

First Half 2015 Semi-Annual Groundwater Monitoring Summary Report

Former Lee Gas Plant
Lea County, New Mexico
GW-002

Prepared for:



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-	ALS Environmental Job #: HS15060325

1. Introduction

This report summarizes groundwater monitoring and remediation activities conducted during the first half 2015 at the Former Lee Gas Plant (Site) in Lea County, New Mexico (Figure 1). Tasman Geosciences, LLC (Tasman) performed these activities on behalf of DCP Midstream, LP (DCP). The field activities described herein were conducted with the purpose of monitoring groundwater flow and quality conditions and assessing the presence of light non-aqueous phase liquid (LNAPL) hydrocarbons in the Site subsurface. Current Site conditions were evaluated from field data and analytical laboratory results collected on June 4, 2015. The data collected were used to develop the groundwater elevation map and analytical results figure presented herein.

2. Site Location and Background

The Site is located in the southwest quarter of the southeast quarter of Section 30, Township 17 South, Range 35 East, approximately 0.45 miles southeast of the intersection of US Highway 238 and County Road 50. The approximate field coordinates are 32.800 degrees north and -103.495 degrees west. The area is sparsely populated and land use is primarily associated with livestock grazing and oil and gas production and gathering.

Based on review of historical reports from previous Site investigations, the Site was historically used as a gas processing and compression plant. In 1988, Phillips 66 Natural Gas Company was ordered to install four monitoring wells (MW-1 through MW-4) in accordance with the Resource Conservation and Recovery Act (RCRA). An initial groundwater sampling event took place May 13, 1988, and identified impacts in the location of two former evaporation ponds north and east of the main plant. LNAPL was identified immediately above the water table at an approximate depth of 106 feet below ground surface (bgs). Several additional subsurface investigations were performed to determine the extent of both the free and dissolved phase hydrocarbon plumes, resulting in the installation of monitoring and recovery wells as described below:

- MW-5 through MW-8 and RW-1: Installed May 1990 – LNAPL recovery initiated at RW-1.
- MW-9 through MW-12: Installed October 1990.
- MW-13 and MW-14: Installed March 1991 – MW-7, MW-8, and MW-10 were converted into recovery wells.
- MW-15 through MW-20: Installed February 1992.

Subsequent to installation of the final six wells, quarterly groundwater sampling commenced. In addition, a soil vapor extraction (SVE) and air sparge (AS) system operated between 1993 and 2004. Currently, Site groundwater monitoring wells are sampled on a semi-annual basis.

3. Groundwater Monitoring

This section describes the groundwater field and laboratory activities performed during the first half 2015 monitoring event on June 4, 2015. Monitoring activities included Site-wide groundwater gauging, LNAPL measurements, and groundwater sampling. Figure 2 illustrates the groundwater monitoring network utilized to perform these activities at the Site.

3.1 Groundwater and LNAPL Elevation Monitoring

Groundwater and LNAPL levels were measured in order to evaluate hydraulic characteristics and provide information regarding seasonal and annual fluctuations in groundwater elevations at the Site. During the first half 2015, groundwater levels were measured at 23 monitoring well locations. LNAPL was detected in the following three locations, with the measured thickness indicated in parenthesis:

- MW-5 (0.02 feet)
- MW-6 (0.20 feet)
- MW-15 (0.80 feet)

Groundwater and LNAPL levels were measured on the north side of the well casing to the nearest 0.01-foot using an oil-water interface probe (IP). Groundwater level data were later converted to elevation (feet above mean sea level [AMSL]). Measured groundwater levels, calculated groundwater elevations, and LNAPL level data are presented in Table 1.

A first half 2015 groundwater elevation map, included as Figure 3, indicates that groundwater flow at the Site trends to the south-southwest. Groundwater elevations ranges, average elevation changes from previous monitoring events, and calculated hydraulic gradients (using elevations from MW-3 and MW-20 at the Site are summarized in the table below.

Summary of Measured Hydraulic Parameters

	First Half 2015 (6/4/15)
Maximum Elevation (Well ID)	3872.74 (MW-3)
Minimum Elevation (Well ID)	3869.32 (MW-20)
Average Change from Previous Monitoring Event (ft) – All Wells	-0.16
Hydraulic Gradient (ft/ft) / (Well IDs)	0.0030 (MW-3 to MW-20)

3.2 Groundwater Quality Monitoring

Subsequent to recording groundwater level measurements, groundwater samples were collected from fourteen of the twenty-three wells. A minimum of three well casing volumes of groundwater were purged from each monitoring well prior to collection of groundwater samples. Groundwater samples were collected using dedicated polyethylene bailers, placed in clean laboratory-supplied containers for the selected analytical methods, packed in an ice-filled cooler, and maintained at approximately four degrees Celsius (⁰C) for transportation to the laboratory. Groundwater samples were shipped under chain-of-custody procedures to ALS Environmental (ALS) laboratory in Houston, Texas, for analysis.

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

Monitoring wells with detected LNAPL (MW-5, MW-6, and MW-15) were not sampled. Wells MW-1, MW-2, MW-3, and MW-4 have been removed from the groundwater monitoring program due to a lack of groundwater at these locations. In addition, well MW-23 did not contain sufficient water to obtain a representative sample.

Table 2 summarizes BTEX concentrations in groundwater samples collected during the reporting period. Historic analytical results up to and including the June 2015 event are contained in Appendix A, and the laboratory analytical report for the first half 2015 event is included in Appendix B. Analytical results from the June 2015 monitoring event are also displayed on Figure 4.

Benzene was detected at concentrations in excess of the New Mexico Water Quality Control Commission (NMWQCC) groundwater standard of 0.01 milligrams per liter (mg/L) at the following five locations, and the concentrations listed:

- o MW-7: 0.23 mg/L
- o MW-9: 0.77 mg/L (0.88 mg/L Duplicate)
- o MW-10: 24 mg/L
- o MW-12: 1.3 mg/L
- o MW-21: 3.0 mg/L

Other BTEX constituents were not detected at concentrations above their respective NMWQCC standard.

3.3 Data Quality Assurance / Quality Control

Data quality assurance / quality control (QA/QC) procedures included the collection and analysis of QA/QC samples, as well as a review of laboratory analytical data for QA/QC compliance. Specifically, the following QA/QC procedures were conducted: a trip blank was collected and submitted for analysis; a field duplicate sample from well MW-9 was collected and submitted for analysis; and laboratory data were reviewed for compliance with the analytical method(s) and the associated QA/QC procedures.

An evaluation of the QA/QC procedures conducted during the first half 2015 groundwater monitoring event indicated the following:

- Target analytes were not detected in the trip blank;
- The duplicate sample collected at MW-9 was in compliance with QA/QC standards. The duplicate sample exhibited benzene concentrations yielding an RPD of 13.3, which is within acceptable control limits;
- Submitted samples were analyzed using the correct analytical methods and within the correct holding times;
- Chain of custody forms were in order and properly executed, and indicate that samples were received at the proper temperature with no headspace; and
- Data were reported using the correct method number and reporting units.

The overall QA/QC assessment of the first half 2015 data indicates that both field precision and overall data precision and accuracy are acceptable, with the exceptions noted above.

4. Remediation Activities

Measureable free phase hydrocarbons were detected during the reporting period in monitoring wells MW-5, MW-6, and MW-15 as summarized in Tables 1 & 2. LNAPL recovery at MW-15 was initiated on September 14, 2013 (second half 2013) using a Magnum Spill Buster. Details regarding Spill Buster implementation were described in the Second Half 2013 Report.

The Spill Buster at MW-15 has operated continuously with minimal downtime due to pump cleaning and operational checks.

During the reporting period between December 18, 2014 and June 3, 2015, the Spill Buster removed approximately 28 gallons of LNAPL with an average extraction rate of 0.17 gallons per day (gpd). Since LNAPL recovery was initiated at MW-15, the Spill Buster system has removed a total of approximately 351 gallons of LNAPL. The extracted LNAPL material is subsequently disposed of at the Eunice, New Mexico disposal facility. A summary of LNAPL extraction is provided in the LNAPL Recovery Tank Inspection Log below.

LNAPL Recovery Tank Inspection Log

Date	Total Tank Depth (feet)	Depth to Product (feet)	Depth to Water (feet)	Volume of Product (gallons)	Volume of Water (gallons)	Cumulative Volume of Water & Product (Gallons)	Pump Rate (gallons per day)
Lee Booster Station - MW-15 Well (Spill Buster Installed 9/14/13)							
15-Sep-13	2.05	1.72	--	16.90	--	16.90	16.90
16-Sep-13	2.05	1.65	--	20.48	--	20.48	3.58
20-Sep-13	2.05	1.34	--	36.35	--	36.35	3.97
25-Sep-13	2.05	1.12	--	47.62	--	47.62	2.25
4-Oct-13	2.05	0.90	--	58.88	--	58.88	1.13
10-Oct-13	2.05	0.70	--	69.12	--	69.12	1.71
17-Oct-13	2.05	0.44	--	82.43	--	82.43	1.90
25-Oct-13	2.05	0.35	--	87.04	--	87.04	0.58
Tank emptied on 10/31/13							
13-Nov-13	2.05	1.84	--	10.75	--	97.79	0.83
22-Nov-13	2.05	1.50	--	28.16	--	115.20	1.93
4-Dec-13	2.05	1.22	--	42.50	--	129.54	1.19
18-Dec-13	2.05	1.00	--	53.76	--	140.80	0.94
6-Jan-14	2.05	0.63	--	72.70	--	159.74	0.92
23-Jan-14	2.05	0.34	--	87.55	--	174.59	0.87
27-Jan-14	2.05	0.32	--	88.58	--	175.62	0.26
Tank emptied on 1/27/14							
10-Feb-14	2.05	1.72	--	16.90	--	192.51	1.21
25-Apr-14	2.05	0.76	--	66.05	--	241.66	0.66
27-May-14	2.05	0.49	--	79.87	--	255.49	0.43
2-Jun-14	2.05	0.44	--	82.43	--	258.05	0.43
Tank emptied on 6/2/14							
24-Jun-14	2.05	1.95	--	5.12	--	263.17	0.23
15-Aug-14	2.05	1.50	--	28.16	--	286.21	0.44
25-Sep-14	2.05	1.30	--	38.40	--	296.45	0.25
16-Oct-14	2.05	1.10	--	48.64	--	306.69	0.49
18-Dec-14	2.05	0.79	--	64.51	--	322.56	0.25
12-Mar-15	2.05	0.44	--	82.43	--	340.48	0.21
Tank emptied on 3/12/15							
5-May-15	2.05	1.92	--	6.66	--	347.14	0.12
3-Jun-15	2.05	1.85	--	10.24	--	350.72	0.12

NOTE: One foot equals 51.22 gallons/ One tenth of a foot equals 5.12 gallons

5. Conclusions

As observed during the first half 2015, measurable thicknesses of LNAPL continue to be observed in three Site monitoring wells. In addition, elevated benzene concentrations persist in five locations across the Site based on the June 2015 groundwater analytical results.

Comparison of the first half 2015 monitoring data with historic information provides the following general observations:

- Based on historic groundwater elevations, the potentiometric surface has remained relatively stable with minor seasonal fluctuations.
- Spill Buster operation at MW-15 continues to facilitate LNAPL extraction.

6. Recommendations

Based on evaluation of first half 2015 and historic Site observations and monitoring results, the following recommendations have been developed for future activities:

- Continue semi-annual groundwater sampling to monitor dissolved and free phase petroleum hydrocarbons and assess the effectiveness of remedial strategies. Samples will be collected from locations illustrated on Figure 2 and which have historically been included in the sampling plan.
- Continue operation of the Spill Buster LNAPL recovery system at MW-15 to address free phase petroleum thicknesses in the northern area of the Site.

Tables

TABLE 1
FIRST HALF 2015 SEMI-ANNUAL
SUMMARY OF GROUNDWATER ELEVATION DATA
FORMER LEE GAS PLANT
LEA COUNTY, NEW MEXICO

Location	Date	Depth to Groundwater (feet)	Depth to Product (feet)	Free Phase Hydrocarbon Thickness (feet)	Total Depth (feet)	TOC Elevation (feet amsl)	Groundwater Elevation (*) (feet amsl)	Change in Groundwater Elevation Since Previous Event (1) (feet)
MW-1	06/04/14	Dry			103.10	3979.21 ⁽²⁾	NA	NA
MW-1	12/04/14	Dry			100.90	3979.21 ⁽²⁾	NA	NA
MW-1	06/04/15	Dry			100.85	3979.21 ⁽²⁾	NA	NA
MW-2	06/04/14	Dry			109.96	3980.49 ⁽²⁾	NA	NA
MW-2	12/04/14	Dry			106.80	3980.49 ⁽²⁾	NA	NA
MW-2	06/04/15	Dry			106.76	3980.49 ⁽²⁾	NA	NA
MW-3	06/04/14	107.73			NM	3980.27	3872.54	0.00
MW-3	12/04/14	107.67			NM	3980.27	3872.60	0.06
MW-3	06/04/15	107.53			108.84	3980.27	3872.74	0.14
MW-4	12/04/14	Dry			103.69	NM	NA	NA
MW-4	06/04/15	Dry			NM	NM	NA	NA
MW-5	06/04/14	108.34	107.83	0.51	NM	3979.82	3871.86	-0.10
MW-5	12/04/14	108.12	107.59	0.53	NM	3979.82	3872.10	0.24
MW-5	06/04/15	107.55	107.53	0.02	NM	3979.82	3872.29	0.19
MW-6	06/04/14	109.76	109.57	0.19	NM	3981.79	3872.17	-0.14
MW-6	12/04/14	109.57	109.35	0.22	NM	3981.79	3872.39	0.21
MW-6	06/04/15	109.51	109.31	0.20	NM	3981.79	3872.43	0.05
MW-7	06/04/14	107.99			NM	3978.45	3870.46	-0.13
MW-7	12/04/14	107.50			NM	3978.45	3870.95	0.49
MW-7	06/04/15	107.73			111.67	3978.45	3870.72	-0.23
MW-8	06/04/14	110.38	109.01	1.37	NM	3979.96	3870.61	-0.19
MW-8	12/04/14	110.82	108.53	2.29	NM	3979.96	3870.86	0.25
MW-8	06/04/15	Dry			109.90	3979.96	NA	NA
MW-9	06/04/14	109.56			NM	3980.17	3870.61	-0.06
MW-9	12/05/14	109.03			NM	3980.17	3871.14	0.53
MW-9	06/04/15	109.27			115.75	3980.17	3870.90	-0.24
MW-10	06/04/14	109.28			NM	3979.66	3870.38	-1.03
MW-10	12/05/14	108.76			117.41	3979.66	3870.90	0.52
MW-10	06/04/15	109.01			117.66	3979.66	3870.65	-0.25

