Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	2RP-5540
District RP	
Facility ID	nAB1428949803
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☑ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☑ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☑ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☑ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Rob Kirk Title: Rob Kirk, General Manager, HSE & Compliance

Signature: RP Kirk Date: 07/22/2010

email: rob.kirk@solarismidstream.com Telephone: 432-203-9020

OCD Only

Received by: _____ Date: _____

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: Bradford Billings Date: 09/27/2022

Printed Name: Bradford Billings Title: Envi. Spec.A

Closure of Release Investigation and Remedial Action Plan

General Site Information:
Eddy State #2 SWD

Site Contact:
Rob Kirk, Solaris Water Midstream
907 Tradewinds Blvd, Ste. B, Midland, Texas 79706
(432) 203-9020

Depth to Ground Water
Greater than 100 feet below grade surface

Distance to Nearest Surface Water
Red Bluff Reservoir (North-western Loving County, TX), approximately 5 miles to the South

Driving Directions
From Hwy 285, and Black River Village Rd go south 12.5 mi, East on unimproved road 2.45 mi., stay left at the fork and continue east for 1.84 mi., then turn northeast onto Pipeline Rd 2.45 mi., North 0.40 mi. to Pipe location.

Legal Description
Unit K, Section 2, T26S, R29E, Eddy County, New Mexico

July 17, 2020
Terracon Project No. AR197208

Prepared for:
Solaris Water Midstream LLC
Midland, Texas

Prepared by:
Terracon Consultants, Inc.
Lubbock, Texas

July 17, 2020

Terracon

Solaris Water Midstream LLC
907 Tradewinds Blvd., Suite B
Midland, Texas 79706

Attn: Mr. Rob Kirk
P: 432-203-9020
E: rob.kirk@solarismidstream.com

RE: **Closure of Release Investigation and Remedial Action Plan**
Eddy State #2 SWD
Unit K, Section 2, Township 26 South, Range 29 East
Eddy County, New Mexico
Terracon Project No. AR197208

Dear Mr. Kirk,

Terracon Consultants, Inc. (Terracon) is pleased to submit our Closure of the Release Investigation and Remedial Action Plan (RAP) for the site referenced above. The Release Investigation and RAP were developed in accordance with the New Mexico Oil Conservation Division (NMOCD) regulations concerning clean-up actions required for releases of crude oil and produced water. Based on the release investigation assessment, Terracon recommended the following actions be taken to achieve protection of fresh water and the environment in accordance with NMOCD regulations. Terracon developed the Release Investigation and RAP in general accordance with our proposal (PAR197208) dated July 10, 2019.

- Based on the magnitude of chloride and hydrocarbon concentrations detected within the release margins to depths subject to NMOCD Reclamation requirements, approximately 2,500 cubic yards (cy) of chloride impacted material was excavated and disposed of at a permitted disposal facility under manifest.
- Following excavation to restrictive layer depths, vertical and horizontal delineation samples were collected from the base and walls of the excavation to confirm the remaining levels of soil contaminants are below the desired NMOCD remediation action level (RAL).
- During initial excavation activities, restrictive features were encountered at 24 to 30 inches below grade surface (bgs). Terracon anticipated the need for hydro excavation services to complete the project, during excavation it was determined that hydro excavation was not necessary.
- Based on the depth to groundwater and the confirmed vertical delineation, remedial response was not warranted within the soils at depths greater than 4 ft. bgs.

- Terracon did backfill and will reseed following submittal of the closure report in accordance with *NMOCD Re-vegetation Guidlines (19.15.29.13)*

Terracon appreciates this opportunity to provide environmental services to Solaris Water Midstream LLC (Solaris). Should you have any questions or require additional information, please do not hesitate to contact our office.

Sincerely,
Terracon Consultants, Inc.

Joseph Guesnier	Erin Loyd, P.G. (TX)
Staff Scientist	Principal
Lubbock	Office Manager – Lubbock

Terracon

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Eddy State #2 SWD
Unit K, Section 2, T26S, R29E
Eddy County, New Mexico
Terracon Project No. AR197208
July 17, 2020

1.0 SITE DESCRIPTION

The site is comprised of a 0.1-acre non-reportable produced water spill and 0.50-acre produced water spill, with a small portion of the release residing on the production pad, half of the spill residing on the pipeline right of way, and the remainder extending to the west into pasture land. The site is within the Unit Letter K, Section 2, Township 26 South, Range 29 East, Eddy County, New Mexico. The Eddy State #2 SWD consists of rights-of-way for pipelines, and a Salt water Disposal (SWD) production pad; the entire area is owned by the State of New Mexico. The first release originated from an overfilled open-top roll-off tank and the second release origin being a pump-check valve failure. A Topographic Map illustrating the site location is included as Figure 1 and a Site Diagram illustrating soil sample locations is included as Figure 2 in Appendix A. A water well record search is also included as New Mexico Office of the State Engineer (NMOSE) Point of Diversion (POD) Location Map as Figure 6 in Appendix A. A map illustrating the site's location in reference to NMOCD Karst mapping database is presented as Figure 5 in Appendix A.

2.0 SCOPE OF SERVICES

Terracon's scope of services was to investigate the magnitude and extent of the documented releases and develop a Remedial Action Plan (RAP) in accordance with the NMOCD requirements that detail site closure activities to be completed. This RAP addresses the May 24, 2019, and July 9, 2019 releases totaling an estimated 300 barrels (bbls) of produced water which contained an estimated 1 bbls of crude originating from an open-top roll-off tank and a pump-check valve failure.

3.0 INTRODUCTION AND NOTIFICATION

The following table provides detailed information regarding the May 24, 2019 and July 9, 2019 produced water releases at the Eddy State #2 SWD Site in Eddy County, New Mexico:

Required Information	Site and Release information	
Responsible party Local contact	The facility is operated by Solaris Water Midstream	
	Contact: Mr. Rob Kirk	P: (469) 978-5620

Required Information	Site and Release information	
		E: rob.kirk@solarismidstream.com
NMOCD Notification	Notice of the initial release was brought to the attention of Solaris by an NMOCD email. Notice of the 2nd release was provided to the NMOCD District 2 Artesia Office by Rob Kirk (Solaris) on July 9, 2019.	
Facility description	The Eddy State 2 SWD is in Eddy County, New Mexico. It is an approximate 8-acre area located within Unit K, Section 2, Township 26 South, Range 29 East, approximately 12 miles southeast of Malaga, New Mexico. The site is being developed as an area for a SWD.	
Time of incidents	First: discovered May 24, 2019. Second: discovered July 9, 2019, at 11:00 a.m.	
Discharge events	The Releases of produced water containing crude oil originated from an overflowing open-top roll-off tank and a pump-check valve failure on a pipeline connection of a Solaris flowback line. The release origin occurred on the west side of the facility pad, under development at the time of the release. The release area, near the origin of the releases, was limited to an approximately 1-acre area; however, a portion of the release meandered along the surface for approximately 800 ft. to the west at a width ranging from approximately 35 ft. at the release point down to 1 ft bgs. The release margins are illustrated on Figure 2 of Appendix A	
Type of discharge	The documented fluids release occurred at the pipeline and affected the surface and appears to be surficial at depth.	
Quantity of spilled material	Total Fluids: 300 bbls	Produced Water: 300 bbls containing approximately 1 bbls of crude oil
Site characteristics	Relatively flat with drainage following the native ground surface; very gently sloping to the west.	
Immediate corrective actions	Pipeline was shut in, and the pump along with the malfunctioning joint were replaced and repaired.	

4.0 INITIAL RESPONSE ACTIONS

4.1 Source Elimination

Initial source elimination was accomplished by the Solaris foreman shutting in the leaking line and replacing the malfunctioning pump and repairing the joint in the pipeline that failed. Solaris enlisted the help of Terracon to assess the impacted areas of the release.

5.0 GENERAL SITE CHARACTERISTICS

5.1 Depth to Groundwater

A water well record search of the New Mexico Office of the State Engineer (NMOSE) Potable Water Well (POD) Geographic Information System (GIS) data portal identified no registered wells within 0.5 miles of the site. One registered well (C-01360) was identified at 2.8 miles of the site with a stated depth of 173 ft. below grade surface (bgs). NMOSE registered wells within 3.25 miles of the site have a minimum depth to groundwater of 173 feet bgs, with a maximum reported depth of 184 feet bgs. Based on the review of NMOSE available documentation, the depth to groundwater at the site is anticipated to be deeper than 100 feet bgs.

5.2 Distance to Nearest Potable Water Well

Based on review of the NMOSE database, registered potable water wells were not present within 0.5 miles of the site.

5.3 Distance to Nearest Surface Water

The Red Bluff Reservoir is located approximately 5 miles south of the site.

5.4 Soil / Waste Characteristics

Soils at the site are mapped as Upton-Simona complex, 1 to 5 percent slopes, eroded, 0 to 13 inches gravelly loam, 13 to 21 inches cemented, and 21 to 60 inches very gravelly loam. This soil has a surface layer of gravelly sand. Restrictive features are present at 7 to 20 inches bgs resulting in the formation being categorized with a high runoff classification.

5.5 Karst Characteristics

Terracon evaluated data from the NMOCD Public FTP Site, Karst map designations in reference to the site location. The site appears to be within a high level Karst risk area. Based on site observations within the extent of the release margins, the potential for Karst formations in this specific area are of low potential. The site has a layer of solid competent rock from 30 to 60 inches bgs. The full extent of release quantities and excavation activities were not greater than 24 inches bgs.

5.6 Groundwater Quality

Groundwater quality at the site is predominantly used for commercial oil and gas production and the nearest well (CP-01360) is being utilized for industrial operations.

6.0 REGULATORY FRAMEWORK AND RESPONSE ACTION LEVELS

Oil and gas exploration and production facilities in New Mexico are generally regulated by the New Mexico Oil Conservation Division (NMOCD). The NMOCD has issued the *Closure Criteria for Soils Impacted by a Release, June 21, 2018* and *Restoration, Reclamation, and Re-vegetation (19.15.29.13) NMAC – D (Reclamation of areas no longer in use)* as guidance documents for the remediation and reclamation of sites impacted by releases from oil and gas exploration and production activities. Sections 6.1 and 6.2 below detail applicability of these guidance documents to the site-specific characteristics associated with the Eddy State #2 SWD.

6.1 Reclamation Levels (Surface to 4 ft. bgs)

The below Reclamation Limits for chlorides, TPH (GRO+DRO+MRO), BTEX (includes benzene, toluene, ethylbenzene and xylenes), and benzene are defined within New Mexico Administration Code (NMAC) *Restoration, Reclamation, and Re-vegetation* (19.15.29.13) *New Mexico Administration Code (NMAC) – D (Reclamation of areas no longer in use)* for soils extending to 4 ft. bgs.:

Constituent	Remediation Limits
Chloride	600 mg/kg
TPH (GRO+DRO+MRO)	100 mg/kg
BTEX	50 mg/kg
Benzene	10 mg/kg

6.2 Remediation Levels (> 4 ft. bgs)

The *Closure Criteria for Soils Impacted by a Release* guidance document provides direction for initial response actions, site assessment, sampling procedures and provides closure criteria based on the depth to groundwater, distance to private and domestic water sources, and the distance to the nearest surface water body as follows:

Table 1
Closure Criteria for Soils Impacted by a Release

Minimum depth below any point within the horizontal boundary of the release to ground water less than 10,000 mg/L TDS	Constituent	Method*	Limit**
≤50 feet	Chloride***	EPA 300.0 or SM4500 Cl B	600 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015 M	100 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg
51 feet – 100 feet	Chloride***	EPA 300.0 or SM4500 Cl B	10,000 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015 M	2,500 mg/kg
	GRO+DRO	EPA SW-846 Method 8015 M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg
>100 feet	Chloride***	EPA 300.0 or SM4500 Cl B	20,000 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015 M	2,500 mg/kg
	TPH (GRO+DRO)	EPA SW-846 Method 8015 M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg

**Or other methods approved by the division*
***Numerical limits or natural background level, whichever is greater*
****This applies to releases of produced water or other fluids, which may contain chloride*

Based on the site-specific characteristics, the applicable NMOCD remediation levels for Total BTEX, chloride, and TPH within soils, exclusive of the Reclamation Zone (surface to 4 ft. bgs), are as follows:

Constituent	Remediation Limit
Chloride	20,000 mg/kg
TPH (GRO+DRO+MRO)	2,500 mg/kg
TPH (GRO+DRO)	1,000 mg/kg
BTEX	50 mg/kg
Benzene	10 mg/kg

7.0 SOIL SAMPLING PROCEDURES

Soil sampling procedures are detailed as follows:

7.1 Soil Sampling Procedures for Laboratory Analysis

Soil Sampling Procedures

Soil sampling for laboratory analysis was conducted according to NMOCD-approved industry standards or other NMOCD-approved procedures. Accepted NMOCD soil sampling procedures and laboratory analytical methods are as follows:

- Collect samples in clean, air-tight glass jars supplied by the laboratory which will conduct the analysis or from a reliable laboratory equipment supplier.
- Label the samples with a unique code for each sample.
- Cool and store samples with cold packs or on ice.
- Promptly ship sample to the lab for analysis following chain of custody procedures.
- All samples must be analyzed within the holding times for the laboratory analytical method specified by EPA.

Analytical Methods

All soil samples must be analyzed using EPA methods, or by other NMOCD-approved methods and must be analyzed within the holding time specified by the method. Below are laboratory analytical methods the selected laboratory will use for analysis of soil samples analyzed for petroleum related constituents.

- Chloride – EPA Method 300.0
- Total Petroleum Hydrocarbons – TPH (GRO+DRO+MRO) – EPA Method 8015M

- Benzene, toluene, ethylbenzene and total xylenes (BTEX) – EPA Method 8021B
- Benzene – EPA Method 8021B

8.0 NON-REPORTABLE RELEASE INVESTIGATION DATA EVALUATION

During Terracon's June 4, 2019 release investigation activities, a total of four soil samples were collected from the site on pad and analyzed for BTEX, chloride, and/or TPH. All samples were collected from within the release margins.

8.1 Release Margins Data Evaluation

8.1.1 Reclamation Assessment Data Evaluation

Benzene was not detected above applicable laboratory SDLs in the soil samples analyzed within the release margins. The detected benzene concentrations did not exceed the applicable NMOCD RAL for benzene of 10 mg/kg, as summarized in Table 1.

Total BTEX was detected above applicable laboratory SDLs in three of the four soil samples analyzed within the release margins. The BTEX concentrations ranged from 0.000186 mg/kg in soil sample HA-1 (0.5 to 1.0 ft bgs) to 0.0215 mg/kg in soil sample HA-2 (Surface to 0.5 ft bgs). The detected Total BTEX concentrations did not exceed the applicable NMOCD RAL for Total BTEX of 50 mg/kg, as summarized in Table 1.

Chloride was detected above applicable laboratory SDLs in each of the four soil samples analyzed within the release margins. The chloride concentrations ranged from 891 mg/kg in soil sample HA-1 (0.5 to 1.0 ft bgs) to 7,870 mg/kg in soil sample HA-1 (Surface to 0.5 ft bgs). The soil samples analyzed within the release margins did not exhibit chloride concentrations exceeding the applicable NMOCD RAL for chloride of 20,000 mg/kg, as summarized in Table 1.

Total TPH was detected above applicable laboratory SDLs in each of the four soil samples analyzed within the release margins. The Total TPH concentrations ranged from 28.6 mg/kg in soil sample HA-2 (0.5 to 1.0 ft bgs) to 285 mg/kg in soil sample HA-2 (Surface to 0.5 ft bgs). The soil samples analyzed within the release margins did not exhibit Total TPH concentrations above the NMOCD RAL of 2,500 mg/kg for Total TPH, as summarized in Table 1.

8.1.2 Remediation Assessment Data Evaluation

At each of the soil boring locations, soil samples greater than depths of 2 ft bgs were not obtained due to encountering a restrictive formation at depth.

8.2 Release Investigation Data Summary

Based on the review of the above release investigation analytical results, the areas within the release margins did exhibit concentrations of chloride and Total TPH in multiple locations. Based on the concentrations being below the NMOCD RALs for on pad non-reportable releases, Sections 9.0 and subsequent detail recommend remedial response actions not be implemented at the on pad release site.

It is anticipated that released produced water associated chlorides consolidated upon the cemented layer of the Petrocalcic features within the release margins. Based on the presence of the component rock, further analytical evaluation of deeper horizons appears unwarranted at this time.

9.0 REPORTABLE RELEASE INVESTIGATION DATA EVALUATION

During Terracon's July 15, 2019 release investigation activities, a total of nine soil samples were collected from the site and analyzed for BTEX, chloride, and/or TPH. All samples were collected from within the release margins.

9.1 Release Margins Data Evaluation

9.1.1 Reclamation Assessment Data Evaluation

Benzene was not detected above applicable laboratory SDLs in the soil samples analyzed within the release margins. The detected benzene concentrations did not exceed the applicable NMOCD RAL for benzene of 10 mg/kg, as summarized in Table 1.

Total BTEX was not detected above applicable laboratory SDLs in the soil samples analyzed within the release margins. The detected Total BTEX concentrations did not exceed the applicable NMOCD RAL for Total BTEX of 50 mg/kg, as summarized in Table 1.

Chloride was detected above applicable laboratory SDLs in each of the nine soil samples analyzed within the release margins. The chloride concentrations ranged from 1,950 mg/kg in soil sample HA-5 (0.5 to 1.0 ft bgs) to 16,300 mg/kg in soil sample HA-5 (Surface to 0.5 ft bgs). The soil samples analyzed within the release margins did exhibit chloride concentrations exceeding the applicable NMOCD RAL for chloride of 600 mg/kg, as summarized in Table 1.

Total TPH was detected above applicable laboratory SDLs in each of the nine soil samples analyzed within the release margins. The Total TPH concentrations ranged from 10.7 mg/kg in soil sample HA-3 (0.5 to 1.0 ft bgs) to 524 mg/kg in soil sample HA-5 (Surface to 0.5 ft bgs). Four of the nine soil samples collected within the release margins exhibited Total TPH concentrations above the NMOCD RAL of 100 mg/kg for Total TPH, as summarized in Table 1.

9.1.2 Remediation Assessment Data Evaluation

At each of the soil boring locations, soil samples greater than depths of 2 ft bgs were not obtained due to encountering a restrictive formation at depth.

9.2 Release Investigation Data Summary

Based on the review of the above release investigation analytical results, the areas within the release margins did exhibit concentrations of chloride and Total TPH in multiple locations. Based on these exceedances above NMOCD RALs, Sections 9.0 and subsequent detail recommended remedial response actions were implemented at the site.

It is anticipated that released produced water associated chlorides consolidated upon the cemented layer of the Petrocalcic features within the release margins. Based on the presence of the component rock, further analytical evaluation of deeper horizons appears unwarranted at this time.

9.3 Confirmation Margins Data Evaluation

During Terracon's three confirmation sampling events from October 1, 2019 to March 16, 2020, soil samples were collected from the side walls and the base of the open excavation in conjunction with reclamation activities. Confirmation composite samples were collected every 200 linear feet along the perimeter of the side wall, and floor confirmation samples were taken every 200 sq ft, resulting in 23 total soil samples collected from the site and analyzed for BTEX, chloride and/or TPH.

9.3.1 Confirmation Assessment Data Evaluation

Benzene was not detected above applicable laboratory SDLs in the soil samples analyzed within the release margins. The detected benzene concentrations did not exceed the applicable NMOCD RAL for benzene of 10 mg/kg, as summarized in Table 1.

Total BTEX was detected above applicable laboratory SDLs in one of the 23 soil samples analyzed within the release margins. The Total BTEX concentration was 0.00965 mg/kg in soil sample CS-1 (Surface to 0.5 ft bgs). The detected Total BTEX concentration did not exceed the applicable NMOCD RAL for Total BTEX of 50 mg/kg, as summarized in Table 1.

Chloride was detected above applicable laboratory SDLs in each of the 23 soil samples analyzed within the release margins. The chloride concentrations ranged from 1.43 mg/kg in soil sample CS-12 (0.5 to 1.0 ft bgs) to 11,600 mg/kg in soil sample CS-2.1 (Surface to 0.5 ft bgs). The soil samples analyzed within the release margins from the first two confirmation sampling events did

exhibit chloride concentrations exceeding the applicable NMOCD RAL for chloride of 600 mg/kg, The final confirmation sampling event on March 16, 2020 did not exceed the applicable NMOCD RAL for chloride of 600 mg/kg as summarized in Table 1.

Total TPH was detected above applicable laboratory SDLs in eight of the 23 soil samples analyzed within the release margins. The Total TPH concentrations ranged from 10.8 mg/kg in soil sample CS-5.1 (Surface to 0.5 ft bgs) to 67.7 mg/kg in soil sample CS-8 (2.0 to 2.5 ft bgs). The detected Total TPH concentrations did not exceed the applicable NMOCD RAL of 100 mg/kg for Total TPH, as summarized in Table 1.

9.3.2 Confirmation Data Summary

Based on the review of analytical results, the presence of petroleum hydrocarbon constituents (BTEX/TPH) were not detected at concentrations above applicable NMOCD Reclamation and/or Remediation Action Limits.

Of the 23 soil samples analyzed, 11 soil samples exhibited chloride concentrations above the applicable NMOCD RAL of 600 mg/kg. Samples exhibiting concentrations above the NMOCD RAL were exclusive to the initial confirmation sampling events on October 1, 2019, and January 21, 2020. Confirmation samples collected subsequent to remediation activities were below the NMOCD RALs.

10.0 SOIL RECLAMATION AND REMEDIATION

Impacted soil will be remediated, reclamated and managed according to the criteria described below which is intended to protect fresh waters, public health and the environment from exposure to the above constituents of concern.

10.1 Reclamation Response Objectives

Based on the magnitude of chloride concentrations detected within the release margins to depths subject to NMOCD Reclamation requirements, approximately 2,000 cy of chloride impacted material were required to be excavated and disposed of at a permitted disposal facility under manifest.

10.2 Remediation Response Objectives

Following excavation to recommended Reclamation depths, horizontal and vertical delineation samples were collected from the base and walls of the excavation to confirm the remaining levels of soil contaminants are below the desired NMOCD RALs. Based on the proximity of the analyzed samples to this restrictive layer and the magnitude of the concentrations being elevated above

600 mg/kg but below 20,000 mg/kg, Terracon recommended hydro excavation of the restrictive feature to wash out the residual presence of chlorides at this restrictive zone to ensure that concentrations are not elevated further at this restrictive interphase. Subsequent to these recommendations, multiple rainfall events effectively cleaned off what restrictive features were present, and Terracon sampled the base of the excavation that presented soils for sampling. Terracon included photo logs of the washed restrictive features with the closure report.

Based on the depth to groundwater, remedial response was not warranted within the soils at depths greater than 2 ft. bgs.

10.3 Soil Management

The selected method of soil management is removal and disposal at a NMOCD-approved facility. Excavated soils will be transported by truck (20 cubic yard capacity) and disposed of at either the R360 Disposal Facility located in Halfway, New Mexico or the Lea Land Disposal Facility located in Lea County, New Mexico, based on landfill approvals.

11.0 TERMINATION OF REMEDIAL ACTIONS, FINAL CLOSURE AND REPORTING

11.1 Termination of Reclamation and Remedial Actions

Reclamation and remedial actions at the site were terminated when the confirmation samples indicated that the above objectives had been completed within the reclamation and remedial depth designations. The intent of the reclamation and remedial approaches were to achieve compliance with NMOCD regulatory objectives in ensuring that any remaining contaminants will not pose a threat to present or foreseeable beneficial use of fresh water, the public health and the environment.

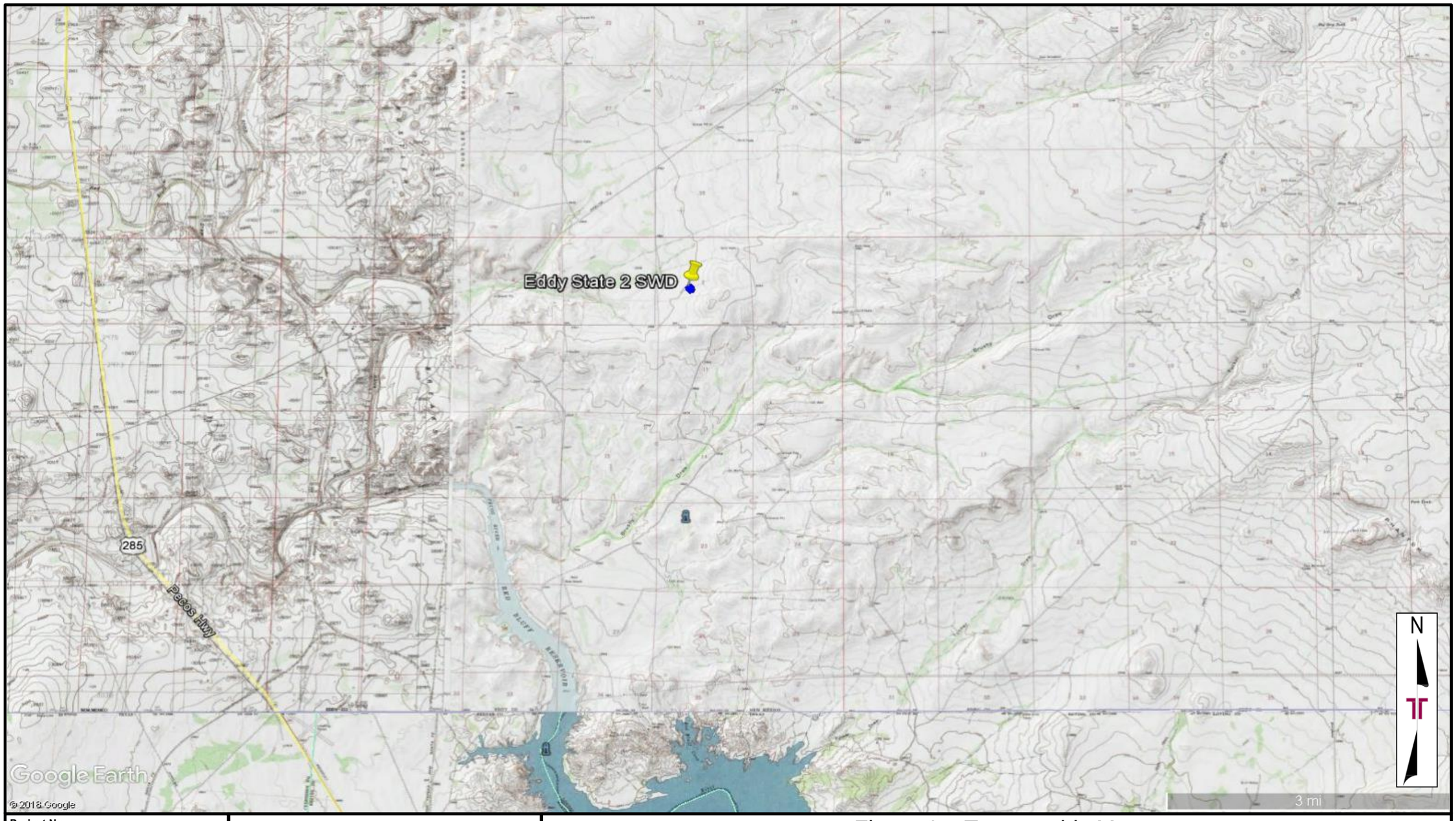
11.2 Final Closure

Upon termination of remedial actions (Sections 6 and 9), the area of the release will be closed by backfilling the excavated area, contouring to surrounding area topography and reseeding the area with approved-native vegetative seed.

11.3 Final Report

Upon completion of remedial activities, a final report summarizing actions taken to mitigate environmental damage related to the release has been provided to NMOCD for approval.

APPENDIX A – FIGURES AND TABLES

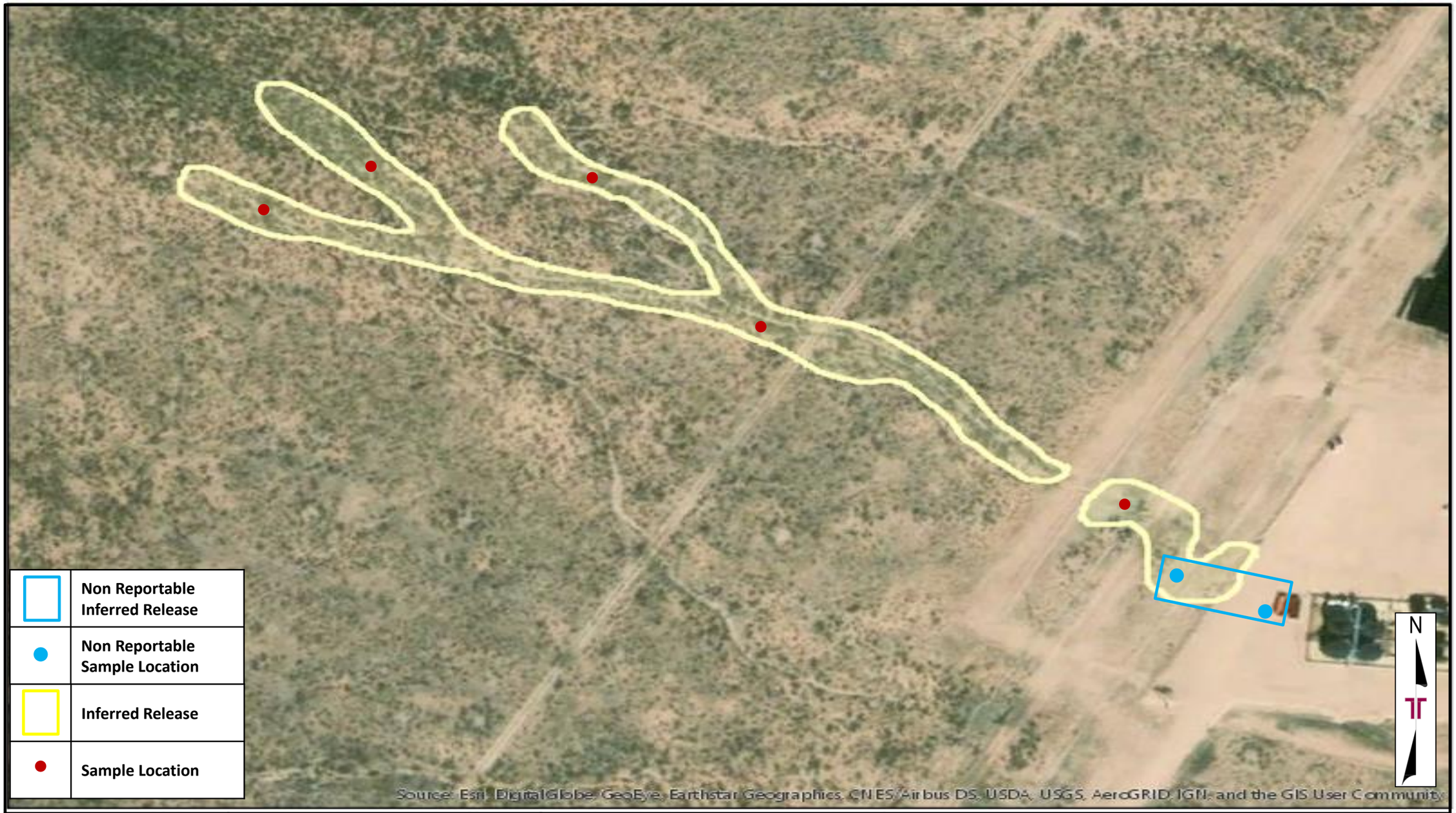


Project No.	AR197208
Scale:	As Shown
Source:	Google Earth
Image Date:	11/02/2017

Terracon
Consulting Engineers & Scientists
5847 50th St Lubbock, Texas 79424
PH. (806) 300-0104 FAX. (806) 797 0947

