

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural
Resources Department
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	NRM2008661323
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party Endeavor Energy Resources, LP	OGRID 190595
Contact Name Teffanie Fawks	Contact Telephone 432-262-4203
Contact email teffanies@eeronline.com	Incident # (assigned by OCD)
Contact mailing address 110 N. Marienfeld, Suite 200, Midland, TX 79706	

Location of Release Source

Latitude 32.96241 Longitude -103.74775
(NAD 83 in decimal degrees to 5 decimal places)

Site Name NC State SWD Well #1	Site Type SWD
Date Release Discovered 11/5/2019	API# (if applicable) 30-025-28695

Unit Letter	Section	Township	Range	County
A	3	16S	32E	Lea

Surface Owner: ☒ State ☐ Federal ☐ Tribal ☐ Private (Name: _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls) Volume
☒ Produced Water	Volume Released (bbls) 85.3 bbls	Recovered (bbls) 55 bbls
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release The release was attributed to equipment failure at the Triplex Pump.

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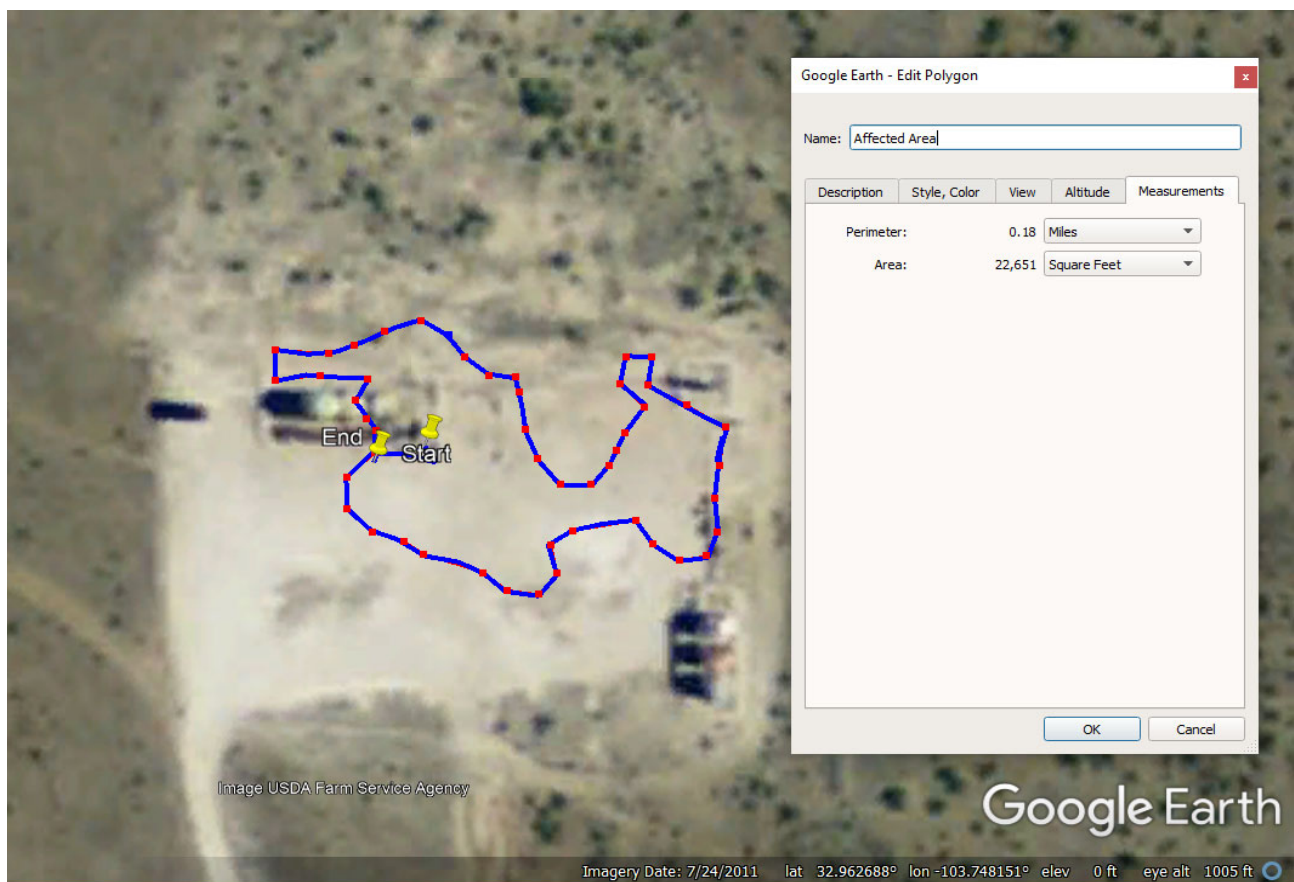
Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? The release was over 25 bbls
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

☒ The source of the release has been stopped. ☒ The impacted area has been secured to protect human health and the environment. ☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. ☒ All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
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.	
Printed Name: <u>Teffanie Fawks</u>	Title: <u>Environmental Technician</u>
Signature: <u></u>	Date: <u>11/15/2019</u>
email: <u>teffanies@eeronline.com</u>	Telephone: <u>432-262-4203</u>
<u>OCD Only</u>	
Received by: <u>Ramona Marcus</u>	Date: <u>03/26/2020</u>

NRM2008661323



Volume Calculation

EER - NC State SWD #1

ID	Area (Ft ²)	Depth (Ft)	%Porosity/ Saturation	Volume (Ft ³)	Volume (bbls)
Area #1	22,651	0.25	0.03	169.88	30.3
Area #2	0	0.00	0	0.00	0.0
Area #3	0	0.00	0	0.00	0.0

Volume of Liquid Remaining in Soil: 30.3 bbls

Volume Recovered: 55.0 bbls

Total Volume: 85.3 bbls

Oil (Approximate) 0.0 %

Volume of Oil Released: 0.0 bbls

Volume of Water Released: 85.3 bbls

Volume of Oil Recovered: 0.00

Volume of Water Recovered: 55.0

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39HHS-191205-C-1410**Site Assessment/Characterization***This information must be provided to the appropriate district office no later than 90 days after the release discovery date.*

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>230 Ft</u> (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas not on an exploration, development, production, or storage site?	☐ Yes ☒ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: *Each of the following items must be included in the report.*

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Form C-141

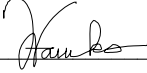
State of New Mexico

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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.

Printed Name: Teffanie FawksTitle: Environmental TechnicianSignature: Date: 12-05-2019email: teffanies@eeronline.comTelephone: 432-262-4203**OCD Only**

Received by: _____

Date: _____

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Remediation Plan

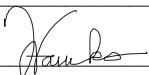
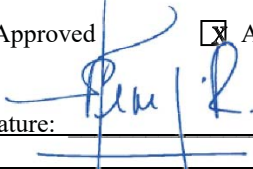
Remediation Plan Checklist: *Each of the following items must be included in the plan.*

- ☒ Detailed description of proposed remediation technique
- ☒ Scaled sitemap with GPS coordinates showing delineation points
- ☒ Estimated volume of material to be remediated
- ☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: *Each of the following items must be confirmed as part of any request for deferral of remediation.*

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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.

Printed Name: Teffanie FawksTitle: Environmental TechnicianSignature: Date: 12-05-2019email: teffanies@eeronline.comTelephone: 432-262-4203**OCD Only**Received by: Victoria VenegasDate: 12/05/2019☐ Approved☒ Approved with Attached Conditions of Approval☐ Denied☐ Deferral ApprovedSignature: Date: 03/30/2020

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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.

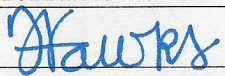
Closure Report Attachment Checklist: *Each of the following items must be included in the closure report.*

- ☒ 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: Teffanie Fawks

Title: HSE Environmental Field Tech

Signature: 

Date: 10.20.20

email: teffanies@eeronline.com

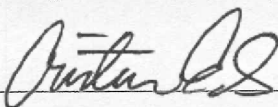
Telephone: 432-262-4203

OCD Only

Received by: Cristina Eads

Date: 10/22/2020

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: 

Date: 01/08/2021

Printed Name: Cristina Eads

Title: Environmental Specialist

Remediation Summary and Soil Closure Request

Endeavor Energy Resources, LP NC State SWD #1

Lea County, New Mexico

Unit Letter "A", Section 3, Township 16 South, Range 32 East

Latitude 32.9624 North, Longitude 103.74775 West

NMOCD Reference No. nRM2008661323

Prepared By:

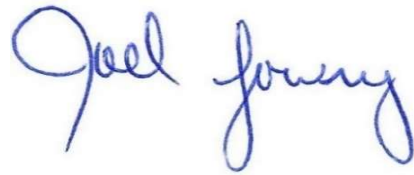
Etech Environmental & Safety Solutions, Inc.

3100 Plains Highway

Lovington, New Mexico 88260



Joel Lowry



Joel W. Lowry



Midland • San Antonio • Lubbock • Lovington • Lafayette

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FIGURES

- Figure 1 - Topographic Map
- Figure 2 - Aerial Proximity Map
- Figure 3 - Site & Sample Location Map

TABLES

- Table 1 - Concentrations of BTEX, TPH and/or Chloride in Soil

APPENDICES

- Appendix A - Depth to Groundwater Information
- Appendix B - Field Data and Soil Profile Logs
- Appendix C - Laboratory Analytical Reports
- Appendix D - Photographic Log

1.0 PROJECT INFORMATION

Etech Environmental & Safety Solutions, Inc. (Etech), on behalf of Endeavor Energy Resources, LP, has prepared this Report for the Release Site known as the NC State SWD #1. Details of the release are summarized below:

Location of Release Source

Latitude: 32.9624 Longitude: -103.74775
Provided GPS are in WGS84 format.

Site Name:	NC State SWD #1	Site Type:	SWD
Date Release Discovered:	11/5/2019	API # (if applicable):	30-025-28695

Unit Letter	Section	Township	Range	County
"A"	3	16S	32E	Lea

Surface Owner: ☒ State ☐ Federal ☐ Tribal ☐ Private (Name _____)

Nature and Volume of Release

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 85.3	Volume Recovered (bbls) 55
	Is the concentration of dissolved chloride in the produced water > 10,000 mg/L?	☒ Yes ☐ No ☐ N/A
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released	Volume/Weight Recovered
Cause of Release: Triplex pump failure		

Initial Response

☒ The source of the release has been stopped.
☒ The impacted area has been secured to protect human health and the environment.
☒ Release materials have been contained via the use of berms or dikes, absorbent pad, or other containment devices
☒ All free liquids and recoverable materials have been removed and managed appropriately.

Previously submitted portions of the NMOCD Form C-141 are available on the NMOCD Imaging System.

2.0 SITE CHARACTERIZATION

A search of groundwater databases maintained by the New Mexico Office of the State Engineer (NMOSE) and United States Geological Survey (USGS) was conducted in an effort to determine the horizontal distance to known water sources within a half mile radius of the Release Site. Probable groundwater depth was determined using data generated by numeric models based on available water well data and published information. Depth to groundwater information is provided as Appendix A.

What is the shallowest depth to groundwater beneath the area affected by the release?	~230	
Did the release impact groundwater or surface water?	☐ Yes	☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes	☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes	☒ No
Are the lateral extents of the release within 300 feet of any occupied permanent residence, school, hospital, institution or church?	☐ Yes	☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes	☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes	☒ No
Are the lateral extents of the release within the incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes	☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes	☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes	☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes	☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes	☒ No
Did the release impact areas not on an exploration, development, production or storage site?	☐ Yes	☒ No

NMOCD Siting Criteria data was gathered from available resources including Bureau of Land Management (BLM) shapefiles; topographic maps; NMOSE and USGS databases; and aerial imagery. The results are depicted on Figures 1 & 2.

3.0 CLOSURE CRITERIA FOR SOILS IMPACTED BY A RELEASE

Based on the volume and nature of the release, inferred depth to groundwater and NMOCD Siting Criteria, the NMOCD Closure Criteria for the Site is as follows:

Closure Criteria for Soil Impacted by a Release			
Probable Depth to Groundwater	Constituent	Method	Limit
~230	Chloride	EPA 300.0 or SM4500 Cl B	20000 mg/kg
	TPH (GRO + DRO + MRO)	EPA SW-846 Method 8015M Ext	2500 mg/kg
	DRO + GRO	EPA SW-846 Method 8015M	1000 mg/kg
	BTEX	EPA SW-846 Methods 8021b or 8260b	50 mg/kg
	Benzene	EPA SW-846 Methods 8021b or 8260b	10 mg/kg

4.0 INITIAL SITE ASSESSMENT

On **November 11, 2019**, Etech conducted an initial site assessment. During the initial site assessment, a series of hand-augered soil bores and/or test trenches were advanced within the release margins in an effort to determine the vertical extent of soil impacts. In addition, hand-augered soil bores and/or test trenches were advanced at the inferred edges of the affected area in an effort to determine the horizontal extent of soil impacts. During the advancement of the hand-augered soil bores, field soil samples were collected and field-screened for the presence of Volatile Organic Compounds utilizing a Photoionization Detector (PID) and/or concentrations of chloride utilizing a Hach Quantab ® chloride test kit. A "Site & Sample Location Map" is provided as Figure 3. Field data and soil profile logs, if applicable, are provided as Appendix B.

Based on field observations and field test data, twenty-six (26) delineation soil samples (SP2 thru SP6, NH1, NH2, EH1, EH2, SH1,SH2, WH1,WH2) were submitted to the laboratory for analysis of BTEX, TPH and/or Chloride. Based on laboratory analytical results, soil was not affected above the NMOCD Closure Criteria beyond 1 Ft. bgs and the horizontal extent of affected soil impacted above the NMOCD Closure Criteria was adequately defined. A "Soil Chemistry Table" is provided as Table 1. Laboratory Analytical Reports are provided as Appendix C.

5.0 PROPOSED REMEDIATION PLAN

Based on laboratory analytical results, site characteristics and field observations made during the initial site assessment, Endeavor Energy Resources, LP proposes the following remediation activities designed to advance the Site toward an approved closure:

- Utilizing mechanical equipment, excavate impacted soil affected above the NMOCD Closure Criteria in the areas characterized by sample points SP2 thru SP6 to a depth of approximately 6 inches bgs.
- The floor and sidewalls of the excavated area will be advanced until laboratory analytical results indicate impacted soil affected above the NMOCD Closure Criteria has been removed.
- Excavated material will be temporarily stockpiled on-site, then transported to an NMOCD-approved disposal facility.
- Upon excavating impacted soil affected above the NMOCD Closure Criteria, collect the requisite excavation confirmation soil samples.
- Upon receiving laboratory analytical results from excavation confirmation soil samples, backfill the excavated area with locally sourced, non-impacted "like" material.
- Excavation backfill will be contoured to match the surrounding topography.
- Upon completion of remediation activities, prepare a Remediation Summary and Site Closure Request detailing remediation activities and the results of confirmation soil samples.

6.0 REGULATORY APPROVALS AND STIPULATIONS

On 12/5/2019, a Site Assessment Report and Proposed Remediation Workplan was submitted to the NMOCD proposing remediation activities designed to advance the Site toward regulatory closure. The Site Assessment Report and Proposed Remediation Workplan was subsequently approved.

Please reference the Site Assessment Report and Proposed Remediation Workplan for additional details regarding site characterization and proposed remediation activities.

7.0 REMEDIATION ACTIVITIES SUMMARY

On July 29, 2020, remediation activities commenced at the Site. In accordance with the approved workplan, impacted soil affected above the NMOCD Closure Criteria was excavated and stockpiled on-site, pending final disposition at an NMOCD-approved surface waste facility for disposal. The floor and sidewalls of the excavation were advanced until field observations and test results suggesting BTEX, TPH and chloride concentrations were below the applicable NMOCD Closure Criteria .

On August 5, 2020, Etech collected eighteen (18) excavation confirmation soil samples. The collected soil samples were submitted to a certified commercial laboratory for analysis of BTEX, TPH and chloride. Laboratory analytical results indicated BTEX, TPH and chloride concentrations below the applicable NMOCD Closure Criteria in each of the submitted soil samples.

On August 10, 2020, Etech collected eleven (11) excavation confirmation soil samples. The collected soil samples were submitted to a certified commercial laboratory for analysis of BTEX, TPH and chloride. Laboratory analytical results indicated BTEX, TPH and chloride concentrations below the applicable NMOCD Closure Criteria in each of the submitted soil samples.

On August 11, 2020, Etech collected nine (9) excavation confirmation soil samples. The collected soil samples were submitted to a certified commercial laboratory for analysis of BTEX, TPH and chloride. Laboratory analytical results indicated BTEX, TPH and chloride concentrations below the applicable NMOCD Closure Criteria and/or the NMOCD Reclamation Standard in each of the submitted soil samples with the exception of SP22 @ 6", which exhibited a chloride concentration of 54,500 mg/kg.

On August 12, 2020, Etech collected eighteen (18) excavation confirmation soil samples. The collected soil samples were submitted to a certified commercial laboratory for analysis of BTEX, TPH and chloride. Laboratory analytical results indicated BTEX, TPH and chloride concentrations below the applicable NMOCD Closure Criteria in each of the submitted soil samples with the exception of SP37, which exhibited a GRO+DRO concentration of 1,140 mg/kg.

On August 13, 2020, Etech collected six (6) excavation confirmation soil samples. The collected soil samples were submitted to a certified commercial laboratory for analysis of BTEX, TPH and chloride. Laboratory analytical results indicated BTEX, TPH and chloride concentrations below the applicable NMOCD Closure Criteria and/or the NMOCD Reclamation Standard in each of the submitted soil samples.

On August 19, 2020, excavation activities resumed at the Site. Impacted soil in the areas characterized by sample points SP22 @ 6" and SP37 was excavated and transported to and NMOCD-approved surface waste facility for disposal. Upon excavating impacted soil remaining in-situ, Etech collected two (2) additional excavation confirmation soil samples and submitted them to the laboratory for analysis of TPH and/or chloride. Laboratory analytical results indicated BTEX, TPH and chloride concentrations were below the applicable NMOCD Closure Criteria and/or the NMOCD Reclamation Standard in each of the submitted soil samples.

A "Site & Sample Location Map" is provided as Figure 3. A "Soil Chemistry Table" is provided as Table 1. Laboratory Analytical Reports are provided in Appendix C.

The final dimensions of the excavated area were 280 Ft. in length, 15 to 180 Ft. in width and ranged from 6 In. to 1 Ft. in depth. During the course of remediation activities approximately 492 cubic yards of impacted soil were transported to an NMOCD-approved surface waste facility for disposal.

8.0 RESTORATION, RECLAMATION AND RE-VEGETATION PLAN

Upon receiving laboratory analytical results from confirmation soil samples, excavated areas were backfilled with locally sourced, non-impacted "like" material placed at or near original relative positions. The affected area was contoured and/or compacted to achieve erosion control, stability and preservation of surface water flow to the extent practicable. Affected areas not on production pads and/or lease roads will be reseeded with an agency approved seed mixture free of noxious weeds during the first favorable growing season following closure of the site. Final reclamation and re-vegetation of the affected area on the active production pad will be conducted in accordance with NMAC 19.15.29.13 upon decommissioning the facility.

9.0 SOIL CLOSURE REQUEST

Remediation activities were conducted in accordance with an approved Workplan. Impacted soil affected above the NMOCD Closure Criteria and/or NMOCD Reclamation Standard was excavated and transported to an NMOCD-approved disposal facility. Laboratory analytical results from confirmation soil samples indicate concentrations of BTEX, TPH and chloride are below the NMOCD Closure Criteria and/or NMOCD Reclamation Standard.

Based on laboratory analytical results and field activities conducted to date, Etech recommends Endeavor Energy Resources, LP provide copies of this Remediation Summary and Soil Closure Request to the appropriate agencies and request closure be granted to the NC State SWD #1 Site.

10.0 LIMITATIONS

Etech Environmental & Safety Solutions, Inc., has prepared this Remediation Summary and Soil Closure Request to the best of its ability. No other warranty, expressed or implied, is made or intended. Etech has examined and relied upon documents referenced in the report and on oral statements made by certain individuals. Etech has not conducted an independent examination of the facts contained in referenced materials and statements. Etech has presumed the genuineness of these documents and statements and that the information provided therein is true and accurate. Etech has prepared the report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Etech notes that the facts and conditions referenced in this report may change over time, and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of Endeavor Energy Resources, LP. Use of the information contained in this report is prohibited without the consent of Etech and/or Endeavor Energy Resources, LP.

11.0 DISTRIBUTION

Endeavor Energy Resources, LP

110 N. Marienfeld St

Suite 200

Midland, TX 79701

New Mexico Energy, Minerals and Natural Resources Department

Oil Conservation Division, District 1

1220 South St. Francis Drive

Santa Fe, NM 87505

Hobbs Field Office

New Mexico State Land Office

2827 North Dal Paso Street

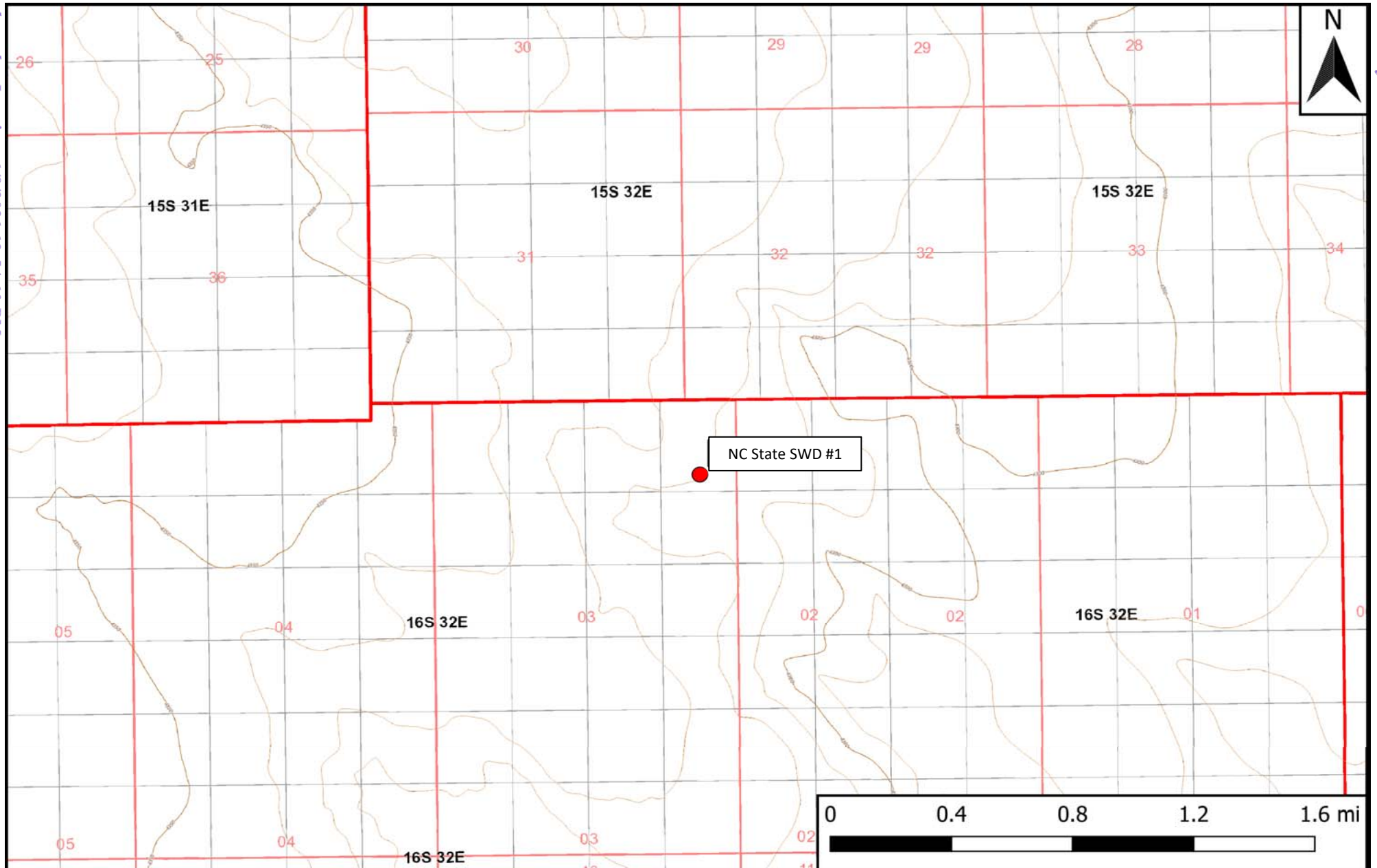
Suite 117

Hobbs, NM 88240

(Electronic Submission)

Figure 1

Topographic Map



Legend:

● Site Location

Figure 1
Topographic Map
Endeavor Energy Resources, LP
NC State SWD #1
GPS: 32.9624, -103.74775
Lea County

eTECH
Environmental & Safety Solutions, Inc.

Drafted: mag Checked: jwl Date: 12/3/19

Figure 2

Aerial Proximity Map



Legend:

- Site Location
- Well - USGS
- Well - NMOSSE
- Half Mile Radius

Figure 2
Aerial Map
Endeavor Energy Resources, LP
NC State SWD #1
GPS: 32.9624, -103.74775
Lea County



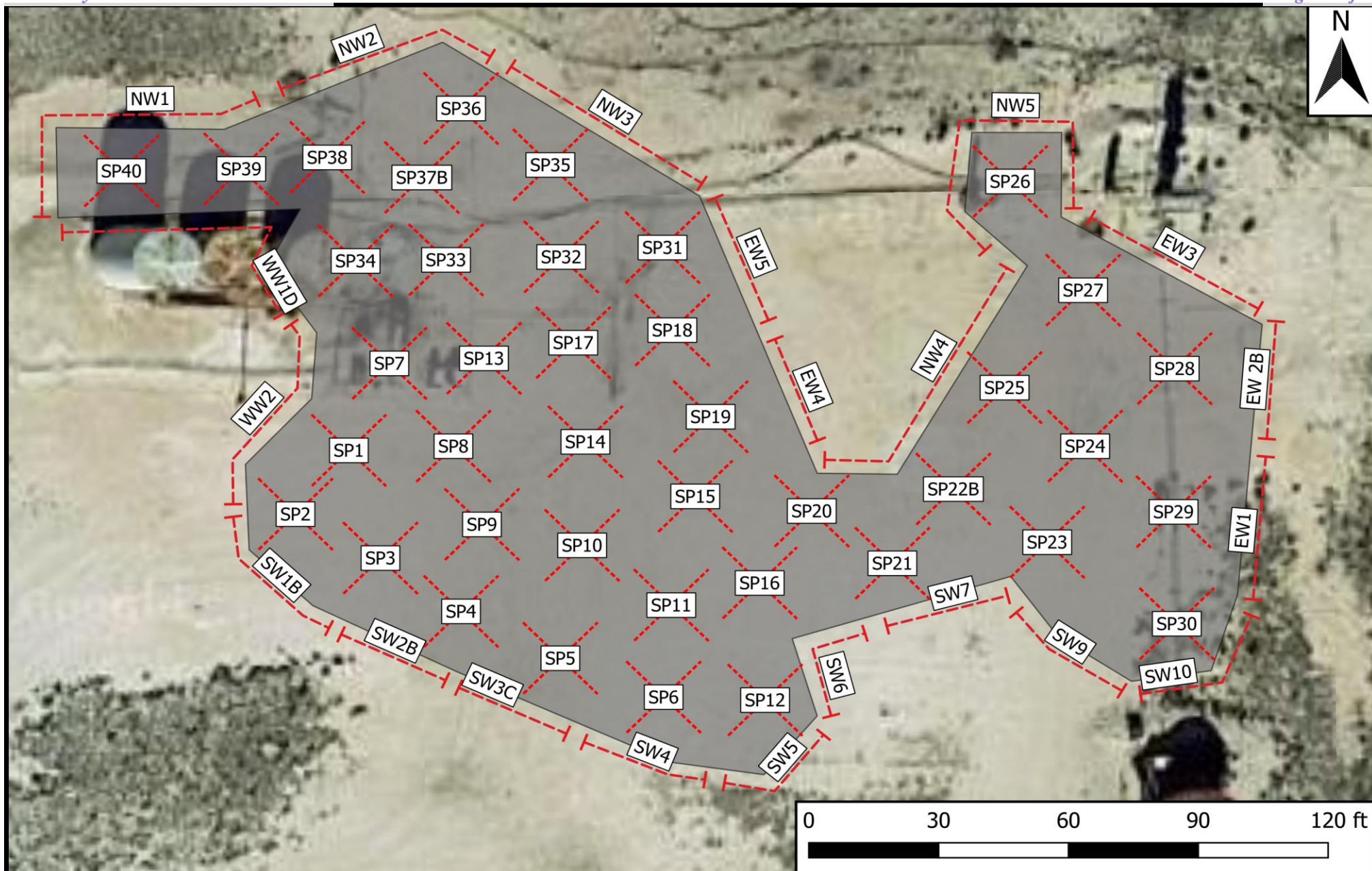
Drafted: mag

Checked: jwl

Date: 12/3/19

Figure 3

Site and Sample Location Map



Legend

- X Floor Sample
- H Wall Sample
- Excavated Area

Figure 3

Site and Sample Location Map
 Endeavor Energy Resources, LP
 NC State SWD #1
 GPS: 32.9624, -103.74775
 Lea County



Drafted: mag

Checked: jwl

Date: 9/1/20

Table 1
Concentrations of BTEX, TPH, and/or Chloride in Soil

TABLE 1
CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN SOIL
Endeavor Energy Resources, LP
NC State SWD #1
NMOCD Ref. #: nRM2008661323

NMOCD Closure Criteria				10	50	-	-	1000	-	2500	20000
NMOCD Reclamation Standard				10	50	-	-	-	-	100	600
Sample ID	Date	Depth	Soil Status	SW 846 8021B		SW 846 8015M Ext.					4500 Cl
				Benzene (mg/kg)	BTEX (mg/kg)	GRO C ₆ -C ₁₀ (mg/kg)	DRO C ₁₀ -C ₂₈ (mg/kg)	GRO + DRO C ₆ -C ₂₈ (mg/kg)	ORO C ₂₈ -C ₃₆ (mg/kg)	TPH C ₆ -C ₃₆ (mg/kg)	Chloride (mg/kg)
SP2	11/18/2019	Surf	Excavated	<0.002	0.00800	<50	58.4	58.4	<50	58.4	28,200
SP2	11/18/2019	1'	In-Situ	<50.0	<0.001	<50	<50	<50	<50	<50	4,410
SP3	11/18/2019	Surf	Excavated	<0.002	<0.002	<50	152	152	<50	152	31,100
SP3	11/18/2019	1'	In-Situ	<0.002	<0.002	<50	<50	<50	<50	<30.0	2,010
SP4	11/18/2019	Surf	Excavated	<0.002	0.00700	<50	132	132	<50	132	28,200
SP4	11/18/2019	1'	In-Situ	<0.002	<0.002	<50	<50	<50	<50	<50	4,870
SP5	11/18/2019	Surf	Excavated	<0.002	0.00700	<50	148	148	50.4	198	24,800
SP5	11/18/2019	2'	In-Situ	<0.002	0.00700	<50	<50	<50	<50	<50	1,280
SP6	11/18/2019	Surf	Excavated	<0.002	<0.002	<50	152	152	<50	152	32,000
SP6	11/18/2019	1'	In-Situ	<0.002	<0.002	<50	<50	<50	<50	<50	16.1
SH1	11/18/2019	Surf	In-Situ	<0.001	<0.001	<50	<50	<50	<50	<50	1,490
SH1	11/18/2019	1'	In-Situ	<0.001	<0.001	<50	<50	<50	<50	<50	144
SH2	11/18/2019	Surf	In-Situ	<0.001	<0.001	<50	<50	<50	<50	<50	377
SH2	11/18/2019	1'	In-Situ	<0.001	<0.001	<50	<50	<50	<50	<50	1,870
EH1	11/18/2019	Surf	In-Situ	<0.001	<0.001	<50	<50	<50	<50	<50	8.80
EH1	11/18/2019	1'	In-Situ	<0.001	<0.001	<50	<50	<50	<50	<50	11.1
EH2	11/18/2019	Surf	In-Situ	<0.001	<0.001	<50	<50	<50	<50	<50	13.4
EH2	11/18/2019	1'	In-Situ	<0.001	<0.001	<50	<50	<50	<50	<50	12.2
WH1	11/18/2019	Surf	In-Situ	<0.001	<0.001	<50	<50	<50	<50	<50	20.4
WH1	11/18/2019	1'	In-Situ	<0.001	<0.001	<50	<50	<50	<50	<50	13.4
WH2	11/18/2019	Surf	In-Situ	<0.001	<0.001	<50	<50	<50	<50	<50	392
WH2	11/18/2019	1'	In-Situ	<0.001	<0.001	<50	<50	<50	<50	<50	20.0
NH1	11/18/2019	Surf	In-Situ	<0.001	<0.001	<50	<50	<50	<50	<50	10.0
NH1	11/18/2019	1'	In-Situ	<0.001	<0.001	<50	<50	<50	<50	<50	14.3
NH2	11/18/2019	Surf	In-Situ	<0.001	<0.001	<50	<50	<50	<50	<50	15.1
NH2	11/18/2019	1'	In-Situ	<0.001	<0.001	<50	<50	<50	<50	<50	18.8
WW1d	8/5/2020	N/A	In-Situ	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	<49.8	350
WW2	8/5/2020	N/A	In-Situ	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	208
SW2b	8/5/2020	N/A	In-Situ	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	230
SW3c	8/5/2020	N/A	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	312
SP1 @ 1'	8/5/2020	1'	In-Situ	<0.00201	<0.00201	<50.0	51.6	51.6	<50.0	51.6	809
SP2 @ 1'	8/5/2020	1'	In-Situ	<0.00199	<0.00199	<49.9	161	161	<49.9	161	247
SP3 @ 6"	8/5/2020	6"	In-Situ	<0.00198	<0.00198	74.7	<49.8	74.7	<49.8	74.7	58.2
SP4 @ 6"	8/5/2020	6"	In-Situ	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	2,010
SP5 @ 6"	8/5/2020	6"	In-Situ	<0.00199	<0.00199	<49.8	<49.8	<49.8	<49.8	<49.8	149
SP6 @ 6"	8/5/2020	6"	In-Situ	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	120
SP7 @ 6"	8/5/2020	6"	In-Situ	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	1,540
SP8 @ 6"	8/5/2020	6"	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	685
SP9 @ 6"	8/5/2020	6"	In-Situ	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	877
SP10 @ 6"	8/5/2020	6"	In-Situ	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	1,250
SP11 @ 6"	8/5/2020	6"	In-Situ	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	2,820

NOTES:

- = Sample not analyzed for that constituent.

Bold text denotes a concentration that exceeds the NMOCD Closure Criteria

TABLE 1
CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN SOIL
Endeavor Energy Resources, LP
NC State SWD #1
NMOCD Ref. #: nRM2008661323

NMOCD Closure Criteria				10	50	-	-	1000	-	2500	20000
NMOCD Reclamation Standard				10	50	-	-	-	-	100	600
Sample ID	Date	Depth	Soil Status	SW 846 8021B		SW 846 8015M Ext.					4500 Cl
				Benzene (mg/kg)	BTEX (mg/kg)	GRO C ₆ -C ₁₀ (mg/kg)	DRO C ₁₀ -C ₂₈ (mg/kg)	GRO + DRO C ₆ -C ₂₈ (mg/kg)	ORO C ₂₈ -C ₃₆ (mg/kg)	TPH C ₆ -C ₃₆ (mg/kg)	Chloride (mg/kg)
SP12 @ 6"	8/5/2020	6"	In-Situ	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	35.7
SP13 @ 6"	8/5/2020	6"	In-Situ	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	<49.8	3,200
SP14 @ 6"	8/5/2020	6"	In-Situ	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	2,160
SP15 @ 6"	8/10/2020	6"	In-Situ	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	2,030
SP16 @ 6"	8/10/2020	6"	In-Situ	0.00380	0.0158	<50.0	<50.0	<50.0	<50.0	<50.0	4,460
SP17 @ 6"	8/10/2020	6"	In-Situ	<0.00199	0.00472	<50.0	<50.0	<50.0	<50.0	<50.0	1,450
SP18 @ 6"	8/10/2020	6"	In-Situ	<0.00201	0.00218	<49.9	<49.9	<49.9	<49.9	<49.9	8,380
SP19 @ 6"	8/10/2020	6"	In-Situ	<0.00202	<0.00202	<49.8	167	167	<49.8	167	4,770
SP20 @ 6"	8/10/2020	6"	In-Situ	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	4,110
SW1b	8/10/2020		In-Situ	0.00325	0.00953	<49.8	427	427	122	549	1,270
SW4	8/10/2020		In-Situ	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<49.9	681
SW5	8/10/2020		In-Situ	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	916
SW6	8/10/2020		In-Situ	<0.00200	0.00223	<50.0	<50.0	<50.0	<50.0	<50.0	2,790
SW7	8/10/2020		In-Situ	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	<49.9	2,450
SP21 @ 6"	8/11/2020	6"	In-Situ	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	27.3
SP22 @ 6"	8/11/2020	6"	Excavated	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	54,500
SP23 @ 6"	8/11/2020	6"	In-Situ	<0.00201	<0.00201	<49.8	<49.8	<49.8	<49.8	<49.8	111
SP24 @ 6"	8/11/2020	6"	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	46.1
SP25 @ 6"	8/11/2020	6"	In-Situ	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	<49.9	141
SP26 @ 6"	8/11/2020	6"	In-Situ	<0.00200	<0.00200	<49.8	66.8	66.8	<49.8	66.8	1,710
SP27 @ 6"	8/11/2020	6"	In-Situ	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	4,310
SP28 @ 6"	8/11/2020	6"	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	440
SW9	8/11/2020	N/A	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	733
SW10	8/12/2020	N/A	In-Situ	<0.00199	<0.00199	<49.9	770	770	336	1,110	3,130
SP29	8/12/2020	N/A	In-Situ	<0.00200	<0.00200	<50.0	70.1	70.1	<50.0	70.1	623
SP30	8/12/2020	N/A	In-Situ	<0.00200	<0.00200	<49.8	302	302	118	420	3,680
SP31	8/12/2020	N/A	In-Situ	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	5,540
SP32	8/12/2020	N/A	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	<49.9	8,670
SP33	8/12/2020	N/A	In-Situ	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	<49.8	15,900
SP34	8/12/2020	N/A	In-Situ	<0.00199	<0.00199	<50.0	614	614	378	992	5,360
SP35	8/12/2020	N/A	In-Situ	<0.00199	<0.00199	<49.9	533	533	263	796	16,200
SP36	8/12/2020	N/A	In-Situ	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	<49.9	24.2
SP37	8/12/2020	N/A	Excavated	<0.00200	<0.00200	<50.0	1,140	1,140	413	1,550	7,100
SP38	8/12/2020	N/A	In-Situ	<0.00200	<0.00200	<50.0	57.0	57.0	<50.0	57.0	15,900
SP39	8/12/2020	N/A	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	<50.0	4,090
SP40	8/12/2020	N/A	In-Situ	<0.00201	<0.00201	<49.9	54.2	54.2	<49.9	54.2	4,700
EW #1	8/12/2020	N/A	In-Situ	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	<50.0	1,800
EW #2	8/12/2020	N/A	In-Situ	<0.00198	<0.00198	<49.9	447	447	196	643	1,010
EW #3	8/12/2020	N/A	In-Situ	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	1,410
EW #4	8/12/2020	N/A	In-Situ	<0.00199	<0.00199	<50.0	74.2	74.2	<50.0	74.2	2,510
EW #5	8/12/2020	N/A	In-Situ	<0.00202	<0.00202	<50.0	<50.0	<50.0	<50.0	<50.0	5,230

NOTES:

- = Sample not analyzed for that constituent.

