GW-209

Supplemental Site Investigation and Work plan Date: 11/30/12



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

December 12, 2011

Return Receipt Requested 7010 1870 0001 2945 4412

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

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RCVD DEC 16'11 OIL CONS. DIV.

DIST. 3

RE: Enterprise Field Services, LLC - Lindrith Compressor Station Supplemental Environmental Site Investigation & Corrective Action Work Plan NE/4, SE/4, Section 18, Township 24, Range 5 West, NMPM NM Oil Conservation Division GW Discharge Permit No. GW-209 Rio Arriba County, New Mexico

Dear Mr. TeCube:

Enterprise Field Services, LLC (Enterprise) is submitting the enclosed *Supplemental Environmental Site Investigation & Corrective Action Work Plan*, dated November 30, 2011, for the facility referenced above. This work plan provides the results of a supplemental site investigation conducted during August, 2011 to complete delineation of soil and groundwater affected by historical facility operations. This supplemental investigation was performed in accordance with the July 27, 2011 *Supplemental Site Investigation Work Plan*, as submitted in correspondence to the Jicarilla Apache Nation Environmental Protection Office (JANEPO) dated July 28, 2011.

The enclosed report also provides recommendations for remedial actions in the vicinity of the former condensate storage tanks at this facility. The proposed remedial actions will utilize a mobile dual-phase extraction (MDPE) unit to recover non-aqueous phase liquids (NAPL) and vapor phase hydrocarbons from this area. This initial remediation effort will be conducted as a "pilot study" to determine the effectiveness of the system. During an estimated three month testing period, the effectiveness of the system will be evaluated A feasibility study will be developed to determine the most effective method(s) to complete remedial actions for affected soil and groundwater at the facility. JANEPO approval of the feasibility study, and associated remedial action recommendations, will be obtained prior to implementation.

Enterprise will continue performing routine quarterly groundwater monitoring events to ensure that migration of affected groundwater does not occur from areas that have been delineated, and to evaluate the effectiveness of remedial actions in reducing groundwater constituent concentrations.

We would like to proceed with the proposed remedial actions described in the enclosed work plan as soon as possible, if the Jicarilla Environmental Protection Office has no objections or review comments. If you have any questions, or require additional information, please do not hesitate to contact me at (713) 381-2286 or drsmith@eprod.com.

P. O. BOX 4324 HOUSTON, TX 77210-4324 713.381.6500 1100 LOUISIANA STREET HOUSTON, TX 77002-5227 www.epplp.com Mr. Cordell TeCube, Director Jicarilla EPO December 12, 2011 Page 2

Sincerely,

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

/dep Enclosure

cc: w/ Encl

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w/o Enclosure: Chris Mitchell, Southwest Geoscience Kyle Summers, Southwest Geoscience

Rodney M. Sartor, REM Manager, Remediation

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SUPPLEMENTAL ENVIRONMENTAL SITE INVESTIGATION & CORRECTIVE ACTION WORK PLAN

Property:

LINDRITH COMPRESSOR STATION (GW-209) Section 18, Township 24N, Range 5W Rio Arriba County, New Mexico

> November 30, 2011 SWG Project No. 0410006

> > Prepared for:

Enterprise Field Services, LLC 1100 Louisiana Street Houston, Texas 77002-5227 Attn: Mr. David Smith

Prepared by:

urmin Kyle Summers, C.P.G.

Senior Geologist/ Manager, Four Corners Office

B. Chris Mitchell, P.G. Principal Geoscientist



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SUPPLEMENTAL ENVIRONMENTAL SITE INVESTIGATION & CORRECTIVE ACTION WORK PLAN (GW-209)

LINDRITH COMPRESSOR STATION Section 18, Township 24N, Range 5W Rio Arriba County, New Mexico SWG Project No. 0410006

1.0 INTRODUCTION

1.1 SITE LOCATION AND HISTORY

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 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 tanks, inlet scrubbers, a water tower, and office/shop buildings.

On January 4, 2008, a natural gas condensate release (initially reported as 25 bbls) 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. 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, September 2008). Supplemental excavation, delineation, and remediation activities were performed between November 2009 November 2010 (Subsurface Investigation Report, LTE, February 2011), resulting in the removal of approximately 4,182 cubic vards of affected soils, the advancement of twenty-nine (29) soil borings, and the installation and sampling of twelve (12) groundwater monitoring wells. The former condensate tanks and associated sump have been permanently removed from the facility. Based on the results of soil and groundwater sampling activities, constituent of concern (COC) concentrations were identified in soil above the New Mexico Energy, Minerals and Natural Resources Department (EMNRD), Oil Conservation Division (OCD) Remediation Action Levels (RALs) and in groundwater above the New Mexico Water Quality Control Commission (WQCC) Groundwater Quality Standards (GQSs).

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 of the subject Site and adjoining properties is included as Figure 2 of Appendix A.

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1.2 CHRONOLOGY OF EVENTS

Significant events and related activities associated with the Site, including the results of Site investigation activities and corrective action completed to date, are provided in the following table:

January 4, 2008

The release was discovered and reported to the OCD. 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.

November 2009 LT Environmental, Inc. (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 below ground surface (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 *Delineation Work Plan*, (LTE) presented to the Jicarilla Apache Nation Environmental Protection Office (JANEPO) detailing the proposed subsurface investigation activities.

April 2010 Supplemental Work Plan, (LTE) presented to JANEPO describing proposed sump removal and remediation activities.

May 2010 Removal of the subgrade sump, 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. 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 converted to groundwater monitoring wells, including the replacement of MW-1 with MW-IR.

February 2011

Subsurface Investigation Report (LTE) describes the results of the subsurface investigation activities. The investigation identifies 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 dissolve-phase groundwater COCs, as well as the historic soil impacts.

August 2011 Supplemental Site Investigation Work Plan submitted to JANEPO on August 1, 2011. Supplemental Site Investigation Work Plan approved by JANEPO on August 12, 2011.

August/September 2011 Southwest Geoscience (SWG) performs supplemental site investigation activities 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.

1.3 CONSTITUENTS OF CONCERN

The soil and groundwater samples collected from *historically* installed soil borings/monitoring wells were analyzed for TPH utilizing 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, 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'), and B-29 (27') above the OCD *Remediation Action Level* 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') and B-20 (30') above the OCD *Remediation Action Level* 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 the June 2011 groundwater sampling event, benzene concentrations were identified in groundwater samples collected from monitoring wells MW-3, MW-4, MW-6, and MW-12 above the NMWQCC Water Quality Standard of 10 µg/L.
- Based on the laboratory analytical results from the June 2011 groundwater sampling event, toluene concentrations were identified in groundwater samples collected from monitoring wells MW-3 and MW-4 above the NMWQCC Water Quality Standard of 750 µg /L.
- Based on the laboratory analytical results from the June 2011 groundwater sampling event, total xylenes concentrations were identified in groundwater



samples collected from monitoring wells MW-3, MW-4, and MW-6 above the NMWQCC Water Quality Standard of $620 \ \mu g \ L$.

 During the June 22, 2011 groundwater gauging event, non-aqueous phase liquid (NAPL) was identified in monitoring wells MW-1R, MW-2, and MW-9.

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

1.4 SITE RANKING AND PROPOSED CLEANUP GOALS

The Site is under the jurisdiction of the Jicarilla Apache Nation Environmental Protection Office (JANEPO). In the absence of published JANEPO regulatory guidance, SWG referenced the New Mexico OCD's *Guidelines for Remediation of Leaks, Spills and Releases* as guidance, in addition to the OCD rules, specifically NMAC 19.15.30 *Remediation.* These guidance documents establish investigation and abatement action requirements for sites subject to reporting and/or corrective action. These guidance to reporting and/or corrective action for sites subject to reporting and/or corrective action.

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

Rankin	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 teet from private domestic water source.	No	0	20
	<200 feet		
Distance to Surface water	200 to 1,000 feet	10	0
Body	>1,000 feet	0	
Total Rar	nking Score		40

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

- The depth to the initial groundwater-bearing zone is <50 feet bgs at the Site.
- · A livestock water well is located upgradient (Southeast) of the facility.

Based on a Total Ranking Score of 40, cleanup goals for soil located at the Site include: 10 mg/Kg for benzene, 50 mg/Kg for total BTEX and 100 mg/Kg for TPH GRO/DRO.



In addition, cleanup goals for groundwater located at the Site include the NMWQCC *Water Quality Standards* of: 0.010 mg/L for benzene, 0.75 mg/L for toluene, 0.75 mg/L for ethylbenzene, and 0.62 mg/L for xylenes.

1.5 OBJECTIVES OF SUPPLEMENTAL SITE INVESTIGATION & CORRECTIVE ACTION

The primary objective of the supplemental site investigation activities was to further evaluate the magnitude and extent of NAPL and dissolved phase COCs in groundwater.

The primary objective of the proposed corrective actions is to recover NAPL from the initial groundwater-bearing unit to the extent practical.

2.0 SITE CHARACTERIZATION

2.1 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 are 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 shaley 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 varying degrees of weathered sandstones. Detailed lithologic descriptions are presented on the soil borings logs included in Appendix C. Figure 3 of Appendix A is a Site Map which depicts the location of the soil borings and monitoring wells in relation to pertinent Site features. Approximated geologic cross-sections are provided as Figures 4A and 4B in Appendix A.

The first water-bearing unit at the site is a shallow unconfined aquifer 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 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.

The initial groundwater-bearing unit (GWBU) at the Site was encountered at depths ranging from approximately 25 to 35 feet bgs during the investigation activities.

2.1.1 GROUNDWATER FLOW

Monitoring well top-of-casing (TOC) elevations were surveyed and referenced to Section corner benchmarks. Groundwater measurements were collected utilizing an interface probe capable of detecting the presence of light non-aqueous phase liquids (NAPL). NAPL was observed in monitoring wells MW-1R, MW-2, MW-3, MW-9, MW-30, MW-32, MW-37, and MW-39 during recent gauging activities.

Based on the groundwater elevations measured during the September 2011 monitoring event, the groundwater at the Site slopes generally to the west-southwest at an average gradient of 0.012 ft/ft. The observed gradient on the western portion of the site is considerably steeper than that observed on the central and eastern portion.

Figure 5 of Appendix A is a Groundwater Gradient Map which depicts the direction of groundwater flow at the Site based on September 2011 gauging data. Table 3 (Appendix B) includes the gauging date, depth to groundwater and groundwater elevations for the gauging event(s) performed at the Site.

2.1.2 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 mg/l or less and that is not an exempted aquifer". Based on conductivity readings collected during quarterly sampling events (averaging 2.7 mS/cm), groundwater at the site is likely to exhibit TDS results of less than 2,200 mg/l.

2.2 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 occasioned by oil and gas gathering facilities. Based on SWG'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.

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3.0 SUPPLEMENTAL SITE INVESTIGATION

During August 2011, SWG performed a Supplemental Site Investigation to further define impacts to soil and groundwater at the Site. As a result of this investigation, thirteen (13) additional soil borings were advanced utilizing a hollow-stem auger (HAS) drilling rig. Each of these soil borings were subsequently completed as permanent monitoring wells. A Site-wide groundwater sampling event was performed during September 2011.

3.1 SOIL BORINGS & MONITORING WELLS

As part of the approved scope of work, thirteen (13) soil borings (MW-30 through MW-42) were advanced across the southwestern portion of the site and outside the fenced area. These soil borings were located to further evaluate the former condensate release, the former pond area, the former compressor area, and the subgrade tank located in the western corner of the facility.

Figure 3 of Appendix A is a Site Map which depicts the location of the soil borings in relation to pertinent Site features.

Soil samples 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 observed 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 volatilize. The air above the sample, the headspace, was then evaluated using a photoionization detector (PID) capable of detecting volatile organic compounds (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 676 ppm. Soil borings MW-30, MW-32, MW-36, MW-37, MW-38, MW-39, and MW-42 exhibited PID readings above 100 ppm near the apparent capillary fringe zone. Soil boring MW-32 also exhibited soil PID readings in excess of 100 ppm in shallower soils (16 feet bgs). Significant petroleum hydrocarbon vapors were not detected with the PID in soil samples collected from soil borings MW-31, MW-33, MW-34, MW-35, MW-40, and MW-41. Field screening results are presented on soil boring logs included in Appendix C.

Subsequent to advancement, each of the soil borings (MW-30 through MW-42) were converted to permanent groundwater monitoring wells. The monitoring wells were completed using the following methodology:

• Installation of 10 to 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 monitoring well logs provided in Appendix C.

3.2 INVESTIGATION SAMPLING PROGRAM

3.2.1 SOIL SAMPLING PROGRAM

SWG'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, from a change in lithology, or from the bottom of the boring, 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 boring logs included in Appendix C.

3.2.2 GROUNDWATER SAMPLING PROGRAM

During the most recent groundwater sampling event (September 2011), each of the monitoring wells not exhibiting NAPL were micro-purged and sampled 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 was 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 L/min were maintained during the 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.

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The monitoring wells were purged until produced groundwater was consistent in color, clarity, pH, dissolved oxygen (DO), oxidation/reduction potential (ORP), temperature, and conductivity prior to groundwater sample collection.

3.3 LABORATORY ANALYTICAL PROGRAM

The soil and groundwater samples collected during the Supplemental Site Investigation activities were analyzed for TPH GRO/DRO using EPA method SW-846 #8015B and BTEX using EPA method SW-846 method #8021B.

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

3.4 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.

Soil and 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 Hall Environmental Analytical 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.

3.5 DATA EVALUATION

The Site is under the jurisdiction of the JANEPO. In the absence of published JANEPO regulatory guidance, SWG referenced the New Mexico OCD's *Guidelines for Remediation of Leaks, Spills and Releases* as guidance, in addition to the OCD rules, specifically NMAC 19.15.30 *Remediation*. These guidance documents establish investigation and abatement action requirements for sites subject to reporting and/or corrective action. These guidance documents establish investigation and abatement actor reporting and/or corrective action.

Based on SWG's review of Site characteristics (specifically: depth to groundwater, wellhead protection area and distance to surface water) an associated ranking score of **40** was determined for the Site. Consequently, the OCD's *Remediation Action Levels* for soils on sites having a total ranking score greater than 19 is 10 milligrams per kilogram (mg/Kg) benzene, 50 mg/Kg total BTEX and 100 mg/Kg TPH GRO/DRO. The



New Mexico WQCC *Groundwater Quality Standards* are: 10 µg/L for benzene, 750 µg/L for toluene, 750 µg/L for ethylbenzene, and 620 µg/L for total xylenes.

3.5.1 SOIL

SWG compared the TPH GRO/DRO and BTEX concentrations or practical quantitation limits (PQLs) associated with the soil samples to the OCD *Remediation Action Levels*.

Total Petroleum Hydrocarbons

Soil samples collected from soil borings B-3, B-11, B-12, B-13, B-15, B-16, B-18, B-20, B-24. B-27, BH-28, and BH-29, completed during previous investigation activities, and soil samples collected from soil borings MW-30, MW-32, MW-37, and MW-39 exhibited TPH GRO/DRO concentrations ranging from <110 mg/Kg to 11,250 mg/Kg, which exceed the OCD's *Remediation Action Level* of 100 mg/Kg.

The soil samples collected from the remaining soil borings did not exhibit TPH GRO/DRO concentrations above the OCD's *Remediation Action Level* of 100 mg/Kg.

Benzene

The soil sample collected from soil boring MW-39 exhibited a benzene concentration of 11 mg/Kg, which exceeds the OCD's *Remediation Action Level* of 10 mg/Kg.

The soil samples collected from the remaining soil borings exhibited benzene concentrations ranging from below the laboratory PQLs to 9.7 mg/Kg, which is below the OCD's *Remediation Action Level* of 10 mg/Kg.

Total BTEX

The soil samples collected from previous soil borings B-13 and B-20, and from soil borings MW-30, MW-32, MW-37, and MW-39 exhibited total BTEX concentrations ranging from 52.1 mg/Kg to 294 mg/Kg, which exceed the OCD's *Remediation Action Level* of 50 mg/Kg.

The soil samples collected from the remaining soil borings did not exhibit total BTEX concentrations above the laboratory PQLs, which are below the OCD's *Remediation Action Levels* of 50 mg/Kg.

The results of soil sample analyses are summarized in Table 1 of Appendix B. Figure 6 (Appendix A) details the OCD *Remediation Action Level* Exceedance Zone in soil.

3.5.2 GROUNDWATER

SWG compared BTEX concentrations or PQLs associated with the groundwater samples collected from the monitoring wells during the most recent sampling event to the New Mexico WQCC *Groundwater Quality Standards*.



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, and MW-40 did not exhibit benzene, toluene, ethylbenzene or xylenes concentrations above the respective WQCC *Groundwater Quality Standards.*

The groundwater samples collected from monitoring wells MW-4, MW-6, MW-12, MW-38, and MW-42 exhibited benzene concentrations ranging from 63 µg/L to 4,900 µg/L which exceeds the WQCC *Groundwater Quality Standard* of 10 µg/L.

The groundwater sample collected from monitoring well MW-4 exhibited a toluene concentration of 1,700 μ g/L which exceeds the WQCC *Groundwater Quality Standard* of 750 μ g/L.

The groundwater samples collected from monitoring wells MW-4, MW-6, and MW-38 exhibited xylene concentrations ranging from 1,700 µg/L to 1,800 µg/L, which exceed the WQCC *Groundwater Quality Standard* of 620 µg/L.

Groundwater samples were not collected from monitoring wells MW-1R, MW-2, MW-3, MW-9, MW-30, MW-32, MW-37 or MW-39, due to the presence of NAPL. Two previously unidentified NAPL plumes were identified during the investigation. One of these plumes is located near the subgrade tank in the west corner of the Site, and the other is located beneath the former ponds at the southeast corner of the Site.

The results of groundwater sample analyses are summarized in Table 2 of Appendix B. Figure 7 (Appendix A) details the NMWQCC *Groundwater Quality Standard* Exceedance Zone in groundwater.

4.0 CORRECTIVE ACTION

Corrective actions completed at the Site to date include the excavation and removal of approximately 4,182 cubic yards of hydrocarbon impacted soil. Additionally, ORC[®] was introduced into the floor of the excavation utilizing four (4) trenches in an attempt to treat impacted soils below 20 feet bgs. Subsequently, a perforated drain system with riser pipes was installed prior to backfill activities to provide a mechanism for hydration of the ORC[®]. Pursuant to the initial hydration of the ORC[®] at the time of installation, the drain system was utilized on three separate occasions between September and November of 2010 to hydrate the former excavation floor.

ORC[®] is a formulation of phosphate-intercalated magnesium peroxide that, when hydrated, produces a controlled release of oxygen for periods of up to 12 months per application. ORC[®] injection is a passive remediation alternative designed to supply controlled-release molecular oxygen to the subsurface environment to enhance or accelerate the rate of naturally occurring aerobic contaminant biodegradation in groundwater and saturated soils.



4.1 HIGH-VACUUM REMEDIATION

Enterprise proposes to implement hi-vacuum remediation (HVR) technology, also referred to as mobile dual-phase extraction (MDPE), at the Site. The mobile HVR system (Liquid Ring Pump and Internal Combustion Engine (ICE) system), which utilizes patent pending technical innovations, will be operated at the Site for approximately 90 days. The HVR system has been designed to recover NAPL and associated vapors, which have been identified in association with the initial groundwater-bearing unit in the vicinity of the former condensate storage tanks. The proposed HVR system will be tailored to the specific geology and hydrogeology of the site, and field modifications will be made to optimize system performance.

The system will consist of a single trailer mounted ICE unit incorporating proprietary fluid extraction/knockout/oil water separation technology with fluid storage tanks, vapor abatement, and data logging capabilities. A diagram of the proposed ICE unit is provided in Appendix E. The emissions leave the engine through a catalytic converter prior to release to the atmosphere. Natural gas or propane is utilized at "start-up" and as "make-up" or "assist" fuel if vapor concentrations drop below the ICE requirements. Water and NAPL recovery quantities will be quantified manually, and vapor phase utilization will be calculated in pounds and/or gallons.

Recovered groundwater and NAPL will be temporarily stored on site during the MDPE event for subsequent disposal as oil & gas waste or re-introduction into the product gathering system, in accordance with applicable state and federal regulations.

Prior to initiation and periodically during operation, each of the monitoring wells at the Site will be gauged to determine NAPL and water level measurements.

AIR PERMITTING AND SAMPLING

An air permit will be secured for the HVR system operating at the Site. Permit compliance will require periodic air sampling, beginning at start up, to measure predestruction volatile levels and to monitor post-abatement air emissions. Air samples will be collected utilizing tedlar bags, or other approved air sampling methods. Samples will be analyzed for BTEX concentrations at an approved laboratory.

4.1.1 "PILOT STUDY" PHASE

During the "pilot study" phase of the HVR activities, vapors, NAPL, and a small amount of water will be recovered from monitoring wells located within the NAPL plume from the former condensate tanks release. Withdrawal from these monitoring wells will be alternated, based on performance, to maximize hydrocarbon recovery. The HVR activities are currently planned to occur over a three month timeframe, but constant evaluation of the results may alter that timeframe.

4.1.2 NAPL REDUCTION PHASE

In the event the proposed HVR activities at the source significantly reduce the volume of NAPL in the vicinity of the source, further HVR may be planned for the former



condensate storage tanks release area and additional HVR activities may be scheduled for other areas at the site.

5.0 CORRECTIVE ACTION EFFECTIVENESS

The HVR activities are scheduled to occur over a three month time frame. To evaluate the effectives of the proposed corrective action, SWG will assess the volume of recovered hydrocarbons and NAPL thickness levels on the shallow aquifer, as well as the calculated mass of hydrocarbons removed after one month of operation. This information will be compared against the cost of operating the HVR system, to determine if activities should continue for the planned duration of the pilot test or be terminated prematurely due to inefficiency.

If the HVR system is operated beyond the first month, the mass recovery of hydrocarbon and NAPL measurements will continue to be tracked, and a feasibility study will be performed once the pilot test is complete. Subsequent quarterly monitoring results will also be evaluated to determine if the HVR produces a positive result in addressing dissolve-phase COC concentrations.

5.1 GROUNDWATER SAMPLING PROGRAM

Subsequent to the HVR pilot study, SWG's groundwater sampling program will be slightly modified to include natural attenuation parameters and will consist of the following:

1. Collection of one (1) groundwater sample from each monitoring well utilizing lowflow minimal drawdown sampling techniques during each of four (4) quarterly groundwater sampling events.

Prior to sample collection, all onsite monitoring wells not exhibiting NAPL will be micropurged and sampled 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 L/min will be maintained during the 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.



The monitoring wells will be purged until produced groundwater is consistent in color, clarity, pH, dissolved oxygen (DO), oxidation/reduction potential (ORP), temperature, and conductivity prior to groundwater sample collection.

The groundwater samples will be collected in laboratory prepared glassware and placed on ice in a cooler, which will be secured with a custody seal. The samples will be transported to a selected analytical laboratory along with a completed chain-of-custody form.

The groundwater samples collected from the monitoring wells will be analyzed for TPH GRO/DRO utilizing EPA method SW-846 #8015M and BTEX utilizing EPA Method SW-846 #8021B. In addition, during two (2) of the groundwater sampling events, groundwater samples will be collected for select *Supplemental Geochemical Indicators of Groundwater COC Degradation* including alkalinity, nitrate, ferrous iron, total iron, sulfate, methane, manganese and carbon dioxide.