TABLE 1
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LEA COUNTY, NEW MEXICO

Location	Date	Depth to Groundwater (feet)	Depth to Product (feet)	Free Phase Hydrocarbon Thickness (feet)	Total Depth (feet)	TOC Elevation (feet amsl)	Groundwater Elevation (*) (feet amsl)	Change in Groundwater Elevation Since Previous Event (1) (feet)
MW-11	06/04/14	108.47			NM	3978.50	3870.03	-0.12
MW-11	12/04/14	107.96			NM	3978.50	3870.54	0.51
MW-11	06/04/15	108.22			118.03	3978.50	3870.28	-0.26
MW-12	06/04/14	108.91			NM	3978.82	3869.91	-0.05
MW-12	12/05/14	108.37			117.27	3978.82	3870.45	0.54
MW-12	06/04/15	108.64			117.40	3978.82	3870.18	-0.27
MW-13	06/04/14	110.74			NM	3980.52	3869.78	-0.16
MW-13	12/04/14	110.22			NM	3980.52	3870.30	0.52
MW-13	06/04/15	110.45			117.26	3980.52	3870.07	-0.23
MW-14	06/04/14	112.09			NM	3982.23	3870.14	-0.18
MW-14	12/05/14	111.57			NM	3982.23	3870.66	0.52
MW-14	06/04/15	111.78			118.56	3982.23	3870.45	-0.21
MW-15	06/04/14	109.91	109.43	0.48	NM	3981.70	3872.15	-0.12
MW-15	12/05/14	109.41	109.37	0.04	NM	3981.70	3872.32	0.17
MW-15	06/03/15	109.85	109.05	0.80	NM	3981.70	3872.45	0.13
MW-16	06/04/14	108.10			NM	3980.80	3872.70	-0.13
MW-16	12/04/14	107.63			NM	3980.80	3873.17	0.47
MW-16	06/04/15	108.78			122.70	3980.80	3872.02	-1.15
MW-17	06/04/14	110.49			NM	3981.80	3871.31	-0.12
MW-17	12/04/14	110.02			NM	3981.80	3871.78	0.47
MW-17	06/04/15	110.11			124.11	3981.80	3871.69	-0.09
MW-18	06/04/14	111.81			NM	3983.10	3871.29	-0.09
MW-18	12/04/14	111.32			NM	3983.10	3871.78	0.49
MW-18	06/03/15	111.40			125.51	3983.10	3871.70	-0.08
MW-19	06/04/14	111.72			NM	3980.80	3869.08	-0.08
MW-19	12/04/14	111.26			NM	3980.80	3869.54	0.46
MW-19	06/04/15	111.43			126.60	3980.80	3869.37	-0.17
MW-20	06/04/14	114.32			NM	3983.30	3868.98	-0.02
MW-20	12/04/14	113.89			NM	3983.30	3869.41	0.43
MW-20	06/03/15	113.98			128.22	3983.30	3869.32	-0.09

TABLE 1
FIRST HALF 2015 SEMI-ANNUAL
SUMMARY OF GROUNDWATER ELEVATION DATA
FORMER LEE GAS PLANT
LEA COUNTY, NEW MEXICO

Location	Date	Depth to Groundwater (feet)	Depth to Product (feet)	Free Phase Hydrocarbon Thickness (feet)	Total Depth (feet)	TOC Elevation (feet amsl)	Groundwater Elevation (*) (feet amsl)	Change in Groundwater Elevation Since Previous Event (1) (feet)
MW-21	06/04/14	110.63			NM	3981.5 ⁽²⁾	3870.87	NA
MW-21	12/05/14	110.13			NM	3981.5 ⁽²⁾	3871.37	0.50
MW-21	06/04/15	109.95			123.54	3981.5 ⁽²⁾	3871.55	0.18
MW-22	06/04/14	110.30			NM	3981.15 ⁽²⁾	3870.85	NA
MW-22	12/04/14	109.82			NM	3981.15 ⁽²⁾	3871.33	0.48
MW-22	06/04/15	110.08			148.34	3981.15 ⁽²⁾	3871.07	-0.26
MW-23	06/04/14	Dry			NM	3980.54 ⁽²⁾	NA	NA
MW-23	12/05/14	Dry			102.00	3980.54 ⁽²⁾	NA	NA
MW-23	06/04/15	Dry			101.17	3980.54 ⁽²⁾	NA	NA
Average change in groundwater elevation (12/4/14 to 6/3/15)								-0.16

Notes:

1- Changes in groundwater elevation calculated by subtracting the measurement collected during the previous monitoring event from the measurement collected during the most recent monitoring event.

2- TOC elevations for MW-1, MW-2, MW-21, MW-22, and MW-23 were calculated relative to the historic MW-7 TOC elevation based on a transit survey conducted on 6/4/14.

amsl = feet above mean sea level

TOC = top of casing

Groundwater elevation = (TOC Elevation - Measured Depth to Water)

* Groundwater elevation was corrected for product thickness using the following calculation, when applicable:

Groundwater elevation = (TOC Elevation - Measured Depth to Water) + (LNAPL Thickness in Well * LNAPL Relative Density)

LNAPL relative density is assumed to be approximately 0.75

NM = Not Measured

NA = Not Applicable

TABLE 2
FIRST HALF 2015 SEMI-ANNUAL
SUMMARY OF BTEX CONCENTRATIONS IN GROUNDWATER
FORMER LEE GAS PLANT
LEA COUNTY, NEW MEXICO

Location Identification	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Total Xylenes (mg/l)	Comments
NMWQCC Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	
MW-1	Removed from sampling plan					
MW-2	Removed from sampling plan					
MW-3	Removed from sampling plan					
MW-4	Removed from sampling plan					
MW-5	06/04/15	LNAPL				
MW-6	06/04/15	LNAPL				
MW-7	06/04/15	0.23	<0.001	0.0023	<0.003	
MW-8	06/04/15	Dry				
MW-9	06/04/15	0.77	<0.001	0.041	0.0059	Duplicate sample collected
MW-9 (Duplicate)	06/04/15	0.88	<0.001	0.048	0.0081	
MW-10	06/04/15	24	<0.01	0.37	<0.003	
MW-11	06/04/15	<0.001	<0.001	<0.001	<0.003	
MW-12	06/04/15	1.3	<0.005	<0.005	<0.015	
MW-13	06/04/15	<0.001	<0.001	<0.001	<0.003	
MW-14	06/04/15	<0.001	<0.001	<0.001	<0.003	
MW-15	06/04/15	LNAPL				
MW-16	06/04/15	<0.001	<0.001	<0.001	<0.003	
MW-17	06/04/15	<0.001	<0.001	<0.001	<0.003	
MW-18	06/04/15	<0.001	<0.001	<0.001	<0.003	
MW-19	06/04/15	<0.001	<0.001	<0.001	<0.003	
MW-20	06/04/15	<0.001	<0.001	<0.001	<0.003	
MW-21	06/04/15	3.0	<0.001	0.20	0.043	
MW-22	06/04/15	<0.001	<0.001	<0.001	<0.003	
MW-23	06/04/15	Dry				
Trip Blank	06/04/15	<0.001	<0.001	<0.001	<0.003	

Notes:

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

NMWQCC = New Mexico Water Quality Control Commission

LNAPL = light non-aqueous phase liquid

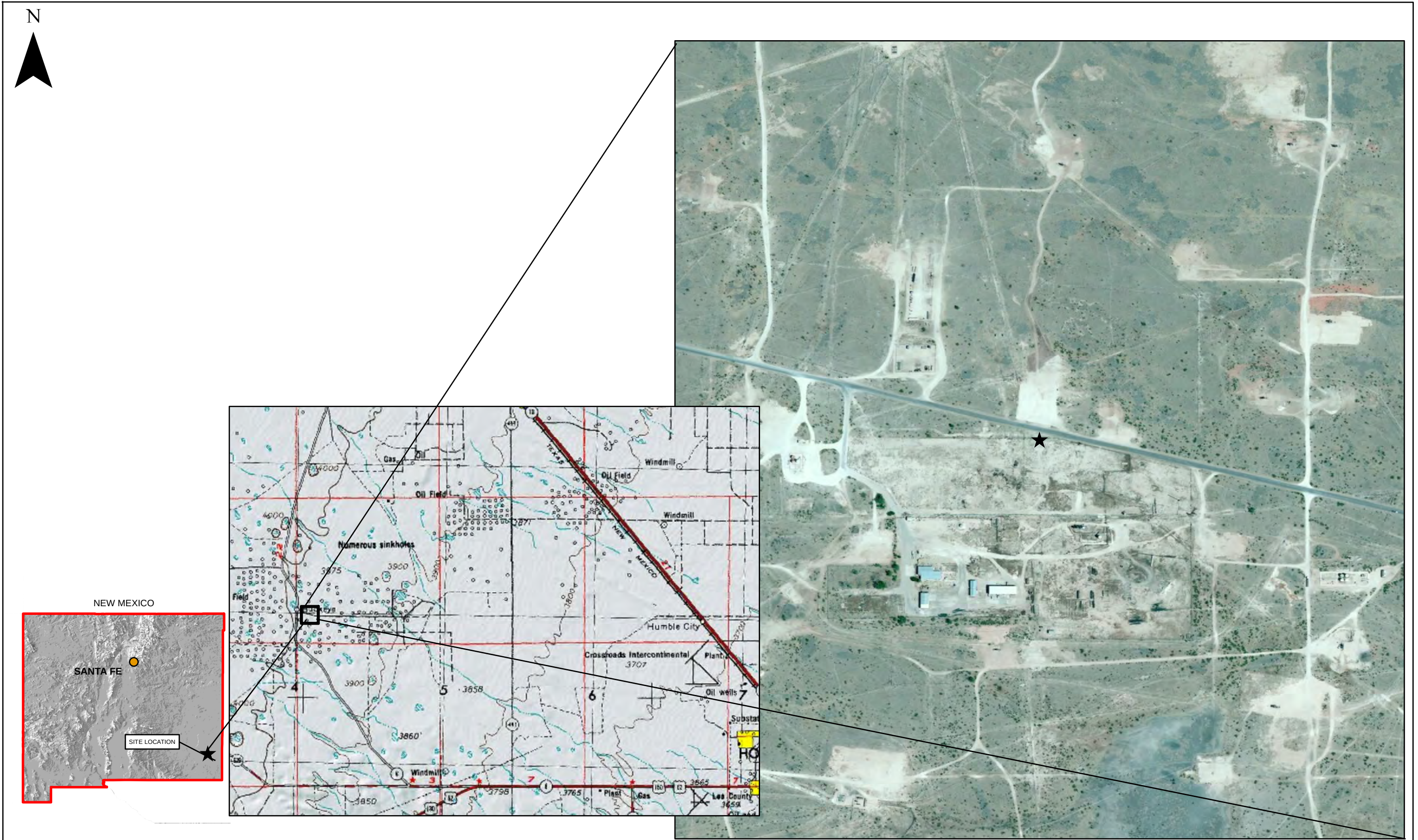
J = Estimated Value

NS = Not Sampled

NA = Not Analyzed

mg/L = milligrams per liter

Figures



DATE:	June 2015
DESIGNED BY:	T. Johansen
DRAWN BY:	D. Arnold

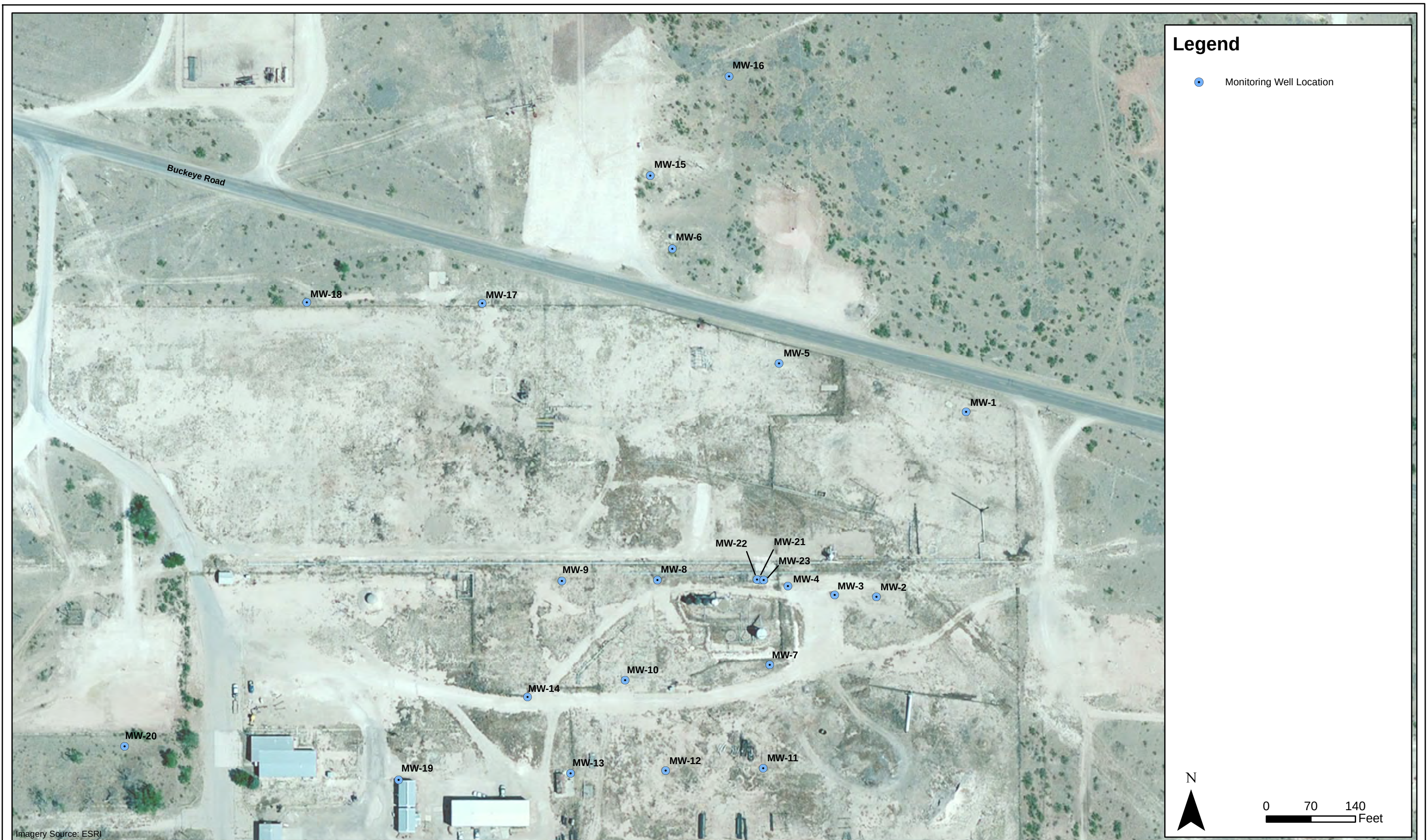


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DCP Midstream
Former Lee Gas Plant
SW 1/4, SE 1/4, Section 30, Township 17 South, Range 35 East
Lea County, New Mexico