Bold text denotes a concentration that exceeds the NMOCD Closure Criteria

TABLE 1
CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN SOIL
Endeavor Energy Resources, LP
NC State SWD #1
NMOCD Ref. #: nRM2008661323

NMOCD Closure Criteria				10	50	-	-	1000	-	2500	20000
NMOCD Reclamation Standard				10	50	-	-	-	-	100	600
Sample ID	Date	Depth	Soil Status	SW 846 8021B		SW 846 8015M Ext.					4500 Cl
				Benzene (mg/kg)	BTEX (mg/kg)	GRO C ₆ -C ₁₀ (mg/kg)	DRO C ₁₀ -C ₂₈ (mg/kg)	GRO + DRO C ₆ -C ₂₈ (mg/kg)	ORO C ₂₈ -C ₃₆ (mg/kg)	TPH C ₆ -C ₃₆ (mg/kg)	Chloride (mg/kg)
NW1	8/13/2020	N/A	In-Situ	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	1,970
NW2	8/13/2020	N/A	In-Situ	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	<50.0	23.8
NW3	8/13/2020	N/A	In-Situ	<0.00199	0.00707	<49.9	<49.9	<49.9	<49.9	<49.9	58.3
NW4	8/13/2020	N/A	In-Situ	<0.00200	0.00294	<49.9	<49.9	<49.9	<49.9	<49.9	3,900
NW5	8/13/2020	N/A	In-Situ	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	<50.0	1,160
EW 2B	8/13/2020	N/A	In-Situ	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	<49.8	50.0
SP22B@1'	8/19/2020	1'	In-Situ	-	-	-	-	-	-	-	461
SP37B@1'	8/19/2020	1'	In-Situ	-	-	<49.8	<49.8	<49.8	<49.8	<49.8	-

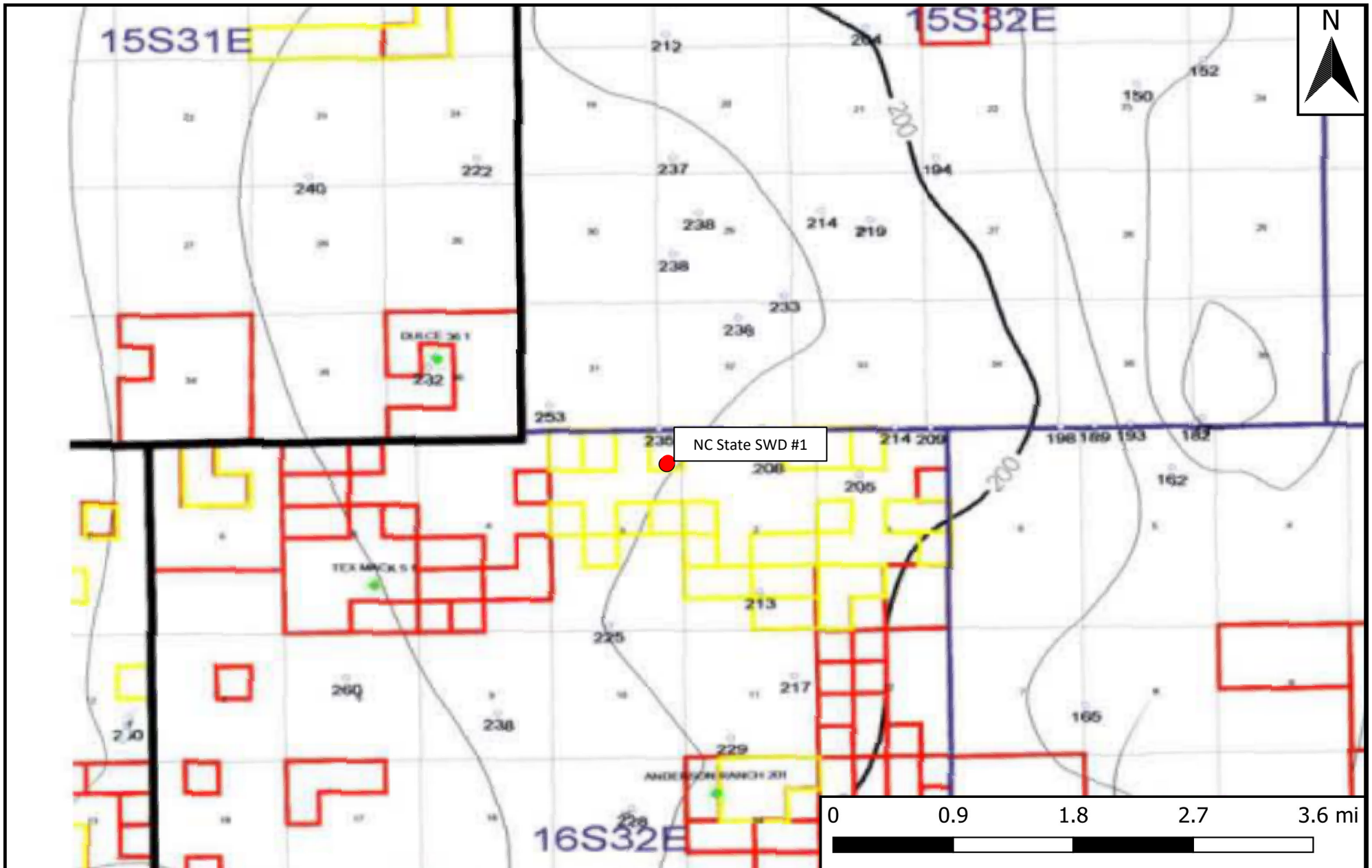
NOTES:

- = Sample not analyzed for that constituent.

Bold text denotes a concentration that exceeds the NMOCD Closure Criteria

Appendix A

Depth to Groundwater Information



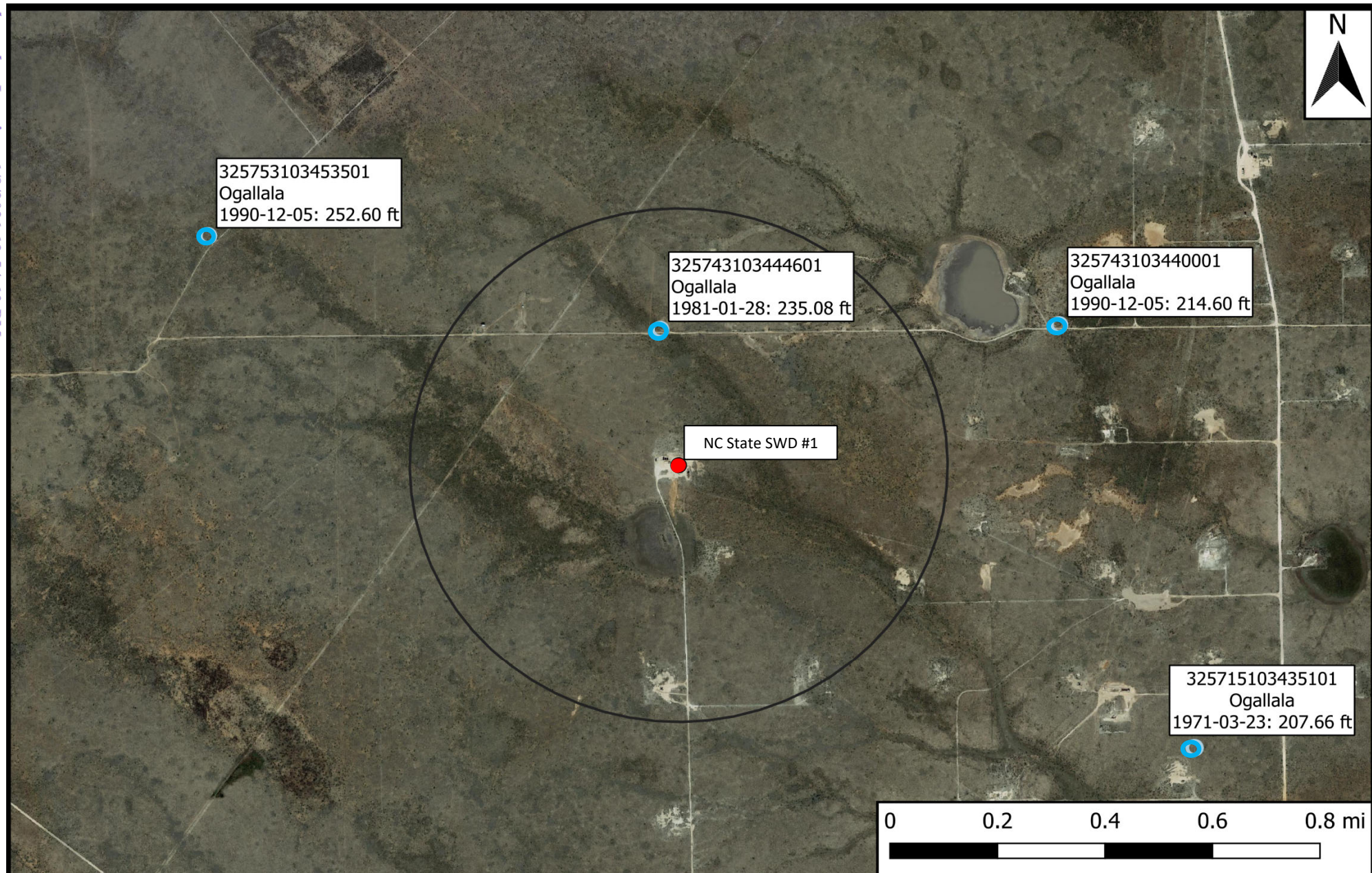
Legend:

● Site Location

Figure 4
 Inferred Depth to Groundwater Trend Map
 Endeavor Energy Resources, LP
 NC State SWD #1
 GPS: 32.9624, -103.74775
 Lea County

eTECH
 Environmental & Safety Solutions, Inc.

Drafted: mag Checked: jwl Date: 12/5/19



Legend:

- Site Location
- USGS Water Well

Figure 5
USGS Well Proximity Map
Endeavor Energy Resources, LP
NC State SWD #1
GPS: 32.9624, -103.74775
Lea County



Drafted: mag

Checked: jwl

Date: 12/5/19



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	Water Column
L 04918 POD16		L	LE	3	3	3	32	15S	32E	616978	3648237	426	330	224	106
L 04918 POD16	R	L	LE	3	3	3	32	15S	32E	616978	3648237	426	330	224	106
L 04918 POD31		L	LE	3	3	3	32	15S	32E	616984	3648240	429	340	244	96
L 04918 POD17		L	LE	3	4	3	32	15S	32E	617451	3648328*	661	325	205	120
L 03853 X	R	L	LE	3	4	4	31	15S	32E	616571	3648341	700	305	260	45
L 03853 POD2		L	ED	3	4	4	31	15S	32E	616570	3648340	700	342	248	94

Average Depth to Water: **234 feet**

Minimum Depth: **205 feet**

Maximum Depth: **260 feet**

Record Count: 6

UTMNAD83 Radius Search (in meters):

Easting (X): 617033.4

Northing (Y): 3647814.54

Radius: 804.67

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

11/12/19 9:58 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER



New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
L	03853 POD2	3	4	4	31	15S	32E	616570	3648340

x

Driller License: 1472 **Driller Company:** HYDROGEOLOGIC SERVICES, INC.

Driller Name: DENNISSON, RONNIE

Drill Start Date: 12/18/2013

Drill Finish Date: 12/31/2013

Plug Date:

Log File Date: 02/04/2014

PCW Rcv Date: 04/15/2015

Source: Shallow

Pump Type:

Pipe Discharge Size:

Estimated Yield: 20 GPM

Casing Size: 17.25

Depth Well: 342 feet

Depth Water: 248 feet

x

Water Bearing Stratifications:

Top Bottom Description

84 332 Sandstone/Gravel/Conglomerate

x

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11/12/19 10:04 AM

POINT OF DIVERSION SUMMARY



New Mexico Office of the State Engineer

Point of Diversion Summary

		(quarters are 1=NW 2=NE 3=SW 4=SE)							
		(quarters are smallest to largest)						(NAD83 UTM in meters)	
Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
L	03853 X	3	4	4	31	15S	32E	616571	3648341 

x

Driller License: 353 **Driller Company:** OSBOURN DRILLING & PUMP CO.

Driller Name: F.M. OSBOURN

Drill Start Date:	01/15/1965	Drill Finish Date:	02/01/1965	Plug Date:	
Log File Date:	02/08/1965	PCW Rcv Date:	03/30/1965	Source:	Shallow
Pump Type:	TURBIN	Pipe Discharge Size:		Estimated Yield:	110 GPM
Casing Size:	8.63	Depth Well:	305 feet	Depth Water:	260 feet

x

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11/12/19 10:04 AM

POINT OF DIVERSION SUMMARY



New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
L	04918 POD16	3	3	3	32	15S	32E	616978	3648237

x

Driller License: 111 **Driller Company:** BURKE, EDWARD B.

Driller Name: EDWARD B. BURKE

Drill Start Date: 04/27/1965	Drill Finish Date: 04/30/1965	Plug Date:
Log File Date: 05/07/1965	PCW Rcv Date: 05/28/1965	Source: Shallow
Pump Type: TURBIN	Pipe Discharge Size:	Estimated Yield: 160 GPM
Casing Size: 8.63	Depth Well: 330 feet	Depth Water: 224 feet

x

Water Bearing Stratifications:	Top	Bottom	Description
	224	275	Sandstone/Gravel/Conglomerate
	292	301	Sandstone/Gravel/Conglomerate
	301	314	Sandstone/Gravel/Conglomerate
	314	321	Sandstone/Gravel/Conglomerate

x

Casing Perforations:	Top	Bottom
	220	325

x

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11/12/19 10:04 AM

POINT OF DIVERSION SUMMARY



New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
L	04918 POD17	3	4	3	32	15S	32E	617451	3648328*

x

Driller License: 111 **Driller Company:** BURKE, EDWARD B.

Driller Name: EDWARD B. BURKE

Drill Start Date:	05/06/1965	Drill Finish Date:	05/11/1965	Plug Date:	
Log File Date:	05/19/1965	PCW Rcv Date:	05/28/1965	Source:	Shallow
Pump Type:	TURBIN	Pipe Discharge Size:		Estimated Yield:	170 GPM
Casing Size:	8.63	Depth Well:	325 feet	Depth Water:	205 feet

x

Water Bearing Stratifications:	Top	Bottom	Description
	205	256	Sandstone/Gravel/Conglomerate
	271	302	Sandstone/Gravel/Conglomerate
	302	309	Sandstone/Gravel/Conglomerate
	309	321	Sandstone/Gravel/Conglomerate

x

Casing Perforations:	Top	Bottom
	213	321

x

*UTM location was derived from PLSS - see Help

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11/12/19 10:04 AM

POINT OF DIVERSION SUMMARY



New Mexico Office of the State Engineer

Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
L	04918 POD31	3	3	3	32	15S	32E	616984	3648240

x

Driller License: 1472 **Driller Company:** HYDROGEOLOGIC SERVICES, INC.

Driller Name: WHALEY, BILL W.

Drill Start Date: 12/10/2013

Drill Finish Date: 12/21/2013

Plug Date:

Log File Date: 02/04/2014

PCW Rcv Date:

Source: Shallow

Pump Type:

Pipe Discharge Size:

Estimated Yield: 35 GPM

Casing Size: 17.25

Depth Well: 340 feet

Depth Water: 244 feet

x

Water Bearing Stratifications:

Top Bottom Description

258 330 Sandstone/Gravel/Conglomerate

x

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11/12/19 10:04 AM

POINT OF DIVERSION SUMMARY



National Water Information System: Web Interface

USGS Water Resources

Data Category:
Groundwater

Geographic Area:
United States

GO

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- Introducing The Next Generation of USGS Water Data for the Nation
- Full News

Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs
site_no list =

- 325715103435101

Minimum number of levels = 1
[Save file of selected sites](#) to local disk for future upload

USGS 325715103435101 16S.32E.02.21431

Available data for this site

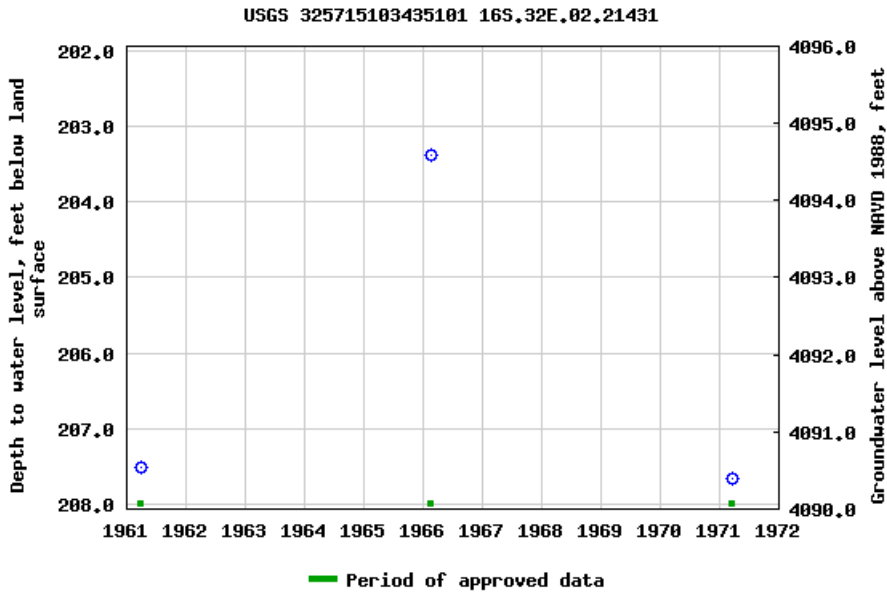
Groundwater: Field measurements

GO

Lea County, New Mexico
Hydrologic Unit Code 13070007
Latitude 32°57'15", Longitude 103°43'51" NAD27
Land-surface elevation 4,298 feet above NAVD88
The depth of the well is 315 feet below land surface.
This well is completed in the Ogallala Formation (121OGLL) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



Breaks in the plot represent a gap of at least one year between field measurements.

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Title: Groundwater for USA: Water Levels

URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>



Page Contact Information: [USGS Water Data Support Team](#)

Page Last Modified: 2019-11-12 11:49:46 EST

0.53 0.44 nadww02



National Water Information System: Web Interface

USGS Water Resources

Data Category:

Groundwater

Geographic Area:

United States

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- [Full News](#) 

Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs
site_no list =

- 325743103440001

Minimum number of levels = 1
[Save file of selected sites](#) to local disk for future upload

USGS 325743103440001 15S.32E.32.44333

Available data for this site

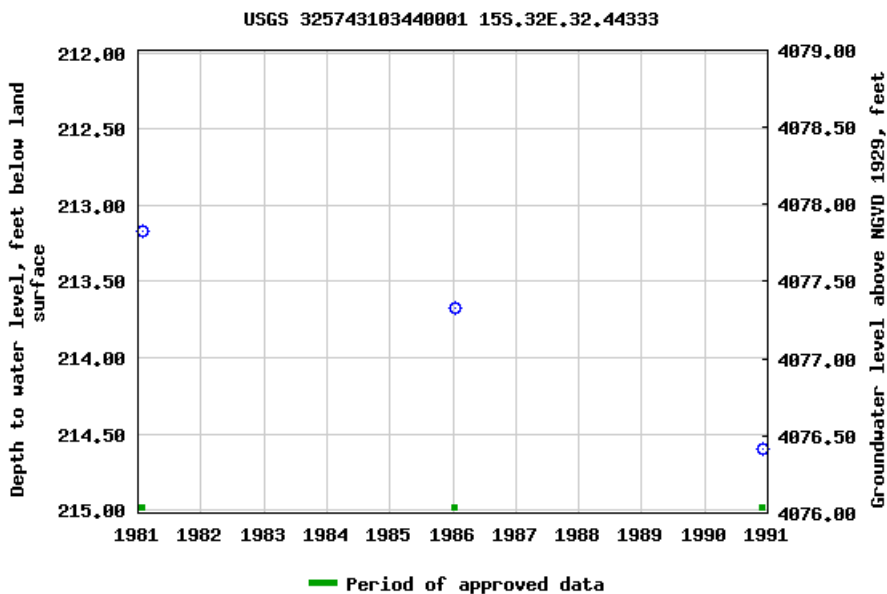
Groundwater: Field measurements

GO

Lea County, New Mexico
Hydrologic Unit Code 12080003
Latitude 32°57'58", Longitude 103°44'06" NAD27
Land-surface elevation 4,291.00 feet above NGVD29
The depth of the well is 323 feet below land surface.
This well is completed in the Ogallala Formation (121OGLL) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



Breaks in the plot represent a gap of at least one year between field measurements.

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Title: Groundwater for USA: Water Levels

URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>



Page Contact Information: [USGS Water Data Support Team](#)

Page Last Modified: 2019-11-12 11:49:47 EST

0.53 0.44 nadww02



National Water Information System: Web Interface

USGS Water Resources

Data Category:
Groundwater

Geographic Area:
United States

GO

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Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs
site_no list =

- 325743103444601

Minimum number of levels = 1
[Save file of selected sites](#) to local disk for future upload

USGS 325743103444601 15S.32E.32.333333

Available data for this site

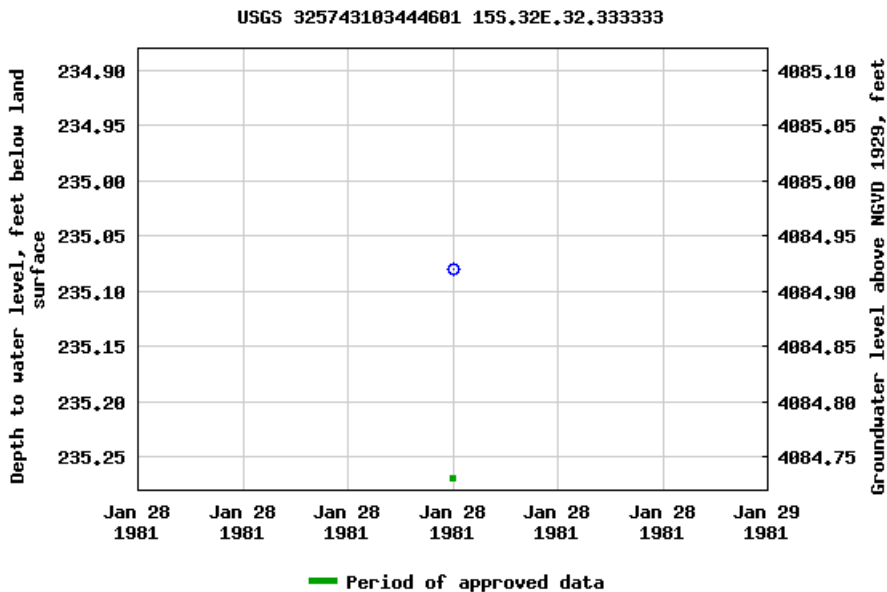
Groundwater: Field measurements

GO

Lea County, New Mexico
Hydrologic Unit Code 12080003
Latitude 32°57'58", Longitude 103°44'52" NAD27
Land-surface elevation 4,320.00 feet above NGVD29
The depth of the well is 330 feet below land surface.
This well is completed in the Ogallala Formation (121OGLL) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



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Title: Groundwater for USA: Water Levels

URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>



Page Contact Information: [USGS Water Data Support Team](#)

Page Last Modified: 2019-11-12 11:49:47 EST

0.52 0.47 nadww02



National Water Information System: Web Interface

USGS Water Resources

Data Category:
Groundwater

Geographic Area:
United States

GO

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Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs
site_no list =

- 325753103453501

Minimum number of levels = 1
[Save file of selected sites](#) to local disk for future upload

USGS 325753103453501 15S.32E.31.332234

Available data for this site

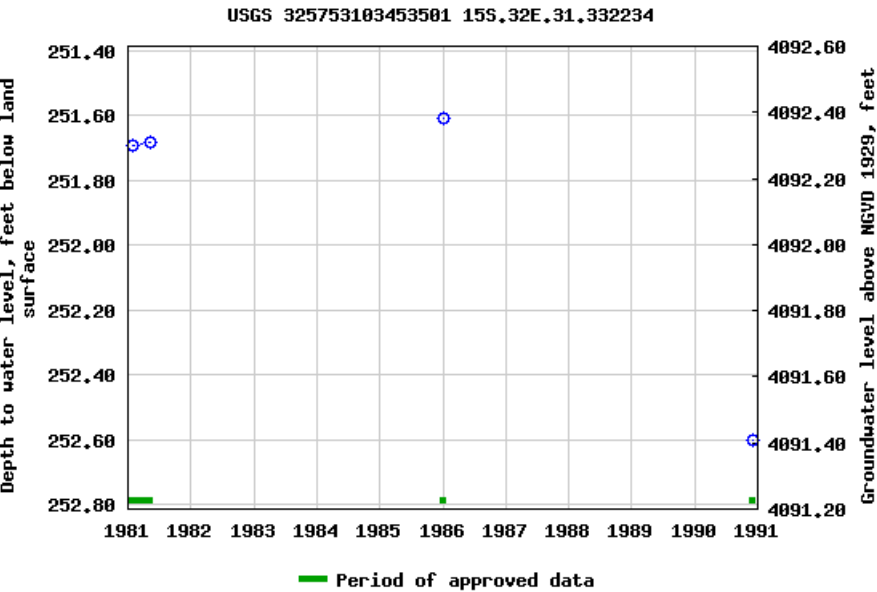
Groundwater: Field measurements

GO

Lea County, New Mexico
Hydrologic Unit Code 12080003
Latitude 32°58'08", Longitude 103°45'44" NAD27
Land-surface elevation 4,344.00 feet above NGVD29
The depth of the well is 345 feet below land surface.
This well is completed in the Ogallala Formation (121OGLL) local aquifer.

Output formats

Table of data
Tab-separated data
Graph of data
Reselect period



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Title: Groundwater for USA: Water Levels

URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>



Page Contact Information: [USGS Water Data Support Team](#)

Page Last Modified: 2019-11-12 11:49:48 EST

0.52 0.44 nadww02

Appendix B

Field Data and Soil Profile Logs



Initial Release Assessment Form

Project: NC State SWD #1 Clean Up Level: 0
 Date: 11/18/19
 Project Number: 11503 Latitude: 32.9624 Longitude: -103.74775

Site Diagram

see attached photo for diagram

Notes: - Conduct Initial Release Assessment
 - Map Location
 - Collect Soil Sample for Delineation
 - Field Screen Soil Samples

~Length: ~Width: ~Area: ~Depth:

3-4 Representative Pictures of the Affected Area including sample locations?

Yes	No
☒	☐

Necessary Samples Field Screened and on Ice?

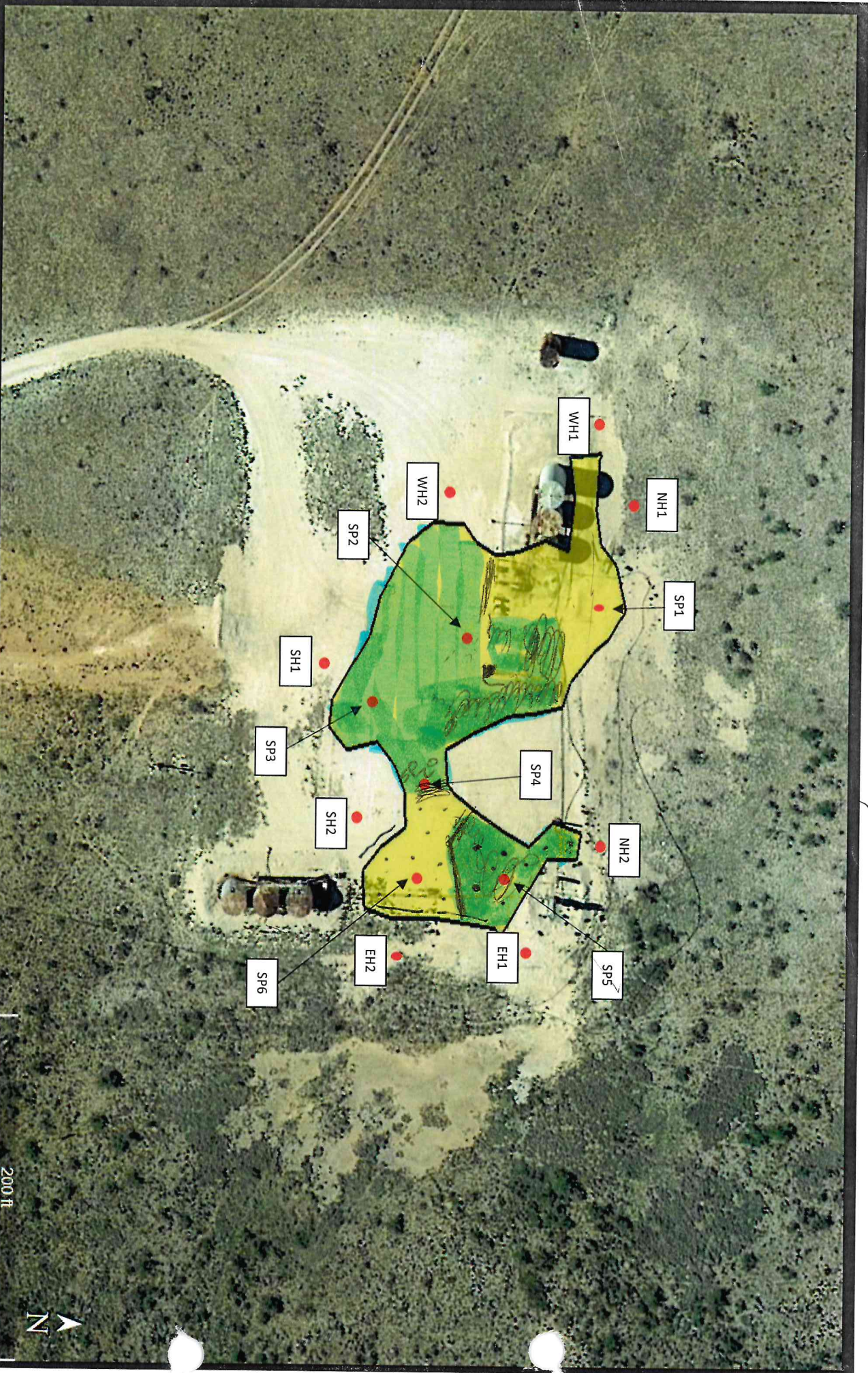
☒	☐
-------------------------------------	--------------------------

Sample and Field Screen Data Entered on Sample Log?

☒	☐
-------------------------------------	--------------------------

Was horizontal and vertical delineation achieved?

☒	☐
-------------------------------------	--------------------------



Sample Log

Date:

11-18-19

Project: NC State SWD #1

Project Number: 11503

Latitude: 32.9624

Longitude: -103.74775

Sample ID	PID/Odor	Chloride Conc.	GPS
SP 1 @ S ✓	None	2492	32.96265, -103.74769
SP 2 @ S ✓	None	2492	32.96265, -103.74769
SP 3 @ S ✓	Slight	2492	32.96265, -103.74769
SP 4 @ S ✓	None	2492	32.96265, -103.74769
SP 5 @ S ✓	Slight	2492	32.96265, -103.74769
SP 6 @ S ✓	Slight	2492	32.96265, -103.74769
SP 2 @ 1' ✓	None	2492	32.96265, -103.74769
SP 3 @ 1' ✓	"	1752	-
SP 4 @ 1' ✓	"	2492	-
SP 4 @ 2' ✓	"	1144	-
SP 2 @ 2' ✓	"	refusal	-
SP 3 @ 2' ✓	"	refusal	-
SP 5 @ 1' ✓	Slight	1524	-
SP 6 @ 1' ✓	-	6796	-
SH 2 @ S ✓	-	546	32.96229, -103.74765
SH 2 @ 1' ✓	-	180	-
SH 1 @ S ✓	-	396	32.96272, -103.74761
SH 1 @ 1' ✓	-	128	-
WH 2 @ S ✓	-	128	32.96236, -103.74817
WH 2 @ 1' ✓	-	128	-
NH 1 @ S ✓	-	128	32.96266, -103.74821
NH 1 @ 1' ✓	-	128	-
WH 1 @ S ✓	-	128	32.96266, -103.74835
WH 1 @ 1' ✓	-	128	-
NH 2 @ S ✓	-	128	32.96263, -103.74757
NH 2 @ 1' ✓	-	128	-
EH 1 @ S ✓	-	128	32.96751, -103.74737
EH 1 @ 1' ✓	-	128	-
EH 2 @ S ✓	-	128	32.96234, -103.74735
EH 2 @ 1' ✓	-	128	-

Sample Point = SP #1 @ ## etc

Floor = FL #1 etc

Sidewall = SW #1 etc

Test Trench = TT #1 @ ##

Refusal = SP #1 @ 4'-R

Soil Intended to be Deferred = SP #1 @ 4' In-Situ

Resamples = SP #1 @ 5b or SW #1b

Stockpile = Stockpile #1

GPS Sample Points, Center of Comp Areas



Soil Profile

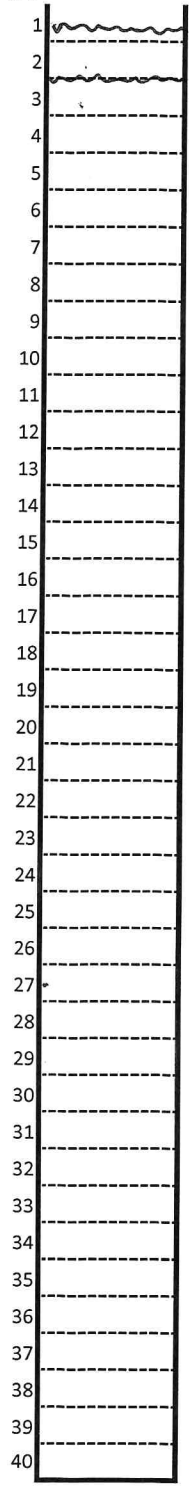
Date: 11.18.2019

Project: NC State SWD #1

Project Number: 11503 Latitude: 32.9624 Longitude: -103.74775

Depth (ft. bgs)

Description



0-6" Imported Fill
6-2' Brown Clayey Topsoil
2' Rock
To

Sample Log

Date:

8/5/20

Project: NC State SWD #1Project Number: 11503Latitude: 32.9624Longitude: -103.74775

Sample ID	PID/Odor	Chloride Conc.	GPS
SP#1 @ 6"	none	1064	
SP#2 @ 1"	none	860	
SP#3 @ 1	none	180	
SP#4 @ 6"	none	1692	
SP#5 @ 6"	none	184	
SP#6 @ 6"	none	184	
SP#7 @ 6"	none	1692	
SP#8 @ 6"	none	1216	
SP#9 @ 6"	none	1064	
SP#10 @ 6"	none	860	
SP#11 @ 6"	none	1764 High Strip	
SP#12 @ 6"	none	1432	
SP#13 @ 6"	none	1652	
SP#14 @ 6"	none	2584	
SP#15 @ 6"	none	2404	
SP#16 @ 6"	none	>2604	4176 High Strip
SP#17 @ 6"	none	none	
SP#18 @ 6"	none	>2404	
SP#19 @ 6"	none	>2404	
SP#20 @ 6"	none	>2404	
SP#21 @ 6"	none	676	
SP#22 @ 6"	none	>2584	
SP#23 @ 6"	none	1432	
SP#24 @ 6"	none	1776	
SP#25 @ 6"	none	>2508	
SP#26 @ 6"	none	1540	
SP#27 @ 6"	none	>2584	
SP#28 @ 6"	none	1540	
SP#29 @ 6"	none	1948	
SP#30 @ 6"	none	2404	
SP#31 @ 6"	none	4176 High Strip	
SP#32 @ 6"	none	9584 High Strip	
SP#33 @ 6"	none	15528 High Strip	
SP#34 @ 6"	none	6260 High Strip	
SP#35 @ 6"	none	14004 High Strip	
SP#36 @ 6"	none	4342	

Sample Point = SP #1 @ ## etc

Floor = FL #1 etc

Sidewall = SW #1 etc

Test Trench = TT #1 @ ##

Refusal = SP #1 @ 4'-R

Soil Intended to be Deferred = SP #1 @ 4' In-Situ

Resamples= SP #1 @ 5b or SW #1b

Stockpile = Stockpile #1

GPS Sample Points, Center of Comp Areas

Date:

8/12/20

Project Number: 11503

Latitude: 34.9624

Longitude: -103.74775

GPS Sample Points, Center of Comp Areas

Sample Log

Date:

8/5/20

Project: NC State Swd #1

Project Number: 11503

Latitude: 32.9629

Longitude: -103.74775

[illegible]

Sample Point = SP #1 @ ## etc

Floor = FL #1 etc

Sidewall = SW #1 etc

Test Trench = TT #1 @ ##

Refusal = SP #1 @ 4'-R

Soil Intended to be Deferred = SP #1 @ 4' In-Situ

Resamples= SP #1 @ 5b or SW #1b

Stockpile = Stockpile #1

GPS Sample Points, Center of Comp Areas

Remediation Log

Project: NC State SWD #1
 Project Number: 11503 Latitude: 32.9624 Longitude: -103.74775

Confirmation of Active One Call? One Call No. 203U240325

Confirmation of On-Site JSA?

Yes ☒ No ☐
 Yes ☒ No ☐

Date:

Notes

Yds

****Begin Remediation Activities****

Out

In

7/29/20	excavated Cont/soil on loc. 70 yds		
7/30/20	excavated Cont/soil on loc. 70 yds		
8/3/20	excavated Cont/soil on loc & stockpile 70 yds		
8/4/20	excavated & stock piled contaminated soil on location 70		
8/5/20	excavated & stock piled contaminated & loaded trucks	120	120
8/6/20	excavated & stock piled contaminated soil & loaded trucks	120	120
8/10/20	excavated & loaded TRKS with Contaminated Soil	80	80
8/11/20	excavated & loaded TRKS with Contaminated soil	120	120
8/12/20	Shovel contaminated soil from inside Tank Battery		
	Loaded TRK	40	40
8/13/20	Backfill Loc.		
8/17/20	Backfill Loc.		
8/18/20	Backfill & back drag Loc.		
8/19/20	Loaded Calichi at Elec. Calichipit on TRK		48
	Loaded 12 yards excavated Contaminated Soil on TRKS	12	
8/20/20	built berm around Tank Battery & finish back filling inside Tank Battery		

****Begin Backfill Activies****

****Complete Remediation Activities****

Total Yds

Out

In

~~492~~ 492 528

Yes ☒ No ☐
 Yes ☒ No ☐

Pictures of Open Excavation Prior to Backfill

Relevant Information in Project Tracker?

