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2014 ANNUAL GROUNDWATER MONITORING REPORT
HOBBS JUNCTION MAINLINE
LEA COUNTY, NEW MEXICO
PLAINS SRS #2003-00017
NMOCD REF. # AP-054

PREPARED FOR:

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March, 2015

Recommendations

- **Install proposed monitor wells MW-28, 31, 32, and 33 to re-establish dissolved phase plume delineation, and MW-29 and 30 to help with the demobilization and recovery of the PSH and dissolved phase plumes.**
- **Continue operation and maintenance of the PSH recovery system and transfer system. Adjust pump intake port depths and controller settings to optimize PSH recovery.**
- **Continue collecting groundwater samples for quantification of BTEX from monitor wells MW-7 and MW-13 on a semi-annual basis.**
- **Continue the quarterly groundwater monitoring program and annual reporting in accordance with NMOCD directives.**

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2014 ANNUAL GROUNDWATER MONITORING REPORT

HOBBS JUNCTION MAINLINE
LEA COUNTY, NEW MEXICO
NMOCD REF. # AP-054

PLAINS PIPELINE, L.P.
333 CLAY STREET, SUITE 1600
HOUSTON, TEXAS

TALON/LPE PROJECT NO. 700376.052.01

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March 2015

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NMOCD – New Mexico Oil Conservation Division
NMSLO – New Mexico State Land Office

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APPENDICES

1.0 INTRODUCTION

1.1 Introduction and Site Background

The Hobbs Junction Mainline site is located approximately three miles west of Hobbs, in Lea County, New Mexico. The GPS coordinates of this site are 32° 42' 40.85" latitude and 103° 13' 42.01" longitude. The land on the southern portion of the site is owned by Ms. Faye Klein and the land on the northern portion of the site is owned by the State of New Mexico. A site plan is provided as Figure 1 included in Appendix A.

1.2 Site Geology

The surface deposits in Lea County are composed of Blackwater Draw (Illinoian) sediments, Ogallala sediments and undivided Quaternary alluvium, which is also termed 'cover sands'. The soil in the upper two (2) feet at the site composed of gravelly loam that contains abundant eroded gravel to cobble size caliche fragments. Below the top soil is predominately unconsolidated sand to weakly cemented sandstone which has undergone calichification of varying extent.

Below the Blackwater Draw Formation is the Ogallala Formation of Miocene to Pliocene age. The Ogallala Formation was deposited from sediments eroded from the Southern Rockies and consists mostly of eolian sediments, silty to very fine sand or loess. During the middle to late Miocene, the Ogallala was deposited by fluvial mechanism as paleovalley fill composed of gravelly to sandy braided stream deposits that trended west to east across the Southern High Plains. During the late Miocene the west to east drainage was diverted (captured) by the Pecos River. Subsequently, the Pecos River basin has experienced deflation, which facilitated eolian deposition on the Southern High Plains during the Pliocene.

1.3 Previous Environmental Investigations

Currently, a total of 27 monitor wells have been installed in the vicinity of the release (see Figure 1). Initial groundwater delineation activities began on February 13, 2003, by advancing a soil boring BH-1 to 28 feet below ground surface (bgs) where a well indurated caliche layer prevented further progress of the hollow stem auger. On March 5, 2003, using an air rotary rig, monitor wells MW-1 and MW-2 were installed to groundwater in order to evaluate the presence of phase separated hydrocarbons (PSH). After it was determined that monitor wells MW-1 and MW-2 were impacted with PSH; monitor wells MW-3 through MW-6 were installed in August 2003. PSH was detected in monitor wells MW-3 through MW-6 during the development process. On January 19 and 20, 2004, monitor wells MW-7 through MW-13 were installed in order to delineate the dissolved-phase plume. Subsequent to development, PSH was detected in monitor well MW-12. Monitor wells MW-14 through MW-17 were installed on May 24, 2004, outside the release perimeter. PSH was detected in monitor wells MW-14 and MW-17 as well. Monitor wells MW-18 through MW-20 were installed in November 2006, and monitor wells MW-21 and MW-22 were installed on December 5, 2007, in order to further delineate the dissolved phase plume. Monitor wells MW-23 and MW-24 were installed on March 17, 2008 as requested by the New Mexico Oil Conservation Division (NMOCD), in order to further delineate the dissolved phase plume down-gradient towards the southeast. Subsequently, monitor wells MW-25, MW-26, and MW-27 were installed in December of 2011 to increase the density of

pumping wells in order to increase drawdown of the groundwater level to further impede the migration of the dissolved-phase plume.

A quarterly groundwater monitoring program was implemented for the site that included PSH recovery utilizing an automated eductor system, which operated from March 2004 to March 2007. In March 2007, the eductor system was replaced with an automated pneumatic skimmer and bladder pump PSH recovery system. At that time, a total of eight (8) skimmer pumps were installed in monitor wells MW-1, MW-2, MW-3, MW-4, MW-6, MW-12, MW-14, and MW-17 and a pneumatic total fluid pump was installed in monitor well MW-5.

Currently, there are two (2) pneumatic specific gravity skimmers and bladder pumps in monitor wells MW-8 and MW-16 and fifteen (15) pneumatic total fluids pumps in monitor wells MW-1, through MW-6, MW-10, MW-11, MW-12, MW-14, MW-15, MW-20, MW-25, MW-26, and MW-27. The total fluids pumps in monitor wells MW-25, MW-26, and MW-27 were installed in early 2012. An electric total fluids pump was installed in MW-17 during the fourth quarter 2012. The recovered water is transferred to Occidental Permian's North Hobbs Satellite disposal facility via HDPE flow-line and the recovered oil is periodically collected with a vacuum truck and transported to the Plains Lea Station and re-introduced into the pipeline system.

1.4 Regulatory Framework

Groundwater analytical data collected from monitor wells during quarterly groundwater monitoring events at this site is evaluated to the New Mexico Water Quality Control Commission (NMWQCC) groundwater standards listed in the table below.

New Mexico Water Quality Control Commission (NMWQCC) groundwater standards	
Compound	**mg/L**
Benzene	0.010
Toluene	0.750
Ethylbenzene	0.750
Total Xylenes	0.620
PAH (Naphthalene)	0.030
PAH (Benzo[a]-pyrene)	0.007

The ensuing sections in the report provide summaries of the groundwater monitoring activities conducted at the site as well as analytical results from each groundwater sampling event in 2014. Analytical results for the four sampling events are presented in Table 2, in Appendix B, and Figures 3a through 3d in Appendix A. Fluid level measurements are provided in Table 1, Appendix B and gradient maps are presented as Figures 2a through 2d in Appendix A. Laboratory analytical reports and chains of custody documentation are included in Appendix C.

2.0 SITE ACTIVITIES

The sections that follow summarize groundwater monitoring and PSH recovery activities conducted at the subject site during the year 2014. The primary function of groundwater monitoring activities is to collect depth to fluid measurements and collect groundwater samples for laboratory analysis. The objective of groundwater monitoring is to evaluate the status of the dissolved-phase and PSH plumes in order to verify the effectiveness of the remediation system as to inhibiting plume migration, reducing the volume of PSH impacting the groundwater and determining if modifications to the remediation system would improve its performance and efficiency.

2.1 Groundwater Gauging, Purging, and Sampling Procedures

During each groundwater monitoring event, all monitor wells were measured to determine static water levels and to monitor the presence and/or absence of PSH accumulations. The top of groundwater elevation was corrected in monitor wells impacted with PSH by the following equation: Corrected groundwater elevation = the surveyed top of casing elevation – (measured depth to water) – (PSH thickness x the specific gravity of the PSH). Measured groundwater depths and elevations collected during the sampling events, along with historical measurements, are presented in Table 1 – Summary of Historical Fluid Level Measurements and contoured gradient maps are located in Appendix A.

All wells not impacted with PSH were purged a minimum of three (3) well volumes prior to sample collection. All 2-inch diameter monitor wells were purged utilizing dedicated disposable polyethylene bailers. All 4-inch monitor wells were purged utilizing a pump and vinyl tubing. The pumps and tubing used to purge the wells were decontaminated with Alconox® detergent and rinsed with distilled water prior to initial use and between sample collection events. All recovered groundwater from purging activities and recovered water used in the decontamination process was contained onsite in the system recovery tank until the water was transferred to the North Hobbs Unit disposal facility. An approximate total of 250 gallons of groundwater was purged during the four (4) quarterly groundwater monitoring events.

Groundwater samples were collected from monitoring wells not impacted with PSH utilizing dedicated disposable polyethylene bailers. The collected groundwater samples were transferred from the disposable bailer into laboratory supplied sample containers infused with the appropriate preservative for the analysis requested. The groundwater samples were maintained on ice in the custody of Talon/LPE, until delivery to TraceAnalysis, Inc. or Xenco laboratory in Lubbock or Midland, Texas for analysis. The collected samples were quantified for benzene, toluene, ethylbenzene and xylenes (BTEX) by EPA Method SW-846 8021b.

2.2 Groundwater Monitoring Activities

A total of four groundwater monitoring events were conducted by Talon/LPE: March 28, 2014; May 29, 2014; August 28, 2014; and January 9, 2015. Details of the gauging, purging, and sample collection activities are presented in Section 2.1.

During the March 2014 groundwater monitoring event, groundwater samples were collected

from eight (8) monitor wells (MW-7, MW-9, MW-13, MW-18 and MW-21 through MW-24). Nineteen (19) monitor wells (MW-1 through MW-6, MW-8, MW-10, MW-11, MW-12, MW-14, MW-15, MW-16, MW-17, MW-19, MW-20, MW-25, MW-26, and MW-27) were not sampled due to the presence of PSH.

During the May 2014 groundwater monitoring event, groundwater samples were collected from five (5) monitor wells (MW-18, and 21 through MW-24). Samples were not collected from two (2) monitor wells (MW-7, and MW-13) since they are scheduled for sample collection on a bi-annual basis. Twenty (20) monitor wells (MW-1 through MW-6, MW-8, MW-9, MW-10, MW-11, MW-12, MW-14, MW-15, MW-16, MW-17, MW-19, MW-20, MW-25, MW-26, and MW-27) were not sampled due to the presence of PSH.

During the August 2014 groundwater monitoring event, groundwater samples were collected from five (5) monitor wells (MW-18, and MW-21 through MW-24). Samples were not collected from three (3) monitor wells (MW-7, MW-9, and MW-13) since they are scheduled for sample collection on an annual basis. Nineteen (19) monitor wells (MW-1 through MW-6, MW-8, MW-10, MW-11, MW-12, MW-14, MW-15, MW-16, MW-17, MW-19, MW-20, MW-25, MW-26, and MW-27) were not sampled due to the presence of PSH.

During the January 2014 groundwater monitoring event, groundwater samples were collected from seven (7) monitor wells (MW-7, MW-13, MW-18 and MW-21 through MW-24). Twenty (20) monitor wells (MW-1 through MW-6, MW-8, MW-10, MW-11, MW-12, MW-14, MW-15, MW-16, MW-17, MW-19, MW-20, MW-25, MW-26, and MW-27) were not sampled due to the presence of PSH

2.3 Phase Separated Hydrocarbon and Groundwater Recovery

The crude oil and groundwater recovered with the total fluids and skimmer pumps were expelled to a 350 barrel frac tank used as a settling tank where the oil and water are gravity separated. The tank is equipped with a head pressure switch, which operates a transfer pump. When the pump is engaged, the recovered water is transferred to Occidental Permian's North Hobbs Satellite disposal facility via four (4) inch HDPE flow line. The recovered oil that remains in the frac tank is periodically collected with a vacuum truck and transported to the Plains Lea Station where it is re-introduced into the pipeline system.

The depth to water and PSH in the frac tank is periodically measured with an interface probe and the recovered volumes are calculated. During 2014 the quarterly groundwater and PSH recovery totals are as followed:

- 1st Quarter – approximately 16.05 bbls of oil and 8,333 bbls of water
- 2nd Quarter – approximately 34.83 bbls of oil and 17,011 bbls of water
- 3rd Quarter – approximately 12.12 bbls of oil and 11,300 bbls of water
- 4th Quarter – approximately 25.74 bbls of oil and 14744 bbls of water

Approximately 89 bbls of oil was recovered during 2014 and a total of 2,454 bbls of PSH has been recovered from the site to date.

3.0 GROUNDWATER MONITORING RESULTS

The results of the laboratory analyses are summarized in Table 2 – Summary of Groundwater Analytical Data in Appendix B. Laboratory analytical reports and chains of custody documentation are provided in Appendix C.

3.1 Groundwater Monitoring Results

The following sections present the results from the monitoring of the first water-bearing zone underlying the Hobbs Junction Mainline site.

3.1.1 Physical Characteristics of the First Water-Bearing Zone

The primary groundwater resource under the Southern High Plains, including the site, is referred to as the Ogallala Aquifer or High Plains Aquifer. The Southern portion of the Ogallala aquifer underlies an area of about 29,000 square miles (mi^2) in western Texas and eastern New Mexico, encompassing all or part of 31 counties in Texas and 6 counties in New Mexico.

The Ogallala Aquifer has experienced acute depletion from extensive irrigation and urban demand, which has exceeded the average annual recharge rate. Recharge of the Ogallala Aquifer on the Southern High Plains occurs predominately from rainfall runoff that accumulates in ephemeral streams and playa lakes as well as direct recharge in areas that contain permeable soils such as sand hills. Recharge rates vary depending on mechanism, but averages from 0 to 1.6 inches per year.

The Ogallala Aquifer is generally unconfined and the poteniometric surface generally mirrors the land surface elevation with the regional flow direction is from the northwest to the southeast. The mean regional gradient is 15 feet per mile and the typical groundwater velocity averages seven inches per day. The regional hydraulic conductivity averages 17 gallons per day per square-foot and specific yield averages 16%. The depth to groundwater at the site has historically been approximately 40 feet below ground surface (bgs) and the groundwater flow direction is to the southeast at an average of 25 feet per mile.

The composition of Ogallala groundwater is defined as mixed-cation-HCO_3, therefore, Ogallala groundwater is considered hard. Problems with scale have occurred with residential and commercial water systems that use Ogallala groundwater and often treatment strategies are employed to reduce the effects of scale. The typical total dissolved solids of Ogallala groundwater in the Hobbs-Lovington area is generally less than 1,000 mg/L (ppm) in areas not impacted by oil-field brines. The pH of Ogallala water averages 7.3.

3.1.2 Groundwater Gradient and Flow Direction

Water level measurements were collected from all monitor wells during all four (4) groundwater monitoring events. The data collected is summarized in Table 1, Summary of Historical Fluid Level Measurements, presented in Appendix B.

Potentiometric surface contour maps were constructed from the four (4) water level measurement datasets. These maps are Figure 2a through Figure 2d presented in Appendix A.

Based on fluid elevations measured at this site, the groundwater flow direction within the first

water-bearing zone underlying the Junction Mainline site is consistently towards the east-southeast.

3.1.3 Phase Separated Hydrocarbon (PSH)

The collection of water level measurement data was conducted using an oil/water interface probe, which was also used to determine the presence of PSH.

- In March 2014, PSH was observed in monitor wells MW-1 through MW-6, MW-8, MW-10 through MW-12, MW-14 through MW-16, MW-19 through MW-20, and MW-25 through MW-27. PSH thickness ranged from 0.20 feet in MW-11 to 5.68 feet in MW-12. Mw-17 was blocked by a stuck pump, but has PSH present in past gauging events.
- In May 2014, PSH was observed in monitor wells MW-1 through MW-6, MW-8 through MW-12, MW-14 through MW-16, MW-19 through MW-20, and MW-25 through MW-27. PSH thickness ranged from 0.20 feet in MW-11 to 5.68 feet in MW-12.
- In August 2014, PSH was observed in monitor wells MW-1 through MW-6, MW-8 through MW-12, MW-14 through MW-17, MW-19 through MW-20, and MW-25 through MW-27. PSH thickness ranged from 0.09 feet in MW-10 to 5.58 feet in MW-17.
- In January 2015, PSH was observed in monitor wells MW-1 through MW-6, MW-8 through MW-12, MW-14 through MW-17, and MW-19 through MW-20. PSH thickness ranged from 0.66 feet in MW-19 to 4.25 feet in MW-17.

PSH thickness isopleths maps are presented as Figure 3a through Figure 3d in Appendix A.

3.1.4 Groundwater Sampling Results

During the March 2014 sampling event, analytical results from the collected groundwater samples exhibited the following qualities:

- Benzene concentrations ranged from <0.00100 mg/L to 14.0 mg/L. Benzene concentrations exceeded the New Mexico Water Quality Control Commission (NMWQCC) remediation limit of 0.010 mg/L in groundwater samples collected from monitor wells MW-21 and MW-22.
- Toluene concentrations ranged from <0.00100 mg/L to 0.00190 mg/L. Toluene concentrations did not exceed the NMWQCC remediation threshold of 0.750 mg/L in any of the groundwater samples collected.
- Ethylbenzene concentrations ranged from <0.00100 mg/L to 0.811 mg/L. Ethylbenzene concentrations exceeded the NMWQCC remediation threshold of 0.750 mg/L in the sample collected from monitor well MW-22.
- Xylene concentrations ranged from <0.00300 mg/L to 0.275 mg/L. Xylene concentrations did not exceed the NMWQCC remediation threshold of 0.620 mg/L in any of the groundwater samples collected.

During the May 2014 sampling event, additional PAH samples were collected from monitor wells MW-21 and MW-22 for analysis. Analytical results from the collected groundwater samples exhibited the following qualities:

- Benzene concentrations ranged from <0.00100 mg/L to 4.36 mg/L. Benzene concentrations exceeded the NMWQCC remediation threshold of 0.010 mg/L in groundwater samples collected from monitor wells MW-21 and MW-22.
- Toluene concentrations ranged from <0.00100 mg/L to <0.100 mg/L. The toluene concentrations did not exceed the NMWQCC remediation threshold of 0.750 mg/L in samples collected from the monitor wells.
- Ethylbenzene concentrations ranged from <0.00100 mg/L to 0.160 mg/L. The ethylbenzene concentrations did not exceed the NMWQCC remediation threshold of 0.750 mg/L in samples collected from the monitor wells.
- Xylene concentrations ranged from <0.00300 mg/L to 0.300 mg/L. The xylene concentrations did not exceed the NMWQCC remediation threshold of 0.620 mg/L in any of the groundwater samples collected.
- Naphthalene concentrations ranged from .000237 mg/L to 0.0185 mg/ml in the samples taken. The total naphthalene concentration in MW-21 exceeded the NMWQCC groundwater standard of 0.030 in the groundwater sample collected.

During the August 2014 groundwater monitoring event, analytical results from the collected groundwater samples exhibited the following qualities:

- Benzene concentrations ranged from <0.00100 mg/L to 18.4 mg/L. Benzene concentration exceeded the NMWQCC remediation threshold of 0.010 mg/L in groundwater samples collected from monitor wells MW-21 and MW-22.
- Toluene concentrations ranged from <0.00100 mg/L to <0.0500 mg/L. The toluene concentration did not exceed the NMWQCC remediation threshold of 0.750 mg/L in any of the groundwater samples collected.
- Ethylbenzene concentrations ranged from <0.00100 mg/L to 1.24 mg/L. The ethylbenzene concentration exceeded the NMWQCC remediation threshold of 0.750 mg/L in samples collected from MW-21 and MW-22.
- Xylene concentrations ranged from <0.00100 mg/L to 0.412 mg/L. The xylene concentrations did not exceed the NMWQCC remediation threshold of 0.620 mg/L in any of the groundwater samples collected.