A summary of the analysis, sample type, sample frequency and EPA-approved methods are presented below:

Analysis	Sample Type	EPA Method #
TPH GRO/DRO	Groundwater	SW-846#015M
BTEX	Groundwater	SW-846#8021B
Alkalinity	Groundwater	SM2320B
Nitrate	Groundwater	SW-846#9056
Ferrous Iron (Fe ²⁺)	Groundwater	SW-846#6010B
Total Iron	Groundwater	SM 3500-Fe D.
Sulfate	Groundwater	SW-846#9056
Methane	Groundwater	RSK 175
Manganese	Groundwater	SW-846#6010B
Carbon Dioxide	Groundwater	SM 4500-CO2

6.0 CORRECTIVE ACTION REPORT

Subsequent to the completion of the source or "pilot study" phase of HVR corrective action activities, a report will be prepared that will include documentation of initial HVR and groundwater monitoring activities, a site plan detailing pertinent site features, laboratory analytical results, an evaluation of corrective action results and recommendations concerning further corrective measures for the Site.



7.0 SCHEDULE

The completion of the proposed pilot study phase of the HVR activities will require an estimated three (3) months after initiation; however, time estimations regarding the completion of corrective actions depend upon several factors, many of which cannot be pre-determined.

Provided the proposed "pilot study" phase of the HVR activities effectively reduces NAPL volumes groundwater in the vicinity of the source, a larger scale and longer term HVR event may be recommended.

8.0 FINDINGS AND RECOMMENDATIONS

The primary objective of the supplemental site investigation activities was to further evaluate the magnitude and extent of NAPL and dissolved phase COCs in groundwater.

The primary objective of the proposed corrective actions is to recover NAPL from the initial groundwater-bearing unit to the extent practical utilizing high-vacuum recovery.

- SWG installed thirteen (13) monitoring wells at the Lindrith Compressor Station utilizing a HSA drilling rig.
- Soil samples collected from soil borings MW-30, MW-32, MW-37, and MW-39 exhibited TPH GRO/DRO concentrations ranging from <110 mg/Kg to 11,250 mg/Kg, which exceed the OCD's *Remediation Action Level* of 100 mg/Kg.
- The soil sample collected from soil boring MW-39 exhibited a benzene concentration of 11 mg/Kg, which exceeds the OCD's *Remediation Action Level* of 10 mg/Kg.
- The soil samples collected from soil borings MW-30, MW-32, MW-37, and MW-39 exhibited total BTEX concentrations ranging from 52.1 mg/Kg to 294 mg/Kg, which exceed the OCD's *Remediation Action Level* of 50 mg/Kg.
- Groundwater samples were not collected from monitoring wells MW-1R, MW-2, MW-3, MW-9, MW-30, MW-32, MW-37 or MW-39, due to the presence of NAPL. Two additional NAPL plumes were identified during the investigation.
- The groundwater samples collected from monitoring wells MW-4, MW-6, MW-12, MW-38, and MW-42 exhibited benzene concentrations ranging from 63 µg/L to 4,900 µg/L which exceeds the WQCC *Groundwater Quality Standard* of 10 µg/L.
- The groundwater sample collected from monitoring well MW-4 exhibited a toluene concentration of 1,700 µg/L which exceeds the WQCC Groundwater Quality Standard of 750 µg/L.



- The groundwater samples collected from monitoring wells MW-4, MW-6, and MW-38 exhibited xylene concentrations ranging from 1,700 µg/L to 1,800 µg/L, which exceed the WQCC Groundwater Quality Standard of 620 µg/L.
- Based on the results of current and previous investigations at the Site, the following source areas are suspected as contributors to the identified soil and/or groundwater impact at the facility:
 - 1.) Former condensate storage tanks and sump in south central facility and possibly the former hydrocarbon tank located southwest of the water tower.
 - 2.) Former pond locations (possible burn pit location) in the southeastern portion of the facility in the vicinity of monitoring wells MW-30 and MW-32.
 - 3.) Subgrade tank in the northwest portion of the facility.
- Dissolve-phase COC groundwater impact in the vicinity of monitoring well MW-12 does not appear to be directly associated to an identified source, and may be the result of an unknown source that has been removed, or possibly the result of a much earlier release from the former condensate tank area.
- Enterprise proposes to implement HVR technology at the Site. The mobile HVR system will be operated at the Site for approximately 90 days. The HVR system has been designed to recover NAPL and associated vapors, which have been identified in association with the initial groundwater-bearing unit in the vicinity of the former condensate storage tanks. The proposed HVR system will be tailored to the specific geology and hydrogeology of the site, and field modifications will be made to optimize system performance.

Based on the results of supplemental investigation and corrective action activities, SWG has the following recommendations:

- Report the results of the investigative and corrective actions to the JANEPO;
- Evaluate future quarterly sampling results and perform additional delineation activities as necessary to further evaluate the extent of the dissolve-phase COCs in groundwater; and,
- Perform "Pilot Study" HVR to evaluate NAPL removal feasibility in the vicinity of the former condensate storage tank release.

















Southwest

Lindrith Compressor Station - Soil Borings SOIL ANALYTICAL SUMMARY											
Sample I.D.	Date	Sample	Benzene	Toluene	Ethylbenzene	Xylenes	Total BTEX	трн	трн	TPH	TPH
	12:50	(feet)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	GRO	DRO	MRO	Total
New Mexico Enterg Department, o Remed	ly, Mineral & Nati Oil Conservation liation Action Lev	ural Resources Division, vel	10	NE	NE	NE	50	(mg/kg) (mg/kg) (mg/kg) (mg/kg) (mg/kg)			
				S	oll Boring Advance	d by Lodestar/L	TE				and the second second second
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-0	12.17.09	35.0	<0.05	0.15	<0.05	0.23	<0.48	12	<10	NA	<22
B-10	10.18.10	22.0	<0.05	10	0.00	2.4	1105	64	<10	100	1124
B-10	10.18.10	45.0	<0.05	<0.05	0.5	<0.10	×4.95	<u>64</u>	<10	<50	VI24
B-11	10,19,10	35.0	2.6	15	33	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
D-17	10.22.10	45.0	<0.05	<0.05	<0.05	<0.10	ND	<5.0	<10	<50	ND
B-18 B-18	10.25.10	33.0	<0.20	0.79	0.98	(.1	<9.67	230	110	120	460
B-10	10.25.10	33.0	<0.05	<0.05	<0.05	<0.10	ND	14	10	<50	ND (92)
B-19	10.25.10	45.0	<0.05	<0.05	<0.05	<0.10	ND	(5.0	<10	<50	K62
B-20	10.25.10	30.0	<1.0	79	6.5	50	(65.4	1 000	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
B-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
B-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	11.01.10	39.0	<0.05	<0.05	<0.05	<0.10	ND	<5.0	<10	<50	ND
B-26	11.02.10	29.0	<0.05	<0.05	<0.05	<0.10	ND	<5.0	<10	<50	ND
D-20	11.02.10	45.0	CU.05	I <0.05	<0.05	<010	ND	<50	<10	1 250	ND

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
		(feet)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	GRO (mg/kg)	DRO (mg/kg)	MRO (mg/kg)	Total (mg/kg)
New Mexico Enten Department, Reme	y, Mineral & Natu Oll Conservation flation Action Lev	iral Resources Division, vel	10	NE	NE	NE	50	100			
B-27	11.02.10	12.0	<0.05	<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
		The states on the	1 2 - 2 - 2 - 2 - 2	WR HERMIT SHE	Soll Boring Adva	nced by SWG		A State of the sta			a second second second second
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	1,710
MW-38	8.19.11	34.0	<0.049	<0.049	<0.049	<0.098	ND	<4.9	<10	NA	ND
MW-38	8.19.11	28.0	<0.048	<0.048	<0.048	<0.096	ND	<4.8	<9.8	NA	ND
MW-39	8.22.11	31.0	11	18	35	230	294	7,600	990	NA	8,590
MW-40	8.23.11	32.0	<0.048	< 0.048	<0.048	<0.096	ND	<4.8	<9.8	NA	ND
MW-40	8.23.11	35.0	<0.047	<0.047	<0.047	<0.093	ND	<4.7	<10	NA	ND
MW-41	8.23.11	30.0	<0.048	<0.048	<0.048	<0.095	ND	<4.8	<9.9	NA	ND
MW-42	8.23.11	27.0	<0.048	<0.048	0.058	0.85	0.908	15	12	NA	27

TABLE 1

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					
Lindrith Compressor Station											
	GROUNDWATER ANALYTICAL SUMMARY										
					Contract of the last	1. 1. 1. 1. 1. 1.					and the second second
Sample I.D.	Date	Benzene	Toluene	Ethylbenzene	Xylenes	TPH	TPH	TPH	рН	Nitrate	Iron
		(µg/L)	(µg/L.)	(µg/L)	(µg/L)	GRO	DRO	MRO			ALC: NOTE: SAL
			and the second second			(mg/L)	(mg/L)	(mg/L)	(Standard Units)	(mg/L)	(mg/L)
New Mexico Wat	ter Quality Control										
Commission G	roundwater Quality	10	750	750	620	NE	NE	NE	6-9	10	1.0*
Stan	12 30 00	1.900	2 600	120	870	NA	NA	NA	NA	NA	NA
MAY 1D	11.16.10	NAPI	NADI	NADI	NADI	NAPI	NAPI	NADI	NA	NA	NA
MW-IR	6.24.11	NAPL	NAPI	NAPL	NAPI	NAPI	NAPI	NAPI	NA	NA	NA
MW-IR MW-IR	0.24.11	NAPI	NAPI	NAPI	NAPI	NAPI	NAPL	NAPI	NA	NA	NA
MALO	12 20 00	2,000	2 200	270	1,000	NIA	NIA	NA	NA	NA	NA
MW/2	12.30.09	NAPI	NAPI	NAPI	NAPI	NAPI	NAPI	NAPI	NA	NA	NA
MW/2	6 24 11	NADI	NAPL	NADI	NADI	NAPI	NAPI	NAPI	NA	NA	NA
MW-2	0.24.11	NAPI	NAPI	NAPL	NAPI	NAPI	NAPI	NAPI	NA	NA	NA
MW2	12 20 00	120	370	76	520	NA	NA	NA	NA	NA	NA
MW-3	12.30.09	5500	67	250	1,000	16	<10	(5.0	7.16	<1.0	210
MW-3	6.24.11	5,300	3 300	340	2,300	31	17	NA	NA	NA	NA
MW-3	0.24.11	NAPI	NAPI	NAPI	NAPI	NAPI	NAPI	NAPL	NA	NA	NA
MIN A	11.16.10	2,600	1.600	280	1 700	0.25	21	(5.0	6.03	<1.0	470
MIN-4	6 24 11	2,000	1,600	200	1,100	26	<u> </u>	NA	NA	NA	NA
MW/4	0.24.11	3,900	1,000	220	1,700	32	11	NA	NA	NA	NA
MAN F	9.21.11	4,000	1,100	200	1,100	32	1.1	(F.O.	6.92	<10	47
MIVY-5	6.24.11	4,4		0.3	10	0.52	1.4	NIA	0.02 NIA	NA NA	NIA
MW-5	0.24.11	1.2		31	0.7	0.52	11	NA	NA	NA .	NA
MW-5	9.21.11	1.9	<1.0 65	3.0	1,200	0.02	1.1	15.0	GE7	<1.0	140
MW-0	6.24.11	2,400	69	230	1,200	0.42	1.4	NIA	0.57	NIA	NIA
MW-0	0.24.11	4,500	67	230	1,200	20	1.0	NA	NA	NA	NA
MW-0	9.21.11	4,900	07	50	1,500	15	1.4	(F.O.	7.20	<1.0	52
MIW-7	6.24.11	0,9	2.0	5.9		0.25	<1.0	NIA	NIA	NA NA	NA
MW-7	0.24.11	33	<1.0	<1.0	4.9	0.53	<1.0	NA	NA	NA	NA
MW-7	11.15.10	5.5	<1.0	<1.0	4.0	<0.050	<1.0	<5.0	7.36	<1.0	78
MW/0	6.24.11	<1.0		<1.0	(2.0	<0.050	<1.0	NA	NA	NA	NA
MW-8	0.24.11	(1.0	<1.0	<1.0	20	<0.050	<1.0	NA	NA	NA	NA
MW-0	11.16.10	NAPI	NAPI	NAPI	NAPI	NAPL	NAPI	NAPI	NA	NA	NA
MW-9	6 24 11	NAPI	NAPL	NAPI	NAPI	NAPI	NAPI	NAPI	NA	NA	NA
MW-9	92111	NAPL	NAPL	NAPL	NAPL.	NAPL	NAPL	NAPL	NA	NA	NA
MW/10	11 15 10	<10	<10	<10	20	<0.050	(10	<50	7.57	<1.0	52
MW-10	624.11	<1.0	<1.0	<1.0	20	<0.050	<1.0	NA	NA	NA	NA
MW-10	9,20,11	<1.0	<1.0	<1.0	20	<0.050	<1.0	NA	NA	NA	NA
MW-11	11.16.10	(10	<1.0	<10	20	<0.050	<10	<50	7.09	<10	13
MW-11	62411	<1.0	<1.0	<1.0	20	<0.050	<1.0	NA	NA	NA	NA
MW-11	9.20.11	<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	13	<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-30	9.21.11	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NA	NA	NA
MW-31	9.20.11	<1.0	1.2	1.1	7.4	0.23	<1.0	NA	NA	NA	NA
MW-32	9.21.11	NAPL	NAPI	NAPL	NAPI	NAPI	NAPI	NAPI	NA	NA	NA
MW-33	92011	<10	<10	<10	(20	<0.050	<1.0	NA	NA	NA	NA
MW-34	9 20 11	<1.0	<1.0	(10	(2.0	<0.050	<1.0	NA	NA	NA	NA



TABLE 2 Lindrith Compressor Station GROUNDWATER ANALYTICAL SUMMARY

Sample I.D.	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	TPH GRO	TPH DRO	TPH MRO	рН	Nitrate	Iron
		A SALE DITANT				(mg/L)	(mg/L)	(mg/L)	(Standard Units)	(mg/L)	(mg/L)
New Mexico Wat Commission Gr Stan	er Quality Control oundwater Quality dards	10	750	750	620	NE	NE	NE	6-9	10	1.0*
MW-35	9.21.11	<1.0	<1.0	<1.0	<2.0	<0.050	<1.0	NA	NA	NA	NA
MW-36	9.21.11	<1.0	<1.0	<1.0	<2.0	0.15	<1.0	NA	NA	NA	NA
MW-37	9.21.11	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NA	NA	NA
MW-38	9.21.11	2,100	440	270	1,800	26	1.3	NA	NA	NA	NA
MW-39	9.21.11	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	NA	NA	NA
MW-40	9.20.11	<1.0	<1.0	<1.0	<2.0	0.21	<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-42	9.20.11	70	42	4.1	33	0.62	<1.0	NA	NA	NA	NA

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

NA = Not Analyzed

NE = Not Established

NAPL = Non-aqueous phase liquid

* = Relpaced by MW-IR



TABLE 3Lindrith Compressor StationGROUNDWATER ELEVATIONS

Well I.D.	Date	Depth to Product (feet BTOC)	Depth to Water (feet BTOC)	Product Thickness	TOC Elevations (feet AMSL)	Groundwater Elevation* (feet AMSL)
MW-1B	11 11 10	31.73	33.20	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-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-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-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
MW-4	9.21.11	ND	34.46	ND	6493.99	6459.53
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-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-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-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-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-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-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



TABLE 3Lindrith Compressor StationGROUNDWATER ELEVATIONS

Well I.D.	Date	Depth to Product (feet BTOC)	Depth to Water (feet BTOC)	Product Thickness	TOC Elevations (feet AMSL)	Groundwater Elevation* (feet AMSL)
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-30	9.21.11	36.06	36.14	0.08	6498.21	6462.12
MW-31	9.21.11	ND	37.99	ND	6498.24	6460.25
MW-32	9.21.11	37.42	38.31	0.89	6499.30	6461.55
MW-33	9.21.11	ND	32.90	ND	6493.04	6460.14
MW-34	9.21.11	ND	34.50	ND	6488.60	6454.10
MW-35	9.21.11	ND	34.36	ND	6485.71	6451.35
MW-36	9.21.11	ND	35.16	ND	6496.77	6461.61
MW-37	9.21.11	32.58	33.10	0.52	6492.96	6460.19
MW-38	9.21.11	ND	34.68	ND	6495.10	6460.42
MW-39	9.21.11	31.83	33.12	1.29	6486.85	6454.54
MW-40	9.21.11	ND	35.47	ND	6498.65	6463.18
MW-41	9.21.11	ND	32.67	ND	6487.00	6454.33
MW-42	9.21.11	ND	29.97	ND	6490.10	6460.13

BTOC - below top of casing

AMSL - aboce mean sea level

TOC - top of casing

* - 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
DRILLING & SAMPLING INFORMATION Ite Started: 8.15.11 Ite Completed: 8.15.11 Ite Completed: 8.15.11 Itiling Company: Enviro-Drill Iller: Rodney Hammer cologist: Kyle Summers. C.P.G. well Diam: Screen Size: rring Method: HSA nring Method: HSA Screen Length: Casing Length: BORING METHOD SS - DRIVEN SPLIT SPOON FA - HOLLOW STEM AUGERS CB - FIVE FOOT CORE BARREL GP - GEOPROBE SS - DRIVEN SPLIT SPOON AR - AIR ROTARY ST - PRESSED SHELBY TUBE SOIL CLASSIFICATION Y AT WELL STA	Soil Boring: <u>MV</u> Project #: <u>04</u> Drawn By: <u>C</u> Approved By: <u>K</u> NA NA NA NA NA NA VATER DEPTH ON BILIZATION	V-30 L1 00006 risti Randolph (vle Summers tonndwater Debth tonndwater Debth	BORING AND SAMPLING NOTES
SILTY SAND, Moderate Yellowish Brown, Dry, No Odor CLAYEY SILT, Dark Yellowish Brown, Dry, Hard No Odor SILTY SAND, Moderate Yellowish Brown, Dry, No Odor SHALEY SAND, Pale Olive, Very Slight Moisture, Slight Petroleum Hydrocarbon Odor SANDSTONE, Light Olive Gray to Yellowish Gray, Slight Moisture, Faint Petroleum Hydrocarbon Odor		0 0 0 1 0 0 1 0 0 0 0 0 2 16 46 - - - 5 - - 10 - - 10 - - 10 - - 10 - - 11 - - - 10 - - - 10 - - - 10 - - - -	Too Hard Switch to Split Spoon

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roject Location: <u>Rio Arriba County, NM</u>	MONITORIING WELL LOG
roject Manager: Kyle Summers DRILLING & SAMPLING INFORMATION	Soil Boring: <u>MW-30 (continued)</u>
ate Started: 8.15.11	_ Project #: 0410006
ate Completed: 8.15.11	Drawn By: Cristi Randolph
rilling Company: Enviro-Drill	Approved By: Kyle Summers
riller: Rodney Hammer	_
eologist: Kyle Summers, C.P.G. Well Diam:	NA
oring Method: HSA Screen Size:	NA
ore Hole Dia: 8" Screen Leng	h: NA
ampler OD: 3.5" Casing Length BORING METHOD SAMPLER TYPE HSA - HOLLOW STEM AUGERS CB - FIVE FOOT CORE BARREL GROUN CFA - CONTINUOUS FLIGHT AUGERS SS - DRIVEN SPLIT SPOON ▼ AT COMPL GP - GEOPROBE ST - PRESSED SHELBY TUBE ▼ AT WELL S	h: NA IDWATER DEPTH ETION TABILIZATION
SOIL CLASSIFICATION	epth epth ample Inter ample Inter foundwater foundwater
SORFACE ELEVATION.	
Slight Moisture, Faint Petroleum Hydrocarbon Odor	
NOTE: This log is not to be used outside of the original report.	Southwes

P

oject Name: Lindreth Compressor Station oject Location: Rio Arriba County, NM oject Manager: Kyle Summers DRILLING & SAMPLING INFORMATION te Started: 8.15.11 te Completed: 8.15.11 Illing Company: Enviro-Drill Iller: Rodney Hammer		Soil Bo Project Drawn Approv	MO	MW-3 O410 Cris ^:Kyl	OR 31 0006 ti Ran e Sun	dolp nme	G W	ELL LOG
ologist: Kyle Summers, C.P.G. ring Method: HSA re Hole Dia: 8" mpler OD: 3.5" BORING METHOD HSA-HOLLOW STEM AUGERS CPA-CONTINUOUS FLIGHT AUGERS GP-GEOPROBE AR-AIR ROTARY SOIL CLASSIFICATION SURFACE ELEVATION:	Well Diam: Screen Size: Screen Length:_ Casing Length:_ L GROUNDV ▼ AT COMPLETIN ▼ AT WELL STA	NA NA NA NA WATER DI ON BILIZATIO	Depth Scale	Sample No.	Sample Interval % Recovery	Groundwater Depth	(mqq) sedings (ppm)	BORING AND SAMPLING NOTES
SILTY SAND, Moderate Yellowish Brown Yellowish, Dry, No Odor SILTY SAND with some GRAVEL, Moder Yellowish Brown, Dry, Hard 5' - 6', No Od SILTY SAND, Pale Yellowish Brown to M Yellowish Brown, Dry, No Odor SILTY SAND with CLAY, Moderate Yellow Hard, Dry, Sligh Petroleum Hydrocarbon SANDSTONE, Very Fine to Fine, Yellowis Pale Yellowish Brown, Dry No Odor	to Pale ate dor oderate wish Brown, Staining sh Gray to			57 - 107			5 1 1 1 0 0 0 0 0 0 0 0 0 1 0 0 2 0 1 0 0 1 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0	After 15' - Too Hard Switch to Split Spoon

Client: Enterprise Field Services, LLC Project Name: Lindreth Compressor Station	MONITORIING WELL LOG
Project Location: <u>Rio Arriba County, NM</u> Project Manager: <u>Kyle Summers</u>	
DRILLING & SAMPLING INFORMATION	Soil Boring: <u>MW-31 (continued)</u> Project #: 0410006
Date Completed: 8.15.11	Drawn By: Cristi Randolph
Drilling Company: Enviro-Drill	Approved By: Kyle Summers
Geologist: Kyle Summers C.P.G. Well Diam:	NA
Boring Method: HSA Screen Size:	NA
Bore Hole Dia: 8" Screen Length	<u>NA</u>
Sampler OD: 3.5" Casing Length BORING METHOD SAMPLER TYPE HSA. HOLLOW STEM AUGERS CB - FIVE FOOT CORE BARREL GROUND CFA. CONTINUOUS FLIGHT AUGERS SS - DRIVEN SPLIT SPOON X AT COMPLET GP - GEOPROBE ST - PRESSED SHELBY TUBE X AT WELL ST	MA WATER DEPTH TION ABILIZATION
SOIL CLASSIFICATION	peth mple npple vPID Rx
SURFACE ELEVATION:	Den
SANDSTONE, Light Olive, Gray to Yellowish Gray, Slight Moisture, Faint Petroleum Hydrocarbon Odor End of Boring @ 40'	
NOTE: This log is not to be used outside of the original report.	Southwes
	GEOSCIENCE

nt: Enterprise Field Services, LLC							
ect Name: Lindreth Compressor Station		MO	NIT	OR	IIN	GW	ELL LOG
ect Manager: Kyle Summers							
	-						
DRILLING & SAMPLING INFORMATION	Soil B	soring:	MW-3	12	-		
Completed: 8.16.11	_ Projec	n Bv:	Cris	ti Ran	dolr	b	
ing Company: Enviro-Drill	ADDIG	oved By	Chis	e Sur	nme	rs	
er: Rodney Hammer							
logist: Kyle Summers, C.P.G. Well Diam:	NA		Г	Т	Γ		
ing Method: HSA Screen Size:	NA		_				
e Hole Dia: Screen Lengt	h: <u>NA</u>	_					
POPING METHOD Casing Lengt	h: <u>NA</u>		-			e	BODING AND
HSA - HOLLOW STEM AUGERS CB - FIVE FOOT CORE BARREL CFA - CONTINUOUS FLIGHT AUGERS GP - GEOPROBE AR - AIR ROTARY CB - FIVE FOOT CORE BARREL SS - DRIVEN SPLIT SPOON ST - PRESSED SHELBY TUBE TUBE	DWATER I ETION TABILIZATI	DEPTH		nerval	ater Depth	teadings (ppr	SAMPLING NOTES
SOIL CLASSIFICATION	tum	le	nple	ecove	wpun	A CII A	
SURFACE ELEVATION:	Stre	Del	No.	% R	Gro	EID	and the second se
SILTY SAND, Moderate to Yellowish Brown, Dry, No			T		Г	1	
Odor		1				2	
						3	
		-				3	
CLAYEY SILT, Moderate Yellowish Brown to Dark		5 _				0	
SILTY SAND Moderate Vellowish Tap, Dry, No Odor		-				0	
SILTE SAND, MODERAIE FEITOWISH FAIT, Dry, NO OUD						2	
SILT, Moderate to Dark Yellowish Brown, Dry, Hard,						2	
No Odor		-				2	
SILTY SAND, Dark Yellowish Brown, Dry, Firm, No		10 —				3	
Odor						2	
SAND, Moderate Yellowish Brown, Loose, Fine to						2	
Very Fine, Dry, No.Odor						3	
SILT/SAND, Moderate Yellowish Brown to Dusky		15 —				4	Core Refused @ 15'
SANDSTONE Moderate Cray Slightly Maist No.		-				070	Switch to Split Sppon
Odor Possible Staining			0-17			070	Switch to Split Sppon
Odor, Possible Stairing							
and the second se		20				669	
SHALE/MUDSTONE, Moderate Dark Gray, Slightly		-					
Moist, Petroleum Hydrocarbon.Odor		-					
SANDSTONE, Moderate Gray, Slight Moisture, Hard,		-				551	
Petroleum Hydrocarbon Odor		-				105	
		25 —				406	
		-				477	
		-					
		-					
		-				333	
		30 -					
						557	Not Enough to Sample
SILTY SANDSTONE/SHALEY SANDSTONE, Light							Wet @ 35'
Brown to Moderate Gray, Iron Staining			L				101 6 00
			and the second se		1 1 1 1 1 1	and the second se	

