

AP - 91

ANNUAL MONITORING REPORT

YEAR(S):
2012



PLAINS ALL AMERICAN

March 15, 2013

Mr. Edward Hansen
New Mexico Oil Conservation Division
Environmental Bureau
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Plains All American – 2012 Annual Monitoring Reports
6 Sites in Lea County, New Mexico

Dear Mr. Hansen:

Plains All American is an operator of crude oil pipelines and terminal facilities in the state of New Mexico. Plains All American actively monitors certain historical release sites exhibiting groundwater impacts, consistent with assessments and work plans developed in consultation with the New Mexico Oil Conservation Division (NMOCD). In accordance with the rules and regulations of the NMOCD, Plains All American hereby submits our Annual Monitoring reports for the following sites:

8-inch Moore to Jal #1	AP-91 (1R-0380)	Section 16, T17S, R37E, Lea County
8-inch Moore to Jal #2	AP-92 (1R-0381)	Section 16, T17S, R37E, Lea County
C.S. Cayler	AP-052	Section 06, T17S, R37E, Lea County
Hobbs Junction Mainline	AP-054	Section 26, T18S, R37E, Lea County
Kimbrough Sweet 8-inch	AP-0029	Section 03, T18S, R37E, Lea County
Lovington Deep 6-inch	AP-037	Section 06, T17S, R36E, Lea County

Talon/LPE (Talon) prepared these documents and has vouched for their accuracy and completeness, and on behalf of Plains All American, I have personally reviewed the documents and interviewed Talon personnel in order to verify the accuracy and completeness of these documents. It is based upon these inquiries and reviews that Plains All American submits the enclosed Annual Monitoring Reports for the above facilities.

If you have any questions or require further information, please contact me at (575) 441-1099.

Sincerely,

Jason Henry
Remediation Coordinator
Plains All American

CC: Geoff Leking, NMOCD, Hobbs, NM

Enclosures

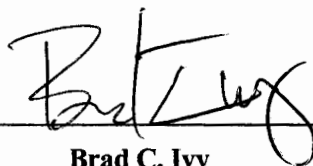
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2012 ANNUAL GROUNDWATER MONITORING REPORT

8" MOORE TO JAL #1
LEA, COUNTY, NEW MEXICO
SRS #2002 - 10270
NMOCD REF. # AP-91

TALON/LPE PROJECT NO. 700376.044.01

Prepared by:



Brad C. Ivy
Project Manager



Chris Spore
Regional Manager

TALON/LPE
2901 S. STATE HIGHWAY 349
MIDLANDEXAS 79706

March 2013



TALON/LPE F-6802

Distribution List

Name	Title	Company or Agency	Mailing Address	e-mail
Ed Hansen	Environmental Engineer	NMOCD	1220 South St. Francis Drive Santa Fe, NM 87505	edwardjhansen@state.nm.us
Geoffrey Leking	Environmental Engineer	NMOCD	1625 French Dr. Hobbs, NM 88231	GeoffreyR.Leking@state.nm.us
Brian Henington	Environmental Engineer	NMSLO – Santa Fe	P.O. Box 1148 Santa Fe, NM 87504	bhenington@slo.state.nm.us
Jason Henry	Remediation Coordinator	Plains Pipeline	2530 Highway 214 Denver City, TX 79323	jhenry@paalp.com
Jeff Dann	Senior Environmental Specialist	Plains Pipeline	P. O. Box 4648 Houston, TX 77210-4648	jpdann@paalp.com
File		Talon/LPE	2901 S. St. Hwy 349 Midland, Texas 79706	skillingsworth@talonlpe.com

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

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1.0 INTRODUCTION AND OBJECTIVES

1.1 Site Background

The 8" Moore to Jal #1 release site is located approximately 9.2 miles southeast of Lovington, in Lea County, New Mexico. The site is located within the West Lovington Oil Field on land owned by the State of New Mexico. No residence or surface water features are located within a 1,000-foot radius of the site.

The site is situated in a physio-geographic area that is on the extreme south-western portion of the Southern High Plains as it grades into the Edwards Plateau to the south and southeast and the Chihuahuan Desert of the Trans-Pecos Region to the southwest.

The topography proximal to the site is typical of the Southern High Plains, essentially flat with shallow depressions, or playa lakes, dotting the landscape. The prominent surface features on the Southern High Plains are the approximately 19,250 ephemeral playa lakes; however, the density of the playa lakes diminishes toward the southern extent of the Southern High Plains. During periods of rainfall, the playas accumulate sheet runoff from watershed areas ranging in size from less than one square mile to several square miles. Only a small portion of drainage from rainfall occurs by streams. Playa lakes that collect storm water runoff can act as a recharge mechanism for groundwater.

The average elevation of the site and surrounding area is approximately 3,770-feet above mean sea level with a slight slope to the southeast. The regional slope of the land surface in the Southern High Plains is approximately 100 feet per mile in a southeasterly direction.

In October 2002, a release of approximately 200 barrels (bbls) occurred from a Plains Pipeline, L.P. (Plains) pipeline at the site. Approximately 8,000 square feet of surface area was impacted by the release. Soil excavation and over-excavation activities were initiated in October 2002 and that activity is documented in the "Soil Over-Excavation Report and Backfill Workplan", dated May 23, 2006.

Talon/LPE (Talon) has been retained by Plains to conduct quarterly groundwater monitoring activities and operation and maintenance of the phase separated hydrocarbon (PSH) recovery system.

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 consists of 43% sand, 18% clay and 40% silt and also 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 paleo-valley 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 thirty-six (36) monitor wells have been installed proximal to the release point (see Figure 1). The first monitor well (MW-1), installed July 2004, was completed with a screened interval below the potentiometric surface. The second monitor well (MW-1A) was installed in September 2004, and PSH entered the casing immediately upon completion of the well. Subsequently, three (3) additional monitor wells (MW-2, MW-3, and MW-4) were installed in October of 2004, and PSH entered the casing on those wells.

In November 2007, sixteen (16) additional groundwater monitor wells were installed as proposed in the "Monitor Well Installation Workplan Moore to Jal #1", dated January 26, 2007. The purpose of the sixteen (16) monitor wells (MW-5–MW-20) was to further delineate the extent of the PSH and dissolved phase plumes. In addition to the sixteen (16) monitor well installations, monitor wells MW-1 and MW-4 were plugged and abandoned (P&A'd) on March 14, 2007 and re-drilled as new groundwater monitor wells, MW-1A and MW-4A. Of the sixteen monitor wells that were installed, ten (10), (MW-4A, MW-5 through MW-12, and MW-15), are impacted with PSH.

During the year 2010, a total of eleven (11) specific gravity skimmers with bladder pumps were in operation in monitor wells MW-2, MW-3, MW-5, MW-7 through MW-13, and MW-15. In addition, a total of three (3) total fluids pumps are operating in monitor wells MW-1A, MW-4A, and MW-6. This pump configuration is designed to enhance PSH recovery and inhibit migration of the PSH plume.

Also during 2010, sixteen (16) additional monitor wells were installed at the site (MW-21 through MW-36) to further delineate the PSH and dissolved-phase plumes. Monitor wells MW-24, MW-25, and MW-30 through MW-31 are impacted with PSH. Additional skimmers with bladder pumps were installed in monitor wells MW-24 and MW-25. Currently, the PSH recovery system is composed of thirteen (13) specific gravity skimmers with bladder pumps and three (3) pneumatic total fluid pumps.

A transfer system was installed during the year 2011 that is designed to pump recovered groundwater from the site to the Rocky Smith SWD Systems, State 'E' #23 salt water disposal (SWD) (NMOCD # 307219) facility, thereby, eliminating the need to haul water to a disposal facility with a vacuum truck. The system is composed of a three (3) inch HDPE line that was installed (slip-lined) into the out of service Moore to Jal eight (8) inch pipeline from the Moore to Jal #2 site through the Moore to Jal #1 site to the C.S. Cayler site, where it is connected to the HDPE line that runs from the Cayler site to the afore referenced SWD. A five (5) HP transfer pump is used to impel the water down the HDPE line.

PSH recovery operations have been performed at the site since 2004. During 2012

approximately 106 barrels (bbls) of crude oil and 7,890 bbls of water were recovered by the system and approximately 1080 bbls of crude oil has been recovered by the system to date.

1.4 Regulatory Framework

Groundwater analytical data collected from this site was evaluated to the New Mexico Water Quality Control Commission (NMWQCC) groundwater standards outlined 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 sections that follow provide summaries of the four quarterly groundwater monitoring events conducted at the subject site as well as analytical results from each groundwater sampling event of 2012. Analytical results for the four (4) sampling events are summarized in Table 2, and Table 3 in Appendix B, and Figures 3a through 3d in Appendix A. Laboratory analytical data reports and chain of custody documentation are included in Appendix C. Historic fluid level measurements are included on Table 1 in Appendix B and gradient maps are provided as Figures 2a through 2d in Appendix A. In addition, this report with all attachments are provided on the attached CD, which is an adjunct to this report.

2.0 SITE ACTIVITIES

The sections that follow summarize groundwater monitoring and PSH recovery activities conducted at the subject site during 2012. The primary focus of groundwater monitoring activities is to measure depth to fluid measurements and collect groundwater samples from monitor wells 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 with an oil/water interface probe to determine static water levels and to determine the thickness of PSH accumulations if present. The data collected from measurements was used to construct groundwater gradient maps and PSH thickness maps. The results of the measured depths to fluids collected during each of the four (4) events, are incorporated in Table 1 – Summary of Historical Fluid Level Measurements.

Subsequent to gauging, all monitor wells were purged using a down-hole pump equipped with vinyl tubing. The pump and tubing were decontaminated with Alconox® detergent and rinsed with distilled water after each use. Recovered purge water and water used in the decontamination process was contained in on-site 55-gallon drums. After the groundwater monitoring event, all retained water was deposited into recovery tank, and sent to the disposal facility via the onsite transfer system. Approximately 2,212 gallons of purged groundwater and decontamination water during the monitoring events of 2012.

Groundwater samples were collected from all monitor wells that were not impacted with PSH using dedicated disposable polyethylene bailers. The groundwater samples were contained in laboratory supplied 40-ml VOA sample vials with the appropriate preservative required for the analysis requested. The groundwater samples were maintained on ice, in the custody of Talon personnel, until they were delivered to TraceAnalysis, Inc. in Lubbock, Texas for analyses.

The groundwater samples collected during the all four events were quantified for benzene, toluene, ethylbenzene, and xylene (BTEX) by EPA Method SW-846 8021B. In addition, during the December event, groundwater samples collected from monitor wells MW-16 and MW-27, were quantified for poly-nuclear aromatic hydrocarbons (PAHs) using EPA Method SW-846 8270C.

2.2 Phase Separated Hydrocarbon Recovery

PSH recovery has been conducted at the site since 2004, initially by hand bailing and then by using pneumatic pumps. In October of 2008, Talon installed a pneumatic skimmer system at the site. During the year 2010, a total of eleven (11) specific gravity skimmers and bladder pumps and a total of three (3) total fluids pumps were in operation. Two (2) skimmers were

added to the system in monitor wells MW-24 and MW-25 in October of 2010. Four (4) total fluid pumps were added to the system in monitor wells MW-7, MW-30, MW-31, MW-33 from July to October of 2012. During the year 2012, a total of twelve (12) specific gravity skimmers and bladder pumps operated in monitor wells MW-2, MW-3, MW-5, MW-8 through MW-13, MW-15, MW-24, and MW-25. In addition, a total of seven (7) total fluids pumps operated in monitor wells MW-1A, MW-4A, MW-6, MW-7, MW-30, MW-31, and MW-33 during 2012. The system has been effective for increasing PSH recovery and inhibiting PSH plume and dissolved-phase migration. Talon personnel performed a minimum of weekly maintenance to the remediation system to ensure efficient operation and to minimize down time.

PSH recovered by the skimmer system and total fluids pumps was expelled to an on-site 350 barrel frac tank, which is monitored for the accumulation of water and PSH on a weekly basis. PSH is removed from the recovery tank periodically using a vacuum truck and is re-introduced to the Plains' pipeline system at the Plains operated Lea Station. Water is also removed from the recovery tank periodically with a vacuum truck and transferred to a disposal facility.

During 2012 the quarterly PSH and groundwater recovery totals are as follows:

- 1st Quarter - 29 bbls crude oil and 397 bbls of groundwater
- 2nd Quarter - 23 bbls crude oil and 5000 bbls of groundwater
- 3rd Quarter - 24 bbls crude oil and 475 bbls of groundwater
- 4th Quarter - 30 bbls of crude oil and 2018 bbls of groundwater

A total of approximately 1080 bbls of PSH have been recovered at the subject site to date by both hand bailing and from the PSH recovery system since PSH recovery was initiated.

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 data reports and chains of custody documentation are provided in Appendix C.

3.1 Groundwater Monitoring Results

The following sections present the results from the four (4) groundwater monitoring events conducted at the subject 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 (mi²) 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 have 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 potentiometric surface generally mirrors the land surface elevation with the regional flow direction 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 ranged from 64 to 72 feet below ground surface (bgs) and the groundwater flow direction is to the southeast at an average of 20 feet per mile.

The composition of Ogallala groundwater is defined as mixed-cation-HCO₃, 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 with an average pH of 7.3.

3.1.2 Groundwater Gradient and Flow Direction

The depth to fluid measurements was collected during each of the four (4) groundwater monitoring events during the year 2012. The results of the fluid level measurements are summarized in Table 1 - Summary of Historical Fluid Level Measurements in Appendix B.

The collected data was used to construct potentiometric surface maps in order to interpret the groundwater gradient and flow direction. The maps, designated Figures 2a through 2d, are presented in Appendix A.

The potentiometric surface maps constructed for each of the four (4) groundwater monitoring events indicates that the groundwater flow direction is to southeast at an average gradient of 0.0040 feet/foot or 21 feet per mile. Groundwater levels at the subject site have exhibited a steady decline of an average of 1.41 feet for the year 2012 and have dropped approximately 11.4 feet since 2004. The decline in groundwater levels appears to be associated with a regional trend of declining groundwater levels for the Ogallala Aquifer.

3.1.3 Phase Separated Hydrocarbon (PSH)

An oil/water interface probe was used to determine the thicknesses of PSH during the four (4) groundwater monitoring events. The following summarizes the status of the PSH thicknesses observed during the four groundwater monitoring events:

- In March 2012, PSH was observed in 20 monitor wells MW-1A, MW-2, MW-3, MW-4A, MW-5 through MW-13, MW-15, MW-24, MW-25, and MW-30 through 33. PSH thicknesses ranged from 1.65 feet to 7.95 feet.
- In June 2012, PSH was observed in 20 monitor wells MW-1A, MW-2, MW-3, MW-4A, MW-5 through MW-13, MW-15, MW-24, MW-25, and MW-30 through 33. PSH thicknesses ranged from 2.13 feet to 7.64 feet.
- In September 2012, PSH was observed in 21 monitor wells MW-1A, MW-2, MW-3, MW-4A, MW-5 through MW-13, MW-15, MW-16, MW-24, MW-25, and MW-30 through 33. PSH thicknesses ranged from 0.23 feet to 9.05 feet.
- In January 2012, PSH was observed in 21 monitor wells MW-1A, MW-2, MW-3, MW-4A, MW-5 through MW-13, MW-15, MW-16, MW-24, MW-25, and MW-30 through 33. PSH thicknesses ranged from 1.02 feet to 8.01 feet.

In addition to potentiometric surface maps, isopleth maps were prepared depicting the measured PSH thicknesses and PSH plume geometry. PSH plume delineation and thickness maps are presented in Appendix A as Figures 3a through 3d. As Figure 3d illustrates, the PSH plume is not currently delineated by the current monitor well array. Plans to delineate the PSH plume have been made, and new monitor wells will be drilled during the first half of 2013.

3.1.4 Groundwater Analytical Results

During the first quarter, March 2012, groundwater monitoring event, groundwater samples were collected from 16 monitor wells, (MW-14, MW-16 through MW-22, MW-26 through MW-29, and MW-34 through MW-36.). Each monitor well was purged a minimum of three casing volumes and groundwater samples were collected. Groundwater samples were not collected from 20 monitor wells, MW-1A, MW-2, MW-3, MW-4A, MW-5 through MW-13, MW-15, MW-24, MW-25, and MW-30 through MW-33 due to the presence of PSH.

Groundwater samples collected during the event exhibited the following analytical results:

- Benzene concentrations ranged from <0.00100 mg/L to 42.5 mg/L. Benzene concentrations exceeded the NMWQCC groundwater standard of 0.010 mg/L in groundwater samples collected from monitor wells MW-14, MW-16, MW-28, and MW-29.
- Toluene concentrations ranged from <0.00100 mg/L to 1.60 mg/L. The toluene concentration exceeded the NMWQCC groundwater standard of 0.750 mg/L in the groundwater sample collected from monitor wells MW-14 and MW-16.

- Ethylbenzene concentrations ranged from <0.00100 mg/L to 1.57 mg/L. Ethylbenzene concentrations exceeded the NMWQCC groundwater standard of 0.750 mg/L in the groundwater samples collected from monitor wells MW-16, and MW-29.
- Xylene concentrations ranged from 0.00100 mg/L to 0.690 mg/L. Xylene concentrations exceeded the NMWQCC groundwater standard of 0.620 mg/L in the groundwater samples collected from monitor well MW-29.

During the second quarter, June 2012, groundwater monitoring event, groundwater samples were collected from 16 monitor wells, (MW-14, MW-16 through MW-22, MW-26 through MW-29, and MW-34 through MW-36.). Each monitor well was purged a minimum of three casing volumes and groundwater samples were collected. Groundwater samples were not collected from 20 monitor wells, MW-1A, MW-2, MW-3, MW-4A, MW-5 through MW-13, MW-15, MW-24, MW-25, and MW-30 through MW-33 due to the presence of PSH.

The groundwater samples that were collected exhibited the following analytical results:

- Benzene concentrations ranged from <0.00100 mg/L to 41.8 mg/L. Benzene concentrations exceeded the NMWQCC groundwater standard of 0.010 mg/L in groundwater samples collected from monitor wells MW-14, MW-16, MW-28 and MW-29.
- Toluene concentrations ranged from <0.00100 mg/L to 3.91 mg/L. The toluene concentration exceeded the NMWQCC groundwater standard of 0.750 mg/L in the groundwater sample collected from monitor well MW-16.
- Ethylbenzene concentrations ranged from <0.00100 mg/L to 1.52 mg/L. Ethylbenzene concentrations exceeded the NMWQCC groundwater standard of 0.750 mg/L in the groundwater samples collected from monitor wells MW-16 and MW-29.
- Xylene concentrations ranged from <0.00100 mg/L to .951 mg/L. The xylene concentration exceeded the NMWQCC groundwater standard of 0.620 mg/L in the groundwater sample collected from monitor well MW-16.

During the third quarter, September 2012, groundwater monitoring event, groundwater samples were collected from 15 monitor wells, (MW-14, MW-17 through MW-22, MW-26 through MW-29, and MW-34 through MW-36.). Each monitor well was purged a minimum of three casing volumes and groundwater samples were collected. Groundwater samples were not collected from 21 monitor wells, MW-1A, MW-2, MW-3, MW-4A, MW-5 through MW-13, MW-15, MW-16, MW-24, MW-25, and MW-30 through MW-33 due to the presence of PSH.

The groundwater samples that were collected exhibited the following analytical results:

- Benzene concentrations ranged from <0.00100 mg/L to 40.3 mg/L. Benzene concentrations exceeded the NMWQCC groundwater standard of 0.010 mg/L in groundwater samples collected from monitor wells MW-14, MW-28, and MW-29.
- Toluene concentrations ranged from <0.00100 mg/L to 0.292 mg/L. Toluene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any of the groundwater samples collected from monitor wells.
- Ethylbenzene concentrations ranged from <0.00100 mg/L to 1.61 mg/L. Ethylbenzene concentrations exceeded the NMWQCC groundwater standard of 0.750 mg/L in groundwater samples collected from monitor well MW-29.
- Xylene concentrations ranged from <0.00100 mg/L to 1.10 mg/L. The xylene concentration exceeded the NMWQCC groundwater standard of 0.620 mg/L in

groundwater sample collected from monitor well MW-29.

During the fourth quarter, December 2012, groundwater monitoring event, groundwater samples were collected from 15 monitor wells, (MW-14, MW-17 through MW-22, MW-26 through MW-29, and MW-34 through MW-36.). Each monitor well was purged a minimum of three casing volumes and groundwater samples were collected. Groundwater samples were not collected from 21 monitor wells, MW-1A, MW-2, MW-3, MW-4A, MW-5 through MW-13, MW-15, MW-16, MW-24, MW-25, and MW-30 through MW-33 due to the presence of PSH. In addition, groundwater samples were collected from monitor wells MW-16 and MW-27 for PAH analyses.

The groundwater samples that were collected exhibited the following analytical results:

- Benzene concentrations ranged from <0.00100 mg/L to 22.8 mg/L. Benzene concentrations exceeded the NMWQCC groundwater standard of 0.010 mg/L in groundwater samples collected from monitor wells MW-14, MW-28, and MW-29.
- Toluene concentrations ranged from <0.00100 mg/L to .394 mg/L. The toluene concentration did not exceed the NMWQCC groundwater standard of 0.750 mg/L in the groundwater samples collected.
- Ethylbenzene concentrations ranged from <0.00100 mg/L to 0.760 mg/L. The ethylbenzene concentration exceeded the NMWQCC groundwater standard of 0.750 mg/L in monitor well MW-29.
- Xylene concentrations ranged from <0.00100 mg/L to 0.410 mg/L. Xylene concentrations did not exceed the NMWQCC groundwater standard of 0.620 mg/L in any of the groundwater samples collected.
- The total naphthalene concentration in the MW-27 sample did not exceed the laboratory reporting limit of 0.000183. No other PAH constituent exceeded the laboratory reporting limit in the MW-27 sample.

The results of the laboratory analyses are summarized in Table 2 – Summary of Groundwater Analytical Results in Appendix B. Laboratory analytical data reports and chain of custody documentation are provided in Appendix C. In addition, cumulative historical analytical data is located in the tables section on the CD that is an adjunct to this report.

4.0 CONCLUSIONS AND RECOMMENDATIONS

The following section presents a summary of findings in regards to the four (4) groundwater monitoring events and provides recommendations for future corrective action.

4.1 Summary of Findings

- The groundwater flow direction is to southeast at an approximate gradient of 0.0040 feet/foot or 21 feet per mile.
- Groundwater levels at the subject site have exhibited a steady decline for the year 2012 that appears to be associated with a regional trend of declining groundwater levels for the Ogallala Aquifer.
- Generally, PSH thicknesses have remained relatively stable during the year 2012.
- Currently, the PSH plume is delineated by the current monitor well array.
- Currently, the dissolved-phase plume is not delineated down-gradient.
- A total of 5 total fluids pumps were installed in 2012.
- The PSH recovery system has removed 106 bbls of crude oil from the groundwater during 2012 indicating that the system is performing its function.

4.2 Recommendations

Based upon the results of the four (4) quarterly groundwater monitoring events and PSH recovery efforts, Talon proposes the following actions:

- Continue operation and maintenance of the skimmer/bladder pump and total fluids pumps recovery system. Monitor the system on a weekly basis to optimize PSH recovery efficiency.
- Add or reposition pumps as necessary to optimize PSH recovery and inhibit plume migration.
- Perform quarterly groundwater monitoring events in accordance with NMOCD directives.
- Install 2 new monitor wells down gradient from MW-28 and MW-29 to delineate the dissolved-phase plume.

APPENDIX A

Figures

Figure 1 - Site Plan

Figure 2a - Groundwater Gradient Map - 03/16/2011

Figure 2b - Groundwater Gradient Map - 06/28/2011

Figure 2c - Groundwater Gradient Map - 09/21/2011

Figure 2d - Groundwater Gradient Map - 12/29/2011

Figure 3a - PSH Thickness & Groundwater Concentration Map - 03/16-22//2011

Figure 3b - PSH Thickness & Groundwater Concentration Map - 06/28-29/2011

Figure 3c - PSH Thickness & Groundwater Concentration Map - 09/21-22/2011

Figure 3d - PSH Thickness & Groundwater Concentration Map - 12/29-30/2011

Figure 4 - Site Map With proposed Monitor Well Locations

Project # 700376.044.01



Date: 06/18/2010

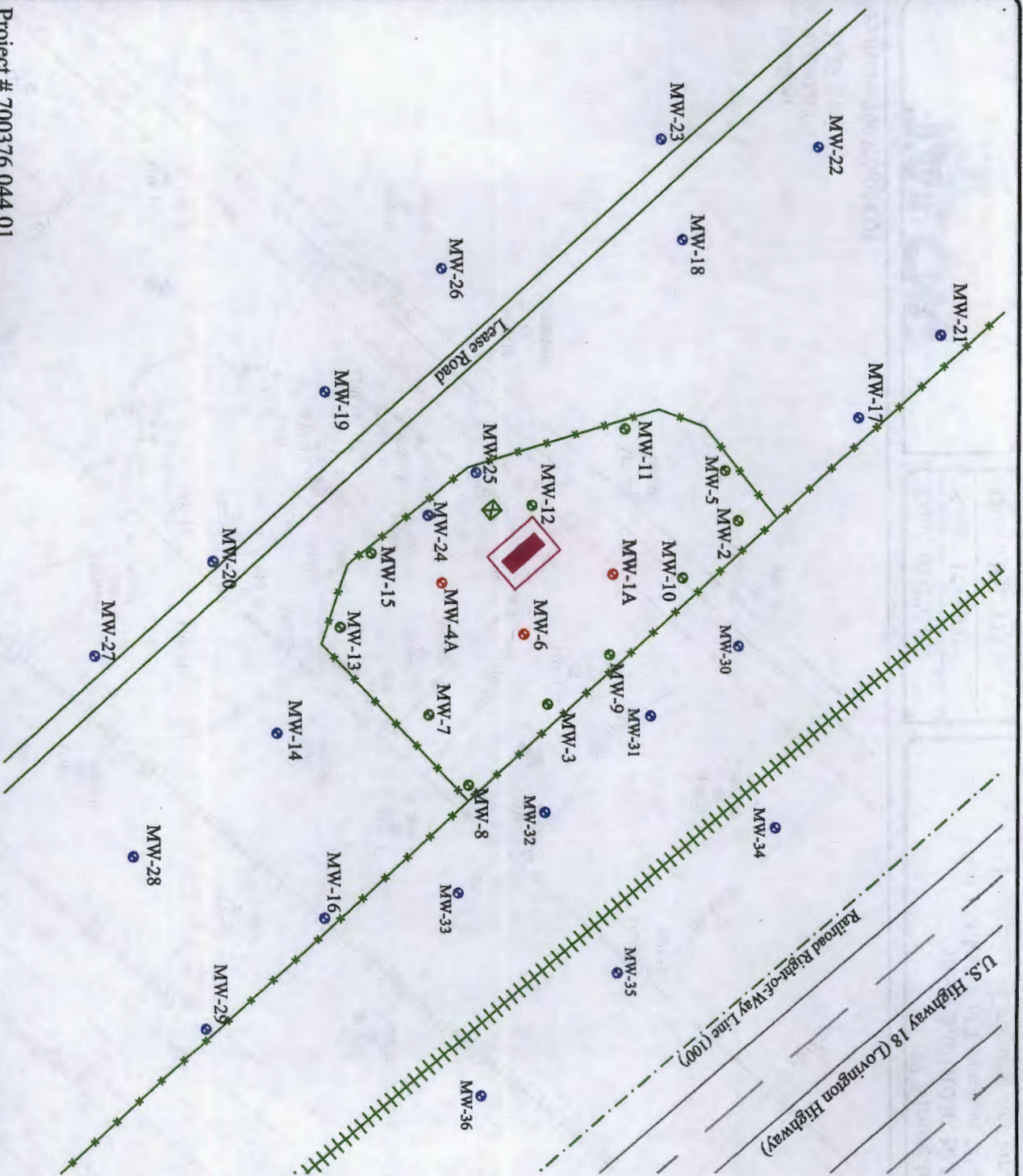
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Drawn By: TJS

8" Moore to Jal #1

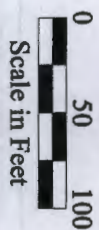
SRS # 2002-10270, NMOCD REF. # AP-91

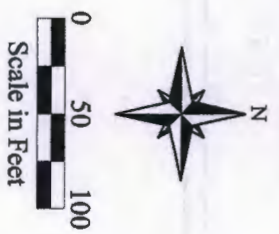
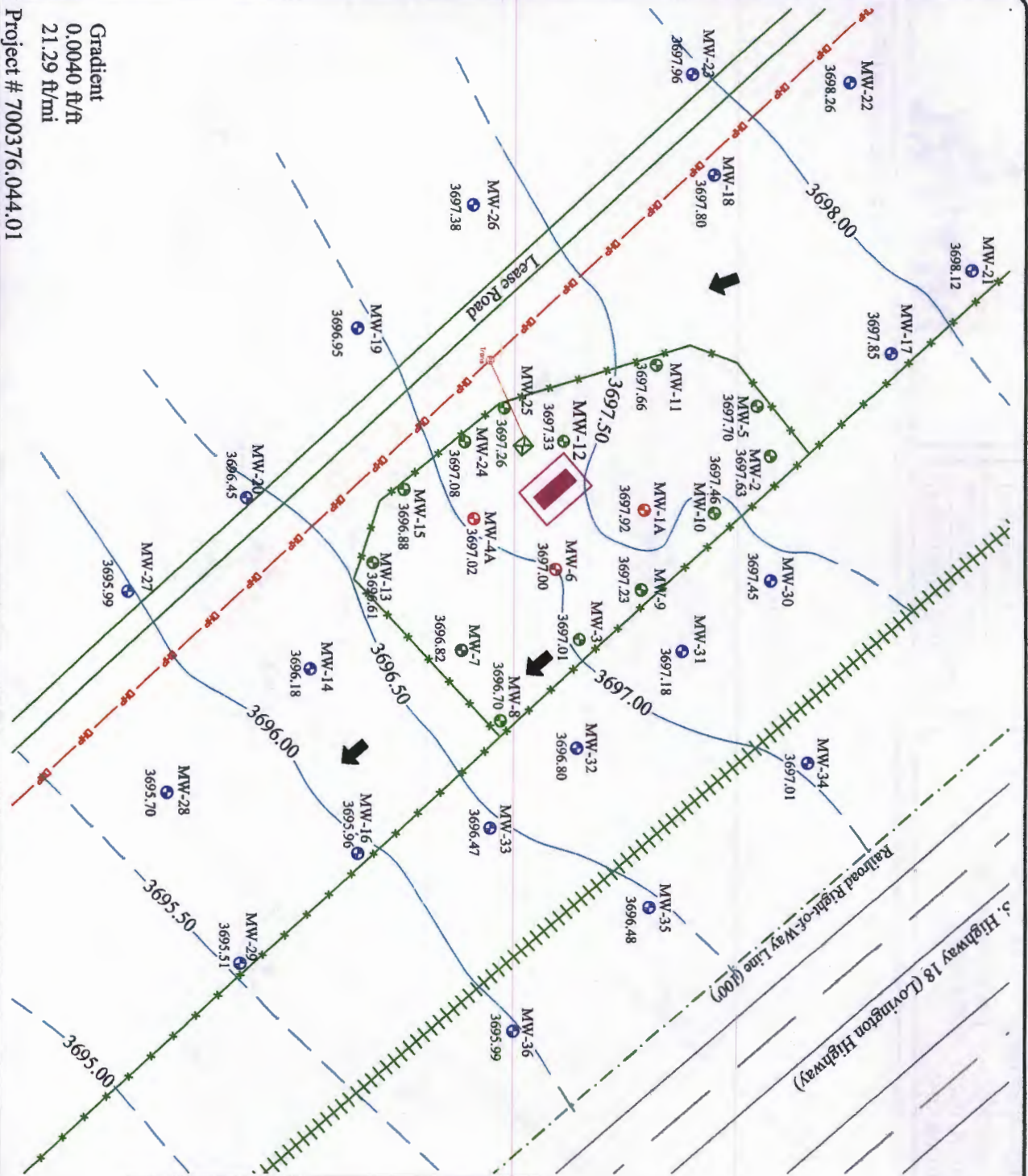
9.2 Miles SE of Lovington, NM, Lea County, New Mexico
Figure 1 - Site Plan



Legend

- - Monitor Well
- - MW w/Total Fluids Pump
- - MW w/Skimmer Pump
- + - Fence Line
- + - Overhead Powerline
- + - Railroad Tracks
- + - Power Pole W/Transformer
- + - Compressor Shed
- + - Controls
- + - Recovery System Tank and Containment





Gradient
0.0040 ft/ft
21.29 ft/mi
Project # 700376.044.01



Date: 03/27/2012
Scale: 1" = 100'
Drawn By: TJS

8" Moore to Jal #1
SRS # 2002-10270, NMOCDF REF. # AP-91
9.2 Miles SE of Lovington, NM, Lea County, New Mexico
Figure 2a - Groundwater Gradient Map, (03/16/2012)

Project # 700376.044.01



Date: 07/24/2012

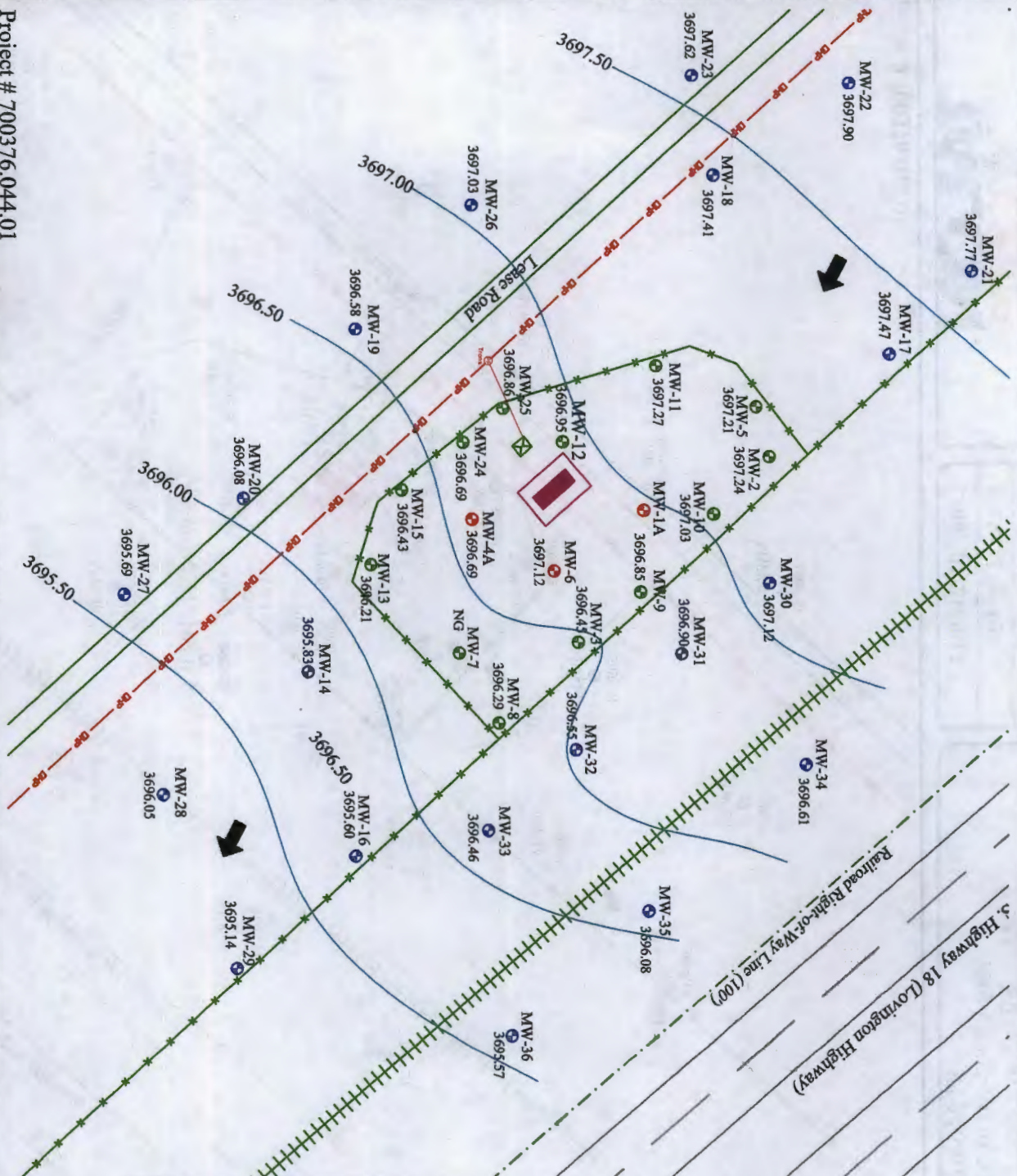
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Drawn By: TJS

