



**DCP Midstream**  
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2014 JUN -2 A 9:48

May 28, 2014

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

**RE: 1st Quarter 2014 Groundwater Monitoring Results**  
**DCP X-Line Pipeline Release (~~AKP-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 2014 Groundwater Monitoring Results for the DCP X-Line Pipeline Release located within the Etcheverry Ranch, Lea County, New Mexico.

This is the 8th consecutive quarter in which the BTEX concentrations in all groundwater monitor wells have been below New Mexico Water Quality Control Commissions Groundwater Standards.

If you have any questions regarding the report, please call at 303-605-1718 or e-mail me [swathers@dcpmidstream.com](mailto:swathers@dcpmidstream.com).

Sincerely

**DCP Midstream, LP**

Stephen Weathers, PG  
Principal Environmental Specialist

cc: Mrs. Etcheverry, Landowner - Certified Mail 91 7199 9991 7031 8154 3846  
Geoffrey Leking, OCD Hobbs District Office (Copy on CD)  
Environmental Files

# First Quarter 2014 Groundwater Monitoring Summary Report

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

1RP-400-0

Prepared for:



370 17<sup>th</sup> St., Suite 2500  
Denver, CO 80202

*Prepared by:*



6899 Pecos Street, Unit C  
Denver, Colorado 80221

**May 16, 2014**

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  - Accutest Job #: D55492

## 1. Introduction

This report summarizes the results of groundwater monitoring activities conducted during the first quarter 2014 at the X-Line Pipeline Release (Site) on the Etcheverry Ranch in Lea County, New Mexico (Figure 1). Tasman Geosciences, LLC (Tasman) performed these activities on behalf of DCP Midstream, LP (DCP). The groundwater monitoring activities described herein were conducted to measure groundwater levels, obtain groundwater samples for laboratory analysis, evaluate and present groundwater flow and quality conditions, and assess the effectiveness of remedial activities conducted from 2003 through 2012. 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 production and gathering.

Historical documents indicate that a pipeline release occurred at the Site 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 ( $\text{yd}^3$ ) 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  $\text{yd}^3$  of impacted material remained in place.

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

The Site remediation components include a 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. The system was operation until the second quarter of 2012 at which time the System was shut off due to negligible contaminant concentrations.

### 3. Groundwater Monitoring

This section describes the groundwater monitoring activities as well as the laboratory analyses performed during the first quarter 2014 monitoring event. Monitoring activities, including Site-wide groundwater gauging and sampling, were performed on February 28, 2014. 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 elevation at the Site. During the first quarter 2014 monitoring 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 reporting period as well as historic elevations are presented in Table 1. A first quarter 2014 groundwater elevation contour map, included as Figure 3, indicates that the groundwater flow at the Site trends to the southeast. A groundwater elevations range, average elevation change from the previous monitoring event, and the calculated hydraulic gradient at the Site are summarized in the table below.

**Summary of Measured Hydraulic Parameters**

	First Quarter 2014 (2/28/14)
Maximum Elevation (Well ID)	4089.36 (MW-1)
Minimum Elevation (Well ID)	4088.62 (MW-5)
Average Change from Previous Monitoring Event – All Wells	-0.04 foot
Hydraulic Gradient (ft/ft) / (Well IDs)	0.0025 (MW-2 to MW-5)

Note:

- Groundwater elevations were not calculated for MW-7 and MW-8 due to missing surveyed top of casing (TOC) elevation.

#### 3.2 Groundwater Quality Monitoring

Subsequent to recording groundwater level measurements, groundwater samples were collected at each of the eight Site monitoring wells. A minimum of three well casing volumes of groundwater were purged from each monitoring well prior to collecting groundwater samples. Groundwater samples were collected using dedicated polyethylene bailers, placed in clean laboratory supplied containers for the selected analytical methods, packed in an ice-filled cooler and maintained at approximately four degrees Celsius ( $^{\circ}\text{C}$ ) for transportation to the laboratory. 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 total xylenes (BTEX) analyses by United States Environmental Protection Agency (USEPA) Method 8260B.

Table 2 summarizes BTEX concentrations in groundwater samples collected during the reporting period. Historic analytical results up to and including the February 2014 event are included in Appendix A and the laboratory analytical report for the first quarter is included in Appendix B. Analytical results are also displayed on Figure 4.

During the first quarter 2014 monitoring event, BTEX concentrations did not exceed the New Mexico Water Quality Control Commission (NMWQCC) groundwater standards in any of the eight monitoring wells.

### **3.3 Data Quality Assurance / Quality Control**

A matrix spike / matrix spike duplicate (MS/MSD) and field duplicate sample (MW-8) were collected during the sampling event. 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. QA/QC items of note for the first quarter 2014 include the following:

- A trip blank was not indicated on the laboratory data report or the sample log. Tasman has coordinated with the laboratory to prevent further oversight of trip blanks submitted.
- The field duplicate, collected at MW-8 indicated estimated “j-flag” values for all analytes except for total xylenes in the primary sample. The difference between the detection (0.0034 mg/l) and the laboratory reporting limit (0.003 mg/l) is minor and therefore not an indication of increased variability.

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

## **4. Remediation System O&M Activities**

The air sparge and soil vapor extraction systems were taken out of service during the second quarter 2012 in lieu of continued monitoring of dissolved phase concentration trends within the targeted remediation area. The System has remained off throughout the reporting period.

## 5. Conclusions

During the first quarter 2014, BTEX concentrations remained below NMWQCC groundwater standards at all eight sample locations for the eighth consecutive monitoring period. As demonstrated by the 2012 and 2013 analytical results, remedial activities have successfully mitigated residual dissolved phase hydrocarbon impacts.

## 6. Recommendations

Based on evaluation of data obtained during this reporting period and the previous seven quarters, successful mitigation of dissolved phase hydrocarbon impacts has been demonstrated. At the present time, it is recommended that an additional quarter of monitoring be conducted to comply with an existing landowner settlement agreement.

## **Tables**

**TABLE 1**  
**FIRST QUARTER 2014**  
**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	12/7/2012	77.42	91.00	4166.82	4089.40	0.04
MW-1	2/20/2013	77.42	91.00	4166.82	4089.40	0.00
MW-1	6/2/2013	77.45	91.00	4166.82	4089.37	-0.03
MW-1	9/9/2013	77.50	91.00	4166.82	4089.32	-0.05
MW-1	12/2/2013	77.43	91.00	4166.82	4089.39	0.07
MW-1	2/28/2014	77.46	NM	4166.82	4089.36	-0.03
MW-2	12/7/2012	77.40	88.00	4166.66	4089.26	0.04
MW-2	2/20/2013	77.40	88.00	4166.66	4089.26	0.00
MW-2	6/2/2013	77.45	88.00	4166.66	4089.21	-0.05
MW-2	9/9/2013	77.50	88.00	4166.66	4089.16	-0.05
MW-2	12/2/2013	77.42	88.00	4166.66	4089.24	0.08
MW-2	2/28/2014	77.46	NM	4166.66	4089.20	-0.04
MW-3	12/7/2012	77.43	91.00	4166.17	4088.74	0.05
MW-3	2/20/2013	77.44	91.00	4166.17	4088.73	-0.01
MW-3	6/2/2013	77.47	91.00	4166.17	4088.70	-0.03
MW-3	9/9/2013	77.51	91.00	4166.17	4088.66	-0.04
MW-3	12/2/2013	77.45	91.00	4166.17	4088.72	0.06
MW-3	2/28/2014	77.48	NM	4166.17	4088.69	-0.03
MW-4	12/7/2012	77.55	91.00	4166.40	4088.85	0.05
MW-4	2/20/2013	77.56	91.00	4166.40	4088.84	-0.01
MW-4	6/2/2013	77.60	91.00	4166.40	4088.80	-0.04
MW-4	9/9/2013	77.65	91.00	4166.40	4088.75	-0.05
MW-4	12/2/2013	77.56	91.00	4166.40	4088.84	0.09
MW-4	2/28/2014	77.61	NM	4166.40	4088.79	-0.05
MW-5	12/7/2012	77.21	89.00	4165.90	4088.69	0.05
MW-5	2/20/2013	77.24	89.00	4165.90	4088.66	-0.03
MW-5	6/2/2013	77.26	89.00	4165.90	4088.64	-0.02
MW-5	9/9/2013	77.31	89.00	4165.90	4088.59	-0.05
MW-5	12/2/2013	77.24	89.00	4165.90	4088.66	0.07
MW-5	2/28/2014	77.28	NM	4165.90	4088.62	-0.04
MW-6	12/7/2012	77.13	90.00	4165.94	4088.81	0.05
MW-6	2/20/2013	77.15	90.00	4165.94	4088.79	-0.02
MW-6	6/2/2013	77.20	90.00	4165.94	4088.74	-0.05
MW-6	9/9/2013	77.24	90.00	4165.94	4088.70	-0.04
MW-6	12/2/2013	77.17	90.00	4165.94	4088.77	0.07
MW-6	2/28/2014	77.19	NM	4165.94	4088.75	-0.02
MW-7	12/7/2012	76.70	85.00	NM	NM	NM
MW-7	2/20/2013	76.71	85.00	NM	NM	NM
MW-7	6/2/2013	76.75	85.00	NM	NM	NM
MW-7	9/9/2013	76.74	85.00	NM	NM	NM
MW-7	12/2/2013	76.72	86.00	NM	NM	NM
MW-7	2/28/2014	76.76	NM	NM	NM	NM

**TABLE 1**  
**FIRST QUARTER 2014**  
**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	12/7/2012	77.36	81.35	NM	NM	NM
MW-8	2/20/2013	77.36	81.35	NM	NM	NM
MW-8	6/2/2013	77.40	81.35	NM	NM	NM
MW-8	9/9/2013	77.44	81.35	NM	NM	NM
MW-8	12/2/2013	77.38	82.35	NM	NM	NM
MW-8	2/28/2014	77.42	NM	NM	NM	NM
Average change in groundwater elevation (12/2/13 to 2/28/14)						-0.04

Notes:

1- Depths measured from the north edge of the well casing.

