Second Half 2016 Semi-Annual Groundwater Monitoring Summary Report

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

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1. Introduction

This report summarizes groundwater monitoring and remediation activities conducted during the second half 2016 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 December 20, 2016. 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 second half 2016 monitoring event on December 20, 2016. Monitoring activities included Site-wide groundwater gauging, LNAPL measurements, and groundwater sampling. Figure 2 illustrates the groundwater monitoring well network utilized to perform these activities at the Site.

3.1 Groundwater Monitoring and LNAPL Thickness

Depth to groundwater, later converted to elevation, and LNAPL thicknesses were measured in order to evaluate hydraulic characteristics and provide information regarding seasonal and annual fluctuations in groundwater elevations at the Site. During the second half 2016, groundwater levels were measured at 19 monitoring well locations. LNAPL was detected in the following four monitoring wells, with the measured thickness indicated in parenthesis:

- MW-5 (0.46 feet)
- MW-6 (1.46 feet)
- MW-8 (2.10 feet)
- MW-15 (2.41 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 second half 2016 groundwater elevation map, included as Figure 3, indicates that groundwater flow at the Site trends to the southwest. Groundwater elevations ranges, average elevation changes from previous monitoring events, and calculated hydraulic gradients (using elevations from MW-15 and MW-20) at the Site are summarized in the table below.

Summary of Measured Hydraulic Parameters

	Second Half 2016 (12/20/2016)
Maximum Elevation (Well ID)	3,872.90 (MW-15)
Minimum Elevation (Well ID)	3,868.67 (MW-20)
Average Change from Previous Monitoring Event (ft) – All Wells	-0.18
Hydraulic Gradient (ft/ft) / (Well IDs)	0.0035 (MW-15 to MW-20)

3.2 Groundwater Quality

Subsequent to recording groundwater level measurements, groundwater samples were collected from 14 monitoring wells at the Site. 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 (^{0}C) 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 total xylenes (BTEX) by United States Environmental Protection Agency (USEPA) Method 8260B.

Monitoring wells with measured LNAPL (MW-5, MW-6, MW-8, 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 collect a representative sample.

Table 2 summarizes BTEX concentrations in groundwater samples collected during the reporting period. Analytical results from the December 2016 monitoring event are displayed on Figure 4. Historic analytical results up to and including the December 2016 event are included in Appendix A. The laboratory analytical report for the second half 2016 event is included in Appendix B.

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 four locations, and the concentrations listed:

- MW-9: 8.9 mg/L
- MW-10: 30 mg/L (29 mg/L Duplicate)
- MW-12: 11 mg/L
- MW-21: 11 mg/L (12 mg/L Duplicate)

Ethylbenzene was above the NMWQCC standards of 0.75 mg/L at monitoring well MW-21 with detected concentrations of 1.3 mg/L in the primary and duplicate samples.

All other samples collected had BTEX concentrations below applicable NMWQCC groundwater standards and/or laboratory detection limits.

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; field duplicate samples from wells MW-10 and MW-21 were 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 second half 2016 groundwater monitoring event indicated the following:

- Target analytes were not detected in the trip blank;

- MW-10 and the associated duplicate sample exhibited benzene concentrations of 30 mg/L and 29 mg/L, respectively. The calculated relative percent difference (RPD) for the samples was 3.4, which is within the target control range of 20.
- MW-21 and the associated duplicate sample exhibited benzene concentrations of 11 mg/L and 12 mg/L respectively. The RPD for the samples from MW-21 is 8.7, which is within the target control range of 20.
- 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 second half 2016 data indicates that both field precision and overall data precision and accuracy are acceptable.

4. Remediation Activities

Measurable free phase hydrocarbons were detected during the reporting period in monitoring wells MW-5, MW-6, MW-8, and MW-15 as summarized in Tables 1 and 2. LNAPL recovery at MW-15 was initiated on September 14, 2013 (second half 2013) using a Magnum Spill Buster automatic LNAPL recovery system. Details regarding Spill Buster implementation were described in the Second Half 2013 Report. The Spill Buster system has operated continuously with minimal downtime due to pump cleaning and operational checks.

During the reporting period between June 22, 2016 and December 20, 2016, the Spill Buster removed approximately 24 gallons of LNAPL with an average extraction rate of 0.13 gallons per day (gpd). Since LNAPL recovery was initiated at MW-15, the Spill Buster system has removed a total of approximately 440 gallons of LNAPL up to December 2016. 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 on the next page.

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
31-Aug-15	2.05	1.68	- -	18.94	- -	359.42	0.10
15-Dec-15	2.05	1.46	- -	30.21	- -	370.69	0.11
23-Mar-16	2.05	1.06	- -	50.69	- -	391.17	0.21
The 105 gallon poly holding tank was emptied and replaced with a 55-gallon steel drum holding tank on March 23, 2016							
22-Jun-16	2.85	1.53	- -	25.48	- -	416.64	0.28
20-Dec-16	2.85	0.30	- -	49.22	- -	440.38	0.13
Tank emptied on 12/21/16.							

Notes:
- One foot within the 105-gallon poly holding tank equals 51.22 gallons/ One tenth of a foot equals 5.12 gallons.
- One foot within the 55-gallon steel drum holding tank equals 19.3 Gallons.

5. Conclusions

During the second half 2016, measurable thicknesses of LNAPL continue to be observed in four of the Site monitoring wells. In addition, elevated benzene concentrations above the NMWQCC standard persist in four locations across the Site based on the December 2016 groundwater analytical results.

Comparison of the second half 2016 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.
- BTEX concentrations throughout the Site continue to fluctuate when compared to historical data.
- The reduced LNAPL extraction volume and rate (when compared to previous reporting periods) for the Spill Buster system at MW-15 is likely due to the recovery tank becoming full sometime during the early part of the fourth quarter, resulting in the tank's level switch being activated and the system being shut down. Additionally, this is likely the cause for the increased LNAPL thickness (2.41 feet) that was observed within the well when compared to previous reporting periods. The recovery tank was emptied on December 21, 2016 and the system was restarted and observed to operate normally.

6. Recommendations

Based on evaluation of second half 2016 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 the current remedial strategy for the Site. 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.
- Evaluate the potential for LNAPL recovery using a Spill Buster remediation system at monitoring well MW-8.
- Evaluate additional in-situ groundwater remediation activities at the Site including, but not limited to traditional soil vapor extraction (SVE) and air sparge (AS) treatment technologies.

Tables

TABLE 1
SECOND HALF 2016 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	06/21/16	Dry			100.86	3979.21 (2)	NA	NA
MW-1	12/20/16	Dry			NM	3979.21 (2)	NA	NA
MW-2	06/21/16	Dry			107.73	3980.49 (2)	NA	NA
MW-2	12/20/16	Dry			NM	3980.49 (2)	NA	NA
MW-3	06/22/16	107.66			108.32	3980.27	3872.61	NA
MW-3	12/20/16	Dry			NM	3980.27	NA	NA
MW-4	06/21/16	Dry			103.47	NM	NA	NA
MW-4	12/20/16	Dry			103.47	NM	NA	NA
MW-5	06/20/16	108.48	107.99	0.49	NM	3979.82	3871.71	-0.13
MW-5	12/20/16	108.65	108.19	0.46	NM	3979.82	3871.52	-0.19
MW-6	06/21/16	110.44	109.34	1.10	NM	3981.79	3872.18	-0.05
MW-6	12/20/16	110.90	109.44	1.46	NM	3981.79	3871.99	-0.19
MW-7	06/22/16	108.16			112.32	3978.45	3870.29	-0.12
MW-7	12/20/16	108.28			112.32	3978.45	3870.17	-0.12
MW-8	06/21/16	112.21	109.81	2.40	NM	3979.96	3869.55	NA
MW-8	12/20/16	112.20	110.10	2.10	NM	3979.96	3869.34	NA
MW-9	06/22/16	109.71			117.01	3980.17	3870.46	-0.08
MW-9	12/20/16	109.92			117.01	3980.17	3870.25	-0.21
MW-10	06/22/16	109.45			117.39	3979.66	3870.21	-0.10
MW-10	12/20/16	109.62			117.39	3979.66	3870.04	-0.17
MW-11	06/22/16	108.66			118.17	3978.50	3869.84	-0.13
MW-11	12/20/16	108.80			118.17	3978.50	3869.70	-0.14
MW-12	06/22/16	109.07			117.57	3978.82	3869.75	-0.31
MW-12	12/20/16	109.20			117.57	3978.82	3869.62	-0.13
MW-13	06/22/16	110.88			122.12	3980.52	3869.64	-0.12
MW-13	12/20/16	111.09			122.12	3980.52	3869.43	-0.21
MW-14	06/22/16	112.20			118.64	3982.23	3870.03	-0.10
MW-14	12/20/16	112.39			118.64	3982.23	3869.84	-0.19
MW-15	06/21/16	109.71	109.54	0.17	NM	3982.70	3873.12	0.91
MW-15	12/20/16	111.61	109.20	2.41	NM	3982.70	3872.90	-0.22
MW-16	06/21/16	108.18			128.31	3980.80	3872.62	-0.03
MW-16	12/20/16	108.38			128.31	3980.80	3872.42	-0.20
MW-17	06/21/16	110.55			128.19	3981.80	3871.25	-0.44
MW-17	12/20/16	110.75			128.19	3981.80	3871.05	-0.20
MW-18	06/21/16	111.86			125.57	3983.10	3871.24	-0.46
MW-18	12/20/16	112.00			125.57	3983.10	3871.10	-0.14
MW-19	06/21/16	111.90			126.66	3980.80	3868.90	-0.12
MW-19	12/20/16	112.09			126.66	3980.80	3868.71	-0.19
MW-20	06/21/16	114.49			135.77	3983.30	3868.81	-0.51
MW-20	12/20/16	114.63			135.77	3983.30	3868.67	-0.14
MW-21	06/22/16	110.37			123.59	3981.5 (2)	3871.13	-0.42
MW-21	12/20/16	110.58			123.59	3981.5 (2)	3870.92	-0.21
MW-22	06/22/16	110.48			148.22	3981.15 (2)	3870.67	-0.40

TABLE 1
SECOND HALF 2016 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-22	12/20/16	110.71			148.22	3981.15 [(2)]	3870.44	-0.23
MW-23	06/21/16	Dry			100.92	3980.54 [(2)]	NA	NA
MW-23	12/20/16	Dry			NM	3980.54 [(2)]	NA	NA
						Average change in groundwater elevation (06/22/2016 to 12/20/2016)		-0.18