8" Moore to Jal #1

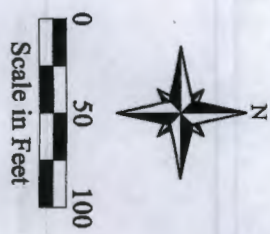
SRS # 2002-10270, NMOCDF REF. # AP-91

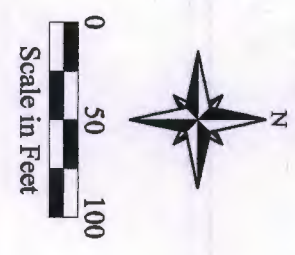
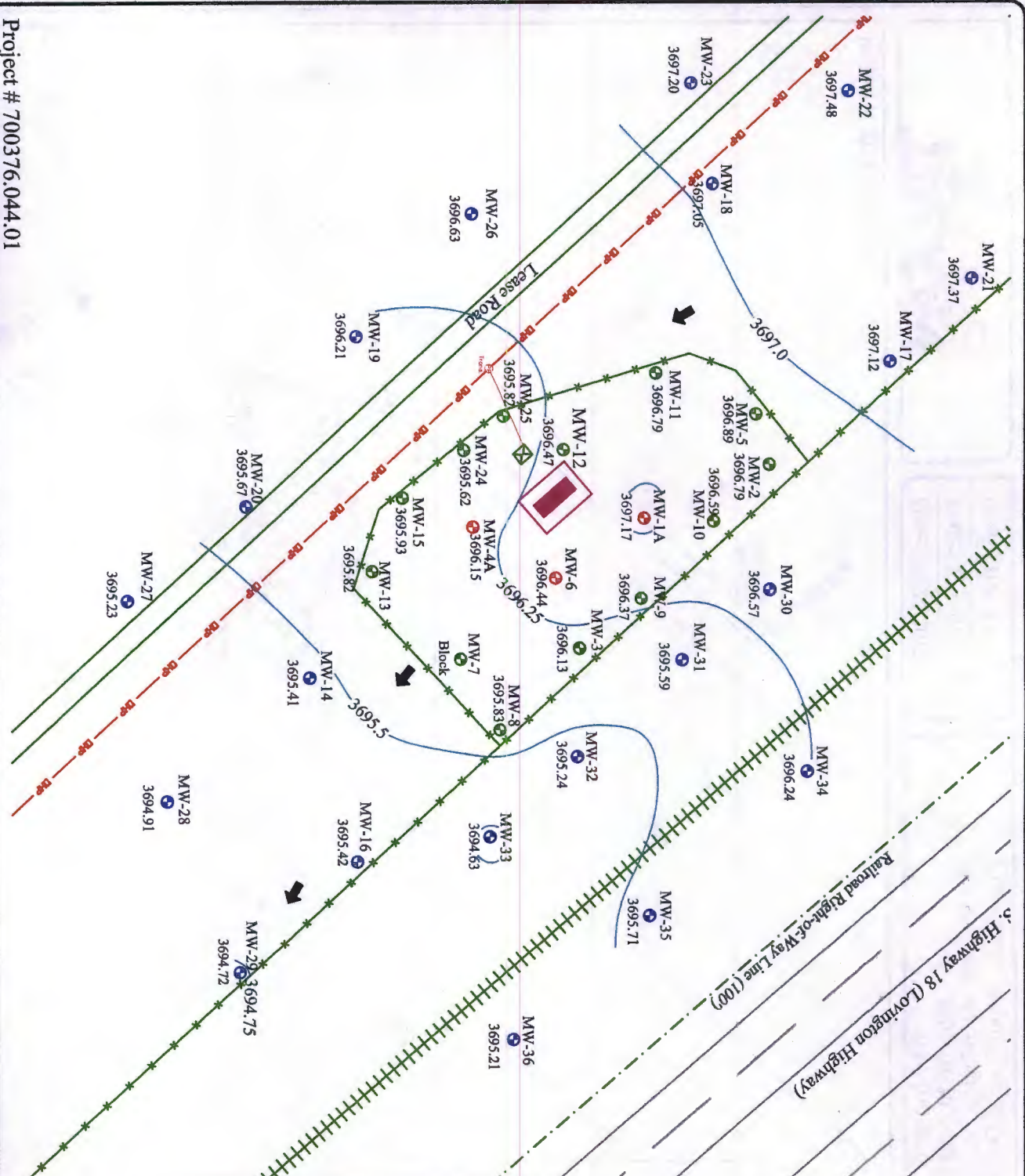
9.2 Miles SE of Lovington, NM, Lea County, New Mexico
Figure 2b - Groundwater Gradient Map, (6/14/2012)



Legend

- - Monitor Well
- - MW w/Total Fluids Pump
- - MW w/Skimmer Pump
- + - Fence Line
- + - Overhead Powerline
- + - Railroad Tracks
- + - Power Pole W/Transformer
- + - Compressor Shed
- + - Controls
- + - Recovery System Tank and Containment
- + - Groundwater Gradient Contour Line
- + - Groundwater Gradient Contour Elevation
- + - Groundwater Flow Direction





Legend

- Monitor Well
- MW w/ Total Fluids Pump
- MW w/ Skinner Pump
- Fence Line
- Overhead Powerline
- Railroad Tracks
- Power Pole W/ Transformer
- Compressor Shed
- Controls
- Recovery System Tank and Containment
- Groundwater Gradient Contour Line
- Groundwater Gradient Contour Elevation
- Groundwater Flow Direction

Project # 700376.044.01



Date: 01/21/2013
 Scale: 1" = 100'
 Drawn By: TJS

8" Moore to Jal #1
 SRS # 2002-10270, NMOCD REF. # AP-91
 9.2 Miles SE of Lovington, NM, Lea County, New Mexico
 Figure 2c - Groundwater Gradient Map, (09/25/2012)

Project # 700376.044.01



Date: 01/21/2013

Scale: 1" = 100'

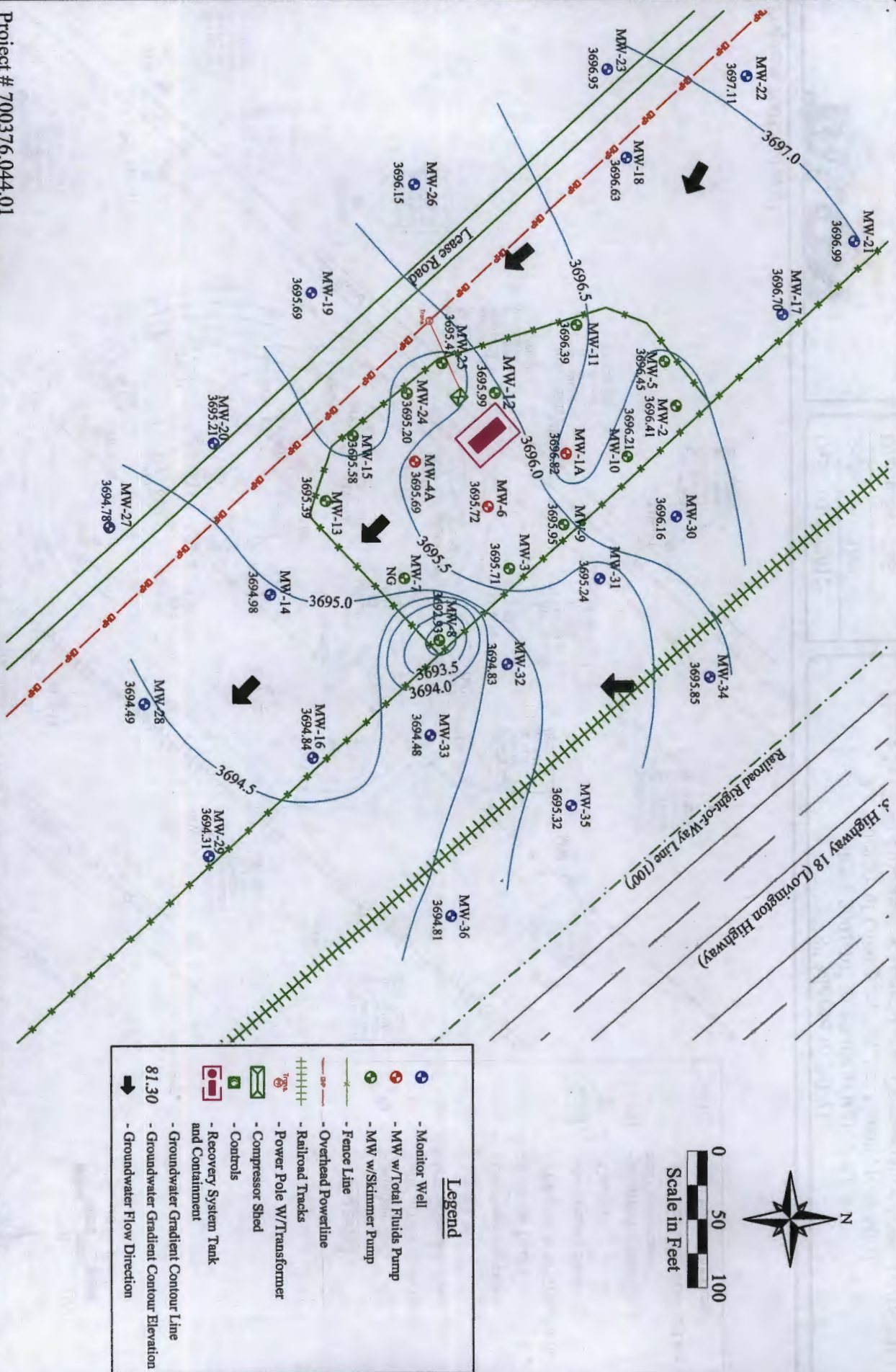
Drawn By: TJS

8" Moore to Jal #1

SRS # 2002-10270, NMOCDF REF. # AP-91

9.2 Miles SE of Lovington, NM, Lea County, New Mexico

Figure 2d - Groundwater Gradient Map, (12/10/2012)



Project # 700376.044.01



Date: 03/27/2012

Scale: 1" = 100'

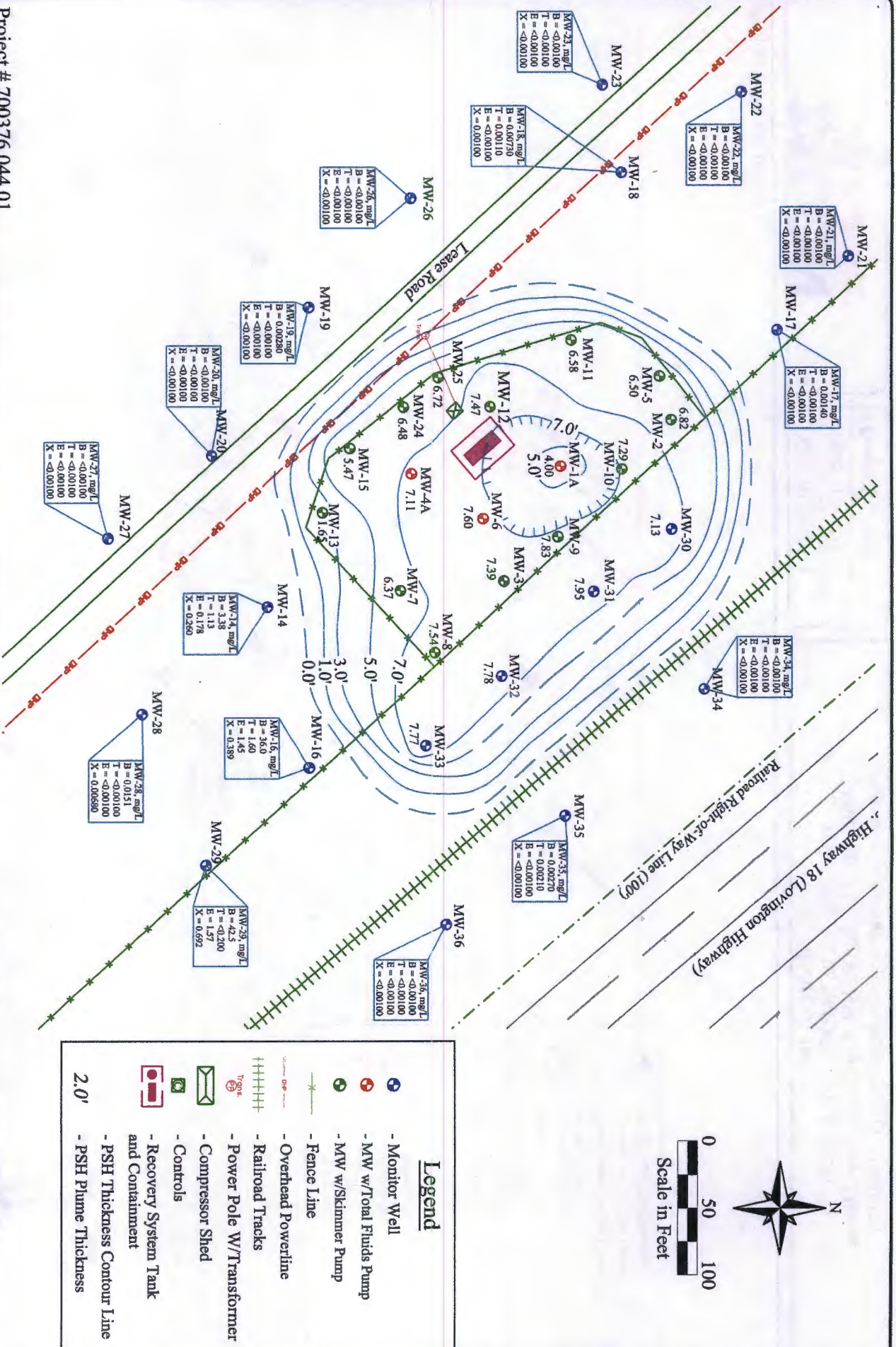
Drawn By: TJS

8" Moore to Jal #1

SRS # 2002-10270, NMOCD REF. # AP-91

9.2 Miles SE of Lovington, NM, Lea County, New Mexico

Figure 3a - PSH Thickness & Groundwater Concentration Map - 03/16/2012



Project # 700376.044.01



Date: 01/21/2013

Scale: 1" = 100'

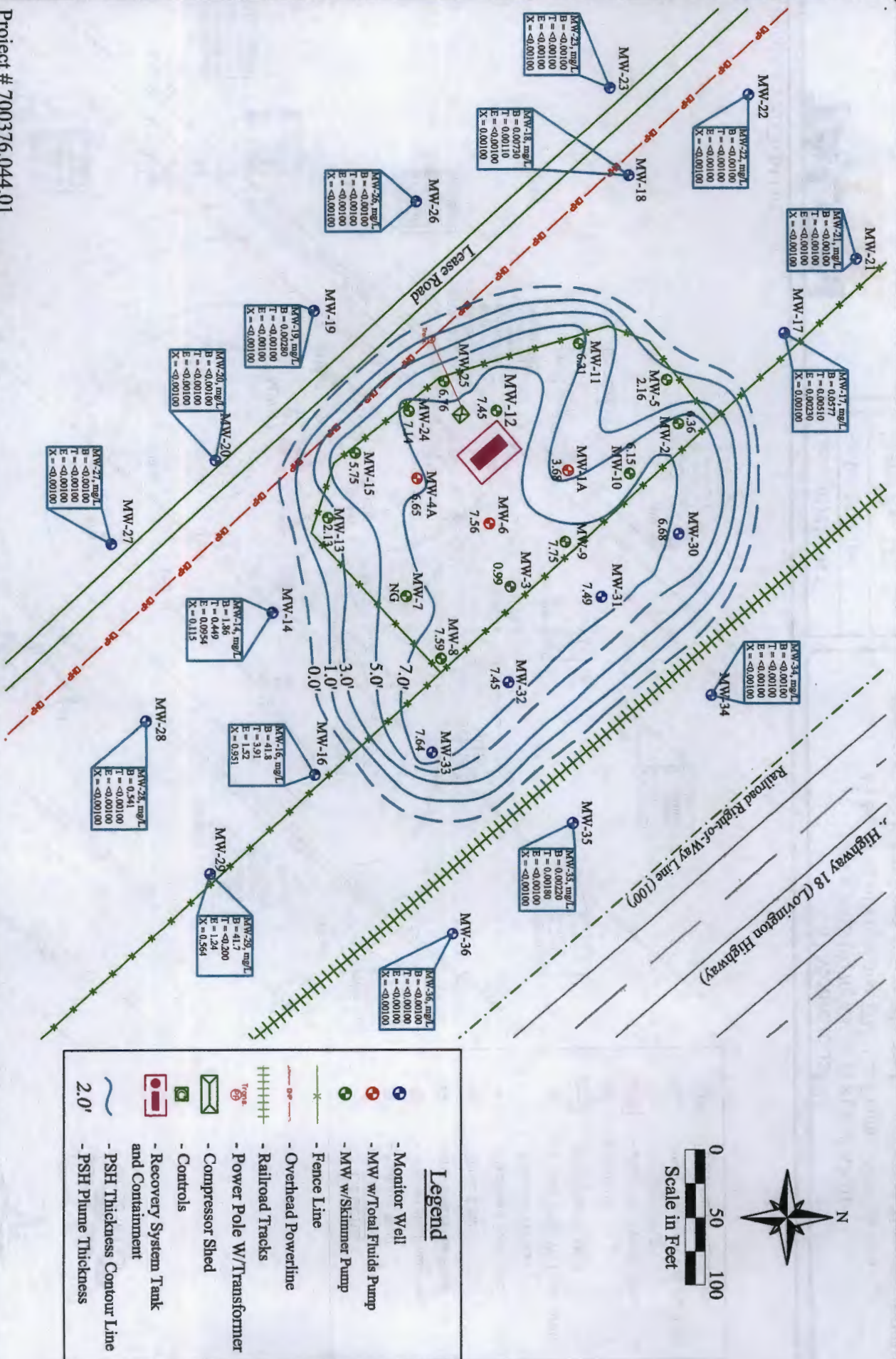
Drawn By: TJS

8" Moore to Jal #1

SRS # 2002-10270, NMOCDF REF. # AP-91

9.2 Miles SE of Lovington, NM, Lea County, New Mexico

Figure 3b - PSH Thickness & Groundwater Concentration Map - 06/14/2012



Project # 700376.044.01



Date: 01/21/2013

Scale: 1" = 100'

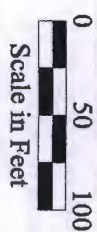
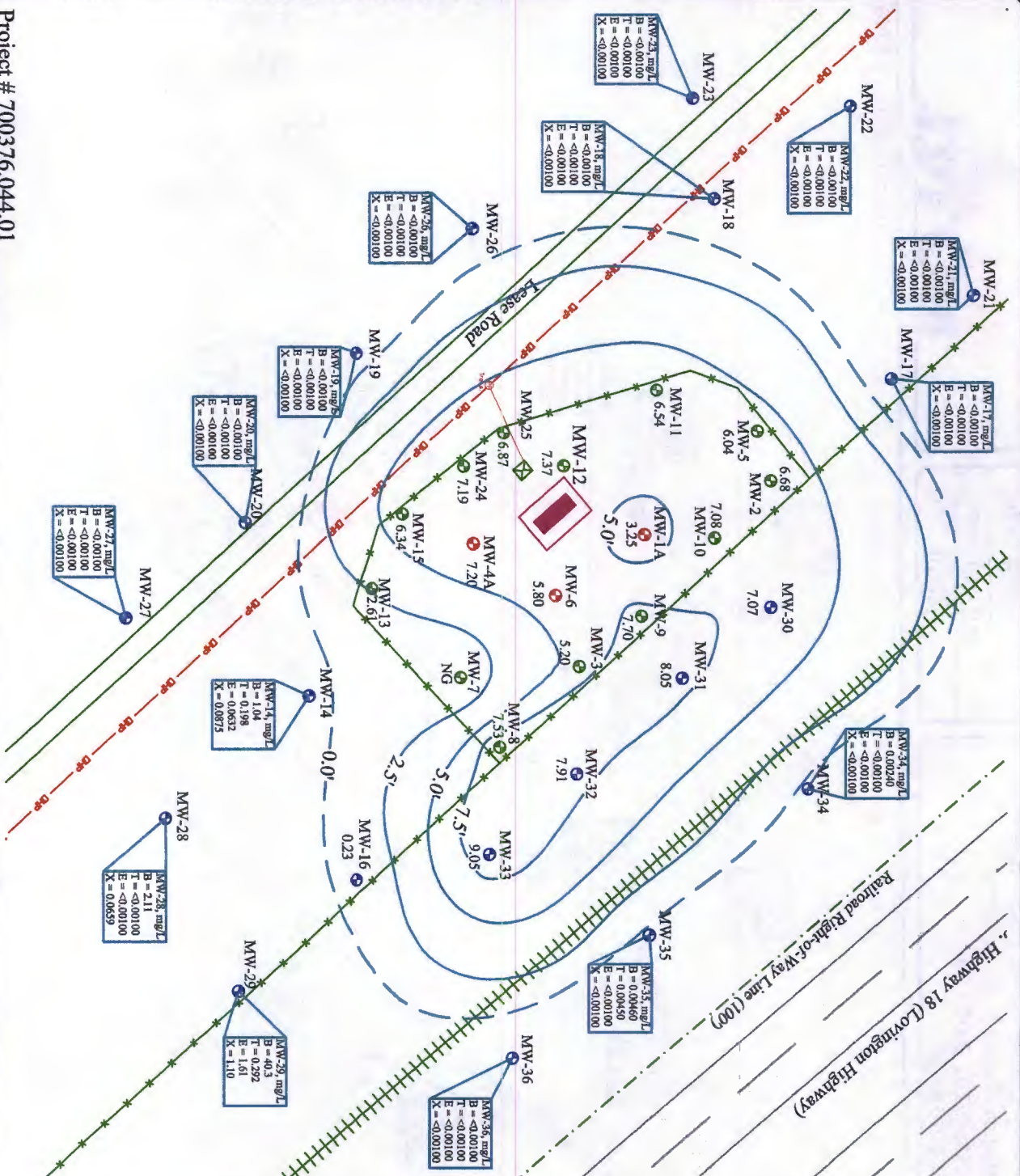
Drawn By: TJS

8" Moore to Jal #1

SRS # 2002-10270, NMOCD REF. # AP-91

9.2 Miles SE of Lovington, NM, Lea County, New Mexico

Figure 3c - PSH Thickness & Groundwater Concentration Map - 09/26/2012



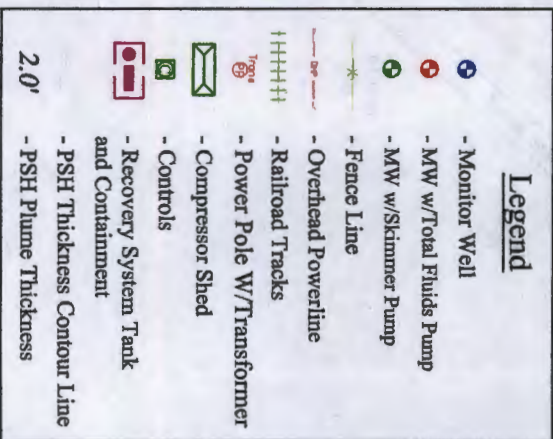
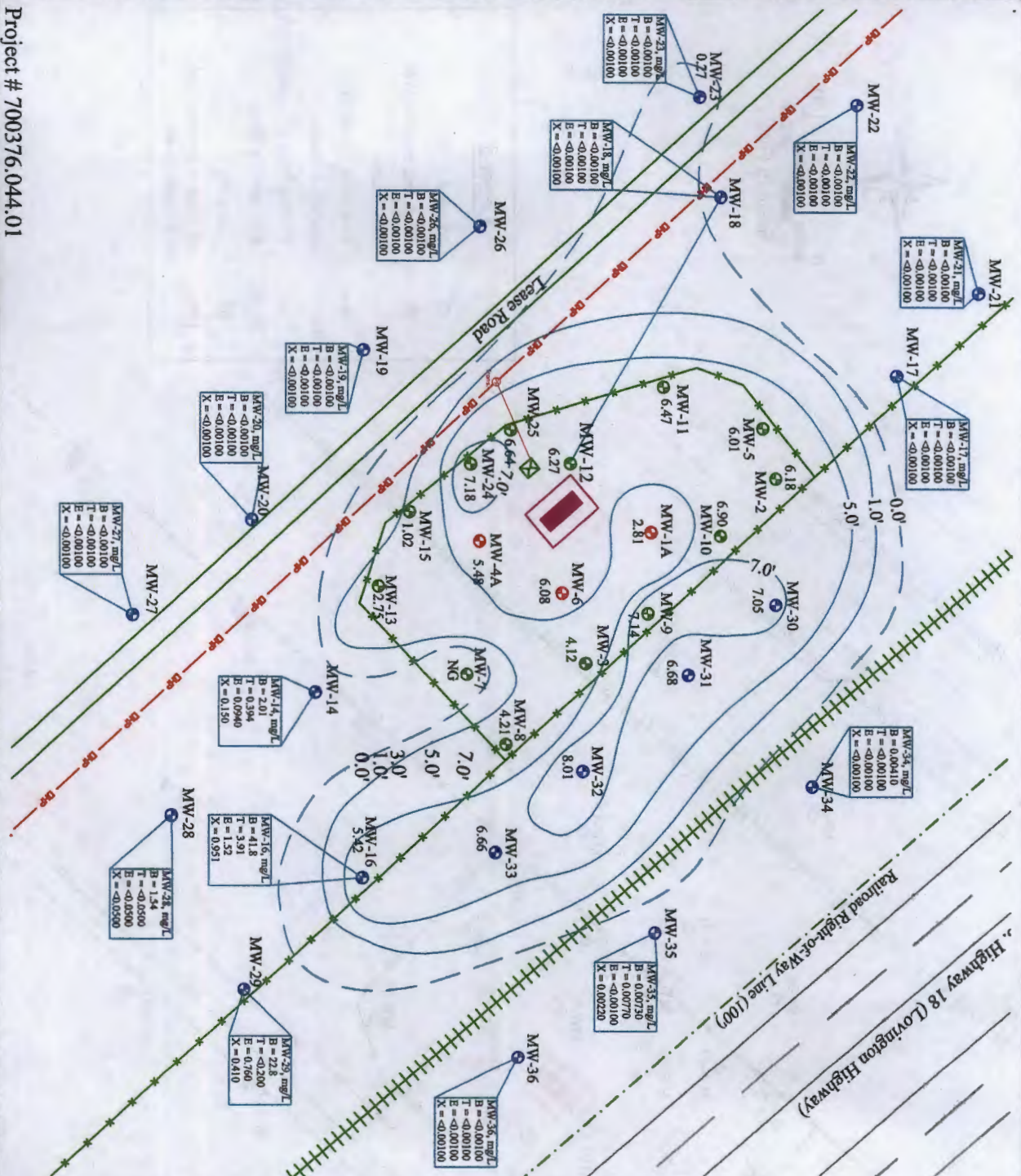
- Legend**
- Monitor Well
 - MW w/ Total Fluids Pump
 - MW w/ Skimmer Pump
 - Fence Line
 - Overhead Powerline
 - Railroad Tracks
 - Power Pole W/ Transformer
 - Compressor Shed
 - Controls
 - Recovery System Tank and Containment
 - PSH Thickness Contour Line
 - PSH Plume Thickness

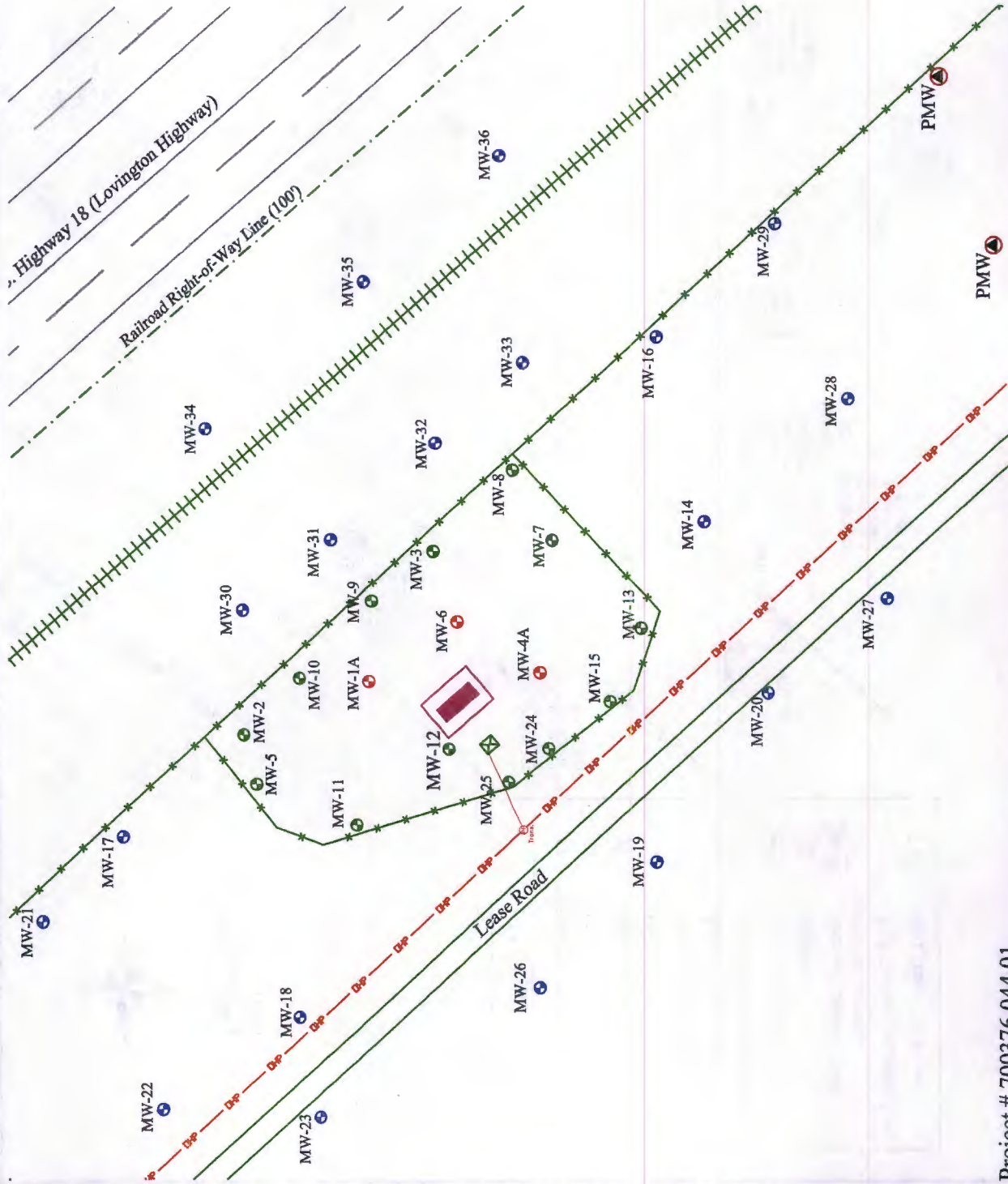
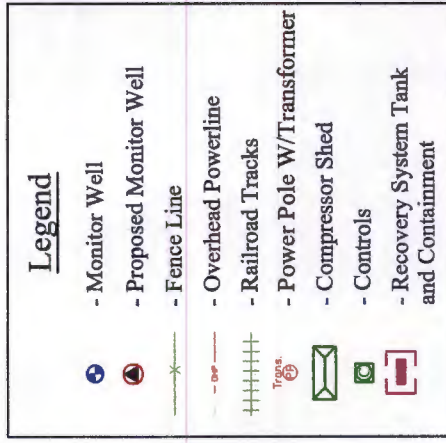
Project # 700376.044.01



Date: 01/21/2013
Scale: 1" = 100'
Drawn By: TJS

8" Moore to Jal #1
SRS # 2002-10270, NMOCDF REF. # AP-91
9.2 Miles SE of Lovington, NM, Lea County, New Mexico
Figure 3d - PSH Thickness & Groundwater Concentration Map - 12/10/2012





Project # 700376.044.01



Date: 03/06/2013

Scale: 1" = 100'

Drawn By: TJS

8" Moore to Jal #1
 SRS # 2002-10270, NMOCD REF. # AP-91
 9.2 Miles SE of Lovington, NM, Lea County, New Mexico
 Figure 4 - Site Plan w/Proposed Monitor Wells

APPENDIX B

Tables

Table 1 - Summary of Historical Fluid Level Measurements

Table 2 - Summary of Groundwater Analytical Results for BTEX

Table 3 - Summary of Groundwater Analytical Results for PAH



Table 1: Summary of Historical Fluid Level Measurements
Moore to Jal No.1
SRS #2002-10270

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: 60.00 ft. to 80.0 ft.		TD: 80.0 ft.
	03/30/06	3766.03	60.65	59.49	1.16	3706.35
	07/07/06	3766.03	61.80	59.59	2.21	3706.08
	09/29/06	3766.03	62.10	59.61	2.49	3706.01
	12/27/06	3766.03	66.32	59.04	7.28	3705.79



Table 1: Summary of Historical Fluid Level Measurements
Moore to Jal No.1
SRS #2002-10270