Appendix C

Laboratory Analytical Reports



Certificate of Analysis Summary 644197

Endeavor Energy, Midland, TX

Project Name: NC State SWD #1



Project Id: 11503
Contact: Lance Crenshaw
Project Location: Rural Lea County

Date Received in Lab: Fri Nov-22-19 11:10 am
Report Date: 26-NOV-19
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	644197-001	644197-002	644197-003	644197-004	644197-005	644197-006
	<i>Field Id:</i>	SP2 @ S	SP3 @ S	SP4 @ S	SP5 @ S	SP6 @ S	SP2 @ 1'
	<i>Depth:</i>						1- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Nov-18-19 08:20	Nov-18-19 08:25	Nov-18-19 08:30	Nov-18-19 08:35	Nov-18-19 08:45	Nov-18-19 08:50
BTEX by EPA 8021B	<i>Extracted:</i>	Nov-22-19 12:30	Nov-22-19 12:30	Nov-22-19 12:30	Nov-22-19 12:30	Nov-22-19 12:30	Nov-22-19 12:30
	<i>Analyzed:</i>	Nov-23-19 01:40	Nov-23-19 02:01	Nov-23-19 02:21	Nov-23-19 02:41	Nov-23-19 03:01	Nov-23-19 03:21
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198
Toluene		0.00533 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198
Ethylbenzene		0.00288 0.00201	<0.00202 0.00202	0.00290 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198
m,p-Xylenes		<0.00402 0.00402	<0.00403 0.00403	0.00434 0.00400	<0.00398 0.00398	<0.00399 0.00399	<0.00397 0.00397
o-Xylene		<0.00201 0.00201	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198
Total Xylenes		<0.00201 0.00201	<0.00202 0.00202	0.00434 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198
Total BTEX		0.00821 0.00201	<0.00202 0.00202	0.00724 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198
Chloride by EPA 300	<i>Extracted:</i>	Nov-22-19 15:45	Nov-22-19 15:45	Nov-22-19 15:45	Nov-22-19 15:45	Nov-22-19 15:45	Nov-22-19 15:45
	<i>Analyzed:</i>	Nov-22-19 20:23	Nov-22-19 20:30	Nov-22-19 20:37	Nov-22-19 20:43	Nov-22-19 21:03	Nov-22-19 21:10
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		28200 252	31100 249	28200 250	24800 252	32000 248	4410 24.8
TPH By SW8015 Mod	<i>Extracted:</i>	Nov-23-19 15:00	Nov-23-19 15:00	Nov-23-19 15:00	Nov-23-19 15:00	Nov-23-19 15:00	Nov-23-19 15:00
	<i>Analyzed:</i>	Nov-24-19 00:02	Nov-24-19 00:58	Nov-24-19 01:17	Nov-24-19 01:36	Nov-24-19 01:56	Nov-24-19 02:15
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<49.8 49.8	<49.9 49.9	<50.0 50.0	<49.8 49.8	<50.0 50.0
Diesel Range Organics (DRO)		58.4 50.0	152 49.8	132 49.9	148 50.0	152 49.8	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<49.8 49.8	<49.9 49.9	50.4 50.0	<49.8 49.8	<50.0 50.0
Total TPH		58.4 50.0	152 49.8	132 49.9	198 50.0	152 49.8	<50.0 50.0

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Version: 1.9%

Jessica Kramer

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 644197

Endeavor Energy, Midland, TX

Project Name: NC State SWD #1



Project Id: 11503
Contact: Lance Crenshaw
Project Location: Rural Lea County

Date Received in Lab: Fri Nov-22-19 11:10 am
Report Date: 26-NOV-19
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	644197-007	644197-008	644197-009	644197-010	644197-011	644197-012
	<i>Field Id:</i>	SP3 @ 1'	SP4 @ 1'	SP5 @ 2'	SP6 @ 1'	SP6 @ 1'	SH2 @ S
	<i>Depth:</i>	1- ft	1- ft	2- ft	1- ft	1- ft	
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Nov-18-19 08:55	Nov-18-19 09:05	Nov-18-19 09:10	Nov-18-19 09:20	Nov-18-19 09:30	Nov-18-19 09:40
BTEX by EPA 8021B	<i>Extracted:</i>	Nov-22-19 12:30	Nov-22-19 12:30	Nov-22-19 12:30	Nov-22-19 12:30	Nov-22-19 12:30	Nov-22-19 12:30
	<i>Analyzed:</i>	Nov-23-19 03:41	Nov-23-19 04:01	Nov-23-19 04:22	Nov-23-19 04:42	Nov-23-19 06:00	Nov-23-19 06:20
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00201 0.00201
Toluene		<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00201 0.00201
Ethylbenzene		<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00201 0.00201
m,p-Xylenes		<0.00402 0.00402	<0.00399 0.00399	<0.00400 0.00400	<0.00403 0.00403	<0.00398 0.00398	<0.00402 0.00402
o-Xylene		<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00201 0.00201
Total Xylenes		<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00201 0.00201
Total BTEX		<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00201 0.00201
Chloride by EPA 300	<i>Extracted:</i>	Nov-22-19 15:45	Nov-22-19 15:45	Nov-22-19 15:45	Nov-22-19 15:45	Nov-22-19 15:45	Nov-22-19 15:45
	<i>Analyzed:</i>	Nov-22-19 21:17	Nov-22-19 21:23	Nov-22-19 21:30	Nov-22-19 22:56	Nov-22-19 23:03	Nov-22-19 21:37
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		2010 24.8	4870 24.8	1280 24.9	16.1 5.04	15.1 5.05	377 5.00
TPH By SW8015 Mod	<i>Extracted:</i>	Nov-23-19 15:00	Nov-23-19 15:00	Nov-23-19 15:00	Nov-23-19 15:00	Nov-23-19 15:00	Nov-23-19 15:00
	<i>Analyzed:</i>	Nov-24-19 02:34	Nov-24-19 02:53	Nov-24-19 03:12	Nov-24-19 03:31	Nov-24-19 03:51	Nov-24-19 04:10
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<49.9 49.9	<49.9 49.9	<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.8 49.8
Diesel Range Organics (DRO)		<49.9 49.9	<49.9 49.9	<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.8 49.8
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<49.9 49.9	<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.8 49.8
Total TPH		<49.9 49.9	<49.9 49.9	<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.8 49.8

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Version: 1.9%

Jessica Kramer

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 644197

Endeavor Energy, Midland, TX

Project Name: NC State SWD #1



Project Id: 11503
Contact: Lance Crenshaw
Project Location: Rural Lea County

Date Received in Lab: Fri Nov-22-19 11:10 am
Report Date: 26-NOV-19
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	644197-013	644197-014	644197-015	644197-016	644197-017	644197-018
	<i>Field Id:</i>	SH2 @ 1'	SH1 @ S	SH1 @1'	WH2@ S	WH2 @ 1'	NH1@ S
	<i>Depth:</i>	1- ft		1- ft		1- ft	
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Nov-18-19 09:50	Nov-18-19 09:50	Nov-18-19 10:00	Nov-18-19 10:10	Nov-18-19 10:15	Nov-18-19 10:20
BTEX by EPA 8021B	<i>Extracted:</i>	Nov-22-19 12:30	Nov-22-19 12:30	Nov-22-19 12:30	Nov-22-19 12:30	Nov-22-19 12:30	Nov-22-19 12:30
	<i>Analyzed:</i>	Nov-23-19 06:40	Nov-23-19 07:01	Nov-23-19 07:21	Nov-23-19 07:41	Nov-23-19 08:01	Nov-23-19 08:21
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00198 0.00198	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199
Toluene		<0.00198 0.00198	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199
Ethylbenzene		<0.00198 0.00198	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199
m,p-Xylenes		<0.00397 0.00397	<0.00398 0.00398	<0.00398 0.00398	<0.00399 0.00399	<0.00398 0.00398	<0.00398 0.00398
o-Xylene		<0.00198 0.00198	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199
Total Xylenes		<0.00198 0.00198	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199
Total BTEX		<0.00198 0.00198	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199
Chloride by EPA 300	<i>Extracted:</i>	Nov-22-19 15:45	Nov-22-19 15:45	Nov-22-19 15:45	Nov-22-19 15:45	Nov-22-19 15:45	Nov-22-19 15:45
	<i>Analyzed:</i>	Nov-22-19 21:57	Nov-22-19 22:03	Nov-22-19 22:23	Nov-22-19 22:30	Nov-22-19 22:36	Nov-22-19 22:43
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		1870 25.0	1490 5.00	144 5.02	392 4.96	20.1 4.97	10.8 4.95
TPH By SW8015 Mod	<i>Extracted:</i>	Nov-23-19 15:00	Nov-23-19 15:00	Nov-23-19 15:00	Nov-23-19 15:00	Nov-23-19 15:00	Nov-23-19 15:00
	<i>Analyzed:</i>	Nov-24-19 04:29	Nov-24-19 04:48	Nov-24-19 05:07	Nov-24-19 05:26	Nov-24-19 05:45	Nov-24-19 06:05
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<49.9 49.9	<49.8 49.8	<50.0 50.0	<49.9 49.9	<49.9 49.9
Diesel Range Organics (DRO)		<50.0 50.0	<49.9 49.9	<49.8 49.8	<50.0 50.0	<49.9 49.9	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<49.9 49.9	<49.8 49.8	<50.0 50.0	<49.9 49.9	<49.9 49.9
Total TPH		<50.0 50.0	<49.9 49.9	<49.8 49.8	<50.0 50.0	<49.9 49.9	<49.9 49.9

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Jessica Kramer

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 644197

Endeavor Energy, Midland, TX

Project Name: NC State SWD #1



Project Id: 11503
Contact: Lance Crenshaw
Project Location: Rural Lea County

Date Received in Lab: Fri Nov-22-19 11:10 am
Report Date: 26-NOV-19
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	644197-019	644197-020	644197-021	644197-022	644197-023	644197-024
	<i>Field Id:</i>	NH1 @ 1'	WH1 @ S	WH1 @ 1'	NH2 @ S	NH2 @ 1'	EH1 @ S
	<i>Depth:</i>	1- ft		1- ft		1- ft	
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Nov-18-19 10:30	Nov-18-19 10:40	Nov-18-19 11:00	Nov-18-19 11:10	Nov-18-19 11:20	Nov-18-19 11:30
BTEX by EPA 8021B	<i>Extracted:</i>	Nov-22-19 12:30	Nov-22-19 12:30	Nov-22-19 12:20	Nov-22-19 12:20	Nov-22-19 12:20	Nov-22-19 12:20
	<i>Analyzed:</i>	Nov-23-19 08:41	Nov-23-19 09:01	Nov-22-19 21:53	Nov-22-19 22:13	Nov-22-19 22:33	Nov-22-19 22:53
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00199 0.00199	<0.00201 0.00201
Toluene		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00199 0.00199	<0.00201 0.00201
Ethylbenzene		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00199 0.00199	<0.00201 0.00201
m,p-Xylenes		<0.00401 0.00401	<0.00399 0.00399	<0.00398 0.00398	<0.00402 0.00402	<0.00398 0.00398	<0.00402 0.00402
o-Xylene		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00199 0.00199	<0.00201 0.00201
Total Xylenes		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00199 0.00199	<0.00201 0.00201
Total BTEX		<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00199 0.00199	<0.00201 0.00201
Chloride by EPA 300	<i>Extracted:</i>	Nov-22-19 15:45	Nov-25-19 08:05	Nov-25-19 08:05	Nov-25-19 08:05	Nov-25-19 08:05	Nov-25-19 08:05
	<i>Analyzed:</i>	Nov-22-19 22:50	Nov-25-19 08:45	Nov-25-19 09:01	Nov-25-19 09:07	Nov-25-19 09:12	Nov-25-19 09:17
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		14.3 4.95	20.4 5.02	13.4 4.98	15.1 4.99	18.8 5.03	8.68 4.96
TPH By SW8015 Mod	<i>Extracted:</i>	Nov-23-19 15:00	Nov-23-19 15:00	Nov-25-19 15:00	Nov-25-19 15:00	Nov-25-19 15:00	Nov-25-19 15:00
	<i>Analyzed:</i>	Nov-24-19 06:24	Nov-24-19 06:43	Nov-25-19 22:32	Nov-25-19 23:29	Nov-25-19 23:48	Nov-26-19 00:07
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<49.8 49.8	<50.0 50.0	<49.8 49.8	<50.0 50.0	<49.9 49.9
Diesel Range Organics (DRO)		<50.0 50.0	<49.8 49.8	<50.0 50.0	<49.8 49.8	<50.0 50.0	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<49.8 49.8	<50.0 50.0	<49.8 49.8	<50.0 50.0	<49.9 49.9
Total TPH		<50.0 50.0	<49.8 49.8	<50.0 50.0	<49.8 49.8	<50.0 50.0	<49.9 49.9

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Jessica Kramer

Jessica Kramer
Project Assistant



Certificate of Analysis Summary 644197

Endeavor Energy, Midland, TX

Project Name: NC State SWD #1



Project Id: 11503
Contact: Lance Crenshaw
Project Location: Rural Lea County

Date Received in Lab: Fri Nov-22-19 11:10 am
Report Date: 26-NOV-19
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	644197-025	644197-026	644197-027			
	<i>Field Id:</i>	EH1 @ 1'	EH2 @ S	EH2 @ 1'			
	<i>Depth:</i>	1- ft		1- ft			
	<i>Matrix:</i>	SOIL	SOIL	SOIL			
	<i>Sampled:</i>	Nov-18-19 11:45	Nov-18-19 12:00	Nov-18-19 12:45			
BTEX by EPA 8021B	<i>Extracted:</i>	Nov-22-19 12:20	Nov-22-19 14:00	Nov-22-19 14:00			
	<i>Analyzed:</i>	Nov-22-19 23:14	Nov-23-19 18:52	Nov-23-19 19:12			
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL			
Benzene		<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200			
Toluene		<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200			
Ethylbenzene		<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200			
m,p-Xylenes		<0.00402 0.00402	<0.00401 0.00401	<0.00400 0.00400			
o-Xylene		<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200			
Total Xylenes		<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200			
Total BTEX		<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200			
Chloride by EPA 300	<i>Extracted:</i>	Nov-25-19 08:05	Nov-25-19 08:05	Nov-25-19 08:05			
	<i>Analyzed:</i>	Nov-25-19 09:33	Nov-25-19 09:39	Nov-25-19 09:44			
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL			
Chloride		11.1 5.00	13.4 5.02	12.2 4.96			
TPH By SW8015 Mod	<i>Extracted:</i>	Nov-25-19 15:00	Nov-25-19 15:00	Nov-22-19 11:30			
	<i>Analyzed:</i>	Nov-26-19 00:25	Nov-26-19 00:44	Nov-22-19 20:12			
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL			
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<49.9 49.9	<49.9 49.9			
Diesel Range Organics (DRO)		<50.0 50.0	<49.9 49.9	<49.9 49.9			
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<49.9 49.9	<49.9 49.9			
Total TPH		<50.0 50.0	<49.9 49.9	<49.9 49.9			

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Jessica Kramer

Jessica Kramer
Project Assistant

Analytical Report 644197

for
Endeavor Energy

Project Manager: Lance Crenshaw

NC State SWD #1

11503

26-NOV-19

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

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)



26-NOV-19

Project Manager: **Lance Crenshaw**
Endeavor Energy
110 N. Marienfeld, Suite 200

Midland, TX 79701

Reference: XENCO Report No(s): **644197**
NC State SWD #1
Project Address: Rural Lea County

Lance Crenshaw:

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) 644197. 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. 644197 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,

A handwritten signature in black ink that reads 'Jessica Kramer'.

Jessica Kramer

Project Assistant

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

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Sample Cross Reference 644197

Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SP2 @ S	S	11-18-19 08:20	ft	644197-001
SP3 @ S	S	11-18-19 08:25	ft	644197-002
SP4 @ S	S	11-18-19 08:30	ft	644197-003
SP5 @ S	S	11-18-19 08:35	ft	644197-004
SP6 @ S	S	11-18-19 08:45	ft	644197-005
SP2 @ 1'	S	11-18-19 08:50	1 ft	644197-006
SP3 @ 1'	S	11-18-19 08:55	1 ft	644197-007
SP4 @ 1'	S	11-18-19 09:05	1 ft	644197-008
SP5 @ 2'	S	11-18-19 09:10	2 ft	644197-009
SP6 @ 1'	S	11-18-19 09:20	1 ft	644197-010
SP6 @ 1'	S	11-18-19 09:30	1 ft	644197-011
SH2 @ S	S	11-18-19 09:40	ft	644197-012
SH2 @ 1'	S	11-18-19 09:50	1 ft	644197-013
SH1 @ S	S	11-18-19 09:50	ft	644197-014
SH1 @ 1'	S	11-18-19 10:00	1 ft	644197-015
WH2 @ S	S	11-18-19 10:10	ft	644197-016
WH2 @ 1'	S	11-18-19 10:15	1 ft	644197-017
NH1 @ S	S	11-18-19 10:20	ft	644197-018
NH1 @ 1'	S	11-18-19 10:30	1 ft	644197-019
WH1 @ S	S	11-18-19 10:40	ft	644197-020
WH1 @ 1'	S	11-18-19 11:00	1 ft	644197-021
NH2 @ S	S	11-18-19 11:10	ft	644197-022
NH2 @ 1'	S	11-18-19 11:20	1 ft	644197-023
EH1 @ S	S	11-18-19 11:30	ft	644197-024
EH1 @ 1'	S	11-18-19 11:45	1 ft	644197-025
EH2 @ S	S	11-18-19 12:00	ft	644197-026
EH2 @ 1'	S	11-18-19 12:45	1 ft	644197-027



CASE NARRATIVE

Client Name: Endeavor Energy

Project Name: NC State SWD #1

Project ID: 11503
Work Order Number(s): 644197

Report Date: 26-NOV-19
Date Received: 11/22/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3108538 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3108542 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3108546 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3108588 Chloride by EPA 300

Lab Sample ID 644259-009 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 644197-020, -021, -022, -023, -024, -025, -026, -027.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: SP2 @ S
Lab Sample Id: 644197-001

Matrix: Soil
Date Collected: 11.18.19 08.20

Date Received: 11.22.19 11.10

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 11.22.19 15.45

Basis: Wet Weight

Seq Number: 3108493

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	28200	252	mg/kg	11.22.19 20.23		50

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 11.23.19 15.00

Basis: Wet Weight

Seq Number: 3108566

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.24.19 00.02	U	1
Diesel Range Organics (DRO)	C10C28DRO	58.4	50.0	mg/kg	11.24.19 00.02		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.24.19 00.02	U	1
Total TPH	PHC635	58.4	50.0	mg/kg	11.24.19 00.02		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-135	11.24.19 00.02	
o-Terphenyl	84-15-1	115	%	70-135	11.24.19 00.02	



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: **SP2 @ S**
Lab Sample Id: 644197-001

Matrix: Soil
Date Collected: 11.18.19 08.20

Date Received: 11.22.19 11.10

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 11.22.19 12.30

Basis: Wet Weight

Seq Number: 3108538

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.23.19 01.40	U	1
Toluene	108-88-3	0.00533	0.00201	mg/kg	11.23.19 01.40		1
Ethylbenzene	100-41-4	0.00288	0.00201	mg/kg	11.23.19 01.40		1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.23.19 01.40	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.23.19 01.40	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.23.19 01.40	U	1
Total BTEX		0.00821	0.00201	mg/kg	11.23.19 01.40		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	111	%	70-130	11.23.19 01.40		
4-Bromofluorobenzene	460-00-4	102	%	70-130	11.23.19 01.40		



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: **SP3 @ S**
Lab Sample Id: 644197-002

Matrix: Soil
Date Collected: 11.18.19 08.25

Date Received: 11.22.19 11.10

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 11.22.19 15.45

Basis: Wet Weight

Seq Number: 3108493

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	31100	249	mg/kg	11.22.19 20.30		50

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 11.23.19 15.00

Basis: Wet Weight

Seq Number: 3108566

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.24.19 00.58	U	1
Diesel Range Organics (DRO)	C10C28DRO	152	49.8	mg/kg	11.24.19 00.58		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.24.19 00.58	U	1
Total TPH	PHC635	152	49.8	mg/kg	11.24.19 00.58		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	117	%	70-135	11.24.19 00.58		
o-Terphenyl	84-15-1	119	%	70-135	11.24.19 00.58		



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: **SP3 @ S**
Lab Sample Id: 644197-002

Matrix: Soil
Date Collected: 11.18.19 08.25

Date Received: 11.22.19 11.10

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 11.22.19 12.30

Basis: Wet Weight

Seq Number: 3108538

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.23.19 02.01	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.23.19 02.01	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.23.19 02.01	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.23.19 02.01	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.23.19 02.01	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.23.19 02.01	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.23.19 02.01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	111	%	70-130	11.23.19 02.01		
1,4-Difluorobenzene	540-36-3	114	%	70-130	11.23.19 02.01		



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: **SP4 @ S**
Lab Sample Id: 644197-003

Matrix: Soil
Date Collected: 11.18.19 08.30

Date Received: 11.22.19 11.10

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 11.22.19 15.45

Basis: Wet Weight

Seq Number: 3108493

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	28200	250	mg/kg	11.22.19 20.37		50

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 11.23.19 15.00

Basis: Wet Weight

Seq Number: 3108566

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.24.19 01.17	U	1
Diesel Range Organics (DRO)	C10C28DRO	132	49.9	mg/kg	11.24.19 01.17		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.24.19 01.17	U	1
Total TPH	PHC635	132	49.9	mg/kg	11.24.19 01.17		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	115	%	70-135	11.24.19 01.17		
o-Terphenyl	84-15-1	118	%	70-135	11.24.19 01.17		



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: **SP4 @ S**
Lab Sample Id: 644197-003

Matrix: Soil
Date Collected: 11.18.19 08.30

Date Received: 11.22.19 11.10

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 11.22.19 12.30

Basis: Wet Weight

Seq Number: 3108538

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.23.19 02.21	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.23.19 02.21	U	1
Ethylbenzene	100-41-4	0.00290	0.00200	mg/kg	11.23.19 02.21		1
m,p-Xylenes	179601-23-1	0.00434	0.00400	mg/kg	11.23.19 02.21		1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.23.19 02.21	U	1
Total Xylenes	1330-20-7	0.00434	0.00200	mg/kg	11.23.19 02.21		1
Total BTEX		0.00724	0.00200	mg/kg	11.23.19 02.21		1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	111		%	70-130	11.23.19 02.21	
4-Bromofluorobenzene	460-00-4	110		%	70-130	11.23.19 02.21	



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: **SP5 @ S**
Lab Sample Id: 644197-004

Matrix: Soil
Date Collected: 11.18.19 08.35

Date Received: 11.22.19 11.10

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 11.22.19 15.45

Basis: Wet Weight

Seq Number: 3108493

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	24800	252	mg/kg	11.22.19 20.43		50

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 11.23.19 15.00

Basis: Wet Weight

Seq Number: 3108566

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.24.19 01.36	U	1
Diesel Range Organics (DRO)	C10C28DRO	148	50.0	mg/kg	11.24.19 01.36		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	50.4	50.0	mg/kg	11.24.19 01.36		1
Total TPH	PHC635	198	50.0	mg/kg	11.24.19 01.36		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	11.24.19 01.36	
o-Terphenyl	84-15-1	114	%	70-135	11.24.19 01.36	



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: SP5 @ S
Lab Sample Id: 644197-004

Matrix: Soil
Date Collected: 11.18.19 08.35

Date Received: 11.22.19 11.10

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 11.22.19 12.30

Basis: Wet Weight

Seq Number: 3108538

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.23.19 02.41	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.23.19 02.41	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.23.19 02.41	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.23.19 02.41	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.23.19 02.41	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.23.19 02.41	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.23.19 02.41	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	100	%	70-130	11.23.19 02.41		
1,4-Difluorobenzene	540-36-3	109	%	70-130	11.23.19 02.41		



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: **SP6 @ S**
Lab Sample Id: 644197-005

Matrix: Soil
Date Collected: 11.18.19 08.45

Date Received: 11.22.19 11.10

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 11.22.19 15.45

Basis: Wet Weight

Seq Number: 3108493

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	32000	248	mg/kg	11.22.19 21.03		50

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 11.23.19 15.00

Basis: Wet Weight

Seq Number: 3108566

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.24.19 01.56	U	1
Diesel Range Organics (DRO)	C10C28DRO	152	49.8	mg/kg	11.24.19 01.56		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.24.19 01.56	U	1
Total TPH	PHC635	152	49.8	mg/kg	11.24.19 01.56		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	114	%	70-135	11.24.19 01.56		
o-Terphenyl	84-15-1	115	%	70-135	11.24.19 01.56		



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: **SP6 @ S**
Lab Sample Id: 644197-005

Matrix: Soil
Date Collected: 11.18.19 08.45

Date Received: 11.22.19 11.10

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 11.22.19 12.30

Basis: Wet Weight

Seq Number: 3108538

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.23.19 03.01	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.23.19 03.01	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.23.19 03.01	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.23.19 03.01	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.23.19 03.01	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.23.19 03.01	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.23.19 03.01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	112	%	70-130	11.23.19 03.01		
1,4-Difluorobenzene	540-36-3	112	%	70-130	11.23.19 03.01		



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: SP2 @1'
Lab Sample Id: 644197-006

Matrix: Soil
Date Collected: 11.18.19 08.50

Date Received: 11.22.19 11.10
Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3108493

Date Prep: 11.22.19 15.45

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4410	24.8	mg/kg	11.22.19 21.10		5

Analytical Method: TPH By SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3108566

Date Prep: 11.23.19 15.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.24.19 02.15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.24.19 02.15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.24.19 02.15	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.24.19 02.15	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	115	%	70-135	11.24.19 02.15		
o-Terphenyl	84-15-1	114	%	70-135	11.24.19 02.15		



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: SP2 @1'
Lab Sample Id: 644197-006

Matrix: Soil
Date Collected: 11.18.19 08.50

Date Received: 11.22.19 11.10
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 11.22.19 12.30

Basis: Wet Weight

Seq Number: 3108538

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	11.23.19 03.21	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	11.23.19 03.21	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	11.23.19 03.21	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	11.23.19 03.21	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	11.23.19 03.21	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	11.23.19 03.21	U	1
Total BTEX		<0.00198	0.00198	mg/kg	11.23.19 03.21	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	111	%	70-130	11.23.19 03.21		
4-Bromofluorobenzene	460-00-4	110	%	70-130	11.23.19 03.21		



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: **SP3 @ 1'**
Lab Sample Id: 644197-007

Matrix: Soil
Date Collected: 11.18.19 08.55

Date Received: 11.22.19 11.10
Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3108493

Date Prep: 11.22.19 15.45

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2010	24.8	mg/kg	11.22.19 21.17		5

Analytical Method: TPH By SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3108566

Date Prep: 11.23.19 15.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.24.19 02.34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.24.19 02.34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.24.19 02.34	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.24.19 02.34	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	118	%	70-135	11.24.19 02.34		
o-Terphenyl	84-15-1	116	%	70-135	11.24.19 02.34		



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: **SP3 @ 1'**
Lab Sample Id: 644197-007

Matrix: Soil
Date Collected: 11.18.19 08.55

Date Received: 11.22.19 11.10
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 11.22.19 12.30

Basis: Wet Weight

Seq Number: 3108538

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.23.19 03.41	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.23.19 03.41	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.23.19 03.41	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.23.19 03.41	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.23.19 03.41	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.23.19 03.41	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.23.19 03.41	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	106	%	70-130	11.23.19 03.41		
1,4-Difluorobenzene	540-36-3	112	%	70-130	11.23.19 03.41		



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: **SP4 @ 1'**
Lab Sample Id: 644197-008

Matrix: Soil
Date Collected: 11.18.19 09.05

Date Received: 11.22.19 11.10
Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3108493

Date Prep: 11.22.19 15.45

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4870	24.8	mg/kg	11.22.19 21.23		5

Analytical Method: TPH By SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3108566

Date Prep: 11.23.19 15.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.24.19 02.53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.24.19 02.53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.24.19 02.53	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.24.19 02.53	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	118	%	70-135	11.24.19 02.53		
o-Terphenyl	84-15-1	116	%	70-135	11.24.19 02.53		



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: **SP4 @ 1'**
Lab Sample Id: 644197-008

Matrix: Soil
Date Collected: 11.18.19 09.05

Date Received: 11.22.19 11.10
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 11.22.19 12.30

Basis: Wet Weight

Seq Number: 3108538

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.23.19 04.01	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.23.19 04.01	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.23.19 04.01	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.23.19 04.01	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.23.19 04.01	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.23.19 04.01	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.23.19 04.01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	112	%	70-130	11.23.19 04.01		
4-Bromofluorobenzene	460-00-4	111	%	70-130	11.23.19 04.01		



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: SP5 @ 2'

Matrix: Soil

Date Received: 11.22.19 11.10

Lab Sample Id: 644197-009

Date Collected: 11.18.19 09.10

Sample Depth: 2 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 11.22.19 15.45

Basis: Wet Weight

Seq Number: 3108493

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1280	24.9	mg/kg	11.22.19 21.30		5

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 11.23.19 15.00

Basis: Wet Weight

Seq Number: 3108566

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.24.19 03.12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.24.19 03.12	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.24.19 03.12	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.24.19 03.12	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	111	%	70-135	11.24.19 03.12		
o-Terphenyl	84-15-1	110	%	70-135	11.24.19 03.12		



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: SP5 @ 2'
Lab Sample Id: 644197-009

Matrix: Soil
Date Collected: 11.18.19 09.10

Date Received: 11.22.19 11.10
Sample Depth: 2 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 11.22.19 12.30

Basis: Wet Weight

Seq Number: 3108538

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.23.19 04.22	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.23.19 04.22	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.23.19 04.22	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	11.23.19 04.22	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.23.19 04.22	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.23.19 04.22	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.23.19 04.22	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	111	%	70-130	11.23.19 04.22		
4-Bromofluorobenzene	460-00-4	105	%	70-130	11.23.19 04.22		



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: **SP6 @1'**
Lab Sample Id: 644197-010

Matrix: Soil
Date Collected: 11.18.19 09.20

Date Received: 11.22.19 11.10
Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3108493

Date Prep: 11.22.19 15.45

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	16.1	5.04	mg/kg	11.22.19 22.56		1

Analytical Method: TPH By SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3108566

Date Prep: 11.23.19 15.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.24.19 03.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.24.19 03.31	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.24.19 03.31	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.24.19 03.31	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	113	%	70-135	11.24.19 03.31		
o-Terphenyl	84-15-1	112	%	70-135	11.24.19 03.31		



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: **SP6 @1'**
Lab Sample Id: 644197-010

Matrix: Soil
Date Collected: 11.18.19 09.20

Date Received: 11.22.19 11.10
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 11.22.19 12.30

Basis: Wet Weight

Seq Number: 3108538

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.23.19 04.42	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.23.19 04.42	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.23.19 04.42	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.23.19 04.42	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.23.19 04.42	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.23.19 04.42	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.23.19 04.42	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	106	%	70-130	11.23.19 04.42		
1,4-Difluorobenzene	540-36-3	111	%	70-130	11.23.19 04.42		



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: **SP6 @ 1'**
Lab Sample Id: 644197-011

Matrix: Soil
Date Collected: 11.18.19 09.30

Date Received: 11.22.19 11.10
Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3108493

Date Prep: 11.22.19 15.45

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	15.1	5.05	mg/kg	11.22.19 23.03		1

Analytical Method: TPH By SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3108566

Date Prep: 11.23.19 15.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.24.19 03.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.24.19 03.51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.24.19 03.51	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.24.19 03.51	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	112	%	70-135	11.24.19 03.51		
o-Terphenyl	84-15-1	110	%	70-135	11.24.19 03.51		



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: **SP6 @ 1'**
Lab Sample Id: 644197-011

Matrix: Soil
Date Collected: 11.18.19 09.30

Date Received: 11.22.19 11.10
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 11.22.19 12.30

Basis: Wet Weight

Seq Number: 3108538

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.23.19 06.00	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.23.19 06.00	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.23.19 06.00	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.23.19 06.00	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.23.19 06.00	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.23.19 06.00	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.23.19 06.00	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	110	%	70-130	11.23.19 06.00		
4-Bromofluorobenzene	460-00-4	98	%	70-130	11.23.19 06.00		



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: SH2 @ S
Lab Sample Id: 644197-012

Matrix: Soil
Date Collected: 11.18.19 09.40

Date Received: 11.22.19 11.10

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 11.22.19 15.45

Basis: Wet Weight

Seq Number: 3108493

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	377	5.00	mg/kg	11.22.19 21.37		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 11.23.19 15.00

Basis: Wet Weight

Seq Number: 3108566

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.24.19 04.10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.24.19 04.10	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.24.19 04.10	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.24.19 04.10	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	112	%	70-135	11.24.19 04.10		
o-Terphenyl	84-15-1	107	%	70-135	11.24.19 04.10		



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: SH2 @ S

Matrix: Soil

Date Received: 11.22.19 11.10

Lab Sample Id: 644197-012

Date Collected: 11.18.19 09.40

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 11.22.19 12.30

Basis: Wet Weight

Seq Number: 3108538

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.23.19 06.20	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.23.19 06.20	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.23.19 06.20	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.23.19 06.20	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.23.19 06.20	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.23.19 06.20	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.23.19 06.20	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	104	%	70-130	11.23.19 06.20		
1,4-Difluorobenzene	540-36-3	105	%	70-130	11.23.19 06.20		



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: SH2 @ 1'
Lab Sample Id: 644197-013

Matrix: Soil
Date Collected: 11.18.19 09.50

Date Received: 11.22.19 11.10
Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3108493

Date Prep: 11.22.19 15.45

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1870	25.0	mg/kg	11.22.19 21.57		5

Analytical Method: TPH By SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3108566

Date Prep: 11.23.19 15.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.24.19 04.29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.24.19 04.29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.24.19 04.29	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.24.19 04.29	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	117	%	70-135	11.24.19 04.29		
o-Terphenyl	84-15-1	115	%	70-135	11.24.19 04.29		



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: SH2 @ 1'
Lab Sample Id: 644197-013

Matrix: Soil
Date Collected: 11.18.19 09.50

Date Received: 11.22.19 11.10
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 11.22.19 12.30

Basis: Wet Weight

Seq Number: 3108538

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	11.23.19 06.40	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	11.23.19 06.40	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	11.23.19 06.40	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	11.23.19 06.40	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	11.23.19 06.40	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	11.23.19 06.40	U	1
Total BTEX		<0.00198	0.00198	mg/kg	11.23.19 06.40	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	104	%	70-130	11.23.19 06.40		
1,4-Difluorobenzene	540-36-3	109	%	70-130	11.23.19 06.40		



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: SH1 @ S

Matrix: Soil

Date Received: 11.22.19 11.10

Lab Sample Id: 644197-014

Date Collected: 11.18.19 09.50

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 11.22.19 15.45

Basis: Wet Weight

Seq Number: 3108493

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1490	5.00	mg/kg	11.22.19 22.03		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 11.23.19 15.00

Basis: Wet Weight

Seq Number: 3108566

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.24.19 04.48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.24.19 04.48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.24.19 04.48	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.24.19 04.48	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	111	%	70-135	11.24.19 04.48		
o-Terphenyl	84-15-1	107	%	70-135	11.24.19 04.48		



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: SH1 @ S

Matrix: Soil

Date Received: 11.22.19 11.10

Lab Sample Id: 644197-014

Date Collected: 11.18.19 09.50

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 11.22.19 12.30

Basis: Wet Weight

Seq Number: 3108538

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.23.19 07.01	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.23.19 07.01	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.23.19 07.01	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.23.19 07.01	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.23.19 07.01	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.23.19 07.01	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.23.19 07.01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	103	%	70-130	11.23.19 07.01		
1,4-Difluorobenzene	540-36-3	110	%	70-130	11.23.19 07.01		



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: **SH1 @1'**
Lab Sample Id: 644197-015

Matrix: Soil
Date Collected: 11.18.19 10.00

Date Received: 11.22.19 11.10
Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3108493

Date Prep: 11.22.19 15.45

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	144	5.02	mg/kg	11.22.19 22.23		1

Analytical Method: TPH By SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3108566

Date Prep: 11.23.19 15.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.24.19 05.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.24.19 05.07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.24.19 05.07	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.24.19 05.07	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	111	%	70-135	11.24.19 05.07		
o-Terphenyl	84-15-1	110	%	70-135	11.24.19 05.07		



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: **SH1 @1'**
Lab Sample Id: 644197-015

Matrix: Soil
Date Collected: 11.18.19 10.00

Date Received: 11.22.19 11.10
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 11.22.19 12.30

Basis: Wet Weight

Seq Number: 3108538

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.23.19 07.21	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.23.19 07.21	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.23.19 07.21	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.23.19 07.21	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.23.19 07.21	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.23.19 07.21	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.23.19 07.21	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	107	%	70-130	11.23.19 07.21		
1,4-Difluorobenzene	540-36-3	113	%	70-130	11.23.19 07.21		



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: WH2@ S

Matrix: Soil

Date Received: 11.22.19 11.10

Lab Sample Id: 644197-016

Date Collected: 11.18.19 10.10

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 11.22.19 15.45

Basis: Wet Weight

Seq Number: 3108493

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	392	4.96	mg/kg	11.22.19 22.30		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 11.23.19 15.00

Basis: Wet Weight

Seq Number: 3108566

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.24.19 05.26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.24.19 05.26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.24.19 05.26	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.24.19 05.26	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	101	%	70-135	11.24.19 05.26		
o-Terphenyl	84-15-1	99	%	70-135	11.24.19 05.26		



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: WH2@ S

Matrix: Soil

Date Received: 11.22.19 11.10

Lab Sample Id: 644197-016

Date Collected: 11.18.19 10.10

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 11.22.19 12.30

Basis: Wet Weight

Seq Number: 3108538

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.23.19 07.41	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.23.19 07.41	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.23.19 07.41	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.23.19 07.41	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.23.19 07.41	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.23.19 07.41	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.23.19 07.41	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	107	%	70-130	11.23.19 07.41		
1,4-Difluorobenzene	540-36-3	113	%	70-130	11.23.19 07.41		



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: WH2 @ 1'

Matrix: Soil

Date Received: 11.22.19 11.10

Lab Sample Id: 644197-017

Date Collected: 11.18.19 10.15

Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 11.22.19 15.45

Basis: Wet Weight

Seq Number: 3108493

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	20.1	4.97	mg/kg	11.22.19 22.36		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 11.23.19 15.00

Basis: Wet Weight

Seq Number: 3108566

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.24.19 05.45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.24.19 05.45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.24.19 05.45	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.24.19 05.45	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	119	%	70-135	11.24.19 05.45		
o-Terphenyl	84-15-1	117	%	70-135	11.24.19 05.45		



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: WH2 @ 1'

Matrix: Soil

Date Received: 11.22.19 11.10

Lab Sample Id: 644197-017

Date Collected: 11.18.19 10.15

Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 11.22.19 12.30

Basis: Wet Weight

Seq Number: 3108538

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.23.19 08.01	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.23.19 08.01	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.23.19 08.01	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.23.19 08.01	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.23.19 08.01	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.23.19 08.01	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.23.19 08.01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	107	%	70-130	11.23.19 08.01		
1,4-Difluorobenzene	540-36-3	112	%	70-130	11.23.19 08.01		



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: **NH1@ S**
Lab Sample Id: 644197-018

Matrix: Soil
Date Collected: 11.18.19 10.20

Date Received: 11.22.19 11.10

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 11.22.19 15.45

Basis: Wet Weight

Seq Number: 3108493

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	10.8	4.95	mg/kg	11.22.19 22.43		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 11.23.19 15.00

Basis: Wet Weight

Seq Number: 3108566

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.24.19 06.05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.24.19 06.05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.24.19 06.05	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.24.19 06.05	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	114	%	70-135	11.24.19 06.05		
o-Terphenyl	84-15-1	110	%	70-135	11.24.19 06.05		



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: **NH1@ S**
Lab Sample Id: 644197-018

Matrix: Soil
Date Collected: 11.18.19 10.20

Date Received: 11.22.19 11.10

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 11.22.19 12.30

Basis: Wet Weight

Seq Number: 3108538

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.23.19 08.21	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.23.19 08.21	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.23.19 08.21	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.23.19 08.21	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.23.19 08.21	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.23.19 08.21	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.23.19 08.21	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	106	%	70-130	11.23.19 08.21		
1,4-Difluorobenzene	540-36-3	112	%	70-130	11.23.19 08.21		



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: **NH1@ 1'**

Matrix: Soil

Date Received: 11.22.19 11.10

Lab Sample Id: 644197-019

Date Collected: 11.18.19 10.30

Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 11.22.19 15.45

Basis: Wet Weight

Seq Number: 3108493

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	14.3	4.95	mg/kg	11.22.19 22.50		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 11.23.19 15.00

Basis: Wet Weight

Seq Number: 3108566

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.24.19 06.24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.24.19 06.24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.24.19 06.24	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.24.19 06.24	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	114	%	70-135	11.24.19 06.24		
o-Terphenyl	84-15-1	110	%	70-135	11.24.19 06.24		



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: **NH1@ 1'**

Matrix: Soil

Date Received: 11.22.19 11.10

Lab Sample Id: 644197-019

Date Collected: 11.18.19 10.30

Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 11.22.19 12.30

Basis: Wet Weight

Seq Number: 3108538

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.23.19 08.41	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.23.19 08.41	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.23.19 08.41	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.23.19 08.41	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.23.19 08.41	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.23.19 08.41	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.23.19 08.41	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	113	%	70-130	11.23.19 08.41		
4-Bromofluorobenzene	460-00-4	101	%	70-130	11.23.19 08.41		



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: **WH1 @ S**

Matrix: Soil

Date Received: 11.22.19 11.10

Lab Sample Id: 644197-020

Date Collected: 11.18.19 10.40

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 11.25.19 08.05

Basis: Wet Weight

Seq Number: 3108588

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	20.4	5.02	mg/kg	11.25.19 08.45		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 11.23.19 15.00

Basis: Wet Weight

Seq Number: 3108566

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.24.19 06.43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.24.19 06.43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.24.19 06.43	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.24.19 06.43	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	112	%	70-135	11.24.19 06.43		
o-Terphenyl	84-15-1	110	%	70-135	11.24.19 06.43		



Certificate of Analytical Results 644197

Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: WH1 @ S

Matrix: Soil

Date Received: 11.22.19 11.10

Lab Sample Id: 644197-020

Date Collected: 11.18.19 10.40

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 11.22.19 12.30

Basis: Wet Weight

Seq Number: 3108538

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.23.19 09.01	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.23.19 09.01	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.23.19 09.01	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.23.19 09.01	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.23.19 09.01	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.23.19 09.01	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.23.19 09.01	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	105	%	70-130	11.23.19 09.01		
1,4-Difluorobenzene	540-36-3	115	%	70-130	11.23.19 09.01		



