2R - 422

REPORTS

3 / 18 / 2015

Chavez, Carl J, EMNRD

From: Joseph Martinez <JMartinez@apexcos.com>
Sent: Tuesday, March 24, 2015 9:19 AM
To: Chavez, Carl J, EMNRD
Cc: GEMiller@eprod.com
Subject: Enterprise S. Carlsbad Compress Station (OCD Permit No. 2R-422)
Attachments: 150318 (Eprod) SCAR and CAWP Rpt.pdf

Carl,

Please see the attached cover letter and report for the above Site. A copy has been sent to your office and uploaded to the OCD FTP site. Let me know if you have any questions or require additional information.

Regards,

Joseph Martinez
Branch Manager/Senior Scientist
Apex TITAN, Inc.
7979 Broadway Street, Suite 100
San Antonio, TX 78209
O) 210-804-9922 M) 210-355-6280

Enterprise Products

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

ENTERPRISE PRODUCTS OPERATING LLC

March 18, 2015

Return Receipt Requested
7014 1820 0001 6317 9853

Mr. Jim Griswold, Environmental Bureau Chief
New Mexico Energy, Minerals & Natural Resources Department
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Attn: Carl Chavez

RE: Supplemental Corrective Action Report and Corrective Action Work Plan
Enterprise S. Carlsbad Compressor Station (OCD Permit No. 2R-422)
SE ¼ of SE ¼ in S12, T23S, R27E
Carlsbad, Eddy County, New Mexico

Dear Mr. Chavez:

Enterprise Products Operating LLC (Enterprise) is submitting the enclosed *Supplemental Corrective Action Report and Corrective Action Work Plan (SCAWP and CAWP)* dated March 18, 2015 for the Enterprise S. Carlsbad Compressor Station (referred to as the "Site" hereinafter). The Site is located at the northwest intersection of Carrasco Road and CR 710, approximately ten (10) miles southeast of Carlsbad, Eddy County, New Mexico.

The New Mexico Oil Conservation Division (OCD) reviewed a *Corrective Action Report* issued for the Site on May 1, 2012 and responded with comments and conditions in a correspondence email on October 24, 2014. A *Letter Response to Corrective Action Report & Corrective Action Work Plan Response to the NMOCD Comments dated October 24,* 2014 was on November 19, 2014. The OCD responded by email on November 21, 2014 approving of the proposed SCAWP and CAWP and added conditions. A *Supplemental Corrective Action Work Plan* was issued on September 25, 2013 which included: 1) The addition of chloride analysis to the groundwater sampling scope; 2) The on-site distribution of previously treated soil at depths of 6 inches or less; 3) The collection hydrogeologic data to determine the groundwater flow direction; and 4) Submission of a report documenting the results of the proposed site investigation activities.

The attached report documents the results of the supplemental site investigation activities performed in December 2014 and January 2015. Soil samples collected during the supplemental site investigation activities exhibited TPH GRO/DRO concentrations in exceedance of the regulatory protection limits. Groundwater samples collected from the Site during the supplemental site investigation activities exhibited benzene and/or chloride concentrations in exceedance of the regulatory protection limits. In addition, phase-separated hydrocarbons (PSH), was identified in one (1) of the on-Site monitoring wells. It should be noted that Enterprise submitted a Form C-141 to the OCD on December 30, 2014. The attached report includes proposed plans for further corrective action activities including: 1) the installation of additional soil borings and monitoring wells to further assess the extent of affected soil and groundwater; 2) interim recovery of PSH from groundwater; 3) assessment of hydraulic conductivity for a permanent PSH recovery system; and 4) documentation of the proposed assessment findings and plans for recommendations for further corrective action. Enterprise recommends proceeding with these proposed supplemental site investigation and interim corrective action activities.

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HOUSTON, TX 77210-4324
713.381.6500

1100 LOUISIANA STREET
HOUSTON, TX 77002-5227
www.enterpriseproducts.com

Enterprise respectfully requests a written response regarding the OCD's review of the attached report and concurrence of proposed corrective actions. Should you have any questions, comments or concerns, or need additional information, please feel free to contact me at 713-381-8780.

Sincerely,

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

Rodney M. Sartor, REM
Sr. Manager, Environmental

/dep
Attachments

cc: Carl Chavez, OCD, Santa Fe, NM
Mike Bratcher, OCD District 2, Artesia, NM

ec: Osman DeLeon, Enterprise Products Operating LLC
Dina J. Babinski, Enterprise Products Operating LLC
Joseph Martinez, Apex TITAN, Inc.

SUPPLEMENTAL CORRECTIVE ACTION REPORT &
CORRECTIVE ACTION WORK PLAN

Property:

Enterprise S. Carlsbad Compressor Station
NWC of Carrasco Road and CR 710
Carlsbad, Eddy County, New Mexico
(OCD Permit No. 2R-422)

March 18, 2015

Apex Job No: 7010210G003.001

Prepared for:

Enterprise Products Operating LLC
PO Box 4324
Houston, Texas 77210-4324
Attention: Mr. Gregory E. Miller, P.G.

Aaron C. Bentley, E.I.T.
Project Engineer

Joseph W. Martinez
Branch Manager/Senior Scientist

Marc E. Gentry, P.G.
Division Manager

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APPENDICES

1.0 INTRODUCTION

1.1 Site Description and Background

Apex TITAN, Inc. (Apex), formerly Southwest Geoscience, has completed a Supplemental Corrective Action Report and Corrective Action Work Plan for the Enterprise Products Operating LLC (Enterprise) S. Carlsbad Compressor Station located at the northwest corner of Carrasco Road and CR 710, approximately ten (10) miles southeast of Carlsbad in Eddy County, New Mexico [SE1/4 of SE1/4 of S12, T23S, R27E], referred to hereinafter as the "Site" or "subject Site." The Site is currently improved as a natural gas compressor station. A topographic map depicting the location of the Site is included as **Figure 1** and a site vicinity map is included as **Figure 2** of **Appendix A**. A site map depicting on-site improvements and the location of investigation and corrective action activities, described herein, is included as **Figure 3A and 3B** in **Appendix A**.

The Site formerly included a tank battery on the south/southwestern portion of the property which included four (4) 300-barrel aboveground storage tanks (ASTs) within two earthen berm containment systems. The ASTs contained natural gas condensate or produced liquids separated from the natural gas stream at the Site. During the decommissioning activities of the former tank battery, Enterprise personnel identified stained soils indicative of a historical leak. Initial site investigation activities were performed by Apex in November of 2009. The initial site investigation activities included the advancement of one (1) soil boring (B-1), within the western portion of the former main containment system, to a depth of 20 feet below ground surface (bgs). Soil samples were collected from soil boring B-1 at 7 to 8 feet bgs and 19 to 20 feet bgs and submitted for benzene, toluene, ethylbenzene, and xylenes (BTEX) and total petroleum hydrocarbon (TPH) gasoline range organics (GRO)/diesel range organics (DRO) analysis utilizing SW-846 #8021B and EPA method SW-846 #8015M, respectively. Concentrations of constituents of concern (COC) were compared to the New Mexico Energy, Minerals and Natural Resources Department (EMNRD) Oil Conservation Division's (OCD) *Remediation Action Levels*. Based on the laboratory analytical results, the soil samples collected from soil boring B-1 did not exhibit benzene or total BTEX concentrations in exceedance of the OCD *Remediation Action Levels*. The soil sample collected from soil boring B-1 at 7 to 8 feet bgs exhibited a TPH GRO/DRO concentration of 980 mg/Kg, which exceeds the OCD Remediation Action Level of 100 mg/Kg. The soil sample collected form soil boring B-1 19 to 20 feet bgs did not exhibit TPH GRO/DRO concentrations in exceedance of the OCD *Remediation Action Levels*. It should be noted that the soil samples collected from soil boring B-1 were previously reported as having TPH GRO/DRO concentrations below the OCD *Remediation Action Levels*, which has been revised based on the adjusted "ranking" of the Site. The results of the soil sample analysis and the OCD *Remediation Action Levels* are presented on **Table 1** of **Appendix D**.

Apex utilized the OCD Guidelines for Remediation of Leaks, Spills and Release to assess and establish the appropriate "ranking" or *Remediation Action Levels* for the Site. Based on a review of the New Mexico Office of the State Engineer (OSE) water well records, the depth to groundwater in the vicinity of the Site was estimated to be approximately 56 feet bgs. A search of New Mexico water well records identified four (4) water wells within 1,000 feet of the Site. One (1) water well [point of diversion (POD) #C03053] was reportedly located approximately 60 feet west of the Site, or 400 feet northwest of the release source area; one (1) water well (POD #C03457) was reportedly located approximately 200 feet west of the Site, or 575 feet northwest of the release source area; one (1) water well (POD #C00069) was reportedly located approximately 350 feet east of the Site, or 850 feet east of the release source area; and one (1) water well (POD #C00461) was reportedly located approximately 550 feet southeast of the Site, or 900 feet southeast of the release source area. Apex did not identify the water wells reported at POD location #C03053 or #C03457. It is suspected that these wells may be located on farmsteads further northwest or southwest of the Site. Apex observed an irrigation well near the reported POD location #00069, which was approximately 100 feet east of the Site, or 500 east of the release source area. This well is currently active and is utilized to pump water into nearby irrigation canals. Apex observed an irrigation well near the reported POD location #C00461, which was approximately 600 feet southeast of the Site or 800 feet southeast of the release source area. This well appeared to be out of use. The hydrogeologic gradient at the Site was estimated based on the surface topography relief, which is generally to the northeast. A field survey identified one (1) down-gradient surface water feature within 1,000 feet of the Site. A concrete-lined irrigation canal which traverses north and south along the east side of CR 710 was identified approximately 50 feet east of the Site. However, this feature was not included in the Site ranking based on the presence of a concrete lining. Based on Apex's review of Site characteristics (specifically: depth to groundwater, wellhead protection area and distance to surface water) an associated ranking score of forty (40) was determined for the Site in accordance with the OCD's Guidelines for Remediation of Leaks, Spills and Releases. The OCD's *Remediation Action Levels* for sites with a total ranking score of >19 is 10 milligrams per kilogram (mg/Kg) benzene, 50 mg/Kg total BTEX, and 100 mg/Kg TPH GRO/DRO. It should be noted that the Site was previously reported to have a total ranking score of ten (10). This has since been revised based on the review of additional well logs and site investigation activities. It should be noted that the water well locations for POD #00069 and #C00461, on the Water Well Location Summary Map, were adjusted based on observations made during the field survey.

July 6, 2010, a Corrective Action Work Plan (CAWP) was issued for the Site, which was reviewed and approved by the OCD. In October 2010, excavation activities were initiated in vicinity of the former tank battery. An approximate total of 600 cubic yards (cy) of petroleum hydrocarbon impacted soil was excavated from the Site. The excavation continued horizontally and vertically with final dimensions of approximately 60 feet long by 25 feet wide and up to 15 feet deep. During the excavation activities, Apex encountered silty clays, clayey silts, and silty sands to approximately 8 feet bgs followed by a weathered

sandstone at approximately 15 feet bgs where equipment refusal to advancement was encountered. Subsequent to the completion of excavation activities soil confirmation samples were collected from the final extents of each of the excavation sidewalls and floor and submitted for BTEX and TPH GRO/DRO analysis. Based on the laboratory analytical results, the most recent excavation confirmation soil samples collected from the north, east, and southeast portion of the excavation sidewalls [i.e.: EC-1(R), EC-2(R), EC-3(R)A, and EC-5 respectively] exhibited total BTEX and/or TPH GRO/DRO concentrations in exceedance of the OCD *Remediation Action Levels*. The remaining excavation confirmation soil samples did not exhibit benzene, total BTEX, or TPH GRO/DRO concentrations in exceedance of the OCD *Remediation Action Levels*.

Subsequent to the completion of excavation activities, the excavation was backfilled using imported fill. The excavated soils were placed within two (2) landfarm treatment cells constructed on the northwest and southwest portion of the Site. The soils were spread and tilled or raked to enhance aeration of petroleum hydrocarbon COCs. In addition, a bioremediation agent (Remedy) was applied which includes nonpathogenic bacterial strains which assist in degradation and metabolism of petroleum hydrocarbons. Subsequent to proposed aeration and attenuation schedules, confirmation soil samples were collected from 20 sampling points within the landfarm treatment cells and submitted for BTEX, TPH GRO/DRO, and chlorides analysis. Some of the sampling points within the landfarm treatment cell were resampled for one or more COCs. Based on the laboratory analytical results, the most recent confirmation soil samples collected from the landfarm treatment cell did not exhibit benzene, total BTEX, TPH GRO/DRO, and/or chlorides concentrations in exceedance of the New Mexico Administrative Code (NMAC) *Small Landfarm Closure Performance Standards*. The laboratory analytical results for the landfarm confirmation soil samples are summarized in **Table 2** of **Appendix D**.

The soils within and below the landfarm treatment cells were treated such that COC concentrations were below the NMAC *Small Landfarm Closure Performance Standards.* As a result, the treated soils were stockpiled on the northwest portion of the Site pending OCD approval for future on-site and/or off-site reuse. Vadose zone soil samples (VZ-1 and VZ-2) were collected from the native soil where the landfarm treatment cells were previously located. The vadose zone soil samples did not exhibit benzene, total BTEX, TPH GRO/DRO, or chlorides concentrations in exceedance of the NMAC *Small Landfarm Closure Performance Standards,* with one exception. Vadose zone soil sample VZ-2 exhibited a chlorides concentration in exceedance of the NMAC *Small Landfarm Closure Performance Standards*. However, based on the low levels of chloride concentrations previously observed from the landfarm treatment cells, it was believed that the exceedance may have been an anomaly. The laboratory analytical results for the vadose zone soil samples are summarized in **Table 2** of **Appendix D**.

February 25, 2011, supplemental site investigation activities were conducted in the vicinity of the former tank battery to further evaluate the magnitude and extent of COC concentrations in the on-site soils within in the vicinity of the former tank battery. The supplemental site investigation activities included the advancement of eight (8) additional soil borings to a refusal depth of 8 feet bgs in the area north, east, and south of the former tank battery. The soil borings were advanced utilizing direct-push technology. The soil cores were collected continuously utilizing a split-spoon sampler via Geoprobe® to the terminus depth of each soil boring. Apex's soil sampling program involved submitting up to two (2) soil samples from soil borings B-3through B-9. A soil sample from soil boring B-2 was not submitted for laboratory analysis. Based on the laboratory analytical results, soil samples collected from the supplemental soil borings B-3 (6-7), B-4 (5-6), B-5 (4-5), B-6 (7-8), B-7 (5-6), and B-8 (7-8) exhibited total BTEX and/or TPH GRO/DRO concentrations in exceedance of the OCD *Remediation Action Levels*. The remaining soil samples collected from the supplemental soil borings did not exhibit benzene, total BTEX, or TPH GRO/DRO concentrations in exceedance of the OCD *Remediation Action Levels*.

May 1, 2012, a Corrective Action Report was issued for the Site, which documented the findings of on-site investigation and corrective action activities. Excavation confirmation soil samples EC-1(R), EC-2(R), EC-3(R)A, and EC-5 and soil samples collected from soil borings B-3 through B-8 exhibited total BTEX and/or TPH GRO/DRO concentrations in exceedance of the OCD *Remediation Action Levels.* It was anticipated that the area of affected soil was primarily limited to upper 20 feet of soils as evidenced by previous field screening data and the laboratory analytical results of the soil samples collected from the excavation confirmation soil samples and the soil borings. It was believed that the previous corrective actions addressed source area soils, which were most heavily impacted as a result of historic leakage originating from the former on-site tank battery. In addition, it was believed that the affected soils were likely limited to the area north, northeast, east, and south of the former storage tank battery and excavation. Numerous aboveground and/or underground appurtenances related to natural gas processing operations exist within these areas. Thus, excavation activities in the vicinity of the affected soils which remain in-place would not be feasible.

July 17, 2012, the New Mexico OCD reviewed the Corrective Action Report and responded with conclusions/recommendations in a correspondence email. The OCD requested the submission of the C-137EZ form for closure of the former on-site landfarm treatment cells; resampling of the vadose zone below the former southwest landfarm for chlorides analysis; advancement of additional soil borings in the vicinity of B-1 and B-2 to groundwater, conversion of the additional soil boring to a 2-inch monitoring well if phase-separated hydrocarbons are identified in the vadose zone or groundwater bearing unit, and delineation of the area to the north, northeast, and east of the former tank battery and excavation.

September 10, 2012, Apex issued a letter response to the Corrective Action Report review. The letter response proposed the collection of three (3) additional soil samples below the former southwest landfarm treatment cell to further evaluate chlorides concentrations in the vadose zone. A Form C-137EZ

was proposed for completion subsequent to the completion of vadose zone sampling activities and attainment of the NMAC *Small Landfarm Closure Performance Standards*. Additional soil borings were not proposed citing the results of previously documented field screening data, soil sampling data, and site lithology. The OCD replied by phone on October 4, 2012. Mr. Carl Chavez of the OCD agreed with the proposed additional corrective action activities with one exception. Additional investigation and/or response action activities were requested in the area east and northeast of the former tank battery and excavation, near soil borings B-2 and B-3.

September 25, 2013, a supplemental Corrective Action Work Plan was issued for the Site. Apex proposed to advance five (5) soil borings to a depth of 25 feet bgs to the north, northeast, and east of the former tank battery and excavation. In addition, three (3) soil borings were proposed to a total depth of 3.5 feet bgs within the former southwest landfarm treatment cell. Apex proposed surface soil (0-15 feet bgs) to be considered vertically delineated and protective of groundwater provided that field screening and laboratory analytical results indicate that the lower 10 feet of each soil column is not affected with COC concentrations in exceedance of the OCD *Remediation Action Levels*. In addition, a C-137EZ Form was proposed for completion provided that the vadose zone soil samples collected from the former southwest landfarm indicate chlorides concentrations below the NMAC *Small Landfarm Closure Performance Standards*. The OCD responded by email approving the Supplemental Corrective Action Work Plan on September 25, 2013. It should be noted that Apex previously utilized the American Petroleum Institute (API) Spreadsheet for Calculating Risk-Based Screening Levels (RBSL) 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 Soil at the Site utilizing the EC-1(R) soil sample was 5,000 mg/Kg for the totals soil combined pathway. The API Site-Specific TPH RBSL has since been removed from consideration or evaluation at the Site.

