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January 21, 2013

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

RE: Second 2012 Semi Annual Groundwater Monitoring Report
DCP Linam Ranch Gas Plant (GW-015)
Unit B, Section 6, Township 19 South, Range 37 East

Dear Mr. Lowe:

DCP Midstream, LP (DCP) is pleased to submit for your review one copy of the Second 2012 Semi Annual Groundwater Monitoring Report for the DCP Linam Ranch Gas Plant located in Lea County, New Mexico (Unit B Section 6, Township 19 South, Range 37 East).

The groundwater sampling was completed on September 4, 2012. The data indicate that the groundwater conditions remain stable. The next monitoring event is scheduled for the second 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
Senior Environmental Specialist

Enclosure

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

Second Half 2012 Semi-Annual Groundwater Monitoring Summary Report

Linam Ranch Natural Gas Plant
Lea County, New Mexico
GW-015

Prepared for:

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

Prepared by:

Tasman Geosciences

6899 Pecos Street, Unit C
Denver, CO 80221

November 15, 2012

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1. Introduction

This report summarizes the groundwater monitoring activities conducted during the second half 2012 at the Linam Ranch Natural Gas Plant (Site) in Lea County, New Mexico (Figure 1). Tasman Geosciences, LLC (Tasman) conducted these activities on behalf of DCP Midstream, LP (DCP). Monitoring activities were conducted on September 4, 2012 with the purpose of: a) determining the presence of light non-aqueous phase liquid (LNAPL) hydrocarbons; b) measuring groundwater levels; c) obtaining groundwater samples for chemical analysis; and d) evaluate and present groundwater flow and quality conditions. Current Site conditions were evaluated from field data and analytical laboratory results collected during the reporting period.

2. Site Location and Background

The Site is located in New Mexico Oil Conservation Division (OCD) designated Unit B, Section 6, Township 19 South, Range 37 East (Figure 1). The facility coordinates are 32.6965 degrees north and 103.2883 degrees west. This facility is active and includes an office complex and storage areas in addition to the main plant.

The Site has thirteen groundwater monitoring wells (MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, MW-9, MW-10, MW-10D, MW-11, MW-13), which were installed between 1991 and 1995 (Figure 2). In February 1994, hydrocarbon-impacted groundwater was detected during subsurface investigations performed at two areas within the plant. A follow-up subsurface investigation was performed in May 1994 to delineate the horizontal extent of hydrocarbon-impacted soils and groundwater. The OCD subsequently requested a work plan to completely define the extent of groundwater contamination at the plant. In October 1995, the OCD approved a quarterly sampling and monitoring program for the Site, which was reduced to semi-annual frequency in 1997 after the recommendations of a 1996 report submitted by Geoscience Consultants Ltd. (GCL).

3. Groundwater Monitoring

This section describes the field groundwater monitoring activities as well as the laboratory analyses performed during the second half 2012 semi-annual monitoring event. Monitoring activities included Site-wide groundwater gauging, LNAPL measurements, groundwater purging and sampling, and packaging and shipping of the samples to the laboratory for chemical analyses. Figure 2 illustrates the groundwater monitoring network utilized to perform these activities at the Site. Monitoring well MW-13 was not sampled during the reporting period as it was found to be damaged, preventing groundwater sample collection. Historically MW-13 has exhibited non-detect concentrations since its construction in April of 2008. Given its location up gradient of MW-3, also historically non-detect, Tasman proposes this well be removed from the sampling program and abandoned in place.

3.1 Groundwater and LNAPL Elevation Monitoring

During the second half 2012 semi-annual monitoring event, groundwater levels and LNAPL thickness, where present, were measured at twelve of the thirteen Site monitoring well locations. MW-13 was found to be destroyed and could not be measured. Depth to groundwater and LNAPL were measured in order to evaluate hydraulic characteristics and provide information regarding fluctuations in groundwater and LNAPL elevations at the Site. Monitoring wells that did not have LNAPL present were measured for total depth and a sampling purge volume calculated.

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 levels were subsequently converted to elevations (feet above mean sea level [AMSL]). Measured groundwater level data and elevations collected during the second half 2012 semi-annual monitoring event in addition to historical elevations are presented in Table 1. A contour map of second half 2012 semi-annual groundwater elevations is presented in Figure 3. Groundwater elevations ranged from 3,673.62 feet AMSL at monitoring well MW-5 to 3,666.33 feet AMSL at monitoring well MW-3. As illustrated on Figure 3, groundwater flow at the Site generally trends to the southeast with a gradient of approximately 0.0033 foot per foot between monitoring wells MW-5 and MW-3. Monitoring well MW-7, located at the northwest corner of the Site, was not used to calculate the groundwater gradient as it exhibited anomalous results.

LNAPL was detected at MW-4 with a thickness of 0.43 feet and MW-6 with a thickness of 3.98 feet.

3.2 Groundwater Quality Monitoring

Prior to collecting groundwater samples, groundwater levels, the presence of LNAPL, and total depth (in wells without LNAPL) were measured within Site monitoring wells as described above. A minimum of three well casing volumes of groundwater (calculated from total depth of the well and groundwater level measurements) was then purged using dedicated polyethylene bailers from the subject well prior to collecting groundwater samples. Purge water was collected and transported to a waste water sump onsite. Groundwater samples were collected using the same dedicated polyethylene bailers, placed in clean laboratory supplied containers for the selected analytical methods, packed in an ice-filled cooler and maintained at approximately 4 degrees Celsius (^{0}C) for transportation. Groundwater samples were then shipped under chain-of-custody procedures to ALS Environmental (ALS) laboratory in Houston, Texas, for analysis.

Water quality samples were collected from ten of thirteen wells. Monitoring wells MW-4 and MW-6 were not sampled due to the presence of measurable LNAPL detected in the wells and monitoring well MW-13 was damaged at the time of the sampling event. Water quality samples were submitted to ALS for analysis of benzene, toluene, ethylbenzene, and xylene (BTEX) by United States Environmental Protection Agency (USEPA) Method 8260B.

Table 2 summarizes BTEX concentrations in groundwater samples collected during the September 2012 event. Analytical results are summarized on Figure 4 and the laboratory analytical report is provided in Appendix A.

Analytical results for monitoring wells sampled are as follows:

- MW-1, MW-2, MW-3, MW-7, MW-8, MW-9, and MW-11: BTEX were non-detect (below laboratory reporting limits) in these wells;
- MW-5, MW-10, MW-10D: Benzene was detected in all three wells at concentrations of 0.170 mg/L, 2.7 mg/L, and 0.023 mg/L, respectively, which exceed the New Mexico Water Quality Control Commission (NMWQCC) Groundwater Standard of 0.01 mg/L. Ethylbenzene was detected in monitoring wells MW-5 and MW-10, but only the sample from MW-5 (1.0 mg/L) exceeded the NMWQCC Groundwater Standard (0.75mg/L). Toluene was detected in MW-10 and MW-10D, but was below the NMWQCC standard (0.75 mg/L). Total xylenes were detected in MW-5 and MW-10 but were both below the NMWQCC standard (0.62 mg/L).