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

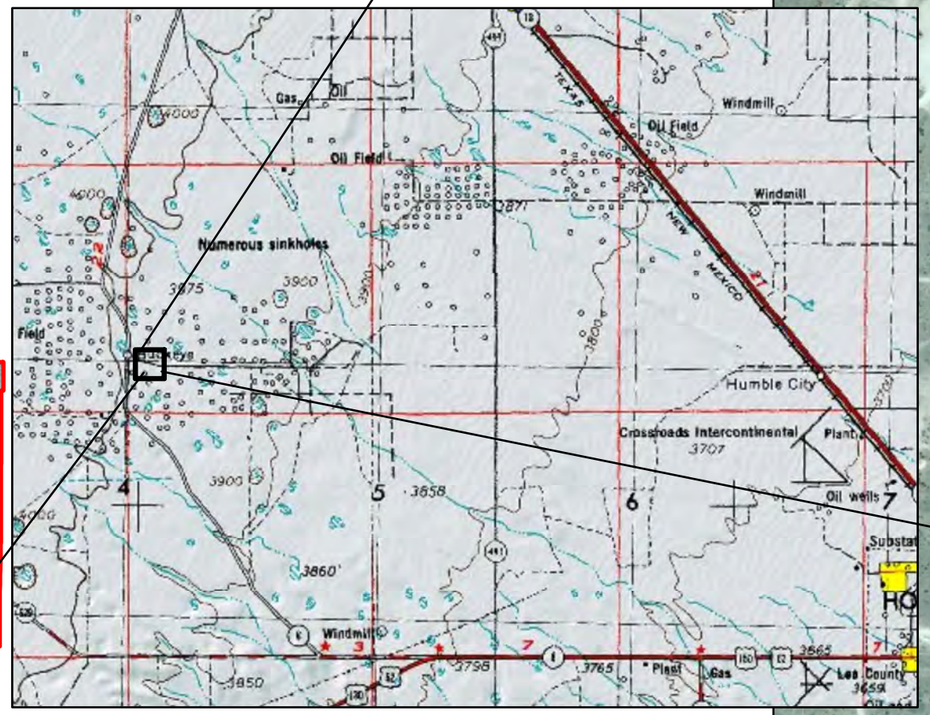
TABLE 2
SECOND HALF 2016 SEMI-ANNUAL
SUMMARY OF BTEX CONCENTRATIONS IN GROUNDWATER
FORMER LEE GAS PLANT
LEA COUNTY, NEW MEXICO

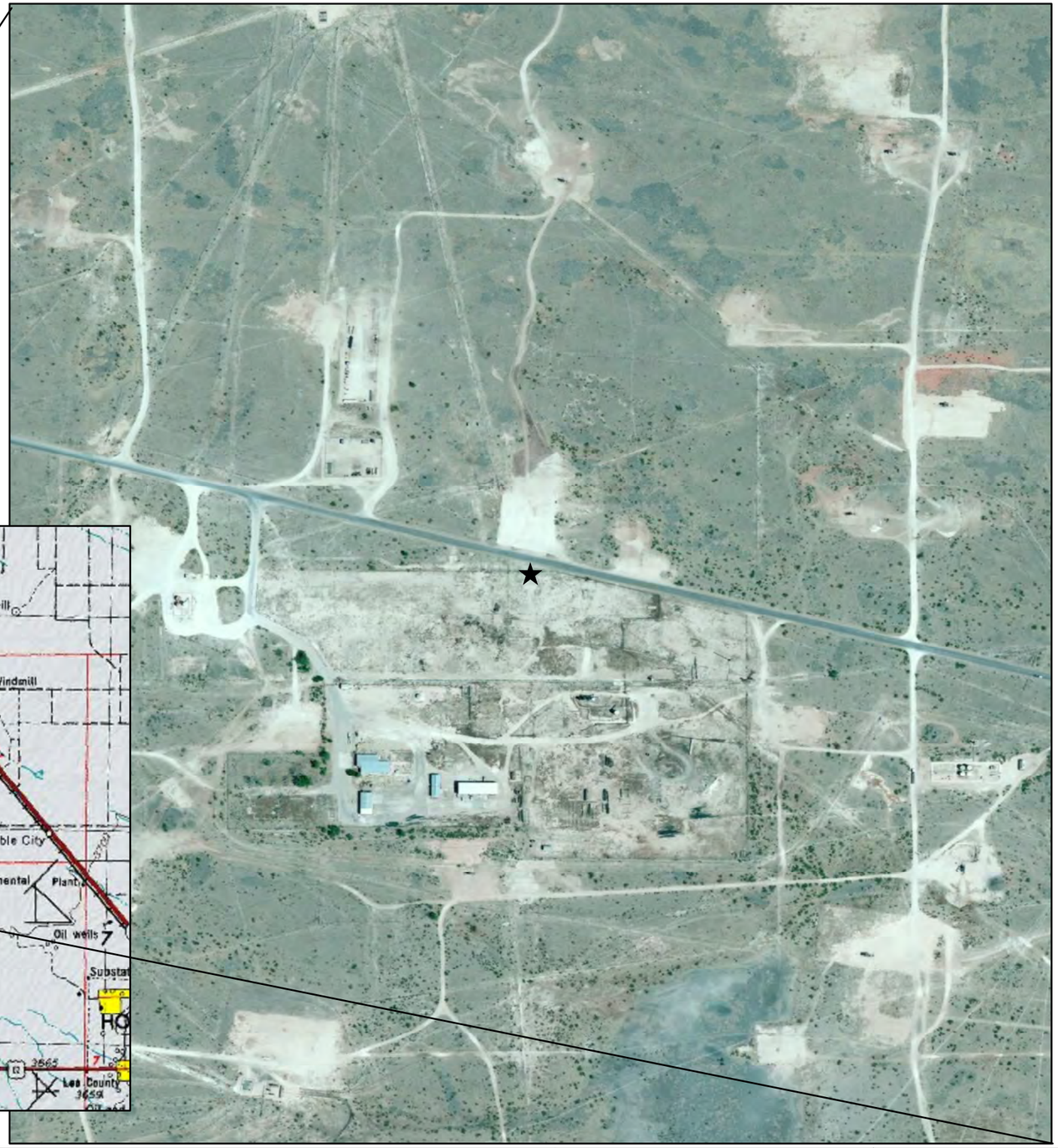
Location Identification	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	Comments
NMWQCC Groundwater Standards (mg/L)		**0.01**	**0.75**	**0.75**	**0.62**	
MW-5	12/20/16	LNAPL				
MW-6	12/20/16	LNAPL				
MW-7	12/20/16	<0.0010	<0.0010	<0.0010	<0.0010	
MW-8	12/20/16	LNAPL				
MW-9	12/20/16	**8.9**	<0.010	0.65	0.21	
MW-10	12/20/16	**30**	<0.010	0.57	0.015	Duplicate 1 sample collected
MW-10 (Duplicate)	12/20/16	**29**	<0.010	0.55	0.013	
MW-11	12/20/16	<0.0010	<0.0010	<0.0010	<0.0010	
MW-12	12/20/16	**11**	<0.010	0.12	<0.010	
MW-13	12/20/16	0.0038	<0.0010	<0.0010	<0.0010	
MW-14	12/20/16	<0.0010	<0.0010	<0.0010	<0.0010	
MW-15	12/20/16	LNAPL				
MW-16	12/20/16	0.0021	<0.0010	<0.0010	<0.0010	
MW-17	12/20/16	<0.0010	<0.0010	<0.0010	<0.0010	
MW-18	12/20/16	<0.0010	<0.0010	<0.0010	<0.0010	
MW-19	12/20/16	<0.0010	<0.0010	<0.0010	<0.0010	
MW-20	12/20/16	<0.0010	<0.0010	<0.0010	<0.0010	
MW-21	12/20/16	**11**	<0.010	**1.3**	0.31	Duplicate 2 sample collected
MW-21 (Duplicate)	12/20/16	**12**	<0.010	**1.3**	0.37	
MW-22	12/20/16	<0.0010	<0.0010	<0.0010	<0.0010	
Trip Blank	12/20/16	<0.0010	<0.0010	<0.0010	<0.0010	

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

N

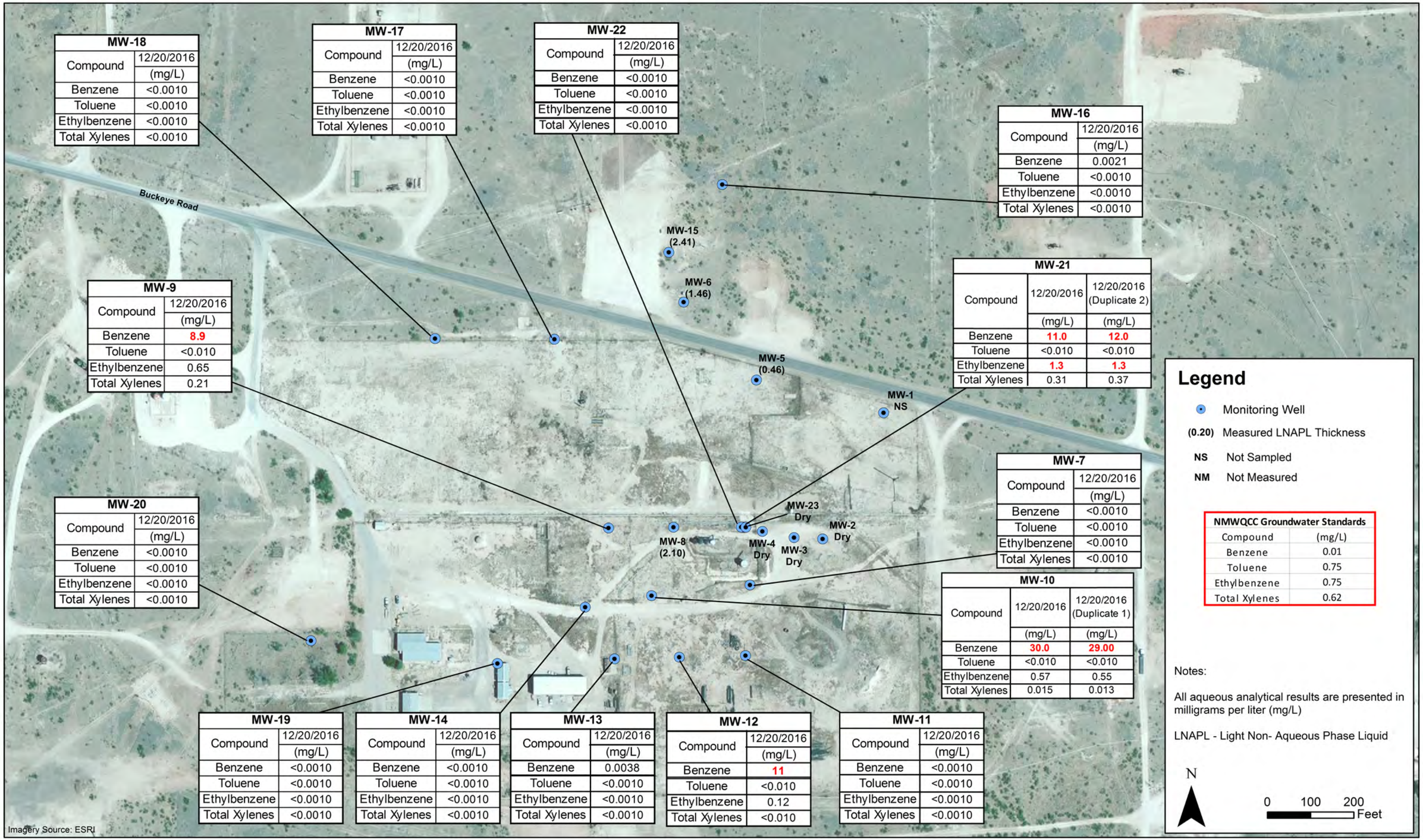




DATE: June 2015 DESIGNED BY: T. Johansen DRAWN BY: D. Arnold	TASMAN GEOSCIENCES Tasman Geosciences, LLC 6899 Pecos Street - Unit C Denver, CO 80221	**DCP Midstream** **Former Lee Gas Plant** SW 1/4, SE 1/4, Section 30, Township 17 South, Range 35 East Lea County, New Mexico	Site Location Map	Figure 1