July 24, 2014, a Supplemental Corrective Action Report and Corrective Action Work Plan was issued for the Site. As part of the Apex supplemental site investigation activities six (6) soil borings (B-10, B-11, B-12, B-13, B-14, and B-18) were advanced to total depths ranging between 25 to 30 feet bgs. Soil borings B-15, B-16, and B-17 were advanced to a total depth of 4 feet bgs. Groundwater was encountered in soil borings B-11 and B-18 at 29.5 and 24.5 feet bgs, respectively. Apex's soil sampling program involved submitting up to three (3) soil samples from soil borings B-10 through B-18. The soil samples collected from the soil borings were submitted for BTEX, TPH GRO/DRO, and/or chlorides analysis. Based on the laboratory analytical results, the soil samples collected from soil borings B-11 (10-11), B-11 (20-21), B-12 (13-14), and B-12 (15-16) exhibited TPH GRO/DRO concentrations ranging from 168 mg/Kg to 1,380 mg/Kg, which exceed the OCD Remediation Action Level of 100 mg/Kg. The remaining soil samples collected from the soil borings at the Site did not exhibit TPH GRO/DRO concentrations in exceedance of the OCD Remediation Action Levels. The soil samples collected from

soil borings B-10 through B-18 did not exhibit benzene or total BTEX concentrations in exceedance of the OCD Remediation Action Levels. The soil samples collected from soil borings B-15, B-16, and B-17 exhibited chlorides concentrations ranging from 7.8 mg/Kg to 380.0 mg/kg, which are below the NMAC Small Landfarm Closure Performance Standards of 500 mg/Kg. Apex proposed to perform additional site investigation activities, including five (5) soil borings/monitoring wells, to further evaluate the vertical and horizontal extent of affected soil in accordance with the OCD Remediation Action Levels. In addition, Apex proposes to evaluate groundwater at the Site to determine the presence, magnitude and/or extent of TPH GRO/DRO and BTEX concentrations in groundwater.

On October 24, 2014, the OCD issued an email in response to the 2014 Supplemental Corrective Action Report and Corrective Action Work Plan which made note of select items, requested clarification on select items, or requested specific procedures on proposed work. On November 19, 2014, a letter report was issued by Enterprise to the NMOCD in response to the NMOCD's review of the 2014 Supplemental Corrective Action Report and Corrective Action Work Plan. Significant items which were not previously discussed and agreed upon included: 1) A chloride exceedance was identified in a vadose zone confirmation soil sample (VZ-2), which was collected as part of the small landfarm closure requirements, and was suspected to be anomalous. The OCD requested further sampling in the area at depth or addition of chlorides to the groundwater constituent analysis to verify that chloride contamination does not exist. Enterprise agreed to add chloride analysis to the groundwater constituent analysis. 2) The OCD requested that the operator propose final disposition of the stockpiled soils within 30 days. Enterprise agreed to disperse the soils throughout the facility with depths not to exceed 6 inches. 3) The OCD requested a report which documented the results of the soil and groundwater investigation activities within 60 days of completion.

A summary of historical environmental site investigation and corrective action reports issued for the Site includes the following:

- *Corrective Action Work Plan*, issued by Apex on July 6, 2010;
- *Corrective Action Report*, issued by Apex on May 1, 2012;
- *Letter Response to Corrective Action Report Review*, issued by Apex on September 10, 2012;
- *Supplemental Corrective Action Work Plan*, issued by Apex on September 25, 2013;
- *Supplemental Corrective Action Report and Corrective Action Work Plan*, issued on July 24, 2014;
- Enterprise letter response to NMOCD Comments on *2014 Supplemental Corrective Action Report and Corrective Action Work Plan*, sent November 19, 2014;
- Enterprise notification letter to NMOCD with Form C-141, sent December 30, 2014.

A summary of historical correspondence from the New Mexico OCD includes the following:

- New Mexico OCD email response and approval associated with the review of the *Corrective Action Work Plan*, sent July 13, 2010;
- New Mexico OCD email response and information request associated with the review of the *Corrective Action Report*, sent July 17, 2012;
- New Mexico OCD email response and information request associated with the review of the *Letter Response to Corrective Action Report*, sent October 4, 2012;
- New Mexico OCD email response and approval associated with the review of the *Supplemental Corrective Action Work Plan*, sent October 9, 2013;
- New Mexico OCD email response and inquiry associated with the *2014 Supplemental Corrective Action Report and Corrective Action Work Plan* , sent on October 24, 2014; and
- New Mexico OCD email response and approval associated with the Enterprise email response to *2014 Supplemental Corrective Action Report and Corrective Action Work Plan Response*, sent November 21, 2014.

1.2 Site Ranking

Apex 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*, Apex 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	**20**
	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	**20**
	No	0	
Distance to Surface Water Body	<200 feet	20	**0**
	200 to 1,000 feet	10	
	>1,000 feet	0	
Total Ranking Score			**40**

Based on Apex's review of Site characteristics (specifically: depth to groundwater, wellhead protection area and distance to surface water) an associated ranking score of forty (40) was determined for the Site in accordance with the OCD's *Guidelines for Remediation of Leaks, Spills and Releases*. The OCD's *Remediation Action Levels* for sites with a total ranking score of >19 is 10 milligrams per kilogram (mg/Kg) benzene, 50 mg/Kg total BTEX, and 100 mg/Kg TPH GRO/DRO. It should be noted that the Site

was previously reported to have a total ranking score of ten (10). This has since been revised based on the results of supplemental site investigation activities. A copy of the New Mexico OSE water well records and location summary map is in **Attachment F**. It should be noted that the water well locations for POD #00069 and #C00461 were adjusted based on observations made during the field survey.

1.3 Project Objective

Apex performed supplemental site investigation activities to further evaluate the magnitude and extent of petroleum hydrocarbon COCs in soil and groundwater in the vicinity of the former tank battery and excavation.

1.4 Standard of Care and Limitations

The findings and recommendations contained in this report represent Apex'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 were based upon analytical results provided by an independent laboratory. Evaluations of the geologic/hydrogeologic conditions at the Site for the purpose of this 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. Apex makes no warranties, express or implied, as to the services performed hereunder. Additionally, Apex does not warrant the work of third parties supplying information used in the report (e.g. laboratories, regulatory agencies, or other third parties).

This report is based upon a specific scope of work requested by Enterprise. The agreement between Apex 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 its 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 Apex.

2.0 SUPPLEMENTAL SITE INVESTIGATION ACTIVITIES

2.1 Soil Borings and Monitoring Wells

Supplemental site investigation activities were performed at the Site between December 16 and 19, 2014. The supplemental site investigation activities were conducted by Joseph W. Martinez, an Apex environmental professional. As part of the approved scope of work, five (5) soil borings (MW-1 through MW-5) were advanced to total depths ranging between 34 to 36 feet bgs. The soil borings were advanced utilizing a hand auger, hydro excavation, and/or air rotary drilling rig under the supervision of a New Mexico licensed water well driller. The soil samples were collected continuously from soil cuttings in one or two-foot intervals to the terminus depth of each soil boring. Soil boring MW-1 was advanced east of the former tank battery and excavation; MW-2 was advanced northeast of the former tank battery and excavation; MW-3 was advanced in the area southeast of the former tank battery and excavation; MW-4 was advanced south of the former tank battery and excavation; and MW-5 was advanced north of the former tank battery and excavation. Subsequent to the advancement of the soil borings, each soil boring was converted into a groundwater monitoring well. A topographic map is included as **Figure 1**, a 2013 aerial photograph of the Site vicinity is included as **Figure 2** of **Appendix A**. **Figure 3B** is a site map which indicates the approximate location of the soil borings/groundwater monitoring wells in relation to pertinent land features and on-site improvements (**Appendix A**). Photographic documentation of field investigation activities is available in **Appendix B**.

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 PID capable of detecting 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 environmental professional 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 soil boring location were visually inspected and logged in the field. The lithology encountered during the advancement of soil boring MW-1 included a gray silty clay from the ground surface to 16 feet bgs, and a brown silty clay from 16 feet bgs to a termination depth of 36 feet bgs. The lithology encountered in soil borings MW-1 through MW-5 was similar to that observed in soil boring MW-1. Petroleum hydrocarbon odors were detected in the in soil cuttings collected from soil borings MW-1, MW-2, and MW-4 at depths ranging from 5 to 36 feet bgs. PID readings were detected in soil samples collected from soil borings MW-1 through MW-5. Soil sample MW-1 (12-14) exhibited the highest PID reading at 4,100 ppm.

Subsequent to advancement, soil borings MW-1 through MW-5 were converted to permanent groundwater monitoring wells. The monitoring wells were completed using the following methodology:

- Installation of 19 to 25 feet of 2-inch inside diameter, threaded 0.010-inch machine slotted PVC well screen with a threaded bottom cap;
- Installation of 2-inch inside diameter, threaded flush joint PVC riser pipe to the ground surface;
- Addition of a pre-sieved 20/40 grade annular silica sand pack from the bottom of the soil boring to 2-feet above the top of the well screen;
- Addition of a hydrated bentonite seal above the sand pack filter zone to 2 feet bgs;
- Addition of grout from 2 feet bgs to the ground surface with surface pad completions; and,
- Installation of a locking well cap and steel risers.

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

The monitoring wells were developed by surging and removing groundwater with a new, disposable, polypropylene bailer and/or electric submersible pump until the well purged dry, until the water appeared to be clear of fine grained sediment or until approximately 20 gallons of water was purged from the well.

2.2 Monitoring Well Gauging

The on-Site monitoring wells were surveyed in for top-of-casing (TOC) above mean sea level (AMSL) elevations. Groundwater measurements were collected utilizing an interface probe capable of detecting the presence of phase-separated hydrocarbons (PSH). Groundwater measurements were collected during gauging events performed on December 19, 2014 and January 20, 2015. Based on the groundwater elevations associated with each of the on-site monitoring wells, groundwater generally flows to the east/northeast at an average hydraulic gradient of 0.005 ft/ft.

PSH was identified in monitoring well MW-2 during both gauging events ranging from 6.31 feet to 11.05 feet in thickness. Groundwater/PSH measurements collected during each gauging event are presented with top-of-casing (TOC) elevations, ground surface elevations, and corrected groundwater elevations in **Table 4** in **Appendix D**. Groundwater Gradient Maps for each gauging event are included as **Figures 4A** and **Figure 4B**.

2.3 Investigation Sampling Program

Apex's soil sampling program involved submitting up to two (2) soil samples from each soil

boring. The 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 soil boring logs included in **Appendix C**.

Apex's groundwater sampling program involved submitting one (1) groundwater sample from monitoring wells MW-1 through MW-5 for laboratory analysis. Groundwater samples were collected for laboratory analysis utilizing low-flow sampling techniques. The monitoring wells were purged until produced groundwater was consistent in color, clarity, pH, dissolved oxygen (DO), oxidation/reduction potential (ORP), temperature, and conductivity.

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

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

2.4 Laboratory Analytical Program

The soil and groundwater samples collected from the soil borings were submitted for BTEX and/or TPH GRO/DRO analysis utilizing, EPA SW-846 method #8021B and EPA SW-846 method #8015D respectively. Laboratory analytical results for the soil samples collected from the soil borings and groundwater samples are summarized in **Tables 1** and **4** (respectively) 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 Hall Environmental Analysis (Hall) in Albuquerque, New Mexico on standard turnaround.

The groundwater samples collected from monitoring wells MW-1 through MW-5 were submitted for BTEX, TPH GRO/DRO, and chlorides analysis, utilizing, EPA method 8260, EPA 8015D, and EPA 300.0, respectively. Laboratory analytical results are summarized in **Table 3** included in **Appendix D**. The executed chain-of-custody from and laboratory data sheets are provided in **Appendix E**.

Hall 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 Hall 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.

2.5 Soil Data Evaluation

The Site is subject to regulatory oversight by the New Mexico 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 NMAC 19.15.30 Remediation. These guidance documents establish investigation and abatement action requirements for sites subject to reporting and/or corrective action. Apex compared the benzene, total BTEX, TPH GRO/DRO concentrations or sample Reporting Limits (RLs) 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* are provided in **Table** of **Appendix D**. **Figure 5A** in **Appendix A** is a map that indicates the approximate location of soil exceedances at the Site.

Total Petroleum Hydrocarbons

Based on the laboratory analytical results, the soil samples collected from soil borings MW-1 (12-14), MW-1 (30-32), MW-2 (16-18), MW-2 (26-28), and MW-4 (7-9) exhibited TPH GRO/DRO concentrations in exceedance of the OCD *Remediation Action Level*. The remaining soil samples did not exhibit TPH GRO/DRO concentrations in exceedance of the OCD *Remediation Action Level*.

Benzene and total BTEX

Based on the laboratory analytical results, the soil samples collected from soil borings MW-1 through MW-5 did not exhibit benzene or total BTEX concentrations in exceedance of the OCD *Remediation Action Levels*.

2.6 Groundwater Data Evaluation

Apex compared the benzene, total BTEX, TPH GRO/DRO, chloride concentrations, total dissolved solids (TDS) or sample RLs associated with the groundwater samples collected from the monitoring wells MW-1, and MW-3 through MW-5 to the *New Mexico Water Quality Control Commission Groundwater Quality Standards,* referred to hereinafter as the "*NMWQCC Standards"*. The results of the groundwater sample analysis along with the respective *NMWQCC Standards* are provided in **Table 3** of **Appendix D**. It should be noted that the NMWQCC has not established a protection limit for TPH GRO/DRO in groundwater. A groundwater sample was not collected from monitoring well MW-2 due to the presence of PSH in the monitoring well. **Figure 5B** in **Appendix A** is a map that indicates the approximate location of groundwater exceedances at the Site.

Total Petroleum Hydrocarbons

Based on the laboratory analytical results, the groundwater samples collected from monitoring wells MW-1 exhibited a TPH GRO/DRO concentration of 2.3 mg/L and 1.2 mg/L, respectively. The groundwater samples collected from monitoring wells MW-3 through MW-5 did not exhibit TPH GRO/DRO concentrations above the laboratory RLs. The NMWQCC has not established a protection limit for TPH GRO/DRO in groundwater. However, these compounds can be evaluated to assess the presence of dissolved phase hydrocarbons in groundwater.

BTEX

Based on the laboratory analytical results, the groundwater sample collected from monitoring well MW-1 exhibited a benzene concentration in exceedance of the *NMWQCC Standards*. The groundwater samples collected from monitoring wells MW-3 through MW-5 did not exhibit BTEX concentrations in exceedance of the *NMWQCC Standards*.

Chlorides

Based on the laboratory analytical results, the groundwater samples collected from monitoring wells MW-1, and MW-3 through MW-5 exhibited chloride concentrations in exceedance of the *NMWQCC Standard*.

Total Dissolved Solids

Based on the OCD's *Guidelines for Remediation of Leaks, Spills and Releases,* all underground waters containing 10,000 mg/L or less of TDS are to be protected. The groundwater samples collected from monitoring wells MW-4 and MW-5 exhibited TDS concentrations of 6,940 and 4,930 mg/L,

respectively. Thus, it appears that the NMWQCC *Standards* apply to the intial groundwater bearing unit at the Site.

2.7 Investigation Derived Waste

Investigation derived waste (IDW) generated during the supplemental site investigation activities was segregated into 55-gallon drums according to the waste media type for each soil boring and monitoring well. A total of six (6) drums of investigation derived soil waste cuttings was generated. The drums were disposed of at a state approved waste disposal facility on February 36, 2015. The waste manifest associated with the disposal of IDW generated during the 2014 investigation activities is available in **Appendix F**.

3.0 CORRECTIVE ACTION WORK PLAN

Based on the results of the corrective action and supplemental site investigation activities, petroleum hydrocarbon affected soils with COC concentrations in exceedance of the OCD *Remediation Action Levels* are known to remain in the soil at the Site to the north, northeast, east, and south of the former excavation. Soil sampling locations which exhibited COC concentrations in exceedance of the OCD *Remediation Action Levels* include: MW-1 (12-14), MW-1 (30-32), MW-2 (16-18), MW-2 (26-28), and MW-4 (7-9). Previous exceedances of the OCD *Remediation Action Levels* included: B-1 (7-8), B-3 (6-7), B-4 (5-6), B-5 (4-5), B-6 (7-8), B-7 (5-6), B-8 (4-5), B-8 (7-8), B-11 (10-11), B-11 (20-21), B-12 (13-14), and B-12 (15-16). The groundwater samples collected from monitoring well MW-1 exhibited a benzene concentration in exceedance of the *NMWQCC Standard*; and groundwater samples collected from MW-1 and MW-3 through MW-5 exhibited chloride concentrations in exceedance of the *NMWQCC Standard*. PSH was identified in monitoring well MW-2 with thickness levels ranging from 6.31 to 11.05 feet. It should be noted that Enterprise submitted a Form C-141 to the OCD on December 30, 2014.

Apex proposes to perform additional site investigation activities to assess the horizontal extent of affected soil and groundwater for the presence of COC concentrations in exceedance of the OCD *Remediation Action Levels* and/or the *NMWQCC Standards*. In addition, Apex will initiate the removal of PSH in on-Site monitoring wells to the extent possible.

3.1 Proposed Corrective Actions

Apex proposes to advance up to six (6) soil borings to the north, northeast, east, and south of monitoring well MW-2. The exact location of the proposed soil borings may require adjustment in the field should subsurface pipeline or electric conduit interference be encountered or anticipated. The locations of the proposed soil borings are depicted on the attached **Figure 3B**.

One (1) of the proposed soil borings will be installed in the southwestern corner of the Site and subsequently converted to a groundwater monitoring well to assess background chloride concentrations in groundwater. Apex will advance the soil boring in an area of the Site that has not previously exhibited impact by COCs.

The soil borings will be advanced to a depth of up to 40 feet bgs, five (5) feet below the initial groundwater table, or auger refusal, whichever is shallower. The soil borings will be completed utilizing an air rotary drilling rig. Each soil boring location will be cleared utilizing a hand auger or hydro excavation unit to a depth of five (5) feet bgs or refusal, whichever is more shallow, to screen the for the presence of underground pipelines or other underground utilities. Soil samples will be collected continuously from soil cuttings in one-foot intervals to document lithology, color, relative moisture content and visual or olfactory evidence of impairment. In addition, the samples will be scanned with a PID for the presence of VOCs.

