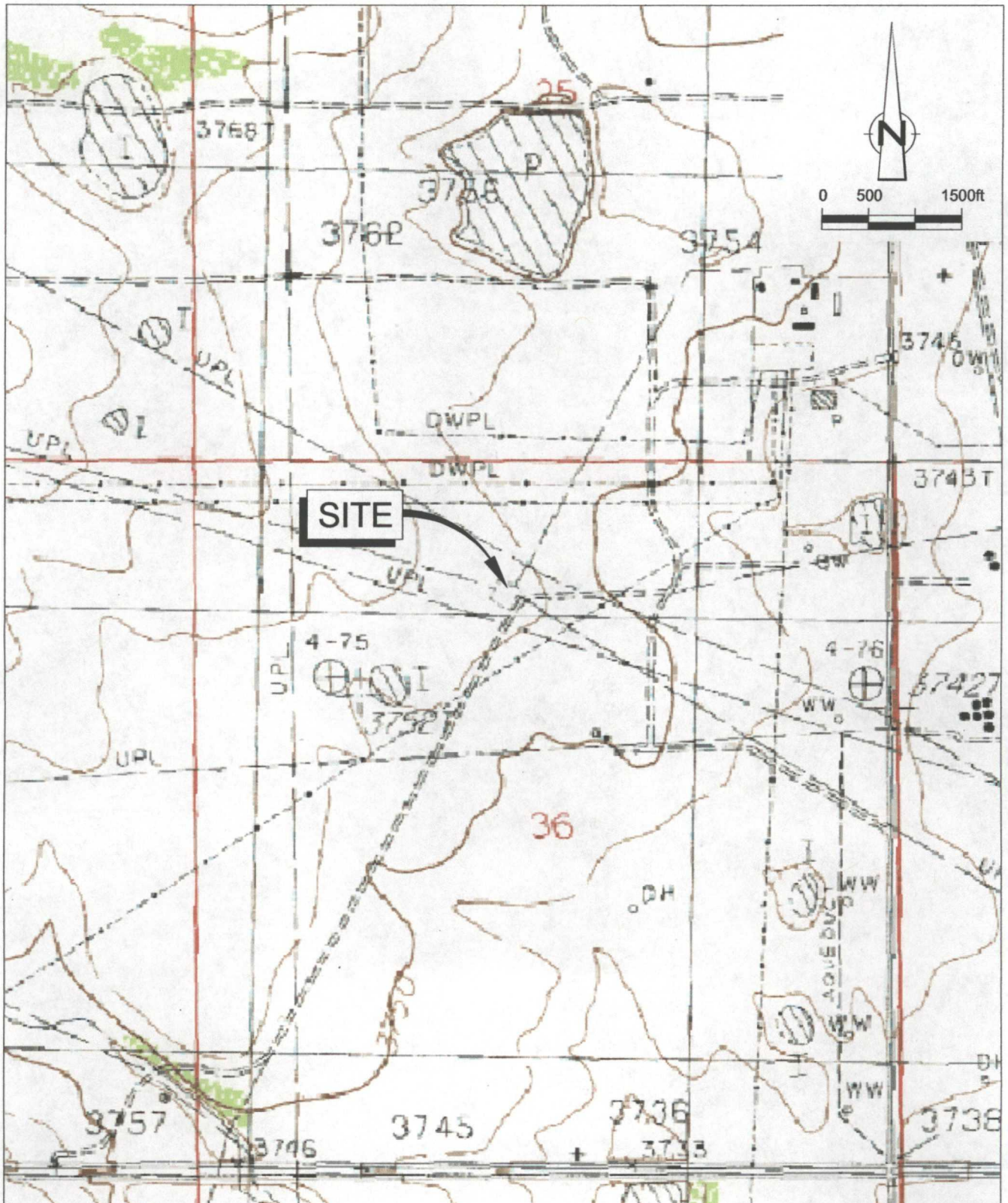
## **4.0 CONCLUSIONS**

Benzene concentrations have been increasing in wells MW-06 and MW-07 since 2009. A 2011 site assessment will assess offsite migration near well MW-07. DCP will continue monthly remedial observation and maintenance and quarterly monitoring and sampling during 2011 to evaluate site groundwater conditions.

FIGURES

FIGURE 1: VICINITY MAP

FIGURE 2: GROUNDWATER CONTOUR MAP

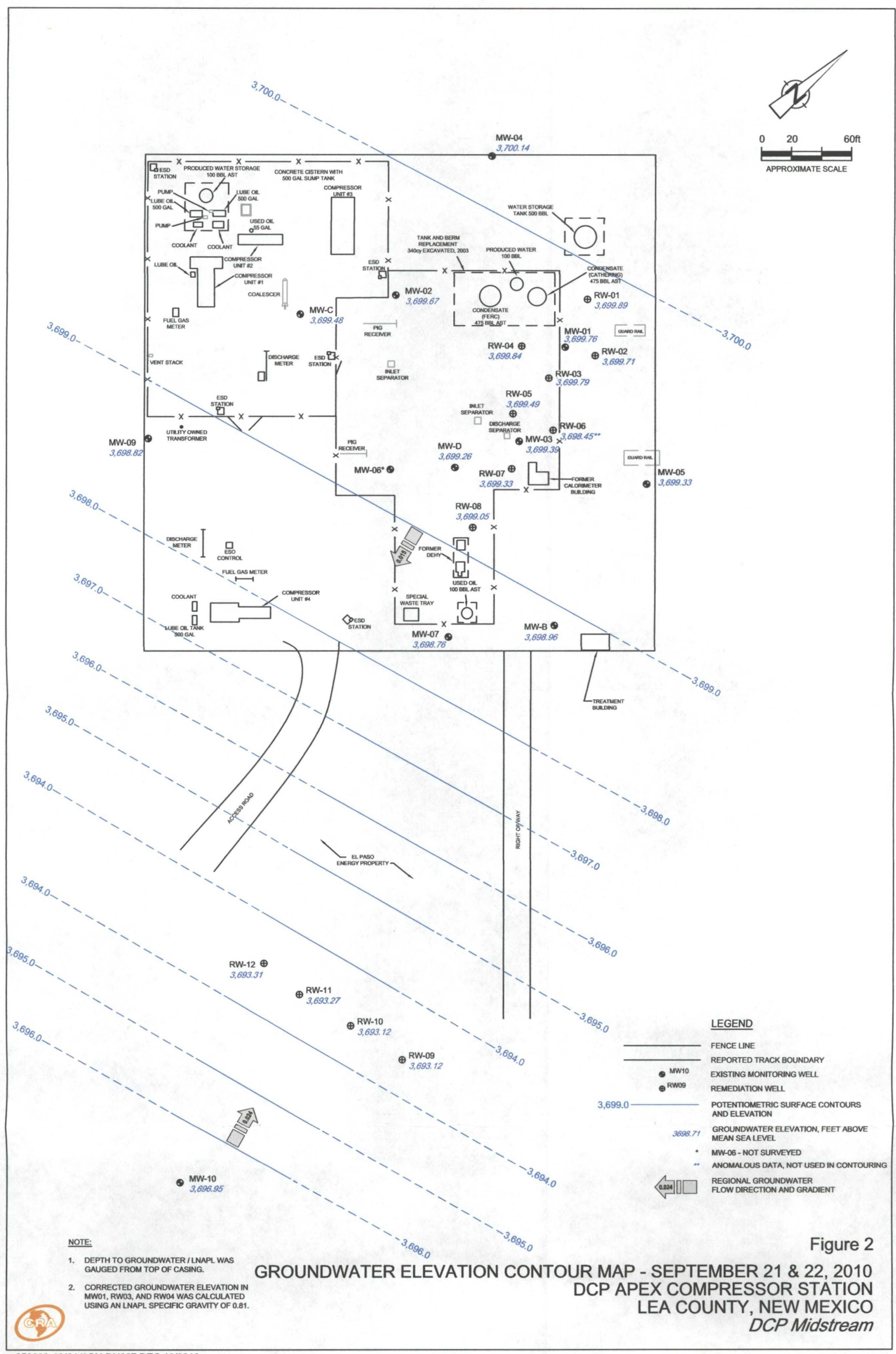
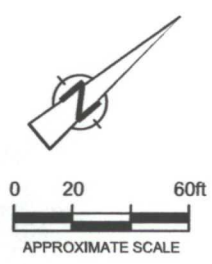


QUAD: USGS MONUMENT NORTH

Figure 1

VICINITY MAP  
 APEX COMPRESSOR STATION  
 LEA COUNTY, NEW MEXICO  
*DCP Midstream*





**NOTE:**

1. DEPTH TO GROUNDWATER / LNAPL WAS GAUGED FROM TOP OF CASING.
2. CORRECTED GROUNDWATER ELEVATION IN MW01, RW03, AND RW04 WAS CALCULATED USING AN LNAPL SPECIFIC GRAVITY OF 0.81.

**GROUNDWATER ELEVATION CONTOUR MAP - SEPTEMBER 21 & 22, 2010**  
**DCP APEX COMPRESSOR STATION**  
**LEA COUNTY, NEW MEXICO**  
*DCP Midstream*



TABLES

TABLE 1: LNAPL RECOVERY

TABLE 2: CURRENT GROUNDWATER ANALYTICAL RESULTS

TABLE 3: HISTORICAL GROUNDWATER ANALYTICAL RESULTS

# CONESTOGA-ROVERS & ASSOCIATES

**Table 1. LNAPL Recovery Table - Apex Compressor Station, Lea County, New Mexico**

Well ID	Date	DTW (ft bgs)	Depth to LNAPL (ft msl)	LNAPL Thickness feet	LNAPL Removed gallons
MW-01	1/26/05	59.43	54.39	5.04	---
MW-01	2/24/05	59.94	59.54	0.40	0.25
MW-01	2/25/05	59.78	59.63	0.15	0.10
MW-01	4/28/05	59.96	59.68	0.28	---
MW-01	4/29/05	59.89	59.80	0.09	---
MW-01	5/24/05	59.98	59.74	0.24	---
MW-01	7/27/05	60.12	59.83	0.29	---
MW-01	8/24/05	60.01	59.81	0.20	---
MW-01	10/26/05	60.11	59.89	0.22	1.00
MW-01	12/1/05	60.28	59.70	0.58	1.00
MW-01	1/25/06	60.31	60.11	0.20	---
MW-01	2/15/06	60.28	60.14	0.14	---
MW-01	3/23/06	60.22	60.13	0.09	---
MW-01	5/18/06	60.37	60.27	0.10	---
MW-01	5/17/09	60.37	60.27	0.10	0.50
MW-01	6/15/06	60.44	60.34	0.10	---
MW-01	7/17/06	60.25	60.15	0.10	0.50
MW-01	8/17/06	60.45	60.41	0.04	1.00
MW-01	9/11/06	60.59	60.29	0.30	0.40
MW-01	2/26/07	59.96	59.94	0.02	0.50
MW-01	6/24/09	59.83	59.79	0.04	---
MW-01	9/2/09	60.06	59.99	0.07	---
MW-01	11/16/09	60.17	60.01	0.16	0.02
MW-01	12/15/09	---	---	---	0.25
MW-01	1/14/10	60.20	60.13	0.07	0.01
MW-01	2/25/10	60.19	60.13	0.06	0.01
MW-01	3/31/10	60.25	60.20	0.05	0.01
MW-01	4/27/10	60.38	60.33	0.05	0.01
MW-01	5/27/10	60.52	60.25	0.27	0.01
MW-01	6/10/10	60.40	60.25	0.15	0.02
MW-01	7/10/10	60.38	60.18	0.20	0.05
MW-01	8/26/10	60.00	59.97	0.03	0.05
MW-01	9/20/10	60.05	59.97	0.08	---

# CONESTOGA-ROVERS & ASSOCIATES

**Table 1.** LNAPL Recovery Table - Apex Compressor Station, Lea County, New Mexico

Well ID	Date	DTW (ft bgs)	Depth to LNAPL (ft msl)	LNAPL Thickness feet	LNAPL Removed gallons
MW-03	1/26/05	59.29	59.11	0.18	---
MW-03	2/24/05	59.76	59.50	0.26	0.25
MW-03	2/25/05	59.67	59.58	0.09	0.10
MW-03	4/28/05	59.82	59.63	0.19	---
MW-03	4/29/05	59.94	59.89	0.05	---
MW-03	5/24/05	59.81	59.70	0.11	---
MW-03	7/27/05	60.05	59.82	0.23	---
MW-03	8/24/05	59.92	59.73	0.19	---
MW-03	10/26/05	60.09	59.88	0.21	1.00
MW-03	12/1/05	60.19	59.95	0.24	1.00
MW-03	1/25/06	60.22	60.08	0.14	---
MW-03	2/15/06	60.19	60.09	0.10	---
MW-03	3/23/06	60.24	60.20	0.04	---
MW-03	5/16/06	60.32	60.25	0.07	---
MW-03	5/17/06	60.32	60.25	0.07	0.40
MW-03	6/15/06	60.35	60.31	0.04	---
MW-03	7/17/06	60.29	60.26	0.03	0.50
MW-03	8/17/06	60.42	60.36	0.06	0.10
MW-03	9/11/06	60.32	60.27	0.05	0.30
MW-03	10/16/06	60.28	60.27	0.01	---
RW-01	8/24/05	59.66	59.31	0.35	---
RW-01	7/27/05	59.90	59.34	0.56	---
RW-01	5/24/05	59.75	59.22	0.53	---
RW-01	4/29/05	59.80	59.14	0.66	---
RW-01	4/28/05	60.08	59.06	1.02	---
RW-01	10/26/05	59.78	59.41	0.37	2.00
RW-01	12/1/05	59.91	59.50	0.41	---
RW-01	1/25/06	59.96	59.66	0.30	---
RW-01	2/15/06	59.88	59.68	0.20	---
RW-01	3/23/06	59.80	59.68	0.12	---
RW-01	5/16/06	59.95	59.82	0.13	---
RW-01	5/17/06	59.95	59.82	0.13	1.00
RW-01	6/15/06	59.96	59.89	0.07	---
RW-01	7/17/06	59.90	59.74	0.16	0.50
RW-01	8/17/06	60.01	59.98	0.03	---
RW-01	9/11/06	59.92	59.83	0.09	1.00
RW-01	11/14/06	59.70	59.66	0.04	---
RW-01	12/11/06	59.83	59.81	0.02	---
RW-01	2/26/07	59.79	59.76	0.03	0.50
RW-01	6/19/06	59.55	59.51	0.04	0.10

