2R - 423

CORRECTIVE ACTION PLANS

Enterprise Products

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

ENTERPRISE PRODUCTS OPERATING LLC

April 25, 2012

Return Receipt Requested
7010 1870 0001 2945 3309

Mr. Mike Bratcher
Oil Conservation Division - District 2
811 S. First Street
Artesia, New Mexico 88210

RE: Corrective Action Report
Enterprise Trunk A Separator
NW ¼ of SE ¼ in S10, T23S, R26E
Carlsbad, Eddy County, New Mexico

Dear Mr. Bratcher:

Enterprise Products Operating LLC (Enterprise) is submitting the enclosed *Corrective Action Report* dated April 19, 2012 for the Enterprise Trunk A Separator facility (referred to as the "Site" hereinafter). The Site is located approximately eight (8) miles southwest of Carlsbad in Eddy County, New Mexico [NW ¼, SE ¼, Section 10, Township 23S, and Range 26E]. The Site is an approximate 2.8-acre separator facility associated with an Enterprise natural gas gathering system. The purpose of the *Corrective Action Report* is to provide documentation of investigation and corrective action activities performed at the Site as a result of identified historical petroleum hydrocarbons liquids leakage.

In 2007, Enterprise field operations identified stained soils indicative of historical leakage prior to and during the decommissioning of a former on-Site tank battery. The tank battery stored produced water and condensate which was separated from the natural gas stream on-Site. In November 2009, Southwest Geoscience (SWG) performed initial site investigation activities to evaluate the presence or absence of select petroleum hydrocarbon constituents of concern (COCs) in soils in exceedance of the Oil Conservation Division (OCD) Remediation Action Levels for Site with a total ranking score of zero (0), or the "OCD Remediation Action Levels" hereinafter. SWG advanced one (1) soil boring (B-1) at the Site to a depth of 100 feet below ground surface (bgs). Three (3) soil samples were collected and submitted for laboratory analysis of total petroleum hydrocarbons (TPH) gasoline range organics (GRO)/diesel range organics (DRO) and benzene, toluene, ethylbenzene, and xylenes (BTEX). Based on the laboratory analytical results, TPH GRO/GRO and total BTEX concentrations were identified in the soil sample collected from 56 to 57 feet bgs in exceedance of the OCD Remediation Action Levels. However, the soil sample did not exhibit TPH concentrations in exceedance of the calculated American Petroleum Institute (API) Site-Specific TPH Risk-Based Screening Level (RBSL) in Residential Soil.

In July 2010, SWG issued a *Corrective Action Work Plan (CAWP)* which documented the findings of the initial site investigation activities, the proposed supplemental site investigation activities, and the proposed correction actions. The *CAWP* was approved by the OCD on July 13, 2010. In August 2010, supplemental site investigation activities were conducted in the vicinity of the former tank battery to further evaluate the magnitude and extent of petroleum hydrocarbons in the on-site soils. As part of the approved scope of work, six (6) additional soil borings (B-2 through B-7) were advanced to a depth of 100 feet bgs. One (1) soil sample was collected from each soil boring and submitted for laboratory analysis of TPH GRO/DRO and BTEX analysis.

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Based on the laboratory analytical results, the soil samples collected from soil borings B-2 through B-7 did not exhibit TPH GRO/DRO, benzene, or total BTEX concentrations in exceedance of the OCD Remediation Action Levels.

In October of 2010, initial corrective action activities were conducted at the Site, which included the excavation and on-site treatment of approximately 400 cubic yards (cy) of petroleum hydrocarbon impacted soil. Confirmation soil samples were collected from the excavation walls and submitted for TPH GRO/DRO and BTEX analysis. Based on the laboratory analytical results, an additional 100 cy of soil was removed from the excavation sidewalls. The excavated soils were spread on-site in an approximate 12-inch lift and treated with a water/bioremediation agent (Remedy®) mixture and tilled/raked on a periodic basis to enhance the rate and thoroughness of petroleum hydrocarbon degradation. Soil confirmation samples were collected on a periodic basis to evaluate the concentrations of TPH GRO/DRO, BTEX, and chlorides. Based on the laboratory, analytical results approximately 100 cy of the treated soil was utilized to backfill the excavation and approximately 25 cy of impacted soil was transported off-site for disposal. The remaining treated soils, approximately 475 cy total, was stockpiled on-site which has been proposed for future on-site or off-site use by Enterprise. Prior to the commencement of excavation backfill activities, a polypropylene liner was installed on the excavation floor to prevent further vertical migration of petroleum hydrocarbon COCs remaining in-place which were identified in the soil sample collected from soil boring B-1 at 56 to 57 feet bgs. Approximately 400 cubic yards of imported soils was used to backfill the lower portion on-site excavation with 100 cy of the treated soil utilized to backfill the remainder of the excavation. A vadose zone soil sample collected from the center of the on-site landfarm treatment cell did not exhibit TPH GRO/DRO, benzene, total BTEX, or chlorides concentrations in exceedance of the NMAC *Small Landfarm Closure Performance Standards*.

Based on the results of the corrective actions, no further investigation or remediation appears to be warranted at this time. Should the OCD conclude that no further action is required at the Site, Enterprise respectfully requests a written response which documents the decision. Should you have any questions, comments or concerns, or need additional information, please feel free to contact me at 713-381-381-6629.

Sincerely,

Rodney M. Sartor, REM
Manager, Remediation

/dep
Attachment – *Subsurface Investigation Report* (APEX, June 9, 2011)

cc: Carl J. Chavez, CHMM
New Mexico Energy, Minerals & Natural Resources Dept.
Oil Conservation Division, Environmental Bureau
1220 South St. Francis Dr.,
Santa Fe, NM 87505

ec: Jim Heap, Enterprise Products
Joseph Martinez, Southwest Geosciences

CORRECTIVE ACTION REPORT

Property:

Trunk A Separator
NW ¼ of SE ¼ in S10, T23S, R26E
Carlsbad, Eddy County, New Mexico
(OCD Permit No. 2R-423)

April 19, 2012
SWG Project No. 0210002

Prepared for:

Enterprise Products Operating LLC
1100 Louisiana Street, Suite 1000
Houston, Texas 77002
Attention: Mr. Rodney Sartor

Prepared by:

Joseph W. Martinez
Manager, South Texas

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NW ¼ of SE ¼ in S10, T23S, R26E
Carlsbad, Eddy County, New Mexico
(OCD Permit No. 2R-423)

SWG Project No. 0210002

1.0 INTRODUCTION

1.1 Site Description & Background

Southwest Geoscience has completed a Corrective Action Report for the Enterprise Products Operating LLC (Enterprise) Trunk A Separator facility located off Gillock Road, approximately eight (8) miles southwest of Carlsbad in Eddy County, New Mexico (NW ¼, SE ¼, Section 10, Township 23S, and Range 26E), referred to hereinafter as the "Site" or "subject Site." The Site is an approximate 2.8-acre separator facility associated with an Enterprise natural gas gathering system.

A topographic map is included as Figure 1, a site vicinity map composed from a 2011 aerial photograph is included as Figure 2, and site maps of the facility are included as Figure 3A and Figure 3B of Appendix A.

During the completion of routine maintenance and pigging[1] operations, condensate and produced water, which accumulate in the subject gathering pipeline system, are separated from the natural gas stream at the Site. The liquids separated from the natural gas stream are stored in the on-site storage tanks pending off-site disposal. The Site is currently improved with a tank battery on the southeast portion of the Site which includes four (4) above-ground storage tanks (ASTs) with approximate 90 to 300 barrel (bbl) storage capacities. This tank battery was constructed subsequent to the decommissioning and removal of the historic tank battery located on-site in 2007, formerly located adjacent west of the existing tank battery. Field operations identified stained soils indicative of historical leakage prior to and during the decommissioning of the former tank battery.

Initial site investigation activities were conducted at the Site by SWG in November of 2009 to evaluate the presence of petroleum hydrocarbons in the on-site soils as a result of historical petroleum hydrocarbon liquids storage and processing activities. The initial site investigation activities included the advancement of one (1) soil boring (B-1) to a depth of 100 feet below ground surface (bgs). Groundwater was not observed in soil boring B-1. Three (3) soil samples were collected from soil boring B-1 and submitted for total petroleum hydrocarbons (TPH) gasoline range organics (GRO)/diesel range organics (DRO) and benzene, toluene, ethylbenzene, and xylenes (BTEX) analysis utilizing EPA methods SW-846 #8015M and SW-846 #8021B, respectively.

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[1] ***Pigging*** *in the maintenance of pipelines refers to the practice of using pipeline scrapper traps or 'pigs' to clean paraffin, produced liquids and debris from the interior of the pipeline. This is accomplished by inserting the pig into a 'pig launcher'. The launcher is then closed and the pressure of the product in the pipeline is used to push it along down the pipe until it reaches the receiving trap - the 'pig catcher'.*

Based on the laboratory analytical results, the soil sample collected from soil boring B-1 from 56 to 57 feet below ground surface (bgs) exhibited TPH GRO/DRO and total BTEX concentrations in exceedance of the New Mexico Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division's (OCD) *Remediation Action Levels*. SWG resubmitted the soil sample for TPH speciation utilizing TCEQ method TX1006. To further evaluate the identified TPH concentrations at the Site, SWG utilized the published *American Petroleum Institute (API) Spreadsheet for Calculating Risk-Based Screening Levels* (RBSLs) and the inverse weighted average (TPH Mass Fractions of aliphatic and aromatic hydrocarbons) to establish a Site Specific RBSL for the complete TPH mixture (i.e., the whole product). The calculated API Site-Specific TPH RBSL for Residential Soils on-site is 7,000 mg/Kg. The identified TPH concentration did not exceed the Site Specific RBSLs. The results of the soil sample analysis along with the respective OCD *Remediation Action Levels* are presented on Table 1 of Appendix D. The API Site-Specific TPH RBSL in Soil spreadsheet is available in Appendix D.

1.2 Site Ranking

SWG referenced guidance and regulations published by the OCD to estimate the environmental sensitivity of the site. 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:

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

Based on area water well database records obtained through the New Mexico State Office of the Engineer, the depth to groundwater in the vicinity of the Site is estimated to be greater than 200 feet below ground surface (bgs). In addition, the water well database records did not identify water wells within 1,000 feet of the Site.

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 zero (0) was determined for the Site in accordance with the *Guidelines for Remediation of Leaks, Spills and Releases*. Consequently, the OCD's *Remediation Action Levels* for the on-Site soils are 10 milligrams per kilogram (mg/Kg) benzene, 50 mg/Kg total BTEX and 5,000 mg/Kg TPH.

1.3 Project Objective

The objective of the corrective actions were to reduce concentration of petroleum hydrocarbon constituents of concern (COCs) in on-site soils which were identified in exceedance of the OCD *Remediation Action Levels*. A Corrective Action Work Plan (CAWP), which outlined the proposed investigation and corrective action activities, was submitted to the OCD and approved on July 13, 2010.

1.4 Standard of Care & Limitations

The findings and recommendations contained in this report represent SWG's professional opinions based upon information derived from the on-Site activities and other services performed under this scope of work and were prepared in accordance with currently acceptable professional standards. The findings are based upon analytical results provided by an independent laboratory. Evaluations of the geologic/hydrogeologic conditions at the Site for the purpose of the investigation are made from a limited number of available data points (i.e. soil borings) and Site-wide subsurface conditions may vary from these data points. SWG makes no warranties, express or implied, as to the services performed hereunder. Additionally, SWG does not warrant the work of third parties supplying information used in the report (e.g. laboratories, regulatory agencies, or other third parties).

This report is based upon a specific scope of work requested by Enterprise. The agreement between SWG and Enterprise outlines the scope of work, and only those tasks specifically authorized by that agreement or outlined in this report were performed. This report has been prepared for the intended use of Enterprise and it's subsidiaries, and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the Site) is prohibited without the express written authorization of Enterprise and SWG.

2.0 SITE INVESTIGATION

2.1 Soil Borings

In August of 2010, supplemental site investigation activities were conducted in the vicinity of the former tank battery to further evaluate the magnitude and extent of petroleum hydrocarbons in the on-site soils as a result of historical petroleum hydrocarbons liquids storage and processing activities. The supplemental site investigation activities were conducted by Mr. Joseph W. Martinez, a SWG environmental professional. As part of the approved scope of work, six (6) additional soil borings (B-2 through B-7) were advanced to a depth of 100 feet bgs. Soil borings were advanced utilizing an air rotary drilling rig. Soil boring B-2 was advanced to the south of the former tank battery. Soil boring B-3 was advanced to the east of the former tank battery. Soil boring B-4 was advanced to the north of the former tank battery. Soil boring B-5 was advanced to the west of the former tank battery, and soil borings B-6 and B-7 were advanced within the secondary containment area of the former tank battery. Figure 3A and 3B are site maps that indicate the approximate location of the soil borings in relation to pertinent land features (Appendix A).

Soil samples were collected continuously utilizing either cuttings from the boring or core barrel samplers to the termination depth of each soil boring. Soil samples were

observed to document soil lithology, color, moisture content, and visual and olfactory evidence of petroleum hydrocarbons. Upon retrieval of each sample from the borehole, each soil sample was immediately divided into portions designated for field screening or laboratory analysis. Field headspace analysis was conducted by placing the portion of the soil sample designated for field screening into a plastic Ziploc bag. The plastic bag was sealed and then placed in a warm area to promote volatilization. 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.

During the completion 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. Undisturbed soil samples from each boring location were visually inspected and logged in the field. The lithology encountered during the advancement of soil boring B-2 included brown and orange silty sand from the ground surface to a depth of approximately 3 feet bgs. The silty sand was underlain by poorly sorted sand and gravel to a depth of approximately 46 feet bgs. A pale tan sandy silt was encountered from approximately 46 feet bgs to 63 feet bgs. A pale tan and gray sandy silt with gravel was encountered from approximately 63 feet bgs to 72 feet bgs. A pale tan sandy silt was encountered from 72 feet bgs to 96 feet bgs. A tan and gray sandy silt was encountered from approximately 96 feet bgs to a terminus depth of 100 feet bgs. The lithology encountered during the advancement of soil borings B-3 through B-7 were similar to that encountered in soil boring B-2. Groundwater was not observed in soil borings advanced at the Site. Detailed lithologic descriptions and field screening results are presented on the soil boring logs included in Appendix B. Photographic documentation of field activities is available in Appendix C.

Petroleum hydrocarbon odors were detected in the field in soil samples collected from soil borings B-5, B-6, and B-7. PID readings were detected in soil borings B-6 and B-7 which ranged from zero (0) to 249 ppm. The highest PID reading was observed in the soil sample collected at a depth of 0 to 5 feet bgs from soil boring B-7. PID readings were not detected in soil samples screened from soil borings B-2 through B-5. Field screening results are presented on soil boring logs included in Appendix C.

2.2 Soil Sampling Program

SWG's soil sampling program involved submitting one soil sample 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 D and are provided on the boring logs included in Appendix C.

2.3 Laboratory Analytical Methods

The soil samples collected from the soil borings were analyzed for TPH GRO/DRO and BTEX utilizing EPA methods SW-846 #8015M and SW-846 #8021B, respectively. Laboratory analytical results are summarized in the tables included in Appendix D. The executed chain-of-custody form and laboratory data sheets are provided in Appendix E.

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 ERMI Environmental Laboratories in Allen, Texas for standard turnaround.

ERMI 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 with the quality standards outlined in the National Environmental Laboratory Accreditation Program, as amended. In addition, the data generated by ERMI meets 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.

2.4 Data Evaluation

The Site is subject to regulatory oversight by the New Mexico EMNRD OCD. To address activities related to crude oil/condensate related releases, the OCD utilizes the *Guidelines for Remediation of Leaks, Spills and Releases* as guidance, in addition to the OCD rules, specifically New Mexico Administrative Code (NMAC) 19.15.30 Remediation. These guidance documents establish investigation and abatement action requirements for sites subject to reporting and/or corrective action. SWG compared the TPH GRO/DRO, benzene, and total BTEX concentrations or sample reporting limits (SRLs) associated with the soil samples collected from the soil borings to the OCD *Remediation Action Levels*. The results of the soil sample analysis along with the respective OCD *Remediation Action Levels* for the soil samples collected from soil borings B-2 through B-7 is provided in Table 1 of Appendix D.

Total Petroleum Hydrocarbons

The soil samples collected from soil borings B-2 through B-7 exhibited TPH GRO/DRO concentrations ranging from 7.38 mg/Kg to 180.694 mg/Kg, which are below the OCD *Remediation Action Level* of 5,000 mg/Kg.

Benzene and total BTEX

The soil samples collected from soil borings B-2 through B-7 did not exhibit benzene concentrations above the laboratory SRLs, which are below the OCD *Remediation Action Level* of 10 mg/Kg.

The soil samples collected from soil borings B-2 through B-7 exhibited total BTEX concentrations ranging from below the laboratory SRLs to 0.41108 mg/Kg, which are below the OCD *Remediation Action Level* of 50 mg/Kg.

3.0 CORRECTIVE ACTIONS

3.1 Excavation and Treatment Activities

Corrective actions for the Site were approved by the OCD on July 13, 2010 in accordance with the CAWP issued on July 6, 2010. The initial corrective action activities were conducted on October 27th and 28th of 2010. As part of the approved scope of work, excavation activities were conducted in vicinity of the former storage tank battery. Excavation activities continued horizontally and vertically with final dimension of up to 72 feet long by 26 feet wide and depths ranging from 13 to 17 feet deep. The CAWP prepared for the Site proposed a total excavation depth of 20 feet bgs. However, sidewall sluffing and slope stability concerns prevented excavation activities from reaching the originally proposed depth. Approximately 500 in-place cubic yards (cy) of petroleum hydrocarbon impacted soil was excavated at the Site. SWG directed the over excavation of 50 cy of soil on January 31, 2011 and an additional 50 cy of soil on April 29, 2011 from various portions of the excavation sidewalls exhibiting the greatest degree of petroleum hydrocarbon impact for an approximate total of 600 cy of excavated soil. The excavation activities were performed by Lighthouse Environmental Services and James Hamilton Construction. The approximate limits of the initial excavation are depicted on Figure 3A of Appendix A. The final excavation was irregular in shape and the approximate limits are depicted on Figure 3B of Appendix A.

The Site was approved by the OCD for use as a small landfarm, in accordance with the CAWP, to remediate soils excavated at the Site with COC concentrations in exceedance of the OCD *Remediation Action Levels*. A landfarm treatment cell was constructed on the western portion of the Site utilizing unaffected soils to construct containment berms which prevent stormwater runon and stormwater runoff. The excavated soils were placed in the treatment cell and spread and tilled/raked into an approximate 12-inch lift. Subsequent to tilling/raking of the soil, the soils were treated utilizing the direct application of a bioremediation agent (Remedy®). Remedy introduces nonpathogenic bacterial strains designed to enhance natural attenuation of the petroleum hydrocarbons, stimulate naturally occurring bacteria in the on-site soils, and introduce additional nonpathogenic bacterial strains designed to metabolize petroleum hydrocarbons. The bioremediation agent/water mixture was topically applied to the affected media utilizing a trailer mounted tank and motorized water pump. The soils within the treatment cell were retreated with non-potable water, Remedy® agent, and/or re-tilled/raked to enhance the rate and thoroughness of petroleum hydrocarbon degradation on October 29, 2010, February 24, 2011, April 29, 2011, May 24, 2011 and July 27, 2011. The approximate limits of the landfarm treatment cell area, from October 27, 2011 through April 28, 2011 are depicted on Figure 3A of Appendix A. The approximate limits of the landfarm treatment cell area, from April 29, 2011 to March 21, 2012 are depicted on Figure 3B. Photographic documentation of field excavation, backfill, and treatment activities are available in Appendix C.

3.2 Confirmation Soil Sampling

Upon completion of the initial excavation activities, four (4) initial confirmation soil samples were collected from the excavation sidewalls on October 28, 2010 and submitted for TPH GRO/DRO and BTEX analysis. Based on the laboratory analytical results, SWG directed the over excavation of the excavation sidewalls exhibiting the highest degree of petroleum hydrocarbon impact. Four (4) additional confirmation

soil samples (EC-1 through EC-4) were collected from the excavation sidewalls on January 31, 2011 and submitted for TPH GRO/DRO and BTEX analysis. The additional confirmation soil samples EC-1, EC-2, EC-3, and EC-4 were collected from the north, east, south, and west excavation sidewalls, respectively. Based on the laboratory analytical data from the additional confirmation soil samples, SWG directed the over excavation of the north, south, and west excavation sidewalls which exhibited the highest degree of petroleum hydrocarbon impact. Three (3) supplementary confirmation soil samples (EC-1(R), EC-3(R), and EC-4(R) were collected from the north, south, and west excavation wall, respectively, on April 29, 2011 and submitted for TPH GRO/DRO and BTEX analysis. The confirmation soil samples were collected from select locations which exhibited the highest concentration of petroleum hydrocarbons based on olfactory, visual and/or PID evidence of impact. The soil samples were field-screened using a calibrated PID to indicate the presence of VOCs.

Following the proposed aeration and attenuation schedule, twenty (20) confirmation soil samples (TS-1 through TS-20) were collected from the treated soils with the landfarm on March 24, 2011 and submitted for TPH GRO/DRO, BTEX, and chlorides analysis. The soil samples were collected from locations within the treatment cell at approximate evenly spaced intervals. Based on the laboratory analytical results, SWG directed approximately 100 cy of soil from the area of TS-11 and TS-12 to be utilized in backfilling the on-site excavation on April 29, 2011. Subsequent to backfill activities, the soils remaining in the treatment cell were re-tilled/raked and retreated with water to enhance further degradation of petroleum hydrocarbons. Following the proposed aeration and attenuation schedule, eighteen (18) confirmation soil samples (LC-1 through LC-18) were collected from the remaining soils within the land\farm treatment cell on June 21, 2011 and submitted for TPH GRO/DRO and chlorides analysis. Areas within the landfarm treatment cell which exhibited TPH GRO/DRO and/or chlorides concentrations in exceedance of the NMAC *Small Landfarm Closure Performance Standards* were resampled on August 24, 2011, November 3, 2011, and December 6, 2011.

The approximate locations of the additional confirmation soil samples collected from the walls of the excavation are noted of Figure 3A of Appendix A. The approximate locations of the supplementary confirmation soil samples collected from the walls of the final excavation are depicted on Figure 3B of Appendix A. The sampling points for the confirmation soil samples collected from the landfarm treatment cell during the initial configuration are depicted on Figure 3A of Appendix A. The approximate location of the sampling points for the confirmation soil samples collected from the landfarm treatment cell subsequent to backfill and retreatment activities are depicted on Figure 3B of Appendix A. The laboratory analytical results from the excavation confirmation soil samples collected in January and April 2011 are summarized in Table 1 of Appendix D. Table 1 does not include the laboratory analytical results for the initial excavation confirmation soil samples, collected in October of 2011, as a result of over excavation activities required for each respective area. The laboratory analytical results from the treated soils confirmation soil samples are summarized in Table 2 and Table 3 of Appendix D.

3.3 Laboratory Analytical Methods

The soil samples collected from the excavation and landfarm treatment cell were analyzed for TPH GRO/DRO utilizing SW-846 #8015M, BTEX utilizing EPA method SW-846 #8021B, and chlorides utilizing EPA method 300.0. The analytical results for the soil sampling activities completed at the Site are summarized in the tables

included in Appendix D. The executed chain-of-custody form and laboratory data sheets are provided in Appendix E.

Sampling equipment was cleaned using an Alconox® wash and potable water rinse prior to the beginning of the project and before the collection of each sample. Soil samples were collected and placed in laboratory prepared glassware, sealed with custody tape and placed on ice in a cooler, which was secured with a custody seal. The sample coolers and completed chain-of-custody forms were relinquished to ERMI's analytical laboratory in Allen, Texas or Hall Environmental Analytical Laboratory (HEAL) in Albuquerque, New Mexico.

ERMI and 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 with the quality standards outlined in the National Environmental Laboratory Accreditation Program, as amended. In addition, the data generated by ERMI and 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.

3.4 Data Evaluation

The Site is subject to regulatory oversight by the New Mexico EMNRD OCD. To address activities related to condensate releases, the OCD utilizes the *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 remedial action requirements for sites subject to reporting and/or corrective action.

The Site was approved for use as a small landfarm to remediate soils with identified COC concentrations in exceedance of the OCD *Remediation Action Levels* in accordance with the CAWP prepared for the Site and approved by the OCD on July 13, 2010. The small landfarm operations were approved under the rules provided in NMAC 19.15.36 and comparison of treated soils to the NMAC *Specific Requirements Applicable to Landfarms and the Small Landfarm Closure Performance Standards.*

SWG compared the TPH GRO/DRO, benzene, and total BTEX concentrations or SRLs/practical quantitation limits (PQLs) associated with the confirmation soil samples collected from the excavation sidewalls to the OCD *Remediation Action Levels.* It should be noted that the confirmation soil sample collected from the excavation sidewalls were not analyzed for chlorides based on the absence of requirements under the OCD *Guidelines for Remediation of Leaks, Spills, and Releases* document. SWG compared the TPH GRO/DRO, benzene, total BTEX, and chlorides concentrations or PQLs associated with the confirmation soil samples collected from the treated soils which were utilized to backfill a portion of the excavation to the NMAC *Specific Requirements Applicable to Landfarms* and the OCD *Remediation Action Levels.* SWG compared the TPH GRO/DRO, benzene, total BTEX, and chlorides concentrations or PQLs associated with the confirmation soil samples collected from treated soils which have been stockpiled on-site to the NMAC *Small Landfarm Closure Performance Standards.*

Total Petroleum Hydrocarbons

The confirmation soil samples collected from the final extents of the excavation sidewalls (i.e.: EC-1(R), EC-2, EC-3(R), and EC-4(R) exhibited TPH GRO/DRO concentrations ranging from less than 3.186 mg/Kg to 45.0 mg/Kg, which are below the OCD *Remediation Action Level* of 5,000 mg/Kg.

The confirmation soil samples collected from the treated soils which were utilized to backfill the excavation (i.e.: TS-11 and TS-12) exhibited TPH GRO/DRO concentration ranging from 285 mg/Kg to 975 mg/Kg, which are below the OCD *Remediation Action Level* of 5,000 mg/Kg.

The most recent confirmation soil samples collected from the soils in the landfarm treatment cell to be submitted for TPH GRO/DRO (i.e.: LC-1, LC-2, LC-3, LC-4, LC-5, LC-6, LC-7(R2), LC-8, LC-9, LC-10, LC-11(R2), LC-12, LC-13(R), LC-14, LC-15, LC-16, LC-17(R2), and LC-18(R2)) exhibited TPH GRO/DRO concentrations ranging from less than 17.6 mg/Kg to 487 mg/Kg, which are below the NMAC *Small Landfarm Closure Performance Standards* of 500 mg/Kg.

The results of the soil sample analyses of TPH GRO/DRO for confirmation soil samples collected from the excavation sidewalls or landfarm treatment cell are summarized in Table 1, Table 2, and Table 3 of Appendix D.

Benzene and total BTEX

The confirmation soil samples collected from the final extents of the excavation sidewalls (i.e.: EC-1(R), EC-2, EC-3(R), and EC-4(R)) did not exhibit benzene concentrations above the laboratory SRLs/PQLs, which are below the OCD *Remediation Action Level* of 10 mg/Kg.

The initial confirmation soil samples collected from the landfarm treatment cell (i.e.: TS-1 through TS-20) did not exhibit benzene concentrations above the laboratory PQLs, which are below the NMAC *Small Landfarm Closure Performance Standards* of 0.2 mg/Kg.

Total BTEX

The confirmation soil samples collected from the final extents of the excavation sidewalls (i.e.: EC-1(R), EC-2, EC-3(R), and EC-4(R) did not exhibit total BTEX concentrations above the laboratory SRLs/PQLs, which are below the OCD *Remediation Action Level* of 50 mg/Kg.

The initial confirmation soil samples collected from the landfarm treatment cell (i.e.: TS-1 through TS-20) exhibited total BTEX concentrations ranging from below the laboratory PQLs to 1.5 mg/Kg, which are below the NMAC *Small Landfarm Closure Performance Standards* of 50 mg/Kg.

The results of the soil sample analyses of BTEX for confirmation soil samples collected from the excavation sidewalls or landfarm treatment cell are summarized in Table 1 and Table 2 of Appendix D.

Chlorides

The confirmation soil samples collected from the treated soils which were utilized to backfill the excavation (i.e.: TS-11 and TS-12) exhibited chlorides concentrations of 910 mg/Kg and 530 mg/Kg (respectively), which do not exceed the NMAC *Specific Requirements Applicable to Landfarms* of 1,000 mg/Kg for sites with groundwater less than 100 feet bgs.

The most recent confirmation soil samples collected from the soils in the landfarm treatment cell to be submitted for chlorides analysis (i.e.: LC-1, LC-2, LC-3, LC-4, LC-5, LC-6, LC-7(R2), LC-8, LC-9, LC-10, LC-12, LC-13(R), LC-14, LC-15, LC-16, LC-17, LC-18(R2)) exhibited chlorides concentrations ranging from 38 mg/Kg 470 mg/Kg. The confirmation soils samples LC-11, LC-11(R), LC-11(R2), and LC-11(R3) exhibited chlorides concentrations ranging from 630 to 3,300 mg/Kg which exceeds the NMAC *Small Landfarm Closure Performance Standard* of 500 mg/Kg. As a result approximately 25 cy of soil was collected from the LC-11 sampling point and loaded for off-site disposal.

The results of the soil sample analyses of chlorides for confirmation soil samples collected from landfarm treatment cell are summarized in Table 2 and Table 3 of Appendix D. Copies of the landfill disposal receipts are provided in Appendix F.

3.5 Closure Activities

On April 26, 2011, the excavation was backfilled with approximately 400 cy of imported soils. In addition, approximately 100 cy of treated soils, from the vicinity of confirmation soil samples TS-11 and TS-12, were utilized to fill in the remainder of the excavation. The treated soils confirmation samples TS-11 and TS-12 exhibited TPH GRO/DRO, benzene, and total BTEX concentrations below the OCD *Remediation Action Levels* and chlorides concentrations below the NMAC *Specific Requirements Applicable to Landfarms*. Prior to the commencement of excavation backfill activities, a polypropylene liner was installed on the excavation floor to prevent further vertical migration of petroleum hydrocarbon COCs remaining in-place which were identified in the soil sample collected from soil boring B-1 at 56 to 57 feet bgs. Excavation backfill activities were performed by Lighthouse Environmental.

Approximately 500 cy of treated soils remained in the on-site landfarm treatment cell subsequent to backfill activities. Soil confirmation sampling was conducted at eighteen (18) sampling points within the landfarm treatment cell. The landfarm confirmation soil samples and/or resamples were collected from sampling points LC-1 through LC-18 and submitted for analysis of TPH GRO/DRO, BTEX, and/or chlorides. Based on the laboratory analytical results, the most recent confirmation soil samples collected from each landfarm sampling point did not exhibit TPH GRO/DRO, benzene, total BTEX, and/or chlorides concentrations in exceedance of the NMAC *Small Landfarm Closure Performance Standards* with the exception of confirmation soil samples collected from the LC-11 sampling point. Soil confirmation samples LC-11, LC-11(R), LC-11(R2), and LC-11(R3) exhibited chlorides concentrations in exceedance of the NMAC *Small Landfarm Closure Performance Standards*.

On March 21, 2012, approximately 25 cy of soil in the vicinity of the LC-11 sampling point was collected and transported off-site for disposal at Lea Landfill east of Carlsbad in Eddy County, New Mexico. Copies of the landfill disposal receipts are

provided in Appendix F. The remaining landfarmed soils, approximately 475 cy total, was stockpiled on the southwest portion of the Site and proposed for future on-site or off-site use, as needed by Enterprise. The landfarm containment berms have been removed and the Site has been restored to it's previous grade. Photographic documentation of closure activities is included in Appendix C.

SWG collected a vadose zone soil sample VS-1 from the center of the former landfarm treatment cell, utilizing hand tools, from the ground surface to approximately 0.5 feet bgs. The CAWP proposed to collect the vodose zone soil sample from 3 to 5 feet bgs. However, the presence of large aggregate rock in the native soil prevented the advancement of tools to the proposed sample collection depth. The vadose zone soil sample VS-1 was submitted for TPH GRO/DRO, BTEX, and chlorides analysis. Based on the laboratory analytical results, vadose zone soil sample VS-1 did not exhibit TPH GRO/DRO, benzene, total BTEX, or chlorides concentrations in exceedance of the NMAC *Small Landfarm Closure Performance Standards*. The laboratory analytical results from the vadose zone soil sample is summarized in Table 3 of Appendix D. The executed chain-of-custody form and laboratory data sheets are provided in Appendix E.

4.0 FINDINGS AND RECOMMNEDATIONS

Field operations personnel identified stained soils indicative of historical leakage prior to and during the decommissioning of the former on-Site tank battery. Initial site investigation activities performed at the Site by SWG identified a total BTEX concentration in exceedance of the OCD *Remediation Action Levels*. Supplemental site investigation activities included the advancement of six (6) additional soil boring to depths of 100 feet bgs in the areas surrounding or within the former tank battery limits. One soil sample was collected from each soil boring and submitted for TPH GRO/DRO and BTEX analysis. Based on the laboratory analytical results, TPH GRO/DRO, benzene, and total BTEX concentrations were not identified in soil samples collected from the Site in exceedance of the OCD *Remediation Action Levels* during the supplemental site investigation activities.

As part of the CAWP approved by the OCD, excavation activities were conducted in vicinity of the former storage tank battery. An approximate total of 600 in-place cy of petroleum hydrocarbon impacted soil was excavated from the Site. Subsequent to the completion of the final excavation activities soil confirmation samples were collected from each of the sidewalls and submitted for TPH GRO/DRO and BTEX analysis. Based on the laboratory analytical results, the most recent confirmation soil samples collected from the final extents of the excavation sidewalls did not exhibit TPH GRO/DRO, benzene, or total BTEX concentrations in exceedance of the OCD *Remediation Action Levels*.

The excavated soils were placed in an on-site landfarm treatment cell in an approximate 12-inch lift. Subsequent to tilling/raking of the soil, the soils were treated utilizing the direct application of a bioremediation agent (Remedy®). The soils within the treatment cell were retreated with water, Remedy® agent, and/or re-tilled/raked to enhance the rate and thoroughness of petroleum hydrocarbon degradation during subsequent treatment events in February, April, May, and July of 2011.

Following the proposed aeration and attenuation schedules, soil confirmation samples were collected from the landfarm treatment cell. Based on the laboratory

analytical results of the initial soil confirmation sampling event, SWG directed approximately 100 cy of treated soil to be utilized to backfill the excavation in addition to approximately 500 cy of imported soil. Prior to the commencement of excavation backfill activities, a polypropylene liner was installed on the excavation floor to prevent further vertical migration of petroleum hydrocarbon COCs remaining in-place which were identified at the soil sample collected from soil boring B-1 at 56 to 57 feet bgs.

Approximately 500 cy of treated soils remained in the on-site landfarm treatment cell subsequent to backfill activities. Soil confirmation sampling was conducted at eighteen (18) sampling points within the landfarm treatment cell. Based on the laboratory analytical results, the most recent confirmation soil samples collected from each sampling point for TPH GRO/DRO, benzene, total BTEX, or chlorides analysis did not exhibit these concentrations in exceedance of the NMAC *Small Landfarm Closure Performance Standards* with the exception of the confirmation soil samples collected from the LC-11 sampling point. As a result, approximately 25 cy of soil in the vicinity of the LC-11 sampling point was collected and transported off-site for disposal at Lea Landfill in Eddy County, New Mexico. The remaining landfarmed soils have been stockpiled on the southwest portion of the Site and proposed for future on-site or off-site use, as needed by Enterprise. In addition, the containment berms were removed and the area of the landfarm treatment cell was restored to it's previous gradient. A vadose zone soil sample collected from the center of the landfarm treatment cell did not exhibit TPH GRO/DRO, benzene, total BTEX, or chlorides concentrations in exceedance of the NMAC *Small Landfarm Closure Performance Standards*.

Based on the results of the response actions, no further investigation or remediation appears warranted at this time.