Site Location
Map

Figure
1



DATE:	June 2015
DESIGNED BY:	T. Johansen
DRAWN BY:	D. Arnold

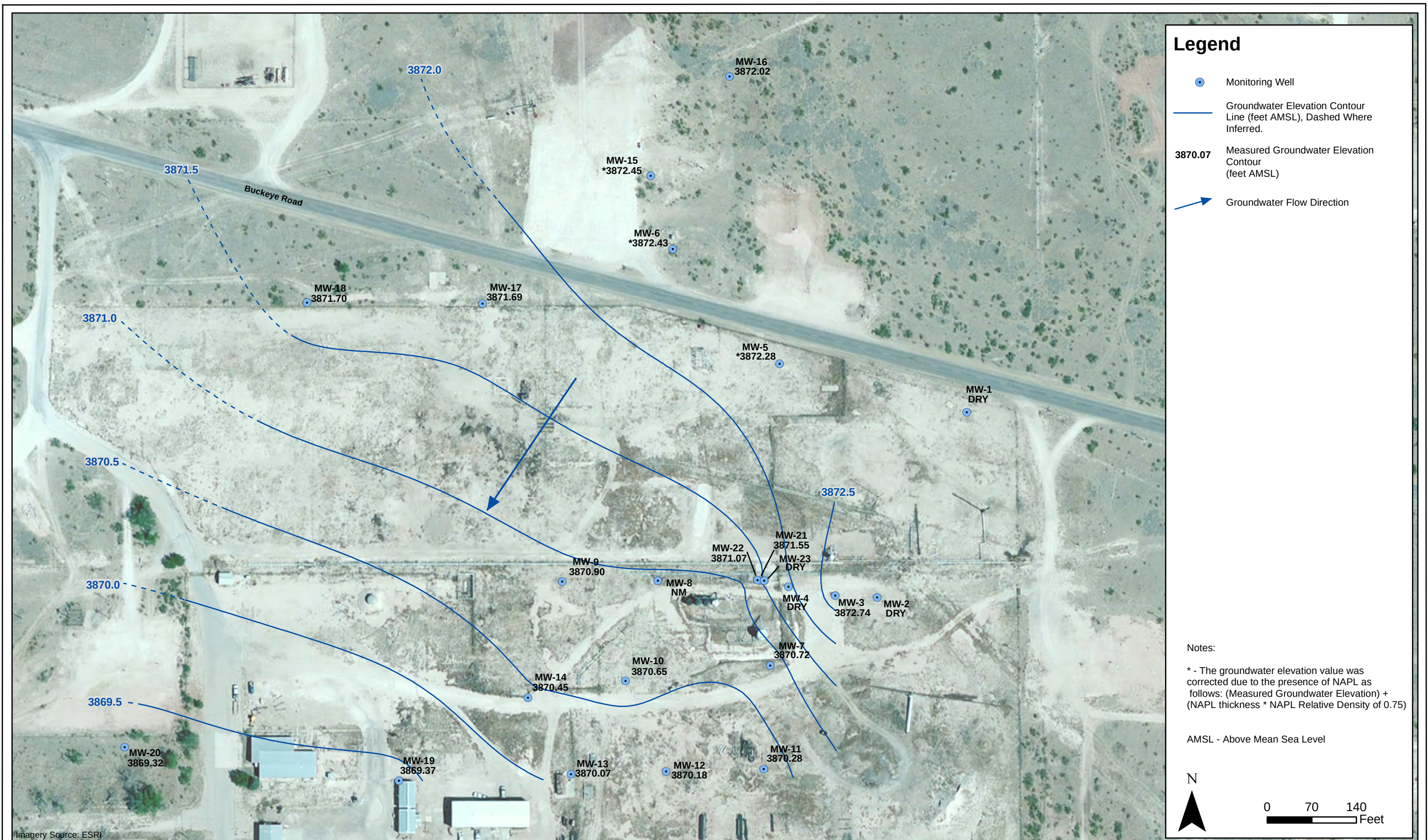


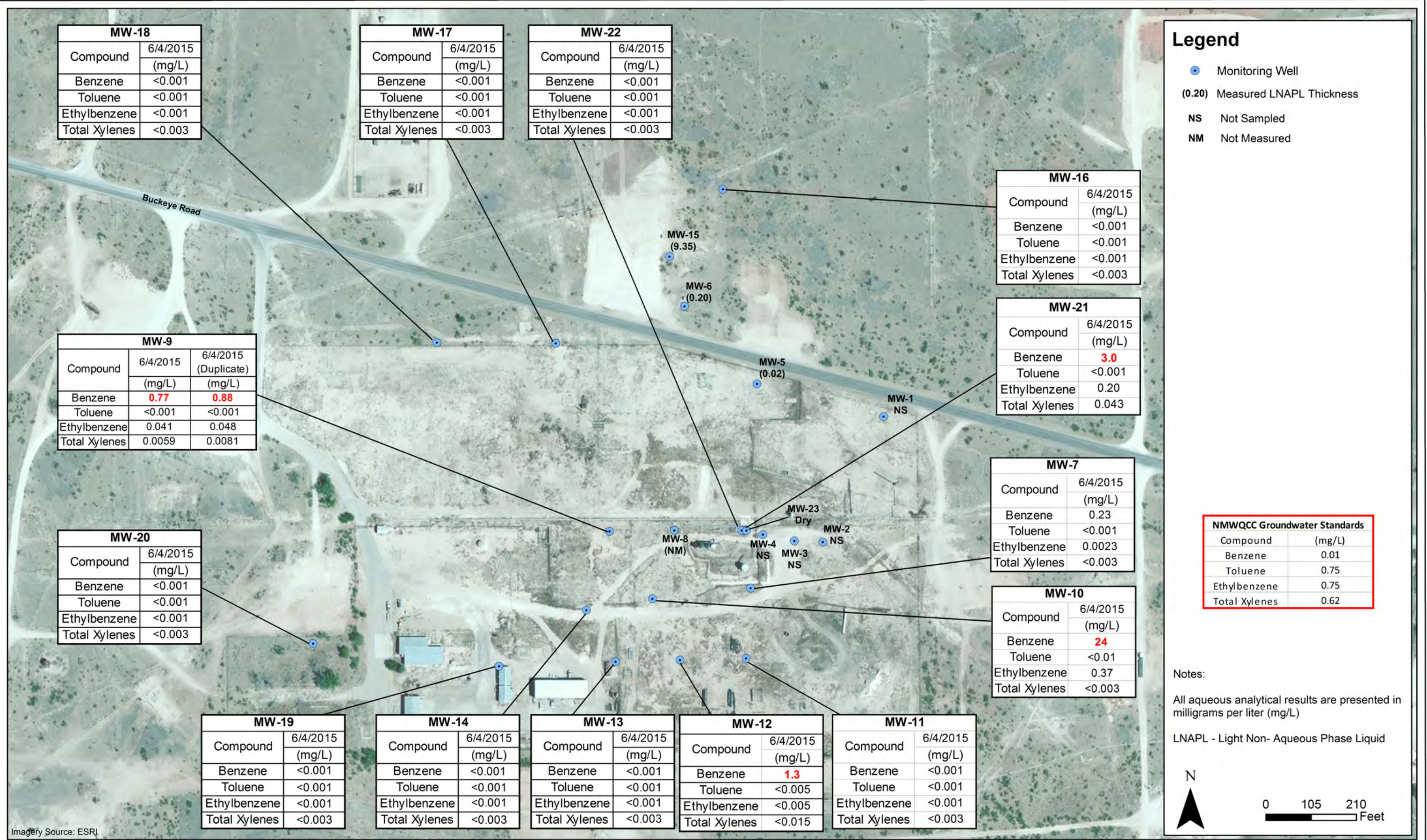
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**DCP Midstream
 Former Lee Gas Plant**
 First Half 2015 Semi-Annual Groundwater Monitoring
 Summary Report

Site Map with
 Monitoring Well
 Locations

**Figure
 2**





Appendix A

Historic Analytical Data

APPENDIX A
HISTORIC ANALYTICAL RESULTS
BTEX CONCENTRATIONS IN GROUNDWATER
FORMER LEE GAS PLANT
LEA COUNTY, NEW MEXICO

Location Identification	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Total Xylenes (mg/l)	Comments
NMWQCC Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	
MW-1	03/01/08	1.4	0.0395	0.948	0.128	
MW-1	06/01/08	2.75	0.054	2.17	0.232	
MW-1	09/01/08	1.1	0.0375	0.845	0.131	
MW-1	12/01/08	0.869	0.0385	0.581	0.0709	
MW-1	03/01/09	0.288	0.0149	0.107	0.0395	
MW-1	05/01/09	1.38	0.0705	0.175	0.065	
MW-1	09/01/09	0.267	0.024	0.0332	0.0078	
MW-1	12/2009	0.819	0.088	0.0267	0.012	
MW-1	03/01/10	0.726	0.0879	0.107	0.0278	
MW-1	Removed from sampling plan					
MW-2	03/01/08	8.98	0.135	6.58	0.765	
MW-2	06/01/08	24.3	0.319	18.5	2.58	
MW-2	09/01/08	21.7	0.443	9.79	4.25	
MW-2	12/01/08	Not Sampled: Remediation Activities				
MW-2	03/01/09	23.7	0.538	2.34	1.25	
MW-2	05/01/09	32.7	0.791	1.31	1.69	
MW-2	09/01/09	29.3	0.491	0.771	0.371	
MW-2	12/01/09	28.5	0.57	0.347	0.177	
MW-2	03/01/10	23.8	0.529	0.71	<1.2	
MW-2	Removed from sampling plan					
MW-3	09/27/05	<0.47	<0.54	<0.48	<2.0	
MW-3	12/21/06	<0.23	<0.54	<0.48	<1.1	
MW-3	03/01/08	Dry				
MW-3	06/01/08	Dry				
MW-3	09/01/08	Dry				
MW-3	12/01/08	Dry				
MW-3	03/01/09	Dry				
MW-3	05/01/09	Dry				
MW-3	09/01/09	Dry				
MW-3	12/01/09	Dry				
MW-3	03/01/10	Dry				
MW-3	03/29/10	Dry				
MW-3	09/24/10	Dry				
MW-3	06/03/11	Dry				
MW-3	12/15/11	Dry				
MW-3	06/07/12	Dry				
MW-3	12/06/12	Dry				
MW-3	06/05/13	Dry				
MW-3	12/04/13	Dry				
MW-3	06/04/14	Dry				
MW-3	12/05/14	Dry				
MW-3	Removed from sampling plan					

APPENDIX A
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Location Identification	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Total Xylenes (mg/l)	Comments
NMWQCC Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	
MW-4	12/21/06	0.03	0.0058	<0.48	0.0075	
MW-4	12/01/09	Dry				
MW-4	06/01/08	Dry				
MW-4	09/01/08	Dry				
MW-4	12/01/08	Dry				
MW-4	03/01/09	Dry				
MW-4	05/01/09	Dry				
MW-4	09/01/09	Dry				
MW-4	12/01/09	Dry				
MW-4	03/01/10	Dry				
MW-4	Removed from sampling plan					
MW-5	03/01/08	LNAPL				
MW-5	03/29/10	LNAPL				
MW-5	09/24/10	LNAPL				
MW-5	06/03/11	LNAPL				
MW-5	12/15/11	LNAPL				
MW-5	06/07/12	LNAPL				
MW-5	12/06/12	LNAPL				
MW-5	06/05/13	LNAPL				
MW-5	12/04/13	LNAPL				
MW-5	06/04/14	LNAPL				
MW-5	12/05/14	LNAPL				
MW-5	06/04/15	LNAPL				
MW-6	12/21/06	<0.23	<0.54	<0.48	<1.1	
MW-6	03/29/10	LNAPL				
MW-6	09/24/10	LNAPL				
MW-6	06/03/11	LNAPL				
MW-6	12/15/11	LNAPL				
MW-6	12/06/12	LNAPL				
MW-6	06/07/12	LNAPL				
MW-6	06/05/13	LNAPL				
MW-6	12/04/13	LNAPL				
MW-6	06/04/14	LNAPL				
MW-6	12/05/14	LNAPL				
MW-6	06/04/15	LNAPL				

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Location Identification	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Total Xylenes (mg/l)	Comments
NMWQCC Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	
MW-7	09/24/04	<1.0	0.0012	0.0017	<2.0	
MW-7	09/27/05	0.001	<0.54	0.0025	<2.0	
MW-7	09/15/06	0.74	<0.54	0.0056	0.0086	
MW-7	12/21/06	<0.23	<0.54	<0.48	<1.1	
MW-7	09/20/07	0.864	<0.00054	0.006	0.0137	
MW-7	09/17/09	5.75	0.0018	0.002	0.0018	
MW-7	03/29/10	4.98	0.0017	0.0146	0.0088	
MW-7	03/29/10	4.98	0.0017	0.0146	0.0088	
MW-7	09/23/10	0.976	0.00057	0.0083	<0.0017	
MW-7	09/24/10	0.976	0.00057	0.0083	<0.0017	
MW-7	06/03/11	<0.001	<0.002	<0.002	<0.004	
MW-7	06/03/11	<0.00025	<0.0010	<0.00050	<0.0020	
MW-7	12/15/11	0.0013	<0.002	<0.002	<0.004	
MW-7	06/07/12	0.037	<0.005	<0.005	<0.015	
MW-7	12/06/12	<0.001	<0.001	<0.001	<0.003	
MW-7	06/04/13	0.0062	<0.001	<0.001	<0.001	
MW-7	12/04/13	0.2	<0.001	0.0073	0.01	
MW-7	06/04/14	0.53	<0.001	0.026	0.012	
MW-7	12/05/14	0.0066	<0.001	<0.001	<0.003	
MW-7	06/04/15	0.23	<0.001	0.0023	<0.003	
MW-8	12/21/06	<0.23	<0.54	<0.48	<1.1	
MW-8	03/29/10	LNAPL				
MW-8	09/24/10	LNAPL				
MW-8	06/03/11	LNAPL				
MW-8	12/15/11	LNAPL				
MW-8	06/07/12	LNAPL				
MW-8	12/06/12	LNAPL				
MW-8	06/05/13	LNAPL				
MW-8	12/04/13	LNAPL				
MW-8	06/04/14	LNAPL				
MW-8	12/04/14	LNAPL				
MW-8	06/04/15	LNAPL				