# CONESTOGA-ROVERS & ASSOCIATES

**Table 1. LNAPL Recovery Table - Apex Compressor Station, Lea County, New Mexico**

Well ID	Date	DTW (ft bgs)	Depth to LNAPL (ft msl)	LNAPL Thickness feet	LNAPL Removed gallons
RW-03	1/26/05	60.50	59.16	1.34	---
RW-03	2/24/05	59.86	59.34	0.52	0.25
RW-03	2/25/05	59.75	59.54	0.21	0.10
RW-03	4/28/05	59.83	59.48	0.35	---
RW-03	4/29/05	59.89	59.77	0.12	---
RW-03	5/24/05	59.82	59.55	0.27	---
RW-03	7/27/05	59.95	59.68	0.27	---
RW-03	8/24/05	59.85	59.62	0.23	---
RW-03	10/26/05	59.96	59.72	0.24	1.25
RW-03	12/1/05	60.09	59.81	0.28	1.00
RW-03	1/25/06	60.07	59.96	0.11	---
RW-03	2/15/06	60.08	59.98	0.10	---
RW-03	3/23/06	59.99	59.96	0.03	---
RW-03	5/16/06	60.19	60.10	0.09	---
RW-03	5/17/06	60.19	60.10	0.09	0.40
RW-03	6/15/06	60.12	60.07	0.05	---
RW-03	7/17/06	60.02	60.00	0.02	0.25
RW-03	8/17/06	60.25	60.24	0.01	0.10
RW-03	3/3/08	60.10	59.35	0.75	1.50
RW-03	6/2/08	60.36	59.16	1.20	---
RW-03	9/15/08	60.73	59.10	1.63	0.50
RW-03	12/3/08	60.73	59.07	1.66	2.50
RW-03	1/29/09	61.70	58.90	2.80	2.00
RW-03	2/25/09	60.67	58.94	1.73	2.00
RW-03	6/24/09	61.52	59.10	2.42	---
RW-03	9/2/09	61.95	59.13	2.82	---
RW-03	11/16/09	62.03	59.18	2.85	1.25
RW-03	12/15/09	---	---	--	2.00
RW-03	1/14/10	62.23	59.23	3.00	1.00
RW-03	2/25/10	62.20	59.24	2.96	1.00
RW-03	3/31/10	62.24	59.30	2.94	1.50
RW-03	4/27/10	62.34	59.36	2.98	1.00
RW-03	5/27/10	62.45	59.38	3.07	1.50
RW-03	6/10/10	62.44	59.38	3.06	1.25
RW-03	7/10/10	62.09	59.35	2.74	1.45
RW-03	8/26/10	61.63	59.19	2.44	1.00
RW-03	9/20/10	61.80	59.17	2.63	1.50

# CONESTOGA-ROVERS & ASSOCIATES

**Table 1. LNAPL Recovery Table - Apex Compressor Station, Lea County, New Mexico**

Well ID	Date	DTW (ft bgs)	Depth to LNAPL (ft msl)	LNAPL Thickness feet	LNAPL Removed gallons
RW-04	1/26/05	59.40	59.19	0.21	---
RW-04	2/24/05	60.16	59.28	0.88	0.50
RW-04	2/25/05	60.18	59.84	0.34	0.25
RW-04	4/28/05	60.53	59.34	1.19	---
RW-04	4/29/05	60.04	59.46	0.58	---
RW-04	5/24/05	60.81	59.29	1.52	---
RW-04	7/27/05	61.44	59.26	2.18	---
RW-04	8/24/05	61.52	59.12	2.40	---
RW-04	10/26/05	61.96	59.12	2.84	4.00
RW-04	12/1/05	62.11	59.22	2.89	2.00
RW-04	1/25/06	62.33	59.29	3.04	7.50
RW-04	2/15/06	61.05	59.24	1.81	---
RW-04	3/23/06	62.30	59.30	3.00	---
RW-04	5/16/06	62.55	59.39	3.16	---
RW-04	5/17/06	62.55	59.39	3.16	2.50
RW-04	6/15/06	62.75	59.54	3.21	3.50
RW-04	7/17/06	62.29	59.37	2.92	2.80
RW-04	8/17/06	62.48	59.48	3.00	3.50
RW-04	9/11/06	62.55	59.43	3.12	2.00
RW-04	11/14/06	62.31	59.29	3.02	---
RW-04	12/11/06	62.17	59.24	2.93	---
RW-04	2/26/07	61.06	59.14	1.92	2.70
RW-04	3/28/07	61.98	59.09	2.89	---
RW-04	5/24/07	62.01	60.10	1.91	2.50
RW-04	6/19/07	62.04	59.14	2.90	1.50
RW-04	7/19/07	62.16	59.06	3.10	3.00
RW-04	8/16/07	62.25	59.06	3.19	4.00
RW-04	9/17/07	62.27	59.06	3.21	2.00
RW-04	10/18/07	62.48	59.20	3.28	2.00
RW-04	11/16/07	62.27	59.16	3.11	2.50
RW-04	12/12/07	60.70	59.10	1.60	3.00
RW-04	1/10/08	62.01	59.08	2.93	3.50
RW-04	2/7/08	61.55	59.04	2.51	3.50
RW-04	3/3/08	61.75	59.19	2.56	3.00
RW-04	6/2/08	61.64	58.81	2.83	4.00
RW-04	9/15/08	61.76	58.88	2.88	1.50
RW-04	12/3/08	61.68	58.88	2.80	2.75
RW-04	1/29/09	61.70	58.90	2.80	2.50
RW-04	2/25/09	61.46	58.76	2.70	3.00
RW-04	6/24/09	61.96	58.98	2.98	---
RW-04	9/2/09	62.30	59.23	3.07	---
RW-04	11/16/09	62.30	59.23	3.07	1.25
RW-04	12/15/09	---	---	---	2.00
RW-04	1/14/10	62.40	59.29	3.11	1.75
RW-04	2/25/10	62.43	59.30	3.13	1.50
RW-04	3/31/10	62.40	59.34	3.06	1.25
RW-04	4/27/10	62.54	59.40	3.14	1.25
RW-04	5/27/10	62.60	59.42	3.18	1.25
RW-04	6/10/10	62.60	59.40	3.20	1.25
RW-04	7/10/10	62.28	59.43	2.85	1.50
RW-04	8/26/10	61.82	59.24	2.58	1.00
RW-04	9/20/10	61.99	59.22	2.77	1.50

# CONESTOGA-ROVERS & ASSOCIATES

**Table 1. LNAPL Recovery Table - Apex Compressor Station, Lea County, New Mexico**

Well ID	Date	DTW (ft bgs)	Depth to LNAPL (ft msl)	LNAPL Thickness feet	LNAPL Removed gallons
RW-05	1/26/05	59.55	59.40	0.15	---
RW-05	2/24/05	59.90	59.59	0.31	0.25
RW-05	2/25/05	59.96	59.84	0.12	0.10
RW-05	4/28/05	59.99	59.70	0.29	---
RW-05	4/29/05	60.06	59.96	0.10	---
RW-05	5/24/05	60.01	59.77	0.24	---
RW-05	7/27/05	60.21	59.90	0.31	---
RW-05	8/24/05	60.10	59.84	0.26	---
RW-05	10/26/05	60.20	59.95	0.25	1.50
RW-05	12/1/05	60.35	60.03	0.32	1.00
RW-05	1/25/06	60.39	60.15	0.24	---
RW-05	2/15/06	60.32	60.16	0.16	---
RW-05	3/23/06	60.31	60.20	0.11	---
RW-05	5/16/06	60.38	60.32	0.06	---
RW-05	5/17/06	60.38	60.02	0.36	0.50
RW-05	6/15/06	60.46	60.39	0.07	---
RW-05	7/17/06	60.40	60.29	0.11	0.50
RW-05	8/17/06	60.50	60.48	0.02	0.10
RW-06	1/26/05	59.50	59.42	0.08	---
RW-06	2/24/05	59.77	59.60	0.17	0.10
RW-06	2/25/06	59.68	59.62	0.06	0.05
RW-06	4/28/05	59.93	59.71	0.22	---
RW-06	4/29/05	59.98	59.90	0.08	---
RW-06	5/24/05	59.95	59.77	0.18	---
RW-06	7/27/05	60.09	59.88	0.21	---
RW-06	8/24/05	59.94	59.82	0.12	---
RW-06	10/26/05	60.09	59.94	0.15	1.00
RW-06	12/1/05	60.21	60.03	0.18	1.00
RW-06	1/25/06	60.14	60.11	0.03	---
RW-06	2/15/06	60.22	60.15	0.07	---
RW-06	3/23/06	60.22	60.21	0.01	---
RW-06	5/16/06	60.37	60.28	0.09	---
RW-06	5/17/06	60.37	60.28	0.09	0.30
RW-06	6/15/06	60.42	60.39	0.03	---
RW-06	7/17/06	60.27	60.26	0.01	0.25
RW-06	8/17/06	60.46	60.41	0.05	0.10

# CONESTOGA-ROVERS & ASSOCIATES

**Table 1. LNAPL Recovery Table - Apex Compressor Station, Lea County, New Mexico**

Well ID	Date	DTW (ft bgs)	Depth to LNAPL (ft msl)	LNAPL Thickness feet	LNAPL Removed gallons
RW-08	1/25/06	61.64	60.40	1.24	---
RW-08	2/15/06	60.86	60.58	0.28	---
RW-08	3/23/06	60.70	60.61	0.09	---
RW-08	5/16/06	60.82	60.80	0.02	---
RW-08	5/17/06	60.82	60.80	0.02	0.50
RW-08	6/15/06	60.91	60.84	0.07	---
RW-08	7/17/06	60.80	60.69	0.11	0.50
RW-08	8/17/06	60.90	60.85	0.05	0.20
RW-08	9/11/06	60.89	60.83	0.06	0.30
RW-08	10/16/06	60.82	60.81	0.01	---
RW-08	2/26/07	60.38	60.27	0.11	0.50
RW-08	6/19/07	60.41	60.38	0.03	0.10

**Total LNAPL Recovered    140.59**

**Notes and Abbreviations:**

LNAPL = Light non-aqueous phase liquids

ID = Identification

ft bgs = Feet below ground surface

ft msl = Feet above mean sea level

-- = No LNAPL recovered

## CONESTOGA-ROVERS & ASSOCIATES

**Table 2. Current Groundwater Analytical Results - DCP Apex Compressor Station, Lea County, New Mexico**

Well ID	Date	TOC (ft msl)	DTW (ft bgs)	GWE (ft msl)	Benzene	Toluene	Ethyl-benzene	Total Xylenes
					Concentrations in µg/l			
NMWQCC Cleanup Levels					← 10	750	750	→ 620
MW-01	9/21/2010	3759.75	60.05	3699.76	LNAPL present			
MW-02	9/22/2010	3759.67	60.00	3699.67	<b>29.6</b>	<0.43	<0.55	<1.7
MW-03	9/22/2010	3759.33	59.94	3699.39	<b>4,500</b>	122.0	<b>834</b>	<b>4,360</b>
MW-04	9/22/2010	3761.94	61.80	3700.14	9.3	<0.43	<0.55	<1.7
MW-05	9/21/2010	3760.97	61.64	3699.33	<0.5/<0.5	<0.43/<0.43	9.6/15.8	68.3/98.9
MW-06	9/22/2010	--	59.28	--	<b>16.8</b>	<0.43	<0.55	<1.7
MW-07	9/22/2010	3761.98	63.25	3698.73	<b>1,790</b>	<0.43	336	<b>1,480</b>
MW-09	9/21/2010	3762.54	63.72	3698.82	<0.5	<0.43	<0.55	<1.7
MW-10	9/21/2010	3762.66	65.71	3696.95	<0.5	<0.43	<0.55	<1.7
MW-B	9/22/2010	3758.52	59.56	3698.96	<b>30.7</b>	143	25.9	210
MW-C	9/21/2010	3759.93	60.45	3699.48	<0.5	<0.43	<0.55	<1.7
MW-D	9/22/2010	3759.53	60.27	3699.26	<b>570</b>	67.3	191	<b>726</b>
RW-01	9/22/2010	3759.49	59.60	3699.89	<b>1,080</b>	<0.43	273	<b>1,000</b>
RW-02	9/22/2010	3759.29	59.58	3699.71	<b>765/680 a</b>	<0.43/<0.43	303/271 a	<b>1,060/981 a</b>
RW-03	9/21/2010	3759.46	61.80	3699.79	LNAPL present			
RW-04	9/21/2010	3759.59	61.99	3699.84	LNAPL present			
RW-05	9/22/2010	3759.53	60.04	3699.49	<b>6,770</b>	<b>1,260</b>	696	<b>4,270</b>
RW-06	9/22/2010	3758.44	59.99	3698.45	<b>2,100</b>	54.4	<b>812</b>	<b>4,550</b>
RW-07	9/22/2010	3759.53	60.20	3699.33	<b>2,800</b>	<8.7	382	<b>1,080</b>
RW-08	9/22/2010	3759.51	60.46	3699.05	<b>3,000</b>	<11.0	555	<b>2,160</b>
RW-09	9/21/2010	3754.40	61.28	3693.12	<0.5	<0.43	<0.55	<1.7
RW-10	9/21/2010	3754.53	61.32	3693.21	<0.5	<0.43	<0.55	<1.7
RW-11	9/21/2010	3754.61	61.34	3693.27	<0.5	<0.43	<0.55	<1.7
RW-12	9/21/2010	3754.76	61.45	3693.31	<0.5	<0.43	<0.55	<1.7

**Notes and Abbreviations:**

- ID = Identification
- TOC = Top of casing
- DTW = Depth to water
- GWE = Groundwater elevation
- DO = Dissolved oxygen
- BTEX = Benzene, toluene, ethylbenzene, and total xylenes by SW-846 8021 or 8260B
- ft msl = Feet above mean sea level
- ft bgs = Feet below ground surface
- µg/l = Micrograms per liter
- <x = Not detected above x µg/l
- x / y = Sample results / blind duplicate results
- a = Result is from run # 2
- BOLD** = Indicates concentration above the NMOCD Cleanup Levels
- = Not measured/analyzed
- NMWQCC = New Mexico Water Quality Control Commission



## CONESTOGA-ROVERS & ASSOCIATES

Table 3 Historical Groundwater Analytical Results - DCP Apex Compressor Station, Lea County, New Mexico

Well ID	Date	TOC (ft msl)	DTW (ft bgs)	LNAPL Thickness (ft)	GWE (ft msl)	pH s u	Conductivity µS/cm	Temperature °C	DO mg/l	ORP mV	Concentrations in µg/l			
											Benzene 10	Toluene 750	Ethyl- benzene 750	Total Xylenes 620
<b>NMWQCC Cleanup Levels</b>														
MW-01	1/10/2008	3759.75	59.83	--	3699.92	--	--	--	--	--	--	--	--	--
MW-01	2/7/2008	3759.75	59.88	--	3699.87	--	--	--	--	--	--	--	--	--
MW-01	3/4/2008	3759.75	59.71	--	3700.04	6.57	2137	18.65	2.51	-179.2	2,900	< 2,500	590	3,200
MW-01(d)	3/4/2008	3759.75	59.71	--	3700.04	6.57	2132	18.65	2.51	-179.2	1,600	< 50	240	1,400
MW-01	6/3/2008	3759.75	59.73	--	3700.02	6.68	3042	20.50	1.26	-105.0	4,020	483	868	5,790
MW-01	9/17/2008	3759.75	59.68	--	3700.07	6.30	3555	19.90	0.31	-69.1	3,360	443	818	4,780
MW-01	12/4/2008	3759.75	59.70	--	3700.05	6.71	3358	17.78	1.01	-101.7	2,530	< 12	641	2,990
MW-01	1/29/2009	3759.75	59.70	--	3700.05	--	--	--	--	--	--	--	--	--
MW-01	2/24/2009	3759.75	59.76	--	3699.99	6.64	3414	19.74	0.69	-45.0	3,870	54.9	928	5,070
MW-01	6/24/2009	3759.75	59.83	0.04	3699.95	--	--	--	--	--	LNAPL present	--	--	--
MW-01	9/2/2009	3759.75	60.06	0.07	3699.75	--	--	--	--	--	LNAPL present	--	--	--
MW-01	11/16/2009	3759.75	60.17	0.16	3699.71	--	--	--	--	--	LNAPL present	--	--	--
MW-01	1/14/2010	3759.75	60.20	0.07	3699.61	--	--	--	--	--	LNAPL present	--	--	--
MW-01	2/25/2010	3759.75	60.13	0.06	3699.67	--	--	--	--	--	LNAPL present	--	--	--
MW-01	3/24/2010	3759.75	60.25	0.05	3699.54	--	--	--	--	--	LNAPL present	--	--	--
MW-01	6/10/2010	3759.75	60.40	0.15	3699.47	--	--	--	--	--	LNAPL present	--	--	--
MW-01	9/21/2010	3759.75	60.05	0.08	3699.76	--	--	--	--	--	LNAPL present	--	--	--
MW-02	1/10/2008	3759.67	59.84	--	3699.83	--	--	--	--	--	--	--	--	--
MW-02	2/7/2008	3759.67	59.69	--	3699.98	--	--	--	--	--	--	--	--	--
MW-02	3/4/2008	3759.67	59.69	--	3699.98	6.76	760	16.57	5.56	52.1	39	< 5.0	< 1.0	< 3.0
MW-02	6/3/2008	3759.67	59.68	--	3699.99	6.93	737	20.83	4.53	-76.0	30.5	< 0.48	0.67	1.9
MW-02	9/17/2008	3759.67	59.70	--	3699.97	6.11	834	19.74	1.24	21.6	86.8	0.53	2.2	27.6
MW-02	12/4/2008	3759.67	59.74	--	3699.93	6.81	804	18.26	0.94	-113.7	40.2	< 0.48	< 0.45	< 1.4
MW-02	1/29/2009	3759.67	59.75	--	3699.92	--	--	--	--	--	--	--	--	--
MW-02	2/24/2009	3759.67	59.59	--	3700.08	6.79	853	19.71	1.07	-14.7	101	< 0.48	1.4	< 1.4
MW-02	6/24/2009	3759.67	59.84	--	3699.83	6.70	100	97.00	5.49	-14.0	146	< 2.0	2.9	5.7
MW-02	9/2/2009	3759.67	59.97	--	3699.70	6.82	110	20.92	3.21	-33.0	171	< 2.0	2.4	2.0
MW-02	11/18/2009	3759.67	60.05	--	3699.62	7.36	631	21.50	--	--	8	< 2.0	< 2.0	< 6.0
MW-02	3/24/2010	3759.67	60.20	--	3699.47	7.01	862	19.39	--	--	44.3	< 2.0	< 2.0	< 6.0
MW-02	6/10/2010	3759.67	60.31	--	3699.36	6.86	801	22.78	--	--	23.4	< 2.0	< 2.0	2.7
MW-02	9/22/2010	3759.67	60.00	--	3699.67	6.64	895.2	19.60	--	--	29.6	< 0.43	< 0.55	< 1.7
MW-03	1/10/2008	3759.33	59.79	--	3699.54	--	--	--	--	--	--	--	--	--
MW-03	2/7/2008	3759.33	59.63	--	3699.70	--	--	--	--	--	--	--	--	--
MW-03	3/5/2008	3759.33	59.62	--	3699.71	6.84	1344	18.30	3.49	-88.7	4,800	1,180	690	4,100
MW-03	6/3/2008	3759.33	59.57	--	3699.76	6.75	1820	21.14	1.28	-136.7	4,780	187	796	4,190
MW-03	9/17/2008	3759.33	59.66	--	3699.67	6.42	1839	20.01	0.31	-74.0	5,120	284	829	4,460
MW-03	12/4/2008	3759.33	59.65	--	3699.68	6.85	1728	17.98	1.09	-63.4	4,200	< 24	693	3,090
MW-03	1/29/2009	3759.33	59.60	--	3699.73	--	--	--	--	--	--	--	--	--
MW-03	2/25/2009	3759.33	59.55	--	3699.78	6.80	1880	19.73	0.93	-35.6	5,300	< 24	775	3,470
MW-03	6/24/2009	3759.33	59.73	--	3699.60	6.70	230	21.40	2.83	-81.0	5,120	82.7	758	4,270
MW-03(d)	6/24/2009	3759.33	59.73	--	3699.60	6.70	230	21.40	2.83	-81.0	5,260 a	99.1	917	5,060
MW-03	9/2/2009	3759.33	59.94	--	3699.39	6.61	250	20.96	1.88	-136.0	5,290	< 200	742	4,350
MW-03(d)	9/2/2009	3759.33	59.94	--	3699.39	6.61	250	20.96	1.88	-136.0	5,250 a	28.9	828	4,730
MW-03	11/16/2009	3759.33	60.01	--	3699.32	6.78	2030	18.56	--	--	4,400	< 0.400	805	2,240
MW-03(d)	11/16/2009	3759.33	60.01	--	3699.32	6.78	2030	18.56	--	--	5,120	< 200	887	2,540
MW-03	3/24/2010	3759.33	60.24	--	3699.09	7.08	2310	20.06	--	--	3,760	< 400	641	1,510
MW-03(d)	3/24/2010	3759.33	60.24	--	3699.09	7.08	2310	20.06	--	--	3,850 a	2.0	886 a	1,590 a
MW-03	6/10/2010	3759.33	60.27	--	3699.06	6.89	1696	24.89	--	--	3,140	< 400	585	2,250
MW-03(d)	6/10/2010	3759.33	60.27	--	3699.06	6.89	1696	24.89	--	--	3,530 a	85.3	656 a	2,820 a
MW-03	9/22/2010	3759.33	59.94	--	3699.39	6.69	2797	19.8	--	--	4,500	122.0	834	4,360

## CONESTOGA-ROVERS & ASSOCIATES

**Table 3. Historical Groundwater Analytical Results - DCP Apex Compressor Station, Lea County, New Mexico**

Well ID	Date	TOC (ft msl)	DTW (ft bgs)	LNAPL Thickness (ft)	GWE (ft msl)	pH s u	Conductivity µS/cm	Temperature °C	DO mg/l	ORP mV	Concentrations in µg/l			
											Benzene 10	Toluene 750	Ethyl- benzene 750	Total Xylenes 620
<b>NMWQCC Cleanup Levels</b>														
MW-04	1/10/2008	3761.94	61.46	--	3700.48	--	--	--	--	--	--	--	--	--
MW-04	2/7/2008	3761.94	61.42	--	3700.52	--	--	--	--	--	--	--	--	--
MW-04	3/4/2008	3761.94	61.42	--	3700.52	6.60	656	17.86	5.36	102.3	<1.0	<5.0	<1.0	<3.0
MW-04	6/3/2008	3761.94	61.34	--	3700.60	6.91	759	20.20	3.60	39.9	<0.46	<0.48	<0.45	<1.4
MW-04	9/16/2008	3761.94	61.47	--	3700.47	6.63	736	19.99	3.18	84.5	2.9	<0.48	1.6 J	23
MW-04	12/3/2008	3761.94	61.43	--	3700.51	6.90	662	17.15	4.30	90.6	<0.46	<0.48	<0.45	<1.4
MW-04	1/29/2009	3761.94	61.40	--	3700.54	--	--	--	--	--	--	--	--	--
MW-04	2/24/2009	3761.94	61.31	--	3700.63	6.83	690	19.13	3.25	136.4	2.2	<0.48	<0.45	<1.4
MW-04	6/24/2009	3761.94	61.59	--	3700.35	6.70	900	20.10	6.03	152.0	3.7	<2.0	0.90 J	4.5 J
MW-04	9/2/2009	3761.94	61.70	--	3700.24	6.75	880	20.82	4.11	93.0	8.1	<2.0	0.71 J	<6.0
MW-04	11/18/2009	3761.94	61.78	--	3700.16	7.27	685	19.78	--	--	13.4	<2.0	1.9 J	3.6 J
MW-04	3/24/2010	3761.94	61.93	--	3700.01	7.08	757	19.00	--	--	0.59	<2.0	<2.0	<6.0
MW-04	6/10/2010	3761.94	62.10	--	3699.84	7.17	683	22.28	--	--	<2.0	<2.0	<2.0	<6.0
MW-04	9/22/2010	3761.94	61.80	--	3700.14	6.71	797.8	19.6	--	--	9.3	<0.43	<0.55	<1.7
MW-05	1/10/2008	3760.97	64.46	--	3696.51	--	--	--	--	--	--	--	--	--
MW-05	2/7/2008	3760.97	61.35	--	3699.62	--	--	--	--	--	--	--	--	--
MW-05	3/4/2008	3760.97	61.30	--	3699.67	6.72	917	17.96	3.99	-129.5	3.7	<5.0	24	93
MW-05	6/3/2008	3760.97	61.18	--	3699.79	6.89	1016	21.34	1.74	-106.0	3.5	<0.48	38.9	133
MW-05	9/16/2008	3760.97	61.29	--	3699.68	6.75	976	19.64	0.60	-56.1	2.6	<0.48	49.7	179
MW-05	12/3/2008	3760.97	61.30	--	3699.67	7.01	960	18.30	1.78	-48.6	<0.46	<0.48	36	176
MW-05	2/25/2009	3760.97	61.14	--	3699.83	6.98	908	19.20	1.03	23.4	<0.46	<0.48	34.9	126
MW-05	6/24/2009	3760.97	61.41	--	3699.56	6.80	120	20.40	2.35	-44.0	1.0 J	<2.0	52.7	344
MW-05	9/2/2009	3760.97	61.57	--	3699.40	6.65	140	21.40	1.90	-72.0	<2.0	<2.0	63.6	394 a
MW-05	11/16/2009	3760.97	61.68	--	3699.29	7.16	1081	17.00	--	--	<2.0	<2.0	50.9	235
MW-05	3/24/2010	3760.97	61.81	--	3699.16	7.18	1014	20.56	--	--	<2.0	<2.0	31.5	183
MW-05	6/9/2010	3760.97	61.95	--	3699.02	7.02	921	21.39	--	--	<2.0	<2.0	24.4	93.4
MW-05	9/21/2010	3760.97	61.64	--	3699.33	6.78	1057	20.00	--	--	<0.5	<0.43	9.6	68.3
MW-05(d)	9/21/2010	3760.97	61.64	--	3699.33	6.78	1057	20.00	--	--	<0.5	<0.43	15.8	98.9
MW-06	1/10/2008	3761.95	62.61	--	3699.34	--	--	--	--	--	--	--	--	--
MW-06	2/7/2008	3761.95	62.52	--	3699.43	--	--	--	--	--	--	--	--	--
MW-06	3/5/2008	3761.95	62.48	--	3699.47	6.91	1041	16.09	8.27	-15.3	8.1	<5.0	<1.0	<3.0
MW-06	6/2/2008	3761.95	--	--	--	--	--	--	--	--	--	--	--	--
MW-06	9/16/2008	3761.95	--	--	--	6.65	184	20.32	0.48	-104.0	1.0 J	<0.48	<0.45	12
MW-06	12/3/2008	3761.95	--	--	--	6.89	1168	18.51	0.91	-71.4	126	<0.48	4.1	<1.4
MW-06	2/24/2009	3761.95	--	--	--	6.85	1204	19.76	0.81	21.8	60.7	<0.48	1.9 J	<1.4
MW-06	6/24/2009	3761.95	59.21	--	3702.74	6.80	130	20.30	9.55	-5.0	22.9	<2.0	1.7 J	6.7
MW-06	9/2/2009	3761.95	59.31	--	3702.64	6.83	140	59.20	1.82	-36.0	28.4	<2.0	1.4 J	<6.0
MW-06	11/18/2009	3761.95	59.41	--	3702.54	7.12	1250	18.67	--	--	148	<2.0	<2.0	<6.0
MW-06(d)	11/18/2009	3761.95	59.41	--	3702.54	7.12	1250	18.67	--	--	150	<2.0	<2.0	<6.0
MW-06	3/24/2010	3761.95	59.51	--	3702.44	7.11	1331	20.50	--	--	172 a	<2.0	<2.0	<6.0
MW-06	6/10/2010	--	59.64	--	--	7.06	1166	22.50	--	--	182 a	<2.0	<2.0	<6.0
MW-06	9/22/2010	--	59.28	--	--	6.73	1214	19.70	--	--	16.8	<0.43	<0.55	<1.7

## CONESTOGA-ROVERS & ASSOCIATES

**Table 3. Historical Groundwater Analytical Results - DCP Apex Compressor Station, Lea County, New Mexico**

Well ID	Date	TOC (ft ml)	DTW (ft bgs)	LNAPL Thickness (ft)	GWE (ft ml)	pH s u	Conductivity µS/cm	Temperature °C	DO mg/l	ORP mV	Concentrations in µg/l			
											Benzene 10	Toluene 750	Ethyl- benzene 750	Total Xylenes 620
<b>NMWQCC Cleanup Levels</b>														
MW-07	1/10/2008	3761.98	63.18	--	3698.80	--	--	--	--	--	--	--	--	--
MW-07	2/7/2008	3761.98	63.06	--	3698.92	--	--	--	--	--	--	--	--	--
MW-07	3/4/2008	3761.98	63.01	--	3698.97	6.88	1240	17.78	2.58	-190.8	600	< 5.0	92	86
MW-07	6/3/2008	3761.98	62.94	--	3699.04	7.05	1360	20.32	1.47	-175.1	896	< 2.4	190	109
MW-07(d)	6/3/2008	3761.98	62.94	--	3699.04	7.05	1360	20.32	1.47	-175.1	924	< 0.48	196	122
MW-07	9/17/2008	3761.98	63.07	--	3698.91	6.43	1379	20.52	0.58	-92.0	869	< 0.48	201	564
MW-07(d)	9/17/2008	3761.98	63.07	--	3698.91	6.43	1379	20.52	0.58	-92.0	997	< 0.48	206	537
MW-07	12/3/2008	3761.98	63.10	--	3698.88	7.13	1240	17.30	1.90	-93.7	1,050	< 4.8	264	917
MW-07	1/29/2009	3761.98	63.00	--	3698.98	--	--	--	--	--	--	--	--	--
MW-07	2/24/2009	3761.98	62.88	--	3699.10	7.10	1308	19.39	1.21	-52.4	1,560	< 4.8	330	1,160
MW-07	6/23/2009	3761.98	63.08	--	3698.90	6.90	140	20.80	5.09	-55.0	769 a	1.2 J	190	527 a
MW-07	9/2/2009	3761.98	63.25	--	3698.73	6.87	160	21.12	1.98	-96.0	501 a	1.3 J	200	271 a
MW-07(d)	9/2/2009	3761.98	63.25	--	3698.73	6.87	160	21.12	1.98	-96.0	564 a	0.64 J	95.5	305
MW-07	11/18/2009	3761.98	63.33	--	3698.65	7.38	1394	19.78	--	--	1,460 a	2.8	294 a	1,110 a
MW-07	3/24/2010	3761.98	63.46	--	3698.52	7.33	1465	20.28	--	--	1,650 a	< 2.0	424	1,310
MW-07	6/10/2010	3761.98	63.55	--	3698.43	7.34	1034	23.50	--	--	1,880 a	< 2.0	412	1,290
MW-07	9/22/2010	3761.98	63.25	--	3698.73	7.16	1406	19.90	--	--	1,790	< 0.43	336	1,480
MW-09	1/10/2008	3762.54	63.65	--	3698.89	--	--	--	--	--	--	--	--	--
MW-09	2/7/2008	3762.54	63.62	--	3698.92	--	--	--	--	--	--	--	--	--
MW-09	3/4/2008	3762.54	63.56	--	3698.98	7.09	606	17.78	7.95	95.0	< 1.0	< 5.0	< 1.0	< 3.0
MW-09	6/3/2008	3762.54	63.49	--	3699.05	7.25	688	20.80	6.36	45.7	< 0.46	< 0.48	< 0.45	< 1.4
MW-09(d)	6/3/2008	3762.54	63.49	--	3699.05	7.25	688	20.80	6.36	45.7	< 0.46	< 0.48	< 0.45	< 1.4
MW-09	9/16/2008	3762.54	63.62	--	3698.92	6.96	693	19.77	4.80	94.1	0.62 J	< 0.48	0.46 J	11.6
MW-09	12/3/2008	3762.54	63.65	--	3698.89	7.25	693	17.59	6.90	98.1	< 0.46	< 0.48	< 0.45	< 1.4
MW-09	1/29/2009	3762.54	63.60	--	3698.94	--	--	--	--	--	--	--	--	--
MW-09	2/24/2009	3762.54	65.47	--	3697.07	7.25	783	19.15	6.39	167.4	< 0.46	< 0.48	< 0.45	< 1.4
MW-09	6/23/2009	3762.54	63.65	--	3698.89	7.20	100	20.00	9.02	210.0	< 2.0	< 2.0	< 2.0	< 6.0
MW-09	9/2/2009	3762.54	63.77	--	3698.77	7.11	110	20.81	8.76	111.0	< 2.0	< 2.0	< 2.0	< 6.0
MW-09	11/18/2009	3762.54	63.85	--	3698.69	7.28	1068	19.06	--	--	< 2.0	< 2.0	< 2.0	< 6.0
MW-09	3/24/2010	3762.54	63.92	--	3698.62	7.36	1241	19.56	--	--	< 2.0	< 2.0	< 2.0	< 6.0
MW-09	6/9/2010	3762.54	64.03	--	3698.51	7.28	1198	22.67	--	--	< 2.0	< 2.0	< 2.0	< 6.0
MW-09	9/21/2010	3762.54	63.72	--	3698.82	6.96	1502	20.2	--	--	< 2.0	< 0.43	< 0.55	< 1.7
MW-10	1/10/2008	3762.66	65.78	--	3696.88	--	--	--	--	--	--	--	--	--
MW-10	2/7/2008	3762.66	65.74	--	3696.92	--	--	--	--	--	--	--	--	--
MW-10	3/4/2008	3762.66	65.66	--	3697.00	7.22	524	14.63	16.11	102.9	< 1.0	< 5.0	< 1.0	< 3.0
MW-10	6/2/2008	3762.66	65.89	--	3696.77	7.27	632	20.26	6.97	499.9	< 0.46	< 0.48	< 0.45	< 1.4
MW-10	9/16/2008	3762.66	65.84	--	3696.82	7.29	569	18.98	5.34	45.4	< 0.46	< 0.48	< 0.45	11.1
MW-10	12/3/2008	3762.66	65.75	--	3696.91	7.51	553	17.82	8.19	111.1	< 0.46	< 0.48	< 0.45	< 1.4
MW-10	1/29/2009	3762.66	65.70	--	3696.96	--	--	--	--	--	--	--	--	--
MW-10	2/24/2009	3762.66	65.53	--	3697.13	7.51	573	18.89	6.69	233.1	< 0.46	< 0.48	< 0.45	< 1.4
MW-10	6/23/2009	3762.66	65.63	--	3697.03	7.40	690	20.20	10.40	230.0	< 2.0	< 2.0	< 2.0	< 6.0
MW-10	9/2/2009	3762.66	65.85	--	3696.81	6.67	780	20.39	8.55	180.0	< 2.0	< 2.0	< 2.0	< 6.0
MW-10	11/18/2009	3762.66	65.87	--	3696.79	7.76	1014	19.17	--	--	< 2.0	< 2.0	< 2.0	< 6.0
MW-10	3/24/2010	3762.66	65.87	--	3696.79	7.61	729	18.78	--	--	< 2.0	< 2.0	< 2.0	< 6.0
MW-10	6/9/2010	3762.66	66.02	--	3696.64	7.64	583	22.28	--	--	< 2.0	< 2.0	< 2.0	< 6.0
MW-10	9/21/2010	3762.66	65.71	--	3696.95	7.25	667.2	19.9	--	--	< 0.5	< 0.43	< 0.55	< 1.7

## CONESTOGA-ROVERS & ASSOCIATES

Table 3. Historical Groundwater Analytical Results - DCP Apex Compressor Station, Lea County, New Mexico

Well ID	Date	TOC (ft msl)	DTW (ft bgs)	LNAPL Thickness (ft)	GWE (ft msl)	pH s u	Conductivity µS/cm.	Temperature °C	DO mg/l	ORP mV	Concentrations in µg/l							
											Benzene 10	Toluene 750	Ethyl- benzene 750	Total Xylenes 620				
NMWQCC Cleanup Levels												10	750	750	620			
MW-B	1/10/2008	3758.52	59.45	--	3699.07	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-B	2/7/2008	3758.52	59.34	--	3699.18	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-B	3/4/2008	3758.52	59.29	--	3699.23	6.62	1035	17.67	6.17	16.1	<1.0	<5.0	<1.0	<3.0	--	--	--	
MW-B	6/3/2008	3758.52	59.19	--	3699.33	6.81	1108	20.73	3.84	-45.2	40.1	161	141	115	--	--	--	
MW-B	9/16/2008	3758.52	59.32	--	3699.20	6.28	1099	19.71	0.95	-32.8	63.9	230	50.5	245	--	--	--	
MW-B	12/3/2008	3758.52	59.31	--	3699.21	6.96	893	18.04	3.56	53.1	<0.46	<0.48	<0.45	<1.4	--	--	--	
MW-B	1/29/2009	3758.52	59.30	--	3699.22	--	--	--	--	--	--	--	--	--	--	--	--	
MW-B	2/24/2009	3758.52	59.17	--	3699.35	6.93	927	19.10	2.97	144.8	3.0	7.8	10.1	6.9	--	--	--	
MW-B	6/24/2009	3758.52	59.37	--	3699.15	6.80	120	21.30	6.26	20.0	60.9	566 a	92.6	553	--	--	--	
MW-B	9/2/2009	3758.52	59.54	--	3698.98	6.81	130	38.60	1.85	-69.0	70.6	602 a	91.5	590 a	--	--	--	
MW-B	11/18/2009	3758.52	59.61	--	3698.91	7.28	1095	16.67	--	--	5.4	3.3	2.2	4.9	--	--	--	
MW-B	3/24/2010	3758.52	59.72	--	3698.80	7.14	1105	19.28	--	--	4.9	48.4	8.9	45.7	--	--	--	
MW-B	6/10/2010	3758.52	59.90	--	3698.62	7.12	1028	21.67	--	--	16.8	70.6	25.7	102	--	--	--	
MW-B	9/22/2010	3758.52	59.56	--	3698.96	6.84	1205	19.6	--	--	30.7	143	25.9	210	--	--	--	
MW-C	1/10/2008	3759.93	60.33	--	3699.60	--	--	--	--	--	--	--	--	--	--	--	--	
MW-C	2/7/2008	3759.93	60.24	--	3699.69	--	--	--	--	--	--	--	--	--	--	--	--	
MW-C	3/5/2008	3759.93	60.21	--	3699.72	6.98	595	16.89	9.97	56.9	<1.0	<5.0	<1.0	<3.0	--	--	--	
MW-C	6/3/2008	3759.93	60.15	--	3699.78	6.99	773	20.83	6.90	-81.1	<0.46	<0.48	<0.45	<1.4	--	--	--	
MW-C	9/16/2008	3759.93	60.22	--	3699.71	6.73	803	19.99	3.58	90.0	<0.46	<0.48	<0.45	11.2	--	--	--	
MW-C	12/3/2008	3759.93	60.30	--	3699.63	6.97	761	18.36	5.37	115.6	<0.46	<0.48	<0.45	<1.4	--	--	--	
MW-C	1/29/2009	3759.93	60.20	--	3699.73	--	--	--	--	--	--	--	--	--	--	--	--	
MW-C	2/24/2009	3759.93	60.12	--	3699.81	6.91	792	13.21	4.40	186.3	<0.46	<0.48	<0.45	<1.4	--	--	--	
MW-C	6/24/2009	3759.93	60.32	--	3699.61	6.80	110	20.60	6.31	127.0	<2.0	<2.0	<2.0	<6.0	--	--	--	
MW-C	9/2/2009	3759.93	60.42	--	3699.51	7.02	120	20.14	6.20	88.0	<2.0	<2.0	<2.0	<6.0	--	--	--	
MW-C	11/18/2009	3759.93	60.56	--	3699.37	7.22	1000	18.89	--	--	<2.0	<2.0	<2.0	<6.0	--	--	--	
MW-C	3/24/2010	3759.93	60.64	--	3699.29	7.11	1019	19.56	--	--	<2.0	0.10	<2.0	<6.0	--	--	--	
MW-C	6/9/2010	3759.93	60.76	--	3699.17	7.01	861	22.68	--	--	<2.0	<2.0	<2.0	<6.0	--	--	--	
MW-C	9/21/2010	3759.93	60.45	--	3699.48	6.72	978.1	20.2	--	--	<0.5	<0.43	<0.36	<1.7	--	--	--	
MW-D	1/10/2008	3759.53	60.19	--	3699.34	--	--	--	--	--	--	--	--	--	--	--	--	
MW-D	2/7/2008	3759.53	60.08	--	3699.45	--	--	--	--	--	--	--	--	--	--	--	--	
MW-D	3/5/2008	3759.53	60.04	--	3699.49	7.00	891	16.64	11.15	-134.4	470	140	160	610	--	--	--	
MW-D	6/3/2008	3759.53	59.97	--	3699.56	6.83	1249	21.09	0.75	-195.8	662	47.4	252	202	--	--	--	
MW-D	9/16/2008	3759.53	60.10	--	3699.43	6.23	1221	20.31	0.46	-102.2	711	93.8	255	518	--	--	--	
MW-D	12/3/2008	3759.53	60.10	--	3699.43	6.94	1118	18.12	1.32	-111.5	749	36.4	282	1,200	--	--	--	
MW-D(d)	12/3/2008	3759.53	60.10	--	3699.43	6.94	1118	18.12	1.32	-111.5	738	36.7	263	1,200	--	--	--	
MW-D	1/29/2009	3759.53	60.15	--	3699.38	--	--	--	--	--	--	--	--	--	--	--	--	
MW-D	2/24/2009	3759.53	59.94	--	3699.59	6.87	1153	19.47	0.92	-38.1	759	176	277	1,070	--	--	--	
MW-D(d)	2/24/2009	3759.53	59.94	--	3699.59	6.87	1153	19.47	0.92	-38.1	937	173	326	1,430	--	--	--	
MW-D	6/24/2009	3759.53	60.18	--	3699.35	6.80	130	20.70	2.01	-89.0	999	253	322	1,780	--	--	--	
MW-D	9/2/2009	3759.53	60.29	--	3699.24	6.90	150	20.72	2.11	-128.0	963	202	319	1,940	--	--	--	
MW-D	11/18/2009	3759.53	60.41	--	3699.12	7.09	1223	18.78	--	--	1,070	30.4	303	1,330	--	--	--	
MW-D	3/24/2010	3759.53	60.50	--	3699.03	7.04	1306	20.06	--	--	1,260	38.9	292	1,920	--	--	--	
MW-D	6/10/2010	3759.53	60.63	--	3698.90	6.99	977	23.89	--	--	834 a	73.5	260 a	1,350 a	--	--	--	
MW-D	9/22/2010	3759.53	60.27	--	3699.26	6.81	1264	19.9	--	--	570	67.3	191	726	--	--	--	

## CONESTOGA-ROVERS & ASSOCIATES

Table 3. Historical Groundwater Analytical Results - DCP Apex Compressor Station, Lea County, New Mexico

Well ID	Date	TOC (ft msl)	DTW (ft bgs)	LNAPL Thickness (ft)	GWE (ft msl)	pH s u	Conductivity µS/cm	Temperature °C	DO mg/l	ORP mV	Concentrations in µg/l					
											Benzene 10	Toluene 750	Ethyl- benzene 750	Total Xylenes 620		
RW-01	1/10/2008	3759.49	59.39	--	3700.10	--	--	--	--	--	--	--	--	--	--	--
RW-01	2/7/2008	3759.49	59.28	--	3700.21	--	--	--	--	--	--	--	--	--	--	--
RW-01	3/4/2008	3759.49	59.62	--	3699.87	6.68	1884	18.34	4.02	-218.1	620	< 50	170	860		
RW-01(d)	3/4/2008	3759.49	59.62	--	3699.87	6.68	1884	18.34	4.02	-218.1	550	< 50	200	1,000		
RW-01	6/3/2008	3759.49	59.11	--	3700.38	6.85	2192	20.99	2.41	-136.4	662	7.7	712	3,750		
RW-01	9/17/2008	3759.49	59.21	--	3700.28	6.71	1929	20.24	0.41	-82.1	499	2.1	345	1,480		
RW-01(d)	9/17/2008	3759.49	59.21	--	3700.28	6.71	1929	20.24	0.41	-82.1	522	1.9	302	1,390		
RW-01	12/4/2008	3759.49	59.25	--	3700.24	7.01	1797	17.80	1.03	-127.4	515	< 2.4	347	1,540		
RW-01	1/29/2009	3759.49	59.25	--	3700.24	--	--	--	--	--	--	--	--	--	--	--
RW-01	2/24/2009	3759.49	59.12	--	3700.37	6.90	1922	19.91	0.50	-94.4	770	< 2.4	387	1,570		
RW-01	6/23/2009	3759.49	59.34	--	3700.15	6.90	220	20.80	2.13	-121.0	1,110 a	< 2.0	304 a	1,360		
RW-01(d)	6/23/2009	3759.49	59.34	--	3700.15	6.90	220	20.80	2.13	-121.0	1,160	< 2.0	315	1,400		
RW-01	9/3/2009	3759.49	59.55	--	3699.94	6.55	220	19.80	1.79	-126.0	1,100	< 2.0	363	1,780		
RW-01	11/18/2009	3759.49	59.63	--	3699.86	7.11	1868	21.06	--	--	906 a	< 2.0	321 a	901 a		
RW-01	3/24/2010	3759.49	59.78	--	3699.71	7.12	1830	19.56	--	--	1,010	< 2.0	255	947		
RW-01	6/10/2010	3759.49	59.90	--	3699.59	7.09	1086	22.67	--	--	919	< 2.0	253	821		
RW-01	9/22/2010	3759.49	59.60	--	3699.89	6.78	1719	19.4	--	--	1,080	< 0.43	273	1,000		
RW-02	1/10/2008	3759.29	59.33	--	3699.96	--	--	--	--	--	--	--	--	--	--	--
RW-02	2/7/2008	3759.29	59.29	--	3700.00	--	--	--	--	--	--	--	--	--	--	--
RW-02	3/4/2008	3759.29	59.21	--	3700.08	6.54	2101	18.03	2.57	-185.2	1,400	< 50	260	880		
RW-02	6/3/2008	3759.29	59.15	--	3700.14	6.71	2232	20.70	1.34	-118.8	1,230	< 0.48	348	1,100		
RW-02	9/17/2008	3759.29	59.21	--	3700.08	6.19	1926	19.49	0.54	-47.3	1,160	< 0.48	344	1,220		
RW-02	12/4/2008	3759.29	59.22	--	3700.07	6.92	1527	17.78	2.07	-94.8	860	< 0.48	289	779		
RW-02(d)	12/4/2008	3759.29	59.22	--	3700.07	6.92	1527	17.78	2.07	-94.8	849	< 4.8	266	741		
RW-02	1/29/2009	3759.29	59.25	--	3700.04	--	--	--	--	--	--	--	--	--	--	--
RW-02	2/24/2009	3759.29	59.12	--	3700.17	6.86	1513	19.42	1.03	-68.4	1,200	< 0.48	397	1,160		
RW-02(d)	2/24/2009	3759.29	59.12	--	3700.17	6.86	1513	19.42	1.03	-68.4	1,130	< 4.8	360	1,080		
RW-02	6/23/2009	3759.29	59.32	--	3699.97	6.80	170	20.70	2.34	-93.0	1,140	< 2.0	405	1,530		
RW-02	9/3/2009	3759.29	59.54	--	3699.75	6.65	170	19.72	1.84	-133.0	962	< 2.0	417	1,830		
RW-02	11/18/2009	3759.29	59.61	--	3699.68	6.92	1420	19.17	--	--	715 a	< 2.0	303 a	846 a		
RW-02	3/24/2010	3759.29	59.78	--	3699.51	7.02	1425	20.39	--	--	512	< 2.0	208	647		
RW-02	6/10/2010	3759.29	59.90	--	3699.39	7.01	1148	22.50	--	--	491	< 2.0	216	661		
RW-02	9/22/2010	3759.29	59.58	--	3699.71	6.81	1552	19.80	--	--	765	< 0.43	303	1,060		
RW-02(L)	9/22/2010	3759.29	59.58	--	3699.71	6.81	1552	19.80	--	--	680 a	< 0.43	271 a	981 a		
RW-03	1/10/2008	3759.46	59.48	--	3699.98	--	--	--	--	--	--	--	--	--	--	--
RW-03	2/7/2008	3759.46	59.46	--	3700.00	--	--	--	--	--	--	--	--	--	--	--
RW-03	3/3/2008	3759.46	60.10	0.75	3699.97	--	--	--	--	--	--	--	--	--	--	--
RW-03	6/2/2008	3759.46	60.36	1.20	3700.07	--	--	--	--	--	--	--	--	--	--	--
RW-03	9/15/2008	3759.46	60.73	1.63	3700.05	--	--	--	--	--	--	--	--	--	--	--
RW-03	12/3/2008	3759.46	60.73	1.66	3700.07	--	--	--	--	--	--	--	--	--	--	--
RW-03	1/29/2009	3759.46	61.70	2.80	3700.03	--	--	--	--	--	--	--	--	--	--	--
RW-03	2/25/2009	3759.46	60.67	1.73	3700.19	--	--	--	--	--	--	--	--	--	--	--
RW-03	6/24/2009	3759.46	61.52	2.42	3699.90	--	--	--	--	--	--	--	--	--	--	--
RW-03	9/2/2009	3759.46	61.95	2.82	3699.79	--	--	--	--	--	--	--	--	--	--	--
RW-03	11/16/2009	3759.46	62.03	2.85	3699.71	--	--	--	--	--	--	--	--	--	--	--
RW-03	1/14/2010	3759.46	62.23	3.00	3699.54	--	--	--	--	--	--	--	--	--	--	--
RW-03	2/25/2010	3759.46	62.20	2.96	3699.69	--	--	--	--	--	--	--	--	--	--	--
RW-03	3/31/2010	3759.46	62.24	2.94	3699.60	--	--	--	--	--	--	--	--	--	--	--
RW-03	6/10/2010	3759.46	62.44	3.06	3699.50	--	--	--	--	--	--	--	--	--	--	--
RW-03	9/21/2010	3759.46	61.80	2.63	3699.79	--	--	--	--	--	--	--	--	--	--	--

## CONESTOGA-ROVERS & ASSOCIATES

**Table 3. Historical Groundwater Analytical Results - DCP Apex Compressor Station, Lea County, New Mexico**

Well ID	Date	TOC (ft ml)	DTW (ft bgs)	LNAPL Thickness (ft)	GWE (ft ml)	pH s.u.	Conductivity µS/cm	Temperature °C	DO mg/l	ORP mV	Concentrations in µg/l					
											Benzene 10	Toluene 750	Ethyl- benzene 750	Total Xylenes 620		
<b>NMWQCC Cleanup Levels</b>																
RW-04	1/10/2008	3759.59	62.01	2.93	3699.95						LNAPL present					
RW-04	2/7/2008	3759.59	61.55	2.51	3700.07						LNAPL present					
RW-04	3/3/2008	3759.59	61.75	2.56	3699.91						LNAPL present					
RW-04	6/2/2008	3759.59	61.64	2.83	3700.24						LNAPL present					
RW-04	9/15/2008	3759.59	61.76	2.88	3700.16						LNAPL present					
RW-04	12/3/2008	3759.59	61.68	2.80	3700.18						LNAPL present					
RW-04	1/29/2009	3759.59	61.70	2.80	3700.16						LNAPL present					
RW-04	2/25/2009	3759.59	61.46	2.70	3700.32						LNAPL present					
RW-04	6/24/2009	3759.59	61.96	2.98	3700.04						LNAPL present					
RW-04	9/2/2009	3759.59	62.23	3.07	3699.85						LNAPL present					
RW-04	11/16/2009	3759.59	62.30	3.07	3699.78						LNAPL present					
RW-04	1/14/2010	3759.59	62.40	3.11	3699.71						LNAPL present					
RW-04	2/25/2010	3759.59	62.43	3.13	3699.70						LNAPL present					
RW-04	3/31/2010	3759.59	62.40	3.06	3699.67						LNAPL present					
RW-04	6/10/2010	3759.59	62.60	3.20	3699.58						LNAPL present					
RW-04	9/21/2010	3759.59	61.99	2.77	3699.84						LNAPL present					
RW-05	1/10/2008	3759.53	59.84		3699.69											
RW-05	2/7/2008	3759.53	59.74		3699.79											
RW-05	3/5/2008	3759.53	59.73		3699.80	6.84	1238	18.23	2.34	-213.9	4,800	7,200	1,400	10,000		
RW-05	6/3/2008	3759.53	59.65		3699.88	6.81	1644	22.10	0.91	-213.6	5,000	2,310	817	4,910		
RW-05	9/17/2008	3759.53	59.74		3699.79	6.42	1791	20.63	0.04	-75.1	5,040	3,620	874	5,840		
RW-05	12/4/2008	3759.53	59.76		3699.77	6.87	1689	18.31	0.61	-132.7	3,790	638	653	4,090		
RW-05	1/29/2009	3759.53	59.75		3699.78											
RW-05	2/25/2009	3759.53	59.70		3699.83	6.86	1972	19.52	1.09	-14.3	5,030	934	722	4,840		
RW-05	6/24/2009	3759.53	59.83		3699.70	6.70	230	20.80	4.54	-88.0	5,030	5,400	696	4,450		
RW-05	9/3/2009	3759.53	60.04		3699.49	6.63	270	21.06	1.89	-134.0	4,880	5,490	570	3,800		
RW-05	11/18/2009	3759.53	60.16		3699.37	6.94	2540	18.00			5,740	149.1	693	4,030		
RW-05	3/24/2010	3759.53	60.35		3699.18	6.95	2780	19.28			5,140	795	558	3,610		
RW-05	6/10/2010	3759.53	60.40		3699.13	6.92	1995	23.00			5,690	488	602	3,550		
RW-05(d)	6/10/2010	3759.53	60.40		3699.13	6.92	1995	23.00			5,590	230	565	3,200		
RW-05	9/22/2010	3759.53	60.04		3699.49	6.71	3480	19.80			6,770	1,260	696	4,270		
RW-06	1/10/2008	3758.44	58.78		3699.66											
RW-06	3/5/2008	3758.44	59.67		3698.77	6.91	1217	17.81	3.47	-146.1	14,000	10,000	3,200	18,000		
RW-06	6/2/2008	3758.44	51.69		3706.75	6.80	1601	21.23	1.36	-182.0	3,930	3,660	1,090	7,200		
RW-06	9/17/2008	3758.44	59.68		3698.76	6.39	1664	19.84	0.25	-68.2	3,860	3,870	981	5,980		
RW-06	12/4/2008	3758.44	59.65		3698.79	6.90	1594	17.93	1.21	-161.8	2,890	555	715	3,970		
RW-06	1/29/2009	3758.44	59.70		3698.74											
RW-06	2/25/2009	3758.44	59.61		3698.83	6.82	1753	19.79	0.86	-30.7	3,460	435	786	4,630		
RW-06	6/24/2009	3758.44	59.77		3698.67	6.70	200	20.80	2.13	-81.0	3,360	1,760	809	5,470		
RW-06	9/3/2009	3758.44	59.97		3698.47	6.67	230	20.82	2.13	-124.0	2,890	1,140	683	4,780		
RW-06	11/18/2009	3758.44	60.03		3698.41	6.95	2020	17.67			2,590	<200	756	4,280		
RW-06	3/24/2010	3758.44	60.17		3698.27	7.01	2150	21.56			1,650	172	576	3,100		
RW-06	6/10/2010	3758.44	60.35		3698.09	6.91	1417	23.17			1,840	225	598	3,400		
RW-06	9/22/2010	3758.44	59.99		3698.45	6.7	2432	19.7			2,100	54.4	812	4,550		
RW-07	1/10/2008	3759.53	60.08		3699.45											
RW-07	2/7/2008	3759.53	59.93		3699.60											
RW-07	3/5/2008	3759.53	59.99		3699.54	6.88	1131	17.76	3.88	-113.1	1,800	<100	280	1,300		
RW-07	6/3/2008	3759.53	59.87		3699.66	6.85	1459	21.24	1.32	-159.8	2,230	1.1.1	334	1,290		
RW-07	9/17/2008	3759.53	59.94		3699.59	6.61	1623	20.04	0.52	-76.9	3,160	<24	478	2,570		
RW-07	12/4/2008	3759.53	59.95		3699.58	6.93	1593	17.74	1.14	-78.4	3,300	<24	439	2,000		
RW-07	1/29/2009	3759.53	63.00		3696.53											
RW-07	2/25/2009	3759.53	59.83		3699.70	6.88	1695	19.68	0.92	-47.4	3,930	<24	424	2,120		
RW-07	6/24/2009	3759.53	60.03		3699.50	6.60	220	21.04	4.06	-92.0	3,860	<2.0	489	2,510		
RW-07	9/3/2009	3759.53	60.23		3699.30	6.63	240	20.90	2.09	-155.0	3,530	<200	403	1,950		
RW-07	11/18/2009	3759.53	60.29		3699.24	7.24	1601	20.50			2,310	<200	265	925		
RW-07	3/24/2010	3759.53	60.45		3699.08	7.14	1798	20.78			1,900	<200	316	607		
RW-07	6/10/2010	3759.53	60.55		3698.98	7.01	1348	22.89			2,480	<200	307	721		
RW-07	9/22/2010	3759.53	60.20		3699.33	6.82	2146	19.8			2,800	<8.7	382	1,080		

## CONESTOGA-ROVERS & ASSOCIATES

Table 3. Historical Groundwater Analytical Results - DCP Apex Compressor Station, Lea County, New Mexico

Well ID	Date	TOC (ft msl)	DTW (ft bgs)	LNAPL Thickness (ft)	GWE (ft msl)	pH s.u.	Conductivity µS/cm	Temperature °C	DO mg/l	ORP mV	Concentrations in µg/l			
											Benzene 10	Toluene 750	Ethyl- benzene 750	Total Xylenes 620
NMWQCC Cleanup Levels														
RW-08	1/10/2008	3759 51	60 33	--	3699 18	--	--	--	--	--	--	--	--	--
RW-08	2/7/2008	3759 51	60 19	--	3699 32	--	--	--	--	--	--	--	--	--
RW-08	3/4/2008	3759 51	60 23	--	3699 28	6 74	1215	17 99	2 42	-127.1	1,700	< 5,000	< 1,000	6,000
RW-08	6/3/2008	3759 51	60.12	--	3699 39	7 05	1405	21 77	1.32	-110 0	3,470	< 9.7	751	4,000
RW-08	9/17/2008	3759 51	60 25	--	3699 26	6 50	1307	19 87	0 88	-60 5	2,210	< 4 0	488	3,450
RW-08	12/4/2008	3759 51	60 23	--	3699 28	7 05	1201	17 94	1 87	-61 1	3,240	< 9 7	567	2,950
RW-08	1/29/2009	3759 51	60 20	--	3699 31	--	--	--	--	--	--	--	--	--
RW-08	2/25/2009	3759 51	60 09	--	3699 42	6 98	1279	19 86	1.23	-33.8	768	< 9 7	727	2,480
RW-08	6/24/2009	3759 51	60 32	--	3699 19	6 40	140	20 60	2 13	-76 0	1,960	< 50	534	3,330
RW-08	9/2/2009	3759 51	60 44	--	3699 07	6 91	150	20 94	1 87	-129 0	1,620	< 50	506	3,530
RW-08	11/18/2009	3759 51	60 55	--	3698 96	7 28	1432	20 06	--	--	3,920 a	1 3 J	604 a	1,550 a
RW-08	3/24/2010	3759 51	60 65	--	3698 86	7 26	1525	20 56	--	--	4,250	< 50	714	3,650
RW-08	6/10/2010	3759 51	60 80	--	3698 71	7 14	1235	22 50	--	--	2,930	< 50	715	3,670
RW-08	9/22/2010	3759 51	60 46	--	3699 05	6 85	1492	19 80	--	--	3,080	< 11 0	555	2,160
RW-09	1/10/2008	3754 40	61 29	--	3693 11	--	--	--	--	--	--	--	--	--
RW-09	2/7/2008	3754 40	61 14	--	3693 26	--	--	--	--	--	--	--	--	--
RW-09	3/4/2008	3754 40	61 25	--	3693 15	6 79	110	17 67	5 21	91 4	24	< 5 0	< 1 0	11 0
RW-09	6/3/2008	3754 40	61 08	--	3693 32	6 93	1183	20 12	2 52	89 7	30.1	< 0 48	< 0 45	8 9
RW-09	9/16/2008	3754 40	61 31	--	3693 09	6 20	1238	19 73	0 72	1 8	18.9	< 0 48	1 5 J	17 1
RW-09	12/3/2008	3754 40	61 25	--	3693 15	6 91	1133	18 59	1 29	94 3	16.5	< 0 48	< 0 45	< 1 4
RW-09	1/29/2009	3754 40	62 15	--	3692 25	--	--	--	--	--	--	--	--	--
RW-09	2/24/2009	3754 40	61 04	--	3693 36	7 04	1096	19 31	2 43	207 4	< 0 46	< 0 48	< 0 45	< 1 4
RW-09	6/23/2009	3754 40	61 16	--	3693 24	7 10	110	20 80	8 83	228 0	< 2 0	< 2 0	< 2 0	< 6 0
RW-09	9/2/2009	3754 40	61 35	--	3693 05	6 92	130	20 82	4 29	86 0	< 2 0	< 2 0	< 2 0	< 6 0
RW-09	11/18/2009	3754 40	61 42	--	3692 98	7 09	1270	16 28	--	--	< 2 0	< 2 0	< 2 0	< 6 0
RW-09	3/24/2010	3754 40	61 45	--	3692 95	7 16	1280	21 56	--	--	< 2 0	< 2 0	< 2 0	2 9
RW-09	6/9/2010	3754 40	61 59	--	3692 81	7 08	1117	22 17	--	--	< 2 0	< 2 0	< 2 0	< 6 0
RW-09	9/21/2010	3754 40	61 28	--	3693 12	6 86	1270	20 1	--	--	< 0 5	< 0 43	< 0 55	< 1 7
RW-10	1/10/2008	3754 53	61 33	--	3693 20	--	--	--	--	--	--	--	--	--
RW-10	2/7/2008	3754 53	61 19	--	3693 34	--	--	--	--	--	--	--	--	--
RW-10	3/4/2008	3754 53	61 29	--	3693 24	6 96	967	16 38	7 83	169 9	< 1 0	< 5 0	< 1 0	< 3 0
RW-10	6/3/2008	3754 53	61 14	--	3693 39	7 09	1023	20 01	7 07	132 8	< 0 46	< 0 48	0 65 J	< 1 4
RW-10	9/16/2008	3754 53	61 35	--	3693 18	7 01	1082	19 51	4 77	83 0	< 0 46	< 0 48	< 0 45	3 8 J
RW-10	12/3/2008	3754 53	61 30	--	3693 23	7 22	962	18 64	6 55	98 5	< 0 46	< 0 48	< 0 45	< 1 4
RW-10	1/29/2009	3754 53	61 20	--	3693 33	--	--	--	--	--	--	--	--	--
RW-10	2/24/2009	3754 53	61 10	--	3693 43	7 12	1079	19 20	5 83	218 9	< 0 46	< 0 48	< 0 45	< 1 4
RW-10	6/23/2009	3754 53	61 22	--	3693 31	7 30	100	20 50	9 99	227 0	< 2 0	< 2 0	< 2 0	< 6 0
RW-10	9/2/2009	3754 53	61 40	--	3693 13	7 22	120	20 51	7 98	126 0	< 2 0	< 2 0	< 2 0	< 6 0
RW-10	11/18/2009	3754 53	61 45	--	3693 08	7 46	1343	17 28	--	--	< 2 0	< 2 0	< 2 0	< 6 0
RW-10	3/24/2010	3754 53	61 52	--	3693 01	7 33	1276	19 67	--	--	< 2 0	< 2 0	< 2 0	< 6 0
RW-10	6/9/2010	3754 53	61 64	--	3692 89	7 20	1139	22 17	--	--	< 2 0	< 2 0	< 2 0	< 6 0
RW-10	9/21/2010	3754 53	61 32	--	3693 21	6 98	1188	20 3	--	--	< 0 5	< 0 43	< 0 55	< 1 7

## CONESTOGA-ROVERS & ASSOCIATES

**Table 3. Historical Groundwater Analytical Results - DCP Apex Compressor Station, Lea County, New Mexico**

Well ID	Date	TOC	DTW	LNAPL Thickness	GWE	pH	Conductivity	Temperature	DO	ORP	Benzene	Toluene	Ethylbenzene	Total Xylenes
		(ft msl)	(ft bgs)	(ft)	(ft msl)	s u	µS/cm	°C	mg/l	mV	Concentrations in µg/l			
NMWQCC Cleanup Levels											10	750	750	620
RW-11	1/10/2008	3754.61	61.32	--	3693.29	--	--	--	--	--	--	--	--	--
RW-11	2/7/2008	3754.61	61.27	--	3693.34	--	--	--	--	--	--	--	--	--
RW-11	3/4/2008	3754.61	61.28	--	3693.33	6.88	832	16.95	8.66	179.1	<1.0	<5.0	<1.0	<3.0
RW-11	6/3/2008	3754.61	61.45	--	3693.16	6.89	909	20.43	6.89	148.7	<0.46	<0.48	<0.45	<1.4
RW-11	9/18/2008	3754.61	61.35	--	3693.26	6.98	910	19.22	4.11	72.4	<0.46	<0.48	<0.45	<1.4
RW-11	12/3/2008	3754.61	61.33	--	3693.28	7.12	879	18.41	5.49	80.6	<0.46	<0.48	<0.45	<1.4
RW-11	1/29/2009	3754.61	61.25	--	3693.36	--	--	--	--	--	--	--	--	--
RW-11	2/24/2009	3754.61	61.14	--	3693.47	7.19	876	19.18	5.46	220.6	<0.46	<0.48	<0.45	<1.4
RW-11	6/23/2009	3754.61	61.23	--	3693.38	7.40	780	20.20	10.95	227.0	<2.0	<2.0	<2.0	<6.0
RW-11	9/2/2009	3754.61	61.42	--	3693.19	7.31	100	20.92	7.86	133.0	<2.0	<2.0	<2.0	<6.0
RW-11	11/18/2009	3754.61	61.49	--	3693.12	7.43	1034	15.67	--	--	<2.0	<2.0	<2.0	<6.0
RW-11	3/24/2010	3754.61	61.51	--	3693.10	7.34	1024	20.06	--	--	<2.0	<2.0	<2.0	<6.0
RW-11	6/9/2010	3754.61	61.64	--	3692.97	7.36	854	22.44	--	--	<2.0	<2.0	<2.0	<6.0
RW-11	9/21/2010	3754.61	61.34	--	3693.27	6.99	1010	20.1	--	--	<0.5	<0.43	<0.55	<1.7
RW-12	1/10/2008	3754.76	61.44	--	3693.32	--	--	--	--	--	--	--	--	--
RW-12	2/7/2008	3754.76	61.35	--	3693.41	--	--	--	--	--	--	--	--	--
RW-12	3/4/2008	3754.76	61.40	--	3693.36	7.09	577	16.53	10.49	157.9	<1.0	<5.0	<1.0	<3.0
RW-12	6/3/2008	3754.76	61.29	--	3693.47	7.25	672	19.64	6.52	157.2	<0.46	<0.48	<0.45	<1.4
RW-12	9/16/2008	3754.76	61.47	--	3693.29	7.12	666	19.12	4.91	63.7	<0.46	<0.48	<0.45	<1.4
RW-12	12/3/2008	3754.76	61.40	--	3693.36	7.29	650	18.59	6.51	56.4	<0.46	<0.48	<0.45	<1.4
RW-12	1/29/2009	3754.76	61.35	--	3693.41	--	--	--	--	--	--	--	--	--
RW-12	2/24/2009	3754.76	61.24	--	3693.52	7.33	665	18.86	6.15	215.7	<0.46	<0.48	<0.45	<1.4
RW-12	6/23/2009	3754.76	61.35	--	3693.41	7.30	730	20.20	9.46	226.0	<2.0	<2.0	<2.0	<6.0
RW-12	9/2/2009	3754.76	61.54	--	3693.22	7.36	820	20.76	7.64	146.0	<2.0	<2.0	<2.0	<6.0
RW-12	11/18/2009	3754.76	61.61	--	3693.15	7.52	807	15.67	--	--	<2.0	<2.0	<2.0	<6.0
RW-12	3/24/2010	3754.76	61.62	--	3693.14	7.39	820	18.78	--	--	<2.0	<2.0	<2.0	<6.0
RW-12	6/9/2010	3754.76	61.75	--	3693.01	7.41	702	22.28	--	--	<2.0	<2.0	<2.0	<6.0
RW-12	9/21/2010	3754.76	61.45	--	3693.31	7.07	820.4	20.3	--	--	<0.5	<0.43	<0.55	<1.7

**Notes and Abbreviations:**

- ID = Identification
- TOC = Top of casing
- DTW = Depth to water
- LNAPL = Light non-aqueous phase liquids
- GWE = Groundwater elevation
- \* = A specific gravity for LNAPL of 0.81 was used to calculate corrected groundwater elevation
- DO = Dissolved oxygen
- ORP = Oxidation reduction potential
- BTEX = Benzene, toluene, ethylbenzene, and total xylenes by SW-846 8021 or 8260B
- ft msl = Feet above mean sea level
- ft bgs = Feet below ground surface
- ft = Feet
- s u = Standard unit
- µS/cm = Microsiemens per centimeter
- °C = Degrees Celsius
- mg/l = Milligrams per liter
- mV = Millivolts
- µg/l = micrograms per liter
- = Not measured/not analyzed
- <x = Not detected above x µg/l
- d = Duplicate sample
- a = Result from the second run
- J = An estimated value
- NMWQCC = New Mexico Water Quality Control Commission

\\Dens-1\shan.d\Project Files\0586\058660-APEX\058660-RPT7-3Q 2010 CWMR\not used\058660-7-T1.xls\Groundwater Analytical Results



APPENDIX A

WELL SAMPLING FORMS AND FIELD NOTES



Location HPV Date 8-26-10Project / Client 058660 INCPJac M OKM

0952 head site 142132

1045 call Mr. Joslin

105 arrive site 142239

107 sign in, TGSM

114 start opening vault

125 start gauging

Well	OTW	OTW	Thick	Bailed Product	Water
W1	59.97	60.00	0.03	0.05 gal	2.5 gal
W3	59.19	61.63	2.44	1 gal	1 gal
W4	59.24	61.82	2.58	1 gal	2 gal

123 start decou of probe

140 start product abatement

1240 transfer water  
and product into holding  
drums at Hobbs Gas Flow

4 drums full and  
1 drum ~ 25 gals

Location \_\_\_\_\_ Date \_\_\_\_\_

Project / Client \_\_\_\_\_

1241 signout  
1245 head noyt site 142240

46

Location APEX Date 9-20-10  
 Project / Client 058660 DCP  
GWS JF/S/M

0938 - LEFT FOR SITE 8894  
 1142 - ARRIVED ON SITE 8998  
 1143 - Signed in @ Front  
 OFFICE  
 1145 - Reviewed all HEALTH  
 AND SAFETY ITEMS  
 AND CALLED ICP  
 FOR OIS TO WORK ON  
 SITE.  
 1200 - STARTED WORKS  
 1238 - FINISHED GAUGING  
 FOR GWS EVENS 9000  
 1339 - LEFT FOR HOBBS  
 1419 - ARRIVED ON SITE  
 TO COMPLETE OSM  
 9001  
 1420 - OSM DATA IS ON  
 OSM DATA SHEET.  
 1459 - FINISH WORKS TODAY  
 1500 - LEFT FOR OFFICE 9002  
 1700 arrive office 9106

47

Location APEX Date 9-21-10  
 Project / Client 058660 DCP  
GWS JF/S/M

0830 - Prep for DAY  
 0854 - LEFT FOR SITE  
 9106  
 1027 arrive site 9211  
 1226 start DPEX  
 TGSM, HOBBS/WATER, HEAT  
 1230 start sampling APEX  
 1231 - CHECKS OF ALL SAMPLING  
 EQUIP.  
 1442 - Signed out at  
 FRONT OFFICE AND  
 LEFT SITE FOR  
 OFFICE. 9212  
 1700 - ARRIVED at office  
 UNLOADED  
 9316





MORON - 06565  
 MR-6 Meter - 06578



CONESTOGA-ROVERS  
 & ASSOCIATES

## Groundwater Monitoring Field Sheet

Well ID	Time	DTP	DTW	Depth to Bottom	Product Thickness	Amount of Product Removed	Casing Diam.	Comments
MW-10	1200	—	65.71	71.97	—	—	21.2	
RW-11	1204	—	61.34	68.44	—	—	21.2	
RW-12	1208	—	61.45	68.68	—	—	21.2	
MW-C	1211	—	60.45	67.92	—	—	21.2	
RW-10	1215	—	61.32	69.31	—	—	21.2	
MW-9	1220	—	63.72	73.00	—	—	21.2	
MW-5	1224	—	61.64	71.91	—	—	21.2	
RW-9	1229	—	61.28	66.91	—	—	21.2	
MW-4	1233	—	61.80	72.05	—	—	21.2	
MW-B	1244	—	59.56	71.25	—	—	21.2	
MW-6	1251	—	59.28	67.65	—	—	21.2	
MW-2	1257	—	60.00	69.87	—	—	21.2	
RW-8	1301	—	60.46	65.56	—	—	21.2	

Project Name: APEX COMPRESSOR STATION

Project Number/Task: 058660-11-02

Field Staff: JP/JM

Date: 20 SEPT 2010

HERON IP-08565



CONESTOGA-ROVERS  
& ASSOCIATES

### Groundwater Monitoring Field Sheet

Well ID	Time	DTP	DTW	Depth to Bottom	Product Thickness	Amount of Product Removed	Casing Diam.	Comments
RW-1	1309	-	59.60	68.22	-	-	2.2	
MW-D	1314	-	60.27	71.25	-	-	2.2	
RW-2	1319	-	59.58	69.63	-	-	2.2	
MW-7	1321	-	63.25	72.30	-	-	2.2	
RW-6	1325	-	59.99	70.92	-	-	2.2	
RW-7	1329	<del>---</del>	<del>60.20</del>	<del>70.05</del>	-	-	2.2	
RW-5	1330	-	60.04	69.29	-	-	2.2	
MW-3	1333	-	59.94	69.65	-	-	2.2	
<del>RW-3</del>	1335	59.17	61.90	-	2.63	1.5	2.2	Well has product
<del>RW-4</del>	1336	59.22	61.99	-	8.77	1.5	2.2	Well has product
<del>MW-1</del>	1337	59.97	60.05	-	0.08	N/A	2.2	Well has product

Project Name: APEX COMPRESSOR STATION

Project Number/Task: 058660-11-02

Field Staff: JP/SM

Date: 20 SEPT 10





## WELL SAMPLING FORM

Project Name: <b>Apex Compressor</b>	CRA Mgr: John Riggi	Well ID: MW-10
Project Number: 058660	Date: 09-21-10	Well Yield: 3.75
Site Address: HOBBS JRM	Sampling Method: Hand Bailing	Well Diameter 2"
		Field Staff: SP/SM
Initial Depth to Water: 65.71	Total Well Depth: 71.97	Water Column Height: 6.26
Volume/ft: 1.16	1 Casing Volume: 1.00	3 Casing Volumes: 3.00
Purging Device: Sailer	Did Well Dewater?: NO	Total Gallons Purged: 3.0
Start Purge Time: 1232	Stop Purge Time: 1237	Total Time: 4

1 Casing Volume = Water column height x Volume/ft

Well Diam.	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Volume Purged (gallons)	Temp. (°C)	pH	Cond. (uS)	Comments
1238	0.25	20.9	7.24	667.0	
1239	0.25	20.3	7.26	668.4	
1240	0.25	19.9	7.25	667.2	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-10	9-21	1241	40ml	HCL		

## WELL SAMPLING FORM

Project Name: <b>Apex Compressor</b>	CRA Mgr: John Riggi	Well ID: RW-11
Project Number: 058660	Date: 9-21-2005	Well Yield: 4.00
Site Address: HOBBS, NM	Sampling Method: Hand Bailing	Well Diameter 2"
		Field Staff: SP/JM
Initial Depth to Water: 61.34	Total Well Depth: 69.44	Water Column Height: 8.10
Volume/ft: .16	1 Casing Volume: 1.29	3 Casing Volumes: 3.88
Purging Device: Bailor	Did Well Dewater?: NO	Total Gallons Purged: 3.88
Start Purge Time: 1248	Stop Purge Time: 1253	Total Time: 5min

1 Casing Volume = Water column height x Volume/ ft.

Well Diam.	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Volume Purged (gallons)	Temp. (°C)	pH	Cond. (uS)	Comments
1253	.25	20.8	7.07	976.6	
1254	.25	20.2	7.03	985.8	
1255	.25	20.1	6.99	1010	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
RW-11 <del>0002</del>	9-21-10	1256	40ml	HCL		



## WELL SAMPLING FORM

Project Name: <b>Apex Compressor</b>	CRA Mgr: John Riggi	Well ID: RW-12
Project Number: 058660	Date: 9-21-10	Well Yield: 4.10
Site Address: HOBBS, NM	Sampling Method: Hand Bailing	Well Diameter 2"
		Field Staff: JP/SM
Initial Depth to Water: 61.45	Total Well Depth: 68.68	Water Column Height: 7.23
Volume/ft: .16	1 Casing Volume: 1.16	3 Casing Volumes: 3.47
Purging Device: Bailor	Did Well Dewater?: NO	Total Gallons Purged: 3.5
Start Purge Time: 1258	Stop Purge Time: 1305	Total Time: 7

1 Casing Volume = Water column height x Volume/ft.

Well Diam.	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Volume Purged (gallons)	Temp. (°C)	pH	Cond. (uS)	Comments
1306	0.15	20.9	7.03	825.0	
1307	0.20	20.4	7.03	833.0	
1308	0.25	20.3	7.07	820.4	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
RW-12	9-21-10	1309	40ml	HCL		

## WELL SAMPLING FORM

Project Name: <b>Apex Compressor</b>	CRA Mgr: John Riggi	Well ID: MW-C
Project Number: 058660	Date: 9-21-10	Well Yield: 4.00
Site Address:  H03B5, WM	Sampling Method: Hand Bailing	Well Diameter 2"
		Field Staff: JP/SM
Initial Depth to Water: 60.45	Total Well Depth: 67.92	Water Column Height: 7.47
Volume/ft: .16	1 Casing Volume: 1.20	3 Casing Volumes: 3.59
Purging Device: Bailor	Did Well Dewater?: NO	Total Gallons Purged: 359
Start Purge Time: 1317	Stop Purge Time: 1321	Total Time: 4 min

1 Casing Volume = Water column height x Volume/ ft.

Well Diam	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Volume Purged (gallons)	Temp. (°C)	pH	Cond. (uS)	Comments
13.22	<del>1.10</del> 1.10	21.4	6.70	969.5	
13.23	.25	21.1	6.70	963.6	
13.24	.25	20.2	6.72	976.1	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
mw-c	9-21-10	1325	40ml	HCL		

## WELL SAMPLING FORM

Project Name: <b>Apex Compressor</b>	CRA Mgr: John Riggi	Well ID: RW-10
Project Number: 058660	Date: 9-21-10	Well Yield: 4.05
Site Address: HOBBS, NM	Sampling Method: Hand Bailing	Well Diameter 2"
		Field Staff: SP/SM
Initial Depth to Water: 61.32	Total Well Depth: 69.31	Water Column Height: 7.99
Volume/ft: .16	1 Casing Volume: 1.28	3 Casing Volumes: 3.84
Purging Device: Bailor	Did Well Dewater?: NO	Total Gallons Purged: 3.84
Start Purge Time: 1230	Stop Purge Time: 1335	Total Time: 5 min

1 Casing Volume = Water column height x Volume/ft.

Well Diam	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Volume Purged (gallons)	Temp. (°C)	pH	Cond. (uS)	Comments
1336	.25	21.3	6.95	1195	
1337	.25	19.9	6.96	1180	
1338	.25	20.3	6.98	1188	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
RW-10	9-21-10	1339	40ml	HCL		

## WELL SAMPLING FORM

Project Name: <b>Apex Compressor</b>	CRA Mgr: John Riggi	Well ID: MW-9
Project Number: 058660	Date: 9-21-10	Well Yield: 5.25
Site Address: MOB35, NM	Sampling Method: Hand Bailing	Well Diameter 2"
		Field Staff: JP/JM
Initial Depth to Water: 63.72	Total Well Depth: 73.00	Water Column Height: 9.28
Volume/ft: .16	1 Casing Volume: 1.48	3 Casing Volumes: 4.45
Purging Device: Bailor	Did Well Dewater?: NO	Total Gallons Purged: 4.5
Start Purge Time: 1343	Stop Purge Time: 1350	Total Time: 7


1 Casing Volume = Water column height x Volume/ ft.

Well Diam.	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Volume Purged (gallons)	Temp. (°C)	pH	Cond. (uS)	Comments
1351	0.25	21.5	6.98	1458	
1352	0.25	20.6	6.96	1476	
1353	0.25	20.2	6.96	1502	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-9	9-21-10 13	1354	40ml	MCL		

DUP-1

DUP-1  
  
**CONESTOGA-ROVERS & ASSOCIATES**

**WELL SAMPLING FORM**

Project Name: <b>Apex Compressor</b>	CRA Mgr: John Riggi	Well ID: MW-5
Project Number: 058660	Date: 9-21-10	Well Yield: 5.10
Site Address: HOBBS, NM	Sampling Method: Hand Bailing	Well Diameter 2"
		Field Staff: JF/JM
Initial Depth to Water: 61.66'	Total Well Depth: 71.91	Water Column Height: 10.27
Volume/ft: .16	1 Casing Volume: 1.64	3 Casing Volumes: 4.93
Purging Device: Bailer	Did Well Dewater?: NO	Total Gallons Purged: 4.93
Start Purge Time: 1403	Stop Purge Time: 1409	Total Time: 6 min

1 Casing Volume = Water column height x Volume/ft.

Well Diam.	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Volume Purged (gallons)	Temp. (°C)	pH	Cond. (uS)	Comments
1410	.25	20.8	6.78	1074	DUP
1411	.25	20.1	6.77	1084	
1412	.25	20.0	6.78	1057	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-5	9-21-10	1413	40ml	HCL	DUP-1	

## WELL SAMPLING FORM

Project Name: <b>Apex Compressor</b>	CRA Mgr: John Riggi	Well ID: RW-9
Project Number: 058660	Date: 9-21-10	Well Yield: 5.25
Site Address: Hobbs, NM	Sampling Method: Hand Bailing	Well Diameter 2"
		Field Staff: JP/SM
Initial Depth to Water: 61.28	Total Well Depth: 71.91	Water Column Height: 10.63
Volume/ft: .16	1 Casing Volume: 1.70	3 Casing Volumes: 5.10
Purging Device: Bailor	Did Well Dewater?:	Total Gallons Purged: 5.25
Start Purge Time: 1413	Stop Purge Time: 1425	Total Time: 12

1 Casing Volume = Water column height x Volume/ft

Well Diam.	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Volume Purged (gallons)	Temp. (°C)	pH	Cond. (uS)	Comments
1426	0.25	20.9	6.82	1267	
1427	0.25	20.2	6.81	1285	
1428	0.25	20.1	6.86	1270	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
RW-9	9-21-10	1429	40ml	HCL		



## WELL SAMPLING FORM

Project Name: <b>Apex Compressor</b>	CRA Mgr: John Riggi	Well ID: MW-4
Project Number: 058660	Date: 9-22-10	Well Yield: 5.00
Site Address: HOBBS, NM	Sampling Method: Hand Bailing	Well Diameter 2" W
		Field Staff: SP/SM
Initial Depth to Water: 61.80	Total Well Depth: 72.05	Water Column Height: 10.25
Volume/ft: .16	1 Casing Volume: 1.64	3 Casing Volumes: 4.92
Purging Device: Bailer	Did Well Dewater?: NO	Total Gallons Purged: 4.92
Start Purge Time: 1032	Stop Purge Time: 1039	Total Time: 7 min

1 Casing Volume = Water column height x Volume/ ft.

Well Diam	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Volume Purged (gallons)	Temp. (°C)	pH	Cond. (uS)	Comments
1039	.25	20.2	6.66	807.0	
1040	.25	19.8	6.74	804.1	/
1041	.25	19.6	6.71	797.8	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-4	9-22-10	1042	40ml	HCL		

## WELL SAMPLING FORM

Project Name: <b>Apex Compressor</b>	CRA Mgr: John Riggi	Well ID: MW-B
Project Number: 058660	Date: 9-22-10	Well Yield: 5.75
Site Address: H0335, NW	Sampling Method: Hand Bailing	Well Diameter 2"
		Field Staff: JP/JM
Initial Depth to Water: 59.56	Total Well Depth: 71.25	Water Column Height: 11.69
Volume/ft: 1.16	1 Casing Volume: 1.87	3 Casing Volumes: 5.61
Purging Device: Bailer	Did Well Dewater?: NO	Total Gallons Purged: 5.61
Start Purge Time: 1045	Stop Purge Time: 1053	Total Time: 8min

1 Casing Volume = Water column height x Volume/ft.

Well Diam	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Volume Purged (gallons)	Temp. (°C)	pH	Cond. (uS)	Comments
1053	.25	19.7	6.81	1218	
1054	.25	19.6	6.82	1179	
1055	.25	19.6	6.84	1205	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-B	9-22-10	1056	40ml	HCL		

## WELL SAMPLING FORM

Project Name: <b>Apex Compressor</b>	CRA Mgr: John Riggi	Well ID: MW-6
Project Number: 058660	Date: 9-22-10	Well Yield: 4.20
Site Address: H0335.NM	Sampling Method: Hand Bailing	Well Diameter 2"
		Field Staff: JF/SM
Initial Depth to Water: 59.24	Total Well Depth: 67.65	Water Column Height: 8.37
Volume/ft: .16	1 Casing Volume: 1.33	3 Casing Volumes: 4.01
Purging Device: Bailers	Did Well Dewater?: NO	Total Gallons Purged: 4.01
Start Purge Time: 1100	Stop Purge Time: 1106	Total Time: 6 min

1 Casing Volume = Water column height x Volume/ ft.

Well Diam.	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Volume Purged (gallons)	Temp. (°C)	pH	Cond. (uS)	Comments
1106	.25	20.0	6.73	1203	
1107	.25	19.7	6.72	1213	
1108	.25	19.7	6.73	1214	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-6	9-22-10	1109	40ml	HCL		

## WELL SAMPLING FORM

Project Name: <b>Apex Compressor</b>	CRA Mgr: John Riggi	Well ID: MW-2
Project Number: 058660	Date: 9-22-10	Well Yield: 5.00
Site Address: <del>XXXXXX</del> H2385, NM	Sampling Method: Hand Bailing	Well Diameter 2"
		Field Staff: JP/JM
Initial Depth to Water: 60.00	Total Well Depth: 69.87	Water Column Height: 9.87
Volume/ft: .16	1 Casing Volume: 1.58	3 Casing Volumes: 4.73
Purging Device: Bailers	Did Well Dewater?: NO	Total Gallons Purged: 4.73
Start Purge Time: 1110	Stop Purge Time: 1115	Total Time: 5

1 Casing Volume = Water column height x Volume/ft.

Well Diam.	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Volume Purged (gallons)	Temp. (°C)	pH	Cond. (uS)	Comments
1116	0.25	19.8	6.62	422.6	
1117	0.25	19.7	6.64	918.1	
1118	0.25	19.6	6.64	895.2	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-2	9-22-10	1119	40ml	HCL		

## WELL SAMPLING FORM

Project Name: <b>Apex Compressor</b>	CRA Mgr: John Riggi	Well ID: RW-8
Project Number: 058660	Date: 9-22-10	Well Yield: 3.00
Site Address: H0335.200	Sampling Method: Hand Bailing	Well Diameter 2'
		Field Staff: SP/SM
Initial Depth to Water: 60.46	Total Well Depth: 65.56	Water Column Height: 5.10
Volume/ft: .16	1 Casing Volume: 0.81	3 Casing Volumes: 2.44
Purging Device: Braker	Did Well Dewater?: NO	Total Gallons Purged: 2.44
Start Purge Time: 1128	Stop Purge Time: 1131	Total Time: 3min

1 Casing Volume = Water column height x Volume/ ft.

Well Diam	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Volume Purged (gallons)	Temp. (°C)	pH	Cond. (uS)	Comments
1131	.25	19.8	6.84	1502	
1132	.25	19.8	6.84	1510	
1133	.25	19.8	6.85	1492	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
RW-8	9-22-10	1134	40ml	HCL		

## WELL SAMPLING FORM

Project Name: <b>Apex Compressor</b>	CRA Mgr: John Riggi	Well ID: RW-1
Project Number: 058660	Date: 9-22-10	Well Yield: 4.25
Site Address:  HOBBS, NM	Sampling Method: Hand Bailing	Well Diameter 2"
		Field Staff: JP/SM
Initial Depth to Water: 59.60	Total Well Depth: 68.22	Water Column Height: 8.62
Volume/ft: .14	1 Casing Volume: 1.37	3 Casing Volumes: 4.13
Purging Device: Bailor	Did Well Dewater?: NO	Total Gallons Purged: 4.13
Start Purge Time: 1139	Stop Purge Time: 1145	Total Time:

1 Casing Volume = Water column height x Volume/ ft.

Well Diam.	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Volume Purged (gallons)	Temp. (°C)	pH	Cond. (uS)	Comments
1146	.25	19.5	6.84	1796	
1147	.25	19.4	6.79	1739	
1148	.25	19.4	6.78	1719	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
RW-1	9-22-10	1149	40ml	HCL		

## WELL SAMPLING FORM

Project Name: <b>Apex Compressor</b>	CRA Mgr: John Riggi	Well ID: MW-D
Project Number: 058660	Date: 9-22-10	Well Yield: 5.45
Site Address: HOBBS, NM	Sampling Method: Hand Bailing	Well Diameter 2"
		Field Staff: JT/JM
Initial Depth to Water: 60.27	Total Well Depth: 71.25	Water Column Height: 10.98
Volume/ft: .16	1 Casing Volume: 1.75	3 Casing Volumes: 5.27
Purging Device: Bailor	Did Well Dewater?: NO	Total Gallons Purged: 5.27
Start Purge Time: 1154	Stop Purge Time: 1202	Total Time: 8 min

1 Casing Volume = Water column height x Volume/ ft.

Well Diam.	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Volume Purged (gallons)	Temp. (°C)	pH	Cond. (uS)	Comments
1202	.25	20.0	6.76	1259	
1203	.25	19.9	6.78	1265	
1204	.25	19.9	6.81	1264	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-D	9-22-10	1205	40ml	HCL		



DUPLICATE - 2

DUP-2

DUP-2

## WELL SAMPLING FORM

Project Name: <b>Apex Compressor</b>	CRA Mgr: John Riggi	Well ID: RW-2
Project Number: 058660	Date: 9-22-10	Well Yield: 5.0
Site Address: HOBBS, NM	Sampling Method: Hand Bailing	Well Diameter 2"
		Field Staff: SP/JM
Initial Depth to Water: 59.58	Total Well Depth: 69.63	Water Column Height: 10.05
Volume/ft: .16	1 Casing Volume: 1.60	3 Casing Volumes: 4.82
Purging Device: Bailor	Did Well Dewater?: NO	Total Gallons Purged: 4.82
Start Purge Time: 1212	Stop Purge Time: 1216	Total Time: 4.0

1 Casing Volume = Water column height x Volume/ft

Well Diam.	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Volume Purged (gallons)	Temp. (°C)	pH	Cond. (uS)	Comments
1217	0.25	19.6	<del>6.80</del> 6.80	1555	
1218	0.25	19.5	6.81	1571	DUP-2
1219	0.25	19.8	6.81	1552	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
RW-2	9-22-10	12:20	40ml	HCL	DUP-2	



## WELL SAMPLING FORM

Project Name: <b>Apex Compressor</b>	CRA Mgr: John Riggi	Well ID: MW-7
Project Number: 058660	Date: 9-22-10	Well Yield: 4.34
Site Address: <i>Hc335. nm</i>	Sampling Method: Hand Bailing	Well Diameter 2"
		Field Staff: SP/JM
Initial Depth to Water: 63.25	Total Well Depth: 70.30	Water Column Height: 9.05
Volume/ft: .16	1 Casing Volume: 1.44	3 Casing Volumes: 4.34
Purging Device: <i>Bailer</i>	Did Well Dewater?: <i>NO</i>	Total Gallons Purged: 4.34
Start Purge Time: 1223	Stop Purge Time: 1225	Total Time: <i>5 min</i>

1 Casing Volume = Water column height x Volume/ft

Well Diam.	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Volume Purged (gallons)	Temp. (°C)	pH	Cond. (uS)	Comments
1229	0.25	19.7	6.81	1399	
1230	0.25	19.5	7.18	1466	
1231	0.25	19.6	7.16	1425	
1232	0.25	19.9	7.10	1406	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-7	9-22-10	1233	40ml	HCL		

## WELL SAMPLING FORM

Project Name: <b>Apex Compressor</b>	CRA Mgr: John Riggi	Well ID: RW-6
Project Number: 058660	Date: 9-22-10	Well Yield: 5.35
Site Address: HOBBS, NM	Sampling Method: Hand Bailing	Well Diameter 211
		Field Staff: JP/SM
Initial Depth to Water: 59.99	Total Well Depth: 70.92	Water Column Height: 10.93
Volume/ft: .16	1 Casing Volume: 1.74	3 Casing Volumes: 5.24
Purging Device: Bailor	Did Well Dewater?:	Total Gallons Purged: 5.24
Start Purge Time: 1240	Stop Purge Time: 1249	Total Time: 9 min

1 Casing Volume = Water column height x Volume/ ft.

Well Diam.	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Volume Purged (gallons)	Temp. (°C)	pH	Cond. (uS)	Comments
1249	.25	20.0	6.71	2442	
1250	.25	19.9	6.71	2446	
1251	.25	19.7	6.70	2432	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
RW-6	9-22-10	1252	40ml	HCL		

## WELL SAMPLING FORM

Project Name: <b>Apex Compressor</b>	CRA Mgr: John Riggi	Well ID: RW-7
Project Number: 058660	Date: 9-22-10	Well Yield: 5.00
Site Address: Hobbs, NM	Sampling Method: Hand Bailing	Well Diameter 2"
		Field Staff: JP/SM
Initial Depth to Water: 00.20	Total Well Depth: 70.05	Water Column Height: 9.85
Volume/ft: .16	1 Casing Volume: 1.57	3 Casing Volumes: 4.72
Purging Device: Bailor	Did Well Dewater?:	Total Gallons Purged: 4.72
Start Purge Time: 1242	Stop Purge Time: 1257	Total Time: 10

1 Casing Volume = Water column height x Volume/ ft.

Well Diam	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Volume Purged (gallons)	Temp. (°C)	pH	Cond. (uS)	Comments
1253	0.25	20.0	6.81	2153	
1254	0.25	20.0	6.81	2154	
1255	0.25	19.8	6.82	2146	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
RW-7	9-22-10	1256	40ml	HCL		

## WELL SAMPLING FORM

Project Name: <b>Apex Compressor</b>	CRA Mgr: John Riggi	Well ID: RW-5
Project Number: 058660	Date: 9-22-10	Well Yield: 4.75
Site Address: MOBBS, NM	Sampling Method: Hand Bailing	Well Diameter 2"
		Field Staff: JPM
Initial Depth to Water: 60.04	Total Well Depth: 69.29	Water Column Height: 9.25
Volume/ft: .16	1 Casing Volume: 1.48	3 Casing Volumes: 4.44
Purging Device: Bailor	Did Well Dewater?:	Total Gallons Purged: 4.44
Start Purge Time: 1300	Stop Purge Time: 1310	Total Time:

1 Casing Volume = Water column height x Volume/ ft.

Well Diam.	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Volume Purged (gallons)	Temp. (°C)	pH	Cond. (uS)	Comments
1311	.25	20.2	6.73	3309	
1312	.25	19.8	6.70	3480	
1313	.25	19.8	6.71	3480	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
RW-5	9-22-10	1313	40ml	HCL		



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## WELL SAMPLING FORM

Project Name: <b>Apex Compressor</b>	CRA Mgr: John Rigg	Well ID: MW-3
Project Number: 058660	Date: 9-22-10	Well Yield: 4.80
Site Address: HOBBS, NM	Sampling Method: Hand Bailing	Well Diameter 2"
		Field Staff: SP/JM
Initial Depth to Water: 59.94	Total Well Depth: 69.65	Water Column Height: 9.71
Volume/ft: .16	1 Casing Volume: 1.55	3 Casing Volumes: 4.66
Purging Device: Bailor	Did Well Dewater?:	Total Gallons Purged: 4.66
Start Purge Time: 1306	Stop Purge Time: 1312	Total Time: 6min

1 Casing Volume = Water column height x Volume/ft.

Well Diam	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Volume Purged (gallons)	Temp. (°C)	pH	Cond. (uS)	Comments
1313	.25	19.9	6.68	277.5	
1314	.25	19.4	6.68	277.7	
1315	.25	19.8	6.69	279.7	

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-3	9-22-10	1316	40ml	HCL		

# DIDNT SAMPLE

## WELL SAMPLING FORM



Project Name: <b>Apex Compressor</b>	CRA Mgr: John Riggi	Well ID: RW-3
Project Number: 058660	Date:	Well Yield:
Site Address:	Sampling Method: Hand Bailing	Well Diameter
		Field Staff:
Initial Depth to Water:	Total Well Depth:	Water Column Height:
Volume/ft:	1 Casing Volume:	3 Casing Volumes:
Purging Device:	Did Well Dewater?:	Total Gallons Purged:
Start Purge Time:	Stop Purge Time:	Total Time:

1 Casing Volume = Water column height x Volume/ ft.

Well Diam	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Volume Purged (gallons)	Temp. (°C)	pH	Cond. (uS)	Comments
<p style="font-size: 2em; font-family: cursive;">PRODUCTION WELL</p>					

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method

# DIDNT SAMPLE



## WELL SAMPLING FORM

Project Name: <b>Apex Compressor</b>	CRA Mgr: John Riggi	Well ID: RW-4
Project Number: 058660	Date:	Well Yield:
Site Address:	Sampling Method: Hand Bailing	Well Diameter
		Field Staff:
Initial Depth to Water:	Total Well Depth:	Water Column Height:
Volume/ft:	1 Casing Volume:	3 Casing Volumes:
Purging Device:	Did Well Dewater?:	Total Gallons Purged:
Start Purge Time:	Stop Purge Time:	Total Time:

1 Casing Volume = Water column height x Volume/ ft.

Well Diam.	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Volume Purged (gallons)	Temp. (°C)	pH	Cond. (uS)	Comments
<p style="font-size: 2em; font-family: cursive;">PRODUCT IN WELL</p>					

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method

# DIDN'T SAMPLE

## WELL SAMPLING FORM



Project Name: <b>Apex Compressor</b>	CRA Mgr: John Riggi	Well ID: MW-1
Project Number: 058660	Date:	Well Yield:
Site Address:	Sampling Method: Hand Bailing	Well Diameter
		Field Staff:
Initial Depth to Water:	Total Well Depth:	Water Column Height:
Volume/ft:	1 Casing Volume:	3 Casing Volumes:
Purging Device:	Did Well Dewater?:	Total Gallons Purged:
Start Purge Time:	Stop Purge Time:	Total Time:

1 Casing Volume = Water column height x Volume/ ft

Well Diam.	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Volume Purged (gallons)	Temp. (°C)	pH	Cond. (uS)	Comments
<p style="font-size: 2em; font-family: cursive;">PRODUCT IN WELL</p>					

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method



APPENDIX B

STANDARD OPERATING PROCEDURES  
FOR GROUNDWATER MONITORING AND SAMPLING



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## **STANDARD FIELD PROCEDURES FOR GROUNDWATER MONITORING AND SAMPLING**

This document presents standard field methods for groundwater monitoring, purging and sampling, and well development. These procedures are designed to comply with Federal, State and local regulatory guidelines. Conestoga-Rovers & Associates' specific field procedures are summarized below.

### **Groundwater Monitoring**

Prior to performing monitoring activities, the historical monitoring and analytical data of each monitoring well shall be reviewed to determine if any of the wells are likely to contain separate phase hydrocarbons (SPH) and to determine the order in which the wells will be monitored (i.e. cleanest to dirtiest). Groundwater monitoring should not be performed when the potential exists for surface water to enter the well (i.e. flooding during a rainstorm).

Prior to monitoring, each well shall be opened and the well cap removed to allow water levels to stabilize and equilibrate. The condition of the well box and well cap shall be observed and recommended repairs noted. Any surface water that may have entered and flooded the well box should be evacuated prior to removing the well cap. In wells with no history of SPH, the static water level and total well depth shall be measured to the nearest 0.01 foot with an electronic water level meter. Wells with the highest contaminant concentrations shall be monitored last. In wells with a history of SPH, the SPH level/thickness and static water level shall be measured to the nearest 0.01 foot using an electronic interface probe. The water level meter and/or interface probe shall be thoroughly cleaned and decontaminated at the beginning of the monitoring event and between each well. Monitoring equipment shall be washed using soapy water consisting of Liqui-nox™ or Alconox™ followed by one rinse of clean tap water and then two rinses of distilled water.

### **Groundwater Purging and Sampling**

Prior to groundwater purging and sampling, the historical analytical data of each monitoring well shall be reviewed to determine the order in which the wells should be purged and sampled (i.e. cleanest to dirtiest). No purging or groundwater sampling shall be performed on wells with a measurable thickness of SPH or floating SPH globules. If a sheen is observed, the well should be purged and a groundwater sample collected only if no SPH is present. Wells shall be purged either by hand using a disposal or PVC bailer or by using an aboveground pump (e.g. peristaltic or Wattera™) or down-hole pump (e.g. Grundfos™ or DC Purger pump).

Groundwater wells shall be purged approximately three to ten well-casing volumes (depending on the regulatory agency requirements) or until groundwater parameters of temperature, pH, and conductivity have stabilized to within 10% for three consecutive readings. Temperature, pH, and conductivity shall be measured and recorded at the start of purging, once per well casing volume removed, and at the completion of purging. The total volume of groundwater removed shall be recorded along with any other notable physical characteristic such as color and odor. If required, field parameters such as turbidity, dissolved oxygen (DO), and oxidation-reduction potential (ORP) shall be measured prior to collection of each groundwater sample.

Groundwater samples shall be collected after the well has been purged and allowed to recharge to 80% of the pre-purging static water level, or if the well is slow to recharge, after waiting a minimum of 2 hours. Groundwater samples shall be collected using clean disposable bailers or



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pumps (if an operating remediation system exists on site and the project manager approves of its use for sampling) and shall be decanted into clean containers supplied by the analytical laboratory. New latex gloves and disposable tubing or bailers shall be used for sampling each well. If a PVC bailer or down-hole pump is used for groundwater purging, it shall be decontaminated before purging each well by using soapy water consisting of Liqui-nox™ or Alconox™ followed by one rinse of clean tap water and then two rinses of distilled water. If a submersible pump with non-dedicated discharge tubing is used for groundwater purging, both the inside and outside of pump and discharge tubing shall be decontaminated as described above.

**Sample Handling**

Except for samples that will be tested in the field, or that require special handling or preservation, samples shall be stored in coolers chilled to 4° C for shipment to the analytical laboratory. Samples shall be labeled, placed in protective foam sleeves or bubble wrap as needed, stored on crushed ice at or below 4° C, and submitted under chain-of-custody (COC) to the laboratory. The laboratory shall be notified of the sample shipment schedule and arrival time. Samples shall be shipped to the laboratory within a time frame to allow for extraction and analysis to be performed within the standard sample holding times.

Sample labels shall be filled out using indelible ink and must contain the site name; field identification number; the date, time, and location of sample collection; notation of the type of sample; identification of preservatives used; remarks; and the signature of the sampler. Field identification must be sufficient to allow easy cross-reference with the field datasheet.

All samples submitted to the laboratory shall be accompanied by a COC record to ensure adequate documentation. One copy of the COC shall be kept in the QA/QC file and another copy shall be retained in the project file. Information on the COC shall consist of the project name and number; project location; sample numbers; sampler/recorder's signature; date and time of collection of each sample; sample type; analyses requested; name of person receiving the sample; and date of receipt of sample.

Laboratory-supplied trip blanks shall accompany the samples and be analyzed to check for cross-contamination, if requested by the project manager.

**Well Development**

Wells shall be developed using a combination of groundwater surging and extraction. A surge block shall be used to swab the well and agitate the groundwater in order to dislodge any fine sediment from the sand pack. After approximately ten minutes of swabbing the well, groundwater shall be extracted from the well using a bailer, pump and/or reverse air-lifting through a pipe to remove the sediments from the well. Alternating surging and extraction shall continue until the sediment volume in the groundwater (i.e. turbidity) is negligible, which typically requires extraction of approximately ten well-casing volumes of groundwater. Preliminary well development usually is performed during well installation prior to placing the sanitary surface seal to ensure sand pack stabilization. Well development that is performed after surface seal installation, should occur 72 hours after seal installation to ensure that the cement has had adequate time to set.



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### **Waste Handling and Disposal**

Groundwater extracted during development and sampling shall be stored onsite in sealed U.S. DOT H17 55-gallon drums. Each drum shall be labeled with the contents, date of generation, generator identification and consultant contact. If hydrocarbon concentrations in the purged groundwater are below ADEC cleanup levels or the site is in a remote area (pending ADEC approval) groundwater will be discharged to the ground surface, at least 100 feet from the nearest surface water body.

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APPENDIX C

LABORATORY ANALYTICAL REPORT