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Second Half 2015 Groundwater Monitoring Report

Jal Basin Station, Jal, New Mexico

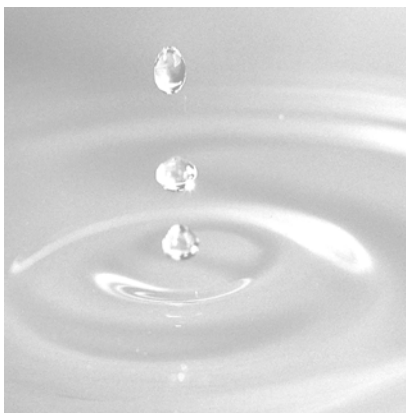
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1. Introduction

GEI Consultants, Inc. (GEI, formerly H₂A Environmental, Ltd.) is pleased to provide this Second Half 2015 Groundwater Monitoring Report for the Jal Basin Station (the Site), located south of Jal, in Lea County, New Mexico. Gauging and sampling activities were conducted at the Site from September 21 to September 25, 2015. Results of these monitoring activities are summarized herein. General site features and monitoring well locations are depicted in the Site Map, provided as Figure 1.

2. Groundwater Measurements

Groundwater monitoring activities commenced with gauging the depth to water and the depth to light non-aqueous phase liquid (LNAPL), if present, in all accessible monitoring wells on September 21, 2015. A summary of fluid level gauging is provided in Table 1, and the corresponding groundwater elevation isocontour map is provided as Figure 2. The groundwater flow direction was generally toward the west at the time of gauging, which is consistent with historic observations. Figure 3 summarizes the observed apparent NAPL thickness (ANT) isocontours at the time of gauging.

Figure 4 provides a historical summary of average calculated groundwater surface (CGWS) versus maximum, average, and minimum ANT. Following shut down of the recovery system in June 2008, ANT has increased as CGWS decreases, and decreased as CGWS increases, as expected at a site with unconfined NAPL. However, it is worth noting that while the average CGWS observed at the time of the September 2015 gauging event was similar to that observed during the previous gauging event in March 2012, the maximum observed ANT at the Site in 2015 (1.06 foot at MW-14) was approximately half of that observed in 2012 (1.99 feet at MW-24). This is likely an indication that remaining LNAPL is being depleted via natural degradation processes ongoing at the Site (i.e., natural source zone depletion, or NSZD).

3. Groundwater Monitoring Activities

At monitoring wells with no measurable ANT at the time of gauging, groundwater samples were collected via low-flow sampling techniques for analysis of: benzene, toluene,

ethylbenzene, and total xylenes (BTEX), dissolved metals, and polycyclic aromatic hydrocarbons (PAHs) to evaluate the current extent of any remaining dissolved-phase impacts. Prior to sampling, each well was purged while monitoring for various geochemical parameters including turbidity, dissolved oxygen, temperature, pH, oxidation/reduction potential, and specific conductivity in accordance with U.S. Environmental Protection Agency (U.S. EPA) low flow sampling procedures (U.S. EPA 2010). Groundwater was monitored at 5-minute intervals until at least three parameters stabilized (i.e., demonstrated a difference of no more than 10 percent between successive samples). Following stabilization, the flow cell was removed and samples were collected directly from the well in appropriate containers.

Purged groundwater was placed in a polyethylene tank available onsite for disposal. Field personnel used a clean set of nitrile gloves at each well to eliminate the risk of cross-contamination. Dedicated tubing was used for sampling at each well, and all sampling equipment was decontaminated between wells.

Groundwater samples collected for analysis of BTEX compounds (Method SW846 8260B) were placed in sterile, 40-milliliter (mL) glass volatile organic analysis vials equipped with Teflon-lined caps and hydrochloric acid preservative, as provided by the analytical laboratory. The vials were filled to a positive meniscus, sealed, and visually checked for the absence of air bubbles.

Groundwater samples collected for analysis of dissolved metals (Methods SW846 6010B and 7470A) were placed in 500-mL sterile plastic containers, as provided by the analytical laboratory. Samples were not filtered in the field. They were placed in unpreserved containers, to be filtered at the laboratory prior to analysis.

Groundwater samples collected for analysis of PAHs (Method SW846 8270C) were placed in unpreserved, sterile, 1-liter amber glass containers, as provided by the analytical laboratory.

Following collection, all sample containers were labeled, placed on ice in an insulated cooler, and chilled to an approximate temperature of 40 degrees Fahrenheit (4 degrees Celsius). The cooler was sealed prior to transport to the analytical laboratory. Proper chain-of-custody documentation was maintained throughout the sampling and shipping process.

4. Groundwater Monitoring Results

Results of the dissolved-phase analyses are provided in Table 2, and Figure 5 provides a summary of BTEX concentrations, the primary historical constituents of concern (COCs) at

the Site. Copies of the certified laboratory reports with appropriate chain-of-custody documentation are provided in Appendix A.

The only COC detected at a concentration in excess of the New Mexico (NM) Human Health Standards for groundwater (20.6.2.3103 NMAC) during the September 2015 sampling event was barium in well MW-19, detected at a concentration of 1.4 milligrams per liter (mg/L). The standard for barium is 1.0 mg/L. All other detected concentrations were below the corresponding NM standards.

5. Product Recovery Activities

Active remediation at the Site utilizing a high vacuum remediation (HVR) system was initiated in January 2001 and system capacity was expanded in July 2002 via the addition of a second liquid ring pump. The system continued to operate through the first half of 2008; however, as a result of diminished LNAPL recovery, it was turned off and an evaluation to determine the need for continued active remediation was initiated. When the system was shut down in June 2008, approximately 60,000 gallons of LNAPL had been recovered via active remediation efforts at the Site.

6. Conclusions and Recommendations

Based on 2015 monitoring activities, it is apparent that remaining LNAPL at the Site continues to degrade via natural processes. GEI plans to conduct another round of groundwater sampling in the spring, to include sampling groundwater in wells demonstrating measurable ANT, to fully assess the extent of any remaining dissolved-phase impacts. Following the spring sampling effort, GEI recommends meeting with the New Mexico Oil Conservation Division to discuss the *Technical Infeasibility Proposal* (H₂A 2012) submitted in October 2012 and identify an appropriate path to closure for the Site.

7. References

H₂A Environmental, Ltd. (H₂A)

2012 *Technical Infeasibility Proposal, Jal Basin Station, Jal, Lea County, New Mexico*. October 2012. Keller, TX.

U.S. Environmental Protection Agency (U.S. EPA)

2010 *Low Stress (Low Flow) Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells*. Washington, DC. (EQASOP-GW 001).

Tables

GROUNDWATER MEASUREMENTS TABLE

Jal Station Diesel Remediation

Jal, NM

MW-01

Sample Date	Grd. Surf. Elevation	TOC Elevation	Ref. Point	Depth of Screen		Depth to GW	Depth to LNAPL	LNAPL Thickness	LNAPL Spec.Grav.	Corrected GW Elev.
				Top	Bottom					
9/24/2015	2992.30	2994.62	TOC	85.00	94.50	93.80				2900.82

MW-03

Sample Date	Grd. Surf. Elevation	TOC Elevation	Ref. Point	Depth of Screen		Depth to GW	Depth to LNAPL	LNAPL Thickness	LNAPL Spec.Grav.	Corrected GW Elev.
				Top	Bottom					
9/21/2015	2987.91	2990.81	TOC	85.00	100.00	90.52	90.49	0.03	0.830	2900.31

MW-04

Sample Date	Grd. Surf. Elevation	TOC Elevation	Ref. Point	Depth of Screen		Depth to GW	Depth to LNAPL	LNAPL Thickness	LNAPL Spec.Grav.	Corrected GW Elev.
				Top	Bottom					
9/21/2015	2988.22	2991.16	TOC	77.00	97.00	90.74				2900.42

MW-05

Sample Date	Grd. Surf. Elevation	TOC Elevation	Ref. Point	Depth of Screen		Depth to GW	Depth to LNAPL	LNAPL Thickness	LNAPL Spec.Grav.	Corrected GW Elev.
				Top	Bottom					
9/24/2015	2988.47	2991.38	TOC	80.00	95.00	90.87				2900.51

MW-06

Sample Date	Grd. Surf. Elevation	TOC Elevation	Ref. Point	Depth of Screen		Depth to GW	Depth to LNAPL	LNAPL Thickness	LNAPL Spec.Grav.	Corrected GW Elev.
				Top	Bottom					
9/21/2015	2987.40	2990.17	TOC	80.00	95.00	90.09				2900.08

MW-08

Sample Date	Grd. Surf. Elevation	TOC Elevation	Ref. Point	Depth of Screen		Depth to GW	Depth to LNAPL	LNAPL Thickness	LNAPL Spec.Grav.	Corrected GW Elev.
				Top	Bottom					
9/21/2015	2987.97	2990.73	TOC	80.00	95.00	90.74	90.72	0.02	0.830	2900.01

MW-09

Sample Date	Grd. Surf. Elevation	TOC Elevation	Ref. Point	Depth of Screen		Depth to GW	Depth to LNAPL	LNAPL Thickness	LNAPL Spec.Grav.	Corrected GW Elev.
				Top	Bottom					
9/21/2015	2987.39	2990.31	TOC	81.00	96.00	90.58	90.53	0.05	0.830	2899.77

MW-11

Sample Date	Grd. Surf. Elevation	TOC Elevation	Ref. Point	Depth of Screen		Depth to GW	Depth to LNAPL	LNAPL Thickness	LNAPL Spec.Grav.	Corrected GW Elev.
				Top	Bottom					
9/21/2015	2989.37	2992.30	TOC	83.00	98.00	91.94				2900.36

GROUNDWATER MEASUREMENTS TABLE

Jal Station Diesel Remediation

Jal, NM

MW-12

Sample Date	Grd. Surf. Elevation	TOC Elevation	Ref. Point	Depth of Screen		Depth to GW	Depth to LNAPL	LNAPL Thickness	LNAPL Spec.Grav.	Corrected GW Elev.
				Top	Bottom					
9/21/2015	2987.79	2990.99	TOC	81.00	96.00	91.69	91.56	0.13	0.830	2899.41

MW-13

Sample Date	Grd. Surf. Elevation	TOC Elevation	Ref. Point	Depth of Screen		Depth to GW	Depth to LNAPL	LNAPL Thickness	LNAPL Spec.Grav.	Corrected GW Elev.
				Top	Bottom					
9/21/2015	2989.79	2992.97	TOC	85.65	100.65	92.73				2900.24

MW-14

Sample Date	Grd. Surf. Elevation	TOC Elevation	Ref. Point	Depth of Screen		Depth to GW	Depth to LNAPL	LNAPL Thickness	LNAPL Spec.Grav.	Corrected GW Elev.
				Top	Bottom					
9/21/2015	2986.02	2989.12	TOC	86.20	101.20	91.49	90.43	1.06	0.830	2898.51

MW-15

Sample Date	Grd. Surf. Elevation	TOC Elevation	Ref. Point	Depth of Screen		Depth to GW	Depth to LNAPL	LNAPL Thickness	LNAPL Spec.Grav.	Corrected GW Elev.
				Top	Bottom					
9/21/2015	2986.45	2989.64	TOC	85.98	100.98	89.65				2899.99

MW-16

Sample Date	Grd. Surf. Elevation	TOC Elevation	Ref. Point	Depth of Screen		Depth to GW	Depth to LNAPL	LNAPL Thickness	LNAPL Spec.Grav.	Corrected GW Elev.
				Top	Bottom					
9/23/2015	2985.80	2988.71	TOC	78.50	98.50	90.32				2898.39

MW-17

Sample Date	Grd. Surf. Elevation	TOC Elevation	Ref. Point	Depth of Screen		Depth to GW	Depth to LNAPL	LNAPL Thickness	LNAPL Spec.Grav.	Corrected GW Elev.
				Top	Bottom					
9/23/2015	2985.09	2987.77	TOC	80.00	100.00	89.64				2898.13

MW-18

Sample Date	Grd. Surf. Elevation	TOC Elevation	Ref. Point	Depth of Screen		Depth to GW	Depth to LNAPL	LNAPL Thickness	LNAPL Spec.Grav.	Corrected GW Elev.
				Top	Bottom					
9/21/2015	2987.16	2989.68	TOC	75.00	95.00	90.19	89.51	0.68	0.830	2900.05

MW-19

Sample Date	Grd. Surf. Elevation	TOC Elevation	Ref. Point	Depth of Screen		Depth to GW	Depth to LNAPL	LNAPL Thickness	LNAPL Spec.Grav.	Corrected GW Elev.
				Top	Bottom					
9/21/2015	2988.86	2991.92	TOC	80.00	100.00	91.74				2900.18

GROUNDWATER MEASUREMENTS TABLE

Jal Station Diesel Remediation

Jal, NM

MW-20

Sample Date	Grd. Surf. Elevation	TOC Elevation	Ref. Point	Depth of Screen		Depth to GW	Depth to LNAPL	LNAPL Thickness	LNAPL Spec.Grav.	Corrected GW Elev.
				Top	Bottom					
9/21/2015	2987.22	2989.64	TOC	75.00	95.00	90.38	89.92	0.46	0.830	2899.64

MW-21

Sample Date	Grd. Surf. Elevation	TOC Elevation	Ref. Point	Depth of Screen		Depth to GW	Depth to LNAPL	LNAPL Thickness	LNAPL Spec.Grav.	Corrected GW Elev.
				Top	Bottom					
9/23/2015	2986.63	2989.19	TOC	78.00	98.00	90.62				2898.57

MW-22

Sample Date	Grd. Surf. Elevation	TOC Elevation	Ref. Point	Depth of Screen		Depth to GW	Depth to LNAPL	LNAPL Thickness	LNAPL Spec.Grav.	Corrected GW Elev.
				Top	Bottom					
9/24/2015	2989.24	2991.56	TOC	80.00	100.00	91.31				2900.25

MW-23

Sample Date	Grd. Surf. Elevation	TOC Elevation	Ref. Point	Depth of Screen		Depth to GW	Depth to LNAPL	LNAPL Thickness	LNAPL Spec.Grav.	Corrected GW Elev.
				Top	Bottom					
9/21/2015	2986.90	2991.90	TOC	80.00	120.00	98.30	98.25	0.05	0.830	2893.64

MW-24

Sample Date	Grd. Surf. Elevation	TOC Elevation	Ref. Point	Depth of Screen		Depth to GW	Depth to LNAPL	LNAPL Thickness	LNAPL Spec.Grav.	Corrected GW Elev.
				Top	Bottom					
9/21/2015	2988.76	2993.76	TOC	77.00	117.00	98.47	98.41	0.06	0.830	2895.34

Table 2
SUMMARY OF CURRENT, ON-SITE LABORATORY ANALYTICAL RESULTS
FOR GROUNDWATER

Jal Station Diesel Remediation

Jal, NM

MW-01

Analyte	Analytical Method	Sample Date	Sample Depth (ft)	Detected Conc.	Flag	Non-detect SQLs	New Mexico Standard
1-Methylnaphthalene	8270	9/24/2015	95-95		U	1.3E-03	3.0E-02
2-Methylnaphthalene	8270	9/24/2015	95-95		U	1.3E-03	3.0E-02
Acenaphthene	8270	9/24/2015	95-95		U	1.3E-03	3.0E-02
Acenaphthylene	8270	9/24/2015	95-95		U	1.2E-03	3.0E-02
Anthracene	8270	9/24/2015	95-95		U	1.2E-03	3.0E-02
Arsenic	6010	9/24/2015	95-95	1.1E-02			1.0E-01
Barium	6010	9/24/2015	95-95		U	2.0E-01	1.0E+00
Benzene	8260	9/24/2015	95-95		U	2.0E-04	1.0E-02
Benzo(a)anthracene	8270	9/24/2015	95-95		U	1.4E-03	3.0E-02
Benzo(a)pyrene	8270	9/24/2015	95-95		U	1.1E-03	7.0E-04
Benzo(b)fluoranthene	8270	9/24/2015	95-95		U	1.3E-03	3.0E-02
Benzo(g,h,i)perylene	8270	9/24/2015	95-95		U	1.5E-03	3.0E-02
Benzo(k)fluoranthene	8270	9/24/2015	95-95		U	1.4E-03	3.0E-02
Cadmium	6010	9/24/2015	95-95		U	2.0E-03	1.0E-02
Chromium	6010	9/24/2015	95-95		U	1.0E-02	5.0E-02
Chrysene	8270	9/24/2015	95-95		U	1.6E-03	3.0E-02
Dibenzo(a,h)anthracene	8270	9/24/2015	95-95		U	1.3E-03	3.0E-02
Ethylbenzene	8260	9/24/2015	95-95		U	2.0E-04	7.5E-01
Fluoranthene	8270	9/24/2015	95-95		U	1.4E-03	3.0E-02
Fluorene	8270	9/24/2015	95-95		U	1.5E-03	3.0E-02
Indeno(1,2,3-cd)pyrene	8270	9/24/2015	95-95		U	1.3E-03	3.0E-02
Lead	6010	9/24/2015	95-95		U	1.0E-02	5.0E-02
Naphthalene	8270	9/24/2015	95-95		U	1.2E-03	3.0E-02
Phenanthrene	8270	9/24/2015	95-95		U	1.3E-03	3.0E-02
Pyrene	8270	9/24/2015	95-95		U	1.6E-03	3.0E-02
Selenium	6010	9/24/2015	95-95	1.6E-02			5.0E-02
Silver	6010	9/24/2015	95-95		U	5.0E-03	5.0E-02
Toluene	8260	9/24/2015	95-95		U	2.0E-04	7.5E-01
Total Mercury	7470	9/24/2015	95-95		U	2.0E-04	2.0E-03
Total Xylenes	8260	9/24/2015	95-95		U	4.6E-04	6.2E-01

MW-05

Analyte	Analytical Method	Sample Date	Sample Depth (ft)	Detected Conc.	Flag	Non-detect SQLs	New Mexico Standard
1-Methylnaphthalene	8270	9/24/2015	93-93		U	1.3E-03	3.0E-02
2-Methylnaphthalene	8270	9/24/2015	93-93		U	1.3E-03	3.0E-02
Acenaphthene	8270	9/24/2015	93-93		U	1.3E-03	3.0E-02
Acenaphthylene	8270	9/24/2015	93-93		U	1.2E-03	3.0E-02
Anthracene	8270	9/24/2015	93-93		U	1.3E-03	3.0E-02