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ent:Enterprise Field Services, LLC pject Name:Lindreth Compressor Station pject Location:Rio Arriba County, NM	MONI	TORIING WEL	L LOG
DRILLING & SAMPLING INFORMATION te Started: 8.16.11 te Completed: 8.16.11 ling Company: Enviro-Drill	Soil Boring: <u>MV</u> Project #: <u>04</u> Drawn By: <u>C</u> Approved By: k	V-32 (continued) +10006 risti Randolph (vle Summers	
Iller: Rodney Hammer ologist: Kyle Summers, C.P.G Well Diam: ring Method: Screen Size:	NA NA		
re Hole Dia: 8" Screen Length: mpler OD: 3,5" Casing Length: BORING METHOD SAMPLER TYPE HSA- HOLLOW STEM AUGERS CB - FIVE FOOT CORE BARREL CFA- CONTINUOUS FLIGHT AUGERS SS - DRIVEN SPLIT SPOON GP- GEOPROBE ST - PRESSED SHELBY TUBE TO COMPLET AR - AIR ROTARY ST - PRESSED SHELBY TUBE	NA NA WATER DEPTH JON ABILIZATION	rerval ry ater Depth eadings (ppm)	BORING AND SAMPLING NOTES
SOIL CLASSIFICATION SURFACE ELEVATION:	Stratum Depth Scale Sample No.	% Recove Groundwy FID/PID R	
End of Boring @ 40'			
NOTE: This log is not to be used outside of the original report.		C	outhwes

ject Location: <u>Rio Arriba County. NM</u> ject Manager: <u>Kyle Summers</u> DRILLING & SAMPLING INFORMATION e Started: <u>8.17.11</u> e Completed: <u>8.17.11</u> ling Company: <u>Enviro-Drill</u> ler: <u>Rodney Hammer</u>	Monitoring Well N Project #:04 Drawn By:R Approved By:K	URI Iumber I0006 DH Vie Sur	mme	J W 1W-33 rs	
blogist: Kyle Summers, C.P.G. Well Diam: ring Method: HSA Screen Size: re Hole Dia: 8" Screen Length: npler OD: 3.5" Casing Length: BORING METHOD SAMPLER TYPE Casing Length: HSA-HOLLOW STEM AUGERS CB - FIVE FOOT CORE BARREL GROUNDW GP- GEOPROBE SS - DRIVEN SPLIT SPOON ST - PRESSED SHELBY TUBE T COMPLETIC AT WELL STAF SOIL CLASSIFICATION SURFACE ELEVATION: SURFACE ELEVATION:	0.01" 10' 30' VATER DEPTH ON BILIZATION Scale Voide South Station	Sample Interval % Recovery	Groundwater Depth	FID/PID Readings (ppm)	BORING AND SAMPLING NOTES
No Odor SILTY SAND, Moderate Yellowish Brown to Dark Yellowish Brown, Loose, Dry, No Odor SILTY SAND, Moderate Yellowish Brown to Pale Brown, Loose, Dry, No Odor				3 3 6 5 3 1 4 2 4 5 4 4 4 4 1 4	Switch to Split Spoon @ 16 ft bgs
SHALEY SAND, Pale Tan, Dry, No Odor SILTY SANDSTONE with some CLAY content, Pale Yellowish Brown to Moderate Yellowish Brown,				· · · · · · · · · · · · · · · · · · ·	
Dark Iron Staining in Cracks, Moist @ 34', No Odor			1 ¥		

lient: Enterprise Field Services, LLC roject Name: Lindreth Compressor Station roject Location: Bio Arriba County, NM	MONITORIING WELL LOG
roject Manager: Kyle Summers	Monitoring Well Number MW-33 (Continued)
DRILLING & SAMPLING INFORMATION	Project #: 0410006
ate Completed: 8.17.11	Drawn By: BDH
rilling Company: Enviro-Drill	Approved By: Kyle Summers
priller:	
eologist: Kyle Summers, C.P.G. Well Diam:	
oring Method: HSA Screen Size:	0.01"
ore Hole Dia: 8" Screen Length:	10'
ampler OD: 3.5" Casing Length:	30'
BORING METHOD SAMPLER TYPE HSA -HOLLOW STEM AUGERS CB - FIVE FOOT CORE BARREL GROUND' CFA - CONTINUOUS FLIGHT AUGERS SS - DRIVEN SPLIT SPOON ▼ AT COMPLET GP - GEOPROBE ST - PRESSED SHELBY TUBE ▼ AT WELL STA	WATER DEPTH
SOIL CLASSIFICATION SURFACE ELEVATION:	Straturm Bepth Sample No. % Recove Groundwy PID/PID R
SHALEY SAND (continued), Moderate Gray, Wet, No Odor	
Bonom of Bonng e 40 h 5go	
	55
B. China Base of the second	
	60
	65 -
NOTE: This log is not to be used outside of the original report.	Couthwes
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ent:Enterprise Field Services, LLC bject Name:Lindreth Compressor Station bject Location:Rio Arriba County, NM bject Manager:Kyle Summers	MONITORIING WELL LOG
DRILLING & SAMPLING INFORMATION te Started: 8.17.11 te Completed: 8.17.11 lling Company: Enviro-Drill	Monitoring Well Number: <u>MW-34</u> Project #: <u>0410006</u> Drawn By: <u>RDH</u> Approved By: <u>Kyle Summers</u>
Incl. Incl. <t< th=""><th>O.01" I.15' 25' WATER DEPTH ON BBILIZATION UN BORING AND SAMPLING NOTES</th></t<>	O.01" I.15' 25' WATER DEPTH ON BBILIZATION UN BORING AND SAMPLING NOTES
 Hard, Dry, No Odor SILTY SAND, Pale Yellowish Brown, Loose, Very Fine Grained, Dry, No Odor SILTY SAND, Pale Yellowish Brown, Stiff, Dry, No Odor SILTY SAND, Pale Yellowish Brown, Loose, Very Fine Grained, Dry, No Odor SILTY SAND, Pale Yellowish Brown, Loose, Very Fine Grained, Dry, No Odor SILTY SAND, Pale Yellowish Brown, Stiff, Dry, No Odor SILTY SAND, Pale Yellowish Brown, Loose, Very Fine Grained, Dry, No Odor SILTY SAND, Slightly Coarser, Slightly Moist, No Odor SANDSTONE, Yellowish Gray to Dusky Yellow to Light Olive Gray, Fine Grained, Slight Clay Content @ 30 ft bgs, Slightly Moist, No Odor, Slight Hydrocarbon Odor @ 30 ft bgs 	$ \begin{bmatrix} 0 & 0 & 0 \\ 0$
NOTE: This log is not to be used outside of the original report.	

ect Name: Lindreth Compressor Station		MO	NIT	OF	III	٩G	WE	LL LOG
ect Manager: Kyle Summers								
DRILLING & SAMPLING INFORMATION	Monito	vring W	Vell Ni	mb	er.	M	V-34 ICc	antinued)
e Started: 8.17.11	Projec	ning v t #·	041		er:_	IVIV	V-34 (CC	shanded)
e Completed: 8.17.11	Drawn	BV:	RD	H				
ing Company: Enviro-Drill	Appro	ved B	V:K	le S	um	ners	;	
er: Rodney Hammer								
ologist: Kyle Summers, C.P.G. Well Diam:			- 1		Т			
ing Method: HSA Screen Size:	0.01"							
e Hole Dia: 8"Screen Length:	15'							
pler OD: 3.5" Casing Length:	25'					1	2	
BORING METHOD SAMPLER TYPE HSA - HOLLOW STEM AUGERS CB - FIVE FOOT CORE BARREL GROUNDM CFA - CONTINUOUS FLIGHT AUGERS SS - DRIVEN SPLIT SPOON ▼ AT COMPLETING GP - GEOPROBE ST - PRESSED SHELBY TUBE ▼ AT WELL STAN AR - AIR ROTARY ▼ AT WELL STAN ▼	WATER D ION BILIZATIO	DEPTH		terval	y.	iter Depth	nqq) sgrings	BORING AND SAMPLING NOTES
SOIL CLASSIFICATION	atum spih	ipth ale	mple	mple Int	Recover	empuno	OPID Re	
SURFACE ELEVATION:	De	SC	No	Sa	%	ē	H	
CLAYEY SANDSTONE (continued)		-				-	0	
SILTY SANDSTONE, Light Olive Gray to Moderate		-				L		
Yellowish Brown, Very Slightly Clayey		40				Γ		
Bottom of Boring @ 40 ft bgs						Γ		
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NOTE: This log is not to be used outside of the original report.	I	÷				_	6	outhwee
NOTE: This log is not to be used outside of the original report.	l	-					5	outhwes

nt:Enterprise Field Services, LLC ject Name:Lindreth Compressor Station ject Location:Rio Arriba County, NM	MONITORIING WELL LOG
DRILLING & SAMPLING INFORMATION e Started: 8.17.11 e Completed: 8.17.11 ing Company: Enviro-Drill ler: Bodgey Hammer	Monitoring Well Number: <u>MW-35</u> Project #: <u>0410006</u> Drawn By: <u>RDH</u> Approved By: <u>Kyle Summers</u>
Ct. Kodaley Halline ologist: Kyle Summers, C.P.G. Well Diam: ing Method: HSA Screen Size: e Hole Dia: 8" Screen Length: poler OD: 3.5" Casing Length: BORING METHOD SAMPLER TYPE Casing Length: HSA-HOLLOW STEM AUGERS CB - FIVE FOOT CORE BARREL GROUND CFA- CONTINUOUS FLIGHT AUGERS SS - DRIVEN SPLIT SPOON X AT COMPLET GP- GEOPROBE ST - PRESSED SHELBY TUBE X AT WELL STA AR - AIR ROTARY SOIL CLASSIFICATION X AT WELL STA	O.O.1" 15' 22' WATER DEPTH So BILIZATION BILIZAT
SILTY SAND, Moderate Yellowish Brown, Fairly Fine Grained, Dry, No Odor SILTY SAND, Moderate Yellowish Brown, Fairly Loose, Dry, No Odor SILTY SAND, Moderate Yellowish Brown to Pale Yellowish Brown, Loose, Firm @ 13 - 15.5 ft bgs, Dry, No Odor	
SAND, Moderate Yellowish Brown, Fine Grained, Moist, No Odor SAND, Moderate Yellowish Brown, Slightly Clayey, Moist, No Odor	
SAND with CLAY, Yellowish Gray, Wet @34.5', No	



Client: Enterprise Field Services, LLC			
Project Location: Rio Arriba County, NM	MON	ITORIING WE	ELL LOG
Project Manager: Kyle Summers			
DRILLING & SAMPLING INFORMATION	Monitoring We	Il Number MW-35 (C	continued)
Date Started: 81711	Project #	0410006	orminded)
Date Completed: 8,17,11	Drawn By:	RDH	
Drilling Company: Enviro-Drill	Approved By:	Kyle Summers	
Driller: Rodney Hammer	_		
Geologist: Kyle Summers, C.P.G. Well Diam:			
Boring Method: HSA Screen Size:	0.01"	_	
Bore Hole Dia: 8" Screen Lengt	h: <u>15'</u>		
Sampler OD: 3.5" Casing Lengt BORING METHOD SAMPLER TYPE HSA-HOLLOW STEM AUGERS CB - FIVE FOOT CORE BARREL GROUN CFA-CONTINUOUS FLIGHT AUGERS SS - DRIVEN SPLIT SPOON AT COMPLI GP-GEOPROBE ST - PRESSED SHELBY TUBE AT WELLS	h: 22' IDWATER DEPTH ETION TABILIZATION	val r Depth lings (ppm)	BORING AND SAMPLING NOTES
	Т <u>е</u> <u>е</u>	le Inter overy dwate	
SUBFACE ELEVATION	epth cale	o. roun ID/PI	
BONTAGE ELEVATION.	ν Ω σ σ σ	Z 0 % 0 E	
SAND with CLAY (continued)		30'	
SAND, Dusky Yellowish Brown, Dark Staining, Wet, No Odor		2	
Bottom of Boring @ 37 ft bgs	-		
	40		
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a condition of the second s	50 -		
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HOTE. THIS ION IS IN THE OF USED OUTSIDE OF THE ORIGINAL TEPOT.		C	outhwes
	and the second second		CEOCON
			GEOSCIENC

Enterprise Field Services, LLC						
ct Name: Lindreth Compressor Station	M	IONIT	OR	IIN	IG W	ELL LOG
ct Location: <u>Rio Arriba County, NM</u>						
a manager: Kyle Summers						
DRILLING & SAMPLING INFORMATION	Monitorin	ng Well M	Numbe	er:	MW-36	
Started: 8.18.11	Project #	:04	1000	6	-	
Completed: 8.19.11	Drawn B	y:R	DH			
g Company: <u>Enviro-Drill</u>	Approve	d By:k	yle Si	umn	ners	
Rodney Hammer				-		and the second sec
gist: <u>Kyle summers, C.P.G.</u> weil Diam:	0.01		11		1 1	
g Melhod: HSA Screen Lend	0.01"		11			
ler OD: 3.5" Casing Leng	oth: 25'		11			
BORING METHOD SAMPLER TYPE A - HOLLOW STEM AUGERS CB - FIVE FOOT CORE BARREL GROUN A - CONTINUOUS FLIGHT AUGERS SS - DRIVEN SPLIT SPOON ▼ AT COMPL P - GEOPROBE ST - PRESSED SHELBY TUBE ▼ AT WELL S	NDWATER DEF ETION STABILIZATION	тн	Interval	ery	Readings (ppm)	BORING AND SAMPLING NOTES
SOIL CLASSIFICATION	E C C C C C C C C C C C C C C C C C C C	ple	ple	ecol	DID DI	
SURFACE ELEVATION:	Stra Dep	Sca San No.	San	% R	HD/	Same and the same of the
SILTY SAND & CRAVEL Moderate Vellowick	1 100000	1	TT	T	TT	
Brown Dry No Odor		1				
Brown, Dry, NO Odor		1				
Hand Dug		-			-	
NO RECOVERY	5	-				
		1			1	
and the second		1				
Contraction of the second s	-		11			
SILTY SAND, Moderate to Dark Yellowish Brown,		1			3	
Dusky Yellow Brown @ 17 - 18 ft bgs, Fine to Very	10	-			2	
Fine Grained, Slightly Moist, No Odor		1			1	
		1			0	
]			0	
	15				0	
	15	-			0	
and the second		-			0	
		-			0	
CLAYEY SAND, Moderate Yellowish Brown, Moist, No Odor		-			0	
bos Fine to Very Fine Grained Moist No Odor	20	-			0	
SAND, Pale Yellowish Brown, Fine to Very Fine		1				
Grained Moist No Odor		-			H	
		-			0	
		1			0	
SANDSTONE, Yellowish Gray, Slightly Moist, No Odor	25	1			2	
]			0	
INTERBEDDED CLAY/MUDSTONE & SANDSTONE, Light Olive Gray		_			2	
Grading to Pale Yellowish Brown & Dark Yellowish Orange, Think Da	IK XX	-			0	
organic material e so it bgs, moist, no odor	30	297-307			196	
SAND, Black, Moist, No Odor		-			-	
		-			<u> </u>	
		-			2	
and the second sec		-			1	
	the second se	 12.41 (add) 				

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ient: Enterprise Field Services, LLC	
roject Name: Lindreth Compressor Station	MONITORIING WELL LOG
oject Location: <u>Rio Arriba County, NM</u>	
oject Manager: Kyle Summers	
DRILLING & SAMPLING INFORMATION	Monitoring Well Number: <u>MW-36 (Continued)</u>
ate Started: 8.18.11	Project #: 0410006
ate Completed: 8.19.11	Drawn By: RDH
rilling Company: <u>Enviro-Drill</u>	Approved By: Kyle Summers
riller: Rodney Hammer	
eologist: Kyle Summers, C.P.G. Well Diam	a:
oring Method: HSA Screen Si	ze: 0.01"
ore Hole Dia: 8" Screen Le	ength: 15'
ampler OD: 3.5" Casing Letter BORING METHOD SAMPLER TYPE HSA +HOLLOW STEM AUGERS CB - FIVE FOOT CORE BARREL GR CFA - CONTINUOUS FILIGHT AUGERS SS - DRIVEN SPLIT SPOON ▼ AT CO GP - GEOPROBE ST - PRESSED SHELBY TUBE ▼ AT WE	OUNDWATER DEPTH MPLETION CLL STABILIZATION
SOIL CLASSIFICATION SURFACE ELEVATION:	Straturm Septh Sample No. % Recover FID/PID Re
SAND (Continued)	
CLAYEY SAND, Moderate Grav	
Bottom of Boring @ 40 ft bgs	40 -
	45
	50
	55
	60
	65 -
a start of the sta	
NOTE: This log is not to be used outside of the original report	n. Oouthruge
	Soumwes
	GEOSCIENC

ect Name: Lindreth Compressor Station ect Location: Rio Arriba County, NM ect Manager: Kyle Summers	MONITORIING WELL LOG
DRILLING & SAMPLING INFORMATION Started: 8.19.11 Completed: 8.19.11	Monitoring Well Number: <u>MW-37</u> Project #: <u>0410006</u> Drawn By: <u>RDH</u>
ing Company: <u>Enviro-Drill</u> er: Bodney Hammer	Approved By:Kyle Summers
Iogist: Kyle Summers, C.P.G. Well Diam: ng Method: HSA Screen Size e Hole Dia: 8" Screen Ler pler OD: 3.5" Casing Ler BORING METHOD SAMPLER TYPE Casing Ler F6A - HOLLOW STEM AUGERS CB - FIVE FOOT CORE BARREL GRO GP - GEOPROBE ST - PRESSED SHELBY TUBE AT WELL SOIL CLASSIFICATION SOIL CLASSIFICATION	UDWATER DEPTH
SURFACE ELEVATION:	Preparation Desparation Description Descripti Description Description Description Description Descript
SILTY SAND & GRAVEL, Moderate Yellowish Brown, Dry No Odor Hand Dug SILTY SAND, Pale to Moderate Yellowish Brown, Slightly Moist, No Odor SILTY SAND, Moderate Yellowish Brown, Fine Grained, Slightly Moist, No Odor SAND, Moderate to Dark Yellowish Brown, Moist, 1 Odor SILTY CLAY, Dark Yellowish Brown SILTY CLAY, Dark Yellowish Brown SILTY CLAY, Dark Yellowish Brown Moist, No Odor SHALEY SAND, Moderate Yellowish Brown, Moist, Petroleum Hydrocarbon Odor	

