DCP Midstream
370 17th Street, Suite 2500
Denver, CO 80202
303-595-3331
303-605-2226 *FAX*

March 19, 2012

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

RE: Second 2011 Semi Annual Groundwater Monitoring Report
Former DCP Lee Gas Plant (GW-002)
Unit N Section 30, Township 17 South, Range 35 East

Dear Mr. Lowe:

DCP Midstream, LP (DCP) is pleased to submit for your review one copy of the 2nd 2011 Semi Annual Groundwater Monitoring Report for the Former DCP Lee Gas Plant located in Lea County, New Mexico (Unit N Section 30, Township 17 South, Range 35 East).

Groundwater monitoring activities were completed December 15 and 16, 2011. The data indicate that the dissolved phase hydrocarbon plume continues to attenuate to below NM WQCC groundwater standards before reaching the down-gradient boundary wells. The next groundwater monitoring event is scheduled for the first half of 2012.

If you have any questions regarding the report, please call at 303-605-1695 or e-mail me CECole@dcpmidstream.com .

Sincerely,

DCP Midstream, LP

Chandler E. Cole

Chandler E Cole
Senior Environmental Specialist

Enclosure

cc: Larry Johnson – OCD District Office, Hobbs
Environmental Files

Second Half Semi-Annual 2011
Groundwater Monitoring Summary Report

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

Prepared for:

DCP Midstream

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

Prepared by:

Tasman Geosciences

5690 Webster, Ave
Arvada, CO 80002

February 20, 2012

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1. Introduction

Tasman Geosciences, LLC (Tasman) is submitting to DCP Midstream (DCP) the results of the second half semi-annual 2011 groundwater monitoring activities conducted December 15 and 16, 2011 at the Former Lee Gas Plant (Site) in Lea County, New Mexico (Figure 1). The field activities performed during the reporting period, 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. Prior to the second half semi-annual 2011 sampling event, groundwater monitoring activities were performed by American Environmental Consulting LLC (AEC). Current Site conditions were evaluated from field data and analytical laboratory results collected during the reporting period and data collected prior by AEC.

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 (approximate coordinates 32.800 degrees north and 103.495 degrees west). It is approximately 0.45 miles southeast of the intersection of US Highway 238 and County Road 50. The area is sparsely populated and land use is primarily associated with livestock grazing and oil and gas extraction and conveyance.

According to information provided in previous Site investigation reports, Lee 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). The first 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. Several additional investigation activities took place in order to determine the extent of both the free phase and dissolved phase hydrocarbon plumes, requiring installation of monitoring and recovery wells, as specified below:

- MW-5 through MW-8 and RW-1: Installed May 1990; LNAPL recovery began on 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.

Following installation of the final six wells quarterly groundwater sampling commenced, as the final phase of subsurface investigation was complete. BDM International, Inc. suggested initiation of additional remedial activities. A soil vapor extraction (SVE) and air sparge system operated between 1993 and 2004. Currently the Lee Gas Plant is sampled on a semi annual basis.

3. Groundwater Monitoring

This section describes the groundwater field and laboratory activities performed during the second half semi-annual 2011 monitoring event. Monitoring activities included Site-wide groundwater gauging, LNAPL measurements, and groundwater sampling. Figure 2 illustrates the groundwater monitoring network utilized to perform these activities at the Site.

3.1 Groundwater and LNAPL Elevation Monitoring

Groundwater and LNAPL levels were measured in order to evaluate hydraulic characteristics and provide information regarding seasonal and annual fluctuations in groundwater elevations at the Site. During the second half semi-annual 2011 event, groundwater levels were measured at nineteen (19) Site monitoring well locations.

Groundwater levels were measured on the north side of the well casing to the nearest 0.01-foot using an oil-water interface probe (IP). Groundwater level data were later converted to elevation (feet above mean sea level [AMSL]). Measured groundwater levels and calculated groundwater elevation data are presented in Table 1 and a second half semi-annual 2011 groundwater elevation contour map is illustrated on Figure 3. The presence of LNAPL, where detected by the IP, is also presented in Table 1.

Groundwater elevations ranged from 3,869.58 feet AMSL at monitoring well MW-20 to 3,873.61 feet AMSL at monitoring well MW-16. Groundwater flow at the Site generally trends to the southwest (Figure 3) with a gradient of approximately 0.0028 foot per foot between monitoring wells MW-16 and MW-20.

Groundwater elevations from the highest and lowest measured wells were not used in calculating hydraulic gradient due to the presence of LNAPL and corrections required. The selected elevations were directly measured and are representative of the general observed gradient and flow direction.

LNAPL was detected at the following locations, with measured thickness indicated in parenthesis:

- MW-5 (0.82-ft)
- MW-6 (0.10-ft)
- MW-8 (0.40-ft)
- MW-15 (4.41-ft)

LNAPL was observed in MW-9 during the June 2011 groundwater monitoring event but was not detected during the second half semi-annual event. However, a heavy sheen and strong odor were noted during sample collection.

3.2 Groundwater Quality Monitoring

Subsequent to the collection of groundwater level measurements at each monitoring well, groundwater samples were collected from fourteen of nineteen wells. Monitoring wells with detected LNAPL, MW-5, MW-6, MW-8 and MW-15, were not sampled. Additionally, MW-3 did not contain sufficient water to obtain a representative sample.

A minimum of three well casing volumes of groundwater were purged from each monitoring well prior to collecting groundwater samples. Groundwater samples were collected using dedicated polyethylene bailers, placed in clean laboratory supplied containers for the selected analytical methods and packed in an ice-filled cooler and maintained at approximately four (4) degrees Celsius (^{0}C) for transportation to the laboratory. Groundwater samples were shipped under chain-of-custody procedures to Accutest Laboratories (Accutest) in Wheat Ridge, Colorado, for analysis.

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

Concentrations which exceeded the applicable groundwater standard are summarized below.

