

**GW - 211**

**Environmental  
Investigation &  
Remediation**

**2010**

**Griswold, Jim, EMNRD**

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**From:** Griswold, Jim, EMNRD  
**Sent:** Thursday, June 17, 2010 9:07 AM  
**To:** 'Smith, David'  
**Cc:** Powell, Brandon, EMNRD  
**Subject:** Largo CS Investigation Workplan (GW-211)

David,

I have reviewed Enterprise's workplan dated June 10, 2010 regarding continued investigation of soil and groundwater contamination at the Largo Compressor Station. The workplan is approved with the following conditions:

Shortly before the oxygen release compound is introduced into the subsurface in Area 1, groundwater samples must be collected from all eleven (11) monitoring wells in that area.

Groundwater samples from the existing wells and from all new wells installed as part of the investigation of Areas 2, 3, and 4 shall be properly preserved and submitted for analysis by either Method 8021 or 8260 for BTEX and by Method 8015 for GRO/DRO.

Please notify myself and Brandon Powell in the OCD District 3 office in Aztec at least 72 hours prior to beginning any fieldwork. Retain a copy of this email in your files as no hardcopy will be sent. Thank you.

Jim Griswold  
Senior Hydrologist  
*Environmental Bureau*  
*ENMRD/Oil Conservation Division*  
*1220 South St. Francis Drive*  
*Santa Fe, New Mexico 87505*  
*direct: 505.476.3465*  
*email: [jim.griswold@state.nm.us](mailto:jim.griswold@state.nm.us)*



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2010 JUN 10

ENTERPRISE PRODUCTS PARTNERS LP  
ENTERPRISE PRODUCTS OPERATING LLC

ENTERPRISE PRODUCTS GP, LLC, GENERAL PARTNER  
ENTERPRISE PRODUCTS OLP GP, INC., SOLE MANAGER

June 10, 2010

Return Receipt Requested  
7009 3410 0001 6448 5082

Mr. Jim Griswold  
Senior Hydrologist  
Environmental Bureau  
ENMRD/Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, NM 87505

**RE: Proposed Facility-Wide Soil and Groundwater Investigation  
Largo Compressor Station  
NMOCD Permit Number: GW-211  
Enterprise Field Services, LLC  
Rio Arriba County, New Mexico**

Attn: Leonard Lowe

Dear Mr. Griswold,

Enterprise Field Services, LLC (Enterprise) is proposing a facility-wide soil and groundwater investigation at the above-referenced facility, which is located in Unit I of Section 15 within Township 26N, Range 7W in Rio Arriba County, NM. The enclosed report describes the proposed investigation, which will allow determining the extent of soil and groundwater impacts resulting from the historical operation of the facility. The report provides general recommendations for soil boring locations. Observed field conditions will be used to determine the final number and location of proposed borings, and locations for permanent monitor wells. The New Mexico Oil Conservation Division (OCD) will be contacted regarding the proposed monitor well locations prior to installation. If necessary, additional investigations will be conducted to fully characterize the full lateral and vertical extent of affected soil and groundwater. This report is submitted in accordance with our extension request dated May 27, 2010.

This investigation will delineate affected soil and groundwater in the central portion of the facility, as reported in the May 5, 2010 report entitled: *Initial Remedial Action Report for Enterprise Field Services, LLC Largo Compressor Station, GW-211*. The initial remedial actions described in this report were performed following discovery of impacted soils during routine construction activities at the facility. Known groundwater impacts are also present on the northern boundary of the facility where condensate storage tanks are currently located. Interim remedial actions of this area are being performed under provisions of work plans previously submitted to the OCD.

Mr. Jim Griswold  
June 10, 2010  
Page 2

Enterprise wishes to initiate the proposed investigations as soon as possible following agency approval. Should you have any questions, please do not hesitate to contact me at (713) 381-2286 or [drsmith@eprod.com](mailto:drsmith@eprod.com).

Sincerely,

A handwritten signature in black ink, appearing to read "David R. Smith". The signature is fluid and cursive, with the first name "David" being the most prominent.

David R. Smith, P.G.  
Sr. Environmental Scientist

/bjm  
Enclosure

cc: Brandon Powell, NMOCD Aztec Office  
Rex Meyer, GeoMonitoring Services  
Ashley Auger, LT Environmental



June 8, 2010

Mr. David R. Smith, P.G.  
Enterprise Field Services, LLC  
1100 Louisiana Street  
Houston, Texas 77002-5227

**RE: Proposed Facility-Wide Soil and Groundwater Investigation and Remedial Activities  
Largo Compressor Station  
NMOCD Number: GW-211  
Rio Arriba County, New Mexico**

Dear Mr. Smith:

LT Environmental (LTE) submits the following facility-wide work plan for Enterprise Field Services', LLC (Enterprise) Largo Compressor Station (Site). This plan is submitted in accordance with an Extension Request for Proposed Facility Wide Soil and Groundwater Investigation dated May 27, 2010 and based on recommendations provided in the May 5, 2010 report entitled *Initial Remedial Action Report for Enterprise Field Services, LLC Largo Compressor Station, GW-211* and in the May 19, 2010 report *Interim Remedial Investigation Report*. These reports described initial remedial actions performed following discovery of historical soil and groundwater impacts at the Site.

The intent of this scope of work is to combine independently documented impacts to soil and groundwater into one inclusive project so that remedial options can be more efficiently applied. The work plan applies to areas identified with historical hydrocarbon and glycol impacts, four of which exist. A natural gas condensate storage area to the north of the Site has been thoroughly assessed, and LTE proposes interim remedial actions to prevent downgradient migration of contaminants from the source area until impacted soil can be removed for disposal. Two areas identified during recent construction activities as containing historical hydrocarbon impacts are on the eastern end of the Site and require delineation of soil and groundwater impacts in order to assess appropriate remedial options. A final area is located near a dehydration unit, where it is suspected that minor releases of glycol have occurred. This work plan utilizes subsurface boreholes throughout portions of the Site containing current or suspected impacts from historical facility operations. These proposed boring locations will be modified as necessary based on field conditions and will be used to determine appropriate locations for permanent groundwater monitoring wells to define the extent of affected groundwater at the Site. In addition, this work plan provides details for injection of oxygen release compound (ORC) at the previously investigated condensate storage area.

#### Site Description

The Site is located approximately 25 miles down Largo Canyon in Section 15 of Township 26 North and Range 7 West in Rio Arriba County, New Mexico. It is 400 feet south of Largo Wash and 800 feet east of Palluche Canyon (Figure 1). Site geology is identified as Quaternary alluvium consisting of unconsolidated silts, sands and clays typical of the Largo Canyon fluvial environment. Depth to groundwater is approximately 20 feet beneath ground surface (bgs). A site map is presented in Figure 2 and identifies four previously identified areas of concern:



#### *Area 1*

At the northeastern portion of the Site, natural gas condensate is stored in six above ground storage tanks. Two sub-grade drain tanks serve as secondary containment. All of the tanks are set in an earthen/gravel berm that is approximately 125 feet by 85 feet in area. A release of 505 barrels (bbls) of natural gas condensate occurred on January 4, 2008 and impacts have been described over the course of two subsurface investigations (*Report of Subsurface Investigation at Largo Compressor Station*, December 2009 and *Interim Remedial Investigation Report*, May 2010). Results of the studies concluded that soil and groundwater impacts were limited to the bermed area and slightly outside of the bermed area in the downgradient (northwest) direction. Phase-separated hydrocarbon (PSH) was identified beneath the original source area. Outside of the bermed area, dissolved-phase impacts appeared to be confined to a deeper clay unit occurring at the groundwater table. Thickness of PSH and concentrations of contaminants in the groundwater have been monitored and are generally decreasing over time. Enterprise intends to remove the storage tanks once operations can be rerouted. Source material will be excavated at that time, but interim measures could inhibit downgradient migration.

#### *Area 2*

A new tank battery is being installed just south of County Road 379 on the eastern end of the Site. During construction of the tank battery, historically impacted soil was discovered. The initial response consisted of removing impacted soils to below New Mexico Oil Conservation Division (NMOCD) standards and was documented in *Initial Remedial Action Report for Enterprise Field Services, LLC* dated May 2010. A groundwater sample from the excavation contained elevated concentrations of benzene, toluene, ethyl-benzene and xylenes (BTEX). The extent of groundwater impacts is currently unknown.

#### *Area 3*

Just south of Area 2, Enterprise initiated construction of a new retention pond. Historical impacts to soil were discovered approximately five feet below ground surface (bgs). Enterprise began excavation of impacted soil, but analytical results from groundwater sampled from the excavation and from soil samples collected in potholes placed approximately 70 feet to the north and east of the excavation indicated that subsurface impacts were apparent (*Initial Remedial Action Report for Enterprise Field Services, LLC*, May 2010).

#### *Area 4*

A centrally located natural gas processing area containing a dehydrator, storage tanks and a cooler is suspected of multiple small condensate and glycol releases. LTE will conduct a preliminary assessment of soil and groundwater immediately surrounding the equipment to define the magnitude of possible impacts.

#### Proposed Field Methods – ORC Application

In situ groundwater remediation in Area 1 will consist of placing an ORC barrier downgradient of the source area. ORC is a proprietary formulation of magnesium peroxide intercalated with food-grade phosphate that stimulates aerobic bioremediation in the oxygen-limited subsurface. ORC is environmentally safe and time-releases oxygen when hydrated for six months to one year. A material safety data sheet is attached for reference.

ORC will be injected downgradient of the source area to impede migration of dissolved-phase contaminants. For ORC injection, LTE will use a 4-inch hollow stem auger to drill seven boreholes as shown on Figure 3. The target zone for remediation consists of a shallow aquifer and the overlying vadose zone. It was delineated in previous subsurface investigations and ranges from five to ten feet in



thickness. The lithology of this interval consists of clay and silty clay. The boreholes will be drilled to approximately 17.5 feet deep or to where groundwater is encountered. A slurry of ORC and water will be poured directly into the hollow stem. Approximately one gallon of a 65 percent solids slurry of ORC and water will be added for each five feet in vertical depth (14 gallons total for the project). This equates to approximately 30 pounds of ORC per well, or 210 pounds of ORC for the entire project. A plunger inside the auger will push the slurry down in the hole to keep it there as the auger is removed. A two-foot thick bentonite seal will be installed above the ORC slurry. The remainder of the borehole will be backfilled with soil removed during drilling. If borehole cuttings are impacted, soil will be collected for transport and disposal at an approved facility.

Groundwater monitoring wells in Area 1 are currently on a quarterly sampling schedule. This schedule will remain in place, and analysis of BTEX concentrations in the groundwater wells will be used to assess effectiveness of the ORC application. Additionally, dissolved oxygen concentrations in monitoring wells will be documented. ORC injection will not produce additional water contaminants to be monitored.

#### Proposed Field Methods – Borehole Investigation

LTE proposes a subsurface investigation consisting of soil borings and groundwater monitoring wells to accurately delineate vertical and lateral extent of historical impacts in Area 2 and Area 3. A Geoprobe™ 6620 track rig will be used. LTE will work outward from known impacted areas until clean soil is identified.

##### *Soil Borings*

The exact location and number of boreholes and wells will be determined in the field; however, Figure 4 shows a general plan for placement. Continuous samples will be collected from boreholes. The samples from immediately beneath the ground surface and then every two feet thereafter will be screened. In addition, soil that is visibly stained or has a hydrocarbon odor will be screened. Total depth of boreholes will be determined once field screening indicates the soil boring has reached clean soil. In the event that no impact is discovered, each borehole will be terminated at 25 feet bgs, unless surrounding conditions warrant further sampling. Screening will be completed according to the NMOCD's Guidelines for Remediation of Leaks, Spills and Releases, August 13, 1993. LTE will use a Minirae 2000 photo ionization detector with a 10.6 electron volt lamp or equivalent for this project.

If impacted soil is found within a borehole, the sample from the highest field screening result and the sample from the bottom of the borehole will be submitted for laboratory analysis. The samples will be placed in pre-cleaned glass jars supplied by the laboratory, labeled with the location, date, time, sampler, and method of analysis and immediately placed on ice. Strict chain-of-custody procedures will be followed during transport of the samples to the laboratory. The samples will be analyzed for BTEX and total petroleum hydrocarbons (TPH) according to USEPA Method 8021B and 8015M, respectively. The samples will be shipped on ice following proper chain of custody procedures.

LTE will complete all work in accordance with industry-accepted practices. All down-hole drilling equipment will be thoroughly decontaminated prior to each use at a lined Decontamination Area. If impacted soil is identified within a borehole, cuttings will be drummed and transported to a proper disposal facility upon completion of drilling. Boreholes will be plugged with clean backfill and a bentonite seal following completion.

##### *Groundwater Monitoring Wells*

Groundwater monitoring wells will be installed as necessary. Monitoring wells will be constructed of schedule 40, two-inch diameter polyvinyl-chloride (PVC) and will include ten feet of 0.01-inch machine slotted flush-threaded PVC well screen. Five feet of screen will be set beneath the water table and five



feet above to allow for seasonal fluctuations. A clean 10-20 grade silica sand gravel pack will be placed from the bottom of the boring to three feet above the top of the screen. Two feet of three-eighths inch natural bentonite chips will be set above the gravel pack. Due to landowner request, MW-9 will be finished with bentonite to the surface. The bentonite will be followed by a neat cement slurry, containing a minimum of five percent powdered bentonite, to the surface and completed with a locking protective steel casing. Wells located within or near vehicle right-of-ways will be surrounded by three protective posts to prevent vehicle impact to the well. The new wells will be surveyed after construction. Top-of-casing elevations will be determined to an accuracy of no less than plus or minus 0.01 feet.

Following installation of monitoring wells, each new well will be developed utilizing a clean, disposable PVC bailer. LTE will purge fluid until the pH, specific conductivity and temperature stabilized and turbidity is reduced to the greatest extent possible. All purge water will be collected and disposed of on site. The wells will be allowed to recharge a minimum of 24 hours and sampled. Depth to water and total depth of the wells will be measured with a Keck oil-water interface probe. Presence of any PSH will also be investigated using the interface probe. The interface probe will be decontaminated with Aloconox™ soap and rinsed with de-ionized water prior to each measurement. At least three casing volumes will be removed from each well while pH, specific conductivity and temperature are monitored for stabilization. Once these parameters stabilized, the wells will be sampled by filling three pre-cleaned and pre-preserved 40 milliliter (ml) glass vials with zero headspace to prevent degradation of the sample. The groundwater samples will be shipped on ice to HEAL and analyzed for BTEX according to USEPA Method 8021B. Strict chain-of-custody procedures will be followed during transport of the samples to the laboratory.

#### Schedule and Receivables

Field work will take approximately seven days. An investigation report describing the work completed and discussing results of the investigation will be submitted to Enterprise and the NMOCD following receipt of analytical results. The report will also recommend additional remedial actions as necessary.

Please contact me at (970) 946-1093 with any questions that may arise. LTE has scheduled this investigation to begin on June 7, 1010, unless NMOCD requests otherwise.

Sincerely,  
LT ENVIRONMENTAL, INC.

A handwritten signature in black ink that reads 'Ashley L. Ager'. The signature is written in a cursive, flowing style.

Ashley L. Ager  
Senior Geologist/Office Manager

#### FIGURES

- Figure 1 – Vicinity Map
- Figure 2 – Site Map
- Figure 3 – Area 1 ORC Application
- Figure 4 – Area 2 and Area 3 Planned Borehole and Monitoring Well Locations

#### ATTACHMENTS

- Attachment 1 – ORC Material Safety Data Sheet

## FIGURES

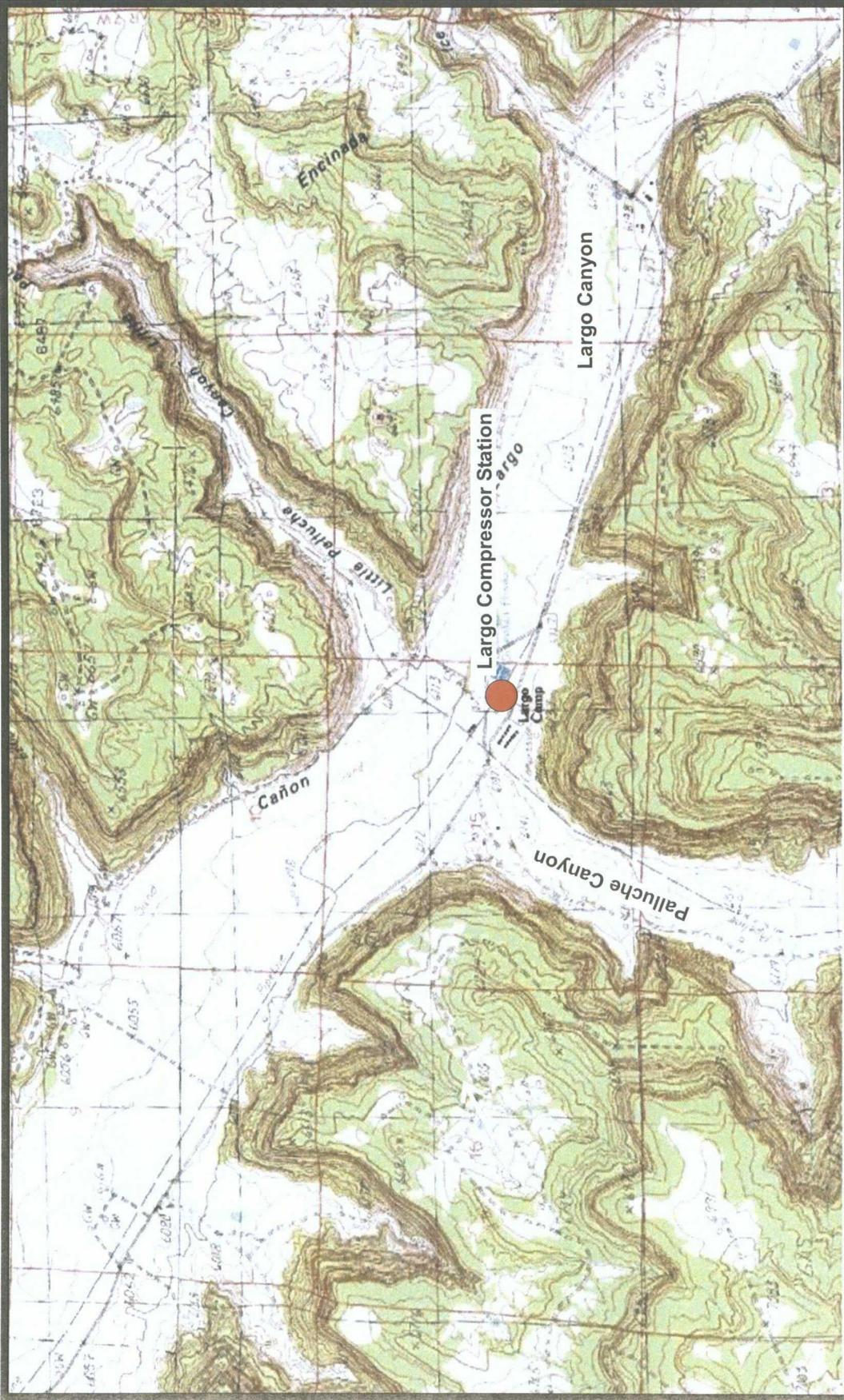


FIGURE 1  
VICINITY MAP  
LARGO COMPRESSOR STATION  
ENTERPRISE FIELD SERVICES, LLC



05/2010



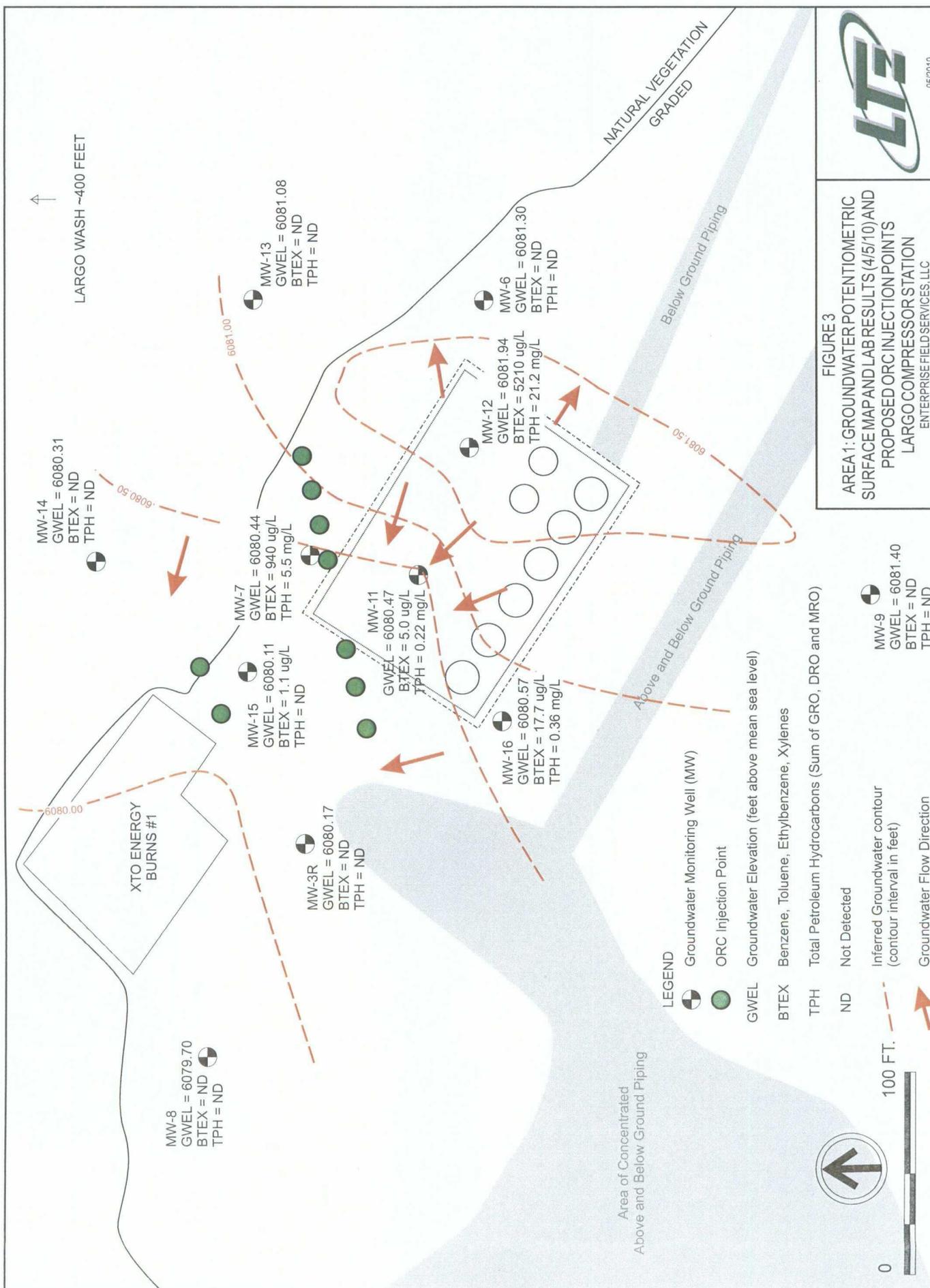
FIGURE 2  
SITE MAP  
LARGO COMPRESSOR STATION  
ENTERPRISE FIELD SERVICES, LLC





05/2010

FIGURE 3  
AREA 1: GROUNDWATER POTENTIOMETRIC  
SURFACE MAP AND LAB RESULTS (4/5/10) AND  
PROPOSED ORC INJECTION POINTS  
LARGO COMPRESSOR STATION  
ENTERPRISE FIELD SERVICES, LLC





0 250 500 FT.



FIGURE 4  
 PLANNED BOREHOLE AND  
 MONITORING WELL LOCATIONS  
 LARGO COMPRESSOR STATION  
 ENTERPRISE FIELD SERVICES, LLC



05/2010

**ATTACHMENT**

Oxygen Release Compound (ORC<sup>®</sup>)  
MATERIAL SAFETY DATA SHEET (MSDS)

Last Revised: October 18, 2005

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Section 1 - Material Identification

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Supplier:



## REGENESIS

1011 Calle Sombra

San Clemente, CA 92673

Phone: 949.366.8000

Fax: 949.366.8090

E-mail: [info@regenesis.com](mailto:info@regenesis.com)

**Chemical Description:** A mixture of Magnesium Peroxide (MgO<sub>2</sub>), Magnesium Oxide (MgO), and Magnesium Hydroxide [Mg(OH)<sub>2</sub>]

**Chemical Family:** Inorganic Chemical

**Trade Name:** Oxygen Release Compound (ORC<sup>®</sup>)

**Product Use:** Used to remediate contaminated soil and groundwater (environmental applications)

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Section 2 – Chemical Identification

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<u>CAS#</u>	<u>Chemical</u>
14452-57-4	Magnesium Peroxide (MgO <sub>2</sub> )
1309-48-4	Magnesium Oxide (MgO)
1309-42-8	Magnesium Hydroxide [Mg(OH) <sub>2</sub> ]
7758-11-4	Dipotassium Phosphate (HK <sub>2</sub> O <sub>4</sub> P)
7778-77-0	Monopotassium Phosphate (H <sub>2</sub> KO <sub>4</sub> P)
<b>Assay:</b>	<b>25-35% Magnesium Peroxide (MgO<sub>2</sub>)</b>

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**Section 3 - Physical Data**

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<b>Melting Point:</b>	<b>Not Determined (ND)</b>
<b>Boiling Point:</b>	<b>ND</b>
<b>Flash Point:</b>	<b>Not Applicable (NA)</b>
<b>Self-Ignition Temperature:</b>	<b>NA</b>
<b>Thermal Decomposition:</b>	<b>Spontaneous Combustion possible at <math>\approx 150^{\circ}\text{C}</math></b>
<b>Density:</b>	<b>0.6 – 0.8 g/cc</b>
<b>Solubility:</b>	<b>Reacts with Water</b>
<b>pH:</b>	<b>Approximately 10 in saturated solution</b>
<b>Appearance:</b>	<b>White Powder</b>
<b>Odor:</b>	<b>None</b>
<b>Vapor Pressure:</b>	<b>None</b>
<b>Hazardous Decomposition Products:</b>	<b>Not Known</b>
<b>Hazardous Reactions:</b>	<b>Hazardous Polymerization will not occur</b>
<b>Further Information:</b>	<b>Non-combustible, but will support combustion</b>

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**Section 4 – Reactivity Data**

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<b>Stability:</b>	<b>Product is stable unless heated above <math>150^{\circ}\text{C}</math>. Magnesium Peroxide reacts with water to slowly release oxygen. Reaction by product is Magnesium Hydroxide</b>
<b>Conditions to Avoid:</b>	<b>Heat above <math>150^{\circ}\text{C}</math>. Open Flames.</b>
<b>Incompatibility:</b>	<b>Strong Acids. Strong Chemical Agents.</b>
<b>Hazardous Polymerization:</b>	<b>None known.</b>

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**Section 5 - Regulations**

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**Permissible Exposure Limits in Air**                      **Not Established. Should be treated as a nuisance dust.**

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**Section 6 – Protective Measures, Storage and Handling**

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**Technical Protective Measures**

**Storage:**                                      **Keep in tightly closed container. Keep away from combustible material.**

**Handling:**                                      **Use only in well ventilated areas.**

**Personal Protective Equipment (PPE)**

**Respiratory Protection:**                      **Recommended (HEPA Filters)**

**Hand Protection:**                              **Wear suitable gloves.**

**Eye Protection:**                              **Use chemical safety goggles.**

**Other:**    **NA**

**Industrial Hygiene:**                              **Avoid contact with skin and eyes**

**Protection Against Fire & Explosion:**                              **NA**

**Disposal:**                                      **Dispose via sanitary landfill per state/local authority**

**Further Information:**                              **Not flammable, but may intensify a fire**

**After Spillage/Leakage/Gas Leakage:**                              **Collect in suitable containers. Wash remainder with copious quantities of water.**

**Extinguishing Media:**                              **NA**

**Suitable:**                                      **Carbon Dioxide, dry chemicals, foam**

**Further Information:**                              **Self contained breathing apparatus or approved gas mask should be worn due to small particle size. Use extinguishing media appropriate for surrounding fire.**

**First Aid:**                                      **After contact with skin, wash immediately with plenty of water and soap. In case of contact with eyes, rinse immediately with plenty of water and seek medical attention.**

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**Section 7 – Information on Toxicology**

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**Toxicity Data:**                      **Not Available**

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**Section 8 – Information on Ecology**

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**Water Pollution Hazard  
Rating (WGK):**                      **0**

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**Section 9 – Further Information**

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After the reaction of magnesium peroxide with water to form oxygen, the resulting material, magnesium hydroxide, is mildly basic. The amounts of magnesium oxide (magnesia) and magnesium hydroxide in the initial product have an effect similar to lime, but with lower alkalinity.

The information contained in this document is the best available to the supplier at the time of writing, but is provided without warranty of any kind. Some possible hazards have been determined by analogy to similar classes of material. The items in this document are subject to change and clarification as more information become available.



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ENTERPRISE PRODUCTS PARTNERS LP  
ENTERPRISE PRODUCTS OPERATING LLC

ENTERPRISE PRODUCTS GP, LLC, GENERAL PARTNER  
ENTERPRISE PRODUCTS OPERATING INC., SOLE MANAGER

May 27, 2010

Return Receipt Requested  
7009 2820 0002 5083 2475

Mr. Jim Griswold  
Senior Hydrologist  
Environmental Bureau  
ENMRD/Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, NM 87505

**RE: Extension Request for Proposed Facility-Wide  
Soil and Groundwater Investigation  
Largo Compressor Station, OCD GW-211  
Enterprise Field Services, LLC  
Rio Arriba County, New Mexico**

Attn: Leonard Lowe

Dear Mr. Griswold,

Enterprise is currently planning a facility-wide soil and groundwater investigation at our Largo Compressor Station. This compressor station is located in Unit I of Section 15 within Township 26N, Range 7W in Rio Arriba County, NM. Impacted groundwater has been identified in at least two areas of the facility, and this investigation will provide a delineation of one of these areas as reported in the May 5, 2010 report entitled: *Initial Remedial Action Report for Enterprise Field Services, LLC Largo Compressor Station, GW-211*. These initial remedial actions were performed following discovery of impacted soils encountered during routine construction activities at the facility. The report anticipated completion of a work plan for delineation of this area, and other suspected areas that may have soil or groundwater impacts from historical operations, by May 28, 2010.

We respectfully request an additional two weeks to complete preparation of this work plan, with a new submittal date of June 11, 2010. The work plan will also incorporate revised injection locations for oxygen release compound (ORC) application at the facility condensate storage tanks. These tanks should be removed from service within the next few weeks. The OCD will be notified at this time regarding additional investigations of soils located immediately below the tanks, and remediation of any soil impacts as part of the remedial actions for the facility.

Mr. Jim Griswold  
May 27, 2010  
Page 2

During future reporting to the OCD, all remediation issues related to this facility will be combined to simply reporting requirements and provide a consistent approach to remediation of historical environmental issues at the facility. Should you have any questions, please do not hesitate to contact me at (713) 381-2286 or [drsmith@eprod.com](mailto:drsmith@eprod.com).

Sincerely,

*Brenda Mendez*  
for

David R. Smith, P.G.  
Sr. Environmental Scientist

/bjm

cc: Brandon Powell, NMOCD Aztec Office  
Rex Meyer, GeoMonitoring Services  
Ashley Auger, LT Environmental

## Griswold, Jim, EMNRD

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**From:** Griswold, Jim, EMNRD  
**Sent:** Wednesday, June 16, 2010 4:13 PM  
**To:** 'Smith, David'  
**Subject:** Largo CS

David,

I am in the midst of reviewing the *Interim Remedial Investigation Report* dated 5/15/10 prepared by LTE (provided under your cover letter of 5/19/10) and I have a couple of questions/comments:

The well development and sampling logs in Appendix B show the water samples being gathered on 4/12/10 whereas the chain of custody in Appendix C indicates the samples were grabbed a week earlier on 4/5/10. Given that the lab received the samples on 4/7, I am going to assume the 4/5 sampling date is the correct one.

A subset of wells (the newly installed ones) were checked for DTW two times on the sampling date based on the logs. The differences in DTW are generally small with the notable exception of MW-16 which showed a ~1.5 foot difference. Any thoughts?

The variation in TOC elevation for wells MW-6, -7, -8, and -9 between the two surveys is inconsistent from last year to this year. Some TOCs are higher, some are lower, some didn't change much. Did LTE modify those well tops between surveys?

Is the sample labeled MW-10 a duplicate? If so, for which well?

Jim Griswold  
Senior Hydrologist  
*Environmental Bureau*  
*ENMRD/Oil Conservation Division*  
*1220 South St. Francis Drive*  
*Santa Fe, New Mexico 87505*  
*direct: 505.476.3465*  
*email: [jim.griswold@state.nm.us](mailto:jim.griswold@state.nm.us)*

## Griswold, Jim, EMNRD

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**From:** Griswold, Jim, EMNRD  
**Sent:** Wednesday, June 16, 2010 4:18 PM  
**To:** 'Smith, David'  
**Subject:** something else

David,

I just noticed something else. Most of the 4/5 water samples were preserved using hydrochloric acid, some with mercuric chloride, but one (MW-11) was not preserved at all.