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Project Name:Lindreth Compressor Station Project Location:Rio Arriba County, NM Project Manager:Kyle Summers		MON	то	RII	INC	g we	ELL LOG
DRILLING & SAMPLING INFORMATION Date Started: 8,19,11		Monitoring We Project #:	l Num 04100	ber: 006	M	W-37 (0	Continued)
Date Completed: 8,19,11		Drawn By:	RDH				and the second sec
Drilling Company:_Enviro-Drill		Approved By:	Kyle	Sum	nme	s	
Driller: Rodney Hammer							
Geologist: Kyle Summers, C.P.G.	Well Diam:			Т			the second se
oring Method: HSA	Screen Size:	0.01"					
ore Hole Dia: 8"	Screen Length:	15'					
ampler OD: 3.5"	Casing Length:	25'					
BORING METHOD ISA - HOLLOW STEM AUGERS CFA - CONTINUOUS FLIGHT AUGERS GP - GEOPROBE AR - AIR ROTARY SOUL OL ASSUEIC A TION	GROUNDWAT		le Interval	overy	dwater Depth	D Readings (ppm)	BORING AND SAMPLING NOTES
SOIL CLASSIFICATION SURFACE ELEVATION:		Stratu Depth Scale Scale	samp	% Rec	Groun	FID/PI	Sugar and the second
Bottom of Boring @ 40 ft bgs							
NOTE: This log is not to be used outside of the original	ginal report.					C	Touthwes

ing Well N #:O4 By:RC ed By:K ed By:K ed By:K ed By:K	Sample Interval	% Recovery	Ctoundwater Depth	W-38	BORING AND SAMPLING NOTES
#:O4. By:RC ed By:K ed By:K Septh v ed By:K samble for the second sec	Sample Interval	% Recovery	Groundwater Depth	0 · · · FID/PID Readings (ppm)	BORING AND SAMPLING NOTES
By:RC ed By:K By:K Prove By:R By:R By:R By:R By:R By:R By:R By:R By:R By:R By:K By:R By:R By:K By:R By:K By:K By:R By:_R By:R By:R By:R By:R By:R By:R By:R By:R By:R By:R By:R By:R By:_R By:R By:R By:R By:_R By:_R By:R By:_R	Sample Interval	% Recovery	Groundwater Depth	C · · · FID/PID Readings (ppm)	BORING AND SAMPLING NOTES
EPTH Problem Septiment Septime	Sample Interval	% Recovery	Groundwater Depth	O · · · · HD/PID Readings (ppm)	BORING AND SAMPLING NOTES
Deptin 2 Deptin 2 Scattle 1 2 Sample No.	Sample Interval	% Recovery	Groundwater Depth	o · · · FID/FID Readings (ppm)	BORING AND SAMPLING NOTES
Preprint 2 Desprint 2 Desprint 2 Scale Nuclear 2 Scale No.	Sample Interval	% Recovery	Groundwater Depth	0 · · · · HD/PID Readings (ppm)	BORING AND SAMPLING NOTES
Pttde Pcplh Scale No. Concerted C	Sample Interval	% Recovery	Groundwater Depth	a	BORING AND SAMPLING NOTES
Pttd: Peplin	Sample Interval	% Recovery	Groundwater Depth	a · · · · FID/PID Readings (ppm)	BORING AND SAMPLING NOTES
Peptin Contract Contr	Sample Interval	% Recovery	Groundwater Depth	O · · · · ·	BORING AND SAMPLING NOTES
Pepth 2 Scale 1 1 2 Scale No.	Sample Interval	% Recovery	Groundwater Depth	O · · · · PID/PID Readings (ppm)	BORING AND SAMPLING NOTES
2 Depth 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Sample 1	% Recov	Groundw	I CIU/CIU	
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2	25 - - - - - - - - - - - - - - - - - - -	25 - - - - - - - - - - - - - - - - - - -	25 27 - 2W 30	25 - - - - - - - - - - - - - - - - - - -	25 - 27 - 38 30 - 27 - 38 30 - 5 6 1 27 - 38 8 8 8 8 1 2 2 2 2 3 8 8 8 8 1 2 2 2 1 2 2 3 8 8 8 8 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 2 2 2 2 2 2 2 2 2 2 2 3 8 8 8 8 8 8 8 8 8 8 8 8 8



ate Completed: <u>8.19.11</u> Drawn B rilling Company: Enviro-Drill Approve riller: <u>Rodney Hammer</u> eologist: <u>Kyle Summers, C.P.G.</u> Well Diam: oring Method: <u>HSA</u> Screen Size: <u>0.01*</u> ore Hole Dia: <u>8*</u> ampler OD: <u>3.5*</u> Casing Length: <u>15'</u> BORNO METHOD SAMPLER TYPE IFA-HOLLOW STBM ALGERS CB- RIVE FOOT CORE BARREL GR-COMPOSE AR-AIR ROTARY ST - PRESSED SHELBY TUBE SURFACE ELEVATION: SOIL CLASSIFICATION SURFACE ELEVATION: SANDSTONE, Olive Gray, Wet, Petroleum Hydrocarbon Odor Bottom of Boring @ 40 ft bgs 50 50 50 50 50 50 50 50 50 50	By: <u>BDH</u> By: <u>Kyle Su</u>	ummers	
rilling Company: Enviro-Drill Approve riller: Rodney Hammer eologist: Kyle Summers, C.P.G. Well Diam: eologist: Kyle Summers, C.P.G. Well Diam: October Size: 0.01* oring Method: HSA Screen Length: 15' ampler OD: 3.5* SAMPLER TYPE Casing Length: 25' BORING METHOD S.S. PRIVEN SPLIT SPOON GROUNDWATER DEF CR-CONTROOBE ST - PRESSED SHELBY TUBE A T COMPLETION SURFACE ELEVATION: SOIL CLASSIFICATION T A WELL STABILIZATION SURFACE ELEVATION: SOIL CLASSIFICATION T WELL STABILIZATION Market SANDSTONE, Olive Gray, Wet, Petroleum Weiged 40 Hydrocarbon Odor Bottom of Boring @ 40 ft bgs 40 Soil Soil Soil Soil Soil Soil Soil Soil Soil	ed By: <u>Kyle Su</u>	ummers	
iller:Rodney Hammer cologist:Kyle Summers. C.P.GWell Diam: borning Method:HSAScreen Size:O.01* pre Hole Dia:8*Screen Length:I5* more Hole Dia:8*Casing Length:25' BORING METHOD STEMAUGERS GR-CONTINUOUS FLIGHT AUGERS GR-CONTINUOUS FLIGHT AUGERS SS - DRIVEN SPLIT SPON GR-CARPY STEL SPON ST - PRESSED SHELBY TUBE SURFACE ELEVATION: SURFACE ELEVATION: SURFACE ELEVATION: SURFACE ELEVATION: Bottom of Boring @ 40 ft bgs 50 S0 S0 S0 S0 S0 S0 S0 S0 S0 S			
bologist: Kyle Summers. C.P.G. Well Diam: pring Method: HSA Screen Size: 0.01* mpler OD: 3.5* Casing Length: 15' BORING METHOD SAMPLER TYPE Casing Length: 25' BORING METHOD SAMPLER TYPE Casing Length: 26' CA: OWNED STANDOUS FLUCT AUGES CB: FIVE FOOT CORE BARREL GROUNDWATER DEI CA: OWNED STANDOUS FLUCT AUGES CB: FIVE FOOT CORE BARREL GROUNDWATER DEI CA: OWNED STANDOUS FLUCT AUGES S: DRIVEN SPLIT SPOON T AT WELL STABILIZATION SURFACE ELEVATION: SOIL CLASSIFICATION T WELL STABILIZATION SURFACE ELEVATION: SI SOIL CLASSIFICATION SURFACE ELEVATION: SI SI SANDSTONE, Olive Gray, Wet, Petroleum Hydrocarbon Odor Hydrocarbon Odor Soing Ge 40 ft bgs Soing Ge 40 ft bgs 50		A REAL PROPERTY AND INCOME.	a sea will a
ring Method: HSA Screen Size: 0.01" re Hole Dia: 8° Screen Length: 15' BORING METHOD SAMPLER TYPE FSA-HOLLOW STEM AUGERS CA-CONTINUOUS FLICHT AUGERS CA-CONTINUOUS FLICHT AUGERS CA-CONTINUOUS FLICHT AUGERS ST- PRESSED SHELBY TUBE SOIL CLASSIFICATION SURFACE ELEVATION: SANDSTONE, Olive Gray, Wet, Petroleum Hydrocarbon Odor Hydrocarbon Odor 60 Bottom of Boring @ 40 ft bgs 50 50 50 50 50 50 50 50 50 50			
re Hole Dia: 8° Screen Length: 15' mpler OD: 3.5° Casing Length: 25' BORNG METHOD HSA-HOLLOW STEMAUGERS GP-CEOPROBE AR-ARR ROTARY SOIL CLASSIFICATION SURFACE ELEVATION: SANDSTONE, Olive Gray, Wet, Petroleum Hydrocarbon Odor Bottom of Boring @ 40 ft bgs 50 50 50 50 50 50 50 50 50 50			
npler OD: 3.5" Casing Length: 25' BORING METHOD SAMPLER TYPE HSA-HOLLOW STEM ALGERS CB- RAVE FOOT CORE BARREL GR-COMPROBE AR-AR ROTARY ST- PRESSED SHELBY TUBE SOIL CLASSIFICATION SURFACE ELEVATION: SANDSTONE, Olive Gray, Wet, Petroleum Hydrocarbon Odor Bottom of Boring @ 40 ft bgs 50 50 50 50 50 50 50 50 50 50			
SOIL CLASSIFICATION ung of second	HT9 HI9	cry vater Depth teadings (ppm)	BORING AND SAMPLING NOTES
SANDSTONE, Olive Gray, Wet, Petroleum Hydrocarbon Odor Bottom of Boring @ 40 ft bgs 40 45 50 50 50 50 50 50	Scale Scale No. Sample I Sample I	Groundw FID/PID F	A CONTRACT
65			

nt:Enterprise Field Services, LLC			
ect Name: Lindreth Compressor Station	MONIT	ODING W	
ect Location: Rio Arriba County, NM	MONT	ORING WI	ELL LOG
ect Manager: Kyle Summers			
DRILLING & SAMPLING INFORMATION	Monitoring Well N	umber: MW-39	
e Started: 8 22 11	Project #: 04	10006	
e Completed: 8.22.11	Drawn By: BI	ЭН	
ing Company: Enviro-Drill	Approved By: K	vle Summers	
er: Bodney Hammer	Approved by	yie Serminers	
slogist Kyle Summers C.P.G. Well Diam			the second s
ing Method: HSA Screen Size:	0.01"		
e Hole Dia: 8" Screen Length	15'	1	
noler OD: 3.5" Casing Length	22'	1	
BORING METHOD SAMPLER TYPE HSA-HOLLOW STEM AUGERS CB - FIVE FOOT CORE BARREL GROUND CFA-CONTINUOUS FLIGHT AUGERS SS - DRIVEN SPLIT SPOON ▼ AT COMPLET GP-GEOPROBE ST - PRESSED SHELBY TUBE ▼ AT WELL ST.	WATER DEPTH TON ABILIZATION	e Interval overy dwater Depth D Readings (ppm)	BORING AND SAMPLING NOTES
	epth cale o.	Rec Rec	
SURFACE ELEVATION:		0 % 5 E	
SILTY SAND, Moderate to Pale Yellowish Brown.		0	
Slight Gravel near surface, Dry, No Odor		-	No Recovery 1 - 5 ft bos
			No Recovery 1 - 5 It bgs
		· ·	
	5 _		
SILTY SAND, Pale Yellowish Brown, Very Fine	-	2	
Grained, Dry, No Odor		1	
			No Recovery 7 - 10 ft bgs
	10 -		
	-	0	
	-		
	-		
SILT/SAND Moderate to Pale Vellowich Brown	-		
SILT/SAND, Moderate to Pale Yellowish Brown,	15 -		
Firm, Dry, No Odor	-		
the second se	-		
CAND Mederate Velloutich Brown Mederate	-		
Vollowich Brown @ 22 ft bda Voru Fica to Fica	20		
Greinerd Slight Sile Dissolated form 20 to 25 (-		
Grained, Sight Silt, Discolored from 30 to 33 ft bgs,	-	0	
Dry from 19 - 23 ft bgs then moist, No Odor from 19 -	-		
30 ft bgs, Hydrocarbon Odor @ 30 ft bgs, Wet @ 33 ft	- 1	0	
bgs	25 -	0	
		0	
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	30 -	435	
	30'-31'	454	
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lient:Enterprise Field Services, LLC									
roject Name: Lindreth Compressor Station			MO	NIT	O	RII	N	WE	LL LOG
roject Location: <u>Rio Arriba County, NM</u>									
roject Manager									
DRILLING & SAMPLING INFORMATION		Monito	oring '	Well N	lumb	per:	M	W-39 (C	continued)
bate Started: 8.22.11		Projec	t #:	04	100	06	-		
vale Completed: 8.22.11		Drawr	By:_	RI NU K	JH_	2	ma	10	
oriller: Bodney Hammer		Appro	veu e	by:	yie :	Sun	me	5	
eologist: Kyle Summers C.P.G. W	Vell Diam.								
oring Method: HSA S	creen Size:	0.01"							
ore Hole Dia: 8" S	creen Length:	15'			1				
ampler OD: 3.5" C	Casing Length:_	22'							
BORING METHOD SAMPLER TYPE HSA. HOLLOW STEM AUGERS CB - FIVE FOOT CORE BARREL CFA - CONTINUOUS FLIGHT AUGERS SS - DRIVEN SPLIT SPOON GP - GEOPROBE ST - PRESSED SHELBY TUBE AR - AIR ROTARY ST - PRESSED SHELBY TUBE	GROUNDW ▼ AT COMPLETIO ▼ AT WELL STAF	VATER I ON BILIZATI	DEPTH ON	i i	erval	y	iter Depth	adings (ppm)	BORING AND SAMPLING NOTES
SOIL CLASSIFICATION		8 .	-	e	le Int	over	dwa	D Re	
SUBFACE ELEVATION		tratu	cale	amp lo.	amp	Rec	roun	Id/OI	
SONPACE ELEVATION.		SD	0.0	w Z	ŝ	%	0	ш. <u> </u>	
SANDSTONE (Continued)			-					2	and the second se
Bottom of Boring @ 37 ft bgs			1						
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NOTE: This log is not to be used outside of the calcu	nal report		-					=	
NOTE: This log is not to be used outside of the origin	nal report.		-						Couthwes
NOTE: This log is not to be used outside of the origin	nal report.								outhwes
NOTE: This log is not to be used outside of the origin	nal report.		-					S	Southwes

ect Name: Lindreth Compressor Station					
	MONI	TOR	IIN	G WE	LL LOG
ect Manader: Kyle Summers					
Cer Manager					
DRILLING & SAMPLING INFORMATION	Monitoring Well	Numbe	er:	MW-40	
Started: 8.23.11	Project #: 0	41000	6		
Completed: 8.23.11	Drawn By:	KDH		010	
ng Company: <u>Enviro-Drill</u>	Approved By:	Kyle SI	umm	ers	
logist Kula Summara, C.B.C. Wall Diama			T	1	
ng Method: HEA Screen Size:	0.01	11			
Hole Dia: 8" Screen Length	. 15				
inder OD: 3.5" Casing Length	25'				
BORING METHOD SAMPLER TYPE		1		Ê	BORING AND
HA-HOLLOW STEM AUGERS CB - FIVE FOOT CORE BARREL GROUND	WATER DEPTH		fe	id) s	SAMPLING NOTES
GP - GEOPROBE ST - PRESSED SHELBY TUBE ⊈ AT WELL ST.	ABILIZATION	val	r De	guip	
		Inter	very	Rea	
SOIL CLASSIFICATION	atum ide	nple	und	GIA	
SURFACE ELEVATION:	Stra Sca Sca No.	San	% R Gro	FID	
SANDY SILT Moderate to Dark Vellowich Brown		TT	T		
Firm Dry No Odor	-			0	
Film, Dry, NO Odol	-			0	
	-	11		0	
	-			0	
	5 —	11		0	
CIL TV CAND, Dale Vellewich Drown, Loose to 0.6		11		0	
SILTY SAND, Pale Yellowish Brown, Loose to 8 ft	-			0	
bgs, Firm @ 8 - 13.5 ft bgs, Dry, No Odor		11		0	
		11		0	
1 C 45 D C 1			1	0	
	10 -			0	
	-			0	
	-				
	-			0	
	- 1 1			0	
CAND Moderate Velloutich Brown Very Eine to				0	
SAND, Moderate Yellowish Brown, Very Fine to	15 -	11		0	
SAND, Moderate Yellowish Brown, Very Fine to to Fine Grained, Slight Silt, Dry, No Odor	15 —			0	
SAND, Moderate Yellowish Brown, Very Fine to to Fine Grained, Slight Silt, Dry, No Odor SILTY SANDSTONE, Pale Yellowish Brown to Light	15 — - -			0 0 0	
SAND, Moderate Yellowish Brown, Very Fine to to Fine Grained, Slight Silt, Dry, No Odor SILTY SANDSTONE, Pale Yellowish Brown to Light Olive Brown, Firm, Dry, No Odor				0 0 0	
SAND, Moderate Yellowish Brown, Very Fine to to Fine Grained, Slight Silt, Dry, No Odor SILTY SANDSTONE, Pale Yellowish Brown to Light Olive Brown, Firm, Dry, No Odor	15 — - - - - -				
SAND, Moderate Yellowish Brown, Very Fine to to Fine Grained, Slight Silt, Dry, No Odor SILTY SANDSTONE, Pale Yellowish Brown to Light Olive Brown, Firm, Dry, No Odor	15 — - - - - - - - - - - - - - - - - - - -				
SAND, Moderate Yellowish Brown, Very Fine to to Fine Grained, Slight Silt, Dry, No Odor SILTY SANDSTONE, Pale Yellowish Brown to Light Olive Brown, Firm, Dry, No Odor SANDSTONE, Moderate Yellowish Brown, Very Fine to Fine Grained, Dry, No Odor	15 — - - - - - - - - - - - - - - - - - - -				
SAND, Moderate Yellowish Brown, Very Fine to to Fine Grained, Slight Silt, Dry, No Odor SILTY SANDSTONE, Pale Yellowish Brown to Light Olive Brown, Firm, Dry, No Odor SANDSTONE, Moderate Yellowish Brown, Very Fine to Fine Grained, Dry, No Odor					
SAND, Moderate Yellowish Brown, Very Fine to to Fine Grained, Slight Silt, Dry, No Odor SILTY SANDSTONE, Pale Yellowish Brown to Light Olive Brown, Firm, Dry, No Odor SANDSTONE, Moderate Yellowish Brown, Very Fine to Fine Grained, Dry, No Odor				0 0 0 0 0 0 0 0 0 0	
SAND, Moderate Yellowish Brown, Very Fine to to Fine Grained, Slight Silt, Dry, No Odor SILTY SANDSTONE, Pale Yellowish Brown to Light Olive Brown, Firm, Dry, No Odor SANDSTONE, Moderate Yellowish Brown, Very Fine to Fine Grained, Dry, No Odor				0 0 0 0 0 0 0 0 0 0 0 0	
SAND, Moderate Yellowish Brown, Very Fine to to Fine Grained, Slight Silt, Dry, No Odor SILTY SANDSTONE, Pale Yellowish Brown to Light Olive Brown, Firm, Dry, No Odor SANDSTONE, Moderate Yellowish Brown, Very Fine to Fine Grained, Dry, No Odor				0 0 0 0 0 0 0 0 0 0	
SAND, Moderate Yellowish Brown, Very Fine to to Fine Grained, Slight Silt, Dry, No Odor SILTY SANDSTONE, Pale Yellowish Brown to Light Olive Brown, Firm, Dry, No Odor SANDSTONE, Moderate Yellowish Brown, Very Fine to Fine Grained, Dry, No Odor				0 0 0 0 0 0 0 0 0 0	
SAND, Moderate Yellowish Brown, Very Fine to to Fine Grained, Slight Silt, Dry, No Odor SILTY SANDSTONE, Pale Yellowish Brown to Light Olive Brown, Firm, Dry, No Odor SANDSTONE, Moderate Yellowish Brown, Very Fine to Fine Grained, Dry, No Odor				0 0 0 0 0 0 0 0 0 0 0 0	
SAND, Moderate Yellowish Brown, Very Fine to to Fine Grained, Slight Silt, Dry, No Odor SILTY SANDSTONE, Pale Yellowish Brown to Light Olive Brown, Firm, Dry, No Odor SANDSTONE, Moderate Yellowish Brown, Very Fine to Fine Grained, Dry, No Odor				0 0 0 0 0 0 0 0 0 0 0 0 0 0	
SAND, Moderate Yellowish Brown, Very Fine to to Fine Grained, Slight Silt, Dry, No Odor SILTY SANDSTONE, Pale Yellowish Brown to Light Olive Brown, Firm, Dry, No Odor SANDSTONE, Moderate Yellowish Brown, Very Fine to Fine Grained, Dry, No Odor				0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
SAND, Moderate Yellowish Brown, Very Fine to to Fine Grained, Slight Silt, Dry, No Odor SILTY SANDSTONE, Pale Yellowish Brown to Light Olive Brown, Firm, Dry, No Odor SANDSTONE, Moderate Yellowish Brown, Very Fine to Fine Grained, Dry, No Odor SANDSTONE, Brownish Black, Hard, Slightly Moist, No Odor SAND STONE, Pale Yellowish Gray, Dry, No Odor				0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
SAND, Moderate Yellowish Brown, Very Fine to to Fine Grained, Slight Silt, Dry, No Odor SILTY SANDSTONE, Pale Yellowish Brown to Light Olive Brown, Firm, Dry, No Odor SANDSTONE, Moderate Yellowish Brown, Very Fine to Fine Grained, Dry, No Odor SANDSTONE, Brownish Black, Hard, Slightly Moist, No Odor SAND STONE, Pale Yellowish Gray, Dry, No Odor SANDSTONE, Pale Orange to Moderate Yellowish				0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
SAND, Moderate Yellowish Brown, Very Fine to to Fine Grained, Slight Silt, Dry, No Odor SILTY SANDSTONE, Pale Yellowish Brown to Light Olive Brown, Firm, Dry, No Odor SANDSTONE, Moderate Yellowish Brown, Very Fine to Fine Grained, Dry, No Odor SANDSTONE, Brownish Black, Hard, Slightly Moist, No Odor SAND STONE, Pale Yellowish Gray, Dry, No Odor SANDSTONE, Pale Orange to Moderate Yellowish Orange, Moist, No Odor			Ā	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
SAND, Moderate Yellowish Brown, Very Fine to to Fine Grained, Slight Silt, Dry, No Odor SILTY SANDSTONE, Pale Yellowish Brown to Light Olive Brown, Firm, Dry, No Odor SANDSTONE, Moderate Yellowish Brown, Very Fine to Fine Grained, Dry, No Odor SANDSTONE, Brownish Black, Hard, Slightly Moist, No Odor SAND STONE, Pale Yellowish Gray, Dry, No Odor SANDSTONE, Pale Orange to Moderate Yellowish Orange, Moist, No Odor SAND, Pale Yellowish Brown & Slight Olive Orange,			Ā	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
SAND, Moderate Yellowish Brown, Very Fine to to Fine Grained, Slight Silt, Dry, No Odor SILTY SANDSTONE, Pale Yellowish Brown to Light Olive Brown, Firm, Dry, No Odor SANDSTONE, Moderate Yellowish Brown, Very Fine to Fine Grained, Dry, No Odor SANDSTONE, Brownish Black, Hard, Slightly Moist, No Odor SAND STONE, Pale Yellowish Gray, Dry, No Odor SANDSTONE, Pale Yellowish Gray, Dry, No Odor SANDSTONE, Pale Orange to Moderate Yellowish Orange, Moist, No Odor SAND, Pale Yellowish Brown & Slight Olive Orange, Wet @ 32 ft bgs, No Odor			Ā	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
SAND, Moderate Yellowish Brown, Very Fine to to Fine Grained, Slight Silt, Dry, No Odor SILTY SANDSTONE, Pale Yellowish Brown to Light Olive Brown, Firm, Dry, No Odor SANDSTONE, Moderate Yellowish Brown, Very Fine to Fine Grained, Dry, No Odor SANDSTONE, Brownish Black, Hard, Slightly Moist, No Odor SAND STONE, Pale Yellowish Gray, Dry, No Odor SANDSTONE, Pale Yellowish Gray, Dry, No Odor SANDSTONE, Pale Orange to Moderate Yellowish Orange, Moist, No Odor SAND, Pale Yellowish Brown & Slight Olive Orange, Wet @ 32 ft bgs, No Odor SAND, Grayish Black, Wet, No Odor			Ā	0 0 0 0 0 0 0 0 0 0 0 0 0 0	