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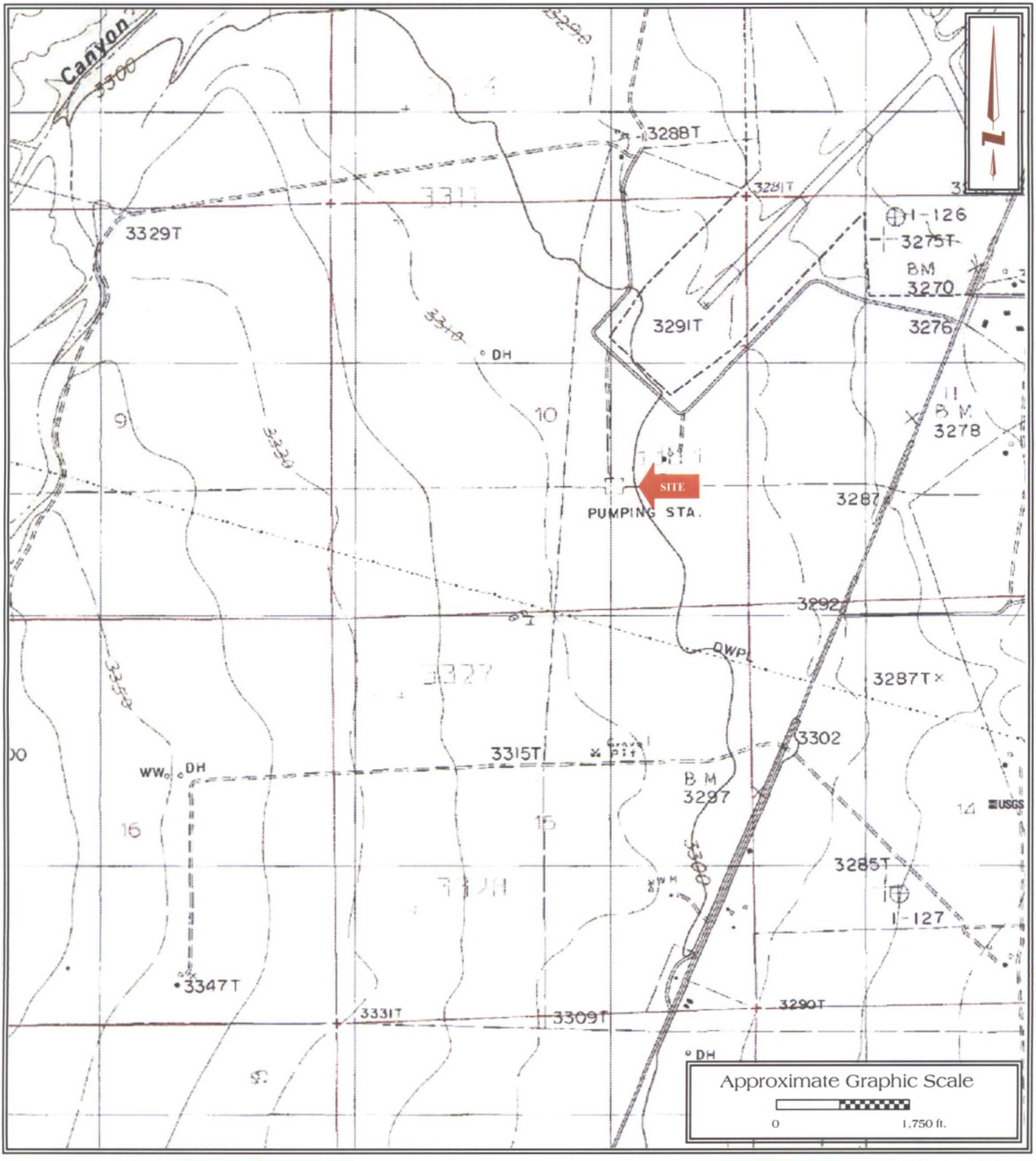
APPENDIX A

Figures



Corrective Action Report
Trunk A Separator
NW ¼ of SE ¼ in S10, T23S, R26E
Carlsbad, Eddy Co., Texas

SWG Project No. 0210002

Southwest GEOSCIENCE

FIGURE 1

Topographic Map
Kitchen Cove, NM Quadrangle
Contour Interval – 10 Feet
1985

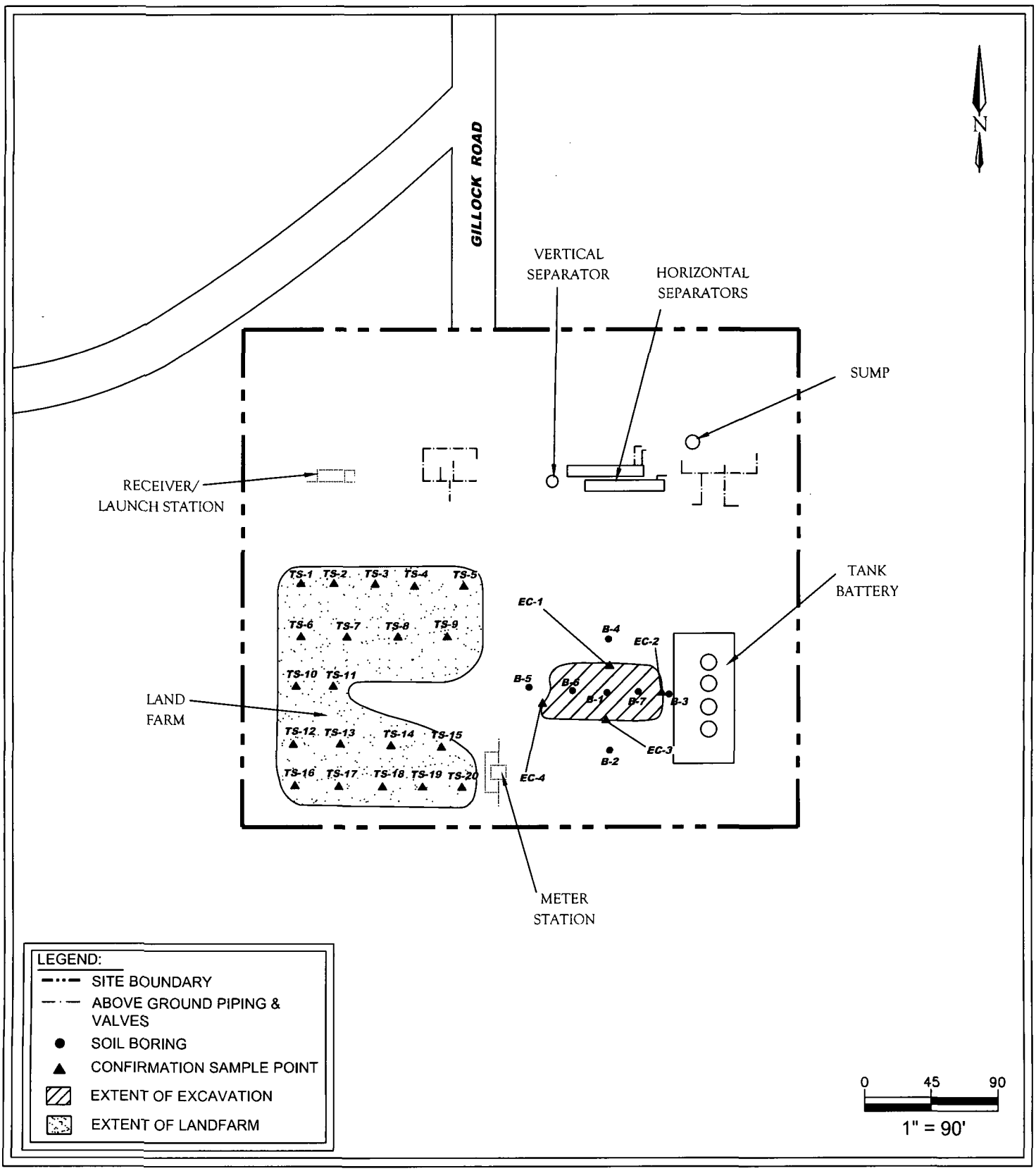
Corrective Action Report
Trunk A Separator
NW ¼ of SE ¼ in S10, T23S, R26E
Carlsbad, Eddy Co., Texas

SWG Project No. 0210002

Southwest GEOSCIENCE

FIGURE 2

Site Vicinity Map
2009 Aerial Photograph
Google



Corrective Action Report
Trunk A Separator
NW ¼ of SE ¼ in S10, T235, R26E
Carlsbad, Eddy County, New Mexico

SWG Project No. 0210002

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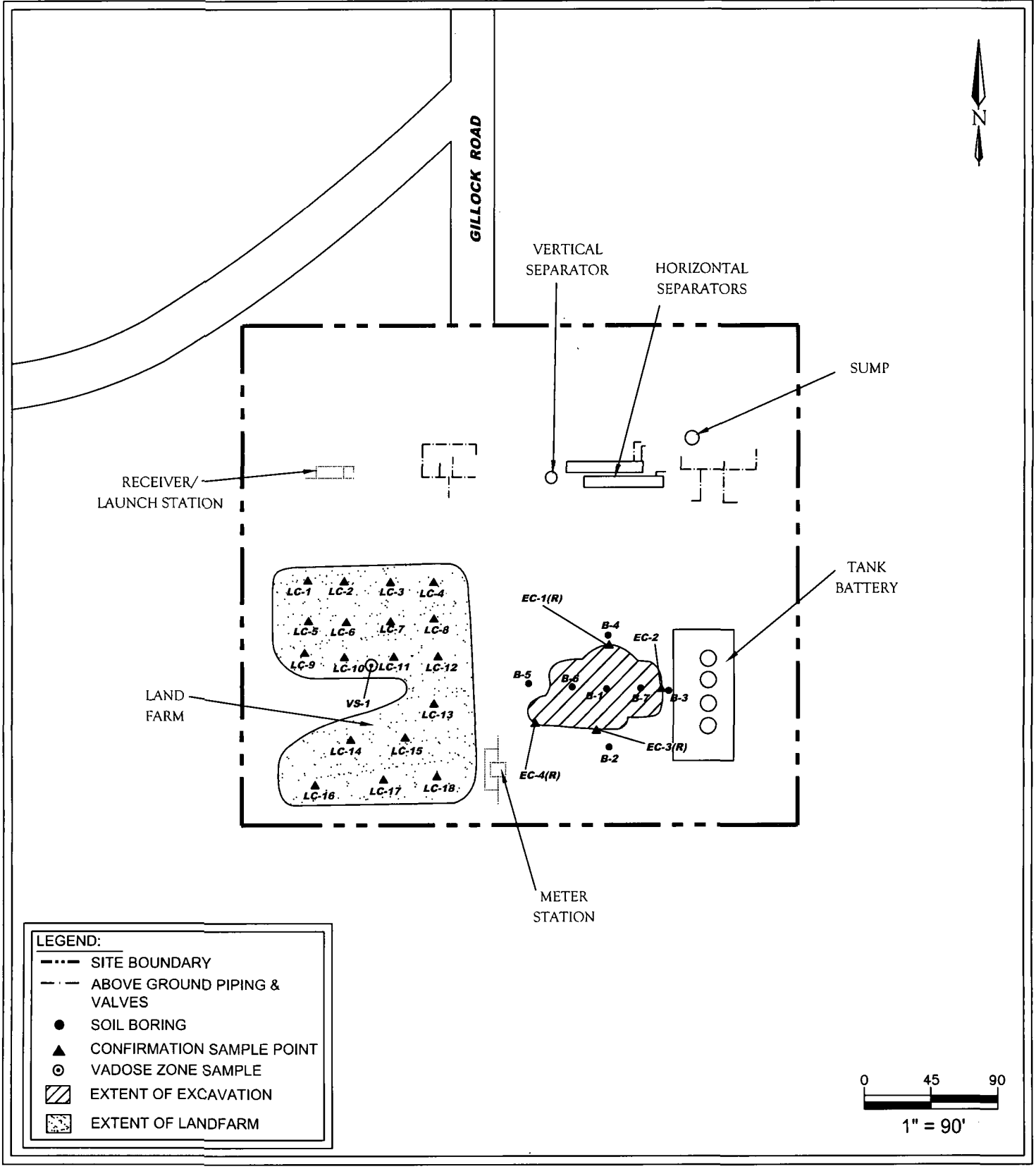
FIGURE 3A

SITE MAP



Corrective Action Report
Trunk A Separator
NW ¼ of SE ¼ in S10, T235, R26E
Carlsbad, Eddy County, New Mexico

SWG Project No. 0210002

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FIGURE 3B

SITE MAP

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APPENDIX B

Soil Borings Logs

Client: Enterprise Products Operating, LLC
Project Name: Trunk A Separator
Project Location: Off Gillock Rd, Carlsbad, NM
Project Manager: B. Chris Mitchell, P.G.

SOIL BORING LOG

DRILLING & SAMPLING INFORMAITON

Date Started: November 5, 2009
Date Completed: November 5, 2009
Drilling Company: Straub Corporation
Driller: Marty Struab
Geologist: BCM
Boring Method: AR
Bore Hole Dia: 6-inch

Soil Boring / Monitor Well Number: B-1
Project #: 02100002
Drawn By: BCM
Aprroved By: BCM

Well Diam: N/A
Screen Size: N/A
Screen Length: N/A
Casing Length: N/A

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
GP - GEOPROBE
AR - AIR ROTARY

SAMPLER TYPE
CB - FIVE FOOT CORE BARREL
SS - DRIVEN SPLIT SPOON
ST - PRESSED SHELBY TUBE

GROUNDWATER DEPTH
▽ AT COMPLETION
▽ AT WELL STABILIZATION

Monitor well Detail	SOIL CLASSIFICATION	Stratum Depth	Depth Scale	Sample No.	Sample Interval	% Recovery	Groundwater Depth	PID/FID Readings (ppm)	BORING AND SAMPLING NOTES
	SURFACE ELEVATION:								
	Silty Sand, Brown & Orange, Dry, Petroleum Odor					100 %		226	
								214	
								315	
								224	
								152	
	Sand & Gravel, Poorly Sorted, Gray, Dry, Petroleum Odor		5			100 %		252	
								211	
								356	
								331	
			10			100 %		339	
								194	
								331	
				B-1 (13-14)				316	
								366	
			15			100 %		334	
								297	
								128	
								144	
								128	
			20			100 %		244	
								265	
								120	
								145	
								161	
			25			100 %		80	
								154	
								186	
								117	
								84	
			30			100 %		244	
								249	
								285	
								148	
								152	
			35			100 %		214	
								240	
								334	
								379	
								453	
			40			100 %		210	
								156	
								247	
								536	
								369	
			45			100 %		371	
								275	
								418	
								299	
								217	
			50			100 %		488	
								268	
								217	
								285	
								299	
								307	

NOTE: This log is not to be used outside of the original report.

Southwest GEOSCIENCE

Client: Enterprise Products Operating, LLC
Project Name: Trunk A Separator
Project Location: Off Gillock Rd, Carlsbad, NM
Project Manager: B. Chris Mitchell, P.G.

SOIL BORING LOG

DRILLING & SAMPLING INFORMAITON

Date Started: November 5, 2009
Date Completed: November 5, 2009
Drilling Company: Straub Corporation
Driller: Marty Struab
Geologist: BCM
Boring Method: AR
Bore Hole Dia: 6-inch
Well Diam: N/A
Screen Size: N/A
Screen Length: N/A
Casing Length: N/A

Soil Boring / Monitor Well Number: B-1 (Con't)
Project #: 02100O2
Drawn By: BCM
Aprroved By: BCM

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
GP - GEOPROBE
AR - AIR ROTARY

SAMPLER TYPE
CB - FIVE FOOT CORE BARREL
SS - DRIVEN SPLIT SPOON
ST - PRESSED SHELBY TUBE

GROUNDWATER DEPTH
▽ AT COMPLETION
▼ AT WELL STABILIZATION

BORING AND SAMPLING NOTES

Monitor well Detail	SOIL CLASSIFICATION	Stratum Depth	Depth Scale	Sample No.	Sample Interval	% Recovery	Groundwater Depth	FID/PID Readings (ppm)
	SURFACE ELEVATION:							
	Sand & Gravel, Poorly Sorted, Gray, Dry, Petroleum Odor		60	B-1 (58-67)		100 %		240
								623
								219
								307
								252
			65			100 %		280
								336
								294
								242
								178
			70			100 %		259
								268
								124
								159
			75			100 %		252
								221
								94
								233
			80			100 %		266
								290
								107
								132
			85			100 %		181
								92
								82
								134
			90			100 %		127
								67
								59
								51
			95			100 %		45
								183
								74
								94
								0
			100			100 %		0
								0
								0
								0
								0
								0
								0
								0
								0
			105					
	Sandy Silt, Pale Tan, Dry, Slight Petroelum Odor							
	Sandy Silt w/ Gravel, Very Fine, Well Sorted, Pale Tan & Gray, Dry, No Odor			B-1 (100-105)				
	BOTTOM OF BORING							

NOTE: This log is not to be used outside of the original report.

Southwest GEOSCIENCE

Client: Enterprise Products Operating, LLC
Project Name: Trunk A Separator
Project Location: Off Gillock Rd, Carlsbad, NM
Project Manager: Joseph W. Martinez

SOIL BORING LOG

DRILLING & SAMPLING INFORMAITON

Date Started: August 10, 2010
Date Completed: August 10, 2010
Drilling Company: Straub Corporation
Driller: Raymond Straub
Geologist: JWM
Boring Method: AR
Bore Hole Dia: 6-inch

Well Diam: N/A
Screen Size: N/A
Screen Length: N/A
Casing Length: N/A

Soil Boring / Monitor Well Number: B-2
Project #: 0210002
Drawn By: JWM
Aprroved By: BCM

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
GP - GEOPROBE
AR - AIR ROTARY

SAMPLER TYPE
CB - FIVE FOOT CORE BARREL
SS - DRIVEN SPLIT SPOON
ST - PRESSED SHELBY TUBE

GROUNDWATER DEPTH
▼ AT COMPLETION
▼ AT WELL STABILIZATION

Monitor Well Detail	SOIL CLASSIFICATION	Stratum Depth	Depth Scale	Sample No.	Sample Interval	% Recovery	Groundwater Depth	PID/FID Readings (ppm)	BORING AND SAMPLING NOTES
	SURFACE ELEVATION:								
	Silty Sand, Brown & Orange, Dry					100 %		0	0 - 40' Advanced boring using mud rotary; numa water lube used to cool pnuematic hammer. Screened samples at 5' composite intervals.
	Sand & Gravel, Poorly Sorted, Gray, Dry		5			100 %		0	
			10			100 %		0	
			15			100 %		0	
			20			100 %		0	
			25			100 %		0	0 - 100' No petroluem hydrocarbon odors noted.
			30			100 %		0	
			35			100 %		0	
			40			100 %		0	40' - 100' Advanced boring using air rotary. Screened samples at 2' composite intervals.
			45			100 %		0	
	Sandy Silt, Pale Tan, Dry		50	B-2 (48-50')		80 %		0	
						100 %		0	
								0	
								0	

NOTE: This log is not to be used outside of the original report.

Southwest GEOSCIENCE

Client: Enterprise Products Operating, LLC
Project Name: Trunk A Separator
Project Location: Off Gillock Rd, Carlsbad, NM
Project Manager: Joseph W. Martinez

SOIL BORING LOG

DRILLING & SAMPLING INFORMAITON

Date Started: August 10, 2010
Date Completed: August 10, 2010
Drilling Company: Straub Corporation
Driller: Raymond Straub
Geologist: JWM
Boring Method: AR
Bore Hole Dia: 6-inch
Well Diam: N/A
Screen Size: N/A
Screen Length: N/A
Casing Length: N/A

Soil Boring / Monitor Well Number: B-2 (Con't)
Project #: 0210002
Drawn By: JWM
Aprroved By: BCM

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
GP - GEOPROBE
AR - AIR ROTARY

SAMPLER TYPE
CB - FIVE FOOT CORE BARREL
SS - DRIVEN SPLIT SPOON
ST - PRESSED SHELBY TUBE

GROUNDWATER DEPTH
▼ AT COMPLETION
▼ AT WELL STABILIZATION

Monitor Well Detail	SOIL CLASSIFICATION	Stratum Depth	Depth Scale	Sample No.	Sample Interval	% Recovery	Groundwater Depth	PID/FID Readings (ppm)	BORING AND SAMPLING NOTES
	SURFACE ELEVATION:								
	Sandy Silty, Pale Tan, Dry		60			100 %		0	
								0	
								0	
	Sandy Silt w/ Gravel, Very Fine, Well Sorted, Pale Tan & Gray, Dry		65			100 %		0	
								0	
								0	
			70			100 %		0	
								0	
	Sandy Silty, Pale Tan, Dry							0	0 - 100' No petroluem hydrocarbon odors noted.
			75			100 %		0	
								0	
								0	
			80			100 %		0	
								0	
								0	
			85			100 %		0	
								0	
								0	
			90			100 %		0	
								0	
								0	
			95			100 %		0	
								0	
	Sandy Silt w/ Gravel, Very Fine, Well Sorted, Pale Tan & Gray, Dry							0	
			100						
	BOTTOM OF BORING								
			105						

NOTE: This log is not to be used outside of the original report.

Southwest GEOSCIENCE

Client: Enterprise Products Operating, LLC
Project Name: Trunk A Separator
Project Location: Off Gillock Rd, Carlsbad, NM
Project Manager: Joseph W. Martinez

SOIL BORING LOG

DRILLING & SAMPLING INFORMAITON

Date Started: August 10, 2010
Date Completed: August 10, 2010
Drilling Company: Straub Corporation
Driller: Raymond Straub
Geologist: JWM
Boring Method: AR
Bore Hole Dia: 6-inch

Well Diam: N/A
Screen Size: N/A
Screen Length: N/A
Casing Length: N/A

Soil Boring / Monitor Well Number: B-3
Project #: 0210002
Drawn By: JWM
Aprroved By: BCM

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
GP - GEOPROBE
AR - AIR ROTARY

SAMPLER TYPE
CB - FIVE FOOT CORE BARREL
SS - DRIVEN SPLIT SPOON
ST - PRESSED SHELBY TUBE

GROUNDWATER DEPTH
▼ AT COMPLETION
▼ AT WELL STABILIZATION

Monitor Well Detail	SOIL CLASSIFICATION	Stratum Depth	Depth Scale	Sample No.	Sample Interval	% Recovery	Groundwater Depth	PID/FID Readings (ppm)	BORING AND SAMPLING NOTES
	SURFACE ELEVATION:								
	Silty Sand, Brown & Orange, Dry					100 %		0	0 - 35' Advanced boring using mud rotary; numa water lube used to cool pnuematic hammer. Screened samples at 5' composite intervals.
	Sand & Gravel, Poorly Sorted, Gray, Dry		5			100 %		0	
			10			100 %		0	
			15			100 %		0	
			20			100 %		0	
			25			100 %		0	0 - 100' No petroluem hydrocarbon odors noted.
			30			80 %		0	
			35			0 %		n/a	35' - 100' Advanced boring using air rotary. Screened samples at 2' composite intervals.
								n/a	35' 42' No recovery.
			40			80 %		n/a	
								n/a	
	Sandy Silt, Pale Tan, Dry		45			80 %		0	
								0	
			50			100 %		0	
								0	
								0	
								0	

NOTE: This log is not to be used outside of the original report.

Southwest GEOSCIENCE

Client: Enterprise Products Operating, LLC
Project Name: Trunk A Separator
Project Location: Off Gillock Rd, Carlsbad, NM
Project Manager: Joseph W. Martinez

SOIL BORING LOG

DRILLING & SAMPLING INFORMAITON

Date Started: August 10, 2010
Date Completed: August 10, 2010
Drilling Company: Straub Corporation
Driller: Raymond Straub
Geologist: JWM
Boring Method: AR
Bore Hole Dia: 6-inch
Well Diam: N/A
Screen Size: N/A
Screen Length: N/A
Casing Length: N/A

Soil Boring / Monitor Well Number: B-3 (Con't)
Project #: 0210002
Drawn By: JWM
Aprroved By: BCM

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
GP - GEOPROBE
AR - AIR ROTARY

SAMPLER TYPE
CB - FIVE FOOT CORE BARREL
SS - DRIVEN SPLIT SPOON
ST - PRESSED SHELBY TUBE

GROUNDWATER DEPTH
▼ AT COMPLETION
▼ AT WELL STABILIZATION

Monitor Well Detail	SOIL CLASSIFICATION	Stratum Depth	Depth Scale	Sample No.	Sample Interval	% Recovery	Groundwater Depth	PID/FID Readings (ppm)	BORING AND SAMPLING NOTES
	SURFACE ELEVATION:								
	Sandy Silty, Pale Tan, Dry		60			100 %		0	
								0	
								0	
	Sandy Silt w/ Gravel, Very Fine, Well Sorted, Pale Tan & Gray, Dry		65			100 %		0	
								0	
	Sandy Silty, Pale Tan, Dry		70			100 %		0	
								0	
			75			100 %		0	0 - 100' No petroluem hydrocarbon odors noted.
								0	
			80			100 %		0	
								0	
			85			100 %		0	
								0	
	Sandy Silt w/ Gravel, Very Fine, Well Sorted, Pale Tan & Gray, Dry		90	B-3 (BP-60')		100 %		0	
								0	
			95			100 %		0	
								0	
			100			100 %		0	
	BOTTOM OF BORING								
			105						

NOTE: This log is not to be used outside of the original report.

Southwest GEOSCIENCE

Client: Enterprise Products Operating, LLC
Project Name: Trunk A Separator
Project Location: Off Gillock Rd, Carlsbad, NM
Project Manager: Joseph W. Martinez

SOIL BORING LOG

DRILLING & SAMPLING INFORMAITON

Soil Boring / Monitor Well Number: B-4
Date Started: August 11, 2010
Project #: 02110002
Date Completed: August 11, 2010
Drawn By: JWM
Drilling Company: Straub Corporation
Aprroved By: BCM
Driller: Raymond Straub
Geologist: JWM
Well Diam: N/A
Boring Method: AR
Screen Size: N/A
Bore Hole Dia: 6-inch
Screen Length: N/A
Casing Length: N/A

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
GP - GEOPROBE
AR - AIR ROTARY

SAMPLER TYPE
CB - FIVE FOOT CORE BARREL
SS - DRIVEN SPLIT SPOON
ST - PRESSED SHELBY TUBE

GROUNDWATER DEPTH
▼ AT COMPLETION
▼ AT WELL STABILIZATION

Monitor well Detail	SOIL CLASSIFICATION	Stratum Depth	Depth Scale	Sample No.	Sample Interval	% Recovery	Groundwater Depth	PID/FID Readings (ppm)	BORING AND SAMPLING NOTES
	SURFACE ELEVATION:								
	Silty Sand, Brown & Orange, Dry					100 %		0	0 - 30' Advanced boring using mud rotary; numa water lube used to cool pnuematic hammer. Screened samples at 5' composite intervals.
	Sand & Gravel, Poorly Sorted, Gray, Dry		5			100 %		0	
			10			100 %		0	
			15			100 %		0	
			20			100 %		0	
			25			100 %		0	0 - 100' No petroluem hydrocarbon odors noted.
			30			0 %		n/a	30' - 100' Advanced boring using air rotary. Screened samples at 2' composite intervals.
								n/a	30' - 36' No recovery.
			35			60 %		n/a	
								0	
			40					0	
						50 %		0	
								n/a	42' - 44' No recovery.
	Sandy Silt, Pale Tan, Dry		45			80 %		0	
								0	
			50					0	
						100 %		0	
								0	

NOTE: This log is not to be used outside of the original report.

Southwest GEOSCIENCE

Client: Enterprise Products Operating, LLC
Project Name: Trunk A Separator
Project Location: Off Gillock Rd, Carlsbad, NM
Project Manager: Joseph W. Martinez

SOIL BORING LOG

DRILLING & SAMPLING INFORMAITON

Soil Boring / Monitor Well Number: B-4 (Con't)
Date Started: August 11, 2010
Project #: 0210002
Date Completed: August 11, 2010
Drawn By: JWM
Drilling Company: Straub Corporation
Aprroved By: BCM
Driller: Raymond Straub
Geologist: JWM
Well Diam: N/A
Boring Method: AR
Screen Size: N/A
Bore Hole Dia: 6-inch
Screen Length: N/A
Casing Length: N/A

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
GP - GEOPROBE
AR - AIR ROTARY

SAMPLER TYPE
CB - FIVE FOOT CORE BARREL
SS - DRIVEN SPLIT SPOON
ST - PRESSED SHELBY TUBE

GROUNDWATER DEPTH
AT COMPLETION
AT WELL STABILIZATION

Monitor Well Detail	SOIL CLASSIFICATION	Stratum Depth	Depth Scale	Sample No.	Sample Interval	% Recovery	Groundwater Depth	PID/FID Readings (ppm)	BORING AND SAMPLING NOTES
	SURFACE ELEVATION:								
	Sandy Silty, Pale Tan, Dry		60			100 %		0	
			65			100 %		0	
			70			100 %		0	
			75			100 %		0	0 - 100' No petroluem hydrocarbon odors noted.
			80			100 %		0	
			85			100 %		0	
			90			100 %		0	
			95	B-4 (95'-96')		100 %		0	
	Sandy Silt w/ Gravel, Very Fine, Well Sorted, Pale Tan & Gray, Dry		100						
	BOTTOM OF BORING		105						

NOTE: This log is not to be used outside of the original report.

Southwest GEOSCIENCE

Client: Enterprise Products Operating, LLC
Project Name: Trunk A Separator
Project Location: Off Gillock Rd. Carlsbad, NM
Project Manager: Joseph W. Martinez

SOIL BORING LOG

DRILLING & SAMPLING INFORMAITON

Date Started: August 11, 2010
Date Completed: August 11, 2010
Drilling Company: Straub Corporation
Driller: Raymond Straub
Geologist: JWM
Boring Method: AR
Bore Hole Dia: 6-inch

Well Diam: N/A
Screen Size: N/A
Screen Length: N/A
Casing Length: N/A

Soil Boring / Monitor Well Number: B-5
Project #: 0210002
Drawn By: JWM
Aprroved By: BCM

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
GP - GEOPROBE
AR - AIR ROTARY

SAMPLER TYPE
CB - FIVE FOOT CORE BARREL
SS - DRIVEN SPLIT SPOON
ST - PRESSED SHELBY TUBE

GROUNDWATER DEPTH
AT COMPLETION
AT WELL STABILIZATION

Monitor well Detail	SOIL CLASSIFICATION	Stratum Depth	Depth Scale	Sample No.	Sample Interval	% Recovery	Groundwater Depth	FID/PID Readings (ppm)	BORING AND SAMPLING NOTES
	SURFACE ELEVATION:								
	Silty Sand, Brown & Orange, Dry					100 %		0	0 - 40' Advanced boring using mud rotary; numa water lube used to cool pnuematic hammer. Screened samples at 5' composite intervals.
	Sand & Gravel, Poorly Sorted, Gray, Dry		5			100 %		0	
			10			100 %		0	
			15			100 %		0	
			20			100 %		0	20' - 44' Slight petroluem hydrocarbon odor noted.
			25			100 %		0	
			30			100 %		0	
			35			100 %		0	
			40			60 %		0	40' - 100' Advanced boring using air rotary. Screened samples at 2' composite intervals.
	Sandy Silt, Pale Tan, Dry							n/a	40' - 50' Moderate petroleum hydrocarbon staining.
			45			100 %		0	42' - 44' No recovery.
				B-5 (48-50')				0	44' - 50' Moderate petroleum hydrocarbon odor noted.
			50					0	
								0	
								0	

NOTE: This log is not to be used outside of the original report.

Southwest GEOSCIENCE

Client: Enterprise Products Operating, LLC
Project Name: Trunk A Separator
Project Location: Off Gillock Rd, Carlsbad, NM
Project Manager: Joseph W. Martinez

SOIL BORING LOG

DRILLING & SAMPLING INFORMAITON

Date Started: August 11, 2010
Date Completed: August 11, 2010
Drilling Company: Straub Corporation
Driller: Raymond Straub
Geologist: JWM
Boring Method: AR
Bore Hole Dia: 6-inch
Well Diam: N/A
Screen Size: N/A
Screen Length: N/A
Casing Length: N/A

Soil Boring / Monitor Well Number: B-5 (Con't)
Project #: 0210002
Drawn By: JWM
Aprroved By: BCM

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
GP - GEOPROBE
AR - AIR ROTARY

SAMPLER TYPE
CB - FIVE FOOT CORE BARREL
SS - DRIVEN SPLIT SPOON
ST - PRESSED SHELBY TUBE

GROUNDWATER DEPTH
AT COMPLETION
AT WELL STABILIZATION

Monitor Well Detail	SOIL CLASSIFICATION SURFACE ELEVATION:	Stratum Depth	Depth Scale	Sample No.	Sample Interval	% Recovery	Groundwater Depth	PID/FID Readings (ppm)	BORING AND SAMPLING NOTES
	Sandy Silty, Pale Tan, Dry		60			100 %		0	
								0	
			65			100 %		0	
								0	
								0	
	Sandy Silt w/ Gravel, Very Fine, Well Sorted, Pale Tan & Gray, Dry		70			100 %		0	
	Sandy Silty, Pale Tan, Dry							0	
			75			100 %		0	50' - 100' No petroluem hydrocarbon odors noted.
								0	
			80			100 %		0	
								0	
			85			100 %		0	
								0	
			90			100 %		0	
								0	
			95			100 %		0	
								0	
	Sandy Silt w/ Gravel, Very Fine, Well Sorted, Pale Tan & Gray, Dry		100					0	
	BOTTOM OF BORING		105						

NOTE: This log is not to be used outside of the original report.

Southwest GEOSCIENCE

Client: Enterprise Products Operating, LLC
Project Name: Trunk A Separator
Project Location: Off Gillock Rd, Carlsbad, NM
Project Manager: Joseph W. Martinez

SOIL BORING LOG

DRILLING & SAMPLING INFORMAITON

Date Started: August 11, 2010
Date Completed: August 11, 2010
Drilling Company: Straub Corporation
Driller: Raymond Staub
Geologist: JWM
Boring Method: AR
Bore Hole Dia: 6-inch

Well Diam: N/A
Screen Size: N/A
Screen Length: N/A
Casing Length: N/A

Soil Boring / Monitor Well Number: B-6
Project #: 02100002
Drawn By: JWM
Aprroved By: BCM

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
GP - GEOPROBE
AR - AIR ROTARY

SAMPLER TYPE
CB - FIVE FOOT CORE BARREL
SS - DRIVEN SPLIT SPOON
ST - PRESSED SHELBY TUBE

GROUNDWATER DEPTH
▽ AT COMPLETION
▼ AT WELL STABILIZATION

Monitor Well Detail	SOIL CLASSIFICATION (SURFACE ELEVATION:)	Stratum Depth	Depth Scale	Sample No.	Sample Interval	% Recovery	Groundwater Depth	PID/FID Readings (ppm)	BORING AND SAMPLING NOTES
	Silty Sand, Brown & Orange, Dry					100 %		99	0 - 40' Advanced boring using mud rotary; numa water lube used to cool pnuematic hammer. Screened samples at 5' composite intervals.
	Sand & Gravel, Poorly Sorted, Gray, Dry		5			100 %		49	0 - 5' Strong petroluem hydrocarbon odor noted.
			10			100 %		49	5' - 15' Moderate petroluem hydrocarbon odor noted.
			15			100 %		49	15' - 22' Slight petroluem hydrocarbon odor noted.
			20			100 %		49	
			25			100 %		0	
			30			100 %		0	
			35			100 %		49	
			40			40 %		n/a	40' - 100' Advanced boring using air rotary. Screened samples at 2' composite intervals.
	Sandy Silt, Pale Tan, Dry			B-6 (42-44)				49	40' - 42' No recovery.
			45			80 %		n/a	42' - 44' Slight petroleum hydrocarbon odor noted.
								0	44' - 46' No recovery.
			50			60 %		0	
								0	
								n/a	

NOTE: This log is not to be used outside of the original report.

Southwest GEOSCIENCE

Client: Enterprise Products Operating, LLC
Project Name: Trunk A Separator
Project Location: Off Gillock Rd, Carlsbad, NM
Project Manager: Joseph W. Martinez

SOIL BORING LOG

DRILLING & SAMPLING INFORMAITON

Date Started: August 11, 2010
Date Completed: August 11, 2010
Drilling Company: Straub Corporation
Driller: Raymond Staub
Geologist: JWM
Boring Method: AR
Bore Hole Dia: 6-inch
Well Diam: N/A
Screen Size: N/A
Screen Length: N/A
Casing Length: N/A

Soil Boring / Monitor Well Number: B-6 (Con't)
Project #: 0210002
Drawn By: JWM
Aprroved By: BCM

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
GP - GEOPROBE
AR - AIR ROTARY

SAMPLER TYPE
CB - FIVE FOOT CORE BARREL
SS - DRIVEN SPLIT SPOON
ST - PRESSED SHELBY TUBE

GROUNDWATER DEPTH
AT COMPLETION
AT WELL STABILIZATION

Monitor well Detail	SOIL CLASSIFICATION	Stratum Depth	Depth Scale	Sample No.	Sample Interval	% Recovery	Groundwater Depth	PID/FID Readings (ppm)	BORING AND SAMPLING NOTES
	SURFACE ELEVATION:								
	Sandy Silty, Pale Tan, Dry		60			60 %		n/a	
								0	54' - 56' No recovery.
								0	
						100 %		0	
			65					0	
						100 %		0	
								0	
			70					0	
						100 %		0	
								0	
			75					n/a	74' - 76' No recovery.
						100 %		0	
								0	
			80					0	
						100 %		0	
								0	
			85					0	
						100 %		0	
								0	
			90					0	
						100 %		0	
								0	
			95					0	
						100 %		0	
	Sandy Silt w/ Gravel, Very Fine, Well Sorted, Pale Tan & Gray, Dry							0	
			100						
	BOTTOM OF BORING								
			105						

NOTE: This log is not to be used outside of the original report.