Jim Griswold  
Senior Hydrologist  
*Environmental Bureau*  
*ENMRD/Oil Conservation Division*  
*1220 South St. Francis Drive*  
*Santa Fe, New Mexico 87505*  
*direct: 505.476.3465*  
*email: [jim.griswold@state.nm.us](mailto:jim.griswold@state.nm.us)*



Enterprise Products™

May 19, 2010

ENTERPRISE PRODUCTS PARTNERS LP  
ENTERPRISE PRODUCTS OPERATING LLC

ENTERPRISE PRODUCTS GP, LLC (GENERAL PARTNER)  
ENTERPRISE PRODUCTS OLPGP, INC. (SOLE MANAGER) **OCD**

Return Receipt Requested 1:31  
7009 3410 0001 6448 5693

Mr. Jim Griswold  
Senior Hydrologist  
Environmental Bureau  
ENMRD/Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, NM 87505

**RE: Interim Remedial Investigation Report  
Largo Compressor Station, OCD GW-211  
Enterprise Field Services, LLC  
Rio Arriba County, New Mexico**

Attn: Leonard Lowe

Dear Mr. Griswold,

The enclosed report documents an additional site investigation performed during March 2010 at the Enterprise Field Services, LLC (Enterprise) facility referenced above. This compressor station is located in Unit I of Section 15 within Township 26N, Range 7W in Rio Arriba County, NM. This investigation was performed in accordance with the *Largo Compressor Station Work Plan for Groundwater Remediation GW-211*, dated December 31, 2009, as submitted in correspondence dated January 11, 2010. This report is submitted within 45-days of completion of field activities, as requested in the New Mexico Oil Conservation Division (OCD) email approval of the proposed work plan dated February 17, 2010.

Investigations and remedial actions at this facility are being conducted following a natural gas condensate release during January 2008. The additional site investigations documented in this report supplement two earlier investigations at the facility, and were performed to ensure historical releases from the site were delineated prior to implementation of proposed interim remedial actions. All existing piezometers were replaced with properly constructed monitor wells, and all wells were surveyed during this investigation. No free phase hydrocarbons (PSH) have been detected in any of the site monitor wells, and there has been an overall reduction in monitored constituent concentrations. Enterprise will continue to monitor the site on a quarterly basis, and will monitor for potential PSH accumulations on a monthly basis.

It is anticipated that the planned injection of oxygen release compound (ORC) at the facility will be performed during June 2010. The condensate storage tanks currently located at this site should be removed within the next few weeks. The OCD will be notified at this time regarding additional investigations of soils located immediately below the tanks, and remediation of any soil impacts as part of the remedial actions for the facility.

Mr. Jim Griswold  
May 19, 2010  
Page 2

Please note that initial remedial actions for impacted soils identified during routine construction activities present in the eastern portion of Largo Compressor Station were recently completed. These remedial actions were reported in the May 5, 2010 report to the OCD entitled: *Initial Remedial Action Report for Enterprise Field Services, LLC*. During future reporting to the OCD, all remediation issues related to this facility will be combined to simply reporting requirements and provide a consistent approach to remediation of historical environmental issues at the facility.

Should you have any questions, please do not hesitate to contact me at (713) 381-2286 or [drsmith@eprod.com](mailto:drsmith@eprod.com).

Sincerely,



David R. Smith, P.G.  
Sr. Environmental Scientist

/bjm  
Enclosure – May 2010 Interim Remedial Investigation Report

cc: Brandon Powell, NMOCD Aztec Office  
Rex Meyer, GeoMonitoring Services  
Ashley Auger, LT Environmental

**INTERIM REMEDIAL INVESTIGATION REPORT**

**LARGO COMPRESSOR STATION**

**RIO ARRIBA COUNTY, NEW MEXICO**

**May 15, 2010**

**Prepared for:**

**ENTERPRISE FIELD SERVICES, LLC**



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**LARGO COMPRESSOR STATION  
RIO ARRIBA COUNTY, NEW MEXICO**

**May 15, 2010**

**Prepared for:**

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## EXECUTIVE SUMMARY

Enterprise Field Services, LLC (Enterprise) retained LT Environmental, Incorporated (LTE) to perform a supplemental investigation and address impacted groundwater resulting from a natural gas condensate release in January of 2008 at the Largo Compressor Station (Site). Two previous delineation events showed that impacts to soil and groundwater were restricted to within and slightly downgradient of the original source area. This work is intended to serve as interim actions until the storage tanks and sumps can be rerouted and moved to allow for excavation of impacted soils.

A release of natural gas condensate occurred on January 4, 2008 after a valve at the base of a storage tank froze. The contents of the tank flowed into two, 120-barrel sub-grade drain tanks. The drain tanks subsequently overflowed and released approximately 505 barrels of condensate into an unlined earthen/gravel containment area. Vacuum trucks recovered as much liquid as possible, but a portion of the bermed containment was visibly stained. Enterprise conducted two subsurface investigations, which included thirty soil borings, installation of five piezometers and installation of four groundwater monitoring wells. Results of these studies indicated that phase separated hydrocarbon (PSH) was present beneath the original source area and that dissolved phase migration had occurred along the groundwater table. Migration was limited to an area beneath the bermed area and slightly downgradient of the bermed area in a clay layer occurring near the water table. The release does not appear to have migrated below a clay layer located from approximately 18 to 30 feet below land surface.

The purpose of this work was to improve groundwater monitoring capabilities, collect additional subsurface data and target phase-separated hydrocarbon (PSH) for removal. LTE replaced one piezometer with a four-inch monitoring well to use for recovery of PSH. The other four piezometers were replaced with two-inch monitoring wells. Two new monitoring wells were installed to ensure adequate delineation of the site.

Soil samples were collected from boreholes, and groundwater samples were collected from existing and new groundwater monitoring wells. Subsurface observations of geology and distribution of soil and groundwater impacts were similar to results presented in previous subsurface investigation reports. PSH was not observed in any monitoring wells, but dissolved phase contaminants were detected in groundwater samples from monitoring wells placed within the bermed area and slightly downgradient of the source area.

Replacement of the existing piezometers at the site was performed to ensure that accurate water level and analytical information was obtained. In addition, all monitoring wells were surveyed. Groundwater flow direction was determined to be generally to the northwest, with some mounding apparent beneath the bermed containment area.



## SECTION 1.0

### INTRODUCTION

Enterprise Field Services, LLC (Enterprise) retained LT Environmental, Incorporated (LTE) to perform a remedial investigation and address impacted groundwater resulting from a natural gas condensate release in January of 2008 at the Largo Compressor Station (Site) located in Rio Arriba County, New Mexico. This report summarizes the most recent work at the Largo facility,

#### 1.1 SITE DESCRIPTION

The Site is located approximately 25 miles down Largo Canyon in Section 15 of Township 26 North and Range 7 West in Rio Arriba County, New Mexico. It is 400 feet south of Largo Wash and 800 feet east of Palluche Canyon (Figure 1). Site geology is identified as Quaternary alluvium consisting of unconsolidated silts, sands and clays, typical of the Largo Canyon fluvial environment. Depth to groundwater is approximately 20 feet beneath ground surface (bgs).

The study area is located on the northeast portion of the Largo Compressor Station, where natural gas condensate is stored in six above ground storage tanks. Two sub-grade drain tanks serve as secondary containment. All of the tanks are set in an earthen/gravel bermed area that is approximately 125 feet x 85 feet in area (Figure 2).

#### 1.2 SITE HISTORY

On January 4, 2008, a valve at the base of a storage tank failed after it froze and its contents flowed into two, 120 barrel (bbl) sub-grade drain tanks. The drain tanks subsequently overflowed and released approximately 505 bbl of natural gas condensate into an unlined earthen/gravel containment area. Vacuum trucks were dispatched to remove the liquids from the containment, and the release was immediately reported to the Aztec field office of the New Mexico Oil Conservation Division (NMOCD). The release visibly stained some soils within the bermed containment. Enterprise conducted an initial subsurface investigation during March and April of 2008 to define vertical extent of impacted soil and to determine if groundwater had been impacted. Nineteen boreholes were drilled with a push rig and five piezometers were installed. Results of that investigation were submitted to the NMOCD on May 16, 2008. On June 9, 2009, NMOCD conducted an inspection at the Largo Compressor Station and identified the need for immediate remediation of groundwater. In response to Inspection Report GW-211 dated July 9, 2009, Enterprise conducted a second subsurface investigation to further delineate impacted soils and confirm cross- and downgradient control on groundwater impacts. Eleven additional boreholes were drilled with a hollow stem auger rig and four two-inch groundwater monitoring wells were installed. A report for the second investigation was submitted on December 18, 2009. Figure 2 depicts locations of boreholes, piezometers and monitoring wells completed during these investigations.



The previous two investigations documented that impacts to soil and groundwater at the Site are localized. Soil is impacted within the bermed area from the ground surface to the groundwater table, which occurs at approximately 20 feet bgs. PSH was also detected below the bermed area. Impacted soils and groundwater extend beyond the bermed area in the northeast and southwest directions, and appear to be contained above the clayey soil layer located at approximately 18 to 30 feet bgs.

Enterprise has been conducting quarterly groundwater monitoring at the site since July 2009 to groundwater quality and PSH thickness. Results from those events were submitted to the NMOCD.

### **1.3 SCOPE OF WORK**

The purpose of this work was to target phase-separated hydrocarbon (PSH) present immediately beneath the bermed area and improve monitoring capabilities. LTE replaced piezometers with two-inch monitoring wells, with the exception of one piezometer in the middle of the source area, which was replaced with a four-inch monitoring well to allow for product recovery, if necessary. Two additional monitoring wells were installed and one borehole was drilled to complete delineation of the site. All wells were surveyed and sampled following completion of well installations.



## SECTION 2.0

### REMEDIAL INVESTIGATION METHODS

This section provides a description of the technical approach and strategies that were employed to complete the remedial investigation.

#### 2.1 INVESTIGATION OF UNDERGROUND UTILITIES

Prior to conducting field activities, LTE notified New Mexico One-Call. All buried utilities were clearly marked with spray paint or flags. Additionally, Enterprise representatives were present at the Site during the course of the work to ensure all buried lines had been marked and appropriate offsets were employed when siting borehole locations.

#### 2.2 DRILLING PROGRAM

Seven boreholes were drilled with a hollow stem auger drilling rig. LTE provided a geologist trained in conducting soil and groundwater investigations to oversee drilling activities at the Site. The geologist described continuous samples using a split spoon sampler and determined which soil samples were to be retained for submittal to the laboratory for analysis. The samples were described and field screened with a photo ionization detector (PID) according to NMOCD headspace techniques. Lithologic logs are included in Appendix A. Locations of new borings and monitoring wells are shown on Figure 3.

All down-hole drilling equipment was thoroughly decontaminated prior to each use. Boreholes that were not converted to monitoring wells were grouted upon completion. Investigated derived waste, comprised of soil cuttings, was placed in drums for off-site disposal.

One four-inch groundwater monitoring well and four two-inch monitoring wells were installed at the Site to replace existing piezometers. Two new monitoring wells were also installed. Piezometers were pulled and abandoned with grout. Wells were constructed of schedule 40 polyvinyl-chloride (PVC) and included ten to fifteen feet of 0.01-inch machine slotted flush-threaded PVC well screen. At least five feet of screen was set beneath the water table and five feet above to allow for seasonal fluctuations. A clean 10-20 grade silica sand gravel pack was placed from the bottom of the boring to two feet above the top of the screen. Two feet of three-eighths inch bentonite chips were set above the gravel pack, followed by a neat cement slurry, containing a minimum of five percent powdered bentonite to the surface. Well completion diagrams are included in Appendix A.

Following installation of monitoring wells, each new well was developed utilizing a clean, disposable PVC bailer. LTE purged fluid until the pH, specific conductivity and temperature stabilized and turbidity was reduced to the greatest extent possible. The



wells were allowed to recharge a minimum of 24 hours prior to collection of groundwater samples.

A local groundwater flow direction was established by surveying the top of casing elevations on each well with a surveyor's level and using a handheld GPS to determine spacing between wells. Existing two-inch monitoring wells were re-surveyed for consistency.

### **2.3 SOIL SAMPLING**

Laboratory samples were collected from the bottom of each soil boring and from sections of core containing the highest field screening results. Samples were stored on ice and shipped to Hall Environmental Analysis Laboratory (HEAL) in Albuquerque, New Mexico following strict chain-of-custody procedures. HEAL analyzed the soil samples for benzene, toluene, ethyl-benzene and total xylenes (BTEX) by U.S. Environmental Protection Agency (USEPA) Method 8021, as well as total petroleum hydrocarbons (TPH) by USEPA Method 8015.

### **2.4 GROUNDWATER SAMPLING**

LTE sampled groundwater from both the new wells and existing monitoring wells for consistency. Depth to water and total depth of the wells were measured with a Keck® oil-water interface probe. Presence of any phase-separated hydrocarbon (PSH) was also investigated using the interface probe. The interface probe was decontaminated with Aloconox™ soap and rinsed with de-ionized water prior to each measurement. At least three casing volumes were removed from each well while pH, specific conductivity and temperature were monitored for stabilization. Once these parameters stabilized, the wells were sampled.

Samples were collected by filling three pre-cleaned and pre-preserved 40 milliliter (ml) glass vials with zero headspace to prevent degradation of the sample. The groundwater samples were shipped on ice to HEAL and analyzed for BTEX according to USEPA Method 8021B and TPH by USEPA Method 8015. Data were recorded on Well Development and Sampling Logs, included in Appendix B.



## SECTION 3.0

### REMEDIAL INVESTIGATION RESULTS

This section provides a description of observations made during field activities, as well as a summary of analytical results for samples collected.

#### 3.1 SOIL RESULTS

Most of the boreholes drilled in this study were immediately adjacent to existing subsurface data points, and the subsurface geology and distribution of impacts has been thoroughly described in previous reports. The only new soil data came from a deep borehole at MW-15 and from Borehole Number (BH) 36. These holes were installed to ensure delineation of the site, and correlated well to previous findings.

The clay unit that occurs near the water table was identified in BH-35/MW-15. It was 12 feet thick and began at approximately 18 feet bgs. Groundwater was identified at 20 feet bgs. Only a thin (approximately two feet thick) sandy portion of the clay unit exhibited elevated field screening results, and this coincided with the presence of groundwater. Laboratory analysis of the stained sample did not detect concentrations of any analytes other than benzene, which was measured at 0.18 mg/kg (Table 1). Samples collected below the clay unit contained no visible staining, and no volatile organic compounds were detected with a PID during field screening of these soils. BH-36 was drilled on the far western side of the Site. Soils from the borehole contained no evidence of impacts.

Table 1 presents field screening and laboratory analytical results. Copies of the complete laboratory reports are found in Appendix C. During this sampling event, only soil samples collected from within the bermed area (BH-31 and BH-32) contained concentrations of BTEX and TPH exceeding NMOCD standards.

#### 3.2 GROUNDWATER RESULTS

Groundwater sampling results from each monitoring well are presented in Table 2. Samples from MW-7, MW-11, MW-12 and MW-16 contained detectable concentrations of BTEX. Only samples from MW-7 and MW-12 contained concentrations of BTEX over New Mexico Water Quality Control Commission (NMWQCC) standards. The same samples (MW-7, MW-11, MW-12 and MW-16) also contained elevated TPH concentrations.

The top of casing elevations for all wells were surveyed so that groundwater flow direction could be inferred. Table 3 shows casing and groundwater elevations measured at each well. Figure 3 presents an inferred groundwater potentiometric surface map, indicating groundwater flow direction is generally towards the northwest. Static water levels suggest mounding in the diked area, particularly near MW-12.



## SECTION 4.0

### SUMMARY AND CONCLUSIONS

During this work, four piezometers were replaced with two-inch monitoring wells, and one piezometer was replaced with a four-inch monitoring/PSH recovery well in an effort to improve groundwater monitoring capabilities at the Site. Two new monitoring wells were installed and one new soil boring was used to complete the delineation of subsurface impacts.

Two previous investigation studies thoroughly described subsurface lithology and concluded that soil and groundwater impacts were limited to the bermed area and slightly outside of the bermed area in the downgradient (northwest) direction. PSH was previously identified beneath the original source area. Outside of the bermed area, dissolved-phase impacts appeared to be confined to a deeper clay unit occurring at the groundwater table.

Soil and groundwater data collected during this investigation corroborate those observations, and provide additional information regarding extent of soil and groundwater impacts. A deep soil boring downgradient of the source area confirms that impacts have not vertically migrated below the clay. Groundwater has also been impacted immediately southwest of the bermed area, as shown by elevated BTEX concentrations in groundwater sampled from MW-16. These concentrations do not exceed NMWQCC standards. Dissolved phase contamination has not migrated a significant distance downgradient of the condensate storage area. PSH was not observed in any of the monitoring wells.

In general, BTEX concentrations detected in groundwater at the Site have decreased during the last two quarterly monitoring events (November 2009 and February 2010). Previous monitoring events have indicated that dissolved-phase contaminants migrated as far away as MW-3R, as BTEX concentrations were detected in what was previously P-3.



## SECTION 5.0

### RECOMMENDATIONS

Enterprise should continue quarterly groundwater monitoring and monthly monitoring for PSH accumulations as proposed in the *Largo Compressor Station Work Plan for Groundwater Remediation* dated December 31, 2009 and approved by the NMOCD. The planned injection of ORC should be performed to ensure migration of affected groundwater does not occur until removal of existing condensate tanks and sumps is completed and source area soils can be removed. A work plan will be submitted to the NMOCD by May 28, 2010 describing these actions.



**TABLES**



TABLE 1

BOREHOLE SOIL ANALYTICAL RESULTS  
LARGO COMPRESSOR STATION  
ENTERPRISE FIELD SERVICES, LLC

Sample ID (Depth in feet)	Well Number (If applicable)	Date Sampled	Field Headspace Reading (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	GRO (mg/kg)	TPH (mg/kg)
B31 S1 20-25'	MW-11	3/31/2010	12	1.30	<0.05	0.06	0.12	1.48	<10	<50	9.3	9.3
B31 S2 15-20'	MW-11	3/31/2010	1,628	0.74	1.90	0.50	6.7	9.8	12	<50	290	302
B32 S1 15-20'	MW-12	3/31/2010	18	0.38	<0.05	<0.05	<0.10	0.38	<10	<50	<5	ND
B32 S2 0-10'	MW-12	3/31/2010	1,710	4.30	90	15	200	309.3	390	190	2700	3280
B33 S1 25-30'	MW-13	3/31/2010	2	<0.05	<0.05	<0.05	<0.10	ND	<10	<50	<5	ND
B34 S1 25-30'	MW-14	3/31/2010	0	<0.05	<0.05	<0.05	<0.10	ND	<10	<50	<5	ND
B35 S1 25-30'	MW-15	3/31/2010	0	<0.05	<0.05	<0.05	<0.10	ND	<10	<50	<5	ND
B35 S2 20-25'	MW-15	3/31/2010	108	0.18	<0.05	<0.05	<0.10	0.18	<10	<50	<5	ND
B36 S1 25-30'	MW-16	3/31/2010	0	<0.05	0.05	0.05	0.10	0.20	<10	<50	<5	ND
B37 S1 20-25'	MW-16	3/31/2010	37	0.48	<0.05	<0.05	0.14	0.62	<10	<50	5.7	5.7
B37 S2 15-20'	MW-16	3/31/2010	3.9	<0.05	<0.05	<0.05	<0.10	ND	<10	<50	<5	ND
B37 S3 25-30'	MW-16	3/31/2010	2	<0.05	<0.05	<0.05	<0.10	ND	<10	<50	<5	ND
<b>NMOC D Standard</b>				10			50					100

Notes:

- ppm - parts per million
- mg/kg - milligrams per kilogram
- < indicates result is less than the stated laboratory method detection limit
- BTEX - benzene, toluene, ethylbenzene, xylenes
- TPH - total petroleum hydrocarbons
- DRO - Diesel Range Organics
- MRO - Motor Oil Range Organics
- GRO - Gasoline Range Organics
- ND - Not Detected
- NMOC D - New Mexico Oil Conservation Commission
- TPH analyzed by EPA Modified Method 8015
- Benzene, toluene, ethylbenzene, and total xylenes analyzed by EPA Method 8021.



**TABLE 2**  
**GROUNDWATER ANALYTICAL RESULTS**  
**LARGO COMPRESSOR STATION**  
**ENTERPRISE FIELD SERVICES, LLC**

Sample ID (Depth in feet)	Date Sampled	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	DRO (mg/L)	MRO (mg/L)	GRO (mg/L)	TPH (mg/L)
MW-6	4/5/2010	<1.0	<1.0	<1.0	<2.0	ND	<1.0	<5.0	<0.050	ND
MW-7	4/5/2010	940	<10	<10	<20	940	1.3	<5.0	4.2	5.5
MW-8	4/5/2010	<1.0	<1.0	<1.0	<2.0	ND	<1.0	<5.0	<0.50	ND
MW-9	4/5/2010	<1.0	<1.0	<1.0	<2.0	ND	<1.0	<5.0	<0.050	ND
MW-3R	4/5/2010	<1.0	<1.0	<1.0	<2.0	ND	<1.0	<5.0	<0.050	ND
MW-11	4/5/2010	<1.0	1.7	<1.0	3.3	5.0	<1.0	<5.0	0.22	21.2
MW-12	4/5/2010	1300	1600	110	2200	5210	1.2	<5.0	20	ND
MW-13	4/5/2010	<1.0	<1.0	<1.0	<2.0	ND	<1.0	<5.0	<0.050	ND
MW-14	4/5/2010	<1.0	<1.0	<1.0	<2.0	ND	<1.0	<5.0	<0.050	ND
MW-15	4/5/2010	1.1	<1.0	<1.0	<2.0	1.1	<1.0	<5.0	<0.050	ND
MW-16	4/5/2010	3.8	1.5	1.4	1.1	17.7	<1.0	<5.0	0.36	0.36
<b>NMWQCC Standard</b>		<b>10</b>	<b>750</b>	<b>750</b>	<b>620</b>					

Notes:  
mg/L - milligrams per liter  
µg/L - micrograms per liter  
DRO - diesel range organics  
MRO - motor oil range organics  
GRO - gasoline range organics  
TPH - total petroleum hydrocarbons  
ND - Not Detected  
NMWQCC - New Mexico Water Quality Control Commission  
Benzene, toluene, ethylbenzene, and total xylenes analyzed by EPA Method 8021.  
Total Petroleum Hydrocarbons analyzed by EPA Method 8015.



**TABLE 3**  
**GROUNDWATER ELEVATIONS**  
**LARGO COMPRESSOR STATION**  
**ENTERPRISE FIELD SERVICES, LLC**

Well Number	Top of Casing Elevation (feet amsl)	Depth to Water (feet)	Groundwater Elevation (feet amsl)
MW-6	6100.41	19.11	6081.30
MW-7	6101.40	20.96	6080.44
MW-8	6102.67	22.97	6079.70
MW-9	6102.40	21.00	6081.40
MW-3R	6102.00	21.83	6080.17
MW-11	6101.04	20.57	6080.47
MW-12	6096.82	14.88	6081.94
MW-13	6100.34	19.26	6081.08
MW-14	6100.40	20.09	6080.31
MW-15	6100.77	20.66	6080.11
MW-16	6102.08	21.51	6080.57

Notes:  
amsl - above mean sea level



**FIGURES**



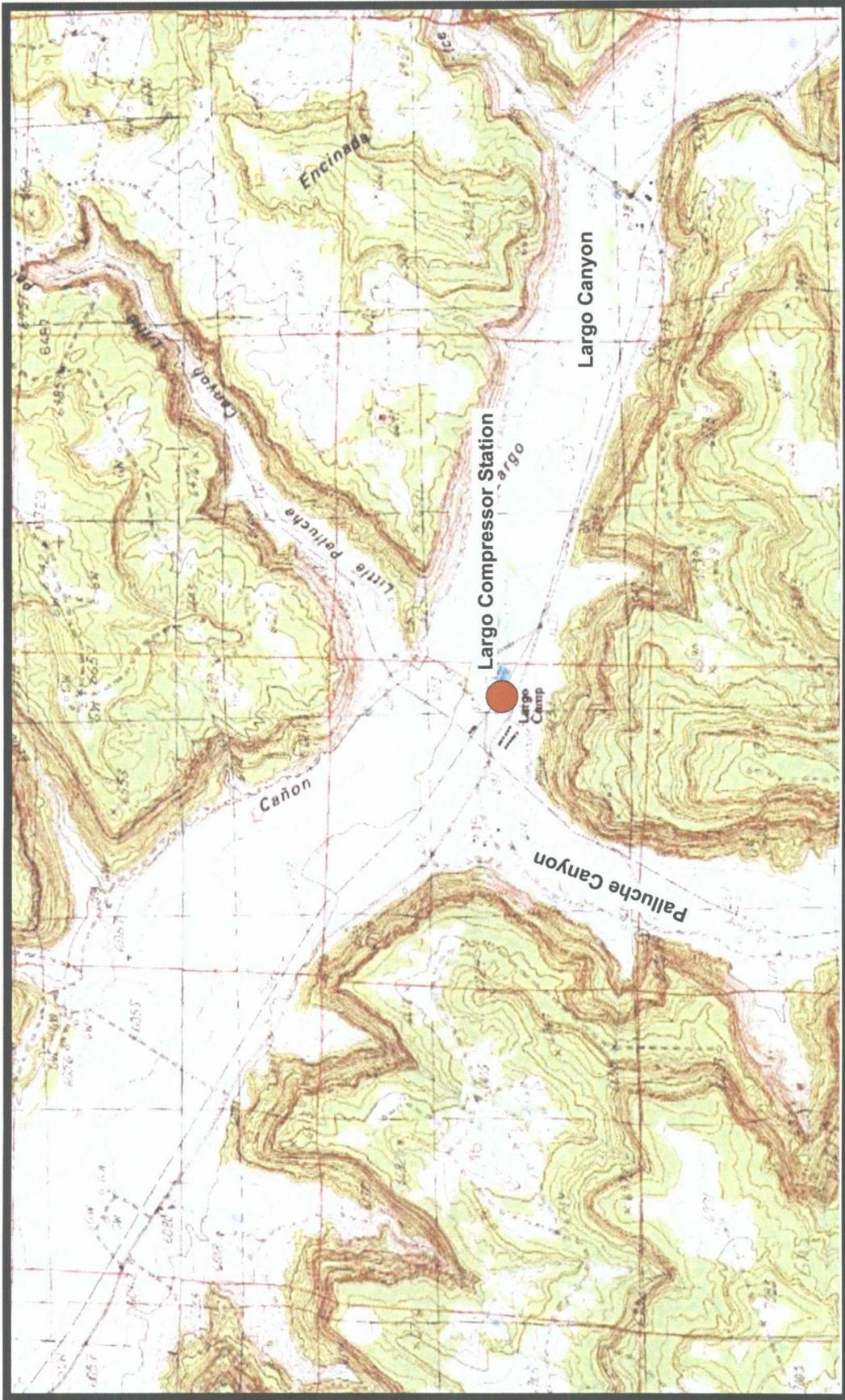
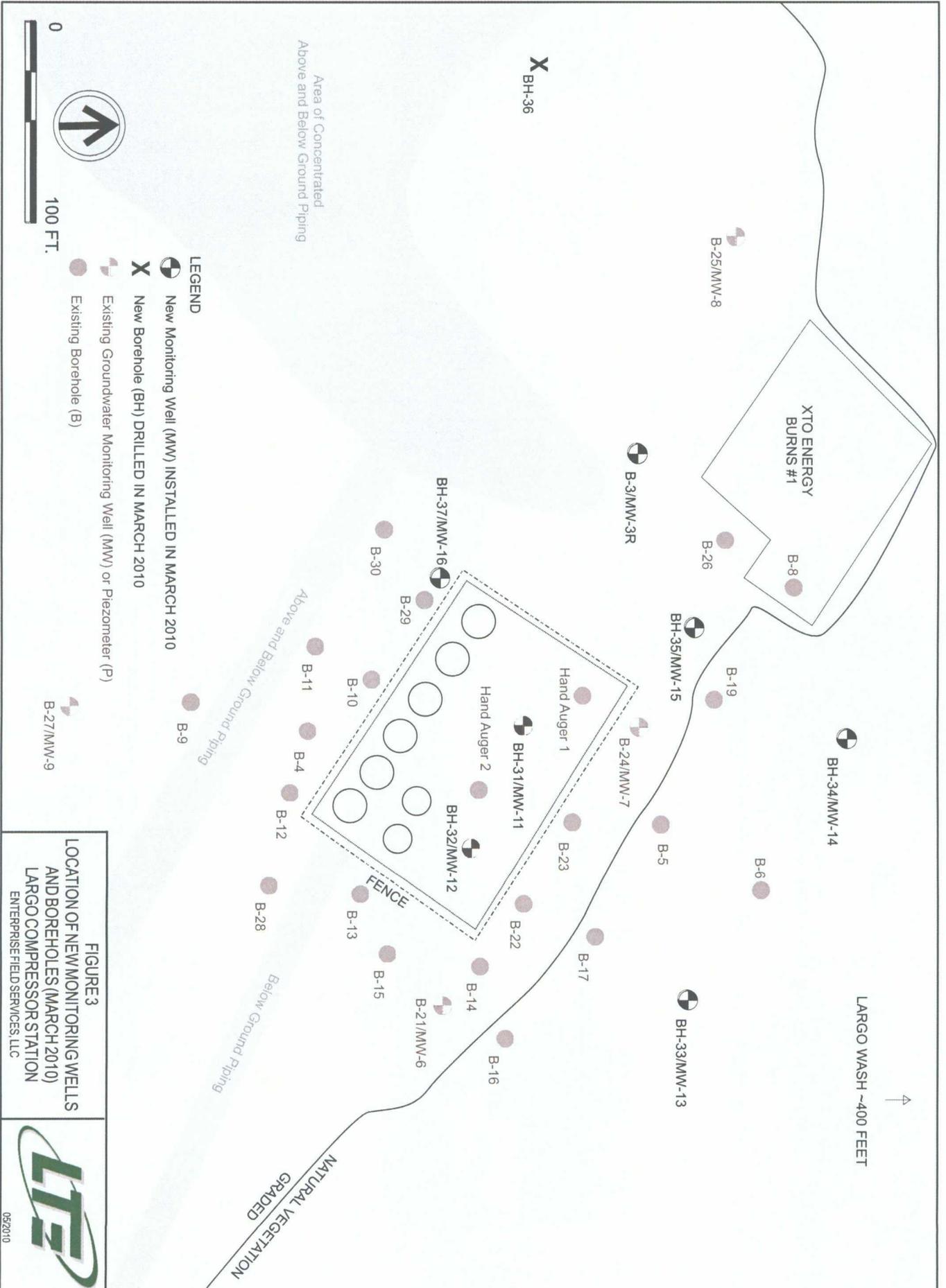


FIGURE 1  
VICINITY MAP  
LARGO COMPRESSOR STATION  
ENTERPRISE FIELD SERVICES, LLC



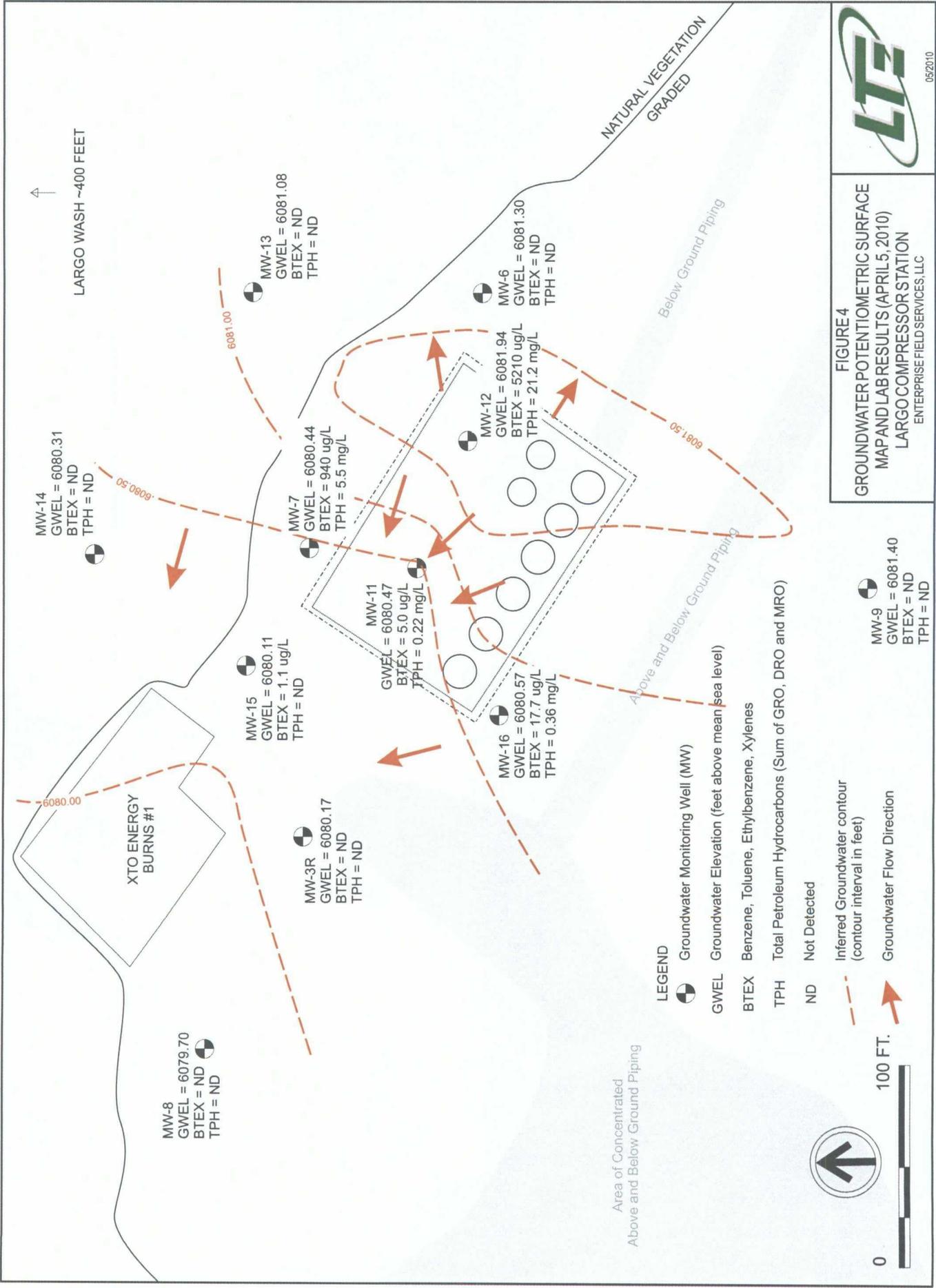


- LEGEND**
- New Monitoring Well (MMW) INSTALLED IN MARCH 2010
  - New Borehole (BH) DRILLED IN MARCH 2010
  - Existing Groundwater Monitoring Well (MMW) or Piezometer (P)
  - Existing Borehole (B)