Well	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Depth to PSH (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)
MW-1A			Diameter: 4 in.	Screened Interval: 63.00 ft. to 83.0 ft.		TD: 83.0 ft.
	10/08/04	3765.34	56.38	53.48	2.90	3711.38
	10/14/04	3765.34	68.36	53.25	15.11	3709.60
	10/20/04	3765.34	65.92	54.11	11.81	3709.28
	10/29/04	3765.34	55.09	-	-	3710.25
	11/04/04	3765.34	63.71	55.51	8.20	3708.48
	11/10/04	3765.34	63.49	55.72	7.77	3708.34
	11/17/04	3765.34	63.49	55.93	7.56	3708.16
	11/24/04	3765.34	66.10	55.23	10.87	3708.32
	12/02/04	3765.34	65.63	55.26	10.37	3708.37
	12/08/04	3765.34	65.60	55.22	10.38	3708.41
	12/15/04	3765.34	63.65	56.06	7.59	3708.03
	12/27/04	3765.34	63.59	56.35	7.24	3707.80
	12/29/04	3765.34	63.58	56.34	7.24	3707.81
	01/06/05	3765.34	63.64	56.41	7.23	3707.74
	01/13/05	3765.34	63.76	56.56	7.20	3707.59
	01/19/05	3765.34	63.78	56.57	7.21	3707.58
	01/26/05	3765.34	63.78	56.61	7.17	3707.55
	02/02/05	3765.34	64.00	56.63	7.37	3707.49
	02/09/05	3765.34	64.11	56.65	7.46	3707.46
	02/16/05	3765.34	64.21	56.68	7.53	3707.42
	02/24/05	3765.34	64.25	56.69	7.56	3707.40
	03/03/05	3765.34	64.41	56.71	7.70	3707.36
	03/11/05	3765.34	63.54	56.86	6.68	3707.38
	03/18/05	3765.34	64.51	56.72	7.79	3707.33
	04/01/05	3765.34	64.65	56.74	7.91	3707.29
	04/07/05	3765.34	64.68	56.75	7.93	3707.28
	05/18/05	3765.34	64.99	56.80	8.19	3707.19
	05/23/05	3765.34	65.00	56.81	8.19	3707.18
	05/26/05	3765.34	65.02	56.83	8.19	3707.16
	06/01/05	3765.34	65.03	56.82	8.21	3707.17
	06/03/05	3765.34	65.01	56.84	8.17	3707.15
	06/07/05	3765.34	65.03	56.85	8.18	3707.14
	06/10/05	3765.34	65.07	56.85	8.22	3707.13
	06/13/05	3765.34	65.10	56.87	8.23	3707.11
	06/16/05	3765.34	65.06	56.86	8.20	3707.13
	06/20/05	3765.34	65.12	56.88	8.24	3707.10
	06/22/05	3765.34	65.10	56.90	8.20	3707.09
	06/29/05	3765.34	65.17	56.89	8.28	3707.08
	07/01/05	3765.34	65.15	56.91	8.24	3707.07
	07/06/05	3765.34	65.17	56.91	8.26	3707.07
	07/08/05	3765.34	65.04	56.91	8.13	3707.09
	07/12/05	3765.34	65.25	56.95	8.30	3707.02
	07/14/05	3765.34	65.21	56.92	8.29	3707.05
	07/19/05	3765.34	65.26	56.93	8.33	3707.04
	07/21/05	3765.34	65.29	56.96	8.33	3707.01
	07/26/05	3765.34	65.31	56.95	8.36	3707.01
	07/28/05	3765.34	65.30	56.58	8.72	3707.32
	08/02/05	3765.34	65.27	56.98	8.29	3706.99
	08/04/05	3765.34	65.33	57.00	8.33	3706.97
	08/09/05	3765.34	65.38	57.00	8.38	3706.96
	08/11/05	3765.34	65.37	56.99	8.38	3706.97
	08/16/05	3765.34	65.42	57.02	8.40	3706.93
	08/18/05	3765.34	65.40	57.01	8.39	3706.95
	08/24/05	3765.34	65.44	57.03	8.41	3706.92
	08/26/05	3765.34	65.44	57.04	8.40	3706.91
	08/30/05	3765.34	66.48	56.45	10.03	3707.24
	09/01/05	3765.34	66.74	56.52	10.22	3707.13



Table 1: Summary of Historical Fluid Level Measurements
Moore to Jal No.1
SRS #2002-10270

Well	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Depth to PSH (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)
MW-1A			Diameter: 4 in.	Screened Interval: 63.00 ft. to 83.0 ft.		TD: 83.0 ft.
	09/06/05	3765.34	66.28	56.65	9.63	3707.10
	09/08/05	3765.34	65.88	56.73	9.15	3707.10
	09/13/05	3765.34	65.64	56.86	8.78	3707.03
	09/16/05	3765.34	65.46	56.94	8.52	3706.99
	09/20/05	3765.34	65.31	57.01	8.30	3706.96
	09/23/05	3765.34	65.23	57.04	8.19	3706.95
	09/27/05	3765.34	65.17	57.07	8.10	3706.93
	09/29/05	3765.34	65.10	57.09	8.01	3706.93
	10/04/05	3765.34	65.18	57.08	8.10	3706.92
	10/06/05	3765.34	65.21	57.09	8.12	3706.91
	10/11/05	3765.34	65.31	57.09	8.22	3706.89
	10/13/05	3765.34	65.28	57.10	8.18	3706.89
	10/18/05	3765.34	65.31	57.12	8.19	3706.87
	10/21/05	3765.34	65.29	57.13	8.16	3706.86
	10/26/05	3765.34	65.34	57.15	8.19	3706.84
	10/28/05	3765.34	65.28	57.14	8.14	3706.86
	11/01/05	3765.34	65.34	57.16	8.18	3706.83
	11/04/05	3765.34	65.33	57.17	8.16	3706.82
	11/09/05	3765.34	65.38	57.21	8.17	3706.78
	11/11/05	3765.34	65.36	57.24	8.12	3706.76
	11/16/05	3765.34	65.42	57.21	8.21	3706.78
	11/18/05	3765.34	65.36	57.25	8.11	3706.75
	11/22/05	3765.34	65.42	57.24	8.18	3706.75
	11/30/05	3765.34	65.49	57.25	8.24	3706.73
	12/02/05	3765.34	65.45	57.28	8.17	3706.71
	12/06/05	3765.34	65.52	57.27	8.25	3706.71
	12/14/05	3765.34	65.57	57.30	8.27	3706.68
	12/16/05	3765.34	65.51	57.31	8.20	3706.68
	12/21/05	3765.34	65.61	57.31	8.30	3706.66
	12/23/05	3765.34	65.63	57.33	8.30	3706.64
	12/27/05	3765.34	65.63	57.33	8.30	3706.64
	12/30/05	3765.34	65.63	57.34	8.29	3706.63
	01/03/06	3765.34	65.69	57.35	8.34	3706.61
	01/05/06	3765.34	65.66	57.36	8.30	3706.61
	01/11/06	3765.34	65.75	57.37	8.38	3706.59
	01/13/06	3765.34	65.68	57.40	8.28	3706.57
	01/18/06	3765.34	65.77	57.38	8.39	3706.58
	01/20/06	3765.34	65.69	57.39	8.30	3706.58
	01/24/06	3765.34	65.83	57.41	8.42	3706.54
	01/26/06	3765.34	65.80	57.40	8.40	3706.55
	02/02/06	3765.34	65.87	57.40	8.47	3706.54
	02/08/06	3765.34	65.91	57.41	8.50	3706.53
	02/10/06	3765.34	65.87	57.40	8.47	3706.54
	02/14/06	3765.34	65.91	57.43	8.48	3706.51
	02/16/06	3765.34	65.83	57.46	8.37	3706.50
	02/21/06	3765.34	66.00	57.45	8.55	3706.48
	02/28/06	3765.34	71.50	57.21	14.29	3705.77
	03/03/06	3765.34	66.00	57.43	8.57	3706.50
	03/06/06	3765.34	66.00	57.45	8.55	3706.48
	03/08/06	3765.34	65.87	57.50	8.37	3706.46
	03/15/06	3765.34	66.03	57.51	8.52	3706.42
	03/17/06	3765.34	65.93	57.53	8.40	3706.42
	03/21/06	3765.34	66.04	57.51	8.53	3706.42
	03/23/06	3765.34	65.83	57.42	8.41	3706.53
	03/28/06	3765.34	66.03	57.52	8.51	3706.42
	03/30/06	3765.34	65.95	57.54	8.41	3706.41
	04/04/06	3765.34	66.07	57.55	8.52	3706.38



Table 1: Summary of Historical Fluid Level Measurements
Moore to Jal No.1
SRS #2002-10270

Well	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Depth to PSH (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)
MW-1A			Diameter: 4 in.	Screened Interval: 63.00 ft. to 83.0 ft.		TD: 83.0 ft.
	04/07/06	3765.34	66.05	57.57	8.48	3706.37
	04/12/06	3765.34	66.10	57.59	8.51	3706.35
	04/14/06	3765.34	66.01	57.58	8.43	3706.37
	04/18/06	3765.34	66.10	57.55	8.55	3706.38
	04/21/06	3765.34	61.18	57.61	3.57	3707.14
	04/26/06	3765.34	66.10	57.56	8.54	3706.37
	04/28/06	3765.34	65.98	57.60	8.38	3706.36
	05/04/06	3765.34	66.13	57.61	8.52	3706.32
	05/05/06	3765.34	66.11	57.62	8.49	3706.32
	05/10/06	3765.34	66.20	57.66	8.54	3706.27
	05/12/06	3765.34	66.05	57.65	8.40	3706.30
	05/16/06	3765.34	66.20	57.66	8.54	3706.27
	05/18/06	3765.34	66.08	57.66	8.42	3706.29
	05/23/06	3765.34	66.22	57.67	8.55	3706.26
	05/26/06	3765.34	66.16	57.87	8.29	3706.10
	05/30/06	3765.34	66.23	57.68	8.55	3706.25
	06/01/06	3765.34	66.11	57.70	8.41	3706.25
	06/06/06	3765.34	66.25	57.70	8.55	3706.23
	06/09/06	3765.34	66.26	57.70	8.56	3706.23
	06/13/06	3765.34	66.27	57.71	8.56	3706.22
	06/16/06	3765.34	66.25	57.72	8.53	3706.21
	06/20/06	3765.34	66.27	57.72	8.55	3706.21
	06/23/06	3765.34	66.26	57.72	8.54	3706.21
	06/27/06	3765.34	66.28	57.74	8.54	3706.19
	06/30/06	3765.34	66.25	57.75	8.50	3706.19
	07/05/06	3765.34	66.27	57.75	8.52	3706.18
	07/07/06	3765.34	66.31	57.77	8.54	3706.16
	07/11/06	3765.34	66.30	57.78	8.52	3706.15
	07/13/06	3765.34	66.20	57.79	8.41	3706.16
	07/18/06	3765.34	66.36	57.80	8.56	3706.13
	07/21/06	3765.34	66.30	57.80	8.50	3706.14
	07/25/06	3765.34	66.38	57.81	8.57	3706.12
	07/27/06	3765.34	66.28	57.81	8.47	3706.13
	08/01/06	3765.34	66.41	57.83	8.58	3706.09
	08/03/06	3765.34	66.36	57.85	8.51	3706.09
	08/09/06	3765.34	66.44	57.87	8.57	3706.06
	08/11/06	3765.34	66.35	57.87	8.48	3706.07
	08/15/06	3765.34	66.46	57.89	8.57	3706.04
	08/18/06	3765.34	66.46	57.89	8.57	3706.04
	08/25/06	3765.34	66.51	57.92	8.59	3706.00
	08/30/06	3765.34	66.43	57.94	8.49	3706.00
	09/15/06	3765.34	67.55	57.27	10.28	3706.37
	09/20/06	3765.34	66.64	57.74	8.90	3706.13
	09/26/06	3765.34	66.16	57.92	8.24	3706.06
	09/29/06	3765.34	66.03	57.98	8.05	3706.03
	10/04/06	3765.34	66.03	58.01	8.02	3706.01
	10/06/06	3765.34	65.94	58.03	7.91	3706.00
	10/12/06	3765.34	63.14	58.06	5.08	3706.44
	10/17/06	3765.34	66.30	58.90	7.40	3705.22
	10/20/06	3765.34	66.04	58.08	7.96	3705.95
	10/24/06	3765.34	66.02	58.10	7.92	3705.93
	10/26/06	3765.34	66.02	58.90	7.12	3705.27
	11/22/06	3765.34	66.34	58.16	8.18	3705.83
	11/28/06	3765.34	66.41	58.19	8.22	3705.79
	12/06/06	3765.34	66.49	58.25	8.24	3705.73
	12/08/06	3765.34	68.14	58.44	9.70	3705.30
	12/12/06	3765.34	66.49	58.25	8.24	3705.73



Table 1: Summary of Historical Fluid Level Measurements
Moore to Jal No.1
SRS #2002-10270

Well	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Depth to PSH (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)
MW-1A			Diameter: 4 in.	Screened Interval: 63.00 ft. to 83.0 ft.		TD: 83.0 ft.
	12/15/06	3765.34	66.01	58.92	7.09	3705.25
	12/20/06	3765.34	NG	-	-	NG
	12/22/06	3765.34	66.41	58.34	8.07	3705.67
	12/27/06	3765.34	66.65	58.04	8.61	3705.88
	01/03/07	3765.34	66.69	58.34	8.35	3705.62
	01/05/07	3765.34	66.72	58.32	8.40	3705.63
	01/12/07	3765.34	66.76	58.35	8.41	3705.60
	01/15/07	3765.34	66.72	58.40	8.32	3705.57
	01/18/07	3765.34	66.78	58.38	8.40	3705.57
	01/31/07	3765.34	66.87	58.41	8.46	3705.53
	02/07/07	3765.34	67.78	58.31	9.47	3705.47
	02/09/07	3765.34	66.69	58.43	8.26	3705.55
	02/13/07	3765.34	66.85	58.44	8.41	3705.51
	02/16/07	3765.34	66.79	58.42	8.37	3705.54
	02/19/07	3765.34	66.42	58.48	7.94	3705.55
	03/09/07	3765.34	73.50	65.02	8.48	3698.92
	03/13/07	3765.34	74.02	65.67	8.35	3698.29
	03/23/07	3765.34	73.47	65.10	8.37	3698.86
	03/27/07	3765.34	73.55	65.09	8.46	3698.85
	04/06/07	3765.34	73.52	65.13	8.39	3698.83
	04/11/07	3765.34	72.20	66.17	6.03	3698.18
	04/17/07	3765.34	73.65	65.15	8.50	3698.79
	04/19/07	3765.34	73.42	65.15	8.27	3698.83
	04/24/07	3765.34	73.76	65.15	8.61	3698.77
	05/01/07	3765.34	72.21	65.20	7.01	3698.98
	05/21/07	3765.34	73.54	65.23	8.31	3698.74
	05/24/07	3765.34	73.84	65.45	8.39	3698.51
	06/28/07	3765.34	73.90	65.38	8.52	3698.55
	08/07/07	3765.34	73.92	65.31	8.61	3698.61
	08/17/07	3765.34	71.76	64.25	7.51	3699.85
	08/23/07	3765.34	73.86	65.34	8.52	3698.59
	08/31/07	3765.34	73.89	65.37	8.52	3698.56
	09/21/07	3765.34	73.60	65.43	8.17	3698.56
	09/28/07	3765.34	73.96	65.45	8.51	3698.49
	10/11/07	3765.34	73.75	65.48	8.27	3698.50
	10/18/07	3765.34	73.98	65.51	8.47	3698.43
	11/13/07	3765.34	73.17	64.68	8.49	3699.26
	11/27/07	3765.34	73.21	64.72	8.49	3699.22
	12/13/07	3768.36	73.29	64.76	8.53	3702.19
	12/17/07	3768.36	73.28	64.83	8.45	3702.14
	12/31/07	3768.36	73.36	64.84	8.52	3702.11
	01/06/08	3768.36	73.29	64.91	8.38	3702.07
	03/05/08	3768.36	73.57	65.06	8.51	3701.90
	03/26/08	3768.36	73.37	65.12	8.25	3701.88
	04/02/08	3768.36	73.46	65.17	8.29	3701.82
	04/04/08	3768.36	73.49	65.28	8.21	3701.73
	04/24/08	3768.36	73.63	65.23	8.40	3701.74
	05/06/08	3768.36	73.77	65.31	8.46	3701.65
	05/27/08	3768.36	73.88	65.42	8.46	3701.54
	06/04/08	3768.36	73.92	65.47	8.45	3701.50
	06/24/08	3768.36	74.09	65.61	8.48	3701.35
	07/02/08	3768.36	74.17	65.68	8.49	3701.28
	07/15/08	3768.36	74.21	65.78	8.43	3701.19
	07/22/08	3768.36	74.21	65.83	8.38	3701.15
	07/31/08	3768.36	74.35	65.94	8.41	3701.03
	08/07/08	3768.36	74.36	66.03	8.33	3700.96
	08/29/08	3768.36	73.88	65.42	8.46	3701.54



Table 1: Summary of Historical Fluid Level Measurements
Moore to Jal No.1
SRS #2002-10270

Well	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Depth to PSH (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)
MW-1A			Diameter: 4 in.	Screened Interval: 63.00 ft. to 83.0 ft.		TD: 83.0 ft.
	09/16/08	3768.36	74.00	65.49	8.51	3701.47
	12/16/08	3768.36	73.61	65.73	7.88	3701.33
	01/29/09	3768.36	73.96	65.82	8.14	3701.20
	02/04/09	3768.36	73.95	65.85	8.10	3701.17
	02/24/09	3768.36	65.91	57.47	8.44	3709.50
	05/26/09	3768.36	74.02	66.15	7.87	3700.91
	08/12/09	3768.36	74.15	66.43	7.72	3700.66
	11/19/09	3768.36	74.21	66.95	7.26	3700.21
	12/29/11	3768.36	73.78	69.83	3.95	3697.88
	03/16/12	3768.36	73.82	69.82	4.00	3697.88
	06/14/12	3768.36	73.90	70.22	3.68	3697.53
	09/25/12	3768.36	73.90	70.65	3.25	3697.17
	12/10/12	3768.36	73.89	71.08	2.81	3696.82



Table 1: Summary of Historical Fluid Level Measurements
Moore to Jal No.1
SRS #2002-10270

Well	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Depth to PSH (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)
MW-2			Diameter: 4 in.	Screened Interval: 63.00 ft. to 83.0 ft.		TD: 83.0 ft.
	10/29/04	3770.91	NG	61.85	-62.85	3770.43
	11/04/04	3770.91	65.44	61.70	3.74	3708.59
	11/10/04	3770.91	67.15	61.48	5.67	3708.49
	11/17/04	3770.91	66.74	61.72	5.02	3708.36
	11/24/04	3770.91	67.10	61.81	5.29	3708.23
	12/02/04	3770.91	68.41	61.44	6.97	3708.32
	12/08/04	3770.91	68.39	61.38	7.01	3708.37
	12/15/04	3770.91	68.86	61.52	7.34	3708.18
	12/27/04	3770.91	69.09	61.65	7.44	3708.03
	12/29/04	3770.91	69.08	61.66	7.42	3708.03
	01/06/05	3770.91	69.18	61.72	7.46	3707.96
	01/13/05	3770.91	69.21	61.81	7.40	3707.88
	01/19/05	3770.91	69.25	61.85	7.40	3707.84
	01/26/05	3770.91	69.41	61.89	7.52	3707.78
	02/02/05	3770.91	69.45	61.93	7.52	3707.74
	02/09/05	3770.91	69.48	61.92	7.56	3707.74
	02/16/05	3770.91	69.57	61.96	7.61	3707.69
	02/24/05	3770.91	69.59	62.01	7.58	3707.65
	03/03/05	3770.91	69.65	62.00	7.65	3707.65
	03/11/05	3770.91	67.69	62.18	5.51	3707.82
	03/18/05	3770.91	69.69	62.04	7.65	3707.61
	04/01/05	3770.91	69.79	62.08	7.71	3707.56
	04/07/05	3770.91	69.74	62.08	7.66	3707.57
	05/18/05	3770.91	69.89	62.16	7.73	3707.47
	05/23/05	3770.91	69.90	62.19	7.71	3707.45
	05/26/05	3770.91	69.80	62.24	7.56	3707.42
	06/01/05	3770.91	69.91	62.21	7.70	3707.43
	06/03/05	3770.91	69.50	62.30	7.20	3707.42
	06/07/05	3770.91	69.91	62.24	7.67	3707.40
	06/10/05	3770.91	69.81	62.26	7.55	3707.40
	06/13/05	3770.91	69.90	62.26	7.64	3707.39
	06/16/05	3770.91	69.80	62.28	7.52	3707.39
	06/20/05	3770.91	69.95	62.29	7.66	3707.36
	06/22/05	3770.91	69.57	62.36	7.21	3707.36
	06/29/05	3770.91	69.96	62.28	7.68	3707.36
	07/01/05	3770.91	69.61	62.35	7.26	3707.36
	07/06/05	3770.91	69.99	62.31	7.68	3707.33
	07/08/05	3770.91	69.54	62.41	7.13	3707.32
	07/12/05	3770.91	70.29	62.33	7.96	3707.27
	07/14/05	3770.91	69.68	62.40	7.28	3707.31
	07/19/05	3770.91	70.04	62.35	7.69	3707.29
	07/21/05	3770.91	69.69	62.44	7.25	3707.27
	07/26/05	3770.91	70.02	62.38	7.64	3707.27
	07/28/05	3770.91	69.74	62.49	7.25	3707.22
	08/02/05	3770.91	70.03	62.40	7.63	3707.25
	08/04/05	3770.91	69.76	62.47	7.29	3707.24
	08/09/05	3770.91	70.05	62.41	7.64	3707.24
	08/11/05	3770.91	69.82	62.48	7.34	3707.22
	08/16/05	3770.91	70.09	62.45	7.64	3707.20
	08/18/05	3770.91	69.85	62.50	7.35	3707.20
	08/24/05	3770.91	70.11	62.41	7.70	3707.23
	08/26/05	3770.91	69.89	62.51	7.38	3707.18
	08/30/05	3770.91	70.08	62.46	7.62	3707.19
	09/01/05	3770.91	69.83	62.52	7.31	3707.18
	09/06/05	3770.91	70.08	62.47	7.61	3707.18
	09/08/05	3770.91	69.81	62.51	7.30	3707.20
	09/13/05	3770.91	70.07	62.48	7.59	3707.18



Table 1: Summary of Historical Fluid Level Measurements
Moore to Jal No.1
SRS #2002-10270

Well	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Depth to PSH (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)
MW-2			Diameter: 4 in.	Screened Interval: 63.00 ft. to 83.0 ft.		TD: 83.0 ft.
	09/16/05	3770.91	70.04	62.51	7.53	3707.16
	09/20/05	3770.91	70.09	62.50	7.59	3707.16
	09/23/05	3770.91	70.03	62.53	7.50	3707.14
	09/27/05	3770.91	70.15	62.50	7.65	3707.15
	09/29/05	3770.91	69.94	62.56	7.38	3707.13
	10/04/05	3770.91	70.12	62.52	7.60	3707.14
	10/06/05	3770.91	69.98	62.61	7.37	3707.08
	10/11/05	3770.91	70.14	62.53	7.61	3707.12
	10/13/05	3770.91	70.08	62.55	7.53	3707.12
	10/18/05	3770.91	70.18	62.56	7.62	3707.09
	10/21/05	3770.91	70.17	62.58	7.59	3707.08
	10/26/05	3770.91	70.20	62.57	7.63	3707.08
	10/28/05	3770.91	70.07	62.61	7.46	3707.07
	11/01/05	3770.91	70.21	62.59	7.62	3707.06
	11/04/05	3770.91	70.20	62.60	7.60	3707.06
	11/09/05	3770.91	70.28	62.64	7.64	3707.01
	11/11/05	3770.91	70.29	62.64	7.65	3707.01
	11/16/05	3770.91	70.27	62.63	7.64	3707.02
	11/18/05	3770.91	70.17	62.68	7.49	3706.99
	11/22/05	3770.91	70.29	62.65	7.64	3707.00
	11/30/05	3770.91	70.33	62.66	7.67	3706.98
	12/02/05	3770.91	70.22	62.71	7.51	3706.96
	12/06/05	3770.91	70.36	62.70	7.66	3706.95
	12/14/05	3770.91	70.39	62.72	7.67	3706.92
	12/16/05	3770.91	70.38	62.73	7.65	3706.92
	12/21/05	3770.91	70.25	62.75	7.50	3706.92
	12/23/05	3770.91	70.23	62.78	7.45	3706.90
	12/27/05	3770.91	70.39	62.75	7.64	3706.90
	12/30/05	3770.91	70.39	62.78	7.61	3706.87
	01/03/06	3770.91	70.39	62.76	7.63	3706.89
	01/05/06	3770.91	70.34	62.80	7.54	3706.87
	01/11/06	3770.91	70.44	62.81	7.63	3706.84
	01/13/06	3770.91	70.37	62.83	7.54	3706.84
	01/18/06	3770.91	70.43	62.80	7.63	3706.85
	01/20/06	3770.91	70.36	62.85	7.51	3706.82
	01/24/06	3770.91	72.50	62.85	9.65	3706.47
	01/26/06	3770.91	72.43	62.80	9.63	3706.52
	02/02/06	3770.91	70.51	62.82	7.69	3706.82
	02/08/06	3770.91	70.50	62.85	7.65	3706.80
	02/10/06	3770.91	70.48	62.81	7.67	3706.83
	02/14/06	3770.91	70.55	62.87	7.68	3706.77
	02/16/06	3770.91	70.46	62.91	7.55	3706.75
	02/21/06	3770.91	70.51	62.95	7.56	3706.71
	02/24/06	3770.91	70.54	62.92	7.62	3706.73
	02/28/06	3770.91	72.50	62.90	9.60	3706.43
	03/03/06	3770.91	69.60	62.92	6.68	3706.89
	03/06/06	3770.91	70.57	62.93	7.64	3706.72
	03/08/06	3770.91	69.52	62.95	6.57	3706.88
	03/15/06	3770.91	70.63	62.97	7.66	3706.68
	03/17/06	3770.91	70.54	63.00	7.54	3706.67
	03/21/06	3770.91	70.60	62.90	7.70	3706.74
	03/23/06	3770.91	70.40	62.90	7.50	3706.77
	03/28/06	3770.91	70.60	63.30	7.30	3706.41
	03/30/06	3770.91	70.60	63.03	7.57	3706.63
	04/04/06	3770.91	70.65	63.01	7.64	3706.64
	04/07/06	3770.91	70.65	63.05	7.60	3706.61
	04/12/06	3770.91	70.29	63.02	7.27	3706.69



Table 1: Summary of Historical Fluid Level Measurements
Moore to Jal No.1
SRS #2002-10270

Well	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Depth to PSH (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)
MW-2			Diameter: 4 in.	Screened Interval: 63.00 ft. to 83.0 ft.		TD: 83.0 ft.
	04/14/06	3770.91	70.60	63.06	7.54	3706.61
	04/18/06	3770.91	70.61	63.01	7.60	3706.65
	04/21/06	3770.91	70.66	63.08	7.58	3706.58
	04/26/06	3770.91	70.62	63.03	7.59	3706.63
	04/28/06	3770.91	70.60	63.07	7.53	3706.60
	05/04/06	3770.91	70.68	63.08	7.60	3706.58
	05/05/06	3770.91	70.69	63.10	7.59	3706.56
	05/10/06	3770.91	70.74	63.13	7.61	3706.52
	05/12/06	3770.91	70.67	63.11	7.56	3706.55
	05/16/06	3770.91	70.71	63.46	7.25	3706.25
	05/18/06	3770.91	70.69	63.14	7.55	3706.52
	05/23/06	3770.91	70.73	63.14	7.59	3706.52
	05/26/06	3770.91	70.73	63.15	7.58	3706.51
	05/30/06	3770.91	70.37	63.16	7.21	3706.56
	06/01/06	3770.91	70.74	63.18	7.56	3706.48
	06/06/06	3770.91	70.28	63.17	7.11	3706.57
	06/09/06	3770.91	70.77	63.16	7.61	3706.49
	06/13/06	3770.91	70.80	63.19	7.61	3706.46
	06/16/06	3770.91	70.77	63.20	7.57	3706.46
	06/20/06	3770.91	70.77	63.20	7.57	3706.46
	06/23/06	3770.91	70.79	63.19	7.60	3706.47
	06/27/06	3770.91	70.81	63.22	7.59	3706.44
	06/30/06	3770.91	70.78	63.21	7.57	3706.45
	07/05/06	3770.91	70.80	63.22	7.58	3706.44
	07/07/06	3770.91	70.77	63.26	7.51	3706.41
	07/11/06	3770.91	70.81	63.25	7.56	3706.41
	07/13/06	3770.91	70.75	63.27	7.48	3706.41
	07/18/06	3770.91	70.84	63.28	7.56	3706.38
	07/21/06	3770.91	70.80	63.28	7.52	3706.39
	07/25/06	3770.91	70.84	63.30	7.54	3706.37
	07/27/06	3770.91	70.84	63.30	7.54	3706.37
	08/01/06	3770.91	70.87	63.33	7.54	3706.34
	08/03/06	3770.91	70.84	63.34	7.50	3706.33
	08/09/06	3770.91	70.89	63.35	7.54	3706.32
	08/11/06	3770.91	70.83	63.35	7.48	3706.33
	08/15/06	3770.91	70.91	63.38	7.53	3706.29
	08/18/06	3770.91	70.90	63.38	7.52	3706.29
	08/25/06	3770.91	70.95	63.40	7.55	3706.26
	08/30/06	3770.91	71.40	62.44	8.96	3706.99
	09/15/06	3770.91	70.98	63.40	7.58	3706.26
	09/20/06	3770.91	71.01	63.43	7.58	3706.23
	09/29/06	3770.91	71.00	63.45	7.55	3706.21
	10/04/06	3770.91	71.02	63.46	7.56	3706.20
	10/06/06	3770.91	71.97	63.49	8.48	3706.02
	10/12/06	3770.91	71.05	63.49	7.56	3706.17
	10/17/06	3770.91	71.07	63.52	7.55	3706.14
	10/20/06	3770.91	71.07	63.51	7.56	3706.15
	10/24/06	3770.91	71.07	63.48	7.59	3706.18
	10/26/06	3770.91	71.07	63.59	7.48	3706.09
	11/22/06	3770.91	71.19	63.60	7.59	3706.06
	11/28/06	3770.91	71.20	63.62	7.58	3706.04
	12/06/06	3770.91	71.28	63.71	7.57	3705.95
	12/08/06	3770.91	71.05	63.48	7.57	3706.18
	12/12/06	3770.91	71.26	63.68	7.58	3705.98
	12/15/06	3770.91	71.07	63.62	7.45	3706.06
	12/22/06	3770.91	71.25	63.72	7.53	3705.95
	12/27/06	3770.91	71.29	63.78	7.51	3705.89



Table 1: Summary of Historical Fluid Level Measurements
Moore to Jal No.1
SRS #2002-10270

Well	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Depth to PSH (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)
MW-2			Diameter: 4 in.	Screened Interval: 63.00 ft. to 83.0 ft.		TD: 83.0 ft.
	01/03/07	3770.91	71.38	63.78	7.60	3705.88
	01/05/07	3770.91	71.36	63.82	7.54	3705.85
	01/12/07	3770.91	71.42	63.82	7.60	3705.84
	01/15/07	3770.91	71.40	63.88	7.52	3705.79
	01/18/07	3770.91	71.43	63.86	7.57	3705.80
	01/31/07	3770.91	71.46	63.88	7.58	3705.78
	02/07/07	3770.91	71.50	63.75	7.75	3705.88
	02/09/07	3770.91	71.48	63.90	7.58	3705.76
	02/13/07	3770.91	76.48	63.89	12.59	3704.94
	02/16/07	3770.91	74.46	63.89	10.57	3705.28
	02/19/07	3770.91	71.48	63.87	7.61	3705.78
	02/21/07	3770.91	71.49	63.90	7.59	3705.76
	02/26/07	3770.91	71.53	63.95	7.58	3705.71
	03/01/07	3770.91	71.55	63.96	7.59	3705.70
	03/06/07	3770.91	71.49	63.90	7.59	3705.76
	03/09/07	3770.91	71.65	63.91	7.74	3705.72
	03/13/07	3770.91	71.53	63.95	7.58	3705.71
	03/23/07	3770.91	71.53	63.97	7.56	3705.69
	03/27/07	3770.91	71.54	63.86	7.68	3705.78
	04/06/07	3770.91	71.59	64.03	7.56	3705.63
	04/11/07	3770.91	71.57	64.03	7.54	3705.64
	04/17/07	3770.91	71.50	64.03	7.47	3705.65
	04/19/07	3770.91	71.50	64.04	7.46	3705.64
	04/24/07	3770.91	71.61	64.05	7.56	3705.61
	05/01/07	3770.91	71.67	64.05	7.62	3705.60
	05/21/07	3770.91	71.67	64.11	7.56	3705.55
	05/24/07	3770.91	73.84	64.15	9.69	3705.16
	06/28/07	3770.91	71.82	64.28	7.54	3705.39
	08/07/07	3770.91	71.26	64.21	7.05	3705.54
	08/17/07	3770.91	73.88	65.34	8.54	3704.16
	08/23/07	3770.91	71.75	64.27	7.48	3705.41
	08/31/07	3770.91	71.76	64.28	7.48	3705.40
	09/21/07	3770.91	71.84	64.37	7.47	3705.31
	09/28/07	3770.91	71.84	64.36	7.48	3705.32
	10/11/07	3770.91	71.87	64.42	7.45	3705.26
	10/18/07	3770.91	71.89	64.44	7.45	3705.24
	11/13/07	3770.91	71.98	65.40	6.58	3704.42
	11/27/07	3770.91	72.05	64.57	7.48	3705.11
	12/13/07	3768.35	72.12	64.65	7.47	3702.47
	12/17/07	3768.35	72.12	64.67	7.45	3702.45
	12/31/07	3768.35	72.18	64.42	7.76	3702.65
	01/16/08	3768.35	72.21	64.47	7.74	3702.60
	03/05/08	3768.35	72.36	64.92	7.44	3702.20
	03/26/08	3768.35	72.40	64.99	7.41	3702.14
	04/02/08	3768.35	72.47	65.04	7.43	3702.08
	04/04/08	3768.35	72.48	65.03	7.45	3702.09
	04/24/08	3768.35	72.53	65.08	7.45	3702.04
	05/06/08	3768.35	72.59	65.16	7.43	3701.96
	05/27/08	3768.35	72.32	65.32	7.00	3701.87
	06/04/08	3768.35	72.73	65.32	7.41	3701.81
	06/24/08	3768.35	72.90	65.49	7.41	3701.64
	07/02/08	3768.35	72.95	65.56	7.39	3701.57
	07/15/08	3768.35	73.04	65.65	7.39	3701.48
	07/22/08	3768.35	73.06	65.71	7.35	3701.43
	07/31/08	3768.35	73.17	66.82	6.35	3700.48
	08/07/08	3768.35	73.25	65.91	7.34	3701.23
	08/29/08	3768.35	72.63	65.30	7.33	3701.84



Table 1: Summary of Historical Fluid Level Measurements
Moore to Jal No.1
SRS #2002-10270