Table 2
SUMMARY OF CURRENT, ON-SITE LABORATORY ANALYTICAL RESULTS
FOR GROUNDWATER

Jal Station Diesel Remediation

Jal, NM

MW-05

Analyte	Analytical Method	Sample Date	Sample Depth (ft)	Detected Conc.	Flag	Non-detect SQLs	New Mexico Standard
Arsenic	6010	9/24/2015	93-93	1.6E-02			1.0E-01
Barium	6010	9/24/2015	93-93		U	2.0E-01	1.0E+00
Benzene	8260	9/24/2015	93-93		U	2.0E-04	1.0E-02
Benzo(a)anthracene	8270	9/24/2015	93-93		U	1.4E-03	3.0E-02
Benzo(a)pyrene	8270	9/24/2015	93-93		U	1.1E-03	7.0E-04
Benzo(b)fluoranthene	8270	9/24/2015	93-93		U	1.3E-03	3.0E-02
Benzo(g,h,i)perylene	8270	9/24/2015	93-93		U	1.5E-03	3.0E-02
Benzo(k)fluoranthene	8270	9/24/2015	93-93		U	1.4E-03	3.0E-02
Cadmium	6010	9/24/2015	93-93		U	2.0E-03	1.0E-02
Chromium	6010	9/24/2015	93-93		U	1.0E-02	5.0E-02
Chrysene	8270	9/24/2015	93-93		U	1.6E-03	3.0E-02
Dibenzo(a,h)anthracene	8270	9/24/2015	93-93		U	1.3E-03	3.0E-02
Ethylbenzene	8260	9/24/2015	93-93		U	2.0E-04	7.5E-01
Fluoranthene	8270	9/24/2015	93-93		U	1.5E-03	3.0E-02
Fluorene	8270	9/24/2015	93-93		U	1.5E-03	3.0E-02
Indeno(1,2,3-cd)pyrene	8270	9/24/2015	93-93		U	1.4E-03	3.0E-02
Lead	6010	9/24/2015	93-93		U	1.0E-02	5.0E-02
Naphthalene	8270	9/24/2015	93-93		U	1.2E-03	3.0E-02
Phenanthrene	8270	9/24/2015	93-93		U	1.3E-03	3.0E-02
Pyrene	8270	9/24/2015	93-93		U	1.6E-03	3.0E-02
Selenium	6010	9/24/2015	93-93		U	1.0E-02	5.0E-02
Silver	6010	9/24/2015	93-93		U	5.0E-03	5.0E-02
Toluene	8260	9/24/2015	93-93		U	2.0E-04	7.5E-01
Total Mercury	7470	9/24/2015	93-93		U	2.0E-04	2.0E-03
Total Xylenes	8260	9/24/2015	93-93		U	4.6E-04	6.2E-01

MW-06

Analyte	Analytical Method	Sample Date	Sample Depth (ft)	Detected Conc.	Flag	Non-detect SQLs	New Mexico Standard
1-Methylnaphthalene	8270	9/24/2015	93-93	5.8E-03			3.0E-02
2-Methylnaphthalene	8270	9/24/2015	93-93	1.4E-03	J		3.0E-02
Acenaphthene	8270	9/24/2015	93-93		U	1.3E-03	3.0E-02
Acenaphthylene	8270	9/24/2015	93-93		U	1.1E-03	3.0E-02
Anthracene	8270	9/24/2015	93-93		U	1.2E-03	3.0E-02
Arsenic	6010	9/24/2015	93-93	3.2E-02			1.0E-01
Barium	6010	9/24/2015	93-93	2.5E-01			1.0E+00
Benzene	8260	9/24/2015	93-93		U	1.0E-02	1.0E-02
Benzo(a)anthracene	8270	9/24/2015	93-93		U	1.4E-03	3.0E-02
Benzo(a)pyrene	8270	9/24/2015	93-93		U	1.1E-03	7.0E-04

Table 2
SUMMARY OF CURRENT, ON-SITE LABORATORY ANALYTICAL RESULTS
FOR GROUNDWATER

Jal Station Diesel Remediation

Jal, NM

MW-06

Analyte	Analytical Method	Sample Date	Sample Depth (ft)	Detected Conc.	Flag	Non-detect SQLs	New Mexico Standard
Benzo(b)fluoranthene	8270	9/24/2015	93-93		U	1.3E-03	3.0E-02
Benzo(g,h,i)perylene	8270	9/24/2015	93-93		U	1.4E-03	3.0E-02
Benzo(k)fluoranthene	8270	9/24/2015	93-93		U	1.4E-03	3.0E-02
Cadmium	6010	9/24/2015	93-93		U	2.0E-03	1.0E-02
Chromium	6010	9/24/2015	93-93		U	1.0E-02	5.0E-02
Chrysene	8270	9/24/2015	93-93		U	1.6E-03	3.0E-02
Dibenzo(a,h)anthracene	8270	9/24/2015	93-93		U	1.2E-03	3.0E-02
Ethylbenzene	8260	9/24/2015	93-93		U	1.0E-02	7.5E-01
Fluoranthene	8270	9/24/2015	93-93		U	1.4E-03	3.0E-02
Fluorene	8270	9/24/2015	93-93	1.7E-03	J		3.0E-02
Indeno(1,2,3-cd)pyrene	8270	9/24/2015	93-93		U	1.3E-03	3.0E-02
Lead	6010	9/24/2015	93-93		U	1.0E-02	5.0E-02
Naphthalene	8270	9/24/2015	93-93	3.2E-03	J		3.0E-02
Phenanthrene	8270	9/24/2015	93-93		U	1.3E-03	3.0E-02
Pyrene	8270	9/24/2015	93-93		U	1.5E-03	3.0E-02
Selenium	6010	9/24/2015	93-93		U	1.0E-02	5.0E-02
Silver	6010	9/24/2015	93-93		U	5.0E-03	5.0E-02
Toluene	8260	9/24/2015	93-93		U	1.0E-02	7.5E-01
Total Mercury	7470	9/24/2015	93-93		U	2.0E-04	2.0E-03
Total Xylenes	8260	9/24/2015	93-93		U	2.3E-02	6.2E-01

MW-11

Analyte	Analytical Method	Sample Date	Sample Depth (ft)	Detected Conc.	Flag	Non-detect SQLs	New Mexico Standard
1-Methylnaphthalene	8270	9/23/2015	94-94		U	1.3E-03	3.0E-02
2-Methylnaphthalene	8270	9/23/2015	94-94		U	1.3E-03	3.0E-02
Acenaphthene	8270	9/23/2015	94-94		U	1.3E-03	3.0E-02
Acenaphthylene	8270	9/23/2015	94-94		U	1.2E-03	3.0E-02
Anthracene	8270	9/23/2015	94-94		U	1.3E-03	3.0E-02
Arsenic	6010	9/23/2015	94-94	1.4E-02			1.0E-01
Barium	6010	9/23/2015	94-94		U	2.0E-01	1.0E+00
Benzene	8260	9/23/2015	94-94		U	2.0E-04	1.0E-02
Benzo(a)anthracene	8270	9/23/2015	94-94		U	1.4E-03	3.0E-02
Benzo(a)pyrene	8270	9/23/2015	94-94		U	1.1E-03	7.0E-04
Benzo(b)fluoranthene	8270	9/23/2015	94-94		U	1.3E-03	3.0E-02
Benzo(g,h,i)perylene	8270	9/23/2015	94-94		U	1.5E-03	3.0E-02
Benzo(k)fluoranthene	8270	9/23/2015	94-94		U	1.4E-03	3.0E-02
Cadmium	6010	9/23/2015	94-94		U	2.0E-03	1.0E-02
Chromium	6010	9/23/2015	94-94		U	1.0E-02	5.0E-02

Table 2
SUMMARY OF CURRENT, ON-SITE LABORATORY ANALYTICAL RESULTS
FOR GROUNDWATER

Jal Station Diesel Remediation

Jal, NM

MW-11

Analyte	Analytical Method	Sample Date	Sample Depth (ft)	Detected Conc.	Flag	Non-detect SQLs	New Mexico Standard
Chrysene	8270	9/23/2015	94-94		U	1.6E-03	3.0E-02
Dibenzo(a,h)anthracene	8270	9/23/2015	94-94		U	1.3E-03	3.0E-02
Ethylbenzene	8260	9/23/2015	94-94		U	2.0E-04	7.5E-01
Fluoranthene	8270	9/23/2015	94-94		U	1.5E-03	3.0E-02
Fluorene	8270	9/23/2015	94-94		U	1.5E-03	3.0E-02
Indeno(1,2,3-cd)pyrene	8270	9/23/2015	94-94		U	1.4E-03	3.0E-02
Lead	6010	9/23/2015	94-94		U	1.0E-02	5.0E-02
Naphthalene	8270	9/23/2015	94-94		U	1.2E-03	3.0E-02
Phenanthrene	8270	9/23/2015	94-94		U	1.3E-03	3.0E-02
Pyrene	8270	9/23/2015	94-94		U	1.6E-03	3.0E-02
Selenium	6010	9/23/2015	94-94		U	1.0E-02	5.0E-02
Silver	6010	9/23/2015	94-94		U	5.0E-03	5.0E-02
Toluene	8260	9/23/2015	94-94		U	2.0E-04	7.5E-01
Total Mercury	7470	9/23/2015	94-94		U	2.0E-04	2.0E-03
Total Xylenes	8260	9/23/2015	94-94		U	4.6E-04	6.2E-01

MW-13

Analyte	Analytical Method	Sample Date	Sample Depth (ft)	Detected Conc.	Flag	Non-detect SQLs	New Mexico Standard
1-Methylnaphthalene	8270	9/24/2015	95-95		U	1.3E-03	3.0E-02
2-Methylnaphthalene	8270	9/24/2015	95-95		U	1.3E-03	3.0E-02
Acenaphthene	8270	9/24/2015	95-95		U	1.3E-03	3.0E-02
Acenaphthylene	8270	9/24/2015	95-95		U	1.2E-03	3.0E-02
Anthracene	8270	9/24/2015	95-95		U	1.3E-03	3.0E-02
Arsenic	6010	9/24/2015	95-95	1.5E-02			1.0E-01
Barium	6010	9/24/2015	95-95		U	2.0E-01	1.0E+00
Benzene	8260	9/24/2015	95-95		U	2.0E-04	1.0E-02
Benzo(a)anthracene	8270	9/24/2015	95-95		U	1.4E-03	3.0E-02
Benzo(a)pyrene	8270	9/24/2015	95-95		U	1.1E-03	7.0E-04
Benzo(b)fluoranthene	8270	9/24/2015	95-95		U	1.3E-03	3.0E-02
Benzo(g,h,i)perylene	8270	9/24/2015	95-95		U	1.5E-03	3.0E-02
Benzo(k)fluoranthene	8270	9/24/2015	95-95		U	1.4E-03	3.0E-02
Cadmium	6010	9/24/2015	95-95		U	2.0E-03	1.0E-02
Chromium	6010	9/24/2015	95-95		U	1.0E-02	5.0E-02
Chrysene	8270	9/24/2015	95-95		U	1.6E-03	3.0E-02
Dibenzo(a,h)anthracene	8270	9/24/2015	95-95		U	1.3E-03	3.0E-02
Ethylbenzene	8260	9/24/2015	95-95		U	2.0E-04	7.5E-01
Fluoranthene	8270	9/24/2015	95-95		U	1.5E-03	3.0E-02
Fluorene	8270	9/24/2015	95-95		U	1.5E-03	3.0E-02

Table 2
SUMMARY OF CURRENT, ON-SITE LABORATORY ANALYTICAL RESULTS
FOR GROUNDWATER

Jal Station Diesel Remediation

Jal, NM

MW-13

Analyte	Analytical Method	Sample Date	Sample Depth (ft)	Detected Conc.	Flag	Non-detect SQLs	New Mexico Standard
Indeno(1,2,3-cd)pyrene	8270	9/24/2015	95-95		U	1.4E-03	3.0E-02
Lead	6010	9/24/2015	95-95		U	1.0E-02	5.0E-02
Naphthalene	8270	9/24/2015	95-95		U	1.2E-03	3.0E-02
Phenanthrene	8270	9/24/2015	95-95		U	1.3E-03	3.0E-02
Pyrene	8270	9/24/2015	95-95		U	1.6E-03	3.0E-02
Selenium	6010	9/24/2015	95-95		U	1.0E-02	5.0E-02
Silver	6010	9/24/2015	95-95		U	5.0E-03	5.0E-02
Toluene	8260	9/24/2015	95-95		U	2.0E-04	7.5E-01
Total Mercury	7470	9/24/2015	95-95		U	2.0E-04	2.0E-03
Total Xylenes	8260	9/24/2015	95-95		U	4.6E-04	6.2E-01

MW-15

Analyte	Analytical Method	Sample Date	Sample Depth (ft)	Detected Conc.	Flag	Non-detect SQLs	New Mexico Standard
1-Methylnaphthalene	8270	9/24/2015	93-93		U	1.3E-03	3.0E-02
2-Methylnaphthalene	8270	9/24/2015	93-93		U	1.3E-03	3.0E-02
Acenaphthene	8270	9/24/2015	93-93		U	1.3E-03	3.0E-02
Acenaphthylene	8270	9/24/2015	93-93		U	1.2E-03	3.0E-02
Anthracene	8270	9/24/2015	93-93		U	1.3E-03	3.0E-02
Arsenic	6010	9/24/2015	93-93	1.6E-02			1.0E-01
Barium	6010	9/24/2015	93-93		U	2.0E-01	1.0E+00
Benzene	8260	9/24/2015	93-93		U	2.0E-04	1.0E-02
Benzo(a)anthracene	8270	9/24/2015	93-93		U	1.4E-03	3.0E-02
Benzo(a)pyrene	8270	9/24/2015	93-93		U	1.1E-03	7.0E-04
Benzo(b)fluoranthene	8270	9/24/2015	93-93		U	1.3E-03	3.0E-02
Benzo(g,h,i)perylene	8270	9/24/2015	93-93		U	1.5E-03	3.0E-02
Benzo(k)fluoranthene	8270	9/24/2015	93-93		U	1.4E-03	3.0E-02
Cadmium	6010	9/24/2015	93-93		U	2.0E-03	1.0E-02
Chromium	6010	9/24/2015	93-93		U	1.0E-02	5.0E-02
Chrysene	8270	9/24/2015	93-93		U	1.6E-03	3.0E-02
Dibenzo(a,h)anthracene	8270	9/24/2015	93-93		U	1.3E-03	3.0E-02
Ethylbenzene	8260	9/24/2015	93-93		U	2.0E-04	7.5E-01
Fluoranthene	8270	9/24/2015	93-93		U	1.5E-03	3.0E-02
Fluorene	8270	9/24/2015	93-93		U	1.5E-03	3.0E-02
Indeno(1,2,3-cd)pyrene	8270	9/24/2015	93-93		U	1.4E-03	3.0E-02
Lead	6010	9/24/2015	93-93		U	1.0E-02	5.0E-02
Naphthalene	8270	9/24/2015	93-93		U	1.2E-03	3.0E-02
Phenanthrene	8270	9/24/2015	93-93		U	1.3E-03	3.0E-02
Pyrene	8270	9/24/2015	93-93		U	1.6E-03	3.0E-02

Table 2
SUMMARY OF CURRENT, ON-SITE LABORATORY ANALYTICAL RESULTS
FOR GROUNDWATER

Jal Station Diesel Remediation

Jal, NM

MW-15

Analyte	Analytical Method	Sample Date	Sample Depth (ft)	Detected Conc.	Flag	Non-detect SQLs	New Mexico Standard
Selenium	6010	9/24/2015	93-93	3.0E-02			5.0E-02
Silver	6010	9/24/2015	93-93		U	5.0E-03	5.0E-02
Toluene	8260	9/24/2015	93-93		U	2.0E-04	7.5E-01
Total Mercury	7470	9/24/2015	93-93		U	2.0E-04	2.0E-03
Total Xylenes	8260	9/24/2015	93-93		U	4.6E-04	6.2E-01

MW-16

Analyte	Analytical Method	Sample Date	Sample Depth (ft)	Detected Conc.	Flag	Non-detect SQLs	New Mexico Standard
1-Methylnaphthalene	8270	9/23/2015	94-94		U	1.2E-03	3.0E-02
2-Methylnaphthalene	8270	9/23/2015	94-94		U	1.3E-03	3.0E-02
Acenaphthene	8270	9/23/2015	94-94		U	1.3E-03	3.0E-02
Acenaphthylene	8270	9/23/2015	94-94		U	1.1E-03	3.0E-02
Anthracene	8270	9/23/2015	94-94		U	1.2E-03	3.0E-02
Arsenic	6010	9/23/2015	94-94		U	1.0E-02	1.0E-01
Barium	6010	9/23/2015	94-94		U	2.0E-01	1.0E+00
Benzene	8260	9/23/2015	94-94		U	2.0E-04	1.0E-02
Benzo(a)anthracene	8270	9/23/2015	94-94		U	1.4E-03	3.0E-02
Benzo(a)pyrene	8270	9/23/2015	94-94		U	1.0E-03	7.0E-04
Benzo(b)fluoranthene	8270	9/23/2015	94-94		U	1.3E-03	3.0E-02
Benzo(g,h,i)perylene	8270	9/23/2015	94-94		U	1.4E-03	3.0E-02
Benzo(k)fluoranthene	8270	9/23/2015	94-94		U	1.3E-03	3.0E-02
Cadmium	6010	9/23/2015	94-94		U	2.0E-03	1.0E-02
Chromium	6010	9/23/2015	94-94		U	1.0E-02	5.0E-02
Chrysene	8270	9/23/2015	94-94		U	1.6E-03	3.0E-02
Dibenzo(a,h)anthracene	8270	9/23/2015	94-94		U	1.2E-03	3.0E-02
Ethylbenzene	8260	9/23/2015	94-94		U	2.0E-04	7.5E-01
Fluoranthene	8270	9/23/2015	94-94		U	1.4E-03	3.0E-02
Fluorene	8270	9/23/2015	94-94		U	1.4E-03	3.0E-02
Indeno(1,2,3-cd)pyrene	8270	9/23/2015	94-94		U	1.3E-03	3.0E-02
Lead	6010	9/23/2015	94-94		U	1.0E-02	5.0E-02
Naphthalene	8270	9/23/2015	94-94		U	1.2E-03	3.0E-02
Phenanthrene	8270	9/23/2015	94-94		U	1.3E-03	3.0E-02
Pyrene	8270	9/23/2015	94-94		U	1.5E-03	3.0E-02
Selenium	6010	9/23/2015	94-94	4.9E-02			5.0E-02
Silver	6010	9/23/2015	94-94		U	5.0E-03	5.0E-02
Toluene	8260	9/23/2015	94-94		U	2.0E-04	7.5E-01
Total Mercury	7470	9/23/2015	94-94		U	2.0E-04	2.0E-03
Total Xylenes	8260	9/23/2015	94-94		U	4.6E-04	6.2E-01