2- Total depths were collected and recorded during the fourth quarter 2013 monitoring event.

3-TOC elevations for monitoring wells MW-7, & MW-8 are not available. 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.

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 2014**  
**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
<b>New Mexico Water Quality Control Commission Groundwater Standards (mg/L)</b>		<b>0.01</b>	<b>0.75</b>	<b>0.75</b>	<b>0.62</b>	
MW-1	2/28/2014	<0.001	<0.002	<0.002	<0.003	
MW-2	2/28/2014	<0.001	<0.002	0.0054	0.0245	
MW-3	2/28/2014	<0.001	<0.002	<0.002	<0.003	
MW-4	2/28/2014	<0.001	<0.002	<0.002	<0.003	
MW-5	2/28/2014	<0.001	<0.002	<0.002	<0.003	
MW-6	2/28/2014	<0.001	<0.002	<0.002	<0.003	
MW-7	2/28/2014	<0.001	<0.002	<0.002	<0.003	
MW-8	2/28/2014	0.00042 J	<0.002	0.00036 J	0.0034	Duplicate Sample Collected
MW-8 (Duplicate)	2/28/2014	0.00045 J	<0.002	0.00026 J	0.0028 J	

Notes:

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 current sampling event. Historic groundwater analytical data are located in Appendix A.

**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.

mg/L = milligrams per liter.

J = Indicates an estimated value

## Figures

N



DATE:	April 2014
DESIGNED BY:	T. Johansen
DRAWN BY:	D. Arnold



Tasman Geosciences, LLC  
6899 Pecos Street - Unit C  
Denver, CO 80221

**DCP Midstream**  
**X-LINE PIPELINE RELEASE**  
Unit B, Section 7, Township 15 South, Range 34 East  
Lea County, New Mexico

Site Location

Figure  
1



DATE:	April 2014
DESIGNED BY:	T. Johansen
DRAWN BY:	D. Arnold



Tasman Geosciences, LLC  
6899 Pecos Street - Unit C  
Denver, CO 80221

DCP Midstream  
X-LINE PIPELINE RELEASE  
First Quarter 2014  
Groundwater Monitoring Summary Report

Site Map with  
Monitoring Well Locations

Figure  
2



DATE:	April 2014
DESIGNED BY:	T. Johansen
DRAWN BY:	D. Arnold



Tasman Geosciences, LLC  
6899 Pecos Street - Unit C  
Denver, CO 80221

DCP Midstream  
X-LINE PIPELINE RELEASE  
First Quarter 2014 Groundwater Monitoring  
Summary Report

Groundwater Elevation  
Contour Map  
(February 28, 2014)

Figure  
3

MW-1	
Compound	2/28/2014 (mg/L)
Benzene	<0.001
Toluene	<0.002
Ethylbenzene	<0.002
Total Xylenes	<0.003

MW-2	
Compound	2/28/2014 (mg/L)
Benzene	<0.001
Toluene	<0.002
Ethylbenzene	0.0054
Total Xylenes	0.0245

MW-7	
Compound	2/28/2014 (mg/L)
Benzene	<0.001
Toluene	<0.002
Ethylbenzene	<0.002
Total Xylenes	<0.003

MW-8	
Compound	2/28/14 (mg/L) (mg/L)
Benzene	0.00042 J
Toluene	<0.002
Ethylbenzene	0.00036 J
Total Xylenes	0.0034

MW-6	
Compound	2/28/2014 (mg/L)
Benzene	<0.001
Toluene	<0.002
Ethylbenzene	<0.002
Total Xylenes	<0.003

MW-3	
Compound	2/28/2014 (mg/L)
Benzene	<0.001
Toluene	<0.002
Ethylbenzene	<0.002
Total Xylenes	<0.003

MW-4	
Compound	2/28/2014 (mg/L)
Benzene	<0.001
Toluene	<0.002
Ethylbenzene	<0.002
Total Xylenes	<0.003

MW-5	
Compound	2/28/2014 (mg/L)
Benzene	<0.001
Toluene	<0.002
Ethylbenzene	<0.002
Total Xylenes	<0.003

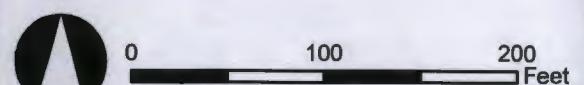
**Legend**

- Monitoring Well
- SVE & AS System Treatment Building
- Treatment System Generator
- Approximate Site Boundary

NMWQCC Groundwater Standards	
Compound	(mg/L)
Benzene	0.01
Toluene	0.75
Ethylbenzene	0.75
Total Xylenes	0.62

**Notes:**

All aqueous analytical results are presented in milligrams per liter (mg/L)



DATE:  
April 2014  
DESIGNED BY:  
T. Johansen  
DRAWN BY:  
D. Arnold



Tasman Geosciences, LLC  
6899 Pecos Street - Unit C  
Denver, CO 80221

**DCP Midstream**  
**X-LINE PIPELINE RELEASE**  
**First Quarter 2014 Groundwater Monitoring**  
**Summary Report**

Analytical Results Map  
(February 28, 204)

**Figure**  
**4**

## **Appendix A**

### **Historic Analytical Results**

**APPENDIX A**  
**HISTORIC ANALYTICAL RESULTS**  
**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
<b>New Mexico Water Quality Control Commission Groundwater Standards (mg/L)</b>		<b>0.01</b>	<b>0.75</b>	<b>0.75</b>	<b>0.62</b>	
MW-1	4/24/2002	<0.002	<0.002	<0.002	<0.006	
MW-1	5/21/2002	0.002	<0.002	0.003	<0.006	
MW-1	4/28/2003	<0.001	<0.001	<0.001	<0.001	
MW-1	6/19/2003	<0.001	<0.001	<0.001	<0.001	
MW-1	7/17/2003	<0.001	<0.001	<0.001	<0.001	
MW-1	8/20/2003	<0.001	<0.001	<0.001	<0.001	
MW-1	9/22/2003	<0.001	<0.001	<0.001	<0.001	
MW-1	10/29/2003	<0.001	<0.001	<0.001	<0.001	
MW-1	11/20/2003	<0.001	<0.001	<0.001	<0.001	
MW-1	2/18/2004	<0.001	<0.001	<0.001	0.0514	
MW-1	6/25/2004	<0.001	<0.001	<0.001	<0.001	
MW-1	10/18/2004	<0.001	<0.001	<0.001	<0.001	
MW-1	12/9/2004	<0.001	<0.001	<0.001	<0.001	
MW-1	3/3/2005	<0.001	<0.001	<0.001	<0.001	
MW-1	6/3/2005	<0.001	<0.001	<0.001	<0.001	
MW-1	9/28/2005	<0.001	<0.001	<0.001	<0.001	
MW-1	12/12/2005	<0.001	<0.001	<0.001	<0.001	
MW-1	3/1/2006	<0.001	<0.001	<0.001	<0.001	
MW-1	6/26/2006	<0.001	<0.001	<0.001	<0.001	
MW-1	9/28/2006	<0.001	<0.001	<0.001	<0.001	
MW-1	12/21/2006	<0.001	<0.001	<0.001	<0.001	
MW-1	3/13/2007	<0.001	<0.001	<0.001	<0.001	
MW-1	6/26/2007	<0.001	<0.001	<0.001	<0.002	
MW-1	9/5/2007	<0.002	<0.002	<0.002	<0.004	
MW-1	12/27/2007	0.00093	<0.002	0.002	0.0028	
MW-1	3/20/2008	<0.002	<0.002	<0.002	<0.006	
MW-1	6/27/2008	<0.002	<0.002	<0.002	<0.002	
MW-1	9/15/2008	<0.002	<0.002	<0.002	<0.006	
MW-1	12/1/2008	<0.002	<0.002	<0.002	<0.006	
MW-1	3/11/2009	<0.002	<0.002	<0.002	<0.006	
MW-1	5/27/2009	<0.002	<0.002	<0.002	<0.006	
MW-1	9/24/2009	<0.002	<0.002	<0.002	<0.006	
MW-1	12/18/2009	<0.002	<0.002	<0.002	<0.006	
MW-1	3/25/2010	<0.001	<0.002	<0.002	<0.004	
MW-1	6/30/2010	<0.0003	<0.0003	<0.001	<0.0006	
MW-1	9/16/2010	<0.001	<0.002	<0.002	<0.004	
MW-1	12/9/2010	<0.001	<0.002	<0.002	<0.004	
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-1	6/8/2012	<0.001	<0.002	<0.002	<0.003	Duplicate sample collected
MW-1	9/10/2012	<0.001	<0.002	<0.002	<0.003	
MW-1	12/7/2012	<0.001	<0.002	<0.002	<0.003	
MW-1	2/20/2013	<0.001	<0.002	<0.002	<0.003	
MW-1	6/2/2013	<0.001	<0.002	<0.002	<0.003	
MW-1	9/9/2013	<0.001	<0.002	<0.002	<0.003	
MW-1	12/2/2013	<0.001	<0.002	<0.002	<0.003	
MW-1	2/28/2014	<0.001	<0.002	<0.002	<0.003	

