



DCP Midstream
370 17th Street, Suite 2500
Denver, CO 80202
303-595-3331
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June 11, 2012

Mr. Leonard Lowe
Environmental Engineer
New Mexico Oil Conservation Division
1220 S. St. Francis Dr.
Santa Fe, NM 87505

**RE: 1st Quarter 2012 Groundwater Monitoring Results
DCP X-Line Pipeline Release (1RP-400-0)
Unit B, Section 7, T15S, R34E (Lat 33° 02' 11", Long 103° 32' 48")**

Dear Mr. Lowe:

DCP Midstream, LP (DCP) is pleased to submit for your review, one copy of the 1st Quarter 2012 Groundwater Monitoring Results for the DCP X-Line Pipeline Release located within the Etcheverry Ranch, Lea County, New Mexico.

If you have any questions regarding the report, please call at 303-605-1718 or e-mail me swweathers@dcpmidstream.com.

Sincerely

DCP Midstream, LP

Stephen Weathers, PG
Principal Environmental Specialist

cc: Mrs. Etcheverry, Landowner - Certified Mail 917108 2133 3938 9761 6694
Larry Johnson, OCD Hobbs District Office (Copy on CD)
Environmental Files

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First Quarter 2012 Groundwater Monitoring and Activities Summary Report

X-Line Pipeline Release – Etcheverry Ranch Lea County, New Mexico

1RP-400-0

Prepared for:



370 17th St., Suite 2500
Denver, CO 80202

Prepared by:



Tasman Geosciences

5690 Webster Street
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May 4, 2012

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1. Introduction

Tasman Geosciences, LLC (Tasman) is submitting to DCP Midstream (DCP) the results of the first quarter 2012 groundwater monitoring activities conducted March 11, 2012 and remediation system activities conducted March 8, 2012, at the X-Line Pipeline Release (Site) at the Etcheverry Ranch in Lea County, New Mexico (Figure 1). The purpose of the field activities described herein were to; a) measure groundwater levels; b) obtain groundwater samples for chemical analysis; c) subsequently evaluate and present groundwater flow and quality conditions; and d) conduct remediation system operations and maintenance (O&M) activities. Current Site conditions were evaluated from field data and analytical laboratory results collected during the reporting period.

2. Site Location and Background

The Site is located in New Mexico Oil Conservation Division (OCD) designated Unit B, Section 7, Township 15 South, Range 34 East (Figure 1). The OCD reference for the Site is 1R-0400. The facility coordinates are 33.036389 degrees north and 103.546667 degrees west. The area is sparsely populated and land use is primarily associated with livestock grazing and oil and gas extraction and conveyance.

Historical documents indicate that a pipeline release occurred at the Site location during the latter part of 2001. Soil boring activities conducted by Environmental Plus Incorporated (EPI) estimated that the contaminated soil column was approximately 40-feet in diameter at the surface, tapering to approximately 20-feet in diameter at 37-feet below ground surface (bgs) and extending at that diameter to the top of water table at approximately 75-feet bgs. EPI conducted soil excavation activities between January and March of 2002 which included the removal and disposal of approximately 6,746 cubic yards (yd³) of impacted material to a depth of 37 feet bgs. The material was then disposed of at the OCD approved and permitted Artesia Aeration Landfarm in Maljamar, New Mexico. Subsequent to excavation activities, the open pit was backfilled and compacted with overburden and unaffected materials. It was estimated that approximately 560 yd³ of impacted material remained in place.

Seven groundwater monitoring wells (MW-1 through MW-7) were installed at the Site which are illustrated on Figure 2. Additionally, one light non-aqueous phase liquid (LNAPL) recovery well was installed and used to extract LNAPL material from the groundwater table. The well was re-drilled and used as a groundwater monitoring well (MW-8) following LNAPL recovery conducted between July 2003 and 2004.

Currently, the Site remediation components include an operational soil vapor extraction (SVE) and air sparge (AS) remediation system (System). Installation activities were completed by EPI and the system became fully functional by mid-June of 2003. Since that time, the system has had minimal downtime due, in part, to routine maintenance and minor equipment failures.

3. Groundwater Monitoring

This section describes the field groundwater monitoring activities as well as the laboratory analyses performed during the first quarter 2012 monitoring event. Monitoring activities included Site-wide groundwater gauging and groundwater sampling. Figure 2 illustrates the groundwater monitoring network utilized to perform these activities at the Site.