DATE: February 2017 DESIGNED BY: B. Humphrey DRAWN BY: D. Arnold	TASMAN GEOSCIENCES **Tasman Geosciences, Inc.** **6899 Pecos Street - Unit C** **Denver, CO 80221**	**DCP Midstream** **Former Lee Gas Plant** Second Half 2016 Semi-Annual Groundwater Monitoring Summary Report	Site Map with Monitoring Well Locations	Figure 2

DATE: February 2017 DESIGNED BY: B. Humphrey DRAWN BY: D. Arnold	TASMAN GEOSCIENCES Tasman Geosciences, Inc. 6899 Pecos Street - Unit C Denver, CO 80221	**DCP Midstream** **Former Lee Gas Plant** Second Half 2016 Semi-Annual Groundwater Monitoring Summary Report	Goundwater Elevation Contour Map (December 20, 2016)	Figure 3



MW-18	
Compound	12/20/2016 (mg/L)
Benzene	<0.0010
Toluene	<0.0010
Ethylbenzene	<0.0010
Total Xylenes	<0.0010

MW-17	
Compound	12/20/2016 (mg/L)
Benzene	<0.0010
Toluene	<0.0010
Ethylbenzene	<0.0010
Total Xylenes	<0.0010

MW-22	
Compound	12/20/2016 (mg/L)
Benzene	<0.0010
Toluene	<0.0010
Ethylbenzene	<0.0010
Total Xylenes	<0.0010

MW-16	
Compound	12/20/2016 (mg/L)
Benzene	0.0021
Toluene	<0.0010
Ethylbenzene	<0.0010
Total Xylenes	<0.0010

MW-9	
Compound	12/20/2016 (mg/L)
Benzene	8.9
Toluene	<0.010
Ethylbenzene	0.65
Total Xylenes	0.21

MW-21		
Compound	12/20/2016 (mg/L)	12/20/2016 (Duplicate 2) (mg/L)
Benzene	11.0	12.0
Toluene	<0.010	<0.010
Ethylbenzene	1.3	1.3
Total Xylenes	0.31	0.37

MW-7	
Compound	12/20/2016 (mg/L)
Benzene	<0.0010
Toluene	<0.0010
Ethylbenzene	<0.0010
Total Xylenes	<0.0010

MW-20	
Compound	12/20/2016 (mg/L)
Benzene	<0.0010
Toluene	<0.0010
Ethylbenzene	<0.0010
Total Xylenes	<0.0010

MW-10		
Compound	12/20/2016 (mg/L)	12/20/2016 (Duplicate 1) (mg/L)
Benzene	30.0	29.00
Toluene	<0.010	<0.010
Ethylbenzene	0.57	0.55
Total Xylenes	0.015	0.013

MW-19	
Compound	12/20/2016 (mg/L)
Benzene	<0.0010
Toluene	<0.0010
Ethylbenzene	<0.0010
Total Xylenes	<0.0010

MW-14	
Compound	12/20/2016 (mg/L)
Benzene	<0.0010
Toluene	<0.0010
Ethylbenzene	<0.0010
Total Xylenes	<0.0010

MW-13	
Compound	12/20/2016 (mg/L)
Benzene	0.0038
Toluene	<0.0010
Ethylbenzene	<0.0010
Total Xylenes	<0.0010

MW-12	
Compound	12/20/2016 (mg/L)
Benzene	11
Toluene	<0.010
Ethylbenzene	0.12
Total Xylenes	<0.010

MW-11	
Compound	12/20/2016 (mg/L)
Benzene	<0.0010
Toluene	<0.0010
Ethylbenzene	<0.0010
Total Xylenes	<0.0010

Legend

- Monitoring Well
- (0.20) Measured LNAPL Thickness
- NS Not Sampled
- NM Not Measured

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

Notes:

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

LNAPL - Light Non- Aqueous Phase Liquid

N

0 100 200 Feet

DATE: February 2017
DESIGNED BY: B. Humphrey
DRAWN BY: D. Arnold

TASMAN GEOSCIENCES
Tasman Geosciences, Inc.
6899 Pecos Street - Unit C
Denver, CO 80221

DCP Midstream
Former Lee Gas Plant
Second Half 2016 Semi-Annual Groundwater Monitoring Summary Report

Analytical Results Map (December 20, 2016)

Figure 4

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					
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				

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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-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-5	12/15/15	LNAPL				
MW-5	06/21/16	LNAPL				
MW-5	12/20/16	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				
MW-6	12/15/15	LNAPL				
MW-6	06/21/16	LNAPL				
MW-6	12/20/16	LNAPL				
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	

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BTEX CONCENTRATIONS IN GROUNDWATER
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LEA COUNTY, NEW MEXICO

Location Identification	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	Comments
NMWQCC Groundwater Standards (mg/L)		**0.01**	**0.75**	**0.75**	**0.62**	
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-7	12/15/15	0.0075	<0.001	<0.001	<0.003	
MW-7	06/22/16	<0.0010	<0.0010	<0.0010	<0.0030	
MW-7	12/20/16	<0.0010	<0.0010	<0.0010	<0.0010	
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				
MW-8	12/15/15	LNAPL				
MW-8	06/21/16	LNAPL				
MW-8	12/20/16	LNAPL				
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-9	12/15/15	**1.1**	0.0010	0.081	0.011	Duplicate 1 sample collected
MW-9 (Duplicate)	12/15/15	**0.67**	<0.001	0.036	<0.003	
MW-9	06/22/16	**4.3**	<0.0010	0.13	0.028	Duplicate 1 sample collected
MW-9 (Duplicate)	06/22/16	**4.0**	<0.0010	0.13	0.026	
MW-9	12/20/16	**8.9**	<0.010	0.65	0.21	

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LEA COUNTY, NEW MEXICO

Location Identification	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)	Comments
NMWQCC Groundwater Standards (mg/L)		**0.01**	**0.75**	**0.75**	**0.62**	
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	
MW-10	12/15/15	**11**	<0.01	0.28	0.033	
MW-10	06/22/16	**20**	<0.010	0.62	<0.030	
MW-10	12/20/16	**30**	<0.010	0.57	0.015	Duplicate 1 sample collected
MW-10 (Duplicate)	12/20/16	**29**	<0.010	0.55	0.013	
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-11	12/15/15	<0.001	<0.001	<0.001	<0.003	
MW-11	06/22/16	<0.0010	<0.0010	<0.0010	<0.0030	

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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	12/20/16	<0.0010	<0.0010	<0.0010	<0.0010	
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	
MW-12	12/15/15	**2.3**	<0.01	<0.01	<0.03	
MW-12	06/22/16	**8.3**	<0.010	<0.010	<0.030	
MW-12	12/20/16	**11**	<0.010	0.12	<0.010	
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	

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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	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-13	12/15/15	<0.001	<0.001	<0.001	<0.003	
MW-13	06/22/16	0.0016	<0.0010	<0.0010	<0.0030	
MW-13	12/20/16	0.0038	<0.0010	<0.0010	<0.0010	
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	
MW-14	12/15/15	<0.001	<0.001	<0.001	<0.003	
MW-14	06/22/16	<0.0010	<0.0010	<0.0010	<0.0030	
MW-14	12/20/16	<0.0010	<0.0010	<0.0010	<0.0010	
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-15	12/15/15	LNAPL				
MW-15	06/21/16	LNAPL				
MW-15	12/20/16	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	

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-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-16	12/15/15	0.0070	<0.001	<0.001	<0.003	
MW-16	06/21/16	**0.011**	<0.0010	<0.0010	<0.0030	
MW-16	12/20/16	0.0021	<0.0010	<0.0010	<0.0010	
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	
MW-17	12/15/15	<0.001	<0.001	<0.001	<0.003	
MW-17	06/21/16	<0.0010	<0.0010	<0.0010	<0.0030	
MW-17	12/20/16	<0.0010	<0.0010	<0.0010	<0.0010	
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	

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	12/15/15	<0.001	<0.001	<0.001	<0.003	
MW-18	06/21/16	<0.0010	<0.0010	<0.0010	<0.0030	
MW-18	12/20/16	<0.0010	<0.0010	<0.0010	<0.0010	
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	
MW-19	12/15/15	<0.001	<0.001	<0.001	<0.003	
MW-19	06/21/16	<0.0010	<0.0010	<0.0010	<0.0030	
MW-19	12/20/16	<0.0010	<0.0010	<0.0010	<0.0010	
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	

APPENDIX A
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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	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-20	12/15/15	<0.001	<0.001	<0.001	<0.003	
MW-20	06/21/16	<0.0010	<0.0010	<0.0010	<0.0030	
MW-20	12/20/16	<0.0010	<0.0010	<0.0010	<0.0010	
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	
MW-21	12/15/15	**6.1**	<0.025	**1.8**	**0.67**	Duplicate 2 sample collected
MW-21 (Duplicate)	12/15/15	**6.0**	<0.025	**1.8**	**0.69**	
MW-21	06/22/16	**11**	<0.010	**1.5**	**0.54**	Duplicate 2 sample collected
MW-21 (Duplicate)	06/22/16	**12**	<0.010	**1.6**	**0.42**	
MW-21	12/20/16	**11**	<0.010	**1.3**	0.31	Duplicate 2 sample collected
MW-21 (Duplicate)	12/20/16	**12**	<0.010	**1.3**	0.37	
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	

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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	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-22	12/15/15	<0.001	<0.001	<0.001	<0.003	
MW-22	06/22/16	<0.0010	<0.0010	<0.0010	<0.0030	
MW-22	12/20/16	<0.0010	<0.0010	<0.0010	<0.0010	
MW-23	06/04/14	Dry				
MW-23	12/05/14	Dry				
MW-23	06/04/15	Dry				
MW-23	12/15/15	Dry				
MW-23	06/21/16	Dry				
MW-23	Removed from sampling plan					
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	
Trip Blank	12/15/15	<0.001	<0.001	<0.001	<0.003	
Trip Blank	06/22/16	<0.0010	<0.0010	<0.0010	<0.0030	
Trip Blank	12/20/16	<0.0010	<0.0010	<0.0010	<0.0030	

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

ALS Environmental Job #: HS16121154

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

January 03, 2017

Brian Humphrey
Tasman Geosciences
6899 Pecos St
Unit C
Denver, CO 80221

Work Order: **HS16121154**

Laboratory Results for: **DCP-Lee Plant**

Dear Brian,

ALS Environmental received 17 sample(s) on Dec 22, 2016 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,