**FIGURE 3**  
**LOCATION OF NEW MONITORING WELLS**  
**AND BOREHOLES (MARCH 2010)**  
**LARGO COMPRESSOR STATION**  
 ENTERPRISE FIELD SERVICES, LLC







05/2010

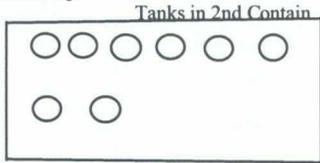
**FIGURE 4**  
**GROUNDWATER POTENTIOMETRIC SURFACE**  
**MAP AND LAB RESULTS (APRIL 5, 2010)**  
**LARGO COMPRESSOR STATION**  
 ENTERPRISE FIELD SERVICES, LLC

**APPENDIX A**

**LITHOLOGIC LOGS AND MONITORING WELL COMPLETION DIAGRAMS**



Location Map:



⊕  
MW-3R



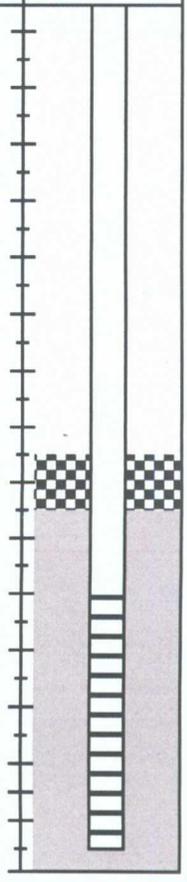
**Compliance • Engineering • Remediation**  
**LT Environmental, Inc.**  
 2243 Main Avenue, Suite 3  
 Durango, CO 81301

**BORING LOG/MONITORING WELL COMPLETION DIAGRAM**

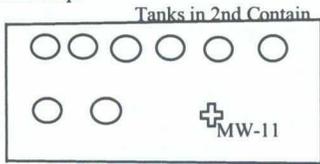
Boring/Well Number: MW-3R	Project: Largo Compressor
Date: 3/30/2010	Project Number: GMS1002
Logged By: DMH	Drilled By: Enviro-Drill

Elevation:	Detector: PID	Drilling Method: Hollow Stem	Sampling Method: Continuous - split spoon
Gravel Pack: 20-Grade Silica Sand	Seal: 3/8" bentonite hole plug	Grout: neat cement slurry	
Casing Type: SCH-40 PVC	Diameter: 2"	Length: 20'	Hole Diameter: 4"
			Depth to Liquid: 25'
Screen Type: SCH-40 PVC	Slot: 0.01"	Diameter: 2"	Length: 10'
			Total Depth: 35'
			Depth to Water: 25'

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Soil/Rock Type	Lithology/Remarks	Well Completion
					0				
					2				
					4				
					6				
					8				
					10				
					12				
					14				
					16				
					18				
					20				
					22				
					24				
					26	▽			
					28				
					30				



Location Map:



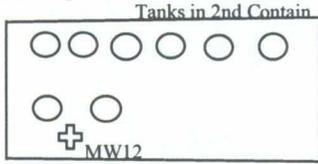
**Compliance • Engineering • Remediation**  
**LT Environmental, Inc.**  
 2243 Main Avenue, Suite 3  
 Durango, CO 81301

**BORING LOG/MONITORING WELL COMPLETION DIAGRAM**

Boring/Well Number: BH 31/MW-11		Project: Largo Compressor	
Date: 3/30/2010		Project Number: GMS1002	
Logged By: DMH		Drilled By: Enviro-Drill	
Elevation:	Detector: PID	Drilling Method: Hollow Stem	Sampling Method: Continuous - split spoon
Gravel Pack: 20-Grade Silica Sand		Seal: 3/8" bentonite hole plug	Grout: neat cement slurry
Casing Type: SCH-40 PVC		Diameter: 2"	Length: 15'
Screen Type: SCH-40 PVC		Slot: 0.01"	Diameter: 2"
		Length: 15'	Total Depth: 30'
			Depth to Liquid: 22'
			Depth to Water: 22'

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Soil/Rock Type	Lithology/Remarks	Well Completion
	Dry	38	0"-20"		0		CH	Fat sticky clay, minor silt content, high plasticity, 0-20" heavy black staining	
					2	0' 5'			
	Dry	8.1	0-13" 24-29"		10	5' 10'	0-14" SM 14-24" CH	Silty sand, fine gr. Sand, was deposit, mod-sorted, 5yr/4, loose, no bedding	
					12				
	Moist	46.9	0-25"		14	10' 15'	SM	0-25" Silty sand, wash deposit QA, 46% med-gr.sand, 54% very fine silt, 5yr/3, loose moist	
					16				
	Moist	1628	0-12"	S2	20	15' 20'	0-12" SM	0-12" silty sand, wash deposit QA, 46% med-gr. Sand, 54% v fine silt, loose	
					22	▽	12-29" SC		
	Sat	12.4	29-40"	S1	24	20' 25'	0-15" CL	0-15" tight fat clay, wash deposit QA, 5yr 4/4, 79% fines, 21% fine sand	
					26		15-35" SM		
	Sat	3			30	25' 30'	CL-SP	0-32" 5yr 4/4 brown fat clay, wash deposit 5% fine sand, saturated, swollen, soft, dense, med. Plasticity	
								32-59" 7.5yr 5/4, light brown, med-gr. Sand, p.sorted, 80% med, 20% fine, sat, loose	

Location Map:



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**BORING LOG/MONITORING WELL COMPLETION DIAGRAM**

Boring/Well Number: BH 32/MW-12	Project: Largo Compressor
Date: 3/30/2010	Project Number: GMS1002
Logged By: DMH	Drilled By: Enviro-Drill

Elevation:	Detector: PID	Drilling Method: Hollow Stem	Sampling Method: Continuous - split spoon
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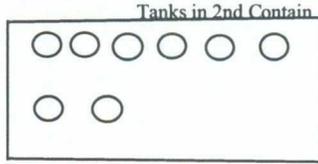
Gravel Pack: 20-Grade Silica Sand	Seal: 3/8" bentonite hole plug	Grout: neat cement slurry
--------------------------------------	-----------------------------------	------------------------------

Casing Type: SCH-40 PVC	Diameter: 4"	Length: 10'	Hole Diameter: 6"	Depth to Liquid: 15'
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Screen Type: SCH-40 PVC	Slot: 0.01"	Diameter: 4"	Length: 10'	Total Depth: 20'	Depth to Water: 15'
----------------------------	----------------	-----------------	----------------	---------------------	------------------------

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Soil/Rock Type	Lithology/Remarks	Well Completion
	Moist	1710	0"-10"	S2	0	0' 5'	SM	Silty sand, wash deposit QL, 70% med-fine sand gr., sub-rounded, 30% very fine silt, 7.5yr 4/6, non-cohesive soil, no bedding	
	Moist	1611	0"-22"		2	5' 10'	SM		
	Sat	1433			4			Same as above, 7.5yr 3/2	
					6				
					8			Silty sand, wash deposit QL, med-fine sand gr., very fine silt, heavily stained	
					10				
					12			Tight clay, heavily stained, minor coarse sand	
					14				
					16			Tight clay, high plasticity, sand wash deposit QA, 7.5yr 4/4, very cohesive	
					18				
	0"-20" Moist	17.7		S1	20	15' 20'	0"-20" CH	80% silt, 20% sand-silty sand, minor staining	
	20"-44" Sat		20"-44"		22		20"-44" SM		
					24				
					26				
					28				
					30				

Location Map:



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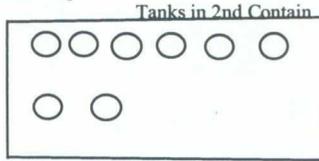
**BORING LOG/MONITORING WELL COMPLETION DIAGRAM**

Boring/Well Number: B33/MW-13	Project: Largo Compressor
Date: 3/30/2010	Project Number: GMS1002
Logged By: DMH	Drilled By: Enviro-Drill

Elevation: 6080'	Detector: PID	Drilling Method: Hollow Stem	Sampling Method: Continuous - split spoon
Gravel Pack: 20-Grade Silica Sand	Seal: 3/8" bentonite hole plug	Grout: neat cement slurry	
Casing Type: SCH-40 PVC	Diameter: 2"	Length: 15'	Hole Diameter: 4"
			Depth to Liquid: 22'
Screen Type: SCH-40 PVC	Slot: 0.01"	Diameter: 2"	Length: 15'
			Total Depth: 30'
			Depth to Water: 22'

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Soil/Rock Type	Lithology/Remarks	Well Completion
					0		ML		
					2		0 - 28"		
					4		SM		
	Dry	17.7	None		4	0 5'	28-41"	0-28" Silty clay, wash deposit QA, minor < 5% fine silt, > 90% clay with high plasticity, 7.5yr 4/2, 28-41" Silty Sand, 50% fine sand gr., 50% silt, 7.5yr 6/6	
					6				
	Dry	0	None		10	5' 10'	SM	Silty sand, wash deposit QA, 15% fine to very fine sand gr., sub-rounded, 85% very fine silt, 7.5yr 6/6	
					12				
	Moist	0	None		14	10' 15'	SM	Silty sand, wash deposit QA, 25% fine sand, sub-rounded, 75% fine to very fine silt, 5yr 6/6	
					16				
					18				
	Damp	0	None		20	15' 20'	0-15" SM	Silty sand, wash deposit QA, 7.5yr 6/4, 60% very fine silt, 40% sand gr., sub-rounded	
	0-15"				22		15-24" CL	silty clay, medium plasticity, 5yr 4/13	
	Sat				22	▽	24-36" CL	60% medium sand gr., sub-rounded, 7.5 yr 4/5, 40% fine silt	
	15-36"				24		SM		
	Sat	0	None		24	20' 25'	SM	Silty sand, wash deposit QA, 7.5yr 4/3, 60% fine sand gr., sub-rounded, 40% fine silt	
					26				
					28				
	Sat	2.4	None	S1	30	25' 30'	SM	Same as Above	

Location Map:



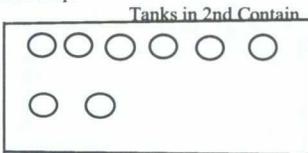
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**BORING LOG/MONITORING WELL COMPLETION DIAGRAM**

Boring/Well Number: BH34/MW14	Project: Largo Compressor				
Date: 3/31/2010	Project Number: GMS1002				
Logged By: DMH	Drilled By: Enviro-Drill				
Elevation: 6080'	Detector: PID				
Drilling Method: Hollow Stem	Sampling Method: Continuous - split spoon				
Gravel Pack: 20-Grade Silica Sand	Seal: 3/8" bentonite hole plug				
	Grout: cement slurry				
Casing Type: SCH-40 PVC	Diameter: 2"	Length: 15'	Hole Diameter: 4"	Depth to Liquid: 22'	
Screen Type: SCH-40 PVC	Slot: 0.01"	Diameter: 2"	Length: 15'	Total Depth: 30'	Depth to Water: 22'

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Soil/Rock Type	Lithology/Remarks	Well Completion
	Moist 0-9"	0	none		0	0' 5'	CL	0-9" silty clay, wash deposit, very fine gr., high plasticity, 40% fine silt, 60% clay, dense, soft	
					2		SM		
					4			9-40", 5yr 7/3, silty sand, med-fine sand gr., loose	
					6			70% very fine sand, 30% silt	
	Dry	0	none		8				
					10	5' 10'	SM	silty sand, wash deposit, fine sand gr., subrounded, medium sorted, 5yr 7/3, 70% fine sand, 30% silt, loose	
					12				
	Damp	4.1	none		14	10' 15'	SM	same as above	
					16				
					18				
	0-29" Damp				20	15' 20'	CL	sandy-silty clay, wash deposit, very fine-med sand gr., minor silt, med plasticity, 5yr 4/3, same roots, 40% sand, 20% silt, 40% clay	
	29-52" Sat	0	none		22	▽			
					24				
	Sat	0			26	20' 25'	SM	0-12" silty sand, wash deposit, med-coarse sand gr. minor fine silt, subrounded, 5yr 5/4, loose	
					28		CL	12-35" silty/sandy clay, med plasticity, fine sand gr., 10% silt, 20% fine sand, 70% clay, 5yr 5/4, dense soft	
	Sat	0		S1	30	25' 30'	SM	silty sand, wash deposit, fine-med gr., subrounded, 70% fine-med sand, 30% silt, sat., slightly cohesive, soft, 5yr 5/4	

Location Map:



⊕  
MW15

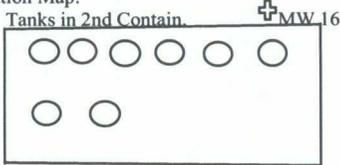


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**BORING LOG/MONITORING WELL COMPLETION DIAGRAM**

Boring/Well Number: BH35/MW15	Project: Largo Compressor
Date: 3/31/2010	Project Number: GMS1002
Logged By: DMH	Drilled By: Enviro-Drill
Elevation:	Detector: PID
Drilling Method: Hollow Stem	Seal: 3/8" bentonite hole plug
Gravel Pack: 20-Grade Silica Sand	Grout: cement neat cement slurry
Casing Type: SCH-40 PVC	Diameter: 2'
Screen Type: SCH-40 PVC	Slot: 0.01"
Diameter: 2'	Length: 15'
Hole Diameter: 4"	Depth to Liquid: 20'
Total Depth: 40'	Depth to Water: 20'

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Soil/Rock Type	Lithology/Remarks	Well Completion
					0				
	Dry	0	none		2	0' 5'	SM	0-10" damp	
					4			10-35" dry 7yr 5/4, wash deposit QA, 80% very fine silt, 20% fine sand, subrounded, well-sorted, loose	
					6				
					8				
	Dry	0	none		10	5' 10'	SM	same as above - no damp layer	
					12				
	0-15" Dry	0	none		14	10' 15'	SM	0-15" same as above	
	15-30" Damp				16			15"-30" SM 7yr 5/4, wash deposit QA, 40% fine sand gr., subrounded, 60% fine silt, loose, well sorted, damp	
	sat	0	none		18				
					20	15' 20'	CL	0-12" same as above	
					22		SM	12-22" silty clay, med to low plasticity, 22-40" SM, 70% med gr sand, subrounded, 30% fine silt 7.5yr 5/4, loose, minor bedding	
	sat	108	yes above clay	S2	24	20' 25'	SM	0-26" SM 7yr 4/3, 40% fine sand gr, subrounded, 60% fine silt, loose, well sorted	
					26		CL	26-30" silty clay, med plasticity, 7yr 4/3	
	sat	0	none	S1	28	25' 30'	CL	0-13" same as above	
					30				
					32		SM	13-36" SM, 70% fine sand gr, subrounded, 30% fine silt, loose, well-sorted, wash deposit QA, 7.5yr 4/3	
	sat	0	none		34	30' 35'	SM	70% fine to med sand, subrounded, 30% fine silt 7yr 4/3, loose, well-sorted, wash deposit QA	
					36				
					38				
	sat	0	none		40	35' 40'	SM	Same as above	30-40' backfilled before well completion

Location Map:  
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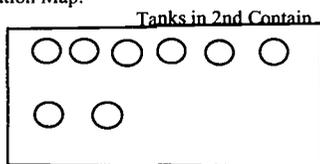
**BORING LOG/MONITORING WELL COMPLETION DIAGRAM**

Boring/Well Number: BH37/MW16	Project: Largo Compressor
Date: 3/31/2010	Project Number: GMS1002
Logged By: DMH	Drilled By: Enviro-Drill

Elevation:	Detector: PID	Drilling Method: Hollow Stem	Sampling Method: Continuous - split spoon
Gravel Pack: 20-Grade Silica Sand	Seal: 3/8" bentonite hole plug	Grout: neat cement slurry	
Casing Type: SCH-40 PVC	Diameter: 2"	Length: 15'	Hole Diameter: 4"
Screen Type: SCH-40 PVC	Slot: 0.1"	Diameter: 2"	Length: 15'
			Total Depth: 30'
			Depth to Liquid: 20'
			Depth to Water: 20'

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Soil/Rock Type	Lithology/Remarks	Well Completion
					0				
	1-7" Dry				2		GM	1-7", gravel, 20% rounded with fine silt and sand from road, 7yr 4/3, loose	
	7-27" Damp	0	None		4	0' 5'	CL	7-27", silty clay, med plasticity, 7.5yr 4/3, damp, soft	
	0-4" Damp				8		CL	0-4" same as above	
	4-36" Dry	0	None		10	5' 10'	SM	4-36" silty sand, 7.5 yr 4/5, 70% fine sand gr., sub-rounded, 30% fine silt, loose, well-sorted, wash deposit	
					12				
	Dry	10.7	21-25"		14	10' 15'	SM	silty sand, 7.5yr 6/3, 20% fine gr. Sand, sub-rounded, 80% fine silt, loose, well-sort, wash deposit, blk interval at 21-25"	
	0-10" Dry				16		SM	0-21" same as above	
	10-39" Damp	3.9	34-39"	S2	20	15' 20'	CL	21-30" silty clay, low plasticity, 7.5yr 4/3, loose soft	
					22		SM	30-39" silty sand, 7.5 yr 6/3, 20% fine gr. sand, subrounded, 80% fine silt, loose, well sorted, wash deposit, blk interval at 34-39"	
					24				
	Sat	37.2	yes	S1	26	20' 25'	CL	0-14" sandy clay, fine gr. Sand, subrounded, med-plasticity, 7.5yr 3/2, roots, soft	
					28			14-37" silty caly, med-plasticity, 7.5yr 4/3, dense soft, wash deposit	
					30	25' 30'	CL	1-24" same as above, grey clay	
	Sat	1.9	None	S3			SM	24-38" silty sand, 7.5yr 4/4, 30% fine sand, subrounded, 70% fine silt, loose, well sorted, roots	

Location Map:



BH36



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**BORING LOG/MONITORING WELL COMPLETION DIAGRAM**

Boring/Well Number: <b>BH36</b>		Project: <b>Largo Compressor</b>	
Date: <b>3/31/2010</b>		Project Number: <b>GMS1002</b>	
Logged By: <b>DMH</b>		Drilled By: <b>Enviro-Drill</b>	
Elevation:	Detector: <b>PID</b>	Drilling Method: <b>Hollow Stem</b>	Sampling Method: <b>Continuous - split spoon</b>
Gravel Pack:		Seal:	Grout:
Casing Type:	Diameter:	Length:	Hole Diameter: <b>4"</b> Depth to Liquid: <b>20'</b>
Screen Type:	Slot:	Diameter:	Length: Total Depth: Depth to Water: <b>20'</b>

Penetration Resistance	Moisture Content	Vapor (ppm)	Staining	Sample #	Depth (ft. bgs.)	Sample Run	Soil/Rock Type	Lithology/Remarks	Well Completion
	0-10" Damp				0				
	10-31" Dry	2	none		2	0' 5'	SM	silty sand, wash deposit, fine sand gr., minor gravel, subrounded, 50% silt, 47% fine sand, 3% gravel, poorly-sorted, 5yr 6/4, minor bedding, roots	
					4				
					6				
					8				
	Dry	0	none		10	5' 10'	SM	silty sand, wash deposit, fine-medium sand gr., subrounded, 60% fine, 30% med.gr., 10% silt, 5yr 6/4, minor bedding	
	0-20" Dry				12				
	20-30" Damp	2.5	none		14	10' 15'	SM	same as above	
					16				
	sat	2.6	none		18				
					20	15' 20'	SM	silty sand, wash deposit, med-fine sand gr., subrounded, poorly sorted, 60% fine, 30% med, 10% silt, 5yr 6/4, some minor clay developing were silt is damp	
					22				
	sat	2.9	none		24	20' 25'	SM	silty sand, wash deposit, fine-med sand gr., subrounded, poorly sorted, 60% fine, 30% med, 10% silt, 5yr 6/4, some minor clay developing where silt are, sandy silty clay 5" interval	
					26				
					28		CL		
	sat	0	none		30	25' 30'	SM	0-22" silty sand, was deposit, same as above	
							CL	22-29" fat clay, high plasticity, sticky, tight, 7.5yr 4/4	
								29-40" silty sand, wash deposit, same as above	

**APPENDIX B**

**WELL DEVELOPMENT AND SAMPLING LOGS**







Project Name: Largo Comp Stn Location: Largo Well No: MW-12  
 Client: Enterprise Date: 4/12/2010 Time: 12:30  
 Project Manager: Ashley Ager Sampler's Name: Devin Hencmann

Measuring Point: TOC Depth to Water: 14.9 ft Depth to Product: NA ft  
 Well Diameter: 2" Total Depth: 22.22 ft Product Thickness: NA ft  
 Water Column Height: 7.32 ft

Sampling Method:  Submersible Pump  Centrifugal Pump  Peristaltic Pump  Other \_\_\_\_\_  
 Bottom Valve Bailer  Double Check Valve Bailer

Criteria:  3 to 5 Casing Volumes of Water Removal  Stabilization of Indicator Parameters  Other \_\_\_\_\_ bail dry

Water Volume in Well			
Gal/ft x ft of water	Gallons	Ounces	Volume to be removed
7.32 x 0.64	4.68		14.05 gal

Time (military)	pH (su)	SC (ms)	Temp (°C)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. gal	Comments/Flow Rate
12:35	7.27	7.36	10.4				1	mostly clear
	7.30	7.53	10.7				2	grey, mirror sheen
	7.36	7.52	10.4				5	grey, mirror sheen
	7.35	7.66	11.1				7	turbid, brown sheen
	7.35	7.58	11.4				9	turbid, brown sheen
	7.34	7.66	11.3				10	turbid, brown sheen
	7.36	7.57	12.1				11	turbid, brown sheen
	7.37	7.26	11.7				12	turbid, brown sheen
	7.41	6.71	11.5				13	turbid, brown sheen, bailing down
	7.41	6.47	10.9				15	turbid, brown sheen, bailing down
<b>Final:</b>	7.35	7.33	10.5				15	

COMMENTS:

Instrumentation:  pH Meter  DO Monitor  Conductivity Meter  Temperature Meter  Other \_\_\_\_\_

Water Disposal: On Site

Sample ID: MW-12 Sample Time: \_\_\_\_\_

Analysis Requested:  BTEX  VOC  Alkalinity  TDS  Cations  Anions  Nitrate  Nitrite  Metals  
 Other \_\_\_\_\_

Trip Blank: TRIP BLANK

Duplicate Sample: NA

Project Name: Largo Comp Stn Location: Largo Well No: MW-13  
 Client: Enterprise Date: 4/12/2010 Time: 11:30  
 Project Manager: Ashley Ager Sampler's Name: Devin Hencmann

Measuring Point: TOC Depth to Water: 19.54 ft Depth to Product: NA ft  
 Well Diameter: 2" Total Depth: 28.52 ft Product Thickness: NA ft  
 Water Column Height: 8.98 ft

Sampling Method:  Submersible Pump  Centrifugal Pump  Peristaltic Pump  Other \_\_\_\_\_  
 Bottom Valve Bailer  Double Check Valve Bailer

Criteria:  3 to 5 Casing Volumes of Water Removal  Stabilization of Indicator Parameters  Other \_\_\_\_\_ bail dry

Water Volume in Well			
Gal/ft x ft of water	Gallons	Ounces	Volume to be removed
			8 gal

Time (military)	pH (su)	SC (ms)	Temp (°C)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. gal	Comments/Flow Rate
11:35	7.08	3.24	12.8				1	High turbidity, very silty
	7.97	4.75	12.6				2	High turbidity, very silty
	8.06	5.14	12.0				3	High turbidity, very silty
	7.92	5.38	12.9				4	High turbidity, very silty
	7.91	5.39	13.2				5	Turbidity decreasing
	7.94	5.37	12.9				5.3	Turbidity decreasing
	7.83	5.31	12.8				6	Turbidity decreasing
	7.94	5.45	12.4				6.5	Turbidity decreasing
	7.95	5.47	11.9				7	Turbidity decreasing
	7.97	5.49	11.9				7.5	Turbidity decreasing
	7.96	5.65	11.9				8	Turbidity decreasing
<b>Final:</b>	<b>7.87</b>	<b>5.15</b>	<b>12.5</b>				<b>8</b>	

COMMENTS:

Instrumentation:  pH Meter  DO Monitor  Conductivity Meter  Temperature Meter  Other \_\_\_\_\_

Water Disposal: On Site

Sample ID: MW-13 Sample Time: \_\_\_\_\_

Analysis Requested:  BTEX  VOC  Alkalinity  TDS  Cations  Anions  Nitrate  Nitrite  Metals  
 Other \_\_\_\_\_

Trip Blank: TRIP BLANK

Duplicate Sample: NA



Project Name: Largo Comp Stn Location: Largo Well No: MW-15  
 Client: Enterprise Date: 4/12/2010 Time: 12:10  
 Project Manager: Ashley Ager Sampler's Name: Devin Hencmann

Measuring Point: TOC Depth to Water: 20.74 ft Depth to Product: NA ft  
 Well Diameter: 2" Total Depth: 32.3 ft Product Thickness: NA ft  
 Water Column Height: 11.56 ft

Sampling Method:  Submersible Pump  Centrifugal Pump  Peristaltic Pump  Other \_\_\_\_\_  
 Bottom Valve Bailer  Double Check Valve Bailer

Criteria:  3 to 5 Casing Volumes of Water Removal  Stabilization of Indicator Parameters  Other \_\_\_\_\_ bail dry

Water Volume in Well			
Gal/ft x ft of water	Gallons	Ounces	Volume to be removed
			10 gal

Time (military)	pH (su)	SC (ms)	Temp (°C)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. gal	Comments/Flow Rate
12:35	7.23	7.08	13.3				1	cloudy/silty
	7.28	7.03	13.4				2	cloudy/silty
	7.29	6.72	13.2				3	cloudy/silty
	7.30	6.74	13.3				4	turbidity decreasing
	7.34	6.96	13.8				5	turbidity decreasing
	7.28	6.92	13.9				6	turbidity decreasing
	7.32	9.94	13.9				7	turbidity decreasing
	7.30	6.92	13.4				8	turbidity decreasing
	7.33	9.91	13.9				9	turbidity minimized
	7.3	6.99	13.5				10	turbidity minimized
<b>Final:</b>	7.30	7.52	13.3				10	

COMMENTS:

Instrumentation:  pH Meter  DO Monitor  Conductivity Meter  Temperature Meter  Other \_\_\_\_\_

Water Disposal: On Site

Sample ID: MW-16

Sample Time: \_\_\_\_\_

Analysis Requested:  BTEX  VOC  Alkalinity  TDS  Cations  Anions  Nitrate  Nitrite  Metals  
 Other \_\_\_\_\_

Trip Blank: TRIP BLANK

Duplicate Sample: NA



Project Name: Largo Comp Stn Location: Largo Well No: MW-3R  
 Client: Enterprise Date: 4/12/2010 Time: 11:30  
 Project Manager: Ashley Ager Sampler's Name: Devin Hencmann

Measuring Point: TOC Depth to Water: 21.83 ft Depth to Product: NA ft  
 Well Diameter: 2" Total Depth: 31.27 ft Product Thickness: NA ft  
 Water Column Height: 9.44 ft

Sampling Method:  Submersible Pump  Centrifugal Pump  Peristaltic Pump  Other \_\_\_\_\_  
 Bottom Valve Bailer  Double Check Valve Bailer  
 Criteria:  3 to 5 Casing Volumes of Water Removal  Stabilization of Indicator Parameters  Other \_\_\_\_\_ bail dry

Water Volume in Well			
Gal/ft x ft of water	Gallons	Ounces	Volume to be removed
9.44 x 0.16	193.3 x 3	1.51 x 128	580 oz

Time (military)	pH (su)	SC (ms)	Temp (°C)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. oz	Comments/Flow Rate
11:45	7.57	9.58	14.6				34	low turbidity, no odor
	7.60	9.51	14.4				68	very silty, brown and cloudy
	7.58	9.35	14.3				102	turbidity increase, cloudy/silty
	7.60	9.24	14.3				136	turbidity increase, cloudy/silty
	7.58	9.54	14.5				170	Turbidity decreases
	7.58	9.63	14.4				204	Turbidity decreases
	7.54	9.92	14.5				238	Turbidity decreases
	7.55	9.62	14.5				268	Bailing down
	7.64	9.66	14.4				288	Bailing down
	7.68	9.47	14.6				298	Bailing down
								Bailed dry
<b>Final:</b>	7.59	9.55	14.5				298	

COMMENTS:

Instrumentation:  pH Meter  DO Monitor  Conductivity Meter  Temperature Meter  Other \_\_\_\_\_

Water Disposal: On Site

Sample ID: MW-10 Sample Time: 12:08

Analysis Requested:  BTEX  VOC  Alkalinity  TDS  Cations  Anions  Nitrate  Nitrite  Metals  
 Other \_\_\_\_\_ TPH \_\_\_\_\_

Trip Blank: TRIP BLANK

Duplicate Sample: NA

Project Name: Largo Comp Stn Location: Largo Well No: MW-6  
 Client: Enterprise Date: 4/12/2010 Time: 15:43:00 PM  
 Project Manager: Ashley Ager Sampler's Name: Devin Hencmann

Measuring Point: TOC Depth to Water: 19.11 ft Depth to Product: NA ft  
 Well Diameter: 2" Total Depth: 27.71 ft Product Thickness: NA ft  
 Water Column Height: 8.6 ft

Sampling Method:  Submersible Pump  Centrifugal Pump  Peristaltic Pump  Other \_\_\_\_\_  
 Bottom Valve Bailor  Double Check Valve Bailor  
 Criteria:  3 to 5 Casing Volumes of Water Removal  Stabilization of Indicator Parameters  Other \_\_\_\_\_ bail dry

Water Volume in Well			
Gal/ft x ft of water	Gallons	Ounces	Volume to be removed
8.6 x 0.16	176 x 3	1.37 x 128	528 oz

Time (military)	pH (su)	SC (ms)	Temp (°C)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. oz	Comments/Flow Rate
15:49:00 PM	7.57	9.08	14.2				34	low turbidity, slightly silty
	7.47	9.13	13.7				68	silt, light brown
	7.46	9.20	13.7				102	increasing turbidity
	7.47	9.14	13.7				136	increasing turbidity
	7.47	9.21	13.7				170	increasing turbidity
	7.47	9.23	13.7				204	increasing turbidity
	7.46	9.17	13.7				238	silt, higher turbidity
	7.39	9.08	13.7				272	silt, higher turbidity
	7.44	9.12	13.6				308	silt, higher turbidity
	7.45	8.95	13.5				340	silt, higher turbidity
	7.44	8.57	13.8				408	silt, higher turbidity
	7.43	8.13	13.9				476	silt, higher turbidity
	7.44	7.76	14				544	silt, higher turbidity
Final:	7.46	8.91	13.8				544	

COMMENTS:

Instrumentation:  pH Meter  DO Monitor  Conductivity Meter  Temperature Meter  Other \_\_\_\_\_  
 Water Disposal: On Site  
 Sample ID: MW-6 Sample Time: 16:23:00 PM  
 Analysis Requested:  BTEX  VOC  Alkalinity  TDS  Cations  Anions  Nitrate  Nitrite  Metals  
 Other \_\_\_\_\_ TPH \_\_\_\_\_  
 Trip Blank: TRIP BLANK Duplicate Sample: NA



Project Name: Largo Comp Stn Location: Largo Well No: MW-8  
 Client: Enterprise Date: 4/12/2010 Time: 11:00  
 Project Manager: Ashley Ager Sampler's Name: Devin Hencmann

Measuring Point: TOC Depth to Water: 22.97 ft Depth to Product: NA ft  
 Well Diameter: 2" Total Depth: 28.15 ft Product Thickness: NA ft  
 Water Column Height: 5.18 ft

Sampling Method:  Submersible Pump  Centrifugal Pump  Peristaltic Pump  Other \_\_\_\_\_  
 Bottom Valve Bailer  Double Check Valve Bailer  
 Criteria:  3 to 5 Casing Volumes of Water Removal  Stabilization of Indicator Parameters  Other \_\_\_\_\_ bail dry

Water Volume in Well			
Gal/ft x ft of water	Gallons	Ounces	Volume to be removed
5.18 x 0.16	106 x 3	8.28 x 128	318 oz