- Benzene was detected at concentrations in excess of the New Mexico Water Quality Control Commission Standard of 0.01 milligrams per liter (mg/L) at four locations:
  - **MW-9**: 12.5 mg/L
  - **MW-10:** 12.5 mg/L
  - **MW-14:** 0.231 mg/L
  - **MW-21:** 0.671 mg/L
- LNAPL was detected at four (4) locations as indicated in Section 3.1 above.

Figure 4 shows all analytical results from the second half semi-annual 2011 event, in addition to the first half semi-annual 2011 analytical results.

Table 2 presents second half semi-annual 2011 analytical data as well as recent historical results. Laboratory analytical reports for the event are included in Appendix A.

Water quality parameters were collected during the second half semi-annual 2011 monitoring event, and parameter stabilization was achieved within three purge volumes. Therefore, the analytical data are considered to be representative of site conditions.

4. Free Phase Hydrocarbon Removal

Monitoring wells MW-5, MW-6, MW-8, MW-9 and MW-15 all contain measureable free phase hydrocarbons (FPH). Product thicknesses were gauged monthly in MW-6 and MW-15 during the second half of 2011. FPH product was bailed from MW-15 each month and containerized onsite. FPH removal activities for the second half of 2011 are summarized in Appendix B.

5. Conclusions

Comparison of the second half semi-annual 2011 monitoring data with historic information provides the following general observations:

- Based on historical groundwater elevations, the potentiometric surface has remained relatively stable with minor seasonal fluctuations.
- LNAPL detections persist in monitoring wells located at the northern end of the facility where the former evaporation ponds were located.
- Historically, dissolved-phase hydrocarbons were not observed in MW-14. However, during the second half semi-annual monitoring event, benzene concentrations exceeded the New Mexico Water Quality Control Commission Groundwater Standard. Monitoring will continue in order to establish a trend.
- Dissolved-phase impacts precede LNAPL observations over a relatively short period of time with minor lateral dispersion. This indicates that the dissolved phase BTEX plume has not extended well in advance of the LNAPL, possibly due to attenuation, low permeability aquifer material, low hydraulic gradient, and/or a combination of these factors.

6. Recommendations

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

- Continue groundwater monitoring and sampling at the monitoring locations illustrated on Figure 2.

Tables

TABLE 1
SECOND HALF SEMI ANNUAL 2011
SUMMARY OF GROUNDWATER ELEVATION DATA
FORMER LEE GAS PLANT
LEA COUNTY, NEW MEXICO

Location	Date	Depth to Groundwater (1) (feet)	Depth to Product (1) (feet)	Free Phase Hydrocarbon Thickness (feet)	Total Depth (2) (feet)	TOC Elevation (feet amsl)	Groundwater Elevation* (feet amsl)	Groundwater Elevation Since Previous Event (3) (feet)
MW-3	3/29/2010					3980.27	3872.75	
MW-3	9/24/2010					3980.27	3872.68	-0.07
MW-3	6/3/2011	107.54			108.84	3980.27	3872.73	0.05
MW-3	**12/15/2011**	**107.56**			**108.84**	**3980.27**	**3872.71**	**-0.02**
MW-5*	3/29/2010					3979.82	3873.54	
MW-5*	9/24/2010					3979.82	3872.95	-0.59
MW-5*	6/3/2011	106.87	106.56	0.31	112.64	3979.82	3873.18	0.23
MW-5*	**12/15/2011**	**107.52**	**106.70**	**0.82**	**112.64**	**3979.82**	**3872.92**	**-0.27**
MW-6*	3/29/2010					3981.79	3873.76	
MW-6*	9/24/2010					3981.79	3873.30	-0.46
MW-6*	6/3/2011	108.32	108.25	0.07	113.20	3981.79	3873.52	0.22
MW-6*	**12/15/2011**	**108.79**	**108.69**	**0.10**	**113.20**	**3981.79**	**3873.08**	**-0.45**
MW-7	3/29/2010					3978.45	3872.07	
MW-7	9/24/2010					3978.45	3871.98	-0.09
MW-7	6/3/2011	106.69			111.67	3978.45	3871.76	-0.22
MW-7	**12/15/2011**	**107.06**			**111.67**	**3978.45**	**3871.39**	**-0.37**
MW-8*	3/29/2010					3979.96	3872.21	
MW-8*	9/24/2010					3979.96	3871.99	-0.22
MW-8*	6/3/2011	108.01	107.80	0.21	110.82	3979.96	3872.11	0.12
MW-8*	**12/15/2011**	**108.59**	**108.19**	**0.40**	**110.82**	**3979.96**	**3871.67**	**-0.44**
MW-9*	3/29/2010					3980.17	3872.24	
MW-9*	9/24/2010					3980.17	3872.19	-0.05
MW-9*	6/3/2011	108.21	108.19	0.02	116.92	3980.17	3871.98	-0.22
MW-9	**12/16/2011**	**108.68**			**116.92**	**3980.17**	**3871.49**	**-0.48**
MW-10	3/29/2010					3979.66	3871.95	
MW-10	9/24/2010					3979.66	3871.87	-0.08
MW-10	6/3/2011	107.99			117.41	3979.66	3871.67	-0.20
MW-10	**12/15/2011**	**108.35**			**117.41**	**3979.66**	**3871.31**	**-0.36**
MW-11	3/29/2010					3978.50	3871.58	
MW-11	9/24/2010					3978.50	3871.55	-0.03
MW-11	6/3/2011	107.19			117.98	3978.50	3871.31	-0.24
MW-11	**12/15/2011**	**107.60**			**117.98**	**3978.50**	**3870.90**	**-0.41**
MW-12	3/29/2010					3978.82	3871.47	
MW-12	9/24/2010					3978.82	3871.46	-0.01
MW-12	6/3/2011	107.62			117.35	3978.82	3871.20	-0.26
MW-12	**12/16/2011**	**108.06**			**117.35**	**3978.82**	**3870.76**	**-0.44**
MW-13	3/29/2010					3980.52	3871.37	
MW-13	9/24/2010					3980.52	3871.34	-0.03
MW-13	6/3/2011	109.42			117.27	3980.52	3871.10	-0.24
MW-13	**12/16/2011**	**109.92**			**117.27**	**3980.52**	**3870.60**	**-0.50**
MW-14	3/29/2010					3982.23	3871.78	
MW-14	9/24/2010					3982.23	3871.72	-0.06
MW-14	6/3/2011	110.76			118.36	3982.23	3871.47	-0.25
MW-14	**12/15/2011**	**111.23**			**118.36**	**3982.23**	**3871.00**	**-0.47**
MW-15*	3/29/2010					3981.70	NM	
MW-15*	9/24/2010					3981.70	NM	
MW-15*	6/3/2011	110.38	107.44	2.94	122.70	3981.70	3873.53	
MW-15*	**12/15/2011**	**111.96**	**107.55**	**4.41**	**122.70**	**3981.70**	**3873.05**	**-0.48**