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: WH1 @ 1'

Matrix: Soil

Date Received: 11.22.19 11.10

Lab Sample Id: 644197-021

Date Collected: 11.18.19 11.00

Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 11.25.19 08.05

Basis: Wet Weight

Seq Number: 3108588

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	13.4	4.98	mg/kg	11.25.19 09.01		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 11.25.19 15.00

Basis: Wet Weight

Seq Number: 3108706

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.25.19 22.32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.25.19 22.32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.25.19 22.32	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.25.19 22.32	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	125	%	70-135	11.25.19 22.32		
o-Terphenyl	84-15-1	123	%	70-135	11.25.19 22.32		



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: **WH1 @ 1'**

Matrix: Soil

Date Received: 11.22.19 11.10

Lab Sample Id: 644197-021

Date Collected: 11.18.19 11.00

Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 11.22.19 12.20

Basis: Wet Weight

Seq Number: 3108542

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.22.19 21.53	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.22.19 21.53	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.22.19 21.53	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.22.19 21.53	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.22.19 21.53	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.22.19 21.53	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.22.19 21.53	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	105	%	70-130	11.22.19 21.53		
1,4-Difluorobenzene	540-36-3	107	%	70-130	11.22.19 21.53		



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: NH2 @ S

Matrix: Soil

Date Received: 11.22.19 11.10

Lab Sample Id: 644197-022

Date Collected: 11.18.19 11.10

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 11.25.19 08.05

Basis: Wet Weight

Seq Number: 3108588

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	15.1	4.99	mg/kg	11.25.19 09.07		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 11.25.19 15.00

Basis: Wet Weight

Seq Number: 3108706

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.25.19 23.29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.25.19 23.29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.25.19 23.29	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.25.19 23.29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	120	%	70-135	11.25.19 23.29	
o-Terphenyl	84-15-1	119	%	70-135	11.25.19 23.29	



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: NH2 @ S

Matrix: Soil

Date Received: 11.22.19 11.10

Lab Sample Id: 644197-022

Date Collected: 11.18.19 11.10

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 11.22.19 12.20

Basis: Wet Weight

Seq Number: 3108542

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.22.19 22.13	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.22.19 22.13	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.22.19 22.13	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.22.19 22.13	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.22.19 22.13	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.22.19 22.13	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.22.19 22.13	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	110	%	70-130	11.22.19 22.13		
4-Bromofluorobenzene	460-00-4	99	%	70-130	11.22.19 22.13		



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: NH2 @ 1'

Matrix: Soil

Date Received: 11.22.19 11.10

Lab Sample Id: 644197-023

Date Collected: 11.18.19 11.20

Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 11.25.19 08.05

Basis: Wet Weight

Seq Number: 3108588

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	18.8	5.03	mg/kg	11.25.19 09.12		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 11.25.19 15.00

Basis: Wet Weight

Seq Number: 3108706

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.25.19 23.48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.25.19 23.48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.25.19 23.48	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.25.19 23.48	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	127	%	70-135	11.25.19 23.48		
o-Terphenyl	84-15-1	126	%	70-135	11.25.19 23.48		



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: NH2 @ 1'

Matrix: Soil

Date Received: 11.22.19 11.10

Lab Sample Id: 644197-023

Date Collected: 11.18.19 11.20

Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 11.22.19 12.20

Basis: Wet Weight

Seq Number: 3108542

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.22.19 22.33	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.22.19 22.33	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.22.19 22.33	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.22.19 22.33	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.22.19 22.33	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.22.19 22.33	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.22.19 22.33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	97	%	70-130	11.22.19 22.33		
1,4-Difluorobenzene	540-36-3	106	%	70-130	11.22.19 22.33		



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: EH1 @ S

Matrix: Soil

Date Received: 11.22.19 11.10

Lab Sample Id: 644197-024

Date Collected: 11.18.19 11.30

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 11.25.19 08.05

Basis: Wet Weight

Seq Number: 3108588

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	8.68	4.96	mg/kg	11.25.19 09.17		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 11.25.19 15.00

Basis: Wet Weight

Seq Number: 3108706

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.26.19 00.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.26.19 00.07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.26.19 00.07	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.26.19 00.07	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	127	%	70-135	11.26.19 00.07		
o-Terphenyl	84-15-1	123	%	70-135	11.26.19 00.07		



Certificate of Analytical Results 644197

Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: EH1 @ S

Matrix: Soil

Date Received: 11.22.19 11.10

Lab Sample Id: 644197-024

Date Collected: 11.18.19 11.30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 11.22.19 12.20

Basis: Wet Weight

Seq Number: 3108542

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.22.19 22.53	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.22.19 22.53	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.22.19 22.53	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.22.19 22.53	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.22.19 22.53	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.22.19 22.53	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.22.19 22.53	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	106	%	70-130	11.22.19 22.53		
4-Bromofluorobenzene	460-00-4	96	%	70-130	11.22.19 22.53		



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: **EH1 @ 1'**
Lab Sample Id: 644197-025

Matrix: Soil
Date Collected: 11.18.19 11.45

Date Received: 11.22.19 11.10
Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3108588

Date Prep: 11.25.19 08.05

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	11.1	5.00	mg/kg	11.25.19 09.33		1

Analytical Method: TPH By SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3108706

Date Prep: 11.25.19 15.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.26.19 00.25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.26.19 00.25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.26.19 00.25	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.26.19 00.25	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	121	%	70-135	11.26.19 00.25		
o-Terphenyl	84-15-1	115	%	70-135	11.26.19 00.25		



Certificate of Analytical Results 644197

Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: **EH1 @ 1'**
 Lab Sample Id: 644197-025

Matrix: Soil
 Date Collected: 11.18.19 11.45

Date Received: 11.22.19 11.10
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Tech: KTL

Analyst: KTL

Seq Number: 3108542

Date Prep: 11.22.19 12.20

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.22.19 23.14	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.22.19 23.14	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.22.19 23.14	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.22.19 23.14	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.22.19 23.14	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.22.19 23.14	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.22.19 23.14	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	99	%	70-130	11.22.19 23.14		
1,4-Difluorobenzene	540-36-3	108	%	70-130	11.22.19 23.14		



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: EH2 @ S
Lab Sample Id: 644197-026

Matrix: Soil
Date Collected: 11.18.19 12.00

Date Received: 11.22.19 11.10

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 11.25.19 08.05

Basis: Wet Weight

Seq Number: 3108588

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	13.4	5.02	mg/kg	11.25.19 09.39		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 11.25.19 15.00

Basis: Wet Weight

Seq Number: 3108706

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.26.19 00.44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.26.19 00.44	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.26.19 00.44	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.26.19 00.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-135	11.26.19 00.44	
o-Terphenyl	84-15-1	113	%	70-135	11.26.19 00.44	



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: EH2 @ S
Lab Sample Id: 644197-026

Matrix: Soil
Date Collected: 11.18.19 12.00

Date Received: 11.22.19 11.10

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 11.22.19 14.00

Basis: Wet Weight

Seq Number: 3108546

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.23.19 18.52	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.23.19 18.52	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.23.19 18.52	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.23.19 18.52	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.23.19 18.52	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.23.19 18.52	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.23.19 18.52	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	110	%	70-130	11.23.19 18.52		
4-Bromofluorobenzene	460-00-4	93	%	70-130	11.23.19 18.52		



Certificate of Analytical Results 644197



Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: EH2 @ 1'
Lab Sample Id: 644197-027

Matrix: Soil
Date Collected: 11.18.19 12.45

Date Received: 11.22.19 11.10
Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3108588

Date Prep: 11.25.19 08.05

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	12.2	4.96	mg/kg	11.25.19 09.44		1

Analytical Method: TPH By SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3108553

Date Prep: 11.22.19 11.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.22.19 20.12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.22.19 20.12	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.22.19 20.12	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.22.19 20.12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-135	11.22.19 20.12	
o-Terphenyl	84-15-1	113	%	70-135	11.22.19 20.12	



Certificate of Analytical Results 644197

Endeavor Energy, Midland, TX

NC State SWD #1

Sample Id: EH2 @ 1'
Lab Sample Id: 644197-027

Matrix: Soil
Date Collected: 11.18.19 12.45

Date Received: 11.22.19 11.10
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 11.22.19 14.00

Basis: Wet Weight

Seq Number: 3108546

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.23.19 19.12	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.23.19 19.12	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.23.19 19.12	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	11.23.19 19.12	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.23.19 19.12	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.23.19 19.12	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.23.19 19.12	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	109	%	70-130	11.23.19 19.12		
4-Bromofluorobenzene	460-00-4	94	%	70-130	11.23.19 19.12		



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



Endeavor Energy

NC State SWD #1

Analytical Method: Chloride by EPA 300

Seq Number: 3108493

MB Sample Id: 7691016-1-BLK

Matrix: Solid

LCS Sample Id: 7691016-1-BKS

Prep Method: E300P

Date Prep: 11.22.19

LCSD Sample Id: 7691016-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.858	250	240	96	240	96	90-110	0	20	mg/kg	11.22.19 19:50	

Analytical Method: Chloride by EPA 300

Seq Number: 3108588

MB Sample Id: 7691080-1-BLK

Matrix: Solid

LCS Sample Id: 7691080-1-BKS

Prep Method: E300P

Date Prep: 11.25.19

LCSD Sample Id: 7691080-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	240	96	238	95	90-110	1	20	mg/kg	11.25.19 08:35	

Analytical Method: Chloride by EPA 300

Seq Number: 3108493

Parent Sample Id: 644192-035

Matrix: Soil

MS Sample Id: 644192-035 S

Prep Method: E300P

Date Prep: 11.22.19

MSD Sample Id: 644192-035 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	15.7	248	263	100	261	99	90-110	1	20	mg/kg	11.22.19 20:10	

Analytical Method: Chloride by EPA 300

Seq Number: 3108493

Parent Sample Id: 644197-012

Matrix: Soil

MS Sample Id: 644197-012 S

Prep Method: E300P

Date Prep: 11.22.19

MSD Sample Id: 644197-012 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	377	250	612	94	612	94	90-110	0	20	mg/kg	11.22.19 21:43	

Analytical Method: Chloride by EPA 300

Seq Number: 3108588

Parent Sample Id: 644197-020

Matrix: Soil

MS Sample Id: 644197-020 S

Prep Method: E300P

Date Prep: 11.25.19

MSD Sample Id: 644197-020 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	20.4	201	181	80	180	79	90-110	1	20	mg/kg	11.25.19 08:51	X

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



Endeavor Energy

NC State SWD #1

Analytical Method: Chloride by EPA 300

Seq Number: 3108588

Parent Sample Id: 644259-009

Matrix: Soil

MS Sample Id: 644259-009 S

Prep Method: E300P

Date Prep: 11.25.19

MSD Sample Id: 644259-009 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	27.1	202	235	103	236	103	90-110	0	20	mg/kg	11.25.19 10:05	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3108553

MB Sample Id: 7691075-1-BLK

Matrix: Solid

LCS Sample Id: 7691075-1-BKS

Prep Method: SW8015P

Date Prep: 11.22.19

LCSD Sample Id: 7691075-1-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)	<15.0	1000	1080	108	1100	110	70-135	2	20	mg/kg	11.22.19 12:43	
Diesel Range Organics (DRO)	<15.0	1000	1020	102	1050	105	70-135	3	20	mg/kg	11.22.19 12:43	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	105		126		128		70-135	%	11.22.19 12:43
o-Terphenyl	104		111		119		70-135	%	11.22.19 12:43

Analytical Method: TPH By SW8015 Mod

Seq Number: 3108566

MB Sample Id: 7691089-1-BLK

Matrix: Solid

LCS Sample Id: 7691089-1-BKS

Prep Method: SW8015P

Date Prep: 11.23.19

LCSD Sample Id: 7691089-1-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)	<15.0	1000	1130	113	1140	114	70-135	1	20	mg/kg	11.23.19 23:25	
Diesel Range Organics (DRO)	<15.0	1000	1070	107	1090	109	70-135	2	20	mg/kg	11.23.19 23:25	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	104		125		128		70-135	%	11.23.19 23:25
o-Terphenyl	105		118		114		70-135	%	11.23.19 23:25

Analytical Method: TPH By SW8015 Mod

Seq Number: 3108706

MB Sample Id: 7691187-1-BLK

Matrix: Solid

LCS Sample Id: 7691187-1-BKS

Prep Method: SW8015P

Date Prep: 11.25.19

LCSD Sample Id: 7691187-1-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)	<15.0	1000	1170	117	1170	117	70-135	0	20	mg/kg	11.25.19 21:54	
Diesel Range Organics (DRO)	<15.0	1000	1070	107	1090	109	70-135	2	20	mg/kg	11.25.19 21:54	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	111		127		126		70-135	%	11.25.19 21:54
o-Terphenyl	113		121		114		70-135	%	11.25.19 21:54

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



Endeavor Energy

NC State SWD #1

Analytical Method: TPH By SW8015 Mod

Seq Number: 3108553

Matrix: Solid

Prep Method: SW8015P

Date Prep: 11.22.19

MB Sample Id: 7691075-1-BLK

Parameter**MB
Result****Units****Analysis
Date****Flag**

Motor Oil Range Hydrocarbons (MRO)

<50.0

mg/kg

11.22.19 12:24

Analytical Method: TPH By SW8015 Mod

Seq Number: 3108566

Matrix: Solid

Prep Method: SW8015P

Date Prep: 11.23.19

MB Sample Id: 7691089-1-BLK

Parameter**MB
Result****Units****Analysis
Date****Flag**

Motor Oil Range Hydrocarbons (MRO)

<50.0

mg/kg

11.23.19 23:06

Analytical Method: TPH By SW8015 Mod

Seq Number: 3108706

Matrix: Solid

Prep Method: SW8015P

Date Prep: 11.25.19

MB Sample Id: 7691187-1-BLK

Parameter**MB
Result****Units****Analysis
Date****Flag**

Motor Oil Range Hydrocarbons (MRO)

<50.0

mg/kg

11.25.19 21:35

Analytical Method: TPH By SW8015 Mod

Seq Number: 3108553

Matrix: Soil

Prep Method: SW8015P

Date Prep: 11.22.19

Parent Sample Id: 644017-001

MS Sample Id: 644017-001 S

MSD Sample Id: 644017-001 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)

<15.0

997

1190

119

1220

122

70-135

2

20

mg/kg

11.22.19 13:39

Diesel Range Organics (DRO)

<15.0

997

1190

119

1190

119

70-135

0

20

mg/kg

11.22.19 13:39

Surrogate**MS
%Rec****MS
Flag****MSD
%Rec****MSD
Flag****Limits****Units****Analysis
Date**

1-Chlorooctane

128

130

70-135

%

11.22.19 13:39

o-Terphenyl

115

127

70-135

%

11.22.19 13:39

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. = $\text{Log}(\text{Sample Duplicate}) - \text{Log}(\text{Original Sample})$

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



Endeavor Energy

NC State SWD #1

Analytical Method: TPH By SW8015 Mod

Seq Number: 3108566

Parent Sample Id: 644197-001

Matrix: Soil

MS Sample Id: 644197-001 S

Prep Method: SW8015P

Date Prep: 11.23.19

MSD Sample Id: 644197-001 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)	<15.0	997	1200	120	1200	120	70-135	0	20	mg/kg	11.24.19 00:21	
Diesel Range Organics (DRO)	58.4	997	1180	112	1190	113	70-135	1	20	mg/kg	11.24.19 00:21	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	128		124		70-135	%	11.24.19 00:21
o-Terphenyl	118		119		70-135	%	11.24.19 00:21

Analytical Method: TPH By SW8015 Mod

Seq Number: 3108706

Parent Sample Id: 644197-021

Matrix: Soil

MS Sample Id: 644197-021 S

Prep Method: SW8015P

Date Prep: 11.25.19

MSD Sample Id: 644197-021 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)	<15.0	998	1200	120	1230	123	70-135	2	20	mg/kg	11.25.19 22:51	
Diesel Range Organics (DRO)	<15.0	998	1210	121	1240	124	70-135	2	20	mg/kg	11.25.19 22:51	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	125		127		70-135	%	11.25.19 22:51
o-Terphenyl	120		123		70-135	%	11.25.19 22:51

Analytical Method: BTEX by EPA 8021B

Seq Number: 3108542

MB Sample Id: 7690967-1-BLK

Matrix: Solid

LCS Sample Id: 7690967-1-BKS

Prep Method: SW5030B

Date Prep: 11.22.19

LCSD Sample Id: 7690967-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000385	0.100	0.104	104	0.104	104	70-130	0	35	mg/kg	11.22.19 13:53	
Toluene	<0.000456	0.100	0.100	100	0.101	101	70-130	1	35	mg/kg	11.22.19 13:53	
Ethylbenzene	<0.000565	0.100	0.0980	98	0.0979	98	70-130	0	35	mg/kg	11.22.19 13:53	
m,p-Xylenes	<0.00101	0.200	0.200	100	0.199	100	70-130	1	35	mg/kg	11.22.19 13:53	
o-Xylene	<0.000344	0.100	0.0975	98	0.0988	99	70-130	1	35	mg/kg	11.22.19 13:53	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		99		100		70-130	%	11.22.19 13:53
4-Bromofluorobenzene	92		92		101		70-130	%	11.22.19 13:53

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

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

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



Endeavor Energy NC State SWD #1

Analytical Method: BTEX by EPA 8021B

Seq Number: 3108538

MB Sample Id: 7690973-1-BLK

Matrix: Solid

LCS Sample Id: 7690973-1-BKS

Prep Method: SW5030B

Date Prep: 11.22.19

LCSD Sample Id: 7690973-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.111	111	0.109	109	70-130	2	35	mg/kg	11.22.19 23:41	
Toluene	<0.00200	0.100	0.104	104	0.102	102	70-130	2	35	mg/kg	11.22.19 23:41	
Ethylbenzene	<0.00200	0.100	0.106	106	0.105	105	70-130	1	35	mg/kg	11.22.19 23:41	
m,p-Xylenes	<0.00400	0.200	0.219	110	0.216	108	70-130	1	35	mg/kg	11.22.19 23:41	
o-Xylene	<0.00200	0.100	0.109	109	0.107	107	70-130	2	35	mg/kg	11.22.19 23:41	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date	Flag		
1,4-Difluorobenzene	105		111		110		70-130	%	11.22.19 23:41			
4-Bromofluorobenzene	101		107		105		70-130	%	11.22.19 23:41			

Analytical Method: BTEX by EPA 8021B

Seq Number: 3108546

MB Sample Id: 7690988-1-BLK

Matrix: Solid

LCS Sample Id: 7690988-1-BKS

Prep Method: SW5030B

Date Prep: 11.22.19

LCSD Sample Id: 7690988-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000385	0.100	0.101	101	0.109	109	70-130	8	35	mg/kg	11.23.19 00:32	
Toluene	<0.000456	0.100	0.0934	93	0.104	104	70-130	11	35	mg/kg	11.23.19 00:32	
Ethylbenzene	<0.000565	0.100	0.0890	89	0.101	101	70-130	13	35	mg/kg	11.23.19 00:32	
m,p-Xylenes	<0.00101	0.200	0.178	89	0.206	103	70-130	15	35	mg/kg	11.23.19 00:32	
o-Xylene	<0.000344	0.100	0.0884	88	0.104	104	70-130	16	35	mg/kg	11.23.19 00:32	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date	Flag		
1,4-Difluorobenzene	95		97		100		70-130	%	11.23.19 00:32			
4-Bromofluorobenzene	86		94		105		70-130	%	11.23.19 00:32			

Analytical Method: BTEX by EPA 8021B

Seq Number: 3108542

Parent Sample Id: 644192-021

Matrix: Soil

MS Sample Id: 644192-021 S

Prep Method: SW5030B

Date Prep: 11.22.19

MSD Sample Id: 644192-021 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	0.000449	0.101	0.0976	96	0.0984	97	70-130	1	35	mg/kg	11.22.19 14:33	
Toluene	0.00461	0.101	0.109	103	0.106	100	70-130	3	35	mg/kg	11.22.19 14:33	
Ethylbenzene	0.00502	0.101	0.101	95	0.0913	85	70-130	10	35	mg/kg	11.22.19 14:33	
m,p-Xylenes	0.0247	0.202	0.214	94	0.199	86	70-130	7	35	mg/kg	11.22.19 14:33	
o-Xylene	0.0112	0.101	0.107	95	0.107	95	70-130	0	35	mg/kg	11.22.19 14:33	
Surrogate			MS %Rec	MS Flag		MSD %Rec	MSD Flag	Limits		Units	Analysis Date	
1,4-Difluorobenzene			92			89		70-130		%	11.22.19 14:33	
4-Bromofluorobenzene			115			125		70-130		%	11.22.19 14:33	

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



Endeavor Energy

NC State SWD #1

Analytical Method: BTEX by EPA 8021B

Seq Number: 3108538

Parent Sample Id: 644197-001

Matrix: Soil

MS Sample Id: 644197-001 S

Prep Method: SW5030B

Date Prep: 11.22.19

MSD Sample Id: 644197-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	0.00106	0.0996	0.0883	88	0.0922	91	70-130	4	35	mg/kg	11.23.19 00:21	
Toluene	0.00533	0.0996	0.0799	75	0.0837	79	70-130	5	35	mg/kg	11.23.19 00:21	
Ethylbenzene	0.00288	0.0996	0.0746	72	0.0799	77	70-130	7	35	mg/kg	11.23.19 00:21	
m,p-Xylenes	0.00293	0.199	0.148	73	0.159	78	70-130	7	35	mg/kg	11.23.19 00:21	
o-Xylene	0.00194	0.0996	0.0733	72	0.0779	76	70-130	6	35	mg/kg	11.23.19 00:21	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	114		116		70-130	%	11.23.19 00:21
4-Bromofluorobenzene	117		119		70-130	%	11.23.19 00:21

Analytical Method: BTEX by EPA 8021B

Seq Number: 3108546

Parent Sample Id: 644197-026

Matrix: Soil

MS Sample Id: 644197-026 S

Prep Method: SW5030B

Date Prep: 11.22.19

MSD Sample Id: 644197-026 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.000383	0.0996	0.0825	83	0.0905	91	70-130	9	35	mg/kg	11.23.19 01:13	
Toluene	<0.000454	0.0996	0.0777	78	0.0846	85	70-130	9	35	mg/kg	11.23.19 01:13	
Ethylbenzene	<0.000563	0.0996	0.0749	75	0.0811	81	70-130	8	35	mg/kg	11.23.19 01:13	
m,p-Xylenes	<0.00101	0.199	0.149	75	0.162	81	70-130	8	35	mg/kg	11.23.19 01:13	
o-Xylene	<0.000343	0.0996	0.0749	75	0.0809	81	70-130	8	35	mg/kg	11.23.19 01:13	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		103		70-130	%	11.23.19 01:13
4-Bromofluorobenzene	104		104		70-130	%	11.23.19 01:13

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



Chain of Custody

Work Order No:

1044197

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440, El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900
 Tampa, FL (813) 620-2000, Tallahassee, FL (904) 756-0747, Delray Beach, FL (561) 689-6701
 Atlanta, GA (770) 449-8800

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Project Manager:	Lance Crenshaw	Bill to: (if different)	Elect Environmental
Company Name:	Endeavor Energy	Company Name:	
Address:		Address:	
City, State ZIP:		City, State ZIP:	
Phone:		Email:	pm@etechny.com

Program: ☐ UST/PST ☐ PRF ☐ Brownfield ☐ RRD ☐ Superfund State of Project:	
Reporting Level: ☐ Level ☐ PST/US ☐ TRF ☐ Level	Deliverables: EDD ☐ ADAPT ☐ Other

Project Name:	NC State SWD #1	Turn Around	
Project Number:	11503	Routine: ☐	
Project Location:	Rural Lea County, NM	Rush: ☐	
Sampler's Name:	Catalina Baeza	Due Date:	
PO #:			

SAMPLE RECEIPT	Temp Blank:	Yes ☒	Wet Ice:	Yes ☒
	Temperature (°C):	0.50	Thermometer ID:	128
	Received intact:	Yes ☒	Correction Factor:	
	Cooler Custody Seals:	Yes ☒	Total Containers:	
	Sample Custody Seals:	Yes ☒		

Sample Identification					Matrix	Date Sampled	Time Sampled	Depth	Number Code	Cl	BTEX	TPH 801																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
 Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U 1631 / 245.1 / 7470 / 7471 : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
	Subomi Tojos	11/19 4:00		Subomi Tojos	11/19 4:10



Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440, El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900
 Tampa, FL (813) 620-2000, Tallahassee, FL (904) 756-0747, Delray Beach, FL (561) 689-6701
 Atlanta, GA (770) 449-8800

Work Order No:

10141197

www.xenco.com Page ____ of ____

Project Manager:	Lance Crenshaw	Bill to: (if different)	Elect Environmental
Company Name:	Endeavor Energy	Company Name:	
Address:		Address:	
City, State ZIP:		City, State ZIP:	
Phone:		Email:	lpm@electcheny.com

Project Name:		NC State SWD #1	Turn Around
Project Number:	11503	Routine:	☐
Project Location:	Rural Lea County, NM	Rush:	☐
Sampler's Name:	Catalina Baeza	Due Date:	
PO #:			

SAMPLE RECEIPT		Temp Blank:	Yes ☒ No ☐	Wet Ice:	Yes ☐ No ☒
Temperature (°C):	6.5/0.5	Thermometer ID:	23		
Received intact:	Yes ☒ No ☐	Correction Factor:			
Cooler Custody Seals:	Yes ☐ No ☒	Total Containers:			
Sample Custody Seals:	Yes ☐ No ☒				

ANALYSIS REQUEST

Preservative Codes

Work Order Comments	
Program: UST/PST ☐ PRF ☐ Brownfield ☐ RRD ☐ Superfund ☐	
State of Project:	
Reporting Level: ☐ Level ☐ PST/US ☐ TRF ☐ Level ☐	
Deliverables: EDD ☐ ADAPT ☐ Other:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers/Preservative Code	BTX	TPH 8015 M	Preservative Codes	Sample Comments
SP2 @ S		18-Nov	8:20	Surf	1	X	X		
SP3 @ S		18-Nov	8:25	Surf	1	X	X		
SP4 @ S		18-Nov	8:30	Surf	1	X	X		
SP5 @ S		18-Nov	8:35	Surf	1	X	X		
SP6 @ S		18-Nov	8:45	Surf	1	X	X		
SP2 @ 1'		18-Nov	8:50	1'	1	X	X		
SP3 @ 1'		18-Nov	8:55	1'	1	X	X		
SP4 @ 1'		18-Nov	9:05	1'	1	X	X		
SP4 @ 2'		18-Nov	9:10	2'	1	X	X		
SP5 @ 1'		18-Nov	9:20	1'	1	X	X		

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
 Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U 1631 / 245.1 / 7470 / 7471 : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 <i>Lance Crenshaw</i>	2 <i>Stephanie Torres</i>	11/11/19 4:00	3 <i>Stephanie Torres</i>	4 <i>Stephanie Torres</i>	11/11/19 4:10
5	6				11/20/19



Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440, El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900
 Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 589-6707
 Atlanta, GA (770) 448-8800

Work Order No:

16197

Project Manager:	Lance Crenshaw	Bill to: (if different)	Etech Environmental
Company Name:	Endeavor Energy	Company Name:	
Address:		Address:	
City, State ZIP:		City, State ZIP:	
Phone:		Email:	pm@etechnv.com

Work Order Comments Program: UST/PST ☐ PRP ☐ Brownfield ☐ RR ☐ Superfund ☐ State of Project: Reporting Level ☐ Level ☐ PST/US ☐ TRF ☐ Level ☐ Deliverables: EDD ☐ ADAPT ☐ Other:			
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[illegible][illegible]

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

Share for _____

Stephen Tojos

11/21/19 4:00

2	
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08/08/2008

Walls	4:10
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01110



XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Endeavor Energy

Date/ Time Received: 11/22/2019 11:10:00 AM

Work Order #: 644197

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist**Comments**

#1 *Temperature of cooler(s)?	.3
#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:

Brianna Teel

Date: 11/22/2019

Checklist reviewed by:

Jessica Kramer

Date: 11/22/2019



Certificate of Analysis Summary 669580

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: NC State SWD #1

Project Id: 11503
Contact: PM
Project Location: Lea County, NM

Date Received in Lab: Mon 08.10.2020 10:01
Report Date: 08.11.2020 15:33
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	669580-001	669580-002	669580-003	669580-004	669580-005	669580-006
	<i>Field Id:</i>	WW1d	WW2	SW2b	SW3c	SP1 @ 1'	SP2 @ 1'
	<i>Depth:</i>					1- ft	1- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	08.05.2020 00:00	08.05.2020 00:00	08.05.2020 00:00	08.05.2020 00:00	08.05.2020 00:00	08.05.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	08.10.2020 11:00	08.10.2020 11:00	08.10.2020 11:00	08.10.2020 11:00	08.10.2020 11:00	08.10.2020 11:00
	<i>Analyzed:</i>	08.10.2020 17:31	08.10.2020 17:51	08.10.2020 18:12	08.10.2020 18:33	08.10.2020 18:53	08.10.2020 19:14
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00198 0.00198	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199
Toluene		<0.00198 0.00198	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199
Ethylbenzene		<0.00198 0.00198	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199
m,p-Xylenes		<0.00396 0.00396	<0.00398 0.00398	<0.00398 0.00398	<0.00401 0.00401	<0.00402 0.00402	<0.00398 0.00398
o-Xylene		<0.00198 0.00198	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199
Total Xylenes		<0.00198 0.00198	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199
Total BTEX		<0.00198 0.00198	<0.00199 0.00199	<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00199 0.00199
Chloride by EPA 300	<i>Extracted:</i>	08.10.2020 12:00	08.10.2020 12:00	08.10.2020 12:00	08.10.2020 12:00	08.10.2020 12:00	08.10.2020 12:00
	<i>Analyzed:</i>	08.10.2020 19:07	08.10.2020 19:23	08.10.2020 19:28	08.10.2020 19:34	08.10.2020 19:39	08.10.2020 19:55
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		350 X 5.02	208 4.96	230 4.98	312 5.04	809 4.95	247 4.95
TPH By SW8015 Mod	<i>Extracted:</i>	08.10.2020 12:00	08.10.2020 12:00	08.10.2020 12:00	08.10.2020 12:00	08.10.2020 12:00	08.10.2020 12:00
	<i>Analyzed:</i>	08.10.2020 13:05	08.10.2020 14:17	08.10.2020 14:42	08.10.2020 15:07	08.10.2020 15:34	08.11.2020 09:56
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<49.8 49.8	<50.0 50.0	<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9
Diesel Range Organics (DRO)		<49.8 49.8	<50.0 50.0	<49.9 49.9	<50.0 50.0	51.6 50.0	161 49.9
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<50.0 50.0	<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9
Total TPH		<49.8 49.8	<50.0 50.0	<49.9 49.9	<50.0 50.0	51.6 50.0	161 49.9

BRL - Below Reporting Limit

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

Jessica Kramer



Certificate of Analysis Summary 669580

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: NC State SWD #1

Project Id: 11503
Contact: PM
Project Location: Lea County, NM

Date Received in Lab: Mon 08.10.2020 10:01
Report Date: 08.11.2020 15:33
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	669580-007	669580-008	669580-009	669580-010	669580-011	669580-012
	<i>Field Id:</i>	SP3 @ 6"	SP4 @ 6"	SP5 @ 6"	SP6 @ 6"	SP7 @ 6"	SP8 @ 6"
	<i>Depth:</i>	6- In	6- In	6- In	6- In	6- In	6- In
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	08.05.2020 00:00	08.05.2020 00:00	08.05.2020 00:00	08.05.2020 00:00	08.05.2020 00:00	08.05.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	08.10.2020 11:00	08.10.2020 11:00	08.10.2020 11:00	08.10.2020 11:00	08.10.2020 13:00	08.10.2020 13:00
	<i>Analyzed:</i>	08.10.2020 19:35	08.10.2020 19:55	08.10.2020 20:16	08.10.2020 20:36	08.11.2020 01:10	08.11.2020 01:30
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00198 0.00198	<0.00198 0.00198	<0.00199 0.00199	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200
Toluene		<0.00198 0.00198	<0.00198 0.00198	<0.00199 0.00199	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200
Ethylbenzene		<0.00198 0.00198	<0.00198 0.00198	<0.00199 0.00199	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200
m,p-Xylenes		<0.00397 0.00397	<0.00396 0.00396	<0.00398 0.00398	<0.00397 0.00397	<0.00398 0.00398	<0.00399 0.00399
o-Xylene		<0.00198 0.00198	<0.00198 0.00198	<0.00199 0.00199	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200
Total Xylenes		<0.00198 0.00198	<0.00198 0.00198	<0.00199 0.00199	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200
Total BTEX		<0.00198 0.00198	<0.00198 0.00198	<0.00199 0.00199	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	08.10.2020 12:00	08.10.2020 12:00	08.10.2020 12:00	08.10.2020 12:00	08.10.2020 12:00	08.10.2020 12:00
	<i>Analyzed:</i>	08.10.2020 20:00	08.10.2020 20:05	08.10.2020 20:11	08.10.2020 20:16	08.10.2020 20:21	08.10.2020 20:37
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		58.2 4.95	2010 25.0	149 4.99	120 4.97	1540 25.0	685 5.02
TPH By SW8015 Mod	<i>Extracted:</i>	08.10.2020 12:00	08.10.2020 12:00	08.10.2020 12:00	08.10.2020 12:00	08.10.2020 12:00	08.10.2020 12:00
	<i>Analyzed:</i>	08.11.2020 10:19	08.11.2020 10:43	08.10.2020 17:23	08.10.2020 17:51	08.10.2020 18:46	08.10.2020 19:13
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		74.7 49.8	<50.0 50.0	<49.8 49.8	<50.0 50.0	<50.0 50.0	<49.9 49.9
Diesel Range Organics (DRO)		<49.8 49.8	<50.0 50.0	<49.8 49.8	<50.0 50.0	<50.0 50.0	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<50.0 50.0	<49.8 49.8	<50.0 50.0	<50.0 50.0	<49.9 49.9
Total TPH		74.7 49.8	<50.0 50.0	<49.8 49.8	<50.0 50.0	<50.0 50.0	<49.9 49.9

BRL - Below Reporting Limit

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

Jessica Kramer



Certificate of Analysis Summary 669580

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: NC State SWD #1

Project Id: 11503
Contact: PM
Project Location: Lea County, NM

Date Received in Lab: Mon 08.10.2020 10:01
Report Date: 08.11.2020 15:33
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	669580-013	669580-014	669580-015	669580-016	669580-017	669580-018
	<i>Field Id:</i>	SP9 @ 6"	SP10 @ 6"	SP11 @ 6"	SP12 @ 6"	SP13 @ 6"	SP14 @ 6"
	<i>Depth:</i>	6- In	6- In	6- In	6- In	6- In	6- In
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	08.05.2020 00:00	08.05.2020 00:00	08.05.2020 00:00	08.05.2020 00:00	08.05.2020 00:00	08.05.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	08.10.2020 13:00	08.10.2020 13:00	08.10.2020 13:00	08.10.2020 13:00	08.10.2020 13:00	08.10.2020 13:00
	<i>Analyzed:</i>	08.11.2020 01:51	08.11.2020 02:11	08.11.2020 02:32	08.11.2020 02:52	08.11.2020 03:12	08.11.2020 04:33
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00198 0.00198	<0.00199 0.00199	<0.00201 0.00201	<0.00198 0.00198	<0.00198 0.00198	<0.00199 0.00199
Toluene		<0.00198 0.00198	<0.00199 0.00199	<0.00201 0.00201	<0.00198 0.00198	<0.00198 0.00198	<0.00199 0.00199
Ethylbenzene		<0.00198 0.00198	<0.00199 0.00199	<0.00201 0.00201	<0.00198 0.00198	<0.00198 0.00198	<0.00199 0.00199
m,p-Xylenes		<0.00397 0.00397	<0.00398 0.00398	<0.00402 0.00402	<0.00397 0.00397	<0.00396 0.00396	<0.00398 0.00398
o-Xylene		<0.00198 0.00198	<0.00199 0.00199	<0.00201 0.00201	<0.00198 0.00198	<0.00198 0.00198	<0.00199 0.00199
Total Xylenes		<0.00198 0.00198	<0.00199 0.00199	<0.00201 0.00201	<0.00198 0.00198	<0.00198 0.00198	<0.00199 0.00199
Total BTEX		<0.00198 0.00198	<0.00199 0.00199	<0.00201 0.00201	<0.00198 0.00198	<0.00198 0.00198	<0.00199 0.00199
Chloride by EPA 300	<i>Extracted:</i>	08.10.2020 12:00	08.10.2020 12:00	08.10.2020 12:00	08.10.2020 12:00	08.10.2020 12:00	08.10.2020 12:50
	<i>Analyzed:</i>	08.10.2020 20:42	08.11.2020 08:36	08.11.2020 08:41	08.11.2020 08:46	08.11.2020 09:07	08.10.2020 13:20
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		877 5.04	1250 24.9	2820 25.0	35.7 5.05	3200 25.0	2160 25.0
TPH By SW8015 Mod	<i>Extracted:</i>	08.10.2020 12:00	08.10.2020 12:00	08.10.2020 12:00	08.10.2020 12:00	08.10.2020 12:00	08.10.2020 12:00
	<i>Analyzed:</i>	08.10.2020 19:39	08.10.2020 20:04	08.10.2020 20:29	08.10.2020 20:55	08.10.2020 21:19	08.10.2020 21:44
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9	<49.8 49.8	<50.0 50.0
Diesel Range Organics (DRO)		<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9	<49.8 49.8	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9	<49.8 49.8	<50.0 50.0
Total TPH		<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9	<49.8 49.8	<50.0 50.0

BRL - Below Reporting Limit

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

Jessica Kramer

Analytical Report 669580

for

Etech Environmental & Safety Solution, Inc

Project Manager: PM

NC State SWD #1

11503

08.11.2020

Collected By: Client



1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-36), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-25), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNi02385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



08.11.2020

Project Manager: **PM**

Etech Environmental & Safety Solution, Inc

P.O. Box 62228

Midland, TX 79711

Reference: Eurofins Xenco, LLC Report No(s): **669580**

NC State SWD #1

Project Address: Lea County, NM

PM :

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 Eurofins Xenco, LLC Report Number(s) 669580. 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 Eurofins Xenco, LLC. 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. 669580 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads "Jessica Kramer".

Jessica Kramer

Project Manager

A Small Business and Minority Company

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


 Environment Testing
Xenco

Sample Cross Reference 669580

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
WW1d	S	08.05.2020 00:00		669580-001
WW2	S	08.05.2020 00:00		669580-002
SW2b	S	08.05.2020 00:00		669580-003
SW3c	S	08.05.2020 00:00		669580-004
SP1 @ 1'	S	08.05.2020 00:00	1 ft	669580-005
SP2 @ 1'	S	08.05.2020 00:00	1 ft	669580-006
SP3 @ 6"	S	08.05.2020 00:00	6 In	669580-007
SP4 @ 6"	S	08.05.2020 00:00	6 In	669580-008
SP5 @ 6"	S	08.05.2020 00:00	6 In	669580-009
SP6 @ 6"	S	08.05.2020 00:00	6 In	669580-010
SP7 @ 6"	S	08.05.2020 00:00	6 In	669580-011
SP8 @ 6"	S	08.05.2020 00:00	6 In	669580-012
SP9 @ 6"	S	08.05.2020 00:00	6 In	669580-013
SP10 @ 6"	S	08.05.2020 00:00	6 In	669580-014
SP11 @ 6"	S	08.05.2020 00:00	6 In	669580-015
SP12 @ 6"	S	08.05.2020 00:00	6 In	669580-016
SP13 @ 6"	S	08.05.2020 00:00	6 In	669580-017
SP14 @ 6"	S	08.05.2020 00:00	6 In	669580-018



CASE NARRATIVE

Client Name: Etech Environmental & Safety Solution, Inc

Project Name: NC State SWD #1

Project ID: 11503
Work Order Number(s): 669580

Report Date: 08.11.2020
Date Received: 08.10.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3134098 Chloride by EPA 300

Lab Sample ID 669580-011 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 669580-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013, -014, -015, -016, -017.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.