Time (military)	pH (su)	SC (ms)	Temp (°C)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. oz	Comments/Flow Rate
11:05	7.60	9.43	14.5				34	slightly cloudy tan/brown silt
	7.76	9.17	14.3				68	slightly cloudy tan/brown silt
	7.75	9.40	14.1				102	slightly cloudy tan/brown silt
	7.78	9.33	14.1				136	slightly cloudy tan/brown silt
	7.76	9.68	14.0				170	turbidity decreasing slightly
	7.78	9.75	13.9				204	turbidity decreasing slightly
	7.76	9.81	14.0				238	turbidity decreasing slightly
	7.77	9.84	14.2				272	turbidity decreasing slightly
	7.75	9.89	14				306	turbidity decreasing slightly
	7.76	9.79	13.9				340	turbidity decreasing slightly
<b>Final:</b>	<b>7.75</b>	<b>9.61</b>	<b>14.1</b>				<b>340</b>	

COMMENTS:

Instrumentation:  pH Meter  DO Monitor  Conductivity Meter  Temperature Meter  Other \_\_\_\_\_

Water Disposal: On Site

Sample ID: MW-8 Sample Time: 11:33

Analysis Requested:  BTEX  VOC  Alkalinity  TDS  Cations  Anions  Nitrate  Nitrite  Metals  
 Other \_\_\_\_\_ TPH \_\_\_\_\_

Trip Blank: TRIP BLANK Duplicate Sample: NA

Project Name: Largo Comp Stn Location: Largo Well No: MW-9  
 Client: Enterprise Date: 4/12/2010 Time: 16:35:00 PM  
 Project Manager: Ashley Ager Sampler's Name: Devin Hencmann

Measuring Point: TOC Depth to Water: 21 ft Depth to Product: NA ft  
 Well Diameter: 2" Total Depth: 31.51 ft Product Thickness: NA ft  
 Water Column Height: 10.51 ft

Sampling Method:  Submersible Pump  Centrifugal Pump  Peristaltic Pump  Other \_\_\_\_\_  
 Bottom Valve Bailer  Double Check Valve Bailer  
 Criteria:  3 to 5 Casing Volumes of Water Removal  Stabilization of Indicator Parameters  Other \_\_\_\_\_ bail dry

Water Volume in Well			
Gal/ft x ft of water	Gallons	Ounces	Volume to be removed
10.51 x 0.16	215 x 3	1.68 x 128	645 oz

Time (military)	pH (su)	SC (ms)	Temp (°C)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. oz	Comments/Flow Rate
16:40:00 PM	7.46	9.37	14.2				34	low silt, some turbidity, light brown, no odor
	7.46	9.39	14.1				68	low silt, some turbidity, light brown, no odor
	7.46	9.38	13.9				102	low silt, some turbidity, light brown, no odor
	7.45	9.42	14.0				136	low silt, some turbidity, light brown, no odor
	7.44	9.39	14.1				170	low silt, some turbidity, light brown, no odor
	7.43	9.46	14.1				204	low silt, some turbidity, light brown, no odor
	7.42	9.49	14.0				238	low silt, some turbidity, light brown, no odor
	7.42	9.48	14.1				272	silt, higher turbidity
	7.41	9.43	14				306	silt, higher turbidity
	7.45	9.54	14				374	silt, higher turbidity
	7.44	9.44	14				424	silt, higher turbidity
	7.46	9.55	14				492	more silty
	7.44	9.49	14.1				560	bailing down, less silty
	7.47	9.36	13.9				620	bailing down, less silty
	7.46	9.34	14				652	bailing down, less silty
<b>Final:</b>	<b>7.44</b>	<b>9.44</b>	<b>14.0</b>				<b>652</b>	

COMMENTS:

Instrumentation:  pH Meter  DO Monitor  Conductivity Meter  Temperature Meter  Other \_\_\_\_\_

Water Disposal: On Site

Sample ID: MW-6 Sample Time: 16:50:00 PM

Analysis Requested:  BTEX  VOC  Alkalinity  TDS  Cations  Anions  Nitrate  Nitrite  Metals  
 Other TPH

Trip Blank: TRIP BLANK

Duplicate Sample: NA

Project Name: Largo Comp Stn Location: Largo Well No: MW-11  
 Client: Enterprise Date: 4/12/2010 Time: 14:24  
 Project Manager: Ashley Ager Sampler's Name: Devin Hencmann

Measuring Point: TOC Depth to Water: 20.57 ft Depth to Product: NA ft  
 Well Diameter: 2" Total Depth: 30.5 ft Product Thickness: NA ft  
 Water Column Height: 9.93 ft

Sampling Method:  Submersible Pump  Centrifugal Pump  Peristaltic Pump  Other \_\_\_\_\_  
 Bottom Valve Bailer  Double Check Valve Bailer

Criteria:  3 to 5 Casing Volumes of Water Removal  Stabilization of Indicator Parameters  Other bail dry

Water Volume in Well			
Gal/ft x ft of water	Gallons	Ounces	Volume to be removed
9.93 x 0.16	203 x 3	1.58 x 128	610 oz

Time (military)	pH (su)	SC (ms)	Temp (°C)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. oz	Comments/Flow Rate
14:31:00 PM	7.33	7.61	14.4				34	slightly silty, clear
	7.30	7.46	15.0				68	low turbidity, no odor
	7.33	7.59	14.2				102	low turbidity, no odor
	7.31	7.57	14.5				136	more silt, light brown
	7.35	7.56	14.5				170	slightly brown
	7.33	7.56	14.4				204	slightly brown
	7.34	7.46	14.5				238	slightly brown
	7.33	7.45	14.6				272	slightly brown
	7.33	7.43	14.7				340	slightly brown
	7.31	7.39	14.4				408	slightly less silty
	7.3	7.44	14.5				476	slightly less silty
	7.31	7.40	14.5				544	slightly less silty, less color
	7.32	7.47	14.5				612	slightly less silty, less color
<b>Final:</b>	7.32	7.49	14.5				612	

COMMENTS:

Instrumentation:  pH Meter  DO Monitor  Conductivity Meter  Temperature Meter  Other \_\_\_\_\_

Water Disposal: On Site

Sample ID: MW-11

Sample Time: 14:55:00 PM

Analysis Requested:  BTEX  VOC  Alkalinity  TDS  Cations  Anions  Nitrate  Nitrite  Metals  
 Other \_\_\_\_\_ TPH \_\_\_\_\_

Trip Blank: TRIP BLANK

Duplicate Sample: NA

Project Name: Largo Comp Stn Location: Largo Well No: MW-12  
 Client: Enterprise Date: 4/12/2010 Time: 15:02  
 Project Manager: Ashley Ager Sampler's Name: Devin Hencmann

Measuring Point: TOC Depth to Water: 14.88 ft Depth to Product: NA ft  
 Well Diameter: 4" Total Depth: 22.34 ft Product Thickness: NA ft  
 Water Column Height: 7.46 ft

Sampling Method:  Submersible Pump  Centrifugal Pump  Peristaltic Pump  Other \_\_\_\_\_  
 Bottom Valve Bailer  Double Check Valve Bailer

Criteria:  3 to 5 Casing Volumes of Water Removal  Stabilization of Indicator Parameters  Other \_\_\_\_\_ bail dry

Water Volume in Well			
Gal/ft x ft of water	Gallons	Ounces	Volume to be removed
7.46 x 0.64	4.78 X 3		14.3 gal

Time (military)	pH (su)	SC (ms)	Temp (°C)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. gal	Comments/Flow Rate
15:12:00 PM	7.32	6.92	13.2				1	slightly cloudy
	7.33	7.74	13.6				2	darker shade, slight odor
	7.39	8.20	13.2				5	dark/cloudy, sheen, some odor
	7.38	8.40	13.7				7	dark/cloudy, sheen, some odor
	7.40	8.56	13.7				10	silt/turbidity increasing
	7.41	8.58	13.7				12	silt/turbidity increasing
	7.44	8.55	13.6				14	bailing down
	7.47	8.67	13.7				15	bailing down
<b>Final:</b>	7.39	8.20	13.6				15	

COMMENTS:

Instrumentation:  pH Meter  DO Monitor  Conductivity Meter  Temperature Meter  Other \_\_\_\_\_

Water Disposal: On Site

Sample ID: MW-12

Sample Time: 15:28:00 PM

Analysis Requested:  BTEX  VOC:  Alkalinity  TDS  Cations  Anions  Nitrate  Nitrite  Metals  
 Other \_\_\_\_\_ TPH \_\_\_\_\_

Trip Blank: TRIP BLANK

Duplicate Sample: NA



Project Name: Largo Comp Stn Location: Largo Well No: MW-14  
 Client: Enterprise Date: 4/12/2010 Time: 13:10  
 Project Manager: Ashley Ager Sampler's Name: Devin Hencmann

Measuring Point: TOC Depth to Water: 20.09 ft Depth to Product: NA ft  
 Well Diameter: 2" Total Depth: 31.12 ft Product Thickness: NA ft  
 Water Column Height: 11.03 ft

Sampling Method:  Submersible Pump  Centrifugal Pump  Peristaltic Pump  Other \_\_\_\_\_  
 Bottom Valve Bailer  Double Check Valve Bailer  
 Criteria:  3 to 5 Casing Volumes of Water Removal  Stabilization of Indicator Parameters  Other \_\_\_\_\_ bail dry

Water Volume in Well			
Gal/ft x ft of water	Gallons	Ounces	Volume to be removed
11.03 x 0.16	225 x 3	1.76 x 128	677 oz

Time (military)	pH (su)	SC (ms)	Temp (°C)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. oz	Comments/Flow Rate
13:15	7.43	6.45	15.0				34	slightly silty, light brown, no odor
	7.46	6.48	14.8				68	slightly silty, light brown, no odor
	7.44	6.47	14.3				102	slightly silty, light brown, no odor
	7.45	6.49	14.3				136	slightly silty, light brown, no odor
	7.43	6.43	14.3				170	slightly silty, light brown, no odor
	7.46	6.49	14.4				204	turbidity increasing
	7.45	6.42	14.6				238	turbidity increasing
	7.48	6.46	14.6				272	turbidity increasing
	7.46	6.42	14.2				306	turbidity increasing
	7.47	6.46	14				340	turbidity increasing
	7.46	6.42	14.3				408	turbidity decreasing
	7.51	6.35	14.3				476	turbidity decreasing
	7.48	6.30	14.2				544	turbidity increasing
	7.48	6.36	14.3				612	turbidity increasing
	7.47	6.30	14.3				680	turbidity increasing
<b>Final:</b>	7.46	6.42	14.4				680	

COMMENTS:

Instrumentation:  pH Meter  DO Monitor  Conductivity Meter  Temperature Meter  Other \_\_\_\_\_

Water Disposal: On Site

Sample ID: MW-14 Sample Time: 13:36

Analysis Requested:  BTEX  VOC  Alkalinity  TDS  Cations  Anions  Nitrate  Nitrite  Metals  
 Other \_\_\_\_\_ TPH \_\_\_\_\_

Trip Blank: TRIP BLANK Duplicate Sample: NA

Project Name: Largo Comp Stn                      Location: Largo                      Well No: MW-15  
 Client: Enterprise                                      Date: 4/12/2010                      Time: 12:22  
 Project Manager: Ashley Ager                      Sampler's Name: Devin Hencmann

Measuring Point: TOC                      Depth to Water: 20.66 ft                      Depth to Product: NA ft  
 Well Diameter: 2"                      Total Depth: 31.68 ft                      Product Thickness: NA ft  
 Water Column Height: 11.02 ft

Sampling Method:  Submersible Pump     Centrifugal Pump     Peristaltic Pump     Other \_\_\_\_\_  
 Bottom Valve Bailer     Double Check Valve Bailer

Criteria:  3 to 5 Casing Volumes of Water Removal     Stabilization of Indicator Parameters     Other \_\_\_\_\_ bail dry

Water Volume in Well			
Gal/ft x ft of water	Gallons	Ounces	Volume to be removed
11.02 x 0.16	225.6 x 3	1.76 x 128	677 oz

Time (military)	pH (su)	SC (ms)	Temp (°C)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. oz	Comments/Flow Rate
11:45	7.28	6.93	14.8				34	slightly silty, brown
	7.27	6.84	14.6				68	slightly silty, brown
	7.28	6.96	14.5				102	turbidity increase
	7.27	6.83	14.6				136	darker
	7.29	6.96	14.5				170	cloudy/silty
	7.26	6.94	14.4				204	cloudy/silty
	7.29	7.01	147.5				238	cloudy/silty
	7.19	6.99	14.5				272	slightly less cloudy
	7.26	7.03	14.4				306	less silty
	7.27	6.92	14.5				340	less silty
	7.31	6.89	14.6				408	less silty
	7.3	6.88	14.5				476	lighter
	7.29	6.96	14.5				544	lighter
	7.28	6.92	14.6				612	lighter
	7.28	6.96	14.5				680	less silty
<b>Final:</b>	7.27	6.93	23.4				680	

COMMENTS:

Instrumentation:  pH Meter     DO Monitor     Conductivity Meter     Temperature Meter     Other \_\_\_\_\_

Water Disposal: On Site

Sample ID: MW-15                      Sample Time: 12:54

Analysis Requested:  BTEX     VOC     Alkalinity     TDS     Cations     Anions     Nitrate     Nitrite     Metals  
 Other \_\_\_\_\_                      TPH \_\_\_\_\_

Trip Blank: TRIP BLANK                      Duplicate Sample: NA

Project Name: Largo Comp Stn Location: Largo Well No: MW-16  
 Client: Enterprise Date: 4/12/2010 Time: 16:58:00 PM  
 Project Manager: Ashley Ager Sampler's Name: Devin Hencmann

Measuring Point: TOC Depth to Water: 21.51 ft Depth to Product: NA ft  
 Well Diameter: 2" Total Depth: 31.36 ft Product Thickness: NA ft  
 Water Column Height: 9.85 ft

Sampling Method:  Submersible Pump  Centrifugal Pump  Peristaltic Pump  Other \_\_\_\_\_  
 Bottom Valve Bailer  Double Check Valve Bailer

Criteria:  3 to 5 Casing Volumes of Water Removal  Stabilization of Indicator Parameters  Other \_\_\_\_\_ bail dry

Water Volume in Well			
Gal/ft x ft of water	Gallons	Ounces	Volume to be removed
9.85 x 0.16	202 x 3	1.576 x 128	605 oz

Time (military)	pH (su)	SC (ms)	Temp (°C)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. oz	Comments/Flow Rate
17:05:00-PM	7.42	10.31	14.3				34	light brown, some silt, no odor
	7.43	10.23	14.1				68	light brown, some silt, no odor
	7.46	10.28	14.1				102	light brown, some silt, no odor
	7.46	10.25	14.0				136	light brown, some silt, no odor
	7.47	10.31	14.0				170	light brown, some silt, no odor
	7.45	10.26	14.1				204	light brown, some silt, no odor
	7.45	10.43	14.1				238	light brown, some silt, no odor
	7.45	10.29	14.1				272	light brown, some silt, no odor
	7.5	10.37	14.1				306	light brown, some silt, no odor
	7.48	10.34	14.1				374	light brown, some silt, no odor
	7.49	10.42	14.2				442	light brown, some silt, no odor
	7.48	10.38	14.2				510	light brown, some silt, no odor
	7.48	10.44	14.2				578	light brown, some silt, no odor
	7.46	10.36	14.2				612	light brown, some silt, no odor
<b>Final:</b>	7.46	10.33	14.1				612	

COMMENTS:

Instrumentation:  pH Meter  DO Monitor  Conductivity Meter  Temperature Meter  Other \_\_\_\_\_

Water Disposal: On Site

Sample ID: MW-16 Sample Time: 17:15:00 PM

Analysis Requested:  BTEX  VOC  Alkalinity  TDS  Cations  Anions  Nitrate  Nitrite  Metals  
 Other \_\_\_\_\_ TPH \_\_\_\_\_

Trip Blank: TRIP BLANK

Duplicate Sample: NA

**APPENDIX C**  
**LABORATORY REPORTS**



COVER LETTER

Thursday, April 15, 2010

Ashley Ager  
LTE  
2243 Main Ave Suite 3  
Durango, CO 81301  
TEL: (970) 946-1093  
FAX

RE: Largo Compressor Station

Order No.: 1004095

Dear Ashley Ager:

Hall Environmental Analysis Laboratory, Inc. received 12 sample(s) on 4/7/2010 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites.

Reporting limits are determined by EPA methodology.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,



Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901  
AZ license # AZ0682  
ORELAP Lab # NM100001  
Texas Lab# T104704424-08-TX



**CLIENT:** LTE  
**Project:** Largo Compressor Station  
**Lab Order:** 1004095

**CASE NARRATIVE**

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Analytical Comments for METHOD 8015GRO\_W, SAMPLE 1004095-07A: Elevated surrogate due to matrix interference.

**Hall Environmental Analysis Laboratory, Inc.**

Date: 15-Apr-10

CLIENT: LTE  
 Lab Order: 1004095  
 Project: Largo Compressor Station  
 Lab ID: 1004095-01

Client Sample ID: MW-8  
 Collection Date: 4/5/2010 11:33:00 AM  
 Date Received: 4/7/2010  
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE</b>						Analyst: JB
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	4/8/2010 11:47:39 AM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	4/8/2010 11:47:39 AM
Surr: DNOP	140	86.9-151		%REC	1	4/8/2010 11:47:39 AM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	4/8/2010 11:11:12 PM
Surr: BFB	91.9	55.2-107		%REC	1	4/8/2010 11:11:12 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	ND	1.0		µg/L	1	4/8/2010 11:11:12 PM
Toluene	ND	1.0		µg/L	1	4/8/2010 11:11:12 PM
Ethylbenzene	ND	1.0		µg/L	1	4/8/2010 11:11:12 PM
Xylenes, Total	ND	2.0		µg/L	1	4/8/2010 11:11:12 PM
Surr: 4-Bromofluorobenzene	89.1	65.9-130		%REC	1	4/8/2010 11:11:12 PM

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level  
 E Estimated value  
 J Analyte detected below quantitation limits  
 NC Non-Chlorinated  
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 MCL Maximum Contaminant Level  
 ND Not Detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits

**Hall Environmental Analysis Laboratory, Inc.**

Date: 15-Apr-10

**CLIENT:** LTE  
**Lab Order:** 1004095  
**Project:** Largo Compressor Station  
**Lab ID:** 1004095-02

**Client Sample ID:** MW-10  
**Collection Date:** 4/5/2010 12:08:00 PM  
**Date Received:** 4/7/2010  
**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE</b>						Analyst: JB
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	4/8/2010 12:23:54 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	4/8/2010 12:23:54 PM
Surr: DNOP	133	86.9-151		%REC	1	4/8/2010 12:23:54 PM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	0.058	0.050		mg/L	1	4/8/2010 11:41:30 PM
Surr: BFB	107	55.2-107		%REC	1	4/8/2010 11:41:30 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	ND	1.0		µg/L	1	4/8/2010 11:41:30 PM
Toluene	ND	1.0		µg/L	1	4/8/2010 11:41:30 PM
Ethylbenzene	ND	1.0		µg/L	1	4/8/2010 11:41:30 PM
Xylenes, Total	ND	2.0		µg/L	1	4/8/2010 11:41:30 PM
Surr: 4-Bromofluorobenzene	97.4	65.9-130		%REC	1	4/8/2010 11:41:30 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

**Hall Environmental Analysis Laboratory, Inc.**

Date: 15-Apr-10

**CLIENT:** LTE  
**Lab Order:** 1004095  
**Project:** Largo Compressor Station  
**Lab ID:** 1004095-03

**Client Sample ID:** MW-15  
**Collection Date:** 4/5/2010 12:54:00 PM  
**Date Received:** 4/7/2010  
**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE</b>						Analyst: JB
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	4/8/2010 1:00:30 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	4/8/2010 1:00:30 PM
Surr: DNOP	137	86.9-151		%REC	1	4/8/2010 1:00:30 PM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	4/9/2010 12:11:53 AM
Surr: BFB	89.4	55.2-107		%REC	1	4/9/2010 12:11:53 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	1.1	1.0		µg/L	1	4/9/2010 12:11:53 AM
Toluene	ND	1.0		µg/L	1	4/9/2010 12:11:53 AM
Ethylbenzene	ND	1.0		µg/L	1	4/9/2010 12:11:53 AM
Xylenes, Total	ND	2.0		µg/L	1	4/9/2010 12:11:53 AM
Surr: 4-Bromofluorobenzene	87.9	65.9-130		%REC	1	4/9/2010 12:11:53 AM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

**Hall Environmental Analysis Laboratory, Inc.**

Date: 15-Apr-10

CLIENT: LTE  
 Lab Order: 1004095  
 Project: Largo Compressor Station  
 Lab ID: 1004095-04

Client Sample ID: MW-14  
 Collection Date: 4/5/2010 1:36:00 PM  
 Date Received: 4/7/2010  
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE</b>						Analyst: JB
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	4/10/2010 11:22:05 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	4/10/2010 11:22:05 PM
Surr: DNOP	120	86.9-151		%REC	1	4/10/2010 11:22:05 PM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	4/9/2010 12:42:17 AM
Surr: BFB	98.5	55.2-107		%REC	1	4/9/2010 12:42:17 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	ND	1.0		µg/L	1	4/9/2010 12:42:17 AM
Toluene	ND	1.0		µg/L	1	4/9/2010 12:42:17 AM
Ethylbenzene	ND	1.0		µg/L	1	4/9/2010 12:42:17 AM
Xylenes, Total	ND	2.0		µg/L	1	4/9/2010 12:42:17 AM
Surr: 4-Bromofluorobenzene	97.6	65.9-130		%REC	1	4/9/2010 12:42:17 AM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

**Hall Environmental Analysis Laboratory, Inc.**

Date: 15-Apr-10

**CLIENT:** LTE  
**Lab Order:** 1004095  
**Project:** Largo Compressor Station  
**Lab ID:** 1004095-05

**Client Sample ID:** MW-7  
**Collection Date:** 4/5/2010 2:15:00 PM  
**Date Received:** 4/7/2010  
**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE</b>						Analyst: JB
Diesel Range Organics (DRO)	1.3	1.0		mg/L	1	4/8/2010 2:12:57 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	4/8/2010 2:12:57 PM
Surr: DNOP	144	86.9-151		%REC	1	4/8/2010 2:12:57 PM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	4.2	0.50		mg/L	10	4/9/2010 1:42:44 AM
Surr: BFB	92.2	55.2-107		%REC	10	4/9/2010 1:42:44 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	940	10		µg/L	10	4/9/2010 1:42:44 AM
Toluene	ND	10		µg/L	10	4/9/2010 1:42:44 AM
Ethylbenzene	ND	10		µg/L	10	4/9/2010 1:42:44 AM
Xylenes, Total	ND	20		µg/L	10	4/9/2010 1:42:44 AM
Surr: 4-Bromofluorobenzene	89.2	65.9-130		%REC	10	4/9/2010 1:42:44 AM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

**Hall Environmental Analysis Laboratory, Inc.**

Date: 15-Apr-10

**CLIENT:** LTE  
**Lab Order:** 1004095  
**Project:** Largo Compressor Station  
**Lab ID:** 1004095-06

**Client Sample ID:** MW-11  
**Collection Date:** 4/5/2010 2:55:00 PM  
**Date Received:** 4/7/2010  
**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE</b>						Analyst: JB
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	4/8/2010 4:14:44 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	4/8/2010 4:14:44 PM
Surr: DNOP	138	86.9-151		%REC	1	4/8/2010 4:14:44 PM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	0.22	0.050		mg/L	1	4/9/2010 2:43:28 AM
Surr: BFB	96.9	55.2-107		%REC	1	4/9/2010 2:43:28 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	ND	1.0		µg/L	1	4/9/2010 2:43:28 AM
Toluene	1.7	1.0		µg/L	1	4/9/2010 2:43:28 AM
Ethylbenzene	ND	1.0		µg/L	1	4/9/2010 2:43:28 AM
Xylenes, Total	3.3	2.0		µg/L	1	4/9/2010 2:43:28 AM
Surr: 4-Bromofluorobenzene	97.6	65.9-130		%REC	1	4/9/2010 2:43:28 AM

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level  
 E Estimated value  
 J Analyte detected below quantitation limits  
 NC Non-Chlorinated  
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 MCL Maximum Contaminant Level  
 ND Not Detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits

**Hall Environmental Analysis Laboratory, Inc.**

Date: 15-Apr-10

**CLIENT:** LTE  
**Lab Order:** 1004095  
**Project:** Largo Compressor Station  
**Lab ID:** 1004095-07

**Client Sample ID:** MW-12  
**Collection Date:** 4/5/2010 3:28:00 PM  
**Date Received:** 4/7/2010  
**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE</b>						Analyst: JB
Diesel Range Organics (DRO)	1.2	1.0		mg/L	1	4/8/2010 4:51:16 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	4/8/2010 4:51:16 PM
Surr: DNOP	146	86.9-151		%REC	1	4/8/2010 4:51:16 PM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	20	1.0		mg/L	20	4/9/2010 3:13:43 AM
Surr: BFB	113	55.2-107	S	%REC	20	4/9/2010 3:13:43 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	1300	20		µg/L	20	4/9/2010 3:13:43 AM
Toluene	1600	20		µg/L	20	4/9/2010 3:13:43 AM
Ethylbenzene	110	20		µg/L	20	4/9/2010 3:13:43 AM
Xylenes, Total	2200	40		µg/L	20	4/9/2010 3:13:43 AM
Surr: 4-Bromofluorobenzene	100	65.9-130		%REC	20	4/9/2010 3:13:43 AM

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level  
 E Estimated value  
 J Analyte detected below quantitation limits  
 NC Non-Chlorinated  
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 MCL Maximum Contaminant Level  
 ND Not Detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits

**Hall Environmental Analysis Laboratory, Inc.**

Date: 15-Apr-10

**CLIENT:** LTE  
**Lab Order:** 1004095  
**Project:** Largo Compressor Station  
**Lab ID:** 1004095-08

**Client Sample ID:** MW-13  
**Collection Date:** 4/5/2010 1:58:00 PM  
**Date Received:** 4/7/2010  
**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE</b>						Analyst: JB
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	4/8/2010 5:28:00 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	4/8/2010 5:28:00 PM
Surr: DNOP	141	86.9-151		%REC	1	4/8/2010 5:28:00 PM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	4/9/2010 3:44:01 AM
Surr: BFB	97.9	55.2-107		%REC	1	4/9/2010 3:44:01 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	ND	1.0		µg/L	1	4/9/2010 3:44:01 AM
Toluene	ND	1.0		µg/L	1	4/9/2010 3:44:01 AM
Ethylbenzene	ND	1.0		µg/L	1	4/9/2010 3:44:01 AM
Xylenes, Total	ND	2.0		µg/L	1	4/9/2010 3:44:01 AM
Surr: 4-Bromofluorobenzene	96.7	65.9-130		%REC	1	4/9/2010 3:44:01 AM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

**Hall Environmental Analysis Laboratory, Inc.**

Date: 15-Apr-10

**CLIENT:** LTE  
**Lab Order:** 1004095  
**Project:** Largo Compressor Station  
**Lab ID:** 1004095-09

**Client Sample ID:** MW-6  
**Collection Date:** 4/5/2010 4:23:00 PM  
**Date Received:** 4/7/2010  
**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE</b>						Analyst: JB
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	4/8/2010 6:04:10 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	4/8/2010 6:04:10 PM
Surr: DNOP	138	86.9-151		%REC	1	4/8/2010 6:04:10 PM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	4/9/2010 5:10:46 PM
Surr: BFB	94.5	55.2-107		%REC	1	4/9/2010 5:10:46 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	ND	1.0		µg/L	1	4/9/2010 5:10:46 PM
Toluene	ND	1.0		µg/L	1	4/9/2010 5:10:46 PM
Ethylbenzene	ND	1.0		µg/L	1	4/9/2010 5:10:46 PM
Xylenes, Total	ND	2.0		µg/L	1	4/9/2010 5:10:46 PM
Surr: 4-Bromofluorobenzene	93.9	65.9-130		%REC	1	4/9/2010 5:10:46 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

**Hall Environmental Analysis Laboratory, Inc.**

Date: 15-Apr-10

**CLIENT:** LTE **Client Sample ID:** MW-9  
**Lab Order:** 1004095 **Collection Date:** 4/5/2010 4:50:00 PM  
**Project:** Largo Compressor Station **Date Received:** 4/7/2010  
**Lab ID:** 1004095-10 **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE</b>						Analyst: JB
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	4/10/2010 10:10:07 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	4/10/2010 10:10:07 PM
Surr: DNOP	121	86.9-151		%REC	1	4/10/2010 10:10:07 PM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	4/9/2010 5:41:00 PM
Surr: BFB	88.5	55.2-107		%REC	1	4/9/2010 5:41:00 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	ND	1.0		µg/L	1	4/9/2010 5:41:00 PM
Toluene	ND	1.0		µg/L	1	4/9/2010 5:41:00 PM
Ethylbenzene	ND	1.0		µg/L	1	4/9/2010 5:41:00 PM
Xylenes, Total	ND	2.0		µg/L	1	4/9/2010 5:41:00 PM
Surr: 4-Bromofluorobenzene	86.8	65.9-130		%REC	1	4/9/2010 5:41:00 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

**Hall Environmental Analysis Laboratory, Inc.**

Date: 15-Apr-10

**CLIENT:** LTE  
**Lab Order:** 1004095  
**Project:** Largo Compressor Station  
**Lab ID:** 1004095-11

**Client Sample ID:** MW-16  
**Collection Date:** 4/5/2010 5:15:00 PM  
**Date Received:** 4/7/2010  
**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE</b>						Analyst: JB
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	4/10/2010 10:46:06 PM
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	4/10/2010 10:46:06 PM
Surr: DNOP	120	86.9-151		%REC	1	4/10/2010 10:46:06 PM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	0.36	0.050		mg/L	1	4/9/2010 6:11:18 PM
Surr: BFB	93.3	55.2-107		%REC	1	4/9/2010 6:11:18 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	3.8	1.0		µg/L	1	4/9/2010 6:11:18 PM
Toluene	1.5	1.0		µg/L	1	4/9/2010 6:11:18 PM
Ethylbenzene	1.4	1.0		µg/L	1	4/9/2010 6:11:18 PM
Xylenes, Total	11	2.0		µg/L	1	4/9/2010 6:11:18 PM
Surr: 4-Bromofluorobenzene	92.4	65.9-130		%REC	1	4/9/2010 6:11:18 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

**Hall Environmental Analysis Laboratory, Inc.**

Date: 15-Apr-10

CLIENT: LTE  
 Lab Order: 1004095  
 Project: Largo Compressor Station  
 Lab ID: 1004095-12

Client Sample ID: TRIP BLANK  
 Collection Date:  
 Date Received: 4/7/2010  
 Matrix: TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	4/9/2010 6:41:37 PM
Surr: BFB	90.1	55.2-107		%REC	1	4/9/2010 6:41:37 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	ND	1.0		µg/L	1	4/9/2010 6:41:37 PM
Toluene	ND	1.0		µg/L	1	4/9/2010 6:41:37 PM
Ethylbenzene	ND	1.0		µg/L	1	4/9/2010 6:41:37 PM
Xylenes, Total	ND	2.0		µg/L	1	4/9/2010 6:41:37 PM
Surr: 4-Bromofluorobenzene	88.4	65.9-130		%REC	1	4/9/2010 6:41:37 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

**QA/QC SUMMARY REPORT**

Client: LTE  
 Project: Largo Compressor Station

Work Order: 1004095

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
<b>Method: EPA Method 8015B: Diesel Range</b>											
Sample ID: MB-21880		MBLK									
Diesel Range Organics (DRO)	ND	mg/L	1.0								
Motor Oil Range Organics (MRO)	ND	mg/L	5.0								
Batch ID: 21880											
Sample ID: LCS-21880		LCS									
Diesel Range Organics (DRO)	5.382	mg/L	1.0	5	0	108	74	157			
Batch ID: 21880											
Sample ID: LCSD-21880		LCSD									
Diesel Range Organics (DRO)	6.503	mg/L	1.0	5	0	130	74	157	18.9	23	

<b>Method: EPA Method 8015B: Gasoline Range</b>											
Sample ID: 1004095-01A MSD		MSD									
Gasoline Range Organics (GRO)	0.4652	mg/L	0.050	0.5	0	93.0	80	115	0.258	8.39	
Batch ID: R38132											
Sample ID: 5ML RB		MBLK									
Gasoline Range Organics (GRO)	ND	mg/L	0.050								
Batch ID: R38132											
Sample ID: 5ML RB		MBLK									
Gasoline Range Organics (GRO)	ND	mg/L	0.050								
Batch ID: R38155											
Sample ID: 2.5UG GRO LCS		LCS									
Gasoline Range Organics (GRO)	0.4680	mg/L	0.050	0.5	0	93.6	80	115			
Batch ID: R38155											
Sample ID: 2.5UG GRO LCSD		LCSD									
Gasoline Range Organics (GRO)	0.5010	mg/L	0.050	0.5	0	100	80	115			
Batch ID: R38155											
Sample ID: 2.5UG GRO LCSD		LCSD									
Gasoline Range Organics (GRO)	0.4666	mg/L	0.050	0.5	0	93.3	80	115	7.11	8.39	
Batch ID: R38155											
Sample ID: 1004095-01A MS		MS									
Gasoline Range Organics (GRO)	0.4664	mg/L	0.050	0.5	0	93.3	80	115			
Batch ID: R38132											

**Qualifiers:**

- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- H Holding times for preparation or analysis exceeded
- NC Non-Chlorinated
- R RPD outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: LTE  
Project: Largo Compressor Station

Work Order: 1004095

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8021B: Volatiles

Sample ID: 1004095-02A MSD MSD Batch ID: R38132 Analysis Date: 4/9/2010 5:45:13 AM

Benzene	20.04	µg/L	1.0	20	0.788	96.3	85.9	113	1.15	27	
Toluene	18.87	µg/L	1.0	20	0	94.3	86.4	113	1.75	19	
Ethylbenzene	18.92	µg/L	1.0	20	0.36	92.8	83.5	118	0.434	10	
Xylenes, Total	57.18	µg/L	2.0	60	0	95.3	83.4	122	0.171	13	

Sample ID: 1004095-10A MSD MSD Batch ID: R38155 Analysis Date: 4/9/2010 8:43:12 PM

Benzene	17.87	µg/L	1.0	20	0	89.4	85.9	113	7.07	27	
Toluene	16.94	µg/L	1.0	20	0	84.7	86.4	113	8.24	19	S
Ethylbenzene	16.59	µg/L	1.0	20	0.13	82.3	83.5	118	7.81	10	S
Xylenes, Total	50.92	µg/L	2.0	60	0	84.9	83.4	122	5.70	13	

Sample ID: 5ML RB MBLK Batch ID: R38132 Analysis Date: 4/8/2010 9:00:08 AM

Benzene	ND	µg/L	1.0								
Toluene	ND	µg/L	1.0								
Ethylbenzene	ND	µg/L	1.0								
Xylenes, Total	ND	µg/L	2.0								

Sample ID: 5ML RB MBLK Batch ID: R38155 Analysis Date: 4/9/2010 9:33:53 AM

Benzene	ND	µg/L	1.0								
Toluene	ND	µg/L	1.0								
Ethylbenzene	ND	µg/L	1.0								
Xylenes, Total	ND	µg/L	2.0								

Sample ID: 100NG BTEX LCS LCS Batch ID: R38132 Analysis Date: 4/8/2010 7:39:00 PM

Benzene	18.83	µg/L	1.0	20	0	94.2	85.9	113			
Toluene	18.24	µg/L	1.0	20	0	91.2	86.4	113			
Ethylbenzene	17.46	µg/L	1.0	20	0.108	86.8	83.5	118			
Xylenes, Total	54.89	µg/L	2.0	60	0	91.5	83.4	122			

Sample ID: 100NG BTEX LCS LCS Batch ID: R38155 Analysis Date: 4/9/2010 9:13:29 PM

Benzene	18.32	µg/L	1.0	20	0	91.6	85.9	113			
Toluene	17.21	µg/L	1.0	20	0	86.0	86.4	113			S
Ethylbenzene	16.95	µg/L	1.0	20	0.11	84.2	83.5	118			
Xylenes, Total	52.47	µg/L	2.0	60	0	87.5	83.4	122			

Sample ID: 1004095-02A MS MS Batch ID: R38132 Analysis Date: 4/9/2010 5:14:47 AM

Benzene	20.28	µg/L	1.0	20	0.786	97.5	85.9	113			
Toluene	19.20	µg/L	1.0	20	0	96.0	86.4	113			
Ethylbenzene	18.84	µg/L	1.0	20	0.36	92.4	83.5	118			
Xylenes, Total	57.28	µg/L	2.0	60	0	95.5	83.4	122			

Sample ID: 1004095-10A MS MS Batch ID: R38155 Analysis Date: 4/9/2010 8:12:47 PM

Benzene	16.65	µg/L	1.0	20	0	83.3	85.9	113			S
Toluene	15.60	µg/L	1.0	20	0	78.0	86.4	113			S
Ethylbenzene	15.34	µg/L	1.0	20	0.13	76.1	83.5	118			S
Xylenes, Total	48.10	µg/L	2.0	60	0	80.2	83.4	122			S

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	NC	Non-Chlorinated
ND	Not Detected at the Reporting Limit	R	RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name LTE

Date Received:

4/7/2010

Work Order Number 1004095

Received by: TLS

Checklist completed by:

Signature

[Handwritten Signature]

4/7/10

Date

Sample ID labels checked by:

AT / [Handwritten Initials]

Initials

Matrix:

Carrier name: Greyhound

- Shipping container/cooler in good condition? Yes  No  Not Present
- Custody seals intact on shipping container/cooler? Yes  No  Not Present  Not Shipped
- Custody seals intact on sample bottles? Yes  No  N/A
- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Samples in proper container/bottle? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No
- All samples received within holding time? Yes  No
- Water - VOA vials have zero headspace? Yes  No VOA vials submitted  Yes  No
- Water - Preservation labels on bottle and cap match? Yes  No  N/A
- Water - pH acceptable upon receipt? Yes  No  N/A
- Container/Temp Blank temperature? 4.6° <6° C Acceptable

Number of preserved bottles checked for pH:

<2 >12 unless noted below.

If given sufficient time to cool.

COMMENTS:

Client contacted \_\_\_\_\_ Date contacted: \_\_\_\_\_ Person contacted \_\_\_\_\_

Contacted by: \_\_\_\_\_ Regarding: \_\_\_\_\_

Comments: \_\_\_\_\_

Corrective Action \_\_\_\_\_





COVER LETTER

Thursday, April 08, 2010

Ashley Ager  
LTE  
2243 Main Ave Suite 3  
Durango, CO 81301  
TEL: (970) 946-1093  
FAX

RE: Largo CS

Order No.: 1004034

Dear Ashley Ager:

Hall Environmental Analysis Laboratory, Inc. received 12 sample(s) on 4/2/2010 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites.

Reporting limits are determined by EPA methodology.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

*John Caldwell*  
for Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901  
AZ license # AZ0682  
ORELAP Lab # NM100001  
Texas Lab# T104704424-08-TX



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CLIENT: LTE  
Project: Largo CS  
Lab Order: 1004034

**CASE NARRATIVE**

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"S" flags denote that the surrogate was elevated due to matrix interferences.

**Hall Environmental Analysis Laboratory, Inc.**

Date: 08-Apr-10

**CLIENT:** LTE  
**Lab Order:** 1004034  
**Project:** Largo CS  
**Lab ID:** 1004034-01

**Client Sample ID:** B33 S1 25-30  
**Collection Date:** 3/30/2010 3:30:00 PM  
**Date Received:** 4/2/2010  
**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: JB
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/7/2010 3:01:05 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/7/2010 3:01:05 AM
Surr: DNOP	88.8	61.7-135		%REC	1	4/7/2010 3:01:05 AM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/5/2010 6:08:48 PM
Surr: BFB	95.1	65.9-118		%REC	1	4/5/2010 6:08:48 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	4/5/2010 6:08:48 PM
Toluene	ND	0.050		mg/Kg	1	4/5/2010 6:08:48 PM
Ethylbenzene	ND	0.050		mg/Kg	1	4/5/2010 6:08:48 PM
Xylenes, Total	ND	0.10		mg/Kg	1	4/5/2010 6:08:48 PM
Surr: 4-Bromofluorobenzene	97.7	64.7-120		%REC	1	4/5/2010 6:08:48 PM

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level  
 E Estimated value  
 J Analyte detected below quantitation limits  
 NC Non-Chlorinated  
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 MCL Maximum Contaminant Level  
 ND Not Detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits

**Hall Environmental Analysis Laboratory, Inc.**

Date: 08-Apr-10

<b>CLIENT:</b> LTE	<b>Client Sample ID:</b> B35 SI 25-30
<b>Lab Order:</b> 1004034	<b>Collection Date:</b> 3/31/2010 12:07:00 PM
<b>Project:</b> Largo CS	<b>Date Received:</b> 4/2/2010
<b>Lab ID:</b> 1004034-02	<b>Matrix:</b> SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: JB
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/7/2010 3:38:16 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/7/2010 3:36:16 AM
Surr: DNOP	90.1	61.7-135		%REC	1	4/7/2010 3:36:16 AM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/5/2010 6:39:07 PM
Surr: BFB	92.8	65.9-118		%REC	1	4/5/2010 6:39:07 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	4/5/2010 6:39:07 PM
Toluene	ND	0.050		mg/Kg	1	4/5/2010 6:39:07 PM
Ethylbenzene	ND	0.050		mg/Kg	1	4/5/2010 6:39:07 PM
Xylenes, Total	ND	0.10		mg/Kg	1	4/5/2010 6:39:07 PM
Surr: 4-Bromofluorobenzene	93.6	64.7-120		%REC	1	4/5/2010 6:39:07 PM

**Qualifiers:**

- |  |  |
|--|--|
| * Value exceeds Maximum Contaminant Level    | B Analyte detected in the associated Method Blank    |
| E Estimated value                            | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | MCL Maximum Contaminant Level                        |
| NC Non-Chlorinated                           | ND Not Detected at the Reporting Limit               |
| PQL Practical Quantitation Limit             | S Spike recovery outside accepted recovery limits    |

**Hall Environmental Analysis Laboratory, Inc.**

Date: 08-Apr-10

**CLIENT:** LTE  
**Lab Order:** 1004034  
**Project:** Largo CS  
**Lab ID:** 1004034-03

**Client Sample ID:** B37 S2 15-20  
**Collection Date:** 3/31/2010 4:16:00 PM  
**Date Received:** 4/2/2010  
**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: <b>JB</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/7/2010 4:11:53 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/7/2010 4:11:53 AM
Surr: DNOP	89.3	61.7-135		%REC	1	4/7/2010 4:11:53 AM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/5/2010 7:09:28 PM
Surr: BFB	93.9	65.9-118		%REC	1	4/5/2010 7:09:28 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: <b>NSB</b>
Benzene	ND	0.050		mg/Kg	1	4/5/2010 7:09:28 PM
Toluene	ND	0.050		mg/Kg	1	4/5/2010 7:09:28 PM
Ethylbenzene	ND	0.050		mg/Kg	1	4/5/2010 7:09:28 PM
Xylenes, Total	ND	0.10		mg/Kg	1	4/5/2010 7:09:28 PM
Surr: 4-Bromofluorobenzene	97.4	64.7-120		%REC	1	4/5/2010 7:09:28 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

**Hall Environmental Analysis Laboratory, Inc.**

Date: 08-Apr-10

<b>CLIENT:</b> LTE	<b>Client Sample ID:</b> B35 S2 20-25
<b>Lab Order:</b> 1004034	<b>Collection Date:</b> 3/31/2010 12:07:00 PM
<b>Project:</b> Largo CS	<b>Date Received:</b> 4/2/2010
<b>Lab ID:</b> 1004034-04	<b>Matrix:</b> SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: JB
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/7/2010 4:47:20 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/7/2010 4:47:20 AM
Surr: DNOP	79.4	61.7-135		%REC	1	4/7/2010 4:47:20 AM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/6/2010 1:13:20 AM
Surr: BFB	98.4	65.9-118		%REC	1	4/6/2010 1:13:20 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	0.18	0.050		mg/Kg	1	4/6/2010 1:13:20 AM
Toluene	ND	0.050		mg/Kg	1	4/6/2010 1:13:20 AM
Ethylbenzene	ND	0.050		mg/Kg	1	4/6/2010 1:13:20 AM
Xylenes, Total	ND	0.10		mg/Kg	1	4/6/2010 1:13:20 AM
Surr: 4-Bromofluorobenzene	101	64.7-120		%REC	1	4/6/2010 1:13:20 AM

**Qualifiers:**

- |  |  |
|--|--|
| * Value exceeds Maximum Contaminant Level    | B Analyte detected in the associated Method Blank    |
| E Estimated value                            | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | MCL Maximum Contaminant Level                        |
| NC Non-Chlorinated                           | ND Not Detected at the Reporting Limit               |
| PQL Practical Quantitation Limit             | S Spike recovery outside accepted recovery limits    |

**Hall Environmental Analysis Laboratory, Inc.**

Date: 08-Apr-10

<b>CLIENT:</b> LTE	<b>Client Sample ID:</b> B37 S3 25-30
<b>Lab Order:</b> 1004034	<b>Collection Date:</b> 3/31/2010 4:18:00 PM
<b>Project:</b> Largo CS	<b>Date Received:</b> 4/2/2010
<b>Lab ID:</b> 1004034-05	<b>Matrix:</b> SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: JB
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/7/2010 5:22:46 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/7/2010 5:22:46 AM
Surr: DNOP	79.2	61.7-135		%REC	1	4/7/2010 5:22:46 AM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/6/2010 1:43:40 AM
Surr: BFB	94.2	65.9-118		%REC	1	4/6/2010 1:43:40 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	4/6/2010 1:43:40 AM
Toluene	ND	0.050		mg/Kg	1	4/6/2010 1:43:40 AM
Ethylbenzene	ND	0.050		mg/Kg	1	4/6/2010 1:43:40 AM
Xylenes, Total	ND	0.10		mg/Kg	1	4/6/2010 1:43:40 AM
Surr: 4-Bromofluorobenzene	96.0	64.7-120		%REC	1	4/6/2010 1:43:40 AM

**Qualifiers:**

- |  |  |
|--|--|
| * Value exceeds Maximum Contaminant Level    | B Analyte detected in the associated Method Blank    |
| E Estimated value                            | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | MCL Maximum Contaminant Level                        |
| NC Non-Chlorinated                           | ND Not Detected at the Reporting Limit               |
| PQL Practical Quantitation Limit             | S Spike recovery outside accepted recovery limits    |

**Hall Environmental Analysis Laboratory, Inc.**

Date: 08-Apr-10

<b>CLIENT:</b> LTE	<b>Client Sample ID:</b> B32 S2 0-5
<b>Lab Order:</b> 1004034	<b>Collection Date:</b> 3/30/2010 12:45:00 PM
<b>Project:</b> Largo CS	<b>Date Received:</b> 4/2/2010
<b>Lab ID:</b> 1004034-06	<b>Matrix:</b> SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: JB
Diesel Range Organics (DRO)	390	10		mg/Kg	1	4/7/2010 5:58:08 AM
Motor Oil Range Organics (MRO)	190	50		mg/Kg	1	4/7/2010 5:58:08 AM
Surr: DNOP	115	61.7-135		%REC	1	4/7/2010 5:58:08 AM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	2700	250		mg/Kg	50	4/6/2010 2:13:55 AM
Surr: BFB	192	65.9-118	S	%REC	50	4/6/2010 2:13:55 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	4.3	2.5		mg/Kg	50	4/6/2010 2:13:55 AM
Toluene	90	2.5		mg/Kg	50	4/6/2010 2:13:55 AM
Ethylbenzene	15	2.5		mg/Kg	50	4/6/2010 2:13:55 AM
Xylenes, Total	200	5.0		mg/Kg	50	4/6/2010 2:13:55 AM
Surr: 4-Bromofluorobenzene	107	64.7-120		%REC	50	4/6/2010 2:13:55 AM

**Qualifiers:**

- |  |  |
|--|--|
| * Value exceeds Maximum Contaminant Level    | B Analyte detected in the associated Method Blank    |
| E Estimated value                            | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | MCL Maximum Contaminant Level                        |
| NC Non-Chlorinated                           | ND Not Detected at the Reporting Limit               |
| PQL Practical Quantitation Limit             | S Spike recovery outside accepted recovery limits    |

**Hall Environmental Analysis Laboratory, Inc.**

Date: 08-Apr-10

**CLIENT:** LTE  
**Lab Order:** 1004034  
**Project:** Largo CS  
**Lab ID:** 1004034-07

**Client Sample ID:** B31 S1 20-25  
**Collection Date:** 3/30/2010 11:26:00 AM  
**Date Received:** 4/2/2010  
**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: JB
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/7/2010 6:33:37 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/7/2010 6:33:37 AM
Surr: DNOP	88.6	61.7-135		%REC	1	4/7/2010 6:33:37 AM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	9.3	5.0		mg/Kg	1	4/6/2010 2:15:14 PM
Surr: BFB	107	65.9-118		%REC	1	4/6/2010 2:15:14 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	1.3	0.050		mg/Kg	1	4/6/2010 2:15:14 PM
Toluene	ND	0.050		mg/Kg	1	4/6/2010 2:15:14 PM
Ethylbenzene	0.057	0.050		mg/Kg	1	4/6/2010 2:15:14 PM
Xylenes, Total	0.12	0.10		mg/Kg	1	4/6/2010 2:15:14 PM
Surr: 4-Bromofluorobenzene	108	64.7-120		%REC	1	4/6/2010 2:15:14 PM

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level  
 E Estimated value  
 J Analyte detected below quantitation limits  
 NC Non-Chlorinated  
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 MCL Maximum Contaminant Level  
 ND Not Detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits

**Hall Environmental Analysis Laboratory, Inc.**

Date: 08-Apr-10

<b>CLIENT:</b> LTE	<b>Client Sample ID:</b> B37 SI 20-25
<b>Lab Order:</b> 1004034	<b>Collection Date:</b> 3/31/2010 4:15:00 PM
<b>Project:</b> Largo CS	<b>Date Received:</b> 4/2/2010
<b>Lab ID:</b> 1004034-08	<b>Matrix:</b> SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: JB
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/7/2010 7:08:57 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/7/2010 7:08:57 AM
Surr: DNOP	84.2	61.7-135		%REC	1	4/7/2010 7:08:57 AM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	5.7	5.0		mg/Kg	1	4/6/2010 3:14:27 AM
Surr: BFB	101	65.9-118		%REC	1	4/6/2010 3:14:27 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	0.48	0.050		mg/Kg	1	4/6/2010 3:14:27 AM
Toluene	ND	0.050		mg/Kg	1	4/6/2010 3:14:27 AM
Ethylbenzene	ND	0.050		mg/Kg	1	4/6/2010 3:14:27 AM
Xylenes, Total	0.14	0.10		mg/Kg	1	4/6/2010 3:14:27 AM
Surr: 4-Bromofluorobenzene	98.3	64.7-120		%REC	1	4/6/2010 3:14:27 AM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

**Hall Environmental Analysis Laboratory, Inc.**

Date: 08-Apr-10

<b>CLIENT:</b> LTE	<b>Client Sample ID:</b> B31 S2 15-20
<b>Lab Order:</b> 1004034	<b>Collection Date:</b> 3/30/2010 11:30:00 AM
<b>Project:</b> Largo CS	<b>Date Received:</b> 4/2/2010
<b>Lab ID:</b> 1004034-09	<b>Matrix:</b> SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: JB
Diesel Range Organics (DRO)	12	10		mg/Kg	1	4/7/2010 7:44:16 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/7/2010 7:44:16 AM
Surr: DNOP	86.1	61.7-135		%REC	1	4/7/2010 7:44:16 AM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	290	50		mg/Kg	10	4/6/2010 3:44:44 AM
Surr: BFB	115	65.9-118		%REC	10	4/6/2010 3:44:44 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	0.74	0.50		mg/Kg	10	4/6/2010 3:44:44 AM
Toluene	1.9	0.50		mg/Kg	10	4/6/2010 3:44:44 AM
Ethylbenzene	0.50	0.50		mg/Kg	10	4/6/2010 3:44:44 AM
Xylenes, Total	6.7	1.0		mg/Kg	10	4/6/2010 3:44:44 AM
Surr: 4-Bromofluorobenzene	102	64.7-120		%REC	10	4/6/2010 3:44:44 AM

**Qualifiers:**

- |  |  |
|--|--|
| * Value exceeds Maximum Contaminant Level    | B Analyte detected in the associated Method Blank    |
| E Estimated value                            | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | MCL Maximum Contaminant Level                        |
| NC Non-Chlorinated                           | ND Not Detected at the Reporting Limit               |
| PQL Practical Quantitation Limit             | S Spike recovery outside accepted recovery limits    |

**Hall Environmental Analysis Laboratory, Inc.**

Date: 08-Apr-10

<b>CLIENT:</b> LTE	<b>Client Sample ID:</b> B36 S1 25-30
<b>Lab Order:</b> 1004034	<b>Collection Date:</b> 3/31/2010 3:00:00 PM
<b>Project:</b> Largo CS	<b>Date Received:</b> 4/2/2010
<b>Lab ID:</b> 1004034-10	<b>Matrix:</b> SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: JB
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/8/2010 5:35:47 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/8/2010 5:35:47 AM
Surr: DNOP	84.7	61.7-135		%REC	1	4/8/2010 5:35:47 AM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/8/2010 4:14:56 AM
Surr: BFB	101	65.9-118		%REC	1	4/8/2010 4:14:56 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	4/6/2010 4:14:56 AM
Toluene	ND	0.050		mg/Kg	1	4/6/2010 4:14:56 AM
Ethylbenzene	ND	0.050		mg/Kg	1	4/6/2010 4:14:56 AM
Xylenes, Total	ND	0.10		mg/Kg	1	4/6/2010 4:14:56 AM
Surr: 4-Bromofluorobenzene	103	64.7-120		%REC	1	4/6/2010 4:14:56 AM

**Qualifiers:**

- |  |  |
|--|--|
| * Value exceeds Maximum Contaminant Level    | B Analyte detected in the associated Method Blank    |
| E Estimated value                            | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | MCL Maximum Contaminant Level                        |
| NC Non-Chlorinated                           | ND Not Detected at the Reporting Limit               |
| PQL Practical Quantitation Limit             | S Spike recovery outside accepted recovery limits    |

**Hall Environmental Analysis Laboratory, Inc.**

Date: 08-Apr-10

<b>CLIENT:</b> LTE	<b>Client Sample ID:</b> B32 S1 15-20
<b>Lab Order:</b> 1004034	<b>Collection Date:</b> 3/30/2010 12:47:00 PM
<b>Project:</b> Largo CS	<b>Date Received:</b> 4/2/2010
<b>Lab ID:</b> 1004034-11	<b>Matrix:</b> SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: JB
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/8/2010 6:11:37 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/8/2010 6:11:37 AM
Surr: DNOP	81.4	61.7-135		%REC	1	4/8/2010 6:11:37 AM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/6/2010 4:45:19 AM
Surr: BFB	96.3	65.9-118		%REC	1	4/6/2010 4:45:19 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	0.38	0.050		mg/Kg	1	4/6/2010 4:45:19 AM
Toluene	ND	0.050		mg/Kg	1	4/6/2010 4:45:19 AM
Ethylbenzene	ND	0.050		mg/Kg	1	4/6/2010 4:45:19 AM
Xylenes, Total	ND	0.10		mg/Kg	1	4/6/2010 4:45:19 AM
Surr: 4-Bromofluorobenzene	97.6	64.7-120		%REC	1	4/6/2010 4:45:19 AM

**Qualifiers:**

- |  |  |
|--|--|
| * Value exceeds Maximum Contaminant Level    | B Analyte detected in the associated Method Blank    |
| E Estimated value                            | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | MCL Maximum Contaminant Level                        |
| NC Non-Chlorinated                           | ND Not Detected at the Reporting Limit               |
| PQL Practical Quantitation Limit             | S Spike recovery outside accepted recovery limits    |

**Hall Environmental Analysis Laboratory, Inc.**

Date: 08-Apr-10

<b>CLIENT:</b> LTE	<b>Client Sample ID:</b> B34 S1 25-30
<b>Lab Order:</b> 1004034	<b>Collection Date:</b> 3/31/2010 10:20:00 AM
<b>Project:</b> Largo CS	<b>Date Received:</b> 4/2/2010
<b>Lab ID:</b> 1004034-12	<b>Matrix:</b> SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: JB
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/8/2010 6:47:17 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/8/2010 6:47:17 AM
Surr: DNOP	86.1	61.7-135		%REC	1	4/8/2010 6:47:17 AM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/6/2010 5:15:42 AM
Surr: BFB	102	65.9-118		%REC	1	4/6/2010 5:15:42 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	4/6/2010 5:15:42 AM
Toluene	ND	0.050		mg/Kg	1	4/6/2010 5:15:42 AM
Ethylbenzene	ND	0.050		mg/Kg	1	4/6/2010 5:15:42 AM
Xylenes, Total	ND	0.10		mg/Kg	1	4/6/2010 5:15:42 AM
Surr: 4-Bromofluorobenzene	105	64.7-120		%REC	1	4/6/2010 5:15:42 AM

**Qualifiers:**

- |  |  |
|--|--|
| * Value exceeds Maximum Contaminant Level    | B Analyte detected in the associated Method Blank    |
| E Estimated value                            | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | MCL Maximum Contaminant Level                        |
| NC Non-Chlorinated                           | ND Not Detected at the Reporting Limit               |
| PQL Practical Quantitation Limit             | S Spike recovery outside accepted recovery limits    |

## QA/QC SUMMARY REPORT

Client: LTE  
Project: Largo CS

Work Order: 1004034

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
<b>Method: EPA Method 8015B: Diesel Range Organics</b>											
Sample ID: MB-21841		MBLK									
Diesel Range Organics (DRO)	ND	mg/Kg	10								
Motor Oil Range Organics (MRO)	ND	mg/Kg	50								
Sample ID: LCS-21841		LCS									
Diesel Range Organics (DRO)	35.91	mg/Kg	10	50	0	71.8	64.6	116			
Sample ID: LCSD-21841		LCSD									
Diesel Range Organics (DRO)	34.99	mg/Kg	10	50	0	70.0	64.6	116	2.59	17.4	
<b>Method: EPA Method 8015B: Gasoline Range</b>											
Sample ID: 1004034-01A MSD		MSD									
Gasoline Range Organics (GRO)	20.41	mg/Kg	5.0	25	1.38	76.1	69.5	120	6.63	11.6	
Sample ID: MB-21834		MBLK									
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0								
Sample ID: LCS-21834		LCS									
Gasoline Range Organics (GRO)	30.40	mg/Kg	5.0	25	0	122	77.7	135			
Sample ID: 1004034-01A MS		MS									
Gasoline Range Organics (GRO)	19.10	mg/Kg	5.0	25	1.38	70.9	69.5	120			
<b>Method: EPA Method 8021B: Volatiles</b>											
Sample ID: 1004034-01A MSD		MSD									
Benzene	0.7178	mg/Kg	0.050	1	0.0122	70.6	78.8	132	1.21	27	S
Toluene	0.7973	mg/Kg	0.050	1	0	79.7	78.9	112	4.46	19	
Ethylbenzene	0.8702	mg/Kg	0.050	1	0	87.0	69.3	125	7.15	10	
Xylenes, Total	2.621	mg/Kg	0.10	3	0	87.4	73	128	6.64	13	
Sample ID: MB-21834		MBLK									
Benzene	ND	mg/Kg	0.050								
Toluene	ND	mg/Kg	0.050								
Ethylbenzene	ND	mg/Kg	0.050								
Xylenes, Total	ND	mg/Kg	0.10								
Sample ID: LCS-21834		LCS									
Benzene	0.9264	mg/Kg	0.050	1	0.0117	91.5	78.8	132			
Toluene	0.8964	mg/Kg	0.050	1	0	89.6	78.9	112			
Ethylbenzene	0.9721	mg/Kg	0.050	1	0.0142	95.8	69.3	125			
Xylenes, Total	2.933	mg/Kg	0.10	3	0	97.8	73	128			
Sample ID: 1004034-01A MS		MS									
Benzene	0.7092	mg/Kg	0.050	1	0.0122	69.7	78.8	132			S
Toluene	0.7625	mg/Kg	0.050	1	0	76.3	78.9	112			S
Ethylbenzene	0.8101	mg/Kg	0.050	1	0	81.0	69.3	125			
Xylenes, Total	2.452	mg/Kg	0.10	3	0	81.7	73	128			

## Qualifiers:

E Estimated value  
J Analyte detected below quantitation limits  
ND Not Detected at the Reporting Limit  
H Holding times for preparation or analysis exceeded  
NC Non-Chlorinated  
R RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name LTE

Date Received:

4/2/2010

Work Order Number 1004034

Received by: TLS

Sample ID labels checked by:

Checklist completed by:

Signature

[Handwritten Signature]

4/2/10  
Date

[Handwritten Initials: TS]  
Initials

Matrix:

Carrier name: Greyhound

- Shipping container/cooler in good condition? Yes  No  Not Present
- Custody seals intact on shipping container/cooler? Yes  No  Not Present  Not Shipped
- Custody seals intact on sample bottles? Yes  No  N/A
- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Samples in proper container/bottle? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No
- All samples received within holding time? Yes  No
- Water - VOA vials have zero headspace? No VOA vials submitted  Yes  No
- Water - Preservation labels on bottle and cap match? Yes  No  N/A
- Water - pH acceptable upon receipt? Yes  No  N/A

Number of preserved bottles checked for pH:

<2 >12 unless noted below.

Container/Temp Blank temperature?

0.8°

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted \_\_\_\_\_ Date contacted: \_\_\_\_\_ Person contacted \_\_\_\_\_

Contacted by: \_\_\_\_\_ Regarding: \_\_\_\_\_

Comments: \_\_\_\_\_

Corrective Action \_\_\_\_\_





May 5, 2010

ENTERPRISE PRODUCTS PARTNERS LP  
ENTERPRISE PRODUCTS OPERATING LLC

ENTERPRISE PRODUCTS GP, LLC, GENERAL PARTNER  
ENTERPRISE PRODUCTS OLPGP, INC., SOLE MANAGER

Return Receipt Requested  
7009 3410 0001 6448 0346

Mr. Jim Griswold, Senior Hydrologist  
Environmental Bureau  
ENMRD/ Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, NM 87505

**RE: Initial Remedial Action Report for  
Enterprise Field Services, LLC  
Largo Compressor Station, GW-211  
Rio Arriba County, New Mexico**

Attn: Mr. Leonard Lowe

Dear Mr. Griswold,

Enterprise Field Services, LLC (Enterprise) presents the following report concerning the Largo Compressor Station located in Unit I of Section 15 within Township 26N, Range 7W in Rio Arriba County, NM. This report documents remedial actions performed at the facility in response to historical soil impacts encountered during routine construction activities. These soil impacts were reported to the New Mexico Oil Conservation Division (OCD) on a C-141 Notification Form dated July 6, 2009.

Enterprise has completed initial remedial actions, including the excavation and offsite disposal of soils, and limited soil and water sampling. This information is provided in the attached report. A delineation investigation is currently being planned to determine the full extent of soil and potential groundwater impacts at the facility. A proposed work plan will be submitted to the OCD for approval prior to implementation of the delineation investigation. This investigation will be used to design remedial actions for the site.

Enterprise wishes to proceed with the additional site investigations as soon as practical, and will submit a proposed work plan no later than May 28, 2010. Should you have any questions, please do not hesitate to contact me at (713) 381-2286, or [drsmith@eprod.com](mailto:drsmith@eprod.com).

Respectfully Submitted,



David R. Smith, P.G.

/bjm  
Attachment

cc: Brandon Powell, NMOCD Aztec Office  
Ashley Auger, LT Environmental  
Rex Meyer, GeoMonitoring Services

2010 MAY 10 A 11:05  
RECEIVED OOD

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

State of New Mexico  
Energy Minerals and Natural Resources

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

Form C-141  
Revised October 10, 2003

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

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

Name of Company: Enterprise Field Services, LLC	Contact: Primary David Smith, alternate Don Fernald
Address: 614 Reilly Ave, Farmington, NM	Telephone No. 713-381-2286, cell 713-501-8136, alt. 505-599-2124
Facility Name: Largo Compressor Station	Facility Type: Gas Compression Facility

Surface Owner, Enterprise Field Services	Mineral Owner: NA	Lease No.
--	-------------------	-----------

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
I	15	26N	07W					Rio Arriba

Latitude 36 29'09.35" Longitude 107 33'24.33"

**NATURE OF RELEASE**

Type of Release : Condensate unknown historic release.	Volume of Release : Unknown	Volume Recovered
Source of Release: Apparent historic release or releases	Date and Hour of Occurrence: NA	Date and Hour of Discovery: 6/30/09
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Brandon Powell	
By Whom? Don Fernald	Date and Hour 7/1/2009 10:00 AM	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*

Cause of the release probably has been eliminated by upgrades at this site over the last 15 years. Where impacted soils were identified initially they were excavated. Impacted soils were disposed of at Envirotech's NMOCD permitted facility near Angel Peak. As additional contamination beyond the approximately 3,000 cy excavated were identified, excavation was terminated to do additional studies.

Describe Area Affected and Cleanup Action Taken.\*

See attached report and figures. Refer to recommendations page 5 of 5.

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

Signature: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: David R. Smith	Approved by District Supervisor:	
Title: Sr. Env. Scientist	Approval Date:	Expiration Date:
E-mail Address: drsmith@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 5/10/10	Phone: 713 301-2296	

\* Attach Additional Sheets If Necessary See Attached Report and Appendices

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

State of New Mexico  
Energy Minerals and Natural Resources  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised October 10, 2003

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

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

Name of Company: Enterprise Field Services LLC	Contact: Don Fernald
Address: 614 Reilly Avenue / Farmington, NM	Telephone No. 505-599-2124
Facility Name: Largo CS	Facility Type: Compressor Station

Surface Owner: Enterprise	Mineral Owner	Lease No.
---------------------------	---------------	-----------

**LOCATION OF RELEASE**

Unit Letter	Section 15	Township 26 N	Range 7 W	Feet from the	North/South Line	Feet from the	East/West Line	County Rio Arriba
-------------	---------------	------------------	--------------	---------------	------------------	---------------	----------------	----------------------

Latitude \_\_\_\_\_ Longitude \_\_\_\_\_

**NATURE OF RELEASE**

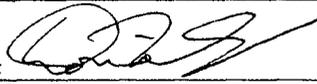
Type of Release: Condensate or oil / unknown historic release	Volume of Release: unknown	Volume Recovered: n/a
Source of Release: Apparent historical release from prior owner/operator. Likely from Condensate/oil storage tank	Date and Hour of Occurrence unknown	Date and Hour of Discovery 6/30/09
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Brandon Powell / NMOCD - Aztec District Office	
By Whom? Don Fernald	Date and Hour: 7/1/09 -10:00 AM	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.\*  
Excavation of the area indicates that groundwater is approximately 13' below ground surface. Groundwater appears to be impacted, laboratory samples are pending.

Describe Cause of Problem and Remedial Action Taken.\*  
During construction of new tank battery, a historical hydrocarbon release was discovered.

Describe Area Affected and Cleanup Action Taken.\*  
Approximately 1,000 cubic yards of impacted soil removed and to be transported to landfarm pending RCRA 8 metals analysis. Groundwater in excavation to be transported to disposal facility pending analysis. Area to be backfilled and monitoring wells to be installed pending guidance and NMOCD requirements.

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

Signature: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Don Fernald	Approved by District Supervisor:	
Title: Environmental Scientist	Approval Date:	Expiration Date:
E-mail Address: dfernaldd@eprod.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 7/6/09 Phone: 505-599-2124		

\* Attach Additional Sheets If Necessary

**Enterprise Field Services LLC**  
**Largo Compressor Station**  
**Subsequent C-141**  
**Section 15-Township 26 North Range 07 West**  
**Rio Arriba County New Mexico**

36°29'09.35"N Lat and 107°33'24.23"W Long

**Introduction**

Largo Compressor Station is a New Mexico Oil Conservation Division (OCD) permitted facility GW-211. Largo Station has been in operation for over 50 years on fee property owned by El Paso Natural Gas and its successors. As reported on a C-141 dated July 6, 2009, during the construction of a new tank battery, historical hydrocarbon impact was identified within the fenced facility. Enterprise excavated soil in the area to closure standards. The final dimensions of the excavation were 30 feet x 100 feet x 13 feet. In the excavation, groundwater was encountered at approximately 13 feet below ground surface. While awaiting authorization from Envirotech to haul hydrocarbon impacted soil to their New Mexico Oil Conservation Division (NMOCD) permitted land farm, the construction contractor for Enterprise, Foutz & Bursum (F&B), initiated a second excavation project for a stormwater retention pond. The initial phases of the second excavation revealed soil impact, also apparently historical. Continued excavation, potholing, and testing indicate the historical soil impacts may encompass a sizeable area.

**Summary of Activities**

Foutz and Bursum (F&B) had been awarded a contract by Enterprise to construct a tank battery within the Largo Station facility fence. F&B mobilized to the site June 8, 2009, and started work for the new tank battery. F&B encountered persistent hydrocarbon impacts in soil over a large portion of the construction area. Don Fernald of Enterprise Field Services (Enterprise) was notified of the potential hydrocarbon impacted soil on June 25, 2009. Enterprise believes the evidence of hydrocarbon impact may be related to a leak from the valve box associated with a historical tank previously located in the immediate area.

Initially, F&B dug an excavation 15 feet wide X 30 feet long X 4 feet deep, encountering black to gray discolored soil in the middle of the excavation. At the request of Enterprise, Souder, Miller & Associates (SMA) responded to the site on June 26, 2009. On recommendation by SMA, six potholes were dug in various directions from the excavation in an attempt to identify the extent. Pothole locations are shown on the field site sketch in Appendix A.

Field observations from the six potholes are shown below:

- ❖ Pothole #1 (PH #1) – Black to gray soil impact was identified beginning at approximately 5 feet bgs. Ground water was encountered at 12 feet bgs. Total depth of the pothole was approximately 13 feet bgs. Soil impact was visible with strong hydrocarbon odor from 5 feet bgs to total depth of excavation, 13 feet bgs. A ground water grab sample was collected from the PH #1 location for laboratory analysis per USEPA Method 8260.
- ❖ Pothole #2 (PH #2) – Visually evident soil impact was encountered beginning at 3 feet bgs with further exploratory excavation terminated in the impacted soils.
- ❖ Pothole #3 (PH #3) – No hydrocarbon odor or visible soil contamination was encountered. Total depth of the pothole was 7 feet bgs.
- ❖ Pothole #4 (PH #4) – Visible soil impact with strong hydrocarbon odor was evident from 5 feet through 7 feet bgs, the total depth of PH #4.
- ❖ Pothole #5 (PH #5) – Gray soils were encountered beginning at 7 feet bgs. No hydrocarbon odor was detected until the pothole reached a depth of 10 feet bgs.
- ❖ Pothole #6 (PH #6) – Visually evident soil impact with a slight hydrocarbon odor was encountered at approximately 10 feet bgs. A soil sample was collected for laboratory analysis per USEPA Method 8015 for total petroleum hydrocarbons.

Refer to Appendices A and B for the field site sketch and laboratory analytical results for PH #1 water and PH #6 soil.

SMA instructed F&B to excavate visually identifiable impacted soil to the depth of the ground water within the area enclosed by the six potholes described above. Continuous SMA oversight of the activities was not authorized by Enterprise at the time.

On June 30, 2009, SMA returned to the site to observe and document the progress of the excavation activities. The central area of the pit had been excavated to ground water (13 feet bgs) with lateral dimensions approximately 17 feet long by 30 feet wide. Soil samples were collected from the south side of the central pit for field headspace analysis. The PID headspace field screening result most notable was 4,978 parts per million (ppm) at 12 feet bgs. SMA instructed the excavation crew to continue the removal of the impacted soils as visually determined.

A third visit to the site was made on July 1, 2009. The dimensions of the excavation at that time were approximately 30 feet wide, 100 feet long and 13 feet deep. Five soil samples were collected from the excavation walls for field headspace analysis. The results of the headspace readings are:

- South Riser Wall (Riser Wall) #1: 192 ppm
- South Riser Wall (Riser Wall) #2: 45.4 ppm
- North Road Wall (Road Wall): 3,324 ppm
- East Wall (East Wall): 64.9 ppm
- West Wall (West Wall): 0.7 ppm

A second field headspace sample was collected from the South Riser Wall after additional material was removed by the excavation crew because the first headspace result was above the NMOCD Action Levels of 100 ppm. The second field headspace reading was below 100 ppm. The field headspace reading from the North Road Wall indicated concentrations of volatiles also above the OCD Action Levels. However, additional excavation was not pursued due to proximity to the property line and the County roadway. Four confirmation soil samples were collected from the excavation pit walls for laboratory analysis per USEPA Method 8015 for total petroleum hydrocarbons (TPH). A fifth 5-point composite soil sample was collected and constructed from the excavated soil stockpile for characterization for disposal. The stockpile sample was analyzed initially per USEPA Method 6010 for RCRA 8 Total Metals. The Envirotech Land Farm required the exempt soil stockpile sample be analyzed for RCRA 8 metals by a TCLP extraction, Method 1311, followed by Method 6010, before accepting the soil (Refer to Appendix C for laboratory analytical results).

Subsequently, the F&B excavation crew received instructions from Enterprise to continue excavation towards County Road 379. Upon completion of the excavation at that point, SMA returned to the site on July 8, 2009, to collect a confirmatory soil sample from the North Road Wall for laboratory analysis. The soil sample was collected and shipped to Hall Environmental Analytical Laboratory (HEAL) in Albuquerque, New Mexico for analysis per USEPA Methods 8260 for BTEX and 8015 for TPH (Refer to Appendix D for laboratory analytical results).

Photos #1 through #5 in the Appendices give perspective and visual orientation of the impacted area.

While awaiting sample results and permission to haul exempt soils off site, Enterprise began installation of a storm water retention pond on July 14, 2009. Upon digging at the selected location, F&B once again encountered evidence of impacts to subsurface soils.

On July 14, 2009, Enterprise requested SMA to visit the site to assess the progress of impacted soils excavation associated with construction of the retention pond and to sample the soil stockpile. Samples were collected from the impacted soil stockpile and from the excavation for laboratory analysis. The soil samples were analyzed per USEPA Method 8021 BTEX, USEPA Method 8015 TPH and USEPA Method 6010 for RCRA 8 Total Metals. RCRA 8 Metals analysis following TCLP extraction, Method 1311, was also run to meet acceptance characterization requirements of the Envirotech Landfarm. Laboratory analytical reports in are attached in Appendix E.

On July 15, 2009, at the request of Enterprise personnel, SMA was dispatched to the site. SMA observed and documented an excavation by F&B to approximately 22 feet bgs, the depth necessary for removal of an apparent below-ground concrete freshwater cistern tank. Five feet of clean overburden was noted, overlying approximately 5 feet of black hydrocarbon impacted soil. Approximately 2.5 feet of visibly clean red clay separated the impacted soils from ground water, encountered at 13 feet bgs in a layer of black apparently impacted soil. The black soil disappeared at approximately 22 feet bgs, potentially corresponding to the base of the water-bearing zone. Further, a soil sample was taken below the water table on the North central (now

known to be East central) portion of the excavation at approximately 20 feet bgs. Analytical results, by Method 8015 B for TPH GRO and DRO, are 7,200 mg/l GRO and 540 mg/l DRO (see Appendix F), indicating the continued presence of an undelineated area of impact. A second soil sample was taken below the water table on the Northeast wall nearest Largo Canyon Road, with analytical results of GRO 4,000 mg/l and DRO 360 mg/l. A grab sample was taken of water in the excavation at the Southwest corner of the excavation. Analytical results by Method 8021B yielded a total BTEX of 2419 micrograms per liter.

On July 16, 2009, SMA returned to the site again to assess the progress of the excavation of visually evident impacted soils in the area of the retention pond. Soil samples were collected from the excavation walls and excavation bottom for field headspace analysis. Attempting to roughly delineate the extent of the hydrocarbon impacted soil discovered during excavation activities, and to evaluate the feasibility of continued excavation, SMA instructed F&B to dig four exploratory pits to the north and east of the retention pond excavation.

Test pit locations relative to the retention pond excavation are illustrated in Appendix G, Figure 1 Site Sketch, with field headspace sample results from the test pits located in Table 1.

- ❖ Test Pit #1 (TP #1) was located approximately 30 feet to the east of the retention pond excavation. The pit was dug to groundwater, at approximately 13 feet bgs. Strong hydrocarbon odor was present from three feet bgs to 13 feet bgs with visible soil impacts. One soil sample for field headspace screening was collected from just above the water table.
- ❖ Test Pit #2 (TP #2) was located approximately 50 feet to the north of the retention pond excavation. Groundwater was again encountered at approximately 13 feet bgs. Total depth of this pit was approximately 13 feet bgs with impacts visually evident accompanied by a strong hydrocarbon odor from three feet bgs to 13 feet bgs. One field headspace soil sample was collected from just above the water table.
- ❖ Test Pit #3 (TP #3) was located approximately 170 feet to the north of the retention pond excavation. The test pit was dug to groundwater at approximately 13 feet bgs. Soil impact was visible accompanied by strong hydrocarbon odor from three feet bgs to 13 feet bgs. One soil sample for screening using field headspace and the PID was collected at 13 feet bgs, just above the water table.
- ❖ Test Pit #4 (TP #4) was located approximately 125 feet to the east of the retention pond excavation. The pit was dug to approximately 13 feet bgs where groundwater was encountered. Black to gray soil was visually evident accompanied by strong hydrocarbon odor from three feet bgs to 13 feet bgs. One field head space soil sample was collected from just above the water table.

Based on the findings in the Test Pits, SMA directed F&B to stop expanding the excavation and notified Enterprise personnel. F&B continued to remove impacted soil from within the limits of

the open excavation. Silt fence and wattles were installed around the perimeter of the disturbed areas resulting from both the valve box leak excavation and the retention pond excavation.

July 17, 2009, was the initial day of hauling characterized impacted soil from the Valve Box area to the Envirotech land farm at Angel Peak. From July 17 through July 23, 2009, the Envirotech Landfarm received 118 loads (2337 cy) of soils from the Largo Station Valve Box area. Envirotech sent back virgin backfill. In addition, pit run gravel from the F&B Gravel Pit was transported to the site. Since the excavation penetrated the water table, water was standing in the excavated areas. The water was pumped from the excavation to allow backfilling. The water recovered from the Valve Box excavation was hauled to the Basin Disposal facility.

On July 27, 2009, F&B began transporting the stockpiled impacted soils from the retention pond site to the Envirotech Land Farm at Angel Peak. Through July 30, 2009, Envirotech received 88 loads of impacted soil from the Largo Station Retention Pond excavation, totaling 1701 cy. Envirotech sent back virgin backfill to Largo Station on the backhaul. Water from the Retention Pond excavations was taken to Basin Disposal to facilitate backfilling of the excavations.

F&B backfilled the Retention Pond excavation during the period July 31 through August 3, 2009, leaving a 3 foot deep depression as a stormwater retention pond.

#### **Plan of Action**

Before further work can be reasonably planned, the possibility of off-site impact related to the discovered historical release(s) should be investigated in the area outside of the North Boundary adjacent to County Road 379. Additionally, the horizontal extent of the associated area of soils impact within the facility should be determined. Please refer to **Appendix H, Figure 1: Aerial Photo with Field Data** for a graphic depiction of the results of both excavations and the related test pits and potholes.

Enterprise proposes to employ a direct push rig to perform an expedited preliminary site characterization in the area east of the Valve Box Excavation, along the North Facility Boundary, and the north and east of the Retention Pond Excavation. Periodic soil samples will be taken and field screened to evaluate the concentration and confirm the areal extent. This work will indicate if any additional investigation will be appropriate regarding the historical release(s) discovered.

Appendices: A - Field Site Sketch, Valve Box Area  
B - Valve Box Pothole Sample Results  
C - Wall Soil Results, Stockpile Results  
D - Final Road Wall  
E - Retention Pond 7-14-09 Analytical Results  
F - Retention Pond 7-15-09 Analytical Results  
G - Figure #1 POND FIELD SITE SKETCH, Table #1- PID Table  
H - Aerial Photo with Field Data





COVER LETTER

Monday, July 06, 2009

Tami Ross  
Souder, Miller and Associates  
612 E Murray Dr.  
Farmington, NM 87401

TEL: (505) 325-5667  
FAX (505) 327-1496

RE: EPCO LARGO VALVE BOX

Order No.: 0906603

Dear Tami Ross:

Hall Environmental Analysis Laboratory, Inc. received 2 sample(s) on 6/30/2009 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman, Business Manager  
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425  
AZ license # AZ0682  
ORELAP Lab # NM100001  
Texas Lab# T104704424-08-TX



**Hall Environmental Analysis Laboratory, Inc.**

Date: 06-Jul-09

**CLIENT:** Souder, Miller and Associates  
**Lab Order:** 0906603  
**Project:** EPCO LARGO VALVE BOX  
**Lab ID:** 0906603-01

**Client Sample ID:** PH #1  
**Collection Date:** 6/26/2009 12:30:00 PM  
**Date Received:** 6/30/2009  
**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: HL
Benzene	22	1.0		µg/L	1	6/30/2009 1:09:44 PM
Toluene	ND	1.0		µg/L	1	6/30/2009 1:09:44 PM
Ethylbenzene	92	1.0		µg/L	1	6/30/2009 1:09:44 PM
Xylenes, Total	100	2.0		µg/L	1	7/1/2009 10:30:02 AM
Surr: 4-Bromofluorobenzene	96.5	80.4-119		%REC	1	6/30/2009 1:09:44 PM

**Qualifiers:**

* Value exceeds Maximum Contaminant Level	B Analyte detected in the associated Method Blank
E Estimated value	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	MCL Maximum Contaminant Level
ND Not Detected at the Reporting Limit	RL Reporting Limit
S Spike recovery outside accepted recovery limits	

**Hall Environmental Analysis Laboratory, Inc.**

Date: 06-Jul-09

**CLIENT:** Souder, Miller and Associates **Client Sample ID:** PH #6  
**Lab Order:** 0906603 **Collection Date:** 6/26/2009 2:45:00 PM  
**Project:** EPCO LARGO VALVE BOX **Date Received:** 6/30/2009  
**Lab ID:** 0906603-02 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/2/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/2/2009
Surr: DNOP	97.8	61.7-135		%REC	1	7/2/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/1/2009 2:03:42 PM
Surr: BFB	88.3	58.8-123		%REC	1	7/1/2009 2:03:42 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

QA/QC SUMMARY REPORT

Client: Souder, Miller and Associates  
 Project: EPCO LARGO VALVE BOX

Work Order: 0906603

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
---------	--------	-------	-----	------	----------	-----------	------	----------	------

Method: EPA Method 8015B: Diesel Range Organics

Sample ID: MB-19509		MBLK							
					Batch ID: 19509		Analysis Date:		7/2/2009
Diesel Range Organics (DRO)	ND	mg/Kg	10						
Motor Oil Range Organics (MRO)	ND	mg/Kg	50						
Sample ID: LCS-19509		LCS							
					Batch ID: 19509		Analysis Date:		7/2/2009
Diesel Range Organics (DRO)	54.78	mg/Kg	10	110	64.6	116			
Sample ID: LCSD-19509		LCSD							
					Batch ID: 19509		Analysis Date:		7/2/2009
Diesel Range Organics (DRO)	56.89	mg/Kg	10	114	64.6	116	3.77	17.4	

Method: EPA Method 8015B: Gasoline Range

Sample ID: MB-19515		MBLK							
					Batch ID: 19515		Analysis Date:		7/1/2009 4:05:38 PM
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0						
Sample ID: LCS-19515		LCS							
					Batch ID: 19515		Analysis Date:		7/1/2009 3:04:44 PM
Gasoline Range Organics (GRO)	28.94	mg/Kg	5.0	103	64.4	133			
Sample ID: LCSD-19515		LCSD							
					Batch ID: 19515		Analysis Date:		7/1/2009 3:35:07 PM
Gasoline Range Organics (GRO)	29.21	mg/Kg	5.0	104	69.5	120	0.929	11.6	

Method: EPA Method 8260: Volatiles Short List

Sample ID: 5ml rb		MBLK							
					Batch ID: R34319		Analysis Date:		6/30/2009 9:02:06 AM
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Sample ID: 5ml rb		MBLK							
					Batch ID: R34335		Analysis Date:		7/1/2009 8:33:56 AM
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Sample ID: 100ng lcs		LCS							
					Batch ID: R34319		Analysis Date:		6/30/2009 10:12:10 AM
Benzene	21.19	µg/L	1.0	106	86.8	120			
Toluene	19.59	µg/L	1.0	97.9	64.1	127			
Sample ID: 100ng lcs		LCS							
					Batch ID: R34335		Analysis Date:		7/1/2009 9:31:56 AM
Benzene	20.64	µg/L	1.0	103	86.8	120			
Toluene	19.98	µg/L	1.0	99.9	64.1	127			
Sample ID: 0906498-02a MS		LCS							
					Batch ID: R34335		Analysis Date:		7/1/2009 5:48:50 PM
Benzene	21.07	µg/L	1.0	105	86.8	120			
Toluene	19.59	µg/L	1.0	98.0	64.1	127			

Qualifiers:

- E Estimated value
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SMA-FARM

Date Received: 6/30/2009

Work Order Number 0906603

Received by: TLS

Checklist completed by:

*[Signature]*

6/30/09

Sample ID labels checked by:

*[Initials]*

Signature

Date

Initials

Matrix:

Carrier name Greyhound

- Shipping container/cooler in good condition? Yes  No  Not Present
- Custody seals intact on shipping container/cooler? Yes  No  Not Present  Not Shipped
- Custody seals intact on sample bottles? Yes  No  N/A
- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Samples in proper container/bottle? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No
- All samples received within holding time? Yes  No
- Water - VOA vials have zero headspace? No VOA vials submitted  Yes  No
- Water - Preservation labels on bottle and cap match? Yes  No  N/A
- Water - pH acceptable upon receipt? Yes  No  N/A
- Container/Temp Blank temperature? 5.4° <6° C Acceptable  
If given sufficient time to cool.

Number of preserved bottles checked for pH:

<2 >12 unless noted below.

COMMENTS:

Client contacted \_\_\_\_\_ Date contacted: \_\_\_\_\_ Person contacted \_\_\_\_\_

Contacted by: \_\_\_\_\_ Regarding: \_\_\_\_\_

Comments: \_\_\_\_\_

Corrective Action \_\_\_\_\_





COVER LETTER

Friday, July 10, 2009

Tami Ross  
Souder, Miller and Associates  
612 E Murray Dr.  
Farmington, NM 87401  
TEL: (505) 325-5667  
FAX (505) 327-1496

RE: EPCO Largo Valve Box

Order No.: 0907041

Dear Tami Ross:

Hall Environmental Analysis Laboratory, Inc. received 4 sample(s) on 7/2/2009 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman, Business Manager  
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425  
AZ license # AZ0682  
ORELAP Lab # NM100001  
Texas Lab# T104704424-08-TX



**Hall Environmental Analysis Laboratory, Inc.**

Date: 10-Jul-09

**CLIENT:** Souder, Miller and Associates  
**Lab Order:** 0907041  
**Project:** EPCO Largo Valve Box  
**Lab ID:** 0907041-01

**Client Sample ID:** Riser Wall 5-10'  
**Collection Date:** 7/1/2009 2:15:00 PM  
**Date Received:** 7/2/2009  
**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: SCC
Diesel Range Organics (DRO)	28	10		mg/Kg	1	7/7/2009
Motor Oil Range Organics (MRO)	56	50		mg/Kg	1	7/7/2009
Surr: DNOP	103	61.7-135		%REC	1	7/7/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/8/2009 5:35:43 PM
Surr: BFB	92.3	58.8-123		%REC	1	7/8/2009 5:35:43 PM

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

**Hall Environmental Analysis Laboratory, Inc.**

Date: 10-Jul-09

**CLIENT:** Souder, Miller and Associates  
**Lab Order:** 0907041  
**Project:** EPCO Largo Valve Box  
**Lab ID:** 0907041-02

**Client Sample ID:** South Wall 5-10'  
**Collection Date:** 7/1/2009 2:30:00 PM  
**Date Received:** 7/2/2009  
**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: <b>SCC</b>
Diesel Range Organics (DRO)	17	10		mg/Kg	1	7/7/2009
Motor Oil Range Organics (MRO)	70	50		mg/Kg	1	7/7/2009
Surr: DNOP	117	61.7-135		%REC	1	7/7/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/8/2009 6:06:18 PM
Surr: BFB	110	58.8-123		%REC	1	7/8/2009 6:06:18 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

**Hall Environmental Analysis Laboratory, Inc.**

Date: 10-Jul-09

**CLIENT:** Souder, Miller and Associates  
**Lab Order:** 0907041  
**Project:** EPCO Largo Valve Box  
**Lab ID:** 0907041-03

**Client Sample ID:** Road Wall @ 6'  
**Collection Date:** 7/1/2009 2:43:00 PM  
**Date Received:** 7/2/2009  
**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: SCC
Diesel Range Organics (DRO)	51	10		mg/Kg	1	7/7/2009
Motor Oil Range Organics (MRO)	81	50		mg/Kg	1	7/7/2009
Surr: DNOP	101	61.7-135		%REC	1	7/7/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	200	5.0		mg/Kg	1	7/8/2009 6:36:54 PM
Surr: BFB	1830	58.8-123	S	%REC	1	7/8/2009 6:36:54 PM

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

**Hall Environmental Analysis Laboratory, Inc.**

Date: 10-Jul-09

CLIENT: Souder, Miller and Associates  
 Lab Order: 0907041  
 Project: EPCO Largo Valve Box  
 Lab ID: 0907041-04

Client Sample ID: North Wall 5-10'  
 Collection Date: 7/1/2009 2:51:00 PM  
 Date Received: 7/2/2009  
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/7/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/7/2009
Surr: DNOP	117	61.7-135		%REC	1	7/7/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/9/2009 3:23:47 PM
Surr: BFB	93.9	58.8-123		%REC	1	7/9/2009 3:23:47 PM

Qualifiers: \* Value exceeds Maximum Contaminant Level  
 E Estimated value  
 J Analyte detected below quantitation limits  
 ND Not Detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 MCL Maximum Contaminant Level  
 RL Reporting Limit

**QA/QC SUMMARY REPORT**

**Client:** Souder, Miller and Associates  
**Project:** EPCO Largo Valve Box

**Work Order:** 0907041

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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**Method: EPA Method 8015B: Diesel Range Organics**

**Sample ID: MB-19538** *MBLK* Batch ID: 19538 Analysis Date: 7/7/2009

Diesel Range Organics (DRO) ND mg/Kg 10

Motor Oil Range Organics (MRO) ND mg/Kg 50

**Sample ID: LCS-19538** *LCS* Batch ID: 19538 Analysis Date: 7/7/2009

Diesel Range Organics (DRO) 43.46 mg/Kg 10 86.9 64.6 116

**Sample ID: LCSD-19538** *LCSD* Batch ID: 19538 Analysis Date: 7/7/2009

Diesel Range Organics (DRO) 45.51 mg/Kg 10 91.0 64.6 116 4.60 17.4

**Method: EPA Method 8015B: Gasoline Range**

**Sample ID: MB-19536** *MBLK* Batch ID: 19536 Analysis Date: 7/9/2009 2:16:02 AM

Gasoline Range Organics (GRO) ND mg/Kg 5.0

**Sample ID: LCS-19536** *LCS* Batch ID: 19536 Analysis Date: 7/9/2009 12:14:44 AM

Gasoline Range Organics (GRO) 27.31 mg/Kg 5.0 101 64.4 133

**Sample ID: LCSD-19536** *LCSD* Batch ID: 19536 Analysis Date: 7/9/2009 12:45:12 AM

Gasoline Range Organics (GRO) 27.60 mg/Kg 5.0 102 69.5 120 1.06 11.6

**Qualifiers:**

- E Estimated value
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SMA-FARM

Date Received:

7/2/2009

Work Order Number 0907041

Received by: TLS

TS

Checklist completed by:

Signature [Handwritten Signature]

Sample ID labels checked by:

Date 7/2/09

Initials

Matrix:

Carrier name: Greyhound

- Shipping container/cooler in good condition? Yes  No  Not Present
- Custody seals intact on shipping container/cooler? Yes  No  Not Present  Not Shipped
- Custody seals intact on sample bottles? Yes  No  N/A
- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Samples in proper container/bottle? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No
- All samples received within holding time? Yes  No
- Water - VOA vials have zero headspace? Yes  No VOA vials submitted  Yes  No
- Water - Preservation labels on bottle and cap match? Yes  No  N/A
- Water - pH acceptable upon receipt? Yes  No  N/A
- Container/Temp Blank temperature? 4.0° <6° C Acceptable  
If given sufficient time to cool.

Number of preserved bottles checked for pH:

<2 >12 unless noted below.

COMMENTS:

Client contacted \_\_\_\_\_ Date contacted: \_\_\_\_\_ Person contacted \_\_\_\_\_

Contacted by: \_\_\_\_\_ Regarding: \_\_\_\_\_

Comments: \_\_\_\_\_

Corrective Action \_\_\_\_\_





COVER LETTER

Monday, July 20, 2009

Tami Ross  
Souder, Miller and Associates  
612 E Murray Dr.  
Farmington, NM 87401

TEL: (505) 325-5667  
FAX (505) 327-1496

RE: EPCO Valve Box (Largo)

Order No.: 0907134

Dear Tami Ross:

Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 7/9/2009 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman, Business Manager  
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425  
AZ license # AZ0682  
ORELAP Lab # NM100001  
Texas Lab# T104704424-08-TX



**Hall Environmental Analysis Laboratory, Inc.**

Date: 20-Jul-09

**CLIENT:** Souder, Miller and Associates  
**Lab Order:** 0907134  
**Project:** EPCO Valve Box (Largo)  
**Lab ID:** 0907134-01

**Client Sample ID:** Road Wall @ 13'  
**Collection Date:** 7/8/2009 9:40:00 AM  
**Date Received:** 7/9/2009  
**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/13/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/13/2009
Surr: DNOP	132	61.7-135		%REC	1	7/13/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	7/15/2009 2:49:05 AM
Surr: BFB	94.7	58.8-123		%REC	1	7/15/2009 2:49:05 AM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: BDH
Benzene	ND	0.050		mg/Kg	1	7/16/2009 1:45:41 PM
Toluene	ND	0.050		mg/Kg	1	7/16/2009 1:45:41 PM
Ethylbenzene	ND	0.050		mg/Kg	1	7/16/2009 1:45:41 PM
Xylenes, Total	ND	0.10		mg/Kg	1	7/16/2009 1:45:41 PM
Surr: 1,2-Dichloroethane-d4	90.0	81.6-105		%REC	1	7/16/2009 1:45:41 PM
Surr: 4-Bromofluorobenzene	90.4	84.7-111		%REC	1	7/16/2009 1:45:41 PM
Surr: Dibromofluoromethane	105	77.4-105		%REC	1	7/16/2009 1:45:41 PM
Surr: Toluene-d8	97.3	88.2-113		%REC	1	7/16/2009 1:45:41 PM

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
 E Estimated value  
 J Analyte detected below quantitation limits  
 ND Not Detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 MCL Maximum Contaminant Level  
 RL Reporting Limit

**QA/QC SUMMARY REPORT**

**Client:** Souder, Miller and Associates  
**Project:** EPCO Valve Box (Largo)

**Work Order:** 0907134

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
---------	--------	-------	-----	------	----------	-----------	------	----------	------

**Method: EPA Method 8015B: Diesel Range Organics**

<b>Sample ID: MB-19577</b>		MBLK							
Diesel Range Organics (DRO)	ND	mg/Kg	10						
Motor Oil Range Organics (MRO)	ND	mg/Kg	50						
<b>Sample ID: LCS-19577</b>		LCS							
Diesel Range Organics (DRO)	46.09	mg/Kg	10	92.2	64.6	116			
<b>Sample ID: LCSD-19577</b>		LCSD							
Diesel Range Organics (DRO)	49.34	mg/Kg	10	98.7	64.6	116	6.81	17.4	

**Method: EPA Method 8015B: Gasoline Range**

<b>Sample ID: MB-19575</b>		MBLK							
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0						
<b>Sample ID: LCS-19575</b>		LCS							
Gasoline Range Organics (GRO)	27.40	mg/Kg	5.0	96.2	64.4	133			
<b>Sample ID: LCSD-19575</b>		LCSD							
Gasoline Range Organics (GRO)	27.67	mg/Kg	5.0	97.3	69.5	120	0.981	11.6	

**Method: EPA Method 8260B: Volatiles Short List**

<b>Sample ID: mb-19575</b>		MBLK							
Benzene	ND	mg/Kg	0.050						
Toluene	ND	mg/Kg	0.050						
Ethylbenzene	ND	mg/Kg	0.050						
Xylenes, Total	ND	mg/Kg	0.10						
<b>Sample ID: lcs-19575</b>		LCS							
Benzene	1.105	mg/Kg	0.050	111	78.2	123			
Toluene	1.055	mg/Kg	0.050	105	72.6	128			
<b>Sample ID: lcsd-19575</b>		LCSD							
Benzene	1.094	mg/Kg	0.050	109	83.2	118	1.08	19	
Toluene	1.121	mg/Kg	0.050	112	84.8	112	6.04	0	S

**Qualifiers:**

- |   |  |    |  |
|---|--|----|--|
| E | Estimated value                            | H  | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | ND | Not Detected at the Reporting Limit                |
| R | RPD outside accepted recovery limits       | S  | Spike recovery outside accepted recovery limits    |

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SMA-FARM

Date Received:

7/9/2009

Work Order Number 0907134

Received by: TLS

Sample ID labels checked by:

Initials

Checklist completed by:

Signature

[Handwritten Signature]

Date

7/9/09

[Handwritten Initials: TS]

Matrix:

Carrier name: Greyhound

- Shipping container/cooler in good condition? Yes  No  Not Present
- Custody seals intact on shipping container/cooler? Yes  No  Not Present  Not Shipped
- Custody seals intact on sample bottles? Yes  No  N/A
- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Samples in proper container/bottle? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No
- All samples received within holding time? Yes  No
- Water - VOA vials have zero headspace? No VOA vials submitted  Yes  No
- Water - Preservation labels on bottle and cap match? Yes  No  N/A
- Water - pH acceptable upon receipt? Yes  No  N/A
- Container/Temp Blank temperature? 4.1° <6° C Acceptable  
If given sufficient time to cool.

Number of preserved bottles checked for pH:

<2 >12 unless noted below.

COMMENTS:

-----

Client contacted \_\_\_\_\_ Date contacted: \_\_\_\_\_ Person contacted \_\_\_\_\_

Contacted by: \_\_\_\_\_ Regarding: \_\_\_\_\_

Comments: \_\_\_\_\_

Corrective Action \_\_\_\_\_





COVER LETTER

Friday, July 24, 2009

Walter Gage  
Souder, Miller and Associates  
612 E Murray Dr.  
Farmington, NM 87401

TEL: (505) 320-5461  
FAX (505) 327-1496

RE: Largo Compressor Station

Order No.: 0907281

Dear Walter Gage:

Hall Environmental Analysis Laboratory, Inc. received 2 sample(s) on 7/16/2009 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a horizontal line.

Andy Freeman, Business Manager  
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425  
AZ license # AZ0682  
ORELAP Lab # NM100001  
Texas Lab# T104704424-08-TX



**Hall Environmental Analysis Laboratory, Inc.**

Date: 24-Jul-09

**CLIENT:** Souder, Miller and Associates  
**Lab Order:** 0907281  
**Project:** Largo Compressor Station  
**Lab ID:** 0907281-01

**Client Sample ID:** Retention Pond Excavation Stockpil  
**Collection Date:** 7/14/2009 9:00:00 AM  
**Date Received:** 7/16/2009  
**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: SCC
Diesel Range Organics (DRO)	40	10		mg/Kg	1	7/21/2009
Motor Oil Range Organics (MRO)	230	50		mg/Kg	1	7/21/2009
Surr: DNOP	101	61.7-135		%REC	1	7/21/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	130	5.0		mg/Kg	1	7/21/2009 1:00:23 PM
Surr: BFB	664	58.8-123	S	%REC	1	7/21/2009 1:00:23 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	ND	0.050		mg/Kg	1	7/21/2009 1:00:23 PM
Toluene	1.2	0.050		mg/Kg	1	7/21/2009 1:00:23 PM
Ethylbenzene	0.70	0.050		mg/Kg	1	7/21/2009 1:00:23 PM
Xylenes, Total	8.4	0.10		mg/Kg	1	7/21/2009 1:00:23 PM
Surr: 4-Bromofluorobenzene	110	66.8-139		%REC	1	7/21/2009 1:00:23 PM
<b>MERCURY, TCLP</b>						Analyst: SNV
Mercury	ND	0.020		mg/L	1	7/24/2009 2:08:16 PM
<b>EPA METHOD 6010B: TCLP METALS</b>						Analyst: TES
Arsenic	ND	5.0		mg/L	1	7/24/2009 11:17:08 AM
Barium	ND	100		mg/L	1	7/24/2009 11:17:08 AM
Cadmium	ND	1.0		mg/L	1	7/24/2009 11:17:08 AM
Chromium	ND	5.0		mg/L	1	7/24/2009 11:17:08 AM
Lead	ND	5.0		mg/L	1	7/24/2009 11:17:08 AM
Selenium	ND	1.0		mg/L	1	7/24/2009 11:17:08 AM
Silver	ND	5.0		mg/L	1	7/24/2009 11:17:08 AM

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
 E Estimated value  
 J Analyte detected below quantitation limits  
 ND Not Detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits  
 B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 MCL Maximum Contaminant Level  
 RL Reporting Limit

**Hall Environmental Analysis Laboratory, Inc.**

Date: 24-Jul-09

CLIENT: Souder, Miller and Associates  
 Lab Order: 0907281  
 Project: Largo Compressor Station  
 Lab ID: 0907281-02

Client Sample ID: Retention Pond Excavation @ 13'  
 Collection Date: 7/14/2009 9:20:00 AM  
 Date Received: 7/16/2009  
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: SCC
Diesel Range Organics (DRO)	13	10		mg/Kg	1	7/21/2009
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/21/2009
Surr: DNOP	79.4	61.7-135		%REC	1	7/21/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	28	10		mg/Kg	2	7/23/2009 4:59:24 AM
Surr: BFB	85.0	58.8-123		%REC	2	7/23/2009 4:59:24 AM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	0.50	0.10		mg/Kg	2	7/23/2009 4:59:24 AM
Toluene	1.8	0.10		mg/Kg	2	7/23/2009 4:59:24 AM
Ethylbenzene	0.25	0.10		mg/Kg	2	7/23/2009 4:59:24 AM
Xylenes, Total	2.6	0.20		mg/Kg	2	7/23/2009 4:59:24 AM
Surr: 4-Bromofluorobenzene	78.3	66.8-139		%REC	2	7/23/2009 4:59:24 AM

Qualifiers: \* Value exceeds Maximum Contaminant Level  
 E Estimated value  
 J Analyte detected below quantitation limits  
 ND Not Detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits  
 B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 MCL Maximum Contaminant Level  
 RL Reporting Limit

## QA/QC SUMMARY REPORT

Client: Souder, Miller and Associates  
 Project: Largo Compressor Station

Work Order: 0907281

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
<b>Method: EPA Method 8015B: Diesel Range Organics</b>									
Sample ID: MB-19637		MBLK							
					Batch ID: 19637		Analysis Date:		7/20/2009
Diesel Range Organics (DRO)	ND	mg/Kg	10						
Motor Oil Range Organics (MRO)	ND	mg/Kg	50						
Sample ID: LCS-19637		LCS							
					Batch ID: 19637		Analysis Date:		7/20/2009
Diesel Range Organics (DRO)	42.18	mg/Kg	10	84.4	64.6	116			
Sample ID: LCSD-19637		LCSD							
					Batch ID: 19637		Analysis Date:		7/20/2009
Diesel Range Organics (DRO)	45.88	mg/Kg	10	91.8	64.6	116	8.40	17.4	
<b>Method: EPA Method 8015B: Gasoline Range</b>									
Sample ID: MB-19631		MBLK							
					Batch ID: 19631		Analysis Date:		7/22/2009 2:41:05 AM
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0						
Sample ID: LCS-19631		LCS							
					Batch ID: 19631		Analysis Date:		7/21/2009 7:35:48 PM
Gasoline Range Organics (GRO)	31.76	mg/Kg	5.0	118	64.4	133			
Sample ID: LCSD-19631		LCSD							
					Batch ID: 19631		Analysis Date:		7/21/2009 8:06:07 PM
Gasoline Range Organics (GRO)	30.83	mg/Kg	5.0	114	69.5	120	2.97	11.6	
<b>Method: EPA Method 8021B: Volatiles</b>									
Sample ID: MB-19631		MBLK							
					Batch ID: 19631		Analysis Date:		7/22/2009 2:41:05 AM
Benzene	ND	mg/Kg	0.050						
Toluene	ND	mg/Kg	0.050						
Ethylbenzene	ND	mg/Kg	0.050						
Xylenes, Total	ND	mg/Kg	0.10						
Sample ID: LCS-19631		LCS							
					Batch ID: 19631		Analysis Date:		7/22/2009 1:10:34 AM
Benzene	0.9908	mg/Kg	0.050	97.1	78.8	132			
Toluene	1.026	mg/Kg	0.050	101	78.9	112			
Ethylbenzene	1.044	mg/Kg	0.050	104	69.3	125			
Xylenes, Total	3.086	mg/Kg	0.10	103	73	128			
Sample ID: LCSD-19631		LCSD							
					Batch ID: 19631		Analysis Date:		7/22/2009 1:40:43 AM
Benzene	0.9885	mg/Kg	0.050	96.9	78.8	132	0.232	27	
Toluene	1.013	mg/Kg	0.050	99.7	78.9	112	1.25	19	
Ethylbenzene	1.038	mg/Kg	0.050	104	69.3	125	0.644	10	
Xylenes, Total	3.063	mg/Kg	0.10	102	73	128	0.745	13	
<b>Method: MERCURY, TCLP</b>									
Sample ID: MB-19696		MBLK							
					Batch ID: 19696		Analysis Date:		7/24/2009 2:04:46 PM
Mercury	ND	mg/L	0.020						
Sample ID: LCS-19696		LCS							
					Batch ID: 19696		Analysis Date:		7/24/2009 2:06:31 PM
Mercury	ND	mg/L	0.020	102	80	120			

## Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

**QA/QC SUMMARY REPORT**

Client: Souder, Miller and Associates  
 Project: Largo Compressor Station

Work Order: 0907281

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 6010B: TCLP Metals

Sample ID: MB-19690 MBLK Batch ID: 19690 Analysis Date: 7/24/2009 11:11:59 AM

Arsenic	ND	mg/L	5.0						
Barium	ND	mg/L	100						
Cadmium	ND	mg/L	1.0						
Chromium	ND	mg/L	5.0						
Lead	ND	mg/L	5.0						
Selenium	ND	mg/L	1.0						
Silver	ND	mg/L	5.0						

Sample ID: LCS-19690 LCS Batch ID: 19690 Analysis Date: 7/24/2009 11:14:35 AM

Arsenic	ND	mg/L	5.0	114	80	120			
Barium	ND	mg/L	100	98.9	80	120			
Cadmium	ND	mg/L	1.0	107	80	120			
Chromium	ND	mg/L	5.0	100	80	120			
Lead	ND	mg/L	5.0	99.1	80	120			
Selenium	ND	mg/L	1.0	112	80	120			
Silver	ND	mg/L	5.0	103	80	120			

Qualifiers:

- E Estimated value
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SMA-FARM

Date Received:

7/16/2009

Work Order Number 0907281

Received by: TLS

Checklist completed by:

Signature

[Handwritten Signature]

Date

7/16/09

Sample ID labels checked by:

Initials

[Handwritten Initials]

Matrix:

Carrier name: Greyhound

- Shipping container/cooler in good condition? Yes  No  Not Present
- Custody seals intact on shipping container/cooler? Yes  No  Not Present  Not Shipped
- Custody seals intact on sample bottles? Yes  No  N/A
- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Samples in proper container/bottle? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No
- All samples received within holding time? Yes  No
- Water - VOA vials have zero headspace? Yes  No VOA vials submitted  Yes  No
- Water - Preservation labels on bottle and cap match? Yes  No  N/A
- Water - pH acceptable upon receipt? Yes  No  N/A

Number of preserved bottles checked for pH:

<2 >12 unless noted below.

Container/Temp Blank temperature? 3.6° <6° C Acceptable If given sufficient time to cool.

COMMENTS:

Client contacted \_\_\_\_\_ Date contacted: \_\_\_\_\_ Person contacted \_\_\_\_\_

Contacted by: \_\_\_\_\_ Regarding: \_\_\_\_\_

Comments: \_\_\_\_\_

Corrective Action \_\_\_\_\_

# Chain-of-Custody Record

Client: SMA

Mailing Address: 610 E. Murray Ave  
Fernando, NM 87402

Phone #: 505-325-5667

email or Fax#: 505-327-1496

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

Accreditation  NELAP  Other

Sample Request ID

Turn-Around Time:  Standard  Rush

Project Name: Large Compressor Station

Project #: \_\_\_\_\_

Project Manager: \_\_\_\_\_

Sampler: Thomas Long

Sample Container: 2

Sample Substrate: Soil

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type
7/14/09	0900	Soil	Retention Pond Excavation Station #1	2	Ice
↓	0900	↓	Retention Pond Excavation #13	2	↓

Date: 7/14/09 Time: 1900

Date: 7/15/09 Time: 1100

Relinquished by: [Signature]

Relinquished by: [Signature]

Received by: Jami Long Date: 7/15/09 Time: 1549

Received by: [Signature] Date: 7/16/09 Time: 830



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

## Analysis Request

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 <u>TCMP</u>	Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	8021 BTEX	Air Bubbles (Y or N)
		X				X					X	
		X									X	

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.



COVER LETTER

Tuesday, July 28, 2009

Denny Foust  
Souder, Miller and Associates  
612 E Murray Dr.  
Farmington, NM 87401

TEL: (505) 325-5667  
FAX (505) 327-1496

RE: Largo Station Holding Pond Excavation

Order No.: 0907305

Dear Denny Foust:

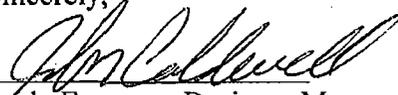
Hall Environmental Analysis Laboratory, Inc. received 5 sample(s) on 7/17/2009 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

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

Sincerely,

  
Andy Freeman, Business Manager  
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425  
AZ license # AZ0682  
ORELAP Lab # NM100001  
Texas Lab# T104704424-08-TX



**CLIENT:** Souder, Miller and Associates  
**Project:** Largo Station Holding Pond Excavation  
**Lab Order:** 0907305

**CASE NARRATIVE**

---

"S" flags denote that the surrogate was not recoverable or high due to sample dilution or matrix interferences. SAMPLE 0907305-05A: Sample pH is 5.5. Sample 0907305-03 diluted 10x due to the foamy nature of the sample.

**Hall Environmental Analysis Laboratory, Inc.**

Date: 28-Jul-09

**CLIENT:** Souder, Miller and Associates  
**Lab Order:** 0907305  
**Project:** Largo Station Holding Pond Excavation  
**Lab ID:** 0907305-01

**Client Sample ID:** NE Wall  
**Collection Date:** 7/15/2009 4:00:00 PM  
**Date Received:** 7/17/2009  
**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: SCC
Diesel Range Organics (DRO)	360	100		mg/Kg	10	7/23/2009
Motor Oil Range Organics (MRO)	790	500		mg/Kg	10	7/23/2009
Surr: DNOP	0	61.7-135	S	%REC	10	7/23/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	4000	1000		mg/Kg	200	7/24/2009 4:16:48 PM
Surr: BFB	107	58.8-123		%REC	200	7/24/2009 4:16:48 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	9.7	0.50		mg/Kg	10	7/22/2009 3:48:43 PM
Toluene	67	10		mg/Kg	200	7/24/2009 4:16:48 PM
Ethylbenzene	31	0.50		mg/Kg	10	7/22/2009 3:48:43 PM
Xylenes, Total	230	20		mg/Kg	200	7/24/2009 4:16:48 PM
Surr: 4-Bromofluorobenzene	111	66.8-139		%REC	10	7/22/2009 3:48:43 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

**Hall Environmental Analysis Laboratory, Inc.**

Date: 28-Jul-09

**CLIENT:** Souder, Miller and Associates  
**Lab Order:** 0907305  
**Project:** Largo Station Holding Pond Excavation  
**Lab ID:** 0907305-02

**Client Sample ID:** Below Water Table  
**Collection Date:** 7/15/2009 4:15:00 PM  
**Date Received:** 7/17/2009  
**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: SCC
Diesel Range Organics (DRO)	540	10		mg/Kg	1	7/22/2009
Motor Oil Range Organics (MRO)	230	50		mg/Kg	1	7/22/2009
Surr: DNOP	81.6	61.7-135		%REC	1	7/22/2009
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: NSB
Gasoline Range Organics (GRO)	7200	1000		mg/Kg	200	7/24/2009 4:47:15 PM
Surr: BFB	151	58.8-123	S	%REC	200	7/24/2009 4:47:15 PM
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	14	10		mg/Kg	200	7/24/2009 4:47:15 PM
Toluene	210	10		mg/Kg	200	7/24/2009 4:47:15 PM
Ethylbenzene	45	10		mg/Kg	200	7/24/2009 4:47:15 PM
Xylenes, Total	460	20		mg/Kg	200	7/24/2009 4:47:15 PM
Surr: 4-Bromofluorobenzene	104	66.8-139		%REC	200	7/24/2009 4:47:15 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

**Hall Environmental Analysis Laboratory, Inc.**

Date: 28-Jul-09

**CLIENT:** Souder, Miller and Associates  
**Lab Order:** 0907305  
**Project:** Largo Station Holding Pond Excavation  
**Lab ID:** 0907305-03

**Client Sample ID:** Underground Cement Tank  
**Collection Date:** 7/15/2009 3:15:00 PM  
**Date Received:** 7/17/2009  
**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	ND	10		µg/L	10	7/18/2009 10:05:55 AM
Toluene	ND	10		µg/L	10	7/18/2009 10:05:55 AM
Ethylbenzene	ND	10		µg/L	10	7/18/2009 10:05:55 AM
Xylenes, Total	ND	20		µg/L	10	7/18/2009 10:05:55 AM
Surr: 4-Bromofluorobenzene	78.1	65.9-130		%REC	10	7/18/2009 10:05:55 AM
<b>EPA METHOD 7470: MERCURY</b>						Analyst: SNV
Mercury	ND	0.00020		mg/L	1	7/24/2009 3:57:56 PM
<b>EPA 6010B: TOTAL RECOVERABLE METALS</b>						Analyst: SNV
Arsenic	ND	0.020		mg/L	1	7/22/2009 1:21:13 PM
Barium	0.098	0.020		mg/L	1	7/22/2009 1:21:13 PM
Cadmium	ND	0.0020		mg/L	1	7/22/2009 1:21:13 PM
Chromium	ND	0.0060		mg/L	1	7/22/2009 1:21:13 PM
Lead	ND	0.0050		mg/L	1	7/22/2009 1:21:13 PM
Selenium	ND	0.050		mg/L	1	7/22/2009 1:21:13 PM
Silver	ND	0.0050		mg/L	1	7/22/2009 1:21:13 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

**Hall Environmental Analysis Laboratory, Inc.**

Date: 28-Jul-09

<b>CLIENT:</b> Souder, Miller and Associates	<b>Client Sample ID:</b> SW Corner Retention Pond
<b>Lab Order:</b> 0907305	<b>Collection Date:</b> 7/16/2009 1:30:00 AM
<b>Project:</b> Largo Station Holding Pond Excavation	<b>Date Received:</b> 7/17/2009
<b>Lab ID:</b> 0907305-04	<b>Matrix:</b> AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	560	20		µg/L	20	7/18/2009 10:36:18 AM
Toluene	29	20		µg/L	20	7/18/2009 10:36:18 AM
Ethylbenzene	430	20		µg/L	20	7/18/2009 10:36:18 AM
Xylenes, Total	1400	40		µg/L	20	7/18/2009 10:36:18 AM
Surr: 4-Bromofluorobenzene	90.4	65.9-130		%REC	20	7/18/2009 10:36:18 AM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level	B Analyte detected in the associated Method Blank
	E Estimated value	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	MCL Maximum Contaminant Level
	ND Not Detected at the Reporting Limit	RL Reporting Limit
	S Spike recovery outside accepted recovery limits	

**Hall Environmental Analysis Laboratory, Inc.**

Date: 28-Jul-09

**CLIENT:** Souder, Miller and Associates      **Client Sample ID:** Groundwater from Excavation  
**Lab Order:** 0907305      **Collection Date:** 7/15/2009 3:45:00 AM  
**Project:** Largo Station Holding Pond Excavation      **Date Received:** 7/17/2009  
**Lab ID:** 0907305-05      **Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	940	50		µg/L	50	7/18/2009 11:06:39 AM
Toluene	4000	50		µg/L	50	7/18/2009 11:06:39 AM
Ethylbenzene	720	50		µg/L	50	7/18/2009 11:06:39 AM
Xylenes, Total	6900	100		µg/L	50	7/18/2009 11:06:39 AM
Surr: 4-Bromofluorobenzene	97.5	65.9-130		%REC	50	7/18/2009 11:06:39 AM

**Qualifiers:**    \* Value exceeds Maximum Contaminant Level      B Analyte detected in the associated Method Blank  
                      E Estimated value      H Holding times for preparation or analysis exceeded  
                      J Analyte detected below quantitation limits      MCL Maximum Contaminant Level  
                      ND Not Detected at the Reporting Limit      RL Reporting Limit  
                      S Spike recovery outside accepted recovery limits

## QA/QC SUMMARY REPORT

Client: Souder, Miller and Associates  
 Project: Largo Station Holding Pond Excavation

Work Order: 0907305

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
<b>Method: EPA Method 8015B: Diesel Range Organics</b>									
Sample ID: MB-19658		MBLK							
Batch ID:	19658								7/22/2009
Diesel Range Organics (DRO)	ND	mg/Kg	10						
Motor Oil Range Organics (MRO)	ND	mg/Kg	50						
Sample ID: LCS-19658		LCS							
Batch ID:	19658								7/22/2009
Diesel Range Organics (DRO)	38.27	mg/Kg	10	76.5	64.6	116			
Sample ID: LCSD-19658		LCSD							
Batch ID:	19658								7/22/2009
Diesel Range Organics (DRO)	33.78	mg/Kg	10	67.6	64.6	116	12.5	17.4	
<b>Method: EPA Method 8015B: Gasoline Range</b>									
Sample ID: MB-19644		MBLK							
Batch ID:	19644								7/22/2009 3:11:35 AM
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0						
Sample ID: LCS-19644		LCS							
Batch ID:	19644								7/21/2009 8:36:37 PM
Gasoline Range Organics (GRO)	31.26	mg/Kg	5.0	116	64.4	133			
<b>Method: EPA Method 8021B: Volatiles</b>									
Sample ID: MB-19644		MBLK							
Batch ID:	19644								7/22/2009 3:11:35 AM
Benzene	ND	mg/Kg	0.050						
Toluene	ND	mg/Kg	0.050						
Ethylbenzene	ND	mg/Kg	0.050						
Xylenes, Total	ND	mg/Kg	0.10						
Sample ID: LCS-19644		LCS							
Batch ID:	19644								7/22/2009 2:10:53 AM
Benzene	0.9698	mg/Kg	0.050	95.8	78.8	132			
Toluene	1.000	mg/Kg	0.050	99.1	78.9	112			
Ethylbenzene	1.030	mg/Kg	0.050	103	69.3	125			
Xylenes, Total	3.057	mg/Kg	0.10	102	73	128			
<b>Method: EPA Method 8021B: Volatiles</b>									
Sample ID: b 44		MBLK							
Batch ID:	R34567								7/18/2009 9:35:26 AM
Benzene	ND	µg/L	1.0						
Toluene	ND	µg/L	1.0						
Ethylbenzene	ND	µg/L	1.0						
Xylenes, Total	ND	µg/L	2.0						
Sample ID: 100NG BTEX LCS		LCS							
Batch ID:	R34567								7/18/2009 2:09:12 PM
Benzene	17.68	µg/L	1.0	88.4	85.9	113			
Toluene	17.32	µg/L	1.0	85.2	86.4	113			S
Ethylbenzene	17.34	µg/L	1.0	85.9	83.5	118			
Xylenes, Total	52.13	µg/L	2.0	86.9	83.4	122			
Sample ID: 100NG BTEX LCSD		LCSD							
Batch ID:	R34567								7/18/2009 2:39:37 PM
Benzene	18.93	µg/L	1.0	94.6	85.9	113	6.83	27	
Toluene	19.52	µg/L	1.0	96.2	86.4	113	12.0	19	
Ethylbenzene	19.99	µg/L	1.0	99.2	83.5	118	14.2	10	R
Xylenes, Total	60.36	µg/L	2.0	101	83.4	122	14.6	13	R

## Qualifiers:

E Estimated value  
 H Holding times for preparation or analysis exceeded  
 J Analyte detected below quantitation limits  
 ND Not Detected at the Reporting Limit  
 R RPD outside accepted recovery limits  
 S Spike recovery outside accepted recovery limits

## QA/QC SUMMARY REPORT

**Client:** Souder, Miller and Associates  
**Project:** Largo Station Holding Pond Excavation

**Work Order:** 0907305

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
---------	--------	-------	-----	------	----------	-----------	------	----------	------

**Method:** EPA Method 7470: Mercury

**Sample ID:** MB-19695 *MBLK* **Batch ID:** 19695 **Analysis Date:** 7/24/2009 3:31:00 PM

Mercury ND mg/L 0.00020

**Sample ID:** LCS-19695 *LCS* **Batch ID:** 19695 **Analysis Date:** 7/24/2009 3:32:44 PM

Mercury 0.005138 mg/L 0.00020 103 80 120

**Method:** EPA 6010B: Total Recoverable Metals

**Sample ID:** MB-19655 *MBLK* **Batch ID:** 19655 **Analysis Date:** 7/22/2009 11:16:54 AM

Arsenic ND mg/L 0.020

Barium ND mg/L 0.010

Cadmium ND mg/L 0.0020

Chromium ND mg/L 0.0060

Lead ND mg/L 0.0050

Selenium ND mg/L 0.050

Silver ND mg/L 0.0050

**Sample ID:** LCS-19655 *LCS* **Batch ID:** 19655 **Analysis Date:** 7/22/2009 11:20:05 AM

Arsenic 0.4996 mg/L 0.020 99.9 80 120

Barium 0.4882 mg/L 0.010 97.6 80 120

Cadmium 0.4906 mg/L 0.0020 98.1 80 120

Chromium 0.4925 mg/L 0.0060 98.5 80 120

Lead 0.4893 mg/L 0.0050 97.9 80 120

Selenium 0.4831 mg/L 0.050 96.6 80 120

Silver 0.4942 mg/L 0.0050 98.8 80 120

**Qualifiers:**

- |  |  |
|--|--|
| E Estimated value                            | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit               |
| R RPD outside accepted recovery limits       | S Spike recovery outside accepted recovery limits    |

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SMA-FARM

Date Received:

7/17/2009

Work Order Number 0907305

Received by: TLS

Checklist completed by:

Signature

*[Handwritten Signature]*

Date

7/17/09

Sample ID labels checked by:

Initials

*[Handwritten Initials]*

Matrix:

Carrier name: Greyhound

- Shipping container/cooler in good condition? Yes  No  Not Present
- Custody seals intact on shipping container/cooler? Yes  No  Not Present  Not Shipped
- Custody seals intact on sample bottles? Yes  No  N/A
- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Samples in proper container/bottle? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No
- All samples received within holding time? Yes  No
- Water - VOA vials have zero headspace? No VOA vials submitted  Yes  No
- Water - Preservation labels on bottle and cap match? Yes  No  N/A
- Water - pH acceptable upon receipt? Yes  No  N/A

Number of preserved bottles checked for pH:

<2 >12 unless noted below.

Container/Temp Blank temperature? 4.0° <6° C Acceptable If given sufficient time to cool.

COMMENTS:

Client contacted \_\_\_\_\_ Date contacted: \_\_\_\_\_ Person contacted \_\_\_\_\_

Contacted by: \_\_\_\_\_ Regarding: \_\_\_\_\_

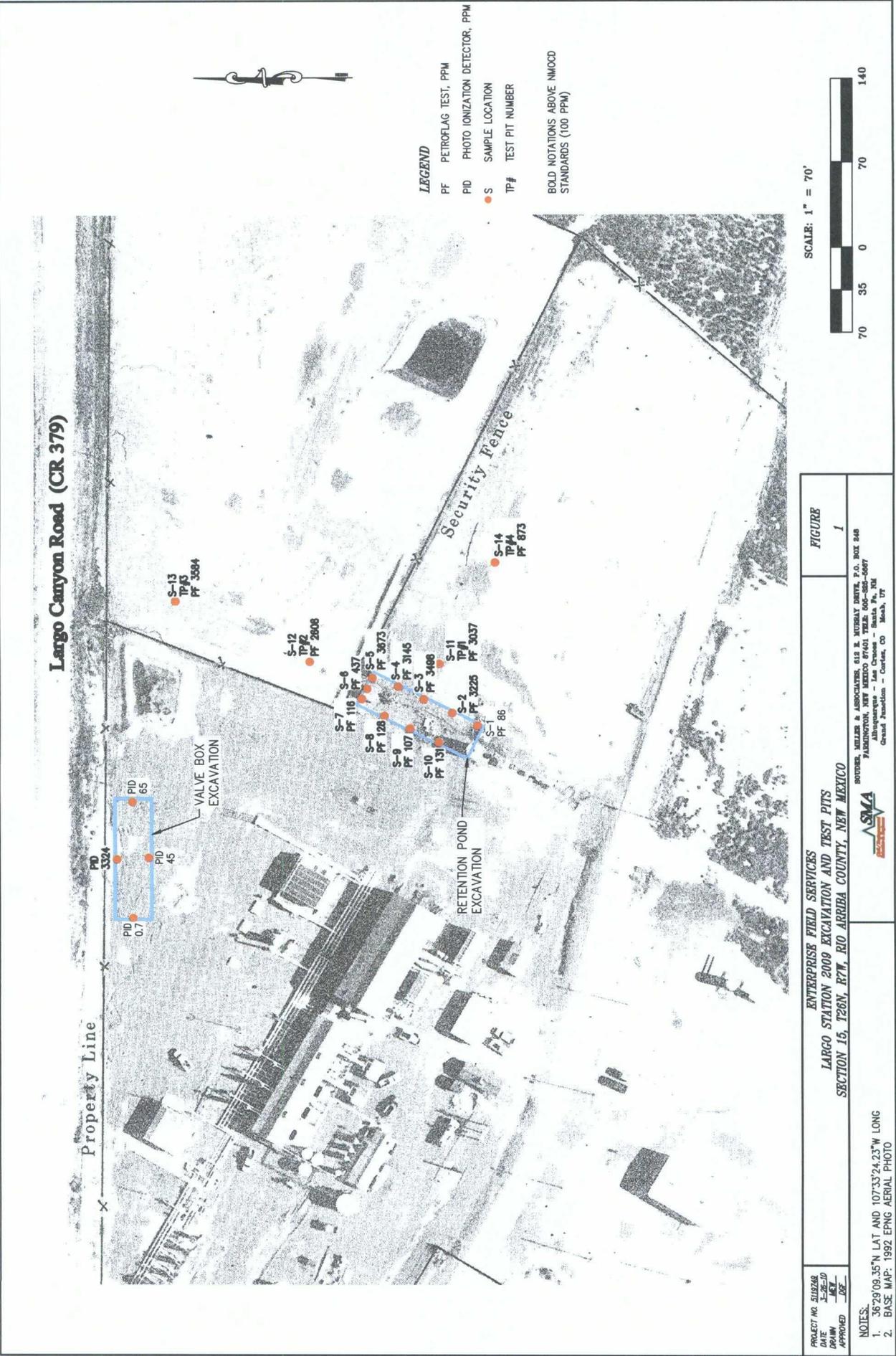
Comments: \_\_\_\_\_

Corrective Action \_\_\_\_\_



**Table 2**  
**Field Head Space Petro Flag Results**  
**(ppm)**

Sample Name	Date	Result (ppm)
S-1	7/16/2009	86
S-2	7/16/2009	3225
S-3	7/16/2009	3498
S-4	7/16/2009	3145
S-5	7/16/2009	3673
S-6	7/16/2009	437
S-7	7/16/2009	116
S-8	7/16/2009	128
S-9	7/16/2009	107
S-10	7/16/2009	131
S-11 @13'	7/16/2009	3037
S-12 @13'	7/16/2009	2608
S-13 @13'	7/16/2009	3584
S-14 @13'	7/16/2009	873
PF Stock Pile	7/28/2009	9
PF Stock Pile	7/28/2009	26
PF Stock Pile	7/28/2009	1150
PF Stock Pile	7/28/2009	160
PF Stock Pile	7/28/2009	35
PF Stock Pile	7/28/2009	6



**LEGEND**  
 PF PETROFLAG TEST, PPM  
 PID PHOTO IONIZATION DETECTOR, PPM  
 S SAMPLE LOCATION  
 TP# TEST PIT NUMBER

BOLD NOTATIONS ABOVE NMOCCD STANDARDS (100 PPM)

SCALE: 1" = 70'



FIGURE 1

ENTERPRISE FIELD SERVICES  
 LARGO STATION 2009 EXCAVATION AND TEST PITS  
 SECTION 15, T26N, R7T, RIO ARriba COUNTY, NEW MEXICO

PROJECT NO.	DATE	BY	APPROVED
151816	09/25/09	JLW	DE

NOTES:  
 1. 36°29'09.35"N LAT AND 107°33'24.23"W LONG  
 2. BASE MAP: 1992 EPNG AERIAL PHOTO



ROTHSCHILD, MILLER & ASSOCIATES, 615 S. MIDWAY DRIVE, P.O. BOX 848  
 ALBUQUERQUE, NEW MEXICO 87401 TEL#: 505-255-0687  
 Albuquerque - Las Cruces - Santa Fe, NM  
 Grand Junction - Cortez, CO - Steam, UT



June 26, 2009 Photo 1: Example of clean overburden, approximately 6 feet deep.



June 26, 2009 Photo 2: Stained soil at bottom of original test trench dug by EPCO on 6/25/2009.



June 26, 3009 Photo 3: Contaminated soil removed from pothole (PH #1) dug on 6/26/2009.



June 26, 2009 Photo 4: Total depth of PH #1 approximately 13 feet, groundwater encountered. Soils wet at approximately 10 feet bgs. Groundwater sample collected from PH #1.



June 26, 2009

Photo 5: Contaminated soil encountered in pothole near fence/road (PH #4).



June 26, 2009

Photo 6: Overview of site where potholes were dug.



June 26, 2009

**Photo 7: Location of pothole PH 6. Soil sample collected at 10 feet bgs for laboratory analysis.**



July 1, 2009

**Photo 8: Composite sample collected from Road Wall. PID results = 3,324 ppm. Pit dimensions approximately 100' x 30' x 13'.**



July 1, 2009

Photo 9: Composite sample collected from Riser Wall; sample depths range from 5' to 10' bgs. PID results = 45.4 ppm



July 1, 2009

Photo 10: Sample collected from South Wall at 5-10' bgs (composite). PID results = 64.9 ppm



July 1, 2009 Photo 11: Composite sample collected from North Wall at 5-10' bgs. PID results = 0.7 ppm.



July 1, 2009 Photo 12: Stockpiles of contaminated soil removed from subsurface. Sample collected for analysis for disposal characterization (RCRA 8 Metals).



July 8, 2009 Photo 13: Road Wall excavation limits on July 8, 2009.



July 8, 2009

Photo 14: Road Wall sample location.



Enterprise Products™

April 20, 2010

ENTERPRISE PRODUCTS PARTNERS LP  
ENTERPRISE PRODUCTS OPERATING LLC

ENTERPRISE PRODUCTS GP, LLC, GENERAL PARTNER  
ENTERPRISE PRODUCTS OLP GP, INC., SOLE MANAGER

Return Receipt Requested  
7009 3410 0001 6448 0216

Mr. Jim Griswold  
Environmental Engineer  
New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, NM 87505

**RE: Quarterly Groundwater Report – March 2010  
Largo Compressor Station, GW-211  
Enterprise Field Services, LLC  
Rio Arriba County, New Mexico**

Attn: Leonard Lowe

Dear Mr. Griswold,

The attached report documents the February 2010 quarterly groundwater monitoring event at the Enterprise Field Services, LLC (Enterprise) facility referenced above. This compressor station is located in Unit I of Section 15 within Township 26N, Range 7W in Rio Arriba County, NM.

Investigations and remedial actions at this facility are being conducted following a natural gas condensate release during January 2008. On December 15, 2009, a *Report of Subsurface Investigation at Largo Compressor Station* was submitted to the New Mexico Oil Conservation Commission (OCD). This report provided the proposed interim remedial actions that are currently being implemented at the facility.

Should you have any questions, please do not hesitate to contact me at (713) 381-2286 or [drsmith@eprod.com](mailto:drsmith@eprod.com).

