GW – 209

GWMR

11/25/2014



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

November 25, 2014

Return Receipt Requested 7012 1010 0003 3760 7758

Mr. Cordell TeCube - Director Environmental Protection Office Jicarilla Apache Nation P.O. Box 507 Dulce, NM 87528-0507

RE: Monitoring Well Installation, Groundwater Monitoring (June 2013 to June 2014 Sampling Events) and Product Recovery Report Enterprise Field Services, LLC - Lindrith Compressor Station SE/4 Section 18, Township 24 North, Range 5 West NM Oil Conservation Division GW Discharge Permit No. GW-209 RP# 3R-215 Rio Arriba County, New Mexico

Dear Mr. TeCube:

Enterprise Field Services, LLC (Enterprise) is submitting the enclosed *Monitoring Well Installation, Groundwater Monitoring (June 2013 to June 2014 Sampling Events) and Product Recovery Report*, dated November 11, 2014, for the facility referenced above.

This report documents the observations and analytical results derived from the June 2013 through June 2014 groundwater monitoring events, as well as documenting two (2) groundwater monitoring well installations and six (6) evaluation point monitoring well installations, and non-aqueous phase liquid (NAPL) condensate recovery events during 2013 and the first half of 2014.

During this reporting period, Two (2) additional monitoring wells were added to the existing network, one (1) at the western edge of the Site (MW-49), and one (1) south of the former pond area (MW-50). Additionally, six (6) evaluation point wells (EP-43 through EP-48) were installed near monitoring wells MW-1R and MW-9 to evaluate the system performance and the High Vacuum Recovery (HVR) radius of influence.

One (1) 72-hour HVR event was performed during October 2013. The HVR technology allows the removal of NAPL as well as facilitating vapor-phase recovery. The October 2013 recovery event yielded low results believed to be due to the small radius of influence and limited transmissivity of the formation near the top of the water bearing zone. In addition to the HVR recovery event, monthly hand-bailing was performed at wells exhibiting NAPL between January 2014 and May 2014.

NAPL hydrocarbon is present on the groundwater in the vicinity of the former condensate storage tank release (near MW-1R), at the former ponds/burn pit, and near a former subgrade tank at the western corner of the facility.

Mr. Cordell TeCube, Director Jicarilla EPO November 25, 2014 Page 2

COC concentrations in groundwater in the vicinities of each NAPL plume area exceed the WQCC standards, and appear to be relatively stable in magnitude over the three sampling events described herein.

Additional delineation of affected groundwater is scheduled to further address NAPL identified at monitoring well MW-49 at the western corner of the Site, and near monitoring well MW-6.

If you have any questions, or require additional information, please do not hesitate to contact me at (713) 381-2286, or via email at: <u>drsmith@eprod.com</u>.

Sincerely,

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

Greg E. Miller, P.G. Supervisor, Environmental

/dep Enclosure

cc: Mr. Kurt Sandoval Bureau of Indian Affairs, Realty Program P.O. Box 167 Dulce, NM 87528-0167

> Mr. Guillermo DeHerrera Jicarilla Oil & Gas Administration P.O. Box 146 Dulce, NM 87528-0146

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> Elizabeth Scaggs, APEX Kyle Summers, APEX



MONITORING WELL INSTALLATION, GROUNDWATER MONITORING (June 2013 to June 2014 Sampling Events) and PRODUCT RECOVERY REPORT

GROUNDWATER DISCHARGE PLAN GW-209 RP # 3R-215

Property:

Lindrith Compressor Station Southeast ¼ Section 18, Township 24N, Range 5W Rio Arriba County, New Mexico

> November 11, 2014 Apex Project No. 7030410G006

> > Prepared for:

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

Prepared by:

Umms

Kyle Summers, C.P.G. Branch Manager / Senior Geologist

Elizabeth Scaggs, P.G. Senior Program Manager

1.0		1
2.0	INTRODUCTION2.1Site Ranking2.2Constituents of Concern2.3Chronology of Events2.4Objectives2.5Standard of Care, Limitations & Reliance	3 4 6 6
3.0	SITE CHARACHTERIZATION. 3.1 Geology & Hydrogeology 3.1.1 Groundwater Gradient 3.1.2 Groundwater Classification 3.2 Land Use & Classification	7 7 8 8
4.0	 MONITORING WELL & EVALUATION POINT WELL INSTALLATIONS 4.1 Soil Borings & Monitoring Wells 4.1.1 Soil Boring Sampling Program 4.2 Soil Borings & Evaluation Point Wells 4.3 Laboratory Analytical Program – Soil 4.3.1 Quality Assurance/Quality Control (QA/QC) - Soil 4.4 Data Evaluation - Soil 	8 9 10 10 10 11
5.0	 GROUNDWATER MONITORING 5.1 Groundwater Sampling Program 5.2 Laboratory Analytical Program 5.2.1 Quality Assurance/Quality Control (QA/QC) 5.3 Groundwater Data Evaluation 	11 11 12 12 13
6.0	 PRODUCT RECOVERY - NAPL 6.1 High Vacuum Recovery 6.1.1 Radius of Influence 6.2 Hand Bailing 	16 16 18 18
7.0	FINDINGS	19
8.0	RECOMMENDATIONS	20

LIST OF APPENDICES

Appendix A:Figure 1 – Topographic Map
Figure 2 – Site Vicinity Map
Figure 3 – Site Map
Figure 4A – Groundwater Gradient Map (June 2013)
Figure 4B – Groundwater Gradient Map (December 2013)
Figure 4C – Groundwater Gradient Map (June 2014)
Figure 5 – RAL Exceedance Zone in Soil Map
Figure 6A – Groundwater GQS Exceedance Zone Map (June 2013)
Figure 6B – Groundwater GQS Exceedance Zone Map (Dec 2013)
Figure 6C – Groundwater GQS Exceedance Zone Map (June 2014)

Appendix B:Table 1 – Soil Analytical Summary
Table 2 – Groundwater Analytical Summary
Table 3 – Groundwater Elevations
Table 4A – MDPE Controller Data – Area 1
Table 4B – MDPE Controller Data – Area 2
Table 4C – MDPE Controller Data – Area 3
Table 5A – Radius of Influence – MR-1R
Table 5B – Radius of Influence – MW-9

- Appendix C: Soil Boring/Monitoring Well Logs
- Appendix D: Laboratory Analytical Reports & Chain of Custody Documentation



MONITORING WELL INSTALLATION, GROUNDWATER MONITORING (June 2013 to June 2014 Sampling Events) and PRODUCT RECOVERY REPORT

GROUNDWATER DISCHARGE PLAN GW-209 RP # 3R-215

Lindrith Compressor Station Southeast ¼ Section 18, Township 24N, Range 5W Rio Arriba County, New Mexico

Apex Project No. 7030410G006

1.0 EXECUTIVE SUMMARY

The Enterprise Field Services, LLC (Enterprise) Lindrith Compressor Station is located off Jicarilla Road J-36, approximately 7.2 miles west of State Highway 537, in the southeast (SE) ¼ of Section 8, Township 24N, Range 5W (36.309300 N, 107.396700 W) Rio Arriba County, Jicarilla Apache Nation, New Mexico, referred to hereinafter as the "Site" or "subject Site". The Site is a natural gas compressor station utilized to dehydrate and compress natural gas collected from production wells in the area for transportation via pipeline. The Site was constructed in the 1950s and currently includes three (3) compressor engines, a dehydration unit, a flare, one (1) bullet storage tank, a condensate storage tank battery, which includes eight (8) condensate storage tanks, two (2) below-grade tanks, inlet scrubbers, an unused water tower, and office/shop buildings.

On December 27, 2007, a natural gas condensate release (initially reported as 50 bbls (25 bbls recovered)) occurred within the containment berm at the former condensate storage tanks. The release penetrated the berm and flowed outside the south fence of the facility. The release was immediately reported the New Mexico Energy, Minerals, and Natural Resources Department (EMNRD), Oil Conservation Division's (OCD) Aztec field office, and the OCD Release Notification and Corrective Action form (Form C-141) was submitted to the OCD (January 4, 2008). Initial response activities included the removal of some impacted soil, as well as soil boring sampling to evaluate the extent of impact (Spill Cleanup Report Lindrith Compressor Station, Rio Arriba County, New Mexico, Envirotech, Inc., September 2008). Based on the results of initial soil and groundwater sampling activities, constituent of concern (COC) concentrations were identified in soil above the New Mexico EMNRDOCD Remediation Action Levels (RALs) and in groundwater above the New Mexico Water Quality Control Commission (WQCC) Groundwater Quality Standards (GQSs). Supplemental excavation, delineation, and remediation activities were performed between November 2009 and March 2013 (Subsurface Investigation Report, LT Environmental, Inc. (LTE), February 2011) (Supplemental Site Investigation & Corrective Action Work Plan, Southwest Geoscience (now Apex TITAN, Inc. (Apex)), November 30, 2011), resulting in the removal of approximately 4,182 cubic yards of hydrocarbon affected soils, the advancement of a total of forty-two (42) soil borings, and the installation and sampling of twentyfive (25) groundwater monitoring wells. The former condensate tanks and associated belowgrade tank have been permanently removed from the facility, and groundwater monitoring continues at the Site.

This report documents the observations and analytical results derived from the June 2013 through June 2014 groundwater monitoring events, as well as documenting two (2) groundwater monitoring well installations and six (6) evaluation point monitoring well installations, and non-



aqueous phase liquid (NAPL) condensate recovery events during 2013 and the first half of 2014. Pertinent findings and information from these activities include the following:

- Two (2) additional monitoring wells were added to the existing network, one (1) at the western edge of the Site (MW-49), and one (1) south of the former pond area (MW-50).
- Six (6) evaluation point wells (EP-43 through EP-48) were installed near monitoring wells MW-1R and MW-9 to evaluate the system performance and the HVR radius of influence.
- One (1) 72-hour High Vacuum Remediation (HVR) event was performed during October 2013. The HVR technology allows the removal of NAPL as well as facilitating vapor-phase recovery. The October 2013 recovery event yielded low results (39.9 gallons of hydrocarbon liquid and vapor) believed to be due to the radius of influence and limited transmissivity of the formation near the top of the water bearing zone. Enterprise continues to evaluate potential recovery methods to remove NAPL from the Site groundwater.
- In addition to the HVR recovery event, monthly hand-bailing was performed at wells exhibiting NAPL between January 2014 and May 2014. These hand bailing events resulted in the removal of approximately 80 gallons of NAPL during this period.
- NAPL hydrocarbon is present on the groundwater in the vicinity of the former condensate storage tank release (near MW-1R), at the former ponds/burn pit, and near a former subgrade tank at the western corner of the facility.
- COC concentrations in groundwater in the vicinities of each NAPL plume area exceed the WQCC standards, and appear to be relatively stable in magnitude over the three sampling events described herein.
- Additional delineation of affected groundwater is needed downgradient of monitoring well MW-49 at the western corner of the Site, and near monitoring well MW-6.



2.0 INTRODUCTION

The Site is under the jurisdiction of the Jicarilla Apache Nation Environmental Protection Office (JANEPO). In the absence of published JANEPO regulatory guidance, Apex referenced the New Mexico OCD's *Guidelines for Remediation of Leaks, Spills and Releases* as guidance, in addition to the OCD rules, specifically NMAC (New Mexico Administrative Code) 19.15.29 *Remediation Plan.* These guidance documents establish investigation and abatement action requirements for sites subject to reporting and/or corrective action.

Based on the results of soil and groundwater sampling activities at the Site, COC concentrations were identified in soil above the New Mexico EMNRD OCD RALs and in groundwater above the New Mexico WQCC *GQSs.*

The following historical source areas are suspected as contributors to the identified soil and/or groundwater impact at the facility:

- Former condensate storage tanks and associated below-grade tank in the south central portion of the facility and possibly a hydrocarbon tank formerly located southeast of the water tower. An NAPL plume is present in this area.
- Former pond locations (and possible historical burn pit location) in the southeastern portion of the facility in the vicinity of monitoring wells MW-30 and MW-32. An NAPL plume is present in this area.
- Below-grade tank formerly located at the west boundary of the facility. NAPL was present in monitoring wells MW-39 and MW-49 during the July 2014 groundwater sampling event.

The Site location is depicted on Figure 1 of Appendix A which was reproduced from a portion of the United States Geological Survey (USGS) 7.5-minute series topographic map. A Site Vicinity Map is included as Figure 2, and a Site Map, which indicates the approximate locations of the monitoring wells in relation to pertinent structures and general Site boundaries, is included as Figure 3 of Appendix A.

2.1 Site Ranking

In accordance with the OCD's *Guidelines for Remediation of Leaks, Spills and Releases*, Apex utilized the general site characteristics to determine the appropriate "ranking" for the Site. The ranking criteria and associated scoring are provided in the following table:

Rankir	Ranking Score			
	<50 feet	20		
Depth to Groundwater	50 to 99 feet	10	20	
	>100 feet	0		
Wellhead Protection Area • <1,000 feet from a water	Yes	20	20	
source, or; <200 feet from private domestic water source.	No	0	20	
	<200 feet	20		
Distance to Surface Water Body	200 to 1,000 feet	10	0	
	>1,000 feet	0		
Total Ranking Score			40	



Based on Apex's evaluation of the scoring criteria, the Site would have a maximum Total Ranking Score of 40. This ranking is based on the following:

- The depth to the initial groundwater-bearing zone is <50 feet below grade surface (bgs) at the Site.
- A livestock water well is located upgradient/cross-gradient (Southeast) of the facility.
- Largo wash is greater than 1000' from the Site.

Based on a Total Ranking Score of 40, cleanup goals for soil located at the Site include: 10 milligrams per kilogram (mg/Kg) for benzene, 50 mg/Kg for total benzene, toluene, ethylbenzene, and xylenes (BTEX), and 100 mg/Kg for total petroleum hydrocarbon (TPH) gasoline range organics (GRO)/diesel range organics (DRO).

In addition, cleanup goals for groundwater located at the Site include the WQCC *GQSs* of: 10 micrograms per liter (μ g/L) for benzene, 750 μ g/L for toluene, 705 μ g/L for ethylbenzene, and 620 μ g /L for total xylenes.

2.2 Constituents of Concern

The soil and groundwater samples collected from *previously* installed soil borings/monitoring wells were analyzed for TPH utilizing Environmental Protection Agency (EPA) method SW-846 #8015M and BTEX using EPA SW-846 method #8021B. Additionally, one soil sample (B-21 @ 23') was analyzed for glycols, and two soil samples (B-27 @ 12' and B-27@ 33') were analyzed for volatile organic compounds (VOCs) utilizing EPA method SW-846 #8260.

- Based on the laboratory analytical results from *previous* investigations, combined TPH GRO/DRO concentrations were identified in soil samples collected from borings B-3 (25'), B-11(35'), B-12 (33.5'), B-13 (30'), B-15 (33'), B-16 (32'), B-18 (33'), B-20 (30'), B-24 (29'), B-27 (12'), B-28 (30'), B-29 (27'), MW-30 (12' and 35'), MW-32 (17' and 35'), MW-37 (30'), and MW-39 (31') above the OCD *RAL* of 100 mg/Kg.
- Based on the laboratory analytical results from *previous* investigations, total BTEX concentrations were identified in soil samples collected from borings B-13 (30'), B-20 (30'), MW-30 (35'), MW-32 (35'), MW-37 (30'), and MW-39 (31') above the OCD *RAL* of 50 mg/Kg.
- The soil samples analyzed for glycols and VOCs did not exhibit elevated concentrations of these constituents.
- Based on the laboratory analytical results from groundwater sampling events prior to 2013, benzene concentrations have been identified in groundwater samples collected from monitoring wells MW-2, MW-3, MW-4, MW-6, MW-7, MW-12, MW-36, MW-38, and MW-42 above the WQCC GQS of 10 µg/L.
- Based on the laboratory analytical results from groundwater sampling events prior to 2013, toluene concentrations have been identified in groundwater samples collected from monitoring wells MW-3 and MW-4 above the WQCC GQS of 750 μg /L.
- Based on the laboratory analytical results from groundwater sampling events prior to 2013, total xylenes concentrations have been identified in groundwater samples collected from monitoring wells MW-2, MW-3, MW-4, MW-6, and MW-38 above the WQCC GQS of 620 μg /L.



• During gauging events prior to 2013, NAPL has been identified in monitoring wells MW-1R, MW-2, MW-3, MW-6, MW-9, MW-30, MW-32, MW-37, and MW-39.

Soil and groundwater analytical results for the Site borings and monitoring wells from previous investigations are included in Tables 1 and 2, respectively.

2.3 Chronology of Events

December 27, 2007	An estimated 50 barrel (bbl) (25 bbls recovered) release of condensate occurred at the former condensate storage tanks location due to suspected theft or vandalism. The OCD was notified immediately, and a C-141 Release Notification was submitted to the OCD on January 4, 2008. Condensate penetrated the secondary containment berm and flowed outside the south fence of the facility. Initial response activities included the removal of some soil, and the advancement of soil borings.
September 2008	Spill Cleanup Report Lindrith Compressor Station, Rio Arriba County, New Mexico, September 2008 (Envirotech).
November 2009	LTE oversaw the removal of an additional 3,200 cubic yards of hydrocarbon affected soil from the affected area. Apparent historically impacted soil was identified underlying the floor of the excavation, which extended to approximately 9 feet bgs.
December 2009	Six (6) soil borings were advanced in the immediate vicinity of the former condensate storage tanks. Three (3) of the soil borings were converted into groundwater monitoring wells. Groundwater impact was confirmed through laboratory analysis.
March 2010	Proposed <i>Delineation Work Plan,</i> (LTE) presented to the JANEPO detailing the proposed subsurface investigation activities.
April 2010	Supplemental Work Plan, (LTE) presented to JANEPO describing proposed below- grade tank removal and remediation activities.
May 2010	Removal of the below-grade tank, as well as an additional 982 cubic yards of hydrocarbon affected soils.
June 2010	Combined ORC Injection and Delineation Work Plan and Remediation Work Plan (LTE) submitted to JANEPO. This work plan proposed in-situ treatment at the source and additional soil and groundwater delineation activities.
July-November 2010	Bureau of Indian Affairs (BIA) approves the combined work plans. Oxygen Release Compound [®] (ORC) is introduced into the excavation floor, a drain/injection system is installed, and the excavation is backfilled. The ORC is hydrated immediately after the drain/injection system installation, and again in September, October and November 2010.
October 2010	LTE begins supplemental site delineation activities which included twenty (20) additional soil borings across the southern portion of the Site and adjacent property. Ten (10) of the soil borings are completed as groundwater monitoring wells, including the replacement of MW-1 with MW-1R.
February 2011	Subsurface Investigation Report (LTE) describes the results of the subsurface investigation activities. The investigation identified NAPL in association with the initial groundwater bearing unit, as well as identifying historical apparent impact from undetermined sources. Additional investigation will be required to further evaluate the extent of the NAPL and dissolved-phase groundwater COCs, as well as the historic soil



	impacts.
August 2011	Supplemental Site Investigation Work Plan (LTE) submitted to JANEPO on August 1, 2011. Supplemental Site Investigation Work Plan (LTE) approved by JANEPO on August 12, 2011.
August/September 2011	Supplemental site investigation activities performed which included the advancement and sampling of thirteen (13) additional soil borings across the southern portion of the Site and adjacent property. Each of the soil borings were converted into groundwater monitoring wells which were sampled during the September 2011 groundwater sampling event. Two previously undocumented NAPL plumes were identified and delineated during the course of the investigation and sampling activities.
December 12, 2011	Supplemental Environmental Site Investigation & Corrective Action Work Plan (SWG) submitted to JANEPO for review/approval.
February 12, 2012	JANEPO approves the activities proposed in the <i>Supplemental Site Investigation</i> & <i>Corrective Action Work Plan</i> (SWG).
May-July 2012	HVR activities performed at the former condensate release site. A total of approximately 584 gallons of hydrocarbon product were removed from the subsurface during this HVR event. Most of the recovery was in gaseous phase, the bulk of which was consumed during the removal of product by the HVR's internal combustion engine.
April 2013	Two (2) delineation monitoring wells (MW-49 and MW-50) and six (6) evaluation point wells (EP-43 through EP-48) were installed at the Site to allow a determination of "radius of influence" calculations during the next HVR event.
October 2013	Performed 72-hour HVR event spilt between monitoring wells MW-1R, MW-6, MW-9, MW-30 and MW-39. Total hydrocarbon product recovery during this event was 39.3 gallons.
January-May 2014	Hand bailing events were conducted between January 2014 and May 2014 to further evaluate the rate of product recovery at each monitoring well and evaluation point well location.

2.4 Objectives

The objectives of the additional monitoring well installations and the continued groundwater monitoring events were to further evaluate the concentrations of COCs in groundwater at the Site and to further define the lateral extent of the dissolved-phase COC plume. The objectives of the evaluation point monitoring well installations, product removal (utilizing HVR), and hand-bailing events were to remove NAPL from the groundwater at the Site, and to further evaluate NAPL recharge rates in the weathered sandstone units.

2.5 Standard of Care, Limitations & Reliance

Apex Companies, LLC's (Apex's) services were performed in accordance with standards customarily provided by a firm rendering the same or similar services in the area during the same time period. Apex makes no warranties, expressed or implied, as to the services performed hereunder. Additionally, Apex does not warrant the work of third parties supplying information used in the report (e.g. laboratories, regulatory agencies, or other third parties). This scope of services was performed in accordance with the scope of work agreed with the client.



Findings, conclusions and recommendations resulting from these services are based upon information derived from the on-Site activities and other services performed under this scope of work and it should be noted that this information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, or not present during these services, and Apex cannot represent that the Site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during this scope of services. Environmental conditions at other areas or portions of the Site may vary from those encountered at actual sample locations. Apex's findings and recommendations are based solely upon data available to Apex at the time of these services.

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

3.0 SITE CHARACHTERIZATION

The Lindrith Compressor Station is located off Jicarilla Road J-36, approximately 7.2 miles west of State Highway 537, in Section 8, Township 24N, Range 5W (36.309300 N, 107.396700 W), within the Jicarilla Apache Nation. The Site is located within the Largo Canyon watershed which ultimately feeds to the San Juan River. The terrain is high desert canyon rangeland, with vegetation primarily limited to draught- and temperature-tolerant species.

3.1 Geology & Hydrogeology

According to the New Mexico Bureau of Geology and Mineral Resource (Geologic Map of New Mexico 2003), the Site overlies the San Jose geologic formation. The Eocene age San Jose geologic formation contains a mixture of clastic sedimentary rocks varying from siltstone to conglomerate, dominated by rocks containing sand-sized particles. The lithology encountered at the Site during boring activities is composed of Quaternary alluvial deposits derived from erosion of the parent San Jose sandstones and siltstones. Based on the data collected during the completion of soil borings, the alluvia generally consist of brown silty/clayey sands and weathered sandstones from the ground surface to at least 20 feet bgs.

The lithology observed during the advancement of soil boring MW-37 at the Site included a pale to moderate yellowish brown silty sand from the surface to approximately 15.0 feet bgs. The silty sand stratum was underlain by a moderate to dark yellowish brown fine sand from 15.0 feet bgs to 24.0 feet bgs. A moderate brown to dark gray weathered silty sandstone was encountered from 24.0 feet bgs to 31.0 feet bgs. At approximately 31.0 feet bgs the color of the weathered sandstone changed to a moderate to pale yellowish brown until a depth of 39.5 feet at which point the color changed to a moderately dark to olive gray. The boring was terminated at 40 feet bgs. The lithologies observed in the remaining soil borings at the Site were generally similar to soil boring MW-37, with occasional clay stringers, and sandstones weathered to varying degrees.

The initial groundwater-bearing unit (GWBU) at the Site was encountered at depths ranging from approximately 30 to 35 feet bgs during the investigation activities. This shallow water-bearing unit is observed in alluvium and weathered sandstone bedrock. The major aquifer underlying the Site vicinity is listed as the Colorado Plateaus Aquifer, which is made up of four smaller aquifers,



the Uinta-Animas, the Mesa Verde, the Dakota-Glen, and the 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 primary aquifers is moderately to well-consolidated sedimentary rocks of an age ranging from Permian to Tertiary. There are countless streams, rivers, and lakes that overlay the Colorado Plateaus Aquifers. The surface water bodies in this region provide a place for the aquifers to discharge. Some of the high altitude rivers and lakes may also provide recharge.

3.1.1 Groundwater Gradient

Each of the monitoring wells has been surveyed for top-of-casing (TOC) elevations. Prior to sample collection activities, Apex gauged the depth to fluids in each monitoring well. The groundwater flow direction (gradient) generally ranges from southwest to west across the Site, with a gradient that typically ranges from 0.002 ft/ft to 0.004 ft/ft.

Groundwater measurements and elevations are presented with TOC elevations in Table 3 (Appendix B). Groundwater gradient maps for the June 2013 through June 2014 events are included as Figures 4A through 4C (Appendix A).

3.1.2 Groundwater Classification

In accordance with 19.15.30 NMAC *Remediation*, a groundwater-bearing unit is classified as an "Underground Source of Drinking Water" provided the groundwater-bearing unit is capable of producing water for human consumption or that contains ground water having a total dissolved solids (TDS) concentration of 10,000 milligrams per liter (mg/l) or less and that is not an exempted aquifer. Based on conductivity readings collected during quarterly sampling events (averaging 2.7 millisiemens per centimeter (mS/cm)), groundwater at the site is likely to exhibit TDS results of less than 2,200 mg/l.

3.2 Land Use & Classification

Due to the absence of land use classification guidelines in the OCD *Guidelines for Remediation* of *Leaks, Spills and Releases* and/or NMAC 19.15.30 *Remediation*, land use was determined by comparison of existing land use of the Site to the definitions for residential and non-residential land use published in the available New Mexico Environment Department (NMED) regulatory guidance. Based on the available NMED guidance, non-residential land use encompasses all commercial and industrial land uses.

The Site, and adjacent and surrounding (beyond adjacent) properties are currently utilized as undeveloped rangeland occasionally interrupted by oil and gas gathering facilities. Based on Apex's review of the available information and visual inspection of the Site and vicinity, the Site appears to meet the non-residential land use classification.

4.0 MONITORING WELL & EVALUATION POINT WELL INSTALLATIONS

As part of the continuing delineation activities, two (2) soil borings (MW-49 and MW-50) were advanced outside the west corner of the facility fence and south of the former pond area. These soil borings were subsequently completed as groundwater monitoring wells. These monitoring wells were located to further define the western COC groundwater plume and pond area COC groundwater plume, respectively.

In addition to the groundwater monitoring well installations, Apex also advanced six (6) soil borings within the NAPL plume near monitoring wells MW-9 and MW-1R. These soil borings



were subsequently completed as evaluation point wells EP-43 through EP-48 to facilitate the evaluation of the "radius-of-influence" created by HVR events.

Drill cuttings derived from the advancement of the soil borings were transported to Envirotech Landfarm near Angel Peak, New Mexico for treatment/disposal.

Figure 3 of Appendix A is a Site Map which depicts the location of the monitoring wells and evaluation point wells in relation to pertinent Site features.

4.1 Soil Borings & Monitoring Wells

Soil samples from the two (2) monitoring well soil borings were collected continuously, utilizing five-foot core barrel samplers to the termination depth of each soil boring. An on-Site geoscientist documented the lithology encountered and constructed a continuous profile of the soil column from the surface to the boring terminus. Soil samples were examined to document soil lithology, color, moisture content, and visual and olfactory evidence of petroleum hydrocarbons. Field headspace analysis was conducted by placing the portion of the soil sample designated for field screening into a plastic Ziplock® bag. The plastic bag was sealed, and the sample allowed to volatize. The air in the sealed bag, the headspace, was then evaluated using a photoionization detector (PID) capable of detecting VOCs. The PID was calibrated utilizing an isobutylene standard prior to use in the field.

Overall, PID readings ranged from zero (0) parts per million (ppm) to 23 ppm. The soil boring for monitoring well MW-49 exhibited the highest PID reading (23 ppm) at a depth of 29' to 30' bgs. Field screening results are presented on soil boring/monitoring well logs included in Appendix C.

Subsequent to advancement, each of the monitoring well soil borings were converted to permanent groundwater monitoring wells. The monitoring wells were completed using the following methodology:

- Installation of 15 feet of 2-inch diameter, 0.010-inch machine slotted PVC well screen with a threaded bottom cap;
- Installation of 2-inch diameter, threaded flush joint PVC riser pipe to the ground surface;
- Addition of a pre-sieved 10/20 grade annular silica sand pack from the bottom of the soil boring to 2-feet above the top of the well screen;
- Addition of a hydrated bentonite seal above the sand pack filter zone;
- Addition of grout to the surface; and,
- Installation of a locking well cap and protective steel riser.

Monitoring well construction details are presented on the soil boring/monitoring well logs provided in Appendix C.

4.1.1 Soil Boring Sampling Program

Apex's soil sampling program involved submitting one (1) or more soil sample(s) from each soil boring for laboratory analysis. Soil samples were collected from the zone exhibiting the highest PID reading. If the PID readings were inconclusive, the sample(s) were collected from a change in lithology, or from the capillary fringe zone, based on the field professional's judgment.



Soil sample intervals are presented with the soil sample analytical results (Table 1) in Appendix B and are provided on the soil boring/monitoring well logs included in Appendix C.

4.2 Soil Borings & Evaluation Point Wells

The soil borings advanced for the completion of evaluation point wells were not intended to be sampled, so a core barrel was not utilized during drilling. This allowed for quicker well completion times. The lithologic logs for these borings were created by examining the auger cuttings. An on-Site geoscientist documented the lithology encountered and constructed an approximate profile of the soil column based on the auger cuttings. Soil samples were examined to document soil lithology and color. The soil boring/monitoring well logs are included in Appendix C.

Subsequent to advancement, the soil borings were completed as evaluation point wells. The evaluation point wells were completed using the following methodology:

- Installation of 15 feet of 2-inch diameter, 0.010-inch machine slotted PVC well screen with a threaded bottom cap;
- Installation of 2-inch diameter, threaded flush joint PVC riser pipe to the ground surface;
- Addition of a pre-sieved 10/20 grade annular silica sand pack from the bottom of the soil boring to 2-feet above the top of the well screen;
- Addition of a hydrated bentonite seal above the sand pack filter zone;
- Addition of grout to the surface; and,
- Installation of a locking well cap and protective steel riser.

Evaluation point well construction details are presented on the monitoring well logs provided in Appendix C.

4.3 Laboratory Analytical Program – Soil

The soil samples collected during the advancement of the monitoring well soil borings were analyzed for TPH GRO/DRO using EPA method SW-846 #8015 and BTEX using EPA method SW-846 method #8021.

Laboratory results are summarized in the tables included in Appendix B. The executed chain-ofcustody form and laboratory data sheets are provided in Appendix D.

4.3.1 Quality Assurance/Quality Control (QA/QC) - Soil

All non-disposable sampling equipment was cleaned using an Alconox[®] wash and potable water rinse prior to the beginning of the project and before the collection of each sample.

Soil samples were collected and placed in laboratory prepared glassware, sealed with custody tape and placed on ice in a cooler, which was secured with a custody seal. The sample coolers and completed chain-of-custody forms were relinquished to Hall Environmental Analysis Laboratory (HEAL) in Albuquerque, New Mexico for standard turnaround.



HEAL performed the analyses of samples under an adequate and documented quality assurance program to meet the project and data quality objectives. The laboratory's quality assurance program is generally consistent the quality standards outlined in the National Environmental Laboratory Accreditation Program, as amended. In addition, the data generated by HEAL meet the intralaboratory performance standards for the selected analytical method and the performance standards are sufficient to meet the bias, precision, sensitivity, representativeness, comparability, and completeness, as specified in the project data quality objectives. Sample results that resulted in Data Qualifier (DQ) flags are listed below.

Soil Sample ID	Data Qualifier Flag	Comments/Reactions
None	No DQ Flags Reported	None

4.4 Data Evaluation - Soil

Apex compared the TPH GRO/DRO and BTEX concentrations or laboratory reporting limits (RLs) associated with the soil samples to the OCD *Remediation Action Levels* for a Site ranking of 40.

Total Petroleum Hydrocarbons

Soil samples collected from soil borings MW-49 and MW-50 did not exhibit combined TPH GRO/DRO concentrations above the laboratory RLs, which are below the OCD's *Remediation Action Level* of 100 mg/Kg.

<u>Benzene</u>

The soil samples collected from soil borings MW-49 and MW-50 did not exhibit benzene concentrations above the laboratory RLs, which are below the OCD's *Remediation Action Level* of 10 mg/Kg.

Total BTEX

The soil samples collected from soils borings MW-49 and MW-50 did not exhibit total BTEX concentrations above the laboratory RLs, which are below the OCD's *Remediation Action Level* of 50 mg/Kg.

The results of soil sample analyses are summarized in Table 1 of Appendix B. Figure 5 (Appendix A) details the OCD *Remediation Action Level* Exceedance Zone in soil.

5.0 GROUNDWATER MONITORING

Enterprise initiated the Lindrith Compressor Station groundwater monitoring program in December 2009. Since that time, over 170 groundwater samples have been collected from the shallow GWBU and submitted for laboratory analyses on an effort to delineate and evaluate the groundwater COC and NAPL plumes.

5.1 Groundwater Sampling Program

Semi-annual groundwater sampling events were conducted during June 2013, December 2013, and June 2014 by Aaron Bentley, Aaron Bryant, and Mahlia Abaya, Apex environmental professionals. Apex's groundwater sampling program consisted of the following:



Prior to sample collection, Apex gauged the depth to fluids in each monitoring well using an interface probe capable of detecting NAPL. Monitoring wells exhibiting measurable NAPL were not sampled during the completion of the groundwater monitoring event.

Each monitoring well was micro-purged utilizing low-flow sampling techniques. Low-flow refers to the velocity with which groundwater enters the pump intake and that is imparted to the formation pore water in the immediate vicinity of the well screen. It does not necessarily refer to the flow rate of water discharged at the surface which can be affected by flow regulators or restrictions. Water level drawdown provides the best indication of the stress imparted by a given flow-rate for a given hydrological situation. The objective is to pump in a manner that minimizes stress (drawdown) to the system, to the extent practical, taking into account established Site sampling objectives. Flow rates on the order of 0.1 to 0.5 liters per minute (L/min) are maintained during sampling activities, using dedicated sampling equipment.

The utilization of low-flow minimal drawdown techniques enables the isolation of the screened interval groundwater from the overlying stagnant casing water. The pump intake is placed within the screened interval such that the groundwater recovered is drawn in directly from the formation with little mixing of casing water or disturbance to the sampling zone.

Subsequent to the completion of the micro-purge process, one (1) groundwater sample was collected from each monitoring well not observed to contain NAPL. The groundwater samples were collected from each monitoring well once produced groundwater was consistent in color, clarity, pH, dissolved oxygen, oxidation-reduction potential, temperature and conductivity.

5.2 Laboratory Analytical Program

The groundwater samples collected from the monitoring wells during the groundwater sampling events were analyzed for TPH GRO/DRO utilizing EPA method SW-846 #8015, and BTEX utilizing EPA method SW-846 #8021. The containers containing the samples for organic analyses were pre-preserved with HgCl₂ to minimize effervescence and retain any COCs in solution.

A summary of the analysis, sample type, sample frequency range, and EPA-approved methods are presented on the following table.

Analysis	Sample Type	No. of Samples	EPA Method
TPH GRO/DRO	Groundwater	18-19/event	SW-846 8015
втех	Groundwater	18-19/event	SW-846 8021

Laboratory results are summarized in Table 1 included in Appendix B. The executed chain-ofcustody form and laboratory data sheets are provided in Appendix D.

5.2.1 Quality Assurance/Quality Control (QA/QC)

All non-disposable sampling equipment was cleaned using an Alconox[®] wash and potable water rinse prior to the beginning of the project and before the collection of each sample.

Groundwater samples were collected and placed in laboratory prepared glassware, sealed with custody tape and placed on ice in a cooler, which was secured with a custody seal. The sample



coolers and completed chain-of-custody forms were relinquished to HEAL in Albuquerque, New Mexico for standard turnaround.

HEAL performed the analyses of samples under an adequate and documented quality assurance program to meet the project and data quality objectives. The laboratory's quality assurance program is generally consistent the quality standards outlined in the National Environmental Laboratory Accreditation Program, as amended. In addition, the data generated by HEAL meet the intralaboratory performance standards for the selected analytical method and the performance standards are sufficient to meet the bias, precision, sensitivity, representativeness, comparability, and completeness, as specified in the project data quality objectives. Sample results that resulted in Data Qualifier flags are listed below.

Sample ID	Data Qualifier Flag	Comments/Reactions
MW-3 (June 2013)	TPH Diesel Range Spike Recovery was outside the accepted recovery limits.	The "non-detect" TPH DRO data is suitable for the intended use as a non-regulated screening result. Benzene is present above WQCC <i>GQSs</i> at this location, but no flags are associated with the SW-846 #8021 analysis.
MW-42 (December 2013)	TPH Diesel Range Spike Recovery was outside the accepted recovery limits.	The "non-detect" TPH DRO data is suitable for the intended use as a non-regulated screening result. No BTEX constituents were reported above laboratory RLs and no flags are associated with the SW-846 #8021 analysis.
MW-12 (December 2013)	TPH Gasoline Range Spike Recovery was outside the accepted recovery limits.	The 0.52 µg/L TPH GRO data is suitable for the intended use as a non-regulated screening result. Benzene is present above WQCC <i>GQSs</i> at this location, but no flags are associated with the SW-846 #8021 analysis.
MW-12 (June 2014)	TPH Gasoline Range Spike Recovery was outside the accepted recovery limits.	The 0.37 µg/L TPH GRO data is suitable for the intended use as a non-regulated screening result. Benzene is present above WQCC <i>GQSs</i> at this location, but no flags are associated with the SW-846 #8021 analysis.
MW-2 (June 2014)	TPH Gasoline Range Spike Recovery was outside the accepted recovery limits.	The "non-detect" TPH DRO data is suitable for the intended use as a non-regulated screening result. Benzene is present above WQCC <i>GQSs</i> at this location, but no flags are associated with the SW-846 #8021 analysis.