Certificate of Analytical Results 669580

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **WW1d** Matrix: Soil Date Received: 08.10.2020 10:01
 Lab Sample Id: 669580-001 Date Collected: 08.05.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.10.2020 12:00 Basis: Wet Weight
 Seq Number: 3134098

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	350	5.02	mg/kg	08.10.2020 19:07	X	1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.10.2020 12:00 Basis: Wet Weight
 Seq Number: 3134152

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	08.10.2020 13:05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	08.10.2020 13:05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	08.10.2020 13:05	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	08.10.2020 13:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	80	%	70-130	08.10.2020 13:05	
o-Terphenyl	84-15-1	87	%	70-130	08.10.2020 13:05	



Certificate of Analytical Results 669580

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **WW1d**
Lab Sample Id: 669580-001

Matrix: Soil
Date Collected: 08.05.2020 00:00

Date Received: 08.10.2020 10:01

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 08.10.2020 11:00

Basis: Wet Weight

Seq Number: 3134105

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.10.2020 17:31	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.10.2020 17:31	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	08.10.2020 17:31	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	08.10.2020 17:31	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	08.10.2020 17:31	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	08.10.2020 17:31	U	1
Total BTEX		<0.00198	0.00198	mg/kg	08.10.2020 17:31	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	111	%	70-130	08.10.2020 17:31		
4-Bromofluorobenzene	460-00-4	81	%	70-130	08.10.2020 17:31		



Certificate of Analytical Results 669580

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **WW2** Matrix: Soil Date Received: 08.10.2020 10:01
 Lab Sample Id: 669580-002 Date Collected: 08.05.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.10.2020 12:00 Basis: Wet Weight
 Seq Number: 3134098

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	208	4.96	mg/kg	08.10.2020 19:23		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.10.2020 12:00 Basis: Wet Weight
 Seq Number: 3134152

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.10.2020 14:17	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	08.10.2020 14:17	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.10.2020 14:17	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	08.10.2020 14:17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	76	%	70-130	08.10.2020 14:17	
o-Terphenyl	84-15-1	84	%	70-130	08.10.2020 14:17	



Certificate of Analytical Results 669580

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **WW2**
Lab Sample Id: 669580-002

Matrix: Soil
Date Collected: 08.05.2020 00:00

Date Received: 08.10.2020 10:01

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 08.10.2020 11:00

Basis: Wet Weight

Seq Number: 3134105

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.10.2020 17:51	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.10.2020 17:51	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.10.2020 17:51	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.10.2020 17:51	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.10.2020 17:51	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.10.2020 17:51	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.10.2020 17:51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	116	%	70-130	08.10.2020 17:51	
4-Bromofluorobenzene	460-00-4	94	%	70-130	08.10.2020 17:51	



Certificate of Analytical Results 669580

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SW2b** Matrix: Soil Date Received: 08.10.2020 10:01
 Lab Sample Id: 669580-003 Date Collected: 08.05.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.10.2020 12:00 Basis: Wet Weight
 Seq Number: 3134098

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	230	4.98	mg/kg	08.10.2020 19:28		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.10.2020 12:00 Basis: Wet Weight
 Seq Number: 3134152

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.10.2020 14:42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	08.10.2020 14:42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.10.2020 14:42	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	08.10.2020 14:42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	79	%	70-130	08.10.2020 14:42	
o-Terphenyl	84-15-1	88	%	70-130	08.10.2020 14:42	



Certificate of Analytical Results 669580

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SW2b**
Lab Sample Id: 669580-003

Matrix: Soil
Date Collected: 08.05.2020 00:00

Date Received: 08.10.2020 10:01

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 08.10.2020 11:00

Basis: Wet Weight

Seq Number: 3134105

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.10.2020 18:12	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.10.2020 18:12	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.10.2020 18:12	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.10.2020 18:12	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.10.2020 18:12	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.10.2020 18:12	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.10.2020 18:12	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	92	%	70-130	08.10.2020 18:12		
1,4-Difluorobenzene	540-36-3	116	%	70-130	08.10.2020 18:12		



Certificate of Analytical Results 669580

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SW3c** Matrix: Soil Date Received: 08.10.2020 10:01
 Lab Sample Id: 669580-004 Date Collected: 08.05.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.10.2020 12:00 Basis: Wet Weight
 Seq Number: 3134098

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	312	5.04	mg/kg	08.10.2020 19:34		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.10.2020 12:00 Basis: Wet Weight
 Seq Number: 3134152

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.10.2020 15:07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	08.10.2020 15:07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.10.2020 15:07	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	08.10.2020 15:07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	78	%	70-130	08.10.2020 15:07	
o-Terphenyl	84-15-1	88	%	70-130	08.10.2020 15:07	



Certificate of Analytical Results 669580

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SW3c**
Lab Sample Id: 669580-004

Matrix: Soil
Date Collected: 08.05.2020 00:00

Date Received: 08.10.2020 10:01

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 08.10.2020 11:00

Basis: Wet Weight

Seq Number: 3134105

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.10.2020 18:33	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.10.2020 18:33	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.10.2020 18:33	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	08.10.2020 18:33	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.10.2020 18:33	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.10.2020 18:33	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.10.2020 18:33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	95	%	70-130	08.10.2020 18:33		
1,4-Difluorobenzene	540-36-3	115	%	70-130	08.10.2020 18:33		



Certificate of Analytical Results 669580

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SP1 @ 1'** Matrix: Soil Date Received: 08.10.2020 10:01
 Lab Sample Id: 669580-005 Date Collected: 08.05.2020 00:00 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.10.2020 12:00 Basis: Wet Weight
 Seq Number: 3134098

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	809	4.95	mg/kg	08.10.2020 19:39		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.10.2020 12:00 Basis: Wet Weight
 Seq Number: 3134152

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.10.2020 15:34	U	1
Diesel Range Organics (DRO)	C10C28DRO	51.6	50.0	mg/kg	08.10.2020 15:34		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.10.2020 15:34	U	1
Total TPH	PHC635	51.6	50.0	mg/kg	08.10.2020 15:34		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	77	%	70-130	08.10.2020 15:34	
o-Terphenyl	84-15-1	83	%	70-130	08.10.2020 15:34	



Certificate of Analytical Results 669580

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SP1 @ 1'**
Lab Sample Id: 669580-005

Matrix: Soil
Date Collected: 08.05.2020 00:00

Date Received: 08.10.2020 10:01
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 08.10.2020 11:00

Basis: Wet Weight

Seq Number: 3134105

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.10.2020 18:53	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.10.2020 18:53	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.10.2020 18:53	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.10.2020 18:53	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.10.2020 18:53	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.10.2020 18:53	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.10.2020 18:53	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	97	%	70-130	08.10.2020 18:53	
1,4-Difluorobenzene	540-36-3	116	%	70-130	08.10.2020 18:53	



Certificate of Analytical Results 669580

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SP2 @ 1'** Matrix: Soil Date Received: 08.10.2020 10:01
 Lab Sample Id: 669580-006 Date Collected: 08.05.2020 00:00 Sample Depth: 1 ft
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.10.2020 12:00 Basis: Wet Weight
 Seq Number: 3134098

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	247	4.95	mg/kg	08.10.2020 19:55		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.10.2020 12:00 Basis: Wet Weight
 Seq Number: 3134152

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.11.2020 09:56	U	1
Diesel Range Organics (DRO)	C10C28DRO	161	49.9	mg/kg	08.11.2020 09:56		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.11.2020 09:56	U	1
Total TPH	PHC635	161	49.9	mg/kg	08.11.2020 09:56		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-130	08.11.2020 09:56	
o-Terphenyl	84-15-1	100	%	70-130	08.11.2020 09:56	



Certificate of Analytical Results 669580

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SP2 @ 1'**
Lab Sample Id: 669580-006

Matrix: Soil
Date Collected: 08.05.2020 00:00

Date Received: 08.10.2020 10:01
Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 08.10.2020 11:00

Basis: Wet Weight

Seq Number: 3134105

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.10.2020 19:14	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.10.2020 19:14	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.10.2020 19:14	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.10.2020 19:14	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.10.2020 19:14	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.10.2020 19:14	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.10.2020 19:14	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	116	%	70-130	08.10.2020 19:14		
4-Bromofluorobenzene	460-00-4	106	%	70-130	08.10.2020 19:14		



Certificate of Analytical Results 669580

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SP3 @ 6"**

Matrix: Soil

Date Received: 08.10.2020 10:01

Lab Sample Id: 669580-007

Date Collected: 08.05.2020 00:00

Sample Depth: 6 In

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 08.10.2020 12:00

Basis: Wet Weight

Seq Number: 3134098

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	58.2	4.95	mg/kg	08.10.2020 20:00		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 08.10.2020 12:00

Basis: Wet Weight

Seq Number: 3134152

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	74.7	49.8	mg/kg	08.11.2020 10:19		1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	08.11.2020 10:19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	08.11.2020 10:19	U	1
Total TPH	PHC635	74.7	49.8	mg/kg	08.11.2020 10:19		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-130	08.11.2020 10:19	
o-Terphenyl	84-15-1	105	%	70-130	08.11.2020 10:19	



Certificate of Analytical Results 669580

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SP3 @ 6"**
Lab Sample Id: 669580-007

Matrix: Soil
Date Collected: 08.05.2020 00:00

Date Received: 08.10.2020 10:01
Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 08.10.2020 11:00

Basis: Wet Weight

Seq Number: 3134105

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.10.2020 19:35	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.10.2020 19:35	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	08.10.2020 19:35	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	08.10.2020 19:35	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	08.10.2020 19:35	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	08.10.2020 19:35	U	1
Total BTEX		<0.00198	0.00198	mg/kg	08.10.2020 19:35	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	92	%	70-130	08.10.2020 19:35		
1,4-Difluorobenzene	540-36-3	116	%	70-130	08.10.2020 19:35		



Certificate of Analytical Results 669580

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SP4 @ 6"** Matrix: Soil Date Received: 08.10.2020 10:01
 Lab Sample Id: 669580-008 Date Collected: 08.05.2020 00:00 Sample Depth: 6 In
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.10.2020 12:00 Basis: Wet Weight
 Seq Number: 3134098

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2010	25.0	mg/kg	08.10.2020 20:05		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.10.2020 12:00 Basis: Wet Weight
 Seq Number: 3134152

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.11.2020 10:43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	08.11.2020 10:43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.11.2020 10:43	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	08.11.2020 10:43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-130	08.11.2020 10:43	
o-Terphenyl	84-15-1	99	%	70-130	08.11.2020 10:43	



Certificate of Analytical Results 669580

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SP4 @ 6"**

Matrix: Soil

Date Received: 08.10.2020 10:01

Lab Sample Id: 669580-008

Date Collected: 08.05.2020 00:00

Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 08.10.2020 11:00

Basis: Wet Weight

Seq Number: 3134105

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.10.2020 19:55	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.10.2020 19:55	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	08.10.2020 19:55	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	08.10.2020 19:55	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	08.10.2020 19:55	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	08.10.2020 19:55	U	1
Total BTEX		<0.00198	0.00198	mg/kg	08.10.2020 19:55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	117	%	70-130	08.10.2020 19:55	
4-Bromofluorobenzene	460-00-4	95	%	70-130	08.10.2020 19:55	



Certificate of Analytical Results 669580

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SP5 @ 6"**

Matrix: Soil

Date Received: 08.10.2020 10:01

Lab Sample Id: 669580-009

Date Collected: 08.05.2020 00:00

Sample Depth: 6 In

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 08.10.2020 12:00

Basis: Wet Weight

Seq Number: 3134098

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	149	4.99	mg/kg	08.10.2020 20:11		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 08.10.2020 12:00

Basis: Wet Weight

Seq Number: 3134152

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	08.10.2020 17:23	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	08.10.2020 17:23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	08.10.2020 17:23	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	08.10.2020 17:23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-130	08.10.2020 17:23	
o-Terphenyl	84-15-1	99	%	70-130	08.10.2020 17:23	



Certificate of Analytical Results 669580

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SP5 @ 6"**

Matrix: Soil

Date Received: 08.10.2020 10:01

Lab Sample Id: 669580-009

Date Collected: 08.05.2020 00:00

Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 08.10.2020 11:00

Basis: Wet Weight

Seq Number: 3134105

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.10.2020 20:16	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.10.2020 20:16	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.10.2020 20:16	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.10.2020 20:16	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.10.2020 20:16	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.10.2020 20:16	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.10.2020 20:16	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	116	%	70-130	08.10.2020 20:16		
4-Bromofluorobenzene	460-00-4	97	%	70-130	08.10.2020 20:16		



Certificate of Analytical Results 669580

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SP6 @ 6"** Matrix: Soil Date Received: 08.10.2020 10:01
 Lab Sample Id: 669580-010 Date Collected: 08.05.2020 00:00 Sample Depth: 6 In
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.10.2020 12:00 Basis: Wet Weight
 Seq Number: 3134098

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	120	4.97	mg/kg	08.10.2020 20:16		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.10.2020 12:00 Basis: Wet Weight
 Seq Number: 3134152

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.10.2020 17:51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	08.10.2020 17:51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.10.2020 17:51	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	08.10.2020 17:51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-130	08.10.2020 17:51	
o-Terphenyl	84-15-1	101	%	70-130	08.10.2020 17:51	



Certificate of Analytical Results 669580

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SP6 @ 6"**
Lab Sample Id: 669580-010

Matrix: Soil
Date Collected: 08.05.2020 00:00

Date Received: 08.10.2020 10:01
Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 08.10.2020 11:00

Basis: Wet Weight

Seq Number: 3134105

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.10.2020 20:36	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.10.2020 20:36	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	08.10.2020 20:36	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	08.10.2020 20:36	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	08.10.2020 20:36	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	08.10.2020 20:36	U	1
Total BTEX		<0.00198	0.00198	mg/kg	08.10.2020 20:36	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	116	%	70-130	08.10.2020 20:36	
4-Bromofluorobenzene	460-00-4	97	%	70-130	08.10.2020 20:36	



Certificate of Analytical Results 669580

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SP7 @ 6"**

Matrix: Soil

Date Received: 08.10.2020 10:01

Lab Sample Id: 669580-011

Date Collected: 08.05.2020 00:00

Sample Depth: 6 In

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 08.10.2020 12:00

Basis: Wet Weight

Seq Number: 3134098

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1540	25.0	mg/kg	08.10.2020 20:21		5

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 08.10.2020 12:00

Basis: Wet Weight

Seq Number: 3134152

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.10.2020 18:46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	08.10.2020 18:46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.10.2020 18:46	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	08.10.2020 18:46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	87	%	70-130	08.10.2020 18:46	
o-Terphenyl	84-15-1	90	%	70-130	08.10.2020 18:46	



Certificate of Analytical Results 669580

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SP7 @ 6"**
Lab Sample Id: 669580-011

Matrix: Soil
Date Collected: 08.05.2020 00:00

Date Received: 08.10.2020 10:01
Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 08.10.2020 13:00

Basis: Wet Weight

Seq Number: 3134108

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.11.2020 01:10	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.11.2020 01:10	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.11.2020 01:10	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.11.2020 01:10	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.11.2020 01:10	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.11.2020 01:10	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.11.2020 01:10	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	98	%	70-130	08.11.2020 01:10		
1,4-Difluorobenzene	540-36-3	118	%	70-130	08.11.2020 01:10		



Certificate of Analytical Results 669580

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SP8 @ 6"** Matrix: Soil Date Received: 08.10.2020 10:01
 Lab Sample Id: 669580-012 Date Collected: 08.05.2020 00:00 Sample Depth: 6 In
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.10.2020 12:00 Basis: Wet Weight
 Seq Number: 3134098

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	685	5.02	mg/kg	08.10.2020 20:37		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.10.2020 12:00 Basis: Wet Weight
 Seq Number: 3134152

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.10.2020 19:13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	08.10.2020 19:13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.10.2020 19:13	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	08.10.2020 19:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	81	%	70-130	08.10.2020 19:13	
o-Terphenyl	84-15-1	87	%	70-130	08.10.2020 19:13	



Certificate of Analytical Results 669580

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SP8 @ 6"**
Lab Sample Id: 669580-012

Matrix: Soil
Date Collected: 08.05.2020 00:00

Date Received: 08.10.2020 10:01
Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 08.10.2020 13:00

Basis: Wet Weight

Seq Number: 3134108

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.11.2020 01:30	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.11.2020 01:30	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.11.2020 01:30	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.11.2020 01:30	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.11.2020 01:30	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.11.2020 01:30	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.11.2020 01:30	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	114	%	70-130	08.11.2020 01:30		
4-Bromofluorobenzene	460-00-4	93	%	70-130	08.11.2020 01:30		



Certificate of Analytical Results 669580

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SP9 @ 6"** Matrix: Soil Date Received: 08.10.2020 10:01
 Lab Sample Id: 669580-013 Date Collected: 08.05.2020 00:00 Sample Depth: 6 In
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.10.2020 12:00 Basis: Wet Weight
 Seq Number: 3134098

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	877	5.04	mg/kg	08.10.2020 20:42		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.10.2020 12:00 Basis: Wet Weight
 Seq Number: 3134152

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.10.2020 19:39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	08.10.2020 19:39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.10.2020 19:39	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	08.10.2020 19:39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	84	%	70-130	08.10.2020 19:39	
o-Terphenyl	84-15-1	90	%	70-130	08.10.2020 19:39	



Certificate of Analytical Results 669580

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SP9 @ 6"**

Matrix: Soil

Date Received: 08.10.2020 10:01

Lab Sample Id: 669580-013

Date Collected: 08.05.2020 00:00

Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 08.10.2020 13:00

Basis: Wet Weight

Seq Number: 3134108

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.11.2020 01:51	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.11.2020 01:51	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	08.11.2020 01:51	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	08.11.2020 01:51	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	08.11.2020 01:51	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	08.11.2020 01:51	U	1
Total BTEX		<0.00198	0.00198	mg/kg	08.11.2020 01:51	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	93	%	70-130	08.11.2020 01:51		
1,4-Difluorobenzene	540-36-3	112	%	70-130	08.11.2020 01:51		



Certificate of Analytical Results 669580

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SP10 @ 6"** Matrix: Soil Date Received: 08.10.2020 10:01
 Lab Sample Id: 669580-014 Date Collected: 08.05.2020 00:00 Sample Depth: 6 In
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.10.2020 12:00 Basis: Wet Weight
 Seq Number: 3134098

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1250	24.9	mg/kg	08.11.2020 08:36		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.10.2020 12:00 Basis: Wet Weight
 Seq Number: 3134152

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.10.2020 20:04	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	08.10.2020 20:04	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.10.2020 20:04	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	08.10.2020 20:04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-130	08.10.2020 20:04	
o-Terphenyl	84-15-1	95	%	70-130	08.10.2020 20:04	



Certificate of Analytical Results 669580

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SP10 @ 6"**

Matrix: Soil

Date Received: 08.10.2020 10:01

Lab Sample Id: 669580-014

Date Collected: 08.05.2020 00:00

Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 08.10.2020 13:00

Basis: Wet Weight

Seq Number: 3134108

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.11.2020 02:11	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.11.2020 02:11	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.11.2020 02:11	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.11.2020 02:11	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.11.2020 02:11	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.11.2020 02:11	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.11.2020 02:11	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	102	%	70-130	08.11.2020 02:11		
1,4-Difluorobenzene	540-36-3	116	%	70-130	08.11.2020 02:11		



Certificate of Analytical Results 669580

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SP11 @ 6"** Matrix: Soil Date Received: 08.10.2020 10:01
 Lab Sample Id: 669580-015 Date Collected: 08.05.2020 00:00 Sample Depth: 6 In
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.10.2020 12:00 Basis: Wet Weight
 Seq Number: 3134098

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2820	25.0	mg/kg	08.11.2020 08:41		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.10.2020 12:00 Basis: Wet Weight
 Seq Number: 3134152

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.10.2020 20:29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	08.10.2020 20:29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.10.2020 20:29	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	08.10.2020 20:29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-130	08.10.2020 20:29	
o-Terphenyl	84-15-1	96	%	70-130	08.10.2020 20:29	



Certificate of Analytical Results 669580

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SP11 @ 6"**

Matrix: Soil

Date Received: 08.10.2020 10:01

Lab Sample Id: 669580-015

Date Collected: 08.05.2020 00:00

Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 08.10.2020 13:00

Basis: Wet Weight

Seq Number: 3134108

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.11.2020 02:32	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.11.2020 02:32	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.11.2020 02:32	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.11.2020 02:32	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.11.2020 02:32	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.11.2020 02:32	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.11.2020 02:32	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	97	%	70-130	08.11.2020 02:32		
1,4-Difluorobenzene	540-36-3	113	%	70-130	08.11.2020 02:32		



Certificate of Analytical Results 669580

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SP12 @ 6"** Matrix: Soil Date Received: 08.10.2020 10:01
 Lab Sample Id: 669580-016 Date Collected: 08.05.2020 00:00 Sample Depth: 6 In
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.10.2020 12:00 Basis: Wet Weight
 Seq Number: 3134098

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	35.7	5.05	mg/kg	08.11.2020 08:46		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.10.2020 12:00 Basis: Wet Weight
 Seq Number: 3134152

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.10.2020 20:55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	08.10.2020 20:55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.10.2020 20:55	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	08.10.2020 20:55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-130	08.10.2020 20:55	
o-Terphenyl	84-15-1	99	%	70-130	08.10.2020 20:55	



Certificate of Analytical Results 669580

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SP12 @ 6"**

Matrix: Soil

Date Received: 08.10.2020 10:01

Lab Sample Id: 669580-016

Date Collected: 08.05.2020 00:00

Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 08.10.2020 13:00

Basis: Wet Weight

Seq Number: 3134108

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.11.2020 02:52	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.11.2020 02:52	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	08.11.2020 02:52	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	08.11.2020 02:52	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	08.11.2020 02:52	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	08.11.2020 02:52	U	1
Total BTEX		<0.00198	0.00198	mg/kg	08.11.2020 02:52	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	110	%	70-130	08.11.2020 02:52	
4-Bromofluorobenzene	460-00-4	98	%	70-130	08.11.2020 02:52	



Certificate of Analytical Results 669580

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SP13 @ 6"** Matrix: Soil Date Received: 08.10.2020 10:01
 Lab Sample Id: 669580-017 Date Collected: 08.05.2020 00:00 Sample Depth: 6 In
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.10.2020 12:00 Basis: Wet Weight
 Seq Number: 3134098

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3200	25.0	mg/kg	08.11.2020 09:07		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.10.2020 12:00 Basis: Wet Weight
 Seq Number: 3134152

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	08.10.2020 21:19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	08.10.2020 21:19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	08.10.2020 21:19	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	08.10.2020 21:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-130	08.10.2020 21:19	
o-Terphenyl	84-15-1	97	%	70-130	08.10.2020 21:19	



Certificate of Analytical Results 669580

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SP13 @ 6"**

Matrix: Soil

Date Received: 08.10.2020 10:01

Lab Sample Id: 669580-017

Date Collected: 08.05.2020 00:00

Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 08.10.2020 13:00

Basis: Wet Weight

Seq Number: 3134108

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.11.2020 03:12	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.11.2020 03:12	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	08.11.2020 03:12	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	08.11.2020 03:12	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	08.11.2020 03:12	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	08.11.2020 03:12	U	1
Total BTEX		<0.00198	0.00198	mg/kg	08.11.2020 03:12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	08.11.2020 03:12	
1,4-Difluorobenzene	540-36-3	115	%	70-130	08.11.2020 03:12	



Certificate of Analytical Results 669580

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SP14 @ 6"** Matrix: Soil Date Received: 08.10.2020 10:01
 Lab Sample Id: 669580-018 Date Collected: 08.05.2020 00:00 Sample Depth: 6 In
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.10.2020 12:50 Basis: Wet Weight
 Seq Number: 3134090

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2160	25.0	mg/kg	08.10.2020 13:20		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.10.2020 12:00 Basis: Wet Weight
 Seq Number: 3134152

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.10.2020 21:44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	08.10.2020 21:44	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.10.2020 21:44	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	08.10.2020 21:44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-130	08.10.2020 21:44	
o-Terphenyl	84-15-1	95	%	70-130	08.10.2020 21:44	



Certificate of Analytical Results 669580

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SP14 @ 6"**

Matrix: Soil

Date Received: 08.10.2020 10:01

Lab Sample Id: 669580-018

Date Collected: 08.05.2020 00:00

Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: AMF

% Moisture:

Analyst: AMF

Date Prep: 08.10.2020 13:00

Basis: Wet Weight

Seq Number: 3134108

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.11.2020 04:33	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.11.2020 04:33	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.11.2020 04:33	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.11.2020 04:33	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.11.2020 04:33	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.11.2020 04:33	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.11.2020 04:33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	92	%	70-130	08.11.2020 04:33		
1,4-Difluorobenzene	540-36-3	112	%	70-130	08.11.2020 04:33		

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. **ND** Not Detected.

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



Etech Environmental & Safety Solution, Inc

NC State SWD #1

Analytical Method: Chloride by EPA 300

Seq Number: 3134098

MB Sample Id: 7709071-1-BLK

Matrix: Solid

LCS Sample Id: 7709071-1-BKS

Prep Method: E300P

Date Prep: 08.10.2020

LCSD Sample Id: 7709071-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	243	97	242	97	90-110	0	20	mg/kg	08.10.2020 18:57	

Analytical Method: Chloride by EPA 300

Seq Number: 3134090

MB Sample Id: 7709073-1-BLK

Matrix: Solid

LCS Sample Id: 7709073-1-BKS

Prep Method: E300P

Date Prep: 08.10.2020

LCSD Sample Id: 7709073-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	264	106	264	106	90-110	0	20	mg/kg	08.10.2020 13:08	

Analytical Method: Chloride by EPA 300

Seq Number: 3134098

Parent Sample Id: 669580-001

Matrix: Soil

MS Sample Id: 669580-001 S

Prep Method: E300P

Date Prep: 08.10.2020

MSD Sample Id: 669580-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	350	251	525	70	511	64	90-110	3	20	mg/kg	08.10.2020 19:13	X

Analytical Method: Chloride by EPA 300

Seq Number: 3134098

Parent Sample Id: 669580-011

Matrix: Soil

MS Sample Id: 669580-011 S

Prep Method: E300P

Date Prep: 08.10.2020

MSD Sample Id: 669580-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1540	1250	2710	94	2710	94	90-110	0	20	mg/kg	08.10.2020 20:26	

Analytical Method: Chloride by EPA 300

Seq Number: 3134090

Parent Sample Id: 669580-018

Matrix: Soil

MS Sample Id: 669580-018 S

Prep Method: E300P

Date Prep: 08.10.2020

MSD Sample Id: 669580-018 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	2160	1250	3480	106	3460	104	90-110	1	20	mg/kg	08.10.2020 13:27	

Analytical Method: Chloride by EPA 300

Seq Number: 3134090

Parent Sample Id: 669583-002

Matrix: Soil

MS Sample Id: 669583-002 S

Prep Method: E300P

Date Prep: 08.10.2020

MSD Sample Id: 669583-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	10.3	248	271	105	268	104	90-110	1	20	mg/kg	08.10.2020 14:56	

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



Etech Environmental & Safety Solution, Inc

NC State SWD #1

Analytical Method: TPH By SW8015 Mod

Seq Number: 3134152

Matrix: Solid

Prep Method: SW8015P

Date Prep: 08.10.2020

MB Sample Id: 7709122-1-BLK

LCS Sample Id: 7709122-1-BKS

LCSD Sample Id: 7709122-1-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)	<50.0	1000	845	85	874	87	70-130	3	20	mg/kg	08.10.2020 12:18	
Diesel Range Organics (DRO)	<50.0	1000	839	84	915	92	70-130	9	20	mg/kg	08.10.2020 12:18	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	95		94		92		70-130	%	08.10.2020 12:18
o-Terphenyl	106		104		99		70-130	%	08.10.2020 12:18

Analytical Method: TPH By SW8015 Mod

Seq Number: 3134152

Matrix: Solid

Prep Method: SW8015P

Date Prep: 08.10.2020

MB Sample Id: 7709122-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	08.10.2020 11:54	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3134152

Matrix: Soil

Prep Method: SW8015P

Date Prep: 08.10.2020

Parent Sample Id: 669580-001

MS Sample Id: 669580-001 S

MSD Sample Id: 669580-001 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)	<50.0	999	783	78	786	79	70-130	0	20	mg/kg	08.10.2020 13:28	
Diesel Range Organics (DRO)	<50.0	999	848	85	834	84	70-130	2	20	mg/kg	08.10.2020 13:28	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	88		93		70-130	%	08.10.2020 13:28
o-Terphenyl	89		103		70-130	%	08.10.2020 13:28

Analytical Method: BTEX by EPA 8021B

Seq Number: 3134105

Matrix: Solid

Prep Method: SW5035A

Date Prep: 08.10.2020

MB Sample Id: 7709133-1-BLK

LCS Sample Id: 7709133-1-BKS

LCSD Sample Id: 7709133-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0788	79	0.0849	85	70-130	7	35	mg/kg	08.10.2020 09:37	
Toluene	<0.00200	0.100	0.0825	83	0.0878	88	70-130	6	35	mg/kg	08.10.2020 09:37	
Ethylbenzene	<0.00200	0.100	0.0862	86	0.0917	92	70-130	6	35	mg/kg	08.10.2020 09:37	
m,p-Xylenes	<0.00400	0.200	0.174	87	0.184	92	70-130	6	35	mg/kg	08.10.2020 09:37	
o-Xylene	<0.00200	0.100	0.0865	87	0.0924	92	70-130	7	35	mg/kg	08.10.2020 09:37	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		97		99		70-130	%	08.10.2020 09:37
4-Bromofluorobenzene	94		100		104		70-130	%	08.10.2020 09:37

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



Etech Environmental & Safety Solution, Inc

NC State SWD #1

Analytical Method: BTEX by EPA 8021B

Seq Number: 3134108

Matrix: Solid

Prep Method: SW5035A

Date Prep: 08.10.2020

MB Sample Id: 7709136-1-BLK

LCS Sample Id: 7709136-1-BKS

LCSD Sample Id: 7709136-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0795	80	0.0805	81	70-130	1	35	mg/kg	08.10.2020 21:46	
Toluene	<0.00200	0.100	0.0754	75	0.0790	79	70-130	5	35	mg/kg	08.10.2020 21:46	
Ethylbenzene	<0.00200	0.100	0.0757	76	0.0791	79	70-130	4	35	mg/kg	08.10.2020 21:46	
m,p-Xylenes	<0.00400	0.200	0.150	75	0.157	79	70-130	5	35	mg/kg	08.10.2020 21:46	
o-Xylene	<0.00200	0.100	0.0770	77	0.0807	81	70-130	5	35	mg/kg	08.10.2020 21:46	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	110		100		99		70-130	%	08.10.2020 21:46
4-Bromofluorobenzene	88		93		96		70-130	%	08.10.2020 21:46

Analytical Method: BTEX by EPA 8021B

Seq Number: 3134105

Matrix: Soil

Prep Method: SW5035A

Date Prep: 08.10.2020

Parent Sample Id: 669427-003

MS Sample Id: 669427-003 S

MSD Sample Id: 669427-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00198	0.0992	0.0742	75	0.0727	73	70-130	2	35	mg/kg	08.10.2020 10:18	
Toluene	<0.00198	0.0992	0.0746	75	0.0726	73	70-130	3	35	mg/kg	08.10.2020 10:18	
Ethylbenzene	<0.00198	0.0992	0.0761	77	0.0737	74	70-130	3	35	mg/kg	08.10.2020 10:18	
m,p-Xylenes	<0.00397	0.198	0.153	77	0.147	74	70-130	4	35	mg/kg	08.10.2020 10:18	
o-Xylene	<0.00198	0.0992	0.0762	77	0.0733	73	70-130	4	35	mg/kg	08.10.2020 10:18	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		97		70-130	%	08.10.2020 10:18
4-Bromofluorobenzene	98		93		70-130	%	08.10.2020 10:18

Analytical Method: BTEX by EPA 8021B

Seq Number: 3134108

Matrix: Soil

Prep Method: SW5035A

Date Prep: 08.10.2020

Parent Sample Id: 669577-001

MS Sample Id: 669577-001 S

MSD Sample Id: 669577-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0994	0.0590	59	0.0543	55	70-130	8	35	mg/kg	08.10.2020 22:27	X
Toluene	0.00301	0.0994	0.0601	57	0.0558	53	70-130	7	35	mg/kg	08.10.2020 22:27	X
Ethylbenzene	<0.00199	0.0994	0.0584	59	0.0535	54	70-130	9	35	mg/kg	08.10.2020 22:27	X
m,p-Xylenes	<0.00398	0.199	0.117	59	0.107	54	70-130	9	35	mg/kg	08.10.2020 22:27	X
o-Xylene	<0.00199	0.0994	0.0600	60	0.0550	55	70-130	9	35	mg/kg	08.10.2020 22:27	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		103		70-130	%	08.10.2020 22:27
4-Bromofluorobenzene	100		98		70-130	%	08.10.2020 22:27

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



Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440, EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900
 Tampa, FL (813) 620-2000, Tallahassee, FL (904) 756-0747, Delray Beach, FL (561) 689-6701
 Atlanta, GA (770) 449-8800

Work Order No: W09580

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Page 1 of 2

Project Manager:	Joel Lowry	Bill to: (if different)	Tiffany Fawks
Company Name:	Etech Environmental and Safety	Company Name:	Endeavor
Address:	3100 Plains Hwy	Address:	
City, State ZIP:	Lovington, NM, 88260	City, State ZIP:	
Phone:	575-396-2378	Email:	Email Results to: PM@etechenv.com + Client

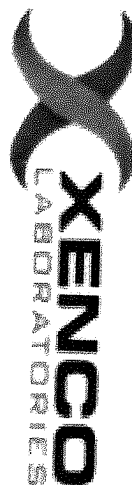
Work Order Comments	
Program: ☐ PST ☐ PRF ☐ Brownfield ☐ RR ☐ Superfund ☐	
State of Project:	
Reporting Level: ☐ Level ☐ PST/US ☐ TRF ☐ Level ☐	
Deliverables: EDD ☐ ADAPT ☐ Other:	

Project Name:	NC State SWD #1	Turn Around	
Project Number:	11503	Routine:	☐
Project Location:	Lea County, NM	Rush:	☒
Sampler's Name:	Hilda Villa	Due Date: ASAP	
PO #:			
SAMPLE RECEIPT			
Temperature (°C):	Temp Blank: <u>24.0</u>	Yes	No
Received Intact:	Thermometer ID: <u>123</u>	Yes	No
Cooler Custody Seals:	Yes	No	Correction Factor: <u>-0.1</u>
Sample Custody Seals:	Yes	No	Total Containers:
Sample Identification	Matrix	Date Sampled	Time Sampled
WW1d	Soil	8/5/2020	
WW2	Soil	8/5/2020	
SW2b	Soil	8/5/2020	
SW3c	Soil	8/5/2020	
SP1 @ 1'	Soil	8/5/2020	1'
SP2 @ 1'	Soil	8/5/2020	1'
SP3 @ 6"	Soil	8/5/2020	6"
SP4 @ 6"	Soil	8/5/2020	6"
SP5 @ 6"	Soil	8/5/2020	6"
SP6 @ 6"	Soil	8/5/2020	6"
Number of Containers/Preservative Code			
BTEX (8021)			
TPH (Modified Ext.)			
Cl- (E300)			
ANALYSIS REQUEST			
Preservative Codes			
HNO3: HN			
H2SO4: H2			
HCL: HL			
None: NO			
NaOH: Na			
MeOH: Me			
Zn Acetate+ NaOH: Zn			
TAT starts the day received by the lab, if received by 4:30pm			
Sample Comments			

Total 200.7 / 6010	200.8 / 6020:	8RCRA 13PPM Texas 11	Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SIO2 Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed	TCCLP / SPLP 6010:	8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag TI U	1631 / 245.1 / 7470 / 7471 : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<u>Teresa Howard</u>	<u>Teresa Howard</u>	8/17/2020	<u>Teresa Howard</u>	<u>Teresa Howard</u>	8/17/2020



Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440, El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900
 Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701
 Atlanta, GA (770) 449-8800

Work Order No. 1009580

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Page 2 of 2

Project Manager:	Joel Lowry	Bill to: (if different)	Terrance Fawks
Company Name:	Etech Environmental and Safety	Company Name:	Endeavor
Address:	3100 Plains Hwy	Address:	
City, State ZIP:	Lovington, NM, 88260	City, State ZIP:	
Phone:	575-396-2378	Email:	Email Results to: PM@etechnv.com + Client

Work Order Comments	
Program: UST/PST	PRF
State of Project:	Brownfield
Reporting Level:	Level
Deliverables:	EDD
	ADAPT
	Other:

Project Name:	NC State SWD #1	Turn Around	
Project Number:	11503	Routine:	☐
Project Location:	Lea County, NM	Rush:	☒
Sampler's Name:	Hilda Villa	Due Date:	ASAP
PO #:			

Temp Blank:	Yes	No	Well Ice:	Yes	No
Received Intact:	Yes	No	Thermometer ID		

Cooler Custody Seals:	Yes	No	Correction Factor:	
Sample Custody Seals:	Yes	No	Total Containers:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers/Preservative Code
SP7 @ 6"	Soil	8/5/2020		6"	1/NO X X X X
SP8 @ 6"	Soil	8/5/2020		6"	1/NO X X X X
SP9 @ 6"	Soil	8/5/2020		6"	1/NO X X X X
SP10 @ 6"	Soil	8/5/2020		6"	1/NO X X X X
SP11 @ 6"	Soil	8/5/2020		6"	1/NO X X X X
SP12 @ 6"	Soil	8/5/2020		6"	1/NO X X X X
SP13 @ 6"	Soil	8/5/2020		6"	1/NO X X X X
SP14 @ 6"	Soil	8/5/2020		6"	1/NO X X X X

Total 200.7 / 6010 200.8 / 6020:

Circle Method(s) and Metal(s) to be analyzed

8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn

TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U 1631 / 245.1 / 7470 / 7471 : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		8/17/2020			8/17/2020

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Etech Environmental & Safety Solution, I

Date/ Time Received: 08.10.2020 10.01.00 AM

Work Order #: 669580

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR-8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	.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 BTEX was in bulk container
#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:



Brianna Teel

Date: 08.10.2020

Checklist reviewed by:



Jessica Kramer

Date: 08.10.2020



Certificate of Analysis Summary 669771

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: NC State SWD #1

Project Id: 11503
Contact: PM
Project Location: Lea County, NM

Date Received in Lab: Wed 08.12.2020 11:20
Report Date: 08.13.2020 15:28
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	669771-001	669771-002	669771-003	669771-004	669771-005	669771-006
	<i>Field Id:</i>	SP15 @ 6"	SP16 @ 6"	SP17 @ 6"	SP18 @ 6"	SP19 @ 6"	SP20 @ 6"
	<i>Depth:</i>	6- In	6- In	6- In	6- In	6- In	6- In
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	08.10.2020 00:00	08.10.2020 00:00	08.10.2020 00:00	08.10.2020 00:00	08.10.2020 00:00	08.10.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	*** ** *	*** ** *	*** ** *	*** ** *	*** ** *	*** ** *
	<i>Analyzed:</i>	08.12.2020 14:51	08.12.2020 16:15	08.12.2020 16:35	08.12.2020 16:56	08.12.2020 17:16	08.12.2020 17:37
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00201 0.00201	0.00380 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202
Toluene		<0.00201 0.00201	0.0120 0.00200	0.00472 0.00199	0.00218 0.00201	<0.00202 0.00202	<0.00202 0.00202
Ethylbenzene		<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202
m,p-Xylenes		<0.00402 0.00402	<0.00400 0.00400	<0.00398 0.00398	<0.00402 0.00402	<0.00403 0.00403	<0.00404 0.00404
o-Xylene		<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202
Total Xylenes		<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201	<0.00202 0.00202	<0.00202 0.00202
Total BTEX		<0.00201 0.00201	0.0158 0.00200	0.00472 0.00199	0.00218 0.00201	<0.00202 0.00202	<0.00202 0.00202
Chloride by EPA 300	<i>Extracted:</i>	08.12.2020 15:40	08.12.2020 15:40	08.12.2020 15:40	08.12.2020 15:40	08.12.2020 15:40	08.12.2020 15:40
	<i>Analyzed:</i>	08.12.2020 17:59	08.12.2020 18:04	08.12.2020 18:20	08.12.2020 18:25	08.12.2020 18:30	08.12.2020 18:35
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		2030 24.9	4460 25.1	1450 24.8	8380 49.7	4770 49.5	4110 25.1
TPH By SW8015 Mod	<i>Extracted:</i>	08.12.2020 17:00	08.12.2020 17:00	08.12.2020 17:00	08.12.2020 17:00	08.12.2020 17:00	08.12.2020 17:00
	<i>Analyzed:</i>	08.12.2020 20:42	08.12.2020 21:39	08.12.2020 21:58	08.12.2020 22:17	08.12.2020 22:35	08.12.2020 22:54
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9	<49.8 49.8	<49.9 49.9
Diesel Range Organics (DRO)		<50.0 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9	167 49.8	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9	<49.8 49.8	<49.9 49.9
Total TPH		<50.0 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9	167 49.8	<49.9 49.9

BRL - Below Reporting Limit

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

Jessica Kramer

Certificate of Analysis Summary 669771

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: NC State SWD #1

Project Id: 11503
Contact: PM
Project Location: Lea County, NM

Date Received in Lab: Wed 08.12.2020 11:20
Report Date: 08.13.2020 15:28
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	669771-007	669771-008	669771-009	669771-010	669771-011	
	<i>Field Id:</i>	SW1b	SW4	SW5	SW6	SW7	
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	
	<i>Sampled:</i>	08.10.2020 00:00	08.10.2020 00:00	08.10.2020 00:00	08.10.2020 00:00	08.10.2020 00:00	
BTEX by EPA 8021B	<i>Extracted:</i>	*** ** *	** ** ** *	*** ** *	** ** ** *	*** ** *	
	<i>Analyzed:</i>	08.12.2020 17:57	08.12.2020 18:18	08.12.2020 18:38	08.12.2020 18:59	08.12.2020 19:19	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Benzene		0.00325 0.00202	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00202 0.00202	
Toluene		0.00628 0.00202	<0.00199 0.00199	<0.00198 0.00198	0.00223 0.00200	<0.00202 0.00202	
Ethylbenzene		<0.00202 0.00202	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00202 0.00202	
m,p-Xylenes		<0.00404 0.00404	<0.00398 0.00398	<0.00397 0.00397	<0.00399 0.00399	<0.00404 0.00404	
o-Xylene		<0.00202 0.00202	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00202 0.00202	
Total Xylenes		<0.00202 0.00202	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00202 0.00202	
Total BTEX		0.00953 0.00202	<0.00199 0.00199	<0.00198 0.00198	0.00223 0.00200	<0.00202 0.00202	
Chloride by EPA 300	<i>Extracted:</i>	08.12.2020 15:40	08.12.2020 15:40	08.12.2020 15:40	08.12.2020 15:40	08.12.2020 15:40	
	<i>Analyzed:</i>	08.12.2020 18:41	08.12.2020 18:46	08.12.2020 19:02	08.12.2020 19:07	08.12.2020 19:23	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Chloride		1270 25.3	681 4.99	916 5.00	2790 25.1	2450 24.9	
TPH By SW8015 Mod	<i>Extracted:</i>	08.12.2020 17:00	08.12.2020 17:00	08.12.2020 17:00	08.12.2020 17:00	08.12.2020 17:00	
	<i>Analyzed:</i>	08.12.2020 23:13	08.12.2020 23:32	08.12.2020 23:51	08.13.2020 00:10	08.13.2020 00:48	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Gasoline Range Hydrocarbons (GRO)		<49.8 49.8	<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9	
Diesel Range Organics (DRO)		427 49.8	<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9	
Motor Oil Range Hydrocarbons (MRO)		122 49.8	<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9	
Total TPH		549 49.8	<49.9 49.9	<50.0 50.0	<50.0 50.0	<49.9 49.9	

BRL - Below Reporting Limit

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



Analytical Report 669771

for

Etech Environmental & Safety Solution, Inc

Project Manager: PM

NC State SWD #1

11503

08.13.2020

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-36), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-25), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNi02385): Texas (T104704534-20-7)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Tampa: Florida (E87429), North Carolina (483)



08.13.2020

Project Manager: **PM**

Etech Environmental & Safety Solution, Inc

P.O. Box 62228

Midland, TX 79711

Reference: Eurofins Xenco, LLC Report No(s): **669771**

NC State SWD #1

Project Address: Lea County, NM

PM :

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 Eurofins Xenco, LLC Report Number(s) 669771. 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 Eurofins Xenco, LLC. 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. 669771 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads "Jessica Kramer".