Sonia West

Generated By: Jumoke.Lawal
Sonia West
Project Manager

Client: Tasman Geosciences
Project: DCP-Lee Plant
Work Order: HS16121154

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS16121154-01	MW-7	Water		20-Dec-2016 13:13	22-Dec-2016 10:10	☐
HS16121154-02	MW-9	Water		20-Dec-2016 14:35	22-Dec-2016 10:10	☐
HS16121154-03	MW-10	Water		20-Dec-2016 15:00	22-Dec-2016 10:10	☐
HS16121154-04	MW-11	Water		20-Dec-2016 14:22	22-Dec-2016 10:10	☐
HS16121154-05	MW-12	Water		20-Dec-2016 14:15	22-Dec-2016 10:10	☐
HS16121154-06	MW-13	Water		20-Dec-2016 11:20	22-Dec-2016 10:10	☐
HS16121154-07	MW-14	Water		20-Dec-2016 12:36	22-Dec-2016 10:10	☐
HS16121154-08	MW-16	Water		20-Dec-2016 16:40	22-Dec-2016 10:10	☐
HS16121154-09	MW-17	Water		20-Dec-2016 16:35	22-Dec-2016 10:10	☐
HS16121154-10	MW-18	Water		20-Dec-2016 16:00	22-Dec-2016 10:10	☐
HS16121154-11	MW-19	Water		20-Dec-2016 09:45	22-Dec-2016 10:10	☐
HS16121154-12	MW-20	Water		20-Dec-2016 13:20	22-Dec-2016 10:10	☐
HS16121154-13	MW-21	Water		20-Dec-2016 10:40	22-Dec-2016 10:10	☐
HS16121154-14	MW-22	Water		20-Dec-2016 10:30	22-Dec-2016 10:10	☐
HS16121154-15	DUPLICATE 1	Water		20-Dec-2016 00:00	22-Dec-2016 10:10	☐
HS16121154-16	DUPLICATE 2	Water		20-Dec-2016 00:00	22-Dec-2016 10:10	☐
HS16121154-17	TRIP BLANK 121216-40	Water		20-Dec-2016 00:00	22-Dec-2016 10:10	☐

Client: Tasman Geosciences **CASE NARRATIVE**
Project: DCP-Lee Plant
Work Order: HS16121154

GCMS Volatiles by Method SW8260

Batch ID: R287129,R287425

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

Batch ID: R287115

Sample ID: **HS16121150-01MS**
- MS and MSD are for an unrelated sample

Batch ID: R287503

Sample ID: **MW-21 (HS16121154-13MS)**
- The recovery of the Matrix Spike (MS) associated to this analyte was outside of the established control limits. However, the LCS was within control limits. The recovery of the MS may be due to sample matrix interference.

Sample ID: **MW-21 (HS16121154-13MSD)**
- The recovery of the Matrix Spike Duplicate (MSD) associated to this analyte was outside of the established control limits. However, the LCS was within control limits. The failed recovery of the MSD may be due to sample matrix interference.

Client: Tasman Geosciences
Project: DCP-Lee Plant
Sample ID: MW-7
Collection Date: 20-Dec-2016 13:13

ANALYTICAL REPORT
WorkOrder:HS16121154
Lab ID:HS16121154-01
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	24-Dec-2016 18:11
Toluene	ND		0.0010	mg/L	1	24-Dec-2016 18:11
Ethylbenzene	ND		0.0010	mg/L	1	24-Dec-2016 18:11
Xylenes, Total	ND		0.0010	mg/L	1	24-Dec-2016 18:11
Surr: 1,2-Dichloroethane-d4	*84.2*		*71-125*	*%REC*	*1*	*24-Dec-2016 18:11*
Surr: 4-Bromofluorobenzene	*94.8*		*70-125*	*%REC*	*1*	*24-Dec-2016 18:11*
Surr: Dibromofluoromethane	*93.8*		*74-125*	*%REC*	*1*	*24-Dec-2016 18:11*
Surr: Toluene-d8	*99.6*		*75-125*	*%REC*	*1*	*24-Dec-2016 18:11*

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

Client: Tasman Geosciences
Project: DCP-Lee Plant
Sample ID: MW-9
Collection Date: 20-Dec-2016 14:35

ANALYTICAL REPORT
WorkOrder:HS16121154
Lab ID:HS16121154-02
Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C	**Method:SW8260**					Analyst: PC
Benzene	**8.9**		**0.10**	**mg/L**	100	29-Dec-2016 19:14
Toluene	ND		0.010	mg/L	10	29-Dec-2016 18:51
Ethylbenzene	**0.65**		**0.010**	**mg/L**	10	29-Dec-2016 18:51
Xylenes, Total	**0.21**		**0.010**	**mg/L**	10	29-Dec-2016 18:51
Surr: 1,2-Dichloroethane-d4	*86.2*		*71-125*	*%REC*	*10*	*29-Dec-2016 18:51*
Surr: 1,2-Dichloroethane-d4	*84.3*		*71-125*	*%REC*	*100*	*29-Dec-2016 19:14*
Surr: 4-Bromofluorobenzene	*94.7*		*70-125*	*%REC*	*10*	*29-Dec-2016 18:51*
Surr: 4-Bromofluorobenzene	*95.6*		*70-125*	*%REC*	*100*	*29-Dec-2016 19:14*
Surr: Dibromofluoromethane	*92.6*		*74-125*	*%REC*	*10*	*29-Dec-2016 18:51*
Surr: Dibromofluoromethane	*93.5*		*74-125*	*%REC*	*100*	*29-Dec-2016 19:14*
Surr: Toluene-d8	*100*		*75-125*	*%REC*	*10*	*29-Dec-2016 18:51*
Surr: Toluene-d8	*101*		*75-125*	*%REC*	*100*	*29-Dec-2016 19:14*

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

Client: Tasman Geosciences
Project: DCP-Lee Plant
Sample ID: MW-10
Collection Date: 20-Dec-2016 15:00

ANALYTICAL REPORT
WorkOrder:HS16121154
Lab ID:HS16121154-03
Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C	**Method:SW8260**					Analyst: PC
Benzene	**30**		**0.25**	**mg/L**	250	29-Dec-2016 20:49
Toluene	ND		0.010	mg/L	10	29-Dec-2016 20:26
Ethylbenzene	**0.57**		**0.010**	**mg/L**	10	29-Dec-2016 20:26
Xylenes, Total	**0.015**		**0.010**	**mg/L**	10	29-Dec-2016 20:26
Surr: 1,2-Dichloroethane-d4	*84.1*		*71-125*	*%REC*	*10*	*29-Dec-2016 20:26*
Surr: 1,2-Dichloroethane-d4	*84.4*		*71-125*	*%REC*	*250*	*29-Dec-2016 20:49*
Surr: 4-Bromofluorobenzene	*94.1*		*70-125*	*%REC*	*250*	*29-Dec-2016 20:49*
Surr: 4-Bromofluorobenzene	*95.6*		*70-125*	*%REC*	*10*	*29-Dec-2016 20:26*
Surr: Dibromofluoromethane	*92.9*		*74-125*	*%REC*	*10*	*29-Dec-2016 20:26*
Surr: Dibromofluoromethane	*92.5*		*74-125*	*%REC*	*250*	*29-Dec-2016 20:49*
Surr: Toluene-d8	*98.9*		*75-125*	*%REC*	*250*	*29-Dec-2016 20:49*
Surr: Toluene-d8	*101*		*75-125*	*%REC*	*10*	*29-Dec-2016 20:26*

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

Client: Tasman Geosciences
Project: DCP-Lee Plant
Sample ID: MW-11
Collection Date: 20-Dec-2016 14:22

ANALYTICAL REPORT
WorkOrder:HS16121154
Lab ID:HS16121154-04
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	24-Dec-2016 18:35
Toluene	ND		0.0010	mg/L	1	24-Dec-2016 18:35
Ethylbenzene	ND		0.0010	mg/L	1	24-Dec-2016 18:35
Xylenes, Total	ND		0.0010	mg/L	1	24-Dec-2016 18:35
Surr: 1,2-Dichloroethane-d4	*85.2*		*71-125*	*%REC*	*1*	*24-Dec-2016 18:35*
Surr: 4-Bromofluorobenzene	*92.7*		*70-125*	*%REC*	*1*	*24-Dec-2016 18:35*
Surr: Dibromofluoromethane	*93.3*		*74-125*	*%REC*	*1*	*24-Dec-2016 18:35*
Surr: Toluene-d8	*101*		*75-125*	*%REC*	*1*	*24-Dec-2016 18:35*

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

Client: Tasman Geosciences
Project: DCP-Lee Plant
Sample ID: MW-12
Collection Date: 20-Dec-2016 14:15

ANALYTICAL REPORT
WorkOrder:HS16121154
Lab ID:HS16121154-05
Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C	**Method:SW8260**					Analyst: PC
Benzene	**11**		**0.10**	**mg/L**	100	29-Dec-2016 20:02
Toluene	ND		0.010	mg/L	10	29-Dec-2016 19:38
Ethylbenzene	**0.12**		**0.010**	**mg/L**	10	29-Dec-2016 19:38
Xylenes, Total	ND		0.010	mg/L	10	29-Dec-2016 19:38
Surr: 1,2-Dichloroethane-d4	*86.0*		*71-125*	*%REC*	*10*	*29-Dec-2016 19:38*
Surr: 1,2-Dichloroethane-d4	*85.3*		*71-125*	*%REC*	*100*	*29-Dec-2016 20:02*
Surr: 4-Bromofluorobenzene	*95.6*		*70-125*	*%REC*	*100*	*29-Dec-2016 20:02*
Surr: 4-Bromofluorobenzene	*96.6*		*70-125*	*%REC*	*10*	*29-Dec-2016 19:38*
Surr: Dibromofluoromethane	*92.7*		*74-125*	*%REC*	*10*	*29-Dec-2016 19:38*
Surr: Dibromofluoromethane	*93.1*		*74-125*	*%REC*	*100*	*29-Dec-2016 20:02*
Surr: Toluene-d8	*101*		*75-125*	*%REC*	*100*	*29-Dec-2016 20:02*
Surr: Toluene-d8	*100*		*75-125*	*%REC*	*10*	*29-Dec-2016 19:38*

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

Client: Tasman Geosciences
Project: DCP-Lee Plant
Sample ID: MW-13
Collection Date: 20-Dec-2016 11:20

ANALYTICAL REPORT
WorkOrder:HS16121154
Lab ID:HS16121154-06
Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C	**Method:SW8260**					Analyst: AKP
Benzene	**0.0038**		**0.0010**	**mg/L**	1	24-Dec-2016 18:59
Toluene	ND		0.0010	mg/L	1	24-Dec-2016 18:59
Ethylbenzene	ND		0.0010	mg/L	1	24-Dec-2016 18:59
Xylenes, Total	ND		0.0010	mg/L	1	24-Dec-2016 18:59
Surr: 1,2-Dichloroethane-d4	*85.5*		*71-125*	*%REC*	*1*	*24-Dec-2016 18:59*
Surr: 4-Bromofluorobenzene	*93.3*		*70-125*	*%REC*	*1*	*24-Dec-2016 18:59*
Surr: Dibromofluoromethane	*93.0*		*74-125*	*%REC*	*1*	*24-Dec-2016 18:59*
Surr: Toluene-d8	*101*		*75-125*	*%REC*	*1*	*24-Dec-2016 18:59*

