



ENTERPRISE PRODUCTS PARTNERS L.P.  
ENTERPRISE PRODUCTS HOLDINGS LLC  
(General Partner)

ENTERPRISE PRODUCTS OPERATING LLC

December 1, 2025

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New Mexico Energy, Minerals & Natural Resources  
Department – Oil Conservation Division (NMOCD)  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505  
Attn: Ms. Shanna Smith

Re: Stage 1 Abatement Plan (Revised)  
Enterprise Field Services, LLC  
Lateral K-7 Pipeline Release (7/15/2013)  
Rio Arriba County, New Mexico  
OCD RP : 3RP-452  
Incident ID: nAPM2401733817

Dear Ms. Smith,

Enterprise Products Operating LLC (Enterprise), on behalf of Enterprise Field Services, LLC, is submitting one electronic copy of the above-referenced report that describes the proposed Stage 1 Abatement Plan activities at the Lateral K-7 Pipeline Release (07/15/13) site, referred to hereinafter as the "Site".

In response to the NMOCD October 30, 2025 rejection of the *Stage 1 Abatement Plan* (Ensolum, September, 14, 2025), Enterprise is submitting the attached Stage 1 Abatement Plan (Revised). This revised report addresses the NMOCD's comments from October 30, 2025 and details the Site description and background, historical Site investigation and remediation activities to-date, and the geologic and hydrogeologic characteristics defining the Site. Additionally, it proposes further delineation, monitoring, potential remediation activities, and provides a proposed schedule to complete delineation activities in accordance with New Mexico Administrative Code (NMAC) Title 19, Chapter 15, Part 30, Sections 13 and 15 (19.15.30.13 and 19.15.30.15).

Should you have any questions or require additional information, please contact me any time at 713-381-4668 or [jedoyale@eprod.com](mailto:jedoyle@eprod.com) or Tucker Jacobson at 713-381-4313 or [wtjacobson@eprod.com](mailto:wjacobson@eprod.com).

Sincerely,

*Joseph Edward Doyle*

Joseph E. Doyle  
Scientist, Environmental

W. Tucker Jacobson  
Senior Manager, Environmental

cc: James Cruan - BLM, Farmington, NM – **Cert Mail: 7022 1670 0001 7321 7879**  
Scotty Cox - Landowner  
ec: Daniel R. Moir - Ensolum, Durango, CO



**STAGE 1 ABATEMENT PLAN (Revised)**

Property:

**Lateral K-7 Pipeline Release (7/15/2013)  
Unit Letter N, Section 15, Township 26 North, Range 7 West  
Rio Arriba County, New Mexico**

NMOCD Incident ID nAPM2401733817

November 21, 2025  
Revised: November 20, 2025  
Ensolum Project No. 05B1226021

Prepared for:

**ENTERPRISE PRODUCTS OPERATING LLC  
P.O. Box 4324  
Houston, Texas 77210-4324  
Attn: Ms. Valerie Phipps**

Prepared by:

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Tabitha Guadian  
Staff Geologist

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Daniel R. Moir, PG (licensed in WY & TX)  
Senior Managing Geologist

## TABLE OF CONTENTS

<b>1.0</b>	<b>INTRODUCTION</b> .....	<b>1</b>
1.1	Standard of Care and Limitations.....	1
<b>2.0</b>	<b>SITE DESCRIPTION AND BACKGROUND</b> .....	<b>1</b>
<b>3.0</b>	<b>SITE CHARACTERIZATION</b> .....	<b>2</b>
3.1	Regional Geology and Hydrogeology .....	2
3.2	Local Geology and Hydrogeology.....	3
<b>4.0</b>	<b>PROPOSED CLEANUP GOALS</b> .....	<b>3</b>
<b>5.0</b>	<b>PROJECT OBJECTIVE</b> .....	<b>5</b>
<b>6.0</b>	<b>SUMMARY OF SITE ASSESSMENT ACTIVITIES</b> .....	<b>5</b>
<b>7.0</b>	<b>PROPOSED DELINEATION ACTIVITIES</b> .....	<b>6</b>
7.1	Health and Safety Plan .....	6
7.2	Soil Boring Installation .....	6
7.3	Soil Sampling Program.....	7
7.4	Soil Laboratory Analytical Program .....	7
7.5	Monitoring Well Installation / Construction.....	8
7.6	Groundwater Gradient Determination.....	10
7.7	Groundwater Sampling Program.....	10
7.8	Groundwater Laboratory Analytical Program .....	10
<b>8.0</b>	<b>REPORTING</b> .....	<b>11</b>
<b>9.0</b>	<b>QUALITY ASSURANCE</b> .....	<b>11</b>
<b>10.0</b>	<b>PROPOSED SCHEDULE</b> .....	<b>11</b>
10.1	Public Notice.....	11
10.2	Field Activities .....	12
10.3	Annual Progress Reports.....	12

## APPENDICES

Figure 1 Site Location Map  
Figure 2 Site Vicinity Map  
Figure 3 Site Map with Soil Analytical Results  
Figure 4 Proposed Monitoring Well Locations

Table 1 Soil Analytical Summary  
Table 2 Groundwater Analytical Summary  
Table 3 Groundwater Elevations

Appendix A: Soil Boring/Monitoring Well Logs  
Appendix B: Siting Figures and Documentation  
Figure A 0.5 Mile Radius Water Well Map  
Figure B 300 Foot Radius Watercourse and Drainage Identification  
Figure C 300 Foot Radius Occupied Structure Identification  
Figure D Water Well and Natural Spring Locations  
Figure E Wetlands  
Figure F Mines, Mills, and Quarries  
Figure G 100-Year Flood Plain Map  
Appendix C: Laboratory Analytical Results  
Appendix D: List of Landowners  
Appendix E: Public Notice



## 1.0 INTRODUCTION

Ensolum, LLC (Ensolum) has prepared a Stage 1 Abatement Plan for Enterprise Products Operating LLC (Enterprise) as it relates to the Lateral K-7 pipeline release (7/15/2013) site located within Unit Letter N of Section 15, Township 26 North, Range 7 West, in Rio Arriba County, New Mexico (36.47945°, -107.56501°), hereinafter referred to as the "Site".

Based on correspondence from the New Mexico Energy, Minerals, and Natural Resources Department (EMNRD) Oil Conservation Division (NMOCD), dated August 28, 2025, Enterprise is required to submit a Stage 1 Abatement Plan. This *Stage 1 Abatement Plan* details the Site description and background, historical Site investigation and remediation activities to-date, and the geologic and hydrogeologic characteristics defining the Site. Additionally, it proposes further delineation, monitoring, and potential remediation activities and provides a proposed schedule to complete delineation activities in accordance with New Mexico Administrative Code (NMAC) Title 19, Chapter 15, Part 30, Sections 13 and 15 (19.15.30.13 and 19.15.30.15). Subsequent to the successful completion and the agency approval of the proposed Site activities, a Stage 2 Abatement Plan may be developed to address the remediation of constituents of concern (COCs) exceeding the applicable New Mexico Water Quality Control Commission (NMWQCC) groundwater standard(s) (GQS) for groundwater impacts and/or NMOCD Closure Criteria for soil impacts at the Site.

### 1.1 Standard of Care and Limitations

Ensolum's services will be performed in accordance with standards customarily provided by a firm rendering the same or similar services in the area during the same time period. Ensolum makes no warranties, express or implied, as to the services to be performed hereunder. Additionally, Ensolum does not warrant the work of third parties supplying information to be used in the report (e.g. laboratories, regulatory agencies, or other third parties). This scope of services will be performed in accordance with the scope of work agreed with Enterprise and regulatory agency, as detailed in our discussions.

Findings, conclusions, and recommendations resulting from these services will be based upon information derived from public information resources and it should be noted that this information is subject to change over time. Ensolum's findings are based solely upon data available to Ensolum at the time of these services.

This report has been prepared for the exclusive use of Enterprise, and any authorization for use or reliance by any other party (except governmental entities having jurisdiction over the Site) is prohibited without the express written authorization of Enterprise and Ensolum. Any unauthorized distribution or reuse is at Enterprise's sole risk. Notwithstanding the foregoing, reliance by authorized parties will be subject to the terms, conditions and limitations stated in the Stage 1 Abatement Plan and Ensolum's Agreement with Enterprise. The limitation of liability defined in the agreement is the aggregate limit of Ensolum's liability to the client.

## 2.0 SITE DESCRIPTION AND BACKGROUND

The Enterprise Lateral K-7 Pipeline Release (7/15/2013) Site is located on private land. The Site is surrounded by rangeland that is periodically interrupted by oil and gas production and gathering facilities, including the natural gas gathering pipeline traversing the area from approximately southeast to northwest.



Following the release of natural gas condensate on July 15, 2013, Enterprise initiated excavation activities to complete the appropriate pipeline repairs. Animas Environmental Services (AES) collected one confirmation soil sample from the excavation. The excavation was subsequently backfilled with clean imported fill. Based on investigation results, volatile organic compound (VOC) concentrations in soil were detected above the applicable NMOCD Closure Criteria.

In October 2013, AES completed Site investigation activities to further evaluate the extent of hydrocarbon impact on soil and groundwater. Five soil borings (SB-1 through SB-5) were advanced and completed as groundwater monitoring wells MW-1 through MW-5. Based on laboratory analytical results benzene, toluene, ethylbenzene, and total xylenes (BTEX) and total petroleum hydrocarbon (TPH) gasoline range organics (GRO) and diesel range organics (DRO) concentrations in soil were identified in the area of SB-2, which exceeded the NMOCD Closure Criteria. Dissolved benzene concentrations in groundwater (MW-1, MW-2, and MW-3) were detected exceeding the WQCC GQS.

Groundwater monitoring events were conducted in February 2013 by AES and November 2014 and in June and December 2015 by Apex TITAN, Inc. (Apex) to further evaluate groundwater COC concentrations.

In August 2015, while performing permanent pipeline repair activities, Enterprise initiated remediation activities to reduce the concentration of COCs in soil identified during previous Site investigation activities. Approximately 926 cubic yards of impacted soil were removed during excavation activities. Soil analytical results of soil remaining within the excavation indicated COC concentrations in compliance with the applicable NMOCD Closure Criteria. Monitoring wells MW-1 through MW-4 were removed during excavation activities.

A **Topographic Map** is provided as **Figure 1**, which was reproduced from a portion of a United States Geological Survey (USGS) 7.5-minute series topographic map. A **Site Vicinity Map**, created from an aerial photograph, is provided in **Figure 2**, and a **Site Map**, which identifies the extent of the former excavation and approximate soil sample locations in relation to the pipeline, is provided in **Figure 3**.

### 3.0 SITE CHARACTERIZATION

#### 3.1 Regional Geology and Hydrogeology

The Site is located within the San Juan Basin, which is the major structural feature in the northwest corner of New Mexico. The San Juan Basin is classified as an arid region, as most of the area receives less than 10 inches of precipitation per year. Mean annual precipitation in the mountainous regions along the basin margin may be as much as 30 inches a year. Surface water is relatively scarce, with the exception of the San Juan River and its tributaries.

Based upon reference information from the New Mexico Bureau of Geology and Mineral Resources publication on the background geology of the San Juan Basin (Decision-Makers Field Conference 2002) "most of the aquifers in the San Juan Basin exist under confined or semi-confined hydrologic conditions. In Mesozoic rocks of the region, the confined sandstone aquifers are interbedded with shales that behave as aquitards. The Triassic mudrock sequence is the aquitard for the Permian Limestone. Groundwater in the alluvium along streams and in the shallow Tertiary sandstone aquifers is generally unconfined and is open to the atmosphere through pores in the overlying permeable rocks."



The major aquifer underlying the Site vicinity is listed as the Colorado Plateaus Aquifer, which is made up of four aquifers – Uinta-Anima, Mesa Verde, Dakota-Glen, and Coconino-De Chelly. The Uinta-Animas is the shallowest of these aquifers and is present in the San Juan Basin. The general composition of the aquifers is moderately to well-consolidated sedimentary rocks of an age ranging from Permian to Tertiary. Each aquifer is separated from the others by an impermeable confining unit. Two of the confining units are completely impermeable and cover the entire area of the aquifers. The other two confining units are less extensive and are thinner. These units allow water to flow between the principal aquifers.

According to the New Mexico Bureau of Geology and Mineral Resource (Geologic Map of New Mexico 2003), the Site is located within the lower Eocene San Jose Formation, which was deposited along high energy, low-sinuosity streams and on extensive muddy floodplains. The Eocene age San Jose Formation contains a mixture of clastic sedimentary rocks varying from siltstone to conglomerate, dominated by rocks containing sand-sized particles.

### 3.2 Local Geology and Hydrogeology

Boring logs were prepared during Site investigation activities. The boring logs recorded sample identification, depth collected, and method of collection, as well as observations of soil moisture, color, grain size, contaminant presence, and overall stratigraphy. The lithology encountered at the Site during boring activities were composed of Quaternary alluvial deposits derived from erosion of the parent San Jose sandstones and siltstones which comprise the canyon walls. Based on the data collected during the completion of the soil borings, the alluvium generally consists of brown to black clayey sand, silty sands, clayey silt, and sands from the ground surface to at least 44 feet below grade surface (bgs).

The lithology observed during the advancement of soil boring MW-1 at the Site included a black to brown clayey sand, silty sand, and clayey silt from the surface to approximately 21 feet bgs. The clayey silt stratum was underlain by a brown silty sand and poorly graded sand from 21 feet bgs to the terminus depth of 44 feet bgs. The lithologies observed in the remaining soil borings at the Site were similar to that of soil boring MW-1. Detailed lithologic descriptions are presented on the monitoring well soil boring logs included in **Appendix A**.

The initial groundwater-bearing unit at the Site was encountered at depths ranging from 35 feet to 37 feet bgs during prior investigation activities. The groundwater flow direction (gradient) at the Site is generally toward the north and averages a gradient of approximately 0.003 feet per foot (ft/ft) across the Site (measured during the 2015 groundwater sampling events).

Based on Domenico and Schwartz (1990), a default hydraulic conductivity value for the impacted sand unit at the Site would be, on average,  $2 \times 10^{-6}$  meters per second (m/sec), which is equivalent to 0.57 feet per day (ft/day). Additional Site-specific aquifer characterization is proposed in this *Stage 1 Abatement Plan*.

## 4.0 PROPOSED CLEANUP GOALS

The Site is subject to regulatory oversight by the NMOCD. The Site is subject to 19.15.29 NMAC *Releases*, which establishes investigation and abatement action requirements for oil and gas release sites that are subject to reporting and/or corrective action, during the evaluation and remediation of the Site. Groundwater remediation activities at the Site will be performed in accordance with 20.6.2 NMAC and 19.15.30 NMAC, *Remediation*.

Supporting documentation and figures associated with the following bullets are provided in **Appendix B**.

- The New Mexico Office of the State Engineer (OSE) tracks the usage and assignment of water rights and water well installations and records this information in the Water Rights Reporting System (WRRS) database. Water wells and other points of diversion (PODs) are each assigned POD numbers in the database (which is searchable and includes an interactive map). Numerous PODs are located within the same Public Land Survey System (PLSS) section of the Site as well as in adjacent sections. The average depth to water for the PODs is approximately 20 feet bgs. The records for the closest PODs (SJ-02422, SJ-0070, and SJ-0071), located within 1/2-mile of the Site, indicate depth to water of 12 feet bgs, 22 feet bgs, and 26 feet bgs, respectively. Two of these PODs (SJ-0070 and SJ-0071) are owned by Enterprise and are out-of-service; however, these wells have not been plugged and abandoned. POD SJ-02422 is located on a private ranch north of the Site. Based on historical water levels measured in the groundwater monitoring wells that were located at the Site, the depth to groundwater is approximately 34 feet bgs. All wells within a 1-mile radius of the Site and used for depth to groundwater determination are presented on Figure 1 and Figure A of Appendix B.
- No cathodic protection wells were identified within 1-mile of the Site.
- The Site is not located within 300 feet of an NMOCD-defined continuously flowing watercourse or significant watercourse. The Site is located approximately 315 feet east of Palluche Wash.
- The Site is not located within 200 feet of a lakebed, sinkhole or playa lake.
- The Site is not located within 300 feet of a permanent residence, school, hospital, institution or church.
- No springs, or private domestic fresh water wells used by less than five households for domestic or stock watering purposes were identified within 500 feet of the Site.
- No fresh water wells or springs were identified within 1,000 feet of the Site.
- The Site is not located within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to New Mexico Statutes Annotated (NMSA) 1978, Section 3-27-3.
- Based on information identified in the United States (U.S) Fish & Wildlife Service National Wetlands Inventory Wetlands Mapper, the Site is not located within 300 feet of a wetland.
- Based on information identified on the New Mexico Mining and Minerals Division's Geographic Information System (GIS), Maps and Mine Data database, the Site is not located within an area overlying a subsurface mine.
- The Site is not located within an unstable area.
- Based on information provided on the Federal Emergency Management Agency (FEMA) National Flood Hazard Layer (NFHL) geospatial database, the Site is not located within a 100-year floodplain.

Based on the identified siting criteria, applicable Closure Criteria for soils at the Site include: 10 milligrams per kilogram (mg/kg) for benzene, 50 mg/kg for total BTEX, 100 mg/kg for combined TPH GRO/ DRO/motor oil range (MRO), and 600 mg/kg for chloride.

In addition, cleanup/delineation goals for groundwater located at the Site include: 5 micrograms per liter ( $\mu\text{g/L}$ ) for benzene, 1,000  $\mu\text{g/L}$  for toluene, 700  $\mu\text{g/L}$  for ethylbenzene, and 620  $\mu\text{g/L}$  for total xylenes. Per a denial response from the NMOCD (August 28, 2025) of a previously submitted Supplemental Environmental Site Investigation (SESI) Work Plan for the Site, dated



February 13, 2025, the Site will also assess TPH, chloride, total dissolved solids (TDS), and pH in groundwater. There is no established WQCC GQS for TPH. The chloride GQS is 250 milligrams per liter (mg/L), and the TDS standard is 1,000 mg/L. The pH range to be assessed is between 6.6 and 8.6. Any other toxic pollutant identified in groundwater will be compared to groundwater standards provided in 20.6.2.3103 NMAC.

## 5.0 PROJECT OBJECTIVE

As a result of the August 2015 corrective actions, soil at the Site has been predominantly remediated to acceptable levels. Access to the Site was interrupted following the 2015 corrective actions but has now been restored. Enterprise now proposes to replace/enhance the monitoring well network at the Site to verify the natural attenuation of COCs formerly identified in soil and groundwater. Enterprise is proposing to install five new monitoring wells at the Site. The Site is located on privately owned land. Ensolum will collaborate with Enterprise's Land Department for property access and agreements that may be required for the monitoring well installations. In addition, Ensolum will coordinate with the NMOSE to permit the monitoring wells prior to installation.

## 6.0 SUMMARY OF SITE ASSESSMENT ACTIVITIES

On July 15, 2013, natural gas condensate was released from the Enterprise Lateral K-7 natural gas gathering pipeline at the Site. Subsequent to the completion of excavation activities and off-site disposal of hydrocarbon-impacted soils, one confirmation soil sample was collected from the excavation by AES. The excavation was then backfilled with unaffected soils (*Continued Site Assessment Workplan*, dated September 25, 2013 - AES). During October 2013, five soil borings (SB-1 through SB-5) were advanced on-Site by AES. Subsequent to advancement, the soil borings were completed as groundwater monitoring wells (MW-1 through MW-5). Analytical results from the soil and groundwater sampling activities indicated COC concentrations were present in soil (SB-2, upgradient to the release and near the groundwater interface) above the applicable NMOCD Closure Criteria, and in groundwater (monitoring wells MW-1 through MW-3) above the New Mexico WQCC GQSs (*Groundwater Investigation Report*, dated March 19, 2013 – AES).

In August 2015, Enterprise implemented remediation activities at the Site to remove residual petroleum hydrocarbon-affected soils to the extent practical. During remediation activities, monitoring wells MW-1 through MW-4 were removed to allow excavation. A total of 14 confirmation soil samples were collected from the resulting excavation. Approximately 926 cubic yards of petroleum hydrocarbon-affected soils were removed from the Site and transported to the Envirotech Landfarm, Inc. (Envirotech) for disposal/remediation. Based on soil laboratory analytical results, soils were remediated to below the applicable NMOCD Closure Criteria (*Corrective Action Report*, dated February 2, 2016 – Apex). Laboratory analytical results from previous Site investigation activities are included in **Appendix C. Table 1** summarizes soil analytical results, while **Tables 2 and 3** summarize groundwater analytical results and elevation measurements, respectively.

The proposed activities identified herein are based on a work plan submitted to the NMOCD prepared by Ensolum on behalf of Enterprise (*Supplemental Environmental Site Investigation Work Plan*, February 13, 2025, Ensolum) and was subsequently denied by NMOCD on August 28, 2025, for the following deficiencies:



The OCD has rejected the submitted Ground Water Abatement (GROUND WATER ABATEMENT), for incident ID (n#) nAPM2401733817, for the following reasons:

- Submitted report rejected. Additional information requested.
- Submitted plan does not meet the requirements of [19.15.30.13](#) NMAC and [19.15.30.15](#) NMAC.
- Each proposed monitoring well will need to have an initial sample collected for the constituents listed under 20.6.2.3103 NMAC. Sampling will also need to include EPA method 8260, TPH, chloride, TDS, and pH.
- Stage I Abatement plans will need to include detailed wellbore construction and completion for each planned well.
- Provide a timeline to when work is to be completed. If initial well installation does not fully delineate the extent of contamination, an alternative timeline must be presented. OCD is requiring full delineation of contamination.
- Per [19.15.30.15](#) NMAC, a public notice is required. Attach a draft public notice per [19.16.30.15](#) NMAC for OCD to review.
- Resubmit a complete Stage I Abatement by September 29, 2025.

This Stage 1 Abatement Plan has been prepared to address those deficiencies, though the intent of further Site investigation activities remains the same, specifically the re-installation of monitoring wells MW-1 through MW-4 and installation of an upgradient monitoring well (MW-6) to assess groundwater beneath the Site.

Soil laboratory results, including data from previous Site investigations, are provided in **Table 1**. Groundwater analytical results are summarized in **Table 2**. Groundwater measurements (including historical data) are presented with top of casing (TOC) elevations in **Table 3**.

## 7.0 PROPOSED DELINEATION ACTIVITIES

### 7.1 Health and Safety Plan

Ensolum will develop a Site-specific Health and Safety Plan (HSP) for the performance of the proposed scope of services described in this work plan. For the purposes of this HSP, it is assumed that the COCs include petroleum hydrocarbon constituents. For the purposes of this proposed plan, it is assumed that the scope of services can be conducted under modified Level D personal protective equipment (PPE), which will include a hard hat, steel-toed boots, protective eyewear, and gloves. Should the need arise to upgrade PPE (e.g. respiratory protection), the client will be notified, and the HSP will be modified accordingly. Although it is not anticipated at this time, it should be noted that a PPE upgrade will constitute a change in scope of work, requiring a change order.

Ensolum will clear utilities through the New Mexico One Call System and will coordinate with the utility companies and Enterprise to evaluate the line locations in order to select the actual soil boring locations.

### 7.2 Soil Boring Installation

Prior to drilling, the known subsurface utilities will be marked and potentially “daylighted” utilizing a hydro-excavator. Five soil borings will be advanced utilizing a hollow stem auger drilling rig. The soil borings will be advanced to a maximum total depth of approximately 45 feet to 50 feet bgs, a minimum of 5 feet below the initial water table, or auger refusal, whichever is shallower. The exact



soil boring locations may be altered by utility, appurtenances, or access restrictions. The proposed monitoring well locations are identified in **Figure 4**.

Non-disposable sampling and drilling equipment will be decontaminated using an Alconox<sup>®</sup> wash and potable water rinse prior to commencement of the project and between the advancement of each soil boring.

Soil samples will be collected continuously using core barrels or split spoon samplers to document lithology, color, relative moisture content, and visual or olfactory evidence of impairment. In addition, the samples will be screened with a photoionization detector (PID) to evaluate the presence of volatile organic compounds (VOCs). Soil boring cuttings will be stored in labeled drums until appropriate disposal measures have been determined.

### 7.3 Soil Sampling Program

Soil samples will be sampled at a minimum pursuant to 19.15.29.11 NMAC. The proposed monitoring well borings are intended to delineate and define the vadose zone, the vertical and horizontal extent, and magnitude of contamination. A minimum of two soil samples from each monitoring well boring will be submitted for laboratory analysis from a combination of the following:

- The depth interval exhibiting the highest concentration of VOCs based on PID evidence;
- An interval exhibiting visual/olfactory evidence of impairment;
- The capillary fringe zone;
- From a change in lithology, or
- From the bottom of the boring.

All soil samples will be collected in laboratory-prepared glassware. The containers will be labeled and sealed using laboratory-supplied labels and custody seals and will be stored on ice in a cooler. The samples will be relinquished to the courier for Eurofins Environment Testing South Central LLC (Eurofins) of Albuquerque, New Mexico, under proper chain-of-custody procedures.

### 7.4 Soil Laboratory Analytical Program

A summary of the analytes, sample type, number of samples, and EPA-approved methods is presented in the following table:

ANALYTES	SAMPLE TYPE	NO. OF SAMPLES	METHOD
TPH GRO/DRO/MRO	Soil	10	SW-846 8015
BTEX	Soil	10	SW-846 8021/8260
Chloride	Soil	10	Method 300.0

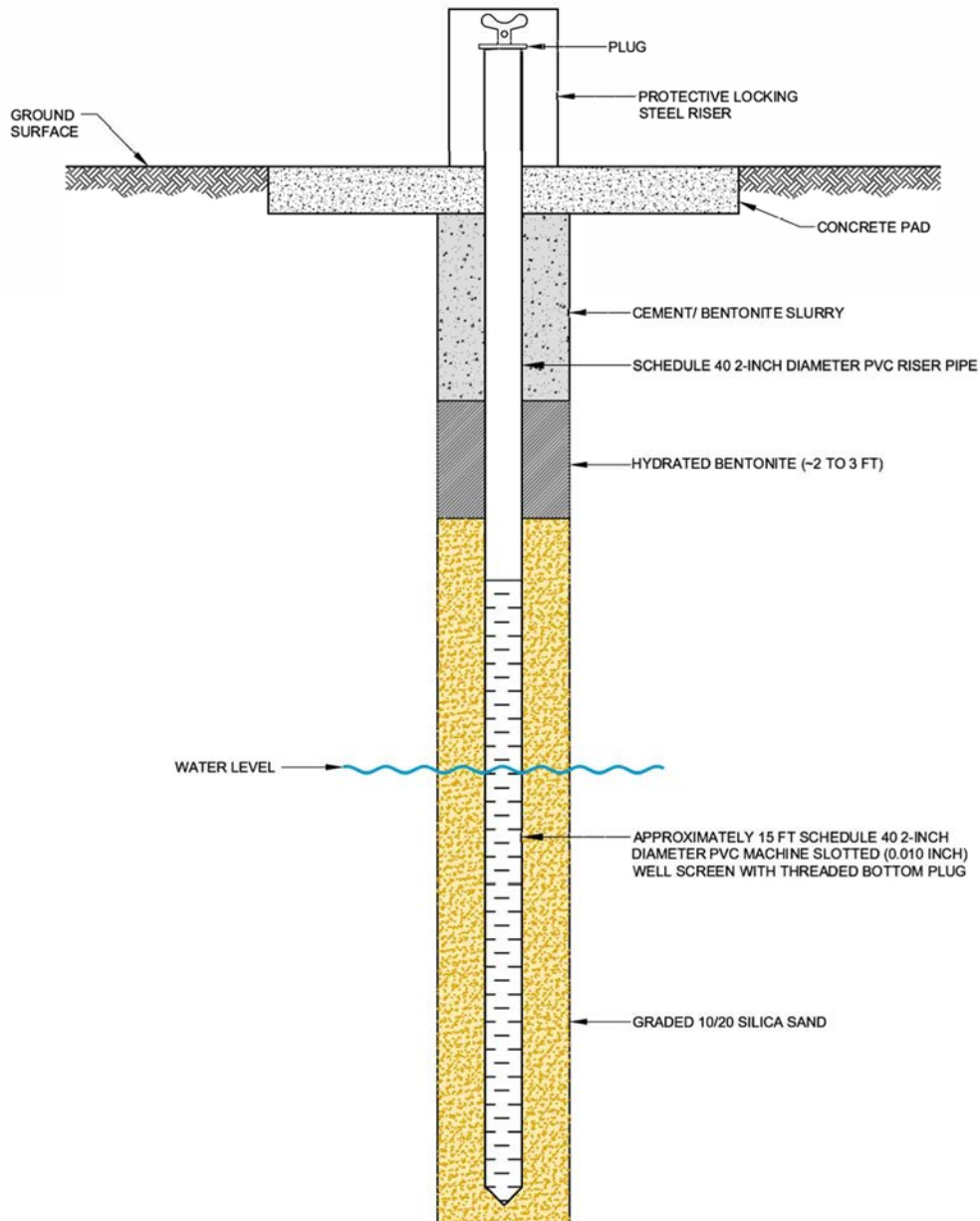
### 7.5 Monitoring Well Installation / Construction

Subsequent to advancement and if practicable, each soil boring will be completed as a 2-inch diameter groundwater monitoring well, joining the one remaining monitoring well (MW-5) from the original installation. Four of the wells are replacement wells, and one monitoring well (MW-6) will be installed at a new location to the south (hydrologically upgradient). The monitoring wells will be completed as follows:

- Installation of 15 feet of 2-inch diameter, machine-slotted (0.010-inch) schedule 40 polyvinyl chloride (PVC) well screen assembly with a threaded bottom plug;
- The target interval for the screen will exhibit 10 feet of screen below the static water level, with 5 feet of screen above the static water level;
- Installation of Schedule 40 PVC riser pipe to surface;
- Addition of graded silica sand for annular sand pack around the well screen from the bottom of the well to approximately 2 feet above the top of the screen;
- Placement of approximately 2 feet of hydrated bentonite above the sand;
- Addition of cement/bentonite slurry to the surface; and
- Installation of an above-grade steel riser with an integrated padlock hasp.

A schematic of a constructed monitoring well is depicted below, and will generally be followed for the five proposed monitoring wells:

## General Monitoring Well Construction Schematics



The monitoring wells will be developed by surging and removing groundwater until the fluid appears relatively free of fine-grained sediment. Purge fluids will be stored onsite in drums until appropriate disposal methods are determined. Two quarterly groundwater monitoring events will be completed. Following receipt of data from the second quarterly groundwater monitoring event, if soil and/or groundwater impacts are present, additional delineation will be conducted within 120 days following receipt of analytical results provided the land-owner has approved access, if needed. Additionally, one or more slug tests will also be attempted at the Site to obtain Site-specific aquifer characteristics.

## 7.6 Groundwater Gradient Determination

Following installation, the existing and new monitoring wells will be geospatially surveyed by a New Mexico-licensed surveyor to determine the TOC and ground surface elevations. The TOC elevations will allow the calculation of the groundwater elevations at each well. This information will facilitate the creation of groundwater potentiometric surface maps, which will identify groundwater flow direction and gradient. The relative ground elevations will facilitate the creation of lithologic and/or hydrogeologic cross-sections, if deemed necessary.

## 7.7 Groundwater Sampling Program

Once the new monitoring wells are installed and developed, Ensolum will collect one groundwater sample from each monitoring well. Ensolum's groundwater sampling program will consist of the following:

- Prior to sample collection, Ensolum will gauge the depth to fluids in each monitoring well using an interface probe capable of detecting non-aqueous phase liquids (NAPL).
- Each monitoring well will be sampled utilizing micro-purge low-flow sampling techniques. Following the completion of the micro-purge process, one groundwater sample will be collected from each monitoring well.
- Low-flow or low-stress sampling refers to sampling methods that are intended to minimize the stress imparted to the formation pore water in the vicinity of the well screen. Water level drawdown provides the best indication of stress imparted by a given flow rate for a given hydrological situation. Pumping rates of 0.1 to 0.5 liters per minute (L/min) are typically maintained during the low-flow/low-stress sampling activities, using dedicated or decontaminated sampling equipment.
- Groundwater samples will be collected from each monitoring well once the produced groundwater is consistent in color, clarity, pH, temperature, and conductivity. Measurements will be observed every three to five minutes while purging. Purging will be considered complete once key parameters (especially pH and conductivity) have stabilized for at least three successive readings.
- Groundwater samples will be collected in laboratory-supplied containers (pre-preserved with hydrochloric acid (HCl), or unpreserved if necessary). The containers will be labeled and sealed using the laboratory-supplied labels and custody seals and will be stored on ice in a cooler. The groundwater samples will be relinquished to the courier for Eurofins of Albuquerque, New Mexico, under proper chain-of-custody procedures.

## 7.8 Groundwater Laboratory Analytical Program

A summary of the analytes, sample type, estimated number of samples per event, and EPA-approved methods is presented below:



ANALYTES	SAMPLE TYPE	NO. OF SAMPLES	METHOD
TPH GRO/DRO	Groundwater	6	SW-846 8015
BTEX	Groundwater	6	SW-846 8260
Chloride	Groundwater	6	Method 300.0
TDS	Groundwater	6	SM-2540C MOD
pH	Groundwater	6	Field groundwater quality parameter

If TPH-GRO and/or TPH-DRO detections are documented, the groundwater samples would be further analyzed for volatile organic compounds (VOCs) or semi-volatile organic compounds (SVOCs), depending on the TPH range detected.

One groundwater sample will be analyzed for the full toxic pollutant list provided in 20.6.2.3103 NMAC within the previous release extent (MW01) prior to requesting Site closure.

## 8.0 REPORTING

In accordance with NMAC 19.15.30.13 C. (5), Enterprise will provide the NMOCD with quarterly progress reports of the *Stage 1 Abatement Plan* implementation beginning 30 days after the approval and initiation of the Stage 1 activities. At this time, the summary quarterly progress reports are anticipated to begin in April 1, 2026. A report (detailing soil sampling results and the initial groundwater monitoring results) will be prepared once all the respective activities have been performed and the final analytical results have been received. The report will include documentation of the field activities, siting characteristics, tabular data summaries, a Site plan detailing pertinent site features, a groundwater potentiometric surface map, laboratory analytical reports, an evaluation of sampling results, and recommendations concerning further action.

## 9.0 QUALITY ASSURANCE

Sampling and analytical techniques have been identified in the text above and conform with the references identified in Subsection B of 20.6.2.3107 NMAC and with 20.6.4.14 NMAC of the water quality standards for interstate and intrastate surface waters in New Mexico.

## 10.0 PROPOSED SCHEDULE

### 10.1 Public Notice

Enterprise will provide Public Notice within 15 days of notice from the NMOCD that this *Stage 1 Abatement Plan* is administratively complete as required per 19.15.30.15 NMAC. Enterprise will provide written notice of the *Stage 1 Abatement Plan* to the following parties:

- Surface owners of record within a 1-mile perimeter of the identified impacted area as currently delineated in the *Stage 1 Abatement Plan*. The list of Landowners is provided in **Appendix D**.
- The County Commission of Rio Arriba County, New Mexico.
- The Office of Natural Resources Trustee for the State of New Mexico.