Sampling and drilling equipment will be decontaminated by high pressure cleaning prior to commencement of the project and between the advancement of each soil boring. Drill cuttings and purged or decontamination water will be stored in labeled, 55-gallon, DOT-approved drums pending the results of the laboratory analyses for waste characterization purposes. The drum labels will bear the apparent contents of the drum and the accumulation date. The drums will be staged on-Site at a location designated by on-Site personnel.

Subsequent to the completion, the soil borings will be converted to permanent 2 or 4-inch groundwater monitoring/recovery wells under the supervision of a State of New Mexico licensed monitoring well driller. The groundwater monitoring wells will be completed as follows:

- Installation of 10 to 30 feet of 2 or 4-inch diameter, machine slotted PVC well screen assembly with a threaded bottom plug;
- Installation of riser pipe to surface;
- Addition of 20/40 graded silica sand for annular sand pack around the well screen from the bottom of the well to two feet above the top of the screen;
- Placement of hydrated bentonite pellets above the sand pack to 2 feet bgs;
- Addition of cement/bentonite slurry to the surface; and,
- Installation of a locking well cap and steel risers.

The monitoring wells will be developed by surging and removing groundwater until the fluid appears free of fine-grained sediment. Developed groundwater will be stored temporarily on-Site in labeled, 55-gallon, DOT-approved drums pending the results of the laboratory analyses. The drum labels will bear the apparent contents of the drum and the accumulation date.

3.2 Sampling Program

Apex's soil sampling program will involve submitting up to two (2) soil samples from each soil boring for BTEX and TPH GRO/DRO analysis utilizing EPA method SW-846 #8015D and SW-846 #8021B, respectively. Soil samples will be 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.

In addition, Apex will collect one (1) groundwater sample from each of the proposed monitoring/recovery wells and each of the existing monitoring wells, provided that PSH is not detected. The groundwater samples will be submitted for BTEX, TPH GRO/DRO, and chlorides analysis, utilizing, EPA method SW-846 #8015D, SW-846 #8021B, and EPA 300.0.

3.3 Interim PSH Recovery

Apex will perform interim recovery of PSH utilizing a portable electric pump to remove product for up to 2 hours or until the wells goes dry, whichever comes first. The recovered liquids will be temporarily stored in a 55-gallon drum pending off-Site disposal or recycling.

3.4 Determination of Hydrogeological Conditions

Apex will conduct a rising head slug tests on monitoring well MW-2, which are fully penetrating, by removing fluids from the monitoring well and monitoring the rate of groundwater recharge in the well. The data collected during the slug tests will be evaluated utilizing the Bouwer and Rice Method for an unconfined aquifer to calculate an average estimated hydraulic conductivity. Apex will evaluate the results of the rising slug head test and the results of the product recovery efforts to assess options for a permanent PSH recovery system.

3.4 Corrective Action Report

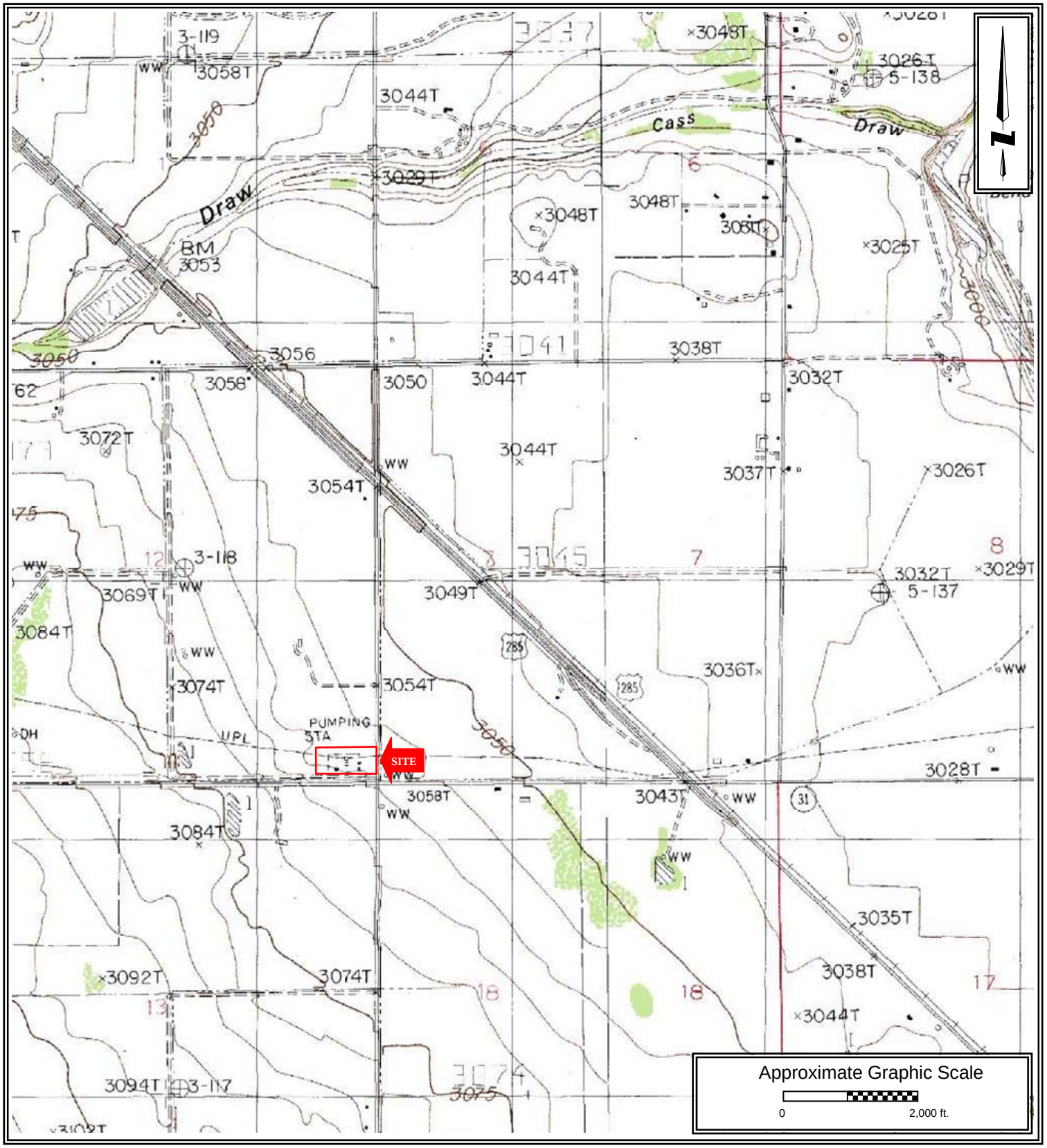
A corrective action report will be issued subsequent to completion of the supplemental site investigation activities. The results of the soil sample analysis will be compared to the OCD *Remediation Action Levels*. In addition, groundwater will be evaluated to determine whether BTEX concentrations exceed the NMWQCC *Standards,* and whether elevated chloride concentrations occur naturally in the initial groundwater bearing until. Recommendations concerning further action, if any, will be included in the final report.

3.5 Schedule

The proposed field investigation activities are anticipated to require three (3) work days to complete. The deliverable will be completed approximately two (2) weeks following receipt of the final laboratory analytical results.

APPENDIX A

Figures



SCAR and CAWP
Enterprise Products Operating LLC
S. Carlsbad Compressor Station
Carrasco Road and CR 710
Carlsbad, Eddy County, New Mexico

Project No. 7010210G003.001

Apex TITAN, Inc.
7979 Broadway Street, Suite 100
San Antonio, Texas 78209
Phone: (210) 804-9922
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FIGURE 1

Topographic Map
Otis, NM Quadrangle
Contour Interval – 10 Feet

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Figure 2
Site Vicinity Map

Google Earth 2013

Z:\Houston South\Drafting\San Antonio 02\2010\7010210G003\Figure 2.mxd 2/26/2015

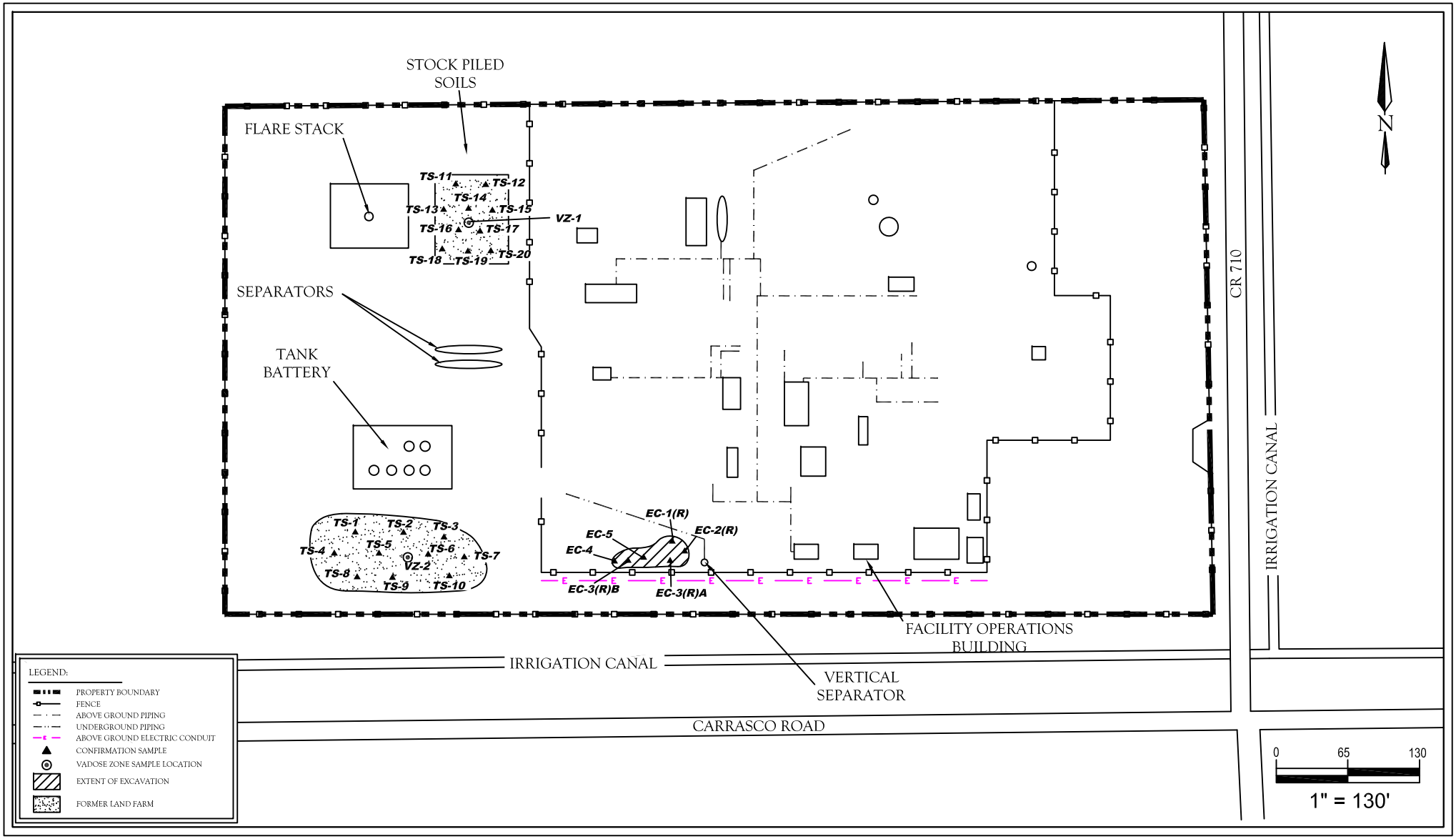

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FIGURE 3A
Excavation/Remediation
Sample Location Map

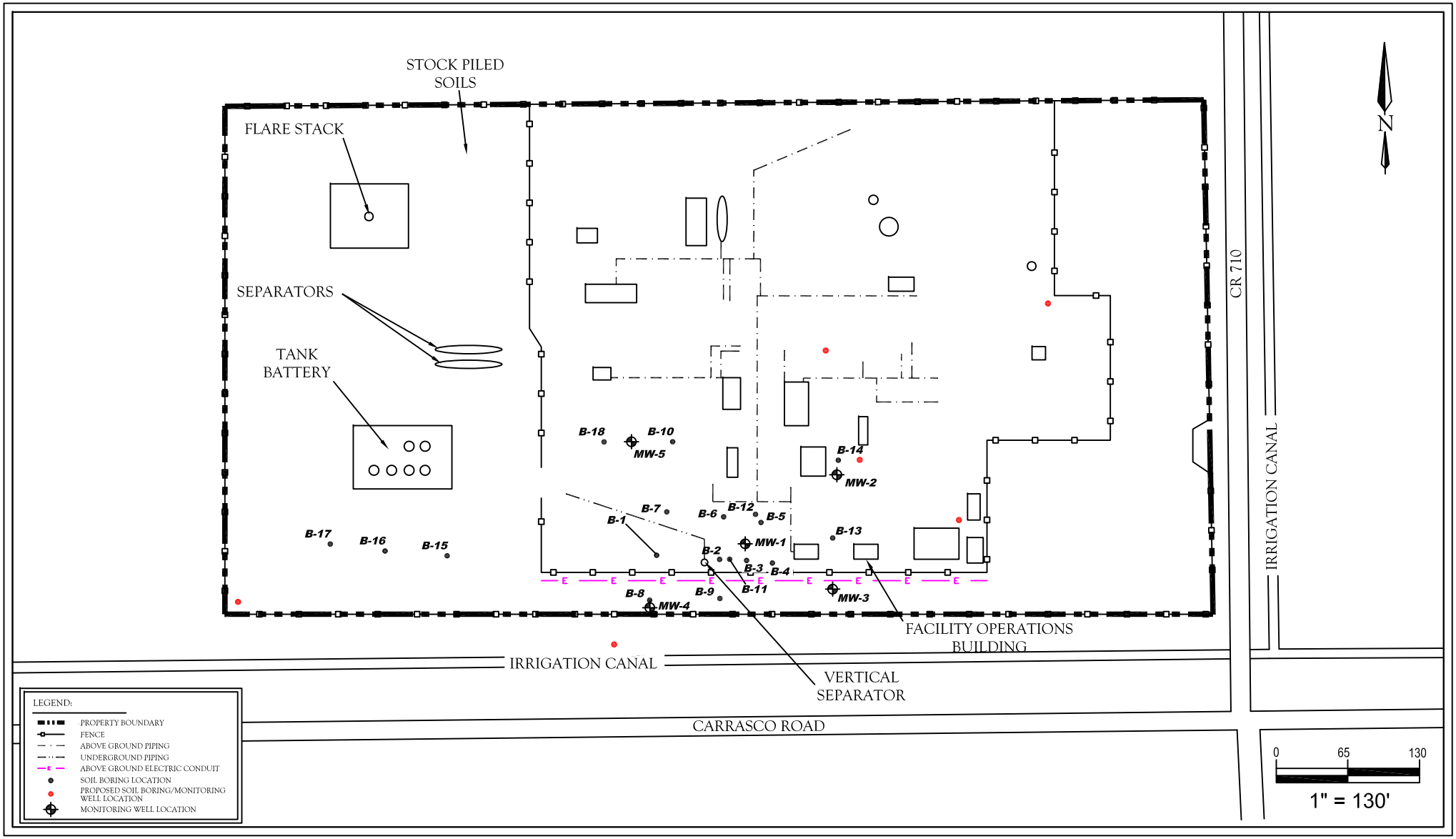

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FIGURE 3B
Soil Boring/Monitoring Well Location Map

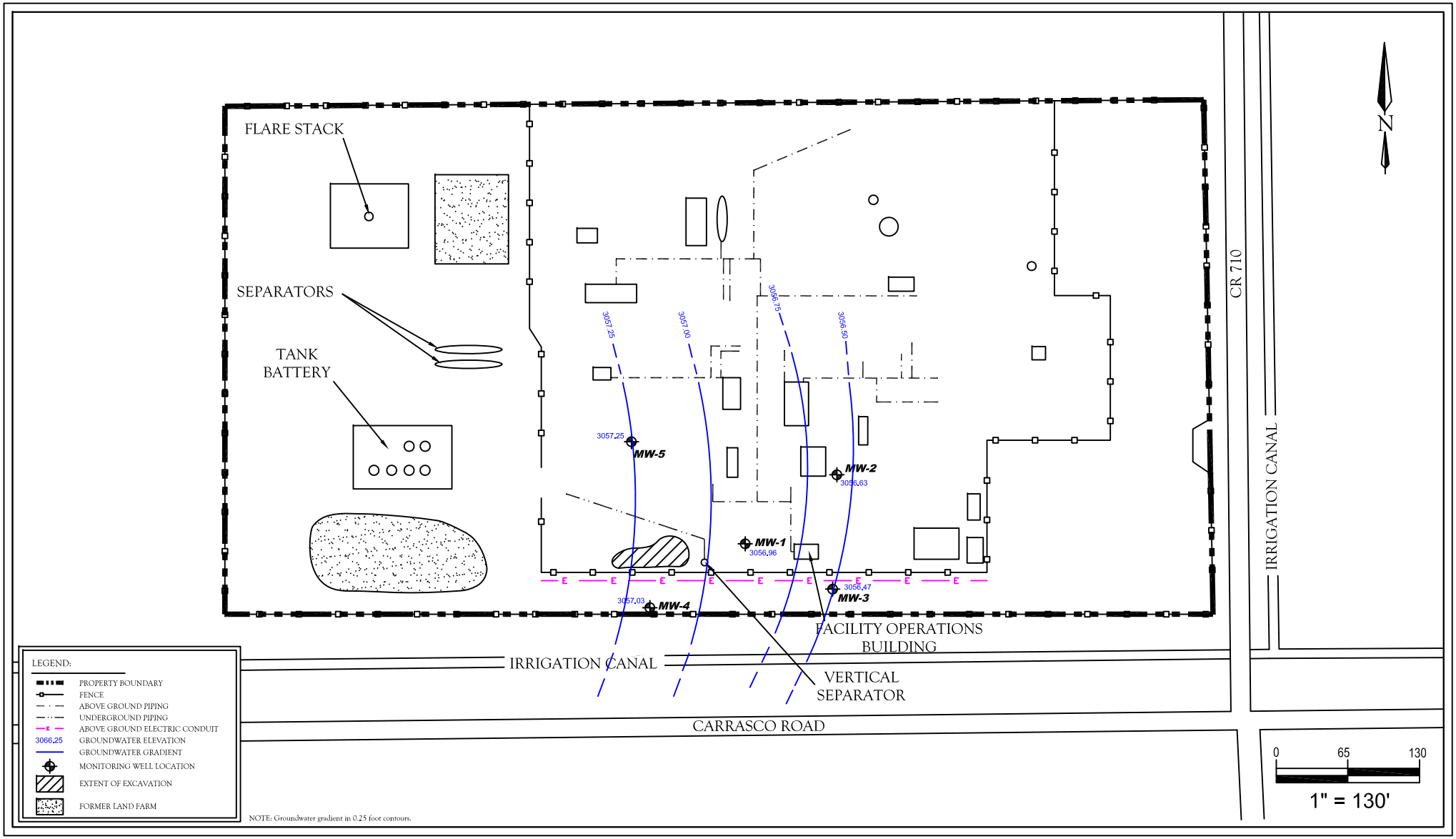

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FIGURE 4A
Groundwater Gradient Map
Gauging Date: 12.19.2014