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

Client: Tasman Geosciences
Project: DCP-Lee Plant
Sample ID: MW-14
Collection Date: 20-Dec-2016 12:36

ANALYTICAL REPORT
WorkOrder:HS16121154
Lab ID:HS16121154-07
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	24-Dec-2016 19:23
Toluene	ND		0.0010	mg/L	1	24-Dec-2016 19:23
Ethylbenzene	ND		0.0010	mg/L	1	24-Dec-2016 19:23
Xylenes, Total	ND		0.0010	mg/L	1	24-Dec-2016 19:23
Surr: 1,2-Dichloroethane-d4	*82.7*		*71-125*	*%REC*	*1*	*24-Dec-2016 19:23*
Surr: 4-Bromofluorobenzene	*93.0*		*70-125*	*%REC*	*1*	*24-Dec-2016 19:23*
Surr: Dibromofluoromethane	*92.1*		*74-125*	*%REC*	*1*	*24-Dec-2016 19:23*
Surr: Toluene-d8	*103*		*75-125*	*%REC*	*1*	*24-Dec-2016 19:23*

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

Client: Tasman Geosciences
Project: DCP-Lee Plant
Sample ID: MW-16
Collection Date: 20-Dec-2016 16:40

ANALYTICAL REPORT
WorkOrder:HS16121154
Lab ID:HS16121154-08
Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C	**Method:SW8260**					Analyst: AKP
Benzene	**0.0021**		**0.0010**	**mg/L**	1	24-Dec-2016 19:46
Toluene	ND		0.0010	mg/L	1	24-Dec-2016 19:46
Ethylbenzene	ND		0.0010	mg/L	1	24-Dec-2016 19:46
Xylenes, Total	ND		0.0010	mg/L	1	24-Dec-2016 19:46
Surr: 1,2-Dichloroethane-d4	*83.8*		*71-125*	*%REC*	*1*	*24-Dec-2016 19:46*
Surr: 4-Bromofluorobenzene	*94.5*		*70-125*	*%REC*	*1*	*24-Dec-2016 19:46*
Surr: Dibromofluoromethane	*91.2*		*74-125*	*%REC*	*1*	*24-Dec-2016 19:46*
Surr: Toluene-d8	*101*		*75-125*	*%REC*	*1*	*24-Dec-2016 19:46*

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

Client: Tasman Geosciences
Project: DCP-Lee Plant
Sample ID: MW-17
Collection Date: 20-Dec-2016 16:35

ANALYTICAL REPORT
WorkOrder:HS16121154
Lab ID:HS16121154-09
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	24-Dec-2016 20:10
Toluene	ND		0.0010	mg/L	1	24-Dec-2016 20:10
Ethylbenzene	ND		0.0010	mg/L	1	24-Dec-2016 20:10
Xylenes, Total	ND		0.0010	mg/L	1	24-Dec-2016 20:10
Surr: 1,2-Dichloroethane-d4	*83.1*		*71-125*	*%REC*	*1*	*24-Dec-2016 20:10*
Surr: 4-Bromofluorobenzene	*95.1*		*70-125*	*%REC*	*1*	*24-Dec-2016 20:10*
Surr: Dibromofluoromethane	*91.9*		*74-125*	*%REC*	*1*	*24-Dec-2016 20:10*
Surr: Toluene-d8	*99.9*		*75-125*	*%REC*	*1*	*24-Dec-2016 20:10*

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

Client: Tasman Geosciences
Project: DCP-Lee Plant
Sample ID: MW-18
Collection Date: 20-Dec-2016 16:00

ANALYTICAL REPORT
WorkOrder:HS16121154
Lab ID:HS16121154-10
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	24-Dec-2016 20:34
Toluene	ND		0.0010	mg/L	1	24-Dec-2016 20:34
Ethylbenzene	ND		0.0010	mg/L	1	24-Dec-2016 20:34
Xylenes, Total	ND		0.0010	mg/L	1	24-Dec-2016 20:34
Surr: 1,2-Dichloroethane-d4	*83.6*		*71-125*	*%REC*	*1*	*24-Dec-2016 20:34*
Surr: 4-Bromofluorobenzene	*95.1*		*70-125*	*%REC*	*1*	*24-Dec-2016 20:34*
Surr: Dibromofluoromethane	*92.2*		*74-125*	*%REC*	*1*	*24-Dec-2016 20:34*
Surr: Toluene-d8	*101*		*75-125*	*%REC*	*1*	*24-Dec-2016 20:34*

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

Client: Tasman Geosciences
Project: DCP-Lee Plant
Sample ID: MW-19
Collection Date: 20-Dec-2016 09:45

ANALYTICAL REPORT
WorkOrder:HS16121154
Lab ID:HS16121154-11
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	24-Dec-2016 20:58
Toluene	ND		0.0010	mg/L	1	24-Dec-2016 20:58
Ethylbenzene	ND		0.0010	mg/L	1	24-Dec-2016 20:58
Xylenes, Total	ND		0.0010	mg/L	1	24-Dec-2016 20:58
Surr: 1,2-Dichloroethane-d4	*79.7*		*71-125*	*%REC*	*1*	*24-Dec-2016 20:58*
Surr: 4-Bromofluorobenzene	*92.1*		*70-125*	*%REC*	*1*	*24-Dec-2016 20:58*
Surr: Dibromofluoromethane	*91.8*		*74-125*	*%REC*	*1*	*24-Dec-2016 20:58*
Surr: Toluene-d8	*103*		*75-125*	*%REC*	*1*	*24-Dec-2016 20:58*

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

Client: Tasman Geosciences
Project: DCP-Lee Plant
Sample ID: MW-20
Collection Date: 20-Dec-2016 13:20

ANALYTICAL REPORT
WorkOrder:HS16121154
Lab ID:HS16121154-12
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	24-Dec-2016 21:21
Toluene	ND		0.0010	mg/L	1	24-Dec-2016 21:21
Ethylbenzene	ND		0.0010	mg/L	1	24-Dec-2016 21:21
Xylenes, Total	ND		0.0010	mg/L	1	24-Dec-2016 21:21
Surr: 1,2-Dichloroethane-d4	*83.8*		*71-125*	*%REC*	*1*	*24-Dec-2016 21:21*
Surr: 4-Bromofluorobenzene	*95.0*		*70-125*	*%REC*	*1*	*24-Dec-2016 21:21*
Surr: Dibromofluoromethane	*92.8*		*74-125*	*%REC*	*1*	*24-Dec-2016 21:21*
Surr: Toluene-d8	*99.0*		*75-125*	*%REC*	*1*	*24-Dec-2016 21:21*

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

Client: Tasman Geosciences
Project: DCP-Lee Plant
Sample ID: MW-21
Collection Date: 20-Dec-2016 10:40

ANALYTICAL REPORT
WorkOrder:HS16121154
Lab ID:HS16121154-13
Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C	**Method:SW8260**					Analyst: PC
Benzene	**11**		**0.10**	**mg/L**	100	01-Jan-2017 16:05
Toluene	ND		0.010	mg/L	10	01-Jan-2017 15:38
Ethylbenzene	**1.3**		**0.010**	**mg/L**	10	01-Jan-2017 15:38
Xylenes, Total	**0.31**		**0.010**	**mg/L**	10	01-Jan-2017 15:38
Surr: 1,2-Dichloroethane-d4	*90.7*		*71-125*	*%REC*	*10*	*01-Jan-2017 15:38*
Surr: 1,2-Dichloroethane-d4	*93.8*		*71-125*	*%REC*	*100*	*01-Jan-2017 16:05*
Surr: 4-Bromofluorobenzene	*96.8*		*70-125*	*%REC*	*100*	*01-Jan-2017 16:05*
Surr: 4-Bromofluorobenzene	*97.8*		*70-125*	*%REC*	*10*	*01-Jan-2017 15:38*
Surr: Dibromofluoromethane	*98.8*		*74-125*	*%REC*	*10*	*01-Jan-2017 15:38*
Surr: Dibromofluoromethane	*96.9*		*74-125*	*%REC*	*100*	*01-Jan-2017 16:05*
Surr: Toluene-d8	*102*		*75-125*	*%REC*	*100*	*01-Jan-2017 16:05*
Surr: Toluene-d8	*97.8*		*75-125*	*%REC*	*10*	*01-Jan-2017 15:38*

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

Client: Tasman Geosciences
Project: DCP-Lee Plant
Sample ID: MW-22
Collection Date: 20-Dec-2016 10:30

ANALYTICAL REPORT
WorkOrder:HS16121154
Lab ID:HS16121154-14
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	24-Dec-2016 21:45
Toluene	ND		0.0010	mg/L	1	24-Dec-2016 21:45
Ethylbenzene	ND		0.0010	mg/L	1	24-Dec-2016 21:45
Xylenes, Total	ND		0.0010	mg/L	1	24-Dec-2016 21:45
Surr: 1,2-Dichloroethane-d4	*81.9*		*71-125*	*%REC*	*1*	*24-Dec-2016 21:45*
Surr: 4-Bromofluorobenzene	*91.8*		*70-125*	*%REC*	*1*	*24-Dec-2016 21:45*
Surr: Dibromofluoromethane	*91.4*		*74-125*	*%REC*	*1*	*24-Dec-2016 21:45*
Surr: Toluene-d8	*102*		*75-125*	*%REC*	*1*	*24-Dec-2016 21:45*

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

Client: Tasman Geosciences
Project: DCP-Lee Plant
Sample ID: DUPLICATE 1
Collection Date: 20-Dec-2016 00:00

ANALYTICAL REPORT
WorkOrder:HS16121154
Lab ID:HS16121154-15
Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C	**Method:SW8260**					Analyst: PC
Benzene	**29**		**0.25**	**mg/L**	250	29-Dec-2016 21:37
Toluene	ND		0.010	mg/L	10	29-Dec-2016 21:13
Ethylbenzene	**0.55**		**0.010**	**mg/L**	10	29-Dec-2016 21:13
Xylenes, Total	**0.013**		**0.010**	**mg/L**	10	29-Dec-2016 21:13
Surr: 1,2-Dichloroethane-d4	*82.8*		*71-125*	*%REC*	*10*	*29-Dec-2016 21:13*
Surr: 1,2-Dichloroethane-d4	*82.0*		*71-125*	*%REC*	*250*	*29-Dec-2016 21:37*
Surr: 4-Bromofluorobenzene	*93.5*		*70-125*	*%REC*	*250*	*29-Dec-2016 21:37*
Surr: 4-Bromofluorobenzene	*96.2*		*70-125*	*%REC*	*10*	*29-Dec-2016 21:13*
Surr: Dibromofluoromethane	*93.6*		*74-125*	*%REC*	*10*	*29-Dec-2016 21:13*
Surr: Dibromofluoromethane	*92.1*		*74-125*	*%REC*	*250*	*29-Dec-2016 21:37*
Surr: Toluene-d8	*98.2*		*75-125*	*%REC*	*250*	*29-Dec-2016 21:37*
Surr: Toluene-d8	*102*		*75-125*	*%REC*	*10*	*29-Dec-2016 21:13*