Southwest GEOSCIENCE

Client: Enterprise Products Operating, LLC
Project Name: Trunk A Separator
Project Location: Off Gillock Rd, Carlsbad, NM
Project Manager: Joseph W. Martinez

SOIL BORING LOG

DRILLING & SAMPLING INFORMAITON

Date Started: August 12, 2010
Date Completed: August 12, 2010
Drilling Company: Straub Corporation
Driller: Raymond Straub
Geologist: JWM
Boring Method: AR
Bore Hole Dia: 6-inch
Well Diam: N/A
Screen Size: N/A
Screen Length: N/A
Casing Length: N/A

Soil Boring / Monitor Well Number: B-7
Project #: 02100002
Drawn By: JWM
Aprroved By: BCM

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
GP - GEOPROBE
AR - AIR ROTARY

SAMPLER TYPE
CB - FIVE FOOT CORE BARREL
SS - DRIVEN SPLIT SPOON
ST - PRESSED SHELBY TUBE

GROUNDWATER DEPTH
AT COMPLETION
AT WELL STABILIZATION

Monitor Well Detail	SOIL CLASSIFICATION SURFACE ELEVATION:	Stratum Depth	Depth Scale	Sample No.	Sample Interval	% Recovery	Groundwater Depth	PID/FID Readings (ppm)	BORING AND SAMPLING NOTES
	Silty Sand, Brown & Orange, Dry					100 %		249	0 - 40' Advanced boring using mud rotary; numa water lube used to cool pnuematic hammer. Screened samples at 5' composite intervals.
	Sand & Gravel, Poorly Sorted, Gray, Dry		5			100 %		49	0 - 5' Strong petroluem hydrocarbon odor noted.
			10			100 %		49	5' - 30' Slight petroluem hydrocarbon odor noted.
			15			100 %		49	
			20			100 %		0	
			25			100 %		0	
			30			100 %		0	
			35			100 %		49	35' - 70' Strong petroleum hydrocarbon odor noted.
			40			100 %		0	40' - 100' Advanced boring using air rotary. Screened samples at 2' composite intervals.
	Sandy Silt, Pale Tan, Dry					100 %		49	40' - 42' No recovery.
			45			100 %		49	
				B-7 (48'-50')		100 %		49	
			50			100 %		99	
						100 %		99	
						100 %		0	
						100 %		49	

NOTE: This log is not to be used outside of the original report.

Southwest GEOSCIENCE

Client: Enterprise Products Operating, LLC
Project Name: Trunk A Separator
Project Location: Off Gillock Rd, Carlsbad, NM
Project Manager: Joseph W. Martinez

SOIL BORING LOG

DRILLING & SAMPLING INFORMAITON

Date Started: August 12, 2010
Date Completed: August 12, 2010
Drilling Company: Straub Corporation
Driller: Raymond Straub
Geologist: JWM
Boring Method: AR
Bore Hole Dia: 6-inch

Soil Boring / Monitor Well Number: B-7 (Con't)
Project #: 0210002
Drawn By: JWM
Aprroved By: BCM

Well Diam: N/A
Screen Size: N/A
Screen Length: N/A
Casing Length: N/A

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
GP - GEOPROBE
AR - AIR ROTARY

SAMPLER TYPE
CB - FIVE FOOT CORE BARREL
SS - DRIVEN SPLIT SPOON
ST - PRESSED SHELBY TUBE

GROUNDWATER DEPTH
AT COMPLETION
AT WELL STABILIZATION

Monitor Well Detail	SOIL CLASSIFICATION	Stratum Depth	Depth Scale	Sample No.	Sample Interval	% Recovery	Groundwater Depth	PID/FID Readings (ppm)	BORING AND SAMPLING NOTES
	SURFACE ELEVATION:								
	Sandy Silty, Pale Tan, Dry							49	
						80 %		n/a	56' - 58' No recovery.
			60					0	
						100 %		0	
								0	35' - 70' Strong petroleum hydrocarbon odor noted.
			65					49	
						100 %		0	
								0	
			70					0	70' - 78' Slight petroleum hydrocarbon odor noted.
						100 %		0	
			75					0	
						100 %		0	
			80					0	
						100 %		0	
								0	
			85					0	
						100 %		0	
			90					0	
						100 %		0	
			95					0	
						100 %		0	
	Sandy Silt w/ Gravel, Very Fine, Well Sorted, Pale Tan & Gray, Dry		100					0	
	BOTTOM OF BORING		105						

NOTE: This log is not to be used outside of the original report.

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APPENDIX C

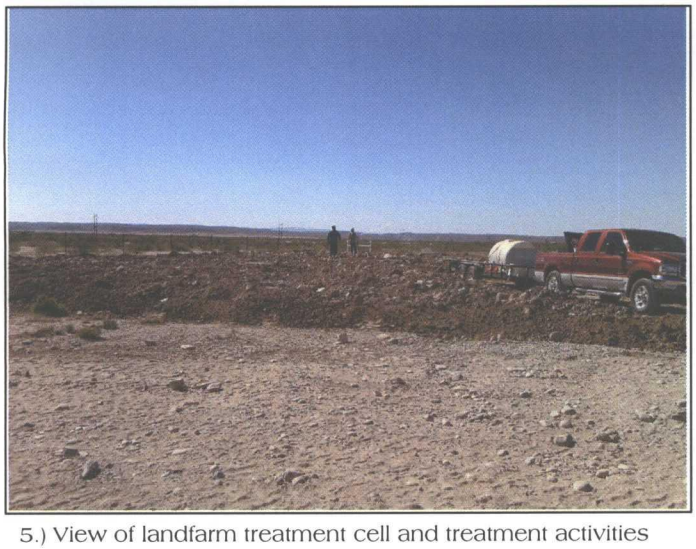
Photographic Documentation

1.) View of drilling activities during supplementary site investigation.

2.) View soil bore plugging activities subsequent to supplementary site investigation.

3.) View of excavation subsequent to initial corrective action activities, looking east.

4.) View of excavation subsequent to initial corrective action activities, looking west.



5.) View of landfarm treatment cell and treatment activities subsequent to initial corrective action activities, looking southwest.

6.) View of plastic liner within on-site excavation prior to backfill activities, looking west.

7.) View of treated soils used for partial excavation backfill, approximately 100 cubic yards total, looking east.

8.) View of former excavation footprint subsequent to backfill activities, looking southeast.

9.) View of treatment cell subsequent to re-tilling of soils in April of 2011, looking east.

10.) View of treatment cell re-watering activities in May of 2011, looking southwest.

11.) View of treated soil stockpiling on the southwest portion of the Site in March 2012, looking west.

12.) View of former on-site landfarm treatment cell with stockpiled soils on the southwest portion of the Site, looking southwest.

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APPENDIX D

Tables

Southwest GEOSCIENCE

TABLE 1
Trunk A Separator
SOIL ANALYTICAL RESULTS - SOIL BORING and EXCAVATION CONFIRMATION SAMPLES

Sample I.D.	Date	Sample Depth (feet)	Chlorides (mg/Kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/Kg)	TPH DRO (mg/Kg)
New Mexico Oil Conservation Division Remediation Action Levels			NE	10	NE	NE	NE	50	5,000	
API Site-Specific TPH Risk Based Screening Level in Residential Soil			NE	NE	NE	NE	NE	NE	7,000	
B-1	11/5/2009	13 to 14	NA	0.063 (j)	6	0.21	35	41	250	1,600
	11/5/2009	56 to 57	NA	3.2	35	12	230	280	2,100	4,000
	11/5/2009	99 to 100	NA	<0.0017	<0.0018	<0.0019	0.011(j)	0.011(j)	0.32	70
B-2	8/10/2010	48 to 50	NA	<0.0011	<0.0011	<0.0011	<0.0033	<0.0066	<0.0549	7.38
B-3	8/10/2010	88 to 90	NA	<0.00116	<0.00116	<0.00116	<0.00349	<0.00829	<0.0581	8.72
B-4	8/11/2010	96 to 98	NA	<0.00125	<0.00125	<0.00125	<0.00375	<0.0075	<0.0625	4.51
B-5	8/11/2010	48 to 50	NA	<0.00123	<0.00123	<0.00123	<0.0037	<0.00739	<0.0617	33.6
B-6	8/11/2010	42 to 44	NA	<0.00122	0.00988	0.0106	0.133	0.15348	0.694	180
B-7	8/12/2010	48 to 50	NA	<0.00119	0.0259	0.00918	0.376	0.41108	2.54	139
EC-1	1/31/2011	8 to 9	NA	<0.00105	0.517	0.112	54.8	55.43005	1,230	2,430
EC-1(R)	4/29/2011	8 to 9	NA	<0.05	<0.05	<0.05	<0.10	<0.25	<5.0	40
EC-2	1/31/2011	8 to 9	NA	<0.00105	<0.00105	<0.00105	<0.00314	<0.00629	0.166	<3.02
EC-3	1/31/2011	8 to 9	NA	<0.00108	2.86	3.49	74.2	80.558	1,190	2,270
EC-3(R)	4/29/2011	8 to 9	NA	<0.05	<0.05	<0.05	<0.10	<0.25	<5.0	36
EC-4	1/31/2011	8 to 9	NA	<0.00109	0.379	1.25	55.8	57.43009	1,380	10,200
EC-4(R)	4/29/2011	8 to 9	NA	<0.05	<0.05	<0.05	<0.10	<0.25	<5.0	25

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

Note: Concentrations in bold and orange exceed the applicable OCD Remdiation Action Levels and the site-specific RBSLs

NA = Not Analyzed

NE = Not Established

TABLE 2
Trunk A Separator
ANALYTICAL RESULTS - TREATED SOILS

Sample I.D.	Date	Sample Depth (feet)	Chlorides (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)
NMAC Small Landfarm Closure Performance Standards			500	0.2	NE	NE	NE	50	500	
NMAC Specific Requirements Applicable to Landfarms with Groudnwater >100 ft			1,000	0.2	NE	NE	NE	50	1,000	
TS-1	3/24/2011	0 to 0.5	580	<0.05	<0.05	<0.05	<0.10	<0.25	21	2,100
TS-2	3/24/2011	0 to 0.5	1,200	<0.05	<0.05	<0.05	0.23	0.38	12	2,100
TS-3	3/24/2011	0 to 0.5	1,700	<0.05	<0.05	<0.05	0.18	0.33	8.2	2,300
TS-4	3/24/2011	0 to 0.5	1,500	<0.05	<0.05	<0.05	0.43	0.58	10	1,100
TS-5	3/24/2011	0 to 0.5	1,200	<0.05	<0.05	<0.05	0.11	0.26	11	1,200
TS-6	3/24/2011	0 to 0.5	1,700	<0.05	<0.05	<0.05	<0.10	<0.25	6.5	1,800
TS-7	3/24/2011	0 to 0.5	1,700	<0.25	<0.25	<0.25	<0.50	<1.25	<25	2,300
TS-8	3/24/2011	0 to 0.5	1,200	<0.25	<0.25	<0.25	<0.50	<1.25	<25	1,200
TS-9	3/24/2011	0 to 0.5	990	<0.25	<0.25	<0.25	<0.50	<1.25	<25	960
TS-10	3/24/2011	0 to 0.5	910	<0.25	<0.25	<0.25	0.75	1.5	28	2,000
TS-11	3/24/2011	0 to 0.5	530	<0.25	<0.25	<0.25	<0.50	<1.25	<25	260
TS-12	3/24/2011	0 to 0.5	680	<0.25	<0.25	<0.25	<0.50	<1.25	<25	950
TS-13	3/24/2011	0 to 0.5	1,000	<0.25	<0.25	<0.25	<0.50	<1.25	<25	1,600
TS-14	3/24/2011	0 to 0.5	270	<0.05	<0.05	<0.05	<0.10	<0.25	<5.0	<10
TS-15	3/24/2011	0 to 0.5	1,600	<0.25	<0.25	<0.25	<0.50	<1.25	<25	2,100
TS-16	3/24/2011	0 to 0.5	1,500	<0.25	<0.25	<0.25	<0.50	<1.25	<25	1,600
TS-17	3/24/2011	0 to 0.5	88	<0.05	<0.05	<0.05	<0.10	<0.25	<5.0	<10
TS-18	3/24/2011	0 to 0.5	110	<0.05	<0.05	<0.05	<0.10	<0.25	<5.0	<10
TS-19	3/24/2011	0 to 0.5	90	<0.05	<0.05	<0.05	<0.10	<0.25	<5.0	<10
TS-20	3/24/2011	0 to 0.5	33	<0.05	<0.05	<0.05	<0.10	<0.25	<5.0	<10

Note: Concentrations in bold and yellow exceed the NMAC Small Landfarm Closure Performance Standards
Note: Concentrations in bold and orange exceed the NMAC Small Landfarm Closure Performance Standards and the OCD Remediation Action Levels
NE = Not Established

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TABLE 3
Trunk A Separator
ANALYTICAL RESULTS - TREATED SOILS

Sample I.D.	Date	Sample Depth (feet)	Chlorides (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)
NMAC Small Landfarm Closure Performance Standards			500	0.2	NE	NE	NE	50	500	
LC-1	6/21/2011	0 to 0.5	55	NA	NA	NA	NA	NA	<1.6	16
LC-2	6/21/2011	0 to 0.5	190	NA	NA	NA	NA	NA	<8.0	82
LC-3	6/21/2011	0 to 0.5	390	NA	NA	NA	NA	NA	<16	66
LC-4	6/21/2011	0 to 0.5	270	NA	NA	NA	NA	NA	<16	57
LC-5	6/21/2011	0 to 0.5	130	NA	NA	NA	NA	NA	<16	260
LC-6	6/21/2011	0 to 0.5	190	NA	NA	NA	NA	NA	23 (j)	59
LC-7	6/21/2011	0 to 0.5	570	NA	NA	NA	NA	NA	90 (j)	480
LC-7(R)	8/24/2011	0 to 0.5	1,100	NA	NA	NA	NA	NA	NA	NA
LC-7(R2)	11/3/2011	0 to 0.5	100	NA	NA	NA	NA	NA	<9.6	450
LC-8	6/21/2011	0 to 0.5	220	NA	NA	NA	NA	NA	<8.0	110
LC-9	6/21/2011	0 to 0.5	120	NA	NA	NA	NA	NA	<8.0	71
LC-10	6/21/2011	0 to 0.5	280	NA	NA	NA	NA	NA	<1.6	19
LC-11	6/21/2011	0 to 0.5	630	NA	NA	NA	NA	NA	<32	910
LC-11(R)	8/24/2011	0 to 0.5	960	NA	NA	NA	NA	NA	7.9	670
LC-11(R2)	11/3/2011	0 to 0.5	3,300	NA	NA	NA	NA	NA	<4.9	110
LC-11(R3)	12/6/2011	0 to 0.5	830	NA	NA	NA	NA	NA	NA	NA
LC-12	6/21/2011	0 to 0.5	140	NA	NA	NA	NA	NA	<16	290
LC-13	6/21/2011	0 to 0.5	570	NA	NA	NA	NA	NA	<32	980
LC-13(R)	8/24/2011	0 to 0.5	54	NA	NA	NA	NA	NA	3.4 (j)	54
LC-14	6/21/2011	0 to 0.5	140	NA	NA	NA	NA	NA	<8.0	140
LC-15	6/21/2011	0 to 0.5	120	NA	NA	NA	NA	NA	12 (j)	81
LC-16	6/21/2011	0 to 0.5	470	NA	NA	NA	NA	NA	27 (j)	460
LC-17	6/21/2011	0 to 0.5	580	NA	NA	NA	NA	NA	<8.0	170
LC-17(R)	8/24/2011	0 to 0.5	900	NA	NA	NA	NA	NA	NA	NA
LC-17(R2)	11/3/2011	0 to 0.5	38	NA	NA	NA	NA	NA	<4.7	46
LC-18	6/21/2011	0 to 0.5	320	NA	NA	NA	NA	NA	<8.0	1,300
LC-18(R)	8/24/2011	0 to 0.5	NA	NA	NA	NA	NA	NA	<7.8	630
LC-18(R2)	11/3/2011	0 to 0.5	270	NA	NA	NA	NA	NA	<4.7	83
VS-1	8/24/2011	0 to 0.5	140	0.005 (j)	<0.0045	<0.0044	<0.015	<0.0289	<4.7	83

Note: Concentrations in bold and yellow exceed the applicable NMAC Small Landfarm Closure Performance Standards
PA = Previously Ananlyzed and below the NMAC Small Landfarm Closure Performance Standards
NA = Not Analyzed
NE = Not Established

API Site-Specific TPH RBSLs in Soil

Main Menu | Input TPH Soil Concentrations

Site-Specific TPH RBSLs in Soil

Residential Soil RBSLs

Pathway:	Surface Soil ingestion, dermal contact, and inhalation pathways mg/kg	Soil Leaching to GW (receptor located beneath source) Tier 1 mg/kg	Soil Leaching to GW (receptor located downgradient) Tier 2 mg/kg	Surface Soil to Outdoor Air
RBSL for TPH (mg/kg)	7.0E+03	Soil res	Soil res	Soil Res

Non-Residential Soil RBSLs

Pathway:	Surface Soil ingestion, dermal contact, and inhalation pathways mg/kg	Soil Leaching to GW (receptor located beneath source) Tier 1 mg/kg	Soil Leaching to GW (receptor located downgradient) Tier 2 mg/kg	Surface Soil to Outdoor Air
RBSL for TPH (mg/kg)	7.6E+04	Soil res	Soil res	Soil Res

"Soil Res" indicates that the target hazard index could not be reached at any concentration for this *mixture.*

Main Menu | Site-Specific TPH RBSLs in Soil | Crude Oils and Condensates Database

Select Sample Type:
- ○ Oil
- ◉ Soil

Clear Concentrations

Site-Specific TPH Data in Soil

Site Description:

TPH Fractions	Concentration (mg/kg soil)	Fraction of Total TPH	Adjusted Mass Fraction	Mass Fraction$_i$ / Mole Fraction$_i$	Mole Fraction$_i$ (adj. for mass balance), X_i
Aliphatics:					
>6-8 C aliphatics	**1.2E+02**	1.6E-01	3.6E-02	3.6E-04	6.8E-02
>8-10 C aliphatics	**5.9E+02**	7.6E-01	1.8E-01	1.4E-03	2.6E-01
>10-12 C aliphatics	**4.3E+02**	5.6E-01	1.3E-01	8.2E-04	1.5E-01
>12-16 C aliphatics	**9.5E+02**	1.2E+00	2.9E-01	1.4E-03	2.7E-01
>16-44 C aliphatics	**1.0E+03**	1.3E+00	3.1E-01	1.2E-03	2.2E-01
Aromatics:					
>7-8 C Aromatics	**0.0E+00**	0.0E+00	0.0E+00	0.0E+00	0.0E+00
>8-10 C aromatics	**0.0E+00**	0.0E+00	0.0E+00	0.0E+00	0.0E+00
>10-12 C aromatics	**0.0E+00**	0.0E+00	0.0E+00	0.0E+00	0.0E+00
>12-16 C aromatics	**0.0E+00**	0.0E+00	0.0E+00	0.0E+00	0.0E+00
>16-21 C aromatics	**0.0E+00**	0.0E+00	0.0E+00	0.0E+00	0.0E+00
>21-44 C aromatics	**1.7E+02**	2.2E-01	5.2E-02	1.9E-04	3.6E-02
Sum of >C6 to <C44		**4.3E+00**	**1.0E+00**	**5.4E-03**	**1.0E+00**
> 44 C	**NA**	0.0E+00	0.0E+00	0.0E+00	0.0E+00
Totals for all TPH fractions	**3.29E+03**	**4.3E+00**	**1.0E+00**	**5.4E-03**	**1.0E+00**

Total TPH (mg/kg)	**7.72E+02**
Mass Balance Error:	**-3.26E+00**

Note: Data calculated using TX1006 data from excavation confirmation sample B-1 (56-57)

Southwest GEOSCIENCE

APPENDIX E

Laboratory Analytical Reports & Chain of Custody Documentation

Environmental Laboratories
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State Certifications
Arkansas: 88-0647
Oklahoma: 8727
Louisiana: 02007
Kansas: E-10388
Texas: T104704232-10-1

Report of Sample Analysis

Southwest Geoscience
8829 Tradeway Street
San Antonio, TX 78217
ATTN: Joseph W. Martinez

Project: Trunk A Seperator
Project #: 0210002
Print Date/Time: 08/26/10 16:29

Attached is our analytical report for the samples received for your project. Below is a list of your individual sample descriptions with our corresponding laboratory number. We also have enclosed a copy of the Chain of Custody that was received with your samples and a form documenting the condition of your samples upon arrival. Please note any unused portion of the samples may be discarded upon expiration of the EPA holding time for the analysis performed or after 30 days from the above report date, unless you have requested otherwise.

ERMI Environmental Laboratories certifies that all results contained in this report were produced in accordance with the requirements of the National Environmental Laboratory Accreditation Program (NELAP) unless otherwise noted. The results presented apply to the samples analyzed in accordance with the chain-of-custody document(s) furnished with the samples. This report is intended for the sole use of the customer for whom the work was performed and must be reproduced, without modification, in its entirety.

Sample Identification

Laboratory ID #	Client Sample ID	Matrix	Sampled Date/Time	Received Date/Time
1008382-01	B-2	Solid	08/10/10 13:30	08/13/10 09:50
1008382-02	B-3	Solid	08/10/10 16:45	08/13/10 09:50
1008382-03	B-4	Solid	08/11/10 10:00	08/13/10 09:50
1008382-04	B-5	Solid	08/11/10 14:20	08/13/10 09:50
1008382-05	B-6	Solid	08/11/10 17:45	08/13/10 09:50
1008382-06	B-7	Solid	08/12/10 11:00	08/13/10 09:50

Case Narrative

This project does not require TRRP specifications.

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Report of Sample Analysis

Southwest Geoscience
8829 Tradeway Street
San Antonio, TX 78217
ATTN: Joseph W. Martinez

Project: Trunk A Seperator
Project #: 0210002
Print Date/Time: 08/26/10 16:29

The analytical data and results contained in this report, as well as their supporting data, conform with Texas Risk Reduction Program (TRRP), 30 TAC, Section 350, requirements and are of sufficient and documented quality to meet both TRRP objectives, TCEQ regulatory guidance No. RG-366/TRRP-13 and the project-based objective of achieving the lowest method detection limit (i.e., the TRRP Critical PCL where reasonably achievable or, if not reasonably achievable, the MQL). All information concerning analytical parameters, methods and protocols that might bear upon or otherwise affect the accuracy of the analytical data in this report have been provided or otherwise disclosed herein. The data were obtained using applicable and appropriate EPA SW-846 or Texas Commission on Environmental Quality approved analytical protocols, methodologies and quality assurance/quality control standards. **ERMI Environmental Laboratories** certifies that its quality control program is substantially and materially consistent with the International Organization for Standardization "Guide 25: General Requirements the Competence of Calibration and Testing Laboratories (ISO 25 3rd Edition, 1990)," as amended or the quality standards outlined in the National Environmental Laboratory Accreditation Program, as amended. The entire analytical data package for this report, including the supporting quality control data, will be retained and maintained for at least five (5) years (or such longer period of time as may be required by TRRP) from the report date at the offices of **ERMI Environmental Laboratories, 400 W. Bethany, Suite 190, Allen, Texas 75013.**

I am responsible for the release of this laboratory data package. This data package has been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Thank you for the opportunity to serve your environmental chemistry analysis needs. If you have any questions or concerns regarding this report please contact our Customer Service Department at the phone number below.

Respectfully submitted,

Kendall K. Brown
President

Environmental Laboratories
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400 W. Bethany Rd. • Allen, Texas 75013

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Report of Sample Analysis

Southwest Geoscience
8829 Tradeway Street
San Antonio, TX 78217
ATTN: Joseph W. Martinez

Project: Trunk A Seperator
Project #: 0210002
Print Date/Time: 08/26/10 16:29

Laboratory ID #: 1008382-01
Sample Type: Composite
Matrix: Solid
Sample Collected By: Joseph W. Martinez — Customer
Sample Description: B-2
Sample Date/Time: 08/10/10 1330

Analyte(s)	Result	SRL	MRL	Units	F*	Method	Batch	Analysis Date/Time	Anlst	Flag
Total Petroleum Hydrocarbons - DRO										
Ultrasonic Extraction	Completed	N/A	N/A	N/A	0.99	EPA 3550B	0H21004	08/21/10 1421	TK	
TPH Diesel	**7.38**	3.16	2.9	mg/kg dry	0.99	EPA 8015B mod	0H21004	08/24/10 1607	PMS	Q-22
Surrogate			**Result**			**Spike Conc.**		**Recovery**	**Rec. Limits**	
a-Pinene (EPA 8015B mod)			*0.646 mg/kg dry*			*3.42 mg/kg dry*		*19 %*	*10-112*	
Triacontane (EPA 8015B mod)			*2.01 mg/kg dry*			*3.14 mg/kg dry*		*64 %*	*10-140*	Q-11
Total Petroleum Hydrocarbons - GRO										
TPH Gasoline	**ND**	0.0549	0.05	mg/kg dry	1.00	EPA 8015B mod	0H16008	08/18/10 0354	ZT	
Surrogate			**Result**			**Spike Conc.**		**Recovery**	**Rec. Limits**	
4-Bromofluorobenzene (EPA 8015B mod)			*0.0390 mg/kg dry*			*0.0549 mg/kg dry*		*71 %*	*55-140*	
BTEX										
Benzene	**ND**	1.10	1	ug/kg dry	1.00	EPA 8021B	0H16008	08/18/10 0354	ZT	
Ethyl Benzene	**ND**	1.10	1	ug/kg dry	1.00	EPA 8021B	0H16008	08/18/10 0354	ZT	
Toluene	**ND**	1.10	1	ug/kg dry	1.00	EPA 8021B	0H16008	08/18/10 0354	ZT	
Xylenes (total)	**ND**	3.30	3	ug/kg dry	1.00	EPA 8021B	0H16008	08/18/10 0354	ZT	
Surrogate			**Result**			**Spike Conc.**		**Recovery**	**Rec. Limits**	
4-Bromofluorobenzene (EPA 8021B)			*42.9 ug/kg dry*			*54.9 ug/kg dry*		*78 %*	*10-140*	
Conventional Chemistry Parameters										
% Solids	**91**	0.20	0.2	%	1.00	SM 2540G	0H16004	08/16/10 1710	KBM	

Local: (972) 727-1123 **Long Distance: (800) 228-ERMI** **FAX: (972) 727-1175**

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Report of Sample Analysis

Southwest Geoscience
8829 Tradeway Street
San Antonio, TX 78217
ATTN: Joseph W. Martinez

Project: Trunk A Seperator
Project #: 0210002
Print Date/Time: 08/26/10 16:29

Laboratory ID #: 1008382-02
Sample Type: Composite
Matrix: Solid
Sample Collected By: Joseph W. Martinez
Customer
Sample Description: B-3
Sample Date/Time: 08/10/10 1645

Analyte(s)	Result	SRL	MRL	Units	F*	Method	Batch	Analysis Date/Time	Anlst	Flag
Total Petroleum Hydrocarbons - DRO										
Ultrasonic Extraction	Completed	N/A	N/A	N/A	1.00	EPA 3550B	0H21004	08/21/10 1421	TK	
TPH Diesel	**8.72**	3.35	2.9	mg/kg dry	1.00	EPA 8015B mod	0H21004	08/24/10 1613	PMS	
Surrogate			**Result**			**Spike Conc.**		**Recovery**	**Rec. Limits**	
a-Pinene (EPA 8015B mod)			*0.494 mg/kg dry*			*3.63 mg/kg dry*		*14 %*	*10-112*	
Triacontane (EPA 8015B mod)			*2.22 mg/kg dry*			*3.33 mg/kg dry*		*67 %*	*10-140*	Q-11
Total Petroleum Hydrocarbons - GRO										
TPH Gasoline	**ND**	0.0581	0.05	mg/kg dry	1.00	EPA 8015B mod	0H16008	08/18/10 1030	ZT	
Surrogate			**Result**			**Spike Conc.**		**Recovery**	**Rec. Limits**	
4-Bromofluorobenzene (EPA 8015B mod)			*0.0423 mg/kg dry*			*0.0581 mg/kg dry*		*73 %*	*55-140*	
BTEX										
Benzene	**ND**	1.16	1	ug/kg dry	1.00	EPA 8021B	0H16008	08/18/10 1030	ZT	
Ethyl Benzene	**ND**	1.16	1	ug/kg dry	1.00	EPA 8021B	0H16008	08/18/10 1030	ZT	
Toluene	**ND**	1.16	1	ug/kg dry	1.00	EPA 8021B	0H16008	08/18/10 1030	ZT	
Xylenes (total)	**ND**	3.49	3	ug/kg dry	1.00	EPA 8021B	0H16008	08/18/10 1030	ZT	
Surrogate			**Result**			**Spike Conc.**		**Recovery**	**Rec. Limits**	
4-Bromofluorobenzene (EPA 8021B)			*47.5 ug/kg dry*			*58.1 ug/kg dry*		*82 %*	*10-140*	
Conventional Chemistry Parameters										
% Solids	**86**	0.20	0.2	%	1.00	SM 2540G	0H16004	08/16/10 1710	KBM	

Local: (972) 727-1123 **Long Distance: (800) 228-ERMI** **FAX: (972) 727-1175**

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Report of Sample Analysis

Southwest Geoscience
8829 Tradeway Street
San Antonio, TX 78217
ATTN: Joseph W. Martinez

Project: Trunk A Seperator
Project #: 0210002
Print Date/Time: 08/26/10 16:29

Laboratory ID #: 1008382-03
Sample Type: Composite
Matrix: Solid
Sample Collected By: Joseph W. Martinez
Customer
Sample Description: B-4
Sample Date/Time: 08/11/10 1000

Analyte(s)	Result	SRL	MRL	Units	F*	Method	Batch	Analysis Date/Time	Anlst	Flag
Total Petroleum Hydrocarbons - DRO										
Ultrasonic Extraction	Completed	N/A	N/A	N/A	1.00	EPA 3550B	0H21004	08/21/10 1421	TK	
TPH Diesel	4.51	3.62	2.9	mg/kg dry	1.00	EPA 8015B mod	0H21004	08/24/10 1619	PMS	
Surrogate			**Result**			**Spike Conc.**	**Recovery**	**Rec. Limits**		
a-Pinene (EPA 8015B mod)			*0.779 mg/kg dry*			*3.93 mg/kg dry*	*20 %*	*10-112*		
Triacontane (EPA 8015B mod)			*2.36 mg/kg dry*			*3.61 mg/kg dry*	*65 %*	*10-140*		Q-11
Total Petroleum Hydrocarbons - GRO										
TPH Gasoline	ND	0.0625	0.05	mg/kg dry	1.00	EPA 8015B mod	0H16008	08/18/10 1101	ZT	
Surrogate			**Result**			**Spike Conc.**	**Recovery**	**Rec. Limits**		
4-Bromofluorobenzene (EPA 8015B mod)			*0.0330 mg/kg dry*			*0.0625 mg/kg dry*	*53 %*	*55-140*		Q-30
BTEX										
Benzene	ND	1.25	1	ug/kg dry	1.00	EPA 8021B	0H16008	08/18/10 1101	ZT	
Ethyl Benzene	ND	1.25	1	ug/kg dry	1.00	EPA 8021B	0H16008	08/18/10 1101	ZT	
Toluene	ND	1.25	1	ug/kg dry	1.00	EPA 8021B	0H16008	08/18/10 1101	ZT	
Xylenes (total)	ND	3.75	3	ug/kg dry	1.00	EPA 8021B	0H16008	08/18/10 1101	ZT	
Surrogate			**Result**			**Spike Conc.**	**Recovery**	**Rec. Limits**		
4-Bromofluorobenzene (EPA 8021B)			*34.3 ug/kg dry*			*62.5 ug/kg dry*	*55 %*	*10-140*		
Conventional Chemistry Parameters										
% Solids	80	0.20	0.2	%	1.00	SM 2540G	0H16004	08/16/10 1710	KBM	

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Report of Sample Analysis

Southwest Geoscience
8829 Tradeway Street
San Antonio, TX 78217
ATTN: Joseph W. Martinez

Project: Trunk A Seperator
Project #: 0210002
Print Date/Time: 08/26/10 16:29

Laboratory ID #: 1008382-04
Sample Type: Composite
Matrix: Solid
Sample Collected By: Joseph W. Martinez
Customer
Sample Description: B-5
Sample Date/Time: 08/11/10 1420

Analyte(s)	Result	SRL	MRL	Units	F*	Method	Batch	Analysis Date/Time	Anlst	Flag
Total Petroleum Hydrocarbons - DRO										
Ultrasonic Extraction	Completed	N/A	N/A	N/A	1.00	EPA 3550B	0H21004	08/21/10 1421	TK	
TPH Diesel	33.6	3.53	2.9	mg/kg dry	1.00	EPA 8015B mod	0H21004	08/24/10 1626	PMS	
Surrogate			**Result**			**Spike Conc.**	**Recovery**	**Rec. Limits**		
a-Pinene (EPA 8015B mod)			*1.47 mg/kg dry*			*3.83 mg/kg dry*	*38 %*	*10-112*		
Triacontane (EPA 8015B mod)			*3.06 mg/kg dry*			*3.52 mg/kg dry*	*87 %*	*10-140*		Q-11
Total Petroleum Hydrocarbons - GRO										
TPH Gasoline	ND	0.0617	0.05	mg/kg dry	1.01	EPA 8015B mod	0H16008	08/18/10 1133	ZT	
Surrogate			**Result**			**Spike Conc.**	**Recovery**	**Rec. Limits**		
4-Bromofluorobenzene (EPA 8015B mod)			*0.0439 mg/kg dry*			*0.0617 mg/kg dry*	*71 %*	*55-140*		
BTEX										
Benzene	ND	1.23	1	ug/kg dry	1.01	EPA 8021B	0H16008	08/18/10 1133	ZT	
Ethyl Benzene	ND	1.23	1	ug/kg dry	1.01	EPA 8021B	0H16008	08/18/10 1133	ZT	
Toluene	ND	1.23	1	ug/kg dry	1.01	EPA 8021B	0H16008	08/18/10 1133	ZT	
Xylenes (total)	ND	3.70	3	ug/kg dry	1.01	EPA 8021B	0H16008	08/18/10 1133	ZT	
Surrogate			**Result**			**Spike Conc.**	**Recovery**	**Rec. Limits**		
4-Bromofluorobenzene (EPA 8021B)			*49.0 ug/kg dry*			*61.7 ug/kg dry*	*79 %*	*10-140*		
Conventional Chemistry Parameters										
% Solids	82	0.20	0.2	%	1.00	SM 2540G	0H16004	08/16/10 1710	KBM	

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Report of Sample Analysis

Southwest Geoscience
8829 Tradeway Street
San Antonio, TX 78217
ATTN: Joseph W. Martinez

Project: Trunk A Seperator
Project #: 0210002
Print Date/Time: 08/26/10 16:29

Laboratory ID #: 1008382-05
Sample Type: Composite
Matrix: Solid
Sample Collected By: Joseph W. Martinez
Customer
Sample Description: B-6
Sample Date/Time: 08/11/10 1745

Analyte(s)	Result	SRL	MRL	Units	F*	Method	Batch	Analysis Date/Time	Anlst	Flag
Total Petroleum Hydrocarbons - DRO										R-01
Ultrasonic Extraction	Completed	N/A	N/A	N/A	1.00	EPA 3550B	0H21004	08/21/10 1421	TK	
TPH Diesel	**180**	17.5	2.9	mg/kg dry	4.98	EPA 8015B mod	0H21004	08/25/10 1958	PMS	
Surrogate				**Result**		**Spike Conc.**		**Recovery**	**Rec. Limits**	
a-Pinene (EPA 8015B mod)				*0.549 mg/kg dry*		*3.79 mg/kg dry*		*15 %*	*10-112*	
Triacontane (EPA 8015B mod)				*2.07 mg/kg dry*		*3.48 mg/kg dry*		*60 %*	*10-140*	
Total Petroleum Hydrocarbons - GRO										
TPH Gasoline	**0.694**	0.0610	0.05	mg/kg dry	1.01	EPA 8015B mod	0H16008	08/18/10 1204	ZT	
Surrogate				**Result**		**Spike Conc.**		**Recovery**	**Rec. Limits**	
4-Bromofluorobenzene (EPA 8015B mod)				*0.0591 mg/kg dry*		*0.0610 mg/kg dry*		*97 %*	*55-140*	
BTEX										
Benzene	**ND**	1.22	1	ug/kg dry	1.01	EPA 8021B	0H16008	08/18/10 1204	ZT	
Ethyl Benzene	**9.88**	1.22	1	ug/kg dry	1.01	EPA 8021B	0H16008	08/18/10 1204	ZT	
Toluene	**10.6**	1.22	1	ug/kg dry	1.01	EPA 8021B	0H16008	08/18/10 1204	ZT	
Xylenes (total)	**133**	3.66	3	ug/kg dry	1.01	EPA 8021B	0H16008	08/18/10 1204	ZT	
Surrogate				**Result**		**Spike Conc.**		**Recovery**	**Rec. Limits**	
4-Bromofluorobenzene (EPA 8021B)				*44.6 ug/kg dry*		*61.0 ug/kg dry*		*73 %*	*10-140*	
Conventional Chemistry Parameters										
% Solids	**83**	0.20	0.2	%	1.00	SM 2540G	0H16004	08/16/10 1710	KBM	