During the January 2015 groundwater monitoring event, analytical results from the collected groundwater samples exhibited the following qualities:

- Benzene concentrations ranged from <0.00100 mg/L to 15.4 mg/L. Benzene concentrations exceeded the NMWQCC remediation threshold of 0.010 mg/L in groundwater samples collected from monitor wells MW-21 and MW-22.
- Toluene concentrations ranged from <0.00100 mg/L to <0.0500 mg/L. Toluene concentrations did not exceed the NMWQCC remediation threshold of 0.750 mg/L in any of the groundwater samples collected during this event.
- Ethylbenzene concentrations ranged from <0.00100 mg/L to 1.23 mg/L. The ethylbenzene concentrations exceeded the NMWQCC remediation threshold of 0.750 mg/L in samples collected from MW-21 and MW-22.

- Xylene concentrations ranged from <0.00100 mg/L to 0.799 mg/L. Total xylene concentrations exceeded the NMWQCC remediation threshold of 0.620 mg/L in the groundwater sample collected from MW- 21 during this event.

The results of the laboratory analyses are summarized in Table 2 – Summary of Historical Groundwater Analytical Data, and Table 3 – Summary of Historical Analytical Data – PAH Supplement in Appendix B. Laboratory analytical data reports and chain of custody documentation are provided in Appendix C

4.0 CONCLUSIONS AND RECOMMENDATIONS

The following section presents a summary of the four 2014 groundwater monitoring events conducted at the Hobbs Junction Mainline site and provides recommendations for future actions.

4.1 Summary of Findings

- Approximately 89 bbls of oil was recovered during 2014 and a total of 2,454 bbls of PSH has been recovered from the site to date.
- The groundwater flow direction at the site is to the east to southeast based upon the water level measurement data collected to date.
- Down-gradient monitor wells MW-23 and MW-24 did not exhibit BTEX concentrations above laboratory reporting limits during each of the four (4) quarterly groundwater monitoring events indicating that the system is inhibiting the down-gradient migration of the dissolved-phase plume (see Table 2).
- Dissolved-phase concentrations remained relatively stable.

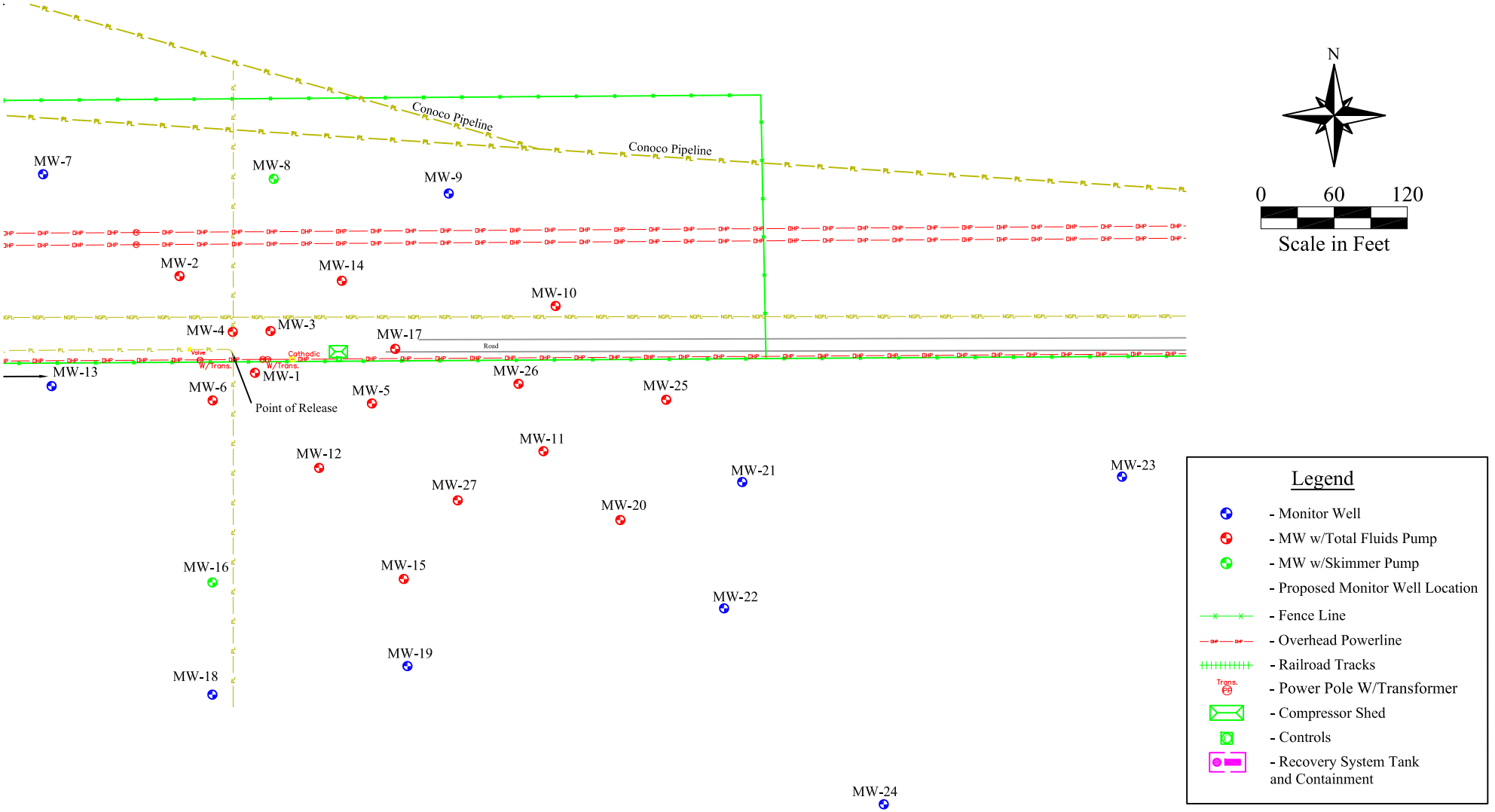
4.2 Recommendations

Based upon the results of the quarterly groundwater monitoring and PSH recovery, Talon/LPE proposes the following actions:

- Install proposed monitor wells MW-28, 31, 32, and 33 to re-establish dissolved phase plume delineation, and MW-29 and 30 to help with the demobilization and recovery of the PSH and dissolved phase plumes.
- Continue operation and maintenance of the PSH recovery system and transfer system. Adjust pump intake port depths and controller settings to optimize PSH recovery.
- Continue collecting groundwater samples for quantification of BTEX from monitor wells MW-7 and MW-13 on a semi-annual basis.
- Continue the quarterly groundwater monitoring program and annual reporting in accordance with NMOCD directives.

APPENDIX A

Figures



Project # 700376.052.01

TALON LPE

Date: 08/16/2011

Scale: 1" = 120'

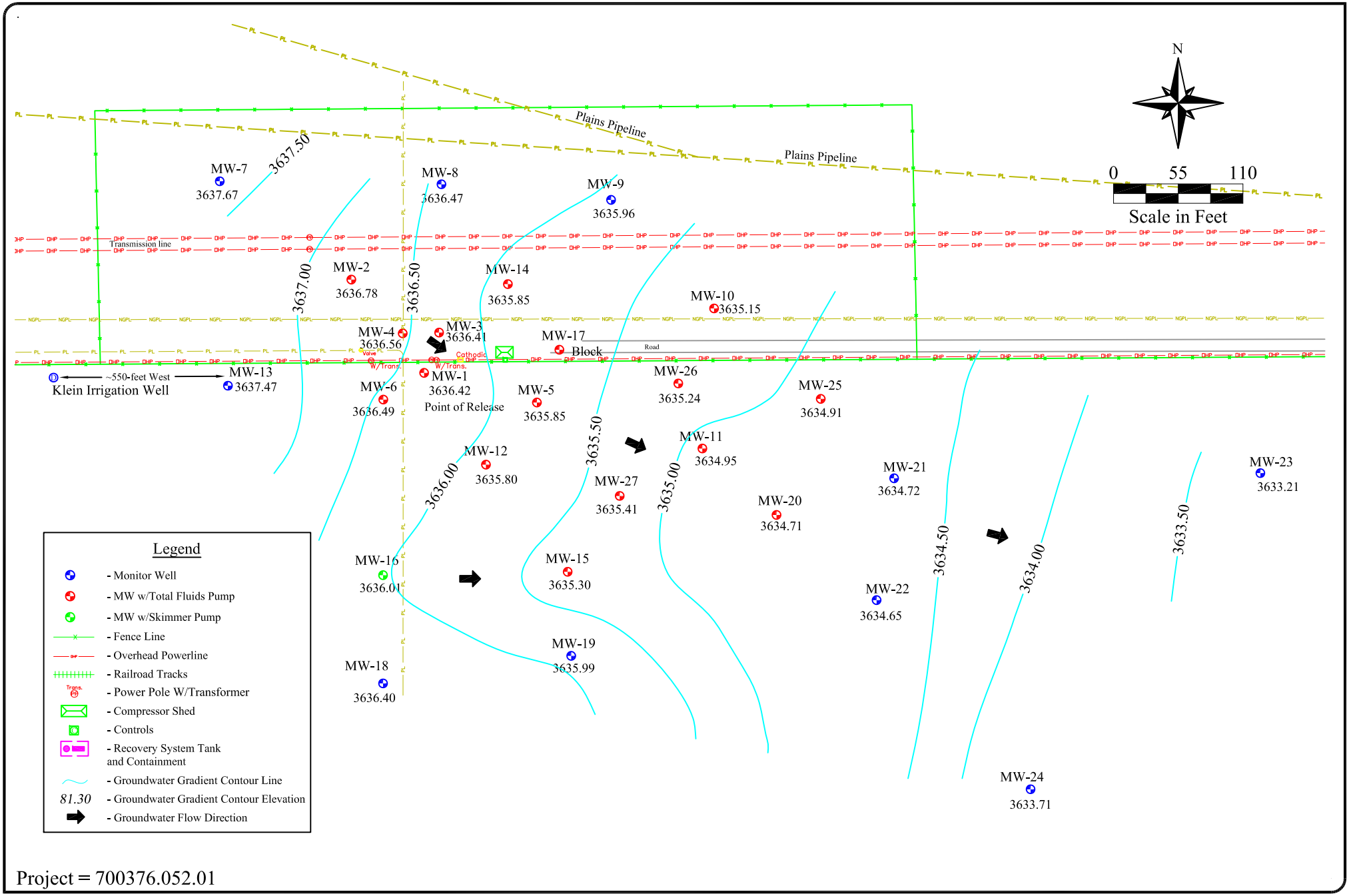
Drawn By: TJS

Hobbs Junction Mainline

SRS # 2003-00017, NMOCD REF. # AP-054

SW 1/4, SW 1/4, of Sec. 26, T18S, R37E, Lea County, New Mexico

Figure 1 - Site Map, (12/14/2011)



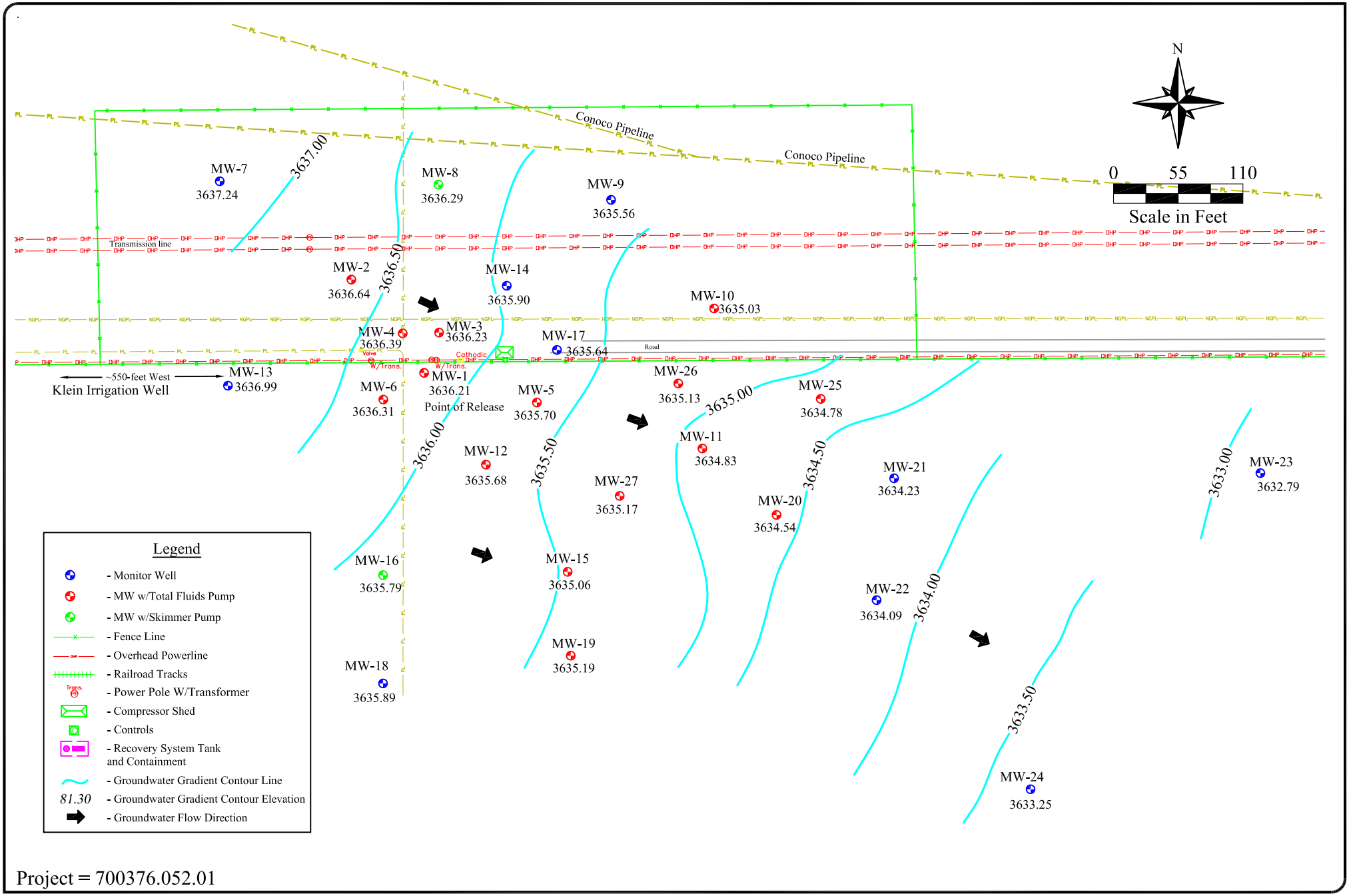
Project = 700376.052.01

TALON LPE

Date: 04/16/2014
Scale: 1" = 110'
Drawn By: TJS

Hobbs Junction Mainline

SRS # 2003-00017, NMOCD REF. # AP-054
SW 1/4, SW 1/4, of Sec. 26, T18S, R37E, Lea County, New Mexico
Figure 2a - Groundwater Gradient Map - 03/28/2014



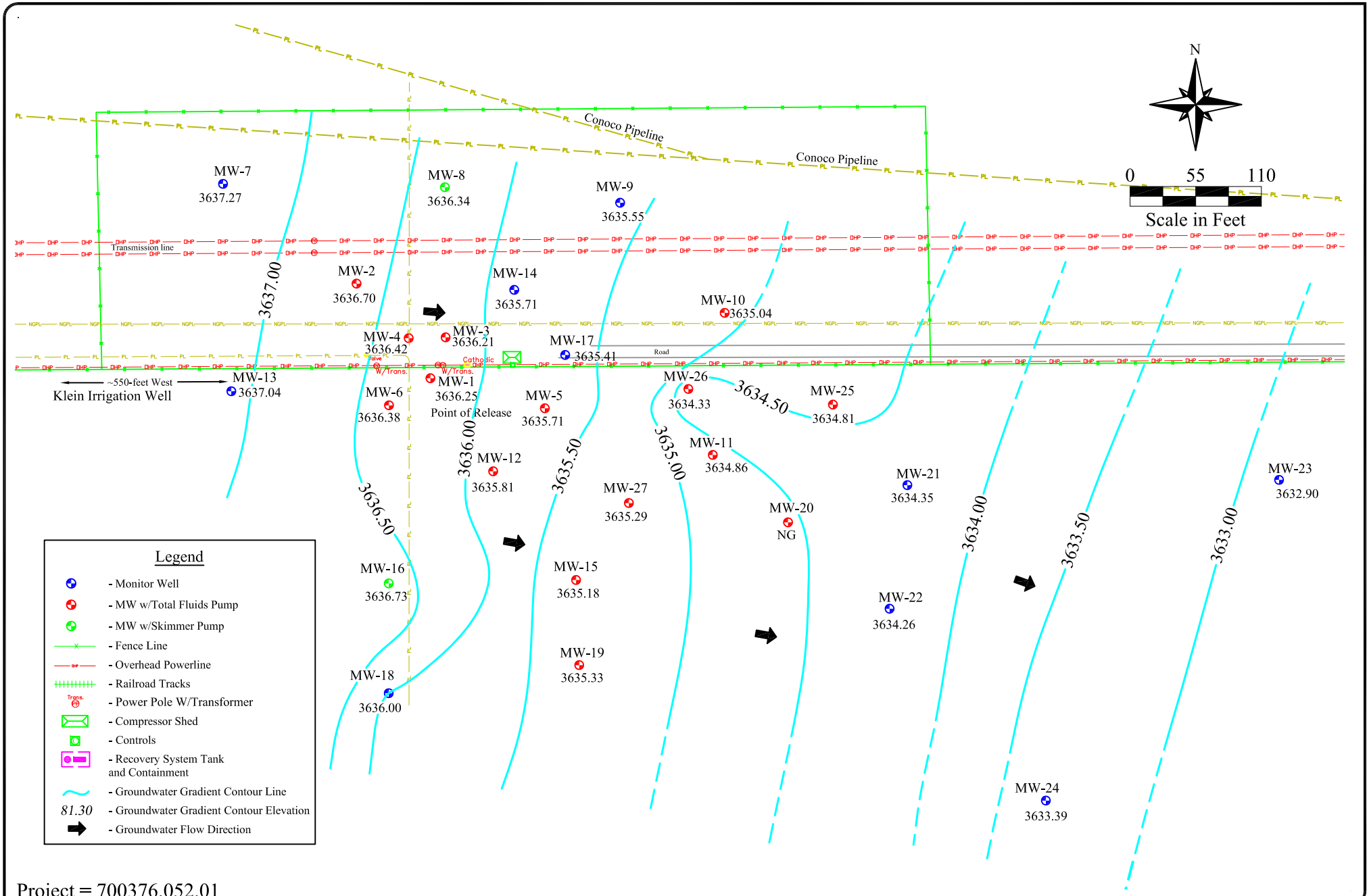
Project = 700376.052.01

TALON LPE

Date: 07/09/2014
Scale: 1" = 110'
Drawn By: TJS

Hobbs Junction Mainline

SRS # 2003-00017, NMOCD REF. # AP-054
SW 1/4, SW 1/4, of Sec. 26, T18S, R37E, Lea County, New Mexico
Figure 2b - Groundwater Gradient Map - 05/29/2014