3.1 Groundwater Elevation Monitoring

Groundwater levels were measured in order to evaluate hydraulic characteristics and provide information regarding seasonal fluctuations in groundwater at the Site. In addition, wells were measured for total depth and groundwater purge volumes calculated. During the first quarter 2012 monitoring event, groundwater levels were measured at all eight of the monitoring well locations.

Groundwater levels were measured on the north side of the well casing to the nearest 0.01-foot using an oil-water interface probe (IP) and were then converted to elevations (feet above mean sea level [AMSL])

Groundwater elevations collected during the first quarter 2012 monitoring event are presented in Table 1, and a first quarter 2012 groundwater elevation contour map is illustrated on Figure 3. Groundwater elevations ranged from 4,089.39 feet AMSL at monitoring well MW-1 to 4088.65 feet AMSL in monitoring well MW-5. Since surveyed top of casing (TOC) elevations are not available for monitoring wells MW-7 and MW-8, groundwater elevations could not be calculated for those wells. As illustrated on Figure 3, groundwater flow at the Site generally trends to the southeast with a gradient of approximately 0.0026 foot per foot between monitoring wells MW-1 and MW-5.

3.2 Groundwater Quality Monitoring

Subsequent to the collection of groundwater level measurements at each monitoring well, groundwater samples were collected from all eight wells. A minimum of three well casing volumes of groundwater were purged using polyethylene bailers prior to collecting groundwater samples. Groundwater samples were collected using dedicated polyethylene bailers, placed in clean laboratory supplied containers and packed in an ice-filled cooler and maintained at approximately four degrees Celsius ($^{\circ}\text{C}$) for transportation. Groundwater samples were then shipped under chain-of-custody procedures to Accutest Laboratories (Accutest) in Wheat Ridge, Colorado, for analysis.

Water quality samples were submitted to Accutest for benzene, toluene, ethylbenzene, and xylene (BTEX) analyses by United States Environmental Protection Agency (USEPA) Method 8260B.

Table 2 summarizes BTEX concentrations in groundwater samples collected during the reporting period. Laboratory analytical reports for the event are included in Appendix A and analytical results are summarized on Figure 4. During the first quarter 2012 monitoring event, benzene was detected above the NMWQCC groundwater standard (.01 mg/L) in monitoring well MW-8 at a concentration of 0.0112 mg/L. No other wells had contaminant concentrations exceeding the NMWQCC groundwater standards.

Water quality parameters were collected during the first quarter 2012 monitoring event and utilized to confirm groundwater stabilization prior to sample collection. Parameter stabilization was achieved within three purge volumes. Therefore, the analytical data are considered to be representative of Site conditions.

3.3 Data Quality Assurance / Quality Control

The data were reviewed for compliance with the analytical method and the associated quality assurance/quality control (QA/QC) procedures. All samples were analyzed using the correct analytical methods and within the correct holding times. Chain of custody forms were in order and properly executed and indicate that samples were received at the proper temperature with no headspace. All data were reported using the correct method number and reporting units. A trip blank, matrix spike or matrix spike duplicate (MS/MSD) and field duplicate sample from well MW-1 were collected during the sampling event.

The trip blank was fully in control, having no detections of targets.

The duplicate sample collected from MW-1 was in compliance with QA/QC standards, both samples returning results for benzene below the reporting limit of 0.0010 µg/l.

The overall QA/QC assessment of the data, based on the data review, indicate that both field precision and overall data precision and accuracy are acceptable.

4. Remediation System O&M Activities

This Section describes the first quarter 2012 System O&M activities that were conducted at the Site.

4.1 Air Sparge System O&M

On December 7, 2011 monitoring well MW-8 was converted to an AS injection point to address low level dissolved phase petroleum hydrocarbon concentrations present in groundwater in the vicinity of the well. Air sparging at MW-8 continued during the first quarter 2012 with downtime occurring between December 30, 2011 and January 14, 2012 due to seized bearings on the AS blower and between March 8,

2012 and March 11, 2012 to enable collection of quarterly groundwater samples. Sparge pressure remained consistent with the previous quarter ranging between 5 to 7 pounds per square inch (psi).