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FORMER LEE GAS PLANT
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Location Identification	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Total Xylenes (mg/l)	Comments
NMWQCC Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	
MW-9	09/23/04	2.4	<1.0	0.013	0.0027	
MW-9	09/27/05	3.4	<0.54	0.053	0.0096	
MW-9	09/15/06	10.9	<0.54	-	0.025	
MW-9	09/20/07	22.6	<0.00054	0.27	0.0834	
MW-9	09/17/09	10.2	<0.00043	0.212	0.0351	
MW-9	03/29/10	0.376	<0.002	0.0016	<0.006	
MW-9	03/29/10	0.376	<0.00043	0.0016	<0.0017	
MW-9	09/23/10	0.0167	<0.00043	0.0008	<0.0017	
MW-9	09/24/10	0.0167	<0.002	0.0008	<0.0017	
MW-9	06/03/11	LNAPL	LNAPL	LNAPL	LNAPL	
MW-9	12/16/11	12.5	<0.40	0.390	<0.80	
MW-9	06/07/12	13.0	0.44	<0.025	<0.075	
MW-9	12/07/12	13.0	0.89	<0.050	0.28	Duplicate sample collected
MW-9	06/05/13	16.0	<0.010	0.96	0.38	Duplicate sample collected
MW-9	12/04/13	9.4	<0.010	0.61	0.025	Duplicate sample collected
MW-9	06/05/14	7.2	<0.01	0.53	0.12	Duplicate sample collected
MW-9 (Duplicate)	06/05/14	7.2	<0.01	0.53	0.12	
MW-9	12/05/14	2.9	<0.001	0.40	0.096	Duplicate sample collected
MW-9 (Duplicate)	12/05/14	3.1	<0.001	0.40	0.11	
MW-9	06/04/15	0.77	<0.001	0.041	0.0059	Duplicate sample collected
MW-9 (Duplicate)	06/04/15	0.88	<0.001	0.048	0.0081	
MW-10	09/24/04	0.022	<1.0	<1.0	<2.0	
MW-10	09/27/05	0.0032	<0.54	<0.48	<2.0	
MW-10	09/15/06	0.0025	<0.54	<0.48	<1.1	
MW-10	09/20/07	3.67	<0.00054	0.0016	<0.0011	
MW-10	09/17/09	3.58	<0.00043	0.0411	<0.0017	
MW-10	03/29/10	0.192	<0.002	0.00095	<0.006	
MW-10	03/29/10	0.192	<0.00043	0.00095	<0.0017	
MW-10	09/24/10	12.2	<0.002	0.0723	0.0026	
MW-10	09/24/10	12.2	<0.00043	0.0723	0.0026	
MW-10	06/03/11	<0.001	<0.002	<0.002	<0.004	
MW-10	06/03/11	<0.00025	<0.0010	<0.00050	<0.0020	
MW-10	12/15/11	12.5	<0.40	0.204	<0.80	
MW-10	06/07/12	29.0	0.19	<0.05	<0.15	
MW-10	12/07/12	27.0	0.23	<0.050	<0.15	
MW-10	06/05/13	26.0	<0.010	0.33	<0.010	
MW-10	12/04/13	19.0	<0.010	0.3	<0.01	
MW-10	06/05/14	20	<0.01	0.55	<0.01	
MW-10	12/05/14	16	<0.025	0.23	<0.075	
MW-10	06/04/15	24	<0.01	0.37	<0.003	

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Location Identification	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Total Xylenes (mg/l)	Comments
NMWQCC Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	
MW-11	09/23/04	<1.0	<1.0	<1.0	<2.0	
MW-11	03/14/05	<1.0	<1.0	<1.0	<2.0	
MW-11	09/26/05	<0.47	<0.54	<0.48	<2.0	
MW-11	03/02/06	<0.47	<0.54	<0.48	<2.0	
MW-11	09/14/06	<0.23	<0.54	<0.48	<1.1	
MW-11	03/28/07	<0.00023	<0.00054	<0.00048	<0.0011	
MW-11	09/20/07	<0.00023	<0.00054	<0.00048	<0.0011	
MW-11	03/20/08	<0.00046	<0.00048	<0.00045	<0.0014	
MW-11	03/11/09	<0.00046	<0.00048	<0.00045	<0.0014	
MW-11	09/18/09	<0.00050	<0.00043	<0.00055	<0.0017	
MW-11	03/29/10	<0.002	<0.002	<0.002	<0.006	
MW-11	03/29/10	<0.00050	<0.00043	<0.00055	<0.0017	
MW-11	09/24/10	<0.002	<0.002	<0.002	<0.006	
MW-11	09/24/10	<0.00050	<0.00043	<0.00055	<0.0017	
MW-11	06/03/11	<0.001	<0.002	<0.002	<0.004	
MW-11	06/03/11	<0.00025	<0.0010	<0.00050	<0.0020	
MW-11	12/15/11	<0.001	<0.002	<0.002	<0.004	
MW-11	06/08/12	<0.005	<0.005	<0.005	<0.015	
MW-11	12/06/12	<0.001	<0.001	<0.001	<0.003	
MW-11	06/04/13	<0.001	<0.001	<0.001	<0.001	
MW-11	12/04/13	<0.001	<0.001	<0.001	<0.001	
MW-11	06/04/14	<0.001	<0.001	<0.001	<0.001	
MW-11	12/04/14	<0.001	<0.001	<0.001	<0.003	
MW-11	06/04/15	<0.001	<0.001	<0.001	<0.003	
MW-12	09/23/04	<1.0	<1.0	<1.0	<2.0	
MW-12	03/14/05	<1.0	<1.0	<1.0	<2.0	
MW-12	09/26/05	<0.47	<0.54	<0.48	<2.0	
MW-12	03/02/06	<0.47	<0.54	<0.48	<2.0	
MW-12	09/14/06	<0.23	<0.54	<0.48	<1.1	
MW-12	03/28/07	<0.00023	<0.00054	<0.00048	<0.0011	
MW-12	09/20/07	<0.00023	<0.00054	<0.00048	<0.0011	
MW-12	03/20/08	<0.00046	0.00065	<0.00045	<0.0014	
MW-12	11/10/08	<0.00046	<0.00048	<0.00045	<0.0014	
MW-12	03/11/09	<0.00046	<0.00048	<0.00045	<0.0014	
MW-12	09/18/09	<0.00050	<0.00043	<0.00055	<0.0017	
MW-12	03/29/10	<0.002	<0.002	<0.002	<0.006	
MW-12	03/29/10	<0.00050	<0.00043	<0.00055	<0.0017	
MW-12	09/24/10	<0.002	<0.002	<0.002	<0.006	
MW-12	09/24/10	<0.00050	<0.00043	<0.00055	<0.0017	
MW-12	06/03/11	<0.001	<0.002	<0.002	<0.004	
MW-12	06/03/11	<0.00025	<0.0010	<0.00050	<0.0020	
MW-12	12/16/11	<0.001	<0.002	<0.002	<0.004	
MW-12	06/07/12	0.74	<0.005	<0.005	<0.015	
MW-12	12/07/12	5.5	0.0086	<0.005	<0.015	
MW-12	06/05/13	4.3	<0.005	<0.005	<0.005	
MW-12	12/04/13	3.7	<0.0010	0.0011	<0.001	
MW-12	06/04/14	8.1	<0.001	0.0038	0.0015	
MW-12	12/05/14	2.8	<0.001	0.0014	<0.003	
MW-12	06/04/15	1.3	<0.005	<0.005	<0.015	

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Location Identification	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Total Xylenes (mg/l)	Comments
NMWQCC Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	
MW-13	09/23/04	<1.0	<1.0	<1.0	<2.0	
MW-13	03/14/05	<1.0	<1.0	<1.0	<2.0	
MW-13	09/26/05	<0.47	<0.54	<0.48	<2.0	
MW-13	03/02/06	<0.47	<0.54	<0.48	<2.0	
MW-13	09/14/06	<0.23	<0.54	<0.48	<1.1	
MW-13	03/28/07	<0.00023	<0.00054	<0.00048	<0.0011	
MW-13	09/20/07	0.00092	<0.00054	<0.00048	<0.0011	
MW-13	03/20/08	<0.00046	0.0005	<0.00045	<0.0014	
MW-13	03/11/09	<0.00046	<0.00048	<0.00045	<0.0014	
MW-13	09/18/09	<0.00050	<0.00043	<0.00055	<0.0017	
MW-13	03/29/10	<0.002	<0.002	<0.002	<0.006	
MW-13	03/29/10	<0.00050	<0.00043	<0.00055	<0.0017	
MW-13	09/24/10	<0.002	<0.002	<0.002	<0.006	
MW-13	09/24/10	<0.00050	<0.00043	<0.00055	<0.0017	
MW-13	06/03/11	<0.001	<0.002	<0.002	<0.004	
MW-13	06/03/11	<0.00025	<0.0010	<0.00050	<0.0020	
MW-13	12/16/11	<0.001	<0.002	<0.002	<0.004	
MW-13	06/07/12	<0.005	<0.005	<0.005	<0.015	
MW-13	12/06/12	<0.001	<0.001	<0.001	<0.003	
MW-13	06/04/13	0.0022	<0.001	<0.001	<0.001	
MW-13	12/04/13	<0.001	<0.001	<0.001	<0.001	
MW-13	06/04/14	<0.001	<0.001	<0.001	<0.001	
MW-13	12/04/14	<0.001	<0.001	<0.001	<0.003	MS/MSD Collected
MW-13	06/04/15	<0.001	<0.001	<0.001	<0.003	
MW-14	09/23/04	<1.0	<1.0	<1.0	<2.0	
MW-14	09/27/05	0.0017	<0.54	<0.48	<2.0	
MW-14	09/15/06	0.14	<0.54	0.003	<1.1	
MW-14	09/20/07	0.003	<0.00054	<0.00048	<0.0011	
MW-14	09/18/09	<0.00050	<0.00043	<0.00055	<0.0017	
MW-14	03/29/10	NS	NS	NS	NS	
MW-14	09/24/10	<0.002	<0.002	<0.002	<0.006	
MW-14	09/24/10	<0.00050	<0.00043	<0.00055	<0.0017	
MW-14	06/03/11	NS	NS	NS	NS	
MW-14	12/15/11	0.231	<0.002	0.0095	<0.004	
MW-14	06/07/12	<0.005	<0.005	<0.005	<0.015	
MW-14	12/07/12	0.0024	<0.001	<0.001	<0.003	
MW-14	06/05/13	0.0019	<0.001	<0.001	<0.001	
MW-14	12/04/13	0.44	<0.001	<0.001	<0.001	
MW-14	06/04/14	0.90	<0.001	0.0052	0.0067	
MW-14	12/05/14	<0.001	<0.001	<0.001	<0.003	
MW-14	06/04/15	<0.001	<0.001	<0.001	<0.003	

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Location Identification	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Total Xylenes (mg/l)	Comments
NMWQCC Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	
MW-15	03/29/10	LNAPL				
MW-15	09/24/10	LNAPL				
MW-15	06/03/11	LNAPL				
MW-15	12/15/11	LNAPL				
MW-15	06/07/12	LNAPL				
MW-15	12/06/12	LNAPL				
MW-15	06/05/13	LNAPL				
MW-15	12/04/13	LNAPL				
MW-15	06/04/14	LNAPL				
MW-15	12/05/14	LNAPL				
MW-15	06/04/15	LNAPL				
MW-16	09/23/04	0.012	<1.0	<1.0	<2.0	
MW-16	09/26/05	0.016	<0.54	<0.48	<2.0	
MW-16	09/14/06	0.2	0.0097	0.0035	0.0078	
MW-16	09/20/07	0.0309	0.0014	0.00053	0.0018	
MW-16	09/18/09	<0.00050	<0.00043	<0.00055	<0.0017	
MW-16	03/29/10	NS	NS	NS	NS	
MW-16	09/23/10	<0.00050	<0.00043	<0.00055	<0.0017	
MW-16	09/24/10	<0.002	<0.002	<0.002	<0.006	
MW-16	06/03/11	NS	NS	NS	NS	
MW-16	12/15/11	<0.001	<0.002	<0.002	<0.004	
MW-16	06/08/12	<0.005	<0.005	<0.005	<0.015	
MW-16	12/06/12	0.051	0.0013	0.0027	<0.003	
MW-16	06/05/13	0.0086	<0.001	<0.001	<0.001	
MW-16	12/04/13	0.078	0.0029	0.0028	0.0032	
MW-16	06/04/14	0.071	0.0014	0.0019	0.0039	
MW-16	12/04/14	0.037	<0.001	<0.001	<0.003	
MW-16	06/04/15	<0.001	<0.001	<0.001	<0.003	
MW-17	09/23/04	<1.0	<1.0	<1.0	<2.0	
MW-17	09/26/05	0.0018	<0.54	<0.48	<2.0	
MW-17	09/14/06	<0.23	<0.54	<0.48	<1.1	
MW-17	09/20/07	0.0118	<0.00054	<0.00048	<0.0011	
MW-17	09/18/09	<0.00050	<0.00043	<0.00055	<0.0017	
MW-17	03/29/10	NS	NS	NS	NS	
MW-17	09/23/10	<0.00050	<0.00043	<0.00055	<0.0017	
MW-17	09/24/10	<0.002	<0.002	<0.002	<0.006	
MW-17	06/03/11	NS	NS	NS	NS	
MW-17	12/15/11	<0.001	<0.002	<0.002	<0.004	
MW-17	06/07/12	<0.005	<0.005	<0.005	<0.015	
MW-17	12/06/12	<0.001	<0.001	<0.001	<0.003	
MW-17	06/04/13	<0.001	<0.001	<0.001	<0.001	
MW-17	12/04/13	0.0014	<0.001	<0.001	<0.001	
MW-17	06/04/14	<0.001	<0.001	<0.001	<0.001	
MW-17	12/04/14	0.0022	<0.001	<0.001	<0.003	
MW-17	06/04/15	<0.001	<0.001	<0.001	<0.003	