5.3 Groundwater Data Evaluation

Apex compared BTEX concentrations or laboratory RLs associated with the groundwater samples collected from monitoring wells during the June 2013, December 2013, and June 2014 sampling events to the New Mexico WQCC *GQSs*.



June 2013 - Benzene, Toluene, Ethylbenzene, and Xylenes

The groundwater samples collected from monitoring wells MW-5, MW-7, MW-8, MW-10, MW-11, MW-31, MW-33, MW-34, MW-35, MW-36, MW-40, MW-41, and MW-42 did not exhibit benzene, toluene, ethylbenzene or xylenes concentrations above the respective WQCC *GQSs*.

The groundwater samples collected from monitoring wells MW-2, MW-3, MW-4, MW-12, MW-38, and MW-49 exhibited benzene concentrations ranging from 71 μ g/L (MW-12) to 4,300 μ g/L (MW-4) which exceed the WQCC GQS of 10 μ g/L.

The groundwater sample collected from monitoring well MW-4 exhibited a toluene concentration of 1,800 μ g/L which exceeds the WQCC GQS of 750 μ g/L.

The groundwater samples collected from monitoring wells MW-2, MW-4, MW-38, and MW-49 exhibited xylene concentrations ranging from 800 μ g/L (MW-38) to 1,700 μ g/L (MW-4), which exceed the WQCC GQS of 620 μ g/L.

Groundwater samples were not collected from monitoring wells MW-1R, MW-6, MW-9, MW-30, MW-32, MW-37 or MW-39 during the June 2013 monitoring event due to the presence of NAPL. MW-50 was not sampled due to insufficient water column within the casing.

The results of groundwater sample analyses are summarized in Table 1 of Appendix B. Figure 6A (Appendix A) details the WQCC *Groundwater Quality Standard* Exceedance Zone in groundwater for June 2013.

June 2013 - TPH GRO/DRO

The groundwater samples collected from monitoring wells MW-2, MW-3, MW-4, MW-5, MW-7, MW-12, MW-36, MW-38, MW-40, and MW-49 exhibited TPH GRO concentrations ranging from 0.065 mg/L (MW-36) to 34 mg/L (MW-4).

The groundwater samples collected from monitoring wells MW-4, MW-5, MW-38, and MW-41 exhibited TPH DRO concentrations ranging from 1.1 mg/L (MW-5 and MW-38) to 1.2 mg/L (MW-4 and MW-41).

December 2013 - Benzene, Toluene, Ethylbenzene, and Xylenes

The groundwater samples collected from monitoring wells MW-3, MW-5, MW-7, MW-8, MW-10, MW-11, MW-31, MW-33, MW-34, MW-35, MW-36, MW-40, MW-41, and MW-42 did not exhibit benzene, toluene, ethylbenzene or xylenes concentrations above the respective WQCC *GQSs*.

The groundwater samples collected from monitoring wells MW-2, MW-4, MW-12, MW-38, and MW-39 exhibited benzene concentrations ranging from 70 μ g/L (MW-12) to 3,900 μ g/L (MW-4) which exceed the WQCC GQS of 10 μ g/L.

The groundwater sample collected from monitoring well MW-4 exhibited a toluene concentration of 1,500 μ g/L which exceeds the WQCC GQS of 750 μ g/L.

The groundwater samples collected from monitoring wells MW-2, MW-4, MW-38, and MW-39 exhibited xylene concentrations ranging from 930 μ g/L (MW-2) to 1,300 μ g/L (MW-4), which exceed the WQCC GQS of 620 μ g/L.

Groundwater samples were not collected from monitoring wells MW-1R, MW-6, MW-9, MW-30, MW-32, or MW-49 during the December 2013 monitoring event due to the presence of NAPL.



Monitoring well MW-50 was not sampled due to insufficient water column within the casing, and monitoring well MW-37 was plugged and abandoned (P&A'd) during July 2013 to accommodate the corrective actions of a separate surface release at the facility. Monitoring well MW-37 was physically removed from the boring, and the borehole was permanently plugged and abandoned, in accordance with guidance set forth in the NMAC 19.27.4.30 *Rules and Regulations Governing Well Driller Licensing; Construction, Repair and Plugging of Wells.*

The results of groundwater sample analyses are summarized in Table 1 of Appendix B. Figure 6B (Appendix A) details the WQCC *Groundwater Quality Standard* Exceedance Zone in groundwater for June 2013.

December 2013 - TPH GRO/DRO

The groundwater samples collected from monitoring wells MW-2, MW-3, MW-4, MW-5, MW-7, MW-12, MW-36, MW-38, MW-39, and MW-42 exhibited TPH GRO concentrations ranging from 0.063 mg/L (MW-42) to 20 mg/L (MW-4).

The groundwater samples collected from monitoring wells MW-4 and MW-38 exhibited TPH DRO concentrations ranging of 1.2 mg/L and 1.0 mg/L, respectively.

June 2014 - Benzene, Toluene, Ethylbenzene, and Xylenes

The groundwater samples collected from monitoring wells MW-3, MW-5, MW-7, MW-8, MW-10, MW-11, MW-31, MW-33, MW-34, MW-35, MW-36, MW-40, MW-41, and MW-42 did not exhibit benzene, toluene, ethylbenzene or xylenes concentrations above the respective WQCC *GQSs*.

The groundwater samples collected from monitoring wells MW-2, MW-4, MW-12, and MW-38 exhibited benzene concentrations ranging from 46 μ g/L (MW-12) to 4,200 μ g/L (MW-4) which exceed the WQCC GQS of 10 μ g/L.

The groundwater sample collected from monitoring well MW-4 exhibited a toluene concentration of 1,500 μ g/L which exceeds the WQCC GQS of 750 μ g/L.

The groundwater sample collected from monitoring well MW-4 exhibited a xylene concentration of 1,400 μ g/L which exceeds the WQCC GQS of 620 μ g/L.

Groundwater samples were not collected from monitoring wells MW-1R, MW-6, MW-9, MW-30, MW-32, MW-39, or MW-49, due to the presence of NAPL. MW-50 was not sampled due to insufficient water column within the casing. Monitoring well MW-37 was P&A'd during July 2013.

The results of groundwater sample analyses for are summarized in Table 1 of Appendix B. Figure 6C (Appendix A) details the WQCC *Groundwater Quality Standard* Exceedance Zone in groundwater for June 2014.

June 2014 - TPH GRO/DRO

The groundwater samples collected from monitoring wells MW-2, MW-3, MW-4, MW-5, MW-7, MW-12, MW-36, MW-38, MW-40, and MW-42 exhibited TPH GRO concentrations ranging from 0.063 mg/L (MW-42) to 23 mg/L (MW-4).

The groundwater sample collected from monitoring well MW-4 exhibited a TPH DRO concentration of 1.1 mg/L.



6.0 PRODUCT RECOVERY - NAPL

The August 20, 2013 proposed Corrective Action Workplan, as submitted in correspondence dated August 26, 2013, anticipated that a total of six (6) HVR events would be performed at the facility. The HVR technology allows the removal of NAPL product as well as facilitating vapor-phase recovery. However, after performing the first 72-hour event during October 2013 and experiencing low recovery, the subsequent events were suspended. Additionally, Apex performed monthly hand-bailing activities at wells exhibiting NAPL between January 2014 and May 2014.

6.1 High Vacuum Recovery

The mobile HVR Internal Combustion Engine (ICE) system is a dual-phase extraction (DPE) unit designed to draw a vacuum on the subsurface formation to facilitate the recovery of vapor-phase and free-phase hydrocarbons (in this case, NAPL), as well as recover a limited amount of hydrocarbon affected groundwater.

The HVR unit utilized at the Site included one trailer mounted ICE system combining DPE with proprietary vapor abatement and data logging technology. Hydrocarbon vapor recovered from the targeted formation was utilized as fuel for the ICE engine during the recovery operations and was supplemented by commercial propane as necessary to maintain proper engine performance. Subsequent to the internal combustion process, a catalytic converter was utilized to minimize residual harmful emissions prior to atmospheric discharge.

Apex performed HVR on three groups of wells during the 72-hour recovery event in October, 2013:

- Group 1 included monitoring wells MW-1R, MW-6, and MW-9, with an event duration of approximately 35 hours.
- Group 2 included monitoring well MW-30, with an event duration of approximately 21 hours.
- Group 3 included monitoring well MW-39, with an event duration of approximately 17.5 hours.

HVR recovery results are summarized in the following table:

Group No.	NAPL (gallons)	Vapor (equivalent gallons)	Total Hydrocarbon Recovery (equivalent gallons)	Affected Groundwater (gallons)
Group 1				
(MW-1R, MW-6, MW-9)	Sheen	22	22	162
Recovery: 35 hours				
Group 2 (MW-30)	Sheen	17	17	72
Recovery: 21 hours	blicen		17	12
Group 3 (MW-39) Recovery: 17.5 hours	Sheen	0.3	0.3	11
Total	Sheen	39.3	39.3	245



The total hydrocarbon recovery (measured in equivalent gallons) for this event is lower than expected considering the significant NAPL thicknesses measured in the monitoring wells prior to initiation. The most likely cause of the limited recovery is the inability of the targeted liquids to adequately recharge into the well bore due to low transmissivity of that interval of the formation containing the NAPL hydrocarbons.

In addition to the NAPL recovery, approximately 245 gallons of recovered groundwater was temporarily stored on-Site prior to off-Site disposal by Enterprise as oil and gas waste at a Underground Injection Control Program (UIC) Class II Disposal Facility, in accordance with applicable state and federal regulations. A more detailed presentation of the raw recovery data is presented as Table 4A, Table 4B, and Table 4C (Appendix A).

The following pre-event and post-event NAPL thicknesses were measured in the subject monitoring wells:

NAPL Thickness (feet) – Group No. 1				
Monitoring Well	10.7.13 (Pre-Event)	10.9.13 (Post-Event)		
MW-1R	2.01	0.04		
MW-6	1.44	0.02		
MW-9	2.39	0.03		

NAPL Thickness (feet) – Group No. 2			
Monitoring Well	10.9.13 (Pre-Event)	10.10.13 (Post-Event)	
MW-30	1.12	0.09	

NAPL Thickness (feet) – Group No. 3			
Monitoring Well	10.10.13 (Pre-Event)	10.11.13 (Post-Event)	
MW-39	0.98	0.00	

The British thermal unit, or BTU, is a basic measure of thermal energy, and BTU/hr is a common measure of energy used in the heating and cooling industry in North America. The HVR unit used at this Site utilizes a computer-controlled carburetion device that is calibrated specifically to this unit's ICE system. The computer not only controls the amount of "make-up" fuel (in this case propane) that is added to the fuel stream to maintain projected engine performance, but also calculates the amount of recovered vapor that is being used by the ICE in the form of BTU/hr (gasoline BTU equivalent).

The calculated BTU/hr measurements recorded during HVR activities at each of the well sets was high at the onset of recovery due to the presence of NAPL hydrocarbon in the monitoring wells, but quickly fell to very low readings once the readily available NAPL was vaporized and combusted. These rapid drop-offs further support the inability of the monitoring wells to



adequately recharge NAPL or associated hydrocarbon vapors from the NAPL bearing formation or vadose zone. Average BTU/hr performances are provided in the following table:

Group No.	Estimated Average BTU/hr
Group 1	78,743
Group 2	100,571
Group 3	2,222

6.1.1 Radius of Influence

During the initial stages of recovery operations at Group 1, two (2) monitoring well locations (MW-1R and MW-9) were designated for "radius of influence" (ROI) evaluations. ROI study area MW-1R included nearby evaluation point wells EP-43, EP-44, and EP-45. ROI study area MW-9 included evaluation point wells EP-46, EP-47, and EP-48. At each location, the central evaluation point well (EP-44 at MW-1R, and EP-47 at MW-9) were fitted with vacuum gauges to evaluate the amount of vacuum imparted on the formation at approximately a 10 foot distance from the extraction point (i.e. either monitoring well MW-1R or MW-9). Meanwhile, the extraction point wells at 5 foot and 15 foot distances from the extraction points were continuously gauged for depth to water and depth to product readings.

Results of the radius of influence evaluation indicate no significant affect on the nearby evaluation point wells. The highest observed vacuum reading at an evaluation point well was measured at EP-44 (1.2 inches of water), indicating no significant influence. The tabulated results of the evaluation are presented as Tables 5A and 5B (Appendix A).

6.2 Hand Bailing

In addition to the 72-hour HVR event, monthly hand-bailing was performed at wells exhibiting NAPL between January 2014 and May 2014. The hand bailing activities were performed utilizing dedicated disposable polyethylene bailers. The hand bailing events resulted in the removal of approximately 80 gallons of NAPL during this 5 month period.

The hand bailing events at the Site also included evacuation of the evaluation point wells (EP-43 through EP-48) located near monitoring wells MW-1R and MW-9. It was observed during these events that NAPL recovery in some of the evaluation point wells was slightly faster than in the adjacent monitoring wells, and that the NAPL thickness in these wells was also often greater than that in the adjacent monitoring well.

The observed variations in product thickness and recovery may simply be due to variations in the weathered bedrock unit at the top of the shallow aquifer. Alternatively, the product accumulation observations might be explained by the difference in drilling methodology between the two well types. The monitoring wells were drilled with a hollow-stem auger equipped with a continuous core sample tube, whereas the evaluation point wells were drilled without a sample tube. The auger rig typically advances more slowly in the weathered bedrock while the sample tube is installed, significantly increasing drilling time over the wells drilled without the sample tube. Significant fine grained material is present in this weathered sandstone, and the increased drilling time may have sealed off portions of the weathered unit by "cooking" the well bore sidewalls due to the increased frictional heat, resulting in reduced NAPL recovery due to reduced transmissivity. For comparison, the following table represents product thickness measurements from the March 2014 hand bailing event at MW-1R, MW-9, and the evaluation point wells:



Well ID	March 12, 2014 Product Thickness (feet)
MW-1R	0.95
EP-43	4.96
EP-44	1.41
EP-45	0.96
MW-9	1.78
EP-46	1.96
EP-47	1.97
EP-48	1.82

7.0 FINDINGS

As part of the continuing delineation activities, two (2) soil borings (MW-49 and MW-50) were advanced outside the west corner of the facility fence and south of the former pond area. These soil borings were subsequently completed as groundwater monitoring wells. These monitoring wells were located to further define the western COC groundwater plume and pond area COC groundwater plume, respectively.

In addition to the groundwater monitoring well installations, Apex also advanced six (6) soil borings within the NAPL plume near monitoring wells MW-9 and MW-1R. These soil borings were subsequently completed as evaluation point wells EP-43 through EP-48 to facilitate the evaluation of the "radius-of-influence" created by HVR events.

NAPL hydrocarbon is present on the groundwater in the vicinity of the former condensate storage tank release (near MW-1R), at the former sewage ponds and/or burn pit, and near a former subgrade tank at the western corner of the facility. The NAPL plumes at the facility appear to be relatively stable based on the available information with the possible exception of the plume near the former subgrade tank at the western corner of the Site, which has not yet been fully delineated.

COC concentrations in groundwater in the vicinities of each NAPL plume area exceed the WQCC standards, and appear to be relatively stable in magnitude over the three sampling events described herein.

One (1) 72-hour HVR event was performed during October 2013. The HVR technology allows the removal of NAPL as well as facilitating vapor-phase recovery. The October 2013 recovery event yielded low results (39.9 gallons of hydrocarbon liquid and vapor) believed to be due to the radius of influence and limited transmissivity of the formation near the top of the water bearing zone. Based on pilot testing of the HVR technology, Enterprise recommends the installation of a pneumatic pump system for recovery of NAPL. This will be implemented as a "pilot" system in the vicinity of the former condensate tank release, and expanded if effective.

In addition to the HVR recovery event, monthly hand-bailing was performed at wells exhibiting NAPL between January 2014 and May 2014. These hand bailing events resulted in the removal of approximately 80 gallons of NAPL during this period.

Additional delineation of affected groundwater is needed downgradient of monitoring well MW-49 at the western corner of the Site, and near monitoring well MW-6.



8.0 **RECOMMENDATIONS**

Based on the results of groundwater monitoring and NAPL removal activities, Apex has the following recommendations:

- Report the groundwater monitoring results to the JANEPO and the OCD;
- Continue with Supplemental Site Investigation activities to further evaluate the extent of COCs in groundwater downgradient of monitoring well MW-49 and in the vicinity of monitoring well MW-6. This will complete the delineation of affected groundwater at the Site; and
- Continue the evaluation of corrective actions to remove NAPL from groundwater at the Site to the extent practical, and continue to develop and execute groundwater COC remediation strategies once the bulk of the NAPL has been removed.



APPENDIX A

Figures





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Lindrith Compressor Station SE $\frac{1}{4}$ S18 T24N R5W Rio Arriba County, NM 36.309300N, 107.396700W

Project No. 7030410G006

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FIGURE 2 Site Vicinity Map 2014 Aerial Photograph



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MONITORING WELL LOCATION (LTE 12/2009)
SOIL BORING/MONITORING WELL LOCATION (LTE 10/2010)
MONITORING WELL LOCATION (SWG)
PLUGGED MONITORING WELL LOCATION (SWG)

- 8 EP WELL LOCATION
- **S** FORMER SUMP
- APPROXIMATE LOCATION OF LIVESTOCK WELL
- 1.07 PSH THICKNESS (FEET)
- GQS EXCEEDANCE ZONE
- APPROXIMATE EXTENT OF NON-AQUEOUS PHASE LIQUIDS (NAPL)



NAPL THICKNESS CONTOUR (FEET)

NOTE

All Concentrations are Reported in ug/L



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Lindrith Compressor Station SE $\frac{1}{4}$ S18 T24N R5W Rio Arriba County, NM 36.309300N, 107.396700W

€ MW-40

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Project No. 7030410G006

FIGURE 6A Groundwater Quality Standard (GQS) Exceedance Zone Map June 2013



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Lindrith Compressor Station SE $\frac{1}{4}$ S18 T24N R5W Rio Arriba County, NM 36.309300N, 107.396700W

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Project No. 7030410G006

FIGURE 6B Groundwater Quality Standard (GQS) Exceedance Zone Map December 2013


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¢	MONITORING WELL LOCATION (LTE 12/2009)
	SOIL BORING/MONITORING WELL LOCATION (LTE 10/2010)
•	MONITORING WELL LOCATION (SWG/APEX)
R	PLUGGED MONITORING WELL LOCATION (SWG/APEX)
\otimes	EP WELL LOCATION
S	FORMER SUMP
W	APPROXIMATE LOCATION OF LIVESTOCK WELL
0.02	PSH THICKNESS (FEET)
	GQS EXCEEDANCE ZONE
	APPROXIMATE EXTENT OF NON-AQUEOUS PHASE LIQUIDS (NAPL)
- 0.01-	NAPL THICKNESS CONTOUR (FEET)
	NOTE

LEGEND



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Lindrith Compressor Station SE $\frac{1}{4}$ S18 T24N R5W Rio Arriba County, NM 36.309300N, 107.396700W

MW-40

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W

Project No. 7030410G006

FIGURE 6C Groundwater Quality Standard (GQS) Exceedance Zone Map June 2014



APPENDIX B

Tables



TABLE 1 Lindrith Compressor Station - Soil Borings SOIL ANALYTICAL SUMMARY

Sample I.D.	Date	Sample	Benzene	Toluene	Ethylbenzene	Xylenes	Total BTEX	TPH	TPH	TPH	TPH	
		Depth										
		(feet)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	GRO (ma/ka)	DRO (ma/ka)	MRO (mg/kg)	Total (mg/kg)	
New Mexico E	ntergy. Minera	& Natural						((((9/9)	
Resources Dep	artment, Oil Co	onservation	10	NE	NE	NE	50		10	00		
Division, Re	mediation Acti	on Level										
			•	Soi	Boring Advance	ed by Lodestar/	LTE	•				
B-1*	12.15.09	15.0	0.057	0.19	<0.5	0.22	< 0.967	28	<10	NA	<38	
B-1*	12.15.09	25.0	0.25	0.84	0.1	0.81	2	82	<10	NA	<92	
B-2*	12.15.09	20.0	< 0.05	< 0.05	< 0.05	<0.10	ND	<5.0	<10	NA	ND	
B-3	12.17.09	25.0	0.27	1.2	0.24	2.2	3.91	100	<10	NA	<110	
B-3	12.17.09	30.0	< 0.05	0.36	0.11	1.0	<1.52	19	<10	NA	<29	
B-3	12.17.09	35.0	<0.05	<0.05	<0.05	<0.10	ND	<5.0	<10	NA	ND	
B-4*	12.17.09	20.0	< 0.05	< 0.05	< 0.05	<0.10	ND	<5.0	<10	NA	ND	
B-5*	12.17.09	20.0	< 0.05	< 0.05	< 0.05	<0.10	ND	<5.0	<10	NA	ND	
B-6	12.17.09	25-30	< 0.05	0.06	< 0.05	0.11	<0.27	8	<10	NA	<18	
B-6	12.17.09	35.0	< 0.05	0.15	< 0.05	0.23	<0.48	12	<10	NA	<22	
B-6	12.17.09	40.0	<0.05	<0.05	<0.05	<0.10	ND	<5.0	<10	NA	ND	
B-10	10.18.10	22.0	<0.25	1.0	0.3	3.4	<4.95	64	<10	<50	<124	
B-10	10.18.10	45.0	< 0.05	<0.05	<0.05	<0.10	ND	<5.0	<10	<50	ND	
B-11	10.19.10	35.0	2.6	15	3.3	28	48.9	1,000	18	<50	<1068	
B-11	10.19.10	45.0	< 0.05	<0.05	<0.05	<0.10	ND	<5.0	<10	<50	ND	
B-12	10.20.10	33.5	0.31	1.8	0.75	5.4	8.26	130	15	<50	<195	
B-12	10.20.10	48.0	<0.05	<0.05	<0.05	<0.10	ND	<5.0	<10	<50	ND	
B-13	10.20.10	30.0	<2.5	17	9.0	57	<85.5	1,000	400	810	2210	
B-13	10.20.10	45.0	< 0.05	<0.05	<0.05	<0.10	ND	<5.0	<10	<50	ND	
B-14	10.21.10	28.0	<0.05	0.067	<0.05	0.37	<0.537	13	30	74	117	
B-14	10.21.10	40.0	<0.05	<0.05	<0.05	<0.10	ND	<5.0	<10	<50	ND	
B-15	10.22.10	33.0	<0.50	<0.50	<0.50	<1.0	ND	<50	170	210	<430	
B-15	10.22.10	35.0	< 0.05	<0.05	<0.05	<0.10	ND	<5.0	<10	<50	ND	
B-16	10.22.10	32.0	<0.50	2.9	1.6	13	<18	260	130	150	540	
B-16	10.22.10	45.0	< 0.05	<0.05	<0.05	<0.10	ND	<5.0	<10	<50	ND	
B-17	10.22.10	33.0	<0.10	<0.10	0.12	1.2	<1.52	31	51	78	160	
B-17	10.22.10	45.0	<0.05	<0.05	<0.05	<0.10	ND	<5.0	<10	<50	ND	
B-18	10.25.10	33.0	<0.20	0.79	0.98	7.7	<9.67	230	110	120	460	
B-18	10.25.10	40.0	< 0.05	<0.05	< 0.05	<0.10	ND	<5.0	<10	<50	ND	
B-19	10.25.10	33.0	< 0.05	< 0.05	< 0.05	<0.10	ND	14	18	<50	<82	
B-19	10.25.10	45.0	< 0.05	<0.05	<0.05	<0.10	ND	<5.0	<10	<50	ND	
B-20	10.25.10	30.0	<1.0	7.9	6.5	50	<65.4	1,900	450	420	2770	
B-20	10.26.10	40.0	<0.05	<0.05	<0.05	<0.10	ND	<5.0	<10	<50	ND	
B-21	10.26.10	23.0	< 0.05	< 0.05	< 0.05	<0.10	ND	<5.0	<10	<50	ND	
B-21	10.27.10	40.0	< 0.05	<0.05	< 0.05	<0.10	ND	<5.0	<10	<50	ND	
B-22	10.27.10	24.0	< 0.05	< 0.05	< 0.05	<0.10	ND	<5.0	<10	<50	ND	
В-22	10.28.10	42.0	<0.05	<0.05	<0.05	<0.10	ND	<5.0	<10	<50	ND	
B-23	10.29.10	33.0	< 0.05	< 0.05	< 0.05	<0.10	ND	<5.0	<10	<50	ND	
в-23	10.29.10	40.0	<0.05	<0.05	<0.05	<0.10	ND	<5.0	<10	<50	ND	
B-24	10.29.10	29.0	< 0.25	1.6	0.73	6.9	<9.48	230	63	210	503	
B-24	10.29.10	45.0	<0.05	<0.05	<0.05	<0.10	ND	<5.0	<10	<50	ND	
BH-25	110110	39.0	<0.05	<0.05	<0.05	<0.10	NU D	<50	<10	<50	NI)	



TABLE 1 Lindrith Compressor Station - Soil Borings SOIL ANALYTICAL SUMMARY

Sample I.D.	Date	Sample	Benzene	Toluene	Ethylbenzene	Xylenes	Total BTEX	TPH	TPH	TPH	TPH
		Depth									
		(feet)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	GRO	DRO	MRO (mar/lan)	Total
New Meyice F	nteres Minerel	9 Matural						(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
	artmont Oil Co	& Natural	10	NE	NE	NE	50		11	10	
Division Re	mediation Action	on Level	10		NE	INC	50	100			
B-26	11 02 10	29.0	<0.05	<0.05	<0.05	<0.10	ND	~5.0	<10	<50	ND
B-26	11.02.10	45.0	<0.05	<0.05	<0.05	<0.10	ND	<5.0	<10	<50	ND
B-27	11.02.10	12.0	<0.00	<0.05	<0.05	0.11	<0.26	<25	100	290	<415
B-27	11.02.10	33.0	< 0.05	<0.05	< 0.05	0.26	<0.41	30	33	98	161
BH-27	11.03.10	45.0	< 0.05	< 0.05	< 0.05	<0.10	ND	<5.0	<10	<50	ND
BH-28	11.03.10	30.0	< 0.05	< 0.05	0.22	2.4	<2.72	110	360	680	1150
BH-28	11.03.10	45.0	<0.05	<0.05	<0.05	<0.10	ND	<5.0	<10	<50	ND
BH-29	11.04.10	27.0	<0.05	<0.05	<0.05	<0.10	ND	<5.0	100	130	<235
BH-29	11.04.10	40.0	<0.05	<0.05	<0.05	<0.10	ND	6.6	<10	<50	<66.6
				So	il Borings Advan	ced by SWG/A	pex				
MW-30	8.15.11	12.0	<0.47	<0.47	<0.47	<0.94	ND	<47	2,300	NA	<2347
MW-30	8.15.11	35.0	<0.48	7.0	18	100	125	8,500	360	NA	8,860
MW-31	8.15.11	16.0	<0.24	<0.24	<0.24	<0.47	ND	<24	<9.9	NA	ND
MW-31	8.15.11	37.0	<0.048	<0.048	<0.048	<0.097	ND	<4.8	<9.6	NA	ND
MW-32	8.16.11	17.0	<0.50	1.2	2.4	16	19.6	640	19	NA	659
MW-32	8.16.11	35.0	9.7	34	33	190	266.7	11,000	250	NA	11,250
MW-33	8.16.11	35.0	<0.048	<0.048	<0.048	<0.097	ND	<4.8	<9.8	NA	ND
MW-34	8.17.11	30.0	<0.048	<0.048	<0.048	<0.096	ND	<4.8	<10	NA	ND
MW-35	8.17.11	30.0	< 0.049	< 0.049	<0.049	<0.098	ND	<4.9	<9.9	NA	ND
MW-35	8.17.11	36.0	<0.048	<0.048	<0.048	<0.096	ND	<4.8	<10	NA	ND
MW-36	8.18.11	30.0	< 0.049	< 0.049	<0.049	<0.098	ND	10	<10	NA	<20
MW-36	8.18.11	35.0	<0.047	<0.047	<0.047	<0.095	ND	<4.7	<10	NA	ND
MW-37	8.19.11	26.0	<0.049	< 0.049	<0.049	<0.097	ND	<4.9	27	NA	<31.9
MW-37	8.19.11	30.0	1.2	5.7	5.2	40	52.1	1,400	310	NA	1,/10
MW-38	8.19.11	34.0	<0.049	<0.049	<0.049	<0.098	ND	<4.9	<10	NA	ND
IVIV-30	0.19.11	20.0	<0.040	<0.040	<0.040	<0.096	ND 204	<4.0	<9.0	NA	ND
10100-39	8.22.11	31.0	11	18	35	230	294	7,600	990	NA	8,390
NIVV-40	8.23.11	32.0	<0.048	<0.048	<0.048	<0.096		<4.8	<9.8	NA NA	
IVIVV-40	0.23.11	30.0	<0.047	<0.047	<0.047	<0.093		<4.1	<10		
IVIVV-41	0.23.11	30.0	<0.048	<0.048	<0.048	<0.095		<4.8	<9.9		
IVIVV-42	0.23.11	21.0	<0.040	<0.040	0.000	0.00	0.900	10	12		
10100-49	4.20.13	30.0	<0.047	<0.047	<0.047	<0.095		<4.1	<10	INA NA	
MW-50	4.26.13	30.0	<0.046	<0.046	<0.046	<0.093	ND	<4.6	<10	NA	ND

Note: Concentrations in **bold** and yellow exceed the applicable OCD Remediation Action Level

NA = Not Analyzed NE = Not Established

NAPL = Non-aqueous phase liquid * = boring location from former condensate tank leak. Not shown on map due to scale.



					TABLE	2					
				Lindri	th Compress	or Station					
				GROUNDW	ATER ANALYI	ICAL SUMMAR	Y				
											-
Sample I.D.	Date	Benzene	Toluene	Ethylbenzene	Xylenes	ТРН	TPH	TPH	рН	Nitrate	Iron
		(μg/L)	(μg/L)	(μg/L)	(μg/L)	GRO	DRO	MRO			
						(mg/L)	(mg/L)	(ma/L)	(Standard Units)	(mg/l.)	(mg/L)
						(iiig/L)	(iiig/L)	(mg/L)	(otandard offics)	(119/12)	(mg/L)
New Mexico Water Qual	ity Control Commission	10	750	750	620	NE	NE	NE	6-9	10	1.0*
Groundwater	tuanty Standards										
MW-1*	12.30.09	1,900	2,600	120	870	NA	NA	NA	NA	NA	NA
MW-1R	11.16.10	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NA	NA	NA
MW-1R	6.24.11	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NA	NA	NA
MW-1R	9.21.11	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NA	NA	NA
MW-1R	12.14.11	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NA	NA	NA
MW-1R	3.28.12	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NA	NA	NA
MW-1R	6.21.12 [™]	NAPL [™]	NAPL [™]	NAPL [™]	NAPL [™]	NAPL [™]	NAPL [™]	NAPL [™]	NA	NA	NA
MW-1R	12.18.12	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NA	NA	NA
MW-1R	6.25.13	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NA	NA	NA
MW-1R	12.17.13	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NA	NA	NA
MW-TR	6.18.14	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NA	NA	NA
MVV-2	12.30.09	3,000	3,200	270	1,900	NA	NA	NA	NA	NA	NA
MW-2	11.16.10	NAPL	NAPL	NAPL	NAPL		NAPL	NAPL	NA	NA	NA
IVIVV-2	0.24.11								NA NA	NA NA	NA NA
MW/-2	9.21.11 12.1/.11			NAPL	NAPL				NA NA	NA	NA
MW-2	3 28 12	NAPI	NAPI	NAPI	NAPI	NAPI	NAPI	NAPI	NA	NA	NA
MW/-2	6 20 12 ^M	1 300 ^M	720 ^M	75 ^M	1 200 ^M	11 ^M	<10 ^M	NA	NΔ	NΔ	NΔ
MW-2	12 19 12	1,000	<20	23	440	87	<1.0	NA	NA	NA	NA
MW-2	6.25.13	2.700	<20	110	1.100	24	<1.0	NA	NA	NA	NA
MW-2	12.31.13	1,900	<10	120	930	13	<1.0	NA	NA	NA	NA
MW-2	6.26.14	1,400	<5.0	62	420	8.2	<1.0	NA	NA	NA	NA
MW-3	12.30.09	130	370	76	530	NA	NA	NA	NA	NA	NA
MW-3	11.16.10	5,500	62	350	1,000	16	<1.0	<5.0	7.16	<1.0	210
MW-3	6.24.11	5,700	3,300	340	2,300	31	1.7	NA	NA	NA	NA
MW-3	9.21.11	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NA	NA	NA
MW-3	12.15.11	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NA	NA	NA
MW-3	3.29.12	1,400	90	220	240	7.2	<1.0	NA	NA	NA	NA
MW-3	6.20.12 [™]	130 [™]	<5.0™	37™	100 [™]	1.5™	<1.0™	NA	NA	NA	NA
MW-3	12.18.12	140	<5.0	81	34	0.92	<1.0	NA	NA	NA	NA
MW-3	6.25.13	76	<5.0	46	16	0.78	<1.0	NA	NA	NA	NA
MW-3	12.18.13	2.5	<1.0	6.2	2.2	0.12	<1.0	NA	NA	NA	NA
IVIVV-3	6.25.14	6.5	1./	15	8.2	0.27	<1.0	NA	NA	NA	NA
MW-4	11.16.10	2,600	1,600	280	1,700	0.35	3.1	<5.0	6.93	<1.0	470
IVIVV-4	6.24.11	3,900	1,600	220	1,400	26	<1.0	NA	NA NA	NA	NA
IVIVV-4	9.21.11	4,000	1,700	280	1,700	3Z 20	1.1	NA NA	NA NA	NA NA	NA NA
	12.14.11	3,900	1,000	200	1,700	30	<1.0	NA NA	NA NA	NA NA	NA NA
N/W/-4	3.20.12 6.20.12	3,900	1,700	∠0U 280	1,300	36	<1.0	NA NA	NA NA	NA NA	NA NA
MW/-4	12 19 12	4,400	1,300	200	1,700	25	<1.0	NΔ	NΔ	ΝΔ	ΝΔ
MW-4	6 25 13	4,300	1,800	250	1,700	34	12	NA	NA	NA	NA
MW-4	12.31.13	3,900	1,500	190	1,300	20	1.2	NA	NA	NA	NA
MW-4	6.26.14	4,200	1,500	190	1,400	23	1.1	NA	NA	NA	NA