Project = 700376.052.01

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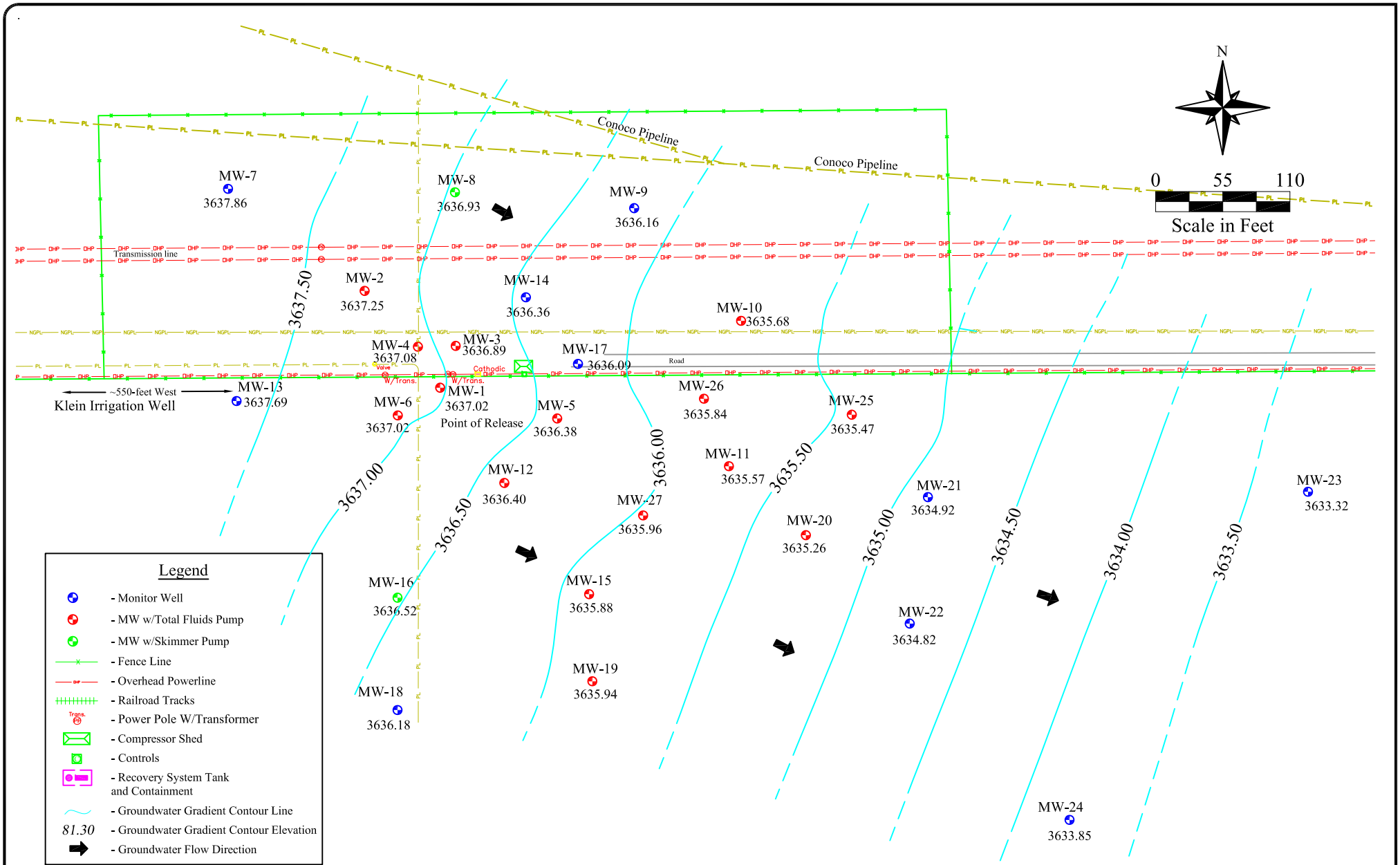
Date: 10/02/2014
Scale: 1" = 110'
Drawn By: TJS

Hobbs Junction Mainline

SRS # 2003-00017, NMOCD REF. # AP-054
SW 1/4, SW 1/4, of Sec. 26, T18S, R37E, Lea County, New Mexico
Figure 2c - Groundwater Gradient Map - 08/28/2014



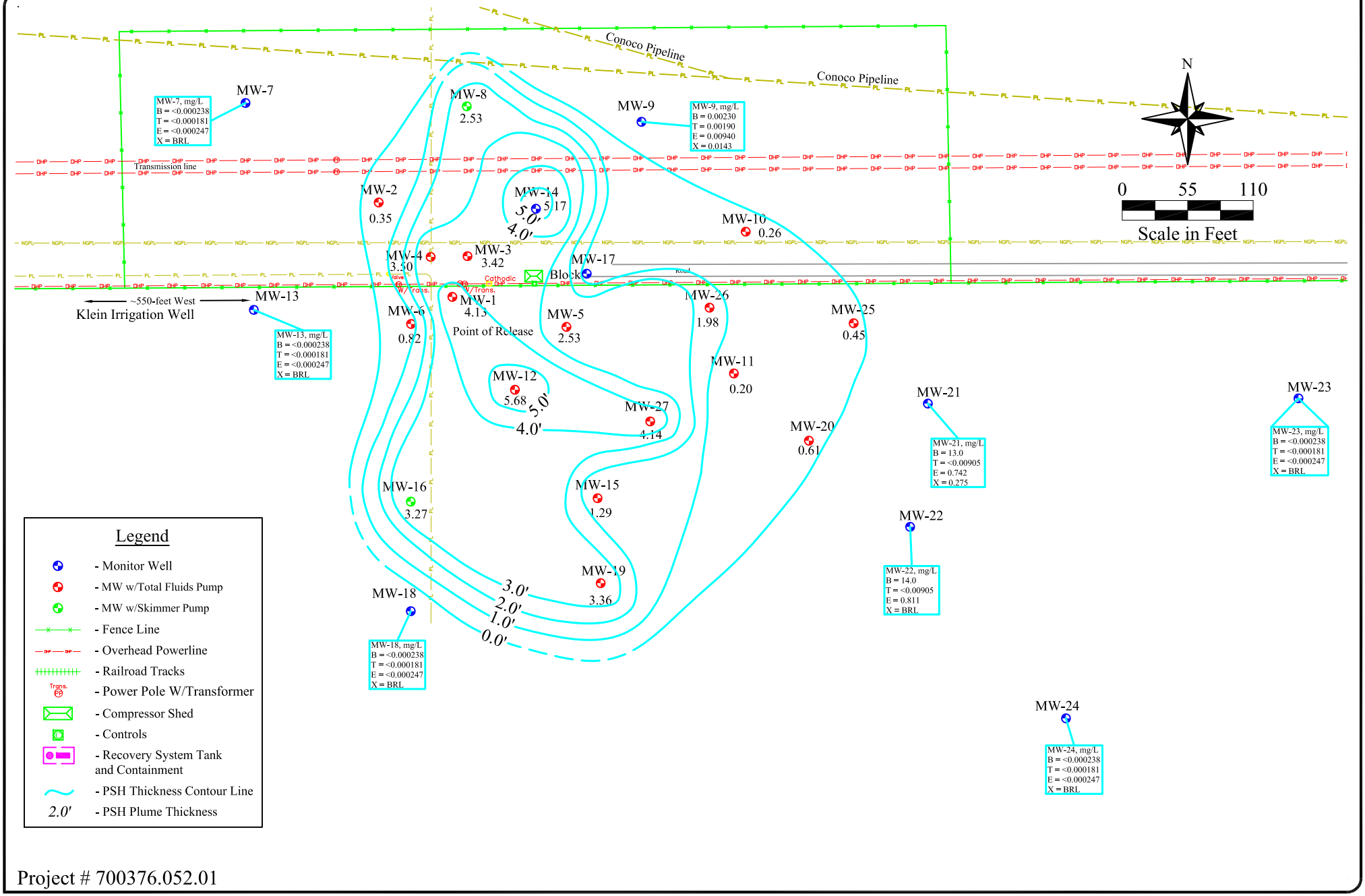
Project = 700376.052.01

TALON LPE

Date: 01/16/2015
Scale: 1" = 110'
Drawn By: TJS

Hobbs Junction Mainline

SRS # 2003-00017, NMOCD REF. # AP-054
SW 1/4, SW 1/4, of Sec. 26, T18S, R37E, Lea County, New Mexico
Figure 2d - Groundwater Gradient Map - 01/09/2015



Project # 700376.052.01

TALON LPE

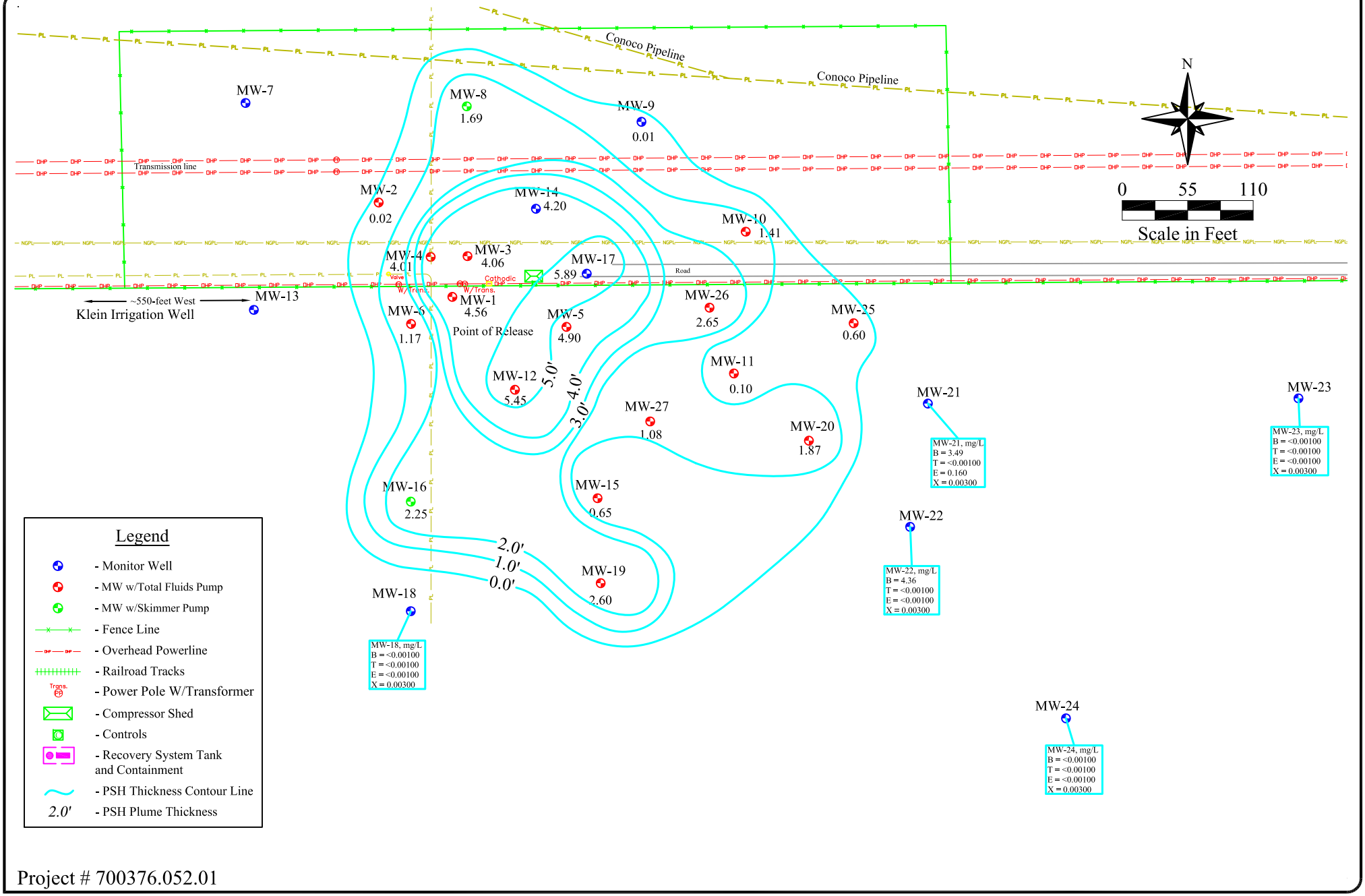
Date: 07/09/2014
Scale: 1" = 110'
Drawn By: TJS

Hobbs Junction Mainline

SRS # 2003-00017, NMOCD REF. # AP-054

SW 1/4, SW 1/4, of Sec. 26, T18S, R37E, Lea County, New Mexico

Figure 3a - PSH Thickness & Groundwater Concentration Map - (03/28/2014)



Project # 700376.052.01

TALON LPE

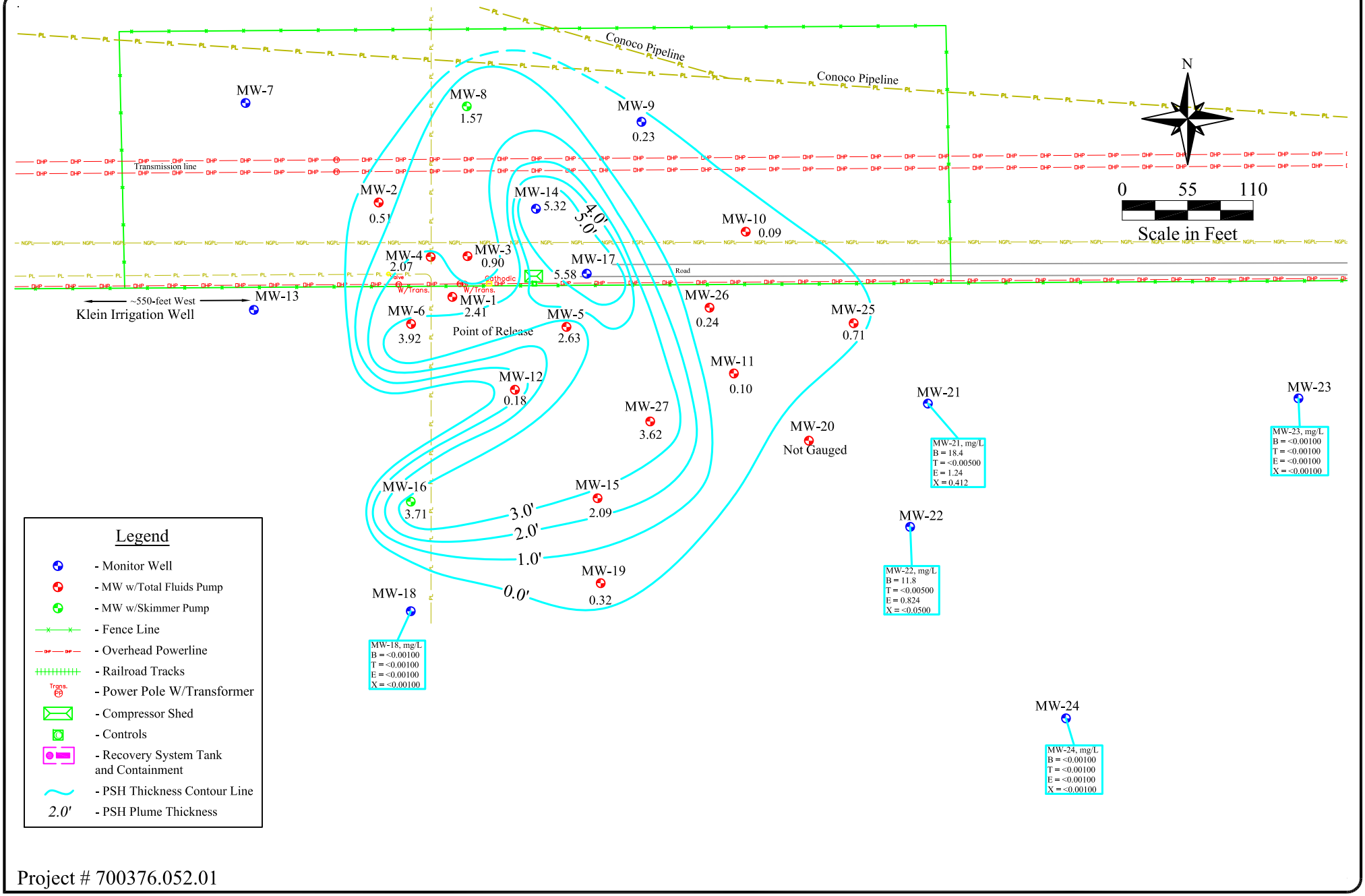
Date:	07/09/2014
Scale:	1" = 110'
Drawn By:	TJS

Hobbs Junction Mainline

SRS # 2003-00017, NMOCD REF. # AP-054

SW 1/4, SW 1/4, of Sec. 26, T18S, R37E, Lea County, New Mexico

Figure 3b - PSH Thickness & Groundwater Concentration Map - (05/29/2014)



Project # 700376.052.01

TALON LPE

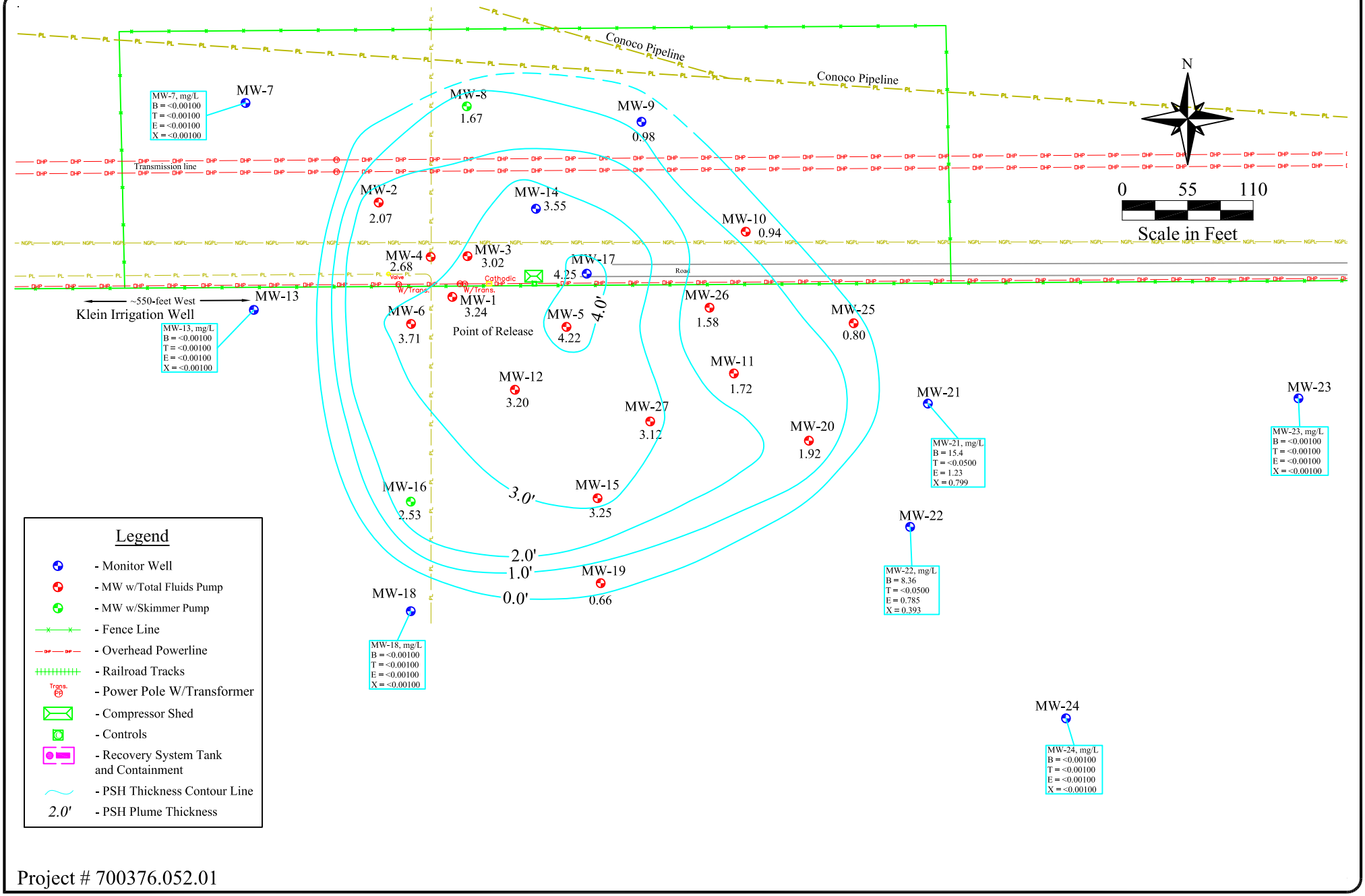
Date: 10/02/2014
Scale: 1" = 110'
Drawn By: TJS