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Oklahoma: 8727
Louisiana: 02007
Kansas: E-10388
Texas: T104704232-10-1

Report of Sample Analysis

Southwest Geoscience
8829 Tradeway Street
San Antonio, TX 78217
ATTN: Joseph W. Martinez

Project: Trunk A Seperator
Project #: 0210002
Print Date/Time: 08/26/10 16:29

Laboratory ID #: 1008382-06
Sample Type: Composite
Matrix: Solid
Sample Collected By: Joseph W. Martinez — Customer
Sample Description: B-7
Sample Date/Time: 08/12/10 1100

Analyte(s)	Result	SRL	MRL	Units	F*	Method	Batch	Analysis Date/Time	Anlst	Flag
Total Petroleum Hydrocarbons - DRO										
Ultrasonic Extraction	Completed	N/A	N/A	N/A	0.99	EPA 3550B	0H21004	08/21/10 1421	TK	
TPH Diesel	**139**	3.38	2.9	mg/kg dry	0.99	EPA 8015B mod	0H21004	08/24/10 1645	PMS	
Surrogate				**Result**		**Spike Conc.**		**Recovery**	**Rec. Limits**	
a-Pinene (EPA 8015B mod)				*2.47 mg/kg dry*		*3.66 mg/kg dry*		*68 %*	*10-112*	
Triacontane (EPA 8015B mod)				*2.25 mg/kg dry*		*3.36 mg/kg dry*		*67 %*	*10-140*	Q-11
Total Petroleum Hydrocarbons - GRO										
TPH Gasoline	**2.54**	0.0593	0.05	mg/kg dry	1.01	EPA 8015B mod	0H16008	08/18/10 1308	ZT	
Surrogate				**Result**		**Spike Conc.**		**Recovery**	**Rec. Limits**	
4-Bromofluorobenzene (EPA 8015B mod)				*0.127 mg/kg dry*		*0.0593 mg/kg dry*		*214 %*	*55-140*	Q-29
BTEX										
Benzene	**ND**	1.19	1	ug/kg dry	1.01	EPA 8021B	0H16008	08/18/10 1308	ZT	
Ethyl Benzene	**25.9**	1.19	1	ug/kg dry	1.01	EPA 8021B	0H16008	08/18/10 1308	ZT	
Toluene	**9.18**	1.19	1	ug/kg dry	1.01	EPA 8021B	0H16008	08/18/10 1308	ZT	
Xylenes (total)	**376**	3.56	3	ug/kg dry	1.01	EPA 8021B	0H16008	08/18/10 1308	ZT	
Surrogate				**Result**		**Spike Conc.**		**Recovery**	**Rec. Limits**	
4-Bromofluorobenzene (EPA 8021B)				*81.3 ug/kg dry*		*59.3 ug/kg dry*		*137 %*	*10-140*	
Conventional Chemistry Parameters										
% Solids	**85**	0.20	0.2	%	1.00	SM 2540G	0H16004	08/16/10 1710	KBM	

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Bethany Tech Center • Suite 190
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State Certifications
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Report of Sample Analysis

Southwest Geoscience
8829 Tradeway Street
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ATTN: Joseph W. Martinez

Project: Trunk A Seperator
Project #: 0210002
Print Date/Time: 08/26/10 16:29

Total Petroleum Hydrocarbons - DRO - Quality Control

Analyte(s)	Result	*SRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 0H21004 - EPA 3550B Sonication Extraction										
Blank (0H21004-BLK1) Prepared & Analyzed: 08/21/10 14:21										
Ultrasonic Extraction	Completed	N/A	N/A							
TPH Diesel	ND	2.89	mg/kg wet							
Surrogate: a-Pinene	1.90		mg/kg wet	3.13		61	10-112			
Surrogate: Triacontane	2.23		mg/kg wet	2.88		77	10-140			Q-11
Laboratory Control Sample (0H21004-BS1) Prepared & Analyzed: 08/21/10 14:21										
Ultrasonic Extraction	Completed	N/A	N/A				0-0			
TPH Diesel	22.4	2.90	mg/kg wet	28.5		78	40-120			
Surrogate: a-Pinene	1.98		mg/kg wet	3.14		63	10-112			
Surrogate: Triacontane	2.30		mg/kg wet	2.88		80	10-140			Q-11
Laboratory Control Sample Duplicate (0H21004-BSD1) Prepared & Analyzed: 08/21/10 14:21										
Ultrasonic Extraction	Completed	N/A	N/A				0-0		0	
TPH Diesel	22.6	2.89	mg/kg wet	28.5		79	40-120	1	20	
Surrogate: a-Pinene	1.98		mg/kg wet	3.13		63	10-112			
Surrogate: Triacontane	2.30		mg/kg wet	2.88		80	10-140			Q-11
Matrix Spike (0H21004-MS1) Prepared & Analyzed: 08/21/10 14:21					**Source: 1008382-01**					
Ultrasonic Extraction	Completed	N/A	N/A		ND		0-0			
TPH Diesel	34.4	3.18	mg/kg dry	31.4	7.38	86	10-140			
Surrogate: a-Pinene	0.978		mg/kg dry	3.45		28	10-112			
Surrogate: Triacontane	2.68		mg/kg dry	3.17		85	10-140			Q-11
Matrix Spike Duplicate (0H21004-MSD1) Prepared & Analyzed: 08/21/10 14:21					**Source: 1008382-01**					
Ultrasonic Extraction	Completed	N/A	N/A		ND		0-0		0	
TPH Diesel	27.9	3.17	mg/kg dry	31.3	7.38	66	10-140	21	20	Q-04
Surrogate: a-Pinene	0.736		mg/kg dry	3.44		21	10-112			
Surrogate: Triacontane	2.14		mg/kg dry	3.16		68	10-140			Q-11

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Report of Sample Analysis

Southwest Geoscience
8829 Tradeway Street
San Antonio, TX 78217
ATTN: Joseph W. Martinez

Project: Trunk A Seperator
Project #: 0210002
Print Date/Time: 08/26/10 16:29

Total Petroleum Hydrocarbons - GRO - Quality Control

Analyte(s)	Result	*SRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 0H16008 - Purge-and-Trap and Extraction-VOCs in Soil										
Blank (0H16008-BLK1) Prepared: 08/16/10 10:41 Analyzed: 08/17/10 22:35										
TPH Gasoline	**ND**	0.0500	mg/kg wet							
Surrogate: 4-Bromofluorobenzene	**0.0353**		mg/kg wet	0.0500		71	55-140			
Laboratory Control Sample (0H16008-BS1) Prepared: 08/16/10 10:41 Analyzed: 08/17/10 23:06										
TPH Gasoline	**0.372**	0.0500	mg/kg wet	0.500		74	66-117			
Surrogate: 4-Bromofluorobenzene	**0.0456**		mg/kg wet	0.0500		91	55-140			
Laboratory Control Sample Duplicate (0H16008-BSD1) Prepared: 08/16/10 10:41 Analyzed: 08/17/10 23:39										
TPH Gasoline	**0.402**	0.0500	mg/kg wet	0.500		80	66-117	8	21	
Surrogate: 4-Bromofluorobenzene	**0.0453**		mg/kg wet	0.0500		91	55-140			
Matrix Spike (0H16008-MS1) Prepared: 08/16/10 10:41 Analyzed: 08/18/10 00:11					**Source: 1008388-01**					
TPH Gasoline	**0.380**	0.0500	mg/kg wet	0.500	ND	76	10-140			
Surrogate: 4-Bromofluorobenzene	**0.0451**		mg/kg wet	0.0500		90	55-140			
Matrix Spike Duplicate (0H16008-MSD1) Prepared: 08/16/10 10:41 Analyzed: 08/18/10 00:43					**Source: 1008388-01**					
TPH Gasoline	**0.339**	0.0500	mg/kg wet	0.500	ND	68	10-140	11	38	
Surrogate: 4-Bromofluorobenzene	**0.0420**		mg/kg wet	0.0500		84	55-140			

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Report of Sample Analysis

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8829 Tradeway Street
San Antonio, TX 78217
ATTN: Joseph W. Martinez

Project: Trunk A Seperator
Project #: 0210002
Print Date/Time: 08/26/10 16:29

BTEX - Quality Control

Analyte(s)	Result	*SRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 0H16008 - Purge-and-Trap and Extraction-VOCs in Soil										
Blank (0H16008-BLK1) Prepared: 08/16/10 10:41 Analyzed: 08/17/10 22:35										
Benzene	ND	1.00	ug/kg wet							
Ethyl Benzene	ND	1.00	ug/kg wet							
Toluene	ND	1.00	ug/kg wet							
Xylenes (total)	ND	3.00	ug/kg wet							
Surrogate: 4-Bromofluorobenzene	38.9		ug/kg wet	50.0		78	10-140			
Laboratory Control Sample (0H16008-BS1) Prepared: 08/16/10 10:41 Analyzed: 08/17/10 23:06										
Benzene	46.6	1.00	ug/kg wet	50.0		93	80-119			
Ethyl Benzene	44.2	1.00	ug/kg wet	50.0		88	77-123			
Toluene	42.3	1.00	ug/kg wet	50.0		85	79-118			
Xylenes (total)	122	3.00	ug/kg wet	150		82	80-121			
Surrogate: 4-Bromofluorobenzene	51.6		ug/kg wet	50.0		103	10-140			
Laboratory Control Sample Duplicate (0H16008-BSD1) Prepared: 08/16/10 10:41 Analyzed: 08/17/10 23:39										
Benzene	51.3	1.00	ug/kg wet	50.0		103	80-119	9	10	
Ethyl Benzene	47.4	1.00	ug/kg wet	50.0		95	77-123	7	11	
Toluene	46.6	1.00	ug/kg wet	50.0		93	79-118	10	11	
Xylenes (total)	134	3.00	ug/kg wet	150		89	80-121	9	11	
Surrogate: 4-Bromofluorobenzene	50.9		ug/kg wet	50.0		102	10-140			
Matrix Spike (0H16008-MS1) Prepared: 08/16/10 10:41 Analyzed: 08/18/10 00:11					**Source: 1008388-01**					
Benzene	52.7	1.00	ug/kg wet	50.0	ND	105	13-140			
Ethyl Benzene	44.6	1.00	ug/kg wet	50.0	ND	89	10-140			
Toluene	46.1	1.00	ug/kg wet	50.0	ND	92	23-140			
Xylenes (total)	125	3.00	ug/kg wet	150	ND	83	13-140			
Surrogate: 4-Bromofluorobenzene	50.5		ug/kg wet	50.0		101	10-140			

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Report of Sample Analysis

Southwest Geoscience
8829 Tradeway Street
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ATTN: Joseph W. Martinez

Project: Trunk A Seperator
Project #: 0210002
Print Date/Time: 08/26/10 16:29

BTEX - Quality Control

Analyte(s)	Result	*SRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 0H16008 - Purge-and-Trap and Extraction-VOCs in Soil (continued)										
Matrix Spike Duplicate (0H16008-MSD1) Prepared: 08/16/10 10:41 Analyzed: 08/18/10 00:43					**Source: 1008388-01**					
Benzene	**47.0**	1.00	ug/kg wet	50.0	ND	94	13-140	11	30	
Ethyl Benzene	**38.6**	1.00	ug/kg wet	50.0	ND	77	10-140	14	27	
Toluene	**40.8**	1.00	ug/kg wet	50.0	ND	82	23-140	12	32	
Xylenes (total)	**110**	3.00	ug/kg wet	150	ND	74	13-140	12	40	
Surrogate: 4-Bromofluorobenzene	**47.1**		ug/kg wet	50.0		94	10-140			

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Project #: 0210002
Print Date/Time: 08/26/10 16:29

Conventional Chemistry Parameters - Quality Control

Analyte(s)	Result	*SRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 0H16004										
Blank (0H16004-BLK1) Prepared & Analyzed: 08/16/10 09:10										
% Solids	**ND**	0.20	%							
Duplicate (0H16004-DUP1) Prepared & Analyzed: 08/16/10 09:10					**Source: 1008313-01**					
% Solids	**86**	0.20	%		87			0.1	4	
Duplicate (0H16004-DUP2) Prepared & Analyzed: 08/16/10 17:10					**Source: 1008382-04**					
% Solids	**81**	0.20	%		82			0.6	4	

Local: (972) 727-1123 **Long Distance: (800) 228-ERMI** **FAX: (972) 727-1175**

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Report of Sample Analysis

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Project: Trunk A Seperator
Project #: 0210002
Print Date/Time: 08/26/10 16:29

Notes and Definitions

The results presented in this report were generated using those methods given in 40 CFR Part 136 for Water and Wastewater samples and in SW-846 for RCRA/Solid Waste samples.

Q-04	The RPD of this analyte between the MS(s) was outside of the acceptable range. The RPD of this same analyte between the LCS(s) was within the acceptable range.
Q-11	The recovery of the calibration check standard for this analyte was lower than the acceptable range. This may indicate a low bias to the result presented.
Q-22	The RPD between the MS(s) sample analyses was outside the acceptable range. This indicates the result was not as precise as expected.
Q-29	The recovery of the surrogate in this sample was higher than the acceptable range due to matrix interference and/or large dilutions required for analysis. This may indicate a high bias to the compounds in the sample that this surrogate represents.
Q-30	The recovery of the surrogate in this sample was lower than the acceptable range due to matrix interference and/or large dilutions required for analysis. This may indicate a low bias to the compounds in the sample that this surrogate represents.
R-01	The higher reporting limit is due to dilutions required for analysis as a result of a high concentration of target and/or non-target parameters in this sample.
ND	Analyte NOT DETECTED at or above the reporting limit
dry	Sample results reported on a dry weight basis
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
MS/MSD	Matrix Spike/Matrix Spike Duplicate
RPD	Relative Percent Difference
mg/kg	milligrams per kilogram
mg/l	milligrams per liter
ug/kg	micrograms per kilogram
ug/l	micrograms per liter
exc	Not covered under scope of NELAP accreditation.
F*	Calculated factor rounded to 3 significant figures. Concentration factor when <1.00 and dilution factor when >1.00.
Anlst	Analyst Initials
SRL	Sample Reporting Limit
MRL	Method Reporting Limit
naa	This analysis/parameter is not accreditable under the current NELAP program

CHAIN OF CUSTODY RECORD

Southwest GEOSCIENCE
Environmental & Hydrogeologic Consultants

Office Location: San Antonio
Project Manager: J. Martinez

Laboratory: ERMI
Address: 400 W. Bethany Rd Ste 190 – St Allen, TX 75013
Contact: Leslie Underwood
Phone: 972-727-1123
PO/SO #:

Lab use only
Due Date:

Temp. of coolers when received (C°): FR-01 Temp
1: 1.6°C | 2 | 3 | 4 | 5

Page ____ of ____

Sampler's Name: Joseph W. Martinez
Sampler's Signature: Joseph W. Martinez

Proj. No.: 0210002
Project Name: Trunk A Seperator

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	No/Type of Containers: VOA	A/G 1 Lt.	250 ml	P/O	TPH (SW-846 #8015 DRO/GRO)	BTEX (SW-846 #8021)	Lab Sample ID (Lab Use Only)
S	8/10/10	1330	✓		B-2	48'	50'				1	✓	✓	1008382-01
S	8/10/10	1645	✓		B-3	88'	90'				1	✓	✓	1008382-02
S	8/11/10	1000	✓		B-4	96'	98'				1	✓	✓	1008382-03
S	8/11/10	1420	✓		B-5	48'	50'				1	✓	✓	1008382-04
S	8/11/10	1745	✓		B-6	42'	44'				1	✓	✓	1008382-05
S	8/12/10	1100	✓		B-7	48'	50'				1	✓	✓	1008382-06

No Further Entries

Turn around time: ☑ Normal ☐ 25% Rush ☐ 50% Rush ☐ 100% Rush

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Joseph W Martinez	8/12/10	1300	FedEx		
Relinquished by (Signature)	Date:	Time:	Received by: (Signature) ERMI Leslie Underwood	Date: 8/13/10	Time: 0950
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES: New Mexico

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

1002382

FedEx US Airbill Express

8717 4776 9953

0200 Form ID No.

FedEx Retrieval Copy

From

Date 8/2/10 Sender's FedEx Account Number 3153-6506-6

Sender's Name Trish Moore Phone 214 350-5469

Company Southwest Geoscience

Address 2351 W. Northwest Hwy #3321

Dept/Floor/Suite/Room

City Dallas State TX ZIP 75220-4433

Your Internal Billing Reference 0210002 (SWM)

To

Recipient's Name Phone 972 727-1123

Company ERMI

1 ☐ HOLD Weekday Print FedEx location address below. NOT available for FedEx First Overnight.

31 ☐ HOLD Saturday Print FedEx location address below. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

Address 400 W Bethany Rd, Ste 190

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Dept/Floor/Suite/Room

Address

Print FedEx location address here if a HOLD option is selected.

City Allen State TX ZIP 75013

8717 4776 9953

4a Express Package Service

* To most locations. **Packages up to 150 lbs.**

1 ☑ FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

5 ☐ FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.

6 ☐ FedEx First Overnight — Earliest next business morning delivery to select locations.* Saturday Delivery NOT available.

3 ☐ FedEx 2Day — Second business day.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

20 ☐ FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

4b Express Freight Service

** To most locations. **Packages over 150 lbs.**

7 ☐ FedEx 1Day Freight — Next business day.** Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

FedEx 1Day Freight Booking No.

8 ☐ FedEx 2Day Freight — Second business day.** Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.

83 ☐ FedEx 3Day Freight — Third business day.** Saturday Delivery NOT available.

5 Packaging

* Declared value limit $500.

6 ☐ FedEx Envelope* 2 ☐ FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak 3 ☐ FedEx Box 4 ☐ FedEx Tube 1 ☑ Other

6 Special Handling and Delivery Signature Options

3 ☐ **SATURDAY DELIVERY**

☐ No Signature Required — Package may be left without obtaining a signature for delivery.

10 ☐ Direct Signature — Someone at recipient's address may sign for delivery. Fee applies.

34 ☐ Indirect Signature — If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. Fee applies.

Does this shipment contain dangerous goods?

One box must be checked.

☑ No 4 ☐ Yes — As per attached Shipper's Declaration. ☐ Yes — Shipper's Declaration not required. 6 ☐ Dry Ice — Dry ice, 9, UN 1845 ____ x ____ kg

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box.

☐ Cargo Aircraft Only

7 Payment Bill to:

1 ☑ Sender — Acct. No. in Section 1 will be billed. 2 ☐ Recipient 3 ☐ Third Party 4 ☐ Credit Card 5 ☐ Cash/Check

Enter FedEx Acct. No. or Credit Card No. below. Obtain Recip. Acct. No. ☐

Total Packages 1 Total Weight 13 lbs. Credit Card Auth.

*Our liability is limited to $100 unless you declare a higher value. See the current FedEx Service Guide for details.

554

Rev. Date 2/09 Part #158231 ©1994–2008 FedEx PRINTED IN U.S.A. SRY

Received for ERMI:
Leslie Underwood
8/3/10 0950

Lab Number(s): 1008382

ERMI

Sample Preservation Documentation*

On Ice (Circle One): YES OR NO (check if on Dry Ice_____)

Parameters	Containers #	Size	Required Preservation	Sample Container	Circle pH Note any discrepancy
Metals			pH < 2	Glass or Plastic	pH < 2
Dissolved Metals			Unpreserved prior to being filtered, Cool**	Glass or Plastic	
Hexavalent Chromium			CWA - pH 9.3-9.7, Cool; RCRA - Cool	Glass or Plastic	Checked At Analysis
Semivolatiles, Pesticides, PCBs, Herbicides			Cool	Glass only with Teflon lid	Chlorine ☐yes ☐no
VOA (BTEX, MTBE, 624, 8260, TPH-GRO)			Cool, pH < 2 Zero Head Space	40 ml VOA vial	DO NOT OPEN
VOA (TPH-1005)			Cool, Zero Head Space Please check if collected in pre-weighed vials_____	40 ml VOA vial	DO NOT OPEN
Phos., NO_3/NO_2, NH_3N, COD, TKN,TOC			Cool, pH < 2	Glass or Plastic	pH < 2
TDS, BOD, CBOD, Cond, pH, TSS, F, SO_4, Cl, Alk, Sulfite			Cool	Glass or Plastic, Plastic only if F	
Phenols, TPH-DRO			Cool, pH < 2	Glass only Teflon lid____ Foil lid_____	pH < 2
Oil & Grease, TPH (by 1664a)			Cool, pH < 2	Glass only Teflon lid____ Foil lid_____	DO NOT Check pH
Cyanide			Cool, pH >12	Glass or Plastic	pH > 12 Chlorine ☐yes ☐no Sulfide ☐yes ☐no ☐na
Sulfide			Cool, pH > 9	Glass or Plastic	pH > 9
Bacteria			Cool	Plastic Sterile Cup	
(Soil) Sludge, Solid, Oil, Liquid	6	4oz	Cool Note: please check if collected in pre-weighed vials_____	Glass	

Metals Preserved By Login ☐yes ☐no **Trip Blanks Received** ☐yes ☐no

COMMENTS:_____

*This form is used to document sample preservation. Circle parameter requested. Fill in number and size of containers received. Check pH (adjust if needed) and note if different from what is required and make a notation of any samples not received on ice. Note any incorrect sample containers or preservation on chain-of-custody.

**Cool means cooled to ≤6°C but not frozen.

Preservation Checked By _____ 8-13-08 **Date** 1129 **Time**

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Texas: T104704232-10-1

Report of Sample Analysis

Southwest Geoscience
8829 Tradeway Street
San Antonio, TX 78217
ATTN: Joseph W. Martinez

Page: Page 1 of 15
Project: Trunk A Seperator
Project #: 0210002
Print Date/Time: 02/10/11 14:14

Attached is our analytical report for the samples received for your project. Below is a list of your individual sample descriptions with our corresponding laboratory number. We also have enclosed a copy of the Chain of Custody that was received with your samples and a form documenting the condition of your samples upon arrival. Please note any unused portion of the samples may be discarded upon expiration of the EPA holding time for the analysis performed or after 30 days from the above report date, unless you have requested otherwise.

ERMI Environmental Laboratories certifies that all results contained in this report were produced in accordance with the requirements of the National Environmental Laboratory Accreditation Program (NELAP) unless otherwise noted. The results presented apply to the samples analyzed in accordance with the chain-of-custody document(s) furnished with the samples. This report is intended for the sole use of the customer for whom the work was performed and must be reproduced, without modification, in its entirety.

Sample Identification

Laboratory ID #	Client Sample ID	Matrix	Sampled Date/Time	Received Date/Time
1102036-01	EC-1	Solid	01/31/11 13:00	02/03/11 12:28
1102036-02	EC-2	Solid	01/31/11 13:10	02/03/11 12:28
1102036-03	EC-3	Solid	01/31/11 13:20	02/03/11 12:28
1102036-04	EC-4	Solid	01/31/11 13:30	02/03/11 12:28

Case Narrative

This project does not require TRRP specifications.

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Texas: T104704232-10-1

Report of Sample Analysis

Southwest Geoscience
8829 Tradeway Street
San Antonio, TX 78217
ATTN: Joseph W. Martinez

Project: Trunk A Seperator
Project #: 0210002
Print Date/Time: 02/10/11 14:14

The analytical data and results contained in this report, as well as their supporting data, conform with Texas Risk Reduction Program (TRRP), 30 TAC, Section 350, requirements and are of sufficient and documented quality to meet both TRRP objectives, TCEQ regulatory guidance No. RG-366/TRRP-13 and the project-based objective of achieving the lowest method detection limit (i.e., the TRRP Critical PCL where reasonably achievable or, if not reasonably achievable, the MQL). All information concerning analytical parameters, methods and protocols that might bear upon or otherwise affect the accuracy of the analytical data in this report have been provided or otherwise disclosed herein. The data were obtained using applicable and appropriate EPA SW-846 or Texas Commission on Environmental Quality approved analytical protocols, methodologies and quality assurance/quality control standards. **ERMI Environmental Laboratories** certifies that its quality control program is substantially and materially consistent with the International Organization for Standardization "Guide 25: General Requirements the Competence of Calibration and Testing Laboratories (ISO 25 3rd Edition, 1990)," as amended or the quality standards outlined in the National Environmental Laboratory Accreditation Program, as amended. The entire analytical data package for this report, including the supporting quality control data, will be retained and maintained for at least five (5) years (or such longer period of time as may be required by TRRP) from the report date at the offices of **ERMI Environmental Laboratories, 400 W. Bethany, Suite 190, Allen, Texas 75013.**

I am responsible for the release of this laboratory data package. This data package has been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Thank you for the opportunity to serve your environmental chemistry analysis needs. If you have any questions or concerns regarding this report please contact our Customer Service Department at the phone number below.

Respectfully submitted,

Kendall K. Brown
President

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Report of Sample Analysis

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ATTN: Joseph W. Martinez

Page: Page 3 of 15
Project: Trunk A Seperator
Project #: 0210002
Print Date/Time: 02/10/11 14:14

Laboratory ID #: 1102036-01
Sample Type: Grab
Matrix: Solid
Sample Collected By: Joseph W. Martinez — Customer
Sample Description: EC-1
Sample Date/Time: 01/31/11 1300

Analyte(s)	Result	SRL	MRL	Units	F*	Method	Batch	Analysis Date/Time	Anlst	Flag
Total Petroleum Hydrocarbons - DRO										R-01
Ultrasonic Extraction	Completed	N/A	N/A	N/A	1.00	EPA 3550B	1B07008	02/07/11 0852	TK	
TPH Diesel	**2430**	151	2.9	mg/kg dry	49.89	EPA 8015B mod	1B07008	02/08/11 1737	PMS	
Surrogate			**Result**			**Spike Conc.**		**Recovery**	**Rec. Limits**	
a-Pinene (EPA 8015B mod)			*9.55 mg/kg dry*			*3.25 mg/kg dry*		*294 %*	*10-112*	Q-29
Triacontane (EPA 8015B mod)			*ND mg/kg dry*			*2.98 mg/kg dry*			*10-140*	Q-30
Total Petroleum Hydrocarbons - GRO										
TPH Gasoline	**1230**	26.2	0.05	mg/kg dry	500.00	EPA 8015B mod	1B07005	02/09/11 1308	ZT	R-01
Surrogate			**Result**			**Spike Conc.**		**Recovery**	**Rec. Limits**	
4-Bromofluorobenzene (EPA 8015B mod)			*0.335 mg/kg dry*			*0.0523 mg/kg dry*		*641 %*	*55-140*	Q-29
BTEX										
Benzene	**ND**	1.05	1	ug/kg dry	1.00	EPA 8021B	1B07005	02/07/11 1643	ZT	Q-01
Ethyl Benzene	**112**	10.5	1	ug/kg dry	10.00	EPA 8021B	1B07005	02/08/11 1002	ZT	R-01
Toluene	**517**	10.5	1	ug/kg dry	10.00	EPA 8021B	1B07005	02/08/11 1002	ZT	R-01
Xylenes (total)	**54800**	1570	3	ug/kg dry	500.00	EPA 8021B	1B07005	02/09/11 1308	ZT	R-01
Surrogate			**Result**			**Spike Conc.**		**Recovery**	**Rec. Limits**	
4-Bromofluorobenzene (EPA 8021B)			*63.0 ug/kg dry*			*52.3 ug/kg dry*		*120 %*	*10-140*	
4-Bromofluorobenzene (EPA 8021B)			*102 ug/kg dry*			*523 ug/kg dry*		*19 %*	*10-140*	
4-Bromofluorobenzene (EPA 8021B)			*87.9 ug/kg dry*			*52.3 ug/kg dry*		*168 %*	*10-140*	Q-29
Conventional Chemistry Parameters										
% Solids	**96**	0.20	0.2	%	1.00	SM 2540G	1B04017	02/04/11 1655	ANH	

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Report of Sample Analysis

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Project: Trunk A Seperator
Project #: 0210002
Print Date/Time: 02/10/11 14:14

Laboratory ID #: 1102036-02
Sample Type: Grab
Matrix: Solid
Sample Collected By: Joseph W. Martinez — Customer
Sample Description: EC-2
Sample Date/Time: 01/31/11 1310

Analyte(s)	Result	SRL	MRL	Units	F*	Method	Batch	Analysis Date/Time	Anlst	Flag
Total Petroleum Hydrocarbons - DRO										
Ultrasonic Extraction	Completed	N/A	N/A	N/A	1.00	EPA 3550B	1B07008	02/07/11 0852	TK	
TPH Diesel	ND	3.02	2.9	mg/kg dry	1.00	EPA 8015B mod	1B07008	02/09/11 1013	PMS	
Surrogate				**Result**		**Spike Conc.**		**Recovery**	**Rec. Limits**	
a-Pinene (EPA 8015B mod)				*2.64 mg/kg dry*		*3.24 mg/kg dry*		*81 %*	*10-112*	
Triacontane (EPA 8015B mod)				*2.81 mg/kg dry*		*2.98 mg/kg dry*		*95 %*	*10-140*	Q-11
Total Petroleum Hydrocarbons - GRO										
TPH Gasoline	0.166	0.0523	0.05	mg/kg dry	1.00	EPA 8015B mod	1B03020	02/04/11 1942	ZT	
Surrogate				**Result**		**Spike Conc.**		**Recovery**	**Rec. Limits**	
4-Bromofluorobenzene (EPA 8015B mod)				*0.0740 mg/kg dry*		*0.0523 mg/kg dry*		*142 %*	*55-140*	Q-29
BTEX										
Benzene	ND	1.05	1	ug/kg dry	1.00	EPA 8021B	1B03020	02/04/11 1942	ZT	
Ethyl Benzene	ND	1.05	1	ug/kg dry	1.00	EPA 8021B	1B03020	02/04/11 1942	ZT	
Toluene	ND	1.05	1	ug/kg dry	1.00	EPA 8021B	1B03020	02/04/11 1942	ZT	
Xylenes (total)	ND	3.14	3	ug/kg dry	1.00	EPA 8021B	1B03020	02/04/11 1942	ZT	
Surrogate				**Result**		**Spike Conc.**		**Recovery**	**Rec. Limits**	
4-Bromofluorobenzene (EPA 8021B)				*66.8 ug/kg dry*		*52.3 ug/kg dry*		*128 %*	*10-140*	
Conventional Chemistry Parameters										
% Solids	96	0.20	0.2	%	1.00	SM 2540G	1B04017	02/04/11 1655	ANH	

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Report of Sample Analysis

Southwest Geoscience
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Page: Page 5 of 15
Project: Trunk A Seperator
Project #: 0210002
Print Date/Time: 02/10/11 14:14

Laboratory ID #: 1102036-03
Sample Type: Grab
Matrix: Solid
Sample Collected By: Joseph W. Martinez
Customer
Sample Description: EC-3
Sample Date/Time: 01/31/11 1320

Analyte(s)	Result	SRL	MRL	Units	F*	Method	Batch	Analysis Date/Time	Anlst	Flag
Total Petroleum Hydrocarbons - DRO										R-01
Ultrasonic Extraction	Completed	N/A	N/A	N/A	1.00	EPA 3550B	1B07008	02/07/11 0852	TK	
TPH Diesel	**2270**	157	2.9	mg/kg dry	50.00	EPA 8015B mod	1B07008	02/08/11 1832	PMS	
Surrogate			**Result**		**Spike Conc.**		**Recovery**	**Rec. Limits**		
a-Pinene (EPA 8015B mod)			*10.6 mg/kg dry*		*3.37 mg/kg dry*		*315 %*	*10-112*		Q-29
Triacontane (EPA 8015B mod)			*0.516 mg/kg dry*		*3.09 mg/kg dry*		*17 %*	*10-140*		
Total Petroleum Hydrocarbons - GRO										
TPH Gasoline	**1190**	54.1	0.05	mg/kg dry	1,000.00	EPA 8015B mod	1B07005	02/09/11 1137	ZT	R-01
Surrogate			**Result**		**Spike Conc.**		**Recovery**	**Rec. Limits**		
4-Bromofluorobenzene (EPA 8015B mod)			*0.206 mg/kg dry*		*0.0541 mg/kg dry*		*380 %*	*55-140*		Q-29
BTEX										
Benzene	**ND**	1.08	1	ug/kg dry	1.00	EPA 8021B	1B07005	02/07/11 1713	ZT	Q-01
Ethyl Benzene	**3490**	108	1	ug/kg dry	100.00	EPA 8021B	1B07005	02/08/11 2149	ZT	R-01
Toluene	**2860**	108	1	ug/kg dry	100.00	EPA 8021B	1B07005	02/08/11 2149	ZT	R-01
Xylenes (total)	**74200**	3250	3	ug/kg dry	1,000.00	EPA 8021B	1B07005	02/09/11 1137	ZT	R-01
Surrogate			**Result**		**Spike Conc.**		**Recovery**	**Rec. Limits**		
4-Bromofluorobenzene (EPA 8021B)			*48.2 ug/kg dry*		*54.1 ug/kg dry*		*89 %*	*10-140*		
4-Bromofluorobenzene (EPA 8021B)			*145 ug/kg dry*		*54.1 ug/kg dry*		*268 %*	*10-140*		Q-29
Conventional Chemistry Parameters										
% Solids	**92**	0.20	0.2	%	1.00	SM 2540G	1B04017	02/04/11 1655	ANH	

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Report of Sample Analysis

Southwest Geoscience
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ATTN: Joseph W. Martinez

Project: Trunk A Seperator
Project #: 0210002
Print Date/Time: 02/10/11 14:14

Laboratory ID #: 1102036-04
Sample Type: Grab
Matrix: Solid
Sample Collected By: Joseph W. Martinez — Customer
Sample Description: EC-4
Sample Date/Time: 01/31/11 1330

Analyte(s)	Result	SRL	MRL	Units	F*	Method	Batch	Analysis Date/Time	Anlst	Flag
Total Petroleum Hydrocarbons - DRO										R-01
Ultrasonic Extraction	Completed	N/A	N/A	N/A	1.00	EPA 3550B	1B07008	02/07/11 0852	TK	
TPH Diesel	**10200**	315	2.9	mg/kg dry	99.97	EPA 8015B mod	1B07008	02/09/11 1107	PMS	
Surrogate			**Result**		**Spike Conc.**		**Recovery**	**Rec. Limits**		
a-Pinene (EPA 8015B mod)			*26.2 mg/kg dry*		*3.39 mg/kg dry*		*773 %*	*10-112*		Q-29
Triacontane (EPA 8015B mod)			*ND mg/kg dry*		*3.11 mg/kg dry*			*10-140*		Q-11, Q-30
Total Petroleum Hydrocarbons - GRO										
TPH Gasoline	**1380**	54.4	0.05	mg/kg dry	1,000.00	EPA 8015B mod	1B07005	02/09/11 1208	ZT	R-01
Surrogate			**Result**		**Spike Conc.**		**Recovery**	**Rec. Limits**		
4-Bromofluorobenzene (EPA 8015B mod)			*0.225 mg/kg dry*		*0.0544 mg/kg dry*		*414 %*	*55-140*		Q-29
BTEX										
Benzene	**ND**	1.09	1	ug/kg dry	1.00	EPA 8021B	1B07005	02/07/11 1744	ZT	Q-01
Ethyl Benzene	**1250**	10.9	1	ug/kg dry	10.00	EPA 8021B	1B07005	02/08/11 1645	ZT	R-01
Toluene	**379**	10.9	1	ug/kg dry	10.00	EPA 8021B	1B07005	02/08/11 1645	ZT	R-01
Xylenes (total)	**55800**	3260	3	ug/kg dry	1,000.00	EPA 8021B	1B07005	02/09/11 1208	ZT	R-01
Surrogate			**Result**		**Spike Conc.**		**Recovery**	**Rec. Limits**		
4-Bromofluorobenzene (EPA 8021B)			*33.5 ug/kg dry*		*54.4 ug/kg dry*		*62 %*	*10-140*		
4-Bromofluorobenzene (EPA 8021B)			*1210 ug/kg dry*		*544 ug/kg dry*		*223 %*	*10-140*		Q-29
4-Bromofluorobenzene (EPA 8021B)			*74.7 ug/kg dry*		*54.4 ug/kg dry*		*137 %*	*10-140*		
Conventional Chemistry Parameters										
% Solids	**92**	0.20	0.2	%	1.00	SM 2540G	1B04017	02/04/11 1655	ANH	