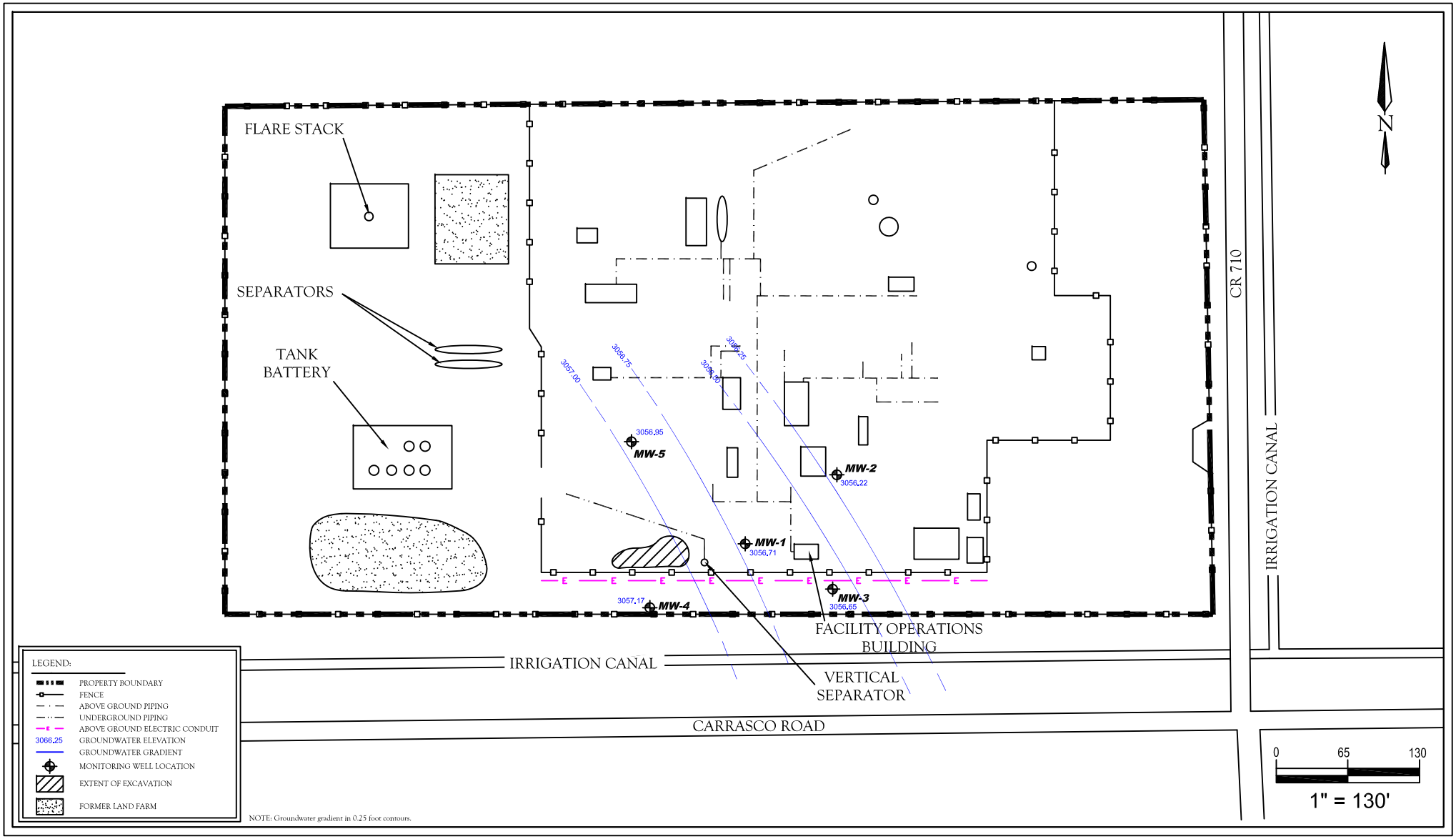

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FIGURE 4B
Groundwater Gradient Map
Gauging Date: 1.20.2015

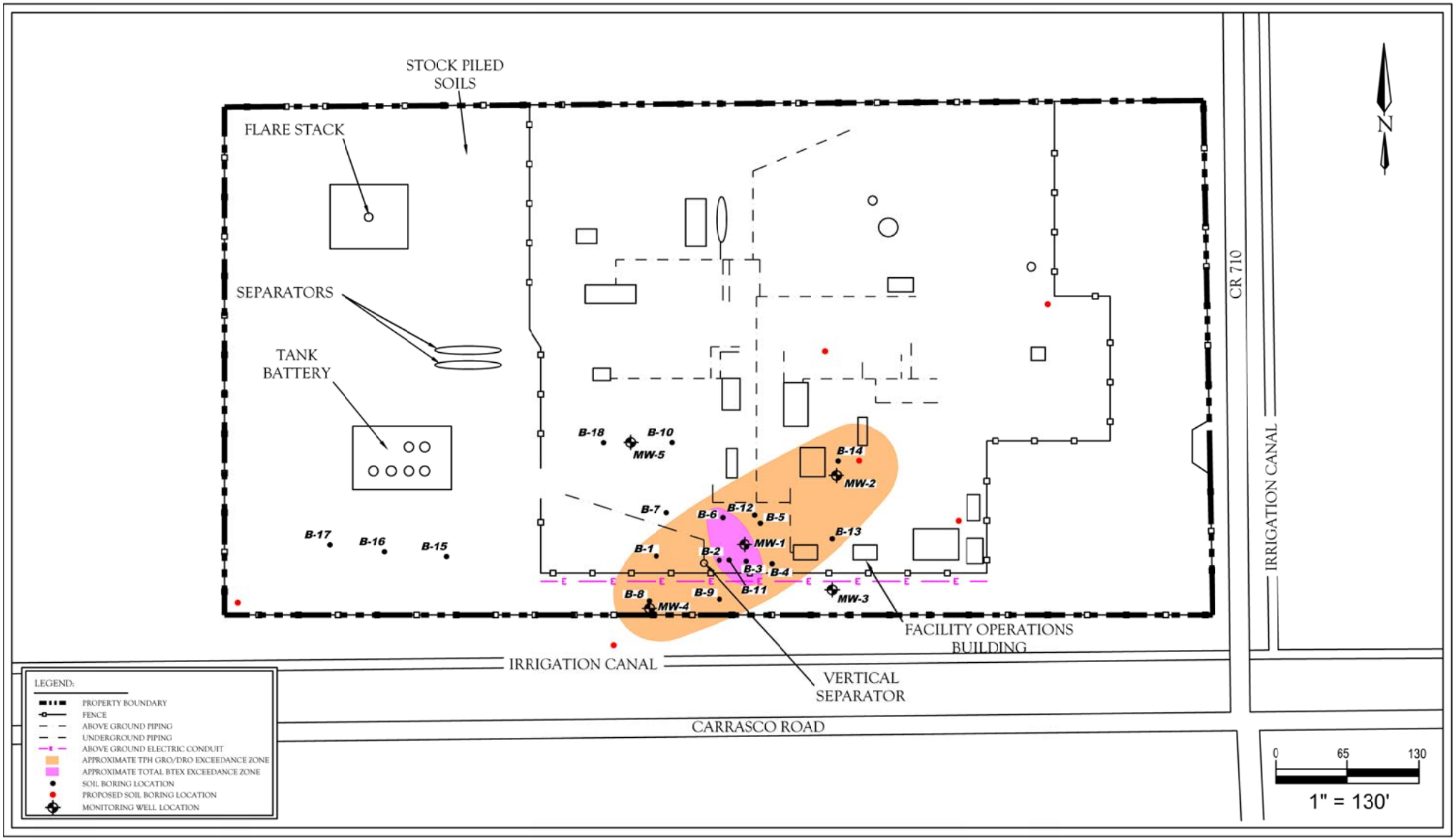

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FIGURE 5A
Soil Exceedance Zone Map

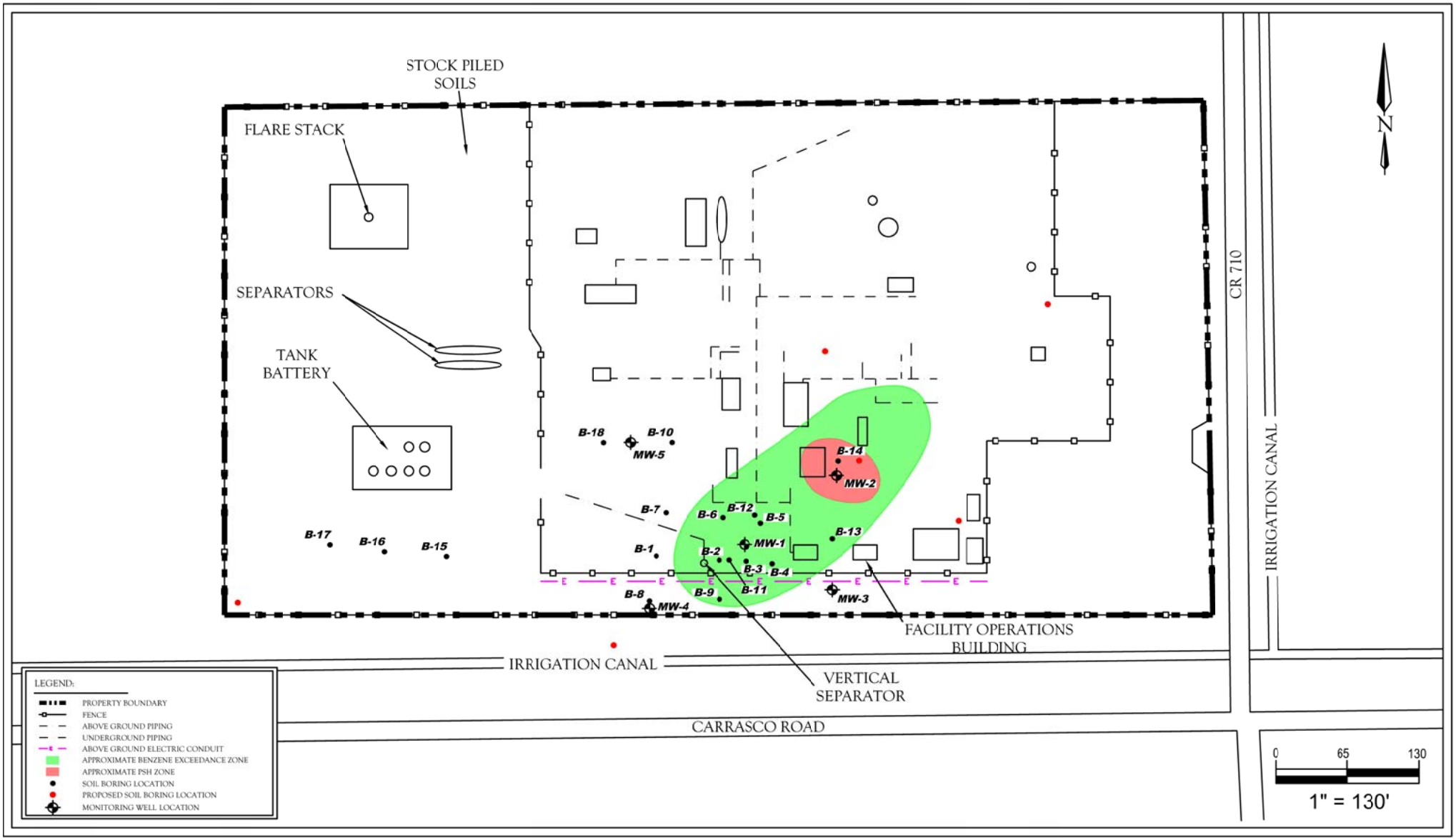

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FIGURE 5B
Groundwater Exceedance Zone Map

APPENDIX B

Photographic Documentation

Photograph 1 View of the location for soil boring/groundwater monitoring well MW-1, looking southwest.	
Photograph 2 View of the location for soil boring/groundwater monitoring well MW-2, looking north.	
Photograph 3 View of the location for soil boring/groundwater monitoring well MW-3, looking north.	

Photograph 4 View of the location for soil boring/groundwater monitoring well MW-4, looking northeast.	
Photograph 5 View of the location for soil boring/groundwater monitoring well MW-5, looking southeast.	
Photograph 6 View of the stockpiled soils located on the northwest portion of the Site, looking north.	

Photograph 7

View of the stockpiled soils having been dispersed in the vicinity of the former land farm on the western portion of the Site, looking south.

Photograph 8

View of the stockpiled soils having been dispersed in the vicinity of the former land farm on the western portion of the Site, looking southeast.

Photograph 9

View of the former location of the stockpiled soils on the northwest portion of the Site, looking northeast.

ATTACHMENT C

Soil Boring Logs

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Client: Enterprise Products Operating LLC
Project Name: S. Carlsbad Compressor Station
Project Location: Carlsbad, Eddy County, New Mexico
Project Manager: Joseph Martinez

BORING LOG NUMBER MW-1

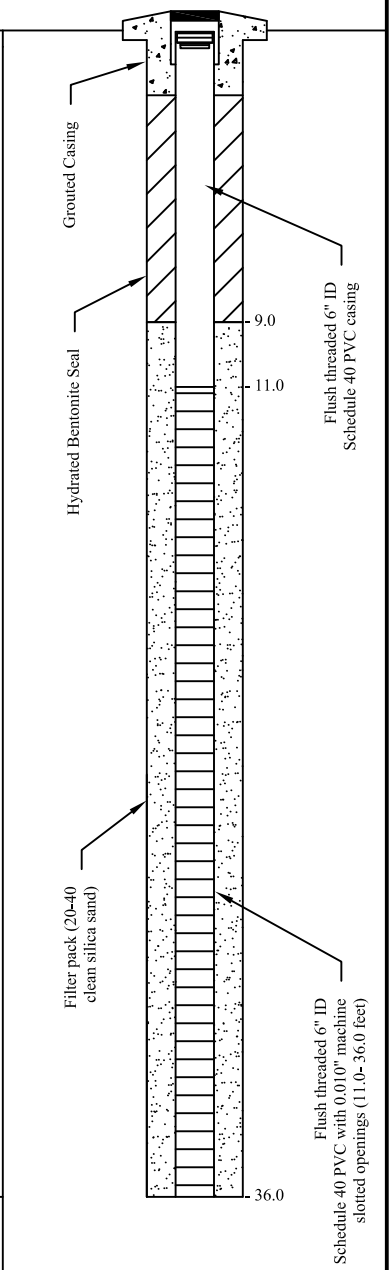
Project # 7010210G003.001

Date Sampled: December 16, 2014
Drilled by: Badger/Straub
Driller: Edward Bryan
Logged by: Joseph W. Martinez
Sampler: Joseph W. Martinez

Ground Surface Elevation: N/A
Top of Casing Elevation: N/A
North Coordinate: 32.31312
West Coordinate: -104.13658
Bench Mark Elevation: N/A
▽ At Completion
▽ At Well Stabilization

Borehole Diameter: 6"
Casing Diameter: 6"
Well Materials: PVC
Surface Completion: N/A
Boring Method: Air Rotary/Hydroexcavation

DEPTH (ft)	SAMPLE INTERVAL	SAMPLE ID	RECOVERY (%)	FID/PID READING (ppm)	POTENTIOMETRIC SURFACE	GEOLOGIC LOG SYMBOL	GEOLOGIC DESCRIPTION
0			50	0			GRAVEL: gray
				NR			SILTY CLAY: gray, stiff, dry, medium plastic
				NR			-hydroexcavated or hand auger 0'-7'
			0	NR			
				NR			
5			0	NR			
				NR			
			50	NR			
				310			-hydrocarbon odor 7'-36'
			100	1,027	▽		-hydrocarbon staining 7'-18'
10			100	972			
	X	12-14	100	4,100			
15			100	1,239			
			100	1,415			-grading to brown at 16'
			100	991			
20			100	745			
			100	347			
25			100	647			
			100	279			-grading to moist at 26'
			100	385			
30	X	30-32	100	790			
			100	465	▽		-grading to wet at 32'
35			100	751			
							TOTAL DEPTH OF BORING - 36.0 feet BGS
40							



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Client: Enterprise Products Operating LLC
Project Name: S. Carlsbad Compressor Station
Project Location: Carlsbad, Eddy County, New Mexico
Project Manager: Joseph Martinez

BORING LOG NUMBER MW-2

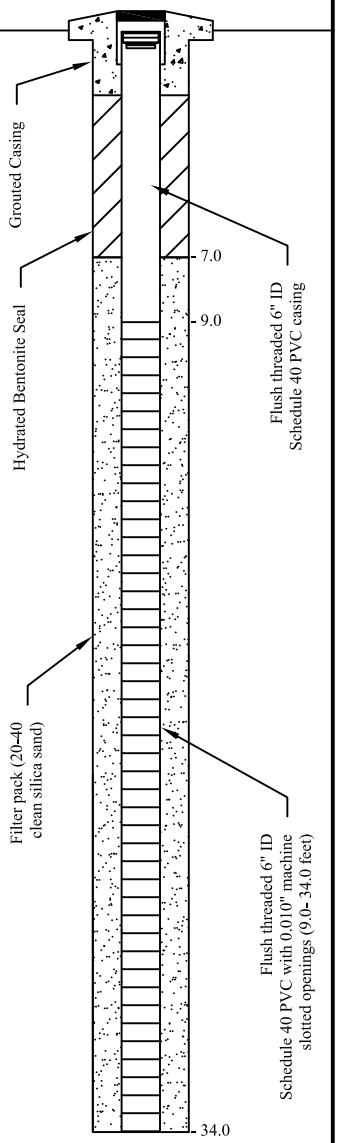
Project # 7010210G003.001

Date Sampled: December 16, 2014
Drilled by: Badger/Straub
Driller: Edward Bryan
Logged by: Joseph W. Martinez
Sampler: Joseph W. Martinez