Jessica Kramer

Project Manager

A Small Business and Minority Company

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



Sample Cross Reference 669771

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SP15 @ 6"	S	08.10.2020 00:00	6 In	669771-001
SP16 @ 6"	S	08.10.2020 00:00	6 In	669771-002
SP17 @ 6"	S	08.10.2020 00:00	6 In	669771-003
SP18 @ 6"	S	08.10.2020 00:00	6 In	669771-004
SP19 @ 6"	S	08.10.2020 00:00	6 In	669771-005
SP20 @ 6"	S	08.10.2020 00:00	6 In	669771-006
SW1b	S	08.10.2020 00:00		669771-007
SW4	S	08.10.2020 00:00		669771-008
SW5	S	08.10.2020 00:00		669771-009
SW6	S	08.10.2020 00:00		669771-010
SW7	S	08.10.2020 00:00		669771-011



CASE NARRATIVE

Client Name: Etech Environmental & Safety Solution, Inc

Project Name: NC State SWD #1

Project ID: 11503
Work Order Number(s): 669771

Report Date: 08.13.2020
Date Received: 08.12.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3134434 TPH By SW8015 Mod

Surrogate o-Terphenyl recovered above QC limits Data confirmed by re-analysis. Samples affected are: 7709337-1-BLK.



Certificate of Analytical Results 669771

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SP15 @ 6"** Matrix: Soil Date Received: 08.12.2020 11:20
 Lab Sample Id: 669771-001 Date Collected: 08.10.2020 00:00 Sample Depth: 6 In
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.12.2020 15:40 Basis: Wet Weight
 Seq Number: 3134376

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2030	24.9	mg/kg	08.12.2020 17:59		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.12.2020 17:00 Basis: Wet Weight
 Seq Number: 3134434

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.12.2020 20:42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	08.12.2020 20:42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.12.2020 20:42	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	08.12.2020 20:42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	119	%	70-130	08.12.2020 20:42	
o-Terphenyl	84-15-1	120	%	70-130	08.12.2020 20:42	



Certificate of Analytical Results 669771

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SP15 @ 6"**

Matrix: Soil

Date Received: 08.12.2020 11:20

Lab Sample Id: 669771-001

Date Collected: 08.10.2020 00:00

Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 08.12.2020 09:00

Basis: Wet Weight

Seq Number: 3134386

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.12.2020 14:51	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.12.2020 14:51	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.12.2020 14:51	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.12.2020 14:51	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.12.2020 14:51	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.12.2020 14:51	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.12.2020 14:51	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	102	%	70-130	08.12.2020 14:51		
4-Bromofluorobenzene	460-00-4	105	%	70-130	08.12.2020 14:51		



Certificate of Analytical Results 669771

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SP16 @ 6"** Matrix: Soil Date Received: 08.12.2020 11:20
 Lab Sample Id: 669771-002 Date Collected: 08.10.2020 00:00 Sample Depth: 6 In
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.12.2020 15:40 Basis: Wet Weight
 Seq Number: 3134376

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4460	25.1	mg/kg	08.12.2020 18:04		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.12.2020 17:00 Basis: Wet Weight
 Seq Number: 3134434

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.12.2020 21:39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	08.12.2020 21:39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.12.2020 21:39	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	08.12.2020 21:39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-130	08.12.2020 21:39	
o-Terphenyl	84-15-1	118	%	70-130	08.12.2020 21:39	



Certificate of Analytical Results 669771

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SP16 @ 6"**

Matrix: Soil

Date Received: 08.12.2020 11:20

Lab Sample Id: 669771-002

Date Collected: 08.10.2020 00:00

Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 08.12.2020 09:00

Basis: Wet Weight

Seq Number: 3134386

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00380	0.00200	mg/kg	08.12.2020 16:15		1
Toluene	108-88-3	0.0120	0.00200	mg/kg	08.12.2020 16:15		1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.12.2020 16:15	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	08.12.2020 16:15	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.12.2020 16:15	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.12.2020 16:15	U	1
Total BTEX		0.0158	0.00200	mg/kg	08.12.2020 16:15		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	102	%	70-130	08.12.2020 16:15		
4-Bromofluorobenzene	460-00-4	104	%	70-130	08.12.2020 16:15		



Certificate of Analytical Results 669771

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SP17 @ 6"** Matrix: Soil Date Received: 08.12.2020 11:20
 Lab Sample Id: 669771-003 Date Collected: 08.10.2020 00:00 Sample Depth: 6 In
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.12.2020 15:40 Basis: Wet Weight
 Seq Number: 3134376

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1450	24.8	mg/kg	08.12.2020 18:20		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.12.2020 17:00 Basis: Wet Weight
 Seq Number: 3134434

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.12.2020 21:58	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	08.12.2020 21:58	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.12.2020 21:58	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	08.12.2020 21:58	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	123	%	70-130	08.12.2020 21:58	
o-Terphenyl	84-15-1	122	%	70-130	08.12.2020 21:58	



Certificate of Analytical Results 669771

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SP17 @ 6"**

Matrix: Soil

Date Received: 08.12.2020 11:20

Lab Sample Id: 669771-003

Date Collected: 08.10.2020 00:00

Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 08.12.2020 09:00

Basis: Wet Weight

Seq Number: 3134386

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.12.2020 16:35	U	1
Toluene	108-88-3	0.00472	0.00199	mg/kg	08.12.2020 16:35		1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.12.2020 16:35	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.12.2020 16:35	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.12.2020 16:35	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.12.2020 16:35	U	1
Total BTEX		0.00472	0.00199	mg/kg	08.12.2020 16:35		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	106	%	70-130	08.12.2020 16:35		
1,4-Difluorobenzene	540-36-3	103	%	70-130	08.12.2020 16:35		



Certificate of Analytical Results 669771

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SP18 @ 6"** Matrix: Soil Date Received: 08.12.2020 11:20
 Lab Sample Id: 669771-004 Date Collected: 08.10.2020 00:00 Sample Depth: 6 In
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.12.2020 15:40 Basis: Wet Weight
 Seq Number: 3134376

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	8380	49.7	mg/kg	08.12.2020 18:25		10

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.12.2020 17:00 Basis: Wet Weight
 Seq Number: 3134434

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.12.2020 22:17	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	08.12.2020 22:17	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.12.2020 22:17	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	08.12.2020 22:17	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	124	%	70-130	08.12.2020 22:17	
o-Terphenyl	84-15-1	125	%	70-130	08.12.2020 22:17	



Certificate of Analytical Results 669771

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SP18 @ 6"**

Matrix: Soil

Date Received: 08.12.2020 11:20

Lab Sample Id: 669771-004

Date Collected: 08.10.2020 00:00

Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 08.12.2020 09:00

Basis: Wet Weight

Seq Number: 3134386

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.12.2020 16:56	U	1
Toluene	108-88-3	0.00218	0.00201	mg/kg	08.12.2020 16:56		1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.12.2020 16:56	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.12.2020 16:56	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.12.2020 16:56	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.12.2020 16:56	U	1
Total BTEX		0.00218	0.00201	mg/kg	08.12.2020 16:56		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	104	%	70-130	08.12.2020 16:56		
1,4-Difluorobenzene	540-36-3	103	%	70-130	08.12.2020 16:56		



Certificate of Analytical Results 669771

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SP19 @ 6"** Matrix: Soil Date Received: 08.12.2020 11:20
 Lab Sample Id: 669771-005 Date Collected: 08.10.2020 00:00 Sample Depth: 6 In
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.12.2020 15:40 Basis: Wet Weight
 Seq Number: 3134376

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4770	49.5	mg/kg	08.12.2020 18:30		10

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.12.2020 17:00 Basis: Wet Weight
 Seq Number: 3134434

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	08.12.2020 22:35	U	1
Diesel Range Organics (DRO)	C10C28DRO	167	49.8	mg/kg	08.12.2020 22:35		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	08.12.2020 22:35	U	1
Total TPH	PHC635	167	49.8	mg/kg	08.12.2020 22:35		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	121	%	70-130	08.12.2020 22:35	
o-Terphenyl	84-15-1	123	%	70-130	08.12.2020 22:35	



Certificate of Analytical Results 669771

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SP19 @ 6"**

Matrix: Soil

Date Received: 08.12.2020 11:20

Lab Sample Id: 669771-005

Date Collected: 08.10.2020 00:00

Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 08.12.2020 09:00

Basis: Wet Weight

Seq Number: 3134386

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	08.12.2020 17:16	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	08.12.2020 17:16	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	08.12.2020 17:16	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	08.12.2020 17:16	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	08.12.2020 17:16	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	08.12.2020 17:16	U	1
Total BTEX		<0.00202	0.00202	mg/kg	08.12.2020 17:16	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	106	%	70-130	08.12.2020 17:16		
1,4-Difluorobenzene	540-36-3	103	%	70-130	08.12.2020 17:16		



Certificate of Analytical Results 669771

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SP20 @ 6"** Matrix: Soil Date Received: 08.12.2020 11:20
 Lab Sample Id: 669771-006 Date Collected: 08.10.2020 00:00 Sample Depth: 6 In
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.12.2020 15:40 Basis: Wet Weight
 Seq Number: 3134376

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4110	25.1	mg/kg	08.12.2020 18:35		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.12.2020 17:00 Basis: Wet Weight
 Seq Number: 3134434

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.12.2020 22:54	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	08.12.2020 22:54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.12.2020 22:54	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	08.12.2020 22:54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	120	%	70-130	08.12.2020 22:54	
o-Terphenyl	84-15-1	124	%	70-130	08.12.2020 22:54	



Certificate of Analytical Results 669771

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SP20 @ 6"**

Matrix: Soil

Date Received: 08.12.2020 11:20

Lab Sample Id: 669771-006

Date Collected: 08.10.2020 00:00

Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 08.12.2020 09:00

Basis: Wet Weight

Seq Number: 3134386

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	08.12.2020 17:37	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	08.12.2020 17:37	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	08.12.2020 17:37	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	08.12.2020 17:37	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	08.12.2020 17:37	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	08.12.2020 17:37	U	1
Total BTEX		<0.00202	0.00202	mg/kg	08.12.2020 17:37	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	105	%	70-130	08.12.2020 17:37		
1,4-Difluorobenzene	540-36-3	103	%	70-130	08.12.2020 17:37		



Certificate of Analytical Results 669771

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SW1b** Matrix: Soil Date Received: 08.12.2020 11:20
 Lab Sample Id: 669771-007 Date Collected: 08.10.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.12.2020 15:40 Basis: Wet Weight
 Seq Number: 3134376

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1270	25.3	mg/kg	08.12.2020 18:41		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.12.2020 17:00 Basis: Wet Weight
 Seq Number: 3134434

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	08.12.2020 23:13	U	1
Diesel Range Organics (DRO)	C10C28DRO	427	49.8	mg/kg	08.12.2020 23:13		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	122	49.8	mg/kg	08.12.2020 23:13		1
Total TPH	PHC635	549	49.8	mg/kg	08.12.2020 23:13		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	124	%	70-130	08.12.2020 23:13	
o-Terphenyl	84-15-1	130	%	70-130	08.12.2020 23:13	



Certificate of Analytical Results 669771

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SW1b**
Lab Sample Id: 669771-007

Matrix: Soil
Date Collected: 08.10.2020 00:00

Date Received: 08.12.2020 11:20

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 08.12.2020 09:00

Basis: Wet Weight

Seq Number: 3134386

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00325	0.00202	mg/kg	08.12.2020 17:57		1
Toluene	108-88-3	0.00628	0.00202	mg/kg	08.12.2020 17:57		1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	08.12.2020 17:57	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	08.12.2020 17:57	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	08.12.2020 17:57	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	08.12.2020 17:57	U	1
Total BTEX		0.00953	0.00202	mg/kg	08.12.2020 17:57		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	103	%	70-130	08.12.2020 17:57		
1,4-Difluorobenzene	540-36-3	103	%	70-130	08.12.2020 17:57		



Certificate of Analytical Results 669771

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SW4**
Lab Sample Id: 669771-008

Matrix: Soil
Date Collected: 08.10.2020 00:00

Date Received: 08.12.2020 11:20

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 08.12.2020 15:40

Basis: Wet Weight

Seq Number: 3134376

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	681	4.99	mg/kg	08.12.2020 18:46		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 08.12.2020 17:00

Basis: Wet Weight

Seq Number: 3134434

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.12.2020 23:32	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	08.12.2020 23:32	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.12.2020 23:32	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	08.12.2020 23:32	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	123	%	70-130	08.12.2020 23:32	
o-Terphenyl	84-15-1	129	%	70-130	08.12.2020 23:32	



Certificate of Analytical Results 669771

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SW4**
Lab Sample Id: 669771-008

Matrix: Soil
Date Collected: 08.10.2020 00:00

Date Received: 08.12.2020 11:20

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 08.12.2020 09:00

Basis: Wet Weight

Seq Number: 3134386

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.12.2020 18:18	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.12.2020 18:18	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.12.2020 18:18	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.12.2020 18:18	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.12.2020 18:18	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.12.2020 18:18	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.12.2020 18:18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	08.12.2020 18:18	
4-Bromofluorobenzene	460-00-4	105	%	70-130	08.12.2020 18:18	



Certificate of Analytical Results 669771

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SW5** Matrix: Soil Date Received: 08.12.2020 11:20
 Lab Sample Id: 669771-009 Date Collected: 08.10.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.12.2020 15:40 Basis: Wet Weight
 Seq Number: 3134376

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	916	5.00	mg/kg	08.12.2020 19:02		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.12.2020 17:00 Basis: Wet Weight
 Seq Number: 3134434

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.12.2020 23:51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	08.12.2020 23:51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.12.2020 23:51	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	08.12.2020 23:51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-130	08.12.2020 23:51	
o-Terphenyl	84-15-1	118	%	70-130	08.12.2020 23:51	



Certificate of Analytical Results 669771

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SW5**
Lab Sample Id: 669771-009

Matrix: Soil
Date Collected: 08.10.2020 00:00

Date Received: 08.12.2020 11:20

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 08.12.2020 09:00

Basis: Wet Weight

Seq Number: 3134386

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.12.2020 18:38	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.12.2020 18:38	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	08.12.2020 18:38	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	08.12.2020 18:38	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	08.12.2020 18:38	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	08.12.2020 18:38	U	1
Total BTEX		<0.00198	0.00198	mg/kg	08.12.2020 18:38	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	105	%	70-130	08.12.2020 18:38		
1,4-Difluorobenzene	540-36-3	103	%	70-130	08.12.2020 18:38		



Certificate of Analytical Results 669771

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SW6** Matrix: Soil Date Received: 08.12.2020 11:20
 Lab Sample Id: 669771-010 Date Collected: 08.10.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.12.2020 15:40 Basis: Wet Weight
 Seq Number: 3134376

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2790	25.1	mg/kg	08.12.2020 19:07		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.12.2020 17:00 Basis: Wet Weight
 Seq Number: 3134434

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.13.2020 00:10	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	08.13.2020 00:10	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.13.2020 00:10	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	08.13.2020 00:10	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	120	%	70-130	08.13.2020 00:10	
o-Terphenyl	84-15-1	122	%	70-130	08.13.2020 00:10	



Certificate of Analytical Results 669771

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SW6**
Lab Sample Id: 669771-010

Matrix: Soil
Date Collected: 08.10.2020 00:00

Date Received: 08.12.2020 11:20

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 08.12.2020 09:00

Basis: Wet Weight

Seq Number: 3134386

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.12.2020 18:59	U	1
Toluene	108-88-3	0.00223	0.00200	mg/kg	08.12.2020 18:59		1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.12.2020 18:59	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.12.2020 18:59	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.12.2020 18:59	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.12.2020 18:59	U	1
Total BTEX		0.00223	0.00200	mg/kg	08.12.2020 18:59		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	103	%	70-130	08.12.2020 18:59	
4-Bromofluorobenzene	460-00-4	104	%	70-130	08.12.2020 18:59	



Certificate of Analytical Results 669771

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SW7** Matrix: Soil Date Received: 08.12.2020 11:20
 Lab Sample Id: 669771-011 Date Collected: 08.10.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.12.2020 15:40 Basis: Wet Weight
 Seq Number: 3134376

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2450	24.9	mg/kg	08.12.2020 19:23		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.12.2020 17:00 Basis: Wet Weight
 Seq Number: 3134434

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.13.2020 00:48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	08.13.2020 00:48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.13.2020 00:48	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	08.13.2020 00:48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	122	%	70-130	08.13.2020 00:48	
o-Terphenyl	84-15-1	123	%	70-130	08.13.2020 00:48	



Certificate of Analytical Results 669771

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SW7**
Lab Sample Id: 669771-011

Matrix: Soil
Date Collected: 08.10.2020 00:00

Date Received: 08.12.2020 11:20

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 08.12.2020 09:00

Basis: Wet Weight

Seq Number: 3134386

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	08.12.2020 19:19	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	08.12.2020 19:19	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	08.12.2020 19:19	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	08.12.2020 19:19	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	08.12.2020 19:19	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	08.12.2020 19:19	U	1
Total BTEX		<0.00202	0.00202	mg/kg	08.12.2020 19:19	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	104	%	70-130	08.12.2020 19:19		
4-Bromofluorobenzene	460-00-4	105	%	70-130	08.12.2020 19:19		

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. **ND** Not Detected.

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



Etech Environmental & Safety Solution, Inc

NC State SWD #1

Analytical Method: Chloride by EPA 300

Seq Number: 3134376

MB Sample Id: 7709294-1-BLK

Matrix: Solid

LCS Sample Id: 7709294-1-BKS

Prep Method: E300P

Date Prep: 08.12.2020

LCSD Sample Id: 7709294-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	268	107	268	107	90-110	0	20	mg/kg	08.12.2020 17:22	

Analytical Method: Chloride by EPA 300

Seq Number: 3134376

Parent Sample Id: 669771-008

Matrix: Soil

MS Sample Id: 669771-008 S

Prep Method: E300P

Date Prep: 08.12.2020

MSD Sample Id: 669771-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	681	250	937	102	937	102	90-110	0	20	mg/kg	08.12.2020 18:51	

Analytical Method: Chloride by EPA 300

Seq Number: 3134376

Parent Sample Id: 669776-002

Matrix: Soil

MS Sample Id: 669776-002 S

Prep Method: E300P

Date Prep: 08.12.2020

MSD Sample Id: 669776-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	369	252	626	102	628	103	90-110	0	20	mg/kg	08.12.2020 17:37	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3134434

MB Sample Id: 7709337-1-BLK

Matrix: Solid

LCS Sample Id: 7709337-1-BKS

Prep Method: SW8015P

Date Prep: 08.12.2020

LCSD Sample Id: 7709337-1-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)	<50.0	1000	1040	104	1000	100	70-130	4	20	mg/kg	08.12.2020 20:04	
Diesel Range Organics (DRO)	<50.0	1000	1030	103	996	100	70-130	3	20	mg/kg	08.12.2020 20:04	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	125		81		81		70-130	%	08.12.2020 20:04
o-Terphenyl	143	**	75		72		70-130	%	08.12.2020 20:04

Analytical Method: TPH By SW8015 Mod

Seq Number: 3134434

Matrix: Solid

MB Sample Id: 7709337-1-BLK

Prep Method: SW8015P

Date Prep: 08.12.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	08.12.2020 19:45	

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



Etech Environmental & Safety Solution, Inc

NC State SWD #1

Analytical Method: TPH By SW8015 Mod

Seq Number: 3134434

Parent Sample Id: 669771-001

Matrix: Soil

MS Sample Id: 669771-001 S

Prep Method: SW8015P

Date Prep: 08.12.2020

MSD Sample Id: 669771-001 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)	<49.9	997	986	99	975	98	70-130	1	20	mg/kg	08.12.2020 21:01	
Diesel Range Organics (DRO)	<49.9	997	995	100	979	98	70-130	2	20	mg/kg	08.12.2020 21:01	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	129		130		70-130	%	08.12.2020 21:01
o-Terphenyl	122		119		70-130	%	08.12.2020 21:01

Analytical Method: BTEX by EPA 8021B

Seq Number: 3134386

MB Sample Id: 7709352-1-BLK

Matrix: Solid

LCS Sample Id: 7709352-1-BKS

Prep Method: SW5035A

Date Prep: 08.12.2020

LCSD Sample Id: 7709352-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.116	116	0.108	108	70-130	7	35	mg/kg	08.12.2020 09:17	
Toluene	<0.00200	0.100	0.123	123	0.116	116	70-130	6	35	mg/kg	08.12.2020 09:17	
Ethylbenzene	<0.00200	0.100	0.106	106	0.0995	100	70-130	6	35	mg/kg	08.12.2020 09:17	
m,p-Xylenes	<0.00400	0.200	0.216	108	0.202	101	70-130	7	35	mg/kg	08.12.2020 09:17	
o-Xylene	<0.00200	0.100	0.105	105	0.0982	98	70-130	7	35	mg/kg	08.12.2020 09:17	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		101		100		70-130	%	08.12.2020 09:17
4-Bromofluorobenzene	100		98		99		70-130	%	08.12.2020 09:17

Analytical Method: BTEX by EPA 8021B

Seq Number: 3134386

Parent Sample Id: 669565-019

Matrix: Soil

MS Sample Id: 669565-019 S

Prep Method: SW5035A

Date Prep: 08.12.2020

MSD Sample Id: 669565-019 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.113	113	0.0991	100	70-130	13	35	mg/kg	08.12.2020 10:05	
Toluene	<0.00200	0.100	0.0974	97	0.0892	90	70-130	9	35	mg/kg	08.12.2020 10:05	
Ethylbenzene	<0.00200	0.100	0.0882	88	0.0744	75	70-130	17	35	mg/kg	08.12.2020 10:05	
m,p-Xylenes	<0.00401	0.200	0.156	78	0.134	67	70-130	15	35	mg/kg	08.12.2020 10:05	X
o-Xylene	<0.00200	0.100	0.0899	90	0.0742	75	70-130	19	35	mg/kg	08.12.2020 10:05	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		100		70-130	%	08.12.2020 10:05
4-Bromofluorobenzene	99		100		70-130	%	08.12.2020 10:05

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



Date: 11 AUG 20
Wgt: 41.00 LBS

0-000

SHIPPING:
SPECIAL:
HANDLING:
TOTAL:

[illegible]

Work Order No:

John

Sves: STANDARD OVERNIGHT HLD
TRCK: 9061 5134 7242

751 203 765W 1 CUTO NOTE

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Page 1 of 2

Revised Date 10/14/19 Rev. 2019.1



Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440, El Paso, TX (951) 585-3443, Lubbock, TX (806) 794-1296
 Hobbs, NM (575) 382-7650, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900
 Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 688-6704
 Atlanta, GA (770) 448-8800

Work Order No:

Ubbu

[illegible]

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Etech Environmental & Safety Solution, I

Date/ Time Received: 08.12.2020 11.20.00 AM

Work Order #: 669771

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR-8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	.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 TPH was in bulk container
#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:



Brianna Teel

Date: 08.12.2020

Checklist reviewed by:



Jessica Kramer

Date: 08.12.2020



Certificate of Analysis Summary 670050

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: NC State SWD

Project Id: 11503
Contact: PM
Project Location: Lea County, NM

Date Received in Lab: Fri 08.14.2020 11:15
Report Date: 08.19.2020 08:36
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	670050-001	670050-002	670050-003	670050-004	670050-005	670050-006
	<i>Field Id:</i>	SP21 @ 6"	SP22 @ 6"	SP23 @ 6"	SP24 @ 6"	SP25 @ 6"	SP26 @ 6"
	<i>Depth:</i>	6- In	6- In	6- In	6- In	6- In	6- In
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	08.11.2020 00:00	08.11.2020 00:00	08.11.2020 00:00	08.11.2020 00:00	08.11.2020 00:00	08.11.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	08.15.2020 08:15	08.15.2020 08:15	08.15.2020 08:15	08.15.2020 08:15	08.15.2020 08:15	08.15.2020 08:15
	<i>Analyzed:</i>	08.15.2020 15:23	08.15.2020 15:43	08.15.2020 16:04	08.15.2020 16:25	08.15.2020 16:45	08.15.2020 17:06
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Toluene		<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Ethylbenzene		<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
m,p-Xylenes		<0.00403 0.00403	<0.00401 0.00401	<0.00402 0.00402	<0.00399 0.00399	<0.00402 0.00402	<0.00401 0.00401
o-Xylene		<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Total Xylenes		<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Total BTEX		<0.00202 0.00202	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	08.14.2020 13:30	08.14.2020 13:30	08.14.2020 13:30	08.14.2020 13:30	08.14.2020 13:30	08.14.2020 13:30
	<i>Analyzed:</i>	08.14.2020 15:14	08.14.2020 15:19	08.14.2020 15:35	08.14.2020 15:40	08.14.2020 15:45	08.14.2020 15:51
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		27.3 5.04	54500 249	111 5.00	46.1 5.00	141 5.00	1710 25.1
TPH By SW8015 Mod	<i>Extracted:</i>	08.14.2020 12:00	08.14.2020 12:00	08.14.2020 12:00	08.14.2020 12:00	08.14.2020 12:00	08.14.2020 12:00
	<i>Analyzed:</i>	08.14.2020 13:27	08.14.2020 14:24	08.14.2020 14:43	08.14.2020 15:02	08.14.2020 15:21	08.14.2020 15:40
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<49.9 49.9	<49.8 49.8	<50.0 50.0	<49.9 49.9	<49.8 49.8
Diesel Range Organics (DRO)		<50.0 50.0	<49.9 49.9	<49.8 49.8	<50.0 50.0	<49.9 49.9	66.8 49.8
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<49.9 49.9	<49.8 49.8	<50.0 50.0	<49.9 49.9	<49.8 49.8
Total TPH		<50.0 50.0	<49.9 49.9	<49.8 49.8	<50.0 50.0	<49.9 49.9	66.8 49.8

BRL - Below Reporting Limit

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

Jessica Kramer



Certificate of Analysis Summary 670050

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: NC State SWD

Project Id: 11503
Contact: PM
Project Location: Lea County, NM

Date Received in Lab: Fri 08.14.2020 11:15
Report Date: 08.19.2020 08:36
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	670050-007	670050-008	670050-009	670050-010	670050-011	670050-012
	<i>Field Id:</i>	SP27 @ 6"	SP28 @ 6"	SW9	SW10	SP29	SP30
	<i>Depth:</i>	6- In	6- In	6- In	6- In	6- In	6- In
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	08.11.2020 00:00	08.11.2020 00:00	08.11.2020 00:00	08.12.2020 00:00	08.12.2020 00:00	08.12.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	08.15.2020 08:00	08.15.2020 08:00	08.15.2020 08:00	08.15.2020 08:00	08.15.2020 08:00	08.15.2020 08:00
	<i>Analyzed:</i>	08.15.2020 17:04	08.15.2020 17:27	08.15.2020 17:49	08.15.2020 18:11	08.15.2020 18:33	08.15.2020 18:55
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Toluene		<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Ethylbenzene		<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
m,p-Xylenes		<0.00402 0.00402	<0.00401 0.00401	<0.00401 0.00401	<0.00398 0.00398	<0.00399 0.00399	<0.00399 0.00399
o-Xylene		<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Total Xylenes		<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Total BTEX		<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	08.14.2020 13:30	08.14.2020 13:30	08.14.2020 13:30	08.14.2020 13:30	08.14.2020 13:30	08.14.2020 13:30
	<i>Analyzed:</i>	08.14.2020 15:56	08.14.2020 16:01	08.14.2020 16:17	08.14.2020 16:22	08.14.2020 16:38	08.14.2020 16:44
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		4310 24.8	440 4.99	733 5.04	3130 25.0	623 4.96	3680 25.3
TPH By SW8015 Mod	<i>Extracted:</i>	08.14.2020 12:00	08.14.2020 12:00	08.14.2020 12:00	08.14.2020 12:00	08.14.2020 12:00	08.14.2020 12:00
	<i>Analyzed:</i>	08.14.2020 16:00	08.14.2020 16:19	08.14.2020 16:38	08.14.2020 16:57	08.14.2020 17:36	08.14.2020 17:56
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.8 49.8
Diesel Range Organics (DRO)		<50.0 50.0	<49.9 49.9	<50.0 50.0	770 49.9	70.1 50.0	302 49.8
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<49.9 49.9	<50.0 50.0	336 49.9	<50.0 50.0	118 49.8
Total TPH		<50.0 50.0	<49.9 49.9	<50.0 50.0	1110 49.9	70.1 50.0	420 49.8

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

Jessica Kramer



Certificate of Analysis Summary 670050

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: NC State SWD

Project Id: 11503
Contact: PM
Project Location: Lea County, NM

Date Received in Lab: Fri 08.14.2020 11:15
Report Date: 08.19.2020 08:36
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	670050-013	670050-014	670050-015	670050-016	670050-017	670050-018
	<i>Field Id:</i>	SP31	SP32	SP33	SP34	SP35	SP36
	<i>Depth:</i>	6- In	6- In	6- In	6- In	6- In	6- In
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	08.12.2020 00:00	08.12.2020 00:00	08.12.2020 00:00	08.12.2020 00:00	08.12.2020 00:00	08.12.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	08.15.2020 08:00	08.15.2020 08:00	08.15.2020 08:00	08.16.2020 08:00	08.16.2020 08:00	08.16.2020 08:00
	<i>Analyzed:</i>	08.15.2020 19:16	08.15.2020 19:37	08.15.2020 19:58	08.16.2020 13:22	08.16.2020 13:42	08.16.2020 14:03
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00199 0.00199	<0.00198 0.00198
Toluene		<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00199 0.00199	<0.00198 0.00198
Ethylbenzene		<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00199 0.00199	<0.00198 0.00198
m,p-Xylenes		<0.00402 0.00402	<0.00400 0.00400	<0.00404 0.00404	<0.00398 0.00398	<0.00398 0.00398	<0.00396 0.00396
o-Xylene		<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00199 0.00199	<0.00198 0.00198
Total Xylenes		<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00199 0.00199	<0.00198 0.00198
Total BTEX		<0.00201 0.00201	<0.00200 0.00200	<0.00202 0.00202	<0.00199 0.00199	<0.00199 0.00199	<0.00198 0.00198
Chloride by EPA 300	<i>Extracted:</i>	08.14.2020 13:30	08.14.2020 13:30	08.14.2020 13:30	08.14.2020 13:30	08.14.2020 13:30	08.14.2020 14:00
	<i>Analyzed:</i>	08.14.2020 16:49	08.14.2020 16:54	08.14.2020 16:59	08.14.2020 17:05	08.14.2020 17:10	08.14.2020 17:42
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		5540 50.5	8670 50.5	15900 99.6	5360 50.0	16200 101	24.2 5.02
TPH By SW8015 Mod	<i>Extracted:</i>	08.14.2020 12:00	08.14.2020 12:00	08.14.2020 12:00	08.14.2020 12:00	08.14.2020 12:00	08.14.2020 12:00
	<i>Analyzed:</i>	08.14.2020 18:15	08.14.2020 18:34	08.14.2020 18:54	08.14.2020 19:13	08.14.2020 19:32	08.14.2020 19:51
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<49.9 49.9	<49.8 49.8	<50.0 50.0	<49.9 49.9	<49.9 49.9
Diesel Range Organics (DRO)		<50.0 50.0	<49.9 49.9	<49.8 49.8	614 50.0	533 49.9	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<50.0 50.0	<49.9 49.9	<49.8 49.8	378 50.0	263 49.9	<49.9 49.9
Total TPH		<50.0 50.0	<49.9 49.9	<49.8 49.8	992 50.0	796 49.9	<49.9 49.9

BRL - Below Reporting Limit

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

Jessica Kramer



Certificate of Analysis Summary 670050

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: NC State SWD

Project Id: 11503
Contact: PM
Project Location: Lea County, NM

Date Received in Lab: Fri 08.14.2020 11:15
Report Date: 08.19.2020 08:36
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	670050-019	670050-020	670050-021	670050-022	670050-023	670050-024
	<i>Field Id:</i>	SP37	SP38	SP39	SP40	EW #1	EW #2
	<i>Depth:</i>	6- In	6- In	6- In	6- In		
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	08.12.2020 00:00	08.12.2020 00:00	08.12.2020 00:00	08.12.2020 00:00	08.12.2020 00:00	08.12.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	08.15.2020 08:00	08.16.2020 08:00	08.16.2020 08:00	08.16.2020 08:00	08.16.2020 08:00	08.16.2020 08:00
	<i>Analyzed:</i>	08.15.2020 16:41	08.16.2020 14:23	08.16.2020 14:44	08.16.2020 15:04	08.16.2020 15:24	08.16.2020 15:45
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198	<0.00198 0.00198
Toluene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198	<0.00198 0.00198
Ethylbenzene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198	<0.00198 0.00198
m,p-Xylenes		<0.00400 0.00400	<0.00399 0.00399	<0.00399 0.00399	<0.00402 0.00402	<0.00396 0.00396	<0.00397 0.00397
o-Xylene		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198	<0.00198 0.00198
Total Xylenes		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198	<0.00198 0.00198
Total BTEX		<0.00200 0.00200	<0.00200 0.00200	<0.00200 0.00200	<0.00201 0.00201	<0.00198 0.00198	<0.00198 0.00198
Chloride by EPA 300	<i>Extracted:</i>	08.14.2020 14:00	08.14.2020 14:00	08.14.2020 14:00	08.14.2020 14:00	08.14.2020 14:00	08.14.2020 14:00
	<i>Analyzed:</i>	08.14.2020 17:57	08.14.2020 18:03	08.14.2020 18:08	08.14.2020 18:13	08.14.2020 18:29	08.14.2020 18:34
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		7100 49.9	15900 101	4090 24.9	4700 50.2	1800 25.3	1010 5.05
TPH By SW8015 Mod	<i>Extracted:</i>	08.14.2020 12:00	08.14.2020 12:00	*** ** *	*** ** *	*** ** *	*** ** *
	<i>Analyzed:</i>	08.14.2020 20:10	08.14.2020 20:29	08.14.2020 12:46	08.14.2020 13:51	08.14.2020 14:12	08.14.2020 14:34
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<50.0 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0	<49.9 49.9
Diesel Range Organics (DRO)		1140 50.0	57.0 50.0	<50.0 50.0	54.2 49.9	<50.0 50.0	447 49.9
Motor Oil Range Hydrocarbons (MRO)		413 50.0	<50.0 50.0	<50.0 50.0	<49.9 49.9	<50.0 50.0	196 49.9
Total TPH		1550 50.0	57.0 50.0	<50.0 50.0	54.2 49.9	<50.0 50.0	643 49.9

BRL - Below Reporting Limit

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Jessica Kramer



Certificate of Analysis Summary 670050

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: NC State SWD

Project Id: 11503
Contact: PM
Project Location: Lea County, NM

Date Received in Lab: Fri 08.14.2020 11:15
Report Date: 08.19.2020 08:36
Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	670050-025	670050-026	670050-027	670050-028	670050-029	670050-030
	<i>Field Id:</i>	EW #3	EW #4	EW #5	NW1	NW2	NW3
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	08.12.2020 00:00	08.12.2020 00:00	08.12.2020 00:00	08.13.2020 00:00	08.13.2020 00:00	08.13.2020 00:00
BTEX by EPA 8021B	<i>Extracted:</i>	08.16.2020 08:00	08.16.2020 08:00	08.16.2020 08:00	08.16.2020 08:00	08.17.2020 08:00	08.17.2020 08:00
	<i>Analyzed:</i>	08.16.2020 16:05	08.16.2020 16:25	08.16.2020 18:07	08.16.2020 18:27	08.17.2020 12:38	08.17.2020 12:58
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199
Toluene		<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	0.00707 0.00199
Ethylbenzene		<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199
m,p-Xylenes		<0.00400 0.00400	<0.00398 0.00398	<0.00403 0.00403	<0.00401 0.00401	<0.00398 0.00398	<0.00398 0.00398
o-Xylene		<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199
Total Xylenes		<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	<0.00199 0.00199
Total BTEX		<0.00200 0.00200	<0.00199 0.00199	<0.00202 0.00202	<0.00200 0.00200	<0.00199 0.00199	0.00707 0.00199
Chloride by EPA 300	<i>Extracted:</i>	08.14.2020 14:00	08.14.2020 14:00	08.14.2020 14:00	08.14.2020 14:00	08.14.2020 14:00	08.14.2020 14:00
	<i>Analyzed:</i>	08.14.2020 18:40	08.14.2020 18:45	08.14.2020 18:50	08.14.2020 18:55	08.14.2020 19:11	08.14.2020 19:16
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		1410 25.0	2510 24.9	5230 49.9	1970 24.8	23.8 5.04	58.3 5.00
TPH By SW8015 Mod	<i>Extracted:</i>	*** ** *	*** ** *	*** ** *	*** ** *	*** ** *	*** ** *
	<i>Analyzed:</i>	08.14.2020 14:56	08.14.2020 15:17	08.14.2020 15:39	08.14.2020 16:01	08.14.2020 16:23	08.14.2020 16:45
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<49.8 49.8	<50.0 50.0	<50.0 50.0	<49.8 49.8	<50.0 50.0	<49.9 49.9
Diesel Range Organics (DRO)		<49.8 49.8	74.2 50.0	<50.0 50.0	<49.8 49.8	<50.0 50.0	<49.9 49.9
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<50.0 50.0	<50.0 50.0	<49.8 49.8	<50.0 50.0	<49.9 49.9
Total TPH		<49.8 49.8	74.2 50.0	<50.0 50.0	<49.8 49.8	<50.0 50.0	<49.9 49.9

BRL - Below Reporting Limit

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Jessica Kramer

Certificate of Analysis Summary 670050

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: NC State SWD

Project Id: 11503
 Contact: PM
 Project Location: Lea County, NM

Date Received in Lab: Fri 08.14.2020 11:15
 Report Date: 08.19.2020 08:36
 Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	670050-031	670050-032	670050-033			
	Field Id:	NW4	NW5	EW 2B			
	Depth:						
	Matrix:	SOIL	SOIL	SOIL			
	Sampled:	08.13.2020 00:00	08.13.2020 00:00	08.13.2020 00:00			
BTEX by EPA 8021B	Extracted:	08.17.2020 08:00	08.17.2020 08:00	08.17.2020 08:00			
	Analyzed:	08.17.2020 13:19	08.17.2020 13:39	08.17.2020 14:00			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
Benzene		<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200			
Toluene		0.00294 0.00200	<0.00201 0.00201	<0.00200 0.00200			
Ethylbenzene		<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200			
m,p-Xylenes		<0.00399 0.00399	<0.00402 0.00402	<0.00399 0.00399			
o-Xylene		<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200			
Total Xylenes		<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200			
Total BTEX		0.00294 0.00200	<0.00201 0.00201	<0.00200 0.00200			
Chloride by EPA 300	Extracted:	08.14.2020 14:00	08.14.2020 14:00	08.14.2020 14:00			
	Analyzed:	08.14.2020 19:32	08.14.2020 19:38	08.14.2020 19:43			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
Chloride		3900 25.2	1160 4.96	50.0 4.99			
TPH By SW8015 Mod	Extracted:	*** ** *	*** ** *	*** ** *			
	Analyzed:	08.14.2020 17:29	08.14.2020 17:51	08.14.2020 18:13			
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL			
Gasoline Range Hydrocarbons (GRO)		<49.9 49.9	<50.0 50.0	<49.8 49.8			
Diesel Range Organics (DRO)		<49.9 49.9	<50.0 50.0	<49.8 49.8			
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<50.0 50.0	<49.8 49.8			
Total TPH		<49.9 49.9	<50.0 50.0	<49.8 49.8			

BRL - Below Reporting Limit

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Analytical Report 670050

for

Etech Environmental & Safety Solution, Inc

Project Manager: PM

NC State SWD

11503

08.19.2020

Collected By: Client



**1211 W. Florida Ave
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-37), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



08.19.2020

Project Manager: **PM**

Etech Environmental & Safety Solution, Inc

P.O. Box 62228

Midland, TX 79711

Reference: Eurofins Xenco, LLC Report No(s): **670050**

NC State SWD

Project Address: Lea County, NM

PM :

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 Eurofins Xenco, LLC Report Number(s) 670050. 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 Eurofins Xenco, LLC. 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. 670050 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads "Jessica Kramer".