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

Client: Tasman Geosciences
Project: DCP-Lee Plant
Sample ID: DUPLICATE 2
Collection Date: 20-Dec-2016 00:00

ANALYTICAL REPORT
WorkOrder:HS16121154
Lab ID:HS16121154-16
Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C	**Method:SW8260**					Analyst: PC
Benzene	**12**		**0.10**	**mg/L**	100	01-Jan-2017 18:11
Toluene	ND		0.010	mg/L	10	01-Jan-2017 17:44
Ethylbenzene	**1.3**		**0.010**	**mg/L**	10	01-Jan-2017 17:44
Xylenes, Total	**0.37**		**0.010**	**mg/L**	10	01-Jan-2017 17:44
Surr: 1,2-Dichloroethane-d4	*88.5*		*71-125*	*%REC*	*10*	*01-Jan-2017 17:44*
Surr: 1,2-Dichloroethane-d4	*94.5*		*71-125*	*%REC*	*100*	*01-Jan-2017 18:11*
Surr: 4-Bromofluorobenzene	*97.4*		*70-125*	*%REC*	*100*	*01-Jan-2017 18:11*
Surr: 4-Bromofluorobenzene	*97.7*		*70-125*	*%REC*	*10*	*01-Jan-2017 17:44*
Surr: Dibromofluoromethane	*98.7*		*74-125*	*%REC*	*10*	*01-Jan-2017 17:44*
Surr: Dibromofluoromethane	*97.8*		*74-125*	*%REC*	*100*	*01-Jan-2017 18:11*
Surr: Toluene-d8	*103*		*75-125*	*%REC*	*100*	*01-Jan-2017 18:11*
Surr: Toluene-d8	*97.5*		*75-125*	*%REC*	*10*	*01-Jan-2017 17:44*

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

Client: Tasman Geosciences
Project: DCP-Lee Plant
Sample ID: TRIP BLANK 121216-40
Collection Date: 20-Dec-2016 00:00

ANALYTICAL REPORT
WorkOrder:HS16121154
Lab ID:HS16121154-17
Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW LEVEL VOLATILES BY SW8260C	**Method:SW8260**					Analyst: PC
Benzene	ND		0.0010	mg/L	1	26-Dec-2016 03:51
Toluene	ND		0.0010	mg/L	1	26-Dec-2016 03:51
Ethylbenzene	ND		0.0010	mg/L	1	26-Dec-2016 03:51
Xylenes, Total	ND		0.0010	mg/L	1	26-Dec-2016 03:51
Surr: 1,2-Dichloroethane-d4	*85.4*		*71-125*	*%REC*	*1*	*26-Dec-2016 03:51*
Surr: 4-Bromofluorobenzene	*95.8*		*70-125*	*%REC*	*1*	*26-Dec-2016 03:51*
Surr: Dibromofluoromethane	*94.3*		*74-125*	*%REC*	*1*	*26-Dec-2016 03:51*
Surr: Toluene-d8	*104*		*75-125*	*%REC*	*1*	*26-Dec-2016 03:51*

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

Client: Tasman Geosciences
Project: DCP-Lee Plant
WorkOrder: HS16121154

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R287115	**Test Name :** LOW LEVEL VOLATILES BY SW8260C			**Matrix:** Water		
HS16121154-01	MW-7	20 Dec 2016 13:13			24 Dec 2016 18:11	1
HS16121154-04	MW-11	20 Dec 2016 14:22			24 Dec 2016 18:35	1
HS16121154-06	MW-13	20 Dec 2016 11:20			24 Dec 2016 18:59	1
HS16121154-07	MW-14	20 Dec 2016 12:36			24 Dec 2016 19:23	1
HS16121154-08	MW-16	20 Dec 2016 16:40			24 Dec 2016 19:46	1
HS16121154-09	MW-17	20 Dec 2016 16:35			24 Dec 2016 20:10	1
HS16121154-10	MW-18	20 Dec 2016 16:00			24 Dec 2016 20:34	1
HS16121154-11	MW-19	20 Dec 2016 09:45			24 Dec 2016 20:58	1
HS16121154-12	MW-20	20 Dec 2016 13:20			24 Dec 2016 21:21	1
HS16121154-14	MW-22	20 Dec 2016 10:30			24 Dec 2016 21:45	1
Batch ID R287129	**Test Name :** LOW LEVEL VOLATILES BY SW8260C			**Matrix:** Water		
HS16121154-17	TRIP BLANK 121216-40	20 Dec 2016 00:00			26 Dec 2016 03:51	1
Batch ID R287425	**Test Name :** LOW LEVEL VOLATILES BY SW8260C			**Matrix:** Water		
HS16121154-02	MW-9	20 Dec 2016 14:35			29 Dec 2016 19:14	100
HS16121154-02	MW-9	20 Dec 2016 14:35			29 Dec 2016 18:51	10
HS16121154-03	MW-10	20 Dec 2016 15:00			29 Dec 2016 20:49	250
HS16121154-03	MW-10	20 Dec 2016 15:00			29 Dec 2016 20:26	10
HS16121154-05	MW-12	20 Dec 2016 14:15			29 Dec 2016 20:02	100
HS16121154-05	MW-12	20 Dec 2016 14:15			29 Dec 2016 19:38	10
HS16121154-15	DUPLICATE 1	20 Dec 2016 00:00			29 Dec 2016 21:37	250
HS16121154-15	DUPLICATE 1	20 Dec 2016 00:00			29 Dec 2016 21:13	10
Batch ID R287503	**Test Name :** LOW LEVEL VOLATILES BY SW8260C			**Matrix:** Water		
HS16121154-13	MW-21	20 Dec 2016 10:40			01 Jan 2017 16:05	100
HS16121154-13	MW-21	20 Dec 2016 10:40			01 Jan 2017 15:38	10
HS16121154-16	DUPLICATE 2	20 Dec 2016 00:00			01 Jan 2017 18:11	100
HS16121154-16	DUPLICATE 2	20 Dec 2016 00:00			01 Jan 2017 17:44	10

Client: Tasman Geosciences
Project: DCP-Lee Plant
WorkOrder: HS16121154

QC BATCH REPORT

Batch ID: R287115 **Instrument: VOA6** **Method: SW8260**

MBLK Sample ID: **VBLKW-161224** Units: **ug/L** Analysis Date: **24-Dec-2016 12:38**
Client ID: Run ID: **VOA6_287115** SeqNo: **3942038** 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	1.0								
Surr: 1,2-Dichloroethane-d4	*42.11*	*1.0*	*50*	*0*	*84.2*	*71 - 125*				
Surr: 4-Bromofluorobenzene	*46.91*	*1.0*	*50*	*0*	*93.8*	*70 - 125*				
Surr: Dibromofluoromethane	*45.88*	*1.0*	*50*	*0*	*91.8*	*74 - 125*				
Surr: Toluene-d8	*51.27*	*1.0*	*50*	*0*	*103*	*75 - 125*				

LCS Sample ID: **VLCSW-161224** Units: **ug/L** Analysis Date: **24-Dec-2016 11:27**
Client ID: Run ID: **VOA6_287115** SeqNo: **3942037** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	43.05	1.0	50	0	86.1	75 - 122				
Ethylbenzene	46.45	1.0	50	0	92.9	80 - 120				
Toluene	44.63	1.0	50	0	89.3	75 - 121				
Xylenes, Total	141.4	1.0	150	0	94.3	79 - 124				
Surr: 1,2-Dichloroethane-d4	*39.17*	*1.0*	*50*	*0*	*78.3*	*71 - 125*				
Surr: 4-Bromofluorobenzene	*49.5*	*1.0*	*50*	*0*	*99.0*	*70 - 125*				
Surr: Dibromofluoromethane	*45.56*	*1.0*	*50*	*0*	*91.1*	*74 - 125*				
Surr: Toluene-d8	*51.34*	*1.0*	*50*	*0*	*103*	*75 - 125*				

MS Sample ID: **HS16121150-01MS** Units: **ug/L** Analysis Date: **24-Dec-2016 13:49**
Client ID: Run ID: **VOA6_287115** SeqNo: **3942041** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	81.51	1.0	50	46.88	69.3	75 - 122				S
Ethylbenzene	43.92	1.0	50	0.139	87.6	80 - 120				
Toluene	42.2	1.0	50	0	84.4	75 - 121				
Xylenes, Total	131.4	1.0	150	0	87.6	80 - 124				
Surr: 1,2-Dichloroethane-d4	*41.13*	*1.0*	*50*	*0*	*82.3*	*71 - 125*				
Surr: 4-Bromofluorobenzene	*47.33*	*1.0*	*50*	*0*	*94.7*	*70 - 125*				
Surr: Dibromofluoromethane	*45.68*	*1.0*	*50*	*0*	*91.4*	*74 - 125*				
Surr: Toluene-d8	*50.55*	*1.0*	*50*	*0*	*101*	*75 - 125*				

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

Client: Tasman Geosciences
Project: DCP-Lee Plant
WorkOrder: HS16121154

QC BATCH REPORT

Batch ID: R287115 **Instrument: VOA6** **Method: SW8260**

MSD Sample ID: **HS16121150-01MSD** Units: **ug/L** Analysis Date: **24-Dec-2016 14:13**
Client ID: Run ID: **VOA6_287115** SeqNo: **3942042** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	79.34	1.0	50	46.88	64.9	75 - 122	81.51	2.69	20	S
Ethylbenzene	45.55	1.0	50	0.139	90.8	80 - 120	43.92	3.66	20	
Toluene	43.25	1.0	50	0	86.5	75 - 121	42.2	2.46	20	
Xylenes, Total	136.5	1.0	150	0	91.0	80 - 124	131.4	3.85	20	
Surr: 1,2-Dichloroethane-d4	*41.2*	*1.0*	*50*	*0*	*82.4*	*71 - 125*	*41.13*	*0.174*	*20*	
Surr: 4-Bromofluorobenzene	*48.33*	*1.0*	*50*	*0*	*96.7*	*70 - 125*	*47.33*	*2.08*	*20*	
Surr: Dibromofluoromethane	*46.27*	*1.0*	*50*	*0*	*92.5*	*74 - 125*	*45.68*	*1.29*	*20*	
Surr: Toluene-d8	*50.82*	*1.0*	*50*	*0*	*102*	*75 - 125*	*50.55*	*0.527*	*20*	

The following samples were analyzed in this batch:

HS16121154-01	HS16121154-04	HS16121154-06	HS16121154-07
HS16121154-08	HS16121154-09	HS16121154-10	HS16121154-11
HS16121154-12	HS16121154-14		