Well	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Depth to PSH (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)
MW-2			Diameter: 4 in.	Screened Interval: 63.00 ft. to 83.0 ft.		TD: 83.0 ft.
	09/16/08	3768.35	72.69	65.33	7.36	3701.81
	12/16/08	3768.35	70.54	66.02	4.52	3701.58
	01/29/09	3768.35	72.45	65.80	6.65	3701.45
	02/04/09	3768.35	70.44	66.27	4.17	3701.39
	05/26/09	3768.35	73.15	66.02	7.13	3701.15
	08/12/09	3768.35	72.49	66.52	5.97	3700.84
	11/19/09	3768.35	70.09	67.63	2.46	3700.31
	12/29/11	3768.35	75.64	69.26	6.38	3698.04
	03/16/12	3768.35	76.49	69.67	6.82	3697.55
	06/14/12	3768.35	76.49	70.13	6.36	3697.17
	09/25/12	3768.35	77.14	70.46	6.68	3696.79
	12/10/12	3768.35	77.10	70.92	6.18	3696.41



Table 1: Summary of Historical Fluid Level Measurements
Moore to Jal No.1
SRS #2002-10270

Well	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Depth to PSH (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)
MW-3			Diameter: 4 in.	Screened Interval: 63.00 ft. to 83.0 ft.		TD: 83.0 ft.
	10/29/04	3769.96	72.15	62.90	9.25	3705.53
	11/04/04	3769.96	70.21	60.05	10.16	3708.23
	11/10/04	3769.96	70.25	60.19	10.06	3708.11
	11/17/04	3769.96	70.26	60.34	9.92	3707.98
	11/24/04	3769.96	70.26	60.50	9.76	3707.85
	12/02/04	3769.96	70.10	60.52	9.58	3707.86
	12/08/04	3769.96	70.02	60.48	9.54	3707.91
	12/15/04	3769.96	70.22	60.68	9.54	3707.71
	12/27/04	3769.96	70.39	60.81	9.58	3707.57
	12/29/04	3769.96	70.39	60.78	9.61	3707.59
	01/06/05	3769.96	70.40	60.91	9.49	3707.48
	01/13/05	3769.96	70.46	61.04	9.42	3707.37
	01/19/05	3769.96	70.46	61.04	9.42	3707.37
	01/26/05	3769.96	70.56	61.11	9.45	3707.29
	02/02/05	3769.96	70.58	61.17	9.41	3707.24
	02/09/05	3769.96	70.55	61.28	9.27	3707.15
	02/16/05	3769.96	70.54	61.19	9.35	3707.23
	02/24/05	3769.96	70.55	61.21	9.34	3707.21
	03/03/05	3769.96	70.57	61.21	9.36	3707.21
	03/11/05	3769.96	70.45	61.19	9.26	3707.24
	03/18/05	3769.96	70.55	61.31	9.24	3707.13
	04/01/05	3769.96	70.58	61.38	9.20	3707.06
	04/07/05	3769.96	70.54	61.35	9.19	3707.09
	05/18/05	3769.96	70.60	61.45	9.15	3707.00
	05/23/05	3769.96	70.60	61.49	9.11	3706.97
	05/26/05	3769.96	70.64	61.53	9.11	3706.93
	06/01/05	3769.96	70.90	61.51	9.39	3706.90
	06/03/05	3769.96	70.59	61.51	9.08	3706.95
	06/07/05	3769.96	70.65	61.55	9.10	3706.91
	06/10/05	3769.96	70.61	61.54	9.07	3706.92
	06/13/05	3769.96	70.63	61.55	9.08	3706.91
	06/16/05	3769.96	70.60	61.56	9.04	3706.91
	06/20/05	3769.96	70.66	61.58	9.08	3706.88
	06/22/05	3769.96	70.75	61.60	9.15	3706.85
	06/29/05	3769.96	70.69	61.59	9.10	3706.87
	07/01/05	3769.96	70.74	61.62	9.12	3706.84
	07/06/05	3769.96	70.66	61.65	9.01	3706.82
	07/08/05	3769.96	70.64	61.63	9.01	3706.84
	07/12/05	3769.96	70.85	61.65	9.20	3706.79
	07/14/05	3769.96	70.67	61.64	9.03	3706.83
	07/19/05	3769.96	70.71	61.65	9.06	3706.82
	07/21/05	3769.96	70.74	61.68	9.06	3706.79
	07/26/05	3769.96	70.73	61.69	9.04	3706.78
	07/28/05	3769.96	70.71	61.70	9.01	3706.77
	08/02/05	3769.96	70.75	60.70	10.05	3707.60
	08/04/05	3769.96	70.73	61.72	9.01	3706.75
	08/09/05	3769.96	70.77	61.72	9.05	3706.75
	08/11/05	3769.96	70.75	61.73	9.02	3706.74
	08/16/05	3769.96	70.79	61.75	9.04	3706.72
	08/18/05	3769.96	70.76	61.74	9.02	3706.73
	08/24/05	3769.96	70.86	61.76	9.10	3706.70
	08/26/05	3769.96	70.79	61.68	9.11	3706.78
	08/30/05	3769.96	70.77	61.74	9.03	3706.73
	09/01/05	3769.96	70.76	61.66	9.10	3706.80
	09/06/05	3769.96	70.81	61.75	9.06	3706.72
	09/08/05	3769.96	70.79	61.76	9.03	3706.71
	09/13/05	3769.96	70.83	61.76	9.07	3706.70



Table 1: Summary of Historical Fluid Level Measurements
Moore to Jal No.1
SRS #2002-10270

Well	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Depth to PSH (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)
MW-3			Diameter: 4 in.	Screened Interval: 63.00 ft. to 83.0 ft.		TD: 83.0 ft.
	09/16/05	3769.96	70.85	61.79	9.06	3706.68
	09/20/05	3769.96	70.80	61.81	8.99	3706.67
	09/23/05	3769.96	70.88	61.82	9.06	3706.65
	09/27/05	3769.96	70.88	61.80	9.08	3706.66
	09/29/05	3769.96	70.86	61.81	9.05	3706.66
	10/04/05	3769.96	70.83	61.81	9.02	3706.66
	10/06/05	3769.96	70.91	61.87	9.04	3706.60
	10/11/05	3769.96	70.91	61.84	9.07	3706.62
	10/13/05	3769.96	70.90	61.84	9.06	3706.63
	10/18/05	3769.96	70.92	61.84	9.08	3706.62
	10/21/05	3769.96	70.95	61.88	9.07	3706.58
	10/26/05	3769.96	70.97	61.86	9.11	3706.60
	10/28/05	3769.96	70.95	61.86	9.09	3706.60
	11/01/05	3769.96	70.98	61.89	9.09	3706.57
	11/04/05	3769.96	70.97	61.90	9.07	3706.56
	11/09/05	3769.96	71.02	61.93	9.09	3706.53
	11/11/05	3769.96	71.03	61.90	9.13	3706.55
	11/16/05	3769.96	71.04	61.96	9.08	3706.50
	11/18/05	3769.96	71.01	61.66	9.35	3706.76
	11/22/05	3769.96	71.04	61.96	9.08	3706.50
	11/30/05	3769.96	71.06	62.00	9.06	3706.47
	12/02/05	3769.96	71.05	62.00	9.05	3706.47
	12/06/05	3769.96	71.06	61.97	9.09	3706.49
	12/14/05	3769.96	71.08	62.02	9.06	3706.45
	12/16/05	3769.96	71.05	62.03	9.02	3706.44
	12/21/05	3769.96	71.07	62.03	9.04	3706.44
	12/23/05	3769.96	71.06	62.06	9.00	3706.41
	12/27/05	3769.96	71.11	62.07	9.04	3706.40
	12/30/05	3769.96	71.06	62.09	8.97	3706.39
	01/03/06	3769.96	71.11	62.10	9.01	3706.37
	01/05/06	3769.96	71.10	62.09	9.01	3706.38
	01/11/06	3769.96	71.14	62.10	9.04	3706.37
	01/13/06	3769.96	71.15	62.17	8.98	3706.31
	01/18/06	3769.96	71.13	62.11	9.02	3706.36
	01/20/06	3769.96	71.14	62.18	8.96	3706.30
	01/24/06	3769.96	71.20	62.20	9.00	3706.27
	01/26/06	3769.96	71.21	62.19	9.02	3706.28
	02/02/06	3769.96	71.15	62.15	9.00	3706.32
	02/08/06	3769.96	71.15	62.17	8.98	3706.31
	02/10/06	3769.96	71.13	62.16	8.97	3706.32
	02/14/06	3769.96	71.20	62.20	9.00	3706.27
	02/16/06	3769.96	71.20	62.23	8.97	3706.25
	02/21/06	3769.96	71.21	62.23	8.98	3706.25
	02/24/06	3769.96	71.21	62.26	8.95	3706.22
	02/28/06	3769.96	71.50	62.21	9.29	3706.22
	03/03/06	3769.96	71.25	62.25	9.00	3706.22
	03/06/06	3769.96	71.20	62.22	8.98	3706.26
	03/08/06	3769.96	71.20	62.24	8.96	3706.24
	03/15/06	3769.96	71.23	62.28	8.95	3706.20
	03/17/06	3769.96	71.25	62.33	8.92	3706.16
	03/21/06	3769.96	71.27	62.30	8.97	3706.18
	03/23/06	3769.96	71.00	62.18	8.82	3706.32
	03/28/06	3769.96	71.25	62.30	8.95	3706.18
	03/30/06	3769.96	71.21	62.32	8.89	3706.17
	04/04/06	3769.96	71.27	62.34	8.93	3706.15
	04/07/06	3769.96	71.28	62.35	8.93	3706.14
	04/12/06	3769.96	71.29	62.35	8.94	3706.13



Table 1: Summary of Historical Fluid Level Measurements
Moore to Jal No.1
SRS #2002-10270

Well	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Depth to PSH (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)
MW-3			Diameter: 4 in.	Screened Interval: 63.00 ft. to 83.0 ft.		TD: 83.0 ft.
	04/14/06	3769.96	71.28	62.38	8.90	3706.11
	04/18/06	3769.96	71.27	62.23	9.04	3706.24
	04/21/06	3769.96	71.31	62.40	8.91	3706.09
	04/26/06	3769.96	71.28	62.34	8.94	3706.14
	04/28/06	3769.96	71.26	62.38	8.88	3706.11
	05/04/06	3769.96	71.30	62.38	8.92	3706.11
	05/05/06	3769.96	71.31	62.42	8.89	3706.07
	05/10/06	3769.96	71.35	62.45	8.90	3706.04
	05/12/06	3769.96	71.31	62.44	8.87	3706.06
	05/16/06	3769.96	71.35	62.46	8.89	3706.03
	05/18/06	3769.96	71.33	62.45	8.88	3706.04
	05/23/06	3769.96	71.38	62.45	8.93	3706.04
	05/26/06	3769.96	71.36	62.49	8.87	3706.01
	05/30/06	3769.96	71.37	62.48	8.89	3706.01
	06/01/06	3769.96	71.35	62.49	8.86	3706.01
	06/06/06	3769.96	71.37	62.50	8.87	3706.00
	06/09/06	3769.96	71.38	62.48	8.90	3706.01
	06/13/06	3769.96	71.40	62.50	8.90	3705.99
	06/16/06	3769.96	71.43	62.57	8.86	3705.93
	06/20/06	3769.96	71.39	62.51	8.88	3705.98
	06/23/06	3769.96	70.78	62.19	8.59	3706.35
	06/27/06	3769.96	71.40	62.54	8.86	3705.96
	06/30/06	3769.96	71.40	62.54	8.86	3705.96
	07/05/06	3769.96	71.41	62.53	8.88	3705.96
	07/07/06	3769.96	71.43	62.58	8.85	3705.92
	07/11/06	3769.96	71.42	62.57	8.85	3705.93
	07/13/06	3769.96	71.43	62.59	8.84	3705.91
	07/18/06	3769.96	71.45	62.60	8.85	3705.90
	07/21/06	3769.96	71.43	62.60	8.83	3705.90
	07/25/06	3769.96	71.45	62.60	8.85	3705.90
	07/27/06	3769.96	71.44	62.61	8.83	3705.89
	08/01/06	3769.96	71.48	62.74	8.74	3705.78
	08/03/06	3769.96	71.47	62.66	8.81	3705.85
	08/09/06	3769.96	71.50	62.67	8.83	3705.83
	08/11/06	3769.96	71.47	62.66	8.81	3705.85
	08/15/06	3769.96	71.55	62.70	8.85	3705.80
	08/18/06	3769.96	71.52	62.70	8.82	3705.80
	08/25/06	3769.96	71.58	62.73	8.85	3705.77
	08/30/06	3769.96	71.60	62.44	9.16	3706.01
	09/15/06	3769.96	71.65	62.70	8.95	3705.78
	09/20/06	3769.96	71.63	62.72	8.91	3705.77
	09/26/06	3769.96	71.65	62.75	8.90	3705.74
	09/29/06	3769.96	71.68	62.77	8.91	3705.72
	10/04/06	3769.96	71.72	62.71	9.01	3705.76
	10/06/06	3769.96	71.68	62.81	8.87	3705.69
	10/12/06	3769.96	71.71	62.82	8.89	3705.67
	10/17/06	3769.96	71.73	62.82	8.91	3705.67
	10/20/06	3769.96	71.73	62.82	8.91	3705.67
	10/24/06	3769.96	71.71	62.80	8.91	3705.69
	10/26/06	3769.96	71.74	62.80	8.94	3705.68
	11/22/06	3769.96	71.83	62.95	8.88	3705.54
	11/28/06	3769.96	71.80	62.95	8.85	3705.55
	12/06/06	3769.96	71.90	63.05	8.85	3705.45
	12/08/06	3769.96	71.00	62.82	8.18	3705.79
	12/12/06	3769.96	71.80	63.02	8.78	3705.49
	12/15/06	3769.96	71.74	62.80	8.94	3705.68
	12/20/06	3769.96	NG	-	-	NG



Table 1: Summary of Historical Fluid Level Measurements
Moore to Jal No.1
SRS #2002-10270

Well	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Depth to PSH (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)
MW-3			Diameter: 4 in.	Screened Interval: 63.00 ft. to 83.0 ft.		TD: 83.0 ft.
	12/22/06	3769.96	71.90	63.06	8.84	3705.44
	12/27/06	3769.96	71.92	63.02	8.90	3705.47
	01/03/07	3769.96	71.98	63.12	8.86	3705.38
	01/05/07	3769.96	71.04	63.09	7.95	3705.56
	01/12/07	3769.96	72.02	63.16	8.86	3705.34
	01/15/07	3769.96	71.80	63.18	8.62	3705.36
	01/18/07	3769.96	72.04	63.18	8.86	3705.32
	01/31/07	3769.96	72.04	63.19	8.85	3705.31
	02/07/07	3769.96	71.45	63.10	8.35	3705.48
	02/09/07	3769.96	72.07	63.21	8.86	3705.29
	02/13/07	3769.96	72.07	63.22	8.85	3705.28
	02/16/07	3769.96	72.07	62.23	9.84	3706.11
	02/19/07	3769.96	72.08	63.22	8.86	3705.28
	02/21/07	3769.96	72.11	63.22	8.89	3705.27
	02/26/07	3769.96	72.11	65.23	6.88	3703.59
	03/01/07	3769.96	72.08	63.27	8.81	3705.24
	03/06/07	3769.96	72.24	63.23	9.01	3705.24
	03/09/07	3769.96	72.09	63.25	8.84	3705.25
	03/23/07	3769.96	72.12	63.30	8.82	3705.20
	03/27/07	3769.96	72.31	63.31	9.00	3705.16
	04/06/07	3769.96	72.18	63.35	8.83	3705.15
	04/11/07	3769.96	73.17	66.13	7.04	3702.67
	04/17/07	3769.96	72.18	63.35	8.83	3705.15
	04/19/07	3769.96	72.18	63.38	8.80	3705.13
	04/24/07	3769.96	72.19	63.36	8.83	3705.14
	05/01/07	3769.96	72.21	63.41	8.80	3705.10
	05/21/07	3769.96	72.25	63.43	8.82	3705.07
	05/24/07	3769.96	72.26	63.48	8.78	3705.03
	06/28/07	3769.96	72.40	63.58	8.82	3704.92
	08/07/07	3769.96	72.36	63.52	8.84	3704.98
	08/17/07	3769.96	72.38	63.61	8.77	3704.90
	08/23/07	3769.96	72.34	63.58	8.76	3704.93
	08/31/07	3769.96	72.36	63.92	8.44	3704.65
	09/21/07	3769.96	72.44	63.71	8.73	3704.81
	09/28/07	3769.96	72.43	63.69	8.74	3704.83
	10/11/07	3769.96	72.48	63.43	9.05	3705.04
	10/18/07	3769.96	72.48	63.77	8.71	3704.75
	11/13/07	3769.96	72.56	63.83	8.73	3704.69
	11/27/07	3769.96	72.61	63.87	8.74	3704.65
	12/13/07	3767.24	72.70	63.98	8.72	3701.82
	12/17/07	3767.24	72.72	64.00	8.72	3701.80
	12/31/07	3767.24	72.73	64.05	8.68	3701.76
	01/16/08	3767.24	72.77	64.08	8.69	3701.73
	03/05/08	3767.24	72.93	64.25	8.68	3701.56
	03/26/08	3767.24	72.96	64.30	8.66	3701.51
	04/02/08	3767.24	73.03	64.34	8.69	3701.47
	04/04/08	3767.24	73.05	64.36	8.69	3701.45
	04/24/08	3767.24	73.01	64.40	8.61	3701.42
	05/06/08	3767.24	73.04	64.45	8.59	3701.37
	05/27/08	3767.24	73.29	64.63	8.66	3701.18
	06/04/08	3767.24	73.32	64.75	8.57	3701.08
	06/24/08	3767.24	73.45	64.79	8.66	3701.02
	07/02/08	3767.24	73.52	64.87	8.65	3700.94
	07/15/08	3767.24	73.61	64.47	9.14	3701.26
	07/22/08	3767.24	73.66	65.04	8.62	3700.78
	07/31/08	3767.24	73.75	65.12	8.63	3700.70
	08/07/08	3767.24	73.83	65.23	8.60	3700.59



Table 1: Summary of Historical Fluid Level Measurements
Moore to Jal No.1
SRS #2002-10270

Well	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Depth to PSH (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)
MW-3			Diameter: 4 in.	Screened Interval: 63.00 ft. to 83.0 ft.		TD: 83.0 ft.
	08/29/08	3767.24	73.22	64.61	8.61	3701.21
	09/16/08	3767.24	72.97	64.71	8.26	3701.17
	12/16/08	3767.24	73.13	64.90	8.23	3700.98
	01/29/09	3767.24	73.04	65.07	7.97	3700.85
	02/04/09	3767.24	73.47	65.04	8.43	3700.81
	05/26/09	3767.24	73.75	65.32	8.43	3700.53
	08/12/09	3767.24	73.31	65.73	7.58	3700.26
	11/19/09	3767.24	72.65	66.55	6.10	3699.68
	12/29/11	3767.24	75.65	68.69	6.96	3697.40
	03/16/12	3767.24	76.48	69.09	7.39	3696.93
	06/14/12	3767.24	71.63	70.64	0.99	3696.44
	09/25/12	3767.24	75.45	70.25	5.20	3696.13
	12/10/12	3767.24	74.97	70.85	4.12	3695.71
MW-4			Diameter: 4 in.	Screened Interval: 63.00 ft. to 83.0 ft.		TD: 83.0 ft.
	03/30/06	3772.74	73.95	65.08	8.87	3706.20
	07/07/06	3772.74	74.16	65.33	8.83	3705.95
	09/29/06	3772.74	74.39	65.52	8.87	3705.76
	12/27/06	3772.74	74.82	65.80	9.02	3705.45
	12/17/07	3772.74	P&A	-	-	P&A
MW-4A			Diameter: 4 in.	Screened Interval: 55.00 ft. to 95.0 ft.		TD: 95.0 ft.
	12/13/07	3770.64	80.20	68.38	11.82	3700.31
	12/17/07	3770.64	72.71	68.62	4.09	3701.35
	12/31/07	3770.64	72.71	68.16	4.55	3701.73
	01/16/08	3770.64	72.63	68.23	4.40	3701.68
	03/05/08	3770.64	76.52	67.58	8.94	3701.58
	03/26/08	3770.64	76.58	67.64	8.94	3701.52
	04/02/08	3770.64	76.63	67.72	8.91	3701.45
	04/04/08	3770.64	76.64	67.70	8.94	3701.46
	04/24/08	3770.64	76.66	67.76	8.90	3701.41
	05/06/08	3770.64	76.72	67.84	8.88	3701.33
	05/27/08	3770.64	76.84	67.94	8.90	3701.23
	06/24/08	3770.64	76.99	68.11	8.88	3701.06
	07/02/08	3770.64	77.08	68.19	8.89	3700.98
	07/15/08	3770.64	75.45	68.67	6.78	3700.85
	07/22/08	3770.64	72.85	69.28	3.57	3700.77
	07/31/08	3770.64	72.68	69.45	3.23	3700.66
	08/07/08	3770.64	72.42	69.54	2.88	3700.62
	08/29/08	3770.64	74.41	64.78	9.63	3704.27
	09/16/08	3770.64	76.21	68.12	8.09	3701.19
	12/16/08	3770.64	76.38	68.32	8.06	3700.99
	01/29/09	3770.64	76.48	68.48	8.00	3700.84
	02/04/09	3770.64	76.51	68.51	8.00	3700.81
	05/26/09	3770.64	77.02	68.74	8.28	3700.53
	08/12/09	3770.64	74.62	69.59	5.03	3700.22
	08/17/09	3770.64	75.35	69.45	5.90	3700.22
	11/19/09	3770.64	74.54	70.29	4.25	3699.65
	12/29/11	3770.64	78.56	72.22	6.34	3697.37
	03/16/12	3770.64	79.64	72.53	7.11	3696.94
	06/14/12	3770.64	79.58	72.93	6.65	3696.61
	09/25/12	3770.64	80.50	73.30	7.20	3696.15
	12/10/12	3770.64	79.53	74.05	5.48	3695.69



Table 1: Summary of Historical Fluid Level Measurements
Moore to Jal No.1
SRS #2002-10270

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: 57.00 ft. to 97.0 ft.		TD: 97.0 ft.
	12/13/07	3768.85	70.21	65.26	4.95	3702.77
	12/17/07	3768.85	72.17	65.16	7.01	3702.53
	12/31/07	3768.85	72.29	65.21	7.08	3702.47
	01/16/08	3768.85	72.37	65.28	7.09	3702.40
	03/05/08	3768.85	72.50	65.41	7.09	3702.27
	03/26/08	3768.85	72.52	65.48	7.04	3702.21
	04/02/08	3768.85	72.61	65.55	7.06	3702.14
	04/04/08	3768.85	72.63	65.56	7.07	3702.12
	04/24/08	3768.85	72.64	65.61	7.03	3702.08
	05/06/08	3768.85	72.69	65.67	7.02	3702.02
	05/27/08	3768.85	72.86	65.81	7.05	3701.88
	06/04/08	3768.85	72.88	65.82	7.06	3701.87
	06/24/08	3768.85	73.02	65.99	7.03	3701.70
	07/02/08	3768.85	73.08	66.04	7.04	3701.65
	07/15/08	3768.85	73.18	66.14	7.04	3701.55
	07/22/08	3768.85	73.18	66.21	6.97	3701.49
	07/31/08	3768.85	73.27	66.30	6.97	3701.40
	08/07/08	3768.85	73.34	66.39	6.95	3701.31
	08/29/08	3768.85	72.74	65.69	7.05	3702.00
	10/07/08	3768.85	70.89	66.26	4.63	3701.83
	12/16/08	3768.85	72.42	66.18	6.24	3701.64
	01/29/09	3768.85	72.67	66.26	6.41	3701.53
	02/04/09	3768.85	72.28	66.38	5.90	3701.50
	05/26/09	3768.85	73.24	66.53	6.71	3701.21
	08/12/09	3768.85	73.05	66.92	6.13	3700.92
	11/19/09	3768.85	73.74	67.35	6.39	3700.45
	12/29/11	3768.85	75.42	69.82	5.60	3698.11
	03/16/12	3768.85	76.65	70.15	6.50	3697.63
	06/14/12	3768.85	73.47	71.31	2.16	3697.18
	09/25/12	3768.85	77.00	70.96	6.04	3696.89
	12/10/12	3768.85	77.42	71.41	6.01	3696.45



Table 1: Summary of Historical Fluid Level Measurements
Moore to Jal No.1
SRS #2002-10270

Well	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Depth to PSH (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)
MW-6			Diameter: 4 in.	Screened Interval: 52.00 ft. to 92.0 ft.		TD: 92.0 ft.
	12/13/07	3769.50	75.36	66.10	9.26	3701.87
	12/17/07	3769.50	75.42	66.16	9.26	3701.81
	12/31/07	3769.50	75.42	66.19	9.23	3701.79
	01/16/08	3769.50	75.48	66.26	9.22	3701.72
	03/05/08	3769.50	75.61	66.40	9.21	3701.58
	03/26/08	3769.50	75.65	66.47	9.18	3701.52
	04/02/08	3769.50	75.71	66.52	9.19	3701.46
	04/04/08	3769.50	75.72	66.51	9.21	3701.47
	04/24/08	3769.50	75.75	66.59	9.16	3701.40
	05/06/08	3769.50	75.83	66.65	9.18	3701.34
	05/27/08	3769.50	75.95	66.76	9.19	3701.22
	06/04/08	3769.50	76.03	66.85	9.18	3701.14
	06/24/08	3769.50	76.11	66.93	9.18	3701.06
	07/02/08	3769.50	76.09	67.02	9.07	3700.98
	07/15/08	3769.50	76.26	67.11	9.15	3700.88
	07/22/08	3769.50	76.30	67.16	9.14	3700.83
	07/31/08	3769.50	76.41	67.28	9.13	3700.71
	08/07/08	3769.50	76.48	67.35	9.13	3700.64
	08/29/08	3769.50	75.88	66.77	9.11	3701.23
	09/16/08	3769.50	75.97	66.83	9.14	3701.16
	12/16/08	3769.50	75.77	67.08	8.69	3700.99
	01/29/09	3769.50	75.61	67.27	8.34	3700.85
	02/04/09	3769.50	75.93	67.30	8.63	3700.78
	05/26/09	3769.50	76.46	67.47	8.99	3700.55
	08/12/09	3769.50	76.34	67.82	8.52	3700.27
	11/19/09	3769.50	75.31	68.73	6.58	3699.68
	12/29/11	3769.50	77.51	71.04	6.47	3697.39
	03/16/12	3769.50	78.93	71.33	7.60	3696.92
	06/14/12	3769.50	79.28	71.72	7.56	3696.53
	09/25/12	3769.50	77.90	72.10	5.80	3696.44
	12/10/12	3769.50	78.86	72.78	6.08	3695.72



Table 1: Summary of Historical Fluid Level Measurements
Moore to Jal No.1
SRS #2002-10270

Well	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Depth to PSH (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)
MW-7			Diameter: 4 in.	Screened Interval: 46.00 ft. to 86.0 ft.		TD: 86.0 ft.
	12/13/07	3770.20	75.02	67.30	7.72	3701.63
	12/17/07	3770.20	73.56	67.68	5.88	3701.55
	12/31/07	3770.20	75.08	67.37	7.71	3701.56
	01/16/08	3770.20	75.61	67.74	7.87	3701.16
	03/05/08	3770.20	75.39	67.56	7.83	3701.35
	03/26/08	3770.20	74.66	67.79	6.87	3701.28
	04/02/08	3770.20	75.30	67.69	7.61	3701.25
	04/04/08	3770.20	75.31	67.70	7.61	3701.24
	04/24/08	3770.20	75.36	67.77	7.59	3701.18
	05/06/08	3770.20	75.43	67.84	7.59	3701.11
	05/27/08	3770.20	75.69	67.94	7.75	3700.98
	06/04/08	3770.20	75.78	68.00	7.78	3700.92
	06/24/08	3770.20	75.66	68.04	7.62	3700.90
	07/02/08	3770.20	75.88	68.19	7.69	3700.74
	07/15/08	3770.20	75.11	68.47	6.64	3700.63
	07/22/08	3770.20	72.37	69.13	3.24	3700.54
	07/31/08	3770.20	74.13	68.88	5.25	3700.45
	08/07/08	3770.20	72.76	69.25	3.51	3700.37
	08/29/08	3770.20	75.22	68.04	7.18	3700.98
	09/16/08	3770.20	75.37	68.09	7.28	3700.91
	12/16/08	3770.20	70.35	69.38	0.97	3700.66
	01/29/09	3770.20	73.51	68.85	4.66	3700.58
	02/04/09	3770.20	69.93	69.70	0.23	3700.46
	05/26/09	3770.20	76.03	68.68	7.35	3700.31
	08/12/09	3770.20	70.59	70.20	0.39	3699.94
	08/17/09	3770.20	70.82	70.20	0.62	3699.90
	11/19/09	3770.20	71.96	70.79	1.17	3699.22
	12/29/11	3770.20	77.82	72.09	5.73	3697.16
	03/16/12	3770.20	78.77	72.40	6.37	3696.75
	06/14/12	3770.20	Block	-	-	Block
	09/25/12	3770.20	Block	-	-	Block
	12/10/12	3770.20	NG	-	-	NG



Table 1: Summary of Historical Fluid Level Measurements
Moore to Jal No.1
SRS #2002-10270

Well	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Depth to PSH (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)
MW-8			Diameter: 4 in.	Screened Interval: 53.00 ft. to 93.0 ft.		TD: 93.0 ft.
	12/13/07	3768.09	73.17	63.26	9.91	3703.19
	12/17/07	3768.09	73.18	65.29	7.89	3701.50
	12/17/07	3768.09	73.18	65.29	7.89	3701.50
	12/31/07	3768.09	73.24	65.36	7.88	3701.43
	01/16/08	3768.09	73.27	65.38	7.89	3701.41
	03/05/08	3768.09	73.45	65.53	7.92	3701.25
	03/26/08	3768.09	73.47	65.61	7.86	3701.18
	04/02/08	3768.09	73.54	65.65	7.89	3701.14
	04/04/08	3768.09	73.54	65.67	7.87	3701.12
	04/24/08	3768.09	73.62	65.71	7.91	3701.07
	05/06/08	3768.09	73.70	65.79	7.91	3700.99
	05/27/08	3768.09	73.83	65.90	7.93	3700.88
	06/04/08	3768.09	73.87	65.94	7.93	3700.84
	06/24/08	3768.09	73.98	66.06	7.92	3700.72
	07/02/08	3768.09	74.09	66.15	7.94	3700.63
	07/15/08	3768.09	74.16	66.24	7.92	3700.54
	07/22/08	3768.09	74.19	66.29	7.90	3700.50
	07/31/08	3768.09	74.31	66.41	7.90	3700.38
	08/07/08	3768.09	74.37	66.48	7.89	3700.31
	08/29/08	3768.09	73.80	65.90	7.90	3700.89
	09/16/08	3768.09	74.68	66.04	8.64	3700.62
	12/16/08	3768.09	73.92	66.15	7.77	3700.66
	01/29/09	3768.09	73.91	66.29	7.62	3700.54
	02/04/09	3768.09	74.13	66.30	7.83	3700.50
	05/26/09	3768.09	74.51	66.58	7.93	3700.20
	08/12/09	3768.09	74.23	66.90	7.33	3699.98
	11/19/09	3768.09	74.52	67.50	7.02	3699.43
	12/29/11	3768.09	76.89	69.84	7.05	3697.09
	03/16/12	3768.09	77.77	70.23	7.54	3696.62
	06/14/12	3768.09	78.22	70.63	7.59	3696.21
	09/25/12	3768.09	78.55	71.02	7.53	3695.83
	12/10/12	3768.09	78.68	74.47	4.21	3692.93



Table 1: Summary of Historical Fluid Level Measurements
Moore to Jal No.1
SRS #2002-10270

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: 4 in.	Screened Interval: 50.00 ft. to 90.0 ft.		TD: 90.0 ft.
	12/13/07	3767.64	73.11	64.17	8.94	3701.99
	12/17/07	3767.64	73.06	64.21	8.85	3701.97
	12/31/07	3767.64	73.06	64.23	8.83	3701.95
	01/16/08	3767.64	73.16	64.28	8.88	3701.89
	03/05/08	3767.64	73.30	64.44	8.86	3701.74
	03/26/08	3767.64	73.31	64.49	8.82	3701.69
	04/02/08	3767.64	73.39	64.54	8.85	3701.64
	04/04/08	3767.64	73.40	64.56	8.84	3701.62
	04/24/08	3767.64	73.44	64.59	8.85	3701.59
	05/06/08	3767.64	73.51	64.66	8.85	3701.52
	05/27/08	3767.64	73.63	64.80	8.83	3701.38
	06/04/08	3767.64	73.68	64.82	8.86	3701.36
	06/24/08	3767.64	73.81	64.97	8.84	3701.21
	07/02/08	3767.64	73.89	65.05	8.84	3701.13
	07/15/08	3767.64	73.98	65.14	8.84	3701.04
	07/22/08	3767.64	74.03	65.21	8.82	3700.97
	07/31/08	3767.64	74.12	65.32	8.80	3700.87
	08/07/08	3767.64	74.21	65.41	8.80	3700.78
	08/29/08	3767.64	73.59	64.78	8.81	3701.41
	09/16/08	3767.64	73.64	64.80	8.84	3701.38
	12/16/08	3767.64	73.48	65.06	8.42	3701.19
	01/29/09	3767.64	73.65	65.21	8.44	3701.04
	02/04/09	3767.64	73.66	65.25	8.41	3701.00
	05/26/09	3767.64	74.18	65.46	8.72	3700.74
	08/12/09	3767.64	73.89	65.89	8.00	3700.43
	11/19/09	3767.64	74.14	66.46	7.68	3699.91
	12/29/11	3767.64	76.15	68.82	7.33	3697.61
	03/16/12	3767.64	77.03	69.20	7.83	3697.15
	06/14/12	3767.64	77.35	69.60	7.75	3696.76
	09/25/12	3767.64	77.70	70.00	7.70	3696.37
	12/10/12	3767.64	77.65	70.51	7.14	3695.95



Table 1: Summary of Historical Fluid Level Measurements
Moore to Jal No.1
SFIS #2002-10270