Water quality parameters were collected during the monitoring event. The Site monitoring wells did not require collection of more than three purge volumes to achieve parameter stabilization. As such, the analytical data are considered to be representative of Site conditions in that a minimum of 3 purge volumes were evacuated from all sampled monitoring wells during the 2012 second half semi-annual event.

3.3 Data Quality Assurance / Quality Control

The data were reviewed for compliance with the analytical method and the associated quality assurance/quality control (QA/QC) procedures. All samples were analyzed using the correct analytical methods and within the correct holding times. Chain of custody forms were in order and properly executed and indicate that samples were received at the proper temperature with no headspace. All data were reported using the correct method number and reporting units. A trip blank, matrix spike or matrix spike duplicate (MS/MSD) and field duplicate sample from well MW-5 were collected during the sampling event.

The trip blank was fully in control, having no detections of targets.

The duplicate sample collected from MW-5 was in compliance with QA/QC standards. MW-5 and duplicate sample both returned results for benzene of 0.17 mg/L.

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

4. Remediation Activities

Natural attenuation continues to provide effective control and passive remediation of the dissolved-phase groundwater plume as well as LNAPL on Site. Monitoring wells MW-2 and MW-3 act as "point of compliance" wells along the down-gradient facility boundary, and continue to report non-detect concentrations for dissolved-phase BTEX concentrations in groundwater. Based on the historic and recent data, it appears that natural attenuation provides effective remediation of residual impacts at the Site.

5. Conclusions

Measurable LNAPL persists at monitoring wells MW-4 and MW-6, located down gradient of the former oil water separator. Considering the apparent minimal subsurface lateral extent of LNAPL and minimal extent of dissolved-phase hydrocarbons at the Site, the residual source material does not appear significant in terms of emplaced volume.

The persistence of LNAPL in the vicinity of MW-4 and MW-6 and absence of down-gradient free phase hydrocarbons and dissolved-phase impact in groundwater indicates that the residual constituents of concern are not mobile in the subsurface and natural attenuation continues to persist at the site.

Elevated dissolved-phase benzene concentrations were detected at monitoring wells MW-10 and MW-10D in the central portion of the Site, suggesting the possibility of a secondary contaminant source area. However, concentrations in MW-9, located immediately down gradient, remain below laboratory detection limits for all BTEX constituents.

A key factor that may be affecting mobility of product at the Site likely includes the transmissivity of the subsurface formation and the hydraulic gradient across the Site. There appears to be minimal hydraulic gradient potential at the Site, so even though the subsurface may be transmissive, the overall plume velocity is slow and therefore, does not influence LNAPL mobility. Biodegradation of source material over distance and time from the point of release are likely occurring because dissolved-phase BTEX constituents in groundwater are minimal near the residual LNAPL. Analytical results in point-of-compliance wells along the down gradient property boundary continue to be below laboratory detection limits for all BTEX constituents.

Ongoing semi-annual groundwater sampling activities will provide for continued monitoring of dissolved-phase BTEX concentrations and LNAPL trends.

6. Recommendations

Based on evaluation of data collected during the reporting period and historical Site observations and monitoring results, the following recommendation has been developed for future activities:

- Continue semi-annual groundwater monitoring and sampling of the monitoring locations illustrated on Figure 2.
- Installation of a Spill Buster LNAPL recovery unit in MW-6 to mitigate LNAPL at the site.

Tables

TABLE 1
SECOND HALF 2012 SEMI-ANNUAL
SUMMARY OF GROUNDWATER ELEVATION DATA
LINAM RANCH
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)	Change in Groundwater Elevation Since Previous Event (3) (feet)
MW-1	9/28/2010				54.20	3718.29	3676.13	2.16
MW-1	4/28/2011	45.75			54.20	3718.29	3674.43	-1.70
MW-1	9/13/2011	46.05			54.31	3718.29	3672.24	-2.19
MW-1	3/5/2012	46.43			54.31	3718.29	3671.86	-0.38
MW-1	9/4/2012	46.91			54.31	3718.29	3671.38	-0.48
MW-2	9/28/2010				50.50	3714.80	3675.64	3.54
MW-2	4/28/2011	40.5			50.50	3714.80	3676.74	1.10
MW-2	9/12/2011	45.47			50.50	3714.80	3669.33	-7.41
MW-2	3/5/2012	45.95			50.50	3714.80	3668.85	-0.48
MW-2	9/4/2012	46.35			50.50	3714.80	3668.45	-0.40
MW-3	9/28/2010				55.30	3715.50	3669.90	0.35
MW-3	4/28/2011	48.33			55.30	3715.50	3669.37	-0.53
MW-3	9/12/2011	48.55			55.44	3715.50	3666.95	-2.42
MW-3	3/5/2012	48.82			55.44	3715.50	3666.68	-0.27
MW-3	9/4/2012	49.17			55.44	3715.50	3666.33	-0.35
MW-4*	9/28/2010				54.13	3720.46	3675.55	0.60
MW-4*	4/28/2011	46.91	46.68	0.23	54.13	3720.46	3673.72	-1.83
MW-4*	9/13/2011	47.29	47.01	0.28	NM	3720.46	3673.38	-0.34
MW-4*	3/5/2012	47.44	47.10	0.34	NM	3720.46	3673.28	-0.11
MW-4*	9/4/2012	48.00	47.57	0.43	NM	3720.46	3672.78	-0.49
MW-5	9/28/2010				55.20	3721.53	3676.50	0.79
MW-5	4/28/2011	46.59			55.20	3721.53	3677.01	0.51
MW-5	9/13/2011	47.36			56.35	3721.53	3674.17	-2.84
MW-5	3/5/2012	47.18			56.35	3721.53	3674.35	0.18
MW-5	9/4/2012	47.91			56.35	3721.53	3673.62	-0.73
MW-6*	9/28/2010				54.10	3720.99	3676.17	2.47
MW-6*	4/28/2011	49.91	47.10	2.81	54.10	3720.99	3673.19	-2.98
MW-6*	9/13/2011	50.75	47.42	3.33	NM	3720.99	3672.74	-0.45
MW-6*	3/5/2012	50.84	47.74	3.1	NM	3720.99	3672.48	-0.26
MW-6*	9/4/2012	52.06	48.08	3.98	NM	3720.99	3671.92	-0.56
MW-7	9/28/2010	DRY			62.50	3728.57	DRY	
MW-7	4/28/2011	DRY			62.50	3728.57	DRY	
MW-7	9/13/2011	DRY			NM	3728.57	DRY	
MW-7	3/5/2012	DRY			62.56	3728.57	DRY	
MW-7	9/4/2012	62.11			62.56	3728.57	3666.46	NM
MW-8	9/28/2010				58.30	3714.18	3673.72	2.41
MW-8	4/28/2011	44.35			58.30	3714.18	3671.83	-1.89
MW-8	9/12/2011	44.78			58.00	3714.18	3669.40	-2.43
MW-8	3/5/2012	45.20			58.00	3714.18	3668.98	-0.42
MW-8	9/4/2012	45.71			58.00	3714.18	3668.47	-0.51
MW-9	9/28/2010				59.10	3720.48	3671.51	0.48
MW-9	4/28/2011	51.42			59.10	3720.48	3671.06	-0.45
MW-9	9/12/2011	51.46			59.30	3720.48	3669.02	-2.04
MW-9	3/5/2012	51.81			59.30	3720.48	3668.67	-0.35
MW-9	9/4/2012	52.12			59.30	3720.48	3668.36	-0.31