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

Client: Tasman Geosciences
Project: DCP-Lee Plant
WorkOrder: HS16121154

QC BATCH REPORT

Batch ID: R287129 **Instrument: VOA6** **Method: SW8260**

MBLK Sample ID: **VBLKW-161225** Units: **ug/L** Analysis Date: **25-Dec-2016 23:53**
Client ID: Run ID: **VOA6_287129** SeqNo: **3942290** 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	1.0								
Surr: 1,2-Dichloroethane-d4	*42.24*	*1.0*	*50*	*0*	*84.5*	*71 - 125*				
Surr: 4-Bromofluorobenzene	*48.29*	*1.0*	*50*	*0*	*96.6*	*70 - 125*				
Surr: Dibromofluoromethane	*46.27*	*1.0*	*50*	*0*	*92.5*	*74 - 125*				
Surr: Toluene-d8	*51.81*	*1.0*	*50*	*0*	*104*	*75 - 125*				

LCS Sample ID: **VLCSW-161225** Units: **ug/L** Analysis Date: **25-Dec-2016 23:05**
Client ID: Run ID: **VOA6_287129** SeqNo: **3942289** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	45.82	1.0	50	0	91.6	75 - 122				
Ethylbenzene	49.22	1.0	50	0	98.4	80 - 120				
Toluene	46.13	1.0	50	0	92.3	75 - 121				
Xylenes, Total	145.3	1.0	150	0	96.9	79 - 124				
Surr: 1,2-Dichloroethane-d4	*42.48*	*1.0*	*50*	*0*	*85.0*	*71 - 125*				
Surr: 4-Bromofluorobenzene	*48.49*	*1.0*	*50*	*0*	*97.0*	*70 - 125*				
Surr: Dibromofluoromethane	*46.82*	*1.0*	*50*	*0*	*93.6*	*74 - 125*				
Surr: Toluene-d8	*51.23*	*1.0*	*50*	*0*	*102*	*75 - 125*				

MS Sample ID: **HS16121161-01MS** Units: **ug/L** Analysis Date: **26-Dec-2016 02:16**
Client ID: Run ID: **VOA6_287129** SeqNo: **3942293** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	41.66	1.0	50	0	83.3	75 - 122				
Ethylbenzene	44.42	1.0	50	0	88.8	80 - 120				
Toluene	42.45	1.0	50	0	84.9	75 - 121				
Xylenes, Total	132	1.0	150	0	88.0	80 - 124				
Surr: 1,2-Dichloroethane-d4	*42.37*	*1.0*	*50*	*0*	*84.7*	*71 - 125*				
Surr: 4-Bromofluorobenzene	*47.97*	*1.0*	*50*	*0*	*95.9*	*70 - 125*				
Surr: Dibromofluoromethane	*46.28*	*1.0*	*50*	*0*	*92.6*	*74 - 125*				
Surr: Toluene-d8	*50.07*	*1.0*	*50*	*0*	*100*	*75 - 125*				

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

Client: Tasman Geosciences
Project: DCP-Lee Plant
WorkOrder: HS16121154

QC BATCH REPORT

Batch ID: R287129 **Instrument: VOA6** **Method: SW8260**

MSD Sample ID: **HS16121161-01MSD** Units: **ug/L** Analysis Date: **26-Dec-2016 02:40**
Client ID: Run ID: **VOA6_287129** SeqNo: **3942294** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Benzene	41.06	1.0	50	0	82.1	75 - 122	41.66	1.45	20	
Ethylbenzene	42.62	1.0	50	0	85.2	80 - 120	44.42	4.15	20	
Toluene	41.75	1.0	50	0	83.5	75 - 121	42.45	1.67	20	
Xylenes, Total	128	1.0	150	0	85.3	80 - 124	132	3.11	20	
Surr: 1,2-Dichloroethane-d4	*42.83*	*1.0*	*50*	*0*	*85.7*	*71 - 125*	*42.37*	*1.08*	*20*	
Surr: 4-Bromofluorobenzene	*49.55*	*1.0*	*50*	*0*	*99.1*	*70 - 125*	*47.97*	*3.24*	*20*	
Surr: Dibromofluoromethane	*47.43*	*1.0*	*50*	*0*	*94.9*	*74 - 125*	*46.28*	*2.46*	*20*	
Surr: Toluene-d8	*52.02*	*1.0*	*50*	*0*	*104*	*75 - 125*	*50.07*	*3.81*	*20*	

The following samples were analyzed in this batch: HS16121154-17

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

Client: Tasman Geosciences
Project: DCP-Lee Plant
WorkOrder: HS16121154

QC BATCH REPORT

Batch ID: R287425 **Instrument: VOA6** **Method: SW8260**

MBLK Sample ID: **VBLKW-161229** Units: **ug/L** Analysis Date: **29-Dec-2016 12:55**
Client ID: Run ID: **VOA6_287425** SeqNo: **3948579** 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	1.0								
Surr: 1,2-Dichloroethane-d4	*42.94*	*1.0*	*50*	*0*	*85.9*	*71 - 125*				
Surr: 4-Bromofluorobenzene	*47.82*	*1.0*	*50*	*0*	*95.6*	*70 - 125*				
Surr: Dibromofluoromethane	*45.67*	*1.0*	*50*	*0*	*91.3*	*74 - 125*				
Surr: Toluene-d8	*50.15*	*1.0*	*50*	*0*	*100*	*75 - 125*				

LCS Sample ID: **VLCSW-161229** Units: **ug/L** Analysis Date: **29-Dec-2016 12:08**
Client ID: Run ID: **VOA6_287425** SeqNo: **3948578** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	50.47	1.0	50	0	101	75 - 122				
Ethylbenzene	52.58	1.0	50	0	105	80 - 120				
Toluene	50.77	1.0	50	0	102	75 - 121				
Xylenes, Total	156.9	1.0	150	0	105	79 - 124				
Surr: 1,2-Dichloroethane-d4	*42.49*	*1.0*	*50*	*0*	*85.0*	*71 - 125*				
Surr: 4-Bromofluorobenzene	*48.41*	*1.0*	*50*	*0*	*96.8*	*70 - 125*				
Surr: Dibromofluoromethane	*46.93*	*1.0*	*50*	*0*	*93.9*	*74 - 125*				
Surr: Toluene-d8	*51.47*	*1.0*	*50*	*0*	*103*	*75 - 125*				

MS Sample ID: **HS16121150-09MS** Units: **ug/L** Analysis Date: **29-Dec-2016 14:54**
Client ID: Run ID: **VOA6_287425** SeqNo: **3948584** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	46.61	1.0	50	1.146	90.9	75 - 122				
Ethylbenzene	48.26	1.0	50	1.465	93.6	80 - 120				
Toluene	46.17	1.0	50	0	92.3	75 - 121				
Xylenes, Total	144	1.0	150	1.445	95.1	80 - 124				
Surr: 1,2-Dichloroethane-d4	*41.96*	*1.0*	*50*	*0*	*83.9*	*71 - 125*				
Surr: 4-Bromofluorobenzene	*48.36*	*1.0*	*50*	*0*	*96.7*	*70 - 125*				
Surr: Dibromofluoromethane	*47.39*	*1.0*	*50*	*0*	*94.8*	*74 - 125*				
Surr: Toluene-d8	*50.67*	*1.0*	*50*	*0*	*101*	*75 - 125*				

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

Client: Tasman Geosciences
Project: DCP-Lee Plant
WorkOrder: HS16121154

QC BATCH REPORT

Batch ID: R287425 **Instrument: VOA6** **Method: SW8260**

MSD Sample ID: **HS16121150-09MSD** Units: **ug/L** Analysis Date: **29-Dec-2016 15:17**
Client ID: Run ID: **VOA6_287425** SeqNo: **3948585** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit	Qual
Benzene	46.12	1.0	50	1.146	89.9	75 - 122	46.61	1.06	20	
Ethylbenzene	48.65	1.0	50	1.465	94.4	80 - 120	48.26	0.797	20	
Toluene	46.08	1.0	50	0	92.2	75 - 121	46.17	0.186	20	
Xylenes, Total	144.4	1.0	150	1.445	95.3	80 - 124	144	0.26	20	
Surr: 1,2-Dichloroethane-d4	*42.19*	*1.0*	*50*	*0*	*84.4*	*71 - 125*	*41.96*	*0.548*	*20*	
Surr: 4-Bromofluorobenzene	*48.8*	*1.0*	*50*	*0*	*97.6*	*70 - 125*	*48.36*	*0.907*	*20*	
Surr: Dibromofluoromethane	*45.98*	*1.0*	*50*	*0*	*92.0*	*74 - 125*	*47.39*	*3.03*	*20*	
Surr: Toluene-d8	*50.86*	*1.0*	*50*	*0*	*102*	*75 - 125*	*50.67*	*0.363*	*20*	

The following samples were analyzed in this batch: HS16121154-02 HS16121154-03 HS16121154-05 HS16121154-15

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

Client: Tasman Geosciences
Project: DCP-Lee Plant
WorkOrder: HS16121154

QC BATCH REPORT

Batch ID: R287503 **Instrument: VOA2** **Method: SW8260**

MBLK Sample ID: **VBLKW-170101** Units: **ug/L** Analysis Date: **01-Jan-2017 15:13**
Client ID: Run ID: **VOA2_287503** SeqNo: **3950388** 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	1.0								
Surr: 1,2-Dichloroethane-d4	*48.39*	*1.0*	*50*	*0*	*96.8*	*71 - 125*				
Surr: 4-Bromofluorobenzene	*49.78*	*1.0*	*50*	*0*	*99.6*	*70 - 125*				
Surr: Dibromofluoromethane	*48.63*	*1.0*	*50*	*0*	*97.3*	*74 - 125*				
Surr: Toluene-d8	*49.79*	*1.0*	*50*	*0*	*99.6*	*75 - 125*				

LCS Sample ID: **VLCSW-170101** Units: **ug/L** Analysis Date: **01-Jan-2017 14:23**
Client ID: Run ID: **VOA2_287503** SeqNo: **3950387** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	47.66	1.0	50	0	95.3	75 - 122				
Ethylbenzene	45.62	1.0	50	0	91.2	80 - 120				
Toluene	45.48	1.0	50	0	91.0	75 - 121				
Xylenes, Total	134.3	1.0	150	0	89.6	79 - 124				
Surr: 1,2-Dichloroethane-d4	*50.42*	*1.0*	*50*	*0*	*101*	*71 - 125*				
Surr: 4-Bromofluorobenzene	*49.9*	*1.0*	*50*	*0*	*99.8*	*70 - 125*				
Surr: Dibromofluoromethane	*48*	*1.0*	*50*	*0*	*96.0*	*74 - 125*				
Surr: Toluene-d8	*48.53*	*1.0*	*50*	*0*	*97.1*	*75 - 125*				