Well	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Depth to PSH (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)
MW-10			Diameter: 4 in.	Screened Interval: 50.00 ft. to 90.0 ft.		TD: 90.0 ft.
	12/13/07	3767.51	72.03	63.92	8.11	3702.25
	12/17/07	3767.51	72.09	63.94	8.15	3702.23
	12/31/07	3767.51	72.09	63.94	8.15	3702.23
	01/16/08	3767.51	72.17	64.03	8.14	3702.14
	03/05/08	3767.51	72.32	64.19	8.13	3701.98
	03/26/08	3767.51	72.35	64.24	8.11	3701.93
	04/02/08	3767.51	72.42	64.29	8.13	3701.88
	04/04/08	3767.51	72.41	64.30	8.11	3701.87
	04/24/08	3767.51	72.47	64.33	8.14	3701.84
	05/06/08	3767.51	72.55	64.41	8.14	3701.76
	05/27/08	3767.51	72.69	64.57	8.12	3701.60
	06/04/08	3767.51	72.73	64.58	8.15	3701.59
	06/24/08	3767.51	72.85	64.73	8.12	3701.44
	07/02/08	3767.51	72.92	64.81	8.11	3701.36
	07/15/08	3767.51	73.02	64.90	8.12	3701.27
	07/22/08	3767.51	73.08	64.97	8.11	3701.20
	07/31/08	3767.51	73.15	65.07	8.08	3701.11
	08/07/08	3767.51	73.22	65.17	8.05	3701.01
	08/29/08	3767.51	72.67	64.53	8.14	3701.64
	09/16/08	3767.51	72.74	64.57	8.17	3701.59
	12/16/08	3767.51	71.39	65.06	6.33	3701.41
	01/29/09	3767.51	72.51	65.00	7.51	3701.27
	02/04/09	3767.51	72.00	65.16	6.84	3701.22
	05/26/09	3767.51	73.03	65.26	7.77	3700.97
	08/12/09	3767.51	72.86	65.64	7.22	3700.68
	11/19/09	3767.51	72.59	66.31	6.28	3700.16
	12/29/11	3767.51	75.31	68.54	6.77	3697.85
	03/16/12	3767.51	76.22	68.93	7.29	3697.38
	06/14/12	3767.51	75.68	69.53	6.15	3696.97
	09/25/12	3767.51	76.83	69.75	7.08	3696.59
	12/10/12	3767.51	77.06	70.16	6.90	3696.21



Table 1: Summary of Historical Fluid Level Measurements
Moore to Jal No.1
SRS #2002-10270

Well	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Depth to PSH (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)
MW-11			Diameter: 4 in.	Screened Interval: 53.00 ft. to 93.0 ft.		TD: 93.0 ft.
	12/13/07	3769.37	72.82	65.39	7.43	3702.75
	12/17/07	3769.37	72.85	64.46	8.39	3703.53
	12/31/07	3769.37	72.90	65.77	7.13	3702.42
	01/16/08	3769.37	72.99	65.86	7.13	3702.33
	03/05/08	3769.37	73.10	65.98	7.12	3702.22
	03/26/08	3769.37	73.17	66.04	7.13	3702.15
	04/02/08	3769.37	73.24	66.10	7.14	3702.09
	04/04/08	3769.37	73.25	66.10	7.15	3702.09
	04/24/08	3769.37	73.26	66.14	7.12	3702.06
	05/06/08	3769.37	73.33	66.22	7.11	3701.98
	05/27/08	3769.37	73.37	66.37	7.00	3701.84
	06/24/08	3769.37	73.64	66.54	7.10	3701.66
	07/02/08	3769.37	73.69	66.61	7.08	3701.59
	07/15/08	3769.37	73.77	66.72	7.05	3701.49
	07/22/08	3769.37	73.80	66.77	7.03	3701.44
	07/31/08	3769.37	73.89	66.86	7.03	3701.35
	08/07/08	3769.37	73.98	66.97	7.01	3701.24
	08/29/08	3769.37	73.29	66.35	6.94	3701.87
	09/16/08	3769.37	73.28	66.40	6.88	3701.83
	12/16/08	3769.37	73.35	66.67	6.68	3701.60
	01/29/09	3769.37	73.24	66.85	6.39	3701.47
	02/04/09	3769.37	72.40	67.07	5.33	3701.42
	05/26/09	3769.37	73.90	67.16	6.74	3701.10
	08/12/09	3769.37	73.55	67.50	6.05	3700.87
	11/19/09	3769.37	71.42	68.52	2.90	3700.37
	12/29/11	3769.37	76.62	70.36	6.26	3697.98
	03/16/12	3769.37	77.28	70.70	6.58	3697.58
	06/14/12	3769.37	77.44	71.13	6.31	3697.20
	09/25/12	3769.37	78.04	71.50	6.54	3696.79
	12/10/12	3769.37	78.38	71.91	6.47	3696.39



Table 1: Summary of Historical Fluid Level Measurements
Moore to Jal No.1
SRS #2002-10270

Well	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Depth to PSH (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)
MW-12			Diameter: 4 in.	Screened Interval: 51.00 ft. to 91.0 ft.		TD: 91.0 ft.
	12/17/07	3769.68	74.29	66.22	8.07	3702.13
	12/31/07	3769.68	74.36	66.23	8.13	3702.11
	01/16/08	3769.68	74.53	66.41	8.12	3701.93
	03/05/08	3769.68	74.58	66.44	8.14	3701.90
	03/26/08	3769.68	74.63	66.49	8.14	3701.85
	04/02/08	3769.68	74.71	66.57	8.14	3701.77
	04/04/08	3769.68	74.70	66.59	8.11	3701.75
	04/24/08	3769.68	74.73	66.61	8.12	3701.73
	05/06/08	3769.68	74.80	66.68	8.12	3701.66
	05/27/08	3769.68	74.92	66.82	8.10	3701.52
	06/24/08	3769.68	75.09	67.00	8.09	3701.35
	07/02/08	3769.68	75.17	67.07	8.10	3701.27
	07/15/08	3769.68	75.23	67.17	8.06	3701.18
	07/22/08	3769.68	75.24	67.22	8.02	3701.14
	07/31/08	3769.68	75.33	67.33	8.00	3701.03
	08/07/08	3769.68	75.40	67.42	7.98	3700.94
	08/29/08	3769.68	74.78	66.82	7.96	3701.55
	09/16/08	3769.68	73.40	66.88	6.52	3701.72
	12/13/08	3769.68	73.31	66.16	7.15	3702.34
	12/16/08	3769.68	74.78	67.12	7.66	3701.30
	01/29/09	3769.68	74.75	67.31	7.44	3701.14
	02/04/09	3769.68	75.05	67.27	7.78	3701.13
	05/26/09	3769.68	75.38	67.54	7.84	3700.85
	08/12/09	3769.68	75.09	67.93	7.16	3700.57
	11/19/09	3769.68	73.79	68.85	4.94	3700.01
	12/29/11	3769.68	77.67	70.81	6.86	3697.74
	03/16/12	3769.68	78.67	71.20	7.47	3697.25
	06/14/12	3769.68	79.03	71.58	7.45	3696.87
	09/25/12	3769.68	79.36	71.99	7.37	3696.47
	12/10/12	3769.68	78.93	72.66	6.27	3695.99



Table 1: Summary of Historical Fluid Level Measurements
Moore to Jal No.1
SRS #2002-10270

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: 4 in.	Screened Interval: 56.00 ft. to 96.0 ft.		TD: 96.0 ft.
	12/17/07	3771.14	69.66	-	-	3701.48
	12/17/07	3771.14	69.66	-	-	3701.48
	12/19/07	3771.14	69.65	-	-	3701.49
	03/05/08	3771.14	70.88	69.74	1.14	3701.21
	03/26/08	3771.14	71.22	69.73	1.49	3701.16
	04/02/08	3771.14	71.37	69.45	1.92	3701.37
	04/04/08	3771.14	71.36	69.46	1.90	3701.37
	04/24/08	3771.14	71.81	69.74	2.07	3701.06
	05/06/08	3771.14	71.88	69.79	2.09	3701.01
	05/27/08	3771.14	72.53	69.82	2.71	3700.87
	06/04/08	3771.14	73.73	69.85	3.88	3700.65
	06/24/08	3771.14	71.40	70.25	1.15	3700.70
	07/02/08	3771.14	72.66	70.29	2.37	3700.46
	07/15/08	3771.14	71.11	70.53	0.58	3700.51
	07/22/08	3771.14	70.99	70.60	0.39	3700.48
	07/31/08	3771.14	71.31	70.75	0.56	3700.30
	08/07/08	3771.14	71.31	70.75	0.56	3700.30
	08/29/08	3771.14	71.04	70.13	0.91	3700.86
	09/16/08	3771.14	71.11	70.10	1.01	3700.87
	12/16/08	3771.14	70.70	70.48	0.22	3700.62
	01/29/09	3771.14	72.01	70.38	1.63	3700.49
	02/04/09	3771.14	70.80	70.68	0.12	3700.44
	05/26/09	3771.14	72.06	70.72	1.34	3700.20
	08/12/09	3771.14	71.38	71.18	0.20	3699.93
	08/17/09	3771.14	71.50	71.23	0.27	3699.87
	11/19/09	3771.14	71.86	71.73	0.13	3699.39
	12/29/11	3771.14	74.83	73.97	0.86	3697.03
	03/16/12	3771.14	75.93	74.28	1.65	3696.59
	06/14/12	3771.14	76.73	74.60	2.13	3696.19
	09/25/12	3771.14	77.50	74.89	2.61	3695.82
	12/10/12	3771.14	78.05	75.30	2.75	3695.39
MW-14			Diameter: 4 in.	Screened Interval: 55.00 ft. to 95.0 ft.		TD: 95.0 ft.
	12/17/07	3771.62	70.48	-	-	3701.14
	12/19/07	3771.62	70.48	-	-	3701.14
	03/05/08	3771.62	70.78	-	-	3700.84
	03/26/08	3771.62	70.85	-	-	3700.77
	04/02/08	3771.62	70.74	-	-	3700.88
	04/24/08	3771.62	70.81	-	-	3700.81
	05/27/08	3771.62	70.87	-	-	3700.75
	06/24/08	3771.62	70.91	-	-	3700.71
	08/29/08	3771.62	71.12	-	-	3700.50
	09/16/08	3771.62	71.17	-	-	3700.45
	12/16/08	3771.62	71.35	-	-	3700.27
	01/29/09	3771.62	71.52	-	-	3700.10
	02/04/09	3771.62	71.54	-	-	3700.08
	05/26/09	3771.62	71.80	-	-	3699.82
	08/12/09	3771.62	72.03	-	-	3699.59
	11/19/09	3771.62	72.40	-	-	3699.22
	12/29/11	3771.62	75.09	-	-	3696.53
	03/16/12	3771.62	75.44	-	-	3696.18
	06/14/12	3771.62	75.79	-	-	3695.83
	09/25/12	3771.62	76.21	-	-	3695.41
	12/10/12	3771.62	76.64	-	-	3694.98



Table 1: Summary of Historical Fluid Level Measurements
Moore to Jal No.1
SFIS #2002-10270

Well	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Depth to PSH (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)
MW-15			Diameter: 4 in.	Screened Interval: 53.00 ft. to 93.0 ft.		TD: 93.0 ft.
	12/13/07	3771.49	69.74	68.08	1.66	3703.14
	12/17/07	3771.49	70.59	69.67	0.92	3701.67
	01/16/08	3771.49	71.42	69.82	1.60	3701.41
	03/05/08	3771.49	75.52	68.97	6.55	3701.44
	03/26/08	3771.49	76.27	68.85	7.42	3701.42
	04/02/08	3771.49	76.37	68.88	7.49	3701.37
	04/24/08	3771.49	76.56	68.92	7.64	3701.31
	05/06/08	3771.49	76.63	68.98	7.65	3701.25
	05/27/08	3771.49	76.82	69.09	7.73	3701.12
	06/04/08	3771.49	76.92	69.05	7.87	3701.14
	06/24/08	3771.49	76.67	69.31	7.36	3700.97
	07/02/08	3771.49	77.00	69.35	7.65	3700.88
	07/15/08	3771.49	76.85	69.50	7.35	3700.78
	07/22/08	3771.49	74.73	70.00	4.73	3700.71
	07/31/08	3771.49	75.22	70.02	5.20	3700.61
	08/07/08	3771.49	74.63	70.24	4.39	3700.53
	08/29/08	3771.49	76.49	69.15	7.34	3701.13
	09/16/08	3771.49	76.51	69.19	7.32	3701.09
	12/16/08	3771.49	71.82	70.47	1.35	3700.80
	12/31/08	3771.49	71.07	69.68	1.39	3701.58
	01/29/09	3771.49	76.77	69.55	7.22	3700.75
	02/04/09	3771.49	71.77	70.69	1.08	3700.62
	05/26/09	3771.49	77.37	69.78	7.59	3700.46
	08/12/09	3771.49	73.71	70.88	2.83	3700.14
	08/17/09	3771.49	76.48	70.35	6.13	3700.13
	11/19/09	3771.49	72.28	71.88	0.40	3699.54
	12/29/11	3771.49	77.30	73.83	3.47	3697.09
	03/16/12	3771.49	79.47	73.73	5.74	3696.81
	06/14/12	3771.49	79.92	74.17	5.75	3696.37
	09/25/12	3771.49	80.85	74.51	6.34	3695.93
	12/10/12	3771.49	76.76	75.74	1.02	3695.58
MW-16			Diameter: 4 in.	Screened Interval: 55.00 ft. to 95.0 ft.		TD: 95.0 ft.
	12/17/07	3769.23	68.32	-	-	3700.91
	12/19/07	3769.23	68.32	-	-	3700.91
	03/05/08	3769.23	68.63	-	-	3700.60
	03/26/08	3769.23	66.58	-	-	3702.65
	04/02/08	3769.23	68.59	-	-	3700.64
	04/24/08	3769.23	68.64	-	-	3700.59
	05/27/08	3769.23	68.71	-	-	3700.52
	06/24/08	3769.23	68.85	-	-	3700.38
	08/29/08	3769.23	68.96	-	-	3700.27
	09/16/08	3769.23	69.02	-	-	3700.21
	12/16/08	3769.23	69.17	-	-	3700.06
	01/29/09	3769.23	69.35	-	-	3699.88
	02/04/09	3769.23	69.36	-	-	3699.87
	05/26/09	3769.23	69.63	-	-	3699.60
	08/12/09	3769.23	69.88	-	-	3699.35
	11/19/09	3769.23	70.22	-	-	3699.01
	12/29/11	3769.23	72.93	-	-	3696.30
	03/16/12	3769.23	73.27	-	-	3695.96
	06/14/12	3769.23	73.63	-	-	3695.60
	09/25/12	3769.23	74.00	73.77	0.23	3695.42
	12/10/12	3769.23	78.92	73.50	5.42	3694.84



Table 1: Summary of Historical Fluid Level Measurements
Moore to Jal No.1
SRS #2002-10270

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: 48.00 ft. to 88.0 ft.		TD: 88.0 ft.
	12/17/07	3767.45	64.41	-	-	3703.04
	12/20/07	3767.45	64.40	-	-	3703.05
	03/05/08	3767.45	65.02	-	-	3702.43
	03/26/08	3767.45	64.97	-	-	3702.48
	04/02/08	3767.45	64.99	-	-	3702.46
	04/24/08	3767.45	65.04	-	-	3702.41
	05/27/08	3767.45	70.87	-	-	3696.58
	06/10/08	3767.45	65.18	-	-	3702.27
	06/24/08	3767.45	65.19	-	-	3702.26
	08/29/08	3767.45	65.46	-	-	3701.99
	09/16/08	3767.45	65.41	-	-	3702.04
	12/16/08	3767.45	65.59	-	-	3701.86
	01/29/09	3767.45	65.75	-	-	3701.70
	02/04/09	3767.45	65.77	-	-	3701.68
	05/26/09	3767.45	66.06	-	-	3701.39
	08/12/09	3767.45	66.30	-	-	3701.15
	11/19/09	3767.45	66.59	-	-	3700.86
	12/29/11	3767.45	69.28	-	-	3698.17
	03/16/12	3767.45	69.60	-	-	3697.85
	06/14/12	3767.45	69.98	-	-	3697.47
	09/25/12	3767.45	70.33	-	-	3697.12
	12/10/12	3767.45	70.75	-	-	3696.70
MW-18			Diameter: 4 in.	Screened Interval: 48.00 ft. to 88.0 ft.		TD: 88.0 ft.
	12/17/07	3769.79	67.05	-	-	3702.74
	12/20/07	3769.79	67.03	-	-	3702.76
	03/05/08	3769.79	67.36	-	-	3702.43
	03/26/08	3769.79	67.31	-	-	3702.48
	04/02/08	3769.79	67.33	-	-	3702.46
	04/24/08	3769.79	67.38	-	-	3702.41
	05/27/08	3769.79	67.44	-	-	3702.35
	06/24/08	3769.79	67.49	-	-	3702.30
	08/29/08	3769.79	67.69	-	-	3702.10
	09/16/08	3769.79	67.74	-	-	3702.05
	12/16/08	3769.79	67.94	-	-	3701.85
	01/29/09	3769.79	68.11	-	-	3701.68
	02/04/09	3769.79	68.13	-	-	3701.66
	05/26/09	3769.79	68.39	-	-	3701.40
	08/12/09	3769.79	68.64	-	-	3701.15
	11/19/09	3769.79	68.95	-	-	3700.84
	12/29/11	3769.79	71.68	-	-	3698.11
	03/16/12	3769.79	71.99	-	-	3697.80
	06/14/12	3769.79	72.38	-	-	3697.41
	09/25/12	3769.79	72.74	-	-	3697.05
	12/10/12	3769.79	73.16	-	-	3696.63



Table 1: Summary of Historical Fluid Level Measurements
Moore to Jal No.1
SRS #2002-10270

Well	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Depth to PSH (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)
MW-19			Diameter: 4 in.	Screened Interval: 48.00 ft. to 88.0 ft.		TD: 88.0 ft.
	12/17/07	3773.35	71.39	-	-	3701.96
	12/20/07	3773.35	71.38	-	-	3701.97
	03/05/08	3773.35	71.74	-	-	3701.61
	03/26/08	3773.35	71.67	-	-	3701.68
	04/02/08	3773.35	71.65	-	-	3701.70
	04/24/08	3773.35	71.69	-	-	3701.66
	05/27/08	3773.35	71.81	-	-	3701.54
	06/24/08	3773.35	71.82	-	-	3701.53
	08/29/08	3773.35	72.03	-	-	3701.32
	09/16/08	3773.35	72.11	-	-	3701.24
	12/16/08	3773.35	70.30	-	-	3703.05
	12/22/08	3773.35	72.26	-	-	3701.09
	01/29/09	3773.35	72.49	-	-	3700.86
	02/04/09	3773.35	72.50	-	-	3700.85
	05/26/09	3773.35	72.76	-	-	3700.59
	08/12/09	3773.35	72.95	-	-	3700.40
	11/19/09	3773.35	73.33	-	-	3700.02
	12/29/11	3773.35	76.08	-	-	3697.27
	03/16/12	3773.35	76.40	-	-	3696.95
	06/14/12	3773.35	76.77	-	-	3696.58
	09/25/12	3773.35	77.14	-	-	3696.21
	12/10/12	3773.35	77.66	-	-	3695.69
MW-20			Diameter: 4 in.	Screened Interval: 54.00 ft. to 94.0 ft.		TD: 94.0 ft.
	12/17/07	3773.11	71.67	-	-	3701.44
	12/20/07	3773.11	71.66	-	-	3701.45
	03/05/08	3773.11	72.01	-	-	3701.10
	03/26/08	3773.11	71.93	-	-	3701.18
	04/02/08	3773.11	74.93	-	-	3698.18
	04/24/08	3773.11	71.99	-	-	3701.12
	05/27/08	3773.11	72.08	-	-	3701.03
	06/24/08	3773.11	72.09	-	-	3701.02
	08/29/08	3773.11	72.30	-	-	3700.81
	09/16/08	3773.11	72.38	-	-	3700.73
	12/16/08	3773.11	72.57	-	-	3700.54
	01/29/09	3773.11	72.75	-	-	3700.36
	02/04/09	3773.11	72.76	-	-	3700.35
	05/26/09	3773.11	73.02	-	-	3700.09
	08/12/09	3773.11	73.22	-	-	3699.89
	11/19/09	3773.11	73.59	-	-	3699.52
	12/29/11	3773.11	76.35	-	-	3696.76
	03/16/12	3773.11	76.66	-	-	3696.45
	06/14/12	3773.11	77.03	-	-	3696.08
	09/25/12	3773.11	77.44	-	-	3695.67
	12/10/12	3773.11	77.90	-	-	3695.21
MW-21			Diameter: 4 in.	Screened Interval: 50.00 ft. to 90.0 ft.		TD: 90.0 ft.
	12/29/11	3767.35	70.53	-	-	3696.82
	03/16/12	3767.35	70.91	-	-	3696.44
	06/14/12	3767.35	69.58	-	-	3697.77
	09/25/12	3767.35	69.98	-	-	3697.37
	12/10/12	3767.35	70.36	-	-	3696.99
MW-22			Diameter: 4 in.	Screened Interval: 50.00 ft. to 90.0 ft.		TD: 90.0 ft.
	12/29/11	3769.17	70.53	-	-	3698.64
	03/16/12	3769.17	70.91	-	-	3698.26
	06/14/12	3769.17	71.27	-	-	3697.90
	09/25/12	3769.17	71.69	-	-	3697.48
	12/10/12	3769.17	72.06	-	-	3697.11



Table 1: Summary of Historical Fluid Level Measurements
Moore to Jal No.1
SRS #2002-10270

Well	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Depth to PSH (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)
MW-23			Diameter: 4 in.	Screened Interval: 55.00 ft. to 95.0 ft.		TD: 110.0 ft.
	12/29/11	3771.00	72.65	-	-	3698.35
	03/16/12	3771.00	73.04	-	-	3697.96
	06/14/12	3771.00	73.38	-	-	3697.62
	09/25/12	3771.00	73.80	-	-	3697.20
	12/10/12	3771.00	74.25	73.98	0.27	3696.95
MW-24			Diameter: 4 in.	Screened Interval: 50.00 ft. to 90.0 ft.		TD: 95.0 ft.
	12/29/11	3770.97	78.49	72.46	6.03	3697.00
	03/16/12	3770.97	79.37	72.89	6.48	3696.46
	06/14/12	3770.97	80.32	73.13	7.19	3696.04
	09/25/12	3770.97	80.74	73.55	7.19	3695.62
	12/10/12	3770.97	81.16	73.98	7.18	3695.20
MW-25			Diameter: 4 in.	Screened Interval: 55.00 ft. to 95.0 ft.		TD: 110.0 ft.
	12/29/11	3770.54	78.14	71.86	6.28	3697.11
	03/16/12	3770.54	78.97	72.25	6.72	3696.61
	06/14/12	3770.54	79.40	72.64	6.76	3696.21
	09/25/12	3770.54	79.87	73.00	6.87	3695.82
	12/10/12	3770.54	80.11	73.47	6.64	3695.41
MW-26			Diameter: 4 in.	Screened Interval: 55.00 ft. to 95.0 ft.		TD: 110.0 ft.
	12/29/11	3772.89	75.13	-	-	3697.76
	03/16/12	3772.89	75.51	-	-	3697.38
	06/14/12	3772.89	75.86	-	-	3697.03
	09/25/12	3772.89	76.26	-	-	3696.63
	12/10/12	3772.89	76.74	-	-	3696.15
MW-27			Diameter: 4 in.	Screened Interval: 55.00 ft. to 95.0 ft.		TD: 110.0 ft.
	12/29/11	3774.53	78.12	-	-	3696.41
	03/16/12	3774.53	78.54	-	-	3695.99
	06/14/12	3774.53	78.84	-	-	3695.69
	09/25/12	3774.53	79.30	-	-	3695.23
	12/10/12	3774.53	79.75	-	-	3694.78
MW-28			Diameter: 4 in.	Screened Interval: 55.00 ft. to 95.0 ft.		TD: 100.0 ft.
	12/29/11	3772.18	76.12	-	-	3696.06
	03/16/12	3772.18	76.48	-	-	3695.70
	06/14/12	3772.18	76.13	-	-	3696.05
	09/25/12	3772.18	77.27	-	-	3694.91
	12/10/12	3772.18	77.69	-	-	3694.49
MW-29			Diameter: 4 in.	Screened Interval: 55.00 ft. to 95.0 ft.		TD: 110.0 ft.
	12/29/11	3769.79	73.95	-	-	3695.84
	03/16/12	3769.79	74.28	-	-	3695.51
	06/14/12	3769.79	74.65	-	-	3695.14
	09/25/12	3769.79	75.07	-	-	3694.72
	12/10/12	3769.79	75.48	-	-	3694.31
MW-30			Diameter: 4 in.	Screened Interval: _____ ft. to _____ ft.		TD: _____ ft.
	12/29/11	3766.52	74.77	67.66	7.11	3697.69
	03/16/12	3766.52	75.10	67.97	7.13	3697.37
	06/14/12	3766.52	75.05	68.37	6.68	3697.05
	09/25/12	3766.52	75.85	68.78	7.07	3696.57
	12/10/12	3766.52	76.25	69.20	7.05	3696.16
MW-31			Diameter: 4 in.	Screened Interval: _____ ft. to _____ ft.		TD: _____ ft.
	12/29/11	3766.45	75.68	67.73	7.95	3696.73
	03/16/12	3766.45	76.00	68.05	7.95	3696.41
	06/14/12	3766.45	75.89	68.40	7.49	3696.18
	09/25/12	3766.45	76.90	68.85	8.05	3695.59
	12/10/12	3766.45	76.22	69.54	6.68	3695.24



Table 1: Summary of Historical Fluid Level Measurements
Moore to Jal No.1
SFS #2002-10270

Well	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Depth to PSH (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)
MW-32			Diameter: 4 in.	Screened Interval: _____ ft. to _____ ft.		TD: _____ ft.
	12/29/11	3766.75	76.15	68.45	7.70	3696.38
	03/16/12	3766.75	76.53	68.75	7.78	3696.06
	06/14/12	3766.75	76.50	69.05	7.45	3695.84
	09/25/12	3766.75	77.44	69.53	7.91	3695.24
	12/10/12	3766.75	77.93	69.92	8.01	3694.83
MW-33			Diameter: 4 in.	Screened Interval: _____ ft. to _____ ft.		TD: _____ ft.
	12/29/11	3767.44	77.13	69.35	7.78	3696.15
	03/16/12	3767.44	77.54	69.77	7.77	3695.73
	06/14/12	3767.44	77.44	69.80	7.64	3695.73
	09/25/12	3767.44	79.60	70.55	9.05	3694.63
	12/10/12	3767.44	77.96	71.30	6.66	3694.48
MW-34			Diameter: 4 in.	Screened Interval: _____ ft. to _____ ft.		TD: _____ ft.
	12/29/11	3766.32	69.08	-	-	3697.24
	03/16/12	3766.32	69.31	-	-	3697.01
	06/14/12	3766.32	69.71	-	-	3696.61
	09/25/12	3766.32	70.08	-	-	3696.24
	12/10/12	3766.32	70.47	-	-	3695.85
MW-35			Diameter: 4 in.	Screened Interval: _____ ft. to _____ ft.		TD: _____ ft.
	12/29/11	3765.67	68.88	-	-	3696.79
	03/16/12	3765.67	69.19	-	-	3696.48
	06/14/12	3765.67	69.59	-	-	3696.08
	09/25/12	3765.67	69.96	-	-	3695.71
	12/10/12	3765.67	70.35	-	-	3695.32
MW-36			Diameter: 4 in.	Screened Interval: _____ ft. to _____ ft.		TD: _____ ft.
	12/29/11	3765.37	69.07	-	-	3696.30
	03/16/12	3765.37	69.38	-	-	3695.99
	06/14/12	3765.37	69.80	-	-	3695.57
	09/25/12	3765.37	70.16	-	-	3695.21
	12/10/12	3765.37	70.56	-	-	3694.81

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



Table 2: Summary of Historical Groundwater Analytical Results
Moore to Jal No.1
SRS #2002-10270

Sample Designation	Date Sampled	Concentration (mg/L)					BTEX	MTBE
		Benzene	Toluene	Ethylbenzene	Total Xylenes			
MW-14	03/16/11	4.36	2.08	0.766	2.18	-	-	
	06/29/11	3.70	1.48	BRL	BRL	-	-	
	09/21/11	5.62	1.58	0.292	0.543	8.04	-	
	12/29/11	4.65	1.44	0.196	0.305	6.59	-	
	03/16/12	3.38	1.13	0.178	0.260	-	-	
	06/15/12	1.86	0.449	0.0954	0.115	-	-	
	09/27/12	1.04	0.198	0.0632	0.0875	-	-	
	12/14/12	2.01	0.394	0.0940	0.150	-	<0.0166	
MW-16	01/03/11	25.4	1.50	1.05	2.24	-	-	
	03/16/11	26.3	0.693	1.31	2.12	-	-	
	06/29/11	39.6	BRL	1.92	BRL	-	-	
	09/21/11	47.6	0.225	1.50	BRL	49.3	-	
	12/29/11	33.2	0.320	0.772	BRL	34.3	-	
	03/16/12	36.0	1.60	1.45	0.389	-	-	
	06/15/12	41.8	3.91	1.52	0.951	-	-	
	03/22/11	BRL	BRL	BRL	BRL	-	-	
MW-17	06/29/11	BRL	BRL	BRL	BRL	-	-	
	09/21/11	BRL	BRL	BRL	BRL	BRL	-	
	12/30/11	BRL	BRL	BRL	BRL	BRL	-	
	03/16/12	0.00140	BRL	BRL	BRL	-	-	
	06/14/12	0.0577	0.00510	0.00230	0.00100	-	-	
	09/26/12	<0.000371	<0.000347	<0.000326	BRL	-	-	
	12/14/12	<0.000371	<0.000347	<0.000326	BRL	-	<0.000954	
	03/16/11	BRL	BRL	BRL	BRL	-	-	
MW-18	03/22/11	BRL	BRL	BRL	BRL	-	-	
	06/29/11	BRL	BRL	BRL	BRL	-	-	
	09/21/11	BRL	BRL	BRL	BRL	BRL	-	
	12/30/11	BRL	BRL	BRL	BRL	BRL	-	
	03/16/12	0.00730	0.00110	BRL	0.00100	-	-	
	06/14/12	<0.000371	<0.000347	<0.000326	BRL	-	-	
	09/26/12	<0.000371	<0.000347	<0.000326	BRL	-	-	
	12/14/12	<0.000371	<0.000347	<0.000326	BRL	-	<0.000954	



Table 2: Summary of Historical Groundwater Analytical Results
Moore to Jal No.1
SRS #2002-10270

Sample Designation	Date Sampled	Concentration (mg/L)						MTBE
		Benzene	Toluene	Ethylbenzene	Total Xylenes	BTEX		
MW-19	03/22/11	BRL	BRL	BRL	BRL	-	-	
	06/29/11	BRL	BRL	BRL	BRL	-	-	
	09/21/11	BRL	BRL	BRL	BRL	BRL	-	
	12/30/11	BRL	BRL	BRL	BRL	BRL	-	
	03/16/12	0.00280	BRL	BRL	BRL	-	-	
	06/14/12	<0.000371	<0.000347	<0.000326	BRL	-	-	
	09/26/12	<0.000371	<0.000347	<0.000326	BRL	-	-	
	12/14/12	<0.000371	<0.000347	<0.000326	BRL	-	<0.000954	
MW-20	03/22/11	BRL	BRL	BRL	BRL	-	-	
	06/29/11	BRL	BRL	BRL	BRL	-	-	
	09/21/11	BRL	BRL	BRL	BRL	BRL	-	
	12/30/11	BRL	BRL	BRL	BRL	BRL	-	
	03/16/12	BRL	BRL	BRL	BRL	-	-	
	06/14/12	<0.000371	<0.000347	<0.000326	BRL	-	-	
	09/26/12	<0.000371	<0.000347	<0.000326	BRL	-	-	
	12/14/12	<0.000371	<0.000347	<0.000326	BRL	-	<0.000954	
MW-21	03/16/11	BRL	BRL	BRL	BRL	-	-	
	06/29/11	BRL	BRL	BRL	BRL	-	-	
	09/22/11	BRL	BRL	BRL	BRL	BRL	-	
	12/29/11	BRL	BRL	BRL	BRL	BRL	-	
	03/21/12	BRL	BRL	BRL	BRL	-	-	
	06/14/12	<0.000371	<0.000347	<0.000326	BRL	-	-	
	09/26/12	<0.000371	<0.000347	<0.000326	BRL	-	-	
	12/14/12	<0.000371	<0.000347	<0.000326	BRL	-	<0.000954	
MW-22	03/16/11	BRL	BRL	BRL	BRL	-	-	
	06/29/11	BRL	BRL	BRL	BRL	-	-	
	09/22/11	BRL	BRL	BRL	BRL	BRL	-	
	12/29/11	BRL	BRL	BRL	BRL	BRL	-	
	03/21/12	BRL	BRL	BRL	BRL	-	-	
	06/14/12	<0.000371	<0.000347	<0.000326	BRL	-	-	
	09/26/12	<0.000371	<0.000347	<0.000326	BRL	-	-	
	12/14/12	<0.000371	<0.000347	<0.000326	BRL	-	<0.000954	



Table 2: Summary of Historical Groundwater Analytical Results
Moore to Jal No.1
SRS #2002-10270

Sample Designation	Date Sampled	Concentration (mg/L)					BTEX	MTBE
		Benzene	Toluene	Ethylbenzene	Total Xylenes			
MW-23	06/29/11	BRL	BRL	BRL	BRL	-	-	
	09/22/11	BRL	BRL	BRL	BRL	BRL	-	
	12/29/11	BRL	BRL	BRL	BRL	BRL	-	
	03/15/12	BRL	BRL	BRL	BRL	-	-	
	06/14/12	<0.000371	<0.000347	<0.000326	BRL	-	-	
	09/26/12	<0.000371	<0.000347	<0.000326	BRL	-	-	
	12/14/12	<0.000371	<0.000347	<0.000326	BRL	-	<0.000954	
MW-26	03/16/11	BRL	BRL	BRL	BRL	-	-	
	06/29/11	BRL	BRL	BRL	BRL	-	-	
	09/21/11	0.00400	BRL	BRL	BRL	BRL	-	
	12/29/11	BRL	BRL	BRL	BRL	BRL	-	
	03/15/12	BRL	BRL	BRL	BRL	-	-	
	06/14/12	<0.000371	<0.000347	<0.000326	BRL	-	-	
	09/26/12	<0.000371	<0.000347	<0.000326	BRL	-	-	
MW-27	12/14/12	<0.000371	<0.000347	<0.000326	BRL	-	<0.000954	
	03/16/11	BRL	BRL	BRL	BRL	-	-	
	06/29/11	BRL	BRL	BRL	BRL	-	-	
	09/21/11	0.00760	0.00100	BRL	BRL	0.00860	-	
	12/29/11	BRL	BRL	BRL	BRL	BRL	-	
	03/15/12	BRL	BRL	BRL	BRL	-	-	
	06/14/12	<0.000371	<0.000347	<0.000326	BRL	-	-	
MW-28	09/26/12	<0.000371	<0.000347	<0.000326	BRL	-	-	
	12/14/12	<0.000371	<0.000347	<0.000326	BRL	-	<0.000954	
	03/16/11	BRL	BRL	BRL	BRL	-	-	
	06/29/11	BRL	BRL	BRL	BRL	-	-	
	09/21/11	0.0184	BRL	0.00100	BRL	0.0199	-	
	12/29/11	0.0412	BRL	BRL	0.00200	0.0432	-	
	03/15/12	0.151	BRL	BRL	0.00680	-	-	
06/15/12	0.541	<0.0174	<0.0163	BRL	-	-		
09/27/12	2.11	<0.00259	<0.00291	0.0659	-	-		
12/14/12	1.54	<0.0130	<0.0146	BRL	-	<0.0166		



Table 2: Summary of Historical Groundwater Analytical Results
Moore to Jal No.1
SRS #2002-10270