					TABLE	2					
				Lindri	th Compress	sor Station					
				GROUNDW	ATER ANALY	ICAL SUMMAR	Y				
Commis I D	Data	Densene	Taluana	Ethudh annana	Vidence	TDU	три	TDU		Nitrata	la e a
Sample I.D.	Date	Benzene	Toruene	Etnyibenzene	Xylenes	IPH	IPH	IPH	рн	Nitrate	Iron
		(µg/L)	(μg/L)	(μg/L)	(μg/L)	GRO	DRO	MRO			
						(mg/L)	(mg/L)	(mg/L)	(Standard Units)	(mg/L)	(mg/L)
New Mexico Water Qual	ity Control Commission										
Groundwater G	auality Standards	10	750	750	620	NE	NE	NE	6-9	10	1.0*
MW-5	11 15 10	1.1	<10	6.3	22	2.2	1.4	~5.0	6.82	<1.0	47
MW-5	6 24 11	1.4	<1.0	31	19	0.52	-1.4 <1.0	< <u>3.0</u> ΝΔ	0.02 ΝΔ	<1.0 ΝΔ	NA
MW-5	9 21 11	1.2	<1.0	38	97	0.62	11	NA	NA	NA	NA
MW-5	12.14.11	1.8	<1.0	2.1	7.0	0.50	1.2	NA	NA	NA	NA
MW-5	3.28.12	<10	<10	<10	<20	0.52	<1.0	NA	NA	NA	NA
MW-5	6.20.12	<5.0	<5.0	<5.0	<10	0.61	<1.0	NA	NA	NA	NA
MW-5	12.19.12	<5.0	<5.0	<5.0	<10	0.36	<1.0	NA	NA	NA	NA
MW-5	6.25.13	<5.0	<5.0	<5.0	<10	0.28	1.1	NA	NA	NA	NA
MW-5	12.31.13	<5.0	<5.0	<5.0	<10	0.47	<1.0	NA	NA	NA	NA
MW-5	6.24.14	<2.5	<5.0	<5.0	<10	<0.25	<1.0	NA	NA	NA	NA
MW-6	11.16.10	2,400	65	230	1,200	0.42	1.4	<5.0	6.57	<1.0	140
MW-6	6.24.11	4,500	68	230	1,200	25	<1.0	NA	NA	NA	NA
MW-6	9.21.11	4,900	67	330	1,800	32	1.4	NA	NA	NA	NA
MW-6	12.14.11	4,600	82	290	1,700	36	1.3	NA	NA	NA	NA
MW-6	3.28.12	4,500	71	290	1,600	33	1.2	NA	NA	NA	NA
MW-6	6.20.12	4,500	64	280	1,600	33	<1.0	NA	NA	NA	NA
MW-6	12.18.12	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NA	NA	NA
MW-6	6.25.13	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NA	NA	NA
MW-6	12.17.13	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NA	NA	NA
MW-6	6.18.14	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NA	NA	NA
MW-7	11.16.10	8.9	2.6	5.9	50	1.5	<1.0	<5.0	7.29	<1.0	53
MW-7	6.24.11	2.3	<1.0	<1.0	<2.0	0.35	<1.0	NA	NA	NA	NA
MW-7	9.21.11	3.3	<1.0	<1.0	4.9	0.57	<1.0	NA	NA	NA	NA
MW-7	12.14.11	14	<1.0	2.5	14	0.70	<1.0	NA	NA	NA	NA
MW-7	3.29.12	3.9	<1.0	1.4	5.7	0.54	<1.0	NA	NA	NA	NA
MW-7	6.20.12	3.0	<1.0	<1.0	3.2	0.49	<1.0	NA	NA	NA	NA
MW-7	12.19.12	11	<1.0	5.2	15	0.57	<1.0	NA	NA	NA	NA
MIVV-7	6.25.13	4.1	<1.0	1.2	2.8	0.25	<1.0	NA	NA	NA	NA
IVIVV-7	12.30.13	3.4	<1.0	1.6	8.3	0.47	<1.0	NA	NA	NA	NA
MW-7	6.20.14	<1.0	<1.0	<1.0	<2.0	0.34	<1.0	NA	NA	NA	NA
MW-8	11.15.10	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	<5.0	7.36	<1.0	7.8
MW-8	6.24.11	<1.0	<1.0	<1.0	<2.0	< 0.050	<1.0	NA	NA	NA	NA
MW-8	9.20.11	<1.0	<1.0	<1.0	<2.0	< 0.050	<1.0	NA	NA	NA	NA
IVIVV-8	12.15.11	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	NA	NA	NA	NA
MW-8	3.29.12	<1.0	<1.0	<1.0	<2.0	< 0.050	<1.0	NA	NA	NA	NA
IVIV-8	6.20.12	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	NA	NA	NA	NA
IVIV-8	12.10.12	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	INA NA	INA NA	INA NA	NA NA
NIV -0	0.20.10	<1.0	<1.0	<1.0	<2.0	<0.000	<1.0	NA NA	NA NA	NA NA	NA NA
MW-8	6 25 14	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	NΔ	ΝΔ	NA	ΝΔ
	0.20.17	21.0	<u> </u>	21.0	~~.~		- NIV	1 1/1	1 1/ 1	1 1 1 / 1	1 1 1 / 1



TABLE 2 Lindrith Compressor Station GROUNDWATER ANALYTICAL SUMMARY TPH TPH Sample I.D. Date Toluene Ethylbenzene **Xylenes** TPH Nitrate Benzene pН Iron (µg/L) (µg/L) (µg/L) (µg/L) GRO DRO MRO (mg/L) (mg/L) (mg/L) (Standard Units) (mg/L) (mg/L) New Mexico Water Quality Control Commission 10 NE 750 750 620 NE NE 6-9 10 1.0* **Groundwater Quality Standards** MW-9 11.16.10 NAPL NAPL NAPL NAPL NAPL NAPL NAPL NA NA NA MW-9 6.24.11 NAPL NAPL NAPL NAPL NAPL NAPL NAPL NA NA NA MW-9 9.21.11 NAPL NAPL NAPL NAPL NAPL NAPL NAPL NA NA NA MW-9 12.15.11 NAPL NAPL NAPL NAPL NAPL NAPL NAPL NA NA NA MW-9 3.28.12 NAPL NAPL NAPL NAPL NAPL NAPL NAPL NA NA NA 6.21.12^M NAPL NAPL NAPL NAPL NAPL[™] MW-9 NAPL NAPL NA NA NA MW-9 12.18.12 NAPL NAPL NAPL NAPL NA NAPL NAPL NAPL NA NA NAPL NAPL NAPL MW-9 6.25.13 NAPL NAPL NAPL NAPL NA NA NA MW-9 12.17.13 NAPL NAPL NAPL NAPL NAPL NAPL NAPL NA NA NA MW-9 6.18.14 NAPL NAPL NAPL NAPL NAPL NAPL NAPL NA NA NA MW-10 11.15.10 <1.0 <1.0 <1.0 <2.0 < 0.050 <1.0 <5.0 7.57 <1.0 52 MW-10 6.24.11 <1.0 <1.0 <1.0 <2.0 < 0.050 <1.0 NA NA NA NA MW-10 9.20.11 <1.0 < 0.050 NA NA NA <1.0 <1.0 <2.0 <1.0 NA MW-10 12.15.11 <1.0 <1.0 <1.0 <2.0 < 0.050 3.3 NA NA NA NA MW-10 3.29.12 <1.0 <1.0 <1.0 <2.0 < 0.050 3.3 NA NA NA NA NA MW-10 6.20.12 <1.0 <1.0 <2.0 < 0.050 NA NA NA <1.0 <1.0 MW-10 12.18.12 <1.0 <1.0 <1.0 2.6 < 0.050 <1.0 NA NA NA NA MW-10 6.25.13 <1.0 <1.0 <2.0 < 0.050 NA NA <1.0 <1.0 NA NA NA MW-10 12.18.13 <1.0 <1.0 <1.0 <2.0 < 0.050 <1.0 NA NA NA MW-10 6.25.14 <1.0 <1.0 <1.0 <2.0 < 0.050 <1.0 NA NA NA NA MW-11 11.16.10 < 0.050 <5.0 7.09 <1.0 <1.0 <1.0 <2.0 <1.0 <1.0 13 MW-11 6.24.11 <1.0 <1.0 <2.0 < 0.050 NA NA NA <1.0 <1.0 NA MW-11 9.20.11 <1.0 <1.0 <2.0 < 0.050 NA NA NA NA <1.0 <1.0 MW-11 12.15.11 <1.0 <1.0 <1.0 <2.0 < 0.050 <1.0 NA NA NA NA MW-11 3.29.12 <1.0 <1.0 <1.0 <2.0 < 0.050 <1.0 NA NA NA NA MW-11 6.21.12 <1.0 <1.0 <2.0 < 0.050 NA NA NA NA <1.0 <1.0 MW-11 12.18.12 <1.0 <1.0 <1.0 <2.0 < 0.050 <1.0 NA NA NA NA MW-11 6.26.13 <2.0 < 0.050 NA NA NA NA <1.0 <1.0 <1.0 <1.0 NA MW-11 12.18.13 <1.0 <1.0 <1.0 <2.0 < 0.050 <1.0 NA NA NA MW-11 6.25.14 <1.0 <1.0 <1.0 <2.0 < 0.050 <1.0 NA NA NA NA MW-12 11.15.10 23 16 13 84 1.3 <1.0 <5.0 7.28 <1.0 39 MW-12 6.24.11 27 <1.0 5.6 9.4 0.51 1.0 NA NA NA NA MW-12 9.21.11 63 <1.0 17 26 0.81 <1.0 NA NA NA NA MW-12 20 3.1 9.7 0.73 NA NA 12.15.11 <1.0 <1.0 NA NA MW-12 3.28.12 57 17 0.95 NA NA NA <1.0 7.6 <1.0 NA MW-12 6.21.12 62 17 0.58 <1.0 NA NA NA NA <1.0 6.8 MW-12 12.18.12 65 9.5 0.51 NA NA NA NA <1.0 5.9 <1.0 MW-12 6.26.13 71 <1.0 5.8 10 0.41 <1.0 NA NA NA NA MW-12 12.30.13 70 <1.0 5.1 5.8 0.52 <1.0 NA NA NA NA MW-12 6.26.14 46 <1.0 2.7 2.4 0.37 <1.0 NA NA NA NA



					TABLE	2					
				Lindri	th Compros	or Station					
				Linun	ui compres						
				GROUNDW	ATER ANALY	ICAL SUMMAR	Y				
								·			
Sample I.D.	Date	Benzene	Toluene	Ethylbenzene	Xylenes	ТРН	TPH	ТРН	рН	Nitrate	Iron
		(μg/L)	(μg/L)	(μg/L)	(μg/L)	GRO	DRO	MRO			
						(ma/L)	(mg/L)	(mg/L)	(Standard Units)	(mg/L)	(mg/L)
						(9/=/	(9/=/	((etallululu etille)	((9, =/
New Mexico Water Qual	ity Control Commission	10	750	750	620	NE	NE	NE	6-9	10	1.0*
Groundwater u											
MW-30	9.21.11	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NA	NA	NA
MW-30	12.14.11	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NA	NA	NA
MW-30	3.28.12	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NA	NA	NA
IVIV-30	6.21.12	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NA	NA	NA
IVIVV-30	12.18.12		NAPL	NAPL	NAPL			NAPL	NA NA	NA	NA NA
IVIV-30	0.20.13			NAPL					NA NA	NA NA	NA NA
MW-30	6 18 1/								NA NA	NA NA	NA NA
N/W/ 04	0.10.14	-1.0	1.0			0.02					
IVIVV-31	9.20.11	<1.0	1.2	1.1	1.4	0.23	<1.0	NA NA	NA NA	NA NA	NA NA
MW/ 21	2 20 12	<2.0	<2.0	<2.0	<4.0	<0.10	<1.0	NA NA	NA NA		NA NA
MW/ 31	6 20 12	<2.0	<2.0	<2.0	<4.0	<0.10	<1.0	NA NA	NA NA		NA NA
MW-31	12 18 12	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	NA NA	NA	NA	NA
MW-31	6 25 13	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	NA	NA	NA	NA
MW-31	12 17 13	<2.0	<2.0	<2.0	<4.0	< 10	<1.0	NA	NA	NA	NA
MW-31	6 25 14	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	NA	NA	NA	NA
MW-32	9 21 11	ΝΔΡΙ	ΝΔΡΙ	ΝΔΡΙ	ΝΔΡΙ	NAPI	ΝΔΡΙ	ΝΔΡΙ	NΔ	NΔ	ΝA
MW-32	12 14 11	NAPI	NAPL	NAPL	NAPL	NAPI	NAPI	NAPL	NA	NA	NA
MW-32	3 28 12	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NA	NA	NA
MW-32	6.21.12	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NA	NA	NA
MW-32	12.18.12	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NA	NA	NA
MW-32	6.25.13	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NA	NA	NA
MW-32	12.17.13	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NA	NA	NA
MW-32	6.18.14	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NA	NA	NA
MW-33	9.20.11	<1.0	<1.0	<1.0	<2.0	< 0.050	<1.0	NA	NA	NA	NA
MW-33	12.14.11	<1.0	<1.0	<1.0	<2.0	< 0.050	<1.0	NA	NA	NA	NA
MW-33	3.29.12	<1.0	<1.0	<1.0	<2.0	< 0.050	<1.0	NA	NA	NA	NA
MW-33	6.20.12	<1.0	<1.0	<1.0	<2.0	< 0.050	<1.0	NA	NA	NA	NA
MW-33	12.18.12	<1.0	<1.0	<1.0	<2.0	< 0.050	<1.0	NA	NA	NA	NA
MW-33	6.25.13	<1.0	<1.0	<1.0	<2.0	< 0.050	<1.0	NA	NA	NA	NA
MW-33	12.18.13	<1.0	<1.0	<1.0	<2.0	< 0.050	<1.0	NA	NA	NA	NA
MW-33	6.25.14	<1.0	<1.0	<1.0	<2.0	< 0.050	<1.0	NA	NA	NA	NA
MW-34	9.20.11	<1.0	<1.0	<1.0	<2.0	< 0.050	<1.0	NA	NA	NA	NA
MW-34	12.15.11	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	NA	NA	NA	NA
MW-34	3.29.12	<1.0	<1.0	<1.0	<2.0	< 0.050	<1.0	NA	NA	NA	NA
MW-34	6.21.12	1.6	<1.0	<1.0	<2.0	<0.050	<1.0	NA	NA	NA	NA
MW-34	12.18.12	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	NA	NA	NA	NA
MW-34	6.26.13	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	NA	NA	NA	NA
MW-34	12.18.13	<1.0	<1.0	<1.0	<2.0	< 0.050	<1.0	NA	NA	NA	NA
MW-34	6.25.14	<1.0	<1.0	<1.0	<2.0	< 0.050	<1.0	NA	NA	NA	NA



TABLE 2 Lindrith Compressor Station GROUNDWATER ANALYTICAL SUMMARY TPH TPH Sample I.D. Date Toluene Ethylbenzene **Xylenes** TPH Nitrate Benzene pН Iron (µg/L) (µg/L) (µg/L) (µg/L) GRO DRO MRO (mg/L) (mg/L) (mg/L) (Standard Units) (mg/L) (mg/L) New Mexico Water Quality Control Commission 10 NE 750 750 620 NE NE 6-9 10 1.0* **Groundwater Quality Standards** MW-35 9.21.11 <1.0 <1.0 <1.0 <2.0 < 0.050 <1.0 NA NA NA NA MW-35 <1.0 NA NA NA NA 12.15.11 <1.0 <1.0 <2.0 < 0.050 <1.0 MW-35 3.28.12 <1.0 <1.0 <1.0 <2.0 < 0.050 <1.0 NA NA NA NA MW-35 6.21.12 <1.0 <1.0 <1.0 <2.0 < 0.050 <1.0 NA NA NA NA MW-35 12.18.12 <1.0 <1.0 <1.0 <2.0 < 0.050 <1.0 NA NA NA NA MW-35 NA 6.26.13 <1.0 <2.0 < 0.050 NA NA NA <1.0 <1.0 <1.0 MW-35 12.30.13 <1.0 <1.0 <1.0 <2.0 < 0.050 <1.0 NA NA NA NA MW-35 6.24.14 <1.0 <1.0 <2.0 < 0.050 NA NA <1.0 <1.0 NA NA MW-36 9.21.11 <1.0 <1.0 <1.0 <2.0 0.15 <1.0 NA NA NA NA MW-36 12.14.11 <1.0 <1.0 <1.0 <2.0 0.11 <1.0 NA NA NA NA MW-36 3.29.12 <1.0 <2.0 < 0.050 NA NA NA NA <1.0 <1.0 <1.0 MW-36 6.20.12 1.3 <1.0 <1.0 <2.0 0.096 <1.0 NA NA NA NA 0.32 NA NA MW-36 12.19.12 18 11 5.0 31 <1.0 NA NA MW-36 NA NA NA 6.25.13 <1.0 <1.0 <1.0 <2.0 0.065 <1.0 NA MW-36 12.31.13 <1.0 <1.0 <1.0 <2.0 0.11 <1.0 NA NA NA NA MW-36 6.24.14 <1.0 <1.0 <1.0 <2.0 0.086 <1.0 NA NA NA NA MW-37 9.21.11 NAPL NAPL NAPL NAPL NAPL NAPL NAPL NA NA NA MW-37 12.14.11 NAPL NAPL NAPL NAPL NAPL NAPL NAPL NA NA NA MW-37 NA 3.29.12 NAPL NAPL NAPL NAPL NAPL NAPL NAPL NA NA MW-37 6.21.12 NAPL NAPL NAPL NAPL NAPL NAPL NAPL NA NA NA MW-37 12.18.12 NAPL NAPL NAPL NAPL NAPL NAPL NAPL NA NA NA MW-37 6.25.13 NAPL NAPL NAPL NAPL NAPL NAPL NAPL NA NA NA MW-37 7.23.13 Monitoring Well Plugged and Abandoned (will be replaced) MW-38 9.21.11 2,100 440 270 1,800 NA NA NA NA 26 1.3 MW-38 12.14.11 1,900 180 210 1,500 24 <1.0 NA NA NA NA MW-38 3.28.12 1,800 100 230 1,400 21 <1.0 NA NA NA NA MW-38 6.20.12 1,900 320 240 1,500 24 <1.0 NA NA NA NA MW-38 12.19.12 1,800 280 220 1,400 17 NA NA NA <1.0 NA NA MW-38 6.25.13 1,200 62 170 800 17 1.1 NA NA NA MW-38 12.31.13 1.400 32 190 1.100 15 1.0 NA NA NA NA MW-38 6.26.14 370 <20 64 250 7.2 <1.0 NA NA NA NA MW-39 NAPL NAPL NAPL NAPL NAPL NAPL 9.21.11 NAPL NA NA NA MW-39 12.15.11 NAPL NAPL NAPL NAPL NAPL NAPL NAPL NA NA NA MW-39 NAPL NAPL NAPL NAPL NAPL NAPL NAPL NA NA 3.28.12 NA MW-39 6.21.12 NAPL NAPL NAPL NAPL NAPL NAPL NAPL NA NA NA MW-39 12.18.12 NAPL NAPL NAPL NAPL NAPL NAPL NAPL NA NA NA MW-39 6.25.13 NAPL NAPL NAPL NAPL NAPL NAPL NAPL NA NA NA MW-39 12.30.13 110 <20 220 1,100 5.9 <1.0 NA NA NA NA MW-39 6.18.14 NAPL NAPL NAPL NAPL NAPL NAPL NAPL NA NA NA



	TABLE 2										
				Lindri	th Compress	or Station					
				GROUNDW	ATER ANALYI	ICAL SUMMARY	ŕ				
0	Data	B		E 4 B C C	¥ 1	TOU	TDU	TOU			
Sample I.D.	Date	Benzene	loluene	Ethylbenzene	Xylenes	IPH	ТРН	IPH	рн	Nitrate	Iron
		(μg/L)	(µg/L)	(μg/L)	(µg/L)	GRO	DRO	MRO			
						(mg/L)	(mg/L)	(mg/L)	(Standard Units)	(mg/L)	(mg/L)
New Mexico Water Quality Control Commission Groundwater Quality Standards 10 750 750 620 NE NE NE 6-9 10									10	1.0*	
MW-40	9.20.11	<1.0	<1.0	<1.0	<2.0	0.21	<1.0	NA	NA	NA	NA
MW-40	12.14.11	1.4	<1.0	<1.0	4.7	0.53	<1.0	NA	NA	NA	NA
MW-40	3.29.12	<1.0	<1.0	<1.0	<2.0	0.48	<1.0	NA	NA	NA	NA
MW-40	6.20.12	<1.0	<1.0	<1.0	<2.0	0.20	<1.0	NA	NA	NA	NA
MW-40	12.18.12	<1.0	<1.0	<1.0	<2.0	0.33	<1.0	NA	NA	NA	NA
MW-40	6.25.13	2.3	<1.0	<1.0	<2.0	0.45	<1.0	NA	NA	NA	NA
MW-40	12.17.13	<1.0	<1.0	<1.0	<2.0	< 0.050	<1.0	NA	NA	NA	NA
MW-40	6.25.14	<1.0	<1.0	1.0	<2.0	0.30	<1.0	NA	NA	NA	NA
MW-41	9.20.11	<10.0	<10.0	<10.0	30	< 0.50	2.4	NA	NA	NA	NA
MW-41	12.15.11	<1.0	<1.0	<1.0	<2.0	0.11	4.3	NA	NA	NA	NA
MW-41	3.28.12	<1.0	<1.0	<1.0	<2.0	0.26	<1.0	NA	NA	NA	NA
MW-41	6.21.12	<1.0	<1.0	<1.0	<2.0	0.11	<1.0	NA	NA	NA	NA
MW-41	12.18.12	<1.0	<1.0	<1.0	<2.0	< 0.050	<1.0	NA	NA	NA	NA
MW-41	6.26.13	2.0	<1.0	<1.0	<2.0	< 0.050	1.2	NA	NA	NA	NA
MW-41	12.30.13	<1.0	<1.0	<1.0	2.1	< 0.050	<1.0	NA	NA	NA	NA
MW-41	6.24.14	<1.0	<1.0	<1.0	<2.0	< 0.050	<1.0	NA	NA	NA	NA
MW-42	9.20.11	70	42	4.1	33	0.62	<1.0	NA	NA	NA	NA
MW-42	12.15.11	69	1.6	3.1	<2.0	0.61	<1.0	NA	NA	NA	NA
MW-42	3.29.12	2.1	<1.0	<1.0	<2.0	0.15	<1.0	NA	NA	NA	NA
MW-42	6.21.12	1.2	<1.0	<1.0	<2.0	0.12	<1.0	NA	NA	NA	NA
MW-42	12.18.12	<1.0	<1.0	<1.0	<2.0	0.091	<1.0	NA	NA	NA	NA
MW-42	6.26.13	<1.0	<1.0	<1.0	<2.0	< 0.050	<1.0	NA	NA	NA	NA
MW-42	12.18.13	<1.0	<1.0	<1.0	<2.0	0.063	<1.0	NA	NA	NA	NA
MW-42	6.25.14	<1.0	<1.0	<1.0	<2.0	0.063	<1.0	NA	NA	NA	NA
MW-49	6.26.13	2.200	<10	210	810	8.8	<1.0	NA	NA	NA	NA
MW-49	12.17.13	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NA	NA	NA
MW-49	6.18.14	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NA	NA	NA
MW-50	6.26.13	Drv	Drv	Drv	Drv	Drv	Drv	NA	NA	NA	NA
MW-50	12.17.13	Drv	Drv	Drv	Drv	Drv	Drv	NA	NA	NA	NA
MW-50	6.18.14	Dry	Dry	Dry	Dry	Dry	Dry	NA	NA	NA	NA

Note: Concentrations in **bold** and yellow exceed the applicable OCD Remediation Action Level

NA = Not Analyzed

NE = Not Established

M = Well Subjected to MDPE event

NAPL = Non-aqueous phase liquid

* = Relpaced by MW-1R

<1.0 = the numeral (in this case "1.0") identifies the laboratory Reporting Limit



Well I.D.	Date	Depth to	Depth to Water	Product	TOC Elevations	Groundwater
		Product		Thickness		Elevation*
		(feet BTOC)	(feet BTOC)		(feet AMSL)	(feet AMSL)
MW-1R	11.11.10	31.73	33.29	1.56	6494.62	6462.31
MW-1R	11.15.10	31.93	32.86	0.93	6494.62	6462.35
MW-1R	6.22.11	32.57	35.50	2.93	6494.62	6460.97
MW-1R ¹	9.21.11	32.55	38.20	5.65	6494.64	6460.00
MW-1R	12.14.11	32.41	37.85	5.44	6494.64	6460.22
MW-1R	3.28.12	32.61	38.50	5.89	6494.64	6459.85
MW-1R ^M	6.21.12 ^M	NG ^M	NG ^M	NG ^M	6494.64	NG ^M
MW-1R	12.18.12	34.16	34.45	0.29	6494.64	6460.37
MW-1R	6.25.13	34.32	35.94	1.62	6494.64	6459.72
MW-1R	12.17.13	34.35	36.22	1.87	6494.64	6459.60
MW-1R	6.18.14	34.60	35.26	0.66	6494.64	6459.80
MW-2	11.11.10	30.12	30.15	0.03	6491.08	6460.95
MW-2	11.15.10	29.86	29.90	0.04	6491.08	6461.21
MW-2	6.22.11	30.64	30.73	0.09	6491.08	6460.41
MW-2	9.21.11	30.70	30.72	0.02	6491.08	6460.37
MW-2	12.14.11	30.78	30.79	0.01	6491.08	6460.30
MW-2	3.28.12	30.86	30.91	0.05	6491.08	6460.20
MW-2	6.21.112	ND	31.14	ND	6491.08	6459.94
MW-2	12.19.12	ND	30.86	ND	6491.08	6460.22
MW-2	6.25.13	ND	31.25	ND	6491.08	6459.83
MW-2	12.17.13	ND	31.42	ND	6491.08	6459.66
MW-2	6.18.14	ND	31.29	ND	6491.08	6459.79
MW-3	11.11.10	ND	32.08	ND	6492.78	6460.70
MW-3	11.15.10	ND	32.96	ND	6492.78	6459.82
MW-3	6.22.11	ND	32.61	ND	6492.78	6460.17
MW-3	9.21.11	32.71	32.72	0.01	6492.78	6460.07
MW-3	12.15.11	32.79	32.79	0.00	6492.78	6459.99
MW-3	3.28.12	ND	32.72	ND	6492.78	6460.06
MW-3	6.21.12	ND	33.11	ND	6492.78	6459.67
MW-3	12.18.12	ND	32.87	ND	6492.78	6459.91
MW-3	6.25.13	ND	33.21	ND	6492.78	6459.57
MW-3	12.17.13	ND	33.32	ND	6492.78	6459.46
MW-3	6.18.14	ND	33.20	ND	6492.78	6459.58
MW-4	11.11.10	ND	33.31	ND	6493.99	6460.68
MW-4	11.15.10	ND	33.10	ND	6493.99	6460.89
MW-4	6.22.11	ND	33.45	ND	6493.99	6460.54
MVV-4	9.21.11	ND	34.46	ND	6493.99	6459.53
MVV-4	12.14.11	ND	33.51	ND	6493.99	6460.48
IVIVV-4	3.28.12	ND	33.54	ND	6493.99	6460.45
MVV-4	6.21.12	ND	33.72	ND	6493.99	6460.27
IVIVV-4	12.19.12	ND	33.60	ND	6493.99	6460.39
IVIVV-4	0.25.13	ND	33.98		6493.99	6460.01
	12.17.13		34.18		6493.99	6459.81
IVIVV-4	6.18.14	ND	34.07	ND	6493.99	6459.92



Well I.D.	Date	Depth to	Depth to Water	Product	TOC Elevations	Groundwater
		Product	(feet BTOC)	Thickness	(foot AMSL)	Elevation*
		(leet BIOC)	(leet BIOC)		(leet AWSL)	
MW-5	11.11.10	ND	34.37	ND	6496.06	6461.69
MW-5	11.15.10	ND	35.64	ND	6496.06	6460.42
MW-5	6.22.11	ND	34.52	ND	6496.06	6461.54
MW-5	9.21.11	ND	34.57	ND	6496.06	6461.49
MW-5	12.14.11	ND	34.14	ND	6496.06	6461.92
MW-5	3.28.12	ND	34.70	ND	6496.06	6461.36
MW-5	6.21.12	ND	34.78	ND	6496.06	6461.28
MW-5	12.19.12	ND	34.33	ND	6496.06	6461.73
MW-5	6.25.13	ND	34.95	ND	6496.06	6461.11
MW-5	12.17.13	ND	35.03	ND	6496.06	6461.03
MW-5	6.18.14	ND	35.10	ND	6496.06	6460.96
MW-6	11.11.10	ND	33.79	ND	6494.72	6460.93
MW-6	11.15.10	ND	33.63	ND	6494.72	6461.09
MW-6	6.22.11	ND	34.09	ND	6494.72	6460.63
MW-6	9.21.11	ND	33.86	ND	6494.72	6460.86
MW-6	12.14.11	ND	34.30	ND	6494.72	6460.42
MW-6	3.28.12	ND	34.25	ND	6494.72	6460.47
MW-6	6.21.12	ND	34.55	ND	6494.72	6460.17
MW-6	12.18.12	34.31	34.92	0.61	6494.72	6460.18
MW-6	6.25.13	34.43	35.41	0.98	6494.72	6459.93
MW-6	12.17.13	34.51	35.72	1.21	6494.72	6459.76
MW-6	6.18.14	34.50	35.39	0.89	6494.72	6459.89
MW-7	11.11.10	ND	36.65	ND	6492.49	6455.84
MW-7	11.15.10	ND	34.70	ND	6492.49	6457.79
MW-7	6.22.11	ND	34.87	ND	6492.49	6457.62
MW-7	9.21.11	ND	34.95	ND	6492.49	6457.54
MW-7	12.14.11	ND	35.00	ND	6492.49	6457.49
MW-7	3.28.12	ND	35.01	ND	6492.49	6457.48
MW-7	6.21.12	ND	35.08	ND	6492.49	6457.41
MW-7	12.19.12	ND	35.07	ND	6492.49	6457.42
MW-7	6.25.13	ND	35.19	ND	6492.49	6457.30
MW-7	12.17.13	ND	35.28	ND	6492.49	6457.21
MW-7	6.18.14	ND	35.19	ND	6492.49	6457.30
MW-8	11.11.10	ND	34.39	ND	6493.10	6458.71
MW-8	11.15.10	ND	32.16	ND	6493.10	6460.94
MW-8	6.22.11	ND	32.70	ND	6493.10	6460.40
MW-8	9.21.11	ND	32.66	ND	6493.10	6460.44
MW-8	12.15.11	ND	32.92	ND	6493.10	6460.18
MW-8	3.28.12	ND	32.92	ND	6493.10	6460.18
MW-8	6.21.12	ND	33.10	ND	6493.10	6460.00
MW-8	12.18.12	ND	33.10	ND	6493.10	6460.00
MW-8	6.25.13	ND	34.32	ND	6493.10	6458.78
MW-8	12.17.13	ND	33.46	ND	6493.10	6459.64
MW-8	6.18.14	ND	33.41	ND	6493.10	6459.69



Well I.D.	Date	Depth to	Depth to Water	Product	TOC Elevations	Groundwater
		Product	((++) DTOO)	Thickness	((Elevation*
		(feet BIOC)	(feet BIOC)		(feet AMSL)	(feet AMSL)
MW-9	11.11.10	29.46	30.34	0.88	6491.17	6461.38
MW-9	11.15.10	30.47	31.24	0.77	6491.17	6460.42
MW-9	6.22.11	30.76	32.14	1.38	6491.17	6459.90
MW-9	9.21.11	30.76	32.46	1.70	6491.17	6459.78
MW-9	12.15.11	31.94	33.30	1.36	6491.17	6458.73
MW-9	3.28.12	30.86	32.20	1.34	6491.17	6459.81
MW-9 ^M	6.21.12 ^M	NG ^M	NG ^M	NG ^M	6491.17	NG ^M
MW-9	12.18.12	30.90	32.53	1.63	6491.17	6459.67
MW-9	6.25.13	31.20	32.27	1.07	6491.17	6459.57
MW-9	12.17.13	31.18	31.20	0.02	6491.17	6459.98
MW-9	6.18.14	31.17	33.04	1.87	6491.17	6459.31
MW-10	11.11.10	ND	29.85	ND	6492.39	6462.54
MW-10	11.15.10	ND	31.83	ND	6492.39	6460.56
MW-10	6.22.11	ND	32.40	ND	6492.39	6459.99
MW-10	9.21.11	ND	32.62	ND	6492.39	6459.77
MW-10	12.15.11	ND	34.49	ND	6492.39	6457.90
MW-10	3.28.12	ND	32.41	ND	6492.39	6459.98
MW-10	6.21.12	ND	30.99	ND	6492.39	6461.40
MW-10	12.18.12	ND	32.65	ND	6492.39	6459.74
MW-10	6.25.13	ND	33.10	ND	6492.39	6459.29
MW-10	12.17.13	ND	33.03	ND	6492.39	6459.36
MW-10	6.18.14	ND	33.02	ND	6492.39	6459.37
MW-11	11.11.10	ND	34.05	ND	6489.84	6455.79
MW-11	11.15.10	ND	35.05	ND	6489.84	6454.79
MW-11	6.22.11	ND	34.23	ND	6489.84	6455.61
MW-11	9.21.11	ND	34.03	ND	6489.84	6455.81
MW-11	12.15.11	ND	34.50	ND	6489.84	6455.34
MW-11	3.28.12	ND	34.39	ND	6489.84	6455.45
MW-11	6.21.12	ND	34.75	ND	6489.84	6455.09
MW-11	12.18.12	ND	34.59	ND	6489.84	6455.25
MW-11	6.26.13	ND	34.87	ND	6489.84	6454.97
MW-11	12.17.13	ND	34.79	ND	6489.84	6455.05
MW-11	6.18.14	ND	34.71	ND	6489.84	6455.13
MW-12	11.11.10	ND	32.04	ND	6487.95	6455.91
MW-12	11.15.10	ND	32.74	ND	6487.95	6455.21
MW-12	6.22.11	ND	32.73	ND	6487.95	6455.22
MW-12	9.21.11	ND	32.93	ND	6487.95	6455.02
MW-12	12.15.11	ND	32.91	ND	6487.95	6455.04
MW-12	3.28.12	ND	32.35	ND	6487.95	6455.60
MW-12	6.21.12	ND	33.03	ND	6487.95	6454.92
MW-12	12.18.12	ND	33.00	ND	6487.95	6454.95
MW-12	6.26.13	ND	33.07	ND	6487.95	6454.88
MW-12	12.17.13	ND	33.14	ND	6487.95	6454.81
MW-12	6.18.14	ND	32.95	ND	6487.95	6455.00



Well I.D.	Date	Depth to	Depth to Water	Product	TOC Elevations	Groundwater
		Product		Thickness		Elevation*
		(feet BTOC)	(feet BTOC)		(feet AMSL)	(feet AMSL)
MW-30	9 21 11	36.06	36.14	0.08	6498 21	6462 12
MW-30	12 14 11	36.16	36 19	0.03	6498.21	6462.04
MW-30	3 28 12	37.58	38.22	0.64	6498.21	6460.39
MW-30	6.21.12	35.25	35.87	0.62	6498.21	6462.73
MW-30	12.18.12	37.67	38.69	1.02	6498.21	6460.16
MW-30	6.25.13	37.82	39.11	1.29	6498.21	6459.91
MW-30	12.17.13	38.20	38.79	0.59	6498.21	6459.79
MW-30	6.18.14	38.23	38.38	0.15	6498.21	6459.92
MW-31	9.21.11	ND	37.99	ND	6498.24	6460.25
MW-31	12.14.11	ND	37.99	ND	6498.24	6460.25
MW-31	3.28.12	ND	38.13	ND	6498.24	6460.11
MW-31	6.21.12	ND	38.19	ND	6498.24	6460.05
MW-31	12.18.12	ND	38.13	ND	6498.24	6460.11
MW-31	6.25.13	ND	38.39	ND	6498.24	6459.85
MW-31	12.17.13	ND	38.51	ND	6498.24	6459.73
MW-31	6.18.14	ND	38.43	ND	6498.24	6459.81
MW-32	9.21.11	37.42	38.31	0.89	6499.30	6461.55
MW-32	12.14.11	36.11	36.16	0.05	6499.30	6463.17
MW-32	3.28.12	36.13	36.25	0.12	6499.30	6463.13
MW-32	6.21.12	36.19	36.28	0.09	6499.30	6463.08
MW-32	12.18.12	36.00	36.01	0.01	6499.30	6463.30
MW-32	6.25.13	37.26	37.28	0.02	6499.30	6462.03
MW-32	12.17.13	ND	36.36	ND	6499.30	6462.94
MW-32	6.18.14	36.28	36.29	0.01	6499.30	6463.02
MW-33	9.21.11	ND	32.90	ND	6493.04	6460.14
MW-33	12.14.11	ND	32.85	ND	6493.04	6460.19
MW-33	3.28.12	ND	32.95	ND	6493.04	6460.09
MW-33	6.21.12	ND	33.16	ND	6493.04	6459.88
MW-33	12.18.12	ND	33.12	ND	6493.04	6459.92
MW-33	6.25.13	ND	33.41	ND	6493.04	6459.63
MW-33	12.17.13	ND	33.55	ND	6493.04	6459.49
MW-33	6.18.14	ND	33.44	ND	6493.04	6459.60
MW-34	9.21.11	ND	34.50	ND	6488.60	6454.10
MW-34	12.15.11	ND	34.05	ND	6488.60	6454.55
MW-34	3.28.12	ND	33.93	ND	6488.60	6454.67
MW-34	6.21.12	ND	34.17	ND	6488.60	6454.43
MVV-34	12.18.12	ND	34.09	ND	6488.60	6454.51
MVV-34	6.26.13	ND	34.24	ND	6488.60	6454.36
MVV-34	12.17.13	ND	34.15	ND	6488.60	6454.45
MVV-34	6.18.14	ND	34.06	ND	6488.60	6454.54



Well I.D.	Date	Depth to	Depth to Water	Product	TOC Elevations	Groundwater
		Product		Thickness		Elevation*
		(feet BTOC)	(feet BTOC)		(feet AMSL)	(feet AMSL)
MW-35	9.21.11	ND	34.36	ND	6485.71	6451.35
MW-35	12.15.11	ND	31.56	ND	6485.71	6454.15
MW-35	3.28.12	ND	31.45	ND	6485.71	6454.26
MW-35	6.21.12	ND	31.70	ND	6485.71	6454.01
MW-35	12.18.12	ND	31.62	ND	6485.71	6454.09
MW-35	6.26.13	ND	31.75	ND	6485.71	6453.96
MW-35	12.17.13	ND	31.68	ND	6485.71	6454.03
MW-35	6.18.14	ND	31.59	ND	6485.71	6454.12
MW-36	9.21.11	ND	35.16	ND	6496.77	6461.61
MW-36	12.14.11	ND	35.21	ND	6496.77	6461.56
MW-36	3.28.12	ND	35.25	ND	6496.77	6461.52
MW-36	6.21.12	ND	35.29	ND	6496.77	6461.48
MW-36	12.19.12	ND	35.16	ND	6496.77	6461.61
MW-36	6.25.13	ND	35.31	ND	6496.77	6461.46
MW-36	12.17.13	ND	35.43	ND	6496.77	6461.34
MW-36	6.18.14	ND	35.45	ND	6496.77	6461.32
MW-37	9.21.11	32.58	33.10	0.52	6492.96	6460.19
MW-37	12.14.11	32.61	33.37	0.76	6492.96	6460.07
MW-37	3.28.12	32.67	33.46	0.79	6492.96	6460.00
MW-37	6.21.12	32.86	33.68	0.82	6492.96	6459.80
MW-37	12.18.12	32.75	33.51	0.76	6492.96	6459.93
MW-37	6.26.13	32.98	33.84	0.86	6492.96	6459.66
MW-37	7.23.13	Mor	nitoring Well Plug	ged and Abando	oned (will be repla	aced)
MW-38	9.21.11	ND	34.68	ND	6495.10	6460.42
MW-38	12.14.11	ND	34.75	ND	6495.10	6460.35
MW-38	3.28.12	ND	34.72	ND	6495.10	6460.38
MW-38	6.21.12	ND	35.06	ND	6495.10	6460.04
MW-38	12.19.12	ND	34.82	ND	6495.10	6460.28
MW-38	6.25.13	ND	35.20	ND	6495.10	6459.90
MW-38	12.17.13	ND	35.33	ND	6495.10	6459.77
MW-38	6.18.14	ND	35.22	ND	6495.10	6459.88
MW-39	9.21.11	31.83	33.12	1.29	6486.85	6454.54
MW-39	12.15.11	31.90	33.08	1.18	6486.85	6454.51
MW-39	3.28.12	31.84	32.94	1.10	6486.85	6454.60
MW-39	6.21.12	31.97	33.25	1.28	6486.85	6454.41
MW-39	12.18.12	31.89	33.22	1.33	6486.85	6454.47
MW-39	6.26.13	32.12	33.13	1.01	6486.85	6454.36
MW-39	12.17.13	ND	32.26	ND	6486.85	6454.59
MW-39	6.18.14	32.17	32.48	0.31	6486.85	6454.57



TABLE 3 Lindrith Compressor Station GROUNDWATER ELEVATIONS

Well I.D.	Date	Depth to Product	Depth to Water	Product Thickness	TOC Elevations	Groundwater Elevation*
		(feet BTOC)	(feet BTOC)		(feet AMSL)	(feet AMSL)
MW-40	9.21.11	ND	35.47	ND	6498.65	6463.18
MW-40	12.14.11	ND	35.38	ND	6498.65	6463.27
MW-40	3.28.12	ND	35.38	ND	6498.65	6463.27
MW-40	6.21.12	ND	35.43	ND	6498.65	6463.22
MW-40	12.18.12	ND	35.30	ND	6498.65	6463.35
MW-40	6.25.13	ND	35.46	ND	6498.65	6463.19
MW-40	12.17.13	ND	35.53	ND	6498.65	6463.12
MW-40	6.18.14	ND	35.48	ND	6498.65	6463.17
MW-41	9.21.11	ND	32.67	ND	6487.00	6454.33
MW-41	12.15.11	ND	32.63	ND	6487.00	6454.37
MW-41	3.28.12	ND	32.53	ND	6487.00	6454.47
MW-41	6.21.12	ND	32.75	ND	6487.00	6454.25
MW-41	12.18.12	ND	32.70	ND	6487.00	6454.30
MW-41	6.26.13	ND	32.84	ND	6487.00	6454.16
MW-41	12.17.13	ND	32.80	ND	6487.00	6454.20
MW-41	6.18.14	ND	32.68	ND	6487.00	6454.32
MW-42	9.21.11	ND	29.97	ND	6490.10	6460.13
MW-42	12.15.11	ND	30.80	ND	6490.10	6459.30
MW-42	3.28.12	ND	30.00	ND	6490.10	6460.10
MW-42	6.21.12	ND	30.58	ND	6490.10	6459.52
MW-42	12.18.12	ND	30.11	ND	6490.10	6459.99
MW-42	6.26.13	ND	30.63	ND	6490.10	6459.47
MW-42	12.17.13	ND	30.61	ND	6490.10	6459.49
MW-42	6.18.14	ND	30.48	ND	6490.10	6459.62
MW-49	6.26.13	ND	32.68	ND	6486.04	6453.36
MW-49	12.17.13	32.41	33.01	0.60	6486.04	6453.41
MW-49	6.18.14	32.35	32.93	0.58	6486.04	6453.48
MW-50	6.26.13	Dry	Dry	Dry	6494.83	Dry
MW-50	12.17.13	Dry	Dry	Dry	6494.83	Dry
MW-50	6.18.14	Dry	Dry	Dry	6494.83	Dry

BTOC - below top of casing

AMSL - aboce mean sea level

TOC - top of casing

M - Well connected to MDPE Unit.