Table 2
SUMMARY OF CURRENT, ON-SITE LABORATORY ANALYTICAL RESULTS
FOR GROUNDWATER

Jal Station Diesel Remediation

Jal, NM

MW-17

Analyte	Analytical Method	Sample Date	Sample Depth (ft)	Detected Conc.	Flag	Non-detect SQLs	New Mexico Standard
1-Methylnaphthalene	8270	9/23/2015	94-94		U	1.3E-03	3.0E-02
2-Methylnaphthalene	8270	9/23/2015	94-94		U	1.3E-03	3.0E-02
Acenaphthene	8270	9/23/2015	94-94		U	1.3E-03	3.0E-02
Acenaphthylene	8270	9/23/2015	94-94		U	1.2E-03	3.0E-02
Anthracene	8270	9/23/2015	94-94		U	1.3E-03	3.0E-02
Arsenic	6010	9/23/2015	94-94		U	1.0E-02	1.0E-01
Barium	6010	9/23/2015	94-94		U	2.0E-01	1.0E+00
Benzene	8260	9/23/2015	94-94		U	2.0E-04	1.0E-02
Benzo(a)anthracene	8270	9/23/2015	94-94		U	1.4E-03	3.0E-02
Benzo(a)pyrene	8270	9/23/2015	94-94		U	1.1E-03	7.0E-04
Benzo(b)fluoranthene	8270	9/23/2015	94-94		U	1.3E-03	3.0E-02
Benzo(g,h,i)perylene	8270	9/23/2015	94-94		U	1.5E-03	3.0E-02
Benzo(k)fluoranthene	8270	9/23/2015	94-94		U	1.4E-03	3.0E-02
Cadmium	6010	9/23/2015	94-94		U	2.0E-03	1.0E-02
Chromium	6010	9/23/2015	94-94		U	1.0E-02	5.0E-02
Chrysene	8270	9/23/2015	94-94		U	1.6E-03	3.0E-02
Dibenzo(a,h)anthracene	8270	9/23/2015	94-94		U	1.3E-03	3.0E-02
Ethylbenzene	8260	9/23/2015	94-94		U	2.0E-04	7.5E-01
Fluoranthene	8270	9/23/2015	94-94		U	1.5E-03	3.0E-02
Fluorene	8270	9/23/2015	94-94		U	1.5E-03	3.0E-02
Indeno(1,2,3-cd)pyrene	8270	9/23/2015	94-94		U	1.4E-03	3.0E-02
Lead	6010	9/23/2015	94-94		U	1.0E-02	5.0E-02
Naphthalene	8270	9/23/2015	94-94		U	1.2E-03	3.0E-02
Phenanthrene	8270	9/23/2015	94-94		U	1.3E-03	3.0E-02
Pyrene	8270	9/23/2015	94-94		U	1.6E-03	3.0E-02
Selenium	6010	9/23/2015	94-94	1.0E-02			5.0E-02
Silver	6010	9/23/2015	94-94		U	5.0E-03	5.0E-02
Toluene	8260	9/23/2015	94-94		U	2.0E-04	7.5E-01
Total Mercury	7470	9/23/2015	94-94		U	2.0E-04	2.0E-03
Total Xylenes	8260	9/23/2015	94-94		U	4.6E-04	6.2E-01

MW-19

Analyte	Analytical Method	Sample Date	Sample Depth (ft)	Detected Conc.	Flag	Non-detect SQLs	New Mexico Standard
1-Methylnaphthalene	8270	9/24/2015	95-95	1.1E-02			3.0E-02
2-Methylnaphthalene	8270	9/24/2015	95-95	8.2E-03			3.0E-02
Acenaphthene	8270	9/24/2015	95-95		U	1.3E-03	3.0E-02
Acenaphthylene	8270	9/24/2015	95-95		U	1.2E-03	3.0E-02
Anthracene	8270	9/24/2015	95-95		U	1.2E-03	3.0E-02

Table 2
SUMMARY OF CURRENT, ON-SITE LABORATORY ANALYTICAL RESULTS
FOR GROUNDWATER

Jal Station Diesel Remediation

Jal, NM

MW-19

Analyte	Analytical Method	Sample Date	Sample Depth (ft)	Detected Conc.	Flag	Non-detect SQLs	New Mexico Standard
Arsenic	6010	9/24/2015	95-95	1.6E-02			1.0E-01
Barium	6010	9/24/2015	95-95	1.4E+00			1.0E+00
Benzene	8260	9/24/2015	95-95	2.4E-03	J		1.0E-02
Benzo(a)anthracene	8270	9/24/2015	95-95		U	1.4E-03	3.0E-02
Benzo(a)pyrene	8270	9/24/2015	95-95		U	1.1E-03	7.0E-04
Benzo(b)fluoranthene	8270	9/24/2015	95-95		U	1.3E-03	3.0E-02
Benzo(g,h,i)perylene	8270	9/24/2015	95-95		U	1.5E-03	3.0E-02
Benzo(k)fluoranthene	8270	9/24/2015	95-95		U	1.4E-03	3.0E-02
Cadmium	6010	9/24/2015	95-95		U	2.0E-03	1.0E-02
Chromium	6010	9/24/2015	95-95		U	1.0E-02	5.0E-02
Chrysene	8270	9/24/2015	95-95		U	1.6E-03	3.0E-02
Dibenzo(a,h)anthracene	8270	9/24/2015	95-95		U	1.3E-03	3.0E-02
Ethylbenzene	8260	9/24/2015	95-95	9.9E-03	J		7.5E-01
Fluoranthene	8270	9/24/2015	95-95		U	1.4E-03	3.0E-02
Fluorene	8270	9/24/2015	95-95	3.7E-03	J		3.0E-02
Indeno(1,2,3-cd)pyrene	8270	9/24/2015	95-95		U	1.3E-03	3.0E-02
Lead	6010	9/24/2015	95-95		U	1.0E-02	5.0E-02
Naphthalene	8270	9/24/2015	95-95	5.2E-03			3.0E-02
Phenanthrene	8270	9/24/2015	95-95	3.3E-03	J		3.0E-02
Pyrene	8270	9/24/2015	95-95	2.0E-03	J		3.0E-02
Selenium	6010	9/24/2015	95-95		U	1.0E-02	5.0E-02
Silver	6010	9/24/2015	95-95		U	5.0E-03	5.0E-02
Toluene	8260	9/24/2015	95-95		U	2.0E-03	7.5E-01
Total Mercury	7470	9/24/2015	95-95		U	2.0E-04	2.0E-03
Total Xylenes	8260	9/24/2015	95-95	3.1E-02			6.2E-01

MW-21

Analyte	Analytical Method	Sample Date	Sample Depth (ft)	Detected Conc.	Flag	Non-detect SQLs	New Mexico Standard
1-Methylnaphthalene	8270	9/23/2015	94-94		U	1.3E-03	3.0E-02
2-Methylnaphthalene	8270	9/23/2015	94-94		U	1.3E-03	3.0E-02
Acenaphthene	8270	9/23/2015	94-94		U	1.3E-03	3.0E-02
Acenaphthylene	8270	9/23/2015	94-94		U	1.2E-03	3.0E-02
Anthracene	8270	9/23/2015	94-94		U	1.2E-03	3.0E-02
Arsenic	6010	9/23/2015	94-94		U	1.0E-02	1.0E-01
Barium	6010	9/23/2015	94-94		U	2.0E-01	1.0E+00
Benzene	8260	9/23/2015	94-94		U	2.0E-04	1.0E-02
Benzo(a)anthracene	8270	9/23/2015	94-94		U	1.4E-03	3.0E-02
Benzo(a)pyrene	8270	9/23/2015	94-94		U	1.1E-03	7.0E-04

Table 2
SUMMARY OF CURRENT, ON-SITE LABORATORY ANALYTICAL RESULTS
FOR GROUNDWATER

Jal Station Diesel Remediation

Jal, NM

MW-21

Analyte	Analytical Method	Sample Date	Sample Depth (ft)	Detected Conc.	Flag	Non-detect SQLs	New Mexico Standard
Benzo(b)fluoranthene	8270	9/23/2015	94-94		U	1.3E-03	3.0E-02
Benzo(g,h,i)perylene	8270	9/23/2015	94-94		U	1.5E-03	3.0E-02
Benzo(k)fluoranthene	8270	9/23/2015	94-94		U	1.4E-03	3.0E-02
Cadmium	6010	9/23/2015	94-94		U	2.0E-03	1.0E-02
Chromium	6010	9/23/2015	94-94		U	1.0E-02	5.0E-02
Chrysene	8270	9/23/2015	94-94		U	1.6E-03	3.0E-02
Dibenzo(a,h)anthracene	8270	9/23/2015	94-94		U	1.3E-03	3.0E-02
Ethylbenzene	8260	9/23/2015	94-94		U	2.0E-04	7.5E-01
Fluoranthene	8270	9/23/2015	94-94		U	1.4E-03	3.0E-02
Fluorene	8270	9/23/2015	94-94		U	1.5E-03	3.0E-02
Indeno(1,2,3-cd)pyrene	8270	9/23/2015	94-94		U	1.3E-03	3.0E-02
Lead	6010	9/23/2015	94-94		U	1.0E-02	5.0E-02
Naphthalene	8270	9/23/2015	94-94		U	1.2E-03	3.0E-02
Phenanthrene	8270	9/23/2015	94-94		U	1.3E-03	3.0E-02
Pyrene	8270	9/23/2015	94-94		U	1.6E-03	3.0E-02
Selenium	6010	9/23/2015	94-94		U	1.0E-02	5.0E-02
Silver	6010	9/23/2015	94-94		U	5.0E-03	5.0E-02
Toluene	8260	9/23/2015	94-94		U	2.0E-04	7.5E-01
Total Mercury	7470	9/23/2015	94-94		U	2.0E-04	2.0E-03
Total Xylenes	8260	9/23/2015	94-94		U	4.6E-04	6.2E-01

MW-22

Analyte	Analytical Method	Sample Date	Sample Depth (ft)	Detected Conc.	Flag	Non-detect SQLs	New Mexico Standard
1-Methylnaphthalene	8270	9/24/2015	91-91		U	1.3E-03	3.0E-02
2-Methylnaphthalene	8270	9/24/2015	91-91		U	1.3E-03	3.0E-02
Acenaphthene	8270	9/24/2015	91-91		U	1.3E-03	3.0E-02
Acenaphthylene	8270	9/24/2015	91-91		U	1.2E-03	3.0E-02
Anthracene	8270	9/24/2015	91-91		U	1.3E-03	3.0E-02
Arsenic	6010	9/24/2015	91-91	1.4E-02			1.0E-01
Barium	6010	9/24/2015	91-91		U	2.0E-01	1.0E+00
Benzene	8260	9/24/2015	91-91		U	2.0E-03	1.0E-02
Benzo(a)anthracene	8270	9/24/2015	91-91		U	1.4E-03	3.0E-02
Benzo(a)pyrene	8270	9/24/2015	91-91		U	1.1E-03	7.0E-04
Benzo(b)fluoranthene	8270	9/24/2015	91-91		U	1.3E-03	3.0E-02
Benzo(g,h,i)perylene	8270	9/24/2015	91-91		U	1.5E-03	3.0E-02
Benzo(k)fluoranthene	8270	9/24/2015	91-91		U	1.4E-03	3.0E-02
Cadmium	6010	9/24/2015	91-91		U	2.0E-03	1.0E-02
Chromium	6010	9/24/2015	91-91		U	1.0E-02	5.0E-02