APPENDIX A
HISTORIC ANALYTICAL RESULTS
BTEX CONCENTRATIONS IN GROUNDWATER
FORMER LEE GAS PLANT
LEA COUNTY, NEW MEXICO

Location Identification	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Total Xylenes (mg/l)	Comments
NMWQCC Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	
MW-18	09/23/04	<1.0	<1.0	<1.0	<2.0	
MW-18	09/26/05	<0.47	<0.54	<0.48	<2.0	
MW-18	09/14/06	<0.23	<0.54	<0.48	<1.1	
MW-18	09/20/07	<0.00023	<0.00054	<0.00048	<0.0011	
MW-18	09/17/09	<0.00050	<0.00043	<0.00055	<0.0017	
MW-18	03/29/10	NS	NS	NS	NS	
MW-18	09/24/10	<0.002	<0.002	<0.002	<0.006	
MW-18	09/24/10	<0.00050	<0.00043	<0.00055	<0.0017	
MW-18	06/03/11	NS	NS	NS	NS	
MW-18	12/16/11	<0.001	<0.002	<0.002	<0.004	
MW-18	06/07/12	<0.005	<0.005	<0.005	<0.015	
MW-18	12/06/12	<0.001	<0.001	<0.001	<0.003	
MW-18	06/04/13	<0.001	<0.001	<0.001	<0.001	
MW-18	12/04/13	<0.001	<0.001	<0.001	<0.001	
MW-18	06/04/14	<0.001	<0.001	<0.001	<0.001	
MW-18	12/04/14	<0.001	<0.001	<0.001	<0.003	
MW-18	06/04/15	<0.001	<0.001	<0.001	<0.003	
MW-19	09/23/04	<1.0	<1.0	<1.0	<2.0	
MW-19	03/14/05	<1.0	<1.0	<1.0	<2.0	
MW-19	09/26/05	<0.47	<0.54	<0.48	<2.0	
MW-19	03/02/06	<0.47	<0.54	<0.48	<2.0	
MW-19	09/14/06	<0.23	<0.54	<0.48	<1.1	
MW-19	03/28/07	<0.00023	<0.00054	<0.00048	<0.0011	
MW-19	09/20/07	0.001	<0.00054	<0.00048	<0.0011	
MW-19	03/20/08	<0.00046	0.00061	<0.00045	<0.0014	
MW-19	03/11/09	<0.00046	<0.00048	<0.00045	<0.0014	
MW-19	09/17/09	<0.00050	<0.00043	<0.00055	<0.0017	
MW-19	03/29/10	<0.002	<0.002	<0.002	<0.006	
MW-19	03/29/10	<0.00050	<0.00043	<0.00055	<0.0017	
MW-19	09/24/10	<0.00050	<0.00043	<0.00055	<0.0017	
MW-19	09/24/10	<0.002	<0.002	<0.002	<0.006	
MW-19	09/24/10	<0.00050	<0.00043	<0.00055	<0.0017	
MW-19	06/03/11	<0.001	<0.002	<0.002	<0.004	
MW-19	06/03/11	<0.00025	<0.0010	<0.00050	<0.0020	
MW-19	12/16/11	<0.001	<0.002	<0.002	<0.004	
MW-19	06/07/12	<0.005	<0.005	<0.005	<0.015	
MW-19	12/06/12	<0.001	<0.001	<0.001	<0.003	
MW-19	06/04/13	<0.001	<0.001	<0.001	<0.001	
MW-19	12/04/13	<0.001	<0.001	<0.001	<0.001	
MW-19	06/04/14	<0.001	<0.001	<0.001	<0.001	
MW-19	12/04/14	<0.001	<0.001	<0.001	<0.003	
MW-19	06/04/15	<0.001	<0.001	<0.001	<0.003	

APPENDIX A
HISTORIC ANALYTICAL RESULTS
BTEX CONCENTRATIONS IN GROUNDWATER
FORMER LEE GAS PLANT
LEA COUNTY, NEW MEXICO

Location Identification	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Total Xylenes (mg/l)	Comments
NMWQCC Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	
MW-20	09/23/04	<11	<11	<11	<22	
MW-20	03/14/05	<1.0	<1.0	<1.0	<2.0	
MW-20	09/26/05	<0.47	<0.54	<0.48		
MW-20	03/02/06	<0.47	<0.54	<0.48	<2.0	
MW-20	09/14/06	<0.23	<0.54	0.0023	<1.1	
MW-20	03/28/07	<0.00023	<0.00054	<0.00048	<0.0011	
MW-20	09/20/07	<0.00023	<0.00054	<0.00048	<0.0011	
MW-20	03/20/08	<0.00046	<0.00048	<0.00045	<0.0014	
MW-20	03/11/09	<0.00046	<0.00048	<0.00045	<0.0014	
MW-20	09/17/09	<0.00050	<0.00043	<0.00055	<0.0017	
MW-20	03/29/10	<0.002	<0.002	<0.002	<0.006	
MW-20	03/29/10	<0.00050	<0.00043	<0.00055	<0.0017	
MW-20	09/24/10	<0.00050	<0.00043	<0.00055	<0.0017	
MW-20	09/24/10	<0.002	<0.002	<0.002	<0.006	
MW-20	09/24/10	<0.00050	<0.00043	<0.00055	<0.0017	
MW-20	06/03/11	<0.001	<0.002	<0.002	<0.004	
MW-20	06/03/11	<0.00025	<0.0010	<0.00050	<0.0020	
MW-20	12/15/11	0.0013	<0.002	<0.002	<0.004	
MW-20	06/07/12	<0.005	<0.005	<0.005	<0.015	
MW-20	12/06/12	<0.001	<0.001	<0.001	<0.003	
MW-20	06/04/13	<0.001	<0.001	<0.001	<0.001	
MW-20	12/04/13	<0.001	<0.001	<0.001	<0.001	
MW-20	06/04/14	<0.001	<0.001	<0.001	<0.001	
MW-20	12/04/14	<0.001	<0.001	<0.001	<0.003	
MW-20	06/04/15	<0.001	<0.001	<0.001	<0.003	
MW-21	09/23/04	8.5	<1.0	0.14	0.2	
MW-21	03/14/05	6.7	<1.0	0.17	0.29	
MW-21	09/27/05	4.4	<0.54	0.087	0.11	
MW-21	03/02/06	2.4	0.00062	0.069	0.11	
MW-21	09/15/06	0.48	<0.54	0.023	0.034	
MW-21	03/28/07	13.2	0.0059	0.839	0.883	
MW-21	09/20/07	7.23	0.00067	0.462	0.321	
MW-21	03/20/08	0.899	<0.00048	0.0399	0.0452	
MW-21	03/11/09	0.216	<0.00048	0.0018	<0.0014	
MW-21	09/17/09	12.1	0.0034	1.09	0.312	
MW-21	03/29/10	14.8	0.00265	1.54	0.1945	
MW-21	03/29/10	13.00	0.0023	1.32	0.0959	
MW-21	09/24/10	11.555	0.0019	1.535	0.02645	
MW-21	09/25/10	9.41	0.002	1.4	0.0104	
MW-21	06/03/11	7.97	0.0012	0.536	<0.004	Duplicate sample collected
MW-21	06/03/11	7.78	0.0011	0.465	<0.0020	
MW-21	12/16/11	0.671	<0.02	0.0513	<0.04	Duplicate sample collected
MW-21	06/07/12	4.4	0.24	<0.025	0.086	Duplicate sample collected
MW-21	12/07/12	1.9	0.24	<0.005	0.098	
MW-21	06/05/13	0.78	<0.001	0.097	0.011	
MW-21	12/04/13	1.8	<0.0010	0.10	0.0064	
MW-21	06/04/14	1.5	<0.001	0.18	0.10	
MW-21	12/05/14	3.1	0.0011	0.60	0.22	
MW-21	06/04/15	3.0	<0.001	0.20	0.043	

APPENDIX A
HISTORIC ANALYTICAL RESULTS
BTEX CONCENTRATIONS IN GROUNDWATER
FORMER LEE GAS PLANT
LEA COUNTY, NEW MEXICO

Location Identification	Sample Date	Benzene (mg/l)	Toluene (mg/l)	Ethylbenzene (mg/l)	Total Xylenes (mg/l)	Comments
NMWQCC Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	
MW-22	09/23/04	0.0067	<1.0	<1.0	<2.0	
MW-22	09/27/05	<0.47	<0.54	<0.48	<2.0	
MW-22	09/15/06	0.011	<0.54	<0.48	<1.1	
MW-22	09/20/07	0.00057	<0.00054	<0.00048	<0.0011	
MW-22	09/17/09	<0.00050	<0.00043	<0.00055	<0.0017	
MW-22	03/29/10	NS	NS	NS	NS	
MW-22	09/24/10	0.0114	<0.002	0.0033	<0.006	
MW-22	09/25/10	0.0114	<0.00043	0.0033	<0.0017	
MW-22	06/03/11	NS	NS	NS	NS	
MW-22	12/16/11	<0.001	<0.002	<0.002	<0.004	
MW-22	06/07/12	<0.005	<0.005	<0.005	<0.015	
MW-22	12/06/12	<0.001	<0.001	<0.001	<0.003	
MW-22	06/05/13	<0.001	<0.001	<0.001	<0.001	
MW-22	12/04/13	<0.001	<0.001	<0.001	<0.001	
MW-22	06/04/14	<0.001	<0.001	<0.001	<0.001	
MW-22	12/04/14	<0.001	0.027	<0.001	<0.003	
MW-22	06/04/15	<0.001	<0.001	<0.001	<0.003	
MW-23	06/04/14	Dry				
MW-23	12/05/14	Dry				
MW-23	06/04/15	Dry				
Trip Blank	06/04/14	<0.001	<0.001	<0.001	<0.001	
Trip Blank	12/04/14	<0.001	<0.001	<0.001	<0.001	
Trip Blank	06/04/15	<0.001	<0.001	<0.001	<0.003	

Notes:

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

NMWQCC = New Mexico Water Quality Control Commission

LNAPL = Light Non-Aqueous Phase Liquid

J = Estimated Value

NS = Not Sampled

NA = Not Analyzed

mg/L = milligrams per liter

Appendix B

Laboratory Analytical Report (Electronic Only)

ALS Environmental Job #: HS15060325



10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887
www.alsglobal.com

June 18, 2015

Don Baggus
Tasman Geosciences
5690 Webster Street
Arvada, CO 80002

Work Order: **HS15060325**

Laboratory Results for: **Former Lee Gas Plant**

Dear Don,

ALS Environmental received 16 sample(s) on Jun 06, 2015 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

A handwritten signature in black ink that reads "Sonia West".

Generated By: Jumoke.Lawal
Sonia West
Project Manager

Client: Tasman Geosciences
Project: Former Lee Gas Plant
Work Order: HS15060325

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS15060325-01	MW-7-060415	Groundwater		04-Jun-2015 19:40	06-Jun-2015 09:17	☐
HS15060325-02	MW-9-060415	Groundwater		04-Jun-2015 14:22	06-Jun-2015 09:17	☐
HS15060325-03	MW-10-060415	Groundwater		04-Jun-2015 19:18	06-Jun-2015 09:17	☐
HS15060325-04	MW-11-060415	Groundwater		04-Jun-2015 15:47	06-Jun-2015 09:17	☐
HS15060325-05	MW-12-060415	Groundwater		04-Jun-2015 18:53	06-Jun-2015 09:17	☐
HS15060325-06	MW-13-060415	Groundwater		04-Jun-2015 15:34	06-Jun-2015 09:17	☐
HS15060325-07	MW-14-060415	Groundwater		04-Jun-2015 18:05	06-Jun-2015 09:17	☐
HS15060325-08	MW-16-060415	Groundwater		04-Jun-2015 09:15	06-Jun-2015 09:17	☐
HS15060325-09	MW-17-060415	Groundwater		04-Jun-2015 11:00	06-Jun-2015 09:17	☐
HS15060325-10	MW-18-060415	Groundwater		04-Jun-2015 12:00	06-Jun-2015 09:17	☐
HS15060325-11	MW-19-060415	Groundwater		04-Jun-2015 15:20	06-Jun-2015 09:17	☐
HS15060325-12	MW-20-060415	Groundwater		04-Jun-2015 12:45	06-Jun-2015 09:17	☐
HS15060325-13	MW-21-060415	Groundwater		04-Jun-2015 16:55	06-Jun-2015 09:17	☐
HS15060325-14	MW-22-060415	Groundwater		04-Jun-2015 17:08	06-Jun-2015 09:17	☐
HS15060325-15	TB-052215-36	Water		04-Jun-2015 00:00	06-Jun-2015 09:17	☐
HS15060325-16	Duplicate-060415	Groundwater		04-Jun-2015 00:00	06-Jun-2015 09:17	☐

Client: Tasman Geosciences
Project: Former Lee Gas Plant
Work Order: HS15060325

CASE NARRATIVE

Work Order Comments

- The sample collection times on the chain of custody differ from the bottle labels:

MW-7-060415 label has 17:40
MW-12-060415 label has 19:05
MW-21-060415 label has 17:10
MW-22-060415 label has 17:35

The lab reported the collection times from the chain of custody.

GCMS Volatiles by Method SW8260

Batch ID: R256202,R256318,R256391

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

Batch ID: R256207

Sample ID: **HS15060360-13MSD**

- MSD is for an unrelated sample
-

Client: Tasman Geosciences
 Project: Former Lee Gas Plant
 Sample ID: MW-7-060415
 Collection Date: 04-Jun-2015 19:40

ANALYTICAL REPORT

WorkOrder:HS15060325
 Lab ID:HS15060325-01
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260		Analyst: AKP		
Benzene	0.23		0.010	mg/L	10	16-Jun-2015 02:47
Toluene	ND		0.0010	mg/L	1	16-Jun-2015 01:30
Ethylbenzene	0.0023		0.0010	mg/L	1	16-Jun-2015 01:30
Xylenes, Total	ND		0.0030	mg/L	1	16-Jun-2015 01:30
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>117</i>		<i>71-125</i>	<i>%REC</i>	<i>10</i>	<i>16-Jun-2015 02:47</i>
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>109</i>		<i>71-125</i>	<i>%REC</i>	<i>1</i>	<i>16-Jun-2015 01:30</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>107</i>		<i>70-125</i>	<i>%REC</i>	<i>1</i>	<i>16-Jun-2015 01:30</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>103</i>		<i>70-125</i>	<i>%REC</i>	<i>10</i>	<i>16-Jun-2015 02:47</i>
<i>Surr: Dibromofluoromethane</i>	<i>116</i>		<i>74-125</i>	<i>%REC</i>	<i>10</i>	<i>16-Jun-2015 02:47</i>
<i>Surr: Dibromofluoromethane</i>	<i>112</i>		<i>74-125</i>	<i>%REC</i>	<i>1</i>	<i>16-Jun-2015 01:30</i>
<i>Surr: Toluene-d8</i>	<i>97.5</i>		<i>75-125</i>	<i>%REC</i>	<i>10</i>	<i>16-Jun-2015 02:47</i>
<i>Surr: Toluene-d8</i>	<i>118</i>		<i>75-125</i>	<i>%REC</i>	<i>1</i>	<i>16-Jun-2015 01:30</i>

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Tasman Geosciences
 Project: Former Lee Gas Plant
 Sample ID: MW-9-060415
 Collection Date: 04-Jun-2015 14:22