Figure 1 – Topographic Map

Eddy State 2 SWD
32.071119°, -103.958405°
Eddy County, New Mexico

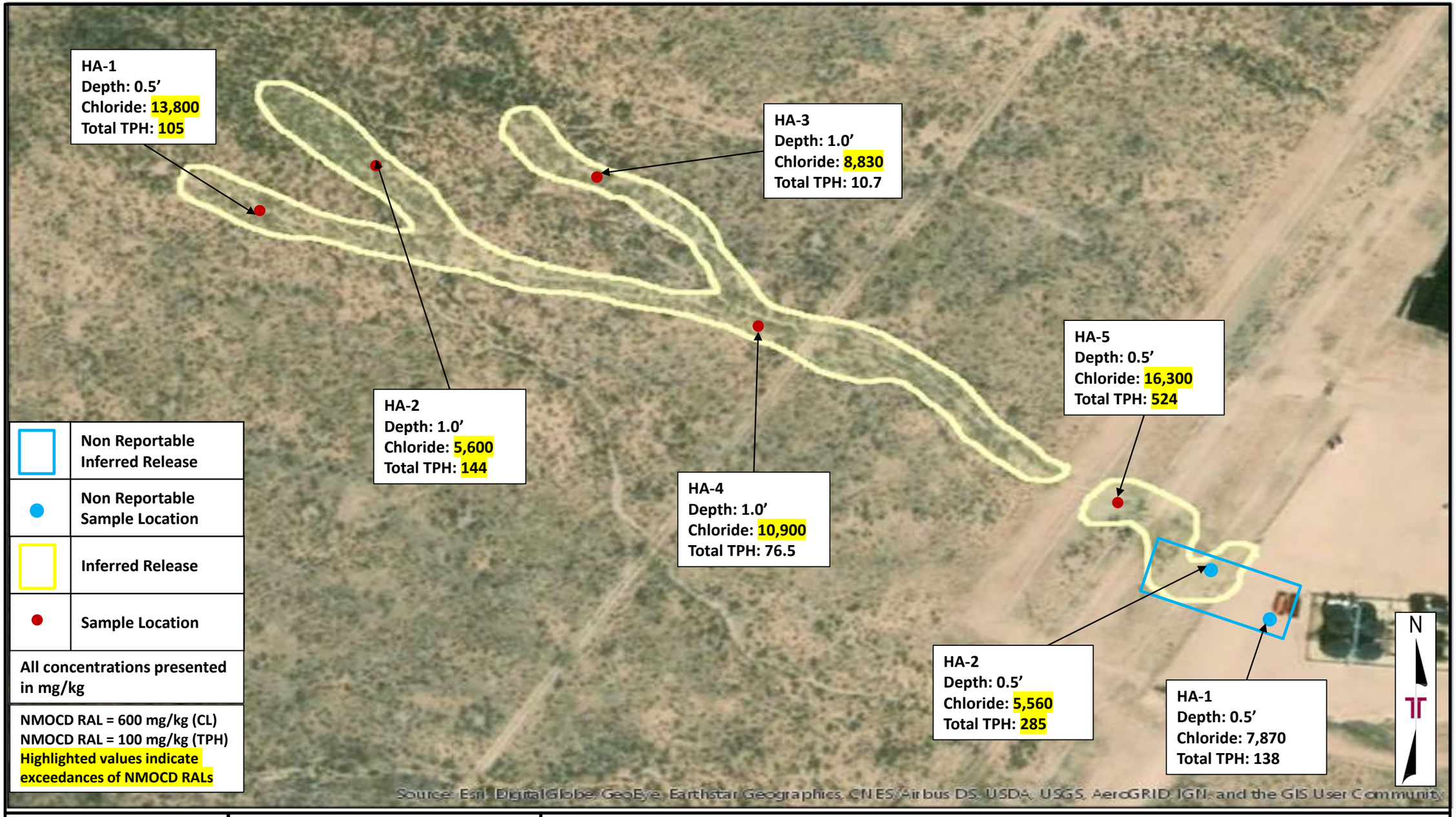


Project No.	AR197208
Scale:	As Shown
Source:	Google Earth
Image Date:	11/02/2017

Terracon
Consulting Engineers & Scientists
5847 50th St Lubbock, Texas 79424
PH. (806) 300-0104 FAX. (806) 797 0947

Figure 2 – Site Diagram

Eddy State 2 SWD
32.071119°, -103.958405°
Eddy County, New Mexico

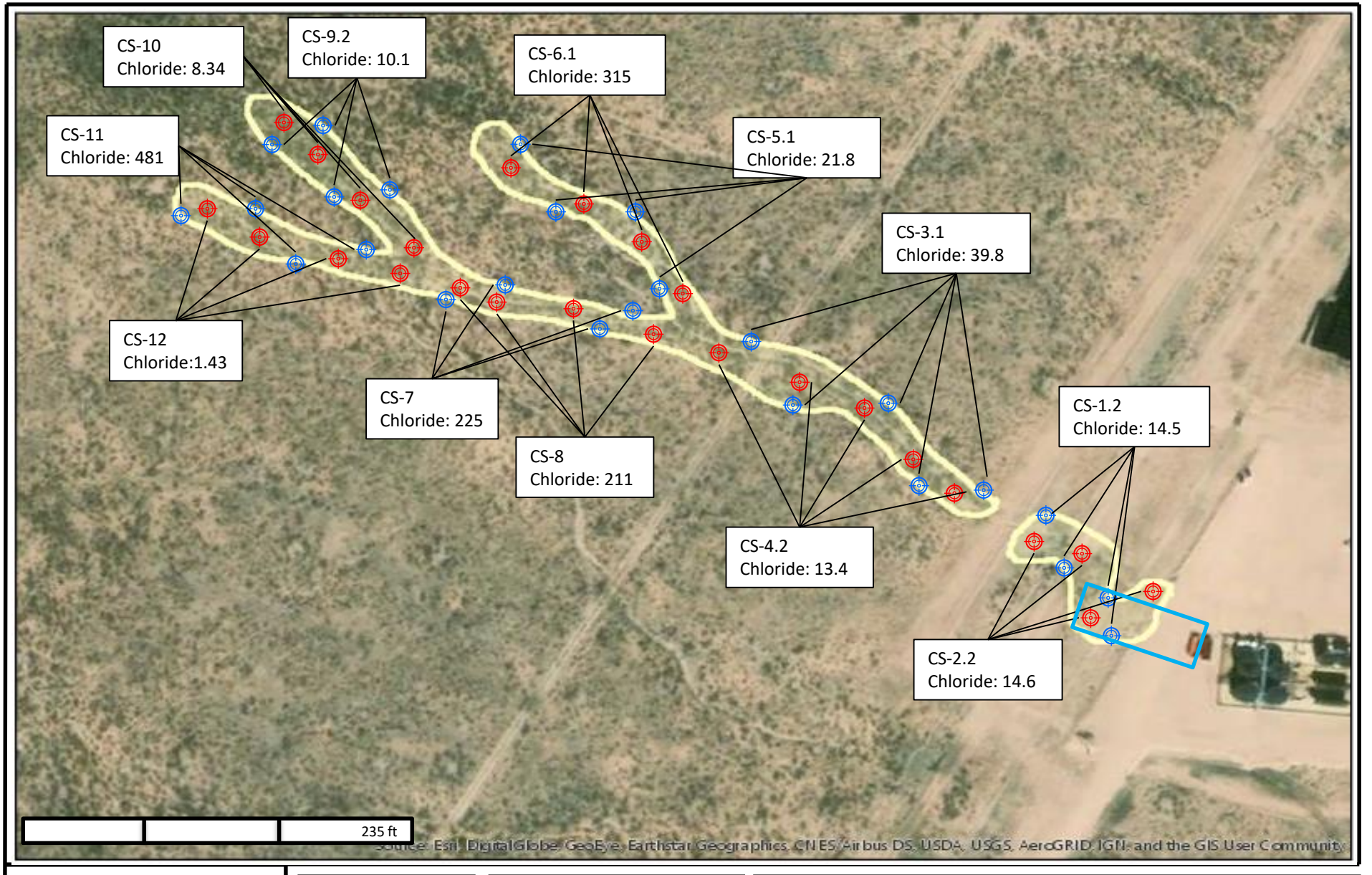


Project No.	AR197208
Scale:	As Shown
Source:	Google Earth
Image Date:	11/02/2017

Terracon
Consulting Engineers & Scientists
5847 50th St Lubbock, Texas 79424
PH. (806) 300-0104 FAX. (806) 797 0947

Figure 3 – Contamination Concentration Map

Eddy State Battery Gathering Line PW Release
32.071119°, -103.958405°
Eddy County, New Mexico



Floor Sample

Wall Sample

N

Project No.	AR197208
Scale:	1:2,820
Source:	Google Earth
Date:	10/1/2019

Terracon
Consulting Engineers & Scientists
5847 50th Street Lubbock, Texas 79424
PH. (806) 300 - 0140 FAX. (806) 797 - 0947

Figure 4 – Confirmation Concentration Map

Eddy State Battery

32.070539, -103.957338

Eddy County, New Mexico

Figure - 5 NMOSE POD Location MAP

10/10/2019 11:58:10 AM

OSE District Boundary

1:72,224

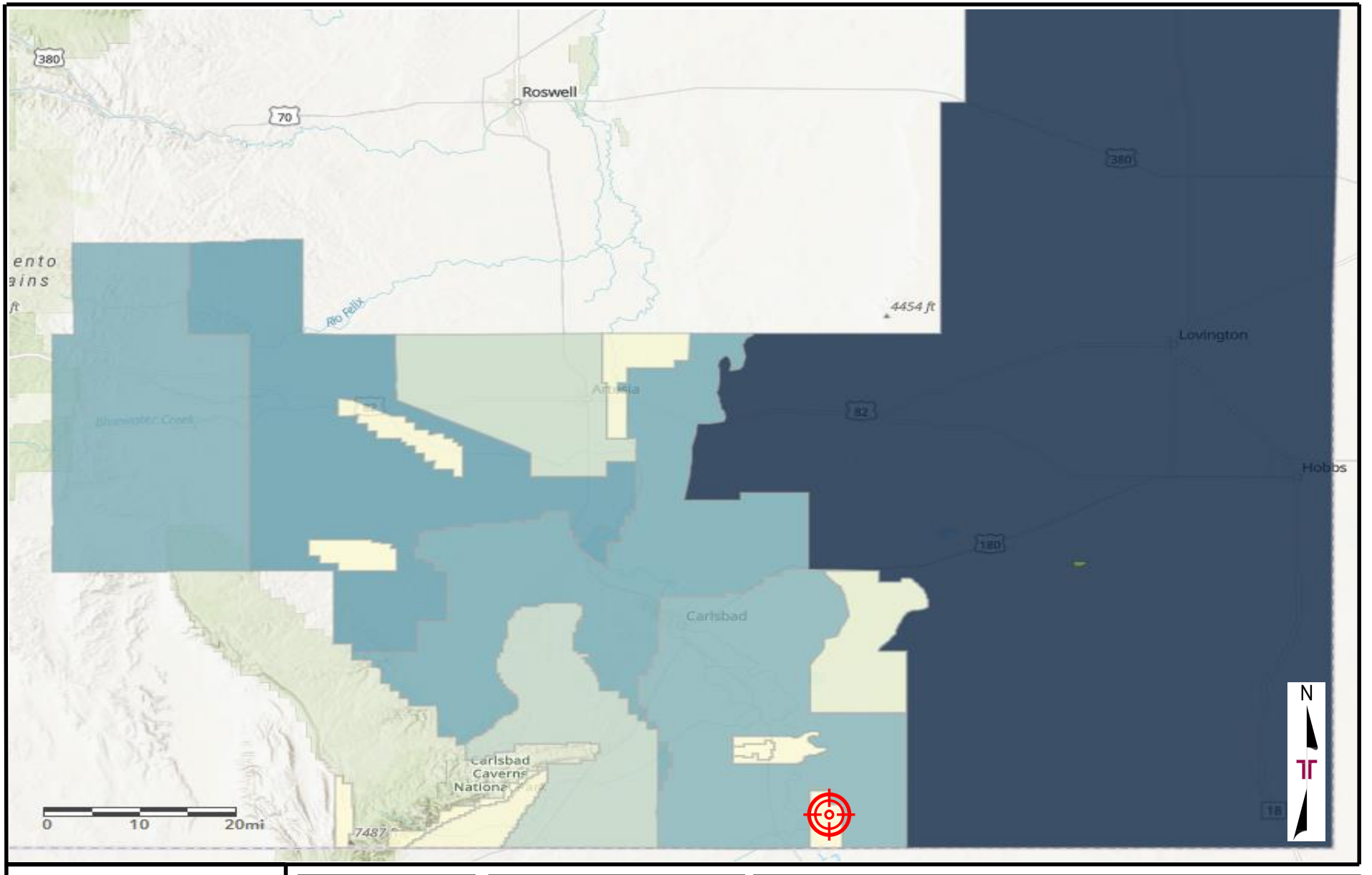
0 0.5 1 2 mi

0 0.75 1.5 3 km

Esri, HERE, Garmin, (c) OpenStreetMap contributors, Esri, HERE, Garmin,

Printed from Public Web Map

Unofficial Map from OSE POD Locations Web Application



Area
> 4,639,520,691
2,329,282,660
< 19,044,631

Eddy State 2 SWD

Project No.	AR197208
Scale:	As Shown
Source:	ESRI
Date:	09/26/2019

Terracon
Consulting Engineers & Scientists
5847 50th Street Lubbock, Texas 79424
PH. (806) 300 - 0140 FAX. (806) 797 - 0947

Figure 6 - Cave Karst Public UCP

Eddy State 2 SWD

32.071119, -103.958405

Eddy County, New Mexico

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS - BTEX[1], Chloride[2], and TPH[3]
Eddy State Battery
Terracon Project No. AR197208

Sample I.D.	Sample Depth (ft. bgs)	Sample Type	Sample Date	BTEX (mg/kg)	Chloride (mg/kg)	TPH (8015M) (mg/kg)			
						GRO	DRO	MRO	TOTAL
Release Margin Samples (Off Pad)									
HA-1	0 - 0.5	Grab	07/15/19	Benzene - <0.00895 Toluene - <0.00463 Ethylbenzene - <0.00610 Total Xylenes - <0.00675 Total BTEX - <0.00463	**13,800**	<10.0	80.2	24.7	**105**
HA-2	0 - 0.5	Grab	07/15/19	Benzene - <0.00881 Toluene - <0.00456 Ethylbenzene - <0.00600 Total Xylenes - <0.00665 Total BTEX - <0.00456	**7,830**	<9.95	52.1	19.4	71.5
	0.5 - 1	Grab	07/15/19	Benzene - <0.00883 Toluene - <0.00457 Ethylbenzene - <0.00602 Total Xylenes - <0.00666 Total BTEX - <0.00475	**5,600**	<9.95	108	36.0	**144**
	1.5 - 2	Grab	07/15/19	BTEX - NA	NA	NA			
HA-3	0 - 0.5	Grab	07/15/19	Benzene - <0.00878 Toluene - <0.00454 Ethylbenzene - <0.00598 Total Xylenes - <0.00662 Total BTEX - <0.00454	**6,980**	<9.98	10.8	<9.98	10.8
	0.5 - 1	Grab	07/15/19	Benzene - <0.00825 Toluene - <0.00427 Ethylbenzene - <0.00562 Total Xylenes - <0.00622 Total BTEX - <0.00427	**8,830**	<9.94	10.7	<9.94	10.7
HA-4	0 - 0.5	Grab	07/15/19	Benzene - <0.00843 Toluene - <0.00437 Ethylbenzene - <0.00575 Total Xylenes - <0.00636 Total BTEX - <0.00437	**8,570**	<9.97	11.1	<9.97	11.1
	0.5 - 1	Grab	07/15/19	Benzene - <0.00902 Toluene - <0.00467 Ethylbenzene - <0.00615 Total Xylenes - <0.00681 Total BTEX - <0.00467	**10,900**	<9.93	55.6	20.9	76.5
	1.5 - 2	Grab	07/15/19	BTEX - NA	NA	N/A			
HA-5	0 - 0.5	Grab	07/15/19	Benzene - <0.00868 Toluene - <0.00449 Ethylbenzene - <0.00591 Total Xylenes - <0.00655 Total BTEX - <0.00449	**16,300**	<9.93	409	115	**524**
	0.5 - 1	Grab	07/15/19	Benzene - <0.00900 Toluene - <0.00466 Ethylbenzene - <0.00614 Total Xylenes - <0.00679 Total BTEX - <0.00466	**1,950**	<9.95	152	54.3	**206**
NMOCD Reclamation Standards[4] **(Applicable for Soils from the Surface to 4 ft. Below Grade Surface)**				**Benzene - 10** **Toluene - N/A** **Ethylbenzene - N/A** **Total Xylenes - N/A** **Total BTEX - 50**	**600**	**N/A**			**100**
NMOCD Remediation and Delineation Standards[5] **(Applicable for Soils at Depths Greater than 4 ft. Below Grade Surface)**				**Benzene - 10** **Toluene - N/A** **Ethylbenzene - N/A** **Total Xylenes - N/A** **Total BTEX - 50**	**20,000**	**1,000**		**N/A**	**2,500**

1. BTEX = Benzene, toluene, ethylbenzene, total xylenes analyzed by EPA Method 8021B
2. Chloride = Chloride analyzed by EPA Method 300.
3. TPH = Total petroleum hydrocarbons analyzed by EPA Method 8015M (GRO/DRO/MRO)
4. New Mexico Administration Code (NMAC) Restoration, Reclamation, and Re-vegetation (19.15.29.13) New Mexico Administration Code (NMAC) – D (Reclamation of areas no longer in use) for soils extending to 4 ft. bgs
5. New Mexico Oil Conservation Division (NMOCD) Remediation and Delineation Standards are proposed in 19.15.29.12 NMAC - N, 8/14/2018

< = Constituent not detected above the indicated laboratory SDL
NA = Not Analyzed
N/A = Not Applicable
Bold and Highlight denotes concentrations that exceed the New Mexico Oil Conservation Division (NMOCD) Reclamation and/or Remediation and Delineation Standards.

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS - BTEX[1], Chloride[2], and TPH[3]
Eddy State Battery
Terracon Project No. AR197208

Sample I.D.	Sample Depth (ft. bgs)	Sample Type	Sample Date	BTEX (mg/kg)	Chloride (mg/kg)	TPH (8015M) (mg/kg)			
						GRO	DRO	MRO	TOTAL
Confirmation Samples (Off Pad)									
CS-1	0 - 0.5	Composite	10/01/19	Benzene - <0.00873 Toluene - <0.00452 Ethylbenzene - <0.00595 Total Xylenes - 0.00965 Total BTEX - 0.00965	**2,730**	<10.0	13.9	<10.0	13.9
CS-2	0 - 0.5	Composite	10/01/19	Benzene - <0.00843 Toluene - <0.00437 Ethylbenzene - <0.00575 Total Xylenes - <0.00636 Total BTEX - <0.00437	**1,460**	<9.97	29	11	40
CS-3	0 - 0.5	Composite	10/01/19	Benzene - <0.00895 Toluene - <0.00463 Ethylbenzene - <0.00610 Total Xylenes - <0.00675 Total BTEX - <0.00463	**3,450**	10.2	38.4	11.1	59.7
CS-4	2 - 2.5	Composite	10/01/19	Benzene - <0.00807 Toluene - <0.00418 Ethylbenzene - <0.00550 Total Xylenes - <0.00609 Total BTEX - <0.00418	**1,390**	<9.92	<9.92	<9.92	<9.92
CS-5	0 - 0.5	Composite	10/01/19	Benzene - <0.00854 Toluene - <0.00442 Ethylbenzene - <0.00582 Total Xylenes - <0.00645 Total BTEX - <0.00442	**1,030**	<9.95	<9.95	<9.95	<9.95
CS-6	2 - 2.5	Composite	10/01/19	Benzene - <0.00829 Toluene - <0.00429 Ethylbenzene - <0.00565 Total Xylenes - <0.00626 Total BTEX - <0.00429	**1,440**	<9.92	17.6	<9.92	17.6
CS-7	0 - 0.5	Composite	10/01/19	Benzene - <0.00840 Toluene - <0.00435 Ethylbenzene - <0.00572 Total Xylenes - <0.00634 Total BTEX - <0.00435	225	<9.94	<9.94	<9.94	<9.94
CS-8	2 - 2.5	Composite	10/01/19	Benzene - <0.00893 Toluene - <0.00462 Ethylbenzene - <0.00609 Total Xylenes - <0.00674 Total BTEX - <0.00462	211	10.7	30.4	26.6	67.7
CS-9	0 - 0.5	Composite	10/01/19	Benzene - <0.00892 Toluene - <0.00462 Ethylbenzene - <0.00607 Total Xylenes - <0.00673 Total BTEX - <0.00462	**616**	<10.0	24.6	14.4	39
CS-10	2 - 2.5	Composite	10/01/19	Benzene - <0.00842 Toluene - <0.00436 Ethylbenzene - <0.00574 Total Xylenes - <0.00635 Total BTEX - <0.00436	8.34	<10.0	15.8	<10.0	15.8
CS-11	0 - 0.5	Composite	10/01/19	Benzene - <0.00871 Toluene - <0.00451 Ethylbenzene - <0.00593 Total Xylenes - <0.00657 Total BTEX - <0.00451	481	<9.97	<9.97	<9.97	<9.97
CS-12	0.5 - 1	Composite	10/01/19	Benzene - <0.00886 Toluene - <0.00459 Ethylbenzene - <0.00604 Total Xylenes - <0.00669 Total BTEX - <0.00459	1.43	<9.94	<9.94	<9.94	<9.94
NMOCD Reclamation Standards[4] **(Applicable for Soils from the Surface to 4 ft. Below Grade Surface)**				**Benzene - 10** **Toluene - N/A** **Ethylbenzene - N/A** **Total Xylenes - N/A** **Total BTEX - 50**	**600**	**N/A**			**100**
NMOCD Remediation and Delineation Standards[5] **(Applicable for Soils at Depths Greater than 4 ft. Below Grade Surface)**				**Benzene - 10** **Toluene - N/A** **Ethylbenzene - N/A** **Total Xylenes - N/A** **Total BTEX - 50**	**20,000**	**1,000**		**N/A**	**2,500**

1. BTEX = Benzene, toluene, ethylbenzene, total xylenes analyzed by EPA Method 8021B
2. Chloride = Chloride analyzed by EPA Method 300.
3. TPH = Total petroleum hydrocarbons analyzed by EPA Method 8015M (GRO/DRO/MRO)
4. New Mexico Administration Code (NMAC) Restoration, Reclamation, and Re-vegetation (19.15.29.13) New Mexico Administration Code (NMAC) – D (Reclamation of areas no longer in use) for soils extending to 4 ft. bgs
5. New Mexico Oil Conservation Division (NMOCD) Remediation and Delineation Standards are proposed in 19.15.29.12 NMAC - N, 8/14/2018

< = Constituent not detected above the indicated laboratory SDL
NA = Not Analyzed
N/A = Not Applicable
Bold and Highlight denotes concentrations that exceed the New Mexico Oil Conservation Division (NMOCD) Reclamation and/or Remediation and Delineation Standards.

TABLE 1
SOIL SAMPLE ANALYTICAL RESULTS - BTEX[1], Chloride[2], and TPH[3]
Eddy State Battery
Terracon Project No. AR197208

Sample I.D.	Sample Depth (ft. bgs)	Sample Type	Sample Date	BTEX (mg/kg)	Chloride (mg/kg)	TPH (8015M) (mg/kg)			
						GRO	DRO	MRO	TOTAL
Confirmation Samples (Off Pad)									
CS-1.1	1.5 - 2	Grab	01/21/20	Benzene - <0.00881 Toluene - <0.00456 Ethylbenzene - <0.00600 Total Xylenes - <0.00664 Total BTEX - <0.00456	**1,260**	<0.264	<7.44	<7.44	<0.264
CS-2.1	0 - 0.5	Grab	01/21/20	Benzene - <0.00864 Toluene - <0.00447 Ethylbenzene - <0.00589 Total Xylenes - <0.00652 Total BTEX - <0.00447	**11,600**	<0.259	<7.44	<7.44	<0.259
CS-3.1	0 - 0.5	Grab	01/21/20	Benzene - <0.00886 Toluene - <0.00459 Ethylbenzene - <0.00604 Total Xylenes - <0.00669 Total BTEX - <0.00459	39.8	<0.266	<7.52	<7.52	<0.266
CS-4.1	1.5 - 2	Grab	01/21/20	Benzene - <0.00843 Toluene - <0.00437 Ethylbenzene - <0.00575 Total Xylenes - <0.00636 Total BTEX - <0.00437	**1,790**	<0.253	<7.43	<7.43	<0.253
CS-5.1	0 - 0.5	Grab	01/21/20	Benzene - <0.00878 Toluene - <0.00454 Ethylbenzene - <0.00598 Total Xylenes - <0.00662 Total BTEX - <0.00454	21.8	<9.98	10.8	<9.98	10.8
CS-6.1	2 - 2.5	Grab	03/16/20	Benzene - <0.000205 Toluene - <0.000990 Ethylbenzene - <0.000332 Total Xylenes - <0.000432 Total BTEX - <0.000205	315	<0.234	<7.46	<7.46	<0.234
CS-9.1	0 - 0.5	Grab	01/21/20	Benzene - <0.00839 Toluene - <0.00434 Ethylbenzene - <0.00571 Total Xylenes - <0.00633 Total BTEX - <0.00434	**1,680**	<0.251	<7.41	<7.41	<0.251
CS-1.2	0 - 0.5	Grab	03/16/20	Benzene - <0.000205 Toluene - <0.000990 Ethylbenzene - <0.000332 Total Xylenes - <0.000432 Total BTEX - <0.000205	14.5	<0.243	<7.53	<7.53	<0.243
CS-2.2	2 - 2.5	Grab	03/16/20	Benzene - <0.000205 Toluene - <0.000990 Ethylbenzene - <0.000332 Total Xylenes - <0.000432 Total BTEX - <0.000205	14.6	<0.246	<7.41	<7.41	<0.246
CS-4.2	2 - 2.5	Grab	03/16/20	Benzene - <0.000206 Toluene - <0.000994 Ethylbenzene - <0.000334 Total Xylenes - <0.000434 Total BTEX - <0.000206	13.4	<0.267	<7.49	<7.49	<0.267
CS-9.2	0 - 0.5	Grab	03/16/20	Benzene - <0.000207 Toluene - <0.000998 Ethylbenzene - <0.000335 Total Xylenes - <0.000436 Total BTEX - <0.000207	10.1	<0.262	<7.54	<7.54	<0.262
NMOCD Reclamation Standards[4] **(Applicable for Soils from the Surface to 4 ft. Below Grade Surface)**				**Benzene - 10** **Toluene - N/A** **Ethylbenzene - N/A** **Total Xylenes - N/A** **Total BTEX - 50**	**600**	**N/A**			**100**
NMOCD Remediation and Delineation Standards[5] **(Applicable for Soils at Depths Greater than 4 ft. Below Grade Surface)**				**Benzene - 10** **Toluene - N/A** **Ethylbenzene - N/A** **Total Xylenes - N/A** **Total BTEX - 50**	**20,000**	**1,000**		**N/A**	**2,500**

1. BTEX = Benzene, toluene, ethylbenzene, total xylenes analyzed by EPA Method 8021B
2. Chloride = Chloride analyzed by EPA Method 300.
3. TPH = Total petroleum hydrocarbons analyzed by EPA Method 8015M (GRO/DRO/MRO)
4. New Mexico Administration Code (NMAC) Restoration, Reclamation, and Re-vegetation (19.15.29.13) New Mexico Administration Code (NMAC) – D (Reclamation of areas no longer in use) for soils extending to 4 ft. bgs
5. New Mexico Oil Conservation Division (NMOCD) Remediation and Delineation Standards are proposed in 19.15.29.12 NMAC - N, 8/14/2018

< = Constituent not detected above the indicated laboratory SDL
NA = Not Analyzed
N/A = Not Applicable
Bold and Highlight denotes concentrations that exceed the New Mexico Oil Conservation Division (NMOCD) Reclamation and/or Remediation and Delineation Standards.

APPENDIX B – PHOTOGRAPHIC LOG

PHOTO 1: View of sight and HA-1 (non-reportable), facing south. 6/04/2019

PHOTO 2: View of sight, standing water and HA-2 (non-reportable), facing east. 6/04/2019

PHOTO 3: View of sight and staining (non reportable), facing northeast. 6/04/2019

PHOTO 4: View of sight and staining (non-reportable), facing east. 6/04/2019

PHOTO 5: View of sight and staining (non-reportable), facing south. 6/04/2019

PHOTO 6: View of staining and flow path off pad (non-reportable), facing east. 6/04/2019

PHOTO 7: View of staining on pad (non-reportable), facing north. 6/04/2019

PHOTO 8: View of sight and flow path, facing west. 7/15/2019

PHOTO 9: View of sight and staining, facing south. 7/15/2019

PHOTO 10: View of sight and staining, facing west. 7/15/2019

PHOTO 11: View of sight and staining going into drainage, facing west. 7/15/2019

PHOTO 12: View of sight and staining end of spill, facing east. 7/15/2019

PHOTO 13: View of staining and width of flow path. 7/15/2019

PHOTO 14: View of staining and HA-1, facing east. 7/15/2019

PHOTO 15: View of staining and HA-2, facing east. 7/15/2019

PHOTO 16: View of staining and HA-3, facing east. 7/15/2019

PHOTO 17: View of staining and HA-4, facing east. 7/15/2019

PHOTO 18: View of staining and flow path over rancher's road, facing southeast. 7/15/2019

PHOTO 19: View of staining and HA-5, facing east. 7/15/2019

PHOTO 20: View of excavation full post rainfall, facing north. 9/26/2019

PHOTO 21: View of excavation going into natural drainage, facing northwest. 9/26/2019

PHOTO 22: View of excavation in natural drainage area, facing west. 9/26/2019

PHOTO 23: View of excavation from HA-4, facing west. 9/26/2019

PHOTO 24: View of excavation, facing west. 9/26/2019

PHOTO 25: View of excavation toward HA-3, facing northwest. 9/26/2019

PHOTO 26: View of excavation on south fork, facing west. 9/26/2019

PHOTO 27: View of excavation on southern fork continued, facing west. 9/26/2019

PHOTO 28: View of excavation facing HA-2, facing northwest. 9/26/2019

PHOTO 29: View of end of excavation facing HA-1, facing west. 9/26/2019

PHOTO 30: View of end excavation from HA-3, facing southeast. 9/26/2019

PHOTO 31: View of excavation from HA-2, facing southeast. 9/26/2019

PHOTO 32: View of excavation facing HA-4, facing east. 9/26/2019

PHOTO 33: View of completed remediation, facing east. 6/22/2020

PHOTO 21: View of completed remediation, facing northeast. 6/22/2020

PHOTO 22: View of completed remediation in natural drainage area, facing north. 6/22/2020

PHOTO 23: View of completed remediation in natural drainage area, facing west. 6/22/2020

PHOTO 24: View of completed remediation toward HA-1, facing west. 6/22/2020

PHOTO 25: View of completed remediation toward HA-3, facing northwest. 6/22/2020

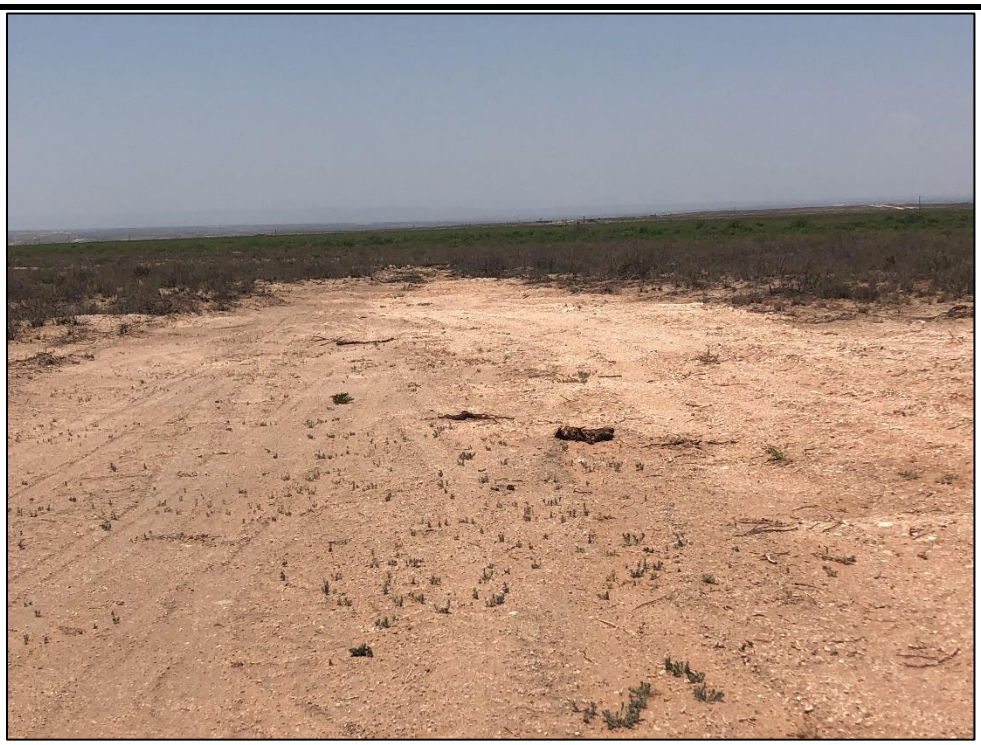


PHOTO 26: View of completed remediation toward HA-2, facing west. 6/22/2020

PHOTO 27: View of completed remediation toward HA-1, facing west. 6/22/2020

PHOTO 28: View of completed remediation from HA-1, facing east. 6/22/2020

PHOTO 29: View of pad (non-reportable), facing north. 6/22/2020

PHOTO 30: View of completed remediation, facing west. 6/22/2020

APPENDIX C – ANALYTICAL REPORT AND CHAIN OF CUSTODY

Certificate of Analysis Summary 630985

Terracon-Lubbock, Lubbock, TX

Project Name: Eddy State 2 SWD

Project Id: AR197243
Contact: John Fergerson
Project Location:

Date Received in Lab: Tue Jul-16-19 08:15 am
Report Date: 22-JUL-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	630985-001		630985-002		630985-003		630985-005		630985-006		630985-007	
	Field Id:	HA-1 (0-0.5)R		HA-2 (0-0.5)		HA-2 (0.5-1)		HA-3 (0-0.5)		HA-3 (0.5-1)R		HA-4 (0-0.5)	
	Depth:	0-0.5 ft		0-0.5 ft		0.5-1 ft		0-0.5 ft		0.5-1 ft		0-0.5 ft	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jul-15-19 14:05		Jul-15-19 14:20		Jul-15-19 14:25		Jul-15-19 14:35		Jul-15-19 14:40		Jul-15-19 14:50	
BTEX by EPA 8021B	***Extracted:***	Jul-16-19 11:20		Jul-16-19 11:20		Jul-16-19 11:20		Jul-16-19 11:20		Jul-16-19 11:20		Jul-16-19 11:20	
	Analyzed:	Jul-17-19 01:37		Jul-17-19 04:26		Jul-17-19 04:51		Jul-17-19 05:15		Jul-17-19 05:39		Jul-17-19 06:03	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00895	0.0198	<0.00881	0.0195	<0.00883	0.0195	<0.00878	0.0194	<0.00825	0.0182	<0.00843	0.0187
Toluene		<0.00463	0.0198	<0.00456	0.0195	<0.00457	0.0195	<0.00454	0.0194	<0.00427	0.0182	<0.00437	0.0187
Ethylbenzene		<0.00610	0.0198	<0.00600	0.0195	<0.00602	0.0195	<0.00598	0.0194	<0.00562	0.0182	<0.00575	0.0187
m,p-Xylenes		<0.00675	0.0396	<0.00665	0.0390	<0.00666	0.0391	<0.00662	0.0388	<0.00622	0.0365	<0.00636	0.0373
o-Xylene		<0.00675	0.0198	<0.00665	0.0195	<0.00666	0.0195	<0.00662	0.0194	<0.00622	0.0182	<0.00636	0.0187
Total Xylenes		<0.00675	0.0198	<0.00665	0.0195	<0.00666	0.0195	<0.00662	0.0194	<0.00622	0.0182	<0.00636	0.0187
Total BTEX		<0.00463	0.0198	<0.00456	0.0195	<0.00457	0.0195	<0.00454	0.0194	<0.00427	0.0182	<0.00437	0.0187
Chloride by EPA 300 **SUB: T104704215-19-29**	***Extracted:***	Jul-17-19 11:48		Jul-17-19 11:48		Jul-17-19 11:48		Jul-17-19 11:48		Jul-17-19 11:48		Jul-17-19 11:48	
	Analyzed:	Jul-18-19 03:43		Jul-18-19 03:55		Jul-18-19 04:07		Jul-18-19 04:19		Jul-18-19 04:31		Jul-18-19 04:43	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		13800	99.8	7830	100	5600	101	6980	101	8830	98.4	8570	99.8
TPH By SW8015 Mod **SUB: T104704215-19-29**	***Extracted:***	Jul-19-19 16:47		Jul-19-19 16:56		Jul-19-19 16:59		Jul-19-19 17:05		Jul-19-19 17:08		Jul-19-19 17:11	
	Analyzed:	Jul-22-19 11:55		Jul-19-19 22:35		Jul-19-19 22:54		Jul-19-19 23:32		Jul-19-19 23:51		Jul-20-19 00:10	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Gasoline Range Hydrocarbons (GRO)		<10.0	50.0	<9.95	49.8	<9.95	49.8	<9.98	49.9	<9.94	49.7	<9.97	49.9
Diesel Range Organics (DRO)		80.2	50.0	52.1	49.8	108	49.8	10.8 J	49.9	10.7 J	49.7	11.1 J	49.9
Motor Oil Range Hydrocarbons (MRO)		24.7 J	50.0	19.4 J	49.8	36.0 J	49.8	<9.98	49.9	<9.94	49.7	<9.97	49.9
Total TPH		105	50.0	71.5	49.8	144	49.8	10.8 J	49.9	10.7 J	49.7	11.1 J	49.9

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Version: 1.%

Jessica Kramer
Project Assistant

Final 1.000

Certificate of Analysis Summary 630985

Terracon-Lubbock, Lubbock, TX

Project Name: Eddy State 2 SWD

Project Id: AR197243
Contact: John Fergerson
Project Location:

Date Received in Lab: Tue Jul-16-19 08:15 am
Report Date: 22-JUL-19
Project Manager: Jessica Kramer

Analysis Requested									
	Lab Id:	630985-008		630985-010		630985-011			
	Field Id:	HA-4 (0.5-1)		HA-5 (0-0.5)		HA-5 (0.5-1)			
	Depth:	0.5-1 ft		0-0.5 ft		0.5-1 ft			
	Matrix:	SOIL		SOIL		SOIL			
	Sampled:	Jul-15-19 14:55		Jul-15-19 15:05		Jul-15-19 15:10			
BTEX by EPA 8021B	***Extracted:***	Jul-16-19 11:20		Jul-16-19 11:20		Jul-16-19 11:20			
	Analyzed:	Jul-17-19 06:27		Jul-17-19 08:03		Jul-17-19 08:27			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Benzene		<0.00902	0.0200	<0.00868	0.0192	<0.00900	0.0199		
Toluene		<0.00467	0.0200	<0.00449	0.0192	<0.00466	0.0199		
Ethylbenzene		<0.00615	0.0200	<0.00591	0.0192	<0.00614	0.0199		
m,p-Xylenes		<0.00681	0.0399	<0.00655	0.0384	<0.00679	0.0398		
o-Xylene		<0.00681	0.0200	<0.00655	0.0192	<0.00679	0.0199		
Total Xylenes		<0.00681	0.0200	<0.00655	0.0192	<0.00679	0.0199		
Total BTEX		<0.00467	0.0200	<0.00449	0.0192	<0.00466	0.0199		
Chloride by EPA 300 **SUB: T104704215-19-29**	***Extracted:***	Jul-17-19 11:48		Jul-17-19 11:48		Jul-17-19 11:48			
	Analyzed:	Jul-18-19 04:55		Jul-18-19 05:07		Jul-18-19 05:43			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Chloride		10900	100	16300	99.6	1950	100		
TPH By SW8015 Mod **SUB: T104704215-19-29**	***Extracted:***	Jul-19-19 17:14		Jul-19-19 17:20		Jul-19-19 17:23			
	Analyzed:	Jul-20-19 00:29		Jul-20-19 01:07		Jul-20-19 01:26			
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL		
Gasoline Range Hydrocarbons (GRO)		<9.93	49.7	<9.93	49.7	<9.95	49.8		
Diesel Range Organics (DRO)		55.6	49.7	409	49.7	152	49.8		
Motor Oil Range Hydrocarbons (MRO)		20.9 J	49.7	115	49.7	54.3	49.8		
Total TPH		76.5	49.7	524	49.7	206	49.8		

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Version: 1.%

Jessica Kramer
Project Assistant

Final 1.000

Analytical Report 630985

for

Terracon-Lubbock

Project Manager: John Fergerson

Eddy State 2 SWD

AR197243

22-JUL-19

Collected By: Client

6701 Aberdeen, Suite 9 Lubbock, TX 79424

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-29), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-19-19), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-20)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)

22-JUL-19

Project Manager: **John Fergerson**
Terracon-Lubbock
5827 50th st, Suite 1
Lubbock, TX 79424

Reference: XENCO Report No(s): **630985**
Eddy State 2 SWD
Project Address:

John Fergerson:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 630985. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 630985 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
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Sample Cross Reference 630985

Terracon-Lubbock, Lubbock, TX

Eddy State 2 SWD

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
HA-1 (0-0.5)R	S	07-15-19 14:05	0 - 0.5 ft	630985-001
HA-2 (0-0.5)	S	07-15-19 14:20	0 - 0.5 ft	630985-002
HA-2 (0.5-1)	S	07-15-19 14:25	0.5 - 1 ft	630985-003
HA-3 (0-0.5)	S	07-15-19 14:35	0 - 0.5 ft	630985-005
HA-3 (0.5-1)R	S	07-15-19 14:40	0.5 - 1 ft	630985-006
HA-4 (0-0.5)	S	07-15-19 14:50	0 - 0.5 ft	630985-007
HA-4 (0.5-1)	S	07-15-19 14:55	0.5 - 1 ft	630985-008
HA-5 (0-0.5)	S	07-15-19 15:05	0 - 0.5 ft	630985-010
HA-5 (0.5-1)	S	07-15-19 15:10	0.5 - 1 ft	630985-011
HA-2 (1.5)-2R	S	07-15-19 14:30	1.5 - 2 ft	Not Analyzed
HA-4 (1.5-2)	S	07-15-19 15:00	1.5 - 2 ft	Not Analyzed

Version: 1.%

CASE NARRATIVE

Client Name: Terracon-Lubbock

Project Name: Eddy State 2 SWD

Project ID: *AR197243*
Work Order Number(s): *630985*

Report Date: *22-JUL-19*
Date Received: *07/16/2019*

This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory.

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3095559 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analytical Results 630985

Terracon-Lubbock, Lubbock, TX

Eddy State 2 SWD

Sample Id:	**HA-1 (0-0.5)R**	Matrix:	Soil	Date Received:	07.16.19 08.15
Lab Sample Id:	630985-001	Date Collected:	07.15.19 14.05	Sample Depth:	0 - 0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	JYM			% Moisture:	
Analyst:	JYM	Date Prep:	07.17.19 11.48	Basis:	Wet Weight
Seq Number:	3095680			SUB:	T104704215-19-29

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**13800**	99.8	3.53	mg/kg	07.18.19 03.43		10

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ISU			% Moisture:	
Analyst:	ISU	Date Prep:	07.19.19 16.47	Basis:	Wet Weight
Seq Number:	3096069			SUB:	T104704215-19-29

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<10.0	50.0	10.0	mg/kg	07.22.19 11.55	U	1
Diesel Range Organics (DRO)	C10C28DRO	**80.2**	50.0	10.0	mg/kg	07.22.19 11.55		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**24.7**	50.0	10.0	mg/kg	07.22.19 11.55	J	1
Total TPH	PHC635	**105**	50.0	10.0	mg/kg	07.22.19 11.55		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	07.22.19 11.55	
o-Terphenyl	84-15-1	112	%	70-135	07.22.19 11.55	

Certificate of Analytical Results 630985

Terracon-Lubbock, Lubbock, TX

Eddy State 2 SWD

Sample Id:	**HA-1 (0-0.5)R**	Matrix:	Soil	Date Received:	07.16.19 08.15
Lab Sample Id:	630985-001	Date Collected:	07.15.19 14.05	Sample Depth:	0 - 0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	07.16.19 11.20	Basis:	Wet Weight
Seq Number:	3095559				

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00895	0.0198	0.00895	mg/kg	07.17.19 01.37	U	1
Toluene	108-88-3	<0.00463	0.0198	0.00463	mg/kg	07.17.19 01.37	U	1
Ethylbenzene	100-41-4	<0.00610	0.0198	0.00610	mg/kg	07.17.19 01.37	U	1
m,p-Xylenes	179601-23-1	<0.00675	0.0396	0.00675	mg/kg	07.17.19 01.37	U	1
o-Xylene	95-47-6	<0.00675	0.0198	0.00675	mg/kg	07.17.19 01.37	U	1
Total Xylenes	1330-20-7	<0.00675	0.0198	0.00675	mg/kg	07.17.19 01.37	U	1
Total BTEX		<0.00463	0.0198	0.00463	mg/kg	07.17.19 01.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	94	%	68-120	07.17.19 01.37	
a,a,a-Trifluorotoluene	98-08-8	107	%	71-121	07.17.19 01.37	

Certificate of Analytical Results 630985

Terracon-Lubbock, Lubbock, TX

Eddy State 2 SWD

Sample Id:	**HA-2 (0-0.5)**	Matrix:	Soil	Date Received:	07.16.19 08.15
Lab Sample Id:	630985-002	Date Collected:	07.15.19 14.20	Sample Depth:	0 - 0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	JYM			% Moisture:	
Analyst:	JYM	Date Prep:	07.17.19 11.48	Basis:	Wet Weight
Seq Number:	3095680			SUB:	T104704215-19-29

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7830**	100	3.55	mg/kg	07.18.19 03.55		10

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ISU			% Moisture:	
Analyst:	ISU	Date Prep:	07.19.19 16.56	Basis:	Wet Weight
Seq Number:	3096069			SUB:	T104704215-19-29

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<9.95	49.8	9.95	mg/kg	07.19.19 22.35	U	1
Diesel Range Organics (DRO)	C10C28DRO	**52.1**	49.8	9.95	mg/kg	07.19.19 22.35		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**19.4**	49.8	9.95	mg/kg	07.19.19 22.35	J	1
Total TPH	PHC635	**71.5**	49.8	9.95	mg/kg	07.19.19 22.35		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	07.19.19 22.35	
o-Terphenyl	84-15-1	108	%	70-135	07.19.19 22.35	

Certificate of Analytical Results 630985

Terracon-Lubbock, Lubbock, TX

Eddy State 2 SWD

Sample Id:	**HA-2 (0-0.5)**	Matrix:	Soil	Date Received:	07.16.19 08.15
Lab Sample Id:	630985-002	Date Collected:	07.15.19 14.20	Sample Depth:	0 - 0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	07.16.19 11.20	Basis:	Wet Weight
Seq Number:	3095559				

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00881	0.0195	0.00881	mg/kg	07.17.19 04.26	U	1
Toluene	108-88-3	<0.00456	0.0195	0.00456	mg/kg	07.17.19 04.26	U	1
Ethylbenzene	100-41-4	<0.00600	0.0195	0.00600	mg/kg	07.17.19 04.26	U	1
m,p-Xylenes	179601-23-1	<0.00665	0.0390	0.00665	mg/kg	07.17.19 04.26	U	1
o-Xylene	95-47-6	<0.00665	0.0195	0.00665	mg/kg	07.17.19 04.26	U	1
Total Xylenes	1330-20-7	<0.00665	0.0195	0.00665	mg/kg	07.17.19 04.26	U	1
Total BTEX		<0.00456	0.0195	0.00456	mg/kg	07.17.19 04.26	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	99	%	68-120	07.17.19 04.26	
a,a,a-Trifluorotoluene	98-08-8	112	%	71-121	07.17.19 04.26	

Certificate of Analytical Results 630985

Terracon-Lubbock, Lubbock, TX

Eddy State 2 SWD

Sample Id:	**HA-2 (0.5-1)**	Matrix:	Soil	Date Received:	07.16.19 08.15
Lab Sample Id:	630985-003	Date Collected:	07.15.19 14.25	Sample Depth:	0.5 - 1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	JYM			% Moisture:	
Analyst:	JYM	Date Prep:	07.17.19 11.48	Basis:	Wet Weight
Seq Number:	3095680			SUB:	T104704215-19-29

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5600**	101	3.57	mg/kg	07.18.19 04.07		10

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ISU			% Moisture:	
Analyst:	ISU	Date Prep:	07.19.19 16.59	Basis:	Wet Weight
Seq Number:	3096069			SUB:	T104704215-19-29

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<9.95	49.8	9.95	mg/kg	07.19.19 22.54	U	1
Diesel Range Organics (DRO)	C10C28DRO	**108**	49.8	9.95	mg/kg	07.19.19 22.54		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**36.0**	49.8	9.95	mg/kg	07.19.19 22.54	J	1
Total TPH	PHC635	**144**	49.8	9.95	mg/kg	07.19.19 22.54		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	07.19.19 22.54	
o-Terphenyl	84-15-1	125	%	70-135	07.19.19 22.54	

Certificate of Analytical Results 630985

Terracon-Lubbock, Lubbock, TX

Eddy State 2 SWD

Sample Id:	**HA-2 (0.5-1)**	Matrix:	Soil	Date Received:	07.16.19 08.15
Lab Sample Id:	630985-003	Date Collected:	07.15.19 14.25	Sample Depth:	0.5 - 1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	07.16.19 11.20	Basis:	Wet Weight
Seq Number:	3095559				

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00883	0.0195	0.00883	mg/kg	07.17.19 04.51	U	1
Toluene	108-88-3	<0.00457	0.0195	0.00457	mg/kg	07.17.19 04.51	U	1
Ethylbenzene	100-41-4	<0.00602	0.0195	0.00602	mg/kg	07.17.19 04.51	U	1
m,p-Xylenes	179601-23-1	<0.00666	0.0391	0.00666	mg/kg	07.17.19 04.51	U	1
o-Xylene	95-47-6	<0.00666	0.0195	0.00666	mg/kg	07.17.19 04.51	U	1
Total Xylenes	1330-20-7	<0.00666	0.0195	0.00666	mg/kg	07.17.19 04.51	U	1
Total BTEX		<0.00457	0.0195	0.00457	mg/kg	07.17.19 04.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	100	%	68-120	07.17.19 04.51	
a,a,a-Trifluorotoluene	98-08-8	113	%	71-121	07.17.19 04.51	

Certificate of Analytical Results 630985

Terracon-Lubbock, Lubbock, TX

Eddy State 2 SWD

Sample Id:	**HA-3 (0-0.5)**	Matrix:	Soil	Date Received:	07.16.19 08.15
Lab Sample Id:	630985-005	Date Collected:	07.15.19 14.35	Sample Depth:	0 - 0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	JYM			% Moisture:	
Analyst:	JYM	Date Prep:	07.17.19 11.48	Basis:	Wet Weight
Seq Number:	3095680			SUB:	T104704215-19-29

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**6980**	101	3.56	mg/kg	07.18.19 04.19		10

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ISU			% Moisture:	
Analyst:	ISU	Date Prep:	07.19.19 17.05	Basis:	Wet Weight
Seq Number:	3096069			SUB:	T104704215-19-29

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<9.98	49.9	9.98	mg/kg	07.19.19 23.32	U	1
Diesel Range Organics (DRO)	C10C28DRO	**10.8**	49.9	9.98	mg/kg	07.19.19 23.32	J	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<9.98	49.9	9.98	mg/kg	07.19.19 23.32	U	1
Total TPH	PHC635	**10.8**	49.9	9.98	mg/kg	07.19.19 23.32	J	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-135	07.19.19 23.32	
o-Terphenyl	84-15-1	112	%	70-135	07.19.19 23.32	

Certificate of Analytical Results 630985

Terracon-Lubbock, Lubbock, TX

Eddy State 2 SWD

Sample Id:	**HA-3 (0-0.5)**	Matrix:	Soil	Date Received:	07.16.19 08.15
Lab Sample Id:	630985-005	Date Collected:	07.15.19 14.35	Sample Depth:	0 - 0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	07.16.19 11.20	Basis:	Wet Weight
Seq Number:	3095559				

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00878	0.0194	0.00878	mg/kg	07.17.19 05.15	U	1
Toluene	108-88-3	<0.00454	0.0194	0.00454	mg/kg	07.17.19 05.15	U	1
Ethylbenzene	100-41-4	<0.00598	0.0194	0.00598	mg/kg	07.17.19 05.15	U	1
m,p-Xylenes	179601-23-1	<0.00662	0.0388	0.00662	mg/kg	07.17.19 05.15	U	1
o-Xylene	95-47-6	<0.00662	0.0194	0.00662	mg/kg	07.17.19 05.15	U	1
Total Xylenes	1330-20-7	<0.00662	0.0194	0.00662	mg/kg	07.17.19 05.15	U	1
Total BTEX		<0.00454	0.0194	0.00454	mg/kg	07.17.19 05.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	99	%	68-120	07.17.19 05.15	
a,a,a-Trifluorotoluene	98-08-8	107	%	71-121	07.17.19 05.15	

Certificate of Analytical Results 630985

Terracon-Lubbock, Lubbock, TX

Eddy State 2 SWD

Sample Id:	**HA-3 (0.5-1)R**	Matrix:	Soil	Date Received:	07.16.19 08.15
Lab Sample Id:	630985-006	Date Collected:	07.15.19 14.40	Sample Depth:	0.5 - 1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	JYM			% Moisture:	
Analyst:	JYM	Date Prep:	07.17.19 11.48	Basis:	Wet Weight
Seq Number:	3095680			SUB:	T104704215-19-29

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**8830**	98.4	3.48	mg/kg	07.18.19 04.31		10

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ISU			% Moisture:	
Analyst:	ISU	Date Prep:	07.19.19 17.08	Basis:	Wet Weight
Seq Number:	3096069			SUB:	T104704215-19-29

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<9.94	49.7	9.94	mg/kg	07.19.19 23.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	**10.7**	49.7	9.94	mg/kg	07.19.19 23.51	J	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<9.94	49.7	9.94	mg/kg	07.19.19 23.51	U	1
Total TPH	PHC635	**10.7**	49.7	9.94	mg/kg	07.19.19 23.51	J	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	105	%	70-135	07.19.19 23.51	
o-Terphenyl	84-15-1	115	%	70-135	07.19.19 23.51	

Certificate of Analytical Results 630985

Terracon-Lubbock, Lubbock, TX

Eddy State 2 SWD

Sample Id:	**HA-3 (0.5-1)R**	Matrix:	Soil	Date Received:	07.16.19 08.15
Lab Sample Id:	630985-006	Date Collected:	07.15.19 14.40	Sample Depth:	0.5 - 1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	07.16.19 11.20	Basis:	Wet Weight
Seq Number:	3095559				

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00825	0.0182	0.00825	mg/kg	07.17.19 05.39	U	1
Toluene	108-88-3	<0.00427	0.0182	0.00427	mg/kg	07.17.19 05.39	U	1
Ethylbenzene	100-41-4	<0.00562	0.0182	0.00562	mg/kg	07.17.19 05.39	U	1
m,p-Xylenes	179601-23-1	<0.00622	0.0365	0.00622	mg/kg	07.17.19 05.39	U	1
o-Xylene	95-47-6	<0.00622	0.0182	0.00622	mg/kg	07.17.19 05.39	U	1
Total Xylenes	1330-20-7	<0.00622	0.0182	0.00622	mg/kg	07.17.19 05.39	U	1
Total BTEX		<0.00427	0.0182	0.00427	mg/kg	07.17.19 05.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	100	%	68-120	07.17.19 05.39	
a,a,a-Trifluorotoluene	98-08-8	115	%	71-121	07.17.19 05.39	

Certificate of Analytical Results 630985

Terracon-Lubbock, Lubbock, TX

Eddy State 2 SWD

Sample Id:	**HA-4 (0-0.5)**	Matrix:	Soil	Date Received:	07.16.19 08.15
Lab Sample Id:	630985-007	Date Collected:	07.15.19 14.50	Sample Depth:	0 - 0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	JYM			% Moisture:	
Analyst:	JYM	Date Prep:	07.17.19 11.48	Basis:	Wet Weight
Seq Number:	3095680			SUB:	T104704215-19-29

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**8570**	99.8	3.53	mg/kg	07.18.19 04.43		10

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ISU			% Moisture:	
Analyst:	ISU	Date Prep:	07.19.19 17.11	Basis:	Wet Weight
Seq Number:	3096069			SUB:	T104704215-19-29

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<9.97	49.9	9.97	mg/kg	07.20.19 00.10	U	1
Diesel Range Organics (DRO)	C10C28DRO	**11.1**	49.9	9.97	mg/kg	07.20.19 00.10	J	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<9.97	49.9	9.97	mg/kg	07.20.19 00.10	U	1
Total TPH	PHC635	**11.1**	49.9	9.97	mg/kg	07.20.19 00.10	J	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	07.20.19 00.10	
o-Terphenyl	84-15-1	109	%	70-135	07.20.19 00.10	

Certificate of Analytical Results 630985

Terracon-Lubbock, Lubbock, TX

Eddy State 2 SWD

Sample Id:	**HA-4 (0-0.5)**	Matrix:	Soil	Date Received:	07.16.19 08.15
Lab Sample Id:	630985-007	Date Collected:	07.15.19 14.50	Sample Depth:	0 - 0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	07.16.19 11.20	Basis:	Wet Weight
Seq Number:	3095559				

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00843	0.0187	0.00843	mg/kg	07.17.19 06.03	U	1
Toluene	108-88-3	<0.00437	0.0187	0.00437	mg/kg	07.17.19 06.03	U	1
Ethylbenzene	100-41-4	<0.00575	0.0187	0.00575	mg/kg	07.17.19 06.03	U	1
m,p-Xylenes	179601-23-1	<0.00636	0.0373	0.00636	mg/kg	07.17.19 06.03	U	1
o-Xylene	95-47-6	<0.00636	0.0187	0.00636	mg/kg	07.17.19 06.03	U	1
Total Xylenes	1330-20-7	<0.00636	0.0187	0.00636	mg/kg	07.17.19 06.03	U	1
Total BTEX		<0.00437	0.0187	0.00437	mg/kg	07.17.19 06.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	102	%	68-120	07.17.19 06.03	
a,a,a-Trifluorotoluene	98-08-8	113	%	71-121	07.17.19 06.03	

Certificate of Analytical Results 630985

Terracon-Lubbock, Lubbock, TX

Eddy State 2 SWD

Sample Id:	**HA-4 (0.5-1)**	Matrix:	Soil	Date Received:	07.16.19 08.15
Lab Sample Id:	630985-008	Date Collected:	07.15.19 14.55	Sample Depth:	0.5 - 1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	JYM			% Moisture:	
Analyst:	JYM	Date Prep:	07.17.19 11.48	Basis:	Wet Weight
Seq Number:	3095680			SUB:	T104704215-19-29

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**10900**	100	3.54	mg/kg	07.18.19 04.55		10

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ISU			% Moisture:	
Analyst:	ISU	Date Prep:	07.19.19 17.14	Basis:	Wet Weight
Seq Number:	3096069			SUB:	T104704215-19-29

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<9.93	49.7	9.93	mg/kg	07.20.19 00.29	U	1
Diesel Range Organics (DRO)	C10C28DRO	**55.6**	49.7	9.93	mg/kg	07.20.19 00.29		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**20.9**	49.7	9.93	mg/kg	07.20.19 00.29	J	1
Total TPH	PHC635	**76.5**	49.7	9.93	mg/kg	07.20.19 00.29		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	112	%	70-135	07.20.19 00.29	
o-Terphenyl	84-15-1	125	%	70-135	07.20.19 00.29	

Certificate of Analytical Results 630985

Terracon-Lubbock, Lubbock, TX

Eddy State 2 SWD

Sample Id:	**HA-4 (0.5-1)**	Matrix:	Soil	Date Received:	07.16.19 08.15
Lab Sample Id:	630985-008	Date Collected:	07.15.19 14.55	Sample Depth:	0.5 - 1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	07.16.19 11.20	Basis:	Wet Weight
Seq Number:	3095559				

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00902	0.0200	0.00902	mg/kg	07.17.19 06.27	U	1
Toluene	108-88-3	<0.00467	0.0200	0.00467	mg/kg	07.17.19 06.27	U	1
Ethylbenzene	100-41-4	<0.00615	0.0200	0.00615	mg/kg	07.17.19 06.27	U	1
m,p-Xylenes	179601-23-1	<0.00681	0.0399	0.00681	mg/kg	07.17.19 06.27	U	1
o-Xylene	95-47-6	<0.00681	0.0200	0.00681	mg/kg	07.17.19 06.27	U	1
Total Xylenes	1330-20-7	<0.00681	0.0200	0.00681	mg/kg	07.17.19 06.27	U	1
Total BTEX		<0.00467	0.0200	0.00467	mg/kg	07.17.19 06.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	101	%	68-120	07.17.19 06.27	
a,a,a-Trifluorotoluene	98-08-8	110	%	71-121	07.17.19 06.27	

Certificate of Analytical Results 630985

Terracon-Lubbock, Lubbock, TX

Eddy State 2 SWD

Sample Id:	**HA-5 (0-0.5)**	Matrix:	Soil	Date Received:	07.16.19 08.15
Lab Sample Id:	630985-010	Date Collected:	07.15.19 15.05	Sample Depth:	0 - 0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	JYM			% Moisture:	
Analyst:	JYM	Date Prep:	07.17.19 11.48	Basis:	Wet Weight
Seq Number:	3095680			SUB:	T104704215-19-29

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**16300**	99.6	3.53	mg/kg	07.18.19 05.07		10

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ISU			% Moisture:	
Analyst:	ISU	Date Prep:	07.19.19 17.20	Basis:	Wet Weight
Seq Number:	3096069			SUB:	T104704215-19-29

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<9.93	49.7	9.93	mg/kg	07.20.19 01.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	**409**	49.7	9.93	mg/kg	07.20.19 01.07		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**115**	49.7	9.93	mg/kg	07.20.19 01.07		1
Total TPH	PHC635	**524**	49.7	9.93	mg/kg	07.20.19 01.07		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	07.20.19 01.07	
o-Terphenyl	84-15-1	105	%	70-135	07.20.19 01.07	

Certificate of Analytical Results 630985

Terracon-Lubbock, Lubbock, TX

Eddy State 2 SWD

Sample Id:	**HA-5 (0-0.5)**	Matrix:	Soil	Date Received:	07.16.19 08.15
Lab Sample Id:	630985-010	Date Collected:	07.15.19 15.05	Sample Depth:	0 - 0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	07.16.19 11.20	Basis:	Wet Weight
Seq Number:	3095559				

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00868	0.0192	0.00868	mg/kg	07.17.19 08.03	U	1
Toluene	108-88-3	<0.00449	0.0192	0.00449	mg/kg	07.17.19 08.03	U	1
Ethylbenzene	100-41-4	<0.00591	0.0192	0.00591	mg/kg	07.17.19 08.03	U	1
m,p-Xylenes	179601-23-1	<0.00655	0.0384	0.00655	mg/kg	07.17.19 08.03	U	1
o-Xylene	95-47-6	<0.00655	0.0192	0.00655	mg/kg	07.17.19 08.03	U	1
Total Xylenes	1330-20-7	<0.00655	0.0192	0.00655	mg/kg	07.17.19 08.03	U	1
Total BTEX		<0.00449	0.0192	0.00449	mg/kg	07.17.19 08.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	96	%	68-120	07.17.19 08.03	
a,a,a-Trifluorotoluene	98-08-8	105	%	71-121	07.17.19 08.03	

Certificate of Analytical Results 630985

Terracon-Lubbock, Lubbock, TX

Eddy State 2 SWD

Sample Id:	**HA-5 (0.5-1)**	Matrix:	Soil	Date Received:	07.16.19 08.15
Lab Sample Id:	630985-011	Date Collected:	07.15.19 15.10	Sample Depth:	0.5 - 1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	JYM			% Moisture:	
Analyst:	JYM	Date Prep:	07.17.19 11.48	Basis:	Wet Weight
Seq Number:	3095680			SUB:	T104704215-19-29

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1950**	100	3.55	mg/kg	07.18.19 05.43		10

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ISU			% Moisture:	
Analyst:	ISU	Date Prep:	07.19.19 17.23	Basis:	Wet Weight
Seq Number:	3096069			SUB:	T104704215-19-29

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<9.95	49.8	9.95	mg/kg	07.20.19 01.26	U	1
Diesel Range Organics (DRO)	C10C28DRO	**152**	49.8	9.95	mg/kg	07.20.19 01.26		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**54.3**	49.8	9.95	mg/kg	07.20.19 01.26		1
Total TPH	PHC635	**206**	49.8	9.95	mg/kg	07.20.19 01.26		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	07.20.19 01.26	
o-Terphenyl	84-15-1	110	%	70-135	07.20.19 01.26	

Certificate of Analytical Results 630985

Terracon-Lubbock, Lubbock, TX

Eddy State 2 SWD

Sample Id:	**HA-5 (0.5-1)**	Matrix:	Soil	Date Received:	07.16.19 08.15
Lab Sample Id:	630985-011	Date Collected:	07.15.19 15.10	Sample Depth:	0.5 - 1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	07.16.19 11.20	Basis:	Wet Weight
Seq Number:	3095559				

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00900	0.0199	0.00900	mg/kg	07.17.19 08.27	U	1
Toluene	108-88-3	<0.00466	0.0199	0.00466	mg/kg	07.17.19 08.27	U	1
Ethylbenzene	100-41-4	<0.00614	0.0199	0.00614	mg/kg	07.17.19 08.27	U	1
m,p-Xylenes	179601-23-1	<0.00679	0.0398	0.00679	mg/kg	07.17.19 08.27	U	1
o-Xylene	95-47-6	<0.00679	0.0199	0.00679	mg/kg	07.17.19 08.27	U	1
Total Xylenes	1330-20-7	<0.00679	0.0199	0.00679	mg/kg	07.17.19 08.27	U	1
Total BTEX		<0.00466	0.0199	0.00466	mg/kg	07.17.19 08.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	101	%	68-120	07.17.19 08.27	
a,a,a-Trifluorotoluene	98-08-8	110	%	71-121	07.17.19 08.27	

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 630985

Terracon-Lubbock

Eddy State 2 SWD

Analytical Method: **Chloride by EPA 300** Prep Method: SW9056P
Seq Number: 3095680 Matrix: Solid Date Prep: 07.17.19
MB Sample Id: 7682169-1-BLK LCS Sample Id: 7682169-1-BKS LCSD Sample Id: 7682169-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.354	100	106	106	106	106	80-120	0	20	mg/kg	07.18.19 01:06	

Analytical Method: **Chloride by EPA 300** Prep Method: SW9056P
Seq Number: 3095680 Matrix: Soil Date Prep: 07.17.19
Parent Sample Id: 631099-010 MS Sample Id: 631099-010 S MSD Sample Id: 631099-010 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	18.9	99.8	121	102	120	102	80-120	1	20	mg/kg	07.18.19 01:54	

Analytical Method: **Chloride by EPA 300** Prep Method: SW9056P
Seq Number: 3095680 Matrix: Soil Date Prep: 07.17.19
Parent Sample Id: 631099-011 MS Sample Id: 631099-011 S MSD Sample Id: 631099-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	23.9	99.6	127	104	127	103	80-120	0	20	mg/kg	07.18.19 03:19	

Analytical Method: **TPH By SW8015 Mod** Prep Method: TX1005P
Seq Number: 3096069 Matrix: Solid Date Prep: 07.19.19
MB Sample Id: 7682400-1-BLK LCS Sample Id: 7682400-1-BKS LCSD Sample Id: 7682400-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<10.0	1000	1060	106	1050	105	70-135	1	35	mg/kg	07.20.19 01:26	
Diesel Range Organics (DRO)	<10.0	1000	1070	107	1050	105	70-135	2	35	mg/kg	07.20.19 01:26	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	118		129		127		70-135	%	07.20.19 01:26
o-Terphenyl	132		128		125		70-135	%	07.20.19 01:26

MS/MSD Percent Recovery [D] = 100*(C-A) / B LCS = Laboratory Control Sample MS = Matrix Spike
Relative Percent Difference RPD = 200* | (C-E) / (C+E) | A = Parent Result B = Spike Added
LCS/LCSD Recovery [D] = 100 * (C) / [B] C = MS/LCS Result D = MSD/LCSD % Rec
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample) E = MSD/LCSD Result

QC Summary 630985

Terracon-Lubbock

Eddy State 2 SWD

Analytical Method: TPH By SW8015 Mod | Prep Method: TX1005P
Seq Number: 3096069 | Matrix: Soil | Date Prep: 07.19.19
Parent Sample Id: 630985-001 | MS Sample Id: 630985-001 S | MSD Sample Id: 630985-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<9.96	996	944	95	1040	104	70-135	10	35	mg/kg	07.20.19 02:03	
Diesel Range Organics (DRO)	80.2	996	905	83	995	92	70-135	9	35	mg/kg	07.20.19 02:03	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	105		113		70-135	%	07.20.19 02:03
o-Terphenyl	108		105		70-135	%	07.20.19 02:03

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3095559 | Matrix: Solid | Date Prep: 07.16.19
MB Sample Id: 7682157-1-BLK | LCS Sample Id: 7682157-1-BKS | LCSD Sample Id: 7682157-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00904	2.00	2.02	101	1.84	92	55-120	9	20	mg/kg	07.16.19 23:36	
Toluene	<0.00468	2.00	1.95	98	1.81	91	77-120	7	20	mg/kg	07.16.19 23:36	
Ethylbenzene	<0.00616	2.00	2.10	105	1.99	100	77-120	5	20	mg/kg	07.16.19 23:36	
m,p-Xylenes	<0.00682	4.00	4.17	104	3.95	99	78-120	5	20	mg/kg	07.16.19 23:36	
o-Xylene	<0.00682	2.00	2.10	105	2.00	100	78-120	5	20	mg/kg	07.16.19 23:36	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	98		101		95		68-120	%	07.16.19 23:36
a,a,a-Trifluorotoluene	102		107		103		71-121	%	07.16.19 23:36

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3095559 | Matrix: Soil | Date Prep: 07.16.19
Parent Sample Id: 630985-001 | MS Sample Id: 630985-001 S | MSD Sample Id: 630985-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00890	1.97	1.78	90	1.82	93	54-120	2	25	mg/kg	07.17.19 02:01	
Toluene	<0.00461	1.97	1.76	89	1.79	91	57-120	2	25	mg/kg	07.17.19 02:01	
Ethylbenzene	<0.00606	1.97	1.85	94	1.88	96	58-131	2	25	mg/kg	07.17.19 02:01	
m,p-Xylenes	<0.00671	3.94	3.65	93	3.70	94	62-124	1	25	mg/kg	07.17.19 02:01	
o-Xylene	<0.00671	1.97	1.80	91	1.84	94	62-124	2	25	mg/kg	07.17.19 02:01	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	101		96		68-120	%	07.17.19 02:01
a,a,a-Trifluorotoluene	112		114		71-121	%	07.17.19 02:01

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

Final 1.000

630985

630985

CHAIN OF CUSTODY RECORD

Terracon

Laboratory: Xenco
Address: 6701 Aberdeen
Lubbock, Texas 79424

Office Location: Lubbock
Project Manager: John Fergerson
Sampler's Name: Joseph Guesnier
Phone:
Contact:
SRS #:
Sampler's Signature

ANALYSIS REQUESTED

LAB USE ONLY
DUE DATE:
TEMP OF COOLER WHEN RECEIVED (°C): K 3 1.0/1.2

Page ____ of ____

Project Number: AR197243
Project Name: Eddy State 2 SWD

No. Type of Containers

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	2 oz Glass	4 oz Glass	5035 kit	40 ml VOA	Chloride (EPA Method 300)	TPH Extended 8015	BTEX (EPA Method 8021B)	Hold				Lab Sample ID
S	7/15/2019	14:05		X	HA-1 (0-0.5)R	0'	0.5'	X				X	X	X					1
S	7/15/2019	14:20		X	HA-2 (0-0.5)	0'	0.5'	X				X	X	X					2
S	7/15/2019	14:25		X	HA-2 (0.5-1)	0.5'	1'	X				X	X	X					3
S	7/15/2019	14:30		X	HA-2 (1.5-2)R	1.5'	2'	X				X			X				4
S	7/15/2019	14:35		X	HA-3 (0-0.5)	0'	0.5'	X				X	X	X					5
S	7/15/2019	14:40		X	HA-3 (0.5-1)R	0.5'	1'	X				X	X	X					6
S	7/15/2019	14:50		X	HA-4 (0-0.5)	0'	0.5'	X				X	X	X					7
S	7/15/2019	14:55		X	HA-4 (0.5-1)	0.5'	1'	X				X	X	X					8
S	7/15/2019	15:00		X	HA-4 (1.5-2)	1.5'	2'	X				X			X				9
S	7/15/2019	15:05		X	HA-5 (0-0.5)	0'	0.5'	X				X	X	X					10
S	7/15/2019	15:10		X	HA-5 (0.5-1)	0.5'	1'	X				X	X	X					11

TURNAROUND TIME ☐ Normal ☐ 48-Hour Rush ☐ 24-Hour Rush

TRRP Laboratory Review Checklist ☐ Yes ☐ No

Relinquished by (Signature)	Date	Time	Received by (Signature)	Date	Time
	7/16/19	8:15		7/16/19	8:15
	Date:	Time:		Date:	Time:
	Date:	Time:		Date:	Time:
	Date:	Time:		Date:	Time:

NOTES: Client: Solaris

e-mail results to:

john.fergerson@terracon.com
kristina.kohl@terracon.com
jrguesnier@terracon.com

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

Inter-Office Shipment

IOS Number : 43478

Date/Time: 07.16.2019 10:32
Lab# From: **Lubbock**
Lab# To: **Houston**
Created by: Brenda Ward
Delivery Priority:
Air Bill No.: 775757788128
Please send report to: Jessica Kramer
Address: 6701 Aberdeen, Suite 9 Lubbock, TX 79424
E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
630985-001	S	HA-1 (0-0.5)R	07.15.2019 14:05	SW8015MOD_NM	TPH By SW8015 Mod	07.22.2019	07.29.2019	JKR	PHCC10C28 PHCC28C3	
630985-001	S	HA-1 (0-0.5)R	07.15.2019 14:05	E300_CL	Chloride by EPA 300	07.22.2019	01.11.2020	JKR	CL	
630985-002	S	HA-2 (0-0.5)	07.15.2019 14:20	E300_CL	Chloride by EPA 300	07.22.2019	01.11.2020	JKR	CL	
630985-002	S	HA-2 (0-0.5)	07.15.2019 14:20	SW8015MOD_NM	TPH By SW8015 Mod	07.22.2019	07.29.2019	JKR	PHCC10C28 PHCC28C3	
630985-003	S	HA-2 (0.5-1)	07.15.2019 14:25	E300_CL	Chloride by EPA 300	07.22.2019	01.11.2020	JKR	CL	
630985-003	S	HA-2 (0.5-1)	07.15.2019 14:25	SW8015MOD_NM	TPH By SW8015 Mod	07.22.2019	07.29.2019	JKR	PHCC10C28 PHCC28C3	
630985-004	S	HA-2 (1.5)-2R	07.15.2019 14:30	E300_CL	Chloride by EPA 300	HOLD	01.11.2020	JKR	CL	
630985-005	S	HA-3 (0-0.5)	07.15.2019 14:35	E300_CL	Chloride by EPA 300	07.22.2019	01.11.2020	JKR	CL	
630985-005	S	HA-3 (0-0.5)	07.15.2019 14:35	SW8015MOD_NM	TPH By SW8015 Mod	07.22.2019	07.29.2019	JKR	PHCC10C28 PHCC28C3	
630985-006	S	HA-3 (0.5-1)R	07.15.2019 14:40	E300_CL	Chloride by EPA 300	07.22.2019	01.11.2020	JKR	CL	
630985-006	S	HA-3 (0.5-1)R	07.15.2019 14:40	SW8015MOD_NM	TPH By SW8015 Mod	07.22.2019	07.29.2019	JKR	PHCC10C28 PHCC28C3	
630985-007	S	HA-4 (0-0.5)	07.15.2019 14:50	SW8015MOD_NM	TPH By SW8015 Mod	07.22.2019	07.29.2019	JKR	PHCC10C28 PHCC28C3	
630985-007	S	HA-4 (0-0.5)	07.15.2019 14:50	E300_CL	Chloride by EPA 300	07.22.2019	01.11.2020	JKR	CL	
630985-008	S	HA-4 (0.5-1)	07.15.2019 14:55	SW8015MOD_NM	TPH By SW8015 Mod	07.22.2019	07.29.2019	JKR	PHCC10C28 PHCC28C3	
630985-008	S	HA-4 (0.5-1)	07.15.2019 14:55	E300_CL	Chloride by EPA 300	07.22.2019	01.11.2020	JKR	CL	
630985-009	S	HA-4 (1.5-2)	07.15.2019 15:00	E300_CL	Chloride by EPA 300	HOLD	01.11.2020	JKR	CL	
630985-010	S	HA-5 (0-0.5)	07.15.2019 15:05	E300_CL	Chloride by EPA 300	07.22.2019	01.11.2020	JKR	CL	
630985-010	S	HA-5 (0-0.5)	07.15.2019 15:05	SW8015MOD_NM	TPH By SW8015 Mod	07.22.2019	07.29.2019	JKR	PHCC10C28 PHCC28C3	
630985-011	S	HA-5 (0.5-1)	07.15.2019 15:10	SW8015MOD_NM	TPH By SW8015 Mod	07.22.2019	07.29.2019	JKR	PHCC10C28 PHCC28C3	
630985-011	S	HA-5 (0.5-1)	07.15.2019 15:10	E300_CL	Chloride by EPA 300	07.22.2019	01.11.2020	JKR	CL	

Inter-Office Shipment

IOS Number : 43478

Date/Time:	07.16.2019 10:32	Created by:	Brenda Ward
Lab# From:	**Lubbock**	Delivery Priority:	
Lab# To:	**Houston**	Air Bill No.:	775757788128

Please send report to:	Jessica Kramer
Address:	6701 Aberdeen, Suite 9 Lubbock, TX 79424
E-Mail:	jessica.kramer@xenco.com

Inter Office Shipment or Sample Comments:

Relinquished By: Brenda Ward

Brenda Ward

Date Relinquished: 07.16.2019

Received By:

Ashly Kowalski

Date Received: 07.17.2019 09:45

Cooler Temperature: 1.1

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 43478

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : HOU-068

Sent By: Brenda Ward **Date Sent:** 07.16.2019 10.32 AM

Received By: Ashly Kowalski **Date Received:** 07.17.2019 09.45 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	1.1	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received with appropriate temperature?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**	
#5 *Custody Seals Signed and dated for Containers/coolers	**N/A**	
#6 *IOS present?	**Yes**	
#7 Any missing/extra samples?	**No**	
#8 IOS agrees with sample label(s)/matrix?	**Yes**	
#9 Sample matrix/ properties agree with IOS?	**Yes**	
#10 Samples in proper container/ bottle?	**Yes**	
#11 Samples properly preserved?	**Yes**	
#12 Sample container(s) intact?	**Yes**	
#13 Sufficient sample amount for indicated test(s)?	**Yes**	
#14 All samples received within hold time?	**Yes**	

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ **Contacted by :** _____ **Date:** _____

Checklist reviewed by: _____ Date: 07.17.2019

Ashly Kowalski

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Terracon-Lubbock

Date/ Time Received: 07/16/2019 08:15:00 AM

Work Order #: 630985

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR-3

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	1.2	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**	
#5 Custody Seals intact on sample bottles?	**N/A**	
#6*Custody Seals Signed and dated?	**N/A**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**Yes**	All test but BTEX sent to Stafford
#18 Water VOC samples have zero headspace?	**N/A**	

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Brenda Ward Date: 07/16/2019
Brenda Ward

Checklist reviewed by: Kelsey Brooks Date: 07/18/2019
Kelsey Brooks

Analytical Report 638801

for

Terracon-Lubbock

Project Manager: Joseph Guesnier

Eddy State Battery

AR197208

07-OCT-19

Collected By: Client

6701 Aberdeen, Suite 9 Lubbock, TX 79424

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142), North Carolina (681)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

Table of Contents

07-OCT-19

Project Manager: **Joseph Guesnier**
Terracon-Lubbock
5827 50th st, Suite 1
Lubbock, TX 79424

Reference: XENCO Report No(s): **638801**
Eddy State Battery
Project Address:

Joseph Guesnier:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 638801. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 638801 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Sample Cross Reference 638801

Terracon-Lubbock, Lubbock, TX

Eddy State Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
CS-1(0-0.5)	S	10-01-19 13:00		638801-001
CS-2(2-2.5)	S	10-01-19 13:10		638801-002
CS-3(0-0.5)	S	10-01-19 13:20		638801-003
CS-4(2-2.5)	S	10-01-19 13:30		638801-004
CS-5(0-0.5)	S	10-01-19 13:40		638801-005
CS-6(2-2.5)	S	10-01-19 13:50		638801-006
CS-7(0-0.5)	S	10-01-19 14:00		638801-007
CS-8(2-2.5)	S	10-01-19 14:10		638801-008
CS-9(0-0.5)	S	10-01-19 14:20		638801-009
CS-10(2-2.5)	S	10-01-19 14:30		638801-010
CS-11(0-0.5)	S	10-01-19 14:40		638801-011
CS-12(2-2.5)	S	10-01-19 14:50		638801-012

CASE NARRATIVE

Client Name: Terracon-Lubbock

Project Name: Eddy State Battery

Project ID: *AR197208*
Work Order Number(s): *638801*

Report Date: *07-OCT-19*
Date Received: *10/02/2019*

This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory.

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3103314 Inorganic Anions by EPA 300
Lab Sample ID 638801-006 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 638801-001, -002, -003, -004, -005, -006, -007, -008, -009.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3103329 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analytical Results
638801
Terracon-Lubbock, Lubbock, TX
Eddy State Battery

Sample Id: **CS-1(0-0.5)** Matrix: Soil Sample Depth:

Lab Sample Id: 638801-001 Date Collected: 10.01.19 13.00 Date Received: 10.02.19 16.05

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Analyst: RNL % Moist: Tech: RNL

Seq Number: 3103314 Date Prep: 10.03.19 14.00

Prep seq: 7687456

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**2730**	250	5.72	mg/kg	10.03.19 18:37	DX	10

Analytical Method: TPH by SW8015 Mod Prep Method: 8015

Analyst: ISU % Moist: Tech: ISU

Seq Number: 3103420 Date Prep: 10.04.19 10.39

Subcontractor: SUB: T104704215-19-30 Prep seq: 7687467

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<10.0	50.0	10.0	mg/kg	10.04.19 13:22	U	1
Diesel Range Organics (DRO)	C10C28DRO	**13.9**	50.0	10.0	mg/kg	10.04.19 13:22	J	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<10.0	50.0	10.0	mg/kg	10.04.19 13:22	U	1
Total TPH	PHC635	**13.9**		10.0	mg/kg	10.04.19 13:22	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	104	70 - 135	%		
o-Terphenyl	110	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3103329 Date Prep: 10.03.19 10.20

Prep seq: 7687379

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.00873	0.0193	0.00873	mg/kg	10.03.19 21:34	U	20
Toluene	108-88-3	<0.00452	0.0193	0.00452	mg/kg	10.03.19 21:34	U	20
Ethylbenzene	100-41-4	<0.00595	0.0193	0.00595	mg/kg	10.03.19 21:34	U	20
m,p-Xylenes	179601-23-1	**0.00965**	0.0386	0.00658	mg/kg	10.03.19 21:34	J	20
o-Xylene	95-47-6	<0.00658	0.0193	0.00658	mg/kg	10.03.19 21:34	U	20
Total Xylenes	1330-20-7	**0.00965**		0.00658	mg/kg	10.03.19 21:34	J	
Total BTEX		**0.00965**		0.00452	mg/kg	10.03.19 21:34	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
4-Bromofluorobenzene	119	68 - 120	%		
a,a,a-Trifluorotoluene	115	71 - 121	%		

Certificate of Analytical Results
638801
Terracon-Lubbock, Lubbock, TX
Eddy State Battery

Sample Id: **CS-2(2-2.5)** Matrix: Soil Sample Depth:

Lab Sample Id: 638801-002 Date Collected: 10.01.19 13.10 Date Received: 10.02.19 16.05

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Analyst: RNL % Moist: Tech: RNL

Seq Number: 3103314 Date Prep: 10.03.19 14.00

Prep seq: 7687456

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**1460**	125	2.86	mg/kg	10.03.19 19:27	D	5

Analytical Method: TPH by SW8015 Mod Prep Method: 8015

Analyst: ISU % Moist: Tech: ISU

Seq Number: 3103420 Date Prep: 10.04.19 10.48

Subcontractor: SUB: T104704215-19-30 Prep seq: 7687467

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<9.97	49.9	9.97	mg/kg	10.04.19 14:19	U	1
Diesel Range Organics (DRO)	C10C28DRO	**29.0**	49.9	9.97	mg/kg	10.04.19 14:19	J	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**11.0**	49.9	9.97	mg/kg	10.04.19 14:19	J	1
Total TPH	PHC635	**40.0**		9.97	mg/kg	10.04.19 14:19	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	104	70 - 135	%		
o-Terphenyl	110	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3103329 Date Prep: 10.03.19 10.20

Prep seq: 7687379

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.00843	0.0187	0.00843	mg/kg	10.03.19 19:59	U	19
Toluene	108-88-3	<0.00437	0.0187	0.00437	mg/kg	10.03.19 19:59	U	19
Ethylbenzene	100-41-4	<0.00575	0.0187	0.00575	mg/kg	10.03.19 19:59	U	19
m,p-Xylenes	179601-23-1	<0.00636	0.0373	0.00636	mg/kg	10.03.19 19:59	U	19
o-Xylene	95-47-6	<0.00636	0.0187	0.00636	mg/kg	10.03.19 19:59	U	19
Total Xylenes	1330-20-7	<0.00636		0.00636	mg/kg	10.03.19 19:59	U	
Total BTEX		<0.00437		0.00437	mg/kg	10.03.19 19:59	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
4-Bromofluorobenzene	101	68 - 120	%		
a,a,a-Trifluorotoluene	109	71 - 121	%		

Certificate of Analytical Results
638801
Terracon-Lubbock, Lubbock, TX
Eddy State Battery

Sample Id: **CS-3(0-0.5)** Matrix: Soil Sample Depth:

Lab Sample Id: 638801-003 Date Collected: 10.01.19 13.20 Date Received: 10.02.19 16.05

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Analyst: RNL % Moist: Tech: RNL

Seq Number: 3103314 Date Prep: 10.03.19 14.00

Prep seq: 7687456

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**3450**	250	5.72	mg/kg	10.03.19 19:52	D	10

Analytical Method: TPH by SW8015 Mod Prep Method: 8015

Analyst: ISU % Moist: Tech: ISU

Seq Number: 3103420 Date Prep: 10.04.19 10.51

Subcontractor: SUB: T104704215-19-30 Prep seq: 7687467

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	**10.2**	50.0	10.0	mg/kg	10.04.19 14:37	J	1
Diesel Range Organics (DRO)	C10C28DRO	**38.4**	50.0	10.0	mg/kg	10.04.19 14:37	J	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**11.1**	50.0	10.0	mg/kg	10.04.19 14:37	J	1
Total TPH	PHC635	**59.7**		10.0	mg/kg	10.04.19 14:37		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	103	70 - 135	%		
o-Terphenyl	108	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3103329 Date Prep: 10.03.19 10.20

Prep seq: 7687379

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.00895	0.0198	0.00895	mg/kg	10.03.19 21:58	U	20
Toluene	108-88-3	<0.00463	0.0198	0.00463	mg/kg	10.03.19 21:58	U	20
Ethylbenzene	100-41-4	<0.00610	0.0198	0.00610	mg/kg	10.03.19 21:58	U	20
m,p-Xylenes	179601-23-1	<0.00675	0.0396	0.00675	mg/kg	10.03.19 21:58	U	20
o-Xylene	95-47-6	<0.00675	0.0198	0.00675	mg/kg	10.03.19 21:58	U	20
Total Xylenes	1330-20-7	<0.00675		0.00675	mg/kg	10.03.19 21:58	U	
Total BTEX		<0.00463		0.00463	mg/kg	10.03.19 21:58	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
4-Bromofluorobenzene	106	68 - 120	%		
a,a,a-Trifluorotoluene	112	71 - 121	%		

Certificate of Analytical Results
638801
Terracon-Lubbock, Lubbock, TX
Eddy State Battery

Sample Id: **CS-4(2-2.5)** Matrix: Soil Sample Depth:

Lab Sample Id: 638801-004 Date Collected: 10.01.19 13.30 Date Received: 10.02.19 16.05

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Analyst: RNL % Moist: Tech: RNL

Seq Number: 3103314 Date Prep: 10.03.19 14.00

Prep seq: 7687456

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**1390**	125	2.86	mg/kg	10.03.19 20:17	D	5

Analytical Method: TPH by SW8015 Mod Prep Method: 8015

Analyst: ISU % Moist: Tech: ISU

Seq Number: 3103420 Date Prep: 10.04.19 10.54

Subcontractor: SUB: T104704215-19-30 Prep seq: 7687467

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<9.92	49.6	9.92	mg/kg	10.04.19 14:59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<9.92	49.6	9.92	mg/kg	10.04.19 14:59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<9.92	49.6	9.92	mg/kg	10.04.19 14:59	U	1
Total TPH	PHC635	<9.92		9.92	mg/kg	10.04.19 14:59	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	112	70 - 135	%		
o-Terphenyl	116	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3103329 Date Prep: 10.03.19 10.20

Prep seq: 7687379

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.00807	0.0179	0.00807	mg/kg	10.03.19 22:23	U	18
Toluene	108-88-3	<0.00418	0.0179	0.00418	mg/kg	10.03.19 22:23	U	18
Ethylbenzene	100-41-4	<0.00550	0.0179	0.00550	mg/kg	10.03.19 22:23	U	18
m,p-Xylenes	179601-23-1	<0.00609	0.0357	0.00609	mg/kg	10.03.19 22:23	U	18
o-Xylene	95-47-6	<0.00609	0.0179	0.00609	mg/kg	10.03.19 22:23	U	18
Total Xylenes	1330-20-7	<0.00609		0.00609	mg/kg	10.03.19 22:23	U	
Total BTEX		<0.00418		0.00418	mg/kg	10.03.19 22:23	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
4-Bromofluorobenzene	100	68 - 120	%		
a,a,a-Trifluorotoluene	103	71 - 121	%		

Certificate of Analytical Results
638801
Terracon-Lubbock, Lubbock, TX
Eddy State Battery

Sample Id: **CS-5(0-0.5)** Matrix: Soil Sample Depth:

Lab Sample Id: 638801-005 Date Collected: 10.01.19 13.40 Date Received: 10.02.19 16.05

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Analyst: RNL % Moist: Tech: RNL

Seq Number: 3103314 Date Prep: 10.03.19 14.00

Prep seq: 7687456

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**1030**	125	2.86	mg/kg	10.03.19 20:42	D	5

Analytical Method: TPH by SW8015 Mod Prep Method: 8015

Analyst: ISU % Moist: Tech: ISU

Seq Number: 3103420 Date Prep: 10.04.19 10.57

Subcontractor: SUB: T104704215-19-30 Prep seq: 7687467

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<9.95	49.8	9.95	mg/kg	10.04.19 15:18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<9.95	49.8	9.95	mg/kg	10.04.19 15:18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<9.95	49.8	9.95	mg/kg	10.04.19 15:18	U	1
Total TPH	PHC635	<9.95		9.95	mg/kg	10.04.19 15:18	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	99	70 - 135	%		
o-Terphenyl	103	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3103329 Date Prep: 10.03.19 10.20

Prep seq: 7687379

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.00854	0.0189	0.00854	mg/kg	10.03.19 22:47	U	19
Toluene	108-88-3	<0.00442	0.0189	0.00442	mg/kg	10.03.19 22:47	U	19
Ethylbenzene	100-41-4	<0.00582	0.0189	0.00582	mg/kg	10.03.19 22:47	U	19
m,p-Xylenes	179601-23-1	<0.00645	0.0378	0.00645	mg/kg	10.03.19 22:47	U	19
o-Xylene	95-47-6	<0.00645	0.0189	0.00645	mg/kg	10.03.19 22:47	U	19
Total Xylenes	1330-20-7	<0.00645		0.00645	mg/kg	10.03.19 22:47	U	
Total BTEX		<0.00442		0.00442	mg/kg	10.03.19 22:47	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
4-Bromofluorobenzene	107	68 - 120	%		
a,a,a-Trifluorotoluene	113	71 - 121	%		

Certificate of Analytical Results
638801
Terracon-Lubbock, Lubbock, TX
Eddy State Battery

Sample Id: **CS-6(2-2.5)** Matrix: Soil Sample Depth:

Lab Sample Id: 638801-006 Date Collected: 10.01.19 13.50 Date Received: 10.02.19 16.05

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Analyst: RNL % Moist: Tech: RNL

Seq Number: 3103314 Date Prep: 10.03.19 14.00

Prep seq: 7687456

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**1440**	125	2.86	mg/kg	10.03.19 21:19	DX	5

Analytical Method: TPH by SW8015 Mod Prep Method: 8015

Analyst: ISU % Moist: Tech: ISU

Seq Number: 3103420 Date Prep: 10.04.19 11.00

Subcontractor: SUB: T104704215-19-30 Prep seq: 7687467

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<9.92	49.6	9.92	mg/kg	10.04.19 13:04	U	1
Diesel Range Organics (DRO)	C10C28DRO	**17.6**	49.6	9.92	mg/kg	10.04.19 13:04	J	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<9.92	49.6	9.92	mg/kg	10.04.19 13:04	U	1
Total TPH	PHC635	**17.6**		9.92	mg/kg	10.04.19 13:04	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	100	70 - 135	%		
o-Terphenyl	110	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3103329 Date Prep: 10.03.19 10.20

Prep seq: 7687379

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.00829	0.0183	0.00829	mg/kg	10.03.19 23:10	U	18
Toluene	108-88-3	<0.00429	0.0183	0.00429	mg/kg	10.03.19 23:10	U	18
Ethylbenzene	100-41-4	<0.00565	0.0183	0.00565	mg/kg	10.03.19 23:10	U	18
m,p-Xylenes	179601-23-1	<0.00626	0.0367	0.00626	mg/kg	10.03.19 23:10	U	18
o-Xylene	95-47-6	<0.00626	0.0183	0.00626	mg/kg	10.03.19 23:10	U	18
Total Xylenes	1330-20-7	<0.00626		0.00626	mg/kg	10.03.19 23:10	U	
Total BTEX		<0.00429		0.00429	mg/kg	10.03.19 23:10	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
4-Bromofluorobenzene	107	68 - 120	%		
a,a,a-Trifluorotoluene	113	71 - 121	%		

Certificate of Analytical Results
638801
Terracon-Lubbock, Lubbock, TX
Eddy State Battery

Sample Id: **CS-7(0-0.5)** Matrix: Soil Sample Depth:

Lab Sample Id: 638801-007 Date Collected: 10.01.19 14.00 Date Received: 10.02.19 16.05

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Analyst: RNL % Moist: Tech: RNL

Seq Number: 3103314 Date Prep: 10.03.19 14.00

Prep seq: 7687456

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**225**	25.0	0.572	mg/kg	10.03.19 21:56		1

Analytical Method: TPH by SW8015 Mod Prep Method: 8015

Analyst: ISU % Moist: Tech: ISU

Seq Number: 3103420 Date Prep: 10.04.19 11.03

Subcontractor: SUB: T104704215-19-30 Prep seq: 7687467

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<9.94	49.7	9.94	mg/kg	10.04.19 13:22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<9.94	49.7	9.94	mg/kg	10.04.19 13:22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<9.94	49.7	9.94	mg/kg	10.04.19 13:22	U	1
Total TPH	PHC635	<9.94		9.94	mg/kg	10.04.19 13:22	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	97	70 - 135	%		
o-Terphenyl	108	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3103329 Date Prep: 10.03.19 10.20

Prep seq: 7687379

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.00840	0.0186	0.00840	mg/kg	10.03.19 23:35	U	19
Toluene	108-88-3	<0.00435	0.0186	0.00435	mg/kg	10.03.19 23:35	U	19
Ethylbenzene	100-41-4	<0.00572	0.0186	0.00572	mg/kg	10.03.19 23:35	U	19
m,p-Xylenes	179601-23-1	<0.00634	0.0372	0.00634	mg/kg	10.03.19 23:35	U	19
o-Xylene	95-47-6	<0.00634	0.0186	0.00634	mg/kg	10.03.19 23:35	U	19
Total Xylenes	1330-20-7	<0.00634		0.00634	mg/kg	10.03.19 23:35	U	
Total BTEX		<0.00435		0.00435	mg/kg	10.03.19 23:35	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
4-Bromofluorobenzene	103	68 - 120	%		
a,a,a-Trifluorotoluene	106	71 - 121	%		

Certificate of Analytical Results
638801
Terracon-Lubbock, Lubbock, TX
Eddy State Battery

Sample Id: **CS-8(2-2.5)** Matrix: Soil Sample Depth:

Lab Sample Id: 638801-008 Date Collected: 10.01.19 14.10 Date Received: 10.02.19 16.05

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Analyst: RNL % Moist: Tech: RNL

Seq Number: 3103314 Date Prep: 10.03.19 14.00

Prep seq: 7687456

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**211**	25.0	0.572	mg/kg	10.03.19 22:21		1

Analytical Method: TPH by SW8015 Mod Prep Method: 8015

Analyst: ISU % Moist: Tech: ISU

Seq Number: 3103420 Date Prep: 10.04.19 11.06

Subcontractor: SUB: T104704215-19-30 Prep seq: 7687467

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	**10.7**	49.7	9.94	mg/kg	10.04.19 15:18	J	1
Diesel Range Organics (DRO)	C10C28DRO	**30.4**	49.7	9.94	mg/kg	10.04.19 15:18	J	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**26.6**	49.7	9.94	mg/kg	10.04.19 15:18	J	1
Total TPH	PHC635	**67.7**		9.94	mg/kg	10.04.19 15:18		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	106	70 - 135	%		
o-Terphenyl	117	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3103329 Date Prep: 10.03.19 10.20

Prep seq: 7687379

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.00893	0.0198	0.00893	mg/kg	10.03.19 23:59	U	20
Toluene	108-88-3	<0.00462	0.0198	0.00462	mg/kg	10.03.19 23:59	U	20
Ethylbenzene	100-41-4	<0.00609	0.0198	0.00609	mg/kg	10.03.19 23:59	U	20
m,p-Xylenes	179601-23-1	<0.00674	0.0395	0.00674	mg/kg	10.03.19 23:59	U	20
o-Xylene	95-47-6	<0.00674	0.0198	0.00674	mg/kg	10.03.19 23:59	U	20
Total Xylenes	1330-20-7	<0.00674		0.00674	mg/kg	10.03.19 23:59	U	
Total BTEX		<0.00462		0.00462	mg/kg	10.03.19 23:59	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
4-Bromofluorobenzene	112	68 - 120	%		
a,a,a-Trifluorotoluene	109	71 - 121	%		

Certificate of Analytical Results
638801
Terracon-Lubbock, Lubbock, TX
Eddy State Battery

Sample Id: **CS-9(0-0.5)** Matrix: Soil Sample Depth:

Lab Sample Id: 638801-009 Date Collected: 10.01.19 14.20 Date Received: 10.02.19 16.05

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Analyst: RNL % Moist: Tech: RNL

Seq Number: 3103314 Date Prep: 10.03.19 14.00

Prep seq: 7687456

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**616**	125	2.86	mg/kg	10.03.19 22:58	D	5

Analytical Method: TPH by SW8015 Mod Prep Method: 8015

Analyst: ISU % Moist: Tech: ISU

Seq Number: 3103420 Date Prep: 10.04.19 11.09

Subcontractor: SUB: T104704215-19-30 Prep seq: 7687467

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<10.0	50.1	10.0	mg/kg	10.04.19 15:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	**24.6**	50.1	10.0	mg/kg	10.04.19 15:41	J	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**14.4**	50.1	10.0	mg/kg	10.04.19 15:41	J	1
Total TPH	PHC635	**39.0**		10.0	mg/kg	10.04.19 15:41	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	95	70 - 135	%		
o-Terphenyl	106	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3103329 Date Prep: 10.03.19 10.20

Prep seq: 7687379

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.00892	0.0197	0.00892	mg/kg	10.04.19 00:23	U	20
Toluene	108-88-3	<0.00462	0.0197	0.00462	mg/kg	10.04.19 00:23	U	20
Ethylbenzene	100-41-4	<0.00607	0.0197	0.00607	mg/kg	10.04.19 00:23	U	20
m,p-Xylenes	179601-23-1	<0.00673	0.0394	0.00673	mg/kg	10.04.19 00:23	U	20
o-Xylene	95-47-6	<0.00673	0.0197	0.00673	mg/kg	10.04.19 00:23	U	20
Total Xylenes	1330-20-7	<0.00673		0.00673	mg/kg	10.04.19 00:23	U	
Total BTEX		<0.00462		0.00462	mg/kg	10.04.19 00:23	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
4-Bromofluorobenzene	98	68 - 120	%		
a,a,a-Trifluorotoluene	103	71 - 121	%		

Certificate of Analytical Results
638801
Terracon-Lubbock, Lubbock, TX
Eddy State Battery

Sample Id: **CS-10(2-2.5)** Matrix: Soil Sample Depth:

Lab Sample Id: 638801-010 Date Collected: 10.01.19 14.30 Date Received: 10.02.19 16.05

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Analyst: RNL % Moist: Tech: RNL

Seq Number: 3103315 Date Prep: 10.03.19 14.00

Prep seq: 7687457

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**8.34**	25.0	0.572	mg/kg	10.04.19 00:00	J	1

Analytical Method: TPH by SW8015 Mod Prep Method: 8015

Analyst: ISU % Moist: Tech: ISU

Seq Number: 3103420 Date Prep: 10.04.19 11.12

Subcontractor: SUB: T104704215-19-30 Prep seq: 7687467

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<10.0	50.0	10.0	mg/kg	10.04.19 16:37	U	1
Diesel Range Organics (DRO)	C10C28DRO	**15.8**	50.0	10.0	mg/kg	10.04.19 16:37	J	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<10.0	50.0	10.0	mg/kg	10.04.19 16:37	U	1
Total TPH	PHC635	**15.8**		10.0	mg/kg	10.04.19 16:37	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	90	70 - 135	%		
o-Terphenyl	101	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3103329 Date Prep: 10.03.19 10.20

Prep seq: 7687379

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.00842	0.0186	0.00842	mg/kg	10.04.19 00:47	U	19
Toluene	108-88-3	<0.00436	0.0186	0.00436	mg/kg	10.04.19 00:47	U	19
Ethylbenzene	100-41-4	<0.00574	0.0186	0.00574	mg/kg	10.04.19 00:47	U	19
m,p-Xylenes	179601-23-1	<0.00635	0.0372	0.00635	mg/kg	10.04.19 00:47	U	19
o-Xylene	95-47-6	<0.00635	0.0186	0.00635	mg/kg	10.04.19 00:47	U	19
Total Xylenes	1330-20-7	<0.00635		0.00635	mg/kg	10.04.19 00:47	U	
Total BTEX		<0.00436		0.00436	mg/kg	10.04.19 00:47	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
4-Bromofluorobenzene	105	68 - 120	%		
a,a,a-Trifluorotoluene	109	71 - 121	%		

Certificate of Analytical Results
638801
Terracon-Lubbock, Lubbock, TX
Eddy State Battery

Sample Id: **CS-11(0-0.5)** Matrix: Soil Sample Depth:

Lab Sample Id: 638801-011 Date Collected: 10.01.19 14.40 Date Received: 10.02.19 16.05

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Analyst: RNL % Moist: Tech: RNL

Seq Number: 3103315 Date Prep: 10.03.19 14.00

Prep seq: 7687457

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**481**	25.0	0.572	mg/kg	10.04.19 00:38		1

Analytical Method: TPH by SW8015 Mod Prep Method: 8015

Analyst: ISU % Moist: Tech: ISU

Seq Number: 3103420 Date Prep: 10.04.19 11.15

Subcontractor: SUB: T104704215-19-30 Prep seq: 7687467

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<9.97	49.9	9.97	mg/kg	10.04.19 15:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<9.97	49.9	9.97	mg/kg	10.04.19 15:41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<9.97	49.9	9.97	mg/kg	10.04.19 15:41	U	1
Total TPH	PHC635	<9.97		9.97	mg/kg	10.04.19 15:41	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	100	70 - 135	%		
o-Terphenyl	105	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3103329 Date Prep: 10.03.19 10.20

Prep seq: 7687379

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.00871	0.0193	0.00871	mg/kg	10.04.19 02:23	U	19
Toluene	108-88-3	<0.00451	0.0193	0.00451	mg/kg	10.04.19 02:23	U	19
Ethylbenzene	100-41-4	<0.00593	0.0193	0.00593	mg/kg	10.04.19 02:23	U	19
m,p-Xylenes	179601-23-1	<0.00657	0.0385	0.00657	mg/kg	10.04.19 02:23	U	19
o-Xylene	95-47-6	<0.00657	0.0193	0.00657	mg/kg	10.04.19 02:23	U	19
Total Xylenes	1330-20-7	<0.00657		0.00657	mg/kg	10.04.19 02:23	U	
Total BTEX		<0.00451		0.00451	mg/kg	10.04.19 02:23	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
4-Bromofluorobenzene	109	68 - 120	%		
a,a,a-Trifluorotoluene	110	71 - 121	%		

Certificate of Analytical Results
638801
Terracon-Lubbock, Lubbock, TX
Eddy State Battery

Sample Id: **CS-12(2-2.5)** Matrix: Soil Sample Depth:

Lab Sample Id: 638801-012 Date Collected: 10.01.19 14.50 Date Received: 10.02.19 16.05

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Analyst: RNL % Moist: Tech: RNL

Seq Number: 3103315 Date Prep: 10.03.19 14.00

Prep seq: 7687457

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**1.43**	25.0	0.572	mg/kg	10.04.19 01:02	J	1

Analytical Method: TPH by SW8015 Mod Prep Method: 8015

Analyst: ISU % Moist: Tech: ISU

Seq Number: 3103420 Date Prep: 10.04.19 11.18

Subcontractor: SUB: T104704215-19-30 Prep seq: 7687467

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<9.94	49.7	9.94	mg/kg	10.04.19 16:00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<9.94	49.7	9.94	mg/kg	10.04.19 16:00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<9.94	49.7	9.94	mg/kg	10.04.19 16:00	U	1
Total TPH	PHC635	<9.94		9.94	mg/kg	10.04.19 16:00	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	111	70 - 135	%		
o-Terphenyl	114	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3103329 Date Prep: 10.03.19 10.20

Prep seq: 7687379

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.00886	0.0196	0.00886	mg/kg	10.04.19 02:47	U	20
Toluene	108-88-3	<0.00459	0.0196	0.00459	mg/kg	10.04.19 02:47	U	20
Ethylbenzene	100-41-4	<0.00604	0.0196	0.00604	mg/kg	10.04.19 02:47	U	20
m,p-Xylenes	179601-23-1	<0.00669	0.0392	0.00669	mg/kg	10.04.19 02:47	U	20
o-Xylene	95-47-6	<0.00669	0.0196	0.00669	mg/kg	10.04.19 02:47	U	20
Total Xylenes	1330-20-7	<0.00669		0.00669	mg/kg	10.04.19 02:47	U	
Total BTEX		<0.00459		0.00459	mg/kg	10.04.19 02:47	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
4-Bromofluorobenzene	118	68 - 120	%		
a,a,a-Trifluorotoluene	117	71 - 121	%		

Certificate of Analytical Results

638801

Terracon-Lubbock, Lubbock, TX

Eddy State Battery

Sample Id: **7687379-1-BLK** Matrix: Solid Sample Depth:

Lab Sample Id: 7687379-1-BLK Date Collected: Date Received:

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3103329 Date Prep: 10.03.19 10.20

Prep seq: 7687379

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.00904	0.0200	0.00904	mg/kg	10.03.19 19:35	U	20
Toluene	108-88-3	<0.00468	0.0200	0.00468	mg/kg	10.03.19 19:35	U	20
Ethylbenzene	100-41-4	<0.00616	0.0200	0.00616	mg/kg	10.03.19 19:35	U	20
m,p-Xylenes	179601-23-1	<0.00682	0.0400	0.00682	mg/kg	10.03.19 19:35	U	20
o-Xylene	95-47-6	<0.00682	0.0200	0.00682	mg/kg	10.03.19 19:35	U	20
Total Xylenes	1330-20-7	<0.00682		0.00682	mg/kg	10.03.19 19:35	U	
Total BTEX		<0.00468		0.00468	mg/kg	10.03.19 19:35	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
4-Bromofluorobenzene	107	68 - 120	%		
a,a,a-Trifluorotoluene	110	71 - 121	%		

Sample Id: **7687456-1-BLK** Matrix: Solid Sample Depth:

Lab Sample Id: 7687456-1-BLK Date Collected: Date Received:

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Analyst: RNL % Moist: Tech: RNL

Seq Number: 3103314 Date Prep: 10.03.19 14.00

Prep seq: 7687456

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	<0.572	25.0	0.572	mg/kg	10.03.19 17:48	U	1

Sample Id: **7687457-1-BLK** Matrix: Solid Sample Depth:

Lab Sample Id: 7687457-1-BLK Date Collected: Date Received:

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Analyst: RNL % Moist: Tech: RNL

Seq Number: 3103315 Date Prep: 10.03.19 14.00

Prep seq: 7687457

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	<0.572	25.0	0.572	mg/kg	10.03.19 23:23	U	1

Certificate of Analytical Results
638801

Terracon-Lubbock, Lubbock, TX
Eddy State Battery

Sample Id: **7687467-1-BLK** Matrix: Solid Sample Depth:

Lab Sample Id: 7687467-1-BLK Date Collected: Date Received:

Analytical Method: TPH by SW8015 Mod Prep Method: 8015

Analyst: ISU % Moist: Tech: ISU

Seq Number: 3103420 Date Prep: 10.04.19 10.30

Subcontractor: SUB: T104704215-19-30 Prep seq: 7687467

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<10.0	50.0	10.0	mg/kg	10.04.19 12:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<10.0	50.0	10.0	mg/kg	10.04.19 12:15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<10.0	50.0	10.0	mg/kg	10.04.19 12:15	U	1
Total TPH	PHC635	<10.0		10.0	mg/kg	10.04.19 12:15	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	99	70 - 135	%		
o-Terphenyl	103	70 - 135	%		

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

Form 2 - Surrogate Recoveries

Project Name: Eddy State Battery

Work Orders : 638801,

Project ID: AR197208

Lab Batch #: 3103329 **Sample:** 7687379-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/03/19 17:59

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.110	0.100	110	68-120	
a,a,a-Trifluorotoluene	2.12	2.00	106	71-121	

Lab Batch #: 3103329 **Sample:** 7687379-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/03/19 18:23

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.108	0.100	108	68-120	
a,a,a-Trifluorotoluene	2.11	2.00	106	71-121	

Lab Batch #: 3103329 **Sample:** 7687379-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/03/19 19:35

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.107	0.100	107	68-120	
a,a,a-Trifluorotoluene	2.19	2.00	110	71-121	

Lab Batch #: 3103329 **Sample:** 638801-002 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/03/19 20:23

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.105	0.100	105	68-120	
a,a,a-Trifluorotoluene	2.05	1.88	109	71-121	

Lab Batch #: 3103329 **Sample:** 638801-002 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/03/19 20:47

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.103	0.100	103	68-120	
a,a,a-Trifluorotoluene	2.17	1.95	111	71-121	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Version: 1.%

Form 2 - Surrogate Recoveries

Project Name: Eddy State Battery

Work Orders : 638801,

Project ID: AR197208

Lab Batch #: 3103420 **Sample:** 7687467-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/04/19 12:15

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.0	100	99	70-135	
o-Terphenyl	51.7	50.0	103	70-135	

Lab Batch #: 3103420 **Sample:** 7687467-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/04/19 12:34

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	115	100	115	70-135	
o-Terphenyl	55.2	50.0	110	70-135	

Lab Batch #: 3103420 **Sample:** 7687467-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/04/19 13:04

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	100	111	70-135	
o-Terphenyl	53.7	50.0	107	70-135	

Lab Batch #: 3103420 **Sample:** 638801-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/04/19 13:41

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	113	99.6	113	70-135	
o-Terphenyl	55.2	49.8	111	70-135	

Lab Batch #: 3103420 **Sample:** 638801-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/04/19 14:00

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	110	100	110	70-135	
o-Terphenyl	52.5	50.1	105	70-135	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Version: 1.%

BS / BSD Recoveries

Project Name: Eddy State Battery

Work Order #: 638801 **Project ID:** AR197208

Analyst: MIT **Date Prepared:** 10/03/2019 **Date Analyzed:** 10/03/2019

Lab Batch ID: 3103329 **Sample:** 7687379-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00904	2.00	2.00	100	2.00	2.01	101	0	55-120	20	
Toluene	<0.00468	2.00	1.99	100	2.00	1.99	100	0	77-120	20	
Ethylbenzene	<0.00616	2.00	2.13	107	2.00	2.12	106	0	77-120	20	
m,p-Xylenes	<0.00682	4.00	4.20	105	4.00	4.18	105	0	78-120	20	
o-Xylene	<0.00682	2.00	2.08	104	2.00	2.08	104	0	78-120	20	

Analyst: RNL **Date Prepared:** 10/03/2019 **Date Analyzed:** 10/03/2019

Lab Batch ID: 3103314 **Sample:** 7687456-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.572	250	252	101	250	259	104	3	90-110	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Version: 1.%

BS / BSD Recoveries

Project Name: Eddy State Battery

Work Order #: 638801 **Project ID:** AR197208

Analyst: RNL **Date Prepared:** 10/03/2019 **Date Analyzed:** 10/03/2019

Lab Batch ID: 3103315 **Sample:** 7687457-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.572	250	262	105	250	269	108	3	90-110	20	

Analyst: ISU **Date Prepared:** 10/04/2019 **Date Analyzed:** 10/04/2019

Lab Batch ID: 3103420 **Sample:** 7687467-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<10.0	1000	1070	107	1000	1100	110	3	70-135	35	
Diesel Range Organics (DRO)	<10.0	1000	1070	107	1000	1030	103	4	70-135	35	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Version: 1.%

Form 3 - MS / MSD Recoveries

Project Name: Eddy State Battery

Work Order # : 638801 **Project ID:** AR197208

Lab Batch ID: 3103329 **QC- Sample ID:** 638801-002 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 10/03/2019 **Date Prepared:** 10/03/2019 **Analyst:** MIT

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00851	1.88	1.82	97	1.95	1.99	102	9	54-120	25	
Toluene	<0.00441	1.88	1.81	96	1.95	2.02	104	11	57-120	25	
Ethylbenzene	<0.00580	1.88	1.92	102	1.95	2.19	112	13	58-131	25	
m,p-Xylenes	<0.00642	3.77	3.78	100	3.90	4.22	108	11	62-124	25	
o-Xylene	<0.00642	1.88	1.90	101	1.95	2.10	108	10	62-124	25	

Lab Batch ID: 3103314 **QC- Sample ID:** 638801-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 10/03/2019 **Date Prepared:** 10/03/2019 **Analyst:** RNL

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	1920	250	3180	NC	250	3220	NC	1	80-120	20	X

Lab Batch ID: 3103314 **QC- Sample ID:** 638801-006 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 10/03/2019 **Date Prepared:** 10/03/2019 **Analyst:** RNL

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	1200	250	1660	184	250	1710	204	3	80-120	20	X

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Form 3 - MS / MSD Recoveries

Project Name: Eddy State Battery

Work Order # : 638801 **Project ID:** AR197208

Lab Batch ID: 3103315 **QC- Sample ID:** 638801-010 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 10/04/2019 **Date Prepared:** 10/03/2019 **Analyst:** RNL

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	8.34	250	267	103	250	273	106	2	80-120	20	

Lab Batch ID: 3103420 **QC- Sample ID:** 638801-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 10/04/2019 **Date Prepared:** 10/04/2019 **Analyst:** ISU

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<9.96	996	1100	110	1000	1080	108	2	70-135	35	
Diesel Range Organics (DRO)	13.9	996	1050	104	1000	1020	101	3	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable

N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Final 1.000

Terracon

CHAIN OF CUSTODY RECORD

U38801

Laboratory: Xenco
Address: 6701 Aberdeen
Lubbock, Texas 79424
Phone:
Contact: Joseph Guesnier (806-544-9276)
SRS #:

Office Location: Lubbock
Project Manager: Joseph Guesnier
Sampler's Name: Joseph Guesnier
Sampler's Signature

Project Number: AR197208
Project Name: Eddy State Battery

ANALYSIS REQUESTED

LAB USE ONLY
DUE DATE:
TEMP OF COOLER WHEN RECEIVED (°C): 1, 1, 1, 1

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	No. Type of Containers: 2 oz Glass	4 oz Glass	5035 kit	40 ml VOA	Chloride (EPA Method 300)	TPH Extended 8015	BTEX (EPA Method 8021B)	Hold	Lab Sample ID
S	10/1/2019	13:00	X		CS-1 (0-0.5)	0'	0.5'		X			X	X	X		
S	10/1/2019	13:10	X		CS-2 (2-2.5)	2'	2.5'		X			X	X	X		
S	10/1/2019	13:20	X		CS-3 (0-0.5)	0'	0.5'		X			X	X	X		
S	10/1/2019	13:30	X		CS-4 (2-2.5)	2'	2.5'		X			X	X	X		
S	10/1/2019	13:40	X		CS-5 (0-0.5)	0'	0.5'		X			X	X	X		
S	10/1/2019	13:50	X		CS-6 (2-2.5)	2'	2.5'		X			X	X	X		
S	10/1/2019	14:00	X		CS-7 (0-0.5)	0'	0.5'		X			X	X	X		
S	10/1/2019	14:10	X		CS-8 (2-2.5)	2'	2.5'		X			X	X	X		
S	10/1/2019	14:20	X		CS-9 (0-0.5)	0'	0.5'		X			X	X	X		
S	10/1/2019	14:30	X		CS-10 (2-2.5)	2'	2.5'		X			X	X	X		
S	10/1/2019	14:40	X		CS-11 (0-0.5)	0'	0.5'		X			X	X	X		
S	10/1/2019	14:50	X		CS-12 (2-2.5)	2'	2.5'		X			X	X	X		

TURNAROUND TIME ☐ Normal ☒ 48-Hour Rush ☐ 24-Hour Rush

TRRP Laboratory Review Checklist ☐ Yes ☐ No

	Date	Time		Date	Time
Relinquished by (Signature)	10/2/19	11:05	Received by (Signature)	10/2/19	1105
Relinquished by (Signature)			Received by (Signature)		
Relinquished by (Signature)			Received by (Signature)		
Relinquished by (Signature)			Received by (Signature)		

NOTES: Client: Spur

e-mail results to:

john.fergerson@terracon.com

jrguesnier@terracon.com

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

Inter-Office Shipment

IOS Number : 49316

Date/Time: 10.02.2019
Lab# From: **Lubbock**
Lab# To: **Houston**
Created by: Ashley Derstine
Delivery Priority:
Air Bill No.: 776447877977
Please send report to: Jessica Kramer
Address: 6701 Aberdeen, Suite 9 Lubbock, TX 79424
E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
638801-001	S	CS-1(0-0.5)	10.01.2019 13:00	SW8015MOD_NM	TPH by SW8015 Mod	10.04.2019	10.15.2019	JKR	PHCC10C28 PHCC28C3	
638801-002	S	CS-2(2-2.5)	10.01.2019 13:10	SW8015MOD_NM	TPH by SW8015 Mod	10.04.2019	10.15.2019	JKR	PHCC10C28 PHCC28C3	
638801-003	S	CS-3(0-0.5)	10.01.2019 13:20	SW8015MOD_NM	TPH by SW8015 Mod	10.04.2019	10.15.2019	JKR	PHCC10C28 PHCC28C3	
638801-004	S	CS-4(2-2.5)	10.01.2019 13:30	SW8015MOD_NM	TPH by SW8015 Mod	10.04.2019	10.15.2019	JKR	PHCC10C28 PHCC28C3	
638801-005	S	CS-5(0-0.5)	10.01.2019 13:40	SW8015MOD_NM	TPH by SW8015 Mod	10.04.2019	10.15.2019	JKR	PHCC10C28 PHCC28C3	
638801-006	S	CS-6(2-2.5)	10.01.2019 13:50	SW8015MOD_NM	TPH by SW8015 Mod	10.04.2019	10.15.2019	JKR	PHCC10C28 PHCC28C3	
638801-007	S	CS-7(0-0.5)	10.01.2019 14:00	SW8015MOD_NM	TPH by SW8015 Mod	10.04.2019	10.15.2019	JKR	PHCC10C28 PHCC28C3	
638801-008	S	CS-8(2-2.5)	10.01.2019 14:10	SW8015MOD_NM	TPH by SW8015 Mod	10.04.2019	10.15.2019	JKR	PHCC10C28 PHCC28C3	
638801-009	S	CS-9(0-0.5)	10.01.2019 14:20	SW8015MOD_NM	TPH by SW8015 Mod	10.04.2019	10.15.2019	JKR	PHCC10C28 PHCC28C3	
638801-010	S	CS-10(2-2.5)	10.01.2019 14:30	SW8015MOD_NM	TPH by SW8015 Mod	10.04.2019	10.15.2019	JKR	PHCC10C28 PHCC28C3	
638801-011	S	CS-11(0-0.5)	10.01.2019 14:40	SW8015MOD_NM	TPH by SW8015 Mod	10.04.2019	10.15.2019	JKR	PHCC10C28 PHCC28C3	
638801-012	S	CS-12(2-2.5)	10.01.2019 14:50	SW8015MOD_NM	TPH by SW8015 Mod	10.04.2019	10.15.2019	JKR	PHCC10C28 PHCC28C3	

Inter Office Shipment or Sample Comments:

Relinquished By: Ashley Derstine
Date Relinquished: 10.03.2019

Received By: Ashly Kowalski
Date Received: 10.03.2019
Cooler Temperature: 1.3

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 49316

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : HOU-068

Sent By: Ashley Derstine **Date Sent:** 10.02.2019 04.30 PM

Received By: Ashly Kowalski **Date Received:** 10.03.2019 09.30 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	1.3	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received with appropriate temperature?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**	
#5 *Custody Seals Signed and dated for Containers/coolers	**N/A**	
#6 *IOS present?	**Yes**	
#7 Any missing/extra samples?	**No**	
#8 IOS agrees with sample label(s)/matrix?	**Yes**	
#9 Sample matrix/ properties agree with IOS?	**Yes**	
#10 Samples in proper container/ bottle?	**Yes**	
#11 Samples properly preserved?	**Yes**	
#12 Sample container(s) intact?	**Yes**	
#13 Sufficient sample amount for indicated test(s)?	**Yes**	
#14 All samples received within hold time?	**Yes**	

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ **Contacted by :** _____ **Date:** _____

Checklist reviewed by: _____ Date: 10.03.2019

Ashly Kowalski

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Terracon-Lubbock

Date/ Time Received: 10/02/2019 04:05:00 PM

Work Order #: 638801

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R4

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.1
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**Yes**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Ashley Derstine Date: 10/03/2019

Checklist reviewed by: Jessica Kramer Date: 10/04/2019

Jessica Kramer

Certificate of Analysis Summary 650206

Terracon-Lubbock, Lubbock, TX

Project Name: Eddy State Battery

Project Id: AR197208
Contact: Joseph Guesnier
Project Location: Client: Spur

Date Received in Lab: Fri Jan-24-20 12:10 pm
Report Date: 28-JAN-20
Project Manager: Jessica Kramer

Analysis Requested		650206-001		650206-002		650206-003		650206-004		650206-005		650206-006	
	Field Id:	CS-1.1 (1.5-2)		CS-2.1 (0-.5)		CS-4.1 (1.5-2)		CS-3.1 (0-.5)		CS-5.1 (0-.5)		CS-9.1 (0-.5)	
	Depth:	1.5-2		0-5		1.5-2		0-5		0-5		0-5	
	Matrix:	SOIL		SOIL		SOIL		SOIL		SOIL		SOIL	
	Sampled:	Jan-21-20 13:15		Jan-21-20 13:15		Jan-21-20 13:15		Jan-21-20 13:15		Jan-21-20 13:15		Jan-21-20 13:15	
BTEX by EPA 8021B	*Extracted:*	Jan-24-20 13:00		Jan-24-20 13:00		Jan-24-20 13:00		Jan-24-20 13:00		Jan-24-20 13:00		Jan-24-20 13:00	
	Analyzed:	Jan-24-20 19:44		Jan-24-20 22:07		Jan-24-20 22:31		Jan-24-20 22:55		Jan-24-20 23:19		Jan-24-20 23:43	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Benzene		<0.00881	0.0195	<0.00864	0.0191	<0.00843	0.0187	<0.00886	0.0196	<0.00851	0.0188	<0.00839	0.0186
Toluene		<0.00456	0.0195	<0.00447	0.0191	<0.00437	0.0187	<0.00459	0.0196	<0.00441	0.0188	<0.00434	0.0186
Ethylbenzene		<0.00600	0.0195	<0.00589	0.0191	<0.00575	0.0187	<0.00604	0.0196	<0.00580	0.0188	<0.00571	0.0186
m,p-Xylenes		<0.00665	0.0390	<0.00652	0.0382	<0.00636	0.0373	<0.00669	0.0392	<0.00642	0.0377	<0.00633	0.0371
o-Xylene		<0.00665	0.0195	<0.00652	0.0191	<0.00636	0.0187	<0.00669	0.0196	<0.00642	0.0188	<0.00633	0.0186
Total Xylenes		<0.00665	0.0195	<0.00652	0.0191	<0.00636	0.0187	<0.00669	0.0196	<0.00642	0.0188	<0.00633	0.0186
Total BTEX		<0.00456	0.0195	<0.00447	0.0191	<0.00437	0.0187	<0.00459	0.0196	<0.00441	0.0188	<0.00434	0.0186
DRO-ORO By SW8015B	*Extracted:*	Jan-24-20 13:00		Jan-24-20 13:00		Jan-24-20 13:00		Jan-24-20 13:00		Jan-24-20 13:00		Jan-24-20 13:00	
	Analyzed:	Jan-24-20 21:33		Jan-24-20 23:53		Jan-25-20 00:28		Jan-25-20 01:02		Jan-25-20 01:37		Jan-25-20 02:12	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Diesel Range Organics (DRO)		<7.44	24.9	<7.44	24.9	<7.43	24.8	<7.52	25.1	<7.44	24.9	<7.41	24.8
Oil Range Hydrocarbons (ORO)		<7.44	24.9	<7.44	24.9	<7.43	24.8	<7.52	25.1	<7.44	24.9	<7.41	24.8
Inorganic Anions by EPA 300/300.1	*Extracted:*	Jan-25-20 08:30		Jan-25-20 08:30		Jan-25-20 08:30		Jan-25-20 08:30		Jan-25-20 08:30		Jan-25-20 08:30	
	Analyzed:	Jan-25-20 10:47		Jan-25-20 11:37		Jan-25-20 12:02		Jan-25-20 12:26		Jan-25-20 12:39		Jan-25-20 12:51	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
Chloride		1260 DX	125	11600 D	2500	1790 D	250	39.8	25.0	21.8 J	25.0	1680 D	125
TPH GRO by EPA 8015 Mod.	*Extracted:*	Jan-24-20 13:00		Jan-24-20 13:00		Jan-24-20 13:00		Jan-24-20 13:00		Jan-24-20 13:00		Jan-24-20 13:00	
	Analyzed:	Jan-24-20 19:44		Jan-24-20 22:07		Jan-24-20 22:31		Jan-24-20 22:55		Jan-24-20 23:19		Jan-24-20 23:43	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
TPH-GRO		<0.264	3.90	<0.259	3.82	<0.253	3.73	<0.266	3.92	<0.255	3.77	<0.251	3.71

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Version: 1.%

Jessica Kramer
Project Assistant

Final 1.000

Analytical Report 650206

for

Terracon-Lubbock

Project Manager: Joseph Guesnier

Eddy State Battery

AR197208

28-JAN-20

Collected By: Client

6701 Aberdeen, Suite 9 Lubbock, TX 79424

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

28-JAN-20

Project Manager: **Joseph Guesnier**
Terracon-Lubbock
5827 50th st, Suite 1
Lubbock, TX 79424

Reference: XENCO Report No(s): **650206**
Eddy State Battery
Project Address: Client: Spur

Joseph Guesnier:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 650206. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 650206 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Sample Cross Reference 650206

Terracon-Lubbock, Lubbock, TX

Eddy State Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
CS-1.1 (1.5-2)	S	01-21-20 13:15	1.5 - 2	650206-001
CS-2.1 (0-.5)	S	01-21-20 13:15	0 - 5	650206-002
CS-4.1 (1.5-2)	S	01-21-20 13:15	1.5 - 2	650206-003
CS-3.1 (0-.5)	S	01-21-20 13:15	0 - 5	650206-004
CS-5.1 (0-.5)	S	01-21-20 13:15	0 - 5	650206-005
CS-9.1 (0-.5)	S	01-21-20 13:15	0 - 5	650206-006

Version: 1.%

CASE NARRATIVE

Client Name: Terracon-Lubbock

Project Name: Eddy State Battery

Project ID: *AR197208*
Work Order Number(s): *650206*

Report Date: *28-JAN-20*
Date Received: *01/24/2020*

This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory.

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3114460 Inorganic Anions by EPA 300/300.1
Lab Sample ID 650206-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 650206-001, -002, -003, -004, -005, -006.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3114480 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3114482 TPH GRO by EPA 8015 Mod.
Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 650206-001 SD.

CASE NARRATIVE

Client Name: Terracon-Lubbock

Project Name: Eddy State Battery

Project ID: *AR197208*
Work Order Number(s): *650206*

Report Date: *28-JAN-20*
Date Received: *01/24/2020*

Batch: LBA-3114521 DRO-ORO By SW8015B
Surrogate Tricosane recovered below QC limits. Matrix interferences is suspected; data confirmed by re-analysis.
Samples affected are: 650206-001 S.

Diesel Range Organics (DRO) Relative Percent Difference (RPD) between matrix spike and duplicate was above quality control limits.
Samples in the analytical batch are: 650206-001, -002, -003, -004, -005, -006

Lab Sample ID 650206-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Diesel Range Organics (DRO) recovered above QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 650206-001, -002, -003, -004, -005, -006.
The Laboratory Control Sample for Diesel Range Organics (DRO) is within laboratory Control Limits, therefore the data was accepted.

Certificate of Analytical Results 650206

Terracon-Lubbock, Lubbock, TX

Eddy State Battery

Sample Id: **CS-1.1 (1.5-2)** Matrix: Soil Date Received:01.24.20 12.10

Lab Sample Id: 650206-001 Date Collected: 01.21.20 13.15 Sample Depth: 1.5 - 2

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: RNL % Moisture:

Analyst: RNL Date Prep: 01.25.20 08.30 Basis: Wet Weight

Seq Number: 3114460

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1260**	125	2.86	mg/kg	01.25.20 11.00	DX	5

Analytical Method: DRO-ORO By SW8015B Prep Method: SW8015P

Tech: MIT % Moisture:

Analyst: MIT Date Prep: 01.24.20 13.00 Basis: Wet Weight

Seq Number: 3114521

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Diesel Range Organics (DRO)	C10C28DRO	<7.44	24.9	7.44	mg/kg	01.24.20 21.33	UXF	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<7.44	24.9	7.44	mg/kg	01.24.20 21.33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Tricosane	638-67-5	67	%	65-144	01.24.20 21.33	
n-Triacontane	638-68-6	88	%	46-152	01.24.20 21.33	

Analytical Method: BTEX by EPA 8021B Prep Method: SW5030B

Tech: MIT % Moisture:

Analyst: MIT Date Prep: 01.24.20 13.00 Basis: Wet Weight

Seq Number: 3114480

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00881	0.0195	0.00881	mg/kg	01.24.20 19.44	U	1
Toluene	108-88-3	<0.00456	0.0195	0.00456	mg/kg	01.24.20 19.44	U	1
Ethylbenzene	100-41-4	<0.00600	0.0195	0.00600	mg/kg	01.24.20 19.44	U	1
m,p-Xylenes	179601-23-1	<0.00665	0.0390	0.00665	mg/kg	01.24.20 19.44	U	1
o-Xylene	95-47-6	<0.00665	0.0195	0.00665	mg/kg	01.24.20 19.44	U	1
Total Xylenes	1330-20-7	<0.00665	0.0195	0.00665	mg/kg	01.24.20 19.44	U	1
Total BTEX		<0.00456	0.0195	0.00456	mg/kg	01.24.20 19.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	102	%	68-120	01.24.20 19.44	
a,a,a-Trifluorotoluene	98-08-8	112	%	71-121	01.24.20 19.44	

Certificate of Analytical Results 650206

Terracon-Lubbock, Lubbock, TX

Eddy State Battery

Sample Id:	**CS-1.1 (1.5-2)**	Matrix:	Soil	Date Received:	01.24.20 12.10
Lab Sample Id:	650206-001	Date Collected:	01.21.20 13.15	Sample Depth:	1.5 - 2
Analytical Method:	TPH GRO by EPA 8015 Mod.			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	01.24.20 13.00	Basis:	Wet Weight
Seq Number:	3114482				

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
TPH-GRO	8006-61-9	<0.264	3.90	0.264	mg/kg	01.24.20 19.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	92	%	76-123	01.24.20 19.44	
a,a,a-Trifluorotoluene	98-08-8	94	%	69-120	01.24.20 19.44	

Certificate of Analytical Results 650206

Terracon-Lubbock, Lubbock, TX

Eddy State Battery

Sample Id: **CS-2.1 (0-.5)** Matrix: Soil Date Received:01.24.20 12.10

Lab Sample Id: 650206-002 Date Collected: 01.21.20 13.15 Sample Depth: 0 - 5

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: RNL % Moisture:

Analyst: RNL Date Prep: 01.25.20 08.30 Basis: Wet Weight

Seq Number: 3114460

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**11600**	2500	57.2	mg/kg	01.25.20 11.49	D	100

Analytical Method: DRO-ORO By SW8015B Prep Method: SW8015P

Tech: MIT % Moisture:

Analyst: MIT Date Prep: 01.24.20 13.00 Basis: Wet Weight

Seq Number: 3114521

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Diesel Range Organics (DRO)	C10C28DRO	<7.44	24.9	7.44	mg/kg	01.24.20 23.53	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<7.44	24.9	7.44	mg/kg	01.24.20 23.53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Tricosane	638-67-5	66	%	65-144	01.24.20 23.53	
n-Triacontane	638-68-6	87	%	46-152	01.24.20 23.53	

Analytical Method: BTEX by EPA 8021B Prep Method: SW5030B

Tech: MIT % Moisture:

Analyst: MIT Date Prep: 01.24.20 13.00 Basis: Wet Weight

Seq Number: 3114480

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00864	0.0191	0.00864	mg/kg	01.24.20 22.07	U	1
Toluene	108-88-3	<0.00447	0.0191	0.00447	mg/kg	01.24.20 22.07	U	1
Ethylbenzene	100-41-4	<0.00589	0.0191	0.00589	mg/kg	01.24.20 22.07	U	1
m,p-Xylenes	179601-23-1	<0.00652	0.0382	0.00652	mg/kg	01.24.20 22.07	U	1
o-Xylene	95-47-6	<0.00652	0.0191	0.00652	mg/kg	01.24.20 22.07	U	1
Total Xylenes	1330-20-7	<0.00652	0.0191	0.00652	mg/kg	01.24.20 22.07	U	1
Total BTEX		<0.00447	0.0191	0.00447	mg/kg	01.24.20 22.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	99	%	68-120	01.24.20 22.07	
a,a,a-Trifluorotoluene	98-08-8	112	%	71-121	01.24.20 22.07	

Certificate of Analytical Results 650206

Terracon-Lubbock, Lubbock, TX

Eddy State Battery

Sample Id:	**CS-2.1 (0-.5)**	Matrix:	Soil	Date Received:	01.24.20 12.10
Lab Sample Id:	650206-002	Date Collected:	01.21.20 13.15	Sample Depth:	0 - 5
Analytical Method:	TPH GRO by EPA 8015 Mod.			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	01.24.20 13.00	Basis:	Wet Weight
Seq Number:	3114482				

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
TPH-GRO	8006-61-9	<0.259	3.82	0.259	mg/kg	01.24.20 22.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	89	%	76-123	01.24.20 22.07	
a,a,a-Trifluorotoluene	98-08-8	94	%	69-120	01.24.20 22.07	

Certificate of Analytical Results 650206

Terracon-Lubbock, Lubbock, TX

Eddy State Battery

Sample Id: **CS-4.1 (1.5-2)** Matrix: Soil Date Received:01.24.20 12.10

Lab Sample Id: 650206-003 Date Collected: 01.21.20 13.15 Sample Depth: 1.5 - 2

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: RNL % Moisture:

Analyst: RNL Date Prep: 01.25.20 08.30 Basis: Wet Weight

Seq Number: 3114460

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1790**	250	5.72	mg/kg	01.25.20 12.14	D	10

Analytical Method: DRO-ORO By SW8015B Prep Method: SW8015P

Tech: MIT % Moisture:

Analyst: MIT Date Prep: 01.24.20 13.00 Basis: Wet Weight

Seq Number: 3114521

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Diesel Range Organics (DRO)	C10C28DRO	<7.43	24.8	7.43	mg/kg	01.25.20 00.28	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<7.43	24.8	7.43	mg/kg	01.25.20 00.28	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Tricosane	638-67-5	73	%	65-144	01.25.20 00.28	
n-Triacontane	638-68-6	94	%	46-152	01.25.20 00.28	

Analytical Method: BTEX by EPA 8021B Prep Method: SW5030B

Tech: MIT % Moisture:

Analyst: MIT Date Prep: 01.24.20 13.00 Basis: Wet Weight

Seq Number: 3114480

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00843	0.0187	0.00843	mg/kg	01.24.20 22.31	U	1
Toluene	108-88-3	<0.00437	0.0187	0.00437	mg/kg	01.24.20 22.31	U	1
Ethylbenzene	100-41-4	<0.00575	0.0187	0.00575	mg/kg	01.24.20 22.31	U	1
m,p-Xylenes	179601-23-1	<0.00636	0.0373	0.00636	mg/kg	01.24.20 22.31	U	1
o-Xylene	95-47-6	<0.00636	0.0187	0.00636	mg/kg	01.24.20 22.31	U	1
Total Xylenes	1330-20-7	<0.00636	0.0187	0.00636	mg/kg	01.24.20 22.31	U	1
Total BTEX		<0.00437	0.0187	0.00437	mg/kg	01.24.20 22.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	99	%	68-120	01.24.20 22.31	
a,a,a-Trifluorotoluene	98-08-8	114	%	71-121	01.24.20 22.31	

Certificate of Analytical Results 650206

Terracon-Lubbock, Lubbock, TX

Eddy State Battery

Sample Id:	**CS-4.1 (1.5-2)**	Matrix:	Soil	Date Received:	01.24.20 12.10
Lab Sample Id:	650206-003	Date Collected:	01.21.20 13.15	Sample Depth:	1.5 - 2
Analytical Method:	TPH GRO by EPA 8015 Mod.			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	01.24.20 13.00	Basis:	Wet Weight
Seq Number:	3114482				

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
TPH-GRO	8006-61-9	<0.253	3.73	0.253	mg/kg	01.24.20 22.31	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	89	%	76-123	01.24.20 22.31	
a,a,a-Trifluorotoluene	98-08-8	95	%	69-120	01.24.20 22.31	

Certificate of Analytical Results 650206

Terracon-Lubbock, Lubbock, TX

Eddy State Battery

Sample Id:	**CS-3.1 (0-.5)**	Matrix:	Soil	Date Received:	01.24.20 12.10
Lab Sample Id:	650206-004	Date Collected:	01.21.20 13.15	Sample Depth:	0 - 5

Analytical Method:	Inorganic Anions by EPA 300/300.1			Prep Method:	E300P
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	01.25.20 08.30	Basis:	Wet Weight
Seq Number:	3114460				

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**39.8**	25.0	0.572	mg/kg	01.25.20 12.26		1

Analytical Method:	DRO-ORO By SW8015B			Prep Method:	SW8015P
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	01.24.20 13.00	Basis:	Wet Weight
Seq Number:	3114521				

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Diesel Range Organics (DRO)	C10C28DRO	<7.52	25.1	7.52	mg/kg	01.25.20 01.02	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<7.52	25.1	7.52	mg/kg	01.25.20 01.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Tricosane	638-67-5	70	%	65-144	01.25.20 01.02	
n-Triacontane	638-68-6	92	%	46-152	01.25.20 01.02	

Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	01.24.20 13.00	Basis:	Wet Weight
Seq Number:	3114480				

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00886	0.0196	0.00886	mg/kg	01.24.20 22.55	U	1
Toluene	108-88-3	<0.00459	0.0196	0.00459	mg/kg	01.24.20 22.55	U	1
Ethylbenzene	100-41-4	<0.00604	0.0196	0.00604	mg/kg	01.24.20 22.55	U	1
m,p-Xylenes	179601-23-1	<0.00669	0.0392	0.00669	mg/kg	01.24.20 22.55	U	1
o-Xylene	95-47-6	<0.00669	0.0196	0.00669	mg/kg	01.24.20 22.55	U	1
Total Xylenes	1330-20-7	<0.00669	0.0196	0.00669	mg/kg	01.24.20 22.55	U	1
Total BTEX		<0.00459	0.0196	0.00459	mg/kg	01.24.20 22.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	85	%	68-120	01.24.20 22.55	
a,a,a-Trifluorotoluene	98-08-8	96	%	71-121	01.24.20 22.55	

Certificate of Analytical Results 650206

Terracon-Lubbock, Lubbock, TX

Eddy State Battery

Sample Id:	**CS-3.1 (0-.5)**	Matrix:	Soil	Date Received:	01.24.20 12.10
Lab Sample Id:	650206-004	Date Collected:	01.21.20 13.15	Sample Depth:	0 - 5
Analytical Method:	TPH GRO by EPA 8015 Mod.			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	01.24.20 13.00	Basis:	Wet Weight
Seq Number:	3114482				

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
TPH-GRO	8006-61-9	<0.266	3.92	0.266	mg/kg	01.24.20 22.55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	76	%	76-123	01.24.20 22.55	
a,a,a-Trifluorotoluene	98-08-8	80	%	69-120	01.24.20 22.55	

Certificate of Analytical Results 650206

Terracon-Lubbock, Lubbock, TX

Eddy State Battery

Sample Id: **CS-5.1 (0-.5)** Matrix: Soil Date Received:01.24.20 12.10

Lab Sample Id: 650206-005 Date Collected: 01.21.20 13.15 Sample Depth: 0 - 5

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: RNL % Moisture:

Analyst: RNL Date Prep: 01.25.20 08.30 Basis: Wet Weight

Seq Number: 3114460

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**21.8**	25.0	0.572	mg/kg	01.25.20 12.39	J	1

Analytical Method: DRO-ORO By SW8015B Prep Method: SW8015P

Tech: MIT % Moisture:

Analyst: MIT Date Prep: 01.24.20 13.00 Basis: Wet Weight

Seq Number: 3114521

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Diesel Range Organics (DRO)	C10C28DRO	<7.44	24.9	7.44	mg/kg	01.25.20 01.37	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<7.44	24.9	7.44	mg/kg	01.25.20 01.37	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Tricosane	638-67-5	71	%	65-144	01.25.20 01.37	
n-Triacontane	638-68-6	93	%	46-152	01.25.20 01.37	

Analytical Method: BTEX by EPA 8021B Prep Method: SW5030B

Tech: MIT % Moisture:

Analyst: MIT Date Prep: 01.24.20 13.00 Basis: Wet Weight

Seq Number: 3114480

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00851	0.0188	0.00851	mg/kg	01.24.20 23.19	U	1
Toluene	108-88-3	<0.00441	0.0188	0.00441	mg/kg	01.24.20 23.19	U	1
Ethylbenzene	100-41-4	<0.00580	0.0188	0.00580	mg/kg	01.24.20 23.19	U	1
m,p-Xylenes	179601-23-1	<0.00642	0.0377	0.00642	mg/kg	01.24.20 23.19	U	1
o-Xylene	95-47-6	<0.00642	0.0188	0.00642	mg/kg	01.24.20 23.19	U	1
Total Xylenes	1330-20-7	<0.00642	0.0188	0.00642	mg/kg	01.24.20 23.19	U	1
Total BTEX		<0.00441	0.0188	0.00441	mg/kg	01.24.20 23.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	68-120	01.24.20 23.19	
a,a,a-Trifluorotoluene	98-08-8	116	%	71-121	01.24.20 23.19	

Certificate of Analytical Results 650206

Terracon-Lubbock, Lubbock, TX

Eddy State Battery

Sample Id:	**CS-5.1 (0-.5)**	Matrix:	Soil	Date Received:	01.24.20 12.10
Lab Sample Id:	650206-005	Date Collected:	01.21.20 13.15	Sample Depth:	0 - 5
Analytical Method:	TPH GRO by EPA 8015 Mod.			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	01.24.20 13.00	Basis:	Wet Weight
Seq Number:	3114482				

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
TPH-GRO	8006-61-9	<0.255	3.77	0.255	mg/kg	01.24.20 23.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	93	%	76-123	01.24.20 23.19	
a,a,a-Trifluorotoluene	98-08-8	97	%	69-120	01.24.20 23.19	

Certificate of Analytical Results 650206

Terracon-Lubbock, Lubbock, TX

Eddy State Battery

Sample Id: **CS-9.1 (0-.5)** Matrix: Soil Date Received:01.24.20 12.10

Lab Sample Id: 650206-006 Date Collected: 01.21.20 13.15 Sample Depth: 0 - 5

Analytical Method: Inorganic Anions by EPA 300/300.1 Prep Method: E300P

Tech: RNL % Moisture:

Analyst: RNL Date Prep: 01.25.20 08.30 Basis: Wet Weight

Seq Number: 3114460

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**1680**	125	2.86	mg/kg	01.25.20 13.04	D	5

Analytical Method: DRO-ORO By SW8015B Prep Method: SW8015P

Tech: MIT % Moisture:

Analyst: MIT Date Prep: 01.24.20 13.00 Basis: Wet Weight

Seq Number: 3114521

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Diesel Range Organics (DRO)	C10C28DRO	<7.41	24.8	7.41	mg/kg	01.25.20 02.12	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<7.41	24.8	7.41	mg/kg	01.25.20 02.12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
Tricosane	638-67-5	73	%	65-144	01.25.20 02.12	
n-Triacontane	638-68-6	94	%	46-152	01.25.20 02.12	

Analytical Method: BTEX by EPA 8021B Prep Method: SW5030B

Tech: MIT % Moisture:

Analyst: MIT Date Prep: 01.24.20 13.00 Basis: Wet Weight

Seq Number: 3114480

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00839	0.0186	0.00839	mg/kg	01.24.20 23.43	U	1
Toluene	108-88-3	<0.00434	0.0186	0.00434	mg/kg	01.24.20 23.43	U	1
Ethylbenzene	100-41-4	<0.00571	0.0186	0.00571	mg/kg	01.24.20 23.43	U	1
m,p-Xylenes	179601-23-1	<0.00633	0.0371	0.00633	mg/kg	01.24.20 23.43	U	1
o-Xylene	95-47-6	<0.00633	0.0186	0.00633	mg/kg	01.24.20 23.43	U	1
Total Xylenes	1330-20-7	<0.00633	0.0186	0.00633	mg/kg	01.24.20 23.43	U	1
Total BTEX		<0.00434	0.0186	0.00434	mg/kg	01.24.20 23.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	99	%	68-120	01.24.20 23.43	
a,a,a-Trifluorotoluene	98-08-8	114	%	71-121	01.24.20 23.43	

Certificate of Analytical Results 650206

Terracon-Lubbock, Lubbock, TX

Eddy State Battery

Sample Id:	**CS-9.1 (0-.5)**	Matrix:	Soil	Date Received:	01.24.20 12.10
Lab Sample Id:	650206-006	Date Collected:	01.21.20 13.15	Sample Depth:	0 - 5
Analytical Method:	TPH GRO by EPA 8015 Mod.			Prep Method:	SW5030B
Tech:	MIT			% Moisture:	
Analyst:	MIT	Date Prep:	01.24.20 13.00	Basis:	Wet Weight
Seq Number:	3114482				

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
TPH-GRO	8006-61-9	<0.251	3.71	0.251	mg/kg	01.24.20 23.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	88	%	76-123	01.24.20 23.43	
a,a,a-Trifluorotoluene	98-08-8	95	%	69-120	01.24.20 23.43	

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 650206

Terracon-Lubbock

Eddy State Battery

Analytical Method: **Inorganic Anions by EPA 300/300.1** Prep Method: E300P
Seq Number: 3114460 Matrix: Solid Date Prep: 01.25.20
MB Sample Id: 7695202-1-BLK LCS Sample Id: 7695202-1-BKS LCSD Sample Id: 7695202-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.572	250	250	100	244	98	90-110	2	20	mg/kg	01.25.20 10:22	

Analytical Method: **Inorganic Anions by EPA 300/300.1** Prep Method: E300P
Seq Number: 3114460 Matrix: Soil Date Prep: 01.25.20
Parent Sample Id: 650206-001 MS Sample Id: 650206-001 S MSD Sample Id: 650206-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1130	250	1470	136	1490	144	80-120	1	20	mg/kg	01.25.20 11:12	X

Analytical Method: **DRO-ORO By SW8015B** Prep Method: SW8015P
Seq Number: 3114521 Matrix: Solid Date Prep: 01.24.20
MB Sample Id: 7695255-1-BLK LCS Sample Id: 7695255-1-BKS LCSD Sample Id: 7695255-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Diesel Range Organics (DRO)	<7.48	50.0	63.6	127	62.0	124	63-139	3	20	mg/kg	01.24.20 18:27	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
Tricosane	75		72		73		65-144	%	01.24.20 18:27
n-Triacontane	95		89		90		46-152	%	01.24.20 18:27

Analytical Method: **DRO-ORO By SW8015B** Prep Method: SW8015P
Seq Number: 3114521 Matrix: Solid Date Prep: 01.24.20
MB Sample Id: 7695255-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Oil Range Hydrocarbons (ORO)	<7.48	mg/kg	01.24.20 20:57	

MS/MSD Percent Recovery [D] = 100*(C-A) / B LCS = Laboratory Control Sample MS = Matrix Spike
Relative Percent Difference RPD = 200* | (C-E) / (C+E) | A = Parent Result B = Spike Added
LCS/LCSD Recovery [D] = 100 * (C) / [B] C = MS/LCS Result D = MSD/LCSD % Rec
Log Difference Log Diff. = Log(Sample Duplicate) - Log(Original Sample) E = MSD/LCSD Result

QC Summary 650206

Terracon-Lubbock

Eddy State Battery

Analytical Method: DRO-ORO By SW8015B | Prep Method: SW8015P
Seq Number: 3114521 | Matrix: Soil | Date Prep: 01.24.20
Parent Sample Id: 650206-001 | MS Sample Id: 650206-001 S | MSD Sample Id: 650206-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Diesel Range Organics (DRO)	<7.44	49.7	50.3	101	69.7	140	63-139	32	20	mg/kg	01.24.20 22:08	XF

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
Tricosane	51	**	70		65-144	%	01.24.20 22:08
n-Triacontane	65		91		46-152	%	01.24.20 22:08

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3114480 | Matrix: Solid | Date Prep: 01.24.20
MB Sample Id: 7695236-1-BLK | LCS Sample Id: 7695236-1-BKS | LCSD Sample Id: 7695236-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00904	2.00	1.82	91	1.87	94	55-120	3	20	mg/kg	01.24.20 16:54	
Toluene	<0.00468	2.00	1.72	86	1.81	91	77-120	5	20	mg/kg	01.24.20 16:54	
Ethylbenzene	<0.00616	2.00	1.69	85	1.80	90	77-120	6	20	mg/kg	01.24.20 16:54	
m,p-Xylenes	<0.00682	4.00	3.41	85	3.58	90	78-120	5	20	mg/kg	01.24.20 16:54	
o-Xylene	<0.00682	2.00	1.73	87	1.80	90	78-120	4	20	mg/kg	01.24.20 16:54	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	102		76		100		68-120	%	01.24.20 16:54
a,a,a-Trifluorotoluene	105		79		107		71-121	%	01.24.20 16:54

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3114480 | Matrix: Soil | Date Prep: 01.24.20
Parent Sample Id: 650206-001 | MS Sample Id: 650206-001 S | MSD Sample Id: 650206-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00839	1.86	1.51	81	1.58	85	54-120	5	25	mg/kg	01.24.20 20:08	
Toluene	<0.00434	1.86	1.50	81	1.61	87	57-120	7	25	mg/kg	01.24.20 20:08	
Ethylbenzene	<0.00571	1.86	1.47	79	1.63	88	58-131	10	25	mg/kg	01.24.20 20:08	
m,p-Xylenes	<0.00633	3.71	2.94	79	3.25	87	62-124	10	25	mg/kg	01.24.20 20:08	
o-Xylene	<0.00633	1.86	1.49	80	1.62	87	62-124	8	25	mg/kg	01.24.20 20:08	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	90		83		68-120	%	01.24.20 20:08
a,a,a-Trifluorotoluene	106		93		71-121	%	01.24.20 20:08

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

QC Summary 650206

Terracon-Lubbock

Eddy State Battery

Analytical Method: **TPH GRO by EPA 8015 Mod.** Prep Method: SW5030B
Seq Number: 3114482 Matrix: Solid Date Prep: 01.24.20
MB Sample Id: 7695237-1-BLK LCS Sample Id: 7695237-1-BKS LCSD Sample Id: 7695237-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
TPH-GRO	<0.271	20.0	19.0	95	19.3	97	35-129	2	20	mg/kg	01.24.20 17:42	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	92		111		108		76-123	%	01.24.20 17:42
a,a,a-Trifluorotoluene	88		79		74		69-120	%	01.24.20 17:42

Analytical Method: **TPH GRO by EPA 8015 Mod.** Prep Method: SW5030B
Seq Number: 3114482 Matrix: Soil Date Prep: 01.24.20
Parent Sample Id: 650206-001 MS Sample Id: 650206-001 S MSD Sample Id: 650206-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
TPH-GRO	<0.263	19.4	16.3	84	18.7	94	35-129	14	20	mg/kg	01.24.20 20:56	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	121		134	**	76-123	%	01.24.20 20:56
a,a,a-Trifluorotoluene	96		99		69-120	%	01.24.20 20:56

MS/MSD Percent Recovery	[D] = 100*(C-A) / B	LCS = Laboratory Control Sample	MS = Matrix Spike
Relative Percent Difference	RPD = 200* | (C-E) / (C+E) |	A = Parent Result	B = Spike Added
LCS/LCSD Recovery	[D] = 100 * (C) / [B]	C = MS/LCS Result	D = MSD/LCSD % Rec
Log Difference	Log Diff. = Log(Sample Duplicate) - Log(Original Sample)	E = MSD/LCSD Result	

650206

650206

CHAIN OF CUSTODY RECORD

Terracon

Office Location	Lubbock	Laboratory:	Xenco
Project Manager	Joseph Guesnier	Address:	6701 Aberdeen, Lubbock, Texas 79424
Sampler's Name	Bryant McBrayer	Phone:	
Project Number	AR197208	Contact:	Joseph Guesnier (806-544-9276)
Project Name	Eddy State Battery	SRS #:	
		Sampler's Signature	

ANALYSIS REQUESTED

LAB USE ONLY
DUE DATE:
TEMP OF COOLER WHEN RECEIVED (°C): 1.4/5.8/5.9

Page 1 of 1

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	No. Type of Containers: 2 oz Glass	4 oz Glass	5035 kit	40 ml VOA	Chloride (EPA Method 300)	TPH Extended 8015	BTEX (EPA Method 8021B)	Hold	Lab Sample ID
S	1/21/2020	13:15	X		CS-1.1 (1.5-2)	1.5	2		X			X	X	X		1
S	1/21/2020	13:20	X		CS-2.1 (0-.5)	0	0.5		X			X	X	X		2
S	1/21/2020	13:25	X		CS-4.1 (1.5-2)	1.5	2		X			X	X	X		3
S	1/21/2020	13:30	X		CS-3.1 (0-.5)	0	0.5		X			X	X	X		4
S	1/21/2020	13:35	X		CS-5.1 (0-.5)	0	0.5		X			X	X	X		5
S	1/21/2020	13:40	X		CS-9.1 (0-.5)	0	0.5		X			X	X	X		6

TURNAROUND TIME ☐ Normal ☐ 48-Hour Rush ☒ 24-Hour Rush

IRP Laboratory Review Checklist ☐ Yes ☐ No

	Date	Time		Date	Time
Relinquished by (Signature)			Received by (Signature)		
Relinquished by (Signature)	11/24/2020	12:10	Received by (Signature)		
Relinquished by (Signature)			Received by (Signature)		
Relinquished by (Signature)			Received by (Signature)		

NOTES: Client: Spur

e-mail results to:

bryant.mcbrayer@terracon.com
erin.loyd@terracon.com
jrguesnier@terracon.com

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

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Terracon-Lubbock

Date/ Time Received: 01.24.2020 12.10.00 PM

Work Order #: 650206

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR-4

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	5.9
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**N/A**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Brenda Ward Date: 01.24.2020
Brenda Ward

Checklist reviewed by: Jessica Kramer Date: 01.27.2020
Jessica Kramer

Certificate of Analysis Summary 626552

Terracon-Lubbock, Lubbock, TX

Project Name: Solaris Eddy State 2 SWD

Project Id: AR197208
Contact: John Fergerson
Project Location:

Date Received in Lab: Wed Jun-05-19 09:10 am
Report Date: 18-JUN-19
Project Manager: Jessica Kramer

Analysis Requested													
	Lab Id:	626552-001		626552-002		626552-004		626552-005					
	Field Id:	HA-1 (0-0.5)		HA-1 (0.5-1)		HA-2 (0-0.5)		HA-2 (0.5-1)					
	Depth:	0-0.5 ft		0.5-1 ft		0-0.5 ft		0.5-1 ft					
	Matrix:	SOIL		SOIL		SOIL		SOIL					
	Sampled:	Jun-04-19 12:55		Jun-04-19 12:55		Jun-04-19 12:55		Jun-04-19 12:55					
BTEX by EPA 8021B	***Extracted:***	Jun-07-19 16:06		Jun-07-19 16:06		Jun-07-19 16:06		Jun-07-19 16:06					
	Analyzed:	Jun-11-19 05:08		Jun-11-19 05:35		Jun-11-19 06:01		Jun-11-19 06:28					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Benzene		<0.00777	0.0172	<0.0000839	0.000186	<0.00885	0.0196	<0.00800	0.0177				
Toluene		<0.00402	0.0172	0.000186 J	0.000186	0.0215	0.0196	0.0212	0.0177				
Ethylbenzene		<0.00529	0.0172	<0.0000571	0.000186	<0.00603	0.0196	<0.00545	0.0177				
m,p-Xylenes		<0.00586	0.0344	<0.0000633	0.000371	<0.00667	0.0391	<0.00604	0.0354				
o-Xylene		<0.00586	0.0172	<0.0000633	0.000186	<0.00667	0.0196	<0.00604	0.0177				
Total Xylenes		<0.00586	0.0172	<0.0000633	0.000186	<0.00667	0.0196	<0.00604	0.0177				
Total BTEX		<0.00402	0.0172	0.000186 J	0.000186	0.0215	0.0196	0.0212	0.0177				
Chloride by EPA 300 **SUB: T104704215-19-29**	***Extracted:***	Jun-06-19 16:38		Jun-06-19 16:38		Jun-06-19 16:38		Jun-06-19 16:38					
	Analyzed:	Jun-07-19 11:51		Jun-07-19 12:15		Jun-07-19 12:39		Jun-07-19 13:03					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Chloride		7870 D	100	891	9.98	5560 D	100	2430	9.90				
TPH By SW8015 Mod **SUB: T104704215-19-29**	***Extracted:***	Jun-13-19 18:48		Jun-13-19 18:51		Jun-13-19 18:54		Jun-13-19 18:57					
	Analyzed:	Jun-14-19 12:52		Jun-14-19 13:11		Jun-14-19 13:30		Jun-14-19 13:48					
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL				
Gasoline Range Hydrocarbons (GRO)		<9.90	49.5	<9.99	50.0	<9.90	49.5	<9.91	49.6				
Diesel Range Organics (DRO)		117	49.5	35.0 J	50.0	249	49.5	28.6 J	49.6				
Motor Oil Range Hydrocarbons (MRO)		21.0 J	49.5	<9.99	50.0	35.5 J	49.5	<9.91	49.6				
Total TPH		138	49.5	35.0 J	50.0	285	49.5	28.6 J	49.6				

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Version: 1.%

Jessica Kramer
Project Assistant

Final 1.000

Analytical Report 626552

for

Terracon-Lubbock

Project Manager: John Fergerson

Solaris Eddy State 2 SWD

AR197208

18-JUN-19

Collected By: Client

6701 Aberdeen, Suite 9 Lubbock, TX 79424

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-29), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-19-19), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-20)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)

18-JUN-19

Project Manager: **John Fergerson**
Terracon-Lubbock
5827 50th st, Suite 1
Lubbock, TX 79424

Reference: XENCO Report No(s): **626552**
Solaris Eddy State 2 SWD
Project Address:

John Fergerson:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 626552. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 626552 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Sample Cross Reference 626552

Terracon-Lubbock, Lubbock, TX

Solaris Eddy State 2 SWD

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
HA-1 (0-0.5)	S	06-04-19 12:55	0 - 0.5 ft	626552-001
HA-1 (0.5-1)	S	06-04-19 12:55	0.5 - 1 ft	626552-002
HA-2 (0-0.5)	S	06-04-19 12:55	0 - 0.5 ft	626552-004
HA-2 (0.5-1)	S	06-04-19 12:55	0.5 - 1 ft	626552-005
HA-1 (1.5-2)	S	06-04-19 12:55	1.5 - 2 ft	Not Analyzed
HA-2 (1.5-2)	S	06-04-19 12:55	1.5 - 2 ft	Not Analyzed

Version: 1.%

CASE NARRATIVE

Client Name: Terracon-Lubbock

Project Name: Solaris Eddy State 2 SWD

Project ID: *AR197208*
Work Order Number(s): *626552*

Report Date: *18-JUN-19*
Date Received: *06/05/2019*

This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory.

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3091792 Benzene By EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analytical Results 626552

Terracon-Lubbock, Lubbock, TX

Solaris Eddy State 2 SWD

Sample Id:	**HA-1 (0-0.5)**	Matrix:	Soil	Date Received:	06.05.19 09.10
Lab Sample Id:	626552-001	Date Collected:	06.04.19 12.55	Sample Depth:	0 - 0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	JYM			% Moisture:	
Analyst:	JYM	Date Prep:	06.06.19 16.38	Basis:	Wet Weight
Seq Number:	3091644			SUB:	T104704215-19-29

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**7870**	100	3.54	mg/kg	06.07.19 12.03	D	10

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ISU			% Moisture:	
Analyst:	ISU	Date Prep:	06.13.19 18.48	Basis:	Wet Weight
Seq Number:	3092485			SUB:	T104704215-19-29

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<9.90	49.5	9.90	mg/kg	06.14.19 12.52	U	1
Diesel Range Organics (DRO)	C10C28DRO	**117**	49.5	9.90	mg/kg	06.14.19 12.52		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**21.0**	49.5	9.90	mg/kg	06.14.19 12.52	J	1
Total TPH	PHC635	**138**	49.5	9.90	mg/kg	06.14.19 12.52		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-135	06.14.19 12.52	
o-Terphenyl	84-15-1	89	%	70-135	06.14.19 12.52	

Certificate of Analytical Results 626552

Terracon-Lubbock, Lubbock, TX

Solaris Eddy State 2 SWD

Sample Id:	**HA-1 (0-0.5)**	Matrix:	Soil	Date Received:	06.05.19 09.10
Lab Sample Id:	626552-001	Date Collected:	06.04.19 12.55	Sample Depth:	0 - 0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	06.07.19 16.06	Basis:	Wet Weight
Seq Number:	3091792				

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00777	0.0172	0.00777	mg/kg	06.11.19 05.08	U	1
Toluene	108-88-3	<0.00402	0.0172	0.00402	mg/kg	06.11.19 05.08	U	1
Ethylbenzene	100-41-4	<0.00529	0.0172	0.00529	mg/kg	06.11.19 05.08	U	1
m,p-Xylenes	179601-23-1	<0.00586	0.0344	0.00586	mg/kg	06.11.19 05.08	U	1
o-Xylene	95-47-6	<0.00586	0.0172	0.00586	mg/kg	06.11.19 05.08	U	1
Total Xylenes	1330-20-7	<0.00586	0.0172	0.00586	mg/kg	06.11.19 05.08	U	1
Total BTEX		<0.00402	0.0172	0.00402	mg/kg	06.11.19 05.08	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	89	%	68-120	06.11.19 05.08	
a,a,a-Trifluorotoluene	98-08-8	90	%	71-121	06.11.19 05.08	

Certificate of Analytical Results 626552

Terracon-Lubbock, Lubbock, TX

Solaris Eddy State 2 SWD

Sample Id:	**HA-1 (0.5-1)**	Matrix:	Soil	Date Received:	06.05.19 09.10
Lab Sample Id:	626552-002	Date Collected:	06.04.19 12.55	Sample Depth:	0.5 - 1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	JYM			% Moisture:	
Analyst:	JYM	Date Prep:	06.06.19 16.38	Basis:	Wet Weight
Seq Number:	3091644			SUB:	T104704215-19-29

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**891**	9.98	0.353	mg/kg	06.07.19 12.15		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ISU			% Moisture:	
Analyst:	ISU	Date Prep:	06.13.19 18.51	Basis:	Wet Weight
Seq Number:	3092485			SUB:	T104704215-19-29

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<9.99	50.0	9.99	mg/kg	06.14.19 13.11	U	1
Diesel Range Organics (DRO)	C10C28DRO	**35.0**	50.0	9.99	mg/kg	06.14.19 13.11	J	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<9.99	50.0	9.99	mg/kg	06.14.19 13.11	U	1
Total TPH	PHC635	**35.0**	50.0	9.99	mg/kg	06.14.19 13.11	J	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	06.14.19 13.11	
o-Terphenyl	84-15-1	110	%	70-135	06.14.19 13.11	

Certificate of Analytical Results 626552

Terracon-Lubbock, Lubbock, TX

Solaris Eddy State 2 SWD

Sample Id:	**HA-1 (0.5-1)**	Matrix:	Soil	Date Received:	06.05.19 09.10
Lab Sample Id:	626552-002	Date Collected:	06.04.19 12.55	Sample Depth:	0.5 - 1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	06.07.19 16.06	Basis:	Wet Weight
Seq Number:	3091792				

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.0000839	0.000186	0.0000839	mg/kg	06.11.19 05.35	U	1
Toluene	108-88-3	**0.000186**	0.000186	0.0000434	mg/kg	06.11.19 05.35	J	1
Ethylbenzene	100-41-4	<0.0000571	0.000186	0.0000571	mg/kg	06.11.19 05.35	U	1
m,p-Xylenes	179601-23-1	<0.0000633	0.000371	0.0000633	mg/kg	06.11.19 05.35	U	1
o-Xylene	95-47-6	<0.0000633	0.000186	0.0000633	mg/kg	06.11.19 05.35	U	1
Total Xylenes	1330-20-7	<0.0000633	0.000186	0.0000633	mg/kg	06.11.19 05.35	U	1
Total BTEX		**0.000186**	0.000186	0.0000434	mg/kg	06.11.19 05.35	J	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	88	%	68-120	06.11.19 05.35	
a,a,a-Trifluorotoluene	98-08-8	91	%	71-121	06.11.19 05.35	

Certificate of Analytical Results 626552

Terracon-Lubbock, Lubbock, TX

Solaris Eddy State 2 SWD

Sample Id:	**HA-2 (0-0.5)**	Matrix:	Soil	Date Received:	06.05.19 09.10
Lab Sample Id:	626552-004	Date Collected:	06.04.19 12.55	Sample Depth:	0 - 0.5 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	JYM			% Moisture:	
Analyst:	JYM	Date Prep:	06.06.19 16.38	Basis:	Wet Weight
Seq Number:	3091644			SUB:	T104704215-19-29

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**5560**	100	3.55	mg/kg	06.07.19 12.51	D	10

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ISU			% Moisture:	
Analyst:	ISU	Date Prep:	06.13.19 18.54	Basis:	Wet Weight
Seq Number:	3092485			SUB:	T104704215-19-29

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<9.90	49.5	9.90	mg/kg	06.14.19 13.30	U	1
Diesel Range Organics (DRO)	C10C28DRO	**249**	49.5	9.90	mg/kg	06.14.19 13.30		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**35.5**	49.5	9.90	mg/kg	06.14.19 13.30	J	1
Total TPH	PHC635	**285**	49.5	9.90	mg/kg	06.14.19 13.30		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	06.14.19 13.30	
o-Terphenyl	84-15-1	124	%	70-135	06.14.19 13.30	

Certificate of Analytical Results 626552

Terracon-Lubbock, Lubbock, TX

Solaris Eddy State 2 SWD

Sample Id:	**HA-2 (0-0.5)**	Matrix:	Soil	Date Received:	06.05.19 09.10
Lab Sample Id:	626552-004	Date Collected:	06.04.19 12.55	Sample Depth:	0 - 0.5 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	06.07.19 16.06	Basis:	Wet Weight
Seq Number:	3091792				

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00885	0.0196	0.00885	mg/kg	06.11.19 06.01	U	1
Toluene	108-88-3	**0.0215**	0.0196	0.00458	mg/kg	06.11.19 06.01		1
Ethylbenzene	100-41-4	<0.00603	0.0196	0.00603	mg/kg	06.11.19 06.01	U	1
m,p-Xylenes	179601-23-1	<0.00667	0.0391	0.00667	mg/kg	06.11.19 06.01	U	1
o-Xylene	95-47-6	<0.00667	0.0196	0.00667	mg/kg	06.11.19 06.01	U	1
Total Xylenes	1330-20-7	<0.00667	0.0196	0.00667	mg/kg	06.11.19 06.01	U	1
Total BTEX		**0.0215**	0.0196	0.00458	mg/kg	06.11.19 06.01		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	90	%	68-120	06.11.19 06.01	
a,a,a-Trifluorotoluene	98-08-8	90	%	71-121	06.11.19 06.01	

Certificate of Analytical Results 626552

Terracon-Lubbock, Lubbock, TX

Solaris Eddy State 2 SWD

Sample Id:	**HA-2 (0.5-1)**	Matrix:	Soil	Date Received:	06.05.19 09.10
Lab Sample Id:	626552-005	Date Collected:	06.04.19 12.55	Sample Depth:	0.5 - 1 ft

Analytical Method:	Chloride by EPA 300			Prep Method:	E300P
Tech:	JYM			% Moisture:	
Analyst:	JYM	Date Prep:	06.06.19 16.38	Basis:	Wet Weight
Seq Number:	3091644			SUB:	T104704215-19-29

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	**2430**	9.90	0.350	mg/kg	06.07.19 13.03		1

Analytical Method:	TPH By SW8015 Mod			Prep Method:	TX1005P
Tech:	ISU			% Moisture:	
Analyst:	ISU	Date Prep:	06.13.19 18.57	Basis:	Wet Weight
Seq Number:	3092485			SUB:	T104704215-19-29

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<9.91	49.6	9.91	mg/kg	06.14.19 13.48	U	1
Diesel Range Organics (DRO)	C10C28DRO	**28.6**	49.6	9.91	mg/kg	06.14.19 13.48	J	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<9.91	49.6	9.91	mg/kg	06.14.19 13.48	U	1
Total TPH	PHC635	**28.6**	49.6	9.91	mg/kg	06.14.19 13.48	J	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	06.14.19 13.48	
o-Terphenyl	84-15-1	117	%	70-135	06.14.19 13.48	

Certificate of Analytical Results 626552

Terracon-Lubbock, Lubbock, TX

Solaris Eddy State 2 SWD

Sample Id:	**HA-2 (0.5-1)**	Matrix:	Soil	Date Received:	06.05.19 09.10
Lab Sample Id:	626552-005	Date Collected:	06.04.19 12.55	Sample Depth:	0.5 - 1 ft
Analytical Method:	BTEX by EPA 8021B			Prep Method:	SW5030B
Tech:	RNL			% Moisture:	
Analyst:	RNL	Date Prep:	06.07.19 16.06	Basis:	Wet Weight
Seq Number:	3091792				

Parameter	Cas Number	Result	RL	MDL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00800	0.0177	0.00800	mg/kg	06.11.19 06.28	U	1
Toluene	108-88-3	**0.0212**	0.0177	0.00414	mg/kg	06.11.19 06.28		1
Ethylbenzene	100-41-4	<0.00545	0.0177	0.00545	mg/kg	06.11.19 06.28	U	1
m,p-Xylenes	179601-23-1	<0.00604	0.0354	0.00604	mg/kg	06.11.19 06.28	U	1
o-Xylene	95-47-6	<0.00604	0.0177	0.00604	mg/kg	06.11.19 06.28	U	1
Total Xylenes	1330-20-7	<0.00604	0.0177	0.00604	mg/kg	06.11.19 06.28	U	1
Total BTEX		**0.0212**	0.0177	0.00414	mg/kg	06.11.19 06.28		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	89	%	68-120	06.11.19 06.28	
a,a,a-Trifluorotoluene	98-08-8	89	%	71-121	06.11.19 06.28	

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

QC Summary 626552

Terracon-Lubbock

Solaris Eddy State 2 SWD

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3091644 — Matrix: Solid — Date Prep: 06.06.19
MB Sample Id: 7679358-1-BLK — LCS Sample Id: 7679358-1-BKS — LCSD Sample Id: 7679358-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	0.563	100	102	102	103	103	80-120	1	20	mg/kg	06.07.19 09:03	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3091644 — Matrix: Soil — Date Prep: 06.06.19
Parent Sample Id: 626699-001 — MS Sample Id: 626699-001 S — MSD Sample Id: 626699-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	43.8	100	142	98	142	98	80-120	0	20	mg/kg	06.07.19 09:39	

Analytical Method: Chloride by EPA 300 — Prep Method: E300P
Seq Number: 3091644 — Matrix: Soil — Date Prep: 06.06.19
Parent Sample Id: 626699-002 — MS Sample Id: 626699-002 S — MSD Sample Id: 626699-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	301	99.8	394	93	394	93	80-120	0	20	mg/kg	06.07.19 10:15	

Analytical Method: TPH By SW8015 Mod — Prep Method: TX1005P
Seq Number: 3092485 — Matrix: Solid — Date Prep: 06.13.19
MB Sample Id: 7679863-1-BLK — LCS Sample Id: 7679863-1-BKS — LCSD Sample Id: 7679863-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<10.0	1000	1050	105	1040	104	70-135	1	35	mg/kg	06.14.19 11:20	
Diesel Range Organics (DRO)	<10.0	1000	986	99	979	98	70-135	1	35	mg/kg	06.14.19 11:20	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	80		86		88		70-135	%	06.14.19 11:20
o-Terphenyl	82		72		73		70-135	%	06.14.19 11:20

MS/MSD Percent Recovery — [D] = 100*(C-A) / B — LCS = Laboratory Control Sample — MS = Matrix Spike
Relative Percent Difference — RPD = 200* | (C-E) / (C+E) | — A = Parent Result — B = Spike Added
LCS/LCSD Recovery — [D] = 100 * (C) / [B] — C = MS/LCS Result — D = MSD/LCSD % Rec
Log Difference — Log Diff. = Log(Sample Duplicate) - Log(Original Sample) — E = MSD/LCSD Result

QC Summary 626552

Terracon-Lubbock

Solaris Eddy State 2 SWD

Analytical Method: TPH By SW8015 Mod | Prep Method: TX1005P
Seq Number: 3092485 | Matrix: Soil | Date Prep: 06.13.19
Parent Sample Id: 626742-006 | MS Sample Id: 626742-006 S | MSD Sample Id: 626742-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<9.90	990	1080	109	1020	103	70-135	6	35	mg/kg	06.14.19 12:15	
Diesel Range Organics (DRO)	<9.90	990	1010	102	956	97	70-135	5	35	mg/kg	06.14.19 12:15	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	91		87		70-135	%	06.14.19 12:15
o-Terphenyl	75		72		70-135	%	06.14.19 12:15

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3091792 | Matrix: Solid | Date Prep: 06.07.19
MB Sample Id: 7679588-1-BLK | LCS Sample Id: 7679588-1-BKS | LCSD Sample Id: 7679588-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00904	2.00	1.81	91	1.78	89	55-120	2	20	mg/kg	06.10.19 17:53	
Toluene	<0.00468	2.00	1.84	92	1.84	92	77-120	0	20	mg/kg	06.10.19 17:53	
Ethylbenzene	<0.00616	2.00	1.89	95	1.86	93	77-120	2	20	mg/kg	06.10.19 17:53	
m,p-Xylenes	<0.00682	4.00	3.79	95	3.74	94	78-120	1	20	mg/kg	06.10.19 17:53	
o-Xylene	<0.00682	2.00	1.88	94	1.87	94	78-120	1	20	mg/kg	06.10.19 17:53	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	94		109		103		68-120	%	06.10.19 17:53
a,a,a-Trifluorotoluene	99		107		100		71-121	%	06.10.19 17:53

Analytical Method: BTEX by EPA 8021B | Prep Method: SW5030B
Seq Number: 3091792 | Matrix: Soil | Date Prep: 06.07.19
Parent Sample Id: 626796-001 | MS Sample Id: 626796-001 S | MSD Sample Id: 626796-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00854	1.89	1.66	88	1.84	93	54-120	10	25	mg/kg	06.11.19 00:38	
Toluene	<0.00442	1.89	1.80	95	2.02	103	57-120	12	25	mg/kg	06.11.19 00:38	
Ethylbenzene	<0.00582	1.89	1.89	100	2.12	108	58-131	11	25	mg/kg	06.11.19 00:38	
m,p-Xylenes	<0.00645	3.78	3.78	100	4.24	108	62-124	11	25	mg/kg	06.11.19 00:38	
o-Xylene	<0.00645	1.89	1.86	98	2.07	105	62-124	11	25	mg/kg	06.11.19 00:38	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
4-Bromofluorobenzene	89		86		68-120	%	06.11.19 00:38
a,a,a-Trifluorotoluene	87		88		71-121	%	06.11.19 00:38

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec

Final 1.000

626552

626552

CHAIN OF CUSTODY RECORD

Terracon

Laboratory: Xenco
Address: 6701 Aberdeen
Lubbock, Texas 79424

Office Location: Lubbock
Phone:
Contact:
Project Manager: John Fergerson
SRS #:
Sampler's Name: Joseph Guesnier
Sampler's Signature:

ANALYSIS REQUESTED: New Mexico stand

LAB USE ONLY
DUE DATE:
TEMP OF COOLER WHEN RECEIVED (°C): 3.3/3.2 IR3

Page ___ of ___

Project Number: AR197208
Project Name: Solaris Eddy State 2 SWD

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	No. Type of Containers: 2 oz Glass	4 oz Glass	5035 kit	40 ml VOA	Chloride (EPA Method 300)	TPH Extended 8015	BTEX (EPA Method 8021B)	Hold	Lab Sample ID
S	6/4/2019	12:55		X	HA-1 (0-0.5)	0	0.5'		X			X	X	X		1
S	6/4/2019	12:57		X	HA-1 (0.5-1)	0.5'	1'		X			X	X	X		2
S	6/4/2019	12:59		X	HA-1 (1.5-2)	1.5'	2'		X			X	X	X	X	3
S	6/4/2019	13:02		X	HA-2 (0-0.5)	1	0.5'		X			X	X	X		4
S	6/4/2019	13:04		X	HA-2 (0.5-1)	0.5'	1'		X			X	X	X		5
S	6/4/2019	13:06		X	HA-2 (1.5-2)	1.5'	2'		X			X	X	X	X	6

TURNAROUND TIME ☐ Normal ☐ 48-Hour Rush ☐ 24-Hour Rush

TRRP Laboratory Review Checklist ☐ Yes ☐ No

Relinquished by (Signature)	Date	Time	Received by (Signature)	Date	Time
	6/5/19	9:10		6/5/19	9:10

NOTES: Client: Solaris

e-mail results to:

john.fergerson@terracon.com
kristina.kohl@terracon.com
irguesnier@terracon.com

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

Inter-Office Shipment

IOS Number **40666**

Date/Time: 06/05/19 11:22
Lab# From: **Lubbock**
Lab# To: **Houston**

Created by: Brenda Ward
Delivery Priority:
Air Bill No.: 775400359866

Please send report to: Jessica Kramer
Address: 6701 Aberdeen, Suite 9 Lubbock, TX 79424
E-Mail: jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
626552-001	S	HA-1 (0-0.5)	06/04/19 12:55	E300_CL	Chloride by EPA 300	06/11/19	12/01/19	JKR	CL	
626552-001	S	HA-1 (0-0.5)	06/04/19 12:55	SW8015MOD_NM	TPH By SW8015 Mod	06/11/19	06/18/19	JKR	PHCC10C28 PHCC28C35	
626552-002	S	HA-1 (0.5-1)	06/04/19 12:55	E300_CL	Chloride by EPA 300	06/11/19	12/01/19	JKR	CL	
626552-002	S	HA-1 (0.5-1)	06/04/19 12:55	SW8015MOD_NM	TPH By SW8015 Mod	06/11/19	06/18/19	JKR	PHCC10C28 PHCC28C35	
626552-004	S	HA-2 (0-0.5)	06/04/19 12:55	E300_CL	Chloride by EPA 300	06/11/19	12/01/19	JKR	CL	
626552-004	S	HA-2 (0-0.5)	06/04/19 12:55	SW8015MOD_NM	TPH By SW8015 Mod	06/11/19	06/18/19	JKR	PHCC10C28 PHCC28C35	
626552-005	S	HA-2 (0.5-1)	06/04/19 12:55	E300_CL	Chloride by EPA 300	06/11/19	12/01/19	JKR	CL	
626552-005	S	HA-2 (0.5-1)	06/04/19 12:55	SW8015MOD_NM	TPH By SW8015 Mod	06/11/19	06/18/19	JKR	PHCC10C28 PHCC28C35	

Inter Office Shipment or Sample Comments:

Relinquished By: Ashley Derstine

Date Relinquished: 06/05/2019

Received By: Ashly Kowalski

Date Received: 06/06/2019 09:45

Cooler Temperature: 0.8

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 40666

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : HOU-068

Sent By: Brenda Ward **Date Sent:** 06.05.2019 11.22 AM

Received By: Ashly Kowalski **Date Received:** 06.06.2019 09.45 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	.8	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received with appropriate temperature?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**	
#5 *Custody Seals Signed and dated for Containers/coolers	**N/A**	
#6 *IOS present?	**Yes**	
#7 Any missing/extra samples?	**No**	
#8 IOS agrees with sample label(s)/matrix?	**Yes**	
#9 Sample matrix/ properties agree with IOS?	**Yes**	
#10 Samples in proper container/ bottle?	**Yes**	
#11 Samples properly preserved?	**Yes**	
#12 Sample container(s) intact?	**Yes**	
#13 Sufficient sample amount for indicated test(s)?	**Yes**	
#14 All samples received within hold time?	**Yes**	

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ **Contacted by :** _____ **Date:** _____

Checklist reviewed by: _____ Date: 06.06.2019

Ashly Kowalski

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Terracon-Lubbock

Date/ Time Received: 06/05/2019 09:10:00 AM

Work Order #: 626552

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR-3

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	3.2	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received on ice?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**	
#5 Custody Seals intact on sample bottles?	**N/A**	
#6*Custody Seals Signed and dated?	**N/A**	
#7 *Chain of Custody present?	**Yes**	
#8 Any missing/extra samples?	**No**	
#9 Chain of Custody signed when relinquished/ received?	**Yes**	
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**	
#11 Container label(s) legible and intact?	**Yes**	
#12 Samples in proper container/ bottle?	**Yes**	
#13 Samples properly preserved?	**Yes**	
#14 Sample container(s) intact?	**Yes**	
#15 Sufficient sample amount for indicated test(s)?	**Yes**	
#16 All samples received within hold time?	**Yes**	
#17 Subcontract of sample(s)?	**N/A**	Chlorides sent to Stafford
#18 Water VOC samples have zero headspace?	**N/A**	

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Brenda Ward Date: 06/05/2019
Brenda Ward

Checklist reviewed by: Jessica Kramer Date: 06/07/2019
Jessica Kramer

Analytical Report 638801

for

Terracon-Lubbock

Project Manager: Joseph Guesnier

Eddy State Battery

AR197208

07-OCT-19

Collected By: Client

6701 Aberdeen, Suite 9 Lubbock, TX 79424

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142), North Carolina (681)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)

Table of Contents

07-OCT-19

Project Manager: **Joseph Guesnier**
Terracon-Lubbock
5827 50th st, Suite 1
Lubbock, TX 79424

Reference: XENCO Report No(s): **638801**
Eddy State Battery
Project Address:

Joseph Guesnier:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 638801. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 638801 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Jessica Kramer

Jessica Kramer
Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America

Sample Cross Reference 638801

Terracon-Lubbock, Lubbock, TX

Eddy State Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
CS-1(0-0.5)	S	10-01-19 13:00		638801-001
CS-2(2-2.5)	S	10-01-19 13:10		638801-002
CS-3(0-0.5)	S	10-01-19 13:20		638801-003
CS-4(2-2.5)	S	10-01-19 13:30		638801-004
CS-5(0-0.5)	S	10-01-19 13:40		638801-005
CS-6(2-2.5)	S	10-01-19 13:50		638801-006
CS-7(0-0.5)	S	10-01-19 14:00		638801-007
CS-8(2-2.5)	S	10-01-19 14:10		638801-008
CS-9(0-0.5)	S	10-01-19 14:20		638801-009
CS-10(2-2.5)	S	10-01-19 14:30		638801-010
CS-11(0-0.5)	S	10-01-19 14:40		638801-011
CS-12(2-2.5)	S	10-01-19 14:50		638801-012

Version: 1.%

CASE NARRATIVE

Client Name: Terracon-Lubbock

Project Name: Eddy State Battery

Project ID: *AR197208*
Work Order Number(s): *638801*

Report Date: *07-OCT-19*
Date Received: *10/02/2019*

This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory.

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3103314 Inorganic Anions by EPA 300
Lab Sample ID 638801-006 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered above QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 638801-001, -002, -003, -004, -005, -006, -007, -008, -009.
The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3103329 BTEX by EPA 8021B
Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Certificate of Analytical Results
638801
Terracon-Lubbock, Lubbock, TX
Eddy State Battery

Sample Id: **CS-1(0-0.5)** Matrix: Soil Sample Depth:

Lab Sample Id: 638801-001 Date Collected: 10.01.19 13.00 Date Received: 10.02.19 16.05

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Analyst: RNL % Moist: Tech: RNL

Seq Number: 3103314 Date Prep: 10.03.19 14.00

Prep seq: 7687456

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**2730**	250	5.72	mg/kg	10.03.19 18:37	DX	10

Analytical Method: TPH by SW8015 Mod Prep Method: 8015

Analyst: ISU % Moist: Tech: ISU

Seq Number: 3103420 Date Prep: 10.04.19 10.39

Subcontractor: SUB: T104704215-19-30 Prep seq: 7687467

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<10.0	50.0	10.0	mg/kg	10.04.19 13:22	U	1
Diesel Range Organics (DRO)	C10C28DRO	**13.9**	50.0	10.0	mg/kg	10.04.19 13:22	J	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<10.0	50.0	10.0	mg/kg	10.04.19 13:22	U	1
Total TPH	PHC635	**13.9**		10.0	mg/kg	10.04.19 13:22	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	104	70 - 135	%		
o-Terphenyl	110	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3103329 Date Prep: 10.03.19 10.20

Prep seq: 7687379

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.00873	0.0193	0.00873	mg/kg	10.03.19 21:34	U	20
Toluene	108-88-3	<0.00452	0.0193	0.00452	mg/kg	10.03.19 21:34	U	20
Ethylbenzene	100-41-4	<0.00595	0.0193	0.00595	mg/kg	10.03.19 21:34	U	20
m,p-Xylenes	179601-23-1	**0.00965**	0.0386	0.00658	mg/kg	10.03.19 21:34	J	20
o-Xylene	95-47-6	<0.00658	0.0193	0.00658	mg/kg	10.03.19 21:34	U	20
Total Xylenes	1330-20-7	**0.00965**		0.00658	mg/kg	10.03.19 21:34	J	
Total BTEX		**0.00965**		0.00452	mg/kg	10.03.19 21:34	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
4-Bromofluorobenzene	119	68 - 120	%		
a,a,a-Trifluorotoluene	115	71 - 121	%		

Certificate of Analytical Results
638801
Terracon-Lubbock, Lubbock, TX
Eddy State Battery

Sample Id: **CS-2(2-2.5)** Matrix: Soil Sample Depth:

Lab Sample Id: 638801-002 Date Collected: 10.01.19 13.10 Date Received: 10.02.19 16.05

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Analyst: RNL % Moist: Tech: RNL

Seq Number: 3103314 Date Prep: 10.03.19 14.00

Prep seq: 7687456

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**1460**	125	2.86	mg/kg	10.03.19 19:27	D	5

Analytical Method: TPH by SW8015 Mod Prep Method: 8015

Analyst: ISU % Moist: Tech: ISU

Seq Number: 3103420 Date Prep: 10.04.19 10.48

Subcontractor: SUB: T104704215-19-30 Prep seq: 7687467

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<9.97	49.9	9.97	mg/kg	10.04.19 14:19	U	1
Diesel Range Organics (DRO)	C10C28DRO	**29.0**	49.9	9.97	mg/kg	10.04.19 14:19	J	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**11.0**	49.9	9.97	mg/kg	10.04.19 14:19	J	1
Total TPH	PHC635	**40.0**		9.97	mg/kg	10.04.19 14:19	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	104	70 - 135	%		
o-Terphenyl	110	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3103329 Date Prep: 10.03.19 10.20

Prep seq: 7687379

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.00843	0.0187	0.00843	mg/kg	10.03.19 19:59	U	19
Toluene	108-88-3	<0.00437	0.0187	0.00437	mg/kg	10.03.19 19:59	U	19
Ethylbenzene	100-41-4	<0.00575	0.0187	0.00575	mg/kg	10.03.19 19:59	U	19
m,p-Xylenes	179601-23-1	<0.00636	0.0373	0.00636	mg/kg	10.03.19 19:59	U	19
o-Xylene	95-47-6	<0.00636	0.0187	0.00636	mg/kg	10.03.19 19:59	U	19
Total Xylenes	1330-20-7	<0.00636		0.00636	mg/kg	10.03.19 19:59	U	
Total BTEX		<0.00437		0.00437	mg/kg	10.03.19 19:59	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
4-Bromofluorobenzene	101	68 - 120	%		
a,a,a-Trifluorotoluene	109	71 - 121	%		

Certificate of Analytical Results
638801
Terracon-Lubbock, Lubbock, TX
Eddy State Battery

Sample Id: **CS-3(0-0.5)** Matrix: Soil Sample Depth:

Lab Sample Id: 638801-003 Date Collected: 10.01.19 13.20 Date Received: 10.02.19 16.05

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Analyst: RNL % Moist: Tech: RNL

Seq Number: 3103314 Date Prep: 10.03.19 14.00

Prep seq: 7687456

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**3450**	250	5.72	mg/kg	10.03.19 19:52	D	10

Analytical Method: TPH by SW8015 Mod Prep Method: 8015

Analyst: ISU % Moist: Tech: ISU

Seq Number: 3103420 Date Prep: 10.04.19 10.51

Subcontractor: SUB: T104704215-19-30 Prep seq: 7687467

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	**10.2**	50.0	10.0	mg/kg	10.04.19 14:37	J	1
Diesel Range Organics (DRO)	C10C28DRO	**38.4**	50.0	10.0	mg/kg	10.04.19 14:37	J	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**11.1**	50.0	10.0	mg/kg	10.04.19 14:37	J	1
Total TPH	PHC635	**59.7**		10.0	mg/kg	10.04.19 14:37		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	103	70 - 135	%		
o-Terphenyl	108	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3103329 Date Prep: 10.03.19 10.20

Prep seq: 7687379

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.00895	0.0198	0.00895	mg/kg	10.03.19 21:58	U	20
Toluene	108-88-3	<0.00463	0.0198	0.00463	mg/kg	10.03.19 21:58	U	20
Ethylbenzene	100-41-4	<0.00610	0.0198	0.00610	mg/kg	10.03.19 21:58	U	20
m,p-Xylenes	179601-23-1	<0.00675	0.0396	0.00675	mg/kg	10.03.19 21:58	U	20
o-Xylene	95-47-6	<0.00675	0.0198	0.00675	mg/kg	10.03.19 21:58	U	20
Total Xylenes	1330-20-7	<0.00675		0.00675	mg/kg	10.03.19 21:58	U	
Total BTEX		<0.00463		0.00463	mg/kg	10.03.19 21:58	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
4-Bromofluorobenzene	106	68 - 120	%		
a,a,a-Trifluorotoluene	112	71 - 121	%		

Certificate of Analytical Results
638801
Terracon-Lubbock, Lubbock, TX
Eddy State Battery

Sample Id: **CS-4(2-2.5)** Matrix: Soil Sample Depth:

Lab Sample Id: 638801-004 Date Collected: 10.01.19 13.30 Date Received: 10.02.19 16.05

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Analyst: RNL % Moist: Tech: RNL

Seq Number: 3103314 Date Prep: 10.03.19 14.00

Prep seq: 7687456

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**1390**	125	2.86	mg/kg	10.03.19 20:17	D	5

Analytical Method: TPH by SW8015 Mod Prep Method: 8015

Analyst: ISU % Moist: Tech: ISU

Seq Number: 3103420 Date Prep: 10.04.19 10.54

Subcontractor: SUB: T104704215-19-30 Prep seq: 7687467

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<9.92	49.6	9.92	mg/kg	10.04.19 14:59	U	1
Diesel Range Organics (DRO)	C10C28DRO	<9.92	49.6	9.92	mg/kg	10.04.19 14:59	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<9.92	49.6	9.92	mg/kg	10.04.19 14:59	U	1
Total TPH	PHC635	<9.92		9.92	mg/kg	10.04.19 14:59	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	112	70 - 135	%		
o-Terphenyl	116	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3103329 Date Prep: 10.03.19 10.20

Prep seq: 7687379

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.00807	0.0179	0.00807	mg/kg	10.03.19 22:23	U	18
Toluene	108-88-3	<0.00418	0.0179	0.00418	mg/kg	10.03.19 22:23	U	18
Ethylbenzene	100-41-4	<0.00550	0.0179	0.00550	mg/kg	10.03.19 22:23	U	18
m,p-Xylenes	179601-23-1	<0.00609	0.0357	0.00609	mg/kg	10.03.19 22:23	U	18
o-Xylene	95-47-6	<0.00609	0.0179	0.00609	mg/kg	10.03.19 22:23	U	18
Total Xylenes	1330-20-7	<0.00609		0.00609	mg/kg	10.03.19 22:23	U	
Total BTEX		<0.00418		0.00418	mg/kg	10.03.19 22:23	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
4-Bromofluorobenzene	100	68 - 120	%		
a,a,a-Trifluorotoluene	103	71 - 121	%		

Certificate of Analytical Results
638801
Terracon-Lubbock, Lubbock, TX
Eddy State Battery

Sample Id: **CS-5(0-0.5)** Matrix: Soil Sample Depth:

Lab Sample Id: 638801-005 Date Collected: 10.01.19 13.40 Date Received: 10.02.19 16.05

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Analyst: RNL % Moist: Tech: RNL

Seq Number: 3103314 Date Prep: 10.03.19 14.00

Prep seq: 7687456

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**1030**	125	2.86	mg/kg	10.03.19 20:42	D	5

Analytical Method: TPH by SW8015 Mod Prep Method: 8015

Analyst: ISU % Moist: Tech: ISU

Seq Number: 3103420 Date Prep: 10.04.19 10.57

Subcontractor: SUB: T104704215-19-30 Prep seq: 7687467

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<9.95	49.8	9.95	mg/kg	10.04.19 15:18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<9.95	49.8	9.95	mg/kg	10.04.19 15:18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<9.95	49.8	9.95	mg/kg	10.04.19 15:18	U	1
Total TPH	PHC635	<9.95		9.95	mg/kg	10.04.19 15:18	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	99	70 - 135	%		
o-Terphenyl	103	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3103329 Date Prep: 10.03.19 10.20

Prep seq: 7687379

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.00854	0.0189	0.00854	mg/kg	10.03.19 22:47	U	19
Toluene	108-88-3	<0.00442	0.0189	0.00442	mg/kg	10.03.19 22:47	U	19
Ethylbenzene	100-41-4	<0.00582	0.0189	0.00582	mg/kg	10.03.19 22:47	U	19
m,p-Xylenes	179601-23-1	<0.00645	0.0378	0.00645	mg/kg	10.03.19 22:47	U	19
o-Xylene	95-47-6	<0.00645	0.0189	0.00645	mg/kg	10.03.19 22:47	U	19
Total Xylenes	1330-20-7	<0.00645		0.00645	mg/kg	10.03.19 22:47	U	
Total BTEX		<0.00442		0.00442	mg/kg	10.03.19 22:47	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
4-Bromofluorobenzene	107	68 - 120	%		
a,a,a-Trifluorotoluene	113	71 - 121	%		

Certificate of Analytical Results
638801
Terracon-Lubbock, Lubbock, TX
Eddy State Battery

Sample Id: **CS-6(2-2.5)** Matrix: Soil Sample Depth:

Lab Sample Id: 638801-006 Date Collected: 10.01.19 13.50 Date Received: 10.02.19 16.05

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Analyst: RNL % Moist: Tech: RNL

Seq Number: 3103314 Date Prep: 10.03.19 14.00

Prep seq: 7687456

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**1440**	125	2.86	mg/kg	10.03.19 21:19	DX	5

Analytical Method: TPH by SW8015 Mod Prep Method: 8015

Analyst: ISU % Moist: Tech: ISU

Seq Number: 3103420 Date Prep: 10.04.19 11.00

Subcontractor: SUB: T104704215-19-30 Prep seq: 7687467

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<9.92	49.6	9.92	mg/kg	10.04.19 13:04	U	1
Diesel Range Organics (DRO)	C10C28DRO	**17.6**	49.6	9.92	mg/kg	10.04.19 13:04	J	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<9.92	49.6	9.92	mg/kg	10.04.19 13:04	U	1
Total TPH	PHC635	**17.6**		9.92	mg/kg	10.04.19 13:04	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	100	70 - 135	%		
o-Terphenyl	110	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3103329 Date Prep: 10.03.19 10.20

Prep seq: 7687379

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.00829	0.0183	0.00829	mg/kg	10.03.19 23:10	U	18
Toluene	108-88-3	<0.00429	0.0183	0.00429	mg/kg	10.03.19 23:10	U	18
Ethylbenzene	100-41-4	<0.00565	0.0183	0.00565	mg/kg	10.03.19 23:10	U	18
m,p-Xylenes	179601-23-1	<0.00626	0.0367	0.00626	mg/kg	10.03.19 23:10	U	18
o-Xylene	95-47-6	<0.00626	0.0183	0.00626	mg/kg	10.03.19 23:10	U	18
Total Xylenes	1330-20-7	<0.00626		0.00626	mg/kg	10.03.19 23:10	U	
Total BTEX		<0.00429		0.00429	mg/kg	10.03.19 23:10	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
4-Bromofluorobenzene	107	68 - 120	%		
a,a,a-Trifluorotoluene	113	71 - 121	%		

Certificate of Analytical Results
638801
Terracon-Lubbock, Lubbock, TX
Eddy State Battery

Sample Id: **CS-7(0-0.5)** Matrix: Soil Sample Depth:

Lab Sample Id: 638801-007 Date Collected: 10.01.19 14.00 Date Received: 10.02.19 16.05

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Analyst: RNL % Moist: Tech: RNL

Seq Number: 3103314 Date Prep: 10.03.19 14.00

Prep seq: 7687456

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**225**	25.0	0.572	mg/kg	10.03.19 21:56		1

Analytical Method: TPH by SW8015 Mod Prep Method: 8015

Analyst: ISU % Moist: Tech: ISU

Seq Number: 3103420 Date Prep: 10.04.19 11.03

Subcontractor: SUB: T104704215-19-30 Prep seq: 7687467

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<9.94	49.7	9.94	mg/kg	10.04.19 13:22	U	1
Diesel Range Organics (DRO)	C10C28DRO	<9.94	49.7	9.94	mg/kg	10.04.19 13:22	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<9.94	49.7	9.94	mg/kg	10.04.19 13:22	U	1
Total TPH	PHC635	<9.94		9.94	mg/kg	10.04.19 13:22	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	97	70 - 135	%		
o-Terphenyl	108	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3103329 Date Prep: 10.03.19 10.20

Prep seq: 7687379

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.00840	0.0186	0.00840	mg/kg	10.03.19 23:35	U	19
Toluene	108-88-3	<0.00435	0.0186	0.00435	mg/kg	10.03.19 23:35	U	19
Ethylbenzene	100-41-4	<0.00572	0.0186	0.00572	mg/kg	10.03.19 23:35	U	19
m,p-Xylenes	179601-23-1	<0.00634	0.0372	0.00634	mg/kg	10.03.19 23:35	U	19
o-Xylene	95-47-6	<0.00634	0.0186	0.00634	mg/kg	10.03.19 23:35	U	19
Total Xylenes	1330-20-7	<0.00634		0.00634	mg/kg	10.03.19 23:35	U	
Total BTEX		<0.00435		0.00435	mg/kg	10.03.19 23:35	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
4-Bromofluorobenzene	103	68 - 120	%		
a,a,a-Trifluorotoluene	106	71 - 121	%		

Certificate of Analytical Results
638801
Terracon-Lubbock, Lubbock, TX
Eddy State Battery

Sample Id: **CS-8(2-2.5)** Matrix: Soil Sample Depth:

Lab Sample Id: 638801-008 Date Collected: 10.01.19 14.10 Date Received: 10.02.19 16.05

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Analyst: RNL % Moist: Tech: RNL

Seq Number: 3103314 Date Prep: 10.03.19 14.00

Prep seq: 7687456

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**211**	25.0	0.572	mg/kg	10.03.19 22:21		1

Analytical Method: TPH by SW8015 Mod Prep Method: 8015

Analyst: ISU % Moist: Tech: ISU

Seq Number: 3103420 Date Prep: 10.04.19 11.06

Subcontractor: SUB: T104704215-19-30 Prep seq: 7687467

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	**10.7**	49.7	9.94	mg/kg	10.04.19 15:18	J	1
Diesel Range Organics (DRO)	C10C28DRO	**30.4**	49.7	9.94	mg/kg	10.04.19 15:18	J	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**26.6**	49.7	9.94	mg/kg	10.04.19 15:18	J	1
Total TPH	PHC635	**67.7**		9.94	mg/kg	10.04.19 15:18		

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	106	70 - 135	%		
o-Terphenyl	117	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3103329 Date Prep: 10.03.19 10.20

Prep seq: 7687379

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.00893	0.0198	0.00893	mg/kg	10.03.19 23:59	U	20
Toluene	108-88-3	<0.00462	0.0198	0.00462	mg/kg	10.03.19 23:59	U	20
Ethylbenzene	100-41-4	<0.00609	0.0198	0.00609	mg/kg	10.03.19 23:59	U	20
m,p-Xylenes	179601-23-1	<0.00674	0.0395	0.00674	mg/kg	10.03.19 23:59	U	20
o-Xylene	95-47-6	<0.00674	0.0198	0.00674	mg/kg	10.03.19 23:59	U	20
Total Xylenes	1330-20-7	<0.00674		0.00674	mg/kg	10.03.19 23:59	U	
Total BTEX		<0.00462		0.00462	mg/kg	10.03.19 23:59	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
4-Bromofluorobenzene	112	68 - 120	%		
a,a,a-Trifluorotoluene	109	71 - 121	%		

Certificate of Analytical Results
638801
Terracon-Lubbock, Lubbock, TX
Eddy State Battery

Sample Id: **CS-9(0-0.5)** Matrix: Soil Sample Depth:

Lab Sample Id: 638801-009 Date Collected: 10.01.19 14.20 Date Received: 10.02.19 16.05

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Analyst: RNL % Moist: Tech: RNL

Seq Number: 3103314 Date Prep: 10.03.19 14.00

Prep seq: 7687456

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**616**	125	2.86	mg/kg	10.03.19 22:58	D	5

Analytical Method: TPH by SW8015 Mod Prep Method: 8015

Analyst: ISU % Moist: Tech: ISU

Seq Number: 3103420 Date Prep: 10.04.19 11.09

Subcontractor: SUB: T104704215-19-30 Prep seq: 7687467

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<10.0	50.1	10.0	mg/kg	10.04.19 15:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	**24.6**	50.1	10.0	mg/kg	10.04.19 15:41	J	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	**14.4**	50.1	10.0	mg/kg	10.04.19 15:41	J	1
Total TPH	PHC635	**39.0**		10.0	mg/kg	10.04.19 15:41	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	95	70 - 135	%		
o-Terphenyl	106	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3103329 Date Prep: 10.03.19 10.20

Prep seq: 7687379

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.00892	0.0197	0.00892	mg/kg	10.04.19 00:23	U	20
Toluene	108-88-3	<0.00462	0.0197	0.00462	mg/kg	10.04.19 00:23	U	20
Ethylbenzene	100-41-4	<0.00607	0.0197	0.00607	mg/kg	10.04.19 00:23	U	20
m,p-Xylenes	179601-23-1	<0.00673	0.0394	0.00673	mg/kg	10.04.19 00:23	U	20
o-Xylene	95-47-6	<0.00673	0.0197	0.00673	mg/kg	10.04.19 00:23	U	20
Total Xylenes	1330-20-7	<0.00673		0.00673	mg/kg	10.04.19 00:23	U	
Total BTEX		<0.00462		0.00462	mg/kg	10.04.19 00:23	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
4-Bromofluorobenzene	98	68 - 120	%		
a,a,a-Trifluorotoluene	103	71 - 121	%		

Certificate of Analytical Results
638801
Terracon-Lubbock, Lubbock, TX
Eddy State Battery

Sample Id: **CS-10(2-2.5)** Matrix: Soil Sample Depth:

Lab Sample Id: 638801-010 Date Collected: 10.01.19 14.30 Date Received: 10.02.19 16.05

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Analyst: RNL % Moist: Tech: RNL

Seq Number: 3103315 Date Prep: 10.03.19 14.00

Prep seq: 7687457

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**8.34**	25.0	0.572	mg/kg	10.04.19 00:00	J	1

Analytical Method: TPH by SW8015 Mod Prep Method: 8015

Analyst: ISU % Moist: Tech: ISU

Seq Number: 3103420 Date Prep: 10.04.19 11.12

Subcontractor: SUB: T104704215-19-30 Prep seq: 7687467

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<10.0	50.0	10.0	mg/kg	10.04.19 16:37	U	1
Diesel Range Organics (DRO)	C10C28DRO	**15.8**	50.0	10.0	mg/kg	10.04.19 16:37	J	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<10.0	50.0	10.0	mg/kg	10.04.19 16:37	U	1
Total TPH	PHC635	**15.8**		10.0	mg/kg	10.04.19 16:37	J	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	90	70 - 135	%		
o-Terphenyl	101	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3103329 Date Prep: 10.03.19 10.20

Prep seq: 7687379

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.00842	0.0186	0.00842	mg/kg	10.04.19 00:47	U	19
Toluene	108-88-3	<0.00436	0.0186	0.00436	mg/kg	10.04.19 00:47	U	19
Ethylbenzene	100-41-4	<0.00574	0.0186	0.00574	mg/kg	10.04.19 00:47	U	19
m,p-Xylenes	179601-23-1	<0.00635	0.0372	0.00635	mg/kg	10.04.19 00:47	U	19
o-Xylene	95-47-6	<0.00635	0.0186	0.00635	mg/kg	10.04.19 00:47	U	19
Total Xylenes	1330-20-7	<0.00635		0.00635	mg/kg	10.04.19 00:47	U	
Total BTEX		<0.00436		0.00436	mg/kg	10.04.19 00:47	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
4-Bromofluorobenzene	105	68 - 120	%		
a,a,a-Trifluorotoluene	109	71 - 121	%		

Certificate of Analytical Results
638801
Terracon-Lubbock, Lubbock, TX
Eddy State Battery

Sample Id: **CS-11(0-0.5)** Matrix: Soil Sample Depth:

Lab Sample Id: 638801-011 Date Collected: 10.01.19 14.40 Date Received: 10.02.19 16.05

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Analyst: RNL % Moist: Tech: RNL

Seq Number: 3103315 Date Prep: 10.03.19 14.00

Prep seq: 7687457

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**481**	25.0	0.572	mg/kg	10.04.19 00:38		1

Analytical Method: TPH by SW8015 Mod Prep Method: 8015

Analyst: ISU % Moist: Tech: ISU

Seq Number: 3103420 Date Prep: 10.04.19 11.15

Subcontractor: SUB: T104704215-19-30 Prep seq: 7687467

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<9.97	49.9	9.97	mg/kg	10.04.19 15:41	U	1
Diesel Range Organics (DRO)	C10C28DRO	<9.97	49.9	9.97	mg/kg	10.04.19 15:41	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<9.97	49.9	9.97	mg/kg	10.04.19 15:41	U	1
Total TPH	PHC635	<9.97		9.97	mg/kg	10.04.19 15:41	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	100	70 - 135	%		
o-Terphenyl	105	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3103329 Date Prep: 10.03.19 10.20

Prep seq: 7687379

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.00871	0.0193	0.00871	mg/kg	10.04.19 02:23	U	19
Toluene	108-88-3	<0.00451	0.0193	0.00451	mg/kg	10.04.19 02:23	U	19
Ethylbenzene	100-41-4	<0.00593	0.0193	0.00593	mg/kg	10.04.19 02:23	U	19
m,p-Xylenes	179601-23-1	<0.00657	0.0385	0.00657	mg/kg	10.04.19 02:23	U	19
o-Xylene	95-47-6	<0.00657	0.0193	0.00657	mg/kg	10.04.19 02:23	U	19
Total Xylenes	1330-20-7	<0.00657		0.00657	mg/kg	10.04.19 02:23	U	
Total BTEX		<0.00451		0.00451	mg/kg	10.04.19 02:23	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
4-Bromofluorobenzene	109	68 - 120	%		
a,a,a-Trifluorotoluene	110	71 - 121	%		

Certificate of Analytical Results
638801
Terracon-Lubbock, Lubbock, TX
Eddy State Battery

Sample Id: **CS-12(2-2.5)** Matrix: Soil Sample Depth:

Lab Sample Id: 638801-012 Date Collected: 10.01.19 14.50 Date Received: 10.02.19 16.05

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Analyst: RNL % Moist: Tech: RNL

Seq Number: 3103315 Date Prep: 10.03.19 14.00

Prep seq: 7687457

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	**1.43**	25.0	0.572	mg/kg	10.04.19 01:02	J	1

Analytical Method: TPH by SW8015 Mod Prep Method: 8015

Analyst: ISU % Moist: Tech: ISU

Seq Number: 3103420 Date Prep: 10.04.19 11.18

Subcontractor: SUB: T104704215-19-30 Prep seq: 7687467

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<9.94	49.7	9.94	mg/kg	10.04.19 16:00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<9.94	49.7	9.94	mg/kg	10.04.19 16:00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<9.94	49.7	9.94	mg/kg	10.04.19 16:00	U	1
Total TPH	PHC635	<9.94		9.94	mg/kg	10.04.19 16:00	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	111	70 - 135	%		
o-Terphenyl	114	70 - 135	%		

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3103329 Date Prep: 10.03.19 10.20

Prep seq: 7687379

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.00886	0.0196	0.00886	mg/kg	10.04.19 02:47	U	20
Toluene	108-88-3	<0.00459	0.0196	0.00459	mg/kg	10.04.19 02:47	U	20
Ethylbenzene	100-41-4	<0.00604	0.0196	0.00604	mg/kg	10.04.19 02:47	U	20
m,p-Xylenes	179601-23-1	<0.00669	0.0392	0.00669	mg/kg	10.04.19 02:47	U	20
o-Xylene	95-47-6	<0.00669	0.0196	0.00669	mg/kg	10.04.19 02:47	U	20
Total Xylenes	1330-20-7	<0.00669		0.00669	mg/kg	10.04.19 02:47	U	
Total BTEX		<0.00459		0.00459	mg/kg	10.04.19 02:47	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
4-Bromofluorobenzene	118	68 - 120	%		
a,a,a-Trifluorotoluene	117	71 - 121	%		

Certificate of Analytical Results
638801
Terracon-Lubbock, Lubbock, TX
Eddy State Battery

Sample Id: **7687379-1-BLK** Matrix: Solid Sample Depth:

Lab Sample Id: 7687379-1-BLK Date Collected: Date Received:

Analytical Method: BTEX by EPA 8021B Prep Method: 5030B

Analyst: MIT % Moist: Tech: MIT

Seq Number: 3103329 Date Prep: 10.03.19 10.20

Prep seq: 7687379

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Benzene	71-43-2	<0.00904	0.0200	0.00904	mg/kg	10.03.19 19:35	U	20
Toluene	108-88-3	<0.00468	0.0200	0.00468	mg/kg	10.03.19 19:35	U	20
Ethylbenzene	100-41-4	<0.00616	0.0200	0.00616	mg/kg	10.03.19 19:35	U	20
m,p-Xylenes	179601-23-1	<0.00682	0.0400	0.00682	mg/kg	10.03.19 19:35	U	20
o-Xylene	95-47-6	<0.00682	0.0200	0.00682	mg/kg	10.03.19 19:35	U	20
Total Xylenes	1330-20-7	<0.00682		0.00682	mg/kg	10.03.19 19:35	U	
Total BTEX		<0.00468		0.00468	mg/kg	10.03.19 19:35	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
4-Bromofluorobenzene	107	68 - 120	%		
a,a,a-Trifluorotoluene	110	71 - 121	%		

Sample Id: **7687456-1-BLK** Matrix: Solid Sample Depth:

Lab Sample Id: 7687456-1-BLK Date Collected: Date Received:

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Analyst: RNL % Moist: Tech: RNL

Seq Number: 3103314 Date Prep: 10.03.19 14.00

Prep seq: 7687456

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	<0.572	25.0	0.572	mg/kg	10.03.19 17:48	U	1

Sample Id: **7687457-1-BLK** Matrix: Solid Sample Depth:

Lab Sample Id: 7687457-1-BLK Date Collected: Date Received:

Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P

Analyst: RNL % Moist: Tech: RNL

Seq Number: 3103315 Date Prep: 10.03.19 14.00

Prep seq: 7687457

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Chloride	16887-00-6	<0.572	25.0	0.572	mg/kg	10.03.19 23:23	U	1

Certificate of Analytical Results
638801

Terracon-Lubbock, Lubbock, TX
Eddy State Battery

Sample Id: **7687467-1-BLK** Matrix: Solid Sample Depth:

Lab Sample Id: 7687467-1-BLK Date Collected: Date Received:

Analytical Method: TPH by SW8015 Mod Prep Method: 8015

Analyst: ISU % Moist: Tech: ISU

Seq Number: 3103420 Date Prep: 10.04.19 10.30

Subcontractor: SUB: T104704215-19-30 Prep seq: 7687467

Parameter	CAS Number	Result	MQL	SDL	Units	Analysis Date	Flag	Dil Factor
Gasoline Range Hydrocarbons (GRO)	PHC610	<10.0	50.0	10.0	mg/kg	10.04.19 12:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<10.0	50.0	10.0	mg/kg	10.04.19 12:15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<10.0	50.0	10.0	mg/kg	10.04.19 12:15	U	1
Total TPH	PHC635	<10.0		10.0	mg/kg	10.04.19 12:15	U	

Surrogate	% Recovery	Limits	Units	Analysis Date	Flag
1-Chlorooctane	99	70 - 135	%		
o-Terphenyl	103	70 - 135	%		

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the quantitation limit and above the detection limit.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

Form 2 - Surrogate Recoveries

Project Name: Eddy State Battery

Work Orders : 638801,

Project ID: AR197208

Lab Batch #: 3103329 **Sample:** 7687379-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/03/19 17:59

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.110	0.100	110	68-120	
a,a,a-Trifluorotoluene	2.12	2.00	106	71-121	

Lab Batch #: 3103329 **Sample:** 7687379-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/03/19 18:23

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.108	0.100	108	68-120	
a,a,a-Trifluorotoluene	2.11	2.00	106	71-121	

Lab Batch #: 3103329 **Sample:** 7687379-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/03/19 19:35

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.107	0.100	107	68-120	
a,a,a-Trifluorotoluene	2.19	2.00	110	71-121	

Lab Batch #: 3103329 **Sample:** 638801-002 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/03/19 20:23

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.105	0.100	105	68-120	
a,a,a-Trifluorotoluene	2.05	1.88	109	71-121	

Lab Batch #: 3103329 **Sample:** 638801-002 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/03/19 20:47

SURROGATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.103	0.100	103	68-120	
a,a,a-Trifluorotoluene	2.17	1.95	111	71-121	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Version: 1.%

Form 2 - Surrogate Recoveries

Project Name: Eddy State Battery

Work Orders : 638801,

Project ID: AR197208

Lab Batch #: 3103420 **Sample:** 7687467-1-BLK / BLK **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/04/19 12:15

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	99.0	100	99	70-135	
o-Terphenyl	51.7	50.0	103	70-135	

Lab Batch #: 3103420 **Sample:** 7687467-1-BKS / BKS **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/04/19 12:34

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	115	100	115	70-135	
o-Terphenyl	55.2	50.0	110	70-135	

Lab Batch #: 3103420 **Sample:** 7687467-1-BSD / BSD **Batch:** 1 **Matrix:** Solid

Units: mg/kg **Date Analyzed:** 10/04/19 13:04

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	111	100	111	70-135	
o-Terphenyl	53.7	50.0	107	70-135	

Lab Batch #: 3103420 **Sample:** 638801-001 S / MS **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/04/19 13:41

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	113	99.6	113	70-135	
o-Terphenyl	55.2	49.8	111	70-135	

Lab Batch #: 3103420 **Sample:** 638801-001 SD / MSD **Batch:** 1 **Matrix:** Soil

Units: mg/kg **Date Analyzed:** 10/04/19 14:00

SURROGATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1-Chlorooctane	110	100	110	70-135	
o-Terphenyl	52.5	50.1	105	70-135	

* Surrogate outside of Laboratory QC limits
** Surrogates outside limits; data and surrogates confirmed by reanalysis
*** Poor recoveries due to dilution
Surrogate Recovery [D] = 100 * A / B
All results are based on MDL and validated for QC purposes.

Version: 1.%

BS / BSD Recoveries

Project Name: Eddy State Battery

Work Order #: 638801 **Project ID:** AR197208

Analyst: MIT **Date Prepared:** 10/03/2019 **Date Analyzed:** 10/03/2019

Lab Batch ID: 3103329 **Sample:** 7687379-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00904	2.00	2.00	100	2.00	2.01	101	0	55-120	20	
Toluene	<0.00468	2.00	1.99	100	2.00	1.99	100	0	77-120	20	
Ethylbenzene	<0.00616	2.00	2.13	107	2.00	2.12	106	0	77-120	20	
m,p-Xylenes	<0.00682	4.00	4.20	105	4.00	4.18	105	0	78-120	20	
o-Xylene	<0.00682	2.00	2.08	104	2.00	2.08	104	0	78-120	20	

Analyst: RNL **Date Prepared:** 10/03/2019 **Date Analyzed:** 10/03/2019

Lab Batch ID: 3103314 **Sample:** 7687456-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.572	250	252	101	250	259	104	3	90-110	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Version: 1.%

BS / BSD Recoveries

Project Name: Eddy State Battery

Work Order #: 638801 **Project ID:** AR197208

Analyst: RNL **Date Prepared:** 10/03/2019 **Date Analyzed:** 10/03/2019

Lab Batch ID: 3103315 **Sample:** 7687457-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	<0.572	250	262	105	250	269	108	3	90-110	20	

Analyst: ISU **Date Prepared:** 10/04/2019 **Date Analyzed:** 10/04/2019

Lab Batch ID: 3103420 **Sample:** 7687467-1-BKS **Batch #:** 1 **Matrix:** Solid

Units: mg/kg

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<10.0	1000	1070	107	1000	1100	110	3	70-135	35	
Diesel Range Organics (DRO)	<10.0	1000	1070	107	1000	1030	103	4	70-135	35	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Version: 1.%

Form 3 - MS / MSD Recoveries

Project Name: Eddy State Battery

Work Order # : 638801 **Project ID:** AR197208

Lab Batch ID: 3103329 **QC- Sample ID:** 638801-002 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 10/03/2019 **Date Prepared:** 10/03/2019 **Analyst:** MIT

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

BTEX by EPA 8021B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	<0.00851	1.88	1.82	97	1.95	1.99	102	9	54-120	25	
Toluene	<0.00441	1.88	1.81	96	1.95	2.02	104	11	57-120	25	
Ethylbenzene	<0.00580	1.88	1.92	102	1.95	2.19	112	13	58-131	25	
m,p-Xylenes	<0.00642	3.77	3.78	100	3.90	4.22	108	11	62-124	25	
o-Xylene	<0.00642	1.88	1.90	101	1.95	2.10	108	10	62-124	25	

Lab Batch ID: 3103314 **QC- Sample ID:** 638801-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 10/03/2019 **Date Prepared:** 10/03/2019 **Analyst:** RNL

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	1920	250	3180	NC	250	3220	NC	1	80-120	20	X

Lab Batch ID: 3103314 **QC- Sample ID:** 638801-006 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 10/03/2019 **Date Prepared:** 10/03/2019 **Analyst:** RNL

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	1200	250	1660	184	250	1710	204	3	80-120	20	X

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Form 3 - MS / MSD Recoveries

Project Name: Eddy State Battery

Work Order # : 638801 **Project ID:** AR197208

Lab Batch ID: 3103315 **QC- Sample ID:** 638801-010 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 10/04/2019 **Date Prepared:** 10/03/2019 **Analyst:** RNL

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300 Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	8.34	250	267	103	250	273	106	2	80-120	20	

Lab Batch ID: 3103420 **QC- Sample ID:** 638801-001 S **Batch #:** 1 **Matrix:** Soil

Date Analyzed: 10/04/2019 **Date Prepared:** 10/04/2019 **Analyst:** ISU

Reporting Units: mg/kg

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TPH by SW8015 Mod Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Gasoline Range Hydrocarbons (GRO)	<9.96	996	1100	110	1000	1080	108	2	70-135	35	
Diesel Range Organics (DRO)	13.9	996	1050	104	1000	1020	101	3	70-135	35	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Final 1.000

Terracon

CHAIN OF CUSTODY RECORD

U38801

Laboratory: Xenco
Address: 6701 Aberdeen
Lubbock, Texas 79424
Phone:
Contact: Joseph Guesnier (806-544-9276)
SRS #:

Office Location: Lubbock
Project Manager: Joseph Guesnier
Sampler's Name: Joseph Guesnier
Sampler's Signature

Project Number: AR197208
Project Name: Eddy State Battery

ANALYSIS REQUESTED

LAB USE ONLY
DUE DATE:
TEMP OF COOLER WHEN RECEIVED (°C): 1, 1, 1

Matrix	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	Start Depth	End Depth	No. Type of Containers: 2 oz Glass	4 oz Glass	5035 kit	40 ml VOA	Chloride (EPA Method 300)	TPH Extended 8015	BTEX (EPA Method 8021B)	Hold	Lab Sample ID
S	10/1/2019	13:00	X		CS-1 (0-0.5)	0'	0.5'		X			X	X	X		
S	10/1/2019	13:10	X		CS-2 (2-2.5)	2'	2.5'		X			X	X	X		
S	10/1/2019	13:20	X		CS-3 (0-0.5)	0'	0.5'		X			X	X	X		
S	10/1/2019	13:30	X		CS-4 (2-2.5)	2'	2.5'		X			X	X	X		
S	10/1/2019	13:40	X		CS-5 (0-0.5)	0'	0.5'		X			X	X	X		
S	10/1/2019	13:50	X		CS-6 (2-2.5)	2'	2.5'		X			X	X	X		
S	10/1/2019	14:00	X		CS-7 (0-0.5)	0'	0.5'		X			X	X	X		
S	10/1/2019	14:10	X		CS-8 (2-2.5)	2'	2.5'		X			X	X	X		
S	10/1/2019	14:20	X		CS-9 (0-0.5)	0'	0.5'		X			X	X	X		
S	10/1/2019	14:30	X		CS-10 (2-2.5)	2'	2.5'		X			X	X	X		
S	10/1/2019	14:40	X		CS-11 (0-0.5)	0'	0.5'		X			X	X	X		
S	10/1/2019	14:50	X		CS-12 (2-2.5)	2'	2.5'		X			X	X	X		

TURNAROUND TIME ☐ Normal ☒ 48-Hour Rush ☐ 24-Hour Rush

TRRP Laboratory Review Checklist ☐ Yes ☐ No

Relinquished by (Signature)	Date	Time	Received by (Signature)	Date	Time
	10/2/19	11:05		10/2/19	1105

NOTES: Client: Spur

e-mail results to:

john.fergerson@terracon.com

jrguesnier@terracon.com

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

Inter-Office Shipment

IOS Number : 49316

Date/Time:	10.02.2019	Created by:	Ashley Derstine	Please send report to:	Jessica Kramer
Lab# From:	**Lubbock**	Delivery Priority:		Address:	6701 Aberdeen, Suite 9 Lubbock, TX 79424
Lab# To:	**Houston**	Air Bill No.:	776447877977	E-Mail:	jessica.kramer@xenco.com

Sample Id	Matrix	Client Sample Id	Sample Collection	Method	Method Name	Lab Due	HT Due	PM	Analytes	Sign
638801-001	S	CS-1(0-0.5)	10.01.2019 13:00	SW8015MOD_NM	TPH by SW8015 Mod	10.04.2019	10.15.2019	JKR	PHCC10C28 PHCC28C3	
638801-002	S	CS-2(2-2.5)	10.01.2019 13:10	SW8015MOD_NM	TPH by SW8015 Mod	10.04.2019	10.15.2019	JKR	PHCC10C28 PHCC28C3	
638801-003	S	CS-3(0-0.5)	10.01.2019 13:20	SW8015MOD_NM	TPH by SW8015 Mod	10.04.2019	10.15.2019	JKR	PHCC10C28 PHCC28C3	
638801-004	S	CS-4(2-2.5)	10.01.2019 13:30	SW8015MOD_NM	TPH by SW8015 Mod	10.04.2019	10.15.2019	JKR	PHCC10C28 PHCC28C3	
638801-005	S	CS-5(0-0.5)	10.01.2019 13:40	SW8015MOD_NM	TPH by SW8015 Mod	10.04.2019	10.15.2019	JKR	PHCC10C28 PHCC28C3	
638801-006	S	CS-6(2-2.5)	10.01.2019 13:50	SW8015MOD_NM	TPH by SW8015 Mod	10.04.2019	10.15.2019	JKR	PHCC10C28 PHCC28C3	
638801-007	S	CS-7(0-0.5)	10.01.2019 14:00	SW8015MOD_NM	TPH by SW8015 Mod	10.04.2019	10.15.2019	JKR	PHCC10C28 PHCC28C3	
638801-008	S	CS-8(2-2.5)	10.01.2019 14:10	SW8015MOD_NM	TPH by SW8015 Mod	10.04.2019	10.15.2019	JKR	PHCC10C28 PHCC28C3	
638801-009	S	CS-9(0-0.5)	10.01.2019 14:20	SW8015MOD_NM	TPH by SW8015 Mod	10.04.2019	10.15.2019	JKR	PHCC10C28 PHCC28C3	
638801-010	S	CS-10(2-2.5)	10.01.2019 14:30	SW8015MOD_NM	TPH by SW8015 Mod	10.04.2019	10.15.2019	JKR	PHCC10C28 PHCC28C3	
638801-011	S	CS-11(0-0.5)	10.01.2019 14:40	SW8015MOD_NM	TPH by SW8015 Mod	10.04.2019	10.15.2019	JKR	PHCC10C28 PHCC28C3	
638801-012	S	CS-12(2-2.5)	10.01.2019 14:50	SW8015MOD_NM	TPH by SW8015 Mod	10.04.2019	10.15.2019	JKR	PHCC10C28 PHCC28C3	

Inter Office Shipment or Sample Comments:

Relinquished By: 
Ashley Derstine

Date Relinquished: 10.03.2019

Received By: 
Ashly Kowalski

Date Received: 10.03.2019

Cooler Temperature: 1.3

XENCO Laboratories

Inter Office Report- Sample Receipt Checklist

Sent To: Houston

IOS #: 49316

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient
Temperature Measuring device used : HOU-068

Sent By: Ashley Derstine **Date Sent:** 10.02.2019 04.30 PM

Received By: Ashly Kowalski **Date Received:** 10.03.2019 09.30 AM

Sample Receipt Checklist		Comments
#1 *Temperature of cooler(s)?	1.3	
#2 *Shipping container in good condition?	**Yes**	
#3 *Samples received with appropriate temperature?	**Yes**	
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**	
#5 *Custody Seals Signed and dated for Containers/coolers	**N/A**	
#6 *IOS present?	**Yes**	
#7 Any missing/extra samples?	**No**	
#8 IOS agrees with sample label(s)/matrix?	**Yes**	
#9 Sample matrix/ properties agree with IOS?	**Yes**	
#10 Samples in proper container/ bottle?	**Yes**	
#11 Samples properly preserved?	**Yes**	
#12 Sample container(s) intact?	**Yes**	
#13 Sufficient sample amount for indicated test(s)?	**Yes**	
#14 All samples received within hold time?	**Yes**	

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

NonConformance:

Corrective Action Taken:

Nonconformance Documentation

Contact: _____ **Contacted by :** _____ **Date:** _____

Checklist reviewed by: _____ Date: 10.03.2019

Ashly Kowalski

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Terracon-Lubbock

Date/ Time Received: 10/02/2019 04:05:00 PM

Work Order #: 638801

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R4

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.1
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**N/A**
#5 Custody Seals intact on sample bottles?	**N/A**
#6*Custody Seals Signed and dated?	**N/A**
#7 *Chain of Custody present?	**Yes**
#8 Any missing/extra samples?	**No**
#9 Chain of Custody signed when relinquished/ received?	**Yes**
#10 Chain of Custody agrees with sample labels/matrix?	**Yes**
#11 Container label(s) legible and intact?	**Yes**
#12 Samples in proper container/ bottle?	**Yes**
#13 Samples properly preserved?	**Yes**
#14 Sample container(s) intact?	**Yes**
#15 Sufficient sample amount for indicated test(s)?	**Yes**
#16 All samples received within hold time?	**Yes**
#17 Subcontract of sample(s)?	**Yes**
#18 Water VOC samples have zero headspace?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst: PH Device/Lot#:

Checklist completed by: Ashley Derstine Date: 10/03/2019

Checklist reviewed by: Jessica Kramer Date: 10/04/2019

Jessica Kramer

APPENDIX D – TERRACON STANDARD OF CARE, LIMITATION, AND RELIANCE

Standard of Care

Terracon's services were performed in a manner consistent with generally accepted practices of the profession undertaken in similar studies in the same geographical area during the same time. Terracon makes no warranties, either express or implied, regarding the findings, conclusions, or recommendations. Please note that Terracon does not warrant the work of laboratories, regulatory agencies, or other third parties supplying information used in the preparation of the report. These services were performed in accordance with the scope of work agreed with you, Solaris Water Midstream, as reflected in our proposal (PA4197040).

Additional Scope Limitations

Development of this RAP is based upon information provided by the Client and Terracon's remediation and construction services line. Such information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, nondetectable, or not present during these services. We cannot represent that the site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those by information provided by the Client. The data, interpretations, findings, and our recommendations are based solely upon reformation executed within the scope of these services.

Reliance

This report has been prepared for the exclusive use of Solaris Water Midstream, 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 Solaris Water Midstream and Terracon. Any unauthorized distribution or reuse is at Solaris Water Midstream sole risk. Notwithstanding the foregoing, reliance by authorized parties will be subject to the terms, conditions, and limitations stated in the proposal and Solaris Water Midstream and Terracon's Master Services Agreement. The limitation of liability defined in the terms and conditions is the aggregate limit of Terracon's liability to Solaris Water Midstream and all relying parties unless otherwise agreed in writing.

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 9336

CONDITIONS

Operator: SOLARIS WATER MIDSTREAM, LLC 907 Tradewinds Blvd, Suite B Midland, TX 79706	OGRID: 371643
	Action Number: 9336
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
bbillings	Although DTW was not adequately id'd and was in high karst, post excavation data was adequate for closure	9/27/2022