**APPENDIX A**  
**HISTORIC ANALYTICAL RESULTS**  
**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
<b>New Mexico Water Quality Control Commission Groundwater Standards (mg/L)</b>		<b>0.01</b>	<b>0.75</b>	<b>0.75</b>	<b>0.62</b>	
MW-2	4/24/2002	0.0255	0.013	0.107	0.38	
MW-2	5/21/2002	0.145	0.062	0.833	1.27	
MW-2	4/28/2003	0.182	0.121	0.092	0.133	
MW-2	6/19/2003	0.074	0.069	0.066	0.103	
MW-2	7/17/2003	0.155	0.112	0.15	0.186	
MW-2	8/20/2003	0.024	0.012	0.092	0.179	
MW-2	9/22/2003	0.022	0.012	0.051	0.079	
MW-2	10/29/2003	0.001	0.002	0.004	0.017	
MW-2	11/20/2003	0.013	0.005	0.017	0.034	
MW-2	2/18/2004	<0.001	0.00301	0.00652	0.00067	
MW-2	6/25/2004	0.00156	0.0005	0.00108	0.00106	
MW-2	10/18/2004	0.0103	0.00336	0.00648	0.0052	
MW-2	12/9/2004	0.00342	0.00122	0.00206	<0.001	
MW-2	3/3/2005	<0.001	<0.001	<0.001	<0.001	
MW-2	6/3/2005	<0.001	<0.001	<0.001	<0.001	
MW-2	9/28/2005	<0.001	<0.001	<0.001	<0.001	
MW-2	12/12/2005	<0.001	<0.001	<0.001	<0.001	
MW-2	3/1/2006	<0.001	<0.001	<0.001	<0.001	
MW-2	6/26/2006	0.0006	<0.001	0.00114	0.00125	
MW-2	9/28/2006	0.0007	0.0003	0.00137	0.0014	
MW-2	12/21/2006	<0.001	<0.001	<0.001	<0.001	
MW-2	3/13/2007	0.000674	0.0012	0.00512	0.0077	
MW-2	6/26/2007	<0.001	0.0024	0.0102	0.013	
MW-2	9/5/2007	<0.002	<0.002	0.0075	0.0078	
MW-2	12/27/2007	0.00057	0.00076J	0.0039	0.0051	
MW-2	3/20/2008	<0.002	0.01	0.03	0.06	
MW-2	6/27/2008	0.00096	0.0229	0.0073	0.0229	
MW-2	9/15/2008	0.00096	0.02	0.03	0.12	
MW-2	12/1/2008	<0.002	0.0147	0.0135	0.143	
MW-2	3/11/2009	<0.002	0.0123	0.0048	0.12	
MW-2	5/27/2009	<0.002	0.01	0.01	0.16	
MW-2	9/24/2009	<0.002	0.0096	<0.002	0.103	
MW-2	12/18/2009	<0.002	0.0086	<0.002	0.0916	
MW-2	3/25/2010	<0.001	0.0087	<0.002	0.0923	
MW-2	6/30/2010	<0.0003	0.0062	<0.001	0.0417	
MW-2	9/16/2010	<0.001	0.007	<0.002	0.0786	
MW-2	12/9/2010	0.00049	0.0147	<0.002	0.1317	
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-2	6/8/2012	<0.001	<0.002	0.00067	0.0056	
MW-2	9/10/2012	<0.001	<0.002	0.0089	0.0721	
MW-2	12/7/2012	<0.001	<0.002	0.0079	0.0665	
MW-2	2/20/2013	<0.001	<0.002	0.0045	0.0364	
MW-2	6/2/2013	<0.001	<0.002	0.0108	0.0856	
MW-2	9/9/2013	<0.001	<0.002	0.0036	0.0213	
MW-2	12/2/2013	<0.001	<0.002	0.0048	0.0119	
MW-2	2/28/2014	<0.001	<0.002	0.0054	0.0245	

**APPENDIX A**  
**HISTORIC ANALYTICAL RESULTS**  
**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
<b>New Mexico Water Quality Control Commission Groundwater Standards (mg/L)</b>		<b>0.01</b>	<b>0.75</b>	<b>0.75</b>	<b>0.62</b>	
MW-3	4/24/2002	0.061	0.023	<0.002	0.189	
MW-3	5/21/2002	0.176	0.023	0.004	0.451	
MW-3	4/28/2003	0.099	0.03	0.005	0.039	
MW-3	6/19/2003	0.047	0.02	<0.001	0.006	
MW-3	7/17/2003	0.063	0.023	0.002	0.007	
MW-3	8/20/2003	0.017	0.006	<0.001	0.001	
MW-3	9/22/2003	0.049	0.02	<0.001	0.001	
MW-3	10/29/2003	0.044	0.018	<0.001	0.001	
MW-3	11/20/2003	0.048	0.017	0.003	0.004	
MW-3	2/18/2004	0.028	0.0138	<0.001	<0.001	
MW-3	6/25/2004	0.0173	0.0136	0.000158	0.000118	
MW-3	10/18/2004	0.00584	0.00692	<0.001	0.0015	
MW-3	12/9/2004	0.006137	0.00884	<0.001	<0.001	
MW-3	3/3/2005	0.00167	0.00167	<0.001	0.00044	
MW-3	6/3/2005	0.00332	0.00574	<0.001	0.00173	
MW-3	9/28/2005	<0.001	0.00101	0.000482	0.000997	
MW-3	12/12/2005	<0.001	<0.001	<0.001	<0.001	
MW-3	3/1/2006	<0.001	<0.001	<0.001	<0.001	
MW-3	6/26/2006	<0.001	<0.001	<0.001	<0.001	
MW-3	9/28/2006	<0.001	<0.001	<0.001	<0.001	
MW-3	12/21/2006	<0.001	<0.001	<0.001	<0.001	
MW-3	3/13/2007	<0.001	<0.001	<0.001	<0.001	
MW-3	6/26/2007	<0.001	<0.0011	<0.001	<0.002	
MW-3	9/5/2007	<0.002	<0.002	<0.002	<0.004	
MW-3	12/27/2007	<0.002	<0.002	0.0012	<0.006	
MW-3	3/20/2008	<0.002	<0.002	<0.002	<0.006	
MW-3	6/27/2008	<0.002	<0.002	<0.002	<0.002	
MW-3	9/15/2008	<0.002	<0.002	<0.002	<0.006	
MW-3	12/1/2008	<0.002	<0.002	<0.002	<0.006	
MW-3	3/11/2009	<0.002	<0.002	<0.002	<0.006	
MW-3	5/27/2009	<0.002	<0.002	<0.002	<0.006	
MW-3	9/24/2009	<0.002	<0.002	<0.002	<0.006	
MW-3	12/18/2009	<0.002	<0.002	<0.002	<0.006	
MW-3	3/25/2010	<0.001	<0.002	<0.002	<0.004	
MW-3	6/30/2010	<0.0003	<0.0003	<0.001	<0.0006	
MW-3	9/16/2010	<0.001	<0.002	<0.002	<0.004	
MW-3	12/9/2010	<0.001	<0.002	<0.002	<0.004	
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-3	6/8/2012	<0.001	<0.002	<0.002	<0.003	
MW-3	9/10/2012	<0.001	<0.002	<0.002	<0.003	
MW-3	12/7/2012	<0.001	<0.002	<0.002	<0.003	
MW-3	2/20/2013	<0.001	<0.002	<0.002	<0.003	
MW-3	6/2/2013	<0.001	<0.002	<0.002	<0.003	
MW-3	9/9/2013	<0.001	<0.002	<0.002	<0.003	
MW-3	12/2/2013	<0.001	<0.002	<0.002	<0.003	
MW-3	2/28/2014	<0.001	<0.002	<0.002	<0.003	