MS Sample ID: **HS16121154-13MS** Units: **ug/L** Analysis Date: **01-Jan-2017 16:30**
Client ID: **MW-21** Run ID: **VOA2_287503** SeqNo: **3950391** PrepDate: DF: **100**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	15350	100	5000	11110	84.8	75 - 122				
Ethylbenzene	5555	100	5000	1698	77.1	80 - 120				S
Toluene	4269	100	5000	0	85.4	75 - 121				
Xylenes, Total	12720	100	15000	410	82.1	80 - 124				
Surr: 1,2-Dichloroethane-d4	*4873*	*100*	*5000*	*0*	*97.5*	*71 - 125*				
Surr: 4-Bromofluorobenzene	*4955*	*100*	*5000*	*0*	*99.1*	*70 - 125*				
Surr: Dibromofluoromethane	*4779*	*100*	*5000*	*0*	*95.6*	*74 - 125*				
Surr: Toluene-d8	*4792*	*100*	*5000*	*0*	*95.8*	*75 - 125*				

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

Client: Tasman Geosciences
Project: DCP-Lee Plant
WorkOrder: HS16121154

QC BATCH REPORT

Batch ID: R287503 **Instrument: VOA2** **Method: SW8260**

MSD Sample ID: **HS16121154-13MSD** Units: **ug/L** Analysis Date: **01-Jan-2017 16:54**
Client ID: **MW-21** Run ID: **VOA2_287503** SeqNo: **3950392** PrepDate: DF: **100**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Benzene	14990	100	5000	11110	77.5	75 - 122	15350	2.39	20	
Ethylbenzene	5412	100	5000	1698	74.3	80 - 120	5555	2.61	20	S
Toluene	4160	100	5000	0	83.2	75 - 121	4269	2.58	20	
Xylenes, Total	12610	100	15000	410	81.3	80 - 124	12720	0.866	20	
Surr: 1,2-Dichloroethane-d4	*4887*	*100*	*5000*	*0*	*97.7*	*71 - 125*	*4873*	*0.301*	*20*	
Surr: 4-Bromofluorobenzene	*4949*	*100*	*5000*	*0*	*99.0*	*70 - 125*	*4955*	*0.129*	*20*	
Surr: Dibromofluoromethane	*4738*	*100*	*5000*	*0*	*94.8*	*74 - 125*	*4779*	*0.855*	*20*	
Surr: Toluene-d8	*4810*	*100*	*5000*	*0*	*96.2*	*75 - 125*	*4792*	*0.39*	*20*	

The following samples were analyzed in this batch: HS16121154-13 HS16121154-16

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

Client: Tasman Geosciences
Project: DCP-Lee Plant
WorkOrder: **HS16121154**

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 Quantitaion 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	16-022-1	27-Mar-2017
California	2919 2016-2018	31-Jul-2018
Illinois	003872	09-May-2017
Kansas	E-10352 2016-2017	31-Jul-2017
Kentucky	96 2016-2017	30-Apr-2017
Louisiana	03087 2016-2017	30-Jun-2017
North Dakota	R193 2016-2017	30-Apr-2017
Oklahoma	2016-122	31-Aug-2017
Texas	TX104704231-16-17	30-Apr-2017

Client: Tasman Geosciences
Project: DCP-Lee Plant
Work Order: HS16121154

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS16121154-01	MW-7	Login	12/22/2016 3:23:15 PM	KRM	VW-3
HS16121154-02	MW-9	Login	12/22/2016 3:23:15 PM	KRM	VW-3
HS16121154-03	MW-10	Login	12/22/2016 3:23:15 PM	KRM	VW-3
HS16121154-04	MW-11	Login	12/22/2016 3:23:15 PM	KRM	VW-3
HS16121154-05	MW-12	Login	12/22/2016 3:23:15 PM	KRM	VW-3
HS16121154-06	MW-13	Login	12/22/2016 3:23:15 PM	KRM	VW-3
HS16121154-07	MW-14	Login	12/22/2016 3:23:15 PM	KRM	VW-3
HS16121154-08	MW-16	Login	12/22/2016 3:23:15 PM	KRM	VW-3
HS16121154-09	MW-17	Login	12/22/2016 3:23:15 PM	KRM	VW-3
HS16121154-10	MW-18	Login	12/22/2016 3:23:15 PM	KRM	VW-3
HS16121154-11	MW-19	Login	12/22/2016 3:23:15 PM	KRM	VW-3
HS16121154-12	MW-20	Login	12/22/2016 3:23:15 PM	KRM	VW-3
HS16121154-13	MW-21	Login	12/22/2016 3:23:15 PM	KRM	VW-3
HS16121154-14	MW-22	Login	12/22/2016 3:23:15 PM	KRM	VW-3
HS16121154-15	DUPLICATE 1	Login	12/22/2016 3:23:15 PM	KRM	VW-3
HS16121154-16	DUPLICATE 2	Login	12/22/2016 3:23:15 PM	KRM	VW-3
HS16121154-17	TRIP BLANK 121216-40	Login	12/22/2016 3:23:15 PM	KRM	VW-3

Sample Receipt Checklist

Client Name: Tasman Geosciences
Work Order: HS16121154
Date/Time Received: **22-Dec-2016 10:10**
Received by: **JRM**

Checklist completed by: *Krysta Mathis* eSignature 22-Dec-2016 Date
Reviewed by: *Sonia West* eSignature 28-Dec-2016 Date

Matrices: **waters**
Carrier name: **FedEx**

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 ☐	
TX1005 solids received in hermetically sealed vials?	Yes ☐	No ☐	N/A ☑
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):	1.3/1.6 u/c	11	
Cooler(s)/Kit(s):	42625		
Date/Time sample(s) sent to storage:	12/22/2016 17:00		
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: COC Dates do not match COC: MW-20 12/19/16 vial labels and 12/20/16 on the COC. This sample was logged in per COC.

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

Cincinnati, OH +1 513 733 5336
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Chain of Custody Form

Page 1 of 3

COC ID: 154428

ALS Project Manager: | ALS Work Order #:

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order	4061280007	Project Name	DCP-Lee Plant	A	8260_LL_W (BTEX)
Work Order		Project Number	F229	B	HS16121154
Company Name	Tasman Geosciences	Bill To Company	DCP Midstream, LP	C	Tasman Geosciences
Send Report To	Brian Humphrey	Invoice Attn	Stephen Weathers	D	DCP-Lee Plant
Address	6089 Pecos St Unit C	Address	370 17th Street, Suite 2500	E	
City/State/Zip	Denver, CO 80221	City/State/Zip	Denver, Colorado 80202	F	
Phone	303-487-1228	Phone		G	
Fax		Fax		H	
e-Mail Address		e-Mail Address		I	
				J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-4	X	X	Water	X	X	X										
2	MW-5	X	X	Water	X	X 3	X										
3	MW-6	X	X	Water	X	X 3	X										
4	MW-7	12-20-16	1313	Water	1	3	X										
5	MW-8	X	X	Water	X	X 3	X										
6	MW-9	12-20-16	1435	Water	None	3	X										
7	MW-10	↓	1500	Water	None	3	X										
8	MW-11		1422	Water	None	3	X										
9	MW-12		1415	Water		3	X										
10																	

Sampler(s) Please Print & Sign: Mitch Weller

Shipment Method: FedEx Overnight

Required Turnaround Time: (Check Box) TAT: 10 days

Results Due Date:

	Date:	Time:		
Relinquished by: Mitchell Weller	12-21-16	1300	Received by:	
Relinquished by:	12/22/16	10:10	Received by (Laboratory): JM	
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	

Notes: DCP-Lee Plant

Cooler ID	Cooler Temp.
42625	1.3
	IR#1
	CF0.3

QC Package: (Check One Box Below)
QC Level: STD
Other:

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 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.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

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Chain of Custody Form

Page 2 of 3

COC ID: 154427

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order	100128007	Project Name	DCP-Lee Plant	A	8260_LL_W (BTEX)
Work Order		Project Number	F229	B	
Company Name	Tasman Geosciences	Bill To Company	DCP Midstream, LP	C	HS16121154
Send Report To	Brian Humphrey	Invoice Attn	Stephen Weathers	D	Tasman Geosciences
Address	6899 Pecos St Unit C	Address	370 17th Street, Suite 2600	E	DCP-Lee Plant
				F	
City/State/Zip	Denver, CO 80221	City/State/Zip	Denver, Colorado 80202	G	
Phone	303-487-1228	Phone		H	
Fax		Fax		I	
e-Mail Address		e-Mail Address		J	

ALS Project Manager:

ALS Work Order #:

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-13	12-20-16	1120	Water	1	3	X										
2	MW-14	↓	1236	Water	↓	3	X										
3	MW-15	X	X	Water	X	X 3	X										
4	MW-16	12-20-16	1640	Water	1	3	X										
5	MW-17		1635	Water	None	3	X										
6	MW-18		1600	Water	1	3	X										
7	MW-19		0945	Water		3	X										
8	MW-20		1320	Water		3	X										
9	MW-21	↓	1040	Water	↓	3	X										
10																	

Sampler(s) Please Print & Sign: Mitch Weller

Shipment Method: FedEx Overnight

Required Turnaround Time: (Check Box) TAT: 10 days Other:

Results Due Date:

Relinquished by: Mitchell Weller	Date:	Time:	Received by: —	Notes:
Relinquished by: —	Date: 12/22/16	Time: 10:10	Received by (Laboratory): JM	
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	

Cooler ID	Cooler Temp.
42625	1.3
	IR 11
	CF 0.3

QC Package: (Check One Box Below)

QC Level: STD

Other:

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

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York, PA +1 717 505 5280

Chain of Custody Form

Page 3 of 3

COC ID: 154426

ALS Project Manager: | ALS Work Order #:

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order	400128007	Project Name	DCP-Lee Plant	A	8260_LL_W (BTEX)
Work Order		Project Number	F229	B	
Company Name	Tasman Geosciences	Bill To Company	DCP Midstream, LP	C	
Send Report To	Brian Humphrey	Invoice Attn	Stephen Weathers	D	
Address	6899 Pecos St Unit C	Address	370 17th Street, Suite 2500	E	
City/State/Zip	Denver, CO 80221	City/State/Zip	Denver, Colorado 80202	F	
Phone	303-487-1228	Phone		G	
Fax		Fax		H	
e-Mail Address		e-Mail Address		I	
				J	

HS16121154

Tasman Geosciences

DCP-Lee Plant

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-23	12-20-16	1030	Water	1	3	X										
2	Duplicate 1	12-20-16	—	Water	None	3	X										
3	Duplicate 2	12-20-16	—	Water	1	3	X										
4	Trip Blank	—	—	Water	—	2	X										
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Mitch Weller

Shipment Method: FedEx Overnight

Required Turnaround Time: (Check Box) TAT: 10 days Other:

Results Due Date:

Relinquished by: Mitch Weller — Date: 12-20-16 — Time: 1300 — Received by: —

Relinquished by: — — Date: 12/22/16 — Time: 10:10 — Received by (Laboratory): Jim

Logged by (Laboratory): — Date: — Time: — Checked by (Laboratory): —

Notes:

Cooler ID	Cooler Temp.
42625	1.3
	IR#1
	CF0.3

QC Package: (Check One Box Below)

QC Level: STD

Other:

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

ote: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
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