NG - Well not gauged, or Errant Gauge.

* - corrected for presence of phase-sepated hydrocarbon using a site-specific density correction factor of 0.63

NA - not applicable

1 - MW-1R re-surveyed 09/01/11



TABLE 4A Lindrith Compressor Station MDPE Controller Data - Area 1											
Imple Controller Data - Area 1 Time Stamp CPU Status BTU/Hr (estimated) Process Vacuum (Inches-H ₂ O) Process Flow (SCFM) ICE Air Flow (SCFM) Prop (SCFM) 10-07-2013 19:09 Calibration 0 0 0 83											
10-07-2013 19:09	Calibration	0	0	0	83	1.933					
10-07-2013 20:09	Running	266000	60.23	11	78	0.133					
10-07-2013 21:09	Running	234000	62.38	13	80	0.4					
10-07-2013 22:09	Running	202000	81.75	13	78	0.4					
10-07-2013 23:09	Running	94000	86.05	5	85	1.333					
10-08-2013 00:09	Running	60000	114.01	10	77	1.533					
10-08-2013 01:08	Running	66000	116.16	12	79	1.467					
10-08-2013 02:08	Running	74000	118.32	12	80	1.467					
10-08-2013 03:08	Running	72000	118.32	12	77	1.467					
10-08-2013 04:08	Running	72000	116.16	12	80	1.467					
10-08-2013 05:08	Running	88000	116.16	11	80	1.333					
10-08-2013 06:08	Running	88000	118.32	12	78	1.333					
10-08-2013 07:08	Running	78000	118.32	12	79	1.4					
10-08-2013 08:07	Running	82000	120.47	12	80	1.4					
10-08-2013 09:07	Running	90000	116.16	13	77	1.333					
10-08-2013 10:07	Running	80000	111.86	12	78	1.4					
10-08-2013 11:07	Running	78000	109.71	12	79	1.4					
10-08-2013 12:07	Running	78000	107.56	13	77	1.4					
10-08-2013 12:10	Shutdown	78000	25.81	0	80	1.533					
10-08-2013 12:20	Shutdown	78000	0	0	82	2.067					
10-08-2013 13:06	Calibration	78000	73.14	9	81	1.333					
10-08-2013 13:22	Shutdown	0	25.81	0	79	1.6					
10-08-2013 14:22	Shutdown	0	0	0	88	1.867					
10-08-2013 14:39	Calibration	0	0	0	80	1.8					
10-08-2013 15:39	Running	44000	107.56	8	77	1.467					
10-08-2013 16:38	Running	24000	109.71	11	78	1.6					
10-08-2013 17:38	Running	46000	114.01	12	78	1.467					
10-08-2013 18:38	Running	36000	120.47	13	78	1.533					
10-08-2013 19:38	Running	38000	124.77	14	75	1.533					
10-08-2013 20:38	Running	88000	124.77	14	76	1.2					
10-08-2013 21:38	Running	80000	129.07	15	76	1.267					
10-08-2013 22:38	Running	70000	131.22	15	75	1.333					
10-08-2013 23:37	Running	76000	131.22	15	76	1.267					
10-09-2013 00:37	Running	82000	135.53	15	75	1.267					
10-09-2013 01:37	Running	56000	135.53	15	76	1.4					
10-09-2013 02:37	Running	44000	139.83	15	76	1.467					
10-09-2013 03:37	Running	36000	144.13	15	75	1.533					
10-09-2013 04:37	Running	36000	146.28	16	73	1.533					
10-09-2013 05:37	Running	40000	146.28	16	75	1.533					
10-09-2013 06:36	Running	40000	148.43	16	74	1.533					
10-09-2013 07:36	Running	40000	159.19	8	80	1.533					
10-09-2013 08:36	Running	0	191.46	0	79	1.933					
10-09-2013 08:47	Shutdown	0	0	0	79	1.867					

SCFM - Standard Cubic Feet per Minute



TABLE 4B Lindrith Compressor Station MDPE Controller Data - Area 2												
Time Stamp	CPU Status	BTU/Hr (estimated)	Process Vacuum (Inches-H ₂ O)	Process Flow (SCFM)	ICE Air Flow (SCFM)	Propane Fuel Flow (SCFM)						
10-09-2013 11:19	Calibration	0	0	0	81	1.8						
10-09-2013 12:19	Running	242000	124.77	3	91	0.133						
10-09-2013 12:23	Calibration	242000	0	0	80	1.8						
10-09-2013 13:23	Running	206000	131.22	3	90	0.4						
10-09-2013 14:23	Running	174000	135.53	4	86	0.533						
10-09-2013 15:23	Running	194000	139.83	4	88	0.2						
10-09-2013 16:22	Running	188000	141.98	4	88	0.133						
10-09-2013 17:07	Shutdown	170000	15.06	0	81	1.2						
10-09-2013 17:23	Calibration	170000	0	0	81	1.8						
10-09-2013 18:23	Running	106000	139.83	5	83	1.067						
10-09-2013 19:22	Running	118000	144.13	6	86	1						
10-09-2013 20:22	Running	104000	141.98	7	84	1.067						
10-09-2013 21:22	Running	104000	144.13	8	84	1.067						
10-09-2013 22:22	Running	76000	144.13	8	83	1.267						
10-09-2013 23:22	Running	48000	148.43	8	83	1.467						
10-10-2013 00:22	Running	54000	154.89	6	85	1.4						
10-10-2013 01:22	Running	42000	157.04	6	82	1.467						
10-10-2013 02:21	Running	46000	157.04	7	80	1.467						
10-10-2013 03:21	Running	44000	157.04	7	84	1.467						
10-10-2013 04:21	Running	42000	157.04	7	84	1.533						
10-10-2013 05:21	Running	40000	159.19	7	81	1.533						
10-10-2013 06:21	Running	40000	159.19	7	81	1.533						
10-10-2013 07:21	Running	36000	157.04	8	82	1.533						
10-10-2013 08:21	Running	38000	157.04	8	81	1.533						
10-10-2013 08:41	Shutdown	38000	19.36	0	81	1.6						

SCFM - Standard Cubic Feet per Minute



TABLE 4C Lindrith Compressor Station MDPE Controller Data - Area 3												
Time Stamp	CPU Status	BTU/Hr (estimated)	Process Vacuum (Inches-H ₂ O)	Process Flow (SCFM)	ICE Air Flow (SCFM)	Propane Fuel Flow (SCFM)						
10-10-2013 10:16	Calibration	38000	0	0	79	1.8						
10-10-2013 10:45	Shutdown	4000	0	0	81	1.733						
10-10-2013 11:07	Calibration	4000	0	0	80	1.8						
10-10-2013 12:06	Running	2000	58.08	0	88	1.8						
10-10-2013 13:06	Running	0	47.33	0	90	1.867						
10-10-2013 14:06	Running	0	34.42	0	89	1.867						
10-10-2013 14:37	Shutdown	0	0	0	81	1.8						
10-10-2013 15:44	Calibration	0	0	0	79	1.8						
10-10-2013 15:46	Shutdown	0	0	0	79	1.8						
10-10-2013 15:56	Calibration	0	0	0	80	1.8						
10-10-2013 16:20	Shutdown	0	0	0	80	1.867						
10-10-2013 16:29	Calibration	0	0	0	79	1.8						
10-10-2013 17:29	Running	0	30.12	3	89	1.867						
10-10-2013 18:28	Running	0	38.72	2	89	1.8						
10-10-2013 19:28	Running	0	47.33	3	88	1.8						
10-10-2013 20:28	Running	0	64.54	4	86	1.867						
10-10-2013 21:28	Running	0	47.33	3	88	1.867						
10-10-2013 22:28	Running	0	45.18	3	88	1.867						
10-10-2013 23:28	Running	0	70.99	11	90	1.933						
10-11-2013 00:28	Running	0	62.38	6	86	1.867						
10-11-2013 01:27	Running	0	60.23	6	84	1.933						
10-11-2013 02:27	Running	0	62.38	6	84	1.933						
10-11-2013 03:27	Running	0	105.41	15	81	2						
10-11-2013 04:27	Running	0	66.69	7	84	1.933						
10-11-2013 05:27	Running	0	68.84	8	83	1.933						
10-11-2013 06:27	Running	0	81.75	11	79	1.933						

SCFM - Standard Cubic Feet per Minute



TABLE 5A Lindrith Compressor Station Radius of Influence - MW-1R													
Time	MW-1R	MW-1R EP-43 EP-44 EP-45											
(10/7/14 - 10/7/14)	(inches H ₂ O)	PSHL (ft)	WL (ft)	PSH Thickness (ft)	(inches H ₂ O)	PSHL (ft)	WL (ft)	PSH Thickness (ft)					
1840				MW-1R, MV	V-6, & MW-9								
1845	5	33.70	38.44	4.74	0.5	34.20	35.01	0.81					
1915	4	33.70	38.45	4.75	0.3	34.20	35.02	0.82					
1935	5	33.70	38.47	4.77	0.4	34.20	35.02	0.82					
2020	8.5	33.71	38.49	4.78	0.7	34.22	35.04	0.82					
2105	7	33.73	38.50	4.77	0.5	34.22	35.06	0.84					
2135	10	33.74	38.53	4.79	0.8	34.22	35.06	0.84					
2200				MW-1R	& MW-9								
2240	12	33.76	38.56	4.80	1.0	34.22	35.06	0.84					
2339	12	33.77	38.54	4.77	0.8	34.21	35.07	0.86					
0040	14.5	33.78	38.53	4.75	1.0	34.21	35.05	0.84					
0140	15	33.78	38.53	4.75	1.0	34.22	35.06	0.84					
0240	15	33.78	38.53	4.75	1.0	34.22	35.06	0.84					
0340	15.5	33.79	38.52	4.73	1.1	34.22	35.06	0.84					
0440	16	33.80	38.51	4.71	1.1	34.22	35.06	0.84					
0540	16	33.80	38.50	4.70	1.2	34.22	35.05	0.83					
0640	15.5	33.80	38.50	4.70	1.1	34.22	35.05	0.83					
0740	15	33.81	38.51	4.70	1.2	34.22	35.07	0.85					
0840	15	33.83	38.51	4.68	1.2	34.22	35.07	0.85					
0940	13.5	33.82	38.49	4.67	1.1	34.21	35.07	0.86					
1040	10	33.82	38.46	4.64	0.8	34.22	35.06	0.84					

Notes:

1) Distance between MW-1R and EP-43 is 6.75 FT

2) Distance between MW-1R and EP-44 is 10.8 FT

3) Distance between MW-1R and EP-45 is 16.25 FT

4) MW-1R: 150 FT hose length, MW-6: 150 FT hose length, MW-9: 350 FT hose length



	TABLE 5B												
Lindrith Compressor Station													
			Rac	tius of Influence - MV	V-9								
Time	MW-9	MW-9 EP-46 EP-47 EP-48											
(10/7/14 - 10/7/14)	(inches H2O)	PSHL (ft)	WL (ft)	PSH Thickness (ft)	(inches H2O)	PSHL (ft)	WL (ft)	PSH Thickness (ft)					
1840				MW-1R, MW	-6, & MW-9								
1900	12.5	30.32	32.62	2.30	0.6	29.81	32.21	2.40					
1930	13	30.36	32.64	2.28	0.6	29.84	32.26	2.42					
2015	12.5	30.39	32.68	2.29	0.6	29.85	32.29	2.44					
2055	12.5	30.39	32.68	2.29	0.6	29.85	32.27	2.42					
2200				MW-1R &	MW-9								
2225	12	30.38	32.68	2.30	0.6	29.86	32.28	2.42					
2245	10	30.40	32.71	2.31	0.4	29.90	32.36	2.46					
2351	12	30.44	32.86	2.42	0.6	29.98	32.51	2.53					
0050	12	30.47	32.96	2.49	0.6	30.01	32.57	2.56					
0150	12	30.49	33.04	2.55	0.6	30.02	32.61	2.59					
0250	12	30.51	33.06	2.55	0.6	30.02	32.63	2.61					
0350	12	30.51	33.07	2.56	0.6	30.02	32.68	2.66					
0450	12	30.51	33.11	2.60	0.6	30.03	32.70	2.67					
0550	12	30.51	33.20	2.69	0.6	30.03	32.74	2.71					
0650	13	30.52	33.24	2.72	0.7	30.02	32.76	2.74					
0750	13.5	30.53	33.27	2.74	0.7	30.04	32.80	2.76					
0850	12	30.54	33.32	2.78	0.6	30.04	32.84	2.80					
0950	11	30.53	33.33	2.80	0.6	30.03	32.84	2.81					
1050	13	30.55	33.32	2.77	0.7	30.03	32.85	2.82					

Notes:

1) Distance between MW-9 and EP-46 is 6.25 FT

2) Distance between MW-9 and EP-47 is 11.4 FT

3) Distance between MW-9 and EP-48 is 15.8 FT

4) MW-1R: 150 FT hose length, MW-6: 150 FT hose length, MW-9: 350 FT hose length



APPENDIX C

Soil Boring/Monitoring Well Logs

Apex TITAN, Inc. 606 S. Rio Grande, Suite A Aztec, New Mexico 87410 Phone: (505) 334-5200 www.apexcos.com A Subsidiary of Apex Companies, LLC						Clien Project Project Project	t: Enterprise Field Services t Name: Lindrith Compressor Station t Location: Rio Arriba County, New Mexico t Manager: Kyle Summers]	BORING LOG NUMBER EP-43 Project #7030410G006
Date Sam Drilled by Driller: Logged by Sampler:	pled: /: y: 	April 23, 2 Enviro-Dr K. Summe K. Summe	2013 ill ers ers			Ground Top of North C West C Bench I Z At ∡ At	Diameter:8" ameter:N/A erials:PVC ompletion:Above Ground ethod:Hollow Stem Augers		
DEPTH (ft)	SAMPLE INTERVAL	SAMPLE ID	RECOVERY (%)	FID/PID READING (ppm)	POTENTIO- METRIC SURFACE	GEOLOGIC LOG SYMBOL	GEOLOGIC DESCRIPTION		BORING / WELL COMPLETION (GRAPHIC DEPICTION)
							SILTY SAND: mod yellowish brown SILTY SAND: moderate to pale yellowish brown SANDY SILT: dark yellowish brown SILTY SAND: moderate yellowish brown WEATHER SANDSTONE: pale to moderate yellowish brown SANDSTONE: pale to moderate yellowish brown		Filter pack (20-40 clean silics sand) (clean

Apex TITAN, Inc. 606 S. Rio Grande, Sulte A Aztec, New Mexico 87410 Phone: (505) 334-5200 www.apexcos.com A Subsidiary of Apex Companies, LLC						Clien Project Project Project	t: <u>Enterprise Field Services</u> t Name: <u>Lindrith Compressor Station</u> t Location: <u>Rio Arriba County, New Mexico</u> t Manager: <u>Kyle Summers</u>]	BORING LOG NUMBER EP-44 Project #7030410G006
Date Sam Drilled by Driller: Logged by Sampler:	pled: _/ /: _E y: _ <u>F</u>	April 23, 2 Enviro-Dr K. Summe K. Summe	2013 ill ers ers			Ground Surface Elevation: N/A Borehole Top of Casing Elevation: - Casing D North Coordinate: - Well Mat West Coordinate: - Surface C Bench Mark Elevation: N/A Boring M ☑ At Completion X Well Stabilization			Diameter:8" ameter:N/A erials:PVC ompletion: _Above Ground ethod:Hollow Stem Augers
DEPTH (ft)	SAMPLE INTERVAL	SAMPLE ID	RECOVERY (%)	FID/PID READING (ppm)	POTENTIO- METRIC SURFACE	GEOLOGIC LOG SYMBOL	GEOLOGIC DESCRIPTION		BORING / WELL COMPLETION (GRAPHIC DEPICTION)
							SILTY SAND: moderate to pale yellowish brown SILTY SAND: moderate to pale yellowish brown SANDY SILT: dark yellowish brown SILTY SAND: moderate yellowish brown SILTY SAND: moderate yellowish brown SILTY SAND: moderate yellowish brown SANDSTONE: pale to moderate yellowish brown		Filter pack (20-40 clean silica saud) (clean saud) (clea

Apex TITAN, Inc. 606 S. Rio Grande, Suite A Aztec, New Mexico 87410 Phone: (505) 334-5200 www.apexcos.com A Subsidiary of Apex Companies, LLC						Clien Project Project Project	t: Enterprise Field Services t Name: Lindrith Compressor Station t Location: Rio Arriba County, New Mexico t Manager: Kyle Summers]	BORING LOG NUMBER EP-45 Project #7030410G006
Date Sam Drilled by Driller: Logged by Sampler:	pled: _/ /: _E y: _ <u>F</u>	April 23, 2 Enviro-Dr K. Summe K. Summe	2013 ill ers ers			Ground Surface Elevation: N/A Borehole Top of Casing Elevation: Casing D North Coordinate: Well Mat West Coordinate: Surface C Bench Mark Elevation: N/A Boring M Z At Completion Boring M Z At Well Stabilization At Well Stabilization			Diameter:8" ameter:N/A erials:PVC ompletion: _Above Ground ethod:Hollow Stem Augers
DEPTH (ft)	SAMPLE INTERVAL	SAMPLE ID	RECOVERY (%)	FID/PID READING (ppm)	POTENTIO- METRIC SURFACE	GEOLOGIC LOG SYMBOL	GEOLOGIC DESCRIPTION		BORING / WELL COMPLETION (GRAPHIC DEPICTION)
							SILTY SAND: moderate to pale yellowish brown SILTY SAND: moderate to pale yellowish brown SILTY SAND: moderate yellowish brown SILTY SAND: moderate yellowish brown WEATHER SANDSTONE: pale to moderate yellowish brown SANDSTONE: pale to moderate yellowish brown TOTAL DEPTH OF BORING - 39.0 feet BGS		Filter pack (20-4) clean silics sand) clean sand) cle

Apex T 606 S. Rio Aztec, Nev Phone: (<u>www.a</u> A Subsidiary of A	TAN, Inc. Grande, Suite A Mexico 87410 305) 334-5200 Jexcos.com pex Companies, LLC	Clier Projec Projec Projec	BORING LOG NUMBER EP-46 Project # 7030410G006				
Date Sampled: April 23, 2013 Drilled by: Enviro-Drill Driller:		Ground Top of North 0 West 0 Bench ☑ A 亚 A	d Surface Elevation: N/A Casing Elevation: - Coordinate: - Coordinate: - Mark Elevation: N/A t Completion t t Well Stabilization -	Borehole Diameter: <u>8''</u> Casing Diameter: <u>N/A</u> Well Materials: <u>PVC</u> Surface Completion: <u>Above Ground</u> Boring Method: <u>Hollow Stem Augers</u>			
DEPTH (ft) (ft) SAMPLE INTERVAL SAMPLE ID RECOVERY	FID/PID FID/PID READING (ppm) POTENTIO- METRIC SURFACE	GEOLOGIC LOG SYMBOL	GEOLOGIC DESCRIPTION		BORING / WELL COMPLETION (GRAPHIC DEPICTION)		
$ \begin{array}{c} $			SAND SILT: moderate yellowish brown to moderate brown SILTY SAND: pale to moderate yellowish brown, very fine grain increasing firmness with depth SAND: pale yellowish brown, very fine to fine grained SILTY SAND: moderate yellowish brown SILTY SAND: moderate yellowish brown SAND/SANDSTONE: pale to dark yellowish orange SHALEY SANDSTONE: dark yellowish brown SANDSTONE: moderate yellowish brown SANDSTONE: moderate yellowish brown SANDSTONE: moderate yellowish brown SHALEY SANDSTONE: dark yellowish brown SANDSTONE: moderate yellowish brown	ied, loose,	Filter pack (20-40 clean slica sand) (found Casing clean slica sand) (found Casing clean slica sand) (found Casing (found Casing) (found found f		

		Ape 600 Az F A Subsid	6 S. Rio Gra tec, New M Phone: (505 www.apex	AN, In nde, Suite A exico 87410) 334-5200 cos.com x Companie	NC.	Clien Project Project Project	t: Enterprise Field Services t Name: Lindrith Compressor Station t Location: Rio Arriba County, New Mexico t Manager: Kyle Summers]	BORING LOG NUMBER EP-47 Project #7030410G006		
Date Sam Drilled by Driller: Logged b <u>y</u> Sampler:	pled: /: y: 	April 23, 2 Enviro-Dr K. Summe K. Summe	2013 ill ers ers			Ground Top of North 0 West 0 Bench 1 ☑ At	I Surface Elevation: N/A Casing Elevation: - Coordinate: - Coordinate: - Mark Elevation: N/A Completion . Well Stabilization .	Borehole Diameter:			
DEPTH (ft)	SAMPLE INTERVAL	SAMPLE ID	RECOVERY (%)	FID/PID READING (ppm)	POTENTIO- METRIC SURFACE	GEOLOGIC LOG SYMBOL	GEOLOGIC DESCRIPTION		BORING / WELL COMPLETION (GRAPHIC DEPICTION)		
							SAND SILT: moderate yellowish brown to moderate brown SILTY SAND: pale to moderate yellowish brown, very fine grain increasing firmness with depth SAND: pale yellowish brown, very fine to fine grained SILTY SAND: moderate yellowish brown SAND/SANDSTONE: pale to dark yellowish orange SHALEY SANDSTONE: dark yellowish brown to olive gray SHALEY SANDSTONE: dark yellowish brown SANDSTONE: moderate yellowish brown SANDSTONE: moderate yellowish brown		Filter pack (20-40 clean silica sand) clean silica sand) clean silica sand) clean silica sand) clean silica sand) clean silica sand) fronted Casing clean silica sand) fronted Casing clean silica sand) fronted Casing clean silica sand) fronted Casing fronted Cas		
40											

		Ape 600 Az F A Subsid	X TITAN, Inc. S. Rio Grande, Suite A ec, New Mexico 87410 none: (505) 334-5200 www.apexcos.com ary of Apex Companies, LLC						BORING LOG NUMBER EP-48 Project #7030410G006		
Date Samp Drilled by Driller: Logged by Sampler:	pled: r: y: 	April 23-2 Enviro-Dr K. Summe K. Summe	4, 2013 ill ers ers			Ground Top of North 0 West 0 Bench 1 ☑ At	I Surface Elevation: N/A Casing Elevation:	Borehole Diameter: 8" Casing Diameter: N/A Well Materials: PVC Surface Completion: Above Ground Boring Method: Hollow Stem Augers			
DEPTH (ft)	SAMPLE INTERVAL	SAMPLE ID	RECOVERY (%)	FID/PID READING (ppm)	POTENTIO- METRIC SURFACE	GEOLOGIC LOG SYMBOL	GEOLOGIC DESCRIPTION		BORING / WELL COMPLETION (GRAPHIC DEPICTION)		
							SAND SILT: moderate yellowish brown to moderate brown SILTY SAND: pale to moderate yellowish brown, very fine grain increasing firmness with depth	ed, loose,	uted Casing		
							SAND: pale yellowish brown, very fine to fine grained SILTY SAND: moderate yellowish brown		Hydrated Bentonite Seal		
							SAND/SANDSTONE: pale to dark yellowish orange SHALEY SANDSTONE: dark yellowish brown to olive gray SHALEY SANDSTONE: dark yellowish brown SANDSTONE: moderate yellowish brown		Filter pack (20-40 clean silica sand) clean silica sand) 20-40 clean silica sand) Filtsh threaded 1" ID Schedule 40 PVC with 0.010" machine slotted openings (21-36 feet)		

		Ape 600 Az F A Subsid	EX TIT 6 S. Rio Gra ttec, New M Phone: (505 www.apex tiary of Ape	AN, Ir nde, Suite A exico 87410) 334-5200 cos.com x Companio	IC.	Clien Project Project Project	t: Enterprise Field Services Name: Lindrith Compressor Station Location: Rio Arriba County, New Mexico Manager: Kyle Summers	-	BORING LOG NUMBER MW-49 Project #7030410G006
Date Sam Drilled by Driller: Logged b Sampler:	pled: /: y: 	April 24, 2 Enviro-Dr K. Summe K. Summe	2013 ill ers ers			Ground Top of North C West C Bench ∠ At ∠ At	Surface Elevation: N/A Casing Elevation: 6486.04 Coordinate: - oordinate: - Mark Elevation: N/A Completion Well Stabilization	Borehole Casing D Well Mat Surface C Boring M	Diameter: <u>8"</u> iameter: <u>4"</u> erials: <u>PVC</u> completion: <u>Above Ground</u> ethod: <u>Hollow Stem Augers</u>
DEPTH (ft)	SAMPLE INTERVAL	SAMPLE ID	RECOVERY (%)	FID/PID READING (ppm)	POTENTIO- METRIC SURFACE	GEOLOGIC DOG SYMBOL	GEOLOGIC DESCRIPTION		BORING / WELL COMPLETION (GRAPHIC DEPICTION)
		29-30		1 1 0 NR NR 0 0 NR NR 0 0 0 NR NR 0 0 0 NR 1 1 1 1 1 1 1 1 1 1 1 1 1			SILTY SAND: mod yellowish brown, dry, no odor SILTY SAND: inter bedded silts and very fine sands, dry, no odo SILTY SAND: mod yellowish brown, dry to wet, no odor SILTY SAND: mod yellowish brown, dry to wet, no odor -possible staining -possible staining		Filter pack (20-40 clean slica saud)

Z:\Houston South\Drafting\New Mexico 04\2010\7030410G006\logs\Boring Logs.dwg 10/08/14



APPENDIX D

Laboratory Analytical Reports & Chain of Custody Documentation



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

July 05, 2013

Kyle Summers Southwest Geoscience 606 S. Rio Grande Unit A Aztec, NM 87410 TEL: (903) 821-5603 FAX (214) 350-2914

RE: Lindrith CS

OrderNo.: 1306B71

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 19 sample(s) on 6/27/2013 for the analyses presented in the following report.

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

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

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

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 7/5/2013

CLIENT: Southwest Geoscience			Client Sampl	e ID: M	W-5	
Project: Lindrith CS			Collection I	Date: 6/2	25/2013 8:35:00 AM	
Lab ID: 1306B71-001	Matrix:	AQUEOUS	Received l	Date: 6/2	27/2013 10:00:00 AM	
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE					Analyst	: JME
Diesel Range Organics (DRO)	1.1	1.0	mg/L	1	6/27/2013 7:48:01 PM	8135
Surr: DNOP	133	75.4-146	%REC	1	6/27/2013 7:48:01 PM	8135
EPA METHOD 8015D: GASOLINE RAN	IGE				Analyst	: NSB
Gasoline Range Organics (GRO)	0.28	0.25	mg/L	5	6/27/2013 7:44:51 PM	R11626
Surr: BFB	97.4	51.5-151	%REC	5	6/27/2013 7:44:51 PM	R11626
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	5.0	µg/L	5	6/27/2013 7:44:51 PM	R11626
Toluene	ND	5.0	µg/L	5	6/27/2013 7:44:51 PM	R11626
Ethylbenzene	ND	5.0	µg/L	5	6/27/2013 7:44:51 PM	R11626
Xylenes, Total	ND	10	µg/L	5	6/27/2013 7:44:51 PM	R11626
Surr: 4-Bromofluorobenzene	98.5	69.4-129	%REC	5	6/27/2013 7:44:51 PM	R11626

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit Page 1 of 24
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 7/5/2013

CLIENT: Southwest Geoscience		Client Sample ID: MW-4								
Project: Lindrith CS			Collection I	Date: 6/2	5/2013 9:10:00 AM					
Lab ID: 1306B71-002	Matrix:	AQUEOUS	Received 1	Date: 6/2	7/2013 10:00:00 AM					
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch				
EPA METHOD 8015D: DIESEL RANGE					Analyst	: JME				
Diesel Range Organics (DRO)	1.2	1.0	mg/L	1	6/27/2013 8:10:04 PM	8135				
Surr: DNOP	125	75.4-146	%REC	1	6/27/2013 8:10:04 PM	8135				
EPA METHOD 8015D: GASOLINE RAM	NGE				Analyst	: NSB				
Gasoline Range Organics (GRO)	34	2.5	mg/L	50	6/27/2013 8:13:34 PM	R11626				
Surr: BFB	96.9	51.5-151	%REC	50	6/27/2013 8:13:34 PM	R11626				
EPA METHOD 8021B: VOLATILES					Analyst	: NSB				
Benzene	4300	50	µg/L	50	6/27/2013 8:13:34 PM	R11626				
Toluene	1800	50	µg/L	50	6/27/2013 8:13:34 PM	R11626				
Ethylbenzene	250	50	µg/L	50	6/27/2013 8:13:34 PM	R11626				
Xylenes, Total	1700	100	µg/L	50	6/27/2013 8:13:34 PM	R11626				
Surr: 4-Bromofluorobenzene	104	69.4-129	%REC	50	6/27/2013 8:13:34 PM	R11626				

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	в	Analyte detected in the associated Method Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit Page 2 of 24
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 7/5/2013

CLIENT: Southwest Geoscience			Client Sampl	e ID: MV	W-38	
Project: Lindrith CS			Collection I	Date: 6/2	5/2013 9:45:00 AM	
Lab ID: 1306B71-003	Matrix:	AQUEOUS	Received l	Date: 6/2	7/2013 10:00:00 AM	
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE					Analyst:	JME
Diesel Range Organics (DRO)	1.1	1.0	mg/L	1	6/27/2013 8:32:15 PM	8135
Surr: DNOP	124	75.4-146	%REC	1	6/27/2013 8:32:15 PM	8135
EPA METHOD 8015D: GASOLINE RAM	NGE				Analyst:	NSB
Gasoline Range Organics (GRO)	17	2.5	mg/L	50	6/28/2013 12:31:04 AM	R11626
Surr: BFB	93.7	51.5-151	%REC	50	6/28/2013 12:31:04 AM	R11626
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	1200	50	µg/L	50	6/28/2013 12:31:04 AM	R11626
Toluene	62	50	µg/L	50	6/28/2013 12:31:04 AM	R11626
Ethylbenzene	170	50	µg/L	50	6/28/2013 12:31:04 AM	R11626
Xylenes, Total	800	100	µg/L	50	6/28/2013 12:31:04 AM	R11626
Surr: 4-Bromofluorobenzene	98.0	69.4-129	%REC	50	6/28/2013 12:31:04 AM	R11626

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit Page 3 of 24
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 7/5/2013

CLIENT: Southwest Geoscience Project: Lindrith CS			Client Sampl Collection 1	e ID: M Date: 6/2	W-36 25/2013 10:25:00 AM	
Lab ID: 1306B71-004	Matrix:	AQUEOUS	Received 1	Date: 6/2	27/2013 10:00:00 AM	
Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE					Analyst:	JME
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	6/27/2013 8:54:13 PM	8135
Surr: DNOP	124	75.4-146	%REC	1	6/27/2013 8:54:13 PM	8135
EPA METHOD 8015D: GASOLINE RAM	IGE				Analyst:	NSB
Gasoline Range Organics (GRO)	0.065	0.050	mg/L	1	6/28/2013 12:59:43 AM	R11626
Surr: BFB	91.0	51.5-151	%REC	1	6/28/2013 12:59:43 AM	R11626
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	ND	1.0	μg/L	1	6/28/2013 12:59:43 AM	R11626
Toluene	ND	1.0	μg/L	1	6/28/2013 12:59:43 AM	R11626
Ethylbenzene	ND	1.0	μg/L	1	6/28/2013 12:59:43 AM	R11626
Xylenes, Total	ND	2.0	µg/L	1	6/28/2013 12:59:43 AM	R11626
Surr: 4-Bromofluorobenzene	95.3	69.4-129	%REC	1	6/28/2013 12:59:43 AM	R11626

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank	
	Е	Value above quantitation range	Н	Holding times for preparation or analysis exceeded	
	J	Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit		
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2 for VOA and TOC only.	
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit	
Hall Environmental Analysis Laboratory, Inc.