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**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
<b>New Mexico Water Quality Control Commission Groundwater Standards (mg/L)</b>		<b>0.01</b>	<b>0.75</b>	<b>0.75</b>	<b>0.62</b>	
MW-4	4/24/2002	<0.002	<0.002	<0.002	<0.006	
MW-4	5/21/2002	<0.002	<0.002	<0.002	<0.006	
MW-4	4/28/2003	<0.001	<0.001	<0.001	<0.001	
MW-4	6/19/2003	<0.001	<0.001	<0.001	<0.001	
MW-4	7/17/2003	<0.001	<0.001	<0.001	<0.001	
MW-4	8/20/2003	<0.001	<0.001	<0.001	<0.001	
MW-4	9/22/2003	<0.001	<0.001	<0.001	<0.001	
MW-4	10/29/2003	<0.001	<0.001	<0.001	<0.001	
MW-4	11/20/2003	<0.001	<0.001	<0.001	<0.001	
MW-4	2/18/2004	<0.001	<0.001	<0.001	<0.001	
MW-4	6/25/2004	<0.001	<0.001	<0.001	<0.001	
MW-4	10/18/2004	<0.001	<0.001	<0.001	<0.001	
MW-4	12/9/2004	<0.001	<0.001	<0.001	<0.001	
MW-4	3/3/2005	<0.001	<0.001	<0.001	<0.001	
MW-4	6/3/2005	<0.001	<0.001	<0.001	<0.001	
MW-4	9/28/2005	<0.001	<0.001	<0.001	<0.001	
MW-4	12/12/2005	<0.001	<0.001	<0.001	<0.001	
MW-4	3/1/2006	<0.001	<0.001	<0.001	<0.001	
MW-4	6/26/2006	<0.001	<0.001	<0.001	<0.001	
MW-4	9/28/2006	<0.001	<0.001	<0.001	<0.001	
MW-4	12/21/2006	<0.001	<0.001	<0.001	<0.001	
MW-4	3/13/2007	<0.001	<0.001	<0.001	<0.001	
MW-4	6/26/2007	<0.001	<0.001	<0.001	<0.002	
MW-4	9/5/2007	<0.002	<0.002	<0.002	<0.004	
MW-4	12/27/2007	0.00053	<0.002	0.001	0.0016	
MW-4	3/20/2008	<0.002	<0.002	<0.002	<0.006	
MW-4	6/27/2008	<0.002	<0.002	<0.002	<0.002	
MW-4	9/15/2008	<0.002	<0.002	<0.002	<0.006	
MW-4	12/1/2008	<0.002	<0.002	<0.002	<0.006	
MW-4	3/11/2009	<0.002	<0.002	<0.002	<0.006	
MW-4	5/27/2009	<0.002	<0.002	<0.002	<0.006	
MW-4	9/24/2009	<0.002	<0.002	<0.002	<0.006	
MW-4	12/18/2009	<0.002	<0.002	<0.002	<0.006	
MW-4	3/25/2010	<0.001	<0.002	<0.002	<0.004	
MW-4	6/30/2010	<0.0003	<0.0003	<0.001	<0.0006	
MW-4	9/16/2010	<0.001	<0.002	<0.002	<0.004	
MW-4	12/9/2010	<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-4	6/8/2012	<0.001	<0.002	<0.002	<0.003	
MW-4	9/10/2012	<0.001	<0.002	<0.002	<0.003	
MW-4	12/7/2012	<0.001	<0.002	<0.002	<0.003	
MW-4	2/20/2013	<0.001	<0.002	<0.002	<0.003	
MW-4	6/2/2013	<0.001	<0.002	<0.002	<0.003	
MW-4	9/9/2013	<0.001	<0.002	<0.002	<0.003	
MW-4	12/2/2013	<0.001	<0.002	<0.002	<0.003	
MW-4	2/28/2014	<0.001	<0.002	<0.002	<0.003	

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**LEA COUNTY, NEW MEXICO**

Location Identification	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Total Xylenes (mg/l)	Comments
<b>New Mexico Water Quality Control Commission Groundwater Standards (mg/L)</b>		<b>0.01</b>	<b>0.75</b>	<b>0.75</b>	<b>0.62</b>	
MW-5	4/24/2002	<0.002	<0.002	<0.002	0.011	
MW-5	5/21/2002	<0.002	<0.002	<0.002	<0.006	
MW-5	4/28/2003	0.005	<0.001	<0.001	0.003	
MW-5	6/19/2003	<0.001	<0.001	<0.001	0.003	
MW-5	7/17/2003	<0.001	<0.001	<0.001	0.002	
MW-5	8/20/2003	<0.001	<0.001	<0.001	<0.001	
MW-5	9/22/2003	<0.001	<0.001	<0.001	<0.001	
MW-5	10/29/2003	<0.001	<0.001	<0.001	<0.001	
MW-5	11/20/2003	<0.001	<0.001	<0.001	<0.001	
MW-5	2/18/2004	<0.001	<0.001	<0.001	<0.001	
MW-5	6/25/2004	<0.001	<0.001	<0.001	<0.001	
MW-5	10/18/2004	<0.001	<0.001	<0.001	<0.001	
MW-5	12/9/2004	<0.001	<0.001	<0.001	<0.001	
MW-5	3/3/2005	<0.001	<0.001	<0.001	<0.001	
MW-5	6/3/2005	<0.001	<0.001	<0.001	<0.001	
MW-5	9/28/2005	<0.001	<0.001	<0.001	<0.001	
MW-5	12/12/2005	<0.001	<0.001	<0.001	<0.001	
MW-5	3/1/2006	<0.001	<0.001	<0.001	<0.001	
MW-5	6/26/2006	<0.001	<0.001	<0.001	<0.001	
MW-5	9/28/2006	<0.001	<0.001	<0.001	<0.001	
MW-5	12/21/2006	<0.001	<0.001	<0.001	<0.001	
MW-5	3/13/2007	<0.001	<0.001	<0.001	<0.001	
MW-5	6/26/2007	<0.001	<0.001	<0.001	<0.002	
MW-5	9/5/2007	<0.002	<0.002	<0.002	<0.004	
MW-5	12/27/2007	<0.002	<0.002	0.00098	<0.006	
MW-5	3/20/2008	<0.002	<0.002	<0.002	<0.006	
MW-5	6/27/2008	<0.002	<0.002	<0.002	<0.002	
MW-5	9/15/2008	<0.002	<0.002	<0.002	<0.006	
MW-5	12/1/2008	<0.002	<0.002	<0.002	<0.006	
MW-5	3/11/2009	<0.002	<0.002	<0.002	<0.006	
MW-5	5/27/2009	<0.002	<0.002	<0.002	<0.006	
MW-5	9/24/2009	<0.002	<0.002	<0.002	<0.006	
MW-5	12/18/2009	<0.002	<0.002	<0.002	<0.006	
MW-5	3/25/2010	<0.001	<0.002	<0.002	<0.004	
MW-5	6/30/2010	<0.0003	<0.0003	<0.001	<0.0006	
MW-5	9/16/2010	<0.001	<0.002	<0.002	<0.004	
MW-5	12/9/2010	<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-5	6/8/2012	<0.001	<0.002	<0.002	<0.003	
MW-5	9/10/2012	<0.001	<0.002	<0.002	<0.003	
MW-5	12/7/2012	<0.001	<0.002	<0.002	<0.003	
MW-5	2/20/2013	<0.001	<0.002	<0.002	<0.003	
MW-5	6/2/2013	<0.001	<0.002	<0.002	<0.003	
MW-5	9/9/2013	<0.001	<0.002	<0.002	<0.003	
MW-5	12/2/2013	<0.001	<0.002	<0.002	<0.003	
MW-5	2/28/2014	<0.001	<0.002	<0.002	<0.003	