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DRILING & SAMPLING INFORMATION Monitoring Well Number:MV4:0.(Confinued:	Client: Enterprise Field Services, LLC Project Name:Lindreth Compressor Station Project Location:Rio Arriba County, NM Project Manager:Kyle Summers	MONITORIING WELL LOG
DrifferRoderate	DRILLING & SAMPLING INFORMATION Date Started: 8.23.11 Date Completed: 8.23.11 Drilling Company: Enviro-Drill	Monitoring Well Number: <u>MW-40 (Continued)</u> Project #: <u>0410006</u> Drawn By: <u>RDH</u> Approved By: <u>Kyle Summers</u>
Solid CLASSIFICATION und und	Driller: Rodney Hammer Geologist: Kyle Summers. C.P.G. Well Diam: Boring Method: HSA Screen Size: Bore Hole Dia: 8" Screen Length: Sampler OD: 3.5" Casing Length: BORING METHOD SAMPLER TYPE Casing Length: HSA - HOLLOW STEM AUGERS CFA - CONTINUOUS FLIGHT AUGERS CB - FIVE FOOT CORE BARREL GROUNDW GP - GEOPROBE ST - PRESSED SHELBY TUBE AT COMPLETI AR - AIR ROTARY ST - PRESSED SHELBY TUBE AT WELL STA	0.01" 15' 25' WATER DEPTH ION BILIZATION INTER DEPTH ION BILIZATION A DEPTH A DEPTH ION BILIZATION A DEPTH A
SANDSTONE, Moderate Yellowish Brown, Heavy ron Oxidation, Wet, No Odor SANDY SHALE, Moderate Gray, Moist, No Odor Bottom of Boring @ 40 ft bgs 0 0 0 0 0 0 0 0 0 0 0 0 0	SOIL CLASSIFICATION	Stratum Scale Scale No Scale Mecover Stoundwe Stoundwe
NOTE: This log is not to be used outside of the original report. SouthWest	SANDSTONE, Moderate Yellowish Brown, Heavy Iron Oxidation, Wet, No Odor SANDY SHALE, Moderate Gray, Moist, No Odor Bottom of Boring @ 40 ft bgs	
GEOSCIENCE	NOTE: This log is not to be used outside of the original report.	Southwest

nt:Enterprise Field Services, LLC						
ect Name: Lindreth Compressor Station	M	ONIT	TOF	RIIN	IG W	VELLLOG
ect Location: Rio Arriba County. NM				un		LEE LOO
ect Manager: Kyle Summers						
DRILLING & SAMPLING INFORMATION	Monitorin	g Well I	Numb	ber:	MW-4	1
Started: 8.23.11	Project #:	04	1000	06		
Completed: 8.23.11	Drawn By	/:R	DH			
ng Company: <u>Enviro-Drill</u>	Approved	By:	vie s	Summ	ners	
er:Rodney Hammer	•		-			
logist: Kyle Summers, C.P.G Well Diam:						
ng Method: HSA Screen Size:	0.01"		4			
Hole Dia: 8" Screen Length	:15'	-	11			
Pler OD: 3.5" Casing Length:	23'		-		Ê	POPINIC AND
ISA - HOLLOW STEM AUGERS CB - FIVE FOOT CORE BARREL GROUND CFA - CONTINUOUS FLIGHT AUGERS SS - DRIVEN SPLIT SPOON TAT COMPLET PP - GEOPROBE ST - PRESSED SHELBY TUBE TAT WELL ST. TAT WELL ST.	WATER DEP TION ABILIZATION	тн	Interval	Cry vater Denth	Readings (pp	SAMPLING NOTES
SOIL CLASSIFICATION	E f	nple	nple	ecov	DID DI	
SURFACE ELEVATION:	Stra	San No.	San	%R	HD	and the second
CII TV CAND Moderate to Dark Valloutish Brown		T		T	1.	
Dry, Odor		-			1	
		-			1	-
CANDY OUT, Date to Mederate Velloutish Drown		-			1	-
SANDY SILT, Pale to Moderate Yellowish Brown,	5	-			0	4
Dry, No Odor		1			0	1
		-			0	1
ALCONE.		1			0	1
SAND, Pale Yellowish Brown, Very Fine to Fine		1			0	1
Grained, Slight Silt, Dry, No Odor	10	-			0	1
		1			0	1
		1			0	1
]			0]
SILTY SAND, Pale Yellowish Brown, Firm, Dry, No	15	-			0	
SILTY SAND Pale Vellowish Brown Firm Dry No		-	11			
Odor		-			0	
Odor		1			0	
SANDY SANDSTONE, Moderate Yellowish Brown,		1			0	1
Thin Dusky Brown Layers @ 27 - 29 ft bgs, Loose to	20]			0	
Firm, Slightly Moist, Very Moist @ 30 ft bgs, No Odor					0	
]			1	
		1			0	
	25	2			0	
		-			0	-
		-			0	-
		-			0	4
		-			0	4
	30	29.30			E 0	1
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		-			0	1
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	1000000000000				0	



lient: Enterprise Field Services. LLC						
roject Location: Bio Arriba County NM	M	DNIT	OR	IIN	G WE	ELL LOG
roject Manager: Kyle Summers						
			6			
DRILLING & SAMPLING INFORMATION	Monitoring	Well N	umbe	er: <u>N</u>	1W-41 (C	Continued)
ate Started: 8.23.11	_ Project #:_	04	10006	<u>;</u>		
rilling Company, Enviro Drill	_ Drawn By:	RL	In Cu	mma	**	
riller: Bodney Hammer	_ Approved	Dy:	VIE SU	mme	15	
eologist: Kyle Summers C.P.G. Well Diam:	-	1				
oring Method: HSA Screen Size:	0.01"			11		
ore Hole Dia: 8" Screen Lengt	h: 15'					
ampler OD: 3.5" Casing Lengt	n: 23'					
BORING METHOD SAMPLER TYPE HSA. HOLLOW STEM AUGERS CB - FIVE FOOT CORE BARREL GROUN CFA - CONTINUOUS FILIGHT AUGERS SS - DRIVEN SPLIT SPOON ▼ AT COMPLE GP - GEOPROBE ST - PRESSED SHELBY TUBE ▼ AT WELL S	DWATER DEPT ETION TABILIZATION	н	terval	of all the second s	(mqq) sadings	BORING AND SAMPLING NOTES
SOIL CLASSIFICATION SURFACE ELEVATION:	Stratum Depth Scale	Sample No.	Sample In	Groundwa	FID/PID Re	
SANDY SANDSTONE (Continued)					36 32 38	
Bottom of Boring @ 38 ft bos	10000000				50	
Donom of Doning C do it bao		1				
	40 -	1				
	1 1 1	1				
	1 1	1				
		1				
	1 1	1 1				
	45 -					
	45 -	1				
	1 1	1				
	1 1	1				
	1 1	4				
	I I .					
	50 -	1				
	1 1	1				
	1 1	1 1				
	1 1	1 1				
	I I.					
	55					
	55 -	1				
		1				
1 P P 2 P 2 P 2 P 2 P 2 P 2 P 2 P 2 P 2		1 1			-	
		1				
	60 -	1				
		1				
		1				
		4				
		1 1				
	65 -	1				
	1 1	1				
	1 1	1		1.0		
		1 1				
NOTE: This log is not to be used outside of the original report.					C	Couthwes
		11-1-1				GEOSCIENC

ect Manager: Kyle Summers	MONITORIING WELL LOG
DRILLING & SAMPLING INFORMATION e Started: 8.23.11 e Completed: 8.23.11 ling Company: Enviro-Drill	Monitoring Well Number: <u>MW-42</u> Project #: <u>0410006</u> Drawn By: <u>RDH</u> Approved By: <u>Kyle Summers</u>
Ing Rodiney Hammer blogist: Kyle Summers, C.P.G. Wel ing Method: HSA Screet e Hole Dia: 8" Screet npler OD: 3.5" Cass BORING METHOD SAMPLER TYPE Cass HSA - HOLLOW STEM AUGERS CB - FIVE FOOT CORE BARREL CB - FIVE FOOT CORE BARREL CFA - CONTINUOUS FLIGHT AUGERS CB - FIVE FOOT CORE BARREL ST - PRESSED SHELBY TUBE Y AR - AIR ROTARY SOIL CLASSIFICATION Y	Diam: In Size:
Moderate Brown, Firm, Dry, No Odor SILTY SAND, Pale to Moderate Yellowish Bro Very Fine Grained, Loose, Increasing Firmne Depth, Dry, No Odor	Wn, is with
SAND, Pale Yellowish Brown, Very Fine to F Grained, Dry, No Odor SILTY SAND, Moderate Yellowish Brown with Oco Dark Brown Streak, Slightly Moist, No Odor SAND/SANDSTONE, Pale to Dark Yellowish O Iron Oxidation, Slighly Moist, No Odor SHALEY SANDSTONE, Dark Yellowish Brow Olive Gray, Slightly Moist, Hydrocarbon Odor SHALEY SANDSTONE, Dark Yellowish Brow Moist, Hydrocarbon Odor SANDSTONE, Moderate Yellowish Brown, M	15 1 15 1 10 1 10 20 20 0 20 0 20 0 20 0 10 25 25 15 26 15 467 263 244 25 9 9

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Client:Enterprise Field Services. LLC Project Name:Lindreth Compressor Station Project Location:Bio Arriba County, NM	MONITORIING WELL LOG
Project Location:	
DRILLING & SAMPLING INFORMATION	Monitoring Well Number: <u>MW-42 (Continued)</u>
Date Started: 8.23.11	_ Project #: 0410006
Date Completed: 8.23.11	_ Drawn By: <u>RDH</u>
Iniling Company: Enviro-Drill Bodney Hammer	_ Approved By:_ <u>Kyle Summers</u>
Ceologist: Kyle Summers C.P.C. Well Diam:	
Rologist Weir Diam.	0.01"
bore Hole Dia: 8" Screen Lengt	h: 15'
ampler OD: 3.5" Casing Lengt	n: <u>22'</u>
BORING METHOD SAMPLER TYPE HSA -HOLLOW STEM AUGERS CB - FIVE FOOT CORE BARREL GROUN CFA - CONTINUOUS FLIGHT AUGERS SS - DRIVEN SPLIT SPOON ▼ AT COMPLI GP - GEOPROBE ST - PRESSED SHELBY TUBE ▼ AT WELLS	DWATER DEPTH ETION TABILIZATION
SOIL CLASSIFICATION	Stratum Stratum Sample I Groundw Groundw
SANDSTONE (Continued)	
Slight Hydrocarbon Odor	
Bottom of Boring @ 28 ft bds	
Bonom of Boning @ 38 h bgs	40
	45
Report and	
	50 -
	55
	60
	65 -
NOTE: This log is not to be used outside of the original report.	
	Colltower
	GEOSCIENC



COVER LETTER

Friday, August 26, 2011

Kyle Summers Southwest Geoscience 606 S. Rio Grande Unit A Aztec, NM 87410

TEL: (903) 821-5603 FAX

RE: Lindrith CS

Dear Kyle Summers:

Order No.: 1108777

Hall Environmental Analysis Laboratory, Inc. received 10 sample(s) on 8/18/2011 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued August 26, 2011.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. 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. All samples are reported as received unless otherwise indicated.

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

Sincerely,

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901 AZ license # AZ0682

> 4901 Hawkins NE ■ Suite D ■ Albuquerque, NM 87109 505.345.3975 ■ Fax 505.345.4107 www.hallenvironmental.com

Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Southwest Geoscience			Clie	nt Sample ID:	MW-30 ()	12')
Lab Order:	1108777			Co	llection Date:	8/15/2011	1:00:00 PM
Project: Lab ID:	Lindrith CS 1108777-01			Date Received: Matrix:		8/18/2011 SOIL	
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANGE O	RGANICS					Analyst: JB
Diesel Range C	Organics (DRO)	2300	190		mg/Kg	20	8/23/2011 12:03:20 PM
Surr: DNOP		0	73.4-123	S	%REC	20	8/23/2011 12:03:20 PM
EPA METHOD	8015B: GASOLINE RANG	E		•			Analyst: RAA
Gasoline Rang	e Organics (GRO)	ND	47		mg/Kg	10	8/22/2011 4:12:16 PM
Surr: BFB		91.3	75.2-136		%REC	10	8/22/2011 4:12:16 PM
EPA METHOD	8021B: VOLATILES						Analyst: RAA
Benzene		ND	0.47		mg/Kg	10	8/22/2011 4:12:16 PM
Toluene		ND	0.47		mg/Kg	10	8/22/2011 4:12:16 PM
Ethylbenzene		ND	0.47		mg/Kg	10	8/22/2011 4:12:16 PM
Xylenes, Total		ND	0.94		mg/Kg	10	8/22/2011 4:12:16 PM
Surr: 4-Brom	ofluorobenzene	92.5	90.3-115		%REC	10	8/22/2011 4:12:16 PM

Qualifiers:

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

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

Page 1 of 10

Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Southwest Geoscience			Clie	at Sample ID:	MW-30 (3	35")
Lab Order:	1108777			Co	llection Date:	8/15/2011	2:00:00 PM
Project:	Lindrith CS			D	ate Received:	8/18/2011	
Lab ID:	1108777-02				Matrix:	SOIL	
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANGE O	RGANICS					Analyst: JB
Diesel Range C	Organics (DRO)	360	9.7		mg/Kg	1	8/22/2011 12:53:59 PM
Surr: DNOP		95.3	73.4-123		%REC	1	8/22/2011 12:53:59 PM
EPA METHOD	8015B: GASOLINE RANG	E					Analyst: RAA
Gasoline Range	e Organics (GRO)	8500	480		mg/Kg	. 100	8/24/2011 3:19:46 PM
Surr: BFB		166	75.2-136	S	%REC	100	8/24/2011 3:19:46 PM
EPA METHOD	8021B: VOLATILES						Analyst: RAA
Benzene		ND	0.48		mg/Kg	10	8/22/2011 4:41:07 PM
Toluene		7.0	0.48		mg/Kg	10	8/22/2011 4:41:07 PM
Ethylbenzene		18	0.48		mg/Kg	10	8/22/2011 4:41:07 PM
Xylenes, Total		100	0.96		mg/Kg	10	8/22/2011 4:41:07 PM
Surr: 4-Brom	ofluorobenzene	209	90.3-115	S	%REC	10	8/22/2011 4:41:07 PM

Qualifiers:

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

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

Page 2 of 10

Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Southwest Geoscience			Clie	nt Sample ID:	MW-31 (1	(6')
Lab Order:	1108777			Co	llection Date:	8/15/2011	5:00:00 PM
Project:	Lindrith CS			D	ate Received:	8/18/2011	
Lab ID:	1108777-03				Matrix:	SOIL	
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANGE O	RGANICS		And in case of the second			Analyst: JB
Diesel Range C	Organics (DRO)	ND	9.9		mg/Kg	1	8/22/2011 1:28:56 PM
Surr: DNOP		78.8	73.4-123		%REC	1	8/22/2011 1:28:56 PM
EPA METHOD	8015B: GASOLINE RANGI	E					Analyst: RAA
Gasoline Range	e Organics (GRO)	ND	. 24		mg/Kg	5	8/24/2011 4:17:31 PM
Surr: BFB		93.3	75.2-136		%REC	5	8/24/2011 4:17:31 PM
EPA METHOD	8021B: VOLATILES						Analyst: RAA
Benzene		ND	0.24		mg/Kg	5	8/24/2011 4:17:31 PM
Toluene		ND	0.24		mg/Kg	5	8/24/2011 4:17:31 PM
Ethylbenzene		ND	0.24		mg/Kg	5	8/24/2011 4:17:31 PM
Xylenes, Total		ND	0.47		mg/Kg	5	8/24/2011 4:17:31 PM
Surr: 4-Brom	ofluorobenzene	93.8	80-120		%REC	5	8/24/2011 4:17:31 PM

Qualifiers:

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

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

Hall Environmental Analysis Laboratory, Inc.

Date: 26-Aug-11 Analytical Report

CLIENT: Southwest Geoscie Lab Order: 1108777				Clie	nt Sample ID:	MW-31 (37')		
			Collection Date:			8/15/2011 5:30:00 PM		
Project:	Lindrith CS			D	ate Received:	8/18/2011		
Lab ID:	1108777-04				Matrix:	SOIL		
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed	
EPA METHOD	8015B: DIESEL RANGE O	RGANICS	A CONTRACTOR OF				Analyst: JB	
Diesel Range C	Organics (DRO)	ND	9.6		mg/Kg	• 1	8/22/2011 2:03:45 PM	
Surr: DNOP		85.7	73.4-123		%REC	1	8/22/2011 2:03:45 PM	
EPA METHOD	8015B: GASOLINE RANG	E					Analyst: RAA	
Gasoline Range	e Organics (GRO)	ND	4.8		mg/Kg	1	8/24/2011 4:46:28 PM	
Surr: BFB		93.6	75.2-136		%REC	1	8/24/2011 4:46:28 PM	
EPA METHOD	8021B: VOLATILES						Analyst: RAA	
Benzene		ND	0.048		mg/Kg	1	8/24/2011 4:46:28 PM	
Toluene		ND	0.048		mg/Kg	1	8/24/2011 4:46:28 PM	
Ethylbenzene		ND	0.048		mg/Kg	1	8/24/2011 4:46:28 PM	
Xylenes, Total		ND	0.097		mg/Kg	1	8/24/2011 4:46:28 PM	
Surr: 4-Brom	ofluorobenzene	97.2	80-120		%REC	1	8/24/2011 4:46:28 PM	

Qualifiers:

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

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

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Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Southwest Geoscience			Clie	nt Sample ID:	MW-32 (1	17')
Lab Order:	1108777			Co	llection Date:	8/16/2011	10:00:00 AM
Project:	Lindrith CS			D	ate Received:	8/18/2011	
Lab ID:	1108777-05				Matrix:	SOIL	
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANGE O	RGANICS					Analyst: JB
Diesel Range C	Organics (DRO)	19	10		mg/Kg	1	8/22/2011 2:38:37 PM
Surr: DNOP		83.4	73.4-123		%REC	. 1	8/22/2011 2:38:37 PM
EPA METHOD	8015B: GASOLINE RANG	E					Analyst: RAA
Gasoline Range	e Organics (GRO)	640	50		mg/Kg	10	8/22/2011 6:07:47 PM
Surr: BFB		191	75.2-136	S	%REC	10	8/22/2011 6:07:47 PM
EPA METHOD	8021B: VOLATILES						Analyst: RAA
Benzene		ND	0.50		mg/Kg	10	8/22/2011 6:07:47 PM
Toluene		1.2	0.50		mg/Kg	10	8/22/2011 6:07:47 PM
Ethylbenzene		2.4	0.50		mg/Kg	10	8/22/2011 6:07:47 PM
Xylenes, Total		16	0.99		mg/Kg	10	8/22/2011 6:07:47 PM
Surr: 4-Brom	ofluorobenzene	103	90.3-115		%REC	10	8/22/2011 6:07:47 PM

Qualifiers:

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Southwest Geoscience			Clie	nt Sample ID:	MW-32 (3	5')
Lab Order:	1108777			Co	llection Date:	8/16/2011	11:10:00 AM
Project:	Lindrith CS			D	ate Received:	8/18/2011	
Lab ID:	1108777-06			Matrix:		SOIL	÷
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANGE O	RGANICS	A STREET			and sudditions	Analyst: JB
Diesel Range O	Organics (DRO)	250	9.7		mg/Kg	1	8/22/2011 3:48:40 PM
Surr: DNOP		94.5	73.4-123		%REC	1	8/22/2011 3:48:40 PM
EPA METHOD	8015B: GASOLINE RANG	E					Analyst: RAA
Gasoline Range	Organics (GRO)	11000	470		mg/Kg	100	8/24/2011 5:15:25 PM
Surr: BFB		167	75.2-136	S	%REC	100	8/24/2011 5:15:25 PM
EPA METHOD	8021B: VOLATILES						Analyst: RAA
Benzene		9.7	0.47		mg/Kg	10	8/22/2011 6:36:38 PM
Toluene		34	0.47		mg/Kg	10	8/22/2011 6:36:38 PM
Ethylbenzene		33	0.47		mg/Kg	10	8/22/2011 6:36:38 PM
Xylenes, Total		190	9.4		mg/Kg	100	8/24/2011 5:15:25 PM
Surr: 4-Brom	ofluorobenzene	244	90.3-115	S	%REC	10	8/22/2011 6:36:38 PM

Qualifiers:

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

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

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Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Southwest Geoscience			Clier	nt Sample ID:	MW-33 (3	35')
Lab Order:	1108777			Co	llection Date:	8/16/2011	3:20:00 PM
Project:	Lindrith CS			D	ate Received:	8/18/2011	
Lab ID:	1108777-07				Matrix:	SOIL	
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANGE O	RGANICS					Analyst: JB
Diesel Range C	Organics (DRO)	ND	9.8		mg/Kg	1	8/22/2011 4:23:20 PM
Surr: DNOP		79.5	73.4-123		%REC	1	8/22/2011 4:23:20 PM
EPA METHOD	8015B: GASOLINE RANG	E					Analyst: RAA
Gasoline Range	e Organics (GRO)	ND	4.8		mg/Kg	1	8/24/2011 6:13:11 PM
Surr: BFB		93.6	75.2-136		%REC	1	8/24/2011 6:13:11 PM
EPA METHOD	8021B: VOLATILES						Analyst: RAA
Benzene		ND	0.048		mg/Kg	1	8/24/2011 6:13:11 PM
Toluene		ND	0.048		mg/Kg	1	8/24/2011 6:13:11 PM
Ethylbenzene		ND	0.048		mg/Kg	1	8/24/2011 6:13:11 PM
Xylenes, Total		ND	0.097		mg/Kg	1	8/24/2011 6:13:11 PM
Surr: 4-Brom	ofluorobenzene	96.8	80-120		%REC	1	8/24/2011 6:13:11 PM

Qualifiers:

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

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

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Hall Environmental Analysis Laboratory, Inc.

CLIENT: Lab Order: Project: Lab ID:	Southwest Geoscience 1108777 Lindrith CS 1108777-08		×	Clier Co D	nt Sample ID: liection Date: ate Received: Matrix:	MW-34 (3 8/17/2011 8/18/2011 SOIL	0') 10:40:00 AM
Analyses	1100777-00	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANGE O	RGANICS					Analyst: JB
Diesel Range C	Organics (DRO)	ND	10		mg/Kg	1	8/22/2011 4:57:59 PM
Surr: DNOP		85.5	73.4-123		%REC	1	8/22/2011 4:57:59 PM
EPA METHOD	8015B: GASOLINE RANG	E					Analyst: RAA
Gasoline Range	e Organics (GRO)	ND	4.8		mg/Kg	1	8/24/2011 6:42:04 PM
Surr: BFB		93.5	75.2-136		%REC	1	8/24/2011 6:42:04 PM
EPA METHOD	8021B: VOLATILES						Analyst: RAA
Benzene		ND	0.048		mg/Kg	1	8/24/2011 6:42:04 PM
Toluene		ND	0.048		mg/Kg	1	8/24/2011 6:42:04 PM
Ethylbenzene		ND	0.048		mg/Kg	1	8/24/2011 6:42:04 PM
Xylenes, Total		ND	0.096		mg/Kg	1	8/24/2011 6:42:04 PM
Surr: 4-Brom	ofluorobenzene	98.0	80-120		%REC	1	8/24/2011 6:42:04 PM

Qualifiers:

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

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

Hall Environmental Analysis Laboratory, Inc.