ANALYTICAL REPORT

WorkOrder:HS15060325
 Lab ID:HS15060325-02
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260		Analyst: AKP		
Benzene	0.77		0.010	mg/L	10	16-Jun-2015 22:02
Toluene	ND		0.0010	mg/L	1	16-Jun-2015 21:34
Ethylbenzene	0.041		0.0010	mg/L	1	16-Jun-2015 21:34
Xylenes, Total	0.0059		0.0030	mg/L	1	16-Jun-2015 21:34
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>85.2</i>		<i>71-125</i>	<i>%REC</i>	<i>10</i>	<i>16-Jun-2015 22:02</i>
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>84.4</i>		<i>71-125</i>	<i>%REC</i>	<i>1</i>	<i>16-Jun-2015 21:34</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>95.0</i>		<i>70-125</i>	<i>%REC</i>	<i>10</i>	<i>16-Jun-2015 22:02</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>97.3</i>		<i>70-125</i>	<i>%REC</i>	<i>1</i>	<i>16-Jun-2015 21:34</i>
<i>Surr: Dibromofluoromethane</i>	<i>97.7</i>		<i>74-125</i>	<i>%REC</i>	<i>1</i>	<i>16-Jun-2015 21:34</i>
<i>Surr: Dibromofluoromethane</i>	<i>96.9</i>		<i>74-125</i>	<i>%REC</i>	<i>10</i>	<i>16-Jun-2015 22:02</i>
<i>Surr: Toluene-d8</i>	<i>94.8</i>		<i>75-125</i>	<i>%REC</i>	<i>1</i>	<i>16-Jun-2015 21:34</i>
<i>Surr: Toluene-d8</i>	<i>100</i>		<i>75-125</i>	<i>%REC</i>	<i>10</i>	<i>16-Jun-2015 22:02</i>

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Tasman Geosciences
 Project: Former Lee Gas Plant
 Sample ID: MW-10-060415
 Collection Date: 04-Jun-2015 19:18

ANALYTICAL REPORT

WorkOrder:HS15060325
 Lab ID:HS15060325-03
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260		Analyst: PC		
Benzene	24		0.25	mg/L	250	17-Jun-2015 12:13
Toluene	ND		0.010	mg/L	10	16-Jun-2015 21:40
Ethylbenzene	0.37		0.010	mg/L	10	16-Jun-2015 21:40
Xylenes, Total	ND		0.030	mg/L	10	16-Jun-2015 21:40
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>118</i>		<i>71-125</i>	<i>%REC</i>	<i>10</i>	<i>16-Jun-2015 21:40</i>
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>96.1</i>		<i>71-125</i>	<i>%REC</i>	<i>250</i>	<i>17-Jun-2015 12:13</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>92.0</i>		<i>70-125</i>	<i>%REC</i>	<i>10</i>	<i>16-Jun-2015 21:40</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>93.8</i>		<i>70-125</i>	<i>%REC</i>	<i>250</i>	<i>17-Jun-2015 12:13</i>
<i>Surr: Dibromofluoromethane</i>	<i>100</i>		<i>74-125</i>	<i>%REC</i>	<i>10</i>	<i>16-Jun-2015 21:40</i>
<i>Surr: Dibromofluoromethane</i>	<i>99.3</i>		<i>74-125</i>	<i>%REC</i>	<i>250</i>	<i>17-Jun-2015 12:13</i>
<i>Surr: Toluene-d8</i>	<i>98.9</i>		<i>75-125</i>	<i>%REC</i>	<i>10</i>	<i>16-Jun-2015 21:40</i>
<i>Surr: Toluene-d8</i>	<i>99.4</i>		<i>75-125</i>	<i>%REC</i>	<i>250</i>	<i>17-Jun-2015 12:13</i>

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Tasman Geosciences
Project: Former Lee Gas Plant
Sample ID: MW-11-060415
Collection Date: 04-Jun-2015 15:47

ANALYTICAL REPORT

WorkOrder:HS15060325
Lab ID:HS15060325-04
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260		Analyst: AKP		
Benzene	ND		0.0010	mg/L	1	16-Jun-2015 21:09
Toluene	ND		0.0010	mg/L	1	16-Jun-2015 21:09
Ethylbenzene	ND		0.0010	mg/L	1	16-Jun-2015 21:09
Xylenes, Total	ND		0.0030	mg/L	1	16-Jun-2015 21:09
Surr: 1,2-Dichloroethane-d4	85.8		71-125	%REC	1	16-Jun-2015 21:09
Surr: 4-Bromofluorobenzene	95.0		70-125	%REC	1	16-Jun-2015 21:09
Surr: Dibromofluoromethane	94.5		74-125	%REC	1	16-Jun-2015 21:09
Surr: Toluene-d8	96.9		75-125	%REC	1	16-Jun-2015 21:09

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Tasman Geosciences
 Project: Former Lee Gas Plant
 Sample ID: MW-12-060415
 Collection Date: 04-Jun-2015 18:53

ANALYTICAL REPORT

WorkOrder:HS15060325
 Lab ID:HS15060325-05
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260		Analyst: PC		
Benzene	1.3		0.050	mg/L	50	16-Jun-2015 19:28
Toluene	ND		0.0050	mg/L	5	16-Jun-2015 19:02
Ethylbenzene	ND		0.0050	mg/L	5	16-Jun-2015 19:02
Xylenes, Total	ND		0.015	mg/L	5	16-Jun-2015 19:02
Surr: 1,2-Dichloroethane-d4	95.4		71-125	%REC	50	16-Jun-2015 19:28
Surr: 1,2-Dichloroethane-d4	97.6		71-125	%REC	5	16-Jun-2015 19:02
Surr: 4-Bromofluorobenzene	94.3		70-125	%REC	50	16-Jun-2015 19:28
Surr: 4-Bromofluorobenzene	92.2		70-125	%REC	5	16-Jun-2015 19:02
Surr: Dibromofluoromethane	98.4		74-125	%REC	5	16-Jun-2015 19:02
Surr: Dibromofluoromethane	98.0		74-125	%REC	50	16-Jun-2015 19:28
Surr: Toluene-d8	101		75-125	%REC	5	16-Jun-2015 19:02
Surr: Toluene-d8	98.1		75-125	%REC	50	16-Jun-2015 19:28

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Tasman Geosciences
Project: Former Lee Gas Plant
Sample ID: MW-13-060415
Collection Date: 04-Jun-2015 15:34

ANALYTICAL REPORT

WorkOrder:HS15060325
Lab ID:HS15060325-06
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260		Analyst: AKP		
Benzene	ND		0.0010	mg/L	1	16-Jun-2015 03:12
Toluene	ND		0.0010	mg/L	1	16-Jun-2015 03:12
Ethylbenzene	ND		0.0010	mg/L	1	16-Jun-2015 03:12
Xylenes, Total	ND		0.0030	mg/L	1	16-Jun-2015 03:12
Surr: 1,2-Dichloroethane-d4	113		71-125	%REC	1	16-Jun-2015 03:12
Surr: 4-Bromofluorobenzene	105		70-125	%REC	1	16-Jun-2015 03:12
Surr: Dibromofluoromethane	118		74-125	%REC	1	16-Jun-2015 03:12
Surr: Toluene-d8	119		75-125	%REC	1	16-Jun-2015 03:12

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Tasman Geosciences
Project: Former Lee Gas Plant
Sample ID: MW-14-060415
Collection Date: 04-Jun-2015 18:05

ANALYTICAL REPORT

WorkOrder:HS15060325
Lab ID:HS15060325-07
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260		Analyst: AKP		
Benzene	ND		0.0010	mg/L	1	16-Jun-2015 03:38
Toluene	ND		0.0010	mg/L	1	16-Jun-2015 03:38
Ethylbenzene	ND		0.0010	mg/L	1	16-Jun-2015 03:38
Xylenes, Total	ND		0.0030	mg/L	1	16-Jun-2015 03:38
Surr: 1,2-Dichloroethane-d4	122		71-125	%REC	1	16-Jun-2015 03:38
Surr: 4-Bromofluorobenzene	108		70-125	%REC	1	16-Jun-2015 03:38
Surr: Dibromofluoromethane	121		74-125	%REC	1	16-Jun-2015 03:38
Surr: Toluene-d8	123		75-125	%REC	1	16-Jun-2015 03:38

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Tasman Geosciences
Project: Former Lee Gas Plant
Sample ID: MW-16-060415
Collection Date: 04-Jun-2015 09:15

ANALYTICAL REPORT

WorkOrder:HS15060325
Lab ID:HS15060325-08
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260		Analyst: AKP		
Benzene	ND		0.0010	mg/L	1	16-Jun-2015 04:04
Toluene	ND		0.0010	mg/L	1	16-Jun-2015 04:04
Ethylbenzene	ND		0.0010	mg/L	1	16-Jun-2015 04:04
Xylenes, Total	ND		0.0030	mg/L	1	16-Jun-2015 04:04
Surr: 1,2-Dichloroethane-d4	106		71-125	%REC	1	16-Jun-2015 04:04
Surr: 4-Bromofluorobenzene	103		70-125	%REC	1	16-Jun-2015 04:04
Surr: Dibromofluoromethane	112		74-125	%REC	1	16-Jun-2015 04:04
Surr: Toluene-d8	115		75-125	%REC	1	16-Jun-2015 04:04

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Tasman Geosciences
 Project: Former Lee Gas Plant
 Sample ID: MW-17-060415
 Collection Date: 04-Jun-2015 11:00

ANALYTICAL REPORT

WorkOrder:HS15060325
 Lab ID:HS15060325-09
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260		Analyst: AKP		
Benzene	ND		0.0010	mg/L	1	16-Jun-2015 04:30
Toluene	ND		0.0010	mg/L	1	16-Jun-2015 04:30
Ethylbenzene	ND		0.0010	mg/L	1	16-Jun-2015 04:30
Xylenes, Total	ND		0.0030	mg/L	1	16-Jun-2015 04:30
Surr: 1,2-Dichloroethane-d4	106		71-125	%REC	1	16-Jun-2015 04:30
Surr: 4-Bromofluorobenzene	103		70-125	%REC	1	16-Jun-2015 04:30
Surr: Dibromofluoromethane	111		74-125	%REC	1	16-Jun-2015 04:30
Surr: Toluene-d8	114		75-125	%REC	1	16-Jun-2015 04:30

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Tasman Geosciences
Project: Former Lee Gas Plant
Sample ID: MW-18-060415
Collection Date: 04-Jun-2015 12:00

ANALYTICAL REPORT

WorkOrder:HS15060325
Lab ID:HS15060325-10
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260		Analyst: AKP		
Benzene	ND		0.0010	mg/L	1	16-Jun-2015 04:55
Toluene	ND		0.0010	mg/L	1	16-Jun-2015 04:55
Ethylbenzene	ND		0.0010	mg/L	1	16-Jun-2015 04:55
Xylenes, Total	ND		0.0030	mg/L	1	16-Jun-2015 04:55
Surr: 1,2-Dichloroethane-d4	106		71-125	%REC	1	16-Jun-2015 04:55
Surr: 4-Bromofluorobenzene	104		70-125	%REC	1	16-Jun-2015 04:55
Surr: Dibromofluoromethane	113		74-125	%REC	1	16-Jun-2015 04:55
Surr: Toluene-d8	115		75-125	%REC	1	16-Jun-2015 04:55

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Tasman Geosciences
Project: Former Lee Gas Plant
Sample ID: MW-19-060415
Collection Date: 04-Jun-2015 15:20

ANALYTICAL REPORT

WorkOrder:HS15060325
Lab ID:HS15060325-11
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260		Analyst: AKP		
Benzene	ND		0.0010	mg/L	1	16-Jun-2015 05:20
Toluene	ND		0.0010	mg/L	1	16-Jun-2015 05:20
Ethylbenzene	ND		0.0010	mg/L	1	16-Jun-2015 05:20
Xylenes, Total	ND		0.0030	mg/L	1	16-Jun-2015 05:20
Surr: 1,2-Dichloroethane-d4	106		71-125	%REC	1	16-Jun-2015 05:20
Surr: 4-Bromofluorobenzene	102		70-125	%REC	1	16-Jun-2015 05:20
Surr: Dibromofluoromethane	113		74-125	%REC	1	16-Jun-2015 05:20
Surr: Toluene-d8	112		75-125	%REC	1	16-Jun-2015 05:20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Tasman Geosciences
Project: Former Lee Gas Plant
Sample ID: MW-20-060415
Collection Date: 04-Jun-2015 12:45

ANALYTICAL REPORT

WorkOrder:HS15060325
Lab ID:HS15060325-12
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260		Analyst: AKP		
Benzene	ND		0.0010	mg/L	1	16-Jun-2015 05:45
Toluene	ND		0.0010	mg/L	1	16-Jun-2015 05:45
Ethylbenzene	ND		0.0010	mg/L	1	16-Jun-2015 05:45
Xylenes, Total	ND		0.0030	mg/L	1	16-Jun-2015 05:45
Surr: 1,2-Dichloroethane-d4	108		71-125	%REC	1	16-Jun-2015 05:45
Surr: 4-Bromofluorobenzene	101		70-125	%REC	1	16-Jun-2015 05:45
Surr: Dibromofluoromethane	112		74-125	%REC	1	16-Jun-2015 05:45
Surr: Toluene-d8	114		75-125	%REC	1	16-Jun-2015 05:45

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Tasman Geosciences
 Project: Former Lee Gas Plant
 Sample ID: MW-21-060415
 Collection Date: 04-Jun-2015 16:55

ANALYTICAL REPORT

WorkOrder:HS15060325
 Lab ID:HS15060325-13
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260		Analyst: PC		
Benzene	3.0		0.050	mg/L	50	17-Jun-2015 14:38
Toluene	ND		0.0010	mg/L	1	16-Jun-2015 17:19
Ethylbenzene	0.20		0.0010	mg/L	1	16-Jun-2015 17:19
Xylenes, Total	0.043		0.0030	mg/L	1	16-Jun-2015 17:19
<i>Surr: 1,2-Dichloroethane-d4</i>	122		71-125	%REC	1	16-Jun-2015 17:19
<i>Surr: 1,2-Dichloroethane-d4</i>	99.9		71-125	%REC	50	17-Jun-2015 14:38
<i>Surr: 4-Bromofluorobenzene</i>	97.0		70-125	%REC	1	16-Jun-2015 17:19
<i>Surr: 4-Bromofluorobenzene</i>	92.5		70-125	%REC	50	17-Jun-2015 14:38
<i>Surr: Dibromofluoromethane</i>	100		74-125	%REC	1	16-Jun-2015 17:19
<i>Surr: Dibromofluoromethane</i>	101		74-125	%REC	50	17-Jun-2015 14:38
<i>Surr: Toluene-d8</i>	96.8		75-125	%REC	1	16-Jun-2015 17:19
<i>Surr: Toluene-d8</i>	98.4		75-125	%REC	50	17-Jun-2015 14:38