Jessica Kramer

Project Manager

A Small Business and Minority Company

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



Sample Cross Reference 670050

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SP21 @ 6"	S	08.11.2020 00:00	6 In	670050-001
SP22 @ 6"	S	08.11.2020 00:00	6 In	670050-002
SP23 @ 6"	S	08.11.2020 00:00	6 In	670050-003
SP24 @ 6"	S	08.11.2020 00:00	6 In	670050-004
SP25 @ 6"	S	08.11.2020 00:00	6 In	670050-005
SP26 @ 6"	S	08.11.2020 00:00	6 In	670050-006
SP27 @ 6"	S	08.11.2020 00:00	6 In	670050-007
SP28 @ 6"	S	08.11.2020 00:00	6 In	670050-008
SW9	S	08.11.2020 00:00	6 In	670050-009
SW10	S	08.12.2020 00:00	6 In	670050-010
SP29	S	08.12.2020 00:00	6 In	670050-011
SP30	S	08.12.2020 00:00	6 In	670050-012
SP31	S	08.12.2020 00:00	6 In	670050-013
SP32	S	08.12.2020 00:00	6 In	670050-014
SP33	S	08.12.2020 00:00	6 In	670050-015
SP34	S	08.12.2020 00:00	6 In	670050-016
SP35	S	08.12.2020 00:00	6 In	670050-017
SP36	S	08.12.2020 00:00	6 In	670050-018
SP37	S	08.12.2020 00:00	6 In	670050-019
SP38	S	08.12.2020 00:00	6 In	670050-020
SP39	S	08.12.2020 00:00	6 In	670050-021
SP40	S	08.12.2020 00:00	6 In	670050-022
EW #1	S	08.12.2020 00:00	In	670050-023
EW #2	S	08.12.2020 00:00	In	670050-024
EW #3	S	08.12.2020 00:00	In	670050-025
EW #4	S	08.12.2020 00:00	In	670050-026
EW #5	S	08.12.2020 00:00	In	670050-027
NW1	S	08.13.2020 00:00	In	670050-028
NW2	S	08.13.2020 00:00	In	670050-029
NW3	S	08.13.2020 00:00	In	670050-030
NW4	S	08.13.2020 00:00	In	670050-031
NW5	S	08.13.2020 00:00	In	670050-032
EW 2B	S	08.13.2020 00:00	In	670050-033

**CASE NARRATIVE****Client Name: Etech Environmental & Safety Solution, Inc****Project Name: NC State SWD**Project ID: 11503
Work Order Number(s): 670050Report Date: 08.19.2020
Date Received: 08.14.2020**Sample receipt non conformances and comments:****Sample receipt non conformances and comments per sample:**

None

Analytical non conformances and comments:

Batch: LBA-3134673 BTEX by EPA 8021B

Lab Sample ID 670050-019 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 670050-007, -008, -009, -010, -011, -012, -013, -014, -015, -019.

The Laboratory Control Sample for Toluene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

Surrogate 4-Bromofluorobenzene recovered above QC limits. Samples affected are: 7709532-1-BKS, 7709532-1-BLK, 7709532-1-BSD, 670050-019 S, 670050-019 SD, 670050-011, 670050-012, 670050-013, 670050-014, 670050-010, 670050-009, 670050-015, 670050-007, 670050-019, 670050-008.

Batch: LBA-3134674 BTEX by EPA 8021B

Lab Sample ID 670050-002 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). o-Xylene recovered below QC limits in the Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 670050-001, -002, -003, -004, -005, -006.

The Laboratory Control Sample for o-Xylene is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3134696 Chloride by EPA 300

E300

Batch 3134696,

Lab Sample ID 670050-028 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: 670050-018, -019, -020, -021, -022, -023, -024, -025, -026, -027, -028, -029, -030, -031, -032, -033.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.

**CASE NARRATIVE****Client Name: Etech Environmental & Safety Solution, Inc****Project Name: NC State SWD**Project ID: 11503
Work Order Number(s): 670050Report Date: 08.19.2020
Date Received: 08.14.2020

Batch: LBA-3134702 BTEX by EPA 8021B

Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected.

Samples affected are: 670050-028.

Lab Sample ID 670050-016 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Benzene recovered below QC limits in the Matrix Spike. Ethylbenzene, Toluene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 670050-016, -017, -018, -020, -021, -022, -023, -024, -025, -026, -027, -028.

The Laboratory Control Sample for Toluene, Benzene, m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.

Batch: LBA-3134709 TPH By SW8015 Mod

Surrogate o-Terphenyl recovered above QC limits Data confirmed by re-analysis. Samples affected are: 7709541-1-BLK.

Surrogate 1-Chlorooctane recovered above QC limits Data confirmed by re-analysis. Samples affected are: 7709541-1-BSD.

Batch: LBA-3134763 BTEX by EPA 8021B

Lab Sample ID 670050-029 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Ethylbenzene, m,p-Xylenes, o-Xylene recovered below QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 670050-029, -030, -031, -032, -033.

The Laboratory Control Sample for m,p-Xylenes, Ethylbenzene, o-Xylene is within laboratory Control Limits, therefore the data was accepted.



Certificate of Analytical Results 670050

Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **SP21 @ 6"** Matrix: Soil Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-001 Date Collected: 08.11.2020 00:00 Sample Depth: 6 In
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.14.2020 13:30 Basis: Wet Weight
 Seq Number: 3134688

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	27.3	5.04	mg/kg	08.14.2020 15:14		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3134709

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.14.2020 13:27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	08.14.2020 13:27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.14.2020 13:27	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	08.14.2020 13:27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-130	08.14.2020 13:27	
o-Terphenyl	84-15-1	123	%	70-130	08.14.2020 13:27	



Certificate of Analytical Results 670050

Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **SP21 @ 6"**

Matrix: Soil

Date Received: 08.14.2020 11:15

Lab Sample Id: 670050-001

Date Collected: 08.11.2020 00:00

Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 08.15.2020 08:15

Basis: Wet Weight

Seq Number: 3134674

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	08.15.2020 15:23	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	08.15.2020 15:23	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	08.15.2020 15:23	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	08.15.2020 15:23	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	08.15.2020 15:23	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	08.15.2020 15:23	U	1
Total BTEX		<0.00202	0.00202	mg/kg	08.15.2020 15:23	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	95	%	70-130	08.15.2020 15:23		
1,4-Difluorobenzene	540-36-3	112	%	70-130	08.15.2020 15:23		



Certificate of Analytical Results 670050

Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **SP22 @ 6"** Matrix: Soil Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-002 Date Collected: 08.11.2020 00:00 Sample Depth: 6 In
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.14.2020 13:30 Basis: Wet Weight
 Seq Number: 3134688

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	54500	249	mg/kg	08.14.2020 15:19		50

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3134709

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.14.2020 14:24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	08.14.2020 14:24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.14.2020 14:24	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	08.14.2020 14:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	82	%	70-130	08.14.2020 14:24	
o-Terphenyl	84-15-1	101	%	70-130	08.14.2020 14:24	



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **SP22 @ 6"**

Matrix: Soil

Date Received: 08.14.2020 11:15

Lab Sample Id: 670050-002

Date Collected: 08.11.2020 00:00

Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 08.15.2020 08:15

Basis: Wet Weight

Seq Number: 3134674

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.15.2020 15:43	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.15.2020 15:43	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.15.2020 15:43	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	08.15.2020 15:43	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.15.2020 15:43	UX	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.15.2020 15:43	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.15.2020 15:43	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	113	%	70-130	08.15.2020 15:43		
4-Bromofluorobenzene	460-00-4	112	%	70-130	08.15.2020 15:43		



Certificate of Analytical Results 670050

Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **SP23 @ 6"** Matrix: Soil Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-003 Date Collected: 08.11.2020 00:00 Sample Depth: 6 In
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.14.2020 13:30 Basis: Wet Weight
 Seq Number: 3134688

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	111	5.00	mg/kg	08.14.2020 15:35		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3134709

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	08.14.2020 14:43	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	08.14.2020 14:43	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	08.14.2020 14:43	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	08.14.2020 14:43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	127	%	70-130	08.14.2020 14:43	
o-Terphenyl	84-15-1	84	%	70-130	08.14.2020 14:43	



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **SP23 @ 6"**

Matrix: Soil

Date Received: 08.14.2020 11:15

Lab Sample Id: 670050-003

Date Collected: 08.11.2020 00:00

Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 08.15.2020 08:15

Basis: Wet Weight

Seq Number: 3134674

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.15.2020 16:04	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.15.2020 16:04	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.15.2020 16:04	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.15.2020 16:04	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.15.2020 16:04	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.15.2020 16:04	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.15.2020 16:04	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	117	%	70-130	08.15.2020 16:04		
4-Bromofluorobenzene	460-00-4	101	%	70-130	08.15.2020 16:04		



Certificate of Analytical Results 670050

Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **SP24 @6'** Matrix: Soil Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-004 Date Collected: 08.11.2020 00:00 Sample Depth: 6 In
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.14.2020 13:30 Basis: Wet Weight
 Seq Number: 3134688

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	46.1	5.00	mg/kg	08.14.2020 15:40		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3134709

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.14.2020 15:02	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	08.14.2020 15:02	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.14.2020 15:02	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	08.14.2020 15:02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-130	08.14.2020 15:02	
o-Terphenyl	84-15-1	122	%	70-130	08.14.2020 15:02	



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **SP24 @6'**
Lab Sample Id: 670050-004

Matrix: Soil
Date Collected: 08.11.2020 00:00

Date Received: 08.14.2020 11:15
Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 08.15.2020 08:15

Basis: Wet Weight

Seq Number: 3134674

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.15.2020 16:25	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.15.2020 16:25	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.15.2020 16:25	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.15.2020 16:25	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.15.2020 16:25	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.15.2020 16:25	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.15.2020 16:25	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	107	%	70-130	08.15.2020 16:25		
1,4-Difluorobenzene	540-36-3	116	%	70-130	08.15.2020 16:25		



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **SP25 @6"** Matrix: Soil Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-005 Date Collected: 08.11.2020 00:00 Sample Depth: 6 In
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.14.2020 13:30 Basis: Wet Weight
 Seq Number: 3134688

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	141	5.00	mg/kg	08.14.2020 15:45		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3134709

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.14.2020 15:21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	08.14.2020 15:21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.14.2020 15:21	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	08.14.2020 15:21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	120	%	70-130	08.14.2020 15:21	
o-Terphenyl	84-15-1	127	%	70-130	08.14.2020 15:21	



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **SP25 @6"**
Lab Sample Id: 670050-005

Matrix: Soil
Date Collected: 08.11.2020 00:00

Date Received: 08.14.2020 11:15
Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 08.15.2020 08:15

Basis: Wet Weight

Seq Number: 3134674

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.15.2020 16:45	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.15.2020 16:45	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.15.2020 16:45	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.15.2020 16:45	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.15.2020 16:45	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.15.2020 16:45	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.15.2020 16:45	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	114	%	70-130	08.15.2020 16:45		
1,4-Difluorobenzene	540-36-3	113	%	70-130	08.15.2020 16:45		



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **SP26 @ 6"** Matrix: Soil Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-006 Date Collected: 08.11.2020 00:00 Sample Depth: 6 In
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.14.2020 13:30 Basis: Wet Weight
 Seq Number: 3134688

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1710	25.1	mg/kg	08.14.2020 15:51		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3134709

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	08.14.2020 15:40	U	1
Diesel Range Organics (DRO)	C10C28DRO	66.8	49.8	mg/kg	08.14.2020 15:40		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	08.14.2020 15:40	U	1
Total TPH	PHC635	66.8	49.8	mg/kg	08.14.2020 15:40		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	122	%	70-130	08.14.2020 15:40	
o-Terphenyl	84-15-1	127	%	70-130	08.14.2020 15:40	



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **SP26 @ 6"**

Matrix: Soil

Date Received: 08.14.2020 11:15

Lab Sample Id: 670050-006

Date Collected: 08.11.2020 00:00

Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 08.15.2020 08:15

Basis: Wet Weight

Seq Number: 3134674

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.15.2020 17:06	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.15.2020 17:06	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.15.2020 17:06	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	08.15.2020 17:06	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.15.2020 17:06	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.15.2020 17:06	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.15.2020 17:06	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	112	%	70-130	08.15.2020 17:06		
1,4-Difluorobenzene	540-36-3	112	%	70-130	08.15.2020 17:06		



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **SP27 @ 6"** Matrix: Soil Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-007 Date Collected: 08.11.2020 00:00 Sample Depth: 6 In
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.14.2020 13:30 Basis: Wet Weight
 Seq Number: 3134688

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4310	24.8	mg/kg	08.14.2020 15:56		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3134709

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.14.2020 16:00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	08.14.2020 16:00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.14.2020 16:00	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	08.14.2020 16:00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	122	%	70-130	08.14.2020 16:00	
o-Terphenyl	84-15-1	129	%	70-130	08.14.2020 16:00	



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **SP27 @ 6"**

Matrix: Soil

Date Received: 08.14.2020 11:15

Lab Sample Id: 670050-007

Date Collected: 08.11.2020 00:00

Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 08.15.2020 08:00

Basis: Wet Weight

Seq Number: 3134673

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.15.2020 17:04	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.15.2020 17:04	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.15.2020 17:04	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.15.2020 17:04	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.15.2020 17:04	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.15.2020 17:04	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.15.2020 17:04	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	205	%	70-130	08.15.2020 17:04	**	
1,4-Difluorobenzene	540-36-3	79	%	70-130	08.15.2020 17:04		



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **SP28 @ 6"** Matrix: Soil Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-008 Date Collected: 08.11.2020 00:00 Sample Depth: 6 In
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.14.2020 13:30 Basis: Wet Weight
 Seq Number: 3134688

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	440	4.99	mg/kg	08.14.2020 16:01		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3134709

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.14.2020 16:19	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	08.14.2020 16:19	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.14.2020 16:19	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	08.14.2020 16:19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-130	08.14.2020 16:19	
o-Terphenyl	84-15-1	123	%	70-130	08.14.2020 16:19	



Certificate of Analytical Results 670050

Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **SP28 @ 6"**

Matrix: Soil

Date Received: 08.14.2020 11:15

Lab Sample Id: 670050-008

Date Collected: 08.11.2020 00:00

Sample Depth: 6 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 08.15.2020 08:00

Basis: Wet Weight

Seq Number: 3134673

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.15.2020 17:27	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.15.2020 17:27	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.15.2020 17:27	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	08.15.2020 17:27	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.15.2020 17:27	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.15.2020 17:27	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.15.2020 17:27	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	205	%	70-130	08.15.2020 17:27	**	
1,4-Difluorobenzene	540-36-3	72	%	70-130	08.15.2020 17:27		



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **SW9** Matrix: Soil Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-009 Date Collected: 08.11.2020 00:00 Sample Depth: 6 In
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.14.2020 13:30 Basis: Wet Weight
 Seq Number: 3134688

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	733	5.04	mg/kg	08.14.2020 16:17		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3134709

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.14.2020 16:38	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	08.14.2020 16:38	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.14.2020 16:38	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	08.14.2020 16:38	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	120	%	70-130	08.14.2020 16:38	
o-Terphenyl	84-15-1	128	%	70-130	08.14.2020 16:38	



Certificate of Analytical Results 670050

Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **SW9** Matrix: Soil Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-009 Date Collected: 08.11.2020 00:00 Sample Depth: 6 In
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: KTL % Moisture:
 Analyst: KTL Date Prep: 08.15.2020 08:00 Basis: Wet Weight
 Seq Number: 3134673

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.15.2020 17:49	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.15.2020 17:49	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.15.2020 17:49	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	08.15.2020 17:49	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.15.2020 17:49	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.15.2020 17:49	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.15.2020 17:49	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	210	%	70-130	08.15.2020 17:49	**	
1,4-Difluorobenzene	540-36-3	81	%	70-130	08.15.2020 17:49		



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **SW10** Matrix: Soil Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-010 Date Collected: 08.12.2020 00:00 Sample Depth: 6 In
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.14.2020 13:30 Basis: Wet Weight
 Seq Number: 3134688

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3130	25.0	mg/kg	08.14.2020 16:22		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3134709

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.14.2020 16:57	U	1
Diesel Range Organics (DRO)	C10C28DRO	770	49.9	mg/kg	08.14.2020 16:57		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	336	49.9	mg/kg	08.14.2020 16:57		1
Total TPH	PHC635	1110	49.9	mg/kg	08.14.2020 16:57		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-130	08.14.2020 16:57	
o-Terphenyl	84-15-1	122	%	70-130	08.14.2020 16:57	



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **SW10** Matrix: Soil Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-010 Date Collected: 08.12.2020 00:00 Sample Depth: 6 In
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: KTL % Moisture:
 Analyst: KTL Date Prep: 08.15.2020 08:00 Basis: Wet Weight
 Seq Number: 3134673

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.15.2020 18:11	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.15.2020 18:11	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.15.2020 18:11	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.15.2020 18:11	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.15.2020 18:11	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.15.2020 18:11	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.15.2020 18:11	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	209	%	70-130	08.15.2020 18:11	**	
1,4-Difluorobenzene	540-36-3	79	%	70-130	08.15.2020 18:11		



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **SP29** Matrix: Soil Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-011 Date Collected: 08.12.2020 00:00 Sample Depth: 6 In
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.14.2020 13:30 Basis: Wet Weight
 Seq Number: 3134688

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	623	4.96	mg/kg	08.14.2020 16:38		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3134709

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.14.2020 17:36	U	1
Diesel Range Organics (DRO)	C10C28DRO	70.1	50.0	mg/kg	08.14.2020 17:36		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.14.2020 17:36	U	1
Total TPH	PHC635	70.1	50.0	mg/kg	08.14.2020 17:36		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-130	08.14.2020 17:36	
o-Terphenyl	84-15-1	106	%	70-130	08.14.2020 17:36	



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **SP29** Matrix: Soil Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-011 Date Collected: 08.12.2020 00:00 Sample Depth: 6 In
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: KTL % Moisture:
 Analyst: KTL Date Prep: 08.15.2020 08:00 Basis: Wet Weight
 Seq Number: 3134673

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.15.2020 18:33	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.15.2020 18:33	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.15.2020 18:33	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.15.2020 18:33	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.15.2020 18:33	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.15.2020 18:33	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.15.2020 18:33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	220	%	70-130	08.15.2020 18:33	**	
1,4-Difluorobenzene	540-36-3	79	%	70-130	08.15.2020 18:33		



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **SP30** Matrix: Soil Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-012 Date Collected: 08.12.2020 00:00 Sample Depth: 6 In
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.14.2020 13:30 Basis: Wet Weight
 Seq Number: 3134688

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3680	25.3	mg/kg	08.14.2020 16:44		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3134709

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	08.14.2020 17:56	U	1
Diesel Range Organics (DRO)	C10C28DRO	302	49.8	mg/kg	08.14.2020 17:56		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	118	49.8	mg/kg	08.14.2020 17:56		1
Total TPH	PHC635	420	49.8	mg/kg	08.14.2020 17:56		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-130	08.14.2020 17:56	
o-Terphenyl	84-15-1	98	%	70-130	08.14.2020 17:56	



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **SP30** Matrix: Soil Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-012 Date Collected: 08.12.2020 00:00 Sample Depth: 6 In
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: KTL % Moisture:
 Analyst: KTL Date Prep: 08.15.2020 08:00 Basis: Wet Weight
 Seq Number: 3134673

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.15.2020 18:55	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.15.2020 18:55	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.15.2020 18:55	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.15.2020 18:55	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.15.2020 18:55	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.15.2020 18:55	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.15.2020 18:55	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	80	%	70-130	08.15.2020 18:55		
4-Bromofluorobenzene	460-00-4	232	%	70-130	08.15.2020 18:55	**	



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **SP31** Matrix: Soil Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-013 Date Collected: 08.12.2020 00:00 Sample Depth: 6 In
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.14.2020 13:30 Basis: Wet Weight
 Seq Number: 3134688

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5540	50.5	mg/kg	08.14.2020 16:49		10

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3134709

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.14.2020 18:15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	08.14.2020 18:15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.14.2020 18:15	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	08.14.2020 18:15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-130	08.14.2020 18:15	
o-Terphenyl	84-15-1	102	%	70-130	08.14.2020 18:15	



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **SP31** Matrix: Soil Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-013 Date Collected: 08.12.2020 00:00 Sample Depth: 6 In
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: KTL % Moisture:
 Analyst: KTL Date Prep: 08.15.2020 08:00 Basis: Wet Weight
 Seq Number: 3134673

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.15.2020 19:16	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.15.2020 19:16	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.15.2020 19:16	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.15.2020 19:16	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.15.2020 19:16	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.15.2020 19:16	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.15.2020 19:16	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	242	%	70-130	08.15.2020 19:16	**	
1,4-Difluorobenzene	540-36-3	77	%	70-130	08.15.2020 19:16		



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **SP32** Matrix: Soil Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-014 Date Collected: 08.12.2020 00:00 Sample Depth: 6 In
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.14.2020 13:30 Basis: Wet Weight
 Seq Number: 3134688

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	8670	50.5	mg/kg	08.14.2020 16:54		10

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3134709

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.14.2020 18:34	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	08.14.2020 18:34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.14.2020 18:34	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	08.14.2020 18:34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-130	08.14.2020 18:34	
o-Terphenyl	84-15-1	102	%	70-130	08.14.2020 18:34	



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **SP32** Matrix: Soil Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-014 Date Collected: 08.12.2020 00:00 Sample Depth: 6 In
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: KTL % Moisture:
 Analyst: KTL Date Prep: 08.15.2020 08:00 Basis: Wet Weight
 Seq Number: 3134673

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.15.2020 19:37	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.15.2020 19:37	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.15.2020 19:37	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	08.15.2020 19:37	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.15.2020 19:37	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.15.2020 19:37	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.15.2020 19:37	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	246	%	70-130	08.15.2020 19:37	**	
1,4-Difluorobenzene	540-36-3	79	%	70-130	08.15.2020 19:37		



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **SP33** Matrix: Soil Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-015 Date Collected: 08.12.2020 00:00 Sample Depth: 6 In
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.14.2020 13:30 Basis: Wet Weight
 Seq Number: 3134688

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	15900	99.6	mg/kg	08.14.2020 16:59		20

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3134709

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	08.14.2020 18:54	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	08.14.2020 18:54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	08.14.2020 18:54	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	08.14.2020 18:54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-130	08.14.2020 18:54	
o-Terphenyl	84-15-1	98	%	70-130	08.14.2020 18:54	



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **SP33** Matrix: Soil Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-015 Date Collected: 08.12.2020 00:00 Sample Depth: 6 In
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: KTL % Moisture:
 Analyst: KTL Date Prep: 08.15.2020 08:00 Basis: Wet Weight
 Seq Number: 3134673

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	08.15.2020 19:58	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	08.15.2020 19:58	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	08.15.2020 19:58	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	08.15.2020 19:58	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	08.15.2020 19:58	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	08.15.2020 19:58	U	1
Total BTEX		<0.00202	0.00202	mg/kg	08.15.2020 19:58	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	86	%	70-130	08.15.2020 19:58		
4-Bromofluorobenzene	460-00-4	253	%	70-130	08.15.2020 19:58	**	



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **SP34** Matrix: Soil Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-016 Date Collected: 08.12.2020 00:00 Sample Depth: 6 In
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.14.2020 13:30 Basis: Wet Weight
 Seq Number: 3134688

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5360	50.0	mg/kg	08.14.2020 17:05		10

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3134709

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.14.2020 19:13	U	1
Diesel Range Organics (DRO)	C10C28DRO	614	50.0	mg/kg	08.14.2020 19:13		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	378	50.0	mg/kg	08.14.2020 19:13		1
Total TPH	PHC635	992	50.0	mg/kg	08.14.2020 19:13		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-130	08.14.2020 19:13	
o-Terphenyl	84-15-1	97	%	70-130	08.14.2020 19:13	



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **SP34** Matrix: Soil Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-016 Date Collected: 08.12.2020 00:00 Sample Depth: 6 In
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: KTL % Moisture:
 Analyst: KTL Date Prep: 08.16.2020 08:00 Basis: Wet Weight
 Seq Number: 3134702

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.16.2020 13:22	UX	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.16.2020 13:22	UX	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.16.2020 13:22	UX	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.16.2020 13:22	UX	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.16.2020 13:22	UX	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.16.2020 13:22	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.16.2020 13:22	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	114	%	70-130	08.16.2020 13:22		
1,4-Difluorobenzene	540-36-3	104	%	70-130	08.16.2020 13:22		



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **SP35** Matrix: Soil Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-017 Date Collected: 08.12.2020 00:00 Sample Depth: 6 In
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.14.2020 13:30 Basis: Wet Weight
 Seq Number: 3134688

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	16200	101	mg/kg	08.14.2020 17:10		20

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3134709

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.14.2020 19:32	U	1
Diesel Range Organics (DRO)	C10C28DRO	533	49.9	mg/kg	08.14.2020 19:32		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	263	49.9	mg/kg	08.14.2020 19:32		1
Total TPH	PHC635	796	49.9	mg/kg	08.14.2020 19:32		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-130	08.14.2020 19:32	
o-Terphenyl	84-15-1	102	%	70-130	08.14.2020 19:32	



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **SP35** Matrix: Soil Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-017 Date Collected: 08.12.2020 00:00 Sample Depth: 6 In
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: KTL % Moisture:
 Analyst: KTL Date Prep: 08.16.2020 08:00 Basis: Wet Weight
 Seq Number: 3134702

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.16.2020 13:42	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.16.2020 13:42	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.16.2020 13:42	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.16.2020 13:42	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.16.2020 13:42	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.16.2020 13:42	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.16.2020 13:42	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	111	%	70-130	08.16.2020 13:42		
1,4-Difluorobenzene	540-36-3	118	%	70-130	08.16.2020 13:42		



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **SP36** Matrix: Soil Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-018 Date Collected: 08.12.2020 00:00 Sample Depth: 6 In
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.14.2020 14:00 Basis: Wet Weight
 Seq Number: 3134696

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	24.2	5.02	mg/kg	08.14.2020 17:42		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3134709

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.14.2020 19:51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	08.14.2020 19:51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.14.2020 19:51	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	08.14.2020 19:51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	116	%	70-130	08.14.2020 19:51	
o-Terphenyl	84-15-1	122	%	70-130	08.14.2020 19:51	



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **SP36** Matrix: Soil Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-018 Date Collected: 08.12.2020 00:00 Sample Depth: 6 In
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: KTL % Moisture:
 Analyst: KTL Date Prep: 08.16.2020 08:00 Basis: Wet Weight
 Seq Number: 3134702

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.16.2020 14:03	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.16.2020 14:03	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	08.16.2020 14:03	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	08.16.2020 14:03	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	08.16.2020 14:03	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	08.16.2020 14:03	U	1
Total BTEX		<0.00198	0.00198	mg/kg	08.16.2020 14:03	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	106	%	70-130	08.16.2020 14:03		
1,4-Difluorobenzene	540-36-3	116	%	70-130	08.16.2020 14:03		



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **SP37** Matrix: Soil Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-019 Date Collected: 08.12.2020 00:00 Sample Depth: 6 In
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.14.2020 14:00 Basis: Wet Weight
 Seq Number: 3134696

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	7100	49.9	mg/kg	08.14.2020 17:57		10

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3134709

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.14.2020 20:10	U	1
Diesel Range Organics (DRO)	C10C28DRO	1140	50.0	mg/kg	08.14.2020 20:10		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	413	50.0	mg/kg	08.14.2020 20:10		1
Total TPH	PHC635	1550	50.0	mg/kg	08.14.2020 20:10		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-130	08.14.2020 20:10	
o-Terphenyl	84-15-1	97	%	70-130	08.14.2020 20:10	



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **SP37** Matrix: Soil Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-019 Date Collected: 08.12.2020 00:00 Sample Depth: 6 In
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: KTL % Moisture:
 Analyst: KTL Date Prep: 08.15.2020 08:00 Basis: Wet Weight
 Seq Number: 3134673

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.15.2020 16:41	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.15.2020 16:41	UX	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.15.2020 16:41	UX	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	08.15.2020 16:41	UX	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.15.2020 16:41	UX	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.15.2020 16:41	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.15.2020 16:41	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	77	%	70-130	08.15.2020 16:41		
4-Bromofluorobenzene	460-00-4	231	%	70-130	08.15.2020 16:41	**	



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **SP38** Matrix: Soil Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-020 Date Collected: 08.12.2020 00:00 Sample Depth: 6 In
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.14.2020 14:00 Basis: Wet Weight
 Seq Number: 3134696

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	15900	101	mg/kg	08.14.2020 18:03		20

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.14.2020 12:00 Basis: Wet Weight
 Seq Number: 3134709

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.14.2020 20:29	U	1
Diesel Range Organics (DRO)	C10C28DRO	57.0	50.0	mg/kg	08.14.2020 20:29		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.14.2020 20:29	U	1
Total TPH	PHC635	57.0	50.0	mg/kg	08.14.2020 20:29		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-130	08.14.2020 20:29	
o-Terphenyl	84-15-1	95	%	70-130	08.14.2020 20:29	



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **SP38** Matrix: Soil Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-020 Date Collected: 08.12.2020 00:00 Sample Depth: 6 In
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: KTL % Moisture:
 Analyst: KTL Date Prep: 08.16.2020 08:00 Basis: Wet Weight
 Seq Number: 3134702

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.16.2020 14:23	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.16.2020 14:23	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.16.2020 14:23	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.16.2020 14:23	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.16.2020 14:23	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.16.2020 14:23	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.16.2020 14:23	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	115	%	70-130	08.16.2020 14:23		
4-Bromofluorobenzene	460-00-4	101	%	70-130	08.16.2020 14:23		



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **SP39** Matrix: Soil Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-021 Date Collected: 08.12.2020 00:00 Sample Depth: 6 In
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.14.2020 14:00 Basis: Wet Weight
 Seq Number: 3134696

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4090	24.9	mg/kg	08.14.2020 18:08		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.12.2020 12:00 Basis: Wet Weight
 Seq Number: 3134711

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.14.2020 12:46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	08.14.2020 12:46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.14.2020 12:46	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	08.14.2020 12:46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	103	%	70-130	08.14.2020 12:46	
o-Terphenyl	84-15-1	101	%	70-130	08.14.2020 12:46	



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **SP39** Matrix: Soil Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-021 Date Collected: 08.12.2020 00:00 Sample Depth: 6 In
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: KTL % Moisture:
 Analyst: KTL Date Prep: 08.16.2020 08:00 Basis: Wet Weight
 Seq Number: 3134702

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.16.2020 14:44	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.16.2020 14:44	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.16.2020 14:44	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.16.2020 14:44	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.16.2020 14:44	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.16.2020 14:44	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.16.2020 14:44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	115	%	70-130	08.16.2020 14:44	
4-Bromofluorobenzene	460-00-4	100	%	70-130	08.16.2020 14:44	



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **SP40** Matrix: Soil Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-022 Date Collected: 08.12.2020 00:00 Sample Depth: 6 In
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.14.2020 14:00 Basis: Wet Weight
 Seq Number: 3134696

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	4700	50.2	mg/kg	08.14.2020 18:13		10

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.12.2020 12:00 Basis: Wet Weight
 Seq Number: 3134711

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.14.2020 13:51	U	1
Diesel Range Organics (DRO)	C10C28DRO	54.2	49.9	mg/kg	08.14.2020 13:51		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.14.2020 13:51	U	1
Total TPH	PHC635	54.2	49.9	mg/kg	08.14.2020 13:51		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-130	08.14.2020 13:51	
o-Terphenyl	84-15-1	98	%	70-130	08.14.2020 13:51	



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **SP40** Matrix: Soil Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-022 Date Collected: 08.12.2020 00:00 Sample Depth: 6 In
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: KTL % Moisture:
 Analyst: KTL Date Prep: 08.16.2020 08:00 Basis: Wet Weight
 Seq Number: 3134702

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.16.2020 15:04	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.16.2020 15:04	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.16.2020 15:04	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.16.2020 15:04	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.16.2020 15:04	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.16.2020 15:04	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.16.2020 15:04	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	101	%	70-130	08.16.2020 15:04		
1,4-Difluorobenzene	540-36-3	117	%	70-130	08.16.2020 15:04		



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **EW #1** Matrix: Soil Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-023 Date Collected: 08.12.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.14.2020 14:00 Basis: Wet Weight
 Seq Number: 3134696

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1800	25.3	mg/kg	08.14.2020 18:29		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.12.2020 12:00 Basis: Wet Weight
 Seq Number: 3134711

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.14.2020 14:12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	08.14.2020 14:12	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.14.2020 14:12	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	08.14.2020 14:12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-130	08.14.2020 14:12	
o-Terphenyl	84-15-1	105	%	70-130	08.14.2020 14:12	



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **EW #1**
Lab Sample Id: 670050-023

Matrix: Soil
Date Collected: 08.12.2020 00:00

Date Received: 08.14.2020 11:15

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 08.16.2020 08:00

Basis: Wet Weight

Seq Number: 3134702

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.16.2020 15:24	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.16.2020 15:24	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	08.16.2020 15:24	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	08.16.2020 15:24	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	08.16.2020 15:24	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	08.16.2020 15:24	U	1
Total BTEX		<0.00198	0.00198	mg/kg	08.16.2020 15:24	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	106	%	70-130	08.16.2020 15:24		
1,4-Difluorobenzene	540-36-3	117	%	70-130	08.16.2020 15:24		



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **EW #2** Matrix: Soil Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-024 Date Collected: 08.12.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.14.2020 14:00 Basis: Wet Weight
 Seq Number: 3134696

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1010	5.05	mg/kg	08.14.2020 18:34		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.12.2020 12:00 Basis: Wet Weight
 Seq Number: 3134711

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.14.2020 14:34	U	1
Diesel Range Organics (DRO)	C10C28DRO	447	49.9	mg/kg	08.14.2020 14:34		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	196	49.9	mg/kg	08.14.2020 14:34		1
Total TPH	PHC635	643	49.9	mg/kg	08.14.2020 14:34		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-130	08.14.2020 14:34	
o-Terphenyl	84-15-1	89	%	70-130	08.14.2020 14:34	



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **EW #2**
Lab Sample Id: 670050-024

Matrix: Soil
Date Collected: 08.12.2020 00:00

Date Received: 08.14.2020 11:15

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 08.16.2020 08:00

Basis: Wet Weight

Seq Number: 3134702

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	08.16.2020 15:45	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	08.16.2020 15:45	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	08.16.2020 15:45	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	08.16.2020 15:45	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	08.16.2020 15:45	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	08.16.2020 15:45	U	1
Total BTEX		<0.00198	0.00198	mg/kg	08.16.2020 15:45	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	111	%	70-130	08.16.2020 15:45		
4-Bromofluorobenzene	460-00-4	104	%	70-130	08.16.2020 15:45		



Certificate of Analytical Results 670050

Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **EW #3** Matrix: Soil Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-025 Date Collected: 08.12.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.14.2020 14:00 Basis: Wet Weight
 Seq Number: 3134696

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1410	25.0	mg/kg	08.14.2020 18:40		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.12.2020 12:00 Basis: Wet Weight
 Seq Number: 3134711

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	08.14.2020 14:56	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	08.14.2020 14:56	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	08.14.2020 14:56	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	08.14.2020 14:56	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-130	08.14.2020 14:56	
o-Terphenyl	84-15-1	110	%	70-130	08.14.2020 14:56	



Certificate of Analytical Results 670050

Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **EW #3**
Lab Sample Id: 670050-025

Matrix: Soil
Date Collected: 08.12.2020 00:00

Date Received: 08.14.2020 11:15

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 08.16.2020 08:00

Basis: Wet Weight

Seq Number: 3134702

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.16.2020 16:05	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.16.2020 16:05	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.16.2020 16:05	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	08.16.2020 16:05	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.16.2020 16:05	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.16.2020 16:05	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.16.2020 16:05	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	100	%	70-130	08.16.2020 16:05		
1,4-Difluorobenzene	540-36-3	114	%	70-130	08.16.2020 16:05		



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **EW #4** Matrix: Soil Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-026 Date Collected: 08.12.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.14.2020 14:00 Basis: Wet Weight
 Seq Number: 3134696

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2510	24.9	mg/kg	08.14.2020 18:45		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.12.2020 12:00 Basis: Wet Weight
 Seq Number: 3134711