Hobbs Junction Mainline

SRS # 2003-00017, NMOCD REF. # AP-054

SW 1/4, SW 1/4, of Sec. 26, T18S, R37E, Lea County, New Mexico

Figure 3c - PSH Thickness & Groundwater Concentration Map - (08/28/2014)



Project # 700376.052.01

TALON LPE

Date: 01/16/2015
Scale: 1" = 110'
Drawn By: TJS

Hobbs Junction Mainline

SRS # 2003-00017, NMOCD REF. # AP-054

SW 1/4, SW 1/4, of Sec. 26, T18S, R37E, Lea County, New Mexico

Figure 3d - PSH Thickness & Groundwater Concentration Map - (01/09/2015)

APPENDIX B

Tables

Summary of Historical Fluid Level Measurements
Hobbs Junction Main Line
SRS #: 2003-0017

Well	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Depth to PSH (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)
MW-1			Diameter: 4 in.	Screened Interval: 39 ft. to 54 ft.		TD: 54.19 ft.
	03/09/12	3678.50	43.87	40.45	3.42	3637.49
	06/27/12	3678.50	45.23	40.64	4.59	3637.10
	09/18/12	3678.50	44.50	40.92	3.58	3636.99
	12/18/12	3678.50	43.02	41.50	1.52	3636.75
	03/15/13	3678.50	42.42	41.44	0.98	3636.90
	06/07/13	3678.50	43.59	41.13	2.46	3636.96
	09/30/13	3678.50	43.56	41.26	2.30	3636.86
	12/02/13	3678.50	45.49	41.02	4.47	3636.74
	03/28/14	3678.50	45.53	41.40	4.13	3636.42
	05/29/14	3678.50	46.10	41.54	4.56	3636.21
	08/28/14	3678.50	44.26	41.85	2.41	3636.25
	01/09/15	3678.50	44.19	40.95	3.24	3637.02
MW-2			Diameter: 4 in.	Screened Interval: 38 ft. to 53 ft.		TD: 53.42 ft.
	03/09/12	3679.47	44.57	40.99	3.58	3637.89
	06/27/12	3679.47	43.30	41.76	1.54	3637.46
	09/18/12	3679.47	43.41	41.86	1.55	3637.35
	12/18/12	3679.47	43.90	41.93	1.97	3637.21
	03/15/13	3679.47	42.52	42.07	0.45	3637.33
	06/07/13	3679.47	42.98	42.31	0.67	3637.05
	09/30/13	3679.47	43.00	42.41	0.59	3636.96
	12/02/13	3679.47	43.28	42.00	1.28	3637.26
	03/28/14	3679.47	42.98	42.63	0.35	3636.78
	05/29/14	3679.47	42.85	42.83	0.02	3636.64
	08/28/14	3679.47	43.20	42.69	0.51	3636.70
	01/09/15	3679.47	43.95	41.88	2.07	3637.25
MW-3			Diameter: 4 in.	Screened Interval: 39 ft. to 54 ft.		TD: 54.69 ft.
	03/09/12	3679.81	45.95	41.60	4.35	3637.49
	06/27/12	3679.81	46.55	41.94	4.61	3637.11
	09/18/12	3679.81	46.72	42.05	4.67	3636.99
	12/18/12	3679.81	45.96	42.40	3.56	3636.82
	03/15/13	3679.81	43.71	42.78	0.93	3636.88
	06/07/13	3679.81	46.24	42.43	3.81	3636.75
	09/30/13	3679.81	46.82	42.46	4.36	3636.63
	12/02/13	3679.81	45.96	42.58	3.38	3636.67
	03/28/14	3679.81	46.26	42.84	3.42	3636.41
	05/29/14	3679.81	46.97	42.91	4.06	3636.23
	08/28/14	3679.81	44.35	43.45	0.90	3636.21
	01/09/15	3679.81	45.44	42.42	3.02	3636.89
MW-4			Diameter: 4 in.	Screened Interval: 39 ft. to 54 ft.		TD: 54.62 ft.
	03/09/12	3679.64	44.88	41.41	3.47	3637.66
	06/27/12	3679.64	45.50	41.80	3.70	3637.23
	09/18/12	3679.64	45.89	41.83	4.06	3637.14
	12/18/12	3679.64	45.54	42.08	3.46	3636.99
	03/15/13	3679.64	44.17	42.24	1.93	3637.08
	06/07/13	3679.64	45.76	41.91	3.85	3637.09
	09/30/13	3679.64	45.79	42.07	3.72	3636.96
	12/02/13	3679.64	45.16	41.98	3.18	3637.14
	03/28/14	3679.64	46.00	42.50	3.50	3636.56
	05/29/14	3679.64	46.60	42.59	4.01	3636.39
	08/28/14	3679.64	44.95	42.88	2.07	3636.42
	01/09/15	3679.64	44.80	42.12	2.68	3637.08

Summary of Historical Fluid Level Measurements
Hobbs Junction Main Line
SRS #: 2003-0017

Well	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Depth to PSH (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)
MW-5			Diameter: 4 in.	Screened Interval: 40 ft. to 55 ft.		TD: 55 ft.
	03/09/12	3679.26	45.71	41.62	4.09	3636.97
	06/27/12	3679.26	47.13	41.75	5.38	3636.62
	09/18/12	3679.26	46.51	42.00	4.51	3636.52
	12/18/12	3679.26	46.83	42.22	4.61	3636.28
	03/15/13	3679.26	44.65	42.58	2.07	3636.34
	06/07/13	3679.26	47.28	42.07	5.21	3636.33
	09/30/13	3679.26	47.33	42.34	4.99	3636.10
	12/02/13	3679.26	48.41	42.28	6.13	3635.97
	03/28/14	3679.26	45.52	42.99	2.53	3635.85
	05/29/14	3679.26	47.65	42.75	4.90	3635.70
	08/28/14	3679.26	45.75	43.12	2.63	3635.71
	01/09/15	3679.26	46.40	42.18	4.22	3636.38
MW-6			Diameter: 4 in.	Screened Interval: 40 ft. to 55 ft.		TD: 55 ft.
	03/09/12	3680.63	45.97	42.44	3.53	3637.61
	06/27/12	3680.63	47.08	42.70	4.38	3637.21
	09/18/12	3680.63	46.57	42.95	3.62	3637.08
	12/18/12	3680.63	44.70	43.65	1.05	3636.81
	03/15/13	3680.63	44.56	43.45	1.11	3637.00
	06/07/13	3680.63	46.29	43.38	2.91	3636.77
	09/30/13	3680.63	46.26	43.11	3.15	3637.00
	12/02/13	3680.63	46.72	43.25	3.47	3636.81
	03/28/14	3680.63	44.82	44.00	0.82	3636.49
	05/29/14	3680.63	45.30	44.13	1.17	3636.31
	08/28/14	3680.63	47.52	43.60	3.92	3636.38
	01/09/15	3680.63	46.71	43.00	3.71	3637.02
MW-7			Diameter: 2 in.	Screened Interval: 38 ft. to 53 ft.		TD: 53 ft.
	03/09/12	3679.85	41.42	-	-	3638.43
	06/27/12	3679.85	41.68	-	-	3638.17
	09/18/12	3679.85	42.00	-	-	3637.85
	12/18/12	3679.85	42.14	-	-	3637.71
	03/15/13	3679.85	41.90	-	-	3637.95
	06/07/13	3679.85	41.99	-	-	3637.86
	09/30/13	3679.85	42.01	-	-	3637.84
	12/02/13	3679.85	42.16	-	-	3637.69
	03/28/14	3679.85	42.18	-	-	3637.67
	05/29/14	3679.85	42.61	-	-	3637.24
	08/28/14	3679.85	42.58	-	-	3637.27
	01/09/15	3679.85	41.99	-	-	3637.86
MW-8			Diameter: 2 in.	Screened Interval: 35 ft. to 50 ft.		TD: 49.97 ft.
	03/09/12	3679.07	42.50	41.35	1.15	3637.53
	06/27/12	3679.07	43.40	41.68	1.72	3637.11
	09/18/12	3679.07	43.91	41.70	2.21	3637.01
	12/18/12	3679.07	44.02	41.83	2.19	3636.88
	03/15/13	3679.07	44.16	41.62	2.54	3637.03
	06/07/13	3679.07	44.11	41.72	2.39	3636.96
	09/30/13	3679.07	44.14	41.92	2.22	3636.78
	12/02/13	3679.07	44.41	41.79	2.62	3636.85
	03/28/14	3679.07	44.71	42.18	2.53	3636.47
	05/29/14	3679.07	44.19	42.50	1.69	3636.29
	08/28/14	3679.07	44.04	42.47	1.57	3636.34
	01/09/15	3679.07	43.53	41.86	1.67	3636.93

Summary of Historical Fluid Level Measurements
Hobbs Junction Main Line
SRS #: 2003-0017

Well	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Depth to PSH (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)
MW-9			Diameter: 2 in.	Screened Interval: 37 ft. to 52 ft.		TD: 52 ft.
	03/09/12	3678.76	41.96	-	-	3636.80
	06/27/12	3678.76	42.33	-	-	3636.43
	09/18/12	3678.76	43.43	-	-	3635.33
	12/18/12	3678.76	42.81	-	-	3635.95
	03/15/13	3678.76	42.51	-	-	3636.25
	06/07/13	3678.76	42.51	-	-	3636.25
	09/30/13	3678.76	42.54	-	-	3636.22
	12/02/13	3678.76	42.76	-	-	3636.00
	03/28/14	3678.76	42.80	-	-	3635.96
	05/29/14	3678.76	43.21	43.20	0.01	3635.56
	08/28/14	3678.76	43.40	43.17	0.23	3635.55
	01/09/15	3678.76	43.42	42.44	0.98	3636.16
MW-10			Diameter: 2 in.	Screened Interval: 37 ft. to 52 ft.		TD: 52 ft.
	03/09/12	3678.36	43.22	41.84	1.38	3636.29
	06/27/12	3678.36	43.00	42.30	0.70	3635.94
	09/18/12	3678.36	44.35	42.19	2.16	3635.81
	12/18/12	3678.36	42.87	42.70	0.17	3635.63
	03/15/13	3678.36	42.74	42.62	0.12	3635.72
	06/07/13	3678.36	43.32	42.44	0.88	3635.77
	09/30/13	3678.36	43.30	42.49	0.81	3635.74
	12/02/13	3678.36	43.89	42.37	1.52	3635.74
	03/28/14	3678.36	43.43	43.17	0.26	3635.15
	05/29/14	3678.36	44.51	43.10	1.41	3635.03
	08/28/14	3678.36	43.40	43.31	0.09	3635.04
	01/09/15	3678.36	43.46	42.52	0.94	3635.68
MW-11			Diameter: 4 in.	Screened Interval: 36 ft. to 51 ft.		TD: 51 ft.
	03/09/12	3678.03	44.00	41.56	2.44	3636.07
	06/27/12	3678.03	44.86	41.70	3.16	3635.81
	09/18/12	3678.03	44.40	41.99	2.41	3635.64
	12/18/12	3678.03	45.34	42.05	3.29	3635.44
	03/15/13	3678.03	43.11	42.40	0.71	3635.51
	06/07/13	3678.03	45.45	41.84	3.61	3635.59
	09/30/13	3678.03	45.49	42.01	3.48	3635.45
	12/02/13	3678.03	43.98	42.11	1.87	3635.61
	03/28/14	3678.03	43.25	43.05	0.20	3634.95
	05/29/14	3678.03	43.28	43.18	0.10	3634.83
	08/28/14	3678.03	43.25	43.15	0.10	3634.86
	01/09/15	3678.03	43.90	42.18	1.72	3635.57
MW-12			Diameter: 4 in.	Screened Interval: 36 ft. to 51 ft.		TD: 51 ft.
	03/09/12	3679.63	45.75	41.90	3.85	3637.09
	06/27/12	3679.63	47.60	41.95	5.65	3636.75
	09/18/12	3679.63	46.56	42.36	4.20	3636.58
	12/18/12	3679.63	47.52	42.35	5.17	3636.43
	03/15/13	3679.63	47.20	42.45	4.75	3636.40
	06/07/13	3679.63	48.26	42.21	6.05	3636.42
	09/30/13	3679.63	48.27	42.24	6.03	3636.40
	12/02/13	3679.63	48.09	42.29	5.80	3636.38
	03/28/14	3679.63	48.57	42.89	5.68	3635.80
	05/29/14	3679.63	48.50	43.05	5.45	3635.68
	08/28/14	3679.63	43.97	43.79	0.18	3635.81
	01/09/15	3679.63	45.90	42.70	3.20	3636.40

Summary of Historical Fluid Level Measurements
Hobbs Junction Main Line
SRS #: 2003-0017

Well	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Depth to PSH (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)
MW-13			Diameter: 2 in.	Screened Interval: 36 ft. to 51.3 ft.		TD: 51.27 ft.
	03/09/12	3681.42	43.18	-	-	3638.24
	06/27/12	3681.42	43.68	-	-	3637.74
	09/18/12	3681.42	43.75	-	-	3637.67
	12/18/12	3681.42	43.92	-	-	3637.50
	03/15/13	3681.42	43.40	-	-	3638.02
	06/07/13	3681.42	43.77	-	-	3637.65
	09/30/13	3681.42	43.60	-	-	3637.82
	12/02/13	3681.42	43.88	-	-	3637.54
	03/28/14	3681.42	43.95	-	-	3637.47
	05/29/14	3681.42	44.43	-	-	3636.99
	08/28/14	3681.42	44.38	-	-	3637.04
	01/09/15	3681.42	43.73	-	-	3637.69
MW-14			Diameter: 4 in.	Screened Interval: 36 ft. to 51 ft.		TD: 51 ft.
	03/09/12	3679.00	45.50	41.31	4.19	3637.00
	06/27/12	3679.00	46.65	41.53	5.12	3636.63
	09/18/12	3679.00	46.60	41.69	4.91	3636.50
	12/18/12	3679.00	44.80	42.33	2.47	3636.26
	03/15/13	3679.00	43.18	42.58	0.60	3636.32
	06/07/13	3679.00	44.17	42.45	1.72	3636.27
	09/30/13	3679.00	44.26	42.61	1.65	3636.12
	12/02/13	3679.00	47.22	42.07	5.15	3636.08
	03/28/14	3679.00	47.47	42.30	5.17	3635.85
	05/29/14	3679.00	46.61	42.41	4.20	3635.90
	08/28/14	3679.00	47.73	42.41	5.32	3635.71
	01/09/15	3679.00	45.60	42.05	3.55	3636.36
MW-15			Diameter: 4 in.	Screened Interval: 34 ft. to 49 ft.		TD: 49.03 ft.
	03/09/12	3674.92	41.25	37.97	3.28	3636.41
	06/27/12	3674.92	42.20	38.22	3.98	3636.04
	09/18/12	3674.92	41.38	38.49	2.89	3635.95
	12/18/12	3674.92	41.03	38.81	2.22	3635.74
	03/15/13	3674.92	39.88	38.90	0.98	3635.86
	06/07/13	3674.92	40.62	38.70	1.92	3635.90
	09/30/13	3674.92	40.69	39.07	1.62	3635.58
	12/02/13	3674.92	41.86	38.49	3.37	3635.87
	03/28/14	3674.92	40.70	39.41	1.29	3635.30
	05/29/14	3674.92	40.40	39.75	0.65	3635.06
	08/28/14	3674.92	41.49	39.40	2.09	3635.18
	01/09/15	3674.92	41.75	38.50	3.25	3635.88
MW-16			Diameter: 4 in.	Screened Interval: 33 ft. to 48 ft.		TD: 48 ft.
	03/09/12	3676.86	40.32	39.72	0.60	3637.04
	06/27/12	3676.86	40.85	40.05	0.80	3636.68
	09/18/12	3676.86	40.90	40.16	0.74	3636.58
	12/18/12	3676.86	41.42	40.26	1.16	3636.41
	03/15/13	3676.86	41.61	40.05	1.56	3636.55
	06/07/13	3676.86	42.60	40.00	2.60	3636.43
	09/30/13	3676.86	42.63	40.09	2.54	3636.35
	12/02/13	3676.86	42.71	40.06	2.65	3636.36
	03/28/14	3676.86	43.58	40.31	3.27	3636.01
	05/29/14	3676.86	42.95	40.70	2.25	3635.79
	08/28/14	3676.86	43.23	39.52	3.71	3636.73
	01/09/15	3676.86	42.45	39.92	2.53	3636.52

Summary of Historical Fluid Level Measurements
Hobbs Junction Main Line
SRS #: 2003-0017