Table 2
SUMMARY OF CURRENT, ON-SITE LABORATORY ANALYTICAL RESULTS
FOR GROUNDWATER

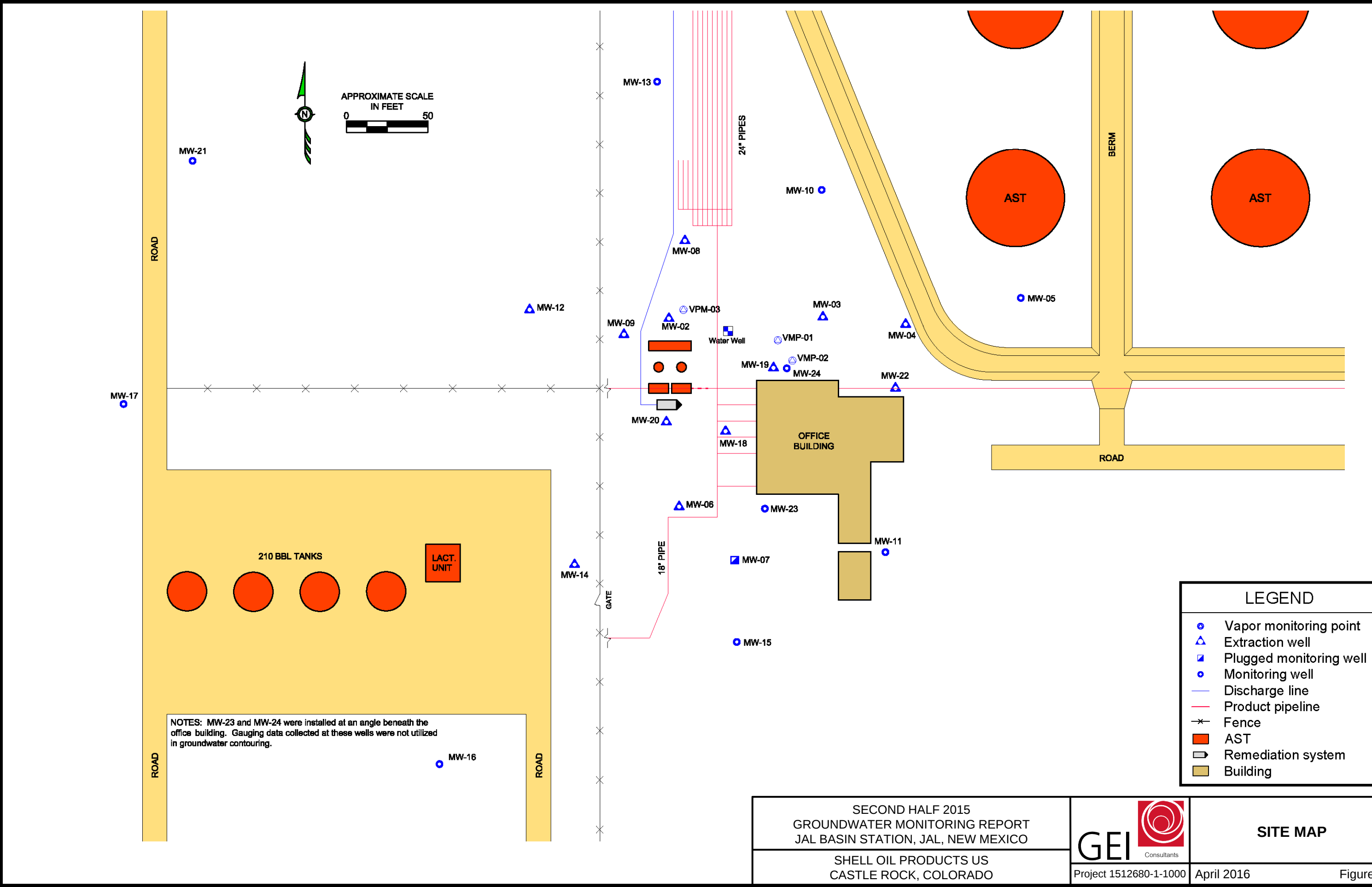
Jal Station Diesel Remediation

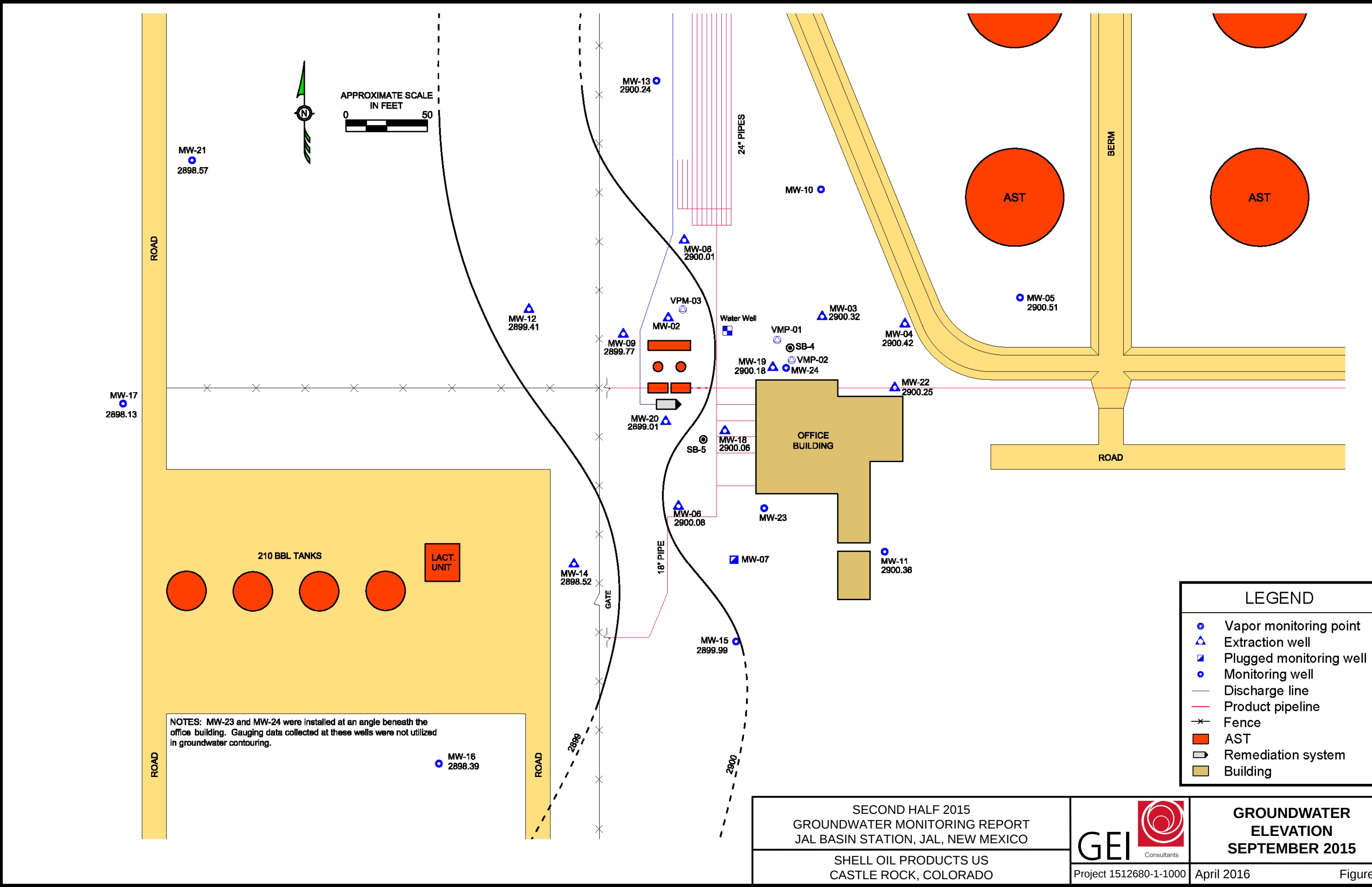
Jal, NM

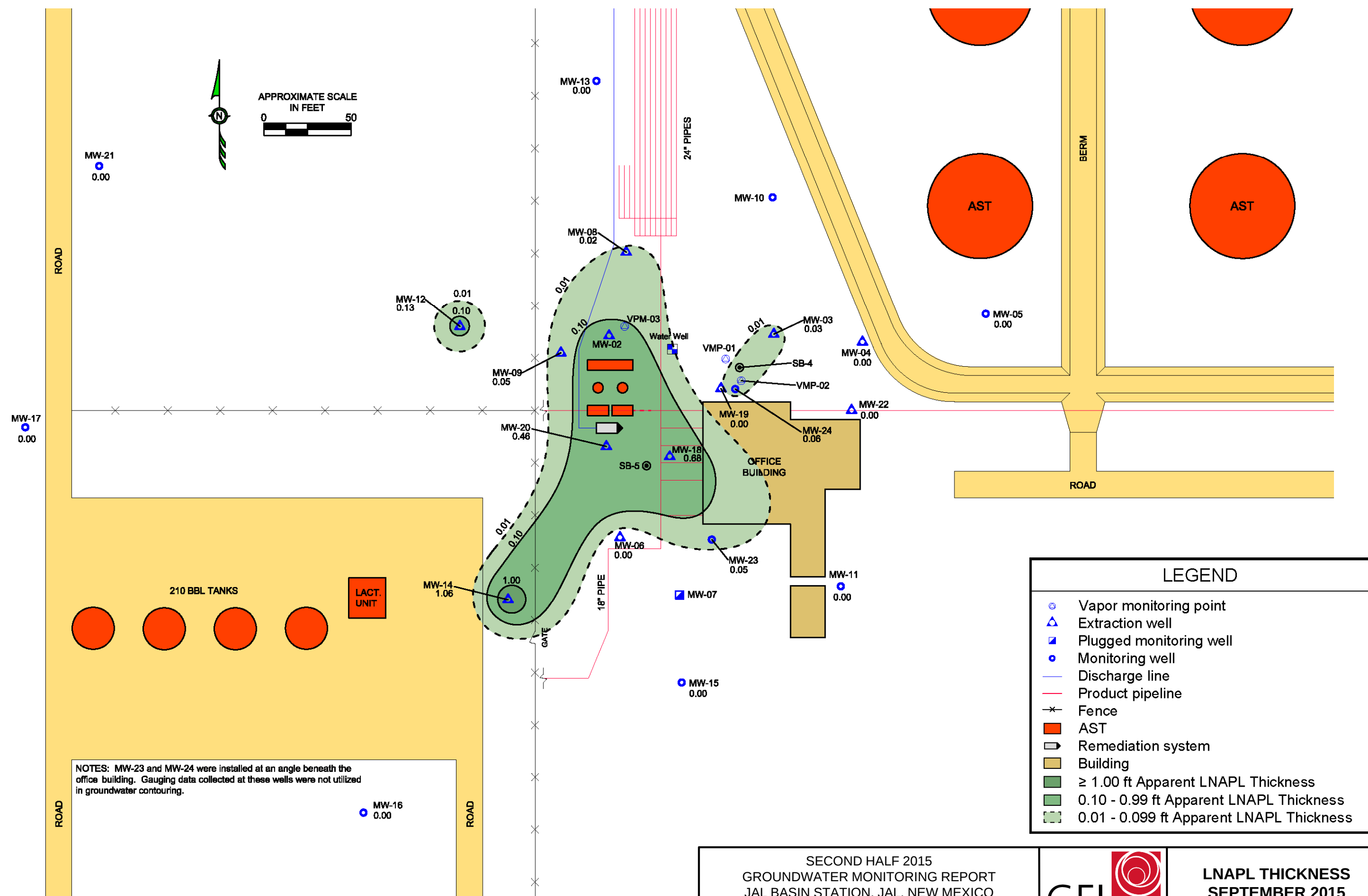
MW-22

Analyte	Analytical Method	Sample Date	Sample Depth (ft)	Detected Conc.	Flag	Non-detect SQLs	New Mexico Standard
Chrysene	8270	9/24/2015	91-91		U	1.6E-03	3.0E-02
Dibenzo(a,h)anthracene	8270	9/24/2015	91-91		U	1.3E-03	3.0E-02
Ethylbenzene	8260	9/24/2015	91-91		U	2.0E-03	7.5E-01
Fluoranthene	8270	9/24/2015	91-91		U	1.5E-03	3.0E-02
Fluorene	8270	9/24/2015	91-91		U	1.5E-03	3.0E-02
Indeno(1,2,3-cd)pyrene	8270	9/24/2015	91-91		U	1.4E-03	3.0E-02
Lead	6010	9/24/2015	91-91		U	1.0E-02	5.0E-02
Naphthalene	8270	9/24/2015	91-91		U	1.2E-03	3.0E-02
Phenanthrene	8270	9/24/2015	91-91		U	1.3E-03	3.0E-02
Pyrene	8270	9/24/2015	91-91		U	1.6E-03	3.0E-02
Selenium	6010	9/24/2015	91-91		U	1.0E-02	5.0E-02
Silver	6010	9/24/2015	91-91		U	5.0E-03	5.0E-02
Toluene	8260	9/24/2015	91-91		U	2.0E-03	7.5E-01
Total Mercury	7470	9/24/2015	91-91		U	2.0E-04	2.0E-03
Total Xylenes	8260	9/24/2015	91-91		U	4.6E-03	6.2E-01

Figures





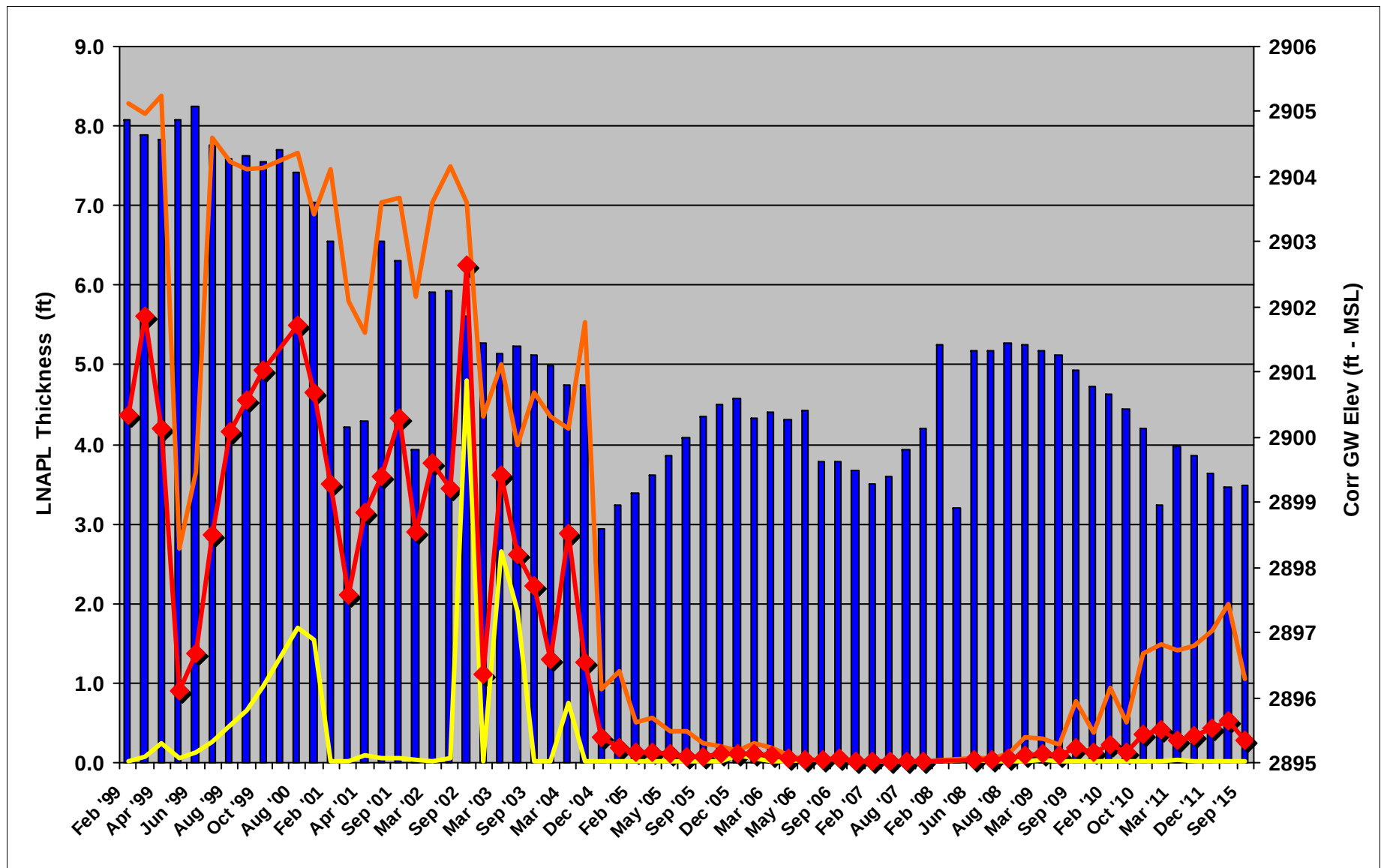


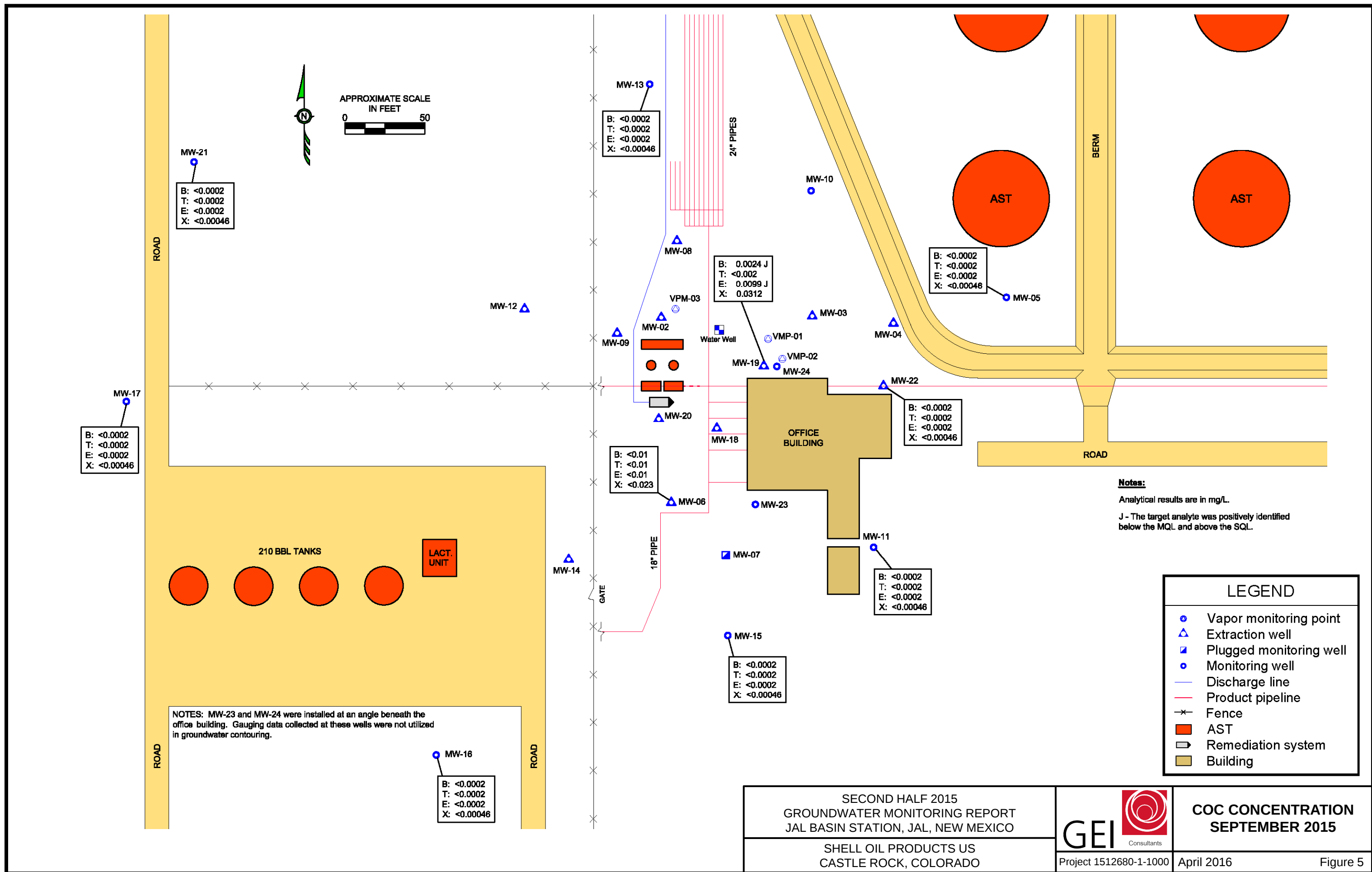
106.001
Shell Oil Products US
Jal Station Diesel Remediation

Jal, NM

Figure 4
Corrected GW Elevation (Avg)
vs. LNAPL Thickness

Mean Corr GW Elev 
Maximum LNAPL 
Mean LNAPL 
Minimum LNAPL 





Appendix A

Groundwater Sampling Laboratory Analytical Results with Chain-of-Custody Documentation



10/12/15

Technical Report for

Shell Oil Company

URSAZP:EQPL Basin Jal Pump Station,NM

60410985

Accutest Job Number: C42004

Sampling Date: 09/23/15

Report to:

AECOM, INC.
7720 North 16th Avenue, Suite 100
Phoenix, AZ 85020
iain.olness@aecom.com

ATTN: Iain Olness

Total number of pages in report: **38**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

A handwritten signature in black ink, appearing to read 'James J. Rhudy'.

James J. Rhudy
Lab Director

Client Service contact: Nutan Kabir 408-588-0200

Certifications: CA (ELAP 2910) AK (UST-092) AZ (AZ0762) NV (CA00150) OR (CA300006) WA (C925)
DoD ELAP (L-A-B L2242)

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Test results relate only to samples analyzed.

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Sample Summary

Shell Oil Company

Job No: C42004

URSAZP:EQPL Basin Jal Pump Station, NM

Project No: 60410985

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
C42004-1	09/23/15	10:35	09/26/15	AQ	Ground Water	MW-16
C42004-1F	09/23/15	10:35	09/26/15	AQ	Groundwater Filtered	MW-16
C42004-2	09/23/15	12:15	09/26/15	AQ	Ground Water	MW-21
C42004-2F	09/23/15	12:15	09/26/15	AQ	Groundwater Filtered	MW-21
C42004-3	09/23/15	14:45	09/26/15	AQ	Ground Water	MW-17
C42004-3F	09/23/15	14:45	09/26/15	AQ	Groundwater Filtered	MW-17
C42004-4	09/23/15	16:15	09/26/15	AQ	Ground Water	MW-11
C42004-4F	09/23/15	16:15	09/26/15	AQ	Groundwater Filtered	MW-11
C42004-5	09/23/15	00:00	09/26/15	AQ	Trip Blank Water	TRIP BLANK

Summary of Hits

Page 1 of 1

Job Number: C42004
Account: Shell Oil Company
Project: URSAZP:EQPL Basin Jal Pump Station,NM
Collected: 09/23/15

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
--------------------------	------------------	-----------------	----	-----	-------	--------

C42004-1 **MW-16**

No hits reported in this sample.

C42004-1F **MW-16**

Selenium	49.1	10	ug/l	SW846 6010B
----------	------	----	------	-------------

C42004-2 **MW-21**

No hits reported in this sample.

C42004-2F **MW-21**

No hits reported in this sample.

C42004-3 **MW-17**

No hits reported in this sample.

C42004-3F **MW-17**

Selenium	10.3	10	ug/l	SW846 6010B
----------	------	----	------	-------------

C42004-4 **MW-11**

No hits reported in this sample.