Please note the release was not identified to be within 1 mile of any city limits or tribal boundaries.



Enterprise understands the NMOCD may request additional notification to persons or entities that have requested such, as well as other local, state, or federal governmental agencies, upon approval of the *Stage 1 Abatement Plan*.

Once approval is received, Enterprise will publish the NMOCD-approved notice in the Rio Grande Sun, a newspaper circulated in Rio Arriba County, New Mexico, and in the Albuquerque Journal, a newspaper of general circulation across the state of New Mexico. The newspaper publications will run for a cycle of one business day.

Enterprise will issue the public notice via the newspapers and certified mailings within 15 days after the NMOCD has provided a determination that the *Stage 1 Abatement Plan* is administratively complete. Proposed verbiage for the public notice and a list of landowners within a 1-mile radius are provided in **Appendix E**.

If no public comments are received within 30 days of posting public notice, Ensolum will proceed with permitting and scheduling supplemental site investigation activities.

## 10.2 Field Activities

The activities proposed in this *Stage 1 Abatement Plan* will be initiated within 60 days of the 30-day posting. The availability of drilling and hydro excavation contractors, weather conditions and public notice will dictate the drilling schedule. Prior to any field work, Ensolum and/or Enterprise will provide the NMOCD with 48-hour notification.

## 10.3 Quarterly Progress Reports

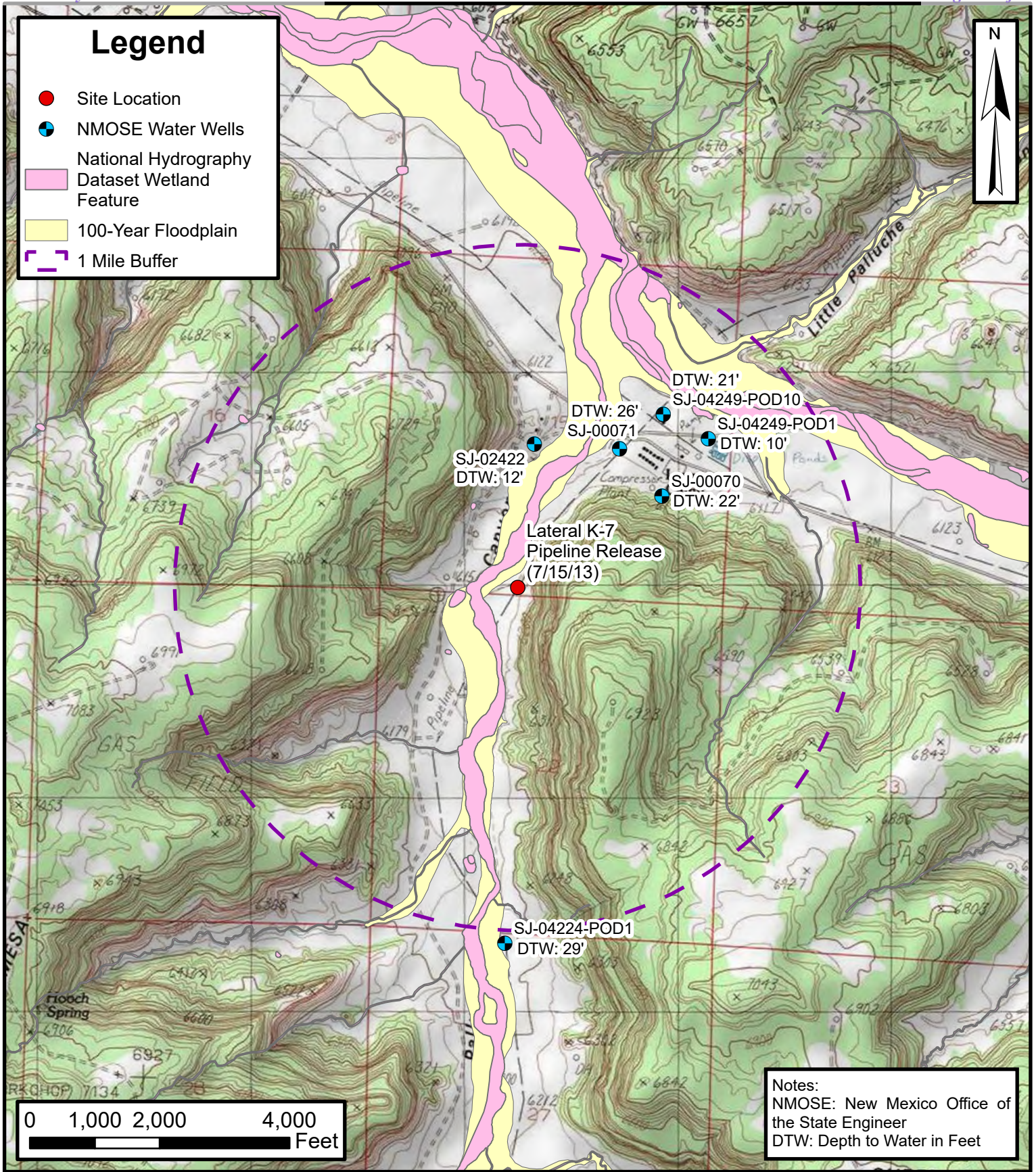
In accordance with 19.15.30.13 C. (5) NMAC, Enterprise will provide the NMOCD with summary progress reports of the *Stage 1 Abatement Plan* implementation beginning 30 days after the approval and initiation of the field activities. At this time, the summary quarterly progress reports are anticipated to begin on April 1, 2026.





Figures

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**Site Location Map**  
 Lateral K-7 Pipeline Release (7/15/2013)  
 Enterprise Products Operating LLC  
 36.47945°, -107.56501°  
 Rio Arriba County, New Mexico

**FIGURE 1**



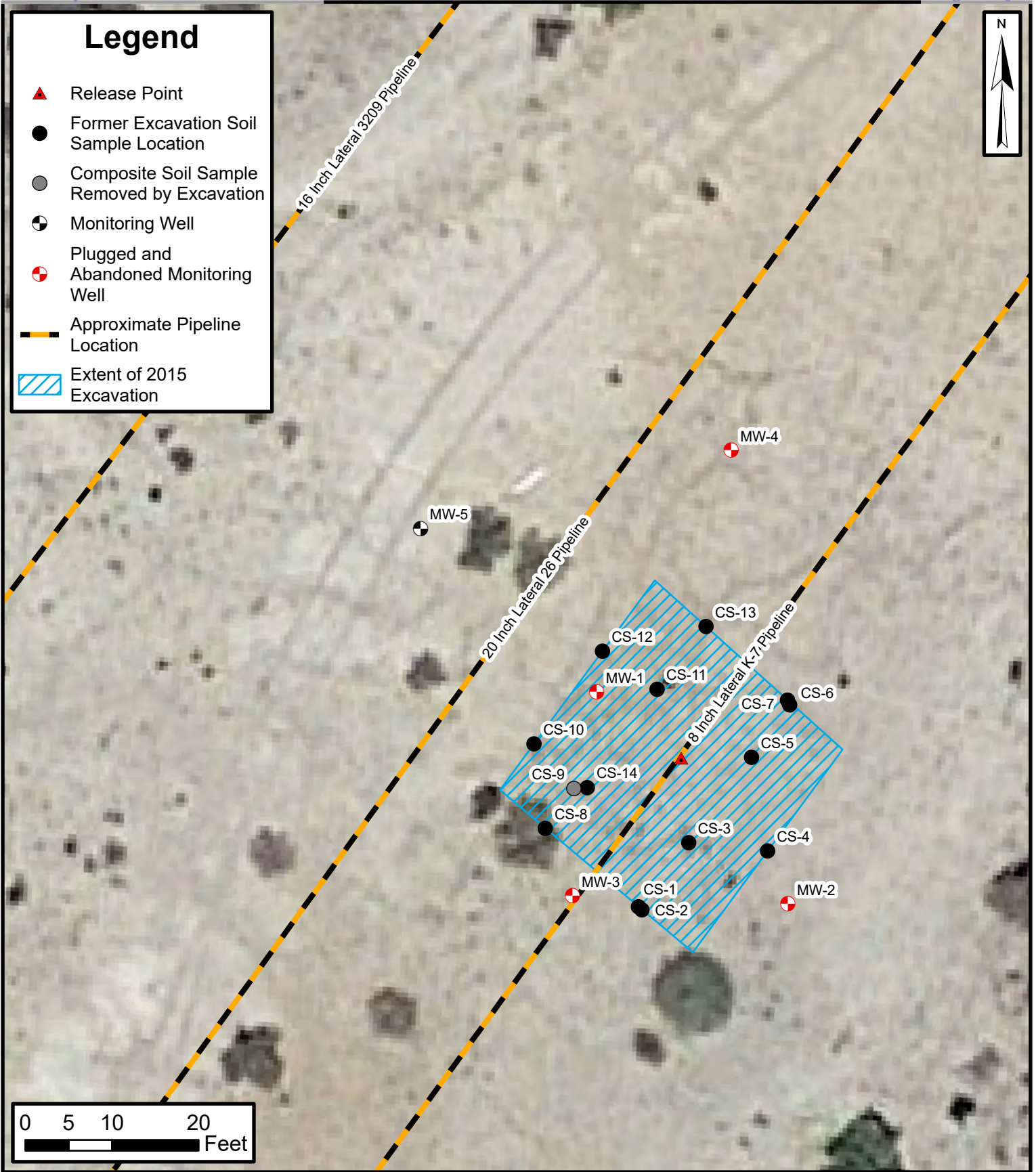
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**Site Vicinity Map**

Lateral K-7 Pipeline Release (7/15/2013)  
 Enterprise Products Operating LLC  
 36.47945°, -107.56501°  
 Rio Arriba County, New Mexico

**FIGURE**  
**2**

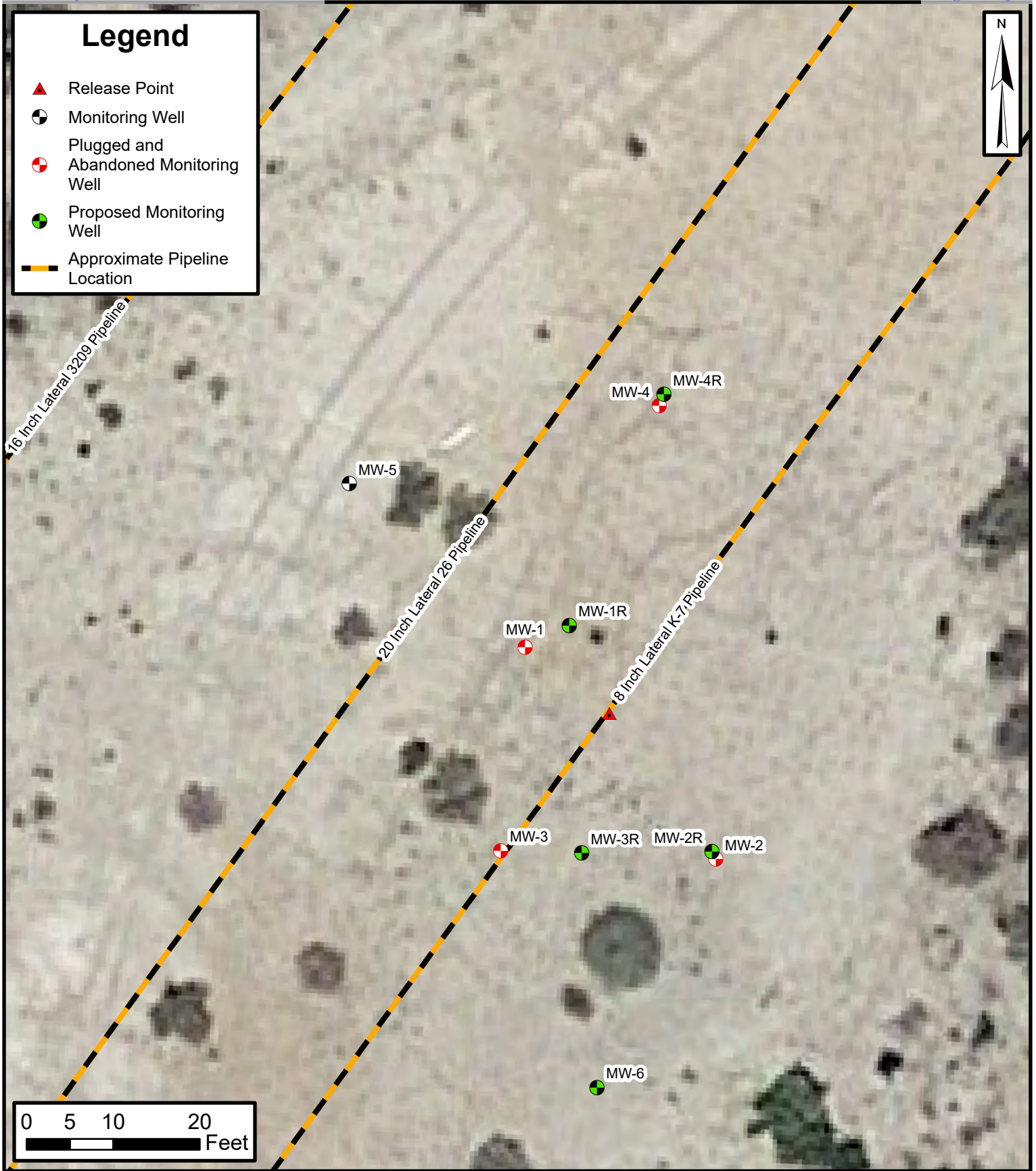


Default Folder: C:\Users\Greg Palese\OneDrive - ENSOLUM, LLC\Desktop\Enterprise\Lateral K-7 Pipeline Release (7-15-2013)



**Site Map with Soil Analytical Results**  
 Lateral K-7 Pipeline Release (7/15/2013)  
 Enterprise Products Operating LLC  
 36.47945°, -107.56501°  
 Rio Arriba County, New Mexico

**FIGURE 3**



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**Proposed Monitoring Well Locations**  
 Lateral K-7 Pipeline Release (7/15/2013)  
 Enterprise Products Operating LLC  
 36.47945°, -107.56501°  
 Rio Arriba County, New Mexico

**FIGURE**  
**4**



Tables

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<b>TABLE 1</b> Lateral K-7 Pipeline Release (07/15/13) SOIL ANALYTICAL SUMMARY													
Sample I.D.	Date	Sample Type C- Composite G - Grab	Sample Depth (Feet)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX <sup>1</sup> (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH MRO (mg/kg)	Total Combined TPH (GRO/DRO/MRO) <sup>1</sup> (mg/kg)	Chloride (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department Oil Conservation Division Closure Criteria (Tier I)				10	NE	NE	NE	50	NE	NE	NE	100	600
2015 Composite Soil Samples Removed by Excavation and Transported to the Landfarm for Disposal/Remediation													
CS-9	8.31.15	C	23	<0.041	0.12	0.10	2.1	2.3	94	54	NA	130	NA
2015 Composite Soil Sample Collected from Stockpiled Soil by Apex TITAN, Inc.													
SP-1	8.24.15	C	Stockpile	<0.040	<0.040	<0.040	<0.080	ND	<4.0	<10	NA	ND	NA
SP-2	8.24.15	C	Stockpile	<0.049	<0.049	<0.049	<0.097	ND	<4.9	<9.9	NA	ND	NA
2015 Excavation Composite Soil Samples Collected by Apex TITAN, Inc.													
CS-1	8.26.15	C	1 to 12	<0.040	<0.040	<0.040	<0.079	ND	<4.0	<10	NA	ND	NA
CS-2	8.26.15	C	12 to 21	<0.082	0.74	0.35	3.9	5.0	30	<9.7	NA	30	NA
CS-3	8.26.15	C	21	<0.041	0.16	0.096	1.0	1.3	16	<10	NA	16	NA
CS-4	8.26.15	C	1 to 21	<0.081	0.34	0.27	3.1	3.7	39	13	NA	52	NA
CS-5	8.28.15	C	21	<0.044	0.060	<0.044	0.28	0.34	<4.4	<9.8	NA	ND	NA
CS-6	8.28.15	C	10 to 21	<0.041	<0.041	<0.041	0.11	0.11	<4.1	<10	NA	ND	NA
CS-7	8.28.15	C	1 to 10	<0.044	<0.044	<0.044	0.12	0.12	<4.4	<10	NA	ND	NA
CS-8	8.31.15	C	1 to 23	<0.035	<0.035	<0.035	<0.070	ND	<3.5	<9.9	NA	ND	NA
CS-10	8.31.15	C	1 to 23	<0.043	<0.043	<0.043	<0.085	ND	4.5	<9.7	NA	4.5	NA
CS-11	8.31.15	C	23	<0.038	<0.038	<0.038	0.26	0.26	6.8	<10	NA	6.8	NA
CS-12	8.31.15	C	1 to 23	<0.046	<0.046	<0.046	<0.092	ND	<4.6	<10	NA	ND	NA
CS-13	8.31.15	C	1 to 23	<0.041	<0.041	<0.041	0.22	0.22	<4.1	<9.7	NA	ND	NA
CS-14	9.02.15	C	24	<0.050	<0.050	<0.050	<0.10	ND	<5.0	<10	NA	ND	NA

Note: Concentrations in **bold** and yellow exceed the applicable NM EMNRD Closure Criteria

<sup>1</sup> = Total combined concentrations are rounded to two (2) significant figures to match the laboratory resolution of the individual constituents.

ND = Not Detected above the Practical Quantitation Limits (PQLs) or Reporting Limits (RLs)

NA = Not Analyzed

NE = Not established

mg/kg = milligrams per kilogram

BTEX = Benzene, Toluene, Ethylbenzene, and Xylenes

TPH = Total Petroleum Hydrocarbons

GRO = Gasoline Range Organics

DRO = Diesel Range Organics

MRO = Motor Oil/Lube Oil Range Organics



**TABLE 2**  
**Lateral K-7 Pipeline Release (07/15/13)**  
**GROUNDWATER ANALYTICAL SUMMARY**

Sample I.D.	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	TPH GRO (mg/L)	TPH DRO (mg/L)
<b>New Mexico Water Quality Control Commission Groundwater Quality Standards</b>		<b>5</b>	<b>1,000</b>	<b>700</b>	<b>620</b>	<b>NE</b>	<b>NE</b>
<b>Monitoring Wells Advanced by AES 2013</b>							
MW-1	11.21.13	<b>14</b>	3.4	<1.0	5.8	0.064	<1.0
	2.19.14	<b>34</b>	2	<1	11	NA	NA
	11.19.14	3.3	3.9	<2.0	7.9	NA	NA
	6.24.15	<1.0	<1.0	<1.0	<1.5	NA	NA
	Monitor well removed to allow soil remediation during August 2015						
MW-2	11.21.13	<b>26</b>	<2.0	<2.0	5.8	0.14	<1.0
	2.19.14	<b>25</b>	<1	<1	6	NA	NA
	11.19.14	<2.0	<2.0	<2.0	<4.0	NA	NA
	6.24.15	<1.0	<1.0	<1.0	<1.5	NA	NA
	Monitor well removed to allow soil remediation during August 2015						
MW-3	11.21.13	<b>35</b>	4.5	<2.0	12	0.19	<1.0
	2.19.14	<b>22</b>	3	<1	9	NA	NA
	11.19.14	2.6	<2.0	<2.0	<4.0	NA	NA
	6.24.15	<1.0	<1.0	<1.0	<1.5	NA	NA
	Monitor well removed to allow soil remediation during August 2015						
MW-4	11.21.13	<b>7.4</b>	<2.0	<2.0	<4.0	<0.10	<1.0
	2.19.14	2	<1	<1	<3	NA	NA
	11.19.14	<2.0	<2.0	<2.0	<4.0	NA	NA
	6.24.15	<1.0	<1.0	<1.0	<1.5	NA	NA
	Monitor well removed to allow soil remediation during August 2015						
MW-5	11.21.13	<2.0	<2.0	<2.0	<4.0	<0.10	<1.0
	2.19.14	<1	<1	<1	<3	NA	NA
	11.19.14	<2.0	<2.0	<2.0	<4.0	NA	NA
	6.24.15	<1.0	<1.0	<1.0	<1.5	NA	NA
	12.9.15	<1.0	<1.0	<1.0	<2.0	NA	NA

Note: Concentrations in **bold** and yellow exceed the applicable WQCC GQS

µg/L = micrograms per liter

NE = Not Established

NA = Not Analyzed

<1.0 = the numeral (in this case "1.0") identifies the laboratory RL or PQL



**TABLE 3**  
**Lateral K-7 Pipeline Release (07/15/13)**  
**GROUNDWATER ELEVATIONS**

Well I.D.	Gauging Date	Depth to Product (feet BTOC)	Depth to Water (feet BTOC)	Product Thickness	TOC Elevations	Groundwater Elevation (feet AMSL)
<b>Monitoring Wells Advanced by AES 2013</b>						
MW-1	11.21.13	ND	40.16	ND	6,155.35	6,115.19
	2.19.14	ND	44.22	ND		6,111.13
	11.19.14	ND	41.00	ND		6,114.35
	6.24.15	ND	41.04	ND		6,114.31
	Monitor well removed to allow soil remediation during August 2015					
MW-2	11.21.13	ND	39.63	ND	6,155.10	6,115.47
	2.19.14	ND	39.70	ND		6,115.40
	11.19.14	ND	40.45	ND		6,114.65
	6.24.15	ND	40.51	ND		6,114.59
	Monitor well removed to allow soil remediation during August 2015					
MW-3	11.21.13	ND	39.83	ND	6,155.25	6,115.42
	2.19.14	ND	39.90	ND		6,115.35
	11.19.14	ND	40.75	ND		6,114.50
	6.24.15	ND	40.72	ND		6,114.53
	Monitor well removed to allow soil remediation during August 2015					
MW-4	11.21.13	ND	39.71	ND	6,154.87	6,115.16
	2.19.14	ND	39.80	ND		6,115.07
	11.19.14	ND	40.62	ND		6,114.25
	6.24.15	ND	40.59	ND		6,114.28
	Monitor well removed to allow soil remediation during August 2015					
MW-5	11.21.13	ND	37.03	ND	6,152.21	6,115.18
	2.19.14	ND	37.10	ND		6,115.11
	11.19.14	ND	37.88	ND		6,114.33
	6.24.15	ND	37.92	ND		6,114.29
	12.9.15	ND	37.04	ND		6,115.17

Note:  
 BTOC - below top of casing  
 AMSL - above mean sea level  
 TOC - top of casing



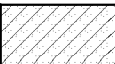
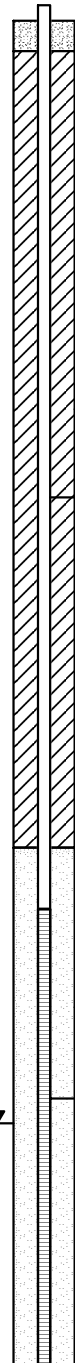
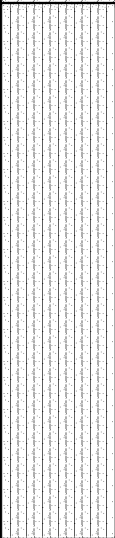

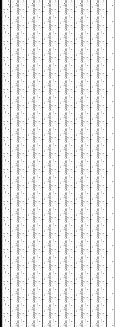

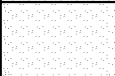

## APPENDIX A

### Soil Boring / Monitoring Well Logs

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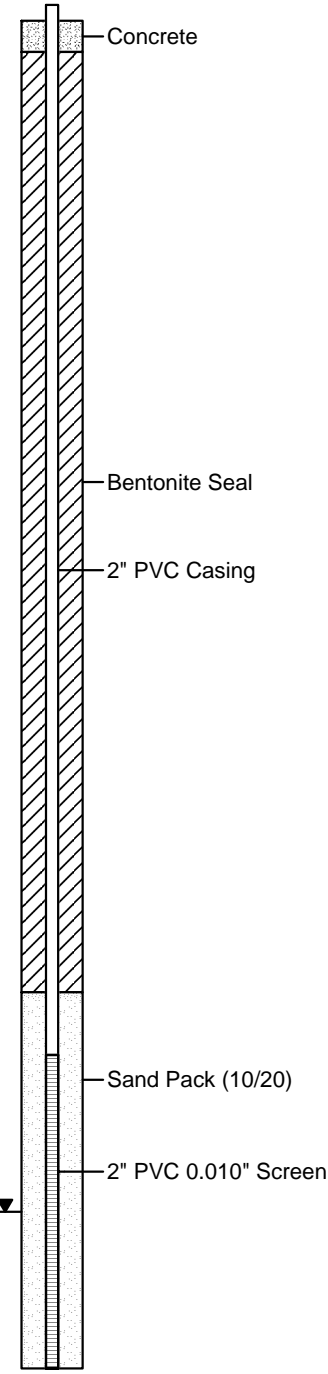

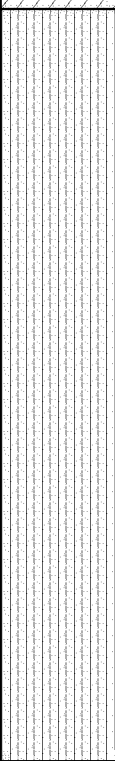

 <p style="text-align: center;">Animas Environmental Services, LLC. 624 East Comanche Farmington, NM 87401</p>	<h2 style="margin: 0;">LOG OF: SB-1/ MW-1</h2>
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<p>ENTERPRISE FIELD SERVICES LLC LATERAL K-7 JULY 2013 PIPELINE RELEASE SAN JUAN COUNTY, NEW MEXICO SE1/4 SW1/4, SECTION 15, T26N, R7W</p>	<p>Date Started : 10/10/10 Date Completed : 10/10/10 Hole Diameter : 3.25 Drilling Method : GeoProbe Sampling Method : Continuous</p>	<p>Latitude : N36.47947 Longitude : W107.56502 Survey By : Enterprise Logged By : H. Woods</p>
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Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	PID (ppm)	
Well: MW-1 Elev: 6151.30						
0		SC		Clayey Sand, Black to Brown, Moist to Dry, Fine Grained, Heavy to Moderate Staining, Moderate Odor	8.7	 <p>Concrete</p> <p>Bentonite Seal</p> <p>2" PVC Casing</p> <p>Sand Pack (10/20)</p> <p>2" PVC 0.010" Screen</p>
2		SM		Silty Sand, Brown, Dry, Fine Grained, No Staining, Slight to Moderate Odor	5.1	
4				Silty Sand, Brown, Dry, Fine Grained, No Staining, Slight to Moderate Odor	17.4	
6		CL-ML		Clayey Silt, Brown, Dry, No Staining, Slight to Moderate Odor	4.1	
8				Clayey Silt, Brown, Dry, No Staining, Slight to Moderate Odor	3.1	
10		SM		Silty Sand, Brown, Dry to Moist, No Staining, Slight Odor, Trace Clay Increasing with Depth	3.4	
12				Silty Sand, Brown, Dry to Moist, No Staining, Slight Odor, Trace Clay Increasing with Depth	0.5	
14		SP		Poorly Graded Sand, Brown, Moist, No Staining, Moderate Odor	0.5	
16		SP		Poorly Graded Sand, Gray to Black, Moist to Wet at 36 ft, Heavy Staining, Moderate to Heavy Odor	0.7	
18		SP		Poorly Graded Sand, Brown, Wet, No Staining, Slight to No Odor	0.5	
20				Poorly Graded Sand, Brown, Wet, No Staining, Slight to No Odor		
22						
24						
26						
28						
30						
32						
34						
36						
38						
40						
42						
44						

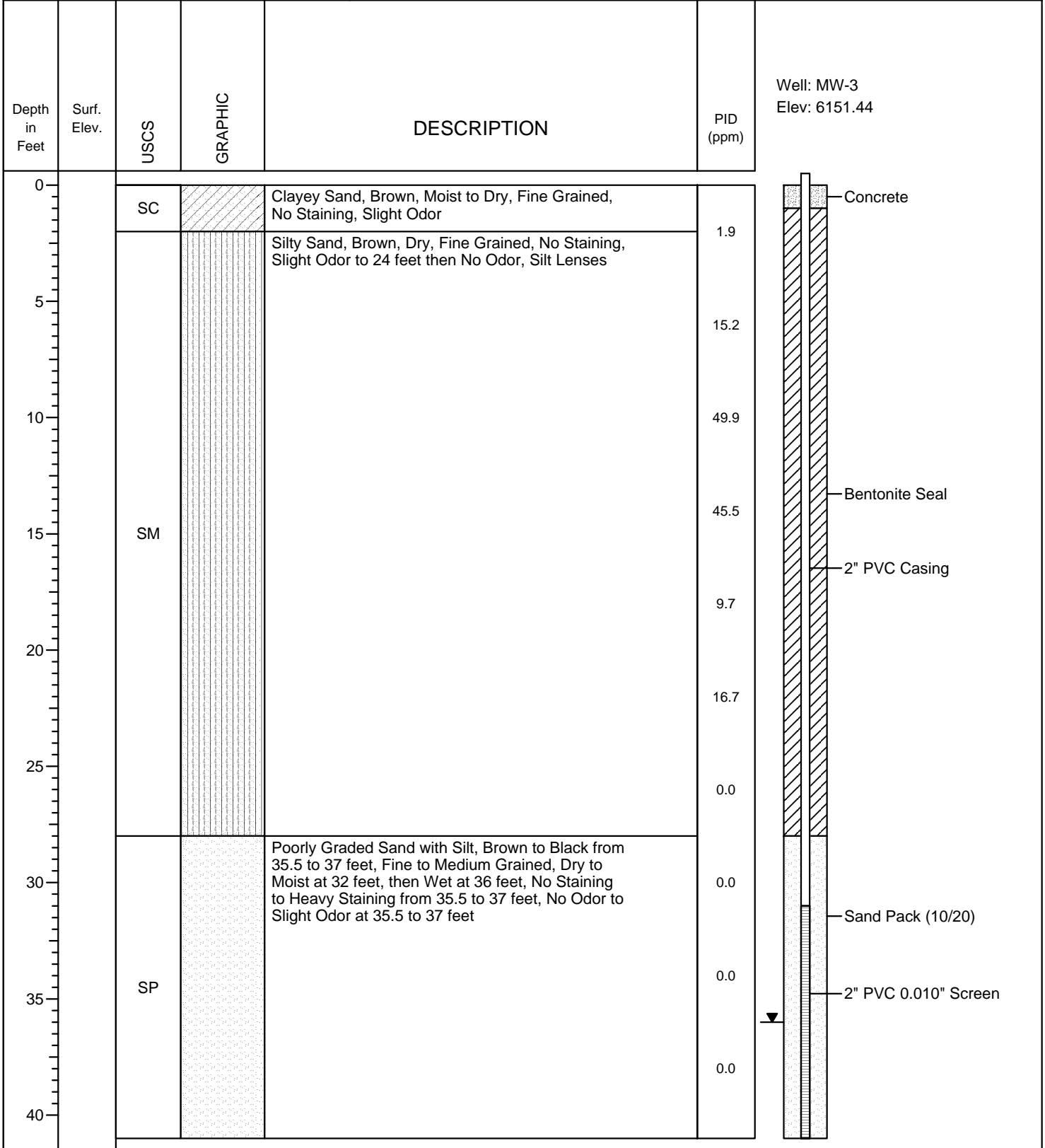
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<p>ENTERPRISE FIELD SERVICES LLC LATERAL K-7 JULY 2013 PIPELINE RELEASE SAN JUAN COUNTY, NEW MEXICO SE1/4 SW1/4, SECTION 15, T26N, R7W</p>	<p>Date Started : 10/16/13 Date Completed : 10/16/13 Hole Diameter : 3.25 Drilling Method : GeoProbe Sampling Method : Continuous</p>	<p>Latitude : N36.47941 Longitude : W107.56495 Survey By : Enterprise Logged By : H. Woods</p>
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Depth in Feet	Surf. Elev.	USCS	GRAPHIC	DESCRIPTION	PID (ppm)	
Well: MW-2 Elev: 6153.06						
0				Clayey Sand, Brown to Black, Moist to Dry, Fine Grained, Heavy Staining, Heavy Odor	7.4	 <p>Concrete</p> <p>Bentonite Seal</p> <p>2" PVC Casing</p> <p>Sand Pack (10/20)</p> <p>2" PVC 0.010" Screen</p>
2		SC				
4				Silty Sand, Brown, Moist to Dry, Fine Grained, No Staining, Moderate Odor to 12 feet, Slight Odor to 20 feet, No Odor to 28 feet	102	
6						
8						
10					422	
12						
14					17.6	
16		SM				
18					5.4	
20						
22					1.7	
24						
26					0.0	
28						
30				Poorly Graded Sand with Silt, Brown, Dry, Fine to Medium Grained, No Staining, No Odor, Clayey Sand Lense from 36 to 36.5, Light Gray to Gray from 32.5 feet to 37 feet, Black from 37 feet to 39 feet, Moist at 36 feet, then Wet at 38 feet, Moderate to Heavy Staining at 36 to 39 feet, Slight to Moderate Odor at 36 to 39 feet then No Odor	0.0	
32						
34					0.0	
36		SP				
38					0.0	
40						
42						

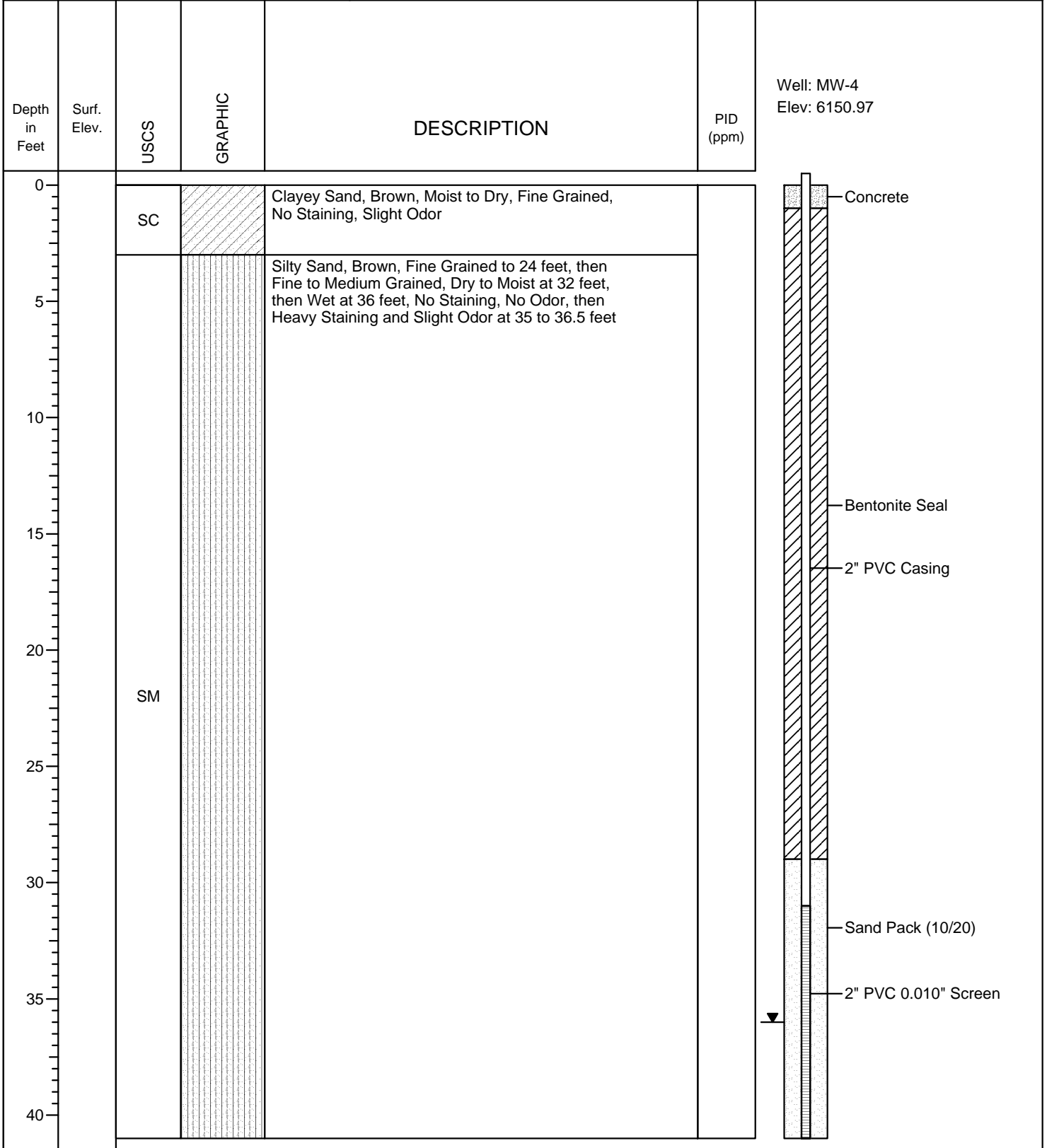
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<p>ENTERPRISE FIELD SERVICES LLC LATERAL K-7 JULY 2013 PIPELINE RELEASE SAN JUAN COUNTY, NEW MEXICO SE1/4 SW1/4, SECTION 15, T26N, R7W</p>	<p>Date Started : 10/16/13 Date Completed : 10/16/13 Hole Diameter : 3.25 Drilling Method : GeoProbe Sampling Method : Continuous</p>	<p>Latitude : N36.47941 Longitude : W107.56504 Survey By : Enterprise Logged By : H. Woods</p>
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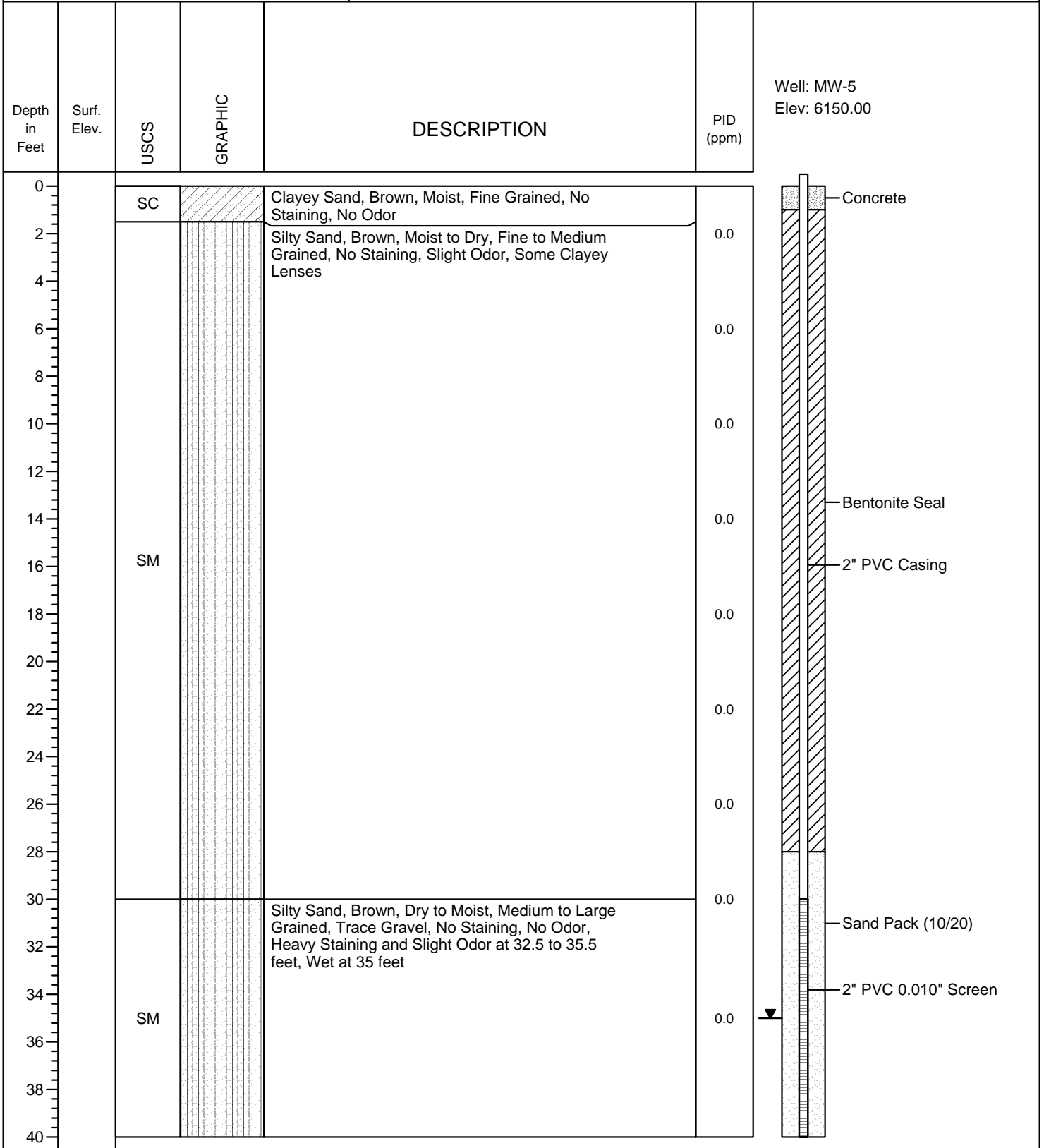
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<p>ENTERPRISE FIELD SERVICES LLC LATERAL K-7 JULY 2013 PIPELINE RELEASE SAN JUAN COUNTY, NEW MEXICO SE1/4 SW1/4, SECTION 15, T26N, R7W</p>	<p>Date Started : 10/16/13 Date Completed : 10/16/13 Hole Diameter : 3.25 Drilling Method : GeoProbe Sampling Method : Continuous</p>	<p>Latitude : N36.47955 Longitude : W107.56499 Survey By : Enterprise Logged By : H. Woods</p>
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 <p style="text-align: center;">Animas Environmental Services, LLC. 624 East Comanche Farmington, NM 87401</p>	<h2 style="margin: 0;">LOG OF: SB-5/ MW-5</h2>
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<p>ENTERPRISE FIELD SERVICES LLC LATERAL K-7 JULY 2013 PIPELINE RELEASE SAN JUAN COUNTY, NEW MEXICO SE1/4 SW1/4, SECTION 15, T26N, R7W</p>	<p>Date Started : 10/16/13 Date Completed : 10/16/13 Hole Diameter : 3.25 Drilling Method : GeoProbe Sampling Method : Continuous</p>	<p>Latitude : N36.47952 Longitude : W107.56507 Survey By : Enterprise Logged By : H. Woods</p>
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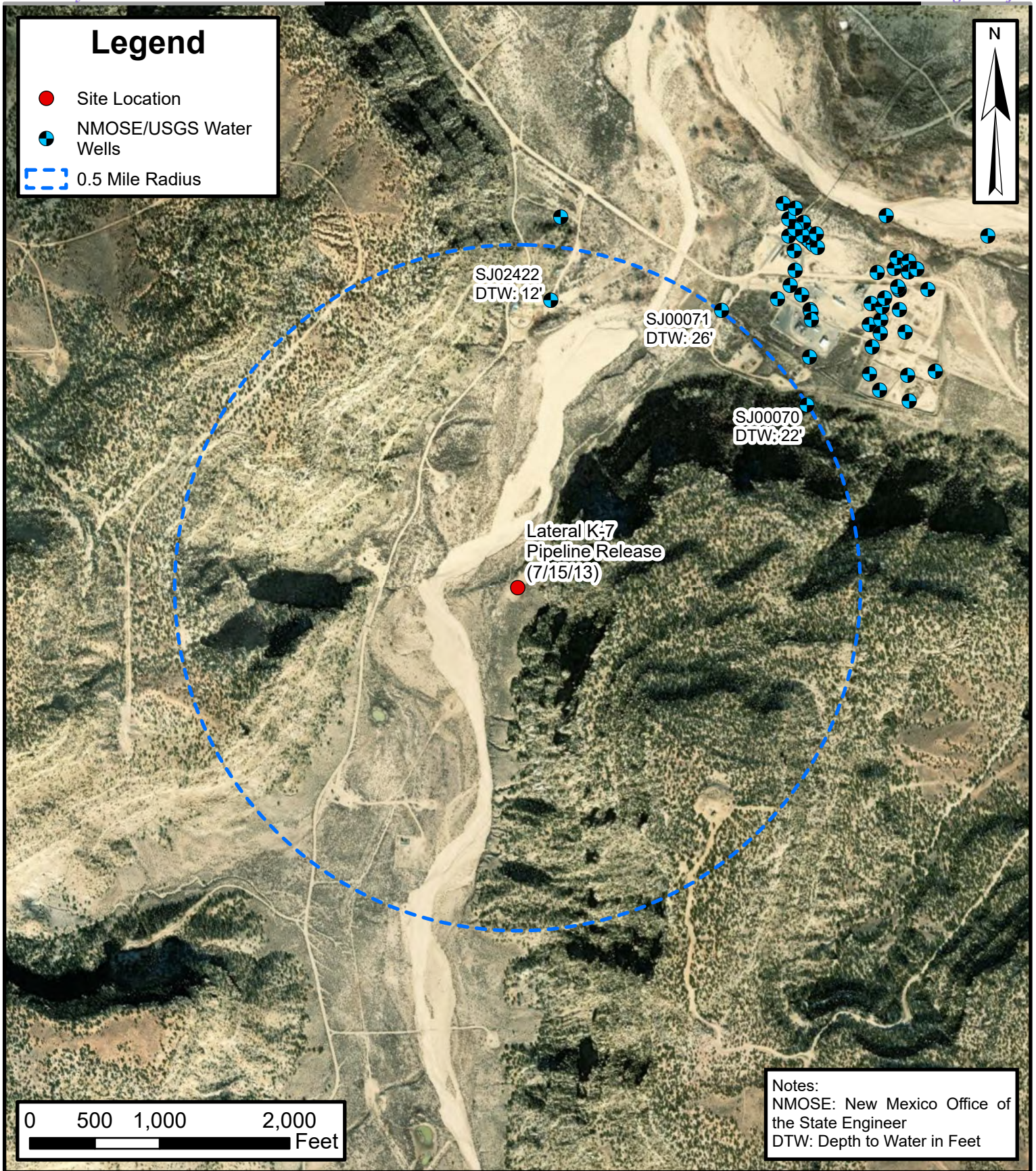




## APPENDIX B

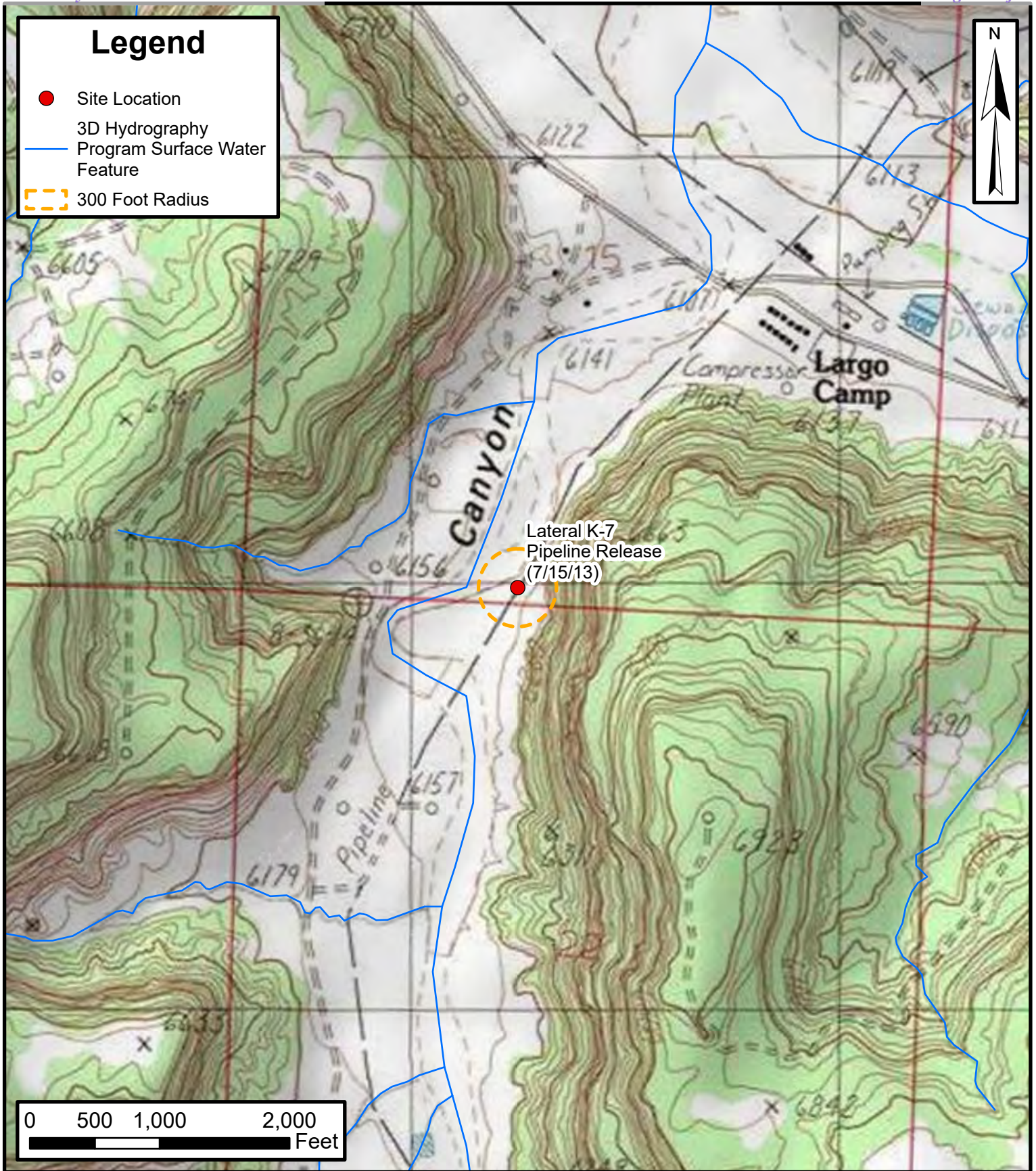
### Siting Figures and Documentation

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**0.5 Mile Radius Water Well Map**  
 Lateral K-7 Pipeline Release (7/15/2013)  
 Enterprise Products Operating LLC  
 36.47945°, -107.56501°  
 Rio Arriba County, New Mexico

**FIGURE A**



**300 Foot Radius Watercourse and Drainage Identification**  
 Lateral K-7 Pipeline Release (7/15/2013)  
 Enterprise Products Operating LLC  
 36.47945°, -107.56501°  
 Rio Arriba County, New Mexico

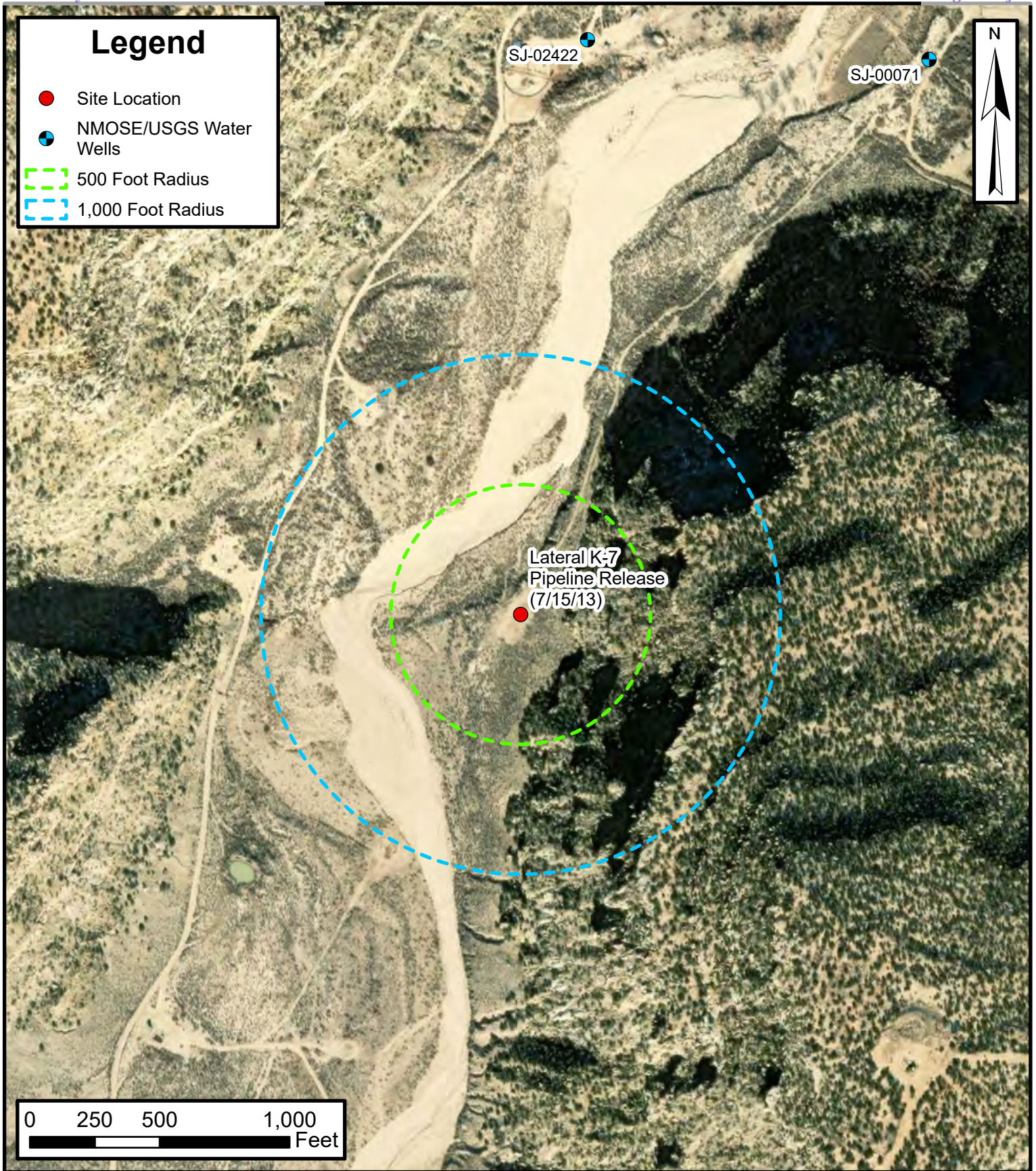
**FIGURE B**



**300 Foot Radius Occupied Structure Identification**

Lateral K-7 Pipeline Release (7/15/2013)  
 Enterprise Products Operating LLC  
 36.47945°, -107.56501°  
 Rio Arriba County, New Mexico

**FIGURE C**



### Water Well and Natural Spring Locations

Lateral K-7 Pipeline Release (7/15/2013)

Enterprise Products Operating LLC

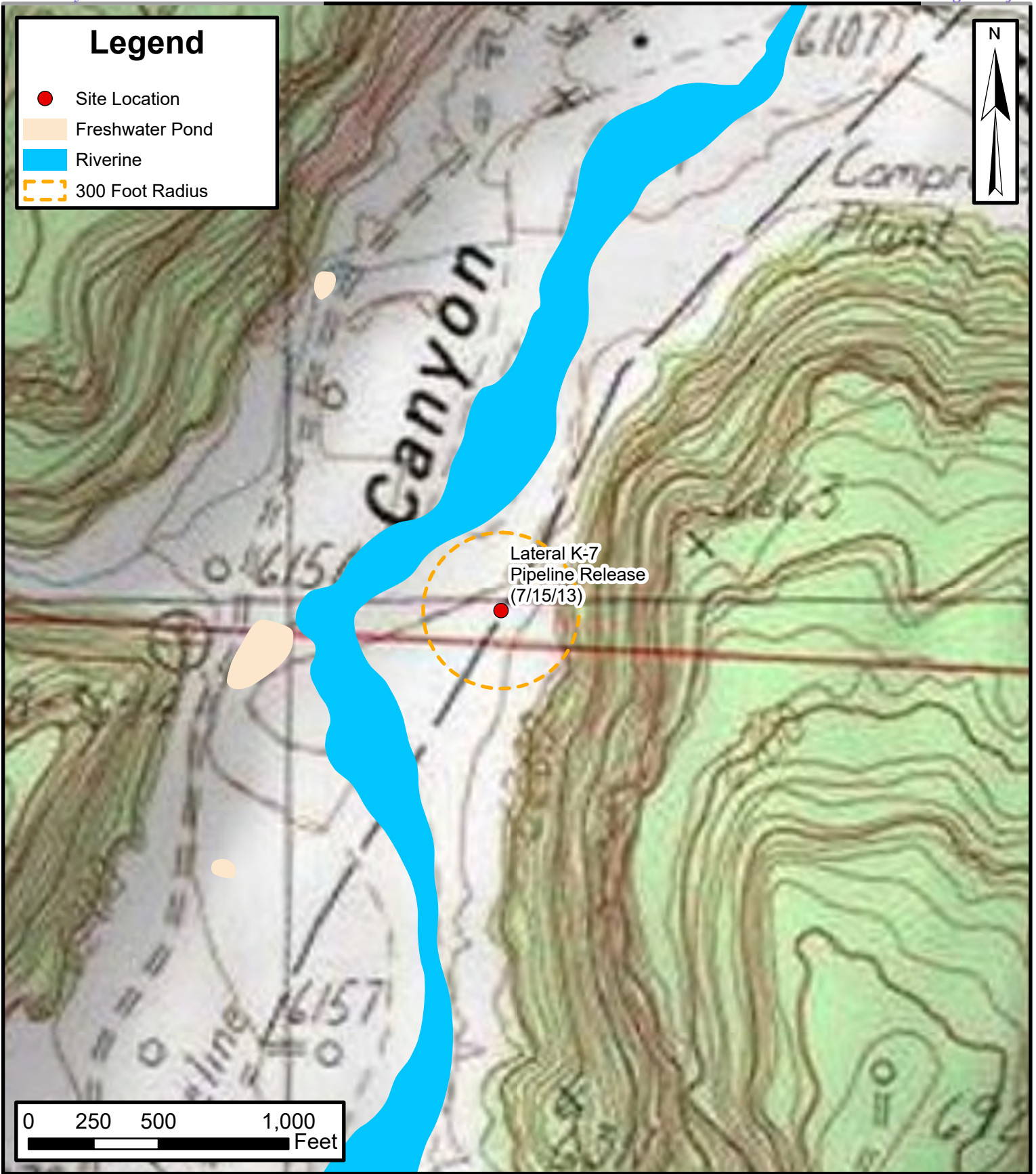
36.47945°, -107.56501°

Rio Arriba County, New Mexico

FIGURE

D

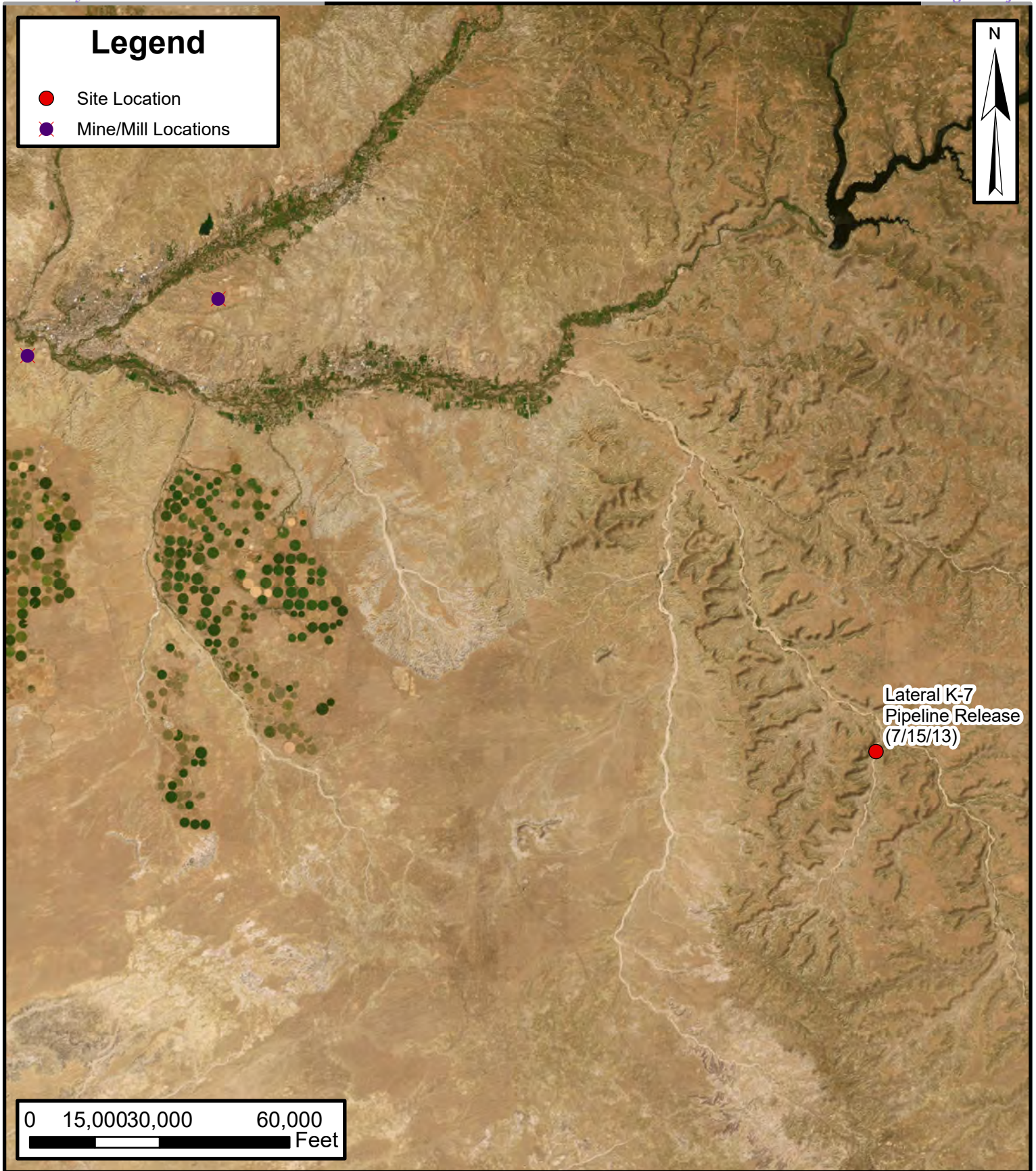




**ENSOLUM**  
Environmental, Engineering and  
Hydrogeologic Consultants

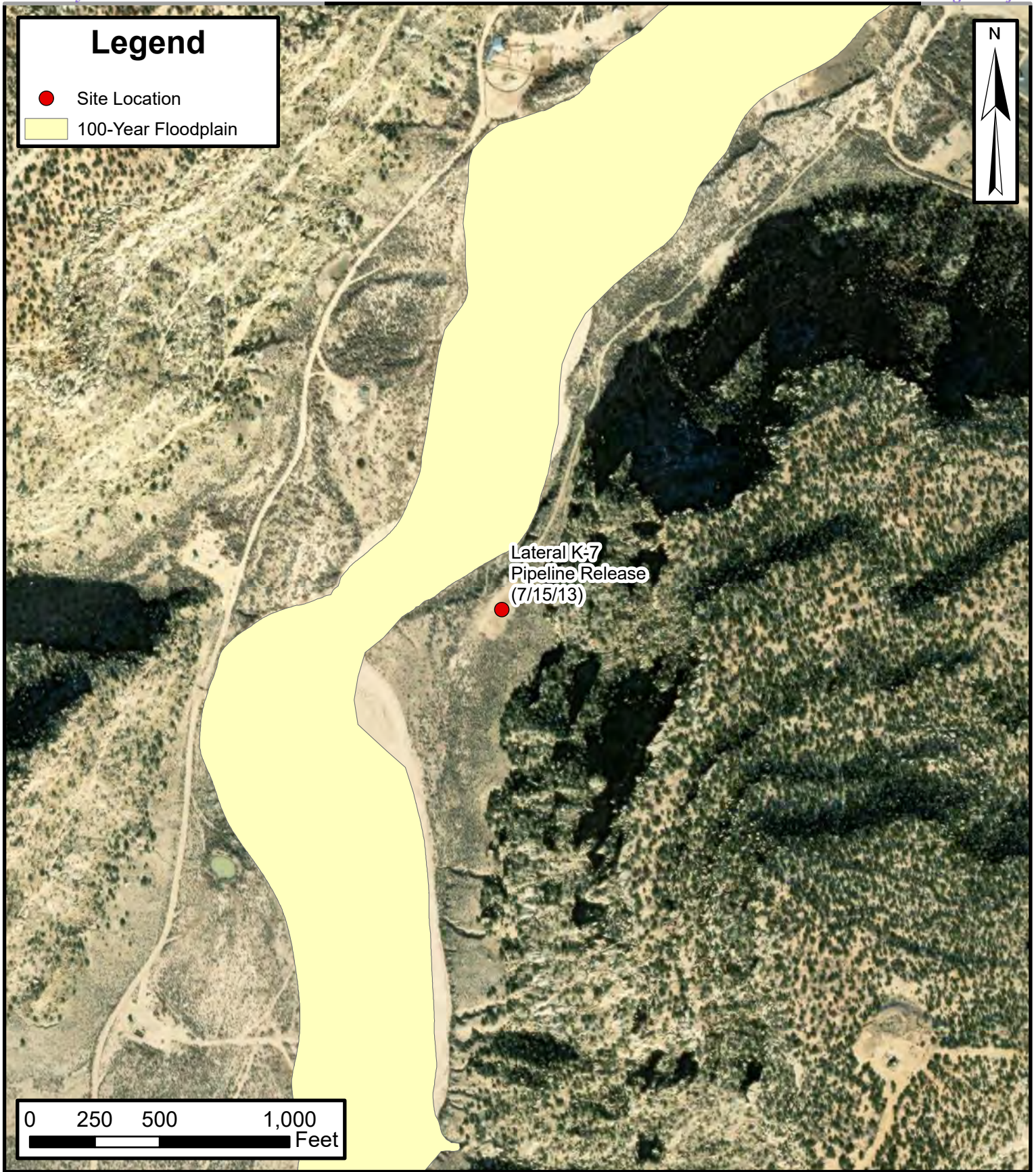
**Wetlands**  
Lateral K-7 Pipeline Release (7/15/2013)  
Enterprise Products Operating LLC  
36.47945°, -107.56501°  
Rio Arriba County, New Mexico

**FIGURE**  
**E**



**Mines, Mills, and Quarries**  
 Lateral K-7 Pipeline Release (7/15/2013)  
 Enterprise Products Operating LLC  
 36.47945°, -107.56501°  
 Rio Arriba County, New Mexico

**FIGURE**  
**F**



**100-Year Flood Plain Map**  
Lateral K-7 Pipeline Release (7/15/2013)  
Enterprise Products Operating LLC  
36.47945°, -107.56501°  
Rio Arriba County, New Mexico

**FIGURE**  
**G**



APPENDIX C  
Laboratory Analytical Results

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28-Feb-2014

Heather Woods  
Animas Environmental Services  
624 E. Comanche  
Farmington, NM 87401

Tel: (505) 436-2064  
Fax: (505) 324-2022

Re: Lateral K-7 July 2013 Pipeline Release

Work Order: **14021046**

Dear Heather,

ALS Environmental received 6 samples on 22-Feb-2014 09:15 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 16.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Electronically approved by: Jumoke M. Lawal

Joni S. Blankfield  
Project Manager



Certificate No: T104704231-13-12

# ALS Environmental

Date: 28-Feb-14

**Client:** Animas Environmental Services  
**Project:** Lateral K-7 July 2013 Pipeline Release  
**Work Order:** 14021046

## Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
14021046-01	MW-1	Water		2/19/2014 12:08	2/22/2014 09:15	<input type="checkbox"/>
14021046-02	MW-2	Water		2/19/2014 13:01	2/22/2014 09:15	<input type="checkbox"/>
14021046-03	MW-3	Water		2/19/2014 13:57	2/22/2014 09:15	<input type="checkbox"/>
14021046-04	MW-4	Water		2/19/2014 11:29	2/22/2014 09:15	<input type="checkbox"/>
14021046-05	MW-5	Water		2/19/2014 10:38	2/22/2014 09:15	<input type="checkbox"/>
14021046-06	VBLKW-140212	Trip Blank		2/19/2014	2/22/2014 09:15	<input type="checkbox"/>

## ALS Environmental

Date: 28-Feb-14

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**Client:** Animas Environmental Services  
**Project:** Lateral K-7 July 2013 Pipeline Release  
**Work Order:** 14021046

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## Case Narrative

A Trip Blank was received however, it was not listed on the chain of custody for analysis. The Trip Blank was logged for BTEX (8021) analysis per the Analytical Request Form.

**ALS Environmental**

Date: 28-Feb-14

**Client:** Animas Environmental Services  
**Project:** Lateral K-7 July 2013 Pipeline Release  
**Sample ID:** MW-1  
**Collection Date:** 2/19/2014 12:08 PM

**Work Order:** 14021046  
**Lab ID:** 14021046-01  
**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>BTEX BY SW8021B</b>			<b>SW8021B</b>			Analyst: <b>DNR</b>
m,p-Xylene	8		2	ug/L	1	2/26/2014 01:45 PM
o-Xylene	3		1	ug/L	1	2/26/2014 01:45 PM
Benzene	34		1	ug/L	1	2/26/2014 01:45 PM
Toluene	2		1	ug/L	1	2/26/2014 01:45 PM
Ethylbenzene	ND		1	ug/L	1	2/26/2014 01:45 PM
<b>Xylenes, Total</b>	<b>11</b>		<b>3</b>	<b>ug/L</b>	<b>1</b>	2/26/2014 01:45 PM
Surr: 4-Bromofluorobenzene	111		75-129	%REC	1	2/26/2014 01:45 PM
Surr: Trifluorotoluene	92.8		75-130	%REC	1	2/26/2014 01:45 PM

**Note:** See Qualifiers Page for a list of qualifiers and their explanation.

**ALS Environmental**

Date: 28-Feb-14

**Client:** Animas Environmental Services  
**Project:** Lateral K-7 July 2013 Pipeline Release  
**Sample ID:** MW-2  
**Collection Date:** 2/19/2014 01:01 PM

**Work Order:** 14021046  
**Lab ID:** 14021046-02  
**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>BTEX BY SW8021B</b>			<b>SW8021B</b>			Analyst: <b>DNR</b>
m,p-Xylene	2		2	ug/L	1	2/26/2014 02:13 PM
o-Xylene	4		1	ug/L	1	2/26/2014 02:13 PM
Benzene	25		1	ug/L	1	2/26/2014 02:13 PM
Toluene	ND		1	ug/L	1	2/26/2014 02:13 PM
Ethylbenzene	ND		1	ug/L	1	2/26/2014 02:13 PM
<b>Xylenes, Total</b>	<b>6</b>		<b>3</b>	<b>ug/L</b>	<b>1</b>	2/26/2014 02:13 PM
Surr: 4-Bromofluorobenzene	119		75-129	%REC	1	2/26/2014 02:13 PM
Surr: Trifluorotoluene	98.5		75-130	%REC	1	2/26/2014 02:13 PM

**Note:** See Qualifiers Page for a list of qualifiers and their explanation.

**ALS Environmental**

Date: 28-Feb-14

**Client:** Animas Environmental Services  
**Project:** Lateral K-7 July 2013 Pipeline Release  
**Sample ID:** MW-3  
**Collection Date:** 2/19/2014 01:57 PM

**Work Order:** 14021046  
**Lab ID:** 14021046-03  
**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>BTEX BY SW8021B</b>			<b>SW8021B</b>			Analyst: <b>DNR</b>
m,p-Xylene	6		2	ug/L	1	2/26/2014 02:31 PM
o-Xylene	4		1	ug/L	1	2/26/2014 02:31 PM
Benzene	22		1	ug/L	1	2/26/2014 02:31 PM
Toluene	3		1	ug/L	1	2/26/2014 02:31 PM
Ethylbenzene	ND		1	ug/L	1	2/26/2014 02:31 PM
<b>Xylenes, Total</b>	<b>9</b>		<b>3</b>	<b>ug/L</b>	<b>1</b>	<b>2/26/2014 02:31 PM</b>
Surr: 4-Bromofluorobenzene	115		75-129	%REC	1	2/26/2014 02:31 PM
Surr: Trifluorotoluene	95.4		75-130	%REC	1	2/26/2014 02:31 PM

**Note:** See Qualifiers Page for a list of qualifiers and their explanation.

**ALS Environmental**

Date: 28-Feb-14

**Client:** Animas Environmental Services  
**Project:** Lateral K-7 July 2013 Pipeline Release  
**Sample ID:** MW-4  
**Collection Date:** 2/19/2014 11:29 AM

**Work Order:** 14021046  
**Lab ID:** 14021046-04  
**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>BTEX BY SW8021B</b>			<b>SW8021B</b>			Analyst: <b>DNR</b>
m,p-Xylene	ND		2	ug/L	1	2/26/2014 02:48 PM
o-Xylene	ND		1	ug/L	1	2/26/2014 02:48 PM
<b>Benzene</b>	<b>2</b>		<b>1</b>	<b>ug/L</b>	1	2/26/2014 02:48 PM
Toluene	ND		1	ug/L	1	2/26/2014 02:48 PM
Ethylbenzene	ND		1	ug/L	1	2/26/2014 02:48 PM
Xylenes, Total	ND		3	ug/L	1	2/26/2014 02:48 PM
Surr: 4-Bromofluorobenzene	110		75-129	%REC	1	2/26/2014 02:48 PM
Surr: Trifluorotoluene	91.7		75-130	%REC	1	2/26/2014 02:48 PM

**Note:** See Qualifiers Page for a list of qualifiers and their explanation.

**ALS Environmental**

Date: 28-Feb-14

**Client:** Animas Environmental Services  
**Project:** Lateral K-7 July 2013 Pipeline Release  
**Sample ID:** MW-5  
**Collection Date:** 2/19/2014 10:38 AM

**Work Order:** 14021046  
**Lab ID:** 14021046-05  
**Matrix:** WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>BTEX BY SW8021B</b>			<b>SW8021B</b>			Analyst: DNR
m,p-Xylene	ND		2	ug/L	1	2/26/2014 03:05 PM
o-Xylene	ND		1	ug/L	1	2/26/2014 03:05 PM
Benzene	ND		1	ug/L	1	2/26/2014 03:05 PM
Toluene	ND		1	ug/L	1	2/26/2014 03:05 PM
Ethylbenzene	ND		1	ug/L	1	2/26/2014 03:05 PM
Xylenes, Total	ND		3	ug/L	1	2/26/2014 03:05 PM
Surr: 4-Bromofluorobenzene	110		75-129	%REC	1	2/26/2014 03:05 PM
Surr: Trifluorotoluene	92.4		75-130	%REC	1	2/26/2014 03:05 PM

**Note:** See Qualifiers Page for a list of qualifiers and their explanation.

**ALS Environmental**

Date: 28-Feb-14

**Client:** Animas Environmental Services  
**Project:** Lateral K-7 July 2013 Pipeline Release  
**Sample ID:** VBLKW-140212  
**Collection Date:** 2/19/2014

**Work Order:** 14021046  
**Lab ID:** 14021046-06  
**Matrix:** TRIP BLANK

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<b>BTEX BY SW8021B</b>			<b>SW8021B</b>			Analyst: <b>DNR</b>
m,p-Xylene	ND		2	ug/L	1	2/26/2014 01:28 PM
o-Xylene	ND		1	ug/L	1	2/26/2014 01:28 PM
Benzene	ND		1	ug/L	1	2/26/2014 01:28 PM
Toluene	ND		1	ug/L	1	2/26/2014 01:28 PM
Ethylbenzene	ND		1	ug/L	1	2/26/2014 01:28 PM
Xylenes, Total	ND		3	ug/L	1	2/26/2014 01:28 PM
Surr: 4-Bromofluorobenzene	119		75-129	%REC	1	2/26/2014 01:28 PM
Surr: Trifluorotoluene	99.5		75-130	%REC	1	2/26/2014 01:28 PM

**Note:** See Qualifiers Page for a list of qualifiers and their explanation.

Work Order: 14021046  
Client: Animas Environmental Services  
Project: Lateral K-7 July 2013 Pipeline Release

**DATES REPORT**

Sample ID	Client Sample ID	Matrix	Collection Date	TCLP Date	Prep Date	Analysis Date
<b>Batch ID</b> R161951 <b>Test Name:</b> BTEX by SW8021B						
14021046-01	MW-1	Water	2/19/2014 12:08:00 PM			2/26/2014 01:45 PM
14021046-02	MW-2		2/19/2014 1:01:00 PM			2/26/2014 02:13 PM
14021046-03	MW-3		2/19/2014 1:57:00 PM			2/26/2014 02:31 PM
14021046-04	MW-4		2/19/2014 11:29:00 AM			2/26/2014 02:48 PM
14021046-05	MW-5		2/19/2014 10:38:00 AM			2/26/2014 03:05 PM
14021046-06	VBLKW-140212	Trip Blank	2/19/2014			2/26/2014 01:28 PM

Released to Imaging: 3/9/2026 10:58:42 AM

Received by OCD: 12/1/2025 12:12:35 PM

Page 50 of 183

ALS Environmental

Date: 28-Feb-14

**Client:** Animas Environmental Services  
**Work Order:** 14021046  
**Project:** Lateral K-7 July 2013 Pipeline Release

**QC BATCH REPORT**

Batch ID: **R161951** Instrument ID **BTEX1** Method: **SW8021B**

MBLK		Sample ID: <b>BBLKW1-140226-R161951</b>			Units: <b>µg/L</b>			Analysis Date: <b>2/26/2014 10:48 AM</b>		
Client ID:		Run ID: <b>BTEX1_140226A</b>			SeqNo: <b>3543665</b>			Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
m,p-Xylene	ND	2.0								
o-Xylene	ND	1.0								
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	3.0								
Surr: 4-Bromofluorobenzene	34.33	1.0	30	0	114	75-129	0			
Surr: Trifluorotoluene	29.44	1.0	30	0	98.1	75-130	0			

LCS		Sample ID: <b>BLCSS1-140226-R161951</b>			Units: <b>µg/L</b>			Analysis Date: <b>2/26/2014 10:13 AM</b>		
Client ID:		Run ID: <b>BTEX1_140226A</b>			SeqNo: <b>3543664</b>			Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
m,p-Xylene	44.05	2.0	40	0	110	75-125				
o-Xylene	22.12	1.0	20	0	111	75-125				
Benzene	21.48	1.0	20	0	107	75-126				
Toluene	21.64	1.0	20	0	108	75-125				
Ethylbenzene	21.79	1.0	20	0	109	75-125				
Xylenes, Total	66.16	3.0	60	0	110	75-125				
Surr: 4-Bromofluorobenzene	33.92	1.0	30	0	113	75-129	0			
Surr: Trifluorotoluene	29.18	1.0	30	0	97.3	75-130	0			

MS		Sample ID: <b>14021044-03AMS</b>			Units: <b>µg/L</b>			Analysis Date: <b>2/26/2014 11:26 AM</b>		
Client ID:		Run ID: <b>BTEX1_140226A</b>			SeqNo: <b>3543667</b>			Prep Date:		DF: <b>1</b>
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
m,p-Xylene	45.68	2.0	40	0	114	75-125				
o-Xylene	22.06	1.0	20	0	110	75-125				
Benzene	22.94	1.0	20	0	115	75-126				
Toluene	23.01	1.0	20	0	115	75-125				
Ethylbenzene	22.94	1.0	20	0	115	75-125				
Xylenes, Total	67.74	3.0	60	0	113	75-125				
Surr: 4-Bromofluorobenzene	34.43	1.0	30	0	115	75-129	0			
Surr: Trifluorotoluene	29	1.0	30	0	96.7	75-130	0			

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** Animas Environmental Services  
**Work Order:** 14021046  
**Project:** Lateral K-7 July 2013 Pipeline Release

# QC BATCH REPORT

Batch ID: **R161951** Instrument ID **BTEX1** Method: **SW8021B**

MSD		Sample ID: <b>14021044-03AMSD</b>				Units: <b>µg/L</b>		Analysis Date: <b>2/26/2014 11:43 AM</b>			
Client ID:		Run ID: <b>BTEX1_140226A</b>				SeqNo: <b>3543668</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
m,p-Xylene	46.43	2.0	40	0	116	75-125	45.68	1.61	20		
o-Xylene	22.48	1.0	20	0	112	75-125	22.06	1.93	20		
Benzene	22.94	1.0	20	0	115	75-126	22.94	0.0178	20		
Toluene	23.18	1.0	20	0	116	75-125	23.01	0.737	20		
Ethylbenzene	23.16	1.0	20	0	116	76-125	22.94	0.938	20		
Xylenes, Total	68.91	3.0	60	0	115	75-125	67.74	1.71	20		
<i>Surr: 4-Bromofluorobenzene</i>	34.63	1.0	30	0	115	75-129	34.43	0.576	20		
<i>Surr: Trifluorotoluene</i>	29.16	1.0	30	0	97.2	75-130	29	0.535	20		

The following samples were analyzed in this batch:

14021046-01A	14021046-02A	14021046-03A
14021046-04A	14021046-05A	14021046-06A

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**ALS Environmental**

Date: 28-Feb-14

**Client:** Animas Environmental Services  
**Project:** Lateral K-7 July 2013 Pipeline Release  
**WorkOrder:** 14021046

**QUALIFIERS,  
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

<u>Acronym</u>	<u>Description</u>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

<u>Units Reported</u>	<u>Description</u>
ug/L	Micrograms per Liter

# ALS Environmental

## Sample Receipt Checklist

Client Name: **ANIMAS ENVIRONMENTAL SERV**

Date/Time Received: **22-Feb-14 09:15**

Work Order: **14021046**

Received by: **SAY**

Checklist completed by Bethany McDaniel 24-Feb-14  
eSignature | Date

Reviewed by: Joni S. Blankfield 28-Feb-14  
eSignature | Date

Matrices: water  
Carrier name: FedEx

- Shipping container/cooler in good condition? Yes  No  Not Present
- Custody seals intact on shipping container/cooler? Yes  No  Not Present
- Custody seals intact on sample bottles? Yes  No  Not Present
- 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
- Container/Temp Blank temperature in compliance? Yes  No

Temperature(s)/Thermometer(s): 0.2C/0.2C c/u IR3

Cooler(s)/Kit(s): 5708

Date/Time sample(s) sent to storage: \_\_\_\_\_

Water - VOA vials have zero headspace? Yes  No  No VOA vials submitted

Water - pH acceptable upon receipt? Yes  No  N/A

pH adjusted? Yes  No  N/A

pH adjusted by: \_\_\_\_\_

Login Notes:

-----

Client Contacted: \_\_\_\_\_ Date Contacted: \_\_\_\_\_ Person Contacted: \_\_\_\_\_

Contacted By: \_\_\_\_\_ Regarding: \_\_\_\_\_

Comments:

CorrectiveAction:

South Charleston, WV  
+1 304 356 3168

Spring City, PA  
+1 610 948 4903

Houston, TX  
+1 281 530 5656

Chain of Custody Form

Fort Collins, CO  
+1 970 490 1511

Cincinnati, OH  
+1 513 733 5336

York, PA  
+1 717 505 5280

Salt Lake City, UT  
+1 801 266 7700

Middletown, PA  
+1 717 944 5541

Page      of     

Holland, MI  
+1 616 399 6070

Everett, WA  
+1 425 356 2600



COC ID: 101515



**Environmental**

Customer Information				Project Information				ALS Work Order #:									
Purchase Order	Project Name	Lateral K-7 July 2013 Pipeline Release	ALS Work Order #:	Parameter/Method Request for Analysis													
Work Order	Project Number	ARF W-AES-02-12-14-JES-02		BTEX (8021)													
Company Name	Bill To Company	Enterprise Products															
Send Report To	Invoice Attn	Farah Ullah															
Address	Address	1100 Louisiana		14021046													
City/State/Zip	City/State/Zip	Houston, TX 77002		Project: Lateral K-7 Pipeline Release													
Phone	Phone	(713) 381-4357		ANIMAS ENVIRONMENTAL SERVICES: Animas Environmental Services													
Fax	Fax			Barcode													
e-Mail Address	e-Mail Address	hwwoods@animas-environmental.com															
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-1	3/19/2014	1208	H <sub>2</sub> O	REL	3	X										
2	MW-2		1301			3	X										
3	MW-3		1357			3	X										
4	MW-4		1129			3	X										
5	MW-5		1058			3	X										
6																	
7																	
8																	
9																	
10																	
Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)		Results Due Date:											
L. Quinn Lamprose		Fed Ex		<input checked="" type="checkbox"/> Std. 10 WK Days <input type="checkbox"/> 5 WK Days <input type="checkbox"/> 2 WK Days <input type="checkbox"/> 24 Hour													
Relinquished by:		Received by:		Time:		Cooler Temp.		QC Package: (Check One Box Below)									
Date: 02/22/14		Time: 0915						<input checked="" type="checkbox"/> Level II Std QC <input type="checkbox"/> Level III Std QC/Raw Data <input type="checkbox"/> Level IV SW846/CLP <input type="checkbox"/> Other / EDD									
Relinquished by:		Checked by:		Time:		Cooler ID		<input type="checkbox"/> TRRP Checklist <input type="checkbox"/> TRRP Level IV									
Date: 02/22/14		Time: 0915															
Preservative Key: 1-HCl 2-HNO <sub>3</sub> 3-H <sub>2</sub> SO <sub>4</sub> 4-NaOH 5-Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> 6-NaHSO <sub>4</sub> 7-Other 8-4°C 9-5035																	

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.  
 2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.  
 3. The Chain of Custody is a legal document. All information must be completed accurately.

Copyright 2011 by ALS Environmental.

 <b>ALS Environmental</b> 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	<b>CUSTODY SEAL</b>		Seal Broken By: 
	Date: <u>2/21/2014</u>	Time:	Date: <u>2/22/14</u>
	Name: <u>Scott Sprague</u>	Company: <u>AES</u>	

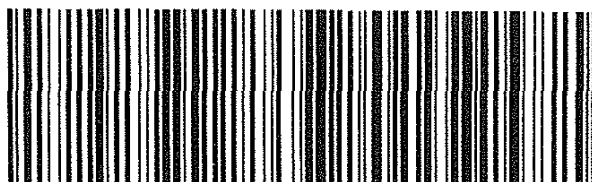
 <b>ALS Environmental</b> 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887	<b>CUSTODY SEAL</b>		Seal Broken By: 
	Date: <u>2/21/2015</u>	Time:	Date: <u>2/22/14</u>
	Name: <u>Scott Sprague</u>	Company: <u>AES</u>	

**FedEx**  
 TRK#  
 0215 8042 5199 1595

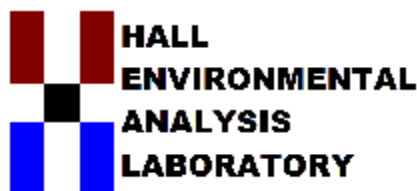
**SATURDAY 12:00P**  
**PRIORITY OVERNIGHT**

**X0 SGRA**

**77099**  
 TX-US  
 IAH



092 21FEB14 FMNA 51AC1/562F/6500



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

November 26, 2014

Heather Woods  
APEX TITAN  
606 S. Rio Grande Unit A  
Aztec, NM 87410  
TEL: (505) 716-2787  
FAX

RE: Lateral K-7 July 2013

OrderNo.: 1411843

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 5 sample(s) on 11/20/2014 for the analyses presented in the following report.

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

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a white background.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Analytical Report**

Lab Order: 1411843

Date Reported: 11/26/2014

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN  
**Project:** Lateral K-7 July 2013

**Lab Order:** 1411843

**Lab ID:** 1411843-001  
**Client Sample ID:** MW-1

**Collection Date:** 11/19/2014 12:04:00 PM  
**Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	3.3	2.0		µg/L	2	11/21/2014 6:56:05 PM	R2271€
Toluene	3.9	2.0		µg/L	2	11/21/2014 6:56:05 PM	R2271€
Ethylbenzene	ND	2.0		µg/L	2	11/21/2014 6:56:05 PM	R2271€
Xylenes, Total	7.9	4.0		µg/L	2	11/21/2014 6:56:05 PM	R2271€
Surr: 4-Bromofluorobenzene	102	66.6-167		%REC	2	11/21/2014 6:56:05 PM	R2271€

**Lab ID:** 1411843-002  
**Client Sample ID:** MW-2

**Collection Date:** 11/19/2014 12:11:00 PM  
**Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	2.0		µg/L	2	11/21/2014 7:23:05 PM	R2271€
Toluene	ND	2.0		µg/L	2	11/21/2014 7:23:05 PM	R2271€
Ethylbenzene	ND	2.0		µg/L	2	11/21/2014 7:23:05 PM	R2271€
Xylenes, Total	ND	4.0		µg/L	2	11/21/2014 7:23:05 PM	R2271€
Surr: 4-Bromofluorobenzene	105	66.6-167		%REC	2	11/21/2014 7:23:05 PM	R2271€

**Lab ID:** 1411843-003  
**Client Sample ID:** MW-3

**Collection Date:** 11/19/2014 12:33:00 PM  
**Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	2.6	2.0		µg/L	2	11/21/2014 7:50:11 PM	R2271€
Toluene	ND	2.0		µg/L	2	11/21/2014 7:50:11 PM	R2271€
Ethylbenzene	ND	2.0		µg/L	2	11/21/2014 7:50:11 PM	R2271€
Xylenes, Total	ND	4.0		µg/L	2	11/21/2014 7:50:11 PM	R2271€
Surr: 4-Bromofluorobenzene	100	66.6-167		%REC	2	11/21/2014 7:50:11 PM	R2271€

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

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

**Analytical Report**

Lab Order: 1411843

Date Reported: 11/26/2014

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN  
**Project:** Lateral K-7 July 2013

**Lab Order:** 1411843

**Lab ID:** 1411843-004  
**Client Sample ID:** MW-4

**Collection Date:** 11/19/2014 11:11:00 AM  
**Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	2.0		µg/L	2	11/21/2014 8:17:36 PM	R2271E
Toluene	ND	2.0		µg/L	2	11/21/2014 8:17:36 PM	R2271E
Ethylbenzene	ND	2.0		µg/L	2	11/21/2014 8:17:36 PM	R2271E
Xylenes, Total	ND	4.0		µg/L	2	11/21/2014 8:17:36 PM	R2271E
Surr: 4-Bromofluorobenzene	101	66.6-167		%REC	2	11/21/2014 8:17:36 PM	R2271E

**Lab ID:** 1411843-005  
**Client Sample ID:** MW-5

**Collection Date:** 11/19/2014 11:05:00 AM  
**Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	2.0		µg/L	2	11/21/2014 10:34:30 PM	R2271E
Toluene	ND	2.0		µg/L	2	11/21/2014 10:34:30 PM	R2271E
Ethylbenzene	ND	2.0		µg/L	2	11/21/2014 10:34:30 PM	R2271E
Xylenes, Total	ND	4.0		µg/L	2	11/21/2014 10:34:30 PM	R2271E
Surr: 4-Bromofluorobenzene	106	66.6-167		%REC	2	11/21/2014 10:34:30 PM	R2271E

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

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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1411843

26-Nov-14

**Client:** APEX TITAN  
**Project:** Lateral K-7 July 2013

Sample ID	<b>5ML RB</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>PBW</b>	Batch ID:	<b>R22716</b>	RunNo:	<b>22716</b>					
Prep Date:		Analysis Date:	<b>11/21/2014</b>	SeqNo:	<b>670142</b>	Units:	<b>µg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	23		20.00		113	66.6	167			

Sample ID	<b>100NG BTEX LCS</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>LCSW</b>	Batch ID:	<b>R22716</b>	RunNo:	<b>22716</b>					
Prep Date:		Analysis Date:	<b>11/21/2014</b>	SeqNo:	<b>670143</b>	Units:	<b>µg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	103	80	120			
Toluene	21	1.0	20.00	0	104	80	120			
Ethylbenzene	21	1.0	20.00	0	105	80	120			
Xylenes, Total	66	2.0	60.00	0	110	80	120			
Surr: 4-Bromofluorobenzene	21		20.00		106	66.6	167			

**Qualifiers:**

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



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

Sample Log-In Check List

Client Name: APEX AZTEC

Work Order Number: 1411843

RcptNo: 1

Received by/date: [Signature] 11/20/14
Logged By: Lindsay Mangin 11/20/2014 7:15:00 AM [Signature]
Completed By: Lindsay Mangin 11/20/2014 8:06:30 AM [Signature]
Reviewed By: [Signature] 11/20/14

Chain of Custody

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

Log In

- 4. Was an attempt made to cool the samples? Yes [x] No [ ] NA [ ]
5. Were all samples received at a temperature of >0° C to 6.0°C Yes [x] No [ ] NA [ ]
6. Sample(s) in proper container(s)? Yes [x] No [ ]
7. Sufficient sample volume for indicated test(s)? Yes [x] No [ ]
8. Are samples (except VOA and ONG) properly preserved? Yes [x] No [ ]
9. Was preservative added to bottles? Yes [ ] No [x] NA [ ]
10. VOA vials have zero headspace? Yes [x] No [ ] No VOA Vials [ ]
11. Were any sample containers received broken? Yes [ ] No [x]
12. Does paperwork match bottle labels? Yes [x] No [ ]
13. Are matrices correctly identified on Chain of Custody? Yes [x] No [ ]
14. Is it clear what analyses were requested? Yes [x] No [ ]
15. Were all holding times able to be met? Yes [x] No [ ]

# of preserved bottles checked for pH: (<2 or >12 unless noted)
Adjusted?
Checked by:

Special Handling (if applicable)

- 16. Was client notified of all discrepancies with this order? Yes [ ] No [ ] NA [x]


Person Notified: [ ] Date: [ ]
By Whom: [ ] Via: [ ] eMail [ ] Phone [ ] Fax [ ] In Person [ ]
Regarding: [ ]
Client Instructions: [ ]

17. Additional remarks:

18. Cooler Information

Table with 7 columns: Cooler No, Temp °C, Condition, Seal Intact, Seal No, Seal Date, Signed By. Row 1: 1, 2.5, Good, Yes, [ ], [ ], [ ]

CHAIN OF CUSTODY RECORD

 <p><b>APEX</b> Office Location Aztec, NM</p>		<p>Laboratory: <u>Hall Environmental</u> Address: <u>Albuquerque, NM</u> Contact: <u>Andy Freeman</u> Phone: _____ POISO #: <u>70304146013</u></p>		<p>ANALYSIS REQUESTED</p>		<p>Lab use only Due Date: _____ Temp. of coolers when received (C°): <u>2.5</u> 1 2 3 4 5 Page <u>1</u> of <u>1</u></p>	
<p>Project Manager <u>Heather Woods</u></p>		<p>Sampler's Name <u>Heather M. Woods</u></p>		<p>Project Name <u>Lateral K-7 July 2013</u></p>		<p>NO/Type of Containers <u>40 mL</u></p>	
<p>Project No. <u>70304146013</u></p>		<p>Identifying Marks of Sample(s)</p>		<p>NO/Type of Containers</p>		<p>Lab Sample ID (Lab Use Only)</p>	
Matrix	Date	Time	Identifying Marks of Sample(s)	NO/Type of Containers	Lab Sample ID (Lab Use Only)		
W	11/19/14	1204	MW-1	3	1411843-001		
W	11/19/14	1211	MW-2	3	-002		
W	11/19/14	1233	MW-3	3	-003		
W	11/19/14	1111	MW-4	3	-004		
W	11/19/14	1105	MW-5	3	-005		
<u>NFS HW</u>							
Turn around time	<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> 25% Rush	<input type="checkbox"/> 50% Rush	<input type="checkbox"/> 100% Rush	NOTES: <u>Bill Enterprise Corporate flake to Apex</u>		
Relinquished by (Signature)	Date: <u>11/19/14</u>	Time: <u>1710</u>	Received by (Signature)	Date: <u>11/19/14</u>	Time: <u>1710</u>		
Relinquished by (Signature)	Date: <u>11/19/14</u>	Time: <u>1800</u>	Received by (Signature)	Date: <u>11/20/14</u>	Time: <u>0715</u>		
Relinquished by (Signature)	Date: _____	Time: _____	Received by (Signature)	Date: _____	Time: _____		
Relinquished by (Signature)	Date: _____	Time: _____	Received by (Signature)	Date: _____	Time: _____		

Matrix Container: WW - Wastewater / VOA - 40 ml Vial  
 W - Water / A/G - Amber / Or Glass 1 Liter  
 S - Soil / SD - Solid / 250 ml - Glass wide mouth  
 L - Liquid / A - Air Bag  
 C - Charcoal tube / P/O - Plastic or other  
 SL - sludge / O - Oil

Apex TITAN, Inc. • 606 S. Rio Grande, Suite A, Downstairs • Aztec, New Mexico 87410 • Office: 505-334-5200 • Fax: 505-334-5204



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

July 06, 2015

Heather Woods  
APEX TITAN  
606 S. Rio Grande Suite A  
Aztec, NM 87410  
TEL: (505) 716-2787  
FAX

RE: Lateral K-7 (2013)

OrderNo.: 1506C90

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 5 sample(s) on 6/25/2015 for the analyses presented in the following report.

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

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

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

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Analytical Report**

Lab Order: 1506C90

Date Reported: 7/6/2015

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN  
**Project:** Lateral K-7 (2013)

**Lab Order:** 1506C90

**Lab ID:** 1506C90-001

**Collection Date:** 6/24/2015 10:10:00 AM

**Client Sample ID:** MW-5

**Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>							Analyst: cadg
Benzene	ND	1.0		µg/L	1	7/1/2015 4:47:19 AM	R2720E
Toluene	ND	1.0		µg/L	1	7/1/2015 4:47:19 AM	R2720E
Ethylbenzene	ND	1.0		µg/L	1	7/1/2015 4:47:19 AM	R2720E
Xylenes, Total	ND	1.5		µg/L	1	7/1/2015 4:47:19 AM	R2720E
Surr: 1,2-Dichloroethane-d4	96.0	70-130		%REC	1	7/1/2015 4:47:19 AM	R2720E
Surr: 4-Bromofluorobenzene	114	70-130		%REC	1	7/1/2015 4:47:19 AM	R2720E
Surr: Dibromofluoromethane	101	70-130		%REC	1	7/1/2015 4:47:19 AM	R2720E
Surr: Toluene-d8	103	70-130		%REC	1	7/1/2015 4:47:19 AM	R2720E

**Lab ID:** 1506C90-002

**Collection Date:** 6/24/2015 11:15:00 AM

**Client Sample ID:** MW-4

**Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>							Analyst: cadg
Benzene	ND	1.0		µg/L	1	7/1/2015 5:15:59 AM	R2720E
Toluene	ND	1.0		µg/L	1	7/1/2015 5:15:59 AM	R2720E
Ethylbenzene	ND	1.0		µg/L	1	7/1/2015 5:15:59 AM	R2720E
Xylenes, Total	ND	1.5		µg/L	1	7/1/2015 5:15:59 AM	R2720E
Surr: 1,2-Dichloroethane-d4	98.8	70-130		%REC	1	7/1/2015 5:15:59 AM	R2720E
Surr: 4-Bromofluorobenzene	106	70-130		%REC	1	7/1/2015 5:15:59 AM	R2720E
Surr: Dibromofluoromethane	98.1	70-130		%REC	1	7/1/2015 5:15:59 AM	R2720E
Surr: Toluene-d8	101	70-130		%REC	1	7/1/2015 5:15:59 AM	R2720E

**Lab ID:** 1506C90-003

**Collection Date:** 6/24/2015 12:25:00 PM

**Client Sample ID:** MW-1

**Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>							Analyst: cadg
Benzene	ND	1.0		µg/L	1	7/1/2015 5:44:48 AM	R2720E
Toluene	ND	1.0		µg/L	1	7/1/2015 5:44:48 AM	R2720E
Ethylbenzene	ND	1.0		µg/L	1	7/1/2015 5:44:48 AM	R2720E
Xylenes, Total	ND	1.5		µg/L	1	7/1/2015 5:44:48 AM	R2720E
Surr: 1,2-Dichloroethane-d4	99.3	70-130		%REC	1	7/1/2015 5:44:48 AM	R2720E
Surr: 4-Bromofluorobenzene	111	70-130		%REC	1	7/1/2015 5:44:48 AM	R2720E
Surr: Dibromofluoromethane	101	70-130		%REC	1	7/1/2015 5:44:48 AM	R2720E
Surr: Toluene-d8	101	70-130		%REC	1	7/1/2015 5:44:48 AM	R2720E

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

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

**Analytical Report**

Lab Order: 1506C90

Date Reported: 7/6/2015

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN  
**Project:** Lateral K-7 (2013)

**Lab Order:** 1506C90

**Lab ID:** 1506C90-004

**Collection Date:** 6/24/2015 1:45:00 PM

**Client Sample ID:** MW-3

**Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>							Analyst: cadg
Benzene	ND	1.0		µg/L	1	7/1/2015 6:13:37 AM	R2720E
Toluene	ND	1.0		µg/L	1	7/1/2015 6:13:37 AM	R2720E
Ethylbenzene	ND	1.0		µg/L	1	7/1/2015 6:13:37 AM	R2720E
Xylenes, Total	ND	1.5		µg/L	1	7/1/2015 6:13:37 AM	R2720E
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	1	7/1/2015 6:13:37 AM	R2720E
Surr: 4-Bromofluorobenzene	110	70-130		%REC	1	7/1/2015 6:13:37 AM	R2720E
Surr: Dibromofluoromethane	106	70-130		%REC	1	7/1/2015 6:13:37 AM	R2720E
Surr: Toluene-d8	101	70-130		%REC	1	7/1/2015 6:13:37 AM	R2720E

**Lab ID:** 1506C90-005

**Collection Date:** 6/24/2015 2:50:00 PM

**Client Sample ID:** MW-2

**Matrix:** AQUEOUS

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>							Analyst: cadg
Benzene	ND	1.0		µg/L	1	7/1/2015 6:42:18 AM	R2720E
Toluene	ND	1.0		µg/L	1	7/1/2015 6:42:18 AM	R2720E
Ethylbenzene	ND	1.0		µg/L	1	7/1/2015 6:42:18 AM	R2720E
Xylenes, Total	ND	1.5		µg/L	1	7/1/2015 6:42:18 AM	R2720E
Surr: 1,2-Dichloroethane-d4	101	70-130		%REC	1	7/1/2015 6:42:18 AM	R2720E
Surr: 4-Bromofluorobenzene	116	70-130		%REC	1	7/1/2015 6:42:18 AM	R2720E
Surr: Dibromofluoromethane	105	70-130		%REC	1	7/1/2015 6:42:18 AM	R2720E
Surr: Toluene-d8	103	70-130		%REC	1	7/1/2015 6:42:18 AM	R2720E

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

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1506C90

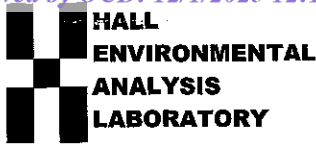
06-Jul-15

**Client:** APEX TITAN  
**Project:** Lateral K-7 (2013)

Sample ID: <b>100ng lcs</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8260: Volatiles Short List</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R27205</b>		RunNo: <b>27205</b>							
Prep Date:	Analysis Date: <b>6/30/2015</b>		SeqNo: <b>814683</b>		Units: <b>µg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	104	70	130			
Toluene	21	1.0	20.00	0	103	70	130			
Surr: 1,2-Dichloroethane-d4	9.5		10.00		95.1	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		110	70	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			
Surr: Toluene-d8	10		10.00		99.5	70	130			

**Qualifiers:**

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



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

Sample Log-In Check List

Client Name: APEX AZTEC

Work Order Number: 1506C90

RcptNo: 1

Received by/date: CM 6/25/15
Logged By: Anne Thorne 6/25/2015 7:00:00 AM
Completed By: Anne Thorne 6/26/2015
Reviewed By: [Signature] 06/26/15

Chain of Custody

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

Log In

- 4. Was an attempt made to cool the samples? Yes [x] No [ ] NA [ ]
5. Were all samples received at a temperature of >0° C to 6.0°C Yes [x] No [ ] NA [ ]
6. Sample(s) in proper container(s)? Yes [x] No [ ]
7. Sufficient sample volume for indicated test(s)? Yes [x] No [ ]
8. Are samples (except VOA and ONG) properly preserved? Yes [x] No [ ]
9. Was preservative added to bottles? Yes [ ] No [x] NA [ ]
10. VOA vials have zero headspace? Yes [x] No [ ] No VOA Vials [ ]
11. Were any sample containers received broken? Yes [ ] No [x]
12. Does paperwork match bottle labels? Yes [x] No [ ]
13. Are matrices correctly identified on Chain of Custody? Yes [x] No [ ]
14. Is it clear what analyses were requested? Yes [x] No [ ]
15. Were all holding times able to be met? Yes [x] No [ ]

# of preserved bottles checked for pH: (<2 or >12 unless noted)
Adjusted?
Checked by:

Special Handling (if applicable)

- 16. Was client notified of all discrepancies with this order? Yes [ ] No [ ] NA [x]


Person Notified:
By Whom:
Regarding:
Client Instructions:
Date:
Via: [ ] eMail [ ] Phone [ ] Fax [ ] In Person

17. Additional remarks:

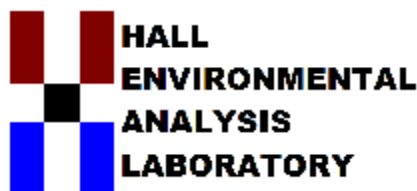
18. Cooler Information

Table with 7 columns: Cooler No, Temp °C, Condition, Seal Intact, Seal No, Seal Date, Signed By. Row 1: 1, 2.3, Good, Yes, , ,

CHAIN OF CUSTODY RECORD

 <b>APEX</b>		Laboratory: <u>Hall Environmental</u> Address: <u>Albuquerque, NM</u> Contact: <u>Andy Freeman</u> Phone: _____ PO/SO #: <u>70304146013</u>		ANALYSIS REQUESTED  80216TK		Lab use only Due Date: _____ Temp. of coolers when received (C°): <u>23</u> 1 2 3 4 5 Page <u>1</u> of <u>1</u>					
Office Location: <u>Aztec, NM</u>		Project Manager: <u>H. Woods</u>		Project Name: <u>Lateral K-7 (2013)</u>		Lab Sample ID (Lab Use Only)					
Sampler's Name: <u>Ranee Deechilly</u>		Sampler's Signature: <u>Ranee Deechilly</u>		No/Type of Containers		1506 C90 -001 -002 -003 -004 -005					
Proj. No.	Matrix	Date	Time	Identifying Marks of Sample(s)	VOA	Defect	Defect	Defect	Defect	Defect	P/O
70304146013	W	6/24/15	1010	MW-5	3						
	W	6/24/15	1115	MW-4	3						
	W	6/24/15	1225	MW-1	3						
	W	6/24/15	1345	MW-3	3						
	W	6/24/15	1450	MW-2	3						
NIES											
Turn around time <input checked="" type="checkbox"/> Normal <input type="checkbox"/> 25% Rush <input type="checkbox"/> 50% Rush <input type="checkbox"/> 100% Rush		Relinquished by (Signature): <u>Ranee Deechilly</u> Date: <u>6/24/15</u> Time: <u>1047</u>		Received by (Signature): <u>Heather M. Weber</u> Date: <u>6/24/15</u> Time: <u>1647</u>		NOTES:		Bill to Apex Enterprise Corporate rate			
Relinquished by (Signature): <u>Heather M. Weber</u> Date: <u>6/24/15</u> Time: <u>1000</u>		Received by (Signature): <u>Heather M. Weber</u> Date: <u>6/24/15</u> Time: <u>1800</u>		Relinquished by (Signature): <u>Heather M. Weber</u> Date: <u>6/24/15</u> Time: <u>1810</u>		Received by (Signature): <u>Heather M. Weber</u> Date: <u>6/25/15</u> Time: <u>0700</u>					
Relinquished by (Signature): <u>Heather M. Weber</u> Date: <u>6/24/15</u> Time: <u>1810</u>		Received by (Signature): <u>Heather M. Weber</u> Date: <u>6/24/15</u> Time: <u>1810</u>		Relinquished by (Signature): <u>Heather M. Weber</u> Date: <u>6/24/15</u> Time: <u>1810</u>		Received by (Signature): <u>Heather M. Weber</u> Date: <u>6/24/15</u> Time: <u>1810</u>					

Matrix Container: WW - Wastewater VOA - 40 ml vial  
 W - Water A/G - Amber / Or Glass 1 Liter  
 S - Soil SD - Solid 250 ml - Glass wide mouth  
 L - Liquid 250 ml - Glass wide mouth  
 A - Air Bag  
 C - Charcoal tube P/O - Plastic or other  
 SL - sludge O - Oil



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

December 14, 2015

Kyle Summers  
APEX TITAN  
606 S. Rio Grande Suite A  
Aztec, NM 87410  
TEL: (903) 821-5603  
FAX

RE: K-7 (2013)

OrderNo.: 1512481

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 1 sample(s) on 12/10/2015 for the analyses presented in the following report.

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

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

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

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Analytical Report**

Lab Order **1512481**

Date Reported: **12/14/2015**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** MW-5

**Project:** K-7 (2013)

**Collection Date:** 12/9/2015 11:10:00 AM

**Lab ID:** 1512481-001

**Matrix:** AQUEOUS

**Received Date:** 12/10/2015 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	1.0		µg/L	1	12/11/2015 10:01:50 PM	D30785
Toluene	ND	1.0		µg/L	1	12/11/2015 10:01:50 PM	D30785
Ethylbenzene	ND	1.0		µg/L	1	12/11/2015 10:01:50 PM	D30785
Xylenes, Total	ND	2.0		µg/L	1	12/11/2015 10:01:50 PM	D30785
Surr: 4-Bromofluorobenzene	115	65-127		%REC	1	12/11/2015 10:01:50 PM	D30785

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1512481

14-Dec-15

**Client:** APEX TITAN

**Project:** K-7 (2013)

Sample ID	<b>5ML RB</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>PBW</b>	Batch ID:	<b>D30785</b>	RunNo:	<b>30785</b>					
Prep Date:		Analysis Date:	<b>12/11/2015</b>	SeqNo:	<b>940865</b>	Units:	<b>µg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	2.0								
Surr: 4-Bromofluorobenzene	23		20.00		116	65	127			

Sample ID	<b>100NG BTEX LCS</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>LCSW</b>	Batch ID:	<b>D30785</b>	RunNo:	<b>30785</b>					
Prep Date:		Analysis Date:	<b>12/11/2015</b>	SeqNo:	<b>940866</b>	Units:	<b>µg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	95.8	80	120			
Toluene	18	1.0	20.00	0	91.3	80	120			
Ethylbenzene	19	1.0	20.00	0	94.3	80	120			
Xylenes, Total	55	2.0	60.00	0	91.4	80	120			
Surr: 4-Bromofluorobenzene	27		20.00		134	65	127			S

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit



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

Sample Log-In Check List

Client Name: APEX AZTEC

Work Order Number: 1512481

RcptNo: 1

Received by/date: JA 12/10/15

Logged By: Anne Thorne 12/10/2015 8:00:00 AM

Anne Thorne signature

Completed By: Anne Thorne 12/10/2015

Anne Thorne signature

Reviewed By: [Signature] 12/10/15

Chain of Custody

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

Log In

- 4. Was an attempt made to cool the samples? Yes [x] No [ ] NA [ ]
5. Were all samples received at a temperature of >0° C to 6.0°C Yes [x] No [ ] NA [ ]
6. Sample(s) in proper container(s)? Yes [x] No [ ]
7. Sufficient sample volume for indicated test(s)? Yes [x] No [ ]
8. Are samples (except VOA and ONG) properly preserved? Yes [x] No [ ]
9. Was preservative added to bottles? Yes [ ] No [x] NA [ ]
10. VOA vials have zero headspace? Yes [x] No [ ] No VOA Vials [ ]
11. Were any sample containers received broken? Yes [ ] No [x]
12. Does paperwork match bottle labels? Yes [x] No [ ]
13. Are matrices correctly identified on Chain of Custody? Yes [x] No [ ]
14. Is it clear what analyses were requested? Yes [x] No [ ]
15. Were all holding times able to be met? Yes [x] No [ ]

# of preserved bottles checked for pH: (<2 or >12 unless noted)
Adjusted?
Checked by:

Special Handling (if applicable)

- 16. Was client notified of all discrepancies with this order? Yes [ ] No [ ] NA [x]

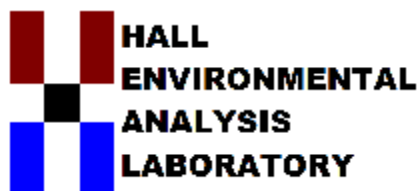
Person Notified:
By Whom:
Regarding:
Client Instructions:
Date:
Via: [ ] eMail [ ] Phone [ ] Fax [ ] In Person

17. Additional remarks:

18. Cooler Information

Table with 7 columns: Cooler No, Temp °C, Condition, Seal Intact, Seal No, Seal Date, Signed By. Row 1: 1, 1.3, Good, Yes





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

August 28, 2015

Kyle Summers  
APEX TITAN  
606 S. Rio Grande Unit A  
Aztec, NM 87410  
TEL: (903) 821-5603  
FAX

RE: K-7 (2013)

OrderNo.: 1508D21

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 4 sample(s) on 8/27/2015 for the analyses presented in the following report.

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

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written in a cursive style.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Analytical Report**

Lab Order **1508D21**

Date Reported: **8/28/2015**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** CS-1

**Project:** K-7 (2013)

**Collection Date:** 8/26/2015 10:00:00 AM

**Lab ID:** 1508D21-001

**Matrix:** MEOH (SOIL)

**Received Date:** 8/27/2015 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/27/2015 10:24:16 AM	21007
Surr: DNOP	78.6	57.9-140		%REC	1	8/27/2015 10:24:16 AM	21007
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	8/27/2015 10:41:06 AM	20999
Surr: BFB	85.4	75.4-113		%REC	1	8/27/2015 10:41:06 AM	20999
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.040		mg/Kg	1	8/27/2015 10:41:06 AM	20999
Toluene	ND	0.040		mg/Kg	1	8/27/2015 10:41:06 AM	20999
Ethylbenzene	ND	0.040		mg/Kg	1	8/27/2015 10:41:06 AM	20999
Xylenes, Total	ND	0.079		mg/Kg	1	8/27/2015 10:41:06 AM	20999
Surr: 4-Bromofluorobenzene	99.8	80-120		%REC	1	8/27/2015 10:41:06 AM	20999

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

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **1508D21**

Date Reported: **8/28/2015**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** CS-2

**Project:** K-7 (2013)

**Collection Date:** 8/26/2015 10:15:00 AM

**Lab ID:** 1508D21-002

**Matrix:** MEOH (SOIL)

**Received Date:** 8/27/2015 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	8/27/2015 10:45:29 AM	21007
Surr: DNOP	82.6	57.9-140		%REC	1	8/27/2015 10:45:29 AM	21007
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	30	8.2		mg/Kg	2	8/27/2015 11:06:08 AM	20999
Surr: BFB	141	75.4-113	S	%REC	2	8/27/2015 11:06:08 AM	20999
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.082		mg/Kg	2	8/27/2015 11:06:08 AM	20999
Toluene	0.74	0.082		mg/Kg	2	8/27/2015 11:06:08 AM	20999
Ethylbenzene	0.35	0.082		mg/Kg	2	8/27/2015 11:06:08 AM	20999
Xylenes, Total	3.9	0.16		mg/Kg	2	8/27/2015 11:06:08 AM	20999
Surr: 4-Bromofluorobenzene	112	80-120		%REC	2	8/27/2015 11:06:08 AM	20999

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

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **1508D21**

Date Reported: **8/28/2015**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** CS-3

**Project:** K-7 (2013)

**Collection Date:** 8/26/2015 10:30:00 AM

**Lab ID:** 1508D21-003

**Matrix:** MEOH (SOIL)

**Received Date:** 8/27/2015 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/27/2015 10:24:25 AM	21007
Surr: DNOP	98.7	57.9-140		%REC	1	8/27/2015 10:24:25 AM	21007
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	16	4.1		mg/Kg	1	8/27/2015 11:31:03 AM	20999
Surr: BFB	168	75.4-113	S	%REC	1	8/27/2015 11:31:03 AM	20999
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.041		mg/Kg	1	8/27/2015 11:31:03 AM	20999
Toluene	0.16	0.041		mg/Kg	1	8/27/2015 11:31:03 AM	20999
Ethylbenzene	0.096	0.041		mg/Kg	1	8/27/2015 11:31:03 AM	20999
Xylenes, Total	1.0	0.083		mg/Kg	1	8/27/2015 11:31:03 AM	20999
Surr: 4-Bromofluorobenzene	108	80-120		%REC	1	8/27/2015 11:31:03 AM	20999

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

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **1508D21**

Date Reported: **8/28/2015**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** CS-4

**Project:** K-7 (2013)

**Collection Date:** 8/26/2015 11:00:00 AM

**Lab ID:** 1508D21-004

**Matrix:** MEOH (SOIL)

**Received Date:** 8/27/2015 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	13	10		mg/Kg	1	8/27/2015 10:50:54 AM	21007
Surr: DNOP	103	57.9-140		%REC	1	8/27/2015 10:50:54 AM	21007
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	39	8.1		mg/Kg	2	8/27/2015 11:55:59 AM	20999
Surr: BFB	193	75.4-113	S	%REC	2	8/27/2015 11:55:59 AM	20999
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.081		mg/Kg	2	8/27/2015 11:55:59 AM	20999
Toluene	0.34	0.081		mg/Kg	2	8/27/2015 11:55:59 AM	20999
Ethylbenzene	0.27	0.081		mg/Kg	2	8/27/2015 11:55:59 AM	20999
Xylenes, Total	3.1	0.16		mg/Kg	2	8/27/2015 11:55:59 AM	20999
Surr: 4-Bromofluorobenzene	110	80-120		%REC	2	8/27/2015 11:55:59 AM	20999

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

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	Page 4 of 7
	D Sample Diluted Due to Matrix	E Value above quantitation range	
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits	
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range	
	R RPD outside accepted recovery limits	RL Reporting Detection Limit	
	S % Recovery outside of range due to dilution or matrix		

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1508D21

28-Aug-15

**Client:** APEX TITAN

**Project:** K-7 (2013)

Sample ID	<b>MB-21007</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>21007</b>	RunNo:	<b>28499</b>					
Prep Date:	<b>8/27/2015</b>	Analysis Date:	<b>8/27/2015</b>	SeqNo:	<b>861824</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	8.0		10.00		80.1	57.9	140			

Sample ID	<b>LCS-21007</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>21007</b>	RunNo:	<b>28499</b>					
Prep Date:	<b>8/27/2015</b>	Analysis Date:	<b>8/27/2015</b>	SeqNo:	<b>861825</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	10	50.00	0	103	57.4	139			
Surr: DNOP	4.3		5.000		86.5	57.9	140			

Sample ID	<b>1508D21-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>CS-1</b>	Batch ID:	<b>21007</b>	RunNo:	<b>28499</b>					
Prep Date:	<b>8/27/2015</b>	Analysis Date:	<b>8/27/2015</b>	SeqNo:	<b>861830</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	9.8	49.21	0	92.5	42.3	146			
Surr: DNOP	3.8		4.921		77.7	57.9	140			

Sample ID	<b>1508D21-001AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>CS-1</b>	Batch ID:	<b>21007</b>	RunNo:	<b>28499</b>					
Prep Date:	<b>8/27/2015</b>	Analysis Date:	<b>8/27/2015</b>	SeqNo:	<b>861831</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	9.8	48.97	0	94.7	42.3	146	1.87	28.9	
Surr: DNOP	3.9		4.897		79.2	57.9	140	0	0	

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1508D21

28-Aug-15

**Client:** APEX TITAN

**Project:** K-7 (2013)

Sample ID <b>MB-20999</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>20999</b>		RunNo: <b>28503</b>							
Prep Date: <b>8/26/2015</b>	Analysis Date: <b>8/27/2015</b>		SeqNo: <b>862185</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	820		1000		82.3	75.4	113			

Sample ID <b>LCS-20999</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>20999</b>		RunNo: <b>28503</b>							
Prep Date: <b>8/26/2015</b>	Analysis Date: <b>8/27/2015</b>		SeqNo: <b>862186</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	100	79.6	122			
Surr: BFB	900		1000		89.8	75.4	113			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1508D21

28-Aug-15

**Client:** APEX TITAN

**Project:** K-7 (2013)

Sample ID	<b>MB-20999</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>20999</b>	RunNo:	<b>28503</b>					
Prep Date:	<b>8/26/2015</b>	Analysis Date:	<b>8/27/2015</b>	SeqNo:	<b>862218</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.98		1.000		98.0	80	120			

Sample ID	<b>LCS-20999</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>20999</b>	RunNo:	<b>28503</b>					
Prep Date:	<b>8/26/2015</b>	Analysis Date:	<b>8/27/2015</b>	SeqNo:	<b>862219</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.050	1.000	0	93.4	76.6	128			
Toluene	0.95	0.050	1.000	0	95.2	75	124			
Ethylbenzene	0.98	0.050	1.000	0	98.4	79.5	126			
Xylenes, Total	2.9	0.10	3.000	0	97.6	78.8	124			
Surr: 4-Bromofluorobenzene	1.1		1.000		110	80	120			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit



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

# Sample Log-In Check List

Client Name: **APEX AZTEC**

Work Order Number: **1508D21**

RcptNo: **1**

Received by/date: *[Signature]* **08/27/15**  
 Logged By: **Lindsay Mangin** **8/27/2015 8:10:00 AM** *[Signature]*  
 Completed By: **Lindsay Mangin** **8/27/2015 8:23:04 AM** *[Signature]*  
 Reviewed By: **CS** **08/27/15**

**Chain of Custody**

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

**Log In**

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

**Special Handling (if applicable)**

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

Person Notified:	<input style="width: 95%;" type="text"/>	Date:	<input style="width: 95%;" type="text"/>
By Whom:	<input style="width: 95%;" type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input style="width: 95%;" type="text"/>		
Client Instructions:	<input style="width: 95%;" type="text"/>		

17. Additional remarks:

**18. Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.4	Good	Yes			

CHAIN OF CUSTODY RECORD

Lab use only  
Due Date:

Temp. of coolers when received (C°): 16.020

1	2	3	4	5
---	---	---	---	---

Page 1 of 1

ANALYSIS REQUESTED

*BTEX 8021*  
*X TPH C/FD/DRO BOLS*

Laboratory: Hall  
Address: Agg  
Contact: Freeman  
Phone: \_\_\_\_\_  
PO/SO #: \_\_\_\_\_

Project Manager: Summers  
Sampler's Name: Ryle Summers  
Sampler's Signature: \_\_\_\_\_

Matrix	Date	Time	Project Name				No/Type of Containers				Lab Sample ID (Lab Use Only)						
			C	G	a	b	Star	Depth	End	Depth		VOA	AG	TL	250 ml	Glass Jar	P/O
S	8/26/10	1000	M														1508DZ1-001
		1015															-002
		1030															-003
		1100															-004
<i>NFS</i> <i>AG</i>																	

Turn around time  Normal  25% Rush  50% Rush  100% Rush Same Day

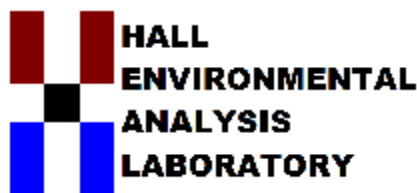
Relinquished by (Signature): \_\_\_\_\_ Date: 8/26/10 Time: 1513  
 Received by (Signature): CHUCK LUCEA Date: 8/26/10 Time: 1513

Relinquished by (Signature): Walter Webb Date: 8/26/10 Time: 1940  
 Received by (Signature): \_\_\_\_\_ Date: 08/27/10 Time: 0810

Relinquished by (Signature): \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Received by (Signature): \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

NOTES: Bill Tom Long  
ENTERPRISE  
AFF# A15135  
2 YHR QUSH

Matrix Container: \_\_\_\_\_  
 WW - Wastewater VOA - 40 ml vial  
 W - Water A/G - Amber / Or Glass 1 Liter  
 S - Soil SD - Solid 250 ml - Glass wide mouth  
 L - Liquid A - Air Bag  
 C - Charcoal tube P/O - Plastic or other  
 SL - sludge O - Oil



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

August 27, 2015

Kyle Summers  
APEX TITAN  
606 S. Rio Grande Unit A  
Aztec, NM 87410  
TEL: (903) 821-5603  
FAX

RE: Lateral K-7 (2013)

OrderNo.: 1508B92

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 2 sample(s) on 8/25/2015 for the analyses presented in the following report.

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

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a white background.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Analytical Report**

Lab Order **1508B92**

Date Reported: **8/27/2015**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** SP-1

**Project:** Lateral K-7 (2013)

**Collection Date:** 8/24/2015 12:00:00 PM

**Lab ID:** 1508B92-001

**Matrix:** MEOH (SOIL)

**Received Date:** 8/25/2015 7:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/25/2015 3:03:57 PM	20954
Surr: DNOP	83.9	57.9-140		%REC	1	8/25/2015 3:03:57 PM	20954
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	8/26/2015 12:40:19 AM	20936
Surr: BFB	90.6	75.4-113		%REC	1	8/26/2015 12:40:19 AM	20936
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.040		mg/Kg	1	8/26/2015 12:40:19 AM	20936
Toluene	ND	0.040		mg/Kg	1	8/26/2015 12:40:19 AM	20936
Ethylbenzene	ND	0.040		mg/Kg	1	8/26/2015 12:40:19 AM	20936
Xylenes, Total	ND	0.080		mg/Kg	1	8/26/2015 12:40:19 AM	20936
Surr: 4-Bromofluorobenzene	99.7	80-120		%REC	1	8/26/2015 12:40:19 AM	20936

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

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	Page 1 of 5
	D Sample Diluted Due to Matrix	E Value above quantitation range	
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits	
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range	
	R RPD outside accepted recovery limits	RL Reporting Detection Limit	
	S % Recovery outside of range due to dilution or matrix		

**Analytical Report**

Lab Order **1508B92**

Date Reported: **8/27/2015**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** SP-2

**Project:** Lateral K-7 (2013)

**Collection Date:** 8/24/2015 12:05:00 PM

**Lab ID:** 1508B92-002

**Matrix:** MEOH (SOIL)

**Received Date:** 8/25/2015 7:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	8/25/2015 3:25:34 PM	20954
Surr: DNOP	78.3	57.9-140		%REC	1	8/25/2015 3:25:34 PM	20954
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/26/2015 2:19:30 AM	20936
Surr: BFB	84.1	75.4-113		%REC	1	8/26/2015 2:19:30 AM	20936
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.049		mg/Kg	1	8/26/2015 2:19:30 AM	20936
Toluene	ND	0.049		mg/Kg	1	8/26/2015 2:19:30 AM	20936
Ethylbenzene	ND	0.049		mg/Kg	1	8/26/2015 2:19:30 AM	20936
Xylenes, Total	ND	0.097		mg/Kg	1	8/26/2015 2:19:30 AM	20936
Surr: 4-Bromofluorobenzene	97.5	80-120		%REC	1	8/26/2015 2:19:30 AM	20936

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B92

27-Aug-15

**Client:** APEX TITAN  
**Project:** Lateral K-7 (2013)

Sample ID <b>MB-20954</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>PBS</b>	Batch ID: <b>20954</b>		RunNo: <b>28430</b>							
Prep Date: <b>8/25/2015</b>	Analysis Date: <b>8/25/2015</b>		SeqNo: <b>859048</b>	Units: <b>mg/Kg</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	8.2		10.00		82.2	57.9	140			

Sample ID <b>LCS-20954</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>20954</b>		RunNo: <b>28430</b>							
Prep Date: <b>8/25/2015</b>	Analysis Date: <b>8/25/2015</b>		SeqNo: <b>859049</b>	Units: <b>mg/Kg</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	96.9	57.4	139			
Surr: DNOP	4.0		5.000		80.3	57.9	140			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B92

27-Aug-15

**Client:** APEX TITAN  
**Project:** Lateral K-7 (2013)

Sample ID <b>MB-20936</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>20936</b>		RunNo: <b>28433</b>							
Prep Date: <b>8/24/2015</b>	Analysis Date: <b>8/25/2015</b>		SeqNo: <b>859747</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	820		1000		81.7	75.4	113			

Sample ID <b>LCS-20936</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>20936</b>		RunNo: <b>28433</b>							
Prep Date: <b>8/24/2015</b>	Analysis Date: <b>8/25/2015</b>		SeqNo: <b>859748</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	89.6	79.6	122			
Surr: BFB	890		1000		89.3	75.4	113			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B92

27-Aug-15

**Client:** APEX TITAN  
**Project:** Lateral K-7 (2013)

Sample ID	<b>MB-20936</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>20936</b>	RunNo:	<b>28433</b>					
Prep Date:	<b>8/24/2015</b>	Analysis Date:	<b>8/25/2015</b>	SeqNo:	<b>859783</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.97		1.000		97.0	80	120			

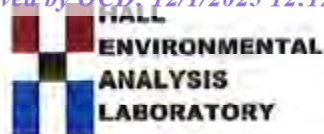
Sample ID	<b>LCS-20936</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>20936</b>	RunNo:	<b>28433</b>					
Prep Date:	<b>8/24/2015</b>	Analysis Date:	<b>8/25/2015</b>	SeqNo:	<b>859784</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.050	1.000	0	91.4	76.6	128			
Toluene	0.93	0.050	1.000	0	93.2	75	124			
Ethylbenzene	0.97	0.050	1.000	0	97.1	79.5	126			
Xylenes, Total	2.8	0.10	3.000	0	92.0	78.8	124			
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID	<b>1508B92-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>SP-1</b>	Batch ID:	<b>20936</b>	RunNo:	<b>28433</b>					
Prep Date:		Analysis Date:	<b>8/25/2015</b>	SeqNo:	<b>859786</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.83	0.040	0.8013	0	103	69.6	136			
Toluene	0.85	0.040	0.8013	0	106	76.2	134			
Ethylbenzene	0.86	0.040	0.8013	0.01556	106	75.8	137			
Xylenes, Total	2.5	0.080	2.404	0.01712	105	78.9	133			
Surr: 4-Bromofluorobenzene	0.88		0.8013		110	80	120			

Sample ID	<b>1508B92-001AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>SP-1</b>	Batch ID:	<b>20936</b>	RunNo:	<b>28433</b>					
Prep Date:		Analysis Date:	<b>8/25/2015</b>	SeqNo:	<b>859787</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.78	0.040	0.8013	0	97.5	69.6	136	6.00	20	
Toluene	0.78	0.040	0.8013	0	96.9	76.2	134	8.73	20	
Ethylbenzene	0.81	0.040	0.8013	0.01556	98.5	75.8	137	7.01	20	
Xylenes, Total	2.3	0.080	2.404	0.01712	95.4	78.9	133	9.26	20	
Surr: 4-Bromofluorobenzene	0.82		0.8013		102	80	120	0	0	

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit



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

### Sample Log-In Check List

Client Name: **APEX-AZTEC** Work Order Number: **1508B92** RcpNo.: **1**

Received by/date: *[Signature]* **08/25/15**

Logged By: **Ashley Gallegos** 8/25/2015 7:25:00 AM *[Signature]*

Completed By: **Ashley Gallegos** 8/25/2015 9:16:38 AM *[Signature]*

Reviewed By: **IO** **08/25/15**

#### Chain of Custody

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

#### Log In

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

#### Special Handling (if applicable)

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

Person Notified:		Date:	
By Whom:		Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:			
Client Instructions:			

17. Additional remarks:

#### 18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.6	Good	Yes			





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

September 08, 2015

Kyle Summers  
APEX TITAN  
606 S. Rio Grande Unit A  
Aztec, NM 87410  
TEL: (903) 821-5603  
FAX

RE: K-7 (2013)

OrderNo.: 1509140

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 1 sample(s) on 9/3/2015 for the analyses presented in the following report.

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

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written in a cursive style.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Analytical Report**

Lab Order **1509140**

Date Reported: **9/8/2015**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** CS-14

**Project:** K-7 (2013)

**Collection Date:** 9/2/2015 10:30:00 AM

**Lab ID:** 1509140-001

**Matrix:** SOIL

**Received Date:** 9/3/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/4/2015 6:52:16 PM	21127
Surr: BFB	106	70-130		%REC	1	9/4/2015 6:52:16 PM	21127
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/4/2015 2:37:42 PM	21123
Surr: DNOP	98.7	57.9-140		%REC	1	9/4/2015 2:37:42 PM	21123
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.050		mg/Kg	1	9/4/2015 6:52:16 PM	21127
Toluene	ND	0.050		mg/Kg	1	9/4/2015 6:52:16 PM	21127
Ethylbenzene	ND	0.050		mg/Kg	1	9/4/2015 6:52:16 PM	21127
Xylenes, Total	ND	0.10		mg/Kg	1	9/4/2015 6:52:16 PM	21127
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	1	9/4/2015 6:52:16 PM	21127
Surr: 4-Bromofluorobenzene	90.7	70-130		%REC	1	9/4/2015 6:52:16 PM	21127
Surr: Dibromofluoromethane	119	70-130		%REC	1	9/4/2015 6:52:16 PM	21127
Surr: Toluene-d8	90.5	70-130		%REC	1	9/4/2015 6:52:16 PM	21127

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

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1509140

08-Sep-15

**Client:** APEX TITAN

**Project:** K-7 (2013)

Sample ID <b>MB-21123</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>PBS</b>	Batch ID: <b>21123</b>		RunNo: <b>28658</b>							
Prep Date: <b>9/3/2015</b>	Analysis Date: <b>9/4/2015</b>		SeqNo: <b>868356</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	10		10.00		99.5	57.9	140			

Sample ID <b>LCS-21123</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>21123</b>		RunNo: <b>28658</b>							
Prep Date: <b>9/3/2015</b>	Analysis Date: <b>9/4/2015</b>		SeqNo: <b>868359</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	10	50.00	0	104	57.4	139			
Surr: DNOP	5.1		5.000		102	57.9	140			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1509140

08-Sep-15

**Client:** APEX TITAN

**Project:** K-7 (2013)

Sample ID	<b>mb-21127</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8260B: Volatiles Short List</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>21127</b>	RunNo:	<b>28679</b>					
Prep Date:	<b>9/3/2015</b>	Analysis Date:	<b>9/4/2015</b>	SeqNo:	<b>868766</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.51		0.5000		102	70	130			
Surr: 4-Bromofluorobenzene	0.47		0.5000		93.9	70	130			
Surr: Dibromofluoromethane	0.60		0.5000		121	70	130			
Surr: Toluene-d8	0.49		0.5000		98.3	70	130			

Sample ID	<b>ics-21127</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8260B: Volatiles Short List</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>21127</b>	RunNo:	<b>28679</b>					
Prep Date:	<b>9/3/2015</b>	Analysis Date:	<b>9/4/2015</b>	SeqNo:	<b>868768</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	111	70	130			
Toluene	0.98	0.050	1.000	0	98.4	70	130			
Ethylbenzene	1.0	0.050	1.000	0	100	70	130			
Xylenes, Total	3.0	0.10	3.000	0	99.6	70	130			
Surr: 1,2-Dichloroethane-d4	0.52		0.5000		103	70	130			
Surr: 4-Bromofluorobenzene	0.44		0.5000		88.8	70	130			
Surr: Dibromofluoromethane	0.60		0.5000		119	70	130			
Surr: Toluene-d8	0.48		0.5000		95.7	70	130			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1509140

08-Sep-15

**Client:** APEX TITAN

**Project:** K-7 (2013)

Sample ID	<b>mb-21127</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015D Mod: Gasoline Range</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>21127</b>	RunNo:	<b>28679</b>					
Prep Date:	<b>9/3/2015</b>	Analysis Date:	<b>9/4/2015</b>	SeqNo:	<b>869145</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	570		500.0		115	70	130			

Sample ID	<b>ics-21127</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015D Mod: Gasoline Range</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>21127</b>	RunNo:	<b>28679</b>					
Prep Date:	<b>9/3/2015</b>	Analysis Date:	<b>9/4/2015</b>	SeqNo:	<b>869146</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	18	5.0	25.00	0	71.6	70	123			
Surr: BFB	500		500.0		99.7	70	130			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit



HALL ENVIRONMENTAL ANALYSIS LABORATORY  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: www.hallenvironmental.com

# Sample Log-In Check List

Client Name: APEX AZTEC

Work Order Number: 1509140

RcptNo: 1

Received by/date: LM 09/03/15

Logged By: Anne Thorne 9/3/2015 7:00:00 AM *Anne Thorne*

Completed By: Anne Thorne 9/3/2015 *Anne Thorne*

Reviewed By: *[Signature]* 09/03/15

### Chain of Custody

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

### Log In

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

# of preserved bottles checked for pH: \_\_\_\_\_  
(<2 or >12 unless noted)

Adjusted? \_\_\_\_\_

Checked by: \_\_\_\_\_

### Special Handling (if applicable)

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

Person Notified: \_\_\_\_\_ Date: \_\_\_\_\_

By Whom: \_\_\_\_\_ Via:  eMail  Phone  Fax  In Person

Regarding: \_\_\_\_\_


Client Instructions: \_\_\_\_\_

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.3	Good	Yes			

CHAIN OF CUSTODY RECORD

 <p><b>APEX</b> Office Location <u>Aztec, NM</u></p>		<p>Laboratory: <u>Hall Environmental</u> Address: <u>Albuquerque, NM</u> Contact: <u>Andy Freeman</u> Phone: _____ PO/SO #: _____</p>		<p>ANALYSIS REQUESTED <u>8021 BTEX 8015 TPT (60/00)</u></p>		<p>Lab use only Due Date: _____ Temp. of coolers when received (C°): <u>3, 3-10, 3</u> 1 2 3 4 5 Page <u>1</u> of <u>1</u></p>							
<p>Project Manager <u>R. Summers</u> Sampler's Name <u>Rune Deedchilly</u></p>		<p>Sampler's Signature <u>Rune Deedchilly</u></p>		<p>Lab Sample ID (Lab Use Only) <u>1509140-001</u></p>									
<p>Proj. No. _____ Project Name <u>K-7 (2013)</u></p>		<p>Identifying Marks of Sample(s) <u>CS-14</u></p>		<p>NOES</p>									
Matrix	Date	Time	Com	Gr	Depth	End	Depth	VOA	A/G	1 L	250 ml	Glass Jar	P/O
S	9/21/15	1030										1	

Turn around time	<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> 25% Rush	<input type="checkbox"/> 50% Rush	<input type="checkbox"/> 100% Rush	NOTES:
Relinquished by (Signature)	<u>Rune Deedchilly</u>	Date: <u>9/21/15</u>	Time: <u>1307</u>	Received by (Signature)	<u>Matthew Wheeler</u>
Relinquished by (Signature)	<u>Matthew Wheeler</u>	Date: <u>9/21/15</u>	Time: <u>1804</u>	Received by (Signature)	<u>Matthew Wheeler</u>
Relinquished by (Signature)		Date: _____	Time: _____	Received by (Signature)	
Relinquished by (Signature)		Date: _____	Time: _____	Received by (Signature)	

Bill to Tumlong (Enterprise)  
AFE # A15135

Matrix Container: WW - Wastewater / VOA - 40 ml vial / W - Water / A/G - Amber / Or Glass 1 Liter / S - Soil / SD - Solid / L - Liquid / 250 ml - Glass wide mouth / A - Air Bag / P/O - Plastic or other / C - Charcoal tube / SL - sludge / O - Oil



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

September 02, 2015

Kyle Summers  
APEX TITAN  
606 S. Rio Grande Unit A  
Aztec, NM 87410  
TEL: (903) 821-5603  
FAX

RE: K-7 (2013)

OrderNo.: 1509001

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 6 sample(s) on 9/1/2015 for the analyses presented in the following report.