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Report of Sample Analysis

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Project: Trunk A Seperator
Project #: 0210002
Print Date/Time: 02/10/11 14:14

Total Petroleum Hydrocarbons - DRO - Quality Control

Analyte(s)	Result	*SRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 1B07008 - EPA 3550B Sonication Extraction										
Blank (1B07008-BLK1) Prepared & Analyzed: 02/07/11 08:52										
Ultrasonic Extraction	Completed	N/A	N/A							
TPH Diesel	ND	2.89	mg/kg wet							
Surrogate: a-Pinene	2.48		mg/kg wet	3.11		80	10-109			
Surrogate: Triacontane	2.67		mg/kg wet	2.85		94	10-140			
Laboratory Control Sample (1B07008-BS1) Prepared & Analyzed: 02/07/11 08:52										
Ultrasonic Extraction	Completed	N/A	N/A				0-0			
TPH Diesel	24.3	2.90	mg/kg wet	28.6		85	43-120			
Surrogate: a-Pinene	2.15		mg/kg wet	3.11		69	10-109			
Surrogate: Triacontane	1.65		mg/kg wet	2.86		58	10-140			
Laboratory Control Sample Duplicate (1B07008-BSD1) Prepared & Analyzed: 02/07/11 08:52										
Ultrasonic Extraction	Completed	N/A	N/A				0-0		0	
TPH Diesel	25.1	2.90	mg/kg wet	28.5		88	43-120	4	20	
Surrogate: a-Pinene	2.19		mg/kg wet	3.11		70	10-109			
Surrogate: Triacontane	2.04		mg/kg wet	2.85		72	10-140			
Matrix Spike (1B07008-MS1) Prepared & Analyzed: 02/07/11 08:52					**Source: 1102035-01RE1**					
Ultrasonic Extraction	Completed	N/A	N/A				0-0			
TPH Diesel	1260	179	mg/kg dry	35.2	364	2530	1-150			Q-02, R-01
Surrogate: a-Pinene	4.19		mg/kg dry	3.84		109	1-109			R-01
Surrogate: Triacontane	0.0176		mg/kg dry	3.52		0	1-170			Q-30, R-01
Matrix Spike Duplicate (1B07008-MSD1) Prepared & Analyzed: 02/07/11 08:52					**Source: 1102035-01RE1**					
Ultrasonic Extraction	Completed	N/A	N/A				0-0		0	
TPH Diesel	2390	179	mg/kg dry	35.3	364	5730	1-150	62	43	Q-02, Q-04, R-01
Surrogate: a-Pinene	0.408		mg/kg dry	3.85		11	1-109			R-01
Surrogate: Triacontane	0.892		mg/kg dry	3.53		25	1-170			R-01

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Report of Sample Analysis

Southwest Geoscience
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Project: Trunk A Seperator
Project #: 0210002
Print Date/Time: 02/10/11 14:14

Total Petroleum Hydrocarbons - GRO - Quality Control

Analyte(s)	Result	*SRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 1B03020 - Purge-and-Trap and Extraction-VOCs in Soil										
Blank (1B03020-BLK1) Prepared: 02/03/11 16:45 Analyzed: 02/04/11 12:25										
TPH Gasoline	**ND**	0.0500	mg/kg wet							
Surrogate: 4-Bromofluorobenzene	**0.0558**		mg/kg wet	0.0500		112	15-212			
Laboratory Control Sample (1B03020-BS1) Prepared: 02/03/11 16:45 Analyzed: 02/04/11 13:25										
TPH Gasoline	**0.428**	0.0500	mg/kg wet	0.500		86	64-117			
Surrogate: 4-Bromofluorobenzene	**0.0571**		mg/kg wet	0.0500		114	15-212			
Laboratory Control Sample Duplicate (1B03020-BSD1) Prepared: 02/03/11 16:45 Analyzed: 02/04/11 15:25										
TPH Gasoline	**0.435**	0.0500	mg/kg wet	0.500		87	64-117	2	18	
Surrogate: 4-Bromofluorobenzene	**0.0567**		mg/kg wet	0.0500		113	15-212			
Matrix Spike (1B03020-MS2) Prepared: 02/07/11 14:10 Analyzed: 02/07/11 14:41					**Source: 1102035-01RE2**					
TPH Gasoline	**16.0**	0.309	mg/kg dry	15.5	12.2	25	10-140			R-01
Surrogate: 4-Bromofluorobenzene	**0.187**		mg/kg dry	0.309		61	55-140			
Matrix Spike Duplicate (1B03020-MSD2) Prepared: 02/07/11 14:10 Analyzed: 02/07/11 15:12					**Source: 1102035-01RE2**					
TPH Gasoline	**9.01**	0.309	mg/kg dry	15.5	12.2	-21	10-140	56	38	Q-02, Q-04, R-01
Surrogate: 4-Bromofluorobenzene	**0.142**		mg/kg dry	0.309		46	55-140			Q-30
Batch 1B07005 - Purge-and-Trap and Extraction-VOCs in Soil										
Blank (1B07005-BLK1) Prepared: 02/07/11 09:03 Analyzed: 02/07/11 11:17										
TPH Gasoline	**ND**	0.0500	mg/kg wet							
Surrogate: 4-Bromofluorobenzene	**0.0564**		mg/kg wet	0.0500		113	55-140			

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Report of Sample Analysis

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Project: Trunk A Seperator
Project #: 0210002
Print Date/Time: 02/10/11 14:14

Total Petroleum Hydrocarbons - GRO - Quality Control

Analyte(s)	Result	*SRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 1B07005 - Purge-and-Trap and Extraction-VOCs in Soil (continued)										
Laboratory Control Sample (1B07005-BS1) Prepared: 02/07/11 09:03 Analyzed: 02/07/11 11:47										
TPH Gasoline	**0.457**	0.0500	mg/kg wet	0.500		91	64-117			
Surrogate: 4-Bromofluorobenzene	**0.0564**		mg/kg wet	0.0500		113	15-212			
Laboratory Control Sample Duplicate (1B07005-BSD1) Prepared: 02/07/11 09:03 Analyzed: 02/07/11 12:18										
TPH Gasoline	**0.462**	0.0500	mg/kg wet	0.500		92	64-117	0.9	18	
Surrogate: 4-Bromofluorobenzene	**0.0566**		mg/kg wet	0.0500		113	15-212			
Matrix Spike (1B07005-MS1) Prepared: 02/07/11 09:03 Analyzed: 02/08/11 11:08					**Source: 1102035-03RE2**					
TPH Gasoline	**161**	5.00	mg/kg wet	50.0	20.0	283	4-163			Q-02, R-01
Surrogate: 4-Bromofluorobenzene	**0.159**		mg/kg wet	0.500		32	15-212			
Matrix Spike Duplicate (1B07005-MSD1) Prepared: 02/07/11 09:03 Analyzed: 02/08/11 11:39					**Source: 1102035-03RE2**					
TPH Gasoline	**88.9**	5.00	mg/kg wet	50.0	20.0	138	4-163	58	46	Q-04, R-01
Surrogate: 4-Bromofluorobenzene	**0.129**		mg/kg wet	0.500		26	15-212			

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Report of Sample Analysis

Southwest Geoscience
8829 Tradeway Street
San Antonio, TX 78217
ATTN: Joseph W. Martinez

Project: Trunk A Seperator
Project #: 0210002
Print Date/Time: 02/10/11 14:14

BTEX - Quality Control

Analyte(s)	Result	*SRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 1B03020 - Purge-and-Trap and Extraction-VOCs in Soil										
Blank (1B03020-BLK1) Prepared: 02/03/11 16:45 Analyzed: 02/04/11 12:25										
Benzene	**ND**	1.00	ug/kg wet							
Ethyl Benzene	**ND**	1.00	ug/kg wet							
Toluene	**ND**	1.00	ug/kg wet							
Xylenes (total)	**ND**	3.00	ug/kg wet							
Surrogate: 4-Bromofluorobenzene	**58.7**		ug/kg wet	50.0		117	18-198			
Laboratory Control Sample (1B03020-BS1) Prepared: 02/03/11 16:45 Analyzed: 02/04/11 13:25										
Benzene	**52.2**	1.00	ug/kg wet	50.0		104	76-118			
Ethyl Benzene	**47.0**	1.00	ug/kg wet	50.0		94	68-124			
Toluene	**45.6**	1.00	ug/kg wet	50.0		91	76-120			
Xylenes (total)	**139**	3.00	ug/kg wet	150		93	70-123			
Surrogate: 4-Bromofluorobenzene	**59.2**		ug/kg wet	50.0		118	18-198			
Laboratory Control Sample Duplicate (1B03020-BSD1) Prepared: 02/03/11 16:45 Analyzed: 02/04/11 15:25										
Benzene	**47.7**	1.00	ug/kg wet	50.0		95	76-118	9	12	
Ethyl Benzene	**54.3**	1.00	ug/kg wet	50.0		109	68-124	14	14	
Toluene	**51.9**	1.00	ug/kg wet	50.0		104	76-120	13	13	
Xylenes (total)	**158**	3.00	ug/kg wet	150		105	70-123	13	13	
Surrogate: 4-Bromofluorobenzene	**65.4**		ug/kg wet	50.0		131	18-198			
Matrix Spike (1B03020-MS1) Prepared: 02/03/11 16:45 Analyzed: 02/04/11 16:08					**Source: 1102035-01**					
Benzene	**46.3**	1.24	ug/kg dry	61.8	ND	75	21-140			
Ethyl Benzene	**48.3**	1.24	ug/kg dry	61.8	ND	78	10-140			
Toluene	**48.6**	1.24	ug/kg dry	61.8	ND	79	28-140			
Xylenes (total)	**197**	3.71	ug/kg dry	185	24.7	93	13-140			
Surrogate: 4-Bromofluorobenzene	**78.0**		ug/kg dry	61.8		126	18-140			

Environmental Laboratories
Bethany Tech Center • Suite 190
400 W. Bethany Rd. • Allen, Texas 75013

State Certifications
Arkansas: 88-0647
Oklahoma: 8727
Louisiana: 02007
Kansas: E-10388
Texas: T104704232-10-1

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Print Date/Time: 02/10/11 14:14

BTEX - Quality Control

Analyte(s)	Result	*SRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 1B03020 - Purge-and-Trap and Extraction-VOCs in Soil (continued)										
Matrix Spike Duplicate (1B03020-MSD1) Prepared: 02/03/11 16:45 Analyzed: 02/04/11 16:38					**Source: 1102035-01**					
Benzene	**57.0**	1.24	ug/kg dry	61.8	ND	92	21-140	21	29	
Ethyl Benzene	**48.5**	1.24	ug/kg dry	61.8	ND	78	10-140	0.3	27	
Toluene	**48.8**	1.24	ug/kg dry	61.8	ND	79	28-140	0.5	32	
Xylenes (total)	**182**	3.71	ug/kg dry	185	24.7	85	13-140	8	40	
Surrogate: 4-Bromofluorobenzene	**80.2**		ug/kg dry	61.8		130	18-140			
Batch 1B07005 - Purge-and-Trap and Extraction-VOCs in Soil										
Blank (1B07005-BLK1) Prepared: 02/07/11 09:03 Analyzed: 02/07/11 11:17										
Benzene	**ND**	1.00	ug/kg wet							
Ethyl Benzene	**ND**	1.00	ug/kg wet							
Toluene	**ND**	1.00	ug/kg wet							
Xylenes (total)	**ND**	3.00	ug/kg wet							
Surrogate: 4-Bromofluorobenzene	**59.4**		ug/kg wet	50.0		119	18-140			
Laboratory Control Sample (1B07005-BS1) Prepared: 02/07/11 09:03 Analyzed: 02/07/11 11:47										
Benzene	**52.0**	1.00	ug/kg wet	50.0		104	76-118			
Ethyl Benzene	**46.6**	1.00	ug/kg wet	50.0		93	68-124			
Toluene	**45.3**	1.00	ug/kg wet	50.0		91	76-120			
Xylenes (total)	**136**	3.00	ug/kg wet	150		90	70-123			
Surrogate: 4-Bromofluorobenzene	**54.9**		ug/kg wet	50.0		110	18-198			
Laboratory Control Sample Duplicate (1B07005-BSD1) Prepared: 02/07/11 09:03 Analyzed: 02/07/11 12:18										
Benzene	**52.2**	1.00	ug/kg wet	50.0		104	76-118	0.3	12	
Ethyl Benzene	**47.2**	1.00	ug/kg wet	50.0		94	68-124	1	14	
Toluene	**45.6**	1.00	ug/kg wet	50.0		91	76-120	0.6	13	
Xylenes (total)	**134**	3.00	ug/kg wet	150		89	70-123	1	13	
Surrogate: 4-Bromofluorobenzene	**54.2**		ug/kg wet	50.0		108	18-198			

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ATTN: Joseph W. Martinez

Project: Trunk A Seperator
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Print Date/Time: 02/10/11 14:14

BTEX - Quality Control

Analyte(s)	Result	*SRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 1B07005 - Purge-and-Trap and Extraction-VOCs in Soil (continued)										
Matrix Spike (1B07005-MS1)					**Source: 1102035-03RE2**					**R-01**
Prepared: 02/07/11 09:03 Analyzed: 02/08/11 11:08										
Benzene	**5590**	100	ug/kg wet	5000	ND	112	21-150			
Ethyl Benzene	**5970**	100	ug/kg wet	5000	318	113	3-169			
Toluene	**5520**	100	ug/kg wet	5000	9.07	110	28-150			
Xylenes (total)	**20900**	300	ug/kg wet	15000	737	134	10-140			
Surrogate: 4-Bromofluorobenzene	**862**		ug/kg wet	500		172	18-198			
Matrix Spike Duplicate (1B07005-MSD1)					**Source: 1102035-03RE2**					**R-01**
Prepared: 02/07/11 09:03 Analyzed: 02/08/11 11:39										
Benzene	**5300**	100	ug/kg wet	5000	ND	106	21-150	5	29	
Ethyl Benzene	**5010**	100	ug/kg wet	5000	318	94	3-169	17	52	
Toluene	**4660**	100	ug/kg wet	5000	9.07	93	28-150	17	33	
Xylenes (total)	**15900**	300	ug/kg wet	15000	737	101	10-140	27	52	
Surrogate: 4-Bromofluorobenzene	**609**		ug/kg wet	500		122	18-198			

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Project: Trunk A Seperator
Project #: 0210002
Print Date/Time: 02/10/11 14:14

Conventional Chemistry Parameters - Quality Control

Analyte(s)	Result	*SRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 1B04017										
Blank (1B04017-BLK1) Prepared & Analyzed: 02/04/11 16:55										
% Solids	**ND**	0.20	%							
Duplicate (1B04017-DUP1) Prepared & Analyzed: 02/04/11 16:55					**Source: 1101579-01**					
% Solids	**83**	0.20	%		83			0	4	
Duplicate (1B04017-DUP2) Prepared & Analyzed: 02/04/11 16:55					**Source: 1102036-02**					
% Solids	**97**	0.20	%		96			0.6	4	

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Report of Sample Analysis

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ATTN: Joseph W. Martinez

Project: Trunk A Seperator
Project #: 0210002
Print Date/Time: 02/10/11 14:14

Notes and Definitions

The results presented in this report were generated using those methods given in 40 CFR Part 136 for Water and Wastewater samples and in SW-846 for RCRA/Solid Waste samples.

Q-01	The recovery of the internal standard(s) was outside the acceptable range in this sample due to matrix interference. No target compounds were identified in the sample, therefore, this has no effect on the results presented.
Q-02	The recovery of this analyte in the MS was outside the acceptable range due to interference, large dilutions required for analysis or a combination of these factors. The recovery of this analyte in the LCS(s) was within the acceptable range.
Q-04	The RPD of this analyte between the MS(s) was outside of the acceptable range. The RPD of this same analyte between the LCS(s) was within the acceptable range.
Q-11	The recovery of the calibration check standard for this analyte was lower than the acceptable range. This may indicate a low bias to the result presented.
Q-29	The recovery of the surrogate in this sample was higher than the acceptable range due to matrix interference and/or large dilutions required for analysis. This may indicate a high bias to the compounds in the sample that this surrogate represents.
Q-30	The recovery of the surrogate in this sample was lower than the acceptable range due to matrix interference and/or large dilutions required for analysis. This may indicate a low bias to the compounds in the sample that this surrogate represents.
R-01	The higher reporting limit is due to dilutions required for analysis as a result of a high concentration of target and/or non-target parameters in this sample.
ND	Analyte NOT DETECTED at or above the reporting limit
dry	Sample results reported on a dry weight basis
LCS/LCSD	Laboratory Control Sample/Laboratory Control Sample Duplicate
MS/MSD	Matrix Spike/Matrix Spike Duplicate
RPD	Relative Percent Difference
mg/kg	milligrams per kilogram
mg/l	milligrams per liter
ug/kg	micrograms per kilogram
ug/l	micrograms per liter
exc	Not covered under scope of NELAP accreditation.
F*	Calculated factor rounded to 3 significant figures. Concentration factor when <1.00 and dilution factor when >1.00.
Anlst	Analyst Initials
SRL	Sample Reporting Limit

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Project: Trunk A Seperator
Project #: 0210002
Print Date/Time: 02/10/11 14:14

MRL	Method Reporting Limit
naa	This analysis/parameter is not accreditable under the current NELAP program

CHAIN OF CUSTODY RECORD

Southwest GEOSCIENCE
Environmental & Hydrogeologic Consultants

Office Location: San Antonio
Project Manager: J. Martinez

Laboratory: ERMI
Address:
Contact:
Phone:
PO/SO #:

Lab use only
Due Date:
Temp. of coolers when received (C°): 1: 0.8 corrected | 2 | 3 | 4 | 5
Page ____ of ____

Sampler's Name: Joseph W Martinez
Sampler's Signature: Joseph W Martinez

Proj. No.: 0210002
Project Name: Trunk A Separator

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	No/Type of Containers: VOA	A/G 1 Lt.	250 ml	P/O	TPH GRO/DRO SW846 (8015B)	BTEX SW-846 (8021B)	Chlorides (EPA 300.0)	Hold	Lab Sample ID (Lab Use Only)
S	1.31.11	~~1300~~ 1100		✓	EC-1	8'	9'				1	X	X		✓	1102036-01
		~~1310~~ 1110			EC-2	8'	9'					X	X		✓	1102036-02
		~~1320~~ 1120			EC-3	8'	9'					X	X		✓	1102036-03
		1330			EC-4	8'	9'					X	X		✓	1102036-04
					~~EC-5~~	~~8'~~	~~9'~~									
		1500			TS-1	8.5'	1'					✓	✓	✓		
		1505			TS-2	0.5'	1'								✓	
		1510			TS-3	0.5'	1'								✓	
		1515			TS-4	0.5'	1'							•	✓	
		1520			TS-5							✓	✓	✓		

Normal TAT Per Joseph M 2/3/11 LK

Turn around time: ☐ Normal ☐ 25% Rush ☐ 50% Rush ☐ 100% Rush

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Joseph W Martinez	2.1.11	1200	FedEx		
Relinquished by (Signature)	Date:	Time:	Received by: (Signature) Melissa McCullough	Date: 2-3-11	Time: 1228
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES:
3 Day TAT

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

CHAIN OF CUSTODY RECORD

Southwest GEOSCIENCE
Environmental & Hydrogeologic Consultants

Office Location: San Antonio
Project Manager: J. Martinez

Laboratory: ERMI
Address:
Contact:
Phone:
PO/SO #:

Lab use only
Due Date:

Temp. of coolers when received (C°): 0.8 gdc | 2 | 3 | 4 | 5

Page ____ of ____

Sampler's Name: Joseph W Martinez
Sampler's Signature: Joseph W Martinez

Proj. No.: 0210002
Project Name: Trunk HASeq.
No/Type of Containers

ANALYSIS REQUESTED: TPH GRO/DRO (SW-846 #8015B) | BTEX (SW-846 - #8021B) | Chlorides (EPA 300.0) | Hold

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 Lt.	250 ml	P/O	TPH GRO/DRO	BTEX	Chlorides	Hold	Lab Sample ID (Lab Use Only)
S	1.31.11	1525		✓	TS-6	0.5	1'				1				✓	
		1530			TS-7										✓	
		1535			TS-8										✓	
		1540			TS-9										✓	
		1545			TS-10										✓	
		1550			TS-11							✓	✓	✓		
		1555			TS-12										✓	
		1600			TS-13										✓	
		1605			TS-[illegible] 4m 14										✓	
		1610			TS-[illegible] 4m 15										✓	
		1615			TS-[illegible] 4m 16										✓	
		1620			TS-[illegible] 4m 17										✓	
		1625			TS-18										✓	
		1630			TS-19										✓	
		1635			TS-20					1 4m	2	✓	✓	✓		

Turn around time ☐ Normal ☐ 25% Rush ☐ 50% Rush ☐ 100% Rush

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Joseph W Martinez	2.1.11	1600	FedEx	Mc 2/1/11	
Relinquished by (Signature)	Date:	Time:	Received by: (Signature) Melissa	Date:	Time:
Melissa M. Cullen				2-3-11	1228
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES: 3 Day TAT

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

Received at ERMI 1228 2-3-11
Melissa McCullough +2 MM 2-3-11

FedEx Express US Airbill

FedEx Tracking Number 8747 7752 8560

1 From. This portion can be removed for Recipient's records.

Date 2/1/11 FedEx Tracking Number 874777528560

Sender's Name TRISH MOORE Phone 214 350-5469

Company SOUTHWEST GEOSCIENCE

Address 2351 W NORTHWEST HWY STE 3321 Dept./Floor/Suite/Room

City DALLAS State TX ZIP 75220-8409

Your Internal Billing Reference 0210003

To

Recipient's Name Leslie Underwood Phone 972 727-1123

Company ERMI

Address 400 W ~~Bethany~~ Bethany #190

We cannot deliver to P.O. boxes or P.O. ZIP codes.

HOLD Weekday FedEx location address REQUIRED. NOT available for FedEx First Overnight.

HOLD Saturday FedEx location address REQUIRED. Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

Address

Use this line for the HOLD location address or for continuation of your shipping address.

City Allen State TX ZIP 75013

0430025347

8747 7752 8560

4a Express Package Service * To most locations.

- FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.
- FedEx 2Day — Second business day.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

4b Express Freight Service ** To most locations.

- FedEx 1Day Freight — Next business day.** Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected. FedEx 1Day Freight Booking No.
- FedEx 2Day Freight — Second business day.** Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- FedEx 3Day Freight — Third business day.** Saturday

5 Packaging * Declared value limit $500.

FedEx Envelope* | FedEx Pak* Includes FedEx Small Pak and FedEx Large Pak. | FedEx Box | FedEx Tube | Oth

6 Special Handling and Delivery Signature Options

SATURDAY Delivery NOT available for FedEx Standard Overnight, FedEx Express Saver, or FedEx 3Day Freight.

No Signature Required — Package may be left without obtaining a signature for delivery.

Direct Signature — Someone at recipient's address may sign for delivery. Fee applies.

Indirect Signature — If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only. Fee applies.

Does this shipment contain dangerous goods? One box must be checked.

No | Yes As per attached Shipper's Declaration. | Yes Shipper's Declaration not required. | Dry Ice - Dry Ice, 9, UN 1845 ____ x ____ kg

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging or placed in a FedEx Express Drop Box.

Cargo Aircraft Only

7 Payment Bill to:

Sender Acct. No. in Section will be billed | Recipient | Third Party | Credit Card | Cash/Check

Enter FedEx Acct. No. or Credit Card No. below.

Obtain recip. Acct. No.

Total Packages Total Weight lbs. Credit Card Auth.

*Our liability is limited to $100 unless you declare a higher value. See the current FedEx Service Guide for details.

605

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CUSTODY SEAL
DATE 2.1.11
SIGNATURE

ALAMO ANALYTICAL LABORATORIES LTD.
210-340-8121

CUSTODY SEAL
DATE 2.1.11
SIGNATURE

ALAMO ANALYTICAL LABORATORIES LTD.
210-340-8121

FEB 02 ORIG TX OVERNT
75013

Lab Number(s): 1102036

ERMI

Sample Preservation Documentation*

On Ice (Circle One): (YES) OR NO (check if on Dry Ice_____)

Parameters	Containers #	Size	Required Preservation	Sample Container	Circle pH Note any discrepancy
Metals			pH < 2	Glass or Plastic	pH < 2
Dissolved Metals			Unpreserved prior to being filtered, Cool**	Glass or Plastic	
Hexavalent Chromium			CWA - pH 9.3-9.7, Cool; RCRA - Cool	Glass or Plastic	Checked At Analysis
Semivolatiles, Pesticides, PCBs, Herbicides			Cool	Glass only with Teflon lid	Chlorine ☐yes ☐no
VOA (BTEX, MTBE, 624, 8260, TPH-GRO)			Cool, pH < 2 Zero Head Space	40 ml VOA vial	DO NOT OPEN
VOA (TPH-1005)			Cool, Zero Head Space Please check if collected in pre-weighed vials_____	40 ml VOA vial	DO NOT OPEN
Phos., NO_3/NO_2, NH_3N, COD, TKN,TOC			Cool, pH < 2	Glass or Plastic	pH < 2
TDS, BOD, CBOD, Cond, pH, TSS, F, SO_4, Cl, Alk, Sulfite			Cool	Glass or Plastic, Plastic only if F	
Phenols, TPH-DRO			Cool, pH < 2	Glass only Teflon lid____ Foil lid_____	pH < 2
Oil & Grease, TPH (by 1664a)			Cool, pH < 2	Glass only Teflon lid____ Foil lid_____	DO NOT Check pH
Cyanide			Cool, pH >12	Glass or Plastic	pH > 12 Chlorine ☐yes ☐no Sulfide ☐yes ☐no ☐na
Sulfide			Cool, pH > 9	Glass or Plastic	pH > 9
Bacteria			Cool	Plastic Sterile Cup	
(Soil) Sludge, Solid, Oil, Liquid	4	4oz	Cool Note: please check if collected in pre-weighed vials_____	glass	

Metals Preserved By Login ☐yes ☐no Trip Blanks Received ☐yes ☒no

COMMENTS:_____

*This form is used to document sample preservation. Circle parameter requested. Fill in number and size of containers received. Check pH (adjust if needed) and note if different from what is required and make a notation of any samples not received on ice. Note any incorrect sample containers or preservation on chain-of-custody.

**Cool means cooled to ≤6°C but not frozen.

Preservation Checked By _____ 2-3-11 Date 1515 Time

1000.0-3.2 2/17/09

kdy 7/10/08

Q:\Form Masters\1000.0-3.2 Sample Preservation Form

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Thursday, May 05, 2011

Chris Mitchell
Southwest Geoscience
8829 Tradeway Street
San Antonio, TX 78217

TEL: (210) 804-9922
FAX (210) 804-9944

RE: Trunk a Separator

Order No.: 1104A43

Dear Chris Mitchell:

Hall Environmental Analysis Laboratory, Inc. received 3 sample(s) on 4/29/2011 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.

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

Sincerely,

Andy Freeman, Laboratory Manager

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

Hall Environmental Analysis Laboratory, Inc.

Date: *05-May-11*

CLIENT:	Southwest Geoscience	**Client Sample ID:**	EC-1(R)
Lab Order:	1104A43	**Tag Number:**	
Project:	Trunk a Separator	**Collection Date:**	4/26/2011 9:15:00 AM
Lab ID:	1104A43-01A	**Date Received:** 4/29/2011	**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JB**
Diesel Range Organics (DRO)	40	10		mg/Kg	1	5/3/2011 5:51:52 PM
Surr: DNOP	90.2	81.8-129		%REC	1	5/3/2011 5:51:52 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/3/2011 2:07:13 AM
Surr: BFB	104	89.7-125		%REC	1	5/3/2011 2:07:13 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	5/3/2011 2:07:13 AM
Toluene	ND	0.050		mg/Kg	1	5/3/2011 2:07:13 AM
Ethylbenzene	ND	0.050		mg/Kg	1	5/3/2011 2:07:13 AM
Xylenes, Total	ND	0.10		mg/Kg	1	5/3/2011 2:07:13 AM
Surr: 4-Bromofluorobenzene	113	85.3-139		%REC	1	5/3/2011 2:07:13 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *05-May-11*

CLIENT:	Southwest Geoscience	**Client Sample ID:**	EC-3(R)
Lab Order:	1104A43	**Tag Number:**	
Project:	Trunk a Separator	**Collection Date:**	4/26/2011 9:30:00 AM
Lab ID:	1104A43-02A	**Date Received:** 4/29/2011	**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JB**
Diesel Range Organics (DRO)	36	10		mg/Kg	1	5/3/2011 6:26:13 PM
Surr: DNOP	82.4	81.8-129		%REC	1	5/3/2011 6:26:13 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/3/2011 2:36:01 AM
Surr: BFB	104	89.7-125		%REC	1	5/3/2011 2:36:01 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	5/3/2011 2:36:01 AM
Toluene	ND	0.050		mg/Kg	1	5/3/2011 2:36:01 AM
Ethylbenzene	ND	0.050		mg/Kg	1	5/3/2011 2:36:01 AM
Xylenes, Total	ND	0.10		mg/Kg	1	5/3/2011 2:36:01 AM
Surr: 4-Bromofluorobenzene	111	85.3-139		%REC	1	5/3/2011 2:36:01 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *05-May-11*

CLIENT:	Southwest Geoscience	**Client Sample ID:**	EC-4(R)
Lab Order:	1104A43	**Tag Number:**	
Project:	Trunk a Separator	**Collection Date:**	4/26/2011 9:45:00 AM
Lab ID:	1104A43-03A	**Date Received:** 4/29/2011	**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JB**
Diesel Range Organics (DRO)	25	10		mg/Kg	1	5/3/2011 7:00:32 PM
Surr: DNOP	94.6	81.8-129		%REC	1	5/3/2011 7:00:32 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/3/2011 3:04:51 AM
Surr: BFB	105	89.7-125		%REC	1	5/3/2011 3:04:51 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	5/3/2011 3:04:51 AM
Toluene	ND	0.050		mg/Kg	1	5/3/2011 3:04:51 AM
Ethylbenzene	ND	0.050		mg/Kg	1	5/3/2011 3:04:51 AM
Xylenes, Total	ND	0.10		mg/Kg	1	5/3/2011 3:04:51 AM
Surr: 4-Bromofluorobenzene	112	85.3-139		%REC	1	5/3/2011 3:04:51 AM

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Southwest Geoscience
Project: Trunk a Separator **Work Order:** 1104A43

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Diesel Range Organics											
Sample ID: MB-26622		*MBLK*				Batch ID:	**26622**	Analysis Date:	5/3/2011 8:43:37 AM		
Diesel Range Organics (DRO)	ND	mg/Kg	10								
Sample ID: LCS-26622		*LCS*				Batch ID:	**26622**	Analysis Date:	5/3/2011 11:32:05 AM		
Diesel Range Organics (DRO)	61.59	mg/Kg	10	50	6.24	111	66.2	120			
Method: EPA Method 8015B: Gasoline Range											
Sample ID: MB-26617		*MBLK*				Batch ID:	**26617**	Analysis Date:	5/2/2011 8:21:09 PM		
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0								
Sample ID: LCS-26617		*LCS*				Batch ID:	**26617**	Analysis Date:	5/2/2011 6:25:38 PM		
Gasoline Range Organics (GRO)	25.94	mg/Kg	5.0	25	0	104	88.8	124			
Method: EPA Method 8021B: Volatiles											
Sample ID: MB-26617		*MBLK*				Batch ID:	**26617**	Analysis Date:	5/2/2011 8:21:09 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-26617		*LCS*				Batch ID:	**26617**	Analysis Date:	5/2/2011 7:52:15 PM		
Benzene	0.8073	mg/Kg	0.050	1	0.0085	79.9	83.3	107			S
Toluene	0.8190	mg/Kg	0.050	1	0.0059	81.3	74.3	115			
Ethylbenzene	0.8547	mg/Kg	0.050	1	0.007	84.8	80.9	122			
Xylenes, Total	2.575	mg/Kg	0.10	3	0.0201	85.2	85.2	123			S

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SOUTHWEST GEOSCIENCE | Date Received: 4/29/2011

Work Order Number 1104A43 | Received by: LNM

Checklist completed by: Signature 4/29/11 Date | Sample ID labels checked by: Initials

Matrix: | Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☑	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		Number of preserved bottles checked for pH:
Water - VOA vials have zero headspace? No VOA vials submitted ☑		Yes ☐	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☐	No ☐	N/A ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑	*<2 >12 unless noted below.*
Container/Temp Blank temperature?	**5.3°**	*<6° C Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

_____

_____

_____

_____

Corrective Action _____

_____

_____

CHAIN OF CUSTODY RECORD

Southwest GEOSCIENCE
Environmental & Hydrogeologic Consultants

Office Location: San Antonio

Project Manager: J. Martinez

Laboratory: Hall
Address: 4901 Hawkins, Ste D
Albuquerque, NM 87109
Contact: Andy Freeman
Phone: 505-345-3975
PO/SO #:

Sampler's Name: B. Chris Mitchell
Sampler's Signature: [signature]

ANALYSIS REQUESTED: TPH GRO/DRO (SW-846 #8015M); BTEX (SW-846 #8021B)

Lab use only
Due Date:
Temp. of coolers when received (C°): 5.3
1 | 2 | 3 | 4 | 5
Page 1 of 1

Proj. No.: 0210002
Project Name: Trunk A Separator

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 Lt.	250 ml	P/O	TPH GRO/DRO (SW-846 #8015M)	BTEX (SW-846 #8021B)	Lab Sample ID (Lab Use Only)
S	4.26.11	0915		✓	EC-1 (B)	8'	9'				1	✓	✓	1104A43 -1
S	↓	0930		✓	EC-3 (B)	8'	9'				1	✓	✓	2
S	↓	0945		✓	EC-4 (B)	8'	9'				1	✓	✓	3

No further entries

Turn around time ☑ Normal ☐ 25% Rush ☐ 50% Rush ☐ 100% Rush

Relinquished by (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	4-28-11	1445	FedEx / [signature]	4/28/11	1445
[signature]	4/28/11	1545	Fed Ex	4/28/11	1545
			[signature]	4/29	1000

NOTES:

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Wednesday, June 22, 2011

Joseph Martinez
Southwest Geoscience
8829 Tradeway Street
San Antonio, TX 78217

TEL: (210) 804-9922
FAX (210) 804-9944

RE: Trunk A

Order No.: 1103959

Dear Joseph Martinez:

Hall Environmental Analysis Laboratory, Inc. received 20 sample(s) on 3/25/2011 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued April 5, 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

Hall Environmental Analysis Laboratory, Inc. **Date:** *22-Jun-11*

CLIENT:	Southwest Geoscience
Project:	Trunk A
Lab Order:	1103959

CASE NARRATIVE

"S" flags denote that the surrogate was not recoverable, or elevated, due to sample dilution or matrix interferences.

Hall Environmental Analysis Laboratory, Inc.

Date: *22-Jun-11*

CLIENT:	Southwest Geoscience	**Client Sample ID:**	TS-1
Lab Order:	1103959	**Collection Date:**	3/24/2011 11:15:00 AM
Project:	Trunk A	**Date Received:**	3/25/2011
Lab ID:	1103959-01	**Matrix:**	SOIL

Analyses		Result	Qual	MDL	PQL	Units	DF	Date Analyzed
CAS #	**EPA METHOD 300.0: ANIONS**							Analyst: **SRM**
16887-00-6	Chloride	580		7.9	30	mg/Kg	20	3/31/2011 3:24:30 AM
CAS #	**EPA METHOD 8015B: DIESEL RANGE ORG**							Analyst: **JB**
TPH-DRO	Diesel Range Organics (DRO)	2100		43	100	mg/Kg	10	3/31/2011 2:58:40 AM
117-84-0	Surr: DNOP	0	S	0	81.8-129	%REC	10	3/31/2011 2:58:40 AM
CAS #	**EPA METHOD 8015B: GASOLINE RANGE**				**(SW5035)**			Analyst: **NSB**
TPH-GRO	Gasoline Range Organics (GRO)	21		1.6	5.0	mg/Kg	1	3/29/2011 1:54:22 PM
460-00-4	Surr: BFB	497	S	0	89.7-125	%REC	1	3/29/2011 1:54:22 PM
CAS #	**EPA METHOD 8021B: VOLATILES**				**(SW5035)**			Analyst: **NSB**
71-43-2	Benzene	0.016	J	0.0037	0.050	mg/Kg	1	3/29/2011 1:54:22 PM
108-88-3	Toluene	ND		0.0046	0.050	mg/Kg	1	3/29/2011 1:54:22 PM
100-41-4	Ethylbenzene	0.0073	J	0.0045	0.050	mg/Kg	1	3/29/2011 1:54:22 PM
1330-20-7	Xylenes, Total	ND		0.014	0.10	mg/Kg	1	3/29/2011 1:54:22 PM
460-00-4	Surr: 4-Bromofluorobenzene	134		0	85.3-139	%REC	1	3/29/2011 1:54:22 PM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quanititation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range

Hall Environmental Analysis Laboratory, Inc.