TABLE 1
SECOND HALF SEMI ANNUAL 2011
SUMMARY OF GROUNDWATER ELEVATION DATA
FORMER LEE GAS PLANT
LEA COUNTY, NEW MEXICO

Location	Date	Depth to Groundwater (1) (feet)	Depth to Product (1) (feet)	Free Phase Hydrocarbon Thickness (feet)	Total Depth (2) (feet)	TOC Elevation (feet amsl)	Groundwater Elevation* (feet amsl)	Groundwater Elevation Since Previous Event (3) (feet)
MW-16	3/29/2010					3980.80	3874.29	
MW-16	9/24/2010					3980.80	3874.22	-0.07
MW-16	6/3/2011	106.73			122.74	3980.80	3874.07	-0.15
MW-16	**12/15/2011**	**107.19**			**122.74**	**3980.80**	**3873.61**	**-0.46**
MW-17	3/29/2010					3981.80	3872.91	
MW-17	9/24/2010					3981.80	3872.85	-0.06
MW-17	6/3/2011	109.13			124.12	3981.80	3872.67	-0.18
MW-17	**12/15/2011**	**109.67**			**124.12**	**3981.80**	**3872.13**	**-0.54**
MW-18	3/29/2010					3983.10	3872.87	
MW-18	9/24/2010					3983.10	3872.82	-0.05
MW-18	6/3/2011	110.47			125.42	3983.10	3872.63	-0.19
MW-18	**12/16/2011**	**111.09**			**125.42**	**3983.10**	**3872.01**	**-0.62**
MW-19	3/29/2010					3980.80	3870.68	
MW-19	9/24/2010					3980.80	3870.64	-0.04
MW-19	6/3/2011	110.42			126.56	3980.80	3870.38	-0.26
MW-19	**12/16/2011**	**110.98**			**126.56**	**3980.80**	**3869.82**	**-0.56**
MW-20	3/29/2010					3983.30	3870.57	
MW-20	9/24/2010					3983.30	3870.54	-0.03
MW-20	6/3/2011	113.04			128.22	3983.30	3870.26	-0.28
MW-20	**12/15/2011**	**113.72**			**128.22**	**3983.30**	**3869.58**	**-0.68**
MW-21	3/29/2010					NM	NM	
MW-21	9/24/2010					NM	NM	
MW-21	6/3/2011	109.28			123.59	NM	NM	
MW-21	**12/15/2011**	**109.70**			**123.59**	**NM**	**NM**	
MW-22	3/29/2010					NM	NM	
MW-22	9/24/2010					NM	NM	
MW-22	6/3/2011	108.97			148.62	NM	NM	
MW-22	**12/15/2011**	**109.38**			**148.62**	**NM**	**NM**	
						Average change in groundwater elevation since the previous monitoring event		-0.44

Notes:

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

2- Total depths were collected and recorded during the second half semi-annual 2011 monitoring event (with the exception of wells that contained LNAPL).

3- Changes in groundwater elevation calculated by subtracting the measurement collected during the previous monitoring even from the measurement collected during the most recent monitoring Data presented for well locations includes previous four sampling events, when available. Historic groundwater elevation data for these locations are available upon request.
Sample locations are shown on Figure 2 and a groundwater elevation contour map is shown on Figure 3

4- Data collected prior to the 2010 semi-annual events may be provided upon request.

amsl - feet above mean sea level.

TOC - top of casing

NM - not measured

* For wells that contained LNAPL, groundwater elevation was corrected for product thickness using the following calculation:

Groundwater elevation = (TOC Elevation - Measured Depth to Water) + (LNAPL Thickness in Well * LNAPL Density)
LNAPL density was assumed to be approximately 0.75 grams per cubic centimeter