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

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written in a cursive style.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Analytical Report**

Lab Order **1509001**

Date Reported: **9/2/2015**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** CS-8

**Project:** K-7 (2013)

**Collection Date:** 8/31/2015 2:00:00 PM

**Lab ID:** 1509001-001

**Matrix:** MEOH (SOIL)

**Received Date:** 9/1/2015 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	9/1/2015 11:07:35 AM	B28591
Surr: BFB	103	70-130		%REC	1	9/1/2015 11:07:35 AM	B28591
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/1/2015 10:31:35 AM	21079
Surr: DNOP	106	57.9-140		%REC	1	9/1/2015 10:31:35 AM	21079
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.035		mg/Kg	1	9/1/2015 11:07:35 AM	A28591
Toluene	ND	0.035		mg/Kg	1	9/1/2015 11:07:35 AM	A28591
Ethylbenzene	ND	0.035		mg/Kg	1	9/1/2015 11:07:35 AM	A28591
Xylenes, Total	ND	0.070		mg/Kg	1	9/1/2015 11:07:35 AM	A28591
Surr: 1,2-Dichloroethane-d4	97.1	70-130		%REC	1	9/1/2015 11:07:35 AM	A28591
Surr: 4-Bromofluorobenzene	99.1	70-130		%REC	1	9/1/2015 11:07:35 AM	A28591
Surr: Dibromofluoromethane	108	70-130		%REC	1	9/1/2015 11:07:35 AM	A28591
Surr: Toluene-d8	97.3	70-130		%REC	1	9/1/2015 11:07:35 AM	A28591

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

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **1509001**

Date Reported: **9/2/2015**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** CS-9

**Project:** K-7 (2013)

**Collection Date:** 8/31/2015 2:05:00 PM

**Lab ID:** 1509001-002

**Matrix:** MEOH (SOIL)

**Received Date:** 9/1/2015 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	94	4.1		mg/Kg	1	9/1/2015 11:35:05 AM	B28591
Surr: BFB	147	70-130	S	%REC	1	9/1/2015 11:35:05 AM	B28591
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	54	9.8		mg/Kg	1	9/1/2015 10:59:08 AM	21079
Surr: DNOP	92.6	57.9-140		%REC	1	9/1/2015 10:59:08 AM	21079
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.041		mg/Kg	1	9/1/2015 11:35:05 AM	A28591
Toluene	0.12	0.041		mg/Kg	1	9/1/2015 11:35:05 AM	A28591
Ethylbenzene	0.10	0.041		mg/Kg	1	9/1/2015 11:35:05 AM	A28591
Xylenes, Total	2.1	0.082		mg/Kg	1	9/1/2015 11:35:05 AM	A28591
Surr: 1,2-Dichloroethane-d4	108	70-130		%REC	1	9/1/2015 11:35:05 AM	A28591
Surr: 4-Bromofluorobenzene	82.0	70-130		%REC	1	9/1/2015 11:35:05 AM	A28591
Surr: Dibromofluoromethane	120	70-130		%REC	1	9/1/2015 11:35:05 AM	A28591
Surr: Toluene-d8	105	70-130		%REC	1	9/1/2015 11:35:05 AM	A28591

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

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **1509001**

Date Reported: **9/2/2015**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** CS-10

**Project:** K-7 (2013)

**Collection Date:** 8/31/2015 2:10:00 PM

**Lab ID:** 1509001-003

**Matrix:** MEOH (SOIL)

**Received Date:** 9/1/2015 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	4.5	4.3		mg/Kg	1	9/1/2015 12:02:40 PM	B28591
Surr: BFB	103	70-130		%REC	1	9/1/2015 12:02:40 PM	B28591
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	9/1/2015 10:36:02 AM	21079
Surr: DNOP	99.7	57.9-140		%REC	1	9/1/2015 10:36:02 AM	21079
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.043		mg/Kg	1	9/1/2015 12:02:40 PM	A28591
Toluene	ND	0.043		mg/Kg	1	9/1/2015 12:02:40 PM	A28591
Ethylbenzene	ND	0.043		mg/Kg	1	9/1/2015 12:02:40 PM	A28591
Xylenes, Total	ND	0.085		mg/Kg	1	9/1/2015 12:02:40 PM	A28591
Surr: 1,2-Dichloroethane-d4	98.6	70-130		%REC	1	9/1/2015 12:02:40 PM	A28591
Surr: 4-Bromofluorobenzene	91.5	70-130		%REC	1	9/1/2015 12:02:40 PM	A28591
Surr: Dibromofluoromethane	119	70-130		%REC	1	9/1/2015 12:02:40 PM	A28591
Surr: Toluene-d8	93.3	70-130		%REC	1	9/1/2015 12:02:40 PM	A28591

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

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **1509001**

Date Reported: **9/2/2015**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** CS-11

**Project:** K-7 (2013)

**Collection Date:** 8/31/2015 2:15:00 PM

**Lab ID:** 1509001-004

**Matrix:** MEOH (SOIL)

**Received Date:** 9/1/2015 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	6.8	3.8		mg/Kg	1	9/1/2015 12:30:11 PM	B28591
Surr: BFB	109	70-130		%REC	1	9/1/2015 12:30:11 PM	B28591
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/1/2015 10:57:29 AM	21079
Surr: DNOP	93.5	57.9-140		%REC	1	9/1/2015 10:57:29 AM	21079
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.038		mg/Kg	1	9/1/2015 12:30:11 PM	A28591
Toluene	ND	0.038		mg/Kg	1	9/1/2015 12:30:11 PM	A28591
Ethylbenzene	ND	0.038		mg/Kg	1	9/1/2015 12:30:11 PM	A28591
Xylenes, Total	0.26	0.077		mg/Kg	1	9/1/2015 12:30:11 PM	A28591
Surr: 1,2-Dichloroethane-d4	103	70-130		%REC	1	9/1/2015 12:30:11 PM	A28591
Surr: 4-Bromofluorobenzene	92.1	70-130		%REC	1	9/1/2015 12:30:11 PM	A28591
Surr: Dibromofluoromethane	122	70-130		%REC	1	9/1/2015 12:30:11 PM	A28591
Surr: Toluene-d8	96.9	70-130		%REC	1	9/1/2015 12:30:11 PM	A28591

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

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **1509001**

Date Reported: 9/2/2015

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** CS-12

**Project:** K-7 (2013)

**Collection Date:** 8/31/2015 2:20:00 PM

**Lab ID:** 1509001-005

**Matrix:** MEOH (SOIL)

**Received Date:** 9/1/2015 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	9/1/2015 12:57:52 PM	B28591
Surr: BFB	106	70-130		%REC	1	9/1/2015 12:57:52 PM	B28591
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/1/2015 11:18:58 AM	21079
Surr: DNOP	99.5	57.9-140		%REC	1	9/1/2015 11:18:58 AM	21079
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.046		mg/Kg	1	9/1/2015 12:57:52 PM	A28591
Toluene	ND	0.046		mg/Kg	1	9/1/2015 12:57:52 PM	A28591
Ethylbenzene	ND	0.046		mg/Kg	1	9/1/2015 12:57:52 PM	A28591
Xylenes, Total	ND	0.092		mg/Kg	1	9/1/2015 12:57:52 PM	A28591
Surr: 1,2-Dichloroethane-d4	101	70-130		%REC	1	9/1/2015 12:57:52 PM	A28591
Surr: 4-Bromofluorobenzene	101	70-130		%REC	1	9/1/2015 12:57:52 PM	A28591
Surr: Dibromofluoromethane	124	70-130		%REC	1	9/1/2015 12:57:52 PM	A28591
Surr: Toluene-d8	94.7	70-130		%REC	1	9/1/2015 12:57:52 PM	A28591

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

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **1509001**

Date Reported: **9/2/2015**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** CS-13

**Project:** K-7 (2013)

**Collection Date:** 8/31/2015 2:25:00 PM

**Lab ID:** 1509001-006

**Matrix:** MEOH (SOIL)

**Received Date:** 9/1/2015 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	9/1/2015 1:25:26 PM	B28591
Surr: BFB	109	70-130		%REC	1	9/1/2015 1:25:26 PM	B28591
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	9/1/2015 11:40:23 AM	21079
Surr: DNOP	91.3	57.9-140		%REC	1	9/1/2015 11:40:23 AM	21079
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.041		mg/Kg	1	9/1/2015 1:25:26 PM	A28591
Toluene	ND	0.041		mg/Kg	1	9/1/2015 1:25:26 PM	A28591
Ethylbenzene	ND	0.041		mg/Kg	1	9/1/2015 1:25:26 PM	A28591
Xylenes, Total	0.22	0.082		mg/Kg	1	9/1/2015 1:25:26 PM	A28591
Surr: 1,2-Dichloroethane-d4	100	70-130		%REC	1	9/1/2015 1:25:26 PM	A28591
Surr: 4-Bromofluorobenzene	96.1	70-130		%REC	1	9/1/2015 1:25:26 PM	A28591
Surr: Dibromofluoromethane	120	70-130		%REC	1	9/1/2015 1:25:26 PM	A28591
Surr: Toluene-d8	94.5	70-130		%REC	1	9/1/2015 1:25:26 PM	A28591

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

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1509001

02-Sep-15

**Client:** APEX TITAN  
**Project:** K-7 (2013)

Sample ID <b>MB-21079</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>PBS</b>	Batch ID: <b>21079</b>		RunNo: <b>28580</b>							
Prep Date: <b>9/1/2015</b>	Analysis Date: <b>9/1/2015</b>		SeqNo: <b>864594</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.5		10.00		95.1	57.9	140			

Sample ID <b>MB-21044</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>PBS</b>	Batch ID: <b>21044</b>		RunNo: <b>28580</b>							
Prep Date: <b>8/31/2015</b>	Analysis Date: <b>9/1/2015</b>		SeqNo: <b>864619</b>		Units: <b>%REC</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.6		10.00		95.8	57.9	140			

Sample ID <b>LCS-21079</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>21079</b>		RunNo: <b>28580</b>							
Prep Date: <b>9/1/2015</b>	Analysis Date: <b>9/1/2015</b>		SeqNo: <b>864620</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.00	0	83.6	57.4	139			
Surr: DNOP	4.7		5.000		94.2	57.9	140			

Sample ID <b>LCS-21044</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>21044</b>		RunNo: <b>28580</b>							
Prep Date: <b>8/31/2015</b>	Analysis Date: <b>9/1/2015</b>		SeqNo: <b>864624</b>		Units: <b>%REC</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.9		5.000		97.7	57.9	140			

Sample ID <b>1509001-001AMS</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>CS-8</b>	Batch ID: <b>21079</b>		RunNo: <b>28583</b>							
Prep Date: <b>9/1/2015</b>	Analysis Date: <b>9/1/2015</b>		SeqNo: <b>864871</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	9.9	49.55	0	103	42.3	146			
Surr: DNOP	4.6		4.955		93.7	57.9	140			

Sample ID <b>1509001-001AMSD</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>CS-8</b>	Batch ID: <b>21079</b>		RunNo: <b>28583</b>							
Prep Date: <b>9/1/2015</b>	Analysis Date: <b>9/1/2015</b>		SeqNo: <b>864872</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	9.8	49.07	0	101	42.3	146	3.31	28.9	
Surr: DNOP	4.8		4.907		98.1	57.9	140	0	0	

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1509001

02-Sep-15

**Client:** APEX TITAN

**Project:** K-7 (2013)

Sample ID	<b>MB-21010</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>21010</b>	RunNo:	<b>28580</b>					
Prep Date:	<b>8/27/2015</b>	Analysis Date:	<b>9/1/2015</b>	SeqNo:	<b>865408</b>	Units:	<b>%REC</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.1		10.00		91.5	57.9	140			

Sample ID	<b>LCS-21010</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>21010</b>	RunNo:	<b>28580</b>					
Prep Date:	<b>8/27/2015</b>	Analysis Date:	<b>9/1/2015</b>	SeqNo:	<b>865620</b>	Units:	<b>%REC</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.3		5.000		85.2	57.9	140			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1509001

02-Sep-15

**Client:** APEX TITAN

**Project:** K-7 (2013)

Sample ID <b>rb</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8260B: Volatiles Short List</b>							
Client ID: <b>PBS</b>	Batch ID: <b>A28591</b>		RunNo: <b>28591</b>							
Prep Date:	Analysis Date: <b>9/1/2015</b>		SeqNo: <b>865414</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.49		0.5000		97.3	70	130			
Surr: 4-Bromofluorobenzene	0.55		0.5000		109	70	130			
Surr: Dibromofluoromethane	0.55		0.5000		110	70	130			
Surr: Toluene-d8	0.50		0.5000		99.7	70	130			

Sample ID <b>100ng lcs</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8260B: Volatiles Short List</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>A28591</b>		RunNo: <b>28591</b>							
Prep Date:	Analysis Date: <b>9/1/2015</b>		SeqNo: <b>865416</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	105	70	130			
Toluene	1.1	0.050	1.000	0	105	70	130			
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		91.5	70	130			
Surr: 4-Bromofluorobenzene	0.53		0.5000		106	70	130			
Surr: Dibromofluoromethane	0.55		0.5000		109	70	130			
Surr: Toluene-d8	0.49		0.5000		98.1	70	130			

Sample ID <b>1509001-002ams</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8260B: Volatiles Short List</b>							
Client ID: <b>CS-9</b>	Batch ID: <b>A28591</b>		RunNo: <b>28591</b>							
Prep Date:	Analysis Date: <b>9/1/2015</b>		SeqNo: <b>865417</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.84	0.041	0.8197	0	102	70	130			
Toluene	0.86	0.041	0.8197	0.1234	90.0	65	138			
Surr: 1,2-Dichloroethane-d4	0.45		0.4098		110	70	130			
Surr: 4-Bromofluorobenzene	0.27		0.4098		66.6	70	130			S
Surr: Dibromofluoromethane	0.49		0.4098		120	70	130			
Surr: Toluene-d8	0.39		0.4098		94.0	70	130			

Sample ID <b>1509001-002amsd</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8260B: Volatiles Short List</b>							
Client ID: <b>CS-9</b>	Batch ID: <b>A28591</b>		RunNo: <b>28591</b>							
Prep Date:	Analysis Date: <b>9/1/2015</b>		SeqNo: <b>865418</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.81	0.041	0.8197	0	98.4	70	130	3.60	20	
Toluene	0.90	0.041	0.8197	0.1234	94.4	65	138	4.11	20	

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1509001

02-Sep-15

**Client:** APEX TITAN

**Project:** K-7 (2013)

Sample ID	1509001-002amsd	SampType:	MSD	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	CS-9	Batch ID:	A28591	RunNo:	28591					
Prep Date:		Analysis Date:	9/1/2015	SeqNo:	865418	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.46		0.4098		112	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.31		0.4098		75.0	70	130	0	0	
Surr: Dibromofluoromethane	0.51		0.4098		125	70	130	0	0	
Surr: Toluene-d8	0.39		0.4098		95.7	70	130	0	0	

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1509001

02-Sep-15

**Client:** APEX TITAN  
**Project:** K-7 (2013)

Sample ID <b>rb</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>B28591</b>		RunNo: <b>28591</b>							
Prep Date:	Analysis Date: <b>9/1/2015</b>		SeqNo: <b>865419</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	510		500.0		102	70	130			

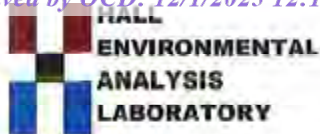
Sample ID <b>2.5ug gro lcs</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>B28591</b>		RunNo: <b>28591</b>							
Prep Date:	Analysis Date: <b>9/1/2015</b>		SeqNo: <b>865426</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	19	5.0	25.00	0	76.2	70	123			
Surr: BFB	520		500.0		103	70	130			

Sample ID <b>1509001-001ams</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>							
Client ID: <b>CS-8</b>	Batch ID: <b>B28591</b>		RunNo: <b>28591</b>							
Prep Date:	Analysis Date: <b>9/1/2015</b>		SeqNo: <b>865442</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	13	3.5	17.42	0	73.4	54.9	131			
Surr: BFB	360		348.4		105	70	130			

Sample ID <b>1509001-001amsd</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>							
Client ID: <b>CS-8</b>	Batch ID: <b>B28591</b>		RunNo: <b>28591</b>							
Prep Date:	Analysis Date: <b>9/1/2015</b>		SeqNo: <b>865444</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	15	3.5	17.42	0	84.5	54.9	131	14.0	20	
Surr: BFB	360		348.4		105	70	130	0	0	

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit



Hail Environmental Analysis Laboratory  
 4901 Hawkins NE  
 Albuquerque, NM 87109  
 TEL: 505-343-3975 FAX: 505-343-4107  
 Website: www.hailenvironmental.com

# Sample Log-In Check List

Client Name: APEX AZTEC

Work Order Number: 1509001

RcptNo: 1

Received by/date: LM 09/01/15

Logged By: Celina Sessa 9/1/2015 8:05:00 AM

*Celina Sessa*

Completed By: Celina Sessa 9/1/2015 8:44:01 AM

*Celina Sessa*

Reviewed By: AG 09/01/15

### Chain of Custody

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

### Log In

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

# of preserved bottles checked for pH: \_\_\_\_\_  
 (< or >12 unless noted)  
 Adjusted? \_\_\_\_\_  
 Checked by: \_\_\_\_\_

### Special Handling (if applicable)

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

Person Notified: \_\_\_\_\_ Date: \_\_\_\_\_  
 By Whom: \_\_\_\_\_ Via:  eMail  Phone  Fax  In Person  
 Regarding: \_\_\_\_\_  
 Client Instructions: \_\_\_\_\_

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	25	Good	Yes			

CHAIN OF CUSTODY RECORD

Lab use only  
Due Date:

Temp. of coolers when received (C°): 21.6

1	2	3	4	5
---	---	---	---	---

Page 1 of 1

ANALYSIS REQUESTED

BTEX 8021  
X TPH GRD/DRO 8015

Laboratory: Hall  
Address: ABQ  
Contact: Freeman  
Phone: \_\_\_\_\_  
PO/ISO #: \_\_\_\_\_

Project Manager Summers  
Sampler's Name Rance Deechilly  
Project Name 2013  
No/Type of Containers \_\_\_\_\_

Matrix	Date	Time	Co p	G r a b	Identifying Marks of Sample(s)	Start	Depth	End	Depth	VOA	A/G	250	250	300	Glass Jar	P/O	Lab Sample ID (Lab Use Only)
S	8/31/15	1400			CS-8												1509001-001
		1405			CS-9												-002
		1410			CS-10												-003
		1415			CS-11												-004
		1420			CS-12												-005
		1425			CS-13												-006

Turn around time  Normal  25% Rush  50% Rush  100% Rush Same Day

Relinquished by (Signature) Rance Deechilly Date: 8/31/15 Time: 1720  
Received by (Signature) Matthew Walz Date: 8/31/15 Time: 1720

Relinquished by (Signature) Matthew Walz Date: 8/31/15 Time: 1845  
Received by (Signature) \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Relinquished by (Signature) \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
Received by (Signature) \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

NOTES: Bill Tom Long  
ENTER PRICE  
AFE#A15135  
24 HR RUN H

Matrix Container: VOA - 40 ml vial  
W - Water  
A/G - Amber / Or Glass 1 Liter  
S - Soil  
SD - Solid  
L - Liquid  
250 ml - Glass wide mouth  
A - Air Bag  
C - Charcoal tube  
P/O - Plastic or other  
O - Oil



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

September 01, 2015

Kyle Summers  
APEX TITAN  
606 S. Rio Grande Unit A  
Aztec, NM 87410  
TEL: (903) 821-5603  
FAX

RE: K-7 (2013)

OrderNo.: 1508E30

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 3 sample(s) on 8/29/2015 for the analyses presented in the following report.

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

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

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

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Analytical Report**

Lab Order **1508E30**

Date Reported: **9/1/2015**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** CS-5

**Project:** K-7 (2013)

**Collection Date:** 8/28/2015 1:30:00 PM

**Lab ID:** 1508E30-001

**Matrix:** MEOH (SOIL)

**Received Date:** 8/29/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	8/31/2015 10:53:15 AM	21037
Surr: BFB	107	70-130		%REC	1	8/31/2015 10:53:15 AM	21037
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	8/31/2015 10:05:05 AM	21043
Surr: DNOP	93.2	57.9-140		%REC	1	8/31/2015 10:05:05 AM	21043
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.044		mg/Kg	1	8/31/2015 10:53:15 AM	21037
Toluene	0.060	0.044		mg/Kg	1	8/31/2015 10:53:15 AM	21037
Ethylbenzene	ND	0.044		mg/Kg	1	8/31/2015 10:53:15 AM	21037
Xylenes, Total	0.28	0.089		mg/Kg	1	8/31/2015 10:53:15 AM	21037
Surr: 1,2-Dichloroethane-d4	98.9	70-130		%REC	1	8/31/2015 10:53:15 AM	21037
Surr: 4-Bromofluorobenzene	94.6	70-130		%REC	1	8/31/2015 10:53:15 AM	21037
Surr: Dibromofluoromethane	120	70-130		%REC	1	8/31/2015 10:53:15 AM	21037
Surr: Toluene-d8	94.1	70-130		%REC	1	8/31/2015 10:53:15 AM	21037

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

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	Page 1 of 6
	D Sample Diluted Due to Matrix	E Value above quantitation range	
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits	
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range	
	R RPD outside accepted recovery limits	RL Reporting Detection Limit	
	S % Recovery outside of range due to dilution or matrix		

**Analytical Report**

Lab Order **1508E30**

Date Reported: 9/1/2015

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** CS-6

**Project:** K-7 (2013)

**Collection Date:** 8/28/2015 1:45:00 PM

**Lab ID:** 1508E30-002

**Matrix:** MEOH (SOIL)

**Received Date:** 8/29/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	8/31/2015 11:20:44 AM	21037
Surr: BFB	104	70-130		%REC	1	8/31/2015 11:20:44 AM	21037
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/31/2015 10:32:21 AM	21043
Surr: DNOP	93.5	57.9-140		%REC	1	8/31/2015 10:32:21 AM	21043
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.041		mg/Kg	1	8/31/2015 11:20:44 AM	21037
Toluene	ND	0.041		mg/Kg	1	8/31/2015 11:20:44 AM	21037
Ethylbenzene	ND	0.041		mg/Kg	1	8/31/2015 11:20:44 AM	21037
Xylenes, Total	0.11	0.081		mg/Kg	1	8/31/2015 11:20:44 AM	21037
Surr: 1,2-Dichloroethane-d4	101	70-130		%REC	1	8/31/2015 11:20:44 AM	21037
Surr: 4-Bromofluorobenzene	96.1	70-130		%REC	1	8/31/2015 11:20:44 AM	21037
Surr: Dibromofluoromethane	123	70-130		%REC	1	8/31/2015 11:20:44 AM	21037
Surr: Toluene-d8	92.4	70-130		%REC	1	8/31/2015 11:20:44 AM	21037

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

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **1508E30**

Date Reported: **9/1/2015**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** CS-7

**Project:** K-7 (2013)

**Collection Date:** 8/28/2015 2:00:00 PM

**Lab ID:** 1508E30-003

**Matrix:** MEOH (SOIL)

**Received Date:** 8/29/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	8/31/2015 11:48:17 AM	21037
Surr: BFB	106	70-130		%REC	1	8/31/2015 11:48:17 AM	21037
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/31/2015 10:59:44 AM	21043
Surr: DNOP	99.2	57.9-140		%REC	1	8/31/2015 10:59:44 AM	21043
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.044		mg/Kg	1	8/31/2015 11:48:17 AM	21037
Toluene	ND	0.044		mg/Kg	1	8/31/2015 11:48:17 AM	21037
Ethylbenzene	ND	0.044		mg/Kg	1	8/31/2015 11:48:17 AM	21037
Xylenes, Total	0.12	0.088		mg/Kg	1	8/31/2015 11:48:17 AM	21037
Surr: 1,2-Dichloroethane-d4	103	70-130		%REC	1	8/31/2015 11:48:17 AM	21037
Surr: 4-Bromofluorobenzene	93.2	70-130		%REC	1	8/31/2015 11:48:17 AM	21037
Surr: Dibromofluoromethane	120	70-130		%REC	1	8/31/2015 11:48:17 AM	21037
Surr: Toluene-d8	91.0	70-130		%REC	1	8/31/2015 11:48:17 AM	21037

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1508E30

01-Sep-15

**Client:** APEX TITAN

**Project:** K-7 (2013)

Sample ID <b>MB-21043</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>PBS</b>	Batch ID: <b>21043</b>		RunNo: <b>28546</b>							
Prep Date: <b>8/31/2015</b>	Analysis Date: <b>8/31/2015</b>		SeqNo: <b>863645</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.8		10.00		97.5	57.9	140			

Sample ID <b>LCS-21043</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>21043</b>		RunNo: <b>28546</b>							
Prep Date: <b>8/31/2015</b>	Analysis Date: <b>8/31/2015</b>		SeqNo: <b>863646</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	41	10	50.00	0	81.1	57.4	139			
Surr: DNOP	4.3		5.000		86.7	57.9	140			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1508E30

01-Sep-15

**Client:** APEX TITAN

**Project:** K-7 (2013)

Sample ID	<b>mb-21037</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8260B: Volatiles Short List</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>21037</b>	RunNo:	<b>28555</b>					
Prep Date:	<b>8/28/2015</b>	Analysis Date:	<b>8/31/2015</b>	SeqNo:	<b>864180</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.50		0.5000		99.7	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		98.8	70	130			
Surr: Dibromofluoromethane	0.59		0.5000		118	70	130			
Surr: Toluene-d8	0.47		0.5000		93.6	70	130			

Sample ID	<b>ics-21037</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8260B: Volatiles Short List</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>21037</b>	RunNo:	<b>28555</b>					
Prep Date:	<b>8/28/2015</b>	Analysis Date:	<b>8/31/2015</b>	SeqNo:	<b>864181</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.050	1.000	0	98.1	70	130			
Toluene	0.93	0.050	1.000	0	92.8	70	130			
Ethylbenzene	0.95	0.050	1.000	0	95.1	70	130			
Xylenes, Total	2.9	0.10	3.000	0	96.0	70	130			
Surr: 1,2-Dichloroethane-d4	0.49		0.5000		98.3	70	130			
Surr: 4-Bromofluorobenzene	0.46		0.5000		91.1	70	130			
Surr: Dibromofluoromethane	0.61		0.5000		122	70	130			
Surr: Toluene-d8	0.46		0.5000		92.9	70	130			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1508E30

01-Sep-15

**Client:** APEX TITAN

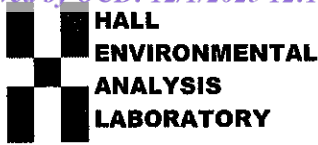
**Project:** K-7 (2013)

Sample ID	<b>mb-21037</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015D Mod: Gasoline Range</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>21037</b>	RunNo:	<b>28555</b>					
Prep Date:	<b>8/28/2015</b>	Analysis Date:	<b>8/31/2015</b>	SeqNo:	<b>864550</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	520		500.0		103	70	130			

Sample ID	<b>ics-21037</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015D Mod: Gasoline Range</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>21037</b>	RunNo:	<b>28555</b>					
Prep Date:	<b>8/28/2015</b>	Analysis Date:	<b>8/31/2015</b>	SeqNo:	<b>864551</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	97.9	70	123			
Surr: BFB	560		500.0		112	70	130			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit



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

Sample Log-In Check List

Client Name: APEX AZTEC

Work Order Number: 1508E30

RcptNo: 1

Received by/date:

Logged By: Lindsay Mangin

8/29/2015 10:00:00 AM

Completed By: Lindsay Mangin

8/31/2015 6:01:54 AM

Reviewed By:

AS 0813115

Chain of Custody

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

Log In

- 4. Was an attempt made to cool the samples? Yes [x] No [ ] NA [ ]
5. Were all samples received at a temperature of >0° C to 6.0°C Yes [x] No [ ] NA [ ]
6. Sample(s) in proper container(s)? Yes [x] No [ ]
7. Sufficient sample volume for indicated test(s)? Yes [x] No [ ]
8. Are samples (except VOA and ONG) properly preserved? Yes [x] No [ ]
9. Was preservative added to bottles? Yes [ ] No [x] NA [ ]
10. VOA vials have zero headspace? Yes [ ] No [ ] No VOA Vials [x]
11. Were any sample containers received broken? Yes [ ] No [x]
12. Does paperwork match bottle labels? Yes [x] No [ ]
13. Are matrices correctly identified on Chain of Custody? Yes [x] No [ ]
14. Is it clear what analyses were requested? Yes [x] No [ ]
15. Were all holding times able to be met? Yes [x] No [ ]

# of preserved bottles checked for pH: (<2 or >12 unless noted) Adjusted? Checked by:

Special Handling (if applicable)

- 16. Was client notified of all discrepancies with this order? Yes [ ] No [ ] NA [x]

Person Notified: [ ] Date: [ ]
By Whom: [ ] Via: [ ] eMail [ ] Phone [ ] Fax [ ] In Person [ ]
Regarding: [ ]
Client Instructions: [ ]

17. Additional remarks:

18. Cooler Information

Table with 7 columns: Cooler No, Temp °C, Condition, Seal Intact, Seal No, Seal Date, Signed By. Row 1: 1, 1.6, Good, Yes, , ,

CHAIN OF CUSTODY RECORD

**APEX**  
 Office Location: Aztec  
 Laboratory: Hall  
 Address: ABQ  
 Contact: Freeman  
 Phone: \_\_\_\_\_  
 PO/ISO #: \_\_\_\_\_  
 Project Manager: Summers  
 Sampler's Name: Ryle Summers  
 Sampler's Signature: [Signature]

Matrix	Date	Time	Project Name			No/Type of Containers			Lab Sample ID (Lab Use Only)
			C	G	ab	VOA	A/G	250 ml	
S	8/28/13	13:30	X						1508E30-001
↓	↓	13:45							-002
↓	↓	14:00							-003

ANALYSIS REQUESTED: BTEX 8021  
X TPH GRD/PRD 8015  
 Turn around time:  Normal  25% Rush  50% Rush  100% Rush Some Day  
 Relinquished by (Signature): [Signature] Time: 7:10 Date: 8/28/13  
 Relinquished by (Signature): [Signature] Time: 17:5 Date: 8/28/13  
 Relinquished by (Signature): [Signature] Time: 18:37 Date: 8/28/13  
 NOTES: Bill Tom Long  
Enterprice  
AFE # A15135  
100% Rush

Matrix Container: WW - Wastewater VOA - 40 ml vial  
 W - Water A/G - Amber / Or Glass 1 Liter  
 S - Soil SD - Solid  
 L - Liquid 250 ml - Glass wide mouth  
 A - Air Bag  
 C - Charcoal tube  
 SL - sludge  
 O - Oil



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

August 28, 2015

Kyle Summers  
APEX TITAN  
606 S. Rio Grande Unit A  
Aztec, NM 87410  
TEL: (903) 821-5603  
FAX

RE: K-7 (2013)

OrderNo.: 1508D21

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 4 sample(s) on 8/27/2015 for the analyses presented in the following report.