Well	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Depth to PSH (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)
MW-17			Diameter: 4 in.	Screened Interval: 36 ft. to 51 ft.		TD: 51 ft.
	03/09/12	3679.01	46.31	41.51	4.80	3636.71
	06/27/12	3679.01	46.80	41.84	4.96	3636.35
	09/18/12	3679.01	45.15	42.37	2.78	3636.18
	12/18/12	3679.01	45.95	42.40	3.55	3636.02
	03/15/13	3679.01	43.95	42.81	1.14	3636.01
	06/07/13	3679.01	45.10	42.46	2.64	3636.11
	09/30/13	3679.01	45.11	42.61	2.50	3635.99
	12/02/13	3679.01	45.10	42.46	2.64	3636.11
	03/28/14	3679.01	Block	-	-	Block
	05/29/14	3679.01	48.29	42.40	5.89	3635.64
	08/28/14	3679.01	48.26	42.68	5.58	3635.41
	01/09/15	3679.01	46.47	42.22	4.25	3636.09
MW-18			Diameter: 2 in.	Screened Interval: 30 ft. to 45 ft.		TD: 45 ft.
	03/09/12	3675.68	38.53	-	-	3637.15
	06/27/12	3675.68	38.91	-	-	3636.77
	09/18/12	3675.68	39.03	-	-	3636.65
	12/18/12	3675.68	39.23	-	-	3636.45
	03/15/13	3675.68	38.97	-	-	3636.71
	06/07/13	3675.68	39.05	-	-	3636.63
	09/30/13	3675.68	39.11	-	-	3636.57
	12/02/13	3675.68	39.16	-	-	3636.52
	03/28/14	3675.68	39.28	-	-	3636.40
	05/29/14	3675.68	39.79	-	-	3635.89
	08/28/14	3675.68	39.68	-	-	3636.00
	01/09/15	3675.68	39.50	-	-	3636.18
MW-19			Diameter: 2 in.	Screened Interval: 31 ft. to 46 ft.		TD: 46 ft.
	03/09/12	3674.96	38.47	-	-	3636.49
	06/27/12	3674.96	38.48	-	-	3636.48
	09/18/12	3674.96	38.92	-	-	3636.04
	12/18/12	3674.96	39.12	-	-	3635.84
	03/15/13	3674.96	38.94	-	-	3636.02
	06/07/13	3674.96	38.99	-	-	3635.97
	09/30/13	3674.96	39.86	39.47	0.39	3635.43
	12/02/13	3674.96	39.87	-	-	3635.09
	03/28/14	3674.96	41.78	38.42	3.36	3635.99
	05/29/14	3674.96	41.94	39.34	2.60	3635.19
	08/28/14	3674.96	39.90	39.58	0.32	3635.33
	01/09/15	3674.96	39.57	38.91	0.66	3635.94
MW-20			Diameter: 2 in.	Screened Interval: 31 ft. to 46 ft.		TD: 46 ft.
	03/09/12	3674.38	40.35	38.20	2.15	3635.83
	06/27/12	3674.38	41.25	38.38	2.87	3635.53
	09/18/12	3674.38	41.00	38.58	2.42	3635.40
	12/18/12	3674.38	40.05	39.02	1.03	3635.19
	03/15/13	3674.38	41.92	38.50	3.42	3635.32
	06/07/13	3674.38	41.95	38.48	3.47	3635.33
	09/30/13	3674.38	42.02	38.91	3.11	3634.96
	12/02/13	3674.38	41.84	39.32	2.52	3634.64
	03/28/14	3674.38	40.18	39.57	0.61	3634.71
	05/29/14	3674.38	41.40	39.53	1.87	3634.54
	08/28/14	3674.38	NG	-	-	NG
	01/09/15	3674.38	40.72	38.80	1.92	3635.26

Summary of Historical Fluid Level Measurements
Hobbs Junction Main Line
SRS #: 2003-0017

Well	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Depth to PSH (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)
MW-21			Diameter: 2 in.	Screened Interval: 23 ft. to 53 ft.		TD: 53.04 ft.
	03/09/12	3674.38	38.87	-	-	3635.51
	06/27/12	3674.38	39.15	-	-	3635.23
	09/18/12	3674.38	39.27	-	-	3635.11
	12/18/12	3674.38	38.64	-	-	3635.74
	03/15/13	3674.38	39.32	-	-	3635.06
	06/07/13	3674.38	39.33	-	-	3635.05
	09/30/13	3674.38	39.41	-	-	3634.97
	12/02/13	3674.38	39.39	-	-	3634.99
	03/28/14	3674.38	39.66	-	-	3634.72
	05/29/14	3674.38	40.15	-	-	3634.23
	08/28/14	3674.38	40.03	-	-	3634.35
	01/09/15	3674.38	39.46	-	-	3634.92
MW-22			Diameter: 2 in.	Screened Interval: 20 ft. to 50 ft.		TD: 50 ft.
	03/09/12	3674.07	38.64	-	-	3635.43
	06/27/12	3674.07	38.94	-	-	3635.13
	09/18/12	3674.07	39.07	-	-	3635.00
	12/18/12	3674.07	39.28	-	-	3634.79
	03/15/13	3674.07	39.11	-	-	3634.96
	06/07/13	3674.07	39.31	-	-	3634.76
	09/30/13	3674.07	39.34	-	-	3634.73
	12/02/13	3674.07	39.36	-	-	3634.71
	03/28/14	3674.07	39.42	-	-	3634.65
	05/29/14	3674.07	39.98	-	-	3634.09
	08/28/14	3674.07	39.81	-	-	3634.26
	01/09/15	3674.07	39.25	-	-	3634.82
MW-23			Diameter: 2 in.	Screened Interval: 29 ft. to 49 ft.		TD: 49 ft.
	03/09/12	3672.39	39.65	-	-	3632.74
	06/27/12	3672.39	38.68	-	-	3633.71
	09/18/12	3672.39	38.82	-	-	3633.57
	12/18/12	3672.39	39.02	-	-	3633.37
	03/15/13	3672.39	38.77	-	-	3633.62
	06/07/13	3672.39	38.85	-	-	3633.54
	09/30/13	3672.39	38.89	-	-	3633.50
	12/02/13	3672.39	38.91	-	-	3633.48
	03/28/14	3672.39	39.18	-	-	3633.21
	05/29/14	3672.39	39.60	-	-	3632.79
	08/28/14	3672.39	39.49	-	-	3632.90
	01/09/15	3672.39	39.07	-	-	3633.32
MW-24			Diameter: 2 in.	Screened Interval: 30 ft. to 50 ft.		TD: 50 ft.
	03/09/12	3672.79	39.48	-	-	3633.31
	06/27/12	3672.79	38.58	-	-	3634.21
	09/18/12	3672.79	38.78	-	-	3634.01
	12/18/12	3672.79	38.93	-	-	3633.86
	03/15/13	3672.79	38.67	-	-	3634.12
	06/07/13	3672.79	38.81	-	-	3633.98
	09/30/13	3672.79	38.76	-	-	3634.03
	12/02/13	3672.79	38.89	-	-	3633.90
	03/28/14	3672.79	39.08	-	-	3633.71
	05/29/14	3672.79	39.54	-	-	3633.25
	08/28/14	3672.79	39.40	-	-	3633.39
	01/09/15	3672.79	38.94	-	-	3633.85

Summary of Historical Fluid Level Measurements
Hobbs Junction Main Line
SRS #: 2003-0017

Well	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Depth to PSH (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)
MW-25			Diameter: 4 in.	Screened Interval: 37 ft. to 57 ft.		TD: 57.03 ft.
	12/02/13	3676.83	41.65	41.52	0.13	3635.29
	03/28/14	3676.83	42.30	41.85	0.45	3634.91
	05/29/14	3676.83	42.55	41.95	0.60	3634.78
	08/28/14	3676.83	42.61	41.90	0.71	3634.81
	01/09/15	3676.83	42.03	41.23	0.80	3635.47
MW-26			Diameter: 4 in.	Screened Interval: 37 ft. to 56.5 ft.		TD: 56.48 ft.
	12/02/13	3677.17	43.91	40.98	2.93	3635.71
	03/28/14	3677.17	43.58	41.60	1.98	3635.24
	05/29/14	3677.17	44.25	41.60	2.65	3635.13
	08/28/14	3677.17	43.04	42.80	0.24	3634.33
	01/09/15	3677.17	42.65	41.07	1.58	3635.84
MW-27			Diameter: in.	Screened Interval: 35 ft. to 54.5 ft.		TD: 54.53 ft.
	12/02/13	3674.98	42.41	38.30	4.11	3636.00
	03/28/14	3674.98	43.03	38.89	4.14	3635.41
	05/29/14	3674.98	40.71	39.63	1.08	3635.17
	08/28/14	3674.98	42.71	39.09	3.62	3635.29
	01/09/15	3674.98	41.63	38.51	3.12	3635.96

Specific Gravity: 0.835

NG - Not Gauged
NSch - Not scheduled to be gauged
Block - Well blocked/obstructed
Locate - Can not locate/find well
Dry - Well is dry
P&A - Plug and Abandon
WD - Well Destroyed

Summary of Historical Groundwater Analytical Data
Hobbs Junction Main Line
SRS #: 2003-0017

Sample Designation	Date Sampled	Concentration (mg/L)				
		Benzene	Toluene	Ethylbenzene	Total Xylenes	BTEX
MW-7	06/28/12	<0.000371	<0.000347	<0.000326	BRL	-
	09/18/12	<0.000371	<0.000347	<0.000326	BRL	-
	12/18/12	<0.000371	<0.000347	<0.000326	BRL	-
	03/18/13	<0.000567	<0.000518	<0.000518	BRL	-
	06/07/13	<0.000500	<0.00100	<0.000700	U	U
	03/28/14	<0.000238	<0.000181	<0.000247	BRL	-
	01/13/15	<0.00100	<0.00100	<0.00100	<0.00100	-
	03/10/15	<0.00100	<0.00100	<0.00100	<0.00100	-
MW-9	06/28/12	<0.000371	<0.000347	<0.000326	BRL	-
	09/18/12	<0.000371	<0.000347	<0.000326	BRL	-
	12/18/12	<0.000371	<0.000347	<0.000326	BRL	-
	03/18/13	<0.000567	<0.000518	<0.000518	BRL	-
	06/07/13	<0.000500	<0.00100	<0.000700	U	U
	03/28/14	0.00230	0.00190	0.00940	0.0143	-
MW-13	06/28/12	<0.000371	<0.000347	<0.000326	BRL	-
	09/18/12	<0.000371	<0.000347	<0.000326	BRL	-
	12/18/12	<0.000371	<0.000347	<0.000326	BRL	-
	03/18/13	<0.000567	<0.000518	<0.000518	BRL	-
	06/07/13	0.00224	0.00357	0.00116	U	0.00697
	03/28/14	<0.000238	<0.000181	<0.000247	BRL	-
	01/13/15	<0.00100	<0.00100	<0.00100	<0.00100	-
	03/10/15	<0.00100	<0.00100	<0.00100	<0.00100	-

Summary of Historical Groundwater Analytical Data
Hobbs Junction Main Line
SRS #: 2003-0017

Sample Designation	Date Sampled	Concentration (mg/L)				
		Benzene	Toluene	Ethylbenzene	Total Xylenes	BTEX
MW-18	03/09/12	BRL	BRL	BRL	BRL	BRL
	06/28/12	<0.000371	<0.000347	<0.000326	BRL	-
	09/18/12	<0.000371	<0.000347	<0.000326	BRL	-
	12/18/12	<0.000371	<0.000347	<0.000326	BRL	-
	03/18/13	<0.000567	<0.000518	<0.000518	BRL	-
	06/07/13	0.00718	0.0122	0.00372	0.00596	0.0291
	09/30/13	<0.000567	<0.000518	<0.000518	BRL	-
	12/03/13	<0.000567	<0.000518	<0.000518	BRL	-
	03/28/14	<0.000238	<0.000181	<0.000247	BRL	-
	05/29/14	<0.00100	<0.00100	<0.00100	0.00300	-
	08/28/14	<0.00100	<0.00100	<0.00100	<0.00100	-
	01/13/15	<0.00100	<0.00100	<0.00100	<0.00100	-
	03/11/15	0.00930	<0.00100	0.00360	0.00140	-
MW-19	03/09/12	6.33	BRL	0.470	0.102	6.90
	06/28/12	0.491	<0.0174	0.250	BRL	-
	09/18/12	0.204	0.0607	0.0989	0.0427	-
	12/18/12	0.146	0.0720	0.0716	0.0363	-
	03/18/13	0.783	0.351	0.232	0.206	-
	06/07/13	1.33	0.762	0.343	0.407	2.84
MW-21	03/09/12	0.437	BRL	0.323	0.0207	0.786
	06/28/12	4.84	<0.0347	0.257	BRL	-
	09/18/12	9.17	<0.0174	0.694	0.298	-
	12/18/12	7.82	<0.0174	0.563	0.247	-
	03/18/13	13.7	<0.0259	0.969	0.448	-
	06/07/13	14.0	<0.0500	1.05	0.461	15.5
	09/30/13	17.2	<0.0518	0.999	BRL	-
	12/03/13	22.0	<0.0518	1.10	BRL	-
	03/28/14	13.0	<0.00905	0.742	0.275	-
	05/29/14	3.49	<0.00100	0.160	0.00300	-
	08/28/14	18.4	<0.00500	1.24	0.412	-
	01/13/15	15.4	<0.0500	1.23	0.799	-
	03/10/15	2.14	<0.200	0.380	<0.200	-

Summary of Historical Groundwater Analytical Data
Hobbs Junction Main Line
SRS #: 2003-0017

Sample Designation	Date Sampled	Concentration (mg/L)				
		Benzene	Toluene	Ethylbenzene	Total Xylenes	BTEX
MW-22	03/09/12	4.38	BRL	0.307	BRL	4.69
	06/28/12	2.27	<0.0347	<0.0326	BRL	-
	09/18/12	0.972	<0.00130	0.0442	BRL	-
	12/18/12	1.76	<0.00347	0.0278	BRL	-
	03/18/13	1.04	<0.00518	<0.00518	BRL	-
	06/07/13	1.30	<0.00500	0.00660	U	1.31
	09/30/13	0.172	<0.000518	<0.000518	BRL	-
	12/03/13	0.906	<0.00518	<0.00518	BRL	-
	03/28/14	14.0	<0.00905	0.811	BRL	-
	05/29/14	4.36	<0.00100	<0.00100	0.00300	-
	08/28/14	11.8	<0.00500	0.824	<0.0500	-
	01/13/15	8.36	<0.0500	0.785	0.393	-
	03/10/15	6.80	<0.200	0.705	<0.200	-
MW-23	03/09/12	BRL	BRL	BRL	BRL	BRL
	06/28/12	<0.000371	<0.000347	<0.000326	BRL	-
	09/18/12	<0.000310	<0.000259	<0.000291	BRL	-
	12/18/12	<0.000371	<0.000347	<0.000326	BRL	-
	03/18/13	<0.000567	<0.000518	<0.000518	BRL	-
	06/07/13	<0.000500	<0.00100	<0.000700	U	U
	09/30/13	<0.000567	<0.000518	<0.000518	BRL	-
	12/02/13	<0.000387	<0.000465	<0.000442	BRL	-
	03/28/14	<0.000238	<0.000181	<0.000247	BRL	-
	05/29/14	<0.00100	<0.00100	<0.00100	0.00300	-
	08/28/14	<0.00100	<0.00100	<0.00100	<0.00100	-
	01/13/15	<0.00100	<0.00100	<0.00100	<0.00100	-
	03/10/15	<0.00100	<0.00100	<0.00100	<0.00100	-

Summary of Historical Groundwater Analytical Data
Hobbs Junction Main Line
SRS #: 2003-0017

Sample Designation	Date Sampled	Concentration (mg/L)				
		Benzene	Toluene	Ethylbenzene	Total Xylenes	BTEX
MW-24	03/09/12	BRL	BRL	BRL	BRL	BRL
	06/28/12	<0.000371	<0.000347	<0.000326	BRL	-
	09/18/12	<0.000371	<0.000347	<0.000326	BRL	-
	12/18/12	<0.000371	<0.000347	<0.000326	BRL	-
	03/18/13	<0.000567	<0.000518	<0.000518	BRL	-
	06/07/13	<0.000500	<0.00100	<0.000700	U	U
	09/30/13	<0.000567	<0.000518	<0.000518	BRL	-
	12/02/13	<0.000387	<0.000465	<0.000442	BRL	-
	03/28/14	<0.000238	<0.000181	<0.000247	BRL	-
	05/29/14	<0.00100	<0.00100	<0.00100	0.00300	-
	08/28/14	<0.00100	<0.00100	<0.00100	<0.00100	-
	01/13/15	<0.00100	<0.00100	<0.00100	<0.00100	-
	03/10/15	<0.00100	<0.00100	<0.00100	<0.00100	-
MW-25	03/18/13	2.18	0.582	0.182	0.228	-

Summary of Historical Groundwater Analytical Data - PAH Supplement
Hobbs Junction Main Line
SRS #: 2003-0017

Sample Designation	Date Sampled	Concentration (mg/L)																		
		1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Dibenzofuran	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene
MW-21	05/29/14	0.0101	0.00649	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	0.000868	<0.000200	0.000391	<0.000200	0.0185	<0.000200	<0.000200
MW-22	05/29/14	0.00260	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	0.000297	<0.000200	<0.000200	<0.000200	0.000237	<0.000200	<0.000200

APPENDIX C

Laboratory Analytical Data Reports and Chains of Custody Documentation

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
200 East Sunset Road, Suite E El Paso, Texas 79922 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
(BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972•242•7750
E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Brad Ivy
Talon LPE-Midland
2901 State Highway 349
Midland, TX, 79706

Report Date: April 2, 2014

Work Order: 14033122

Project Location: Hobbs, NM
Project Name: Hobbs Junction Mainline
Project Number: 700376.052.01
SRS#: 2003-00017

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
359189	MW-7	water	2014-03-28	12:15	2014-03-31
359190	MW-9	water	2014-03-28	12:00	2014-03-31
359191	MW-13	water	2014-03-28	12:30	2014-03-31
359192	MW-18	water	2014-03-28	13:00	2014-03-31
359193	MW-21	water	2014-03-28	14:20	2014-03-31
359194	MW-22	water	2014-03-28	14:30	2014-03-31
359195	MW-23	water	2014-03-28	14:10	2014-03-31
359196	MW-24	water	2014-03-28	14:00	2014-03-31

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

Report Contents

Case Narrative

Samples for project Hobbs Junction Mainline were received by TraceAnalysis, Inc. on 2014-03-31 and assigned to work order 14033122. Samples for work order 14033122 were received intact without headspace and at a temperature of 4.8 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	93617	2014-04-01 at 11:39	110750	2014-04-02 at 08:31

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 14033122 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 359189 - MW-7

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	110750	Date Analyzed:	2014-04-02	Analyzed By:	AK
Prep Batch:	93617	Sample Preparation:	2014-04-01	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0966	mg/L	1	0.100	97	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0769	mg/L	1	0.100	77	70 - 130

Sample: 359190 - MW-9

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	110750	Date Analyzed:	2014-04-02	Analyzed By:	AK
Prep Batch:	93617	Sample Preparation:	2014-04-01	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	**0.00230**	mg/L	1	0.00100
Toluene		1	**0.00190**	mg/L	1	0.00100
Ethylbenzene		1	**0.00940**	mg/L	1	0.00100
Xylene		1	**0.0143**	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0955	mg/L	1	0.100	96	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0801	mg/L	1	0.100	80	70 - 130

Sample: 359191 - MW-13

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	110750	Date Analyzed:	2014-04-02	Analyzed By:	AK
Prep Batch:	93617	Sample Preparation:	2014-04-01	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0941	mg/L	1	0.100	94	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0741	mg/L	1	0.100	74	70 - 130

Sample: 359192 - MW-18

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	110750	Date Analyzed:	2014-04-02	Analyzed By:	AK
Prep Batch:	93617	Sample Preparation:	2014-04-01	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0968	mg/L	1	0.100	97	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0750	mg/L	1	0.100	75	70 - 130

Sample: 359193 - MW-21

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	110750	Date Analyzed:	2014-04-02	Analyzed By:	AK
Prep Batch:	93617	Sample Preparation:	2014-04-01	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene		1	**13.0**	mg/L	50	0.00100
Toluene	U	1	<0.0500	mg/L	50	0.00100
Ethylbenzene		1	**0.742**	mg/L	50	0.00100
Xylene		1	**0.275**	mg/L	50	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			4.74	mg/L	50	5.00	95	70 - 130
4-Bromofluorobenzene (4-BFB)			3.97	mg/L	50	5.00	79	70 - 130