Date Reported: 7/5/2013

CLIENT: Southwest Geoscience Project: Lindrith CS			Client Sampl Collection I	e ID: M Date: 6/2	W-7 25/2013 11:00:00 AM	
Lab ID: 1306B71-005	Matrix:	AQUEOUS	Received I	Date: 6/2	27/2013 10:00:00 AM	
Analyses	Result	RL Q	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE					Analyst	JME
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	6/27/2013 9:16:17 PM	8135
Surr: DNOP	124	75.4-146	%REC	1	6/27/2013 9:16:17 PM	8135
EPA METHOD 8015D: GASOLINE RAM	IGE				Analyst	: NSB
Gasoline Range Organics (GRO)	0.25	0.050	mg/L	1	6/28/2013 1:28:20 AM	R11626
Surr: BFB	101	51.5-151	%REC	1	6/28/2013 1:28:20 AM	R11626
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	4.1	1.0	µg/L	1	6/28/2013 1:28:20 AM	R11626
Toluene	ND	1.0	µg/L	1	6/28/2013 1:28:20 AM	R11626
Ethylbenzene	1.2	1.0	µg/L	1	6/28/2013 1:28:20 AM	R11626
Xylenes, Total	2.8	2.0	µg/L	1	6/28/2013 1:28:20 AM	R11626
Surr: 4-Bromofluorobenzene	97.6	69.4-129	%REC	1	6/28/2013 1:28:20 AM	R11626

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit Page 5 of 24
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 7/5/2013

CLIENT: Southwest Geoscience			Client Sampl	e ID: MV	V-2	
Lab ID: 1306B71-006	Matrix.	AOUFOUS	Collection I Received I	Date: 6/2	5/2013 11:35:00 AM	
	Matrix.	NQULUUD		Juic: 0/2	72013 10.00.00 MM	
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE					Analyst:	JME
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	6/27/2013 10:00:09 PM	8135
Surr: DNOP	133	75.4-146	%REC	1	6/27/2013 10:00:09 PM	8135
EPA METHOD 8015D: GASOLINE RAN	IGE				Analyst	NSB
Gasoline Range Organics (GRO)	24	1.0	mg/L	20	6/28/2013 1:56:55 AM	R11626
Surr: BFB	96.7	51.5-151	%REC	20	6/28/2013 1:56:55 AM	R11626
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	2700	100	µg/L	100	7/1/2013 1:55:39 PM	R11689
Toluene	ND	20	µg/L	20	6/28/2013 1:56:55 AM	R11626
Ethylbenzene	110	20	µg/L	20	6/28/2013 1:56:55 AM	R11626
Xylenes, Total	1100	40	µg/L	20	6/28/2013 1:56:55 AM	R11626
Surr: 4-Bromofluorobenzene	104	69.4-129	%REC	20	6/28/2013 1:56:55 AM	R11626

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit Page 6 of 24
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 7/5/2013

CLIENT: Southwest Geoscience	Client Sample ID: MW-40								
Project: Lindrith CS	Collection Date: 6/25/2013 12:35:00 PM								
Lab ID: 1306B71-007	Matrix:	AQUEOUS	Received l	Date: 6/2	27/2013 10:00:00 AM				
Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch			
EPA METHOD 8015D: DIESEL RANGE					Analyst:	JME			
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	6/27/2013 10:21:58 PM	8135			
Surr: DNOP	131	75.4-146	%REC	1	6/27/2013 10:21:58 PM	8135			
EPA METHOD 8015D: GASOLINE RAI	NGE				Analyst:	NSB			
Gasoline Range Organics (GRO)	0.45	0.050	mg/L	1	6/28/2013 2:25:28 AM	R11626			
Surr: BFB	98.8	51.5-151	%REC	1	6/28/2013 2:25:28 AM	R11626			
EPA METHOD 8021B: VOLATILES					Analyst:	NSB			
Benzene	2.3	1.0	µg/L	1	6/28/2013 2:25:28 AM	R11626			
Toluene	ND	1.0	µg/L	1	6/28/2013 2:25:28 AM	R11626			
Ethylbenzene	ND	1.0	µg/L	1	6/28/2013 2:25:28 AM	R11626			
Xylenes, Total	ND	2.0	µg/L	1	6/28/2013 2:25:28 AM	R11626			
Surr: 4-Bromofluorobenzene	98.5	69.4-129	%REC	1	6/28/2013 2:25:28 AM	R11626			

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit Page 7 of 24
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Surr: 4-Bromofluorobenzene

Date Reported: 7/5/2013

6/28/2013 2:54:02 AM R11626

CLIENT: Southwest Geoscience		Client Sample ID: MW-31								
Project: Lindrith CS			Collection 1	Date: 6/2	25/2013 1:30:00 PM					
Lab ID: 1306B71-008	Matrix:	AQUEOUS	Received l	Date: 6/2	27/2013 10:00:00 AM					
Analyses	Result	RL (Qual Units	DF	Date Analyzed	Batch				
EPA METHOD 8015D: DIESEL RANG	E				Analyst	JME				
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	6/27/2013 10:43:55 PM	8135				
Surr: DNOP	142	75.4-146	%REC	1	6/27/2013 10:43:55 PM	8135				
EPA METHOD 8015D: GASOLINE RA	NGE				Analyst	: NSB				
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	6/28/2013 2:54:02 AM	R11626				
Surr: BFB	91.7	51.5-151	%REC	1	6/28/2013 2:54:02 AM	R11626				
EPA METHOD 8021B: VOLATILES					Analyst	: NSB				
Benzene	ND	1.0	µg/L	1	6/28/2013 2:54:02 AM	R11626				
Toluene	ND	1.0	µg/L	1	6/28/2013 2:54:02 AM	R11626				
Ethylbenzene	ND	1.0	μg/L	1	6/28/2013 2:54:02 AM	R11626				
Xylenes, Total	ND	2.0	μg/L	1	6/28/2013 2:54:02 AM	R11626				

69.4-129

%REC

1

97.1

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit Page 8 of 24
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 7/5/2013

CLIENT: Southwest Geoscience			Client Sampl	e ID: M	W-33	
Project: Lindrith CS			Collection 1	Date: 6/2	25/2013 2:25:00 PM	
Lab ID: 1306B71-009	Matrix:	AQUEOUS	Received	Date: 6/2	27/2013 10:00:00 AM	
Analyses	Result	RL Qua	l Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE					Analyst	JME
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	6/27/2013 11:05:46 PM	8135
Surr: DNOP	135	75.4-146	%REC	1	6/27/2013 11:05:46 PM	8135
EPA METHOD 8015D: GASOLINE RAN	IGE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	6/28/2013 3:22:34 AM	R11626
Surr: BFB	90.3	51.5-151	%REC	1	6/28/2013 3:22:34 AM	R11626
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	1.0	µg/L	1	6/28/2013 3:22:34 AM	R11626
Toluene	ND	1.0	µg/L	1	6/28/2013 3:22:34 AM	R11626
Ethylbenzene	ND	1.0	µg/L	1	6/28/2013 3:22:34 AM	R11626
Xylenes, Total	ND	2.0	µg/L	1	6/28/2013 3:22:34 AM	R11626
Surr: 4-Bromofluorobenzene	95.2	69.4-129	%REC	1	6/28/2013 3:22:34 AM	R11626

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit Page 9 of 24
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 7/5/2013

CLIENT: Southwest Geoscience Project: Lindrith CS	Client Sample ID: MW-8 Collection Date: 6/25/2013 3:00:00 PM								
Lab ID: 1306B71-010	Matrix:	AQUEOUS	Received	Date: 6/2	27/2013 10:00:00 AM				
Analyses	Result	RL Qua	l Units	DF	Date Analyzed	Batch			
EPA METHOD 8015D: DIESEL RANGE					Analyst	JME			
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	6/27/2013 11:27:40 PM	8135			
Surr: DNOP	145	75.4-146	%REC	1	6/27/2013 11:27:40 PM	8135			
EPA METHOD 8015D: GASOLINE RAM	NGE				Analyst	NSB			
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	6/28/2013 3:51:11 AM	R11626			
Surr: BFB	93.3	51.5-151	%REC	1	6/28/2013 3:51:11 AM	R11626			
EPA METHOD 8021B: VOLATILES					Analyst	NSB			
Benzene	ND	1.0	µg/L	1	6/28/2013 3:51:11 AM	R11626			
Toluene	ND	1.0	µg/L	1	6/28/2013 3:51:11 AM	R11626			
Ethylbenzene	ND	1.0	µg/L	1	6/28/2013 3:51:11 AM	R11626			
Xylenes, Total	ND	2.0	µg/L	1	6/28/2013 3:51:11 AM	R11626			
Surr: 4-Bromofluorobenzene	97.8	69.4-129	%REC	1	6/28/2013 3:51:11 AM	R11626			

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit Page 10 of 24
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 7/5/2013

CLIENT: Southwest Geoscience			C	lient Sampl	e ID: M	W-3	
Lab ID: 1306B71-011	Matrix:	AOUEOUS	S	Received 1	Date: 6/2	27/2013 3:35:00 PM	
Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE						Analyst	JME
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/27/2013 11:49:33 PM	8135
Surr: DNOP	152	75.4-146	S	%REC	1	6/27/2013 11:49:33 PM	8135
EPA METHOD 8015D: GASOLINE RAN	IGE					Analyst	NSB
Gasoline Range Organics (GRO)	0.78	0.25		mg/L	5	6/28/2013 4:19:46 AM	R11626
Surr: BFB	95.2	51.5-151		%REC	5	6/28/2013 4:19:46 AM	R11626
EPA METHOD 8021B: VOLATILES						Analyst	NSB
Benzene	76	5.0		µg/L	5	6/28/2013 4:19:46 AM	R11626
Toluene	ND	5.0		µg/L	5	6/28/2013 4:19:46 AM	R11626
Ethylbenzene	46	5.0		µg/L	5	6/28/2013 4:19:46 AM	R11626
Xylenes, Total	16	10		µg/L	5	6/28/2013 4:19:46 AM	R11626
Surr: 4-Bromofluorobenzene	97.5	69.4-129		%REC	5	6/28/2013 4:19:46 AM	R11626

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit Page 11 of 24
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 7/5/2013

CLIENT: Southwest Geoscience	Client Sample ID: MW-10									
Project: Lindrith CS		Collection Date: 6/25/2013 4:15:00 PM								
Lab ID: 1306B71-012	Matrix:	AQUEOUS	Received	Date: 6/2	27/2013 10:00:00 AM					
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch				
EPA METHOD 8015D: DIESEL RANGE					Analyst:	JME				
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	6/28/2013 12:11:27 AM	8135				
Surr: DNOP	120	75.4-146	%REC	1	6/28/2013 12:11:27 AM	8135				
EPA METHOD 8015D: GASOLINE RAN	IGE				Analyst:	NSB				
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	7/1/2013 2:24:18 PM	R11689				
Surr: BFB	92.5	51.5-151	%REC	1	7/1/2013 2:24:18 PM	R11689				
EPA METHOD 8021B: VOLATILES					Analyst:	NSB				
Benzene	ND	1.0	µg/L	1	7/1/2013 2:24:18 PM	R11689				
Toluene	ND	1.0	µg/L	1	7/1/2013 2:24:18 PM	R11689				
Ethylbenzene	ND	1.0	µg/L	1	7/1/2013 2:24:18 PM	R11689				
Xylenes, Total	ND	2.0	µg/L	1	7/1/2013 2:24:18 PM	R11689				
Surr: 4-Bromofluorobenzene	95.9	69.4-129	%REC	1	7/1/2013 2:24:18 PM	R11689				

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit Page 12 of 24
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Surr: 4-Bromofluorobenzene

Date Reported: 7/5/2013

7/1/2013 2:53:00 PM

1

R11689

CLIENT: Southwest Geoscience Project: Lindrith CS		Client Sample ID: MW-42								
Lab ID: 1306B71-013	Matrix:	AQUEOUS	Received 1	Received Date: 6/27/2013 10:00:00 AM						
Analyses	Result	RL (Qual Units	DF	Date Analyzed	Batch				
EPA METHOD 8015D: DIESEL RANG	E				Analyst	: JME				
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	6/28/2013 12:54:58 AM	8135				
Surr: DNOP	114	75.4-146	%REC	1	6/28/2013 12:54:58 AM	8135				
EPA METHOD 8015D: GASOLINE RA	NGE				Analyst	: NSB				
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	7/1/2013 2:53:00 PM	R11689				
Surr: BFB	94.7	51.5-151	%REC	1	7/1/2013 2:53:00 PM	R11689				
EPA METHOD 8021B: VOLATILES					Analyst	: NSB				
Benzene	ND	1.0	µg/L	1	7/1/2013 2:53:00 PM	R11689				
Toluene	ND	1.0	μg/L	1	7/1/2013 2:53:00 PM	R11689				
Ethylbenzene	ND	1.0	μg/L	1	7/1/2013 2:53:00 PM	R11689				
Xylenes, Total	ND	2.0	µg/L	1	7/1/2013 2:53:00 PM	R11689				

69.4-129

%REC

95.9

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit Page 13 of 24
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 7/5/2013

CLIENT: Southwest Geoscience Project: Lindrith CS Lab ID: 1306B71-014	Matrix:	AQUEOUS	Client Sampl Collection I Received I	e ID: M Date: 6/2 Date: 6/2	W-34 26/2013 9:40:00 AM 27/2013 10:00:00 AM	
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE					Analyst	: JME
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	6/28/2013 1:16:42 AM	8135
Surr: DNOP	120	75.4-146	%REC	1	6/28/2013 1:16:42 AM	8135
EPA METHOD 8015D: GASOLINE RAN	GE				Analyst	: NSB
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	7/1/2013 3:21:43 PM	R11689
Surr: BFB	92.1	51.5-151	%REC	1	7/1/2013 3:21:43 PM	R11689
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	1.0	μg/L	1	7/1/2013 3:21:43 PM	R11689
Toluene	ND	1.0	μg/L	1	7/1/2013 3:21:43 PM	R11689
Ethylbenzene	ND	1.0	μg/L	1	7/1/2013 3:21:43 PM	R11689
Xylenes, Total	ND	2.0	µg/L	1	7/1/2013 3:21:43 PM	R11689
Surr: 4-Bromofluorobenzene	95.3	69.4-129	%REC	1	7/1/2013 3:21:43 PM	R11689

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit $P_{age} 14 \text{ of } 24$
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 7/5/2013

CLIENT: Southwest Geoscience	Client Sample ID: MW-11								
Project: Lindrith CS	Collection Date: 6/26/2013 10:15:00 AM								
Lab ID: 1306B71-015	Matrix:	AQUEOUS	Received 1	Date: 6/2	27/2013 10:00:00 AM				
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch			
EPA METHOD 8015D: DIESEL RANGE					Analyst	t: JME			
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	6/28/2013 1:38:38 AM	8135			
Surr: DNOP	121	75.4-146	%REC	1	6/28/2013 1:38:38 AM	8135			
EPA METHOD 8015D: GASOLINE RAN	GE				Analyst	:: NSB			
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	7/1/2013 4:47:44 PM	R11689			
Surr: BFB	93.4	51.5-151	%REC	1	7/1/2013 4:47:44 PM	R11689			
EPA METHOD 8021B: VOLATILES					Analyst	II NSB			
Benzene	ND	1.0	µg/L	1	7/1/2013 4:47:44 PM	R11689			
Toluene	ND	1.0	µg/L	1	7/1/2013 4:47:44 PM	R11689			
Ethylbenzene	ND	1.0	µg/L	1	7/1/2013 4:47:44 PM	R11689			
Xylenes, Total	ND	2.0	µg/L	1	7/1/2013 4:47:44 PM	R11689			
Surr: 4-Bromofluorobenzene	97.0	69.4-129	%REC	1	7/1/2013 4:47:44 PM	R11689			

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit Page 15 of 24
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 7/5/2013

CLIENT: Southwest Geoscience			Client Sampl	e ID: M	W-12					
Project: Lindrith CS		Collection Date: 6/26/2013 10:45:00 AM								
Lab ID: 1306B71-016	Matrix:	AQUEOUS	Received l	Date: 6/2	27/2013 10:00:00 AM					
Analyses	Result	RL Qua	al Units	DF	Date Analyzed	Batch				
EPA METHOD 8015D: DIESEL RANGE					Analyst	t: JME				
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	6/28/2013 2:00:19 AM	8135				
Surr: DNOP	120	75.4-146	%REC	1	6/28/2013 2:00:19 AM	8135				
EPA METHOD 8015D: GASOLINE RAM	IGE				Analyst	II NSB				
Gasoline Range Organics (GRO)	0.41	0.050	mg/L	1	7/1/2013 5:16:17 PM	R11689				
Surr: BFB	113	51.5-151	%REC	1	7/1/2013 5:16:17 PM	R11689				
EPA METHOD 8021B: VOLATILES					Analyst	II NSB				
Benzene	71	1.0	µg/L	1	7/1/2013 5:16:17 PM	R11689				
Toluene	ND	1.0	µg/L	1	7/1/2013 5:16:17 PM	R11689				
Ethylbenzene	5.8	1.0	µg/L	1	7/1/2013 5:16:17 PM	R11689				
Xylenes, Total	10	2.0	µg/L	1	7/1/2013 5:16:17 PM	R11689				
Surr: 4-Bromofluorobenzene	101	69.4-129	%REC	1	7/1/2013 5:16:17 PM	R11689				

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit Page 16 of 24
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 7/5/2013

CLIENT: Southwest Geoscience		Client Sample ID: MW-35										
Project: Lindrith CS			Collection l	Date: 6/2	26/2013 11:20:00 AM							
Lab ID: 1306B71-017	Matrix:	AQUEOUS	Received l	Date: 6/2	27/2013 10:00:00 AM							
Analyses	Result	RL Qua	al Units	DF	Date Analyzed	Batch						
EPA METHOD 8015D: DIESEL RANGE					Analyst	: JME						
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	6/28/2013 2:22:08 AM	8135						
Surr: DNOP	122	75.4-146	%REC	1	6/28/2013 2:22:08 AM	8135						
EPA METHOD 8015D: GASOLINE RAN	IGE				Analyst	II NSB						
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	7/1/2013 5:44:59 PM	R11689						
Surr: BFB	93.1	51.5-151	%REC	1	7/1/2013 5:44:59 PM	R11689						
EPA METHOD 8021B: VOLATILES					Analyst	II NSB						
Benzene	ND	1.0	µg/L	1	7/1/2013 5:44:59 PM	R11689						
Toluene	ND	1.0	µg/L	1	7/1/2013 5:44:59 PM	R11689						
Ethylbenzene	ND	1.0	µg/L	1	7/1/2013 5:44:59 PM	R11689						
Xylenes, Total	ND	2.0	µg/L	1	7/1/2013 5:44:59 PM	R11689						
Surr: 4-Bromofluorobenzene	96.6	69.4-129	%REC	1	7/1/2013 5:44:59 PM	R11689						

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit Page 17 of 24
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 7/5/2013

CLIENT: Southwest Geoscience	Client Sample ID: MW-49										
Project: Lindrith CS		Collection Date: 6/26/2013 11:50:00 AM									
Lab ID: 1306B71-018	Matrix:	Matrix: AQUEOUS		Date: 6/2	7/2013 10:00:00 AM	1					
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch					
EPA METHOD 8015D: DIESEL RANGE					Analys	: JME					
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	6/28/2013 2:43:52 AM	8135					
Surr: DNOP	124	75.4-146	%REC	1	6/28/2013 2:43:52 AM	8135					
EPA METHOD 8015D: GASOLINE RAN	GE				Analys	II NSB					
Gasoline Range Organics (GRO)	8.8	0.50	mg/L	10	7/2/2013 5:42:50 PM	R11718					
Surr: BFB	108	51.5-151	%REC	10	7/2/2013 5:42:50 PM	R11718					
EPA METHOD 8021B: VOLATILES					Analys	II NSB					
Benzene	2200	50	µg/L	50	7/2/2013 5:14:10 PM	R11718					
Toluene	ND	10	µg/L	10	7/2/2013 5:42:50 PM	R11718					
Ethylbenzene	210	10	µg/L	10	7/2/2013 5:42:50 PM	R11718					
Xylenes, Total	810	20	µg/L	10	7/2/2013 5:42:50 PM	R11718					
Surr: 4-Bromofluorobenzene	110	69.4-129	%REC	10	7/2/2013 5:42:50 PM	R11718					

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit Page 18 of 24
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 7/5/2013

CLIENT: Southwest Geoscience	Client Sample ID: MW-41									
Project: Lindrith CS			Collection]	Date: 6/2	26/2013 12:25:00 PM					
Lab ID: 1306B71-019	Matrix:	Matrix: AQUEOUS Received			Date: 6/27/2013 10:00:00 AM					
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch				
EPA METHOD 8015D: DIESEL RANGE					Analyst:	JME				
Diesel Range Organics (DRO)	1.2	1.0	mg/L	1	6/28/2013 10:07:51 AM	8135				
Surr: DNOP	145	75.4-146	%REC	1	6/28/2013 10:07:51 AM	8135				
EPA METHOD 8015D: GASOLINE RAN	IGE				Analyst:	NSB				
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	7/2/2013 2:05:29 PM	R11718				
Surr: BFB	94.2	51.5-151	%REC	1	7/2/2013 2:05:29 PM	R11718				
EPA METHOD 8021B: VOLATILES					Analyst:	NSB				
Benzene	2.0	1.0	µg/L	1	7/2/2013 2:05:29 PM	R11718				
Toluene	ND	1.0	µg/L	1	7/2/2013 2:05:29 PM	R11718				
Ethylbenzene	ND	1.0	µg/L	1	7/2/2013 2:05:29 PM	R11718				
Xylenes, Total	ND	2.0	µg/L	1	7/2/2013 2:05:29 PM	R11718				
Surr: 4-Bromofluorobenzene	98.5	69.4-129	%REC	1	7/2/2013 2:05:29 PM	R11718				

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	Е	Value above quantitation range	Н	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit Page 19 of 24
	0	RSD is greater than RSDlimit	Р	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Analysis Date: 6/27/2013

PQL

1.0

Result

4.8

0.57

SPK value SPK Ref Val

0

5.000

0.5000

Client:	Southwes	st Geoscier	nce								
Project:	Lindrith	CS									
Sample ID	MB-8135	SampType: MBLK TestCode: EPA Method 8							l Range		
Client ID:	PBW	Batch	n ID: 81	35	F	RunNo: 1	1587				
Prep Date:	6/27/2013	Analysis D	Date: 6/	27/2013	S	SeqNo: 3	29609	Units: mg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range C Surr: DNOP	Drganics (DRO)	ND 1.2	1.0	1.000		116	75.4	146			
			SampType: LCS TestCode: EPA Method 8015D: Diesel Range								
Sample ID	LCS-8135	SampT	ype: LC	s	Tes	tCode: El	PA Method	8015D: Diese	l Range		
Sample ID Client ID:	LCS-8135 LCSW	SampT Batch	ype: LC 1 ID: 81	:S 35	Tes F	tCode: El RunNo: 1	PA Method 1587	8015D: Diese	l Range		
Sample ID Client ID: Prep Date:	LCS-8135 LCSW 6/27/2013	SampT Batch Analysis D	⁻ ype: LC n ID: 81 Date: 6 /	:S 35 /27/2013	Tes F S	tCode: El RunNo: 1 SeqNo: 3	PA Method 1587 29610	8015D: Diese Units: mg/L	l Range		
Sample ID Client ID: Prep Date: Analyte	LCS-8135 LCSW 6/27/2013	SampT Batch Analysis D Result	⁻ ype: LC n ID: 81 Date: 6 / PQL	:S 35 /27/2013 SPK value	Tes F S SPK Ref Val	tCode: El RunNo: 1 SeqNo: 3 %REC	PA Method 1587 29610 LowLimit	8015D: Diese Units: mg/L HighLimit	I Range %RPD	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Diesel Range C	LCS-8135 LCSW 6/27/2013 Drganics (DRO)	SampT Batch Analysis D Result 4.9	ype: LC n ID: 81 Date: 6, PQL 1.0	25 35 27/2013 SPK value 5.000	Tes F S SPK Ref Val 0	tCode: El RunNo: 1 SeqNo: 3 %REC 98.1	PA Method 1587 29610 LowLimit 89.1	8015D: Diese Units: mg/L HighLimit 151	I Range %RPD	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Diesel Range C Surr: DNOP	LCS-8135 LCSW 6/27/2013 Drganics (DRO)	SampT Batch Analysis D Result 4.9 0.57	⁻ ype: LC n ID: 81 Date: 6 / PQL 1.0	25 35 27/2013 SPK value 5.000 0.5000	Tes F S SPK Ref Val 0	tCode: El RunNo: 1 SeqNo: 3 %REC 98.1 113	PA Method 1587 29610 LowLimit 89.1 75.4	8015D: Diese Units: mg/L HighLimit 151 146	I Range %RPD	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Diesel Range C Surr: DNOP Sample ID	LCS-8135 LCSW 6/27/2013 Drganics (DRO) LCSD-8135	SampT Batch Analysis D Result 4.9 0.57 SampT	Type: LC n ID: 81 Date: 6/ PQL 1.0	27/2013 27/2013 SPK value 5.000 0.5000 SD	Tes F SPK Ref Val 0 Tes	tCode: El RunNo: 1 SeqNo: 3 %REC 98.1 113 tCode: El	PA Method 1587 29610 LowLimit 89.1 75.4 PA Method	8015D: Diese Units: mg/L HighLimit 151 146 8015D: Diese	I Range %RPD	RPDLimit	Qual

SeqNo: 329611

LowLimit

89.1

75.4

%REC

95.9

114

Units: mg/L

HighLimit

151

146

%RPD

2.34

0

RPDLimit

20

0

Qual

Diesel Range Organics (DRO) Surr: DNOP

Analyte

Prep Date: 6/27/2013

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

- 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 for VOA and TOC only.
- RL Reporting Detection Limit

Page 20 of 24

WO#:	1306B71
	05-Jul-13

Client:	Southwes	st Geoscien	ce									
Project:	Lindrith (CS										
Sample ID	5ML RB	SampT	ype: ME	BLK	Tes	TestCode: EPA Method 8015D: Gasoline Range						
Client ID:	PBW	Batch	ID: R1	1626	R	RunNo: 1	1626					
Prep Date:		Analysis D	ate: 6/	27/2013	S	SeqNo: 3	29725	Units: mg/L				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Rang	ge Organics (GRO)	ND	0.050	20.00		04.4	54 5	454				
SUII: BFB		18		20.00		91.4	51.5	151				
Sample ID	2.5UG GRO LCS	SampT	ype: LC	S	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	е		
Client ID:	LCSW	Batch	ID: R1	1626	R	RunNo: 1	1626					
Prep Date:		Analysis D	ate: 6/	27/2013	S	SeqNo: 3	29727	Units: mg/L				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Rang	ge Organics (GRO)	0.50	0.050	0.5000	0	101	73.2	124				
		20		20.00		99.0	51.5	151				
Sample ID	1306B71-002AMS	SampT	ype: MS	6	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	е		
Client ID:	MW-4	Batch	ID: R1	1626	R	RunNo: 1	1626					
Prep Date:		Analysis D	ate: 6/	27/2013	S	SeqNo: 3	29748	Units: mg/L				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Rang	ge Organics (GRO)	58 1000	2.5	25.00	33.92	94.3 102	65.2 51.5	137 151				
Sull: DI D		1000		1000		102	01.0	101				
0	1306B71-002AMS	D SampTy	ype: MS	SD	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e		
Sample ID		e campi			_							
Client ID:	MW-4	Batch	ID: R1	1626	R	RunNo: 1	1626					
Sample ID Client ID: Prep Date:	MW-4	Batch Analysis D	ID: R1 ate: 6/	1626 27/2013	R	RunNo: 1 SeqNo: 3	1626 29750	Units: mg/L				
Sample ID Client ID: Prep Date: Analyte	MW-4	Batch Analysis Da Result	ID: R1 ate: 6/ PQL	1626 27/2013 SPK value	R SPK Ref Val	RunNo: 1 SeqNo: 3 %REC	1626 29750 LowLimit	Units: mg/L HighLimit	%RPD	RPDLimit	Qual	
Client ID: Prep Date: Analyte Gasoline Rang	MW-4	Batch Analysis Di Result 55	ID: R1 ate: 6/ PQL 2.5	1626 27/2013 SPK value 25.00 1000	R S SPK Ref Val 33.92	RunNo: 1 SeqNo: 3 %REC 82.4 105	1626 29750 LowLimit 65.2 51.5	Units: mg/L HighLimit 137 151	%RPD 5.32	RPDLimit 20 0	Qual	
Client ID: Prep Date: Analyte Gasoline Rang Surr: BFB	MW-4	Batch Analysis Da Result 55 1000	ID: R1 ate: 6/ <u>PQL</u> 2.5	1626 27/2013 SPK value 25.00 1000	R SPK Ref Val 33.92	RunNo: 1 SeqNo: 3 %REC 82.4 105	1626 29750 LowLimit 65.2 51.5	Units: mg/L HighLimit 137 151	%RPD 5.32 0	RPDLimit 20 0	Qual	
Sample ID Client ID: Prep Date: Analyte Gasoline Rang Surr: BFB Sample ID	MW-4 ge Organics (GRO) 5ML RB	Batch Analysis D Result 55 1000 SampT	ID: R1 ate: 6/ <u>PQL</u> 2.5 ype: ME	1626 27/2013 SPK value 25.00 1000 BLK	R SPK Ref Val 33.92 Tes	2unNo: 1 SeqNo: 3 <u>%REC</u> 82.4 105 tCode: EI	1626 29750 LowLimit 65.2 51.5 PA Method	Units: mg/L <u>HighLimit</u> 137 151 8015D: Gaso	%RPD 5.32 0	RPDLimit 20 0	Qual	
Sample ID Client ID: Prep Date: Analyte Gasoline Rang Surr: BFB Sample ID Client ID:	MW-4 ge Organics (GRO) 5ML RB PBW	Batch Analysis Da Result 55 1000 SampTy Batch	ID: R1 ate: 6/ <u>PQL</u> 2.5 ype: ME ID: R1	1626 27/2013 SPK value 25.00 1000 BLK 1689	R SPK Ref Val 33.92 Tes R	RunNo: 1 SeqNo: 3 %REC 82.4 105 tCode: EI RunNo: 1	1626 29750 LowLimit 65.2 51.5 PA Method 1689	Units: mg/L HighLimit 137 151 8015D: Gaso	%RPD 5.32 0	RPDLimit 20 0	Qual	
Sample ID Client ID: Prep Date: Analyte Gasoline Rang Surr: BFB Sample ID Client ID: Prep Date:	MW-4 ge Organics (GRO) 5ML RB PBW	Batch Analysis D Result 55 1000 SampT Batch Analysis D	ID: R1 ate: 6 / <u>PQL</u> 2.5 ype: ME ID: R1 ate: 7 /	1626 27/2013 SPK value 25.00 1000 3LK 1689 1/2013	R SPK Ref Val 33.92 Tes R S	RunNo: 1 SeqNo: 3 <u>%REC</u> 82.4 105 RunNo: 1 SeqNo: 3	1626 29750 LowLimit 65.2 51.5 PA Method 1689 31709	Units: mg/L HighLimit 137 151 8015D: Gaso Units: mg/L	%RPD 5.32 0	RPDLimit 20 0	Qual	
Sample ID Client ID: Prep Date: Analyte Gasoline Rang Surr: BFB Sample ID Client ID: Prep Date: Analyte	MW-4 ge Organics (GRO) 5ML RB PBW	Batch Analysis Da Result 55 1000 SampTy Batch Analysis Da Result	ID: R1 ate: 6 / PQL 2.5 Vpe: ME ID: R1 ate: 7 / PQL	1626 27/2013 SPK value 25.00 1000 3LK 1689 1/2013 SPK value	R SPK Ref Val 33.92 Tes R SPK Ref Val	RunNo: 1 SeqNo: 3 %REC 82.4 105 COde: EI RunNo: 1 SeqNo: 3 %REC	1626 29750 LowLimit 65.2 51.5 PA Method 1689 31709 LowLimit	Units: mg/L HighLimit 137 151 8015D: Gaso Units: mg/L HighLimit	%RPD 5.32 0 line Rang %RPD	RPDLimit 20 0 e RPDLimit	Qual	
Sample ID Client ID: Prep Date: Analyte Gasoline Rang Surr: BFB Sample ID Client ID: Prep Date: Analyte Gasoline Rang Surr: BFB	MW-4 ge Organics (GRO) 5ML RB PBW	Batch Analysis D Result 55 1000 SampTy Batch Analysis D Result ND 18	ID: R1 ate: 6 / PQL 2.5 ID: R1 ate: 7 / PQL 0.050	1626 27/2013 SPK value 25.00 1000 3LK 1689 1/2013 SPK value 20.00	R SPK Ref Val 33.92 Tes R SPK Ref Val	2unNo: 1 SeqNo: 3 %REC 82.4 105 tCode: El 2unNo: 1 SeqNo: 3 %REC 92.3	1626 29750 LowLimit 65.2 51.5 PA Method 1689 31709 LowLimit	Units: mg/L HighLimit 137 151 8015D: Gaso Units: mg/L HighLimit	%RPD 5.32 0 line Rang %RPD	RPDLimit 20 0 e RPDLimit	Qual	
Sample ID Client ID: Prep Date: Analyte Gasoline Rang Surr: BFB Sample ID Client ID: Prep Date: Analyte Gasoline Rang Surr: BFB	MW-4 ge Organics (GRO) 5ML RB PBW ge Organics (GRO)	Batch Analysis Da Result 55 1000 SampTy Batch Analysis Da Result ND 18	ID: R1 ate: 6 / PQL 2.5 ID: R1 ate: 7 / PQL 0.050	1626 27/2013 SPK value 25.00 1000 3LK 1689 1/2013 SPK value 20.00	R SPK Ref Val 33.92 Tes SPK Ref Val	RunNo: 1 SeqNo: 3: %REC 82.4 105 Code: El RunNo: 1 SeqNo: 3: %REC 92.3	1626 29750 LowLimit 65.2 51.5 PA Method 1689 31709 LowLimit 51.5	Units: mg/L HighLimit 137 151 8015D: Gaso Units: mg/L HighLimit 151	%RPD 5.32 0 line Rang %RPD	RPDLimit 20 0 e RPDLimit	Qual	
Sample ID Client ID: Prep Date: Analyte Gasoline Rang Surr: BFB Sample ID Client ID: Prep Date: Analyte Gasoline Rang Surr: BFB Sample ID	MW-4 ge Organics (GRO) 5ML RB PBW ge Organics (GRO) 2.5UG GRO LCS	Batch Analysis Da Result 55 1000 SampTy Batch Analysis Da Result ND 18	ID: R1 ate: 6 / PQL 2.5 ID: R1 ate: 7 / PQL 0.050	1626 27/2013 SPK value 25.00 1000 3LK 1689 1/2013 SPK value 20.00	R SPK Ref Val 33.92 Tes SPK Ref Val Tes	2unNo: 1 SeqNo: 3 %REC 82.4 105 tCode: El 2unNo: 1 SeqNo: 3 %REC 92.3 tCode: El	1626 29750 LowLimit 65.2 51.5 PA Method 1689 31709 LowLimit 51.5 PA Method	Units: mg/L HighLimit 137 151 8015D: Gaso Units: mg/L HighLimit 151 8015D: Gaso	%RPD 5.32 0 line Rang %RPD	RPDLimit 20 0 e RPDLimit	Qual	
Sample ID Client ID: Prep Date: Analyte Gasoline Rang Surr: BFB Sample ID Client ID: Prep Date: Analyte Gasoline Rang Surr: BFB Sample ID Client ID: Prep Date:	MW-4 ge Organics (GRO) 5ML RB PBW ge Organics (GRO) 2.5UG GRO LCS LCSW	Batch Analysis Da Result 55 1000 SampTy Batch Analysis Da Result ND 18 SampTy Batch	ID: R1 ate: 6/ PQL 2.5 ID: R1 ate: 7/ PQL 0.050 ID: R1 ID: R1	1626 27/2013 SPK value 25.00 1000 3LK 1689 1/2013 SPK value 20.00 S 1/2012	Ref Val 33.92 Tes SPK Ref Val SPK Ref Val	RunNo: 1 SeqNo: 3: %REC 82.4 105 Code: EI RunNo: 1 %REC 92.3 Code: EI RunNo: 1 RunNo: 1	1626 29750 LowLimit 65.2 51.5 PA Method 1689 31709 LowLimit 51.5 PA Method 1689	Units: mg/L HighLimit 137 151 8015D: Gaso Units: mg/L HighLimit 151 8015D: Gaso	%RPD 5.32 0 line Rang %RPD	RPDLimit 20 0 e RPDLimit	Qual	
Sample ID Client ID: Prep Date: Analyte Gasoline Rang Surr: BFB Sample ID Client ID: Prep Date: Analyte Gasoline Rang Surr: BFB Sample ID Client ID: Prep Date:	MW-4 ge Organics (GRO) 5ML RB PBW ge Organics (GRO) 2.5UG GRO LCS LCSW	Batch Analysis Da Result 55 1000 SampTy Batch Analysis Da Result ND 18 SampTy Batch Analysis Da	ID: R1 ate: 6 / PQL 2.5 ID: R1 ate: 7 / PQL 0.050 ID: R1 ate: 7 /	1626 27/2013 SPK value 25.00 1000 3LK 1689 1/2013 SPK value 20.00 SS 1689 1/2013	R SPK Ref Val 33.92 Tes SPK Ref Val SPK Ref Val	2unNo: 1 SeqNo: 3 %REC 82.4 105 tCode: El 2unNo: 1 SeqNo: 3 %REC 92.3 tCode: El 2unNo: 1 SeqNo: 3 SeqNo: 3	1626 29750 LowLimit 65.2 51.5 PA Method 1689 31709 LowLimit 51.5 PA Method 1689 31710	Units: mg/L HighLimit 137 151 8015D: Gaso Units: mg/L HighLimit 151 8015D: Gaso Units: mg/L	%RPD 5.32 0 line Rang	RPDLimit 20 0 e RPDLimit	Qual	
Sample ID Client ID: Prep Date: Analyte Gasoline Rang Surr: BFB Sample ID Client ID: Prep Date: Analyte Gasoline Rang Surr: BFB Sample ID Client ID: Prep Date: Analyte Client ID: Prep Date:	MW-4 ge Organics (GRO) 5ML RB PBW ge Organics (GRO) 2.5UG GRO LCS LCSW	Batch Analysis Da Result 55 1000 SampTy Batch Analysis Da Result ND 18 SampTy Batch Analysis Da Result	ID: R1 ate: 6/ PQL 2.5 ID: R1 ate: 7/ PQL 0.050 ID: R1 ate: 7/ PQL 0.050	1626 27/2013 SPK value 25.00 1000 3LK 1689 1/2013 SPK value 20.00 3S 1/2013 SPK value 0.5000	R SPK Ref Val 33.92 Tes SPK Ref Val Tes SPK Ref Val SPK Ref Val	RunNo: 1 SeqNo: 3: %REC 82.4 105 Code: EI RunNo: 1 SeqNo: 3: %REC 92.3 Code: EI RunNo: 1 SeqNo: 3: %REC 102	1626 29750 LowLimit 65.2 51.5 PA Method 1689 31709 LowLimit 51.5 PA Method 1689 31710 LowLimit 23.2	Units: mg/L HighLimit 137 151 8015D: Gaso Units: mg/L HighLimit 151 8015D: Gaso Units: mg/L HighLimit	%RPD 5.32 0 line Rang %RPD	RPDLimit 20 0 e RPDLimit e RPDLimit	Qual	

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

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 for VOA and TOC only.