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

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a white background.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Analytical Report**

Lab Order **1508D21**

Date Reported: **8/28/2015**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** CS-1

**Project:** K-7 (2013)

**Collection Date:** 8/26/2015 10:00:00 AM

**Lab ID:** 1508D21-001

**Matrix:** MEOH (SOIL)

**Received Date:** 8/27/2015 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/27/2015 10:24:16 AM	21007
Surr: DNOP	78.6	57.9-140		%REC	1	8/27/2015 10:24:16 AM	21007
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	8/27/2015 10:41:06 AM	20999
Surr: BFB	85.4	75.4-113		%REC	1	8/27/2015 10:41:06 AM	20999
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.040		mg/Kg	1	8/27/2015 10:41:06 AM	20999
Toluene	ND	0.040		mg/Kg	1	8/27/2015 10:41:06 AM	20999
Ethylbenzene	ND	0.040		mg/Kg	1	8/27/2015 10:41:06 AM	20999
Xylenes, Total	ND	0.079		mg/Kg	1	8/27/2015 10:41:06 AM	20999
Surr: 4-Bromofluorobenzene	99.8	80-120		%REC	1	8/27/2015 10:41:06 AM	20999

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

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **1508D21**

Date Reported: **8/28/2015**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** CS-2

**Project:** K-7 (2013)

**Collection Date:** 8/26/2015 10:15:00 AM

**Lab ID:** 1508D21-002

**Matrix:** MEOH (SOIL)

**Received Date:** 8/27/2015 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	8/27/2015 10:45:29 AM	21007
Surr: DNOP	82.6	57.9-140		%REC	1	8/27/2015 10:45:29 AM	21007
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	30	8.2		mg/Kg	2	8/27/2015 11:06:08 AM	20999
Surr: BFB	141	75.4-113	S	%REC	2	8/27/2015 11:06:08 AM	20999
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.082		mg/Kg	2	8/27/2015 11:06:08 AM	20999
Toluene	0.74	0.082		mg/Kg	2	8/27/2015 11:06:08 AM	20999
Ethylbenzene	0.35	0.082		mg/Kg	2	8/27/2015 11:06:08 AM	20999
Xylenes, Total	3.9	0.16		mg/Kg	2	8/27/2015 11:06:08 AM	20999
Surr: 4-Bromofluorobenzene	112	80-120		%REC	2	8/27/2015 11:06:08 AM	20999

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

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **1508D21**

Date Reported: **8/28/2015**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** CS-3

**Project:** K-7 (2013)

**Collection Date:** 8/26/2015 10:30:00 AM

**Lab ID:** 1508D21-003

**Matrix:** MEOH (SOIL)

**Received Date:** 8/27/2015 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/27/2015 10:24:25 AM	21007
Surr: DNOP	98.7	57.9-140		%REC	1	8/27/2015 10:24:25 AM	21007
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	16	4.1		mg/Kg	1	8/27/2015 11:31:03 AM	20999
Surr: BFB	168	75.4-113	S	%REC	1	8/27/2015 11:31:03 AM	20999
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.041		mg/Kg	1	8/27/2015 11:31:03 AM	20999
Toluene	0.16	0.041		mg/Kg	1	8/27/2015 11:31:03 AM	20999
Ethylbenzene	0.096	0.041		mg/Kg	1	8/27/2015 11:31:03 AM	20999
Xylenes, Total	1.0	0.083		mg/Kg	1	8/27/2015 11:31:03 AM	20999
Surr: 4-Bromofluorobenzene	108	80-120		%REC	1	8/27/2015 11:31:03 AM	20999

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

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **1508D21**

Date Reported: **8/28/2015**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** CS-4

**Project:** K-7 (2013)

**Collection Date:** 8/26/2015 11:00:00 AM

**Lab ID:** 1508D21-004

**Matrix:** MEOH (SOIL)

**Received Date:** 8/27/2015 8:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	13	10		mg/Kg	1	8/27/2015 10:50:54 AM	21007
Surr: DNOP	103	57.9-140		%REC	1	8/27/2015 10:50:54 AM	21007
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	39	8.1		mg/Kg	2	8/27/2015 11:55:59 AM	20999
Surr: BFB	193	75.4-113	S	%REC	2	8/27/2015 11:55:59 AM	20999
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.081		mg/Kg	2	8/27/2015 11:55:59 AM	20999
Toluene	0.34	0.081		mg/Kg	2	8/27/2015 11:55:59 AM	20999
Ethylbenzene	0.27	0.081		mg/Kg	2	8/27/2015 11:55:59 AM	20999
Xylenes, Total	3.1	0.16		mg/Kg	2	8/27/2015 11:55:59 AM	20999
Surr: 4-Bromofluorobenzene	110	80-120		%REC	2	8/27/2015 11:55:59 AM	20999

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

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1508D21

28-Aug-15

**Client:** APEX TITAN

**Project:** K-7 (2013)

Sample ID <b>MB-21007</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>PBS</b>	Batch ID: <b>21007</b>		RunNo: <b>28499</b>							
Prep Date: <b>8/27/2015</b>	Analysis Date: <b>8/27/2015</b>		SeqNo: <b>861824</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	8.0		10.00		80.1	57.9	140			

Sample ID <b>LCS-21007</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>21007</b>		RunNo: <b>28499</b>							
Prep Date: <b>8/27/2015</b>	Analysis Date: <b>8/27/2015</b>		SeqNo: <b>861825</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	10	50.00	0	103	57.4	139			
Surr: DNOP	4.3		5.000		86.5	57.9	140			

Sample ID <b>1508D21-001AMS</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>CS-1</b>	Batch ID: <b>21007</b>		RunNo: <b>28499</b>							
Prep Date: <b>8/27/2015</b>	Analysis Date: <b>8/27/2015</b>		SeqNo: <b>861830</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	9.8	49.21	0	92.5	42.3	146			
Surr: DNOP	3.8		4.921		77.7	57.9	140			

Sample ID <b>1508D21-001AMSD</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>CS-1</b>	Batch ID: <b>21007</b>		RunNo: <b>28499</b>							
Prep Date: <b>8/27/2015</b>	Analysis Date: <b>8/27/2015</b>		SeqNo: <b>861831</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	9.8	48.97	0	94.7	42.3	146	1.87	28.9	
Surr: DNOP	3.9		4.897		79.2	57.9	140	0	0	

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1508D21

28-Aug-15

**Client:** APEX TITAN

**Project:** K-7 (2013)

Sample ID <b>MB-20999</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>20999</b>		RunNo: <b>28503</b>							
Prep Date: <b>8/26/2015</b>	Analysis Date: <b>8/27/2015</b>		SeqNo: <b>862185</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	820		1000		82.3	75.4	113			

Sample ID <b>LCS-20999</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>20999</b>		RunNo: <b>28503</b>							
Prep Date: <b>8/26/2015</b>	Analysis Date: <b>8/27/2015</b>		SeqNo: <b>862186</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	100	79.6	122			
Surr: BFB	900		1000		89.8	75.4	113			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1508D21

28-Aug-15

**Client:** APEX TITAN

**Project:** K-7 (2013)

Sample ID	<b>MB-20999</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>20999</b>	RunNo:	<b>28503</b>					
Prep Date:	<b>8/26/2015</b>	Analysis Date:	<b>8/27/2015</b>	SeqNo:	<b>862218</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.98		1.000		98.0	80	120			

Sample ID	<b>LCS-20999</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8021B: Volatiles</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>20999</b>	RunNo:	<b>28503</b>					
Prep Date:	<b>8/26/2015</b>	Analysis Date:	<b>8/27/2015</b>	SeqNo:	<b>862219</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.050	1.000	0	93.4	76.6	128			
Toluene	0.95	0.050	1.000	0	95.2	75	124			
Ethylbenzene	0.98	0.050	1.000	0	98.4	79.5	126			
Xylenes, Total	2.9	0.10	3.000	0	97.6	78.8	124			
Surr: 4-Bromofluorobenzene	1.1		1.000		110	80	120			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit



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

Sample Log-In Check List

Client Name: APEX AZTEC

Work Order Number: 1508D21

RcptNo: 1

Received by/date: [Signature]
Logged By: Lindsay Mangin
Completed By: Lindsay Mangin
Reviewed By: [Signature]

08/27/15
8/27/2015 8:10:00 AM
8/27/2015 8:23:04 AM
08/27/15

[Signature]
[Signature]

Chain of Custody

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

Log In

- 4. Was an attempt made to cool the samples? Yes [x] No [ ] NA [ ]
5. Were all samples received at a temperature of >0° C to 6.0° C Yes [x] No [ ] NA [ ]
6. Sample(s) in proper container(s)? Yes [x] No [ ]
7. Sufficient sample volume for indicated test(s)? Yes [x] No [ ]
8. Are samples (except VOA and ONG) properly preserved? Yes [x] No [ ]
9. Was preservative added to bottles? Yes [ ] No [x] NA [ ]
10. VOA vials have zero headspace? Yes [ ] No [ ] No VOA Vials [x]
11. Were any sample containers received broken? Yes [ ] No [x]
12. Does paperwork match bottle labels? Yes [x] No [ ]
13. Are matrices correctly identified on Chain of Custody? Yes [x] No [ ]
14. Is it clear what analyses were requested? Yes [x] No [ ]
15. Were all holding times able to be met? Yes [x] No [ ]

# of preserved bottles checked for pH:
(<2 or >12 unless noted)
Adjusted?
Checked by:

Special Handling (if applicable)

- 16. Was client notified of all discrepancies with this order? Yes [ ] No [ ] NA [x]

Person Notified: [ ] Date: [ ]
By Whom: [ ] Via: [ ] eMail [ ] Phone [ ] Fax [ ] In Person [ ]
Regarding: [ ]
Client Instructions: [ ]

17. Additional remarks:

18. Cooler Information

Table with 7 columns: Cooler No, Temp °C, Condition, Seal Intact, Seal No, Seal Date, Signed By. Row 1: 1, 1.4, Good, Yes, , ,

CHAIN OF CUSTODY RECORD

Lab use only  
Due Date: \_\_\_\_\_

Temp. of coolers when received (C°): 16.020

1	2	3	4	5
---	---	---	---	---

Page 1 of 1

ANALYSIS REQUESTED

BTEX 8021  
TRH GFD/DRO BOLS

Laboratory: Hall

Address: Agg

Contact: Freeman

Phone: \_\_\_\_\_

PO/SO #: \_\_\_\_\_

Project Manager: Summers

Sampler's Name: Ryle Summers

Sampler's Signature: \_\_\_\_\_

Matrix	Date	Time	Project Name				No/Type of Containers				Lab Sample ID (Lab Use Only)	
			C	G	a	b	Star	Depth	End	Depth		
S	8/26/10	1000	M									1508DZ1-001
		1015										-002
		1030										-003
		1100										-004
<u>NFS</u> <u>AG</u>												

Turn around time  Normal  25% Rush  50% Rush  100% Rush Same Day

Relinquished by (Signature): \_\_\_\_\_ Date: 8/26/10 Time: 1513

Relinquished by (Signature): Walter Webb Date: 8/26/10 Time: 1940

Relinquished by (Signature): \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Relinquished by (Signature): \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

NOTES: Bill Tom Long  
Enterprise  
AFF# A15135  
2 YHR RUSH

Matrix Container: \_\_\_\_\_

WW - Wastewater VOA - 40 ml vial

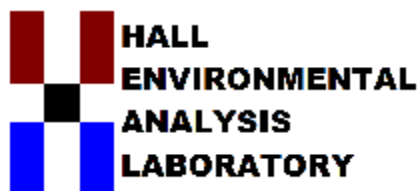
W - Water A/G - Amber / Or Glass 1 Liter

S - Soil SD - Solid 250 ml - Glass wide mouth

L - Liquid A - Air Bag

P/O - Plastic or other

SL - sludge O - Oil



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

August 27, 2015

Kyle Summers  
APEX TITAN  
606 S. Rio Grande Unit A  
Aztec, NM 87410  
TEL: (903) 821-5603  
FAX

RE: Lateral K-7 (2013)

OrderNo.: 1508B92

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 2 sample(s) on 8/25/2015 for the analyses presented in the following report.

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

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written in a cursive style.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Analytical Report**

Lab Order **1508B92**

Date Reported: **8/27/2015**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** SP-1

**Project:** Lateral K-7 (2013)

**Collection Date:** 8/24/2015 12:00:00 PM

**Lab ID:** 1508B92-001

**Matrix:** MEOH (SOIL)

**Received Date:** 8/25/2015 7:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/25/2015 3:03:57 PM	20954
Surr: DNOP	83.9	57.9-140		%REC	1	8/25/2015 3:03:57 PM	20954
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	8/26/2015 12:40:19 AM	20936
Surr: BFB	90.6	75.4-113		%REC	1	8/26/2015 12:40:19 AM	20936
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.040		mg/Kg	1	8/26/2015 12:40:19 AM	20936
Toluene	ND	0.040		mg/Kg	1	8/26/2015 12:40:19 AM	20936
Ethylbenzene	ND	0.040		mg/Kg	1	8/26/2015 12:40:19 AM	20936
Xylenes, Total	ND	0.080		mg/Kg	1	8/26/2015 12:40:19 AM	20936
Surr: 4-Bromofluorobenzene	99.7	80-120		%REC	1	8/26/2015 12:40:19 AM	20936

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

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	Page 1 of 5
	D Sample Diluted Due to Matrix	E Value above quantitation range	
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits	
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range	
	R RPD outside accepted recovery limits	RL Reporting Detection Limit	
	S % Recovery outside of range due to dilution or matrix		

**Analytical Report**

Lab Order **1508B92**

Date Reported: **8/27/2015**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** SP-2

**Project:** Lateral K-7 (2013)

**Collection Date:** 8/24/2015 12:05:00 PM

**Lab ID:** 1508B92-002

**Matrix:** MEOH (SOIL)

**Received Date:** 8/25/2015 7:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	8/25/2015 3:25:34 PM	20954
Surr: DNOP	78.3	57.9-140		%REC	1	8/25/2015 3:25:34 PM	20954
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/26/2015 2:19:30 AM	20936
Surr: BFB	84.1	75.4-113		%REC	1	8/26/2015 2:19:30 AM	20936
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Benzene	ND	0.049		mg/Kg	1	8/26/2015 2:19:30 AM	20936
Toluene	ND	0.049		mg/Kg	1	8/26/2015 2:19:30 AM	20936
Ethylbenzene	ND	0.049		mg/Kg	1	8/26/2015 2:19:30 AM	20936
Xylenes, Total	ND	0.097		mg/Kg	1	8/26/2015 2:19:30 AM	20936
Surr: 4-Bromofluorobenzene	97.5	80-120		%REC	1	8/26/2015 2:19:30 AM	20936

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

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B92

27-Aug-15

**Client:** APEX TITAN  
**Project:** Lateral K-7 (2013)

Sample ID <b>MB-20954</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>PBS</b>	Batch ID: <b>20954</b>		RunNo: <b>28430</b>							
Prep Date: <b>8/25/2015</b>	Analysis Date: <b>8/25/2015</b>		SeqNo: <b>859048</b>	Units: <b>mg/Kg</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	8.2		10.00		82.2	57.9	140			

Sample ID <b>LCS-20954</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>20954</b>		RunNo: <b>28430</b>							
Prep Date: <b>8/25/2015</b>	Analysis Date: <b>8/25/2015</b>		SeqNo: <b>859049</b>	Units: <b>mg/Kg</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	96.9	57.4	139			
Surr: DNOP	4.0		5.000		80.3	57.9	140			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B92

27-Aug-15

**Client:** APEX TITAN  
**Project:** Lateral K-7 (2013)

Sample ID <b>MB-20936</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>20936</b>		RunNo: <b>28433</b>							
Prep Date: <b>8/24/2015</b>	Analysis Date: <b>8/25/2015</b>		SeqNo: <b>859747</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	820		1000		81.7	75.4	113			

Sample ID <b>LCS-20936</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>20936</b>		RunNo: <b>28433</b>							
Prep Date: <b>8/24/2015</b>	Analysis Date: <b>8/25/2015</b>		SeqNo: <b>859748</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	89.6	79.6	122			
Surr: BFB	890		1000		89.3	75.4	113			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1508B92

27-Aug-15

**Client:** APEX TITAN  
**Project:** Lateral K-7 (2013)

Sample ID <b>MB-20936</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>PBS</b>	Batch ID: <b>20936</b>		RunNo: <b>28433</b>							
Prep Date: <b>8/24/2015</b>	Analysis Date: <b>8/25/2015</b>		SeqNo: <b>859783</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.97		1.000		97.0	80	120			

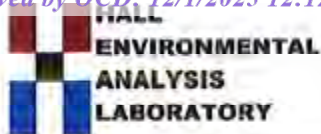
Sample ID <b>LCS-20936</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>20936</b>		RunNo: <b>28433</b>							
Prep Date: <b>8/24/2015</b>	Analysis Date: <b>8/25/2015</b>		SeqNo: <b>859784</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.050	1.000	0	91.4	76.6	128			
Toluene	0.93	0.050	1.000	0	93.2	75	124			
Ethylbenzene	0.97	0.050	1.000	0	97.1	79.5	126			
Xylenes, Total	2.8	0.10	3.000	0	92.0	78.8	124			
Surr: 4-Bromofluorobenzene	1.0		1.000		104	80	120			

Sample ID <b>1508B92-001AMS</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>SP-1</b>	Batch ID: <b>20936</b>		RunNo: <b>28433</b>							
Prep Date:	Analysis Date: <b>8/25/2015</b>		SeqNo: <b>859786</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.83	0.040	0.8013	0	103	69.6	136			
Toluene	0.85	0.040	0.8013	0	106	76.2	134			
Ethylbenzene	0.86	0.040	0.8013	0.01556	106	75.8	137			
Xylenes, Total	2.5	0.080	2.404	0.01712	105	78.9	133			
Surr: 4-Bromofluorobenzene	0.88		0.8013		110	80	120			

Sample ID <b>1508B92-001AMSD</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>SP-1</b>	Batch ID: <b>20936</b>		RunNo: <b>28433</b>							
Prep Date:	Analysis Date: <b>8/25/2015</b>		SeqNo: <b>859787</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.78	0.040	0.8013	0	97.5	69.6	136	6.00	20	
Toluene	0.78	0.040	0.8013	0	96.9	76.2	134	8.73	20	
Ethylbenzene	0.81	0.040	0.8013	0.01556	98.5	75.8	137	7.01	20	
Xylenes, Total	2.3	0.080	2.404	0.01712	95.4	78.9	133	9.26	20	
Surr: 4-Bromofluorobenzene	0.82		0.8013		102	80	120	0	0	

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit



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

### Sample Log-In Check List

Client Name: **APEX-AZTEC** Work Order Number: **1508B92** RcpNo.: **1**

Received by/date: *[Signature]* **08/25/15**  
Logged By: **Ashley Gallegos** 8/25/2015 7:25:00 AM *[Signature]*  
Completed By: **Ashley Gallegos** 8/25/2015 9:16:38 AM *[Signature]*  
Reviewed By: **IO** **08/25/15**

#### Chain of Custody

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

#### Log In

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

#### Special Handling (if applicable)

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

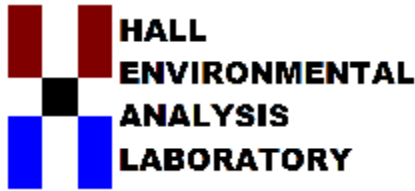
Person Notified:		Date:	
By Whom:		Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:			
Client Instructions:			

17. Additional remarks:

#### 18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.6	Good	Yes			





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

September 08, 2015

Kyle Summers  
APEX TITAN  
606 S. Rio Grande Unit A  
Aztec, NM 87410  
TEL: (903) 821-5603  
FAX

RE: K-7 (2013)

OrderNo.: 1509140

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 1 sample(s) on 9/3/2015 for the analyses presented in the following report.

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

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

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

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Analytical Report**

Lab Order **1509140**

Date Reported: **9/8/2015**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** CS-14

**Project:** K-7 (2013)

**Collection Date:** 9/2/2015 10:30:00 AM

**Lab ID:** 1509140-001

**Matrix:** SOIL

**Received Date:** 9/3/2015 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/4/2015 6:52:16 PM	21127
Surr: BFB	106	70-130		%REC	1	9/4/2015 6:52:16 PM	21127
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/4/2015 2:37:42 PM	21123
Surr: DNOP	98.7	57.9-140		%REC	1	9/4/2015 2:37:42 PM	21123
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.050		mg/Kg	1	9/4/2015 6:52:16 PM	21127
Toluene	ND	0.050		mg/Kg	1	9/4/2015 6:52:16 PM	21127
Ethylbenzene	ND	0.050		mg/Kg	1	9/4/2015 6:52:16 PM	21127
Xylenes, Total	ND	0.10		mg/Kg	1	9/4/2015 6:52:16 PM	21127
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	1	9/4/2015 6:52:16 PM	21127
Surr: 4-Bromofluorobenzene	90.7	70-130		%REC	1	9/4/2015 6:52:16 PM	21127
Surr: Dibromofluoromethane	119	70-130		%REC	1	9/4/2015 6:52:16 PM	21127
Surr: Toluene-d8	90.5	70-130		%REC	1	9/4/2015 6:52:16 PM	21127

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

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	Page 1 of 4
	D Sample Diluted Due to Matrix	E Value above quantitation range	
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits	
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range	
	R RPD outside accepted recovery limits	RL Reporting Detection Limit	
	S % Recovery outside of range due to dilution or matrix		

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1509140

08-Sep-15

**Client:** APEX TITAN

**Project:** K-7 (2013)

Sample ID <b>MB-21123</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>PBS</b>	Batch ID: <b>21123</b>		RunNo: <b>28658</b>							
Prep Date: <b>9/3/2015</b>	Analysis Date: <b>9/4/2015</b>		SeqNo: <b>868356</b>	Units: <b>mg/Kg</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	10		10.00		99.5	57.9	140			

Sample ID <b>LCS-21123</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>21123</b>		RunNo: <b>28658</b>							
Prep Date: <b>9/3/2015</b>	Analysis Date: <b>9/4/2015</b>		SeqNo: <b>868359</b>	Units: <b>mg/Kg</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	10	50.00	0	104	57.4	139			
Surr: DNOP	5.1		5.000		102	57.9	140			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1509140

08-Sep-15

**Client:** APEX TITAN

**Project:** K-7 (2013)

Sample ID	<b>mb-21127</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8260B: Volatiles Short List</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>21127</b>	RunNo:	<b>28679</b>					
Prep Date:	<b>9/3/2015</b>	Analysis Date:	<b>9/4/2015</b>	SeqNo:	<b>868766</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.51		0.5000		102	70	130			
Surr: 4-Bromofluorobenzene	0.47		0.5000		93.9	70	130			
Surr: Dibromofluoromethane	0.60		0.5000		121	70	130			
Surr: Toluene-d8	0.49		0.5000		98.3	70	130			

Sample ID	<b>ics-21127</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8260B: Volatiles Short List</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>21127</b>	RunNo:	<b>28679</b>					
Prep Date:	<b>9/3/2015</b>	Analysis Date:	<b>9/4/2015</b>	SeqNo:	<b>868768</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.1	0.050	1.000	0	111	70	130			
Toluene	0.98	0.050	1.000	0	98.4	70	130			
Ethylbenzene	1.0	0.050	1.000	0	100	70	130			
Xylenes, Total	3.0	0.10	3.000	0	99.6	70	130			
Surr: 1,2-Dichloroethane-d4	0.52		0.5000		103	70	130			
Surr: 4-Bromofluorobenzene	0.44		0.5000		88.8	70	130			
Surr: Dibromofluoromethane	0.60		0.5000		119	70	130			
Surr: Toluene-d8	0.48		0.5000		95.7	70	130			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1509140

08-Sep-15

**Client:** APEX TITAN

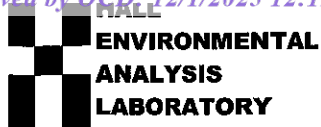
**Project:** K-7 (2013)

Sample ID	<b>mb-21127</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015D Mod: Gasoline Range</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>21127</b>	RunNo:	<b>28679</b>					
Prep Date:	<b>9/3/2015</b>	Analysis Date:	<b>9/4/2015</b>	SeqNo:	<b>869145</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	570		500.0		115	70	130			

Sample ID	<b>ics-21127</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015D Mod: Gasoline Range</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>21127</b>	RunNo:	<b>28679</b>					
Prep Date:	<b>9/3/2015</b>	Analysis Date:	<b>9/4/2015</b>	SeqNo:	<b>869146</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	18	5.0	25.00	0	71.6	70	123			
Surr: BFB	500		500.0		99.7	70	130			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit



HALL ENVIRONMENTAL ANALYSIS LABORATORY  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: www.hallenvironmental.com

# Sample Log-In Check List

Client Name: APEX AZTEC

Work Order Number: 1509140

RcptNo: 1

Received by/date: LM 09/03/15

Logged By: Anne Thorne 9/3/2015 7:00:00 AM *Anne Thorne*

Completed By: Anne Thorne 9/3/2015 *Anne Thorne*

Reviewed By: *[Signature]* 09/03/15

### Chain of Custody

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

### Log In

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

# of preserved bottles checked for pH: \_\_\_\_\_  
(<2 or >12 unless noted)

Adjusted? \_\_\_\_\_

Checked by: \_\_\_\_\_

### Special Handling (if applicable)

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

Person Notified: \_\_\_\_\_ Date: \_\_\_\_\_

By Whom: \_\_\_\_\_ Via:  eMail  Phone  Fax  In Person

Regarding: \_\_\_\_\_


Client Instructions: \_\_\_\_\_

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.3	Good	Yes			

CHAIN OF CUSTODY RECORD

 <b>APEX</b> Office Location <u>Aztec, NM</u>		Laboratory: <u>Hall Environmental</u> Address: <u>Albuquerque, NM</u> Contact: <u>Andy Freeman</u> Phone: _____ PO/SO #: _____		ANALYSIS REQUESTED <u>8021 BTEX</u> <u>8015 TPT (60/00)</u>		Lab use only Due Date: _____ Temp. of coolers when received (C°): <u>3, 3-10</u> 1   2   3   4   5 Page <u>1</u> of <u>1</u>	
Project Manager <u>R. Summers</u> Sampler's Name <u>Rune Deedchilly</u>		Sampler's Signature <u>Rune Deedchilly</u> Project Name <u>K-7 (2013)</u>		No/Type of Containers Glass Jar _____ 250 ml A/G _____ VOA _____ Depth _____ End Depth _____ Jar P/O _____		Lab Sample ID (Lab Use Only) <u>1509140-001</u>	
Matrix <u>S</u> Date <u>9/21/15</u> Time <u>1030</u>	Identifying Marks of Sample(s) <u>CS-14</u>	Project Name <u>K-7 (2013)</u>	No/Type of Containers Glass Jar <u>1</u> 250 ml A/G _____ VOA _____ Depth _____ End Depth _____ Jar P/O _____	ANALYSIS REQUESTED <u>XX</u>		Lab Sample ID (Lab Use Only) <u>1509140-001</u>	

Turn around time <input checked="" type="checkbox"/> Normal <input type="checkbox"/> 25% Rush <input type="checkbox"/> 50% Rush <input type="checkbox"/> 100% Rush	Relinquished by (Signature) <u>Rune Deedchilly</u> Date: <u>9/21/15</u> Time: <u>1307</u>	Received by (Signature) <u>Matthew Wheeler</u> Date: <u>9/21/15</u> Time: <u>1307</u>	NOTES: <u>Bill to Tumlong (Enterprise)</u> <u>AFE # A15135</u>
Relinquished by (Signature) <u>Matthew Wheeler</u> Date: <u>9/21/15</u> Time: <u>1804</u>	Received by (Signature) <u>[Signature]</u> Date: <u>09/23/15</u> Time: <u>0700</u>	Relinquished by (Signature) Date: _____ Time: _____	Received by (Signature) Date: _____ Time: _____
Relinquished by (Signature) Date: _____ Time: _____	Received by (Signature) Date: _____ Time: _____	Relinquished by (Signature) Date: _____ Time: _____	Received by (Signature) Date: _____ Time: _____

Matrix Container: WW - Wastewater / VOA - 40 ml vial    W - Water / A/G - Amber / Or Glass 1 Liter    S - Soil / SD - Solid    L - Liquid / 250 ml - Glass wide mouth    A - Air Bag / P/O - Plastic or other    C - Charcoal tube / SL - sludge    O - Oil



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

September 02, 2015

Kyle Summers  
APEX TITAN  
606 S. Rio Grande Unit A  
Aztec, NM 87410  
TEL: (903) 821-5603  
FAX

RE: K-7 (2013)

OrderNo.: 1509001

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 6 sample(s) on 9/1/2015 for the analyses presented in the following report.

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

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a white background.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Analytical Report**

Lab Order **1509001**

Date Reported: **9/2/2015**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** CS-8

**Project:** K-7 (2013)

**Collection Date:** 8/31/2015 2:00:00 PM

**Lab ID:** 1509001-001

**Matrix:** MEOH (SOIL)

**Received Date:** 9/1/2015 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	3.5		mg/Kg	1	9/1/2015 11:07:35 AM	B28591
Surr: BFB	103	70-130		%REC	1	9/1/2015 11:07:35 AM	B28591
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/1/2015 10:31:35 AM	21079
Surr: DNOP	106	57.9-140		%REC	1	9/1/2015 10:31:35 AM	21079
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.035		mg/Kg	1	9/1/2015 11:07:35 AM	A28591
Toluene	ND	0.035		mg/Kg	1	9/1/2015 11:07:35 AM	A28591
Ethylbenzene	ND	0.035		mg/Kg	1	9/1/2015 11:07:35 AM	A28591
Xylenes, Total	ND	0.070		mg/Kg	1	9/1/2015 11:07:35 AM	A28591
Surr: 1,2-Dichloroethane-d4	97.1	70-130		%REC	1	9/1/2015 11:07:35 AM	A28591
Surr: 4-Bromofluorobenzene	99.1	70-130		%REC	1	9/1/2015 11:07:35 AM	A28591
Surr: Dibromofluoromethane	108	70-130		%REC	1	9/1/2015 11:07:35 AM	A28591
Surr: Toluene-d8	97.3	70-130		%REC	1	9/1/2015 11:07:35 AM	A28591

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

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **1509001**

Date Reported: **9/2/2015**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** CS-9

**Project:** K-7 (2013)

**Collection Date:** 8/31/2015 2:05:00 PM

**Lab ID:** 1509001-002

**Matrix:** MEOH (SOIL)

**Received Date:** 9/1/2015 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	94	4.1		mg/Kg	1	9/1/2015 11:35:05 AM	B28591
Surr: BFB	147	70-130	S	%REC	1	9/1/2015 11:35:05 AM	B28591
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	54	9.8		mg/Kg	1	9/1/2015 10:59:08 AM	21079
Surr: DNOP	92.6	57.9-140		%REC	1	9/1/2015 10:59:08 AM	21079
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.041		mg/Kg	1	9/1/2015 11:35:05 AM	A28591
Toluene	0.12	0.041		mg/Kg	1	9/1/2015 11:35:05 AM	A28591
Ethylbenzene	0.10	0.041		mg/Kg	1	9/1/2015 11:35:05 AM	A28591
Xylenes, Total	2.1	0.082		mg/Kg	1	9/1/2015 11:35:05 AM	A28591
Surr: 1,2-Dichloroethane-d4	108	70-130		%REC	1	9/1/2015 11:35:05 AM	A28591
Surr: 4-Bromofluorobenzene	82.0	70-130		%REC	1	9/1/2015 11:35:05 AM	A28591
Surr: Dibromofluoromethane	120	70-130		%REC	1	9/1/2015 11:35:05 AM	A28591
Surr: Toluene-d8	105	70-130		%REC	1	9/1/2015 11:35:05 AM	A28591

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

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **1509001**

Date Reported: **9/2/2015**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** CS-10

**Project:** K-7 (2013)

**Collection Date:** 8/31/2015 2:10:00 PM

**Lab ID:** 1509001-003

**Matrix:** MEOH (SOIL)

**Received Date:** 9/1/2015 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	4.5	4.3		mg/Kg	1	9/1/2015 12:02:40 PM	B28591
Surr: BFB	103	70-130		%REC	1	9/1/2015 12:02:40 PM	B28591
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	9/1/2015 10:36:02 AM	21079
Surr: DNOP	99.7	57.9-140		%REC	1	9/1/2015 10:36:02 AM	21079
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.043		mg/Kg	1	9/1/2015 12:02:40 PM	A28591
Toluene	ND	0.043		mg/Kg	1	9/1/2015 12:02:40 PM	A28591
Ethylbenzene	ND	0.043		mg/Kg	1	9/1/2015 12:02:40 PM	A28591
Xylenes, Total	ND	0.085		mg/Kg	1	9/1/2015 12:02:40 PM	A28591
Surr: 1,2-Dichloroethane-d4	98.6	70-130		%REC	1	9/1/2015 12:02:40 PM	A28591
Surr: 4-Bromofluorobenzene	91.5	70-130		%REC	1	9/1/2015 12:02:40 PM	A28591
Surr: Dibromofluoromethane	119	70-130		%REC	1	9/1/2015 12:02:40 PM	A28591
Surr: Toluene-d8	93.3	70-130		%REC	1	9/1/2015 12:02:40 PM	A28591

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

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **1509001**

Date Reported: **9/2/2015**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** CS-11

**Project:** K-7 (2013)

**Collection Date:** 8/31/2015 2:15:00 PM

**Lab ID:** 1509001-004

**Matrix:** MEOH (SOIL)

**Received Date:** 9/1/2015 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	6.8	3.8		mg/Kg	1	9/1/2015 12:30:11 PM	B28591
Surr: BFB	109	70-130		%REC	1	9/1/2015 12:30:11 PM	B28591
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/1/2015 10:57:29 AM	21079
Surr: DNOP	93.5	57.9-140		%REC	1	9/1/2015 10:57:29 AM	21079
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.038		mg/Kg	1	9/1/2015 12:30:11 PM	A28591
Toluene	ND	0.038		mg/Kg	1	9/1/2015 12:30:11 PM	A28591
Ethylbenzene	ND	0.038		mg/Kg	1	9/1/2015 12:30:11 PM	A28591
Xylenes, Total	0.26	0.077		mg/Kg	1	9/1/2015 12:30:11 PM	A28591
Surr: 1,2-Dichloroethane-d4	103	70-130		%REC	1	9/1/2015 12:30:11 PM	A28591
Surr: 4-Bromofluorobenzene	92.1	70-130		%REC	1	9/1/2015 12:30:11 PM	A28591
Surr: Dibromofluoromethane	122	70-130		%REC	1	9/1/2015 12:30:11 PM	A28591
Surr: Toluene-d8	96.9	70-130		%REC	1	9/1/2015 12:30:11 PM	A28591

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

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **1509001**

Date Reported: 9/2/2015

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** CS-12

**Project:** K-7 (2013)

**Collection Date:** 8/31/2015 2:20:00 PM

**Lab ID:** 1509001-005

**Matrix:** MEOH (SOIL)

**Received Date:** 9/1/2015 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	9/1/2015 12:57:52 PM	B28591
Surr: BFB	106	70-130		%REC	1	9/1/2015 12:57:52 PM	B28591
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/1/2015 11:18:58 AM	21079
Surr: DNOP	99.5	57.9-140		%REC	1	9/1/2015 11:18:58 AM	21079
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.046		mg/Kg	1	9/1/2015 12:57:52 PM	A28591
Toluene	ND	0.046		mg/Kg	1	9/1/2015 12:57:52 PM	A28591
Ethylbenzene	ND	0.046		mg/Kg	1	9/1/2015 12:57:52 PM	A28591
Xylenes, Total	ND	0.092		mg/Kg	1	9/1/2015 12:57:52 PM	A28591
Surr: 1,2-Dichloroethane-d4	101	70-130		%REC	1	9/1/2015 12:57:52 PM	A28591
Surr: 4-Bromofluorobenzene	101	70-130		%REC	1	9/1/2015 12:57:52 PM	A28591
Surr: Dibromofluoromethane	124	70-130		%REC	1	9/1/2015 12:57:52 PM	A28591
Surr: Toluene-d8	94.7	70-130		%REC	1	9/1/2015 12:57:52 PM	A28591

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

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **1509001**

Date Reported: **9/2/2015**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** CS-13

**Project:** K-7 (2013)

**Collection Date:** 8/31/2015 2:25:00 PM

**Lab ID:** 1509001-006

**Matrix:** MEOH (SOIL)

**Received Date:** 9/1/2015 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	9/1/2015 1:25:26 PM	B28591
Surr: BFB	109	70-130		%REC	1	9/1/2015 1:25:26 PM	B28591
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	9/1/2015 11:40:23 AM	21079
Surr: DNOP	91.3	57.9-140		%REC	1	9/1/2015 11:40:23 AM	21079
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.041		mg/Kg	1	9/1/2015 1:25:26 PM	A28591
Toluene	ND	0.041		mg/Kg	1	9/1/2015 1:25:26 PM	A28591
Ethylbenzene	ND	0.041		mg/Kg	1	9/1/2015 1:25:26 PM	A28591
Xylenes, Total	0.22	0.082		mg/Kg	1	9/1/2015 1:25:26 PM	A28591
Surr: 1,2-Dichloroethane-d4	100	70-130		%REC	1	9/1/2015 1:25:26 PM	A28591
Surr: 4-Bromofluorobenzene	96.1	70-130		%REC	1	9/1/2015 1:25:26 PM	A28591
Surr: Dibromofluoromethane	120	70-130		%REC	1	9/1/2015 1:25:26 PM	A28591
Surr: Toluene-d8	94.5	70-130		%REC	1	9/1/2015 1:25:26 PM	A28591

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

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1509001

02-Sep-15

**Client:** APEX TITAN  
**Project:** K-7 (2013)

Sample ID <b>MB-21079</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>PBS</b>	Batch ID: <b>21079</b>		RunNo: <b>28580</b>							
Prep Date: <b>9/1/2015</b>	Analysis Date: <b>9/1/2015</b>		SeqNo: <b>864594</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.5		10.00		95.1	57.9	140			

Sample ID <b>MB-21044</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>PBS</b>	Batch ID: <b>21044</b>		RunNo: <b>28580</b>							
Prep Date: <b>8/31/2015</b>	Analysis Date: <b>9/1/2015</b>		SeqNo: <b>864619</b>		Units: <b>%REC</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.6		10.00		95.8	57.9	140			