TABLE 1
SECOND HALF 2012 SEMI-ANNUAL
SUMMARY OF GROUNDWATER ELEVATION DATA
LINAM RANCH
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)	Change in Groundwater Elevation Since Previous Event (3) (feet)
MW-10	9/28/2010				65.00	3720.76	3672.20	0.77
MW-10	4/28/2011	51.34			65.00	3720.76	3671.56	-0.64
MW-10	9/12/2011	51.35			65.15	3720.76	3669.41	-2.15
MW-10	3/5/2012	51.78			65.15	3720.76	3668.98	-0.43
MW-10	9/4/2012	52.40			65.15	3720.76	3668.36	-0.62
MW-10D	9/28/2010				79.00	3720.85	3671.63	0.35
MW-10D	4/28/2011	52.4			79.00	3720.85	3671.14	-0.49
MW-10D	9/12/2011	52.34			79.00	3720.85	3668.51	-2.63
MW-10D	3/5/2012	52.85			79.00	3720.85	3668.00	-0.51
MW-10D	9/4/2012	53.21			79.00	3720.85	3667.64	-0.36
MW-11	9/28/2010				62.80	3722.02	3673.04	1.11
MW-11	4/28/2011	52.05			62.80	3722.02	3672.48	-0.56
MW-11	9/12/2011	52.05			62.95	3722.02	3669.97	-2.51
MW-11	3/5/2012	52.57			62.95	3722.02	3669.45	-0.52
MW-11	9/4/2012	53.04			62.95	3722.02	3668.98	-0.47
MW-13	9/28/2010				63.00	3721.63	3671.59	0.68
MW-13	4/28/2011	53.03			63.00	3721.63	3670.96	-0.63
MW-13	9/12/2011	53.2			62.95	3721.63	3668.43	-2.53
MW-13	3/5/2012	53.56			62.95	3721.63	3668.07	-0.36
MW-13 (4)	9/4/2012	NM			62.95	3721.63	NM	NM
							Average change in groundwater elevation since the previous monitoring event	-0.48

Notes:

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

2- Total depths were collected and recorded during the second half 2012 semi-annual monitoring event. Total depths were not collected in wells that had 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 event.

4- MW-13 was damaged and could not be sampled during the second half semi-annual event.

Data presented for all well locations includes previous four sampling events, when available. Historic groundwater analytical results for these locations may be found in Appendix B. Sample locations are shown on Figure 2 and a groundwater elevation contour map is shown on Figure 3.

amsl - feet above mean sea level.

TOC - top of casing

NM - not measured

* 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 2012 SEMI-ANNUAL
SUMMARY OF BTEX CONCENTRATIONS IN GROUNDWATER
LINAM RANCH
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 Commission Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	
MW-1	9/28/2010	<0.001	<0.002	<0.002	<0.004	
MW-1	4/28/2011	<0.001	<0.002	<0.002	<0.002	
MW-1	9/13/2011	<0.001	<0.002	<0.002	<0.004	
MW-1	3/5/2012	<0.005	<0.005	<0.005	<0.015	
MW-1	9/4/2012	<0.005	<0.005	<0.005	<0.015	
MW-2	9/28/2010	<0.001	<0.002	<0.002	<0.004	
MW-2	4/28/2011	<0.001	<0.002	<0.002	<0.002	
MW-2	9/12/2011	<0.001	<0.002	<0.002	<0.004	
MW-2	3/5/2012	<0.005	<0.005	<0.005	<0.015	
MW-2	9/4/2012	<0.005	<0.005	<0.005	<0.015	
MW-3	9/28/2010	<0.001	<0.002	<0.002	<0.004	
MW-3	4/28/2011	<0.001	<0.002	<0.002	<0.002	
MW-3	9/12/2011	<0.001	<0.002	<0.002	<0.004	
MW-3	3/5/2012	<0.005	<0.005	<0.005	<0.015	
MW-3	9/4/2012	<0.005	<0.005	<0.005	<0.015	
MW-4	9/28/2010	LNAPL	LNAPL	LNAPL	LNAPL	
MW-4	4/28/2011	LNAPL	LNAPL	LNAPL	LNAPL	
MW-4	9/13/2011	LNAPL	LNAPL	LNAPL	LNAPL	
MW-4	3/5/2012	LNAPL	LNAPL	LNAPL	LNAPL	
MW-4	9/4/2012	LNAPL	LNAPL	LNAPL	LNAPL	
MW-5	9/28/2010	0.0095	<0.004	0.188	<0.008	
MW-5	4/28/2011	**0.1490**	<0.004	**0.776**	<0.004	
MW-5	9/13/2011	**0.1300**	<0.010	**0.860**	<0.020	
MW-5	3/5/2012	**0.240**	<0.025	**2.000**	<0.075	
MW-5	9/4/2012	**0.170**	<0.005	**1.000**	0.038	Duplicate Sample Collected
MW-6	9/28/2010	LNAPL	LNAPL	LNAPL	LNAPL	
MW-6	4/28/2011	LNAPL	LNAPL	LNAPL	LNAPL	
MW-6	9/13/2011	LNAPL	LNAPL	LNAPL	LNAPL	
MW-6	3/5/2012	LNAPL	LNAPL	LNAPL	LNAPL	
MW-6	9/4/2012	LNAPL	LNAPL	LNAPL	LNAPL	
MW-7	9/28/2010	NS	NS	NS	NS	
MW-7	4/28/2011	NS	NS	NS	NS	
MW-7	9/13/2011	NS	NS	NS	NS	
MW-7	3/5/2012	NS	NS	NS	NS	
MW-7	9/4/2012	<0.005	<0.005	<0.005	<0.015	
MW-8	9/28/2010	<0.001	<0.002	<0.002	<0.004	
MW-8	4/28/2011	<0.001	<0.002	<0.002	<0.002	
MW-8	9/12/2011	<0.005	<0.005	<0.005	<0.015	
MW-8	3/5/2012	<0.005	<0.005	<0.005	<0.015	
MW-8	9/4/2012	<0.005	<0.005	<0.005	<0.015	
MW-9	9/28/2010	<0.001	<0.002	<0.002	<0.004	
MW-9	4/28/2011	<0.001	<0.002	<0.002	<0.002	
MW-9	9/12/2011	<0.001	<0.002	<0.002	<0.004	
MW-9	3/5/2012	<0.005	<0.005	<0.005	<0.015	
MW-9	9/4/2012	<0.005	<0.005	<0.005	<0.015	

TABLE 2
SECOND HALF 2012 SEMI-ANNUAL
SUMMARY OF BTEX CONCENTRATIONS IN GROUNDWATER
LINAM RANCH
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 Commission Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	
MW-10	9/28/2010	**1.900**	0.055	0.240	0.104	
MW-10	4/28/2011	**2.005**	0.243	0.215	0.141	
MW-10	9/12/2011	**1.970**	0.104	0.249	0.145	Duplicate Sample Collected
MW-10	3/5/2012	**2.200**	0.110	0.230	0.130	
MW-10	9/4/2012	**2.700**	0.0083	0.280	0.120	
MW-10D	9/28/2010	**0.0402**	0.0358	0.006	0.0077	
MW-10D	4/28/2011	**0.0512**	0.0373	0.0063	0.0113	
MW-10D	9/12/2011	**0.0278**	0.0131	0.0032	0.0060	
MW-10D	3/5/2012	**0.0240**	0.0081	<0.005	<0.015	Duplicate Sample Collected
MW-10D	9/4/2012	**0.0230**	0.0057	<0.005	<0.015	
MW-11	9/28/2010	0.0036	<0.002	<0.002	0.004	
MW-11	4/28/2011	<0.001	<0.002	<0.002	<0.002	
MW-11	9/12/2001	<0.001	<0.002	<0.002	<0.004	
MW-11	3/5/2012	<0.005	<0.005	<0.005	<0.015	
MW-11	9/4/2012	<0.005	<0.005	<0.005	<0.015	
MW-13	9/28/2010	<0.001	<0.002	<0.002	<0.004	
MW-13	4/28/2011	<0.001	<0.002	<0.002	<0.002	
MW-13	9/12/2011	<0.001	<0.002	<0.002	<0.004	
MW-13	3/5/2012	<0.005	<0.005	<0.005	<0.015	
MW-13 [3]	9/4/2012	NS	NS	NS	NS	

Notes:

1.) The environmental cleanup standards for water that are applicable to the Linam Ranch site are the New Mexico Water Quality Control Commission (NMWQCC) Groundwater Standards.

2.) Data presented for the well locations includes previous four sampling events, when available. Historic groundwater analytical results may be found in Appendix B.

3.) MW-13 was damaged and could not be sampled during the second half semi-annual event.

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

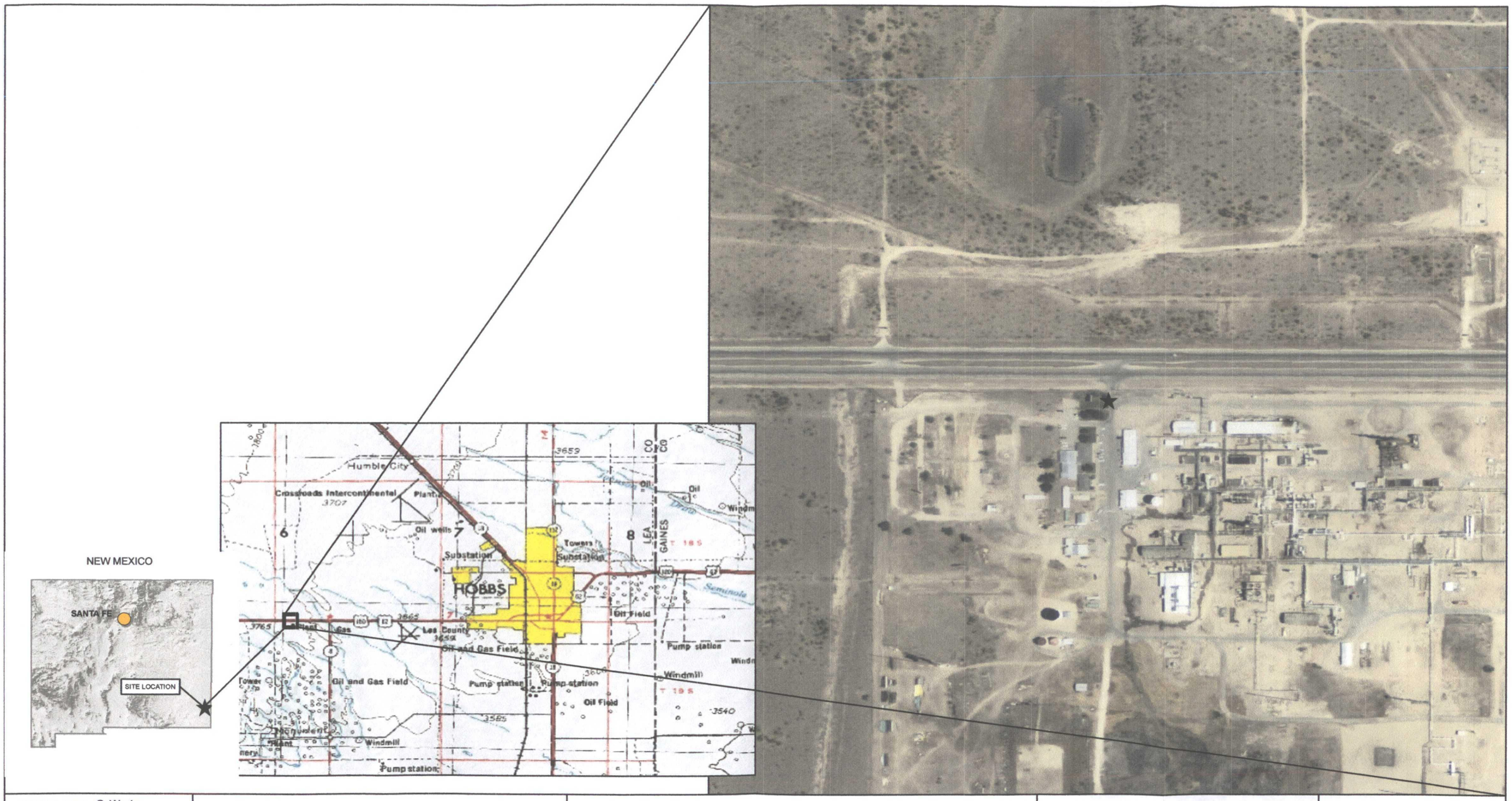
Sample locations are shown on Figure 2 and analytical results are illustrated on Figure 4.

LNAPL = Light Non-Aqueous Phase Liquid

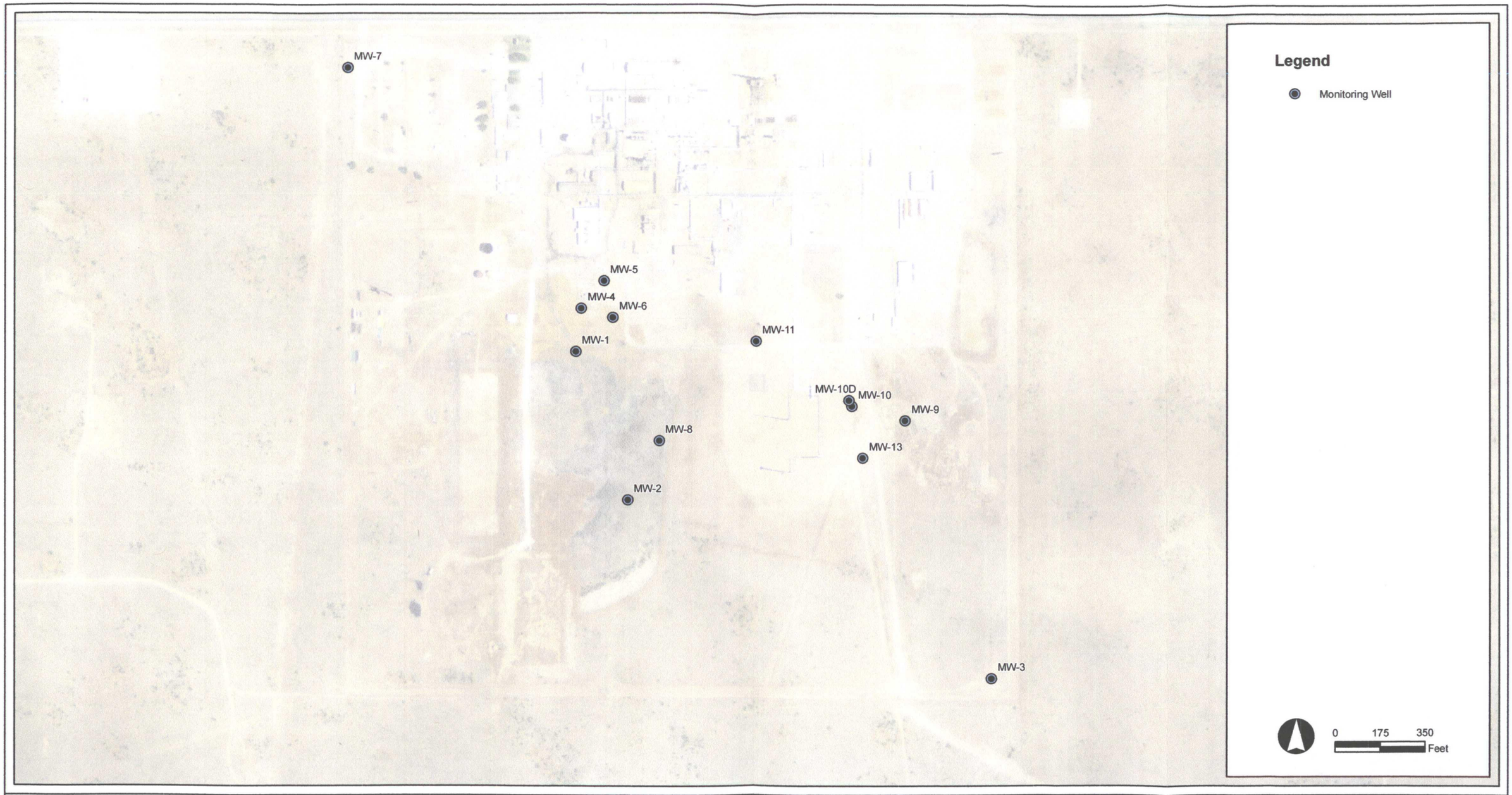
NS = Not Sampled.

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 Tasman Geosciences, LLC 5690 Webster St. Arvada, CO 8002 720-988-2024	**LINAM RANCH GAS PLANT** *Second Half 2012 Groundwater Monitoring Summary Report*	SITE LOCATION	FIGURE 1



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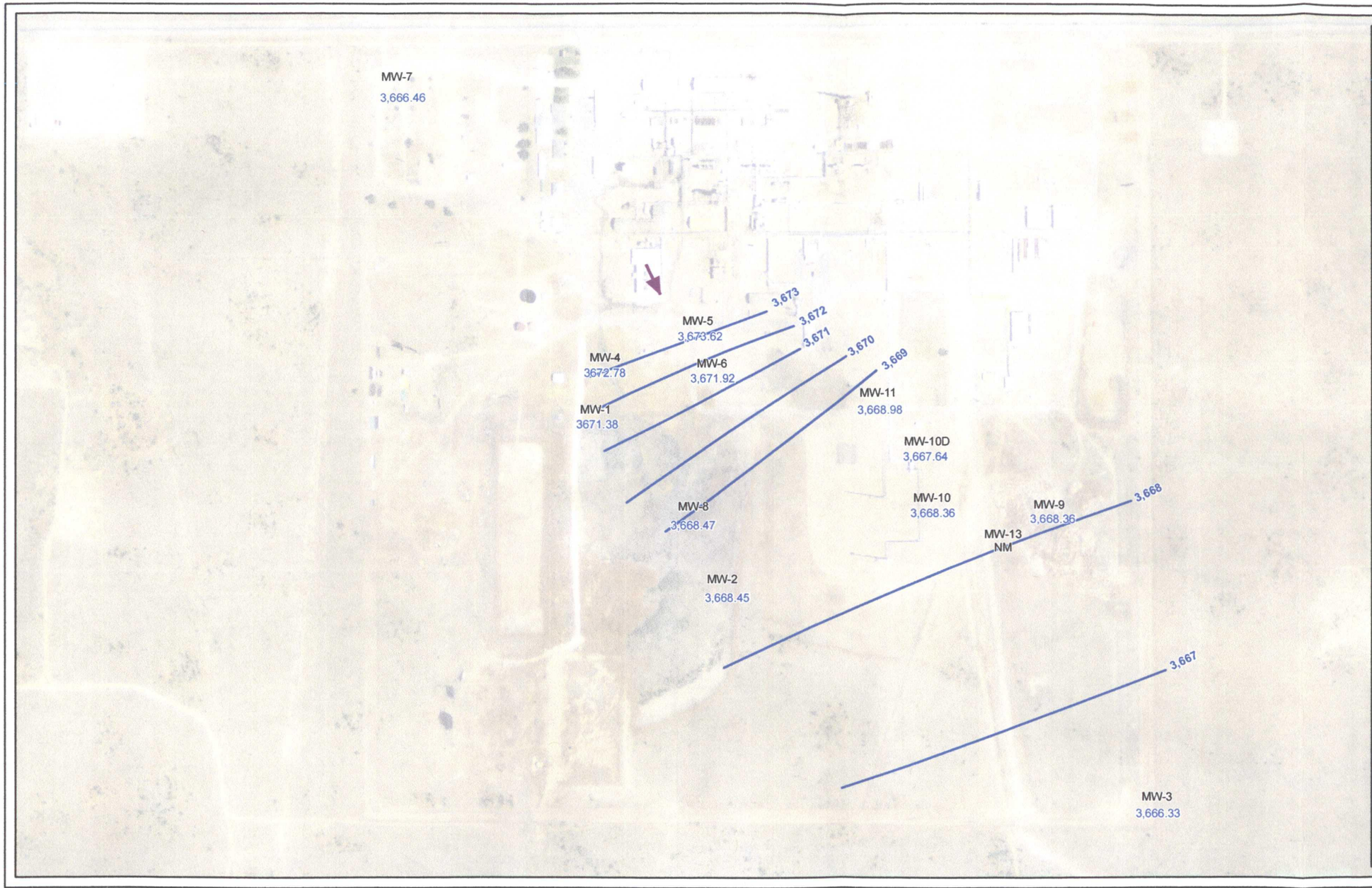


Legend

- Monitoring Well
- Groundwater Elevation Contour Line (feet AMSL)
- 3,710.33 Measured Groundwater Elevation (feet AMSL)
- Groundwater Flow Direction

Notes:

MW-7 elevation was excluded from potentiometric contours due to anomolous results.

AMSL - Above Mean Sea Level

0 175 350 Feet

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

Tasman Geosciences

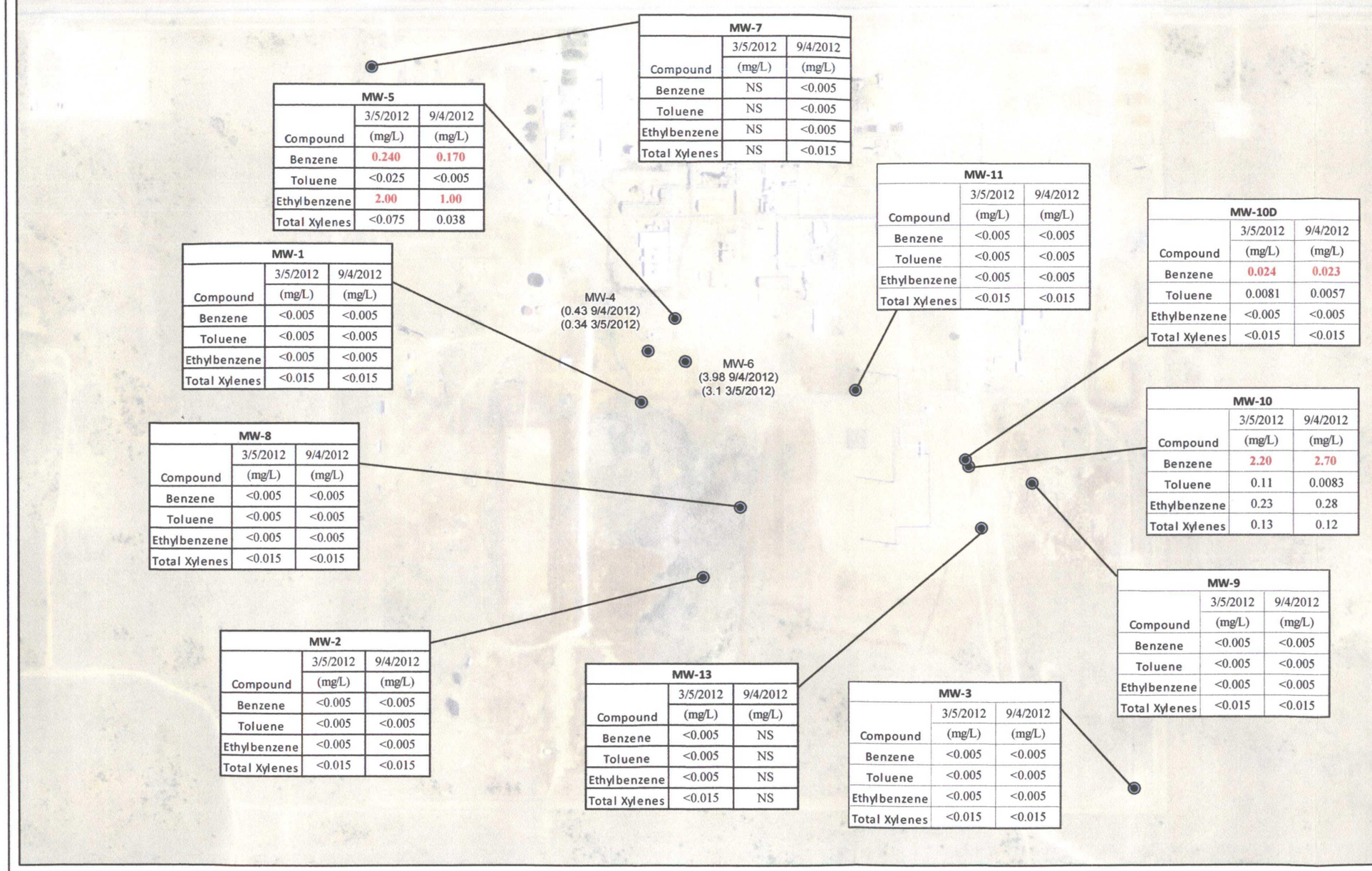
Tasman Geosciences, LLC
5690 Webster St.
Arvada, CO 8002
720-988-2024

LINAM RANCH GAS PLANT

Second Half 2012 Groundwater Monitoring Summary Report

GROUNDWATER ELEVATION CONTOUR MAP (SEPTEMBER 4, 2012)

FIGURE 3



DESIGNED BY: C. Wasko
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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

LINAM RANCH GAS PLANT

Second Half 2012 Groundwater Monitoring Summary Report

ANALYTICAL RESULTS MAP

FIGURE 4

Appendix A

Laboratory Analytical Report

Appendix B

Historical Analytical Results

APPENDIX B
HISTORICAL DATA
SUMMARY OF BTEX CONCENTRATIONS IN GROUNDWATER
LINAM RANCH
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 Commission Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	
MW-1	05/02/08	<0.00046	<0.00048	<0.00045	<0.0014	
MW-1	03/12/09	<0.00046	<0.00048	<0.00045	<0.0014	
MW-1	09/24/09	<0.002	<0.002	<0.002	<0.006	
MW-1	09/24/09	<0.00050	<0.00043	<0.00055	<0.0017	
MW-1	03/24/10	<0.002	<0.002	<0.002	<0.006	
MW-1	03/24/10	<0.00050	<0.00043	<0.00055	<0.0017	
MW-1	09/28/10	<0.001	<0.002	<0.002	<0.004	
MW-1	09/29/10	0.00039	<0.0010	<0.00030	-	
MW-1	04/28/11	0.00054	<0.0010	<0.00030	<0.00060	
MW-1	04/28/11	<0.001	<0.002	<0.002	<0.002	
MW-1	09/13/11	<0.001	<0.002	<0.002	<0.004	
MW-1	03/05/12	<0.005	<0.005	<0.005	<0.015	
MW-1	09/04/12	<0.005	<0.005	<0.005	<0.015	
MW-2	05/02/08	<0.00046	<0.00048	<0.00045	<0.0014	
MW-2	03/12/09	<0.00046	<0.00048	<0.00045	<0.0014	
MW-2	09/24/09	<0.002	<0.002	<0.002	<0.006	
MW-2	09/24/09	<0.00050	<0.00043	<0.00055	<0.0017	
MW-2	03/24/10	<0.002	<0.002	<0.002	<0.006	
MW-2	03/24/10	<0.00050	<0.00043	<0.00055	<0.0017	
MW-2	09/28/10	<0.001	<0.002	<0.002	<0.004	
MW-2	09/29/10	<0.00030	<0.0010	<0.00030	-	
MW-2	04/28/11	<0.00030	<0.0010	<0.00030	<0.00060	
MW-2	04/28/11	<0.001	<0.002	<0.002	<0.002	
MW-2	09/12/11	<0.001	<0.002	<0.002	<0.004	
MW-2	03/05/12	<0.005	<0.005	<0.005	<0.015	
MW-2	09/04/12	<0.005	<0.005	<0.005	<0.015	
MW-3	05/02/08	<0.00046	<0.00048	<0.00045	<0.0014	
MW-3	03/12/09	<0.00046	<0.00048	<0.00045	<0.0014	
MW-3	09/24/09	<0.002	<0.002	<0.002	<0.006	
MW-3	09/24/09	<0.00050	<0.00043	<0.00055	<0.0017	
MW-3	03/24/10	<0.002	<0.002	<0.002	<0.006	
MW-3	03/24/10	<0.00050	<0.00043	<0.00055	<0.0017	
MW-3	09/28/10	<0.001	<0.002	<0.002	<0.004	
MW-3	09/29/10	<0.00030	<0.0010	<0.00030	-	
MW-3	04/28/11	<0.00030	<0.0010	<0.00030	<0.00060	
MW-3	04/28/11	<0.001	<0.002	<0.002	<0.002	
MW-3	09/12/11	<0.001	<0.002	<0.002	<0.004	
MW-3	03/05/12	<0.005	<0.005	<0.005	<0.015	
MW-3	09/04/12	<0.005	<0.005	<0.005	<0.015	

APPENDIX B
HISTORICAL DATA
SUMMARY OF BTEX CONCENTRATIONS IN GROUNDWATER
LINAM RANCH
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 Commission Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	
MW-4	09/24/09	LNAPL	LNAPL	LNAPL	LNAPL	
MW-4	03/24/10	LNAPL	LNAPL	LNAPL	LNAPL	
MW-4	09/28/10	LNAPL	LNAPL	LNAPL	LNAPL	
MW-4	04/28/11	LNAPL	LNAPL	LNAPL	LNAPL	
MW-4	09/13/11	LNAPL	LNAPL	LNAPL	LNAPL	
MW-4	03/05/12	LNAPL	LNAPL	LNAPL	LNAPL	
MW-4	09/04/12	LNAPL	LNAPL	LNAPL	LNAPL	
MW-5	05/02/08	**0.0108**	<0.00048	0.184	0.0039	
MW-5	03/12/09	0.0092	<0.00048	0.102	<0.0014	
MW-5	09/24/09	**0.0272**	<0.002	0.227	<0.006	
MW-5	09/24/09	**0.0272**	<0.00043	0.227	<0.0017	
MW-5	03/24/10	**0.1300**	<0.002	0.482	0.460	
MW-5	03/24/10	**0.119**	<0.0022	0.702	**0.916**	
MW-5	09/28/10	0.0095	<0.004	0.188	<0.008	
MW-5	09/29/10	0.0095	<0.0020	0.188	-	
MW-5	04/28/11	**0.149**	<0.0020	**0.776**	<0.0012	
MW-5	04/28/11	**0.1490**	<0.004	**0.776**	<0.004	
MW-5	09/13/11	**0.1300**	<0.010	**0.860**	<0.020	
MW-5	03/05/12	**0.240**	<0.025	**2.000**	<0.075	
MW-5	09/04/12	**0.170**	<0.005	**1.000**	0.038	Duplicate Sample Collected
MW-6	09/24/09	LNAPL	LNAPL	LNAPL	LNAPL	
MW-6	03/24/10	LNAPL	LNAPL	LNAPL	LNAPL	
MW-6	09/28/10	LNAPL	LNAPL	LNAPL	LNAPL	
MW-6	04/28/11	LNAPL	LNAPL	LNAPL	LNAPL	
MW-6	09/13/11	LNAPL	LNAPL	LNAPL	LNAPL	
MW-6	03/05/12	LNAPL	LNAPL	LNAPL	LNAPL	
MW-6	09/04/12	LNAPL	LNAPL	LNAPL	LNAPL	
MW-7	05/02/08	<0.00046	<0.00048	<0.00045	<0.0014	
MW-7	09/24/09	NS	NS	NS	NS	
MW-7	03/24/10	NS	NS	NS	NS	
MW-7	09/28/10	NS	NS	NS	NS	
MW-7	04/28/11	NS	NS	NS	NS	
MW-7	09/13/11	NS	NS	NS	NS	
MW-7	03/05/12	NS	NS	NS	NS	
MW-7	09/04/12	<0.005	<0.005	<0.005	<0.015	

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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
New Mexico Water Quality Control Commission Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	
MW-8	05/02/08	<0.00046	<0.00048	<0.00045	<0.0014	
MW-8	03/12/09	<0.00046	<0.00048	<0.00045	<0.0014	
MW-8	09/24/09	<0.002	<0.002	<0.002	<0.006	
MW-8	09/24/09	<0.00050	<0.00043	<0.00055	<0.0017	
MW-8	03/24/10	<0.002	<0.002	<0.002	<0.006	
MW-8	03/24/10	<0.00050	<0.00043	<0.00055	<0.0017	
MW-8	09/28/10	<0.001	<0.002	<0.002	<0.004	
MW-8	09/29/10	<0.00030	<0.0010	<0.00030	-	
MW-8	04/28/11	<0.00030	<0.0010	<0.00030	<0.00060	
MW-8	04/28/11	<0.001	<0.002	<0.002	<0.002	
MW-8	09/12/11	<0.005	<0.005	<0.005	<0.015	
MW-8	03/05/12	<0.005	<0.005	<0.005	<0.015	
MW-8	09/04/12	<0.005	<0.005	<0.005	<0.015	
MW-9	04/30/08	<0.00046	<0.00048	<0.00045	<0.0014	
MW-9	04/29/09	<0.00046	<0.00048	<0.00045	<0.0014	
MW-9	09/24/09	<0.002	<0.002	<0.002	<0.006	
MW-9	09/24/09	<0.00050	<0.00043	<0.00055	<0.0017	
MW-9	03/24/10	<0.002	<0.002	<0.002	<0.006	
MW-9	03/24/10	<0.00050	<0.00043	<0.00055	<0.0017	
MW-9	09/28/10	<0.001	<0.002	<0.002	<0.004	
MW-9	09/28/10	<0.00030	<0.0010	<0.00030	-	
MW-9	04/28/11	<0.00030	<0.0010	<0.00030	<0.00060	
MW-9	04/28/11	<0.001	<0.002	<0.002	<0.002	
MW-9	09/12/11	<0.001	<0.002	<0.002	<0.004	
MW-9	03/05/12	<0.005	<0.005	<0.005	<0.015	
MW-9	09/04/12	<0.005	<0.005	<0.005	<0.015	
MW-10	04/30/08	**0.769**	0.0457	0.0851	0.05	
MW-10	04/29/09	**0.883**	0.23	0.0859	0.0759	
MW-10	09/24/09	**1.070**	0.126	0.148	0.154	
MW-10	09/24/09	**1.07**	0.126	0.148	0.154	
MW-10	03/24/10	**1.640**	0.175	0.246	0.156	
MW-10	03/24/10	**1.64**	0.175	0.246	0.156	
MW-10	09/28/10	**1.900**	0.055	0.240	0.104	
MW-10	09/28/10	**1.900**	0.0547	0.24	-	
MW-10	04/28/11	**1.72**	0.228	0.195	0.126	
MW-10	04/28/11	**2.005**	0.243	0.215	0.141	
MW-10	09/12/11	**1.970**	0.104	0.249	0.145	Duplicate Sample Collected
MW-10	03/05/12	**2.200**	0.110	0.230	0.130	
MW-10	09/04/12	**2.700**	0.0083	0.280	0.120	

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New Mexico Water Quality Control Commission Groundwater Standards (mg/L)		0.01	0.75	0.75	0.62	
MW-10D	04/30/08	**0.195**	0.0677	0.0144	0.0221	
MW-10D	04/29/09	**0.179**	0.0772	0.0203	0.0296	
MW-10D	09/24/09	**0.103**	0.0496	0.0127	0.0261	
MW-10D	09/24/09	**0.103**	0.0496	0.0127	0.0261	
MW-10D	03/24/10	**0.196**	0.0703	0.0129	0.0202	
MW-10D	03/24/10	**0.196**	0.0703	0.0129	0.0202	
MW-10D	09/28/10	**0.0402**	0.0358	0.006	0.0077	
MW-10D	09/28/10	**0.0402**	0.0358	0.006	-	
MW-10D	04/28/11	**0.0512**	0.0373	0.0063	0.0113	
MW-10D	04/28/11	**0.0512**	0.0373	0.0063	0.0113	
MW-10D	09/12/11	**0.0278**	0.0131	0.0032	0.0060	
MW-10D	03/05/12	**0.0240**	0.0081	<0.005	<0.015	Duplicate Sample Collected
MW-10D	09/04/12	**0.0230**	0.0057	<0.005	<0.015	
MW-11	04/30/08	<0.00046	<0.00048	<0.00045	<0.0014	
MW-11	04/29/09	<0.00046	<0.00048	<0.00045	<0.0014	
MW-11	09/24/09	<0.002	<0.002	<0.002	<0.006	
MW-11	09/24/09	<0.00050	<0.00043	<0.00055	<0.0017	
MW-11	03/24/10	<0.002	<0.002	<0.002	<0.006	
MW-11	03/24/10	<0.00050	<0.00043	<0.00055	<0.0017	
MW-11	09/28/10	0.0036	<0.002	<0.002	0.004	
MW-11	09/28/10	0.0036	<0.0010	<0.00030	-	
MW-11	04/28/11	<0.00030	<0.0010	<0.00030	<0.00060	
MW-11	04/28/11	<0.001	<0.002	<0.002	<0.002	
MW-11	09/12/01	<0.001	<0.002	<0.002	<0.004	
MW-11	03/05/12	<0.005	<0.005	<0.005	<0.015	
MW-11	09/04/12	<0.005	<0.005	<0.005	<0.015	
MW-13	04/30/08	<0.00046	<0.00048	<0.00045	<0.0014	
MW-13	04/29/09	<0.00046	<0.00048	<0.00045	<0.0014	
MW-13	09/24/09	<0.002	<0.002	<0.002	<0.006	
MW-13	09/24/09	<0.00050	<0.00043	<0.00055	<0.0017	
MW-13	03/24/10	<0.002	<0.002	<0.002	<0.006	
MW-13	03/24/10	<0.00050	<0.00043	<0.00055	<0.0017	
MW-13	09/28/10	<0.001	<0.002	<0.002	<0.004	
MW-13	09/28/10	<0.00030	<0.0010	<0.00030	-	
MW-13	04/28/11	<0.00030	<0.0010	<0.00030	<0.00060	
MW-13	04/28/11	<0.001	<0.002	<0.002	<0.002	
MW-13	09/12/11	<0.001	<0.002	<0.002	<0.004	
MW-13	03/05/12	<0.005	<0.005	<0.005	<0.015	
MW-13 [4]	09/04/12	NS	NS	NS	NS	

Notes:

1.) The environmental cleanup standards for water that are applicable to the Linam Ranch site are the New Mexico Water Quality Control

3.) Data presented for the well locations includes previous five sampling events, when available. Historic groundwater analytical results for these

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

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

LNAPL = Light Non-Aqueous Phase Liquid

NS = Not Sampled.

mg/L = milligrams per liter.