C42004-4F **MW-11**

Arsenic	13.6	10	ug/l	SW846 6010B
---------	------	----	------	-------------

C42004-5 **TRIP BLANK**

No hits reported in this sample.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW-16	Date Sampled:	09/23/15
Lab Sample ID:	C42004-1	Date Received:	09/26/15
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	URSAZP:EQPL Basin Jal Pump Station, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V29197.D	1	10/07/15	SY	n/a	n/a	VV1189
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.46	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		78-125%
2037-26-5	Toluene-D8	102%		86-114%
460-00-4	4-Bromofluorobenzene	99%		80-113%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-16	Date Sampled:	09/23/15
Lab Sample ID:	C42004-1	Date Received:	09/26/15
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	URSAZP:EQPL Basin Jal Pump Station, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z11844.D	1	09/28/15	MT	09/28/15	OP13167	EZ570
Run #2							

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.8	1.3	ug/l	
208-96-8	Acenaphthylene	ND	4.8	1.1	ug/l	
120-12-7	Anthracene	ND	4.8	1.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.8	1.4	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.8	1.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.8	1.3	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.8	1.4	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.8	1.3	ug/l	
218-01-9	Chrysene	ND	4.8	1.6	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.8	1.2	ug/l	
206-44-0	Fluoranthene	ND	4.8	1.4	ug/l	
86-73-7	Fluorene	ND	4.8	1.4	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.8	1.3	ug/l	
90-12-0	1-Methylnaphthalene	ND	4.8	1.2	ug/l	
91-57-6	2-Methylnaphthalene	ND	4.8	1.3	ug/l	
91-20-3	Naphthalene	ND	4.8	1.2	ug/l	
85-01-8	Phenanthrene	ND	4.8	1.3	ug/l	
129-00-0	Pyrene	ND	4.8	1.5	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	71%		30-116%
321-60-8	2-Fluorobiphenyl	59%		31-124%
1718-51-0	Terphenyl-d14	48% ^a		57-137%

(a) Outside of control limits due matrix interference (heavy emulsion formed during extraction process).

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-16	Date Sampled: 09/23/15
Lab Sample ID: C42004-1F	Date Received: 09/26/15
Matrix: AQ - Groundwater Filtered	Percent Solids: n/a
Project: URSAZP:EQPL Basin Jal Pump Station, NM	

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 10	10	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Barium	< 200	200	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Cadmium	< 2.0	2.0	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Chromium	< 10	10	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Lead	< 10	10	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Mercury	< 0.20	0.20	ug/l	1	09/28/15	10/02/15 EB	SW846 7470A ²	SW846 7470A ³
Selenium	49.1	10	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Silver	< 5.0	5.0	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴

(1) Instrument QC Batch: MA5252

(2) Instrument QC Batch: MA5259

(3) Prep QC Batch: MP10219

(4) Prep QC Batch: MP10225

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-21	Date Sampled:	09/23/15
Lab Sample ID:	C42004-2	Date Received:	09/26/15
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	URSAZP:EQPL Basin Jal Pump Station, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V29198.D	1	10/07/15	SY	n/a	n/a	VV1189
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.46	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		78-125%
2037-26-5	Toluene-D8	104%		86-114%
460-00-4	4-Bromofluorobenzene	101%		80-113%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-21	
Lab Sample ID:	C42004-2	Date Sampled: 09/23/15
Matrix:	AQ - Ground Water	Date Received: 09/26/15
Method:	SW846 8270C SW846 3510C	Percent Solids: n/a
Project:	URSAZP:EQPL Basin Jal Pump Station, NM	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z11845.D	1	09/28/15	MT	09/28/15	OP13167	EZ570
Run #2							

	Initial Volume	Final Volume
Run #1	1010 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	1.3	ug/l	
208-96-8	Acenaphthylene	ND	5.0	1.2	ug/l	
120-12-7	Anthracene	ND	5.0	1.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	1.4	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	1.1	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	1.3	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	1.5	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	1.4	ug/l	
218-01-9	Chrysene	ND	5.0	1.6	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	1.3	ug/l	
206-44-0	Fluoranthene	ND	5.0	1.4	ug/l	
86-73-7	Fluorene	ND	5.0	1.5	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	1.3	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	1.3	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	1.3	ug/l	
91-20-3	Naphthalene	ND	5.0	1.2	ug/l	
85-01-8	Phenanthrene	ND	5.0	1.3	ug/l	
129-00-0	Pyrene	ND	5.0	1.6	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	72%		30-116%
321-60-8	2-Fluorobiphenyl	69%		31-124%
1718-51-0	Terphenyl-d14	67%		57-137%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-21	Date Sampled: 09/23/15
Lab Sample ID: C42004-2F	Date Received: 09/26/15
Matrix: AQ - Groundwater Filtered	Percent Solids: n/a
Project: URSAZP:EQPL Basin Jal Pump Station, NM	

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 10	10	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Barium	< 200	200	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Cadmium	< 2.0	2.0	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Chromium	< 10	10	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Lead	< 10	10	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Mercury	< 0.20	0.20	ug/l	1	09/28/15	10/02/15 EB	SW846 7470A ²	SW846 7470A ³
Selenium	< 10	10	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Silver	< 5.0	5.0	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴

(1) Instrument QC Batch: MA5252

(2) Instrument QC Batch: MA5259

(3) Prep QC Batch: MP10219

(4) Prep QC Batch: MP10225

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-17	Date Sampled:	09/23/15
Lab Sample ID:	C42004-3	Date Received:	09/26/15
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	URSAZP:EQPL Basin Jal Pump Station, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V29199.D	1	10/07/15	SY	n/a	n/a	VV1189
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.46	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		78-125%
2037-26-5	Toluene-D8	104%		86-114%
460-00-4	4-Bromofluorobenzene	98%		80-113%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-17	Date Sampled:	09/23/15
Lab Sample ID:	C42004-3	Date Received:	09/26/15
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	URSAZP:EQPL Basin Jal Pump Station, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z11846.D	1	09/28/15	MT	09/28/15	OP13167	EZ570
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	1.3	ug/l	
208-96-8	Acenaphthylene	ND	5.0	1.2	ug/l	
120-12-7	Anthracene	ND	5.0	1.3	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	1.4	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	1.1	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	1.3	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	1.5	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	1.4	ug/l	
218-01-9	Chrysene	ND	5.0	1.6	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	1.3	ug/l	
206-44-0	Fluoranthene	ND	5.0	1.5	ug/l	
86-73-7	Fluorene	ND	5.0	1.5	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	1.4	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	1.3	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	1.3	ug/l	
91-20-3	Naphthalene	ND	5.0	1.2	ug/l	
85-01-8	Phenanthrene	ND	5.0	1.3	ug/l	
129-00-0	Pyrene	ND	5.0	1.6	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	75%		30-116%
321-60-8	2-Fluorobiphenyl	64%		31-124%
1718-51-0	Terphenyl-d14	64%		57-137%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-17	Date Sampled: 09/23/15
Lab Sample ID: C42004-3F	Date Received: 09/26/15
Matrix: AQ - Groundwater Filtered	Percent Solids: n/a
Project: URSAZP:EQPL Basin Jal Pump Station, NM	

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 10	10	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Barium	< 200	200	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Cadmium	< 2.0	2.0	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Chromium	< 10	10	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Lead	< 10	10	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Mercury	< 0.20	0.20	ug/l	1	09/28/15	10/02/15 EB	SW846 7470A ²	SW846 7470A ³
Selenium	10.3	10	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Silver	< 5.0	5.0	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴

(1) Instrument QC Batch: MA5252

(2) Instrument QC Batch: MA5259

(3) Prep QC Batch: MP10219

(4) Prep QC Batch: MP10225

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-11	Date Sampled:	09/23/15
Lab Sample ID:	C42004-4	Date Received:	09/26/15
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	URSAZP:EQPL Basin Jal Pump Station, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V29200.D	1	10/07/15	SY	n/a	n/a	VV1189
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.46	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		78-125%
2037-26-5	Toluene-D8	103%		86-114%
460-00-4	4-Bromofluorobenzene	96%		80-113%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-11	Date Sampled:	09/23/15
Lab Sample ID:	C42004-4	Date Received:	09/26/15
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	URSAZP:EQPL Basin Jal Pump Station, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z11847.D	1	09/28/15	MT	09/28/15	OP13167	EZ570
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	1.3	ug/l	
208-96-8	Acenaphthylene	ND	5.0	1.2	ug/l	
120-12-7	Anthracene	ND	5.0	1.3	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	1.4	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	1.1	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	1.3	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	1.5	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	1.4	ug/l	
218-01-9	Chrysene	ND	5.0	1.6	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	1.3	ug/l	
206-44-0	Fluoranthene	ND	5.0	1.5	ug/l	
86-73-7	Fluorene	ND	5.0	1.5	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	1.4	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	1.3	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	1.3	ug/l	
91-20-3	Naphthalene	ND	5.0	1.2	ug/l	
85-01-8	Phenanthrene	ND	5.0	1.3	ug/l	
129-00-0	Pyrene	ND	5.0	1.6	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	80%		30-116%
321-60-8	2-Fluorobiphenyl	77%		31-124%
1718-51-0	Terphenyl-d14	84%		57-137%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-11	Date Sampled: 09/23/15
Lab Sample ID: C42004-4F	Date Received: 09/26/15
Matrix: AQ - Groundwater Filtered	Percent Solids: n/a
Project: URSAZP:EQPL Basin Jal Pump Station, NM	

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	13.6	10	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Barium	< 200	200	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Cadmium	< 2.0	2.0	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Chromium	< 10	10	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Lead	< 10	10	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Mercury	< 0.20	0.20	ug/l	1	09/28/15	10/02/15 EB	SW846 7470A ²	SW846 7470A ³
Selenium	< 10	10	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Silver	< 5.0	5.0	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴

(1) Instrument QC Batch: MA5252

(2) Instrument QC Batch: MA5259

(3) Prep QC Batch: MP10219

(4) Prep QC Batch: MP10225

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TRIP BLANK	Date Sampled:	09/23/15
Lab Sample ID:	C42004-5	Date Received:	09/26/15
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	URSAZP:EQPL Basin Jal Pump Station, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V29192.D	1	10/07/15	SY	n/a	n/a	VV1189
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.46	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		78-125%
2037-26-5	Toluene-D8	104%		86-114%
460-00-4	4-Bromofluorobenzene	98%		80-113%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

4.1

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ACCUTEST®
C42004 LABORATORIES



Accutest Laboratories Sample Receipt Summary

Accutest Job Number: C42004 Client: SHELL OIL Project: EQPL BASIN JAL PUMP STATION
Date / Time Received: 9/26/2015 10:25:00 AM Delivery Method: FedEx Airbill #'s: 806632105452
Cooler Temps (Initial/Adjusted): #1: (4.2/4.2):

Cooler Security

	Y	or	N			Y	or	N
1. Custody Seals Present:	☒		☐	3. COC Present:		☒		☐
2. Custody Seals Intact:	☒		☐	4. Smpl Dates/Time OK		☒		☐

Cooler Temperature

	Y	or	N
1. Temp criteria achieved:	☒		☐
2. Therm ID:	IR1;		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation

	Y	or	N	N/A
1. Trip Blank present / cooler:	☒		☐	☐
2. Trip Blank listed on COC:	☒		☐	☐
3. Samples preserved properly:	☒		☐	
4. VOCs headspace free:	☒		☐	☐

Sample Integrity - Documentation

	Y	or	N
1. Sample labels present on bottles:	☒		☐
2. Container labeling complete:	☒		☐
3. Sample container label / COC agree:	☒		☐

Sample Integrity - Condition

	Y	or	N
1. Sample recvd within HT:	☒		☐
2. All containers accounted for:	☒		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions

	Y	or	N	N/A
1. Analysis requested is clear:	☒		☐	
2. Bottles received for unspecified tests	☐		☒	
3. Sufficient volume recvd for analysis:	☒		☐	
4. Compositing instructions clear:	☐		☐	☒
5. Filtering instructions clear:	☐		☐	☒

Comments TRIP BLANKS NOT LISTED ON THE COC

GC/MS Volatiles

5

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 1

Job Number: C42004
Account: SHELLWIC Shell Oil Company
Project: URSAZP:EQPL Basin Jal Pump Station,NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV1189-MB	V29191.D	1	10/07/15	SY	n/a	n/a	VV1189

The QC reported here applies to the following samples:

Method: SW846 8260B

C42004-1, C42004-2, C42004-3, C42004-4, C42004-5

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.46	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	99% 78-125%
2037-26-5	Toluene-D8	104% 86-114%
460-00-4	4-Bromofluorobenzene	97% 80-113%

Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

Job Number: C42004

Account: SHELLWIC Shell Oil Company

Project: URSAZP:EQPL Basin Jal Pump Station,NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV1189-BS	V29188.D	1	10/06/15	SY	n/a	n/a	VV1189
VV1189-BSD	V29189.D	1	10/06/15	SY	n/a	n/a	VV1189

The QC reported here applies to the following samples:

Method: SW846 8260B

C42004-1, C42004-2, C42004-3, C42004-4, C42004-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	19.9	100	19.9	100	0	77-118/10
100-41-4	Ethylbenzene	20	20.1	101	20.0	100	0	78-121/10
108-88-3	Toluene	20	20.7	104	20.3	102	2	78-120/10
1330-20-7	Xylene (total)	60	60.6	101	60.2	100	1	78-122/10

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	99%	100%	78-125%
2037-26-5	Toluene-D8	102%	103%	86-114%
460-00-4	4-Bromofluorobenzene	99%	99%	80-113%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: C42004
Account: SHELLWIC Shell Oil Company
Project: URSAZP:EQPL Basin Jal Pump Station,NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C42017-12MS	V29206.D	25	10/07/15	SY	n/a	n/a	VV1189
C42017-12MSD	V29207.D	25	10/07/15	SY	n/a	n/a	VV1189
C42017-12	V29195.D	25	10/07/15	SY	n/a	n/a	VV1189

The QC reported here applies to the following samples:

Method: SW846 8260B

C42004-1, C42004-2, C42004-3, C42004-4, C42004-5

CAS No.	Compound	C42017-12 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	500	489	98	500	500	100	2	77-118/10
100-41-4	Ethylbenzene	ND	500	488	98	500	494	99	1	78-121/10
108-88-3	Toluene	ND	500	492	98	500	512	102	4	78-120/10
1330-20-7	Xylene (total)	ND	1500	1450	97	1500	1490	99	3	78-122/10

CAS No.	Surrogate Recoveries	MS	MSD	C42017-12	Limits
1868-53-7	Dibromofluoromethane	98%	101%	100%	78-125%
2037-26-5	Toluene-D8	102%	103%	105%	86-114%
460-00-4	4-Bromofluorobenzene	99%	100%	99%	80-113%

* = Outside of Control Limits.

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 1

Job Number: C42004
Account: SHELLWIC Shell Oil Company
Project: URSAZP:EQPL Basin Jal Pump Station,NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP13167-MB	Z11834A.D	1	09/28/15	MT	09/28/15	OP13167	EZ570

The QC reported here applies to the following samples:

Method: SW846 8270C

C42004-1, C42004-2, C42004-3, C42004-4

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	1.3	ug/l	
208-96-8	Acenaphthylene	ND	5.0	1.2	ug/l	
120-12-7	Anthracene	ND	5.0	1.3	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	1.4	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	1.1	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	1.3	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	1.5	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	1.4	ug/l	
218-01-9	Chrysene	ND	5.0	1.6	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	1.3	ug/l	
206-44-0	Fluoranthene	ND	5.0	1.5	ug/l	
86-73-7	Fluorene	ND	5.0	1.5	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	1.4	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	1.3	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	1.3	ug/l	
91-20-3	Naphthalene	ND	5.0	1.2	ug/l	
85-01-8	Phenanthrene	ND	5.0	1.3	ug/l	
129-00-0	Pyrene	ND	5.0	1.6	ug/l	

CAS No.	Surrogate Recoveries	Limits
4165-60-0	Nitrobenzene-d5	85% 30-116%
321-60-8	2-Fluorobiphenyl	89% 31-124%
1718-51-0	Terphenyl-d14	116% 57-137%

Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

Job Number: C42004
Account: SHELLWIC Shell Oil Company
Project: URSAZP:EQPL Basin Jal Pump Station,NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP13167-BS	Z11835A.D	1	09/28/15	MT	09/28/15	OP13167	EZ570
OP13167-BSD	Z11836A.D	1	09/28/15	MT	09/28/15	OP13167	EZ570

The QC reported here applies to the following samples:

Method: SW846 8270C

C42004-1, C42004-2, C42004-3, C42004-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	25	19.6	78	19.1	76	3	45-108/13
208-96-8	Acenaphthylene	25	20.0	80	19.7	79	2	46-108/14
120-12-7	Anthracene	25	22.3	89	21.7	87	3	61-110/10
56-55-3	Benzo(a)anthracene	25	21.5	86	21.4	86	0	69-113/10
50-32-8	Benzo(a)pyrene	25	21.6	86	21.1	84	2	68-115/10
205-99-2	Benzo(b)fluoranthene	25	21.5	86	20.3	81	6	64-119/13
191-24-2	Benzo(g,h,i)perylene	25	20.3	81	20.2	81	0	55-124/17
207-08-9	Benzo(k)fluoranthene	25	21.0	84	21.6	86	3	65-120/12
218-01-9	Chrysene	25	20.2	81	19.9	80	1	65-114/10
53-70-3	Dibenzo(a,h)anthracene	25	20.1	80	20.0	80	0	57-122/17
206-44-0	Fluoranthene	25	21.5	86	21.4	86	0	70-113/10
86-73-7	Fluorene	25	21.1	84	21.0	84	0	50-112/13
193-39-5	Indeno(1,2,3-cd)pyrene	25	21.2	85	21.1	84	0	58-123/17
90-12-0	1-Methylnaphthalene	25	17.2	69	17.3	69	1	39-107/19
91-57-6	2-Methylnaphthalene	25	18.6	74	18.8	75	1	42-106/18
91-20-3	Naphthalene	25	16.0	64	16.1	64	1	39-110/14
85-01-8	Phenanthrene	25	22.5	90	21.7	87	4	61-109/10
129-00-0	Pyrene	25	24.1	96	23.2	93	4	64-118/15

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
4165-60-0	Nitrobenzene-d5	76%	78%	30-116%
321-60-8	2-Fluorobiphenyl	84%	85%	31-124%
1718-51-0	Terphenyl-d14	106%	107%	57-137%

* = Outside of Control Limits.

