

AP - 29

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

RECEIVED OGD
2013 APR - 9 P 2: 54

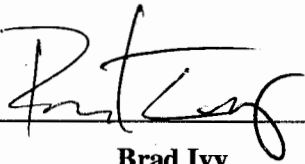
2012 ANNUAL GROUNDWATER MONITORING REPORT

**KIMBROUGH SWEET 8"
LEA COUNTY, NEW MEXICO
SRS #2000 - 10757
NMOCD REF. # AP-0029**

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

TALON/LPE PROJECT NO. 700376.050.01

Prepared by:



Brad Ivy
Project Manager

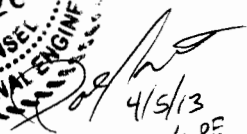


Chris Spore
Regional Manager

**TALON/LPE
2901 S. State Highway 349
Midland, Texas 79706**

March 2013




4/5/13
TALON/LPE
F-6002

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

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1.0 INTRODUCTION AND OBJECTIVES

1.1 Objectives and Site Background

The Kimbrough Sweet 8" (site) is located approximately seven (7) miles northwest of Hobbs, Lea County, New Mexico, on property owned by the State of New Mexico. There are no residences, groundwater wells, or surface water bodies within a 1,000-foot radius of the site. The initial release occurred from the 8" steel pipeline on October 25, 2000. At the time of the release, the pipeline was owned by EOTT Energy Pipeline. Subsequently, EOTT changed its name to Link Energy in October 2003, and Plains Marketing, L.P. (Plains) purchased the assets of Link Energy on April 1, 2004. Initial reports estimated that 60 barrels (bbls) of crude oil were released and impacted approximately 15,613 feet of surface area. Approximately 22 bbls of crude oil was recovered during initial remediation activities.

The site is situated within a physiographic region 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 area is approximately 3,720-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.

On February 5, 2007, Talon/LPE (Talon) was retained by Plains to assume remediation activities at the site that were previously conducted by Environmental Plus, Inc. (EPI).

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 is composed of gravelly loam that contains abundant eroded gravel to cobble size caliche fragments. Below the top soil is predominately unconsolidated sand to weakly cemented sandstone which has undergone calichification of varying extent.

Below the Blackwater Draw Formation is the Ogallala Formation of Miocene to Pliocene age. The Ogallala Formation was deposited from sediments eroded from the Southern

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

1.3 Previous Environmental Investigations

Currently, a total of fifteen (15) groundwater monitor wells have been installed in the vicinity of the release (see Figure 1). With New Mexico Oil Conservation Division (NMOCD) approval and landowner concurrence, groundwater monitor wells MW-1, MW-2, MW-3, and MW-4 were installed in January 2002. Groundwater monitor wells MW-5, MW-7, MW-8, and MW-9 were installed in July 2004, and monitor wells MW-6, MW-10, and MW-11 were installed in December 2004. Subsequently, monitor wells MW-12 and MW-13 were installed on March 11, 2009 and monitor wells MW-14 and MW-15 were installed in January of 2011.

PSH recovery operations have been performed at the site since January 2002, initially by hand bailing. Currently, there are five (5) total fluids pumps powered by an internal combustion engine (ICE) in monitor wells MW-5, MW-6, MW-7, MW-8, MW-11, and two (2) solar powered electric pumps in MW-2, and MW-9. Approximately 212 bbls of liquid and vapor phase-separated hydrocarbon (PSH) has been recovered to date.

1.4 Regulatory Framework

Groundwater analytical data from this site was evaluated to the New Mexico Water Quality Control Commission (NMWQCC) groundwater standards.

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 following sections provide summaries of the groundwater monitoring activities conducted at the 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 chains of custody documentation are included in Appendix C.

2 SITE ACTIVITIES

The sections that follow summarize groundwater monitoring and PSH recovery activities conducted at the subject site during 2012. The primary function of groundwater monitoring is to measure the depths to fluids and to 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 Monitoring Activities

A total of four (4) groundwater monitoring events were conducted by Talon during the year 2012 on March 13, June 28, September 11, and December 6. During all of the groundwater monitoring events, the depths to fluids were measured in all of the monitoring wells (MW-1 through MW-15) using an oil/water interface probe.

During the four (4) sampling event, groundwater samples were collected from seven (7) monitor wells (MW-3, MW-4, MW-10, MW-12, MW-13, MW-14, and MW-15). Samples were not collected from monitor wells MW-2, MW-5 through MW-9 and MW-11, due to the presence of PSH during all four (4) sampling events. Samples were not collected from monitor well MW-1 during all four (4) sampling events because groundwater was not detected during gauging activities.

Details of the gauging, purging, and sample collection activities are presented in Section 2.2 below.

2.2 Groundwater Gauging, Purging, and Sample Collection 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 the four (4) events are incorporated in Table 1 – Summary of Historical Fluid Level Measurements.

Subsequent to gauging, all monitor wells not impacted with PSH were purged a minimum of three (3) casing volumes using a down-hole pump equipped with vinyl tubing. The purge 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 removed with a vacuum truck. Approximately 85 gallons of purged groundwater and decontamination water during the monitoring events of 2012.

Groundwater samples were collected from all monitor wells using dedicated disposable polyethylene bailers. Each groundwater sample was contained in laboratory supplied sample containers 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 either Midland or Lubbock, Texas for analyses.

The groundwater samples collected during all four events were quantified for benzene, toluene, ethylbenzene, and xylene (BTEX) by EPA Method SW-846 8021B and during the fourth event, the groundwater samples collected from monitor well MW-3, MW-14, and MW-15 were quantified for poly-nuclear aromatic hydrocarbons (PAH) by EPA Method S 8270D.

2.3 Phase Separated Hydrocarbon Recovery

PSH recovery has been conducted at the site since 2002, initially by hand bailing. In 2007, an automated skimmer recovery system was installed at the site. In March of 2011, solar panels were installed at the site and two 12V total fluid pumps were installed in monitor wells MW-5 and MW-6. In November of 2011, additional 12V powered total fluids pumps were installed in monitor wells MW-2 and MW-11. In October 2012 an Internal Combustion Engine (ICE) system for running pumps and vapor extraction was installed on site. The ICE utilizes the vapor phase of PSH and the calculated volumes are included in recovery volumes listed from October 2012 on.

Currently, the system utilizes five (5) pneumatic total fluid pumps in monitor wells MW-5, MW-6, MW-7, MW-8, and MW-11 and 2 (2) 12V total fluids pumps in MW-2 and MW-9 to recover PSH and to inhibit migration of the PSH plume. The ICE assembly consists of pneumatic total fluid pumps combined with vapor suction. Since there is no electricity at the site; the ICE system is powered by propane and vapors from listed wells. The 12V total fluids pumps operate off 12V batteries, which are charged by solar panels.

Fluid, recovered by the pumps, is retained in two polyethylene tanks, a 3,000 gallon and a 2500 gallon that was added in 2011. The tanks are coupled together and are equipped with high level shut off switches to prevent overflow. In addition, the tanks are located within a secondary recovery compound that is equipped with a polyethylene liner. Periodically, recovered groundwater is removed from the tanks and transported to an NMOCD approved disposal facility. PSH is also periodically removed with a vacuum truck and is re-introduced to the Plains' pipeline system at the Scharb Station and/or 34 Junction South pipeline. Approximately 212 bbls of PSH have been recovered to date from the site to date.

3 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.

3.3 Groundwater Monitoring Results

The following sections present the results from the four groundwater monitoring events conducted on the first water-bearing zone underlying the site.

3.3.1 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 six (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 with a specific yield averaging 16%. The depth to groundwater at the site ranged from 55 to 60 feet below ground surface (bgs) and the groundwater flow direction ranged from the east southeast to the east northeast. The saturated thickness of the Ogallala formation on the High Plains ranges from 25 feet to 175 feet. The variable thickness is due to the irregularly eroded Triassic surface that underlies it.

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. The pH of Ogallala water averages 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, Appendix B - Summary of Historical Fluid Level Measurements.

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 in 2012 indicates that the groundwater flow direction ranges from east southeast to east northeast with average gradient of 0.0047 feet per foot or approximately 25 feet per mile. Groundwater levels at the subject site have exhibited a steady decline of an average of 0.72 feet for the year 2012 that 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. Generally, PSH thicknesses have fluctuated from quarter to quarter during the year 2012 but have remained relatively stable throughout the year.

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. Currently, the PSH plume is not well delineated to the northeast and to the northwest.

- In March of 2012, PSH was observed in monitor wells MW-2, MW-5 through MW-9, and MW-11. PSH thickness ranged from 0.54 feet to 4.96 feet.
- In June of 2012, PSH was observed in monitor wells MW-2, MW-5 through MW-9, and MW-11. PSH thickness ranged from 2.36 feet to 5.65 feet.
- In September of 2012, PSH was observed in monitor wells MW-2, MW-5 through MW-9, and MW-11. PSH thickness ranged from 0.68 feet to 5.82 feet.
- In December of 2012, PSH was observed in monitor wells MW-2, MW-5 through MW-9, and MW-11. PSH thickness ranged from 0.36 feet to 3.14 feet.

PSH recovery operations have been performed at the site since 2002. A summary of the historical groundwater and PSH gauging is provided in Table 1 in Appendix B. Approximately 212 bbls of PSH have been recovered to date.

3.1.4 Groundwater Sampling Results

During the first quarter, March 2012, laboratory analytical results of the groundwater samples exhibited the following findings:

- Benzene concentrations ranged from <0.00100 mg/L to 6.02 mg/L. Benzene

concentrations exceeded the NMWQCC groundwater standard of 0.010 mg/L in the groundwater samples collected from monitor wells MW-3, MW-12, MW-14, and MW-15.

- Toluene concentrations ranged from <0.00100 mg/L to <0.050 mg/L. The toluene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any of the groundwater samples collected.
- Ethylbenzene concentrations ranged from <0.00100 mg/L to 0.126 mg/L. The ethylbenzene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any of the groundwater samples collected.
- Xylene concentrations ranged from <0.00100 mg/L to <0.0500 mg/L. Xylene concentrations did not exceed the NMWQCC groundwater standard of 0.620 mg/L in any groundwater sample collected.

During the second quarter, June 2012, sampling event, laboratory analytical results of the groundwater samples exhibited the following findings:

- Benzene concentrations ranged from <0.00100 mg/L to 8.44 mg/L. Benzene concentrations exceeded the NMWQCC groundwater standard of 0.010 mg/L in the groundwater samples collected from monitor wells MW-3, MW-12, and MW-14.
- Toluene concentrations ranged from <0.00100 mg/L to 0.0500 mg/L. Toluene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any of the groundwater samples collected.
- Ethylbenzene concentrations ranged from <0.00100 mg/L to 0.455 mg/L. The ethylbenzene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any of the groundwater samples collected.
- Xylene concentrations ranged from <0.00100 mg/L to 0.194 mg/L. The xylene concentrations did not exceed the NMWQCC groundwater standard of 0.620 mg/L in the samples collected.

During the third quarter, September 2012, laboratory analytical results of the groundwater samples exhibited the following findings:

- Benzene concentrations ranged from <0.00100 mg/L to 8.98 mg/L. Benzene concentrations exceeded the NMWQCC groundwater standard of 0.010 mg/L in groundwater samples collected from monitor well MW-3, MW-10, MW-12 and MW-14.
- Toluene concentrations ranged from <0.00100 mg/L to <0.0500 mg/L. The toluene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any of the groundwater samples collected.
- Ethylbenzene concentrations ranged from <0.00100 mg/L to 0.302 mg/L. Ethylbenzene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any groundwater sample collected.
- Xylene concentrations ranged from <0.00100 mg/L to <0.0500 mg/L. Xylene

concentrations did not exceed the NMWQCC groundwater standard of 0.620 mg/L in any groundwater sample collected.

During the fourth quarter, December 2012, laboratory analytical results of the groundwater samples exhibited the following findings:

- Benzene concentrations ranged from <0.00100 mg/L to 2.62 mg/L. Benzene concentrations exceeded the NMWQCC groundwater standard of 0.010 mg/L in the groundwater samples collected from monitor wells MW-3, MW-12, and MW-14.
- Toluene concentrations ranged from <0.00100 mg/L to <0.0100 mg/L. Toluene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any of the groundwater samples collected.
- Ethylbenzene concentrations ranged from <0.00100 mg/L to 0.0303 mg/L. Ethylbenzene concentrations did not exceed the NMWQCC groundwater standard of 0.750 mg/L in any groundwater sample collected.
- Xylene concentrations ranged from <0.00100 mg/L to 0.0210 mg/L. Xylene concentrations did not exceed the NMWQCC groundwater standard of 0.620 mg/L in any groundwater sample collected.
- Poly-nuclear aromatic hydrocarbon analysis was performed on samples collected from monitor wells MW-3, MW-12, MW-14 and MW-15. No constituent concentrations, including the total combined methylnaphthalene and naphthalene concentrations exceeded the NMWQCC groundwater standards.

The dissolved-phase plume is not delineated to NMWQCC groundwater standards in the down-gradient direction as depicted on the groundwater concentration maps 3a through 3d in Appendix A. The results of the laboratory analyses are summarized in Table 2 – Summary of Groundwater Analytical Results in Appendix E. Laboratory analytical data reports and chains of custody documentation are provided in Appendix C.

4.0 CONCLUSIONS AND RECOMMENDATIONS

The following section presents a summary of the four groundwater monitoring events conducted at the Kimbrough Sweet 8" site and Section 4.2 provides recommendations for future corrective action.

4.1 Summary of Findings

- The groundwater flow direction ranged from east southeast to east northeast with an average gradient of 0.0047 ft/ft or approximately 25 feet per mile based on the water level measurement data collected in 2012.
- Groundwater levels at the subject site have exhibited a steady decline averaging 0.72 feet for the year 2012 that appears to be associated with a regional trend of declining groundwater levels for the Ogallala Aquifer.
- PSH is impacting monitor wells MW-2, MW-5 through MW-9, and MW-11. Total fluids pumps are installed in those wells.
- PSH thicknesses have fluctuated over the year 2012 but have continued to decline over the years. Approximately 17 bbls of PSH was recovered during the year 2012 indicating that the PSH recovery system is performing its function.
- Dissolved-phase concentrations generally fluctuated over the year 2012 except for a significant decline in total BTEX concentrations in monitor wells MW-3 and MW-12.
- Internal combustion engine (ICE) unit for running total fluids pumps and extracting vapor was installed on site in October of 2012.

4.2 Recommendations

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

- Continue operation and maintenance of the PSH recovery systems. Monitor the systems 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.
- Since up-gradient monitor well MW-10 and cross-gradient monitor well MW-4 have predominately not detected BTEX analytes, Talon LPE recommends that those wells be sampled and analyzed for BTEX annually.
- Drill additional down gradient monitor wells to delineate the dissolved-phase plume, and plug and abandon MW-1 and replace with MW-1A. See Figure 4

APPENDIX A

Figures

Figure 1 - Site Plan with Proposed Monitor Well Locations Map

Figure 2a - Groundwater Gradient Map - 03/13/2012

Figure 2b - Groundwater Gradient Map - 06/28/2012

Figure 2c - Groundwater Gradient Map - 09/11/2012

Figure 2d - Groundwater Gradient Map - 12/06/2012

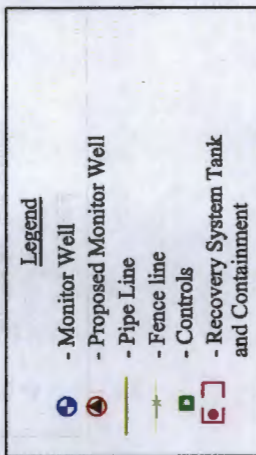
Figure 3a - PSH Thickness & Groundwater Concentration Map - 03/13-14/2012

Figure 3b - PSH Thickness & Groundwater Concentration Map - 06/28/2012

Figure 3c - PSH Thickness & Groundwater Concentration Map - 09/12/2012

Figure 3d - PSH Thickness & Groundwater Concentration Map - 12/06/2012

Figure 4 – Site Map With Proposed Monitor Wells



Project # 700376.050.01



Date: 12/27/2010

Scale: 1" = 100'

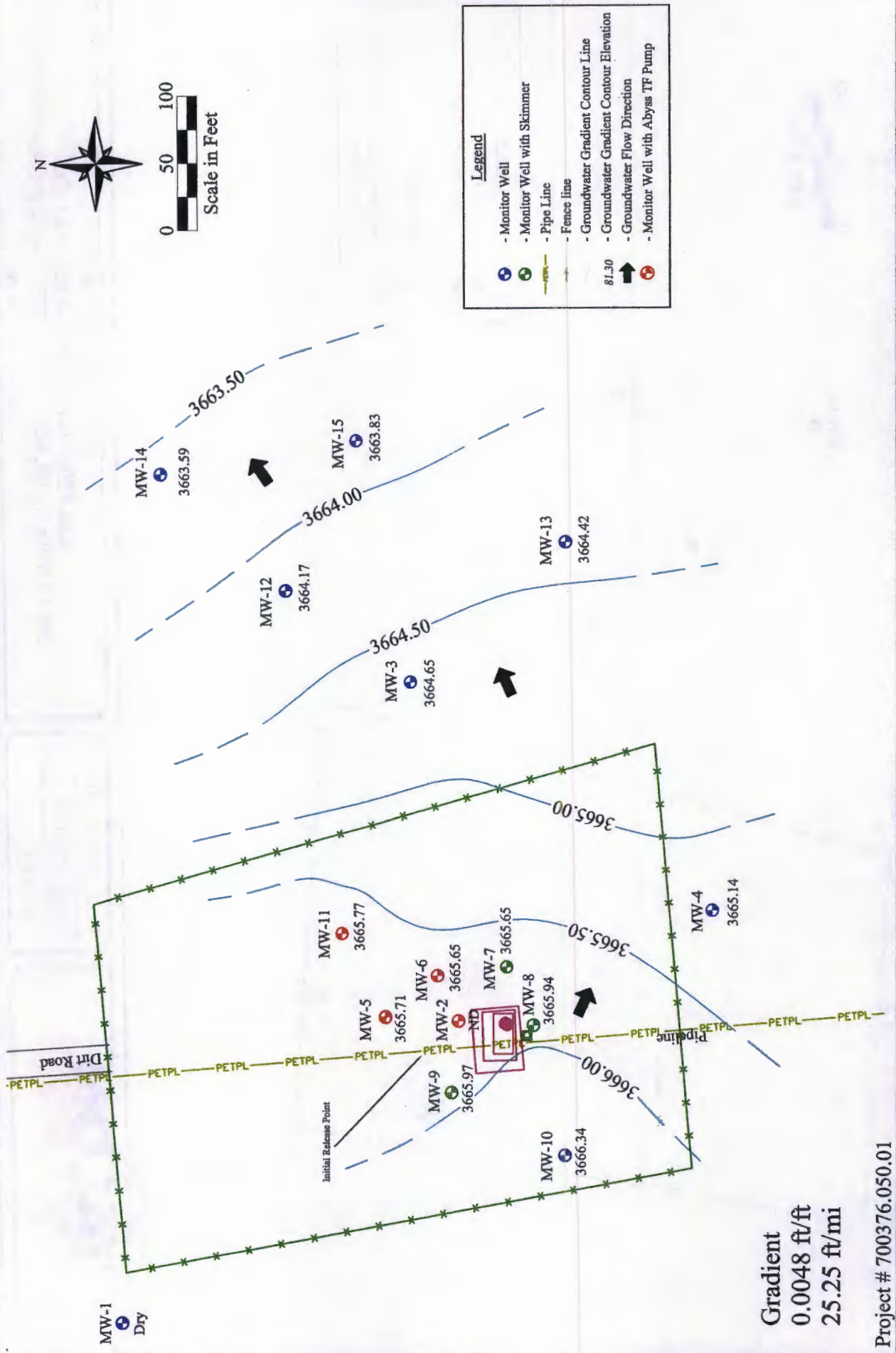
Drawn By: TJS

Kimbrough Sweet 8"

SRS # 2000-10757, NMOCD REF. # AP-0029

SW 1/4 of the NE 1/4, Sec. 3, T18S, R37E, Lea County, New Mexico

Figure 1 - Site Map



Gradient
0.0048 ft/ft
25.25 ft/mi

Project # 700376.050.01



Date: 04/16/2012

Scale: 1" = 100'

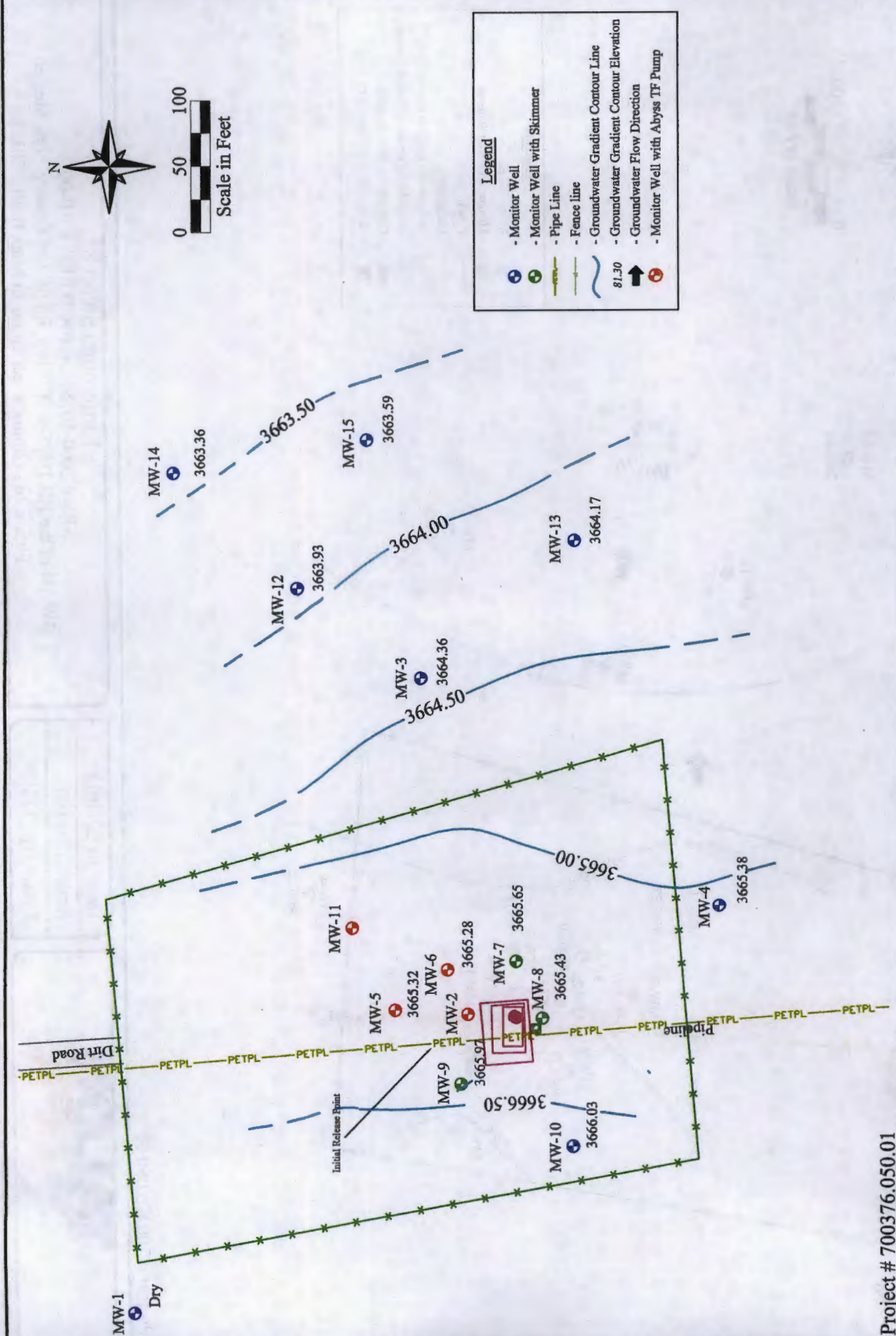
Drawn By: TJS

Kimbrough Sweet 8"

SRS # 2000-10757, NMOCD REF. # AP-0029

SW 1/4 of the NE 1/4, Sec. 3, T18S, R37E, Lea County, New Mexico

Figure 2a - Groundwater Gradient Map, (03/13/2012)



Project # 700376.050.01



Date: 04/16/2012

Scale: 1" = 100'

Drawn By: TJS

Kimbrough Sweet 8"

SRS # 2000-10757, NMOCD REF. # AP-0029

SW 1/4 of the NE 1/4, Sec. 3, T18S, R37E, Lea County, New Mexico

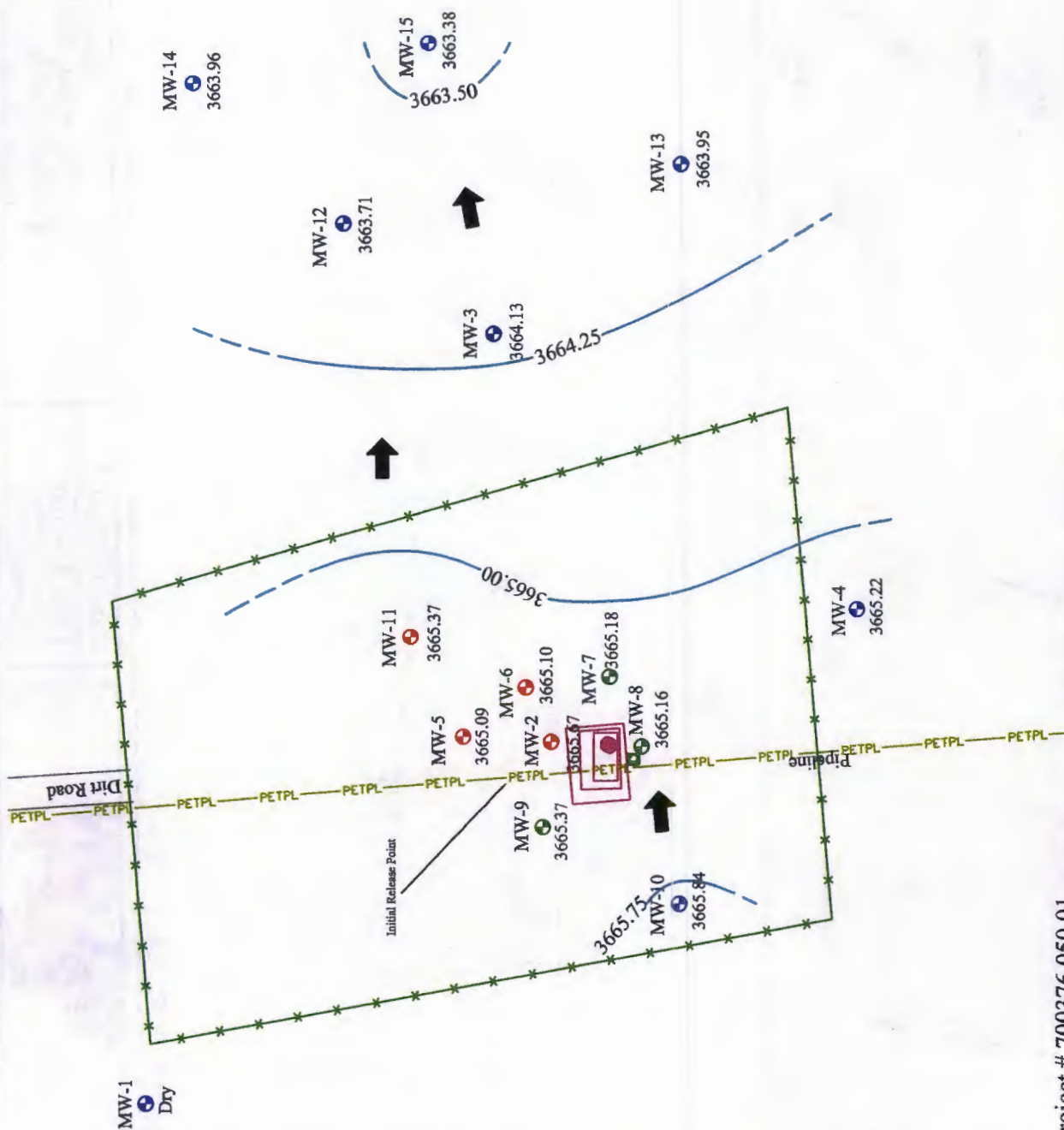
Figure 2b - Groundwater Gradient Map, (6/28/2012)