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.14.2020 15:17	U	1
Diesel Range Organics (DRO)	C10C28DRO	74.2	50.0	mg/kg	08.14.2020 15:17		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.14.2020 15:17	U	1
Total TPH	PHC635	74.2	50.0	mg/kg	08.14.2020 15:17		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-130	08.14.2020 15:17	
o-Terphenyl	84-15-1	97	%	70-130	08.14.2020 15:17	



Certificate of Analytical Results 670050

Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **EW #4**
Lab Sample Id: 670050-026

Matrix: Soil
Date Collected: 08.12.2020 00:00

Date Received: 08.14.2020 11:15

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 08.16.2020 08:00

Basis: Wet Weight

Seq Number: 3134702

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.16.2020 16:25	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.16.2020 16:25	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.16.2020 16:25	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.16.2020 16:25	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.16.2020 16:25	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.16.2020 16:25	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.16.2020 16:25	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	116	%	70-130	08.16.2020 16:25		
1,4-Difluorobenzene	540-36-3	111	%	70-130	08.16.2020 16:25		



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **EW #5** Matrix: **Soil** Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-027 Date Collected: 08.12.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: **CHE** % Moisture:
 Analyst: **CHE** Date Prep: 08.14.2020 14:00 Basis: **Wet Weight**
 Seq Number: 3134696

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5230	49.9	mg/kg	08.14.2020 18:50		10

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: **DVM** % Moisture:
 Analyst: **ARM** Date Prep: 08.12.2020 12:00 Basis: **Wet Weight**
 Seq Number: 3134711

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.14.2020 15:39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	08.14.2020 15:39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.14.2020 15:39	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	08.14.2020 15:39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-130	08.14.2020 15:39	
o-Terphenyl	84-15-1	94	%	70-130	08.14.2020 15:39	



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **EW #5**
Lab Sample Id: 670050-027

Matrix: Soil
Date Collected: 08.12.2020 00:00

Date Received: 08.14.2020 11:15

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 08.16.2020 08:00

Basis: Wet Weight

Seq Number: 3134702

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	08.16.2020 18:07	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	08.16.2020 18:07	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	08.16.2020 18:07	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	08.16.2020 18:07	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	08.16.2020 18:07	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	08.16.2020 18:07	U	1
Total BTEX		<0.00202	0.00202	mg/kg	08.16.2020 18:07	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	101	%	70-130	08.16.2020 18:07		
1,4-Difluorobenzene	540-36-3	118	%	70-130	08.16.2020 18:07		



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **NW1** Matrix: Soil Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-028 Date Collected: 08.13.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.14.2020 14:00 Basis: Wet Weight
 Seq Number: 3134696

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1970	24.8	mg/kg	08.14.2020 18:55		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.12.2020 12:00 Basis: Wet Weight
 Seq Number: 3134711

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	08.14.2020 16:01	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	08.14.2020 16:01	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	08.14.2020 16:01	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	08.14.2020 16:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-130	08.14.2020 16:01	
o-Terphenyl	84-15-1	111	%	70-130	08.14.2020 16:01	



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **NW1**
Lab Sample Id: 670050-028

Matrix: Soil
Date Collected: 08.13.2020 00:00

Date Received: 08.14.2020 11:15

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 08.16.2020 08:00

Basis: Wet Weight

Seq Number: 3134702

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.16.2020 18:27	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.16.2020 18:27	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.16.2020 18:27	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	08.16.2020 18:27	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.16.2020 18:27	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.16.2020 18:27	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.16.2020 18:27	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	137	%	70-130	08.16.2020 18:27	**	
1,4-Difluorobenzene	540-36-3	118	%	70-130	08.16.2020 18:27		



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **NW2** Matrix: Soil Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-029 Date Collected: 08.13.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.14.2020 14:00 Basis: Wet Weight
 Seq Number: 3134696

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	23.8	5.04	mg/kg	08.14.2020 19:11		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.12.2020 12:00 Basis: Wet Weight
 Seq Number: 3134711

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.14.2020 16:23	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	08.14.2020 16:23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.14.2020 16:23	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	08.14.2020 16:23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-130	08.14.2020 16:23	
o-Terphenyl	84-15-1	106	%	70-130	08.14.2020 16:23	



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **NW2**
Lab Sample Id: 670050-029

Matrix: Soil
Date Collected: 08.13.2020 00:00

Date Received: 08.14.2020 11:15

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 08.17.2020 08:00

Basis: Wet Weight

Seq Number: 3134763

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.17.2020 12:38	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	08.17.2020 12:38	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.17.2020 12:38	UX	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.17.2020 12:38	UX	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.17.2020 12:38	UX	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.17.2020 12:38	U	1
Total BTEX		<0.00199	0.00199	mg/kg	08.17.2020 12:38	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	103	%	70-130	08.17.2020 12:38		
4-Bromofluorobenzene	460-00-4	99	%	70-130	08.17.2020 12:38		



Certificate of Analytical Results 670050

Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **NW3** Matrix: Soil Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-030 Date Collected: 08.13.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.14.2020 14:00 Basis: Wet Weight
 Seq Number: 3134696

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	58.3	5.00	mg/kg	08.14.2020 19:16		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.12.2020 12:00 Basis: Wet Weight
 Seq Number: 3134711

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.14.2020 16:45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	08.14.2020 16:45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.14.2020 16:45	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	08.14.2020 16:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-130	08.14.2020 16:45	
o-Terphenyl	84-15-1	101	%	70-130	08.14.2020 16:45	



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **NW3**
Lab Sample Id: 670050-030

Matrix: Soil
Date Collected: 08.13.2020 00:00

Date Received: 08.14.2020 11:15

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 08.17.2020 08:00

Basis: Wet Weight

Seq Number: 3134763

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	08.17.2020 12:58	U	1
Toluene	108-88-3	0.00707	0.00199	mg/kg	08.17.2020 12:58		1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	08.17.2020 12:58	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	08.17.2020 12:58	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	08.17.2020 12:58	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	08.17.2020 12:58	U	1
Total BTEX		0.00707	0.00199	mg/kg	08.17.2020 12:58		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	100	%	70-130	08.17.2020 12:58		
1,4-Difluorobenzene	540-36-3	102	%	70-130	08.17.2020 12:58		



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **NW4** Matrix: Soil Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-031 Date Collected: 08.13.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.14.2020 14:00 Basis: Wet Weight
 Seq Number: 3134696

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3900	25.2	mg/kg	08.14.2020 19:32		5

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.12.2020 12:00 Basis: Wet Weight
 Seq Number: 3134711

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	08.14.2020 17:29	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	08.14.2020 17:29	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	08.14.2020 17:29	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	08.14.2020 17:29	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	75	%	70-130	08.14.2020 17:29	
o-Terphenyl	84-15-1	72	%	70-130	08.14.2020 17:29	



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **NW4**
Lab Sample Id: 670050-031

Matrix: Soil
Date Collected: 08.13.2020 00:00

Date Received: 08.14.2020 11:15

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 08.17.2020 08:00

Basis: Wet Weight

Seq Number: 3134763

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.17.2020 13:19	U	1
Toluene	108-88-3	0.00294	0.00200	mg/kg	08.17.2020 13:19		1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.17.2020 13:19	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.17.2020 13:19	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.17.2020 13:19	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.17.2020 13:19	U	1
Total BTEX		0.00294	0.00200	mg/kg	08.17.2020 13:19		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	103	%	70-130	08.17.2020 13:19		
4-Bromofluorobenzene	460-00-4	102	%	70-130	08.17.2020 13:19		



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **NW5** Matrix: Soil Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-032 Date Collected: 08.13.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.14.2020 14:00 Basis: Wet Weight
 Seq Number: 3134696

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1160	4.96	mg/kg	08.14.2020 19:38		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.12.2020 12:00 Basis: Wet Weight
 Seq Number: 3134711

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	08.14.2020 17:51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	08.14.2020 17:51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	08.14.2020 17:51	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	08.14.2020 17:51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	73	%	70-130	08.14.2020 17:51	
o-Terphenyl	84-15-1	81	%	70-130	08.14.2020 17:51	



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Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **NW5** Matrix: **Soil** Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-032 Date Collected: 08.13.2020 00:00
 Analytical Method: BTEX by EPA 8021B Prep Method: SW5035A
 Tech: **KTL** % Moisture:
 Analyst: **KTL** Date Prep: 08.17.2020 08:00 Basis: **Wet Weight**
 Seq Number: 3134763

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	08.17.2020 13:39	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	08.17.2020 13:39	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	08.17.2020 13:39	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	08.17.2020 13:39	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	08.17.2020 13:39	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	08.17.2020 13:39	U	1
Total BTEX		<0.00201	0.00201	mg/kg	08.17.2020 13:39	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	102	%	70-130	08.17.2020 13:39		
1,4-Difluorobenzene	540-36-3	102	%	70-130	08.17.2020 13:39		



Certificate of Analytical Results 670050

Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **EW 2B** Matrix: Soil Date Received: 08.14.2020 11:15
 Lab Sample Id: 670050-033 Date Collected: 08.13.2020 00:00
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 08.14.2020 14:00 Basis: Wet Weight
 Seq Number: 3134696

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	50.0	4.99	mg/kg	08.14.2020 19:43		1

Analytical Method: TPH By SW8015 Mod Prep Method: SW8015P
 Tech: DVM % Moisture:
 Analyst: ARM Date Prep: 08.12.2020 12:00 Basis: Wet Weight
 Seq Number: 3134711

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	08.14.2020 18:13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	08.14.2020 18:13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	08.14.2020 18:13	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	08.14.2020 18:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	80	%	70-130	08.14.2020 18:13	
o-Terphenyl	84-15-1	88	%	70-130	08.14.2020 18:13	



Certificate of Analytical Results 670050

Etech Environmental & Safety Solution, Inc, Midland, TX NC State SWD

Sample Id: **EW 2B**
Lab Sample Id: 670050-033

Matrix: Soil
Date Collected: 08.13.2020 00:00

Date Received: 08.14.2020 11:15

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 08.17.2020 08:00

Basis: Wet Weight

Seq Number: 3134763

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	08.17.2020 14:00	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	08.17.2020 14:00	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	08.17.2020 14:00	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	08.17.2020 14:00	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	08.17.2020 14:00	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	08.17.2020 14:00	U	1
Total BTEX		<0.00200	0.00200	mg/kg	08.17.2020 14:00	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	103	%	70-130	08.17.2020 14:00		
4-Bromofluorobenzene	460-00-4	99	%	70-130	08.17.2020 14:00		

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. **ND** Not Detected.

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



Etech Environmental & Safety Solution, Inc

NC State SWD

Analytical Method: Chloride by EPA 300

Seq Number: 3134688

MB Sample Id: 7709479-1-BLK

Matrix: Solid

LCS Sample Id: 7709479-1-BKS

Prep Method: E300P

Date Prep: 08.14.2020

LCSD Sample Id: 7709479-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	243	97	243	97	90-110	0	20	mg/kg	08.14.2020 14:37	

Analytical Method: Chloride by EPA 300

Seq Number: 3134696

MB Sample Id: 7709480-1-BLK

Matrix: Solid

LCS Sample Id: 7709480-1-BKS

Prep Method: E300P

Date Prep: 08.14.2020

LCSD Sample Id: 7709480-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	245	98	246	98	90-110	0	20	mg/kg	08.14.2020 17:31	

Analytical Method: Chloride by EPA 300

Seq Number: 3134688

Parent Sample Id: 670045-001

Matrix: Soil

MS Sample Id: 670045-001 S

Prep Method: E300P

Date Prep: 08.14.2020

MSD Sample Id: 670045-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	421	2530	3100	106	3110	106	90-110	0	20	mg/kg	08.14.2020 14:53	

Analytical Method: Chloride by EPA 300

Seq Number: 3134688

Parent Sample Id: 670050-008

Matrix: Soil

MS Sample Id: 670050-008 S

Prep Method: E300P

Date Prep: 08.14.2020

MSD Sample Id: 670050-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	440	250	679	96	677	95	90-110	0	20	mg/kg	08.14.2020 16:07	

Analytical Method: Chloride by EPA 300

Seq Number: 3134696

Parent Sample Id: 670050-018

Matrix: Soil

MS Sample Id: 670050-018 S

Prep Method: E300P

Date Prep: 08.14.2020

MSD Sample Id: 670050-018 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	24.2	251	291	106	290	106	90-110	0	20	mg/kg	08.14.2020 17:47	

Analytical Method: Chloride by EPA 300

Seq Number: 3134696

Parent Sample Id: 670050-028

Matrix: Soil

MS Sample Id: 670050-028 S

Prep Method: E300P

Date Prep: 08.14.2020

MSD Sample Id: 670050-028 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1970	1240	3260	104	3270	105	90-110	0	20	mg/kg	08.14.2020 19:01	

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



Etech Environmental & Safety Solution, Inc

NC State SWD

Analytical Method: TPH By SW8015 Mod

Seq Number: 3134711

Matrix: Solid

Prep Method: SW8015P

Date Prep: 08.12.2020

MB Sample Id: 7709543-1-BLK

LCS Sample Id: 7709543-1-BKS

LCSD Sample Id: 7709543-1-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)	<50.0	1000	861	86	868	87	70-130	1	20	mg/kg	08.14.2020 12:02	
Diesel Range Organics (DRO)	<50.0	1000	861	86	869	87	70-130	1	20	mg/kg	08.14.2020 12:02	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date	Flag		
1-Chlorooctane	103		94		94		70-130	%	08.14.2020 12:02			
o-Terphenyl	110		102		100		70-130	%	08.14.2020 12:02			

Analytical Method: TPH By SW8015 Mod

Seq Number: 3134709

Matrix: Solid

Prep Method: SW8015P

Date Prep: 08.14.2020

MB Sample Id: 7709541-1-BLK

LCS Sample Id: 7709541-1-BKS

LCSD Sample Id: 7709541-1-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)	<50.0	1000	904	90	997	100	70-130	10	20	mg/kg	08.14.2020 12:49	
Diesel Range Organics (DRO)	<50.0	1000	951	95	1060	106	70-130	11	20	mg/kg	08.14.2020 12:49	
Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date	Flag		
1-Chlorooctane	127		128		135	**	70-130	%	08.14.2020 12:49			
o-Terphenyl	136	**	122		113		70-130	%	08.14.2020 12:49			

Analytical Method: TPH By SW8015 Mod

Seq Number: 3134711

Matrix: Solid

Prep Method: SW8015P

Date Prep: 08.12.2020

MB Sample Id: 7709543-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	08.14.2020 11:40	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3134709

Matrix: Solid

Prep Method: SW8015P

Date Prep: 08.14.2020

MB Sample Id: 7709541-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	08.14.2020 12:30	

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



Etech Environmental & Safety Solution, Inc

NC State SWD

Analytical Method: TPH By SW8015 Mod

Seq Number: 3134711

Matrix: Soil

Prep Method: SW8015P

Date Prep: 08.12.2020

Parent Sample Id: 670050-021

MS Sample Id: 670050-021 S

MSD Sample Id: 670050-021 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)	<49.9	997	832	83	833	83	70-130	0	20	mg/kg	08.14.2020 13:07	
Diesel Range Organics (DRO)	<49.9	997	855	86	851	85	70-130	0	20	mg/kg	08.14.2020 13:07	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	87		93		70-130	%	08.14.2020 13:07
o-Terphenyl	86		88		70-130	%	08.14.2020 13:07

Analytical Method: TPH By SW8015 Mod

Seq Number: 3134709

Matrix: Soil

Prep Method: SW8015P

Date Prep: 08.14.2020

Parent Sample Id: 670050-001

MS Sample Id: 670050-001 S

MSD Sample Id: 670050-001 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)	<49.9	997	833	84	849	85	70-130	2	20	mg/kg	08.14.2020 13:46	
Diesel Range Organics (DRO)	<49.9	997	880	88	884	88	70-130	0	20	mg/kg	08.14.2020 13:46	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	129		130		70-130	%	08.14.2020 13:46
o-Terphenyl	129		128		70-130	%	08.14.2020 13:46

Analytical Method: BTEX by EPA 8021B

Seq Number: 3134673

Matrix: Solid

Prep Method: SW5035A

Date Prep: 08.15.2020

MB Sample Id: 7709532-1-BLK

LCS Sample Id: 7709532-1-BKS

LCSD Sample Id: 7709532-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.112	112	0.113	113	70-130	1	35	mg/kg	08.15.2020 12:57	
Toluene	<0.00200	0.100	0.117	117	0.117	117	70-130	0	35	mg/kg	08.15.2020 12:57	
Ethylbenzene	<0.00200	0.100	0.114	114	0.116	116	70-130	2	35	mg/kg	08.15.2020 12:57	
m,p-Xylenes	<0.00400	0.200	0.224	112	0.227	114	70-130	1	35	mg/kg	08.15.2020 12:57	
o-Xylene	<0.00200	0.100	0.114	114	0.114	114	70-130	0	35	mg/kg	08.15.2020 12:57	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	71		86		82		70-130	%	08.15.2020 12:57
4-Bromofluorobenzene	184	**	222	**	221	**	70-130	%	08.15.2020 12:57

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



Etech Environmental & Safety Solution, Inc

NC State SWD

Analytical Method: BTEX by EPA 8021B

Seq Number: 3134674

Matrix: Solid

Prep Method: SW5035A

Date Prep: 08.15.2020

MB Sample Id: 7709533-1-BLK

LCS Sample Id: 7709533-1-BKS

LCSD Sample Id: 7709533-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0977	98	0.0919	92	70-130	6	35	mg/kg	08.15.2020 13:01	
Toluene	<0.00200	0.100	0.0942	94	0.0873	87	70-130	8	35	mg/kg	08.15.2020 13:01	
Ethylbenzene	<0.00200	0.100	0.0952	95	0.0887	89	70-130	7	35	mg/kg	08.15.2020 13:01	
m,p-Xylenes	<0.00400	0.200	0.188	94	0.175	88	70-130	7	35	mg/kg	08.15.2020 13:01	
o-Xylene	<0.00200	0.100	0.0920	92	0.0861	86	70-130	7	35	mg/kg	08.15.2020 13:01	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	110		100		101		70-130	%	08.15.2020 13:01
4-Bromofluorobenzene	86		99		97		70-130	%	08.15.2020 13:01

Analytical Method: BTEX by EPA 8021B

Seq Number: 3134702

Matrix: Solid

Prep Method: SW5035A

Date Prep: 08.16.2020

MB Sample Id: 7709558-1-BLK

LCS Sample Id: 7709558-1-BKS

LCSD Sample Id: 7709558-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0974	97	0.0965	97	70-130	1	35	mg/kg	08.16.2020 11:00	
Toluene	<0.00200	0.100	0.0967	97	0.0923	92	70-130	5	35	mg/kg	08.16.2020 11:00	
Ethylbenzene	<0.00200	0.100	0.0989	99	0.0933	93	70-130	6	35	mg/kg	08.16.2020 11:00	
m,p-Xylenes	<0.00400	0.200	0.198	99	0.186	93	70-130	6	35	mg/kg	08.16.2020 11:00	
o-Xylene	<0.00200	0.100	0.0980	98	0.0929	93	70-130	5	35	mg/kg	08.16.2020 11:00	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	109		99		101		70-130	%	08.16.2020 11:00
4-Bromofluorobenzene	91		104		103		70-130	%	08.16.2020 11:00

Analytical Method: BTEX by EPA 8021B

Seq Number: 3134763

Matrix: Solid

Prep Method: SW5035A

Date Prep: 08.17.2020

MB Sample Id: 7709589-1-BLK

LCS Sample Id: 7709589-1-BKS

LCSD Sample Id: 7709589-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.114	114	0.117	117	70-130	3	35	mg/kg	08.17.2020 09:35	
Toluene	<0.00200	0.100	0.124	124	0.127	127	70-130	2	35	mg/kg	08.17.2020 09:35	
Ethylbenzene	<0.00200	0.100	0.106	106	0.108	108	70-130	2	35	mg/kg	08.17.2020 09:35	
m,p-Xylenes	<0.00400	0.200	0.215	108	0.220	110	70-130	2	35	mg/kg	08.17.2020 09:35	
o-Xylene	<0.00200	0.100	0.104	104	0.106	106	70-130	2	35	mg/kg	08.17.2020 09:35	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		100		100		70-130	%	08.17.2020 09:35
4-Bromofluorobenzene	99		99		100		70-130	%	08.17.2020 09:35

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



Etech Environmental & Safety Solution, Inc

NC State SWD

Analytical Method: BTEX by EPA 8021B

Seq Number: 3134673

Matrix: Soil

Prep Method: SW5035A

Date Prep: 08.15.2020

Parent Sample Id: 670050-019

MS Sample Id: 670050-019 S

MSD Sample Id: 670050-019 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.101	0.0702	70	0.0745	75	70-130	6	35	mg/kg	08.15.2020 13:41	
Toluene	<0.00201	0.101	0.0508	50	0.0575	58	70-130	12	35	mg/kg	08.15.2020 13:41	X
Ethylbenzene	<0.00201	0.101	0.0308	30	0.0388	39	70-130	23	35	mg/kg	08.15.2020 13:41	X
m,p-Xylenes	<0.00402	0.201	0.0581	29	0.0737	37	70-130	24	35	mg/kg	08.15.2020 13:41	X
o-Xylene	<0.00201	0.101	0.0314	31	0.0402	40	70-130	25	35	mg/kg	08.15.2020 13:41	X

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	87		84		70-130	%	08.15.2020 13:41
4-Bromofluorobenzene	201	**	216	**	70-130	%	08.15.2020 13:41

Analytical Method: BTEX by EPA 8021B

Seq Number: 3134674

Matrix: Soil

Prep Method: SW5035A

Date Prep: 08.15.2020

Parent Sample Id: 670050-002

MS Sample Id: 670050-002 S

MSD Sample Id: 670050-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00202	0.101	0.0879	87	0.0827	82	70-130	6	35	mg/kg	08.15.2020 13:42	
Toluene	<0.00202	0.101	0.0783	78	0.0759	75	70-130	3	35	mg/kg	08.15.2020 13:42	
Ethylbenzene	<0.00202	0.101	0.0736	73	0.0724	72	70-130	2	35	mg/kg	08.15.2020 13:42	
m,p-Xylenes	<0.00404	0.202	0.143	71	0.142	70	70-130	1	35	mg/kg	08.15.2020 13:42	
o-Xylene	<0.00202	0.101	0.0708	70	0.0699	69	70-130	1	35	mg/kg	08.15.2020 13:42	X

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		101		70-130	%	08.15.2020 13:42
4-Bromofluorobenzene	98		94		70-130	%	08.15.2020 13:42

Analytical Method: BTEX by EPA 8021B

Seq Number: 3134702

Matrix: Soil

Prep Method: SW5035A

Date Prep: 08.16.2020

Parent Sample Id: 670050-016

MS Sample Id: 670050-016 S

MSD Sample Id: 670050-016 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0994	0.0575	58	0.0724	72	70-130	23	35	mg/kg	08.16.2020 11:41	X
Toluene	<0.00199	0.0994	0.0443	45	0.0513	51	70-130	15	35	mg/kg	08.16.2020 11:41	X
Ethylbenzene	<0.00199	0.0994	0.0310	31	0.0354	35	70-130	13	35	mg/kg	08.16.2020 11:41	X
m,p-Xylenes	<0.00398	0.199	0.0620	31	0.0694	35	70-130	11	35	mg/kg	08.16.2020 11:41	X
o-Xylene	<0.00199	0.0994	0.0326	33	0.0359	36	70-130	10	35	mg/kg	08.16.2020 11:41	X

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	104		109		70-130	%	08.16.2020 11:41
4-Bromofluorobenzene	111		104		70-130	%	08.16.2020 11:41

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



Etech Environmental & Safety Solution, Inc

NC State SWD

Analytical Method: BTEX by EPA 8021B

Seq Number: 3134763

Matrix: Soil

Prep Method: SW5035A

Date Prep: 08.17.2020

Parent Sample Id: 670050-029

MS Sample Id: 670050-029 S

MSD Sample Id: 670050-029 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0994	0.0976	98	0.0989	99	70-130	1	35	mg/kg	08.17.2020 10:16	
Toluene	<0.00199	0.0994	0.0927	93	0.0970	97	70-130	5	35	mg/kg	08.17.2020 10:16	
Ethylbenzene	<0.00199	0.0994	0.0659	66	0.0751	75	70-130	13	35	mg/kg	08.17.2020 10:16	X
m,p-Xylenes	<0.00398	0.199	0.131	66	0.148	74	70-130	12	35	mg/kg	08.17.2020 10:16	X
o-Xylene	<0.00199	0.0994	0.0659	66	0.0741	74	70-130	12	35	mg/kg	08.17.2020 10:16	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		101		70-130	%	08.17.2020 10:16
4-Bromofluorobenzene	100		101		70-130	%	08.17.2020 10:16

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



Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440, El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900
 Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701
 Atlanta, GA (770) 449-8800

Work Order No:

1010550

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Page 1 of 4

Work Order Comments

Program: ☐ UST/ST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
 State of Project:

Reporting Level: ☐ Level I ☐ PST/US ☐ TRR ☐ Level II ☐
 Deliverables: EDD ☐ ADAPT ☐ Other:

Preservative Codes

HNO3: HN
 H2SO4: H2
 HCL: HL
 None: NO
 NaOH: NA
 MeOH: ME
 Zn Acetate+ NaOH: Zn

TAT starts the day received by the lab, if received by 4:30pm

Sample Comments

ANALYSIS REQUEST

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers/Preservative Code	Chloride E300	BTEX 8021	TPH Modified Ext	TPH TX1005	Preservative Codes
SP21 @ 6"	Soil	8-11-20		6"	1	X	X	X	X	
SP22 @ 6"	Soil	8-11-20		6"	1	X	X	X	X	
SP23 @ 6"	Soil	8-11-20		6"	1	X	X	X	X	
SP24 @ 6"	Soil	8-11-20		6"	1	X	X	X	X	
SP25 @ 6"	Soil	8-11-20		6"	1	X	X	X	X	
SP26 @ 6"	Soil	8-11-20		6"	1	X	X	X	X	
SP27 @ 6"	Soil	8-11-20		6"	1	X	X	X	X	
SP28 @ 6"	Soil	8-11-20		6"	1	X	X	X	X	
SW9	Soil	8-11-20		6"	1	X	X	X	X	
SW10	Soil	8-11-20		6"	1	X	X	X	X	

Total 200.7 / 6010 200.8 / 6020:

Circle Method(s) and Metal(s) to be analyzed

8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
 TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

1631 / 245.1 / 7470 / 7471 : Hg

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

Relinquished by: (Signature)

Date/Time

1 *M. B. B. B.*2 *Teresa B. B. B.*3 *8/13/20*4 *Teresa B. B. B.*5 *B. B. B.*6 *9/14*



Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440, El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900
 Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (561) 689-6701
 Atlanta, GA (770) 449-8800

Work Order No:

Project Manager:	Joel Lowry	Bill to: (if different)	
Company Name:	Elech Environmental & Safety	Company Name:	Endeavor
Address:	3100 Plains Highway	Address:	
City, State ZIP:	Lovington, NM, 88260	City, State ZIP:	
Phone:	575-396-2378	Email:	Email Results to PM@elecheny.com + Client
Project Name:	MC State SWD	Turn Around	
Project Number:	11503	Routine:	☒
Project Location:	Lee County, NM	Rush:	
Sampler's Name:	Wilda Villa	Due Date:	
PO #:			

ANALYSIS REQUEST

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:
Reporting Level: ☐ Level 1 ☐ PST/US ☐ TRR ☐ Level 1 ☐
Deliverables: EDD ☐ ADAPT ☐ Other:

Temperature (°C):	20.1	Yes	No	Wet Ice:	Yes	No
Received Intact:	Yes	No	Thermometer ID			
Cooler Custody Seals:	Yes	No	Correction Factor:			
Sample Custody Seals:	Yes	No	Total Containers:			

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers/Preservative Code	Chloride E300	BTEX 8021	TPH Modified Ext	TPH TX1005	Preservative Codes	Sample Comments
SP 24	Soil	8-12-20		6"	1	X	X	X	X		
SP 30	Soil	8-12-20		6"	1	X	X	X	X		
SP 31	Soil	8-12-20		6"	1	X	X	X	X		
SP 32	Soil	8-12-20		6"	1	X	X	X	X		
SP 33	Soil	8-12-20		6"	1	X	X	X	X		
SP 34	Soil	8-12-20		6"	1	X	X	X	X		
SP 35	Soil	8-12-20		6"	1	X	X	X	X		
SP 36	Soil	8-12-20		6"	1	X	X	X	X		
SP 37	Soil	8-12-20		6"	1	X	X	X	X		
SP 38	Soil	8-12-20		6"	1	X	X	X	X		

Total 200.7 / 6010 200.8 / 6020:

Circle Method(s) and Metal(s) to be analyzed

8RCRA

13PPM

Texas 11

Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn

TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

1631 / 245.1 / 7470 / 7471 : Hg

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Relinquished by: (Signature)

Received by: (Signature)

Date/Time

Relinquished by: (Signature)

Received by: (Signature)

Date/Time



Atlanta, GA (770) 449-8800

UNUSO

Revised Date 10/14/19 Rev. 2019.1



Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300, San Antonio, TX (210) 509-3334
 Midland, TX (432) 704-5440, El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
 Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199, Phoenix, AZ (480) 355-0900
 Tampa, FL (813) 620-2000, Tallahassee, FL (904) 756-0747, Delray Beach, FL (561) 689-6701
 Atlanta, GA (770) 449-8800

Work Order No:

W06050

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Work Order Comments

Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
 State of Project:

Reporting Level: ☐ Level I ☐ PST/UST ☐ TRR ☐ Level II ☐
 Deliverables: EDD ☐ ADAPT ☐ Other:

ANALYSIS REQUEST

Preservative Codes

HNO3: HN
 H2SO4: H2
 HCL: HL
 None: NO
 NaOH: NA
 MeOH: ME
 Zn Acetate+ NaOH: Zn

TAT starts the day received by the lab, if received by 4:30pm

Sample Comments

Number of Containers/Preservative Code
 Chloride E300
 BTX 8021
 TPH Modified Ext
 TPH TX1005

SAMPLE RECEIPT

Temp Blank: ☒ Yes ☒ No
 Temperature (°C): 20.1
 Received Inact: ☒ Yes ☒ No
 Cooler Custody Seals: Yes No N/A
 Sample Custody Seals: Yes No N/A
 Thermometer ID:
 Correction Factor:
 Total Containers:
 Due Date:
 Routine:
 Rush:
 Email: Email Results to PM@elecheny.com + Client

Sample Identification

Matrix: Date Sampled: Time Sampled: Depth:
 NW 4 8.13.20 8.13.20 1
 NW 5 8.13.20 8.13.20 1
 EW 2B 8.13.20 8.13.20 1

Total 200.7 / 6010 200.8 / 6020:

Circle Method(s) and Metal(s) to be analyzed

8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn
 TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

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1631 / 245.1 / 7470 / 7471 - Hg

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

Date/Time

Revised Date 10/14/19 Rev. 2019.1

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Etech Environmental & Safety Solution, I

Date/ Time Received: 08.14.2020 11.15.00 AM

Work Order #: 670050

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR-8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.6
#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?	Yes

BTEX was in bulk container

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

Analyst:

PH Device/Lot#:

Checklist completed by:



Brianna Teel

Date: 08.14.2020

Checklist reviewed by:



Jessica Kramer

Date: 08.14.2020

Certificate of Analysis Summary 670411

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: NC State SWD #1

Project Id: 11503
Contact: Ronnie Matte
Project Location: Lea County

Date Received in Lab: Wed 08.19.2020 12:20
Report Date: 08.20.2020 09:59
Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	670411-001	670411-002				
	Field Id:	SP22B@1'	SP37B@1'				
	Depth:	1- ft	1- ft				
	Matrix:	SOIL	SOIL				
	Sampled:	08.19.2020 00:00	08.19.2020 00:00				
Inorganic Anions by EPA 300	Extracted:	08.19.2020 16:31					
	Analyzed:	08.19.2020 20:15					
	Units/RL:	mg/kg RL					
Chloride		461 10.0					
TPH by SW8015 Mod	Extracted:		08.19.2020 13:00				
	Analyzed:		08.19.2020 13:16				
	Units/RL:		mg/kg RL				
Gasoline Range Hydrocarbons (GRO)			<49.8 49.8				
Diesel Range Organics (DRO)			<49.8 49.8				
Motor Oil Range Hydrocarbons (MRO)			<49.8 49.8				
Total TPH			<49.8 49.8				

BRL - Below Reporting Limit

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





Analytical Report 670411

for

Etech Environmental & Safety Solution, Inc

Project Manager: Ronnie Matte

NC State SWD #1

11503

08.20.2020

Collected By: Client

**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-20-37), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)
Xenco-Carlsbad (LELAP): Louisiana (05092)
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-20-8)
Xenco-Tampa: Florida (E87429), North Carolina (483)



08.20.2020

Project Manager: **Ronnie Matte**
Etech Environmental & Safety Solution, Inc
P.O. Box 62228
Midland, TX 79711

Reference: Eurofins Xenco, LLC Report No(s): **670411**
NC State SWD #1
Project Address: Lea County

Ronnie Matte:

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 Eurofins Xenco, LLC Report Number(s) 670411. 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 Eurofins Xenco, LLC. 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. 670411 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 Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads "Jessica Kramer".

Jessica Kramer
Project Manager

A Small Business and Minority Company

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



Sample Cross Reference 670411

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SP22B@1'	S	08.19.2020 00:00	1 ft	670411-001
SP37B@1'	S	08.19.2020 00:00	1 ft	670411-002



CASE NARRATIVE

Client Name: Etech Environmental & Safety Solution, Inc

Project Name: NC State SWD #1

Project ID: 11503
Work Order Number(s): 670411

Report Date: 08.20.2020
Date Received: 08.19.2020

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

**Certificate of Analytical Results 670411****Etech Environmental & Safety Solution, Inc, Midland, TX**

NC State SWD #1

Sample Id: **SP22B@1'** Matrix: Soil Date Received: 08.19.2020 12:20
Lab Sample Id: 670411-001 Date Collected: 08.19.2020 00:00 Sample Depth: 1 ft
Analytical Method: Inorganic Anions by EPA 300 Prep Method: E300P
Tech: MAB % Moisture:
Analyst: MAB Date Prep: 08.19.2020 16:31 Basis: Wet Weight
Seq Number: 3135047

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	461	10.0	mg/kg	08.19.2020 20:15		1



Certificate of Analytical Results 670411

Etech Environmental & Safety Solution, Inc, Midland, TX

NC State SWD #1

Sample Id: **SP37B@1'**

Matrix: Soil

Date Received: 08.19.2020 12:20

Lab Sample Id: 670411-002

Date Collected: 08.19.2020 00:00

Sample Depth: 1 ft

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DTH

% Moisture:

Analyst: DTH

Date Prep: 08.19.2020 13:00

Basis: Wet Weight

Seq Number: 3135008

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	08.19.2020 13:16	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	08.19.2020 13:16	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	08.19.2020 13:16	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	08.19.2020 13:16	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	08.19.2020 13:16	
o-Terphenyl	84-15-1	92	%	70-135	08.19.2020 13:16	

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. **ND** Not Detected.

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



Etech Environmental & Safety Solution, Inc

NC State SWD #1

Analytical Method: Inorganic Anions by EPA 300

Seq Number: 3135047

Matrix: Solid

Prep Method: E300P

Date Prep: 08.19.2020

MB Sample Id: 7709778-1-BLK

LCS Sample Id: 7709778-1-BKS

LCSD Sample Id: 7709778-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	265	106	269	108	90-110	1	20	mg/kg	08.19.2020 19:42	

Analytical Method: Inorganic Anions by EPA 300

Seq Number: 3135047

Matrix: Soil

Prep Method: E300P

Date Prep: 08.19.2020

Parent Sample Id: 670385-015

MS Sample Id: 670385-015 S

MSD Sample Id: 670385-015 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<9.96	199	205	103	205	103	90-110	0	20	mg/kg	08.19.2020 19:59	

Analytical Method: Inorganic Anions by EPA 300

Seq Number: 3135047

Matrix: Soil

Prep Method: E300P

Date Prep: 08.19.2020

Parent Sample Id: 670438-001

MS Sample Id: 670438-001 S

MSD Sample Id: 670438-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	190	200	393	102	392	101	90-110	0	20	mg/kg	08.19.2020 21:17	

Analytical Method: TPH by SW8015 Mod

Seq Number: 3135008

Matrix: Solid

Prep Method: SW8015P

Date Prep: 08.19.2020

MB Sample Id: 7709750-1-BLK

LCS Sample Id: 7709750-1-BKS

LCSD Sample Id: 7709750-1-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)	<50.0	1000	908	91	907	91	70-135	0	35	mg/kg	08.19.2020 10:52	
Diesel Range Organics (DRO)	<50.0	1000	915	92	931	93	70-135	2	35	mg/kg	08.19.2020 10:52	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	96		118		116		70-135	%	08.19.2020 10:52
o-Terphenyl	92		104		103		70-135	%	08.19.2020 10:52

Analytical Method: TPH by SW8015 Mod

Seq Number: 3135008

Matrix: Solid

Prep Method: SW8015P

Date Prep: 08.19.2020

MB Sample Id: 7709750-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	08.19.2020 10:32	

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



Etech Environmental & Safety Solution, Inc
NC State SWD #1

Analytical Method: TPH by SW8015 Mod

Seq Number: 3135008

Parent Sample Id: 670382-001

Matrix: Soil

MS Sample Id: 670382-001 S

Prep Method: SW8015P

Date Prep: 08.19.2020

MSD Sample Id: 670382-001 SD

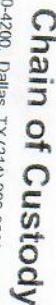
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	998	905	91	913	91	70-135	1	35	mg/kg	08.19.2020 11:53	
Diesel Range Organics (DRO)	<49.9	998	925	93	936	94	70-135	1	35	mg/kg	08.19.2020 11:53	
Surrogate			MS %Rec	MS Flag		MSD %Rec	MSD Flag	Limits		Units	Analysis Date	
1-Chlorooctane			109			108		70-135		%	08.19.2020 11:53	
o-Terphenyl			95			96		70-135		%	08.19.2020 11:53	

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



Work Order No: 67041

Work Order Comments

Program: UST/PT ☐ PRP ☐ Brownfields ☐ RCC ☐ Superfund ☐

State of Project:

Reporting Level I ☐ Level II ☐ PST/US ☐ TRRF ☐ Level III ☐

Deliverables: EDD ☐ ADAPT ☐ Other: ☐

[illegible][illegible]

Total	200.7 / 6010	200.8 / 6020:
<i>Circle Method(s) and Metal(s) to be analyzed</i>		
BRCRA	13PPM	Texas 11
Al Sb As Ba Be B Cd Ca Cr Co Cu E Pb Se Sn Tl Zn		

Revised Date 10/14/19 Rev. 2019

Appendix D

Photographic Log

Photographic Log



Photographic Log



Photographic Log



Photographic Log



Photographic Log

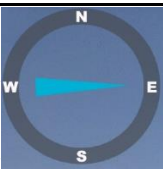
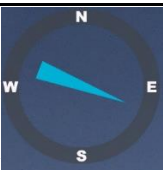
Photo Number: 9	  Aug 20, 2020 at 1:46:43 PM +32.962570,-103.748345 ±5.00m 89° E
Photo Direction: East	
Photo Description: Pad area around tanks after remediation.	

Photo Number: 10	  Aug 20, 2020 at 1:44:22 PM +32.962258,-103.747773 ±5.00m 111° E
Photo Direction: East	
Photo Description: Pad area after remediation.	

Photographic Log

Photo Number: 11	 Aug 20, 2020 at 1:44:02 PM +32.962334,-103.748102 ±5.00m 7° N
Photo Direction: North	
Photo Description: Pad area around equipment after remediation.	

Photo Number: 12	 Aug 20, 2020 at 1:45:19 PM +32.962225,-103.747440 ±5.00m 292° W
Photo Direction: West	
Photo Description: Pad after remediation.	

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1625 N. French Dr., Hobbs, NM 88240
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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 10811

CONDITIONS OF APPROVAL

Operator:	ENDEAVOR ENERGY RESOURCES, LP	110 North Marienfeld	OGRID:	190595	Action Number:	10811	Action Type:	C-141
	Suite 200	Midland, TX79701						
OCD Reviewer	Condition							
ceads	None							