Date: 26-Aug-11 Analytical Report

CLIENT:	Southwest Geoscience			Clie	t Sample ID:	MW-35 (3	0')	
Lab Order: 1108777				Collection Date: 8		8/17/2011 2:50:00 PM		
Project:	Lindrith CS			D	ate Received:	8/18/2011		
Lab ID:	1108777-09				Matrix:	SOIL		
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed	
EPA METHOD	8015B: DIESEL RANGE O	RGANICS	***		W WALLS	1.1116 Barriston	Analyst: JB	
Diesel Range C	Organics (DRO)	ND	9.9		mg/Kg	1	8/22/2011 5:32:37 PM	
Surr: DNOP		87.6	73.4-123		%REC	1	8/22/2011 5:32:37 PM	
EPA METHOD	8015B: GASOLINE RANG	E					Analyst: RAA	
Gasoline Range	e Organics (GRO)	ND	4.9		mg/Kg	1	8/22/2011 8:03:24 PM	
Surr: BFB		93.9	75.2-136		%REC	1	8/22/2011 8:03:24 PM	
EPA METHOD	8021B: VOLATILES						Analyst: RAA	
Benzene		ND	0.049		mg/Kg	1	8/22/2011 8:03:24 PM	
Toluene		ND	0.049		mg/Kg	1	8/22/2011 8:03:24 PM	
Ethylbenzene	•	ND	0.049		mg/Kg	1	8/22/2011 8:03:24 PM	
Xylenes, Total	1	ND	0.098		mg/Kg	1	8/22/2011 8:03:24 PM	
Surr: 4-Brom	ofluorobenzene	96.1	90.3-115		%REC	1	8/22/2011 8:03:24 PM	

Qualifiers:

* Value exceeds Maximum Contaminant Level

Е Estimated value

- Analyte detected below quantitation limits J
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- B Analyte detected in the associated Method Blank
- н Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits 9 S
Date: 26-Aug-11 Analytical Report

CLIENT:			Clier	nt Sample ID:	MW-35 (36')	
Lab Order:	1108777			Co	llection Date:	8/17/2011	3:10:00 PM
Project:	Lindrith CS			Date Received:		8/18/2011	
Lab ID:	1108777-10	•			Matrix:	SOIL	
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANGE O	RGANICS	e en reservite ajtet. Br		10 10 10 10 10 10 10 10 10 10 10 10 10 1		Analyst: JB
Diesel Range O	rganics (DRO)	ND	10		mg/Kg	1	8/22/2011 6:07:14 PM
Surr: DNOP		90.0	73.4-123		%REC	1	8/22/2011 6:07:14 PM
EPA METHOD	8015B: GASOLINE RANG	E					Analyst: RAA
Gasoline Range	Organics (GRO)	ND	4.8		mg/Kg	1	8/22/2011 8:32:16 PM
Surr: BFB		93.1	75.2-136		%REC	1	8/22/2011 8:32:16 PM
EPA METHOD	8021B: VOLATILES	*					Analyst: RAA
Benzene		ND	0.048		mg/Kg	1	8/22/2011 8:32:16 PM
Toluene		ND	0.048		mg/Kg	1	8/22/2011 8:32:16 PM
Ethylbenzene		ND	0.048		mg/Kg	1	8/22/2011 8:32:16 PM
Xylenes, Total		ND	0.096		mg/Kg	1	8/22/2011 8:32:16 PM
Surr: 4-Brome	ofluorobenzene	96.3	90.3-115		%REC	1	8/22/2011 8:32:16 PM

Qualifiers:

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

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

QA/QC SUMMARY REPORT

Client: Se	outhwest Geoscier	nce									
Project: L	indrith CS								Work	Order:	1108777
Analyte	Resu	lt Units	PQL	SPK Va	SPK ref	%Rec L	owLimit H	lghLimit	%RPD	RPDLim	it Qual
Method: EPA Metho	d 80168: Dièsel R	ange Organics									
Sample ID: MB-28127	,	MBLK				Batch ID:	28127	Analysi	s Date:	8/22/2011	10:01:41 AM
Diesel Range Organics	(DRO) ND	mg/Kg	10								
Motor Oil Range Organi	ics (MRO) ND	mg/Kg	50								
Sample ID: LCS-2812	7	LCS				Batch ID:	28127	Analysi	s Date:	8/22/2011	10:36:05 AM
Diesel Range Organics	(DRO) 40.3	9 mg/Kg	10	50	0	80.8	66.7	119			
Sample ID: LCSD-281	27	LCSD				Batch ID:	28127	Analysi	s Date:	8/22/2011	11:10:31 AM
Diesel Range Organics	(DRO) 41.0	7 mg/Kg	10	50	0	82.1	66.7	119	1.67	18.9	
Method: EPA Metho	d 8015B: Gasoline	Range									
Sample ID: MB-28120		MBLK				Batch ID:	28120	Analysi	s Date:	8/22/2011	12:06:48 PM
Gasoline Range Organi	cs (GRO) ND	mg/Kg	5.0								
Sample ID: LCS-2812	0	LCS				Batch ID:	28120	Analysi	s Date:	8/22/2011	10:27:33 PM
Gasoline Range Organi	cs (GRO) 28.55	9 mg/Kg	5.0	25	0	114	86.4	132			
Method: EPA Metho	d 8021B: Volatiles										
Sample ID: MB-28120	1	MBLK				Batch ID:	28120	Analysis	s Date:	8/22/2011	12:06:48 PM
Benzene	ND	mg/Kg	0.050								
Toluene	ND	mg/Kg	0.050								
Ethylbenzene	ND	mg/Kg	0.050								
Xylenes, Total	ND	mg/Kg	0.10								
Sample ID: LCS-2812	D	LCS				Batch ID:	28120	Analysis	s Date:	8/22/2011	10:56:21 PM
Benzene	0.949	98 mg/Kg	0.050	1	0	95.0	83.3	107			
Toluene	0.994	18 mg/Kg	0.050	1	0	99.5	74.3	115			
Ethylbenzene	0.994	15 mg/Kg	0.050	1	0	99.4	80.9	122			
Xylenes, Total	. 3.101	l mg/Kg	0.10	3	0	103	85.2	123			

Qualifiers:

E Estimated value

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

- H Holding times for preparation or analysis exceeded
- NC Non-Chlorinated

11

R RPD outside accepted recovery limits

									•		CHAIN OF CUSTODY RECO
Servironm Office Loc Project Ma Sampler's Au	Duth BEOSC entral & Hydroge pation A_2 anager K , anger K , and	West IENCE Loogic Consultants Lec Summers	Laboratory: Address: A Contact: A Phone: 47 PO/SO #: Samplars \$ign	Hall Rougue holy Fr ast 345	1 raue 	1	AN/ Rec	ALYSIS QUESTED JUESTED JUESTED JUESTED JUESTED			Lab use only Due Date: Temp. of coolers when received (C*): 1 2 3 4 Page
Proj. No. 04100	06	Project Name	th CS		No/Type of C	Containers	Z	a.		////	/ /
Matrix Da	tte Time	C G o r m a identifying I P b	Marks of Sample(s)	Start Depth Depth	VOA A/G	250 P/	3	65	///	///	Lab Sample ID (Lab Use Only)
\$ 8/15	11 1300	X MW.	-30 (12')	11/2		1	X	7			1108777-1
1	1400	1 mw-	30 (35')	3435		1	T	1			-2
	1700	mw-	-31 (15)	1516							-3
4	1730	MW-	3/ (37')	3637				1			- 2
8/16	11 1000	mw	-32 (17)	16 17'							~5
	1110	mw.	32 (35)	34 35		İ	Ш				-6
8/10	11 1520	M.W.	33 (35)	3435							-7
8/17	111 1040	MW-	34 (30')	29 30'			Ш				-8
	1450	(MW-	35 (30)	29 30'							9
4 4	1 1510	* MW	-35 (36)	35 36			A	Y			-10
Turn around	time X Nor	mai 25% Rush	0 50% Rush	100% Rush	1					· · · ·	· · · · · · · · · · · · · · · · · · ·
Relinquishe	a by (Signature)	1/11/11	1846 MA	A TI	Look	8	ili i	1846	NOTES:		
Relinquishe	ed by (Sighature)	Date:	Time: Receit 10/15 Time: Receit	ved by: (Sign	ature)	10	ate: 8/11 ate:	Time: /0/S Time:			
Relinquishe	ed by (Signature)	Date:	Time: Recei	ived by: (Signa	ature)	Da	ate:	Time:			
Turn around Relinquishe Relinquishe Relinquishe Relinquishe Matrix Container	time (Signature) of by (Signature) the Construction of the Construction of by (Signature) ad by (Signature) ed by (Signature) WW - Wastewat VOA - 40 ml via	The second secon	Image: 150% Rush Image: 150% Rush Time: Received	100% Rush Ved by: (Signa Ved by: (Signa Ved by: (Signa Ved by: (Signa Ved by: (Signa Ved by: (Signa Ved by: (Signa	ature) ature) ature) id A - Air E - Glass wide m	Bag nouth	ate: 7 / 1 / ate: 8 / 1 / ate: 2 - Char P/O - Pt	Time: 1846 Time: 10/5 Time: Time: Time: Time: time: Time:	NOTES: SL-sludge	0-08	·

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



COVER LETTER

Friday, September 09, 2011

Kyle Summers Southwest Geoscience 606 S. Rio Grande Unit A Aztec, NM 87410

TEL: (903) 821-5603 FAX

RE: Lindrith CS

Order No.: 1108B44

Dear Kyle Summers:

Hall Environmental Analysis Laboratory, Inc. received 11 sample(s) on 8/25/2011 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. 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. All samples are reported as received unless otherwise indicated.

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

Sincerely,

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901 AZ license # AZ0682

> 4901 Hawkins NE ■ Suite D ■ Albuquerque, NM 87109 505.345.3975 ■ Fax 505.345.4107 www.hallenvironmental.com

Date: 09-Sep-11 Analytical Report

CLIENT:	Southwest Geoscience			Clien	nt Sample ID:	MW-36 (3	30')
Lab Order:	1108B44			Co	llection Date:	8/18/2011	12:30:00 PM
Project:	Lindrith CS			D	ate Received:	8/25/2011	
Lab ID:	1108B44-01				Matrix:	SOIL	
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANGE O	RGANICS	- AU				Analyst: JB
Diesel Range O	rganics (DRO)	ND	10		mg/Kg	1	9/2/2011 7:29:15 AM
Surr: DNOP		119	73.4-123		%REC	1	9/2/2011 7:29:15 AM
EPA METHOD	8015B: GASOLINE RANGI	E					Analyst: RAA
Gasoline Range	Organics (GRO)	10	4.9		mg/Kg	1	8/31/2011 4:10:20 PM
Surr: BFB	., .	155	75.2-136	S	%REC	1	8/31/2011 4:10:20 PM
EPA METHOD	8021B: VOLATILES						Analyst: RAA
Benzene		ND	0.049		mg/Kg	1	8/31/2011 4:10:20 PM
Toluene		ND	0.049		mg/Kg	1	8/31/2011 4:10:20 PM
Ethylbenzene		ND	0.049		mg/Kg	1	8/31/2011 4:10:20 PM
Xylenes, Total		ND	0.098		mg/Kg	1	8/31/2011 4:10:20 PM
Surr: 4-Bromo	ofluorobenzene	99.1	80-120		%REC	1	8/31/2011 4:10:20 PM

Qualifiers:

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

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

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Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Southwest Geoscience			Clie	nt Sample ID:	MW-36 (3	(5')
Lab Order:	1108B44			Co	llection Date:	8/18/2011	12:50:00 PM
Project:	Lindrith CS	Date Received:		8/25/2011			
Lab ID:	1108B44-02				Matrix:	SOIL	
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANGE O	RGANICS					Analyst: JB
Diesel Range C	Drganics (DRO)	ND	10		mg/Kg	1	9/1/2011 4:15:16 PM
Surr: DNOP		110	73.4-123		%REC	1	9/1/2011 4:15:16 PM
EPA METHOD	8015B: GASOLINE RANG	E					Analyst: RAA
Gasoline Range	e Organics (GRO)	ND	4.7		mg/Kg	1	8/31/2011 2:14:33 PM
Surr: BFB		94.8	75.2-136		%REC	1	8/31/2011 2:14:33 PM
EPA METHOD	8021B: VOLATILES						Analyst: RAA
Benzene		ND	0.047		mg/Kg	1	8/31/2011 2:14:33 PM
Toluene		ND	0.047		mg/Kg	1	8/31/2011 2:14:33 PM
Ethylbenzene		ND	0.047		mg/Kg	1	8/31/2011 2:14:33 PM
Xylenes, Total		ND	0.095		mg/Kg	1	8/31/2011 2:14:33 PM
Surr: 4-Brom	ofluorobenzene	96.1	80-120		%REC	1	8/31/2011 2:14:33 PM

Qualifiers:

-

* Value exceeds Maximum Contaminant Level

E Estimated value

J Analyte detected below quantitation limits

NC Non-Chlorinated

PQL Practical Quantitation Limit

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

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Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Southwest Geoscience			Clie	nt Sample ID:	MW-37 (2	(6')
Lab Order:	1108B44			Co	llection Date:	8/19/2011	10:30:00 AM
Project:	Lindrith CS			D	ate Received:	8/25/2011	
Lab ID:	1108B44-03				Matrix:	SOIL	
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANGE O	RGANICS	1999				Analyst: JB
Diesel Range C	Organics (DRO)	27	9.9		mg/Kg	1	9/1/2011 4:50:11 PM
Surr: DNOP		108	73.4-123		%REC	1	9/1/2011 4:50:11 PM
EPA METHOD	8015B: GASOLINE RANGI	E					Analyst: RAA
Gasoline Range	e Organics (GRO)	ND	4.9		mg/Kg	1	8/31/2011 4:39:13 PM
Surr: BFB		130	75.2-136		%REC	1	8/31/2011 4:39:13 PM
EPA METHOD	8021B: VOLATILES						Analyst: RAA
Benzene		ND	0.049		mg/Kg	1	8/31/2011 4:39:13 PM
Toluene		ND	0.049		mg/Kg	1	8/31/2011 4:39:13 PM
Ethylbenzene		ND	0.049		mg/Kg	1	8/31/2011 4:39:13 PM
Xylenes, Total		ND	0.097		mg/Kg	1	8/31/2011 4:39:13 PM
Surr: 4-Brom	ofluorobenzene	99.2	80-120		%REC	1	8/31/2011 4:39:13 PM

Qualifiers:

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

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Southwest Geoscience		4	Clier	nt Sample ID:	MW-37 (30')	
Lab Order:	1108B44			Co	llection Date:	8/19/201	11:00:00 AM	
Project:	Lindrith CS			D	ate Received:	8/25/2011		
Lab ID:	1108B44-04			Matrix:		SOIL		
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed	
EPA METHOD	8015B: DIESEL RANGE O	RGANICS					Analyst: JB	
Diesel Range O	rganics (DRO)	310	100		mg/Kg	10	9/2/2011 12:15:20 AM	
Surr: DNOP		0	73.4-123	S	%REC	10	9/2/2011 12:15:20 AM	
EPA METHOD	8015B: GASOLINE RANG	E	ntin -				Analyst: RAA	
Gasoline Range	Organics (GRO)	1400	97		mg/Kg	20	8/31/2011 3:12:31 PM	
Surr: BFB		234	75.2-136	S	%REC	20	8/31/2011 3:12:31 PM	
EPA METHOD	8021B: VOLATILES						Analyst: RAA	
Benzene		1.2	0.97		mg/Kg	20	8/31/2011 3:12:31 PM	
Toluene		5.7	0.97		mg/Kg	20	8/31/2011 3:12:31 PM	
Ethylbenzene		5.2	0.97		mg/Kg	20	8/31/2011 3:12:31 PM	
Xylenes, Total	•	40	1.9		mg/Kg	20	8/31/2011 3:12:31 PM	
Surr: 4-Bromo	ofluorobenzene	106	80-120		%REC	20	8/31/2011 3:12:31 PM	

Qualifiers:

-

* Value exceeds Maximum Contaminant Level

E Estimated value

- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

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

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Date: 09-Sep-11 Analytical Report

CLIENT:	Southwest Geoscience			Clier	t Sample ID:	MW-38 (34')	
Lab Order:	1108B44			Co	llection Date:	8/19/2011	2:30:00 PM	
Project:	Lindrith CS			Date Received:		8/25/2011		
Lab ID:	1108B44-05				Matrix:	SOIL		
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed	
EPA METHOD	8015B: DIESEL RANGE O	RGANICS	A-7-1-1	and descent			Analyst: JB	
Diesel Range C	organics (DRO)	ND	10		mg/Kg	1	9/1/2011 5:24:51 PM	
Surr: DNOP		107	73.4-123		%REC	1	9/1/2011 5:24:51 PM	
EPA METHOD	8015B: GASOLINE RANG	E					Analyst: RAA	
Gasoline Range	Organics (GRO)	ND	4.9		mg/Kg	1	8/31/2011 5:08:10 PM	
Surr: BFB		99.8	75.2-136		%REC	1	8/31/2011 5:08:10 PM	
EPA METHOD	8021B: VOLATILES						Analyst: RAA	
Benzene		ND	0.049		mg/Kg	1	8/31/2011 5:08:10 PM	
Toluene		ND	0.049		mg/Kg	1	8/31/2011 5:08:10 PM	
Ethylbenzene		ND	0.049		mg/Kg	1	8/31/2011 5:08:10 PM	
Xylenes, Total		ND	0.098		mg/Kg	1	8/31/2011 5:08:10 PM	
Surr: 4-Brome	ofluorobenzene	96.9	80-120		%REC	1	8/31/2011 5:08:10 PM	

Qualifiers:

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

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

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Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Southwest Geoscience			Clier	t Sample ID:	MW-38 (2	(8')
Lab Order:	1108B44			Co	llection Date:	8/19/2011	12:50:00 PM
Project:	Lindrith CS		0.00	D	ate Received:	8/25/2011	
Lab ID:	1108B44-06				Matrix:	SOIL	
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANGE O	RGANICS				Alter Alter	Analyst: JB
Diesel Range C	Organics (DRO)	ND	9.8		mg/Kg	1	9/1/2011 5:59:44 PM
Surr: DNOP		108	73.4-123		%REC	1	9/1/2011 5:59:44 PM
EPA METHOD	8015B: GASOLINE RANG	E					Analyst: RAA
Gasoline Range	e Organics (GRO)	ND	4.8		mg/Kg	1	8/31/2011 5:37:03 PM
Surr: BFB		95.2	75.2-136		%REC	1	8/31/2011 5:37:03 PM
EPA METHOD	8021B: VOLATILES						Analyst: RAA
Benzene		ND	0.048		mg/Kg	1	8/31/2011 5:37:03 PM
Toluene		ND	0.048		mg/Kg	1	8/31/2011 5:37:03 PM
Ethylbenzene		ND	0.048		mg/Kg	1	8/31/2011 5:37:03 PM
Xylenes, Total		ND	0.096		mg/Kg	1	8/31/2011 5:37:03 PM
Surr: 4-Brom	ofluorobenzene	96.0	80-120		%REC	1	8/31/2011 5:37:03 PM

Qualifiers:

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

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

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Date: 09-Sep-11 Analytical Report

CLIENT:	Southwest Geoscience			Clien	nt Sample ID:	MW-39 (3	31')
Lab Order:	1108B44			Co	llection Date:	8/22/2011	1:00:00 PM
Project:	Lindrith CS			Date Received: 1 Matrix: 5		8/25/2011	
Lab ID:	1108B44-07					SOIL	L.
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANGE O	RGANICS					Analyst: JB
Diesel Range O	rganics (DRO)	990	. 99		mg/Kg	10	9/2/2011 12:49:28 AM
Surr: DNOP		0	73.4-123	S	%REC	10	9/2/2011 12:49:28 AM
EPA METHOD	8015B: GASOLINE RANGI	E					Analyst: RAA
Gasoline Range	Organics (GRO)	7600	230		mg/Kg	50	8/31/2011 6:05:52 PM
Surr: BFB		333	75.2-136	S	%REC	50	8/31/2011 6:05:52 PM
EPA METHOD	021B: VOLATILES						Analyst: RAA
Benzene		11	2.3		mg/Kg	50	8/31/2011 6:05:52 PM
Toluene		18	2.3		mg/Kg	50	8/31/2011 6:05:52 PM
Ethylbenzene		35	2.3		mg/Kg	50	8/31/2011 6:05:52 PM
Xylenes, Total		230	4.7		mg/Kg	50	8/31/2011 6:05:52 PM
Surr: 4-Bromo	ofluorobenzene	116	80-120		%REC	50	8/31/2011 6:05:52 PM

Qualifiers:

I

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

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

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Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Southwest Geoscience			Clie	nt Sample ID:	MW-40 (3	32')
Lab Order:	1108B44			Co	llection Date:	8/23/2011	9:20:00 AM
Project:	Lindrith CS			D	ate Received:	8/25/2011	
Lab ID:	1108B44-08				Matrix:	SOIL	
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANGE O	RGANICS					Analyst: JB
Diesel Range C	Organics (DRO)	ND	9.8		mg/Kg	1	9/1/2011 6:34:22 PM
Surr: DNOP		111	73.4-123		%REC	1	9/1/2011 6:34:22 PM
EPA METHOD	8015B: GASOLINE RANGI	E					Analyst: RAA
Gasoline Range	e Organics (GRO)	ND	4.8		mg/Kg	1	8/31/2011 7:03:45 PM
Surr: BFB		98.5	75.2-136		%REC	1	8/31/2011 7:03:45 PM
EPA METHOD	8021B: VOLATILES						Analyst: RAA
Benzene		ND	0.048		mg/Kg	1	8/31/2011 7:03:45 PM
Toluene		ND	0.048		mg/Kg	1	8/31/2011 7:03:45 PM
Ethylbenzene		ND	0.048		mg/Kg	1	8/31/2011 7:03:45 PM
Xylenes, Total		ND	0.096		mg/Kg	1	8/31/2011 7:03:45 PM
Surr: 4-Brom	ofluorobenzene	99.0	80-120		%REC	1	8/31/2011 7:03:45 PM

Qualifiers:

-

* Value exceeds Maximum Contaminant Level

E Estimated value

- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

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

MCL Maximum Contaminant Level

- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

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Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Southwest Geoscience			Client Sample ID:		MW-40 (3	5')
Lab Order:	1108B44			Co	llection Date:	8/23/2011	9:25:00 AM
Project:	Lindrith CS			D	ate Received:	8/25/2011	
Lab ID:	1108B44-09			Matrix:		SOIL	
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD	8015B: DIESEL RANGE O	RGANICS				11/2 ¥11	Analyst: JB
Diesel Range C	organics (DRO)	ND	10		mg/Kg	1	9/1/2011 7:08:45 PM
Surr: DNOP		108	73.4-123		%REC	1	9/1/2011 7:08:45 PM
EPA METHOD	8015B: GASOLINE RANGI	E					Analyst: RAA
Gasoline Range	Organics (GRO)	ND	4.7		mg/Kg	1	9/1/2011 12:49:54 AM
Surr: BFB		96.2	75.2-136		%REC	1	9/1/2011 12:49:54 AM
EPA METHOD	8021B: VOLATILES						Analyst: RAA
Benzene		ND	0.047		mg/Kg	1	9/1/2011 12:49:54 AM
Toluene		ND	0.047		mg/Kg	1	9/1/2011 12:49:54 AM
Ethylbenzene		ND	0.047		mg/Kg	1	9/1/2011 12:49:54 AM
Xylenes, Total		ND	0.093		mg/Kg	1	9/1/2011 12:49:54 AM
Surr: 4-Brom	ofluorobenzene	98.0	80-120		%REC	1	9/1/2011 12:49:54 AM

Qualifiers:

* Value exceeds Maximum Contaminant Level

E Estimated value

- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

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

MCL Maximum Contaminant Level

- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

9/1/2011 1:18:44 AM

9/1/2011 1:18:44 AM

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Southwest Geoscier				Client	Sample ID:	nple ID: MW-41 (30')				
Lab Order:	1108B44			Coll	ection Date:	8/23/2011	12:20:00 PM			
Project:	Lindrith CS			Dat	te Received:	8/25/2011				
Lab ID:	1108B44-10				Matrix:	SOIL				
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed			
EPA METHOD	015B: DIESEL RANGE O	RGANICS					Analyst: JB			
Diesel Range Or	rganics (DRO)	ND	9.9	r	mg/Kg	1	9/1/2011 8:17:00 PM			
Surr: DNOP		108	73.4-123	9	%REC	1	9/1/2011 8:17:00 PM			
EPA METHOD	015B: GASOLINE RANG	E					Analyst: RAA			
Gasoline Range	Organics (GRO)	ND	4.8	r	ng/Kg	1	9/1/2011 1:18:44 AM			
Surr: BFB		94.9	75.2-136	9	%REC	1	9/1/2011 1:18:44 AM			
EPA METHOD 8	021B: VOLATILES						Analyst: RAA			
Benzene		ND	0.048	r	ng/Kg	1	9/1/2011 1:18:44 AM			
Toluene		ND	0.048	n	ng/Kg	1	9/1/2011 1:18:44 AM			
Ethylbenzene		ND	0.048		ng/Kg	1	9/1/2011 1:18:44 AM			

0.095

80-120

mg/Kg

%REC

1

1

ND

97.6

Qualifiers:

l

* Value exceeds Maximum Contaminant Level

E Estimated value

Xylenes, Total

Surr: 4-Bromofluorobenzene

J Analyte detected below quantitation limits

NC Non-Chlorinated

PQL Practical Quantitation Limit

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

MCL Maximum Contaminant Level

- Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

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ND

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Hall Environmental Analysis Laboratory, Inc.