Sample: 359194 - MW-22

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	110750	Date Analyzed:	2014-04-02	Analyzed By:	AK
Prep Batch:	93617	Sample Preparation:	2014-04-01	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene		1	**14.0**	mg/L	50	0.00100
Toluene	U	1	<0.0500	mg/L	50	0.00100
Ethylbenzene		1	**0.811**	mg/L	50	0.00100
Xylene	U	1	<0.150	mg/L	50	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			4.81	mg/L	50	5.00	96	70 - 130
4-Bromofluorobenzene (4-BFB)			3.87	mg/L	50	5.00	77	70 - 130

Sample: 359195 - MW-23

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	110750	Date Analyzed:	2014-04-02	Analyzed By:	AK
Prep Batch:	93617	Sample Preparation:	2014-04-01	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0927	mg/L	1	0.100	93	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0744	mg/L	1	0.100	74	70 - 130

Sample: 359196 - MW-24

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	110750	Date Analyzed:	2014-04-02	Analyzed By:	AK
Prep Batch:	93617	Sample Preparation:	2014-04-01	Prepared By:	AK

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0946	mg/L	1	0.100	95	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0747	mg/L	1	0.100	75	70 - 130

Method Blanks

Method Blank (1) QC Batch: 110750

QC Batch:	110750	Date Analyzed:	2014-04-02	Analyzed By:	AK
Prep Batch:	93617	QC Preparation:	2014-04-01	Prepared By:	AK

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000238	mg/L	0.001
Toluene		1	<0.000181	mg/L	0.001
Ethylbenzene		1	<0.000247	mg/L	0.001
Xylene		1	<0.000189	mg/L	0.003

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.105	mg/L	1	0.100	105	70 - 130
4-Bromofluorobenzene (4-BFB)			0.103	mg/L	1	0.100	103	70 - 130

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 110750 | Date Analyzed: 2014-04-02 | Analyzed By: AK
Prep Batch: 93617 | QC Preparation: 2014-04-01 | Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0977	mg/L	1	0.100	<0.000238	98	70 - 130
Toluene		1	0.0992	mg/L	1	0.100	<0.000181	99	70 - 130
Ethylbenzene		1	0.0942	mg/L	1	0.100	<0.000247	94	70 - 130
Xylene		1	0.286	mg/L	1	0.300	<0.000189	95	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0831	mg/L	1	0.100	<0.000238	83	70 - 130	16	20
Toluene		1	0.0835	mg/L	1	0.100	<0.000181	84	70 - 130	17	20
Ethylbenzene		1	0.0817	mg/L	1	0.100	<0.000247	82	70 - 130	14	20
Xylene		1	0.245	mg/L	1	0.300	<0.000189	82	70 - 130	15	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.102	0.103	mg/L	1	0.100	102	103	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0979	0.0991	mg/L	1	0.100	98	99	70 - 130

Matrix Spike (MS-1) Spiked Sample: 358968

QC Batch: 110750 | Date Analyzed: 2014-04-02 | Analyzed By: AK
Prep Batch: 93617 | QC Preparation: 2014-04-01 | Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.496	mg/L	5	0.500	<0.00119	99	70 - 130
Toluene		1	0.501	mg/L	5	0.500	<0.000905	100	70 - 130
Ethylbenzene		1	0.482	mg/L	5	0.500	<0.00124	96	70 - 130
Xylene		1	1.45	mg/L	5	1.50	<0.000945	97	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.522	mg/L	5	0.500	<0.00119	104	70 - 130	5	20
Toluene		1	0.534	mg/L	5	0.500	<0.000905	107	70 - 130	6	20
Ethylbenzene		1	0.518	mg/L	5	0.500	<0.00124	104	70 - 130	7	20
Xylene		1	1.57	mg/L	5	1.50	<0.000945	105	70 - 130	8	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.517	0.508	mg/L	5	0.5	103	102	70 - 130
4-Bromofluorobenzene (4-BFB)	0.512	0.514	mg/L	5	0.5	102	103	70 - 130

Calibration Standards

Standard (CCV-1)

QC Batch: 110750 | Date Analyzed: 2014-04-02 | Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0978	98	80 - 120	2014-04-02
Toluene		1	mg/L	0.100	0.0984	98	80 - 120	2014-04-02
Ethylbenzene		1	mg/L	0.100	0.0937	94	80 - 120	2014-04-02
Xylene		1	mg/L	0.300	0.284	95	80 - 120	2014-04-02

Standard (CCV-2)

QC Batch: 110750 | Date Analyzed: 2014-04-02 | Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0982	98	80 - 120	2014-04-02
Toluene		1	mg/L	0.100	0.100	100	80 - 120	2014-04-02
Ethylbenzene		1	mg/L	0.100	0.0958	96	80 - 120	2014-04-02
Xylene		1	mg/L	0.300	0.288	96	80 - 120	2014-04-02

Standard (CCV-3)

QC Batch: 110750 | Date Analyzed: 2014-04-02 | Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0985	98	80 - 120	2014-04-02
Toluene		1	mg/L	0.100	0.0995	100	80 - 120	2014-04-02
Ethylbenzene		1	mg/L	0.100	0.0942	94	80 - 120	2014-04-02
Xylene		1	mg/L	0.300	0.284	95	80 - 120	2014-04-02

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-13-7	Midland

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

LAB Order ID # 1403312

Page 1 of 1

TraceAnalysis, Inc.

email: lab@traceanalysis.com

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Tel (806) 794-1296
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200 East Sunset Rd., Suite E
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Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

BioAquatic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

Brandon & Clark
3403 Industrial Blvd.
Hobbs, NM 88240
Tel (575) 392-7561
Fax (575) 392-4508

Company Name: Talon LPE
Phone #: 940-329-0691
Address: (Street, City, Zip) 2901 State Hwy 349, Midland
Fax #:
Contact Person: Brad Ivy
E-mail: bivy@talonlpe.com
Invoice to: (If different from above) SAS # 2003-00017 Plains all american pipeline
Project #: 700376.052.01
Project Name: Hobbs Junction Mainline
Project Location (including state): Hobbs, New Mexico
Sampler Signature: Jake Mursey

ANALYSIS REQUEST

(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME
39189	MW 7	3	40mL	X				X				X		3-28-2014	12:15
190	MW 9														12:00
191	MW 13														12:30
192	MW 18														13:00
	~~MW 19~~														15:00
A93	MW 21														14:20
194	MW 22														14:30
195	MW 23														14:10
A96	MW 24														14:00

ANALYSIS REQUEST	Turn Around Time if different from standard	Hold
MTBE 8021 / 602 / 8260 / 624		
BTEX 8021 / 602 / 8260 / 624	X	
TPH 418.1 / TX1005 / TX1005 Ext(C35)		
TPH 8015 GRO / DRO / TVHC		
PAH 8270 / 625		
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7		
TCLP Metals Ag As Ba Cd Cr Pb Se Hg		
TCLP Volatiles		
TCLP Semi Volatiles		
TCLP Pesticides		
RCI		
GC/MS Vol. 8260 / 624		
GC/MS Semi. Vol. 8270 / 625		
PCB's 8082 / 608		
Pesticides 8081 / 608		
BOD, TSS, pH		
Moisture Content		
Cl, F, SO_4, NO_3-N, NO_2-N, PO_4-P, Alkalinity		
Na, Ca, Mg, K, TDS, EC		

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
Jake Mursey	Talon LPE	3-31-2014	15:52			3/31/14	552	INST 4.1 °C
								OBS 4.8 °C
								COR °C
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST °C
								OBS °C
								COR °C
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST °C
								OBS °C
								COR °C

LAB USE ONLY

Intact Y / N

Headspace Y / N / NA

Log-in-Review

REMARKS: Midland AU

- [ ] Dry Weight Basis Required
- [ ] TRRP Report Required
- [ ] Check If Special Reporting Limits Are Needed

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

Carrier #

ORIGINAL COPY

TRACEANALYSIS, INC.

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(BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972•242•7750
E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Brad Ivy
Talon LPE-Midland
2901 State Highway 349
Midland, TX, 79706

Report Date: June 13, 2014

Work Order: 14053003

Project Location: Hobbs, NM
Project Name: Hobbs Junction Mainline
Project Number: 700376.052.01
SRS#: 2003-00017

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
364350	MW-18	water	2014-05-29	12:10	2014-05-30
364351	MW-21	water	2014-05-29	13:00	2014-05-30
364352	MW-22	water	2014-05-29	12:45	2014-05-30
364353	MW-23	water	2014-05-29	12:30	2014-05-30
364354	MW-24	water	2014-05-29	12:20	2014-05-30

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

Report Contents

Case Narrative

Samples for project Hobbs Junction Mainline were received by TraceAnalysis, Inc. on 2014-05-30 and assigned to work order 14053003. Samples for work order 14053003 were received intact without headspace and at a temperature of 3.1 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	95063	2014-06-02 at 10:37	112504	2014-06-04 at 07:40
PAH	S 8270D	95375	2014-06-05 at 15:00	112794	2014-06-13 at 10:30

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 14053003 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 364350 - MW-18

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	112504	Date Analyzed:	2014-06-04	Analyzed By:	AK
Prep Batch:	95063	Sample Preparation:	2014-06-02	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	2	<0.00100	mg/L	1	0.00100
Toluene	U	2	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	2	<0.00100	mg/L	1	0.00100
Xylene	U	2	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0959	mg/L	1	0.100	96	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0857	mg/L	1	0.100	86	70 - 130

Sample: 364351 - MW-21

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	112504	Date Analyzed:	2014-06-04	Analyzed By:	AK
Prep Batch:	95063	Sample Preparation:	2014-06-02	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		2	**3.49**	mg/L	100	0.00100
Toluene	U	2	<0.100	mg/L	100	0.00100
Ethylbenzene		2	**0.160**	mg/L	100	0.00100
Xylene	U	2	<0.300	mg/L	100	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			9.51	mg/L	100	10.0	95	70 - 130
4-Bromofluorobenzene (4-BFB)			8.42	mg/L	100	10.0	84	70 - 130

Sample: 364351 - MW-21

Laboratory:	Lubbock				
Analysis:	PAH	Analytical Method:	S 8270D	Prep Method:	S 3510C
QC Batch:	112794	Date Analyzed:	2014-06-13	Analyzed By:	MN
Prep Batch:	95375	Sample Preparation:	2014-06-05	Prepared By:	MN

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Naphthalene		1	**0.0185**	mg/L	0.985	0.000200
2-Methylnaphthalene		1	**0.00649**	mg/L	0.985	0.000200
1-Methylnaphthalene			**0.0101**	mg/L	0.985	0.000200
Acenaphthylene	U	1	<0.000197	mg/L	0.985	0.000200
Acenaphthene	U	1	<0.000197	mg/L	0.985	0.000200
Dibenzofuran		1	**0.000868**	mg/L	0.985	0.000200
Fluorene		1	**0.000391**	mg/L	0.985	0.000200
Anthracene	U	1	<0.000197	mg/L	0.985	0.000200
Phenanthrene	Qc,U	1	<0.000197	mg/L	0.985	0.000200
Fluoranthene	U	1	<0.000197	mg/L	0.985	0.000200
Pyrene	Qc,U	1	<0.000197	mg/L	0.985	0.000200
Benzo(a)anthracene	U	1	<0.000197	mg/L	0.985	0.000200
Chrysene	U	1	<0.000197	mg/L	0.985	0.000200
Benzo(b)fluoranthene	U	1	<0.000197	mg/L	0.985	0.000200
Benzo(k)fluoranthene	U	1	<0.000197	mg/L	0.985	0.000200
Benzo(a)pyrene	U	1	<0.000197	mg/L	0.985	0.000200
Indeno(1,2,3-cd)pyrene	U	1	<0.000197	mg/L	0.985	0.000200
Dibenzo(a,h)anthracene	U	1	<0.000197	mg/L	0.985	0.000200
Benzo(g,h,i)perylene	U	1	<0.000197	mg/L	0.985	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0493	mg/L	0.985	0.0800	62	10 - 121
2-Fluorobiphenyl			0.0522	mg/L	0.985	0.0800	65	20.5 - 120
Terphenyl-d14			0.0623	mg/L	0.985	0.0800	78	26.4 - 120

Sample: 364352 - MW-22

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	112504	Date Analyzed:	2014-06-04	Analyzed By:	AK
Prep Batch:	95063	Sample Preparation:	2014-06-02	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		2	**4.36**	mg/L	100	0.00100

continued . . .

sample 364352 continued . . .

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Toluene	U	2	<0.100	mg/L	100	0.00100
Ethylbenzene	U	2	<0.100	mg/L	100	0.00100
Xylene	U	2	<0.300	mg/L	100	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			9.68	mg/L	100	10.0	97	70 - 130
4-Bromofluorobenzene (4-BFB)			8.54	mg/L	100	10.0	85	70 - 130

Sample: 364352 - MW-22

Laboratory:	Lubbock				
Analysis:	PAH	Analytical Method:	S 8270D	Prep Method:	S 3510C
QC Batch:	112794	Date Analyzed:	2014-06-13	Analyzed By:	MN
Prep Batch:	95375	Sample Preparation:	2014-06-05	Prepared By:	MN

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Naphthalene		1	**0.000237**	mg/L	0.99	0.000200
2-Methylnaphthalene	U	1	<0.000198	mg/L	0.99	0.000200
1-Methylnaphthalene			**0.00260**	mg/L	0.99	0.000200
Acenaphthylene	U	1	<0.000198	mg/L	0.99	0.000200
Acenaphthene	U	1	<0.000198	mg/L	0.99	0.000200
Dibenzofuran		1	**0.000297**	mg/L	0.99	0.000200
Fluorene	U	1	<0.000198	mg/L	0.99	0.000200
Anthracene	U	1	<0.000198	mg/L	0.99	0.000200
Phenanthrene	Qc,U	1	<0.000198	mg/L	0.99	0.000200
Fluoranthene	U	1	<0.000198	mg/L	0.99	0.000200
Pyrene	Qc,U	1	<0.000198	mg/L	0.99	0.000200
Benzo(a)anthracene	U	1	<0.000198	mg/L	0.99	0.000200
Chrysene	U	1	<0.000198	mg/L	0.99	0.000200
Benzo(b)fluoranthene	U	1	<0.000198	mg/L	0.99	0.000200
Benzo(k)fluoranthene	U	1	<0.000198	mg/L	0.99	0.000200
Benzo(a)pyrene	U	1	<0.000198	mg/L	0.99	0.000200
Indeno(1,2,3-cd)pyrene	U	1	<0.000198	mg/L	0.99	0.000200
Dibenzo(a,h)anthracene	U	1	<0.000198	mg/L	0.99	0.000200
Benzo(g,h,i)perylene	U	1	<0.000198	mg/L	0.99	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0283	mg/L	0.99	0.0800	35	10 - 121
2-Fluorobiphenyl			0.0284	mg/L	0.99	0.0800	36	20.5 - 120

continued . . .

sample continued . . .

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Terphenyl-d14			0.0380	mg/L	0.99	0.0800	48	26.4 - 120

Sample: 364353 - MW-23

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	112504	Date Analyzed:	2014-06-04	Analyzed By:	AK
Prep Batch:	95063	Sample Preparation:	2014-06-02	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	2	<0.00100	mg/L	1	0.00100
Toluene	U	2	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	2	<0.00100	mg/L	1	0.00100
Xylene	U	2	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0961	mg/L	1	0.100	96	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0859	mg/L	1	0.100	86	70 - 130

Sample: 364354 - MW-24

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	112504	Date Analyzed:	2014-06-04	Analyzed By:	AK
Prep Batch:	95063	Sample Preparation:	2014-06-02	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	2	<0.00100	mg/L	1	0.00100
Toluene	U	2	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	2	<0.00100	mg/L	1	0.00100
Xylene	U	2	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0968	mg/L	1	0.100	97	70 - 130

continued . . .

sample continued . . .

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
4-Bromofluorobenzene (4-BFB)			0.0851	mg/L	1	0.100	85	70 - 130

Method Blanks

Method Blank (1) QC Batch: 112504

QC Batch: 112504 | Date Analyzed: 2014-06-04 | Analyzed By: AK
Prep Batch: 95063 | QC Preparation: 2014-06-02 | Prepared By: AK

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		2	<0.000238	mg/L	0.001
Toluene		2	<0.000181	mg/L	0.001
Ethylbenzene		2	<0.000247	mg/L	0.001
Xylene		2	<0.000189	mg/L	0.003

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0915	mg/L	1	0.100	92	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0806	mg/L	1	0.100	81	70 - 130

Method Blank (1) QC Batch: 112794

QC Batch: 112794 | Date Analyzed: 2014-06-13 | Analyzed By: MN
Prep Batch: 95375 | QC Preparation: 2014-06-05 | Prepared By: MN

Parameter	Flag	Cert	MDL Result	Units	RL
Naphthalene		1	<0.0000708	mg/L	0.0002
2-Methylnaphthalene		1	<0.0000834	mg/L	0.0002
1-Methylnaphthalene			<0.000107	mg/L	0.0002
Acenaphthylene		1	<0.0000823	mg/L	0.0002
Acenaphthene		1	<0.0000888	mg/L	0.0002
Dibenzofuran		1	<0.0000787	mg/L	0.0002
Fluorene		1	<0.0000670	mg/L	0.0002
Anthracene		1	<0.0000838	mg/L	0.0002
Phenanthrene		1	<0.000106	mg/L	0.0002
Fluoranthene		1	<0.0000885	mg/L	0.0002
Pyrene		1	<0.000149	mg/L	0.0002
Benzo(a)anthracene		1	<0.000146	mg/L	0.0002
Chrysene		1	<0.000157	mg/L	0.0002
Benzo(b)fluoranthene		1	<0.000146	mg/L	0.0002
Benzo(k)fluoranthene		1	<0.000152	mg/L	0.0002
Benzo(a)pyrene		1	<0.000141	mg/L	0.0002

continued . . .

method blank continued ...