4.2 Soil Vapor Extraction System O&M

The SVE portion of the remediation system was also operational during the first quarter 2012, with downtime corresponding to the events described in the previous section. The SVE blower averaged 30 inches of water (in-H₂O) vacuum and the volatile organic compound (VOC) PID reading collected from the effluent stack was 10 parts per million (ppm). An SVE effluent stack vapor sample was not collected this quarter.

5. Conclusions

Analysis of the first quarter 2012 groundwater data indicates that BTEX concentrations in groundwater did not exceed the regulatory limits in seven of the eight the wells sampled.

Monitoring well MW-8 was converted to an air sparge well in December 2011, then was disconnected in the first quarter 2012 two days prior to groundwater sampling to allow for stabilization of the potentiometric surface prior to field activities. Although benzene results in MW-8 exceeded the NMWQCC Groundwater Standard during this event, the concentration dropped an order of magnitude from the last date sampled (September 2011) suggesting that air sparging activities have been successful in reducing contaminant concentrations.

Analytical results were reported above the laboratory detection limits for total xylenes and ethylbenzene in monitoring well MW-2; however, concentrations were still below the NMWQCC Groundwater Standards.

Based on the most current and historic groundwater concentration data, the dissolved phase hydrocarbon plume is decreasing as a result of successful system remediation.

6. Recommendations

Based on evaluation of data obtained during this reporting period, historical Site observations, and the remediation system operational parameters, the following recommendations have been developed for future activities at the Site:

- Continue quarterly groundwater monitoring and sampling activities at the eight monitoring well locations provided in Table 1, and;

- Continue AS and SVE system operations to address residual BTEX concentration in groundwater in the vicinity of MW-8 through the second quarter 2012.

Tables

**TABLE 1
FIRST QUARTER 2012
SUMMARY OF GROUNDWATER ELEVATION DATA
X-LINE PIPELINE RELEASE - ETCHEVERRY RANCH
LEA COUNTY, NEW MEXICO**

Location	Date	Depth to Groundwater (1) (feet)	Total Depth (2) (feet)	TOC Elevation (3) (feet amsl)	Groundwater Elevation (feet amsl)	Change in Groundwater Elevation Since Previous Event (4) (feet)
MW-1	12/9/2010			4166.82	4089.40	0.06
MW-1	3/28/2011			4166.82	4089.39	-0.01
MW-1	6/22/2011			4166.82	4089.35	-0.04
MW-1	9/18/2011	77.42	91.00	4166.82	4089.40	0.05
MW-1	12/9/2011	77.46	91.00	4166.82	4089.36	-0.04
MW-1	3/11/2012	77.43	91.00	4166.82	4089.39	0.03
MW-2	12/9/2010			4166.66	4089.25	0.05
MW-2	3/28/2011			4166.66	NM	-
MW-2	6/22/2011			4167.66	4089.18	-
MW-2	9/18/2011	77.42	88.00	4166.66	4089.24	0.06
MW-2	12/9/2011	77.46	88.00	4166.66	4089.20	-0.04
MW-2	3/11/2012	77.42	88.00	4166.66	4089.24	0.04
MW-3	12/9/2010			4166.17	4089.03	0.06
MW-3	3/28/2011			4166.17	NM	-
MW-3	6/22/2011			4166.17	4088.97	-
MW-3	9/18/2011	78.42	91.00	4166.17	4087.75	-1.22
MW-3	12/9/2011	77.46	91.00	4166.17	4088.71	0.96
MW-3	3/11/2012	77.45	91.00	4166.17	4088.72	0.01
MW-4	12/9/2010			4166.40	4088.89	0.05
MW-4	3/28/2011			4166.40	NM	-
MW-4	6/22/2011			4166.40	4088.83	-
MW-4	9/18/2011	77.55	91.00	4166.40	4088.85	0.02
MW-4	12/9/2011	77.60	91.00	4166.40	4088.80	-0.05
MW-4	3/11/2012	77.60	91.00	4166.40	4088.80	0.00
MW-5	12/9/2010			4165.90	4088.82	0.10
MW-5	3/28/2011			4165.90	NM	-
MW-5	6/22/2011			4165.90	4088.74	-
MW-5	9/18/2011	77.22	89.00	4165.90	4088.68	-0.06
MW-5	12/9/2011	77.25	89.00	4165.90	4088.65	-0.03
MW-5	3/11/2012	77.25	89.00	4165.90	4088.65	0.00
MW-6	12/9/2010			4165.94	4088.85	0.03
MW-6	3/28/2011			4165.94	NM	-
MW-6	6/22/2011			4165.94	4088.82	-
MW-6	9/18/2011	77.14	90.00	4165.94	4088.80	-0.02
MW-6	12/9/2011	77.27	90.00	4165.94	4088.67	-0.13
MW-6	3/11/2012	77.17	90.00	4165.94	4088.77	0.10
MW-7	12/9/2010				4087.83	0.04
MW-7	3/28/2011				NM	-
MW-7	6/22/2011				4088.82	-
MW-7	9/18/2011	76.69	85.00		NM	-
MW-7	12/9/2011	76.74	85.00	NM	NM	NM
MW-7	3/11/2012	76.75	85.00	NM	NM	NM

**TABLE 1
FIRST QUARTER 2012
SUMMARY OF GROUNDWATER ELEVATION DATA
X-LINE PIPELINE RELEASE - ETCHEVERRY RANCH
LEA COUNTY, NEW MEXICO**

Location	Date	Depth to Groundwater (1) (feet)	Total Depth (2) (feet)	TOC Elevation (3) (feet amsl)	Groundwater Elevation (feet amsl)	Change in Groundwater Elevation Since Previous Event (4) (feet)
MW-8	12/9/2010					
MW-8	3/28/2011					
MW-8	6/22/2011					
MW-8	9/18/2011	78.15	81.35		NM	NM
MW-8	12/9/2011	NM	81.35		NM	NM
MW-8	3/11/2012	75.85	81.35		NM	NM
Average Change in groundwater elevation since the previous monitoring event						0.03

Notes:

- 1- Depths measured from the north edge of the well casing.
 - 2- Total depths were collected and recorded during the first quarter 2012 monitoring event.
 - 3-TOC elevations for monitoring wells MW-7, & MW-8 were not available at the time this report was generated. Therefore, groundwater elevations for those wells could not be calculated.
 - 4- Changes in groundwater elevation were calculated by subtracting the measurement collected during the previous monitoring even from the measurement collected during the most recent monitoring event.
- Data presented for the well locations includes previous four sampling events, when available. Historic groundwater elevation data for these locations are available upon request.
- Sample locations are shown on Figure 2 and a groundwater elevation contour map is shown on Figure 3.
- amsl - feet above mean sea level.
TOC - top of casing
NM - not measured

TABLE 2
FIRST QUARTER 2012
SUMMARY OF BTEX CONCENTRATIONS IN GROUNDWATER
X-LINE PIPELINE RELEASE - ETCHEVERRY RANCH
LEA COUNTY, NEW MEXICO

Location Identification	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Total Xylenes (mg/l)	Comments
New Mexico Water Quality Control Commission Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	
MW-1	3/28/2011	<0.001	<0.002	<0.002	<0.004	
MW-1	6/22/2011	<0.001	<0.002	<0.002	<0.004	
MW-1	9/18/2011	<0.001	<0.002	<0.002	<0.004	
MW-1	12/9/2011	<0.0005	<0.001	<0.001	<0.001	
MW-1	3/11/2012	<0.001	<0.002	<0.002	<0.004	Duplicate sample collected
MW-2	3/28/2011	<0.001	0.005	<0.002	0.0455	
MW-2	6/22/2011	<0.002	1.002	<0.0164	1.185	
MW-2	9/18/2011	<0.001	<0.002	0.0123	0.14	
MW-2	12/9/2011	<0.0005	<0.001	0.0143	0.128	Duplicate sample collected
MW-2	3/11/2012	<0.001	<0.002	0.0036	0.0372	
MW-3	3/28/2011	<0.001	<0.002	<0.002	<0.004	
MW-3	6/22/2011	<0.001	<0.002	<0.002	<0.004	
MW-3	9/18/2011	<0.001	<0.002	<0.002	<0.004	
MW-3	12/9/2011	<0.0005	<0.001	<0.001	<0.001	
MW-3	3/11/2012	<0.001	<0.002	<0.002	<0.004	
MW-4	3/28/2011	<0.001	<0.002	<0.002	<0.004	
MW-4	6/22/2011	<0.001	<0.002	<0.002	<0.004	
MW-4	9/18/2011	<0.001	<0.002	<0.002	<0.004	
MW-4	12/9/2011	<0.0005	<0.001	<0.001	<0.001	
MW-4	3/11/2012	<0.001	<0.002	<0.002	<0.004	
MW-5	3/28/2011	<0.001	<0.002	<0.002	0.012	
MW-5	6/22/2011	<0.001	<0.002	<0.002	<0.004	
MW-5	9/18/2011	<0.001	<0.002	<0.002	<0.004	
MW-5	12/9/2011	<0.0005	<0.001	<0.001	<0.001	
MW-5	3/11/2012	<0.001	<0.002	<0.002	<0.004	
MW-6	3/28/2011	<0.001	<0.002	<0.002	<0.004	
MW-6	6/22/2011	<0.001	<0.002	<0.002	<0.004	
MW-6	9/18/2011	<0.001	<0.002	<0.002	<0.004	
MW-6	12/9/2011	<0.0005	<0.001	<0.001	<0.001	
MW-6	3/11/2012	<0.001	<0.002	<0.002	<0.004	
MW-7	3/28/2011	<0.001	<0.002	<0.002	<0.004	
MW-7	6/22/2011	<0.001	<0.002	<0.002	<0.004	
MW-7	9/18/2011	<0.001	<0.002	<0.002	<0.004	
MW-7	12/9/2011	<0.0005	<0.001	<0.001	<0.001	
MW-7	3/11/2012	<0.001	<0.002	<0.002	<0.004	
MW-8	3/28/2011	0.443	0.0817	0.717	2.34	
MW-8	6/22/2011	0.204	0.444	0.0822	2.72	
MW-8	9/18/2011	0.682	0.699	0.112	3.03	
MW-8*	12/9/2011	NS	NS	NS	NS	
MW-8	3/11/2012	0.0112	0.0227	<0.02	0.0333	