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: C42004
Account: SHELLWIC - Shell Oil Company
Project: URSAZP:EQPL Basin Jal Pump Station,NM

QC Batch ID: MP10219
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 09/28/15

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.20	.0042	.08	-0.017	<0.20

Associated samples MP10219: C42004-1F, C42004-2F, C42004-3F, C42004-4F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C42004
 Account: SHELLWIC - Shell Oil Company
 Project: URSAZP:EQPL Basin Jal Pump Station,NM

QC Batch ID: MP10219
 Matrix Type: AQUEOUS

Methods: SW846 7470A
 Units: ug/l

Prep Date: 09/28/15

Metal	C42004-1F Original MS		SpikeLot HGPWS1	% Rec	QC Limits
Mercury	0.061	2.3	2	112.0	75-125

Associated samples MP10219: C42004-1F, C42004-2F, C42004-3F, C42004-4F

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C42004
 Account: SHELLWIC - Shell Oil Company
 Project: URSAZP:EQPL Basin Jal Pump Station,NM

QC Batch ID: MP10219
 Matrix Type: AQUEOUS

Methods: SW846 7470A
 Units: ug/l

Prep Date: 09/28/15

Metal	C42004-1F Original MSD		SpikeLot HGPWS1	% Rec	MSD RPD	QC Limit
Mercury	0.061	2.4	2	117.0	4.3	30

Associated samples MP10219: C42004-1F, C42004-2F, C42004-3F, C42004-4F

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: C42004
 Account: SHELLWIC - Shell Oil Company
 Project: URSAZP:EQPL Basin Jal Pump Station,NM

QC Batch ID: MP10219
 Matrix Type: AQUEOUS

Methods: SW846 7470A
 Units: ug/l

Prep Date: 09/28/15

Metal	BSP Result	SpikeLot HGPWS1	% Rec	QC Limits
-------	---------------	--------------------	-------	--------------

Mercury	2.4	2	120.0(a)	85-115
---------	-----	---	----------	--------

Associated samples MP10219: C42004-1F, C42004-2F, C42004-3F, C42004-4F

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested
 (a) Within 80-120% limits for method SW846 7470A.

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: C42004
Account: SHELLWIC - Shell Oil Company
Project: URSAZP:EQPL Basin Jal Pump Station,NM

QC Batch ID: MP10225
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 09/30/15

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	14	27		
Antimony	6.0	1.2	1.2		
Arsenic	10	1.6	2.5	-0.50	<10
Barium	200	.2	.5	0.0	<200
Beryllium	5.0	.2	.6		
Boron	100	1.8	3.2		
Cadmium	2.0	.2	.3	-0.20	<2.0
Calcium	5000	28	69		
Chromium	10	.4	.6	0.0	<10
Cobalt	5.0	.3	.4		
Copper	10	1.2	1.8		
Iron	200	5.3	11		
Lead	10	1	1.7	0.40	<10
Lithium	50	1.1	2.9		
Magnesium	5000	16	23		
Manganese	15	.2	.2		
Molybdenum	20	.5	.6		
Nickel	5.0	.4	.6		
Potassium	10000	35	35		
Selenium	10	1.7	3.3	-1.4	<10
Silicon	100	2.4	2.4		
Silver	5.0	.5	1.5	-0.10	<5.0
Sodium	10000	11	25		
Strontium	10	.1	.2		
Thallium	10	1.7	4.8		
Tin	50	.8	1.3		
Titanium	10	.8	.8		
Vanadium	10	.6	.6		
Zinc	20	.5	3.1		

Associated samples MP10225: C42004-1F, C42004-2F, C42004-3F, C42004-4F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C42004
 Account: SHELLWIC - Shell Oil Company
 Project: URSAZP:EQPL Basin Jal Pump Station,NM

QC Batch ID: MP10225
 Matrix Type: AQUEOUS

Methods: SW846 6010B
 Units: ug/l

Prep Date: 09/30/15

Metal	C42004-1F Original MS		SpikeLot MPIR5	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic	9.6	521	500	102.3	75-125
Barium	33.4	512	500	95.7	75-125
Beryllium					
Boron					
Cadmium	0.50	503	500	100.5	75-125
Calcium					
Chromium	0.0	478	500	95.6	75-125
Cobalt					
Copper					
Iron					
Lead	5.0	461	500	91.2	75-125
Lithium					
Magnesium					
Manganese					
Molybdenum					
Nickel					
Potassium					
Selenium	49.1	561	500	102.4	75-125
Silicon					
Silver	0.0	489	500	97.8	75-125
Sodium					
Strontium					
Thallium					
Tin					
Titanium					
Vanadium					
Zinc					

Associated samples MP10225: C42004-1F, C42004-2F, C42004-3F, C42004-4F

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C42004
 Account: SHELLWIC - Shell Oil Company
 Project: URSAZP:EQPL Basin Jal Pump Station,NM

QC Batch ID: MP10225
 Matrix Type: AQUEOUS

Methods: SW846 6010B
 Units: ug/l

Prep Date: 09/30/15

Metal	C42004-1F Original	MSD	Spike/lot MPIR5	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	9.6	525	500	103.1	0.8	20
Barium	33.4	516	500	96.5	0.8	20
Beryllium						
Boron						
Cadmium	0.50	507	500	101.3	0.8	20
Calcium						
Chromium	0.0	486	500	97.2	1.7	20
Cobalt						
Copper						
Iron						
Lead	5.0	465	500	92.0	0.9	20
Lithium						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium	49.1	568	500	103.8	1.2	20
Silicon						
Silver	0.0	491	500	98.2	0.4	20
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

Associated samples MP10225: C42004-1F, C42004-2F, C42004-3F, C42004-4F

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: C42004
 Account: SHELLWIC - Shell Oil Company
 Project: URSAZP:EQPL Basin Jal Pump Station,NM

QC Batch ID: MP10225
 Matrix Type: AQUEOUS

Methods: SW846 6010B
 Units: ug/l

Prep Date: 09/30/15

Metal	BSP Result	SpikeLot MPIR5	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	473	500	94.6	80-120
Barium	495	500	99.0	80-120
Beryllium				
Boron				
Cadmium	484	500	96.8	80-120
Calcium				
Chromium	512	500	102.4	80-120
Cobalt				
Copper				
Iron				
Lead	467	500	93.4	80-120
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium	469	500	93.8	80-120
Silicon				
Silver	465	500	93.0	80-120
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP10225: C42004-1F, C42004-2F, C42004-3F, C42004-4F

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: C42004
 Account: SHELLWIC - Shell Oil Company
 Project: URSAZP:EQPL Basin Jal Pump Station,NM

QC Batch ID: MP10225
 Matrix Type: AQUEOUS

Methods: SW846 6010B
 Units: ug/l

Prep Date: 09/30/15

Metal	C42004-1F Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	9.60	0.00	100.0(a)	0-10
Barium	33.4	39.7	18.9*(b)	0-10
Beryllium				
Boron				
Cadmium	0.500	0.00	100.0(a)	0-10
Calcium				
Chromium	0.00	0.00	NC	0-10
Cobalt				
Copper				
Iron				
Lead	5.00	0.00	100.0(a)	0-10
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium	49.1	51.3	4.5	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP10225: C42004-1F, C42004-2F, C42004-3F, C42004-4F

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

(b) Serial dilution indicates possible matrix interference.



10/12/15

Technical Report for

Shell Oil Company

URSAZP:EQPL Basin Jal Pump Station, NM

60410985

Accutest Job Number: C42006

Sampling Date: 09/24/15

Report to:

AECOM, INC.
7720 North 16th Avenue, Suite 100
Phoenix, AZ 85020
iain.olness@aecom.com

ATTN: Iain Olness

Total number of pages in report: **53**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

A handwritten signature in black ink, appearing to read 'James J. Rhudy'.

James J. Rhudy
Lab Director

Client Service contact: Nutan Kabir 408-588-0200

Certifications: CA (ELAP 2910) AK (UST-092) AZ (AZ0762) NV (CA00150) OR (CA300006) WA (C925)
DoD ELAP (L-A-B L2242)

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Test results relate only to samples analyzed.

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Sample Summary

Shell Oil Company

Job No: C42006

URSAZP:EQPL Basin Jal Pump Station, NM

Project No: 60410985

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
C42006-1	09/24/15	08:55	09/26/15	AQ	Ground Water	MW-01
C42006-1F	09/24/15	08:55	09/26/15	AQ	Groundwater Filtered	MW-01
C42006-2	09/24/15	08:55	09/26/15	AQ	Ground Water	MW-05
C42006-2F	09/24/15	08:55	09/26/15	AQ	Groundwater Filtered	MW-05
C42006-3	09/24/15	10:50	09/26/15	AQ	Ground Water	MW-15
C42006-3F	09/24/15	10:50	09/26/15	AQ	Groundwater Filtered	MW-15
C42006-4	09/24/15	13:56	09/26/15	AQ	Ground Water	MW-18
C42006-4F	09/24/15	13:56	09/26/15	AQ	Groundwater Filtered	MW-18
C42006-5	09/24/15	15:45	09/26/15	AQ	Ground Water	MW-22
C42006-5F	09/24/15	15:45	09/26/15	AQ	Groundwater Filtered	MW-22
C42006-6	09/24/15	16:35	09/26/15	AQ	Ground Water	MW-06
C42006-6F	09/24/15	16:35	09/26/15	AQ	Groundwater Filtered	MW-06
C42006-7	09/24/15	09:00	09/26/15	AQ	Ground Water	MW-13



Sample Summary
(continued)

Shell Oil Company

Job No: C42006

URSAZP:EQPL Basin Jal Pump Station,NM
Project No: 60410985

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
C42006-7F	09/24/15	09:00	09/26/15	AQ	Groundwater Filtered	MW-13
C42006-8	09/24/15	00:00	09/26/15	AQ	Trip Blank Water	TRIP BLANK

Summary of Hits

Job Number: C42006
Account: Shell Oil Company
Project: URSAZP:EQPL Basin Jal Pump Station,NM
Collected: 09/24/15

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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C42006-1 MW-01

No hits reported in this sample.

C42006-1F MW-01

Arsenic	11.0	10		ug/l	SW846 6010B
Selenium	15.8	10		ug/l	SW846 6010B

C42006-2 MW-05

No hits reported in this sample.

C42006-2F MW-05

Arsenic	15.9	10		ug/l	SW846 6010B
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C42006-3 MW-15

No hits reported in this sample.

C42006-3F MW-15

Arsenic	15.6	10		ug/l	SW846 6010B
Selenium	30.3	10		ug/l	SW846 6010B

C42006-4 MW-18

Benzene ^a	2.4 J	10	2.0	ug/l	SW846 8260B
Ethylbenzene ^a	9.9 J	10	2.0	ug/l	SW846 8260B
Xylene (total) ^a	31.2	20	4.6	ug/l	SW846 8260B
Fluorene	3.7 J	5.0	1.5	ug/l	SW846 8270C
1-Methylnaphthalene	10.7	5.0	1.3	ug/l	SW846 8270C
2-Methylnaphthalene	8.2	5.0	1.3	ug/l	SW846 8270C
Naphthalene	5.2	5.0	1.2	ug/l	SW846 8270C
Phenanthrene	3.3 J	5.0	1.3	ug/l	SW846 8270C
Pyrene	2.0 J	5.0	1.6	ug/l	SW846 8270C

C42006-4F MW-18

Arsenic	15.9	10		ug/l	SW846 6010B
Barium	1430	200		ug/l	SW846 6010B

Summary of Hits

Page 2 of 2

Job Number: C42006
Account: Shell Oil Company
Project: URSAZP:EQPL Basin Jal Pump Station,NM
Collected: 09/24/15

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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C42006-5 **MW-22**

No hits reported in this sample.

C42006-5F **MW-22**

Arsenic	14.1	10		ug/l	SW846 6010B
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C42006-6 **MW-06**

Fluorene	1.7 J	4.9	1.5	ug/l	SW846 8270C
1-Methylnaphthalene	5.8	4.9	1.3	ug/l	SW846 8270C
2-Methylnaphthalene	1.4 J	4.9	1.3	ug/l	SW846 8270C
Naphthalene	3.2 J	4.9	1.2	ug/l	SW846 8270C

C42006-6F **MW-06**

Arsenic	31.7	10		ug/l	SW846 6010B
Barium	246	200		ug/l	SW846 6010B

C42006-7 **MW-13**

No hits reported in this sample.

C42006-7F **MW-13**

Arsenic	15.5	10		ug/l	SW846 6010B
---------	------	----	--	------	-------------

C42006-8 **TRIP BLANK**

No hits reported in this sample.

(a) Dilution required due to nature of sample matrix.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW-01	Date Sampled:	09/24/15
Lab Sample ID:	C42006-1	Date Received:	09/26/15
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	URSAZP:EQPL Basin Jal Pump Station, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U30392.D	1	10/07/15	JC	n/a	n/a	VU1234
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.46	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	86%		78-125%
2037-26-5	Toluene-D8	93%		86-114%
460-00-4	4-Bromofluorobenzene	90%		80-113%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-01	Date Sampled:	09/24/15
Lab Sample ID:	C42006-1	Date Received:	09/26/15
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	URSAZP:EQPL Basin Jal Pump Station, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z11848.D	1	09/28/15	MT	09/28/15	OP13167	EZ570
Run #2							

	Initial Volume	Final Volume
Run #1	1010 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	1.3	ug/l	
208-96-8	Acenaphthylene	ND	5.0	1.2	ug/l	
120-12-7	Anthracene	ND	5.0	1.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	1.4	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	1.1	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	1.3	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	1.5	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	1.4	ug/l	
218-01-9	Chrysene	ND	5.0	1.6	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	1.3	ug/l	
206-44-0	Fluoranthene	ND	5.0	1.4	ug/l	
86-73-7	Fluorene	ND	5.0	1.5	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	1.3	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	1.3	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	1.3	ug/l	
91-20-3	Naphthalene	ND	5.0	1.2	ug/l	
85-01-8	Phenanthrene	ND	5.0	1.3	ug/l	
129-00-0	Pyrene	ND	5.0	1.6	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	79%		30-116%
321-60-8	2-Fluorobiphenyl	75%		31-124%
1718-51-0	Terphenyl-d14	78%		57-137%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-01**Lab Sample ID:** C42006-1F**Matrix:** AQ - Groundwater Filtered**Date Sampled:** 09/24/15**Date Received:** 09/26/15**Percent Solids:** n/a**Project:** URSAZP:EQPL Basin Jal Pump Station, NM**Dissolved Metals Analysis**

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	11.0	10	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ³
Barium	< 200	200	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ³
Cadmium	< 2.0	2.0	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ³
Chromium	< 10	10	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ³
Lead	< 10	10	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ³
Mercury	< 0.20	0.20	ug/l	1	10/05/15	10/06/15 EB	SW846 7470A ²	SW846 7470A ⁴
Selenium	15.8	10	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ³
Silver	< 5.0	5.0	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ³

(1) Instrument QC Batch: MA5252

(2) Instrument QC Batch: MA5267

(3) Prep QC Batch: MP10225

(4) Prep QC Batch: MP10248

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-05	Date Sampled:	09/24/15
Lab Sample ID:	C42006-2	Date Received:	09/26/15
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	URSAZP:EQPL Basin Jal Pump Station, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U30393.D	1	10/07/15	JC	n/a	n/a	VU1234
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.46	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	83%		78-125%
2037-26-5	Toluene-D8	94%		86-114%
460-00-4	4-Bromofluorobenzene	90%		80-113%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-05	Date Sampled:	09/24/15
Lab Sample ID:	C42006-2	Date Received:	09/26/15
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	URSAZP:EQPL Basin Jal Pump Station, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z11849.D	1	09/28/15	MT	09/28/15	OP13167	EZ570
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	1.3	ug/l	
208-96-8	Acenaphthylene	ND	5.0	1.2	ug/l	
120-12-7	Anthracene	ND	5.0	1.3	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	1.4	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	1.1	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	1.3	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	1.5	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	1.4	ug/l	
218-01-9	Chrysene	ND	5.0	1.6	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	1.3	ug/l	
206-44-0	Fluoranthene	ND	5.0	1.5	ug/l	
86-73-7	Fluorene	ND	5.0	1.5	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	1.4	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	1.3	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	1.3	ug/l	
91-20-3	Naphthalene	ND	5.0	1.2	ug/l	
85-01-8	Phenanthrene	ND	5.0	1.3	ug/l	
129-00-0	Pyrene	ND	5.0	1.6	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	75%		30-116%
321-60-8	2-Fluorobiphenyl	71%		31-124%
1718-51-0	Terphenyl-d14	74%		57-137%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-05	Date Sampled: 09/24/15
Lab Sample ID: C42006-2F	Date Received: 09/26/15
Matrix: AQ - Groundwater Filtered	Percent Solids: n/a
Project: URSAZP:EQPL Basin Jal Pump Station, NM	

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	15.9	10	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Barium	< 200	200	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Cadmium	< 2.0	2.0	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Chromium	< 10	10	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Lead	< 10	10	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Mercury	< 0.20	0.20	ug/l	1	09/28/15	10/02/15 EB	SW846 7470A ²	SW846 7470A ³
Selenium	< 10	10	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Silver	< 5.0	5.0	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴

(1) Instrument QC Batch: MA5252

(2) Instrument QC Batch: MA5259

(3) Prep QC Batch: MP10219

(4) Prep QC Batch: MP10225

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-15	Date Sampled:	09/24/15
Lab Sample ID:	C42006-3	Date Received:	09/26/15
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	URSAZP:EQPL Basin Jal Pump Station, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U30394.D	1	10/07/15	JC	n/a	n/a	VU1234
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.46	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	85%		78-125%
2037-26-5	Toluene-D8	94%		86-114%
460-00-4	4-Bromofluorobenzene	88%		80-113%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-15	Date Sampled:	09/24/15
Lab Sample ID:	C42006-3	Date Received:	09/26/15
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	URSAZP:EQPL Basin Jal Pump Station, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z11850.D	1	09/28/15	MT	09/28/15	OP13167	EZ570
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	1.3	ug/l	
208-96-8	Acenaphthylene	ND	5.0	1.2	ug/l	
120-12-7	Anthracene	ND	5.0	1.3	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	1.4	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	1.1	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	1.3	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	1.5	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	1.4	ug/l	
218-01-9	Chrysene	ND	5.0	1.6	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	1.3	ug/l	
206-44-0	Fluoranthene	ND	5.0	1.5	ug/l	
86-73-7	Fluorene	ND	5.0	1.5	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	1.4	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	1.3	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	1.3	ug/l	
91-20-3	Naphthalene	ND	5.0	1.2	ug/l	
85-01-8	Phenanthrene	ND	5.0	1.3	ug/l	
129-00-0	Pyrene	ND	5.0	1.6	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	81%		30-116%
321-60-8	2-Fluorobiphenyl	77%		31-124%
1718-51-0	Terphenyl-d14	84%		57-137%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-15	Date Sampled: 09/24/15
Lab Sample ID: C42006-3F	Date Received: 09/26/15
Matrix: AQ - Groundwater Filtered	Percent Solids: n/a
Project: URSAZP:EQPL Basin Jal Pump Station, NM	

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	15.6	10	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Barium	< 200	200	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Cadmium	< 2.0	2.0	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Chromium	< 10	10	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Lead	< 10	10	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Mercury	< 0.20	0.20	ug/l	1	09/28/15	10/02/15 EB	SW846 7470A ²	SW846 7470A ³
Selenium	30.3	10	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Silver	< 5.0	5.0	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴

(1) Instrument QC Batch: MA5252

(2) Instrument QC Batch: MA5259

(3) Prep QC Batch: MP10219

(4) Prep QC Batch: MP10225

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-18	Date Sampled:	09/24/15
Lab Sample ID:	C42006-4	Date Received:	09/26/15
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	URSAZP:EQPL Basin Jal Pump Station, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	U30398.D	10	10/07/15	JC	n/a	n/a	VU1234
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	2.4	10	2.0	ug/l	J
108-88-3	Toluene	ND	10	2.0	ug/l	
100-41-4	Ethylbenzene	9.9	10	2.0	ug/l	J
1330-20-7	Xylene (total)	31.2	20	4.6	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	87%		78-125%
2037-26-5	Toluene-D8	93%		86-114%
460-00-4	4-Bromofluorobenzene	89%		80-113%

(a) Dilution required due to nature of sample matrix.