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Tasman Geosciences
Project: Former Lee Gas Plant
Sample ID: MW-22-060415
Collection Date: 04-Jun-2015 17:08

ANALYTICAL REPORT

WorkOrder:HS15060325
Lab ID:HS15060325-14
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260		Analyst: AKP		
Benzene	ND		0.0010	mg/L	1	16-Jun-2015 06:10
Toluene	ND		0.0010	mg/L	1	16-Jun-2015 06:10
Ethylbenzene	ND		0.0010	mg/L	1	16-Jun-2015 06:10
Xylenes, Total	ND		0.0030	mg/L	1	16-Jun-2015 06:10
Surr: 1,2-Dichloroethane-d4	107		71-125	%REC	1	16-Jun-2015 06:10
Surr: 4-Bromofluorobenzene	101		70-125	%REC	1	16-Jun-2015 06:10
Surr: Dibromofluoromethane	110		74-125	%REC	1	16-Jun-2015 06:10
Surr: Toluene-d8	112		75-125	%REC	1	16-Jun-2015 06:10

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Tasman Geosciences
Project: Former Lee Gas Plant
Sample ID: TB-052215-36
Collection Date: 04-Jun-2015 00:00

ANALYTICAL REPORT

WorkOrder:HS15060325
Lab ID:HS15060325-15
Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260		Analyst: AKP		
Benzene	ND		0.0010	mg/L	1	16-Jun-2015 00:13
Toluene	ND		0.0010	mg/L	1	16-Jun-2015 00:13
Ethylbenzene	ND		0.0010	mg/L	1	16-Jun-2015 00:13
Xylenes, Total	ND		0.0030	mg/L	1	16-Jun-2015 00:13
Surr: 1,2-Dichloroethane-d4	110		71-125	%REC	1	16-Jun-2015 00:13
Surr: 4-Bromofluorobenzene	102		70-125	%REC	1	16-Jun-2015 00:13
Surr: Dibromofluoromethane	114		74-125	%REC	1	16-Jun-2015 00:13
Surr: Toluene-d8	116		75-125	%REC	1	16-Jun-2015 00:13

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Tasman Geosciences
 Project: Former Lee Gas Plant
 Sample ID: Duplicate-060415
 Collection Date: 04-Jun-2015 00:00

ANALYTICAL REPORT

WorkOrder:HS15060325
 Lab ID:HS15060325-16
 Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C		Method:SW8260		Analyst: PC		
Benzene	0.88		0.050	mg/L	50	16-Jun-2015 18:36
Toluene	ND		0.0010	mg/L	1	16-Jun-2015 18:09
Ethylbenzene	0.048		0.0010	mg/L	1	16-Jun-2015 18:09
Xylenes, Total	0.0081		0.0030	mg/L	1	16-Jun-2015 18:09
<i>Surr: 1,2-Dichloroethane-d4</i>	95.6		71-125	%REC	50	16-Jun-2015 18:36
<i>Surr: 1,2-Dichloroethane-d4</i>	103		71-125	%REC	1	16-Jun-2015 18:09
<i>Surr: 4-Bromofluorobenzene</i>	95.5		70-125	%REC	1	16-Jun-2015 18:09
<i>Surr: 4-Bromofluorobenzene</i>	93.2		70-125	%REC	50	16-Jun-2015 18:36
<i>Surr: Dibromofluoromethane</i>	99.1		74-125	%REC	50	16-Jun-2015 18:36
<i>Surr: Dibromofluoromethane</i>	100		74-125	%REC	1	16-Jun-2015 18:09
<i>Surr: Toluene-d8</i>	98.0		75-125	%REC	1	16-Jun-2015 18:09
<i>Surr: Toluene-d8</i>	99.0		75-125	%REC	50	16-Jun-2015 18:36

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Tasman Geosciences
Project: Former Lee Gas Plant
WorkOrder: HS15060325

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R256202 Test Name : LOW LEVEL VOLATILES BY SW8260C Matrix: Water						
HS15060325-15	TB-052215-36	04 Jun 2015 00:00			16 Jun 2015 00:13	1
Batch ID R256202 Test Name : LOW LEVEL VOLATILES BY SW8260C Matrix: Groundwater						
HS15060325-01	MW-7-060415	04 Jun 2015 19:40			16 Jun 2015 02:47	10
HS15060325-01	MW-7-060415	04 Jun 2015 19:40			16 Jun 2015 01:30	1
HS15060325-06	MW-13-060415	04 Jun 2015 15:34			16 Jun 2015 03:12	1
HS15060325-07	MW-14-060415	04 Jun 2015 18:05			16 Jun 2015 03:38	1
HS15060325-08	MW-16-060415	04 Jun 2015 09:15			16 Jun 2015 04:04	1
HS15060325-09	MW-17-060415	04 Jun 2015 11:00			16 Jun 2015 04:30	1
HS15060325-10	MW-18-060415	04 Jun 2015 12:00			16 Jun 2015 04:55	1
HS15060325-11	MW-19-060415	04 Jun 2015 15:20			16 Jun 2015 05:20	1
HS15060325-12	MW-20-060415	04 Jun 2015 12:45			16 Jun 2015 05:45	1
HS15060325-14	MW-22-060415	04 Jun 2015 17:08			16 Jun 2015 06:10	1
Batch ID R256207 Test Name : LOW LEVEL VOLATILES BY SW8260C Matrix: Groundwater						
HS15060325-02	MW-9-060415	04 Jun 2015 14:22			16 Jun 2015 22:02	10
HS15060325-02	MW-9-060415	04 Jun 2015 14:22			16 Jun 2015 21:34	1
HS15060325-04	MW-11-060415	04 Jun 2015 15:47			16 Jun 2015 21:09	1
Batch ID R256318 Test Name : LOW LEVEL VOLATILES BY SW8260C Matrix: Groundwater						
HS15060325-03	MW-10-060415	04 Jun 2015 19:18			16 Jun 2015 21:40	10
HS15060325-05	MW-12-060415	04 Jun 2015 18:53			16 Jun 2015 19:28	50
HS15060325-05	MW-12-060415	04 Jun 2015 18:53			16 Jun 2015 19:02	5
HS15060325-13	MW-21-060415	04 Jun 2015 16:55			16 Jun 2015 17:19	1
HS15060325-16	Duplicate-060415	04 Jun 2015 00:00			16 Jun 2015 18:36	50
HS15060325-16	Duplicate-060415	04 Jun 2015 00:00			16 Jun 2015 18:09	1
Batch ID R256391 Test Name : LOW LEVEL VOLATILES BY SW8260C Matrix: Groundwater						
HS15060325-03	MW-10-060415	04 Jun 2015 19:18			17 Jun 2015 12:13	250
HS15060325-13	MW-21-060415	04 Jun 2015 16:55			17 Jun 2015 14:38	50

Client: Tasman Geosciences
Project: Former Lee Gas Plant
WorkOrder: HS15060325

QC BATCH REPORT

Batch ID: R256202		Instrument: VOA4		Method: SW8260					
MBLK	Sample ID: VBLKW-150615	Units: ug/L		Analysis Date: 15-Jun-2015 23:46					
Client ID:	Run ID: VOA4_256202	SeqNo: 3320705		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	ND	1.0							
Ethylbenzene	ND	1.0							
Toluene	ND	1.0							
Xylenes, Total	ND	3.0							
Surr: 1,2-Dichloroethane-d4	54.63	1.0	50	0	109	71 - 125			
Surr: 4-Bromofluorobenzene	52.85	1.0	50	0	106	70 - 125			
Surr: Dibromofluoromethane	56.65	1.0	50	0	113	74 - 125			
Surr: Toluene-d8	56.25	1.0	50	0	112	75 - 125			

LCS	Sample ID: VLCSW-150615	Units: ug/L		Analysis Date: 15-Jun-2015 22:55					
Client ID:	Run ID: VOA4_256202	SeqNo: 3320704		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	50.44	1.0	50	0	101	80 - 120			
Ethylbenzene	48.39	1.0	50	0	96.8	80 - 120			
Toluene	48.97	1.0	50	0	97.9	75 - 121			
Xylenes, Total	150.1	3.0	150	0	100	79 - 124			
Surr: 1,2-Dichloroethane-d4	50.15	1.0	50	0	100	71 - 125			
Surr: 4-Bromofluorobenzene	53.07	1.0	50	0	106	70 - 125			
Surr: Dibromofluoromethane	54.04	1.0	50	0	108	74 - 125			
Surr: Toluene-d8	55.2	1.0	50	0	110	75 - 125			

MS	Sample ID: HS15060325-01MS	Units: ug/L		Analysis Date: 16-Jun-2015 01:56					
Client ID: MW-7-060415	Run ID: VOA4_256202	SeqNo: 3320710		PrepDate:		DF: 10			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	769.7	10	500	232.1	108	80 - 120			
Ethylbenzene	503.5	10	500	4.185	99.9	80 - 120			
Toluene	524.2	10	500	0	105	75 - 121			
Xylenes, Total	1548	30	1500	7.803	103	80 - 124			
Surr: 1,2-Dichloroethane-d4	579.1	10	500	0	116	71 - 125			
Surr: 4-Bromofluorobenzene	551.2	10	500	0	110	70 - 125			
Surr: Dibromofluoromethane	605.5	10	500	0	121	74 - 125			
Surr: Toluene-d8	573.3	10	500	0	115	75 - 125			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Tasman Geosciences
Project: Former Lee Gas Plant
WorkOrder: HS15060325

QC BATCH REPORT

Batch ID: R256202		Instrument: VOA4		Method: SW8260					
MSD		Sample ID: HS15060325-01MSD		Units: ug/L		Analysis Date: 16-Jun-2015 02:21			
Client ID: MW-7-060415		Run ID: VOA4_256202		SeqNo: 3320711		PrepDate:		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Benzene	723.3	10	500	232.1	98.2	80 - 120	769.7	6.21	20
Ethylbenzene	504.1	10	500	4.185	100.0	80 - 120	503.5	0.12	20
Toluene	503.6	10	500	0	101	75 - 121	524.2	4.01	20
Xylenes, Total	1524	30	1500	7.803	101	80 - 124	1548	1.57	20
Surr: 1,2-Dichloroethane-d4	583.4	10	500	0	117	71 - 125	579.1	0.742	20
Surr: 4-Bromofluorobenzene	537.3	10	500	0	107	70 - 125	551.2	2.56	20
Surr: Dibromofluoromethane	608.2	10	500	0	122	74 - 125	605.5	0.447	20
Surr: Toluene-d8	569.7	10	500	0	114	75 - 125	573.3	0.631	20
The following samples were analyzed in this batch:		HS15060325-01		HS15060325-06		HS15060325-07		HS15060325-08	
		HS15060325-09		HS15060325-10		HS15060325-11		HS15060325-12	
		HS15060325-14		HS15060325-15					

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Tasman Geosciences
Project: Former Lee Gas Plant
WorkOrder: HS15060325

QC BATCH REPORT

Batch ID: R256207		Instrument: VOA2		Method: SW8260					
MBLK	Sample ID: VBLKW-150616	Units: ug/L		Analysis Date: 16-Jun-2015 12:21					
Client ID:	Run ID: VOA2_256207	SeqNo: 3322663		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	ND	1.0							
Ethylbenzene	ND	1.0							
Toluene	ND	1.0							
Xylenes, Total	ND	3.0							
Surr: 1,2-Dichloroethane-d4	43.82	1.0	50	0	87.6	71 - 125			
Surr: 4-Bromofluorobenzene	46.75	1.0	50	0	93.5	70 - 125			
Surr: Dibromofluoromethane	48.89	1.0	50	0	97.8	74 - 125			
Surr: Toluene-d8	47	1.0	50	0	94.0	75 - 125			

LCS	Sample ID: VLCSW-150616	Units: ug/L		Analysis Date: 16-Jun-2015 11:30					
Client ID:	Run ID: VOA2_256207	SeqNo: 3322662		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	45.43	1.0	50	0	90.9	80 - 120			
Ethylbenzene	49.25	1.0	50	0	98.5	80 - 120			
Toluene	44.57	1.0	50	0	89.1	75 - 121			
Xylenes, Total	142	3.0	150	0	94.7	79 - 124			
Surr: 1,2-Dichloroethane-d4	44.08	1.0	50	0	88.2	71 - 125			
Surr: 4-Bromofluorobenzene	48	1.0	50	0	96.0	70 - 125			
Surr: Dibromofluoromethane	48.9	1.0	50	0	97.8	74 - 125			
Surr: Toluene-d8	47.27	1.0	50	0	94.5	75 - 125			

MS	Sample ID: HS15060360-13MS	Units: ug/L		Analysis Date: 16-Jun-2015 15:48					
Client ID:	Run ID: VOA2_256207	SeqNo: 3322671		PrepDate:		DF: 10			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	891.7	10	500	470.4	84.3	80 - 120			
Ethylbenzene	495.9	10	500	8.149	97.5	80 - 120			
Toluene	453.1	10	500	0	90.6	75 - 121			
Xylenes, Total	1432	30	1500	0	95.4	80 - 124			
Surr: 1,2-Dichloroethane-d4	426	10	500	0	85.2	71 - 125			
Surr: 4-Bromofluorobenzene	486.1	10	500	0	97.2	70 - 125			
Surr: Dibromofluoromethane	485.1	10	500	0	97.0	74 - 125			
Surr: Toluene-d8	475.5	10	500	0	95.1	75 - 125			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Tasman Geosciences
 Project: Former Lee Gas Plant
 WorkOrder: HS15060325

QC BATCH REPORT

Batch ID: R256207		Instrument: VOA2		Method: SW8260						
MSD		Sample ID: HS15060360-13MSD		Units: ug/L		Analysis Date: 16-Jun-2015 16:13				
Client ID:		Run ID: VOA2_256207		SeqNo: 3322672		PrepDate:		DF: 10		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	868	10	500	470.4	79.5	80 - 120	891.7	2.69	20	S
Ethylbenzene	468.5	10	500	8.149	92.1	80 - 120	495.9	5.67	20	
Toluene	429.4	10	500	0	85.9	75 - 121	453.1	5.38	20	
Xylenes, Total	1356	30	1500	0	90.4	80 - 124	1432	5.42	20	
Surr: 1,2-Dichloroethane-d4	443.9	10	500	0	88.8	71 - 125	426	4.12	20	
Surr: 4-Bromofluorobenzene	480.8	10	500	0	96.2	70 - 125	486.1	1.09	20	
Surr: Dibromofluoromethane	484	10	500	0	96.8	74 - 125	485.1	0.241	20	
Surr: Toluene-d8	467.9	10	500	0	93.6	75 - 125	475.5	1.61	20	
The following samples were analyzed in this batch: HS15060325-02 HS15060325-04										