Sample Designation	Date Sampled	Concentration (mg/L)					
		Benzene	Toluene	Ethylbenzene	Total Xylenes	BTEX	MTBE
MW-29	03/16/11	13.4	BRL	0.814	1.44	-	-
	06/29/11	28.6	BRL	2.08	4.19	-	-
	09/21/11	41.1	BRL	1.30	1.22	43.6	-
	12/29/11	32.5	BRL	0.991	0.298	33.8	-
	03/15/12	42.5	BRL	1.57	0.692	-	-
	06/15/12	41.7	<0.0694	1.24	0.564	-	-
	09/27/12	40.3	0.292	1.61	1.10	-	-
	12/14/12	22.8	<0.0518	0.760	0.410	-	<0.0662
	03/16/11	BRL	BRL	BRL	BRL	-	-
	06/28/11	0.00670	BRL	BRL	BRL	-	-
MW-34	09/22/11	BRL	BRL	BRL	BRL	BRL	-
	12/29/11	0.00110	BRL	BRL	BRL	BRL	-
	03/15/12	BRL	BRL	BRL	BRL	-	-
	06/15/12	<0.000371	<0.000347	<0.000326	BRL	-	-
	09/26/12	0.00240	<0.000259	<0.000291	BRL	-	-
	12/14/12	0.00410	<0.000347	<0.000326	BRL	-	<0.000954
	03/16/11	0.0149	BRL	BRL	BRL	-	-
	06/28/11	0.0187	BRL	BRL	BRL	-	-
MW-35	09/22/11	0.00610	0.00130	BRL	BRL	0.00810	-
	12/29/11	0.00420	0.00340	BRL	BRL	0.00760	-
	03/15/12	0.00270	0.00210	BRL	BRL	-	-
	06/15/12	0.00220	0.00180	<0.000326	BRL	-	-
	09/26/12	0.00460	0.00450	<0.000326	BRL	-	-
	12/14/12	0.00730	0.00770	<0.000326	0.00220	-	<0.000954
	03/16/11	BRL	BRL	BRL	BRL	-	-
	06/28/11	BRL	BRL	BRL	BRL	-	-
MW-36	09/22/11	0.00110	BRL	BRL	BRL	BRL	-
	12/29/11	BRL	BRL	BRL	BRL	BRL	-
	03/15/12	BRL	BRL	BRL	BRL	-	-
	06/15/12	<0.000371	<0.000347	<0.000326	BRL	-	-
	09/26/12	<0.000371	<0.000347	<0.000326	BRL	-	-
	12/14/12	<0.000371	<0.000347	<0.000326	BRL	-	<0.000954
	03/16/11	BRL	BRL	BRL	BRL	-	-
	06/28/11	BRL	BRL	BRL	BRL	-	-



BTEX = Benzene, Toluene, Ethylbenzene, and Xylenes, analyzed by EPA Method 8021
C6-C12, >C12-C28, >C28-C35, and C6-C35 analyzed by Method TX1005
Naphthalene and other PAH analyzed by EPA Method 8270C
C = Not Sampled



Table 3: Summary of Historical Groundwater Analytical PAH - PAH Supplement
Moore to Jal No.1
SRS #2002-10270

Sample Designation	Date Sampled	Concentration (mg/L)															Notes				
		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	C
MW-1A	08/18/09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-2	09/18/08	0.0410	0.0507	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.00436	BRL	0.00600	BRL	0.0380	0.00612	BRL	-
	08/18/09	5.56	6.70	BRL	BRL	0.0603	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.392	BRL	0.568	BRL	2.64	0.775	BRL	-
MW-3	09/18/08	0.171	0.203	BRL	BRL	BRL	BRL	BRL	0.000319	BRL	BRL	BRL	BRL	0.0171	0.000986	0.0224	BRL	0.108	0.0274	0.000820	-
	08/18/09	0.757	0.915	BRL	BRL	0.00637	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.0589	BRL	0.0776	BRL	0.400	0.106	BRL	-
MW-4A	09/17/08	0.0117	0.0111	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.000848	BRL	0.000965	BRL	0.0157	0.000663	BRL	-
	08/18/09	6.50	7.63	BRL	BRL	0.0604	BRL	BRL	BRL	BRL	0.106	BRL	0.436	BRL	0.594	BRL	0.594	2.90	0.855	BRL	-
MW-5	08/18/09	0.945	1.15	BRL	BRL	0.0143	BRL	BRL	BRL	BRL	0.0179	BRL	0.0753	BRL	0.101	BRL	0.426	0.149	BRL	-	
MW-6	09/18/08	0.0762	0.0890	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.00757	BRL	0.00955	BRL	0.0906	0.0104	BRL	-	
	08/18/09	3.81	4.55	BRL	BRL	0.0434	BRL	BRL	BRL	BRL	0.0627	BRL	0.290	BRL	0.382	BRL	1.74	0.536	BRL	-	
MW-7	09/17/08	0.0401	0.0475	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.00294	BRL	0.00317	BRL	0.0726	0.00262	BRL	-	
	08/18/09	3.14	3.85	BRL	BRL	0.0193	BRL	BRL	BRL	BRL	0.0560	BRL	0.216	BRL	0.323	BRL	1.38	0.445	BRL	-	
MW-8	09/18/08	0.0699	0.0821	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.00710	0.000386	0.00834	BRL	0.0697	0.0101	0.000660	-	
	08/18/09	4.62	5.48	BRL	BRL	0.0378	BRL	BRL	BRL	BRL	0.0698	BRL	0.281	BRL	0.408	BRL	2.20	0.541	0.0263	-	
MW-9	09/20/08	0.201	0.240	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.00393	BRL	0.0171	0.000585	0.0238	BRL	0.113	0.0290	0.00175	-	
	08/18/09	7.32	8.81	BRL	BRL	0.0689	BRL	BRL	BRL	BRL	0.0950	BRL	0.419	BRL	0.608	BRL	3.61	0.807	0.0509	-	
MW-10	09/18/08	0.0321	0.0368	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.00277	BRL	0.00246	BRL	0.0511	0.00188	BRL	-	
	08/18/09	6.64	7.86	BRL	BRL	0.0580	BRL	BRL	BRL	BRL	BRL	BRL	0.375	BRL	0.548	BRL	3.20	0.717	BRL	-	
MW-11	09/18/08	0.0259	0.0313	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.00265	BRL	0.00366	BRL	0.0285	0.00366	BRL	-	
	08/18/09	0.193	0.229	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.0146	BRL	0.0213	BRL	0.105	0.0270	BRL	-	
MW-12	09/17/08	0.0185	0.0182	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.00156	BRL	0.00187	BRL	0.0260	0.00150	BRL	-	
	08/18/09	0.427	0.513	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.0263	BRL	0.0393	BRL	0.224	0.0504	BRL	-	
MW-13	09/17/08	0.0189	0.0208	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.00182	BRL	0.00242	BRL	0.0191	0.00214	BRL	-	
	08/13/09	0.306	0.332	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.0275	BRL	BRL	BRL	0.114	0.0500	BRL	-	
MW-14	09/17/08	0.00995	0.00203	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.000759	BRL	0.000606	BRL	0.00204	0.000274	BRL	-	
	08/13/09	0.000773	0.000527	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.000895	BRL	BRL	-	
MW-15	09/17/08	0.0179	0.0200	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.00177	BRL	0.00231	BRL	0.0208	0.00245	BRL	-	
	08/13/09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	C	



Table 3: Summary of Historical Groundwater Analytical PAH - PAH Supplement
Moore to Jal No.1
SRS #2002-10270

Sample Designation	Date Sampled	Concentration (mg/L)															Notes			
		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-16	09/17/08	0.0390	0.0441	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.00244	BRL	0.00557	BRL	0.0765	0.00144	BRL	-
	08/13/09	0.0171	0.0183	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.00110	BRL	BRL	BRL	0.0272	0.00110	BRL	-
	01/03/11	0.0204	0.0228	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.00128	BRL	0.00250	BRL	0.0394	0.00156	BRL	
	12/29/11	0.00470	0.00324	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.0139	BRL	BRL	-
MW-17	09/17/08	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	-
	08/13/09	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	-
MW-18	09/17/08	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.000405	BRL	BRL	-
	08/13/09	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.000246	BRL	BRL	-
MW-19	09/17/08	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.00103	0.000268	BRL	-
	08/13/09	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.000205	BRL	BRL	-
MW-20	09/17/08	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.000256	BRL	BRL	-
	08/13/09	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.000362	BRL	BRL	-
MW-27	12/29/11	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	-
	12/14/12	0.00010	0.00009	0.00012	0.00009	0.00076	0.00010	0.00063	0.00080	0.00079	0.00076	0.00076	0.00084	0.00010	0.00012	0.00009	0.00076	0.00012	0.00008	0.00006

BTEX = Benzene, Toluene, Ethylbenzene, and Xylenes, analyzed by EPA Method 8021

C6-C12, >C12-C28, >C28-C35, and C6-C35 analyzed by Method TX1005

Naphthalene and other PAH analyzed by EPA Method 8270C

C = Not Sampled

APPENDIX C

Laboratory Analytical Data Reports and Chains of Custody Documentation

Summary Report

Steve Killingsworth
Talon LPE-Midland
2901 State Highway 349
Midland, TX 79706

Report Date: March 23, 2012

Work Order: 12031903

Project Location: Lovington, NM
Project Name: Moore to Jal #1
Project Number: 700376.044.01
SRS #: 2002-10270

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
291683	MW-14	water	2012-03-16	11:30	2012-03-16
291684	MW-16	water	2012-03-16	11:49	2012-03-16
291685	MW-17	water	2012-03-16	10:30	2012-03-16
291686	MW-18	water	2012-03-16	10:15	2012-03-16
291687	MW-19	water	2012-03-16	10:52	2012-03-16
291688	MW-20	water	2012-03-16	11:07	2012-03-16
291689	MW-23	water	2012-03-15	10:30	2012-03-16
291690	MW-26	water	2012-03-15	11:05	2012-03-16
291691	MW-27	water	2012-03-15	11:35	2012-03-16
291692	MW-28	water	2012-03-15	11:55	2012-03-16
291693	MW-29	water	2012-03-15	12:00	2012-03-16
291694	MW-34	water	2012-03-15	13:40	2012-03-16
291695	MW-35	water	2012-03-15	14:00	2012-03-16
291696	MW-36	water	2012-03-15	13:50	2012-03-16

Sample - Field Code	BTEX				MTBE
	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)	MTBE (mg/L)
291683 - MW-14	3.38	1.13	0.178	0.260	
291684 - MW-16	36.0	1.60	1.45	0.389	
291685 - MW-17	0.00140	<0.00100	<0.00100	<0.00100	
291686 - MW-18	0.00730	0.00110	<0.00100	0.00100	
291687 - MW-19	0.00280	<0.00100	<0.00100	<0.00100	
291688 - MW-20	<0.00100	<0.00100	<0.00100	<0.00100	
291689 - MW-23	<0.00100	<0.00100	<0.00100	<0.00100	
291690 - MW-26	<0.00100	<0.00100	<0.00100	<0.00100	
291691 - MW-27	<0.00100	<0.00100	<0.00100	<0.00100	
291692 - MW-28	0.151	<0.00100	<0.00100	0.00680	

continued ...

... continued

Sample - Field Code	BTX				MTBE MTBE (mg/L)
	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)	
291693 - MW-29	42.5	<0.200	1.57	0.692	
291694 - MW-34	<0.00100	<0.00100	<0.00100	<0.00100	
291695 - MW-35	0.00270	0.00210	<0.00100	<0.00100	
291696 - MW-36	<0.00100	<0.00100	<0.00100	<0.00100	



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800-378-1296 806-794-1296 FAX 806-794-1296
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

Steve Killingsworth
Talon LPE-Midland
2901 State Highway 349
Midland, TX, 79706

Report Date: March 23, 2012

Work Order: 12031903



Project Location: Lovington, NM
Project Name: Moore to Jal #1
Project Number: 700376.044.01
SRS #: 2002-10270

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
291683	MW-14	water	2012-03-16	11:30	2012-03-16
291684	MW-16	water	2012-03-16	11:49	2012-03-16
291685	MW-17	water	2012-03-16	10:30	2012-03-16
291686	MW-18	water	2012-03-16	10:15	2012-03-16
291687	MW-19	water	2012-03-16	10:52	2012-03-16
291688	MW-20	water	2012-03-16	11:07	2012-03-16
291689	MW-23	water	2012-03-15	10:30	2012-03-16
291690	MW-26	water	2012-03-15	11:05	2012-03-16
291691	MW-27	water	2012-03-15	11:35	2012-03-16
291692	MW-28	water	2012-03-15	11:55	2012-03-16
291693	MW-29	water	2012-03-15	12:00	2012-03-16
291694	MW-34	water	2012-03-15	13:40	2012-03-16
291695	MW-35	water	2012-03-15	14:00	2012-03-16
291696	MW-36	water	2012-03-15	13:50	2012-03-16

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.

This report consists of a total of 20 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

A handwritten signature in black ink that reads "Michael Abel". The signature is written in a cursive, flowing style.

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

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Case Narrative

Samples for project Moore to Jal #1 were received by TraceAnalysis, Inc. on 2012-03-16 and assigned to work order 12031903. Samples for work order 12031903 were received intact without headspace and at a temperature of 3.0 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	75960	2012-03-19 at 16:47	89481	2012-03-19 at 16:47
BTEX	S 8021B	75996	2012-03-20 at 14:28	89526	2012-03-20 at 14:28
BTEX	S 8021B	76080	2012-03-22 at 07:15	89623	2012-03-22 at 07:15

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 12031903 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.

Report Date: March 23, 2012
700376.044.01

Work Order: 12031903
Moore to Jal #1

Page Number: 5 of 20
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Analytical Report

Sample: 291683 - MW-14

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 89526
Prep Batch: 75996

Analytical Method: S 8021B
Date Analyzed: 2012-03-20
Sample Preparation: 2012-03-20

Prep Method: S 5030B
Analyzed By: ZLM
Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	3.38	mg/L	50	0.00100
Toluene		1	1.13	mg/L	50	0.00100
Ethylbenzene		1	0.178	mg/L	50	0.00100
Xylene		1	0.260	mg/L	50	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			4.96	mg/L	50	5.00	99	70 - 130
4-Bromofluorobenzene (4-BFB)			5.02	mg/L	50	5.00	100	70 - 130

Sample: 291684 - MW-16

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 89526
Prep Batch: 75996

Analytical Method: S 8021B
Date Analyzed: 2012-03-20
Sample Preparation: 2012-03-20

Prep Method: S 5030B
Analyzed By: ZLM
Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	36.0	mg/L	200	0.00100
Toluene		1	1.60	mg/L	200	0.00100
Ethylbenzene		1	1.45	mg/L	200	0.00100
Xylene		1	0.389	mg/L	200	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			16.3	mg/L	200	20.0	82	70 - 130
4-Bromofluorobenzene (4-BFB)			17.5	mg/L	200	20.0	88	70 - 130

Report Date: March 23, 2012
700376.044.01

Work Order: 12031903
Moore to Jal #1

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Lovington, NM

Sample: 291685 - MW-17

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 89623
Prep Batch: 76080

Analytical Method: S 8021B
Date Analyzed: 2012-03-22
Sample Preparation: 2012-03-22

Prep Method: S 5030B
Analyzed By: ZLM
Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.00140	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	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0923	mg/L	1	0.100	92	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0977	mg/L	1	0.100	98	70 - 130

Sample: 291686 - MW-18

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 89526
Prep Batch: 75996

Analytical Method: S 8021B
Date Analyzed: 2012-03-20
Sample Preparation: 2012-03-20

Prep Method: S 5030B
Analyzed By: ZLM
Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.00730	mg/L	1	0.00100
Toluene		1	0.00110	mg/L	1	0.00100
Ethylbenzene		1	<0.00100	mg/L	1	0.00100
Xylene		1	0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.101	mg/L	1	0.100	101	70 - 130
4-Bromofluorobenzene (4-BFB)			0.101	mg/L	1	0.100	101	70 - 130

Report Date: March 23, 2012
700376.044.01

Work Order: 12031903
Moore to Jal #1

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Lovington, NM

Sample: 291687 - MW-19

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 89526

Prep Batch: 75996

Analytical Method: S 8021B

Date Analyzed: 2012-03-20

Sample Preparation: 2012-03-20

Prep Method: S 5030B

Analyzed By: ZLM

Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.00280	mg/L	1	0.00100
Toluene		1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene		1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0896	mg/L	1	0.100	90	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0903	mg/L	1	0.100	90	70 - 130

Sample: 291688 - MW-20

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 89526

Prep Batch: 75996

Analytical Method: S 8021B

Date Analyzed: 2012-03-20

Sample Preparation: 2012-03-20

Prep Method: S 5030B

Analyzed By: ZLM

Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		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	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.102	mg/L	1	0.100	102	70 - 130
4-Bromofluorobenzene (4-BFB)			0.100	mg/L	1	0.100	100	70 - 130

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Sample: 291689 - MW-23

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 89481
Prep Batch: 75960

Analytical Method: S 8021B
Date Analyzed: 2012-03-19
Sample Preparation: 2012-03-19

Prep Method: S 5030B
Analyzed By: ZLM
Prepared By: ZLM

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	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0854	mg/L	1	0.100	85	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0910	mg/L	1	0.100	91	70 - 130

Sample: 291690 - MW-26

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 89481
Prep Batch: 75960

Analytical Method: S 8021B
Date Analyzed: 2012-03-19
Sample Preparation: 2012-03-19

Prep Method: S 5030B
Analyzed By: ZLM
Prepared By: ZLM

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	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0879	mg/L	1	0.100	88	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0964	mg/L	1	0.100	96	70 - 130

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Sample: 291691 - MW-27

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 89481

Prep Batch: 75960

Analytical Method: S 8021B

Date Analyzed: 2012-03-19

Sample Preparation: 2012-03-19

Prep Method: S 5030B

Analyzed By: ZLM

Prepared By: ZLM

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	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0855	mg/L	1	0.100	86	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0916	mg/L	1	0.100	92	70 - 130

Sample: 291692 - MW-28

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 89481

Prep Batch: 75960

Analytical Method: S 8021B

Date Analyzed: 2012-03-19

Sample Preparation: 2012-03-19

Prep Method: S 5030B

Analyzed By: ZLM

Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.151	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		1	0.00680	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0865	mg/L	1	0.100	86	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0953	mg/L	1	0.100	95	70 - 130

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Sample: 291693 - MW-29

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 89526

Prep Batch: 75996

Analytical Method: S 8021B

Date Analyzed: 2012-03-20

Sample Preparation: 2012-03-20

Prep Method: S 5030B

Analyzed By: ZLM

Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	42.5	mg/L	200	0.00100
Toluene	u	1	<0.200	mg/L	200	0.00100
Ethylbenzene		1	1.57	mg/L	200	0.00100
Xylene		1	0.692	mg/L	200	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			19.1	mg/L	200	20.0	96	70 - 130
4-Bromofluorobenzene (4-BFB)			19.6	mg/L	200	20.0	98	70 - 130

Sample: 291694 - MW-34

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 89526

Prep Batch: 75996

Analytical Method: S 8021B

Date Analyzed: 2012-03-20

Sample Preparation: 2012-03-20

Prep Method: S 5030B

Analyzed By: ZLM

Prepared By: ZLM

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	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.107	mg/L	1	0.100	107	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0998	mg/L	1	0.100	100	70 - 130

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Sample: 291695 - MW-35

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 89481

Prep Batch: 75960

Analytical Method: S 8021B

Date Analyzed: 2012-03-19

Sample Preparation: 2012-03-19

Prep Method: S 5030B

Analyzed By: ZLM

Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.00270	mg/L	1	0.00100
Toluene		1	0.00210	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0987	mg/L	1	0.100	99	70 - 130
4-Bromofluorobenzene (4-BFB)			0.105	mg/L	1	0.100	105	70 - 130

Sample: 291696 - MW-36

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 89526

Prep Batch: 75996

Analytical Method: S 8021B

Date Analyzed: 2012-03-20

Sample Preparation: 2012-03-20

Prep Method: S 5030B

Analyzed By: ZLM

Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		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	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.103	mg/L	1	0.100	103	70 - 130
4-Bromofluorobenzene (4-BFB)			0.100	mg/L	1	0.100	100	70 - 130

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Method Blanks

Method Blank (1) QC Batch: 89481

QC Batch: 89481
Prep Batch: 75960

Date Analyzed: 2012-03-19
QC Preparation: 2012-03-19

Analyzed By: ZLM
Prepared By: ZLM

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000371	mg/L	0.001
Toluene		1	<0.000347	mg/L	0.001
Ethylbenzene		1	<0.000326	mg/L	0.001
Xylene		1	<0.000357	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0862	mg/L	1	0.100	86	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0906	mg/L	1	0.100	91	70 - 130

Method Blank (1) QC Batch: 89526

QC Batch: 89526
Prep Batch: 75996

Date Analyzed: 2012-03-20
QC Preparation: 2012-03-20

Analyzed By: ZLM
Prepared By: ZLM

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000371	mg/L	0.001
Toluene		1	<0.000347	mg/L	0.001
Ethylbenzene		1	<0.000326	mg/L	0.001
Xylene		1	<0.000357	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0874	mg/L	1	0.100	87	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0914	mg/L	1	0.100	91	70 - 130

Method Blank (1) QC Batch: 89623

QC Batch: 89623
Prep Batch: 76080

Date Analyzed: 2012-03-22
QC Preparation: 2012-03-22

Analyzed By: ZLM
Prepared By: ZLM

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Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000371	mg/L	0.001
Toluene		1	<0.000347	mg/L	0.001
Ethylbenzene		1	<0.000326	mg/L	0.001
Xylene		1	<0.000357	mg/L	0.001

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)			0.0868	mg/L	1	0.100	87	70 - 130

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Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 89481
Prep Batch: 75960

Date Analyzed: 2012-03-19
QC Preparation: 2012-03-19

Analyzed By: ZLM
Prepared By: ZLM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0922	mg/L	1	0.100	<0.000371	92	78.6 - 120
Toluene		1	0.0925	mg/L	1	0.100	<0.000347	92	79.6 - 120
Ethylbenzene		1	0.0935	mg/L	1	0.100	<0.000326	94	80 - 120
Xylene		1	0.274	mg/L	1	0.300	<0.000357	91	79.3 - 120

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

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0927	mg/L	1	0.100	<0.000371	93	78.6 - 120	0	20
Toluene		1	0.0926	mg/L	1	0.100	<0.000347	93	79.6 - 120	0	20
Ethylbenzene		1	0.0935	mg/L	1	0.100	<0.000326	94	80 - 120	0	20
Xylene		1	0.275	mg/L	1	0.300	<0.000357	92	79.3 - 120	0	20

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

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0955	0.0953	mg/L	1	0.100	96	95	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0965	0.0961	mg/L	1	0.100	96	96	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 89526
Prep Batch: 75996

Date Analyzed: 2012-03-20
QC Preparation: 2012-03-20

Analyzed By: ZLM
Prepared By: ZLM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0872	mg/L	1	0.100	<0.000371	87	78.6 - 120
Toluene		1	0.0873	mg/L	1	0.100	<0.000347	87	79.6 - 120
Ethylbenzene		1	0.0900	mg/L	1	0.100	<0.000326	90	80 - 120
Xylene		1	0.265	mg/L	1	0.300	<0.000357	88	79.3 - 120

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

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Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0898	mg/L	1	0.100	<0.000371	90	78.6 - 120	3	20
Toluene		1	0.0895	mg/L	1	0.100	<0.000347	90	79.6 - 120	2	20
Ethylbenzene		1	0.0917	mg/L	1	0.100	<0.000326	92	80 - 120	2	20
Xylene		1	0.271	mg/L	1	0.300	<0.000357	90	79.3 - 120	2	20

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

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0786	0.0714	mg/L	1	0.100	79	71	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0807	0.0730	mg/L	1	0.100	81	73	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 89623
Prep Batch: 76080

Date Analyzed: 2012-03-22
QC Preparation: 2012-03-22

Analyzed By: ZLM
Prepared By: ZLM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0862	mg/L	1	0.100	<0.000371	86	78.6 - 120
Toluene		1	0.0892	mg/L	1	0.100	<0.000347	89	79.6 - 120
Ethylbenzene		1	0.0915	mg/L	1	0.100	<0.000326	92	80 - 120
Xylene		1	0.269	mg/L	1	0.300	<0.000357	90	79.3 - 120

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

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0848	mg/L	1	0.100	<0.000371	85	78.6 - 120	2	20
Toluene		1	0.0884	mg/L	1	0.100	<0.000347	88	79.6 - 120	1	20
Ethylbenzene		1	0.0906	mg/L	1	0.100	<0.000326	91	80 - 120	1	20
Xylene		1	0.266	mg/L	1	0.300	<0.000357	89	79.3 - 120	1	20

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

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0918	0.0790	mg/L	1	0.100	92	79	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0904	0.0790	mg/L	1	0.100	90	79	70 - 130

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Matrix Spike (MS-1) Spiked Sample: 291635

QC Batch: 89481
Prep Batch: 75960

Date Analyzed: 2012-03-19
QC Preparation: 2012-03-19

Analyzed By: ZLM
Prepared By: ZLM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0970	mg/L	1	0.100	0.0027	94	42.2 - 136
Toluene		1	0.0961	mg/L	1	0.100	0.0005	96	44.3 - 133
Ethylbenzene		1	0.0977	mg/L	1	0.100	<0.000326	98	45.6 - 132
Xylene		1	0.285	mg/L	1	0.300	<0.000357	95	44.7 - 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	0.0988	mg/L	1	0.100	0.0027	96	42.2 - 136	2	20
Toluene		1	0.0972	mg/L	1	0.100	0.0005	97	44.3 - 133	1	20
Ethylbenzene		1	0.0987	mg/L	1	0.100	<0.000326	99	45.6 - 132	1	20
Xylene		1	0.289	mg/L	1	0.300	<0.000357	96	44.7 - 128	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)	0.0857	0.0827	mg/L	1	0.1	86	83	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0903	0.0870	mg/L	1	0.1	90	87	70 - 130

Matrix Spike (MS-1) Spiked Sample: 291683

QC Batch: 89526
Prep Batch: 75996

Date Analyzed: 2012-03-20
QC Preparation: 2012-03-20

Analyzed By: ZLM
Prepared By: ZLM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	8.05	mg/L	50	5.00	3.38	93	42.2 - 136
Toluene		1	5.75	mg/L	50	5.00	1.13	92	44.3 - 133
Ethylbenzene		1	4.84	mg/L	50	5.00	0.178	93	45.6 - 132
Xylene		1	13.9	mg/L	50	15.0	0.26	91	44.7 - 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	7.83	mg/L	50	5.00	3.38	89	42.2 - 136	3	20
Toluene		1	5.62	mg/L	50	5.00	1.13	90	44.3 - 133	2	20

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matrix spikes continued ...

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Ethylbenzene		1	4.73	mg/L	50	5.00	0.178	91	45.6 - 132	2	20
Xylene		1	13.6	mg/L	50	15.0	0.26	89	44.7 - 128	2	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)	4.63	4.61	mg/L	50	5	93	92	70 - 130
4-Bromofluorobenzene (4-BFB)	4.44	4.48	mg/L	50	5	89	90	70 - 130

Matrix Spike (MS-1) Spiked Sample: 292041

QC Batch: 89623
Prep Batch: 76080

Date Analyzed: 2012-03-22
QC Preparation: 2012-03-22

Analyzed By: ZLM
Prepared By: ZLM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.184	mg/L	1	0.100	0.0965	88	42.2 - 136
Toluene		1	0.0971	mg/L	1	0.100	0.0026	94	44.3 - 133
Ethylbenzene		1	0.0980	mg/L	1	0.100	0.0019	96	45.6 - 132
Xylene		1	0.295	mg/L	1	0.300	0.0134	94	44.7 - 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	0.181	mg/L	1	0.100	0.0965	84	42.2 - 136	2	20
Toluene		1	0.0926	mg/L	1	0.100	0.0026	90	44.3 - 133	5	20
Ethylbenzene		1	0.0932	mg/L	1	0.100	0.0019	91	45.6 - 132	5	20
Xylene		1	0.280	mg/L	1	0.300	0.0134	89	44.7 - 128	5	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)	0.0817	0.0813	mg/L	1	0.1	82	81	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0817	0.0829	mg/L	1	0.1	82	83	70 - 130

Report Date: March 23, 2012
700376.044.01

Work Order: 12031903
Moore to Jal #1

Page Number: 18 of 20
Lovington, NM

Calibration Standards

Standard (CCV-2)

QC Batch: 89481

Date Analyzed: 2012-03-19

Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0895	90	80 - 120	2012-03-19
Toluene		1	mg/L	0.100	0.0906	91	80 - 120	2012-03-19
Ethylbenzene		1	mg/L	0.100	0.0922	92	80 - 120	2012-03-19
Xylene		1	mg/L	0.300	0.272	91	80 - 120	2012-03-19

Standard (CCV-3)

QC Batch: 89481

Date Analyzed: 2012-03-19

Analyzed By: ZLM

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	2012-03-19
Toluene		1	mg/L	0.100	0.0911	91	80 - 120	2012-03-19
Ethylbenzene		1	mg/L	0.100	0.0923	92	80 - 120	2012-03-19
Xylene		1	mg/L	0.300	0.268	90	80 - 120	2012-03-19

Standard (CCV-1)

QC Batch: 89526

Date Analyzed: 2012-03-20

Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0880	88	80 - 120	2012-03-20
Toluene		1	mg/L	0.100	0.0888	89	80 - 120	2012-03-20
Ethylbenzene		1	mg/L	0.100	0.0925	92	80 - 120	2012-03-20
Xylene		1	mg/L	0.300	0.271	90	80 - 120	2012-03-20

Report Date: March 23, 2012
700376.044.01

Work Order: 12031903
Moore to Jal #1

Page Number: 19 of 20
Lovington, NM

Standard (CCV-2)

QC Batch: 89526

Date Analyzed: 2012-03-20

Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0899	90	80 - 120	2012-03-20
Toluene		1	mg/L	0.100	0.0900	90	80 - 120	2012-03-20
Ethylbenzene		1	mg/L	0.100	0.0909	91	80 - 120	2012-03-20
Xylene		1	mg/L	0.300	0.267	89	80 - 120	2012-03-20

Standard (CCV-1)

QC Batch: 89623

Date Analyzed: 2012-03-22

Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0875	88	80 - 120	2012-03-22
Toluene		1	mg/L	0.100	0.0890	89	80 - 120	2012-03-22
Ethylbenzene		1	mg/L	0.100	0.0907	91	80 - 120	2012-03-22
Xylene		1	mg/L	0.300	0.267	89	80 - 120	2012-03-22

Standard (CCV-2)

QC Batch: 89623

Date Analyzed: 2012-03-22

Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0901	90	80 - 120	2012-03-22
Toluene		1	mg/L	0.100	0.0893	89	80 - 120	2012-03-22
Ethylbenzene		1	mg/L	0.100	0.0902	90	80 - 120	2012-03-22
Xylene		1	mg/L	0.300	0.265	88	80 - 120	2012-03-22

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	T104704219-12-6	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 than 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.
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.

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Suite 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

200 East Sunset Rd., Suite E
El Paso, Texas 79922
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

email: lab@traceanalysis.com

Company Name: <u>TraceAnalysis, Inc.</u>		Phone #:							
Address: <u>200 East Sunset Rd., Suite E</u>		Fax #:							
City, State, Zip: <u>El Paso, Texas 79922</u>		E-mail: <u>lab@traceanalysis.com</u>							
Invoice to: <u>2002-10270</u>		Project Name: <u>Jul #1</u>							
Project #: <u>700376244.01</u>		Sampler Signature: <u>[Signature]</u>							
Project Location (including state): <u>Hobbs NM</u>		Project Location (including state): <u>Hobbs NM</u>							
LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	VOLUME / AMOUNT	MATRIX	PRESERVATIVE METHOD	SAMPLING	DATE	TIME	Turn Around Time if different from standard
291683	MW 14	3	402	WATER	NONE	TIME	3/16	1130	
684	MW 16	1	1	SLUDGE	NONE	DATE		1149	
685	MW 17	1	1	AIR	NONE	TIME		1030	
686	MW 18	1	1	SOIL	NONE	DATE		1015	
687	MW 19	1	1	SLUDGE	NONE	TIME		1052	
688	MW 20	1	1	AIR	NONE	DATE		1107	
689	MW 23	1	1	SOIL	NONE	TIME	3/15	1030	
690	MW 26	1	1	SLUDGE	NONE	DATE		1105	
691	MW 27	1	1	AIR	NONE	TIME		1135	
692	MW 28	1	1	SOIL	NONE	DATE		1155	
693	MW 29	1	1	SLUDGE	NONE	TIME		1203	

LAB USE ONLY	REMARKS:
TPH 8015 GRO / DRO / TVHC	
TPH 418.1 / TX1005 / TX1005 Ext(C35)	
MTBE 8021 / 602 / 8260 / 624	
BTEX 8021 / 602 / 8260 / 624	
TCMP Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	
TCMP Volatiles	
TCMP Semi Volatiles	
TCMP Pesticides	
RCI	
GC/MS Vol. 8260 / 624	
GC/MS Semi. Vol. 8270 / 625	
PCBs 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: _____ Date: _____ Company: _____ Time: _____

Relinquished by: _____ Date: _____ Company: _____ Time: _____

Relinquished by: _____ Date: _____ Company: _____ Time: _____

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

Carrier # _____

ORIGINAL COPY

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

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX	PRESERVATIVE METHOD	SAMPLING	TIME
291694	MW 34	5	600	WATER	HCl	X	3-5 1340
695	MW 35	1	1	WATER	HNO ₃	X	1400
696	MW 36	1	1	WATER	H ₂ SO ₄	X	1350

LAB #	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX	PRESERVATIVE METHOD	SAMPLING	TIME
291694	MW 34	5	600	WATER	HCl	X	3-5 1340
695	MW 35	1	1	WATER	HNO ₃	X	1400
696	MW 36	1	1	WATER	H ₂ SO ₄	X	1350

LAB #	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX	PRESERVATIVE METHOD	SAMPLING	TIME
291694	MW 34	5	600	WATER	HCl	X	3-5 1340
695	MW 35	1	1	WATER	HNO ₃	X	1400
696	MW 36	1	1	WATER	H ₂ SO ₄	X	1350

LAB #	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX	PRESERVATIVE METHOD	SAMPLING	TIME
291694	MW 34	5	600	WATER	HCl	X	3-5 1340
695	MW 35	1	1	WATER	HNO ₃	X	1400
696	MW 36	1	1	WATER	H ₂ SO ₄	X	1350

LAB #	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX	PRESERVATIVE METHOD	SAMPLING	TIME
291694	MW 34	5	600	WATER	HCl	X	3-5 1340
695	MW 35	1	1	WATER	HNO ₃	X	1400
696	MW 36	1	1	WATER	H ₂ SO ₄	X	1350

LAB #	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX	PRESERVATIVE METHOD	SAMPLING	TIME
291694	MW 34	5	600	WATER	HCl	X	3-5 1340
695	MW 35	1	1	WATER	HNO ₃	X	1400
696	MW 36	1	1	WATER	H ₂ SO ₄	X	1350

LAB #	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX	PRESERVATIVE METHOD	SAMPLING	TIME
291694	MW 34	5	600	WATER	HCl	X	3-5 1340
695	MW 35	1	1	WATER	HNO ₃	X	1400
696	MW 36	1	1	WATER	H ₂ SO ₄	X	1350

LAB #	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX	PRESERVATIVE METHOD	SAMPLING	TIME
291694	MW 34	5	600	WATER	HCl	X	3-5 1340
695	MW 35	1	1	WATER	HNO ₃	X	1400
696	MW 36	1	1	WATER	H ₂ SO ₄	X	1350

LAB #	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX	PRESERVATIVE METHOD	SAMPLING	TIME
291694	MW 34	5	600	WATER	HCl	X	3-5 1340
695	MW 35	1	1	WATER	HNO ₃	X	1400
696	MW 36	1	1	WATER	H ₂ SO ₄	X	1350

LAB #	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX	PRESERVATIVE METHOD	SAMPLING	TIME
291694	MW 34	5	600	WATER	HCl	X	3-5 1340
695	MW 35	1	1	WATER	HNO ₃	X	1400
696	MW 36	1	1	WATER	H ₂ SO ₄	X	1350

LAB #	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX	PRESERVATIVE METHOD	SAMPLING	TIME
291694	MW 34	5	600	WATER	HCl	X	3-5 1340
695	MW 35	1	1	WATER	HNO ₃	X	1400
696	MW 36	1	1	WATER	H ₂ SO ₄	X	1350

LAB #	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX	PRESERVATIVE METHOD	SAMPLING	TIME
291694	MW 34	5	600	WATER	HCl	X	3-5 1340
695	MW 35	1	1	WATER	HNO ₃	X	1400
696	MW 36	1	1	WATER	H ₂ SO ₄	X	1350

REMARKS:

LAB USE ONLY

INST	_____	_____	_____
OBS	_____	_____	_____
CON	_____	_____	_____

Time:

Company: _____ Date: _____

Prepared by: _____ Co

me:	6.30	Recei
-----	------	-------

Date: 2/11

Company:

ished by:

Relinquish 

Contact Y/N ☒ Headspace Y/N/A ☒
Log-In-Review ☒ DW Weight Basis Required ☒
TRRP Report Required ☒ Check if Special Reporting Limits Are Needed ☒

INST	0
OBS	0
COR	0
INST	0
OBS	0
COR	0

Time: 3/10/2014

Company: Da

d by: Co

me:	Recei
me:	Recei

Date: _____

Company:	
Company:	

signed by: _____

Relinquish

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

Carrier #

1000

Summary Report

Steve Killingsworth
Talon LPE-Midland
2901 State Highway 349
Midland, TX 79706

Report Date: March 26, 2012

Work Order: 12032304

Project Location: Lovington, NM
Project Name: Moore to Jal #1
Project Number: 700376.044.01
SRS #: 2002-10270

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
292145	MW 21	water	2012-03-21	12:00	2012-03-22
292146	MW 22	water	2012-03-21	12:15	2012-03-22

Sample - Field Code	BTEX				MTBE
	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)	MTBE (mg/L)
292145 - MW 21	<0.00100	<0.00100	<0.00100	<0.00100	
292146 - MW 22	<0.00100	<0.00100	<0.00100	<0.00100	



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800-378-1296 806-794-1296 FAX 806-794-1296
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

Steve Killingsworth
Talon LPE-Midland
2901 State Highway 349
Midland, TX, 79706

Report Date: March 26, 2012

Work Order: 12032304



Project Location: Lovington, NM
Project Name: Moore to Jal #1
Project Number: 700376.044.01
SRS #: 2002-10270

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
292145	MW 21	water	2012-03-21	12:00	2012-03-22
292146	MW 22	water	2012-03-21	12:15	2012-03-22

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.