Sincerely,

David R. Smith, P.G.

/bjm

Attachment – November 2009 Groundwater Sampling Report

cc: Brandon Powell, NMOCD Aztec Office  
Ashley Auger, LTE Environmental  
Rex Meyer, GeoMonitoring Services

2010 APR 26 A 11:29  
RECEIVED OCD



COMPLIANCE / ENGINEERING / REMEDIATION

LT Environmental Inc.

2243 Main Avenue, Suite 3  
Durango, Colorado 81301  
T 970.385.1096  
F 970.385.1873

April 20, 2010

Mr. David R. Smith, P.G.  
Enterprise Field Services, LLC  
P.O. Box 4324  
Houston, Texas 77210-4324

**RE: Quarterly Groundwater Monitoring Report  
Largo Compressor Station, GW-211  
Rio Arriba County, New Mexico**

Dear Mr. Smith,

On February 25, 2010, LT Environmental, Inc. (LTE) conducted quarterly groundwater monitoring at Enterprise Field Services, LLC's (Enterprise) Largo Compressor Station (Site). The Site is located in Section 21 of Township 26 North, Range 12 West in Rio Arriba County, New Mexico. Groundwater samples were collected from four two-inch monitoring wells and four of five piezometers. One piezometer contained phase separated hydrocarbon (PSH) and was not sampled. A site map with well locations is presented as Figure 1. Additional details are presented below.

#### **Methods**

Prior to sampling, depth to groundwater and total depth of wells were measured with a Keck oil/water interface probe. Presence of any free-phase product was also detected and measured with the interface probe. The interface probe was decontaminated with Alconox™ soap and rinsed with de-ionized water prior to each measurement. The volume of water in the wells was calculated, and a minimum of three casing volumes of water was purged from each well using a disposable bailer or a permanent decontaminated PVC bailer. As water was extracted, pH, electric conductivity and temperature were monitored. Wells were purged until these properties stabilized, indicating that the purge water was representative of aquifer conditions, or until the well was bailed dry. Stabilization was defined as three consecutive stable readings for each water property ( $\pm 0.4$  units for pH,  $\pm 10$  percent for electric conductivity and  $\pm 2^\circ$  C for temperature). All purge water was disposed into a sump located on the site. Data were recorded on the attached *Well Development and Sampling Logs*.

Once each monitoring well was properly purged, groundwater samples were collected by filling three 40-milliliter (ml) glass vials. The pre-cleaned and pre-preserved (with hydrochloric acid or mercuric chloride) vials were filled and capped with no air inside to prevent degradation of the sample. Samples were labeled with the date and time of collection, well designation, project name, collector's name and parameters to be analyzed. They were immediately sealed and packed on ice. The samples were shipped to Hall Environmental Analysis Laboratory (HEAL) in Albuquerque, New Mexico in a sealed cooler via bus before designated holding times expired. Proper chain-of-custody (COC) procedures were followed with logs documenting the date and time sampled, sample number, type of sample, sampler's name, preservative used, analyses required and sampler's signatures (attached). HEAL analyzed the groundwater samples for benzene, toluene, ethyl-benzene and xylenes (BTEX).

## Results and Conclusions

Depth to groundwater measurements for all wells are shown in Table 1. P-1 contained 1.07 feet of PSH on top of the water table. A disposable bailer was used to remove as much PSH as possible from the well. Approximately 0.8 ounces were recovered this quarter. No other well contained PSH. These data were used to calculate groundwater elevations, which ranged from 6079.15 feet in MW-8 to 6082.68 feet in P-1. A potentiometric surface map is included as Figure 2 and suggests groundwater flow is towards the west-northwest (MW-8), following a potential paleo-channel. The map also suggests mounding in the bermed area.

Laboratory analytical results are shown in Table 2. A complete laboratory report from HEAL is attached. P-2 and MW-7 contained BTEX concentrations above New Mexico Water Quality Control Commission (NMWQCC) standards. P-4 and P-5 contained small concentrations of BTEX, but values were below NMWQCC standards. P-1 and P-2 are located within the bermed area and are wells closest to the original source. MW-7 is located downgradient of P-1 and P-2, indicating that some migration of dissolved phase contaminants has occurred. P-4 and P-5 are also downgradient, suggesting additional migration may be underway.

Since this monitoring was completed, Enterprise began implementation of the work plan submitted to the NMOCD and dated December 31, 2009. All piezometers were replaced with two-inch monitoring wells, with the exception of P-1, which was replaced with a four-inch monitoring well to allow for product recovery as necessary. Two additional monitoring wells were installed to better delineate groundwater impacts. All wells were surveyed and sampled following completion of new well installations. A report of work completed will be submitted to the NMOCD once analytical results are received. It is important to note that no PSH has been measured in any of the new wells thus far.

## Recommendations

LTE recommends continuing groundwater monitoring on a quarterly basis. The next sampling event is scheduled for May 2010. In the interim, Enterprise has completed additional work described in the work plan dated December 31, 2009. Additional recommendations may be provided following assessment of new data.

LTE appreciates the opportunity to perform these services for Enterprise. Should you have any questions or require additional information, please contact me at 970-385-1096.

Sincerely,  
LT ENVIRONMENTAL, INC.



Ashley Ager  
Senior Geologist/Office Manager

CC: Rex Meyer, GeoMonitoring Services  
Glen von Gonten, NMOCD  
Brandon Powell, NMOCD

Table 1 – Groundwater Elevations

Table 2 – Groundwater Sampling Results

Figure 1 – Groundwater Potentiometric Surface Map

Attachment 1 – Well Development and Sampling Logs

Attachment 2 – Laboratory Report

**TABLES**

TABLE 1

GROUNDWATER ELEVATIONS  
LARGO COMPRESSOR STATION  
ENTERPRISE FIELD SERVICES LLC

Well Number	Date	Top of Casing Elevation (ft)	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Groundwater Elevation (ft)
P-1	2/25/2010	6098.38	16.55	15.48	1.07	*6082.68
P-2	2/25/2010	6104.25	21.72	-	-	6082.53
P-3	2/25/2010	6103.50	22.41	-	-	6081.09
P-4	2/25/2010	6103.30	20.96	-	-	6082.34
P-5	2/25/2010	6103.20	20.78	-	-	6082.42
MW-6	2/25/2010	6101.23	19.54	-	-	6081.69
MW-7	2/25/2010	6100.90	21.42	-	-	6079.48
MW-8	2/25/2010	6102.40	23.25	-	-	6079.15
MW-9	2/25/2010	6103.06	21.51	-	-	6081.55

Note:

\*Corrected for presence of phase-separated hydrocarbon using an estimated density correction factor of 0.8.



TABLE 2

GROUNDWATER ANALYTICAL RESULTS  
LARGO COMPRESSOR STATION  
ENTERPRISE FIELD SERVICES LLC

Sample Name	Date Sampled	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	TOTAL BTEX (µg/L)
P-2	2/25/2010	19,000	380	380	2,800	22,560
P-3	2/25/2010	3.6	10	2.0	24	39.6
P-4	2/25/2010	2.5	7.5	<1.0	14	24.0
P-5	2/25/2010	1.8	6.1	<1.0	11	18.9
MW-6	2/25/2010	<1.0	<1.0	<1.0	<2.0	ND
MW-7	2/25/2010	3,000	<10	40	31	3,071
MW-8	2/25/2010	<1.0	<1.0	<1.0	<2.0	ND
MW-9	2/25/2010	<1.0	<1.0	<1.0	<2.0	ND
NMWQCC Standard		10	750	750	620	

Notes:

µg/L - micrograms per liter

< indicates result is less than the stated laboratory method detection limit

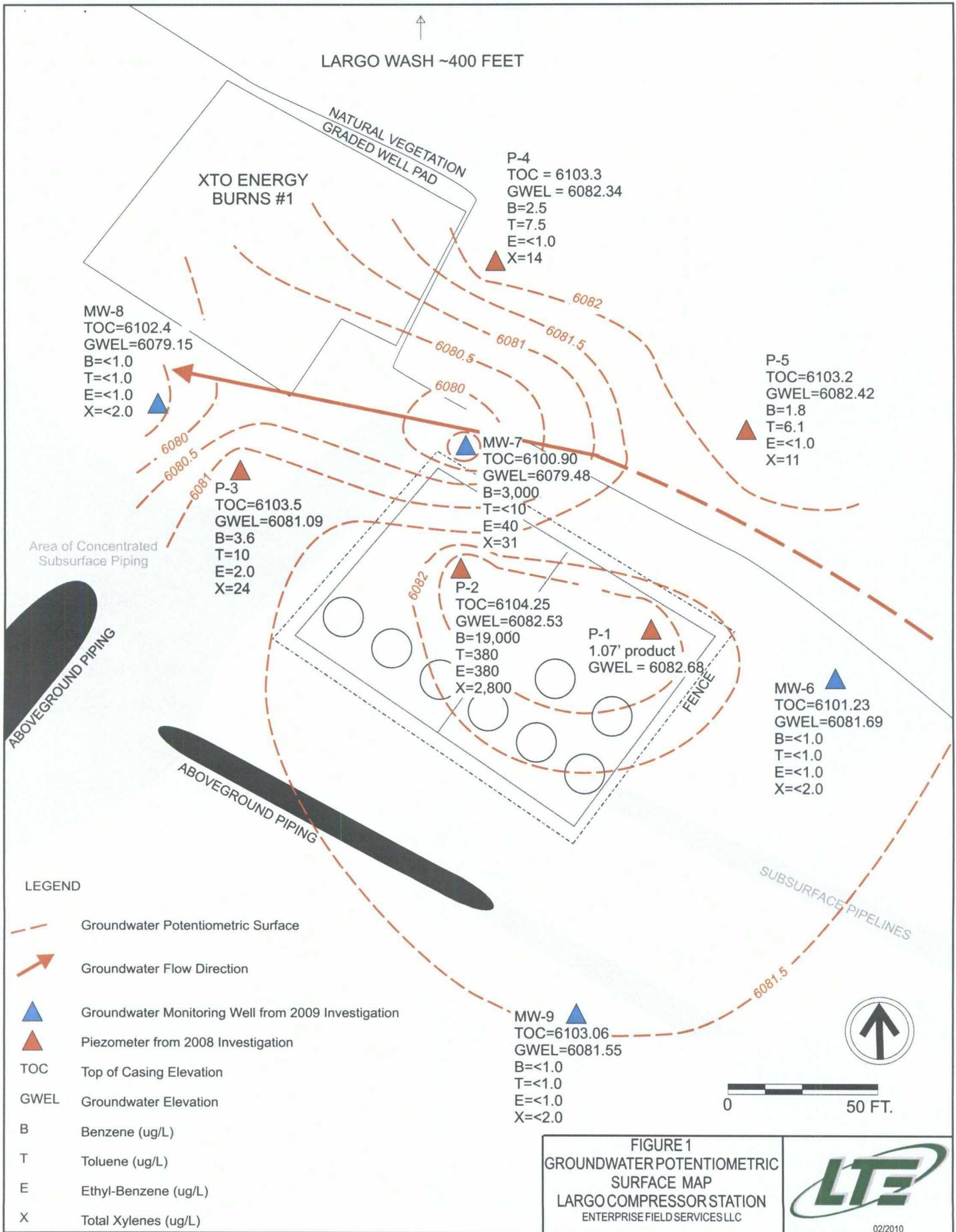
NMWQCC - New Mexico Water Quality Control Commission

Benzene, toluene, ethylbenzene, and total xylenes analyzed by EPA Method 8021:

ND - Not Detected



## FIGURES



**ATTACHMENTS**



WELL DEVELOPMENT AND SAMPLING LOG

Project Name: <u>Largo GW Sample</u>	Location: <u>Largo Compressor Sta</u>	Well No: <u>MW-6</u>
Client: <u>Enterprise Field Services</u>	Date: <u>2/25/2010</u>	Time: <u>13:50</u>
Project Manager: <u>Ashley Ager</u>	Sampler's Name: <u>Devin Hencmann</u>	

Measuring Point: <u>TOC</u>	Depth to Water: <u>19.54</u> ft	Depth to Product: _____ ft
Well Diameter: <u>2"</u>	Total Depth: <u>27.75</u> ft	Product Thickness: _____ ft
Water Column Height: <u>8.21</u> ft		

Sampling Method:  Submersible Pump    Centrifugal Pump    Peristaltic Pump    Other \_\_\_\_\_  
 Bottom Valve Bailer    Double Check Valve Bailer

Criteria:  3 to 5 Casing Volumes of Water Removal    Stabilization of Indicator Parameters    Other bail dry

Water Volume in Well			
Gal/ft x ft of water	Gallons	Ounces	Volume to be removed
10.01 x .16	4.94 x 3	504.4	14.82 gal

Time (military)	pH (su)	SC (ms)	Temp (°C)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. oz	Comments/Flow Rate
13:50	7.34	10.31	12.3				34	Cloudy/silty reddish brown
	7.44	10.52	12.8				34	"
	7.42	10.54	12.8				34	"
	7.45	10.58	13.3				34	"
	7.44	10.73	13.3				34	"
	7.45	10.61	13.3				34	recharging readily
	7.44	10.06	13.2				68	very silty
	7.43	10.00	13.3				68	"
	7.47	9.04	12.8				68	"
	7.41	8.92	13.1				68	"
	7.44	8.37	13				68	"
<b>Final:</b> 14:15	7.44	8.37	13				544	

COMMENTS:

Instrumentation:  pH Meter    DO Monitor    Conductivity Meter    Temperature Meter    Other \_\_\_\_\_

Water Disposal: On-site

Sample ID: MW-6   Sample Time: 14:15

Analysis Requested:  BTEX    VOC    Alkalinity    TDS    Cations    Anions    Nitrate    Nitrite    Metals  
 Other \_\_\_\_\_

Trip Blank: \_\_\_\_\_

Duplicate Sample: \_\_\_\_\_



WELL DEVELOPMENT AND SAMPLING LOG

Project Name: Largo GW Sample Location: Largo Compressor Sta Well No: MW-7  
 Client: Enterprise Field Services Date: 2/25/2010 Time: 12:50  
 Project Manager: Ashley Ager Sampler's Name: Devin Hencmann

Measuring Point: TOC Depth to Water: 21.42 ft Depth to Product: \_\_\_\_\_ ft  
 Well Diameter: 2" Total Depth: 28.1 ft Product Thickness: \_\_\_\_\_ ft  
 Water Column Height: 6.68 ft

Sampling Method:  Submersible Pump  Centrifugal Pump  Peristaltic Pump  Other \_\_\_\_\_  
 Bottom Valve Bailer  Double Check Valve Bailer  
 Criteria:  3 to 5 Casing Volumes of Water Removal  Stabilization of Indicator Parameters  Other bail dry

Water Volume in Well			
Gal/ft x ft of water	Gallons	Ounces	Volume to be removed
6.68 x .16	136.8 x 3	410	3.2 gal

Time (military)	pH (su)	SC (ms)	Temp (°C)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. oz	Comments/Flow Rate
12:50	7.40	11.13	12.5				34	Dark cloudy, HC odor, sheen
	7.45	11.02	12.3				34	"
	7.57	11.09	13.0				34	"
	7.53	11.08	12.3				34	"
	7.58	11.41	13.4				34	"
	7.56	11.38	12.9				34	sheen
	7.60	11.11	13.0				34	"
	7.56	11.30	12.8				34	"
	7.59	11.36	12.9				34	"
	7.61	11.60	13.3				34	"
	7.61	11.33	13.1				34	"
	7.59	11.43	13				34	"
	7.61	11.31	12.7				34	"
<b>Final:</b> 13:29	7.61	11.31	12.7				410	

COMMENTS:

Instrumentation:  pH Meter  DO Monitor  Conductivity Meter  Temperature Meter  Other \_\_\_\_\_

Water Disposal: On-site

Sample ID: MW-7 Sample Time: 13:29

Analysis Requested:  BTEX  VOC:  Alkalinity  TDS  Cations  Anions  Nitrate  Nitrite  Metals  
 Other \_\_\_\_\_

Trip Blank: \_\_\_\_\_ Duplicate Sample: \_\_\_\_\_



WELL DEVELOPMENT AND SAMPLING LOG

Project Name: Largo GW Sample Location: Largo Compressor Sta Well No: MW-8  
 Client: Enterprise Field Services Date: 2/25/2010 Time: 14:50  
 Project Manager: Ashley Ager Sampler's Name: Devin Hencmann

Measuring Point: TOC Depth to Water: 23.25 ft Depth to Product: \_\_\_\_\_ ft  
 Well Diameter: 2" Total Depth: 28.15 ft Product Thickness: \_\_\_\_\_ ft  
 Water Column Height: 4.9 ft

Sampling Method:  Submersible Pump  Centrifugal Pump  Peristaltic Pump  Other \_\_\_\_\_  
 Bottom Valve Bailer  Double Check Valve Bailer

Criteria:  3 to 5 Casing Volumes of Water Removal  Stabilization of Indicator Parameters  Other bail dry

Water Volume in Well			
Gal/ft x ft of water	Gallons	Ounces	Volume to be removed
4.9 x .16	100.3 x 3	301.05	2.35 gal

Time (military)	pH (su)	SC (ms)	Temp (°C)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. oz	Comments/Flow Rate
14:50	7.66	10.28	12.7				34	Cloudy silty, reddish brown
	7.67	10.58	12.7				34	"
	7.66	10.73	13.4				34	"
	7.67	10.89	13.2				34	"
	7.68	11.03	13.4				34	"
	7.66	11.17	13.4				34	silty brown
	7.65	11.22	13.4				34	"
	7.67	11.19	13.1				34	"
	7.66	11.22	13.3				34	"
<b>Final:</b> 15:13	7.66	11.22	13.5				301.05	

COMMENTS:

Instrumentation:  pH Meter  DO Monitor  Conductivity Meter  Temperature Meter  Other \_\_\_\_\_

Water Disposal: On-site

Sample ID: MW-8 Sample Time: 15:13

Analysis Requested:  BTEX  VOCs  Alkalinity  TDS  Cations  Anions  Nitrate  Nitrite  Metals  
 Other \_\_\_\_\_

Trip Blank: \_\_\_\_\_ Duplicate Sample: \_\_\_\_\_



WELL DEVELOPMENT AND SAMPLING LOG

Project Name: <u>Largo GW Sample</u>	Location: <u>Largo Compressor Sta</u>	Well No: <u>MW-9</u>
Client: <u>Enterprise Field Services</u>	Date: <u>2/25/2010</u>	Time: <u>14:20</u>
Project Manager: <u>Ashley Ager</u>	Sampler's Name: <u>Devin Hencmann</u>	

Measuring Point: <u>TOC</u>	Depth to Water: <u>21.51</u> ft	Depth to Product: _____ ft
Well Diameter: <u>2"</u>	Total Depth: <u>31.81</u> ft	Product Thickness: _____ ft
Water Column Height: <u>10.3</u> ft		

Sampling Method:  Submersible Pump  Centrifugal Pump  Peristaltic Pump  Other \_\_\_\_\_  
 Bottom Valve Bailer  Double Check Valve Bailer

Criteria:  3 to 5 Casing Volumes of Water Removal  Stabilization of Indicator Parameters  Other bail dry

Water Volume in Well			
Gal/ft x ft of water	Gallons	Ounces	Volume to be removed
10.3 x .16	210.9 x 3	632.8	4.94 gal

Time (military)	pH (su)	SC (ms)	Temp (°C)	ORP (millivolts)	D.O. (mg/L)	Turbidity (NTU)	Vol Evac. oz	Comments/Flow Rate
14:20	7.42	9.42	12.7				34	Cloudy silty, reddish brown
	7.45	9.28	12.7				34	"
	7.41	9.41	13.4				34	"
	7.43	9.40	13.2				34	"
	7.43	9.40	13.4				34	"
	7.45	9.45	13.4				68	silty brown
	7.42	9.40	13.4				68	"
	7.45	9.46	13.1				68	"
	7.44	9.49	13.3				68	"
	7.45	9.39	13.1				68	
	7.44	9.36	13.4				68	
	7.45	9.49	13.5				68	
<b>Final:</b> 14:47	7.45	9.49	13.5				632.8	

COMMENTS:

Instrumentation:  pH Meter  DO Monitor  Conductivity Meter  Temperature Meter  Other \_\_\_\_\_

Water Disposal: On-site

Sample ID: MW-9

Sample Time: 14:47

Analysis Requested:  BTEX  VOCs  Alkalinity  TDS  Cations  Anions  Nitrate  Nitrite  Metals  
 Other \_\_\_\_\_

Trip Blank: \_\_\_\_\_

Duplicate Sample: \_\_\_\_\_











COVER LETTER

Wednesday, March 03, 2010

Ashley Ager  
LTE  
2243 Main Ave Suite 3  
Durango, CO 81301  
TEL: (970) 946-1093  
FAX

RE: Largo Compressor Sta

Order No.: 1002519

Dear Ashley Ager:

Hall Environmental Analysis Laboratory, Inc. received 8 sample(s) on 2/26/2010 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites.

Reporting limits are determined by EPA methodology.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,



Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901  
AZ license # AZ0682  
ORELAP Lab # NM100001  
Texas Lab# T104704424-08-TX



Hall Environmental Analysis Laboratory, Inc.

Date: 03-Mar-10

CLIENT: LTE Lab Order: 1002519  
 Project: Largo Compressor Sta

Lab ID: 1002519-01 Collection Date: 2/25/2010 1:29:00 PM  
 Client Sample ID: MW-7 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	3000	50		µg/L	50	3/2/2010 3:06:06 AM
Toluene	ND	10		µg/L	10	3/2/2010 2:12:12 PM
Ethylbenzene	40	10		µg/L	10	3/2/2010 2:12:12 PM
Xylenes, Total	31	20		µg/L	10	3/2/2010 2:12:12 PM
Surr: 4-Bromofluorobenzene	109	65.9-130		%REC	10	3/2/2010 2:12:12 PM

Lab ID: 1002519-02 Collection Date: 2/25/2010 1:55:00 PM  
 Client Sample ID: P-2 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	19000	500		µg/L	500	3/2/2010 3:13:05 PM
Toluene	380	100		µg/L	100	3/2/2010 3:43:30 PM
Ethylbenzene	380	100		µg/L	100	3/2/2010 3:43:30 PM
Xylenes, Total	2800	200		µg/L	100	3/2/2010 3:43:30 PM
Surr: 4-Bromofluorobenzene	108	65.9-130		%REC	100	3/2/2010 3:43:30 PM

Lab ID: 1002519-03 Collection Date: 2/25/2010 2:15:00 PM  
 Client Sample ID: MW-6 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	ND	1.0		µg/L	1	3/2/2010 4:06:27 AM
Toluene	ND	1.0		µg/L	1	3/2/2010 4:06:27 AM
Ethylbenzene	ND	1.0		µg/L	1	3/2/2010 4:06:27 AM
Xylenes, Total	ND	2.0		µg/L	1	3/2/2010 4:06:27 AM
Surr: 4-Bromofluorobenzene	96.9	65.9-130		%REC	1	3/2/2010 4:06:27 AM

Lab ID: 1002519-04 Collection Date: 2/25/2010 1:45:00 PM  
 Client Sample ID: P-3 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	3.6	1.0		µg/L	1	3/2/2010 4:44:08 PM
Toluene	10	1.0		µg/L	1	3/2/2010 4:44:08 PM
Ethylbenzene	2.0	1.0		µg/L	1	3/2/2010 4:44:08 PM
Xylenes, Total	24	2.0		µg/L	1	3/2/2010 4:44:08 PM
Surr: 4-Bromofluorobenzene	155	65.9-130	S	%REC	1	3/2/2010 4:44:08 PM

Qualifiers: \* Value exceeds Maximum Contaminant Level B Analyte detected in the associated Method Blank  
 E Estimated value H Holding times for preparation or analysis exceeded  
 J Analyte detected below quantitation limits MCL Maximum Contaminant Level  
 NC Non-Chlorinated ND Not Detected at the Reporting Limit  
 PQL Practical Quantitation Limit S Spike recovery outside accepted recovery limits

**Hall Environmental Analysis Laboratory, Inc.**

Date: 03-Mar-10

**CLIENT:** LTE  
**Project:** Largo Compressor Sta

**Lab Order:** 1002519

**Lab ID:** 1002519-05

**Collection Date:** 2/25/2010 1:31:00 PM

**Client Sample ID:** P-4

**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	2.5	1.0		µg/L	1	3/2/2010 5:44:45 PM
Toluene	7.5	1.0		µg/L	1	3/2/2010 5:44:45 PM
Ethylbenzene	ND	1.0		µg/L	1	3/2/2010 5:44:45 PM
Xylenes, Total	14	2.0		µg/L	1	3/2/2010 5:44:45 PM
Surr: 4-Bromofluorobenzene	99.9	65.9-130		%REC	1	3/2/2010 5:44:45 PM

**Lab ID:** 1002519-06

**Collection Date:** 2/25/2010 1:19:00 PM

**Client Sample ID:** P-5

**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	1.8	1.0		µg/L	1	3/2/2010 6:15:07 PM
Toluene	6.1	1.0		µg/L	1	3/2/2010 6:15:07 PM
Ethylbenzene	ND	1.0		µg/L	1	3/2/2010 6:15:07 PM
Xylenes, Total	11	2.0		µg/L	1	3/2/2010 6:15:07 PM
Surr: 4-Bromofluorobenzene	98.6	65.9-130		%REC	1	3/2/2010 6:15:07 PM

**Lab ID:** 1002519-07

**Collection Date:** 2/25/2010 2:47:00 PM

**Client Sample ID:** MW-9

**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	ND	1.0		µg/L	1	3/2/2010 11:48:22 PM
Toluene	ND	1.0		µg/L	1	3/2/2010 11:48:22 PM
Ethylbenzene	ND	1.0		µg/L	1	3/2/2010 11:48:22 PM
Xylenes, Total	ND	2.0		µg/L	1	3/2/2010 11:48:22 PM
Surr: 4-Bromofluorobenzene	90.0	65.9-130		%REC	1	3/2/2010 11:48:22 PM

**Lab ID:** 1002519-08

**Collection Date:** 2/25/2010 3:13:00 PM

**Client Sample ID:** MW-8

**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8021B: VOLATILES</b>						Analyst: NSB
Benzene	ND	1.0		µg/L	1	3/3/2010 12:18:39 AM
Toluene	ND	1.0		µg/L	1	3/3/2010 12:18:39 AM
Ethylbenzene	ND	1.0		µg/L	1	3/3/2010 12:18:39 AM
Xylenes, Total	ND	2.0		µg/L	1	3/3/2010 12:18:39 AM
Surr: 4-Bromofluorobenzene	102	65.9-130		%REC	1	3/3/2010 12:18:39 AM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

## QA/QC SUMMARY REPORT

Client: LTE  
Project: Largo Compressor Sta

Work Order: 1002519

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
<b>Method: EPA Method 8021B: Volatiles</b>											
<b>Sample ID: 1002519-03A MSD</b>		<b>MSD</b>				<b>Batch ID: R37565</b>	<b>Analysis Date: 3/2/2010 5:37:27 AM</b>				
Benzene	20.98	µg/L	1.0	20	0.092	104	85.9	113	5.07	27	
Toluene	20.67	µg/L	1.0	20	0	103	86.4	113	8.00	19	
Ethylbenzene	20.35	µg/L	1.0	20	0	102	83.5	118	6.97	10	
Xylenes, Total	60.88	µg/L	2.0	60	0	101	83.4	122	4.86	13	
<b>Sample ID: 1002519-08A MSD</b>		<b>MSD</b>				<b>Batch ID: R37588</b>	<b>Analysis Date: 3/2/2010 8:46:53 PM</b>				
Benzene	18.38	µg/L	1.0	20	0	96.9	85.9	113	4.81	27	
Toluene	18.55	µg/L	1.0	20	0	92.8	86.4	113	6.42	19	
Ethylbenzene	18.61	µg/L	1.0	20	0	93.1	83.5	118	6.44	10	
Xylenes, Total	56.60	µg/L	2.0	60	0	94.3	83.4	122	5.01	13	
<b>Sample ID: 5ML RB</b>		<b>MBLK</b>				<b>Batch ID: R37565</b>	<b>Analysis Date: 3/1/2010 9:25:06 AM</b>				
Benzene	ND	µg/L	1.0								
Toluene	ND	µg/L	1.0								
Ethylbenzene	ND	µg/L	1.0								
Xylenes, Total	ND	µg/L	2.0								
<b>Sample ID: 5ML RB</b>		<b>MBLK</b>				<b>Batch ID: R37588</b>	<b>Analysis Date: 3/2/2010 9:39:39 AM</b>				
Benzene	ND	µg/L	1.0								
Toluene	ND	µg/L	1.0								
Ethylbenzene	ND	µg/L	1.0								
Xylenes, Total	ND	µg/L	2.0								
<b>Sample ID: 100NG BTEX LCS</b>		<b>LCS</b>				<b>Batch ID: R37565</b>	<b>Analysis Date: 3/2/2010 6:07:50 AM</b>				
Benzene	22.44	µg/L	1.0	20	0	112	85.9	113			
Toluene	22.13	µg/L	1.0	20	0	111	86.4	113			
Ethylbenzene	21.98	µg/L	1.0	20	0.148	109	83.5	118			
Xylenes, Total	65.70	µg/L	2.0	60	0	110	83.4	122			
<b>Sample ID: 100NG BTEX LCS</b>		<b>LCS</b>				<b>Batch ID: R37588</b>	<b>Analysis Date: 3/2/2010 9:17:15 PM</b>				
Benzene	21.05	µg/L	1.0	20	0	105	85.9	113			
Toluene	20.63	µg/L	1.0	20	0	103	86.4	113			
Ethylbenzene	20.52	µg/L	1.0	20	0	103	83.5	118			
Xylenes, Total	61.99	µg/L	2.0	60	0	103	83.4	122			
<b>Sample ID: 1002519-03A MS</b>		<b>MS</b>				<b>Batch ID: R37565</b>	<b>Analysis Date: 3/2/2010 5:07:07 AM</b>				
Benzene	19.94	µg/L	1.0	20	0.092	99.3	85.9	113			
Toluene	19.08	µg/L	1.0	20	0	95.4	86.4	113			
Ethylbenzene	18.98	µg/L	1.0	20	0	94.9	83.5	118			
Xylenes, Total	58.11	µg/L	2.0	60	0	96.9	83.4	122			
<b>Sample ID: 1002519-08A MS</b>		<b>MS</b>				<b>Batch ID: R37588</b>	<b>Analysis Date: 3/2/2010 8:16:27 PM</b>				
Benzene	20.33	µg/L	1.0	20	0	102	85.9	113			
Toluene	19.78	µg/L	1.0	20	0	98.9	86.4	113			
Ethylbenzene	19.85	µg/L	1.0	20	0	99.3	83.5	118			
Xylenes, Total	59.51	µg/L	2.0	60	0	99.2	83.4	122			

## Qualifiers:

E Estimated value  
J Analyte detected below quantitation limits  
ND Not Detected at the Reporting Limit  
H Holding times for preparation or analysis exceeded  
NC Non-Chlorinated  
R RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name LTE

Date Received:

2/26/2010

Work Order Number 1002519

Received by: TLS

Sample ID labels checked by:

Initials

Checklist completed by:

Signature

Date

*[Handwritten Signature]*

*2/26/10*

*[Handwritten Initials]*

Matrix:

Carrier name Greyhound

- Shipping container/cooler in good condition? Yes  No  Not Present
- Custody seals intact on shipping container/cooler? Yes  No  Not Present  Not Shipped
- Custody seals intact on sample bottles? Yes  No  N/A
- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Samples in proper container/bottle? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No
- All samples received within holding time? Yes  No
- Water - VOA vials have zero headspace? No VOA vials submitted  Yes  No
- Water - Preservation labels on bottle and cap match? Yes  No  N/A
- Water - pH acceptable upon receipt? Yes  No  N/A

Number of preserved bottles checked for pH:

<2 >12 unless noted below.

Container/Temp Blank temperature? 5.7° <6° C Acceptable  
If given sufficient time to cool.

COMMENTS:

Client contacted \_\_\_\_\_ Date contacted: \_\_\_\_\_ Person contacted \_\_\_\_\_

Contacted by: \_\_\_\_\_ Regarding: \_\_\_\_\_

Comments: \_\_\_\_\_

Corrective Action \_\_\_\_\_

# Chain-of-Custody Record

Client: LTE

Mailing Address: 2243 Main Ave St. 3

Durango CO 81301

Phone #: 970-946-1093

email or Fax#:

QA/QC Package:

Standard  Level 4 (Full Validation)

Accreditation

NELAP  Other

EDD (Type)

Turn-Around Time:

Standard  Rush

Project Name:

Largo Compressor Sta

Project#:

Project Manager:

Ashley Ager

Sampler: Devlin Henneman/Bowker Lab



Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
2/25/10	1329	A2	MV-7	40ml/3	none										N
2/25/10	1355	A2	P-2	40ml/3	HgCl2									X	N
2/25/10	1415	A2	MW-6	40ml/3	HCL									X	N
2/25/10	1345	A2	P-3	40ml/2	HCL/HCL									X	N
2/25/10	1331	A2	P-4	40ml/1	HCL									X	N
2/25/10	1319	A2	P-5	40ml/1	HCL									X	N
2/25/10	1447	A2	MW-9	40ml/3	HCL									X	N
2/25/10	1513	A2	MW-8	40ml/3	HCL									X	N

Date: 2/25/10 Time: 1850 Relinquished by: Fin

Date: 2/25/10 Time: 930 Received by: [Signature]

Remarks: Please forward results to Ager@tenv.com

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.