Date: *22-Jun-11*

CLIENT:	Southwest Geoscience	**Client Sample ID:**	TS-2
Lab Order:	1103959	**Collection Date:**	3/24/2011 11:20:00 AM
Project:	Trunk A	**Date Received:**	3/25/2011
Lab ID:	1103959-02	**Matrix:**	SOIL

Analyses		Result	Qual	MDL	PQL	Units	DF	Date Analyzed
CAS #	**EPA METHOD 300.0: ANIONS**							Analyst: **SRM**
16887-00-6	Chloride	1200		7.9	30	mg/Kg	20	3/31/2011 3:59:20 AM
CAS #	**EPA METHOD 8015B: DIESEL RANGE ORG**							Analyst: **JB**
TPH-DRO	Diesel Range Organics (DRO)	2100		43	100	mg/Kg	10	3/30/2011 1:11:42 PM
117-84-0	Surr: DNOP	0	S	0	81.8-129	%REC	10	3/30/2011 1:11:42 PM
CAS #	**EPA METHOD 8015B: GASOLINE RANGE**				**(SW5035)**			Analyst: **NSB**
TPH-GRO	Gasoline Range Organics (GRO)	12		1.6	5.0	mg/Kg	1	3/29/2011 2:54:32 PM
460-00-4	Surr: BFB	326	S	0	89.7-125	%REC	1	3/29/2011 2:54:32 PM
CAS #	**EPA METHOD 8021B: VOLATILES**				**(SW5035)**			Analyst: **NSB**
71-43-2	Benzene	0.015	J	0.0037	0.050	mg/Kg	1	3/29/2011 2:54:32 PM
108-88-3	Toluene	0.011	J	0.0046	0.050	mg/Kg	1	3/29/2011 2:54:32 PM
100-41-4	Ethylbenzene	0.010	J	0.0045	0.050	mg/Kg	1	3/29/2011 2:54:32 PM
1330-20-7	Xylenes, Total	0.23		0.014	0.10	mg/Kg	1	3/29/2011 2:54:32 PM
460-00-4	Surr: 4-Bromofluorobenzene	110		0	85.3-139	%REC	1	3/29/2011 2:54:32 PM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quanititation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range

Hall Environmental Analysis Laboratory, Inc.

Date: *22-Jun-11*

CLIENT:	Southwest Geoscience	**Client Sample ID:**	TS-3
Lab Order:	1103959	**Collection Date:**	3/24/2011 11:25:00 AM
Project:	Trunk A	**Date Received:**	3/25/2011
Lab ID:	1103959-03	**Matrix:**	SOIL

Analyses		Result	Qual	MDL	PQL	Units	DF	Date Analyzed
CAS #	**EPA METHOD 300.0: ANIONS**							Analyst: **SRM**
16887-00-6	Chloride	1700		20	75	mg/Kg	50	4/1/2011 3:24:45 PM
CAS #	**EPA METHOD 8015B: DIESEL RANGE ORG**							Analyst: **JB**
TPH-DRO	Diesel Range Organics (DRO)	2300		43	100	mg/Kg	10	3/30/2011 1:45:50 PM
117-84-0	Surr: DNOP	0	S	0	81.8-129	%REC	10	3/30/2011 1:45:50 PM
CAS #	**EPA METHOD 8015B: GASOLINE RANGE**				**(SW5035)**			Analyst: **NSB**
TPH-GRO	Gasoline Range Organics (GRO)	8.2		1.6	5.0	mg/Kg	1	3/29/2011 3:24:36 PM
460-00-4	Surr: BFB	203	S	0	89.7-125	%REC	1	3/29/2011 3:24:36 PM
CAS #	**EPA METHOD 8021B: VOLATILES**				**(SW5035)**			Analyst: **NSB**
71-43-2	Benzene	0.015	J	0.0037	0.050	mg/Kg	1	3/29/2011 3:24:36 PM
108-88-3	Toluene	0.010	J	0.0046	0.050	mg/Kg	1	3/29/2011 3:24:36 PM
100-41-4	Ethylbenzene	0.0092	J	0.0045	0.050	mg/Kg	1	3/29/2011 3:24:36 PM
1330-20-7	Xylenes, Total	0.18		0.014	0.10	mg/Kg	1	3/29/2011 3:24:36 PM
460-00-4	Surr: 4-Bromofluorobenzene	109		0	85.3-139	%REC	1	3/29/2011 3:24:36 PM

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quanititation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Hall Environmental Analysis Laboratory, Inc.

Date: *22-Jun-11*

CLIENT:	Southwest Geoscience	**Client Sample ID:**	TS-4
Lab Order:	1103959	**Collection Date:**	3/24/2011 11:30:00 AM
Project:	Trunk A	**Date Received:**	3/25/2011
Lab ID:	1103959-04	**Matrix:**	SOIL

Analyses		Result	Qual	MDL	PQL	Units	DF	Date Analyzed
CAS #	**EPA METHOD 300.0: ANIONS**							**Analyst: SRM**
16887-00-6	Chloride	1500		20	75	mg/Kg	50	4/1/2011 3:42:10 PM
CAS #	**EPA METHOD 8015B: DIESEL RANGE ORG**							**Analyst: JB**
TPH-DRO	Diesel Range Organics (DRO)	1100		43	100	mg/Kg	10	3/30/2011 2:20:01 PM
117-84-0	Surr: DNOP	0	S	0	81.8-129	%REC	10	3/30/2011 2:20:01 PM
CAS #	**EPA METHOD 8015B: GASOLINE RANGE**				**(SW5035)**			**Analyst: NSB**
TPH-GRO	Gasoline Range Organics (GRO)	10		1.6	5.0	mg/Kg	1	3/29/2011 3:54:35 PM
460-00-4	Surr: BFB	253	S	0	89.7-125	%REC	1	3/29/2011 3:54:35 PM
CAS #	**EPA METHOD 8021B: VOLATILES**				**(SW5035)**			**Analyst: NSB**
71-43-2	Benzene	0.015	J	0.0037	0.050	mg/Kg	1	3/29/2011 3:54:35 PM
108-88-3	Toluene	0.043	J	0.0046	0.050	mg/Kg	1	3/29/2011 3:54:35 PM
100-41-4	Ethylbenzene	0.019	J	0.0045	0.050	mg/Kg	1	3/29/2011 3:54:35 PM
1330-20-7	Xylenes, Total	0.43		0.014	0.10	mg/Kg	1	3/29/2011 3:54:35 PM
460-00-4	Surr: 4-Bromofluorobenzene	109		0	85.3-139	%REC	1	3/29/2011 3:54:35 PM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quanititation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range

Hall Environmental Analysis Laboratory, Inc.

Date: *22-Jun-11*

CLIENT:	Southwest Geoscience	**Client Sample ID:**	TS-5
Lab Order:	1103959	**Collection Date:**	3/24/2011 11:35:00 AM
Project:	Trunk A	**Date Received:**	3/25/2011
Lab ID:	1103959-05	**Matrix:**	SOIL

Analyses		Result	Qual	MDL	PQL	Units	DF	Date Analyzed
CAS #	**EPA METHOD 300.0: ANIONS**							Analyst: **SRM**
16887-00-6	Chloride	1200		20	75	mg/Kg	50	4/1/2011 11:32:18 PM
CAS #	**EPA METHOD 8015B: DIESEL RANGE ORG**							Analyst: **JB**
TPH-DRO	Diesel Range Organics (DRO)	1200		43	100	mg/Kg	10	3/31/2011 3:33:04 AM
117-84-0	Surr: DNOP	0	S	0	81.8-129	%REC	10	3/31/2011 3:33:04 AM
CAS #	**EPA METHOD 8015B: GASOLINE RANGE**				**(SW5035)**			Analyst: **NSB**
TPH-GRO	Gasoline Range Organics (GRO)	11		1.6	5.0	mg/Kg	1	3/29/2011 4:24:40 PM
460-00-4	Surr: BFB	46.0	S	0	89.7-125	%REC	1	3/29/2011 4:24:40 PM
CAS #	**EPA METHOD 8021B: VOLATILES**				**(SW5035)**			Analyst: **NSB**
71-43-2	Benzene	0.014	J	0.0037	0.050	mg/Kg	1	3/29/2011 4:24:40 PM
108-88-3	Toluene	0.0046	J	0.0046	0.050	mg/Kg	1	3/29/2011 4:24:40 PM
100-41-4	Ethylbenzene	ND		0.0045	0.050	mg/Kg	1	3/29/2011 4:24:40 PM
1330-20-7	Xylenes, Total	0.11		0.014	0.10	mg/Kg	1	3/29/2011 4:24:40 PM
460-00-4	Surr: 4-Bromofluorobenzene	102		0	85.3-139	%REC	1	3/29/2011 4:24:40 PM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quanititation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range

Hall Environmental Analysis Laboratory, Inc.

Date: *22-Jun-11*

CLIENT:	Southwest Geoscience	**Client Sample ID:**	TS-6
Lab Order:	1103959	**Collection Date:**	3/24/2011 11:40:00 AM
Project:	Trunk A	**Date Received:**	3/25/2011
Lab ID:	1103959-06	**Matrix:**	SOIL

Analyses		Result	Qual	MDL	PQL	Units	DF	Date Analyzed
CAS #	**EPA METHOD 300.0: ANIONS**							Analyst: **SRM**
16887-00-6	Chloride	1700		20	75	mg/Kg	50	4/1/2011 11:49:43 PM
CAS #	**EPA METHOD 8015B: DIESEL RANGE ORG**							Analyst: **JB**
TPH-DRO	Diesel Range Organics (DRO)	1800		43	100	mg/Kg	10	3/30/2011 5:17:05 PM
117-84-0	Surr: DNOP	0	S	0	81.8-129	%REC	10	3/30/2011 5:17:05 PM
CAS #	**EPA METHOD 8015B: GASOLINE RANGE**				**(SW5035)**			Analyst: **NSB**
TPH-GRO	Gasoline Range Organics (GRO)	6.5		1.6	5.0	mg/Kg	1	3/29/2011 4:54:50 PM
460-00-4	Surr: BFB	182	S	0	89.7-125	%REC	1	3/29/2011 4:54:50 PM
CAS #	**EPA METHOD 8021B: VOLATILES**				**(SW5035)**			Analyst: **NSB**
71-43-2	Benzene	0.015	J	0.0037	0.050	mg/Kg	1	3/29/2011 4:54:50 PM
108-88-3	Toluene	ND		0.0046	0.050	mg/Kg	1	3/29/2011 4:54:50 PM
100-41-4	Ethylbenzene	0.0058	J	0.0045	0.050	mg/Kg	1	3/29/2011 4:54:50 PM
1330-20-7	Xylenes, Total	0.071	J	0.014	0.10	mg/Kg	1	3/29/2011 4:54:50 PM
460-00-4	Surr: 4-Bromofluorobenzene	110		0	85.3-139	%REC	1	3/29/2011 4:54:50 PM

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quanititation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Hall Environmental Analysis Laboratory, Inc.

Date: *22-Jun-11*

CLIENT:	Southwest Geoscience	**Client Sample ID:**	TS-7
Lab Order:	1103959	**Collection Date:**	3/24/2011 11:45:00 AM
Project:	Trunk A	**Date Received:**	3/25/2011
Lab ID:	1103959-07	**Matrix:**	SOIL

Analyses		Result	Qual	MDL	PQL	Units	DF	Date Analyzed
CAS #	**EPA METHOD 300.0: ANIONS**							Analyst: **SRM**
16887-00-6	Chloride	1700		20	75	mg/Kg	50	4/2/2011 12:07:07 AM
CAS #	**EPA METHOD 8015B: DIESEL RANGE ORG**							Analyst: **JB**
TPH-DRO	Diesel Range Organics (DRO)	2300		43	100	mg/Kg	10	3/30/2011 5:51:12 PM
117-84-0	Surr: DNOP	0	S	0	81.8-129	%REC	10	3/30/2011 5:51:12 PM
CAS #	**EPA METHOD 8015B: GASOLINE RANGE**				**(SW5035)**			Analyst: **NSB**
TPH-GRO	Gasoline Range Organics (GRO)	10	J	8.0	25	mg/Kg	5	3/31/2011 4:00:21 PM
460-00-4	Surr: BFB	122		0	89.7-125	%REC	5	3/31/2011 4:00:21 PM
CAS #	**EPA METHOD 8021B: VOLATILES**				**(SW5035)**			Analyst: **NSB**
71-43-2	Benzene	0.032	J	0.019	0.25	mg/Kg	5	3/31/2011 4:00:21 PM
108-88-3	Toluene	ND		0.023	0.25	mg/Kg	5	3/31/2011 4:00:21 PM
100-41-4	Ethylbenzene	ND		0.023	0.25	mg/Kg	5	3/31/2011 4:00:21 PM
1330-20-7	Xylenes, Total	0.089	J	0.069	0.50	mg/Kg	5	3/31/2011 4:00:21 PM
460-00-4	Surr: 4-Bromofluorobenzene	102		0	85.3-139	%REC	5	3/31/2011 4:00:21 PM

Qualifiers:

- ND - Not Detected at the Reporting Limit
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- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range

Hall Environmental Analysis Laboratory, Inc.

Date: *22-Jun-11*

CLIENT:	Southwest Geoscience	**Client Sample ID:**	TS-8
Lab Order:	1103959	**Collection Date:**	3/24/2011 11:50:00 AM
Project:	Trunk A	**Date Received:**	3/25/2011
Lab ID:	1103959-08	**Matrix:**	SOIL

Analyses		Result	Qual	MDL	PQL	Units	DF	Date Analyzed
CAS #	**EPA METHOD 300.0: ANIONS**							Analyst: **SRM**
16887-00-6	Chloride	1200		20	75	mg/Kg	50	4/2/2011 12:24:32 AM
CAS #	**EPA METHOD 8015B: DIESEL RANGE ORG**							Analyst: **JB**
TPH-DRO	Diesel Range Organics (DRO)	1200		43	100	mg/Kg	10	3/30/2011 6:25:20 PM
117-84-0	Surr: DNOP	0	S	0	81.8-129	%REC	10	3/30/2011 6:25:20 PM
CAS #	**EPA METHOD 8015B: GASOLINE RANGE**				**(SW5035)**			Analyst: **NSB**
TPH-GRO	Gasoline Range Organics (GRO)	ND		8.0	25	mg/Kg	5	3/31/2011 4:30:25 PM
460-00-4	Surr: BFB	110		0	89.7-125	%REC	5	3/31/2011 4:30:25 PM
CAS #	**EPA METHOD 8021B: VOLATILES**				**(SW5035)**			Analyst: **NSB**
71-43-2	Benzene	0.031	J	0.019	0.25	mg/Kg	5	3/31/2011 4:30:25 PM
108-88-3	Toluene	ND		0.023	0.25	mg/Kg	5	3/31/2011 4:30:25 PM
100-41-4	Ethylbenzene	ND		0.023	0.25	mg/Kg	5	3/31/2011 4:30:25 PM
1330-20-7	Xylenes, Total	ND		0.069	0.50	mg/Kg	5	3/31/2011 4:30:25 PM
460-00-4	Surr: 4-Bromofluorobenzene	118		0	85.3-139	%REC	5	3/31/2011 4:30:25 PM

Qualifiers:

ND - Not Detected at the Reporting Limit

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B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Hall Environmental Analysis Laboratory, Inc.

Date: *22-Jun-11*

CLIENT:	Southwest Geoscience	**Client Sample ID:**	TS-9
Lab Order:	1103959	**Collection Date:**	3/24/2011 11:55:00 AM
Project:	Trunk A	**Date Received:**	3/25/2011
Lab ID:	1103959-09	**Matrix:**	SOIL

Analyses		Result	Qual	MDL	PQL	Units	DF	Date Analyzed
CAS #	**EPA METHOD 300.0: ANIONS**							Analyst: **SRM**
16887-00-6	Chloride	990		7.9	30	mg/Kg	20	3/31/2011 8:37:55 AM
CAS #	**EPA METHOD 8015B: DIESEL RANGE ORG**							Analyst: **JB**
TPH-DRO	Diesel Range Organics (DRO)	960		43	100	mg/Kg	10	3/30/2011 6:59:28 PM
117-84-0	Surr: DNOP	0	S	0	81.8-129	%REC	10	3/30/2011 6:59:28 PM
CAS #	**EPA METHOD 8015B: GASOLINE RANGE**				**(SW5035)**			Analyst: **NSB**
TPH-GRO	Gasoline Range Organics (GRO)	ND		8.0	25	mg/Kg	5	3/31/2011 5:00:40 PM
460-00-4	Surr: BFB	105		0	89.7-125	%REC	5	3/31/2011 5:00:40 PM
CAS #	**EPA METHOD 8021B: VOLATILES**				**(SW5035)**			Analyst: **NSB**
71-43-2	Benzene	0.033	J	0.019	0.25	mg/Kg	5	3/31/2011 5:00:40 PM
108-88-3	Toluene	ND		0.023	0.25	mg/Kg	5	3/31/2011 5:00:40 PM
100-41-4	Ethylbenzene	ND		0.023	0.25	mg/Kg	5	3/31/2011 5:00:40 PM
1330-20-7	Xylenes, Total	ND		0.069	0.50	mg/Kg	5	3/31/2011 5:00:40 PM
460-00-4	Surr: 4-Bromofluorobenzene	117		0	85.3-139	%REC	5	3/31/2011 5:00:40 PM

Qualifiers:

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- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range

Hall Environmental Analysis Laboratory, Inc.

Date: *22-Jun-11*

CLIENT:	Southwest Geoscience	**Client Sample ID:**	TS-10
Lab Order:	1103959	**Collection Date:**	3/24/2011 12:00:00 PM
Project:	Trunk A	**Date Received:**	3/25/2011
Lab ID:	1103959-10	**Matrix:**	SOIL

Analyses		Result	Qual	MDL	PQL	Units	DF	Date Analyzed
CAS #	**EPA METHOD 300.0: ANIONS**							**Analyst: SRM**
16887-00-6	Chloride	910		7.9	30	mg/Kg	20	3/30/2011 11:55:34 PM
CAS #	**EPA METHOD 8015B: DIESEL RANGE ORG**							**Analyst: JB**
TPH-DRO	Diesel Range Organics (DRO)	2000		43	100	mg/Kg	10	3/30/2011 7:33:38 PM
117-84-0	Surr: DNOP	0	S	0	81.8-129	%REC	10	3/30/2011 7:33:38 PM
CAS #	**EPA METHOD 8015B: GASOLINE RANGE**				**(SW5035)**			**Analyst: NSB**
TPH-GRO	Gasoline Range Organics (GRO)	28		8.0	25	mg/Kg	5	3/31/2011 5:30:52 PM
460-00-4	Surr: BFB	195	S	0	89.7-125	%REC	5	3/31/2011 5:30:52 PM
CAS #	**EPA METHOD 8021B: VOLATILES**				**(SW5035)**			**Analyst: NSB**
71-43-2	Benzene	0.034	J	0.019	0.25	mg/Kg	5	3/31/2011 5:30:52 PM
108-88-3	Toluene	ND		0.023	0.25	mg/Kg	5	3/31/2011 5:30:52 PM
100-41-4	Ethylbenzene	0.030	J	0.023	0.25	mg/Kg	5	3/31/2011 5:30:52 PM
1330-20-7	Xylenes, Total	0.75		0.069	0.50	mg/Kg	5	3/31/2011 5:30:52 PM
460-00-4	Surr: 4-Bromofluorobenzene	126		0	85.3-139	%REC	5	3/31/2011 5:30:52 PM

Qualifiers:

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- J - Analyte detected below quanititation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range

Hall Environmental Analysis Laboratory, Inc.

Date: *22-Jun-11*

CLIENT:	Southwest Geoscience	**Client Sample ID:**	TS-11
Lab Order:	1103959	**Collection Date:**	3/24/2011 12:05:00 PM
Project:	Trunk A	**Date Received:**	3/25/2011
Lab ID:	1103959-11	**Matrix:**	SOIL

Analyses		Result	Qual	MDL	PQL	Units	DF	Date Analyzed
CAS #	**EPA METHOD 300.0: ANIONS**							Analyst: **SRM**
16887-00-6	Chloride	530		7.9	30	mg/Kg	20	4/1/2011 6:01:28 PM
CAS #	**EPA METHOD 8015B: DIESEL RANGE ORG**							Analyst: **JB**
TPH-DRO	Diesel Range Organics (DRO)	260		43	100	mg/Kg	10	3/30/2011 8:07:48 PM
117-84-0	Surr: DNOP	0	S	0	81.8-129	%REC	10	3/30/2011 8:07:48 PM
CAS #	**EPA METHOD 8015B: GASOLINE RANGE**				**(SW5035)**			Analyst: **NSB**
TPH-GRO	Gasoline Range Organics (GRO)	ND		8.0	25	mg/Kg	5	3/31/2011 6:01:04 PM
460-00-4	Surr: BFB	112		0	89.7-125	%REC	5	3/31/2011 6:01:04 PM
CAS #	**EPA METHOD 8021B: VOLATILES**				**(SW5035)**			Analyst: **NSB**
71-43-2	Benzene	0.033	J	0.019	0.25	mg/Kg	5	3/31/2011 6:01:04 PM
108-88-3	Toluene	ND		0.023	0.25	mg/Kg	5	3/31/2011 6:01:04 PM
100-41-4	Ethylbenzene	ND		0.023	0.25	mg/Kg	5	3/31/2011 6:01:04 PM
1330-20-7	Xylenes, Total	ND		0.069	0.50	mg/Kg	5	3/31/2011 6:01:04 PM
460-00-4	Surr: 4-Bromofluorobenzene	119		0	85.3-139	%REC	5	3/31/2011 6:01:04 PM

Qualifiers:

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- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range

Hall Environmental Analysis Laboratory, Inc.

Date: *22-Jun-11*

CLIENT:	Southwest Geoscience	**Client Sample ID:**	TS-12
Lab Order:	1103959	**Collection Date:**	3/24/2011 12:10:00 PM
Project:	Trunk A	**Date Received:**	3/25/2011
Lab ID:	1103959-12	**Matrix:**	SOIL

Analyses		Result	Qual	MDL	PQL	Units	DF	Date Analyzed
CAS #	**EPA METHOD 300.0: ANIONS**							Analyst: **SRM**
16887-00-6	Chloride	680		7.9	30	mg/Kg	20	4/1/2011 6:36:18 PM
CAS #	**EPA METHOD 8015B: DIESEL RANGE ORG**							Analyst: **JB**
TPH-DRO	Diesel Range Organics (DRO)	950		43	100	mg/Kg	10	3/30/2011 8:41:58 PM
117-84-0	Surr: DNOP	0	S	0	81.8-129	%REC	10	3/30/2011 8:41:58 PM
CAS #	**EPA METHOD 8015B: GASOLINE RANGE**				**(SW5035)**			Analyst: **NSB**
TPH-GRO	Gasoline Range Organics (GRO)	ND		8.0	25	mg/Kg	5	3/31/2011 6:31:17 PM
460-00-4	Surr: BFB	108		0	89.7-125	%REC	5	3/31/2011 6:31:17 PM
CAS #	**EPA METHOD 8021B: VOLATILES**				**(SW5035)**			Analyst: **NSB**
71-43-2	Benzene	0.032	J	0.019	0.25	mg/Kg	5	3/31/2011 6:31:17 PM
108-88-3	Toluene	ND		0.023	0.25	mg/Kg	5	3/31/2011 6:31:17 PM
100-41-4	Ethylbenzene	ND		0.023	0.25	mg/Kg	5	3/31/2011 6:31:17 PM
1330-20-7	Xylenes, Total	ND		0.069	0.50	mg/Kg	5	3/31/2011 6:31:17 PM
460-00-4	Surr: 4-Bromofluorobenzene	117		0	85.3-139	%REC	5	3/31/2011 6:31:17 PM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quanititation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range

Hall Environmental Analysis Laboratory, Inc.

Date: *22-Jun-11*

CLIENT:	Southwest Geoscience	**Client Sample ID:**	TS-13
Lab Order:	1103959	**Collection Date:**	3/24/2011 12:15:00 PM
Project:	Trunk A	**Date Received:**	3/25/2011
Lab ID:	1103959-13	**Matrix:**	SOIL

Analyses		Result	Qual	MDL	PQL	Units	DF	Date Analyzed
CAS #	**EPA METHOD 300.0: ANIONS**							Analyst: **SRM**
16887-00-6	Chloride	1000		7.9	30	mg/Kg	20	4/1/2011 7:11:08 PM
CAS #	**EPA METHOD 8015B: DIESEL RANGE ORG**							Analyst: **JB**
TPH-DRO	Diesel Range Organics (DRO)	1600		43	100	mg/Kg	10	3/30/2011 9:16:08 PM
117-84-0	Surr: DNOP	0	S	0	81.8-129	%REC	10	3/30/2011 9:16:08 PM
CAS #	**EPA METHOD 8015B: GASOLINE RANGE**				**(SW5035)**			Analyst: **NSB**
TPH-GRO	Gasoline Range Organics (GRO)	ND		8.0	25	mg/Kg	5	3/31/2011 10:02:12 PM
460-00-4	Surr: BFB	107		0	89.7-125	%REC	5	3/31/2011 10:02:12 PM
CAS #	**EPA METHOD 8021B: VOLATILES**				**(SW5035)**			Analyst: **NSB**
71-43-2	Benzene	0.035	J	0.019	0.25	mg/Kg	5	3/31/2011 10:02:12 PM
108-88-3	Toluene	ND		0.023	0.25	mg/Kg	5	3/31/2011 10:02:12 PM
100-41-4	Ethylbenzene	ND		0.023	0.25	mg/Kg	5	3/31/2011 10:02:12 PM
1330-20-7	Xylenes, Total	ND		0.069	0.50	mg/Kg	5	3/31/2011 10:02:12 PM
460-00-4	Surr: 4-Bromofluorobenzene	117		0	85.3-139	%REC	5	3/31/2011 10:02:12 PM

Qualifiers:

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- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range

Hall Environmental Analysis Laboratory, Inc.

Date: *22-Jun-11*

CLIENT:	Southwest Geoscience	**Client Sample ID:**	TS-14
Lab Order:	1103959	**Collection Date:**	3/24/2011 12:20:00 PM
Project:	Trunk A	**Date Received:**	3/25/2011
Lab ID:	1103959-14	**Matrix:**	SOIL

Analyses		Result	Qual	MDL	PQL	Units	DF	Date Analyzed
CAS #	**EPA METHOD 300.0: ANIONS**							Analyst: **SRM**
16887-00-6	Chloride	270		7.9	30	mg/Kg	20	4/1/2011 4:51:48 PM
CAS #	**EPA METHOD 8015B: DIESEL RANGE ORG**							Analyst: **JB**
TPH-DRO	Diesel Range Organics (DRO)	6.2	J	4.3	10	mg/Kg	1	3/31/2011 11:27:51 AM
117-84-0	Surr: DNOP	116		0	81.8-129	%REC	1	3/31/2011 11:27:51 AM
CAS #	**EPA METHOD 8015B: GASOLINE RANGE**				**(SW5035)**			Analyst: **NSB**
TPH-GRO	Gasoline Range Organics (GRO)	ND		1.6	5.0	mg/Kg	1	4/1/2011 3:41:58 PM
460-00-4	Surr: BFB	95.2		0	89.7-125	%REC	1	4/1/2011 3:41:58 PM
CAS #	**EPA METHOD 8021B: VOLATILES**				**(SW5035)**			Analyst: **NSB**
71-43-2	Benzene	0.017	J	0.0037	0.050	mg/Kg	1	4/1/2011 3:41:58 PM
108-88-3	Toluene	0.0095	J	0.0046	0.050	mg/Kg	1	4/1/2011 3:41:58 PM
100-41-4	Ethylbenzene	ND		0.0045	0.050	mg/Kg	1	4/1/2011 3:41:58 PM
1330-20-7	Xylenes, Total	ND		0.014	0.10	mg/Kg	1	4/1/2011 3:41:58 PM
460-00-4	Surr: 4-Bromofluorobenzene	108		0	85.3-139	%REC	1	4/1/2011 3:41:58 PM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quanititation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range

Hall Environmental Analysis Laboratory, Inc.

Date: *22-Jun-11*

CLIENT:	Southwest Geoscience	**Client Sample ID:**	TS-15
Lab Order:	1103959	**Collection Date:**	3/24/2011 12:25:00 PM
Project:	Trunk A	**Date Received:**	3/25/2011
Lab ID:	1103959-15	**Matrix:**	SOIL

Analyses		Result	Qual	MDL	PQL	Units	DF	Date Analyzed
CAS #	**EPA METHOD 300.0: ANIONS**							Analyst: **SRM**
16887-00-6	Chloride	1600		20	75	mg/Kg	50	4/3/2011 7:56:29 PM
CAS #	**EPA METHOD 8015B: DIESEL RANGE ORG**							Analyst: **JB**
TPH-DRO	Diesel Range Organics (DRO)	2100		43	100	mg/Kg	10	3/30/2011 11:32:59 PM
117-84-0	Surr: DNOP	0	S	0	81.8-129	%REC	10	3/30/2011 11:32:59 PM
CAS #	**EPA METHOD 8015B: GASOLINE RANGE**				**(SW5035)**			Analyst: **NSB**
TPH-GRO	Gasoline Range Organics (GRO)	ND		8.0	25	mg/Kg	5	3/31/2011 11:02:24 PM
460-00-4	Surr: BFB	108		0	89.7-125	%REC	5	3/31/2011 11:02:24 PM
CAS #	**EPA METHOD 8021B: VOLATILES**				**(SW5035)**			Analyst: **NSB**
71-43-2	Benzene	0.036	J	0.019	0.25	mg/Kg	5	3/31/2011 11:02:24 PM
108-88-3	Toluene	ND		0.023	0.25	mg/Kg	5	3/31/2011 11:02:24 PM
100-41-4	Ethylbenzene	ND		0.023	0.25	mg/Kg	5	3/31/2011 11:02:24 PM
1330-20-7	Xylenes, Total	ND		0.069	0.50	mg/Kg	5	3/31/2011 11:02:24 PM
460-00-4	Surr: 4-Bromofluorobenzene	122		0	85.3-139	%REC	5	3/31/2011 11:02:24 PM

Qualifiers:

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- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range

Hall Environmental Analysis Laboratory, Inc.

Date: *22-Jun-11*

CLIENT:	Southwest Geoscience	**Client Sample ID:**	TS-16
Lab Order:	1103959	**Collection Date:**	3/24/2011 12:30:00 PM
Project:	Trunk A	**Date Received:**	3/25/2011
Lab ID:	1103959-16	**Matrix:**	SOIL

Analyses		Result	Qual	MDL	PQL	Units	DF	Date Analyzed
CAS #	**EPA METHOD 300.0: ANIONS**							Analyst: **SRM**
16887-00-6	Chloride	1500		20	75	mg/Kg	50	4/3/2011 8:13:54 PM
CAS #	**EPA METHOD 8015B: DIESEL RANGE ORG**							Analyst: **JB**
TPH-DRO	Diesel Range Organics (DRO)	1600		43	100	mg/Kg	10	3/31/2011 12:07:09 AM
117-84-0	Surr: DNOP	0	S	0	81.8-129	%REC	10	3/31/2011 12:07:09 AM
CAS #	**EPA METHOD 8015B: GASOLINE RANGE**				**(SW5035)**			Analyst: **NSB**
TPH-GRO	Gasoline Range Organics (GRO)	ND		8.0	25	mg/Kg	5	3/31/2011 11:32:35 PM
460-00-4	Surr: BFB	105		0	89.7-125	%REC	5	3/31/2011 11:32:35 PM
CAS #	**EPA METHOD 8021B: VOLATILES**				**(SW5035)**			Analyst: **NSB**
71-43-2	Benzene	0.034	J	0.019	0.25	mg/Kg	5	3/31/2011 11:32:35 PM
108-88-3	Toluene	0.032	J	0.023	0.25	mg/Kg	5	3/31/2011 11:32:35 PM
100-41-4	Ethylbenzene	ND		0.023	0.25	mg/Kg	5	3/31/2011 11:32:35 PM
1330-20-7	Xylenes, Total	0.22	J	0.069	0.50	mg/Kg	5	3/31/2011 11:32:35 PM
460-00-4	Surr: 4-Bromofluorobenzene	118		0	85.3-139	%REC	5	3/31/2011 11:32:35 PM

Qualifiers:

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- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range

Hall Environmental Analysis Laboratory, Inc.

Date: *22-Jun-11*

CLIENT:	Southwest Geoscience	**Client Sample ID:**	TS-17
Lab Order:	1103959	**Collection Date:**	3/24/2011 12:35:00 PM
Project:	Trunk A	**Date Received:**	3/25/2011
Lab ID:	1103959-17	**Matrix:**	SOIL

Analyses		Result	Qual	MDL	PQL	Units	DF	Date Analyzed
CAS #	**EPA METHOD 300.0: ANIONS**							Analyst: **SRM**
16887-00-6	Chloride	88		7.9	30	mg/Kg	20	4/1/2011 8:55:35 PM
CAS #	**EPA METHOD 8015B: DIESEL RANGE ORG**							Analyst: **JB**
TPH-DRO	Diesel Range Organics (DRO)	ND		4.3	10	mg/Kg	1	3/31/2011 12:02:02 PM
117-84-0	Surr: DNOP	119		0	81.8-129	%REC	1	3/31/2011 12:02:02 PM
CAS #	**EPA METHOD 8015B: GASOLINE RANGE**				**(SW5035)**			Analyst: **NSB**
TPH-GRO	Gasoline Range Organics (GRO)	ND		1.6	5.0	mg/Kg	1	4/1/2011 4:12:16 PM
460-00-4	Surr: BFB	99.1		0	89.7-125	%REC	1	4/1/2011 4:12:16 PM
CAS #	**EPA METHOD 8021B: VOLATILES**				**(SW5035)**			Analyst: **NSB**
71-43-2	Benzene	0.018	J	0.0037	0.050	mg/Kg	1	4/1/2011 4:12:16 PM
108-88-3	Toluene	0.0091	J	0.0046	0.050	mg/Kg	1	4/1/2011 4:12:16 PM
100-41-4	Ethylbenzene	ND		0.0045	0.050	mg/Kg	1	4/1/2011 4:12:16 PM
1330-20-7	Xylenes, Total	ND		0.014	0.10	mg/Kg	1	4/1/2011 4:12:16 PM
460-00-4	Surr: 4-Bromofluorobenzene	113		0	85.3-139	%REC	1	4/1/2011 4:12:16 PM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quanititation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range

Hall Environmental Analysis Laboratory, Inc.

Date: *22-Jun-11*

CLIENT:	Southwest Geoscience	**Client Sample ID:**	TS-18
Lab Order:	1103959	**Collection Date:**	3/24/2011 12:40:00 PM
Project:	Trunk A	**Date Received:**	3/25/2011
Lab ID:	1103959-18	**Matrix:**	SOIL

Analyses		Result	Qual	MDL	PQL	Units	DF	Date Analyzed
CAS #	**EPA METHOD 300.0: ANIONS**							Analyst: **SRM**
16887-00-6	Chloride	110		7.9	30	mg/Kg	20	4/1/2011 9:30:24 PM
CAS #	**EPA METHOD 8015B: DIESEL RANGE ORG**							Analyst: **JB**
TPH-DRO	Diesel Range Organics (DRO)	4.7	J	4.3	10	mg/Kg	1	3/31/2011 12:36:11 PM
117-84-0	Surr: DNOP	128		0	81.8-129	%REC	1	3/31/2011 12:36:11 PM
CAS #	**EPA METHOD 8015B: GASOLINE RANGE**				**(SW5035)**			Analyst: **NSB**
TPH-GRO	Gasoline Range Organics (GRO)	ND		1.6	5.0	mg/Kg	1	4/1/2011 4:42:21 PM
460-00-4	Surr: BFB	94.1		0	89.7-125	%REC	1	4/1/2011 4:42:21 PM
CAS #	**EPA METHOD 8021B: VOLATILES**				**(SW5035)**			Analyst: **NSB**
71-43-2	Benzene	0.018	J	0.0037	0.050	mg/Kg	1	4/1/2011 4:42:21 PM
108-88-3	Toluene	0.0071	J	0.0046	0.050	mg/Kg	1	4/1/2011 4:42:21 PM
100-41-4	Ethylbenzene	ND		0.0045	0.050	mg/Kg	1	4/1/2011 4:42:21 PM
1330-20-7	Xylenes, Total	ND		0.014	0.10	mg/Kg	1	4/1/2011 4:42:21 PM
460-00-4	Surr: 4-Bromofluorobenzene	105		0	85.3-139	%REC	1	4/1/2011 4:42:21 PM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quanititation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range

Hall Environmental Analysis Laboratory, Inc.

