

2017 Annual Groundwater Monitoring Report

**DCP Plant to Lea Station 6-Inch #2
Plains SRS Number: 2009-039
Lea County, New Mexico**

March 27, 2018
Terracon Project No. AR187003
NMOCD Reference No. 1R-2136



Prepared for:
Plains Marketing, LP
Midland, Texas

Prepared by:
Terracon Consultants, Inc.
Lubbock, Texas

terracon.com

Terracon

Environmental ■ Facilities ■ Geotechnical ■ Materials



March 27, 2018

Plains Marketing, L.P.
577 US Highway 385 North
Seminole, Texas 79360
Attn: Ms. Camille Bryant

Telephone: (575) 441-1099

Re: 2017 Annual Groundwater Monitoring Report
DCP Plant to Lea Station 6-Inch #2
U/L "F", Sec. 31, T20S, R37E
Lea County, New Mexico
NMOCD Reference No. 1R – 2136
Plains Marketing, L.P. SRS NO. 2009-039
Terracon Project No. AR187003

Dear Ms. Bryant:

Terracon is pleased to submit one electronic copy and one CD attached to the cover page of the 2017 Annual Groundwater Monitoring Report for the above-referenced site.

We appreciate the opportunity to perform these services for Plains Marketing, L.P. (Plains). Please contact either of the undersigned at (806) 300-0140 if you have questions regarding the information provided in the report.

Sincerely,
Terracon

Prepared by:

Brett Dennis
Field Scientist
Lubbock

Reviewed by:

Erin Loyd, P.G.
Senior Associate
Office Manager – Lubbock

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2017 ANNUAL GROUNDWATER MONITORING REPORT

DCP Plant to Lea Station 6-Inch #2
Plains SRS No: 2009-039
Unit Letter “F”, Section 31, Township 20 South, Range 37 East
Lea County, New Mexico
NMOCD Reference No. 1R – 2136
Terracon Project No. AR187003

1.0 INTRODUCTION

1.1 Site Description

The legal description of the DCP Plant to Lea Station 6-Inch #2 release site is Unit Letter “F” (SE/NW), Section 31, Township 20 South, Range 37 East, in Lea County, New Mexico. The property affected by the release is owned by The State of New Mexico and administered by the New Mexico State Land Office (NMSLO). The geographic coordinates of the release site are 32.5316667° North latitude and 103.2911111° West longitude. A “Site Location Map” is provided as Figure 1 in Appendix A.

Site Name	DCP Plant to Lea Station 6-Inch #2
Site Location	Latitude 32.5316667° North, Longitude 103.2911111° West
General Site Description	The site consists of seven groundwater monitoring wells located in, and adjacent to, a pipeline right-of-way surrounded by native pasture land.
Landowner	State of New Mexico

1.2 Background Information

Based on information provided by the client, on February 12, 2009, Plains discovered a crude oil release from a six-inch steel pipeline. During initial response activities, Plains installed a temporary clamp on the pipeline to mitigate the release. Approximately 25 barrels (bbls) of crude oil was released from the pipeline, resulting in a surface stain measuring approximately 10 feet (ft.) in width and 12 ft. in length. Plains notified the New Mexico Oil Conservation Division (NMOCD) Hobbs District Office of the release, and a "Release Notification and Corrective Action" (Form C-141) was submitted. The cause of the release was attributed to external corrosion of the pipeline.

On February 17, 2009, following initial response activities, excavation of hydrocarbon-impacted soil began at the site. Excavated soil was stockpiled on-site on a plastic liner to mitigate the potential leaching of contaminants into the vadose zone. Approximately 2,700 cubic yards (cy) of

soil was stockpiled on-site during excavation activities. The final dimensions of the excavation were approximately 66 ft. in width, approximately 80 ft. in length, and approximately 15 ft. in depth. Upon completion of the excavation activities, confirmation soil samples were collected from the excavation and stockpiles. Review of laboratory analytical results indicated soil samples collected from the excavation and stockpiles were less than NMOCD regulatory standards.

On April 15, 2009, soil boring SB-1 was advanced at the release site to evaluate the vertical extent of soil impact. During the advancement of the soil boring, groundwater was encountered at approximately 61 ft. drilling depth, or approximately 76 ft. below ground surface (bgs). A temporary casing was installed in the soil boring to allow a groundwater sample to be collected for analysis. During the collection of the groundwater sample, a measurable thickness of phase separated hydrocarbon (PSH) was observed on the groundwater. Plains immediately notified NMOCD representatives in the Hobbs District Office and the NMOCD Environmental Bureau (Santa Fe) of the impact to groundwater at the release site. On April 16, 2009, soil boring SB-1 was converted to 4-inch monitor well (MW-1).

On June 29, 2009, two additional monitoring wells (MW-2, MW-3, and MW-4) were installed to evaluate the status of the groundwater at the site. Monitor well MW-2 is located approximately 135 ft. to the northwest (up-gradient) of monitor well MW-1. The monitor well was installed to a total depth of approximately 90 ft. bgs. Monitor well MW-3 is located approximately 80 ft. to the southwest (cross-gradient) of monitor well MW-1. The monitor well was installed to a total depth of approximately 90 ft. bgs. Monitor well MW-4 is located approximately 115 ft. to the southeast (down-gradient) of monitor well MW-1. The monitor well was installed to a total depth of approximately 88 ft. bgs. PSH was not observed in monitor wells MW-2, MW-3, or MW-4.

On August 25, 2009, a 20-millimeter polyurethane liner was installed in the excavation. Monitor well MW-1, located within the excavation, was extended to the top of the excavation using a 4-inch diameter PVC riser. The riser was fitted with a 40-millimeter boot, which was chemically welded to the 20-millimeter liner to ensure impermeability of the liner. The liner was cushioned by a 6-inch layer of sand above and below the liner to protect the liner from damage during backfilling activities. The excavation was backfilled with the stockpiled soil and compacted in 12-inch lifts. The disturbed areas were contoured to fit the surrounding topography and seeded with a New Mexico State Land Office (NMSLO)-approved seeding mixture. Supplemental seeding occurred on October 12, 2010.

On January 24, 2011, an additional monitoring well (MW-5) was installed to further monitor the down-gradient migration of the PSH plume. Monitor well MW-5 is located approximately 50 ft. to the southeast (down-gradient) of monitor well MW-1. The monitor well was installed to a total depth of approximately 95 ft. bgs. PSH was not observed in monitor well MW-5. Laboratory analytical results of soil samples collected during the installation of monitor well MW-5 indicated benzene, toluene, ethylbenzene, total xylene (BTEX), and total petroleum hydrocarbon (TPH)

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DCP Plant to Lea Station 6-Inch #2 ■ Lea County, New Mexico

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concentrations were less than NMOCD regulatory standards in all submitted soil samples.

On September 10, 2013, two additional monitoring wells (MW-6 and MW-7) were installed to further monitor the down-gradient migration of the dissolved-phase plume and to delineate the horizontal extent of PSH. Monitor well MW-6 is located approximately 125 ft. to the east-southeast (cross-gradient) of monitor well MW-1. The monitor well was installed to a total depth of approximately 95 ft. bgs. Monitor well MW-7 is located approximately 175 ft. to the southeast (down-gradient) of monitor well MW-1. The monitor well was installed to a total depth of approximately 100 ft. bgs. Laboratory analytical results from soil samples collected during the installation of monitor wells MW-6 and MW-7 indicated benzene, BTEX, and TPH concentrations were less than NMOCD regulatory standards in all submitted soil samples. PSH was not observed in MW-6 or MW-7.

On October 18, 2016, Terracon assumed oversight of groundwater monitoring activities at the DCP Plant to Lea Station 6-Inch #2 release site. There are a total of seven monitor wells located at the site. Monitor wells MW-2 through MW-7 are gauged and sampled on a quarterly schedule; monitor well MW-1 is not sampled due to the presence of PSH.

1.3 Scope of Work

Terracon's scope of work includes oversight of groundwater monitoring activities and preparation of an *Annual Groundwater Monitoring Report* in accordance with the NMOCD letter, dated May 1998, requiring submittal of an *Annual Groundwater Monitoring Report* by April 1st of each year. Groundwater monitoring activities include conducting quarterly groundwater monitoring events at the site. Quarterly groundwater monitoring events include measuring the static water levels in the monitor wells, checking for the presence of PSH, and the collection of groundwater samples from each of the on-site monitor wells not exhibiting a measurable thickness of PSH. In accordance with the approved scope of work, Terracon conducted quarterly groundwater monitoring events on March 1, June 26, September 19 and November 15, 2017.

1.4 Standard of Care

Activities conducted prior to Terracon assuming oversight of the project (beginning on October 18, 2016) were performed by previous consultants hired by Plains. As such, Terracon makes no assumptions or warranties regarding the previous consultants services being performed in a manner consistent with generally accepted practices of the profession undertaken in similar studies in the same geographical area during the same time period. Terracon makes no warranties, either express or implied, regarding the findings, conclusions or recommendations. Please note that Terracon does not warrant the work of laboratories, regulatory agencies or other third parties supplying information used in the preparation of the report.

1.5 Additional Scope Limitations

Findings, conclusions and recommendations resulting from these services are based upon information derived from the on-site activities and other services performed under this scope of work; such information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, non-detectable or not present during these services, and we cannot represent that the site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during this remediation activities. Subsurface conditions may vary from those encountered at specific borings or wells or during other surveys, tests, assessments, investigations or exploratory services; the data, interpretations, findings, and our recommendations are based solely upon data obtained at the time and within the scope of these services.

1.6 Reliance

This report has been prepared for the exclusive use of Plains Marketing, L. P., and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the site) is prohibited without the express written authorization of Plains Marketing, L.P. and Terracon. Any unauthorized distribution or reuse is at the client's sole risk. Notwithstanding the foregoing, reliance by authorized parties will be subject to the terms, conditions and limitations stated in this report, and Terracon's Terms and Conditions. The limitation of liability defined in the terms and conditions is the aggregate limit of Terracon's liability to the client and all relying parties unless otherwise agreed in writing.

2.0 FIELD ACTIVITIES

2.1 Product Recovery

An estimated 70.75 gallons (1.7 bbls) of PSH were recovered from monitor well MW-1, by manual recovery, in 2017. During the last recovery event conducted during the 2017 reporting period, the PSH thickness in monitor well MW-1 measured 2.01 feet. An estimated 6,046 gallons (144 bbls) of PSH has been manually recovered from monitor well MW-1 since recovery operations began in April 2009.

On July 18, 2012, a Mobile Dual-Phase Extraction (MDPE) unit was installed on monitor well MW-1 by Talon LPE. The MDPE unit was shared with the nearby release site known as DCP Plant to Lea Station 6-Inch Sec. 31 (NMOCD Reference #1RP-2166), and the location of the unit was alternated periodically. During the 2017 reporting period, an estimated 285 gal (6.8 bbls) in the liquid and vapor phase were recovered by the MDPE unit. To date, an estimated 7,901 equivalent gallons (188 bbls) of PSH has been recovered from monitor well MW-1 by MDPE. Recovered

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fluids are disposed of at an NMOCD-approved disposal facility.

On July 19, 2017, a Soil Vapor Extraction (SVE) unit was installed on monitor well MW-1. Monthly emissions samples are collected to ensure compliance with New Mexico Environment Department (NMED) Air Quality Bureau (AQB) Action Level.

2.2 Groundwater Recovery

An estimated 472.75 gallons (11.3 bbls) of hydrocarbon impacted groundwater have been recovered from monitor well MW-5, by manual recovery. Since recovery operations began on January 22, 2016, an estimated 1,941 gallons (46 bbls) of hydrocarbon impacted groundwater have been manually recovered from MW-5. Recovered fluids are disposed of at an NMOCD-approved disposal facility.

2.3 Groundwater Monitoring

Quarterly groundwater monitoring events were conducted on March 1 (1Q2017), June 26 (2Q2017), September 19 (3Q2017) and November 15, 2016 (4Q2017). Quarterly groundwater monitoring events included measuring the static water level in the on-site monitor wells, checking for the presence of PSH, and the collection of groundwater samples from each of the on-site monitor wells not exhibiting a measurable thickness of PSH.

Groundwater samples were collected utilizing low flow sampling equipment, including a bladder pump and multi-parameter meter. Prior to sample collection, readings on the multi-parameter meter were recorded for four cycles of five minutes each. Each collected sample was placed in laboratory-supplied containers appropriate to the analyses requested and placed on ice in a cooler. The sample coolers and completed chain-of-custody forms were delivered to Xenco Laboratories in Lubbock, Texas for analysis of BTEX using EPA SW-846 Method 8021B. Purged water was placed into a polystyrene aboveground storage tank and disposed of at an NMOCD-approved disposal facility.

Based on sampling criteria provided by the NMOCD, groundwater samples collected from the on-site monitor wells were not subject to analysis of polynuclear aromatic hydrocarbons (PAHs).

Groundwater elevation gauging data collected during the respective quarterly sampling events were used to construct groundwater gradient maps, which are included as Figures 2a through 2d in Appendix A. Groundwater flow direction was relatively consistent during each quarter of 2017 in the southeasterly direction. Groundwater elevation and PSH thickness data is summarized in Table 1 in Appendix B.

3.0 LABORATORY ANALYTICAL METHODS

The groundwater samples collected from the on-site monitor wells were analyzed for BTEX using EPA SW-846 Method 8021B. Laboratory results from the analysis of groundwater samples collected from the monitor wells are summarized in Table 2 in Appendix B and presented on Figures 3a through 3d in Appendix A. The executed chain-of-custody forms and laboratory data sheets are provided in Appendix C.

4.0 DATA EVALUATION

4.1 Groundwater Samples

Laboratory analytical results from groundwater samples collected on March 1 (1Q2017), June 26 (2Q2017), September 19 (3Q2017) and November 15, 2017 (4Q2017) were compared to NMOCD regulatory standards based on New Mexico Water Quality Control Commission (WQCC) groundwater standards found in Section 20.6.2.3103 of the New Mexico Administrative Code (NMAC).

Monitor Well MW-1

- Monitor Well MW-1 was not sampled during the 2017 reporting period due to the presence of PSH. PSH thicknesses of 1.41 ft, 1.35, 1.61 ft, and 2.11 feet were observed during the 1st, 2nd, 3rd, and 4th quarters, respectively

Monitor Wells MW-2, MW-3, MW-4, MW-6, and MW-7

- Laboratory analytical results indicated BTEX concentrations were less than the applicable laboratory sample detection limit during each quarter of the 2017 reporting period.

Monitor Well MW-5

- Laboratory analytical results indicated benzene concentrations exceeded the NMOCD regulatory standard during each quarter of 2017. The detected benzene concentrations ranged from 0.764 milligrams per liter (mg/L) during the 1st Quarter of 2017 to 7.91 mg/L during the 2nd Quarter of 2017.
- Laboratory analytical results indicated toluene concentrations exceeded the NMOCD regulatory standard during 2nd Quarter of 2017. The detected toluene concentration ranged from 0.0868 mg/L during the 1st Quarter of 2017 to 3.39 mg/L during the 2nd Quarter of 2017.
- Laboratory analytical results indicated ethylbenzene and total xylenes concentrations were below the NMOCD regulatory standard during each quarter of 2017.

5.0 SUMMARY

- Currently, there are seven groundwater monitor wells (MW-1 through MW-7) located at the site.
- Monitor well MW-1 was not sampled during the 2017 reporting period due to the presence of PSH.
- Monitor wells MW-2 through MW-7 were sampled during each quarter of 2017.
- Benzene, toluene, ethylbenzene and total xylene concentrations were not detected at concentrations above applicable laboratory SDLs in groundwater samples collected from each of the monitor wells with the exception of monitor well MW-5.
- The detected benzene and/or toluene concentrations in monitor well MW-5 exceeded the NMOCD regulatory standards during one or more quarters of the 2017 reporting period.
- The PSH thickness in monitor well MW-1 was 2.01 ft during the last recovery event conducted in 2017.
- An estimated 70.75 gallons (1.7 bbls) of PSH were recovered manually from monitor well MW-1 during the 2017 reporting period.
- An estimated 285 (6.8 bbls) of PSH were recovered in the liquid and vapor from monitor well MW-1 during the 2017 reporting period.
- Monthly air emission samples are collected from the SVE unit to ensure compliance with New Mexico Environment Department (NMED) Air Quality Bureau (AQB) Action Level.
- An estimated 472.75 gallons (11.3 bbls) of hydrocarbon impacted groundwater were recovered manually from monitor well MW-5 during the 2017 reporting period.

6.0 ANTICIPATED ACTIONS

- PSH recovery by SVE will continue on monitor well MW-1, with emission sampling events occurring monthly, during the 2018 reporting period.
- Weekly manual PSH recovery will continue on monitor well MW-1.
- In an effort to control the down-gradient migration of the dissolved-phase plume, weekly recovery will continue from monitor well MW-5.
- Monitor wells MW-2 through MW-7 will be monitored and sampled quarterly for the presence of BTEX in 2018.
- An *Annual Groundwater Monitoring Report* will be prepared detailing field activities and the results of groundwater monitoring activities conducted during the 2018 reporting period.

Plains Marketing, L.P.