Ground Surface Elevation: N/A
Top of Casing Elevation: N/A
North Coordinate: 32.31328
West Coordinate: -104.13623
Bench Mark Elevation: N/A
▽ At Completion
▽ At Well Stabilization

Borehole Diameter: 6"
Casing Diameter: 6"
Well Materials: PVC
Surface Completion: N/A
Boring Method: Air Rotary/Hydroexcavation

DEPTH (ft)	SAMPLE INTERVAL	SAMPLE ID	RECOVERY (%)	FID/PID READING (ppm)	POTENTIOMETRIC SURFACE	GEOLOGIC LOG SYMBOL	GEOLOGIC DESCRIPTION
0			50	0			GRAVEL: gray
				NR			SILTY CLAY: light reddish brown, stiff, dry, medium plastic
			0	NR			-Hydroexcavated or hand auger 0-8.25'
				NR			
5			0	NR			
				NR			
			0	NR			
				NR			
10			100	4			
			100	1			
			100	5	▽		
15			100	2			
	X	16-18	100	13			-hydrocarbon odor 16'-20'
			100	13			
20			100	5			
			100	4			-grading to moist at 23'
25			100	3			
	X	26-28	100	3	▽		-hydrocarbon odor 28'-34'
			100	3			-grading to wet at 28'
30			100	5			
			100	3			
35							TOTAL DEPTH OF BORING - 34.0 feet BGS
40							



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Client: Enterprise Products Operating LLC
Project Name: S. Carlsbad Compressor Station
Project Location: Carlsbad, Eddy County, New Mexico
Project Manager: Joseph Martinez

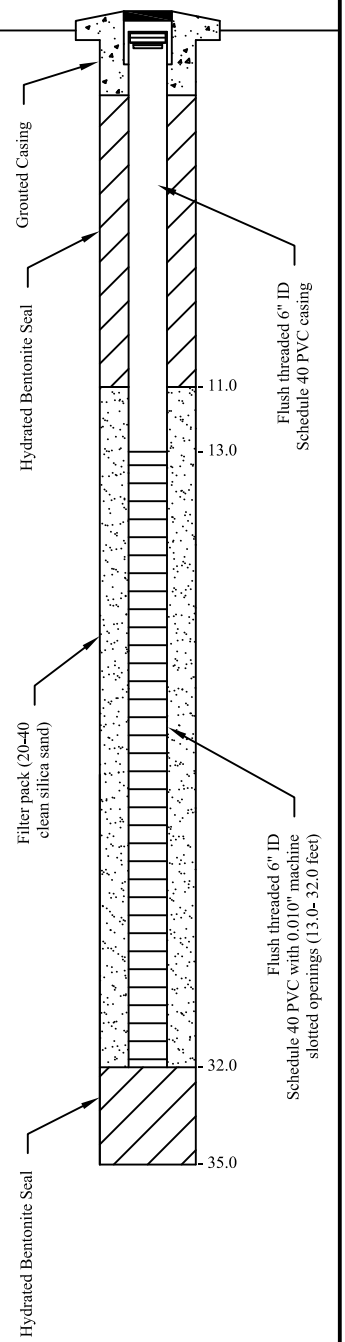
BORING LOG NUMBER
MW-3
Project # 7010210G003.001

Date Sampled: December 16, 2014
Drilled by: Badger/Straub
Driller: Edward Bryan
Logged by: Joseph W. Martinez
Sampler: Joseph W. Martinez

Ground Surface Elevation: N/A
Top of Casing Elevation: N/A
North Coordinate: 32.31300
West Coordinate: -104.13619
Bench Mark Elevation: N/A
▽ At Completion
▽ At Well Stabilization

Borehole Diameter: 6"
Casing Diameter: 6"
Well Materials: PVC
Surface Completion: N/A
Boring Method: Air Rotary/Hydroexcavation

DEPTH (ft)	SAMPLE INTERVAL	SAMPLE ID	RECOVERY (%)	FID/PID READING (ppm)	POTENTIOMETRIC SURFACE	GEOLOGIC LOG SYMBOL	GEOLOGIC DESCRIPTION
0			50	0			CALICHE: tan/gray, very hard, dry, very plastic
				NR			SILTY CLAY: light reddish brown, stiff, dry, medium plastic
			50	0			-hydroexcavated or hand auger 0-9.5'
				NR			
5			0	NR			
				NR			
			0	NR			
				NR			
			100	10	▽		
10	X	10-12	100	6			
			100	10			
15			100	4			
			100	5			
			100	5			
20			100	10			
			100	6			-grading to moist at 22'
			100	11			
25	X	26-28	100	13			
			100	14	▽		-grading to wet at 28'
			100	13			
30			100	13			
			100	13			SANDY CLAY: pink, soft, moist, low plastic
			100	12			
35							TOTAL DEPTH OF BORING - 35.0 feet BGS
40							



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A Subsidiary of Apex Companies, LLC

Client: Enterprise Products Operating LLC
Project Name: S. Carlsbad Compressor Station
Project Location: Carlsbad, Eddy County, New Mexico
Project Manager: Joseph Martinez

BORING LOG NUMBER
MW-4
Project # 7010210G003.001

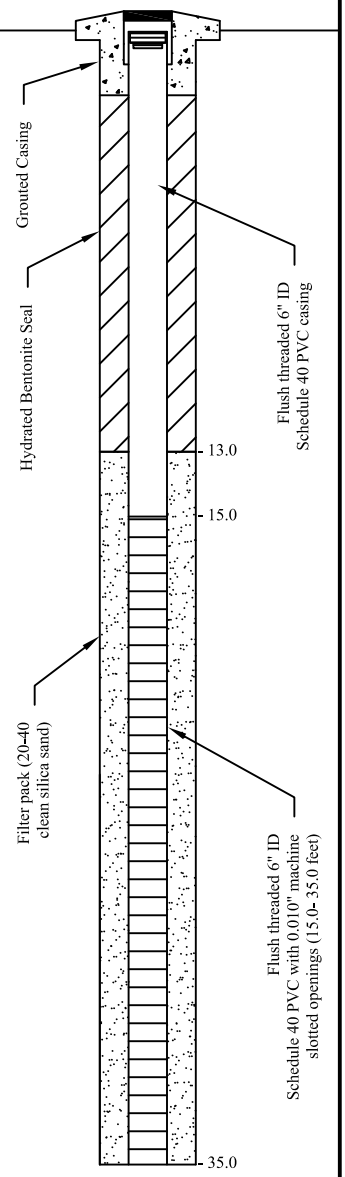
Date Sampled: December 16, 2014
Drilled by: Badger/Straub
Driller: Edward Bryan
Logged by: Joseph W. Martinez
Sampler: Joseph W. Martinez

Ground Surface Elevation: N/A
Top of Casing Elevation: N/A
North Coordinate: 32.31295
West Coordinate: -104.13680
Bench Mark Elevation: N/A
▽ At Completion
▽ At Well Stabilization

Borehole Diameter: 6"
Casing Diameter: 6"
Well Materials: PVC
Surface Completion: N/A
Boring Method: Air Rotary/Hydroexcavation

DEPTH (ft)	SAMPLE INTERVAL	SAMPLE ID	RECOVERY (%)	FID/PID READING (ppm)	POTENTIOMETRIC SURFACE	GEOLOGIC LOG SYMBOL	GEOLOGIC DESCRIPTION
0			50	4.5			CALICHE: tan/gray, very hard, dry, very plastic
				NR			SILTY CLAY: brown, stiff, dry, medium plastic
			50	6.5			-hydroexcavated or hand auger 0-10'
				NR			
5			50	NR			-hydrocarbon odor 5'-20'
				445			
			100				-grading to gray at 7'
	X	7-9		1499			-hydrocarbon staining 7'-11'
10			100		▽		
				291			
			100				-grading to light reddish brown at 11'
				252			
			100				
				326			
15			100				
				791			
			100				
				17			
			100				
20				187			
			100				
				117			
			100				-grading to moist at 23'
	X	23-25		49			
25			100				
				47			
			100				
				35			
			100		▽		-grading to wet at 29'
30				34			
			100				
				47			
			100				
				27			
35			100				
							TOTAL DEPTH OF BORING - 35.0 feet BGS
40							

BORING / WELL COMPLETION (GRAPHIC DEPICTION)



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A Subsidiary of Apex Companies, LLC

Client: Enterprise Products Operating LLC
Project Name: S. Carlsbad Compressor Station
Project Location: Carlsbad, Eddy County, New Mexico
Project Manager: Joseph Martinez

BORING LOG NUMBER MW-5

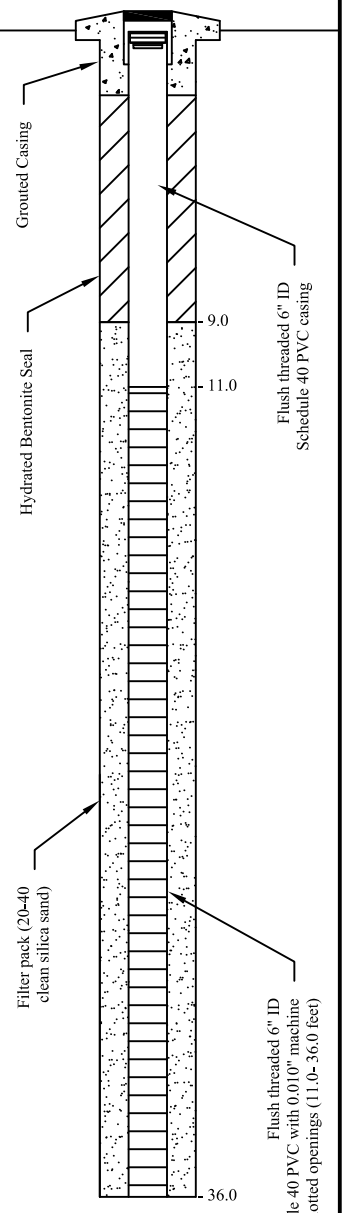
Project # 7010210G003.001

Date Sampled: December 16, 2014
Drilled by: Badger/Straub
Driller: Edward Bryan
Logged by: Joseph W. Martinez
Sampler: Joseph W. Martinez

Ground Surface Elevation: N/A
Top of Casing Elevation: N/A
North Coordinate: 32.31332
West Coordinate: -104.13685
Bench Mark Elevation: N/A
At Completion
At Well Stabilization

Borehole Diameter: 6"
Casing Diameter: 6"
Well Materials: PVC
Surface Completion: N/A
Boring Method: Air Rotary/Hydroexcavation

DEPTH (ft)	SAMPLE INTERVAL	SAMPLE ID	RECOVERY (%)	FID/PID READING (ppm)	POTENTIOMETRIC SURFACE	GEOLOGIC LOG SYMBOL	GEOLOGIC DESCRIPTION
0			50	0			GRAVEL: gray
				NR			SILTY CLAY: light reddish brown, stiff, dry, medium plastic
			0	NR			-hydroexcavated or hand auger 0-7.75'
				NR			
5			0	NR			-grading to gray at 3'
				NR			
	X	7-8	50	NR			
				85	▽		
			100	55			
10			100	20			-grading to light reddish brown at 10'
			100	17			
15			100	10			
			100	6			
			100	7			
20			100	7			
			100	7			
			100	6			
25			100	6			
			100	4			-grading to moist at 28'
30	X	30-32	100	4			
			100	5	▽		-grading to wet at 32'
35			100	6			
							TOTAL DEPTH OF BORING - 36.0 feet BGS
40							



BORING / WELL COMPLETION (GRAPHIC DEPICTION)

ATTACHMENT D

Tables

TABLE 1
ENTERPRISE PRODUCTS OPERATING LLC S. CARLSBAD COMPRESSOR STATION
CARRASCO ROAD AND CR 710
CARLSBAD, EDDY COUNTY, NEW MEXICO
SOIL ANALYTICAL RESULTS - SOIL BORING/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)	TPH GRO/DRO** (mg/kg)
New Mexico Energy, Minerals & Natural Resources Department, Oil Conservation Division, Remediation Action Level			**NE**	**10**	**NE**	**NE**	**NE**	**50**	**NE**	**NE**	**100**
B-1 (7-8)	11/5/2009	7 to 8	NA	0.34	7.1	1.5	31	39.94	270	710	**980**
B-1 (19-20)	11/5/2009	19 to 20	NA	<0.0021	<0.0022	<0.0024	0.036	0.0427	0.15	24	24.15
B-2	2/25/2011	Soil Samples Not Collected									
B-3 (6-7)	2/25/2011	6 to 7	NA	0.0091	56.8	13.1	224	**293.9091**	2,070	4,830	**6,900**
B-4 (3-4)	2/25/2011	3 to 4	NA	<0.00131	<0.00131	<0.00131	<0.00394	<0.00787	<0.0657	4.17	4.2357
B-4 (5-6)	2/25/2011	5 to 6	NA	<0.00133	0.00316	<0.00133	0.0198	0.02562	3.75	368	**371.75**
B-5 (4-5)	2/25/2011	4 to 5	NA	<0.00125	7.62	0.00991	29.4	37.03116	1,540	2,520	**4,060**
B-6 (4-5)	2/25/2011	4 to 5	NA	<0.00122	0.00847	<0.00122	0.0147	0.02561	1.12	25.5	26.62
B-6 (7-8)	2/25/2011	7 to 8	NA	<0.00128	7.17	4.15	46.3	**57.62128**	1,930	2,210	**4,140**
B-7 (2-3)	2/25/2011	2 to 3	NA	<0.00122	<0.00122	<0.00122	<0.00366	<0.04026	<0.0612	7.98	<8.0412
B-7 (5-6)	2/25/2011	5 to 6	NA	<0.0012	2.23	2.28	10.5	15.0112	960	1,480	**2,440**
B-8 (4-5)	2/25/2011	4 to 5	NA	<0.00135	6.93	2.93	17.8	27.66135	2,100	1,920	**4,020**
B-8 (7-8)	2/25/2011	7 to 8	NA	<0.00119	<0.00119	<0.00119	<0.00358	<0.00715	<0.0597	199	**199.0597**
B-9 (4-5)	2/25/2011	4 to 5	NA	<0.0012	0.00416	<0.0012	<0.00359	0.01015	<0.0598	4.5	4.5598
B-9 (7-8)	2/25/2011	7 to 8	NA	<0.00186	<0.00186	<0.00186	<0.00558	<0.01116	<0.0929	8.98	9.0729
B-10 (8-9)	1/14/2014	8 to 9	NA	0.0076	0.029	<0.0033	0.15	0.1899	33	59	92
B-10 (14-15)	1/14/2014	14 to 15	NA	<0.0030	0.026	<0.0034	0.037	0.0694	6.6	<3.9	10.5
B-10 (24-25)	1/14/2014	24 to 25	NA	<0.0029	0.025	<0.0033	<0.011	0.0422	<2.8	<3.9	<6.7
B-11 (10-11)	1/15/2014	10 to 11	NA	0.14	1.3	1.3	11	13.74	380	1,000	**1,380**
B-11 (20-21)	1/15/2014	20 to 21	NA	0.021	0.088	<0.0032	1.3	1.4122	110	58	**168**
B-11 (29-30)	1/15/2014	29 to 30	NA	0.0071	0.045	0.043	0.18	0.2751	18	8.3	26.3
B-12 (13-14)	1/15/2014	13 to 14	NA	0.49	<0.060	2.4	2.2	5.15	350	820	**1,170**
B-12 (15-16)	1/15/2014	15 to 16	NA	0.096	0.052	0.91	0.96	2.018	180	45	**225**
B-12 (24-25)	1/15/2014	24 to 25	NA	0.01	0.016	0.047	0.087	0.16	18	4.2	22.2
B-13 (14-15)	1/14/2014	14 to 15	NA	<0.0030	0.025	<0.0034	<0.011	0.0424	<3.0	<3.9	<6.9
B-13 (24-25)	1/14/2014	24 to 25	NA	<0.0030	0.021	<0.0034	<0.011	0.0384	<2.9	<3.9	<6.8
B-14 (14-15)	1/15/2014	14 to 15	NA	<0.0029	0.024	<0.0033	<0.0011	0.0313	<2.9	29	31.9
B-14 (24-25)	1/15/2014	24 to 25	NA	<0.0031	0.024	<0.0035	<0.011	0.0416	<3.0	<3.9	6.9
B-15 (3-4)	1/14/2014	3 to 4	8.1	NA	NA	NA	NA	NA	NA	NA	NA
B-16 (3-4)	1/14/2014	3 to 4	380	NA	NA	NA	NA	NA	NA	NA	NA
B-17 (3-4)	1/14/2014	3 to 4	7.8	NA	NA	NA	NA	NA	NA	NA	NA
B-18 (12-13)	1/15/2014	12 to 13	NA	<0.0029	0.025	<0.0033	<0.0011	0.0323	<2.9	<4.0	<6.9
B-18 (24-25)	1/15/2014	24 to 25	NA	<0.0029	0.023	<0.0033	<0.011	0.0402	<2.9	<3.9	<6.8

Note: Concentrations in **bold** and yellow exceed the applicable OCD Remediation Action Level
Note: Excavation confirmation samples shaded indicates the area was overexcavated and removed.
* Indicates analysis of a new extraction from sample
** Totals include reported concentration and/or assume concentrations up to the SDL.
NA = Not Analyzed
NE = Not Established

TABLE 1 (Cont.)
ENTERPRISE PRODUCTS OPERATING LLC S. CARLSBAD COMPRESSOR STATION
CARRASCO ROAD AND CR 710
CARLSBAD, EDDY COUNTY, NEW MEXICO
SOIL ANALYTICAL RESULTS - SOIL BORING 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)	TPH GRO/DRO** (mg/kg)
New Mexico Energy, Minerals & Natural Resources Department, Oil Conservation Division, Remediation Action Level			**NE**	**10**	**NE**	**NE**	**NE**	**50**	**NE**	**NE**	**100**
EC-1	1/31/2011	8 to 9	NA	<0.0125	13	9.23	103	<125.2425	903	6,040	6,943
EC-1(R)	2/24/2011	8 to 9	NA	<0.0123	13.1	2.62	50.1	**65.8323**	569	1,250	**1,819**
EC-2	1/31/2011	8 to 9	NA	<0.00611	0.214	0.24	16.8	17.26011	1.34	4,530	4,531
EC-2(R)	2/24/2011	8 to 9	NA	<0.0127	7.98	0.836	25.4	34.2287	6980	674	7,654
EC-2(R)*	2/24/2011	8 to 9	NA	NA	NA	NA	NA	NA	835	2,050	**2,885**
EC-3	1/31/2011	8 to 9	NA	<0.00128	0.00713	<0.00128	59.4	59.40969	1260	5,200	6,460
EC-3(R)A	2/24/2011	8 to 9	NA	<0.0126	4.22	1.26	12.3	17.7926	515	640	**1,155**
EC-3(R)B	2/24/2011	8 to 9	NA	<0.00135	0.00204	<0.00135	<0.00406	0.0088	0.545	14.9	15.445
EC-4	1/31/2011	8 to 9	NA	<0.00126	<0.00126	<0.00126	<0.00379	<0.00757	0.722	44	44.722
EC-5	1/31/2011	14 to 15	NA	<0.0013	0.0156	0.04	0.123	0.1799	0.836	692	**692.836**
MW-1	12/18/2014	12 to 14	NA	0.27	<0.25	3.9	23	27.42	950	1,600	**2,550**
MW-1	12/18/2014	30 to 32	NA	0.087	0.054	1.6	8.9	10.64	440	470	**910**
MW-2	12/17/2014	16 to 18	NA	<0.049	<0.049	<0.049	<0.098	<0.245	<4.9	2,400	**2,405**
MW-2	12/17/2014	26 to 28	NA	<0.048	<0.048	<0.048	<0.097	<0.241	<4.8	510	**514.8**
MW-3	12/17/2014	10 to 12	NA	<0.048	<0.048	<0.048	<0.096	<0.24	<4.8	<9.9	<14.7
MW-3	12/17/2014	26 to 28	NA	<0.047	<0.047	<0.047	<0.093	<0.234	<4.7	<9.9	<14.6
MW-4	12/17/2014	7 to 9	NA	<0.048	<0.048	0.23	1.0	1.326	160	550	**710**
MW-4	12/17/2014	23 to 25	NA	<0.048	<0.048	<0.048	<0.097	<0.241	<4.8	13	17.8
MW-5	12/17/2014	7 to 8	NA	<0.047	<0.047	<0.047	<0.094	<0.235	<4.7	39	43.7
MW-5	12/17/2014	30 to 32	NA	<0.046	<0.046	<0.046	<0.093	<0.231	<4.6	13	17.6

Note: Concentrations in **bold** and yellow exceed the applicable OCD Remediation Action Level
Note: Excavation confirmation samples shaded indicates the area was overexcavated and removed.
* Indicates analysis of a new extraction from sample
** Totals include reported concentration and/or assume concentrations up to the SDL.
NA = Not Analyzed
NE = Not Established

APEX

TABLE 2
ENTERPRISE PRODUCTS OPERATING LLC S. CARLSBAD COMPRESSOR STATION
CARRASCO ROAD AND CR 710
CARLSBAD, EDDY COUNTY, NEW MEXICO
SOIL ANALYTICAL RESULTS - TREATED SOILS AND VADOSE ZONE 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)	TPH GRO/DRO** (mg/kg)
NMAC *Small Landfarm Closure Performance Standards*			**500**	**0.2**	**NE**	**NE**	**NE**	**50**	**NE**	**NE**	**500**
TS-1	3/24/2011	0 to 0.5	410	<0.19	<0.23	<0.23	<0.69	<1.34	140 (j)	1,600	**1,740**
TS-1 (R)	6/20/2011	0 to 0.5	NA	NA	NA	NA	NA	NA	81 (j)	1,800	**1,881**
TS-1 (R2)	8/24/2011	0 to 0.5	NA	NA	NA	NA	NA	NA	<16	570	**586**
TS-1 (R3)	11/3/2011	0 to 0.5	120	NA	NA	NA	NA	NA	<9.8	440	449.8
TS-2	3/24/2011	0 to 0.5	310	<0.019	<0.023	<0.023	<0.069	<0.134	8.3 (j)	770	**778.3**
TS-2 (R)	6/20/2011	0 to 0.5	NA	NA	NA	NA	NA	NA	<16	560	**576**
TS-2 (R2)	8/24/2011	0 to 0.5	NA	NA	NA	NA	NA	NA	<16	470	486
TS-3	3/24/2011	0 to 0.5	**600**	<0.19	<0.23	<0.23	0.83 (j)	1.48	<80	1,700	**1,780**
TS-3 (R)	6/20/2011	0 to 0.5	290	NA	NA	NA	NA	NA	<30	1,400	**1,430**
TS-3 (R2)	8/24/2011	0 to 0.5	NA	NA	NA	NA	NA	NA	<16	1,200	**1,216**
TS-3 (R3)	11/3/2011	0 to 0.5	120	NA	NA	NA	NA	NA	<24	1,200	**1,224**
TS-3 (R4)	12/6/2011	0.5 to 1	NA	NA	NA	NA	NA	NA	<4.8	270	274.8
TS-4	3/24/2011	0 to 0.5	270	<0.019	<0.023	<0.023	0.14 (j)	0.205	17 (j)	1,300	**1,317**
TS-4 (R)	6/20/2011	0 to 0.5	NA	NA	NA	NA	NA	NA	<15	820	**835**
TS-4 (R2)	8/24/2011	0 to 0.5	NA	NA	NA	NA	NA	NA	<7.5	250	257.5
TS-5	3/24/2011	0 to 0.5	440	<0.019	<0.023	<0.023	<0.069	<0.134	<8.0	1,300	**1,308**
TS-5 (R)	6/20/2011	0 to 0.5	NA	NA	NA	NA	NA	NA	1.6 (j)	14	15.6
TS-6	3/24/2011	0 to 0.5	190	**<0.37**	<0.46	<0.45	1.6 (j)	2.88	<160	2,000	**2,160**
TS-6 (R)	6/20/2011	0 to 0.5	NA	<0.018	<0.022	<0.021	<0.065	<0.126	<7.6	230	237.6
TS-7	3/24/2011	0 to 0.5	260	<0.019	<0.023	0.023 (j)	0.25 (j)	0.315	20 (j)	1,500	**1,520**
TS-7 (R)	6/20/2011	0 to 0.5	NA	NA	NA	NA	NA	NA	<1.6	56	57.6
TS-8	3/24/2011	0 to 0.5	350	<0.019	0.039 (j)	0.069 (j)	0.09	0.217	47	1,500	**1,547**
TS-8 (R)	6/20/2011	0 to 0.5	NA	NA	NA	NA	NA	NA	<1.6	<3.5	<5.1
TS-9	3/24/2011	0 to 0.5	410	<0.019	<0.023	0.023 (j)	<0.069	0.134	<8.0	650	**658**
TS-9 (R)	6/20/2011	0 to 0.5	NA	NA	NA	NA	NA	NA	<8.0	270	278
TS-10	3/24/2011	0 to 0.5	110	<0.19	<0.23	<0.23	<0.69	<1.34	<80	1,000	**1,080**
TS-10 (R)	6/20/2011	0 to 0.5	NA	NA	NA	NA	NA	NA	<8.4	250	258.4

Note: Concentrations in **bold** and yellow exceed the applicable NMAC *Small Landfarm Closure Performance Standards*
(j) indicates that the analyte was reported at or above the Method Detection Limit and below the Practical Quantitation Limit
** Totals include reported concentration and/or assume concentrations up to the SDL.
NA = Not Analyzed
NE = Not Established

TABLE 2 (Cont.)
ENTERPRISE PRODUCTS OPERATING LLC S. CARLSBAD COMPRESSOR STATION
CARRASCO ROAD AND CR 710
CARLSBAD, EDDY COUNTY, NEW MEXICO
SOIL ANALYTICAL RESULTS - TREATED SOILS AND VADOSE ZONE 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)	TPH GRO/DRO** (mg/kg)
NMAC *Small Landfarm Closure Performance Standards*			**500**	**0.2**	**NE**	**NE**	**NE**	**50**	**NE**	**NE**	**500**
TS-11	3/24/2011	0 to 0.5	160	<0.19	<0.23	<0.23	<0.69	<1.34	<80	1,800	**1,880**
TS-11 (R)	6/20/2011	0 to 0.5	NA	NA	NA	NA	NA	NA	<16	790	**806**
TS-11 (R2)	8/24/2011	0 to 0.5	NA	NA	NA	NA	NA	NA	<1.5	350	351.5
TS-12	3/24/2011	0 to 0.5	160	<0.19	<0.23	<0.23	<0.69	<1.34	<80	1,400	1,480
TS-12 (R)	6/20/2011	0 to 0.5	NA	NA	NA	NA	NA	NA	<15	440	455
TS-13	3/24/2011	0 to 0.5	100	**<0.37**	<0.46	<0.45	<1.4	2.68	<160	1,900	**2,060**
TS-13 (R)	6/20/2011	0 to 0.5	NA	**<0.24**	<0.24	<0.24	<0.24	<0.48	<7.7	290	297.7
TS-14	3/24/2011	0 to 0.5	210	<0.19	<0.23	<0.23	<0.69	<1.34	<80	1,100	**1,180**
TS-14 (R)	6/20/2011	0 to 0.5	NA	NA	NA	NA	NA	NA	<15	500	515
TS-15	3/24/2011	0 to 0.5	210	<0.19	<0.23	<0.23	<0.69	<1.34	160 (j)	2,400	**2,560**
TS-15 (R)	6/20/2011	0 to 0.5	NA	NA	NA	NA	NA	NA	17 (j)	430	447
TS-16	3/24/2011	0 to 0.5	230	<0.19	<0.23	<0.23	<0.69	<1.34	210 (j)	1,900	**2,110**
TS-16 (R)	6/20/2011	0 to 0.5	NA	NA	NA	NA	NA	NA	<1.5	73	74.5
TS-17	3/24/2011	0 to 0.5	320	<0.037	<0.046	<0.045	<0.14	<0.268	<16	1,200	**1,216**
TS-17 (R)	6/20/2011	0 to 0.5	NA	NA	NA	NA	NA	NA	3.3 (j)	99	102.3
TS-18	3/24/2011	0 to 0.5	280	<0.19	<0.23	<0.23	<0.69	<1.34	<80	2,800	**2,880**
TS-18 (R)	6/20/2011	0 to 0.5	NA	NA	NA	NA	NA	NA	<1.6	63	64.6
TS-19	3/24/2011	0 to 0.5	290	<0.19	<0.23	<0.23	<0.69	<1.34	<80	2,700	**2,780**
TS-19 (R)	6/20/2011	0 to 0.5	NA	NA	NA	NA	NA	NA	<16	790	**806**
TS-19 (R2)	8/24/2011	0 to 0.5	NA	NA	NA	NA	NA	NA	<7.5	330	337.5
TS-20	3/24/2011	0 to 0.5	230	<0.19	<0.23	<0.23	<0.69	<1.34	<80	2,200	**2,280**
TS-20 (R)	6/20/2011	0 to 0.5	NA	NA	NA	NA	NA	NA	<1.6	72	73.6
VZ-1	3/3/2012	3 to 3.25	460	<0.0047	<0.0081	<0.0039	<0.0160	<0.0327	<1.4	<5.4	<6.8
VZ-2	3/3/2012	3 to 3.25	**1,300**	<0.0046	<0.0079	<0.0038	<0.0160	<0.0323	<1.3	<5.4	6.7
B-15	1/14/2014	3 to 4	8.1	NA	NA	NA	NA	NA	NA	NA	NA
B-16	1/14/2014	3 to 4	380	NA	NA	NA	NA	NA	NA	NA	NA
B-17	1/14/2014	3 to 4	7.8	NA	NA	NA	NA	NA	NA	NA	NA

Note: Concentrations in **bold** and yellow exceed the applicable NMAC *Small Landfarm Closure Performance Standards*
(j) indicates that the analyte was reported at or above the sample reporting limit/sample detection limit.
** Totals include reported concentration and/or assume concentrations up to the SDL.
NA = Not Analyzed
NE = Not Established

TABLE 3
ENTERPRISE PRODUCTS OPERATING LLC S. CARLSBAD COMPRESSOR STATION
CARRASCO ROAD AND CR 710
CARLSBAD, EDDY COUNTY, NEW MEXICO
GROUNDWATER ANALYTICAL SUMMARY

Sample I.D.	Date	Total Dissolved Solids (mg/L)	Chlorides (mg/L)	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylenes (mg/L)	TPH GRO (mg/L)	TPH DRO (mg/L)
New Mexico Water Quality Control Commission Groundwater Quality Standards		**NE**	**250**	**0.01**	**0.75**	**0.75**	**0.62**	**NE**	**NE**
MW-1	1/20/2015	NA	**2,900**	**0.094**	<0.002	<0.002	0.37	2.3	1.2
MW-2	1/20/2015	Not Sampled Due to Presence of PSH							
MW-3	1/20/2015	NA	**1,800**	<0.001	<0.001	<0.001	<0.0015	<0.05	<1.0
MW-4	1/20/2015	6,940	**2,500**	<0.001	<0.001	<0.001	<0.0015	<0.05	<1.0
MW-5	1/20/2015	4,930	**1,100**	<0.001	<0.001	<0.001	<0.0015	<0.05	<1.0

Note: Concentrations in **bold** and yellow exceed the applicable New Mexico Water Quality Control Comission Groundwater Quality Standards
NA = Not Analyzed
NE = Not Established

TABLE 4
ENTERPRISE PRODUCTS OPERATING LLC S. CARLSBAD COMPRESSOR STATION
CARRASCO ROAD AND CR 710
CARLSBAD, EDDY COUNTY, NEW MEXICO
GROUNDWATER GAUGING DATA

Monitoring Well	Measurement Date	Top-of-Casing Elevation (feet)	Depth to PSH (feet)	Depth to Water (feet)	PSH Thickness (feet)	Corrected Groundwater Elevation
MW-1	12/19/2014	3,065.725	--	8.77	--	3,056.96
	1/20/2015	3,065.725	--	9.02	--	3,056.71
MW-2	12/19/2014	3,064.625	7.05	13.36	6.31	3,056.63
	1/20/2015	3,064.625	6.75	17.80	11.05	3,056.22
MW-3	12/19/2014	3,065.405	--	8.94	--	3,056.47
	1/20/2015	3,065.405	--	8.76	--	3,056.65
MW-4	12/19/2014	3,065.975	--	8.95	--	3,057.03
	1/20/2015	3,065.975	--	8.81	--	3,057.17
MW-5	12/19/2014	3,065.445	--	8.20	--	3,057.25
	1/20/2015	3,065.445	--	8.50	--	3,056.95

-- = No PSH present during gauging event

ATTACHMENT E

Laboratory Data Reports and Chain of Custody Documentation

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

December 29, 2014

Joseph Martinez
APEX
7979 Broadway Street
Suite 100
San Antonio, TX 78209
TEL: (210) 804-9922
FAX (210) 804-9944

RE: S. Carlsbad CS OrderNo.: 1412A02

Dear Joseph Martinez:

Hall Environmental Analysis Laboratory received 11 sample(s) on 12/19/2014 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX
Client Sample ID: MW-1 (12-14)
Project: S. Carlsbad CS
Collection Date: 12/18/2014 9:15:00 AM
Lab ID: 1412A02-001
Matrix: SOIL
Received Date: 12/19/2014 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	1600	99		mg/Kg	10	12/24/2014 12:39:43 PM	16941
Surr: DNOP	0	63.5-128	S	%REC	10	12/24/2014 12:39:43 PM	16941
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	950	25		mg/Kg	5	12/23/2014 11:55:48 AM	16950
Surr: BFB	1090	80-120	S	%REC	5	12/23/2014 11:55:48 AM	16950
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	0.27	0.25		mg/Kg	5	12/23/2014 11:55:48 AM	16950
Toluene	ND	0.25		mg/Kg	5	12/23/2014 11:55:48 AM	16950
Ethylbenzene	3.9	0.25		mg/Kg	5	12/23/2014 11:55:48 AM	16950
Xylenes, Total	23	0.50		mg/Kg	5	12/23/2014 11:55:48 AM	16950
Surr: 4-Bromofluorobenzene	181	80-120	S	%REC	5	12/23/2014 11:55:48 AM	16950

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX
Client Sample ID: MW-1 (30-32)
Project: S. Carlsbad CS
Collection Date: 12/18/2014 9:30:00 AM
Lab ID: 1412A02-002
Matrix: SOIL
Received Date: 12/19/2014 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	470	9.8		mg/Kg	1	12/24/2014 1:22:45 PM	16941
Surr: DNOP	94.8	63.5-128		%REC	1	12/24/2014 1:22:45 PM	16941
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	440	96		mg/Kg	20	12/24/2014 12:12:14 PM	16950
Surr: BFB	252	80-120	S	%REC	20	12/24/2014 12:12:14 PM	16950
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	0.087	0.048		mg/Kg	1	12/23/2014 12:24:28 PM	16950
Toluene	0.054	0.048		mg/Kg	1	12/23/2014 12:24:28 PM	16950
Ethylbenzene	1.6	0.048		mg/Kg	1	12/23/2014 12:24:28 PM	16950
Xylenes, Total	8.9	0.096		mg/Kg	1	12/23/2014 12:24:28 PM	16950
Surr: 4-Bromofluorobenzene	347	80-120	S	%REC	1	12/23/2014 12:24:28 PM	16950

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX
Client Sample ID: MW-2 (16-18)
Project: S. Carlsbad CS
Collection Date: 12/17/2014 2:35:00 PM
Lab ID: 1412A02-003 **Matrix:** SOIL **Received Date:** 12/19/2014 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	2400	1000		mg/Kg	100	12/24/2014 2:05:54 PM	16941
Surr: DNOP	0	63.5-128	S	%REC	100	12/24/2014 2:05:54 PM	16941
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/23/2014 12:53:15 PM	16950
Surr: BFB	127	80-120	S	%REC	1	12/23/2014 12:53:15 PM	16950
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.049		mg/Kg	1	12/23/2014 12:53:15 PM	16950
Toluene	ND	0.049		mg/Kg	1	12/23/2014 12:53:15 PM	16950
Ethylbenzene	ND	0.049		mg/Kg	1	12/23/2014 12:53:15 PM	16950
Xylenes, Total	ND	0.098		mg/Kg	1	12/23/2014 12:53:15 PM	16950
Surr: 4-Bromofluorobenzene	93.2	80-120		%REC	1	12/23/2014 12:53:15 PM	16950

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX
Client Sample ID: MW-2 (26-28)
Project: S. Carlsbad CS
Collection Date: 12/17/2014 2:50:00 PM
Lab ID: 1412A02-004
Matrix: SOIL
Received Date: 12/19/2014 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	510	99		mg/Kg	10	12/24/2014 2:48:52 PM	16941
Surr: DNOP	0	63.5-128	S	%REC	10	12/24/2014 2:48:52 PM	16941
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/23/2014 1:21:58 PM	16950
Surr: BFB	101	80-120		%REC	1	12/23/2014 1:21:58 PM	16950
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.048		mg/Kg	1	12/23/2014 1:21:58 PM	16950
Toluene	ND	0.048		mg/Kg	1	12/23/2014 1:21:58 PM	16950
Ethylbenzene	ND	0.048		mg/Kg	1	12/23/2014 1:21:58 PM	16950
Xylenes, Total	ND	0.097		mg/Kg	1	12/23/2014 1:21:58 PM	16950
Surr: 4-Bromofluorobenzene	99.1	80-120		%REC	1	12/23/2014 1:21:58 PM	16950

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX
Client Sample ID: MW-3 (10-12)
Project: S. Carlsbad CS
Collection Date: 12/17/2014 12:50:00 PM
Lab ID: 1412A02-005 **Matrix:** SOIL **Received Date:** 12/19/2014 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	12/24/2014 3:31:51 PM	16941
Surr: DNOP	85.2	63.5-128		%REC	1	12/24/2014 3:31:51 PM	16941
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/23/2014 1:50:43 PM	16950
Surr: BFB	97.5	80-120		%REC	1	12/23/2014 1:50:43 PM	16950
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.048		mg/Kg	1	12/23/2014 1:50:43 PM	16950
Toluene	ND	0.048		mg/Kg	1	12/23/2014 1:50:43 PM	16950
Ethylbenzene	ND	0.048		mg/Kg	1	12/23/2014 1:50:43 PM	16950
Xylenes, Total	ND	0.096		mg/Kg	1	12/23/2014 1:50:43 PM	16950
Surr: 4-Bromofluorobenzene	101	80-120		%REC	1	12/23/2014 1:50:43 PM	16950

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX
Client Sample ID: MW-3 (26-28)
Project: S. Carlsbad CS
Collection Date: 12/17/2014 1:10:00 PM
Lab ID: 1412A02-006 **Matrix:** SOIL **Received Date:** 12/19/2014 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	12/24/2014 4:14:55 PM	16941
Surr: DNOP	84.0	63.5-128		%REC	1	12/24/2014 4:14:55 PM	16941
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	12/23/2014 2:19:26 PM	16950
Surr: BFB	96.5	80-120		%REC	1	12/23/2014 2:19:26 PM	16950
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.047		mg/Kg	1	12/23/2014 2:19:26 PM	16950
Toluene	ND	0.047		mg/Kg	1	12/23/2014 2:19:26 PM	16950
Ethylbenzene	ND	0.047		mg/Kg	1	12/23/2014 2:19:26 PM	16950
Xylenes, Total	ND	0.093		mg/Kg	1	12/23/2014 2:19:26 PM	16950
Surr: 4-Bromofluorobenzene	100	80-120		%REC	1	12/23/2014 2:19:26 PM	16950

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX
Client Sample ID: MW-4 (7-9)
Project: S. Carlsbad CS
Collection Date: 12/17/2014 10:15:00 AM
Lab ID: 1412A02-007
Matrix: SOIL
Received Date: 12/19/2014 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	550	10		mg/Kg	1	12/24/2014 4:36:34 PM	16941
Surr: DNOP	90.8	63.5-128		%REC	1	12/24/2014 4:36:34 PM	16941
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	160	4.8		mg/Kg	1	12/23/2014 2:48:08 PM	16950
Surr: BFB	866	80-120	S	%REC	1	12/23/2014 2:48:08 PM	16950
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.048		mg/Kg	1	12/23/2014 2:48:08 PM	16950
Toluene	ND	0.048		mg/Kg	1	12/23/2014 2:48:08 PM	16950
Ethylbenzene	0.23	0.048		mg/Kg	1	12/23/2014 2:48:08 PM	16950
Xylenes, Total	1.0	0.097		mg/Kg	1	12/23/2014 2:48:08 PM	16950
Surr: 4-Bromofluorobenzene	184	80-120	S	%REC	1	12/23/2014 2:48:08 PM	16950

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX
Client Sample ID: MW-4 (23-25)
Project: S. Carlsbad CS
Collection Date: 12/17/2014 10:30:00 AM
Lab ID: 1412A02-008
Matrix: SOIL
Received Date: 12/19/2014 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	13	9.9		mg/Kg	1	12/24/2014 4:58:02 PM	16941
Surr: DNOP	85.6	63.5-128		%REC	1	12/24/2014 4:58:02 PM	16941
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/23/2014 3:16:48 PM	16950
Surr: BFB	129	80-120	S	%REC	1	12/23/2014 3:16:48 PM	16950
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.048		mg/Kg	1	12/23/2014 3:16:48 PM	16950
Toluene	ND	0.048		mg/Kg	1	12/23/2014 3:16:48 PM	16950
Ethylbenzene	ND	0.048		mg/Kg	1	12/23/2014 3:16:48 PM	16950
Xylenes, Total	ND	0.097		mg/Kg	1	12/23/2014 3:16:48 PM	16950
Surr: 4-Bromofluorobenzene	97.7	80-120		%REC	1	12/23/2014 3:16:48 PM	16950

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX
Client Sample ID: MW-5 (7-8)
Project: S. Carlsbad CS
Collection Date: 12/17/2014 4:05:00 PM
Lab ID: 1412A02-009
Matrix: SOIL
Received Date: 12/19/2014 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	39	10		mg/Kg	1	12/24/2014 5:19:34 PM	16941
Surr: DNOP	90.3	63.5-128		%REC	1	12/24/2014 5:19:34 PM	16941
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	12/23/2014 3:45:26 PM	16950
Surr: BFB	114	80-120		%REC	1	12/23/2014 3:45:26 PM	16950
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.047		mg/Kg	1	12/23/2014 3:45:26 PM	16950
Toluene	ND	0.047		mg/Kg	1	12/23/2014 3:45:26 PM	16950
Ethylbenzene	ND	0.047		mg/Kg	1	12/23/2014 3:45:26 PM	16950
Xylenes, Total	ND	0.094		mg/Kg	1	12/23/2014 3:45:26 PM	16950
Surr: 4-Bromofluorobenzene	103	80-120		%REC	1	12/23/2014 3:45:26 PM	16950

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX
Client Sample ID: MW-5 (30-32)
Project: S. Carlsbad CS
Collection Date: 12/17/2014 4:20:00 PM
Lab ID: 1412A02-010 **Matrix:** SOIL **Received Date:** 12/19/2014 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	13	9.9		mg/Kg	1	12/24/2014 5:41:04 PM	16941
Surr: DNOP	81.6	63.5-128		%REC	1	12/24/2014 5:41:04 PM	16941
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	12/23/2014 6:09:02 PM	16950
Surr: BFB	93.7	80-120		%REC	1	12/23/2014 6:09:02 PM	16950
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.046		mg/Kg	1	12/23/2014 6:09:02 PM	16950
Toluene	ND	0.046		mg/Kg	1	12/23/2014 6:09:02 PM	16950
Ethylbenzene	ND	0.046		mg/Kg	1	12/23/2014 6:09:02 PM	16950
Xylenes, Total	ND	0.093		mg/Kg	1	12/23/2014 6:09:02 PM	16950
Surr: 4-Bromofluorobenzene	96.9	80-120		%REC	1	12/23/2014 6:09:02 PM	16950

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX
Client Sample ID: WC-3
Project: S. Carlsbad CS
Collection Date: 12/18/2014 11:15:00 AM
Lab ID: 1412A02-011
Matrix: SOIL
Received Date: 12/19/2014 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS						Analyst: **BCN**	
Diesel Range Organics (DRO)	55	10		mg/Kg	1	12/24/2014 6:02:42 PM	16941
Surr: DNOP	73.8	63.5-128		%REC	1	12/24/2014 6:02:42 PM	16941
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	120	4.6		mg/Kg	1	12/23/2014 6:37:41 PM	16950
Surr: BFB	763	80-120	S	%REC	1	12/23/2014 6:37:41 PM	16950
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.046		mg/Kg	1	12/23/2014 6:37:41 PM	16950
Toluene	ND	0.046		mg/Kg	1	12/23/2014 6:37:41 PM	16950
Ethylbenzene	0.57	0.046		mg/Kg	1	12/23/2014 6:37:41 PM	16950
Xylenes, Total	3.6	0.091		mg/Kg	1	12/23/2014 6:37:41 PM	16950
Surr: 4-Bromofluorobenzene	145	80-120	S	%REC	1	12/23/2014 6:37:41 PM	16950

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1412A02**

29-Dec-14

Client: APEX

Project: S. Carlsbad CS

Sample ID	**MB-16941**	SampType:	**MBLK**		TestCode:	**EPA Method 8015D: Diesel Range Organics**				
Client ID:	**PBS**	Batch ID:	**16941**		RunNo:	**23307**				
Prep Date:	**12/22/2014**	Analysis Date:	**12/23/2014**		SeqNo:	**689121**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	7.4		10.00		73.6	63.5	128			

Sample ID	**LCS-16941**	SampType:	**LCS**		TestCode:	**EPA Method 8015D: Diesel Range Organics**				
Client ID:	**LCSS**	Batch ID:	**16941**		RunNo:	**23307**				
Prep Date:	**12/22/2014**	Analysis Date:	**12/23/2014**		SeqNo:	**689122**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	95.6	67.8	130			
Surr: DNOP	4.4		5.000		87.1	63.5	128			

Sample ID	**MB-16942**	SampType:	**MBLK**		TestCode:	**EPA Method 8015D: Diesel Range Organics**				
Client ID:	**PBS**	Batch ID:	**16942**		RunNo:	**23307**				
Prep Date:	**12/22/2014**	Analysis Date:	**12/23/2014**		SeqNo:	**689771**	Units:	**%REC**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	7.2		10.00		72.3	63.5	128			

Sample ID	**LCS-16942**	SampType:	**LCS**		TestCode:	**EPA Method 8015D: Diesel Range Organics**				
Client ID:	**LCSS**	Batch ID:	**16942**		RunNo:	**23307**				
Prep Date:	**12/22/2014**	Analysis Date:	**12/23/2014**		SeqNo:	**689772**	Units:	**%REC**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.0		5.000		79.9	63.5	128			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1412A02**

29-Dec-14

Client: APEX

Project: S. Carlsbad CS

Sample ID	**MB-16950**	SampType:	**MBLK**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**PBS**	Batch ID:	**16950**		RunNo:	**23336**				
Prep Date:	**12/22/2014**	Analysis Date:	**12/23/2014**		SeqNo:	**689626**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		101	80	120			

Sample ID	**LCS-16950**	SampType:	**LCS**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**LCSS**	Batch ID:	**16950**		RunNo:	**23336**				
Prep Date:	**12/22/2014**	Analysis Date:	**12/23/2014**		SeqNo:	**689627**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	98.8	65.8	139			
Surr: BFB	990		1000		98.7	80	120			

Sample ID	**MB-16944**	SampType:	**MBLK**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**PBS**	Batch ID:	**16944**		RunNo:	**23357**				
Prep Date:	**12/22/2014**	Analysis Date:	**12/25/2014**		SeqNo:	**690724**	Units:	**%REC**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	940		1000		94.2	80	120			

Sample ID	**LCS-16944**	SampType:	**LCS**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**LCSS**	Batch ID:	**16944**		RunNo:	**23357**				
Prep Date:	**12/22/2014**	Analysis Date:	**12/24/2014**		SeqNo:	**690725**	Units:	**%REC**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000		1000		103	80	120			

Sample ID	**LCSD-16944**	SampType:	**LCSD**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**LCSS02**	Batch ID:	**16944**		RunNo:	**23357**				
Prep Date:	**12/22/2014**	Analysis Date:	**12/24/2014**		SeqNo:	**690726**	Units:	**%REC**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1000							0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1412A02**

29-Dec-14

Client: APEX

Project: S. Carlsbad CS

Sample ID	**MB-16950**	SampType: **MBLK**			TestCode: **EPA Method 8021B: Volatiles**				
Client ID:	**PBS**	Batch ID: **16950**			RunNo: **23336**				
Prep Date:	**12/22/2014**	Analysis Date: **12/23/2014**			SeqNo: **689647**	Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		111	80	120			

Sample ID	**LCS-16950**	SampType: **LCS**			TestCode: **EPA Method 8021B: Volatiles**				
Client ID:	**LCSS**	Batch ID: **16950**			RunNo: **23336**				
Prep Date:	**12/22/2014**	Analysis Date: **12/23/2014**			SeqNo: **689648**	Units: **mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	102	80	120			
Toluene	0.98	0.050	1.000	0	98.1	80	120			
Ethylbenzene	1.0	0.050	1.000	0	99.6	80	120			
Xylenes, Total	3.0	0.10	3.000	0	98.5	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		105	80	120			

Sample ID	**MB-16944**	SampType: **MBLK**			TestCode: **EPA Method 8021B: Volatiles**				
Client ID:	**PBS**	Batch ID: **16944**			RunNo: **23357**				
Prep Date:	**12/22/2014**	Analysis Date: **12/25/2014**			SeqNo: **690754**	Units: **%REC**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		100	80	120			

Sample ID	**LCS-16944**	SampType: **LCS**			TestCode: **EPA Method 8021B: Volatiles**				
Client ID:	**LCSS**	Batch ID: **16944**			RunNo: **23357**				
Prep Date:	**12/22/2014**	Analysis Date: **12/24/2014**			SeqNo: **690755**	Units: **%REC**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120			

Sample ID	**LCSD-16944**	SampType: **LCSD**			TestCode: **EPA Method 8021B: Volatiles**				
Client ID:	**LCSS02**	Batch ID: **16944**			RunNo: **23357**				
Prep Date:	**12/22/2014**	Analysis Date: **12/24/2014**			SeqNo: **690756**	Units: **%REC**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		106	80	120	0		

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: **APEX SAN ANTONIO** Work Order Number: **1412A02** RcptNo: **1**

Received by/date: 12/19/14

Logged By: **Ashley Gallegos** **12/19/2014 9:00:00 AM**

Completed By: **Ashley Gallegos** **12/19/2014 3:41:12 PM**

Reviewed By: 12/22/14

Chain of Custody

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

Log In

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

Special Handling (if applicable)

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

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

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

CHAIN OF CUSTODY RECORD

APEX

Office Location: San Antonio

Project Manager: Joseph W Martinez

Laboratory: Hall

Address: 4901 Hawkins St. NW
Albequerque, NM 87109

Contact: Andy Freeman

Phone: 505-345-3975

PO/SO #:

Lab use only
Due Date:

Temp. of coolers when received (C°): 1.4

1	2	3	4	5

Page 1 of 1

Sampler's Name: Joseph W Martinez

Sampler's Signature: Joseph W Martinez

Proj. No.: 701021.003.001

Project Name: S. Carlsbad CS

No/Type of Containers: 20/4oz

ANALYSIS REQUESTED: TPH GRO/DRO #8015M; BTEX #8021B; Halides

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 Lt.	250 ml	Glass Jar	P/O	Lab Sample ID (Lab Use Only)
S	12.18.14	0915		✓	MW-1 (12-14)	12	14				2		1412A02-001
S	12.18.14	0930		✓	MW-1 (30-32)	30	32				2		-002
S	12.17.14	1435		✓	MW-2 (16-18)	16	18				2		-003
		1456			MW-2 (26-28)	26	28						-004
		1250			MW-3 (10-12)	10	12						-005
		1310			MW-3 (26-28)	26	28						-006
		1015			MW-4 (7-9)	7	9						-007
		1030			MW-4 (23-25)	23	25						-008
		1605			MW-5 (7-8)	7	8						-009
		1620			MW-5 (30-32)	30	32						-010

Turn around time: (X) Normal ☐ 25% Rush ☐ 50% Rush ☐ 100% Rush

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Joseph W Martinez	12.18.14	1600	FedEx		
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	12/19/14	0700
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

NOTES:
NM QA/QC
send report to: jmartinez@apexcos.com
send invoice to: crandolph@apexcos.com
Temp Blank included

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

APEX

CHAIN OF CUSTODY RECORD

Office Location: SanAntonio

Project Manager: Joseph W Martinez

Laboratory: Hall

Address: 4901 Hawkins St NW, Albequerque, NM 87109

Contact: Andy Freeman

Phone: 505-345-3975

PO/SO #:

Sampler's Name: Joseph W Martinez

Sampler's Signature: [signature]

Lab use only
Due Date:

Temp. of coolers when received (C°): 1.0

1	2	3	4	5

Page 1 of 1

Proj. No.: 7010210003.001

Project Name: S-Carlsbad CS

ANALYSIS REQUESTED: TPH GRO/DRO #8015M; BTEX #8021B

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 Lt.	250 ml	Glass Jar	P/O	TPH GRO/DRO #8015M	BTEX #8021B	Lab Sample ID (Lab Use Only)
S	12.18.14	1115	X		WC-3	—	—				2		✓	✓	1412A02 -011

No/Type of Containers: 2 / 4oz

NTE

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

Relinquished by (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	12.18.14	1600	FedEx		
			[signature]	12/19/14	0900

NOTES:
NM QA/QC
Send report to: jmartinez@apexcos.com
Send invoice to: crandolph@apexcos.com

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

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

February 20, 2015

Joseph Martinez
APEX
7979 Broadway Street
Suite 100
San Antonio, TX 78209
TEL: (210) 804-9922
FAX (210) 804-9944

RE: Enterprise Products Operating LLC South Carlsbad Compress OrderNo.: 1501796

Dear Joseph Martinez:

Hall Environmental Analysis Laboratory received 5 sample(s) on 1/22/2015 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued January 30, 2015.

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
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX
Client Sample ID: MW-1
Project: Enterprise Products Operating LLC Sout
Collection Date: 1/20/2015 11:39:00 AM
Lab ID: 1501796-001
Matrix: AQUEOUS
Received Date: 1/22/2015 10:43:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE						Analyst: **WL**	
Diesel Range Organics (DRO)	1.2	1.0		mg/L	1	1/23/2015 8:23:40 PM	17362
Surr: DNOP	99.2	76.5-150		%REC	1	1/23/2015 8:23:40 PM	17362
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	2.3	0.050		mg/L	1	1/23/2015 3:09:35 PM	R23861
Surr: BFB	191	80-120	S	%REC	1	1/23/2015 3:09:35 PM	R23861
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	2900	250	*	mg/L	500	1/28/2015 12:46:14 AM	R23942
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **cadg**	
Benzene	94	2.0		µg/L	2	1/29/2015 4:30:42 PM	R23990
Toluene	ND	2.0		µg/L	2	1/29/2015 4:30:42 PM	R23990
Ethylbenzene	ND	2.0		µg/L	2	1/29/2015 4:30:42 PM	R23990
Xylenes, Total	370	3.0		µg/L	2	1/29/2015 4:30:42 PM	R23990
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	2	1/29/2015 4:30:42 PM	R23990
Surr: 4-Bromofluorobenzene	84.2	70-130		%REC	2	1/29/2015 4:30:42 PM	R23990
Surr: Dibromofluoromethane	106	70-130		%REC	2	1/29/2015 4:30:42 PM	R23990
Surr: Toluene-d8	105	70-130		%REC	2	1/29/2015 4:30:42 PM	R23990

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX
Client Sample ID: MW-3
Project: Enterprise Products Operating LLC Sout
Collection Date: 1/20/2015 1:58:00 PM
Lab ID: 1501796-002
Matrix: AQUEOUS
Received Date: 1/22/2015 10:43:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE						Analyst: **WL**	
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	1/23/2015 8:44:58 PM	17362
Surr: DNOP	99.2	76.5-150		%REC	1	1/23/2015 8:44:58 PM	17362
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	1/23/2015 3:36:58 PM	R23861
Surr: BFB	92.2	80-120		%REC	1	1/23/2015 3:36:58 PM	R23861
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	1800	100	*	mg/L	200	1/28/2015 12:58:39 AM	R23942
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **cadg**	
Benzene	ND	1.0		µg/L	1	1/29/2015 5:56:42 PM	R23990
Toluene	ND	1.0		µg/L	1	1/29/2015 5:56:42 PM	R23990
Ethylbenzene	ND	1.0		µg/L	1	1/29/2015 5:56:42 PM	R23990
Xylenes, Total	ND	1.5		µg/L	1	1/29/2015 5:56:42 PM	R23990
Surr: 1,2-Dichloroethane-d4	95.5	70-130		%REC	1	1/29/2015 5:56:42 PM	R23990
Surr: 4-Bromofluorobenzene	115	70-130		%REC	1	1/29/2015 5:56:42 PM	R23990
Surr: Dibromofluoromethane	115	70-130		%REC	1	1/29/2015 5:56:42 PM	R23990
Surr: Toluene-d8	104	70-130		%REC	1	1/29/2015 5:56:42 PM	R23990

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX
Client Sample ID: MW-4
Project: Enterprise Products Operating LLC Sout
Collection Date: 1/20/2015 3:13:00 PM
Lab ID: 1501796-003
Matrix: AQUEOUS
Received Date: 1/22/2015 10:43:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE						Analyst:	**WL**
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	1/23/2015 9:06:25 PM	17362
Surr: DNOP	89.6	76.5-150		%REC	1	1/23/2015 9:06:25 PM	17362
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	1/23/2015 4:04:25 PM	R23861
Surr: BFB	92.8	80-120		%REC	1	1/23/2015 4:04:25 PM	R23861
EPA METHOD 300.0: ANIONS						Analyst:	**LGT**
Chloride	2500	100	*	mg/L	200	1/28/2015 1:11:04 AM	R23942
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst:	**cadg**
Benzene	ND	1.0		µg/L	1	1/29/2015 6:25:18 PM	R23990
Toluene	ND	1.0		µg/L	1	1/29/2015 6:25:18 PM	R23990
Ethylbenzene	ND	1.0		µg/L	1	1/29/2015 6:25:18 PM	R23990
Xylenes, Total	ND	1.5		µg/L	1	1/29/2015 6:25:18 PM	R23990
Surr: 1,2-Dichloroethane-d4	95.7	70-130		%REC	1	1/29/2015 6:25:18 PM	R23990
Surr: 4-Bromofluorobenzene	124	70-130		%REC	1	1/29/2015 6:25:18 PM	R23990
Surr: Dibromofluoromethane	99.4	70-130		%REC	1	1/29/2015 6:25:18 PM	R23990
Surr: Toluene-d8	93.3	70-130		%REC	1	1/29/2015 6:25:18 PM	R23990
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst:	**KS**
Total Dissolved Solids	6940	20.0	*	mg/L	1	1/28/2015 2:35:00 PM	17421

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX
Client Sample ID: MW-5
Project: Enterprise Products Operating LLC Sout
Collection Date: 1/20/2015 9:57:00 AM
Lab ID: 1501796-004
Matrix: AQUEOUS
Received Date: 1/22/2015 10:43:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE						Analyst: **WL**	
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	1/23/2015 9:27:42 PM	17362
Surr: DNOP	99.4	76.5-150		%REC	1	1/23/2015 9:27:42 PM	17362
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	1/23/2015 4:31:47 PM	R23861
Surr: BFB	92.0	80-120		%REC	1	1/23/2015 4:31:47 PM	R23861
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	1100	50	*	mg/L	100	1/28/2015 1:23:28 AM	R23942
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **cadg**	
Benzene	ND	1.0		µg/L	1	1/29/2015 6:53:58 PM	R23990
Toluene	ND	1.0		µg/L	1	1/29/2015 6:53:58 PM	R23990
Ethylbenzene	ND	1.0		µg/L	1	1/29/2015 6:53:58 PM	R23990
Xylenes, Total	ND	1.5		µg/L	1	1/29/2015 6:53:58 PM	R23990
Surr: 1,2-Dichloroethane-d4	97.5	70-130		%REC	1	1/29/2015 6:53:58 PM	R23990
Surr: 4-Bromofluorobenzene	124	70-130		%REC	1	1/29/2015 6:53:58 PM	R23990
Surr: Dibromofluoromethane	101	70-130		%REC	1	1/29/2015 6:53:58 PM	R23990
Surr: Toluene-d8	110	70-130		%REC	1	1/29/2015 6:53:58 PM	R23990
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	4930	100	*H	mg/L	1	2/19/2015 10:27:00 AM	17779

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: APEX **Client Sample ID:** Trip Blank
Project: Enterprise Products Operating LLC Sout **Collection Date:**
Lab ID: 1501796-005 **Matrix:** TRIP BLANK **Received Date:** 1/22/2015 10:43:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	0.050		mg/L	1	1/23/2015 4:59:11 PM	R23861
Surr: BFB	91.4	80-120		%REC	1	1/23/2015 4:59:11 PM	R23861
EPA METHOD 8260: VOLATILES SHORT LIST						Analyst: **cadg**	
Benzene	ND	1.0		µg/L	1	1/29/2015 4:02:01 PM	R23990
Toluene	ND	1.0		µg/L	1	1/29/2015 4:02:01 PM	R23990
Ethylbenzene	ND	1.0		µg/L	1	1/29/2015 4:02:01 PM	R23990
Xylenes, Total	ND	1.5		µg/L	1	1/29/2015 4:02:01 PM	R23990
Surr: 1,2-Dichloroethane-d4	93.9	70-130		%REC	1	1/29/2015 4:02:01 PM	R23990
Surr: 4-Bromofluorobenzene	124	70-130		%REC	1	1/29/2015 4:02:01 PM	R23990
Surr: Dibromofluoromethane	96.7	70-130		%REC	1	1/29/2015 4:02:01 PM	R23990
Surr: Toluene-d8	99.9	70-130		%REC	1	1/29/2015 4:02:01 PM	R23990

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1501796**

20-Feb-15

Client: APEX

Project: Enterprise Products Operating LLC South Carls

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBW**	Batch ID: **R23942**	RunNo: **23942**							
Prep Date:	Analysis Date: **1/27/2015**	SeqNo: **706139**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID **LCS**	SampType: **LCS**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSW**	Batch ID: **R23942**	RunNo: **23942**							
Prep Date:	Analysis Date: **1/27/2015**	SeqNo: **706140**	Units: **mg/L**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8	0.50	5.000	0	96.7	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1501796**

20-Feb-15

Client: APEX

Project: Enterprise Products Operating LLC South Carls

Sample ID **MB-17362**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Diesel Range**
Client ID: **PBW**	Batch ID: **17362**	RunNo: **23845**
Prep Date: **1/22/2015**	Analysis Date: **1/23/2015**	SeqNo: **704202** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Surr: DNOP	0.87		1.000		87.4	76.5	150			

Sample ID **LCS-17362**	SampType: **LCS**	TestCode: **EPA Method 8015D: Diesel Range**
Client ID: **LCSW**	Batch ID: **17362**	RunNo: **23845**
Prep Date: **1/22/2015**	Analysis Date: **1/23/2015**	SeqNo: **704203** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	4.3	1.0	5.000	0	86.6	69.7	142			
Surr: DNOP	0.53		0.5000		106	76.5	150			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1501796**

20-Feb-15

Client: APEX

Project: Enterprise Products Operating LLC South Carls

Sample ID	**5ML RB**	SampType:	**MBLK**		TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**PBW**	Batch ID:	**R23861**		RunNo:	**23861**					
Prep Date:		Analysis Date:	**1/23/2015**		SeqNo:	**704106**	Units:	**mg/L**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)		ND	0.050								
Surr: BFB		17		20.00		86.7	80	120			

Sample ID	**2.5UG GRO LCS**	SampType:	**LCS**		TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**LCSW**	Batch ID:	**R23861**		RunNo:	**23861**					
Prep Date:		Analysis Date:	**1/23/2015**		SeqNo:	**704107**	Units:	**mg/L**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)		0.43	0.050	0.5000	0	86.6	80	120			
Surr: BFB		19		20.00		95.4	80	120			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1501796**

20-Feb-15

Client: APEX

Project: Enterprise Products Operating LLC South Carls

Sample ID **5mL rb**	SampType: **MBLK**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **PBW**	Batch ID: **R23990**	RunNo: **23990**
Prep Date:	Analysis Date: **1/29/2015**	SeqNo: **707447** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.2		10.00		91.5	70	130			
Surr: 4-Bromofluorobenzene	12		10.00		122	70	130			
Surr: Dibromofluoromethane	8.7		10.00		87.3	70	130			
Surr: Toluene-d8	11		10.00		107	70	130			

Sample ID **100ng lcs2**	SampType: **LCS**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **LCSW**	Batch ID: **R23990**	RunNo: **23990**
Prep Date:	Analysis Date: **1/29/2015**	SeqNo: **707448** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	112	70	130			
Toluene	21	1.0	20.00	0	107	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		99.7	70	130			
Surr: 4-Bromofluorobenzene	13		10.00		127	70	130			
Surr: Dibromofluoromethane	9.2		10.00		92.2	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID **1501796-001A MS**	SampType: **MS**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **MW-1**	Batch ID: **R23990**	RunNo: **23990**
Prep Date:	Analysis Date: **1/29/2015**	SeqNo: **707450** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	100	2.0	40.00	93.78	19.1	70	130			S
Toluene	21	2.0	40.00	1.333	48.4	70	130			S
Surr: 1,2-Dichloroethane-d4	19		20.00		96.2	70	130			
Surr: 4-Bromofluorobenzene	17		20.00		86.2	70	130			
Surr: Dibromofluoromethane	20		20.00		102	70	130			
Surr: Toluene-d8	19		20.00		96.6	70	130			

Sample ID **1501796-001A MSD**	SampType: **MSD**	TestCode: **EPA Method 8260: Volatiles Short List**
Client ID: **MW-1**	Batch ID: **R23990**	RunNo: **23990**
Prep Date:	Analysis Date: **1/29/2015**	SeqNo: **707451** Units: **µg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	130	2.0	40.00	93.78	80.6	70	130	21.6	20	R
Toluene	54	2.0	40.00	1.333	132	70	130	89.6	20	RS

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1501796**

20-Feb-15

Client: APEX

Project: Enterprise Products Operating LLC South Carls

Sample ID	**1501796-001A MSD**	SampType:	**MSD**	TestCode:	**EPA Method 8260: Volatiles Short List**					
Client ID:	**MW-1**	Batch ID:	**R23990**	RunNo:	**23990**					
Prep Date:		Analysis Date:	**1/29/2015**	SeqNo:	**707451**	Units:	**µg/L**			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4		20		20.00		99.5	70	130	0	0	
Surr: 4-Bromofluorobenzene		17		20.00		84.8	70	130	0	0	
Surr: Dibromofluoromethane		21		20.00		104	70	130	0	0	
Surr: Toluene-d8		21		20.00		107	70	130	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1501796**

20-Feb-15

Client: APEX

Project: Enterprise Products Operating LLC South Carls

Sample ID	**MB-17421**	SampType:	**MBLK**		TestCode:	**SM2540C MOD: Total Dissolved Solids**				
Client ID:	**PBW**	Batch ID:	**17421**		RunNo:	**23956**				
Prep Date:	**1/27/2015**	Analysis Date:	**1/28/2015**		SeqNo:	**706421**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID	**LCS-17421**	SampType:	**LCS**		TestCode:	**SM2540C MOD: Total Dissolved Solids**				
Client ID:	**LCSW**	Batch ID:	**17421**		RunNo:	**23956**				
Prep Date:	**1/27/2015**	Analysis Date:	**1/28/2015**		SeqNo:	**706422**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1020	20.0	1000	0	102	80	120			

Sample ID	**MB-17779**	SampType:	**MBLK**		TestCode:	**SM2540C MOD: Total Dissolved Solids**				
Client ID:	**PBW**	Batch ID:	**17779**		RunNo:	**24400**				
Prep Date:	**2/17/2015**	Analysis Date:	**2/19/2015**		SeqNo:	**718857**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID	**LCS-17779**	SampType:	**LCS**		TestCode:	**SM2540C MOD: Total Dissolved Solids**				
Client ID:	**LCSW**	Batch ID:	**17779**		RunNo:	**24400**				
Prep Date:	**2/17/2015**	Analysis Date:	**2/19/2015**		SeqNo:	**718858**	Units:	**mg/L**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1010	20.0	1000	0	101	80	120			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: APEX SAN ANTONIO Work Order Number: 1501796 RcptNo: 1

Received by/date: AG 01/22/15

Logged By: Lindsay Mangin 1/22/2015 10:43:00 AM

Completed By: Lindsay Mangin 1/22/2015 1:57:46 PM

Reviewed By: AG 01/22/15

Chain of Custody

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

Log In

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

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

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

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

Person Notified: _____ Date _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

17. Additional remarks:

18. **Cooler Information**

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

CHAIN OF CUSTODY RECORD

APEX

Office Location: 7979 Broadway St. San Antonio, TX 78209

Project Manager: Joeseph Martinez

Laboratory: Hall Environmental

Address: 4901 Hawkins NE Albuquerque, NM, 87109

Contact:

Phone: 505-345-3975

PO/SO #:

Sampler's Name: Noah Weitzman

Sampler's Signature: [signature]

Proj. No.: 7010210G003.001

Project Name: Enterprise Products Operating LLC South Carlsbad Compressor Station

Lab use only
Due Date:

Temp. of coolers when received (C°): 1.0

1	2	3	4	5

Page ____ of ____

ANALYSIS REQUESTED

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	VOA	A/G 1 Lt.	250 ml	Glass Jar	P/O	BTEX 8260.00	TPH GRO/DRO	Chlorides 300.00	TDS	Lab Sample ID (Lab Use Only)
W	1/20/15	1139			MW-1			5	1			1	X	X	X		1501796-001
W	1/20/15	1358			MW-3			5	1			1	X	X	X		-002
W	1/20/15	1513			MW-4			5	1			2	X	X	X	X	-003
W	1/20/15	0957			MW-5			5	1			1	X	X	X		-004

NFE

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

Relinquished by (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
[signature]	1/21	0727	[signature]	01/22/15	1043

NOTES:
- Trip Blank -005
- Send info to smartinez@apexcos.com, abinley@apexcos.com, nweitzman@apexcos.com

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

ATTACHMENT F

Supporting Documentation

LEA LAND DISPOSAL SITE NEW MEXICO

MILE MARKER #64 US HWY 62/180 • 30 MILES EAST OF CARLSBAD, NM • PHONE (575) 887-4048

LEA LAND, LLC

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

PICK UP

NON-HAZARDOUS WASTE MANIFEST NO 107563 | 1. PAGE __OF__ | 2. TRAILER NO. P/U

GENERATOR

3. COMPANY NAME	4. ADDRESS	5. PICK-UP DATE
Enterprise Products	2182 Commerce	2/26/2015
PHONE NO. (432) 230-1414	CITY Midland STATE TX ZIP 79703	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. 2.560					

12. COMMENTS OR SPECIAL INSTRUCTIONS:	13. WASTE PROFILE NO.
Profile # 1214708. SOUTH CARLSBAD COMPRESSOR STATION	708582

14. IN CASE OF EMERGENCY OR SPILL, CONTACT

NAME	PHONE NO	24-HOUR EMERGENCY NO.
Kin Slaughter	575-887-4048	

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: LIGHTHOUSE ENVIROMENTAL	NAME:
TEXAS I.D. NO.	TEXAS I.D. NO.
IN CASE OF EMERGENCY CONTACT: MIKE ZIENTIK	IN CASE OF EMERGENCY CONTACT:
EMERGENCY PHONE: (979) 525-9066	EMERGENCY PHONE:
18. **TRANSPORTER (1):** Acknowledgment of receipt of material	19. **TRANSPORTER (2):** Acknowledgment of receipt of material
PRINTED/TYPED NAME X Mattie Wentworth	PRINTED/TYPED NAME
SIGNATURE X DATE 2/26/2015	SIGNATURE DATE

DISPOSAL FACILITY

Lea Land, LLC	ADDRESS: Mile Marker 64, U.S. Hwy 62/180, 30 Miles East of Carlsbad, NM	PHONE: 575-887-4048

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
Donna Jasino		2/26/2015	10:10

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

COPY 4