1

CLIENT:	Southwest Geoscience			Clier	t Sample ID:	MW-42 (2	.7')	
Lab Order:	1108B44			Co	llection Date:	8/23/2011 2:45:00 PM		
Project:	Lindrith CS			Date Received: Matrix:		8/25/2011		
Lab ID:	1108B44-11					SOIL		
Analyses	Contraction of the second	Result	PQL	Qual	Units	DF	Date Analyzed	
EPA METHOD	8015B: DIESEL RANGE O	RGANICS			a,		Analyst: JB	
Diesel Range C	Organics (DRO)	12	10		mg/Kg	1	9/1/2011 8:51:21 PM	
Surr: DNOP		119	73.4-123		%REC	1	9/1/2011 8:51:21 PM	
EPA METHOD	8015B: GASOLINE RANG	E					Analyst: RAA	
Gasoline Range	e Organics (GRO)	15	4.8		mg/Kg	1	9/1/2011 1:47:35 AM	
Surr: BFB		134	75.2-136		%REC	1	9/1/2011 1:47:35 AM	
EPA METHOD	8021B: VOLATILES						Analyst: RAA	
Benzene		ND	0.048		mg/Kg	1	9/1/2011 1:47:35 AM	
Toluene		ND	0.048		mg/Kg	1	9/1/2011 1:47:35 AM	
Ethylbenzene		0.058	0.048		mg/Kg	1	9/1/2011 1:47:35 AM	
Xylenes, Total		0.85	0.096		mg/Kg	1	9/1/2011 1:47:35 AM	
Surr: 4-Brom	ofluorobenzene	103	80-120		%REC	1	9/1/2011 1:47:35 AM	

Qualifiers:

* Value exceeds Maximum Contaminant Level

E Estimated value

- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

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

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QA/QC SUMMARY REPORT

Client: S	Southwest Geoscience										
Project: I	Lindrith CS								Work	Order: 1	108B44
Analyte	Result	Units	PQL	SPK V	a SPK ref	%Rec I	lowLimit H	ighLimit	%RPD	RPDLimit	Qual
Method: EPA Meth	od 8015B: Diesel Range	Organics									
Sample ID: MB-2826	57	MBLK				Batch ID:	28267	Analys	is Date:	9/1/2011	2:30:32 PM
Diesel Range Organica Sample ID: LCS-282	s (DRO) ND 167	mg/Kg LCS	10			Batch ID:	28267	Analys	is Date:	9/1/2011	3:05:27 PM
Diesel Range Organica Sample ID: LCSD-28	s (DRO) 44.32 3267	mg/Kg LCSD	10	50	0	88.6 Batch ID:	66.7 28267	119 Analys	is Date:	9/1/2011	3:40:21 PM
Diesel Range Organica	s (DRO) 45.97	mg/Kg	10	50	0	91.9	66.7	119	3.66	18.9	
Method: EPA Meth	od 8015B: Gasoline Rar	nge									
Sample ID: MB-2825	16	MBLK				Batch ID:	28256	Analys	is Date:	8/31/2011 12	2:45:23 PM
Gasoline Range Organ Sample ID: LCS-282	nics (GRO) ND 56	mg/Kg LCS	5.0			Batch ID:	28256	Analys	is Date:	8/31/2011 1	1:47:36 AM
Gasoline Range Organ	nics (GRO) 25.62	mg/Kg	5.0	25	0	102	86.4	132			
Method: EPA Meth	od 8021B: Volatiles								a.		
Sample ID: 1108B44	-01AMSD	MSD				Batch ID:	28256	Analys	is Date:	8/31/2011 11	:52:15 PM
Benzene	0.9428	ma/Ka	0.047	0.939	0.0148	98.8	67.2	113	2.33	14.3	
Toluene	1.017	mg/Kg	0.047	0.939	0.0122	107	62.1	116	2.14	15.9	
Ethylbenzene	1.067	mg/Kg	0.047	0.939	0	114	67.9	127	0.654	14.4	
Xylenes, Total	3.265	mg/Kg	0.094	2.817	0.0719	113	60.6	134	0.0631	12.6	
Sample ID: MB-2825	6	MBLK				Batch ID:	28256	Analysi	is Date:	8/31/2011 12	:45:23 PM
Benzene	ND	mg/Kg	0.050								
Toluene	ND	mg/Kg	0.050								
Ethylbenzene	ND	mg/Kg	0.050								
Xylenes, Total	ND	mg/Kg	0.10								
Sample ID: LCS-282	56	LCS				Batch ID:	28256	Analysi	is Date:	8/31/2011 12	:16:30 PM
Benzene	0.9598	ma/Ka	0.050	1	0.0156	94.4	83.3	107			
Toluene	0.9828	ma/Ka	0.050	1	0	98.3	74.3	115			
Ethylbenzene	0.9796	mg/Kg	0.050	1	0	98.0	80.9	122			
Xylenes, Total	2.975	mg/Kg	0.10	3	0	99.2	85.2	123			
Sample ID: 1108B44-	OTAMS	MS				Batch ID:	28256	Analysi	s Date:	8/31/2011 11	:23:22 PM
Benzene	0.9650	mg/Kg	0.048	0.963	0.0148	98.7	67.2	113			
Toluene	1.039	mg/Kg	0.048	0.963	0.0122	107	62.1	116			
Ethylbenzene	1.060	mg/Kg	0.048	0.963	0	110	67.9	127			
Xvienes, Total	3.263	ma/Ka	0.096	2.887	0.0719	111	60.6	134			

Qualifiers:

E Estimated value

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded

NC Non-Chlorinated

R RPD outside accepted recovery limits

Page 1

	Sample Receipt C	hecklist		812511
Client Name SOUTHWEST GEOSCIENCE		Date Receiv	/ed:	-1100/0011
Work Order Number 1108B44	1	A Received I	by: AMG	10-5
Checklist completed but A	8 25	Sample ID	labels checked by:	Initials
Signature	Dat	8		
Matrix: Ca	rrier name: <u>Greyhound</u>	l		
Shipping container/cooler in good condition?	Yes 🗹	No 🗌	Not Present	
Custody seals intact on shipping container/cooler?	Yes 🖌	No 🗌	Not Present	Not Shipped
Custody seals intact on sample bottles?	Yes 🗌	No 🗆	N/A	
Chain of custody present?	Yes 🗹	No 🗖		-
Chain of custody signed when relinquished and received?	Yes 🗹	No 🗔		
Chain of custody agrees with sample labels?	Yes 🗹	No 🗌		
Samples in proper container/bottle?	Yes 🗹	No 🗍		
Sample containers intact?	Yes 🗹	No 🗋		
Sufficient sample volume for indicated test?	Yes 🗹	No 🗌		
All samples received within holding time?	Yes 🗹			Number of preserved
Water - VOA vials have zero headspace? No VOA	A vials submitted	Yes 🗌	No 🗖	pH:
Water - Preservation labels on bottle and cap match?	Yes	No 🗆	N/A 🗹	
Water - pH acceptable upon receipt?	Yes 🗌	No 🗌	N/A	<2 >12 unless noted
Container/Temp Blank temperature?	3.7°	<6° C Accepta	ble	<i>below.</i>
COMMENTS:		If given sufficie	nt time to cool.	
		=====		=========
Client contacted Date cont	acted:	Per	rson contacted	
Contacted by: Regarding	:			
Jomments.				
		······		
	a (
Corrective Action				

		CHAIN OF CUSTODY RECORD
South Environmental & Hydrogec Office Location Attention Project Manager K. J ampley's Name	Nest Laboratory: Hall Laboratory: Hall Address: All Guguergue Contact: Andy Freeman Phone: 525 345 3975 PO/SO #: Sampler's Signature	ANALYSIS REQUESTED
1470006 P	roject Name the C.J. No/Type of Container	
atrix Date Time	C G I Identifying Marks of Sample(s) To the WOA A/G 250 P	20 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
5 8/18/11 1230	X MW-36 (30') 2930	1XX IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII
0 12/11 12.50	1 MW-36 (35') 3435	111 7
8/R/11 1030	MW-37 (26') 25 26	3
1 1100	MU1-37 (30') 29 30	4
1430	MW-38 (34) 33 34	5
4 1250	MW-38(28') 2728	10
8/22/11 1300	MW-39 (31') 30 31	4
8/23/11 0920	MW-40 (32) 31 32	8
1 0925	MW-40 (35) 34 35	
1 1220	V m w-41 (30) 29 30	
um around time	al 25% Rush 250% Rush 2100% Rush	
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SOUTHWEST GEOSCIENCE • 2351 W. Northwest Hwy., Suite 3321 • Dallas, Texas 75220 • Office: 214-350-5469 • Fax 214-350-2914

Office Proje	E Locatio	uth la Hydrog m Az ger R_i	IN CIE Beolog Ferris		est ice onsultants	Laboratory: Address: A Contact: A Phone: 5 PO/SO #: 5 Sample's Sign	Ha Ala	141 Fra 334	- MI - 3	41	_ى		ANRE	A ROAD	SIS STEL SUS MINING					Cł			USTC Lab us Due Da Temp. o when re 1 2 Page_	DY RI e only ate: f coolers ceived (C 3 22_of	COR 3 4 5 2	
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Matrix Contair	with the second	W - Wastewa DA - 40 ml vi	ater ial	_	W - Water A/G - Amber / C	S - Soil SD - So r Glass 1 Liter	lid	L - Liqui 250 ml -	d A Glass	- Air Ba	ag	C	- Char O - Pl	rcoal t astic c	ube r other	SL - s	ludge	0-1	Oil	_		-				

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COVER LETTER

Friday, October 07, 2011

Kyle Summers Southwest Geoscience 606 S. Rio Grande Unit A Aztec, NM 87410

TEL: (903) 821-5603 FAX

RE: Lindrith Compressor Station

Dear Kyle Summers:

Order No.: 1109901

Hall Environmental Analysis Laboratory, Inc. received 17 sample(s) on 9/23/2011 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. 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. All samples are reported as received unless otherwise indicated.

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

Sincerely,

Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901 AZ license # AZ0682

> 4901 Hawkins NE ■ Suite D ■ Albuquerque, NM 87109 505.345.3975 ■ Fax 505.345.4107 www.hallenvironmental.com

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Southwest Geoscience				Clier	nt Sample ID:	MW-40			
Lab Order:	1109901			Co	llection Date:	9/20/2011 1:00:00 PM			
Project:Lindrith CompressLab ID:1109901-01		r Station		D	ate Received:	9/23/2011			
					Matrix:	AQUEOUS			
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed		
EPA METHOD 8	015B: DIESEL RANGE		A STATE OF THE OWNER				Analyst: JB		
Diesel Range Or	ganics (DRO)	ND	1.0		mg/L	1	9/28/2011 9:45:28 PM		
Surr: DNOP		122	81.1-147		%REC	1	9/28/2011 9:45:28 PM		
EPA METHOD 8	015B: GASOLINE RAN	GE					Analyst: RAA		
Gasoline Range	Organics (GRO)	0.21	0.050		mg/L	1	10/1/2011 2:47:14 PM		
Surr: BFB		99.3	65.4-141		%REC	1	10/1/2011 2:47:14 PM		
EPA METHOD 8	021B: VOLATILES						Analyst: RAA		
Benzene		ND	1.0		µg/L	1	10/1/2011 2:47:14 PM		
Toluene		ND	1.0		µg/L	1	10/1/2011 2:47:14 PM		
Ethylbenzene		ND	1.0		µg/L	1	10/1/2011 2:47:14 PM		
Xylenes, Total		ND	2.0		µg/L	1	10/1/2011 2:47:14 PM		
Surr: 4-Bromo	fluorobenzene	92.0	76.5-115		%REC	1	10/1/2011 2:47:14 PM		

Qualifiers:

* Value exceeds Maximum Contaminant Level

E Estimated value

- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT:Southwest GeoscienceLab Order:1109901Project:Lindrith Compressor StLab ID:1109901-02		ion		Clier Co D	at Sample ID: llection Date: ate Received: Matrix:	MW-31 9/20/2011 1 9/23/2011 AQUEOUS	:35:00 PM
Lab x21		Result	PQL	Qual	Units	DF	Date Analyzed
Analyses							Analyst: JB
EPA METHOD Diesel Range C	8015B: DIESEL RANGE Drganics (DRO)	ND 131	1.0 81.1-147		mg/L %REC	1 1	9/28/2011 10:20:07 PM 9/28/2011 10:20:07 PM
oun prov							Analyst: RAA
EPA METHOD Gasoline Rang Surr: BFB	8015B: GASOLINE RANGE e Organics (GRO)	0.23 93.4	0.050 65.4-141		mg/L %REC	1 1	10/1/2011 3:17:18 PM 10/1/2011 3:17:18 PM
-							Analyst: RAA
EPA METHOL Benzene Toluene Ethylbenzene Xylenes, Total	BUZID: VOLATILES	ND 1.2 1.1 7.4	1.0 1.0 1.0 2.0		μg/L μg/L μg/L μg/L	1 1 1 1	10/1/2011 3:17:18 PM 10/1/2011 3:17:18 PM 10/1/2011 3:17:18 PM 10/1/2011 3:17:18 PM 10/1/2011 3:17:18 PM
Surr: 4-Brot	mofluorobenzene	90.5	76.5-115	, · ·	%REC	1	10/1/2011 0.11.10 11.

Qualifiers:

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

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

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Hall Environmental Analysis Laboratory, Inc.

CLIENT:	CLIENT: Southwest Geoscience			Clier	nt Sample ID:	MW-33		
Lab Order:	1109901			Co	llection Date:	9/20/201	1 2:20:00 PM	
Project: Lindrith Compresso		ation		Date Received: 9		9/23/201	1	
Lab ID:	1109901-03				Matrix:	AQUEOUS		
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed	
EPA METHOD	8015B: DIESEL RANGE			981 YU			Analyst: JB	
Diesel Range C	organics (DRO)	ND	1.0		mg/L	1	9/28/2011 10:54:48 PM	
Surr: DNOP		123	81.1-147		%REC	1	9/28/2011 10:54:48 PM	
EPA METHOD	8015B: GASOLINE RANG	E			<i>a.</i> ;		Analyst: RAA	
Gasoline Range	organics (GRO)	ND	0.050		mg/L	1	10/1/2011 3:47:11 PM	
Surr: BFB		91.7	65.4-141		%REC	1	10/1/2011 3:47:11 PM	
EPA METHOD	8021B: VOLATILES			2			Analyst: RAA	
Benzene		ND	1.0		µg/L	1	10/1/2011 3:47:11 PM	
Toluene		ND	1.0		µg/L	1	10/1/2011 3:47:11 PM	
Ethylbenzene		ND	1.0		µg/L	1	10/1/2011 3:47:11 PM	
Xylenes, Total		ND	2.0		µg/L	1	10/1/2011 3:47:11 PM	
Surr: 4-Brom	ofluorobenzene	89.9	76.5-115		%REC	1	10/1/2011 3:47:11 PM	

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Qualifiers:

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

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

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Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Southwest Geoscience			Clier	nt Sample ID:	MW-8			
Lab Order:	1109901			Co	llection Date:	9/20/2011	2:55:00 PM		
Project: Lindrith Compresso		Station		D	ate Received:	9/23/2011			
Lab ID:	1109901-04				Matrix:	AQUEOU	S		
Analyses	-11	Result	PQL	Qual	Units	DF	Date Analyzed		
EPA METHOD	015B: DIESEL RANGE		and the state of the				Analyst: JB		
Diesel Range O	rganics (DRO)	ND	1.0		mg/L	1	9/28/2011 11:29:28 PM		
Surr: DNOP		133	81.1-147		%REC	1	9/28/2011 11:29:28 PM		
EPA METHOD	015B: GASOLINE RANG	Ē					Analyst: RAA		
Gasoline Range	Organics (GRO)	ND	0.050		mg/L	1	10/1/2011 4:17:22 PM		
Surr: BFB		90.1	65.4-141		%REC	1	10/1/2011 4:17:22 PM		
EPA METHOD 8	021B: VOLATILES						Analyst: RAA		
Benzene		ND	1.0		µg/L	1	10/1/2011 4:17:22 PM		
Toluene		ND	1.0		µg/L	1	10/1/2011 4:17:22 PM		
Ethylbenzene		ND	1.0		µg/L	1	10/1/2011 4:17:22 PM		
Xylenes, Total		ND	2.0		µg/L	1	10/1/2011 4:17:22 PM		
Surr: 4-Bromo	fluorobenzene	85.8	76.5-115		%REC	1	10/1/2011 4:17:22 PM		

Qualifiers:

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

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

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Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Southwest Geoscience			Clier	nt Sample ID:	: MW-10			
Lab Order:	1109901			Co	llection Date:	e: 9/20/2011 3:30:00 PM			
Project: Lindrith Compress		tation		Date Received:			9/23/2011		
Lab ID:	1109901-05				Matrix:	AQUEOUS			
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed		
EPA METHOD	8015B: DIESEL RANGE		udar - y - ta diyar				Analyst: JB		
Diesel Range O	rganics (DRO)	ND	1.0		mg/L	1	9/29/2011 12:04:05 AM		
Surr: DNOP		137	81.1-147		%REC	1	9/29/2011 12:04:05 AM		
EPA METHOD	8015B: GASOLINE RANG	GE					Analyst: RAA		
Gasoline Range	Organics (GRO)	ND	0.050		mg/L	1	10/1/2011 4:47:32 PM		
Surr: BFB		86.8	65.4-141		%REC	1	10/1/2011 4:47:32 PM		
EPA METHOD	8021B: VOLATILES						Analyst: RAA		
Benzene		ND	1.0		µg/L	1	10/1/2011 4:47:32 PM		
Toluene		ND	1.0		µg/L	1	10/1/2011 4:47:32 PM		
Ethylbenzene		ND	1.0		µg/L	1	10/1/2011 4:47:32 PM		
Xylenes, Total		ND	2.0		µg/L	1	10/1/2011 4:47:32 PM		
Surr: 4-Brome	ofluorobenzene	82.0	76.5-115		%REC	1	10/1/2011 4:47:32 PM		

Qualifiers:

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

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

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Date: 07-Oct-11 Analytical Report

CLIENT:	Southwest Geoscier	ice		Clier	t Sample ID:	MW-42		
Lab Order:	1109901		Collection Date: 9			9/20/2011 4:00:00 PM		
Project:	Lindrith Compresso	r Station		D	ate Received:	9/23/2011 AQUEOUS		
Lab ID:	1109901-06				Matrix:			
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed	
EPA METHOD	8015B: DIESEL RANG	E			-		Analyst: JB	
Diesel Range C	Organics (DRO)	ND	1.0		mg/L	1	9/29/2011 12:38:28 AM	
Surr: DNOP		132	81.1-147		%REC	1	9/29/2011 12:38:28 AM	
EPA METHOD	8015B: GASOLINE RA	NGE					Analyst: RAA	
Gasoline Range	e Organics (GRO)	0.62	0.050		mg/L	1	10/2/2011 2:01:25 PM	
Surr: BFB		113	65.4-141		%REC	1	10/2/2011 2:01:25 PM	
EPA METHOD	8021B: VOLATILES						Analyst: RAA	
Benzene		70	1.0		µg/L	1	10/2/2011 2:01:25 PM	
Toluene		42	1.0		µg/L	1	10/2/2011 2:01:25 PM	
Ethylbenzene		4.1	1.0		µg/L	1	10/2/2011 2:01:25 PM	
Xylenes, Total		33	2.0		µg/L	1	10/2/2011 2:01:25 PM	
Surr: 4-Brom	ofluorobenzene	104	76.5-115		%REC	1	10/2/2011 2:01:25 PM	

Qualifiers:

Е

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

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

6

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Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Southwest Geoscience			Clier	t Sample ID:	MW-34 9/20/2011 4:35:00 PM		
Lab Order:	1109901			Co	llection Date:			
Project:	Lindrith Compressor S		Date Received: Matrix:		9/23/2011 AOUEOUS			
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed	
EPA METHOD	015B: DIESEL RANGE		and the second second				Analyst: JB	
Diesel Range Or	ganics (DRO)	ND	1.0		mg/L	1	9/29/2011 1:12:37 AM	
Surr: DNOP	/	116	81.1-147		%REC	1	9/29/2011 1:12:37 AM	
EPA METHOD	015B: GASOLINE RANG	GE	•		2		Analyst: RAA	
Gasoline Range	Organics (GRO)	ND	0.050		mg/L	1	10/1/2011 5:47:24 PM	
Surr: BFB		88.5	65.4-141		%REC	1	10/1/2011 5:47:24 PM	
EPA METHOD	021B: VOLATILES						Analyst: RAA	
Benzene		ND	1.0		µg/L	1	10/1/2011 5:47:24 PM	
Toluene		ND	1.0		µg/L	1	10/1/2011 5:47:24 PM	
Ethylbenzene		ND	1.0		µg/L	1	10/1/2011 5:47:24 PM	
Xylenes, Total		ND	2.0		µg/L	1	10/1/2011 5:47:24 PM	
Surr: 4-Bromo	fluorobenzene	86.8	76.5-115		%REC	1	10/1/2011 5:47:24 PM	

Qualifiers:

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

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

Date: 07-Oct-11 Analytical Report

CLIENT: Southwest Geoscient Lab Order: 1109901		,	Client Sample ID: M				,
				Co	llection Date:	9/20/201	9/20/2011 5:05:00 PM
Project:	Lindrith Compressor S	Station		D	ate Received:	9/23/201	1
Lab ID:	1109901-08				Matrix:	AQUEOUS	
Analyses	Result PQL Qual Units		Units	DF	Date Analyzed		
EPA METHOD	8015B: DIESEL RANGE	- Contraction of the second					Analyst: JB
Diesel Range O	rganics (DRO)	ND	1.0		mg/L	1	9/29/2011 1:47:02 AM
Surr: DNOP		124	81.1-147		%REC	1	9/29/2011 1:47:02 AM
EPA METHOD	BO15B: GASOLINE RAN	GE				÷	Analyst: RAA
Gasoline Range	Organics (GRO)	ND	0.050		mg/L	1	10/1/2011 6:17:30 PM
Surr: BFB		92.5	65.4-141		%REC	1	10/1/2011 6:17:30 PM
EPA METHOD	021B: VOLATILES					17	Analyst: RAA
Benzene		ND	1.0		µg/L	1	10/1/2011 6:17:30 PM
Toluene		ND	1.0		µg/L	1	10/1/2011 6:17:30 PM
Ethylbenzene		ND	1.0		µg/L	1	10/1/2011 6:17:30 PM
Xylenes, Total		ND	2.0		µg/L	1	10/1/2011 6:17:30 PM
Surr: 4-Bromo	ofluorobenzene	90.8	76.5-115		%REC	1	10/1/2011 6:17:30 PM

Qualifiers:

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

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

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Date: 07-Oct-11 Analytical Report

CLIENT:	Southwest Geoscienc	e		Clier	nt Sample ID:	MW-12		
Lab Order:	1109901		Collection Date: 9			9/21/2011 8:30:00 AM		
Project: Lindrith Compressor Station			D	ate Received:	9/23/201	1		
Lab ID:	1109901-09				Matrix:	AQUEOUS		
Analyses		Result	PQL Qual Units		DF	Date Analyzed		
EPA METHOD	8015B: DIESEL RANGE						Analyst: JB	
Diesel Range O	rganics (DRO)	ND	1.0		mg/L	1	9/29/2011 2:55:20 AM	
Surr: DNOP		129	81.1-147		%REC	1	9/29/2011 2:55:20 AM	
EPA METHOD	015B: GASOLINE RAN	GE					Analyst: RAA	
Gasoline Range	Organics (GRO)	0.81	0.050		mg/L	1	10/1/2011 6:47:30 PM	
Surr: BFB		144	65.4-141	S	%REC	1	10/1/2011 6:47:30 PM	
EPA METHOD	021B: VOLATILES						Analyst: RAA	
Benzene		63	1.0		µg/L	1	10/1/2011 6:47:30 PM	
Toluene		ND	1.0		µg/L	1	10/1/2011 6:47:30 PM	
Ethylbenzene		17	1.0		µg/L	1	10/1/2011 6:47:30 PM	
Xylenes, Total		26	2.0		µg/L	1	10/1/2011 6:47:30 PM	
Surr: 4-Bromo	fluorobenzene	106	76.5-115		%REC	1	10/1/2011 6:47:30 PM	

Qualifiers:

E

- * Value exceeds Maximum Contaminant Level
- J Analyte detected below quantitation limits
- NC Non-Chlorinated