Date: *22-Jun-11*

CLIENT:	Southwest Geoscience	**Client Sample ID:**	TS-19
Lab Order:	1103959	**Collection Date:**	3/24/2011 12:45:00 PM
Project:	Trunk A	**Date Received:**	3/25/2011
Lab ID:	1103959-19	**Matrix:**	SOIL

Analyses		Result	Qual	MDL	PQL	Units	DF	Date Analyzed
CAS #	**EPA METHOD 300.0: ANIONS**							Analyst: **SRM**
16887-00-6	Chloride	90		7.9	30	mg/Kg	20	4/1/2011 10:05:14 PM
CAS #	**EPA METHOD 8015B: DIESEL RANGE ORG**							Analyst: **JB**
TPH-DRO	Diesel Range Organics (DRO)	ND		4.3	10	mg/Kg	1	3/31/2011 1:10:15 PM
117-84-0	Surr: DNOP	120		0	81.8-129	%REC	1	3/31/2011 1:10:15 PM
CAS #	**EPA METHOD 8015B: GASOLINE RANGE**				**(SW5035)**			Analyst: **NSB**
TPH-GRO	Gasoline Range Organics (GRO)	ND		1.6	5.0	mg/Kg	1	4/1/2011 5:12:27 PM
460-00-4	Surr: BFB	93.6		0	89.7-125	%REC	1	4/1/2011 5:12:27 PM
CAS #	**EPA METHOD 8021B: VOLATILES**				**(SW5035)**			Analyst: **NSB**
71-43-2	Benzene	0.017	J	0.0037	0.050	mg/Kg	1	4/1/2011 5:12:27 PM
108-88-3	Toluene	0.0052	J	0.0046	0.050	mg/Kg	1	4/1/2011 5:12:27 PM
100-41-4	Ethylbenzene	ND		0.0045	0.050	mg/Kg	1	4/1/2011 5:12:27 PM
1330-20-7	Xylenes, Total	ND		0.014	0.10	mg/Kg	1	4/1/2011 5:12:27 PM
460-00-4	Surr: 4-Bromofluorobenzene	105		0	85.3-139	%REC	1	4/1/2011 5:12:27 PM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quanititation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range

Hall Environmental Analysis Laboratory, Inc.

Date: *22-Jun-11*

CLIENT:	Southwest Geoscience	**Client Sample ID:**	TS-20
Lab Order:	1103959	**Collection Date:**	3/24/2011 12:50:00 PM
Project:	Trunk A	**Date Received:**	3/25/2011
Lab ID:	1103959-20	**Matrix:**	SOIL

Analyses		Result	Qual	MDL	PQL	Units	DF	Date Analyzed
CAS #	**EPA METHOD 300.0: ANIONS**							Analyst: **SRM**
16887-00-6	Chloride	33		0.40	1.5	mg/Kg	1	4/1/2011 10:22:39 PM
CAS #	**EPA METHOD 8015B: DIESEL RANGE ORG**							Analyst: **JB**
TPH-DRO	Diesel Range Organics (DRO)	ND		4.3	10	mg/Kg	1	3/31/2011 1:44:24 PM
117-84-0	Surr: DNOP	107		0	81.8-129	%REC	1	3/31/2011 1:44:24 PM
CAS #	**EPA METHOD 8015B: GASOLINE RANGE**				**(SW5035)**			Analyst: **NSB**
TPH-GRO	Gasoline Range Organics (GRO)	1.9	J	1.6	5.0	mg/Kg	1	4/1/2011 5:42:30 PM
460-00-4	Surr: BFB	102		0	89.7-125	%REC	1	4/1/2011 5:42:30 PM
CAS #	**EPA METHOD 8021B: VOLATILES**				**(SW5035)**			Analyst: **NSB**
71-43-2	Benzene	0.017	J	0.0037	0.050	mg/Kg	1	4/1/2011 5:42:30 PM
108-88-3	Toluene	0.0059	J	0.0046	0.050	mg/Kg	1	4/1/2011 5:42:30 PM
100-41-4	Ethylbenzene	ND		0.0045	0.050	mg/Kg	1	4/1/2011 5:42:30 PM
1330-20-7	Xylenes, Total	ND		0.014	0.10	mg/Kg	1	4/1/2011 5:42:30 PM
460-00-4	Surr: 4-Bromofluorobenzene	115		0	85.3-139	%REC	1	4/1/2011 5:42:30 PM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quanititation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range

QA/QC SUMMARY REPORT

Client: Southwest Geoscience
Project: Trunk A **Work Order:** 1103959

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions											
Sample ID: MB-26158		*MBLK*				**Batch ID: 26158**		**Analysis Date: 3/29/2011 6:19:38 PM**			
Chloride	ND	mg/Kg	1.5								
Sample ID: MB-26170		*MBLK*				**Batch ID: 26170**		**Analysis Date: 3/30/2011 7:34:25 PM**			
Chloride	ND	mg/Kg	1.5								
Sample ID: LCS-26158		*LCS*				**Batch ID: 26158**		**Analysis Date: 3/29/2011 6:37:02 PM**			
Chloride	13.98	mg/Kg	1.5	15	0	93.2	90	110			
Sample ID: LCS-26170		*LCS*				**Batch ID: 26170**		**Analysis Date: 3/30/2011 7:51:50 PM**			
Chloride	14.08	mg/Kg	1.5	15	0	93.9	90	110			
Method: EPA Method 8015B: Diesel Range Organics											
Sample ID: MB-26151		*MBLK*				**Batch ID: 26151**		**Analysis Date: 3/30/2011 10:20:54 AM**			
Diesel Range Organics (DRO)	ND	mg/Kg	10								
Sample ID: LCS-26151		*LCS*				**Batch ID: 26151**		**Analysis Date: 3/30/2011 10:55:11 AM**			
Diesel Range Organics (DRO)	50.99	mg/Kg	10	50	0	102	66.2	120			
Sample ID: LCSD-26151		*LCSD*				**Batch ID: 26151**		**Analysis Date: 3/30/2011 11:29:27 AM**			
Diesel Range Organics (DRO)	55.02	mg/Kg	10	50	0	110	66.2	120	7.60	14.3	
Method: EPA Method 8015B: Gasoline Range											
Sample ID: MB-26142		*MBLK*				**Batch ID: 26142**		**Analysis Date: 4/1/2011 8:12:47 PM**			
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0								
Method: EPA Method 8021B: Volatiles											
Sample ID: MB-26142		*MBLK*				**Batch ID: 26142**		**Analysis Date: 3/29/2011 6:55:20 PM**			
Benzene	0.01690	mg/Kg	0.050								J
Toluene	ND	mg/Kg	0.050								
Ethylbenzene	ND	mg/Kg	0.050								
Xylenes, Total	ND	mg/Kg	0.10								
Sample ID: LCS-26142		*LCS*				**Batch ID: 26142**		**Analysis Date: 3/29/2011 5:55:04 PM**			
Benzene	0.9687	mg/Kg	0.050	1	0.0169	95.2	83.3	107			
Toluene	0.8973	mg/Kg	0.050	1	0	89.7	74.3	115			
Ethylbenzene	0.9316	mg/Kg	0.050	1	0	93.2	80.9	122			
Xylenes, Total	3.004	mg/Kg	0.10	3	0	100	85.2	123			
Sample ID: LCSD-26142		*LCSD*				**Batch ID: 26142**		**Analysis Date: 3/29/2011 6:25:15 PM**			
Benzene	1.008	mg/Kg	0.050	1	0.0169	99.1	83.3	107	3.98	15.6	
Toluene	0.9348	mg/Kg	0.050	1	0	93.5	74.3	115	4.09	19.2	
Ethylbenzene	0.9618	mg/Kg	0.050	1	0	96.2	80.9	122	3.19	19.5	
Xylenes, Total	3.085	mg/Kg	0.10	3	0	103	85.2	123	2.67	17	

Qualifiers:

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

CHAIN OF CUSTODY RECORD

Southwest GEOSCIENCE
Environmental & Hydrogeologic Consultants

Office Location ~~Dallas, TX~~ San Antonio, TX
Project Manager J. Martinez

Laboratory: HEAL
Address: 4901 Hawkins NE, ste D Albuquerque, NM
Contact:
Phone: 505-345-3975
PO/SO #:

Lab use only
Due Date:

Temp. of coolers when received (C°): S.L

1	2	3	4	5

Page 1 of 2

Sampler's Name: Jordan Dubuisson
Sampler's Signature: J. Dubuisson

Proj. No.: 0210002
Project Name: Trunk A

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	No/Type of Containers: VOA	A/G 1 Lt.	250 ml	P/O	Chlorides (EPA 300.0)	TPH GRO/DRO (SW-846 #8015M)	BTEX (SW-846 #8021B)	Lab Sample ID (Lab Use Only)
S	3-24-11	1115		X	TS-1	0	6"				1	X	X	X	1103959-1
		1120			TS-2										-2
		1125			TS-3										-3
		1130			TS-4										-4
		1135			TS-5										-5
		1140			TS-6										-6
		1145			TS-7										-7
		1150			TS-8										-8
		1155			TS-9										-9
S	3-24-11	1200		X	TS-10	0	6"				1	X	X	X	-10

Turn around time: ☒ Normal ☐ 25% Rush ☐ 50% Rush ☐ 100% Rush

Relinquished by (Signature)	Date	Time	Received by: (Signature)	Date	Time
J. Dubuisson	3-24-11	1430		3/25/11	930

NOTES: Tracking # 8744 7939 5452

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

CHAIN OF CUSTODY RECORD

Southwest GEOSCIENCE
Environmental & Hydrogeologic Consultants

Office Location: San Antonio, TX
Project Manager: J. Martinez

Laboratory: H E A L
Address: 4901 Hawkins NE, Ste D Albuquerque, NM
Contact:
Phone: 505-345-3975
PO/SO #:

Lab use only
Due Date:
Temp. of coolers when received (C°): 3.6
1 | 2 | 3 | 4 | 5
Page 2 of 2

Sampler's Name: Jordan Dubuisson
Sampler's Signature: J. Dubuisson

Proj. No.: 0Z10002
Project Name: Trunk A
No/Type of Containers

ANALYSIS REQUESTED: Chlorides (EPA 300.0); TPH GRO/DRO (SW-846 #8015M); BTEX (SW-846 #8021B)

Lab Sample ID (Lab Use Only): 1103959

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 Lt.	250 ml	P/O	Chlorides	TPH	BTEX	Lab Sample ID
S	3-24-11	1205		X	TS-11	0	6"				1	X	X	X	-11
↓	↓	1210		↓	TS-12	↓	↓				↓	↓	↓	↓	-12
		1215			TS-13										-13
		1220			TS-14										-14
		1225			TS-15										-15
		1230			TS-16										-16
		1235			TS-17										-17
		1240			TS-18										-18
↓	↓	1245		↓	TS-19	↓	↓				↓	↓	↓	↓	-19
S	3-24-11	1250		X	TS-20	0	6"				1	X	X	X	-20

Turn around time: ☒ Normal ☐ 25% Rush ☐ 50% Rush ☐ 100% Rush

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
J. Dubuisson	3-24-11	1430		3/24/11	1430
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES: Tracking # 8744 7939 5452

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Thursday, July 07, 2011

Joseph Martinez
Southwest Geoscience
8829 Tradeway
San Antonio, TX 78217

TEL: (210) 804-9922
FAX (210) 804-9944

RE: Trunk A

Order No.: 1106989

Dear Joseph Martinez:

Hall Environmental Analysis Laboratory, Inc. received 18 sample(s) on 6/23/2011 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.

Date: *07-Jul-11*

CLIENT:	Southwest Geoscience	**Client Sample ID:**	LC-1
Lab Order:	1106989	**Collection Date:**	6/21/2011 7:35:00 AM
Project:	Trunk A	**Date Received:**	6/23/2011
Lab ID:	1106989-01	**Matrix:**	SOIL

Analyses		Result	Qual	MDL	PQL	Units	DF	Date Analyzed
CAS #	**EPA METHOD 300.0: ANIONS**							Analyst: **SRM**
16887-00-6	Chloride	55		2.0	7.5	mg/Kg	5	6/28/2011 3:32:53 PM
CAS #	**EPA METHOD 8015B: DIESEL RANGE ORG**							Analyst: **JB**
TPH-DRO	Diesel Range Organics (DRO)	16		3.6	10	mg/Kg	1	6/26/2011 4:46:04 PM
117-84-0	Surr: DNOP	95.9		0	73.4-123	%REC	1	6/26/2011 4:46:04 PM
CAS #	**EPA METHOD 8015B: GASOLINE RANGE**				**(SW5035)**			Analyst: **RAA**
TPH-GRO	Gasoline Range Organics (GRO)	ND		1.6	5.0	mg/Kg	1	6/28/2011 6:13:18 PM
460-00-4	Surr: BFB	113		0	75.2-136	%REC	1	6/28/2011 6:13:18 PM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quanititation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range

Hall Environmental Analysis Laboratory, Inc.

Date: *07-Jul-11*

CLIENT:	Southwest Geoscience	**Client Sample ID:**	LC-2
Lab Order:	1106989	**Collection Date:**	6/21/2011 7:39:00 AM
Project:	Trunk A	**Date Received:**	6/23/2011
Lab ID:	1106989-02	**Matrix:**	SOIL

Analyses		Result	Qual	MDL	PQL	Units	DF	Date Analyzed
CAS #	**EPA METHOD 300.0: ANIONS**							Analyst: **SRM**
16887-00-6	Chloride	190		2.0	7.5	mg/Kg	5	6/28/2011 4:42:33 PM
CAS #	**EPA METHOD 8015B: DIESEL RANGE ORG**							Analyst: **JB**
TPH-DRO	Diesel Range Organics (DRO)	82		3.6	10	mg/Kg	1	6/26/2011 5:21:29 PM
117-84-0	Surr: DNOP	97.3		0	73.4-123	%REC	1	6/26/2011 5:21:29 PM
CAS #	**EPA METHOD 8015B: GASOLINE RANGE**				**(SW5035)**			Analyst: **RAA**
TPH-GRO	Gasoline Range Organics (GRO)	ND		8.0	25	mg/Kg	5	6/28/2011 7:40:03 PM
460-00-4	Surr: BFB	112		0	75.2-136	%REC	5	6/28/2011 7:40:03 PM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quanititation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range

Hall Environmental Analysis Laboratory, Inc.

Date: *07-Jul-11*

CLIENT:	Southwest Geoscience	**Client Sample ID:**	LC-3
Lab Order:	1106989	**Collection Date:**	6/21/2011 7:43:00 AM
Project:	Trunk A	**Date Received:**	6/23/2011
Lab ID:	1106989-03	**Matrix:**	SOIL

Analyses		Result	Qual	MDL	PQL	Units	DF	Date Analyzed
CAS #	**EPA METHOD 300.0: ANIONS**							Analyst: **SRM**
16887-00-6	Chloride	390		7.9	30	mg/Kg	20	6/28/2011 5:34:47 PM
CAS #	**EPA METHOD 8015B: DIESEL RANGE ORG**							Analyst: **JB**
TPH-DRO	Diesel Range Organics (DRO)	66		3.4	9.8	mg/Kg	1	6/26/2011 5:57:12 PM
117-84-0	Surr: DNOP	103		0	73.4-123	%REC	1	6/26/2011 5:57:12 PM
CAS #	**EPA METHOD 8015B: GASOLINE RANGE**				**(SW5035)**			Analyst: **RAA**
TPH-GRO	Gasoline Range Organics (GRO)	ND		16	50	mg/Kg	10	6/28/2011 8:09:01 PM
460-00-4	Surr: BFB	111		0	75.2-136	%REC	10	6/28/2011 8:09:01 PM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quanititation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range

Hall Environmental Analysis Laboratory, Inc.

Date: *07-Jul-11*

CLIENT:	Southwest Geoscience	**Client Sample ID:**	LC-4
Lab Order:	1106989	**Collection Date:**	6/21/2011 7:47:00 AM
Project:	Trunk A	**Date Received:**	6/23/2011
Lab ID:	1106989-04	**Matrix:**	SOIL

Analyses		Result	Qual	MDL	PQL	Units	DF	Date Analyzed
CAS #	**EPA METHOD 300.0: ANIONS**							Analyst: **SRM**
16887-00-6	Chloride	270		2.0	7.5	mg/Kg	5	6/28/2011 6:27:01 PM
CAS #	**EPA METHOD 8015B: DIESEL RANGE ORG**							Analyst: **JB**
TPH-DRO	Diesel Range Organics (DRO)	57		3.5	10	mg/Kg	1	6/26/2011 6:32:54 PM
117-84-0	Surr: DNOP	101		0	73.4-123	%REC	1	6/26/2011 6:32:54 PM
CAS #	**EPA METHOD 8015B: GASOLINE RANGE**				**(SW5035)**			Analyst: **RAA**
TPH-GRO	Gasoline Range Organics (GRO)	ND		16	50	mg/Kg	10	6/28/2011 8:37:59 PM
460-00-4	Surr: BFB	109		0	75.2-136	%REC	10	6/28/2011 8:37:59 PM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quanititation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range

Hall Environmental Analysis Laboratory, Inc.

Date: *07-Jul-11*

CLIENT:	Southwest Geoscience	**Client Sample ID:**	LC-5
Lab Order:	1106989	**Collection Date:**	6/21/2011 7:51:00 AM
Project:	Trunk A	**Date Received:**	6/23/2011
Lab ID:	1106989-05	**Matrix:**	SOIL

Analyses		Result	Qual	MDL	PQL	Units	DF	Date Analyzed
CAS #	**EPA METHOD 300.0: ANIONS**							Analyst: **SRM**
16887-00-6	Chloride	130		2.0	7.5	mg/Kg	5	6/28/2011 7:01:51 PM
CAS #	**EPA METHOD 8015B: DIESEL RANGE ORG**							Analyst: **JB**
TPH-DRO	Diesel Range Organics (DRO)	260		3.5	10	mg/Kg	1	6/26/2011 7:08:17 PM
117-84-0	Surr: DNOP	101		0	73.4-123	%REC	1	6/26/2011 7:08:17 PM
CAS #	**EPA METHOD 8015B: GASOLINE RANGE**				**(SW5035)**			Analyst: **RAA**
TPH-GRO	Gasoline Range Organics (GRO)	ND		16	50	mg/Kg	10	6/28/2011 9:06:52 PM
460-00-4	Surr: BFB	109		0	75.2-136	%REC	10	6/28/2011 9:06:52 PM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quanititation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range

Hall Environmental Analysis Laboratory, Inc.

Date: *07-Jul-11*

CLIENT:	Southwest Geoscience	**Client Sample ID:**	LC-6
Lab Order:	1106989	**Collection Date:**	6/21/2011 7:55:00 AM
Project:	Trunk A	**Date Received:**	6/23/2011
Lab ID:	1106989-06	**Matrix:**	SOIL

Analyses		Result	Qual	MDL	PQL	Units	DF	Date Analyzed
CAS #	**EPA METHOD 300.0: ANIONS**							Analyst: **SRM**
16887-00-6	Chloride	190		2.0	7.5	mg/Kg	5	6/28/2011 7:36:40 PM
CAS #	**EPA METHOD 8015B: DIESEL RANGE ORG**							Analyst: **JB**
TPH-DRO	Diesel Range Organics (DRO)	59		3.5	10	mg/Kg	1	6/26/2011 8:19:07 PM
117-84-0	Surr: DNOP	105		0	73.4-123	%REC	1	6/26/2011 8:19:07 PM
CAS #	**EPA METHOD 8015B: GASOLINE RANGE**				**(SW5035)**			Analyst: **RAA**
TPH-GRO	Gasoline Range Organics (GRO)	23	J	8.0	25	mg/Kg	5	6/28/2011 9:35:45 PM
460-00-4	Surr: BFB	109		0	75.2-136	%REC	5	6/28/2011 9:35:45 PM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quanititation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range

Hall Environmental Analysis Laboratory, Inc.

Date: *07-Jul-11*

CLIENT:	Southwest Geoscience	**Client Sample ID:**	LC-7
Lab Order:	1106989	**Collection Date:**	6/21/2011 7:59:00 AM
Project:	Trunk A	**Date Received:**	6/23/2011
Lab ID:	1106989-07	**Matrix:**	SOIL

Analyses		Result	Qual	MDL	PQL	Units	DF	Date Analyzed
CAS #	**EPA METHOD 300.0: ANIONS**							Analyst: **SRM**
16887-00-6	Chloride	570		7.9	30	mg/Kg	20	6/28/2011 8:28:56 PM
CAS #	**EPA METHOD 8015B: DIESEL RANGE ORG**							Analyst: **JB**
TPH-DRO	Diesel Range Organics (DRO)	480		3.5	10	mg/Kg	1	6/26/2011 8:54:16 PM
117-84-0	Surr: DNOP	97.5		0	73.4-123	%REC	1	6/26/2011 8:54:16 PM
CAS #	**EPA METHOD 8015B: GASOLINE RANGE**				**(SW5035)**			Analyst: **RAA**
TPH-GRO	Gasoline Range Organics (GRO)	90	J	32	100	mg/Kg	20	6/28/2011 10:04:37 PM
460-00-4	Surr: BFB	109		0	75.2-136	%REC	20	6/28/2011 10:04:37 PM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quanititation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range

Hall Environmental Analysis Laboratory, Inc.

Date: *07-Jul-11*

CLIENT:	Southwest Geoscience	**Client Sample ID:**	LC-8
Lab Order:	1106989	**Collection Date:**	6/21/2011 8:03:00 AM
Project:	Trunk A	**Date Received:**	6/23/2011
Lab ID:	1106989-08	**Matrix:**	SOIL

Analyses		Result	Qual	MDL	PQL	Units	DF	Date Analyzed
CAS #	**EPA METHOD 300.0: ANIONS**							Analyst: **SRM**
16887-00-6	Chloride	220		2.0	7.5	mg/Kg	5	6/28/2011 8:46:20 PM
CAS #	**EPA METHOD 8015B: DIESEL RANGE ORG**							Analyst: **JB**
TPH-DRO	Diesel Range Organics (DRO)	110		3.5	10	mg/Kg	1	6/26/2011 9:29:25 PM
117-84-0	Surr: DNOP	98.4		0	73.4-123	%REC	1	6/26/2011 9:29:25 PM
CAS #	**EPA METHOD 8015B: GASOLINE RANGE**				**(SW5035)**			Analyst: **RAA**
TPH-GRO	Gasoline Range Organics (GRO)	ND		8.0	25	mg/Kg	5	6/28/2011 10:33:28 PM
460-00-4	Surr: BFB	109		0	75.2-136	%REC	5	6/28/2011 10:33:28 PM

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quanititation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Hall Environmental Analysis Laboratory, Inc.

Date: *07-Jul-11*

CLIENT:	Southwest Geoscience	**Client Sample ID:**	LC-9
Lab Order:	1106989	**Collection Date:**	6/21/2011 8:07:00 AM
Project:	Trunk A	**Date Received:**	6/23/2011
Lab ID:	1106989-09	**Matrix:**	SOIL

Analyses		Result	Qual	MDL	PQL	Units	DF	Date Analyzed
CAS #	**EPA METHOD 300.0: ANIONS**							Analyst: **SRM**
16887-00-6	Chloride	120		7.9	30	mg/Kg	20	6/28/2011 10:13:24 PM
CAS #	**EPA METHOD 8015B: DIESEL RANGE ORG**							Analyst: **JB**
TPH-DRO	Diesel Range Organics (DRO)	71		3.4	9.9	mg/Kg	1	6/26/2011 10:04:19 PM
117-84-0	Surr: DNOP	98.2		0	73.4-123	%REC	1	6/26/2011 10:04:19 PM
CAS #	**EPA METHOD 8015B: GASOLINE RANGE**				**(SW5035)**			Analyst: **RAA**
TPH-GRO	Gasoline Range Organics (GRO)	ND		8.0	25	mg/Kg	5	6/29/2011 1:26:51 AM
460-00-4	Surr: BFB	107		0	75.2-136	%REC	5	6/29/2011 1:26:51 AM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quanititation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range

Hall Environmental Analysis Laboratory, Inc.

Date: *07-Jul-11*

CLIENT:	Southwest Geoscience	**Client Sample ID:**	LC-10
Lab Order:	1106989	**Collection Date:**	6/21/2011 8:11:00 AM
Project:	Trunk A	**Date Received:**	6/23/2011
Lab ID:	1106989-10	**Matrix:**	SOIL

Analyses		Result	Qual	MDL	PQL	Units	DF	Date Analyzed
CAS #	**EPA METHOD 300.0: ANIONS**							Analyst: **SRM**
16887-00-6	Chloride	280		7.9	30	mg/Kg	20	6/28/2011 10:48:14 PM
CAS #	**EPA METHOD 8015B: DIESEL RANGE ORG**							Analyst: **JB**
TPH-DRO	Diesel Range Organics (DRO)	19		3.4	9.9	mg/Kg	1	6/26/2011 10:38:59 PM
117-84-0	Surr: DNOP	103		0	73.4-123	%REC	1	6/26/2011 10:38:59 PM
CAS #	**EPA METHOD 8015B: GASOLINE RANGE**				**(SW5035)**			Analyst: **RAA**
TPH-GRO	Gasoline Range Organics (GRO)	ND		1.6	5.0	mg/Kg	1	6/29/2011 1:55:41 AM
460-00-4	Surr: BFB	117		0	75.2-136	%REC	1	6/29/2011 1:55:41 AM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quanititation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range

Hall Environmental Analysis Laboratory, Inc.

Date: *07-Jul-11*

CLIENT:	Southwest Geoscience	**Client Sample ID:**	LC-11
Lab Order:	1106989	**Collection Date:**	6/21/2011 8:15:00 AM
Project:	Trunk A	**Date Received:**	6/23/2011
Lab ID:	1106989-11	**Matrix:**	SOIL

Analyses		Result	Qual	MDL	PQL	Units	DF	Date Analyzed
CAS #	**EPA METHOD 300.0: ANIONS**							Analyst: **SRM**
16887-00-6	Chloride	630		7.9	30	mg/Kg	20	6/28/2011 11:23:03 PM
CAS #	**EPA METHOD 8015B: DIESEL RANGE ORG**							Analyst: **JB**
TPH-DRO	Diesel Range Organics (DRO)	910		3.4	9.7	mg/Kg	1	6/26/2011 11:13:38 PM
117-84-0	Surr: DNOP	108		0	73.4-123	%REC	1	6/26/2011 11:13:38 PM
CAS #	**EPA METHOD 8015B: GASOLINE RANGE**				**(SW5035)**			Analyst: **RAA**
TPH-GRO	Gasoline Range Organics (GRO)	ND		32	99	mg/Kg	20	6/29/2011 2:24:34 AM
460-00-4	Surr: BFB	108		0	75.2-136	%REC	20	6/29/2011 2:24:34 AM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quanititation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range

Hall Environmental Analysis Laboratory, Inc.

Date: *07-Jul-11*

CLIENT:	Southwest Geoscience	**Client Sample ID:**	LC-12
Lab Order:	1106989	**Collection Date:**	6/21/2011 8:19:00 AM
Project:	Trunk A	**Date Received:**	6/23/2011
Lab ID:	1106989-12	**Matrix:**	SOIL

Analyses		Result	Qual	MDL	PQL	Units	DF	Date Analyzed
CAS #	**EPA METHOD 300.0: ANIONS**							Analyst: **SRM**
16887-00-6	Chloride	140		2.0	7.5	mg/Kg	5	6/28/2011 11:40:27 PM
CAS #	**EPA METHOD 8015B: DIESEL RANGE ORG**							Analyst: **JB**
TPH-DRO	Diesel Range Organics (DRO)	290		3.4	9.7	mg/Kg	1	6/27/2011 7:55:26 PM
117-84-0	Surr: DNOP	96.8		0	73.4-123	%REC	1	6/27/2011 7:55:26 PM
CAS #	**EPA METHOD 8015B: GASOLINE RANGE**				**(SW5035)**			Analyst: **RAA**
TPH-GRO	Gasoline Range Organics (GRO)	ND		16	49	mg/Kg	10	6/29/2011 2:53:23 AM
460-00-4	Surr: BFB	109		0	75.2-136	%REC	10	6/29/2011 2:53:23 AM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quanititation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range

Hall Environmental Analysis Laboratory, Inc.

Date: *07-Jul-11*

CLIENT:	Southwest Geoscience	**Client Sample ID:**	LC-13
Lab Order:	1106989	**Collection Date:**	6/21/2011 8:23:00 AM
Project:	Trunk A	**Date Received:**	6/23/2011
Lab ID:	1106989-13	**Matrix:**	SOIL

Analyses		Result	Qual	MDL	PQL	Units	DF	Date Analyzed
CAS #	**EPA METHOD 300.0: ANIONS**							Analyst: **SRM**
16887-00-6	Chloride	570		7.9	30	mg/Kg	20	6/29/2011 12:32:42 AM
CAS #	**EPA METHOD 8015B: DIESEL RANGE ORG**							Analyst: **JB**
TPH-DRO	Diesel Range Organics (DRO)	980		3.7	10	mg/Kg	1	6/27/2011 9:40:26 PM
117-84-0	Surr: DNOP	103		0	73.4-123	%REC	1	6/27/2011 9:40:26 PM
CAS #	**EPA METHOD 8015B: GASOLINE RANGE**				**(SW5035)**			Analyst: **RAA**
TPH-GRO	Gasoline Range Organics (GRO)	ND		32	99	mg/Kg	20	6/29/2011 3:22:09 AM
460-00-4	Surr: BFB	108		0	75.2-136	%REC	20	6/29/2011 3:22:09 AM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quanititation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range

Hall Environmental Analysis Laboratory, Inc.

Date: *07-Jul-11*

CLIENT:	Southwest Geoscience	**Client Sample ID:**	LC-14
Lab Order:	1106989	**Collection Date:**	6/21/2011 8:27:00 AM
Project:	Trunk A	**Date Received:**	6/23/2011
Lab ID:	1106989-14	**Matrix:**	SOIL

Analyses		Result	Qual	MDL	PQL	Units	DF	Date Analyzed
CAS #	**EPA METHOD 300.0: ANIONS**							Analyst: **SRM**
16887-00-6	Chloride	140		2.0	7.5	mg/Kg	5	6/29/2011 1:59:45 AM
CAS #	**EPA METHOD 8015B: DIESEL RANGE ORG**							Analyst: **JB**
TPH-DRO	Diesel Range Organics (DRO)	140		3.6	10	mg/Kg	1	6/27/2011 10:15:02 PM
117-84-0	Surr: DNOP	97.9		0	73.4-123	%REC	1	6/27/2011 10:15:02 PM
CAS #	**EPA METHOD 8015B: GASOLINE RANGE**				**(SW5035)**			Analyst: **RAA**
TPH-GRO	Gasoline Range Organics (GRO)	ND		8.0	25	mg/Kg	5	6/29/2011 3:51:02 AM
460-00-4	Surr: BFB	108		0	75.2-136	%REC	5	6/29/2011 3:51:02 AM

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quanititation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory, Inc.

Date: *07-Jul-11*

CLIENT:	Southwest Geoscience	**Client Sample ID:**	LC-15
Lab Order:	1106989	**Collection Date:**	6/21/2011 8:31:00 AM
Project:	Trunk A	**Date Received:**	6/23/2011
Lab ID:	1106989-15	**Matrix:**	SOIL

Analyses		Result	Qual	MDL	PQL	Units	DF	Date Analyzed
CAS #	**EPA METHOD 300.0: ANIONS**							Analyst: **SRM**
16887-00-6	Chloride	120		7.9	30	mg/Kg	20	6/29/2011 2:51:58 AM
CAS #	**EPA METHOD 8015B: DIESEL RANGE ORG**							Analyst: **JB**
TPH-DRO	Diesel Range Organics (DRO)	81		3.5	10	mg/Kg	1	6/29/2011 1:58:09 PM
117-84-0	Surr: DNOP	99.6		0	73.4-123	%REC	1	6/29/2011 1:58:09 PM
CAS #	**EPA METHOD 8015B: GASOLINE RANGE**				**(SW5035)**			Analyst: **RAA**
TPH-GRO	Gasoline Range Organics (GRO)	12	J	8.0	25	mg/Kg	5	6/29/2011 4:19:57 AM
460-00-4	Surr: BFB	107		0	75.2-136	%REC	5	6/29/2011 4:19:57 AM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quanititation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range

Hall Environmental Analysis Laboratory, Inc.

Date: *07-Jul-11*

CLIENT:	Southwest Geoscience	**Client Sample ID:**	LC-16
Lab Order:	1106989	**Collection Date:**	6/21/2011 8:35:00 AM
Project:	Trunk A	**Date Received:**	6/23/2011
Lab ID:	1106989-16	**Matrix:**	SOIL

Analyses		Result	Qual	MDL	PQL	Units	DF	Date Analyzed
CAS #	**EPA METHOD 300.0: ANIONS**							Analyst: **SRM**
16887-00-6	Chloride	470		7.9	30	mg/Kg	20	6/29/2011 3:26:48 AM
CAS #	**EPA METHOD 8015B: DIESEL RANGE ORG**							Analyst: **JB**
TPH-DRO	Diesel Range Organics (DRO)	460		3.5	10	mg/Kg	1	6/27/2011 10:49:39 PM
117-84-0	Surr: DNOP	102		0	73.4-123	%REC	1	6/27/2011 10:49:39 PM
CAS #	**EPA METHOD 8015B: GASOLINE RANGE**				**(SW5035)**			Analyst: **RAA**
TPH-GRO	Gasoline Range Organics (GRO)	27	J	16	50	mg/Kg	10	6/29/2011 4:48:48 AM
460-00-4	Surr: BFB	107		0	75.2-136	%REC	10	6/29/2011 4:48:48 AM

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quanititation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Hall Environmental Analysis Laboratory, Inc.

Date: *07-Jul-11*

CLIENT:	Southwest Geoscience	**Client Sample ID:**	LC-17
Lab Order:	1106989	**Collection Date:**	6/21/2011 8:39:00 AM
Project:	Trunk A	**Date Received:**	6/23/2011
Lab ID:	1106989-17	**Matrix:**	SOIL

Analyses		Result	Qual	MDL	PQL	Units	DF	Date Analyzed
CAS #	**EPA METHOD 300.0: ANIONS**							Analyst: **SRM**
16887-00-6	Chloride	580		7.9	30	mg/Kg	20	6/29/2011 4:01:37 AM
CAS #	**EPA METHOD 8015B: DIESEL RANGE ORG**							Analyst: **JB**
TPH-DRO	Diesel Range Organics (DRO)	170		3.6	10	mg/Kg	1	6/28/2011 12:33:20 AM
117-84-0	Surr: DNOP	103		0	73.4-123	%REC	1	6/28/2011 12:33:20 AM
CAS #	**EPA METHOD 8015B: GASOLINE RANGE**				**(SW5035)**			Analyst: **RAA**
TPH-GRO	Gasoline Range Organics (GRO)	ND		8.0	25	mg/Kg	5	6/29/2011 5:17:42 AM
460-00-4	Surr: BFB	108		0	75.2-136	%REC	5	6/29/2011 5:17:42 AM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quanititation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range

Hall Environmental Analysis Laboratory, Inc.