This report consists of a total of 9 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

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

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Case Narrative

Samples for project Moore to Jal #1 were received by TraceAnalysis, Inc. on 2012-03-22 and assigned to work order 12032304. Samples for work order 12032304 were received intact at a temperature of 2.3 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	76103	2012-03-23 at 09:06	89652	2012-03-23 at 09:06

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 12032304 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.

Report Date: March 26, 2012
700376.044.01

Work Order: 12032304
Moore to Jal #1

Page Number: 4 of 9
Lovington, NM

Analytical Report

Sample: 292145 - MW 21

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 89652

Prep Batch: 76103

Analytical Method: S 8021B

Date Analyzed: 2012-03-23

Sample Preparation: 2012-03-23

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

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	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0881	mg/L	1	0.100	88	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0860	mg/L	1	0.100	86	70 - 130

Sample: 292146 - MW 22

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 89652

Prep Batch: 76103

Analytical Method: S 8021B

Date Analyzed: 2012-03-23

Sample Preparation: 2012-03-23

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

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	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0890	mg/L	1	0.100	89	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0875	mg/L	1	0.100	88	70 - 130

Report Date: March 26, 2012
700376.044.01

Work Order: 12032304
Moore to Jal #1

Page Number: 5 of 9
Lovington, NM

Method Blanks

Method Blank (1) QC Batch: 89652

QC Batch: 89652
Prep Batch: 76103

Date Analyzed: 2012-03-23
QC Preparation: 2012-03-23

Analyzed By: MT
Prepared By: MT

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000310	mg/L	0.001
Toluene		1	<0.000259	mg/L	0.001
Ethylbenzene		1	0.000300	mg/L	0.001
Xylene		1	0.000900	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0891	mg/L	1	0.100	89	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0871	mg/L	1	0.100	87	70 - 130

Report Date: March 26, 2012
700376.044.01

Work Order: 12032304
Moore to Jal #1

Page Number: 6 of 9
Lovington, NM

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 89652
Prep Batch: 76103

Date Analyzed: 2012-03-23
QC Preparation: 2012-03-23

Analyzed By: MT
Prepared By: MT

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0917	mg/L	1	0.100	<0.000310	92	74.2 - 120
Toluene		1	0.0889	mg/L	1	0.100	<0.000259	89	75.8 - 120
Ethylbenzene		1	0.0897	mg/L	1	0.100	0.0003	90	71.8 - 120
Xylene		1	0.270	mg/L	1	0.300	0.0009	90	73.8 - 120

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

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0916	mg/L	1	0.100	<0.000310	92	74.2 - 120	0	20
Toluene		1	0.0892	mg/L	1	0.100	<0.000259	89	75.8 - 120	0	20
Ethylbenzene		1	0.0899	mg/L	1	0.100	0.0003	90	71.8 - 120	0	20
Xylene		1	0.269	mg/L	1	0.300	0.0009	90	73.8 - 120	0	20

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

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0922	0.0919	mg/L	1	0.100	92	92	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0900	0.0901	mg/L	1	0.100	90	90	70 - 130

Matrix Spike (MS-1) Spiked Sample: 292118

QC Batch: 89652
Prep Batch: 76103

Date Analyzed: 2012-03-23
QC Preparation: 2012-03-23

Analyzed By: MT
Prepared By: MT

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0777	mg/L	1	0.100	0.0059	72	47 - 131
Toluene		1	0.0752	mg/L	1	0.100	<0.000259	75	52.2 - 128
Ethylbenzene		1	0.0747	mg/L	1	0.100	<0.000291	74	26.5 - 154
Xylene		1	0.224	mg/L	1	0.300	0.0007	74	50.1 - 130

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

Report Date: March 26, 2012
700376.044.01

Work Order: 12032304
Moore to Jal #1

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Lovington, NM

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0717	mg/L	1	0.100	0.0059	66	47 - 131	8	20
Toluene		1	0.0683	mg/L	1	0.100	<0.000259	68	52.2 - 128	10	20
Ethylbenzene		1	0.0697	mg/L	1	0.100	<0.000291	70	26.5 - 154	7	20
Xylene		1	0.208	mg/L	1	0.300	0.0007	69	50.1 - 130	7	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)	0.0927	0.0905	mg/L	1	0.1	93	90	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0904	0.0899	mg/L	1	0.1	90	90	70 - 130

Report Date: March 26, 2012
700376.044.01

Work Order: 12032304
Moore to Jal #1

Page Number: 8 of 9
Lovington, NM

Calibration Standards

Standard (CCV-2)

QC Batch: 89652

Date Analyzed: 2012-03-23

Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0894	89	80 - 120	2012-03-23
Toluene		1	mg/L	0.100	0.0877	88	80 - 120	2012-03-23
Ethylbenzene		1	mg/L	0.100	0.0884	88	80 - 120	2012-03-23
Xylene		1	mg/L	0.300	0.266	89	80 - 120	2012-03-23

Standard (CCV-3)

QC Batch: 89652

Date Analyzed: 2012-03-23

Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0908	91	80 - 120	2012-03-23
Toluene		1	mg/L	0.100	0.0883	88	80 - 120	2012-03-23
Ethylbenzene		1	mg/L	0.100	0.0884	88	80 - 120	2012-03-23
Xylene		1	mg/L	0.300	0.266	89	80 - 120	2012-03-23

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	T104704219-12-6	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 than 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.
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.

Summary Report

Chris Spore
Talon LPE-Midland
2901 State Highway 349
Midland, TX 79706

Report Date: June 25, 2012

Work Order: 12061803

Project Location: Lovington, NM
Project Name: Moore to Jal #1
Project Number: 700376.044.01
SRS #: 2002-10270

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
301310	MW-14	water	2012-06-15	11:42	2012-06-18
301311	MW-16	water	2012-06-15	11:53	2012-06-18
301312	MW-17	water	2012-06-14	11:08	2012-06-18
301313	MW-18	water	2012-06-14	11:20	2012-06-18
301314	MW-19	water	2012-06-14	10:42	2012-06-18
301315	MW-20	water	2012-06-14	10:25	2012-06-18
301316	MW-21	water	2012-06-14	14:00	2012-06-18
301317	MW-22	water	2012-06-14	13:48	2012-06-18
301318	MW-23	water	2012-06-14	13:35	2012-06-18
301319	MW-26	water	2012-06-14	13:20	2012-06-18
301320	MW-27	water	2012-06-14	14:20	2012-06-18
301321	MW-28	water	2012-06-15	11:30	2012-06-18
301322	MW-29	water	2012-06-15	12:05	2012-06-18
301323	MW-34	water	2012-06-15	10:25	2012-06-18
301324	MW-35	water	2012-06-15	10:52	2012-06-18
301325	MW-36	water	2012-06-15	10:40	2012-06-18

Sample - Field Code	BTEX				MTBE MTBE (mg/L)
	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)	
301310 - MW-14	1.86	0.449	0.0954	0.115	
301311 - MW-16	41.8	3.91	1.52	0.951	
301312 - MW-17	0.0577	0.00510	0.00230	0.00100	
301313 - MW-18	<0.00100	<0.00100 Qs	<0.00100	<0.00100	
301314 - MW-19	<0.00100	<0.00100 Qs	<0.00100	<0.00100	
301315 - MW-20	<0.00100	<0.00100 Qs	<0.00100	<0.00100	
301316 - MW-21	<0.00100	<0.00100 Qs	<0.00100	<0.00100	
301317 - MW-22	<0.00100	<0.00100 Qs	<0.00100	<0.00100	

continued ...

... continued

Sample - Field Code	BTX				MTBE MTBE
	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)	
301318 - MW-23	<0.00100	<0.00100 Qs	<0.00100	<0.00100	
301319 - MW-26	<0.00100	<0.00100 Qs	<0.00100	<0.00100	
301320 - MW-27	<0.00100	<0.00100	<0.00100	<0.00100	
301321 - MW-28	0.541	<0.0500	<0.0500	<0.0500	
301322 - MW-29	41.7	<0.200	1.24	0.564	
301323 - MW-34	<0.00100	<0.00100	<0.00100	<0.00100	
301324 - MW-35	0.00220	0.00180	<0.00100	<0.00100	
301325 - MW-36	<0.00100	<0.00100	<0.00100	<0.00100	



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800-378-1296 806-794-1296 FAX 806-794-1296
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

Chris Spore
Talon LPE-Midland
2901 State Highway 349
Midland, TX, 79706

Report Date: June 25, 2012

Work Order: 12061803



Project Location: Lovington, NM
Project Name: Moore to Jal #1
Project Number: 700376.044.01
SRS #: 2002-10270

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
301310	MW-14	water	2012-06-15	11:42	2012-06-18
301311	MW-16	water	2012-06-15	11:53	2012-06-18
301312	MW-17	water	2012-06-14	11:08	2012-06-18
301313	MW-18	water	2012-06-14	11:20	2012-06-18
301314	MW-19	water	2012-06-14	10:42	2012-06-18
301315	MW-20	water	2012-06-14	10:25	2012-06-18
301316	MW-21	water	2012-06-14	14:00	2012-06-18
301317	MW-22	water	2012-06-14	13:48	2012-06-18
301318	MW-23	water	2012-06-14	13:35	2012-06-18
301319	MW-26	water	2012-06-14	13:20	2012-06-18
301320	MW-27	water	2012-06-14	14:20	2012-06-18
301321	MW-28	water	2012-06-15	11:30	2012-06-18
301322	MW-29	water	2012-06-15	12:05	2012-06-18
301323	MW-34	water	2012-06-15	10:25	2012-06-18
301324	MW-35	water	2012-06-15	10:52	2012-06-18
301325	MW-36	water	2012-06-15	10:40	2012-06-18

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.

This report consists of a total of 26 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

A handwritten signature in black ink that reads "Michael Abel". The signature is written in a cursive, flowing style.

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

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Case Narrative

Samples for project Moore to Jal #1 were received by TraceAnalysis, Inc. on 2012-06-18 and assigned to work order 12061803. Samples for work order 12061803 were received intact without headspace and at a temperature of 2.4 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	78281	2012-06-19 at 14:24	92276	2012-06-19 at 14:24
BTEX	S 8021B	78360	2012-06-21 at 14:39	92385	2012-06-21 at 14:39
BTEX	S 8021B	78361	2012-06-21 at 14:39	92386	2012-06-21 at 14:39
BTEX	S 8021B	78407	2012-06-22 at 16:37	92439	2012-06-22 at 16:37

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 12061803 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.

Report Date: June 25, 2012
700376.044.01

Work Order: 12061803
Moore to Jal #1

Page Number: 6 of 26
Lovington, NM

Analytical Report

Sample: 301310 - MW-14

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 92385

Prep Batch: 78360

Analytical Method: S 8021B

Date Analyzed: 2012-06-21

Sample Preparation: 2012-06-21

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	1.86	mg/L	50	0.00100
Toluene		1	0.449	mg/L	50	0.00100
Ethylbenzene		1	0.0954	mg/L	50	0.00100
Xylene		1	0.115	mg/L	50	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			5.07	mg/L	50	5.00	101	70 - 130
4-Bromofluorobenzene (4-BFB)			4.94	mg/L	50	5.00	99	70 - 130

Sample: 301311 - MW-16

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 92385

Prep Batch: 78360

Analytical Method: S 8021B

Date Analyzed: 2012-06-21

Sample Preparation: 2012-06-21

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	41.8	mg/L	200	0.00100
Toluene		1	3.91	mg/L	200	0.00100
Ethylbenzene		1	1.52	mg/L	200	0.00100
Xylene		1	0.951	mg/L	200	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			19.5	mg/L	200	20.0	98	70 - 130
4-Bromofluorobenzene (4-BFB)			19.4	mg/L	200	20.0	97	70 - 130

Report Date: June 25, 2012
700376.044.01

Work Order: 12061803
Moore to Jal #1

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Lovington, NM

Sample: 301312 - MW-17

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 92385

Prep Batch: 78360

Analytical Method: S 8021B

Date Analyzed: 2012-06-21

Sample Preparation: 2012-06-21

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.0577	mg/L	1	0.00100
Toluene		1	0.00510	mg/L	1	0.00100
Ethylbenzene		1	0.00230	mg/L	1	0.00100
Xylene		1	0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.104	mg/L	1	0.100	104	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0917	mg/L	1	0.100	92	70 - 130

Sample: 301313 - MW-18

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 92276

Prep Batch: 78281

Analytical Method: S 8021B

Date Analyzed: 2012-06-19

Sample Preparation: 2012-06-19

Prep Method: S 5030B

Analyzed By: ZLM

Prepared By: ZLM

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

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)			0.105	mg/L	1	0.100	105	70 - 130

Report Date: June 25, 2012
700376.044.01

Work Order: 12061803
Moore to Jal #1

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Lovington, NM

Sample: 301314 - MW-19

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 92276
Prep Batch: 78281

Analytical Method: S 8021B
Date Analyzed: 2012-06-19
Sample Preparation: 2012-06-19

Prep Method: S 5030B
Analyzed By: ZLM
Prepared By: ZLM

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.106	mg/L	1	0.100	106	70 - 130
4-Bromofluorobenzene (4-BFB)			0.106	mg/L	1	0.100	106	70 - 130

Sample: 301315 - MW-20

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 92276
Prep Batch: 78281

Analytical Method: S 8021B
Date Analyzed: 2012-06-19
Sample Preparation: 2012-06-19

Prep Method: S 5030B
Analyzed By: ZLM
Prepared By: ZLM

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

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)			0.106	mg/L	1	0.100	106	70 - 130

Report Date: June 25, 2012
700376.044.01

Work Order: 12061803
Moore to Jal #1

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Lovington, NM

Sample: 301316 - MW-21

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 92276

Prep Batch: 78281

Analytical Method: S 8021B

Date Analyzed: 2012-06-19

Sample Preparation: 2012-06-19

Prep Method: S 5030B

Analyzed By: ZLM

Prepared By: ZLM

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

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)			0.105	mg/L	1	0.100	105	70 - 130

Sample: 301317 - MW-22

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 92276

Prep Batch: 78281

Analytical Method: S 8021B

Date Analyzed: 2012-06-19

Sample Preparation: 2012-06-19

Prep Method: S 5030B

Analyzed By: ZLM

Prepared By: ZLM

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.104	mg/L	1	0.100	104	70 - 130
4-Bromofluorobenzene (4-BFB)			0.105	mg/L	1	0.100	105	70 - 130

Report Date: June 25, 2012
700376.044.01

Work Order: 12061803
Moore to Jal #1

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Lovington, NM

Sample: 301318 - MW-23

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 92276
Prep Batch: 78281

Analytical Method: S 8021B
Date Analyzed: 2012-06-19
Sample Preparation: 2012-06-19

Prep Method: S 5030B
Analyzed By: ZLM
Prepared By: ZLM

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.104	mg/L	1	0.100	104	70 - 130
4-Bromofluorobenzene (4-BFB)			0.105	mg/L	1	0.100	105	70 - 130

Sample: 301319 - MW-26

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 92276
Prep Batch: 78281

Analytical Method: S 8021B
Date Analyzed: 2012-06-19
Sample Preparation: 2012-06-19

Prep Method: S 5030B
Analyzed By: ZLM
Prepared By: ZLM

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.104	mg/L	1	0.100	104	70 - 130
4-Bromofluorobenzene (4-BFB)			0.105	mg/L	1	0.100	105	70 - 130

Report Date: June 25, 2012
700376.044.01

Work Order: 12061803
Moore to Jal #1

Page Number: 11 of 26
Lovington, NM

Sample: 301320 - MW-27

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 92385

Prep Batch: 78360

Analytical Method: S 8021B

Date Analyzed: 2012-06-21

Sample Preparation: 2012-06-21

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

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	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.103	mg/L	1	0.100	103	70 - 130
4-Bromofluorobenzene (4-BFB)			0.101	mg/L	1	0.100	101	70 - 130

Sample: 301321 - MW-28

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 92439

Prep Batch: 78407

Analytical Method: S 8021B

Date Analyzed: 2012-06-22

Sample Preparation: 2012-06-22

Prep Method: S 5030B

Analyzed By: ZLM

Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.541	mg/L	50	0.00100
Toluene	U	1	<0.0500	mg/L	50	0.00100
Ethylbenzene	U	1	<0.0500	mg/L	50	0.00100
Xylene	U	1	<0.0500	mg/L	50	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			4.90	mg/L	50	5.00	98	70 - 130
4-Bromofluorobenzene (4-BFB)			4.79	mg/L	50	5.00	96	70 - 130

Report Date: June 25, 2012
700376.044.01

Work Order: 12061803
Moore to Cal #1

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Lovington, NM

Sample: 301322 - MW-29

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 92439
Prep Batch: 78407

Analytical Method: S 8021B
Date Analyzed: 2012-06-22
Sample Preparation: 2012-06-22

Prep Method: S 5030B
Analyzed By: ZLM
Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	41.7	mg/L	200	0.00100
Toluene	u	1	<0.200	mg/L	200	0.00100
Ethylbenzene		1	1.24	mg/L	200	0.00100
Xylene		1	0.564	mg/L	200	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			18.3	mg/L	200	20.0	92	70 - 130
4-Bromofluorobenzene (4-BFB)			18.8	mg/L	200	20.0	94	70 - 130

Sample: 301323 - MW-34

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 92439
Prep Batch: 78407

Analytical Method: S 8021B
Date Analyzed: 2012-06-22
Sample Preparation: 2012-06-22

Prep Method: S 5030B
Analyzed By: ZLM
Prepared By: ZLM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		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	<0.00100	mg/L	1	0.00100

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)			0.0929	mg/L	1	0.100	93	70 - 130

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Sample: 301324 - MW-35

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 92386
Prep Batch: 78361

Analytical Method: S 8021B
Date Analyzed: 2012-06-21
Sample Preparation: 2012-06-21

Prep Method: S 5030B
Analyzed By: MT
Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.00220	mg/L	1	0.00100
Toluene		1	0.00180	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene		1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0949	mg/L	1	0.100	95	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0961	mg/L	1	0.100	96	70 - 130

Sample: 301325 - MW-36

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 92386
Prep Batch: 78361

Analytical Method: S 8021B
Date Analyzed: 2012-06-21
Sample Preparation: 2012-06-21

Prep Method: S 5030B
Analyzed By: MT
Prepared By: MT

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	<0.00100	mg/L	1	0.00100

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)			0.0978	mg/L	1	0.100	98	70 - 130

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Method Blanks

Method Blank (1) QC Batch: 92276

QC Batch: 92276
Prep Batch: 78281

Date Analyzed: 2012-06-19
QC Preparation: 2012-06-19

Analyzed By: ZLM
Prepared By: ZLM

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000371	mg/L	0.001
Toluene		1	<0.000347	mg/L	0.001
Ethylbenzene		1	<0.000326	mg/L	0.001
Xylene		1	<0.000357	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.101	mg/L	1	0.100	101	70 - 130
4-Bromofluorobenzene (4-BFB)			0.103	mg/L	1	0.100	103	70 - 130

Method Blank (1) QC Batch: 92385

QC Batch: 92385
Prep Batch: 78360

Date Analyzed: 2012-06-21
QC Preparation: 2012-06-21

Analyzed By: MT
Prepared By: MT

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000371	mg/L	0.001
Toluene		1	<0.000347	mg/L	0.001
Ethylbenzene		1	<0.000326	mg/L	0.001
Xylene		1	<0.000357	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.104	mg/L	1	0.100	104	70 - 130
4-Bromofluorobenzene (4-BFB)			0.105	mg/L	1	0.100	105	70 - 130

Method Blank (1) QC Batch: 92386

QC Batch: 92386
Prep Batch: 78361

Date Analyzed: 2012-06-21
QC Preparation: 2012-06-21

Analyzed By: MT
Prepared By: MT

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Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000371	mg/L	0.001
Toluene		1	<0.000347	mg/L	0.001
Ethylbenzene		1	<0.000326	mg/L	0.001
Xylene		1	<0.000357	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.102	mg/L	1	0.100	102	70 - 130
4-Bromofluorobenzene (4-BFB)			0.103	mg/L	1	0.100	103	70 - 130

Method Blank (1) QC Batch: 92439

QC Batch: 92439
Prep Batch: 78407

Date Analyzed: 2012-06-22
QC Preparation: 2012-06-22

Analyzed By: ZLM
Prepared By: ZLM

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000371	mg/L	0.001
Toluene		1	<0.000347	mg/L	0.001
Ethylbenzene		1	<0.000326	mg/L	0.001
Xylene		1	<0.000357	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0928	mg/L	1	0.100	93	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0926	mg/L	1	0.100	93	70 - 130

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Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 92276
Prep Batch: 78281

Date Analyzed: 2012-06-19
QC Preparation: 2012-06-19

Analyzed By: ZLM
Prepared By: ZLM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.100	mg/L	1	0.100	<0.000371	100	78.6 - 120
Toluene		1	0.0983	mg/L	1	0.100	<0.000347	98	79.6 - 120
Ethylbenzene		1	0.0981	mg/L	1	0.100	<0.000326	98	80 - 120
Xylene		1	0.283	mg/L	1	0.300	<0.000357	94	79.3 - 120

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

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0985	mg/L	1	0.100	<0.000371	98	78.6 - 120	2	20
Toluene		1	0.0971	mg/L	1	0.100	<0.000347	97	79.6 - 120	1	20
Ethylbenzene		1	0.0967	mg/L	1	0.100	<0.000326	97	80 - 120	1	20
Xylene		1	0.279	mg/L	1	0.300	<0.000357	93	79.3 - 120	1	20

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

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0969	0.0966	mg/L	1	0.100	97	97	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0952	0.0944	mg/L	1	0.100	95	94	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 92385
Prep Batch: 78360

Date Analyzed: 2012-06-21
QC Preparation: 2012-06-21

Analyzed By: MT
Prepared By: MT

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.101	mg/L	1	0.100	<0.000371	101	78.6 - 120
Toluene		1	0.100	mg/L	1	0.100	<0.000347	100	79.6 - 120
Ethylbenzene		1	0.100	mg/L	1	0.100	<0.000326	100	80 - 120
Xylene		1	0.290	mg/L	1	0.300	<0.000357	97	79.3 - 120

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

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Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.103	mg/L	1	0.100	<0.000371	103	78.6 - 120	2	20
Toluene		1	0.102	mg/L	1	0.100	<0.000347	102	79.6 - 120	2	20
Ethylbenzene		1	0.101	mg/L	1	0.100	<0.000326	101	80 - 120	1	20
Xylene		1	0.290	mg/L	1	0.300	<0.000357	97	79.3 - 120	0	20

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

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0985	0.101	mg/L	1	0.100	98	101	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0979	0.0991	mg/L	1	0.100	98	99	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 92386
Prep Batch: 78361

Date Analyzed: 2012-06-21
QC Preparation: 2012-06-21

Analyzed By: MT
Prepared By: MT

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0971	mg/L	1	0.100	<0.000371	97	78.6 - 120
Toluene		1	0.0949	mg/L	1	0.100	<0.000347	95	79.6 - 120
Ethylbenzene		1	0.0955	mg/L	1	0.100	<0.000326	96	80 - 120
Xylene		1	0.281	mg/L	1	0.300	<0.000357	94	79.3 - 120

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

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0976	mg/L	1	0.100	<0.000371	98	78.6 - 120	0	20
Toluene		1	0.0948	mg/L	1	0.100	<0.000347	95	79.6 - 120	0	20
Ethylbenzene		1	0.0980	mg/L	1	0.100	<0.000326	98	80 - 120	3	20
Xylene		1	0.287	mg/L	1	0.300	<0.000357	96	79.3 - 120	2	20

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

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0989	0.0977	mg/L	1	0.100	99	98	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0970	0.0940	mg/L	1	0.100	97	94	70 - 130

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Laboratory Control Spike (LCS-1)

QC Batch: 92439
Prep Batch: 78407

Date Analyzed: 2012-06-22
QC Preparation: 2012-06-22

Analyzed By: ZLM
Prepared By: ZLM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0888	mg/L	1	0.100	<0.000371	89	78.6 - 120
Toluene		1	0.0857	mg/L	1	0.100	<0.000347	86	79.6 - 120
Ethylbenzene		1	0.0853	mg/L	1	0.100	<0.000326	85	80 - 120
Xylene		1	0.253	mg/L	1	0.300	<0.000357	84	79.3 - 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	0.0914	mg/L	1	0.100	<0.000371	91	78.6 - 120	3	20
Toluene		1	0.0887	mg/L	1	0.100	<0.000347	89	79.6 - 120	3	20
Ethylbenzene		1	0.0888	mg/L	1	0.100	<0.000326	89	80 - 120	4	20
Xylene		1	0.262	mg/L	1	0.300	<0.000357	87	79.3 - 120	4	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)	0.0915	0.0934	mg/L	1	0.100	92	93	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0870	0.0890	mg/L	1	0.100	87	89	70 - 130

Matrix Spike (MS-1) Spiked Sample: 301310

QC Batch: 92276
Prep Batch: 78281

Date Analyzed: 2012-06-19
QC Preparation: 2012-06-19

Analyzed By: ZLM
Prepared By: ZLM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	1.43	mg/L	1	0.100	1.37287	57	42.2 - 136
Toluene	Qs	Qs	0.729	mg/L	1	0.100	0.5648	164	44.3 - 133
Ethylbenzene		1	0.239	mg/L	1	0.100	0.1363	103	45.6 - 132
Xylene		1	0.473	mg/L	1	0.300	0.1856	96	44.7 - 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	1.47	mg/L	1	0.100	1.37287	97	42.2 - 136	3	20
Toluene	Qs	Qs	0.769	mg/L	1	0.100	0.5648	204	44.3 - 133	5	20

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Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Ethylbenzene		1	0.250	mg/L	1	0.100	0.1363	114	45.6 - 132	4	20
Xylene		1	0.489	mg/L	1	0.300	0.1856	101	44.7 - 128	3	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)	0.0913	0.0939	mg/L	1	0.1	91	94	70 - 130
4-Bromofluorobenzene (4-BFB)	0.107	0.106	mg/L	1	0.1	107	106	70 - 130

Matrix Spike (MS-1) Spiked Sample: 301234

QC Batch: 92385
Prep Batch: 78360

Date Analyzed: 2012-06-21
QC Preparation: 2012-06-21

Analyzed By: MT
Prepared By: MT

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.103	mg/L	1	0.100	<0.000371	103	42.2 - 136
Toluene		1	0.101	mg/L	1	0.100	<0.000347	101	44.3 - 133
Ethylbenzene		1	0.100	mg/L	1	0.100	<0.000326	100	45.6 - 132
Xylene		1	0.288	mg/L	1	0.300	<0.000357	96	44.7 - 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	0.101	mg/L	1	0.100	<0.000371	101	42.2 - 136	2	20
Toluene		1	0.0994	mg/L	1	0.100	<0.000347	99	44.3 - 133	2	20
Ethylbenzene		1	0.0982	mg/L	1	0.100	<0.000326	98	45.6 - 132	2	20
Xylene		1	0.284	mg/L	1	0.300	<0.000357	95	44.7 - 128	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)	0.0995	0.0993	mg/L	1	0.1	100	99	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0982	0.0970	mg/L	1	0.1	98	97	70 - 130

Matrix Spike (MS-1) Spiked Sample: 301560

QC Batch: 92386
Prep Batch: 78361

Date Analyzed: 2012-06-21
QC Preparation: 2012-06-21

Analyzed By: MT
Prepared By: MT

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Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0937	mg/L	1	0.100	<0.000371	94	42.2 - 136
Toluene		1	0.0904	mg/L	1	0.100	<0.000347	90	44.3 - 133
Ethylbenzene		1	0.0918	mg/L	1	0.100	<0.000326	92	45.6 - 132
Xylene		1	0.270	mg/L	1	0.300	<0.000357	90	44.7 - 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	0.0897	mg/L	1	0.100	<0.000371	90	42.2 - 136	4	20
Toluene		1	0.0855	mg/L	1	0.100	<0.000347	86	44.3 - 133	6	20
Ethylbenzene		1	0.0885	mg/L	1	0.100	<0.000326	88	45.6 - 132	4	20
Xylene		1	0.260	mg/L	1	0.300	<0.000357	87	44.7 - 128	4	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)	0.0939	0.0911	mg/L	1	0.1	94	91	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0944	0.0925	mg/L	1	0.1	94	92	70 - 130

Matrix Spike (MS-1) Spiked Sample: 301688

QC Batch: 92439
Prep Batch: 78407

Date Analyzed: 2012-06-22
QC Preparation: 2012-06-22

Analyzed By: ZLM
Prepared By: ZLM

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0924	mg/L	1	0.100	<0.000371	92	42.2 - 136
Toluene		1	0.0885	mg/L	1	0.100	<0.000347	88	44.3 - 133
Ethylbenzene		1	0.0907	mg/L	1	0.100	<0.000326	91	45.6 - 132
Xylene		1	0.263	mg/L	1	0.300	<0.000357	88	44.7 - 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	0.0848	mg/L	1	0.100	<0.000371	85	42.2 - 136	9	20
Toluene		1	0.0803	mg/L	1	0.100	<0.000347	80	44.3 - 133	10	20
Ethylbenzene		1	0.0805	mg/L	1	0.100	<0.000326	80	45.6 - 132	12	20
Xylene		1	0.238	mg/L	1	0.300	<0.000357	79	44.7 - 128	10	20

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

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Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0916	0.0881	mg/L	1	0.1	92	88	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0867	0.0831	mg/L	1	0.1	87	83	70 - 130

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Calibration Standards

Standard (CCV-1)

QC Batch: 92276

Date Analyzed: 2012-06-19

Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0966	97	80 - 120	2012-06-19
Toluene		1	mg/L	0.100	0.0958	96	80 - 120	2012-06-19
Ethylbenzene		1	mg/L	0.100	0.0957	96	80 - 120	2012-06-19
Xylene		1	mg/L	0.300	0.276	92	80 - 120	2012-06-19

Standard (CCV-2)

QC Batch: 92276

Date Analyzed: 2012-06-19

Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.101	101	80 - 120	2012-06-19
Toluene		1	mg/L	0.100	0.0995	100	80 - 120	2012-06-19
Ethylbenzene		1	mg/L	0.100	0.0995	100	80 - 120	2012-06-19
Xylene		1	mg/L	0.300	0.284	95	80 - 120	2012-06-19

Standard (CCV-3)

QC Batch: 92276

Date Analyzed: 2012-06-19

Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.100	100	80 - 120	2012-06-19
Toluene		1	mg/L	0.100	0.0992	99	80 - 120	2012-06-19
Ethylbenzene		1	mg/L	0.100	0.0995	100	80 - 120	2012-06-19
Xylene		1	mg/L	0.300	0.287	96	80 - 120	2012-06-19

Report Date: June 25, 2012
700376.044.01

Work Order: 12061803
Moore to Jal #1

Page Number: 23 of 26
Lovington, NM

Standard (CCV-1)

QC Batch: 92385

Date Analyzed: 2012-06-21

Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.101	101	80 - 120	2012-06-21
Toluene		1	mg/L	0.100	0.100	100	80 - 120	2012-06-21
Ethylbenzene		1	mg/L	0.100	0.0994	99	80 - 120	2012-06-21
Xylene		1	mg/L	0.300	0.289	96	80 - 120	2012-06-21

Standard (CCV-2)

QC Batch: 92385

Date Analyzed: 2012-06-21

Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0999	100	80 - 120	2012-06-21
Toluene		1	mg/L	0.100	0.0994	99	80 - 120	2012-06-21
Ethylbenzene		1	mg/L	0.100	0.0979	98	80 - 120	2012-06-21
Xylene		1	mg/L	0.300	0.281	94	80 - 120	2012-06-21

Standard (CCV-3)

QC Batch: 92385

Date Analyzed: 2012-06-21

Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0988	99	80 - 120	2012-06-21
Toluene		1	mg/L	0.100	0.0966	97	80 - 120	2012-06-21
Ethylbenzene		1	mg/L	0.100	0.0955	96	80 - 120	2012-06-21
Xylene		1	mg/L	0.300	0.276	92	80 - 120	2012-06-21

Standard (CCV-1)

QC Batch: 92386

Date Analyzed: 2012-06-21

Analyzed By: MT

Report Date: June 25, 2012
700376.044.01

Work Order: 12061803
Moore to Jal #1

Page Number: 24 of 26
Lovington, NM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0961	96	80 - 120	2012-06-21
Toluene		1	mg/L	0.100	0.0920	92	80 - 120	2012-06-21
Ethylbenzene		1	mg/L	0.100	0.0934	93	80 - 120	2012-06-21
Xylene		1	mg/L	0.300	0.275	92	80 - 120	2012-06-21

Standard (CCV-2)

QC Batch: 92386

Date Analyzed: 2012-06-21

Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0935	94	80 - 120	2012-06-21
Toluene		1	mg/L	0.100	0.0904	90	80 - 120	2012-06-21
Ethylbenzene		1	mg/L	0.100	0.0905	90	80 - 120	2012-06-21
Xylene		1	mg/L	0.300	0.267	89	80 - 120	2012-06-21

Standard (CCV-3)

QC Batch: 92386

Date Analyzed: 2012-06-21

Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0935	94	80 - 120	2012-06-21
Toluene		1	mg/L	0.100	0.0903	90	80 - 120	2012-06-21
Ethylbenzene		1	mg/L	0.100	0.0889	89	80 - 120	2012-06-21
Xylene		1	mg/L	0.300	0.263	88	80 - 120	2012-06-21

Standard (CCV-1)

QC Batch: 92439

Date Analyzed: 2012-06-22

Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0880	88	80 - 120	2012-06-22

continued ...