Parameter	Flag	Cert	MDL Result	Units	RL
Indeno(1,2,3-cd)pyrene		1	<0.000160	mg/L	0.0002
Dibenzo(a,h)anthracene		1	<0.000127	mg/L	0.0002
Benzo(g,h,i)perylene		1	<0.000175	mg/L	0.0002

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0419	mg/L	1	0.0800	52	10 - 121
2-Fluorobiphenyl			0.0429	mg/L	1	0.0800	54	20.5 - 120
Terphenyl-d14			0.0465	mg/L	1	0.0800	58	26.4 - 120

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 112504 | Date Analyzed: 2014-06-04 | Analyzed By: AK
Prep Batch: 95063 | QC Preparation: 2014-06-02 | Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		2	0.0917	mg/L	1	0.100	<0.000238	92	70 - 130
Toluene		2	0.0953	mg/L	1	0.100	<0.000181	95	70 - 130
Ethylbenzene		2	0.0944	mg/L	1	0.100	<0.000247	94	70 - 130
Xylene		2	0.286	mg/L	1	0.300	<0.000189	95	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		2	0.0964	mg/L	1	0.100	<0.000238	96	70 - 130	5	20
Toluene		2	0.102	mg/L	1	0.100	<0.000181	102	70 - 130	7	20
Ethylbenzene		2	0.100	mg/L	1	0.100	<0.000247	100	70 - 130	6	20
Xylene		2	0.303	mg/L	1	0.300	<0.000189	101	70 - 130	6	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0974	0.0975	mg/L	1	0.100	97	98	70 - 130
4-Bromofluorobenzene (4-BFB)	0.106	0.104	mg/L	1	0.100	106	104	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 112794 | Date Analyzed: 2014-06-13 | Analyzed By: MN
Prep Batch: 95375 | QC Preparation: 2014-06-05 | Prepared By: MN

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Naphthalene		1	0.0640	mg/L	1	0.0800	<0.0000708	80	33.4 - 120
2-Methylnaphthalene		1	0.0575	mg/L	1	0.0800	<0.0000834	72	36.7 - 120
1-Methylnaphthalene			0.0582	mg/L	1	0.0800	<0.000107	73	37.7 - 120
Acenaphthylene		1	0.0677	mg/L	1	0.0800	<0.0000832	85	39.7 - 120
Acenaphthene		1	0.0572	mg/L	1	0.0800	<0.0000888	72	10 - 120

continued ...

control spikes continued . . .

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Dibenzofuran		1	0.0635	mg/L	1	0.0800	<0.0000787	79	27.5 - 120
Fluorene		1	0.0636	mg/L	1	0.0800	<0.0000670	80	32.7 - 120
Anthracene		1	0.0609	mg/L	1	0.0800	<0.0000838	76	23.6 - 120
Phenanthrene		1	0.0687	mg/L	1	0.0800	<0.000106	86	26.7 - 120
Fluoranthene		1	0.0639	mg/L	1	0.0800	<0.0000885	80	19.2 - 120
Pyrene		1	0.0714	mg/L	1	0.0800	<0.000149	89	34.1 - 120
Benzo(a)anthracene		1	0.0650	mg/L	1	0.0800	<0.000146	81	43.4 - 120
Chrysene		1	0.0680	mg/L	1	0.0800	<0.000157	85	10 - 176
Benzo(b)fluoranthene		1	0.0562	mg/L	1	0.0800	<0.000146	70	18.4 - 120
Benzo(k)fluoranthene		1	0.0674	mg/L	1	0.0800	<0.000152	84	22 - 124
Benzo(a)pyrene		1	0.0634	mg/L	1	0.0800	<0.000141	79	25.1 - 120
Indeno(1,2,3-cd)pyrene		1	0.0598	mg/L	1	0.0800	<0.000160	75	21.3 - 120
Dibenzo(a,h)anthracene		1	0.0606	mg/L	1	0.0800	<0.000127	76	10 - 173
Benzo(g,h,i)perylene		1	0.0533	mg/L	1	0.0800	<0.000175	67	10.7 - 128

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Naphthalene		1	0.0661	mg/L	1	0.0800	<0.0000708	83	33.4 - 120	3	20
2-Methylnaphthalene		1	0.0578	mg/L	1	0.0800	<0.0000834	72	36.7 - 120	0	20
1-Methylnaphthalene			0.0575	mg/L	1	0.0800	<0.000107	72	37.7 - 120	1	20
Acenaphthylene		1	0.0704	mg/L	1	0.0800	<0.0000832	88	39.7 - 120	4	20
Acenaphthene		1	0.0590	mg/L	1	0.0800	<0.0000888	74	10 - 120	3	20
Dibenzofuran		1	0.0646	mg/L	1	0.0800	<0.0000787	81	27.5 - 120	2	20
Fluorene		1	0.0647	mg/L	1	0.0800	<0.0000670	81	32.7 - 120	2	20
Anthracene		1	0.0634	mg/L	1	0.0800	<0.0000838	79	23.6 - 120	4	20
Phenanthrene		1	0.0710	mg/L	1	0.0800	<0.000106	89	26.7 - 120	3	20
Fluoranthene		1	0.0667	mg/L	1	0.0800	<0.0000885	83	19.2 - 120	4	20
Pyrene		1	0.0719	mg/L	1	0.0800	<0.000149	90	34.1 - 120	1	20
Benzo(a)anthracene		1	0.0663	mg/L	1	0.0800	<0.000146	83	43.4 - 120	2	20
Chrysene		1	0.0686	mg/L	1	0.0800	<0.000157	86	10 - 176	1	20
Benzo(b)fluoranthene		1	0.0574	mg/L	1	0.0800	<0.000146	72	18.4 - 120	2	20
Benzo(k)fluoranthene		1	0.0691	mg/L	1	0.0800	<0.000152	86	22 - 124	2	20
Benzo(a)pyrene		1	0.0640	mg/L	1	0.0800	<0.000141	80	25.1 - 120	1	20
Indeno(1,2,3-cd)pyrene		1	0.0599	mg/L	1	0.0800	<0.000160	75	21.3 - 120	0	20
Dibenzo(a,h)anthracene		1	0.0614	mg/L	1	0.0800	<0.000127	77	10 - 173	1	20
Benzo(g,h,i)perylene		1	0.0533	mg/L	1	0.0800	<0.000175	67	10.7 - 128	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Nitrobenzene-d5	0.0580	0.0593	mg/L	1	0.0800	72	74	10 - 121
2-Fluorobiphenyl	0.0591	0.0620	mg/L	1	0.0800	74	78	20.5 - 120
Terphenyl-d14	0.0670	0.0676	mg/L	1	0.0800	84	84	26.4 - 120

Matrix Spikes

Matrix Spike (MS-1) Spiked Sample: 364349

QC Batch: 112504 | Date Analyzed: 2014-06-04 | Analyzed By: AK
Prep Batch: 95063 | QC Preparation: 2014-06-02 | Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		2	0.103	mg/L	1	0.100	<0.000238	103	70 - 130
Toluene		2	0.108	mg/L	1	0.100	<0.000181	108	70 - 130
Ethylbenzene		2	0.106	mg/L	1	0.100	<0.000247	106	70 - 130
Xylene		2	0.322	mg/L	1	0.300	<0.000189	107	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		2	0.104	mg/L	1	0.100	<0.000238	104	70 - 130	1	20
Toluene		2	0.110	mg/L	1	0.100	<0.000181	110	70 - 130	2	20
Ethylbenzene		2	0.107	mg/L	1	0.100	<0.000247	107	70 - 130	1	20
Xylene		2	0.326	mg/L	1	0.300	<0.000189	109	70 - 130	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0985	0.0992	mg/L	1	0.1	98	99	70 - 130
4-Bromofluorobenzene (4-BFB)	0.106	0.105	mg/L	1	0.1	106	105	70 - 130

Calibration Standards

Standard (CCV-1)

QC Batch: 112504 | Date Analyzed: 2014-06-04 | Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		2	mg/L	0.100	0.0956	96	80 - 120	2014-06-04
Toluene		2	mg/L	0.100	0.0990	99	80 - 120	2014-06-04
Ethylbenzene		2	mg/L	0.100	0.0967	97	80 - 120	2014-06-04
Xylene		2	mg/L	0.300	0.294	98	80 - 120	2014-06-04

Standard (CCV-2)

QC Batch: 112504 | Date Analyzed: 2014-06-04 | Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		2	mg/L	0.100	0.102	102	80 - 120	2014-06-04
Toluene		2	mg/L	0.100	0.105	105	80 - 120	2014-06-04
Ethylbenzene		2	mg/L	0.100	0.101	101	80 - 120	2014-06-04
Xylene		2	mg/L	0.300	0.306	102	80 - 120	2014-06-04

Standard (CCV-3)

QC Batch: 112504 | Date Analyzed: 2014-06-04 | Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		2	mg/L	0.100	0.102	102	80 - 120	2014-06-04
Toluene		2	mg/L	0.100	0.104	104	80 - 120	2014-06-04
Ethylbenzene		2	mg/L	0.100	0.100	100	80 - 120	2014-06-04
Xylene		2	mg/L	0.300	0.306	102	80 - 120	2014-06-04

Standard (CCV-1)

QC Batch: 112794 | Date Analyzed: 2014-06-13 | Analyzed By: MN

Param		Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Naphthalene			1	mg/L	60.0	71.9	120	80 - 120	2014-06-13
2-Methylnaphthalene			1	mg/L	60.0	65.4	109	80 - 120	2014-06-13
1-Methylnaphthalene				mg/L	60.0	62.4	104	80 - 120	2014-06-13
Acenaphthylene			1	mg/L	60.0	71.3	119	80 - 120	2014-06-13
Acenaphthene			1	mg/L	60.0	61.3	102	80 - 120	2014-06-13
Dibenzofuran			1	mg/L	60.0	66.4	111	80 - 120	2014-06-13
Fluorene			1	mg/L	60.0	67.7	113	80 - 120	2014-06-13
Anthracene			1	mg/L	60.0	70.4	117	80 - 120	2014-06-13
Phenanthrene	Qc	Qc	1	mg/L	60.0	72.0	120	80 - 120	2014-06-13
Fluoranthene			1	mg/L	60.0	70.6	118	80 - 120	2014-06-13
Pyrene	Qc	Qc	1	mg/L	60.0	89.1	148	80 - 120	2014-06-13
Benzo(a)anthracene			1	mg/L	60.0	67.8	113	80 - 120	2014-06-13
Chrysene			1	mg/L	60.0	67.7	113	80 - 120	2014-06-13
Benzo(b)fluoranthene			1	mg/L	60.0	62.6	104	80 - 120	2014-06-13
Benzo(k)fluoranthene			1	mg/L	60.0	61.1	102	80 - 120	2014-06-13
Benzo(a)pyrene			1	mg/L	60.0	61.6	103	80 - 120	2014-06-13
Indeno(1,2,3-cd)pyrene			1	mg/L	60.0	58.7	98	80 - 120	2014-06-13
Dibenzo(a,h)anthracene			1	mg/L	60.0	58.5	98	80 - 120	2014-06-13
Benzo(g,h,i)perylene			1	mg/L	60.0	54.1	90	80 - 120	2014-06-13

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
Nitrobenzene-d5			59.7	mg/L	1	60.0	100	-
2-Fluorobiphenyl			50.7	mg/L	1	60.0	84	-
Terphenyl-d14			65.0	mg/L	1	60.0	108	-

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704219-14-10	Lubbock
2	NELAP	T104704392-13-7	Midland

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

LAB Order ID # 14053003

Page 1 of 1

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2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

Brandon & Clark
3403 Industrial Blvd.
Hobbs, NM 88240
Tel (575) 392-7561
Fax (575) 392-4508

Company Name: Talon IPE
Phone #: 940-329-0691
Address: (Street, City, Zip) 2901 State Hwy 349, Midland 79707
Fax #:
Contact Person: Brad Ivy, Camille J. Bryant
E-mail: Bivy@talonlpe.com, Cjbryant@paalp.com
Invoice to: (If different from above) SRS # 2003-00017
Project #: 700376.052.01
Project Name: Hobbs Junction ML.
Project Location (including state): Hobbs, NM
Sampler Signature: Jake Mwy

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME
364350	MW 18	3	40mL	X				X				X		5-28-14	1210
351	MW 21	3	40mL	X				X				X		5-28	1300
3	MW 21	1	1L	X								X		5-28	1300
352	MW 22	3	40mL	X				X				X		5-28	1245
	MW 22	1	1L	X								X		5-28	1245
353	MW 23	3	40mL	X				X				X		5-28	1230
354	MW 24	3	40mL	X				X				X		5-28	1220

ANALYSIS REQUEST	MTBE 8021 / 602 / 8260 / 624	BTEX 8021 / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCB's 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Cl, F, SO_4, NO_3-N, NO_2-N, PO_4-P, Alkalinity	Na, Ca, Mg, K, TDS, EC					Turn Around Time if different from standard	Hold
364350		X																						
351		X																						
3					X																			
352		X																						
					X																			
353		X																						
354		X																						

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
Jake Mwy	Talon IPE	5-30-2014	8:27	[signature]	TA	5/30/14	8:29	INST 4.1 °C, OBS 3.1 °C, COR 3.1 °C
								INST ____ °C, OBS ____ °C, COR ____ °C
								INST ____ °C, OBS ____ °C, COR ____ °C

LAB USE ONLY
Intact Y / N
Headspace Y / N / NA
Log-in-Review

REMARKS: Changed sample date per C.S. - Midland-BTEX Lubbock - PAH

- Dry Weight Basis Required
- TRRP Report Required
- Check If Special Reporting Limits Are Needed

Carrier # Carrier

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

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LAB Order ID # 1405300 3

Page 1 of 1

TraceAnalysis, Inc.

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Company Name: Talon LPE
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Fax #:
Contact Person: Brad Ivy, Camille J. Bryant
E-mail: Bivy@talonlpe.com, Cjbryant@paalp.com
Invoice to: (If different from above) SRS # 2003-00017
Project #: 700376.052.01
Project Name: Hobbs Junction ML
Project Location (including state): Hobbs, NM
Sampler Signature: Jake Mursey

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE		PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE		SAMPLING: DATE	TIME
364350	MW 18	3	40mL	X					X				X			5-28-29	1210
351	MW 21	3	40mL	X					X				X			5-28	1300
3	MW 21	1	1L	X									X			5-28	1300
352	MW 22	3	40mL	X					X				X			5-28	1245
	MW 22	1	1L	X									X			5-28	1245
353	MW 23	3	40mL	X					X				X			5-28	1230
354	MW 24	3	40mL	X					X				X			5-28	1220

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8021 / 602 / 8260 / 624	BTEX 8021 / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCB's 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Cl, F, SO_4, NO_3-N, NO_2-N, PO_4-P, Alkalinity	Na, Ca, Mg, K, TDS, EC								Turn Around Time if different from standard	Hold
	X																									
	X																									
				X																						
	X																									
				X																						
	X																									
	X																									

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
Jake Mursey	Talon LPE	5-30 2014	8:27		TA	5/30/14	8:29	INST 4.1 °C OBS 3.1 °C COR 3.1 °C
	TA	6/2/14	15:30					INST ____ °C OBS ____ °C COR ____ °C
				Brenda Ward	TA Lubbock	6/3/14	9:20	INST R3 °C OBS 4.0 °C COR 4.3 °C

LAB USE ONLY
Intact Y / N
Headspace Y / N / NA
Log-in-Review AJ

REMARKS: Changed sample date per E.S. - Midland-BTEX Lubbock - PAH

- Dry Weight Basis Required
- TRRP Report Required
- Check If Special Reporting Limits Are Needed

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

Carrier # Carrier 25 ZR275297

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TRACEANALYSIS, INC.

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5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
(BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972•242•7750
E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Brad Ivy
Talon LPE-Midland
2901 State Highway 349
Midland, TX, 79706

Report Date: September 8, 2014

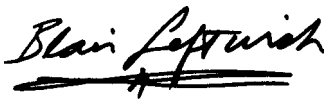
Work Order: 14090219

Project Location: Hobbs, NM
Project Name: Hobbs Junction Mainline
Project Number: 700376.052.01
SRS#: 2003-00017

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
373501	MW 18	water	2014-08-28	12:00	2014-09-02
373502	MW 21	water	2014-08-28	13:15	2014-09-02
373503	MW 22	water	2014-08-28	13:30	2014-09-02
373504	MW 23	water	2014-08-28	12:30	2014-09-02
373505	MW 24	water	2014-08-28	13:00	2014-09-02

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.



Dr. Blair Leftwich, Director
James Taylor, Assistant Director
Brian Pellam, Operations Manager

Report Contents

Case Narrative

Samples for project Hobbs Junction Mainline were received by TraceAnalysis, Inc. on 2014-09-02 and assigned to work order 14090219. Samples for work order 14090219 were received intact without headspace and at a temperature of 3.1 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	97426	2014-09-04 at 15:11	115203	2014-09-04 at 15:11

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 14090219 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 373501 - MW 18

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	115203	Date Analyzed:	2014-09-04	Analyzed By:	MT
Prep Batch:	97426	Sample Preparation:	2014-09-04	Prepared By:	MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Toluene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Xylene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		5	0.107	mg/L	1	0.100	107	75.4 - 120
4-Bromofluorobenzene (4-BFB)		5	0.0770	mg/L	1	0.100	77	74.6 - 120

Sample: 373502 - MW 21

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	115203	Date Analyzed:	2014-09-04	Analyzed By:	MT
Prep Batch:	97426	Sample Preparation:	2014-09-04	Prepared By:	MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1,2,3,4,5	**18.4**	mg/L	50	0.00100
Toluene	U	1,2,3,4,5	<0.0500	mg/L	50	0.00100
Ethylbenzene		1,2,3,4,5	**1.24**	mg/L	50	0.00100
Xylene		1,2,3,4,5	**0.412**	mg/L	50	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		5	5.01	mg/L	50	5.00	100	75.4 - 120
4-Bromofluorobenzene (4-BFB)		5	4.21	mg/L	50	5.00	84	74.6 - 120

Sample: 373503 - MW 22

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	115203	Date Analyzed:	2014-09-04	Analyzed By:	MT
Prep Batch:	97426	Sample Preparation:	2014-09-04	Prepared By:	MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1,2,3,4,5	**11.8**	mg/L	50	0.00100
Toluene	U	1,2,3,4,5	<0.0500	mg/L	50	0.00100
Ethylbenzene		1,2,3,4,5	**0.824**	mg/L	50	0.00100
Xylene		1,2,3,4,5	<0.0500	mg/L	50	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		5	5.33	mg/L	50	5.00	107	75.4 - 120
4-Bromofluorobenzene (4-BFB)		5	4.27	mg/L	50	5.00	85	74.6 - 120

Sample: 373504 - MW 23

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	115203	Date Analyzed:	2014-09-04	Analyzed By:	MT
Prep Batch:	97426	Sample Preparation:	2014-09-04	Prepared By:	MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Toluene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Xylene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		5	0.111	mg/L	1	0.100	111	75.4 - 120
4-Bromofluorobenzene (4-BFB)		5	0.0788	mg/L	1	0.100	79	74.6 - 120

Sample: 373505 - MW 24

Laboratory:	Lubbock				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	115203	Date Analyzed:	2014-09-04	Analyzed By:	MT
Prep Batch:	97426	Sample Preparation:	2014-09-04	Prepared By:	MT

Parameter	Flag	Cert	Result	RL Units	Dilution	RL
Benzene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Toluene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Xylene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		5	0.105	mg/L	1	0.100	105	75.4 - 120
4-Bromofluorobenzene (4-BFB)		5	0.0759	mg/L	1	0.100	76	74.6 - 120

Method Blanks

Method Blank (1) QC Batch: 115203

QC Batch:	115203	Date Analyzed:	2014-09-04	Analyzed By:	MT
Prep Batch:	97426	QC Preparation:	2014-09-04	Prepared By:	MT

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1,2,3,4,5	<0.000188	mg/L	0.001
Toluene		1,2,3,4,5	<0.000160	mg/L	0.001
Ethylbenzene		1,2,3,4,5	<0.000119	mg/L	0.001
Xylene		1,2,3,4,5	<0.000142	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		5	0.113	mg/L	1	0.100	113	75.4 - 120
4-Bromofluorobenzene (4-BFB)		5	0.0836	mg/L	1	0.100	84	74.6 - 120

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 115203 | Date Analyzed: 2014-09-04 | Analyzed By: MT
Prep Batch: 97426 | QC Preparation: 2014-09-04 | Prepared By: MT