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-18	Date Sampled:	09/24/15
Lab Sample ID:	C42006-4	Date Received:	09/26/15
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	URSAZP:EQPL Basin Jal Pump Station, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z11851.D	1	09/28/15	MT	09/28/15	OP13167	EZ570
Run #2							

	Initial Volume	Final Volume
Run #1	1010 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	1.3	ug/l	
208-96-8	Acenaphthylene	ND	5.0	1.2	ug/l	
120-12-7	Anthracene	ND	5.0	1.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	1.4	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	1.1	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	1.3	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	1.5	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	1.4	ug/l	
218-01-9	Chrysene	ND	5.0	1.6	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	1.3	ug/l	
206-44-0	Fluoranthene	ND	5.0	1.4	ug/l	
86-73-7	Fluorene	3.7	5.0	1.5	ug/l	J
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	1.3	ug/l	
90-12-0	1-Methylnaphthalene	10.7	5.0	1.3	ug/l	
91-57-6	2-Methylnaphthalene	8.2	5.0	1.3	ug/l	
91-20-3	Naphthalene	5.2	5.0	1.2	ug/l	
85-01-8	Phenanthrene	3.3	5.0	1.3	ug/l	J
129-00-0	Pyrene	2.0	5.0	1.6	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	52%		30-116%
321-60-8	2-Fluorobiphenyl	43%		31-124%
1718-51-0	Terphenyl-d14	47% ^a		57-137%

(a) Outside of control limits due matrix interference (heavy emulsion formed during extraction process).

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-18	Date Sampled: 09/24/15
Lab Sample ID: C42006-4F	Date Received: 09/26/15
Matrix: AQ - Groundwater Filtered	Percent Solids: n/a
Project: URSAZP:EQPL Basin Jal Pump Station, NM	

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	15.9	10	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Barium	1430	200	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Cadmium	< 2.0	2.0	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Chromium	< 10	10	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Lead	< 10	10	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Mercury	< 0.20	0.20	ug/l	1	09/28/15	10/02/15 EB	SW846 7470A ²	SW846 7470A ³
Selenium	< 10	10	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Silver	< 5.0	5.0	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴

(1) Instrument QC Batch: MA5252

(2) Instrument QC Batch: MA5259

(3) Prep QC Batch: MP10219

(4) Prep QC Batch: MP10225

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-22	Date Sampled:	09/24/15
Lab Sample ID:	C42006-5	Date Received:	09/26/15
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	URSAZP:EQPL Basin Jal Pump Station, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	U30399.D	10	10/07/15	JC	n/a	n/a	VU1234
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	10	2.0	ug/l	
108-88-3	Toluene	ND	10	2.0	ug/l	
100-41-4	Ethylbenzene	ND	10	2.0	ug/l	
1330-20-7	Xylene (total)	ND	20	4.6	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		78-125%
2037-26-5	Toluene-D8	94%		86-114%
460-00-4	4-Bromofluorobenzene	92%		80-113%

(a) Dilution required due to nature of sample matrix.

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-22	Date Sampled:	09/24/15
Lab Sample ID:	C42006-5	Date Received:	09/26/15
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	URSAZP:EQPL Basin Jal Pump Station, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z11852.D	1	09/28/15	MT	09/28/15	OP13167	EZ570
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	1.3	ug/l	
208-96-8	Acenaphthylene	ND	5.0	1.2	ug/l	
120-12-7	Anthracene	ND	5.0	1.3	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	1.4	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	1.1	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	1.3	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	1.5	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	1.4	ug/l	
218-01-9	Chrysene	ND	5.0	1.6	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	1.3	ug/l	
206-44-0	Fluoranthene	ND	5.0	1.5	ug/l	
86-73-7	Fluorene	ND	5.0	1.5	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	1.4	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	1.3	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	1.3	ug/l	
91-20-3	Naphthalene	ND	5.0	1.2	ug/l	
85-01-8	Phenanthrene	ND	5.0	1.3	ug/l	
129-00-0	Pyrene	ND	5.0	1.6	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	63%		30-116%
321-60-8	2-Fluorobiphenyl	53%		31-124%
1718-51-0	Terphenyl-d14	59%		57-137%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-22	Date Sampled: 09/24/15
Lab Sample ID: C42006-5F	Date Received: 09/26/15
Matrix: AQ - Groundwater Filtered	Percent Solids: n/a
Project: URSAZP:EQPL Basin Jal Pump Station, NM	

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	14.1	10	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Barium	< 200	200	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Cadmium	< 2.0	2.0	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Chromium	< 10	10	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Lead	< 10	10	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Mercury	< 0.20	0.20	ug/l	1	09/28/15	10/02/15 EB	SW846 7470A ²	SW846 7470A ³
Selenium	< 10	10	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Silver	< 5.0	5.0	ug/l	1	09/30/15	09/30/15 RS	SW846 6010B ¹	SW846 3010A ⁴

(1) Instrument QC Batch: MA5252

(2) Instrument QC Batch: MA5259

(3) Prep QC Batch: MP10219

(4) Prep QC Batch: MP10225

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-06	Date Sampled:	09/24/15
Lab Sample ID:	C42006-6	Date Received:	09/26/15
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	URSAZP:EQPL Basin Jal Pump Station, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	U30400.D	50	10/07/15	JC	n/a	n/a	VU1234
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	50	10	ug/l	
108-88-3	Toluene	ND	50	10	ug/l	
100-41-4	Ethylbenzene	ND	50	10	ug/l	
1330-20-7	Xylene (total)	ND	100	23	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%		78-125%
2037-26-5	Toluene-D8	92%		86-114%
460-00-4	4-Bromofluorobenzene	89%		80-113%

(a) Dilution required due to nature of sample matrix.

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-06	Date Sampled:	09/24/15
Lab Sample ID:	C42006-6	Date Received:	09/26/15
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	URSAZP:EQPL Basin Jal Pump Station, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z11853.D	1	09/29/15	MT	09/28/15	OP13167	EZ570
Run #2							

	Initial Volume	Final Volume
Run #1	1020 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	4.9	1.3	ug/l	
208-96-8	Acenaphthylene	ND	4.9	1.1	ug/l	
120-12-7	Anthracene	ND	4.9	1.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	4.9	1.4	ug/l	
50-32-8	Benzo(a)pyrene	ND	4.9	1.1	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	4.9	1.3	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	4.9	1.4	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	4.9	1.4	ug/l	
218-01-9	Chrysene	ND	4.9	1.6	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	4.9	1.2	ug/l	
206-44-0	Fluoranthene	ND	4.9	1.4	ug/l	
86-73-7	Fluorene	1.7	4.9	1.5	ug/l	J
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.9	1.3	ug/l	
90-12-0	1-Methylnaphthalene	5.8	4.9	1.3	ug/l	
91-57-6	2-Methylnaphthalene	1.4	4.9	1.3	ug/l	J
91-20-3	Naphthalene	3.2	4.9	1.2	ug/l	J
85-01-8	Phenanthrene	ND	4.9	1.3	ug/l	
129-00-0	Pyrene	ND	4.9	1.5	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	59%		30-116%
321-60-8	2-Fluorobiphenyl	46%		31-124%
1718-51-0	Terphenyl-d14	55% ^a		57-137%

(a) Outside of control limits due matrix interference (heavy emulsion formed during extraction process).

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-06	Date Sampled: 09/24/15
Lab Sample ID: C42006-6F	Date Received: 09/26/15
Matrix: AQ - Groundwater Filtered	Percent Solids: n/a
Project: URSAZP:EQPL Basin Jal Pump Station, NM	

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	31.7	10	ug/l	1	09/30/15	10/01/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Barium	246	200	ug/l	1	09/30/15	10/01/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Cadmium	< 2.0	2.0	ug/l	1	09/30/15	10/01/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Chromium	< 10	10	ug/l	1	09/30/15	10/01/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Lead	< 10	10	ug/l	1	09/30/15	10/01/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Mercury	< 0.20	0.20	ug/l	1	09/28/15	10/02/15 EB	SW846 7470A ²	SW846 7470A ³
Selenium	< 10	10	ug/l	1	09/30/15	10/01/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Silver	< 5.0	5.0	ug/l	1	09/30/15	10/01/15 RS	SW846 6010B ¹	SW846 3010A ⁴

(1) Instrument QC Batch: MA5252

(2) Instrument QC Batch: MA5259

(3) Prep QC Batch: MP10219

(4) Prep QC Batch: MP10225

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-13	Date Sampled:	09/24/15
Lab Sample ID:	C42006-7	Date Received:	09/26/15
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	URSAZP:EQPL Basin Jal Pump Station, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U30395.D	1	10/07/15	JC	n/a	n/a	VU1234
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.46	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	86%		78-125%
2037-26-5	Toluene-D8	94%		86-114%
460-00-4	4-Bromofluorobenzene	89%		80-113%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-13	Date Sampled:	09/24/15
Lab Sample ID:	C42006-7	Date Received:	09/26/15
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C		
Project:	URSAZP:EQPL Basin Jal Pump Station, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z11882.D	1	09/30/15	MT	09/28/15	OP13167	EZ571
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	1.3	ug/l	
208-96-8	Acenaphthylene	ND	5.0	1.2	ug/l	
120-12-7	Anthracene	ND	5.0	1.3	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	1.4	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	1.1	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	1.3	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	1.5	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	1.4	ug/l	
218-01-9	Chrysene	ND	5.0	1.6	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	1.3	ug/l	
206-44-0	Fluoranthene	ND	5.0	1.5	ug/l	
86-73-7	Fluorene	ND	5.0	1.5	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	1.4	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	1.3	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	1.3	ug/l	
91-20-3	Naphthalene	ND	5.0	1.2	ug/l	
85-01-8	Phenanthrene	ND	5.0	1.3	ug/l	
129-00-0	Pyrene	ND	5.0	1.6	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	79%		30-116%
321-60-8	2-Fluorobiphenyl	79%		31-124%
1718-51-0	Terphenyl-d14	101%		57-137%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-13	Date Sampled:	09/24/15
Lab Sample ID:	C42006-7F	Date Received:	09/26/15
Matrix:	AQ - Groundwater Filtered	Percent Solids:	n/a
Project:	URSAZP:EQPL Basin Jal Pump Station, NM		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	15.5	10	ug/l	1	09/30/15	10/01/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Barium	< 200	200	ug/l	1	09/30/15	10/01/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Cadmium	< 2.0	2.0	ug/l	1	09/30/15	10/01/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Chromium	< 10	10	ug/l	1	09/30/15	10/01/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Lead	< 10	10	ug/l	1	09/30/15	10/01/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Mercury	< 0.20	0.20	ug/l	1	09/28/15	10/02/15 EB	SW846 7470A ²	SW846 7470A ³
Selenium	< 10	10	ug/l	1	09/30/15	10/01/15 RS	SW846 6010B ¹	SW846 3010A ⁴
Silver	< 5.0	5.0	ug/l	1	09/30/15	10/01/15 RS	SW846 6010B ¹	SW846 3010A ⁴

(1) Instrument QC Batch: MA5252

(2) Instrument QC Batch: MA5259

(3) Prep QC Batch: MP10219

(4) Prep QC Batch: MP10225

RL = Reporting Limit

Report of Analysis

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3.15

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Client Sample ID:	TRIP BLANK	Date Sampled:	09/24/15
Lab Sample ID:	C42006-8	Date Received:	09/26/15
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	URSAZP:EQPL Basin Jal Pump Station, NM		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U30387.D	1	10/07/15	JC	n/a	n/a	VU1234
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.46	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	85%		78-125%
2037-26-5	Toluene-D8	94%		86-114%
460-00-4	4-Bromofluorobenzene	88%		80-113%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

FEDER 8076 0435 9858

LAB (LOCATION)		Please Check Appropriate Box:		Print Bill To Contact Name:		INCIDENT # (ENV SERVICES)		CHECK IF NO INCIDENT # APPLIES	
☐ ACCUTEST ()	☐ CALSCIENCE ()	☐ ENV. SERVICES	☐ MOTIVA RETAIL	☐ SHELL RETAIL	Iain Olness		DATE: 9/24/2015		
☐ TESTAMERICA ()	☐ Other ()	☐ MOTIVA SO&CH	☐ CONSULTANT	☐ LUBES	PO #		SAP #		
Lab Vendor # See Dropdown		☐ SHELL PIPELINE	☐ OTHER		State		GLOBAL ID NO:		
SAMPLING COMPANY: URS Corporation		LOG CODE:		SITE ADDRESS: Street and City		EQPL Basin Jal Pump Station		EDF DELIVERABLE TO (Name, Company, Office Location)	
ADDRESS: 7720 N. 16th Street, Suite 100, Peoria, AZ 85020		PHONE NO: 602-648-2402		E-MAIL: iain.olness@aecon.com		CONSULTANT PROJECT NO: 604/0985		LAB USE ONLY	
PROJECT CONTACT (Hardcopy or PDF Report): Iain Olness		BILL TO CONTACT E-MAIL: iain.olness@aecon.com		SAMPLER NAME(S) (Print): Ricky Mrazik and Kyle Wicks		LAB USE ONLY: C42006			
TELEPHONE: 602-371-1100		FAX: 602-371-1615		TURNAROUND TIME (CALENDAR DAYS):		REQUESTED ANALYSIS			
☐ STANDARD (14 DAY)		☐ 5 DAYS		☐ 3 DAYS		☐ 2 DAYS		☐ 24 HOURS	
☐ LA - RWQCB REPORT FORMAT		☐ UST AGENCY:		☐ RESULTS NEEDED ON WEEKEND		UNIT COST		NON-UNIT COST	
DELIVERABLES: ☐ LEVEL 1 ☐ LEVEL 2 ☐ LEVEL 3 ☐ LEVEL 4 ☐ OTHER (SPECIFY)		TEMPERATURE ON RECEIPT C°		Cooler #1		Cooler #2		Cooler #3	
SPECIAL INSTRUCTIONS OR NOTES:		SHELL CONTRACT RATE APPLIES		STATE REIMBURSEMENT RATE APPLIES		EOD NOT NEEDED		RECEIPT VERIFICATION REQUESTED	
Please send an electronic copy of the final lab report and the lab EDD to swalker@geiconsultants.com.		PROVIDE LDD DISK							
FIELD SAMPLE IDENTIFICATION		SAMPLING		MATRIX		PRESERVATIVE		NO. OF CONT.	
		DATE		TIME		HCL		HNO3	
						H2SO4		NONE	
						OTHER			
1	MW-01	9/24/15	0855	Water	3		3	6	3 2 1
2	MW-05		0955		3		3	6	3 2 1
3	MW-15		1050		3		3	6	3 2 1
4	MW-19		1254		3		3	6	3 2 1
5	MW-22		1545		3		3	6	3 2 1
6	MW-06		1635		3		3	6	3 2 1
7	MW-13	9/25/15	0955	Water	3		3	6	3 2 1
8	TRIP BLANK							2	
Requested by (Signature): Bur Mrazik		Received by (Signature): Fed Ex		Date: 9/25/2015		Time: 12:40			
Requested by (Signature): FEDER		Received by (Signature): LaB...		Date: 9/26/15		Time: 1025			
Requested by (Signature):		Received by (Signature):		Date:		Time:			

* TRIP BLANK NOT LISTED ON COC

DB

C42006: Chain of Custody

Page 1 of 2



Accutest Laboratories Sample Receipt Summary

Accutest Job Number: C42006 Client: SHELL OIL Project: EQPL BASIN JAL PUMP STATION
Date / Time Received: 9/26/2015 10:25:00 AM Delivery Method: FedEx Airbill #'s: 807604359958
Cooler Temps (Initial/Adjusted): #1: (3.1/3.1):