0 50 100
Scale in Feet

Legend

- Monitor Well
- Monitor Well with Skimmer
- Pipe Line
- Fence line
- Groundwater Gradient Contour Line
- Groundwater Gradient Contour Elevation
- Groundwater Flow Direction
- Monitor Well with Abyss TF Pump



Project # 700376.050.01



Date: 01/22/2013

Scale: 1" = 100'

Drawn By: TJS

Kimbrough Sweet 8"

SRS # 2000-10757, NMOCD REF. # AP-0029

SW 1/4 of the NE 1/4, Sec. 3, T18S, R37E, Lea County, New Mexico

Figure 2c - Groundwater Gradient Map, (09/11/2012)



Project # 700376.050.01



Date: 01/22/2013

Scale: 1" = 100'

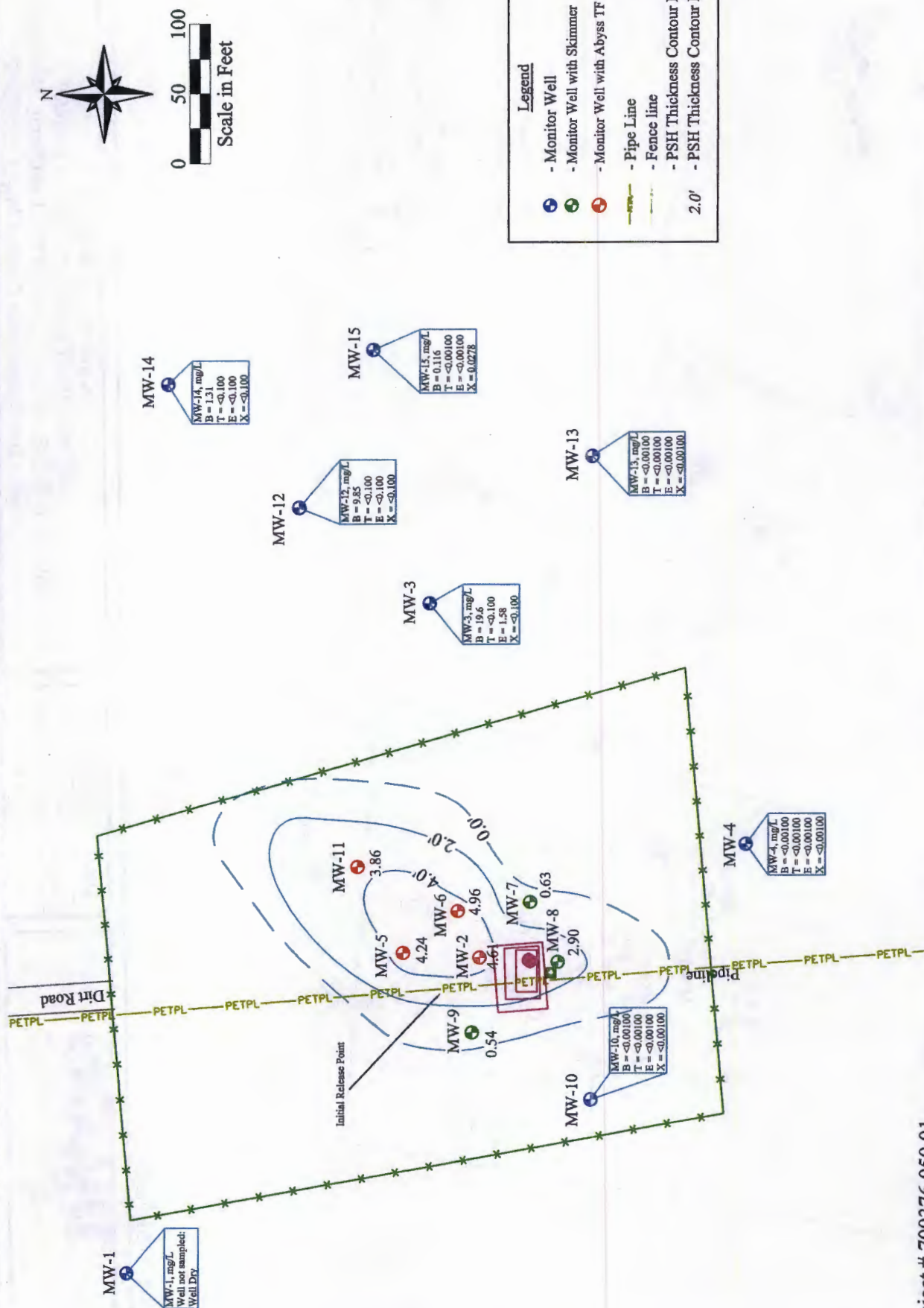
Drawn By: TJS

Kimbrough Sweet 8"

SRS # 2000-10757, NMOCD REF. # AP-0029

SW 1/4 of the NE 1/4, Sec. 3, T18S, R37E, Lea County, New Mexico

Figure 2d - Groundwater Gradient Map, (12/06/2012)



Project # 700376.050.01



Date: 04/16/2012

Scale: 1" = 100'

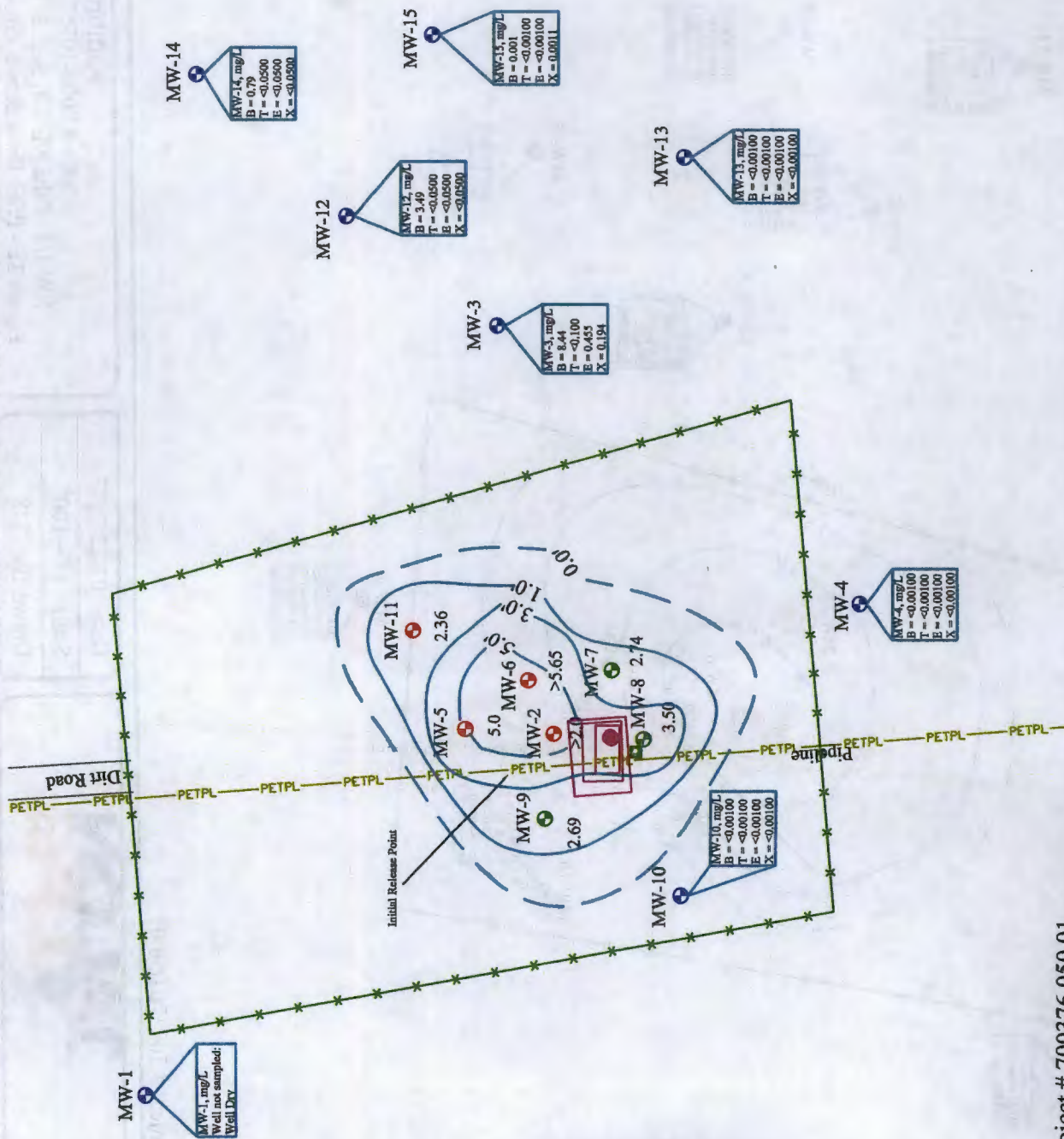
Drawn By: TJS

Kimbrough Sweet 8"

SRS # 2000-10757, NMOCD REF. # AP-0029

SW 1/4 of the NE 1/4, Sec. 3, T18S, R37E, Lea County, New Mexico

Figure 3a - PSH Thickness & Groundwater Concentration Map, (03/13-14/2012)



Project # 700376.050.01



Date: 04/16/2012

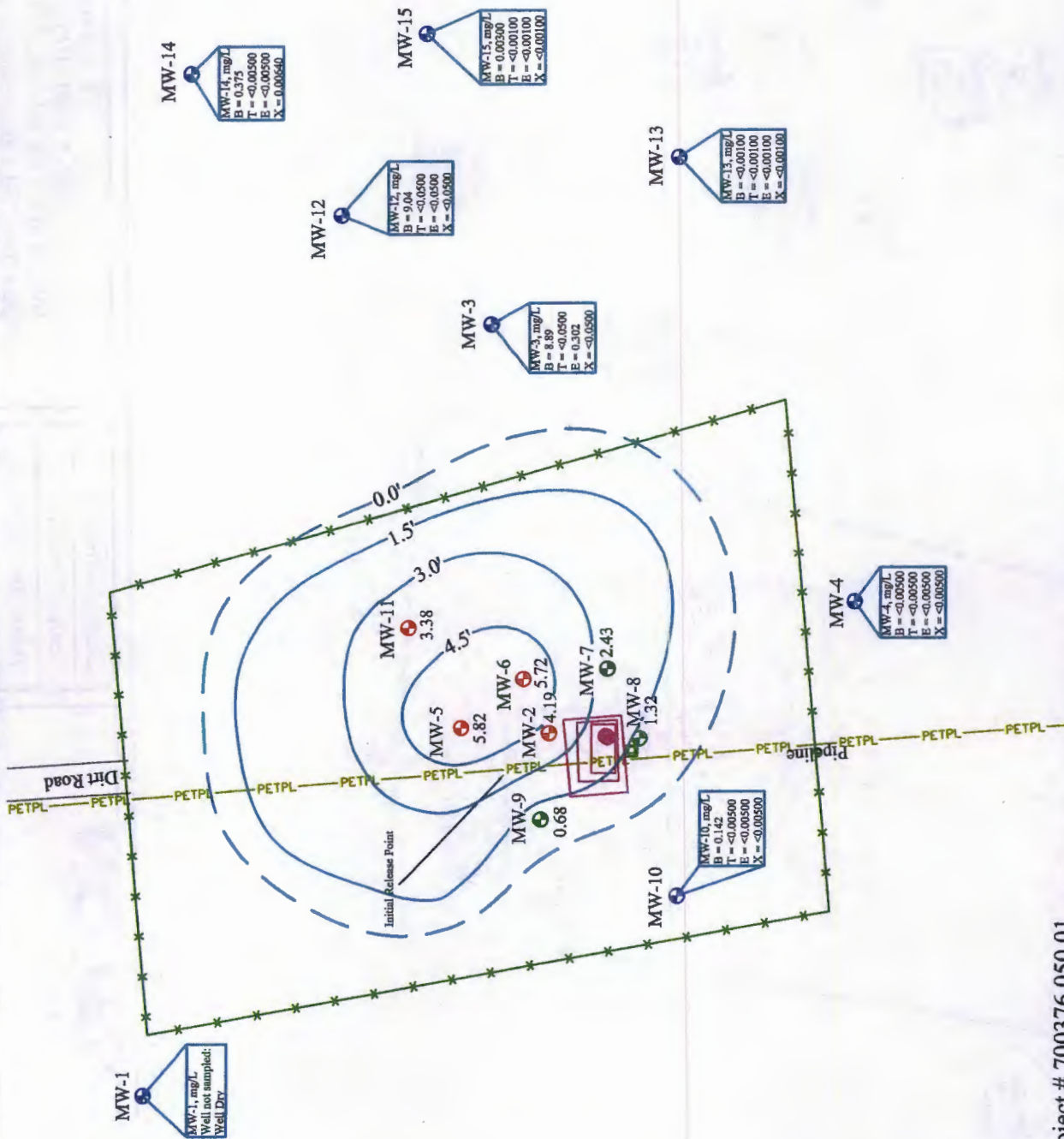
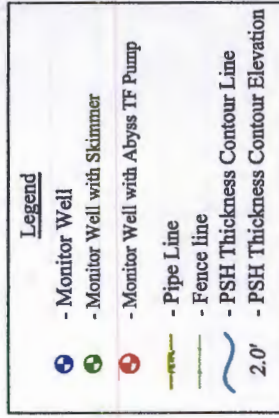
Scale: 1" = 100'

Drawn By: TJS

Kimbrough Sweet 8"

SRS # 2000-10757, NMOCD REF. # AP-0029

SW 1/4 of the NE 1/4, Sec. 3, T18S, R37E, Lea County, New Mexico
Figure 3b - PSH Thickness & Groundwater Concentration Map, (6/28/12)



Project # 700376.050.01



Date: 01/22/2013

Scale: 1" = 100'

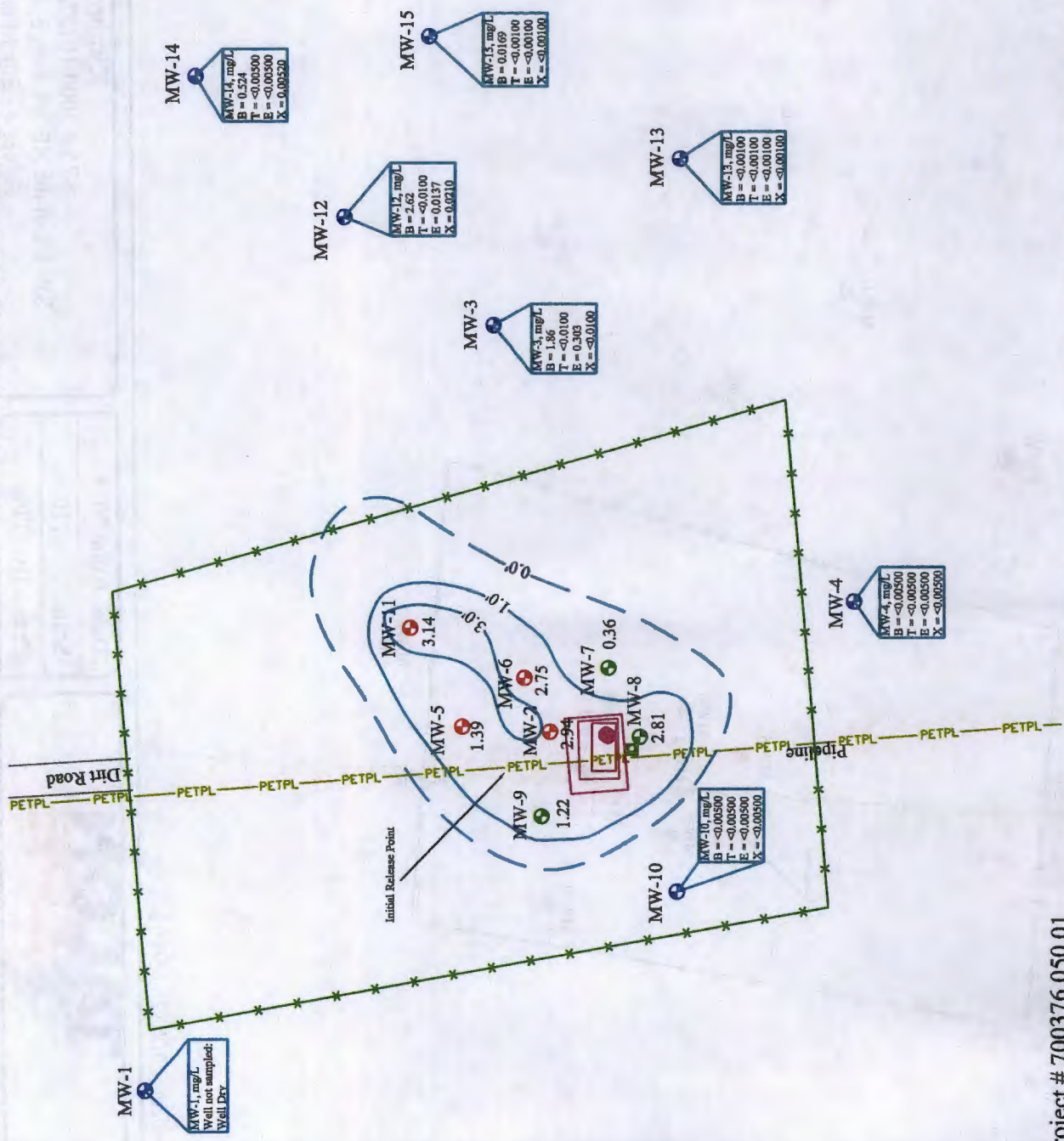
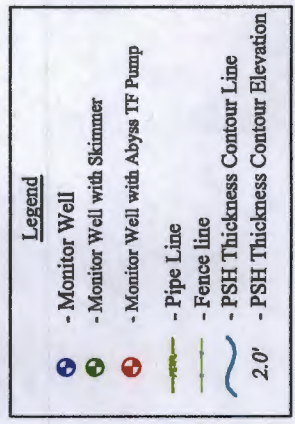
Drawn By: TJS

Kimbrough Sweet 8"

SRS # 2000-10757, NMOCD REF. # AP-0029

SW 1/4 of the NE 1/4, Sec. 3, T18S, R37E, Lea County, New Mexico

Figure 3c - PSH Thickness & Groundwater Concentration Map, (09/12/2012)

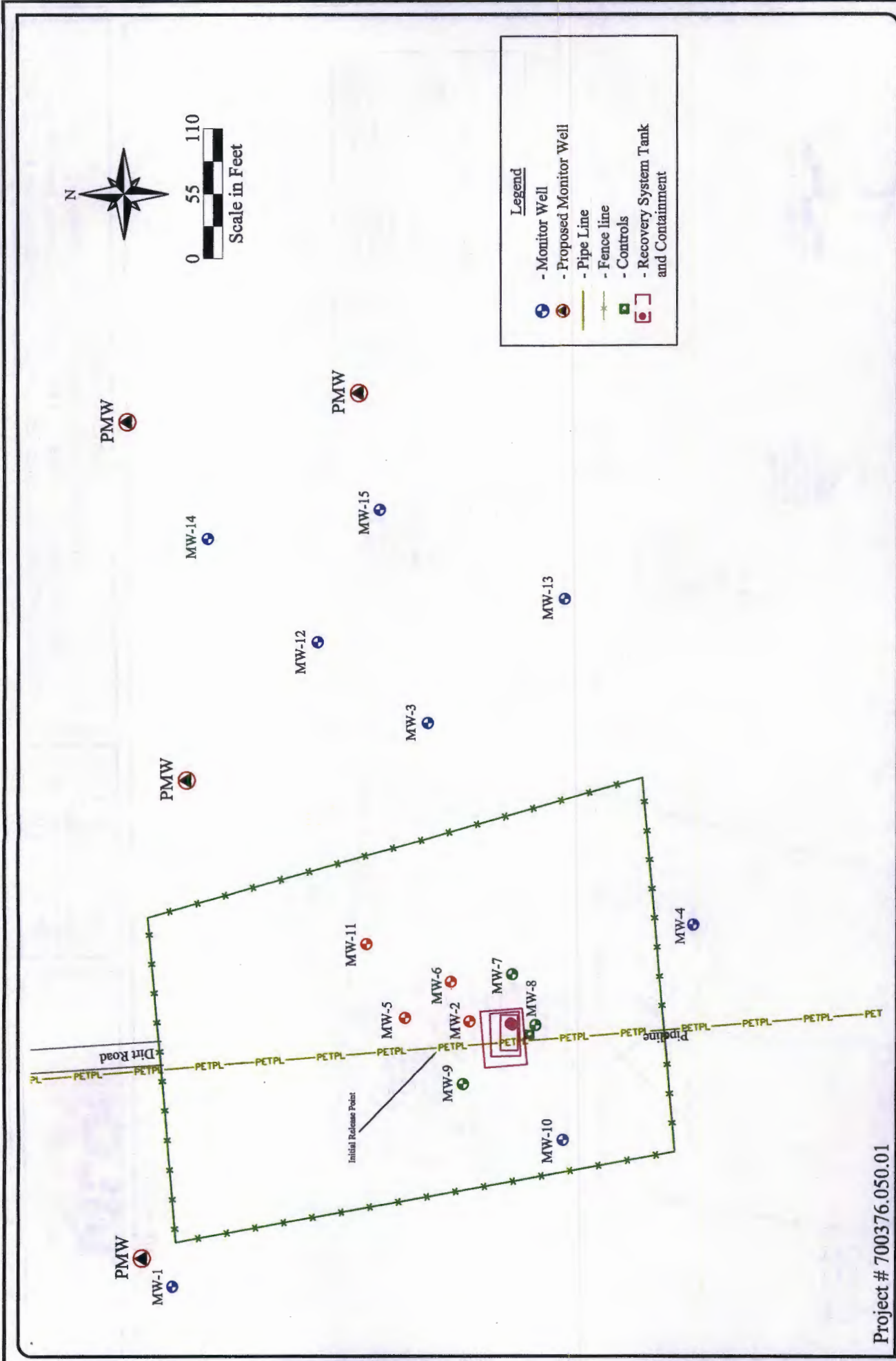


Project # 700376.050.01



Date: 01/22/2013
 Scale: 1" = 100'
 Drawn By: TJS

Kimbrough Sweet 8"
 SRS # 2000-10757, NMOCD REF. # AP-0029
 SW 1/4 of the NE 1/4, Sec. 3, T18S, R37E, Lea County, New Mexico
 Figure 3d - PSH Thickness & Groundwater Concentration Map, (12/06/2012)



Project # 700376.050.01



Date: 03/06/2013

Scale: 1" = 110'

Drawn By: TJS

Kimbrough Sweet 8"

SRS # 2000-10757, NMOCD REF. # AP-0029

SW 1/4 of the NE 1/4, Sec. 3, T18S, R37E, Lea County, New Mexico

Figure 4 - Site Map w/Proposed Monitor Wells

APPENDIX B

Tables

Table 1 - Summary of Historical Fluid Level Measurements

Table 2 - Summary of Groundwater Analytical Results - BTEX

Table 3 - Summary of Groundwater Analytical Results – PAH



Table 1 - Summary of Historical Fluid Level Measurements
Kimbrough Sweet 8"
SRS#: 2000-10757

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: 2 in.	Screened Interval: _____ ft. to _____ ft.		TD: 56.0 ft.
	12/11/02	3723.13	51.43	-	-	3671.70
	02/20/03	3723.13	51.62	-	-	3671.51
	02/11/04	3723.13	52.45	-	-	3670.68
	08/16/04	3723.13	53.15	-	-	3669.98
	03/22/05	3723.13	52.70	-	-	3670.43
	03/31/05	3723.13	52.65	-	-	3670.48
	04/22/05	3723.13	52.69	-	-	3670.44
	05/12/05	3723.13	52.73	-	-	3670.40
	05/25/05	3723.13	52.73	-	-	3670.40
	06/28/05	3723.13	52.81	-	-	3670.32
	07/25/05	3723.13	52.91	-	-	3670.22
	08/22/05	3723.13	52.98	-	-	3670.15
	11/14/05	3723.13	53.18	-	-	3669.95
	11/30/05	3723.13	53.47	-	-	3669.66
	02/06/06	3723.13	53.67	-	-	3669.46
	03/01/06	3723.13	53.21	-	-	3669.92
	05/02/06	3723.13	52.34	-	-	3670.79
	05/25/06	3723.13	51.45	-	-	3671.68
	08/10/06	3723.13	53.45	-	-	3669.68
	11/29/06	3723.13	53.60	-	-	3669.53
	12/06/06	3723.13	53.63	-	-	3669.50
	01/10/07	3723.13	53.71	-	-	3669.42
	02/08/07	3723.13	53.58	-	-	3669.55
	03/01/07	3723.13	53.91	-	-	3669.22
	03/06/07	3723.13	53.62	-	-	3669.51
	03/14/07	3723.13	53.85	-	-	3669.28
	04/02/07	3723.13	53.67	-	-	3669.46
	04/02/07	3723.13	53.67	-	-	3669.46
	04/09/07	3723.13	53.89	-	-	3669.24
	04/16/07	3723.13	53.92	-	-	3669.21
	05/01/07	3723.13	53.93	-	-	3669.20
	05/21/07	3723.13	53.99	-	-	3669.14
	06/13/07	3723.13	53.90	-	-	3669.23
	06/26/07	3723.13	53.92	-	-	3669.21
	07/18/07	3723.13	54.02	-	-	3669.11
	09/13/07	3723.13	54.13	-	-	3669.00
	10/24/07	3723.13	54.19	-	-	3668.94
	12/03/07	3723.13	54.32	-	-	3668.81
	01/29/08	3723.13	54.51	-	-	3668.62
	03/13/08	3723.13	54.52	-	-	3668.61
	05/14/08	3723.13	54.64	-	-	3668.49
	06/03/08	3723.13	54.67	-	-	3668.46
	06/18/08	3723.13	54.79	-	-	3668.34
	07/01/08	3723.13	54.73	-	-	3668.40
	07/02/08	3723.13	54.82	-	-	3668.31
	08/28/08	3723.13	54.89	-	-	3668.24
	09/26/08	3723.13	54.98	-	-	3668.15
	10/27/08	3723.13	55.06	-	-	3668.07
	12/02/08	3723.13	55.14	-	-	3667.99
	01/15/09	3723.13	55.25	-	-	3667.88
	02/05/09	3723.13	55.28	-	-	3667.85
	04/06/09	3723.13	55.42	-	-	3667.71
	05/19/09	3724.09	55.54	-	-	3668.55
	08/27/09	3724.09	55.84	-	-	3668.25
	12/14/09	3724.09	56.03	-	-	3668.06
	12/16/11	3724.09	Drv	-	-	Drv
	03/13/12	3724.09	Drv	-	-	Drv



Table 1 - Summary of Historical Fluid Level Measurements
Kimbrough Sweet 8"
SRS#: 2000-10757

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: 2 in.	Screened Interval: _____ ft. to _____ ft.		TD: 56.0 ft.
	06/20/12	3724.09	Dry	-	-	Dry
	09/11/12	3724.09	Dry	-	-	Dry
	12/06/12	3724.09	Dry	-	-	Dry



Table 1 - Summary of Historical Fluid Level Measurements
Kimbrough Sweet 8"
SRS#: 2000-10757

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: _____ ft. to _____ ft.		TD: 61.0 ft.
	10/04/02	3722.90	56.33	49.21	7.12	3672.52
	11/11/02	3722.90	56.30	49.25	7.05	3672.49
	12/11/02	3722.90	56.34	49.25	7.09	3672.48
	02/20/03	3722.90	56.30	49.57	6.73	3672.22
	03/29/03	3722.90	58.09	49.66	8.43	3671.85
	04/08/03	3722.90	58.11	49.68	8.43	3671.83
	04/23/03	3722.90	56.90	50.00	6.90	3671.76
	04/24/03	3722.90	58.10	49.75	8.35	3671.77
	04/25/03	3722.90	57.95	49.78	8.17	3671.77
	05/03/03	3722.90	58.10	49.77	8.33	3671.76
	05/06/03	3722.90	58.08	49.75	8.33	3671.78
	06/09/03	3722.90	58.13	49.83	8.30	3671.70
	06/30/03	3722.90	58.04	49.95	8.09	3671.62
	04/12/04	3722.90	58.91	50.58	8.33	3670.95
	06/04/04	3722.90	57.62	50.85	6.77	3670.93
	06/21/04	3722.90	59.01	50.74	8.27	3670.80
	10/21/04	3722.90	58.20	50.59	7.61	3671.05
	03/22/05	3722.90	55.90	51.02	4.88	3671.07
	03/31/05	3722.90	55.90	51.02	4.88	3671.07
	04/22/05	3722.90	56.50	50.98	5.52	3671.01
	05/25/05	3722.90	55.61	51.23	4.38	3670.95
	07/25/05	3722.90	57.74	51.11	6.63	3670.70
	11/30/05	3722.90	58.85	51.50	7.35	3670.19
	02/06/06	3722.90	56.19	51.64	4.55	3670.51
	03/01/06	3722.90	59.20	51.67	7.53	3669.99
	05/02/06	3722.90	58.86	51.91	6.95	3669.84
	05/25/06	3722.90	58.62	51.19	7.43	3670.48
	08/10/06	3722.90	59.00	51.45	7.55	3670.20
	11/29/06	3722.90	59.18	51.63	7.55	3670.02
	12/06/06	3722.90	59.11	51.67	7.44	3670.00
	01/10/07	3722.90	58.03	51.78	6.25	3670.09
	03/01/07	3722.90	60.05	52.41	7.64	3669.23
	03/06/07	3722.90	61.25	52.92	8.33	3668.61
	03/14/07	3722.90	60.43	52.14	8.29	3669.39
	04/02/07	3722.90	59.22	51.93	7.29	3669.77
	04/02/07	3722.90	59.22	51.93	7.29	3669.77
	04/09/07	3722.90	58.44	52.95	5.49	3669.04
	04/16/07	3722.90	59.09	51.92	7.17	3669.80
	05/01/07	3722.90	60.17	50.58	9.59	3670.74
	05/21/07	3722.90	59.03	57.42	1.61	3665.21
	06/26/07	3722.90	57.24	52.68	4.56	3669.47
	06/28/07	3722.90	56.53	52.64	3.89	3669.62
	07/18/07	3722.90	57.79	52.55	5.24	3669.49
	08/21/07	3722.90	57.65	52.50	5.15	3669.55
	08/30/07	3722.90	57.50	52.51	4.99	3669.57
	09/13/07	3722.90	58.20	52.40	5.80	3669.54
	10/09/07	3722.90	57.17	53.11	4.06	3669.12
	10/17/07	3722.90	56.67	52.81	3.86	3669.45
	10/24/07	3722.90	57.88	52.76	5.12	3669.30
	11/02/07	3722.90	56.52	53.01	3.51	3669.31
	11/12/07	3722.90	56.51	53.02	3.49	3669.30
	12/03/07	3722.90	57.37	52.74	4.63	3669.40
	01/03/08	3722.90	59.21	52.80	6.41	3669.04
	01/07/08	3722.90	59.11	53.05	6.06	3668.85
	01/22/08	3722.90	59.19	52.69	6.50	3669.14
	01/29/08	3722.90	56.87	53.08	3.79	3669.19
	02/06/08	3722.90	58.09	53.02	5.07	3669.04



Table 1 - Summary of Historical Fluid Level Measurements
Kimbrough Sweet 8"
SRS#: 2000-10757

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: _____ ft. to _____ ft.		TD: 61.0 ft.
	02/12/08	3722.90	58.07	53.00	5.07	3669.06
	03/13/08	3722.90	58.58	52.89	5.69	3669.07
	03/19/08	3722.90	59.12	52.95	6.17	3668.93
	03/27/08	3722.90	55.64	53.82	1.82	3668.78
	04/01/08	3722.90	58.17	53.31	4.86	3668.79
	04/11/08	3722.90	58.09	53.53	4.56	3668.62
	04/16/08	3722.90	55.59	54.84	0.75	3667.94
	04/30/08	3722.90	59.29	52.95	6.34	3668.90
	05/14/08	3722.90	57.82	53.51	4.31	3668.68
	06/03/08	3722.90	54.98	54.36	0.62	3668.44
	06/10/08	3722.90	55.20	54.49	0.71	3668.29
	06/18/08	3722.90	55.72	54.12	1.60	3668.52
	07/01/08	3722.90	56.91	54.31	2.60	3668.16
	07/02/08	3722.90	55.16	53.92	1.24	3668.78
	07/24/08	3722.90	55.18	54.87	0.31	3667.98
	08/06/08	3722.90	57.93	54.32	3.61	3667.98
	08/28/08	3722.90	57.82	53.57	4.25	3668.63
	09/26/08	3722.90	59.05	53.44	5.61	3668.53
	10/27/08	3722.90	59.04	53.56	5.48	3668.44
	12/02/08	3722.90	59.60	53.51	6.09	3668.39
	01/15/09	3722.90	59.99	53.57	6.42	3668.27
	02/05/09	3722.90	60.11	53.68	6.43	3668.16
	04/06/09	3722.90	60.48	53.87	6.61	3667.94
	05/19/09	3723.32	61.50	53.66	7.84	3668.37
	07/13/09	3723.32	59.27	53.90	5.37	3668.53
	08/27/09	3723.32	61.21	54.02	7.19	3668.11
	12/14/09	3723.32	58.58	55.12	3.46	3667.63
	12/16/11	3723.32	61.00	56.31	4.69	3666.24
	03/13/12	3723.32	61.00	56.54	4.46	3666.04
	06/20/12	3723.32	61.00	57.35	3.65	3665.37
	09/11/12	3723.32	61.15	56.96	4.19	3665.67
	12/06/12	3723.32	61.15	58.21	2.94	3664.62



Table 1 - Summary of Historical Fluid Level Measurements
Kimbrough Sweet 8"
SRS#: 2000-10757

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: 2 in.	Screened Interval: _____ ft. to _____ ft.		TD: 59.0 ft.
	12/11/02	3720.60	49.93	-	-	3670.67
	02/20/03	3720.60	50.13	-	-	3670.47
	02/11/04	3720.60	50.98	-	-	3669.62
	08/16/04	3720.60	51.64	-	-	3668.96
	03/22/05	3720.60	51.14	-	-	3669.46
	03/31/05	3720.60	51.16	-	-	3669.44
	04/22/05	3720.60	51.18	-	-	3669.42
	05/12/05	3720.60	51.26	-	-	3669.34
	05/25/05	3720.60	51.26	-	-	3669.34
	06/28/05	3720.60	51.38	-	-	3669.22
	07/25/05	3720.60	51.48	-	-	3669.12
	08/22/05	3720.60	51.52	-	-	3669.08
	11/14/05	3720.60	51.63	-	-	3668.97
	11/30/05	3720.60	51.92	-	-	3668.68
	02/06/06	3720.60	52.15	-	-	3668.45
	03/01/06	3720.60	51.77	-	-	3668.83
	05/02/06	3720.60	53.90	-	-	3666.70
	05/25/06	3720.60	53.48	-	-	3667.12
	08/10/06	3720.60	51.45	-	-	3669.15
	11/29/06	3720.60	51.67	-	-	3668.93
	12/06/06	3720.60	51.70	-	-	3668.90
	01/10/07	3720.60	51.80	-	-	3668.80
	02/08/07	3720.60	52.14	-	-	3668.46
	03/01/07	3720.60	52.40	-	-	3668.20
	03/06/07	3720.60	51.96	-	-	3668.64
	03/14/07	3720.60	52.43	-	-	3668.17
	04/02/07	3720.60	52.22	-	-	3668.38
	04/09/07	3720.60	52.45	-	-	3668.15
	04/16/07	3720.60	52.48	-	-	3668.12
	05/01/07	3720.60	52.61	-	-	3667.99
	05/21/07	3720.60	52.55	-	-	3668.05
	06/13/07	3720.60	52.46	-	-	3668.14
	06/26/07	3720.60	52.50	-	-	3668.10
	07/18/07	3720.60	52.59	-	-	3668.01
	09/13/07	3720.60	52.69	-	-	3667.91
	10/24/07	3720.60	52.80	-	-	3667.80
	12/03/07	3720.60	52.89	-	-	3667.71
	01/29/08	3720.60	53.03	-	-	3667.57
	03/13/08	3720.60	53.10	-	-	3667.50
	05/14/08	3720.60	53.23	-	-	3667.37
	06/03/08	3720.60	53.27	-	-	3667.33
	06/18/08	3720.60	53.37	-	-	3667.23
	07/01/08	3720.60	53.33	-	-	3667.27
	07/02/08	3720.60	53.41	-	-	3667.19
	08/28/08	3720.60	53.47	-	-	3667.13
	09/26/08	3720.60	53.58	-	-	3667.02
	10/27/08	3720.60	53.62	-	-	3666.98
	12/02/08	3720.60	53.74	-	-	3666.86
	01/15/09	3720.60	53.85	-	-	3666.75
	04/06/09	3720.60	54.03	-	-	3666.57
	05/19/09	3721.52	54.15	-	-	3667.37
	08/27/09	3721.52	54.45	-	-	3667.07
	12/14/09	3721.52	54.66	-	-	3666.86
	12/16/11	3721.52	56.62	-	-	3664.90
	03/13/12	3721.52	56.87	-	-	3664.65
	06/20/12	3721.52	57.16	-	-	3664.36
	09/11/12	3721.52	57.39	-	-	3664.13



Table 1 - Summary of Historical Fluid Level Measurements
Kimbrough Sweet 8"
SRS#: 2000-10757

Well	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Depth to PSH (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)
MW-3	12/06/12	3721.52	Diameter: <u>2</u> in. 57.64	Screened Interval: _____ ft. to _____ ft. -	-	TD: <u>59.0</u> ft. 3663.88



Table 1 - Summary of Historical Fluid Level Measurements
Kimbrough Sweet 8"
SRS#: 2000-10757

Well	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Depth to PSH (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)
MW-4			Diameter: 2 in.	Screened Interval: _____ ft. to _____ ft.		TD: 56.0 ft.
	12/11/02	3721.03	49.50	-	-	3671.53
	02/20/03	3721.03	49.69	-	-	3671.34
	02/11/04	3721.03	50.51	-	-	3670.52
	08/16/04	3721.03	50.91	-	-	3670.12
	03/22/05	3721.03	50.67	-	-	3670.36
	03/31/05	3721.03	50.70	-	-	3670.33
	04/22/05	3721.03	50.71	-	-	3670.32
	05/12/05	3721.03	50.80	-	-	3670.23
	05/25/05	3721.03	50.80	-	-	3670.23
	06/28/05	3721.03	50.92	-	-	3670.11
	07/25/05	3721.03	51.02	-	-	3670.01
	08/22/05	3721.03	51.06	-	-	3669.97
	11/14/05	3721.03	51.15	-	-	3669.88
	11/30/05	3721.03	51.43	-	-	3669.60
	02/06/06	3721.03	51.68	-	-	3669.35
	03/01/06	3721.03	51.21	-	-	3669.82
	05/02/06	3721.03	51.88	-	-	3669.15
	05/25/06	3721.03	50.17	-	-	3670.86
	08/10/06	3721.03	51.96	-	-	3669.07
	11/29/06	3721.03	52.16	-	-	3668.87
	12/06/06	3721.03	52.19	-	-	3668.84
	01/10/07	3721.03	52.27	-	-	3668.76
	02/08/07	3721.03	51.65	-	-	3669.38
	03/01/07	3721.03	51.97	-	-	3669.06
	03/06/07	3721.03	52.45	-	-	3668.58
	03/14/07	3721.03	51.93	-	-	3669.10
	04/02/07	3721.03	51.73	-	-	3669.30
	04/09/07	3721.03	51.95	-	-	3669.08
	04/16/07	3721.03	51.46	-	-	3669.57
	05/01/07	3721.03	52.04	-	-	3668.99
	05/21/07	3721.03	52.05	-	-	3668.98
	06/13/07	3721.03	51.96	-	-	3669.07
	06/26/07	3721.03	51.96	-	-	3669.07
	07/18/07	3721.03	52.09	-	-	3668.94
	09/13/07	3721.03	52.20	-	-	3668.83
	10/24/07	3721.03	52.25	-	-	3668.78
	12/03/07	3721.03	52.36	-	-	3668.67
	01/29/08	3721.03	52.44	-	-	3668.59
	03/13/08	3721.03	52.54	-	-	3668.49
	05/14/08	3721.03	52.70	-	-	3668.33
	06/03/08	3721.03	52.75	-	-	3668.28
	06/18/08	3721.03	52.84	-	-	3668.19
	07/01/08	3721.03	52.81	-	-	3668.22
	07/02/08	3721.03	52.89	-	-	3668.14
	08/28/08	3721.03	52.93	-	-	3668.10
	09/26/08	3721.03	53.04	-	-	3667.99
	10/27/08	3721.03	53.14	-	-	3667.89
	12/02/08	3721.03	53.20	-	-	3667.83
	01/15/09	3721.03	53.30	-	-	3667.73
	02/05/09	3721.03	53.33	-	-	3667.70
	04/06/09	3721.03	53.47	-	-	3667.56
	05/19/09	3721.94	53.58	-	-	3668.36
	08/27/09	3721.94	53.89	-	-	3668.05
	12/14/09	3721.94	54.09	-	-	3667.85
	12/16/11	3721.94	55.96	-	-	3665.98
	03/13/12	3721.94	56.80	-	-	3665.14
	06/20/12	3721.94	56.56	-	-	3665.38



Table 1 - Summary of Historical Fluid Level Measurements
Kimbrough Sweet 8"
SRS#: 2000-10757

Well	Date	Top of Casing Elevation (ft)	Depth to Groundwater (ft)	Depth to PSH (ft)	PSH Thickness (ft)	Corrected Groundwater Elevation (ft)
MW-4			Diameter: 2 in.	Screened Interval: _____ ft. to _____ ft.		TD: 56.0 ft.
	09/11/12	3721.94	56.72	-	-	3665.22
	12/06/12	3721.94	56.98	-	-	3664.96



Table 1 - Summary of Historical Fluid Level Measurements
Kimbrough Sweet 8"
SRS#: 2000-10757

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: _____ ft. to _____ ft.		TD: <u>65.0</u> ft.
	10/21/04	3723.58	58.76	51.26	7.50	3671.08
	03/22/05	3723.58	59.00	51.46	7.54	3670.88
	03/31/05	3723.58	59.00	51.46	7.54	3670.88
	04/22/05	3723.58	55.95	52.62	3.33	3670.41
	05/25/05	3723.58	56.23	52.18	4.05	3670.73
	07/25/05	3723.58	57.97	52.06	5.91	3670.54
	11/30/05	3723.58	60.20	52.17	8.03	3670.09
	02/06/06	3723.58	60.51	52.44	8.07	3669.81
	03/01/06	3723.58	60.53	52.45	8.08	3669.80
	05/02/06	3723.58	59.94	52.68	7.26	3669.70
	05/25/06	3723.58	59.89	52.30	7.59	3670.03
	08/10/06	3723.58	60.28	52.33	7.95	3669.94
	11/29/06	3723.58	60.24	52.45	7.79	3669.84
	12/06/06	3723.58	52.44	60.19	-7.75	3664.67
	01/10/07	3723.58	58.87	52.48	6.39	3670.05
	03/01/07	3723.58	60.48	52.75	7.73	3669.55
	03/06/07	3723.58	60.48	52.70	7.78	3669.60
	03/14/07	3723.58	61.25	51.85	9.40	3670.18
	04/02/07	3723.58	60.55	52.70	7.85	3669.58
	04/09/07	3723.58	60.50	52.74	7.76	3669.56
	04/16/07	3723.58	60.55	52.74	7.81	3669.55
	05/01/07	3723.58	60.49	52.81	7.68	3669.50
	05/21/07	3723.58	60.57	52.85	7.72	3669.46
	06/26/07	3723.58	55.68	53.90	1.78	3669.39
	06/28/07	3723.58	54.71	54.07	0.64	3669.40
	07/18/07	3723.58	56.97	53.80	3.17	3669.26
	08/21/07	3723.58	54.47	54.19	0.28	3669.34
	08/30/07	3723.58	60.12	52.90	7.22	3669.49
	09/13/07	3723.58	58.74	53.11	5.63	3669.54
	10/09/07	3723.58	54.79	54.39	0.40	3669.12
	10/17/07	3723.58	60.32	53.10	7.22	3669.29
	10/24/07	3723.58	55.55	54.10	1.45	3669.24
	11/02/07	3723.58	54.71	54.38	0.33	3669.15
	11/12/07	3723.58	60.33	53.16	7.17	3669.24
	12/03/07	3723.58	58.43	53.65	4.78	3669.14
	01/03/08	3723.58	55.57	54.64	0.93	3668.79
	01/07/08	3723.58	55.56	54.43	1.13	3668.96
	01/22/08	3723.58	58.53	54.87	3.66	3668.11
	01/29/08	3723.58	58.47	53.89	4.58	3668.93
	02/06/08	3723.58	58.69	53.87	4.82	3668.91
	02/12/08	3723.58	58.70	53.89	4.81	3668.90
	03/13/08	3723.58	58.77	53.94	4.83	3668.84
	03/19/08	3723.58	59.98	53.78	6.20	3668.78
	03/27/08	3723.58	57.16	54.44	2.72	3668.69
	04/01/08	3723.58	59.06	54.11	4.95	3668.65
	04/11/08	3723.58	58.07	54.37	3.70	3668.60
	04/16/08	3723.58	55.80	54.85	0.95	3668.57
	04/30/08	3723.58	58.16	54.37	3.79	3668.58
	05/12/08	3723.58	57.89	54.47	3.42	3668.55
	06/03/08	3723.58	61.08	53.92	7.16	3668.48
	06/10/08	3723.58	57.66	55.92	1.74	3667.37
	06/18/08	3723.58	58.12	54.64	3.48	3668.37
	07/01/08	3723.58	59.00	54.80	4.20	3668.09
	07/02/08	3723.58	58.15	54.35	3.80	3668.60
	07/07/08	3723.58	60.41	54.22	6.19	3668.34
	07/24/08	3723.58	57.16	55.40	1.76	3667.89
	08/06/08	3723.58	59.62	54.93	4.69	3667.88



Table 1 - Summary of Historical Fluid Level Measurements
Kimbrough Sweet 8"
SRS#: 2000-10757

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: _____ ft. to _____ ft.		TD: 65.0 ft.
	08/28/08	3723.58	57.54	54.55	2.99	3668.54
	09/26/08	3723.58	60.03	54.18	5.85	3668.43
	10/27/08	3723.58	59.34	54.41	4.93	3668.36
	12/02/08	3723.58	60.42	54.26	6.16	3668.30
	01/15/09	3723.58	60.91	54.35	6.56	3668.15
	02/05/09	3723.58	60.96	54.38	6.58	3668.11
	04/06/09	3723.58	61.41	54.63	6.78	3667.83
	05/19/09	3724.08	61.60	54.44	7.16	3668.46
	07/13/09	3724.08	61.58	55.55	6.03	3667.54
	08/27/09	3724.08	60.78	54.97	5.81	3668.15
	12/14/09	3724.08	57.64	56.24	1.40	3667.61
	12/16/11	3724.08	62.80	57.13	5.67	3666.01
	03/13/12	3724.08	61.91	57.67	4.24	3665.71
	06/20/12	3724.08	62.94	57.94	5.00	3665.31
	09/11/12	3724.08	63.85	58.03	5.82	3665.09
	12/06/12	3724.08	60.29	58.90	1.39	3664.95



Table 1 - Summary of Historical Fluid Level Measurements
Kimbroough Sweet 8"
SRS#: 2000-10757

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: _____ ft. to _____ ft.		TD: 64.0 ft.
	03/22/05	3721.68	56.86	49.55	7.31	3670.92
	03/31/05	3721.68	56.86	49.55	7.31	3670.92
	04/22/05	3721.68	51.66	50.82	0.84	3670.72
	05/25/05	3721.68	53.11	50.61	2.50	3670.66
	06/28/05	3721.68	57.69	49.83	7.86	3670.55
	07/25/05	3721.68	55.50	50.30	5.20	3670.52
	11/30/05	3721.68	58.35	50.33	8.02	3670.03
	02/06/06	3721.68	58.80	50.65	8.15	3669.69
	03/01/06	3721.68	58.64	50.63	8.01	3669.73
	05/02/06	3721.68	58.10	50.82	7.28	3669.66
	05/25/06	3721.68	58.12	50.21	7.91	3670.16
	08/10/06	3721.68	59.55	50.47	9.08	3669.71
	11/29/06	3721.68	58.33	50.63	7.70	3669.78
	12/06/06	3721.68	58.33	50.60	7.73	3669.80
	01/10/07	3721.68	57.36	50.71	6.65	3669.87
	02/08/07	3721.68	58.38	50.71	7.67	3669.70
	02/19/07	3721.68	58.87	58.36	0.51	3663.24
	03/01/07	3721.68	58.45	50.89	7.56	3669.54
	03/06/07	3721.68	58.58	50.86	7.72	3669.55
	03/14/07	3721.68	58.51	52.80	5.71	3667.94
	04/02/07	3721.68	58.54	50.86	7.68	3669.55
	04/09/07	3721.68	58.56	50.87	7.69	3669.54
	04/16/07	3721.68	58.54	50.92	7.62	3669.50
	05/01/07	3721.68	58.57	50.91	7.66	3669.51
	05/21/07	3721.68	58.62	50.96	7.66	3669.46
	06/26/07	3721.68	53.25	52.20	1.05	3669.31
	06/28/07	3721.68	53.10	52.10	1.00	3669.41
	07/18/07	3721.68	54.61	51.89	2.72	3669.34
	08/21/07	3721.68	52.56	52.32	0.24	3669.32
	08/30/07	3721.68	57.72	51.23	6.49	3669.38
	09/13/07	3721.68	54.85	51.88	2.97	3669.31
	10/09/07	3721.68	52.65	52.45	0.20	3669.20
	10/17/07	3721.68	58.61	51.61	7.00	3668.91
	10/24/07	3721.68	58.30	51.24	7.06	3669.28
	11/02/07	3721.68	54.86	52.04	2.82	3669.17
	11/12/07	3721.68	54.91	52.10	2.81	3669.12
	12/03/07	3721.68	56.60	51.78	4.82	3669.10
	01/03/08	3721.68	56.64	51.94	4.70	3668.96
	01/07/08	3721.68	56.62	52.19	4.43	3668.76
	01/22/08	3721.68	57.06	51.89	5.17	3668.94
	01/29/08	3721.68	56.70	51.92	4.78	3668.97
	02/06/08	3721.68	57.79	51.97	5.82	3668.75
	02/12/08	3721.68	57.81	51.99	5.82	3668.73
	03/13/08	3721.68	56.82	52.09	4.73	3668.81
	03/19/08	3721.68	57.37	51.99	5.38	3668.80
	03/27/08	3721.68	55.83	52.40	3.43	3668.71
	04/01/08	3721.68	55.93	52.39	3.54	3668.71
	04/11/08	3721.68	55.63	52.58	3.05	3668.60
	04/16/08	3721.68	53.26	53.04	0.22	3668.60
	04/30/08	3721.68	54.57	52.79	1.78	3668.60
	05/14/08	3721.68	56.20	52.51	3.69	3668.56
	05/23/08	3721.68	53.89	53.49	0.40	3668.12
	06/03/08	3721.68	57.19	52.52	4.67	3668.39
	06/10/08	3721.68	57.59	52.51	5.08	3668.33
	06/18/08	3721.68	57.93	52.47	5.46	3668.31
	07/01/08	3721.68	56.07	53.01	3.06	3668.17
	07/02/08	3721.68	54.18	52.90	1.28	3668.57



Table 1 - Summary of Historical Fluid Level Measurements
Kimbrough Sweet 8"
SRS#: 2000-10757

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: _____ ft. to _____ ft.		TD: 64.0 ft.
	07/24/08	3721.68	55.22	53.43	1.79	3667.95
	08/06/08	3721.68	56.80	53.20	3.60	3667.89
	08/28/08	3721.68	56.46	52.50	3.96	3668.53
	09/26/08	3721.68	57.67	52.37	5.30	3668.44
	10/27/08	3721.68	57.24	52.52	4.72	3668.38
	12/02/08	3721.68	58.17	52.45	5.72	3668.29
	01/15/09	3721.68	58.50	52.51	5.99	3668.18
	02/05/09	3721.68	58.50	52.58	5.92	3668.12
	04/06/09	3721.68	58.96	52.73	6.23	3667.92
	05/19/09	3722.16	59.50	52.63	6.87	3668.40
	07/13/09	3722.16	59.34	52.89	6.45	3668.21
	08/27/09	3722.16	59.10	53.09	6.01	3668.08
	12/14/09	3722.16	56.84	54.12	2.72	3667.59
	12/16/11	3722.16	59.61	55.56	4.05	3665.93
	03/13/12	3722.16	60.65	55.69	4.96	3665.65
	06/20/12	3722.16	61.60	55.95	5.65	3665.28
	09/11/12	3722.16	61.84	56.12	5.72	3665.10
	12/06/12	3722.16	59.55	56.80	2.75	3664.91



Table 1 - Summary of Historical Fluid Level Measurements
Kimbrough Sweet 8"
SRS#: 2000-10757

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: _____ ft. to _____ ft.		TD: 64.0 ft.
	10/21/04	3722.74	55.23	51.00	4.23	3671.04
	03/22/05	3722.74	57.48	50.78	6.70	3670.85
	03/31/05	3722.74	57.48	50.78	6.70	3670.85
	04/22/05	3722.74	57.31	51.92	5.39	3669.93
	05/25/05	3722.74	53.44	51.78	1.66	3670.69
	06/28/05	3722.74	55.39	51.53	3.86	3670.57
	07/25/05	3722.74	53.35	52.07	1.28	3670.46
	11/30/05	3722.74	58.48	51.50	6.98	3670.09
	02/06/06	3722.74	58.71	51.75	6.96	3669.84
	03/01/06	3722.74	57.31	52.10	5.21	3669.78
	05/02/06	3722.74	56.91	52.35	4.56	3669.64
	05/25/06	3722.74	58.60	52.79	5.81	3668.99
	08/10/06	3722.74	58.61	51.56	7.05	3670.02
	08/10/06	3722.74	58.61	51.56	7.05	3670.02
	11/29/06	3722.74	58.86	51.76	7.10	3669.81
	12/06/06	3722.74	58.91	51.78	7.13	3669.78
	01/10/07	3722.74	56.96	51.86	5.10	3670.04
	02/08/07	3722.74	58.85	51.92	6.93	3669.68
	02/19/07	3722.74	56.42	52.35	4.07	3669.72
	03/01/07	3722.74	58.13	52.21	5.92	3669.55
	03/06/07	3722.74	58.56	52.14	6.42	3669.54
	03/14/07	3722.74	58.86	52.07	6.79	3669.55
	04/02/07	3722.74	59.06	52.03	7.03	3669.55
	04/09/07	3722.74	59.11	52.09	7.02	3669.49
	04/16/07	3722.74	59.16	52.08	7.08	3669.49
	05/01/07	3722.74	58.82	52.16	6.66	3669.48
	05/21/07	3722.74	59.11	52.14	6.97	3669.45
	06/26/07	3722.74	58.98	52.20	6.78	3669.42
	06/28/07	3722.74	58.73	52.20	6.53	3669.46
	07/18/07	3722.74	58.77	52.24	6.53	3669.42
	08/21/07	3722.74	58.79	52.30	6.49	3669.37
	08/30/07	3722.74	58.83	52.30	6.53	3669.36
	09/13/07	3722.74	58.89	52.35	6.54	3669.31
	10/09/07	3722.74	58.96	52.37	6.59	3669.28
	10/17/07	3722.74	59.02	52.40	6.62	3669.25
	10/24/07	3722.74	58.98	52.39	6.59	3669.26
	11/02/07	3722.74	59.05	52.47	6.58	3669.18
	11/12/07	3722.74	57.99	52.49	5.50	3669.34
	12/03/07	3722.74	59.12	52.57	6.55	3669.09
	01/03/08	3722.74	59.12	52.39	6.73	3669.24
	01/07/08	3722.74	59.08	52.57	6.51	3669.10
	01/22/08	3722.74	59.09	52.71	6.38	3668.98
	01/29/08	3722.74	59.21	52.74	6.47	3668.93
	02/06/08	3722.74	59.13	52.77	6.36	3668.92
	02/12/08	3722.74	59.10	52.75	6.35	3668.94
	03/13/08	3722.74	59.76	52.86	6.90	3668.74
	03/19/08	3722.74	59.26	52.88	6.38	3668.81
	03/27/08	3722.74	59.29	52.96	6.33	3668.74
	04/01/08	3722.74	59.53	52.93	6.60	3668.72
	04/11/08	3722.74	59.39	53.01	6.38	3668.68
	04/16/08	3722.74	59.41	53.02	6.39	3668.67
	04/30/08	3722.74	59.46	53.05	6.41	3668.63
	05/14/08	3722.74	59.43	53.12	6.31	3668.58
	05/23/08	3722.74	59.61	53.31	6.30	3668.39
	06/03/08	3722.74	59.53	53.29	6.24	3668.42
	06/10/08	3722.74	59.58	53.33	6.25	3668.38
	06/18/08	3722.74	55.95	54.16	1.79	3668.28



Table 1 - Summary of Historical Fluid Level Measurements
Kimbrough Sweet 8"
SRS#: 2000-10757

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: _____ ft. to _____ ft.		TD: 64.0 ft.
	07/01/08	3722.74	55.76	54.28	1.48	3668.22
	07/02/08	3722.74	53.90	55.50	-1.60	3667.50
	07/24/08	3722.74	55.36	54.59	0.77	3668.02
	08/06/08	3722.74	55.54	54.71	0.83	3667.89
	08/28/08	3722.74	55.30	54.01	1.29	3668.52
	09/26/08	3722.74	58.01	53.51	4.50	3668.49
	10/27/08	3722.74	54.05	56.02	-1.97	3667.05
	12/02/08	3722.74	57.00	53.96	3.04	3668.28
	01/15/09	3722.74	58.71	53.72	4.99	3668.20
	02/05/09	3722.74	58.51	53.82	4.69	3668.15
	04/06/09	3722.74	59.41	53.82	5.59	3668.00
	05/19/09	3723.23	59.04	54.02	5.02	3668.38
	07/13/09	3723.23	59.21	54.20	5.01	3668.20
	08/27/09	3723.23	57.46	54.70	2.76	3668.07
	12/14/09	3723.23	55.85	55.61	0.24	3667.58
	12/16/11	3723.23	58.40	57.05	1.35	3665.96
	03/13/12	3723.23	58.11	57.48	0.63	3665.65
	06/20/12	3723.23	58.12	57.38	0.74	3665.73
	09/11/12	3723.23	60.08	57.65	2.43	3665.18
	12/06/12	3723.23	58.57	58.21	0.36	3664.96



Table 1 - Summary of Historical Fluid Level Measurements
Kimbrough Sweet 8"
SRS#: 2000-10757

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: _____ ft. to _____ ft.		TD: 61.0 ft.
	10/21/04	3722.85	54.38	51.15	3.23	3671.17
	03/22/05	3722.85	57.15	50.78	6.37	3671.02
	03/31/05	3722.85	57.15	50.78	6.37	3671.02
	04/22/05	3722.85	57.08	51.90	5.18	3670.10
	05/25/05	3722.85	52.15	51.99	0.16	3670.83
	06/28/05	3722.85	57.31	50.04	7.27	3671.61
	07/25/05	3722.85	54.14	51.82	2.32	3670.65
	11/30/05	3722.85	58.47	51.47	7.00	3670.22
	02/06/06	3722.85	57.80	51.75	6.05	3670.10
	03/01/06	3722.85	57.90	51.91	5.99	3669.95
	05/02/06	3722.85	56.95	52.26	4.69	3669.82
	05/25/06	3722.85	57.61	51.47	6.14	3670.37
	08/10/06	3722.85	54.69	52.28	2.41	3670.17
	11/29/06	3722.85	57.22	51.98	5.24	3670.01
	12/06/06	3722.85	55.71	52.48	3.23	3669.84
	01/10/07	3722.85	57.01	51.84	5.17	3670.16
	02/08/07	3722.85	58.61	52.10	6.51	3669.68
	02/19/07	3722.85	56.67	52.48	4.19	3669.68
	03/01/07	3722.85	57.13	52.25	4.88	3669.79
	03/06/07	3722.85	57.92	52.17	5.75	3669.73
	03/14/07	3722.85	58.21	52.06	6.15	3669.78
	04/02/07	3722.85	58.42	52.07	6.35	3669.73
	04/09/07	3722.85	58.49	52.08	6.41	3669.71
	04/16/07	3722.85	58.54	52.11	6.43	3669.68
	05/01/07	3722.85	58.40	52.17	6.23	3669.65
	05/21/07	3722.85	58.51	52.19	6.32	3669.62
	06/26/07	3722.85	54.80	53.10	1.70	3669.47
	06/28/07	3722.85	54.52	53.09	1.43	3669.52
	07/18/07	3722.85	57.55	52.52	5.03	3669.50
	08/21/07	3722.85	55.52	52.96	2.56	3669.47
	08/30/07	3722.85	55.17	53.20	1.97	3669.32
	09/13/07	3722.85	55.67	52.90	2.77	3669.49
	10/09/07	3722.85	57.00	52.41	4.59	3669.68
	10/17/07	3722.85	56.87	52.80	4.07	3669.38
	10/24/07	3722.85	57.10	52.78	4.32	3669.36
	11/02/07	3722.85	53.71	53.52	0.19	3669.30
	12/03/07	3722.85	58.39	52.61	5.78	3669.29
	01/03/08	3722.85	53.89	53.70	0.19	3669.12
	01/07/08	3722.85	53.91	53.61	0.30	3669.19
	01/22/08	3722.85	54.19	53.70	0.49	3669.07
	01/29/08	3722.85	56.43	53.21	3.22	3669.11
	02/06/08	3722.85	56.79	53.06	3.73	3669.17
	02/12/08	3722.85	56.82	53.03	3.79	3669.19
	03/13/08	3722.85	54.80	52.69	2.11	3669.81
	03/19/08	3722.85	55.73	53.54	2.19	3668.95
	03/27/08	3722.85	54.45	53.92	0.53	3668.84
	04/01/08	3722.85	56.94	53.57	3.37	3668.72
	04/11/08	3722.85	55.48	54.23	1.25	3668.41
	04/16/08	3722.85	54.20	54.01	0.19	3668.81
	04/30/08	3722.85	54.28	54.04	0.24	3668.77
	05/14/08	3722.85	57.24	53.52	3.72	3668.72
	05/23/08	3722.85	54.59	54.37	0.22	3668.44
	06/03/08	3722.85	54.49	54.28	0.21	3668.54
	06/10/08	3722.85	54.54	54.37	0.17	3668.45
	06/18/08	3722.85	54.68	54.31	0.37	3668.48
	07/01/08	3722.85	54.68	54.53	0.15	3668.30
	07/02/08	3722.85	54.56	53.98	0.58	3668.77



Table 1 - Summary of Historical Fluid Level Measurements
Kimbrough Sweet 8"
SRS#: 2000-10757

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: _____ ft. to _____ ft.		TD: 61.0 ft.
	07/24/03	3722.85	55.85	54.50	1.35	3668.13
	08/06/03	3722.85	55.05	54.71	0.34	3668.08
	08/28/03	3722.85	54.39	54.13	0.26	3668.68
	09/26/03	3722.85	58.45	53.77	4.68	3668.31
	10/27/03	3722.85	55.22	54.14	1.08	3668.53
	12/02/03	3722.85	58.24	53.61	4.63	3668.48
	01/15/09	3722.85	58.75	53.63	5.12	3668.38
	02/05/09	3722.85	58.87	53.69	5.18	3668.31
	04/06/09	3722.85	59.18	53.19	5.99	3668.67
	05/19/09	3723.41	59.54	53.82	5.72	3668.65
	07/13/09	3723.41	58.90	54.29	4.61	3668.36
	08/27/09	3723.41	56.79	54.75	2.04	3668.32
	12/14/09	3723.41	55.74	55.52	0.22	3667.85
	12/16/11	3723.41	58.65	56.87	1.78	3666.25
	03/13/12	3723.41	59.89	56.99	2.90	3665.94
	06/20/12	3723.41	60.90	57.40	3.50	3665.43
	09/11/12	3723.41	59.35	58.03	1.32	3665.16
	12/06/12	3723.41	60.58	57.77	2.81	3665.18



Table 1 - Summary of Historical Fluid Level Measurements
Kimbrough Sweet 8"
SRS#: 2000-10757

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: _____ ft. to _____ ft.		TD: 63.0 ft.
	10/21/04	3722.80	53.99	50.95	3.04	3671.35
	03/22/05	3722.80	54.53	51.04	3.49	3671.18
	03/31/05	3722.80	54.53	51.04	3.49	3671.18
	04/22/05	3722.80	51.77	51.71	0.06	3671.08
	05/25/05	3722.80	52.22	51.70	0.52	3671.01
	06/28/05	3722.80	55.84	50.95	4.89	3671.04
	07/25/05	3722.80	52.89	51.74	1.15	3670.87
	11/30/05	3722.80	57.92	51.24	6.68	3670.46
	02/06/06	3722.80	58.25	51.47	6.78	3670.21
	03/01/06	3722.80	56.32	51.99	4.33	3670.10
	05/02/06	3722.80	56.23	52.12	4.11	3670.00
	05/25/06	3722.80	55.99	51.42	4.57	3670.63
	08/10/06	3722.80	58.20	51.41	6.79	3670.27
	11/29/06	3722.80	58.24	51.56	6.68	3670.14
	12/06/06	3722.80	58.30	51.61	6.69	3670.09
	01/10/07	3722.80	57.17	51.63	5.54	3670.26
	02/05/07	3722.80	58.31	51.72	6.59	3669.99
	02/19/07	3722.80	56.42	52.31	4.11	3669.81
	03/01/07	3722.80	57.59	51.95	5.64	3669.92
	03/06/07	3722.80	58.01	51.89	6.12	3669.90
	03/14/07	3722.80	58.24	51.82	6.42	3669.92
	04/02/07	3722.80	58.33	51.81	6.52	3669.91
	04/09/07	3722.80	58.40	51.88	6.52	3669.84
	04/16/07	3722.80	58.45	51.88	6.57	3669.84
	05/01/07	3722.80	58.09	51.93	6.16	3669.85
	05/21/07	3722.80	58.45	51.98	6.47	3669.75
	06/26/07	3722.80	58.52	52.04	6.48	3669.69
	06/28/07	3722.80	58.50	52.04	6.46	3669.69
	07/18/07	3722.80	58.41	51.93	6.48	3669.80
	08/21/07	3722.80	58.50	52.03	6.47	3669.70
	08/30/07	3722.80	53.45	53.15	0.30	3669.60
	09/13/07	3722.80	57.67	52.24	5.43	3669.66
	10/09/07	3722.80	58.48	52.15	6.33	3669.61
	10/17/07	3722.80	58.52	53.31	5.21	3668.63
	11/02/07	3722.80	57.82	52.38	5.44	3669.52
	11/12/07	3722.80	53.55	53.39	0.16	3669.38
	12/03/07	3722.80	58.14	52.42	5.72	3669.44
	01/03/08	3722.80	58.59	52.38	6.21	3669.40
	01/07/08	3722.80	58.56	52.47	6.09	3669.33
	01/22/08	3722.80	56.67	52.86	3.81	3669.31
	01/29/08	3722.80	57.84	52.71	5.13	3669.24
	02/06/08	3722.80	58.38	52.54	5.84	3669.30
	02/12/08	3722.80	58.41	52.56	5.85	3669.27
	03/13/08	3722.80	58.83	52.66	6.17	3669.12
	03/19/08	3722.80	58.78	52.57	6.21	3669.21
	03/27/08	3722.80	58.87	52.64	6.23	3669.13
	04/01/08	3722.80	58.83	52.66	6.17	3669.12
	04/11/08	3722.80	58.39	52.74	5.65	3669.13
	04/16/08	3722.80	58.96	53.73	5.23	3668.21
	05/14/08	3722.80	59.04	52.82	6.22	3668.95
	06/03/08	3722.80	54.09	54.99	-0.90	3667.96
	06/10/08	3722.80	59.81	53.50	6.31	3668.26
	06/18/08	3722.80	58.17	53.29	4.88	3668.70
	07/01/08	3722.80	59.06	53.20	5.86	3668.63
	07/02/08	3722.80	58.94	53.75	5.19	3668.19
	07/07/08	3722.80	59.25	53.26	5.99	3668.55
	07/27/08	3722.80	59.48	53.36	6.12	3668.43



Table 1 - Summary of Historical Fluid Level Measurements
Kimbrough Sweet 8"
SRS#: 2000-10757

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: _____ ft. to _____ ft.		TD: 63.0 ft.
	08/06/08	3722.80	55.08	54.43	0.65	3668.26
	08/28/08	3722.80	56.83	53.43	3.40	3668.81
	09/26/08	3722.80	54.76	54.01	0.75	3668.67
	10/27/08	3722.80	55.01	54.03	0.98	3668.61
	12/02/08	3722.80	55.93	53.89	2.04	3668.57
	01/05/09	3722.80	56.27	53.96	2.31	3668.46
	02/08/09	3722.80	56.42	54.03	2.39	3668.38
	04/06/09	3722.80	58.72	53.87	4.85	3668.13
	05/19/09	3723.25	56.28	54.24	2.04	3668.67
	07/13/09	3723.25	56.80	54.35	2.45	3668.50
	08/27/09	3723.25	55.65	54.74	0.91	3668.36
	12/14/09	3723.25	55.50	55.32	0.18	3667.90
	12/16/11	3723.25	59.21	56.60	2.61	3666.22
	03/13/12	3723.25	57.73	57.19	0.54	3665.97
	06/20/12	3723.25	60.26	57.57	2.69	3665.24
	09/11/12	3723.25	58.45	57.77	0.68	3665.37
	12/06/12	3723.25	58.80	57.58	1.22	3665.47



Table 1 - Summary of Historical Fluid Level Measurements
Kimbrough Sweet 8"
SRS#: 2000-10757

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: 2 in.	Screened Interval: _____ ft. to _____ ft.		TD: 59.0 ft.
	03/22/05	3723.62	52.28	-	-	3671.34
	03/31/05	3723.62	52.31	-	-	3671.31
	04/22/05	3723.62	52.36	-	-	3671.26
	05/12/05	3723.62	52.41	-	-	3671.21
	05/25/05	3723.62	52.42	-	-	3671.20
	06/28/05	3723.62	52.52	-	-	3671.10
	07/25/05	3723.62	52.61	-	-	3671.01
	08/22/05	3723.62	52.67	-	-	3670.95
	11/14/05	3723.62	52.76	-	-	3670.86
	11/30/05	3723.62	53.05	-	-	3670.57
	02/06/06	3723.62	53.29	-	-	3670.33
	03/01/06	3723.62	53.85	-	-	3669.77
	05/02/06	3723.62	53.47	-	-	3670.15
	05/25/06	3723.62	53.08	-	-	3670.54
	08/10/06	3723.62	53.07	-	-	3670.55
	11/29/06	3723.62	53.29	-	-	3670.33
	12/06/06	3723.62	53.32	-	-	3670.30
	01/10/07	3723.62	53.38	-	-	3670.24
	02/08/07	3723.62	53.24	-	-	3670.38
	03/01/07	3723.62	53.73	-	-	3669.89
	03/06/07	3723.62	53.51	-	-	3670.11
	03/14/07	3723.62	53.52	-	-	3670.10
	04/02/07	3723.62	53.35	-	-	3670.27
	04/09/07	3723.62	53.57	-	-	3670.05
	04/16/07	3723.62	53.58	-	-	3670.04
	05/01/07	3723.62	53.63	-	-	3669.99
	05/21/07	3723.62	53.65	-	-	3669.97
	06/13/07	3723.62	53.57	-	-	3670.05
	06/26/07	3723.62	53.60	-	-	3670.02
	07/18/07	3723.62	53.69	-	-	3669.93
	09/13/07	3723.62	53.79	-	-	3669.83
	10/24/07	3723.62	53.86	-	-	3669.76
	12/03/07	3723.62	53.98	-	-	3669.64
	01/29/08	3723.62	54.06	-	-	3669.56
	03/13/08	3723.62	54.18	-	-	3669.44
	05/14/08	3723.62	54.28	-	-	3669.34
	06/03/08	3723.62	54.31	-	-	3669.31
	06/18/08	3723.62	54.43	-	-	3669.19
	07/01/08	3723.62	54.38	-	-	3669.24
	07/02/08	3723.62	54.47	-	-	3669.15
	08/28/08	3723.62	54.54	-	-	3669.08
	09/26/08	3723.62	54.63	-	-	3668.99
	10/27/08	3723.62	54.70	-	-	3668.92
	12/02/08	3723.62	54.77	-	-	3668.85
	01/15/09	3723.62	54.88	-	-	3668.74
	02/05/09	3723.62	54.92	-	-	3668.70
	04/06/09	3723.62	55.06	-	-	3668.56
	05/19/09	3724.14	55.16	-	-	3668.98
	08/27/09	3724.14	55.47	-	-	3668.67
	12/14/09	3724.14	55.65	-	-	3668.49
	12/16/11	3724.14	57.57	-	-	3666.57
	03/13/12	3724.14	57.80	-	-	3666.34
	06/20/12	3724.14	58.11	-	-	3666.03
	09/11/12	3724.14	58.30	-	-	3665.84
	12/06/12	3724.14	58.54	-	-	3665.60



Table 1 - Summary of Historical Fluid Level Measurements
Kimbrough Sweet 8"
SRIS#: 2000-10757

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: 2 in.	Screened Interval: _____ ft. to _____ ft.		TD: 60.0 ft.
	03/22/05	3722.03	56.71	50.33	6.38	3670.65
	03/31/05	3722.03	56.71	50.33	6.38	3670.65
	04/22/05	3722.03	56.95	50.34	6.61	3670.60
	05/25/05	3722.03	53.06	51.34	1.72	3670.41
	06/25/05	3722.03	57.07	50.67	6.40	3670.30
	07/25/05	3722.03	55.54	51.06	4.48	3670.23
	11/30/05	3722.03	57.79	51.11	6.68	3669.82
	02/03/06	3722.03	58.06	51.35	6.71	3669.57
	03/01/06	3722.03	58.16	51.39	6.77	3669.52
	05/02/06	3722.03	58.25	51.54	6.71	3669.38
	05/25/06	3722.03	57.97	51.12	6.85	3669.78
	08/10/06	3722.03	57.97	51.10	6.87	3669.80
	11/29/06	3722.03	58.24	51.32	6.92	3669.57
	12/06/06	3722.03	53.48	52.33	1.15	3669.51
	01/10/07	3722.03	57.98	51.37	6.61	3669.57
	02/08/07	3722.03	58.49	51.47	7.02	3669.40
	02/19/07	3722.03	58.38	51.57	6.81	3669.34
	03/06/07	3722.03	58.39	51.57	6.82	3669.33
	03/14/07	3722.03	58.34	51.57	6.77	3669.34
	04/02/07	3722.03	58.41	51.62	6.79	3669.29
	04/09/07	3722.03	58.38	52.63	5.75	3668.45
	04/16/07	3722.03	58.38	51.64	6.74	3669.28
	05/01/07	3722.03	58.39	51.68	6.71	3669.24
	05/21/07	3722.03	58.62	51.90	6.72	3669.02
	06/26/07	3722.03	58.44	51.80	6.64	3669.13
	06/28/07	3722.03	58.38	51.80	6.58	3669.14
	07/18/07	3722.03	58.31	51.76	6.55	3669.19
	10/24/07	3722.03	58.26	51.94	6.32	3669.05
	11/02/07	3722.03	58.32	52.00	6.32	3668.99
	11/12/07	3722.03	58.30	52.01	6.29	3668.98
	12/03/07	3722.03	56.55	52.58	3.97	3668.79
	01/03/08	3722.03	54.23	53.19	1.04	3668.67
	01/07/08	3722.03	54.22	52.96	1.26	3668.86
	01/22/08	3722.03	56.36	52.77	3.59	3668.67
	01/29/08	3722.03	55.34	54.02	1.32	3667.79
	02/06/08	3722.03	57.88	52.51	5.37	3668.63
	02/12/08	3722.03	57.90	52.53	5.37	3668.61
	03/13/08	3722.03	56.50	52.93	3.57	3668.51
	03/19/08	3722.03	57.58	52.71	4.87	3668.52
	04/01/08	3722.03	54.89	53.35	1.54	3668.43
	04/11/08	3722.03	56.08	53.16	2.92	3668.39
	04/16/08	3722.03	53.83	53.65	0.18	3668.35
	05/14/08	3722.03	56.64	53.18	3.46	3668.28
	05/23/08	3722.03	54.01	53.85	0.16	3668.15
	06/03/08	3722.03	54.16	53.87	0.29	3668.11
	06/10/08	3722.03	54.11	53.92	0.19	3668.08
	06/18/08	3722.03	54.43	53.94	0.49	3668.01
	07/01/08	3722.03	54.25	54.06	0.19	3667.94
	07/02/08	3722.03	53.92	53.69	0.23	3668.30
	07/24/08	3722.03	56.96	53.76	3.20	3667.74
	08/06/08	3722.03	54.59	54.37	0.22	3667.62
	08/28/08	3722.03	54.13	53.75	0.38	3668.22
	09/26/08	3722.03	56.89	53.32	3.57	3668.12
	10/27/08	3722.03	57.75	53.17	4.58	3668.10
	12/02/08	3722.03	58.12	53.19	4.93	3668.03
	01/15/09	3722.03	58.14	53.35	4.79	3667.89
	02/05/09	3722.03	58.13	53.36	4.77	3667.88



Table 1 - Summary of Historical Fluid Level Measurements
Kimbrough Sweet 8"
SRS#: 2000-10757

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: 2 in.	Screened Interval: _____ ft. to _____ ft.		TD: <u>60.0</u> ft.
	04/06/09	3722.03	58.14	53.48	4.66	3667.78
	05/19/09	3722.55	58.13	53.38	4.75	3668.39
	07/13/09	3722.55	58.21	53.78	4.43	3668.04
	08/27/09	3722.55	58.21	53.75	4.46	3668.06
	10/11/09	3722.55	57.74	54.71	3.03	3667.34
	12/16/11	3722.55	NG	-	-	NG
	03/13/12	3722.55	60.00	56.14	3.86	3665.77
	06/20/12	3722.55	60.00	56.40	3.60	3665.56
	09/11/12	3722.55	60.00	56.62	3.38	3665.37
	12/06/12	3722.55	60.00	56.86	3.14	3665.17
MW-12			Diameter: 2 in.	Screened Interval: <u>43.00</u> ft. to <u>73.0</u> ft.		TD: <u>73.0</u> ft.
	04/06/09	3724.11	57.01	-	-	3667.10
	05/19/09	3724.11	57.02	-	-	3667.09
	08/27/09	3724.11	59.44	-	-	3664.67
	12/14/09	3724.11	57.65	-	-	3666.46
	12/16/11	3724.11	59.61	-	-	3664.50
	03/13/12	3724.11	59.94	-	-	3664.17
	06/20/12	3724.11	60.18	-	-	3663.93
	09/11/12	3724.11	60.40	-	-	3663.71
	12/06/12	3724.11	60.64	-	-	3663.47
MW-13			Diameter: 2 in.	Screened Interval: <u>43.00</u> ft. to <u>73.0</u> ft.		TD: <u>73.0</u> ft.
	05/19/09	3723.19	56.04	-	-	3667.15
	08/27/09	3723.19	56.32	-	-	3666.87
	12/14/09	3723.19	56.65	-	-	3666.54
	12/16/11	3723.19	58.50	-	-	3664.69
	03/13/12	3723.19	58.77	-	-	3664.42
	06/20/12	3723.19	59.02	-	-	3664.17
	09/11/12	3723.19	59.24	-	-	3663.95
	12/06/12	3723.19	59.50	-	-	3663.69
MW-14			Diameter: 4 in.	Screened Interval: _____ ft. to _____ ft.		TD: <u>82.3</u> ft.
	12/16/11	3725.10	61.16	-	-	3663.94
	03/13/12	3725.10	61.51	-	-	3663.59
	06/20/12	3725.10	61.74	-	-	3663.36
	09/11/12	3725.10	61.14	-	-	3663.96
	12/06/12	3725.10	62.18	-	-	3662.92
MW-15			Diameter: 4 in.	Screened Interval: _____ ft. to _____ ft.		TD: <u>79.2</u> ft.
	12/16/11	3726.06	61.90	-	-	3664.16
	03/13/12	3726.06	62.23	-	-	3663.83
	06/20/12	3726.06	62.47	-	-	3663.59
	09/11/12	3726.06	62.68	-	-	3663.38
	12/06/12	3726.06	62.93	-	-	3663.13

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 Data
Kimbrough Sweet 8"
SRS#: 2000-10757

Sample Designation	Date Sampled	Concentration (mg/L)						BTEX
		Benzene	Toluene	Ethylbenzene	Xylene (p/m)	Xylene (o)	Total Xylenes	
MW-1	04/02/07	ND	ND	ND	ND	ND	-	-
	12/02/08	BRL	BRL	BRL	-	-	BRL	-
	02/05/09	BRL	BRL	BRL	-	-	BRL	-
MW-2	09/29/08	26.7	23.3	5.84	-	-	15.0	-
MW-3	04/02/07	0.369	0.0131	0.00116	0.00904	0.0526	-	-
	06/18/08	11.6	BRL	0.196	-	-	0.177	-
	09/26/08	9.13	0.152	BRL	-	-	0.234	-
	12/02/08	12.1	0.189	0.207	-	-	0.456	-
	02/05/09	16.7	BRL	0.196	-	-	BRL	-
	05/19/09	20.7	BRL	BRL	-	-	BRL	-
	08/27/09	16.0	BRL	BRL	-	-	1.97	-
	12/14/09	19.1	BRL	0.156	-	-	BRL	-
	06/17/10	23.5	BRL	0.449	-	-	0.451	-
	09/17/10	21.0	BRL	0.574	-	-	0.166	21.7
	12/16/10	21.1	BRL	0.874	-	-	0.822	-
	03/14/11	19.6	BRL	1.58	-	-	BRL	-
	06/09/11	15.1	BRL	0.912	-	-	BRL	-
	09/29/11	17.1	BRL	0.537	-	-	BRL	17.6
	12/20/11	7.31	BRL	0.164	-	-	BRL	-
	03/13/12	6.02	BRL	0.126	-	-	BRL	-
	06/20/12	8.44	<0.0259	0.455	-	-	0.194	-
	09/12/12	8.89	<0.0174	0.302	-	-	BRL	-
	12/06/12	1.86	<0.00347	0.0303	-	-	BRL	-



Table 2 - Summary of Historical Groundwater Analytical Data
Kimbrough Sweet 8"
SRS#: 2000-10757

Sample Designation	Date Sampled	Concentration (mg/L)						BTEX
		Benzene	Toluene	Ethylbenzene	Xylene (p/m)	Xylene (o)	Total Xylenes	
MW-4	04/02/07	ND	ND	ND	ND	ND	-	-
	06/18/08	BRL	BRL	BRL	-	-	BRL	-
	09/26/08	BRL	BRL	BRL	-	-	BRL	-
	12/02/08	BRL	BRL	BRL	-	-	BRL	-
	02/05/09	BRL	BRL	BRL	-	-	BRL	-
	08/27/09	BRL	BRL	BRL	-	-	BRL	-
	12/14/09	BRL	BRL	BRL	-	-	BRL	-
	06/17/10	BRL	BRL	BRL	-	-	BRL	-
	12/16/10	BRL	BRL	BRL	-	-	BRL	-
	03/14/11	BRL	BRL	BRL	-	-	BRL	-
	06/09/11	BRL	BRL	BRL	-	-	BRL	-
	09/29/11	BRL	BRL	BRL	-	-	BRL	BRL
	12/20/11	BRL	BRL	BRL	-	-	BRL	-
	03/13/12	BRL	BRL	BRL	-	-	BRL	-
	06/21/12	<0.000310	<0.000259	<0.000291	-	-	BRL	-
MW-5	09/12/12	<0.00186	<0.00174	<0.00163	-	-	BRL	-
	12/06/12	<0.00155	<0.00130	<0.00146	-	-	BRL	-
	09/29/08	27.8	21.6	4.94	-	-	11.7	-
MW-6	09/29/08	16.9	7.88	1.39	-	-	3.36	-
	08/27/09	17.8	10.9	1.79	-	-	4.32	-
MW-7	09/26/08	15.9	10.3	1.56	-	-	3.65	-
	08/27/09	15.3	11.6	2.19	-	-	5.29	-
MW-8	09/26/08	17.8	13.6	2.54	-	-	6.00	-
	08/27/09	17.2	11.3	2.17	-	-	4.98	-
MW-9	09/29/08	11.1	5.56	0.928	-	-	2.29	-
	08/27/09	17.1	9.38	1.78	-	-	4.35	-



Table 2 - Summary of Historical Groundwater Analytical Data
Kimbrough Sweet 8"
SRS#: 2000-10757

Sample Designation	Date Sampled	Concentration (mg/L)						BTEX
		Benzene	Toluene	Ethylbenzene	Xylene (p/m)	Xylene (o)	Total Xylenes	
MW-10	04/02/07	ND	ND	ND	ND	ND	-	-
	06/13/07	ND	ND	ND	ND	ND	-	-
	06/18/08	BRL	BRL	BRL	-	-	BRL	-
	09/26/08	0.00390	BRL	BRL	-	-	BRL	-
	12/02/08	BRL	BRL	BRL	-	-	BRL	-
	02/05/09	BRL	BRL	BRL	-	-	BRL	-
	05/19/09	0.00690	BRL	BRL	-	-	BRL	-
	08/27/09	BRL	BRL	BRL	-	-	BRL	-
	12/14/09	BRL	BRL	BRL	-	-	BRL	-
	06/17/10	BRL	BRL	BRL	-	-	BRL	-
	09/17/10	0.0155	BRL	BRL	-	-	BRL	0.0155
	12/16/10	BRL	BRL	BRL	-	-	BRL	-
	03/14/11	BRL	BRL	BRL	-	-	BRL	-
	06/09/11	0.00910	0.00630	0.00570	-	-	0.0173	-
	09/29/11	BRL	BRL	BRL	-	-	BRL	BRL
	12/20/11	BRL	BRL	BRL	-	-	BRL	-
MW-12	03/13/12	BRL	BRL	BRL	-	-	BRL	-
	06/21/12	<0.00155	<0.00130	<0.00146	-	-	BRL	-
	09/12/12	0.142	<0.00174	<0.00163	-	-	BRL	-
	12/06/12	<0.00155	<0.00130	<0.00146	-	-	BRL	-
	05/19/09	4.56	BRL	BRL	-	-	0.271	-
	08/27/09	5.28	BRL	BRL	-	-	0.457	-
	12/14/09	5.82	BRL	BRL	-	-	BRL	-
	06/17/10	13.3	BRL	BRL	-	-	BRL	-
	09/17/10	9.83	BRL	BRL	-	-	BRL	9.83
	12/16/10	11.4	BRL	BRL	-	-	0.782	-
	03/14/11	9.85	BRL	BRL	-	-	BRL	-
	06/09/11	4.41	BRL	BRL	-	-	BRL	-
	09/29/11	2.76	BRL	BRL	-	-	BRL	2.76
	12/20/11	2.66	BRL	BRL	-	-	BRL	-
	03/13/12	3.92	BRL	BRL	-	-	BRL	-
	06/20/12	3.49	<0.0130	<0.0146	-	-	BRL	-
	09/12/12	9.04	<0.0174	<0.0163	-	-	BRL	-
	12/06/12	2.62	<0.00259	0.0137	-	-	0.0210	-



Table 2 - Summary of Historical Groundwater Analytical Data
Kimbrough Sweet 8"
SRS#: 2000-10757

Sample Designation	Date Sampled	Concentration (mg/L)						BTEX
		Benzene	Toluene	Ethylbenzene	Xylene (p/m)	Xylene (o)	Total Xylenes	
MW-13	05/19/09	0.0198	BRL	BRL	-	-	BRL	-
	08/27/09	BRL	BRL	BRL	-	-	BRL	-
	12/14/09	BRL	BRL	BRL	-	-	BRL	-
	06/17/10	BRL	BRL	BRL	-	-	BRL	-
	09/17/10	0.0104	BRL	BRL	-	-	BRL	0.0104
	12/16/10	0.00380	BRL	BRL	-	-	BRL	-
	03/14/11	BRL	BRL	BRL	-	-	BRL	-
	06/09/11	0.0344	BRL	BRL	-	-	BRL	-
	09/29/11	BRL	BRL	BRL	-	-	BRL	BRL
	12/20/11	0.00150	BRL	BRL	-	-	BRL	-
	03/13/12	0.00440	BRL	BRL	-	-	BRL	-
	06/20/12	<0.000310	<0.000259	<0.000291	-	-	BRL	-
MW-14	09/12/12	<0.000310	<0.000259	<0.000291	-	-	BRL	-
	12/06/12	<0.000310	<0.000259	<0.000291	-	-	BRL	-
	03/14/11	1.31	BRL	BRL	-	-	BRL	-
	06/09/11	1.48	BRL	BRL	-	-	0.824	-
	09/29/11	2.15	BRL	BRL	-	-	BRL	2.15
	12/16/11	1.66	BRL	BRL	-	-	BRL	-
	03/13/12	0.478	BRL	BRL	-	-	BRL	-
	06/20/12	0.789	<0.0130	<0.0146	-	-	BRL	-
	09/12/12	0.375	<0.00174	<0.00163	-	-	0.00640	-
	12/06/12	0.524	<0.00130	<0.00146	-	-	0.00520	-
	03/14/11	0.116	BRL	BRL	-	-	0.0278	-
	06/09/11	2.84	BRL	BRL	-	-	BRL	-
MW-15	09/29/11	2.18	BRL	BRL	-	-	0.0541	2.23
	12/16/11	1.45	BRL	BRL	-	-	BRL	-
	03/13/12	0.0179	BRL	BRL	-	-	0.00590	-
	06/20/12	0.00130	<0.000259	<0.000291	-	-	0.00110	-
	09/12/12	0.00300	<0.000347	<0.000326	-	-	BRL	-
	12/06/12	0.0169	<0.000259	<0.000291	-	-	BRL	-



Table 3 - Summary of Historical Groundwater Analytical Data - PAH Supplement
Kimborough Sweet 8"
SRS#: 2000-10757

Sample Designation	Date Sampled	Concentration (mg/L)																		
		1-Methylnaphthalene	2-Methylnaphthalene	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Dibenzofuran	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene
MW-2	09/29/08	5.87	6.94	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.00585	0.0628	BRL	0.216	0.0146	0.319	BRL	3.22	0.432	0.0285
MW-3	09/26/08	0.0283	0.0127	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.00151	BRL	0.00119	BRL	0.0498	0.000940	BRL
	08/27/09	0.0308	0.00505	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.00153	BRL	0.00172	BRL	0.0440	0.00135	BRL
	01/03/11	0.0203	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.00132	BRL	0.00412	BRL	0.0225	0.00124	BRL
	12/20/11	0.00390	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.00126	0.000355	0.00143	BRL	0.00437	0.00118	0.000262
	12/08/12	0.00010	0.000086	0.00011	0.000094	0.000074	0.000060	0.000070	0.000070	0.000070	0.000070	0.000070	0.000080	0.00171	0.00011	0.000094	0.000072	0.00011	0.00144	0.000069
MW-4	09/26/08	BRL	0.000238	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.000247	BRL	BRL
MW-5	08/27/09	0.000315	0.000322	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.000282	BRL	BRL
MW-6	09/29/08	5.64	6.47	BRL	BRL	0.418	BRL	BRL	BRL	BRL	0.00607	0.0670	BRL	0.204	BRL	0.311	BRL	2.99	0.414	BRL
	09/29/08	0.238	0.282	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.000532	0.00571	BRL	0.0195	0.00117	0.0288	BRL	0.156	0.0350	0.00204
MW-7	08/27/09	18.3	21.5	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.211	BRL	0.900	BRL	1.49	BRL	9.02	1.75	BRL
	09/26/08	3.04	3.67	BRL	BRL	BRL	BRL	BRL	0.00441	BRL	BRL	0.0500	BRL	0.151	0.00907	0.235	BRL	1.57	0.284	0.0273
MW-8	08/27/09	2.90	3.48	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.0408	BRL	0.193	BRL	0.313	BRL	1.36	0.337	BRL
	09/26/08	6.52	7.62	BRL	BRL	BRL	BRL	BRL	0.00816	BRL	BRL	0.102	BRL	0.318	0.0208	0.434	BRL	3.28	0.582	0.0412
MW-9	08/27/09	5.20	6.05	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.0562	BRL	0.331	BRL	0.525	BRL	2.48	0.540	BRL
	09/29/08	0.173	0.206	BRL	BRL	BRL	BRL	BRL	0.000275	BRL	BRL	0.00683	BRL	0.0149	0.000513	0.0216	BRL	0.104	0.0267	0.00274
	08/27/09	8.72	10.6	BRL	BRL	BRL	BRL	BRL	BRL	BRL	BRL	0.0960	BRL	0.414	BRL	0.708	BRL	4.14	0.896	BRL

APPENDIX C

Laboratory Analytical Data Reports and Chain of Custody Documentation

Summary Report

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

Report Date: March 20, 2012

Work Order: 12031508

Project Location: Hobbs, NM
Project Name: Kimbrough Sweet 8"
Project Number: 700376.050.01
SRS #: 2000-10757

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
291544	MW-3	water	2012-03-13	14:20	2012-03-14
291545	MW-4	water	2012-03-13	14:15	2012-03-14
291546	MW-10	water	2012-03-13	14:45	2012-03-14
291547	MW-12	water	2012-03-13	13:45	2012-03-14
291548	MW-13	water	2012-03-13	14:00	2012-03-14
291549	MW-14	water	2012-03-13	11:20	2012-03-14
291550	MW-15	water	2012-03-13	13:20	2012-03-14

Sample - Field Code	BTEX				MTBE
	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)	MTBE (mg/L)
291544 - MW-3	6.02	<0.0500	0.126	<0.0500	
291545 - MW-4	<0.00500 ¹	<0.00500	<0.00500	<0.00500	
291546 - MW-10	<0.00100	<0.00100	<0.00100	<0.00100	
291547 - MW-12	3.92	<0.0500	<0.0500	<0.0500	
291548 - MW-13	0.00440	<0.00100	<0.00100	<0.00100	
291549 - MW-14	0.478	<0.0100	<0.0100	<0.0100	
291550 - MW-15	0.0179	<0.00100	<0.00100	0.00590	

¹Sample dilution due to soil in the vial.



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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 20, 2012

Work Order: 12031508



Project Location: Hobbs, NM
Project Name: Kimbrough Sweet 8"
Project Number: 700376.050.01
SRS #: 2000-10757

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
291544	MW-3	water	2012-03-13	14:20	2012-03-14
291545	MW-4	water	2012-03-13	14:15	2012-03-14
291546	MW-10	water	2012-03-13	14:45	2012-03-14
291547	MW-12	water	2012-03-13	13:45	2012-03-14
291548	MW-13	water	2012-03-13	14:00	2012-03-14
291549	MW-14	water	2012-03-13	11:20	2012-03-14
291550	MW-15	water	2012-03-13	13:20	2012-03-14

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 18 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Blair Leftwich

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

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Case Narrative

Samples for project Kimbrough Sweet 8" were received by TraceAnalysis, Inc. on 2012-03-14 and assigned to work order 12031508. Samples for work order 12031508 were received intact without headspace and at a temperature of 3.4 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	75899	2012-03-15 at 14:33	89412	2012-03-15 at 14:33
BTEX	S 8021B	75925	2012-03-16 at 13:56	89441	2012-03-16 at 13:56
BTEX	S 8021B	75960	2012-03-19 at 16:47	89481	2012-03-19 at 16:47

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 12031508 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.

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Analytical Report

Sample: 291544 - MW-3

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	6.02	mg/L	50	0.00100
Toluene	u	1	<0.0500	mg/L	50	0.00100
Ethylbenzene		1	0.126	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)			4.85	mg/L	50	5.00	97	70 - 130
4-Bromofluorobenzene (4-BFB)			5.28	mg/L	50	5.00	106	70 - 130

Sample: 291545 - MW-4

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	<0.00500	mg/L	5	0.00100
Toluene	u	1	<0.00500	mg/L	5	0.00100
Ethylbenzene	u	1	<0.00500	mg/L	5	0.00100
Xylene	u	1	<0.00500	mg/L	5	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.426	mg/L	5	0.500	85	70 - 130
4-Bromofluorobenzene (4-BFB)			0.454	mg/L	5	0.500	91	70 - 130

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Sample: 291546 - MW-10

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 89412
Prep Batch: 75899

Analytical Method: S 8021B
Date Analyzed: 2012-03-15
Sample Preparation: 2012-03-15

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

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)			0.0875	mg/L	1	0.100	88	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0907	mg/L	1	0.100	91	70 - 130

Sample: 291547 - MW-12

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 89412
Prep Batch: 75899

Analytical Method: S 8021B
Date Analyzed: 2012-03-15
Sample Preparation: 2012-03-15

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	3.92	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)			4.95	mg/L	50	5.00	99	70 - 130
4-Bromofluorobenzene (4-BFB)			5.33	mg/L	50	5.00	107	70 - 130

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Sample: 291548 - MW-13

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 89412
Prep Batch: 75899

Analytical Method: S 8021B
Date Analyzed: 2012-03-15
Sample Preparation: 2012-03-15

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.00440	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)			0.0871	mg/L	1	0.100	87	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0908	mg/L	1	0.100	91	70 - 130

Sample: 291549 - MW-14

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	0.478	mg/L	10	0.00100
Toluene	U	1	<0.0100	mg/L	10	0.00100
Ethylbenzene	U	1	<0.0100	mg/L	10	0.00100
Xylene		1	<0.0100	mg/L	10	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.859	mg/L	10	1.00	86	70 - 130
4-Bromofluorobenzene (4-BFB)			0.913	mg/L	10	1.00	91	70 - 130

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Sample: 291550 - MW-15

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 89441

Prep Batch: 75925

Analytical Method: S 8021B

Date Analyzed: 2012-03-16

Sample Preparation: 2012-03-16

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.0179	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	0.00590	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0872	mg/L	1	0.100	87	70 - 130
4-Bromofluorobenzene (4-BFB)			0.102	mg/L	1	0.100	102	70 - 130

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Method Blanks

Method Blank (1) QC Batch: 89412

QC Batch: 89412
Prep Batch: 75899

Date Analyzed: 2012-03-15
QC Preparation: 2012-03-15

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)			0.0867	mg/L	1	0.100	87	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0904	mg/L	1	0.100	90	70 - 130

Method Blank (1) QC Batch: 89441

QC Batch: 89441
Prep Batch: 75925

Date Analyzed: 2012-03-16
QC Preparation: 2012-03-16

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)			0.0982	mg/L	1	0.100	98	70 - 130
4-Bromofluorobenzene (4-BFB)			0.106	mg/L	1	0.100	106	70 - 130

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

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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)			0.0862	mg/L	1	0.100	86	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0906	mg/L	1	0.100	91	70 - 130

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Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 89412
Prep Batch: 75899

Date Analyzed: 2012-03-15
QC Preparation: 2012-03-15

Analyzed By: MT
Prepared By: MT

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0932	mg/L	1	0.100	<0.000371	93	78.6 - 120
Toluene		1	0.0940	mg/L	1	0.100	<0.000347	94	79.6 - 120
Ethylbenzene		1	0.0948	mg/L	1	0.100	<0.000326	95	80 - 120
Xylene		1	0.277	mg/L	1	0.300	<0.000357	92	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	0.0938	mg/L	1	0.100	<0.000371	94	78.6 - 120	1	20
Toluene		1	0.0939	mg/L	1	0.100	<0.000347	94	79.6 - 120	0	20
Ethylbenzene		1	0.0940	mg/L	1	0.100	<0.000326	94	80 - 120	1	20
Xylene		1	0.276	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)	0.0964	0.0975	mg/L	1	0.100	96	98	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0952	0.0949	mg/L	1	0.100	95	95	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 89441
Prep Batch: 75925

Date Analyzed: 2012-03-16
QC Preparation: 2012-03-16

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	0.0939	mg/L	1	0.100	<0.000347	94	79.6 - 120
Ethylbenzene		1	0.0956	mg/L	1	0.100	<0.000326	96	80 - 120
Xylene		1	0.279	mg/L	1	0.300	<0.000357	93	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	0.0890	mg/L	1	0.100	<0.000371	89	78.6 - 120	4	20
Toluene		1	0.0896	mg/L	1	0.100	<0.000347	90	79.6 - 120	5	20
Ethylbenzene		1	0.0923	mg/L	1	0.100	<0.000326	92	80 - 120	4	20
Xylene		1	0.269	mg/L	1	0.300	<0.000357	90	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	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0830	0.0817	mg/L	1	0.100	83	82	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0846	0.0840	mg/L	1	0.100	85	84	70 - 130

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

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Matrix Spike (MS-1) Spiked Sample: 291540

QC Batch: 89412
Prep Batch: 75899

Date Analyzed: 2012-03-15
QC Preparation: 2012-03-15

Analyzed By: MT
Prepared By: MT

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0959	mg/L	1	0.100	<0.000371	96	42.2 - 136
Toluene		1	0.0948	mg/L	1	0.100	<0.000347	95	44.3 - 133
Ethylbenzene		1	0.0947	mg/L	1	0.100	<0.000326	95	45.6 - 132
Xylene		1	0.277	mg/L	1	0.300	<0.000357	92	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	0.0928	mg/L	1	0.100	<0.000371	93	42.2 - 136	3	20
Toluene		1	0.0921	mg/L	1	0.100	<0.000347	92	44.3 - 133	3	20
Ethylbenzene		1	0.0935	mg/L	1	0.100	<0.000326	94	45.6 - 132	1	20
Xylene		1	0.272	mg/L	1	0.300	<0.000357	91	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)	0.100	0.0825	mg/L	1	0.1	100	82	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0973	0.0821	mg/L	1	0.1	97	82	70 - 130

Matrix Spike (xMS-1) Spiked Sample:

QC Batch: 89441
Prep Batch: 75925

Date Analyzed: 2012-03-16
QC Preparation: 2012-03-16

Analyzed By: MT
Prepared By: MT

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0959	mg/L	1	0.100	<0.000371	96	42.2 - 136
Toluene		1	0.0959	mg/L	1	0.100	<0.000347	96	44.3 - 133
Ethylbenzene		1	0.0983	mg/L	1	0.100	<0.000326	98	45.6 - 132
Xylene		1	0.286	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	0.0903	mg/L	1	0.100	<0.000371	90	42.2 - 136	6	20
Toluene		1	0.0915	mg/L	1	0.100	<0.000347	92	44.3 - 133	5	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	0.0927	mg/L	1	0.100	<0.000326	93	45.6 - 132	6	20
Xylene		1	0.273	mg/L	1	0.300	<0.000357	91	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)	0.0979	0.0963	mg/L	1	0.1	98	96	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0986	0.0973	mg/L	1	0.1	99	97	70 - 130

Matrix Spike (MS-1) Spiked Sample: 291685

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

Calibration Standards

Standard (CCV-2)

QC Batch: 89412

Date Analyzed: 2012-03-15

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	0.0936	94	80 - 120	2012-03-15
Toluene		1	mg/L	0.100	0.0937	94	80 - 120	2012-03-15
Ethylbenzene		1	mg/L	0.100	0.0953	95	80 - 120	2012-03-15
Xylene		1	mg/L	0.300	0.278	93	80 - 120	2012-03-15

Standard (CCV-3)

QC Batch: 89412

Date Analyzed: 2012-03-15

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	2012-03-15
Toluene		1	mg/L	0.100	0.0949	95	80 - 120	2012-03-15
Ethylbenzene		1	mg/L	0.100	0.0965	96	80 - 120	2012-03-15
Xylene		1	mg/L	0.300	0.281	94	80 - 120	2012-03-15

Standard (CCV-1)

QC Batch: 89441

Date Analyzed: 2012-03-16

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	0.0938	94	80 - 120	2012-03-16
Toluene		1	mg/L	0.100	0.0952	95	80 - 120	2012-03-16
Ethylbenzene		1	mg/L	0.100	0.0969	97	80 - 120	2012-03-16
Xylene		1	mg/L	0.300	0.282	94	80 - 120	2012-03-16

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Kimbrough Sweet 8"

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Standard (CCV-2)

QC Batch: 89441

Date Analyzed: 2012-03-16

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	0.0918	92	80 - 120	2012-03-16
Toluene		1	mg/L	0.100	0.0928	93	80 - 120	2012-03-16
Ethylbenzene		1	mg/L	0.100	0.0946	95	80 - 120	2012-03-16
Xylene		1	mg/L	0.300	0.276	92	80 - 120	2012-03-16

Standard (CCV-1)

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	0.0946	95	80 - 120	2012-03-19
Toluene		1	mg/L	0.100	0.0930	93	80 - 120	2012-03-19
Ethylbenzene		1	mg/L	0.100	0.0928	93	80 - 120	2012-03-19
Xylene		1	mg/L	0.300	0.272	90	80 - 120	2012-03-19

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

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 then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
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

Result Comments

- 1 Sample dilution due to soil in the voa.

Attachments

Report Date: March 20, 2012
700376.050.01

Work Order: 12031508
Kimbrough Sweet 8"

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

TraceAnalysis, Inc.

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Carrollton, Texas 75006
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email: lab@traceanalysis.com

Company Name: Talon LPE
Phone #: 432 230 9681

Fax #:

Address: (Street, City, Zip)
2901 State HWY 349

Contact Person: Steve Keilingsworth
Email: keilingsworth@talonlpe.com

Invoice to:
(If different from above)
Project #: 2000-10757

Project Name: Kimbrough Sweet 8"

Sampler Signature: [Signature]

Project Location (including state): Hobbs NM

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8021 / 602 / 8260 / 624	BTX 8021 / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	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	Turn Around Time if different from standard
------------------------------	-----------------------------	--------------------------------------	---------------------------	----------------	---	-------------------------------------	----------------	---------------------	-----------------	-----	-----------------------	-----------------------------	-----------------	-----------------------	--------------	------------------	---	------------------------	---

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	TIME	
291544	MW3	3	402	Y				Y				X			8-13-14	1420
545	MW4 -															1415
546	MW10 -															1445
547	MW12 -															1345
548	MW13 -															1400
549	MW14 -															1120
550	MW15 -															1320

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST	OBS	COR
Bradley Talon		3/14/12	4:00							
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST	OBS	COR
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST	OBS	COR

REMARKS: ON IL

LAB USE ONLY

Intact ☒ Y / ☐ N

Headspace ☐ Y / ☒ N

Log-in-Review ☐ Y / ☒ N

Dry Weight Basis Required ☐

TRRP Report Required ☐

Check if Special Reporting Limits Are Needed ☐

Carrier # [Signature]

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

Summary Report

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

Report Date: June 28, 2012

Work Order: 12062216

Project Location: Hobbs, NM
Project Name: Kimbrough Sweet 8"
Project Number: 700376.050.01
SRS #: 2000-10757

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
301733	MW-3	water	2012-06-20	12:12	2012-06-21
301734	MW-4	water	2012-06-21	10:45	2012-06-21
301735	MW-10	water	2012-06-21	10:30	2012-06-21
301736	MW-12	water	2012-06-20	12:00	2012-06-21
301737	MW-13	water	2012-06-20	11:40	2012-06-21
301738	MW-14	water	2012-06-20	11:00	2012-06-21
301739	MW-15	water	2012-06-20	10:45	2012-06-21

Sample - Field Code	BTEX				MTBE
	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)	MTBE (mg/L)
301733 - MW-3	8.44	<0.100	0.455	0.194	
301734 - MW-4	<0.00100	<0.00100	<0.00100	<0.00100	
301735 - MW-10	<0.00500 Je	<0.00500	<0.00500	<0.00500	
301736 - MW-12	3.49	<0.0500	<0.0500	<0.0500	
301737 - MW-13	<0.00100	<0.00100	<0.00100	<0.00100	
301738 - MW-14	0.789	<0.0500	<0.0500	<0.0500	
301739 - MW-15	0.00130	<0.00100	<0.00100	0.00110	



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200 East Sunset Road, Suite E El Paso, Texas 79922 915-585-3443 FAX 915-585-4944
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(BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750
E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

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

Report Date: June 28, 2012

Work Order: 12062216



Project Location: Hobbs, NM
Project Name: Kimbrough Sweet 8"
Project Number: 700376.050.01
SRS #: 2000-10757

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
301733	MW-3	water	2012-06-20	12:12	2012-06-21
301734	MW-4	water	2012-06-21	10:45	2012-06-21
301735	MW-10	water	2012-06-21	10:30	2012-06-21
301736	MW-12	water	2012-06-20	12:00	2012-06-21
301737	MW-13	water	2012-06-20	11:40	2012-06-21
301738	MW-14	water	2012-06-20	11:00	2012-06-21
301739	MW-15	water	2012-06-20	10:45	2012-06-21

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 15 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Michael Abel

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

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Case Narrative

Samples for project Kimbrough Sweet 8" were received by TraceAnalysis, Inc. on 2012-06-21 and assigned to work order 12062216. Samples for work order 12062216 were received intact without headspace and at a temperature of 3.6 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	78451	2012-06-26 at 14:15	92510	2012-06-26 at 14:15
BTEX	S 8021B	78471	2012-06-27 at 13:11	92537	2012-06-27 at 13:11

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

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 12062216 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.

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700376.050.01

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Kimbrough Sweet 8"

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Analytical Report

Sample: 301733 - MW-3

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 92510

Prep Batch: 78451

Analytical Method: S 8021B

Date Analyzed: 2012-06-26

Sample Preparation: 2012-06-26

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	8.44	mg/L	100	0.00100
Toluene	U	1	<0.100	mg/L	100	0.00100
Ethylbenzene		1	0.455	mg/L	100	0.00100
Xylene	B	1	0.194	mg/L	100	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			8.04	mg/L	100	10.0	80	70 - 130
4-Bromofluorobenzene (4-BFB)			8.39	mg/L	100	10.0	84	70 - 130

Sample: 301734 - MW-4

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 92510

Prep Batch: 78451

Analytical Method: S 8021B

Date Analyzed: 2012-06-26

Sample Preparation: 2012-06-26

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	Jb	1	<0.00100	mg/L	1	0.00100
Xylene	Jb	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0791	mg/L	1	0.100	79	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0829	mg/L	1	0.100	83	70 - 130

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Sample: 301735 - MW-10

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 92537

Prep Batch: 78471

Analytical Method: S 8021B

Date Analyzed: 2012-06-27

Sample Preparation: 2012-06-27

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Je, U	1	<0.00500	mg/L	5	0.00100
Toluene	U	1	<0.00500	mg/L	5	0.00100
Ethylbenzene	U	1	<0.00500	mg/L	5	0.00100
Xylene	Jb	1	<0.00500	mg/L	5	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.387	mg/L	5	0.500	77	70 - 130
4-Bromofluorobenzene (4-BFB)			0.402	mg/L	5	0.500	80	70 - 130

Sample: 301736 - MW-12

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 92510

Prep Batch: 78451

Analytical Method: S 8021B

Date Analyzed: 2012-06-26

Sample Preparation: 2012-06-26

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	3.49	mg/L	50	0.00100
Toluene	U	1	<0.0500	mg/L	50	0.00100
Ethylbenzene	Jb	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)			4.00	mg/L	50	5.00	80	70 - 130
4-Bromofluorobenzene (4-BFB)			4.16	mg/L	50	5.00	83	70 - 130

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Kimbrough Sweet 8"

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Sample: 301737 - MW-13

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 92510
Prep Batch: 78451

Analytical Method: S 8021B
Date Analyzed: 2012-06-26
Sample Preparation: 2012-06-26

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)			0.0774	mg/L	1	0.100	77	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0816	mg/L	1	0.100	82	70 - 130

Sample: 301738 - MW-14

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 92510
Prep Batch: 78451

Analytical Method: S 8021B
Date Analyzed: 2012-06-26
Sample Preparation: 2012-06-26

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.789	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	jb	1	<0.0500	mg/L	50	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			3.91	mg/L	50	5.00	78	70 - 130
4-Bromofluorobenzene (4-BFB)			4.06	mg/L	50	5.00	81	70 - 130

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Sample: 301739 - MW-15

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 92510

Prep Batch: 78451

Analytical Method: S 8021B

Date Analyzed: 2012-06-26

Sample Preparation: 2012-06-26

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.00130	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	B	1	0.00110	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0769	mg/L	1	0.100	77	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0839	mg/L	1	0.100	84	70 - 130

Report Date: June 28, 2012
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Work Order: 12062216
Kimbrough Sweet 8"

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Method Blanks

Method Blank (1) QC Batch: 92510

QC Batch: 92510
Prep Batch: 78451

Date Analyzed: 2012-06-26
QC Preparation: 2012-06-26

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	0.000400	mg/L	0.001
Xylene		1	0.000800	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0789	mg/L	1	0.100	79	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0830	mg/L	1	0.100	83	70 - 130

Method Blank (1) QC Batch: 92537

QC Batch: 92537
Prep Batch: 78471

Date Analyzed: 2012-06-27
QC Preparation: 2012-06-27

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	0.000400	mg/L	0.001
Xylene		1	0.00120	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0786	mg/L	1	0.100	79	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0821	mg/L	1	0.100	82	70 - 130

Report Date: June 28, 2012
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Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 92510
Prep Batch: 78451

Date Analyzed: 2012-06-26
QC Preparation: 2012-06-26

Analyzed By: MT
Prepared By: MT

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0837	mg/L	1	0.100	<0.000310	84	74.2 - 120
Toluene		1	0.0856	mg/L	1	0.100	<0.000259	86	75.8 - 120
Ethylbenzene		1	0.0842	mg/L	1	0.100	0.0004	84	71.8 - 120
Xylene		1	0.256	mg/L	1	0.300	0.0008	85	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	0.0822	mg/L	1	0.100	<0.000310	82	74.2 - 120	2	20
Toluene		1	0.0844	mg/L	1	0.100	<0.000259	84	75.8 - 120	1	20
Ethylbenzene		1	0.0831	mg/L	1	0.100	0.0004	83	71.8 - 120	1	20
Xylene		1	0.253	mg/L	1	0.300	0.0008	84	73.8 - 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)	0.0807	0.0800	mg/L	1	0.100	81	80	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0862	0.0853	mg/L	1	0.100	86	85	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 92537
Prep Batch: 78471

Date Analyzed: 2012-06-27
QC Preparation: 2012-06-27

Analyzed By: MT
Prepared By: MT

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0825	mg/L	1	0.100	<0.000310	82	74.2 - 120
Toluene		1	0.0848	mg/L	1	0.100	<0.000259	85	75.8 - 120
Ethylbenzene		1	0.0841	mg/L	1	0.100	0.0004	84	71.8 - 120
Xylene		1	0.256	mg/L	1	0.300	0.0012	85	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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Kimbrough Sweet 8"

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Hobbs, NM

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0830	mg/L	1	0.100	<0.000310	83	74.2 - 120	1	20
Toluene		1	0.0862	mg/L	1	0.100	<0.000259	86	75.8 - 120	2	20
Ethylbenzene		1	0.0843	mg/L	1	0.100	0.0004	84	71.8 - 120	0	20
Xylene		1	0.256	mg/L	1	0.300	0.0012	85	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	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0803	0.0788	mg/L	1	0.100	80	79	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0858	0.0859	mg/L	1	0.100	86	86	70 - 130

Matrix Spike (MS-1) Spiked Sample: 301735

QC Batch: 92510
Prep Batch: 78451

Date Analyzed: 2012-06-26
QC Preparation: 2012-06-26

Analyzed By: MT
Prepared By: MT

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.390	mg/L	5	0.500	0.0028	77	47 - 131
Toluene		1	0.402	mg/L	5	0.500	0.0021	80	52.2 - 128
Ethylbenzene		1	0.393	mg/L	5	0.500	0.002	78	26.5 - 154
Xylene		1	1.20	mg/L	5	1.50	0.0054	80	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	0.399	mg/L	5	0.500	0.0028	79	47 - 131	2	20
Toluene		1	0.414	mg/L	5	0.500	0.0021	82	52.2 - 128	3	20
Ethylbenzene		1	0.404	mg/L	5	0.500	0.002	80	26.5 - 154	3	20
Xylene		1	1.23	mg/L	5	1.50	0.0054	82	50.1 - 130	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)	0.402	0.397	mg/L	5	0.5	80	79	70 - 130
4-Bromofluorobenzene (4-BFB)	0.426	0.424	mg/L	5	0.5	85	85	70 - 130

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Matrix Spike (MS-1) Spiked Sample: 301769

QC Batch: 92537
Prep Batch: 78471

Date Analyzed: 2012-06-27
QC Preparation: 2012-06-27

Analyzed By: MT
Prepared By: MT

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	1.19	mg/L	10	1.00	0.373	82	47 - 131
Toluene		1	0.832	mg/L	10	1.00	0.0367	80	52.2 - 128
Ethylbenzene		1	0.873	mg/L	10	1.00	0.0811	79	26.5 - 154
Xylene		1	2.80	mg/L	10	3.00	0.364	81	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	1.19	mg/L	10	1.00	0.373	82	47 - 131	0	20
Toluene		1	0.850	mg/L	10	1.00	0.0367	81	52.2 - 128	2	20
Ethylbenzene		1	0.893	mg/L	10	1.00	0.0811	81	26.5 - 154	2	20
Xylene		1	2.85	mg/L	10	3.00	0.364	83	50.1 - 130	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)	0.804	0.808	mg/L	10	1	80	81	70 - 130
4-Bromofluorobenzene (4-BFB)	0.848	0.848	mg/L	10	1	85	85	70 - 130

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Calibration Standards

Standard (CCV-1)

QC Batch: 92510

Date Analyzed: 2012-06-26

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	0.0824	82	80 - 120	2012-06-26
Toluene		1	mg/L	0.100	0.0848	85	80 - 120	2012-06-26
Ethylbenzene		1	mg/L	0.100	0.0830	83	80 - 120	2012-06-26
Xylene		1	mg/L	0.300	0.253	84	80 - 120	2012-06-26

Standard (CCV-2)

QC Batch: 92510

Date Analyzed: 2012-06-26

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	0.0825	82	80 - 120	2012-06-26
Toluene		1	mg/L	0.100	0.0833	83	80 - 120	2012-06-26
Ethylbenzene		1	mg/L	0.100	0.0826	83	80 - 120	2012-06-26
Xylene		1	mg/L	0.300	0.251	84	80 - 120	2012-06-26

Standard (CCV-3)

QC Batch: 92510

Date Analyzed: 2012-06-26

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	0.0803	80	80 - 120	2012-06-26
Toluene		1	mg/L	0.100	0.0828	83	80 - 120	2012-06-26
Ethylbenzene		1	mg/L	0.100	0.0807	81	80 - 120	2012-06-26
Xylene		1	mg/L	0.300	0.245	82	80 - 120	2012-06-26

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Standard (CCV-1)

QC Batch: 92537

Date Analyzed: 2012-06-27

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	0.0829	83	80 - 120	2012-06-27
Toluene		1	mg/L	0.100	0.0862	86	80 - 120	2012-06-27
Ethylbenzene		1	mg/L	0.100	0.0843	84	80 - 120	2012-06-27
Xylene		1	mg/L	0.300	0.256	85	80 - 120	2012-06-27

Standard (CCV-2)

QC Batch: 92537

Date Analyzed: 2012-06-27

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	0.0804	80	80 - 120	2012-06-27
Toluene		1	mg/L	0.100	0.0823	82	80 - 120	2012-06-27
Ethylbenzene		1	mg/L	0.100	0.0808	81	80 - 120	2012-06-27
Xylene		1	mg/L	0.300	0.245	82	80 - 120	2012-06-27

Standard (CCV-3)

QC Batch: 92537

Date Analyzed: 2012-06-27

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	0.0799	80	80 - 120	2012-06-27
Toluene		1	mg/L	0.100	0.0818	82	80 - 120	2012-06-27
Ethylbenzene		1	mg/L	0.100	0.0806	81	80 - 120	2012-06-27
Xylene		1	mg/L	0.300	0.245	82	80 - 120	2012-06-27

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.

TraceAnalysis, Inc.

email: lab@traceanalysis.com

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BioAquatic Testing
2501 Mayes Rd., Ste 100
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Company Name: Talon LPE		Phone #:						
Address: 2901 State Hwy 349		Fax #:						
Contact Person: Chris Spore		E-mail: CSpore@talonlpe.com						
Invoice to: (If different from above) 2000-10757		Project Name: K. Inbraugh						
Project #: 700376.050.01		Sampler Signature: <i>[Signature]</i>						
Project Location (including state): Hubbs NM		Analyst: <i>[Signature]</i>						
LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	VOLUME / AMOUNT	MATRIX	PRESERVATIVE / METHOD	DATE	TIME	Turn Around Time if different from standard
301933	MW3	3	402	WATER	X	6-20-12	212	
734	MW4	1	1	AIR	↑	6-21-1045		
735	MW10	1	1	SLUDGE	↑	6-21-1030		
736	MW12	1	1	SOIL	↑	6-20-1200		
737	MW13	1	1	WATER	↑	1140		
738	MW14	1	1	WATER	↑	1100		
739	MW15	1	1	WATER	↑	1045		

MTBE 8021 / 602 / 8260 / 624	BTEX 8021 / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ex(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	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	Turn Around Time if different from standard
------------------------------	------------------------------	-------------------------------------	---------------------------	----------------	---	-------------------------------------	----------------	---------------------	-----------------	-----	-----------------------	-----------------------------	-----------------	-----------------------	--------------	------------------	---	------------------------	---

Relinquished by: Brad Talon LPE Date: 6-21-12 Time: 1545 Company: Talon LPE

Relinquished by: Date: Time: Company:

Relinquished by: Date: Time: Company:

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

ORIGINAL COPY

Carrier #

Summary Report

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

Report Date: September 18, 2012

Work Order: 12091307

Project Location: Hobbs, NM
Project Name: Kimbrough Sweet 8"
Project Number: 700376.050.01
SRS #: 2000-10757

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
309180	MW-3	water	2012-09-12	12:45	2012-09-13
309181	MW-4	water	2012-09-12	11:30	2012-09-13
309182	MW-10	water	2012-09-12	12:45	2012-09-13
309183	MW-12	water	2012-09-12	12:15	2012-09-13
309184	MW-13	water	2012-09-12	12:30	2012-09-13
309185	MW-14	water	2012-09-12	12:00	2012-09-13
309186	MW-15	water	2012-09-12	11:45	2012-09-13

Sample - Field Code	BTEX				MTBE
	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)	MTBE (mg/L)
309180 - MW-3	8.89	<0.0500	0.302	<0.0500	
309181 - MW-4	<0.00500 ¹	<0.00500	<0.00500	<0.00500	
309182 - MW-10	0.142 ²	<0.00500	<0.00500	<0.00500	
309183 - MW-12	9.04	<0.0500	<0.0500	<0.0500	
309184 - MW-13	<0.00100	<0.00100	<0.00100	<0.00100	
309185 - MW-14	0.375	<0.00500	<0.00500	0.00640	
309186 - MW-15	0.00300	<0.00100	<0.00100	<0.00100	

¹Sample dilution due to soil in the voa.

²Sample dilution due to soil in the voa.



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

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

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

Report Date: September 18, 2012

Work Order: 12091307



Project Location: Hobbs, NM
Project Name: Kimbrough Sweet 8"
Project Number: 700376.050.01
SRS #: 2000-10757

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
309180	MW-3	water	2012-09-12	12:45	2012-09-13
309181	MW-4	water	2012-09-12	11:30	2012-09-13
309182	MW-10	water	2012-09-12	12:45	2012-09-13
309183	MW-12	water	2012-09-12	12:15	2012-09-13
309184	MW-13	water	2012-09-12	12:30	2012-09-13
309185	MW-14	water	2012-09-12	12:00	2012-09-13
309186	MW-15	water	2012-09-12	11:45	2012-09-13

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

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

Michael Abel

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

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Case Narrative

Samples for project Kimbrough Sweet 8" were received by TraceAnalysis, Inc. on 2012-09-13 and assigned to work order 12091307. Samples for work order 12091307 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	80288	2012-09-13 at 10:16	94755	2012-09-13 at 15:41
BTEX	S 8021B	80372	2012-09-14 at 14:37	94846	2012-09-14 at 14:37
BTEX	S 8021B	80398	2012-09-17 at 07:04	94879	2012-09-17 at 07:04

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 12091307 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: September 18, 2012
700376.050.01

Work Order: 12091307
Kimbrough Sweet 8"

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Hobbs, NM

Analytical Report

Sample: 309180 - MW-3

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 94879
Prep Batch: 80398

Analytical Method: S 8021B
Date Analyzed: 2012-09-17
Sample Preparation: 2012-09-17

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	8.89	mg/L	50	0.00100
Toluene	u	1	<0.0500	mg/L	50	0.00100
Ethylbenzene		1	0.302	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)			5.13	mg/L	50	5.00	103	70 - 130
4-Bromofluorobenzene (4-BFB)			4.82	mg/L	50	5.00	96	70 - 130

Sample: 309181 - MW-4

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 94879
Prep Batch: 80398

Analytical Method: S 8021B
Date Analyzed: 2012-09-17
Sample Preparation: 2012-09-17

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	1	1	<0.00500	mg/L	5	0.00100
Toluene	u	1	<0.00500	mg/L	5	0.00100
Ethylbenzene	u	1	<0.00500	mg/L	5	0.00100
Xylene	u	1	<0.00500	mg/L	5	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.490	mg/L	5	0.500	98	70 - 130
4-Bromofluorobenzene (4-BFB)			0.482	mg/L	5	0.500	96	70 - 130

Report Date: September 18, 2012
700376.050.01

Work Order: 12091307
Kimbrough Sweet 8"

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Sample: 309182 - MW-10

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 94755

Prep Batch: 80288

Analytical Method: S 8021B

Date Analyzed: 2012-09-13

Sample Preparation: 2012-09-13

Prep Method: S 5030B

Analyzed By: JS

Prepared By: JS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.142	mg/L	5	0.00100
Toluene	u	1	<0.00500	mg/L	5	0.00100
Ethylbenzene	u	1	<0.00500	mg/L	5	0.00100
Xylene	u	1	<0.00500	mg/L	5	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			10.2	mg/L	5	10.0	102	70 - 130
4-Bromofluorobenzene (4-BFB)			8.58	mg/L	5	10.0	86	70 - 130

Sample: 309183 - MW-12

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 94879

Prep Batch: 80398

Analytical Method: S 8021B

Date Analyzed: 2012-09-17

Sample Preparation: 2012-09-17

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	9.04	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)			5.27	mg/L	50	5.00	105	70 - 130
4-Bromofluorobenzene (4-BFB)			4.57	mg/L	50	5.00	91	70 - 130

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Sample: 309184 - MW-13

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 94846

Prep Batch: 80372

Analytical Method: S 8021B

Date Analyzed: 2012-09-14

Sample Preparation: 2012-09-14

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	jb	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0929	mg/L	1	0.100	93	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0942	mg/L	1	0.100	94	70 - 130

Sample: 309185 - MW-14

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 94879

Prep Batch: 80398

Analytical Method: S 8021B

Date Analyzed: 2012-09-17

Sample Preparation: 2012-09-17

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.375	mg/L	5	0.00100
Toluene	u	1	<0.00500	mg/L	5	0.00100
Ethylbenzene	u	1	<0.00500	mg/L	5	0.00100
Xylene		1	0.00640	mg/L	5	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.505	mg/L	5	0.500	101	70 - 130
4-Bromofluorobenzene (4-BFB)			0.529	mg/L	5	0.500	106	70 - 130

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Sample: 309186 - MW-15

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 94879

Prep Batch: 80398

Analytical Method: S 8021B

Date Analyzed: 2012-09-17

Sample Preparation: 2012-09-17

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.00300	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)			0.0988	mg/L	1	0.100	99	70 - 130
4-Bromofluorobenzene (4-BFB)			0.102	mg/L	1	0.100	102	70 - 130

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Method Blanks

Method Blank (1) QC Batch: 94755

QC Batch: 94755
Prep Batch: 80288

Date Analyzed: 2012-09-13
QC Preparation: 2012-09-13

Analyzed By: JS
Prepared By: JS

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)			0.0960	mg/L	1	0.100	96	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0996	mg/L	1	0.100	100	70 - 130

Method Blank (1) QC Batch: 94846

QC Batch: 94846
Prep Batch: 80372

Date Analyzed: 2012-09-14
QC Preparation: 2012-09-14

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	<0.000291	mg/L	0.001
Xylene		1	0.000500	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0969	mg/L	1	0.100	97	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0966	mg/L	1	0.100	97	70 - 130

Method Blank (1) QC Batch: 94879

QC Batch: 94879
Prep Batch: 80398

Date Analyzed: 2012-09-17
QC Preparation: 2012-09-17

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)			0.101	mg/L	1	0.100	101	70 - 130
4-Bromofluorobenzene (4-BFB)			0.105	mg/L	1	0.100	105	70 - 130

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 94755
Prep Batch: 80288

Date Analyzed: 2012-09-13
QC Preparation: 2012-09-13

Analyzed By: JS
Prepared By: JS

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0939	mg/L	1	0.100	<0.000371	94	78.6 - 120
Toluene		1	0.0932	mg/L	1	0.100	<0.000347	93	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	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0954	mg/L	1	0.100	<0.000371	95	78.6 - 120	2	20
Toluene		1	0.0944	mg/L	1	0.100	<0.000347	94	79.6 - 120	1	20
Ethylbenzene		1	0.0993	mg/L	1	0.100	<0.000326	99	80 - 120	1	20
Xylene		1	0.300	mg/L	1	0.300	<0.000357	100	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	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0986	0.0975	mg/L	1	0.100	99	98	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0971	0.0966	mg/L	1	0.100	97	97	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 94846
Prep Batch: 80372

Date Analyzed: 2012-09-14
QC Preparation: 2012-09-14

Analyzed By: MT
Prepared By: MT

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0991	mg/L	1	0.100	<0.000310	99	74.2 - 120
Toluene		1	0.0983	mg/L	1	0.100	<0.000259	98	75.8 - 120
Ethylbenzene		1	0.100	mg/L	1	0.100	<0.000291	100	71.8 - 120
Xylene		1	0.304	mg/L	1	0.300	0.0005	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	0.0997	mg/L	1	0.100	<0.000310	100	74.2 - 120	1	20
Toluene		1	0.0999	mg/L	1	0.100	<0.000259	100	75.8 - 120	2	20
Ethylbenzene		1	0.102	mg/L	1	0.100	<0.000291	102	71.8 - 120	2	20
Xylene		1	0.309	mg/L	1	0.300	0.0005	103	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)	0.0987	0.0981	mg/L	1	0.100	99	98	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0979	0.0988	mg/L	1	0.100	98	99	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 94879
Prep Batch: 80398

Date Analyzed: 2012-09-17
QC Preparation: 2012-09-17

Analyzed By: MT
Prepared By: MT

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0993	mg/L	1	0.100	<0.000371	99	78.6 - 120
Toluene		1	0.106	mg/L	1	0.100	<0.000347	106	79.6 - 120
Ethylbenzene		1	0.107	mg/L	1	0.100	<0.000326	107	80 - 120
Xylene		1	0.316	mg/L	1	0.300	<0.000357	105	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	0.0983	mg/L	1	0.100	<0.000371	98	78.6 - 120	1	20
Toluene		1	0.104	mg/L	1	0.100	<0.000347	104	79.6 - 120	2	20
Ethylbenzene		1	0.105	mg/L	1	0.100	<0.000326	105	80 - 120	2	20
Xylene		1	0.311	mg/L	1	0.300	<0.000357	104	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	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.100	0.0988	mg/L	1	0.100	100	99	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0996	0.0988	mg/L	1	0.100	100	99	70 - 130

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Matrix Spike (xMS-1) Spiked Sample:

QC Batch: 94755
Prep Batch: 80288

Date Analyzed: 2012-09-13
QC Preparation: 2012-09-13

Analyzed By: JS
Prepared By: JS

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0946	mg/L	1	0.100	<0.000371	95	42.2 - 136
Toluene		1	0.0918	mg/L	1	0.100	<0.000347	92	44.3 - 133
Ethylbenzene		1	0.0957	mg/L	1	0.100	<0.000326	96	45.6 - 132
Xylene		1	0.292	mg/L	1	0.300	<0.000357	97	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	0.0849	mg/L	1	0.100	<0.000371	85	42.2 - 136	11	20
Toluene		1	0.0797	mg/L	1	0.100	<0.000347	80	44.3 - 133	14	20
Ethylbenzene		1	0.0832	mg/L	1	0.100	<0.000326	83	45.6 - 132	14	20
Xylene		1	0.256	mg/L	1	0.300	<0.000357	85	44.7 - 128	13	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)	0.0967	0.0909	mg/L	1	0.1	97	91	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0961	0.0905	mg/L	1	0.1	96	90	70 - 130

Matrix Spike (MS-1) Spiked Sample: 309358

QC Batch: 94846
Prep Batch: 80372

Date Analyzed: 2012-09-14
QC Preparation: 2012-09-14

Analyzed By: MT
Prepared By: MT

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0994	mg/L	1	0.100	<0.000310	99	47 - 131
Toluene		1	0.0992	mg/L	1	0.100	<0.000259	99	52.2 - 128
Ethylbenzene		1	0.0998	mg/L	1	0.100	<0.000291	100	26.5 - 154
Xylene		1	0.301	mg/L	1	0.300	<0.000268	100	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	0.0971	mg/L	1	0.100	<0.000310	97	47 - 131	2	20
Toluene		1	0.0962	mg/L	1	0.100	<0.000259	96	52.2 - 128	3	20

continued ...

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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	0.0976	mg/L	1	0.100	<0.000291	98	26.5 - 154	2	20
Xylene		1	0.297	mg/L	1	0.300	<0.000268	99	50.1 - 130	1	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0974	0.0962	mg/L	1	0.1	97	96	70 - 130
4-Bromofluorobenzene (4-BFB)	0.102	0.0974	mg/L	1	0.1	102	97	70 - 130

Matrix Spike (MS-1) Spiked Sample: 309185

QC Batch: 94879
Prep Batch: 80398

Date Analyzed: 2012-09-17
QC Preparation: 2012-09-17

Analyzed By: MT
Prepared By: MT

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.870	mg/L	5	0.500	0.375	99	42.2 - 136
Toluene		1	0.522	mg/L	5	0.500	<0.00174	104	44.3 - 133
Ethylbenzene		1	0.527	mg/L	5	0.500	<0.00163	105	45.6 - 132
Xylene		1	1.57	mg/L	5	1.50	0.0064	104	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	0.854	mg/L	5	0.500	0.375	96	42.2 - 136	2	20
Toluene		1	0.509	mg/L	5	0.500	<0.00174	102	44.3 - 133	2	20
Ethylbenzene		1	0.514	mg/L	5	0.500	<0.00163	103	45.6 - 132	2	20
Xylene		1	1.53	mg/L	5	1.50	0.0064	102	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)	0.493	0.489	mg/L	5	0.5	99	98	70 - 130
4-Bromofluorobenzene (4-BFB)	0.491	0.485	mg/L	5	0.5	98	97	70 - 130

Calibration Standards

Standard (CCV-1)

QC Batch: 94755

Date Analyzed: 2012-09-13

Analyzed By: JS

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	2012-09-13
Toluene		1	mg/L	0.100	0.0920	92	80 - 120	2012-09-13
Ethylbenzene		1	mg/L	0.100	0.0963	96	80 - 120	2012-09-13
Xylene		1	mg/L	0.300	0.293	98	80 - 120	2012-09-13

Standard (CCV-2)

QC Batch: 94755

Date Analyzed: 2012-09-13

Analyzed By: JS

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0860	86	80 - 120	2012-09-13
Toluene		1	mg/L	0.100	0.0807	81	80 - 120	2012-09-13
Ethylbenzene		1	mg/L	0.100	0.0870	87	80 - 120	2012-09-13
Xylene		1	mg/L	0.300	0.267	89	80 - 120	2012-09-13

Standard (CCV-3)

QC Batch: 94755

Date Analyzed: 2012-09-13

Analyzed By: JS

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0953	95	80 - 120	2012-09-13
Toluene		1	mg/L	0.100	0.0934	93	80 - 120	2012-09-13
Ethylbenzene		1	mg/L	0.100	0.0966	97	80 - 120	2012-09-13
Xylene		1	mg/L	0.300	0.284	95	80 - 120	2012-09-13

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Standard (CCV-1)

QC Batch: 94846

Date Analyzed: 2012-09-14

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	0.0977	98	80 - 120	2012-09-14
Toluene		1	mg/L	0.100	0.0971	97	80 - 120	2012-09-14
Ethylbenzene		1	mg/L	0.100	0.0986	99	80 - 120	2012-09-14
Xylene		1	mg/L	0.300	0.300	100	80 - 120	2012-09-14

Standard (CCV-2)

QC Batch: 94846

Date Analyzed: 2012-09-14

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	0.0992	99	80 - 120	2012-09-14
Toluene		1	mg/L	0.100	0.0998	100	80 - 120	2012-09-14
Ethylbenzene		1	mg/L	0.100	0.100	100	80 - 120	2012-09-14
Xylene		1	mg/L	0.300	0.305	102	80 - 120	2012-09-14

Standard (CCV-1)

QC Batch: 94879

Date Analyzed: 2012-09-17

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	0.0958	96	80 - 120	2012-09-17
Toluene		1	mg/L	0.100	0.101	101	80 - 120	2012-09-17
Ethylbenzene		1	mg/L	0.100	0.102	102	80 - 120	2012-09-17
Xylene		1	mg/L	0.300	0.302	101	80 - 120	2012-09-17

Standard (CCV-2)

QC Batch: 94879

Date Analyzed: 2012-09-17

Analyzed By: MT

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Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0969	97	80 - 120	2012-09-17
Toluene		1	mg/L	0.100	0.103	103	80 - 120	2012-09-17
Ethylbenzene		1	mg/L	0.100	0.105	105	80 - 120	2012-09-17
Xylene		1	mg/L	0.300	0.307	102	80 - 120	2012-09-17

Appendix

Report Definitions

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

Laboratory Certifications

	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

Result Comments

- 1 Sample dilution due to soil in the voa.
- 2 Sample dilution due to soil in the voa.

Attachments

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

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Company Name: Talon LPE Phone #:

Address: 2901 State Hwy 349 Midland 79706 Fax #:

Contact Person: cspore@talonlpe.com E-mail: Chris Spore

Invoice to:

(If different from above) SRS 2000-10757 Plghs

Project #: 700376.050.01 Project Name: Kimbrough Surt8"

Project Location (including state): Hobbs NM

Sampler Signature: *Endrey*

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX			PRESERVATIVE METHOD						SAMPLING		DATE	TIME
				WATER	SOIL	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE	NONE			
309180	MW3	3	400	X				X				X		9/12	1245	
181	MW4	1	1	1										1130		
182	MW10	1	1	1										1245		
183	MW12	1	1	1										1215		
184	MW13	1	1	1										1230		
185	MW14	1	1	1										1200		
186	MW15	1	1	1										1145		

ANALYSIS REQUEST
(Circle or Specify Method No.)

MTBE 8021 / 602 / 8260 / 624	X
BTEX 8021 / 602 / 8260 / 624	
TPH 418.1 / TX1005 / TX1005 Ext(C35)	
TPH 8015 GRO / DRO / TVHC	
PAH 8270 / 625	
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	
TCLP Metals Ag As Ba Cd Cr Pb Se Hg	
TCLP Volatiles	
TCLP Semi Volatiles	
TCLP Pesticides	
RCI	
GC/MS Vol. 8260 / 624	
GC/MS Semi. Vol. 8270 / 625	
PCB's 8082 / 608	
Pesticides 8081 / 608	
BOD, TSS, pH	
Moisture Content	
Cl, F, SO ₄ , NO ₃ -N, NO ₂ -N, PO ₄ -P, Alkalinity	
Na, Ca, Mg, K, TDS, EC	
Turn Around Time if different from standard	

REMARKS:**LAB USE ONLY**

Relinquished by: <i>Endrey</i>	Company: Talon LPE	Date: 9/13/12	Time: 910	Received by:	Company:	Date:	Time:	INST: OBS COR	INST: OBS COR
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST: OBS COR	INST: OBS COR
Relinquished by:	Company:	Date:	Time:	Received by: <i>Brendan Roberts</i>	Company: <i>Trace</i>	Date: 9/19/10	Time: 5:30	INST: OBS COR	INST: OBS COR

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

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

ORIGINAL COPY

Carrier #

Camryn

Summary Report

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

Report Date: December 17, 2012

Work Order: 12121006

Project Location: Hobbs, NM
Project Name: Kimbrough Sweet 8"
Project Number: 700376.050.01
SRS #: 2000-10757

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
316195	MW-3	water	2012-12-06	11:15	2012-12-07
316196	MW-4	water	2012-12-06	10:45	2012-12-07
316197	MW-10	water	2012-12-06	10:30	2012-12-07
316198	MW-12	water	2012-12-06	11:10	2012-12-07
316199	MW-13	water	2012-12-06	10:50	2012-12-07
316200	MW-14	water	2012-12-06	11:05	2012-12-07
316201	MW-15	water	2012-12-06	10:55	2012-12-07

Sample - Field Code	BTEX				MTBE
	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)	MTBE (mg/L)
316195 - MW-3	1.86	<0.0100	0.0303	<0.0100	
316196 - MW-4	<0.00500 ¹	<0.00500	<0.00500	<0.00500	
316197 - MW-10	<0.00500 ²	<0.00500	<0.00500	<0.00500	
316198 - MW-12	2.62	<0.0100	0.0137	0.0210	
316199 - MW-13	<0.00100	<0.00100	<0.00100	<0.00100	
316200 - MW-14	0.524	<0.00500	<0.00500	0.00520	
316201 - MW-15	0.0169 _{Qs}	<0.00100 _{Qr}	<0.00100	<0.00100	

Sample: 316195 - MW-3

Param	Flag	Result	Units	RL
Naphthalene		<0.000189	mg/L	0.0002
2-Methylnaphthalene		<0.000189	mg/L	0.0002
1-Methylnaphthalene		<0.000189	mg/L	0.0002

continued ...

¹Dilution due to soil in the voa.

²Dilution due to soil in the voa.

sample 316195 continued ...

Param	Flag	Result	Units	RL
Acenaphthylene		<0.000189	mg/L	0.0002
Acenaphthene		<0.000189	mg/L	0.0002
Dibenzofuran		0.00171	mg/L	0.0002
Fluorene		<0.000189	mg/L	0.0002
Anthracene		<0.000189	mg/L	0.0002
Phenanthrene		0.00144	mg/L	0.0002
Fluoranthene		<0.000189	mg/L	0.0002
Pyrene		<0.000189	mg/L	0.0002
Benzo(a)anthracene		<0.000189	mg/L	0.0002
Chrysene	Qs	<0.000189	mg/L	0.0002
Benzo(b)fluoranthene		<0.000189	mg/L	0.0002
Benzo(k)fluoranthene		<0.000189	mg/L	0.0002
Benzo(a)pyrene		<0.000189	mg/L	0.0002
Indeno(1,2,3-cd)pyrene		<0.000189	mg/L	0.0002
Dibenzo(a,h)anthracene	Qs	<0.000189	mg/L	0.0002
Benzo(g,h,i)perylene		<0.000189	mg/L	0.0002

Sample: 316198 - MW-12

Param	Flag	Result	Units	RL
Naphthalene		<0.000190	mg/L	0.0002
2-Methylnaphthalene		<0.000190	mg/L	0.0002
1-Methylnaphthalene		<0.000190	mg/L	0.0002
Acenaphthylene		<0.000190	mg/L	0.0002
Acenaphthene		<0.000190	mg/L	0.0002
Dibenzofuran		0.00319	mg/L	0.0002
Fluorene		<0.000190	mg/L	0.0002
Anthracene		<0.000190	mg/L	0.0002
Phenanthrene		0.00214	mg/L	0.0002
Fluoranthene		<0.000190	mg/L	0.0002
Pyrene		<0.000190	mg/L	0.0002
Benzo(a)anthracene		<0.000190	mg/L	0.0002
Chrysene	Qs	<0.000190	mg/L	0.0002
Benzo(b)fluoranthene		<0.000190	mg/L	0.0002
Benzo(k)fluoranthene		<0.000190	mg/L	0.0002
Benzo(a)pyrene		<0.000190	mg/L	0.0002
Indeno(1,2,3-cd)pyrene		<0.000190	mg/L	0.0002
Dibenzo(a,h)anthracene	Qs	<0.000190	mg/L	0.0002
Benzo(g,h,i)perylene		<0.000190	mg/L	0.0002

Sample: 316200 - MW-14

Param	Flag	Result	Units	RL
Naphthalene		<0.000190	mg/L	0.0002

continued ...

sample 316200 continued ...

Param	Flag	Result	Units	RL
2-Methylnaphthalene		<0.000190	mg/L	0.0002
1-Methylnaphthalene		0.000796	mg/L	0.0002
Acenaphthylene		<0.000190	mg/L	0.0002
Acenaphthene		<0.000190	mg/L	0.0002
Dibenzofuran		<0.000190	mg/L	0.0002
Fluorene		<0.000190	mg/L	0.0002
Anthracene		<0.000190	mg/L	0.0002
Phenanthrene		<0.000190	mg/L	0.0002
Fluoranthene		<0.000190	mg/L	0.0002
Pyrene		<0.000190	mg/L	0.0002
Benzo(a)anthracene		<0.000190	mg/L	0.0002
Chrysene	Qs	<0.000190	mg/L	0.0002
Benzo(b)fluoranthene		<0.000190	mg/L	0.0002
Benzo(k)fluoranthene		<0.000190	mg/L	0.0002
Benzo(a)pyrene		<0.000190	mg/L	0.0002
Indeno(1,2,3-cd)pyrene		<0.000190	mg/L	0.0002
Dibenzo(a,h)anthracene	Qs	<0.000190	mg/L	0.0002
Benzo(g,h,i)perylene		<0.000190	mg/L	0.0002

Sample: 316201 - MW-15

Param	Flag	Result	Units	RL
Naphthalene		<0.000190	mg/L	0.0002
2-Methylnaphthalene		<0.000190	mg/L	0.0002
1-Methylnaphthalene		<0.000190	mg/L	0.0002
Acenaphthylene		<0.000190	mg/L	0.0002
Acenaphthene		<0.000190	mg/L	0.0002
Dibenzofuran		<0.000190	mg/L	0.0002
Fluorene		<0.000190	mg/L	0.0002
Anthracene		<0.000190	mg/L	0.0002
Phenanthrene		<0.000190	mg/L	0.0002
Fluoranthene		<0.000190	mg/L	0.0002
Pyrene		<0.000190	mg/L	0.0002
Benzo(a)anthracene		<0.000190	mg/L	0.0002
Chrysene	Qs	<0.000190	mg/L	0.0002
Benzo(b)fluoranthene		<0.000190	mg/L	0.0002
Benzo(k)fluoranthene		<0.000190	mg/L	0.0002
Benzo(a)pyrene		<0.000190	mg/L	0.0002
Indeno(1,2,3-cd)pyrene		<0.000190	mg/L	0.0002
Dibenzo(a,h)anthracene	Qs	<0.000190	mg/L	0.0002
Benzo(g,h,i)perylene		<0.000190	mg/L	0.0002



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Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

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

Report Date: December 17, 2012

Work Order: 12121006



Project Location: Hobbs, NM
Project Name: Kimbrough Sweet 8"
Project Number: 700376.050.01
SRS #: 2000-10757

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
316195	MW-3	water	2012-12-06	11:15	2012-12-07
316196	MW-4	water	2012-12-06	10:45	2012-12-07
316197	MW-10	water	2012-12-06	10:30	2012-12-07
316198	MW-12	water	2012-12-06	11:10	2012-12-07
316199	MW-13	water	2012-12-06	10:50	2012-12-07
316200	MW-14	water	2012-12-06	11:05	2012-12-07
316201	MW-15	water	2012-12-06	10:55	2012-12-07

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.

Michael Abel

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

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Case Narrative

Samples for project Kimbrough Sweet 8" were received by TraceAnalysis, Inc. on 2012-12-07 and assigned to work order 12121006. Samples for work order 12121006 were received intact without headspace and at a temperature of 3.3 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	82458	2012-12-10 at 13:21	97292	2012-12-10 at 13:21
BTEX	S 8021B	82474	2012-12-11 at 15:24	97320	2012-12-11 at 15:24
BTEX	S 8021B	82476	2012-12-11 at 08:29	97323	2012-12-11 at 08:29
PAH	S 8270D	82534	2012-12-12 at 15:00	97441	2012-12-14 at 13:03

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 12121006 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: December 17, 2012
700376.050.01

Work Order: 12121006
Kimbrough Sweet 8"

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Hobbs, NM

Analytical Report

Sample: 316195 - MW-3

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 97320
Prep Batch: 82474

Analytical Method: S 8021B
Date Analyzed: 2012-12-11
Sample Preparation: 2012-12-11

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	1.86	mg/L	10	0.00100
Toluene	u	1	<0.0100	mg/L	10	0.00100
Ethylbenzene		1	0.0303	mg/L	10	0.00100
Xylene	u	1	<0.0100	mg/L	10	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.964	mg/L	10	1.00	96	80 - 120
4-Bromofluorobenzene (4-BFB)			1.06	mg/L	10	1.00	106	80 - 120

Sample: 316195 - MW-3

Laboratory: Lubbock
Analysis: PAH
QC Batch: 97441
Prep Batch: 82534

Analytical Method: S 8270D
Date Analyzed: 2012-12-14
Sample Preparation: 2012-12-12

Prep Method: S 3510C
Analyzed By: MN
Prepared By: MN

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Naphthalene	u	1	<0.000189	mg/L	0.943	0.000200
2-Methylnaphthalene	u	1	<0.000189	mg/L	0.943	0.000200
1-Methylnaphthalene	u		<0.000189	mg/L	0.943	0.000200
Acenaphthylene	u	1	<0.000189	mg/L	0.943	0.000200
Acenaphthene	u	1	<0.000189	mg/L	0.943	0.000200
Dibenzofuran		1	0.00171	mg/L	0.943	0.000200
Fluorene	u	1	<0.000189	mg/L	0.943	0.000200
Anthracene	u	1	<0.000189	mg/L	0.943	0.000200
Phenanthrene		1	0.00144	mg/L	0.943	0.000200
Fluoranthene	u	1	<0.000189	mg/L	0.943	0.000200
Pyrene	u	1	<0.000189	mg/L	0.943	0.000200
Benzo(a)anthracene	u	1	<0.000189	mg/L	0.943	0.000200
Chrysene	Qs,u	1	<0.000189	mg/L	0.943	0.000200

continued ...

Report Date: December 17, 2012
700376.050.01

Work Order: 12121006
Kimbrough Sweet 8"

Page Number: 6 of 26
Hobbs, NM

sample 316195 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzo(b)fluoranthene	U	1	<0.000189	mg/L	0.943	0.000200
Benzo(k)fluoranthene	U	1	<0.000189	mg/L	0.943	0.000200
Benzo(a)pyrene	U	1	<0.000189	mg/L	0.943	0.000200
Indeno(1,2,3-cd)pyrene	U	1	<0.000189	mg/L	0.943	0.000200
Dibenzo(a,h)anthracene	Qs,U	1	<0.000189	mg/L	0.943	0.000200
Benzo(g,h,i)perylene	U	1	<0.000189	mg/L	0.943	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0461	mg/L	0.943	0.0800	58	40 - 110
2-Fluorobiphenyl			0.0454	mg/L	0.943	0.0800	57	50 - 110
Terphenyl-d14			0.0419	mg/L	0.943	0.0800	52	50 - 135

Sample: 316196 - MW-4

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 97323
Prep Batch: 82476

Analytical Method: S 8021B
Date Analyzed: 2012-12-11
Sample Preparation: 2012-12-11

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	1	<0.00500	mg/L	5	0.00100
Toluene	U	1	<0.00500	mg/L	5	0.00100
Ethylbenzene	U	1	<0.00500	mg/L	5	0.00100
Xylene	U	1	<0.00500	mg/L	5	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.404	mg/L	5	0.500	81	69.2 - 120
4-Bromofluorobenzene (4-BFB)			0.411	mg/L	5	0.500	82	67.1 - 120

Sample: 316197 - MW-10

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 97323
Prep Batch: 82476

Analytical Method: S 8021B
Date Analyzed: 2012-12-11
Sample Preparation: 2012-12-11

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

Report Date: December 17, 2012
700376.050.01

Work Order: 12121006
Kimbrough Sweet 8"

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Hobbs, NM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00500	mg/L	5	0.00100
Toluene	u	1	<0.00500	mg/L	5	0.00100
Ethylbenzene	u	1	<0.00500	mg/L	5	0.00100
Xylene	u	1	<0.00500	mg/L	5	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.412	mg/L	5	0.500	82	69.2 - 120
4-Bromofluorobenzene (4-BFB)			0.407	mg/L	5	0.500	81	67.1 - 120

Sample: 316198 - MW-12

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 97323
Prep Batch: 82476

Analytical Method: S 8021B
Date Analyzed: 2012-12-11
Sample Preparation: 2012-12-11

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	2.62	mg/L	10	0.00100
Toluene	u	1	<0.0100	mg/L	10	0.00100
Ethylbenzene		1	0.0137	mg/L	10	0.00100
Xylene	B	1	0.0210	mg/L	10	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.879	mg/L	10	1.00	88	69.2 - 120
4-Bromofluorobenzene (4-BFB)			0.854	mg/L	10	1.00	85	67.1 - 120

Sample: 316198 - MW-12

Laboratory: Lubbock
Analysis: PAH
QC Batch: 97441
Prep Batch: 82534

Analytical Method: S 8270D
Date Analyzed: 2012-12-14
Sample Preparation: 2012-12-12

Prep Method: S 3510C
Analyzed By: MN
Prepared By: MN

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Naphthalene	u	1	<0.000190	mg/L	0.948	0.000200
2-Methylnaphthalene	u	1	<0.000190	mg/L	0.948	0.000200
1-Methylnaphthalene	u		<0.000190	mg/L	0.948	0.000200

continued ...

sample 316198 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Acenaphthylene	U	1	<0.000190	mg/L	0.948	0.000200
Acenaphthene	U	1	<0.000190	mg/L	0.948	0.000200
Dibenzofuran		1	0.00319	mg/L	0.948	0.000200
Fluorene	U	1	<0.000190	mg/L	0.948	0.000200
Anthracene	U	1	<0.000190	mg/L	0.948	0.000200
Phenanthrene		1	0.00214	mg/L	0.948	0.000200
Fluoranthene	U	1	<0.000190	mg/L	0.948	0.000200
Pyrene	U	1	<0.000190	mg/L	0.948	0.000200
Benzo(a)anthracene	U	1	<0.000190	mg/L	0.948	0.000200
Chrysene	Qs,U	1	<0.000190	mg/L	0.948	0.000200
Benzo(b)fluoranthene	U	1	<0.000190	mg/L	0.948	0.000200
Benzo(k)fluoranthene	U	1	<0.000190	mg/L	0.948	0.000200
Benzo(a)pyrene	U	1	<0.000190	mg/L	0.948	0.000200
Indeno(1,2,3-cd)pyrene	U	1	<0.000190	mg/L	0.948	0.000200
Dibenzo(a,h)anthracene	Qs,U	1	<0.000190	mg/L	0.948	0.000200
Benzo(g,h,i)perylene	U	1	<0.000190	mg/L	0.948	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0488	mg/L	0.948	0.0800	61	40 - 110
2-Fluorobiphenyl			0.0518	mg/L	0.948	0.0800	65	50 - 110
Terphenyl-d14			0.0507	mg/L	0.948	0.0800	63	50 - 135

Sample: 316199 - MW-13

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 97323

Prep Batch: 82476

Analytical Method: S 8021B

Date Analyzed: 2012-12-11

Sample Preparation: 2012-12-11

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

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)			0.0830	mg/L	1	0.100	83	69.2 - 120

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sample continued ...

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
4-Bromofluorobenzene (4-BFB)			0.0847	mg/L	1	0.100	85	67.1 - 120

Sample: 316200 - MW-14

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 97323

Prep Batch: 82476

Analytical Method: S 8021B

Date Analyzed: 2012-12-11

Sample Preparation: 2012-12-11

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.524	mg/L	5	0.00100
Toluene	U	1	<0.00500	mg/L	5	0.00100
Ethylbenzene	U	1	<0.00500	mg/L	5	0.00100
Xylene	B	1	0.00520	mg/L	5	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.397	mg/L	5	0.500	79	69.2 - 120
4-Bromofluorobenzene (4-BFB)			0.414	mg/L	5	0.500	83	67.1 - 120

Sample: 316200 - MW-14

Laboratory: Lubbock

Analysis: PAH

QC Batch: 97441

Prep Batch: 82534

Analytical Method: S 8270D

Date Analyzed: 2012-12-14

Sample Preparation: 2012-12-12

Prep Method: S 3510C

Analyzed By: MN

Prepared By: MN

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Naphthalene	U	1	<0.000190	mg/L	0.952	0.000200
2-Methylnaphthalene	U	1	<0.000190	mg/L	0.952	0.000200
1-Methylnaphthalene			0.000796	mg/L	0.952	0.000200
Acenaphthylene	U	1	<0.000190	mg/L	0.952	0.000200
Acenaphthene	U	1	<0.000190	mg/L	0.952	0.000200
Dibenzofuran	U	1	<0.000190	mg/L	0.952	0.000200
Fluorene	U	1	<0.000190	mg/L	0.952	0.000200
Anthracene	U	1	<0.000190	mg/L	0.952	0.000200
Phenanthrene	U	1	<0.000190	mg/L	0.952	0.000200
Fluoranthene	U	1	<0.000190	mg/L	0.952	0.000200

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sample 316200 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Pyrene	U	1	<0.000190	mg/L	0.952	0.000200
Benzo(a)anthracene	U	1	<0.000190	mg/L	0.952	0.000200
Chrysene	Qs,U	1	<0.000190	mg/L	0.952	0.000200
Benzo(b)fluoranthene	U	1	<0.000190	mg/L	0.952	0.000200
Benzo(k)fluoranthene	U	1	<0.000190	mg/L	0.952	0.000200
Benzo(a)pyrene	U	1	<0.000190	mg/L	0.952	0.000200
Indeno(1,2,3-cd)pyrene	U	1	<0.000190	mg/L	0.952	0.000200
Dibenzo(a,h)anthracene	Qs,U	1	<0.000190	mg/L	0.952	0.000200
Benzo(g,h,i)perylene	U	1	<0.000190	mg/L	0.952	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0878	mg/L	0.952	0.0800	110	40 - 110
2-Fluorobiphenyl	Qsr	Qsr	0.0908	mg/L	0.952	0.0800	114	50 - 110
Terphenyl-d14			0.0973	mg/L	0.952	0.0800	122	50 - 135

Sample: 316201 - MW-15

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 97292

Prep Batch: 82458

Analytical Method: S 8021B

Date Analyzed: 2012-12-10

Sample Preparation: 2012-12-10

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qs	1	0.0169	mg/L	1	0.00100
Toluene	Qr,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)			0.0808	mg/L	1	0.100	81	69.2 - 120
4-Bromofluorobenzene (4-BFB)			0.0916	mg/L	1	0.100	92	67.1 - 120

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Sample: 316201 - MW-15

Laboratory: Lubbock
Analysis: PAH
QC Batch: 97441
Prep Batch: 82534

Analytical Method: S 8270D
Date Analyzed: 2012-12-14
Sample Preparation: 2012-12-12

Prep Method: S 3510C
Analyzed By: MN
Prepared By: MN

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Naphthalene	U	1	<0.000190	mg/L	0.952	0.000200
2-Methylnaphthalene	U	1	<0.000190	mg/L	0.952	0.000200
1-Methylnaphthalene	U		<0.000190	mg/L	0.952	0.000200
Acenaphthylene	U	1	<0.000190	mg/L	0.952	0.000200
Acenaphthene	U	1	<0.000190	mg/L	0.952	0.000200
Dibenzofuran	U	1	<0.000190	mg/L	0.952	0.000200
Fluorene	U	1	<0.000190	mg/L	0.952	0.000200
Anthracene	U	1	<0.000190	mg/L	0.952	0.000200
Phenanthrene	U	1	<0.000190	mg/L	0.952	0.000200
Fluoranthene	U	1	<0.000190	mg/L	0.952	0.000200
Pyrene	U	1	<0.000190	mg/L	0.952	0.000200
Benzo(a)anthracene	U	1	<0.000190	mg/L	0.952	0.000200
Chrysene	Qs,U	1	<0.000190	mg/L	0.952	0.000200
Benzo(b)fluoranthene	U	1	<0.000190	mg/L	0.952	0.000200
Benzo(k)fluoranthene	U	1	<0.000190	mg/L	0.952	0.000200
Benzo(a)pyrene	U	1	<0.000190	mg/L	0.952	0.000200
Indeno(1,2,3-cd)pyrene	U	1	<0.000190	mg/L	0.952	0.000200
Dibenzo(a,h)anthracene	Qs,U	1	<0.000190	mg/L	0.952	0.000200
Benzo(g,h,i)perylene	U	1	<0.000190	mg/L	0.952	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0566	mg/L	0.952	0.0800	71	40 - 110
2-Fluorobiphenyl			0.0575	mg/L	0.952	0.0800	72	50 - 110
Terphenyl-d14			0.0681	mg/L	0.952	0.0800	85	50 - 135

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Method Blanks

Method Blank (1) QC Batch: 97292

QC Batch: 97292
Prep Batch: 82458

Date Analyzed: 2012-12-10
QC Preparation: 2012-12-10

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	<0.000291	mg/L	0.001
Xylene		1	0.000400	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0816	mg/L	1	0.100	82	69.2 - 120
4-Bromofluorobenzene (4-BFB)			0.0893	mg/L	1	0.100	89	67.1 - 120

Method Blank (1) QC Batch: 97320

QC Batch: 97320
Prep Batch: 82474

Date Analyzed: 2012-12-11
QC Preparation: 2012-12-11

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)			0.0975	mg/L	1	0.100	98	80 - 120
4-Bromofluorobenzene (4-BFB)			0.104	mg/L	1	0.100	104	80 - 120

Method Blank (1) QC Batch: 97323

QC Batch: 97323
Prep Batch: 82476

Date Analyzed: 2012-12-11
QC Preparation: 2012-12-11

Analyzed By: MT
Prepared By: MT

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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	<0.000291	mg/L	0.001
Xylene		1	0.000300	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0794	mg/L	1	0.100	79	69.2 - 120
4-Bromofluorobenzene (4-BFB)			0.0838	mg/L	1	0.100	84	67.1 - 120

Method Blank (1) QC Batch: 97441

QC Batch: 97441
Prep Batch: 82534

Date Analyzed: 2012-12-14
QC Preparation: 2012-12-12

Analyzed By: MN
Prepared By: MN

Parameter	Flag	Cert	MDL Result	Units	RL
Naphthalene		1	<0.000121	mg/L	0.0002
2-Methylnaphthalene		1	<0.0000913	mg/L	0.0002
1-Methylnaphthalene			<0.000109	mg/L	0.0002
Acenaphthylene		1	<0.000100	mg/L	0.0002
Acenaphthene		1	<0.000122	mg/L	0.0002
Dibenzofuran		1	<0.000108	mg/L	0.0002
Fluorene		1	<0.000100	mg/L	0.0002
Anthracene		1	<0.0000791	mg/L	0.0002
Phenanthrene		1	<0.0000824	mg/L	0.0002
Fluoranthene		1	<0.000124	mg/L	0.0002
Pyrene		1	<0.0000691	mg/L	0.0002
Benzo(a)anthracene		1	<0.000101	mg/L	0.0002
Chrysene		1	<0.0000769	mg/L	0.0002
Benzo(b)fluoranthene		1	<0.0000813	mg/L	0.0002
Benzo(k)fluoranthene		1	<0.0000790	mg/L	0.0002
Benzo(a)pyrene		1	<0.0000701	mg/L	0.0002
Indeno(1,2,3-cd)pyrene		1	<0.0000770	mg/L	0.0002
Dibenzo(a,h)anthracene		1	<0.0000851	mg/L	0.0002
Benzo(g,h,i)perylene		1	<0.0000798	mg/L	0.0002

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0602	mg/L	1	0.0800	75	40 - 110
2-Fluorobiphenyl			0.0596	mg/L	1	0.0800	74	50 - 110

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Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Terphenyl-d14			0.0568	mg/L	1	0.0800	71	50 - 135

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 97292
Prep Batch: 82458

Date Analyzed: 2012-12-10
QC Preparation: 2012-12-10

Analyzed By: MT
Prepared By: MT

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0849	mg/L	1	0.100	<0.000310	85	71.7 - 120
Toluene		1	0.0869	mg/L	1	0.100	<0.000259	87	73.3 - 120
Ethylbenzene		1	0.0860	mg/L	1	0.100	<0.000291	86	72.8 - 120
Xylene		1	0.262	mg/L	1	0.300	0.0004	87	72.7 - 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	0.0847	mg/L	1	0.100	<0.000310	85	71.7 - 120	0	20
Toluene		1	0.0873	mg/L	1	0.100	<0.000259	87	73.3 - 120	0	20
Ethylbenzene		1	0.0875	mg/L	1	0.100	<0.000291	88	72.8 - 120	2	20
Xylene		1	0.264	mg/L	1	0.300	0.0004	88	72.7 - 120	1	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0785	0.0787	mg/L	1	0.100	78	79	69.2 - 120
4-Bromofluorobenzene (4-BFB)	0.0868	0.0885	mg/L	1	0.100	87	88	67.1 - 120

Laboratory Control Spike (LCS-1)

QC Batch: 97320
Prep Batch: 82474

Date Analyzed: 2012-12-11
QC Preparation: 2012-12-11

Analyzed By: MT
Prepared By: MT

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0986	mg/L	1	0.100	<0.000371	99	80 - 120
Toluene		1	0.0993	mg/L	1	0.100	<0.000347	99	80 - 120
Ethylbenzene		1	0.102	mg/L	1	0.100	<0.000326	102	80 - 120
Xylene		1	0.297	mg/L	1	0.300	<0.000357	99	80 - 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	0.0967	mg/L	1	0.100	<0.000371	97	80 - 120	2	20
Toluene		1	0.0990	mg/L	1	0.100	<0.000347	99	80 - 120	0	20
Ethylbenzene		1	0.101	mg/L	1	0.100	<0.000326	101	80 - 120	1	20
Xylene		1	0.299	mg/L	1	0.300	<0.000357	100	80 - 120	1	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0974	0.0947	mg/L	1	0.100	97	95	80 - 120
4-Bromofluorobenzene (4-BFB)	0.0983	0.0994	mg/L	1	0.100	98	99	80 - 120

Laboratory Control Spike (LCS-1)

QC Batch: 97323
Prep Batch: 82476

Date Analyzed: 2012-12-11
QC Preparation: 2012-12-11

Analyzed By: MT
Prepared By: MT

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0857	mg/L	1	0.100	<0.000310	86	71.7 - 120
Toluene		1	0.0886	mg/L	1	0.100	<0.000259	89	73.3 - 120
Ethylbenzene		1	0.0869	mg/L	1	0.100	<0.000291	87	72.8 - 120
Xylene		1	0.263	mg/L	1	0.300	0.0003	88	72.7 - 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	0.0848	mg/L	1	0.100	<0.000310	85	71.7 - 120	1	20
Toluene		1	0.0868	mg/L	1	0.100	<0.000259	87	73.3 - 120	2	20
Ethylbenzene		1	0.0866	mg/L	1	0.100	<0.000291	87	72.8 - 120	0	20
Xylene		1	0.263	mg/L	1	0.300	0.0003	88	72.7 - 120	0	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0787	0.0784	mg/L	1	0.100	79	78	69.2 - 120
4-Bromofluorobenzene (4-BFB)	0.0839	0.0847	mg/L	1	0.100	84	85	67.1 - 120

Laboratory Control Spike (LCS-1)

QC Batch: 97441
Prep Batch: 82534

Date Analyzed: 2012-12-14
QC Preparation: 2012-12-12

Analyzed By: MN
Prepared By: MN

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	
Naphthalene		1	0.0693	mg/L	1	0.0800	<0.000121	87	40 - 100	
2-Methylnaphthalene		1	0.0681	mg/L	1	0.0800	<0.0000913	85	45 - 105	
1-Methylnaphthalene			0.0662	mg/L	1	0.0800	<0.000109	83	70 - 130	
Acenaphthylene		1	0.0693	mg/L	1	0.0800	<0.000100	87	50 - 105	
Acenaphthene		1	0.0659	mg/L	1	0.0800	<0.000122	82	45 - 110	
Dibenzofuran		1	0.0639	mg/L	1	0.0800	<0.000108	80	55 - 105	
Fluorene		1	0.0683	mg/L	1	0.0800	<0.000100	85	50 - 110	
Anthracene		1	0.0640	mg/L	1	0.0800	<0.0000791	80	55 - 110	
Phenanthrene		1	0.0718	mg/L	1	0.0800	<0.0000824	90	50 - 115	
Fluoranthene		1	0.0618	mg/L	1	0.0800	<0.000124	77	55 - 115	
Pyrene		1	0.0618	mg/L	1	0.0800	<0.0000691	77	50 - 130	
Benzo(a)anthracene		1	0.0671	mg/L	1	0.0800	<0.000101	84	55 - 110	
Chrysene	Qs	Qs	1	0.117	mg/L	1	0.0800	<0.0000769	146	55 - 110
Benzo(b)fluoranthene		1	0.0453	mg/L	1	0.0800	<0.0000813	57	45 - 120	
Benzo(k)fluoranthene		1	0.0542	mg/L	1	0.0800	<0.0000790	68	45 - 125	
Benzo(a)pyrene		1	0.0515	mg/L	1	0.0800	<0.0000701	64	55 - 110	
Indeno(1,2,3-cd)pyrene		1	0.0554	mg/L	1	0.0800	<0.0000770	69	45 - 125	
Dibenzo(a,h)anthracene		1	0.0878	mg/L	1	0.0800	<0.0000851	110	40 - 125	
Benzo(g,h,i)perylene		1	0.0522	mg/L	1	0.0800	<0.0000798	65	40 - 125	

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

Param	F	C	LCSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit	
			Result	Units								
Naphthalene		1	0.0728	mg/L	1	0.0800	<0.000121	91	40 - 100	5	20	
2-Methylnaphthalene		1	0.0732	mg/L	1	0.0800	<0.0000913	92	45 - 105	7	20	
1-Methylnaphthalene			0.0727	mg/L	1	0.0800	<0.000109	91	70 - 130	9	20	
Acenaphthylene		1	0.0747	mg/L	1	0.0800	<0.000100	93	50 - 105	8	20	
Acenaphthene		1	0.0705	mg/L	1	0.0800	<0.000122	88	45 - 110	7	20	
Dibenzofuran		1	0.0689	mg/L	1	0.0800	<0.000108	86	55 - 105	8	20	
Fluorene		1	0.0726	mg/L	1	0.0800	<0.000100	91	50 - 110	6	20	
Anthracene		1	0.0657	mg/L	1	0.0800	<0.0000791	82	55 - 110	3	20	
Phenanthrene		1	0.0738	mg/L	1	0.0800	<0.0000824	92	50 - 115	3	20	
Fluoranthene		1	0.0622	mg/L	1	0.0800	<0.000124	78	55 - 115	1	20	
Pyrene		1	0.0664	mg/L	1	0.0800	<0.0000691	83	50 - 130	7	20	
Benzo(a)anthracene		1	0.0706	mg/L	1	0.0800	<0.000101	88	55 - 110	5	20	
Chrysene	Qs	Qs	1	0.124	mg/L	1	0.0800	<0.0000769	155	55 - 110	6	20
Benzo(b)fluoranthene		1	0.0484	mg/L	1	0.0800	<0.0000813	60	45 - 120	7	20	
Benzo(k)fluoranthene		1	0.0590	mg/L	1	0.0800	<0.0000790	74	45 - 125	8	20	
Benzo(a)pyrene		1	0.0580	mg/L	1	0.0800	<0.0000701	72	55 - 110	12	20	

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		LCSD				Spike	Matrix		Rec.		RPD	
Param	F	C	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit	
Indeno(1,2,3-cd)pyrene		1	0.0620	mg/L	1	0.0800	<0.0000770	78	45 - 125	11	20	
Dibenzo(a,h)anthracene	Qs	Qs	1	0.101	mg/L	1	0.0800	<0.0000851	126	40 - 125	14	20
Benzo(g,h,i)perylene		1	0.0578	mg/L	1	0.0800	<0.0000798	72	40 - 125	10	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
Nitrobenzene-d5	0.0654	0.0700	mg/L	1	0.0800	82	88	40 - 110
2-Fluorobiphenyl	0.0648	0.0705	mg/L	1	0.0800	81	88	50 - 110
Terphenyl-d14	0.0627	0.0655	mg/L	1	0.0800	78	82	50 - 135

Matrix Spike (MS-1) Spiked Sample: 316193

QC Batch: 97292
Prep Batch: 82458

Date Analyzed: 2012-12-10
QC Preparation: 2012-12-10

Analyzed By: MT
Prepared By: MT

Param	F	C	MS	Units	Dil.	Spike	Matrix	Rec.	Rec.	
			Result			Amount	Result		Limit	
Benzene	Qs	Qs	1	1.72	mg/L	1	0.100	1.7148	5	56.8 - 127
Toluene			1	0.0748	mg/L	1	0.100	0.0069	68	57.6 - 125
Ethylbenzene			1	0.0811	mg/L	1	0.100	0.0131	68	60.4 - 121
Xylene			1	0.216	mg/L	1	0.300	0.0102	69	60.3 - 125

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

Param	F	C	MSD			Spike Amount	Matrix Result	Rec.	Rec.		RPD	
			Result	Units	Dil.				Limit	RPD	Limit	
Benzene	Q ^s	Q ^s	1	1.76	mg/L	1	0.100	1.7148	45	56.8 - 127	2	20
Toluene	Q ^r	Q ^r	1	0.0917	mg/L	1	0.100	0.0069	85	57.6 - 125	20	20
Ethylbenzene			1	0.0948	mg/L	1	0.100	0.0131	82	60.4 - 121	16	20
Xylene			1	0.257	mg/L	1	0.300	0.0102	82	60.3 - 125	17	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)	Qsr	Qsr	0.178	0.197	mg/L	1	0.1	178	197	69.2 - 120
4-Bromofluorobenzene (4-BFB)			0.105	0.107	mg/L	1	0.1	105	107	67.1 - 120

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Matrix Spike (MS-1) Spiked Sample: 316195

QC Batch: 97320
Prep Batch: 82474

Date Analyzed: 2012-12-11
QC Preparation: 2012-12-11

Analyzed By: MT
Prepared By: MT

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	2.79	mg/L	10	1.00	1.86	93	61.3 - 124
Toluene		1	0.994	mg/L	10	1.00	<0.00347	99	62 - 126
Ethylbenzene		1	1.04	mg/L	10	1.00	0.0303	101	61.6 - 127
Xylene		1	2.98	mg/L	10	3.00	<0.00357	99	57.3 - 126

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	2.76	mg/L	10	1.00	1.86	90	61.3 - 124	1	20
Toluene		1	0.988	mg/L	10	1.00	<0.00347	99	62 - 126	1	20
Ethylbenzene		1	1.06	mg/L	10	1.00	0.0303	103	61.6 - 127	2	20
Xylene		1	2.99	mg/L	10	3.00	<0.00357	100	57.3 - 126	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)	0.946	0.946	mg/L	10	1	95	95	80 - 120
4-Bromofluorobenzene (4-BFB)	1.02	1.01	mg/L	10	1	102	101	80 - 120

Matrix Spike (MS-1) Spiked Sample: 316193

QC Batch: 97323
Prep Batch: 82476

Date Analyzed: 2012-12-11
QC Preparation: 2012-12-11

Analyzed By: MT
Prepared By: MT

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	2.24	mg/L	10	1.00	1.34	90	56.8 - 127
Toluene		1	0.851	mg/L	10	1.00	<0.00259	85	57.6 - 125
Ethylbenzene		1	0.852	mg/L	10	1.00	0.0103	84	60.4 - 121
Xylene		1	2.56	mg/L	10	3.00	<0.00268	85	60.3 - 125

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	2.20	mg/L	10	1.00	1.34	86	56.8 - 127	2	20
Toluene		1	0.870	mg/L	10	1.00	<0.00259	87	57.6 - 125	2	20

continued ...

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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	0.872	mg/L	10	1.00	0.0103	86	60.4 - 121	2	20
Xylene		1	2.64	mg/L	10	3.00	<0.00268	88	60.3 - 125	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)	0.900	0.872	mg/L	10	1	90	87	69.2 - 120
4-Bromofluorobenzene (4-BFB)	0.823	0.846	mg/L	10	1	82	85	67.1 - 120

Calibration Standards

Standard (CCV-1)

QC Batch: 97292

Date Analyzed: 2012-12-10

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	0.0849	85	80 - 120	2012-12-10
Toluene		1	mg/L	0.100	0.0876	88	80 - 120	2012-12-10
Ethylbenzene		1	mg/L	0.100	0.0874	87	80 - 120	2012-12-10
Xylene		1	mg/L	0.300	0.263	88	80 - 120	2012-12-10

Standard (CCV-2)

QC Batch: 97292

Date Analyzed: 2012-12-10

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	0.0852	85	80 - 120	2012-12-10
Toluene		1	mg/L	0.100	0.0870	87	80 - 120	2012-12-10
Ethylbenzene		1	mg/L	0.100	0.0849	85	80 - 120	2012-12-10
Xylene		1	mg/L	0.300	0.259	86	80 - 120	2012-12-10

Standard (CCV-3)

QC Batch: 97292

Date Analyzed: 2012-12-10

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	0.0833	83	80 - 120	2012-12-10
Toluene		1	mg/L	0.100	0.0857	86	80 - 120	2012-12-10
Ethylbenzene		1	mg/L	0.100	0.0836	84	80 - 120	2012-12-10
Xylene		1	mg/L	0.300	0.255	85	80 - 120	2012-12-10

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Standard (CCV-1)

QC Batch: 97320

Date Analyzed: 2012-12-11

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	0.0961	96	80 - 120	2012-12-11
Toluene		1	mg/L	0.100	0.0975	98	80 - 120	2012-12-11
Ethylbenzene		1	mg/L	0.100	0.0987	99	80 - 120	2012-12-11
Xylene		1	mg/L	0.300	0.292	97	80 - 120	2012-12-11

Standard (CCV-2)

QC Batch: 97320

Date Analyzed: 2012-12-11

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	0.102	102	80 - 120	2012-12-11
Toluene		1	mg/L	0.100	0.104	104	80 - 120	2012-12-11
Ethylbenzene		1	mg/L	0.100	0.106	106	80 - 120	2012-12-11
Xylene		1	mg/L	0.300	0.303	101	80 - 120	2012-12-11

Standard (CCV-3)

QC Batch: 97320

Date Analyzed: 2012-12-11

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	0.0982	98	80 - 120	2012-12-11
Toluene		1	mg/L	0.100	0.0993	99	80 - 120	2012-12-11
Ethylbenzene		1	mg/L	0.100	0.0989	99	80 - 120	2012-12-11
Xylene		1	mg/L	0.300	0.288	96	80 - 120	2012-12-11

Standard (CCV-1)

QC Batch: 97323

Date Analyzed: 2012-12-11

Analyzed By: MT

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Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0856	86	80 - 120	2012-12-11
Toluene		1	mg/L	0.100	0.0886	89	80 - 120	2012-12-11
Ethylbenzene		1	mg/L	0.100	0.0865	86	80 - 120	2012-12-11
Xylene		1	mg/L	0.300	0.262	87	80 - 120	2012-12-11

Standard (CCV-2)

QC Batch: 97323

Date Analyzed: 2012-12-11

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	0.0863	86	80 - 120	2012-12-11
Toluene		1	mg/L	0.100	0.0897	90	80 - 120	2012-12-11
Ethylbenzene		1	mg/L	0.100	0.0868	87	80 - 120	2012-12-11
Xylene		1	mg/L	0.300	0.263	88	80 - 120	2012-12-11

Standard (CCV-3)

QC Batch: 97323

Date Analyzed: 2012-12-11

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	0.0845	84	80 - 120	2012-12-11
Toluene		1	mg/L	0.100	0.0874	87	80 - 120	2012-12-11
Ethylbenzene		1	mg/L	0.100	0.0844	84	80 - 120	2012-12-11
Xylene		1	mg/L	0.300	0.256	85	80 - 120	2012-12-11

Standard (CCV-2)

QC Batch: 97441

Date Analyzed: 2012-12-14

Analyzed By: MN

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Naphthalene		1	mg/L	60.0	59.9	100	80 - 120	2012-12-14

continued ...

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standard continued ...

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
2-Methylnaphthalene		1	mg/L	60.0	59.0	98	80 - 120	2012-12-14
1-Methylnaphthalene			mg/L	60.0	58.9	98	80 - 120	2012-12-14
Acenaphthylene		1	mg/L	60.0	54.7	91	80 - 120	2012-12-14
Acenaphthene		1	mg/L	60.0	55.5	92	80 - 120	2012-12-14
Dibenzofuran		1	mg/L	60.0	60.1	100	80 - 120	2012-12-14
Fluorene		1	mg/L	60.0	55.8	93	80 - 120	2012-12-14
Anthracene		1	mg/L	60.0	53.8	90	80 - 120	2012-12-14
Phenanthrene		1	mg/L	60.0	58.5	98	80 - 120	2012-12-14
Fluoranthene		1	mg/L	60.0	56.8	95	80 - 120	2012-12-14
Pyrene		1	mg/L	60.0	59.3	99	80 - 120	2012-12-14
Benzo(a)anthracene		1	mg/L	60.0	60.1	100	80 - 120	2012-12-14
Chrysene		1	mg/L	60.0	59.4	99	80 - 120	2012-12-14
Benzo(b)fluoranthene		1	mg/L	60.0	53.9	90	80 - 120	2012-12-14
Benzo(k)fluoranthene		1	mg/L	60.0	57.0	95	80 - 120	2012-12-14
Benzo(a)pyrene		1	mg/L	60.0	57.6	96	80 - 120	2012-12-14
Indeno(1,2,3-cd)pyrene		1	mg/L	60.0	61.4	102	80 - 120	2012-12-14
Dibenzo(a,h)anthracene		1	mg/L	60.0	62.5	104	80 - 120	2012-12-14
Benzo(g,h,i)perylene		1	mg/L	60.0	62.2	104	80 - 120	2012-12-14

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
Nitrobenzene-d5			60.3	mg/L	1	60.0	100	-
2-Fluorobiphenyl			59.5	mg/L	1	60.0	99	-
Terphenyl-d14			61.6	mg/L	1	60.0	103	-

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.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Result Comments

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- 1 Dilution due to soil in the voa.
- 2 Dilution due to soil in the voa.

Attachments

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

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 March 17, 1999

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

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☐ Final Report

Name of Company: Plains Pipeline, L.P.		Contact: Camille Reynolds	
Address P.O. Box 3119 Midland, Texas 79702		Telephone No. 505.396.3341 (CJReynolds@paalp.com)	
Facility Name Kimbrough Sweet #2000-10757		Facility Type 8" Steel Pipeline	
Surface Owner: State of New Mexico		Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter G	Section 3	Township T18S	Range R37E	Feet from the	North/South Line	Feet from the	East/West Line	County: Lea
-------------------------	---------------------	-------------------------	----------------------	------------------	---------------------	------------------	-------------------	-----------------------

Latitude: 32°46'48"N Longitude: 103°14'18"W

NATURE OF RELEASE

Type of Release Crude Oil	Volume of Release 60 bbls barrels	Volume Recovered 22 bbls barrels
Source of Release 8" Steel Pipeline	Date and Hour of Occurrence 10/25/2000	Date and Hour of Discovery 10/25/2000
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Donna Williams	
By Whom? Wayne Brunette	Date and Hour 10-25-00@5:15PM	
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: The release was caused by internal corrosion. Approximately 60 barrels of crude oil was released and approximately 22 barrels recovered and reintroduced to the system. The leak was excavated and repaired and the line placed back in service.

Describe Area Affected and Cleanup Action Taken.*

15,613 sqft 200' x 200': In 2001, the NMOCD approved a Soil and Groundwater Abatement Plan. Impacted soil down to 15'bgs was excavated, shredded, and treated. A 2-foot thick compacted clay barrier was installed in the bottom of the excavation and the treated soil used to bring to grade. Remedial Goals: TPH 8015m = 100 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: Camille Reynolds			
E-mail Address: CJReynolds@paalp.com	Approved by District Supervisor:		Expiration Date:
Title: District Environmental Supervisor	Approval Date:		Attached ☐
Date: Phone: 505.396.3341	Conditions of Approval:		

* Attach Additional Sheets If Necessary

 Site Information and Metrics		Incident Date: 10/25/2000	NMOCD Notified: 10-25-00@5:15PM
SITE: Kimbrough Sweet		Assigned Site Reference #: 2000-10757	
Company: Plains Pipeline, L.P.			
Street Address: P.O. Box 3119			
Mailing Address:			
City, State, Zip: Midland, Texas 79702			
Representative: Camille Reynolds			
Representative Telephone: 505.396.3341 (CJReynolds@paalp.com)			
Telephone:			
Fluid volume released (bbls): 60 bbls		Recovered (bbls): 22 bbls	
>25 bbls: Notify NMOCD verbally within 24 hrs and submit form C-141 within 15 days. (Also applies to unauthorized releases >500 mcf Natural Gas)			
5-25 bbls: Submit form C-141 within 15 days (Also applies to unauthorized releases of 50-500 mcf Natural Gas)			
Leak, Spill, or Pit (LSP) Name: Kimbrough Sweet			
Source of contamination: 8" Steel Pipeline			
Land Owner, i.e., BLM, ST, Fee, Other: State of New Mexico			
LSP Dimensions 200' x 200'			
LSP Area: 15,613 ft ²			
Location of Reference Point (RP)			
Location distance and direction from RP			
Latitude: 32°46'48"N			
Longitude: 103°14'18"W			
Elevation above mean sea level: 3,720'amsl			
Feet from South Section Line			
Feet from West Section Line			
Location- Unit or ¼¼: SW¼ of the NE¼		Unit Letter: G	
Location- Section: 3			
Location- Township: T18S			
Location- Range: R37E			
Surface water body within 1000' radius of site: none			
Domestic water wells within 1000' radius of site: none			
Agricultural water wells within 1000' radius of site: none			
Public water supply wells within 1000' radius of site: none			
Depth from land surface to ground water (DG) 50'bgs			
Depth of contamination (DC) - 50'bgs			
Depth to ground water (DG - DC = DtGW) - zero feet			
1. Ground Water		2. Wellhead Protection Area	
If Depth to GW <50 feet: 20 points		If <1000' from water source, or; <200' from private domestic water source: 20 points	
If Depth to GW 50 to 99 feet: 10 points		If >1000' from water source, or; >200' from private domestic water source: 0 points	
If Depth to GW >100 feet: 0 points		If >1000' from water source, or; >200' from private domestic water source: 0 points	
Ground water Score = 20		Wellhead Protection Area Score = 0	
Site Rank (1+2+3) = 20		Surface Water Score = 0	
Total Site Ranking Score and Acceptable Concentrations			
Parameter	>19	10-19	0-9
Benzene ¹	10 ppm	10 ppm	10 ppm
BTEX ¹	50 ppm	50 ppm	50 ppm
TPH	100 ppm	1000 ppm	5000 ppm
¹ 100 ppm field VOC headspace measurement may be substituted for lab analysis			