Report Date: June 25, 2012
700376.044.01

Work Order: 12061803
Moore to Jal #1

Page Number: 25 of 26
Lovington, NM

standard continued ...

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Toluene		1	mg/L	0.100	0.0842	84	80 - 120	2012-06-22
Ethylbenzene		1	mg/L	0.100	0.0839	84	80 - 120	2012-06-22
Xylene		1	mg/L	0.300	0.249	83	80 - 120	2012-06-22

Standard (CCV-2)

QC Batch: 92439

Date Analyzed: 2012-06-22

Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0896	90	80 - 120	2012-06-22
Toluene		1	mg/L	0.100	0.0848	85	80 - 120	2012-06-22
Ethylbenzene		1	mg/L	0.100	0.0852	85	80 - 120	2012-06-22
Xylene		1	mg/L	0.300	0.250	83	80 - 120	2012-06-22

Standard (CCV-3)

QC Batch: 92439

Date Analyzed: 2012-06-22

Analyzed By: ZLM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0926	93	80 - 120	2012-06-22
Toluene		1	mg/L	0.100	0.0873	87	80 - 120	2012-06-22
Ethylbenzene		1	mg/L	0.100	0.0860	86	80 - 120	2012-06-22
Xylene		1	mg/L	0.300	0.253	84	80 - 120	2012-06-22

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
SQL	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	T104704219-12-8	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 SQL. Sample contains less than 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.
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.

TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

5002 Basin Street, Suite A1
Midland, Texas 79703
Tel (432) 689-6301
Fax (432) 689-6313

200 East Sunset Rd., Suite E
El Paso, Texas 79922
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

Company Name: Talon LPE		Phone #: _____	
Address: (Street, City, Zip) 2101 State Hwy 349 79706		Fax #: _____	
Contact Person: Chris Spore		E-mail: cspore@talonlpe.com	
Invoice to: (If different from above) 2002-10270		Project Name: Salt Hill	
Project #: 700376.044.01		Sampler Signature: [Signature]	
Project Location (Including state): Hobbs NM			

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX			PRESERVATIVE METHOD					SAMPLING		
				WATER	SOIL	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE	NONE	DATE
3010	MW 14	3	402	X				X				X	6-15-12	1142
311	MW 16												6-15-12	1153
312	MW 17												6-15-12	1106
313	MW 18												6-15-12	1120
314	MW 19												6-15-12	1042
315	MW 20												6-15-12	1025
316	MW 21												6-15-12	1400
317	MW 22												6-15-12	1349
318	MW 23												6-15-12	1335
319	MW 26												6-15-12	1320
320	MW 27												6-15-12	1420

Relinquished by: [Signature]	Company: Talon LPE	Date: 6-15-12	Time: 4:27
Relinquished by:	Company:	Date:	Time:
Relinquished by:	Company:	Date:	Time:

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

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Carrier #

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Fax (806) 794-1298
1 (800) 378-1296

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Midland, Texas 79703
Tel (432) 689-6301
Fax (432) 689-6313

200 East Sunset Rd., Suite E
El Paso, Texas 79922
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

email: lab@traceanalysis.com

Ta	ou	LPE
----	----	-----

Phone #:

(Street, City, Zip)

Fax #:

Ch₁3 spore

E-mail:

Invoice to:
(If different from above) 2002-10270

100376,044,01

Project Name: 121

Sampler Signature: Prison

Sampler Signature:[illegible]

LAB USE ONLY	REMARKS:
☐ C ☒ N ☐ C ☒ N ☐ C ☒ N ☐ C ☒ N Initials <u>YN</u> Headspace <u>Y/N</u> NA Log-in-Review <u>[Signature]</u>	Dry Weight Basis Required TRRP Report Required Check If Special Reporting Limits Are Needed <i>m ice!</i>

Carrier #

ORIGINAL COPY

Summary Report

Chris Spore
Talon LPE-Midland
2901 State Highway 349
Midland, TX 79706

Report Date: October 3, 2012

Work Order: 12092824

Project Location: Lovington, NM
Project Name: Moore to Jal #1
Project Number: 700376.044.01
SRS #: 2002-10270

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
310487	MW-14	water	2012-09-27	13:15	2012-09-28
310488	MW-17	water	2012-09-26	10:15	2012-09-28
310489	MW-18	water	2012-09-26	09:40	2012-09-28
310490	MW-19	water	2012-09-26	10:30	2012-09-28
310491	MW-20	water	2012-09-26	10:50	2012-09-28
310492	MW-21	water	2012-09-26	10:25	2012-09-28
310493	MW-22	water	2012-09-26	09:50	2012-09-28
310494	MW-23	water	2012-09-26	10:00	2012-09-28
310495	MW-26	water	2012-09-26	10:40	2012-09-28
310496	MW-27	water	2012-09-26	10:45	2012-09-28
310497	MW-28	water	2012-09-27	11:10	2012-09-28
310498	MW-29	water	2012-09-27	14:15	2012-09-28
310499	MW-34	water	2012-09-26	13:40	2012-09-28
310500	MW-35	water	2012-09-26	13:55	2012-09-28
310501	MW-36	water	2012-09-26	13:30	2012-09-28

Sample - Field Code	BTEX				MTBE MTBE (mg/L)
	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)	
310487 - MW-14	1.04	0.198	0.0632	0.0875	
310488 - MW-17	<0.00100	<0.00100	<0.00100	<0.00100	
310489 - MW-18	<0.00100	<0.00100	<0.00100	<0.00100	
310490 - MW-19	<0.00100	<0.00100	<0.00100	<0.00100	
310491 - MW-20	<0.00100	<0.00100	<0.00100	<0.00100	
310492 - MW-21	<0.00100	<0.00100	<0.00100	<0.00100	
310493 - MW-22	<0.00100	<0.00100	<0.00100	<0.00100	
310494 - MW-23	<0.00100	<0.00100	<0.00100	<0.00100	
310495 - MW-26	<0.00100	<0.00100	<0.00100	<0.00100	

continued ...

... continued

Sample - Field Code	BTX				MTBE MTBE
	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)	
310496 - MW-27	<0.00100	<0.00100	<0.00100	<0.00100	
310497 - MW-28	2.11	<0.0100	<0.0100	0.0659	
310498 - MW-29	40.3	0.292	1.61	1.10	
310499 - MW-34	0.00240	<0.00100	<0.00100	<0.00100	
310500 - MW-35	0.00460	0.00450	<0.00100	<0.00100	
310501 - MW-36	<0.00100	<0.00100	<0.00100	<0.00100	



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800-378-1296 806-794-1296 FAX 806-794-1296
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

Chris Spore
Talon LPE-Midland
2901 State Highway 349
Midland, TX, 79706

Report Date: October 3, 2012

Work Order: 12092824



Project Location: Lovington, NM
Project Name: Moore to Jal #1
Project Number: 700376.044.01
SRS #: 2002-10270

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
310487	MW-14	water	2012-09-27	13:15	2012-09-28
310488	MW-17	water	2012-09-26	10:15	2012-09-28
310489	MW-18	water	2012-09-26	09:40	2012-09-28
310490	MW-19	water	2012-09-26	10:30	2012-09-28
310491	MW-20	water	2012-09-26	10:50	2012-09-28
310492	MW-21	water	2012-09-26	10:25	2012-09-28
310493	MW-22	water	2012-09-26	09:50	2012-09-28
310494	MW-23	water	2012-09-26	10:00	2012-09-28
310495	MW-26	water	2012-09-26	10:40	2012-09-28
310496	MW-27	water	2012-09-26	10:45	2012-09-28
310497	MW-28	water	2012-09-27	11:10	2012-09-28
310498	MW-29	water	2012-09-27	14:15	2012-09-28
310499	MW-34	water	2012-09-26	13:40	2012-09-28
310500	MW-35	water	2012-09-26	13:55	2012-09-28
310501	MW-36	water	2012-09-26	13:30	2012-09-28

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.

This report consists of a total of 19 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

A handwritten signature in black ink that reads "Michael Abel". The signature is written in a cursive style with a large, stylized 'M' and 'A'.

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

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Case Narrative

Samples for project Moore to Jal #1 were received by TraceAnalysis, Inc. on 2012-09-28 and assigned to work order 12092824. Samples for work order 12092824 were received intact without headspace and at a temperature of 5.3 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	80800	2012-10-01 at 13:50	95349	2012-10-01 at 13:50
BTEX	S 8021B	80822	2012-10-02 at 11:50	95382	2012-10-02 at 11:50

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 12092824 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.

Report Date: October 3, 2012
700376.044.01

Work Order: 12092824
Moore to Jal #1

Page Number: 5 of 19
Lovington, NM

Analytical Report

Sample: 310487 - MW-14

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 95382

Prep Batch: 80822

Analytical Method: S 8021B

Date Analyzed: 2012-10-02

Sample Preparation: 2012-10-02

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	1.04	mg/L	10	0.00100
Toluene		1	0.198	mg/L	10	0.00100
Ethylbenzene		1	0.0632	mg/L	10	0.00100
Xylene	B	1	0.0875	mg/L	10	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.952	mg/L	10	1.00	95	70 - 130
4-Bromofluorobenzene (4-BFB)			1.01	mg/L	10	1.00	101	70 - 130

Sample: 310488 - MW-17

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 95349

Prep Batch: 80800

Analytical Method: S 8021B

Date Analyzed: 2012-10-01

Sample Preparation: 2012-10-01

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

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	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0906	mg/L	1	0.100	91	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0999	mg/L	1	0.100	100	70 - 130

Report Date: October 3, 2012
700376.044.01

Work Order: 12092824
Moore to Jal #1

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Lovington, NM

Sample: 310489 - MW-18

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 95349
Prep Batch: 80800

Analytical Method: S 8021B
Date Analyzed: 2012-10-01
Sample Preparation: 2012-10-01

Prep Method: S 5030B
Analyzed By: MT
Prepared By: MT

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	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0922	mg/L	1	0.100	92	70 - 130
4-Bromofluorobenzene (4-BFB)			0.101	mg/L	1	0.100	101	70 - 130

Sample: 310490 - MW-19

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 95349
Prep Batch: 80800

Analytical Method: S 8021B
Date Analyzed: 2012-10-01
Sample Preparation: 2012-10-01

Prep Method: S 5030B
Analyzed By: MT
Prepared By: MT

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	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0926	mg/L	1	0.100	93	70 - 130
4-Bromofluorobenzene (4-BFB)			0.102	mg/L	1	0.100	102	70 - 130

Report Date: October 3, 2012
700376.044.01

Work Order: 12092824
Moore to Jal #1

Page Number: 7 of 19
Lovington, NM

Sample: 310491 - MW-20

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 95349
Prep Batch: 80800

Analytical Method: S 8021B
Date Analyzed: 2012-10-01
Sample Preparation: 2012-10-01

Prep Method: S 5030B
Analyzed By: MT
Prepared By: MT

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	<0.00100	mg/L	1	0.00100

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)			0.102	mg/L	1	0.100	102	70 - 130

Sample: 310492 - MW-21

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 95349
Prep Batch: 80800

Analytical Method: S 8021B
Date Analyzed: 2012-10-01
Sample Preparation: 2012-10-01

Prep Method: S 5030B
Analyzed By: MT
Prepared By: MT

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	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0916	mg/L	1	0.100	92	70 - 130
4-Bromofluorobenzene (4-BFB)			0.102	mg/L	1	0.100	102	70 - 130

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Moore to Jal #1

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Sample: 310493 - MW-22

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 95349
Prep Batch: 80800

Analytical Method: S 8021B
Date Analyzed: 2012-10-01
Sample Preparation: 2012-10-01

Prep Method: S 5030B
Analyzed By: MT
Prepared By: MT

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	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0928	mg/L	1	0.100	93	70 - 130
4-Bromofluorobenzene (4-BFB)			0.102	mg/L	1	0.100	102	70 - 130

Sample: 310494 - MW-23

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 95349
Prep Batch: 80800

Analytical Method: S 8021B
Date Analyzed: 2012-10-01
Sample Preparation: 2012-10-01

Prep Method: S 5030B
Analyzed By: MT
Prepared By: MT

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	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0931	mg/L	1	0.100	93	70 - 130
4-Bromofluorobenzene (4-BFB)			0.103	mg/L	1	0.100	103	70 - 130

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Sample: 310495 - MW-26

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 95349

Prep Batch: 80800

Analytical Method: S 8021B

Date Analyzed: 2012-10-01

Sample Preparation: 2012-10-01

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

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	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0924	mg/L	1	0.100	92	70 - 130
4-Bromofluorobenzene (4-BFB)			0.102	mg/L	1	0.100	102	70 - 130

Sample: 310496 - MW-27

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 95349

Prep Batch: 80800

Analytical Method: S 8021B

Date Analyzed: 2012-10-01

Sample Preparation: 2012-10-01

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

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	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0907	mg/L	1	0.100	91	70 - 130
4-Bromofluorobenzene (4-BFB)			0.100	mg/L	1	0.100	100	70 - 130

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Sample: 310497 - MW-28

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 95382

Prep Batch: 80822

Analytical Method: S 8021B

Date Analyzed: 2012-10-02

Sample Preparation: 2012-10-02

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	2.11	mg/L	10	0.00100
Toluene	U	1	<0.0100	mg/L	10	0.00100
Ethylbenzene	JB	1	<0.0100	mg/L	10	0.00100
Xylene	B	1	0.0659	mg/L	10	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.03	mg/L	10	1.00	103	70 - 130
4-Bromofluorobenzene (4-BFB)			0.992	mg/L	10	1.00	99	70 - 130

Sample: 310498 - MW-29

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 95382

Prep Batch: 80822

Analytical Method: S 8021B

Date Analyzed: 2012-10-02

Sample Preparation: 2012-10-02

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	40.3	mg/L	200	0.00100
Toluene	B	1	0.292	mg/L	200	0.00100
Ethylbenzene		1	1.61	mg/L	200	0.00100
Xylene	B	1	1.10	mg/L	200	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			19.2	mg/L	200	20.0	96	70 - 130
4-Bromofluorobenzene (4-BFB)			20.2	mg/L	200	20.0	101	70 - 130

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Sample: 310499 - MW-34

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 95382
Prep Batch: 80822

Analytical Method: S 8021B
Date Analyzed: 2012-10-02
Sample Preparation: 2012-10-02

Prep Method: S 5030B
Analyzed By: MT
Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.00240	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	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0981	mg/L	1	0.100	98	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0980	mg/L	1	0.100	98	70 - 130

Sample: 310500 - MW-35

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 95349
Prep Batch: 80800

Analytical Method: S 8021B
Date Analyzed: 2012-10-01
Sample Preparation: 2012-10-01

Prep Method: S 5030B
Analyzed By: MT
Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.00460	mg/L	1	0.00100
Toluene		1	0.00450	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0967	mg/L	1	0.100	97	70 - 130
4-Bromofluorobenzene (4-BFB)			0.100	mg/L	1	0.100	100	70 - 130

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Sample: 310501 - MW-36

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 95349

Prep Batch: 80800

Analytical Method: S 8021B

Date Analyzed: 2012-10-01

Sample Preparation: 2012-10-01

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

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	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0916	mg/L	1	0.100	92	70 - 130
4-Bromofluorobenzene (4-BFB)			0.101	mg/L	1	0.100	101	70 - 130

Method Blanks

Method Blank (1) QC Batch: 95349

QC Batch: 95349
Prep Batch: 80800

Date Analyzed: 2012-10-01
QC Preparation: 2012-10-01

Analyzed By: MT
Prepared By: MT

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000371	mg/L	0.001
Toluene		1	<0.000347	mg/L	0.001
Ethylbenzene		1	<0.000326	mg/L	0.001
Xylene		1	<0.000357	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0923	mg/L	1	0.100	92	70 - 130
4-Bromofluorobenzene (4-BFB)			0.101	mg/L	1	0.100	101	70 - 130

Method Blank (1) QC Batch: 95382

QC Batch: 95382
Prep Batch: 80822

Date Analyzed: 2012-10-02
QC Preparation: 2012-10-02

Analyzed By: MT
Prepared By: MT

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000310	mg/L	0.001
Toluene		1	0.000300	mg/L	0.001
Ethylbenzene		1	0.000300	mg/L	0.001
Xylene		1	0.000900	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0972	mg/L	1	0.100	97	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0989	mg/L	1	0.100	99	70 - 130

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Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 95349
Prep Batch: 80800

Date Analyzed: 2012-10-01
QC Preparation: 2012-10-01

Analyzed By: MT
Prepared By: MT

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0931	mg/L	1	0.100	<0.000371	93	78.6 - 120
Toluene		1	0.0974	mg/L	1	0.100	<0.000347	97	79.6 - 120
Ethylbenzene		1	0.100	mg/L	1	0.100	<0.000326	100	80 - 120
Xylene		1	0.298	mg/L	1	0.300	<0.000357	99	79.3 - 120

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

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0916	mg/L	1	0.100	<0.000371	92	78.6 - 120	2	20
Toluene		1	0.0951	mg/L	1	0.100	<0.000347	95	79.6 - 120	2	20
Ethylbenzene		1	0.0991	mg/L	1	0.100	<0.000326	99	80 - 120	1	20
Xylene		1	0.292	mg/L	1	0.300	<0.000357	97	79.3 - 120	2	20

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

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0888	0.0884	mg/L	1	0.100	89	88	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0941	0.0928	mg/L	1	0.100	94	93	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 95382
Prep Batch: 80822

Date Analyzed: 2012-10-02
QC Preparation: 2012-10-02

Analyzed By: MT
Prepared By: MT

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0935	mg/L	1	0.100	<0.000310	94	74.2 - 120
Toluene		1	0.0988	mg/L	1	0.100	0.0003	98	75.8 - 120
Ethylbenzene		1	0.0980	mg/L	1	0.100	0.0003	98	71.8 - 120
Xylene		1	0.303	mg/L	1	0.300	0.0009	101	73.8 - 120

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

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Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0947	mg/L	1	0.100	<0.000310	95	74.2 - 120	1	20
Toluene		1	0.0999	mg/L	1	0.100	0.0003	100	75.8 - 120	1	20
Ethylbenzene		1	0.0993	mg/L	1	0.100	0.0003	99	71.8 - 120	1	20
Xylene		1	0.308	mg/L	1	0.300	0.0009	102	73.8 - 120	2	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)	0.0951	0.0967	mg/L	1	0.100	95	97	70 - 130
4-Bromofluorobenzene (4-BFB)	0.100	0.0997	mg/L	1	0.100	100	100	70 - 130

Matrix Spike (MS-1) Spiked Sample: 310545

QC Batch: 95349
Prep Batch: 80800

Date Analyzed: 2012-10-01
QC Preparation: 2012-10-01

Analyzed By: MT
Prepared By: MT

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0931	mg/L	1	0.100	<0.000371	93	42.2 - 136
Toluene		1	0.100	mg/L	1	0.100	<0.000347	100	44.3 - 133
Ethylbenzene		1	0.103	mg/L	1	0.100	<0.000326	103	45.6 - 132
Xylene		1	0.304	mg/L	1	0.300	<0.000357	101	44.7 - 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	0.0891	mg/L	1	0.100	<0.000371	89	42.2 - 136	4	20
Toluene		1	0.0958	mg/L	1	0.100	<0.000347	96	44.3 - 133	4	20
Ethylbenzene		1	0.0992	mg/L	1	0.100	<0.000326	99	45.6 - 132	4	20
Xylene		1	0.293	mg/L	1	0.300	<0.000357	98	44.7 - 128	4	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)	0.0921	0.0893	mg/L	1	0.1	92	89	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0978	0.0958	mg/L	1	0.1	98	96	70 - 130

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Matrix Spike (MS-1) Spiked Sample: 310497

QC Batch: 95382
Prep Batch: 80822

Date Analyzed: 2012-10-02
QC Preparation: 2012-10-02

Analyzed By: MT
Prepared By: MT

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	3.30	mg/L	10	1.00	2.11	119	47 - 131
Toluene		1	1.02	mg/L	10	1.00	<0.00259	102	52.2 - 128
Ethylbenzene		1	1.00	mg/L	10	1.00	0.0031	100	26.5 - 154
Xylene		1	3.17	mg/L	10	3.00	0.0659	103	50.1 - 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	3.28	mg/L	10	1.00	2.11	117	47 - 131	1	20
Toluene		1	1.00	mg/L	10	1.00	<0.00259	100	52.2 - 128	2	20
Ethylbenzene		1	0.993	mg/L	10	1.00	0.0031	99	26.5 - 154	1	20
Xylene		1	3.16	mg/L	10	3.00	0.0659	103	50.1 - 130	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)	1.11	1.11	mg/L	10	1	111	111	70 - 130
4-Bromofluorobenzene (4-BFB)	0.991	0.992	mg/L	10	1	99	99	70 - 130

Calibration Standards

Standard (CCV-1)

QC Batch: 95349

Date Analyzed: 2012-10-01

Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0950	95	80 - 120	2012-10-01
Toluene		1	mg/L	0.100	0.0991	99	80 - 120	2012-10-01
Ethylbenzene		1	mg/L	0.100	0.102	102	80 - 120	2012-10-01
Xylene		1	mg/L	0.300	0.301	100	80 - 120	2012-10-01

Standard (CCV-2)

QC Batch: 95349

Date Analyzed: 2012-10-01

Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0967	97	80 - 120	2012-10-01
Toluene		1	mg/L	0.100	0.103	103	80 - 120	2012-10-01
Ethylbenzene		1	mg/L	0.100	0.106	106	80 - 120	2012-10-01
Xylene		1	mg/L	0.300	0.313	104	80 - 120	2012-10-01

Standard (CCV-3)

QC Batch: 95349

Date Analyzed: 2012-10-01

Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0922	92	80 - 120	2012-10-01
Toluene		1	mg/L	0.100	0.0991	99	80 - 120	2012-10-01
Ethylbenzene		1	mg/L	0.100	0.103	103	80 - 120	2012-10-01
Xylene		1	mg/L	0.300	0.304	101	80 - 120	2012-10-01

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Standard (CCV-1)

QC Batch: 95382

Date Analyzed: 2012-10-02

Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0924	92	80 - 120	2012-10-02
Toluene		1	mg/L	0.100	0.0966	97	80 - 120	2012-10-02
Ethylbenzene		1	mg/L	0.100	0.0973	97	80 - 120	2012-10-02
Xylene		1	mg/L	0.300	0.302	101	80 - 120	2012-10-02

Standard (CCV-2)

QC Batch: 95382

Date Analyzed: 2012-10-02

Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0932	93	80 - 120	2012-10-02
Toluene		1	mg/L	0.100	0.0981	98	80 - 120	2012-10-02
Ethylbenzene		1	mg/L	0.100	0.0974	97	80 - 120	2012-10-02
Xylene		1	mg/L	0.300	0.302	101	80 - 120	2012-10-02

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	T104704219-12-8	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 than 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.
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.

Summary Report

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

Report Date: December 26, 2012

Work Order: 12121701

Project Location: Lovington, NM
Project Name: Moore to Jal #1
Project Number: 700376.044.01
SRS #: 2002-10270

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
316839	MW-14	water	2012-12-14	11:00	2012-12-14
316840	MW-17	water	2012-12-14	10:05	2012-12-14
316841	MW-18	water	2012-12-14	10:15	2012-12-14
316842	MW-19	water	2012-12-14	10:30	2012-12-14
316843	MW-20	water	2012-12-14	10:40	2012-12-14
316844	MW-21	water	2012-12-14	09:50	2012-12-14
316845	MW-22	water	2012-12-14	09:40	2012-12-14
316846	MW-23	water	2012-12-14	09:35	2012-12-14
316847	MW-26	water	2012-12-14	10:20	2012-12-14
316848	MW-27	water	2012-12-14	10:45	2012-12-14
316849	MW-28	water	2012-12-14	10:50	2012-12-14
316850	MW-29	water	2012-12-14	11:10	2012-12-14
316851	MW-34	water	2012-12-14	08:50	2012-12-14
316852	MW-35	water	2012-12-14	08:55	2012-12-14
316853	MW-36	water	2012-12-14	09:00	2012-12-14

Sample - Field Code	BTEX				MTBE MTBE (mg/L)
	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)	
316839 - MW-14	2.01	0.394	0.0940	0.150	<0.0500
316840 - MW-17	<0.00100 q _s	<0.00100 q _s	<0.00100 q _s	<0.00100 q _s	<0.00100
316841 - MW-18	<0.00100 q _s	<0.00100 q _s	<0.00100 q _s	<0.00100 q _s	<0.00100
316842 - MW-19	<0.00100 q _s	<0.00100 q _s	<0.00100 q _s	<0.00100 q _s	<0.00100
316843 - MW-20	<0.00100 q _s	<0.00100 q _s	<0.00100 q _s	<0.00100 q _s	<0.00100
316844 - MW-21	<0.00100 q _s	<0.00100 q _s	<0.00100 q _s	<0.00100 q _s	<0.00100
316845 - MW-22	<0.00100 q _s	<0.00100 q _s	<0.00100 q _s	<0.00100 q _s	<0.00100
316846 - MW-23	<0.00100 q _s	<0.00100 q _s	<0.00100 q _s	<0.00100 q _s	<0.00100
316847 - MW-26	<0.00100 q _s	<0.00100 q _s	<0.00100 q _s	<0.00100 q _s	<0.00100

continued ...

... continued

Sample - Field Code	BTEX				MTBE MTBE
	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)	
316848 - MW-27	<0.00100 Qs	<0.00100 Qs	<0.00100 Qs	<0.00100 Qs	<0.00100
316849 - MW-28	1.54	<0.0500	<0.0500	<0.0500	<0.0500
316850 - MW-29	22.8	<0.200	0.760	0.410	<0.200
316851 - MW-34	0.00410 Qs	<0.00100 Qs	<0.00100 Qs	<0.00100 Qs	<0.00100
316852 - MW-35	0.00730 Qs	0.00770 Qs	<0.00100 Qs	0.00220 Qs	<0.00100
316853 - MW-36	<0.00100 Qs	<0.00100 Qs	<0.00100 Qs	<0.00100 Qs	<0.00100

Sample: 316848 - MW-27

Param	Flag	Result	Units	RL
Naphthalene		<0.000199	mg/L	0.0002
2-Methylnaphthalene		<0.000199	mg/L	0.0002
1-Methylnaphthalene		<0.000199	mg/L	0.0002
Acenaphthylene		<0.000199	mg/L	0.0002
Acenaphthene		<0.000199	mg/L	0.0002
Dibenzofuran		<0.000199	mg/L	0.0002
Fluorene		<0.000199	mg/L	0.0002
Anthracene		<0.000199	mg/L	0.0002
Phenanthrene		<0.000199	mg/L	0.0002
Fluoranthene		<0.000199	mg/L	0.0002
Pyrene		<0.000199	mg/L	0.0002
Benzo(a)anthracene		<0.000199	mg/L	0.0002
Chrysene	Qs	<0.000199	mg/L	0.0002
Benzo(b)fluoranthene		<0.000199	mg/L	0.0002
Benzo(k)fluoranthene		<0.000199	mg/L	0.0002
Benzo(a)pyrene	Qs	<0.000199	mg/L	0.0002
Indeno(1,2,3-cd)pyrene		<0.000199	mg/L	0.0002
Dibenzo(a,h)anthracene		<0.000199	mg/L	0.0002
Benzo(g,h,i)perylene		<0.000199	mg/L	0.0002

Appendix D

NMOCD 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 October 10, 2003

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 EOTT	Contact Frank Hernandez
Address PO Box 1660 5805 East Highway 80 Midland, Texas 79702	Telephone No. 915.638.3799
Facility Name 8" Moore to Jal #1	Facility Type 8" Steel Pipeline

Surface Owner State of New Mexico	Mineral Owner	Lease No.
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LOCATION OF RELEASE

Unit Letter 16	Section 16	Township T17S	Range R37E	Feet from the	North/South Line	Feet from the	East/West Line	County: Lea Lat. 32° 50' 12.36"N Lon. 103° 15' 26.234"W.
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NATURE OF RELEASE

Type of Release Crude Oil	Volume of Release 200 bbls barrels	Volume Recovered 0 bbls barrels
Source of Release 8" Steel Pipeline	Date and Hour of Occurrence EOTT	Date and Hour of Discovery 10-18-02 @ 8:00 AM
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Paul Sheeley	
By Whom? Pat McCasland, EPI	Date and Hour 10-18-02 @ 11:00 AM Pat McCasland EPI left message with Paul Sheeley and sent page to the "ON-CALL" representative	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.*
NA

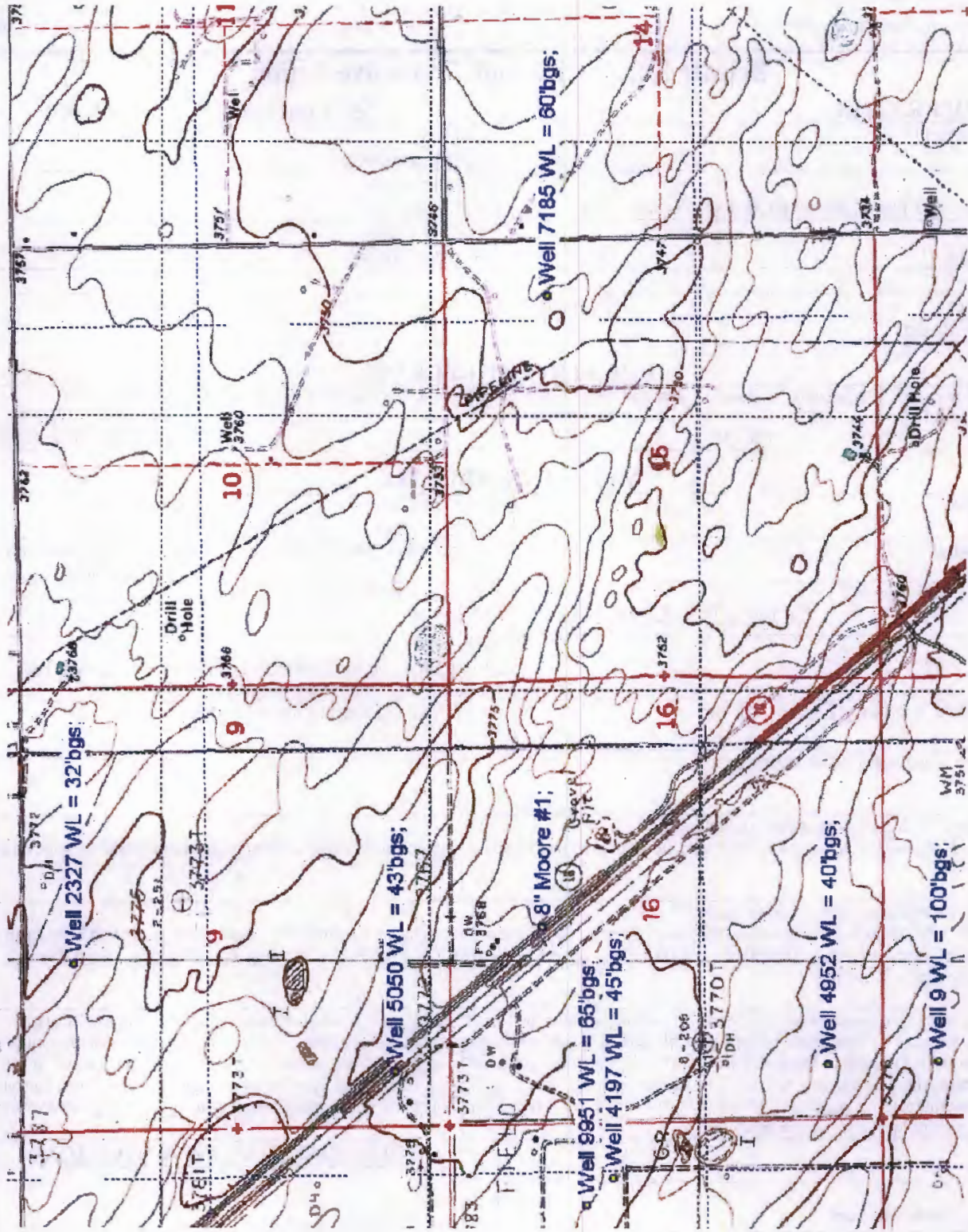
Describe Cause of Problem and Remedial Action Taken.*
8" Steel Pipeline Site will be delineated to determine the vertical and horizontal extents of contamination. Contaminated soil will be blended on site or disposed of.

Describe Area Affected and Cleanup Action Taken.*
8,000 sqft ~200' x 40' Site will be delineated to determine the vertical and horizontal extents of contamination. Contaminated soil will be blended on site or disposed of. Remedial Goals: TPH 8015m = 1000 mg/Kg, Benzene = 10 mg/Kg, and BTEX, i.e., the mass sum of Benzene, Ethyl Benzene, Toluene, and Xylenes = 50 mg/Kg.

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:	OIL CONSERVATION DIVISION		
Printed Name: Frank Hernandez	Approved by District Supervisor:		
Title: District Environmental Supervisor	Approval Date:	Expiration Date:	
Date: October 23, 2003 Phone: 915.638.3799	Conditions of Approval:	Attached ☐	

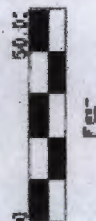
* Attach Additional Sheets If Necessary



EOTT ENERGY
PIPELINE
8" MOORE TO
JAL
#2002-10270
UL-F SEC 16
T17S R37E
AFFECTED AREA
~8,000 SQFT



SCALE 1"=500'



LATTING
AGE 1032

REVISIONS
10/23/2002