Cooler Security

	Y	or	N			Y	or	N
1. Custody Seals Present:	☒		☐	3. COC Present:		☒		☐
2. Custody Seals Intact:	☒		☐	4. Smpl Dates/Time OK		☒		☐

Cooler Temperature

	Y	or	N
1. Temp criteria achieved:	☒		☐
2. Therm ID:	IR1;		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

Quality Control Preservation

	Y	or	N	N/A
1. Trip Blank present / cooler:	☒		☐	☐
2. Trip Blank listed on COC:	☒		☐	☐
3. Samples preserved properly:	☒		☐	
4. VOCs headspace free:	☒		☐	☐

Sample Integrity - Documentation

	Y	or	N
1. Sample labels present on bottles:	☒		☐
2. Container labeling complete:	☒		☐
3. Sample container label / COC agree:	☒		☐

Sample Integrity - Condition

	Y	or	N
1. Sample recvd within HT:	☒		☐
2. All containers accounted for:	☒		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions

	Y	or	N	N/A
1. Analysis requested is clear:	☒		☐	
2. Bottles received for unspecified tests	☐		☒	
3. Sufficient volume recvd for analysis:	☒		☐	
4. Compositing instructions clear:	☐		☐	☒
5. Filtering instructions clear:	☐		☐	☒

Comments TRIP BLANKS NOT LISTED ON COC

Accutest Laboratories
V: 408.588.0200

2105 Lundy Avenue
F: 408.588.0201

San Jose, CA 95131
www.accutest.com

C42006: Chain of Custody
Page 2 of 2

GC/MS Volatiles

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QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 1

Job Number: C42006
Account: SHELLWIC Shell Oil Company
Project: URSAZP:EQPL Basin Jal Pump Station,NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1234-MB	U30386.D	1	10/07/15	JC	n/a	n/a	VU1234

The QC reported here applies to the following samples:

Method: SW846 8260B

C42006-1, C42006-2, C42006-3, C42006-4, C42006-5, C42006-6, C42006-7, C42006-8

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.46	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	83% 78-125%
2037-26-5	Toluene-D8	96% 86-114%
460-00-4	4-Bromofluorobenzene	89% 80-113%

Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

Job Number: C42006

Account: SHELLWIC Shell Oil Company

Project: URSAZP:EQPL Basin Jal Pump Station,NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1234-BS	U30383.D	1	10/06/15	JC	n/a	n/a	VU1234
VU1234-BSD	U30384.D	1	10/06/15	JC	n/a	n/a	VU1234

The QC reported here applies to the following samples:

Method: SW846 8260B

C42006-1, C42006-2, C42006-3, C42006-4, C42006-5, C42006-6, C42006-7, C42006-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	20.6	103	19.7	99	4	77-118/10
100-41-4	Ethylbenzene	20	21.8	109	20.9	105	4	78-121/10
108-88-3	Toluene	20	21.6	108	20.6	103	5	78-120/10
1330-20-7	Xylene (total)	60	61.2	102	58.6	98	4	78-122/10

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	88%	89%	78-125%
2037-26-5	Toluene-D8	93%	93%	86-114%
460-00-4	4-Bromofluorobenzene	93%	93%	80-113%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: C42006
Account: SHELLWIC Shell Oil Company
Project: URSAZP:EQPL Basin Jal Pump Station,NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C41992-4MS	U30401.D	500	10/07/15	JC	n/a	n/a	VU1234
C41992-4MSD	U30402.D	500	10/07/15	JC	n/a	n/a	VU1234
C41992-4	U30396.D	500	10/07/15	JC	n/a	n/a	VU1234

The QC reported here applies to the following samples:

Method: SW846 8260B

C42006-1, C42006-2, C42006-3, C42006-4, C42006-5, C42006-6, C42006-7, C42006-8

CAS No.	Compound	C41992-4 ug/l	Spike Q ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	7300	10000	17000	97	10000	17000	97	0	77-118/10
100-41-4	Ethylbenzene	2590	10000	13300	107	10000	14700	121	10	78-121/10
108-88-3	Toluene	13100	10000	23800	107	10000	25200	121* a	6	78-120/10
1330-20-7	Xylene (total)	11400	30000	43100	106	30000	49000	125* a	13* a	78-122/10

CAS No.	Surrogate Recoveries	MS	MSD	C41992-4	Limits
1868-53-7	Dibromofluoromethane	93%	93%	90%	78-125%
2037-26-5	Toluene-D8	92%	93%	93%	86-114%
460-00-4	4-Bromofluorobenzene	93%	94%	90%	80-113%

(a) Outside laboratory control limits.

* = Outside of Control Limits.

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Page 1 of 1

Job Number: C42006
Account: SHELLWIC Shell Oil Company
Project: URSAZP:EQPL Basin Jal Pump Station,NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP13167-MB	Z11834A.D	1	09/28/15	MT	09/28/15	OP13167	EZ570

The QC reported here applies to the following samples:

Method: SW846 8270C

C42006-1, C42006-2, C42006-3, C42006-4, C42006-5, C42006-6, C42006-7

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	5.0	1.3	ug/l	
208-96-8	Acenaphthylene	ND	5.0	1.2	ug/l	
120-12-7	Anthracene	ND	5.0	1.3	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	1.4	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	1.1	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	1.3	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	1.5	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	1.4	ug/l	
218-01-9	Chrysene	ND	5.0	1.6	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	1.3	ug/l	
206-44-0	Fluoranthene	ND	5.0	1.5	ug/l	
86-73-7	Fluorene	ND	5.0	1.5	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	1.4	ug/l	
90-12-0	1-Methylnaphthalene	ND	5.0	1.3	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	1.3	ug/l	
91-20-3	Naphthalene	ND	5.0	1.2	ug/l	
85-01-8	Phenanthrene	ND	5.0	1.3	ug/l	
129-00-0	Pyrene	ND	5.0	1.6	ug/l	

CAS No.	Surrogate Recoveries	Limits
4165-60-0	Nitrobenzene-d5	85% 30-116%
321-60-8	2-Fluorobiphenyl	89% 31-124%
1718-51-0	Terphenyl-d14	116% 57-137%

Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

Job Number: C42006
Account: SHELLWIC Shell Oil Company
Project: URSAZP:EQPL Basin Jal Pump Station,NM

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP13167-BS	Z11835A.D	1	09/28/15	MT	09/28/15	OP13167	EZ570
OP13167-BSD	Z11836A.D	1	09/28/15	MT	09/28/15	OP13167	EZ570

The QC reported here applies to the following samples:

Method: SW846 8270C

C42006-1, C42006-2, C42006-3, C42006-4, C42006-5, C42006-6, C42006-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	25	19.6	78	19.1	76	3	45-108/13
208-96-8	Acenaphthylene	25	20.0	80	19.7	79	2	46-108/14
120-12-7	Anthracene	25	22.3	89	21.7	87	3	61-110/10
56-55-3	Benzo(a)anthracene	25	21.5	86	21.4	86	0	69-113/10
50-32-8	Benzo(a)pyrene	25	21.6	86	21.1	84	2	68-115/10
205-99-2	Benzo(b)fluoranthene	25	21.5	86	20.3	81	6	64-119/13
191-24-2	Benzo(g,h,i)perylene	25	20.3	81	20.2	81	0	55-124/17
207-08-9	Benzo(k)fluoranthene	25	21.0	84	21.6	86	3	65-120/12
218-01-9	Chrysene	25	20.2	81	19.9	80	1	65-114/10
53-70-3	Dibenzo(a,h)anthracene	25	20.1	80	20.0	80	0	57-122/17
206-44-0	Fluoranthene	25	21.5	86	21.4	86	0	70-113/10
86-73-7	Fluorene	25	21.1	84	21.0	84	0	50-112/13
193-39-5	Indeno(1,2,3-cd)pyrene	25	21.2	85	21.1	84	0	58-123/17
90-12-0	1-Methylnaphthalene	25	17.2	69	17.3	69	1	39-107/19
91-57-6	2-Methylnaphthalene	25	18.6	74	18.8	75	1	42-106/18
91-20-3	Naphthalene	25	16.0	64	16.1	64	1	39-110/14
85-01-8	Phenanthrene	25	22.5	90	21.7	87	4	61-109/10
129-00-0	Pyrene	25	24.1	96	23.2	93	4	64-118/15

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
4165-60-0	Nitrobenzene-d5	76%	78%	30-116%
321-60-8	2-Fluorobiphenyl	84%	85%	31-124%
1718-51-0	Terphenyl-d14	106%	107%	57-137%

* = Outside of Control Limits.

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: C42006
Account: SHELLWIC - Shell Oil Company
Project: URSAZP:EQPL Basin Jal Pump Station,NM

QC Batch ID: MP10219
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 09/28/15

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.20	.0042	.08	-0.017	<0.20

Associated samples MP10219: C42006-2F, C42006-3F, C42006-4F, C42006-5F, C42006-6F, C42006-7F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

7.1.1

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MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C42006
 Account: SHELLWIC - Shell Oil Company
 Project: URSAZP:EQPL Basin Jal Pump Station,NM

QC Batch ID: MP10219
 Matrix Type: AQUEOUS

Methods: SW846 7470A
 Units: ug/l

Prep Date: 09/28/15

Metal	C42004-1F Original MS		SpikeLot HGPWS1	% Rec	QC Limits
Mercury	0.061	2.3	2	112.0	75-125

Associated samples MP10219: C42006-2F, C42006-3F, C42006-4F, C42006-5F, C42006-6F, C42006-7F

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C42006
 Account: SHELLWIC - Shell Oil Company
 Project: URSAZP:EQPL Basin Jal Pump Station,NM

QC Batch ID: MP10219
 Matrix Type: AQUEOUS

Methods: SW846 7470A
 Units: ug/l

Prep Date: 09/28/15

Metal	C42004-1F Original MSD		Spikelot HGPWS1	% Rec	MSD RPD	QC Limit
Mercury	0.061	2.4	2	117.0	4.3	30

Associated samples MP10219: C42006-2F, C42006-3F, C42006-4F, C42006-5F, C42006-6F, C42006-7F

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: C42006
 Account: SHELLWIC - Shell Oil Company
 Project: URSAZP:EQPL Basin Jal Pump Station,NM

QC Batch ID: MP10219
 Matrix Type: AQUEOUS

Methods: SW846 7470A
 Units: ug/l

Prep Date: 09/28/15

Metal	BSP Result	SpikeLot HGPWS1	% Rec	QC Limits
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Mercury	2.4	2	120.0(a)	85-115
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Associated samples MP10219: C42006-2F, C42006-3F, C42006-4F, C42006-5F, C42006-6F, C42006-7F

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested
 (a) Within 80-120% limits for method SW846 7470A.

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: C42006
Account: SHELLWIC - Shell Oil Company
Project: URSAZP:EQPL Basin Jal Pump Station,NM

QC Batch ID: MP10225
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 09/30/15

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	14	27		
Antimony	6.0	1.2	1.2		
Arsenic	10	1.6	2.5	-0.50	<10
Barium	200	.2	.5	0.0	<200
Beryllium	5.0	.2	.6		
Boron	100	1.8	3.2		
Cadmium	2.0	.2	.3	-0.20	<2.0
Calcium	5000	28	69		
Chromium	10	.4	.6	0.0	<10
Cobalt	5.0	.3	.4		
Copper	10	1.2	1.8		
Iron	200	5.3	11		
Lead	10	1	1.7	0.40	<10
Lithium	50	1.1	2.9		
Magnesium	5000	16	23		
Manganese	15	.2	.2		
Molybdenum	20	.5	.6		
Nickel	5.0	.4	.6		
Potassium	10000	35	35		
Selenium	10	1.7	3.3	-1.4	<10
Silicon	100	2.4	2.4		
Silver	5.0	.5	1.5	-0.10	<5.0
Sodium	10000	11	25		
Strontium	10	.1	.2		
Thallium	10	1.7	4.8		
Tin	50	.8	1.3		
Titanium	10	.8	.8		
Vanadium	10	.6	.6		
Zinc	20	.5	3.1		

Associated samples MP10225: C42006-1F, C42006-2F, C42006-3F, C42006-4F, C42006-5F, C42006-6F, C42006-7F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C42006
 Account: SHELLWIC - Shell Oil Company
 Project: URSAZP:EQPL Basin Jal Pump Station,NM

QC Batch ID: MP10225
 Matrix Type: AQUEOUS

Methods: SW846 6010B
 Units: ug/l

Prep Date: 09/30/15

Metal	C42004-1F Original MS		SpikeLot MPIR5	% Rec	QC Limits
Aluminum					
Antimony					
Arsenic	9.6	521	500	102.3	75-125
Barium	33.4	512	500	95.7	75-125
Beryllium					
Boron					
Cadmium	0.50	503	500	100.5	75-125
Calcium					
Chromium	0.0	478	500	95.6	75-125
Cobalt					
Copper					
Iron					
Lead	5.0	461	500	91.2	75-125
Lithium					
Magnesium					
Manganese					
Molybdenum					
Nickel					
Potassium					
Selenium	49.1	561	500	102.4	75-125
Silicon					
Silver	0.0	489	500	97.8	75-125
Sodium					
Strontium					
Thallium					
Tin					
Titanium					
Vanadium					
Zinc					

Associated samples MP10225: C42006-1F, C42006-2F, C42006-3F, C42006-4F, C42006-5F, C42006-6F, C42006-7F

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C42006
 Account: SHELLWIC - Shell Oil Company
 Project: URSAZP:EQPL Basin Jal Pump Station,NM

QC Batch ID: MP10225
 Matrix Type: AQUEOUS

Methods: SW846 6010B
 Units: ug/l

Prep Date: 09/30/15

Metal	C42004-1F Original	MSD	SpikeLot MPIR5	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony						
Arsenic	9.6	525	500	103.1	0.8	20
Barium	33.4	516	500	96.5	0.8	20
Beryllium						
Boron						
Cadmium	0.50	507	500	101.3	0.8	20
Calcium						
Chromium	0.0	486	500	97.2	1.7	20
Cobalt						
Copper						
Iron						
Lead	5.0	465	500	92.0	0.9	20
Lithium						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Potassium						
Selenium	49.1	568	500	103.8	1.2	20
Silicon						
Silver	0.0	491	500	98.2	0.4	20
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc						

Associated samples MP10225: C42006-1F, C42006-2F, C42006-3F, C42006-4F, C42006-5F, C42006-6F, C42006-7F

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: C42006
 Account: SHELLWIC - Shell Oil Company
 Project: URSAZP:EQPL Basin Jal Pump Station,NM

QC Batch ID: MP10225
 Matrix Type: AQUEOUS

Methods: SW846 6010B
 Units: ug/l

Prep Date: 09/30/15

Metal	BSP Result	SpikeLot MPIR5	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	473	500	94.6	80-120
Barium	495	500	99.0	80-120
Beryllium				
Boron				
Cadmium	484	500	96.8	80-120
Calcium				
Chromium	512	500	102.4	80-120
Cobalt				
Copper				
Iron				
Lead	467	500	93.4	80-120
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium	469	500	93.8	80-120
Silicon				
Silver	465	500	93.0	80-120
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP10225: C42006-1F, C42006-2F, C42006-3F, C42006-4F, C42006-5F, C42006-6F, C42006-7F

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: C42006
 Account: SHELLWIC - Shell Oil Company
 Project: URSAZP:EQPL Basin Jal Pump Station,NM

QC Batch ID: MP10225
 Matrix Type: AQUEOUS

Methods: SW846 6010B
 Units: ug/l

Prep Date: 09/30/15

Metal	C42004-1F Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony				
Arsenic	9.60	0.00	100.0(a)	0-10
Barium	33.4	39.7	18.9*(b)	0-10
Beryllium				
Boron				
Cadmium	0.500	0.00	100.0(a)	0-10
Calcium				
Chromium	0.00	0.00	NC	0-10
Cobalt				
Copper				
Iron				
Lead	5.00	0.00	100.0(a)	0-10
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Potassium				
Selenium	49.1	51.3	4.5	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc				

Associated samples MP10225: C42006-1F, C42006-2F, C42006-3F, C42006-4F, C42006-5F, C42006-6F, C42006-7F

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

(b) Serial dilution indicates possible matrix interference.

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: C42006
Account: SHELLWIC - Shell Oil Company
Project: URSAZP:EQPL Basin Jal Pump Station, NM

QC Batch ID: MP10248
Matrix Type: AQUEOUS

Methods: SW846 7470A
Units: ug/l

Prep Date: 10/05/15

Metal	RL	IDL	MDL	MB raw	final
Mercury	0.20	.0042	.08	-0.00060	<0.20

Associated samples MP10248: C42006-1F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C42006
 Account: SHELLWIC - Shell Oil Company
 Project: URSAZP:EQPL Basin Jal Pump Station,NM

QC Batch ID: MP10248
 Matrix Type: AQUEOUS

Methods: SW846 7470A
 Units: ug/l

Prep Date: 10/05/15

Metal	C42006-1F Original MS		SpikeLot HGPWS1	% Rec	QC Limits
Mercury	0.0	2.0	2	100.0	75-125

Associated samples MP10248: C42006-1F

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C42006
 Account: SHELLWIC - Shell Oil Company
 Project: URSAZP:EQPL Basin Jal Pump Station,NM

QC Batch ID: MP10248
 Matrix Type: AQUEOUS

Methods: SW846 7470A
 Units: ug/l

Prep Date: 10/05/15

Metal	C42006-1F Original MSD	SpikeLot HGPWS1	% Rec	MSD RPD	QC Limit
Mercury	0.0	2.0	2	100.0	0.0
					30

Associated samples MP10248: C42006-1F

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: C42006
 Account: SHELLWIC - Shell Oil Company
 Project: URSAZP:EQPL Basin Jal Pump Station,NM

QC Batch ID: MP10248
 Matrix Type: AQUEOUS

Methods: SW846 7470A
 Units: ug/l

Prep Date: 10/05/15

Metal	BSP Result	SpikeLot HGPWS1	% Rec	QC Limits
Mercury	1.8	2	90.0	85-115

Associated samples MP10248: C42006-1F

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested