RECR – 27

Roland Jackson Well

June 2013
Investigation Report

Souder, Miller & Associates • 2101 San Juan Boulevard • Farmington, NM 87401-2247
(505) 325-7535 • fax (505) 326-0045

June 27, 2013 #5121620

Mr. Jim Griswold (505) 476-3465
Senior Hydrologist *jim.griswold@state.nm.us*
EMNRD/Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

RE: SUBSEQUENT SITE INVESTIGATION REPORT, MAVERIK REFINERY/ ROLAND JACKSON WELL SITE, KIRTLAND AREA, SAN JUAN COUNTY, NEW MEXICO

Dear Mr. Griswold:

Enclosed please find the Subsequent Site Investigation Report for the Roland Jackson Properties #18 and #20 CR 6271 associated with suspected groundwater impacts related to the Maverik Refinery located approximately 2.0 miles east of Kirtland High School. This report for the Maverik/Jackson Property site is submitted pursuant to the State of New Mexico General Services Department Purchasing Division price agreement #10-805-00-07208 and ***Purchase Order (PO) #52100-0000039434*** issued by the New Mexico Oil Conservation Division (NMOCD). All work was completed in accordance with the Souder, Miller & Associates (SMA) workplan dated September 24, 2012 and approved by NMOCD.

SMA appreciates the opportunity to provide environmental consulting services to NMOCD. If you have any questions or comments concerning the report, please feel free to call either of us at 505-325-7535 or via e-mail at cindy.gray@soudermiller.com or reid.allan@soudermiller.com.

Sincerely,

SOUDER, MILLER & ASSOCIATES

Cynthia A. Gray, CHMM
Senior Scientist

Reid S. Allan, P.G.
Vice President/Principal Scientist

SUBSEQUENT SITE INVESTIGATION
MAVERIK REFINERY/ROLAND JACKSON WATER WELL ISSUE

#18 AND #20 COUNTY ROAD 6271
KIRTLAND, NEW MEXICO
SW/4 NE/4 SECTION 17-TOWNSHIP 29 NORTH-RANGE 14 WEST
SAN JUAN COUNTY, NEW MEXICO

Prepared by:
Souder, Miller & Associates
2101 San Juan Blvd.
Farmington, NM 87401-2247
505-325-7535

Prepared for:
NMOCD
Environmental Bureau
1220 South St. Francis Drive
Santa Fe, NM 87505

June 27, 2013

Table of Contents

1.0 EXECUTIVE SUMMARY

Souder, Miller & Associates (SMA) in accordance with the State of New Mexico General Services Department Purchasing Division Price Agreement #10-805-00-07208AG and Purchase Order (PO) # 52100-0000039434 issued by the New Mexico Oil Conservation Division (NMOCD) has completed the subsequent investigation at the Roland Jackson Property located at #18 and #20 CR 6271, Kirtland Area, San Juan County, New Mexico (SW/4, NE/4 Section 17-T29N-R14W). The Roland Jackson properties are located approximately 0.5 miles southwest of the former Caribou Four Corners/Maverik Refinery. In May of 2012, SMA drilled two soil borings and five new monitoring wells on the Roland Jackson Property to evaluate possible hydrocarbon impacts to Mr. Jackson's existing shallow irrigation well. Water samples were collected from the five monitoring wells and irrigation well on May 23rd and 24th, 2012. Under the current workplan dated September 24, 2012, on May 15th, 2013, the Jackson irrigation well and the monitoring wells were gauged for depth to groundwater. On May 17th, 2013, the Jackson irrigation water well was evacuated of total fluids, inspected and all debris removed using a vacuum truck. The Jackson well was allowed to recharge for approximately three hours and then evacuated to total depth once again. Afterward, the cap was replaced on the well and sealed with custody tape to prevent any unauthorized tampering. On May 21st, 2013, samples were collected from the five monitoring wells, the custody sealed irrigation well and additionally from the irrigation water well located at #18 CR 6271, and submitted for laboratory analysis.

SMA has reached the following conclusions from this investigation:

1. Based on available data, hydrocarbon contamination in excess of New Mexico standards for groundwater was not found in the soil or groundwater from surface to approximately 20 feet bgs at the soil borings and monitoring wells surrounding the two irrigation wells investigated in this study.
2. Monitoring well data does not support a continuous groundwater contaminant plume of either dissolved phase hydrocarbons or NAPL extending from the Maverik Jackson refinery to the two irrigation wells Jackson irrigation well or of the #18 irrigation well.
3. However, NAPL does exist in both the Jackson irrigation well and the #18 irrigation well, and appears to have persisted since at least 2005.
4. Laboratory analyses of the NAPL indicate that it is derived from diesel range hydrocarbons; however, the age and source of the hydrocarbons cannot be positively determined at this time.
5. The hydrocarbon contamination found in the wells is likely related to items found in the wells or cross-contamination between the two wells common use of a pump.

The contamination within each of the two irrigation wells appears to be isolated with limited evidence of any impacts to the investigatory monitoring wells. Additionally, the levels of constituents of concern in the monitoring wells are below both Federal and State of New Mexico drinking water maximum contaminant standards. SMA recommends no further action at the Jackson site.

2.0 BACKGROUND

The former Caribou Four Corners/Maverik Refinery is located 0.5 miles to the southeast of the Roland Jackson Property, in the SW/4, NE/4 of Section 17-T29N-R14W. Figure 1 is the vicinity map on an aerial photo. The refinery was operated by Caribou Four Corners, Inc./Maverik Country Stores, Inc. from 1963 until April 1982. The refinery had both documented and undocumented releases of petroleum hydrocarbons throughout its operating history. Major releases of refined product occurred as late as 1981. In 1985, groundwater contamination was noted by inspectors from the New Mexico Environmental Improvement Division (EID). In 1987, EID water quality sampling was conducted on 24 private wells in the area.

At different times, hydrocarbon liquids have been documented along the Westside Irrigation Ditch, located near the west boundary of the refinery property. The ditch extended south under CR 6100, along the east edge of the Jackson properties #18 and #20 CR 6271. In 1989, a 12" plastic pipe was installed in the

Westside (of the Refinery Property) Irrigation Ditch. The piping extended south to CR 6100. Piping the ditch was employed as a method of eliminating one migration path for contaminants. Continuing groundwater and soil studies in the refinery area resulted in the 1990 construction of a bentonitic slurry wall around the refinery property from 12 to 25 feet in depth. The wall was designed to retain most of the remaining known contamination within the refinery property.

Investigations by Maverik show that groundwater flow in the alluvial gravel aquifer overlying basal Kirtland Shale is from the north-northeast to the south-southwest towards the San Juan River. This overall pattern is modified by seepage from irrigation ditches and septic system influx into the groundwater. The general gradient is 0.01 ft/ft which mirrors the topographic gradient.

Potential hydrocarbon contamination in the Jackson water wells was first brought to the attention of the NMOCD Aztec office in April 2005 by Roland Jackson, property owner. The NMOCD Environmental Bureau retained Envirotech, Inc. to sample the irrigation well in 2005. Samples were taken August 24, 2005 for laboratory testing. The results are documented in NMOCD files. In 2008, NMOCD again sampled the irrigation well and results are available in NMOCD. Maverik continues to prepare annual reports focused on the slurry wall containment area.

Prior to May, 2012, no independent investigation of the Jackson Property site other than sampling of the irrigation well had been conducted. However, historical evidence at the site indicated that potential impact from the Maverik/Caribou Refinery plume may persist. Laboratory results of sampling of the Jackson irrigation water supply well in 2005 and in 2012 indicate hydrocarbon impacts to the Jackson well. Furthermore, the presence of non-aqueous phase liquid (NAPL) in the well was visually confirmed by NMOCD personnel on February 2, 2012.

3.0 SUBSEQUENT INVESTIGATION ACTIVITIES

SMA and Brandon Powell, of the NMOCD, reviewed the project activities and requirements for both NMOCD and SMA with Mr. Jackson of #20 CR 6271 and Ms. Gloria Chavez, owner of #18 CR 6271. Property access agreements were signed by both landowners prior to beginning subsequent investigation activities. The signed property access agreements are attached in Appendix A.

On May 15, 2013, SMA, Jonathan Kelly, of the NMOCD, and the two property owners met to gauge the levels of the Roland Jackson irrigation well, the five monitoring wells and to inspect the #18 irrigation well located within the garage addition at the #18 residence. Spots of sheen were visible inside the casing of the #18 well. The suction tube in the #18 well was removed and inspected. Black sludge material covered the suction pipe and a hydrocarbon odor was noted. The Jackson irrigation well measured 0.22 feet of free product on the water surface. Custody tape was placed on the Jackson well to prevent alteration or tampering of the well. The five monitoring wells did not contain any measurable amount of free product. The monitoring wells were then closed with the existing locking caps.

On May 17, 2013, Industrial Ecosystems, Inc. (IEI) mobilized a vacuum truck onto the site under SMA supervision to conduct total fluids and debris extraction from the Jackson well. Jonathan Kelly of NMOCD was also on site to observe the total extraction activities. The Jackson well was measured to have a static water level of 5.35 feet from the top of well casing with a total depth of 9.69 feet. Sheen of product was noted at this time. The initial fluid removal revealed several objects in the bottom of the well including river rocks, piping and plastic debris. A plastic bailer lost during a previous sampling event was retrieved. The loose pipe in the well was extracted and identified as a corroded automotive driveshaft with yoke and universal joint. Other extracted objects included two four inch (or greater) diameter river rocks, an approximately 18”x2” diameter steel pipe, a 1”x4”x3’ piece of lumber and a white plastic Clorox® bleach jug. The well was then cleaned of all silts, dirt and debris to a total depth of 13.4 feet below top of casing. The well was allowed to recover for three hours and then one final total fluids evacuation was performed, concluding the well evacuation activities. The fluids and debris collected during this event were disposed of at the permitted IEI disposal facility.

On May 21, 2013, the Jackson well and the five monitoring wells were purged and sampled. A grab sample was collected from the #18 well. Photographs of the subsequent investigation activities are included in Appendix B. A site specific Health and Safety Plan was also produced by SMA and a copy is included as Appendix C. Copies of all field notes are included in Appendix D. A completed Form C-138 for the disposal of the total fluid extraction materials is attached in Appendix E.

4.0 GROUNDWATER INVESTIGATION ACTIVITIES AND RESULTS

A. Sampling

On May 21, 2013, SMA personnel measured water levels at the site on all five monitoring wells utilizing a Geotech oil/water Interface Probe. No measurable NAPL was detected in the monitoring wells.

The wells were sampled using a disposable bailer. After an attempt to bail three volumes had been made, samples were taken based on the best judgment of field personnel. Laboratory samples from each of the monitoring wells were collected in one 500 mL plastic container preserved with HNO_3 and in seven 40 mL glass containers preserved with either $HgCl_2$ or Na_2SO_4, depending on laboratory specifications for the method of analysis. A new bailer and twine were used on each well. NMOCD witnessed the water sampling. A total of forty-nine 40 mL glass containers and seven 500 mL plastic containers of samples shipped to Hall Environmental Analysis Laboratory in Albuquerque, NM.

B. Analytical

Samples from each well were analyzed by EPA Method 8260B for Volatiles, Method 8011/504.1 for EDB, Method 6010B Total Recoverable Lead, and Method 8015B for Gasoline (GRO), Diesel (DRO) and Motor Oil (MRO) range organics. Please note an error in the laboratory report results names Well #18 as #13.

Laboratory results for the Jackson well (lab ID Water Supply Well) indicate 21 mg/L DRO, 1.2 *u*g/L ethylbenzene, and 85.8 *u*g/L total naphthalene plus monomethylnaphthalenes. All other analytes measured were below detection limits or are not listed on the State of New Mexico Water Quality Control Commission Standards for groundwater (NMAC 20.6.2.3103). There are no New Mexico standards for GRO/DRO/MRO, but this analysis gives an indication of the presence of and derivative source of the hydrocarbon. The standard for total naphthalene plus monomethylnaphthalenes in groundwater is 30 *u*g/L, which is exceeded in the Jackson well.

Laboratory results for the #18 water supply well indicate 81 mg/L DRO, and 7.6 mg/L MRO and 15.8 *u*g/L total naphthalene plus monomethylnaphthalenes, which is below the New Mexico groundwater standards. All other analytes measured were below detection limits or are not listed on the State of New Mexico Standards for groundwater.

One monitoring well, J7, contained a measurable concentration of DRO (1.2 mg/L), but with the laboratory detection limit at 1.0 mg/L, this is not likely an indication of contamination in the well. All other analytes in all monitoring wells were below laboratory detection limits. The laboratory results are included in Appendix F.

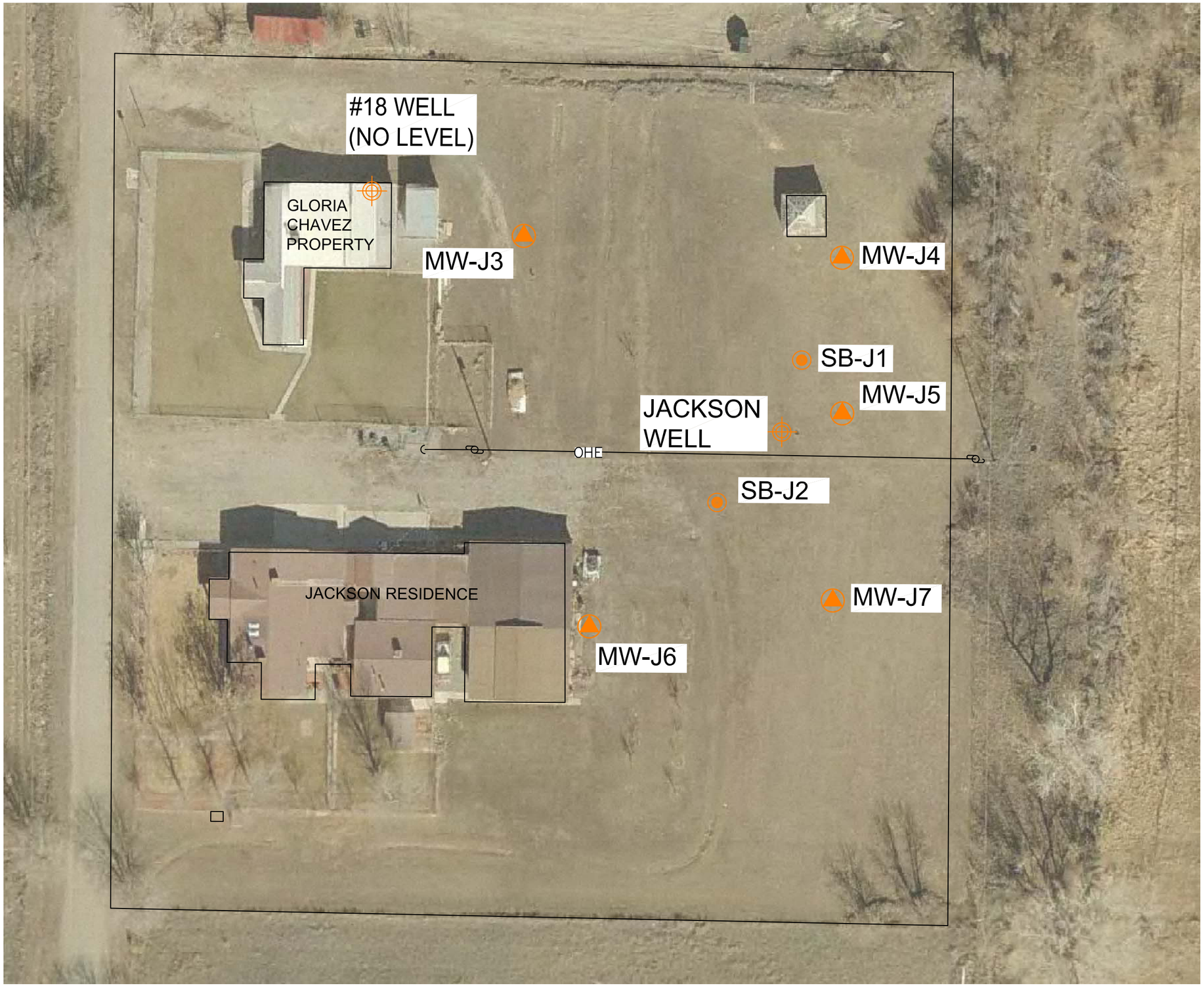
5.0 CONCLUSIONS

The only evident groundwater impacts are found in the two irrigation wells, the Jackson well and the #18 well. No evidence of hydrocarbon contamination of soils was found in any of the monitoring well borings drilled and sampled in May, 2012. Groundwater samples collected during May 2012 and May 2013 indicate that the monitoring wells are not impacted above New Mexico Water Quality Control Commission Standards for groundwater, and impacts are only found in the two irrigation wells.

6. Based on available data, hydrocarbon contamination in excess of New Mexico standards for groundwater was not found in the soil or groundwater from surface to approximately 20 feet bgs at the soil borings and monitoring wells surrounding the two irrigation wells investigated in this study.
7. Monitoring well data does not support a continuous groundwater contaminant plume of either dissolved phase hydrocarbons or NAPL extending from the Maverik Jackson refinery to the two irrigation wells Jackson irrigation well or of the #18 irrigation well.
8. However, NAPL does exist in both the Jackson irrigation well and the #18 irrigation well, and appears to have persisted since at least 2005.
9. Laboratory analyses of the NAPL indicate that it is derived from diesel range hydrocarbons; however, the age and source of the hydrocarbons cannot be positively determined at this time.
10. The hydrocarbon contamination found in the wells is likely related to items found in the wells or cross-contamination between the two wells through transfer of a pump.

6.0 RECOMMENDATIONS

SMA recommends no further action by the New Mexico Oil Conservation Division at the Jackson site. No evidence was found that the conditions present in the two irrigation wells are related to any site or process over which NMOCD has jurisdiction.



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SB-J1 LEGEND

- EXISTING SOIL BORING

MW-J4

- EXISTING MONITORING WELL

- EXISTING JACKSON WELL

- OVERHEAD UTILITIES

- EXISTING SHED

- EXISTING RESIDENCE

FIGURE 1

SITE VICINITY MAP
MAVERIK REFINERY/ROLAND JACKSON WELL ISSUE
KIRTLAND, NEW MEXICO

SOUDER, MILLER & ASSOCIATES, 2101 SAN JUAN BLVD,
FARMINGTON, NEW MEXICO 87401 TELE: 505-325-7535
Albuquerque – Las Cruces – Santa Fe, NM
Grand Junction – Cortez, CO Moab, UT

DRAWN BLB
CHECKED SLC
APPROVED RSA

REVISIONS

BY DATE DESCR.
BY DATE DESCR.
BY DATE DESCR.

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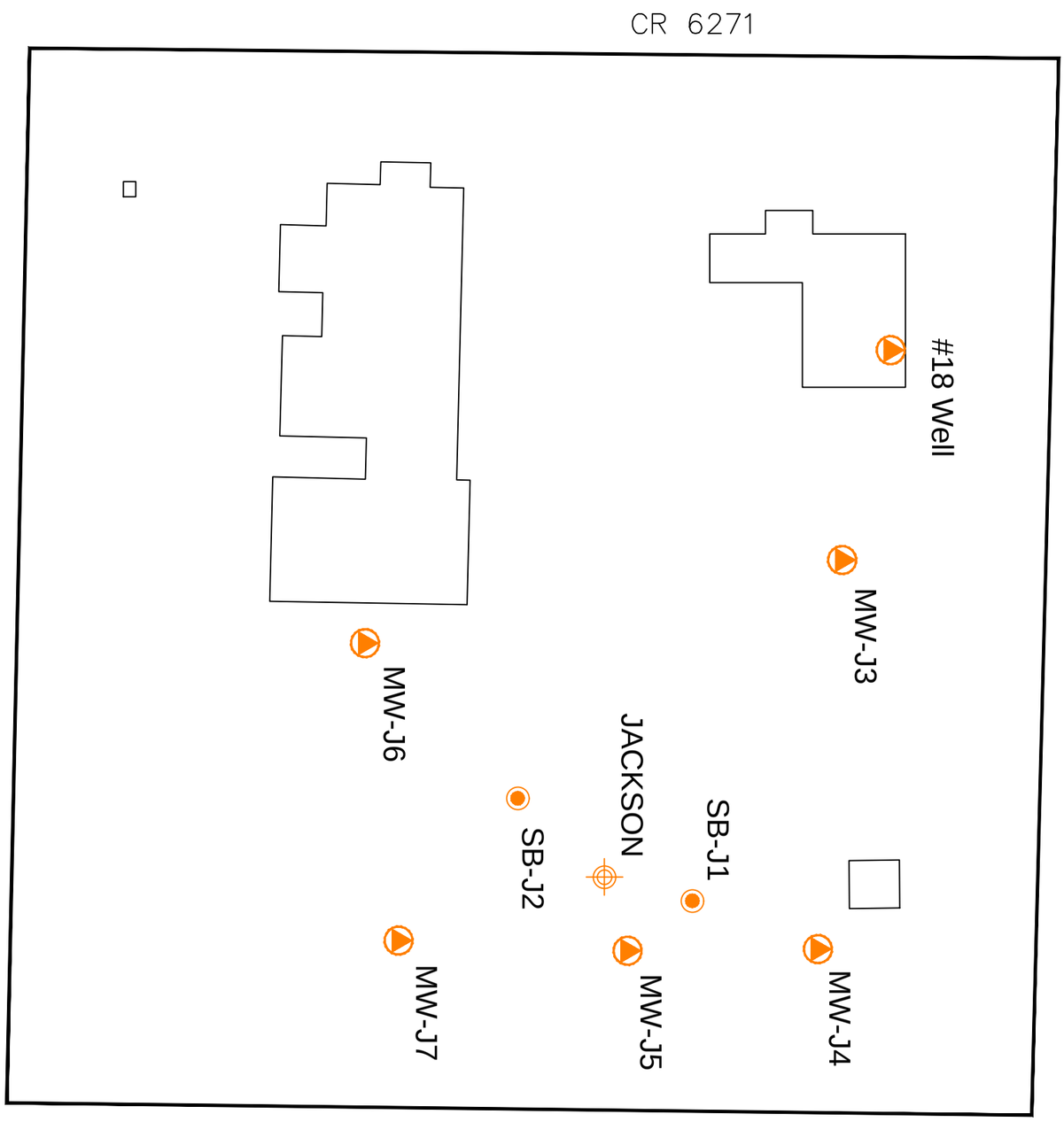

LEGEND

- SB-J1 - EXISTING SOIL BORING
- MW-J4 - EXISTING MONITORING WELL
- EXISTING JACKSON WELL
- OVERHEAD UTILITIES
- EXISTING SHED
- EXISTING RESIDENCE

NOT TO SCALE

DRAWN BLB
CHECKED SLC
APPROVED RSA

SITE VICINITY MAP
MAVERIK REFINERY/ROLAND JACKSON WELL ISSUE
KIRTLAND, NEW MEXICO

FIGURE
1

REVISIONS

BY _____ DATE _____ DESCR. _____
BY _____ DATE _____ DESCR. _____
BY _____ DATE _____ DESCR. _____

SOUDER, MILLER & ASSOCIATES, 2101 SAN JUAN BLVD,
FARMINGTON, NEW MEXICO 87401 TELE: 505-325-7535
Albuquerque – Las Cruces – Santa Fe, NM
Grand Junction – Cortez, CO Monticello, UT

APPENDIX A

SIGNED PROPERTY ACCESS AGREEMENTS

Oil and Gas Reclamation Fund
Oil Conservation Division
Energy, Minerals and Natural Resources Department
1220 South St. Francis
Santa Fe, New Mexico 87505

CONSENT TO ENTRY FOR INVESTIGATION, RECLAMATION, & MONITORING

Groundwater investigation PROJECT

San Juan County COUNTY (IES)

G, 17, 29N, 14W UNIT LETTER, SECTION, TOWNSHIP, RANGE

Pursuant to Chapter 70, Article 2, Section 38 of the Oil and Gas Act, the Director of the Oil Conservation Division (OCD) proposes to utilize the Oil and Gas Reclamation Fund in order to restore and remediate abandoned well sites and associated production facilities to protect public health and the environment.

To achieve this objective, it will be necessary for OCD, its employees, agents, and contractors to enter upon the property described below:

Residential Properties located at #18 & #20 Road 6271 Kirtland NM

A(n) Deeded, interest in such property is held by Jackson Roland E and Gloria (name of interest holder). Such interest was acquired by Deed (deed, patent, etc.) as recorded in Book 1050 and 1368/_____ page(s) 206 & 853, in San Juan County Assessor's records.

NOW, THEREFORE, in consideration of the benefits that will accrue to the Interest Holder and to the general public, the Interest Holder does hereby grant to the OCD, its employees, agents, contractors, and subcontractors a right of entry into, over, and upon the property described above, including all necessary and convenient rights of ingress, egress, and regress, with all materials and equipment necessary to conduct the proposed investigation and reclamation activities and to do any and all things necessary and convenient to effectively carry on said activities in a good and workmanlike manner, including but not limited to the temporary storage of equipment and materials, the right to remove or dispose of materials necessary to reclamation, and the construction of temporary roadways on the property. Said right of entry is granted to complete the reclamation activities and to conduct inspections of, and perform maintenance and repairs to, the reclamation activities completed on the property.

The Interest Holder understands and acknowledges that the success of the project cannot be warranted and the proposed work may not accomplish the intended result. The Interest Holder also acknowledges

that the OCD has no responsibility or liability for any oil and gas related damage to the property that occurred prior to or that might occur during or after the reclamation work.
It is understood the work performed in the project area shall be done by contractors for the OCD and the OCD is without authority to assume the risk of injury to persons or damage to persons or property resulting from the action of the contractors, however the OCD shall require contractors performing the work on the property to obtain and keep in force liability insurance in the minimum amount of $1,000,000 per occurrence and $2,000,000 per aggregrate.

Execution of this Consent to Entry does not obligate OCD to perform any part of the contemplated or proposed reclamation work.

Interest Holder agrees that any sale, assignment, mortgage, or other encumbrance or conveyance of this property shall be made subject to this Consent to Entry. Additionally, Interest Holder agrees to provide written notice to the OCD ten (10) days in advance of any such event.

Witness my hand or seal this 30th day of April 20 12.

Roland E. Jackson
Signature of Interest Holder

ACKNOWLEDGEMENT

STATE OF New Mexico)
COUNTY OF San Juan)
The foregoing Consent to Entry was acknowledged before me this 30th day of April, 20 12,
by Roland E. Jackson.

My commission expires: 2-22-2016
(Seal)

Pamelia Shirley
Notary Public

OFFICIAL SEAL
PAMELIA SHIRLEY
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires: 2-22-2016

ACKNOWLEDGEMENT FOR CORPORATION

STATE OF _____)
COUNTY OF _____)
The foregoing Consent to Entry was acknowledged before me this _____ day of _____, 20_____,
by_____ (name of Interest Holder) the _____ (title)
of _____ (name of Corporation) a _____ (state) corporation.

My commission expires:
(Seal)

_____
Notary Public

Souder, Miller & Associates ♦ 2101 San Juan Boulevard ♦ Farmington, NM 87401-2247
(505) 325-7535 ♦ fax (505) 326-0045

CONSENT FOR ACCESS TO PROPERTY FOR PURPOSES OF GROUNDWATER SAMPLING

Project: Maverik Refinery Project #5121620

Project Location: #18 and #20 CR 6271, Kirtland, New Mexico

Date: April 30, 2012

Name of Property Owner: Roland E. Jackson aka Ron Jackson

Address of Property Owner: #20 CR 6271, Kirtland,, NM 87417

Telephone Number: Home 505-598-5955
Cell 505-402-6252

Location of the property on which access is sought: #18 CR 6271 Lots 1, 2, 3 and 4
#20 CR 6271 Lots 5, 6, 7 and 8
Kirtland, NM 87417

I hereby consent to allow the employees and contractors of Souder, Miller & Associates (SMA) to enter and have access to the property located at the above address ("the property") for the following purposes:

1. As shown on attached Figure 1, SMA proposes to drill four monitoring wells and two sample boreholes with a truck mounted rig in the noted approximate locations to a total depth of 15 to 20 feet.
2. All waste fluids and solids resulting from drilling will be removed from the property.
3. Boreholes will be plugged with hydrated bentonite to 18 inches below ground surface (bgs) and the remaining 18 inches will be filled with native soil.
4. The monitoring wells will be completed with 2" casing sealed with bentonitic cement.
5. The wells will be completed with a well cover flush with the ground surface; the well cover will be surrounded by approximately a two foot by two foot concrete pad.
6. Sampling of the wells will continue by SMA or successor contractors for a minimum of two years.
7. SMA understands that the landowner may want to retain one or more of these wells for irrigation at the termination of this project.

8. The landowner is responsible for obtaining state permission, permits and proper paperwork for the conversions.

Drilling activities are projected to begin in May of 2012 and be completed in June of 2012. In order to conduct the drilling and sampling activities, I understand that vehicles will be on my property for the time period through May and June, 2012. I understand that SMA is performing this work on behalf of the New Mexico Oil Conservation Division for ground water quality monitoring. I understand that by granting this consent, I am in no way responsible for the actions or the consequences of the persons conducting these investigations. I have also been told that the Project Manager for this site is Denny Foust or Cindy Gray whom I may contact at 505-325-7535, if I have any questions or concerns about this Consent for Access or any work performed as a result of it.

After all access permission has been acquired, SMA will schedule the field activities associated with the investigations.

In return for this permission, SMA agrees to the following:

A. To notify Mr. Roland Jackson by telephone 24 hours prior to accessing the property. SMA will extend the same courtesy for subsequent sampling events. A message left on the answering machine shall constitute notification.

B. To exercise reasonable professional care to ensure that the property's landscaping and structures are not damaged during the investigation activities. In the event of any property damaged as a result of SMA or its subcontractor's activities, the damage will be repaired to original condition, as possible, within 30 calendar days after the damage occurred.

C. To ensure all equipment is promptly removed from the property.

Property Owner or Authorized Representative	Souder, Miller and Associates
By: Roland E. Jackson	By:
Roland E. Jackson, Owner Printed Name and Title	Reid S. Allan, Vice President Printed Name and Title

Oil and Gas Reclamation Fund
Oil Conservation Division
Energy, Minerals and Natural Resources Department
1220 South St. Francis
Santa Fe, New Mexico 87505

CONSENT TO ENTRY FOR INVESTIGATION, RECLAMATION, & MONITORING

Groundwater Investigation PROJECT

San Juan County COUNTY (IES)

G,17,29W-14N UNIT LETTER, SECTION, TOWNSHIP, RANGE

Pursuant to Chapter 70, Article 2, Section 38 of the Oil and Gas Act, the Director of the Oil Conservation Division (OCD) proposes to utilize the Oil and Gas Reclamation Fund in order to restore and remediate abandoned well sites and associated production facilities to protect public health and the environment.

To achieve this objective, it will be necessary for OCD, its employees, agents, and contractors to enter upon the property described below:

Residential Properties located at #18 and #20 CR 6271, Kirtland, New Mexico

A(n) court ordered, interest in such property is held by Gloria S. Chavez (name of interest holder). Such interest was acquired by court ordered (deed, patent, etc.) as recorded in Book - - / - - page(s) - - , in San Juan County Court Clerk records.

NOW, THEREFORE, in consideration of the benefits that will accrue to the Interest Holder and to the general public, the Interest Holder does hereby grant to the OCD, its employees, agents, contractors, and subcontractors a right of entry into, over, and upon the property described above, including all necessary and convenient rights of ingress, egress, and regress, with all materials and equipment necessary to conduct the proposed investigation and reclamation activities and to do any and all things necessary and convenient to effectively carry on said activities in a good and workmanlike manner, including but not limited to the temporary storage of equipment and materials, the right to remove or dispose of materials necessary to reclamation, and the construction of temporary roadways on the property. Said right of entry is granted to complete the reclamation activities and to conduct inspections of, and perform maintenance and repairs to, the reclamation activities completed on the property.

The Interest Holder understands and acknowledges that the success of the project cannot be warranted and the proposed work may not accomplish the intended result. The Interest Holder also acknowledges

that the OCD has no responsibility or liability for any oil and gas related damage to the property that occurred prior to or that might occur during or after the reclamation work.
It is understood the work performed in the project area shall be done by contractors for the OCD and the OCD is without authority to assume the risk of injury to persons or damage to persons or property resulting from the action of the contractors, however the OCD shall require contractors performing the work on the property to obtain and keep in force liability insurance in the minimum amount of $1,000,000 per occurrence and $2,000,000 per aggregrate.

Execution of this Consent to Entry does not obligate OCD to perform any part of the contemplated or proposed reclamation work.

Interest Holder agrees that any sale, assignment, mortgage, or other encumbrance or conveyance of this property shall be made subject to this Consent to Entry. Additionally, Interest Holder agrees to provide written notice to the OCD ten (10) days in advance of any such event.

Witness my hand or seal this May 13, 2013 day of 13th 2013.

Signature of Interest Holder

ACKNOWLEDGEMENT

STATE OF New Mexico)
COUNTY OF San Juan)
The foregoing Consent to Entry was acknowledged before me this 13th day of May, 2013,
by Sheryl A. Clark.

My commission expires:
(Seal)

Notary Public

OFFICIAL SEAL
SHERYL A. CLARK
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires 3-29-2014

ACKNOWLEDGEMENT FOR CORPORATION

STATE OF _____)
COUNTY OF _____)
The foregoing Consent to Entry was acknowledged before me this _____ day of _____, 20____,
by _____ (name of Interest Holder) the _____ (title)
of _____ (name of Corporation) a _____ (state) corporation.

My commission expires:
(Seal)

Notary Public

04/2012

Souder, Miller & Associates ♦ 2101 San Juan Boulevard ♦ Farmington, NM 87401-2247
(505) 325-7535 ♦ fax (505) 326-0045

CONSENT FOR ACCESS TO PROPERTY FOR PURPOSES OF GROUNDWATER SAMPLING

Project: Maverik Refinery Project #5121620

Project Location: #18 and #20 CR 6271, Kirtland, New Mexico

Date: May 13, 2013

Name of Property Owner: Roland E. Jackson aka Ron Jackson
OR
Gloria Jackson nka Gloria Chavez

Address of Property Owner: #20 CR 6271, Kirtland, NM 87417
OR
543 CR 6100, Kirtland, NM 87417

Telephone Number: Home 505-598-5955
Cell 505-402-6252
OR
Bus 505-598-9648

Location of the property on which access is sought: #18 CR 6271 Lots 1, 2, 3 and 4
#20 CR 6271 Lots 5, 6, 7 and 8
Kirtland, NM 87417

I hereby consent to allow the employees and contractors of Souder, Miller & Associates (SMA) to enter and have access to the property located at the above address ("the property") for the following purposes:

1. SMA expects to enter onto the property on a minimum of three separate occasions (days) to complete the current contract with the New Mexico Oil Conservation Division (NMOCD).
2. First day: SMA personnel will evaluate the existing water supply well, check it for the presence of free product (NAPL), and attempt to recover the bailer lost in the well by NMOCD personnel.
3. Second day: An SMA contracted Super Sucker vacuum truck, under direct SMA supervision, will remove fluids from the water supply well as well as any loose sediment in the well. This operation will be repeated as practical for one working

day. Recovered materials are to be disposed of at an NMOCD approved facility.

4. A minimum of three days later, the water supply well will be checked for NAPL and a decision will be made whether to sample its waters and all five existing monitoring wells.

I understand that SMA is performing this work on behalf of the NMOCD for ground water quality monitoring. I understand that by granting this consent, I am in no way responsible for the actions or the consequences of the persons conducting these investigations. I have also been told that the Project Manager for this site is Denny Foust or Cindy Gray whom I may contact at 505-325-7535, if I have any questions or concerns about this Consent for Access or any work performed as a result of it.

After all access permission has been acquired, SMA will schedule the field activities associated with the investigations.

In return for this permission, SMA agrees to the following:

A. To notify the Property Owner by telephone 24 hours prior to accessing the property. SMA will extend the same courtesy for subsequent sampling events. A message left on an answering machine shall constitute notification.

B. To exercise reasonable professional care to ensure that the property's landscaping and structures are not damaged during the investigation activities. In the event of any property damaged as a result of SMA or its subcontractor's activities, the damage will be repaired to original condition, as possible, within 30 calendar days after the damage occurred.

C. To ensure all equipment is promptly removed from the property.

Property Owner or
Authorized Representative

By: Gloria S. Chavez

Gloria S. Chavez Owner
Printed Name and Title

Souder, Miller and Associates

By:

Reid S. Allan, Vice President
Printed Name and Title

APPENDIX B

SITE INVESTIGATION PHOTOGRAPHS

Photo 1: Retrieved bailer from the Jackson well.

Photo 2: Driveshaft with yoke and u-joint retrieved from Jackson well.

Photo 3: All items retrieved from the Jackson well, excluding the vacuum hose.

Photo 4: Custody sealed well after total fluids extraction activities.

APPENDIX C

SITE-SPECIFIC HEALTH & SAFETY PLAN

SITE HEALTH AND SAFETY PLAN

Location:
Roland Jackson Property
#20 CR 6172
Kirtland, New Mexico

PREPARED FOR:
New Mexico Oil Conservation Division
For 2013 Operations Under State Purchase Order
52100-0000039434

PREPARED BY:
SOUDER MILLER & ASSOCIATES
2101San Juan BLVD
FARMINGTON, NM
(505) 325-7535
Fax (505) 326-0045

DATE: ~~**April 10, 2013**~~ May 17, 2013

TABLE OF CONTENTS

I. INTRODUCTION:

The health and safety of *Souder Miller & Associates (SMA)* employees and the general public is of primary importance. The inherent danger involved in the handling of hazardous materials, and danger associated with any job site require that all participants in this project become familiar with the contents of this Health and Safety plan.

II. SITE DESCRIPTION

Date: April 10, 3013
Location: Roland Jackson Property #20 CR 6172
Kirtland, New Mexico

Hazards: Potential hazards in the project area include; heavy equipment, exposure to hydrocarbon contamination, overhead hazards, overhead power lines and falling/tripping hazards.

Area affected: Roland Jackson Property, NE/4 Section 17-TWP 29 North, RGE 14 West San Juan County, New Mexico. The specific areas of interest are the portions of the property east of the residence where a water supply well and five monitoring wells are located. The monitoring wells were installed in 2012

Surrounding population: The surrounding area consists of a Rural Residential Community.

III. ENTRY OBJECTIVES

Task 1: Enter the property with a Super Sucker vacuum truck to pump the water supply well dry and monitor the recharge

Task 2 Sample the water supply well and the surrounding five existing monitoring wells for hydrocarbon contamination

IV. ON-SITE ORGANIZATION & COORDINATION

The following personnel are designated to carry out the stated job functions on site. (*Note: one person may carry out more than one job function.)*

Souder Miller & Associates :

PROJECT TEAM LEADER/	
ON-SITE COORDINATOR:	Denny Foust
FIELD TEAM LEADER(S):	Denny Foust/Steve Moskal
ALTERNATES:	Shawna Chubbuck/Tom Long
SUBCONTRACTOR:	Projected to be Industrial Ecosystems
OWNER:	Roland Jackson
FEDERAL AGENCIES:	None

STATE or TRIBAL AGENCIES: NMOCD

Other Agencies: NONE

V. ON-SITE CONTROL

The occupancy of the area will be minimal. Only key personnel will be in attendance. Representatives of ***Souder Miller & Associates*** may include the following: *Denny Foust, Steve Moskal, Shawna Chubbuck, and Tom Long.* ***NMOCD*** *personnel will include Brandon Powell and Jonathan Kelly.* Control boundaries will be established prior to Task 1.

All personnel involved in the project will be required to adhere to all boundaries and rules regarding the project. .

Boundaries to be marked:

Work Area: Flagging.
Entrance: Orange Cones

VI. HAZARDS EVALUATION

Tables 1 and 2 list several potential hazards that may be associated with execution of this project. This list is by no means all inclusive and other unforeseen hazards may exist contingent upon conditions.

Table 1
Possible Chemicals

Substances Involved	Concentration	Fire	Eyes	Skin	Respiratory
Anti-Freeze	Ethylene Glycol Variable	N/A	N/A	N/A	N/A
Used Oil	Petroleum Hydrocarbons Variable	N/A	N/A	N/A	N/A
Gasoline	Variable	N/A	N/A	N/A	N/A
Diesel	Variable	Slt	Mod	Mod	Slt
Grease	Variable	N/A	N/A	N/A	N/A
Natural Gas/Methane	Variable	N/A	N/A	N/A	N/A
Solvent/Cleaners pH Approximate Range 3.5 To 11 (Irritating Liquids)	Variable	N/A	N/A	N/A	N/A
Off-Spec Paint (Liquid/Solid)	Lead & Chromium 8% - 15%	N/A	N/A	N/A	N/A
Tar & MC 250 & MC-70	Variable	N/A	N/A	N/A	N/A
Polychlorinated Biphenyl (PCB)	Variable, Halogens	N/A	N/A	N/A	N/A
Organic Solvents	Variable	N/A	N/A	N/A	N/A
Acids	Variable	N/A	N/A	N/A	N/A
Bases	Variable	N/A	N/A	N/A	N/A
Organic Peroxides	Variable	N/A	N/A	N/A	N/A
Pesticides/Herbicides	Variable	N/A	N/A	N/A	N/A
Other Chemicals	Variable	N/A	N/A	N/A	N/A

Legend :

Slt.	Slight	IDLH	Immediately Dangerous to Life and Health
Mod	Moderate .	NA	Not Applicable
Hi.	High		

Table 2
Potential Health and Safety Hazards

Hazard	Task 1:	Task 2:	Task 3	Task 4
Inhalation Hazard	X	X		
Contaminated Soil/Liquid Contact	X	X		
Noise	X			
Heat/Cold Stress	X	X		
Electrical Transformers and Buried Powerlines				
Potential Fire/Explosion	X	X		
High Pressure Petroleum				
Collapsing Of Sidewalls				
Confined Spaces				
Physical Injury	X	X		
Overhead Powerlines	X	X		
Buried Piping/Tanks				
Skin Hazards	X	X		
Ventilation Problems				
Vandalism				
Heavy Equipment/Trucking	X	X		
Level Of Protection	D	D		
Air Monitoring	NA	NA		
Buried Line Detection	NA	NA		

VII. PERSONAL PROTECTIVE EQUIPMENT

A. Air Monitoring:

Air monitoring for the site will be accomplished with an MHSA approved LEL continuous meter, calibrated to pentane, and with an alarm at 10% LEL. An OVM (PID) calibrated to isobutylene can be substituted to an LEL. All air monitoring for exposure is to be in breathing area.

Based on the OVM (FID) readings in the breathing zone the criteria for levels of protection are as follows:

Background-25 (PPM)	Level D
25-50(PPM)	Level C
50-100(PPM)	Level B
>100 (PPM)	Level A

NOTE: Deviations from these levels will be based on the types of products and constituents. No changes to the specified levels given in Table 1 and the table above shall be made without the approval of the site safety officer and the project team leader.

B. Personal Protective Equipment Matrix:

	COVERALL	HARDHAT	GLOVES	SAFETY BOOTS	NOMEX	HEARING PROTECTION	SAFETY GLASSES W/SIDE SHIELDS	LEVEL C	LEVEL B	LEVEL A	OTHER
DAILY ROUTINE		X	X	X							
SAMPLING (OIL FIELD)											1
SAMPLING (NON-OIL FIELD)		X	X	X							
EXCAVATION (OIL FIELD)											1
EXCAVATION (NON OIL FIELD)											
FACILITY INVENTORY											
CHEMICAL INVENTORY											
EMERGENCY RESPONSE											
UNDERGROUND STORAGE TANK REMOVAL											

Minimum required will be determined by Client's current policy
MSDS will be consulted to determine proper Personal Protective Equipment.

VIII. PROTOCOL

The following briefly describes the protocol to be followed for any soil, water, or chemical samples to be taken at a site. A working knowledge of applicable EPA SW-846, sampling and analytical procedures and proper use of field testing equipment is necessary.

A. Water samples:

Volatile Organic Analysis (VOA)- Use of a 40 mL VOA glass vial with Teflon closure, leave no airspace present, and preserve. Keep cool with ice in cooler, use chain-of-custody handling procedures, and transport to laboratory.

B. Soil samples for assessment/verification:

Field vapor headspace - 475 mL wide mouth glass container, fill 1/2 full, seal with aluminum foil, or use heavy zip-locking plastic bags.

Laboratory analysis for hydrocarbons - Use laboratory supplied sterile glass container, with Teflon closure. Fill complete, keep cool with ice in cooler, use chain-of custody sampling procedures, transport to Laboratory.

IX. SITE WORK PLAN

This project will be completed in the Tasks outlined in Section B. The following are the key personnel and their responsibilities:

Project Team Leader:

Denny Foust
Souder Miller & Associates
Farmington, NM (505) 327-1072

Alternates:

Steve Moskal
Shawna Chubbuck

The Project Team Leader will function as the Project Manager, Site Health & Safety Officer, Site Supervisor, and sampler for this Project.

Tailgate safety meetings will be held and all personnel will be briefed on the contents of this plan prior to initiating any efforts. Tailgates will also cover any safety and/or health issues not anticipated or addressed in this plan. The Project Manager will be responsible for briefing and record keeping.

X. COMMUNICATION PROCEDURES

Radio communication is not anticipated to be essential for this project. Personnel in the Work Zone should be in visual contact of the Project Team Leader.

The following standard hand signals will be used:

Hand gripping throat	Out of air, can't breathe
Grip partner's wrist or both hands around waist	Leave area immediately
Hands on top of head	Need assistance
Thumbs up	OK, I'm all right, I understand
Thumbs down	NO, Negative

Others as needed while handling, moving, or loading materials are acceptable provided that all personnel involved agree to their meaning.

Telephone communication will be available in the Staging Area by mobile phone.

XI. DECONTAMINATION PROCEDURES

The following is a brief summary of decontamination procedures. Common sense should be used at all times.

A. Sampling Equipment:

Reusable sampling equipment to be triple rinsed with alconox soap, tap water and deionized water. Disposable sampling equipment is to be consolidated with waste for off-site disposal.

XII. CONTINGENCIES

A. FIRST AID MEASURES/MEDICAL EMERGENCIES

The nearest hospital is:

San Juan Regional Medical Center

801 West Maple Street

Farmington, NM 87401

B. PETROLEUM PRODUCTS / IRRITATING LIQUIDS:

In the event that personnel exposure symptoms occur, the following procedures will be used:

1. Eye contact:

Flush eye immediately with copious amounts of water and repeat until irritation is eliminated. If prolonged irritation occurs for more than 15 minutes, seek medical attention.

2. Skin contact:

Wash exposed area with soap and water. If dermatitis or severe reddening occurs, seek medical attention.

3. Inhalation:

Remove person into fresh air. If symptom occurs for more than 15 minutes, seek medical attention.

4. Ingestion:

Do not induce vomiting, seek medical attention.

C. PHONE LIST:

AMBULANCE	911
POLICE, FIRE & RESCUE	911
STATE POLICE	Emergency 911, Non-emergency 505-325-7547
POISON CONTROL	1-800-362-0101
CHEMTREC	1-800-424-8802

First aid and emergency fire equipment will be available in company vehicles.

D. ENVIRONMENTAL MONITORING

The following environmental monitoring instruments will be used on site:

The following instruments will be used continuously to monitor air quality.

Combustible gas Indicator: Trigger level will be 10%. The alarm will be audible or vibratory in the event of extreme noise levels.

FID/OVA: Will measure in the parts per million. It will indicate organic volatiles.

Gas detection meter to detect O_2 and H_2S levels.

A pH meter will be used to measure the pH of each sample taken.

E. EMERGENCY PROCEDURES (to be modified as required for incident)

The following standard emergency procedures will be used by on site personnel. The Site Safety Officer shall be notified of any on site emergencies and be responsible for ensuring that the appropriate procedures are followed.

1. Personal Injury in the Work Zone:

Upon notification of an injury in the Work Zone, all site personnel shall assemble at the Site Entrance. The rescue team will enter the Work Zone (if required) to remove the injured person to the hotline. Rescue team and victim will be decontaminated, if required, prior to leaving the area. The Site Safety Officer and Project Team Leader shall evaluate the nature of the injury. Appropriate first aid will be initiated, and contact should be made for an ambulance and with the designated medical facility (if required). No persons shall reenter the Work Zone until the causes of the injury or symptoms are determined.

2. Fire / Explosion:

Upon notification of a fire or explosion on site, the fire department shall be alerted and all personnel moved to a safe distance from the involved area. *Fire extinguishers shall be used with discretion to minimize the risk of fire and explosion that would result in injuries.*

3. Personal Protective Equipment Failure:

If any worker experiences a failure or alteration of protective equipment that affects the protection factor, the affected person and his/her buddy shall immediately leave the Work Zone. Reentry shall not be permitted until the equipment has been repaired or replaced.

4. Other Equipment Failure:

If any other equipment fails to operate properly, the Project Team Leader and Safety Officer shall be notified and then determine the effect of this failure on continuing operations on site. If the failure affects the safety of personnel or prevents completion of the Work Plan tasks, all personnel shall leave the Work Zone until the situation is evaluated and appropriate actions taken.

In all situations, when an on site emergency results in evacuation of the Work Zone, personnel shall not reenter until:

1. ***The hazards have been reassessed.***
2. ***The conditions resulting in the emergency have been corrected.***
3. ***The Safety Plan has been reviewed, and personnel have been briefed on any changes in the Safety Plan.***

XIII. CLOSURES AND SIGNATURES

This plan has been reviewed and has the full approval of the following Management.

Owner:

NAME: Jonathan D. Kelly
TITLE: Compliance Officer - NMOCD
DATE: 5/17/2013

Consultant/Contractor ***Souder Miller & Associates***
NAME: Denny Foust
TITLE: Senior Geologist
DATE: 5/17/2013

All site personnel have read the Health and Safety Plan and are familiar with its provisions.

	Print Name	Signature
Safety Officer	Denny Foust	Denny Foust
Project Team Leader	Denny Foust	Denny Foust
Other Personnel	Jackie Abeyta	Jackie Abeyta
	Hector M Arandia	Hector M Arandia
	Jonathan D. Kelly NMOCD	Jonathan D. Kelly
	Steve Mostad	Steve Mostad

APPENDIX D

FIELD NOTES

WELL PURGE RECORD

JOB NUMBER: 512620 DATE: 5-15-2013 TIME: 10:20

JOB NAME: Maverik-Jackson SMA REPRESENTIVE: DJZ/SM

WELL ID: J3

SAMPLING METHOD: USEPA SW846

FIELD CONDITIONS: Sunny Clear

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL

SINGLE USE BAILER, FIELD EQUIPMENT: ALCANOX WASH, TRIPLE DI WATER RINSE

TOTAL DEPTH OF WELL: [redacted] FEET No Product

DEPTH TO WATER BEFORE PUMPING: 3.62 FEET SAMPLE TIME: _____

HEIGHT OF WATER COLUMN	WELL PVC DIAMETER		VOLUME IN GALLONS	MINIMUM QUANTITY OF WELL VOLUMES TO PURGE	VOLUME TO PURGE IN GALLONS
	2-INCH	4-INCH			
	0.163	0.653			

TIME	VOLUME PURGED	pH	SPECIFIC CONDUCTIVITY	TEMPERATURE IN °C	COMMENTS

revised 4/4/2008

WELL PURGE RECORD

JOB NUMBER: 512620	DATE: 5-15-2013 TIME: 10:15
JOB NAME: Maverik-Jackson	SMA REPRESENTIVE: DJ27/SM

WELL ID: J-4

SAMPLING METHOD: USEPA SW846

FIELD CONDITIONS: Sunny clear

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL

SINGLE USE BAILER, FIELD EQUIPMENT: ALCANOX WASH, TRIPLE DI WATER RINSE

TOTAL DEPTH OF WELL: _____ FEET

DEPTH TO WATER BEFORE PUMPING: 3.73 FEET SAMPLE TIME: _____

HEIGHT OF WATER COLUMN	WELL PVC DIAMETER		VOLUME IN GALLONS	MINIMUM QUANTITY OF WELL VOLUMES TO PURGE	VOLUME TO PURGE IN GALLONS
	2-INCH	4-INCH			
	0.163	0.653			

TIME	VOLUME PURGED	pH	SPECIFIC CONDUCTIVITY	TEMPERATURE IN °C	COMMENTS

revised 4/4/2008

WELL PURGE RECORD

JOB NUMBER: _____ DATE: 5/15/2013 TIME: 10:00

JOB NAME: Maverik-Jackson SMA REPRESENTIVE: DGT/SM

WELL ID: [redacted]-J5

SAMPLING METHOD: USEPA SW846

FIELD CONDITIONS: Sunny Clear

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL

SINGLE USE BAILER, FIELD EQUIPMENT: ALCANOX WASH, TRIPLE DI WATER RINSE

TOTAL DEPTH OF WELL: _____ FEET

DEPTH TO WATER BEFORE PUMPING: 4.04 FEET SAMPLE TIME: _____

HEIGHT OF WATER COLUMN	WELL PVC DIAMETER		VOLUME IN GALLONS	MINIMUM QUANTITY OF WELL VOLUMES TO PURGE	VOLUME TO PURGE IN GALLONS
	2-INCH	4-INCH			
	0.163	0.653			

TIME	VOLUME PURGED	pH	SPECIFIC CONDUCTIVITY	TEMPERATURE IN °C	COMMENTS

revised 4/4/2008

WELL PURGE RECORD

JOB NAME: Maverik - Jackson	DATE: 5-15-2013 TIME: 10:25
JOB #: 512620	S/A Representative: DJ/SM

MONITORING WELL: DJ
SAMPLING METHOD: USEPA SW846
FIELD CONDITIONS: Sunny and Clear

DECONTAMINATION METHOD: SINGLE USE BAILER, FIELD EQUIPMENT: ALCANOX WASH, TRIPLE DI WATER RINSE

Total Depth of well: 4.14 **feet** No free product
Depth to water before purging **feet**

Height of Water Column in Feet	Well PVC Diameter		1 Volume in Gallons	Minimum Purge Volumes	Volume to Purge in Gallons
	2-inch	4-inch		3	
	0.163	0.653			

TIME	VOLUME PURGED	pH	SPECIFIC CONDUCTIVITY	TEMP IN C	DISOLVED OXYGEN	TURBIDITY	COMMENTS

WELL PURGE RECORD

JOB NAME: Maverik-Jackson	DATE: 5-15-2013 TIME: 10:30
JOB #: 512620	S&A Representative: DJ/SM

MONITORING WELL: J6
SAMPLING METHOD: USEPA SW846
FIELD CONDITIONS: Sunny Clear

DECONTAMINATION METHOD: SINGLE USE BAILER, FIELD EQUIPMENT: ALCANOX WASH, TRIPLE DI WATER RINSE

Total Depth of well: [redacted] feet no product
Depth to water before purging 4.12 feet

Height of Water Column in Feet	Well PVC Diameter		1 Volume in Gallons	Minimum Purge Volumes	Volume to Purge in Gallons
	2-inch	4-inch		3	
	0.163	0.653			

TIME	VOLUME PURGED	pH	SPECIFIC CONDUCTIVITY	TEMP IN C	DISOLVED OXYGEN	TURBIDITY	COMMENTS

WELL PURGE RECORD

JOB NUMBER: _____ DATE: May 15, 2013 TIME: 9:30 AM

JOB NAME: Maverik-Jackson SMA REPRESENTIVE: DJF/SM

WELL ID: #18 Water Supply Well

SAMPLING METHOD: USEPA SW846

FIELD CONDITIONS: Sunny am Clear

Resident
Bill Baker
970-756-4038

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL

SINGLE USE BAILER, FIELD EQUIPMENT: ALCANOX WASH, TRIPLE DI WATER RINSE

TOTAL DEPTH OF WELL: Originally 38 FEET No measured free product

DEPTH TO WATER BEFORE PUMPING: _____ FEET SAMPLE TIME: _____

HEIGHT OF WATER COLUMN	WELL PVC DIAMETER		VOLUME IN GALLONS	MINIMUM QUANTITY OF WELL VOLUMES TO PURGE	VOLUME TO PURGE IN GALLONS
	2-INCH	4-INCH			
	0.163	0.653			

TIME	VOLUME PURGED	pH	SPECIFIC CONDUCTIVITY	TEMPERATURE IN °C	COMMENTS

WELL PURGE RECORD

JOB NUMBER: 51260	DATE: 5/15/13 TIME: 9:10
JOB NAME: Maverik/Jackson	SMA REPRESENTIVE: DS/LSM

WELL ID: Supply Water Well

5.19' Product
5.41' water

SAMPLING METHOD: USEPA SW846

FIELD CONDITIONS: Clear, warm

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL

SINGLE USE BAILER, FIELD EQUIPMENT: ALCANOX WASH, TRIPLE DI WATER RINSE

TOTAL DEPTH OF WELL: _____ FEET

DEPTH TO WATER BEFORE PUMPING: 5.41 FEET SAMPLE TIME: _____

HEIGHT OF WATER COLUMN	WELL PVC DIAMETER		VOLUME IN GALLONS	MINIMUM QUANTITY OF WELL VOLUMES TO PURGE	VOLUME TO PURGE IN GALLONS
	2-INCH	4-INCH			
	0.163	0.653			

TIME	VOLUME PURGED	pH	SPECIFIC CONDUCTIVITY	TEMPERATURE IN °C	COMMENTS

revised 4/4/2008

SUBJECT Maverik / Jackson | PROJECT | PAGE

CLIENT OCD | DATE 5/17/13 | BY SJM

CHECKED | BY

3493

- On site @ 0855

- Tailgate safety meeting

- Gauge well:
  Product: 5.35'
  Water: Sheen
  TD: 9.69'

0923 Begin Vac.
- Down to 9.55'
- Down to 10.55'
  - Able to see Debris, not sure what it/they are is
  - Removed Drive line w/ U-joint
  - 18" piece of 2" steel pipe
  - Clorox? bottle
  - Several rocks >4"
  - 1"x4"x3' board

1050: TD @ 13.4' able to see bottom of steel casing @ 12.9'

11:25 WL @ 10.88'

1155 WL @ 9.49'

1225 WL @ 8.45'

1255 7.70'

1325 7.30'

1355 6.83'
Evacuate well
TD ≈ 13.3'
Using custody tape, tape well closed

WELL PURGE RECORD

JOB NAME: Maverik-Jackson	DATE: 5/21/2013 TIME: 9:10
JOB #: 5-121620	SM Representative: DBZ/SM

MONITORING WELL: #18 Water Supply
SAMPLING METHOD: USEPA SW846
FIELD CONDITIONS: clear sunny

DECONTAMINATION METHOD: SINGLE USE BAILER, FIELD EQUIPMENT: ALCANOX WASH, TRIPLE DI WATER RINSE

Total Depth of well: 38 feet — Roland Jackson
Depth to water before purging ~~5 feet~~ feet

Height of Water Column in Feet	Well PVC Diameter		1 Volume in Gallons	Minimum Purge Volumes	Volume to Purge in Gallons
	2-inch	4-inch		3	
	0.163	0.653			

TIME	VOLUME PURGED	pH	SPECIFIC CONDUCTIVITY	TEMP IN C	DISOLVED OXYGEN	TURBIDITY	COMMENTS
9:25			Grab Sample				For Information
					Sheen		Only
					present		

WELL PURGE RECORD

JOB NUMBER: 512620 DATE: 5/21/2013 TIME: 10:00

JOB NAME: Maverik - Jackson SMA REPRESENTIVE: DSZ / SM

WELL ID: Water Supply Well

SAMPLING METHOD: USEPA SW846

FIELD CONDITIONS: Sunny, clear

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL

SINGLE USE BAILER, FIELD EQUIPMENT: ALCANOX WASH, TRIPLE DI WATER RINSE

TOTAL DEPTH OF WELL: 13.4 FEET Product 5.98

13.40
- 5.98
7.42

DEPTH TO WATER BEFORE PUMPING: 5.99 FEET SAMPLE TIME: 10:45

HEIGHT OF WATER COLUMN	WELL ~~PVC~~ DIAMETER 10.125 ID steel		VOLUME IN GALLONS	MINIMUM QUANTITY OF WELL VOLUMES TO PURGE	VOLUME TO PURGE IN GALLONS
	2-INCH	4-INCH			
7.42'	0.163	0.653	30 gallons	one	

TIME	VOLUME PURGED	pH	SPECIFIC CONDUCTIVITY	TEMPERATURE IN °C	COMMENTS
10:30	5 gal	7.3	1898	13.3	
10:38	10 gal	7.5	1808	12.1	
10:48	—				Sample Time
On Friday May 17, purged a minimum of two					
Volumes with Vacuum Truck.					

revised 4/4/2008

Sealed well cap with custody strips and tape.

WELL PURGE RECORD

JOB NUMBER: J121620 DATE: 5/21/13 TIME: 1200

JOB NAME: Maverik Jackson SMA REPRESENTIVE: DF/SJM

WELL ID: PMW-J3

SAMPLING METHOD: USEPA SW846

FIELD CONDITIONS: Clear, warm

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL

SINGLE USE BAILER, FIELD EQUIPMENT: ALCANOX WASH, TRIPLE DI WATER RINSE

TOTAL DEPTH OF WELL: 16.7 FEET

DEPTH TO WATER BEFORE PUMPING: Product 6.99 / 7.0 FEET SAMPLE TIME: 1230

HEIGHT OF WATER COLUMN	WELL PVC DIAMETER		VOLUME IN GALLONS	MINIMUM QUANTITY OF WELL VOLUMES TO PURGE	VOLUME TO PURGE IN GALLONS
	2-INCH	4-INCH			
9.7	0.163	0.653	1.58	X3	4.7

TIME	VOLUME PURGED	pH	SPECIFIC CONDUCTIVITY	TEMPERATURE IN °C	COMMENTS
1215	1.6	7.5	2.83 mS/cm	15.6	no odor cloudy brown
1217	3.2	7.7	2.84	14.0	" "
1221	4.8	7.7	1923 uS/cm	13.5	" "

revised 4/4/2008

No visible Product

WELL PURGE RECORD

JOB NUMBER: 5121620 DATE: 5/21/13 TIME: 1300

JOB NAME: Maverik Jackson SMA REPRESENTIVE: SJM/DF

WELL ID: PMW-54

SAMPLING METHOD: USEPA SW846

FIELD CONDITIONS: Clear, warm, breezy

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL

SINGLE USE BAILER, FIELD EQUIPMENT: ALCANOX WASH, TRIPLE DI WATER RINSE

TOTAL DEPTH OF WELL: 18.4 FEET

DEPTH TO WATER BEFORE PUMPING: 4.55 FEET SAMPLE TIME: _____

HEIGHT OF WATER COLUMN	WELL PVC DIAMETER		VOLUME IN GALLONS	MINIMUM QUANTITY OF WELL VOLUMES TO PURGE	VOLUME TO PURGE IN GALLONS
	2-INCH	4-INCH			
13.85	0.163	0.653	2.25	X3	6.77

TIME	VOLUME PURGED	pH	SPECIFIC CONDUCTIVITY	TEMPERATURE IN °C	COMMENTS
13:15	2.5gal	7.79	2350	15.2	
13:21	4.0	7.76	1790	13.4	
13:35	7.0				Sampled

revised 4/4/2008

WELL PURGE RECORD

JOB NUMBER: _____ DATE: 5/21/2013 TIME: 11:10

JOB NAME: Maverik-Jackson SMA REPRESENTIVE: DJZ/SM

WELL ID: JS

SAMPLING METHOD: USEPA SW846

FIELD CONDITIONS: Sunny Clear

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL

SINGLE USE BAILER, FIELD EQUIPMENT: ALCANOX WASH, TRIPLE DI WATER RINSE

TOTAL DEPTH OF WELL: 18.1 FEET

18.10
4.89
13.21

DEPTH TO WATER BEFORE PUMPING: 4.89 FEET SAMPLE TIME: _____

HEIGHT OF WATER COLUMN	WELL PVC DIAMETER		VOLUME IN GALLONS	MINIMUM QUANTITY OF WELL VOLUMES TO PURGE	VOLUME TO PURGE IN GALLONS
	2-INCH	4-INCH			
13.21	0.163	0.653	~~6.3415 gallons~~	3	6.15 gallons

TIME	VOLUME PURGED	pH	SPECIFIC CONDUCTIVITY	TEMPERATURE IN °C	COMMENTS
11:20	2.5	8.06	2037	12.6	
11:25	5.0	7.88	1513	11.9	
11:28	7.0	7.76	2018	11.6	
11:35	Sampled				

revised 4/4/2008

WELL PURGE RECORD

JOB NUMBER: 5121620	DATE: 5/21/13 TIME: 14:45
JOB NAME: Maverik-Juckon	SMA REPRESENTIVE: DS/SJM

WELL ID: J6

SAMPLING METHOD: USEPA SW846

FIELD CONDITIONS: Clear, Sunny

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL

SINGLE USE BAILER, FIELD EQUIPMENT: ALCANOX WASH, TRIPLE DI WATER RINSE

TOTAL DEPTH OF WELL: 17.4 FEET

DEPTH TO WATER BEFORE PUMPING: 5.11 FEET SAMPLE TIME: 15:10

HEIGHT OF WATER COLUMN	WELL PVC DIAMETER 2-INCH	WELL PVC DIAMETER ~~4-INCH~~	VOLUME IN GALLONS	MINIMUM QUANTITY OF WELL VOLUMES TO PURGE	VOLUME TO PURGE IN GALLONS
12.29	0.163	~~0.653~~	2.00	3.0	6.00

TIME	VOLUME PURGED	pH	SPECIFIC CONDUCTIVITY	TEMPERATURE IN °C	COMMENTS
14:55	2.0	7.58	2520	~~16.2~~ 15.6	
14:59	4.0	7.58	2100	13.7	Muddy
15:10	Sampled				
	7.0				

revised 4/4/2008

WELL PURGE RECORD

JOB NUMBER: 572620 DATE: 5/21/13 TIME: 14:00

JOB NAME: Marenk-Jackson SMA REPRESENTIVE: DGF/SJM

WELL ID: J7

SAMPLING METHOD: USEPA SW846

FIELD CONDITIONS: Sunny clear

DESCRIBE EQUIPMENT DECONTAMINATION METHOD BEFORE SAMPLING THE WELL

SINGLE USE BAILER, FIELD EQUIPMENT: ALCANOX WASH, TRIPLE DI WATER RINSE

TOTAL DEPTH OF WELL: 17.1 FEET 17.10 − 4.45 = 12.65

DEPTH TO WATER BEFORE PUMPING: 4.45 FEET SAMPLE TIME: 1425

HEIGHT OF WATER COLUMN	WELL PVC DIAMETER 2-INCH	WELL PVC DIAMETER 4-INCH	VOLUME IN GALLONS	MINIMUM QUANTITY OF WELL VOLUMES TO PURGE	VOLUME TO PURGE IN GALLONS
12.65	0.163	0.653	2.6	3	6.2

TIME	VOLUME PURGED	pH	SPECIFIC CONDUCTIVITY	TEMPERATURE IN °C	COMMENTS
14:08	2.5	7.70	2770	13.90	
14:12	5.0	7.63	2520	12.50	Muddy
14:35	7.0				Sampled

revised 4/4/2008

APPENDIX E

OCD FORM C-138

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-138
Revised March 12, 2007

*Surface Waste Management Facility Operator and Generator shall maintain and make this documentation available for Division inspection.

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. **Generator: Souder Miller for NMOCD**
2. **2101 San Juan Blvd, Farmington NM 87401**

2. **Originating Site: #20 CR 6271, Kirtland, NM from a water supply well.**

3. **Location of Material (Street Address, City, State or ULSTR): #20 CR 6271 Kirtland, NM**

4. **Source and Description of Waste: Water and sludge from a hydrocarbon contaminated water supply well. Crude or refined product possibly originating from the Maverik Refinery. Analysis run previously for NMOCD by Envirotech.**

Estimated Volume 10 bbls Known Volume (to be entered by the operator at the end of the haul) 5 yd³ / bbls 207

5. **GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS**

I, Denny Foust, representative or authorized agent for NMOCD do hereby

Generator Signature

certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification)

RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed wit' exempt waste. *Operator Use Only: Waste Acceptance Frequency* ☐ *Monthly* ☐ *Weekly* ☐ *Per Load*

☒ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste ha characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, p subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazard the appropriate items)

QUANTITY

☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☒ Other (Provide description in B

GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

I, Denny Foust, representative for NMOCD authorize JFJ/IEI to c

Generator Signature

the required testing/sign the Generator Waste Testing Certification.

I, _____, representative for IEI do hereby certify that

Representative/Agent Signature

representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 o 19.15.36 NMAC.

5. **Transporter: IEI**

OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: **JFJ Landfarm/Industrial Ecosystems, Inc. * Permit #: NM 01-0010B**

CL 959
Ph-9

Address of Facility: **# 49 CR 3150 Aztec, NM 87410**

Method of Treatment and/or Disposal:

☐ Evaporation ☐ Injection ☐ Treating Plant ☒ Landfarm ☐ Landfill ☐ Other

Waste Acceptance Status: ☒ **APPROVED** ☐ **DENIED** (Must Be Maintained As Permanent Record)

PRINT NAME: L Macheals TITLE: Admin. Specialist DATE: 5-17-13

SIGNATURE: _____ TELEPHONE NO.: 505-632-1782 5-16-13

APPENDIX F

LABORATORY ANALYTICAL REPORT

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

June 04, 2013

Cindy Gray
Souder, Miller and Associates
2101 San Juan Boulevard
Farmington, NM 87401
TEL: (505) 325-5667
FAX (505) 327-1496

RE: Maverik Jackson OrderNo.: 1305878

Dear Cindy Gray:

Hall Environmental Analysis Laboratory received 7 sample(s) on 5/22/2013 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **1305878**
Date Reported: **6/4/2013**

CLIENT: Souder, Miller and Associates
Project: Maverik Jackson
Lab ID: 1305878-001 **Matrix:** AQUEOUS

Client Sample ID: #13 Water Suplpy Well
Collection Date: 5/21/2013 9:25:00 AM
Received Date: 5/22/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8011/504.1: EDB						Analyst: **LRW**	
1,2-Dibromoethane	ND	0.010		µg/L	1	5/22/2013 5:35:53 PM	7567
EPA METHOD 8015D: DIESEL RANGE						Analyst: **JME**	
Diesel Range Organics (DRO)	81	1.0		mg/L	1	5/23/2013 11:49:30 PM	7580
Motor Oil Range Organics (MRO)	7.6	5.0		mg/L	1	5/23/2013 11:49:30 PM	7580
Surr: DNOP	119	75.4-146		%REC	1	5/23/2013 11:49:30 PM	7580
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **DAM**	
Gasoline Range Organics (GRO)	ND	0.50		mg/L	10	5/24/2013 11:18:51 PM	R10872
Surr: BFB	86.3	51.5-151		%REC	10	5/24/2013 11:18:51 PM	R10872
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **JLF**	
Lead	ND	0.0050		mg/L	1	5/29/2013 2:20:10 PM	7619
EPA METHOD 8260B: VOLATILES						Analyst: **CWS**	
Benzene	ND	1.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
Toluene	ND	1.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
Ethylbenzene	ND	1.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
1,2,4-Trimethylbenzene	2.3	1.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
Naphthalene	ND	2.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
1-Methylnaphthalene	6.6	4.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
2-Methylnaphthalene	9.2	4.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
Acetone	ND	10		µg/L	1	5/24/2013 1:12:22 PM	R10898
Bromobenzene	ND	1.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
Bromodichloromethane	ND	1.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
Bromoform	ND	1.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
Bromomethane	ND	3.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
2-Butanone	ND	10		µg/L	1	5/24/2013 1:12:22 PM	R10898
Carbon disulfide	ND	10		µg/L	1	5/24/2013 1:12:22 PM	R10898
Carbon Tetrachloride	ND	1.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
Chlorobenzene	ND	1.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
Chloroethane	ND	2.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
Chloroform	ND	1.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
Chloromethane	ND	3.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
2-Chlorotoluene	ND	1.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
4-Chlorotoluene	ND	1.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
cis-1,2-DCE	ND	1.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	5/24/2013 1:12:22 PM	R10898

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates
Client Sample ID: #13 Water Suplpy Well
Project: Maverik Jackson
Collection Date: 5/21/2013 9:25:00 AM
Lab ID: 1305878-001 **Matrix:** AQUEOUS **Received Date:** 5/22/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **CWS**	
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
Dibromochloromethane	ND	1.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
Dibromomethane	ND	1.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
1,2-Dichlorobenzene	ND	1.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
1,3-Dichlorobenzene	ND	1.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
1,4-Dichlorobenzene	ND	1.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
Dichlorodifluoromethane	ND	1.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
1,1-Dichloroethane	ND	1.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
1,1-Dichloroethene	ND	1.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
1,2-Dichloropropane	ND	1.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
1,3-Dichloropropane	ND	1.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
2,2-Dichloropropane	ND	2.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
1,1-Dichloropropene	ND	1.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
Hexachlorobutadiene	ND	1.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
2-Hexanone	ND	10		µg/L	1	5/24/2013 1:12:22 PM	R10898
Isopropylbenzene	ND	1.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
4-Isopropyltoluene	ND	1.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
4-Methyl-2-pentanone	ND	10		µg/L	1	5/24/2013 1:12:22 PM	R10898
Methylene Chloride	ND	3.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
n-Butylbenzene	ND	3.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
n-Propylbenzene	ND	1.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
sec-Butylbenzene	ND	1.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
Styrene	ND	1.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
tert-Butylbenzene	ND	1.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
trans-1,2-DCE	ND	1.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
1,1,1-Trichloroethane	ND	1.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
1,1,2-Trichloroethane	ND	1.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
Trichloroethene (TCE)	ND	1.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
Trichlorofluoromethane	ND	1.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
1,2,3-Trichloropropane	ND	2.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
Vinyl chloride	ND	1.0		µg/L	1	5/24/2013 1:12:22 PM	R10898
Xylenes, Total	ND	1.5		µg/L	1	5/24/2013 1:12:22 PM	R10898
Surr: 1,2-Dichloroethane-d4	92.1	70-130		%REC	1	5/24/2013 1:12:22 PM	R10898
Surr: 4-Bromofluorobenzene	92.4	69.5-130		%REC	1	5/24/2013 1:12:22 PM	R10898

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates
Client Sample ID: #13 Water Suplpy Well
Project: Maverik Jackson
Collection Date: 5/21/2013 9:25:00 AM
Lab ID: 1305878-001 **Matrix:** AQUEOUS **Received Date:** 5/22/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **CWS**	
Surr: Dibromofluoromethane	105	70-130		%REC	1	5/24/2013 1:12:22 PM	R10898
Surr: Toluene-d8	94.3	70-130		%REC	1	5/24/2013 1:12:22 PM	R10898

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates
Client Sample ID: Water Supply Well
Project: Maverik Jackson
Collection Date: 5/21/2013 10:48:00 AM
Lab ID: 1305878-002 **Matrix:** AQUEOUS **Received Date:** 5/22/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8011/504.1: EDB						Analyst: **LRW**	
1,2-Dibromoethane	ND	0.010		µg/L	1	5/22/2013 5:49:47 PM	7567
EPA METHOD 8015D: DIESEL RANGE						Analyst: **JME**	
Diesel Range Organics (DRO)	21	1.0		mg/L	1	5/24/2013 12:17:01 AM	7580
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	5/24/2013 12:17:01 AM	7580
Surr: DNOP	127	75.4-146		%REC	1	5/24/2013 12:17:01 AM	7580
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **DAM**	
Gasoline Range Organics (GRO)	ND	0.50		mg/L	10	5/24/2013 11:49:04 PM	R10872
Surr: BFB	86.9	51.5-151		%REC	10	5/24/2013 11:49:04 PM	R10872
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **JLF**	
Lead	ND	0.0050		mg/L	1	5/29/2013 2:25:31 PM	7619
EPA METHOD 8260B: VOLATILES						Analyst: **CWS**	
Benzene	ND	1.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
Toluene	ND	1.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
Ethylbenzene	1.2	1.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
1,2,4-Trimethylbenzene	9.3	1.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
1,3,5-Trimethylbenzene	2.4	1.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
Naphthalene	8.8	2.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
1-Methylnaphthalene	31	4.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
2-Methylnaphthalene	46	4.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
Acetone	ND	10		µg/L	1	5/24/2013 3:07:10 PM	R10898
Bromobenzene	ND	1.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
Bromodichloromethane	ND	1.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
Bromoform	ND	1.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
Bromomethane	ND	3.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
2-Butanone	ND	10		µg/L	1	5/24/2013 3:07:10 PM	R10898
Carbon disulfide	ND	10		µg/L	1	5/24/2013 3:07:10 PM	R10898
Carbon Tetrachloride	ND	1.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
Chlorobenzene	ND	1.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
Chloroethane	ND	2.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
Chloroform	ND	1.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
Chloromethane	ND	3.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
2-Chlorotoluene	ND	1.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
4-Chlorotoluene	ND	1.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
cis-1,2-DCE	ND	1.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	5/24/2013 3:07:10 PM	R10898

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates
Client Sample ID: Water Supply Well
Project: Maverik Jackson
Collection Date: 5/21/2013 10:48:00 AM
Lab ID: 1305878-002 **Matrix:** AQUEOUS **Received Date:** 5/22/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **CWS**	
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
Dibromochloromethane	ND	1.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
Dibromomethane	ND	1.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
1,2-Dichlorobenzene	ND	1.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
1,3-Dichlorobenzene	ND	1.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
1,4-Dichlorobenzene	ND	1.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
Dichlorodifluoromethane	ND	1.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
1,1-Dichloroethane	ND	1.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
1,1-Dichloroethene	ND	1.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
1,2-Dichloropropane	ND	1.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
1,3-Dichloropropane	ND	1.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
2,2-Dichloropropane	ND	2.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
1,1-Dichloropropene	ND	1.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
Hexachlorobutadiene	ND	1.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
2-Hexanone	ND	10		µg/L	1	5/24/2013 3:07:10 PM	R10898
Isopropylbenzene	ND	1.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
4-Isopropyltoluene	ND	1.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
4-Methyl-2-pentanone	ND	10		µg/L	1	5/24/2013 3:07:10 PM	R10898
Methylene Chloride	ND	3.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
n-Butylbenzene	ND	3.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
n-Propylbenzene	ND	1.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
sec-Butylbenzene	ND	1.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
Styrene	ND	1.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
tert-Butylbenzene	ND	1.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
trans-1,2-DCE	ND	1.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
1,1,1-Trichloroethane	ND	1.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
1,1,2-Trichloroethane	ND	1.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
Trichloroethene (TCE)	ND	1.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
Trichlorofluoromethane	ND	1.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
1,2,3-Trichloropropane	ND	2.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
Vinyl chloride	ND	1.0		µg/L	1	5/24/2013 3:07:10 PM	R10898
Xylenes, Total	2.2	1.5		µg/L	1	5/24/2013 3:07:10 PM	R10898
Surr: 1,2-Dichloroethane-d4	92.4	70-130		%REC	1	5/24/2013 3:07:10 PM	R10898
Surr: 4-Bromofluorobenzene	79.7	69.5-130		%REC	1	5/24/2013 3:07:10 PM	R10898

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates
Client Sample ID: Water Supply Well
Project: Maverik Jackson
Collection Date: 5/21/2013 10:48:00 AM
Lab ID: 1305878-002 **Matrix:** AQUEOUS **Received Date:** 5/22/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **CWS**	
Surr: Dibromofluoromethane	108	70-130		%REC	1	5/24/2013 3:07:10 PM	R10898
Surr: Toluene-d8	94.4	70-130		%REC	1	5/24/2013 3:07:10 PM	R10898

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates
Client Sample ID: J#7
Project: Maverik Jackson
Collection Date: 5/21/2013 2:25:00 PM
Lab ID: 1305878-003 **Matrix:** AQUEOUS **Received Date:** 5/22/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8011/504.1: EDB						Analyst:	**LRW**
1,2-Dibromoethane	ND	0.010		µg/L	1	5/22/2013 6:17:41 PM	7567
EPA METHOD 8015D: DIESEL RANGE						Analyst:	**JME**
Diesel Range Organics (DRO)	1.2	1.0		mg/L	1	5/24/2013 1:11:47 AM	7580
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	5/24/2013 1:11:47 AM	7580
Surr: DNOP	124	75.4-146		%REC	1	5/24/2013 1:11:47 AM	7580
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**DAM**
Gasoline Range Organics (GRO)	ND	0.10		mg/L	2	5/25/2013 12:19:22 AM	R10872
Surr: BFB	85.8	51.5-151		%REC	2	5/25/2013 12:19:22 AM	R10872
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst:	**JLF**
Lead	0.039	0.0050		mg/L	1	5/29/2013 2:30:53 PM	7619
EPA METHOD 8260B: VOLATILES						Analyst:	**CWS**
Benzene	ND	1.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
Toluene	ND	1.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
Ethylbenzene	ND	1.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
Naphthalene	ND	2.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
1-Methylnaphthalene	ND	4.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
2-Methylnaphthalene	ND	4.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
Acetone	ND	10		µg/L	1	5/23/2013 3:07:05 AM	R10829
Bromobenzene	ND	1.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
Bromodichloromethane	ND	1.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
Bromoform	ND	1.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
Bromomethane	ND	3.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
2-Butanone	ND	10		µg/L	1	5/23/2013 3:07:05 AM	R10829
Carbon disulfide	ND	10		µg/L	1	5/23/2013 3:07:05 AM	R10829
Carbon Tetrachloride	ND	1.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
Chlorobenzene	ND	1.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
Chloroethane	ND	2.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
Chloroform	ND	1.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
Chloromethane	ND	3.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
2-Chlorotoluene	ND	1.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
4-Chlorotoluene	ND	1.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
cis-1,2-DCE	ND	1.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	5/23/2013 3:07:05 AM	R10829

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates
Client Sample ID: J#7
Project: Maverik Jackson
Collection Date: 5/21/2013 2:25:00 PM
Lab ID: 1305878-003 **Matrix:** AQUEOUS **Received Date:** 5/22/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **CWS**	
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
Dibromochloromethane	ND	1.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
Dibromomethane	ND	1.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
1,2-Dichlorobenzene	ND	1.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
1,3-Dichlorobenzene	ND	1.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
1,4-Dichlorobenzene	ND	1.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
Dichlorodifluoromethane	ND	1.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
1,1-Dichloroethane	ND	1.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
1,1-Dichloroethene	ND	1.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
1,2-Dichloropropane	ND	1.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
1,3-Dichloropropane	ND	1.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
2,2-Dichloropropane	ND	2.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
1,1-Dichloropropene	ND	1.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
Hexachlorobutadiene	ND	1.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
2-Hexanone	ND	10		µg/L	1	5/23/2013 3:07:05 AM	R10829
Isopropylbenzene	ND	1.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
4-Isopropyltoluene	ND	1.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
4-Methyl-2-pentanone	ND	10		µg/L	1	5/23/2013 3:07:05 AM	R10829
Methylene Chloride	ND	3.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
n-Butylbenzene	ND	3.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
n-Propylbenzene	ND	1.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
sec-Butylbenzene	ND	1.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
Styrene	ND	1.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
tert-Butylbenzene	ND	1.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
trans-1,2-DCE	ND	1.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
1,1,1-Trichloroethane	ND	1.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
1,1,2-Trichloroethane	ND	1.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
Trichloroethene (TCE)	ND	1.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
Trichlorofluoromethane	ND	1.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
1,2,3-Trichloropropane	ND	2.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
Vinyl chloride	ND	1.0		µg/L	1	5/23/2013 3:07:05 AM	R10829
Xylenes, Total	ND	1.5		µg/L	1	5/23/2013 3:07:05 AM	R10829
Surr: 1,2-Dichloroethane-d4	90.8	70-130		%REC	1	5/23/2013 3:07:05 AM	R10829
Surr: 4-Bromofluorobenzene	106	69.5-130		%REC	1	5/23/2013 3:07:05 AM	R10829

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates
Client Sample ID: J#7
Project: Maverik Jackson
Collection Date: 5/21/2013 2:25:00 PM
Lab ID: 1305878-003 **Matrix:** AQUEOUS **Received Date:** 5/22/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **CWS**	
Surr: Dibromofluoromethane	109	70-130		%REC	1	5/23/2013 3:07:05 AM	R10829
Surr: Toluene-d8	93.1	70-130		%REC	1	5/23/2013 3:07:05 AM	R10829

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates
Client Sample ID: J#3
Project: Maverik Jackson
Collection Date: 5/21/2013 12:30:00 PM
Lab ID: 1305878-004
Matrix: AQUEOUS
Received Date: 5/22/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8011/504.1: EDB						Analyst: **LRW**	
1,2-Dibromoethane	ND	0.010		µg/L	1	5/22/2013 6:31:39 PM	7567
EPA METHOD 8015D: DIESEL RANGE						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	5/24/2013 1:39:19 AM	7580
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	5/24/2013 1:39:19 AM	7580
Surr: DNOP	127	75.4-146		%REC	1	5/24/2013 1:39:19 AM	7580
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **DAM**	
Gasoline Range Organics (GRO)	ND	0.10		mg/L	2	5/25/2013 12:49:41 AM	R10872
Surr: BFB	86.0	51.5-151		%REC	2	5/25/2013 12:49:41 AM	R10872
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **JLF**	
Lead	0.026	0.0050		mg/L	1	5/29/2013 2:44:52 PM	7619
EPA METHOD 8260B: VOLATILES						Analyst: **CWS**	
Benzene	ND	1.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
Toluene	ND	1.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
Ethylbenzene	ND	1.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
Naphthalene	ND	2.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
1-Methylnaphthalene	ND	4.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
2-Methylnaphthalene	ND	4.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
Acetone	ND	10		µg/L	1	5/23/2013 3:35:40 AM	R10829
Bromobenzene	ND	1.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
Bromodichloromethane	ND	1.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
Bromoform	ND	1.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
Bromomethane	ND	3.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
2-Butanone	ND	10		µg/L	1	5/23/2013 3:35:40 AM	R10829
Carbon disulfide	ND	10		µg/L	1	5/23/2013 3:35:40 AM	R10829
Carbon Tetrachloride	ND	1.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
Chlorobenzene	ND	1.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
Chloroethane	ND	2.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
Chloroform	ND	1.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
Chloromethane	ND	3.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
2-Chlorotoluene	ND	1.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
4-Chlorotoluene	ND	1.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
cis-1,2-DCE	ND	1.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	5/23/2013 3:35:40 AM	R10829

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates
Client Sample ID: J#3
Project: Maverik Jackson
Collection Date: 5/21/2013 12:30:00 PM
Lab ID: 1305878-004 **Matrix:** AQUEOUS **Received Date:** 5/22/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **CWS**	
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
Dibromochloromethane	ND	1.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
Dibromomethane	ND	1.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
1,2-Dichlorobenzene	ND	1.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
1,3-Dichlorobenzene	ND	1.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
1,4-Dichlorobenzene	ND	1.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
Dichlorodifluoromethane	ND	1.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
1,1-Dichloroethane	ND	1.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
1,1-Dichloroethene	ND	1.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
1,2-Dichloropropane	ND	1.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
1,3-Dichloropropane	ND	1.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
2,2-Dichloropropane	ND	2.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
1,1-Dichloropropene	ND	1.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
Hexachlorobutadiene	ND	1.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
2-Hexanone	ND	10		µg/L	1	5/23/2013 3:35:40 AM	R10829
Isopropylbenzene	ND	1.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
4-Isopropyltoluene	ND	1.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
4-Methyl-2-pentanone	ND	10		µg/L	1	5/23/2013 3:35:40 AM	R10829
Methylene Chloride	ND	3.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
n-Butylbenzene	ND	3.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
n-Propylbenzene	ND	1.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
sec-Butylbenzene	ND	1.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
Styrene	ND	1.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
tert-Butylbenzene	ND	1.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
trans-1,2-DCE	ND	1.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
1,1,1-Trichloroethane	ND	1.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
1,1,2-Trichloroethane	ND	1.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
Trichloroethene (TCE)	ND	1.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
Trichlorofluoromethane	ND	1.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
1,2,3-Trichloropropane	ND	2.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
Vinyl chloride	ND	1.0		µg/L	1	5/23/2013 3:35:40 AM	R10829
Xylenes, Total	ND	1.5		µg/L	1	5/23/2013 3:35:40 AM	R10829
Surr: 1,2-Dichloroethane-d4	95.6	70-130		%REC	1	5/23/2013 3:35:40 AM	R10829
Surr: 4-Bromofluorobenzene	104	69.5-130		%REC	1	5/23/2013 3:35:40 AM	R10829

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates
Client Sample ID: J#3
Project: Maverik Jackson
Collection Date: 5/21/2013 12:30:00 PM
Lab ID: 1305878-004 **Matrix:** AQUEOUS **Received Date:** 5/22/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **CWS**	
Surr: Dibromofluoromethane	110	70-130		%REC	1	5/23/2013 3:35:40 AM	R10829
Surr: Toluene-d8	94.7	70-130		%REC	1	5/23/2013 3:35:40 AM	R10829

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates
Client Sample ID: J#6
Project: Maverik Jackson
Collection Date: 5/21/2013 3:10:00 PM
Lab ID: 1305878-005 **Matrix:** AQUEOUS **Received Date:** 5/22/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8011/504.1: EDB						Analyst: **LRW**	
1,2-Dibromoethane	ND	0.010		µg/L	1	5/22/2013 6:45:32 PM	7567
EPA METHOD 8015D: DIESEL RANGE						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	5/24/2013 2:06:38 AM	7580
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	5/24/2013 2:06:38 AM	7580
Surr: DNOP	125	75.4-146		%REC	1	5/24/2013 2:06:38 AM	7580
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **DAM**	
Gasoline Range Organics (GRO)	ND	0.10		mg/L	2	5/25/2013 1:19:55 AM	R10872
Surr: BFB	86.3	51.5-151		%REC	2	5/25/2013 1:19:55 AM	R10872
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **JLF**	
Lead	0.043	0.0050		mg/L	1	5/29/2013 2:50:11 PM	7619
EPA METHOD 8260B: VOLATILES						Analyst: **CWS**	
Benzene	ND	1.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
Toluene	ND	1.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
Ethylbenzene	ND	1.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
Naphthalene	ND	2.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
1-Methylnaphthalene	ND	4.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
2-Methylnaphthalene	ND	4.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
Acetone	ND	10		µg/L	1	5/23/2013 4:04:15 AM	R10829
Bromobenzene	ND	1.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
Bromodichloromethane	ND	1.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
Bromoform	ND	1.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
Bromomethane	ND	3.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
2-Butanone	ND	10		µg/L	1	5/23/2013 4:04:15 AM	R10829
Carbon disulfide	ND	10		µg/L	1	5/23/2013 4:04:15 AM	R10829
Carbon Tetrachloride	ND	1.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
Chlorobenzene	ND	1.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
Chloroethane	ND	2.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
Chloroform	ND	1.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
Chloromethane	ND	3.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
2-Chlorotoluene	ND	1.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
4-Chlorotoluene	ND	1.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
cis-1,2-DCE	ND	1.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	5/23/2013 4:04:15 AM	R10829

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates
Client Sample ID: J#6
Project: Maverik Jackson
Collection Date: 5/21/2013 3:10:00 PM
Lab ID: 1305878-005 **Matrix:** AQUEOUS **Received Date:** 5/22/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **CWS**	
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
Dibromochloromethane	ND	1.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
Dibromomethane	ND	1.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
1,2-Dichlorobenzene	ND	1.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
1,3-Dichlorobenzene	ND	1.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
1,4-Dichlorobenzene	ND	1.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
Dichlorodifluoromethane	ND	1.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
1,1-Dichloroethane	ND	1.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
1,1-Dichloroethene	ND	1.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
1,2-Dichloropropane	ND	1.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
1,3-Dichloropropane	ND	1.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
2,2-Dichloropropane	ND	2.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
1,1-Dichloropropene	ND	1.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
Hexachlorobutadiene	ND	1.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
2-Hexanone	ND	10		µg/L	1	5/23/2013 4:04:15 AM	R10829
Isopropylbenzene	ND	1.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
4-Isopropyltoluene	ND	1.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
4-Methyl-2-pentanone	ND	10		µg/L	1	5/23/2013 4:04:15 AM	R10829
Methylene Chloride	ND	3.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
n-Butylbenzene	ND	3.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
n-Propylbenzene	ND	1.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
sec-Butylbenzene	ND	1.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
Styrene	ND	1.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
tert-Butylbenzene	ND	1.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
trans-1,2-DCE	ND	1.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
1,1,1-Trichloroethane	ND	1.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
1,1,2-Trichloroethane	ND	1.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
Trichloroethene (TCE)	ND	1.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
Trichlorofluoromethane	ND	1.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
1,2,3-Trichloropropane	ND	2.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
Vinyl chloride	ND	1.0		µg/L	1	5/23/2013 4:04:15 AM	R10829
Xylenes, Total	ND	1.5		µg/L	1	5/23/2013 4:04:15 AM	R10829
Surr: 1,2-Dichloroethane-d4	92.2	70-130		%REC	1	5/23/2013 4:04:15 AM	R10829
Surr: 4-Bromofluorobenzene	106	69.5-130		%REC	1	5/23/2013 4:04:15 AM	R10829

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates
Client Sample ID: J#6
Project: Maverik Jackson
Collection Date: 5/21/2013 3:10:00 PM
Lab ID: 1305878-005 **Matrix:** AQUEOUS **Received Date:** 5/22/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **CWS**	
Surr: Dibromofluoromethane	113	70-130		%REC	1	5/23/2013 4:04:15 AM	R10829
Surr: Toluene-d8	96.5	70-130		%REC	1	5/23/2013 4:04:15 AM	R10829

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates
Client Sample ID: J#4
Project: Maverik Jackson
Collection Date: 5/21/2013 1:35:00 PM
Lab ID: 1305878-006 **Matrix:** AQUEOUS **Received Date:** 5/22/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8011/504.1: EDB						Analyst: **LRW**	
1,2-Dibromoethane	ND	0.010		µg/L	1	5/22/2013 6:59:26 PM	7567
EPA METHOD 8015D: DIESEL RANGE						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	5/24/2013 2:33:52 AM	7580
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	5/24/2013 2:33:52 AM	7580
Surr: DNOP	129	75.4-146		%REC	1	5/24/2013 2:33:52 AM	7580
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **DAM**	
Gasoline Range Organics (GRO)	ND	0.10		mg/L	2	5/25/2013 1:50:07 AM	R10872
Surr: BFB	85.9	51.5-151		%REC	2	5/25/2013 1:50:07 AM	R10872
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **JLF**	
Lead	0.0091	0.0050		mg/L	1	5/29/2013 2:55:57 PM	7619
EPA METHOD 8260B: VOLATILES						Analyst: **CWS**	
Benzene	ND	1.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
Toluene	ND	1.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
Ethylbenzene	ND	1.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
Naphthalene	ND	2.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
1-Methylnaphthalene	ND	4.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
2-Methylnaphthalene	ND	4.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
Acetone	ND	10		µg/L	1	5/23/2013 4:33:00 AM	R10829
Bromobenzene	ND	1.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
Bromodichloromethane	ND	1.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
Bromoform	ND	1.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
Bromomethane	ND	3.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
2-Butanone	ND	10		µg/L	1	5/23/2013 4:33:00 AM	R10829
Carbon disulfide	ND	10		µg/L	1	5/23/2013 4:33:00 AM	R10829
Carbon Tetrachloride	ND	1.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
Chlorobenzene	ND	1.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
Chloroethane	ND	2.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
Chloroform	ND	1.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
Chloromethane	ND	3.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
2-Chlorotoluene	ND	1.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
4-Chlorotoluene	ND	1.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
cis-1,2-DCE	ND	1.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	5/23/2013 4:33:00 AM	R10829

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates
Client Sample ID: J#4
Project: Maverik Jackson
Collection Date: 5/21/2013 1:35:00 PM
Lab ID: 1305878-006 **Matrix:** AQUEOUS **Received Date:** 5/22/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **CWS**	
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
Dibromochloromethane	ND	1.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
Dibromomethane	ND	1.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
1,2-Dichlorobenzene	ND	1.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
1,3-Dichlorobenzene	ND	1.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
1,4-Dichlorobenzene	ND	1.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
Dichlorodifluoromethane	ND	1.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
1,1-Dichloroethane	ND	1.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
1,1-Dichloroethene	ND	1.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
1,2-Dichloropropane	ND	1.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
1,3-Dichloropropane	ND	1.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
2,2-Dichloropropane	ND	2.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
1,1-Dichloropropene	ND	1.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
Hexachlorobutadiene	ND	1.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
2-Hexanone	ND	10		µg/L	1	5/23/2013 4:33:00 AM	R10829
Isopropylbenzene	ND	1.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
4-Isopropyltoluene	ND	1.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
4-Methyl-2-pentanone	ND	10		µg/L	1	5/23/2013 4:33:00 AM	R10829
Methylene Chloride	ND	3.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
n-Butylbenzene	ND	3.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
n-Propylbenzene	ND	1.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
sec-Butylbenzene	ND	1.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
Styrene	ND	1.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
tert-Butylbenzene	ND	1.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
trans-1,2-DCE	ND	1.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
1,1,1-Trichloroethane	ND	1.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
1,1,2-Trichloroethane	ND	1.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
Trichloroethene (TCE)	ND	1.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
Trichlorofluoromethane	ND	1.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
1,2,3-Trichloropropane	ND	2.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
Vinyl chloride	ND	1.0		µg/L	1	5/23/2013 4:33:00 AM	R10829
Xylenes, Total	ND	1.5		µg/L	1	5/23/2013 4:33:00 AM	R10829
Surr: 1,2-Dichloroethane-d4	93.8	70-130		%REC	1	5/23/2013 4:33:00 AM	R10829
Surr: 4-Bromofluorobenzene	107	69.5-130		%REC	1	5/23/2013 4:33:00 AM	R10829

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates
Client Sample ID: J#4
Project: Maverik Jackson
Collection Date: 5/21/2013 1:35:00 PM
Lab ID: 1305878-006
Matrix: AQUEOUS
Received Date: 5/22/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **CWS**	
Surr: Dibromofluoromethane	111	70-130		%REC	1	5/23/2013 4:33:00 AM	R10829
Surr: Toluene-d8	96.1	70-130		%REC	1	5/23/2013 4:33:00 AM	R10829

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates
Client Sample ID: J#5
Project: Maverik Jackson
Collection Date: 5/21/2013 11:35:00 AM
Lab ID: 1305878-007
Matrix: AQUEOUS
Received Date: 5/22/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8011/504.1: EDB						Analyst: **LRW**	
1,2-Dibromoethane	ND	0.010		µg/L	1	5/22/2013 7:13:23 PM	7567
EPA METHOD 8015D: DIESEL RANGE						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	5/24/2013 3:01:12 AM	7580
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	5/24/2013 3:01:12 AM	7580
Surr: DNOP	129	75.4-146		%REC	1	5/24/2013 3:01:12 AM	7580
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **DAM**	
Gasoline Range Organics (GRO)	ND	0.10		mg/L	2	5/25/2013 2:20:21 AM	R10872
Surr: BFB	86.6	51.5-151		%REC	2	5/25/2013 2:20:21 AM	R10872
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: **JLF**	
Lead	0.0056	0.0050		mg/L	1	5/29/2013 3:31:03 PM	7619
EPA METHOD 8260B: VOLATILES						Analyst: **CWS**	
Benzene	ND	1.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
Toluene	ND	1.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
Ethylbenzene	ND	1.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
Naphthalene	ND	2.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
1-Methylnaphthalene	ND	4.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
2-Methylnaphthalene	ND	4.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
Acetone	ND	10		µg/L	1	5/23/2013 5:01:41 AM	R10829
Bromobenzene	ND	1.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
Bromodichloromethane	ND	1.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
Bromoform	ND	1.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
Bromomethane	ND	3.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
2-Butanone	ND	10		µg/L	1	5/23/2013 5:01:41 AM	R10829
Carbon disulfide	ND	10		µg/L	1	5/23/2013 5:01:41 AM	R10829
Carbon Tetrachloride	ND	1.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
Chlorobenzene	ND	1.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
Chloroethane	ND	2.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
Chloroform	ND	1.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
Chloromethane	ND	3.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
2-Chlorotoluene	ND	1.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
4-Chlorotoluene	ND	1.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
cis-1,2-DCE	ND	1.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	5/23/2013 5:01:41 AM	R10829

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates
Client Sample ID: J#5
Project: Maverik Jackson
Collection Date: 5/21/2013 11:35:00 AM
Lab ID: 1305878-007
Matrix: AQUEOUS
Received Date: 5/22/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **CWS**	
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
Dibromochloromethane	ND	1.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
Dibromomethane	ND	1.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
1,2-Dichlorobenzene	ND	1.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
1,3-Dichlorobenzene	ND	1.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
1,4-Dichlorobenzene	ND	1.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
Dichlorodifluoromethane	ND	1.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
1,1-Dichloroethane	ND	1.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
1,1-Dichloroethene	ND	1.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
1,2-Dichloropropane	ND	1.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
1,3-Dichloropropane	ND	1.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
2,2-Dichloropropane	ND	2.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
1,1-Dichloropropene	ND	1.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
Hexachlorobutadiene	ND	1.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
2-Hexanone	ND	10		µg/L	1	5/23/2013 5:01:41 AM	R10829
Isopropylbenzene	ND	1.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
4-Isopropyltoluene	ND	1.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
4-Methyl-2-pentanone	ND	10		µg/L	1	5/23/2013 5:01:41 AM	R10829
Methylene Chloride	ND	3.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
n-Butylbenzene	ND	3.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
n-Propylbenzene	ND	1.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
sec-Butylbenzene	ND	1.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
Styrene	ND	1.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
tert-Butylbenzene	ND	1.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
trans-1,2-DCE	ND	1.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
1,1,1-Trichloroethane	ND	1.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
1,1,2-Trichloroethane	ND	1.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
Trichloroethene (TCE)	ND	1.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
Trichlorofluoromethane	ND	1.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
1,2,3-Trichloropropane	ND	2.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
Vinyl chloride	ND	1.0		µg/L	1	5/23/2013 5:01:41 AM	R10829
Xylenes, Total	ND	1.5		µg/L	1	5/23/2013 5:01:41 AM	R10829
Surr: 1,2-Dichloroethane-d4	94.9	70-130		%REC	1	5/23/2013 5:01:41 AM	R10829
Surr: 4-Bromofluorobenzene	104	69.5-130		%REC	1	5/23/2013 5:01:41 AM	R10829

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates
Client Sample ID: J#5
Project: Maverik Jackson
Collection Date: 5/21/2013 11:35:00 AM
Lab ID: 1305878-007
Matrix: AQUEOUS
Received Date: 5/22/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES						Analyst: **CWS**	
Surr: Dibromofluoromethane	111	70-130		%REC	1	5/23/2013 5:01:41 AM	R10829
Surr: Toluene-d8	95.1	70-130		%REC	1	5/23/2013 5:01:41 AM	R10829

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1305878**

04-Jun-13

Client: Souder, Miller and Associates

Project: Maverik Jackson

Sample ID	**MB-7567**	SampType:	**MBLK**		TestCode:	**EPA Method 8011/504.1: EDB**				
Client ID:	**PBW**	Batch ID:	**7567**		RunNo:	**10817**				
Prep Date:	**5/22/2013**	Analysis Date:	**5/22/2013**		SeqNo:	**305729**	Units:	**µg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	ND	0.010								

Sample ID	**LCS-7567**	SampType:	**LCS**		TestCode:	**EPA Method 8011/504.1: EDB**				
Client ID:	**LCSW**	Batch ID:	**7567**		RunNo:	**10817**				
Prep Date:	**5/22/2013**	Analysis Date:	**5/22/2013**		SeqNo:	**305730**	Units:	**µg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.095	0.010	0.1000	0	95.0	70	130			

Sample ID	**LCSD-7567**	SampType:	**LCS**		TestCode:	**EPA Method 8011/504.1: EDB**				
Client ID:	**LCSW**	Batch ID:	**7567**		RunNo:	**10817**				
Prep Date:	**5/22/2013**	Analysis Date:	**5/22/2013**		SeqNo:	**305731**	Units:	**µg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.10	0.010	0.1000	0	101	70	130	6.12	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1305878**

04-Jun-13

Client: Souder, Miller and Associates

Project: Maverik Jackson

Sample ID **MB-7580**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range**
Client ID: **PBW**	Batch ID: **7580**	RunNo: **10810**
Prep Date: **5/23/2013**	Analysis Date: **5/23/2013**	SeqNo: **306004** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		111	75.4	146			

Sample ID **LCS-7580**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range**
Client ID: **LCSW**	Batch ID: **7580**	RunNo: **10810**
Prep Date: **5/23/2013**	Analysis Date: **5/23/2013**	SeqNo: **306005** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.1	1.0	5.000	0	101	89.1	151			
Surr: DNOP	0.57		0.5000		114	75.4	146			

Sample ID **LCSD-7580**	SampType: **LCSD**	TestCode: **EPA Method 8015D: Diesel Range**
Client ID: **LCSS02**	Batch ID: **7580**	RunNo: **10810**
Prep Date: **5/23/2013**	Analysis Date: **5/23/2013**	SeqNo: **306006** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.7	1.0	5.000	0	114	89.1	151	12.1	20	
Surr: DNOP	0.59		0.5000		117	75.4	146	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1305878**

04-Jun-13

Client: Souder, Miller and Associates

Project: Maverik Jackson

Sample ID	**5ML RB**	SampType:	**MBLK**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**PBW**	Batch ID:	**R10872**	RunNo:	**10872**					
Prep Date:		Analysis Date:	**5/24/2013**	SeqNo:	**307551**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	17		20.00		87.1	51.5	151			

Sample ID	**2.5UG GRO LCS**	SampType:	**LCS**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**LCSW**	Batch ID:	**R10872**	RunNo:	**10872**					
Prep Date:		Analysis Date:	**5/25/2013**	SeqNo:	**307552**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.51	0.050	0.5000	0	102	73.2	124			
Surr: BFB	19		20.00		94.0	51.5	151			

Sample ID	**1305913-001B MS**	SampType:	**MS**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**BatchQC**	Batch ID:	**R10872**	RunNo:	**10872**					
Prep Date:		Analysis Date:	**5/25/2013**	SeqNo:	**307553**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.56	0.050	0.5000	0.07160	98.4	65.2	137			
Surr: BFB	19		20.00		95.4	51.5	151			

Sample ID	**1305913-001B MSD**	SampType:	**MSD**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**BatchQC**	Batch ID:	**R10872**	RunNo:	**10872**					
Prep Date:		Analysis Date:	**5/25/2013**	SeqNo:	**307554**	Units:	**mg/L**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.55	0.050	0.5000	0.07160	96.1	65.2	137	2.08	20	
Surr: BFB	19		20.00		96.0	51.5	151	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1305878**

04-Jun-13

Client: Souder, Miller and Associates

Project: Maverik Jackson

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R10829**	RunNo: **10829**
Prep Date:	Analysis Date: **5/22/2013**	SeqNo: **306011** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1305878**

04-Jun-13

Client: Souder, Miller and Associates

Project: Maverik Jackson

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R10829**	RunNo: **10829**
Prep Date:	Analysis Date: **5/22/2013**	SeqNo: **306011** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.6		10.00		95.8	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		107	69.5	130			
Surr: Dibromofluoromethane	11		10.00		109	70	130			
Surr: Toluene-d8	9.4		10.00		94.3	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R10829**	RunNo: **10829**
Prep Date:	Analysis Date: **5/22/2013**	SeqNo: **306012** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	107	70	130			
Toluene	20	1.0	20.00	0	99.8	80	120			
Chlorobenzene	19	1.0	20.00	0	93.9	70	130			
1,1-Dichloroethene	21	1.0	20.00	0	107	85.8	133			
Trichloroethene (TCE)	21	1.0	20.00	0	107	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1305878**

04-Jun-13

Client: Souder, Miller and Associates

Project: Maverik Jackson

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R10829**	RunNo: **10829**
Prep Date:	Analysis Date: **5/22/2013**	SeqNo: **306012** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.4		10.00		94.4	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		99.6	69.5	130			
Surr: Dibromofluoromethane	10		10.00		103	70	130			
Surr: Toluene-d8	9.3		10.00		92.7	70	130			

Sample ID **rb2**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R10829**	RunNo: **10829**
Prep Date:	Analysis Date: **5/22/2013**	SeqNo: **306013** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1305878**

04-Jun-13

Client: Souder, Miller and Associates

Project: Maverik Jackson

Sample ID **rb2**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R10829**	RunNo: **10829**
Prep Date:	Analysis Date: **5/22/2013**	SeqNo: **306013** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.7		10.00		97.2	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	69.5	130			
Surr: Dibromofluoromethane	11		10.00		113	70	130			
Surr: Toluene-d8	9.4		10.00		93.9	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1305878**

04-Jun-13

Client: Souder, Miller and Associates

Project: Maverik Jackson

Sample ID **1305878-001a ms** SampType: **MS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **#13 Water Suplpy W** Batch ID: **R10829** RunNo: **10829**

Prep Date: Analysis Date: **5/23/2013** SeqNo: **306048** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1100	50	1000	0	111	70	130			
Toluene	1000	50	1000	0	101	68.5	128			
Chlorobenzene	990	50	1000	0	98.6	70	130			
1,1-Dichloroethene	1100	50	1000	0	107	70	130			
Trichloroethene (TCE)	1100	50	1000	0	113	61.3	102			S
Surr: 1,2-Dichloroethane-d4	480		500.0		96.2	70	130			
Surr: 4-Bromofluorobenzene	480		500.0		95.3	69.5	130			
Surr: Dibromofluoromethane	540		500.0		108	70	130			
Surr: Toluene-d8	470		500.0		94.3	70	130			

Sample ID **1305878-001a msd** SampType: **MSD** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **#13 Water Suplpy W** Batch ID: **R10829** RunNo: **10829**

Prep Date: Analysis Date: **5/23/2013** SeqNo: **306053** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1000	50	1000	0	102	70	130	8.99	20	
Toluene	990	50	1000	0	98.5	68.5	128	2.67	20	
Chlorobenzene	970	50	1000	0	97.3	70	130	1.34	20	
1,1-Dichloroethene	970	50	1000	0	97.4	70	130	9.82	20	
Trichloroethene (TCE)	1000	50	1000	0	104	61.3	102	8.73	20	S
Surr: 1,2-Dichloroethane-d4	470		500.0		93.6	70	130	0	0	
Surr: 4-Bromofluorobenzene	490		500.0		99.0	69.5	130	0	0	
Surr: Dibromofluoromethane	520		500.0		104	70	130	0	0	
Surr: Toluene-d8	480		500.0		96.1	70	130	0	0	

Sample ID **5ml rb** SampType: **MBLK** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **PBW** Batch ID: **R10898** RunNo: **10898**

Prep Date: Analysis Date: **5/24/2013** SeqNo: **307979** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1305878**

04-Jun-13

Client: Souder, Miller and Associates

Project: Maverik Jackson

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R10898**	RunNo: **10898**
Prep Date:	Analysis Date: **5/24/2013**	SeqNo: **307979** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1305878**

04-Jun-13

Client: Souder, Miller and Associates

Project: Maverik Jackson

Sample ID **5ml rb**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R10898**	RunNo: **10898**
Prep Date:	Analysis Date: **5/24/2013**	SeqNo: **307979** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.8		10.00		98.0	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		105	69.5	130			
Surr: Dibromofluoromethane	11		10.00		112	70	130			
Surr: Toluene-d8	9.7		10.00		97.4	70	130			

Sample ID **100ng lcs**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R10898**	RunNo: **10898**
Prep Date:	Analysis Date: **5/24/2013**	SeqNo: **307981** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	108	70	130			
Toluene	19	1.0	20.00	0	96.8	80	120			
Chlorobenzene	19	1.0	20.00	0	93.3	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	101	85.8	133			
Trichloroethene (TCE)	22	1.0	20.00	0	109	70	130			
Surr: 1,2-Dichloroethane-d4	9.6		10.00		96.1	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	69.5	130			
Surr: Dibromofluoromethane	11		10.00		108	70	130			
Surr: Toluene-d8	9.4		10.00		94.3	70	130			

Sample ID **1305878-001a ms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **#13 Water Suplpy W**	Batch ID: **R10898**	RunNo: **10898**
Prep Date:	Analysis Date: **5/24/2013**	SeqNo: **307986** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1305878**

04-Jun-13

Client: Souder, Miller and Associates

Project: Maverik Jackson

Sample ID **1305878-001a ms** SampType: **MS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **#13 Water Suplpy W** Batch ID: **R10898** RunNo: **10898**

Prep Date: Analysis Date: **5/24/2013** SeqNo: **307986** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	103	70	130			
Toluene	20	1.0	20.00	0	98.6	68.5	128			
Chlorobenzene	20	1.0	20.00	0	97.7	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	91.2	70	130			
Trichloroethene (TCE)	21	1.0	20.00	0	106	61.3	102			S
Surr: 1,2-Dichloroethane-d4	9.1		10.00		90.9	70	130			
Surr: 4-Bromofluorobenzene	8.5		10.00		85.3	69.5	130			
Surr: Dibromofluoromethane	10		10.00		104	70	130			
Surr: Toluene-d8	9.5		10.00		95.2	70	130			

Sample ID **1305878-001a msd** SampType: **MSD** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **#13 Water Suplpy W** Batch ID: **R10898** RunNo: **10898**

Prep Date: Analysis Date: **5/24/2013** SeqNo: **307987** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	102	70	130	193	20	R
Toluene	19	1.0	20.00	0	95.0	68.5	128	193	20	R
Chlorobenzene	19	1.0	20.00	0	96.7	70	130	192	20	R
1,1-Dichloroethene	19	1.0	20.00	0	96.3	70	130	193	20	R
Trichloroethene (TCE)	21	1.0	20.00	0	105	61.3	102	193	20	SR
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.5	70	130	0	0	
Surr: 4-Bromofluorobenzene	8.2		10.00		81.9	69.5	130	0	0	
Surr: Dibromofluoromethane	11		10.00		106	70	130	0	0	
Surr: Toluene-d8	9.4		10.00		94.4	70	130	0	0	

Sample ID **rb2** SampType: **MBLK** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **PBW** Batch ID: **R10898** RunNo: **10898**

Prep Date: Analysis Date: **5/24/2013** SeqNo: **308022** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1305878**
04-Jun-13

Client: Souder, Miller and Associates
Project: Maverik Jackson

Sample ID **rb2**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R10898**	RunNo: **10898**
Prep Date:	Analysis Date: **5/24/2013**	SeqNo: **308022** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1305878**

04-Jun-13

Client: Souder, Miller and Associates

Project: Maverik Jackson

Sample ID **rb2**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R10898**	RunNo: **10898**
Prep Date:	Analysis Date: **5/24/2013**	SeqNo: **308022** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.7		10.00		96.7	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	69.5	130			
Surr: Dibromofluoromethane	11		10.00		112	70	130			
Surr: Toluene-d8	9.3		10.00		93.2	70	130			

Sample ID **100ng lcs ii**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R10898**	RunNo: **10898**
Prep Date:	Analysis Date: **5/25/2013**	SeqNo: **308050** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	104	70	130			
Toluene	20	1.0	20.00	0	97.5	80	120			
Chlorobenzene	19	1.0	20.00	0	94.5	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	95.6	85.8	133			
Trichloroethene (TCE)	21	1.0	20.00	0	106	70	130			
Surr: 1,2-Dichloroethane-d4	9.1		10.00		91.3	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	69.5	130			
Surr: Dibromofluoromethane	11		10.00		108	70	130			
Surr: Toluene-d8	9.6		10.00		96.3	70	130			

Sample ID **1305996-001a ms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R10898**	RunNo: **10898**
Prep Date:	Analysis Date: **5/25/2013**	SeqNo: **308064** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1305878**

04-Jun-13

Client: Souder, Miller and Associates

Project: Maverik Jackson

Sample ID **1305996-001a ms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R10898**	RunNo: **10898**
Prep Date:	Analysis Date: **5/25/2013**	SeqNo: **308064** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	109	70	130			
Toluene	20	1.0	20.00	0	99.7	68.5	128			
Chlorobenzene	20	1.0	20.00	0	97.7	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	98.1	70	130			
Trichloroethene (TCE)	22	1.0	20.00	0	111	61.3	102			S
Surr: 1,2-Dichloroethane-d4	9.4		10.00		94.0	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	69.5	130			
Surr: Dibromofluoromethane	11		10.00		111	70	130			
Surr: Toluene-d8	9.4		10.00		94.4	70	130			

Sample ID **1305996-001a msd**	SampType: **MSD**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R10898**	RunNo: **10898**
Prep Date:	Analysis Date: **5/25/2013**	SeqNo: **308065** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	105	70	130	4.01	20	
Toluene	19	1.0	20.00	0	95.8	68.5	128	4.05	20	
Chlorobenzene	19	1.0	20.00	0	95.4	70	130	2.42	20	
1,1-Dichloroethene	19	1.0	20.00	0	95.2	70	130	3.00	20	
Trichloroethene (TCE)	21	1.0	20.00	0	106	61.3	102	4.47	20	S
Surr: 1,2-Dichloroethane-d4	9.6		10.00		96.1	70	130	0	0	
Surr: 4-Bromofluorobenzene	11		10.00		108	69.5	130	0	0	
Surr: Dibromofluoromethane	11		10.00		113	70	130	0	0	
Surr: Toluene-d8	9.6		10.00		96.0	70	130	0	0	

Sample ID **rb3**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R10898**	RunNo: **10898**
Prep Date:	Analysis Date: **5/25/2013**	SeqNo: **308074** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1305878**

04-Jun-13

Client: Souder, Miller and Associates

Project: Maverik Jackson

Sample ID **rb3**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R10898**	RunNo: **10898**
Prep Date:	Analysis Date: **5/25/2013**	SeqNo: **308074** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1305878**

04-Jun-13

Client: Souder, Miller and Associates

Project: Maverik Jackson

Sample ID **rb3**	SampType: **MBLK**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **PBW**	Batch ID: **R10898**	RunNo: **10898**
Prep Date:	Analysis Date: **5/25/2013**	SeqNo: **308074** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.5		10.00		94.8	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	69.5	130			
Surr: Dibromofluoromethane	11		10.00		110	70	130			
Surr: Toluene-d8	9.5		10.00		94.6	70	130			

Sample ID **100ng lcs iii**	SampType: **LCS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **LCSW**	Batch ID: **R10898**	RunNo: **10898**
Prep Date:	Analysis Date: **5/25/2013**	SeqNo: **308076** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	106	70	130			
Toluene	20	1.0	20.00	0	97.9	80	120			
Chlorobenzene	20	1.0	20.00	0	99.2	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	96.0	85.8	133			
Trichloroethene (TCE)	22	1.0	20.00	0	111	70	130			
Surr: 1,2-Dichloroethane-d4	9.3		10.00		93.4	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		99.8	69.5	130			
Surr: Dibromofluoromethane	11		10.00		106	70	130			
Surr: Toluene-d8	9.3		10.00		92.9	70	130			

Sample ID **1305a15-001a ms**	SampType: **MS**	TestCode: **EPA Method 8260B: VOLATILES**
Client ID: **BatchQC**	Batch ID: **R10898**	RunNo: **10898**
Prep Date:	Analysis Date: **5/25/2013**	SeqNo: **308081** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1305878**

04-Jun-13

Client: Souder, Miller and Associates

Project: Maverik Jackson

Sample ID **1305a15-001a ms** SampType: **MS** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R10898** RunNo: **10898**

Prep Date: Analysis Date: **5/25/2013** SeqNo: **308081** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	107	70	130			
Toluene	20	1.0	20.00	0	99.5	68.5	128			
Chlorobenzene	19	1.0	20.00	0	96.2	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	97.3	70	130			
Trichloroethene (TCE)	22	1.0	20.00	0	111	61.3	102			S
Surr: 1,2-Dichloroethane-d4	9.8		10.00		98.3	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		107	69.5	130			
Surr: Dibromofluoromethane	11		10.00		114	70	130			
Surr: Toluene-d8	9.6		10.00		95.7	70	130			

Sample ID **1305a15-001a msd** SampType: **MSD** TestCode: **EPA Method 8260B: VOLATILES**

Client ID: **BatchQC** Batch ID: **R10898** RunNo: **10898**

Prep Date: Analysis Date: **5/25/2013** SeqNo: **308082** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	103	70	130	4.64	20	
Toluene	18	1.0	20.00	0	90.8	68.5	128	9.17	20	
Chlorobenzene	18	1.0	20.00	0	91.1	70	130	5.37	20	
1,1-Dichloroethene	18	1.0	20.00	0	91.5	70	130	6.20	20	
Trichloroethene (TCE)	20	1.0	20.00	0	102	61.3	102	8.39	20	S
Surr: 1,2-Dichloroethane-d4	9.2		10.00		91.9	70	130	0	0	
Surr: 4-Bromofluorobenzene	10		10.00		105	69.5	130	0	0	
Surr: Dibromofluoromethane	11		10.00		107	70	130	0	0	
Surr: Toluene-d8	9.2		10.00		91.8	70	130	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1305878**

04-Jun-13

Client: Souder, Miller and Associates

Project: Maverik Jackson

Sample ID	**MB-7619**	SampType:	**MBLK**	TestCode:	**EPA 6010B: Total Recoverable Metals**				
Client ID:	**PBW**	Batch ID:	**7619**	RunNo:	**10942**				
Prep Date:	**5/28/2013**	Analysis Date:	**5/29/2013**	SeqNo:	**309303**	Units:	**mg/L**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.0050								

Sample ID	**LCS-7619**	SampType:	**LCS**	TestCode:	**EPA 6010B: Total Recoverable Metals**				
Client ID:	**LCSW**	Batch ID:	**7619**	RunNo:	**10942**				
Prep Date:	**5/28/2013**	Analysis Date:	**5/29/2013**	SeqNo:	**309304**	Units:	**mg/L**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.48	0.0050	0.5000	0	95.0	80	120			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: SMA-FARM | Work Order Number: 1305878 | RcptNo: 1

Received by/date: 05/22/13

Logged By: Ashley Gallegos 5/22/2013 10:00:00 AM

Completed By: Ashley Gallegos 5/22/2013 10:40:08 AM

Reviewed By: 05/22/13

Chain of Custody

1. Custody seals intact on sample bottles?	Yes	No	Not Present ✔
2. Is Chain of Custody complete?	Yes ✔	No	Not Present
3. How was the sample delivered?	Courier		

Log In

4. Was an attempt made to cool the samples?	Yes ✔	No	NA
5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ✔	No	NA
6. Sample(s) in proper container(s)?	Yes ✔	No	
7. Sufficient sample volume for indicated test(s)?	Yes ✔	No	
8. Are samples (except VOA and ONG) properly preserved?	Yes ✔	No	
9. Was preservative added to bottles?	Yes	No ✔	NA
10. VOA vials have zero headspace?	Yes ✔	No	No VOA Vials
11. Were any sample containers received broken?	Yes	No ✔	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ✔	No	# of preserved bottles checked for pH: (<2 or >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes ✔	No	Adjusted?
14. Is it clear what analyses were requested?	Yes ✔	No	
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ✔	No	Checked by:

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes No NA ✔

Person Notified: Date:

By Whom: Via: eMail Phone Fax In Person

Regarding:

Client Instructions:

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

Chain-of-Custody Record

Client: SMA

Mailing Address: 2101 San Juan Blvd
Farmington NM 87401

Phone #: 505-325-7535

email or Fax#: steven.mostal@soudermiller.com

QA/QC Package:
☑ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☒ Standard ☐ Rush _____

Project Name:
Maverik Jackson

Project #:
5121620

Project Manager:
Cindy Gray
Denny Faust

Sampler: Steven Mostal / Denny Faust

On Ice: ☒ Yes ☐ No

Sample Temperature: 4.0

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1305878	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	504.1 EDB	Cond Total Pb			Air Bubbles (Y or N)
5/21/13	0925	GW	#13 water supply well	5 VOA (HCl) 2 liter (H2SO4) 1500 mL HNO3		-001			✓							✓		✓	✓			
	1048		water supply well			-002																
	1425		J#7			-003																
	1230		J#3			-004																
	1510		J#6			-005																
	1335		J#4			-006																
↓	1135	↓	J#5	↓	↓	-007			↓							↓		↓	↓			

Date:	Time:	Relinquished by:	Received by:	Date	Time
5/21/13	1655	Steven Mostal	Heather Walker	5/21/13	1655
5/21/13	1748	Heather Walker		05/22/13	1000

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.