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**LEA COUNTY, NEW MEXICO**

Location Identification	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Total Xylenes (mg/l)	Comments
<b>New Mexico Water Quality Control Commission Groundwater Standards (mg/L)</b>		<b>0.01</b>	<b>0.75</b>	<b>0.75</b>	<b>0.62</b>	
MW-6	4/24/2002	<0.002	0.004	<0.002	0.123	
MW-6	5/21/2002	0.002	0.002	<0.002	0.047	
MW-6	4/28/2003	0.003	0.002	<0.001	0.01	
MW-6	6/19/2003	<0.001	<0.001	<0.001	<0.001	
MW-6	7/17/2003	<0.001	0.004	<0.001	0.004	
MW-6	8/20/2003	<0.001	<0.001	<0.001	<0.001	
MW-6	9/22/2003	<0.001	<0.001	<0.001	<0.001	
MW-6	10/29/2003	<0.001	<0.001	<0.001	0.003	
MW-6	11/20/2003	<0.001	<0.001	<0.001	<0.001	
MW-6	2/18/2004	<0.001	<0.001	<0.001	<0.001	
MW-6	6/25/2004	<0.001	<0.001	<0.001	<0.001	
MW-6	10/18/2004	<0.001	<0.001	<0.001	<0.001	
MW-6	12/9/2004	<0.001	<0.001	<0.001	<0.001	
MW-6	3/3/2005	<0.001	<0.001	<0.001	<0.001	
MW-6	6/3/2005	<0.001	<0.001	<0.001	<0.001	
MW-6	9/28/2005	<0.001	<0.001	<0.001	<0.001	
MW-6	12/12/2005	<0.001	<0.001	<0.001	<0.001	
MW-6	3/1/2006	<0.001	<0.001	<0.001	<0.001	
MW-6	6/26/2006	<0.001	<0.001	<0.001	<0.001	
MW-6	9/28/2006	<0.001	0.001	<0.001	<0.001	
MW-6	12/21/2006	<0.001	<0.001	<0.001	<0.001	
MW-6	3/13/2007	<0.001	<0.001	<0.001	<0.001	
MW-6	6/26/2007	<0.001	<0.001	<0.001	<0.002	
MW-6	9/5/2007	<0.002	<0.002	<0.002	<0.004	
MW-6	12/27/2007	0.00074	0.0033	0.0013J	<0.006	
MW-6	3/20/2008	<0.002	<0.002	<0.002	<0.006	
MW-6	6/27/2008	<0.002	<0.002	0.00098	<0.002	
MW-6	9/15/2008	<0.002	0.0031	<0.002	<0.006	
MW-6	12/1/2008	<0.002	<0.002	<0.002	<0.006	
MW-6	3/11/2009	<0.002	<0.002	<0.002	<0.006	
MW-6	3/25/2010	<0.001	<0.002	<0.002	<0.004	
MW-6	6/30/2010	<0.0003	<0.0003	<0.001	<0.0006	
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-6	6/8/2012	<0.001	<0.002	<0.002	<0.003	
MW-6	9/10/2012	<0.001	<0.002	<0.002	<0.003	
MW-6	12/7/2012	<0.001	<0.002	<0.002	<0.003	
MW-6	2/20/2013	<0.001	<0.002	<0.002	<0.003	
MW-6	6/2/2013	<0.001	<0.002	<0.002	<0.003	
MW-6	9/9/2013	<0.001	<0.002	<0.002	<0.003	
MW-6	12/2/2013	<0.001	<0.002	<0.002	<0.003	
MW-6	12/18/2009	<0.002	<0.002	<0.002	<0.006	
MW-6	12/9/2010	<0.001	<0.002	<0.002	<0.004	
MW-6	5/27/2009	<0.002	<0.002	<0.002	<0.006	
MW-6	9/16/2010	<0.001	<0.002	<0.002	<0.004	
MW-6	9/24/2009	<0.002	<0.002	<0.002	<0.006	
MW-6	2/28/2014	<0.001	<0.002	<0.002	<0.003	

**APPENDIX A**  
**HISTORIC ANALYTICAL RESULTS**  
**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
<b>New Mexico Water Quality Control Commission Groundwater Standards (mg/L)</b>		<b>0.01</b>	<b>0.75</b>	<b>0.75</b>	<b>0.62</b>	
MW-7	4/24/2002	NI	NI	NI	NI	
MW-7	5/21/2002	NI	NI	NI	NI	
MW-7	4/28/2003	<0.001	<0.001	<0.001	<0.001	
MW-7	6/19/2003	<0.001	<0.001	<0.001	<0.001	
MW-7	7/17/2003	<0.001	<0.001	<0.001	<0.001	
MW-7	8/20/2003	<0.001	<0.001	<0.001	<0.001	
MW-7	9/22/2003	<0.001	<0.001	<0.001	<0.001	
MW-7	10/29/2003	0.001	0.001	0.001	0.006	
MW-7	11/20/2003	0.001	<0.001	<0.001	0.001	
MW-7	2/18/2004	<0.001	<0.001	<0.001	<0.001	
MW-7	6/25/2004	<0.001	<0.001	<0.001	<0.001	
MW-7	10/18/2004	<0.001	<0.001	<0.001	<0.001	
MW-7	12/9/2004	<0.001	<0.001	<0.001	<0.001	
MW-7	3/3/2005	<0.001	<0.001	<0.001	<0.001	
MW-7	6/3/2005	<0.001	<0.001	<0.001	<0.001	
MW-7	9/28/2005	<0.001	<0.001	<0.001	<0.001	
MW-7	12/12/2005	<0.001	<0.001	<0.001	<0.001	
MW-7	3/1/2006	<0.001	<0.001	<0.001	<0.001	
MW-7	6/26/2006	<0.001	<0.001	<0.001	<0.001	
MW-7	9/28/2006	<0.001	<0.001	<0.001	<0.001	
MW-7	12/21/2006	<0.001	<0.001	<0.001	<0.001	
MW-7	3/13/2007	<0.001	<0.001	<0.001	<0.001	
MW-7	6/26/2007	<0.001	<0.001	<0.001	<0.002	
MW-7	9/5/2007	<0.002	<0.002	<0.002	<0.004	
MW-7	12/27/2007	<0.002	<0.002	<0.002	<0.006	
MW-7	3/20/2008	<0.002	<0.002	<0.002	<0.006	
MW-7	6/27/2008	<0.002	<0.002	<0.002	<0.002	
MW-7	9/15/2008	<0.002	<0.002	<0.002	<0.006	
MW-7	12/1/2008	<0.002	<0.002	<0.002	<0.006	
MW-7	3/11/2009	<0.002	<0.002	<0.002	<0.006	
MW-7	5/27/2009	<0.002	<0.002	<0.002	<0.006	
MW-7	9/24/2009	<0.002	<0.002	<0.002	<0.006	
MW-7	12/18/2009	<0.002	<0.002	<0.002	<0.006	
MW-7	3/25/2010	<0.001	<0.002	<0.002	<0.004	
MW-7	6/30/2010	<0.0003	<0.002	<0.001	<0.0006	
MW-7	9/16/2010	<0.001	<0.002	<0.002	<0.004	
MW-7	12/9/2010	<0.001	<0.003	<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-7	6/8/2012	<0.001	<0.002	<0.002	<0.003	
MW-7	9/10/2012	<0.001	<0.002	<0.002	<0.003	
MW-7	12/7/2012	<0.001	<0.002	<0.002	<0.003	
MW-7	2/20/2013	<0.001	<0.002	<0.002	<0.003	
MW-7	6/2/2013	<0.001	<0.002	<0.002	<0.003	
MW-7	9/9/2013	<0.001	<0.002	<0.002	<0.003	
MW-7	12/2/2013	<0.001	<0.002	<0.002	<0.003	
MW-7	2/28/2014	<0.001	<0.002	<0.002	<0.003	

**APPENDIX A**  
**HISTORIC ANALYTICAL RESULTS**  
**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
<b>New Mexico Water Quality Control Commission Groundwater Standards (mg/L)</b>		<b>0.01</b>	<b>0.75</b>	<b>0.75</b>	<b>0.62</b>	
MW-8	4/24/2002	NI	NI	NI	NI	
MW-8	5/21/2002	NI	NI	NI	NI	
MW-8	4/28/2003	FPH	FPH	FPH	FPH	
MW-8	6/19/2003	FPH	FPH	FPH	FPH	
MW-8	7/17/2003	FPH	FPH	FPH	FPH	
MW-8	8/20/2003	FPH	FPH	FPH	FPH	
MW-8	9/22/2003	FPH	FPH	FPH	FPH	
MW-8	10/29/2003	FPH	FPH	FPH	FPH	
MW-8	11/20/2003	FPH	FPH	FPH	FPH	
MW-8	2/18/2004	FPH	FPH	FPH	FPH	
MW-8	6/25/2004	FPH	FPH	FPH	FPH	
MW-8	10/18/2004	FPH	FPH	FPH	FPH	
MW-8	12/9/2004	FPH	FPH	FPH	FPH	
MW-8	3/3/2005	NS	NS	NS	NS	
MW-8	6/3/2005	FPH	FPH	FPH	FPH	
MW-8	9/28/2005	FPH	FPH	FPH	FPH	
MW-8	12/12/2005	0.561	0.928	2.98	9.89	
MW-8	3/1/2006	FPH	FPH	FPH	FPH	
MW-8	6/26/2006	FPH	FPH	FPH	FPH	
MW-8	9/28/2006	0.24	0.239	0.791	2.27	
MW-8	12/21/2006	FPH	FPH	FPH	FPH	
MW-8	3/13/2007	0.42	0.437	0.977	3.35	
MW-8	6/26/2007	FPH	FPH	FPH	FPH	
MW-8	9/5/2007	FPH	FPH	FPH	FPH	
MW-8	12/27/2007	FPH	FPH	FPH	FPH	
MW-8	3/20/2008	0.28	0.15	0.35	2.8	
MW-8	6/27/2008	0.18	0.0971	0.388	0.388	
MW-8	9/15/2008	0.14	0.17	0.25	2.42	
MW-8	12/1/2008	FPH	FPH	FPH	FPH	
MW-8	3/11/2009	0.219	0.133	0.257	3.76	
MW-8	5/27/2009	0.719*	0.233*	2.00*	4.72*	
MW-8	9/24/2009	0.775	0.238	2.52	5.1	
MW-8	12/18/2009	0.409	0.114	1.11	5.24	
MW-8	3/25/2010	0.691	45.6	63.4	2220	
MW-8	6/30/2010	0.549	0.145	1.48	3.49	
MW-8	9/16/2010	0.653	0.165	1.07	6.37	
MW-8	12/9/2010	NS	NS	NS	NS	
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	
MW-8	6/8/2012	<0.001	<0.002	<0.002	<0.003	
MW-8	9/10/2012	0.00086	<0.002	0.00066	0.002	Duplicate Sample Collected
MW-8	12/7/2012	0.00063	<0.002	0.00086	<0.003	Duplicate Sample Collected
MW-8	2/20/2013	0.00045	<0.002	0.0019	0.0022	Duplicate Sample Collected
MW-8	6/2/2013	0.00043	<0.002	0.00098	0.0037	Duplicate Sample Collected
MW-8	9/9/2013	0.00037	<0.002	<0.002	<0.003	Duplicate Sample Collected
MW-8	12/2/2013	0.00044	<0.002	<0.002	0.0028	Duplicate Sample Collected
MW-8	2/28/2014	0.00042 J	<0.002	0.00036 J	0.0034	Duplicate Sample Collected
MW-8 (Duplicate)	2/28/2014	0.00045 J	<0.002	0.00026 J	0.0028 J	