Date: *07-Jul-11*

CLIENT:	Southwest Geoscience	**Client Sample ID:**	LC-18
Lab Order:	1106989	**Collection Date:**	6/21/2011 8:43:00 AM
Project:	Trunk A	**Date Received:**	6/23/2011
Lab ID:	1106989-18	**Matrix:**	SOIL

Analyses		Result	Qual	MDL	PQL	Units	DF	Date Analyzed
CAS #	**EPA METHOD 300.0: ANIONS**							Analyst: **SRM**
16887-00-6	Chloride	320		7.9	30	mg/Kg	20	6/29/2011 5:11:15 AM
CAS #	**EPA METHOD 8015B: DIESEL RANGE ORG**							Analyst: **JB**
TPH-DRO	Diesel Range Organics (DRO)	1300		36	100	mg/Kg	10	6/29/2011 6:57:14 AM
117-84-0	Surr: DNOP	0	S	0	73.4-123	%REC	10	6/29/2011 6:57:14 AM
CAS #	**EPA METHOD 8015B: GASOLINE RANGE**				**(SW5035)**			Analyst: **RAA**
TPH-GRO	Gasoline Range Organics (GRO)	ND		8.0	25	mg/Kg	5	6/29/2011 5:46:32 AM
460-00-4	Surr: BFB	108		0	75.2-136	%REC	5	6/29/2011 5:46:32 AM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quanititation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range

QA/QC SUMMARY REPORT

Client: Southwest Geoscience
Project: Trunk A **Work Order:** 1106989

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions											
Sample ID: 1106989-01AMSD		*MSD*				Batch ID: **27375**		Analysis Date:		6/28/2011 4:07:43 PM	
Chloride	104.2	mg/Kg	7.5	15	55.02	328	79.6	112	44.7	20	SR
Sample ID: MB-27375		*MBLK*				Batch ID: **27375**		Analysis Date:		6/28/2011 2:58:04 PM	
Chloride	ND	mg/Kg	1.5								
Sample ID: LCS-27375		*LCS*				Batch ID: **27375**		Analysis Date:		6/28/2011 3:15:28 PM	
Chloride	14.43	mg/Kg	1.5	15	0	96.2	90	110			
Sample ID: 1106989-01AMS		*MS*				Batch ID: **27375**		Analysis Date:		6/28/2011 3:50:18 PM	
Chloride	66.13	mg/Kg	7.5	15	55.02	74.1	79.6	112			S
Method: EPA Method 8015B: Diesel Range Organics											
Sample ID: 1106989-12AMSD		*MSD*				Batch ID: **27358**		Analysis Date:		6/27/2011 9:05:29 PM	
Diesel Range Organics (DRO)	139.1	mg/Kg	9.7	48.4	289.4	-310	61.9	125	88.0	22.3	SR
Sample ID: MB-27356		*MBLK*				Batch ID: **27356**		Analysis Date:		6/26/2011 2:59:50 PM	
Diesel Range Organics (DRO)	ND	mg/Kg	10								
Sample ID: MB-27358		*MBLK*				Batch ID: **27358**		Analysis Date:		6/27/2011 6:09:10 PM	
Diesel Range Organics (DRO)	ND	mg/Kg	10								
Sample ID: LCS-27356		*LCS*				Batch ID: **27356**		Analysis Date:		6/27/2011 7:56:34 AM	
Diesel Range Organics (DRO)	53.31	mg/Kg	10	50	0	107	66.7	119			
Sample ID: LCS-27358		*LCS*				Batch ID: **27358**		Analysis Date:		6/27/2011 6:44:49 PM	
Diesel Range Organics (DRO)	51.35	mg/Kg	10	50	0	103	66.7	119			
Sample ID: LCSD-27356		*LCSD*				Batch ID: **27356**		Analysis Date:		6/26/2011 4:10:56 PM	
Diesel Range Organics (DRO)	51.83	mg/Kg	10	50	0	104	66.7	119	2.82	18.9	
Sample ID: LCSD-27358		*LCSD*				Batch ID: **27358**		Analysis Date:		6/27/2011 7:20:16 PM	
Diesel Range Organics (DRO)	50.03	mg/Kg	10	50	0	100	66.7	119	2.59	18.9	
Sample ID: 1106989-12AMS		*MS*				Batch ID: **27358**		Analysis Date:		6/27/2011 8:30:36 PM	
Diesel Range Organics (DRO)	357.8	mg/Kg	9.6	47.94	289.4	143	61.9	125			S
Method: EPA Method 8015B: Gasoline Range											
Sample ID: 1106989-01AMSD		*MSD*				Batch ID: **27354**		Analysis Date:		6/28/2011 7:11:08 PM	
Gasoline Range Organics (GRO)	27.03	mg/Kg	4.9	24.7	0	109	57.7	165	5.01	15.5	
Sample ID: MB-27354		*MBLK*				Batch ID: **27354**		Analysis Date:		6/27/2011 8:15:10 PM	
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0								
Sample ID: LCS-27354		*LCS*				Batch ID: **27354**		Analysis Date:		6/27/2011 7:46:18 PM	
Gasoline Range Organics (GRO)	28.07	mg/Kg	5.0	25	0	112	88.8	124			
Sample ID: 1106989-01AMS		*MS*				Batch ID: **27354**		Analysis Date:		6/28/2011 6:42:14 PM	
Gasoline Range Organics (GRO)	28.42	mg/Kg	5.0	24.75	0	115	57.7	165			

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SOUTHWEST GEOSCIENCE | Date Received: 6/23/2011

Work Order Number 1106989 | Received by: AT

Checklist completed by: _____ 06/23/11 | Sample ID labels checked by: MG

Signature | Date | Initials

Matrix: | Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☑	No ☐	N/A ☐	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		Number of preserved bottles checked for pH:
Water - VOA vials have zero headspace?	No VOA vials submitted ☑	Yes ☐	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☐	No ☐	N/A ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑	*<2 >12 unless noted below.*
Container/Temp Blank temperature?	**1.0°**	*<6° C Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

CHAIN OF CUSTODY RECORD

Southwest GEOSCIENCE
Environmental & Hydrogeologic Consultants

Office Location [redacted]

Project Manager [redacted]

Laboratory: [redacted]
Address: [redacted] Albuquerque, [redacted]
Contact: [redacted]
Phone: 505-346-3975
PO/SO #:

Lab use only
Due Date: 1.0

Temp. of coolers when received (C°):
1 | 2 | 3 | 4 | 5

Page 1 of 2

Sampler's Name: [redacted]
Sampler's Signature: [redacted]

Proj. No.: 021002
Project Name: Tijeras
No/Type of Containers: 1.0

ANALYSIS REQUESTED: TPH GRO/DRO (SW-846 8015 Modified); Chlorides (EPA 300.0)

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 Lt.	250 ml	P/O	TPH GRO/DRO	Chlorides	Lab Sample ID (Lab Use Only)
S	6/21/11	0735		✓	LC-1	0	0.5'				✓	✓	✓	1106989-1
		0739			LC-2									-2
		0743			LC-3									-3
		0747			LC-4									-4
		0751			LC-5									-5
		0755			LC-6									-6
		0759			LC-7									-7
		0803			LC-8									-8
		0807			LC-9									-9
		0811			LC-10									-10

Turn around time: ☑ Normal ☐ 25% Rush ☐ 50% Rush ☐ 100% Rush

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
[redacted]	6/22/11		FedEx		
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
			[redacted]	6/23/11	0930
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES:

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

CHAIN OF CUSTODY RECORD

Southwest GEOSCIENCE
Environmental & Hydrogeologic Consultants

Office Location: San Antonio
Project Manager: J. Martinez

Laboratory: H.E.A.L.
Address: 4901 Hawkins, Ste D
Albuquerque, NM 87109
Contact: Andy Freeman
Phone: 505-[redacted]3975
PO/SO #:

Lab use only
Due Date:

Temp. of coolers when received (C°): 1 | 2 | 3 | 4 | 5

Page 2 of 2

Sampler's Name: Joseph W. Martinez
Sampler's Signature: Joseph W. Martinez

Proj. No.: 0210002
Project Name: TRUNK A
No/Type of Containers

ANALYSIS REQUESTED: TPH GRO/DRO (SW-846 # 8015M) | Chlorides (EPA 300.0)

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 Lt.	250 ml	P/O	TPH GRO/DRO	Chlorides	Lab Sample ID (Lab Use Only)
S	6/22/11	0815		✓	LC-11	0	0.5				1	✓	✓	1106989-11
		0819			LC-12									-12
		0823			LC-13									-13
		0827			LC-14									-14
		0831			LC-15									-15
		0835			LC-16									-16
		0839			LC-17									-17
		0843			LC-18									-18

NEE 4w

Turn around time: ☑ Normal ☐ 25% Rush ☐ 50% Rush ☐ 100% Rush

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Joseph W. Martinez	6/22/11		FedEx		
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
				06/23/11	0730
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES:

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Friday, September 09, 2011

Joseph Martinez
Southwest Geoscience
8829 Tradeway
San Antonio, TX 78217

TEL: (210) 804-9922
FAX (210) 804-9944

RE: Trunk A

Order No.: 1108B00

Dear Joseph Martinez:

Hall Environmental Analysis Laboratory, Inc. received 6 sample(s) on 8/27/2011 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

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Sep-11*

CLIENT:	Southwest Geoscience	**Client Sample ID:**	LC-7 (R)
Lab Order:	1108B00	**Collection Date:**	8/24/2011 2:25:00 PM
Project:	Trunk A	**Date Received:**	8/27/2011
Lab ID:	1108B00-01	**Matrix:**	SOIL

Analyses		Result	Qual	MDL	PQL	Units	DF	Date Analyzed
CAS #	**EPA METHOD 300.0: ANIONS**							**Analyst: SRM**
16887-00-6	Chloride	1100		20	75	mg/Kg	50	9/1/2011 11:36:06 PM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quanititation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Sep-11*

CLIENT:	Southwest Geoscience	**Client Sample ID:**	LC-11 (R)
Lab Order:	1108B00	**Collection Date:**	8/24/2011 2:30:00 PM
Project:	Trunk A	**Date Received:**	8/27/2011
Lab ID:	1108B00-02	**Matrix:**	SOIL

Analyses		Result	Qual	MDL	PQL	Units	DF	Date Analyzed
CAS #	**EPA METHOD 300.0: ANIONS**							Analyst: **SRM**
16887-00-6	Chloride	960		7.9	30	mg/Kg	20	8/29/2011 8:44:29 PM
CAS #	**EPA METHOD 8015B: DIESEL RANGE ORG**							Analyst: **JB**
TPH-DRO	Diesel Range Organics (DRO)	670		3.4	9.9	mg/Kg	1	9/1/2011 9:25:30 PM
117-84-0	Surr: DNOP	153	S	0	73.4-123	%REC	1	9/1/2011 9:25:30 PM
CAS #	**EPA METHOD 8015B: GASOLINE RANGE**				**(SW5035)**			Analyst: **RAA**
TPH-GRO	Gasoline Range Organics (GRO)	ND		7.9	25	mg/Kg	5	9/6/2011 1:21:22 PM
460-00-4	Surr: BFB	90.8		0	75.2-136	%REC	5	9/6/2011 1:21:22 PM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quanititation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Sep-11*

CLIENT:	Southwest Geoscience	**Client Sample ID:**	LC-13 (R)
Lab Order:	1108B00	**Collection Date:**	8/24/2011 2:35:00 PM
Project:	Trunk A	**Date Received:**	8/27/2011
Lab ID:	1108B00-03	**Matrix:**	SOIL

Analyses		Result	Qual	MDL	PQL	Units	DF	Date Analyzed
CAS #	**EPA METHOD 300.0: ANIONS**							Analyst: **SRM**
16887-00-6	Chloride	54		2.0	7.5	mg/Kg	5	8/29/2011 9:01:54 PM
CAS #	**EPA METHOD 8015B: DIESEL RANGE ORG**							Analyst: **JB**
TPH-DRO	Diesel Range Organics (DRO)	54		3.5	9.9	mg/Kg	1	9/1/2011 9:59:21 PM
117-84-0	Surr: DNOP	111		0	73.4-123	%REC	1	9/1/2011 9:59:21 PM
CAS #	**EPA METHOD 8015B: GASOLINE RANGE**				**(SW5035)**			Analyst: **RAA**
TPH-GRO	Gasoline Range Organics (GRO)	3.4	J	1.5	4.8	mg/Kg	1	9/6/2011 2:19:04 PM
460-00-4	Surr: BFB	95.8		0	75.2-136	%REC	1	9/6/2011 2:19:04 PM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quanititation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Sep-11*

CLIENT:	Southwest Geoscience	**Client Sample ID:**	LC-17 (R)
Lab Order:	1108B00	**Collection Date:**	8/24/2011 2:40:00 PM
Project:	Trunk A	**Date Received:**	8/27/2011
Lab ID:	1108B00-04	**Matrix:**	SOIL

Analyses		Result	Qual	MDL	PQL	Units	DF	Date Analyzed
CAS #	**EPA METHOD 300.0: ANIONS**							Analyst: **SRM**
16887-00-6	Chloride	900		7.9	30	mg/Kg	20	8/29/2011 10:28:57 PM

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quanititation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Sep-11*

CLIENT:	Southwest Geoscience	**Client Sample ID:**	LC-18 (R)
Lab Order:	1108B00	**Collection Date:**	8/24/2011 2:45:00 PM
Project:	Trunk A	**Date Received:**	8/27/2011
Lab ID:	1108B00-05	**Matrix:**	SOIL

Analyses		Result	Qual	MDL	PQL	Units	DF	Date Analyzed
CAS #	**EPA METHOD 8015B: DIESEL RANGE ORG**							Analyst: **JB**
TPH-DRO	Diesel Range Organics (DRO)	630		3.4	9.7	mg/Kg	1	9/1/2011 10:33:28 PM
117-84-0	Surr: DNOP	123	S	0	73.4-123	%REC	1	9/1/2011 10:33:28 PM
CAS #	**EPA METHOD 8015B: GASOLINE RANGE**				**(SW5035)**			Analyst: **RAA**
TPH-GRO	Gasoline Range Organics (GRO)	ND		7.8	24	mg/Kg	5	9/6/2011 2:48:03 PM
460-00-4	Surr: BFB	95.6		0	75.2-136	%REC	5	9/6/2011 2:48:03 PM

Qualifiers:

- ND - Not Detected at the Reporting Limit
- J - Analyte detected below quanititation limits
- B - Analyte detected in the associated Method Blank
- * - Value exceeds Maximum Contaminant Level
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range

Hall Environmental Analysis Laboratory, Inc.

Date: *09-Sep-11*

CLIENT:	Southwest Geoscience	**Client Sample ID:**	VS-1
Lab Order:	1108B00	**Collection Date:**	8/24/2011 2:50:00 PM
Project:	Trunk A	**Date Received:**	8/27/2011
Lab ID:	1108B00-06	**Matrix:**	SOIL

Analyses		Result	Qual	MDL	PQL	Units	DF	Date Analyzed
CAS #	**EPA METHOD 300.0: ANIONS**							Analyst: **SRM**
16887-00-6	Chloride	140		9.8	30	mg/Kg	20	9/8/2011 2:26:06 PM
CAS #	**EPA METHOD 8015B: DIESEL RANGE ORG**							Analyst: **JB**
TPH-DRO	Diesel Range Organics (DRO)	22		3.4	9.6	mg/Kg	1	9/8/2011 11:10:17 AM
117-84-0	Surr: DNOP	117		0	73.4-123	%REC	1	9/8/2011 11:10:17 AM
CAS #	**EPA METHOD 8015B: GASOLINE RANGE**				**(SW5035)**			Analyst: **RAA**
TPH-GRO	Gasoline Range Organics (GRO)	ND		1.6	4.9	mg/Kg	1	9/7/2011 3:46:59 PM
460-00-4	Surr: BFB	95.0		0	75.2-136	%REC	1	9/7/2011 3:46:59 PM
CAS #	**EPA METHOD 8021B: VOLATILES**				**(SW5035)**			Analyst: **RAA**
71-43-2	Benzene	0.0050	J	0.0036	0.049	mg/Kg	1	9/7/2011 3:46:59 PM
108-88-3	Toluene	ND		0.0045	0.049	mg/Kg	1	9/7/2011 3:46:59 PM
100-41-4	Ethylbenzene	ND		0.0044	0.049	mg/Kg	1	9/7/2011 3:46:59 PM
1330-20-7	Xylenes, Total	ND		0.013	0.098	mg/Kg	1	9/7/2011 3:46:59 PM
460-00-4	Surr: 4-Bromofluorobenzene	96.5		0	80-120	%REC	1	9/7/2011 3:46:59 PM

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quanititation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

QA/QC SUMMARY REPORT

Client: Southwest Geoscience
Project: Trunk A **Work Order:** 1108B00

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions											
Sample ID: MB-28233		*MBLK*				Batch ID:	**28233**	Analysis Date:		8/29/2011 3:13:36 PM	
Chloride	ND	mg/Kg	1.5								
Sample ID: MB-28356		*MBLK*				Batch ID:	**28356**	Analysis Date:		9/8/2011 1:33:52 PM	
Chloride	ND	mg/Kg	1.5								
Sample ID: LCS-28233		*LCS*				Batch ID:	**28233**	Analysis Date:		8/29/2011 3:31:01 PM	
Chloride	13.98	mg/Kg	1.5	15	0	93.2	90	110			
Sample ID: LCS-28356		*LCS*				Batch ID:	**28356**	Analysis Date:		9/8/2011 1:51:17 PM	
Chloride	14.04	mg/Kg	1.5	15	0	93.6	90	110			
Method: EPA Method 8015B: Diesel Range Organics											
Sample ID: MB-28267		*MBLK*				Batch ID:	**28267**	Analysis Date:		9/1/2011 2:30:32 PM	
Diesel Range Organics (DRO)	ND	mg/Kg	10								
Sample ID: MB-28334		*MBLK*				Batch ID:	**28334**	Analysis Date:		9/8/2011 9:27:39 AM	
Diesel Range Organics (DRO)	ND	mg/Kg	10								
Sample ID: LCS-28267		*LCS*				Batch ID:	**28267**	Analysis Date:		9/1/2011 3:05:27 PM	
Diesel Range Organics (DRO)	44.32	mg/Kg	10	50	0	88.6	66.7	119			
Sample ID: LCS-28334		*LCS*				Batch ID:	**28334**	Analysis Date:		9/8/2011 10:01:46 AM	
Diesel Range Organics (DRO)	47.52	mg/Kg	10	50	3.507	88.0	66.7	119			
Sample ID: LCSD-28267		*LCSD*				Batch ID:	**28267**	Analysis Date:		9/1/2011 3:40:21 PM	
Diesel Range Organics (DRO)	45.97	mg/Kg	10	50	0	91.9	66.7	119	3.66	18.9	
Sample ID: LCSD-28334		*LCSD*				Batch ID:	**28334**	Analysis Date:		9/8/2011 10:36:11 AM	
Diesel Range Organics (DRO)	44.83	mg/Kg	10	50	3.507	82.6	66.7	119	5.82	18.9	
Method: EPA Method 8015B: Gasoline Range											
Sample ID: MB-28306		*MBLK*				Batch ID:	**28306**	Analysis Date:		9/6/2011 12:51:04 PM	
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0								
Sample ID: MB-28320		*MBLK*				Batch ID:	**28320**	Analysis Date:		9/7/2011 1:21:31 PM	
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0								
Sample ID: LCS-28306		*LCS*				Batch ID:	**28306**	Analysis Date:		9/6/2011 11:53:19 AM	
Gasoline Range Organics (GRO)	29.05	mg/Kg	5.0	25	0	116	86.4	132			
Sample ID: LCS-28320		*LCS*				Batch ID:	**28320**	Analysis Date:		9/7/2011 12:23:44 PM	
Gasoline Range Organics (GRO)	28.99	mg/Kg	5.0	25	0	116	86.4	132			

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Southwest Geoscience
Project: Trunk A **Work Order:** 1108B00

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8021B: Volatiles											
Sample ID: MB-28306		*MBLK*				Batch ID:	**28306**	Analysis Date:		9/6/2011 12:51:04 PM	
Methyl tert-butyl ether (MTBE)	ND	mg/Kg	0.10								
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: MB-28320		*MBLK*				Batch ID:	**28320**	Analysis Date:		9/7/2011 1:21:31 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-28306		*LCS*				Batch ID:	**28306**	Analysis Date:		9/6/2011 12:22:13 PM	
Methyl tert-butyl ether (MTBE)	0.6869	mg/Kg	0.10	1	0.0124	67.5	65.5	229			
Benzene	0.9323	mg/Kg	0.050	1	0.0162	91.6	83.3	107			
Toluene	0.9707	mg/Kg	0.050	1	0	97.1	74.3	115			
Ethylbenzene	0.9465	mg/Kg	0.050	1	0	94.6	80.9	122			
Xylenes, Total	2.941	mg/Kg	0.10	3	0	98.0	85.2	123			
Sample ID: LCS-28320		*LCS*				Batch ID:	**28320**	Analysis Date:		9/7/2011 12:52:38 PM	
Benzene	0.9209	mg/Kg	0.050	1	0.0148	90.6	83.3	107			
Toluene	0.9500	mg/Kg	0.050	1	0	95.0	74.3	115			
Ethylbenzene	0.9600	mg/Kg	0.050	1	0	96.0	80.9	122			
Xylenes, Total	2.926	mg/Kg	0.10	3	0	97.5	85.2	123			

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SOUTHWEST GEOSCIENCE | Date Received: 8/27/2011

Work Order Number 1108B00 | Received by: AMF

Checklist completed by: _____ 8/27/11 | Sample ID labels checked by: _____

Signature | Date | Initials

Matrix: | Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☑	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		Number of preserved bottles checked for pH:
Water - VOA vials have zero headspace? No VOA vials submitted ☑		Yes ☐	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☐	No ☐	N/A ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑	*<2 >12 unless noted below.*
Container/Temp Blank temperature?	**2.5°**	*<6° C Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

CHAIN OF CUSTODY RECORD

Southwest GEOSCIENCE
Environmental & Hydrogeologic Consultants

Office Location: San Antonio
Project Manager: J. Martinez

Laboratory: HEAL
Address: 4901 Hawkins, Ste D
Albuquerque, NM 87109
Contact: Andy Freeman
Phone: 575-345-3975
PO/SO #:

Lab use only
Due Date:

Temp. of coolers when received (C°): 2.5

1	2	3	4	5

Page 1 of 1

Sampler's Name: Joseph W. Martinez
Sampler's Signature: Joseph W. Martinez

Proj. No.: 0210002
Project Name: Trunk A

ANALYSIS REQUESTED: TPH (SW-846 #8015M) | Chlorides (EPA 300.0) | Hold

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	No/Type of Containers: VOA	A/G 1 Lt.	250 ml	P/O	TPH	Chlorides	Hold	Lab Sample ID (Lab Use Only)
S	8.24.11	1425		✓	LC TS-7 (R)	0	0.5				1		✓		1108800 - 1
S		1430			LC TS-11 (R)							✓	✓		-2
S		1435			LC TS-13 (R)							✓	✓		-3
S		1440			LC TS-17 (R)								✓		-4
S		1445			LC TS-18 (R)							✓			-5
S	↓	1450		↓	VS-1	↓	↓				↓			✓	-6

NFE Gw

Turn around time: ☑ Normal ☐ 25% Rush ☐ 50% Rush ☐ 100% Rush

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Joseph W Martinez	8/25/11	1900	FedEx		
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date: 8/27/11	Time: 11:00
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES:
New Mexico
per Joseph analyze the hold sample for 8021 8015 G/D C.
per Joseph, change sample ID's JB

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Monday, November 14, 2011

Joseph Martinez
Southwest Geoscience
8829 Tradeway
San Antonio, TX 78217

TEL: (210) 804-9922
FAX (210) 804-9944

RE: Trunk A

Order No.: 1111339

Dear Joseph Martinez:

Hall Environmental Analysis Laboratory, Inc. received 4 sample(s) on 11/5/2011 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

Hall Environmental Analysis Laboratory, Inc.

Date: *14-Nov-11*

Analytical Report

CLIENT:	Southwest Geoscience	**Client Sample ID:**	LC-7 (R2)
Lab Order:	1111339	**Collection Date:**	11/3/2011 12:56:00 PM
Project:	Trunk A	**Date Received:**	11/5/2011
Lab ID:	1111339-01	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JB**
Diesel Range Organics (DRO)	450	100		mg/Kg	10	11/8/2011 7:05:24 PM
Surr: DNOP	0	73.4-123	S	%REC	10	11/8/2011 7:05:24 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	9.6		mg/Kg	2	11/9/2011 2:45:04 PM
Surr: BFB	99.2	75.2-136		%REC	2	11/9/2011 2:45:04 PM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Chloride	100	7.5		mg/Kg	5	11/10/2011 2:10:15 AM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *14-Nov-11*
Analytical Report

CLIENT:	Southwest Geoscience	**Client Sample ID:**	LC-11 (R2)
Lab Order:	1111339	**Collection Date:**	11/3/2011 1:05:00 PM
Project:	Trunk A	**Date Received:**	11/5/2011
Lab ID:	1111339-02	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JB**
Diesel Range Organics (DRO)	110	9.7		mg/Kg	1	11/8/2011 5:56:19 PM
Surr: DNOP	116	73.4-123		%REC	1	11/8/2011 5:56:19 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	11/9/2011 3:13:56 PM
Surr: BFB	97.6	75.2-136		%REC	1	11/9/2011 3:13:56 PM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Chloride	3300	150		mg/Kg	100	11/14/2011 12:01:36 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *14-Nov-11*
Analytical Report

CLIENT:	Southwest Geoscience	**Client Sample ID:**	LC-17 (R2)
Lab Order:	1111339	**Collection Date:**	11/3/2011 1:16:00 PM
Project:	Trunk A	**Date Received:**	11/5/2011
Lab ID:	1111339-03	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JB**
Diesel Range Organics (DRO)	46	9.8		mg/Kg	1	11/8/2011 6:30:59 PM
Surr: DNOP	112	73.4-123		%REC	1	11/8/2011 6:30:59 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/9/2011 3:42:48 PM
Surr: BFB	98.4	75.2-136		%REC	1	11/9/2011 3:42:48 PM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Chloride	38	7.5		mg/Kg	5	11/9/2011 11:16:08 PM

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Date: *14-Nov-11*

Analytical Report

CLIENT:	Southwest Geoscience	**Client Sample ID:**	LC-18 (R2)
Lab Order:	1111339	**Collection Date:**	11/3/2011 1:23:00 PM
Project:	Trunk A	**Date Received:**	11/5/2011
Lab ID:	1111339-04	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **JB**
Diesel Range Organics (DRO)	83	10		mg/Kg	1	11/9/2011 8:45:04 AM
Surr: DNOP	120	73.4-123		%REC	1	11/9/2011 8:45:04 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	11/9/2011 4:11:37 PM
Surr: BFB	98.5	75.2-136		%REC	1	11/9/2011 4:11:37 PM
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Chloride	270	30		mg/Kg	20	11/10/2011 12:08:21 AM

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Southwest Geoscience
Project: Trunk A **Work Order:** 1111339

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Diesel Range Organics											
Sample ID: MB-29255		*MBLK*				Batch ID:	**29255**	Analysis Date:	11/8/2011 8:04:17 AM		
Diesel Range Organics (DRO)	ND	mg/Kg	10								
Sample ID: LCS-29255		*LCS*				Batch ID:	**29255**	Analysis Date:	11/8/2011 8:38:54 AM		
Diesel Range Organics (DRO)	52.07	mg/Kg	10	50	0	104	66.7	119			
Method: EPA Method 8015B: Gasoline Range											
Sample ID: MB-29254		*MBLK*				Batch ID:	**29254**	Analysis Date:	11/8/2011 1:06:47 PM		
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0								
Sample ID: LCS-29254		*LCS*				Batch ID:	**29254**	Analysis Date:	11/8/2011 12:08:59 PM		
Gasoline Range Organics (GRO)	29.76	mg/Kg	5.0	25	0	119	86.4	132			

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SOUTHWEST GEOSCIENCE | Date Received: 11/5/2011

Work Order Number 1111339 | Received by: AMF

Checklist completed by: Signature 11/5/11 Date | Sample ID labels checked by: Initials

Matrix: | Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☑	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		Number of preserved bottles checked for pH:
Water - VOA vials have zero headspace? No VOA vials submitted ☑		Yes ☐	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☐	No ☐	N/A ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑	*<2 >12 unless noted below.*
Container/Temp Blank temperature?	3.0°	*<6° C Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

CHAIN OF CUSTODY RECORD

Southwest GEOSCIENCE
Environmental & Hydrogeologic Consultants

Office Location: San Antonio
Project Manager: Joseph Martinez

Laboratory: HEAL
Address: 4901 Hawkins, Ste D
Albuquerque, NM 87109
Contact: Andy Freeman
Phone: 505-345-3975
PO/SO #:

Lab use only
Due Date:
Temp. of coolers when received (C°): 3
1 | 2 | 3 | 4 | 5
Page 1 of 1

Sampler's Name: Aaron Bentley
Sampler's Signature: Aaron Bentley

Proj. No.: 0210002
Project Name: Trunk A.

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 Lt.	250 ml	P/O	Chlorides (EPA Method 300.0)	TPH (DRO and GRO)	Lab Sample ID (Lab Use Only)
S	11/3/11	1256		✓	LC-7 (R2)	0'	.5'				1	✓		1111339-1
S	11/3/11	1305		✓	LC-11 (R2)	0'	.5'				1	✓	✓	-2
S	11/3/11	1316		✓	LC-17 (R2)	0'	.5'				1	✓		-3
S	11/3/11	1323		✓	LC-18 (R2)	0'	.5'				1		✓	-4

No Further Entry AB

Turn around time: ☑ Normal ☐ 25% Rush ☐ 50% Rush ☐ 100% Rush

Relinquished by (Signature)	Date	Time	Received by: (Signature)	Date	Time
Aaron Bentley	11/4/11	1315		11/4/11	1316
	11/4/11	1658	FedEx		
				11/5/11	1110

NOTES: New Mexico

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

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Wednesday, December 21, 2011

Joseph Martinez
Southwest Geoscience
8829 Tradeway
San Antonio, TX 78217

TEL: (210) 804-9922
FAX (210) 804-9944

RE: Trunk A

Order No.: 1112378

Dear Joseph Martinez:

Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 12/8/2011 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

Hall Environmental Analysis Laboratory, Inc.

Date: *21-Dec-11*

Analytical Report

CLIENT:	Southwest Geoscience	**Client Sample ID:**	LC-11 (R3)
Lab Order:	1112378	**Collection Date:**	12/6/2011 11:45:00 AM
Project:	Trunk A	**Date Received:**	12/8/2011
Lab ID:	1112378-01	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **BRM**
Chloride	830	30		mg/Kg	20	12/20/2011 10:47:57 AM

Qualifiers:

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

QA/QC SUMMARY REPORT

Client: Southwest Geoscience
Project: Trunk A **Work Order:** 1112378

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 300.0: Anions											
Sample ID: MB-29734		*MBLK*				Batch ID:	**29734**	Analysis Date:	12/20/2011 8:46:05 AM		
Chloride	ND	mg/Kg	1.5								
Sample ID: LCS-29734		*LCS*				Batch ID:	**29734**	Analysis Date:	12/20/2011 9:03:30 AM		
Chloride	14.03	mg/Kg	1.5	15	0	93.5	90	110			

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name SOUTHWEST GEOSCIENCE | Date Received: 12/8/2011

Work Order Number 1112378 | Received by: LNM

Checklist completed by: Signature 12/8/11 Date | Sample ID labels checked by: Initials

Matrix: | Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐	Not Shipped ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☑	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		Number of preserved bottles checked for pH:
Water - VOA vials have zero headspace? No VOA vials submitted ☑		Yes ☐	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☐	No ☐	N/A ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑	*<2 >12 unless noted below.*
Container/Temp Blank temperature?	**3.8°**	*<6° C Acceptable* If given sufficient time to cool.		

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

CHAIN OF CUSTODY RECORD

Southwest GEOSCIENCE
Environmental & Hydrogeologic Consultants

Office Location: San Antonio
Project Manager: J. Martinez

Laboratory: HEAL
Address: 4901 Hawkins St. D
Albuquerque, NM 87109
Contact: Andy Freeman
Phone: 505-345-3975
PO/SO #:

Lab use only
Due Date:

Temp. of coolers when received (C°): 3.8

1	2	3	4	5

Page 1 of 1

Sampler's Name: Aaron Bentley
Sampler's Signature: Aaron Bentley

Proj. No.: 0210002
Project Name: Trunk A
No/Type of Containers

ANALYSIS REQUESTED: Chlorides (EPA Method 300.0)

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 Lt.	250 ml	P/O	Lab Sample ID (Lab Use Only)
S	12/6/11	1145		✓	LC-11 (R3)	0'	0.5'				1	1112378-1

No Further Entry AB

Turn around time: ☑ Normal ☐ 25% Rush ☐ 50% Rush ☐ 100% Rush

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Aaron Bentley	12/7/11	830	[signature]	12/8/11	1100
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES: New Mexico

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

Southwest GEOSCIENCE

APPENDIX F

Landfill Receipts

Lea Land Landfill

GENERATOR WASTE PROFILE
PLEASE PRINT OR TYPE

Service Agreement on File? ☐ YES ☐ NO

Profile Number: _____

Renewal Date: _____

A. Waste Generator Information

1. Generator Name: Enterprise Operating Products LLC
2. SIC Code: 1311
3. Facility Street Address: NW ¼ of SE ¼ in S10, S23S R2S4
4. Phone: 713-381-6500
5. Facility City: Carlsbad
6. State/Province: New Mexico
7. Zip/Postal Code: 88220
8. Generator USEPA/Federal ID#: n/a
9. County: Eddy County
10. State/Province ID#: n/a
11. Customer Name: Same as above
12. Customer Phone: 713-870-5832
13. Customer Contact: Rodney Sartor
14. Customer Fax: NA

B. Waste Stream Information

1. Name of Waste: Contaminated Soil
2. State Waste Code:
3. Process Generating Waste: Condensate and produced water from a natural gas stream is stored on-site in above ground storage tanks.
4. Estimated Annual Volume: 100 Tons ✔ TONS ☐ YARDS ☐ OTHER Specify
5. Personal Protective Equipment Requirements: NA
6. Transporter/Transfer Station: TDM Leasing
7. Is this a U.S. Department of Transportation (USDOT) Hazardous Material? (If no, skip 8,9,10) ☐ YES ✔ NO
8. Reportable Quantity (lbs.; kgs) _____ 9. Hazard Class/ID#: _____
10. USDOT Shipping Name: _____

☐ Check if additional information is attached. Indicate the number of attached pages: _____

GENERATOR'S CERTIFICATION (Please check appropriate response, sign and date below)

1. Is the waste represented by this waste profile sheet a "Hazardous Waste", as defined by USEPA, Mexican and/or state/province regulation, in the location where generated or ultimately managed? ☐ YES ✔ NO
2. Does the waste represented by this waste profile sheet contain regulated radioactive material or Regulated concentrations of Polychlorinated Biphenyls (PCBs)? ☐ YES ✔ NO
3. Does this waste profile sheet and all attachments contain true and accurate descriptions of the waste material? ✔ YES ☐ NO
4. Has all relevant information within the possession of the Generator regarding known or suspected hazards pertaining to the waste been disclosed to the contractor? ✔ YES ☐ NO
5. Is the analytical data attached hereto derived from testing a representative sample in accordance with 40 CFR 261.20 (c) or equivalent rules? ✔ YES ☐ NO
6. Will all changes that occur in the character of the waste be identified by the Generator and disclosed to the Contractor prior to providing the waste to the Contractor? ✔ YES ☐ NO

Certification Signature: _____ Title: Remediation Manager

Name (type or print): Rodney Sartor Company name: Enterprise Products Operating LLC

Lea Land, Inc. Management's Decision **For LLI use only**

1. Supplemental Information: _____
2. Precautions, Special Handling Procedures, or Limitation on Approval: _____

Special Waste Decision ☐Approved ☐ Disapproved

Special Waste Approvals Person Signature: _____ Date: _____

LEA LAND DISPOSAL SITE NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (505) 887-4048

LEA LAND, LLC

1300 WEST MAIN STREET • OKLAHOMA CITY, OK 73106 • PHONE (405) 236-4257

NON-HAZARDOUS WASTE MANIFEST NO 081506 | 1. PAGE ___ OF ___ | 2. TRAILER NO 7C0401

GENERATOR

3. COMPANY NAME	4. ADDRESS			5. PICK-UP DATE
Enterprise Operating Products, LLC	NW1/4 of SE1/4 in S10 S23 R25			3/21/2012
PHONE NO. (713) 381-6500	CITY Carlsbad	STATE NM	ZIP 88220	6. TNRCC I.D. NO.

7. NAME OR DESCRIPTION OF WASTE SHIPPED	8. CONTAINERS No	Type	9. TOTAL QUANTITY	10. UNIT Wt/Vol.	11. TEXAS WASTE ID #
a. Non-Regulated, Non Hazardous Waste	1	CM			
b.					
c.					
d. (1) 29840 (2) 28680					

12. COMMENTS OR SPECIAL INSTRUCTIONS	13. WASTE PROFILE NO.
TRUNK A SEPERATOR SITE Total @ 58520	212691

GENERATOR

14. IN CASE OF EMERGENCY OR SPILL, CONTACT		
NAME	PHONE NO.	24-HOUR EMERGENCY NO.
Kin Slaughter	575-887-4048	

GENERATOR

15. **GENERATOR'S CERTIFICATION:** I Hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, including applicable state regulations, and are the same materials previously approved by LEA LAND, LLC.

PRINTED/TYPED NAME	SIGNATURE	DATE

TRANSPORTERS

16. TRANSPORTER (1)	17. TRANSPORTER (2)
NAME: TDM LEASING	NAME:
TEXAS I.D. NO.	TEXAS I.D. NO.
IN CASE OF EMERGENCY CONTACT: JEREMY	IN CASE OF EMERGENCY CONTACT:
EMERGENCY PHONE: (575) 381-4300	EMERGENCY PHONE:
18. **TRANSPORTER (1):** Acknowledgment of receipt of material	19. **TRANSPORTER (2):** Acknowledgment of receipt of material
PRINTED/TYPED NAME: Richard Cupit	PRINTED/TYPED NAME:
SIGNATURE: Richard Cupit DATE: 3/21/2012	SIGNATURE: DATE:

DISPOSAL FACILITY

	ADDRESS	PHONE
Lea Land, LLC	Mile Marker 64, U.S. Hwy 62/180; 30 Miles East of Carlsbad, NM	505-887-4048

PERMIT NO	20. COMMENTS
WM-01-035 - New Mexico	

21. **DISPOSAL FACILITY'S CERTIFICATION:** I Hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.

AUTHORIZED SIGNATURE	CELL NO.	DATE	TIME
Juan A Contreras	—	3/21/2012	11:35

GENERATOR: COPIES 1 & 6 DISPOSAL SITE: COPIES 2 & 3 TRANSPORTERS: COPIES 4 & 5

COPY 1