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1,2,3,4,5	0.0976	mg/L	1	0.100	<0.000188	98	74.3 - 120
Toluene		1,2,3,4,5	0.0974	mg/L	1	0.100	<0.000160	97	77.6 - 120
Ethylbenzene		1,2,3,4,5	0.0981	mg/L	1	0.100	<0.000119	98	78.5 - 120
Xylene		1,2,3,4,5	0.275	mg/L	1	0.300	<0.000142	92	77.6 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1,2,3,4,5	0.0980	mg/L	1	0.100	<0.000188	98	74.3 - 120	0	20
Toluene		1,2,3,4,5	0.0979	mg/L	1	0.100	<0.000160	98	77.6 - 120	0	20
Ethylbenzene		1,2,3,4,5	0.0999	mg/L	1	0.100	<0.000119	100	78.5 - 120	2	20
Xylene		1,2,3,4,5	0.278	mg/L	1	0.300	<0.000142	93	77.6 - 120	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate		LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	5	0.107	0.104	mg/L	1	0.100	107	104	75.4 - 120
4-Bromofluorobenzene (4-BFB)	5	0.106	0.102	mg/L	1	0.100	106	102	74.6 - 120

Matrix Spikes

Matrix Spike (MS-1) Spiked Sample: 373501

QC Batch: 115203 | Date Analyzed: 2014-09-04 | Analyzed By: MT
Prep Batch: 97426 | QC Preparation: 2014-09-04 | Prepared By: MT

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1,2,3,4,5	0.0999	mg/L	1	0.100	<0.000188	100	50.2 - 129
Toluene		1,2,3,4,5	0.0997	mg/L	1	0.100	<0.000160	100	58.1 - 129
Ethylbenzene		1,2,3,4,5	0.102	mg/L	1	0.100	<0.000119	102	58.1 - 127
Xylene		1,2,3,4,5	0.284	mg/L	1	0.300	<0.000142	95	53.1 - 128

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1,2,3,4,5	0.100	mg/L	1	0.100	<0.000188	100	50.2 - 129	0	20
Toluene		1,2,3,4,5	0.100	mg/L	1	0.100	<0.000160	100	58.1 - 129	0	20
Ethylbenzene		1,2,3,4,5	0.102	mg/L	1	0.100	<0.000119	102	58.1 - 127	0	20
Xylene		1,2,3,4,5	0.285	mg/L	1	0.300	<0.000142	95	53.1 - 128	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate		MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	5	0.104	0.103	mg/L	1	0.1	104	103	75.4 - 120
4-Bromofluorobenzene (4-BFB)	5	0.102	0.101	mg/L	1	0.1	102	101	74.6 - 120

Calibration Standards

Standard (CCV-1)

QC Batch: 115203 | Date Analyzed: 2014-09-04 | Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1,2,3,4,5	mg/L	0.100	0.0988	99	80 - 120	2014-09-04
Toluene		1,2,3,4,5	mg/L	0.100	0.0988	99	80 - 120	2014-09-04
Ethylbenzene		1,2,3,4,5	mg/L	0.100	0.101	101	80 - 120	2014-09-04
Xylene		1,2,3,4,5	mg/L	0.300	0.281	94	80 - 120	2014-09-04

Standard (CCV-2)

QC Batch: 115203 | Date Analyzed: 2014-09-04 | Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1,2,3,4,5	mg/L	0.100	0.0967	97	80 - 120	2014-09-04
Toluene		1,2,3,4,5	mg/L	0.100	0.0967	97	80 - 120	2014-09-04
Ethylbenzene		1,2,3,4,5	mg/L	0.100	0.0985	98	80 - 120	2014-09-04
Xylene		1,2,3,4,5	mg/L	0.300	0.274	91	80 - 120	2014-09-04

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	PJLA	L14-93	Lubbock
2	Kansas	Kansas E-10317	Lubbock
3	LELAP	LELAP-02003	Lubbock
4	NELAP	T104704219-14-10	Lubbock
5		2013-083	Lubbock

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.

F	Description
U	The analyte is not detected above the SDL

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

LAB Order ID # 14090219

Page 1 of 1

TraceAnalysis, Inc.

email: lab@traceanalysis.com

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2501 Mayes Rd., Ste 100
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Brandon & Clark
3403 Industrial Blvd.
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Tel (575) 392-7561
Fax (575) 392-4508

Company Name: Talon LPE
Phone #: 940-329-0691
Address: (Street, City, Zip) 2901 ST Hwy 349 Midland, TX 79706
Fax #:
Contact Person: Brad Ivy, Camille Bryant
E-mail: bivy@talonlpe.com, cjbryant@paalp.com
Invoice to: (If different from above) SRS # 2003-00017 Plains All American Pipe Line
Project #: 7003726.052.01
Project Name: Hobbs Junction Main Line
Project Location (including state): Hobbs, New Mexico
Sampler Signature: John Munsey

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME
373501	MW 18	3	40mL	X				X				X		8-28	1200
502	MW 21	3												8-28	1315
503	MW 22	3												8-28	1330
504	MW 23	3												8-29	1230
505	MW 24	3												8-28	1300

MTBE 8021 / 602 / 8260 / 624	BTEX 8021 / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCB's 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Cl, F, SO_4, NO_3-N, NO_2-N, PO_4-P, Alkalinity	Na, Ca, Mg, K, TDS, EC					Turn Around Time if different from standard	Hold
	X																							
	X																							
	X																							
	X																							
	X																							

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
John Munsey	Talon LPE	8-2-2014	1234					INST RT OBS 32 °C COR 31 °C
	TA	9/2/14	5:30					INST ____ OBS ____ °C COR ____ °C
				BC, TA		9/3/14	9am	INST IR3 OBS 4.8 °C COR 4.7 °C

LAB USE ONLY
Intact Y / N
Headspace Y / N / NA
Log-in-Review

REMARKS: Lubbock-alf

- ☐ Dry Weight Basis Required
- ☐ TRRP Report Required
- ☐ Check If Special Reporting Limits Are Needed

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

Carrier # 2R594387

ORIGINAL COPY

TRACEANALYSIS, INC.

6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
200 East Sunset Road, Suite E El Paso, Texas 79922 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
(BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972•242•7750
E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Brad Ivy
Talon LPE-Midland
2901 State Highway 349
Midland, TX, 79706

Report Date: January 15, 2015

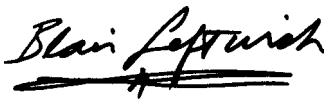
Work Order: 15011330

Project Location: Hobbs, NM
Project Name: Hobbs Junction Mainline
Project Number: 700376.052.01
SRS#: 2003-00017

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
384178	MW 7	water	2015-01-13	10:30	2015-01-13
384179	MW 13	water	2015-01-13	13:00	2015-01-13
384180	MW 18	water	2015-01-13	12:45	2015-01-13
384181	MW 21	water	2015-01-13	12:00	2015-01-13
384182	MW 22	water	2015-01-13	12:10	2015-01-13
384183	MW 23	water	2015-01-13	12:20	2015-01-13
384184	MW 24	water	2015-01-13	12:30	2015-01-13

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.



Dr. Blair Leftwich, Director
James Taylor, Assistant Director
Brian Pellam, Operations Manager

Report Contents

Case Narrative

Samples for project Hobbs Junction Mainline were received by TraceAnalysis, Inc. on 2015-01-13 and assigned to work order 15011330. Samples for work order 15011330 were received intact at a temperature of 5.8 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	100291	2015-01-14 at 07:56	118645	2015-01-15 at 07:46

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 15011330 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 384178 - MW 7

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	118645	Date Analyzed:	2015-01-15	Analyzed By:	AK
Prep Batch:	100291	Sample Preparation:	2015-01-14	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qs,U	1	<0.00100	mg/L	1	0.00100
Toluene	Qs,U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qs,U	1	<0.00100	mg/L	1	0.00100
Xylene	Qs,U	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0815	mg/L	1	0.100	82	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0945	mg/L	1	0.100	94	70 - 130

Sample: 384179 - MW 13

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	118645	Date Analyzed:	2015-01-15	Analyzed By:	AK
Prep Batch:	100291	Sample Preparation:	2015-01-14	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qs,U	1	<0.00100	mg/L	1	0.00100
Toluene	Qs,U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qs,U	1	<0.00100	mg/L	1	0.00100
Xylene	Qs,U	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0849	mg/L	1	0.100	85	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0933	mg/L	1	0.100	93	70 - 130

Sample: 384180 - MW 18

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	118645	Date Analyzed:	2015-01-15	Analyzed By:	AK
Prep Batch:	100291	Sample Preparation:	2015-01-14	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qs,U	1	<0.00100	mg/L	1	0.00100
Toluene	Qs,U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qs,U	1	<0.00100	mg/L	1	0.00100
Xylene	Qs,U	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0803	mg/L	1	0.100	80	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0905	mg/L	1	0.100	90	70 - 130

Sample: 384181 - MW 21

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	118645	Date Analyzed:	2015-01-15	Analyzed By:	AK
Prep Batch:	100291	Sample Preparation:	2015-01-14	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qs	1	**15.4**	mg/L	50	0.00100
Toluene	Qs,U	1	<0.0500	mg/L	50	0.00100
Ethylbenzene	Qs	1	**1.23**	mg/L	50	0.00100
Xylene	Qs	1	**0.799**	mg/L	50	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			4.06	mg/L	50	5.00	81	70 - 130
4-Bromofluorobenzene (4-BFB)			4.70	mg/L	50	5.00	94	70 - 130

Sample: 384182 - MW 22

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	118645	Date Analyzed:	2015-01-15	Analyzed By:	AK
Prep Batch:	100291	Sample Preparation:	2015-01-14	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qs	1	**8.36**	mg/L	50	0.00100
Toluene	Qs,U	1	<0.0500	mg/L	50	0.00100
Ethylbenzene	Qs	1	**0.785**	mg/L	50	0.00100
Xylene	Qs	1	**0.393**	mg/L	50	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			4.10	mg/L	50	5.00	82	70 - 130
4-Bromofluorobenzene (4-BFB)			4.76	mg/L	50	5.00	95	70 - 130

Sample: 384183 - MW 23

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	118645	Date Analyzed:	2015-01-15	Analyzed By:	AK
Prep Batch:	100291	Sample Preparation:	2015-01-14	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qs,U	1	<0.00100	mg/L	1	0.00100
Toluene	Qs,U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qs,U	1	<0.00100	mg/L	1	0.00100
Xylene	Qs,U	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0824	mg/L	1	0.100	82	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0922	mg/L	1	0.100	92	70 - 130

Sample: 384184 - MW 24

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5030B
QC Batch:	118645	Date Analyzed:	2015-01-15	Analyzed By:	AK
Prep Batch:	100291	Sample Preparation:	2015-01-14	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qs,U	1	<0.00100	mg/L	1	0.00100
Toluene	Qs,U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qs,U	1	<0.00100	mg/L	1	0.00100
Xylene	Qs,U	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0853	mg/L	1	0.100	85	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0930	mg/L	1	0.100	93	70 - 130

Method Blanks

Method Blank (1) QC Batch: 118645

QC Batch:	118645	Date Analyzed:	2015-01-15	Analyzed By:	AK
Prep Batch:	100291	QC Preparation:	2015-01-14	Prepared By:	AK

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000299	mg/L	0.001
Toluene		1	<0.000247	mg/L	0.001
Ethylbenzene		1	<0.000423	mg/L	0.001
Xylene		1	<0.000552	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0847	mg/L	1	0.100	85	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0958	mg/L	1	0.100	96	70 - 130

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 118645 | Date Analyzed: 2015-01-15 | Analyzed By: AK
Prep Batch: 100291 | QC Preparation: 2015-01-14 | Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0895	mg/L	1	0.100	<0.000299	90	70 - 130
Toluene		1	0.0916	mg/L	1	0.100	<0.000247	92	70 - 130
Ethylbenzene		1	0.0900	mg/L	1	0.100	<0.000423	90	70 - 130
Xylene		1	0.273	mg/L	1	0.300	<0.000552	91	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0894	mg/L	1	0.100	<0.000299	89	70 - 130	0	20
Toluene		1	0.0907	mg/L	1	0.100	<0.000247	91	70 - 130	1	20
Ethylbenzene		1	0.0899	mg/L	1	0.100	<0.000423	90	70 - 130	0	20
Xylene		1	0.272	mg/L	1	0.300	<0.000552	91	70 - 130	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0835	0.0851	mg/L	1	0.100	84	85	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0950	0.0952	mg/L	1	0.100	95	95	70 - 130

Matrix Spikes

Matrix Spike (MS-1) Spiked Sample: 384073

QC Batch: 118645 | Date Analyzed: 2015-01-15 | Analyzed By: AK
Prep Batch: 100291 | QC Preparation: 2015-01-14 | Prepared By: AK

Param		F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	Qs	Qs	1	0.0564	mg/L	1	0.100	<0.000299	56	70 - 130
Toluene	Qs	Qs	1	0.0573	mg/L	1	0.100	<0.000247	57	70 - 130
Ethylbenzene	Qs	Qs	1	0.0561	mg/L	1	0.100	<0.000423	56	70 - 130
Xylene	Qs	Qs	1	0.169	mg/L	1	0.300	<0.000552	56	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param		F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	Qs	Qs	1	0.0506	mg/L	1	0.100	<0.000299	51	70 - 130	11	20
Toluene	Qs	Qs	1	0.0514	mg/L	1	0.100	<0.000247	51	70 - 130	11	20
Ethylbenzene	Qs	Qs	1	0.0505	mg/L	1	0.100	<0.000423	50	70 - 130	10	20
Xylene	Qs	Qs	1	0.152	mg/L	1	0.300	<0.000552	51	70 - 130	11	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0808	0.0856	mg/L	1	0.1	81	86	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0924	0.0944	mg/L	1	0.1	92	94	70 - 130

Calibration Standards

Standard (CCV-1)

QC Batch: 118645 | Date Analyzed: 2015-01-15 | Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0890	89	80 - 120	2015-01-15
Toluene		1	mg/L	0.100	0.0903	90	80 - 120	2015-01-15
Ethylbenzene		1	mg/L	0.100	0.0897	90	80 - 120	2015-01-15
Xylene		1	mg/L	0.300	0.273	91	80 - 120	2015-01-15

Standard (CCV-2)

QC Batch: 118645 | Date Analyzed: 2015-01-15 | Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0916	92	80 - 120	2015-01-15
Toluene		1	mg/L	0.100	0.0927	93	80 - 120	2015-01-15
Ethylbenzene		1	mg/L	0.100	0.0921	92	80 - 120	2015-01-15
Xylene		1	mg/L	0.300	0.279	93	80 - 120	2015-01-15

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-14-8	Midland

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

LAB Order ID # 15011330

Page 1 of 1

TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9
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Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

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Fax (915) 585-4944
1 (888) 588-3443

BioAquatic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

Brandon & Clark
3403 Industrial Blvd.
Hobbs, NM 88240
Tel (575) 392-7561
Fax (575) 392-4508

Company Name: Talon LPE
Phone #: 940-329-0691
Address: (Street, City, Zip) 2901 St Hwy 349 Midland, TX
Fax #:
Contact Person: Brad Ivy, Camille Bryant
E-mail: bivy@talonlpe.com, cjbryant@paalp.com
Invoice to: (If different from above) SRS # 2003-00017 (Plains)
Project #: 700376.052.01
Project Name: Hobbs Junction Mainline
Project Location (including state): Hobbs, New Mexico
Sampler Signature:

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX: WATER	SOIL	AIR	SLUDGE	PRESERVATIVE METHOD: HCl	HNO_3	H_2SO_4	NaOH	ICE	NONE	SAMPLING: DATE	TIME	MTBE 8021 / 602 / 8260 / 624	BTEX 8021 / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCB's 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Cl, F, SO_4, NO_3-N, NO_2-N, PO_4-P, Alkalinity	Na, Ca, Mg, K, TDS, EC				1 Day Turn around	Turn Around Time if different from standard	Hold
384178	Mw 7	3	40mL	V				V				V		1-13-15	1030		V																					1		
179	Mw 13	3	40mL	V				V				V		1-13-15	1300		V																					1		
180	Mw 16	3	40mL	V				V				V		1-13-15	1245		V																					1		
181	Mw 21	3	40mL	V				V				V		1-13-15	1200		V																					1		
182	Mw 22	3	40mL	V				V				V		1-13-15	1210		V																					1		
183	Mw 23	3	40mL	V				V				V		1-13-15	1220		V																					1		
184	Mw 24	3	40mL	V				V				V		1-13-15	1230		V																					1		
														~~1-13-15~~																											
														~~1-13-15~~																											

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	
Jake Munsey	Talon LPE	1-13-15	1555			Th 1-13-15	15:55	INST 1R-1 OBS 5.9 °C COR 5.8 °C
								INST ____ OBS ____ °C COR ____ °C
								INST ____ OBS ____ °C COR ____ °C

LAB USE ONLY
Intact Y / N
Headspace Y / N / NA
Log-in-Review

REMARKS:

- ☐ Dry Weight Basis Required
- ☐ TRRP Report Required
- ☐ Check If Special Reporting Limits Are Needed

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

ORIGINAL COPY

Carrier # CARRY-N

APPENDIX D

Regulatory Documentation

NMOCD Initial C-141

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised March 17, 1999

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☑ Initial Report ☐ Final Report

Name of Company	Contact
EOTT Energy Pipeline, LP	**Frank Hernandez**
Address	Telephone No.
5805 East Hwy 80	**915-638-3799**
Facility Name	Facility Type
Hobbs Junction Mainline	**10" Crude Oil Pipeline**

Surface Owner	Mineral Owner	Lease No.
State of NM	**NA**	**NA**

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from South Line	Feet from West Line	Longitude	Latitude	County:
M	**26**	**18S**	**37E**	**15**	**700**	**W103:13:42.01**	**N32:42:40.85**	**Lea**

NATURE OF RELEASE

Type of Release	Volume of Release	Volume Recovered
Crude Oil	**50 bbl**	**24 bbl**
Source of Release	Date and Hour of Occurrence	Date and Hour of Discovery
Steel Pipeline	**1/23/03-8:00 AM**	**1/23/03-10:45 AM**
Was Immediate Notice Given? ☑ Yes ☐ No ☐ Not Required	If YES, To Whom? **Sylvia Dickie - Hobbs NMOCD**	
By Whom? **Pat McCasland - EPI**	Date and Hour **1/23/03-11:35 AM**	
Was a Watercourse Reached? ☐ Yes ☑ No	If YES, Volume Impacting the Watercourse. **NA**	

If a Watercourse was Impacted, Describe Fully.*
NA

Describe Cause of Problem and Remedial Action Taken.*
Corroded pipeline (internal), repaired with clamp

Describe Area Affected and Cleanup Action Taken.*
~12500-ft^2 surface area affected; 50-bbl released; 24-bbl of crude recovered. Removal and disposal of contaminated soil above remedial goals was commenced by EPI.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: Frank Hernandez	**OIL CONSERVATION DIVISION**	
Printed Name: **Frank Hernandez**	Approved by District Supervisor:	
Title: **District Environmental Supervisor**	Approval Date:	Expiration Date:
Date: **1/24/03** Phone: **915-638-3799**	Conditions of Approval:	☐ Attached .

Attach Additional Sheets If Necessary