TABLE 2
SECOND HALF SEMI ANNUAL 2011
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
New Mexico Water Quality Control Comission Groundwater Standards		0.01 (mg/l)	0.75 (mg/l)	0.75 (mg/l)	0.62 (mg/l)	
MW-3	3/29/2010	NS	NS	NS	NS	
MW-3	9/24/2010	NS	NS	NS	NS	
MW-3	6/3/2011	NS	NS	NS	NS	
MW-3	**12/15/2011**	**NS**	**NS**	**NS**	**NS**	
MW-5*	3/29/2010	LNAPL	LNAPL	LNAPL	LNAPL	
MW-5*	9/24/2010	LNAPL	LNAPL	LNAPL	LNAPL	
MW-5*	6/3/2011	LNAPL	LNAPL	LNAPL	LNAPL	
MW-5*	**12/15/2011**	**LNAPL**	**LNAPL**	**LNAPL**	**LNAPL**	
MW-6*	3/29/2010	LNAPL	LNAPL	LNAPL	LNAPL	
MW-6*	9/24/2010	LNAPL	LNAPL	LNAPL	LNAPL	
MW-6*	6/3/2011	LNAPL	LNAPL	LNAPL	LNAPL	
MW-6*	**12/15/2011**	**LNAPL**	**LNAPL**	**LNAPL**	**LNAPL**	
MW-7	3/29/2010	**4.98**	0.0017	0.0146	0.0088	
MW-7	9/24/2010	**0.976**	0.00057	0.0083	<0.0017	
MW-7	6/3/2011	<0.001	<0.002	<0.002	<0.004	
MW-7	**12/15/2011**	**0.0013**	**<0.002**	**<0.002**	**<0.004**	
MW-8*	3/29/2010	LNAPL	LNAPL	LNAPL	LNAPL	
MW-8*	9/24/2010	LNAPL	LNAPL	LNAPL	LNAPL	
MW-8*	6/3/2011	LNAPL	LNAPL	LNAPL	LNAPL	
MW-8*	**12/15/2011**	**LNAPL**	**LNAPL**	**LNAPL**	**LNAPL**	
MW-9	3/29/2010	**0.376**	<0.002	0.0016	<0.006	
MW-9	9/24/2010	**0.0167**	<0.002	0.0008	<0.0017	
MW-9*	6/3/2011	LNAPL	LNAPL	LNAPL	LNAPL	
MW-9	**12/16/2011**	**12.5**	**<0.40**	**0.390**	**<0.80**	
MW-10	3/29/2010	**0.192**	<0.002	0.00095	<0.006	
MW-10	9/24/2010	**12.2**	<0.002	0.0723	0.0026	
MW-10	6/3/2011	<0.001	<0.002	<0.002	<0.004	
MW-10	**12/15/2011**	**12.5**	**<0.40**	**0.204**	**<0.80**	
MW-11	3/29/2010	<0.002	<0.002	<0.002	<0.006	
MW-11	9/24/2010	<0.002	<0.002	<0.002	<0.006	
MW-11	6/3/2011	<0.001	<0.002	<0.002	<0.004	
MW-11	**12/15/2011**	**<0.001**	**<0.002**	**<0.002**	**<0.004**	
MW-12	3/29/2010	<0.002	<0.002	<0.002	<0.006	
MW-12	9/24/2010	<0.002	<0.002	<0.002	<0.006	
MW-12	6/3/2011	<0.001	<0.002	<0.002	<0.004	
MW-12	**12/16/2011**	**<0.001**	**<0.002**	**<0.002**	**<0.004**	
MW-13	3/29/2010	<0.002	<0.002	<0.002	<0.006	
MW-13	9/24/2010	<0.002	<0.002	<0.002	<0.006	
MW-13	6/3/2011	<0.001	<0.002	<0.002	<0.004	
MW-13	**12/16/2011**	**<0.001**	**<0.002**	**<0.002**	**<0.004**	
MW-14	3/29/2010	NS	NS	NS	NS	
MW-14	9/24/2010	<0.002	<0.002	<0.002	<0.006	
MW-14	6/3/2011	NS	NS	NS	NS	
MW-14	**12/15/2011**	**0.231**	**<0.002**	**0.0095**	**<0.004**	
MW-15*	3/29/2010	LNAPL	LNAPL	LNAPL	LNAPL	
MW-15*	9/24/2010	LNAPL	LNAPL	LNAPL	LNAPL	
MW-15*	6/3/2011	LNAPL	LNAPL	LNAPL	LNAPL	
MW-15*	**12/15/2011**	**LNAPL**	**LNAPL**	**LNAPL**	**LNAPL**	

TABLE 2
SECOND HALF SEMI ANNUAL 2011
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
New Mexico Water Quality Control Comission Groundwater Standards		**0.01 (mg/l)**	**0.75 (mg/l)**	**0.75 (mg/l)**	**0.62 (mg/l)**	
MW-16	3/29/2010	NS	NS	NS	NS	
MW-16	9/24/2010	<0.002	<0.002	<0.002	<0.006	
MW-16	6/3/2011	NS	NS	NS	NS	
MW-16	**12/15/2011**	**<0.001**	**<0.002**	**<0.002**	**<0.004**	
MW-17	3/29/2010	NS	NS	NS	NS	
MW-17	9/24/2010	<0.002	<0.002	<0.002	<0.006	
MW-17	6/3/2011	NS	NS	NS	NS	
MW-17	**12/15/2011**	**<0.001**	**<0.002**	**<0.002**	**<0.004**	
MW-18	3/29/2010	NS	NS	NS	NS	
MW-18	9/24/2010	<0.002	<0.002	<0.002	<0.006	
MW-18	6/3/2011	NS	NS	NS	NS	
MW-18	**12/16/2011**	**<0.001**	**<0.002**	**<0.002**	**<0.004**	
MW-19	3/29/2010	<0.002	<0.002	<0.002	<0.006	
MW-19	9/24/2010	<0.002	<0.002	<0.002	<0.006	
MW-19	6/3/2011	<0.001	<0.002	<0.002	<0.004	
MW-19	**12/16/2011**	**<0.001**	**<0.002**	**<0.002**	**<0.004**	
MW-20	3/29/2010	<0.002	<0.002	<0.002	<0.006	
MW-20	9/24/2010	<0.002	<0.002	<0.002	<0.006	
MW-20	6/3/2011	<0.001	<0.002	<0.002	<0.004	
MW-20	**12/15/2011**	**0.0013**	**<0.002**	**<0.002**	**<0.004**	
MW-21	3/29/2010	**14.8**	0.00265	**1.54**	0.1945	
MW-21	9/24/2010	**11.555**	0.0019	**1.535**	0.02645	
MW-21	6/3/2011	**7.97**	0.0012	0.536	<0.004	Duplicate sample collected
MW-21	**12/16/2011**	**0.671**	**<0.02**	**0.0513**	**<0.04**	**Duplicate sample collected**
MW-22	3/29/2010	NS	NS	NS	NS	
MW-22	9/24/2010	**0.0114**	<0.002	0.0033	<0.006	
MW-22	6/3/2011	NS	NS	NS	NS	
MW-22	**12/16/2011**	**<0.001**	**<0.002**	**<0.002**	**<0.004**	

Notes:

1.) The environmental cleanup standards for water that are applicable to the Former Lee Gas Plant site are the New Mexico Water Quality Control Commission

2.) Data presented for all well locations includes previous four sampling events, when available. Historic groundwater analytical results for these locations are available

xceedance of the NMWQCC groundwater standards for the Site.