Page 21 of 24

RL Reporting Detection Limit

Client: Project:	Southwes Lindrith C	t Geoscience CS	:								
Sample ID	2.5UG GRO LCS	SampTyp	e: LC	s	Tes	tCode: E	PA Method	8015D: Gaso	line Rang	e	
Client ID:	LCSW	Batch ID): R1	1689	F	RunNo: 1	1689				
Prep Date:		Analysis Date	e: 7/	/1/2013	S	SeqNo: 3	31710	Units: mg/L			
Analyte		Result F	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB		20		20.00		99.9	51.5	151			
Sample ID	1306B71-014AMS	SampTyp	e: MS	S	Tes	tCode: E	PA Method	8015D: Gaso	line Rang	e	
Client ID:	MW-34	Batch ID): R1	1689	F	RunNo: 1	1689				
Prep Date:		Analysis Date	e: 7/	/1/2013	S	SeqNo: 3	31714	Units: mg/L			
Analyte		Result F	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Ranç	ge Organics (GRO)	0.50 0	.050	0.5000	0	99.4	65.2	137			
Surr: BFB		20		20.00		101	51.5	151			
Sample ID	1306B71-014AMS	D SampTyp	e: MS	SD	Tes	tCode: E	PA Method	8015D: Gaso	line Rang	e	
Client ID:	MW-34	Batch ID): R1	1689	F	RunNo: 1	1689				
Prep Date:		Analysis Date	e: 7/	/1/2013	S	SeqNo: 3	31715	Units: mg/L			
Analyte		Result I	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	ge Organics (GRO)	0.48 0	.050	0.5000	0	95.4	65.2	137	4.06	20	
Surr: BFB		20		20.00		102	51.5	151	0	0	
Sample ID	5ML RB	SampTyp	e: MB	BLK	Tes	tCode: E	PA Method	8015D: Gaso	line Rang	e	
Client ID:	PBW	Batch ID): R1	1718	F	RunNo: 1	1718				
Prep Date:		Analysis Date	e: 7/	/2/2013	5	SeqNo: 3	32806	Units: mg/L			
Analyte		Result F	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	ge Organics (GRO)	ND C	.050								
Surr: BFB		19		20.00		93.9	51.5	151			
Sample ID	2.5UG GRO LCS	SampTyp	e: LC	s	Tes	tCode: E	PA Method	8015D: Gaso	line Rang	e	
Client ID:	LCSW	Batch ID): R1	1718	F	RunNo: 1	1718				
Prep Date:		Analysis Date	e: 7/	/2/2013	S	SeqNo: 3	32807	Units: mg/L			
							ا ميرا نصاد	Highl imit	0/ 000		Qual
Analyte		Result F	QL	SPK value	SPK Kei vai	%REC	LOWLIMIL	TilgriLinni	%KFD	RPDLIMI	Qual
Analyte Gasoline Rang	ge Organics (GRO)	Result F	.050	0.5000	O	%REC 101	73.2	124	%RFD	RPDLIIIIII	Qual

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

- 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 for VOA and TOC only.
- RL Reporting Detection Limit

Page 22 of 24

QC SUMMARY REPORT	
Hall Environmental Analysis Laboratory, Inc.	

05-Jul-13

Client: Project:	Southwes	st Geoscie	nce								
Sample ID	5ML RB	Samp	Type: ME	SLK	Tes	tCode: El	PA Method	8021B: Volat	lles		
Client ID:	PBW	Batc	h ID: R1	1626	F	RunNo: 1	1626				
Prep Date:		Analysis [Date: 6/	27/2013	S	SeqNo: 3	29768	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		ND	1.0								
Toluene		ND	1.0								
Ethylbenzene		ND	1.0								
Xylenes, I otal		ND	2.0					(
Surr: 4-Brom	nofluorobenzene	19		20.00		95.7	69.4	129			
Sample ID	100NG BTEX LCS	Samp ⁻	Type: LC	S	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID:	LCSW	Batc	h ID: R1	1626	F	RunNo: 1	1626				
Prep Date:		Analysis [Date: 6/	27/2013	5	SeqNo: 3	29770	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		21	1.0	20.00	0	107	80	120			
Toluene		22	1.0	20.00	0	109	80	120			
Ethylbenzene		22	1.0	20.00	0	108	80	120			
Xylenes, Total		65	2.0	60.00	0	108	80	120			
Surr: 4-Brom	nofluorobenzene	20		20.00		101	69.4	129			
Sample ID	1306B71-003AMS	Samp	Туре: М	6	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID:	MW-38	Batc	h ID: R1	1626	F	RunNo: 1	1626				
Prep Date:		Analysis [Date: 6/	27/2013	S	SeqNo: 3	29780	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		2200	50	1000	1170	102	80	120			
Toluene		1100	50	1000	62.38	104	80	120			
Ethylbenzene		1200	50	1000	173.6	103	80	120			
Xylenes, Total		3800	100	3000	797.2	102	80	120			
Surr: 4-Brom	nofluorobenzene	1000		1000		103	69.4	129			
Sample ID	1306B71-003AMS	D Samp	Туре: М	SD	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID:	MW-38	Batc	h ID: R1	1626	F	RunNo: 1	1626				
Prep Date:		Analysis [Date: 6/	27/2013	S	SeqNo: 3	29785	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		2100	50	1000	1170	96.1	80	120	2.61	20	
Toluene		1100	50	1000	62.38	99.7	80	120	3.52	20	
Ethylbenzene		1100	50	1000	173.6	97.5	80	120	4.34	20	
Xylenes, Total		3700	100	3000	797.2	97.7	80	120	3.19	20	
Surr: 4-Brom	nofluorobenzene	1000		1000		103	69.4	129	0	0	

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

- 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 for VOA and TOC only.
- RL Reporting Detection Limit

Page 23 of 24

QC SI	JMMARY	REP(JRT							WO#:	1306B71
Hall Er	nvironmenta	al Analy	ysis I	Laborat	ory, Inc.						05-Jul-13
Client:	Southwe	st Geoscie	nce		<u> </u>				<u> </u>		
Project:	Lindrith (CS									
Sample ID	5ML RB	SampT	Гуре: МІ	BLK	Tes	stCode: E	PA Method	8021B: Volat	iles		
Client ID:	PBW	Batch	h ID: R1	11689	F	RunNo: 1	1689				
Prep Date:		Analysis C	Date: 7 /	/1/2013	ę	SeqNo: 3	31731	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		ND	1.0								
Toluene		ND	1.0								
Ethylbenzene		ND	1.0								
Xylenes, Total		ND	2.0								
Surr: 4-Brom	nofluorobenzene	19		20.00		96.4	69.4	129			
Sample ID	100NG BTEX LCS	SampT	Гуре: LC	;s	Tes	stCode: E	PA Method	8021B: Volat	iles		
Client ID:	LCSW	Batch	n ID: R1	1689	F	RunNo: 1	1689				
Prep Date:		Analysis D)ate: 7 /	/1/2013	Ş	SeqNo: 3	31732	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		20	1.0	20.00	0	101	80	120			
Toluene		20	1.0	20.00	0	102	80	120			
Ethylbenzene		20	1.0	20.00	0	99.8	80	120			
Xylenes, Total	I	61	2.0	60.00	0	101	80	120			
Surr: 4-Brom	nofluorobenzene	20		20.00		101	69.4	129			
Sample ID	5ML RB	SampT	Гуре: МГ	BLK	Tes	stCode: E	PA Method	8021B: Volat	iles		
Client ID:	PBW	Batch	h ID: R1	1718	F	RunNo: 1	1718				
Prep Date:		Analysis E	Date: 7 /	/2/2013	ę	SeqNo: 3	32833	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		ND	1.0							·	
Toluene		ND	1.0								
Ethylbenzene		ND	1.0								
Xylenes, Total	l	ND	2.0								
Surr: 4-Brom	nofluorobenzene	19		20.00		97.5	69.4	129			
Sample ID	100NG BTEX LCS	Samp ^T	 Гуре: L(;s	Tes	stCode: E	PA Method	8021B: Volat	iles		
Client ID:	LCSW	Batch	h ID: R1	1718	F	RunNo: 1	1718				

Analysis Date: 7/2/2013 Prep Date: SeqNo: 332834 Units: µg/L %REC %RPD Analyte Result PQL SPK value SPK Ref Val LowLimit HighLimit RPDLimit Qual 20 1.0 20.00 0 98.4 80 120 Benzene 20 20.00 99.1 Toluene 1.0 0 80 120 Ethylbenzene 20 1.0 20.00 0 99.5 80 120 Xylenes, Total 60 2.0 60.00 0 99.6 80 120 Surr: 4-Bromofluorobenzene 20 20.00 102 69.4 129

Qualifiers:

- Value exceeds Maximum Contaminant Level. *
- Е Value above quantitation range
- Analyte detected below quantitation limits J
- 0 RSD is greater than RSDlimit
- RPD outside accepted recovery limits R

- Analyte detected in the associated Method Blank В
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Р Sample pH greater than 2 for VOA and TOC only.
- Reporting Detection Limit RL

Page 24 of 24

Client Name: Southwest Geoscience Work Order Number Received by/date: AAAA Logged By: Lindsay Mangin 6/27/2013 10:00:00 A Completed By: Lindsay Mangin 6/27/2013 12:55:27 F Reviewed By: AAAAA AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	er: 1306B71 M Yes □ Yes ✔ <u>Courier</u> Yes ⊻	No -	RcptNo: Not Present ☑ Not Present □	1
Received by/date: AAAA Logged By: Lindsay Mangin 6/27/2013 10:00:00 A Completed By: Lindsay Mangin 6/27/2013 12:55:27 F Reviewed By: AAAA AAAAA Chain of Custody 1. Custody seals intact on sample bottles? 2. Is Chain of Custody complete? 3. How was the sample delivered? Log In 4. Was an attempt made to cool the samples? 5. Were all samples received at a temperature of >0° C to 6.0°C 20° C to 6.0°C	M PM Yes □ Yes ✔ Courier Yes ✔	No -	Not Present ☑ Not Present □	
Logged By: Lindsay Mangin 6/27/2013 10:00:00 A Completed By: Lindsay Mangin 6/27/2013 12:55:27 F Reviewed By: UDD113 Chain of Custody UDD113 1. Custody seals intact on sample bottles? 2. Is Chain of Custody complete? 3. How was the sample delivered? Log In 4. Was an attempt made to cool the samples? 5. Were all samples received at a temperature of >0° C to 6.0°C	M Yes □ Yes ✔ <u>Courier</u> Yes ✔	No -	Not Present ☑ Not Present □	
Completed By: Lindsay Mangin 6/27/2013 12:55:27 F Reviewed By: UDM13 Chain of Custody UDM13 1. Custody seals intact on sample bottles? 2. Is Chain of Custody complete? 3. How was the sample delivered? Log In 4. Was an attempt made to cool the samples? 5. Were all samples received at a temperature of >0° C to 6.0°C	Yes □ Yes ✔ <u>Courier</u> Yes ✔ Yes ✔		Not Present ☑ Not Present □	
Reviewed By: Mathematical and the sample bottles? Chain of Custody Output 1. Custody seals intact on sample bottles? 2. Is Chain of Custody complete? 3. How was the sample delivered? Log In 4. Was an attempt made to cool the samples? 5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☐ Yes ☑ <u>Courier</u> Yes ☑	No 🗌 No 🗍 No 🗌	Not Present 🗹	
Chain of Custody 1. Custody seals intact on sample bottles? 2. Is Chain of Custody complete? 3. How was the sample delivered? Log In 4. Was an attempt made to cool the samples? 5. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☐ Yes ☑ <u>Courier</u> Yes ☑	No 🗌 No 🗍	Not Present ☑ Not Present □	
 Custody seals intact on sample bottles? Is Chain of Custody complete? How was the sample delivered? Log In Was an attempt made to cool the samples? Were all samples received at a temperature of >0° C to 6.0°C 	Yes ☐ Yes ✔ <u>Courier</u> Yes ✔	No 🗌 No 🗌	Not Present 🗹	
 Is Chain of Custody complete? How was the sample delivered? Log In Was an attempt made to cool the samples? Were all samples received at a temperature of >0° C to 6.0°C 	Yes 🗹 Courier Yes 🗹	No 🗌 No 🗔	Not Present	
 3. How was the sample delivered? Log In 4. Was an attempt made to cool the samples? 5. Were all samples received at a temperature of >0° C to 6.0°C 	Courier Yes 🔽	No 🗌		
 Log In 4. Was an attempt made to cool the samples? 5. Were all samples received at a temperature of >0° C to 6.0°C 	Yes 🗹	No 🗌		
 4. Was an attempt made to cool the samples? 5. Were all samples received at a temperature of >0° C to 6.0°C 	Yes 🗹	No 🗌		
5. Were all samples received at a temperature of >0° C to 6.0°C	Ves 🗸			
<u>^</u>		No 🗌	NA 🗌	
b. 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 🗹 🛛		
		_	# of preserved bottles checked	
12. Does paperwork match bottle labels?	Yes 🗹	No 🗌 🍐	for pH:	>12 unless noted
13 Are matrices correctly identified on Chain of Custody?	Yes 🔽	No 🗆	Adjusted?	
14. Is it clear what analyses were requested?	Yes 🗹	No 🗌		
15. Were all holding times able to be met? (If no. notify customer for authorization.)	Yes 🔽	No 🗌	Checked by:	
Special Handling (if applicable)				
16. Was client notified of all discrepancies with this order?	Yes	No 🗌	NA 🗹	
Person Notified: Date:				
By Whom: Via:	🗌 eMail 🔛	Phone 🗌 Fax	In Person	
Regarding:			· · · · · · · · · · · · · · · · · · ·	
Client Instructions:		· · · · · · · ·		
17. Additional remarks:				1

1 1.3 Good

Yes

CHAIN OF CUSTODY RECORD	Due Date:	Temp. of coolers		Lade					Lab Sample ID (Lab Use Only)	1306B71-001		-003	- ccvt	- 005	-mo-	-007	-00X	-004	-010						OI
																					NOTES:				SL - sludge O -
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					a		ontainers	-	250 P/O ml												Date UDIC	Date AV	Date	Date	о Ч ф
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	tory: H	s: A	t: And	#: 04	's Signature	2010 B		-	nple(s)											sh 🗆 100	Received 1	Received 1	Received	Received I	SD - Solid Liter
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	St	C E nsultants	~	SUNNO			me	clrith	Identifying I	MW	Hw-	- <i>m</i> M	Чш-	-WM-	HW-	Hw-	HW-	HW-	-mH	5% Rush	Date: 1.	Jate: 1 Duli3 t	Date:	Date:	N - Water VG - Amber
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SOUTHWEST GEOSCIENCE • 2351 W. Northwest Hwy., Suite 3321 • Dalias, Texas 75220 • Office: 214-350-5469 • Fax 214-350-2914

CHAIN OF CUSTODY RECORD	/ / / / Lab use only Due Date:		Temp. of coolers when received (C°): //2		Page <u>2</u> of <u>2</u>						Lab Sample ID (Lab Use Only)	1301571 -0(1			-Duff	-015	-010	410-	-018	Å01							- 01
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		Lab	Add	l S S	Pho	PO/	Sam	Ø		CS	Marks of	in m	0	- 42	- 34	1	1-12	1.35	-49	1-41		02 🗆	Time:	Time:	Lime	Time	S - Sc / Or Gla:
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				Ā		ler_ k		~ G			Time	1535	1615	CES	0460	1015	1045	1120	1150	1385		P	Signatur	Signatur	Signatur	Signatur	V - Waste 4 - 40 ml
	(5	G E nmental	ocation		Manag	s Name	Aer		2006	Date	62/13	\rightarrow	12/0/13							1	nd time	hed by (hed by (hed by (hed by (₩Ŷ
	(ſ	Enviro	Office L		Project	Sampler		Proj. No.	Oth	Matrix	9 3		a)						` \}	\rightarrow	Turn arou	Relinquis	Belinquis	Relinquis	Relinquis	Matrix Container

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

January 02, 2014

Kyle Summers Southwest Geoscience 606 S. Rio Grande Unit A Aztec, NM 87410 TEL: (903) 821-5603 FAX (214) 350-2914

RE: Lindreth CS

OrderNo.: 1312A03

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 9 sample(s) on 12/20/2013 for the analyses presented in the following report.

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

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

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

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/2/2014 Client Sample ID: MW-40

CLIENT: Southwest Geoscience

Project: Lindreth CS 1312A03-001

Lab ID:

Collection Date: 12/17/2013 12:25:00 PM

Received Date: 12/20/2013 10:00:00 AM

Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	E				Analys	st: JME
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	12/23/2013 11:57:54 /	AM 10914
Surr: DNOP	134	70.1-140	%REC	1	12/23/2013 11:57:54 /	AM 10914
EPA METHOD 8015D: GASOLINE RA	NGE				Analys	st: NSB
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	12/22/2013 1:59:44 PI	M R15678
Surr: BFB	87.8	80.4-118	%REC	1	12/22/2013 1:59:44 PI	M R15678
EPA METHOD 8021B: VOLATILES					Analys	st: NSB
Benzene	ND	1.0	µg/L	1	12/22/2013 1:59:44 PI	M R15678
Toluene	ND	1.0	μg/L	1	12/22/2013 1:59:44 PI	M R15678
Ethylbenzene	ND	1.0	μg/L	1	12/22/2013 1:59:44 PI	M R15678
Xylenes, Total	ND	2.0	μg/L	1	12/22/2013 1:59:44 PI	M R15678
Surr: 4-Bromofluorobenzene	96.2	85-136	%REC	1	12/22/2013 1:59:44 PI	M R15678

Matrix: AQUEOUS

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

Level.

Qualifiers:	*	Value exceeds Maximum Contaminant
	Е	Value above quantitation range
		A 1 . 1 11 1

- Analyte detected below quantitation limits J
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits S
- В Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded Н
- ND Not Detected at the Reporting Limit Page 1 of 14
- Р Sample pH greater than 2 for VOA and TOC only.
- Reporting Detection Limit RL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Southwest Geoscience Lindreth CS

Project:

Client Sample ID: MW-31 Collection Date: 12/17/2013 3:10:00 PM Received Date: 12/20/2013 10:00:00 AM

Lab ID: 1312A03-002	Matrix:	AQUEOUS	Received	Date: 12	/20/2013 10:00:00 AN	1
Analyses	Result	RL Qua	l Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE					Analys	t: JME
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	12/23/2013 12:19:56 P	M 10914
Surr: DNOP	124	70.1-140	%REC	1	12/23/2013 12:19:56 P	M 10914
EPA METHOD 8015D: GASOLINE RANG	E				Analys	t: NSB
Gasoline Range Organics (GRO)	ND	0.10	mg/L	2	12/22/2013 3:30:22 PM	1 R15678
Surr: BFB	85.7	80.4-118	%REC	2	12/22/2013 3:30:22 PM	1 R15678
EPA METHOD 8021B: VOLATILES					Analys	t: NSB
Benzene	ND	2.0	µg/L	2	12/22/2013 3:30:22 PM	1 R15678
Toluene	ND	2.0	µg/L	2	12/22/2013 3:30:22 PM	1 R15678
Ethylbenzene	ND	2.0	µg/L	2	12/22/2013 3:30:22 PM	1 R15678
Xylenes, Total	ND	4.0	µg/L	2	12/22/2013 3:30:22 PM	1 R15678
Surr: 4-Bromofluorobenzene	100	85-136	%REC	2	12/22/2013 3:30:22 PM	1 R15678

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associat

- Е Value above quantitation range
- J Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank В
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit Page 2 of 14
- Р Sample pH greater than 2 for VOA and TOC only.
- Reporting Detection Limit RL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Southwest Geoscience Lindreth CS

Project:

Client Sample ID: MW-33 Collection Date: 12/18/2013 9:50:00 AM Received Date: 12/20/2013 10:00:00 AM

Lab ID: 1312A03-003	Matrix:	AQUEOUS	Received	/20/2013 10:00:00 AM		
Analyses	Result	RL Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE					Analyst:	JME
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	12/23/2013 12:41:54 PM	10914
Surr: DNOP	138	70.1-140	%REC	1	12/23/2013 12:41:54 PM	10914
EPA METHOD 8015D: GASOLINE RANG	ε				Analyst:	NSB
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	12/22/2013 5:01:27 PM	R15678
Surr: BFB	86.2	80.4-118	%REC	1	12/22/2013 5:01:27 PM	R15678
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	ND	1.0	µg/L	1	12/22/2013 5:01:27 PM	R15678
Toluene	ND	1.0	µg/L	1	12/22/2013 5:01:27 PM	R15678
Ethylbenzene	ND	1.0	µg/L	1	12/22/2013 5:01:27 PM	R15678
Xylenes, Total	ND	2.0	µg/L	1	12/22/2013 5:01:27 PM	R15678
Surr: 4-Bromofluorobenzene	97.8	85-136	%REC	1	12/22/2013 5:01:27 PM	R15678

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associate

- Е Value above quantitation range
- J Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank В
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit Page 3 of 14
- Р Sample pH greater than 2 for VOA and TOC only.
- Reporting Detection Limit RL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Southwest Geoscience Lindreth CS

1312A03-004

Project:

Lab ID:

Client Sample ID: MW-8 Collection Date: 12/18/2013 10:50:00 AM

Received Date: 12/20/2013 10:00:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANG	E				Analyst	JME
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	12/23/2013 1:03:55 PM	10914
Surr: DNOP	131	70.1-140	%REC	1	12/23/2013 1:03:55 PM	10914
EPA METHOD 8015D: GASOLINE RA	NGE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	12/22/2013 5:31:42 PM	R15678
Surr: BFB	86.2	80.4-118	%REC	1	12/22/2013 5:31:42 PM	R15678
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	1.0	µg/L	1	12/22/2013 5:31:42 PM	R15678
Toluene	ND	1.0	µg/L	1	12/22/2013 5:31:42 PM	R15678
Ethylbenzene	ND	1.0	µg/L	1	12/22/2013 5:31:42 PM	R15678
Xylenes, Total	ND	2.0	µg/L	1	12/22/2013 5:31:42 PM	R15678
Surr: 4-Bromofluorobenzene	101	85-136	%REC	1	12/22/2013 5:31:42 PM	R15678

Matrix: AQUEOUS

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

Oualifiers: * Value exceeds Maximum Contaminant Level.

- Е Value above quantitation range
- J Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits S
- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit Page 4 of 14
- Р Sample pH greater than 2 for VOA and TOC only.
- Reporting Detection Limit RL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Southwest Geoscience

Lindreth CS

Project:

Client Sample ID: MW-3 Collection Date: 12/18/2013 12:00:00 PM

Received Date: 12/20/2013 10:00:00 AM

Lab ID: 1312A03-005	Matrix:	AQUEOUS	Received I	Date: 12	te: 12/20/2013 10:00:00 AM				
Analyses	Result	RL Qu	al Units	DF	Date Analyzed Ba				
EPA METHOD 8015D: DIESEL RANGE					Analyst	JME			
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	12/23/2013 1:25:54 PM	10914			
Surr: DNOP	129	70.1-140	%REC	1	12/23/2013 1:25:54 PM	10914			
EPA METHOD 8015D: GASOLINE RANG	E				Analyst	NSB			
Gasoline Range Organics (GRO)	0.12	0.050	mg/L	1	12/24/2013 2:24:14 PM	R15714			
Surr: BFB	92.6	80.4-118	%REC	1	12/24/2013 2:24:14 PM	R15714			
EPA METHOD 8021B: VOLATILES					Analyst	NSB			
Benzene	2.5	1.0	µg/L	1	12/24/2013 2:24:14 PM	R15714			
Toluene	ND	1.0	µg/L	1	12/24/2013 2:24:14 PM	R15714			
Ethylbenzene	6.2	1.0	µg/L	1	12/24/2013 2:24:14 PM	R15714			
Xylenes, Total	2.2	2.0	µg/L	1	12/24/2013 2:24:14 PM	R15714			
Surr: 4-Bromofluorobenzene	103	85-136	%REC	1	12/24/2013 2:24:14 PM	R15714			

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	Е	Value above quantitation range
	J	Analyte detected below quantitation limits

- RSD is greater than RSDlimit 0
- RPD outside accepted recovery limits R
- Spike Recovery outside accepted recovery limits S
- В Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Page 5 of 14 Р Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Southwest Geoscience Lindreth CS

1312A03-006

Project:

Lab ID:

Client Sample ID: MW-10 Collection Date: 12/18/2013 1:20:00 PM

Received Date: 12/20/2013 10:00:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE	E				Analyst	JME
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	12/23/2013 1:48:01 PM	10914
Surr: DNOP	130	70.1-140	%REC	1	12/23/2013 1:48:01 PM	10914
EPA METHOD 8015D: GASOLINE RAI	NGE				Analyst	: NSB
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	12/22/2013 6:31:59 PM	R15678
Surr: BFB	86.3	80.4-118	%REC	1	12/22/2013 6:31:59 PM	R15678
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	1.0	µg/L	1	12/22/2013 6:31:59 PM	R15678
Toluene	ND	1.0	µg/L	1	12/22/2013 6:31:59 PM	R15678
Ethylbenzene	ND	1.0	µg/L	1	12/22/2013 6:31:59 PM	R15678
Xylenes, Total	ND	2.0	µg/L	1	12/22/2013 6:31:59 PM	R15678
Surr: 4-Bromofluorobenzene	100	85-136	%REC	1	12/22/2013 6:31:59 PM	R15678

Matrix: AQUEOUS

Oualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte
Quanners.		value execceds Maximum Containmant Eevel.	D	2 mary u

- E Value above quantitation range
- J Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits S
- e detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit Page 6 of 14
- Р Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Southwest Geoscience

Lindreth CS

1312A03-007

Project:

Lab ID:

Client Sample ID: MW-42 Collection Date: 12/18/2013 1:55:00 PM

Received Date: 12/20/2013 10:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE	E					Analyst	JME
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	12/23/2013 2:09:53 PM	10914
Surr: DNOP	142	70.1-140	S	%REC	1	12/23/2013 2:09:53 PM	10914
EPA METHOD 8015D: GASOLINE RAI	NGE					Analyst	NSB
Gasoline Range Organics (GRO)	0.063	0.050		mg/L	1	12/22/2013 9:03:04 PM	R15678
Surr: BFB	95.6	80.4-118		%REC	1	12/22/2013 9:03:04 PM	R15678
EPA METHOD 8021B: VOLATILES						Analyst	NSB
Benzene	ND	1.0		µg/L	1	12/22/2013 9:03:04 PM	R15678
Toluene	ND	1.0		µg/L	1	12/22/2013 9:03:04 PM	R15678
Ethylbenzene	ND	1.0		µg/L	1	12/22/2013 9:03:04 PM	R15678
Xylenes, Total	ND	2.0		µg/L	1	12/22/2013 9:03:04 PM	R15678
Surr: 4-Bromofluorobenzene	101	85-136		%REC	1	12/22/2013 9:03:04 PM	R15678

Matrix: AQUEOUS

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

Oualifiers: * Value exceeds Maximum Contaminant Level.

- Е Value above quantitation range
- J Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits S
- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Page 7 of 14 Р Sample pH greater than 2 for VOA and TOC only.
- Reporting Detection Limit RL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Southwest Geoscience Lindreth CS

Project:

Client Sample ID: MW-34 Collection Date: 12/18/2013 2:50:00 PM

Analyte detected in the associated Method Blank

Not Detected at the Reporting Limit

Reporting Detection Limit

Holding times for preparation or analysis exceeded

Sample pH greater than 2 for VOA and TOC only.

Page 8 of 14

Lab ID: 1312A03-008 Matrix: AQUEOUS Received Date: 12/20/2013 10:00:00 AM Analyses Result **RL** Qual Units **DF** Date Analyzed Batch **EPA METHOD 8015D: DIESEL RANGE** Analyst: JME 12/23/2013 2:32:01 PM 10914 Diesel Range Organics (DRO) ND 1.0 mg/L 1 Surr: DNOP 133 70.1-140 %REC 1 12/23/2013 2:32:01 PM 10914 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 0.050 mg/L 1 12/22/2013 9:33:15 PM R15678 Surr: BFB 83.9 80.4-118 %REC 1 12/22/2013 9:33:15 PM R15678 **EPA METHOD 8021B: VOLATILES** Analyst: NSB Benzene ND 1.0 µg/L 1 12/22/2013 9:33:15 PM R15678 Toluene ND 1.0 µg/L 1 12/22/2013 9:33:15 PM R15678 Ethylbenzene ND 1.0 µg/L 12/22/2013 9:33:15 PM R15678 1 Xylenes, Total ND 2.0 µg/L 1 12/22/2013 9:33:15 PM R15678 12/22/2013 9:33:15 PM R15678 Surr: 4-Bromofluorobenzene 95.8 85-136 %REC 1

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

В Η

ND

Р RL

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	Е	Value above quantitation range
	J	Analyte detected below quantitation limits
	0	RSD is greater than RSDlimit
	R	RPD outside accepted recovery limits
	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Southwest Geoscience Lindreth CS

Project:

Client Sample ID: MW-11 Collection Date: 12/18/2013 3:45:00 PM Received Date: 12/20/2013 10:00:00 AM

Lab ID: 1312A03-009	Matrix:	AQUEOUS	Received	Date: 12/	Date: 12/20/2013 10:00:00 AM				
Analyses	Result	RL Qual	Units	DF	Date Analyzed	Batch			
EPA METHOD 8015D: DIESEL RANGE					Analys	st: JME			
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	12/23/2013 2:54:03 PM	VI 10914			
Surr: DNOP	132	70.1-140	%REC	1	12/23/2013 2:54:03 PM	M 10914			
EPA METHOD 8015D: GASOLINE RANG	iΕ				Analys	st: NSB			
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	12/22/2013 10:03:07 F	PM R15678			
Surr: BFB	83.0	80.4-118	%REC	1	12/22/2013 10:03:07 F	PM R15678			
EPA METHOD 8021B: VOLATILES					Analys	st: NSB			
Benzene	ND	1.0	µg/L	1	12/22/2013 10:03:07 F	PM R15678			
Toluene	ND	1.0	µg/L	1	12/22/2013 10:03:07 F	PM R15678			
Ethylbenzene	ND	1.0	µg/L	1	12/22/2013 10:03:07 F	PM R15678			
Xylenes, Total	ND	2.0	µg/L	1	12/22/2013 10:03:07 F	PM R15678			
Surr: 4-Bromofluorobenzene	93.3	85-136	%REC	1	12/22/2013 10:03:07 F	PM R15678			

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	Е	Value above quantitation range

- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits S
- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit Page 9 of 14
- Р Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Result

6.7

0.66

PQL

1.0

Client: Project:	South Lindre	west Geoscienc eth CS	ce										
Sample ID N	/IB-10914	SampTy	pe: M	BLK	Tes	Code: El	EPA Method 8015D: Diesel Range						
Client ID: P	PBW	Batch ID: 10914			R	unNo: 1	5679						
Prep Date:	12/20/2013	Analysis Da	te: 12	2/23/2013	SeqNo: 452255			Units: mg/L					
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Diesel Range Org Surr: DNOP	ganics (DRO)	ND 1.2	1.0	1.000		120	70.1	140					
Sample ID L	.CS-10914	SampType: LCS TestCode: EPA Method 8015D: Diesel Range											
Client ID: L	CSW	Batch	ID: 10	914	RunNo: 15679								
Prep Date:	12/20/2013	Analysis Da	te: 12	2/23/2013	S	eqNo: 4	52256	Units: mg/L					
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Diesel Range Org	ganics (DRO)	6.5	1.0	5.000	0	130	73.3	145					
Surr: DNOP		0.66		0.5000		132	70.1	140					
Sample ID L	.CSD-10914	SampTy	pe: LC	SD	Tes	Code: El	PA Method	8015D: Diese	l Range				
Client ID: L	CSS02	Batch	ID: 10	914	R	unNo: 1	5679						
Prep Date:	12/20/2013	Analysis Da	te: 12	2/23/2013	S	eqNo: 4	52257	Units: mg/L					

%REC

134

132

LowLimit

73.3

70.1

HighLimit

145

140

%RPD

3.33

0

RPDLimit

20

0

Qual

SPK value SPK Ref Val

0

5.000

0.5000

Qualifiers:

Analyte

Surr: DNOP

Diesel Range Organics (DRO)

- * 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 for VOA and TOC only.
- RL Reporting Detection Limit

Page 10 of 14

WO#: 1312A03 02-Jan-14

WO#:	1312A03
	02-Jan-14

Client:	Southwes	t Geoscience	•								
Project:	Lindreth	CS									
Completio		Compation			Tee		DA Mathad	9045D: 0	line Dene		
Sample ID		Sampiyp	e: IVII		les		PA Method	8015D: Gaso	line Rang	e	
Client ID:	PBW	Batch IL): R1	5678	ŀ	RunNo: 1	5678				
Prep Date:		Analysis Date	e: 12	2/22/2013		SeqNo: 4	152030	Units: mg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Ranç Surr: BFB	e Organics (GRO)	ND (17).050	20.00		83.7	80.4	118			
Sample ID	2.5UG GRO LCS	SampTyp	e: LC	s	Tes	tCode: E	PA Method	8015D: Gaso	line Rang	e	
Client ID:	LCSW	Batch II): R1	5678	F	RunNo: 1	5678				
Prep Date:		Analysis Date	e: 12	2/22/2013	S	SeqNo: 4	152031	Units: mg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	je Organics (GRO)	0.51 (0.050	0.5000	0	102	80	120			
Surr: BFB		18		20.00		90.2	80.4	118			
Sample ID	1312A03-001AMS	SampTyp	e: M\$	6	Tes	tCode: E	PA Method	8015D: Gaso	line Rang	e	
Client ID:	MW-40	F	RunNo: 1	5678							
Prep Date:		Analysis Date	e: 1:	2/22/2013	S	SeqNo: 4	152033	Units: mg/L			
Analyte		Result I	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Ranç	je Organics (GRO)	0.55 (0.050	0.5000	0.03540	103	67.7	128			
Surr: BFB		19		20.00		96.4	80.4	118			
Sample ID	1312A03-001AMS	D SampTyp	e: M\$	SD	Tes	tCode: E	PA Method	8015D: Gaso	line Rang	e	
Client ID:	MW-40	Batch II): R1	5678	RunNo: 15678						
Prep Date:		Analysis Date	e: 12	2/22/2013	S	SeqNo: 4	152034	Units: mg/L			
Analyte		Result I	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	je Organics (GRO)	0.54 (0.050	0.5000	0.03540	100	67.7	128	2.03	20	
Surr: BFB		18		20.00		92.3	80.4	118	0	0	
Sample ID	5ML RB	SampTyp	e: MI	BLK	Tes	tCode: E	PA Method	8015D: Gaso	line Rang	e	
Client ID:	PBW	Batch II): R1	5714	F	RunNo: 1	5714				
Prep Date:		Analysis Date	e: 1:	2/24/2013	S	SeqNo: 4	153801	Units: mg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Ranç	je Organics (GRO)	ND (0.050								
Surr: BFB		17		20.00		84.1	80.4	118			
Sample ID	2.5UG GRO LCS	SampTyp	e: LC	:s	Tes	tCode: E	PA Method	8015D: Gaso	line Rang	e	
Client ID:	LCSW	Batch II): R1	5714	F	RunNo: 1	5714		-		
Prep Date:		Analysis Date	e: 1:	2/24/2013	5	SeqNo: 4	153802	Units: mg/L			
Analyte		Result I	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

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 for VOA and TOC only.
- RL Reporting Detection Limit

Page 11 of 14

WO#: 1312A03 02-Jan-14

Client: Project:	Southwes Lindreth	t Geoscien CS	ce								
Sample ID	2.5UG GRO LCS	SampType: LCS TestCode: EPA Method 8015D: Gasoline Range									
Client ID:	LCSW	Batch	ID: R1	5714	R	RunNo: 1	5714				
Prep Date:		Analysis D	ate: 12	2/24/2013	S	SeqNo: 4	53802	Units: mg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range	e Organics (GRO)	0.54	0.050	0.5000	0	108	80	120			
Surr: BFB		18		20.00		91.4	80.4	118			

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 for VOA and TOC only.
- RL Reporting Detection Limit
| QC SUMMARY REPORT | |
|----------------------------------------------|--|
| Hall Environmental Analysis Laboratory, Inc. | |

WO#:	1312A03

02-Jan-14

Client: Project:	Southwes Lindreth	t Geoscie CS	nce								
Sample ID	5ML RB	Samp	Туре: МЕ	BLK	Tes	TestCode: EPA Method 8021B: Volatiles					
Client ID:	PBW	Batc	h ID: R1	5678	F	RunNo: 1	5678				
Prep Date:		Analysis [Date: 12	2/22/2013	S	SeqNo: 4	52046	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		ND	1.0								
Toluene		ND	1.0								
Ethylbenzene		ND	1.0								
Xylenes, Total		ND	2.0								
Surr: 4-Bron	nofluorobenzene	19		20.00		96.0	85	136			
Sample ID	1312A03-002AMS	Samp	Туре: М	3	Tes	tCode: E	PA Method	8021B: Volat	iles		
Client ID:	MW-31	Batc	h ID: R1	5678	F	RunNo: 1	5678				
Prep Date:		Analysis [Date: 12	2/22/2013	S	SeqNo: 4	52053	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		42	2.0	40.00	0.6040	103	73.4	119			
Toluene		42	2.0	40.00	1.012	101	80	120			
Ethylbenzene		42	2.0	40.00	0.6960	102	80	120			
Xylenes, Total		130	4.0	120.0	2.104	104	80	120			
Surr: 4-Bron	nofluorobenzene	41		40.00		104	85	136			
Sample ID	1312A03-002AMS	D Samp	Туре: М	SD	Tes	tCode: E	PA Method	8021B: Volat	iles		
Client ID:	MW-31	Batc	h ID: R1	5678	F	RunNo: 1	5678				
Prep Date:		Analysis [Date: 12	2/22/2013	S	SeqNo: 4	52054	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		43	2.0	40.00	0.6040	107	73.4	119	3.23	20	
Toluene		43	2.0	40.00	1.012	105	80	120	3.29	20	
Ethylbenzene		42	2.0	40.00	0.6960	103	80	120	1.22	20	
Xylenes, Total		130	4.0	120.0	2.104	106	80	120	1.76	20	
Surr: 4-Bron	nofluorobenzene	36		40.00		90.1	85	136	0	0	
Sample ID	100NG BTEX LCS	Samp	Type: LC	s	Tes	tCode: E	PA Method	8021B: Volat	iles		
Client ID:	LCSW	Batc	h ID: R1	5678	F	RunNo: 1	5678				
Prep Date:		Analysis [Date: 12	2/22/2013	S	SeqNo: 4	52230	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		21	1.0	20.00	0	104	80	120			
Toluene		21	1.0	20.00	0	104	80	120			
Ethylbenzene		20	1.0	20.00	0	102	80	120			
Xylenes, Total		62	2.0	60.00	0	104	80	120			
Surr: 4-Bron	nofluorobenzene	20		20.00		99.7	85	136			

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 for VOA and TOC only.
- RL Reporting Detection Limit

Page 13 of 14

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Southwest Geoscience

Client:

recovery	imits		RL
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S Spike Recovery outside accepted recovery limits

Analyte detected below quantitation limits

Value exceeds Maximum Contaminant Level.

- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Р Sample pH greater than 2 for VOA and TOC only.
- пт Reporting Detection Limit

Project:	Lindreth	CS									
Sample ID	5ML RB	SampType: MBLK TestCode: EPA Method 8021B: Volatiles									
Client ID:	PBW	Batch	h ID: R1	5714	F	RunNo: 1	5714				
Prep Date:		Analysis D	Date: 12	2/24/2013	S	SeqNo: 4	53829	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		ND	1.0								
Toluene		ND	1.0								
Ethylbenzene		ND	1.0								
Xylenes, Total		ND	2.0								
Surr: 4-Brom	nofluorobenzene	20		20.00		98.0	85	136			
Sample ID	100NG BTEX LCS	SampT	ype: LC	s	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID:	LCSW	Batch	n ID: R1	5714	F	RunNo: 1	5714				
Prep Date:		Analysis D	Date: 12	2/24/2013	S	SeqNo: 4	53830	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		21	1.0	20.00	0	105	80	120			
Toluene		21	1.0	20.00	0	104	80	120			
Ethylbenzene		20	1.0	20.00	0	101	80	120			
Xylenes, Total		62	2.0	60.00	0	103	80	120			
Surr: 4-Brom	nofluorobenzene	20		20.00		98.7	85	136			

0 RSD is greater than RSDlimit

Qualifiers: *

Е

J

· · R RPD outside accepted

Value above quantitation range

WO#: 1312A03 02-Jan-14

Page 14 of 14



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87105 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Southwest Geoscienc	e Work Order Numbe	er: 1312A03		RcptNo: 1
Received by/date: AG	12/20/13			
Logged By: Lindsay Mangin	12/20/2013 10:00:00	АМ	Junky Hlengo	
Completed By: Lindsay Mangin	12/20/2013 1:42:43 F	PM	timetry Harring D	
Reviewed By:	12/20/2013			
Chain of Custody	f · · · č ·· ·			
1. Custody seals intact on sample bott	les?	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 s	amples?	Yes 🗹	No 🗌	
5. Were all samples received at a tem	perature of >0° C to 6.0°C	Yes 🗹	No 🗌	
6. Sample(s) in proper container(s)?		Yes 🗹	No 🗌	
7. Sufficient sample volume for indicat	ed test(s)?	Yes 🗹	No 🗌	
8. Are samples (except VOA and ONG	b) 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 receiv	ed broken?	Yes 🗌	No 🗹	# of preserved
	2		No 🗌	bottles checked
(Note discrepancies on chain of cus	ir tody)	tes I♥		(<2 or >12 unless noted
13. Are matrices correctly identified on	Chain of Custody?	Yes 🗹	No 🗆	Adjusted?
14. Is it clear what analyses were reque	sted?	Yes 🗹	No 🗌	
15. Were all holding times able to be m	et?	Yes 🗹	No 🗌	Checked by:
(If no, notify customer for authorizat	ion.)		L	
Special Handling (if applicable)			
16. Was client notified of all discrepance	- ies with this order?	Yes 🗌	No 🗌	NA 🗹
Person Notified:	Date:			
By Whom:	Via:	eMail	Phone 🗌 Fax	In Person
Regarding:			·····	
Client Instructions:				
17 Additional remarks:				name ang ga

18. Cooler Information

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





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

January 10, 2014

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

OrderNo.: 1401053

RE: Lindrith CS

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 10 sample(s) on 1/2/2014 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 <u>www.hallenvironmental.com</u> or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Analytical Report Lab Order 1401053 Date Reported: 1/10/2014

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Southwest Geoscience

Project: Lindrith CS

Client Sample ID: MW-36 Collection Date: 12/31/2013 12:30:00 PM

Lab ID: 1401053-001	Matrix:	AQUEOUS	US Received Date: 1/2/2014 4:10:00 PM			
Analyses	Result	RL Qua	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE					Analys	BCN
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	1/3/2014 2:03:50 PM	11062
Surr: DNOP	96.6	70.1-140	%REC	1	1/3/2014 2:03:50 PM	11062
EPA METHOD 8015D: GASOLINE RANG	ε				Analys	: NSB
Gasoline Range Organics (GRO)	0.11	0.050	mg/L	1	1/3/2014 3:32:34 PM	R15889
Surr: BFB	90.4	80.4-118	%REC	1	1/3/2014 3:32:34 PM	R15889
EPA METHOD 8021B: VOLATILES					Analys	: NSB
Benzene	ND	1.0	µg/L	1	1/3/2014 3:32:34 PM	R15889
Toluene	ND	1.0	µg/L	1	1/3/2014 3:32:34 PM	R15889
Ethylbenzene	ND	1.0	µg/L	1	1/3/2014 3:32:34 PM	R15889
Xylenes, Total	ND	2.0	µg/L	1	1/3/2014 3:32:34 PM	R15889
Surr: 4-Bromofluorobenzene	96.3	85-136	%REC	1	1/3/2014 3:32:34 PM	R15889

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

В

Р

Analyte detected in the associated Method Blank H Holding times for preparation or analysis exceeded

Sample pH greater than 2 for VOA and TOC only.

Page 1 of 13

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	Е	Value above quantitation range
	J	Analyte detected below quantitation limits
	0	RSD is greater than RSDlimit
	R	RPD outside accepted recovery limits
	S	Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/10/2014 Client Sample ID · MW-5

CLIENT: Southwest Geoscience			Client Sampl	e ID: M	W-5	
Project: Lindrith CS			Collection 1	Date: 12	/31/2013 11:45:00 AM	1
Lab ID: 1401053-002	Matrix:	AQUEOUS	Received	Date: 1/2	2/2014 4:10:00 PM	
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE	E				Analys	t: BCN
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	1/3/2014 2:25:57 PM	11062
Surr: DNOP	93.8	70.1-140	%REC	1	1/3/2014 2:25:57 PM	11062
EPA METHOD 8015D: GASOLINE RAN	NGE				Analys	t: NSB
Gasoline Range Organics (GRO)	0.47	0.25	mg/L	5	1/3/2014 5:03:20 PM	R15889
Surr: BFB	90.3	80.4-118	%REC	5	1/3/2014 5:03:20 PM	R15889
EPA METHOD 8021B: VOLATILES					Analys	t: NSB
Benzene	ND	5.0	µg/L	5	1/3/2014 5:03:20 PM	R15889
Toluene	ND	5.0	µg/L	5	1/3/2014 5:03:20 PM	R15889
Ethylbenzene	ND	5.0	µg/L	5	1/3/2014 5:03:20 PM	R15889
Xylenes, Total	ND	10	µg/L	5	1/3/2014 5:03:20 PM	R15889
Surr: 4-Bromofluorobenzene	99.6	85-136	%REC	5	1/3/2014 5:03:20 PM	R15889

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	A
	Е	Value above quantitation range	Н	H
	I	Analyte detected below quantitation limits	ND	N

- 0 RSD is greater than RSDlimit
- RPD outside accepted recovery limits R
- Spike Recovery outside accepted recovery limits S
- nalyte detected in the associated Method Blank
- olding times for preparation or analysis exceeded
- ot Detected at the Reporting Limit Not Detected at the Reporting Limit Page 2 of 13 Sample pH greater than 2 for VOA and TOC only.
- Р
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/10/2014

CLIENT:Southwest GeoscienceProject:Lindrith CSLab ID:1401053-003	Matrix:	AQUEOUS	Client Sampl Collection I Received I	e ID: MV Date: 12/ Date: 1/2	W-4 /31/2013 10:40:00 AM //2014 4:10:00 PM	1
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE					Analys	t: BCN
Diesel Range Organics (DRO)	1.2	1.0	mg/L	1	1/3/2014 2:48:12 PM	11062
Surr: DNOP	95.7	70.1-140	%REC	1	1/3/2014 2:48:12 PM	11062
EPA METHOD 8015D: GASOLINE RAN	IGE				Analys	t: NSB
Gasoline Range Organics (GRO)	20	2.5	mg/L	50	1/3/2014 6:34:02 PM	R15889
Surr: BFB	84.8	80.4-118	%REC	50	1/3/2014 6:34:02 PM	R15889
EPA METHOD 8021B: VOLATILES					Analys	t: NSB
Benzene	3900	50	µg/L	50	1/3/2014 6:34:02 PM	R15889
Toluene	1500	50	µg/L	50	1/3/2014 6:34:02 PM	R15889
Ethylbenzene	190	50	µg/L	50	1/3/2014 6:34:02 PM	R15889
Xylenes, Total	1300	100	µg/L	50	1/3/2014 6:34:02 PM	R15889
Surr: 4-Bromofluorobenzene	98.6	85-136	%REC	50	1/3/2014 6:34:02 PM	R15889

Qualifiers: * Value exceeds Maximum Contaminant Level.	В	Analyte detected in
--------------------------------------------------------	---	---------------------

- E Value above quantitation range
- J Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit
- RPD outside accepted recovery limits R
- S Spike Recovery outside accepted recovery limits
- n the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Not Detected at the Reporting Limit Page 3 of 13 Sample pH greater than 2 for VOA and TOC only. Р
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Southwest Geoscience

Date Reported: 1/10/2014 **Client Sample ID: MW-38** Collection Date: 12/31/2013 9:45:00 AM

Project: Lindrith CS			Collection I	Date: 12/	31/2013 9:45:00 AM		
Lab ID: 1401053-004	Matrix:	AQUEOUS	Received l	Received Date: 1/2/2014 4:10:00 PM			
Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch	
EPA METHOD 8015D: DIESEL RANGE					Analys	II BCN	
Diesel Range Organics (DRO)	1.0	1.0	mg/L	1	1/3/2014 3:10:11 PM	11062	
Surr: DNOP	98.1	70.1-140	%REC	1	1/3/2014 3:10:11 PM	11062	
EPA METHOD 8015D: GASOLINE RANG	ε				Analys	:: NSB	
Gasoline Range Organics (GRO)	15	1.0	mg/L	20	1/3/2014 7:04:16 PM	R15889	
Surr: BFB	93.9	80.4-118	%REC	20	1/3/2014 7:04:16 PM	R15889	
EPA METHOD 8021B: VOLATILES					Analys	II NSB	
Benzene	1400	20	μg/L	20	1/3/2014 7:04:16 PM	R15889	
Toluene	32	20	µg/L	20	1/3/2014 7:04:16 PM	R15889	
Ethylbenzene	190	20	µg/L	20	1/3/2014 7:04:16 PM	R15889	
Xylenes, Total	1100	40	µg/L	20	1/3/2014 7:04:16 PM	R15889	
Surr: 4-Bromofluorobenzene	108	85-136	%REC	20	1/3/2014 7:04:16 PM	R15889	

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	Е	Value above quantitation range
	J	Analyte detected below quantitation limits
	0	RSD is greater than RSDlimit

- RPD outside accepted recovery limits R
- S Spike Recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit Page 4 of 13
- Р Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/10/2014

CLIENT: Southwest Geoscience		Client Sample ID: MW-7 Collection Date: 12/30/2013 3:45:00 PM							
Project: Lindrith CS									
Lab ID: 1401053-005	Matrix:	AQUEOUS	US Received Date: 1/2		2/2014 4:10:00 PM				
Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch			
EPA METHOD 8015D: DIESEL RANGE	E				Analys	t: BCN			
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	1/3/2014 3:55:07 PM	11062			
Surr: DNOP	96.0	70.1-140	%REC	1	1/3/2014 3:55:07 PM	11062			
EPA METHOD 8015D: GASOLINE RAI	NGE				Analys	t: NSB			
Gasoline Range Organics (GRO)	0.47	0.050	mg/L	1	1/3/2014 7:34:29 PM	R15889			
Surr: BFB	93.3	80.4-118	%REC	1	1/3/2014 7:34:29 PM	R15889			
EPA METHOD 8021B: VOLATILES					Analys	t: NSB			
Benzene	3.4	1.0	µg/L	1	1/3/2014 7:34:29 PM	R15889			
Toluene	ND	1.0	µg/L	1	1/3/2014 7:34:29 PM	R15889			
Ethylbenzene	1.6	1.0	µg/L	1	1/3/2014 7:34:29 PM	R15889			
Xylenes, Total	8.3	2.0	µg/L	1	1/3/2014 7:34:29 PM	R15889			
Surr: 4-Bromofluorobenzene	101	85-136	%REC	1	1/3/2014 7:34:29 PM	R15889			

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte
	Е	Value above quantitation range	Н	Holdin

- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- RPD outside accepted recovery limits R
- Spike Recovery outside accepted recovery limits S
- te detected in the associated Method Blank
- ng times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Not Detected at the Reporting Limit Page 5 of 13 Sample pH greater than 2 for VOA and TOC only. Р
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/10/2014

CLIENT: Southwest Geoscience		Client Sample ID: MW-41 Collection Date: 12/30/2013 2:45:00 PM						
Project: Lindrith CS								
Lab ID: 1401053-006	Matrix:	Matrix: AQUEOUS		Received Date: 1/2/2014 4:10:00 PM				
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch		
EPA METHOD 8015D: DIESEL RANGE					Analyst	BCN		
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	1/6/2014 9:58:49 AM	11062		
Surr: DNOP	105	70.1-140	%REC	1	1/6/2014 9:58:49 AM	11062		
EPA METHOD 8015D: GASOLINE RAM	IGE				Analyst	: NSB		
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	1/3/2014 10:05:31 PM	R15889		
Surr: BFB	92.0	80.4-118	%REC	1	1/3/2014 10:05:31 PM	R15889		
EPA METHOD 8021B: VOLATILES					Analyst	: NSB		
Benzene	ND	1.0	µg/L	1	1/3/2014 10:05:31 PM	R15889		
Toluene	ND	1.0	µg/L	1	1/3/2014 10:05:31 PM	R15889		
Ethylbenzene	ND	1.0	µg/L	1	1/3/2014 10:05:31 PM	R15889		
Xylenes, Total	2.1	2.0	µg/L	1	1/3/2014 10:05:31 PM	R15889		
Surr: 4-Bromofluorobenzene	99.7	85-136	%REC	1	1/3/2014 10:05:31 PM	R15889		

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detect

- Е Value above quantitation range
- J Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit
- RPD outside accepted recovery limits R
- Spike Recovery outside accepted recovery limits S
- ted in the associated Method Blank
- Holding times for preparation or analysis exceeded Η
- ND Not Detected at the Reporting Limit
- Page 6 of 13 Р Sample pH greater than 2 for VOA and TOC only.
- Reporting Detection Limit RL

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/10/2014

CLIENT: Southwest Geoscience	Client Sample ID: MW-39									
Project: Lindrith CS		Collection Date: 12/30/2013 1:20:00 PM								
Lab ID: 1401053-007	Matrix:	Matrix: AQUEOUS		Received Date: 1/2/2014 4:10:00 PM						
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch				
EPA METHOD 8015D: DIESEL RANGE					Analyst	BCN				
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	1/3/2014 4:39:10 PM	11062				
Surr: DNOP	95.9	70.1-140	%REC	1	1/3/2014 4:39:10 PM	11062				
EPA METHOD 8015D: GASOLINE RAN	IGE				Analyst	NSB				
Gasoline Range Organics (GRO)	5.9	1.0	mg/L	20	1/3/2014 10:35:42 PM	R15889				
Surr: BFB	102	80.4-118	%REC	20	1/3/2014 10:35:42 PM	R15889				
EPA METHOD 8021B: VOLATILES					Analyst	NSB				
Benzene	110	20	μg/L	20	1/3/2014 10:35:42 PM	R15889				
Toluene	ND	20	µg/L	20	1/3/2014 10:35:42 PM	R15889				
Ethylbenzene	220	20	µg/L	20	1/3/2014 10:35:42 PM	R15889				
Xylenes, Total	1100	40	µg/L	20	1/3/2014 10:35:42 PM	R15889				
Surr: 4-Bromofluorobenzene	112	85-136	%REC	20	1/3/2014 10:35:42 PM	R15889				

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

- E Value above quantitation range
- J Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit

Qualifiers:

- RPD outside accepted recovery limits R
- Spike Recovery outside accepted recovery limits S
- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- Page 7 of 13 Р Sample pH greater than 2 for VOA and TOC only.
- Reporting Detection Limit RL

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/10/2014

CLIENT: Southwest Geoscience Client Sample ID: MW-35									
Project: Lindrith CS		Collection Date: 12/30/2013 12:20:00 PM							
Lab ID: 1401053-008	Matrix: AQUEOUS Rec			Received Date: 1/2/2014 4:10:00 PM					
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch			
EPA METHOD 8015D: DIESEL RANG	E				Analys	t: BCN			
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	1/3/2014 5:01:08 PM	11062			
Surr: DNOP	98.3	70.1-140	%REC	1	1/3/2014 5:01:08 PM	11062			
EPA METHOD 8015D: GASOLINE RA	NGE				Analys	t: NSB			
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	1/3/2014 11:35:53 PM	R15889			
Surr: BFB	84.4	80.4-118	%REC	1	1/3/2014 11:35:53 PM	R15889			
EPA METHOD 8021B: VOLATILES					Analys	t: NSB			
Benzene	ND	1.0	µg/L	1	1/3/2014 11:35:53 PM	R15889			
Toluene	ND	1.0	µg/L	1	1/3/2014 11:35:53 PM	R15889			
Ethylbenzene	ND	1.0	µg/L	1	1/3/2014 11:35:53 PM	R15889			
Xylenes, Total	ND	2.0	µg/L	1	1/3/2014 11:35:53 PM	R15889			
Surr: 4-Bromofluorobenzene	92.8	85-136	%REC	1	1/3/2014 11:35:53 PM	R15889			

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	Б	Value shows quantitation range

- Value above quantitation range Е
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- RPD outside accepted recovery limits R
- Spike Recovery outside accepted recovery limits S
- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit Page 8 of 13
- Р Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/10/2014

CLIENT: Southwest Geoscience	Client Sample ID: MW-12							
Project: Lindrith CS				Collection I	Date: 12	/30/2013 11:05:00 AM	[
Lab ID: 1401053-009	Matrix: AQUEOUS			Received 1	Date: 1/2	2/2014 4:10:00 PM		
Analyses	Result	RL (Qual	Units	DF	Date Analyzed	Batch	
EPA METHOD 8015D: DIESEL RANGE						Analysi	BCN	
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	1/3/2014 5:23:09 PM	11062	
Surr: DNOP	95.8	70.1-140		%REC	1	1/3/2014 5:23:09 PM	11062	
EPA METHOD 8015D: GASOLINE RAM	IGE					Analyst	: NSB	
Gasoline Range Organics (GRO)	0.52	0.050		mg/L	1	1/4/2014 12:06:01 AM	R15889	
Surr: BFB	123	80.4-118	S	%REC	1	1/4/2014 12:06:01 AM	R15889	
EPA METHOD 8021B: VOLATILES						Analyst	: NSB	
Benzene	70	1.0		µg/L	1	1/4/2014 12:06:01 AM	R15889	
Toluene	ND	1.0		µg/L	1	1/4/2014 12:06:01 AM	R15889	
Ethylbenzene	5.1	1.0		µg/L	1	1/4/2014 12:06:01 AM	R15889	
Xylenes, Total	5.8	2.0		µg/L	1	1/4/2014 12:06:01 AM	R15889	
Surr: 4-Bromofluorobenzene	106	85-136		%REC	1	1/4/2014 12:06:01 AM	R15889	

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

Qualifiers: * Value exceeds Maximum Contaminant Level. В

- Е Value above quantitation range
- J Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit
- RPD outside accepted recovery limits R
- Spike Recovery outside accepted recovery limits S
- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded Н
- ND Not Detected at the Reporting Limit
- Page 9 of 13 Р Sample pH greater than 2 for VOA and TOC only.
- Reporting Detection Limit RL

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Southwest Geoscience

Date Reported: 1/10/2014 Client Sample ID: MW-2 Collection Date: 12/31/2013 1:10:00 PM

Project: Lindrith CS			Collection I	Date: 12/3	31/2013 1:10:00 PM	
Lab ID: 1401053-010	Matrix:	AQUEOUS	Received I	Date: 1/2/	2014 4:10:00 PM	
Analyses	Result	RL Q	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE					Analyst	BCN
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	1/3/2014 5:44:59 PM	11062
Surr: DNOP	101	70.1-140	%REC	1	1/3/2014 5:44:59 PM	11062
EPA METHOD 8015D: GASOLINE RANG	E				Analyst	: NSB
Gasoline Range Organics (GRO)	13	0.50	mg/L	10	1/4/2014 1:06:07 AM	R15889
Surr: BFB	99.1	80.4-118	%REC	10	1/4/2014 1:06:07 AM	R15889
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	1900	100	µg/L	100	1/4/2014 12:36:00 AM	R15889
Toluene	ND	10	μg/L	10	1/4/2014 1:06:07 AM	R15889
Ethylbenzene	120	10	μg/L	10	1/4/2014 1:06:07 AM	R15889
Xylenes, Total	930	20	μg/L	10	1/4/2014 1:06:07 AM	R15889
Surr: 4-Bromofluorobenzene	112	85-136	%REC	10	1/4/2014 1:06:07 AM	R15889

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

Refer to the	QC Dummi	a y report	und sumple	login ener	ekiist ioi in	uggeu Qe	dutu una press	a varion miorn

- * Value exceeds Maximum Contaminant Level.
 - E Value above quantitation range
 - J Analyte detected below quantitation limits
 - O RSD is greater than RSDlimit

Qualifiers:

- 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 Page 10 of 13
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

RPD outside accepted recovery limits	RI

S Spike Recovery outside accepted recovery limits

Analyte detected below quantitation limits

Value exceeds Maximum Contaminant Level.

Value above quantitation range

RSD is greater than RSDlimit

Qualifiers: * Valu

Е

J

0

R

- 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 for VOA and TOC only.
- RL Reporting Detection Limit

Client: Southw Project: Lindrit	vest Geoscier h CS	nce								
Sample ID LCS-11062	SampT	ype: LC	s	Tes	tCode: E	PA Method	8015D: Dies	el Range		
Client ID: LCSW	Batch	n ID: 11	062	F	RunNo: 1	5875				
Prep Date: 1/3/2014	Analysis D	ate: 1/	/3/2014	S	SeqNo: 4	58013	Units: mg/L	-		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.9	1.0	5.000	0	117	73.3	145			
Surr: DNOP	0.40		0.5000		79.9	70.1	140			
Sample ID LCSD-11062	SampT	ype: LC	SD	Tes	tCode: E	PA Method	8015D: Dies	el Range		
Client ID: LCSS02	Batch	n ID: 11	062	F	RunNo: 1	5875				
Prep Date: 1/3/2014	Analysis D	ate: 1/	/3/2014	S	SeqNo: 4	58018	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	6.2	1.0	5.000	0	124	73.3	145	5.08	20	
Surr: DNOP	0.46		0.5000		91.1	70.1	140	0	0	

Sample ID N	/IB-11062	SampT	SampType: MBLK			Code: EF	l Range				
Client ID: P	PBW	Batch ID: 11062			RunNo: 15875						
Prep Date:	1/3/2014	Analysis D	ate: 1/	3/2014	S	eqNo: 4	58019	Units: mg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Org	ganics (DRO)	ND	1.0								
Surr: DNOP		0.93		1.000		93.3	70.1	140			

Page 11 of 13

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Southwest Geoscience

H Holding times for preparation or analysis exceeded	ed
------------------------------------------------------	----

В

- ND Not Detected at the Reporting Limit
- Р Sample pH greater than 2 for VOA and TOC only.

Analyte detected in the associated Method Blank

Reporting Detection Limit RL

Project:	Lindrith C	CS									
Sample ID	5ML RB	Samp	Гуре: М	BLK	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	
Client ID:	PBW	Batc	h ID: R1	5889	F	RunNo: 1	5889				
Prep Date:		Analysis E	Date: 1/	/3/2014	S	SeqNo: 4	58213	Units: mg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Ranç	ge Organics (GRO)	ND	0.050								
Surr: BFB		17		20.00		86.4	80.4	118			
Sample ID	2.5UG GRO LCS	Samp	Гуре: LC	s	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	
Client ID:	LCSW	Batc	h ID: R1	5889	F	RunNo: 1	5889				
Prep Date:		Analysis D	Date: 1/	/3/2014	5	SeqNo: 4	58214	Units: mg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	ge Organics (GRO)	0.50	0.050	0.5000	0	99.3	80	120			
Surr: BFB		18		20.00		90.1	80.4	118			
Sample ID	1401053-001AMS	Samp	Гуре: М	S	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	
Client ID:	MW-36	Batc	h ID: R1	5889	RunNo: 15889						
Prep Date:		Analysis D	Date: 1/	/3/2014	5	SeqNo: 4	58217	Units: mg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	ge Organics (GRO)	0.65	0.050	0.5000	0.1056	109	67.7	128			
Surr: BFB		19		20.00		96.9	80.4	118			
Sample ID	1401053-001AMSE	Samp]	Гуре: М	SD	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	
Client ID:	MW-36	Batc	h ID: R1	5889	F	RunNo: 1	5889				
Prep Date:		Analysis E	Date: 1/	/3/2014	5	SeqNo: 4	58218	Units: mg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	ge Organics (GRO)	0.63	0.050	0.5000	0.1056	106	67.7	128	2.65	20	
Surr: BFB		20		20.00		97.5	80.4	118	0	0	

Qualifiers:

Client:

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

WO#: 1401053

_		-	
Page	12	of	13

QC SUMMARY REPORT	
Hall Environmental Analysis Laboratory, Inc.	

Southwest Geoscience

Project:	Lindrith C	CS									
Sample ID	5ML RB	SampT	уре: МІ	BLK	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID:	PBW	Batcl	h ID: R1	5889	R	RunNo: 1	5889				
Prep Date:		Analysis D	Date: 1	3/2014	S	SeqNo: 4	58232	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		ND	1.0								
Toluene		ND	1.0								
Ethylbenzene		ND	1.0								
Xylenes, Total		ND	2.0								
Surr: 4-Brom	ofluorobenzene	20		20.00		99.1	85	136			
Sample ID	100NG BTEX LCS	SampT	ype: LC	s	TestCode: EPA Method 8021B: Volatiles						
Client ID:	LCSW	Batcl	h ID: R1	5889	RunNo: 15889						
Prep Date:		Analysis D	Date: 1	3/2014	S	SeqNo: 4	58233	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		20	1.0	20.00	0	97.8	80	120			
Toluene		20	1.0	20.00	0	99.4	80	120			
Ethylbenzene		19	1.0	20.00	0	97.1	80	120			
Xylenes, Total		62	2.0	60.00	0	103	80	120			
Surr: 4-Brom	ofluorobenzene	21		20.00		103	85	136			
Sample ID	1401053-002AMS	SampT	ype: M	6	TestCode: EPA Method 8021B: Volatiles						
Client ID:	MW-5	Batcl	h ID: R1	5889	R	RunNo: 1	5889				
Prep Date:		Analysis D	Date: 1	3/2014	S	SeqNo: 4	58242	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		100	5.0	100.0	3.880	95.7	73.4	119			
Toluene		99	5.0	100.0	3.120	95.6	80	120			
Ethylbenzene		98	5.0	100.0	2.580	95.8	80	120			
Xylenes, Total		310	10	300.0	6.240	99.9	80	120			
Surr: 4-Brom	ofluorobenzene	100		100.0		103	85	136			
Sample ID	1401053-002AMSE) Samp1	ype: M	SD	Tes	tCode: El	PA Method	8021B: Volat	iles		
Client ID:	MW-5	Batcl	h ID: R1	5889	R	RunNo: 1	5889				

Prep Date:	Analysis D	0ate: 1/	3/2014	5	SeqNo: 4	58243	Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	110	5.0	100.0	3.880	103	73.4	119	7.02	20	
Toluene	110	5.0	100.0	3.120	103	80	120	6.85	20	
Ethylbenzene	110	5.0	100.0	2.580	103	80	120	6.62	20	
Xylenes, Total	330	10	300.0	6.240	107	80	120	6.40	20	
Surr: 4-Bromofluorobenzene	110		100.0		108	85	136	0	0	

Qualifiers:

Client:

- * 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 for VOA and TOC only.
- RL Reporting Detection Limit

Page 13 of 13

HALL
ANALYSIS
LABORATORY

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

Sample Log-In Check List

Client Name: Southwest Geoscience A Work Order Numb	er: 1401053		RcptNo:	1
Received by/date: <u><i>CIM</i></u> <u>01/0≥/14/16/</u> ∪	 _	·		
Logged By: Anne Thorne 1/2/2014 4:10:00 PM	n	anne Hum		
Completed By: Anne Thorne 1/3/2014		Ann. An-	_	
Reviewed By: MA DI 103/14		0		
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?	<u>Client</u>			
<u>Log In</u>				
4. Was an attempt made to cool the samples?	Yes 🗹	No 🗌	NA 🗌	
5. Were all samples received at a temperature of $>0^{\circ}$ C to 6.0°C	Yes 🔽	No 🗌		
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 🗹	# of preserved	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes 🗹	No 🗌	for pH:	r >12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes 🔽	No 🗌	Adjusted?	
14. Is it clear what analyses were requested?	Yes 🔽	No 🗀		
15. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes 🔽	No 🗌	Checked by:	
Special Handling (if applicable)				
16. Was client notified of all discrepancies with this order?	Yes	No 🗔	NA 🗹	
				1

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

17. Additional remarks:

18. Cooler Information

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.8	Good	Yes			

West CIENCE geologic consultants Address: 480	ANALYSIS REQUESTEI	CHAIN OF	CUSTODY RECORD Lab use only Due Date: Temp. of coolers when received (C°): 5, 8
Contact: FREMAN Phone: PO/SO #: 04/10000			1 2 3 4 5 Page <u>1 of 1</u>
Sampler's dignature	202		
M CS	tainers W/W		
Marks of Sample(s)	Eo P/N /		Sample ID (Lab Use Only)
-36	XXX	7+1	01053-001
			402
-38	۲ ۲ ۲		-004
	X		-205
-41	$\frac{1}{\lambda}$		-006
-39	\mathbf{x}		102-
-35	× ~		208
-13	× ×		-009
- 3	TXX		-010
O 50% Rush O Toa% Rush	•		والمحافظ
Time: Received by (Signature)	Date Time:	NOTES:	
Time: Received by (Signature)	Date: Time:		
Time: Received by: (Signature)	Date: Time:		
Time: Received by: (Signature)	Date: Time:		
S - Soil SD - Solid L - Liquid A - Air Bag er / Or Glass 1 Liter 250 ml - Glass wide mouth	C - Charcoal tube P/O - Plastic or other,	SL - sludge O - Oil	

SOUTHWEST GEOSCIENCE • 2351 W. Northwest Hwy., Suite 3321 • Dallas, Texas 75220 • Office: 214-350-5469 • Fax 214-350-2914



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

July 08, 2014

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

OrderNo.: 1406C76

RE: Lindrith CS

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 18 sample(s) on 6/27/2014 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 <u>www.hallenvironmental.com</u> or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN Project: Lindrith CS

1406C76-001

Lab ID:

Date Reported: 7/8/2014

	Client Sample ID: MW-7
	Collection Date: 6/24/2014 11:05:00 AM
Matrix: AQUEOUS	Received Date: 6/27/2014 7:50:00 AM

Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE					Analyst	BCN
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	6/28/2014 3:28:48 AM	13941
Surr: DNOP	133	62.7-145	%REC	1	6/28/2014 3:28:48 AM	13941
EPA METHOD 8015D: GASOLINE RANG	E				Analyst	: NSB
Gasoline Range Organics (GRO)	0.34	0.050	mg/L	1	6/27/2014 1:04:47 PM	R19557
Surr: BFB	116	70.9-130	%REC	1	6/27/2014 1:04:47 PM	R19557
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	1.0	µg/L	1	6/27/2014 1:04:47 PM	R19557
Toluene	ND	1.0	µg/L	1	6/27/2014 1:04:47 PM	R19557
Ethylbenzene	ND	1.0	µg/L	1	6/27/2014 1:04:47 PM	R19557
Xylenes, Total	ND	2.0	µg/L	1	6/27/2014 1:04:47 PM	R19557
Surr: 4-Bromofluorobenzene	117	82.9-139	%REC	1	6/27/2014 1:04:47 PM	R19557

Refer to the OC S а. la login checklist for fl tion. d OC date ation info A

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	Е	Value above quantitation range
	J	Analyte detected below quantitation limits
	0	RSD is greater than RSDlimit
	D	DDD antal da a contra da concerna l'antita

- RPD outside accepted recovery limits R
- 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 Page 1 of 23
- Р Sample pH greater than 2.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 7/8/2014

CLIENT: APEX TITAN			Client Sampl	e ID: M	W-36	
Project: Lindrith CS			Collection I	Date: 6/2	24/2014 12:15:00 PM	
Lab ID: 1406C76-002	Matrix:	AQUEOUS	Received I	Date: 6/2	27/2014 7:50:00 AM	
Analyses	Result	RL Q	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE					Analys	t: BCN
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	6/28/2014 3:50:19 AM	13941
Surr: DNOP	129	62.7-145	%REC	1	6/28/2014 3:50:19 AM	13941
EPA METHOD 8015D: GASOLINE RAN	GE				Analys	t: NSB
Gasoline Range Organics (GRO)	0.086	0.050	mg/L	1	6/27/2014 1:34:53 PM	R19557
Surr: BFB	99.1	70.9-130	%REC	1	6/27/2014 1:34:53 PM	R19557
EPA METHOD 8021B: VOLATILES					Analys	t: NSB
Benzene	ND	1.0	µg/L	1	6/27/2014 1:34:53 PM	R19557
Toluene	ND	1.0	µg/L	1	6/27/2014 1:34:53 PM	R19557
Ethylbenzene	ND	1.0	µg/L	1	6/27/2014 1:34:53 PM	R19557
Xylenes, Total	ND	2.0	µg/L	1	6/27/2014 1:34:53 PM	R19557
Surr: 4-Bromofluorobenzene	111	82.9-139	%REC	1	6/27/2014 1:34:53 PM	R19557

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in
	Б	V-los -loss -unitientien non	11	II-1din - time - for a

- 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 Page 2 of 23
- P Sample pH greater than 2.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 7/8/2014

CLIENT: APEX TITAN Project: Lindrith CS Lab ID: 1406C76-003	Matrix:	AQUEQUS	Client Samp Collection Received	le ID: M Date: 6/2 Date: 6/2	W-5 24/2014 1:15:00 PM 27/2014 7:50:00 AM	
Analyses	Result	RL Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE					Analyst	BCN
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	6/28/2014 4:12:03 AM	13941
Surr: DNOP	127	62.7-145	%REC	1	6/28/2014 4:12:03 AM	13941
EPA METHOD 8015D: GASOLINE RANG	GE				Analyst	: NSB
Gasoline Range Organics (GRO)	ND	0.25	mg/L	5	6/27/2014 2:05:19 PM	R19557
Surr: BFB	103	70.9-130	%REC	5	6/27/2014 2:05:19 PM	R19557
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	2.5	µg/L	5	6/27/2014 2:05:19 PM	R19557
Toluene	ND	5.0	µg/L	5	6/27/2014 2:05:19 PM	R19557
Ethylbenzene	ND	5.0	µg/L	5	6/27/2014 2:05:19 PM	R19557
Xylenes, Total	ND	10	µg/L	5	6/27/2014 2:05:19 PM	R19557
Surr: 4-Bromofluorobenzene	112	82.9-139	%REC	5	6/27/2014 2:05:19 PM	R19557