DCP Plant to Lea Station 6-Inch #2 ■ Lea County, New Mexico
March 27, 2018 ■ Terracon Project Number AR187003

7.0 DISTRIBUTION

Copy 1: Bradford Billings, Hydrologist
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New Mexico Oil Conservation Division
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Hobbs, New Mexico 88240

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Plains Marketing, L.P.
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Houston, Texas 77002
jpdann@paalp.com

Copy 5: Mr. Kris Williams
Terracon Consultants
5827 50th Street, Suite 1
Lubbock, Texas 79424
kris.williams@terracon.com

APPENDIX A

Figure 1– Site Location Map

Figure 2a – Groundwater Gradient Map (1Q2017)

Figure 2b – Groundwater Gradient Map (2Q2017)

Figure 2c – Groundwater Gradient Map (3Q2017)

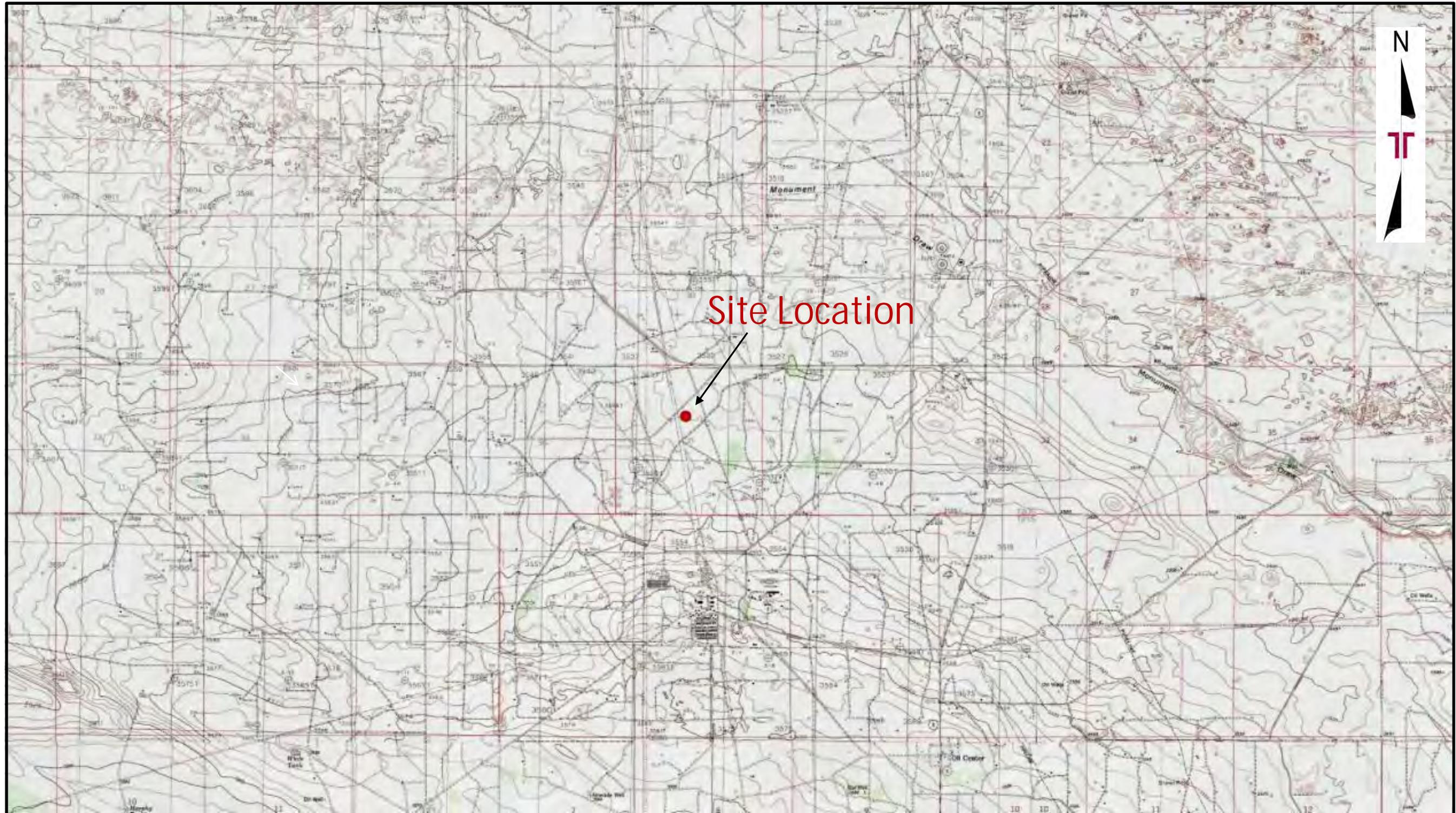
Figure 2d – Groundwater Gradient Map (4Q2017)

Figure 3a – Groundwater Concentration Map (1Q2017)

Figure 3b – Groundwater Concentration Map (2Q2017)

Figure 3c – Groundwater Concentration Map (3Q2017)

Figure 3d – Groundwater Concentration Map (4Q2017)



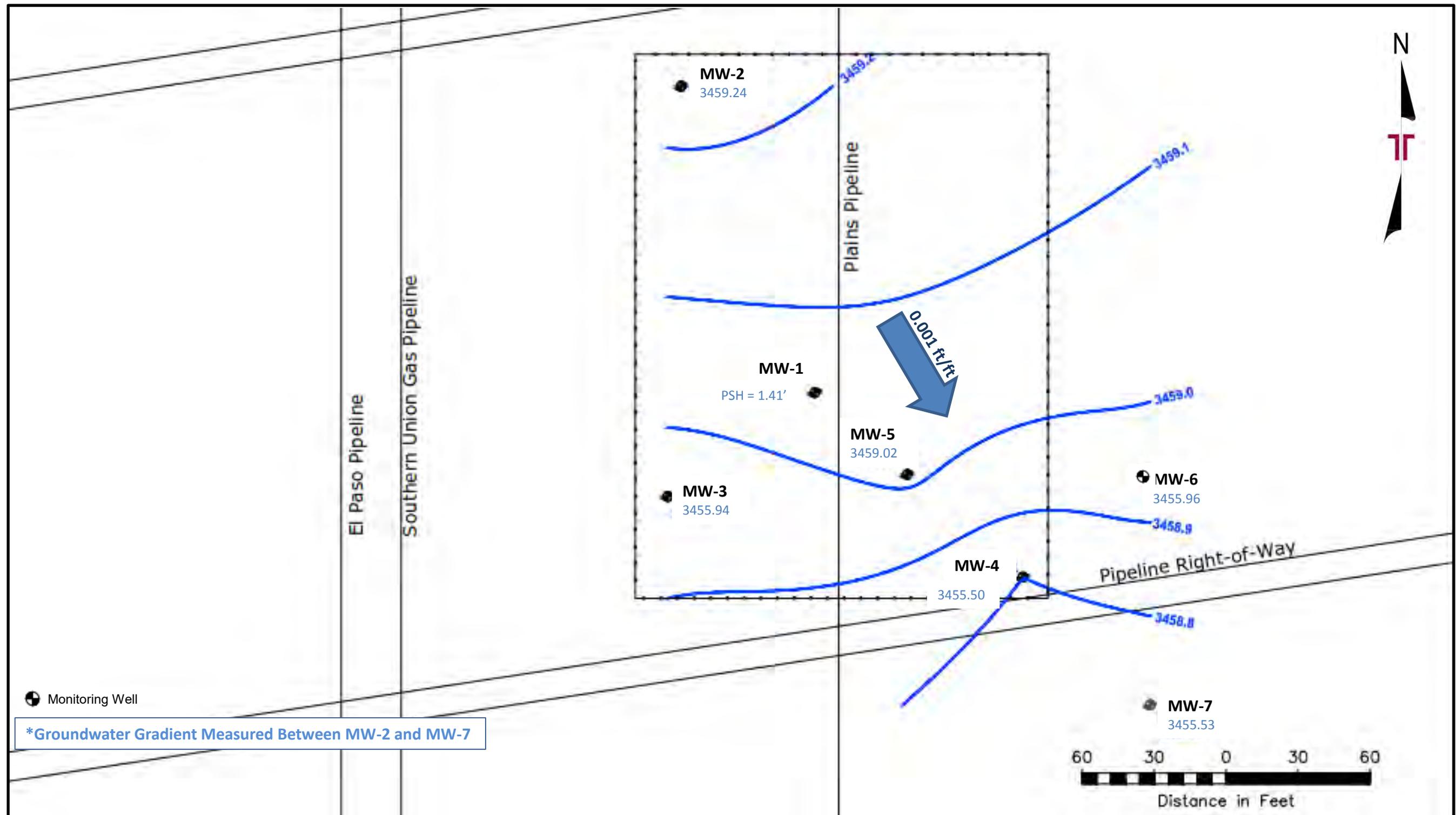
Project No.	AR187003
Scale:	1" = 1 Mile
Source:	Google Earth
Date:	2014

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 . PH. (806) 300-0104 FAX. (806) 797 0947

Figure 1 – Site Location Map

DCP Plant to Lea Station 6-Inch #2
 NMOCD Ref. No. 1R-2136
 32.53166° , -103.29111°
 Lea County, New Mexico



Project No.	AR187003
Scale:	1" = 60'
Source:	Google Earth
Date:	2014

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Figure 2a – Groundwater Gradient Map – 1Q2017

DCP Plant to Lea Station 6-Inch #2
 NMOCD Ref. No. 1R-2136
 32.53166° , -103.29111°
 Lea County, New Mexico

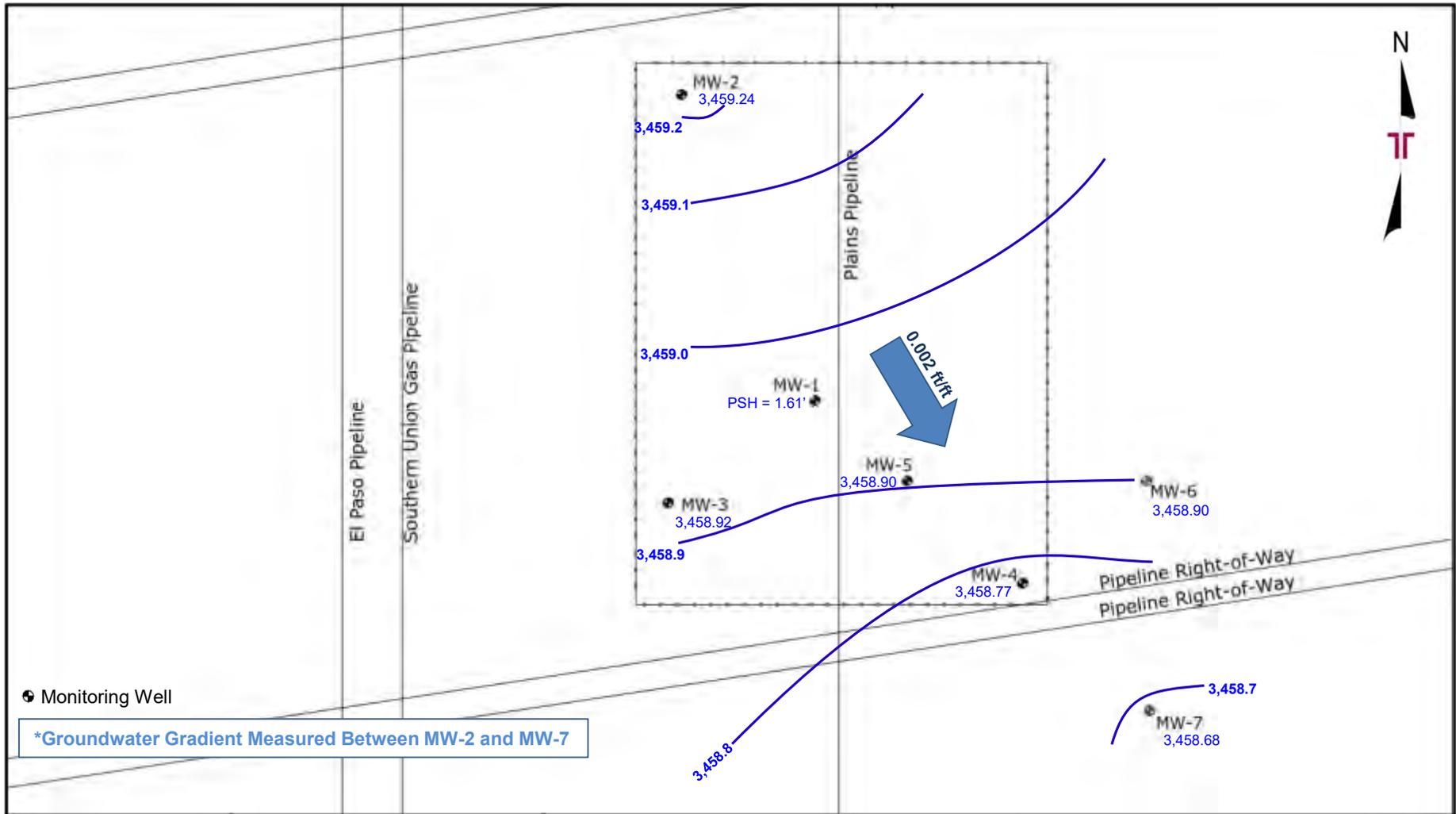


*Groundwater Gradient Measured Between MW-2 and MW-7

Project No.	AR187003
Scale:	1" = 60'
Source:	Google Earth
Date:	2014

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Figure 2b – Groundwater Gradient Map – 2Q2017
 DCP Plant to Lea Station 6-Inch #2
 NMOCD Ref. No. 1R-2136
 32.53166° , -103.29111°
 Lea County, New Mexico

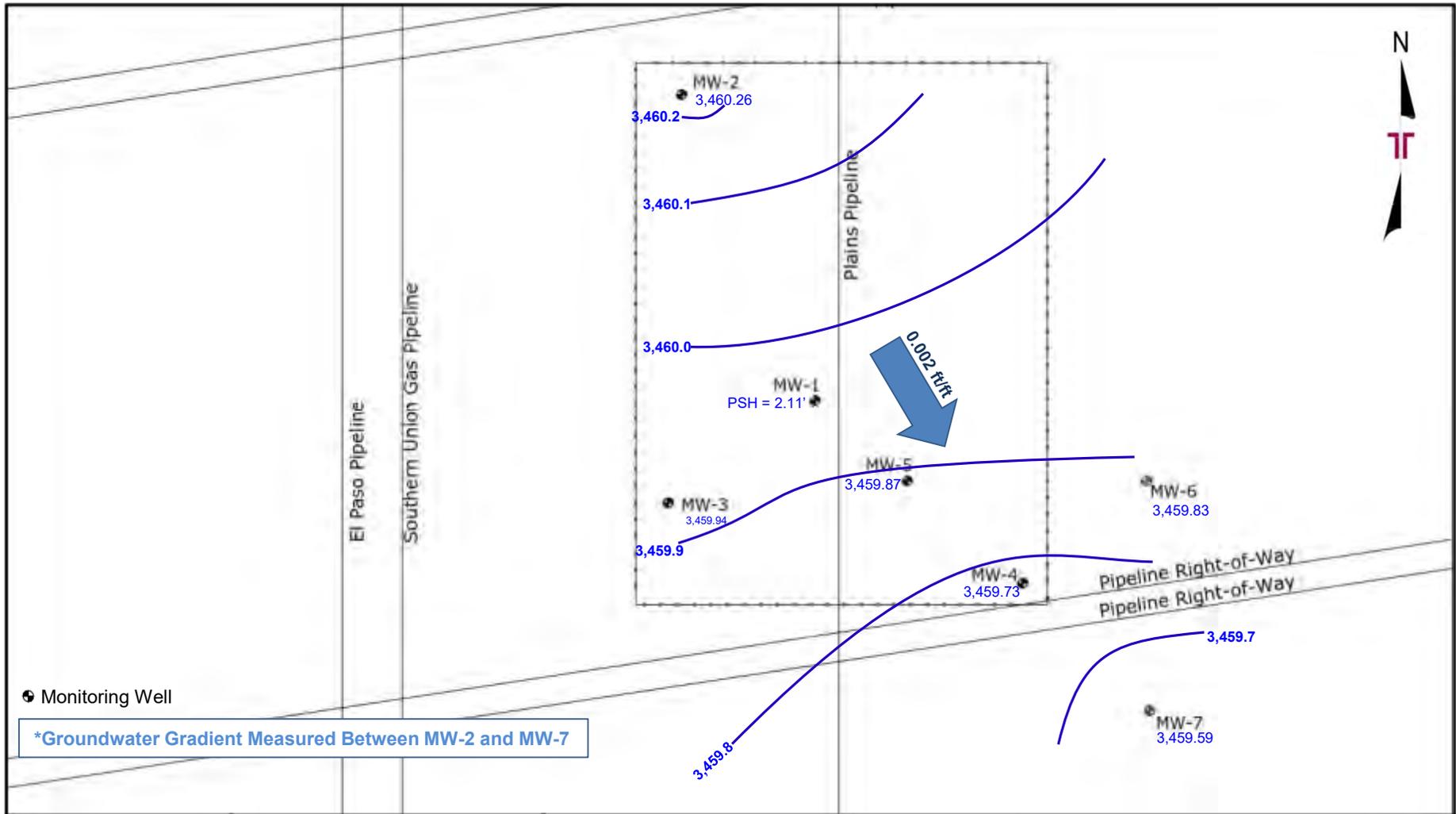


Project No.	AR187003
Scale:	1" = 60'
Source:	Google Earth
Date:	2014

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Figure 2c – Groundwater Gradient Map – 3Q2017

DCP Plant to Lea Station 6-Inch #2
 NMOCD Ref. No. 1R-2136
 32.53166° , -103.29111°
 Lea County, New Mexico



Project No.	AR187003
Scale:	1" = 60'
Source:	Google Earth
Date:	2017

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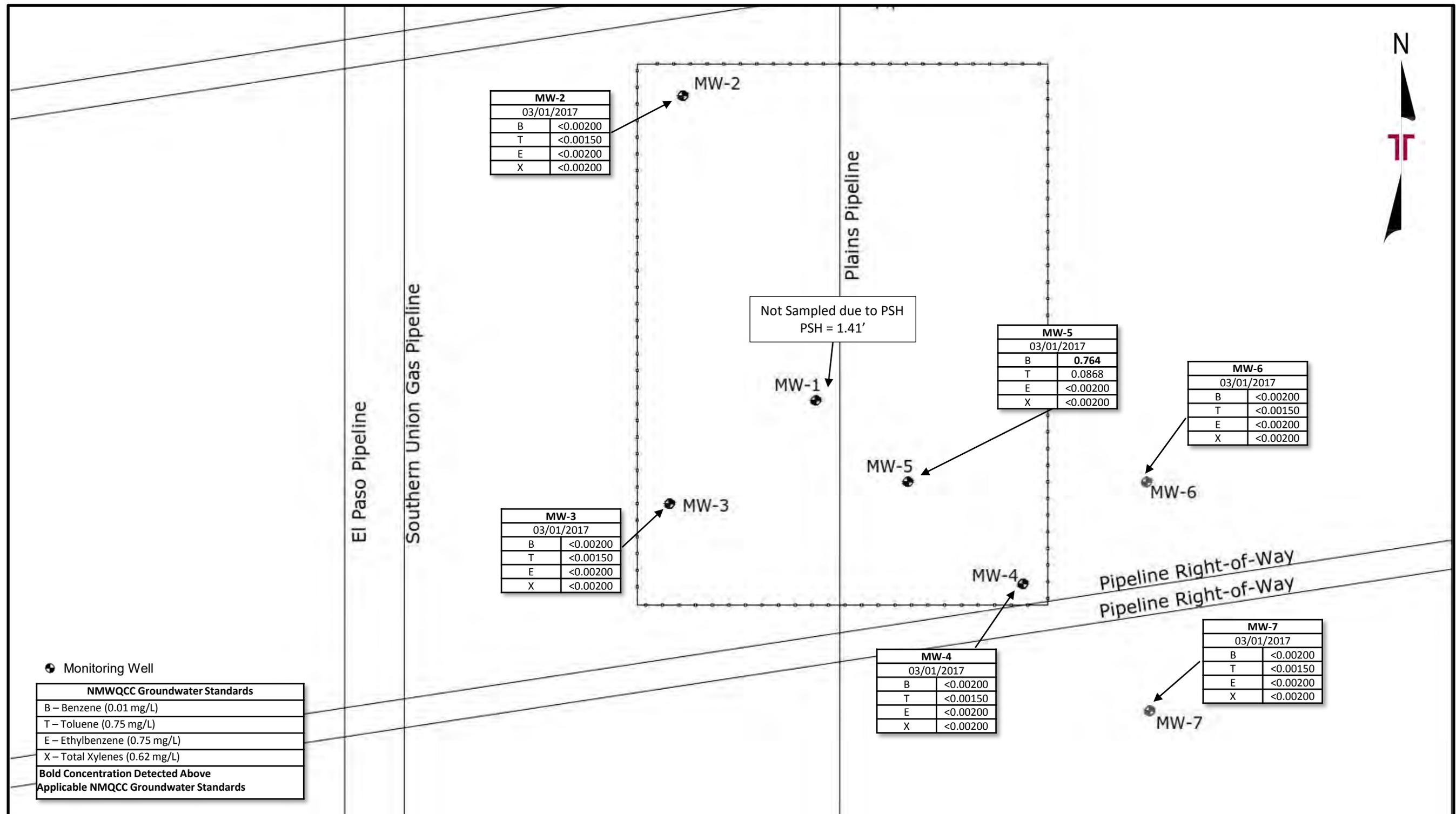
Figure 2d – Groundwater Gradient Map – 4Q2017

DCP Plant to Lea Station 6-Inch #2

NMOCD Ref. No. 1R-2136

32.53166° , -103.29111°

Lea County, New Mexico



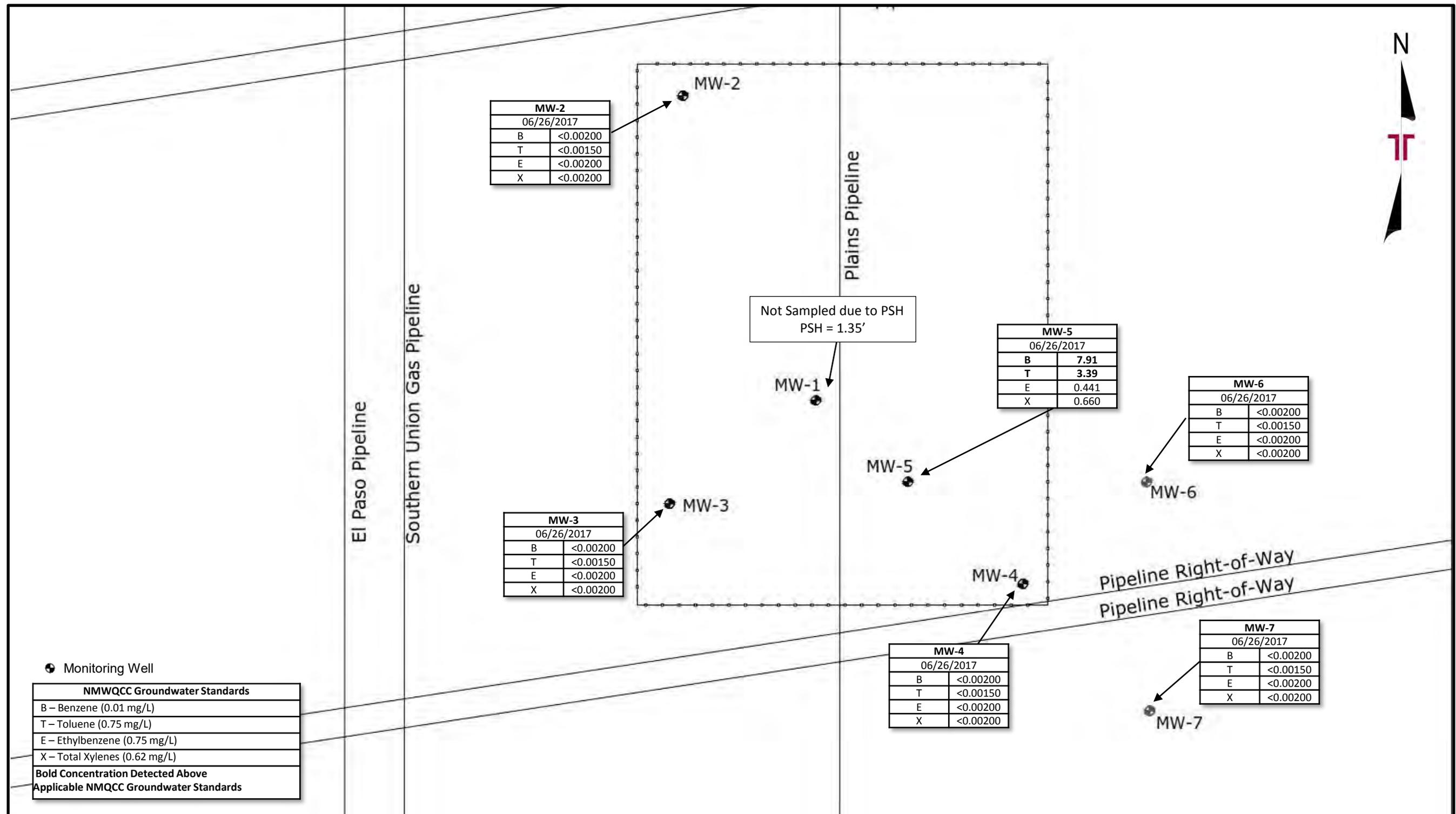
Project No.	AR187003
Scale:	1" = 60'
Source:	Google Earth
Date:	2014

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Figure 3a – Groundwater Concentration Map – 1Q2017

DCP Plant to Lea Station 6-Inch #2
NMOCD Ref. No. 1R-2136
32.53166° , -103.29111°
Lea County, New Mexico



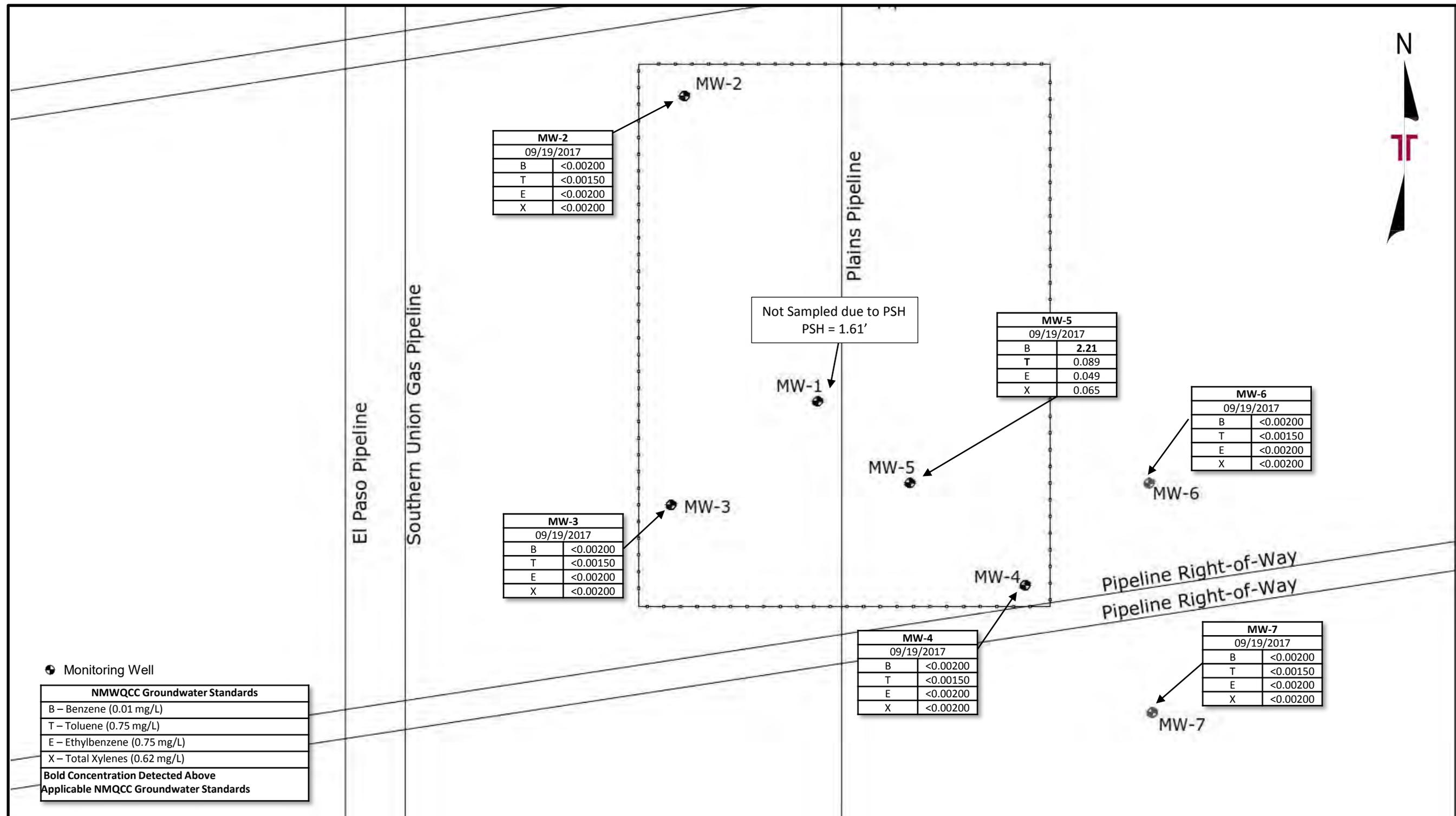
Project No.	AR187003
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Source:	Google Earth
Date:	2014

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Figure 3b – Groundwater Concentration Map – 2Q2017

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NMOCD Ref. No. 1R-2136
32.53166° , -103.29111°
Lea County, New Mexico



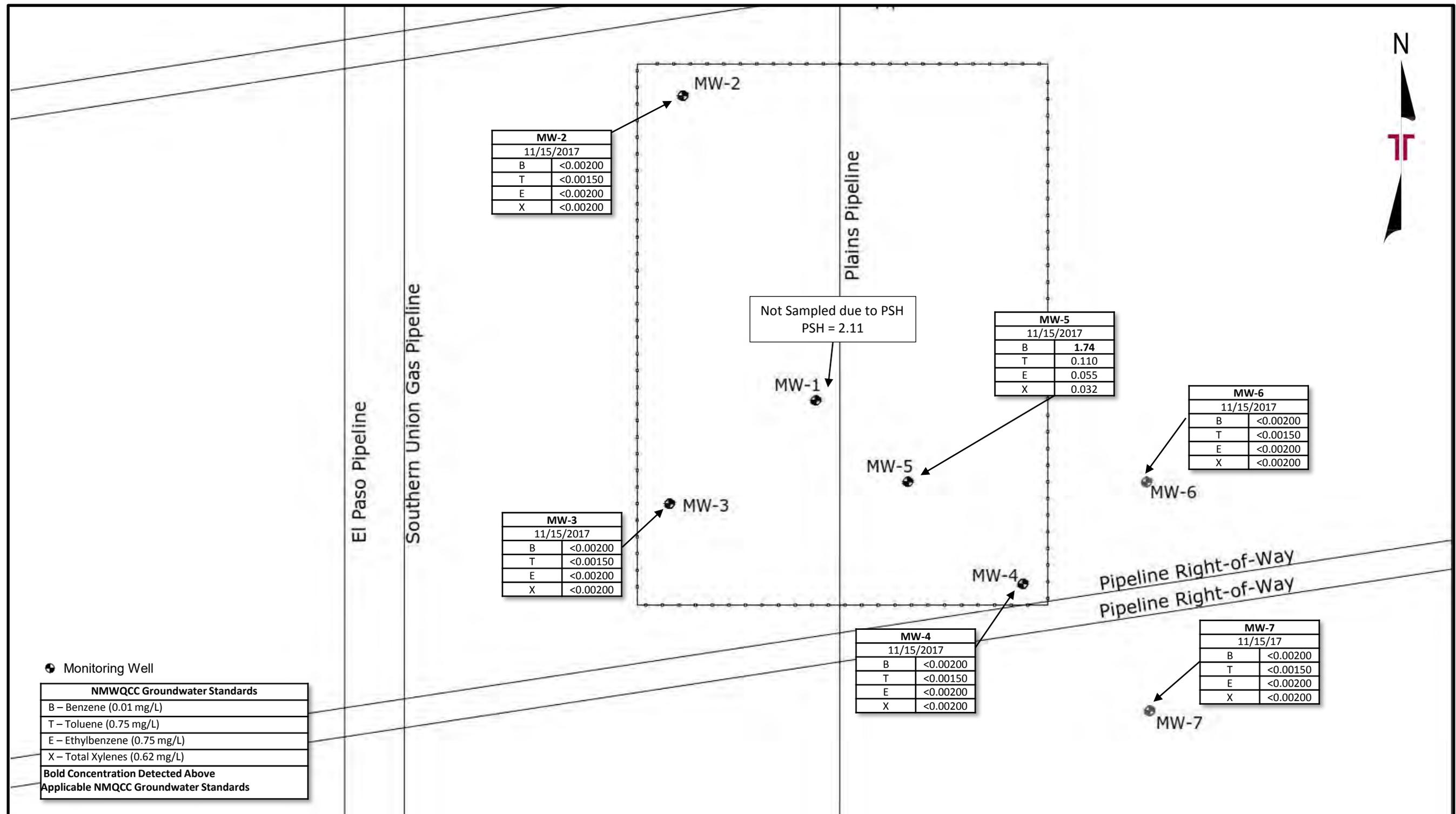
Project No.	AR187003
Scale:	1" = 60'
Source:	Google Earth
Date:	2014

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Figure 3c – Groundwater Concentration Map – 3Q2017

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32.53166° , -103.29111°
Lea County, New Mexico



Project No.	AR187003
Scale:	1" = 60'
Source:	Google Earth
Date:	2017

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Figure 3d – Groundwater Concentration Map – 4Q2017

DCP Plant to Lea Station 6-Inch #2
NMOCD Ref. No. 1R-2136
32.53166° , -103.29111°
Lea County, New Mexico

APPENDIX B

Table 1 – Groundwater Elevation and PSH Thickness Data

Table 2 – Groundwater Analytical Summary – BTEX

TABLE 1

GROUNDWATER ELEVATION DATA
 PLAINS ALL AMERICAN PIPELINE, LP
 DCP PLANT TO LEA STATION 6-INCH #2
 LEA COUNTY, NEW MEXICO
 PLAINS SRS #: 2009-039
 NMOCD REFERENCE #: 1RP-2136
 TERRACON PROJECT #: AR187003

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-1	02/08/2016	3,540.25	81.10	81.50	0.40	3,459.09
	05/03/2016	3,540.25	80.83	81.10	0.27	3,459.38
	11/01/2016	3,540.25	-	-	-	-
	12/22/2016	3,540.25	-	-	-	-
	03/01/2017	3,540.25	80.75	82.16	1.41	3,459.29
	05/19/2017	3,540.25	80.74	82.09	1.35	3,459.31
	09/28/2017	3,540.25	80.49	82.10	1.61	3,459.52
	12/12/2017	3,540.25	80.68	82.79	2.11	3,459.25
	12/27/2017	3,540.25	80.56	82.57	2.01	3,459.39
MW-2	02/10/2016	3,538.31	-	78.85	-	3,459.46
	05/03/2016	3,538.31	-	78.95	-	3,459.36
	11/01/2016	3,538.31	-	79.20	-	3,459.11
	12/22/2016	3,538.31	-	79.80	-	3,458.51
	03/01/2017	3,538.31	-	79.07	-	3,459.24
	06/26/2017	3,538.31	-	79.09	-	3,459.22
	09/19/2017	3,538.31	-	79.07	-	3,459.24
	11/15/2017	3,539.31	-	79.05	-	3,460.26
	MW-3	02/10/2016	3,538.94	-	79.80	-
05/03/2016		3,538.94	-	79.90	-	3,459.04
11/01/2016		3,538.94	-	79.77	-	3,459.17
12/22/2016		3,538.94	-	80.02	-	3,458.92
03/01/2017		3,538.94	-	80.00	-	3,458.94
06/26/2017		3,538.94	-	80.01	-	3,458.93
09/19/2017		3,538.94	-	80.02	-	3,458.92
11/15/2017		3,539.94	-	80.00	-	3,459.94
MW-4		02/10/2016	3,539.67	-	80.75	-
	05/03/2016	3,539.67	-	80.80	-	3,458.87
	11/01/2016	3,539.67	-	80.86	-	3,458.81
	12/22/2016	3,539.67	-	80.93	-	3,458.74
	03/01/2017	3,539.67	-	80.87	-	3,458.80
	06/26/2017	3,539.67	-	80.93	-	3,458.74
	09/19/2017	3,539.67	-	80.90	-	3,458.77
	11/15/2017	3,540.67	-	80.94	-	3,459.73
	MW-5	02/10/2016	3,539.55	-	80.45	-
05/03/2016		3,539.55	-	80.57	-	3,458.98
11/01/2016		3,539.55	-	80.64	-	3,458.91
12/22/2016		3,539.55	-	80.66	-	3,458.89
03/01/2017		3,539.55	-	80.53	-	3,459.02
06/26/2017		3,539.55	-	80.68	-	3,458.87
09/19/2017		3,539.55	-	80.65	-	3,458.90
11/15/2017		3,540.55	-	80.68	-	3,459.87
12/27/2017		3,539.55	-	80.59	-	3,458.86
MW-6	02/10/2016	3,539.22	-	80.20	-	3,459.02
	05/03/2016	3,539.22	-	80.26	-	3,458.96
	11/01/2016	3,539.22	-	80.34	-	3,458.88
	12/22/2016	3,539.22	-	80.39	-	3,458.83
	03/01/2017	3,539.22	-	80.26	-	3,458.96
	06/26/2017	3,539.22	-	80.40	-	3,458.82
	09/19/2017	3,539.22	-	80.32	-	3,458.90
	11/15/2017	3,540.22	-	80.39	-	3,459.83
	MW-7	02/10/2016	3,538.97	-	80.15	-
05/03/2016		3,538.97	-	80.22	-	3,458.75
11/01/2016		3,538.97	-	80.29	-	3,458.68
12/22/2016		3,538.97	-	80.28	-	3,458.69
03/01/2017		3,538.97	-	80.24	-	3,458.73
06/26/2017		3,538.97	-	80.36	-	3,458.61
09/19/2017		3,538.97	-	80.29	-	3,458.68
11/15/2017		3,539.97	-	80.38	-	3,459.59

Elevations based on the North American Vertical Datum of 1988

- = Not applicable

* Due to the presence of a Mobile Dual Phase Extraction (MDPE) unit, monitor well MW-1 was not gauged during the 2nd quarterly sampling event.

TABLE 2

GROUNDWATER ANALYTICAL SUMMARY - BTEX
 PLAINS ALL AMERICAN PIPELINE, LP
 DCP PLANT TO LEA STATION 6-INCH #2
 LEA COUNTY, NEW MEXICO
 PLAINS SRS #: 2009-039
 NMOCD REFERENCE #: 1RP-2136
 TERRACON PROJECT #: AR187003

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8021b						
		BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL-BENZENE (mg/L)	M,P-XYLENES (mg/L)	O-XYLENES (mg/L)	TOTAL XYLENES (mg/L)	TOTAL BTEX (mg/L)
MW -1	MW-1 Not Sampled Due to PSH							
MW-2	02/10/2016	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	05/03/2016	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	11/01/2016	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	12/22/2016	<0.00100	<0.00100	<0.00100	<0.00200	<0.00100	<0.00200	<0.00200
	03/01/2017	<0.00200	<0.00150	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	06/26/2017	<0.00200	<0.00150	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	09/19/2017	<0.00200	<0.00150	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	11/15/2017	<0.00200	<0.00150	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
MW-3	02/10/2016	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	05/03/2016	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	11/01/2016	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	12/22/2016	<0.00100	<0.00100	<0.00100	<0.00200	<0.00100	<0.00200	<0.00200
	03/01/2017	<0.00200	<0.00150	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	06/26/2017	<0.00200	<0.00150	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	09/19/2017	<0.00200	<0.00150	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	11/15/2017	<0.00200	<0.00150	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
MW-4	02/10/2016	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	05/03/2016	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	11/01/2016	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	12/22/2016	<0.00100	<0.00100	<0.00100	<0.00200	<0.00100	<0.00200	<0.00200
	03/01/2017	<0.00200	<0.00150	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	06/26/2017	<0.00200	<0.00150	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	09/19/2017	<0.00200	<0.00150	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	11/15/2017	<0.00200	<0.00150	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
MW-5	02/10/2016	8.04	1.79	0.276	0.289	1.81	0.470	10.6
	05/03/2016	2.42	0.631	0.102	0.120	0.0628	0.183	3.34
	11/01/2016	7.42	2.09	0.393	0.546	0.271	0.817	10.7
	12/22/2016	4.89	1.95	0.280	0.290	0.170	0.460	7.58
	03/01/2017	0.764	0.0868	<0.0500	<0.0500	<0.0500	<0.0500	0.851
	06/26/2017	7.91	3.39	0.441	0.405	0.255	0.660	12.4
	09/19/2017	2.21	0.089	0.049	0.032	0.033	0.065	2.41
	11/15/2017	1.74	0.110	0.055	0.032	<0.00200	0.035	1.94
MW-6	02/10/2016	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	05/03/2016	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	11/01/2016	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	12/22/2016	<0.000480	<0.000512	<0.000616	<0.000454	<0.000270	<0.000270	<0.000512
	03/01/2017	<0.00200	<0.00150	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	06/26/2017	<0.00200	<0.00150	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	09/19/2017	<0.00200	<0.00150	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	11/15/2017	<0.00200	<0.00150	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
MW-7	02/10/2016	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	05/03/2016	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	11/01/2016	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	12/22/2016	<0.000480	<0.000512	<0.000616	<0.000454	<0.000270	<0.000270	<0.000512
	03/01/2017	<0.00200	<0.00150	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	06/26/2017	<0.00200	<0.00150	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	09/19/2017	<0.00200	<0.00150	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	11/15/2017	<0.00200	<0.00150	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
NMOCD CRITERIA		0.01	0.75	0.75	TOTAL XYLENES 0.62		NE	

Bold denotes concentrations above applicable NMOCD criteria.
 NE = Not Established

APPENDIX C

Laboratory Data Sheets



Certificate of Analysis Summary 548227

Terracon Lubbock, Lubbock, TX

Project Name: DCP Plant to Lea Station 6" (SRS#2009-039)



Project Id: AR167321

Contact: Joel Lowry

Project Location:

Date Received in Lab: Thu Mar-09-17 08:50 am

Report Date: 16-MAR-17

Project Manager: Kelsey Brooks

Analysis Requested	Lab Id:	548227-001	548227-002	548227-003	548227-004	548227-005	548227-006
	Field Id:	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7
	Depth:						
	Matrix:	WATER	WATER	WATER	WATER	WATER	WATER
	Sampled:	Mar-01-17 09:30	Mar-01-17 10:30	Mar-08-17 08:43	Mar-08-17 11:07	Mar-08-17 10:23	Mar-08-17 09:38
BTEX by EPA 8021B	Extracted:	Mar-14-17 08:30	Mar-14-17 08:30	Mar-14-17 08:30	Mar-15-17 07:20	Mar-15-17 07:20	Mar-15-17 07:20
	Analyzed:	Mar-14-17 16:57	Mar-14-17 17:13	Mar-14-17 17:29	Mar-15-17 19:34	Mar-15-17 17:55	Mar-15-17 19:01
	Units/RL:	mg/L RL	mg/L RL	mg/L RL	mg/L RL	mg/L RL	mg/L RL
Benzene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	0.764 0.0500	<0.00200 0.00200	<0.00200 0.00200
Toluene		<0.00150 0.00150	<0.00150 0.00150	<0.00150 0.00150	0.0868 0.0375	<0.00150 0.00150	<0.00150 0.00150
Ethylbenzene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.0500 0.0500	<0.00200 0.00200	<0.00200 0.00200
m,p-Xylenes		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.0500 0.0500	<0.00200 0.00200	<0.00200 0.00200
o-Xylene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.0500 0.0500	<0.00200 0.00200	<0.00200 0.00200
Total Xylenes		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.0500 0.0500	<0.00200 0.00200	<0.00200 0.00200
Total BTEX		<0.00150 0.00150	<0.00150 0.00150	<0.00150 0.00150	0.851 0.0375	<0.00150 0.00150	<0.00150 0.00150

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks
Project Manager

Analytical Report 548227

for Terracon Lubbock

Project Manager: Joel Lowry

DCP Plant to Lea Station 6" (SRS#2009-039)

AR167321

16-MAR-17

Collected By: Client



1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215), Arizona (AZ0765), Florida (E871002), Louisiana (03054)
Oklahoma (9218)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400)
Xenco-San Antonio: Texas (T104704534)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)



16-MAR-17

Project Manager: **Joel Lowry**
Terracon Lubbock
5827 50th st, Suite 1
Lubbock, TX 79424

Reference: XENCO Report No(s): **548227**
DCP Plant to Lea Station 6" (SRS#2009-039)
Project Address:

Joel Lowry:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 548227. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 548227 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Kelsey Brooks

Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

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Sample Cross Reference 548227



Terracon Lubbock, Lubbock, TX

DCP Plant to Lea Station 6" (SRS#2009-039)

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-2	W	03-01-17 09:30		548227-001
MW-3	W	03-01-17 10:30		548227-002
MW-4	W	03-08-17 08:43		548227-003
MW-5	W	03-08-17 11:07		548227-004
MW-6	W	03-08-17 10:23		548227-005
MW-7	W	03-08-17 09:38		548227-006



CASE NARRATIVE

Client Name: Terracon Lubbock

Project Name: DCP Plant to Lea Station 6" (SRS#2009-039)

Project ID: AR167321
Work Order Number(s): 548227

Report Date: 16-MAR-17
Date Received: 03/09/2017

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 548227



Terracon Lubbock, Lubbock, TX DCP Plant to Lea Station 6" (SRS#2009-039)

Sample Id: MW-2
Lab Sample Id: 548227-001

Matrix: Water
Date Collected: 03.01.17 09.30

Date Received: 03.09.17 08.50

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 03.14.17 08.30

Seq Number: 3012391

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/L	03.14.17 16.57	U	1
Toluene	108-88-3	<0.00150	0.00150	mg/L	03.14.17 16.57	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/L	03.14.17 16.57	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/L	03.14.17 16.57	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/L	03.14.17 16.57	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/L	03.14.17 16.57	U	1
Total BTEX		<0.00150	0.00150	mg/L	03.14.17 16.57	U	1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	84		%	80-120	03.14.17 16.57	
4-Bromofluorobenzene	460-00-4	88		%	80-120	03.14.17 16.57	

Terracon Lubbock, Lubbock, TX DCP Plant to Lea Station 6" (SRS#2009-039)

Sample Id: **MW-3**
Lab Sample Id: 548227-002

Matrix: Water
Date Collected: 03.01.17 10.30

Date Received: 03.09.17 08.50

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 03.14.17 08.30

Seq Number: 3012391

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/L	03.14.17 17.13	U	1
Toluene	108-88-3	<0.00150	0.00150	mg/L	03.14.17 17.13	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/L	03.14.17 17.13	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/L	03.14.17 17.13	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/L	03.14.17 17.13	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/L	03.14.17 17.13	U	1
Total BTEX		<0.00150	0.00150	mg/L	03.14.17 17.13	U	1
			%				
Surrogate	Cas Number	Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	105	%	80-120	03.14.17 17.13		
4-Bromofluorobenzene	460-00-4	98	%	80-120	03.14.17 17.13		



Certificate of Analytical Results 548227



Terracon Lubbock, Lubbock, TX DCP Plant to Lea Station 6" (SRS#2009-039)

Sample Id: **MW-4**
Lab Sample Id: 548227-003

Matrix: Water
Date Collected: 03.08.17 08.43

Date Received: 03.09.17 08.50

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 03.14.17 08.30

Seq Number: 3012391

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/L	03.14.17 17.29	U	1
Toluene	108-88-3	<0.00150	0.00150	mg/L	03.14.17 17.29	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/L	03.14.17 17.29	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/L	03.14.17 17.29	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/L	03.14.17 17.29	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/L	03.14.17 17.29	U	1
Total BTEX		<0.00150	0.00150	mg/L	03.14.17 17.29	U	1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	119		%	80-120	03.14.17 17.29	
4-Bromofluorobenzene	460-00-4	113		%	80-120	03.14.17 17.29	



Certificate of Analytical Results 548227



Terracon Lubbock, Lubbock, TX DCP Plant to Lea Station 6" (SRS#2009-039)

Sample Id: **MW-5**
Lab Sample Id: 548227-004

Matrix: **Water**
Date Collected: 03.08.17 11.07

Date Received: 03.09.17 08.50

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: **ALJ**

% Moisture:

Analyst: **ALJ**

Date Prep: 03.15.17 07.20

Seq Number: 3012475

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.764	0.0500	mg/L	03.15.17 19.34		25
Toluene	108-88-3	0.0868	0.0375	mg/L	03.15.17 19.34		25
Ethylbenzene	100-41-4	<0.0500	0.0500	mg/L	03.15.17 19.34	U	25
m,p-Xylenes	179601-23-1	<0.0500	0.0500	mg/L	03.15.17 19.34	U	25
o-Xylene	95-47-6	<0.0500	0.0500	mg/L	03.15.17 19.34	U	25
Total Xylenes	1330-20-7	<0.0500	0.0500	mg/L	03.15.17 19.34	U	25
Total BTEX		0.851	0.0375	mg/L	03.15.17 19.34		25
			%				
Surrogate	Cas Number	Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	99	%	80-120	03.15.17 19.34		
4-Bromofluorobenzene	460-00-4	84	%	80-120	03.15.17 19.34		



Certificate of Analytical Results 548227



Terracon Lubbock, Lubbock, TX DCP Plant to Lea Station 6" (SRS#2009-039)

Sample Id: **MW-6**
Lab Sample Id: 548227-005

Matrix: Water
Date Collected: 03.08.17 10.23

Date Received: 03.09.17 08.50

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 03.15.17 07.20

Seq Number: 3012475

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/L	03.15.17 17.55	U	1
Toluene	108-88-3	<0.00150	0.00150	mg/L	03.15.17 17.55	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/L	03.15.17 17.55	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/L	03.15.17 17.55	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/L	03.15.17 17.55	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/L	03.15.17 17.55	U	1
Total BTEX		<0.00150	0.00150	mg/L	03.15.17 17.55	U	1
			%				
Surrogate	Cas Number	Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	91	%	80-120	03.15.17 17.55		
4-Bromofluorobenzene	460-00-4	98	%	80-120	03.15.17 17.55		



Certificate of Analytical Results 548227



Terracon Lubbock, Lubbock, TX DCP Plant to Lea Station 6" (SRS#2009-039)

Sample Id: MW-7
Lab Sample Id: 548227-006

Matrix: Water
Date Collected: 03.08.17 09.38

Date Received: 03.09.17 08.50

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 03.15.17 07.20

Seq Number: 3012475

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/L	03.15.17 19.01	U	1
Toluene	108-88-3	<0.00150	0.00150	mg/L	03.15.17 19.01	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/L	03.15.17 19.01	U	1
m,p-Xylenes	179601-23-1	<0.00200	0.00200	mg/L	03.15.17 19.01	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/L	03.15.17 19.01	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/L	03.15.17 19.01	U	1
Total BTEX		<0.00150	0.00150	mg/L	03.15.17 19.01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	102	%	80-120	03.15.17 19.01		
4-Bromofluorobenzene	460-00-4	93	%	80-120	03.15.17 19.01		

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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5332 Blackberry Drive, San Antonio TX 78238	(214) 902 0300	(214) 351-9139
1211 W Florida Ave, Midland, TX 79701	(210) 509-3334	(210) 509-3335
2525 W. Huntington Dr. - Suite 102, Tempe AZ 85282	(432) 563-1800	(432) 563-1713
	(602) 437-0330	



Terracon Lubbock

DCP Plant to Lea Station 6" (SRS#2009-039)

Analytical Method: BTEX by EPA 8021B

Seq Number: 3012391

MB Sample Id: 721508-1-BLK

Matrix: Water

LCS Sample Id: 721508-1-BKS

Prep Method: SW5030B

Date Prep: 03.14.17

LCSD Sample Id: 721508-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.103	103	0.111	111	70-125	7	25	mg/L	03.14.17 10:57	
Toluene	<0.00150	0.100	0.112	112	0.124	124	70-125	10	25	mg/L	03.14.17 10:57	
Ethylbenzene	<0.00200	0.100	0.111	111	0.120	120	71-129	8	25	mg/L	03.14.17 10:57	
m,p-Xylenes	<0.00200	0.200	0.219	110	0.234	117	70-131	7	25	mg/L	03.14.17 10:57	
o-Xylene	<0.00200	0.100	0.114	114	0.121	121	71-133	6	25	mg/L	03.14.17 10:57	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		117		115		80-120	%	03.14.17 10:57
4-Bromofluorobenzene	96		112		113		80-120	%	03.14.17 10:57

Analytical Method: BTEX by EPA 8021B

Seq Number: 3012475

MB Sample Id: 721564-1-BLK

Matrix: Water

LCS Sample Id: 721564-1-BKS

Prep Method: SW5030B

Date Prep: 03.15.17

LCSD Sample Id: 721564-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0859	86	0.0890	89	70-125	4	25	mg/L	03.15.17 06:58	
Toluene	<0.00150	0.100	0.0958	96	0.0930	93	70-125	3	25	mg/L	03.15.17 06:58	
Ethylbenzene	<0.00200	0.100	0.0910	91	0.0932	93	71-129	2	25	mg/L	03.15.17 06:58	
m,p-Xylenes	<0.00200	0.200	0.178	89	0.181	91	70-131	2	25	mg/L	03.15.17 06:58	
o-Xylene	<0.00200	0.100	0.0967	97	0.0938	94	71-133	3	25	mg/L	03.15.17 06:58	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		95		119		80-120	%	03.15.17 06:58
4-Bromofluorobenzene	87		90		99		80-120	%	03.15.17 06:58

Analytical Method: BTEX by EPA 8021B

Seq Number: 3012391

Parent Sample Id: 548227-001

Matrix: Water

MS Sample Id: 548227-001 S

Prep Method: SW5030B

Date Prep: 03.14.17

MSD Sample Id: 548227-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.105	105	0.102	102	70-125	3	25	mg/L	03.14.17 11:30	
Toluene	<0.00150	0.100	0.114	114	0.110	110	70-125	4	25	mg/L	03.14.17 11:30	
Ethylbenzene	<0.00200	0.100	0.113	113	0.111	111	71-129	2	25	mg/L	03.14.17 11:30	
m,p-Xylenes	<0.00200	0.200	0.221	111	0.219	110	70-131	1	25	mg/L	03.14.17 11:30	
o-Xylene	<0.00200	0.100	0.112	112	0.111	111	71-133	1	25	mg/L	03.14.17 11:30	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		106		80-120	%	03.14.17 11:30
4-Bromofluorobenzene	104		97		80-120	%	03.14.17 11:30



Terracon Lubbock

DCP Plant to Lea Station 6" (SRS#2009-039)

Analytical Method: BTEX by EPA 8021B

Seq Number: 3012475

Parent Sample Id: 548227-005

Matrix: Water

MS Sample Id: 548227-005 S

Prep Method: SW5030B

Date Prep: 03.15.17

MSD Sample Id: 548227-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0917	92	0.0921	92	70-125	0	25	mg/L	03.15.17 08:04	
Toluene	<0.00150	0.100	0.0990	99	0.101	101	70-125	2	25	mg/L	03.15.17 08:04	
Ethylbenzene	<0.00200	0.100	0.0992	99	0.101	101	71-129	2	25	mg/L	03.15.17 08:04	
m,p-Xylenes	<0.00200	0.200	0.194	97	0.196	98	70-131	1	25	mg/L	03.15.17 08:04	
o-Xylene	<0.00200	0.100	0.102	102	0.103	103	71-133	1	25	mg/L	03.15.17 08:04	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	96		108		80-120	%	03.15.17 08:04
4-Bromofluorobenzene	104		105		80-120	%	03.15.17 08:04

TERRACON

Office Location Lubbock

Project Manager: Joel Lowry

Sampler's Name: Kimble Thrash

Project Number AR167321

Project Name DCP Plant to Lea Station 6" #2 (SRS # 2009-039)

Laboratory: Xenco Laboratories
 Address: 1211 West Florida Ave.
Midland, TX 79701

Phone: (432) 563-1800

Contact: Julian Martinez
 PO/SO #:

Sampler's Signature *[Signature]*

CHAIN OF CUSTODY RECORD

ANALYSIS REQUESTED

LAB USE ONLY
 DUE DATE: _____
 Temp: 1.4 IR ID: R-8
 CF: + 0.1
 Corrected Temp: 1.5

Page 1 of 1

Lab Sample ID 548227

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	No. Type of Containers	TRRP Laboratory Review Checklist	ANALYSIS REQUESTED
GW	03/01/17	0930		X	MW-2			X	<input checked="" type="checkbox"/> 48-Hour Rush <input type="checkbox"/> 24-Hour Rush	BTEX (EPA Method 8021B)
GW	03/01/17	1030		X	MW-3			X	<input type="checkbox"/> Normal <input type="checkbox"/> 48-Hour Rush <input type="checkbox"/> 24-Hour Rush	
GW	03/08/17	0843		X	MW-4			X	<input type="checkbox"/> Normal <input type="checkbox"/> 48-Hour Rush <input type="checkbox"/> 24-Hour Rush	
GW	03/08/17	1107		X	MW-5			X	<input type="checkbox"/> Normal <input type="checkbox"/> 48-Hour Rush <input type="checkbox"/> 24-Hour Rush	
GW	03/08/17	1023		X	MW-6			X	<input type="checkbox"/> Normal <input type="checkbox"/> 48-Hour Rush <input type="checkbox"/> 24-Hour Rush	
GW	03/08/17	0938		X	MW-7			X	<input type="checkbox"/> Normal <input type="checkbox"/> 48-Hour Rush <input type="checkbox"/> 24-Hour Rush	
***** END OF COC *****										

Requisitioned by (Signature)	Date	Time	Received by (Signature)	Date	Time	Requisitioned by (Signature)	Date	Time	Received by (Signature)	Date	Time
<i>[Signature]</i>	3/8/17	2:00	<i>[Signature]</i>	3/9/17	0819	<i>[Signature]</i>	3/9/17	8:50	<i>[Signature]</i>	3/9/17	8:50
<i>[Signature]</i>	3/9/17	0819	<i>[Signature]</i>	3/9/17	0819	<i>[Signature]</i>	3/9/17	8:50	<i>[Signature]</i>	3/9/17	8:50
<i>[Signature]</i>	3/9/17	8:50	<i>[Signature]</i>	3/9/17	8:50	<i>[Signature]</i>	3/9/17	8:50	<i>[Signature]</i>	3/9/17	8:50

NOTES: Yes No

E-MAIL RESULTS TO:
 CJBRYANT@PAALP.COM
 &
 JOEL.LOWRY@TERRACON.COM
 &
 KATHRASH@TERRACON.COM

Matrix: WW-Wastewater W - Water S - Soil L - Liquid A - Air Bag C - Charcoal tube S - Sludge
 Container: VOA - 40 ml vial A/G - Amber glass 1L 250 ml = Glass wide mouth P/O - Plastic or other

Lubbock Office ■ 5827 50th Street ■ Lubbock, Texas 79424 ■ 806-300-0140
 Responsive ■ Resourceful ■ Reliable

Client: Terracon Lubbock

Date/ Time Received: 03/09/2017 08:50:00 AM

Work Order #: 548227

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : R8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.5
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seal present on shipping container/ cooler?	N/A
#5 *Custody Seals intact on shipping container/ cooler?	N/A
#6 Custody Seals intact on sample bottles?	N/A
#7 *Custody Seals Signed and dated?	N/A
#8 *Chain of Custody present?	Yes
#9 Sample instructions complete on Chain of Custody?	Yes
#10 Any missing/extra samples?	No
#11 Chain of Custody signed when relinquished/ received?	Yes
#12 Chain of Custody agrees with sample label(s)?	Yes
#13 Container label(s) legible and intact?	Yes
#14 Sample matrix/ properties agree with Chain of Custody?	Yes
#15 Samples in proper container/ bottle?	Yes
#16 Samples properly preserved?	Yes
#17 Sample container(s) intact?	Yes
#18 Sufficient sample amount for indicated test(s)?	Yes
#19 All samples received within hold time?	Yes
#20 Subcontract of sample(s)?	N/A
#21 VOC samples have zero headspace?	Yes
#22 <2 for all samples preserved with HNO3,HCL, H2SO4? Except for samples for the analysis of HEM or HEM-SGT which are verified by the analysts.	Yes
#23 >10 for all samples preserved with NaAsO2+NaOH, ZnAc+NaOH?	N/A

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst:

PH Device/Lot#:

Checklist completed by: Jessica Kramer
 Jessica Kramer

Date: 03/09/2017

Checklist reviewed by: Kelsey Brooks
 Kelsey Brooks

Date: 03/09/2017



Certificate of Analysis Summary 556421

Terracon Lubbock, Lubbock, TX

Project Name: DCP Plant to Lea Station 6 " #2

Project Id: A167321
Contact: Joel Lowry
Project Location: Lea Station

Date Received in Lab: Tue Jun-27-17 04:25 pm
Report Date: 03-JUL-17
Project Manager: Kelsey Brooks

<i>Analysis Requested</i>	<i>Lab Id:</i>	556421-001		556421-002		556421-003		556421-004		556421-005		556421-006	
	<i>Field Id:</i>	MW-2		MW-3		MW-4		MW-5		MW-6		MW-7	
	<i>Depth:</i>												
	<i>Matrix:</i>	GROUND WATER		GROUND WATER									
<i>Sampled:</i>	Jun-26-17 14:00		Jun-26-17 12:40		Jun-26-17 13:27		Jun-26-17 15:01		Jun-27-17 14:11		Jun-27-17 14:39		
BTEX by EPA 8021B	<i>Extracted:</i>	Jul-01-17 13:00		Jul-01-17 13:00									
	<i>Analyzed:</i>	Jul-02-17 02:48		Jul-02-17 03:15		Jul-02-17 03:42		Jul-02-17 04:09		Jul-02-17 04:36		Jul-02-17 05:03	
	<i>Units/RL:</i>	mg/L	RL	mg/L	RL								
Benzene	<0.00106	0.00106	<0.00106	0.00106	<0.00106	0.00106	7.91	0.0501	<0.00106	0.00106	<0.00106	0.00106	
Toluene	<0.00106	0.00106	<0.00106	0.00106	<0.00106	0.00106	3.39	0.0501	<0.00106	0.00106	<0.00106	0.00106	
Ethylbenzene	<0.00106	0.00106	<0.00106	0.00106	<0.00106	0.00106	0.441	0.0501	<0.00106	0.00106	<0.00106	0.00106	
m,p-Xylenes	<0.00212	0.00212	<0.00212	0.00212	<0.00212	0.00212	0.405	0.100	<0.00212	0.00212	<0.00212	0.00212	
o-Xylene	<0.00106	0.00106	<0.00106	0.00106	<0.00106	0.00106	0.255	0.0501	<0.00106	0.00106	<0.00106	0.00106	
Total Xylenes	<0.00106	0.00106	<0.00106	0.00106	<0.00106	0.00106	0.660	0.0501	<0.00106	0.00106	<0.00106	0.00106	
Total BTEX	<0.00106	0.00106	<0.00106	0.00106	<0.00106	0.00106	12.4	0.0501	<0.00106	0.00106	<0.00106	0.00106	

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Kelsey Brooks
Project Manager

Analytical Report 556421

for Terracon Lubbock

Project Manager: Joel Lowry

DCP Plant to Lea Station 6 " #2

A167321

03-JUL-17

Collected By: Client



6701 Aberdeen, Suite 9 Lubbock, TX 79424

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215), Arizona (AZ0765), Florida (E871002), Louisiana (03054)
Oklahoma (9218)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400)
Xenco-San Antonio: Texas (T104704534)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)



03-JUL-17

Project Manager: **Joel Lowry**
Terracon Lubbock
5827 50th st, Suite 1
Lubbock, TX 79424

Reference: XENCO Report No(s): **556421**
DCP Plant to Lea Station 6 " #2
Project Address: Lea Station

Joel Lowry:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 556421. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 556421 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink, appearing to read 'Kelsey Brooks', written in a cursive style.

Kelsey Brooks

Project Manager

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Sample Cross Reference 556421

Terracon Lubbock, Lubbock, TX

DCP Plant to Lea Station 6 " #2

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-2	W	06-26-17 14:00		556421-001
MW-3	W	06-26-17 12:40		556421-002
MW-4	W	06-26-17 13:27		556421-003
MW-5	W	06-26-17 15:01		556421-004
MW-6	W	06-27-17 14:11		556421-005
MW-7	W	06-27-17 14:39		556421-006



CASE NARRATIVE

Client Name: Terracon Lubbock

Project Name: DCP Plant to Lea Station 6 " #2

Project ID: A167321
Work Order Number(s): 556421

Report Date: 03-JUL-17
Date Received: 06/27/2017

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results 556421

Terracon Lubbock, Lubbock, TX

DCP Plant to Lea Station 6 " #2

Sample Id: **MW-2**
 Lab Sample Id: 556421-001

Matrix: Ground Water
 Date Collected: 06.26.17 14.00

Date Received: 06.27.17 16.25

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MIT

% Moisture:

Analyst: MIT

Date Prep: 07.01.17 13.00

Seq Number: 3021365

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00106	0.00106	mg/L	07.02.17 02.48	U	1.06
Toluene	108-88-3	<0.00106	0.00106	mg/L	07.02.17 02.48	U	1.06
Ethylbenzene	100-41-4	<0.00106	0.00106	mg/L	07.02.17 02.48	U	1.06
m,p-Xylenes	179601-23-1	<0.00212	0.00212	mg/L	07.02.17 02.48	U	1.06
o-Xylene	95-47-6	<0.00106	0.00106	mg/L	07.02.17 02.48	U	1.06
Total Xylenes	1330-20-7	<0.00106	0.00106	mg/L	07.02.17 02.48	U	1.06
Total BTEX		<0.00106	0.00106	mg/L	07.02.17 02.48	U	1.06
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
a,a,a-Trifluorotoluene	98-08-8	96		%	66-120	07.02.17 02.48	
4-Bromofluorobenzene	460-00-4	96		%	67-120	07.02.17 02.48	



Certificate of Analytical Results 556421

Terracon Lubbock, Lubbock, TX

DCP Plant to Lea Station 6 " #2

Sample Id: **MW-3**
 Lab Sample Id: 556421-002

Matrix: Ground Water
 Date Collected: 06.26.17 12.40

Date Received: 06.27.17 16.25

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MIT

% Moisture:

Analyst: MIT

Date Prep: 07.01.17 13.00

Seq Number: 3021365

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00106	0.00106	mg/L	07.02.17 03.15	U	1.06
Toluene	108-88-3	<0.00106	0.00106	mg/L	07.02.17 03.15	U	1.06
Ethylbenzene	100-41-4	<0.00106	0.00106	mg/L	07.02.17 03.15	U	1.06
m,p-Xylenes	179601-23-1	<0.00212	0.00212	mg/L	07.02.17 03.15	U	1.06
o-Xylene	95-47-6	<0.00106	0.00106	mg/L	07.02.17 03.15	U	1.06
Total Xylenes	1330-20-7	<0.00106	0.00106	mg/L	07.02.17 03.15	U	1.06
Total BTEX		<0.00106	0.00106	mg/L	07.02.17 03.15	U	1.06
			%				
Surrogate	Cas Number	Recovery	Units	Limits	Analysis Date	Flag	
a,a,a-Trifluorotoluene	98-08-8	97	%	66-120	07.02.17 03.15		
4-Bromofluorobenzene	460-00-4	96	%	67-120	07.02.17 03.15		



Certificate of Analytical Results 556421

Terracon Lubbock, Lubbock, TX

DCP Plant to Lea Station 6 " #2

Sample Id: **MW-4**
 Lab Sample Id: 556421-003

Matrix: Ground Water
 Date Collected: 06.26.17 13.27

Date Received: 06.27.17 16.25

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MIT

% Moisture:

Analyst: MIT

Date Prep: 07.01.17 13.00

Seq Number: 3021365

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00106	0.00106	mg/L	07.02.17 03.42	U	1.06
Toluene	108-88-3	<0.00106	0.00106	mg/L	07.02.17 03.42	U	1.06
Ethylbenzene	100-41-4	<0.00106	0.00106	mg/L	07.02.17 03.42	U	1.06
m,p-Xylenes	179601-23-1	<0.00212	0.00212	mg/L	07.02.17 03.42	U	1.06
o-Xylene	95-47-6	<0.00106	0.00106	mg/L	07.02.17 03.42	U	1.06
Total Xylenes	1330-20-7	<0.00106	0.00106	mg/L	07.02.17 03.42	U	1.06
Total BTEX		<0.00106	0.00106	mg/L	07.02.17 03.42	U	1.06
			%				
Surrogate	Cas Number		Recovery	Units	Limits	Analysis Date	Flag
a,a,a-Trifluorotoluene	98-08-8		96	%	66-120	07.02.17 03.42	
4-Bromofluorobenzene	460-00-4		97	%	67-120	07.02.17 03.42	



Certificate of Analytical Results 556421

Terracon Lubbock, Lubbock, TX

DCP Plant to Lea Station 6 " #2

Sample Id: **MW-5**
 Lab Sample Id: 556421-004

Matrix: Ground Water
 Date Collected: 06.26.17 15.01

Date Received: 06.27.17 16.25

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MIT

% Moisture:

Analyst: MIT

Date Prep: 07.01.17 13.00

Seq Number: 3021365

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	7.91	0.0501	mg/L	07.02.17 04.09		50.06
Toluene	108-88-3	3.39	0.0501	mg/L	07.02.17 04.09		50.06
Ethylbenzene	100-41-4	0.441	0.0501	mg/L	07.02.17 04.09		50.06
m,p-Xylenes	179601-23-1	0.405	0.100	mg/L	07.02.17 04.09		50.06
o-Xylene	95-47-6	0.255	0.0501	mg/L	07.02.17 04.09		50.06
Total Xylenes	1330-20-7	0.660	0.0501	mg/L	07.02.17 04.09		50.06
Total BTEX		12.4	0.0501	mg/L	07.02.17 04.09		50.06
Surrogate	Cas Number		% Recovery	Units	Limits	Analysis Date	Flag
a,a,a-Trifluorotoluene	98-08-8		95	%	66-120	07.02.17 04.09	
4-Bromofluorobenzene	460-00-4		95	%	67-120	07.02.17 04.09	



Certificate of Analytical Results 556421

Terracon Lubbock, Lubbock, TX

DCP Plant to Lea Station 6 " #2

Sample Id: **MW-6**
 Lab Sample Id: 556421-005

Matrix: Ground Water
 Date Collected: 06.27.17 14.11

Date Received: 06.27.17 16.25

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MIT

% Moisture:

Analyst: MIT

Date Prep: 07.01.17 13.00

Seq Number: 3021365

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00106	0.00106	mg/L	07.02.17 04.36	U	1.06
Toluene	108-88-3	<0.00106	0.00106	mg/L	07.02.17 04.36	U	1.06
Ethylbenzene	100-41-4	<0.00106	0.00106	mg/L	07.02.17 04.36	U	1.06
m,p-Xylenes	179601-23-1	<0.00212	0.00212	mg/L	07.02.17 04.36	U	1.06
o-Xylene	95-47-6	<0.00106	0.00106	mg/L	07.02.17 04.36	U	1.06
Total Xylenes	1330-20-7	<0.00106	0.00106	mg/L	07.02.17 04.36	U	1.06
Total BTEX		<0.00106	0.00106	mg/L	07.02.17 04.36	U	1.06
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
a,a,a-Trifluorotoluene	98-08-8	96		%	66-120	07.02.17 04.36	
4-Bromofluorobenzene	460-00-4	95		%	67-120	07.02.17 04.36	



Certificate of Analytical Results 556421

Terracon Lubbock, Lubbock, TX

DCP Plant to Lea Station 6 " #2

Sample Id: **MW-7**
 Lab Sample Id: 556421-006

Matrix: Ground Water
 Date Collected: 06.27.17 14.39

Date Received: 06.27.17 16.25

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MIT

% Moisture:

Analyst: MIT

Date Prep: 07.01.17 13.00

Seq Number: 3021365

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00106	0.00106	mg/L	07.02.17 05.03	U	1.06
Toluene	108-88-3	<0.00106	0.00106	mg/L	07.02.17 05.03	U	1.06
Ethylbenzene	100-41-4	<0.00106	0.00106	mg/L	07.02.17 05.03	U	1.06
m,p-Xylenes	179601-23-1	<0.00212	0.00212	mg/L	07.02.17 05.03	U	1.06
o-Xylene	95-47-6	<0.00106	0.00106	mg/L	07.02.17 05.03	U	1.06
Total Xylenes	1330-20-7	<0.00106	0.00106	mg/L	07.02.17 05.03	U	1.06
Total BTEX		<0.00106	0.00106	mg/L	07.02.17 05.03	U	1.06
			%				
Surrogate	Cas Number		Recovery	Units	Limits	Analysis Date	Flag
a,a,a-Trifluorotoluene	98-08-8		96	%	66-120	07.02.17 05.03	
4-Bromofluorobenzene	460-00-4		95	%	67-120	07.02.17 05.03	



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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 1211 W Florida Ave, Midland, TX 79701
 2525 W. Huntington Dr. - Suite 102, Tempe AZ 85282

Phone	Fax
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(214) 902 0300	(214) 351-9139
(210) 509-3334	(210) 509-3335
(432) 563-1800	(432) 563-1713
(602) 437-0330	



Terracon Lubbock
DCP Plant to Lea Station 6 " #2

Analytical Method: BTEX by EPA 8021B

Seq Number: 3021365

MB Sample Id: 727101-1-BLK

Matrix: Water

LCS Sample Id: 727101-1-BKS

Prep Method: SW5030B

Date Prep: 07.01.17

LCSD Sample Id: 727101-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00106	0.106	0.105	99	0.103	97	74-120	2	20	mg/L	07.01.17 23:13	
Toluene	<0.00106	0.106	0.106	100	0.106	100	74-120	0	20	mg/L	07.01.17 23:13	
Ethylbenzene	<0.00106	0.106	0.100	94	0.103	97	74-120	3	20	mg/L	07.01.17 23:13	
m,p-Xylenes	<0.00212	0.212	0.202	95	0.209	99	73-120	3	25	mg/L	07.01.17 23:13	
o-Xylene	<0.00106	0.106	0.101	95	0.105	99	73-120	4	25	mg/L	07.01.17 23:13	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	99		102		101		66-120	%	07.01.17 23:13
4-Bromofluorobenzene	103		97		98		67-120	%	07.01.17 23:13

Analytical Method: BTEX by EPA 8021B

Seq Number: 3021365

Parent Sample Id: 556741-004

Matrix: Water

MS Sample Id: 556741-004 S

Prep Method: SW5030B

Date Prep: 07.01.17

MSD Sample Id: 556741-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00106	0.106	0.107	101	0.110	104	15-147	3	25	mg/L	07.02.17 01:27	
Toluene	<0.00106	0.106	0.109	103	0.112	106	11-147	3	25	mg/L	07.02.17 01:27	
Ethylbenzene	<0.00106	0.106	0.106	100	0.109	103	10-149	3	25	mg/L	07.02.17 01:27	
m,p-Xylenes	<0.00212	0.212	0.214	101	0.221	104	62-124	3	25	mg/L	07.02.17 01:27	
o-Xylene	<0.00106	0.106	0.107	101	0.112	106	62-124	5	25	mg/L	07.02.17 01:27	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
a,a,a-Trifluorotoluene	97		99		66-120	%	07.02.17 01:27
4-Bromofluorobenzene	100		101		67-120	%	07.02.17 01:27

55642



CHAIN OF CUSTODY RECORD

Laboratory: Xenco Laboratories
 Address: 1211 W. Florida Ave.
 Midland, TX 79701
 432-563-1800

Phone: _____
 Contact: Joel Lowry
 PO/SO #: SRS 2009-039

Office Location: Lubbock

Project Manager: Joel Lowry

Sampler's Name: Joel Lowry

Sampler's Signature: *Joel Lowry*

LAB USE ONLY
 DUE DATE: _____

TEMP OF COOLER
 WHEN RECEIVED (°C) 18.3
 2.2

Page 1 of 1

ANALYSIS REQUESTED

BTEX (EPA Method 8021B)

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	No. Type of Containers	
								40 ml VOA	
GW	6/26/2017	2:00			MW-2			3	
GW	6/26/2017	12:40			MW-3			3	
GW	6/26/2017	1:27			MW-4			3	
GW	6/26/2017	3:01			MW-5			3	
GW	6/26/2017	2:11			MW-6			3	
GW	6/26/2017	2:39			MW-7			3	

Project Number	Project Name	No. Type of Containers
AR167321	DCP Plant to Lea Station 6" #2	

TURNAROUND TIME	Relinquished by (Signature)	Date	Time	48-Hour Rush	24-Hour Rush	TRRP Laboratory Review Checklist	
						Yes	No
	<i>Joel Lowry</i>	6/27/17	4:25	<input type="checkbox"/>	<input type="checkbox"/>		
				<input type="checkbox"/>	<input type="checkbox"/>		
				<input type="checkbox"/>	<input type="checkbox"/>		
				<input type="checkbox"/>	<input type="checkbox"/>		

NOTES: Please Email Results to erin.loyd@terracon.com joel.lowry@terracon.com cibryant@paapl.com

Matrix Container: WW-Wastewater VOA - 40 ml vial

W - Water A/G - Amber Glass 1L

S - Soil 250 ml = Glass wide mouth

L - Liquid P/O - Plastic or other

A - Air Bag

C - Charcoal tube

SL - Sludge

Lubbock Office ■ 5827 50th Street ■ Lubbock, Texas 79424 ■ 806-300-0140

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XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In



Client: Terracon Lubbock

Date/ Time Received: 06/27/2017 04:25:00 PM

Work Order #: 556421

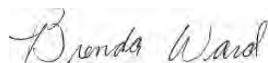
Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : IR-3

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	2.2
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seal present on shipping container/ cooler?	N/A
#5 *Custody Seals intact on shipping container/ cooler?	N/A
#6 Custody Seals intact on sample bottles?	N/A
#7 *Custody Seals Signed and dated?	N/A
#8 *Chain of Custody present?	Yes
#9 Sample instructions complete on Chain of Custody?	Yes
#10 Any missing/extra samples?	No
#11 Chain of Custody signed when relinquished/ received?	Yes
#12 Chain of Custody agrees with sample label(s)?	Yes
#13 Container label(s) legible and intact?	Yes
#14 Sample matrix/ properties agree with Chain of Custody?	Yes
#15 Samples in proper container/ bottle?	Yes
#16 Samples properly preserved?	Yes
#17 Sample container(s) intact?	Yes
#18 Sufficient sample amount for indicated test(s)?	Yes
#19 All samples received within hold time?	Yes
#20 Subcontract of sample(s)?	No
#21 VOC samples have zero headspace?	Yes

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst:

PH Device/Lot#:

Checklist completed by:  Date: 06/28/2017
 Brenda Ward

Checklist reviewed by:  Date: 06/28/2017
 Kelsey Brooks

Analytical Report 563498

**for
Terracon Lubbock**

Project Manager: Kris Williams

DCP #2

AR167321

27-SEP-17

Collected By: Client



6701 Aberdeen, Suite 9 Lubbock, TX 79424

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215), Arizona (AZ0765), Florida (E871002), Louisiana (03054)
Oklahoma (9218)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400)
Xenco-San Antonio: Texas (T104704534)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

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27-SEP-17

Project Manager: **Kris Williams**
Terracon Lubbock
5827 50th st, Suite 1
Lubbock, TX 79424

Reference: XENCO Report No(s): **563498**
DCP #2
Project Address:

Kris Williams:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 563498. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 563498 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink, appearing to read 'Kelsey Brooks', written in a cursive style.

Kelsey Brooks

Project Manager

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Sample Cross Reference 563498

Terracon Lubbock, Lubbock, TX

DCP #2

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-2	W	09-19-17 11:00		563498-001
MW-3	W	09-19-17 11:50		563498-002
MW-4	W	09-19-17 14:00		563498-003
MW-5	W	09-19-17 11:30		563498-004
MW-6	W	09-19-17 14:50		563498-005
MW-7	W	09-19-17 15:30		563498-006



CASE NARRATIVE

Client Name: Terracon Lubbock

Project Name: DCP #2

Project ID: AR167321
Work Order Number(s): 563498

Report Date: 27-SEP-17
Date Received: 09/21/2017

This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory.

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3028607 BTEX by EPA 8021B

SW8021BM

Batch 3028607,

Lab Sample ID 563498-004 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Toluene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 563498-004, -005.

The Laboratory Control Sample for Toluene is within laboratory Control Limits, therefore the data was accepted.



Certificate of Analytical Results

563498



Terracon Lubbock, Lubbock, TX

DCP #2

Sample Id: MW-2	Matrix: Water	Sample Depth:
Lab Sample Id: 563498-001	Date Collected: 09.19.17 11.00	Date Received: 09.21.17 14.50
Analytical Method: BTEX by EPA 8021B		Prep Method: 5030B
Analyst: MIT	% Moist:	Tech: MIT
Seq Number: 3028531	Date Prep: 09.22.17 11.30	
	Prep seq: 731379	

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000480	0.00100	0.000480	mg/L	09.22.17 18:38	U	1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	09.22.17 18:38	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	09.22.17 18:38	U	1
m_p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	09.22.17 18:38	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	09.22.17 18:38	U	1
Xylenes, Total	1330-20-7	<0.000270		0.000270	mg/L	09.22.17 18:38	U	
Total BTEX		<0.000270		0.000270	mg/L	09.22.17 18:38	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	93	66 - 120	%		
4-Bromofluorobenzene	91	67 - 120	%		

Sample Id: MW-3	Matrix: Water	Sample Depth:
Lab Sample Id: 563498-002	Date Collected: 09.19.17 11.50	Date Received: 09.21.17 14.50
Analytical Method: BTEX by EPA 8021B		Prep Method: 5030B
Analyst: MIT	% Moist:	Tech: MIT
Seq Number: 3028531	Date Prep: 09.22.17 11.30	
	Prep seq: 731379	

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000480	0.00100	0.000480	mg/L	09.22.17 19:05	U	1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	09.22.17 19:05	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	09.22.17 19:05	U	1
m_p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	09.22.17 19:05	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	09.22.17 19:05	U	1
Xylenes, Total	1330-20-7	<0.000270		0.000270	mg/L	09.22.17 19:05	U	
Total BTEX		<0.000270		0.000270	mg/L	09.22.17 19:05	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	89	66 - 120	%		
4-Bromofluorobenzene	90	67 - 120	%		



Certificate of Analytical Results

563498



Terracon Lubbock, Lubbock, TX

DCP #2

Sample Id: MW-4	Matrix: Water	Sample Depth:
Lab Sample Id: 563498-003	Date Collected: 09.19.17 14.00	Date Received: 09.21.17 14.50
Analytical Method: BTEX by EPA 8021B		Prep Method: 5030B
Analyst: MIT	% Moist:	Tech: MIT
Seq Number: 3028531	Date Prep: 09.22.17 11.30	
	Prep seq: 731379	

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000480	0.00100	0.000480	mg/L	09.22.17 19:32	U	1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	09.22.17 19:32	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	09.22.17 19:32	U	1
m_p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	09.22.17 19:32	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	09.22.17 19:32	U	1
Xylenes, Total	1330-20-7	<0.000270		0.000270	mg/L	09.22.17 19:32	U	
Total BTEX		<0.000270		0.000270	mg/L	09.22.17 19:32	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	92	66 - 120	%		
4-Bromofluorobenzene	92	67 - 120	%		

Sample Id: MW-5	Matrix: Water	Sample Depth:
Lab Sample Id: 563498-004	Date Collected: 09.19.17 11.30	Date Received: 09.21.17 14.50
Analytical Method: BTEX by EPA 8021B		Prep Method: 5030B
Analyst: MIT	% Moist:	Tech: MIT
Seq Number: 3028607	Date Prep: 09.25.17 12.30	
	Prep seq: 731486	

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	2.21	0.0100	0.00480	mg/L	09.25.17 17:37		10
Toluene	108-88-3	0.0890	0.0100	0.00512	mg/L	09.25.17 17:37		10
Ethylbenzene	100-41-4	0.0490	0.0100	0.00616	mg/L	09.25.17 17:37		10
m_p-Xylenes	179601-23-1	0.0320	0.0200	0.00454	mg/L	09.25.17 17:37		10
o-Xylene	95-47-6	0.0330	0.0100	0.00270	mg/L	09.25.17 17:37		10
Xylenes, Total	1330-20-7	0.0650		0.00270	mg/L	09.25.17 17:37		
Total BTEX		2.41		0.00270	mg/L	09.25.17 17:37		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	90	66 - 120	%		
4-Bromofluorobenzene	90	67 - 120	%		



Certificate of Analytical Results

563498



Terracon Lubbock, Lubbock, TX

DCP #2

Sample Id: MW-6	Matrix: Water	Sample Depth:
Lab Sample Id: 563498-005	Date Collected: 09.19.17 14.50	Date Received: 09.21.17 14.50
Analytical Method: BTEX by EPA 8021B		Prep Method: 5030B
Analyst: MIT	% Moist:	Tech: MIT
Seq Number: 3028607	Date Prep: 09.25.17 12.30	
	Prep seq: 731486	

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000480	0.00100	0.000480	mg/L	09.25.17 17:10	U	1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	09.25.17 17:10	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	09.25.17 17:10	U	1
m_p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	09.25.17 17:10	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	09.25.17 17:10	U	1
Xylenes, Total	1330-20-7	<0.000270		0.000270	mg/L	09.25.17 17:10	U	
Total BTEX		<0.000270		0.000270	mg/L	09.25.17 17:10	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	89	66 - 120	%		
4-Bromofluorobenzene	89	67 - 120	%		

Sample Id: MW-7	Matrix: Water	Sample Depth:
Lab Sample Id: 563498-006	Date Collected: 09.19.17 15.30	Date Received: 09.21.17 14.50
Analytical Method: BTEX by EPA 8021B		Prep Method: 5030B
Analyst: MIT	% Moist:	Tech: MIT
Seq Number: 3028531	Date Prep: 09.22.17 11.30	
	Prep seq: 731379	

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000480	0.00100	0.000480	mg/L	09.22.17 20:54	U	1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	09.22.17 20:54	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	09.22.17 20:54	U	1
m_p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	09.22.17 20:54	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	09.22.17 20:54	U	1
Xylenes, Total	1330-20-7	<0.000270		0.000270	mg/L	09.22.17 20:54	U	
Total BTEX		<0.000270		0.000270	mg/L	09.22.17 20:54	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	89	66 - 120	%		
4-Bromofluorobenzene	93	67 - 120	%		



Certificate of Analytical Results
563498



Terracon Lubbock, Lubbock, TX
DCP #2

Sample Id: **731486-1-BLK**

Matrix: Water

Sample Depth:

Lab Sample Id: 731486-1-BLK

Date Collected:

Date Received:

Analytical Method: BTEX by EPA 8021B

Prep Method: 5030B

Analyst: MIT

% Moist:

Tech: MIT

Seq Number: 3028607

Date Prep: 09.25.17 12.30

Prep seq: 731486

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000480	0.00100	0.000480	mg/L	09.25.17 16:43	U	1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	09.25.17 16:43	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	09.25.17 16:43	U	1
m_p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	09.25.17 16:43	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	09.25.17 16:43	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	92	66 - 120	%		
4-Bromofluorobenzene	94	67 - 120	%		



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

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5332 Blackberry Drive, San Antonio TX 78238	(214) 902 0300	(214) 351-9139
1211 W Florida Ave, Midland, TX 79701	(210) 509-3334	(210) 509-3335
2525 W. Huntington Dr. - Suite 102, Tempe AZ 85282	(432) 563-1800	(432) 563-1713
	(602) 437-0330	

Form 2 - Surrogate Recoveries

Project Name: DCP #2

Work Orders : 563498,

Project ID: AR167321

Lab Batch #: 3028531

Sample: 731379-1-BKS / BKS

Batch: 1 **Matrix:** Water

Units: mg/L	Date Analyzed: 09/22/17 13:39	SURROGATE RECOVERY STUDY			
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
a,a,a-Trifluorotoluene	0.0914	0.100	91	66-120	
4-Bromofluorobenzene	0.0874	0.100	87	67-120	

Lab Batch #: 3028531

Sample: 731379-1-BSD / BSD

Batch: 1 **Matrix:** Water

Units: mg/L	Date Analyzed: 09/22/17 14:35	SURROGATE RECOVERY STUDY			
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
a,a,a-Trifluorotoluene	0.0901	0.100	90	66-120	
4-Bromofluorobenzene	0.0872	0.100	87	67-120	

Lab Batch #: 3028531

Sample: 731379-1-BSD / BSD

Batch: 1 **Matrix:** Water

Units: mg/L	Date Analyzed: 09/22/17 15:56	SURROGATE RECOVERY STUDY			
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
a,a,a-Trifluorotoluene	0.0912	0.100	91	66-120	
4-Bromofluorobenzene	0.0888	0.100	89	67-120	

Lab Batch #: 3028531

Sample: 563393-001 S / MS

Batch: 1 **Matrix:** Water

Units: mg/L	Date Analyzed: 09/22/17 17:17	SURROGATE RECOVERY STUDY			
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
a,a,a-Trifluorotoluene	0.0920	0.100	92	66-120	
4-Bromofluorobenzene	0.0960	0.100	96	67-120	

Lab Batch #: 3028531

Sample: 563393-001 SD / MSD

Batch: 1 **Matrix:** Water

Units: mg/L	Date Analyzed: 09/22/17 17:44	SURROGATE RECOVERY STUDY			
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
a,a,a-Trifluorotoluene	0.0944	0.100	94	66-120	
4-Bromofluorobenzene	0.0950	0.100	95	67-120	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.

Form 2 - Surrogate Recoveries

Project Name: DCP #2

Work Orders : 563498,

Project ID: AR167321

Lab Batch #: 3028607

Sample: 731486-1-BKS / BKS

Batch: 1 **Matrix:** Water

Units: mg/L	Date Analyzed: 09/25/17 14:55	SURROGATE RECOVERY STUDY			
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
a,a,a-Trifluorotoluene	0.0938	0.100	94	66-120	
4-Bromofluorobenzene	0.0925	0.100	93	67-120	

Lab Batch #: 3028607

Sample: 731486-1-BSD / BSD

Batch: 1 **Matrix:** Water

Units: mg/L	Date Analyzed: 09/25/17 15:22	SURROGATE RECOVERY STUDY			
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
a,a,a-Trifluorotoluene	0.0934	0.100	93	66-120	
4-Bromofluorobenzene	0.0891	0.100	89	67-120	

Lab Batch #: 3028607

Sample: 731486-1-BLK / BLK

Batch: 1 **Matrix:** Water

Units: mg/L	Date Analyzed: 09/25/17 16:43	SURROGATE RECOVERY STUDY			
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
a,a,a-Trifluorotoluene	0.0921	0.100	92	66-120	
4-Bromofluorobenzene	0.0938	0.100	94	67-120	

Lab Batch #: 3028607

Sample: 563498-004 S / MS

Batch: 1 **Matrix:** Water

Units: mg/L	Date Analyzed: 09/25/17 18:04	SURROGATE RECOVERY STUDY			
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
a,a,a-Trifluorotoluene	0.905	1.00	91	66-120	
4-Bromofluorobenzene	0.0895	0.100	90	67-120	

Lab Batch #: 3028607

Sample: 563498-004 SD / MSD

Batch: 1 **Matrix:** Water

Units: mg/L	Date Analyzed: 09/25/17 18:31	SURROGATE RECOVERY STUDY			
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
a,a,a-Trifluorotoluene	0.901	1.00	90	66-120	
4-Bromofluorobenzene	0.0871	0.100	87	67-120	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



BS / BSD Recoveries



Project Name: DCP #2

Work Order #: 563498

Project ID: AR167321

Analyst: MIT

Date Prepared: 09/22/2017

Date Analyzed: 09/22/2017

Lab Batch ID: 3028531

Sample: 731379-1-BKS

Batch #: 1

Matrix: Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Benzene	0.0944	0.100	0.0944	94	0.100	0.0931	93	1	74-120	20	
Toluene	0.0938	0.100	0.0938	94	0.100	0.0918	92	2	74-120	20	
Ethylbenzene	0.0893	0.100	0.0893	89	0.100	0.0866	87	3	74-120	20	
m_p-Xylenes	0.179	0.200	0.179	90	0.200	0.174	87	3	73-120	25	
o-Xylene	0.0880	0.100	0.0880	88	0.100	0.0859	86	2	73-120	25	

Analyst: MIT

Date Prepared: 09/25/2017

Date Analyzed: 09/25/2017

Lab Batch ID: 3028607

Sample: 731486-1-BKS

Batch #: 1

Matrix: Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Benzene	<0.000480	0.100	0.0909	91	0.100	0.0907	91	0	74-120	20	
Toluene	<0.000512	0.100	0.0912	91	0.100	0.0908	91	0	74-120	20	
Ethylbenzene	<0.000616	0.100	0.0894	89	0.100	0.0891	89	0	74-120	20	
m_p-Xylenes	<0.000454	0.200	0.179	90	0.200	0.179	90	0	73-120	25	
o-Xylene	<0.000270	0.100	0.0894	89	0.100	0.0885	89	1	73-120	25	

Relative Percent Difference RPD = $200 * |(C-F)/(C+F)|$

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS / MSD Recoveries

Project Name: DCP #2

Work Order #: 563498

Project ID: AR167321

Lab Batch ID: 3028531

QC- Sample ID: 563393-001 S

Batch #: 1 Matrix: Water

Date Analyzed: 09/22/2017

Date Prepared: 09/22/2017

Analyst: MIT

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000480	0.100	0.0937	94	0.100	0.0959	96	2	15-147	25	
Toluene	<0.000512	0.100	0.0932	93	0.100	0.0958	96	3	11-147	25	
Ethylbenzene	<0.000616	0.100	0.0927	93	0.100	0.0928	93	0	10-149	25	
m_p-Xylenes	<0.000454	0.200	0.185	93	0.200	0.183	92	1	62-124	25	
o-Xylene	<0.000270	0.100	0.0919	92	0.100	0.0911	91	1	62-124	25	

Lab Batch ID: 3028607

QC- Sample ID: 563498-004 S

Batch #: 1 Matrix: Water

Date Analyzed: 09/25/2017

Date Prepared: 09/25/2017

Analyst: MIT

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	2.21	1.00	3.11	90	1.00	3.14	93	1	15-147	25	
Toluene	0.0890	1.00	0.978	89	1.00	0.999	91	2	11-147	25	
Ethylbenzene	0.0490	1.00	0.862	81	1.00	0.925	88	7	10-149	25	
m_p-Xylenes	0.0320	2.00	1.66	81	2.00	1.78	87	7	62-124	25	
o-Xylene	0.0330	1.00	0.834	80	1.00	0.904	87	8	62-124	25	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

563498

Terracon

CHAIN OF CUSTODY RECORD

LAB USE ONLY
DUE DATE:

TEMP OF COOLER
WHEN RECEIVED (°C)

Page 1 of 1

Laboratory: ESC
Address: 12065 Lebanon Rd
Mt. Juliet, TN 37122

Phone: (800) 767-5859
Contact: _____
PO/SO #: _____
Sampler's Signature _____

Office Location: Lubbock
Project Manager: Kris Williams
Sampler's Name: Kris Williams
Project Number: AR167321
Project Name: _____
DCP #2: SR5H (2009-039)

Matrix	Date	Time	Project Name		Identifying Marks of Sample(s)	No. Type of Containers		Lab Sample ID
			Comp	Grab		Start Depth	End Depth	
GW	9/19/2017	11:00	X		MW-2	3	40 ml VOA	12095
GW	9/19/2017	11:50	X		MW-3	3		
GW	9/19/2017	14:00	X		MW-4	3		
GW	9/19/2017	11:30	X		MW-5	3		
GW	9/19/2017	14:50	X		MW-6	3		
GW	9/19/2017	15:30	X		MW-7	3		

TURNAROUND TIME

Relinquished by (Signature): _____ Date: 9/19/17 Time: 13:00

Relinquished by (Signature): _____ Date: _____ Time: _____

Relinquished by (Signature): _____ Date: _____ Time: _____

Relinquished by (Signature): _____ Date: 9/19/17 Time: 13:07

TRRP Laboratory Review Checklist

Received by (Signature): _____ Date: _____ Time: _____

Received by (Signature): _____ Date: _____ Time: _____

Received by (Signature): _____ Date: _____ Time: _____

Received by (Signature): _____ Date: 9/19/17 Time: 13:07

Notes: Direct bill to Plans

e-mail results to: erin.loyd@terracon.com, kwilliams@terracon.com, zach.conder@terracon.com

3.9/38

Matrix: WW - Wastewater, VOA - 40 ml vial, A/G - Amber Glass 1L, S - Soil, 250 ml = Glass wide mouth, L - Liquid, A - Air Bag, P/G - Plate or other, C - Charcoal tube, SL - Sludge

Lubbock Office ■ 5827 50th Street, Suite 1 ■ Lubbock, Texas 79424 ■ 806-300-0140

Responsive ■ Resourceful ■ Reliable

Client: Terracon Lubbock

Date/ Time Received: 09/21/2017 02:50:56 PM

Work Order #: 563498

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : IR-3

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	3.8
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 Custody Seals intact on sample bottles?	N/A
#6*Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	Yes

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst:

PH Device/Lot#:

Checklist completed by:  Date: 09/21/2017
Brenda Ward

Checklist reviewed by:  Date: 09/21/2017
Kelsey Brooks

Analytical Report 568817

for Terracon Lubbock

Project Manager: Kris Williams

DCP #2

AR167321

28-NOV-17

Collected By: Client



6701 Aberdeen, Suite 9 Lubbock, TX 79424

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-17-23), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab code: TX01468):

Texas (T104704295-17-15), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab code: TX00127): Texas (T104704221-17-12)

Xenco-Lubbock (EPA Lab code: TX00139): Texas (T104704219-17-16)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-17-13)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)

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28-NOV-17

Project Manager: **Kris Williams**
Terracon Lubbock
5827 50th st, Suite 1
Lubbock, TX 79424

Reference: XENCO Report No(s): **568817**
DCP #2
Project Address:

Kris Williams:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 568817. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 568817 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink, appearing to read 'Mike Kimmel', is written over a light-colored rectangular background.

Mike Kimmel

Client Services Manager

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A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America



Sample Cross Reference 568817

Terracon Lubbock, Lubbock, TX

DCP #2

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-2	W	11-15-17 15:25		568817-001
MW-3	W	11-15-17 15:55		568817-002
MW-4	W	11-15-17 15:20		568817-003
MW-5	W	11-15-17 15:50		568817-004
MW-6	W	11-15-17 15:00		568817-005
MW-7	W	11-15-17 14:50		568817-006



CASE NARRATIVE

Client Name: Terracon Lubbock

Project Name: DCP #2

Project ID: *AR167321*
Work Order Number(s): *568817*

Report Date: *28-NOV-17*
Date Received: *11/17/2017*

This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory.

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None



Certificate of Analytical Results

568817

Terracon Lubbock, Lubbock, TX

DCP #2

Sample Id: MW-2

Matrix: Ground Water

Sample Depth:

Lab Sample Id: 568817-001

Date Collected: 11.15.17 15.25

Date Received: 11.17.17 10.12

Analytical Method: BTEX by EPA 8021B

Prep Method: 5030B

Analyst: MIT

% Moist:

Tech: MIT

Seq Number: 3033699

Date Prep: 11.17.17 15.00

Prep seq: 7634625

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000480	0.00100	0.000480	mg/L	11.17.17 22:25	U	1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	11.17.17 22:25	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	11.17.17 22:25	U	1
m,p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	11.17.17 22:25	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	11.17.17 22:25	U	1
Total Xylenes	1330-20-7	<0.000270		0.000270	mg/L	11.17.17 22:25	U	
Total BTEX		<0.000270		0.000270	mg/L	11.17.17 22:25	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	101	66 - 120	%		
4-Bromofluorobenzene	100	67 - 120	%		

Sample Id: MW-3

Matrix: Ground Water

Sample Depth:

Lab Sample Id: 568817-002

Date Collected: 11.15.17 15.55

Date Received: 11.17.17 10.12

Analytical Method: BTEX by EPA 8021B

Prep Method: 5030B

Analyst: MIT

% Moist:

Tech: MIT

Seq Number: 3033699

Date Prep: 11.17.17 15.00

Prep seq: 7634625

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000480	0.00100	0.000480	mg/L	11.18.17 01:06	U	1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	11.18.17 01:06	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	11.18.17 01:06	U	1
m,p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	11.18.17 01:06	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	11.18.17 01:06	U	1
Total Xylenes	1330-20-7	<0.000270		0.000270	mg/L	11.18.17 01:06	U	
Total BTEX		<0.000270		0.000270	mg/L	11.18.17 01:06	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	100	66 - 120	%		
4-Bromofluorobenzene	99	67 - 120	%		



Certificate of Analytical Results

568817

Terracon Lubbock, Lubbock, TX

DCP #2

Sample Id: **MW-4**

Matrix: Ground Water

Sample Depth:

Lab Sample Id: 568817-003

Date Collected: 11.15.17 15.20

Date Received: 11.17.17 10.12

Analytical Method: BTEX by EPA 8021B

Prep Method: 5030B

Analyst: MIT

% Moist:

Tech: MIT

Seq Number: 3033699

Date Prep: 11.17.17 15.00

Prep seq: 7634625

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000480	0.00100	0.000480	mg/L	11.18.17 01:33	U	1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	11.18.17 01:33	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	11.18.17 01:33	U	1
m,p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	11.18.17 01:33	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	11.18.17 01:33	U	1
Total Xylenes	1330-20-7	<0.000270		0.000270	mg/L	11.18.17 01:33	U	
Total BTEX		<0.000270		0.000270	mg/L	11.18.17 01:33	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	100	66 - 120	%		
4-Bromofluorobenzene	99	67 - 120	%		

Sample Id: **MW-5**

Matrix: Ground Water

Sample Depth:

Lab Sample Id: 568817-004

Date Collected: 11.15.17 15.50

Date Received: 11.17.17 10.12

Analytical Method: BTEX by EPA 8021B

Prep Method: 5030B

Analyst: MIT

% Moist:

Tech: MIT

Seq Number: 3033699

Date Prep: 11.17.17 15.00

Prep seq: 7634625

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	1.74	0.0500	0.0240	mg/L	11.18.17 02:00		50
Toluene	108-88-3	0.110	0.0500	0.0256	mg/L	11.18.17 02:00		50
Ethylbenzene	100-41-4	0.0550	0.0500	0.0308	mg/L	11.18.17 02:00		50
m,p-Xylenes	179601-23-1	0.0350	0.100	0.0227	mg/L	11.18.17 02:00	J	50
o-Xylene	95-47-6	<0.0135	0.0500	0.0135	mg/L	11.18.17 02:00	U	50
Total Xylenes	1330-20-7	0.0350		0.0135	mg/L	11.18.17 02:00	J	
Total BTEX		1.94		0.0135	mg/L	11.18.17 02:00		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	100	66 - 120	%		
4-Bromofluorobenzene	101	67 - 120	%		



Certificate of Analytical Results

568817

Terracon Lubbock, Lubbock, TX

DCP #2

Sample Id: MW-6

Matrix: Ground Water

Sample Depth:

Lab Sample Id: 568817-005

Date Collected: 11.15.17 15.00

Date Received: 11.17.17 10.12

Analytical Method: BTEX by EPA 8021B

Prep Method: 5030B

Analyst: MIT

% Moist:

Tech: MIT

Seq Number: 3033699

Date Prep: 11.17.17 15.00

Prep seq: 7634625

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000480	0.00100	0.000480	mg/L	11.18.17 02:27	U	1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	11.18.17 02:27	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	11.18.17 02:27	U	1
m,p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	11.18.17 02:27	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	11.18.17 02:27	U	1
Total Xylenes	1330-20-7	<0.000270		0.000270	mg/L	11.18.17 02:27	U	
Total BTEX		<0.000270		0.000270	mg/L	11.18.17 02:27	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	102	66 - 120	%		
4-Bromofluorobenzene	100	67 - 120	%		

Sample Id: MW-7

Matrix: Ground Water

Sample Depth:

Lab Sample Id: 568817-006

Date Collected: 11.15.17 14.50

Date Received: 11.17.17 10.12

Analytical Method: BTEX by EPA 8021B

Prep Method: 5030B

Analyst: MIT

% Moist:

Tech: MIT

Seq Number: 3033699

Date Prep: 11.17.17 15.00

Prep seq: 7634625

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000480	0.00100	0.000480	mg/L	11.18.17 02:54	U	1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	11.18.17 02:54	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	11.18.17 02:54	U	1
m,p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	11.18.17 02:54	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	11.18.17 02:54	U	1
Total Xylenes	1330-20-7	<0.000270		0.000270	mg/L	11.18.17 02:54	U	
Total BTEX		<0.000270		0.000270	mg/L	11.18.17 02:54	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	103	66 - 120	%		
4-Bromofluorobenzene	100	67 - 120	%		



Certificate of Analytical Results

568817

Terracon Lubbock, Lubbock, TX

DCP #2

Sample Id: **7634625-1-BLK**

Matrix: Water

Sample Depth:

Lab Sample Id: 7634625-1-BLK

Date Collected:

Date Received:

Analytical Method: BTEX by EPA 8021B

Prep Method: 5030B

Analyst: MIT

% Moist:

Tech: MIT

Seq Number: 3033699

Date Prep: 11.17.17 15.00

Prep seq: 7634625

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.000480	0.00100	0.000480	mg/L	11.17.17 21:04	U	1
Toluene	108-88-3	<0.000512	0.00100	0.000512	mg/L	11.17.17 21:04	U	1
Ethylbenzene	100-41-4	<0.000616	0.00100	0.000616	mg/L	11.17.17 21:04	U	1
m,p-Xylenes	179601-23-1	<0.000454	0.00200	0.000454	mg/L	11.17.17 21:04	U	1
o-Xylene	95-47-6	<0.000270	0.00100	0.000270	mg/L	11.17.17 21:04	U	1

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
a,a,a-Trifluorotoluene	102	66 - 120	%		
4-Bromofluorobenzene	100	67 - 120	%		



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

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 5332 Blackberry Drive, San Antonio TX 78238
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 2525 W. Huntington Dr. - Suite 102, Tempe AZ 85282

Phone	Fax
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(214) 902 0300	(214) 351-9139
(210) 509-3334	(210) 509-3335
(432) 563-1800	(432) 563-1713
(602) 437-0330	

Form 2 - Surrogate Recoveries

Project Name: DCP #2

Work Orders : 568817,

Project ID: AR167321

Lab Batch #: 3033699

Sample: 7634625-1-BKS / BKS

Batch: 1 **Matrix:** Water

Units: mg/L	Date Analyzed: 11/17/17 19:16	SURROGATE RECOVERY STUDY			
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
a,a,a-Trifluorotoluene	0.0983	0.100	98	66-120	
4-Bromofluorobenzene	0.0987	0.100	99	67-120	

Lab Batch #: 3033699

Sample: 7634625-1-BSD / BSD

Batch: 1 **Matrix:** Water

Units: mg/L	Date Analyzed: 11/17/17 19:43	SURROGATE RECOVERY STUDY			
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
a,a,a-Trifluorotoluene	0.0972	0.100	97	66-120	
4-Bromofluorobenzene	0.0981	0.100	98	67-120	

Lab Batch #: 3033699

Sample: 7634625-1-BLK / BLK

Batch: 1 **Matrix:** Water

Units: mg/L	Date Analyzed: 11/17/17 21:04	SURROGATE RECOVERY STUDY			
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
a,a,a-Trifluorotoluene	0.102	0.100	102	66-120	
4-Bromofluorobenzene	0.0999	0.100	100	67-120	

Lab Batch #: 3033699

Sample: 568817-001 S / MS

Batch: 1 **Matrix:** Ground Water

Units: mg/L	Date Analyzed: 11/17/17 23:19	SURROGATE RECOVERY STUDY			
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
a,a,a-Trifluorotoluene	0.0957	0.100	96	66-120	
4-Bromofluorobenzene	0.0984	0.100	98	67-120	

Lab Batch #: 3033699

Sample: 568817-001 SD / MSD

Batch: 1 **Matrix:** Ground Water

Units: mg/L	Date Analyzed: 11/17/17 23:45	SURROGATE RECOVERY STUDY			
BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
a,a,a-Trifluorotoluene	0.0976	0.100	98	66-120	
4-Bromofluorobenzene	0.0983	0.100	98	67-120	

* Surrogate outside of Laboratory QC limits
 ** Surrogates outside limits; data and surrogates confirmed by reanalysis
 *** Poor recoveries due to dilution
 Surrogate Recovery [D] = 100 * A / B
 All results are based on MDL and validated for QC purposes.



BS / BSD Recoveries

Project Name: DCP #2

Work Order #: 568817

Project ID: AR167321

Analyst: MIT

Date Prepared: 11/17/2017

Date Analyzed: 11/17/2017

Lab Batch ID: 3033699

Sample: 7634625-1-BKS

Batch #: 1

Matrix: Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Benzene	<0.000480	0.100	0.0986	99	0.100	0.0998	100	1	74-120	20	
Toluene	<0.000512	0.100	0.0999	100	0.100	0.101	101	1	74-120	20	
Ethylbenzene	<0.000616	0.100	0.101	101	0.100	0.102	102	1	74-120	20	
m,p-Xylenes	<0.000454	0.200	0.204	102	0.200	0.206	103	1	73-120	25	
o-Xylene	<0.000270	0.100	0.101	101	0.100	0.102	102	1	73-120	25	

Relative Percent Difference RPD = $200 * |(C-F)/(C+F)|$

Blank Spike Recovery [D] = $100 * (C)/[B]$

Blank Spike Duplicate Recovery [G] = $100 * (F)/[E]$

All results are based on MDL and Validated for QC Purposes



Form 3 - MS / MSD Recoveries

Project Name: DCP #2

Work Order # : 568817

Project ID: AR167321

Lab Batch ID: 3033699

QC- Sample ID: 568817-001 S

Batch #: 1 **Matrix:** Ground Water

Date Analyzed: 11/17/2017

Date Prepared: 11/17/2017

Analyst: MIT

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.000480	0.100	0.0987	99	0.100	0.0986	99	0	15-147	25	
Toluene	<0.000512	0.100	0.0996	100	0.100	0.0992	99	0	11-147	25	
Ethylbenzene	<0.000616	0.100	0.101	101	0.100	0.100	100	1	10-149	25	
m,p-Xylenes	<0.000454	0.200	0.202	101	0.200	0.201	101	0	62-124	25	
o-Xylene	<0.000270	0.100	0.100	100	0.100	0.100	100	0	62-124	25	

Matrix Spike Percent Recovery $[D] = 100*(C-A)/B$
 Relative Percent Difference $RPD = 200*(C-F)/(C+F)$

Matrix Spike Duplicate Percent Recovery $[G] = 100*(F-A)/E$

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
 N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

568817



CHAIN OF CUSTODY RECORD

Laboratory: Xenco
Address: 6701 Aberdeen
Lubbock, Texas 79424

Office Location
Lubbock

Project Manager
Kris Williams
Sampler's Name
Zach Conder

Phone:
Contact:
PO/SO #: SRS# 2009-039
Sampler's Signature

ANALYSIS REQUESTED

LAB USE ONLY
DUE DATE: 568817

TEMP OF COOLER
WHEN RECEIVED (°C)

Page 1 of 1

Project Number
AR167321
Project Name
DCP #2 (SRS# 2009-039)

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	No. Type of Containers
GW	11/15/2017	15:25	X	X	MW-2			40 ml VOA
GW	11/15/2017	15:55	X	X	MW-3			3
GW	11/15/2017	15:20	X	X	MW-4			3
GW	11/15/2017	15:50	X	X	MW-5			3
GW	11/15/2017	15:00	X	X	MW-6			3
GW	11/15/2017	14:50	X	X	MW-7			3

TURNAROUND TIME
Relinquished by (Signature)
Relinquished by (Signature)
Relinquished by (Signature)

Normal 48-Hour Rush 24-Hour Rush

TRRP Laboratory Review Checklist

Date: 11/17/17
Time: 14:10:16
Received by (Signature): [Signature]
Date: 11/17/17
Time: 10:17
Received by (Signature): [Signature]

Date: []
Time: []
Received by (Signature): []

Date: []
Time: []
Received by (Signature): []

Date: []
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Time: []
Received by (Signature): []

Date: []
Time: []
Received by (Signature): []

NOTES:

e-mail results to:
erin.loyd@terracon.com
kwilliams@terracon.com
zach.conder@terracon.com

Matrix
Container
W - Water
VOA - 40 ml vial
A/G - Amber Glass 1L

S - Soil
250 ml - Glass wide mouth

L - Liquid
A - Air Bag
P/O - Plastic or other

C - Charcoal tube
S1 - Sludge

Lubbock Office ■ 5827 50th Street, Suite 1 ■ Lubbock, Texas 79424 ■ 806-300-0140

Responsive ■ Resourceful ■ Reliable



XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Terracon Lubbock

Date/ Time Received: 11/17/2017 10:12:00 AM

Work Order #: 568817

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : IR-3

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	3.1
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	No
#5 Custody Seals intact on sample bottles?	N/A
#6*Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	Yes

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

PH Device/Lot#:

Checklist completed by: Brenda Ward Date: 11/17/2017
Brenda Ward

Checklist reviewed by: Mike Kimmel Date: 11/21/2017
Mike Kimmel

APPENDIX D

Table 3 – Historical Quarterly Groundwater Elevation and PSH Thickness Data

Table 4 – Historical Groundwater Analytical Summary - BTEX

Table 5 – Historical Groundwater Analytical Summary - PAHs

**TABLE 4
2017 ANNUAL REPORT**

**HISTORICAL QUARTERLY GROUNDWATER ELEVATION AND PSH THICKNESS DATA
DCP PLANT TO LEA STATION 6-INCH #2
LEA COUNTY, NEW MEXICO
PLAINS SRS #: 2009-039
NMOCD REFERENCE #: 1RP-2136
TERRACON PROJECT #: AR187003**

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-1	7/1/2009	3,540.25	63.95	69.31	5.36	3,475.50
	12/10/2009	3,540.25	79.24	83.90	4.66	3,460.31
	3/11/2010	3,540.25	79.28	84.07	4.79	3,460.25
	5/27/2010	3,540.25	79.23	83.88	4.65	3,460.32
	8/26/2010	3,540.25	79.42	83.84	4.43	3,460.18
	10/29/2010	3,540.25	79.68	83.33	3.65	3,460.02
	3/24/2011	3,540.25	79.50	83.87	4.37	3,460.09
	5/26/2011	3,540.25	79.55	83.96	4.41	3,460.04
	8/17/2011	3,540.25	79.60	83.85	4.25	3,460.01
	11/29/2011	3,540.25	79.70	83.65	3.95	3,459.96
	2/3/2012	3,540.25	79.80	83.80	4.00	3,459.85
	5/1/2012	3,540.25	79.72	84.00	4.28	3,459.89
	9/6/2012	3,540.25	79.75	83.90	4.15	3,459.88
	11/9/2012	3,540.25	79.97	83.36	3.39	3,459.77
	2/13/2013	3,540.25	*	*	*	*
	5/8/2013	3,540.25	79.92	83.46	3.54	3,459.80
	8/5/2013	3,540.25	80.01	83.63	3.62	3,459.70
	9/25/2013	3,540.25	80.02	83.62	3.60	3,459.69
	11/13/2013	3,540.25	80.02	83.62	3.60	3,459.69
	2/14/2014	3,540.25	*	*	*	*
	5/8/2014	3,540.25	80.06	83.73	3.67	3,459.64
	8/5/2014	3,540.25	*	*	*	*
	11/7/2014	3,540.25	80.75	81.72	0.97	3,459.35
	2/19/2015	3,540.25	*	*	*	*
	5/7/2015	3,540.25	*	*	*	*
	8/5/2015	3,540.25	*	*	*	*
12/9/2015	3,540.25	*	*	*	*	
2/8/2016	3,540.25	81.10	81.50	0.40	3,459.09	
5/3/2016	3,540.25	80.83	81.10	0.27	3,459.38	
11/1/2016	3,540.25	*	*	*	*	
12/22/2016	3,540.25	*	*	*	*	
MW-2	7/1/2009	3,538.31	-	78.28	-	3,460.03
	12/10/2009	3,538.31	-	78.37	-	3,459.94
	3/11/2010	3,538.31	-	78.36	-	3,459.95
	5/27/2010	3,538.31	-	78.36	-	3,459.95
	8/26/2010	3,538.31	-	78.40	-	3,459.91
	10/29/2010	3,538.31	-	78.45	-	3,459.86
	3/24/2011	3,538.31	-	78.53	-	3,459.78
	5/26/2011	3,538.31	-	78.47	-	3,459.84
	8/17/2011	3,538.31	-	78.70	-	3,459.61

**TABLE 4
2017 ANNUAL REPORT**

**HISTORICAL QUARTERLY GROUNDWATER ELEVATION AND PSH THICKNESS DATA
DCP PLANT TO LEA STATION 6-INCH #2
LEA COUNTY, NEW MEXICO
PLAINS SRS #: 2009-039
NMOCD REFERENCE #: 1RP-2136
TERRACON PROJECT #: AR187003**

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-2	11/29/2011	3,538.31	-	78.70	-	3,459.61
	2/3/2012	3,538.31	-	78.70	-	3,459.61
	5/1/2012	3,538.31	-	78.60	-	3,459.71
	8/29/2012	3,538.31	-	78.68	-	3,459.63
	11/9/2012	3,538.31	-	78.68	-	3,459.63
	2/13/2013	3,538.31	-	78.69	-	3,459.62
	5/8/2013	3,538.31	-	78.71	-	3,459.60
	8/5/2013	3,538.31	-	78.65	-	3,459.66
	9/25/2013	3,538.31	-	78.68	-	3,459.63
	11/13/2013	3,538.31	-	78.68	-	3,459.63
	2/14/2014	3,538.31	-	78.77	-	3,459.54
	5/8/2014	3,538.31	-	78.76	-	3,459.55
	8/5/2014	3,538.31	-	78.95	-	3,459.36
	11/7/2014	3,538.31	-	78.87	-	3,459.44
	2/19/2015	3,538.31	-	78.84	-	3,459.47
	5/7/2015	3,538.31	-	78.90	-	3,459.41
	8/5/2015	3,538.31	-	79.00	-	3,459.31
	12/9/2015	3,538.31	-	78.90	-	3,459.41
	2/10/2016	3,538.31	-	78.85	-	3,459.46
	5/3/2016	3,538.31	-	78.95	-	3,459.36
11/1/2016	3,538.31	-	79.20	-	3,459.11	
12/22/2016	3,538.31	-	79.80	-	3,458.51	
MW-3	7/1/2009	3,539.03	-	79.17	-	3,459.86
	12/10/2009	3,539.03	-	79.24	-	3,459.79
	3/11/2010	3,539.03	-	79.24	-	3,459.79
	5/27/2010	3,539.03	-	79.26	-	3,459.77
	8/26/2010	3,539.03	-	79.35	-	3,459.68
	10/29/2010	3,539.03	-	79.38	-	3,459.65
	3/24/2011	3,539.03	-	79.43	-	3,459.60
	5/26/2011	3,539.03	-	79.41	-	3,459.62
	8/17/2011	3,539.03	-	79.60	-	3,459.43
	11/29/2011	3,539.03	-	79.70	-	3,459.33
	2/3/2012	3,539.03	-	79.58	-	3,459.45
	5/1/2012	3,539.03	-	79.48	-	3,459.55
	8/29/2012	3,539.03	-	79.60	-	3,459.43
	11/9/2012	3,539.03	-	79.69	-	3,459.34
	2/13/2013	3,538.94	-	79.67	-	3,459.27
	5/8/2013	3,538.94	-	79.68	-	3,459.26
	8/5/2013	3,538.94	-	79.56	-	3,459.38
9/25/2013	3,538.94	-	79.64	-	3,459.30	

**TABLE 4
2017 ANNUAL REPORT**

**HISTORICAL QUARTERLY GROUNDWATER ELEVATION AND PSH THICKNESS DATA
DCP PLANT TO LEA STATION 6-INCH #2
LEA COUNTY, NEW MEXICO
PLAINS SRS #: 2009-039
NMOCD REFERENCE #: 1RP-2136
TERRACON PROJECT #: AR187003**

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-3	11/13/2013	3,538.94	-	79.58	-	3,459.36
	2/14/2014	3,538.94	-	79.76	-	3,459.18
	5/8/2014	3,538.94	-	79.74	-	3,459.20
	8/5/2014	3,538.94	-	79.92	-	3,459.02
	11/7/2014	3,538.94	-	79.84	-	3,459.10
	2/19/2015	3,538.94	-	79.80	-	3,459.14
	5/7/2015	3,538.94	-	79.50	-	3,459.44
	8/5/2015	3,538.94	-	79.83	-	3,459.11
	12/9/2015	3,538.94	-	79.83	-	3,459.11
	2/10/2016	3,538.94	-	79.80	-	3,459.14
	5/3/2016	3,538.94	-	79.90	-	3,459.04
11/1/2016	3,538.94	-	79.77	-	3,459.17	
12/22/2016	3,538.94	-	80.02	-	3,458.92	
MW-4	7/1/2009	3,539.66	-	80.07	-	3,459.59
	12/10/2009	3,539.66	-	80.14	-	3,459.52
	3/11/2010	3,539.66	-	80.15	-	3,459.51
	5/27/2010	3,539.66	-	80.17	-	3,459.49
	8/26/2010	3,539.66	-	80.30	-	3,459.36
	10/29/2010	3,539.66	-	80.26	-	3,459.40
	3/24/2011	3,539.66	-	80.36	-	3,459.30
	5/26/2011	3,539.66	-	80.31	-	3,459.35
	8/17/2011	3,539.66	-	80.55	-	3,459.11
	11/29/2011	3,539.66	-	80.55	-	3,459.11
	2/3/2012	3,539.66	-	80.55	-	3,459.11
	5/1/2012	3,539.66	-	80.40	-	3,459.26
	8/29/2012	3,539.66	-	80.55	-	3,459.11
	11/9/2012	3,539.66	-	80.51	-	3,459.15
	2/13/2013	3,539.67	-	80.51	-	3,459.16
	5/8/2013	3,539.67	-	80.51	-	3,459.16
	8/5/2013	3,539.67	-	80.49	-	3,459.18
	9/25/2013	3,539.67	-	80.50	-	3,459.17
	11/13/2013	3,539.67	-	80.50	-	3,459.17
	2/14/2014	3,539.67	-	80.61	-	3,459.06
	5/8/2014	3,539.67	-	80.64	-	3,459.03
	8/5/2014	3,539.67	-	80.81	-	3,458.86
	11/7/2014	3,539.67	-	80.78	-	3,458.89
2/19/2015	3,539.67	-	80.71	-	3,458.96	
5/7/2015	3,539.67	-	82.70	-	3,456.97	
8/5/2015	3,539.67	-	80.86	-	3,458.81	
12/9/2015	3,539.67	-	80.77	-	3,458.90	

**TABLE 4
2016 ANNUAL REPORT**

**HISTORICAL QUARTERLY GROUNDWATER ELEVATION AND PSH THICKNESS DATA
DCP PLANT TO LEA STATION 6-INCH #2
LEA COUNTY, NEW MEXICO
PLAINS SRS #: 2009-039
NMOCD REFERENCE #: 1RP-2136
TERRACON PROJECT #: AR187003**

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-4	2/10/2016	3,539.67	-	80.75	-	3,458.92
	5/3/2016	3,539.67	-	80.80	-	3,458.87
	11/1/2016	3,539.67	-	80.86	-	3,458.81
	12/22/2016	3,539.67	-	80.93	-	3,458.74
MW-5	2/3/2012	3,539.55	-	80.30	-	3,459.25
	5/1/2012	3,539.55	-	80.15	-	3,459.40
	8/29/2012	3,539.55	-	80.79	-	3,458.76
	11/9/2012	3,539.55	-	80.27	-	3,459.28
	2/13/2013	3,539.55	-	80.28	-	3,459.27
	5/8/2013	3,539.55	-	80.28	-	3,459.27
	8/5/2013	3,539.55	-	80.26	-	3,459.29
	9/25/2013	3,539.55	-	80.27	-	3,459.28
	11/13/2013	3,539.55	-	80.29	-	3,459.26
	2/14/2014	3,539.55	-	80.41	-	3,459.14
	5/8/2014	3,539.55	-	80.38	-	3,459.17
	8/5/2014	3,539.55	-	80.60	-	3,458.95
	11/7/2014	3,539.55	-	80.51	-	3,459.04
	2/19/2015	3,539.55	-	80.44	-	3,459.11
	5/7/2015	3,539.55	-	85.00	-	3,454.55
	8/5/2015	3,539.55	-	80.69	-	3,458.86
	12/9/2015	3,539.55	-	80.44	-	3,459.11
2/10/2016	3,539.55	-	80.45	-	3,459.10	
5/3/2016	3,539.55	-	80.57	-	3,458.98	
11/1/2016	3,539.55	-	80.64	-	3,458.91	
12/22/2016	3,539.55	-	80.66	-	3,458.89	
MW-6	9/25/2013	3,539.22	-	80.10	-	3,459.12
	11/13/2013	3,539.22	-	80.10	-	3,459.12
	2/14/2014	3,539.22	-	80.08	-	3,459.14
	5/8/2014	3,539.22	-	80.07	-	3,459.15
	8/5/2014	3,539.22	-	80.26	-	3,458.96
	11/7/2014	3,539.22	-	80.16	-	3,459.06
	2/19/2015	3,539.22	-	80.18	-	3,459.04
	5/7/2015	3,539.22	-	80.40	-	3,458.82
	8/5/2015	3,539.22	-	80.31	-	3,458.91
	12/9/2015	3,539.22	-	80.20	-	3,459.02
	2/10/2016	3,539.22	-	80.20	-	3,459.02
	5/3/2016	3,539.22	-	80.26	-	3,458.96
	11/1/2016	3,539.22	-	80.34	-	3,458.88
12/22/2016	3,539.22	-	80.39	-	3,458.83	

**TABLE 4
2017 ANNUAL REPORT**

**HISTORICAL QUARTERLY GROUNDWATER ELEVATION AND PSH THICKNESS DATA
DCP PLANT TO LEA STATION 6-INCH #2
LEA COUNTY, NEW MEXICO
PLAINS SRS #: 2009-039
NMOCD REFERENCE #: 1RP-2136
TERRACON PROJECT #: AR187003**

WELL NUMBER	DATE MEASURED	CASING WELL ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUNDWATER ELEVATION
MW-7	9/25/2013	3,538.97	-	79.98	-	3,458.99
	11/13/2013	3,538.97	-	79.98	-	3,458.99
	2/14/2014	3,538.97	-	80.03	-	3,458.94
	5/8/2014	3,538.97	-	80.04	-	3,458.93
	8/5/2014	3,538.97	-	80.21	-	3,458.76
	11/7/2014	3,538.97	-	80.13	-	3,458.84
	2/19/2015	3,538.97	-	80.10	-	3,458.87
	5/7/2015	3,538.97	-	80.10	-	3,458.87
	8/5/2015	3,538.97	-	80.26	-	3,458.71
	12/9/2015	3,538.97	-	80.15	-	3,458.82
	2/10/2016	3,538.97	-	80.15	-	3,458.82
	5/3/2016	3,538.97	-	80.22	-	3,458.75
	11/1/2016	3,538.97	-	80.29	-	3,458.68
12/22/2016	3,538.97	-	80.28	-	3,458.69	

Elevations based on the North American Vertical Datum of 1988

- = Not applicable

* Indicates Monitor Well was not gauged due to the presence of a Mobile Dual Phase Extraction (MDPE) unit.

TABLE 5
2017 ANNUAL REPORT

HISTORICAL GROUNDWATER ANALYTICAL SUMMARY - BTEX
DCP PLANT TO LEA STATION 6-INCH #2
LEA COUNTY, NEW MEXICO
PLAINS SRS #: 2009-039
NMOCD REFERENCE #: 1RP-2136
TERRACON PROJECT #: AR187003

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8021b						
		BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL-BENZENE (mg/L)	M,P-XYLENES (mg/L)	O-XYLENES (mg/L)	TOTAL XYLENES (mg/L)	TOTAL BTEX (mg/L)
MW-1	12/10/2009	15.08	12.29	0.79	1.776	0.569	2.345	30.51
MW-2	7/1/2009	<0.005	<0.005	<0.005	<0.01	<0.005	<0.01	<0.01
	12/10/2009	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	3/11/2010	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	5/27/2010	0.0014	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0014
	8/26/2010	0.0022	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0022
	10/29/2010	0.0012	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0012
	3/25/2011	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	5/26/2011	0.0012	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0012
	8/17/2011	0.0026	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0026
	11/29/2011	0.0020	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0020
	2/3/2012	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	5/1/2012	0.0036	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0036
	8/29/2012	0.0024	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0024
	11/9/2012	0.0050	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0050
	2/5/2013	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	5/8/2013	0.0079	0.0027	0.0026	0.0102	0.0065	0.0167	0.0298
	8/5/2013	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	11/13/2013	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	2/14/2014	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	5/8/2014	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	8/5/2014	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	11/7/2014	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	2/19/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	5/7/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	8/5/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	12/9/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
2/10/2016	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<0.00200	
5/3/2016	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	
11/1/2016	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	
12/22/2016	<0.00100	<0.00100	<0.00100	<0.00200	<0.00100	<0.00200	<0.00200	
MW-3	7/1/2009	<0.005	<0.005	<0.005	<0.01	<0.005		<0.01
	12/10/2009	0.0069	0.0027	<0.0010	<0.0020	<0.0010		0.0096
	3/11/2010	0.0028	<0.0020	<0.0010	<0.0020	<0.0010		0.0028
	5/27/2010	0.0152	0.0048	<0.0010	<0.0020	<0.0010		0.0200
	8/26/2010	0.0026	0.0021	0.0012	0.0023	0.0010	0.0033	0.0092
	10/29/2010	0.0263	0.0107	<0.0010	<0.0020	<0.0010		0.0370
	3/25/2011	0.00792	0.00358	<0.0010	<0.0020	<0.0010		0.0115
	5/26/2011	0.00306	<0.0020	<0.0010	<0.0020	<0.0010		0.0031
	8/17/2011	0.00991	0.00253	<0.0010	<0.0020	<0.0010		0.0124
	11/29/2011	0.00296	<0.0020	<0.0010	<0.0020	<0.0010		0.0030
	2/3/2012	0.0099	0.0029	<0.0010	<0.0020	<0.0010		0.0127
	5/1/2012	0.0486	0.0213	0.0011	0.0028	0.0011	0.0038	0.0748
	8/29/2012	0.0164	0.0043	<0.0010	<0.0020	<0.0010		0.0207
	11/9/2012	0.0192	0.0029	<0.0010	<0.0020	<0.0010		0.0221
	2/5/2013	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	5/8/2013	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	8/5/2013	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	11/13/2013	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	2/14/2014	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	5/8/2014	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	8/5/2014	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	11/7/2014	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	2/23/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	5/7/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	8/5/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	12/9/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
2/10/2016	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<0.00200	
5/3/2016	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	
11/1/2016	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	
12/22/2016	<0.00100	<0.00100	<0.00100	<0.00200	<0.00100	<0.00200	<0.00200	

TABLE 5
2017 ANNUAL REPORT

HISTORICAL GROUNDWATER ANALYTICAL SUMMARY - BTEX
DCP PLANT TO LEA STATION 6-INCH #2
LEA COUNTY, NEW MEXICO
PLAINS SRS #: 2009-039
NMOCD REFERENCE #: 1RP-2136
TERRACON PROJECT #: AR187003

MW-4	7/1/2009	<0.005	<0.005	<0.005	<0.01	<0.005		<0.01
	12/10/2009	0.0015	<0.0020	<0.0010	<0.0020	<0.0010		0.0015
	3/11/2010	0.0047	0.0023	<0.0010	<0.0020	<0.0010		0.0070
	5/27/2010	0.0073	0.0031	<0.0010	<0.0020	<0.0010		0.0104
	8/26/2010	0.0017	<0.0020	<0.0010	<0.0020	<0.0010		0.0017
	10/29/2010	0.0525	0.0189	<0.0010	<0.0020	<0.0010		0.0714
	3/25/2011	0.0186	0.00802	<0.0010	<0.0020	<0.0010		0.0266
	5/26/2011	0.00885	0.00398	<0.0010	<0.0020	<0.0010		0.0128
	8/17/2011	0.0281	0.0121	<0.0010	<0.0020	<0.0010		0.0402
	11/29/2011	0.0112	0.00589	<0.0010	<0.0020	<0.0010		0.0171
	2/5/2013	0.0181	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0181
	5/8/2013	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	8/5/2013	0.0033	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0331
	11/13/2013	0.0014	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0014
	2/14/2014	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	5/8/2014	0.0036	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0036
	8/5/2014	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	11/7/2014	0.0011	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0011
	2/23/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	5/7/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
8/5/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	
12/9/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	
2/10/2016	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<0.00200	
5/3/2016	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	
11/1/2016	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	
12/22/2016	<0.00100	<0.00100	<0.00100	<0.00200	<0.00100	<0.00200	<0.00200	
MW-5	3/25/2011	0.122	0.0676	<0.0050	<0.0020	<0.0050	<0.0020	0.1896
	5/26/2011	0.216	0.0933	0.0012	0.0957	0.0065	0.1022	0.327
	8/17/2011	0.276	0.0697	0.0052	0.0105	0.0045	0.0150	0.366
	11/29/2011	0.245	0.0742	0.0101	0.0132	0.0043	0.0175	0.347
	2/3/2012	0.513	0.0978	<0.0010	<0.0020	<0.0010	<0.0020	0.611
	5/1/2012	2.38	<0.250	<0.500	<0.250	<0.250	<0.250	2.38
	8/29/2012	3.39	0.0932	0.0386	0.0278	0.0165	0.0443	3.57
	11/9/2012	3.58	0.209	<0.0250	<0.0500	<0.0250	0.0000	3.79
	2/5/2013	2.35	<0.0400	0.0302	<0.0400	<0.0200	<0.0400	2.38
	5/8/2013	6.50	0.242	0.132	0.138	<0.0500	0.1380	7.01
	8/5/2013	0.011	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.011
	11/13/2013	1.38	<0.0020	0.0242	<0.0020	<0.0010	<0.0020	1.40
	2/14/2014	2.64	<0.0200	0.0337	<0.0200	<0.0100	<0.0200	<0.0200
	5/8/2014	0.8950	0.0262	0.0090	0.0172	0.0063	0.0235	0.9540
	8/5/2014	3.41	0.0902	0.0708	0.0508	<0.0020	0.0508	3.62
	11/19/2014	5.11	0.3910	0.2390	0.1190	0.0678	0.1870	5.93
	2/23/2015	3.64	0.4580	0.1350	0.0662	0.0376	0.1040	4.34
	5/7/2015	7.54	1.44	0.2470	0.3100	0.1700	0.4800	9.71
	8/5/2015	0.253	0.0679	0.0098	0.0085	0.0053	0.0138	0.344
	12/9/2015	19.6	9.33	1.01	1.17	0.6030	1.77	31.7
2/10/2016	8.04	1.79	0.276	0.289	1.81	0.470	10.6	
5/3/2016	2.42	0.631	0.102	0.120	0.0628	0.183	3.34	
11/1/2016	7.42	2.09	0.393	0.546	0.271	0.817	10.7	
12/22/2016	4.89	1.95	0.280	0.290	0.170	0.460	7.58	

**TABLE 5
2017 ANNUAL REPORT**

**HISTORICAL GROUNDWATER ANALYTICAL SUMMARY - BTEX
DCP PLANT TO LEA STATION 6-INCH #2
LEA COUNTY, NEW MEXICO
PLAINS SRS #: 2009-039
NMOCD REFERENCE #: 1RP-2136
TERRACON PROJECT #: AR187003**

MW-6	9/25/2013	<0.0050	<0.0050	<0.0050	<0.0100	<0.0050	<0.0100	<0.0100
	11/13/2013	0.0047	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0047
	2/14/2014	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	5/8/2014	0.0013	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0013
	8/5/2014	0.0019	0.0064	<0.0010	<0.0020	<0.0010	<0.0020	0.0083
	11/7/2014	0.0042	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	0.0042
	2/19/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	5/7/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	8/5/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	12/9/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	2/10/2016	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<0.00200
	5/3/2016	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	11/1/2016	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	12/22/2016	<0.000480	<0.000512	<0.000616	<0.000454	<0.000270	<0.000454	<0.000512
MW-7	9/25/2013	<0.0050	<0.0050	<0.0050	<0.0100	<0.0050	<0.0100	<0.0100
	11/13/2013	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	2/14/2014	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	5/8/2014	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	8/5/2014	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	11/7/2014	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	2/23/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	5/7/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	8/5/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	12/9/2015	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	2/10/2016	<0.00100	<0.00200	<0.00100	<0.00200	<0.00100	<0.00200	<0.00200
	5/3/2016	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	11/1/2016	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	12/22/2016	<0.000480	<0.000512	<0.000616	<0.000454	<0.000270	<0.000454	<0.000512
NMOCD CRITERIA		0.01	0.75	0.75	TOTAL XYLENES 0.62			

TABLE 6
2017 ANNUAL REPORT

HISTORICAL GROUNDWATER ANALYTICAL SUMMARY - POLYNUCLEAR AROMATIC HYDROCARBONS (PAHs)¹
DCP PLANT TO LEA STATION 6-INCH #2
PLAINS SRS #: 2009-039
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1RP-2136
TERRACON PROJECT #: AR187003

All water concentrations are reported in mg/L

SAMPLE LOCATION	SAMPLE DATE	EPA SW846-8270C, 3510																	
		Acenaphthene	Acenaphthylene	Anthracene	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[g,h,i]perylene	Benzo[k]fluoranthene	Chrysene	Dibenz[a,h]anthracene	Fluoranthene	Fluorene	Indeno[1,2,3-cd]pyrene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene	Phenanthrene	Pyrene
MW-1	12/10/2009	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
MW-2	7/1/2009	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW-3	7/1/2009	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW-3	12/16/2011	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW-3	11/9/2012	<0.00035	<0.00033	<0.00016	<0.00024	<0.00019	<0.00036	<0.00028	<0.00049	<0.00022	<0.00019	<0.00024	<0.00030	<0.00032	<0.00031	<0.00048	<0.00031	<0.00027	<0.00027
MW-4	7/1/2009	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW-4	12/16/2011	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW-4	11/9/2012	<0.00037	<0.00034	<0.00016	<0.00025	<0.00020	<0.00038	<0.00029	<0.00051	<0.00023	<0.00020	<0.00025	<0.00031	<0.00034	<0.00032	<0.00049	<0.00032	<0.00028	<0.00028
MW-5	3/25/2011	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
MW-5	11/9/2012	<0.00037	<0.00034	<0.00016	<0.00025	<0.00020	<0.00038	<0.00029	<0.00051	<0.00023	<0.00020	<0.00025	<0.00031	<0.00034	<0.00032	<0.00049	<0.00032	<0.00028	<0.00028
MW-5	12/23/2013	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049	<0.000049	0.00054	<0.000049	<0.000049
MW-5	5/8/2014	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
MW-6	5/8/2014	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
MW-7	5/8/2014	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Maximum Contaminant Levels for NM WQCC Drinking Water Standards Sections 1-101.UU and 3-103A.		NA	NA	0.001	0.0001	0.0007	0.001	NA	0.001	0.0002	0.0003	0.001	0.001	0.0004	0.03		0.001	0.001	

PAH¹=Polynuclear aromatic hydrocarbon concentrations analyzed in accordance with EPA SW846-8270C and 3510

APPENDIX E

CD of the 2017 Annual Groundwater Monitoring Report