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

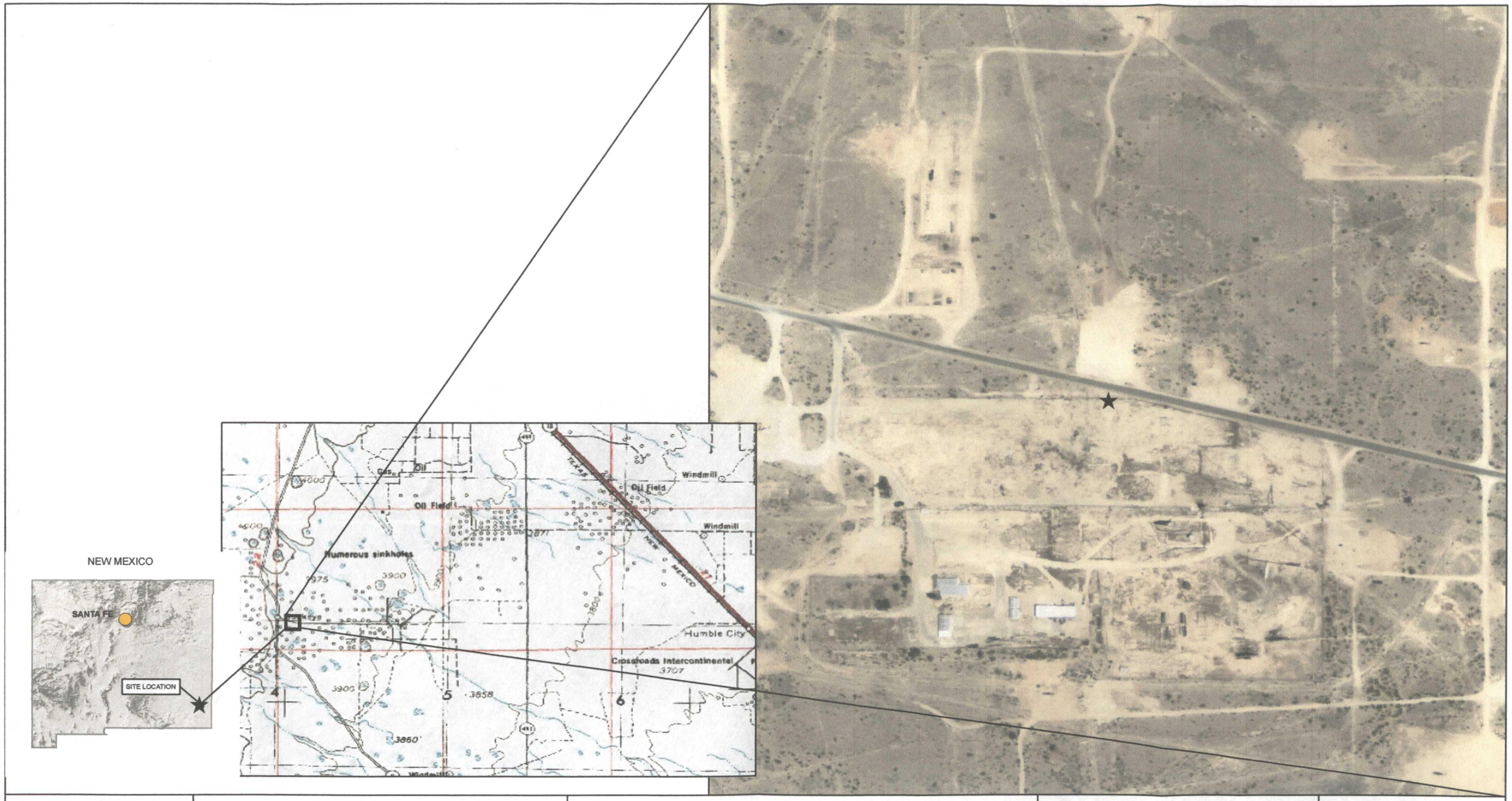
3) Data collected prior to the 2010 semi-annual events may be provided upon request.

LNAPL = Light Non-Aqueous Phase Liquid

NM = Not measured.

mg/L = milligrams per liter.

Figures



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

Tasman Geosciences

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720-988-2024

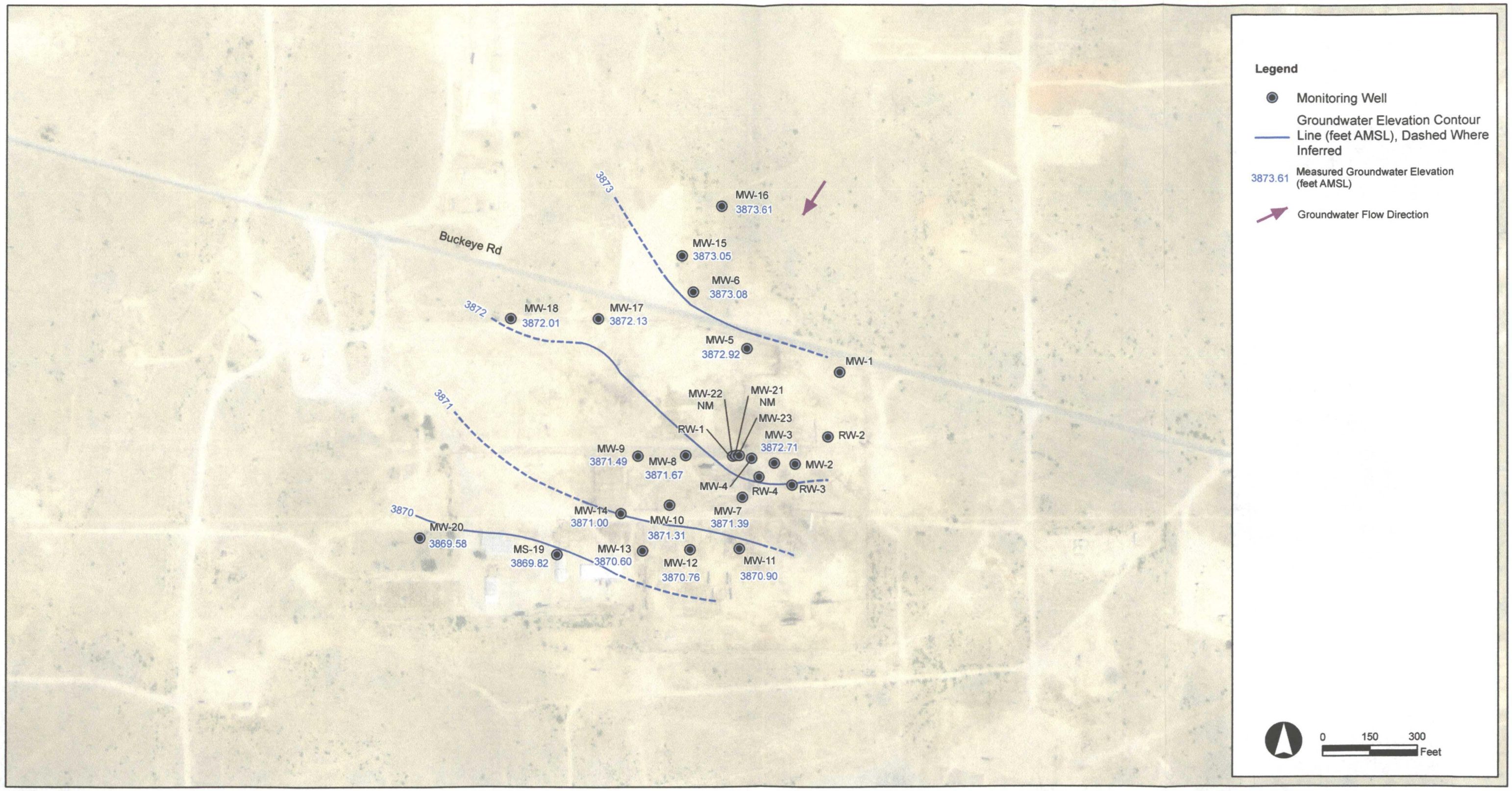
FORMER LEE GAS PLANT

Second Half 2011 Semi-Annual Groundwater Monitoring Summary Report

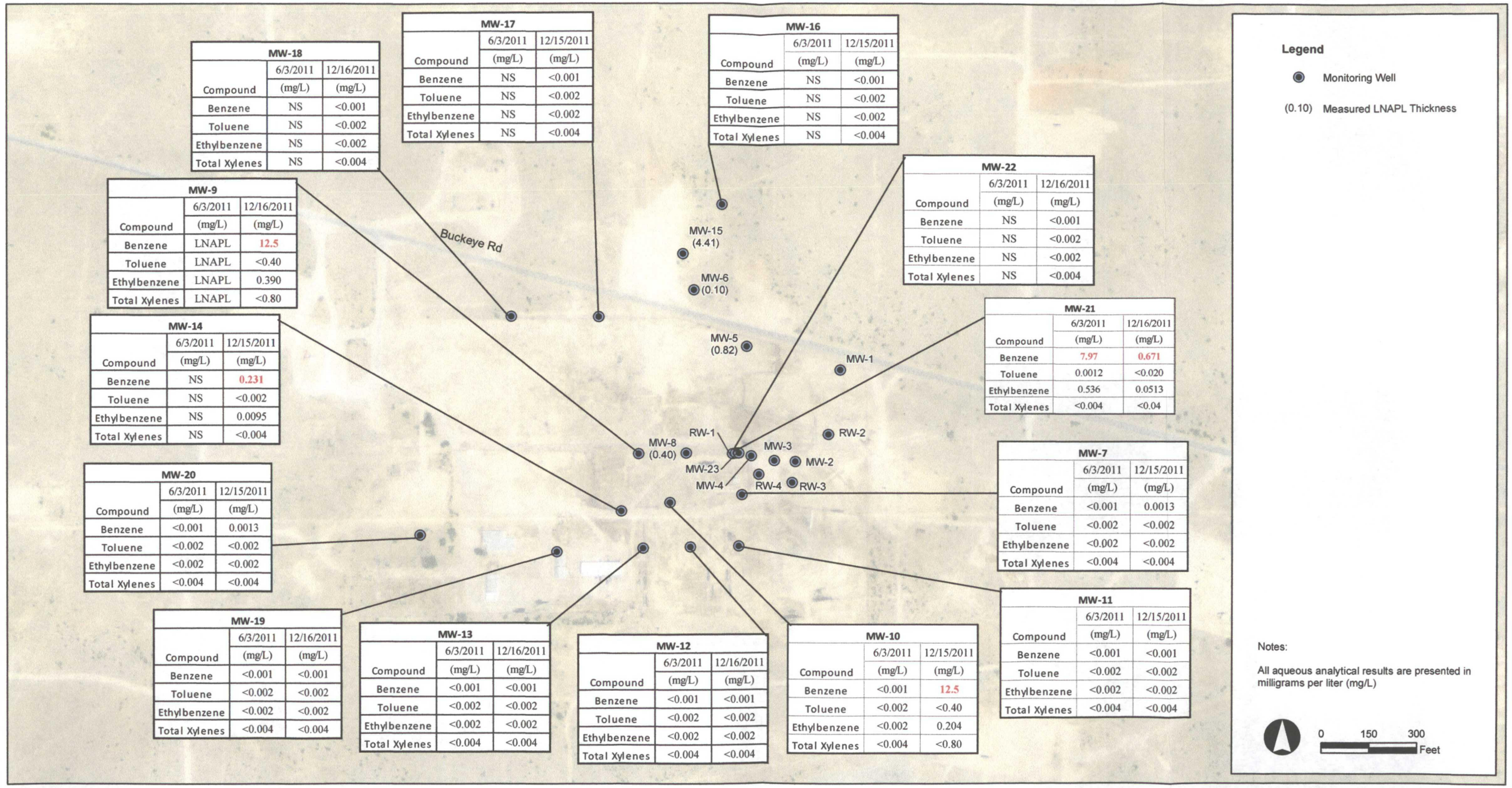
SITE LOCATION

FIGURE
1

DESIGNED BY: C. Wasko DRAWN BY: J. Clonts SHEET CHK'D BY: CROSS CHK'D BY: APPROVED BY: APPROVED BY:	Tasman Geosciences Tasman Geosciences, LLC 5690 Webster St. Arvada, CO 8002 720-988-2024	**FORMER LEE GAS PLANT** *Second Half 2011 Semi-Annual Groundwater Monitoring Summary Report*	SITE MAP	FIGURE 2



DESIGNED BY: C. Wasko DRAWN BY: J. Clonts SHEET CHK'D BY: CROSS CHK'D BY: APPROVED BY: APPROVED BY:	Tasman Geosciences Tasman Geosciences, LLC 5690 Webster St. Arvada, CO 8002 720-988-2024	**FORMER LEE GAS PLANT** *Second Half 2011 Semi-Annual Groundwater Monitoring Summary Report*	GROUNDWATER ELEVATION CONTOUR MAP (DECEMBER 15 & 16, 2011)	FIGURE 3



MW-18

Compound	6/3/2011 (mg/L)	12/16/2011 (mg/L)
Benzene	NS	<0.001
Toluene	NS	<0.002
Ethylbenzene	NS	<0.002
Total Xylenes	NS	<0.004

MW-17

Compound	6/3/2011 (mg/L)	12/15/2011 (mg/L)
Benzene	NS	<0.001
Toluene	NS	<0.002
Ethylbenzene	NS	<0.002
Total Xylenes	NS	<0.004

MW-16

Compound	6/3/2011 (mg/L)	12/15/2011 (mg/L)
Benzene	NS	<0.001
Toluene	NS	<0.002
Ethylbenzene	NS	<0.002
Total Xylenes	NS	<0.004

MW-9

Compound	6/3/2011 (mg/L)	12/16/2011 (mg/L)
Benzene	LNAPL	12.5
Toluene	LNAPL	<0.40
Ethylbenzene	LNAPL	0.390
Total Xylenes	LNAPL	<0.80

MW-22

Compound	6/3/2011 (mg/L)	12/16/2011 (mg/L)
Benzene	NS	<0.001
Toluene	NS	<0.002
Ethylbenzene	NS	<0.002
Total Xylenes	NS	<0.004

MW-14

Compound	6/3/2011 (mg/L)	12/15/2011 (mg/L)
Benzene	NS	0.231
Toluene	NS	<0.002
Ethylbenzene	NS	0.0095
Total Xylenes	NS	<0.004

MW-21

Compound	6/3/2011 (mg/L)	12/16/2011 (mg/L)
Benzene	7.97	0.671
Toluene	0.0012	<0.020
Ethylbenzene	0.536	0.0513
Total Xylenes	<0.004	<0.04

MW-20

Compound	6/3/2011 (mg/L)	12/15/2011 (mg/L)
Benzene	<0.001	0.0013
Toluene	<0.002	<0.002
Ethylbenzene	<0.002	<0.002
Total Xylenes	<0.004	<0.004

MW-7

Compound	6/3/2011 (mg/L)	12/15/2011 (mg/L)
Benzene	<0.001	0.0013
Toluene	<0.002	<0.002
Ethylbenzene	<0.002	<0.002
Total Xylenes	<0.004	<0.004

MW-19

Compound	6/3/2011 (mg/L)	12/16/2011 (mg/L)
Benzene	<0.001	<0.001
Toluene	<0.002	<0.002
Ethylbenzene	<0.002	<0.002
Total Xylenes	<0.004	<0.004

MW-13

Compound	6/3/2011 (mg/L)	12/16/2011 (mg/L)
Benzene	<0.001	<0.001
Toluene	<0.002	<0.002
Ethylbenzene	<0.002	<0.002
Total Xylenes	<0.004	<0.004

MW-12

Compound	6/3/2011 (mg/L)	12/16/2011 (mg/L)
Benzene	<0.001	<0.001
Toluene	<0.002	<0.002
Ethylbenzene	<0.002	<0.002
Total Xylenes	<0.004	<0.004

MW-10

Compound	6/3/2011 (mg/L)	12/15/2011 (mg/L)
Benzene	<0.001	12.5
Toluene	<0.002	<0.40
Ethylbenzene	<0.002	0.204
Total Xylenes	<0.004	<0.80

MW-11

Compound	6/3/2011 (mg/L)	12/15/2011 (mg/L)
Benzene	<0.001	<0.001
Toluene	<0.002	<0.002
Ethylbenzene	<0.002	<0.002
Total Xylenes	<0.004	<0.004

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FORMER LEE GAS PLANT

Second Half 2011 Semi-Annual Groundwater Monitoring Summary Report

ANALYTICAL RESULTS MAP

FIGURE 4

Appendix A

Laboratory Analytical Reports

(Contained on Disc at Back of Report)