Estimated value

PQL Practical Quantitation Limit

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

Date: 07-Oct-11 Analytical Report

CLIENT:Southwest GeoscienceLab Order:1109901Project:Lindrith Compressor S		ation	Client Sample ID: Collection Date: Date Received: Matrix:				MW-35 9/21/2011 9:05:00 AM 9/23/2011 AOUEOUS		
Analyses	alvees Result POL Qual Units		Units	DF	Date Analyzed				
EDA METUOD	MARD DIECEL BANCE						Analyst IR		
Diesel Bange (Imanics (DRO)	ND	1.0		ma/L	1	9/29/2011 3:30:00 AM		
Surr: DNOP	igamos (orico)	143	81.1-147		%REC	1	9/29/2011 3:30:00 AM		
	8015B: GASOLINE RANG	E					Analyst: RAA		
Gasoline Range	Organics (GRO)	ND	0.050		mg/L	1	10/1/2011 7:17:29 PM		
Surr: BFB		98.8	65.4-141		%REC	1	10/1/2011 7:17:29 PM		
EPA METHOD	8021B: VOLATILES						Analyst: RAA		
Benzene		ND	1.0		µg/L	1	10/1/2011 7:17:29 PM		
Toluene		ND	1.0		µg/L	1	10/1/2011 7:17:29 PM		
Ethylbenzene		ND	1.0		µg/L	1	10/1/2011 7:17:29 PM		
Xylenes, Total		ND	2.0		µg/L	1	10/1/2011 7:17:29 PM		
Surr: 4-Brom	ofluorobenzene	95.5	76.5-115		%REC	1	10/1/2011 7:17:29 PM		

Qualifiers:

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

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

Date: 07-Oct-11 Analytical Report

CLIENT:	Southwest Geoscience			Clie	nt Sample ID:	MW-41		
Lab Order: 1109901			Collection Date: 9			9/21/2011 9:35:00 AM		
Project:	Lindrith Compressor S	tation		D	ate Received:	9/23/201	1	
Lab ID:	1109901-11				Matrix:	AQUEOU	JS	
Analyses	nalyses Result		PQL	Qual	Units	DF	Date Analyzed	
EPA METHOD	8015B: DIESEL RANGE						Analyst: JB	
Diesel Range O	Organics (DRO)	2.4	1.0	¢	mg/L	1	9/29/2011 4:04:25 AM	
Surr: DNOP		138	81.1-147		%REC	1	9/29/2011 4:04:25 AM	
EPA METHOD	8015B: GASOLINE RANG	3E					Analyst: RAA	
Gasoline Range	Organics (GRO)	ND	0.50		mg/L	10	10/2/2011 12:17:27 AM	
Surr: BFB		96.4	65.4-141		%REC	10	10/2/2011 12:17:27 AM	
EPA METHOD	8021B: VOLATILES						Analyst: RAA	
Benzene		ND	10		µg/L	10	10/2/2011 12:17:27 AM	
Toluene		ND	10		µg/L	10	10/2/2011 12:17:27 AM	
Ethylbenzene		ND	10		µg/L	10	10/2/2011 12:17:27 AM	
Xylenes, Total		30	20		µg/L	10	10/2/2011 12:17:27 AM	
Surr: 4-Brome	ofluorobenzene	94.7	76.5-115		%REC	10	10/2/2011 12:17:27 AM	

Qualifiers:

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

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

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Date: 07-Oct-11 Analytical Report

CLIENT:	Southwest Geoscienc	Southwest Geoscience			nt Sample ID:	MW-7			
Lab Order: 1109901			Collection Date: 9/			9/21/201	9/21/2011 10:30:00 AM		
Project:	Lindrith Compressor	Station		D	ate Received:	9/23/201	1		
Lab ID:	1109901-12				Matrix:	AQUEO	US .		
Analyses Result		PQL	Qual	Units ·	DF	Date Analyzed			
EPA METHOD	8015B: DIESEL RANGE						Analyst: JB		
Diesel Range C	Irganics (DRO)	ND	1.0		mg/L	1	9/29/2011 4:38:51 AM		
Surr: DNOP		120	81.1-147		%REC	1	9/29/2011 4:38:51 AM		
EPA METHOD	8015B: GASOLINE RAN	IGE	•				Analyst: RAA		
Gasoline Range	Organics (GRO)	0.57	0.050		mg/L	1	10/2/2011 1:19:20 AM		
Surr: BFB		119	65.4-1.41		%REC	1	10/2/2011 1:19:20 AM		
EPA METHOD	8021B: VOLATILES						Analyst: RAA		
Benzene		3.3	1.0		µg/L	1	10/2/2011 1:19:20 AM		
Toluene		ND	1.0		µg/L	1	10/2/2011 1:19:20 AM		
Ethylbenzene		ND	1.0		µg/L	1	10/2/2011 1:19:20 AM		
Xylenes, Total		4.9	2.0		µg/L	1	10/2/2011 1:19:20 AM		
Surr: 4-Brom	ofluorobenzene	95.6	76.5-115		%REC	1	10/2/2011 1:19:20 AM		

Qualifiers:

l

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

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

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Date: 07-Oct-11 Analytical Report

CLIENT:	JENT: Southwest Geoscience			Clier	nt Sample ID:	MW-36		
Lab Order:	1109901			Collection Date: 9/		9/21/2011	9/21/2011 11:05:00 AM	
Project:	Lindrith Compressor St	ation		D	ate Received:	9/23/2011		
Lab ID:	1109901-13	÷			Matrix:	AQUEOU	IS	
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed	
EPA METHOD	8015B: DIESEL RANGE			_			Analyst: JB	
Diesel Range C	Organics (DRO)	ND	1.0		mg/L	1	9/29/2011 5:13:18 AM	
Surr: DNOP		124	81.1-147		%REC	1	9/29/2011 5:13:18 AM	
EPA METHOD	8015B: GASOLINE RANG	E					Analyst: RAA	
Gasoline Range	e Organics (GRO)	0.15	0.050		mg/L	1	10/2/2011 1:49:23 AM	
Surr: BFB		107	65.4-141		%REC	1	10/2/2011.1:49:23 AM	
EPA METHOD	8021B: VOLATILES						Analyst: RAA	
Benzene		ND	1.0		µg/L	1	10/2/2011 1:49:23 AM	
Toluene		ND	1.0		µg/L	1	10/2/2011 1:49:23 AM	
Ethylbenzene		ND	1.0		µg/L	1	10/2/2011 1:49:23 AM	
Xylenes, Total		ND	2.0		µg/L	1	10/2/2011 1:49:23 AM	
Surr: 4-Brom	ofluorobenzene	94.6	76.5-115		%REC	1	10/2/2011 1:49:23 AM	

Qualifiers:

E

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

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

Date: 07-Oct-11 Analytical Report

CLIENT: Lab Order: Project: Lab ID:	: Southwest Geoscience er: 1109901 Lindrith Compressor Station 1109901-14			Clier Co D	nt Sample ID: llection Date: ate Received: Matrix:	MW-6 9/21/2011 11:45:00 AM 9/23/2011 AQUEOUS		
Analyses Result		PQL	Qual	Units	DF	Date Analyzed		
EPA METHOD	8015B: DIESEL RANGE						Analyst: JB	
Diesel Range O	rganics (DRO)	1.4	1.0		mg/L	1	9/29/2011 5:47:30 AM	
Surr: DNOP		118	81.1-147		%REC	1	9/29/2011 5:47:30 AM	
EPA METHOD	8015B: GASOLINE RANG	E					Analyst: RAA	
Gasoline Range	Organics (GRO)	32	0.50		mg/L	10	10/2/2011 2:49:28 AM	
Surr: BFB		. 105	65.4-141		%REC	10	10/2/2011 2:49:28 AM	
EPA METHOD	8021B: VOLATILES						Analyst: RAA	
Benzene		4900	50		µg/L	50	10/2/2011 2:19:27 AM	
Toluene		67	10		µg/L	10	10/2/2011 2:49:28 AM	
Ethylbenzene		330	10		Hg/L	10	10/2/2011 2:49:28 AM	
Xylenes, Total		1800	20		µg/L	10	10/2/2011 2:49:28 AM	
Surr: 4-Bromo	ofluorobenzene	101	76.5-115		%REC	10	10/2/2011 2:49:28 AM	

Qualifiers:

E

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

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

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Date: 07-Oct-11 Analytical Report

CLIENT:	Southwest Geoscience	uthwest Geoscience 09901			t Sample ID:	MW-38	MW-38 9/21/2011 12:20:00 PM		
Lab Order:	1109901				lection Date:	9/21/2011			
Project:	Lindrith Compressor S	tation		D	ate Received:	9/23/2011			
Lab ID:	1109901-15			-	Matrix:	AQUEOUS			
Analyses		Result	PQL	PQL Qual Units		DF	Date Analyzed		
EPA METHOD	8015B: DIESEL RANGE						Analyst: JB		
Diesel Range O	rganics (DRO)	1.3	1.0		mg/L	1	9/29/2011 6:21:44 AM		
Surr: DNOP	Henry are • calledone	125	81.1-147		%REC	1	9/29/2011 6:21:44 AM		
EPA METHOD	8015B: GASOLINE RANG	E					Analyst: RAA		
Gasoline Range	Organics (GRO)	26	2.5		mg/L	50	10/2/2011 3:49:19 AM		
Surr: BFB		96.9	65.4-141		%REC	50	10/2/2011 3:49:19 AM		
EPA METHOD	8021B: VOLATILES						Analyst: RAA		
Benzene		2100	50		µg/L	50	10/2/2011 3:49:19 AM		
Toluene		440	50		µg/L	50	10/2/2011 3:49:19 AM		
Ethylbenzene		270	50		µg/L	50	10/2/2011 3:49:19 AM		
Xylenes, Total		1800	100		µg/L	50	10/2/2011 3:49:19 AM		
Surr: 4-Bromo	ofluorobenzene	97.7	76.5-115		%REC	50	10/2/2011 3:49:19 AM		

Qualifiers:

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

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

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Date: 07-Oct-11 Analytical Report

CLIENT:	Southwest Geoscience			Clier	nt Sample ID	: MW-5		
Lab Order:	1109901			Co	llection Date	: 9/21/201	11 1:00:00 PM	
Project:	Lindrith Compressor S	tation		D	ate Received	: 9/23/2011	1	
Lab ID:	1109901-16				Matrix	AQUEOU	JS	
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed	
EPA METHOD	8015B: DIESEL RANGE						Analyst: JB	
Diesel Range O	rganics (DRO)	1.1	1.0		mg/L	1	9/29/2011 6:55:33 AM	
Surr: DNOP		131	81.1-147		%REC	1	9/29/2011 6:55:33 AM	
EPA METHOD	015B: GASOLINE RANG	E					Analyst: RAA	
Gasoline Range	Organics (GRO)	0.62	0.050		mg/L	1	10/2/2011 3:01:17 PM	
Surr: BFB		177	65.4-141	S	%REC	1	10/2/2011 3:01:17 PM	
EPA METHOD 8	021B: VOLATILES						Analyst: RAA	
Benzene		1.9	1.0		µg/L	1	10/2/2011 3:01:17 PM	
Toluene		ND	1.0		µg/L	1	10/2/2011 3:01:17 PM	
Ethylbenzene		3.8	1.0		µg/L	1	10/2/2011 3:01:17 PM	
Xylenes, Total		9.7	2.0		µg/L	1	10/2/2011 3:01:17 PM	
Surr: 4-Bromo	fluorobenzene	112	76.5-115		%REC	1	10/2/2011 3:01:17 PM	

Qualifiers:

* Value exceeds Maximum Contaminant Level

E Estimated value

J Analyte detected below quantitation limits

NC Non-Chlorinated

PQL Practical Quantitation Limit

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

MCL Maximum Contaminant Level

- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

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Hall Environmental Analysis Laboratory, Inc.

Date: 07-Oct-11 Analytical Report

CLIENT:	Southwest Geoscience			Clier	nt Sample ID:	MW-4						
Lab Order:	1109901			Co	llection Date:	9/21/2011	1:45:00 PM					
Project:	Lindrith Compressor S	tation		D	ate Received:	: 9/23/2011						
Lab ID:	1109901-17				Matrix:	AQUEOUS	3					
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed					
EPA METHOD	8015B: DIESEL RANGE						Analyst: JB					
Diesel Range O	rganics (DRO)	1.1	1.0		mg/L	1	9/29/2011 7:29:58 AM					
Surr: DNOP		137	81.1-147		%REC	1	9/29/2011 7:29:58 AM					
EPA METHOD	8015B: GASOLINE RANG	E					Analyst: RAA					
Gasoline Range	Organics (GRO)	32	0.50		mg/L	10	10/2/2011 5:19:08 AM					
Surr: BFB		94.9	65.4-141		%REC	10	10/2/2011 5:19:08 AM					
EPA METHOD	8021B: VOLATILES						Analyst: RAA					
Benzene		4000	50		µg/L	50	10/2/2011 4:49:06 AM					
Toluene		1700	50		µg/L	50	10/2/2011 4:49:06 AM					
Ethylbenzene	280	10		µg/L	10	10/2/2011 5:19:08 AM						
Xylenes, Total		1700	20		µg/L	10	10/2/2011 5:19:08 AM					
Surr: 4-Brome	ofluorobenzene	92.0	76.5-115		%REC	10	10/2/2011 5:19:08 AM					

Qualifiers:

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

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

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Hall Environmental Analysis Laboratory, Inc.

QA/QC SUMMARY REPORT

Project: Southwest C	mpressor St	ation							Work	Order:	1109901
Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec L	owLimit Hi	ghLimit .	%RPD	RPDLimit	Qual
Method: EPA Method 8015B:	Diesel Range	MDUK				Rotch ID:	00679	Anabrais	Data	0/28/2011	7:25:50 DM
Diesel Range Organics (DRO) Sample ID: LCS-28573	ND	mg/L	1.0			Batch ID:	28573	Analysis	s Date:	9/28/2011	8:35:51 PM
Diesel Range Organics (DRO) Sample ID: LCSD-28573	5.495	mg/L LCSD	1.0	5	0	110 Batch ID:	74 28573	157 Analysis	a Date:	9/28/2011	9:10:48 PM
Diesel Range Organics (DRO)	6.136	mg/L	1.0	5	0	123	74	157	11.0	23	
Method: EPA Method 8015B: Sample ID: 1109901-03A MSD	Gasoline Rar	MSD				Batch ID:	R48113	Analysis	a Date:	10/1/2011	8:17:12 PM
Gasoline Range Organics (GRO) Sample ID: 5ML RB	0.5692	mg/L MBLK	0.050	0.5	0	114 Batch ID:	66.1 R48113	127 Analysis	5.08 Date:	15.5 10/1/2011 1	1:15:37 AM
Gasoline Range Organics (GRO) Sample ID: 5ML RB	ND	mg/L MBLK	0.050			Batch ID:	R48130	Analysis	Date:	10/2/2011 1	0:30:47 AM
Gasoline Range Organics (GRO) Sample ID: 2.5UG GRO LCS	ND	mg/L LCS	0.050			Batch ID:	R48113	Analysis	Date:	10/1/2011	1:47:17 PM
Gasoline Range Organics (GRO) Sample ID: 2.5UG GRO LCS	0.5368	mg/L LCS	0.050	0.5	0	107 Batch ID:	92.1 R48130	117 Analysis	Date:	10/2/2011 1	2:31:20 PM
Gasoline Range Organics (GRO) Sample ID: 1109901-03A MS	0.5604	mg/L MS	0.050	0.5	0	112 Batch ID:	92.1 R48113	117 Analysis	Date:	10/1/2011	7:47:21 PM
Gasoline Range Organics (GRO)	0.5410	mg/L	0.050	0.5	0	108	66.1	127			

Qualifiers:

E Estimated value

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

- H Holding times for preparation or analysis exceeded
- NC Non-Chlorinated
- R RPD outside accepted recovery limits

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Hall Environmental Analysis Laboratory, Inc.

QA/QC SUMMARY REPORT

lient: roject: Southwest Geoscience Lindrith Compressor Station

roject: Lindrith Co	mpressor St	ation						4	Work	Order:	1109901
Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec L	owLimit Hi	ghLimit	%RPD	RPDLimit	Qual
lethod: EPA Method 8021B:	Volatiles									•	
Sample ID: 1109901-04A MSD		MSD				Batch ID:	R48113	Analys	s Date:	10/1/2011	9:17:28 PM
enzene	21.77	µg/L	1.0	20	0.698	105	76.6	119	2.96	16.4	
oluene	21.62	µg/L	1.0	20	0	108	77.3	118	4.73	13.9	
Ethylbenzene	21.98	µg/L	1.0	20	0	110	76.6	114	0.635	13.5	
ylenes, Total	66.09	µg/L	2.0	60	0	110	82	113	1.46	12.9	
ample ID: 5ML RB		MBLK				Batch ID:	R48113	Analysi	s Date:	10/1/2011 1	1:15:37 AN
Benzene	ND	µg/L	1.0							80	
foluene	ND	µg/L	1.0		81. 						
thylbenzene	ND	µg/L	1.0								
vienes, Total	ND	µg/L	2.0								
Sample ID: 5ML RB		MBLK				Batch ID:	R48130	Analysi	s Date:	10/2/2011 1	0:30:47 AM
Benzene	ND	ug/L	1.0								
oluene	ND	ug/L	1.0								
thylbenzene	ND	µg/L	1.0								
(ylenes, Total	ND	µg/L	2.0								
ample ID: 100NG BTEX LCS		LCS				Batch ID:	R48113	Analysi	s Date:	10/1/2011	1:17:15 PM
Benzene	20.57	ug/L	1.0	20	0	103	80	120			
oluene	21.64	ug/L	1.0	20	0	108	80	120			
thylbenzene	21.69	µg/L	1.0	20	0	108	80	120			
lylenes, Total	65.75	µg/L	2.0	60	0	110	80	120			
ample ID: 100NG BTEX LCS		LCS				Batch ID:	R48130	Analysi	s Date:	10/2/2011	1:01:19 PM
lenzene	21.89	ug/L	1.0	20	0	109	80	120			
oluene	22.11	µg/L	1.0	20	0	111	80	120			
thylbenzene	21.47	µg/L	1.0	20	0	107	80	120			
ylenes, Total	65.25	µg/L	2.0	60	0	109	80	120			
ample ID: 1109901-04A MS		MS				Batch ID:	R48113	Analysis	s Date:	10/1/2011 8	3:47:22 PM
enzene	22.42	µg/L	1.0	20	0.698	109	76.6	119			
oluene	22.66	ug/L	1.0	20	0	113	77.3	118			
thylbenzene	22.12	ug/L	1.0	20	0	111	76.6	114			
vienes, Total	67.07	ug/L	2.0	60	0	112	82	113			

Qualifiers:

E Estimated value

J Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded

NC Non-Chlorinated

R RPD outside accepted recovery limits

	Sample Receipt Che	Date Receiv	ad.	9/23/2011	
Made Order Number 1100901		AMG	9/20/2011		
	.11	Sample ID	lishels checked by:	MAC	
Checklist completed by:	7/23/11	Sample ID	labels checked by.		
Signature	Date				
Matrix: Carri	ier name Courier				
Shipping container/cooler in good condition?	Yes	No 🗆	Not Present		
Custody seals intact on shipping container/cooler?	Yes 🗹	No 🗔	Not Present	Not Shipped	
Custody seals intact on sample bottles?	Yes 🛄	No \Box	N/A 🗹		
Chain of custody present?	Yes 🗹	No 🗌			
Chain of custody signed when relinquished and received?	Yes 🗹	No 🗌			
Chain of custody agrees with sample labels?	Yes 🗹	No 🗔			
Samples in proper container/bottle?	Yes 🗹	No 🗆			
Sample containers intact?	Yes 🗹	No 🗔			
Sufficient sample volume for indicated test?	Yes 🗹	No 🗌			
Il samples received within holding time?	Yes 🗹	No 🗆		Number of preserve	
Vater - VOA vials have zero headspace? No VOA	vials submitted	Yes 🗹	No 🗆	pH:	
Vater - Preservation labels on bottle and cap match?	Yes 🗹	No 🗆	N/A		
Vater - pH acceptable upon receipt?	Yes 🗆	No 🗔	N/A	<2 >12 unless noted	
Container/Temp Blank temperature?	3.3°	<6° C Accepta	ble	Delow.	
COMMENTS:	I	f given sufficie	nt time to cool.		
Ilent contacted Date contact	cted:	Pe	rson contacted		
ontacted by: Regarding	with a state of the state of th				
omments:	M47 (1991)				

											6										CHAIN	OF CUSTODY RECO
Env Diffice Projection	Ct Man	tion.	Hydroge Hyd	N IE Solog A Su	/Enco	ec, NM Mers	Laborator Address: <u>Albu</u> Contact: Phone: (PO/SO #: Sampler's S	Hu y: PA QUE Adva 505 Signature 202	que que y I 31	125 And Tree	Iy + JM Mar 39	ica 75		AN	QUE	SIS	Bers					Lab use only Due Date: Temp. of coolers when received (C°): 1 2 3 4 5 PageofZ
roj. N	10. 410	00	06	Proje	ect N	lame Irith C	ompress	OR S	tain	No/T	ype of C	Contain	ners		X			//	//	/		
latrix	Date		Time	COED	Grab	Identifying M	arks of Sample	e(s) Start	Depth	VOA	A/G 1LL	250 mi	P/O	0	JF	7 /		//	//			Lab Sample ID (Lab Use Only)
N	9-20-	11	1300		X	MW-	40	-	-	4		-		X	X	-					110	9901-1
T	\uparrow		1335		T	MW-	31	1	1	1				介	T							- 2
		1	1420			MW-	33															-3
			1455			nw-	8															- 4
		1	1530			MW-	10															-5
Π			1600		Π	MW-L	12															-6
Π	T	, 1	1635		T	mu-	34							Π								- 7
Γ	9-20-	-11	1705		Π	nw-	11															- 8
T	9-21-	·II	0830		Π	MW-	12			T				11								-9
T	1	1	0405		T	nw-	35	1		1				11	Π				-			0
eling eling eling leling leling	uished liguished	by (S by (S by (S by (S by (S	Signature) Signature) Signature) Signature)	mal On		25% Rush Date: 9 - 78 - 11 0 Date: 1 2 3 / 11 Date: 1 2 3 / 11 Date: Date: Date: Date: Date:	0 50% Rush Time: Rush 71me: Rush 71me: Rush 71me: Rush 71me: Rush	eceived t http://www.ceceived.to eceived t eceived t	% Rush by: (Sigr by: (Sigr by: (Sigr by: (Sigr	ature) ature) nature)	læ	4	Date 123 Date 9/2: Date	e:	т 84 Т 19:а Т	ime: b ime: ime:	NOT	ES:	3			

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1. 15			-1-3	3.						. ,									CHAIN (OF CUSTODY RECOR
C Env Office Proje Sampl	E Loca et Ma er's Na	ation	er K.	N E I E eolog 2 C		Laborate Address Address Albe Contact Phone: PO/SO Samplers		Hand Hand	1/ A = 1 2 Ve 3 H	Ana	14t NN 397	ical		Anai Req	LYSIS UESTEI	200 845				Lab use only Due Date: Temp. of coolers when received (C°): 1 2 3 4 5 Page 2 of 2.
Proj. N		0	06	Proje	ect Na	ame		0	-	No/Ty	pe of C	Containe	ers	2	17	11	11	' / /	'//	
Matrix	Date	te	Time	L COEO	Grab	Identifying Marks of Sam	ple(s)	Start Cepth	End Depth	VOA	A/G 1 LL	250 mi	P/0	BTE	et 1	//	//	//		Lab Sample ID (Lab Use Only)
1	j		0935		1	MW-41		1	1	1				11						1169901-11
			1030			NW-7														- 12
			1105			mw-36														-13
			1145			nw-6														- 14
			1220			MW-38														-15
			1300			MW-5														- 16
1	7	V	1345		V	MW-4		1	1	1	-			V	4					_17
4				VE	E	A														
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Relind	quished	d by ((Signature)			Date: Time:	Receiv	ed by:	(Signa	iture)			Date:		Time:					*
latrix Contai	ner	WV	N - Wastewa	ter		W - Water S - Soil	SD - Sol	id	L - Liqui	d /	- Air E	lag	C-	Charco	al tube	SL - sl	udge	O - Oil		

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