The environmental cleanup standards for water that are applicable to this Site are the New Mexico Water Quality Control Commission (NMWQCC) Groundwater Standards.

Data presented for the well locations includes previous four sampling events, when available. Historic groundwater analytical results for these locations are available upon request.

Bold red values indicate an exceedance of the NMWQCC groundwater standards for the Site.

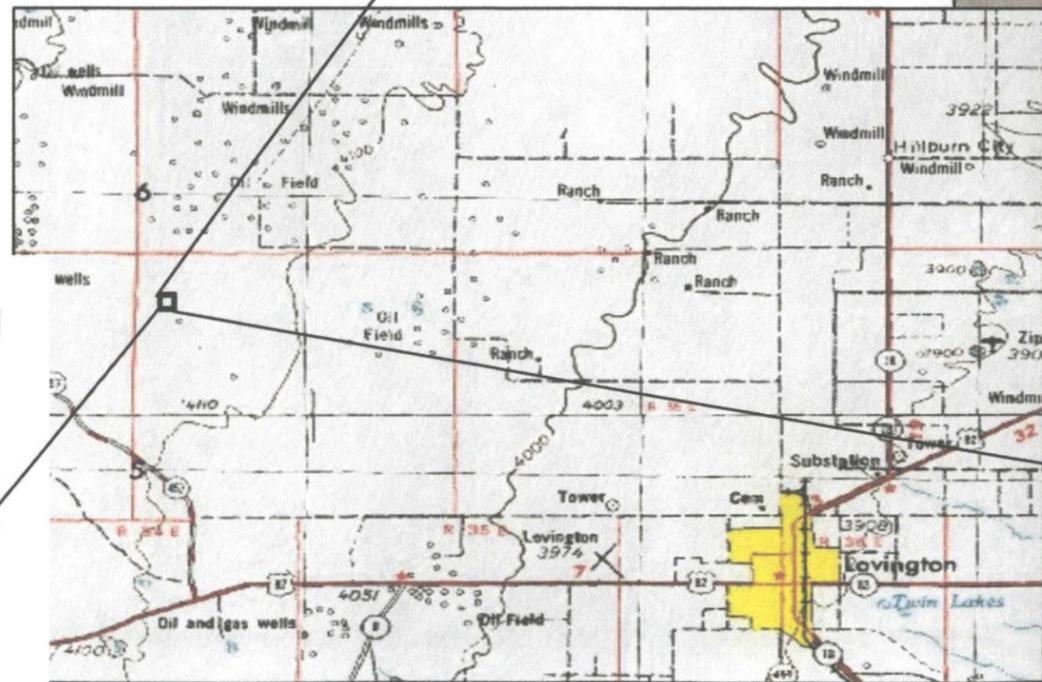
Sample locations are shown on Figure 2 and analytical results are illustrated on Figure 4.

NS = Not Sampled.

mg/L = milligrams per liter.

* Monitoring well MW-8 was converted to an Air Sparge Injection point prior to the fourth quarter 2011 groundwater monitoring event. Therefore, groundwater samples were not collected from that well.

Figures



DESIGNED BY: C. Wasko
 DRAWN BY: J. Clonts
 SHEET CHK'D BY: _____
 CROSS CHK'D BY: _____
 APPROVED BY: _____
 APPROVED BY: _____



Tasman Geosciences, LLC
 5690 Webster St.
 Arvada, CO 8002
 720-988-2024

X-LINE PIPELINE RELEASE

*First Quarter 2012
 Groundwater Monitoring
 Summary Report*

SITE LOCATION

FIGURE
 1



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 SHEET CHK'D BY: _____
 CROSS CHK'D BY: _____
 APPROVED BY: _____
 APPROVED BY: _____

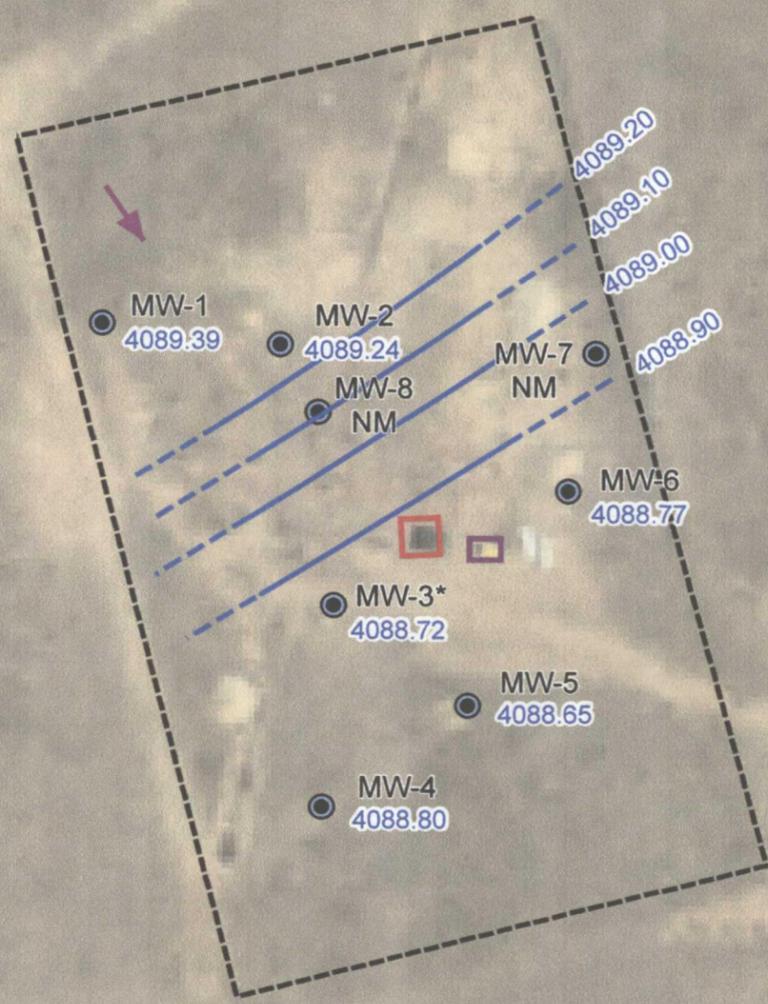


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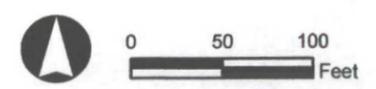
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SITE MAP

FIGURE
2



- Legend**
- Monitoring Well
 - ▭ SVE & AS System Treatment Building
 - ▭ Treatment System Generator
 - - - Approximate Site Boundary
 - Groundwater Elevation Contour Line (feet AMSL), Dashed Where Inferred
 - 3,710.33 Measured Groundwater Elevation (feet AMSL)
 - ➔ Groundwater Flow Direction



DESIGNED BY: C. Wasko
 DRAWN BY: J. Clonts
 SHEET CHK'D BY: _____
 CROSS CHK'D BY: _____
 APPROVED BY: _____
 APPROVED BY: _____

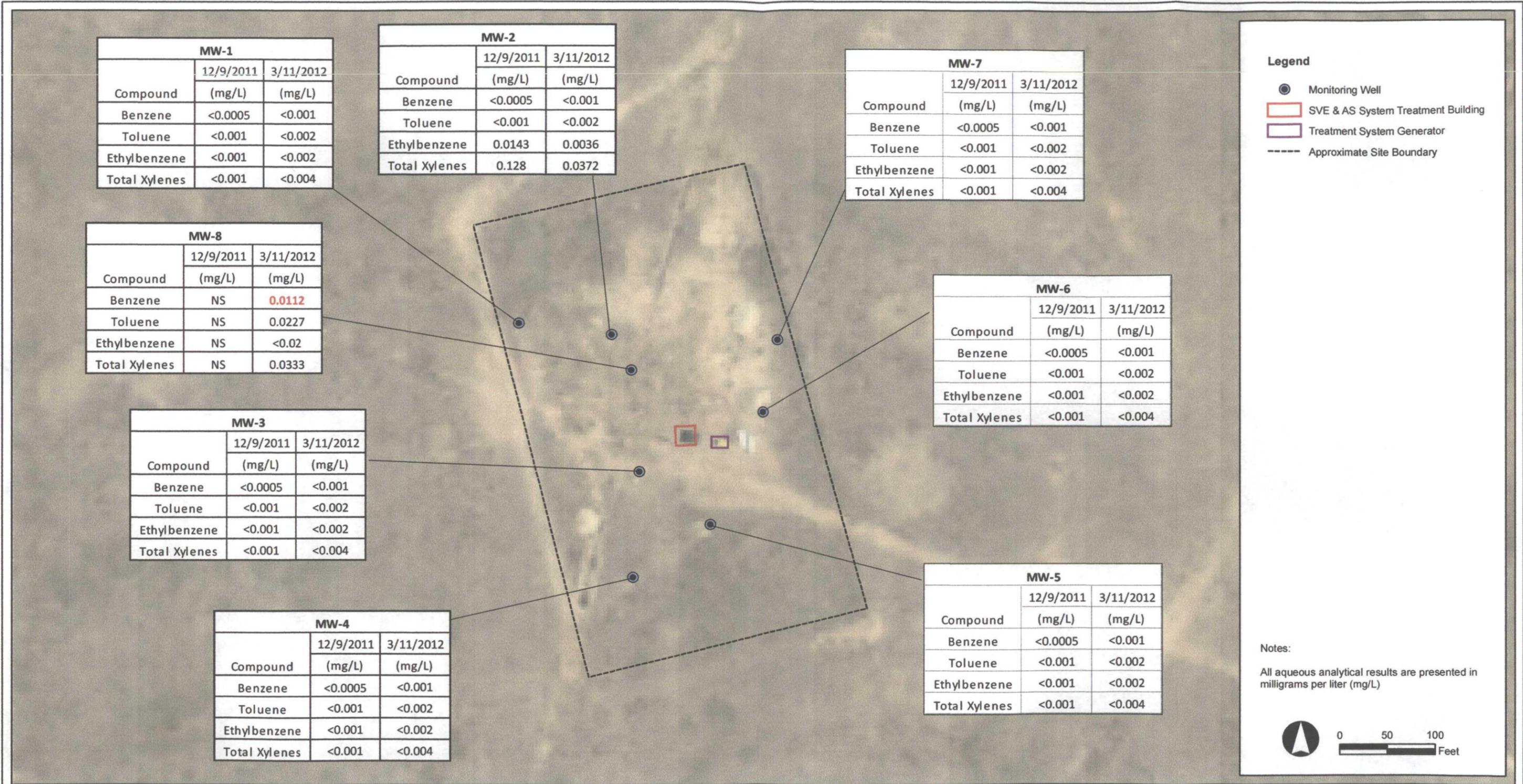


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**GROUNDWATER ELEVATION
 CONTOUR MAP
 (MARCH 11, 2012)**

**FIGURE
 3**



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DRAWN BY: J. Clonts

SHEET CHK'D BY: _____

CROSS CHK'D BY: _____

APPROVED BY: _____

APPROVED BY: _____



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X-LINE PIPELINE RELEASE

First Quarter 2012
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ANALYTICAL RESULTS MAP

FIGURE
4

Appendix A
Groundwater Laboratory Analytical Report