Sample ID <b>LCS-21079</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>21079</b>		RunNo: <b>28580</b>							
Prep Date: <b>9/1/2015</b>	Analysis Date: <b>9/1/2015</b>		SeqNo: <b>864620</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	42	10	50.00	0	83.6	57.4	139			
Surr: DNOP	4.7		5.000		94.2	57.9	140			

Sample ID <b>LCS-21044</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>21044</b>		RunNo: <b>28580</b>							
Prep Date: <b>8/31/2015</b>	Analysis Date: <b>9/1/2015</b>		SeqNo: <b>864624</b>		Units: <b>%REC</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.9		5.000		97.7	57.9	140			

Sample ID <b>1509001-001AMS</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>CS-8</b>	Batch ID: <b>21079</b>		RunNo: <b>28583</b>							
Prep Date: <b>9/1/2015</b>	Analysis Date: <b>9/1/2015</b>		SeqNo: <b>864871</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	9.9	49.55	0	103	42.3	146			
Surr: DNOP	4.6		4.955		93.7	57.9	140			

Sample ID <b>1509001-001AMSD</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>CS-8</b>	Batch ID: <b>21079</b>		RunNo: <b>28583</b>							
Prep Date: <b>9/1/2015</b>	Analysis Date: <b>9/1/2015</b>		SeqNo: <b>864872</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	9.8	49.07	0	101	42.3	146	3.31	28.9	
Surr: DNOP	4.8		4.907		98.1	57.9	140	0	0	

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1509001

02-Sep-15

**Client:** APEX TITAN

**Project:** K-7 (2013)

Sample ID	<b>MB-21010</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>21010</b>	RunNo:	<b>28580</b>					
Prep Date:	<b>8/27/2015</b>	Analysis Date:	<b>9/1/2015</b>	SeqNo:	<b>865408</b>	Units:	<b>%REC</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.1		10.00		91.5	57.9	140			

Sample ID	<b>LCS-21010</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015M/D: Diesel Range Organics</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>21010</b>	RunNo:	<b>28580</b>					
Prep Date:	<b>8/27/2015</b>	Analysis Date:	<b>9/1/2015</b>	SeqNo:	<b>865620</b>	Units:	<b>%REC</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.3		5.000		85.2	57.9	140			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1509001

02-Sep-15

**Client:** APEX TITAN  
**Project:** K-7 (2013)

Sample ID <b>rb</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8260B: Volatiles Short List</b>							
Client ID: <b>PBS</b>	Batch ID: <b>A28591</b>		RunNo: <b>28591</b>							
Prep Date:	Analysis Date: <b>9/1/2015</b>		SeqNo: <b>865414</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.49		0.5000		97.3	70	130			
Surr: 4-Bromofluorobenzene	0.55		0.5000		109	70	130			
Surr: Dibromofluoromethane	0.55		0.5000		110	70	130			
Surr: Toluene-d8	0.50		0.5000		99.7	70	130			

Sample ID <b>100ng lcs</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8260B: Volatiles Short List</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>A28591</b>		RunNo: <b>28591</b>							
Prep Date:	Analysis Date: <b>9/1/2015</b>		SeqNo: <b>865416</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	105	70	130			
Toluene	1.1	0.050	1.000	0	105	70	130			
Surr: 1,2-Dichloroethane-d4	0.46		0.5000		91.5	70	130			
Surr: 4-Bromofluorobenzene	0.53		0.5000		106	70	130			
Surr: Dibromofluoromethane	0.55		0.5000		109	70	130			
Surr: Toluene-d8	0.49		0.5000		98.1	70	130			

Sample ID <b>1509001-002ams</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8260B: Volatiles Short List</b>							
Client ID: <b>CS-9</b>	Batch ID: <b>A28591</b>		RunNo: <b>28591</b>							
Prep Date:	Analysis Date: <b>9/1/2015</b>		SeqNo: <b>865417</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.84	0.041	0.8197	0	102	70	130			
Toluene	0.86	0.041	0.8197	0.1234	90.0	65	138			
Surr: 1,2-Dichloroethane-d4	0.45		0.4098		110	70	130			
Surr: 4-Bromofluorobenzene	0.27		0.4098		66.6	70	130			S
Surr: Dibromofluoromethane	0.49		0.4098		120	70	130			
Surr: Toluene-d8	0.39		0.4098		94.0	70	130			

Sample ID <b>1509001-002amsd</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8260B: Volatiles Short List</b>							
Client ID: <b>CS-9</b>	Batch ID: <b>A28591</b>		RunNo: <b>28591</b>							
Prep Date:	Analysis Date: <b>9/1/2015</b>		SeqNo: <b>865418</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.81	0.041	0.8197	0	98.4	70	130	3.60	20	
Toluene	0.90	0.041	0.8197	0.1234	94.4	65	138	4.11	20	

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1509001

02-Sep-15

**Client:** APEX TITAN

**Project:** K-7 (2013)

Sample ID	1509001-002amsd	SampType:	MSD	TestCode:	EPA Method 8260B: Volatiles Short List					
Client ID:	CS-9	Batch ID:	A28591	RunNo:	28591					
Prep Date:		Analysis Date:	9/1/2015	SeqNo:	865418	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.46		0.4098		112	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.31		0.4098		75.0	70	130	0	0	
Surr: Dibromofluoromethane	0.51		0.4098		125	70	130	0	0	
Surr: Toluene-d8	0.39		0.4098		95.7	70	130	0	0	

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1509001

02-Sep-15

**Client:** APEX TITAN  
**Project:** K-7 (2013)

Sample ID <b>rb</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>B28591</b>		RunNo: <b>28591</b>							
Prep Date:	Analysis Date: <b>9/1/2015</b>		SeqNo: <b>865419</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	510		500.0		102	70	130			

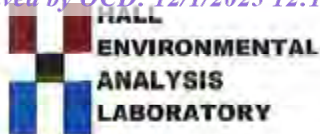
Sample ID <b>2.5ug gro lcs</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>B28591</b>		RunNo: <b>28591</b>							
Prep Date:	Analysis Date: <b>9/1/2015</b>		SeqNo: <b>865426</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	19	5.0	25.00	0	76.2	70	123			
Surr: BFB	520		500.0		103	70	130			

Sample ID <b>1509001-001ams</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>							
Client ID: <b>CS-8</b>	Batch ID: <b>B28591</b>		RunNo: <b>28591</b>							
Prep Date:	Analysis Date: <b>9/1/2015</b>		SeqNo: <b>865442</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	13	3.5	17.42	0	73.4	54.9	131			
Surr: BFB	360		348.4		105	70	130			

Sample ID <b>1509001-001amsd</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>							
Client ID: <b>CS-8</b>	Batch ID: <b>B28591</b>		RunNo: <b>28591</b>							
Prep Date:	Analysis Date: <b>9/1/2015</b>		SeqNo: <b>865444</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	15	3.5	17.42	0	84.5	54.9	131	14.0	20	
Surr: BFB	360		348.4		105	70	130	0	0	

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit



Hail Environmental Analysis Laboratory  
 4901 Hawkins NE  
 Albuquerque, NM 87109  
 TEL: 505-343-3975 FAX: 505-343-4107  
 Website: www.hailenvironmental.com

# Sample Log-In Check List

Client Name: APEX AZTEC

Work Order Number: 1509001

RcptNo: 1

Received by/date: LM 09/01/15

Logged By: Celina Sessa 9/1/2015 8:05:00 AM

*Celina Sessa*

Completed By: Celina Sessa 9/1/2015 8:44:01 AM

*Celina Sessa*

Reviewed By: AG 08/01/15

**Chain of Custody**

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

**Log In**

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

# of preserved bottles checked for pH: \_\_\_\_\_  
 (< or >12 unless noted)  
 Adjusted? \_\_\_\_\_  
 Checked by: \_\_\_\_\_

**Special Handling (if applicable)**

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

Person Notified: \_\_\_\_\_ Date: \_\_\_\_\_  
 By Whom: \_\_\_\_\_ Via:  eMail  Phone  Fax  In Person  
 Regarding: \_\_\_\_\_  
 Client Instructions: \_\_\_\_\_

17. Additional remarks:

18. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	25	Good	Yes			

CHAIN OF CUSTODY RECORD

Lab use only  
Due Date: \_\_\_\_\_

Temp. of coolers when received (C°): 21.6

1	2	3	4	5
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Page 1 of 1

ANALYSIS REQUESTED

BTEX 8021  
X TPH GRD/DRO 8015

Laboratory: Hall  
Address: ABQ  
Contact: Freeman  
Phone: \_\_\_\_\_  
PO/ISO #: \_\_\_\_\_

Project Manager Summers  
Sampler's Name Rance Deechilly  
Project Name 2013  
No/Type of Containers \_\_\_\_\_

Matrix	Date	Time	C o m p	G r a b	Identifying Marks of Sample(s)	Start	Depth	End	Depth	VOA	A/G	250	250	El	Glass Jar	P/O	Lab Sample ID (Lab Use Only)
S	8/31/15	1400			C5-8										1		1509001-001
		1405			C5-9												-002
		1410			C5-10												-003
		1415			C5-11												-004
		1420			C5-12												-005
		1425			C5-13												-006

Turn around time  Normal  25% Rush  50% Rush  100% Rush Same Day

Relinquished by (Signature) Rand Deechilly Date: 8/31/15 Time: 1720 Received by (Signature) Matthew Walz Date: 8/31/15 Time: 1720

Relinquished by (Signature) Matthew Walz Date: 8/31/15 Time: 1845 Received by (Signature) \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Relinquished by (Signature) \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received by (Signature) \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Relinquished by (Signature) \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received by (Signature) \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

NOTES: Bill Tom Long  
ENTER PRICE  
AFE#A15135  
24 HR RUN H

Matrix Container: W - Water S - Soil SD - Solid L - Liquid A - Air Bag C - Charcoal tube  
VOA - 40 ml vial A/G - Amber / Or Glass 1 Liter 250 ml - Glass wide mouth P/O - Plastic or other O - Oil



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

September 01, 2015

Kyle Summers  
APEX TITAN  
606 S. Rio Grande Unit A  
Aztec, NM 87410  
TEL: (903) 821-5603  
FAX

RE: K-7 (2013)

OrderNo.: 1508E30

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 3 sample(s) on 8/29/2015 for the analyses presented in the following report.

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

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a white background.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Analytical Report**

Lab Order **1508E30**

Date Reported: **9/1/2015**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** CS-5

**Project:** K-7 (2013)

**Collection Date:** 8/28/2015 1:30:00 PM

**Lab ID:** 1508E30-001

**Matrix:** MEOH (SOIL)

**Received Date:** 8/29/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	8/31/2015 10:53:15 AM	21037
Surr: BFB	107	70-130		%REC	1	8/31/2015 10:53:15 AM	21037
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	8/31/2015 10:05:05 AM	21043
Surr: DNOP	93.2	57.9-140		%REC	1	8/31/2015 10:05:05 AM	21043
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.044		mg/Kg	1	8/31/2015 10:53:15 AM	21037
Toluene	0.060	0.044		mg/Kg	1	8/31/2015 10:53:15 AM	21037
Ethylbenzene	ND	0.044		mg/Kg	1	8/31/2015 10:53:15 AM	21037
Xylenes, Total	0.28	0.089		mg/Kg	1	8/31/2015 10:53:15 AM	21037
Surr: 1,2-Dichloroethane-d4	98.9	70-130		%REC	1	8/31/2015 10:53:15 AM	21037
Surr: 4-Bromofluorobenzene	94.6	70-130		%REC	1	8/31/2015 10:53:15 AM	21037
Surr: Dibromofluoromethane	120	70-130		%REC	1	8/31/2015 10:53:15 AM	21037
Surr: Toluene-d8	94.1	70-130		%REC	1	8/31/2015 10:53:15 AM	21037

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

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	Page 1 of 6
	D Sample Diluted Due to Matrix	E Value above quantitation range	
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits	
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range	
	R RPD outside accepted recovery limits	RL Reporting Detection Limit	
	S % Recovery outside of range due to dilution or matrix		

**Analytical Report**

Lab Order **1508E30**

Date Reported: 9/1/2015

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** CS-6

**Project:** K-7 (2013)

**Collection Date:** 8/28/2015 1:45:00 PM

**Lab ID:** 1508E30-002

**Matrix:** MEOH (SOIL)

**Received Date:** 8/29/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.1		mg/Kg	1	8/31/2015 11:20:44 AM	21037
Surr: BFB	104	70-130		%REC	1	8/31/2015 11:20:44 AM	21037
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/31/2015 10:32:21 AM	21043
Surr: DNOP	93.5	57.9-140		%REC	1	8/31/2015 10:32:21 AM	21043
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.041		mg/Kg	1	8/31/2015 11:20:44 AM	21037
Toluene	ND	0.041		mg/Kg	1	8/31/2015 11:20:44 AM	21037
Ethylbenzene	ND	0.041		mg/Kg	1	8/31/2015 11:20:44 AM	21037
Xylenes, Total	0.11	0.081		mg/Kg	1	8/31/2015 11:20:44 AM	21037
Surr: 1,2-Dichloroethane-d4	101	70-130		%REC	1	8/31/2015 11:20:44 AM	21037
Surr: 4-Bromofluorobenzene	96.1	70-130		%REC	1	8/31/2015 11:20:44 AM	21037
Surr: Dibromofluoromethane	123	70-130		%REC	1	8/31/2015 11:20:44 AM	21037
Surr: Toluene-d8	92.4	70-130		%REC	1	8/31/2015 11:20:44 AM	21037

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

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	Page 2 of 6
	D Sample Diluted Due to Matrix	E Value above quantitation range	
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits	
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range	
	R RPD outside accepted recovery limits	RL Reporting Detection Limit	
	S % Recovery outside of range due to dilution or matrix		

**Analytical Report**

Lab Order **1508E30**

Date Reported: 9/1/2015

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** APEX TITAN

**Client Sample ID:** CS-7

**Project:** K-7 (2013)

**Collection Date:** 8/28/2015 2:00:00 PM

**Lab ID:** 1508E30-003

**Matrix:** MEOH (SOIL)

**Received Date:** 8/29/2015 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>							Analyst: <b>DJF</b>
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	8/31/2015 11:48:17 AM	21037
Surr: BFB	106	70-130		%REC	1	8/31/2015 11:48:17 AM	21037
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>JME</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/31/2015 10:59:44 AM	21043
Surr: DNOP	99.2	57.9-140		%REC	1	8/31/2015 10:59:44 AM	21043
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	0.044		mg/Kg	1	8/31/2015 11:48:17 AM	21037
Toluene	ND	0.044		mg/Kg	1	8/31/2015 11:48:17 AM	21037
Ethylbenzene	ND	0.044		mg/Kg	1	8/31/2015 11:48:17 AM	21037
Xylenes, Total	0.12	0.088		mg/Kg	1	8/31/2015 11:48:17 AM	21037
Surr: 1,2-Dichloroethane-d4	103	70-130		%REC	1	8/31/2015 11:48:17 AM	21037
Surr: 4-Bromofluorobenzene	93.2	70-130		%REC	1	8/31/2015 11:48:17 AM	21037
Surr: Dibromofluoromethane	120	70-130		%REC	1	8/31/2015 11:48:17 AM	21037
Surr: Toluene-d8	91.0	70-130		%REC	1	8/31/2015 11:48:17 AM	21037

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

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1508E30

01-Sep-15

**Client:** APEX TITAN

**Project:** K-7 (2013)

Sample ID <b>MB-21043</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>PBS</b>	Batch ID: <b>21043</b>		RunNo: <b>28546</b>							
Prep Date: <b>8/31/2015</b>	Analysis Date: <b>8/31/2015</b>		SeqNo: <b>863645</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.8		10.00		97.5	57.9	140			

Sample ID <b>LCS-21043</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>21043</b>		RunNo: <b>28546</b>							
Prep Date: <b>8/31/2015</b>	Analysis Date: <b>8/31/2015</b>		SeqNo: <b>863646</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	41	10	50.00	0	81.1	57.4	139			
Surr: DNOP	4.3		5.000		86.7	57.9	140			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1508E30

01-Sep-15

**Client:** APEX TITAN

**Project:** K-7 (2013)

Sample ID	<b>mb-21037</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8260B: Volatiles Short List</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>21037</b>	RunNo:	<b>28555</b>					
Prep Date:	<b>8/28/2015</b>	Analysis Date:	<b>8/31/2015</b>	SeqNo:	<b>864180</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.50		0.5000		99.7	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		98.8	70	130			
Surr: Dibromofluoromethane	0.59		0.5000		118	70	130			
Surr: Toluene-d8	0.47		0.5000		93.6	70	130			

Sample ID	<b>ics-21037</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8260B: Volatiles Short List</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>21037</b>	RunNo:	<b>28555</b>					
Prep Date:	<b>8/28/2015</b>	Analysis Date:	<b>8/31/2015</b>	SeqNo:	<b>864181</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.050	1.000	0	98.1	70	130			
Toluene	0.93	0.050	1.000	0	92.8	70	130			
Ethylbenzene	0.95	0.050	1.000	0	95.1	70	130			
Xylenes, Total	2.9	0.10	3.000	0	96.0	70	130			
Surr: 1,2-Dichloroethane-d4	0.49		0.5000		98.3	70	130			
Surr: 4-Bromofluorobenzene	0.46		0.5000		91.1	70	130			
Surr: Dibromofluoromethane	0.61		0.5000		122	70	130			
Surr: Toluene-d8	0.46		0.5000		92.9	70	130			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1508E30

01-Sep-15

**Client:** APEX TITAN

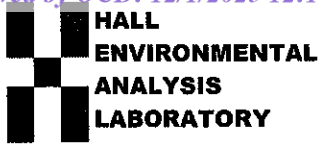
**Project:** K-7 (2013)

Sample ID	<b>mb-21037</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8015D Mod: Gasoline Range</b>					
Client ID:	<b>PBS</b>	Batch ID:	<b>21037</b>	RunNo:	<b>28555</b>					
Prep Date:	<b>8/28/2015</b>	Analysis Date:	<b>8/31/2015</b>	SeqNo:	<b>864550</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	520		500.0		103	70	130			

Sample ID	<b>ics-21037</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8015D Mod: Gasoline Range</b>					
Client ID:	<b>LCSS</b>	Batch ID:	<b>21037</b>	RunNo:	<b>28555</b>					
Prep Date:	<b>8/28/2015</b>	Analysis Date:	<b>8/31/2015</b>	SeqNo:	<b>864551</b>	Units:	<b>mg/Kg</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	97.9	70	123			
Surr: BFB	560		500.0		112	70	130			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit



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

# Sample Log-In Check List

Client Name: **APEX AZTEC**

Work Order Number: **1508E30**

RcptNo: 1

Received by/date:

Logged By: **Lindsay Mangin**

**8/29/2015 10:00:00 AM**

Completed By: **Lindsay Mangin**

**8/31/2015 6:01:54 AM**

Reviewed By:

**A 0813115**

**Chain of Custody**

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

**Log In**

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

**Special Handling (if applicable)**

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

Person Notified: \_\_\_\_\_ Date: \_\_\_\_\_  
 By Whom: \_\_\_\_\_ Via:  eMail  Phone  Fax  In Person  
 Regarding: \_\_\_\_\_  
 Client Instructions: \_\_\_\_\_

17. Additional remarks:

**18. Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.6	Good	Yes			

CHAIN OF CUSTODY RECORD

**APEX**  
 Office Location: Aztec  
 Laboratory: Hall  
 Address: ABQ  
 Contact: Freeman  
 Phone: \_\_\_\_\_  
 PO/ISO #: \_\_\_\_\_  
 Project Manager: Summers  
 Sampler's Name: Ryle Summers  
 Sampler's Signature: [Signature]  
 Project Name: Re-7 (2013)  
 No/Type of Containers: \_\_\_\_\_  
 Identifying Marks of Sample(s):  
 C.S-5  
 C.S-6  
 C.S-7  
 No. of Containers: \_\_\_\_\_  
 Glass Jar: \_\_\_\_\_  
 250 ml: \_\_\_\_\_  
 1 Lt. A/G: \_\_\_\_\_  
 VOA: \_\_\_\_\_  
 Depth: \_\_\_\_\_  
 Start: \_\_\_\_\_  
 End: \_\_\_\_\_  
 P/O: \_\_\_\_\_  
 Lab Sample ID (Lab Use Only):  
 1508E30-001  
 -002  
 -003

Turn around time	Normal	25% Rush	50% Rush	100% Rush	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>[Signature]</u>	<u>8/28/15</u>	<u>7:10</u>
Relinquished by (Signature)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>[Signature]</u>	<u>8/28/15</u>	<u>17:25</u>
Relinquished by (Signature)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>[Signature]</u>	<u>8/28/15</u>	<u>18:37</u>

ANALYSIS REQUESTED: BTEX 8021  
X TPH GRD/PRD 8015  
 Lab use only Due Date: 1 of 1  
 Temp. of coolers when received (C°): 1  
 1 2 3 4 5  
 NOTES: Bill Tom Long  
Enterprise  
AFE # A15135  
100% Rush



## APPENDIX D

### List of Landowners

---

Table A  
 Property Owners Within One (1) Mile Radius

Lateral K-7 Pipeline Release (7/15/2013)  
 Rio Arriba County, New Mexico  
 Enterprise Field Services, LLC

Parcel Number	Owner Name	Owner Address	Owner City, State, Zip Code
No Parcel Number	Scotty Cox	Not Available	Not Available
2039154447434	Berry, John Oliver & Berry, Patricia Joan Revocable Trust	PO Box 579	Dexter, NM 88230
2039154391286	US of America	6251 College Blvd., Suite A	Farmington, NM 87402
2039154452174	Enterprise Field Services, LLC	PO Box 4018	Houston, TX 77210
No Parcel Number	US of America	6251 College Blvd., Suite A	Farmington, NM 87402



## APPENDIX E

### Proposed Verbiage for Public Notice

---

Enterprise proposes the following language for public notice:

Enterprise Field Services, LLC (Enterprise) hereby announces the publication of a Stage 1 Abatement Plan for groundwater impacts identified at the Lateral K-7 Pipeline Release site located at latitude 36.47945° and longitude -107.56501° within Section 15 of Township 26 North, Range 7 West in Rio Arriba County, New Mexico, hereinafter referred to as the "Site".

On July 15, 2013, a release of natural gas condensate was identified due to a leak on the Lateral K-7 Pipeline Release. Initial response activities were implemented to remediate hydrocarbon impacts at the site. Subsurface investigations concluded that soil and groundwater impacts were present above applicable New Mexico (NM) Energy, Minerals and Natural Resource Department (EMNRD) Oil Conservation Division (OCD) standards for soil and Water Quality Control Commission (WQCC) standards for groundwater. Soil remediation has been completed at the site. No surface water was impacted.

The Director of the NMOCD has approved a Stage 1 Abatement Plan in which Enterprise proposes to further delineation, monitoring, and remediation activities and provide a proposed schedule to complete delineation activities in accordance with the New Mexico Administrative Code (NMAC) Title 19, Chapter 15, Part 30, Section 13 and 15 ( 19. 15. 30. 13 and 19. 15. 30. 15). In order to determine that the Stage 1 Abatement Plan is administratively complete, the NM EMNRD OCD Director has complied with Subsection B of 19.15.30.15 of the New Mexico Administrative Code (NMAC) by reviewing the document and concluding that it satisfies the requirements of Subsection C of 19.15.30.13 NMAC.

Members of the public may view a copy of the Stage 1 Abatement Plan at the NMOCD's Santa Fe office located at 1220 South St Francis Drive, #3, Santa Fe, New Mexico or at the NMOCD's district office at 1000 Rio Brazos Road, Aztec, New Mexico. Additionally, the Stage 1 Abatement Plan is available for viewing electronically on the NMOCD public database at <http://www.emnrd.state.nm.us/OCD/>.

The NMOCD is accepting written comments and requests for consideration if they are received within 30 days after the publication date of this public notice. Any person seeking to comment on a Stage 1 Abatement Plan should submit written comments to:

Cory Smith  
Environmental Specialist  
New Mexico Energy, Minerals and Natural Resources Department  
1220 South St. Francis Drive  
Santa Fe, NM 87505

The NMOCD shall distribute notice of the submittal of the Stage 1 Abatement Plan with the next division and commission hearing docket following receipt of the plan.

Additional information can be obtained from the Enterprise project contact:

Valerie J. Phipps  
Environmental Remediation  
1100 Louisiana Street

Houston, Texas 77002-5227  
713-381-4698

Page B2 - Jan. 8, 2026

Ensolum, LLC  
Daniel Moir, P.G.  
848 E. 2nd Ave  
Durango, CO 81301

### Publisher's Bill

Enterprise Field Services, LLC  
Stage I Abatement Plan

2x10 Display Ad  
lines one time at #325<sup>00</sup>

2 times at 2

Affidavit 2

Subtotal \$325<sup>00</sup>

Tax +28<sup>23</sup>

Total \$353<sup>23</sup>

Payment received at Rio Grande SUN

Date January 5, 2026

By Vickie [Signature]

# Affidavit of Publication

State of New Mexico  
County of Rio Arriba

I, Frank Leto, being first duly sworn, declare and say I am the publisher of the Rio Grande SUN, a weekly newspaper published in the English language and having a general circulation in the County of Rio Arriba, State of New Mexico, and being a newspaper duly qualified to publish legal notices and advertisements under the provisions of Chapter 167 of the Session Laws of 1937. The publication, a copy of which is hereto attached, was published in said paper once each week for

1 consecutive weeks and on the same day of each week in the regular issue of the paper during the time of publication and the notice was published in the newspaper proper, and not in any supplement. The first publication being on the

8<sup>th</sup> day of January, 2026

and the last publication on the 8<sup>th</sup> day of

January, 2026 payment for said advertisement has been duly made, or assessed as court costs. The undersigned has personal knowledge of the matters and things set forth in this affidavit.

[Signature]

Publisher

Subscribed and sworn to before me this 8<sup>th</sup> day of Jan A.D. 2026

[Signature]  
Maria G. Chavez  
My commission expires 21 October 2028







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TRACK STATUS BY TEXT MESSAGE

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Standard message and data rates may apply

TRACK STATUS ONLINE

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Text and e-mail alerts available

PURCHASE DETAILS

Product	Qty	Unit Price	Price
First-Class Mail® Letter	1		\$0.78
Mancos, CO 81328			
Weight: 0 lb 0.60 oz			
Estimated Delivery Date			
Sat 12/27/2025			
Certified Mail®			\$5.30
Tracking #:			
9589 0710 5270 3461 7540 76			
Return Receipt			\$4.40
Tracking #:			
9590 9402 9642 5199 6068 98			
<b>Total</b>			<b>\$10.48</b>

First-Class Mail® Letter	1		\$0.78
Farmington, NM 87402			
Weight: 0 lb 0.60 oz			
Estimated Delivery Date			
Sat 12/27/2025			
Certified Mail®			\$5.30
Tracking #:			
9589 0710 5270 3461 7540 83			
Return Receipt			\$4.40
Tracking #:			
9590 9402 9642 5199 6068 74			
<b>Total</b>			<b>\$10.48</b>

First-Class Mail® Letter	1		\$0.78
Dexter, NM 88230			
Weight: 0 lb 0.60 oz			
Estimated Delivery Date			
Sat 12/27/2025			
Certified Mail®			\$5.30
Tracking #:			
9589 0710 5270 3461 7540 90			
Return Receipt			\$4.40
Tracking #:			
9590 9402 9642 5199 6068 81			
<b>Total</b>			<b>\$10.48</b>

Grand Total: \$31.44

Credit Card Remit \$31.44

Card Name: VISA  
Account #: XXXXXXXXXXXXX8087  
Approval #: 022250  
Transaction #: 604  
AID: A0000000031010 Chip  
AL: VISA CREDIT  
PIN: Not Required

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All sales final on stamps and postage. Refunds for guaranteed services only. Thank you for your business.

Customer Service  
1-800-ASK-USPS  
(1-800-275-8777)

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Extra Services & Fees (check box, add fee as appropriate)	\$0.00
<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00
<input type="checkbox"/> Return Receipt (electronic)	\$0.00
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00
<input type="checkbox"/> Adult Signature Required	\$0.00
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00

Postage \$0.78

Total Postage and Fees \$11.48



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 Street and Apt. No., or PO Box No.  
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# U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only

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Certified Mail Fee \$5.30

\$ 4.40

Extra Services & Fees (check box, add fee as appropriate)

Return Receipt (hardcopy) \$ 0.00

Return Receipt (electronic) \$ 0.00

Certified Mail Restricted Delivery \$ 0.00

Adult Signature Required \$ 0.00

Adult Signature Restricted Delivery \$ 0.00

Postage \$0.78

Total Postage and Fees \$10.48

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City, State, ZIP+4®

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0615  
03

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# U.S. Postal Service™ CERTIFIED MAIL® RECEIPT Domestic Mail Only

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Mancos, CO 81328

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- Return Receipt (hardcopy) \$ **\$0.00**
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- Certified Mail Restricted Delivery \$ **\$0.00**
- Adult Signature Required \$ **\$0.00**
- Adult Signature Restricted Delivery \$ **\$0.00**

Postage

\$ **\$0.78**

Total Postage and Fees

\$ **\$10.48**

0615  
03

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DEC 2 2025

12/22/2025

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Tracy Scott Cox

Street and Apt. No., or PO Box No.

7401 Road 41

City, State, ZIP+4®

Mancos, CO 81328

9589 0730 5270 3467 7540 76

# Affidavit of Publication

STATE OF NEW MEXICO }  
COUNTY OF BERNALILLO } SS

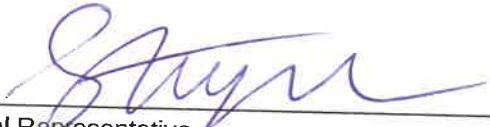
Ad Cost: \$615.24  
Ad Number: 343950  
Account Number: 1106314  
Classification: NON-GOVERNMENT LEGALS

I, Steve Yoder, the undersigned, Legal Representative of the Albuquerque Journal, on oath, state that this newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, chapter 167, Session Laws of 1937, and payment of fees has been made of assessed and a copy of which is hereto attached, was published in said publication in the daily edition, 1 time on the following date:

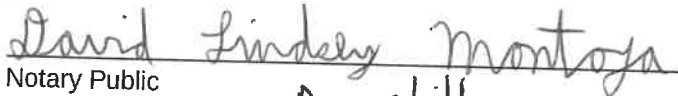
January 7, 2026

That said newspaper was regularly issued and circulated on those dates.

SIGNED:

  
\_\_\_\_\_  
Legal Representative

Subscribed to and sworn to me this 7<sup>th</sup> day of January 2026.

  
\_\_\_\_\_  
Notary Public

County Bernalillo  
ID#: 1140229  
My commission expires: 04-26-2027

STATE OF NEW MEXICO  
NOTARY PUBLIC  
DAVID LINDSEY MONTOYA  
COMMISSION NUMBER 1140229  
EXPIRATION DATE 04-26-2027

ENSOLUM LLC  
8330 LBJ FREEWAY, STE. 830  
DALLAS, TX 75243

Enterprise Field Services, LLC (Enterprise) hereby announces the publication of a Stage 1 Abatement Plan for groundwater impacts identified at the Lateral K-7 Pipeline Release site located at latitude 36.47945° and longitude -107.56501° within Section 15 of Township 26 North, Range 7 West in Rio Arriba County, New Mexico, hereinafter referred to as the "Site".

On July 15, 2013, a release of natural gas condensate was identified due to a leak on the Lateral K-7 Pipeline Release. Initial response activities were implemented to remediate hydrocarbon impacts at the site. Subsurface investigations concluded that soil and groundwater impacts were present above applicable New Mexico (NM) Energy, Minerals and Natural Resource Department (EMNRD) Oil Conservation Division (OCD) standards for soil and Water Quality Control Commission (WQCC) standards for groundwater. Soil remediation has been completed at the site. No surface water was impacted.

The Director of the NMOCD has approved a Stage 1 Abatement Plan in which Enterprise proposes to further delineation, monitoring, and remediation activities and provide a proposed schedule to schedule to complete delineation activities in accordance with the New Mexico Administrative Code (NMAC) Title 19, Chapter 15, Part 30, Section 13 and 15 ( 19. 15. 30. 13 and 19. 15. 30. 15). In order to determine that the Stage 1 Abatement Plan is administratively complete, the NM EMNRD OCD Director has complied with Subsection B of 19.15.30.15 of the New Mexico Administrative Code (NMAC) by reviewing the document and concluding that it satisfies the requirements of Subsection C of 19.15.30.13 NMAC.

Members of the public may view a copy of the Stage 1 Abatement Plan at the NMOCD's Santa Fe office located at 1220 South St Francis Drive, #3, Santa Fe, New Mexico or at the NMOCD's district office at 1000 Rio Brazos Road, Aztec, New Mexico. Additionally, the Stage 1 Abatement Plan is available for viewing electronically on the NMOCD public database at <http://www.emnrd.state.nm.us/OCD/>.

The NMOCD is accepting written comments and requests for consideration if they are received within 30 days after the publication date of this public notice. Any person seeking to comment on a Stage 1 Abatement Plan should submit written comments to:

Cory Smith  
Environmental Special Projects Supervisor  
New Mexico Energy, Minerals and Natural Resources Department  
1220 South St. Francis Drive  
Santa Fe, NM 87505

The NMOCD shall distribute notice of the submittal of the Stage 1 Abatement Plan with the next division and commission hearing docket following receipt of the plan.

Additional information can be obtained from the Enterprise project contact:

Valerie J. Phipps  
Environmental Remediation  
1100 Louisiana Street  
Houston, Texas 77002-5227  
713-381-4698

Sante Fe Main Office  
Phone: (505) 476-3441

General Information  
Phone: (505) 629-6116

Online Phone Directory  
<https://www.emnrd.nm.gov/ocd/contact-us>

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

CONDITIONS

Action 530799

**CONDITIONS**

Operator: Enterprise Field Services, LLC PO Box 4324 Houston, TX 77210	OGRID: 241602
	Action Number: 530799
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

**CONDITIONS**

Created By	Condition	Condition Date
shanna.smith	All groundwater samples will be analyzed according to all constituents in 20.6.2.3103 NMAC Pursuant to 19.15.30.9.B(2) NMAC. Operators may request to reduce sampling constituents based upon future results.	12/31/2025
shanna.smith	If soil and /or groundwater analytical data indicates impacted soil and/or groundwater is present in any of the lateral extent monitor wells, additional delineation soil borings/monitor wells will be advance within 120 days of laboratory analytical receipt and notifications to the NMOC of exceedances.	12/31/2025
shanna.smith	Submit quarterly reports pursuant to 19.15.30.13 Paragraph (5) of Subsection C. Operators may request to reduce sampling events based upon future results.	12/31/2025
shanna.smith	Pursuant to 19.15.30.9 (A) Each soil boring will have at least a minimum of two soil samples collected from the depth exhibiting the highest concentration observed and at the capillary fringe and will be analyzed for all constituents in 20.6.2.3103 NMAC.	2/18/2026