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Tasman Geosciences
Project: Former Lee Gas Plant
WorkOrder: HS15060325

QC BATCH REPORT

Batch ID: R256318		Instrument: VOA7		Method: SW8260					
MBLK	Sample ID: VBLKW-150616	Units: ug/L		Analysis Date: 16-Jun-2015 11:59					
Client ID:	Run ID: VOA7_256318	SeqNo: 3322798		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	ND	1.0							
Ethylbenzene	ND	1.0							
Toluene	ND	1.0							
Xylenes, Total	ND	3.0							
Surr: 1,2-Dichloroethane-d4	48	1.0	50	0	96.0	71 - 125			
Surr: 4-Bromofluorobenzene	47.18	1.0	50	0	94.4	70 - 125			
Surr: Dibromofluoromethane	49.72	1.0	50	0	99.4	74 - 125			
Surr: Toluene-d8	48.79	1.0	50	0	97.6	75 - 125			

LCS	Sample ID: VLCSW-150616	Units: ug/L		Analysis Date: 16-Jun-2015 10:48					
Client ID:	Run ID: VOA7_256318	SeqNo: 3322797		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	50.64	1.0	50	0	101	80 - 120			
Ethylbenzene	50.39	1.0	50	0	101	80 - 120			
Toluene	49.66	1.0	50	0	99.3	75 - 121			
Xylenes, Total	150.1	3.0	150	0	100	79 - 124			
Surr: 1,2-Dichloroethane-d4	50.35	1.0	50	0	101	71 - 125			
Surr: 4-Bromofluorobenzene	51.49	1.0	50	0	103	70 - 125			
Surr: Dibromofluoromethane	50.8	1.0	50	0	102	74 - 125			
Surr: Toluene-d8	49.21	1.0	50	0	98.4	75 - 125			

MS	Sample ID: HS15060608-01MS	Units: ug/L		Analysis Date: 16-Jun-2015 15:16					
Client ID:	Run ID: VOA7_256318	SeqNo: 3322800		PrepDate:		DF: 25			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	1188	25	1250	0	95.1	80 - 120			
Ethylbenzene	1176	25	1250	31.21	91.6	80 - 120			
Toluene	1172	25	1250	0	93.8	75 - 121			
Xylenes, Total	3616	75	3750	26.49	95.7	80 - 124			
Surr: 1,2-Dichloroethane-d4	1287	25	1250	0	103	71 - 125			
Surr: 4-Bromofluorobenzene	1299	25	1250	0	104	70 - 125			
Surr: Dibromofluoromethane	1289	25	1250	0	103	74 - 125			
Surr: Toluene-d8	1222	25	1250	0	97.8	75 - 125			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Tasman Geosciences
Project: Former Lee Gas Plant
WorkOrder: HS15060325

QC BATCH REPORT

Batch ID: R256318		Instrument: VOA7		Method: SW8260					
MSD		Sample ID: HS15060608-01MSD		Units: ug/L		Analysis Date: 16-Jun-2015 15:39			
Client ID:		Run ID: VOA7_256318		SeqNo: 3322801		PrepDate:		DF: 25	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	1213	25	1250	0	97.1	80 - 120	1188	2.1	20
Ethylbenzene	1207	25	1250	31.21	94.1	80 - 120	1176	2.61	20
Toluene	1198	25	1250	0	95.9	75 - 121	1172	2.22	20
Xylenes, Total	3640	75	3750	26.49	96.4	80 - 124	3616	0.681	20
Surr: 1,2-Dichloroethane-d4	1259	25	1250	0	101	71 - 125	1287	2.22	20
Surr: 4-Bromofluorobenzene	1307	25	1250	0	105	70 - 125	1299	0.644	20
Surr: Dibromofluoromethane	1274	25	1250	0	102	74 - 125	1289	1.19	20
Surr: Toluene-d8	1225	25	1250	0	98.0	75 - 125	1222	0.236	20
The following samples were analyzed in this batch:									
HS15060325-03		HS15060325-05		HS15060325-13		HS15060325-16			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Tasman Geosciences
Project: Former Lee Gas Plant
WorkOrder: HS15060325

QC BATCH REPORT

Batch ID: R256391		Instrument: VOA7		Method: SW8260					
MBLK	Sample ID: VBLKW-150617	Units: ug/L		Analysis Date: 17-Jun-2015 11:50					
Client ID:	Run ID: VOA7_256391	SeqNo: 3323922		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	ND	1.0							
Surr: 1,2-Dichloroethane-d4	48.83	1.0	50	0	97.7	71 - 125			
Surr: 4-Bromofluorobenzene	46.86	1.0	50	0	93.7	70 - 125			
Surr: Dibromofluoromethane	51.22	1.0	50	0	102	74 - 125			
Surr: Toluene-d8	49.54	1.0	50	0	99.1	75 - 125			

LCS	Sample ID: VLCSW-150617	Units: ug/L		Analysis Date: 17-Jun-2015 14:11					
Client ID:	Run ID: VOA7_256391	SeqNo: 3323959		PrepDate:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	51.43	1.0	50	0	103	80 - 120			
Surr: 1,2-Dichloroethane-d4	51.32	1.0	50	0	103	71 - 125			
Surr: 4-Bromofluorobenzene	51.82	1.0	50	0	104	70 - 125			
Surr: Dibromofluoromethane	51.54	1.0	50	0	103	74 - 125			
Surr: Toluene-d8	49.04	1.0	50	0	98.1	75 - 125			

MS	Sample ID: HS15060325-03MS	Units: ug/L		Analysis Date: 17-Jun-2015 13:24					
Client ID: MW-10-060415	Run ID: VOA7_256391	SeqNo: 3323926		PrepDate:		DF: 250			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	37310	250	12500	23930	107	80 - 120			
Surr: 1,2-Dichloroethane-d4	12880	250	12500	0	103	71 - 125			
Surr: 4-Bromofluorobenzene	12880	250	12500	0	103	70 - 125			
Surr: Dibromofluoromethane	12800	250	12500	0	102	74 - 125			
Surr: Toluene-d8	12270	250	12500	0	98.2	75 - 125			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Tasman Geosciences
Project: Former Lee Gas Plant
WorkOrder: HS15060325

QC BATCH REPORT

Batch ID: R256391		Instrument: VOA7		Method: SW8260						
MSD		Sample ID: HS15060325-03MSD		Units: ug/L		Analysis Date: 17-Jun-2015 13:48				
Client ID: MW-10-060415		Run ID: VOA7_256391		SeqNo: 3323927		PrepDate:		DF: 250		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	37220	250	12500	23930	106	80 - 120	37310	0.252	20	
Surr: 1,2-Dichloroethane-d4	13150	250	12500	0	105	71 - 125	12880	2.09	20	
Surr: 4-Bromofluorobenzene	12800	250	12500	0	102	70 - 125	12880	0.67	20	
Surr: Dibromofluoromethane	12980	250	12500	0	104	74 - 125	12800	1.34	20	
Surr: Toluene-d8	12110	250	12500	0	96.9	75 - 125	12270	1.33	20	
The following samples were analyzed in this batch:										
			HS15060325-03 HS15060325-13							

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Tasman Geosciences
Project: Former Lee Gas Plant
WorkOrder: HS15060325

**QUALIFIERS,
ACRONYMS, UNITS**

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

Unit Reported	Description
mg/L	Milligrams per Liter

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	15-024-0	27-Mar-2016
California	2919	31-Jul-2016
Dept of Defense	L2231 Rev 3-20-2014	22-Dec-2015
Illinois	003622	09-May-2016
Kansas	E-10352 2014-2015	31-Jul-2015
Louisiana	03087 2014/2015	30-Jun-2015
North Carolina	624 - 2015	31-Dec-2015
Oklahoma	2014-128	31-Aug-2015
Texas	T104704231-15-15	30-Apr-2016

Client: Tasman Geosciences
Project: Former Lee Gas Plant
Work Order: HS15060325

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS15060325-01	MW-7-060415	Login	6/6/2015 4:17:00 PM	CGG	VW-3
HS15060325-02	MW-9-060415	Login	6/6/2015 4:17:00 PM	CGG	VW-3
HS15060325-03	MW-10-060415	Login	6/6/2015 4:17:00 PM	CGG	VW-3
HS15060325-04	MW-11-060415	Login	6/6/2015 4:17:00 PM	CGG	VW-3
HS15060325-05	MW-12-060415	Login	6/6/2015 4:17:01 PM	CGG	VW-3
HS15060325-06	MW-13-060415	Login	6/6/2015 4:17:01 PM	CGG	VW-3
HS15060325-07	MW-14-060415	Login	6/6/2015 4:17:01 PM	CGG	VW-3
HS15060325-08	MW-16-060415	Login	6/6/2015 4:17:01 PM	CGG	VW-3
HS15060325-09	MW-17-060415	Login	6/6/2015 4:17:01 PM	CGG	VW-3
HS15060325-10	MW-18-060415	Login	6/6/2015 4:17:01 PM	CGG	VW-3
HS15060325-11	MW-19-060415	Login	6/6/2015 4:17:01 PM	CGG	VW-3
HS15060325-12	MW-20-060415	Login	6/6/2015 4:17:01 PM	CGG	VW-3
HS15060325-13	MW-21-060415	Login	6/6/2015 4:17:01 PM	CGG	VW-3
HS15060325-14	MW-22-060415	Login	6/6/2015 4:17:01 PM	CGG	VW-3
HS15060325-15	TB-052215-36	Login	6/6/2015 4:17:01 PM	CGG	VW-3
HS15060325-16	Duplicate-060415	Login	6/6/2015 4:17:01 PM	CGG	VW-3

Sample Receipt Checklist

Client Name: Tasman Geosciences

Date/Time Received: **06-Jun-2015 09:17**

Work Order: HS15060325

Received by: **CGG**

Checklist completed by:	<u>Corey Grandits</u>	6-Jun-2015	Reviewed by:	<u>Sonia West</u>	10-Jun-2015
	eSignature	Date		eSignature	Date

Matrices: **Water**Carrier name: **FedEx Priority Overnight**

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☐	No ☒	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☒	No ☐	
Temperature(s)/Thermometer(s):	0.4C/0.9C c/uc 5		
Cooler(s)/Kit(s):	24345		
Date/Time sample(s) sent to storage:	06/06/2015 16:30		
Water - VOA vials have zero headspace?	Yes ☒	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☒
pH adjusted?	Yes ☐	No ☐	N/A ☒
pH adjusted by:			

Login Notes: MW-7, 12, 21, 22 have different times than COC. (17:40, 19:05, 17:10, 17:35)

Client Contacted: Date Contacted: Person Contacted:

Contacted By: 0 Regarding:

Comments:

Corrective Action:



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Chain of Custody Form

Page 1 of 2

COC ID: 104552

HS15060325

Tasman Geosciences

Former Lee Gas Plant



Customer Information				Project Information				ALS Project Manager:											
Purchase Order		Project Name	Former Lee Gas Plant	A	BTEX (8260)														
Work Order		Project Number		B															
Company Name	Tasman Geosciences	Bill To Company	DCP midstream	C															
Send Report To	Brian Humphrey	Invoice Attn	Steve Weathers	D															
Address		Address		E															
City/State/Zip		City/State/Zip		F															
Phone	720-633-5143	Phone		G															
Fax	720-633-5143	Fax		H															
e-Mail Address	bhumphrey@tasmangeo.com	e-Mail Address		I															
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold		
1	MW-7-060415	06-04-15	19:40	GW	HCL/ICE	3	3												
2	MW-9-060415	"	14:22	"	"	"	3												
3	MW-10-060415	"	19:18	"	"	"	3												
4	MW-11-060415	"	15:47	"	"	"	3												
5	MW-12-060415	"	18:53	"	"	"	3												
6	MW-13-060415	"	15:34	"	"	"	3												
7	MW-14-060415	"	18:05	"	"	"	3												
8	MW-16-060415	"	09:15	"	"	"	3												
9	MW-17-060415	"	11:00	"	"	"	3												
10	MW-18-060415	"	12:06	"	"	"	3												
Sampler(s) Please Print & Sign			Shipment Method		Required Turnaround Time: (Check Box)				Results Due Date:										
Relinquished by:		Date:	Time:	Received by:		Notes:													
Relinquished by:		Date:	Time:	Received by (Laboratory):		Cooler ID: 24745 Cooler Temp: 0.9 QC Package: (Check One Box Below)													
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):		24745 105 CF=0.5													
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035																			

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
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3. The Chain of Custody is a legal document.

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Chain of Custody Form

Page ____ of ____

COC ID: 104551

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Salt Lake City, UT
+1 801 266 7700

South Charleston, WV
+1 304 356 3168

York, PA
+1 717 505 5280

Customer Information		Project Information		Parameter/Method Request for Analysis													
Purchase Order		Project Name	Former Lee Gas Plant	BTEX C8260													
Work Order		Project Number															
Company Name	Tasman Geosciences	Bill To Company	DCP Midstream														
Send Report To	Brian Humphrey	Invoice Attn	Steve Wathers														
Address		Address															
City/State/Zip		City/State/Zip															
Phone	720-633-5143	Phone															
Fax		Fax															
e-Mail Address	bhumphrey@tasman-geo.com	e-Mail Address															
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-19-060415	06-04-15	15:20	GW	HCL/ICE	3	3										
2	MW-20-060415	"	12:45	"	"	3	3										
3	MW-21-060415	"	16:55	"	"	3	3										
4	MW-22-060415	"	17:08	"	"	3	3										
5	Trip blank	"		DI	HCL/ICE	2	2										
6	Duplicate-060415	"		GW	HCL/ICE	3	3										
7																	
8																	
9																	
10																	
Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)								Results Due Date:					
Relinquished by:		Date: 06-05-15	Time: 10:00	Received by:		Notes:											
Relinquished by:		Date:	Time:	Received by (Laboratory):		Cooler ID: 24345, Cooler Temp: 0.4, QC Package: (Check One Box Below)											
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):		CF=0.9											
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035																	

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**SATURDAY 12:00P
PRIORITY OVERNIGHT**

XO SGRA

77099

TX- US IAH



 10450 Stancil Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 6656 Fax. +1 281 530 5887	Environmental		6/16/92 CUSTODY SEAL		Sent By: 6/16
	Date:	6/16/92	Time:	1:48	6/16
	Name:	Elliot D. Jones - H-200			
	Company:	Tecson			

 ALS Environmental 10450 Stanchiff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	6/5/95 CUSTODY SEAL		San Brother By: <u>CS</u> Date: <u>6/6</u>
	Date: <u>6/5/95</u>	Time: <u>1:28</u>	
	Name: <u>File of D. V. N. N. 703</u>		
	Company: <u>Isner</u>		