1	keler to the v	QC Summar	y report and	sample login	checklist for	nagged QC	z data and p	reservation	informa

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	Е	Value above quantitation range

- J Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit
- RPD outside accepted recovery limits R
- Spike Recovery outside accepted recovery limits S
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit Page 3 of 23
- Р Sample pH greater than 2.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN

Lindrith CS

Project:

Date Reported: 7/8/2014 Client Sample ID: MW-41 Collection Date: 6/24/2014 2:40:00 PM

Lab ID: 1406C76-004 Matrix: AQUEOUS Received Date: 6/27/2014 7:50:00 AM Analyses Result **RL** Qual Units **DF** Date Analyzed Batch **EPA METHOD 8015D: DIESEL RANGE** Analyst: BCN Diesel Range Organics (DRO) ND 1.0 mg/L 6/28/2014 4:33:46 AM 13941 1 Surr: DNOP 121 62.7-145 %REC 1 6/28/2014 4:33:46 AM 13941 **EPA METHOD 8015D: GASOLINE RANGE** Analyst: NSB Gasoline Range Organics (GRO) ND 0.050 mg/L 1 6/27/2014 2:35:36 PM R19557 Surr: BFB 84.8 70.9-130 %REC 1 6/27/2014 2:35:36 PM R19557 **EPA METHOD 8021B: VOLATILES** Analyst: NSB R19557 Benzene ND 1.0 µg/L 1 6/27/2014 2:35:36 PM Toluene R19557 ND 1.0 µg/L 1 6/27/2014 2:35:36 PM Ethylbenzene ND 1.0 µg/L 6/27/2014 2:35:36 PM R19557 1 Xylenes, Total ND 2.0 µg/L 1 6/27/2014 2:35:36 PM R19557 Surr: 4-Bromofluorobenzene 89.8 82.9-139 %REC 1 6/27/2014 2:35:36 PM R19557

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	Е	Value above quantitation range
	J	Analyte detected below quantitation limits
	0	RSD is greater than RSDlimit
	R	RPD outside accepted recovery limits

- S Spike Recovery outside accepted recovery limits
- Analyte detected in the associated Method Blank В
- Η Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit Page 4 of 23
- Sample pH greater than 2. Р
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Surr: 4-Bromofluorobenzene

Date Reported: 7/8/2014

6/27/2014 3:05:48 PM

R19557

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CLIENT: APEX TITAN Project: Lindrith CS Lab ID: 1406C76-005	Matriv	AQUEQUS	Client Sampl Collection I Received I	e ID: M Date: 6/2 Date: 6/2	W-35 24/2014 3:50:00 PM 27/2014 7:50:00 AM	
Analyses	Result	RL Qu	al Units	Date: 0/2	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGI	E				Analyst	BCN
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	6/28/2014 4:55:29 AM	13941
Surr: DNOP	116	62.7-145	%REC	1	6/28/2014 4:55:29 AM	13941
EPA METHOD 8015D: GASOLINE RA	NGE				Analyst	: NSB
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	6/27/2014 3:05:48 PM	R19557
Surr: BFB	96.2	70.9-130	%REC	1	6/27/2014 3:05:48 PM	R19557
EPA METHOD 8021B: VOLATILES					Analyst	: NSB
Benzene	ND	1.0	µg/L	1	6/27/2014 3:05:48 PM	R19557
Toluene	ND	1.0	µg/L	1	6/27/2014 3:05:48 PM	R19557
Ethylbenzene	ND	1.0	µg/L	1	6/27/2014 3:05:48 PM	R19557
Xylenes, Total	ND	2.0	µg/L	1	6/27/2014 3:05:48 PM	R19557

82.9-139

%REC

108

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ve

- 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 Page 5 of 23
- P Sample pH greater than 2.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Toluene

Ethylbenzene

Xylenes, Total

Surr: 4-Bromofluorobenzene

Date Reported: 7/8/2014

6/27/2014 3:35:53 PM

6/27/2014 3:35:53 PM

6/27/2014 3:35:53 PM

6/27/2014 3:35:53 PM

1

1

1

1

R19557

R19557

R19557

R19557

CLIENT: APEX TITAN			Client Samp	le ID: M	W-34				
Project: Lindrith CS		Collection Date: 6/25/2014 10:25:00 AM							
Lab ID: 1406C76-006	Matrix:	AQUEOUS	Received	Date: 6/2	27/2014 7:50:00 AM				
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch			
EPA METHOD 8015D: DIESEL RANGE					Analys	t: BCN			
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	6/28/2014 5:17:11 AM	13941			
Surr: DNOP	111	62.7-145	%REC	1	6/28/2014 5:17:11 AM	13941			
EPA METHOD 8015D: GASOLINE RAM	IGE				Analys	t: NSB			
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	6/27/2014 3:35:53 PM	R19557			
Surr: BFB	96.9	70.9-130	%REC	1	6/27/2014 3:35:53 PM	R19557			
EPA METHOD 8021B: VOLATILES					Analys	t: NSB			
Benzene	ND	1.0	µg/L	1	6/27/2014 3:35:53 PM	R19557			

1.0

1.0

2.0

82.9-139

µg/L

µg/L

µg/L

%REC

ND

ND

ND

108

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	Е	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 Page 6 of 23
- P Sample pH greater than 2.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Surr: 4-Bromofluorobenzene

Date Reported: 7/8/2014

1 6/27/2014 4:06:04 PM

R19557

CLIENT: APEX TITAN	Client Sample ID: MW-11						
Project: Lindrith CS	Collection Date: 6/25/2014 11:20:00 A						
Lab ID. 1400C70-007		AQUEOUS	Ketelveu	Date. 0/2	27/2014 7.30.00 AM		
Analyses	Result	RL Qual	Units	DF	Date Analyzed	Batch	
EPA METHOD 8015D: DIESEL RANGE					Analyst	BCN	
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	6/28/2014 5:39:06 AM	13941	
Surr: DNOP	111	62.7-145	%REC	1	6/28/2014 5:39:06 AM	13941	
EPA METHOD 8015D: GASOLINE RANG	GE				Analyst	: NSB	
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	6/27/2014 4:06:04 PM	R19557	
Surr: BFB	96.8	70.9-130	%REC	1	6/27/2014 4:06:04 PM	R19557	
EPA METHOD 8021B: VOLATILES					Analyst	: NSB	
Benzene	ND	1.0	µg/L	1	6/27/2014 4:06:04 PM	R19557	
Toluene	ND	1.0	µg/L	1	6/27/2014 4:06:04 PM	R19557	
Ethylbenzene	ND	1.0	µg/L	1	6/27/2014 4:06:04 PM	R19557	
Xylenes, Total	ND	2.0	µg/L	1	6/27/2014 4:06:04 PM	R19557	

82.9-139

%REC

106

Qualifiers: * Value exceeds Maximum Contaminant Level. B Analy	Oualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte
-----------------------------------------------------------------------	--------------------	---	------------------------------------------	---	---------

- 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 Page 7 of 23
- P Sample pH greater than 2.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 7/8/2014

CLIENT: APEX TITAN Project: Lindrith CS Lab ID: 1406C76-008	Client Sample ID: MW-42 Collection Date: 6/25/2014 12:25:00 PM Matrix: AOUEOUS Received Date: 6/27/2014 7:50:00 AM						
Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch	
EPA METHOD 8015D: DIESEL RANGE					Analyst	BCN	
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	6/28/2014 6:00:38 AM	13941	
Surr: DNOP	117	62.7-145	%REC	1	6/28/2014 6:00:38 AM	13941	
EPA METHOD 8015D: GASOLINE RANG	θE				Analyst	NSB	
Gasoline Range Organics (GRO)	0.063	0.050	mg/L	1	6/27/2014 4:36:04 PM	R19557	
Surr: BFB	104	70.9-130	%REC	1	6/27/2014 4:36:04 PM	R19557	
EPA METHOD 8021B: VOLATILES					Analyst	: NSB	
Benzene	ND	1.0	µg/L	1	6/27/2014 4:36:04 PM	R19557	
Toluene	ND	1.0	µg/L	1	6/27/2014 4:36:04 PM	R19557	
Ethylbenzene	ND	1.0	µg/L	1	6/27/2014 4:36:04 PM	R19557	
Xylenes, Total	ND	2.0	µg/L	1	6/27/2014 4:36:04 PM	R19557	
Surr: 4-Bromofluorobenzene	109	82.9-139	%REC	1	6/27/2014 4:36:04 PM	R19557	

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	Е	Value above quantitation range
	J	Analyte detected below quantitation limits
	0	RSD is greater than RSDlimit
	R	RPD outside accepted recovery limits
	S	Spike Recovery outside accepted recovery limits

- В Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit Page 8 of 23
- Р Sample pH greater than 2.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 7/8/2014

CLIENT: APEX TITAN Project: Lindrith CS	Client Sample ID: MW-10 Collection Date: 6/25/2014 1:20:00 PM						
Lab ID: 1406C76-009	Matrix:	AQUEOUS	Received	Received Date: 6/27/2014 7:50:00 AM			
Analyses	Result	RL (Qual Units	DF	Date Analyzed	Batch	
EPA METHOD 8015D: DIESEL RANGE					Analysi	BCN	
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	6/28/2014 6:22:33 AM	13941	
Surr: DNOP	122	62.7-145	%REC	1	6/28/2014 6:22:33 AM	13941	
EPA METHOD 8015D: GASOLINE RAN	GE				Analyst	: NSB	
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	6/27/2014 5:06:13 PM	R19557	
Surr: BFB	95.2	70.9-130	%REC	1	6/27/2014 5:06:13 PM	R19557	
EPA METHOD 8021B: VOLATILES					Analyst	: NSB	
Benzene	ND	1.0	µg/L	1	6/27/2014 5:06:13 PM	R19557	
Toluene	ND	1.0	µg/L	1	6/27/2014 5:06:13 PM	R19557	
Ethylbenzene	ND	1.0	µg/L	1	6/27/2014 5:06:13 PM	R19557	
Xylenes, Total	ND	2.0	μg/L	1	6/27/2014 5:06:13 PM	R19557	
Surr: 4-Bromofluorobenzene	106	82.9-139	%REC	1	6/27/2014 5:06:13 PM	R19557	

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected i
	Е	Value above quantitation range	Н	Holding times for

- E value above qualitation 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 Page 9 of 23
- P Sample pH greater than 2.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 7/8/2014

CLIENT: APEX TITAN			Client Sampl	e ID: M	W-3				
Project: Lindrith CS	Collection Date: 6/25/2014 2:25:00 PM								
Lab ID: 1406C76-010	Matrix:	AQUEOUS	Received 1	Date: 6/2	e: 6/27/2014 7:50:00 AM				
Analyses	Result	RL Q	ual Units	DF	Date Analyzed	Batch			
EPA METHOD 8015D: DIESEL RANGE					Analyst	BCN			
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	6/28/2014 6:44:11 AM	13941			
Surr: DNOP	115	62.7-145	%REC	1	6/28/2014 6:44:11 AM	13941			
EPA METHOD 8015D: GASOLINE RAN	GE				Analyst	: NSB			
Gasoline Range Organics (GRO)	0.27	0.050	mg/L	1	6/27/2014 5:36:17 PM	R19557			
Surr: BFB	111	70.9-130	%REC	1	6/27/2014 5:36:17 PM	R19557			
EPA METHOD 8021B: VOLATILES					Analyst	: NSB			
Benzene	6.5	1.0	µg/L	1	6/27/2014 5:36:17 PM	R19557			
Toluene	1.7	1.0	µg/L	1	6/27/2014 5:36:17 PM	R19557			
Ethylbenzene	15	1.0	µg/L	1	6/27/2014 5:36:17 PM	R19557			
Xylenes, Total	8.2	2.0	µg/L	1	6/27/2014 5:36:17 PM	R19557			
Surr: 4-Bromofluorobenzene	121	82.9-139	%REC	1	6/27/2014 5:36:17 PM	R19557			

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	1	B Analyte detected in the associated Method

- * Value exceeds Maximum Contaminant Level.
 - Е Value above quantitation range
 - J Analyte detected below quantitation limits
 - 0 RSD is greater than RSDlimit
 - RPD outside accepted recovery limits R
 - Spike Recovery outside accepted recovery limits S
- В Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded Н
- ND Not Detected at the Reporting Limit Page 10 of 23
- Р Sample pH greater than 2.
- Reporting Detection Limit RL

Hall Environmental Analysis Laboratory, Inc.

Surr: 4-Bromofluorobenzene

Date Reported: 7/8/2014

6/27/2014 10:07:53 PM R19557

CLIENT: APEX TITAN Project: Lindrith CS Lab ID: 1406C76-011	Matrix:	AQUEOUS	Client Sampl Collection I Received I	e ID: M Date: 6/2 Date: 6/2	W-8 25/2014 3:55:00 PM 27/2014 7:50:00 AM	
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE	E				Analyst	BCN
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	6/28/2014 7:27:45 AM	13941
Surr: DNOP	120	62.7-145	%REC	1	6/28/2014 7:27:45 AM	13941
EPA METHOD 8015D: GASOLINE RAI	NGE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	6/30/2014 2:22:45 PM	R19588
Surr: BFB	90.7	70.9-130	%REC	1	6/30/2014 2:22:45 PM	R19588
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	1.0	µg/L	1	6/27/2014 10:07:53 PM	R19557
Toluene	ND	1.0	µg/L	1	6/27/2014 10:07:53 PM	R19557
Ethylbenzene	ND	1.0	µg/L	1	6/27/2014 10:07:53 PM	R19557
Xylenes, Total	ND	2.0	µg/L	1	6/27/2014 10:07:53 PM	R19557

82.9-139

110

%REC

1

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associa

- * Value exceeds Maximum Contaminant Level.
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit
- RPD outside accepted recovery limits R
- Spike Recovery outside accepted recovery limits S
- В Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded Н
 - Not Detected at the Reporting Limit Page 11 of 23
- Р Sample pH greater than 2.

ND

Reporting Detection Limit RL

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 7/8/2014

CLIENT:APEX TITANProject:Lindrith CSLab ID:1406C76-012	Matrix:	AQUEOUS	Client Sampl Collection I Received I	le ID: M Date: 6/2 Date: 6/2	W-33 25/2014 4:40:00 PM 27/2014 7:50:00 AM	
Analyses	Result	RL Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE					Analyst	BCN
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	6/28/2014 7:49:35 AM	13941
Surr: DNOP	113	62.7-145	%REC	1	6/28/2014 7:49:35 AM	13941
EPA METHOD 8015D: GASOLINE RAN	GE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	6/30/2014 2:53:02 PM	R19588
Surr: BFB	98.2	70.9-130	%REC	1	6/30/2014 2:53:02 PM	R19588
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	1.0	µg/L	1	6/27/2014 10:37:56 PM	R19557
Toluene	ND	1.0	µg/L	1	6/27/2014 10:37:56 PM	R19557
Ethylbenzene	ND	1.0	µg/L	1	6/27/2014 10:37:56 PM	R19557
Xylenes, Total	ND	2.0	µg/L	1	6/27/2014 10:37:56 PM	R19557
Surr: 4-Bromofluorobenzene	110	82.9-139	%REC	1	6/27/2014 10:37:56 PM	R19557

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Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	Е	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 Page 12 of 23
- P Sample pH greater than 2.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 7/8/2014

CLIENT: APEX TITAN Project: Lindrith CS			Client Samp Collection	le ID: M Date: 6/2	W-31 25/2014 5:30:00 PM	
Lab ID: 1406C76-013	Matrix:	Matrix: AQUEOUS Received Date: 6/27/2014 7:50:00				
Analyses	Result	RL (Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE					Analyst	BCN
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	6/28/2014 8:11:17 AM	13941
Surr: DNOP	112	62.7-145	%REC	1	6/28/2014 8:11:17 AM	13941
EPA METHOD 8015D: GASOLINE RAM	NGE				Analyst	NSB
Gasoline Range Organics (GRO)	ND	0.050	mg/L	1	6/30/2014 3:23:06 PM	R19588
Surr: BFB	97.5	70.9-130	%REC	1	6/30/2014 3:23:06 PM	R19588
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	1.0	μg/L	1	6/27/2014 11:07:56 PM	R19557
Toluene	ND	1.0	µg/L	1	6/27/2014 11:07:56 PM	R19557
Ethylbenzene	ND	1.0	µg/L	1	6/27/2014 11:07:56 PM	R19557
Xylenes, Total	ND	2.0	μg/L	1	6/27/2014 11:07:56 PM	R19557
Surr: 4-Bromofluorobenzene	93.6	82.9-139	%REC	1	6/27/2014 11:07:56 PM	R19557

Dofe r to the OC S 4 0 he login checklist for flagged OC date d preservation inform ation.

Refer to the QC	Summary	report and	sample logit	1 Checklist 101	r nagged Qu	C data and	preservation	informat

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	-	

- Е Value above quantitation range
- J Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits S
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
 - Not Detected at the Reporting Limit Page 13 of 23
- Р Sample pH greater than 2.

ND

RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 7/8/2014

CLIENT: APEX TITAN			Client Samp	e ID: M	W-40	
Project: Lindrith CS			Collection 1	Date: 6/2	25/2014 6:10:00 PM	
Lab ID: 1406C76-014	Matrix:	AQUEOUS	Received	Date: 6/2	27/2014 7:50:00 AM	
Analyses	Result	RL (Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE	E				Analyst:	BCN
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	6/30/2014 12:54:51 PM	13941
Surr: DNOP	64.6	62.7-145	%REC	1	6/30/2014 12:54:51 PM	13941
EPA METHOD 8015D: GASOLINE RAI	NGE				Analyst:	NSB
Gasoline Range Organics (GRO)	0.30	0.050	mg/L	1	6/30/2014 3:53:18 PM	R19588
Surr: BFB	120	70.9-130	%REC	1	6/30/2014 3:53:18 PM	R19588
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	ND	1.0	µg/L	1	6/27/2014 11:38:11 PM	R19557
Toluene	ND	1.0	µg/L	1	6/27/2014 11:38:11 PM	R19557
Ethylbenzene	1.0	1.0	µg/L	1	6/27/2014 11:38:11 PM	R19557
Xylenes, Total	ND	2.0	μg/L	1	6/27/2014 11:38:11 PM	R19557
Surr: 4-Bromofluorobenzene	110	82.9-139	%REC	1	6/27/2014 11:38:11 PM	R19557

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

Refer to the QC summary report and sample rogin checknist for hagged QC data and preservation more

Qualifiers:	*	Value exceeds Maximum Contaminant Level.			
	Е	Value above quantitation range			
	J	Analyte detected below quantitation limits			
	0	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 Page 14 of 23
- P Sample pH greater than 2.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX TITAN

Project:

Lindrith CS

Date Reported: 7/8/2014

Client Sample ID: MW-12							
	Collection Date: 6/26/2014 9:55:00 AM						
EOUS	Received Date: 6/27/2014 7:50:00 AM						

Lab ID: 1406C76-015	Matrix: AQUEOUS		Received Date: 6/27/2014 7:50:00 AM						
Analyses	Result	RL (Qual	Units	DF	Date Analyzed	Batch		
EPA METHOD 8015D: DIESEL RANGE						Analyst	BCN		
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/30/2014 1:16:42 PM	13941		
Surr: DNOP	85.1	62.7-145		%REC	1	6/30/2014 1:16:42 PM	13941		
EPA METHOD 8015D: GASOLINE RANG	E					Analyst	NSB		
Gasoline Range Organics (GRO)	0.37	0.050		mg/L	1	6/30/2014 4:23:18 PM	R19588		
Surr: BFB	191	70.9-130	S	%REC	1	6/30/2014 4:23:18 PM	R19588		
EPA METHOD 8021B: VOLATILES						Analyst	NSB		
Benzene	46	1.0		µg/L	1	6/28/2014 12:08:14 AM	R19557		
Toluene	ND	1.0		µg/L	1	6/28/2014 12:08:14 AM	R19557		
Ethylbenzene	2.7	1.0		µg/L	1	6/28/2014 12:08:14 AM	R19557		
Xylenes, Total	2.4	2.0		µg/L	1	6/28/2014 12:08:14 AM	R19557		
Surr: 4-Bromofluorobenzene	124	82.9-139		%REC	1	6/28/2014 12:08:14 AM	R19557		

Dofe r to the OC S 1. la login chacklist for flagge d OC dat reservation info ation.

Refer to the QC	Summary	report and	sample	login	checklist	101.1	lagged	ŲĽ	uata an	ia presei	vation	morm

Qualifiers:	*	Value exceeds Maximum	Contaminant Level.

- E Value above quantitation range
- J Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit
- RPD outside accepted recovery limits R
- S Spike Recovery outside accepted recovery limits
- В Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded Н ND
 - Not Detected at the Reporting Limit Page 15 of 23
- Р Sample pH greater than 2.
- Reporting Detection Limit RL
Analytical Report Lab Order 1406C76

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 7/8/2014

CLIENT: APEX TITAN Project: Lindrith CS	Client Sample ID: MW-2 Collection Date: 6/26/2014 11:05:00 AM										
Lab ID: 1406C76-016	Matrix: AQUEOUS			Received 1	Date: 6/2	27/2014 7:50:00 AM					
Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch				
EPA METHOD 8015D: DIESEL RANGE						Analyst	BCN				
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	6/28/2014 9:16:54 AM	13941				
Surr: DNOP	187	62.7-145	S	%REC	1	6/28/2014 9:16:54 AM	13941				
EPA METHOD 8015D: GASOLINE RAN	IGE					Analyst	NSB				
Gasoline Range Organics (GRO)	8.2	0.50		mg/L	10	6/30/2014 4:53:32 PM	R19588				
Surr: BFB	108	70.9-130		%REC	10	6/30/2014 4:53:32 PM	R19588				
EPA METHOD 8021B: VOLATILES						Analyst	NSB				
Benzene	1400	50		µg/L	50	6/28/2014 12:38:25 AM	R19557				
Toluene	ND	5.0		µg/L	5	6/28/2014 1:08:32 AM	R19557				
Ethylbenzene	62	5.0		µg/L	5	6/28/2014 1:08:32 AM	R19557				
Xylenes, Total	420	10		µg/L	5	6/28/2014 1:08:32 AM	R19557				
Surr: 4-Bromofluorobenzene	125	82.9-139		%REC	5	6/28/2014 1:08:32 AM	R19557				

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

Oualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte d
Quanners.		value exceeds Maximum Containmant Level.	D	Analyte

- E Value above quantitation range
- J Analyte detected below quantitation limits
- 0 RSD is greater than RSDlimit
- RPD outside accepted recovery limits R
- S Spike Recovery outside accepted recovery limits
- letected in the associated Method Blank
- Holding times for preparation or analysis exceeded Н ND
 - Not Detected at the Reporting Limit Page 16 of 23
- Р Sample pH greater than 2.
- RL Reporting Detection Limit

Analytical Report
Lab Order 1406C76

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 7/8/2014

CLIENT: APEX TITAN	Client Sample ID: MW-38 Collection Date: 6/26/2014 12:10:00 PM									
Project: Lindrith CS										
Lab ID: 1406C76-017	Matrix:	AQUEOUS	Received 1	Received Date: 6/27/2014 7:50:00 AM						
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch				
EPA METHOD 8015D: DIESEL RANGE	E				Analyst	BCN				
Diesel Range Organics (DRO)	ND	1.0	mg/L	1	6/28/2014 9:38:44 AM	13941				
Surr: DNOP	100	62.7-145	%REC	1	6/28/2014 9:38:44 AM	13941				
EPA METHOD 8015D: GASOLINE RAM	NGE				Analyst	: NSB				
Gasoline Range Organics (GRO)	7.2	0.50	mg/L	10	6/30/2014 5:26:30 PM	R19588				
Surr: BFB	110	70.9-130	%REC	10	6/30/2014 5:26:30 PM	R19588				
EPA METHOD 8021B: VOLATILES					Analyst	: NSB				
Benzene	370	20	µg/L	20	6/28/2014 2:08:59 AM	R19557				
Toluene	ND	20	µg/L	20	6/28/2014 2:08:59 AM	R19557				
Ethylbenzene	64	20	µg/L	20	6/28/2014 2:08:59 AM	R19557				
Xylenes, Total	250	40	µg/L	20	6/28/2014 2:08:59 AM	R19557				
Surr: 4-Bromofluorobenzene	114	82.9-139	%REC	20	6/28/2014 2:08:59 AM	R19557				

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 shows quantitation range

- 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 Page 17 of 23
- P Sample pH greater than 2.
- RL Reporting Detection Limit

Analytical Report
Lab Order 1406C76

Hall Environmental Analysis Laboratory, Inc.

Lab Order 1406C /6 Date Reported: 7/8/2014

CLIENT: APEX TITAN Project: Lindrith CS Lab ID: 1406C76-018	Client Sample ID: MW-4 Collection Date: 6/26/2014 1:05:00 PM Matrix: AOUEOUS Received Date: 6/27/2014 7:50:00 AM									
Analyses	Result	RL Qua	l Units DF		Date Analyzed	Batch				
EPA METHOD 8015D: DIESEL RANGE					Analyst	BCN				
Diesel Range Organics (DRO)	1.1	1.0	mg/L	1	6/28/2014 10:00:30 AM	13941				
Surr: DNOP	110	62.7-145	%REC	1	6/28/2014 10:00:30 AM	13941				
EPA METHOD 8015D: GASOLINE RAM	NGE				Analyst	: NSB				
Gasoline Range Organics (GRO)	23	2.5	mg/L	50	6/30/2014 5:56:49 PM	R19588				
Surr: BFB	101	70.9-130	%REC	50	6/30/2014 5:56:49 PM	R19588				
EPA METHOD 8021B: VOLATILES					Analyst	: NSB				
Benzene	4200	50	µg/L	50	6/28/2014 2:39:00 AM	R19557				
Toluene	1500	50	µg/L	50	6/28/2014 2:39:00 AM	R19557				
Ethylbenzene	190	50	µg/L	50	6/28/2014 2:39:00 AM	R19557				
Xylenes, Total	1400	100	µg/L	50	6/28/2014 2:39:00 AM	R19557				
Surr: 4-Bromofluorobenzene	118	82.9-139	%RFC	50	6/28/2014 2:39:00 AM	R19557				

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	Е	Value above quantitation range
	J	Analyte detected below quantitation limits
	0	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 Page 18 of 23
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc

Client:	APEX '	TITAN									
Project:	Lindrit	h CS									
Sample ID	MB-13941	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8015D: Diese	el Range		
Client ID:	PBW	Batch	n ID: 13	941	F	RunNo: 1	9537				
Prep Date:	6/27/2014	Analysis D	ate: 6/	27/2014	5	SeqNo: 5	66619	Units: mg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range	Organics (DRO)	ND	1.0	1 000		07.2	62.7	145			
Juli. DNOF		0.97		1.000		97.2	02.7	145			
Sample ID	LCS-13941	SampT	ype: LC	s	Tes	tCode: El	PA Method	8015D: Diese	el Range		
Client ID:	LCSW	Batch	n ID: 13	941	F	RunNo: 1	9537				
Prep Date:	6/27/2014	Analysis D	ate: 6/	27/2014	5	SeqNo: 5	66620	Units: mg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range	Organics (DRO)	5.5	1.0	5.000	0	109	78.6	146			
Surr: DNOP		0.51		0.5000		103	62.7	145			
Sample ID	LCSD-13941	SampT	ype: LC	SD	Tes	tCode: El	PA Method	8015D: Diese	el Range		
Client ID:	LCSS02	Batch	n ID: 13	941	F	RunNo: 1	9537				
Prep Date:	6/27/2014	Analysis D	oate: 6/	27/2014	S	SeqNo: 5	66621	Units: mg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range	Organics (DRO)	5.1	1.0	5.000	0	102	78.6	146	6.45	26.5	
Surr: DNOP		0.46		0.5000		92.7	62.7	145	0	0	

Qualifiers:

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

Page 19 of 23

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client:	APEX TI	TAN									
Project:	Lindrith (CS									
Sample ID	5ML RB	SampT	уре: М	BLK	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	
Client ID:	PBW	Batch	ID: R	19557	F	RunNo: 19557					
Prep Date:		Analysis D	ate: 6	/27/2014	5	SeqNo: 5	66650	Units: mg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang Surr: BFB	ge Organics (GRO)	ND 19	0.050	20.00		97.4	70.9	130			
Sample ID	2.5UG GRO LCS	SampT	ype: L(cs	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	
Client ID:	LCSW	Batch	ID: R	19557	F	RunNo: 1	9557				
Prep Date:		Analysis D	ate: 6	/27/2014	Ş	SeqNo: 5	66651	Units: mg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Ranç	ge Organics (GRO)	0.53	0.050	0.5000	0	106	80	120			
Surr: BFB		19		20.00		95.3	70.9	130			
Sample ID	1406C76-001AMS	SampT	ype: M	S	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	
Client ID:	MW-7	Batch	ID: R'	19557	F	RunNo: 1	9557				
Prep Date:		Analysis D	ate: 6	/27/2014	Ş	SeqNo: 5	66653	Units: mg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	ge Organics (GRO)	0.82	0.050	0.5000	0.3380	95.8	79	121			
Surr: BFB		24		20.00		122	70.9	130			
Sample ID	1406C76-001AMS	D SampT	ype: M	SD	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	
Client ID:	MW-7	Batch	ID: R'	19557	F	RunNo: 1	9557				
Prep Date:		Analysis D	ate: 6	/27/2014	\$	SeqNo: 5	66654	Units: mg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	ge Organics (GRO)	0.82	0.050	0.5000	0.3380	96.3	79	121	0.318	20	
Surr: BFB		25		20.00		123	70.9	130	0	0	
Sample ID	5ML RB	SampT	уре: М	BLK	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	
Client ID:	PBW	Batch	ID: R'	9588	F	RunNo: 1	9588				
Prep Date:		Analysis D	ate: 6	/30/2014	S	SeqNo: 5	67746	Units: mg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Ranç	ge Organics (GRO)	ND	0.050								
Surr: BFB		19		20.00		94.1	70.9	130			
Sample ID	2.5UG GRO LCS	SampT	ype: L(cs	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	
Client ID:	LCSW	Batch	ID: R	19588	F	RunNo: 1	9588				
Prep Date:		Analysis D	ate: 6	/30/2014	5	SeqNo: 5	67747	Units: mg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

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 exceededND Not Detected at the Reporting Limit

Page 20 of 23

- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Qual

Client: APEX 7 Project: Lindrith	ΓΙΤΑΝ 1 CS								
Sample ID 2.5UG GRO LCS	SampT	ype: LC	s	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	е
Client ID: LCSW	Batch	n ID: R1	9588	R	RunNo: 1	9588			
Prep Date:	Analysis D	ate: 6/	30/2014	S	SeqNo: 5	67747	Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit
Gasoline Range Organics (GRO)	0.46	0.050	0.5000	0	92.6	80	120		

Surr: BFB	21		20.00		106	70.9	130			
Sample ID 1406C76-016AMS	Samp1	Гуре: МS	3	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	
Client ID: MW-2	Batc	h ID: R1	9588	F	RunNo: 1	9588				
Prep Date:	Analysis E	Date: 6/	30/2014	S	SeqNo: 5	67758	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	13	0.50	5.000	8.224	96.6	79	121			
Surr: BFB	240		200.0		118	70.9	130			
Sample ID 1406C76-016AMS	D Samp	Гуре: М	SD	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	е	
Client ID: MW-2	Batc	h ID: R1	9588	F	RunNo: 1	9588				
Prep Date:	Analysis [Date: 6/	30/2014	S	SeqNo: 5	67759	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	13	0.50	5.000	8.224	88.4	79	121	3.18	20	
Surr: BFB	230		200.0		117	70.9	130	0	0	

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 Er	nvironmenta	al Anal	lysis I	Laborat	ory, Inc.						08-Jul-14
Client: Project:	APEX TI Lindrith	ITAN CS									
Sample ID	5ML RB	Samp	Туре: МІ	BLK	Tes	tCode: E	PA Method	8021B: Volat	iles		
Client ID:	PBW	Batc	h ID: R1	9557	F	RunNo: 1	9557				
Prep Date:		Analysis [Date: 6/	/27/2014	S	SeqNo: 5	66667	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		ND	1.0								
Toluene		ND	1.0								
Ethylbenzene		ND	1.0								
Xylenes, Total		ND	2.0								
Surr: 4-Bron	nofluorobenzene	21		20.00		106	82.9	139			
Sample ID	100NG BTEX LCS	Samp	Type: LC	S	Tes	tCode: E	PA Method	8021B: Volat	iles		
Client ID:	LCSW	Batc	h ID: R1	9557	F	RunNo: 1	9557				
Prep Date:		Analysis [Date: 6/	/27/2014	5	SeqNo: 5	66668	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		22	1.0	20.00	0	109	80	120			
Toluene		22	1.0	20.00	0	108	80	120			
Ethylbenzene		21	1.0	20.00	0	106	80	120			
Xylenes, Total		65	2.0	60.00	0	108	80	120			
Surr: 4-Bron	nofluorobenzene	21		20.00		107	82.9	139			
Sample ID	1406C76-002AMS	Samp	Type: M	S	Tes	tCode: E	PA Method	8021B: Volat	iles		
Client ID:	MW-36	Batc	h ID: R1	9557	F	RunNo: 1	9557				
Prep Date:		Analysis [Date: 6	/27/2014	5	SeqNo: 5	66671	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		17	1.0	20.00	0.6020	84.5	71	129			
Toluene		17	1.0	20.00	0.4060	84.3	68.4	135			
Ethylbenzene		17	1.0	20.00	0	86.4	69.4	135			
Xylenes, Total		54	2.0	60.00	1.720	87.2	72.4	135			
Surr: 4-Bron	nofluorobenzene	24		20.00		119	82.9	139			
Sample ID	1406C76-002AMS	D Samp	Type: M	SD	Tes	tCode: E	PA Method	8021B: Volat	iles		
Client ID:	MW-36	Batc	h ID: R1	9557	F	RunNo: 1	9557				
Prep Date:		Analysis [Date: 6/	/27/2014	5	SeqNo: 5	66672	Units: µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		17	1.0	20.00	0.6020	82.0	71	129	2.91	20	
Toluene		17	1.0	20.00	0.4060	82.0	68.4	135	2.65	20	
Ethylbenzene		17	1.0	20.00	0	84.2	69.4	135	2.57	20	
Xylenes, Total		53	2.0	60.00	1.720	85.0	72.4	135	2.47	20	
Surr: 4-Bron	notluorobenzene	23		20.00		113	82.9	139	0	0	

Qualifiers:

* Value exceeds Maximum Contaminant Level.

QC SUMMARY REPORT

- 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

Page 22 of 23

WO#: 1406C76

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

APEX TITAN

Client:

Project:	Lindrith C	CS									
Sample ID	5ML RB	SampT	уре: М	BLK	Tes	tCode: El	PA Method	8021B: Volat	tiles		
Client ID:	PBW	Batch	ID: R 1	19588	F	RunNo: 1	9588				
Prep Date:		Analysis D	ate: 6	/30/2014	5	SeqNo: 5	67765	Units: %RE	С		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Brom	nofluorobenzene	22		20.00		109	82.9	139			
Sample ID	100NG BTEX LCS	SampT	ype: LC	cs	Tes	tCode: El	PA Method	8021B: Volat	tiles		
Client ID:	LCSW	Batch	ID: R 1	19588	F	RunNo: 1	9588				
Prep Date:		Analysis D	ate: 6	/30/2014	S	SeqNo: 5	67766	Units: %RE	с		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Brom	nofluorobenzene	23		20.00		115	82.9	139			

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	Hall Environmental Albu TEL: 505-345-3975 Website: www.ha.	Analysis Labora 4901 Hawkin. querque, NM 87 FAX: 505-345-4 llenvironmental.	atory s NE 7109 Sam 4107 .com	ple Log-In C	heck List
Client Name: APEX AZTEC	Work Order Number:	1406C76		RcptNo:	1
Received by/date:	0/27/14				
Logged By: Anne Thorne	6/27/2014 7:50:00 AM		anne Arm	~	
Completed By: Anne Thorne	6/27/2014		an Am	~	
Reviewed By:	06/27/2014		<i></i>		
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 sam	ples?	Yes 🗹	No 🗆	NA 🗌	
5. Were all samples received at a temper	ature 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) p	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 🗹	# of preserved	
12. Does paperwork match bottle labels? (Note discrepancies on chain of custor	ły)	Yes 🗸	No 🗌	bottles checked for pH:	or >12 unless noted)
13. Are matrices correctly identified on Ch	ain of Custody?	Yes 🗹	No 🗌	Adjusted?	
14. Is it clear what analyses were requested	ed?	Yes 🗹	No 🗌		
15. Were all holding times able to be met? (If no, notify customer for authorization)).)	Yes 🗹	No 🗌	Checked by:	
Special Handling (if applicable)					
16. Was client notified of all discrepancies	with this order?	Yes	No 🗌	NA 🗹	

			a construction of the second second	Contractor and the contractor and the	
By Whom:		Via:	eMail	📋 Phone 🗍 Fax	In Person
Regarding:					1.11.11.11.11.1.1.1.1.1.1.1.1.1.1.1.1.
Client Instructions:	Martin and a state of the second state of the			a ha ann an t-airte an	and a last come of the last to the Mo

17. Additional remarks:

18. Cooler Information

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