Appendix B

Product Recovery Summary

Duke Lee Plant Product Recovery System Surveillance

			7-05-11 @ 7:00 AM	8-01-11 @ 7:00 AM	9-06-11 @ 7:40 AM	10-03-11 @ 10:00 AM	11-07-11 @ 7:30 AM	12-07-11 @7:30 AM	1/3/12 @ 7:40 AM	2-06-12 @ 10:15 AM	Cumulative Hydrocarbon Production Gallons	Cumulative Water Production Gallons
MW6	Product guage	feet	2.83	2.83	2.83	2.83	2.83	2.83	2.83	2.83		
	Water guage	feet	2.93	2.93	2.93	2.93	2.83	2.83	2.83	2.83		
	Drum height	feet	2.93	2.93	2.93	2.93	2.93	2.93	2.93	2.93		
	Product thickness	**feet**	**0.10**	**0.10**	**0.10**	**0.10**	**0.10**	**0.10**	**0.10**	**0.10**		
	Water thickness	**feet**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**		
	Volume factor	gal/ft	19.66	19.66	19.66	19.66	19.66	19.66	19.66	19.66		
	Product INCREASE	**gallons**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	677.21	
	Water INCREASE	**gallons**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**		44.47
	Calculated Drum Volume	**gallons**	1.57	1.57	1.57	1.57	1.57	1.57	1.57	1.57		
	Conversion factor	liters/gal	3.79	3.79	3.79	3.79	3.79	3.79	3.79	3.79		
	Conversion factor	gal/liter	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26		
	Calculated Volume	**Liters**	**7.45**	**7.45**	**7.45**	**7.45**	**7.45**	**7.45**	**7.45**	**7.45**		
	Product transported off-site (gallons)											
	COMMENTS		Gauged well, but did not actively bail due to lack of free product (~0.07-gallons)	Gauged well, but did not actively bail due to lack of free product (~0.06-gallons)	Gauged well, but did not actively bail due to lack of free product (~0.07-gallons)	Gauged well, but did not actively bail due to lack of free product (~0.06-gallons)	Gauged well, but did not actively bail due to lack of free product (~0.04-gallons)	Gauged well, but did not actively bail due to lack of free product (~0.06-gallons)	Gauged well, but did not actively bail due to lack of free product (~0.05-gallons)	Gauged well, but did not actively bail due to lack of free product (~0.04-gallons)		
MW15	Product guage	feet	0.82	0.79	0.76	0.74	0.70	0.65	0.62	0.58		
	Water guage	feet	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90		
	Drum height	feet	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90		
	Product thickness	**feet**	**2.08**	**2.11**	**2.14**	**2.16**	**2.20**	**2.25**	**2.28**	**2.32**		
	Water thickness	**feet**	0.00	0.0.0	0.00	0.00	0.00	0.00	0.00	0.00		
	Volume factor	gal/ft	19.64	19.64	19.64	19.64	19.64	19.64	19.64	19.64		
	Product INCREASE	**gallons**	**0.79**	**0.59**	**0.59**	**0.39**	**0.79**	**0.98**	**0.59**	**0.79**	531.14	
	Water INCREASE	**gallons**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**		6.07
	Calculated Drum Volume	**gallons**	**40.85**	**41.44**	**42.03**	**42.42**	**43.21**	**44.19**	**44.78**	**45.56**		
	Conversion factor	liters/gal	3.79	3.79	3.79	3.79	3.79	3.79	3.78	3.78		
	Conversion factor	gal/liter	0.26	0.26	0.26	0.26	0.26	0.26	0.26	0.26		
	Calculated Volume	**Liters**	**154.83**	**157.06**	**159.29**	**160.78**	**163.76**	**167.48**	**169.27**	**172.23**		
	Product transported off-site (gallons)											
	COMMENT		Gauged and bailed well casing; poured product into drum; gauged drum	Gauged and bailed well casing; poured product into drum; gauged drum	Gauged and bailed well casing; poured product into drum; gauged drum	Gauged and bailed well casing; poured product into drum; gauged drum	Gauged and bailed well casing; poured product into drum; gauged drum	Gauged and bailed well casing; poured product into drum; gauged drum	Gauged and bailed well casing; poured product into drum; gauged drum	Gauged and bailed well casing; poured product into drum; gauged drum		

			7-05-11 @ 7:00 AM	8-01-11 @ 7:00 AM	9-06-11 @ 7:40 AM	10-03-11 @ 10:00 AM	11-07-11 @ 7:30 AM	12-07-11 @7:30 AM	1/3/12 @ 7:40 AM	2-06-12 @ 10:15 AM	Cumulative Hydrocarbon Production Gallons	Cumulative Water Production Gallons
MW5	Product guage	feet										
	Water guage	feet										
	Drum height	feet										
	Product thickness	**feet**										
	Water thickness	**feet**										
	Volume factor	gal/ft										
	Product INCREASE	**gallons**									0.00	
	Water INCREASE	**gallons**										0.00
	Calculated Drum Volume	**gallons**										
	Conversion factor	liters/gal										
	Conversion factor	gal/liter										
	Calculated Volume	**Liters**										
	Product transported off-site (gallons)											
	COMMENT		Gauged well; active bailing of free product	Gauged well; active bailing of free product	Gauged well; active bailing of free product	Gauged well; did not actively bail well due to lack of free product	Gauged well; did not actively bail well due to lack of free product (~0.39 gallons)	Gauged well; did not actively bail well due to lack of free product (~0.44 gallons)	Gauged well; did not actively bail well due to lack of free product (~0.39 gallons)	Gauged well; active bailing of free product		
	Hydrocarbon Recovery (Gallons)										1208.35	50.54
	Hydrocarbon Recovery (Barrels)										28.77	1.20