Notes:

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

**Appendix B**

**Laboratory Analytical Report**

- Accutest Job #: D55492



03/10/14

## Technical Report for

DCP Midstream, LP

TASMCOA:DCP XLINE Pipeline Release

Accutest Job Number: D55492

Sampling Date: 02/28/14

Report to:

Tasman Geosciencec LLC  
6899 Pecos st-Unit C  
Denver, CO 80221  
dbaggus@tasman-geo.com

ATTN: Don Baggus

Total number of pages in report: 22



Test results contained within this data package meet the requirements  
of the National Environmental Laboratory Accreditation Program  
and/or state specific certification programs as applicable.

A handwritten signature in black ink, appearing to read 'Scott Heideman'.

Scott Heideman  
Laboratory Director

Client Service contact: Renea Jackson 303-425-6021

Certifications: CO (CO00049), ID, NE (CO00049), ND (R-027), NJ (CO 0007), OK (D9942), UT (NELAP CO00049),  
TX (T104704511)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

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Accutest Laboratories

## Sample Summary

DCP Midstream, LP

Job No: D55492

TASMCOA:DCP XLINE Pipeline Release

Sample Number	Collected Date	Time By	Matrix Received	Code Type	Client Sample ID	
D55492-1	02/28/14	10:15 CW	03/01/14	AQ	Ground Water	MW-1
D55492-2	02/28/14	09:45 CW	03/01/14	AQ	Ground Water	MW-2
D55492-3	02/28/14	09:35 CW	03/01/14	AQ	Ground Water	MW-3
D55492-4	02/28/14	09:25 CW	03/01/14	AQ	Ground Water	MW-4
D55492-5	02/28/14	09:15 CW	03/01/14	AQ	Ground Water	MW-5
D55492-5D	02/28/14	09:15 CW	03/01/14	AQ	Water Dup/MSD	MW-5
D55492-5M	02/28/14	09:15 CW	03/01/14	AQ	Water Matrix Spike	MW-5
D55492-6	02/28/14	09:55 CW	03/01/14	AQ	Ground Water	MW-6
D55492-7	02/28/14	10:35 CW	03/01/14	AQ	Ground Water	MW-7
D55492-8	02/28/14	10:00 CW	03/01/14	AQ	Ground Water	MW-8
D55492-9	02/28/14	00:00 CW	03/01/14	AQ	Ground Water	DUP



## CASE NARRATIVE / CONFORMANCE SUMMARY

**Client:** DCP Midstream, LP

**Job No** D55492

**Site:** TASMCOA:DCP XLINE Pipeline Release

**Report Date** 3/10/2014 9:58:11 AM

On 03/01/2014, 9 sample(s), 0 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 0.85 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D55492 was assigned to the project. The lab sample ID, client sample ID, and date of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

### Volatiles by GCMS By Method SW846 8260B

**Matrix** AQ

**Batch ID:** V3V1709

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D55492-5MS, D55492-5MSD were used as the QC samples indicated.

AMS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting AMS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

AMS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by AMS indicated via signature on the report cover.

## Summary of Hits

Page 1 of 1

**Job Number:** D55492  
**Account:** DCP Midstream, LP  
**Project:** TASMCOA:DCP XLINE Pipeline Release  
**Collected:** 02/28/14

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Lab Sample ID	Client Sample ID	Result/ Analyte	Qual	RL	MDL	Units	Method
---------------	------------------	--------------------	------	----	-----	-------	--------

### D55492-1 MW-1

No hits reported in this sample.

### D55492-2 MW-2

Ethylbenzene	0.0054	0.0020	0.00025	mg/l	SW846 8260B
Xylene (total)	0.0245	0.0030	0.0020	mg/l	SW846 8260B

### D55492-3 MW-3

No hits reported in this sample.

### D55492-4 MW-4

No hits reported in this sample.

### D55492-5 MW-5

No hits reported in this sample.

### D55492-6 MW-6

No hits reported in this sample.

### D55492-7 MW-7

No hits reported in this sample.

### D55492-8 MW-8

Benzene	0.00042 J	0.0010	0.00025	mg/l	SW846 8260B
Ethylbenzene	0.00036 J	0.0020	0.00025	mg/l	SW846 8260B
Xylene (total)	0.0034	0.0030	0.0020	mg/l	SW846 8260B

### D55492-9 DUP

Benzene	0.00045 J	0.0010	0.00025	mg/l	SW846 8260B
Ethylbenzene	0.00026 J	0.0020	0.00025	mg/l	SW846 8260B
Xylene (total)	0.0028 J	0.0030	0.0020	mg/l	SW846 8260B



**4**

**Sample Results**

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**Report of Analysis**

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**Report of Analysis**

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<b>Client Sample ID:</b> MW-1	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> D55492-1	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B	
<b>Project:</b> TASMCOA:DCP XLINE Pipeline Release	

	<b>File ID</b>	<b>DF</b>	<b>Analyzed</b>	<b>By</b>	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1	3V29174.D	1	03/03/14	BR	n/a	n/a	V3V1709
Run #2							

	<b>Purge Volume</b>
Run #1	5.0 ml
Run #2	

**Purgeable Aromatics**

<b>CAS No.</b>	<b>Compound</b>	<b>Result</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>	<b>Q</b>
71-43-2	Benzene	ND	0.0010	0.00025	mg/l	
108-88-3	Toluene	ND	0.0020	0.0010	mg/l	
100-41-4	Ethylbenzene	ND	0.0020	0.00025	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.0020	mg/l	

<b>CAS No.</b>	<b>Surrogate Recoveries</b>	<b>Run# 1</b>	<b>Run# 2</b>	<b>Limits</b>
17060-07-0	1,2-Dichloroethane-D4	99%		62-130%
2037-26-5	Toluene-D8	105%		70-130%
460-00-4	4-Bromofluorobenzene	89%		69-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

**Report of Analysis**

Page 1 of 1

<b>Client Sample ID:</b> MW-2	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> D55492-2	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B	
<b>Project:</b> TASMCOA:DCP XLINE Pipeline Release	

	<b>File ID</b>	<b>DF</b>	<b>Analyzed</b>	<b>By</b>	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1	3V29175.D	1	03/03/14	BR	n/a	n/a	V3V1709
Run #2							

<b>Purge Volume</b>	
Run #1	5.0 ml
Run #2	

**Purgeable Aromatics**

<b>CAS No.</b>	<b>Compound</b>	<b>Result</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>	<b>Q</b>
71-43-2	Benzene	ND	0.0010	0.00025	mg/l	
108-88-3	Toluene	ND	0.0020	0.0010	mg/l	
100-41-4	Ethylbenzene	0.0054	0.0020	0.00025	mg/l	
1330-20-7	Xylene (total)	0.0245	0.0030	0.0020	mg/l	

<b>CAS No.</b>	<b>Surrogate Recoveries</b>	<b>Run# 1</b>	<b>Run# 2</b>	<b>Limits</b>
17060-07-0	1,2-Dichloroethane-D4	100%		62-130%
2037-26-5	Toluene-D8	104%		70-130%
460-00-4	4-Bromofluorobenzene	90%		69-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

**Report of Analysis**

Page 1 of 1

<b>Client Sample ID:</b> MW-3	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> D55492-3	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B	
<b>Project:</b> TASMCOA:DCP XLINE Pipeline Release	



	<b>File ID</b>	<b>DF</b>	<b>Analyzed</b>	<b>By</b>	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1	3V29176.D	1	03/03/14	BR	n/a	n/a	V3V1709
Run #2							

<b>Purge Volume</b>	
Run #1	5.0 ml
Run #2	

**Purgeable Aromatics**

<b>CAS No.</b>	<b>Compound</b>	<b>Result</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>	<b>Q</b>
71-43-2	Benzene	ND	0.0010	0.00025	mg/l	
108-88-3	Toluene	ND	0.0020	0.0010	mg/l	
100-41-4	Ethylbenzene	ND	0.0020	0.00025	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.0020	mg/l	

<b>CAS No.</b>	<b>Surrogate Recoveries</b>	<b>Run# 1</b>	<b>Run# 2</b>	<b>Limits</b>
17060-07-0	1,2-Dichloroethane-D4	99%		62-130%
2037-26-5	Toluene-D8	103%		70-130%
460-00-4	4-Bromofluorobenzene	88%		69-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

**Report of Analysis**

Page 1 of 1

**Client Sample ID:** MW-4  
**Lab Sample ID:** D55492-4  
**Matrix:** AQ - Ground Water  
**Method:** SW846 8260B  
**Project:** TASMCOA:DCP XLINE Pipeline Release

**Date Sampled:** 02/28/14  
**Date Received:** 03/01/14  
**Percent Solids:** n/a

4

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3V29177.D	1	03/03/14	BR	n/a	n/a	V3V1709
Run #2							

<b>Purge Volume</b>	
Run #1	5.0 ml
Run #2	

**Purgeable Aromatics**

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.0010	0.00025	mg/l	
108-88-3	Toluene	ND	0.0020	0.0010	mg/l	
100-41-4	Ethylbenzene	ND	0.0020	0.00025	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.0020	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	100%		62-130%
2037-26-5	Toluene-D8	103%		70-130%
460-00-4	4-Bromofluorobenzene	88%		69-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

**Report of Analysis**

Page 1 of 1

<b>Client Sample ID:</b> MW-5	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> D55492-5	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B	
<b>Project:</b> TASMCOA:DCP XLINE Pipeline Release	

	<b>File ID</b>	<b>DF</b>	<b>Analyzed</b>	<b>By</b>	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1	3V29178.D	1	03/03/14	BR	n/a	n/a	V3V1709
Run #2							

	<b>Purge Volume</b>
Run #1	5.0 ml
Run #2	

**Purgeable Aromatics**

<b>CAS No.</b>	<b>Compound</b>	<b>Result</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>	<b>Q</b>
71-43-2	Benzene	ND	0.0010	0.00025	mg/l	
108-88-3	Toluene	ND	0.0020	0.0010	mg/l	
100-41-4	Ethylbenzene	ND	0.0020	0.00025	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.0020	mg/l	

<b>CAS No.</b>	<b>Surrogate Recoveries</b>	<b>Run# 1</b>	<b>Run# 2</b>	<b>Limits</b>
17060-07-0	1,2-Dichloroethane-D4	102%		62-130%
2037-26-5	Toluene-D8	104%		70-130%
460-00-4	4-Bromofluorobenzene	89%		69-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

**Report of Analysis**

Page 1 of 1

<b>Client Sample ID:</b> MW-6	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> D55492-6	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B	
<b>Project:</b> TASMCOA:DCP XLINE Pipeline Release	

	<b>File ID</b>	<b>DF</b>	<b>Analyzed</b>	<b>By</b>	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1	3V29181.D	1	03/03/14	BR	n/a	n/a	V3V1709
Run #2							

	<b>Purge Volume</b>
Run #1	5.0 ml
Run #2	

**Purgeable Aromatics**

<b>CAS No.</b>	<b>Compound</b>	<b>Result</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>	<b>Q</b>
71-43-2	Benzene	ND	0.0010	0.00025	mg/l	
108-88-3	Toluene	ND	0.0020	0.0010	mg/l	
100-41-4	Ethylbenzene	ND	0.0020	0.00025	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.0020	mg/l	

<b>CAS No.</b>	<b>Surrogate Recoveries</b>	<b>Run# 1</b>	<b>Run# 2</b>	<b>Limits</b>
17060-07-0	1,2-Dichloroethane-D4	103%		62-130%
2037-26-5	Toluene-D8	104%		70-130%
460-00-4	4-Bromofluorobenzene	88%		69-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

**Report of Analysis**

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**Client Sample ID:** MW-7  
**Lab Sample ID:** D55492-7  
**Matrix:** AQ - Ground Water  
**Method:** SW846 8260B  
**Project:** TASMCOA:DCP XLINE Pipeline Release

**Date Sampled:** 02/28/14  
**Date Received:** 03/01/14  
**Percent Solids:** n/a

	<b>File ID</b>	<b>DF</b>	<b>Analyzed</b>	<b>By</b>	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1	3V29182.D	1	03/03/14	BR	n/a	n/a	V3V1709
Run #2							

	<b>Purge Volume</b>
Run #1	5.0 ml
Run #2	

**Purgeable Aromatics**

<b>CAS No.</b>	<b>Compound</b>	<b>Result</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>	<b>Q</b>
71-43-2	Benzene	ND	0.0010	0.00025	mg/l	
108-88-3	Toluene	ND	0.0020	0.0010	mg/l	
100-41-4	Ethylbenzene	ND	0.0020	0.00025	mg/l	
1330-20-7	Xylene (total)	ND	0.0030	0.0020	mg/l	

<b>CAS No.</b>	<b>Surrogate Recoveries</b>	<b>Run# 1</b>	<b>Run# 2</b>	<b>Limits</b>
17060-07-0	1,2-Dichloroethane-D4	101%		62-130%
2037-26-5	Toluene-D8	103%		70-130%
460-00-4	4-Bromofluorobenzene	88%		69-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

**Report of Analysis**

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4

<b>Client Sample ID:</b> MW-8	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> D55492-8	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B	
<b>Project:</b> TASMCOA:DCP XLINE Pipeline Release	

	<b>File ID</b>	<b>DF</b>	<b>Analyzed</b>	<b>By</b>	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1	3V29183.D	1	03/03/14	BR	n/a	n/a	V3V1709
Run #2							

<b>Purge Volume</b>	
Run #1	5.0 ml
Run #2	

**Purgeable Aromatics**

<b>CAS No.</b>	<b>Compound</b>	<b>Result</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>	<b>Q</b>
71-43-2	Benzene	0.00042	0.0010	0.00025	mg/l	J
108-88-3	Toluene	ND	0.0020	0.0010	mg/l	
100-41-4	Ethylbenzene	0.00036	0.0020	0.00025	mg/l	J
1330-20-7	Xylene (total)	0.0034	0.0030	0.0020	mg/l	

<b>CAS No.</b>	<b>Surrogate Recoveries</b>	<b>Run# 1</b>	<b>Run# 2</b>	<b>Limits</b>
17060-07-0	1,2-Dichloroethane-D4	102%		62-130%
2037-26-5	Toluene-D8	104%		70-130%
460-00-4	4-Bromofluorobenzene	90%		69-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

**Report of Analysis**

Page 1 of 1

<b>Client Sample ID:</b> DUP	<b>Date Sampled:</b> 02/28/14
<b>Lab Sample ID:</b> D55492-9	<b>Date Received:</b> 03/01/14
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B	
<b>Project:</b> TASMCOA:DCP XLINE Pipeline Release	

4  
4

	<b>File ID</b>	<b>DF</b>	<b>Analyzed</b>	<b>By</b>	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1	3V29184.D	1	03/03/14	BR	n/a	n/a	V3V1709
Run #2							

<b>Purge Volume</b>	
Run #1	5.0 ml
Run #2	

**Purgeable Aromatics**

<b>CAS No.</b>	<b>Compound</b>	<b>Result</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>	<b>Q</b>
71-43-2	Benzene	0.00045	0.0010	0.00025	mg/l	J
108-88-3	Toluene	ND	0.0020	0.0010	mg/l	
100-41-4	Ethylbenzene	0.00026	0.0020	0.00025	mg/l	J
1330-20-7	Xylene (total)	0.0028	0.0030	0.0020	mg/l	J

<b>CAS No.</b>	<b>Surrogate Recoveries</b>	<b>Run# 1</b>	<b>Run# 2</b>	<b>Limits</b>
17060-07-0	1,2-Dichloroethane-D4	102%		62-130%
2037-26-5	Toluene-D8	103%		70-130%
460-00-4	4-Bromofluorobenzene	88%		69-130%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



Misc. Forms

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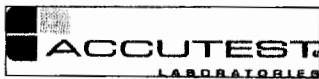
5

Custody Documents and Other Forms

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Includes the following where applicable:

- Chain of Custody



# CHAIN OF CUSTODY

PAGE 1 OF 1

4036 Youngfield Street, Wheat Ridge, CO 80033  
TEL 303-425-6021 FAX: 303-425-6854  
www.accutest.com

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # <b>D55492</b>

Client / Reporting Information		Project Information		Requested Analysis ( see TEST CODE sheet)		Matrix Codes							
Company Name <b>Tasman Geosciences</b>	Project Name: <b>DCP X-Line Pipeline Release</b>	Street <b>6899 Pecos St - Unit C</b>	City <b>Denver, CO 80221</b>	Billing Information ( if different from Report to)		<b>V8260BTX</b> <b>MS/MSD for V8260BTX</b>							
Street Address <b>6899 Pecos St - Unit C</b>	City <b>Denver, CO 80221</b>	State	Company Name	Project # <b>Don Baggs dbaggs@tasman-geo.com</b>				Street Address					
Project Contact <b>Don Baggs dbaggs@tasman-geo.com</b>	Phone # <b>(720) 635-9675</b>	Client Purchase Order #	City	Attention: <b>Christine Wasko, DON BAGGS</b>		City							
Sampler(s) Name(s) <b>Christine Wasko, DON BAGGS</b>	Project Manager <b>Renee Jackson</b>												
Accutest Sample #	Field ID / Point of Collection	Collection		Matrix	# of bottles	Number of preserved Bottles						LAB USE ONLY	
		Date <b>2/28/14</b>	Time <b>1015</b>			Sampled by <b>CL</b>	HCl	HNO3	H2SO4	NaOH	Ca Water		MgOH
MW-1			GW	3	3						X		<b>C1</b>
MW-2			GW	3	3						X		<b>C2</b>
MW-3			GW	3	3						X		<b>C3</b>
MW-4			GW	3	3						X		<b>C4</b>
MW-5			GW	3	3						X		<b>C5</b>
MW-5 MS/MSD			GW	6	6						X		<b>C5</b>
MW-6			GW	3	3						X		<b>C6</b>
MW-7			GW	3	3						X		<b>C7</b>
MW-8			GW	3	3						X		<b>C8</b>
DUP			GW	3	3						X		<b>C9</b>
													<b>C10</b>
<b>2/28/14</b>												<b>2/3/14</b>	
<input type="checkbox"/> Std. 15 Business Days <input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day Emergency <input type="checkbox"/> 2 Day Emergency <input type="checkbox"/> 1 Day Emergency  <input type="checkbox"/> Emergency & Rush TA data available VIA Lablink		Approved By (Accutest PM): Date:		<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input checked="" type="checkbox"/> COMMNB <input type="checkbox"/> COMMNB+  <input type="checkbox"/> State Forms Required <input type="checkbox"/> Send Forms to State <input type="checkbox"/> Report by Fax <input type="checkbox"/> Report by PDF ONLY <input type="checkbox"/> EDD Format						Comments / Special Instructions			
<b>1</b> <i>1045 3/1/14</i>		<b>Received By:</b> <b>1</b> <i>Jacobi Parker 3/1/14</i>		<b>Relinquished By:</b> <b>2</b>						<b>Date Time:</b> <b>2</b>		<b>Received By:</b> <b>2</b>	
<b>2</b>		<b>Received By:</b> <b>3</b>		<b>Relinquished By:</b> <b>4</b>						<b>Date Time:</b> <b>4</b>		<b>Received By:</b> <b>4</b>	
<b>5</b>		<b>Received By:</b> <b>5</b>		<b>Custody Seal #</b> <b>HD 8</b> <input type="checkbox"/> Intact <input type="checkbox"/> Not Intact						<b>Preserved where applicable</b> <input type="checkbox"/>		<b>On Ice</b> <input type="checkbox"/>	<b>Cooler Temp.</b> <b>0.8</b>

5.1  
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**D55492: Chain of Custody**  
**Page 1 of 2**



## Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D55492

Client: TASMAN GEOSCIENCES

Immediate Client Services Action Required: No

Date / Time Received: 3/1/2014 10:45:00 AM

No. Coolers: 1

Client Service Action Required at Login: No

Project: DCP X LINE PIPELINE RELEASE

Airbill #s: HD

**Cooler Security**

	<u>Y</u> or <u>N</u>		<u>Y</u> or <u>N</u>
1. Custody Seals Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3. COC Present: <input checked="" type="checkbox"/>
2. Custody Seals Intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4. Smpl Dates/Time OK <input checked="" type="checkbox"/>

**Cooler Temperature**Y or N

1. Temp criteria achieved:    
 2. Cooler temp verification: Infrared gun  
 3. Cooler media: Ice (bag)

**Quality Control Preservation**Y or N N/A

1. Trip Blank present / cooler:    
 2. Trip Blank listed on COC:    
 3. Samples preserved properly:    
 4. VOCs headspace free:

**Sample Integrity - Documentation**Y or N

1. Sample labels present on bottles:    
 2. Container labeling complete:    
 3. Sample container label / COC agree:

**Sample Integrity - Condition**Y or N

1. Sample recv'd within HT:    
 2. All containers accounted for:    
 3. Condition of sample: Intact

**Sample Integrity - Instructions**Y or N N/A

1. Analysis requested is clear:    
 2. Bottles received for unspecified tests:    
 3. Sufficient volume rec'd for analysis:    
 4. Compositing instructions clear:     
 5. Filtering instructions clear:

## Comments

Accutest Laboratories  
V(303) 425-6021

4036 Youngfield Street  
F: (303) 425-6854

Wheat Ridge, CO  
[www.accutest.com](http://www.accutest.com)

**D55492: Chain of Custody**

**Page 2 of 2**



## GC/MS Volatiles

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6

## QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

## Method Blank Summary

Page 1 of 1

Job Number: D55492

Account: DCPMCODN DCP Midstream, LP

Project: TASMCOA:DCP XLINE Pipeline Release

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3V1709-MB	3V29173.D	1	03/03/14	BR	n/a	n/a	V3V1709

The QC reported here applies to the following samples:

Method: SW846 8260B

D55492-1, D55492-2, D55492-3, D55492-4, D55492-5, D55492-6, D55492-7, D55492-8, D55492-9

6.1.1

6

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.25	ug/l	
100-41-4	Ethylbenzene	ND	2.0	0.25	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
1330-20-7	Xylene (total)	ND	3.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Limits
17060-07-0	1,2-Dichloroethane-D4	100%
2037-26-5	Toluene-D8	105%
460-00-4	4-Bromofluorobenzene	90%

## Blank Spike Summary

Page 1 of 1

Job Number: D55492

Account: DCPMCODN DCP Midstream, LP

Project: TASMCOA:DCP XLINE Pipeline Release

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V3V1709-BS	3V29172.D	1	03/03/14	BR	n/a	n/a	V3V1709

The QC reported here applies to the following samples:

Method: SW846 8260B

D55492-1, D55492-2, D55492-3, D55492-4, D55492-5, D55492-6, D55492-7, D55492-8, D55492-9

6.2.1  
6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	50	44.1	88	70-130
100-41-4	Ethylbenzene	50	47.3	95	70-130
108-88-3	Toluene	50	46.8	94	70-130
1330-20-7	Xylene (total)	150	143	95	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
17060-07-0	1,2-Dichloroethane-D4	99%	62-130%
2037-26-5	Toluene-D8	105%	70-130%
460-00-4	4-Bromofluorobenzene	91%	69-130%

\* = Outside of Control Limits.

## Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: D55492

Account: DCPMCODN DCP Midstream, LP

Project: TASMCOA:DCP XLINE Pipeline Release

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D55492-5MS	3V29179.D	1	03/03/14	BR	n/a	n/a	V3V1709
D55492-5MSD	3V29180.D	1	03/03/14	BR	n/a	n/a	V3V1709
D55492-5	3V29178.D	1	03/03/14	BR	n/a	n/a	V3V1709

The QC reported here applies to the following samples:

Method: SW846 8260B

D55492-1, D55492-2, D55492-3, D55492-4, D55492-5, D55492-6, D55492-7, D55492-8, D55492-9

6.3.1  
6

CAS No.	Compound	D55492-5 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	50	50.7	101	49.2	98	3	62-130/30
100-41-4	Ethylbenzene	ND	50	53.3	107	52.5	105	2	63-130/30
108-88-3	Toluene	ND	50	53.1	106	52.1	104	2	60-130/30
1330-20-7	Xylene (total)	ND	150	161	107	159	106	1	67-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D55492-5	Limits
17060-07-0	1,2-Dichloroethane-D4	98%	98%	102%	62-130%
2037-26-5	Toluene-D8	105%	105%	104%	70-130%
460-00-4	4-Bromofluorobenzene	92%	92%	89%	69-130%

\* = Outside of Control Limits.